From:	George Lester
To:	Spellman, John (DEC)
Cc:	Paul Gallagher; Glen Kirkpatrick
Subject:	Former Dennison/Monarch System Site - 2020 OU01 RAR
Date:	Wednesday, October 6, 2021 7:19:56 PM
Attachments:	image002.png

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John,

On behalf of Avery Dennison Corporation, please find the 2020 OU01 Remedial Action Report at this link: 2020 NW Remedial Action Report

Let me know if you have any trouble with the link. If you have any questions, please call Mr. Paul Gallagher at Avery Dennison at (440) 534-4734.

Best Regards,

George

George Lester, PE
Senior Project Engineer

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October 6, 2021

Ref: 58300.00

Mr. John Spellman, PE
New York State Department of Environmental Conservation
Division of Environmental Remediation
Remedial Bureau C, 11th Floor, 625 Broadway
Albany, NY 12233-7014

Re: 2020 Remedial Action Report
Former Dennison Monarch Systems Site - Operable Unit 01
New Windsor, New York
NYSDEC Site No. 336090

Dear :

On behalf of Avery Dennison Corporation, please find enclosed the 2020 Remedial Action Report for the Operable Unit 01 (OU01) Remedial Action at the Former Dennison/Monarch Systems Facility in New Windsor, New York (NYSDEC Site No. 336090). This report presents information related to the performance of the OU01 Remedial Action as well as data collected during the spring 2020 and fall 2020 semi-annual monitoring events performed in OU01 and OU02.

The OU01 Remedial Action is performing as designed, achieving successful groundwater containment within the installed Waterloo Barrier® footprint and meeting the requirements for the discharge of treated groundwater.

If you have any questions regarding the information presented in this transmittal, please do not hesitate to contact Mr. Paul Gallagher of ADC at 440-534-4734.

Sincerely,

VHB

George Lester, PE
Senior Project Engineer

cc: Paul Gallagher, Avery Dennison Corporation
Glen Kirkpatrick, VHB

Enclosures: 2020 Remedial Action Report

Engineers | Scientists | Planners | Designers
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2020 Remedial Action Report

Former Dennison/Monarch Systems Site Operable Unit 01

Former Dennison/Monarch Systems Site – OU01

15-21 Ruscitti Road

New Windsor, New York 12553

NYSDEC Site No. 336090

PREPARED FOR

Avery Dennison Corporation
8080 Norton Parkway
Mentor, Ohio 44060

VHB Project 58300.00

PREPARED BY

1 Penn Plaza
Suite 715
New York, NY 11019
212.857.7350

October 2021

Certification Statement

I, George Lester, certify that I am a New York State registered professional engineer and that for each institutional or engineering control identified in this report, I certify that all of the following statements are true:

- The inspection of the site to confirm the effectiveness of the engineering controls required by the OU01 RA was performed under my direction.
- The engineering controls employed at this site are:
  - in-place;
  - performing as designed; and
  - nothing has occurred that would impair the ability of the controls to protect the public health and environment.
- Access to the site continues to be available to evaluate and maintain the engineering controls and continues to be available to NYSDEC to evaluate the remedy.
- Nothing has occurred that would constitute a violation or failure to comply with the Draft Site Management Plan (SMP) for the engineering controls.
- This report and all attachments were prepared under the direction of, and reviewed by, me.
- To the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with generally accepted engineering practices.
- The information presented in this report is accurate and complete.



Table of Contents

Section	Page
2020 Remedial Action Report	**1**
Introduction	1
Summary of Remedial Action	2
Engineering Controls	*2*
Institutional Controls	*3*
Remedial Action Monitoring	3
Inward Hydraulic Gradients Across the Waterloo Barrier®	*3*
GWE&T System Operation and Performance	*4*
Semi-Annual Monitoring of Groundwater, Surface Water, and Sediment Pore Water Monitoring	*5*
Evaluation of Institutional and Engineering Controls	6
Institutional Controls	*6*
Engineering Controls	*6*
References	**7**

List of Tables

Table No.	Description
Table 3-1	Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020
Table 3-2	Extraction Well Pump Run Time and Average Daily System Flows
Table 3-3	Groundwater Extraction and Treatment System Upset Condition and Resolution Log
Table 3-4	Groundwater Extraction Well Analytical Results
Table 3-5	Groundwater Treatment System Influent and Effluent Analytical Results
Table 3-6	Estimated Mass of VOC Removed from Containment Cell
Table 3-7	Summary of Potentiometric Measurements: 2020
Table 3-8	Summary of Groundwater Analytical Results: 2020
Table 3-9	Summary of Surface Water Analytical Results: 2020
Table 3-10	Summary of Sediment Pore Water Analytical Results: 2020

List of Figures

Figure No.	Description
Figure 1-1	Site Location Map: OU01
Figure 2-1	Site Plan: OU01
Figure 3-1	Hydraulic Head Differences at Piezometer Pairs: 2020
Figure 3-2A	Potentiometric Map – Water Table – May 2020
Figure 3-2B	Potentiometric Map – Water Table – November 2020
Figure 3-3A	Potentiometric Map – Deep Unconsolidated Deposits – May 2020
Figure 3-3B	Potentiometric Map – Deep Unconsolidated Deposits – November 2020
Figure 3-4A	Potentiometric Map – Shallow Bedrock – May 2020
Figure 3-4B	Potentiometric Map – Shallow Bedrock – November 2020
Figure 3-5A	Potentiometric Map – Deep Bedrock – May 2020
Figure 3-5B	Potentiometric Map – Deep Bedrock – November 2020
Figure 3-6A	Concentrations of OU01 Constituents of Concern in Unconsolidated Deposits Groundwater: OU01 (2011-2020)
Figure 3-6B	Concentrations of Other Site Constituents in Unconsolidated Deposits Groundwater: OU01 (2011-2020)
Figure 3-7A	Concentrations of OU01 Constituents of Concern in Unconsolidated Deposits Groundwater: Little Falls Ponds Property (2011-2020)
Figure 3-7B	Concentrations of Other Constituents in Unconsolidated Deposits Groundwater: Little Falls Ponds property (2011-2020)

List of Appendices

Appendix	Title
Appendix A	GWE&T System Process and Instrumentation Diagram
Appendix B	GWE&T System Inspection Forms
Appendix C	Laboratory Data Packages, Data Validation, and Data Usability Summary Reports – Spring 2020 Semi-Annual Monitoring
Appendix D	Laboratory Data Packages, Data Validation, and Data Usability Summary Reports – Fall 2020 Semi-Annual Monitoring

2020 Remedial Action Report

Introduction

This report is submitted by VHB Engineering, Survey, Landscape Architecture and Geology, P.C. (VHB) on behalf of Avery Dennison Corporation (ADC) and presents information related to the performance of the Operable Unit 1 Remedial Action (OU01 RA) at the Former Dennison/Monarch Systems Site (NYSDEC Site No. 336090) during the 2020 calendar year (the reporting period). The OU01 RA operates as described in the OU01 Site Management Plan (OU01 SMP; JCO, 2018a) submitted to New York State Department of Environmental Conservation (NYSDEC) on November 20, 2018.[1]

OU01 is located at 15-21 Ruscitti Road in New Windsor, New York (see **Figure 1-1**). The OU01 boundary is contiguous with the 15-21 Ruscitti Road property boundary as shown on **Figure 1-2**. The September 27, 2018 Order on Consent between ADC and NYSDEC (the Order) and the March 2014 OU01 Decision Document (DD; NYSDEC, 2014) defines Operable Unit 2 (OU02) as the downgradient and off-Property (i.e., outside of OU01) portion of the Facility groundwater plume (Facility Plume) resulting from the Constituents of Concern (COCs) source area within OU01. The NYSDEC-issued DD lists three COCs to be addressed by the OU01 RA: 1,1,1-trichloroethane (TCA), trichloroethene (TCE), and 1,1-dichloroethane (1,1-DCA), which is a breakdown product of TCA.

This 2020 Remedial Action Report (RAR) is submitted as an interim review and certification of institutional and engineering controls; this interim review and certification is in place of the Periodic Review Report (PRR) described in the OU01 SMP. A PRR will be submitted to NYSDEC on an annual basis after NYSDEC issues a Certificate of Completion.

As presented herein, the OU01 RA is performing as designed, achieving successful groundwater containment within the Waterloo Barrier® footprint and meeting the requirements for the discharge of treated groundwater. As a result of ongoing natural attenuation and the effective source isolation by the OU01 RA, attenuation of primary COC in groundwater has been observed in the Facility Plume.

[1] NYSDEC provided a letter on April 15, 2019 stating that approval of the November 20, 2018 OU01 SMP will follow recording of the Environmental Easement. The Environmental Easement package was executed by ADC and NYSDEC on July 17, 2019, was filed with the Orange County Clerk's Office on August 8, 2019, and was provided to the New Windsor Town Clerk on August 28, 2019; formal approval from NYSDEC has not yet been provided.

Summary of OU01 Remedial Action

Engineering Controls

The OU01 SMP (JCO, 2018a) outlines the engineering controls for the OU01 RA. The engineering controls include the Waterloo Barrier® containment cell, the low permeability cap system, and the groundwater extraction and treatment system (the System). Details of the engineering controls are outlined in the Operation, Maintenance and Monitoring Plan (OMMP; JCO, 2018b) provided to NYSDEC as a subdocument of the OU01 SMP on November 20, 2018.

The OU01 RA is designed to achieve and maintain inward hydraulic gradients across a vertical Waterloo Barrier® containment wall installed through alluvium into low permeability till, hydraulically containing the source of the Facility Plume, as defined in the NYSDEC-approved AAR/RAWP (JCO, 2013) and Remedial Design Report (RDR; JCO, 2015). A low permeability cap and drainage system minimizes infiltration of precipitation into the containment cell, further enhancing remedy performance. The OU01 RA Construction Completion Report (CCR; JCO, 2017) was provided to NYSDEC in June 2017 and approved by NYSDEC on November 28, 2017; it provides additional and detailed information regarding construction of the OU01 RA, its operating configuration, and its implementation schedule.[2]

Figure 1-2 shows site features relevant to the OU01 RA. To achieve and maintain the inward hydraulic gradients along the perimeter of the containment cell, the System is utilized to continuously extract groundwater from within the containment cell and thus depress the water table. The current Process and Instrumentation Diagram (P&ID) of the System is provided as **Appendix A**. A general description of the System is provided below, and additional detail is provided in the OMMP.

As shown in **Figure 1-2** and the P&ID in **Appendix A**, the System consists of four groundwater extraction wells (EW-1 to EW-4) located within a low-permeability Waterloo Barrier® containment cell. Pneumatic submersible pumps installed in each groundwater extraction well deliver groundwater to the System influent equalization (EQ) tank. The water is pumped from the EQ tank to the air stripper by a transfer pump. Within the air stripper, process water cascades downward as air is forced upward by the air stripper blower through perforated trays, causing volatile organic compounds (VOCs) dissolved in the extracted groundwater to volatilize into the air stream. Treated water from the air stripper is gravity-fed through a discharge pipe to a small perennial stream located on-property per the State Pollutant Discharge Elimination System (SPDES) permit equivalent (the Permit) originally issued by NYSDEC on January 20, 2015 and reissued by NYSDEC on October 1, 2019.[3]

The System includes an anti-scalant storage tank and metering pump used to dose the extracted groundwater with anti-scalant (Redux 390) to minimize scaling (suspected calcium carbonate) within the air stripper. The anti-scalant is injected downstream of the transfer pump, and an in-line static

[2] The System operated in a startup and shakedown phase from December 3, 2015 through January 13, 2016; and, after verification of successful performance, the System was placed into full-time operation on January 14, 2016. Construction of the low permeability cap was completed in November 2016.

[3] The SPDES permit equivalent approval was provided by NYSDEC to ADC in letters dated January 20, 2015 and October 1, 2019.

mixer is located downstream of the anti-scalant injection point. A Water Treatment Chemical (WTC) Notification Form for use of the anti-scalant was approved by NYSDEC on September 26, 2016.

Operation of the System is automated by a Programmable Logic Controller (PLC) and Human Machine Interface (HMI). The System can be monitored and controlled remotely through an internet data connection to the HMI. The PLC monitors and stores System operational data that is regularly downloaded and stored in an electronic database. Key operational parameters are routinely analyzed to confirm the System is operating properly.

Institutional Controls

An IC in the form of the Environmental Easement[4] provides the administrative requirements to monitor and maintain the EC on the OU01 property, prevent potential future exposure to remaining contamination, and limit the use of OU01 to the types specified in the OU01 Decision Document (OU01 DD; NYSDEC, 2014). The Environmental Easement includes the following restrictions:

- the property owner must complete and submit to the NYSDEC a periodic certification of institutional and engineering controls in accordance with 6 NYCRR Part 375-1.8 (h)(3);
- the property may only be developed for commercial or industrial use as defined by 6 NYCRR Part 375-1.8(g), to the extent allowed by local zoning laws;
- groundwater may not be used as a source of potable or process water without necessary water quality treatment as determined by the NYS Department of Health (DOH) or Orange County DOH; and
- the property owner must comply with the NYSDEC-approved OU01 SMP, including its Institutional and Engineering Control Plan and its OMMP.

Remedial Action Monitoring

Per the OMMP, the primary indicator of the effectiveness of the OU01 RA is maintenance of inward hydraulic gradients across the Waterloo Barrier®. Additionally, System monitoring is conducted to monitor its performance and compliance with the SPDES permit equivalent. Semi-annual sampling of groundwater, surface water, and sediment pore water was also completed in OU01 and OU02 in 2020, per the OMMP.

Inward Hydraulic Gradients Across the Waterloo Barrier®

Inward hydraulic gradients across the Waterloo Barrier® are indicated by demonstrating a higher hydraulic head outside of the Waterloo Barrier® than inside of it, as measured by groundwater levels in an array of seven pairs of piezometers—see **Figure 1-2**. Each piezometer is equipped with a pressure transducer that transmits the groundwater level data to the PLC via radio frequency, which provides nearly continuous monitoring of the hydraulic gradients across the Waterloo Barrier®.

[4] The Environmental Easement package executed on behalf of ADC was submitted to NYSDEC on June 27, 2019, executed by NYSDEC on July 17, 2019, was filed on the Orange County land records on August 8, 2019, and a copy was provided to the Town of New Windsor Clerk on August 28, 2019.

Manual water level measurements and secondary pressure transducers are used to supplement the remote pressure transducer data when necessary.

Figure 3-1 presents summary plots of observed hydraulic head difference for each piezometer pair during 2019. These data demonstrate inward gradients were maintained at all piezometer pair locations for the entirety of 2019.[5]

GWE&T System Operation and Performance

System Operation and Optimization

The System operated continuously during the reporting period, 365 days, except for short-duration shutdowns related to System maintenance and brief power outages. The groundwater extraction well pumps operated 99.4 percent of the time, providing an average daily flow rate of 18.1 gallons per minute. **Table 3-2** presents a summary of the daily System operational uptime and average daily flow rates.

The System was inspected on a routine basis by a local operator; routine maintenance was performed in conjunction with those inspections, the scope and schedule of which are outlined in the OMMP. In addition, the operator and/or the Engineer or his representatives performed System optimization activities and non-routine maintenance of System components, as required. The operator and/or the Engineer or his representatives also responded to any upset conditions. **Table 3-3** provides a log of System upset conditions, as well as the associated corrective response actions; it does not include limited downtime associated with routine monitoring and maintenance. Inspection forms for the weekly maintenance events and other operator logs are provided as **Appendix B.**

System Inspection and Performance

Per the OMMP, an annual inspection was conducted on October 5, 2020. Additionally, in 2020 the System was inspected monthly by the Engineer. The inspections found that the OU01 RA components are in good condition, fully functional, and continue to perform effectively and as designed. There are no recommendations for a change in OU01 RA management activities.

Each month, samples were collected from the influent of each of the extraction wells, from the combined System influent, and from the System effluent and sent to a laboratory for the analyses outlined in the November 20, 2018 Sampling and Analysis Plan (SAP; JCO, 2018c). Quarterly Discharge Monitoring Reports (QDMRs) that were previously submitted to NYSDEC provide the results and details of each sampling event, including laboratory analytical reports. **Table 3-4** provides a summary of analytical results for individual extraction well influent. **Table 3-5** provides a summary of analytical results for the combined System influent and the System effluent, as well as calculated VOCs removal efficiency. The concentrations of total VOCs in the combined System influent were approximately stable throughout the reporting period, and average air stripper efficiency for the reporting period was 99.98 percent. All permit equivalent requirements for the System effluent were

[5] The piezometer pressure transducers that transmit data via radio frequency occasionally record data intermittently due to signal interference. Based on the complete 2020 piezometer dataset, it appears the subsurface hydraulic conditions in the vicinity of the Waterloo Barrier® have reached steady-state conditions with seasonal fluctuations due to regional groundwater elevations. Therefore, despite the occasional absence of data at some piezometer locations, it can be concluded that inward hydraulic gradients were maintained throughout 2020.

adhered to in 2020, and an estimated 64 pounds of VOCs were removed by the air stripper during the reporting period—see **Table 3-6**. A total of approximately 382 pounds of VOCs have been removed since system startup.

Semi-Annual Monitoring of Groundwater, Surface Water, and Sediment Pore Water Monitoring

Site Constituents

Per the OMMP and SAP, semi-annual monitoring events were completed in OU01 and OU02 in May 2020 and November 2020.

Table 3-7 provides a summary of potentiometric data collected during the monitoring events. **Figure 3-2A** and **Figure 3-2B** show mapped water-table potentiometric surfaces as observed on May 12, 2020 and November 10, 2020, respectively; and **Figure 3-3A** and **Figure 3-3B** show mapped deep unconsolidated deposits potentiometric surfaces as observed on those same respective dates. **Figure 3-4A** and **Figure 3-4B** show potentiometric surfaces for shallow bedrock groundwater for the same respective dates, and **Figure 3-5A** and **Figure 3-5B** show them for deep bedrock groundwater.

Laboratory reports for analytical results and the associated data validation and Data Usability Summary Reports (DUSR) are provided in **Appendix C** and **Appendix D**. These data were previously submitted electronically to the NYSDEC Environmental Information Management System (EIMS) in EQuIS format. **Table 3-8** provides a summary of analytical results for groundwater samples; **Table 3-9** provides a summary of analytical results for surface water samples; and **Table 3-10** provides a summary of analytical results for streambed groundwater samples.

Figures 3-6A and **Figure 3-6B** show, on a semi-logarithmic scale, concentrations of OU01 COCs[6] 1,1,1-trichloroethane (TCA), trichloroethene (TCE), and 1,1-dichloroethane (1,1-DCA), as well as concentrations of other constituents tetrachloroethene (PCE), 1,1-dichloroethene (1,1-DCE), and cis-1,2-dichloroethene (cis-1,2-DCE), in OU01 unconsolidated deposits groundwater since 2011. Concentrations of all constituents shown over that period appear stable or have decreased overall; in the case of MW-1S and MW-1D, concentrations have already decreased significantly since installation and completion of the Waterloo Barrier®—see **Figures 3-6A** and **Figure 3-6B**. Note: the PCE, TCE, and TCA in J01-UC01 groundwater are attributable to South Plume #1, which is not associated with the Facility plume, as discussed in the NYSDEC-approved AAR/RAWP.

Figures 3-7A and **Figure 3-7B** show, on a semi-logarithmic scale, concentrations of OU01 COCs TCA, TCE, and 1,1-DCA, as well as concentrations of other Site constituents PCE, 1,1-DCE, and cis-1,2-DCE, in OU02 unconsolidated deposits groundwater since 2011. The data indicate that the OU01 RA is performing as designed, effectively isolating the OU01 COCs from on-going contribution to OU02. At the OU02 shallow monitoring well that is most proximate to the OU01 RA: J13-UC02—see **Figures 3-7A** and **Figure 3-7B**—concentrations have significantly attenuated since the OU01 RA was completed. Overall, the effective source isolation and ongoing natural attenuation have resulted in stabilized or decreasing trend in OU02 groundwater concentrations, and an overall shrinkage of the Facility Plume.

[6] As identified in the March 2014 Decision Document.

Evaluation of Institutional and Engineering Controls

Institutional Controls

The institutional control for the OU01 RA is the Environmental Easement. In its April 15, 2019 letter, NYSDEC stated that the November 20, 2018 OU01 SMP will be approved following the recording of the Environmental Easement. The Environmental Easement package was executed by ADC and NYSDEC on July 17, 2019, was filed with the Orange County Clerk's Office on August 8, 2019 and was provided to the New Windsor Town Clerk on August 28, 2019; formal approval from NYSDEC has not yet been provided for the OU01 SMP.

This notwithstanding, the institutional controls components presented in the OU01 SMP for the Environmental Easement have been adhered to during the reporting period. They are:

1. This RAR serves in place of the PRR as a certification of institutional and engineering controls.
2. The property has not been developed for any use other than commercial or industrial.
3. OU01 groundwater has not been used as a source of potable or process water.
4. The property owner has complied with the OU01 SMP, including the OMMP.

There has been no change in use of the OU01 property during the reporting period.

Engineering Controls

In addition to the annual inspection, the Engineer or his representatives were on Site at least once per month throughout the reporting period, and System data was monitored remotely even more frequently. As described in **Remedial Action Monitoring** and based on the inspections results, the OU01 RA is performing as designed, achieving successful groundwater containment within the Waterloo Barrier® footprint, and meeting the requirements for the discharge of treated groundwater.

References

JCO, 2013. Alternatives Analysis Report and Remedial Action Work Plan, Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc., May.

JCO, 2015. Remedial Design Report, Revised April 2015, Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc., April.

JCO, 2017. Construction Completion Report, Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc., June.

JCO, 2018a. Site Management Plan, Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc. November.

JCO, 2018b. Operation, Maintenance and Monitoring Plan, Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc. November.

JCO, 2018c. Sampling and Analysis Plan Former Dennison/Monarch Systems Site, New Windsor, NY. The Johnson Company, Inc. November.

NYSDEC, 2014. Decision Document, Dennison Monarch Systems Facility, Operable Unit Number 01: Remedial Program, Voluntary Cleanup Program, New Windsor, Orange County, Site No. V00135. New York State Department of Environmental Conservation, March.

Tables

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
01-Jan-20	136.69	140.63	3.94	136.36			141.63	147.75	6.11	140.59	146.43	5.84	140.39	145.93	5.54		143.84		140.32	144.99	4.67
02-Jan-20	136.75	140.55	3.80	136.41			141.68	147.80	6.12	140.64	146.51	5.87	140.44	146.05	5.61		143.86		140.37	144.98	4.61
03-Jan-20	136.77	140.51	3.74	136.26			141.74	147.87	6.13	140.69	146.59	5.90	140.50	146.04	5.53		143.89		140.42	145.02	4.60
04-Jan-20	136.78	140.57	3.79	136.25			141.79	147.92	6.13	140.74	146.66	5.93	140.55	146.00	5.45		143.93		140.46	145.07	4.61
05-Jan-20	136.80	140.60	3.79	136.39			141.84	147.97	6.13	140.78	146.73	5.95	140.59	146.23	5.64		144.00		140.49	145.09	4.60
06-Jan-20	136.83	140.55	3.72	136.39			141.78	148.01	6.24	140.82	146.79	5.97	140.63	146.36	5.73				140.52	145.10	4.58
07-Jan-20	136.84	140.52	3.68	136.38			141.87	148.05	6.19	140.85	146.85	6.00	140.67	146.36	5.69		144.10		140.55	145.11	4.56
08-Jan-20	136.84	140.50	3.66	136.31			141.87	148.09	6.23	140.89	146.91	6.01	140.71	146.41	5.70		144.12		140.58	145.13	4.55
09-Jan-20	136.82	140.44	3.62	136.32			142.44	148.06	5.62	140.91	146.92	6.01	140.73	146.50	5.77		144.10		140.58	145.06	4.48
10-Jan-20	136.84	140.46	3.62	136.26			141.99	148.12	6.13	140.95	146.98	6.02	140.77	146.37	5.60		144.15		140.61	145.13	4.52
11-Jan-20	136.87	140.49	3.61	136.34			141.79	148.16	6.37	141.00	147.04	6.04	140.82	146.32	5.50		144.26		140.65	145.18	4.52
12-Jan-20	136.89	140.51	3.63	136.39			141.43	148.19	6.75	141.03	147.08	6.05	140.86	146.43	5.57		144.28		140.69	145.20	4.51
13-Jan-20	136.88	140.49	3.61	136.34			142.10	148.18	6.08	141.05	147.10	6.04	140.88	146.48	5.60		144.27		140.69	145.15	4.47
14-Jan-20	136.90	140.49	3.59	136.34			142.12	148.22	6.09	141.08	147.14	6.05	140.91	146.40	5.49		144.31		140.72	145.19	4.48
15-Jan-20	136.95	140.48	3.53	136.60	139.75	3.15	142.12	148.23	6.12	141.11	147.17	6.06	140.94	146.43	5.49	135.58			140.74	145.20	4.46
16-Jan-20	137.02	140.54	3.51	136.76	139.80	3.04	142.00	148.25	6.25	141.15	147.20	6.05	140.97	146.70	5.72				140.77	145.22	4.45
17-Jan-20	137.04	140.47	3.43	136.82	139.73	2.91	142.25	148.20	5.95	141.17	147.17	6.00	140.99	146.73	5.74				140.77	145.14	4.37
18-Jan-20	137.08	140.48	3.39	136.83	139.75	2.92	142.21	148.23	6.02	141.21	147.20	5.99	141.03	146.67	5.64				140.80	145.18	4.38
19-Jan-20	137.13	140.51	3.38	136.88	139.78	2.90	142.20	148.29	6.09	141.26	147.26	6.00	141.08	146.13	5.05				140.85	145.24	4.40
20-Jan-20	137.13	140.46	3.33	136.90	139.74	2.84	142.28	148.22	5.94	141.27	147.21	5.94	141.10	146.87	5.77				140.84	145.15	4.31
21-Jan-20	137.15	140.44	3.29	136.90	139.72	2.82	142.30	148.19	5.89	141.29	147.19	5.89	141.12	146.91	5.79				140.86	145.14	4.28
22-Jan-20	137.16	140.43	3.27	136.89	139.71	2.83	142.32	148.17	5.86	141.32	147.18	5.87	141.15	146.70	5.55				140.88	145.14	4.26
23-Jan-20	137.18	140.43	3.25	136.84	139.71	2.87	142.34	148.17	5.82	141.34	147.17	5.84	141.17	146.77	5.59				140.90	145.14	4.24
24-Jan-20	137.19	140.42	3.23	136.84	139.71	2.87	142.36	148.15	5.79	141.36	147.16	5.80	141.19	146.73	5.54				140.91	145.13	4.21
25-Jan-20	137.22	140.58	3.36	136.85	139.72	2.87	142.39	148.17	5.78	141.38	147.17	5.79	141.22	146.60	5.38				140.94	145.19	4.25
26-Jan-20	137.28	140.99	3.71	137.16	140.12	2.96	142.42	148.30	5.88	141.42	147.24	5.83	141.26	146.55	5.29				140.98	145.49	4.50
27-Jan-20	137.35	140.82	3.46	137.33	140.08	2.75	142.45	148.36	5.91	141.46	147.30	5.84	141.28	146.61	5.33				141.02	145.42	4.40
28-Jan-20	137.40	140.71	3.32	137.43	139.98	2.56	142.47	148.37	5.90	141.44	147.32	5.87	141.30	146.72	5.42				141.04	145.38	4.34
29-Jan-20	137.41	140.63	3.22	137.43	139.93	2.50	142.48	148.35	5.87	141.46	147.30	5.84	141.32	146.77	5.45				141.05	145.35	4.30
30-Jan-20	137.41	140.58	3.17	137.34	139.88	2.54	142.49	148.32	5.83	141.48	147.28	5.80	141.33	146.91	5.58				141.05	145.32	4.26
31-Jan-20	137.41	140.56	3.15	137.30	139.85	2.55	142.51	148.33	5.81	141.53	147.28	5.76	141.35	146.86	5.52				141.07	145.32	4.25
01-Feb-20	137.43	140.57	3.14	137.22	139.87	2.65	142.55	148.36	5.81	141.58	147.32	5.74	141.38	146.60	5.22				141.10	145.36	4.26
02-Feb-20	137.43	140.57	3.13	137.21	139.86	2.65	142.57	148.38	5.81	141.59	147.34	5.75	141.41	146.50	5.10				141.13	145.37	4.24
03-Feb-20	137.41	140.52	3.11	137.24	139.82	2.58	142.58	148.34	5.76	141.58	147.32	5.73	141.41	146.72	5.32				141.12	145.31	4.18
04-Feb-20	137.42	140.51	3.10	137.19	139.81	2.62	142.59	148.32	5.73	141.61	147.30	5.69	141.42	146.63	5.20				141.14	145.29	4.16
05-Feb-20	137.41	140.49	3.07	137.25	139.77	2.53	142.59	148.28	5.69	141.56	147.27	5.72	141.42	146.73	5.31				141.13	145.26	4.12
06-Feb-20	137.45	140.60	3.15	137.20	139.78	2.58	142.61	148.32	5.70	141.64	147.30	5.66	141.44	146.53	5.09				141.16	145.31	4.15
07-Feb-20	137.49	140.85	3.36	137.36			142.63	148.38	5.75	141.63	147.35	5.72	141.45	146.59	5.14				141.18	145.42	4.24
08-Feb-20	137.51	140.75	3.24	137.50	139.96	2.47	142.57	148.30	5.73	141.54	147.28	5.74	141.41	146.88	5.48				141.13	145.36	4.23
09-Feb-20	137.53	140.61	3.08	137.48	139.92	2.44	142.60	148.30	5.71	141.60	147.28	5.69	141.43	146.95	5.52				141.15	145.31	4.16
10-Feb-20	137.55	140.64	3.09	137.41			142.65	148.37	5.72	141.69	147.35	5.67	141.49	146.68	5.19				141.21	145.39	4.18
11-Feb-20	137.59	140.67	3.09	137.48			142.68	148.41	5.73	141.69	147.39	5.69	141.51	146.68	5.18				141.23	145.43	4.19
12-Feb-20	137.60	140.65	3.05	137.57	139.94	2.37	142.61	148.40	5.79	141.69	147.39	5.70	141.51	146.77	5.26				141.23	145.41	4.18
13-Feb-20	137.66	140.98	3.32	137.64	139.95	2.31	142.32	148.46	6.14	141.68	147.43	5.75	141.54	146.69	5.15				141.27	145.59	4.31
14-Feb-20	137.69	140.90	3.21	137.84	140.12	2.27	142.71	148.49	5.78	141.71	147.45	5.74	141.53	146.94	5.41				141.27	145.64	4.37
15-Feb-20	137.71	140.74	3.03	137.78	140.06	2.28	143.20	148.51	5.31	141.74	147.48	5.74	141.55	147.20	5.64				141.29	145.58	4.29
16-Feb-20	137.74	140.71	2.98	137.74	140.04	2.30	142.63	148.56	5.93	141.79	147.54	5.75	141.59	146.88	5.28				141.34	145.62	4.29
17-Feb-20	137.71	140.67	2.96	137.77	140.00	2.23	142.67	148.58	5.91	141.81	147.57	5.76	141.61	146.95	5.34				141.35	145.60	4.25
18-Feb-20	137.69	140.66	2.97	137.66	139.97	2.31	142.66	148.59	5.93	141.83	147.59	5.76	141.64	146.95	5.32				141.37	145.60	4.23
19-Feb-20	137.68	140.66	2.98	137.67	139.97	2.30	142.42	148.60	6.18	141.84	147.62	5.77	141.66	146.94	5.28				141.39	145.60	4.21
20-Feb-20	137.66	140.63	2.96	137.67	139.95	2.28	142.85	148.59	5.74	141.84	147.62	5.78	141.66	147.11	5.45				141.39	145.56	4.18
21-Feb-20	137.67	140.61	2.95	137.66	139.94	2.27	142.86	148.60	5.74	141.82	147.64	5.82	141.68	147.16	5.49				141.40	145.56	4.16
22-Feb-20	137.69	140.62	2.93	137.58	139.95	2.37	142.88	148.62	5.74	141.91	147.67	5.76	141.70	147.09	5.40				141.42	145.58	4.16
23-Feb-20	137.69	140.61	2.92	137.61	139.94	2.34	142.89	148.62	5.73	141.92	147.69	5.77	141.72	147.14	5.42				141.44	145.57	4.13
24-Feb-20	137.70	140.61	2.91	137.59	139.94	2.35	142.83	148.63	5.80	141.93	147.71	5.78	141.74	147.16	5.42				141.45	145.57	4.12
25-Feb-20	137.71	140.61	2.90	137.60	139.93	2.33	142.91	148.64	5.73	141.94	147.72	5.78	141.76	147.31	5.55				141.47	145.57	4.10

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
26-Feb-20	137.71	140.64	2.93	137.67			143.05	148.63	5.58	141.95	147.72	5.77	141.76	147.23	5.46				141.47	145.56	4.09
27-Feb-20	137.75	140.85	3.10	137.75	140.14	2.40	142.63	148.66	6.03	141.96	147.75	5.79	141.78	147.19	5.40				141.49	145.65	4.16
28-Feb-20	137.78	140.77	2.99	137.85	140.06	2.21	142.95	148.67	5.72	141.92	147.76	5.83	141.78	147.39	5.61				141.48	145.63	4.14
29-Feb-20	137.79	140.68	2.90	137.83	140.01	2.18	142.98	148.68	5.70	141.93	147.77	5.84	141.79	147.38	5.59				141.49	145.60	4.10
01-Mar-20	137.77	140.64	2.86	137.76	139.98	2.22	142.84	148.64	5.80	141.93	147.76	5.82	141.79	147.30	5.50				141.49	145.56	4.07
02-Mar-20	137.79	140.64	2.85	137.71	139.94	2.23	142.91	148.66	5.74	141.95	147.77	5.82	141.81	147.20	5.38				141.51	145.59	4.07
03-Mar-20	137.80	140.65	2.85	137.68	139.98	2.30	142.80	148.68	5.88	141.98	147.79	5.82	141.84	147.28	5.44				141.54	145.61	4.08
04-Mar-20	137.77	140.64	2.87	137.76	139.96	2.20	142.78	148.65	5.86	141.96	147.77	5.81	141.83	147.27	5.44				141.52	145.58	4.06
05-Mar-20	137.75	140.60	2.84	137.72	139.93	2.21	143.23	148.58	5.35	141.95	147.71	5.76	141.81	147.26	5.45				141.49	145.52	4.02
06-Mar-20	137.77	140.61	2.83	137.65	139.94	2.29	142.91	148.58	5.68	142.03	147.70	5.68	141.83	147.17	5.34				141.51	145.53	4.01
07-Mar-20	137.74	140.57	2.83	137.69	139.88	2.19	143.13	148.52	5.39	141.94	147.65	5.71	141.81	147.17	5.36				141.48	145.47	3.98
08-Mar-20	137.73	140.55	2.83	137.63	139.88	2.25	143.38	148.48	5.09	141.92	147.61	5.68	141.80	147.09	5.29				141.47	145.44	3.97
09-Mar-20	137.73	140.55	2.82	137.56	139.87	2.31	143.16	148.46	5.30	141.96	147.59	5.63	141.81	147.04	5.24				141.49	145.44	3.96
10-Mar-20	137.75	140.55	2.81	137.55	139.87	2.32	142.98	148.46	5.48	142.00	147.58	5.58	141.80	147.14	5.34				141.50	145.45	3.95
11-Mar-20	137.73	140.53	2.81	137.60	139.85	2.25	143.02	148.41	5.40	141.94	147.54	5.60		147.12					141.48	145.41	3.93
12-Mar-20	137.72	140.51	2.79	137.59	139.83	2.24	142.93	148.38	5.45	141.90	147.50	5.60		146.95					141.46	145.37	3.91
13-Mar-20	137.74	140.56	2.81	137.55	139.85	2.29	142.92	148.37	5.46	141.95	147.49	5.54		146.83					141.48	145.40	3.92
14-Mar-20	137.70	140.50	2.80	137.59	139.80	2.21	143.58	148.30	4.73	141.85	147.42	5.57		146.89					141.42	145.32	3.90
15-Mar-20	137.69	140.48	2.79	137.57	139.78	2.21	143.26	148.27	5.00	141.83	147.38	5.55		146.82					141.40	145.29	3.89
16-Mar-20	137.68	140.45	2.78	137.51	139.75	2.24	142.84	148.22	5.38	141.81	147.34	5.52		146.78					141.38	145.26	3.88
17-Mar-20	137.70	140.46	2.76	137.45	139.75	2.31	142.86	148.21	5.35	141.80	147.32	5.52		146.62					141.40	145.27	3.87
18-Mar-20	137.67	140.42	2.76	137.50	139.72	2.22	142.82	148.15	5.34	141.79	147.27	5.48		146.66					141.36	145.21	3.85
19-Mar-20	137.69	140.73	3.04	137.46	139.72	2.26	142.82	148.16	5.34	141.79	147.25	5.45		146.64					141.37	145.32	3.95
20-Mar-20	137.79	140.70	2.91	137.60	139.98	2.38	142.85	148.26	5.41	141.82	147.30	5.49		146.58					141.41	145.41	4.00
21-Mar-20	137.79	140.57	2.78	137.70	139.92	2.22	142.91	148.21	5.30	141.78	147.25	5.47		146.70					141.37	145.30	3.94
22-Mar-20	137.76	140.49	2.74	137.61	139.80	2.19	142.77	148.14	5.37	141.74	147.20	5.46		146.62					141.33	145.24	3.90
23-Mar-20	137.76	140.56	2.80	137.56	139.78	2.22	142.79	148.15	5.36	141.76	147.19	5.43		146.52					141.35	145.27	3.91
24-Mar-20	137.83	140.98	3.15	137.75	140.17	2.43	142.81	148.23	5.42	141.79	147.23	5.44		146.60					141.39	145.53	4.14
25-Mar-20	137.89	140.80	2.91	137.83	140.04	2.22	142.84	148.31	5.47	141.81	147.29	5.48		146.60					141.42	145.55	4.13
26-Mar-20	137.89	140.67	2.78	137.82	139.97	2.15	142.87	148.35	5.48	141.84	147.32	5.48		146.68					141.45	145.51	4.06
27-Mar-20	137.86	140.61	2.75	137.80	139.93	2.13	142.89	148.36	5.47	141.83	147.33	5.50		146.75					141.46	145.50	4.05
28-Mar-20	137.82	140.58	2.76	137.77	139.86	2.09	142.85	148.30	5.45	141.80	147.28	5.48		146.64					141.42	145.45	4.02
29-Mar-20	137.86	140.85	2.99	137.82	140.05	2.23	142.87	148.34	5.47		147.30			146.61					141.45	145.53	4.09
30-Mar-20	137.94	140.80	2.86	137.95	140.06	2.11	142.89	148.40	5.51	141.85	147.35	5.50		146.85					141.46	145.57	4.11
31-Mar-20	137.97	140.81	2.84	138.01	140.09	2.09	142.89	148.43	5.54	141.92	147.38	5.45		146.92					141.47	145.58	4.11
01-Apr-20	137.99	140.73	2.74	137.97	140.03	2.07	142.92	148.47	5.55	142.01	147.42	5.42		146.88					141.50	145.61	4.12
02-Apr-20	137.98	140.66	2.68	138.03	139.98	1.96	142.94	148.50	5.56	142.04	147.45	5.42		146.90					141.51	145.61	4.11
03-Apr-20	137.94	140.62	2.68	137.96	139.93	1.97	142.95	148.50	5.56	142.02	147.47	5.44		146.87					141.51	145.60	4.09
04-Apr-20	137.89	140.59	2.70	137.95	139.90	1.96	142.93	148.48	5.55	141.91	147.46	5.55		146.92					141.49	145.56	4.07
05-Apr-20	137.88	140.57	2.70	137.95	139.89	1.93	143.03	148.49	5.46	141.92	147.47	5.55		146.94					141.51	145.56	4.05
06-Apr-20	137.86	140.56	2.70	137.91	139.87	1.96	143.04	148.49	5.45	141.94	147.48	5.54		146.90					141.51	145.55	4.03
07-Apr-20	137.86	140.55	2.69	137.84	139.86	2.02	142.92	148.50	5.58	142.01	147.50	5.49		146.95					141.53	145.55	4.02
08-Apr-20	137.87	140.55	2.68	137.86	139.86	2.00	142.99	148.52	5.53	142.03	147.52	5.50		147.06					141.54	145.56	4.02
09-Apr-20	137.87	140.57	2.70	137.87	139.87	2.00	143.00	148.52	5.52	142.03	147.54	5.51		146.94					141.54	145.55	4.01
10-Apr-20	137.85	140.56	2.71	137.89	139.87	1.98	142.99	148.52	5.54	141.96	147.55	5.59		147.08					141.52	145.53	4.00
11-Apr-20	137.82	140.50	2.68	137.86	139.82	1.96	142.98	148.47	5.49	141.91	147.51	5.60		146.95					141.49	145.46	3.97
12-Apr-20	137.82	140.47	2.66	137.80	139.79	1.99	142.94	148.43	5.49	141.90	147.49	5.59		146.97					141.47	145.43	3.96
13-Apr-20	137.91	140.65	2.74	137.89	139.93	2.03	142.99	148.49	5.50	142.04	147.55	5.51		146.96					141.53	145.53	4.00
14-Apr-20	138.47	140.80	2.33	139.15	140.05	0.90	142.97	148.53	5.56	141.94	147.56	5.62		147.07					141.53	145.62	4.09
15-Apr-20	138.28	140.65	2.36	138.34	140.00	1.66	143.02	148.59	5.57	142.00	147.62	5.62		147.11					141.59	145.60	4.01
16-Apr-20	138.13	140.58	2.45	138.17	139.94	1.77	143.03	148.58	5.55	142.01	147.64	5.62		147.18					141.58	145.57	3.99
17-Apr-20	138.05	140.55	2.50	138.03	139.90	1.87	143.03	148.56	5.53	142.02	147.63	5.62		147.12					141.58	145.55	3.98
18-Apr-20	138.04	140.76	2.71	137.99	140.04	2.04	143.05	148.61	5.56	142.04	147.67	5.63		147.14					141.60	145.64	4.05
19-Apr-20	138.05	140.70	2.65	138.06	140.03	1.97	143.04	148.65	5.61	142.05	147.70	5.66		147.23					141.60	145.67	4.07
20-Apr-20	138.04	140.63	2.60	137.96	139.99	2.03	143.19	148.67	5.48	142.05	147.73	5.68		147.22					141.61	145.67	4.06
21-Apr-20	138.01	140.63	2.62	137.95	139.97	2.03	143.12	148.67	5.56	142.06	147.74	5.69		147.21					141.61	145.66	4.06

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
22-Apr-20	137.95	140.61	2.65	137.98	139.95	1.96	143.56	148.65	5.08	142.01	147.72	5.71		147.16					141.57	145.63	4.06
23-Apr-20	137.94	140.56	2.63	137.92	139.91	1.99	143.10	148.62	5.53	142.01	147.71	5.70		147.24					141.56	145.61	4.05
24-Apr-20	137.95	140.66	2.71	137.83	139.97	2.14	143.06	148.65	5.59	142.03	147.73	5.70		147.13					141.59	145.66	4.07
25-Apr-20	137.94	140.66	2.73	137.91	139.98	2.07	143.03	148.65	5.63	142.01	147.73	5.72		147.21					141.57	145.66	4.09
26-Apr-20	137.95	140.62	2.67	137.87	139.97	2.09	143.23	148.67	5.44	142.07	147.75	5.68		147.22					141.58	145.67	4.09
27-Apr-20	137.98	140.92	2.93	138.01	140.16	2.15	143.25	148.70	5.45	142.03	147.76	5.74		147.26					141.59	145.79	4.20
28-Apr-20	138.00	140.72	2.73	138.02	140.08	2.06	143.34	148.72	5.38	142.03	147.78	5.75		147.27					141.59	145.76	4.17
29-Apr-20	137.98	140.64	2.66	138.00	140.01	2.01	143.09	148.71	5.62	142.02	147.78	5.76		147.33					141.59	145.73	4.14
30-Apr-20	137.99	140.71	2.72	137.94	140.04	2.11	143.03	148.72	5.69	142.09	147.79	5.70		147.26					141.61	145.76	4.15
01-May-20	138.09	141.24	3.15	138.19	140.44	2.25	142.76	148.85	6.09	142.11	147.86	5.75		147.22					141.66	146.14	4.48
02-May-20	138.15	140.96	2.81	138.37	140.31	1.94	142.92	148.89	5.97	142.08	147.93	5.86		147.44					141.67	146.10	4.42
03-May-20	138.16	140.84	2.67	138.28	140.24	1.96	142.72	148.95	6.23	142.15	148.00	5.85		147.48					141.71	146.08	4.37
04-May-20	138.12	140.78	2.66	138.27	140.17	1.91	142.79	148.98	6.20	142.12	148.04	5.92		147.58					141.71	146.05	4.34
05-May-20	138.07	140.73	2.66	138.27	140.12	1.85	143.19	148.99	5.80	142.13	148.07	5.94		147.52					141.71	146.02	4.31
06-May-20	138.07	140.72	2.65	138.19	140.10	1.91	143.25	149.00	5.75	142.15	148.09	5.95		147.57					141.72	146.01	4.29
07-May-20	138.07	140.71	2.64	138.11	140.09	1.98	143.26	149.02	5.76	142.18	148.12	5.94		147.59					141.73	146.01	4.28
08-May-20	138.07	140.69	2.63	138.17	140.08	1.91	143.22	149.02	5.80	142.22	148.13	5.91		147.61					141.73	145.98	4.25
09-May-20	138.07	140.87	2.80	138.15	140.19	2.04	143.22	149.05	5.83	142.39	148.16	5.77		147.63					141.74	146.05	4.32
10-May-20	138.07	140.75	2.69	138.11	140.14	2.03	143.23	149.08	5.85	142.22	148.20	5.98		147.66					141.74	146.04	4.29
11-May-20	138.09	140.74	2.65	138.05	140.13	2.08	143.25	149.11	5.86	142.31	148.24	5.93		147.69					141.76	146.05	4.29
12-May-20	138.07	140.70	2.63	138.14	140.10	1.96	143.25	149.10	5.85	142.20	148.24	6.04		147.70					141.75	146.02	4.27
13-May-20	138.10	140.66	2.56	138.27	140.08	1.81	143.24	149.07	5.83	142.20	148.22	6.02		147.69					141.74	145.99	4.25
14-May-20	138.63	140.66	2.03	139.06	140.08	1.02	143.26	149.07	5.81	142.33	148.24	5.90		147.71					141.79	145.99	4.21
15-May-20	138.36	140.70	2.33	138.36	140.11	1.75	143.30	149.11	5.81	142.80	148.27	5.47		147.76					141.83	146.05	4.22
16-May-20	138.28	140.88	2.60	138.38	140.24	1.86	143.31	149.13	5.82	142.83	148.28	5.46		147.80					141.83	146.13	4.30
17-May-20	138.23	140.74	2.50	138.26	140.17	1.91	143.32	149.16	5.84	142.57	148.31	5.74		147.84					141.82	146.09	4.27
18-May-20	138.23	140.72	2.49	138.17	140.15	1.98	143.34	149.17	5.84	142.68	148.34	5.67		147.86					141.84	146.10	4.26
19-May-20	138.21	140.69	2.48	138.22	140.12	1.90	143.34	149.16	5.82	142.62	148.34	5.72		147.85					141.83	146.07	4.24
20-May-20	138.20	140.66	2.47	138.24	140.09	1.85	143.33	149.12	5.79	142.43	148.32	5.89		147.82					141.82	146.04	4.22
21-May-20	138.20	140.65	2.45	138.20	140.08	1.88	143.34	149.11	5.77	142.48	148.31	5.83		147.81					141.83	146.03	4.20
22-May-20	138.21	140.65	2.43	138.13	140.08	1.95	143.35	149.10	5.75	142.73	148.31	5.58		147.81					141.85	146.04	4.19
23-May-20	138.20	140.66	2.46	138.14	140.09	1.94	143.35	149.08	5.73	142.92	148.28	5.36		147.79					141.84	146.02	4.18
24-May-20	138.19	140.66	2.47	138.20	140.08	1.87	143.33	149.04	5.71	142.67	148.24	5.57		147.74					141.82	145.99	4.17
25-May-20	138.20	140.63	2.42	138.21	140.05	1.84	143.33	149.03	5.69	142.67	148.22	5.54		147.71					141.82	145.97	4.15
26-May-20	138.20	140.61	2.41	138.17	140.03	1.86	143.33	148.99	5.66	142.71	148.18	5.47		147.67					141.82	145.95	4.13
27-May-20	138.19	140.58	2.39	138.17	140.01	1.83	143.32	148.94	5.62	142.69	148.14	5.45		147.63					141.81	145.92	4.11
28-May-20	138.30	140.58	2.28	138.18	140.00	1.81	143.32	148.90	5.58	142.72	148.09	5.37		147.59					141.81	145.90	4.09
29-May-20	138.40	140.57	2.17	138.20	140.00	1.80	143.33	148.87	5.53	142.92	148.06	5.14		147.56					141.84	145.88	4.05
30-May-20	138.44	140.61	2.17	138.25	140.02	1.77	143.32	148.83	5.51	143.01	148.02	5.01		147.52					141.84	145.87	4.04
31-May-20	138.45	140.55	2.10	138.34	139.96	1.62	143.30	148.78	5.48	142.84	147.97	5.13		147.47					141.81	145.81	4.00
01-Jun-20	138.46	140.52	2.06	138.33	139.93	1.59	143.28	148.73	5.45	142.67	147.92	5.25		147.40					141.80	145.77	3.97
02-Jun-20	138.49	140.52	2.02	138.28	139.92	1.64	143.30	148.69	5.39	142.86	147.88	5.03		147.36					141.82	145.75	3.93
03-Jun-20	138.51	140.53	2.01	138.31	139.93	1.62	143.31	148.65	5.34	143.21	147.85	4.64		147.33					141.83	145.74	3.90
04-Jun-20	138.50	140.68	2.18	138.43	140.05	1.63	143.44	148.63	5.19	143.10	147.80	4.70		147.30					141.81	145.77	3.97
05-Jun-20	138.50	140.56	2.06	138.32	139.98	1.66	143.47	148.62	5.15	142.96	147.78	4.83		147.27					141.80	145.71	3.91
06-Jun-20	138.50	140.54	2.04	138.24	139.94	1.70	143.32	148.59	5.27	143.06	147.75	4.70		147.23					141.80	145.69	3.89
07-Jun-20	138.52	140.49	1.98	138.40	139.88	1.48	143.50	148.52	5.02	142.92	147.70	4.78		147.17					141.77	145.63	3.87
08-Jun-20	138.50	140.46	1.97	138.33	139.85	1.51	143.12	148.46	5.34	142.77	147.65	4.88		147.11					141.75	145.59	3.84
09-Jun-20	138.49	140.44	1.95	138.23	139.82	1.59	142.94	148.40	5.46	142.84	147.60	4.76		147.06					141.74	145.56	3.81
10-Jun-20	138.47	140.41	1.94	138.26	139.78	1.52	142.90	148.33	5.43	142.80	147.53	4.73		147.00					141.72	145.50	3.78
11-Jun-20	138.44	140.42	1.98	138.20	139.78	1.58	142.93	148.26	5.33	142.79	147.47	4.67		146.93					141.69	145.46	3.77
12-Jun-20	138.55	140.41	1.86	138.68	139.78	1.10	143.06	148.20	5.14	142.64	147.40	4.76		146.87					141.67	145.41	3.74
13-Jun-20	138.34	140.36	2.02	138.17	139.72	1.55	143.24	148.14	4.91	142.50	147.34	4.84		146.81					141.64	145.35	3.71
14-Jun-20	138.19	140.32	2.13	138.01	139.67	1.66	143.00	148.07	5.07	142.26	147.27	5.01		146.73					141.59	145.29	3.70
15-Jun-20	138.12	140.30	2.18	137.96	139.64	1.68	142.90	148.00	5.10	142.20	147.21	5.01		146.67					141.55	145.25	3.70
16-Jun-20	138.07	140.28	2.21	137.87	139.62	1.75	142.87	147.94	5.07	142.22	147.14	4.92		146.60					141.52	145.20	3.68

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
17-Jun-20	138.03	140.26	2.22	137.77	139.59	1.83	142.85	147.87	5.02	142.31	147.08	4.77		146.54					141.49	145.16	3.67
18-Jun-20	138.00	140.23	2.23	137.71	139.57	1.85	142.92	147.79	4.87	142.40	147.01	4.61		146.47					141.46	145.11	3.65
19-Jun-20	137.97	140.21	2.24	137.70	139.54	1.85	142.89	147.71	4.82	142.46	146.93	4.47		146.40					141.42	145.05	3.62
20-Jun-20	137.95	140.19	2.24	137.68	139.51	1.84	142.86	147.64	4.78	142.51	146.86	4.35		146.32					141.39	144.99	3.60
21-Jun-20	137.92	140.17	2.25	137.64	139.49	1.85	142.82	147.58	4.76	142.55	146.79	4.24		146.25					141.36	144.95	3.58
22-Jun-20	137.91	140.15	2.25	137.63	139.46	1.83	142.79	147.52	4.73	142.60	146.72	4.12		146.17					141.34	144.91	3.57
23-Jun-20	137.89	140.14	2.24	137.59	139.44	1.85	142.77	147.47	4.70	142.74	146.65	3.92		146.10					141.32	144.87	3.56
24-Jun-20	137.87	140.13	2.26	137.61	139.43	1.82	142.74	147.41	4.67	142.82	146.59	3.77		146.03					141.29	144.83	3.55
25-Jun-20	137.83	140.09	2.26	137.58	139.38	1.80	142.69	147.34	4.65	142.56	146.51	3.95		145.95					141.24	144.77	3.53
26-Jun-20	137.81	140.07	2.26	137.51	139.35	1.85	142.66	147.28	4.62	142.51	146.44	3.92		145.87					141.22	144.73	3.51
27-Jun-20	137.79	140.13	2.34	137.40	139.39	1.99	142.63	147.23	4.59	142.65	146.38	3.73		145.80					141.19	144.71	3.51
28-Jun-20	137.76	140.22	2.46	137.42	139.49	2.07	142.60	147.22	4.61	142.71	146.32	3.61		145.76					141.17	144.71	3.54
29-Jun-20	137.74	140.28	2.55	137.41	139.52	2.10	142.57	147.22	4.65	142.61	146.28	3.67		145.78					141.14	144.71	3.57
30-Jun-20	137.73	140.41	2.68	137.41	139.65	2.24	142.54	147.26	4.72	142.49	146.27	3.78		145.88					141.12	144.83	3.71
01-Jul-20	137.72	140.27	2.55	137.38	139.55	2.18	142.52	147.25	4.73	142.48	146.26	3.77		145.67					141.10	144.73	3.63
02-Jul-20	137.70	140.21	2.50	137.31	139.48	2.17	142.49	147.18	4.69	142.52	146.22	3.70		145.63					141.08	144.67	3.60
03-Jul-20	137.68	140.16	2.48	137.28	139.43	2.14	142.46	147.12	4.66	142.50	146.17	3.68		145.57					141.05	144.63	3.58
04-Jul-20	137.66	140.13	2.47	137.32	139.39	2.07	142.43	147.06	4.63	142.40	146.12	3.72		145.51					141.02	144.59	3.57
05-Jul-20	137.64	140.09	2.44	137.29	139.34	2.05	142.40	147.00	4.60	142.36	146.06	3.70		145.45					140.99	144.54	3.55
06-Jul-20	137.62	140.04	2.42	137.27	139.29	2.02	142.37	146.93	4.56	142.25	145.99	3.75		145.38					140.96	144.48	3.52
07-Jul-20	137.61	140.02	2.41	137.24	139.25	2.01	142.33	146.85	4.52	142.13	145.93	3.80	141.20	145.31	4.11				140.93	144.42	3.50
08-Jul-20	137.63	140.51	2.88	137.25	139.57	2.32	142.33	147.03	4.70	142.16	145.99	3.83	141.20	145.40	4.19				140.94	144.62	3.68
09-Jul-20	137.80	140.90	3.10	137.64	140.09	2.45	142.43	148.08	5.65	142.23	146.69	4.46	141.27	146.15	4.88				141.06	145.47	4.42
10-Jul-20	137.80	140.68	2.88	137.56	139.99	2.43	142.50	148.03	5.53	142.27	146.80	4.52	141.34	146.04	4.70				141.12	145.37	4.24
11-Jul-20	137.87	141.09	3.22	137.71	140.24	2.54	142.56	148.07	5.51	142.51	146.85	4.34	141.38	146.11	4.73				141.19	145.64	4.46
12-Jul-20	137.88	140.78	2.90	137.72	140.08	2.36	142.59	148.07	5.48	142.51	146.88	4.37	141.41	146.16	4.75				141.21	145.53	4.32
13-Jul-20	137.83	140.63	2.80	137.67	139.94	2.27	142.60	148.04	5.44	142.39	146.88	4.49	141.42	146.15	4.73				141.21	145.45	4.24
14-Jul-20	137.78	140.56	2.77	137.65	139.84	2.19	142.59	148.00	5.40	142.20	146.85	4.65	141.41	146.12	4.71				141.19	145.39	4.20
15-Jul-20	137.75	140.50	2.75	137.58	139.77	2.19	142.57	147.95	5.38	141.93	146.81	4.88	141.39	146.08	4.69				141.16	145.34	4.18
16-Jul-20	137.73	140.46	2.73	137.52	139.72	2.20	142.56	147.92	5.37	141.78	146.79	5.01	141.38	146.06	4.68				141.14	145.31	4.17
17-Jul-20	137.73	140.45	2.73	137.40	139.70	2.30	142.56	147.92	5.36	141.91	146.79	4.87	141.38	146.07	4.68				141.14	145.30	4.16
18-Jul-20	137.71	140.43	2.72	137.37	139.67	2.30	142.55	147.90	5.35	141.98	146.77	4.78	141.38	146.05	4.68				141.13	145.28	4.14
19-Jul-20	137.70	140.40	2.70	137.32	139.63	2.31	142.54	147.87	5.33	142.11	146.75	4.64	141.37	146.05	4.67				141.12	145.25	4.12
20-Jul-20	137.68	140.37	2.69	137.29	139.60	2.31	142.52	147.83	5.31	142.18	146.72	4.54	141.36	146.03	4.67				141.11	145.21	4.10
21-Jul-20	137.66	140.33	2.67	137.35	139.55	2.20	142.49	147.76	5.28	142.00	146.68	4.67	141.33	145.98	4.66				141.07	145.14	4.08
22-Jul-20	137.64	140.31	2.66	137.32	139.53	2.20	142.46	147.71	5.24	141.96	146.63	4.67	141.31	145.95	4.64				141.05	145.10	4.05
23-Jul-20	137.63	140.29	2.66	137.28	139.50	2.22	142.44	147.65	5.21	141.96	146.59	4.63	141.28	145.91	4.63				141.02	145.05	4.03
24-Jul-20	137.61	140.26	2.65	137.25	139.48	2.22	142.41	147.58	5.17	141.86	146.54	4.68	141.25	145.87	4.61				141.00	145.00	4.00
25-Jul-20	137.60	140.24	2.65	137.18	139.45	2.27	142.38	147.53	5.14	141.83	146.49	4.66	141.23	145.82	4.59				140.98	144.95	3.98
26-Jul-20	137.58	140.22	2.63	137.10	139.42	2.32	142.37	147.47	5.10	141.91	146.44	4.53	141.22	145.78	4.56				140.96	144.91	3.95
27-Jul-20	137.58	140.19	2.61	137.08	139.39	2.31	142.35	147.41	5.06	142.07	146.40	4.32	141.20	145.74	4.54				140.94	144.86	3.92
28-Jul-20	137.57	140.16	2.59	137.13	139.35	2.22	142.32	147.34	5.01	142.12	146.34	4.22	141.18	145.68	4.50				140.92	144.80	3.88
29-Jul-20	137.55	140.13	2.59	137.17	139.32	2.16	142.30	147.27	4.97	141.96	146.27	4.31	141.16	145.62	4.46				140.89	144.74	3.85
30-Jul-20	137.53	140.11	2.58	137.07	139.29	2.23	142.28	147.20	4.92	141.98	146.22	4.23	141.14	145.57	4.43				140.88	144.69	3.81
31-Jul-20	137.51	140.09	2.58	137.01	139.28	2.27	142.26	147.14	4.87	142.01	146.16	4.15	141.12	145.51	4.39				140.86	144.64	3.78
01-Aug-20	137.50	140.06	2.56	137.07	139.24	2.17	142.24	147.06	4.83	141.89	146.09	4.20	141.10	145.45	4.35				140.84	144.59	3.75
02-Aug-20	137.48	140.06	2.57	137.03	139.24	2.20	142.22	147.00	4.78	141.88	146.03	4.15	141.08	145.39	4.32				140.82	144.55	3.73
03-Aug-20	137.47	140.03	2.57	137.01	139.21	2.21	142.19	146.94	4.75	141.81	145.97	4.16	141.05	145.33	4.28				140.79	144.49	3.70
04-Aug-20	137.47	140.20	2.73	136.98	139.34	2.35	142.18	146.89	4.72	141.77	145.92	4.15	141.03	145.29	4.26				140.78	144.52	3.73
05-Aug-20	137.44	140.27	2.83	137.00	139.48	2.47	142.15	146.93	4.78	141.76	145.92	4.16	141.01	145.34	4.33				140.76	144.56	3.79
06-Aug-20	137.42	140.17	2.74	136.96	139.38	2.42	142.13	146.91	4.78	141.59	145.89	4.31	140.99	145.28	4.29				140.74	144.48	3.74
07-Aug-20	137.41	140.11	2.70	136.92	139.31	2.40	142.11	146.86	4.75	141.54	145.86	4.32	140.97	145.24	4.26				140.73	144.44	3.72
08-Aug-20	137.39	140.07	2.67	136.86	139.26	2.40	142.09	146.81	4.72	141.52	145.82	4.30	140.95	145.19	4.24				140.71	144.41	3.70
09-Aug-20	137.38	140.03	2.65	136.79	139.22	2.43	142.07	146.77	4.69	141.56	145.78	4.22	140.93	145.14	4.21				140.69	144.37	3.68
10-Aug-20	137.36	140.00	2.64	136.73	139.18	2.45	142.05	146.72	4.66	141.62	145.73	4.10	140.91	145.09	4.18				140.67	144.33	3.66
11-Aug-20	137.34	139.96	2.62	136.73	139.14	2.42	142.03	146.66	4.63	141.68	145.68	3.99	140.89	145.03	4.15				140.65	144.28	3.63

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
12-Aug-20	137.32	139.93	2.61	136.78	139.10	2.33	142.00	146.59	4.59	141.61	145.62	4.01	140.86	144.97	4.12				140.62	144.23	3.61
13-Aug-20	137.30	139.90	2.60	136.78	139.07	2.29	141.97	146.52	4.55	141.49	145.55	4.06	140.83	144.91	4.08				140.59	144.17	3.58
14-Aug-20	137.29	139.88	2.59	136.71	139.05	2.34	141.95	146.47	4.52	141.53	145.49	3.96	140.80	144.85	4.05				140.57	144.13	3.56
15-Aug-20	137.27	139.85	2.59	136.72	139.02	2.30	141.92	146.40	4.49	141.54	145.43	3.89	140.77	144.79	4.02				140.55	144.08	3.54
16-Aug-20	137.25	139.84	2.59	136.69	139.00	2.31	141.89	146.34	4.45	141.53	145.37	3.84	140.74	144.73	3.99				140.52	144.04	3.52
17-Aug-20	137.24	139.83	2.59	136.62	138.99	2.37	141.86	146.29	4.42	141.63	145.31	3.68	140.72	144.67	3.95				140.50	144.00	3.50
18-Aug-20	137.22	139.85	2.63	136.60	139.00	2.40	141.84	146.23	4.39	141.68	145.25	3.57	140.69	144.62	3.93				140.48	143.97	3.49
19-Aug-20	137.20	139.79	2.60	136.64	138.96	2.32	141.81	146.18	4.37	141.58	145.19	3.61	140.66	144.56	3.89				140.45	143.92	3.47
20-Aug-20	137.17	139.76	2.59	136.62	138.92	2.30	141.77	146.12	4.34	141.43	145.13	3.70	140.63	144.49	3.86				140.42	143.86	3.44
21-Aug-20	137.16	139.74	2.58	136.51	138.89	2.39	141.75	146.06	4.31	141.52	145.07	3.55	140.60	144.43	3.83				140.39	143.82	3.42
22-Aug-20	137.14	139.71	2.57	136.49	138.86	2.37	141.72	146.00	4.27	141.55	145.01	3.46	140.58	144.37	3.80				140.37	143.77	3.40
23-Aug-20	137.11	139.68	2.56	136.52	138.83	2.31	141.69	145.93	4.24	141.42	144.94	3.52	140.54	144.31	3.76				140.34	143.72	3.38
24-Aug-20	137.09	139.65	2.56	136.45	138.80	2.35	141.66	145.86	4.20	141.44	144.88	3.43	140.51	144.24	3.73				140.31	143.67	3.36
25-Aug-20	137.07	139.63	2.55	136.36	138.77	2.42	141.63	145.80	4.16	141.61	144.81	3.20	140.48	144.18	3.70				140.29	143.62	3.33
26-Aug-20	137.05	139.59	2.55	136.44	138.74	2.30	141.60	145.73	4.13	141.50	144.74	3.25	140.45	144.11	3.66				140.25	143.56	3.31
27-Aug-20	137.03	139.62	2.59	136.34	138.75	2.41	141.57	145.66	4.10	141.62	144.68	3.05	140.42	144.05	3.63				140.23	143.53	3.30
28-Aug-20	137.01	139.90	2.88	136.39	139.03	2.64	141.53	145.64	4.11	141.62	144.62	3.01	140.38	144.02	3.64				140.20	143.61	3.40
29-Aug-20	137.00	139.76	2.76	136.29	138.94	2.65	141.51	145.64	4.13	141.79	144.60	2.81	140.36	143.99	3.63				140.19	143.53	3.34
30-Aug-20	136.98	139.68	2.70	136.34	138.85	2.51	141.48	145.59	4.11	141.70	144.55	2.85	140.32	143.94	3.61				140.15	143.48	3.33
31-Aug-20	136.96	139.62	2.66	136.31	138.78	2.47	141.44	145.53	4.09	141.27	144.50	3.23	140.29	143.87	3.59				140.12	143.42	3.30
01-Sep-20	136.94	139.59	2.65	136.28	138.75	2.47	141.41	145.48	4.07	141.18	144.44	3.26	140.26	143.82	3.56				140.09	143.38	3.29
02-Sep-20	136.93	139.78	2.85	136.14	138.88	2.74	141.39	145.44	4.06	141.33	144.40	3.07	140.23	143.78	3.54				140.07	143.42	3.35
03-Sep-20	136.92	139.94	3.02	136.16	139.08	2.92	141.37	145.48	4.11	141.52	144.39	2.87	140.21	143.81	3.60				140.06	143.51	3.45
04-Sep-20	136.90	139.79	2.89	136.16	138.97	2.81	141.34	145.52	4.17	141.45	144.39	2.93	140.19	143.79	3.60				140.04	143.44	3.40
05-Sep-20	136.88	139.69	2.81	136.22	138.85	2.64	141.31	145.48	4.17	141.11	144.36	3.25	140.16	143.74	3.58				140.01	143.38	3.37
06-Sep-20	136.87	139.63	2.76	136.19	138.79	2.60	141.29	145.43	4.14	141.07	144.33	3.26	140.14	143.69	3.56				139.99	143.35	3.36
07-Sep-20	136.86	139.59	2.73	136.11	138.74	2.63	141.27	145.39	4.12	141.14	144.29	3.15	140.11	143.65	3.54				139.96	143.32	3.35
08-Sep-20	136.84	139.54	2.70	136.13	138.70	2.56	141.24	145.34	4.10	141.08	144.24	3.17	140.08	143.60	3.52				139.94	143.27	3.33
09-Sep-20	136.82	139.51	2.68	136.14	138.66	2.52	141.21	145.29	4.08	140.92	144.19	3.27	140.05	143.55	3.49				139.91	143.23	3.32
10-Sep-20	136.81	139.49	2.68	136.02	138.64	2.63	141.19	145.24	4.05	140.94	144.15	3.21	140.03	143.50	3.47				139.89	143.20	3.30
11-Sep-20	136.80	139.47	2.67	135.98	138.62	2.64	141.16	145.19	4.03	140.99	144.10	3.11	140.00	143.45	3.45				139.87	143.16	3.29
12-Sep-20	136.78	139.43	2.65	136.01	138.58	2.56	141.13	145.14	4.01	140.83	144.05	3.22	139.97	143.40	3.43				139.84	143.11	3.27
13-Sep-20	136.77	139.41	2.64	135.92	138.55	2.64	141.11	145.09	3.99	141.01	144.00	2.99	139.95	143.35	3.40				139.82	143.07	3.26
14-Sep-20	136.75	139.38	2.63	135.96	138.52	2.56	141.08	145.04	3.96	141.05	143.95	2.89	139.92	143.30	3.38				139.79	143.03	3.24
15-Sep-20	136.73	139.34	2.61	135.90	138.48	2.58	141.04	144.98	3.94	140.79	143.89	3.10	139.88	143.24	3.36				139.76	142.98	3.22
16-Sep-20	136.71	139.32	2.62	135.86	138.46	2.60	141.02	144.93	3.91	140.88	143.84	2.95	139.86	143.19	3.33				139.74	142.94	3.20
17-Sep-20	136.69	139.30	2.61	135.85	138.44	2.59	140.99	144.88	3.89	141.07	143.79	2.72	139.83	143.14	3.31				139.71	142.90	3.19
18-Sep-20	136.67	139.27	2.60	135.81	138.41	2.60	140.96	144.82	3.86	141.10	143.74	2.63	139.80	143.09	3.29				139.69	142.86	3.17
19-Sep-20	136.72	139.23	2.51	136.06	138.37	2.31	140.92	144.76	3.83	140.76	143.68	2.92	139.76	143.02	3.27				139.65	142.80	3.14
20-Sep-20	136.85	139.20	2.35	136.33	138.34	2.01	140.89	144.69	3.80	140.53	143.62	3.09	139.74	142.97	3.23				139.63	142.75	3.11
21-Sep-20	136.91	139.18	2.27	136.42	138.32	1.90	140.87	144.64	3.76	140.45	143.56	3.11	139.74	142.91	3.18				139.62	142.70	3.09
22-Sep-20	136.96	139.17	2.21	136.51	138.31	1.80	140.86	144.58	3.72	140.86	143.52	2.65	139.75	142.87	3.12				139.62	142.67	3.06
23-Sep-20	136.97	139.14	2.17	136.47	138.28	1.81	140.86	144.53	3.68	141.20	143.47	2.26	139.75	142.82	3.07				139.61	142.64	3.03
24-Sep-20	136.81	139.11	2.30	136.03	138.25	2.22	140.84	144.48	3.64	141.09	143.41	2.32	139.73	142.77	3.03				139.59	142.59	3.01
25-Sep-20	136.72	139.09	2.37	135.90	138.23	2.33	140.82	144.42	3.60	140.96	143.35	2.39	139.70	142.71	3.01				139.56	142.55	2.99
26-Sep-20	136.67	139.06	2.39	135.85	138.21	2.36	140.80	144.37	3.57	140.93	143.30	2.37	139.67	142.66	2.99				139.54	142.51	2.97
27-Sep-20	136.64	139.04	2.40	135.81	138.19	2.38	140.77	144.31	3.54	141.02	143.24	2.22	139.64	142.61	2.97				139.51	142.47	2.96
28-Sep-20	136.62	139.02	2.40	135.78	138.17	2.39	140.75	144.26	3.51	141.13	143.19	2.06	139.60	142.56	2.95				139.49	142.43	2.94
29-Sep-20	136.60	139.03	2.42	135.75	138.17	2.42	140.71	144.21	3.49	141.15	143.13	1.98	139.57	142.50	2.94				139.46	142.39	2.93
30-Sep-20	136.60	139.49	2.89	135.74	138.55	2.81	140.69	144.20	3.51	141.38	143.10	1.72	139.54	142.51	2.97				139.45	142.54	3.09
01-Oct-20	136.58	139.34	2.76	135.72	138.51	2.79	140.66	144.25	3.59	141.11	143.11	2.00	139.51	142.54	3.03				139.42	142.48	3.06
02-Oct-20	136.56	139.25	2.69	135.66	138.41	2.75	140.63	144.27	3.64	141.00	143.09	2.09	139.48	142.48	3.00				139.40	142.43	3.03
03-Oct-20	136.53	139.17	2.64	135.63	138.33	2.70	140.61	144.24	3.63	140.77	143.06	2.29	139.45	142.44	2.99				139.37	142.39	3.02
04-Oct-20	136.51	139.11	2.61	135.60	138.27	2.68	140.58	144.19	3.62	140.66	143.03	2.38	139.42	142.40	2.98				139.35	142.36	3.01
05-Oct-20	136.49	139.07	2.58	135.57	138.23	2.67	140.55	144.16	3.60	140.77	143.00	2.23	139.39	142.36	2.96				139.33	142.33	3.01
06-Oct-20	136.45	139.04	2.58	135.47	138.20	2.73	140.53	144.12	3.59	140.81	142.96	2.15	139.37	142.32	2.95				139.31	142.30	3.00

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
07-Oct-20	136.42	139.01	2.59	135.44	138.18	2.74	140.51	144.09	3.59	141.18	142.93	1.74	139.34	142.28	2.94				139.29	142.28	2.99
08-Oct-20	136.39	138.97	2.58	135.40	138.13	2.73	140.47	144.05	3.57	141.00	142.88	1.89	139.31	142.23	2.92				139.26	142.24	2.99
09-Oct-20	136.35	138.93	2.58	135.34	138.10	2.76	140.44	144.00	3.55	140.71	142.84	2.13	139.27	142.19	2.91				139.23	142.20	2.97
10-Oct-20	136.33	138.91	2.58	135.31	138.08	2.77	140.42	143.95	3.53	140.90	142.80	1.90	139.25	142.15	2.90				139.21	142.17	2.96
11-Oct-20	136.29	138.88	2.59	135.25	138.05	2.80	140.39	143.91	3.52	140.79	142.75	1.96	139.21	142.10	2.89				139.18	142.13	2.95
12-Oct-20	136.26	138.90	2.63	135.22	138.05	2.84	140.36	143.87	3.51	140.60	142.71	2.11	139.18	142.06	2.88				139.15	142.11	2.95
13-Oct-20	136.24	139.04	2.79	135.19	138.15	2.97	140.33	143.84	3.51	140.87	142.67	1.80	139.15	142.02	2.87				139.13	142.12	2.98
14-Oct-20	136.22	139.02	2.79	135.16	138.17	3.01	140.31	143.84	3.53	140.90	142.64	1.74	139.12	142.00	2.88				139.11	142.10	2.99
15-Oct-20	136.20	138.94	2.74	135.12	138.10	2.98	140.28	143.84	3.56	140.86	142.62	1.76	139.09	141.97	2.88				139.09	142.07	2.98
16-Oct-20	136.17	139.00	2.83	135.08	138.14	3.06	140.25	143.81	3.55	140.76	142.59	1.84	139.06	141.94	2.88				139.06	142.05	2.99
17-Oct-20	136.16	139.19	3.04	135.05	138.33	3.28	140.23	143.82	3.60	140.53	142.58	2.05	139.03	141.96	2.93				139.04	142.14	3.09
18-Oct-20	136.14	139.07	2.93	135.01	138.23	3.23	140.20	143.87	3.67	140.30	142.58	2.28	139.01	141.93	2.92				139.02	142.08	3.06
19-Oct-20	136.11	138.99	2.88	134.97	138.16	3.18	140.18	143.86	3.68	140.40	142.57	2.16	138.99	141.91	2.92				139.00	142.05	3.04
20-Oct-20	136.09	138.93	2.84	134.94	138.11	3.16	140.16	143.82	3.66	140.51	142.55	2.04	138.96	141.88	2.92				138.99	142.02	3.04
21-Oct-20	136.07	138.89	2.82	134.90	138.07	3.17	140.14	143.79	3.65	140.48	142.52	2.04	138.94	141.86	2.92				138.96	142.00	3.04
22-Oct-20	136.05	138.86	2.81	134.87	138.04	3.17	140.12	143.77	3.65	140.49	142.50	2.01	138.91	141.83	2.92				138.94	141.99	3.04
23-Oct-20	136.03	138.83	2.81	134.84	138.02	3.18	140.10	143.74	3.65	140.55	142.47	1.93	138.89	141.80	2.91				138.92	141.97	3.04
24-Oct-20	136.01	138.80	2.80	134.81	137.99	3.18	140.07	143.70	3.63	140.77	142.44	1.67	138.86	141.77	2.91				138.90	141.94	3.04
25-Oct-20	135.98	138.77	2.79	134.76	137.95	3.19	140.04	143.66	3.63	140.48	142.41	1.93	138.83	141.73	2.90				138.87	141.90	3.03
26-Oct-20	135.96	138.78	2.81	134.74	137.96	3.22	140.02	143.63	3.61	140.47	142.38	1.90	138.80	141.70	2.90				138.85	141.88	3.03
27-Oct-20	135.95	138.75	2.81	134.71	137.94	3.23	139.99	143.59	3.60	140.54	142.35	1.81	138.78	141.67	2.89				138.83	141.86	3.03
28-Oct-20	135.93	138.81	2.87	134.69	137.97	3.28	139.97	143.56	3.59	140.62	142.31	1.69	138.76	141.64	2.89				138.81	141.85	3.03
29-Oct-20	135.93	139.16	3.23	134.71	138.20	3.49	139.95	143.55	3.60	140.85	142.29	1.44	138.74	141.62	2.89				138.80	141.89	3.09
30-Oct-20	136.04	140.05	4.02	135.22	138.90	3.68	139.94	143.67	3.73	140.79	142.39	1.60	138.71	141.78	3.07				138.81	142.36	3.55
31-Oct-20	136.18	139.67	3.48	135.48	138.74	3.26	139.96	143.87	3.91	140.16	142.51	2.35	138.74	141.91	3.17				138.86	142.38	3.53
01-Nov-20	136.20	139.45	3.25	135.48	138.59	3.11	139.98	144.01	4.02	140.54	142.60	2.06	138.77	141.97	3.20				138.88	142.32	3.44
02-Nov-20	136.15	139.44	3.28	135.41	138.55	3.14	139.99	144.09	4.10	140.87	142.66	1.78	138.77	141.99	3.22				138.88	142.34	3.46
03-Nov-20	136.12	139.32	3.20	135.30	138.45	3.14	139.99	144.14	4.15	140.69	142.69	2.01	138.78	142.00	3.22				138.88	142.33	3.46
04-Nov-20	136.07	139.23	3.16	135.20	138.36	3.16	139.99	144.17	4.18	140.14	142.72	2.57	138.78	141.99	3.22				138.86	142.32	3.46
05-Nov-20	136.03	139.19	3.16	135.11	138.31	3.20	139.98	144.20	4.21	140.15	142.73	2.59	138.77	141.99	3.22				138.85	142.32	3.47
06-Nov-20	136.00	139.15	3.15	135.03	138.28	3.24	139.98	144.21	4.23	140.28	142.74	2.46	138.76	141.99	3.23				138.84	142.32	3.48
07-Nov-20	135.98	139.11	3.13	134.96	138.24	3.28	139.97	144.21	4.24	140.30	142.75	2.45	138.75	141.99	3.24				138.83	142.31	3.48
08-Nov-20	135.96	139.07	3.11	134.87	138.20	3.32	139.95	144.19	4.24	140.18	142.74	2.56	138.74	141.98	3.25				138.81	142.29	3.47
09-Nov-20	135.94	139.04	3.09	134.81	138.17	3.36	139.94	144.16	4.22	140.18	142.73	2.54	138.72	141.97	3.24				138.80	142.26	3.46
10-Nov-20	135.92	139.01	3.09	134.78	138.14	3.36	139.94	144.13	4.19	140.33	142.73	2.40	138.69	141.92	3.23				138.77	142.23	3.46
11-Nov-20	135.91	139.01	3.10	134.78	138.14	3.36	139.93	144.09	4.16	140.50	142.73	2.23	138.66	141.86	3.20				138.75	142.20	3.46
12-Nov-20	135.93	139.47	3.54	134.91	138.45	3.54	139.93	144.11	4.18	140.53	142.73	2.20	138.65	141.89	3.24				138.74	142.34	3.60
13-Nov-20	135.96	139.32	3.35	135.00	138.40	3.41	139.92	144.18	4.26	140.46	142.77	2.31	138.65	141.92	3.27				138.74	142.32	3.58
14-Nov-20	135.97	139.27	3.30	135.00	138.38	3.38	139.92	144.23	4.31	140.37	142.79	2.43	138.65	141.94	3.29				138.74	142.32	3.58
15-Nov-20	135.98	139.19	3.21	135.01	138.31	3.30	139.92	144.26	4.34	140.37	142.81	2.44	138.65	141.95	3.30				138.74	142.31	3.57
16-Nov-20	136.00	139.46	3.46	135.08	138.47	3.39	139.93	144.29	4.36	140.63	142.82	2.19	138.66	141.96	3.31				138.75	142.37	3.62
17-Nov-20	136.02	139.30	3.28	135.11	138.40	3.29	139.93	144.31	4.38	140.50	142.84	2.34	138.67	141.98	3.31				138.75	142.37	3.62
18-Nov-20	136.00	139.19	3.19	135.07	138.31	3.24	139.93	144.31	4.38	140.04	142.85	2.81	138.67	141.97	3.31				138.74	142.34	3.59
19-Nov-20	135.99	139.14	3.15	135.04	138.26	3.22	139.93	144.33	4.40	139.85	142.86	3.01	138.67	141.97	3.30				138.74	142.33	3.58
20-Nov-20	135.97	139.11	3.14	135.00	138.23	3.23	139.94	144.33	4.39	140.08	142.87	2.80	138.68	141.98	3.30				138.75	142.33	3.58
21-Nov-20	135.96	139.07	3.11	134.95	138.19	3.25	139.94	144.32	4.38	140.08	142.86	2.79	138.68	141.97	3.29				138.74	142.31	3.57
22-Nov-20	135.95	139.03	3.09	134.90	138.16	3.26	139.93	144.28	4.35	139.92	142.84	2.93	138.66	141.95	3.28				138.74	142.28	3.54
23-Nov-20	135.95	139.12	3.17	134.90	138.21	3.32	139.92	144.25	4.33	140.40	142.83	2.42	138.66	141.94	3.28				138.75	142.29	3.54
24-Nov-20	135.93	139.08	3.15	134.85	138.19	3.34	139.91	144.24	4.33	140.10	142.81	2.71	138.65	141.93	3.28	136.36	140.33	3.97	138.77	142.26	3.49
25-Nov-20	135.93	139.04	3.11	134.83	138.16	3.33	139.91	144.24	4.33	140.01	142.81	2.79	138.64	141.92	3.27	136.47	140.32	3.85	138.77	142.24	3.47
26-Nov-20	135.93	139.17	3.24	134.84	138.24	3.39	139.91	144.24	4.32	140.34	142.80	2.46	138.65	141.86	3.21	136.48	140.32	3.85	138.77	142.26	3.50
27-Nov-20	135.95	139.23	3.28	134.95	138.31	3.36	139.91	144.25	4.34	140.33	142.81	2.48	138.64	141.93	3.29	136.47	140.35	3.89	138.77	142.30	3.53
28-Nov-20	135.96	139.15	3.18	134.98	138.26	3.28	139.91	144.27	4.36	140.37	142.82	2.44	138.64	141.93	3.29	136.48	140.34	3.86	138.77	142.28	3.51
29-Nov-20	135.96	139.09	3.13	134.97	138.21	3.24	139.90	144.26	4.36	140.22	142.81	2.59	138.64	141.92	3.28	136.46	140.32	3.86	138.76	142.26	3.50
30-Nov-20	135.97	139.45	3.48	135.04	138.42	3.38	139.92	144.26	4.35	140.56	142.81	2.25	138.65	141.91	3.26	136.51	140.38	3.86	138.77	142.35	3.58
01-Dec-20	136.06	139.95	3.89	135.52	138.86	3.34	139.95	144.37	4.42	141.04	142.88	1.83	138.68	142.04	3.36	136.52	140.65	4.13	138.83	142.84	4.02

Table 3-1 - Hydraulic Head at Waterloo Barrier® Piezometer Pairs: 2020

	Piezometer Pairs																				
	J04			J05			J06			J07			J08			J09			J10		
	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head	Potentiometric Elevation (ft. AMSL)		Inward Hydraulic Head
Date	J04-PZ-IN	J04-PZ-OUT	Difference (ft)	J05-PZ-IN	J05-PZ-OUT	Difference (ft)	J06-PZ-IN	J06-UC01	Difference (ft)	J07-PZ-IN	J07-PZ-OUT	Difference (ft)	J08-PZ-IN	J08-UC01	Difference (ft)	J09-PZ-IN	J09-PZ-OUT	Difference (ft)	J10-PZ-IN	J10-PZ-OUT	Difference (ft)
02-Dec-20	136.13	139.56	3.43	135.60	138.65	3.06	140.00	144.47	4.47	140.46	142.95	2.49	138.72	142.12	3.39	136.44	140.68	4.24	138.88	142.65	3.78
03-Dec-20	136.14	139.44	3.30	135.57	138.54	2.97	140.04	144.54	4.49	140.14	143.01	2.88	138.76	142.16	3.39	136.57	140.68	4.11	138.91	142.63	3.72
04-Dec-20	136.13	139.40	3.27	135.53	138.49	2.96	140.08	144.59	4.51	140.26	143.07	2.81	138.80	142.19	3.39	136.71	140.67	3.96	138.94	142.64	3.70
05-Dec-20	136.13	139.66	3.53	135.52	138.62	3.10	140.11	144.64	4.52	140.53	143.11	2.57	138.83	142.22	3.39	136.74	140.69	3.95	138.96	142.71	3.75
06-Dec-20	136.16	139.70	3.54	135.62	138.70	3.09	140.14	144.68	4.54	140.51	143.15	2.64	138.85	142.25	3.40	136.73	140.73	4.00	138.98	142.81	3.82
07-Dec-20	136.18	139.53	3.35	135.59	138.60	3.01	140.16	144.73	4.57	140.49	143.19	2.70	138.87	142.29	3.42	136.77	140.74	3.97	139.00	142.77	3.77
08-Dec-20	136.18	139.46	3.28	135.56	138.53	2.97	140.18	144.77	4.59	140.50	143.23	2.73	138.89	142.32	3.43	136.78	140.75	3.97	139.02	142.76	3.74
09-Dec-20	136.18	139.42	3.24	135.54	138.48	2.95	140.20	144.80	4.60	140.45	143.26	2.81	138.91	142.34	3.43	136.82	140.75	3.93	139.04	142.75	3.71
10-Dec-20	136.16	139.38	3.21	135.48	138.45	2.97	140.22	144.82	4.60	140.25	143.29	3.04	138.93	142.37	3.43	136.72	140.74	4.02	139.05	142.74	3.69
11-Dec-20	136.15	139.35	3.20	135.45	138.42	2.98	140.24	144.83	4.60	140.02	143.32	3.29	138.95	142.39	3.44	136.81	140.74	3.93	139.06	142.74	3.68
12-Dec-20	136.15	139.34	3.19	135.43	138.41	2.98	140.25	144.85	4.60	140.10	143.34	3.24	138.97	142.41	3.44	136.85	140.75	3.90	139.07	142.74	3.67
13-Dec-20	136.15	139.32	3.18	135.41	138.40	2.99	140.27	144.87	4.60	140.27	143.36	3.09	138.98	142.43	3.45	136.86	140.75	3.90	139.08	142.74	3.66
14-Dec-20	136.14	139.33	3.18	135.38	138.39	3.01	140.27	144.87	4.60	140.22	143.37	3.15	138.99	142.44	3.45	136.86	140.76	3.89	139.09	142.73	3.65
15-Dec-20	136.14	139.33	3.19	135.35	138.39	3.04	140.28	144.87	4.59	139.96	143.38	3.42	138.99	142.45	3.46	136.73	140.76	4.03	139.08	142.72	3.64
16-Dec-20	136.14	139.29	3.15	135.34	138.36	3.01	140.28	144.87	4.59	139.72	143.39	3.67	139.00	142.46	3.46	136.84	140.76	3.92	139.09	142.70	3.62
17-Dec-20	136.15	139.29	3.14	135.37	138.36	2.99	140.29	144.88	4.60	140.15	143.41	3.25	139.01	142.47	3.46	136.91	140.77	3.86	139.09	142.71	3.62
18-Dec-20	136.15	139.27	3.11	135.35	138.34	2.99	140.29	144.88	4.59	139.83	143.41	3.58	139.01	142.48	3.47	136.89	140.77	3.88	139.09	142.68	3.59
19-Dec-20	136.16	139.26	3.10	135.35	138.33	2.98	140.29	144.87	4.58	139.67	143.41	3.74	139.02	142.48	3.46	136.89	140.77	3.89	139.10	142.67	3.57
20-Dec-20	136.17	139.26	3.10	135.36	138.34	2.98	140.30	144.88	4.57	139.90	143.42	3.52	139.03	142.49	3.46	136.97	140.78	3.81	139.11	142.68	3.57
21-Dec-20	136.17	139.27	3.10	135.36	138.35	2.99	140.31	144.88	4.57	140.25	143.43	3.18	139.05	142.50	3.46	136.98	140.79	3.81	139.12	142.68	3.57
22-Dec-20	136.18	139.31	3.13	135.36	138.37	3.01	140.32	144.87	4.55	140.34	143.43	3.08	139.05	142.50	3.45	136.94	140.79	3.86	139.12	142.68	3.56
23-Dec-20	136.19	139.37	3.18	135.36	138.42	3.06	140.32	144.85	4.53	139.76	143.41	3.65	139.05	142.49	3.44	136.86	140.80	3.94	139.12	142.69	3.57
24-Dec-20	136.22	139.58	3.36	135.43	138.56	3.13	140.33	144.88	4.54	139.92	143.42	3.50	139.07	142.50	3.43	137.00	140.82	3.83	139.14	142.75	3.61
25-Dec-20	136.40	140.78	4.39	136.22	139.49	3.27	140.42	145.07	4.65	140.60	143.49	2.89	139.11	142.60	3.50	137.13	141.23	4.11	139.21	143.89	4.68
26-Dec-20	136.53	140.43	3.90	136.43	139.34	2.91	140.51	145.40	4.89	140.68	143.67	2.99	139.15	142.87	3.71	137.07	141.51	4.44	139.35	143.88	4.53
27-Dec-20	136.59	140.21	3.62	136.48	139.20	2.73	140.60	145.57	4.97	139.80	143.86	4.06	139.23	143.02	3.79	137.11	141.57	4.46	139.47	143.70	4.24
28-Dec-20	136.61	140.14	3.52	136.48	139.14	2.66	140.68	145.70	5.01	139.82	144.01	4.20	139.31	143.13	3.82	137.34	141.60	4.26	139.53	143.70	4.17
29-Dec-20	136.61	140.08	3.48	136.43	139.08	2.64	140.74	145.79	5.05	139.66	144.13	4.47	139.36	143.21	3.85	137.23	141.61	4.38	139.57	143.70	4.13
30-Dec-20	136.61	140.06	3.45	136.44	139.04	2.61	140.78	145.86	5.09	139.53	144.23	4.70	139.41	143.28	3.87	137.41	141.63	4.22	139.60	143.72	4.12

Table 3-2 - Extraction Well Pump Run Time and Average Daily System Flows

Date	EW Pump Daily Run Time (%)	Average System Daily Flows (gpm)[1]
01-Jan-20	100.00	18.7
02-Jan-20	99.65	18.5
03-Jan-20	100.00	18.7
04-Jan-20	100.00	20.0
05-Jan-20	100.00	19.1
06-Jan-20	100.00	19.4
07-Jan-20	100.00	19.2
08-Jan-20	100.00	19.8
09-Jan-20	100.00	19.4
10-Jan-20	100.00	19.7
11-Jan-20	95.14	18.7
12-Jan-20	100.00	19.7
13-Jan-20	100.00	19.7
14-Jan-20	99.65	19.7
15-Jan-20	90.97	17.0
16-Jan-20	100.00	17.7
17-Jan-20	100.00	17.6
18-Jan-20	100.00	18.1
19-Jan-20	100.00	18.1
20-Jan-20	100.00	18.4
21-Jan-20	100.00	18.2
22-Jan-20	100.00	18.6
23-Jan-20	100.00	19.0
24-Jan-20	100.00	18.5
25-Jan-20	100.00	18.9
26-Jan-20	100.00	18.9
27-Jan-20	100.00	18.9
28-Jan-20	100.00	18.9
29-Jan-20	100.00	18.9
30-Jan-20	100.00	18.9
31-Jan-20	100.00	19.1
01-Feb-20	100.00	19.1
02-Feb-20	100.00	19.1
03-Feb-20	100.00	19.1
04-Feb-20	100.00	19.1
05-Feb-20	100.00	19.1
06-Feb-20	100.00	19.1
07-Feb-20	100.00	19.1
08-Feb-20	100.00	19.1
09-Feb-20	100.00	19.1
10-Feb-20	100.00	19.2
11-Feb-20	98.61	19.1
12-Feb-20	100.00	19.2
13-Feb-20	100.00	19.2
14-Feb-20	100.00	19.2
15-Feb-20	100.00	19.2
16-Feb-20	95.49	18.9
17-Feb-20	100.00	20.0
18-Feb-20	100.00	19.3
19-Feb-20	100.00	19.5
20-Feb-20	100.00	19.5
21-Feb-20	100.00	19.5
22-Feb-20	100.00	19.5
23-Feb-20	100.00	19.5
24-Feb-20	100.00	19.5
25-Feb-20	100.00	19.0
26-Feb-20	100.00	19.5
27-Feb-20	100.00	19.5
28-Feb-20	100.00	19.1
01-Mar-20	100.00	19.5
02-Mar-20	100.00	19.5
03-Mar-20	100.00	19.5
04-Mar-20	98.96	19.5
05-Mar-20	99.65	19.5
06-Mar-20	100.00	19.5
07-Mar-20	100.00	19.9
08-Mar-20	100.00	19.9
09-Mar-20	100.00	19.9
10-Mar-20	99.65	19.9
11-Mar-20	100.00	20.2
12-Mar-20	100.00	20.2
13-Mar-20	100.00	20.2
14-Mar-20	100.00	20.2
15-Mar-20	100.00	19.7
16-Mar-20	100.00	20.2
17-Mar-20	100.00	19.7
18-Mar-20	100.00	19.7
19-Mar-20	99.65	20.2
20-Mar-20	100.00	20.2
21-Mar-20	100.00	19.7
22-Mar-20	100.00	20.2
23-Mar-20	100.00	20.2
24-Mar-20	100.00	20.2
25-Mar-20	100.00	20.2
26-Mar-20	100.00	20.2
27-Mar-20	100.00	20.2
28-Mar-20	100.00	20.2
29-Mar-20	100.00	20.2
30-Mar-20	100.00	20.3
31-Mar-20	100.00	20.4
01-Apr-20	100.00	20.4
02-Apr-20	95.14	19.9
03-Apr-20	100.00	20.9
04-Apr-20	99.31	20.1
05-Apr-20	100.00	20.4
06-Apr-20	100.00	20.2
07-Apr-20	100.00	19.9
08-Apr-20	100.00	19.9
09-Apr-20	100.00	20.2
10-Apr-20	99.31	20.8
11-Apr-20	100.00	20.4
12-Apr-20	100.00	19.9
13-Apr-20	93.06	18.4
14-Apr-20	27.08	5.5
15-Apr-20	100.00	20.9
16-Apr-20	100.00	20.9
17-Apr-20	100.00	20.9
18-Apr-20	100.00	20.4
19-Apr-20	100.00	20.9
20-Apr-20	100.00	20.1
21-Apr-20	100.00	20.4
22-Apr-20	100.00	20.4
23-Apr-20	100.00	20.4
24-Apr-20	100.00	20.6
25-Apr-20	100.00	20.9
26-Apr-20	100.00	20.9
27-Apr-20	100.00	20.8
28-Apr-20	100.00	20.7
29-Apr-20	100.00	20.7
30-Apr-20	100.00	20.9
01-May-20	100.00	20.9
02-May-20	100.00	20.9
03-May-20	100.00	20.9
04-May-20	100.00	21.1
05-May-20	100.00	21.4
06-May-20	100.00	21.4
07-May-20	100.00	21.4
08-May-20	99.31	20.6
09-May-20	100.00	20.9
10-May-20	100.00	20.9
11-May-20	100.00	20.9
12-May-20	100.00	20.4
13-May-20	88.89	18.6
14-May-20	56.94	11.5
15-May-20	100.00	20.9
16-May-20	100.00	20.9
17-May-20	100.00	20.9
18-May-20	100.00	20.7
19-May-20	100.00	20.1
20-May-20	100.00	20.6
21-May-20	100.00	20.6
22-May-20	100.00	20.6
23-May-20	100.00	20.6
24-May-20	100.00	20.6
25-May-20	100.00	20.6
26-May-20	100.00	20.6
27-May-20	100.00	20.6
28-May-20	100.00	18.5
29-May-20	100.00	18.8
30-May-20	100.00	18.4
31-May-20	100.00	17.9
01-Jun-20	100.00	18.0
02-Jun-20	100.00	17.9
03-Jun-20	100.00	18.0
04-Jun-20	97.92	17.2
05-Jun-20	100.00	18.1
06-Jun-20	100.00	17.4
07-Jun-20	93.75	17.2
08-Jun-20	100.00	18.2
09-Jun-20	99.31	18.3
10-Jun-20	100.00	17.3
11-Jun-20	98.26	17.4
12-Jun-20	70.83	14.9
13-Jun-20	100.00	19.9
14-Jun-20	100.00	19.9
15-Jun-20	100.00	19.2
16-Jun-20	100.00	19.3
17-Jun-20	100.00	19.0
18-Jun-20	100.00	18.9
19-Jun-20	100.00	18.4
20-Jun-20	100.00	18.8
21-Jun-20	100.00	18.7
22-Jun-20	100.00	18.5
23-Jun-20	100.00	18.1
24-Jun-20	100.00	18.3
25-Jun-20	100.00	18.3
26-Jun-20	100.00	18.6
27-Jun-20	100.00	18.7
28-Jun-20	100.00	18.8
29-Jun-20	100.00	18.8
30-Jun-20	100.00	18.4

Notes:
[1]Average Daily Flow Rate is calculated from the FIT-200 totalizer readings

Table 3-2 - Extraction Well Pump Run Time and Average Daily System Flows

Date	EW Pump Daily Run Time (%)	Average System Daily Flows (gpm)[1]
7/1/2020	100.00	18.7
7/2/2020	100.00	17.9
7/3/2020	100.00	18.3
7/4/2020	100.00	17.9
7/5/2020	100.00	17.9
7/6/2020	100.00	17.7
7/7/2020	99.65	17.4
7/8/2020	100.00	17.5
7/9/2020	99.31	17.8
7/10/2020	100.00	18.1
7/11/2020	100.00	18.6
7/12/2020	100.00	18.9
7/13/2020	100.00	18.9
7/14/2020	100.00	18.9
7/15/2020	100.00	18.6
7/16/2020	100.00	18.4
7/17/2020	100.00	18.6
7/18/2020	100.00	18.7
7/19/2020	100.00	18.6
7/20/2020	100.00	18.7
7/21/2020	100.00	18.7
7/22/2020	100.00	18.7
7/23/2020	100.00	18.3
7/24/2020	100.00	18.6
7/25/2020	100.00	18.5
7/26/2020	100.00	18.5
7/27/2020	100.00	18.6
7/28/2020	100.00	18.7
7/29/2020	98.96	18.5
7/30/2020	100.00	18.4
7/31/2020	100.00	18.7
8/1/2020	100.00	18.9
8/2/2020	100.00	18.4
8/3/2020	99.31	18.7
8/4/2020	99.31	18.0
8/5/2020	100.00	18.7
8/6/2020	100.00	18.8
8/7/2020	100.00	18.8
8/8/2020	100.00	18.8
8/9/2020	100.00	18.8
8/10/2020	100.00	18.8
8/11/2020	100.00	18.9
8/12/2020	99.65	18.9
8/13/2020	100.00	18.9
8/14/2020	100.00	18.8
8/15/2020	100.00	18.7
8/16/2020	100.00	18.7
8/17/2020	99.65	18.7
8/18/2020	99.65	18.7
8/19/2020	100.00	18.7
8/20/2020	100.00	18.7
8/21/2020	100.00	18.8
8/22/2020	100.00	18.9
8/23/2020	100.00	18.9
8/24/2020	100.00	18.9
8/25/2020	100.00	18.9
8/26/2020	100.00	18.9
8/27/2020	99.65	18.6
8/28/2020	100.00	18.0
8/29/2020	99.65	18.5
8/30/2020	99.65	17.8
8/31/2020	100.00	18.1

Date	EW Pump Daily Run Time (%)	Average System Daily Flows (gpm)[1]
01-Sep-20	98.61	17.9
02-Sep-20	100.00	17.9
03-Sep-20	100.00	17.9
04-Sep-20	100.00	17.7
05-Sep-20	100.00	17.5
06-Sep-20	100.00	17.5
07-Sep-20	100.00	17.5
08-Sep-20	100.00	17.5
09-Sep-20	100.00	17.5
10-Sep-20	100.00	17.5
11-Sep-20	99.65	17.5
12-Sep-20	100.00	17.0
13-Sep-20	100.00	16.6
14-Sep-20	100.00	16.6
15-Sep-20	99.31	16.3
16-Sep-20	100.00	16.9
17-Sep-20	100.00	16.8
18-Sep-20	100.00	16.7
19-Sep-20	100.00	12.6
20-Sep-20	100.00	12.2
21-Sep-20	100.00	11.8
22-Sep-20	100.00	12.1
23-Sep-20	100.00	13.4
24-Sep-20	100.00	16.9
25-Sep-20	100.00	15.7
26-Sep-20	100.00	15.6
27-Sep-20	100.00	15.6
28-Sep-20	100.00	15.2
29-Sep-20	100.00	15.4
30-Sep-20	100.00	15.5
01-Oct-20	99.31	15.5
02-Oct-20	100.00	15.5
03-Oct-20	100.00	15.5
04-Oct-20	100.00	15.5
05-Oct-20	95.83	15.0
06-Oct-20	100.00	15.9
07-Oct-20	100.00	16.2
08-Oct-20	99.65	16.3
09-Oct-20	99.65	15.8
10-Oct-20	100.00	16.1
11-Oct-20	100.00	15.7
12-Oct-20	100.00	15.9
13-Oct-20	100.00	15.7
14-Oct-20	100.00	15.3
15-Oct-20	100.00	15.7
16-Oct-20	100.00	15.8
17-Oct-20	99.65	15.9
18-Oct-20	100.00	15.9
19-Oct-20	100.00	16.1
20-Oct-20	100.00	16.1
21-Oct-20	100.00	16.1
22-Oct-20	100.00	16.1
23-Oct-20	100.00	16.1
24-Oct-20	100.00	15.7
25-Oct-20	100.00	16.1
26-Oct-20	100.00	15.6
27-Oct-20	100.00	15.9
28-Oct-20	100.00	15.9
29-Oct-20	100.00	15.9
30-Oct-20	100.00	15.9
31-Oct-20	100.00	15.9

Date	EW Pump Daily Run Time (%)	Average System Daily Flows (gpm)[1]
01-Nov-20	100.00	15.9
02-Nov-20	100.00	16.1
03-Nov-20	100.00	16.3
04-Nov-20	100.00	16.4
05-Nov-20	100.00	16.5
06-Nov-20	100.00	16.5
07-Nov-20	100.00	16.5
08-Nov-20	100.00	16.1
09-Nov-20	100.00	16.5
10-Nov-20	100.00	16.5
11-Nov-20	100.00	16.0
12-Nov-20	100.00	16.3
13-Nov-20	100.00	16.3
14-Nov-20	100.00	16.3
15-Nov-20	97.92	16.0
16-Nov-20	100.00	16.3
17-Nov-20	99.65	16.3
18-Nov-20	100.00	16.3
19-Nov-20	100.00	16.4
20-Nov-20	100.00	16.4
21-Nov-20	100.00	16.4
22-Nov-20	100.00	16.4
23-Nov-20	100.00	16.1
24-Nov-20	100.00	16.4
25-Nov-20	100.00	16.4
26-Nov-20	100.00	15.9
27-Nov-20	100.00	15.8
28-Nov-20	100.00	16.2
29-Nov-20	100.00	15.7
30-Nov-20	100.00	15.6
01-Dec-20	100.00	15.9
02-Dec-20	100.00	15.9
03-Dec-20	99.65	16.1
04-Dec-20	100.00	16.3
05-Dec-20	100.00	16.1
06-Dec-20	99.65	16.1
07-Dec-20	100.00	16.2
08-Dec-20	100.00	16.3
09-Dec-20	100.00	15.8
10-Dec-20	100.00	16.3
11-Dec-20	99.65	16.4
12-Dec-20	100.00	16.5
13-Dec-20	100.00	16.5
14-Dec-20	100.00	16.5
15-Dec-20	100.00	16.0
16-Dec-20	100.00	16.0
17-Dec-20	100.00	15.9
18-Dec-20	100.00	15.4
19-Dec-20	100.00	15.9
20-Dec-20	100.00	15.4
21-Dec-20	100.00	15.8
22-Dec-20	99.65	15.6
23-Dec-20	100.00	15.3
24-Dec-20	100.00	15.7
25-Dec-20	85.76	13.8
26-Dec-20	99.65	16.4
27-Dec-20	100.00	16.4
28-Dec-20	100.00	16.4
29-Dec-20	100.00	16.4
30-Dec-20	100.00	16.4
31-Dec-20	100.00	16.4

Notes:
[1]Average Daily Flow Rate is calculated from the FIT-200 totalizer readings

Table 3-3 - Groundwater Extraction and Treatment System Upset Condition and Resolution Log

Date	Condition/Alarm	Response	Resolution
1/11/20	High level warnings in EWs and transfer pump VFD fault	Operator visited the site and determined system was upset due to suspected power outage	Operator restarted the system and ensured the system was operating properly
4/14/20	Transfer pump VFD fault	Operator visited the site and determined system had shut down due to suspected power outage	Operator reset AC-401 and ensured the system was running
6/11/20	High water level warning in EW-3	VHB staff visited the site and found P-103 was not pumping	P-103 was replaced
9/23/20	High water level warning in EW-2	VHB staff visited the site and found P-102 was not pumping	Repaired and redeployed P-102
9/23/21	Minor leak in AC-400 condensate line was observed by the operator	Operator switched to running AC-401	Air compressor technician visited the site to repair leak
12/25/20	High water level in EW-1 and EW-2	VHB staff visited the site, found a leak in the P-101 water discharge line within the well vault.	VHB replaced pipe fitting on EW-1 discharge line and turned well pump back on

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-1: SP-101					
Sample Date:		1/14/2020	2/10/2020	3/4/2020	4/10/2020	5/8/2020	6/4/2020
Analysis	**Units**	Results[1,2,3,4]					
Chloroethane	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane	ug/l	13	10	9	9	8	8.9
1,1-Dichloroethene	ug/l	5	4	19	4	4	18
cis-1,2-Dichloroethene	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,4-Dioxane	ug/l	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene	ug/l	1	0.9 J	0.9 J	0.8 J	0.8 J	0.8 J
1,1,1-Trichloroethane	ug/l	680	360	400	310 E	250	270
Trichloroethene	ug/l	50	42	38	36	35	40
Vinyl chloride	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylene (Total)	ug/l	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

[4] 'E' = Concentration is estimated since it exceeds laboratory instrument calibration range

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-1: SP-101						
Sample Date:		7/7/2020	8/3/2020	9/1/2020	10/1/2020	11/9/2020	12/7/2020	1/7/2021
Analysis	**Units**	Results[1,2,3]						
Chloroethane	ug/l	ND < 0.7	ND < 4.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.4	ND < 0.2
1,1-Dichloroethane	ug/l	7.6	10	9.4	11	12	14	13
1,1-Dichloroethene	ug/l	2.4 J	4.2 J	4.5	5.1	9.9	5.3	5.8
cis-1,2-Dichloroethene	ug/l	ND < 0.5	ND < 1.9	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.4	ND < 0.2
1,4-Dioxane	ug/l	ND < 200	ND < 220	ND < 29	ND < 29	ND < 29	ND < 58	ND < 29
Tetrachloroethene	ug/l	0.82 J	ND < 1.6	0.88 J	0.96 J	1.2	1.1 J	1.2
1,1,1-Trichloroethane	ug/l	260	300	340	640	810	630	640
Trichloroethene	ug/l	34	37	42	52	61	62	57
Vinyl chloride	ug/l	ND < 1	ND < 2.5	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.4	ND < 0.2
Xylene (Total)	ug/l	ND < 1.5	ND < 2.1	ND < 1.4	ND < 1.4	ND < 1.4	ND < 2.8	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-2: SP-102					
Sample Date:		1/14/2020	2/10/2020	3/4/2020	4/10/2020	5/8/2020	6/4/2020
Analysis	**Units**	Results[1,2,3,4]					
Chloroethane	ug/l	ND < 0.2	ND < 0.4	ND < 0.2	ND < 0.4	ND < 0.2	ND < 0.2 H
1,1-Dichloroethane	ug/l	56	43	43	39	40	46 H
1,1-Dichloroethene	ug/l	21	18	84	16	18	21 H
cis-1,2-Dichloroethene	ug/l	3	2	2	2	2	2.7 H
1,4-Dioxane	ug/l	ND < 29	ND < 58	ND < 29	ND < 58	ND < 29	ND < 29 H
Tetrachloroethene	ug/l	4	4	5	4	5	4.2 H
1,1,1-Trichloroethane	ug/l	750	1200	1600	1200	1400	810
Trichloroethene	ug/l	320	280	330	260	290	160
Vinyl chloride	ug/l	ND < 0.2	ND < 0.4	ND < 0.2	ND < 0.4	ND < 0.2	ND < 0.2 H
Xylene (Total)	ug/l	ND < 1	ND < 3	ND < 1	ND < 3	ND < 1	ND < 1.4 H

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

[4] 'H' = Sample was prepped or analyzed beyond the specified holding time

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-2: SP-102						
Sample Date:		7/7/2020	8/3/2020	9/1/2020	10/1/2020	11/9/2020	12/7/2020	1/7/2021
Analysis	**Units**	Results[1,2,3]						
Chloroethane	ug/l	ND < 1.4	ND < 33	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane	ug/l	39	44	64	59	54	57	53
1,1-Dichloroethene	ug/l	14	19 J	24	22	31	22	20
cis-1,2-Dichloroethene	ug/l	3.0 J	ND < 15	3.7	4.1	4.4	4.7	4.3
1,4-Dioxane	ug/l	ND < 400	ND < 1700	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene	ug/l	4.0 J	ND < 13	3.8	4.1	5.2	4.3	4.2
1,1,1-Trichloroethane	ug/l	1400	1600	1600	920	620	540	590
Trichloroethene	ug/l	290	290	330	340	320	350	320
Vinyl chloride	ug/l	ND < 2	ND < 20	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylene (Total)	ug/l	ND < 3	ND < 17	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-3: SP-103					
Sample Date:		1/14/2020	2/10/2020	3/4/2020	4/10/2020	5/8/2020	6/4/2020
Analysis	**Units**	Results[1,2,3,4]					
Chloroethane	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	NS
1,1-Dichloroethane	ug/l	66	46	49	51	44	NS
1,1-Dichloroethene	ug/l	18	14	16	13	13	NS
cis-1,2-Dichloroethene	ug/l	2	2	3	3	4	NS
1,4-Dioxane	ug/l	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	NS
Tetrachloroethene	ug/l	3	2	3	3	3	NS
1,1,1-Trichloroethane	ug/l	12	20	70	70	95	NS
Trichloroethene	ug/l	420	290	260	300 E	280	NS
Vinyl chloride	ug/l	0.6 J	0.3 J	ND < 0.2	ND < 0.2	ND < 0.2	NS
Xylene (Total)	ug/l	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1	NS

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

[4] 'E' = Concentration is estimated since it exceeds laboratory instrument calibration range

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-3: SP-103						
Sample Date:		7/7/2020	8/3/2020	9/1/2020	10/1/2020	11/9/2020	12/7/2020	1/7/2021
Analysis	**Units**	Results[1,2,3]						
Chloroethane	ug/l	ND < 0.14	ND < 6.6	ND < 0.2	NS	NS	NS	ND < 0.2
1,1-Dichloroethane	ug/l	51	55	60	NS	NS	NS	67
1,1-Dichloroethene	ug/l	14	14	17	NS	NS	NS	17
cis-1,2-Dichloroethene	ug/l	3.8	3.4 J	2.2	NS	NS	NS	2.8
1,4-Dioxane	ug/l	ND < 40	ND < 350	ND < 29	NS	NS	NS	ND < 29
Tetrachloroethene	ug/l	2.5	ND < 2.6	2.4	NS	NS	NS	2.3
1,1,1-Trichloroethane	ug/l	120	110	36	NS	NS	NS	14
Trichloroethene	ug/l	300	290	340	NS	NS	NS	480
Vinyl chloride	ug/l	0.2 J	ND < 4	ND < 0.2	NS	NS	NS	0.52 J
Xylene (Total)	ug/l	ND < 0.3	ND < 3.4	ND < 1.4	NS	NS	NS	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-4: SP-104					
Sample Date:		1/14/2020	2/10/2020	3/4/2020	4/10/2020	5/8/2020	6/4/2020
Analysis	**Units**	Results[1,2,3]					
Chloroethane	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethene	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
cis-1,2-Dichloroethene	ug/l	1	1	0.9 J	0.8 J	0.9 J	ND < 0.2
1,4-Dioxane	ug/l	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene	ug/l	0.2 J	0.3 J	0.3 J	0.3 J	0.2 J	ND < 0.2
1,1,1-Trichloroethane	ug/l	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.3	0.74 J
Trichloroethene	ug/l	23	22	23	21	20	26
Vinyl chloride	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylene (Total)	ug/l	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

Table 3-4 - Groundwater Extraction Well Analytical Results

Sample Location:		EW-4: SP-104						
Sample Date:		7/7/2020	8/3/2020	9/1/2020	10/1/2020	11/9/2020	12/7/2020	1/7/2021
Analysis	**Units**	Results[1,2,3]						
Chloroethane	ug/l	ND < 0.07	ND < 0.83	ND < 0.2	NS	NS	NS	ND < 0.2
1,1-Dichloroethane	ug/l	ND < 0.07	ND < 0.41	ND < 0.2	NS	NS	NS	ND < 0.2
1,1-Dichloroethene	ug/l	ND < 0.06	ND < 0.46	ND < 0.2	NS	NS	NS	ND < 0.2
cis-1,2-Dichloroethene	ug/l	0.87	0.88 J	0.8 J	NS	NS	NS	1.1
1,4-Dioxane	ug/l	ND < 20	ND < 43	ND < 29	NS	NS	NS	ND < 29
Tetrachloroethene	ug/l	0.32 J	ND < 0.33	0.29 J	NS	NS	NS	0.22 J
1,1,1-Trichloroethane	ug/l	0.27 J	ND < 0.24	ND < 0.3	NS	NS	NS	ND < 0.3
Trichloroethene	ug/l	24	21	28	NS	NS	NS	23
Vinyl chloride	ug/l	ND < 0.1	ND < 0.5	ND < 0.2	NS	NS	NS	ND < 0.2
Xylene (Total)	ug/l	ND < 0.15	ND < 0.42	ND < 1.4	NS	NS	NS	ND < 1.4

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]'NS' = Location was not sampled because the groundwater level was below the actuation level of the well pump.

Table 3-5 - Groundwater Treatment System Influent and Effluent Analytical Results

		Sample Date:	1/14/2020	2/10/2020	3/4/2020	4/10/2020	5/8/2020	6/4/2020
Process Flow Rate at Time of Sampling (gpm):			19.8	19.3	19.6	21	21.5	18.5
	Sample Location:		**System Effluent—Sample Port SP-202**					
Analysis	**Discharge Limit Daily**	**Units**	**Results**[1,2,3]					
Chloroethane	5	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane	5	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethene	5	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
cis-1,2-Dichloroethene	5	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,4-Dioxane	Monitor	ug/l	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene	1	ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1,1-Trichloroethane	5	ug/l	0.4 J	0.7 J	ND < 0.3	ND < 0.3	0.4 J	ND < 0.3
Trichloroethene	40	ug/l	0.4 J	0.4 J	0.2 J	0.3 J	0.4 J	ND < 0.2
Xylene (Total)	65	ug/l	ND < 0.0080	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008
Vinyl chloride	0.3	ug/l	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1.4
Oil & Grease	15	mg/l	ND < 1.4	ND < 1.4	ND < 1.4	2.1 J	ND < 1.4	2.2 J
Total Suspended Solids	50	mg/l	ND < 1.00	1.64 J	ND < 1.00	ND < 1.00	ND < 1.00	ND < 1.5
pH[3]	6.5–8.5	S.U.	8.16	8.13	8.42	8.38	8.3	8.37
	Sample Location:		**System Influent—Sample Port SP-200**					
Chloroethane		ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.4
1,1-Dichloroethane		ug/l	29	28	25	25	23	20
1,1-Dichloroethene		ug/l	11	11	11	9	9	35
cis-1,2-Dichloroethene		ug/l	1	1	1	1	1	ND < 0.4
1,4-Dioxane		ug/l	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 58
Tetrachloroethene		ug/l	2	2	3	2	2	ND < 0.4
1,1,1-Trichloroethane		ug/l	590	630	570	470	580	740
Trichloroethene		ug/l	170	180	190	160	160	150
Xylene (Total)		ug/l	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.4
Vinyl chloride		ug/l	ND < 1	ND < 1	ND < 1	ND < 1	ND < 1	ND < 2.8
			Air Stripper Efficiency[4]					
VOCs			99.95%	99.94%	99.98%	99.97%	99.95%	100.00%

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]pH was measured on site, following standard method SM 4500 H+B using a YSI pH10A meter.

[4]Non-detects were assumed to be zero for the purposes of calculating overall efficiency.

Table 3-5 - Groundwater Treatment System Influent and Effluent Analytical Results

		Sample Date:	7/7/2020	8/3/2020	9/1/2020	10/1/2020	11/9/2020	12/7/2020	1/7/2021
Process Flow Rate at Time of Sampling (gpm):			18	18.8	18	15.6	16.6	16.4	16.8
	Sample Location:		**System Effluent—Sample Port SP-202**						
Analysis	**Discharge Limit Daily**	**Units**	**Results**[1,2,3]						
Chloroethane	5	ug/l	ND < 0.32	ND < 0.83	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane	5	ug/l	ND < 0.26	ND < 0.41	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethene	5	ug/l	ND < 0.26	ND < 0.46	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
cis-1,2-Dichloroethene	5	ug/l	ND < 0.22	ND < 0.38	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,4-Dioxane	Monitor	ug/l	ND < 28	ND < 43	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene	1	ug/l	ND < 0.25	ND < 0.33	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1,1-Trichloroethane	5	ug/l	0.37 J	0.3 J	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.3	ND < 0.3
Trichloroethene	40	ug/l	ND < 0.31	ND < 0.36	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Xylene (Total)	65	ug/l	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008	ND < 0.008
Vinyl chloride	0.3	ug/l	ND < 0.65	ND < 0.42	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4
Oil & Grease	15	mg/l	1.6 J	ND < 1.5	ND < 1.5	1.6 J	2.3 J	2.5 J	1.8 J
Total Suspended Solids	50	mg/l	ND < 1.5	ND < 1.5	ND < 1.5	ND < 2.2	ND < 1.0	ND < 1	ND < 1.0
pH[3]	6.5–8.5	S.U.	8.25	8.28	8.26	8.32	8.25	8.14	8.17
	Sample Location:		**System Influent—Sample Port SP-200**						
Chloroethane		ug/l	ND < 0.7	ND < 17	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
1,1-Dichloroethane		ug/l	23	24	27	26	26	28	27
1,1-Dichloroethene		ug/l	7.9	ND < 9.2	10	9.5	19	11	9.2
cis-1,2-Dichloroethene		ug/l	1.8 J	ND < 7.6	1.3	1.6	1.7	1.7	1.8
1,4-Dioxane		ug/l	ND < 200	ND < 870	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
Tetrachloroethene		ug/l	2.1 J	ND < 6.5	2.0	1.8	2.4	2.6	2.1
1,1,1-Trichloroethane		ug/l	640	680	800	600	620	540	470
Trichloroethene		ug/l	160	140	200	160	170	170	160
Xylene (Total)		ug/l	ND < 1	ND < 9.9	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2	ND < 0.2
Vinyl chloride		ug/l	ND < 1.5	ND < 8.5	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4	ND < 1.4
			Air Stripper Efficiency[4]						
VOCs			99.99%	99.99%	100.00%	100.00%	100.00%	100.00%	100.00%

Notes:

[1]Non-detects are expressed as "ND < ##", where '##' is the laboratory method detection limit (MDL).

[2]'J' = Detection is approximate and is above the MDL, but below the laboratory limit of quantitation (LOQ).

[3]pH was measured on site, following standard method SM 4500 H+B using a YSI pH10A meter.

[4]Non-detects were assumed to be zero for the purposes of calculating overall efficiency.

Table 3-6 - Estimated Mass of VOC Removed from Containment Cell

Period:	1/14/20 - 2/10/20	2/10/20 - 3/4/20	3/4/20 - 4/10/20	4/10/20 - 5/8/20	5/8/20 - 6/4/20	6/4/20 - 7/7/20	7/7/20 - 8/3/20	8/3/20 - 9/1/20	9/1/20 - 10/1/20	10/1/20 - 11/9/20	11/9/20 - 12/7/20	12/7/20 - 1/7/21	TOTAL
Volume Extracted (gallons)	728654	639667	1061924	812163	757423	870236	719467	779924	693856	896925	651181	717,666	**9,329,086**
Days of System Operation	27	23	37	28	27	33	27	29	30	39	28	31	**359**
Average Extraction Flowrate (gpm)	18.7	19.4	20.1	20.1	19.5	18.3	18.5	18.7	16.1	16.0	16.2	16.1	18.1
Analysis[2]	**Estimated Mass Removed (pounds)[1]**												
Chloroethane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1,1-Dichloroethane	0.17	0.14	0.22	0.16	0.14	0.16	0.14	0.17	0.15	0.19	0.15	0.16	1.96
1,1-Dichloroethene	0.07	0.06	0.09	0.06	0.14	0.16	0.02	0.03	0.06	0.11	0.08	0.06	0.93
cis-1,2-Dichloroethene	0.01	0.01	0.01	0.01	0.00	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.09
1,4-Dioxane	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Tetrachloroethene	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.14
1,1,1-Trichloroethane	3.71	3.20	4.61	3.56	4.17	5.01	3.96	4.82	4.05	4.57	3.15	3.02	47.84
Trichloroethene	1.06	0.99	1.55	1.08	0.98	1.13	0.90	1.11	1.04	1.24	0.92	0.99	12.99
Xylene (Total)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Vinyl chloride	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
												TOTAL MASS REMOVED (lbs)	**64**

[1]Estimated mass removed was calculated using the average of the combined influent parameter concentrations reported at the beginning and end of each period. Results that were reported as non-detectable by the laboratory were assumed to be zero for the mass removal calculations.

[2]Only compounds detected during the reporting period are shown.

Table 3-7 - Summary of Potentiometric Measurements: 2020

Structure Name	Groundsurface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	5/12/2020		11/10/2020	
			Depth Below Measuring Point (ft)	Potentiometric Elevation (ft. AMSL)	Depth Below Measuring Point (ft)	Potentiometric Elevation (ft. AMSL)
J01-BR01 [5]	147.60	147.26	3.02	144.24	5.20	142.06
J01-BR02	147.43	147.22	1.08	146.14	5.68	141.54
J01-UC01	146.99	146.63	2.18	144.45	5.89	140.74
J01-UC02	147.27	147.09	2.46	144.63	1.78	145.31
J02-BR01 [4]	157.51	157.23	9.31	147.92	13.77	143.46
J02-BR02 [4]	157.45	156.92	8.80	148.12	13.12	143.80
J02-UC01 [4]	157.38	157.11	8.92	148.19	13.50	143.61
J04-BR01	143.57	143.36	1.04	142.32	3.59	139.77
J04-BR02 [5]	143.50	143.19	0.17	143.02	2.54	140.65
J05-BR01	142.30	150.13 [3]	8.66	141.47	11.49	138.64
J05-BR02	142.51	150.46 [3]	8.19	142.27	11.54	138.92
J06-UC01	158.02	160.73 [2]	11.60	149.13	16.72	144.01
J06-UC02	158.02	157.69	9.78	147.91	14.69	143.00
J07-UC02	158.06	157.80	9.65	148.15	15.23	142.57
J08-UC01	158.10	160.77 [2]	13.05	147.72	18.89	141.88
J08-UC02	158.10	157.84	10.14	147.70	15.93	141.91
J11-BR01 [5]	143.50	143.17	2.93	140.24	5.54	137.63
J11-BR02 [5]	143.50	143.18	4.08	139.10	5.48	137.70
J11-UC01 [5]	143.30	142.86	3.46	139.40	5.60	137.26
J11-UC02 [5]	143.50	143.06	4.02	139.04	6.23	136.83
J12-BR01	136.70	140.02	2.57	137.45	3.96	136.06
J12-BR02	136.60	139.88	0.74	139.14	2.86	137.02
J13-BR01	136.70	137.91	-0.27	138.18	0.77	137.14
J13-BR02	136.40	137.93	-0.45	138.38	0.28	137.65
J13-UC02	136.50	138.38	1.10	137.28	2.19	136.19
J13-UC03	136.70	138.30	0.89	137.41	2.05	136.25
J14-BR01 [5]	141.80	141.48	3.28	138.20	4.52	136.96
J14-BR02 [5]	142.00	141.53	3.12	138.41	4.70	136.83
J14-UC01 [5]	141.70	141.21	2.91	138.30	4.37	136.84
J14-UC02 [5]	141.80	141.06	2.73	138.33	4.25	136.81
J15-UC01	135.60	137.55	1.32	136.23	2.22	135.33
J15-UC02	135.50	136.33	1.94	134.39	3.21	133.12
J16-UC01	133.90	135.09	1.55	133.54	2.37	132.72
J16-UC02	133.80	135.25	1.26	133.99	2.31	132.94
J17-UC01	136.20	135.88	3.81	132.07	4.20	131.68
J17-UC02	135.92	135.54	2.89	132.65	3.57	131.97
J17-BR01	136.10	135.48	2.57	132.91	3.32	132.16
J18-UC02	136.61	136.36	4.23	132.13	4.96	131.40
J18-UC03	136.55	136.19	4.00	132.19	4.76	131.43
J19-UC01	138.10	140.57	7.91	132.66	8.80	131.77
J19-UC02	138.10	140.36	7.85	132.51	8.80	131.56
J20-BR01	136.90	138.81	25.59	113.22	26.23	112.58
J20-BR02	136.90	138.88	18.29	120.59	19.08	119.80
J20-UC01	136.50	138.83	13.28	125.55	13.74	125.09
J20-UC02	136.30	138.66	13.12	125.54	13.61	125.05

Notes:
1) Artesian conditions are indicated by negative depth relative to the measuring point, as determined by installation of temporary riser extensions.
2) Well casings in J06-UC01 & J08-UC01 were raised and resurveyed in December 2015.
3) Well casings in J04-PZ-IN, J05-BR01, J05-BR02, J10-PZ-IN, MW-1D, and MW-1S were raised and resurveyed in Fall 2016.
4) The J02 well cluster was resurveyed in December 2016.
5) Wells J01-BR01, J04-BR02, MW-1S, MW-2, MW-2I, and well clusters J11 and J14 were resurveyed in September 2017.

Table 3-7 - Summary of Potentiometric Measurements: 2020

Structure Name	Groundsurface Elevation (ft AMSL)	Measuring Point Elevation (ft AMSL)	5/12/2020		11/10/2020	
			Depth Below Measuring Point (ft)	Potentiometric Elevation (ft. AMSL)	Depth Below Measuring Point (ft)	Potentiometric Elevation (ft. AMSL)
J21-UC01	141.90	145.09	16.33	128.76	16.72	128.37
J21-UC02	141.20	144.80	15.99	128.81	16.38	128.42
J22-BR01	139.40	142.04	8.30	133.74	9.55	132.49
J22-BR02	139.50	142.02	7.52	134.50	9.02	133.00
J23-UC01	142.84	142.73	2.81	139.92	4.42	138.31
J23-UC02	142.97	142.55	2.40	140.15	4.15	138.40
MW-1D	142.94	144.69 [3]	4.02	140.67	6.44	138.25
MW-1S [5]	145.60	145.25	5.50	139.75	7.21	138.04
MW-2 [5]	142.70	142.59	2.89	139.70	4.11	138.48
MW-2I [5]	142.70	142.49	2.00	140.49	3.91	138.58
RIZ-7	146.78	146.24	2.24	144.00	4.93	141.31
RIZ-19	158.00	157.57	9.28	148.29	14.80	142.77
RS-01	120.00	122.74	5.24	117.50	5.33	117.41
RS-02	134.00	133.36	3.58	129.78	3.25	130.11
RS-03	132.00	136.00	-	-	-	-
RS-04	134.00	137.68	4.59	133.09	4.66	133.02
RS-05	134.00	136.49	4.55	131.94	4.59	131.90
RS-06	136.00	138.90	4.90	134.00	Dry	-
RS-07	136.00	139.61	4.51	135.10	4.41	135.20
RS-08	145.00	146.20	-	-	-	-
RS-12A	115.30	118.78	Dry	-	3.79	114.99
J04-PZ-IN	-	150.84 [3]	12.72	138.12	15.02	135.82
J04-PZ-OUT	-	146.69	5.90	140.79	7.61	139.08
J05-PZ-IN	-	150.58	12.42	138.16	15.81	134.77
J05-PZ-OUT	-	145.18	5.13	140.05	7.14	138.04
J06-PZ-IN	-	160.92	18.50	142.42	21.90	139.02
J07-PZ-IN	-	161.02	18.84	142.18	22.27	138.75
J07-PZ-OUT	-	160.97	12.70	148.27	18.28	142.69
J08-PZ-IN	-	161.03	18.97	142.06	22.38	138.65
J09-PZ-IN	-	160.79	20.68	140.11	24.36	136.43
J09-PZ-OUT	-	160.87	15.56	145.31	20.58	140.29
J10-PZ-IN	-	158.56 [3]	16.80	141.76	19.86	138.70
J10-PZ-OUT	-	155.75	9.71	146.04	13.57	142.18

Notes:

1) Artesian conditions are indicated by negative depth relative to the measuring point, as determined by installation of temporary riser extensions.
2) Well casings in J06-UC01 & J08-UC01 were raised and resurveyed in December 2015.
3) Well casings in J04-PZ-IN, J05-BR01, J05-BR02, J10-PZ-IN, MW-1D, and MW-1S were raised and resurveyed in Fall 2016.
4) The J02 well cluster was resurveyed in December 2016.
5) Wells J01-BR01, J04-BR02, MW-1S, MW-2, MW-2I, and well clusters J11 and J14 were resurveyed in September 2017.

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J01-BR01	J01-BR01	J01-BR02	J01-BR02	J01-UC01	J01-UC01	J01-UC02	J01-UC02	J02-BR01	J02-BR01	J02-BR02	J02-BR02	J02-UC01
		Date	5/13/2020	11/10/2020	5/13/2020	11/10/2020	5/13/2020	11/11/2020	5/13/2020	11/11/2020	5/13/2020	11/18/2020	5/12/2020	11/18/2020	5/12/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	2	1.8	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,1-Dichloroethane	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	0.65 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,1-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	0.31 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	3	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	0.6	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	50	GA Guidance	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	1	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	60	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	7	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.7 J	1.8	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Ethylbenzene	5	POC	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	5	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	10	GA Guidance	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	9	8.8 J+	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Toluene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	1.1	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	3	3.9	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Vinyl Chloride	2	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	5	POC	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J02-UC01	J04-BR01	J04-BR01	J04-BR02	J04-BR02	J05-BR01	J05-BR01	J05-BR02	J05-BR02	J05-BR02	J05-BR02	J06-UC01	J06-UC01
		Date	11/18/2020	5/16/2020	11/11/2020	5/16/2020	11/11/2020	5/15/2020	11/11/2020	5/15/2020	5/15/2020	11/11/2020	11/11/2020	5/14/2020	11/18/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**									Duplicate		Duplicate		
1,1,1-Trichloroethane	5	POC	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	0.9 J	0.9 J	ND < 0.30	0.51 J	ND < 0.3	ND < 0.30
1,1-Dichloroethane	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	1	1.5	2	2	1.2	1.3	ND < 0.2	ND < 0.20
1,1-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	0.3 J	0.26 J	0.26 J	ND < 0.2	ND < 0.20
1,2-Dichlorobenzene	3	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	0.6	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	50	GA Guidance	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.7	ND < 0.70	ND < 0.70	ND < 0.7	ND < 0.70
Benzene	1	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	60	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	7	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
cis-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	0.2 J	2.2	1.9	ND < 0.2	ND < 0.20
Ethylbenzene	5	POC	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.4	ND < 0.40	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
Methylene Chloride	5	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	10	GA Guidance	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1	ND < 1.0	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	5	POC	0.2 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
Toluene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	0.4 J	9	9	5.4	5.9	0.5 J	0.64 J
Vinyl Chloride	2	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	0.73 J	0.65 J	ND < 0.2	ND < 0.20
Xylenes, Total	5	POC	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1	ND < 1.4	ND < 1.4	ND < 1	ND < 1.4

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J06-UC02	J06-UC02	J07-UC02	J07-UC02	J08-UC01	J08-UC01	J08-UC02	J08-UC02	J11-BR01	J11-BR01	J11-BR02	J11-BR02	J11-UC01
		Date	5/14/2020	11/16/2020	5/15/2020	11/14/2020	5/16/2020	11/14/2020	5/18/2020	11/12/2020	5/16/2020	11/17/2020	5/16/2020	11/17/2020	5/16/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,1-Dichloroethane	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,1-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	3	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	0.6	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	50	GA Guidance	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	1	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	60	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	7	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Ethylbenzene	5	POC	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	5	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	10	GA Guidance	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Toluene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	5	POC	ND < 0.2	ND < 0.20	1	1	0.7 J	0.95 J	1	1.5	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Vinyl Chloride	2	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	5	POC	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J11-UC01	J11-UC02	J11-UC02	J12-BR01	J12-BR01	J12-BR02	J12-BR02	J13-BR01	J13-BR01	J13-BR02	J13-BR02	J13-UC02	J13-UC02
		Date	11/17/2020	5/16/2020	11/17/2020	5/17/2020	11/12/2020	5/17/2020	11/12/2020	5/17/2020	11/12/2020	5/17/2020	11/12/2020	5/17/2020	11/12/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	1	1.2	ND < 0.3	ND < 0.30	11	8.8
1,1-Dichloroethane	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	3	3.3	ND < 0.2	ND < 0.20	1	0.84 J
1,1-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.9 J	1	ND < 0.2	ND < 0.20	1	1.1
1,2-Dichlorobenzene	3	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	0.6	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	50	GA Guidance	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70
Benzene	1	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	60	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	7	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
cis-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	1	1.4
Ethylbenzene	5	POC	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Methylene Chloride	5	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	10	GA Guidance	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	2	3
Toluene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	4	4.5	ND < 0.2	ND < 0.20	100	91
Vinyl Chloride	2	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Xylenes, Total	5	POC	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J13-UC03	J13-UC03	J14-BR01	J14-BR01	J14-BR02	J14-BR02	J14-UC01	J14-UC01	J14-UC02	J14-UC02	J15-UC01	J15-UC01	J15-UC02
		Date	5/17/2020	11/12/2020	5/19/2020	11/13/2020	5/19/2020	11/13/2020	5/19/2020	11/13/2020	5/19/2020	11/13/2020	5/12/2020	11/16/2020	5/12/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	4	5.9 J-	3	4.2	ND < 0.3	ND < 0.30	0.5 J	ND < 0.30	0.7 J	1.7	ND < 0.3	ND < 0.30	ND < 0.3
1,1-Dichloroethane	5	POC	2	3.2 J-	0.6 J	0.78 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,1-Dichloroethene	5	POC	0.4 J	0.63 J	ND < 0.2	0.2 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	3	GA Standard	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	0.6	GA Standard	ND < 0.3	ND < 0.30 J	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	-	ND < 29	ND < 29 J	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.3	ND < 0.30 J	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	50	GA Guidance	ND < 0.7	ND < 0.70 J	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	1	GA Standard	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	60	GA Standard	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	7	GA Standard	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Ethylbenzene	5	POC	ND < 0.4	ND < 0.40 J	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	5	POC	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	5	GA Standard	ND < 0.3	ND < 0.30 J	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	10	GA Guidance	ND < 1	ND < 1.0 J	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	5	POC	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Toluene	5	POC	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	5	POC	1	1.8 J-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Vinyl Chloride	2	GA Standard	ND < 0.2	ND < 0.20 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	5	POC	ND < 1	ND < 1.4 J	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J15-UC02	J16-UC01	J16-UC01	J16-UC02	J16-UC02	J17-BR01	J17-BR01	J17-UC01	J17-UC01	J17-UC02	J17-UC02	J18-UC02	J18-UC02
		Date	11/16/2020	5/15/2020	11/12/2020	5/15/2020	11/12/2020	5/18/2020	11/13/2020	5/12/2020	11/13/2020	5/15/2020	11/13/2020	5/18/2020	11/16/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	ND < 0.30	15	12	10	10	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	14	16
1,1-Dichloroethane	5	POC	ND < 0.20	0.5 J	ND < 0.20	0.7 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	0.35 J
1,1-Dichloroethene	5	POC	ND < 0.20	1	1	0.8 J	0.83 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	1 J	1
1,2-Dichlorobenzene	3	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	0.6	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	50	GA Guidance	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70
Benzene	1	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	60	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	7	GA Standard	ND < 0.20	0.6 J	0.71 J	0.4 J	0.36 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	1 J	1.1	0.5 J	0.63 J
cis-1,2-Dichloroethene	5	POC	ND < 0.20	0.5 J	0.46 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Ethylbenzene	5	POC	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Methylene Chloride	5	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	10	GA Guidance	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Toluene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	5	POC	ND < 0.20	33	37	36	41	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	31	36
Vinyl Chloride	2	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Xylenes, Total	5	POC	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J18-UC03	J18-UC03	J19-UC01	J19-UC01	J19-UC02	J19-UC02	J20-BR01	J20-BR01	J20-BR02	J20-BR02	J20-UC01	J20-UC01	J20-UC02
		Date	5/13/2020	11/16/2020	5/18/2020	11/16/2020	5/18/2020	11/16/2020	5/13/2020	11/14/2020	5/13/2020	11/14/2020	5/13/2020	11/14/2020	5/13/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	3	3.8	ND < 0.3	ND < 0.30	1	0.79 J	ND < 0.3	ND < 0.30	0.9 J	1.1	ND < 0.3	ND < 0.30	ND < 0.3
1,1-Dichloroethane	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	0.33 J	0.4 J	0.46 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.4 J	ND < 0.20	0.8 J
1,1-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	3	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	0.6	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	50	GA Guidance	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	1	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	60	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	7	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.5 J	0.51 J	0.6 J
Ethylbenzene	5	POC	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	5	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	10	GA Guidance	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Toluene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J
Trichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.7 J	1.1	0.3 J
Vinyl Chloride	2	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	5	POC	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	J20-UC02	J21-UC01	J21-UC01	J21-UC02	J21-UC02	J22-BR01	J22-BR01	J22-BR02	J22-BR02	J23-UC01	J23-UC01	J23-UC02	J23-UC02
		Date	11/14/2020	5/14/2020	11/12/2020	5/14/2020	11/12/2020	5/14/2020	11/15/2020	5/14/2020	11/15/2020	5/14/2020	11/15/2020	5/14/2020	11/15/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**													
1,1,1-Trichloroethane	5	POC	ND < 0.30	0.8 J	1.6	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	170	8.8	120	93
1,1-Dichloroethane	5	POC	0.84 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.7 J	ND < 0.20	ND < 0.2	ND < 0.20
1,1-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	13	1.3	8	6.3
1,2-Dichlorobenzene	3	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	0.6	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	50	GA Guidance	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70
Benzene	1	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	60	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	7	GA Standard	ND < 0.20	0.2 J	ND < 0.20	0.2 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
cis-1,2-Dichloroethene	5	POC	0.58 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	1	1.9	0.6 J	0.55 J
Ethylbenzene	5	POC	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.6 J	ND < 0.20	0.4 J	0.27 J
Methylene Chloride	5	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	10	GA Guidance	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	3	0.97 J	5	4.4
Toluene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	5	POC	0.32 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	5	POC	0.36 J	0.7 J	0.88 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	340	76	520	500
Vinyl Chloride	2	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Xylenes, Total	5	POC	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	MW-1D	MW-1D	MW-1S	MW-1S	MW-1S	MW-1S	MW-2	MW-2	MW-2	MW-2	MW-2I	MW-2I	RIZ-19
		Date	5/15/2020	11/13/2020	5/15/2020	5/15/2020	11/13/2020	11/13/2020	5/14/2020	5/14/2020	11/17/2020	11/17/2020	5/14/2020	11/17/2020	5/15/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**				Duplicate		Duplicate		Duplicate		Duplicate			
1,1,1-Trichloroethane	5	POC	0.4 J	0.53 J	3	3	ND < 0.30	ND < 0.30	45	46	40	40	ND < 0.3	0.38 J	ND < 0.3
1,1-Dichloroethane	5	POC	0.6 J	0.74 J	0.2 J	0.2 J	ND < 0.20	ND < 0.20	0.9 J	0.9 J	1.2	1.3	ND < 0.2	ND < 0.20	ND < 0.2
1,1-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	0.4 J	0.4 J	ND < 0.20	ND < 0.20	6	6	5	5	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	3	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	0.6	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	50	GA Guidance	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.7	ND < 0.70	ND < 0.70	ND < 0.7	ND < 0.7	ND < 0.70	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	1	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	60	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	7	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	0.4 J	0.4 J	ND < 0.20	ND < 0.20	9	9	15	16	0.3 J	1.1	ND < 0.2
Ethylbenzene	5	POC	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.4	ND < 0.40	ND < 0.40	ND < 0.4	ND < 0.4	ND < 0.40	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	5	GA Standard	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	10	GA Guidance	ND < 1	ND < 1.0	ND < 1	ND < 1	ND < 1.0	ND < 1.0	ND < 1	ND < 1	ND < 1.0	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	3	3	2.5	2.5	ND < 0.2	ND < 0.20	0.7 J
Toluene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	5	POC	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	0.75 J	ND < 0.2
Trichloroethene	5	POC	0.6 J	ND < 0.20	5	5	0.82 J	0.88 J	330	320	290	300	3	6.4	3
Vinyl Chloride	2	GA Standard	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	5	POC	ND < 1	ND < 1.4	ND < 1	ND < 1	ND < 1.4	ND < 1.4	ND < 1	ND < 1	ND < 1.4	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-8 - Summary of Groundwater Analytical Results: 2020

		Sample Location ID	RIZ-19	RIZ-7	RIZ-7
		Date	11/15/2020	5/14/2020	11/18/2020
Compound (µg/L)	**NYSDEC Standards**	**Source**			
1,1,1-Trichloroethane	5	POC	ND < 0.30	ND < 0.3	ND < 0.30
1,1-Dichloroethane	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
1,1-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichlorobenzene	3	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	0.6	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	-	-	ND < 29	ND < 29	ND < 29
2-Butanone	50	GA Guidance	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	50	GA Guidance	ND < 0.70	ND < 0.7	ND < 0.70
Benzene	1	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	60	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	7	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20
cis-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
Ethylbenzene	5	POC	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
Methylene Chloride	5	GA Standard	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	10	GA Guidance	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	5	POC	0.36 J	0.5 J	ND < 0.20
Toluene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	5	POC	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	5	POC	0.93 J	0.7 J	ND < 0.20
Vinyl Chloride	2	GA Standard	ND < 0.20	ND < 0.2	ND < 0.20
Xylenes, Total	5	POC	ND < 1.4	ND < 1	ND < 1.4

Notes:

1. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL), limit provided.
2. J = Value is estimated by the laboratory.
3. POC = NYSDEC Classification "Principal Organic Contaminant" for groundwater.
4. GA Standard = NYSDEC GA Standard.
5. GA Guidance = NYSDEC GA Guidance Value
6. "--" = No established NYSDEC GA Standard or Guidance

Table 3-9 - Summary of Surface Water Analytical Results: 2020

Sample Location ID		RS-01	RS-01	RS-02	RS-02	RS-03	RS-03	RS-03	RS-03	RS-04	RS-04	RS-05	RS-05	RS-06
Date		5/11/2020	11/10/2020	5/12/2020	11/10/2020	5/12/2020	5/12/2020	11/10/2020	11/10/2020	5/12/2020	11/10/2020	5/12/2020	11/10/2020	5/11/2020
Compound (µg/L)	NYSDEC Class C Standard or Guidance Value						Duplicate		Duplicate					
1,1,1-Trichloroethane	-	0.3 J	0.53 J	0.5 J	ND < 0.30	2	2	2.6	2.6	2	3.4	2	2.9	ND < 0.3
1,1-Dichloroethane	-	ND < 0.2	ND < 0.20	0.2 J	ND < 0.20	0.4 J	0.5 J	0.8 J	0.83 J	0.5 J	0.43 J	0.6 J	0.66 J	ND < 0.2
1,1-Dichloroethene	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	0.2 J	0.25 J	0.2 J	0.37 J	ND < 0.2	0.3 J	ND < 0.2
1,2-Dichlorobenzene	5	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	-	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	-	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	-	0.7 J	ND < 0.70	1 J	1.2 J	0.8 J	ND < 0.7	3.1 J	2.6 J	ND < 0.7	1.2 J	ND < 0.7	3.8 J	1 J
Benzene	210	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	-	ND < 0.2	ND < 0.20	0.4 J	ND < 0.20	0.7 J	0.6 J	ND < 0.20	1.4	ND < 0.2	0.25 J	0.9 J	1.9	ND < 0.2
Ethylbenzene	17	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.4	ND < 0.40	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	200	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	13	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1	ND < 1.0	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	1	ND < 0.2	ND < 0.20	0.2 J	ND < 0.20	0.8 J	0.8 J	1.3 J+	1.3	0.2 J	0.33 J	1	2.1	ND < 0.2
Toluene	6000	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	40	0.5 J	0.49 J	2	0.92 J	7	7	11	11	4	8.6	9	14	ND < 0.2
Vinyl Chloride	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.2	ND < 0.20 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	65	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1	ND < 1.4	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:
1. "-" = No Class C NYSDEC Standard or Guidance Value.
2. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL).
3. J = indicates value is estimated by the laboratory.

Table 3-9 - Summary of Surface Water Analytical Results: 2020

Sample Location ID		RS-07	RS-07	RS-08	RS-08	RS-09	RS-09	RS-10	RS-10	RS-11	RS-11	RS-12A	RS-12A	RS-13
Date		5/12/2020	11/10/2020	5/12/2020	11/10/2020	5/12/2020	11/10/2020	5/12/2020	11/10/2020	5/12/2020	11/10/2020	5/11/2020	11/10/2020	5/11/2020
Compound (µg/L)	**NYSDEC Class C Standard or Guidance Value**													
1,1,1-Trichloroethane	-	0.4 J	ND < 0.30	ND < 0.3	ND < 0.30	0.4 J	0.3 J	0.3 J	ND < 0.30	ND < 0.3	ND < 0.30	0.4 J	0.44 J	2
1,1-Dichloroethane	-	0.4 J	0.24 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.2 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.6 J
1,1-Dichloroethene	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	5	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	-	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	-	ND < 0.3	0.98 J	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	2 J	3.8 J	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	-	ND < 0.7	12 J	ND < 0.7	3.6 J	ND < 0.7	3.1 J	0.8 J	1.7 J	9 J	27	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	210	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.4 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	-	1	0.8 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.2 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.8 J
Ethylbenzene	17	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	200	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	13	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	1	0.6 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.8 J
Toluene	6000	ND < 0.2	0.24 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.5 J	ND < 0.20	2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	-	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	40	1 J	ND < 0.20	ND < 0.2	ND < 0.20	1 J	0.7 J	1	1.2	ND < 0.2	ND < 0.20	0.3 J	0.31 J	8
Vinyl Chloride	-	0.3 J	0.45 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	65	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:
1. "-" = No Class C NYSDEC Standard or Guidance Value.
2. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL).
3. J = indicates value is estimated by the laboratory.

Table 3-9 - Summary of Surface Water Analytical Results: 2020

	Sample Location ID	RS-13	RS-14	RS-14	RS-15	RS-15	RS-16
	Date	11/10/2020	5/12/2020	11/10/2020	5/11/2020	11/10/2020	5/12/2020
Compound (µg/L)	NYSDEC Class C Standard or Guidance Value						
1,1,1-Trichloroethane	-	2.8	ND < 0.3	ND < 0.30	1	1.7	ND < 0.3
1,1-Dichloroethane	-	0.53 J	ND < 0.2	ND < 0.20	0.4 J	0.55 J	ND < 0.2
1,1-Dichloroethene	-	0.27 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichlorobenzene	5	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
1,2-Dichloroethane	-	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
1,4-Dioxane	-	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	-	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Acetone	-	2.9 J	ND < 0.7	7.2 J	ND < 0.7	ND < 0.70	ND < 0.7
Benzene	210	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Carbon Disulfide	-	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Chloroform	-	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
cis-1,2-Dichloroethene	-	1.5	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Ethylbenzene	17	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4
Freon 113	-	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Methylene Chloride	200	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3
Naphthalene	13	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1
Tetrachloroethene	1	1.5	0.7 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Toluene	6000	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
trans-1,2-Dichloroethene	-	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Trichloroethene	40	13	0.6 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Vinyl Chloride	-	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2
Xylenes, Total	65	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1

Notes:
1. "-" = No Class C NYSDEC Standard or Guidance Value.
2. ND < ## = Compound not detected above laboratory Method Detection Limit (MDL).
3. J = indicates value is estimated by the laboratory.

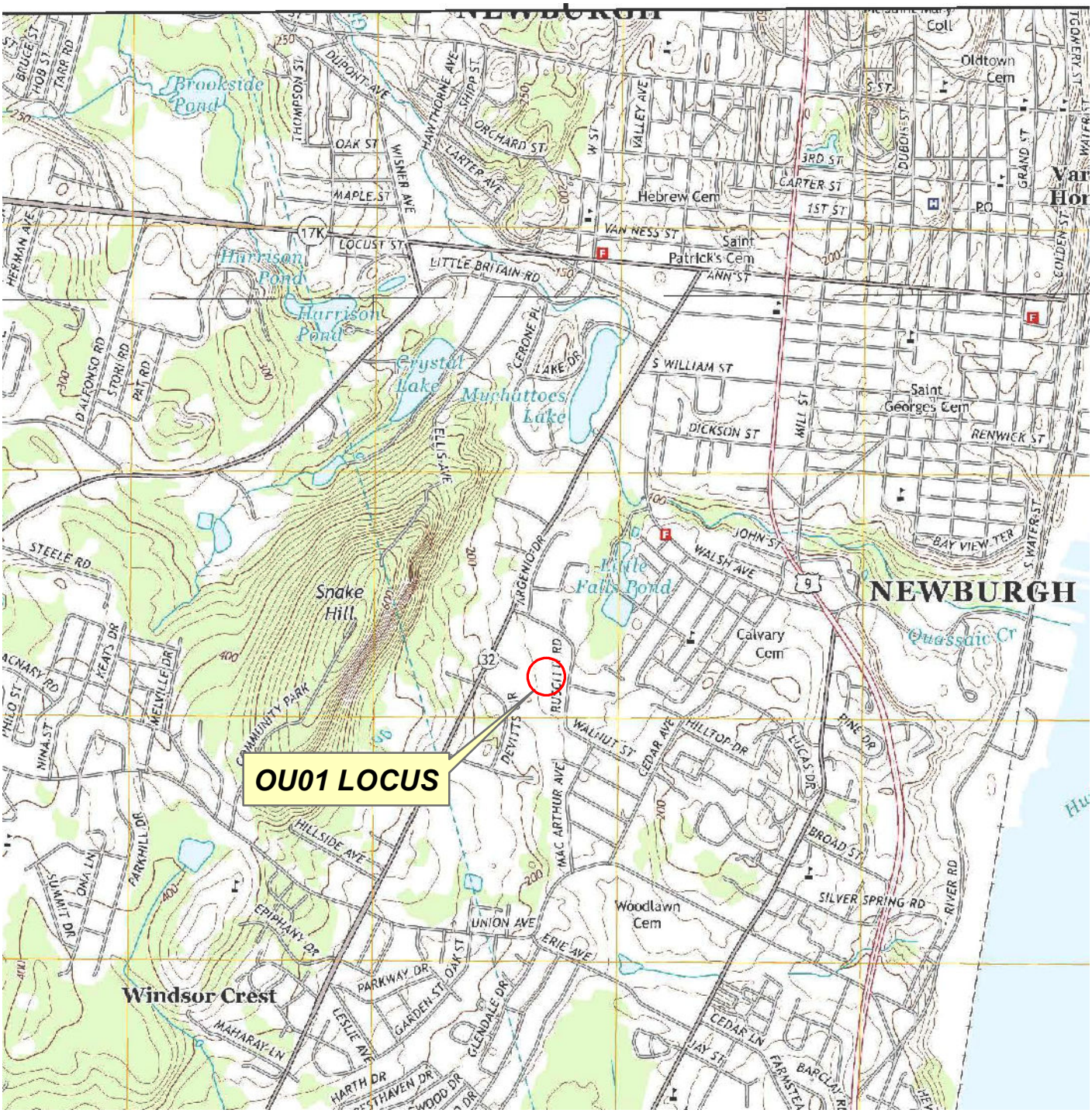
Table 3-10 - Summary of Sediment Pore Water Analytical Results: 2020

Sample Location ID	Diff-01	Diff-01	Diff-01	Diff-01	Diff-02	Diff-02	Diff-03	Diff-03	Diff-04	Diff-04	Diff-05	Diff-05	Diff-06	Diff-06	Diff-07	Diff-07
Date	5/26/2020	5/26/2020	11/23/2020	11/23/2020	5/26/2020	11/23/2020	5/26/2020	11/23/2020	5/26/2020	11/23/2020	5/26/2020	11/23/2020	5/26/2020	11/23/2020	5/26/2020	11/23/2020
Compound (µg/l)		Duplicate		Duplicate												
1,1,1-Trichloroethane	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	5	6.6	ND < 0.3	ND < 0.30	0.6 J	2.4	3	3.5	3	1.9	ND < 0.3	ND < 0.30
1,1-Dichloroethane	0.7 J	0.7 J	ND < 0.20	ND < 0.20	1	1.6	0.3 J	0.98 J	2	1.2	0.6 J	0.5 J	0.4 J	0.34 J	0.7 J	ND < 0.20
1,1-Dichloroethene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	0.4 J	0.81 J	ND < 0.2	ND < 0.20	ND < 0.2	0.33 J	ND < 0.2	0.24 J	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichlorobenzene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
1,2-Dichloroethane	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
1,4-Dioxane	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29	ND < 29
2-Butanone	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	6 J	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Acetone	1 J	1 J	ND < 0.70	ND < 0.70	0.8 J	ND < 0.70	1 J	ND < 0.70	1 J	ND < 0.70	ND < 0.7	ND < 0.70	ND < 0.7	ND < 0.70	1 J	ND < 0.70
Benzene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Carbon Disulfide	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Chloroform	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	0.2 J	ND < 0.2	ND < 0.20
cis-1,2-Dichloroethene	0.5 J	0.4 J	ND < 0.20	ND < 0.20	1	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	0.3 J	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Ethylbenzene	ND < 0.4	ND < 0.4	ND < 0.40	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40	ND < 0.4	ND < 0.40
Freon 113	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Methylene Chloride	ND < 0.3	ND < 0.3	ND < 0.30	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30	ND < 0.3	ND < 0.30
Naphthalene	ND < 1	ND < 1	ND < 1.0	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0	ND < 1	ND < 1.0
Tetrachloroethene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	2	4.7	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Toluene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
trans-1,2-Dichloroethene	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Trichloroethene	0.3 J	0.2 J	ND < 0.20	ND < 0.20	15	26	ND < 0.2	ND < 0.20	0.2 J	ND < 0.20	1	5.6	1	ND < 0.20	0.4 J	ND < 0.20
Vinyl Chloride	ND < 0.2	ND < 0.2	ND < 0.20	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20	ND < 0.2	ND < 0.20
Xylenes, Total	ND < 1	ND < 1	ND < 1.4	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4	ND < 1	ND < 1.4

Notes:
ND < ## = Compound not detected above Laboratory Method Detection Limit (MDL), limit provided.
J = Indicates value is estimated by the laboratory.
R = Result rejected during Data Usability Summary Report preparation.

Figures

\\vhb\gis\proj\Montpelier\58300.00 ADC New Windsor NY\gis\MXDs\OU01_RA_Annual\2020\Figure 1-1 - Site Location Map - OU01.mxd



BASE MAP: USGS 7.5 Minute Topographic Quadrangles Cornwall-on-Hudson and Newburgh, 2013

FIGURE 1-1: SITE LOCATION MAP: OU01
FORMER DENNISON MONARCH SYSTEMS SITE
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: DEB Date: 12/20/18
Reviewed by: GAK Date: 01/11/19
Scale: 1:24,000 Project: 58300.00

\\vhb\gis\proj\Montpelier\58300.00 ADC New Windsor NY\gis\MXDs\OU01_RA_Annual\2020\Figure 1-2 - Site Plan - OU01.mxd

LEGEND

- Unconsolidated Deposits Monitoring Well
- Bedrock Monitoring Well
- Groundwater Extraction Well
- Groundwater Piezometer
- Extracted Groundwater Conveyance Piping
- Treated Water Discharge
- Drainage Swale
- Buried Stormwater Conveyance
- OU01 Boundary
- Sealed Sheet Pile Wall (Waterloo Barrier®)

J08-UC01 (MONITORING WELL & PIEZOMETER)
J06-UC01 (MONITORING WELL & PIEZOMETER)
J06-UC02
RIZ-19
J07-UC02
J08-PZ-IN
J08-UC02
J07-PZ-OUT
J07-PZ-IN
J02-BR01
J02-BR02
J02-UC01
J06-PZ-IN
FORMER DENNISON MONARCH SYSTEMS FACILITY
J10-PZ-OUT
J10-PZ-IN
J09-PZ-IN
J09-PZ-OUT
TREATMENT BUILDING
RIZ-7
J01-UC02
J01-UC01
J01-BR01
J01-BR02
EW-4
EW-3
EW-2
EW-1
J04-PZ-IN
J04-BR02
J04-BR01
J04-PZ-OUT
RUSCITTI RD
J05-PZ-IN
MW-1S
J05-BR02
MW-2I
MW-2
MW-1D
J05-BR01
J05-PZ-OUT
J23-UC01
J23-UC02

Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

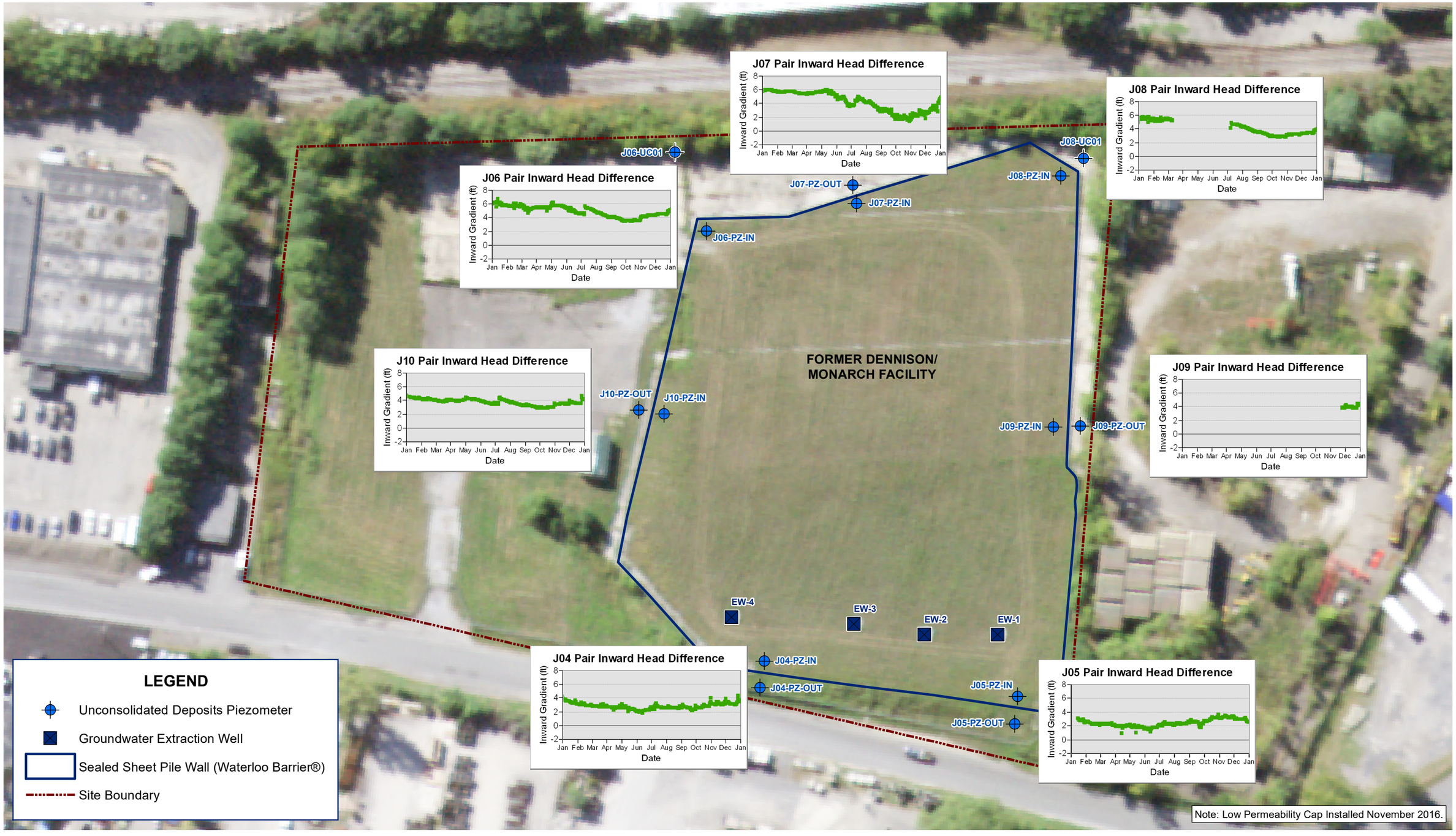
0 25 50 75 100
Scale in Feet

N

VHB
One Penn Plaza, Suite 715
New York, New York 10119
Drawn by: TEH Date: 05/01/18
Reviewed by: GWL Date: 05/01/18
Scale:1 " = 60 feet Project: 58300.00

FIGURE 1-2: SITE PLAN: OU01
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

\\vhb\gis\proj\Montpelier\58300.00 ADC New Windsor NY\gis\MXDs\OU01_RA_Annual\2020\Figure 3-1 - Hydraulic Head Differences at Piezometer Pairs - 2020.mxd



Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

0 30 60 90 120
Scale in Feet

N

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 03/18/21
Reviewed by: GWL Date: 06/29/21
Scale:1 " = 70 feet Project: 58300.00

**FIGURE 3-1: HYDRAULIC HEAD DIFFERENCES AT PIEZOMETER PAIRS (2020)
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK**

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR WITHIN CONTAINMENT CELL (1 FT. INTERVAL)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- MW-2 135.6 — WATER TABLE WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- RS-03 135.6 — STREAM GAUGE LOCATION AND SURFACE WATER ELEVATION (FT. AMSL)
- J04-PZ-IN 135.6 — WATER TABLE PIEZOMETER LOCATION AND WATER ELEVATION (FT. AMSL)
- EW-1 135.6 — GROUNDWATER EXTRACTION WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION
- [135.60] Elevation not used in contouring.

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARLINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRASS
GRAVEL DRIVE

J20-UC01 125.55
117.50 RS-01
J21-UC01 128.76
RS-02 129.78
J19-UC01 132.66
J17-UC01 132.07
J16-UC01 133.54
NM RS-03
RS-06 134.00
131.94
RS-05
RS-04 133.09
J11-UC01 139.40
J15-UC01 136.23
135.10 RS-07
J14-UC01 138.30
J09-PZ-OUT 145.31
J08-UC01 147.72
J08-PZ-IN 142.06
J09-PZ-IN 140.11
J05-PZ-IN 138.16
J05-PZ-OUT 140.05
[136.80] EW-1
MW-1S 139.75
[137.06] EW-2
J23-UC01 139.92
[136.06] EW-3
MW-2 139.70
148.27
J07-PZ-OUT
J07-PZ-IN 142.18
RIZ-19 148.29
J04-PZ-IN 138.12
J04-PZ-OUT 140.79
[135.83] EW-4
J06-PZ-IN 142.42
J10-PZ-IN 141.76
J06-UC01 149.13
146.04
J10-PZ-OUT
RIZ-17 144.00
J02-UC01 148.19
J01-UC01 144.45

FIGURE 3-2A: POTENTIOMETRIC MAP
WATER TABLE - MAY 12, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 05/27/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR WITHIN CONTAINMENT CELL (1 FT. INTERVAL)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- MW-2 135.6 — WATER TABLE WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- RS-03 135.6 — STREAM GAUGE LOCATION AND SURFACE WATER ELEVATION (FT. AMSL)
- J04-PZ-IN 135.6 — WATER TABLE PIEZOMETER LOCATION AND WATER ELEVATION (FT. AMSL)
- EW-1 135.6 — GROUNDWATER EXTRACTION WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION
- [135.60] Elevation not used in contouring.

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARLINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRASS
GRAVEL DRIVE

117.41 RS-01
J20-UC01 125.09
J21-UC01 128.37
131.77 J19-UC01
RS-02 130.11
J17-UC01 131.68
J16-UC01 132.72
NM RS-03
RS-06 DRY
131.90 RS-05
RS-04 133.02
J11-UC01 137.26
135.20 RS-07
J15-UC01 135.33
J14-UC01 136.84
J08-UC01 141.88
J08-PZ-IN 138.65
J09-PZ-OUT 140.29
J09-PZ-IN 136.43
J05-PZ-IN 134.77
J05-PZ-OUT 138.04
[133.44] EW-1
MW-1S 138.04
[133.86] EW-2
J23-UC01 138.31
[135.19] EW-3
MW-2 138.48
142.69 J07-PZ-OUT
J07-PZ-IN 138.75
RIZ-19 142.77
J04-PZ-IN 135.82
J04-PZ-OUT 139.08
[136.10] EW-4
J06-PZ-IN 139.02
J06-UC01 144.01
J10-PZ-IN 138.70
142.18 J10-PZ-OUT
RIZ-7 141.31
J02-UC01 143.61
J01-UC01 140.74

FIGURE 3-2B: POTENTIOMETRIC MAP
WATER TABLE - NOVEMBER 10, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/17/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J21–UC02 133.41 — DEEP UNCONSOLIDATED DEPOSITS WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW BEDROCK DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARILINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRASS
GRASS
GRAVEL DRIVE

J20–UC02 125.54
J21–UC02 128.81
J19–UC02 132.51
J18–UC03 132.19
J17–UC02 132.65
J16–UC02 133.99
J15–UC02 134.39
J14–UC02 138.33
J13–UC03 137.41
J11–UC02 139.04
J08–UC02 147.70
MW–1D 140.67
J23–UC02 140.15
MW–2I 140.49
J07–UC02 148.15
J06–UC02 147.91
J01–UC02 144.63

FIGURE 3-3A: POTENTIOMETRIC MAP
DEEP UNCONSOLIDATED DEPOSITS - MAY 12, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/16/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J21–UC02 133.41 — DEEP UNCONSOLIDATED DEPOSITS WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW BEDROCK DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARILINE AVENUE
RUSCITTI ROAD
FOLEY AVENUE
PAVEMENT
GRASS
GRAVEL DRIVE

J20–UC02 125.05
J21–UC02 128.42
J19–UC02 131.56
J18–UC03 131.43
J17–UC02 131.97
J16–UC02 132.94
J15–UC02 133.12
J14–UC02 136.81
J13–UC03 136.25
J11–UC02 136.83
J08–UC02 141.91
MW–1D 138.25
J23–UC02 138.40
MW–2I 138.58
J07–UC02 142.57
J06–UC02 143.00
J01–UC02 145.31

FIGURE 3-3B: POTENTIOMETRIC MAP
DEEP UNCONSOLIDATED DEPOSITS - NOVEMBER 10, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/17/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J12–BR01 + 137.97 — SHALLOW BEDROCK WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP BEDROCK
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARILINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRAVEL DRIVE

J20–BR01 + 113.22
J22–BR01 + 133.74
J17–BR01 + 132.91
J12–BR01 + 137.45
J11–BR01 + 140.24
J13–BR01 + 138.18 ARTESIAN
J14–BR01 + 138.20
J05–BR01 + 141.47
J04–BR01 + 142.32 ARTESIAN
J02–BR01 + 147.92
J01–BR01 + 144.24

FIGURE 3-4A: POTENTIOMETRIC MAP
SHALLOW BEDROCK - MAY 12, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 05/27/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J12–BR01 + 137.97 — SHALLOW BEDROCK WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP UNCONSOLIDATED DEPOSITS (– INDICATES NOT DETERMINABLE; HORIZONTAL ARROW INDICATES <0.1 FT. HEAD DIFFERENCE)
- DIRECTION OF VERTICAL GRADIENT TO/FROM DEEP BEDROCK
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

J20–BR01 + 112.58

J22–BR01 + 132.49

J17–BR01 + 132.16

J12–BR01 + 136.06

J11–BR01 + 137.63

J13–BR01 + 137.14 ARTESIAN

J05–BR01 + 138.64

J14–BR01 + 136.96

J04–BR01 + 139.77 ARTESIAN

J02–BR01 + 143.46

J01–BR01 + 142.06

THIRD LITTLE FALLS POND

SECOND LITTLE FALLS POND

FIRST LITTLE FALLS POND

FORMER WELL HOUSE

CLANCY AVE.

KORAN AVENUE

CHERRY AVENUE

BRADFORD AVE.

MYRTLE AVENUE

MARLINE AVENUE

FOLEY AVENUE

RUSCITTI ROAD

PAVEMENT

GRASS

GRAVEL DRIVE

FIGURE 3-4B: POTENTIOMETRIC MAP
SHALLOW BEDROCK - NOVEMBER 10, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/17/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J12–BR02 + 139.62 — DEEP BEDROCK WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW BEDROCK
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

Note: * = J17–BR02 is not included in the sample list.

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARILINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRAVEL DRIVE

J20–BR02 120.59
J22–BR02 134.50
J17–BR02* NM
J12–BR02 139.14
J11–BR02 139.10
J13–BR02 138.38
J14–BR02 138.41
J05–BR02 142.27
J04–BR02 143.02
J02–BR02 148.12
J01–BR02 146.14

ARTESIAN

FIGURE 3-5A: POTENTIOMETRIC MAP
DEEP BEDROCK - MAY 12, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/16/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\CAD\Potentiometric Contour Maps\Potentiometric_2019.dwg

LEGEND

- 130 — INTERPOLATED POTENTIOMETRIC ISOCONTOUR (2 FT. INTERVAL, DASHED WHERE INFERRED)
- 150 — TOPOGRAPHIC CONTOUR (2 FT. INTERVAL, SOURCE: ORANGE COUNTY WATER AUTHORITY, MARCH 2006)
- APPROXIMATE PARCEL BOUNDARY (SOURCE: TOWNS OF NEWBURGH AND NEW WINDSOR TAX MAPS, 2005)
- J12–BR02 + 139.62 — DEEP BEDROCK WELL LOCATION AND WATER ELEVATION (FT. AMSL)
- DIRECTION OF VERTICAL GRADIENT TO/FROM SHALLOW BEDROCK
- SEALABLE SHEET PILE WALL (WATERLOO BARRIER)
- FORMER BUILDING FOOTPRINT
- STREAM/POND
- DRAINAGE SWALE
- CULVERT
- CATCH BASIN LOCATION

N

Note: * = J17–BR02 is not included in the sample list.

GRAPHIC SCALE

175 0 87.5 175 350

(IN FEET)

1 inch = 175 ft.

THIRD LITTLE FALLS POND
SECOND LITTLE FALLS POND
FIRST LITTLE FALLS POND
FORMER WELL HOUSE
CLANCY AVE.
KORAN AVENUE
CHERRY AVENUE
BRADFORD AVE.
MYRTLE AVENUE
MARILINE AVENUE
FOLEY AVENUE
RUSCITTI ROAD
PAVEMENT
GRASS
GRAVEL DRIVE

J20–BR02 119.80
J22–BR02 133.00
NM J17–BR02*
J12–BR02 137.02
J11–BR02 137.70
ARTESIAN J13–BR02 137.65
J14–BR02 136.83
J05–BR02 138.92
J04–BR02 140.65
J02–BR02 143.80
J01–BR02 141.54

FIGURE 3-5B: POTENTIOMETRIC MAP
DEEP BEDROCK - NOVEMBER, 2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

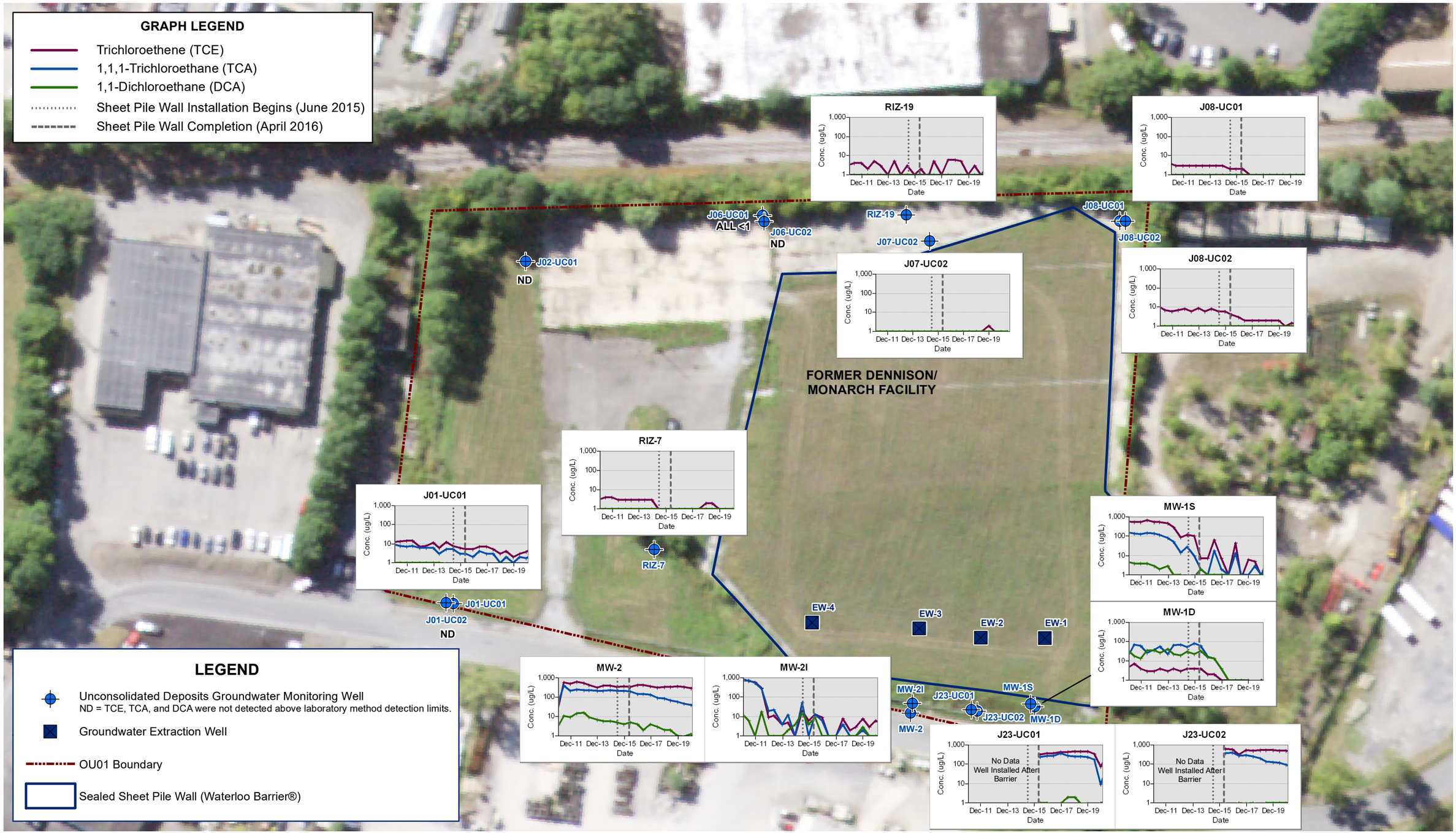
VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 12/17/20
Chk'd by: GWL Date: 06/29/21
Scale: Shown Project: 58300.00

\\vhb\gis\proj\Montpelier\58300.00 ADC New Windsor NY\gis\MXDs\OU01_RA_Annual\2020\Figure 3-6A - Concentrations Of Constituents Of Concern In UC Deposits GW - OU01.mxd

GRAPH LEGEND

- Trichloroethene (TCE)
- 1,1,1-Trichloroethane (TCA)
- 1,1-Dichloroethane (DCA)
- Sheet Pile Wall Installation Begins (June 2015)
- Sheet Pile Wall Completion (April 2016)



LEGEND

- Unconsolidated Deposits Groundwater Monitoring Well
  ND = TCE, TCA, and DCA were not detected above laboratory method detection limits.
- Groundwater Extraction Well
- OU01 Boundary
- Sealed Sheet Pile Wall (Waterloo Barrier®)

Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

0 30 60 90 120
Scale in Feet

N

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 03/09/21
Reviewed by: GWL Date: 06/29/21
Scale: 1 " = 80 feet Project: 58300.00

FIGURE 3-6A: CONCENTRATIONS OF OU01 CONSTITUENTS OF CONCERN IN UNCONSOLIDATED DEPOSITS GROUNDWATER: 2011-2020
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK

\\vhb\gis\proj\Montpelier\58300.00 ADC New Windsor NY\gis\MXDs\OU01_RA_Annual\2020\Figure 3-6B - Concentrations Of Other Constituents In UC Deposits GW - OU01.mxd

GRAPH LEGEND

- Tetrachloroethene (PCE)
- 1,1-Dichloroethene (DCE)
- cis-1,2-Dichloroethene (cDCE)
- Sheet Pile Wall Installation Begins (June 2015)
- Sheet Pile Wall Completion (April 2016)

J02-UC01
ALL <1

J06-UC01
ND

J06-UC02
ND

RIZ-19
ALL <1

J07-UC02
ND

J08-UC01
ND

J08-UC02
ALL <1

FORMER DENNISON/
MONARCH FACILITY

RIZ-7



RIZ-7

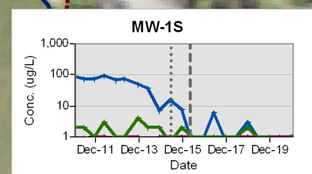
J01-UC01



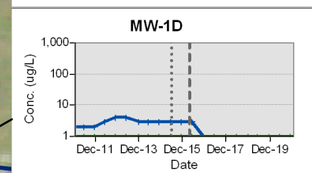
J01-UC01
J01-UC02
ND

EW-4
EW-3
EW-2
EW-1

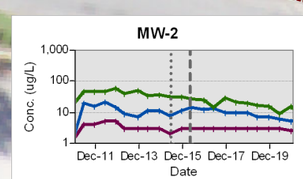
MW-1S



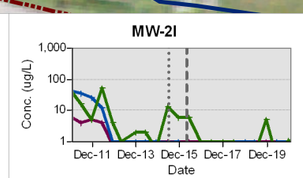
MW-1D



MW-2



MW-2I

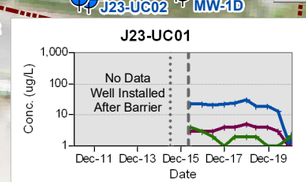


MW-2I
MW-2

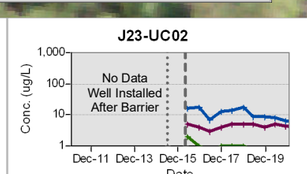
J23-UC01
J23-UC02

MW-1S
MW-1D

J23-UC01



J23-UC02



LEGEND

- Unconsolidated Deposits Groundwater Monitoring Well
  ND = PCE, DCE, and cDCE were not detected above laboratory method detection limits.
- Groundwater Extraction Well
- OU01 Boundary
- Sealed Sheet Pile Wall (Waterloo Barrier®)

Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

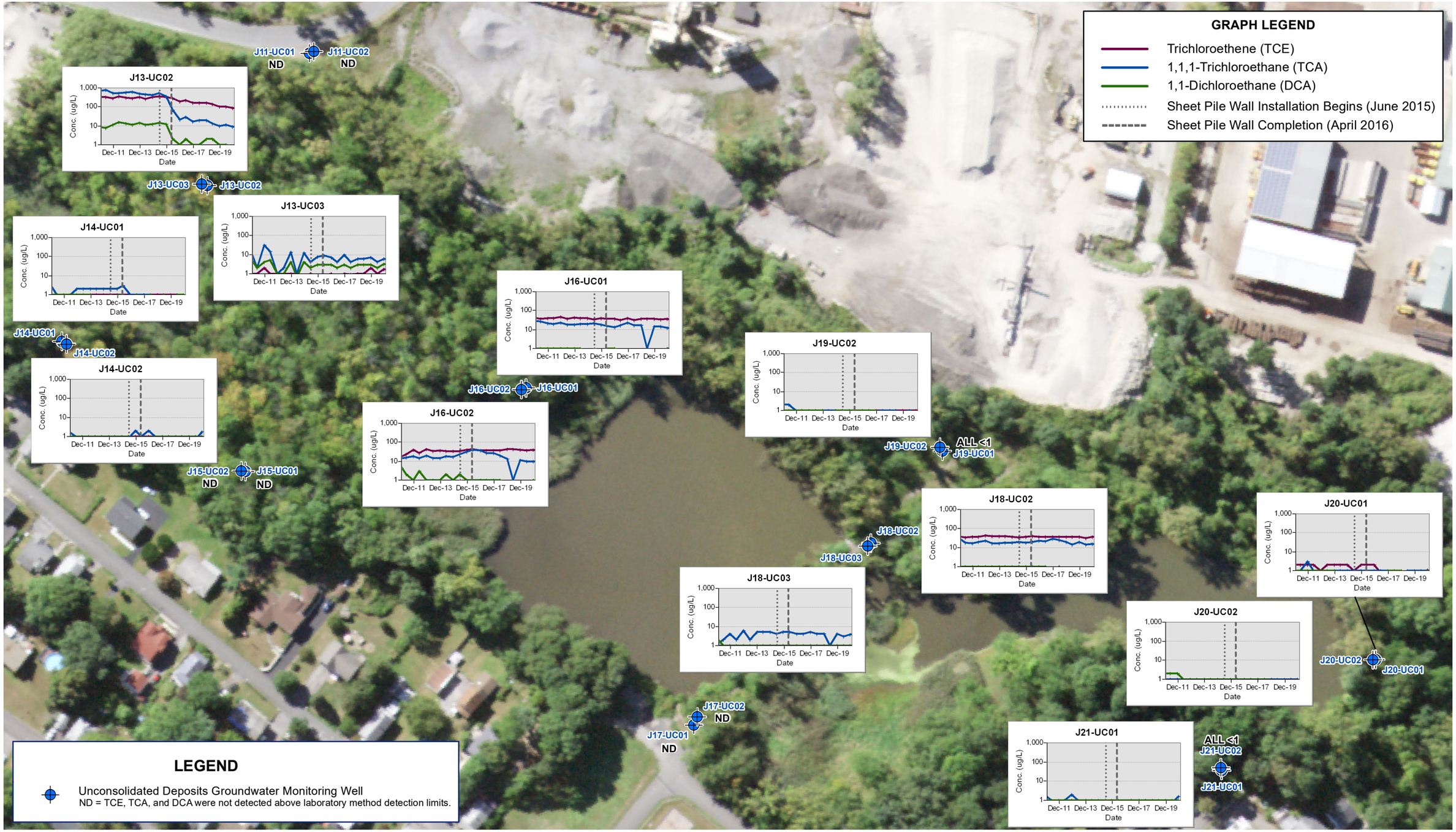
0 30 60 90 120
Scale in Feet

N

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 03/09/21
Reviewed by: GWL Date: 06/29/21
Scale:1 " = 80 feet Project: 58300.00

FIGURE 3-6B: CONCENTRATIONS OF OTHER CONSTITUENTS IN UNCONSOLIDATED DEPOSITS GROUNDWATER: OU01 (2011-2020)
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK



Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

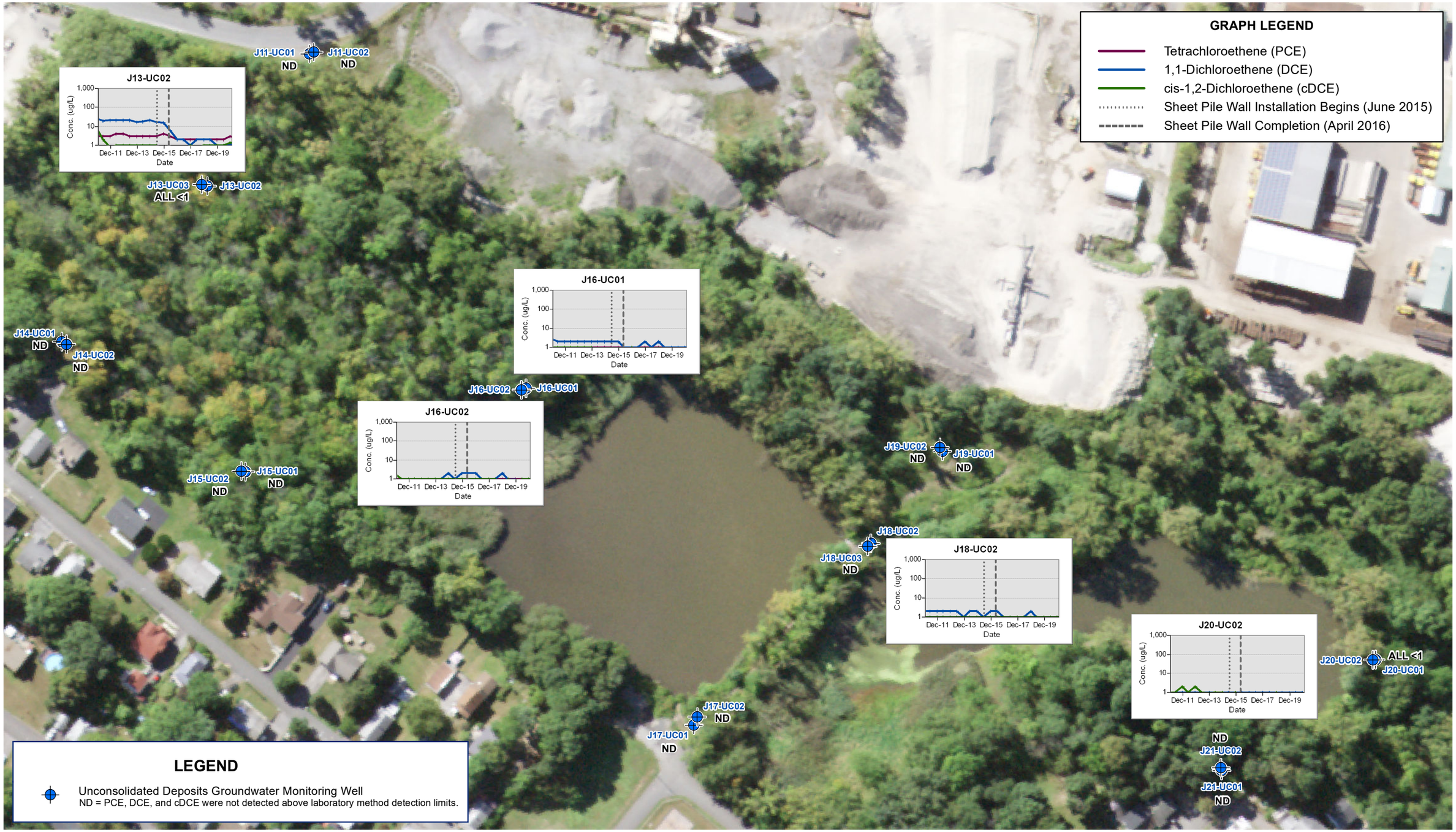
0 50 100 150 200
Scale in Feet

N

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 03/09/21
Reviewed by: GWL Date: 06/29/21
Scale:1 " = 120 feet Project: 58300.00

FIGURE 3-7A: CONCENTRATIONS OF OU01 CONSTITUENTS OF CONCERN IN UNCONSOLIDATED DEPOSITS GROUNDWATER: LITTLE FALLS PONDS PROPERTY (2011-2020)
FORMER DENNISON/MONARCH SYSTEMS FACILITY
NEW WINDSOR, NEW YORK



Sources:
Aerial photo taken in August 2019 (USDA Farm Service Agency - NAIP).

0 50 100 150 200
Scale in Feet

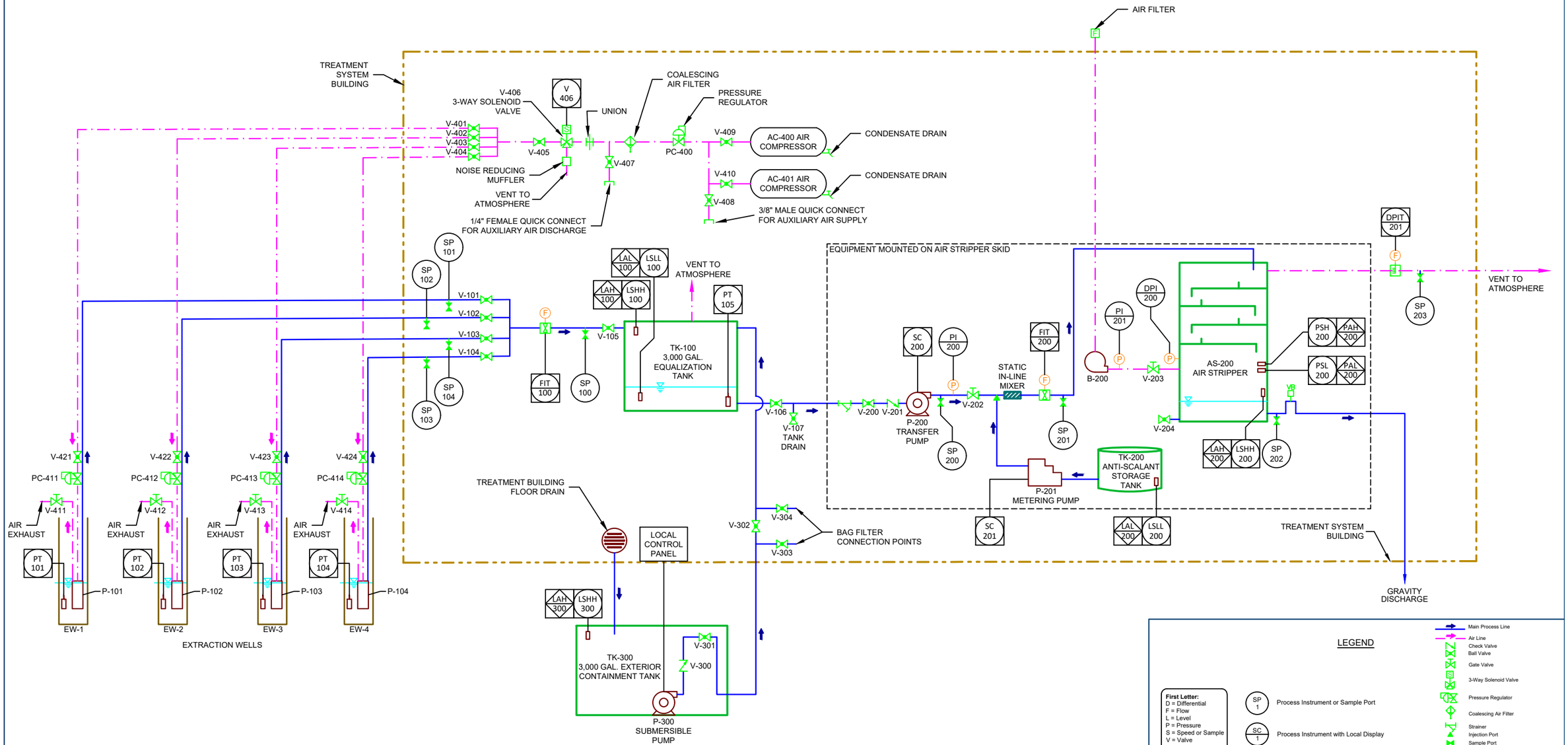
N

VHB
One Penn Plaza, Suite 715
New York, New York 10119

Drawn by: TEH Date: 03/08/21
Reviewed by: GWL Date: 06/29/21
Scale: 1 " = 120 feet Project: 58300.00

FIGURE 3-7B: CONCENTRATIONS OF OTHER CONSTITUENTS IN UNCONSOLIDATED DEPOSITS GROUNDWATER: LITTLE FALLS PONDS PROPERTY (2011-2020) FORMER DENNISON/MONARCH SYSTEMS FACILITY NEW WINDSOR, NEW YORK

Appendix A: GWE&T System Process and Instrumentation Diagram



LEGEND

First Letter:
D = Differential
F = Flow
L = Level
P = Pressure
S = Speed or Sample
V = Valve

Second Letter:
A = Alarm
I = Indicator
C = Control
S = Switch
T = Transmitter
P = Port or Pressure

Third and Fourth Letters:
H = High
I = Indicator
L = Low
T = Transmitter

- SP 1 — Process Instrument or Sample Port
- SC 1 — Process Instrument with Local Display
- PT 1 — Instrument with PLC Data Connection
- SC 1 — Instrument with PLC Data Connection and Local Display
- FAL 1 — PLC Alarm

- Main Process Line
- Air Line
- Check Valve
- Ball Valve
- Gate Valve
- 3-Way Solenoid Valve
- Pressure Regulator
- Coalescing Air Filter
- Strainer
- Injection Port
- Sample Port
- Vapor Sample Port
- Vacuum Breaker
- Drain Valve
- Turbine Flow Meter
- Pitot Tube
- Pressure Gauge
- Flow Measurement Point
- Pressure Transducer
- Submersible Pneumatic Pump
- Blower
- Pump

REVISIONS	#	Date	Drwn	Chk'd	App'd	Description
	2	01/16/18	GWL	J-B	GWL	ADDED AC-401
	1	04/21/17	GWL	DAA	DAA	ADDED DETAIL

PREPARED FOR: AVERY DENNISON CORPORATION
8080 NORTON PARKWAY
MENTOR, OH 44060
Job#: 58300.00

PREPARED BY:
vhb
100 Great Oaks Blvd, Suite 118
Albany, New York 12203
518.389.3600 phone
518.452.0324 fax
www.vhb.com

DRAWING
Scale: NONE
Drawn On: 12/28/15
Drawn By: BMLK
Checked On:
Checked By: GWL
Print Date:

TITLE
PROCESS AND INSTRUMENTATION DIAGRAM GROUNDWATER EXTRACTION & TREATMENT SYSTEM FORMER DENNISON/MONSARCH SYSTEMS SITE NEW WINDSOR, NEW YORK

SHEET 1 OF 1

\\vhb\gbl\proj\Montpelier\58300.00 ADC New Windsor NY\JCOdata\OU1 Operation\P&ID_2019-04-18.dwg

Appendix B: GWE&T System Inspection Forms

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 1/2/2020

Arrival: 515pm Departure: 630pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	134.23	798321
EW-2	134.66	296893
EW-3	136.16	795020
EW-4	135.88	276105

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	21.50	9244132	

Water in Equalization Tank (TK-100)[2]	50 inches	1,550 gallons

Compressed Air Supply			
AC-400 Run Hours	9612.28	AC-401 Run Hours	4597.30
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	81

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.81	40	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	4655168	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5	0.57	187

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	5→25 Gallons
		Anti-scalant Overstock:	15 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Operable Unit 01
New Windsor, New York

Operator: CB Date: 1/2/20

Back-up Generator			
Back-up Generator Run Hours	72.0	Back-up Generator Fuel Level	32%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment Process
Recorded meters & Operation Data
Outfall & Air Stripper look Clear.

Work Performed: -filled Redux TK200 to 25gal from 5.
* Shut down & Restarted PLC/HMI

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Basser Date: 1/11/2020

Arrival: 1230pm Departure: 130pm

Purpose of Site Visit (circle the appropriate condition):

~~Routine~~ Sampling Event (Upset Condition[1]) Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	134.50	955117
EW-2	135.19	418595
EW-3	136.16	795193
EW-4	135.75	302901

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.76	9493358	

Water in Equalization Tank (TK-100)[2]	~~0~~ 36 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	9612.43	AC-401 Run Hours	468932
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.90	42	19

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	4900397	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.54	181

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	17 Gallons
		Anti-scalant Overstock:	15 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 1/11/20

Back-up Generator			
Back-up Generator Run Hours	73.3	Back-up Generator Fuel Level	33%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
& Power Blip Shut off Air Compressor
& treatment process.
Received all Alarms.
Switched to Run AC 400 & Charged Well pumps.
Turned Air Stripper process on & Monitored.

Work Performed: Drain line on AC 401 leaking water.-
* took line out of Connection & Cut a clean
end & remade. Leak stopped.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 1/19/20

Arrival: 430pm Departure: 530pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.62	085012
EW-2	135.73	530492
EW-3	136.01	795399
EW-4	136.10	330315

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.26	9717086	

Water in Equalization Tank (TK-100)[2]	32 inches	1,000 gallons

Compressed Air Supply			
AC-400 Run Hours	9692.38	AC-401 Run Hours	4689.35
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.60	42	18.5

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	5117033	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.58"	185

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	25 Gallons
		Anti-scalant Overstock:	Ø Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 1/19/20

Back-up Generator			
Back-up Generator Run Hours		Back-up Generator Fuel Level	

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & ops. data
Outfall & Air Stripper look Clear.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 1/24/20

Arrival: 430pm Departure: 530pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.67	160700
EW-2	135.57	681451
EW-3	136.17	795400
EW-4	135.68	349843

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.93	9855426	

Water in Equalization Tank (TK-100)[2]		
	40 inches	1,200 gallons

Compressed Air Supply			
AC-400 Run Hours	9692.38	AC-401 Run Hours	4741.78
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.01	40	17.0

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	5250925	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.58"	186

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	20 Gallons
		Anti-scalant Overstock:	0 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 1/24/20

Back-up Generator			
Back-up Generator Run Hours		Back-up Generator Fuel Level	

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Outfall & Air Stripper look Clean

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 2/1/2020

Arrival: 300pm Departure: 400pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.89	379931
EW-2	135.90	795400
EW-3	135.93	714210
EW-4	135.87	281748

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16-21	77014	

Water in Equalization Tank (TK-100)[2]	43 inches	1,300 gallons

Compressed Air Supply			
AC-400 Run Hours	9692.38	AC-401 Run Hours	4827.35
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.21	41	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	5467525	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.57"	185

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	12 Gallons
		Anti-scalant Overstock:	0 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 2/1/20

Back-up Generator			
Back-up Generator Run Hours		Back-up Generator Fuel Level	80%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked on treatment System.
Recorded Meters & Operations Data
Outfall & Air Stripper look Clean

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 2/17/20

Arrival: 445 pm Departure: 545 pm

Purpose of Site Visit (circle the appropriate condition):

Routine Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.21	
EW-2	136.92	
EW-3	137.10	
EW-4	136.22	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	21.25	543261	

Water in Equalization Tank (TK-100)[2]	49 inches	1,500 gallons

Compressed Air Supply			
AC-400 Run Hours	9730.40	AC-401 Run Hours	4827.36
Active Air Compressor (circle)	AC-400 AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.5	43	18

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	5892360	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	21.0"	0.58	180

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	23 Gallons
		Anti-scalant Overstock:	87 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 2/17/20

Back-up Generator			
Back-up Generator Run Hours	75.7	Back-up Generator Fuel Level	78%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked on treatment System. Recorded Meters & Operations Data Outfall & Air Stripper look Clear

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Berglund Date: 2/23/20

Arrival: 500pm Departure: 600pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.26	622604
EW-2	136.42	028206
EW-3	136.05	795600
EW-4	136.19	470147

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.28	700192	

Water in Equalization Tank (TK-100)[2]	22 inches	700 gallons

Compressed Air Supply			
AC-400 Run Hours	9920.90	AC-401 Run Hours	4827.36
Active Air Compressor (circle)	(AC-400) (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	1961	42	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	6079530	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	184

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	17 Gallons
		Anti-scalant Overstock:	87 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: 2/23/20 Date: CB

Back-up Generator			
Back-up Generator Run Hours	76.1	Back-up Generator Fuel Level	78%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked on treatment System. Recorded Meters & Operations Data Outfall & Air Stripper look Clear

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 2/27/20

Arrival: 415 pm Departure: 515 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.48	
EW-2	136.47	
EW-3	135.90	
EW-4	136.14	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.28	812873	

Water in Equalization Tank (TK-100)[2]	24 inches	750 gallons

Compressed Air Supply			
AC-400 Run Hours	9920.90	AC-401 Run Hours	4871.50
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.60 gpm	41	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	6189740	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.58"	184

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	85 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 2/27/20

Back-up Generator			
Back-up Generator Run Hours	76.5	Back-up Generator Fuel Level	80%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System. Recorded Meters & Operations Data Outfall & Air Stripper look Clear

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 3/6/20

Arrival: 530 pm Departure: 630 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.44	815464
EW-2	136.31	200542
EW-3	136.32	795610
EW-4	135.92	521697

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.65	1043534	

Water in Equalization Tank (TK-100)[2]	69 inches	2,100 gallons

Compressed Air Supply			
AC-400 Run Hours	9920.90	AC-401 Run Hours	4961.34
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	82

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.60	40	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	6415130	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.56	185

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	5 → 25 Gallons
		Anti-scalant Overstock:	~~117~~ 68 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 3/6/20

Back-up Generator			
Back-up Generator Run Hours	76.5	Back-up Generator Fuel Level	78%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operational Data
Outfall & Air Stripper look Clear.
Filled Redux TK200 to 25 gallons.
Redux Overstock Now 68 gallons
Increased P200 flow rate up to 20.0gpm from 19.6

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 3/13/20

Arrival: 500pm Departure: 600pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.12	873624
EW-2	136.97	216238
EW-3	136.00	795610
EW-4	135.72	528372

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.12	553348	

Water in Equalization Tank (TK-100)[2]	65 inches	1,950 gallons

Compressed Air Supply			
AC-400 Run Hours	9978.21	AC-401 Run Hours	4961.36
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.0	41	18

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	6743374	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	182

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	18 Gallons
		Anti-scalant Overstock:	68 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 3/13/20

Back-up Generator			
Back-up Generator Run Hours	76.5	Back-up Generator Fuel Level	78%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if O float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Chec

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Outfall & Air Stripper look Clear

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C Bassel Date: 3/29/30

Arrival: 500pm Departure: 600pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.34	188857
EW-2	136.53	526182
EW-3	135.96	795610
EW-4	135.85	617932

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.25	1693348	

Water in Equalization Tank (TK-100)[2]	59 inches	1,800 gallons

Compressed Air Supply			
AC-400 Run Hours	10162.35	AC-401 Run Hours	4961.36
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	79

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.31	40	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	7077374	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	184

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	2 → 30 Gallons
		Anti-scalant Overstock:	4/2 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 3/29/20

Back-up Generator			
Back-up Generator Run Hours	77.4	Back-up Generator Fuel Level	78%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Outfall & Air Stripper look Clear.

Work Performed: Filled Redox Tank to 30 gallons.

Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 4/4/20

Arrival: 530pm Departure: 630pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.30	~~6443~~ 287853
EW-2	136.50	608296
EW-3	135.90	795620
EW-4	136.04	643868

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.90	1861118	

Water in Equalization Tank (TK-100)[2]	37 inches	1,150 gallons

Compressed Air Supply			
AC-400 Run Hours	10162.35	AC-401 Run Hours	5027.79
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.52	41	17

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	7253828	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.55"	180

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	22 Gallons
		Anti-scalant Overstock:	42 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Operator: CB Date: 4/4/20

Back-up Generator			
Back-up Generator Run Hours	78.7	Back-up Generator Fuel Level	77%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Checked Outfall water looks Clear.
Air Stripper running good.

Work Performed: ~~Went through~~ - Shut off Wells temporarily.
- Performed Air Stripper Shutdown process.
- Powered Down HMI/PLC to Reboot
- Restarted Air Stripper process & observed.
- Wells back online & pumping

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 4/9/20

Arrival: 530 pm Departure: 630 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.78	370300
EW-2	136.58	676721
EW-3	136.20	795650
EW-4	136.25	665656

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.84	2000672	

Water in Equalization Tank (TK-100)[2]	83 inches	2,550 gallons

Compressed Air Supply			
AC-400 Run Hours	10162.35	AC-401 Run Hours	5083.51
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	21.51	41	19

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	7398451	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.56"	184

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	141 ~~117~~ ml/hr	Anti-scalant Inventory (TK-200):	18 Gallons
		Anti-scalant Overstock:	42 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 4/9/20

Back-up Generator			
Back-up Generator Run Hours	78.4	Back-up Generator Fuel Level	77%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Outfall & Air Stripper Water looks Clear

* Increased Air Stripper flow rate to 21.5 gpm from 20.5

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 4/14/20

Arrival: 530pm Departure: 630pm

Purpose of Site Visit (circle the appropriate condition):

Routine Sampling Event (Upset Condition[1]) Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.81	
EW-2	137.60	
EW-3	136.42	
EW-4	136.20	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	21.20	2117927	

Water in Equalization Tank (TK-100)[2]	36 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	10162.35	AC-401 Run Hours	5129.59
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	75

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	21.00	42	18.5

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	7521234	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	185

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	42 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 4/14/20

Back-up Generator			
Back-up Generator Run Hours	81.9	Back-up Generator Fuel Level	75%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment Process.
Recorded Meters & Operations Data.

* Power Outage Shut down System.
- Reset Air Compressor 401
- Started up Air Stripper process.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 4/26/20

Arrival: 400pm Departure: 500pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.69	
EW-2	136.80	
EW-3	135.94	
EW-4	136.28	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.70	2454564	

Water in Equalization Tank (TK-100)[2]	47 inches	1,450 gallons

Compressed Air Supply			
AC-400 Run Hours	10162.35	AC-401 Run Hours	5262.08
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	81

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	21.01	41	19

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	7875211	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	183

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	2→25 Gallons
		Anti-scalant Overstock:	42/19 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 4/26/20

Back-up Generator			
Back-up Generator Run Hours	82.3	Back-up Generator Fuel Level	75%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
Outfall & Air Stripper look Clean.

Work Performed: Filled Redox TK200 to 25 gallons.

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 5/15/20

Arrival: 845 Am Departure: 945 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.60	920178
EW-2	137.20	133590
EW-3	136.40	795650
EW-4	135.96	824057

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	23.09	2966744	

Water in Equalization Tank (TK-100)[2]	46 inches	1,400 gallons

Compressed Air Supply			
AC-400 Run Hours	10360.64	AC-401 Run Hours	5262.61
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	21.01	42	19

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	8421320	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.53"	180

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	7 → 28 Gallons
		Anti-scalant Overstock:	0 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 5/15/20

Back-up Generator			
Back-up Generator Run Hours	83.6	Back-up Generator Fuel Level	74%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System. Recorded Meters & Operations. Data

Work Performed: Filled Redux TK200 to 28 gallons. Overstock has run out.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 5/21/20

Arrival: 630pm Departure: 730pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	138.20	
EW-2	137.62	
EW-3	136.50	
EW-4	136.20	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.5	3190244	

Water in Equalization Tank (TK-100)[2]	40 inches	1,200 gallons

Compressed Air Supply			
AC-400 Run Hours	10360.72	AC-401 Run Hours	5352.12
Active Air Compressor (circle)	AC-400 AC-401	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.0	42	18

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	8663320	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.0"	0.57"	180

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	20 Gallons
		Anti-scalant Overstock:	0 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 5/21/20

Back-up Generator			
Back-up Generator Run Hours	83.9	Back-up Generator Fuel Level	72%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System. Recorded Meters & Operations Data

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 5/31/20

Arrival: 230pm Departure: 330pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.28	148753
EW-2	137.41	351177
EW-3	138.54	795670
EW-4	136.23	981152

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.31	34130 35	

Water in Equalization Tank (TK-100)[2]	36 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	10360.72	AC-401 Run Hours	5481.89
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	20.03	42	18

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	~~20103~~ 8892144	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.56"	179

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	0 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

213 155

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CG Date: 5/31/20

Back-up Generator			
Back-up Generator Run Hours	841.2	Back-up Generator Fuel Level	72%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data.
Outfall & Air Stripper looking Clear.

Work Performed: Redux Overstock = 0

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 6/7/20

Arrival: 515pm Departure: 615 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.32	
EW-2	137.60	
EW-3	138.64	
EW-4	136.19	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.20	3596409	

Water in Equalization Tank (TK-100)[2]	65 inches	2,000 gallons

Compressed Air Supply			
AC-400 Run Hours	10505.10	AC-401 Run Hours	5481.89
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.52	40	12

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	9073218	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.55"	176

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	6→25 Gallons
		Anti-scalant Overstock:	110 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 6/7/20

Back-up Generator			
Back-up Generator Run Hours	85.0	Back-up Generator Fuel Level	72

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data

Redux overstock 110 gallons
Filled Redux Tank to 25 gal.
Overstock NOW = 93 gallons.

Work Performed:

Operator: C. Bassel Date: 6/21/20

Arrival: 130pm Departure: 230pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	137.12	450387
EW-2	136.90	621480
EW-3	136.35	795770
EW-4	136.01	006437

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.46	3960265	

Water in Equalization Tank (TK-100)[2]	22 inches	700 gallons

Compressed Air Supply			
AC-400 Run Hours	10505.12	AC-401 Run Hours	5665.89
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	82

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.62	40	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	9441010	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	18.5"	0.52"	174

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	93 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 6/21/20

Back-up Generator			
Back-up Generator Run Hours	85.7	Back-up Generator Fuel Level	71%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data.

* Site has been Brush hogged & Weed Wacked.
by Outside Contractors.

Work Performed:

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 6/28/20

Arrival: 300 pm Departure: 400 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.64	
EW-2	136.52	
EW-3	136.14	
EW-4	135.93	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.55	4146135	

Water in Equalization Tank (TK-100)[2]	44 inches	1,350 gallons

Compressed Air Supply			
AC-400 Run Hours	10574.05	AC-401 Run Hours	5665.89
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	82

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.93	39	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	9628600	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	18.5	0.52	175

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	7 → 25 Gallons
		Anti-scalant Overstock:	75 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 6/28/20

Back-up Generator			
Back-up Generator Run Hours	86.0	Back-up Generator Fuel Level	71%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
Outfall & Air Stripper look Clear

filled Redux TK to 25.

*Unable to check Well Vaults due to Heavy Storm passing over Site

Work Performed:

Vepo - Cross Connection

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 7/9/20

Arrival: 730 Am Departure: 830 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.48	709336
EW-2	136.53	841482
EW-3	135.99	797890
EW-4	136.06	077542

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	20.83	4427276	

Water in Equalization Tank (TK-100)[2]	34 inches	1,000 gallons

Compressed Air Supply			
AC-400 Run Hours	10574.11	AC-401 Run Hours	5774.83
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.07	38	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	9906134	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	18.5"	0.51"	174

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	16 Gallons
		Anti-scalant Overstock:	75 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

183 | 185

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 7/9/20

Back-up Generator			
Back-up Generator Run Hours	86.4	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment system Outfall & Air Stripper look Clean.

* Powered down Process & Rebooted PLC/HMI. Restarted process. to Allow Remote Access.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 7/18/20

Arrival: 330pm Departure: 430 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.32	
EW-2	136.58	
EW-3	136.22	
EW-4	136.09	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.59	4704885	

Water in Equalization Tank (TK-100)[2]	35 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	10675.91	AC-401 Run Hours	577483
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.84	39	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	183499	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	18.0"	0.48" / 0.51"	165

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	7 → 30 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 7/18/20

Back-up Generator			
Back-up Generator Run Hours	87.1	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System Outfall & Air Stripper look Clean. Recorded Meters & Operations Data

Work Performed: * Replaced Blower inlet Filter * filled Redux TK202 to 30 gallons

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 7/25/20

Arrival: 730 Am Departure: 830 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.26	
EW-2	136.37	
EW-3	135.94	
EW-4	136.00	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.20	4858103	

Water in Equalization Tank (TK-100)[2]	35 inches	1,075 gallons

Compressed Air Supply			
AC-400 Run Hours	10675.92	AC-401 Run Hours	5834.10
Active Air Compressor (circle)	AC-400 AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.6 / 20.54	39	11

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	335027	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.0"	0.53"	177

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	25 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 7/25/20

Back-up Generator			
Back-up Generator Run Hours	87.4	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
Outfall & Air Stripper look Clean.

* Left Air Compressor 401 online

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 7/31/20

Arrival: 530 pm Departure: 630 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	136.10	
EW-2	136.31	
EW-3	136.23	
EW-4	135.78	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	19.85	5026265	

Water in Equalization Tank (TK-100)[2]	45 inches	1,400 gallons

Compressed Air Supply			
AC-400 Run Hours	10675.92	AC-401 Run Hours	5900.60
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	19.80	39	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	506032	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.0	0.52	174

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	20 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 7/31/20

Back-up Generator			
Back-up Generator Run Hours	87.7	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System. Recorded Meters & Operations Data Outfall & Air Stripper look clear

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 8/7/20

Arrival: 800 Am Departure: 900 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.89	
EW-2	136.26	
EW-3	136.32	
EW-4	135.80	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.87	5198780	

Water in Equalization Tank (TK-100)[2]	42 inches	1,300 gallons

Compressed Air Supply			
AC-400 Run Hours	10738.87	AC-401 Run Hours	5900.62
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.60	39	16

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	682814	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.54"	180

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	14 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 8/7/20

Back-up Generator			
Back-up Generator Run Hours	88.1	Back-up Generator Fuel Level	72%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System. Recorded Meters & Operations Data Outfall & Air Stripper look Clear.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 8/27/20

Arrival: 600pm Departure: 800pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.27	
EW-2	135.30	
EW-3	136.28	
EW-4	135.92	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.28	5728009	

Water in Equalization Tank (TK-100)[2]	22 inches	700 gallons

Compressed Air Supply			
AC-400 Run Hours	10738.87	AC-401 Run Hours	6116.83
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.2	38	15

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200		

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5	15.3	178

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	5 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 8/27/20

Back-up Generator			
Back-up Generator Run Hours	88.6	Back-up Generator Fuel Level	71%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

omments: Checked over treatment System.
Recorded Meters & Ops. Data.
- Swept floors & Cleaned up Work Area

k Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 9/10/20

Arrival: 900 AM Departure: 1000 AM

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	134.82	
EW-2	135.10	
EW-3	135.89	
EW-4	136.15	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16.72	6064890	

Water in Equalization Tank (TK-100)[2]	31 inches	950 gallons

Compressed Air Supply			
AC-400 Run Hours	10881.66	AC-401 Run Hours	6116.84
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	1830	36	15

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	1585022	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5	0.52	177

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	15 Gallons
		Anti-scalant Overstock:	37 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 9/10/20

Back-up Generator			
Back-up Generator Run Hours	89.2	Back-up Generator Fuel Level	71 %

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Ops. data
Air Stripper running good & looks Clean.
- Moped floor & Cleaned up Work Area.
- Removed Garbage bag & Disposed of F.H.
- Removed Vines Growing on front of Building

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 9/15/20

Arrival: 530 AM Departure: 630 AM

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	134.23	
EW-2	134.92	
EW-3	136.19	
EW-4	136.10	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.12	6182744	

Water in Equalization Tank (TK-100)[2]	39 inches	1,200 gallons

Compressed Air Supply			
AC-400 Run Hours	10881.66	AC-401 Run Hours	6167.57
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	17.0	35	15

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	1703399	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.57"	184

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	11 Gallons
		Anti-scalant Overstock:	37 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 9/15/20

Back-up Generator			
Back-up Generator Run Hours	89.8	Back-up Generator Fuel Level	72%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
& Reset remote Log in / Monitoring.
- Powered Down System & Rebooting

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 9/23/20

Arrival: 530pm Departure: 630pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	135.09	
EW-2	135.40	
EW-3	136.30	
EW-4	135.96	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.25	6363805	

Water in Equalization Tank (TK-100)[2]	33 inches	1,000 gallons

Compressed Air Supply			
AC-400 Run Hours	10883.08	AC-401 Run Hours	6238.57
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	18.03	37	15

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	1877194	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	19.5"	0.52"	177

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	5 → 30 Gallons
		Anti-scalant Overstock:	11 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 9/23/20

Back-up Generator			
Back-up Generator Run Hours	90.1	Back-up Generator Fuel Level	72%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data.

* Went to Run AC 401 & Noticed an Air leak on Condensate line.
Switched Back to Run AC-400.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vinnie Herring Date: 10-8-2020

Arrival: 4 00 pm Departure: 5 00 pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	8.9	
EW-2	9.6	
EW-3	5.5	
EW-4	5.3	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	18.48	6716332	16:20

Water in Equalization Tank (TK-100)[2]	40 inches	1200 gallons

Compressed Air Supply			
AC-400 Run Hours	34.43	AC-401 Run Hours	623.68
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	161.3		

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	215182	16:20

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201			

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	0.0 ml/hr	Anti-scalant Inventory (TK-200):	24 Gallons
		Anti-scalant Overstock:	Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vivian Henry Date: 10-8-2020

Back-up Generator			
Back-up Generator Run Hours	91.4	Back-up Generator Fuel Level	71 %

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer 402 AIR LEAK 401	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Drained condensate Backed on 400 - Did NOT ALTERNATE compressors - Leak Reported 9.23.2020

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vinnie Herring Date: 10-13-2020

Arrival: 15 30 Departure: 16 30

Purpose of Site Visit (circle the appropriate condition):

Routine Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	8.77	
EW-2	9.41	
EW-3	5.32	
EW-4	5.30	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16.35	6835252	1530

Water in Equalization Tank (TK-100)[2]	23 inches	700 gallons

Compressed Air Supply			
AC-400 Run Hours	11085.93	AC-401 Run Hours	6238.68
Active Air Compressor (circle)	AC-400 AC-401	PC-400 Pressure (psi)	75

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.7	34	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	~~3411872~~ 2329133	1530

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20	0.55	179

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	0.0 ml/hr	Anti-scalant Inventory (TK-200):	024 Gallons
		Anti-scalant Overstock:	Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vinnie Henry Date: 10-13-2020

Back-up Generator			
Back-up Generator Run Hours	91.4	Back-up Generator Fuel Level	77%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments:

Work Performed: Drain cond. sate Bucket.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vinnie Iorino Date: 10-21-2020

Arrival: 1600 Departure: 1100

Purpose of Site Visit (circle the appropriate condition):

Routine Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	8.39	
EW-2	9.43	
EW-3	5.06	
EW-4	5.68	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16.85	7025583	1600

Water in Equalization Tank (TK-100)[2]	33 inches	1600 gallons

Compressed Air Supply			
AC-400 Run Hours	11167.07	AC-401 Run Hours	238.68
Active Air Compressor (circle)	AC-400 / AC-401	PC-400 Pressure (psi)	~~11167.07~~ 75

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.22	34	12

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	2512131	1600

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20	5.2	175

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: Vinnie Harris Date: 10-21-2020

Back-up Generator			
Back-up Generator Run Hours	91.7	Back-up Generator Fuel Level	7.1

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments:

Work Performed: Drained condensation Bucket - Swept floors

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 11/4/20

Arrival: 400pm Departure: 500pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.32	
EW-2	134.23	
EW-3	135.31	
EW-4	135.86	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.86	7357542	

Water in Equalization Tank (TK-100)[2]	45 inches	1,400 gallons

Compressed Air Supply			
AC-400 Run Hours	11306.99	AC-401 Run Hours	6238.68
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.62	34	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	2835287	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	21.0	0.55	181

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	3/30 Gallons
		Anti-scalant Overstock:	99 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 11/4/20

Back-up Generator			
Back-up Generator Run Hours	92.4	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
Filled Redux Tank to 30.
Air Compressor 401 is still offline

Work Performed:

Appendix 1: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassil Date: 11/19/20

Arrival: 830 Am Departure: 930 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.64	
EW-2	133.97	
EW-3	135.29	
EW-4	136.03	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.33	7703125	

Water in Equalization Tank (TK-100)[2]	37 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	11448.42	AC-401 Run Hours	6239.19
Active Air Compressor (circle)	~~AC-400~~ (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.50	39	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	3180714	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	21.5	0.57	186

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	117 ml/hr	Anti-scalant Inventory (TK-200):	18 Gallons
		Anti-scalant Overstock:	99 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 11/18/20

Back-up Generator			
Back-up Generator Run Hours	93.1	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exercise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
* Checked over Air Compressor Fittings
& Oil levels.
AC 401 back in Service

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 11/25/20

Arrival: 400pm Departure: 500pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.54	
EW-2	133.77	
EW-3	135.21	
EW-4	135.92	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.68	7850622	

Water in Equalization Tank (TK-100)[2]	25 inches	800 gallons

Compressed Air Supply			
AC-400 Run Hours	11448.61	AC-401 Run Hours	6298.96
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.51	34	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	3329062	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5	0.55	182

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	13 Gallons
		Anti-scalant Overstock:	99 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 11/25/20

Back-up Generator			
Back-up Generator Run Hours	93.5	Back-up Generator Fuel Level	70%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exercise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
* Leaving AC 401 online

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 12/4/20

Back-up Generator			
Back-up Generator Run Hours	94.1	Back-up Generator Fuel Level	69%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Ok
Checked Outfall & Air Stripper are Clean

Work Performed:

Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 12/4/20

Arrival: 430pm Departure: 530pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.70	
EW-2	134.07	
EW-3	135.44	
EW-4	135.71	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16.40	8062541	

Water in Equalization Tank (TK-100)[2]	33 inches	1,000 gallons

Compressed Air Supply			
AC-400 Run Hours	11448.61	AC-401 Run Hours	6380.11
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	77

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.21	33	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	3536958	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.54"	181

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	6 → 30 Gallons
		Anti-scalant Overstock:	75 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 12/10/20

Back-up Generator			
Back-up Generator Run Hours	94.8	Back-up Generator Fuel Level	69%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)
MONTHLY	**MONTHLY**	**MONTHLY**	**MONTHLY**	**MONTHLY**
Inspect Air Compressor Outlet Filter	Exercise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System.
Recorded Meters & Operations Data
Checked outfall & Air Stripper look Clean.

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bussel Date: 12/10/20

Arrival: 615 Am Departure: 715 Am

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.59	
EW-2	134.23	
EW-3	135.53	
EW-4	135.78	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	16.99	8194320	

Water in Equalization Tank (TK-100)[2]	36 inches	1,100 gallons

Compressed Air Supply			
AC-400 Run Hours	11448.61	AC-401 Run Hours	6430.41
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	78

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.40	33	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	3665723	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	20.5"	0.54"	182

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	26 Gallons
		Anti-scalant Overstock:	75 Gallons

Notes:
[1] Describe In Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 12/17/20

Back-up Generator			
Back-up Generator Run Hours	95.2	Back-up Generator Fuel Level	69%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exervise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data
* Plowed & Shoveled Snow ≥ 18"

Work Performed:

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 12/17/20

Arrival: 500pm Departure: 700pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	133.86	
EW-2	134.28	
EW-3	135.57	
EW-4	135.91	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.87	8371222	

Water in Equalization Tank (TK-100)[2]	26 inches	800 gallons

Compressed Air Supply			
AC-400 Run Hours	11448.61	AC-401 Run Hours	6497.97
Active Air Compressor (circle)	(AC-400) AC-401	PC-400 Pressure (psi)	80

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.50	34	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	3840357	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	21.5"	0.57	186

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94 ml/hr	Anti-scalant Inventory (TK-200):	20 Gallons
		Anti-scalant Overstock:	75 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: CB Date: 12/31/20

Back-up Generator			
Back-up Generator Run Hours	96.2	Back-up Generator Fuel Level	68%

Routine Work (circle the routine work performed):

WEEKLY	WEEKLY	WEEKLY	MONTHLY	MONTHLY
Drain Air Compressor Tank and Dryer Condensate	Alternate Active Air Compressor and Dryer	Inspect Extraction Well Vaults	Inspect and Clean/Replace B-200 Inlet Filter	Inspect and Pump Down TK-300 (if ON float inverted)

MONTHLY	MONTHLY	MONTHLY	MONTHLY	MONTHLY
Inspect Air Compressor Outlet Filter	Exercise V-406	Inspect Air Stripper Trays (with AS-200 shut down) and Clean if Necessary	Run Back-up Generator Under Load	Site Perimeter Check

Comments: Checked over treatment System
Recorded Meters & Operations Data

Work Performed:

All

Appendix I: Operator Log
Physical Containment with Groundwater Treatment
Former Dennison/Monarch Systems Site
Operable Unit 01
New Windsor, New York

Operator: C. Bassel Date: 12/31/20

Arrival: 500pm Departure: 600pm

Purpose of Site Visit (circle the appropriate condition):

(Routine) Sampling Event Upset Condition[1] Modified Operation[1] Other[1]

Groundwater Extraction Wells		
Well	Water Level (ft AMSL)[2]	Well Cycle Count[3]
EW-1	134.66	
EW-2	134.98	
EW-3	136.13	
EW-4	136.01	

Influent Flow Meter	Flow Rate (gpm)	Totalizer Volume (gal)	Time
FIT-100	17.46	8701918	

Water in Equalization Tank (TK-100)[2]	32 inches	1,000 gallons

Compressed Air Supply			
AC-400 Run Hours	11569.08	AC-401 Run Hours	6497.97
Active Air Compressor (circle)	AC-400 (AC-401)	PC-400 Pressure (psi)	81

Air Stripper			
Transfer Pump	Flow Rate (gpm)	Pump Speed (Hz)[2]	Discharge Press. (psi)
FIT-200/PI-200	16.51	34	14

Transfer Flow Meter	Totalizer Volume (gal)	Time
FIT-200	4159030	

Blower	Sump Pressure (in. H_2O)	Pitot Tube Pressure (in. H_2O)	Flow Rate (scfm)[2]
DPI-200/DPI-201	21.0"	0.55"	182

Chemical Injection System			
Metering Pump (P-201) Discharge Rate:	94.0 ml/hr	Anti-scalant Inventory (TK-200):	9 → 30 Gallons
		Anti-scalant Overstock:	55 Gallons

Notes:
[1] Describe in Comments Section on Page 2.
[2] Reading taken from HMI located on the air stripper skid.
[3] Counters are located inside the respective well vault.

Appendix C: Laboratory Data Packages, Data Validation, and Data Usability Summary Reports – Spring 2020 Semi-Annual Monitoring

Data Usability Summary Report (DUSR)
NYSDEC ASP Category B

Client/Company:	VHB Engineering, Surveying, Landscape Architecture, & Geology, P.C., Albany, New York
Site/Project Name:	Former Dennison/Monarch Systems Site, New Windsor, New York Groundwater, Surface Water, and Sediment Pore Water Sampling May 2020
Laboratories:	Eurofins Lancaster Laboratories, Lancaster, Pennsylvania
SDGs/Lab Project #:	JCW54, JCW55, JCW56, JCW57, JCW58, JCW59, & JCW62
Date(s) of Collection:	May 11, 2020 through May 19, 2020 & May 26, 2020
Samples & Analyses:	60 groundwater, 17 surface water, 8 pore water, 3 Equipment Blanks, and 3 Trip Blanks for 22 project-specific Volatile Organic Compounds (VOCs)
Senior Data Reviewers:	Nancy C. Rothman, Ph.D., New Environmental Horizons, Inc. Susan D. Chapnick, M.S., New Environmental Horizons, Inc.
Date Completed:	July 9, 2020

This Data Usability Summary Report (DUSR) is based on guidance developed by the New York State Department of Conservation (NYSDEC) for technical review of analytical data as defined in DER-10 "Technical Guidance for Site Investigation and Remediation" (May 2010 with updates through April 2019). The objective of the DUSR is to determine whether or not the data as presented meet NYSDEC ASP 2005 or EPA method QC acceptance criteria and site-specific criteria for data quality and use.

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I. Required DUSR Questions

1. ***Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?***

   Yes.

2. ***Have all holding times been met?***

   Yes.

3. ***Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?***

   Yes. Some QC exceptions resulted in qualification of data as noted in the Data Validation Checklists (DV Checklists).

4. ***Have all of the data been generated using established and agreed upon analytical protocols?***

   Yes. Analytical data were generated using established EPA Methods (see analytical references in Section II below). Deviations from EPA and NYSDEC ASP 2005 QC protocols are discussed in the DV Checklists of this DUSR.

5. ***Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?***

   Yes. The raw data were checked to verify that detected results met retention time and mass spectral criteria, where applicable, for qualitative identification. A spot check was performed to verify quantitative accuracy (calculation verification) for reporting of validated results (see the DV Checklists).

6. ***Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?***

   Yes. The laboratory used the correct data qualifiers in reporting of results. Data qualifiers were changed for some results during this review, as discussed in the DV Checklists and Table 2 of this DUSR.

7. ***Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?***

   Yes. QC exceedances are specified in the DV Checklists. QC summary sheets from the data package have not been attached; however, all QC exceedances that required data qualification are summarized in Table 2 of the DUSR and flagged (qualified) in the validated electronic data deliverable (EDD).

II. Sample Descriptions and Analytical Parameters

The sample IDs, dates of sampling, identification of QC samples and the analytical parameters reviewed in this DUSR are listed below in Table 1. Any deviations noted for sample collection or receipt are documented in the DV Checklists.

Table 1. Sample Identification and Analytical Parameters Validated

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
RS-03	JCW54 / 1316310	5/12/2020	SW	VOC	Field Sample [used for MS/MSD]
RS-11	JCW54 / 1316313	5/12/2020	SW	VOC	Field Sample
RS-05	JCW54 / 1316314	5/12/2020	SW	VOC	Field Sample
RS-Dup	JCW54 / 1316315	5/12/2020	SW	VOC	Field Duplicate of RS-03
RS-04	JCW54 / 1316316	5/12/2020	SW	VOC	Field Sample
RS-07	JCW54 / 1316317	5/12/2020	SW	VOC	Field Sample
RS-14	JCW54 / 1316318	5/12/2020	SW	VOC	Field Sample
RS-16	JCW54 / 1316319	5/12/2020	SW	VOC	Field Sample
RS-08	JCW54 / 1316320	5/12/2020	SW	VOC	Field Sample
J02-BR02	JCW55 / 1316321	5/12/2020	GW	VOC	Field Sample
J02-UC01	JCW55 / 1316322	5/12/2020	GW	VOC	Field Sample
J02-BR01	JCW55 / 1316323	5/13/2020	GW	VOC	Field Sample
J01-UC02	JCW55 / 1316324	5/13/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J01-BR02	JCW55 / 1316325	5/13/2020	GW	VOC	Field Sample
J01-BR01	JCW55 / 1316326	5/13/2020	GW	VOC	Field Sample
J01-UC01	JCW55 / 1316327	5/13/2020	GW	VOC	Field Sample [used for MS/MSD]
PDB Blank	JCW56 / 1316330	5/11/2020	Water	VOC	Equipment Blank
RS-12A	JCW56 / 1316331	5/11/2020	SW	VOC	Field Sample
RS-01	JCW56 / 1316332	5/11/2020	SW	VOC	Field Sample
RS-13	JCW56 / 1316333	5/11/2020	SW	VOC	Field Sample
RS-06	JCW56 / 1316334	5/11/2020	SW	VOC	Field Sample
RS-15	JCW56 / 1316335	5/11/2020	SW	VOC	Field Sample
RS-09	JCW56 / 1316336	5/12/2020	SW	VOC	Field Sample
RS-02	JCW56 / 1316337	5/12/2020	SW	VOC	Field Sample
RS-10	JCW56 / 1316338	5/12/2020	SW	VOC	Field Sample
J15-UC02	JCW57 / 1316339	5/12/2020	GW	VOC	Field Sample
J15-UC01	JCW57 / 1316340	5/12/2020	GW	VOC	Field Sample
J17-UC01	JCW57 / 1316341	5/12/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J20-UC02	JCW57 / 1316342	5/13/2020	GW	VOC	Field Sample
J20-UC01	JCW57 / 1316343	5/13/2020	GW	VOC	Field Sample
J20-BR02	JCW57 / 1316344	5/13/2020	GW	VOC	Field Sample
J20-BR01	JCW57 / 1316345	5/13/2020	GW	VOC	Field Sample
J18-UC03	JCW57 / 1316346	5/13/2020	GW	VOC	Field Sample
EBAWR051420	JCW57 / 1316347	5/14/2020	Water	VOC	Equipment Blank
TB051220	JCW57 / 1316348	5/12/2020	Water	VOC	Trip Blank
J14-BR02	JCW58 / 1318256	5/19/2020	GW	VOC	Field Sample [used for MS/MSD]
J14-BR01	JCW58 / 1318257	5/19/2020	GW	VOC	Field Sample [used for MS/MSD]
J14-UC01	JCW58 / 1318260	5/19/2020	GW	VOC	Field Sample
J14-UC02	JCW58 / 1318261	5/19/2020	GW	VOC	Field Sample
EB-QML	JCW58 / 1318262	5/19/2020	Water	VOC	Equipment Blank
Trip Blank	JCW58 / 1318263	5/15/2020	Water	VOC	Trip Blank
J12-BR01	JCW58 / 1318264	5/17/2020	GW	VOC	Field Sample
J12-BR02	JCW58 / 1318265	5/17/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J13-UC02	JCW58 / 1318266	5/17/2020	GW	VOC	Field Sample
J13-UC03	JCW58 / 1318267	5/17/2020	GW	VOC	Field Sample
J13-BR01	JCW58 / 1318268	5/17/2020	GW	VOC	Field Sample
J13-BR02	JCW58 / 1318269	5/17/2020	GW	VOC	Field Sample
J08-UC01	JCW58 / 1318270	5/16/2020	GW	VOC	Field Sample
J11-BR02	JCW58 / 1318271	5/16/2020	GW	VOC	Field Sample
J11-BR01	JCW58 / 1318272	5/16/2020	GW	VOC	Field Sample
J11-UC01	JCW58 / 1318273	5/16/2020	GW	VOC	Field Sample
J11-UC02	JCW58 / 1318274	5/16/2020	GW	VOC	Field Sample
J04-BR02	JCW58 / 1318275	5/16/2020	GW	VOC	Field Sample
J04-BR01	JCW58 / 1318276	5/16/2020	GW	VOC	Field Sample
J07-UC02	JCW58 / 1318277	5/15/2020	GW	VOC	Field Sample
MW-1S	JCW58 / 1318278	5/15/2020	GW	VOC	Field Sample
DUP-03	JCW58 / 1318279	5/15/2020	GW	VOC	Field Duplicate of MW-1S
MW-10	JCW58 / 1318280	5/15/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J05-BR01	JCW58 / 1318281	5/15/2020	GW	VOC	Field Sample
J05-BR02	JCW58 / 1318282	5/15/2020	GW	VOC	Field Sample
DUP-01	JCW58 / 1318283	5/15/2020	GW	VOC	Field Duplicate of J05-BR02
RIZ-19	JCW58 / 1318284	5/15/2020	GW	VOC	Field Sample
J19-UC02	JCW59 / 1318285	5/18/2020	GW	VOC	Field Sample
J18-UC02	JCW59 / 1318286	5/18/2020	GW	VOC	Field Sample [used for MS/MSD]
J17-BR01	JCW59 / 1318289	5/18/2020	GW	VOC	Field Sample
J19-UC01	JCW59 / 1318290	5/18/2020	GW	VOC	Field Sample
J08-UC02	JCW59 / 1318291	5/18/2020	GW	VOC	Field Sample
MW-2I	JCW59 / 1318292	5/14/2020	GW	VOC	Field Sample
MW-2	JCW59 / 1318293	5/14/2020	GW	VOC	Field Sample
DUP-02	JCW59 / 1318294	5/14/2020	GW	VOC	Field Duplicate of MW-2
J23-UC01	JCW59 / 1318295	5/14/2020	GW	VOC	Field Sample
J23-UC02	JCW59 / 1318296	5/14/2020	GW	VOC	Field Sample
J06-UC01	JCW59 / 1318297	5/14/2020	GW	VOC	Field Sample
J06-UC02	JCW59 / 1318298	5/14/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J22-BR02	JCW59 / 1318299	5/14/2020	GW	VOC	Field Sample
J22-BR01	JCW59 / 1318300	5/14/2020	GW	VOC	Field Sample
J21-UC02	JCW59 / 1318301	5/14/2020	GW	VOC	Field Sample
J21-UC01	JCW59 / 1318302	5/14/2020	GW	VOC	Field Sample
RIZ-7	JCW59 / 1318303	5/14/2020	GW	VOC	Field Sample
J16-UC02	JCW59 / 1318304	5/15/2020	GW	VOC	Field Sample
J16-UC01	JCW59 / 1318305	5/15/2020	GW	VOC	Field Sample
J17-UC02	JCW59 / 1318306	5/15/2020	GW	VOC	Field Sample
Diff-Dup	JCW62 / 1320950	5/26/2020	PW	VOC	Field Duplicate of Diff-01
Diff-01	JCW62 / 1320951	5/26/2020	PW	VOC	Field Sample
Diff-02	JCW62 / 1320952	5/26/2020	PW	VOC	Field Sample
Diff-03	JCW62 / 1320953	5/26/2020	PW	VOC	Field Sample
Diff-04	JCW62 / 1320954	5/26/2020	PW	VOC	Field Sample
Diff-05	JCW62 / 1320955	5/26/2020	PW	VOC	Field Sample
Diff-06	JCW62 / 1320956	5/26/2020	PW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	SDG / Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
Diff-07	JCW62 / 1320957	5/26/2020	PW	VOC	Field Sample
TB052620	JCW62 / 1320958	5/26/2020	Water	VOC	Trip Blank

GW = Groundwater
PW = Pore Water
SW = Surface Water

Analytical Method References:

VOC: EPA SW846 Method 8260C for 22 project-specific VOCs (acetone, benzene, 2-butanone, carbon disulfide, chloroform, 1,2-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,4-dioxane, ethylbenzene, Freon 113, methylene chloride, naphthalene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, xylenes (total), and vinyl chloride) identified in Table 3-2 of the *Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090* (SAP); prepared for Avery Dennison Corporation by The Johnson Company (currently VHB), November 2018.

III. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Issues

The following QC elements, as applicable to the analytical methods, were reviewed during this DUSR:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and preservation criteria
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Surrogate Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries
- MS/MSD, sample/Laboratory Duplicate (LD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported (e.g., internal standard areas)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of the 22 project-specific VOCs, several results were negated (U) or estimated (J) due to QC issues. Table 2 (attached) summarizes the actions taken during this review. NEH generated a validated electronic data deliverable (EDD) based on the Eurofins Lancaster Laboratories EDDs received at NEH. All results were considered acceptable compared to NYSDEC ASP 2005 and EPA method criteria and usable for project decisions, with the understanding of the potential uncertainty (bias) in the qualified results.

Sensitivity for all results was considered acceptable since the non-detect values were supported by the instrument initial calibrations. There were no Project Action Limits (PALs) identified in Table 3-2 of the SAP for the analysis of these 22 project-specific VOCs.

As required by the DUSR, the DV Checklists attached to this DUSR report, one for each SDG analyzed, document the QC reviewed and the issues that required action or affected the data certainty in terms of the project data quality objectives (DQO) of accuracy, precision, representativeness, comparability, and sensitivity. The DQO for completeness can be evaluated by VHB after all the data planned for this SAP have been collected.

DV Qualifiers:

U = analyte is non-detect at the sample-specific Quantitation Limit (usable)
UJ = non-detect is usable as an estimated value
J = result is usable as an estimated value with indeterminate bias
J+ = result is usable as an estimated value with possible high bias
J- = result is usable as an estimated value with possible low bias
JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias
R = result is rejected due to severe QC exceedance and unusable for project objectives

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

SDG Number	Field Sample ID	Analytical Method	Analyte	DV Qualifier	DV Comment
JCW54	RS-03_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-03_05122020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-03_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-03_05122020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW54	RS-11_05122020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW54	RS-11_05122020	SW8260C	Carbon Disulfide	J	Bias Indeterminate: Result < QL
JCW54	RS-11_05122020	SW8260C	2-Butanone	J	Bias Indeterminate: Result < QL
JCW54	RS-05_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-05_05122020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-Dup_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-Dup_05122020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-Dup_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-04_05122020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-04_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-04_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-07_05122020	SW8260C	Vinyl Chloride	J	Bias Indeterminate: Result < QL
JCW54	RS-07_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-07_05122020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW54	RS-07_05122020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-07_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-14_05122020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW54	RS-14_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW55	J01-UC01_05132020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW55	J01-UC01_05132020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW56	PDB Blank_05112020	SW8260C	Methylene Chloride	J	Bias Indeterminate: Result < QL
JCW56	PDB Blank_05112020	SW8260C	Toluene	J	Bias Indeterminate: Result < QL
JCW56	RS-12A_05112020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-12A_05112020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-01_05112020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-01_05112020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-01_05112020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW56	RS-13_05112020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-13_05112020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-13_05112020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-06_05112020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW56	RS-15_05112020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-09_05122020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-09_05122020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-02_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-02_05122020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-02_05122020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

SDG Number	Field Sample ID	Analytical Method	Analyte	DV Qualifier	DV Comment
JCW56	RS-02_05122020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-02_05122020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW56	RS-10_05122020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-10_05122020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW56	RS-10_05122020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW56	RS-10_05122020	SW8260C	Toluene	J	Bias Indeterminate: Result < QL
JCW56	RS-10_05122020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW57	J20-UC02_05132020	SW8260C	trans-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW57	J20-UC02_05132020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW57	J20-UC02_05132020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW57	J20-UC02_05132020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW57	J20-UC01_05132020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW57	J20-UC01_05132020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW57	J20-UC01_05132020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW57	J20-BR02_05132020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	J14-BR01_05192020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW58	J14-UC01_05192020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	J14-UC02_05192020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	J13-UC03_05172020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	J13-BR01_05172020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	J08-UC01_05162020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW58	MW-1S_05152020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	MW-1S_05152020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW58	MW-1S_05152020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	DUP-03_05152020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	DUP-03_05152020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW58	DUP-03_05152020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	MW-10_05152020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW58	MW-10_05152020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	MW-10_05152020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW58	J05-BR01_05152020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW58	J05-BR02_05152020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	J05-BR02_05152020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	DUP-01_05152020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	DUP-01_05152020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW58	DUP-01_05152020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW58	RIZ-19_05152020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW59	J19-UC02_05182020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J18-UC02_05182020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW59	J18-UC02_05182020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J18-UC02_05182020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

SDG Number	Field Sample ID	Analytical Method	Analyte	DV Qualifier	DV Comment
JCW59	MW-2I_05142020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW59	MW-2_05142020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	DUP-02_05142020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J23-UC01_05142020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J23-UC01_05142020	SW8260C	Freon 113	J	Bias Indeterminate: Result < QL
JCW59	J23-UC02_05142020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW59	J23-UC02_05142020	SW8260C	Freon 113	J	Bias Indeterminate: Result < QL
JCW59	J06-UC01_05142020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW59	J21-UC02_05142020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW59	J21-UC01_05142020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW59	J21-UC01_05142020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J21-UC01_05142020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW59	RIZ-7_05142020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW59	RIZ-7_05142020	SW8260C	Tetrachloroethene	J	Bias Indeterminate: Result < QL
JCW59	J16-UC02_05152020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW59	J16-UC02_05152020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J16-UC02_05152020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW59	J16-UC01_05152020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW59	J16-UC01_05152020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW59	J16-UC01_05152020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW59	J17-UC02_05152020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW62	Diff-Dup_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-Dup_05262020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-Dup_05262020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-Dup_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW62	Diff-01_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-01_05262020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-01_05262020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-01_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW62	Diff-02_05262020	SW8260C	1,1-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-02_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW62	Diff-03_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-03_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW62	Diff-04_05262020	SW8260C	1,1,1-Trichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-04_05262020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-04_05262020	SW8260C	Toluene	U	Negated at the RL due to Field Blank Action
JCW62	Diff-04_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL
JCW62	Diff-04_05262020	SW8260C	2-Butanone	J	Bias Indeterminate: Result < QL
JCW62	Diff-05_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-05_05262020	SW8260C	cis-1,2-Dichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-06_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

SDG Number	Field Sample ID	Analytical Method	Analyte	DV Qualifier	DV Comment
JCW62	Diff-06_05262020	SW8260C	Chloroform	J	Bias Indeterminate: Result < QL
JCW62	Diff-07_05262020	SW8260C	1,1-Dichloroethane	J	Bias Indeterminate: Result < QL
JCW62	Diff-07_05262020	SW8260C	Trichloroethene	J	Bias Indeterminate: Result < QL
JCW62	Diff-07_05262020	SW8260C	Acetone	J	Bias Indeterminate: Result < QL

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/12/2020
Method of Analysis: 8260C

No. Samples: 8 + 1FD
Matrix: Surface Water

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	√	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 22 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/15/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. All samples were analyzed on 5/22/2020 in QC Batch Y201431AA. All samples were analyzed within HT - No Action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: VBLKY94 [reported in EDD as BLKY201431AA]

Trip Blank: none; EB: none

Blank ID	Contaminant / Level	Matrix Related?		Action Level / Action		Sample and Reported Result	Corrected Result
VBLKY94	None	-		-		No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCSY201431AA - no LCSD performed. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: MS/MSD performed on RS-03 (lab ID 1316310), as requested on the COC. All MS & MSD %Rec and MS/MSD RPDs were within lab criteria for all 22 target VOC indicating acceptable accuracy and precision for the method of analysis for the 22 VOCs - No Action required.

Tunes: Instrument HP09355 4/21/2020 (ICAL) & 5/22/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICAL: HP09355 analyzed 4/21-4/22/2020 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICAL and %RSD < 20%. ICV on 4/22/2020 reported %D < 20% for all 22 target compounds -Valid ICAL - No Action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

CCV: HP09355 5/22/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCV. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 22 results reported at levels < QL and flagged "J" by the laboratory. The result for trichloroethene in samples RS-07 was reported at the QL (1 µg/L) but was flagged as an estimated result by the lab since the value to more than 1 significant figure was < 1 µg/L; therefore, since the lab qualified this result as a "J" value, this was accepted for association with the final DV qualifiers. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 22 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample RS-05 (lab sample ID 1316314)

Response of Cpd = 66083 ; Response of IS (Fluorobenzene) = 1261648 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.3078
Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{66083 \times 50 \times 1}{1261648 \times 0.3078} = 8.5 = 9\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pair was RS-03 / RS-DUP. A comparison of detected results in this FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = RS-03 FD = RS-DUP

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1-Dichloroethane	1	0.4	J	> 2 x QL	0.5	J	> 2 x QL	22.2%	None
cis-1,2-Dichloroethene	1	0.7	J	> 2 x QL	0.6	J	> 2 x QL	15.4%	None
1,1,1-Trichloroethane	1	2		< 2 x QL	2		< 2 x QL	0.0%	None
Trichloroethene	1	7		> 2 x QL	7		2 x QL	0.0%	None
Tetrachloroethene	1	0.8	J	> 2 x QL	0.8	J	> 2 x QL	0.0%	None
Acetone	20	0.8	J	> 2 x QL	20	U	> 2 x QL	NC	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in FD pair RS-03 and RS-DUP indicating acceptable precision from sample collection through analysis for all 22 VOCs from the site location - No Action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/12/2020 - 5/13/2020 | No. Samples: 7

Method of Analysis: 8260C | Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	√	NA	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 2 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/15/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples J02-BR02 and J02-UC01 were analyzed on 5/22/2020 in QC Batch N201431AA and all other samples were analyzed on 5/23/2020 in QC Batch 5201441AA. All samples were analyzed within HT - No Action required.

Date: ***7/7/2020***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: VBLK567 & VBLKN45 [reported in EDD as BLK5201441AA and BLKN201431AA, respectively]

Trip Blank: none; EB: EBAWR051420 (reported in SDG JCW57) and EB-QML (reported in SDG JCW58)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VBLK567	None	-	-	No Blank Action required	
VBLKN45	None	-	-	No Blank Action required	
EBAWR051420	None	-	-	No Blank Action required	
EB-QML	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS5201441AA (LCS567) and LCSN201431AA (LCSN45) - no LCSD performed. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: MS/MSD performed on J01-UC01 (lab ID 1316327), as requested on the COC. All MS & MSD %Rec and MS/MSD RPDs were within lab criteria for all 22 target VOC except Tetrachloroethene MSD %Rec high. Since the MS %Rec and MS/MSD RPD were acceptable, no action taken for high MSD recovery for this compound. Overall, results indicate acceptable accuracy and precision for method of analysis of the site matrix for the 22 target VOCs - No Action required.

Field Duplicates (FD): there was no FD samples associated with the samples in this SDG; therefore, precision from sample collection through analysis could not be evaluated.

Tunes: Instrument HP07159 1/9/2020 (ICAL) & 5/22/2020 and Instrument HP26285 4/21/2020 (ICAL) & 5/23/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

ICALs: HP07159 & HP26285 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds -Valid ICALs - No Action required.

CCV: HP07159 5/22/2020 & HP26285 5/23/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except 1,4-dioxane %D = +22% in 5/23/2020 CCV due to increased sensitivity to detection of 1,4-dioxane on HP26285 on the day of the CCV as compared to the sensitivity during the ICAL. Since 1,4-dioxane was non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 2 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 2 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Tetrachloroethene in sample J01-UC01 (lab sample ID 1316327)

Response of Cpd = 62590 ; Response of IS (Chlorobenzene-d5) = 759348 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.4595

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Tetrachloroethene Conc.} = \frac{62590 \times 50 \times 1}{759348 \times 0.4595} = 8.97 = 9\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/11/2020 - 5/12/2020
Method of Analysis: 8260C

No. Samples: 8 + 1FB
Matrix: Surface Water

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	NA	NA	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 24 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/15/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. All samples were analyzed on 5/22/2020 in QC Batch N201431AA. All samples were analyzed within HT - No Action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: VBLKN45 [reported in EDD as BLKN201431AA]

Trip Blank: none; PDBBLANK reported in this SDG is associated with Diffusion Bag Samples reported in SDG JCW62

Blank ID	Contaminant / Level	Matrix Related?		Action Level / Action		Sample and Reported Result	Corrected Result
VBLKN45	None	-		-		No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCSN201431AA (LCSN45) - no LCSD performed. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: there was no MS/MSD analyses requested on the COC and none were performed on the samples in this SDG.

Field Duplicates (FD): there was no FD samples associated with the samples in this SDG; therefore, precision from sample collection through analysis could not be evaluated.

Tunes: Instrument HP07159 1/9/2020 (ICAL) & 5/22/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICAL: HP07159 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICAL and %RSD < 20%. ICV analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds -Valid ICAL - No Action required.

CCV: HP07159 5/22/2020 CCV min. RRF and maximum %D achieved for all target compounds in CCV. Valid CCV - No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 24 results reported at levels < QL and flagged "J" by the laboratory. The result for trichloroethene in samples RS-09 was reported at the QL (1 µg/L) but was flagged as an estimated result by the lab since the value to more than 1 significant figure was < 1 µg/L; therefore, since the lab qualified this result as a "J" value, this was accepted for association with the final DV qualifiers. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 24 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Calculation check: Trichloroethene in sample RS-13 (lab sample ID 1316333)

Response of Cpd = 58022 ; Response of IS (Fluorobenzene) = 1157179 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.3240

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{58022 \times 50 \times 1}{1157179 \times 0.3240} = 7.74 = 8\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/12/2020 - 5/13/2020
Method of Analysis: 8260C

No. Samples: 8 + 1EB + 1TB
Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	NA	NA	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 8 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/15/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples J15-UC02 and J15-UC01 were analyzed on 5/23/2020 in QC Batch 5201441AA; sample EBAWR051420 was analyzed on 5/26/2020 in QC Batch L201472AA; samples J17-UC01 and TB051220 were analyzed on 5/22/2020 in QC Batch Y201431AA, and the remaining 5 samples were analyzed on 5/23/2020 in QC Batch 5201441AA. All samples were analyzed within HT - No Action required.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action:

Blanks Reviewed: Method Blank: VBLK567, VBLKN45, VBLKL95, and VBLKY94 [reported in EDD as BLK5201441AA, BLKN201431AA, BLKL201472AA, and BLKY201431AA respectively]

Trip Blank: TB051220; EB: EBAWR051420 (reported in this SDG) and EB-QML (reported in SDG JCW58)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VBLK567	None	-	-	No Blank Action required	
VBLKN45	None	-	-	No Blank Action required	
VBLKL95	None	-	-	No Blank Action required	
VBLKY94	None	-	-	No Blank Action required	
TB051220	None	-	-	No Blank Action required	
EBAWR051420	None	-	-	No Blank Action required	
EB-QML	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS5201441AA (LCS567), LCSN201431AA (LCSN45), LCSL201472AA (LCSL95), and LCSY201431AA (LCSY94) - no LCSD performed. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: there was no MS/MSD analysis specified on the COC and none were reported for the samples in this SDG.

Field Duplicates (FD): there was no FD samples associated with the samples in this SDG; therefore, precision from sample collection through analysis could not be evaluated.

Date: ***7/7/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Tunes: Instrument HP07159 1/9/2020 (ICAL) & 5/22/2020 ; Instrument HP09355 4/21/2020 (ICAL) & 5/22/2020; Instrument HP09915 5/4/2020 (ICAL) & 5/26/2020; and Instrument HP26285 4/21/2020 (ICAL) & 5/23/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICALs: HP07159, HP09355, HP09915, & HP26285 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds except Acetone %D 29% (high bias) in HP09915 ICV. Since the EB analyzed on this instrument was non-detect for acetone and since the CCV analyzed prior to the EB was acceptable, no action for ICV exceedance. Valid ICALs generally - No Action required.

CCV: HP07159 5/22/2020, HP09355 5/22/2020; HP09915 5/26/2020; and HP26285 5/23/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except 1,4-dioxane %D = +22% in HP26285 5/23/2020 CCV due to increased sensitivity to detection of 1,4-dioxane on HP26285 on the day of the CCV as compared to the sensitivity during the ICAL. Since 1,4-dioxane was non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 8 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.

****ACTION: 8 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: 1,1,1-Trichloroethane in sample J18-UC03 (lab sample ID 1316346)

Response of Cpd = 30679 ; Response of IS (Fluorobenzene) = 887334 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.4945

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

1,1,1-Trichloroethane Conc. = $\frac{30679 \times 50 \times 1}{887334 \times 0.4945}$ = 3.49 = 3 µg/L √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/15/2020 - 5/17/2020 & 5/19/2020 | No. Samples: 23 + 2FD + 1EB + 1TB

Method of Analysis: 8260C | Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	√	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 22 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/20/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples Trip Blank and J07-UC02 were analyzed on 5/27/2020 in QC Batch 5201481AA; samples MW-1S, DUP-03, MW-10, J05-BR01, J05-BR02, DUP-01, and RIZ-19 were analyzed on 5/27/2020 through 5/28/2020 in QC Batch 5201482AA; sample J14-BR01 and the MS/MSD performed on this sample were analyzed on 5/29/2020 in QC Batch L201502AA; sample J14-BR02 and the MS/MSD performed on this sample were analyzed on 5/31/2020 in QC Batch L201521AAs; and the remaining 16 samples were analyzed on 5/29/2020 in QC Batch 5201501AA. All samples were analyzed within HT - No Action required.

Date: ***7/8/2020***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action:

Blanks Reviewed: Method Blank: VBLK572, VBLK573, VBLK578, VBLKL05, and VBLKL11 [reported in EDD as BLK5201481AA, BLK5201482AA, BLK5201501AA, BLKL201502AA, and BLKL201521AA, respectively]

Trip Blank: Trip Blank; EB: EBAWR051420 (reported in SDG JCW57) and EB-QML (reported in this SDG)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VBLK572	None	-	-	No Blank Action required	
VBLK573	None	-	-	No Blank Action required	
VBLK578	None	-	-	No Blank Action required	
VBLKL05	None	-	-	No Blank Action required	
VBLKL11	None	-	-	No Blank Action required	
Trip Blank	None	-	-	No Blank Action required	
EBAWR051420	None	-	-	No Blank Action required	
EB-QML	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS5201481AA (LCS572), LCS5201482AA/LCSD5201482AA (LCS573/LCSD573), LCS5201501AA (LCS578), LCSL201502AA (LCSL05), and LCSL201521AA (LCSL11) - no LCSD performed for 4 of the QC Batches. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS & LCSD %Rec and LCS/LCSD RPDs were within lab criteria. Therefore, the lab demonstrated acceptable accuracy and precision for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: two sets of MS/MSD performed: one set on J14-BR01, as requested on the COC, and another on J14-BR02. The MS&MSD %Rec and MS/MSD RPDs were within criteria for both sets of MS/MSD indicating acceptable accuracy and precision for the method of analysis of the 22 VOCs from the site matrices. No Action required.

Tunes: Instrument HP09915 5/4/2020 (ICAL), 5/29/2020, & 5/31/2020 and Instrument HP26285 4/21/2020 (ICAL), 5/27/2020 (2 tunes), & 5/29/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICALs: HP09915 & HP26285 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds except Acetone %D 29% (high bias) in HP09915 ICV. The CCV analyzed prior to samples will be used to verify the acceptability of the instrument for analysis of acetone. Valid ICALs - No Action required.

CCV: Instrument HP09915 5/29/2020 & 5/31/2020 and Instrument HP26285 5/27/2020 (2 CCVs), & 5/29/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except acetone %D > 20% in HP26285 for both 5/27/2020 CCVs and 1,4-dioxane %D > 20% on HP26285 5/27/2020 CCV @ 20:12 due to increased sensitivity to detection of these compounds on HP26285 on the days of the CCVs as compared to the sensitivity during the ICAL. Since acetone and 1,4-dioxane were non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Qualifier Action: there were 22 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.

****ACTION: 22 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample J13-UC02 (lab sample ID 1318266)

Response of Cpd = 661675; Response of IS (Fluorobenzene) = 918843 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.3496

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{661675 \times 50 \times 1}{918843 \times 0.3496} = 102.9 = 100\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pairs were J05-BR02 / DUP-01 and MW-1S / DUP-03. A comparison of detected results in each FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = J05-BR02 FD = DUP-01

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1-Dichloroethene	1	0.3	J	< 2 x QL	0.3	J	< 2 x QL	0.0%	None
1,1-Dichloroethane	1	2		2 x QL	2		2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	1	U	QL	0.2	J	< 2 x QL	NC	None
1,1,1-Trichloroethane	1	0.9	J	< 2 x QL	0.9	J	< 2 x QL	0.0%	None
Trichloroethene	1	9		> 2 x QL	9		> 2 x QL	0.0%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

Field Duplicate Evaluation_ Sample IDs: Sample = MW-1S FD = DUP-03

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1-Dichloroethene	1	0.4	J	< 2 x QL	0.4	J	< 2 x QL	0.0%	None
1,1-Dichloroethane	1	0.2	J	< 2 x QL	0.2	J	< 2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	0.4	J	< 2 x QL	0.4	J	< 2 x QL	0.0%	None
1,1,1-Trichloroethane	1	3		> 2 x QL	3		> 2 x QL	0.0%	None
Trichloroethene	1	5		> 2 x QL	5		> 2 x QL	0.0%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in both FD pairs J05-BR02 / DUP-01 and MW-1S / DUP-03. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site locations - No Action required.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/14/2020 - 5/15/2020 & 5/18/2020 | No. Samples: 19 + 1FD

Method of Analysis: 8260C | Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	√	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 25 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/20/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples MW-2I, MW-2 (DF=1 & DF=10), DUP-02 (DF=1), J23-UC01 (DF=1 & DF=10), J23-UC02 (DF=1 & DF=10), J06-UC01, J06-UC02, J22-BR02, J22-BR01, J21-UC02, J21-UC01, and RIZ-7 were analyzed on 5/27/2020 in QC Batch 5201481AA; samples DUP-02 (DF=10), J16-UC02, J16-UC01, and J17-UC02 were analyzed on 5/27/2020 through 5/28/2020 in QC Batch 5201482AA; and samples J19-UC02, J18-UC02 (and the MS/MSD on this sample), J17-BR01, J19-UC01, and J08, UCo2 were analyzed on 5/29/2020 in QC Batch 5201501AA . All samples were analyzed within HT - No Action required.

Date: ***7/8/2020***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action:

Blanks Reviewed: Method Blank: VBLK572, VBLK573, and VBLK578 [reported in EDD as BLK5201481AA, BLK5201482AA, and BLK5201501AA, respectively]

Trip Blank: none; EB: EBAWR051420 (reported in SDG JCW57) and EB-QML (reported in SDG JCW58)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VBLK572	None	-	-	No Blank Action required	
VBLK573	None	-	-	No Blank Action required	
VBLK578	None	-	-	No Blank Action required	
Trip Blank	None	-	-	No Blank Action required	
EBAWR051420	None	-	-	No Blank Action required	
EB-QML	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS5201481AA (LCS572), LCS5201482AA/LCSD5201482AA (LCS573/LCSD573), and LCS5201501AA (LCS578) - no LCSD performed for 2 of the QC Batches. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS & LCSD %Rec and LCS/LCSD RPDs were within lab criteria. Therefore, the lab demonstrated acceptable accuracy and precision for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: performed: one set on J18-UC02, as requested on the COC. The MS&MSD %Rec and MS/MSD RPDs were within criteria indicating acceptable accuracy and precision for the method of analysis of the 22 VOCs from the site matrix. No Action required.

Tunes: Instrument HP26285 4/21/2020 (ICAL), 5/27/2020 (2 tunes), & 5/29/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

ICAL: HP26285 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds. Valid ICAL - No Action required.

CCV: HP26285 5/27/2020 (2 CCVs), & 5/29/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except acetone %D > 20% in both 5/27/2020 CCVs and 1,4-dioxane %D > 20% on 5/27/2020 CCV @ 20:12 due to increased sensitivity to detection of these compounds on HP26285 on the days of the CCVs as compared to the sensitivity during the ICAL. Since acetone and 1,4-dioxane were non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) and samples MW-2, DUP-02, J23-UC01, and J23-UC02 were also analyzed at DF=10 to report Trichloroethene within the calibration range. The lab reported all DF=1 results for these samples except for Trichloroethene, which was reported from the DF=10 analysis.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 25 results reported at levels < QL and flagged "J" by the laboratory. The result for 1,1-diichloroethene in samples J18-UC02 and chloroform in sample J17-UC02 were reported at the QL (1 µg/L) but were flagged as estimated results by the lab since the values to more than 1 significant figure were < 1 µg/L; therefore, since the lab qualified these results as "J" values, this was accepted for association with the final DV qualifiers. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 25 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Calculation check: Trichloroethene in sample J23-UC02 (lab sample ID 1318296)

Response of Cpd = 313620; Response of IS (Fluorobenzene) = 859564 @ 50; 5-mL purge, DF = 10; RRF from ICAL = 0.3496
Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 10 x 5/5 = 10 µg/L √

$$\text{Trichloroethene Conc.} = \frac{313620 \times 50 \times 10}{859564 \times 0.3496} = 522 = 520\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pair was MW-2 / DUP-02. A comparison of detected results in the FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = MW-2 FD = DUP-02

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1-Dichloroethene	1	6		> 2 x QL	6		> 2 x QL	0.0%	None
1,1-Dichloroethane	1	0.9	J	2 x QL	0.9	J	2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	9		> 2 x QL	9		> 2 x QL	0.0%	None
1,1,1-Trichloroethane	1	45		> 2 x QL	46		> 2 x QL	2.2%	None
Trichloroethene	10	330		> 2 x QL	320		> 2 x QL	3.1%	None
Tetrachloroethene	1	3		> 2 x QL	3		> 2 x QL	0.0%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in the FD pair MW-2 / DUP-02. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site location - No Action required.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***7/8/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 5/26/2020
Method of Analysis: 8260C

No. Samples: 7 + 1FD + 1TB
Matrix: Pore Water

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	NA	√	√	√	√	NA	
No										Negate (U) 1 result

Comments: ***Qualifier Action:*** 23 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes.

Sample Receiving: Samples were received intact on 5/27/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. All samples were analyzed by 6/3/2020 in QC Batch L201542AA; therefore, all samples were analyzed within HT - No Action required.

Date: ***7/9/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Blank Action: Blanks Reviewed: Method Blank: VBLKL17 [reported in EDD as BLKL201542AA]

Trip Blank = TB052620; EB: PDB BLANK (reported in SDG JCW56)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
VBLKL17	None	-	-	No Blank Action required	
TB052620	None	-	-	No Blank Action required	
PDB Blank	Methylene Chloride 0.8 J µg/L	-	-	All samples ND so No Blank Action required	
PDB Blank	Toluene 0.6 J µg/L	-	-	Diff-04 0.5 J	1 U
				All other samples ND so no additional action	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCSL201542AA (LCSL17) - no LCSD performed. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: there was no MS/MSD analyses requested on the COC and none were performed on the samples in this SDG.

Tunes: Instrument HP09915 5/4/2020 (ICAL) & 6/2/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

Date: ***7/9/2020***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

ICAL: HP09915 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds except acetone; however, CCV will dictate whether action for acetone is required. Valid ICAL - No Action required.

CCV: 6/2/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCV. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) and no secondary dilution analyses were required.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 23 results reported at levels < QL and flagged "J" by the laboratory (this excludes the 1 "J" result that was negated due to Blank Action). All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 23 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample Diff-02 (lab sample ID 1320952)

Response of Cpd = 97887; Response of IS (Fluorobenzene) = 1246712 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.2613

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{97887 \times 50 \times 1}{1246712 \times 0.2613} = 15\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pair was Diff-01 /Diff-Dup. A comparison of detected results in the FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = Diff-01 FD = Diff-Dup

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1-Dichloroethane	1	0.7	J	2 x QL	0.7	J	2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	0.4	J	2 x QL	0.5	J	2 x QL	22.2%	None
Trichloroethene	1	0.2	J	2 x QL	0.3	J	2 x QL	40.0%	None *
Acetone	20	1	J	2 x QL	1	J	2 x QL	0.0%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in the FD pair Diff-01 and Diff-Dup. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site location - No Action required.

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***7/9/2020***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

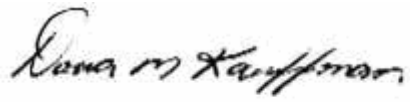
Project: AD-New Windsor, NY
Surface Water Samples
Collected on 05/12/20

SDG# JCW54

GROUP	SAMPLE NUMBERS
2099833	1316310-1316320

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by:  **Date: 06/12/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

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Table of Contents for SDG# JCW54

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 27
   a. Case Narrative/Conformance Summary 28
   b. Quality Control and Calibration Summary Forms 33
   c. Sample Data 58
   d. Standards Data 150
   e. Raw QC Data 307

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Sample Reference List for SDG Number JCW54
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1316310	RS-03	05/12/2020 08:20	05/15/2020 11:04	58301
1316311	RS-03 MS	05/12/2020 08:20	05/15/2020 11:04	58301
1316312	RS-03 MSD	05/12/2020 08:20	05/15/2020 11:04	58301
1316313	RS-11	05/12/2020 08:35	05/15/2020 11:04	58302
1316314	RS-05	05/12/2020 08:55	05/15/2020 11:04	58303
1316315	RS-Dup	05/12/2020 09:00	05/15/2020 11:04	58304
1316316	RS-04	05/12/2020 09:00	05/15/2020 11:04	58305
1316317	RS-07	05/12/2020 09:10	05/15/2020 11:04	58306
1316318	RS-14	05/12/2020 09:15	05/15/2020 11:04	58307
1316319	RS-16	05/12/2020 09:30	05/15/2020 11:04	58308
1316320	RS-08	05/12/2020 09:50	05/15/2020 11:04	58309

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Sample pH Log

SDG: JCW54

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1316310	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:50PM	2648
1316311	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316312	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316313	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316314	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316315	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316316	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316317	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316318	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316319	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316320	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648

*pH Check Code Key	**Chlorine Present Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added) **PA** = Original container checked - pH adjusted to correct range. (Preservative was added) **PV** = Volatile container checked **PC** = pH checked (unpreserved container) **SPK** = Subsampled from an original container. Original container checked - pH is within correct range **SPA** = Subsampled from an original container. Subsample container checked - pH adjusted to correct range. **SPC** = Subsampled from an original container. pH checked (unpreserved container). **SUP** = Subsampled from original container. Unable to be preserved due to the matrix of the sample. **UP** = Unable to preserve due to matrix of the sample. **NA** = Not applicable	**NA** = Chlorine Not Checked **Y** = Chlorine Present **N** = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: May 29, 2020 10:47

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2099833
SDG: JCW54
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
RS-03 Grab Surface Water	05/12/2020 08:20	1316310
RS-03 MS Grab Surface Water	05/12/2020 08:20	1316311
RS-03 MSD Grab Surface Water	05/12/2020 08:20	1316312
RS-11 Grab Surface Water	05/12/2020 08:35	1316313
RS-05 Grab Surface Water	05/12/2020 08:55	1316314
RS-Dup Grab Surface Water	05/12/2020 09:00	1316315
RS-04 Grab Surface Water	05/12/2020 09:00	1316316
RS-07 Grab Surface Water	05/12/2020 09:10	1316317
RS-14 Grab Surface Water	05/12/2020 09:15	1316318
RS-16 Grab Surface Water	05/12/2020 09:30	1316319
RS-08 Grab Surface Water	05/12/2020 09:50	1316320

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **RS-03 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:20
SDG#: JCW54-01BKG

VHB
ELLE Sample #: WW 1316310
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	0.8 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.7 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.8 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	7	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 11:33	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 11:32	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-03 MS Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:20
SDG#: JCW54-01MS

VHB
ELLE Sample #: WW 1316311
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	150	0.7	20	1
11997	Benzene	71-43-2	21	0.2	1	1
11997	2-Butanone	78-93-3	150	0.3	10	1
11997	Carbon Disulfide	75-15-0	20	0.2	5	1
11997	Chloroform	67-66-3	21	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	21	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	21	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	20	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	22	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	21	0.2	1	1
11997	1,4-Dioxane	123-91-1	480	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	21	0.2	10	1
11997	Methylene Chloride	75-09-2	21	0.3	1	1
11997	Naphthalene	91-20-3	19	1	5	1
11997	Tetrachloroethene	127-18-4	22	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	23	0.3	1	1
11997	Trichloroethene	79-01-6	29	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	64	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 11:54	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 11:53	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-03 MSD Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:20
SDG#: JCW54-01MSD

VHB
ELLE Sample #: WW 1316312
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	150	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	150	0.3	10	1
11997	Carbon Disulfide	75-15-0	20	0.2	5	1
11997	Chloroform	67-66-3	21	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	19	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	21	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	20	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	22	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	20	0.2	1	1
11997	1,4-Dioxane	123-91-1	480	29	250	1
11997	Ethylbenzene	100-41-4	20	0.4	1	1
11997	Freon 113	76-13-1	20	0.2	10	1
11997	Methylene Chloride	75-09-2	21	0.3	1	1
11997	Naphthalene	91-20-3	18	1	5	1
11997	Tetrachloroethene	127-18-4	22	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	22	0.3	1	1
11997	Trichloroethene	79-01-6	28	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	61	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 12:16	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 12:15	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-11 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:35
SDG#: JCW54-02

VHB
ELLE Sample #: WW 1316313
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	9 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	2 J	0.3	10	1
11997	Carbon Disulfide	75-15-0	0.4 J	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	2	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 13:00	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 12:59	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-05 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:55
SDG#: JCW54-03

VHB
ELLE Sample #: WW 1316314
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.9 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	1	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	9	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 13:22	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 13:21	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-Dup Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:00
SDG#: JCW54-04FD

VHB
ELLE Sample #: WW 1316315
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.5 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.6 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.8 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	7	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 13:44	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 13:43	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-04 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:00
SDG#: JCW54-05

VHB
ELLE Sample #: WW 1316316
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.5 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.2 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.2 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	4	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 14:06	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 14:05	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-07 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:10
SDG#: JCW54-06

VHB
ELLE Sample #: WW 1316317
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	1	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.6 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.4 J	0.3	1	1
11997	Trichloroethene	79-01-6	1 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	0.3 J	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 14:28	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 14:27	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-14 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:15
SDG#: JCW54-07

VHB
ELLE Sample #: WW 1316318
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.7 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.6 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 14:50	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 14:49	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-16 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:30
SDG#: JCW54-08

VHB
ELLE Sample #: WW 1316319
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 15:12	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 15:11	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-08 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 09:50
SDG#: JCW54-09

VHB
ELLE Sample #: WW 1316320
ELLE Group #: 2099833
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 15:34	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 15:33	Don V Viray	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 05/29/2020 10:47

Group Number: 2099833

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: Y201431AA	Sample number(s): 1316310-1316320		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y201431AA	Sample number(s): 1316310-1316320								
Acetone	150	139.23			93		54-157		
Benzene	20	19.27			96		80-120		
2-Butanone	150	145.9			97		59-135		
Carbon Disulfide	20	18.32			92		65-128		
Chloroform	20	19.84			99		80-120		
1,2-Dichlorobenzene	20	19.8			99		80-120		
1,1-Dichloroethane	20	19.36			97		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/29/2020 10:47

Group Number: 2099833

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloroethane	20	19.91			100		73-124		
1,1-Dichloroethene	20	18.01			90		80-131		
cis-1,2-Dichloroethene	20	20.14			101		80-125		
trans-1,2-Dichloroethene	20	19.07			95		80-126		
1,4-Dioxane	500	488.13			98		63-146		
Ethylbenzene	20	19.51			98		80-120		
Freon 113	20	17.33			87		73-139		
Methylene Chloride	20	20.12			101		80-120		
Naphthalene	20	19.2			96		53-124		
Tetrachloroethene	20	19.61			98		80-120		
Toluene	20	19.55			98		80-120		
1,1,1-Trichloroethane	20	19.4			97		67-126		
Trichloroethene	20	19.71			99		80-120		
Vinyl Chloride	20	19.32			97		56-120		
Xylene (Total)	60	59.68			99		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: Y201431AA	Sample number(s): 1316310-1316320 UNSPK: 1316310									
Acetone	0.812	150	148.17	150	154.56	98	102	54-157	4	30
Benzene	N.D.	20	20.57	20	20.27	103	101	80-120	1	30
2-Butanone	N.D.	150	147.92	150	147.84	99	99	59-135	0	30
Carbon Disulfide	N.D.	20	20.09	20	19.82	100	99	65-128	1	30
Chloroform	N.D.	20	20.99	20	20.68	105	103	80-120	1	30
1,2-Dichlorobenzene	N.D.	20	20.61	20	19.42	103	97	80-120	6	30
1,1-Dichloroethane	0.438	20	21.06	20	20.89	103	102	80-120	1	30
1,2-Dichloroethane	N.D.	20	20.97	20	20.58	105	103	73-124	2	30
1,1-Dichloroethene	N.D.	20	20.35	20	19.95	102	100	80-131	2	30
cis-1,2-Dichloroethene	0.689	20	22.44	20	22.28	109	108	80-120	1	30
trans-1,2-Dichloroethene	N.D.	20	21.01	20	20.34	105	102	80-120	3	30
1,4-Dioxane	N.D.	500	483.89	500	483.26	97	97	63-146	0	30
Ethylbenzene	N.D.	20	20.82	20	20.37	104	102	80-120	2	30
Freon 113	N.D.	20	20.78	20	19.95	104	100	73-139	4	30
Methylene Chloride	N.D.	20	21.2	20	20.97	106	105	80-120	1	30
Naphthalene	N.D.	20	18.97	20	18.06	95	90	53-124	5	30
Tetrachloroethene	0.797	20	22.42	20	21.6	108	104	80-120	4	30
Toluene	N.D.	20	20.91	20	20.5	105	103	80-120	2	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/29/2020 10:47

Group Number: 2099833

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,1,1-Trichloroethane	1.73	20	22.86	20	22.39	106	103	67-126	2	30
Trichloroethene	7.20	20	28.7	20	28.15	107	105	80-120	2	30
Vinyl Chloride	N.D.	20	21.31	20	21.34	107	107	56-120	0	30
Xylene (Total)	N.D.	60	63.77	60	61.43	106	102	80-120	4	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: Y201431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316310	99	102	97	94
1316311	99	102	98	97
1316312	98	102	98	96
1316313	100	102	96	94
1316314	101	103	97	93
1316315	100	104	96	93
1316316	100	102	97	93
1316317	102	104	97	93
1316318	101	103	97	94
1316319	101	105	97	94
1316320	102	102	97	93
Blank	99	102	97	94
LCS	98	101	98	96
MS	99	102	98	97
MSD	98	102	98	96
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # 2099833 Sample # 1316310-20

COC # 606394

Client Information

Client: VHB / The Johnson Company	Acct. #: 06556
Project Name/#: AD-New Windsor / 58300.00	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Adam Robtoy	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☒ | Other: ____

Analysis Requested — Preservation and Filtration Codes: H

For Lab Use Only: FSC: ____ SCR#: ____

Preservation Codes: H=HCl, T=Thiosulfate, N=HNO_3, B=NaOH, S=H_2SO_4, P=H_3PO_4, F=Field Filtered, O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Water	Other	Total # of Containers	8260-VOCs		MS/MSD								Remarks
RS-03	5/12/20	820	X			X		9	X		X								
RS-11	5/12/20	835	X			X		3	X										
RS-05	5/12/20	855	X			X		3	X										
RS-Dup	5/12/20	900	X			X		3	X										
RS-04	5/12/20	900	X			X		3	X										
RS-07	5/12/20	910	X			X		3	X										
RS-14	5/12/20	915	X			X		3	X										
RS-16	5/12/20	930	X			X		3	X										
RS-08	5/12/20	950	X			X		3	X										

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Glester@vhb.com

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5/14/20	1700			
			[signature]	5/15/2020	1104

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 2.4 °C

Eurofins Lancaster Laboratories Environmental, LLC • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300 • FOR HELP COMPLETING FORM CHECK OUT https://www.eurofinsus.com/coc

The white copy should accompany samples to Eurofins Lancaster Laboratories Environmental. The yellow copy should be retained by the client.

ES

7044 0919

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Sample Administration Receipt Documentation Log

Doc Log ID: 284647

Group Number(s): 2099833

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/15/2020
Number of Packages:	1	Number of Projects:	4
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.4	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-5994
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW54

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1316310	RS-03	X		1	Unspiked
1316311	RS-03 MS	X		1	Matrix Spike
1316312	RS-03 MSD	X		1	Matrix Spike Duplicate
1316313	RS-11	X		1	
1316314	RS-05	X		1	
1316315	RS-Dup	X		1	Field Duplicate Sample
1316316	RS-04	X		1	
1316317	RS-07	X		1	
1316318	RS-14	X		1	
1316319	RS-16	X		1	
1316320	RS-08	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW54

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g/L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW54

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	Y201431AA	VBLKY94	05/22/2020 10:48
		LCSY94	05/22/2020 10:04
		1316310 UNSPK	05/22/2020 11:33
		1316311 MS	05/22/2020 11:54
		1316312 MSD	05/22/2020 12:16
		1316313	05/22/2020 13:00
		1316314	05/22/2020 13:22
		1316315	05/22/2020 13:44
		1316316	05/22/2020 14:06
		1316317	05/22/2020 14:28
		1316318	05/22/2020 14:50
		1316319	05/22/2020 15:12
		1316320	05/22/2020 15:34

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW54
Matrix: LIQUID

Fraction: Volatiles by GC/MS

Y201431AA / VBLKY94 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Acetone	05/22/20	N.D.	ug/l	0.7	20
Freon 113	05/22/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/22/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/22/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/22/20	N.D.	ug/l	0.2	1
2-Butanone	05/22/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Chloroform	05/22/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/22/20	N.D.	ug/l	0.3	1
Benzene	05/22/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/22/20	N.D.	ug/l	0.3	1
Trichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/22/20	N.D.	ug/l	29	250
Toluene	05/22/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/22/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/22/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/22/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/22/20	N.D.	ug/l	0.2	5
Naphthalene	05/22/20	N.D.	ug/l	1	5

Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW54
Matrix: LIQUID

Fraction: Volatiles by GC/MS

Y201431AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKY94	102	80 - 120	94	80 - 120	99	80 - 120	97	80 - 120
LCSY94	101	80 - 120	96	80 - 120	98	80 - 120	98	80 - 120
1316310 UNSPK	102	80 - 120	94	80 - 120	99	80 - 120	97	80 - 120
1316311 MS	102	80 - 120	97	80 - 120	99	80 - 120	98	80 - 120
1316312 MSD	102	80 - 120	96	80 - 120	98	80 - 120	98	80 - 120
1316313	102	80 - 120	94	80 - 120	100	80 - 120	96	80 - 120
1316314	103	80 - 120	93	80 - 120	101	80 - 120	97	80 - 120
1316315	104	80 - 120	93	80 - 120	100	80 - 120	96	80 - 120
1316316	102	80 - 120	93	80 - 120	100	80 - 120	97	80 - 120
1316317	104	80 - 120	93	80 - 120	102	80 - 120	97	80 - 120
1316318	103	80 - 120	94	80 - 120	101	80 - 120	97	80 - 120
1316319	105	80 - 120	94	80 - 120	101	80 - 120	97	80 - 120
1316320	102	80 - 120	93	80 - 120	102	80 - 120	97	80 - 120

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1316310 MS: 1316311 MSD: 1316312 **Analyte**	Batch: **Y201431AA** (Sample number(s): 1316310-1316320)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	N.D.	21.31	21.34	107	107	56-120	0	30
1,1-Dichloroethene	20	N.D.	20.35	19.95	102	100	80-131	2	30
Acetone	150	0.812 J	148.17	154.56	98	102	54-157	4	30
Freon 113	20	N.D.	20.78	19.95	104	100	73-139	4	30
Carbon Disulfide	20	N.D.	20.09	19.82	100	99	65-128	1	30
Methylene Chloride	20	N.D.	21.2	20.97	106	105	80-120	1	30
trans-1,2-Dichloroethene	20	N.D.	21.01	20.34	105	102	80-120	3	30
1,1-Dichloroethane	20	0.438 J	21.06	20.89	103	102	80-120	1	30
2-Butanone	150	N.D.	147.92	147.84	99	99	59-135	0	30
cis-1,2-Dichloroethene	20	0.689 J	22.44	22.28	109	108	80-120	1	30
1,1,1-Trichloroethane	20	1.73	22.86	22.39	106	103	67-126	2	30
Chloroform	20	N.D.	20.99	20.68	105	103	80-120	1	30
1,2-Dichloroethane	20	N.D.	20.97	20.58	105	103	73-124	2	30
Benzene	20	N.D.	20.57	20.27	103	101	80-120	1	30
Trichloroethene	20	7.20	28.7	28.15	107	105	80-120	2	30
1,4-Dioxane	500	N.D.	483.89	483.26	97	97	63-146	0	30
Toluene	20	N.D.	20.91	20.5	105	103	80-120	2	30
Tetrachloroethene	20	0.797 J	22.42	21.6	108	104	80-120	4	30
Ethylbenzene	20	N.D.	20.82	20.37	104	102	80-120	2	30
Xylene (Total)	60	N.D.	63.77	61.43	106	102	80-120	4	30
1,2-Dichlorobenzene	20	N.D.	20.61	19.42	103	97	80-120	6	30
Naphthalene	20	N.D.	18.97	18.06	95	90	53-124	5	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW54
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSY94	Batch: **Y201431AA** (Sample number(s): 1316310-1316320)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	19.32	NA	97	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.01	NA	90	NA	80-131	NA	NA
Acetone	150	139.23	NA	93	NA	54-157	NA	NA
Freon 113	20	17.33	NA	87	NA	73-139	NA	NA
Carbon Disulfide	20	18.32	NA	92	NA	65-128	NA	NA
Methylene Chloride	20	20.12	NA	101	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.07	NA	95	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.36	NA	97	NA	80-120	NA	NA
2-Butanone	150	145.9	NA	97	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.14	NA	101	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.4	NA	97	NA	67-126	NA	NA
Chloroform	20	19.84	NA	99	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.91	NA	100	NA	73-124	NA	NA
Benzene	20	19.27	NA	96	NA	80-120	NA	NA
Trichloroethene	20	19.71	NA	99	NA	80-120	NA	NA
1,4-Dioxane	500	488.13	NA	98	NA	63-146	NA	NA
Toluene	20	19.55	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	19.61	NA	98	NA	80-120	NA	NA
Ethylbenzene	20	19.51	NA	98	NA	80-120	NA	NA
Xylene (Total)	60	59.68	NA	99	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.8	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.2	NA	96	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ya21t04.d BFB Injection Date: 04/21/20

Instrument ID: HP09355 BFB Injection Time: 21:21

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.26
75	30.0 - 60.0% of mass 95	44.59
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.91
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	81.64
175	5.0 - 9.0% of mass 174	6.02 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.63 (97.54)1
177	5.0 - 9.0% of mass 176	5.16 (6.48)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ya21i01.d	04/21/20	21:54
02	VSTD100	ya21i02.d	04/21/20	22:16
03	VSTD50	ya21i03.d	04/21/20	22:38
04	VSTD20	ya21i04.d	04/21/20	23:00
05	VSTD10	ya21i05.d	04/21/20	23:22
06	VSTD4	ya21i06.d	04/21/20	23:44
07	VSTD1	ya21i07.d	04/22/20	00:06
08	YLGICV	ya21v01.d	04/22/20	00:49

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: yy22t03.d BFB Injection Date: 05/22/20

Instrument ID: HP09355 BFB Injection Time: 09:08

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.94
75	30.0 - 60.0% of mass 95	45.49
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.17
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	76.63
175	5.0 - 9.0% of mass 174	5.65 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.13 (96.74)1
177	5.0 - 9.0% of mass 176	5.17 (6.97)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	yy22c01.d	05/22/20	09:42
02	LCSY94	yy22s01.d	05/22/20	10:04
03	VBLKY94	yy22b01.d	05/22/20	10:48
04	1316348	yy22s02.d	05/22/20	11:11
05	1316310	yy22s03.d	05/22/20	11:33
06	1316311MS	yy22s04.d	05/22/20	11:54
07	1316312MSD	yy22s05.d	05/22/20	12:16
08	1316313	yy22s06.d	05/22/20	13:00
09	1316314	yy22s07.d	05/22/20	13:22
10	1316315	yy22s08.d	05/22/20	13:44
11	1316316	yy22s09.d	05/22/20	14:06
12	1316317	yy22s10.d	05/22/20	14:28
13	1316318	yy22s11.d	05/22/20	14:50
14	1316319	yy22s12.d	05/22/20	15:12
15	1316320	yy22s13.d	05/22/20	15:34
16	1316341	yy22s14.d	05/22/20	15:56
17	1316387	yy22s15.d	05/22/20	16:18
18	1316388	yy22s16.d	05/22/20	16:40
19	1316389	yy22s17.d	05/22/20	17:02
20	1316390	yy22s18.d	05/22/20	17:24
21	1316391	yy22s19.d	05/22/20	17:46
22	1316392	yy22s20.d	05/22/20	18:08

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: yy22t03.d BFB Injection Date: 05/22/20

Instrument ID: HP09355 BFB Injection Time: 09:08

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.94
75	30.0 - 60.0% of mass 95	45.49
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.17
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	76.63
175	5.0 - 9.0% of mass 174	5.65 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.13 (96.74)1
177	5.0 - 9.0% of mass 176	5.17 (6.97)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316393	yy22s21.d	05/22/20	18:30
24	1316394	yy22s22.d	05/22/20	18:52
25	1316395	yy22s23.d	05/22/20	19:14

FORM V VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.2587	0.3121	0.3463	0.3435	0.3554	0.3508	0.3206	0.3268	10	AVG #
Chloromethane	#0.2969	0.2960	0.3100	0.3078	0.3043	0.3190	0.2663	0.3000	6	AVG #
1,3-Butadiene	0.2298	0.2547	0.2409	0.2504	0.2424	0.2621	0.2239	0.2435	6	AVG
Vinyl Chloride	#0.2757	0.2989	0.3143	0.3086	0.3093	0.3201	0.2675	0.2992	7	AVG #
Bromomethane	#0.2079	0.2161	0.2166	0.2174	0.2148	0.2048	0.1700	0.2068	8	AVG #
Chloroethane	#0.1586	0.1736	0.1738	0.1756	0.1719	0.1653	0.1416	0.1657	7	AVG #
Dichlorofluoromethane	0.4238	0.4529	0.4690	0.4518	0.4438	0.4460	0.4001	0.4410	5	AVG
n-Pentane	0.4892	0.4036	0.3800	0.3928	0.3765	0.3913	0.3367	0.3957	12	AVG
Trichlorofluoromethane	#0.2990	0.3494	0.3523	0.3508	0.3564	0.3573	0.3341	0.3427	6	AVG #
Ethyl ether	0.2618	0.2758	0.2738	0.2584	0.2584	0.2916	0.2550	0.2678	5	AVG
Freon 123a	0.2873	0.3265	0.3153	0.3330	0.3181	0.3265	0.3043	0.3158	5	AVG
Acrolein	2.0635	2.0505	2.1830	2.0205	2.1812	2.0606	1.8264	2.0551	6	AVG
1,1-Dichloroethene	#0.3370	0.2906	0.2683	0.2700	0.2537	0.2606	0.2453	0.2751	11	AVG #
1,1-Dichloroethene(2)	#0.1053	0.1197	0.1227	0.1275	0.1238	0.1288	0.1206	0.1212	6	AVG #
Acetone	#0.8581	0.9970	1.0479	0.9713	0.9642	0.9714	0.8996	0.9585	7	AVG #
Freon 113	#0.2029	0.2434	0.2505	0.2650	0.2555	0.2658	0.2537	0.2481	9	AVG #
2-Propanol	0.7627	0.7148	0.6719	0.7275	0.7142	0.7168	0.6775	0.7122	4	AVG
Methyl Iodide	0.3829	0.4324	0.4423	0.4592	0.4400	0.4562	0.4366	0.4357	6	AVG
Carbon Disulfide	#0.8198	0.9000	0.8879	0.9316	0.8921	0.9248	0.8743	0.8901	4	AVG #
Allyl Chloride	0.4302	0.4501	0.4310	0.4399	0.4307	0.4531	0.4157	0.4358	3	AVG
Methyl Acetate	#0.4194	0.3796	0.3895	0.3870	0.3925	0.4086	0.3806	0.3939	4	AVG #
Methylene Chloride	#0.2753	0.2888	0.2978	0.3090	0.2959	0.3064	0.2895	0.2947	4	AVG #
t-Butyl alcohol	1.2735	1.2517	1.2351	1.2553	1.2549	1.2354	1.1857	1.2416	2	AVG
Acrylonitrile	0.1878	0.2157	0.2395	0.2145	0.2307	0.2295	0.2100	0.2182	8	AVG
trans-1,2-Dichloroethene	#0.3111	0.3104	0.3054	0.3089	0.2935	0.3008	0.2835	0.3019	3	AVG #
Methyl Tertiary Butyl Ether	#0.9617	0.8692	0.8624	0.8843	0.8450	0.8663	0.7966	0.8694	6	AVG #
n-Hexane	0.3668	0.4286	0.4395	0.4724	0.4577	0.4789	0.4456	0.4414	8	AVG
1,1-Dichloroethane	#0.4575	0.5064	0.5197	0.5396	0.5189	0.5392	0.5030	0.5120	5	AVG #
di-Isopropyl ether	0.8431	0.9170	0.9493	0.9971	0.9691	0.9986	0.9040	0.9397	6	AVG
2-Chloro-1,3-butadiene	0.3399	0.3924	0.4068	0.4375	0.4304	0.4591	0.4339	0.4143	9	AVG
Ethyl t-butyl ether	0.7859	0.8202	0.8547	0.8933	0.8607	0.8802	0.7937	0.8412	5	AVG
cis-1,2-Dichloroethene	#0.3493	0.3489	0.3392	0.3486	0.3327	0.3428	0.3221	0.3405	3	AVG #
2-Butanone	#0.2818	0.2843	0.3121	0.2853	0.3086	0.3097	0.2790	0.2944	5	AVG #
2,2-Dichloropropane	0.3378	0.3834	0.3882	0.4024	0.3924	0.4086	0.3870	0.3857	6	AVG
Propionitrile	1.4888	1.5063	1.4884	1.5285	1.4973	1.4582	1.3887	1.4794	3	AVG
Methacrylonitrile	0.2063	0.2159	0.2264	0.2298	0.2257	0.2325	0.2149	0.2217	4	AVG
Bromochloromethane	0.1447	0.1598	0.1588	0.1630	0.1575	0.1660	0.1568	0.1581	4	AVG
Tetrahydrofuran	1.2312	1.3089	1.4407	1.3486	1.4894	1.4204	1.3344	1.3677	6	AVG
Chloroform	#0.4469	0.4856	0.4938	0.5147	0.4948	0.5169	0.4883	0.4916	5	AVG #
1,1,1-Trichloroethane	#0.3771	0.4169	0.4173	0.4389	0.4250	0.4454	0.4293	0.4214	5	AVG #
Cyclohexane	#0.4411	0.5084	0.5248	0.5589	0.5460	0.5714	0.5324	0.5261	8	AVG #
Cyclohexane(2)	#0.3573	0.4217	0.4376	0.4668	0.4527	0.4769	0.4482	0.4373	9	AVG #
Cyclohexane(3)	#0.1246	0.1561	0.1598	0.1731	0.1690	0.1759	0.1662	0.1607	11	AVG #
1,1-Dichloropropene	0.3546	0.3988	0.4129	0.4309	0.4164	0.4366	0.4119	0.4089	7	AVG
Carbon Tetrachloride	#0.3004	0.3444	0.3510	0.3739	0.3645	0.3846	0.3745	0.3562	8	AVG #
Isobutyl Alcohol	0.4610	0.4482	0.4323	0.4483	0.4500	0.4513	0.4280	0.4456	3	AVG
Benzene	#1.1850	1.2491	1.2427	1.2949	1.2419	1.2894	1.1939	1.2424	3	AVG #
1,2-Dichloroethane	#0.4108	0.3983	0.3970	0.4018	0.3874	0.4053	0.3893	0.3986	2	AVG #
1,2-Dichloroethane(2)	#0.0261	0.0363	0.0379	0.0399	0.0390	0.0404	0.0390	0.0369	13	AVG #<-
t-Amyl methyl ether	0.8135	0.8449	0.8665	0.8912	0.8597	0.8800	0.7854	0.8487	4	AVG
n-Heptane	0.4523	0.4745	0.4763	0.5006	0.4874	0.5070	0.4719	0.4814	4	AVG
n-Butanol	0.3690	0.4041	0.4147	0.4393	0.4493	0.4482	0.4127	0.4196	7	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2703	0.3025	0.3072	0.3231	0.3109	0.3265	0.3142	0.3078	6	AVG #
Methylcyclohexane	#0.4637	0.5544	0.5509	0.5762	0.5595	0.5913	0.5328	0.5470	8	AVG #
Methylcyclohexane(2)	#0.2067	0.2405	0.2412	0.2520	0.2462	0.2622	0.2394	0.2412	7	AVG #
1,2-Dichloropropane	#0.2897	0.3127	0.3217	0.3352	0.3251	0.3386	0.3042	0.3182	5	AVG #
Dibromomethane	0.1771	0.1971	0.1999	0.2107	0.2047	0.2151	0.2080	0.2018	6	AVG
1,4-Dioxane	0.0856	0.0990	0.1010	0.1032	0.1032	0.1111	0.1030	0.1009	8	AVG
Methyl Methacrylate	0.2579	0.2812	0.3075	0.3345	0.3414	0.3575	0.3504	0.3186	12	AVG
Bromodichloromethane	#0.2931	0.3363	0.3557	0.3842	0.3787	0.4057	0.3962	0.3643	11	AVG #
2-Nitropropane	0.1135	0.1207	0.1367	0.1287	0.1426	0.1444	0.1349	0.1316	9	AVG
2-Chloroethyl Vinyl Ether	0.1965	0.2315	0.2490	0.2687	0.2723	0.2878	0.2733	0.2541	12	AVG
cis-1,3-Dichloropropene	#0.4167	0.4523	0.4921	0.5261	0.5247	0.5562	0.5291	0.4996	10	AVG #
4-Methyl-2-pentanone	#0.4408	0.5063	0.5918	0.5552	0.6008	0.6139	0.5312	0.5486	11	AVG #
Toluene	#0.9915	1.0344	1.0426	1.0989	1.0532	1.0996	1.0205	1.0487	4	AVG #
trans-1,3-Dichloropropene	#0.5241	0.5651	0.6107	0.6557	0.6591	0.7011	0.6655	0.6259	10	AVG #
Ethyl Methacrylate	0.4922	0.5697	0.6494	0.7264	0.7507	0.8011	0.7514	0.6773	17	AVG
1,1,2-Trichloroethane	#0.3822	0.3999	0.4081	0.4276	0.4167	0.4388	0.4146	0.4126	4	AVG #
Tetrachloroethene	#0.3921	0.4168	0.4246	0.4514	0.4227	0.4560	0.4320	0.4279	5	AVG #
1,3-Dichloropropane	0.6627	0.6819	0.6991	0.7277	0.7131	0.7429	0.6919	0.7028	4	AVG
2-Hexanone	#0.4670	0.5368	0.6378	0.5999	0.6517	0.6568	0.5610	0.5873	12	AVG #
Dibromochloromethane	#0.3291	0.3719	0.3934	0.4319	0.4334	0.4671	0.4613	0.4126	12	AVG #
1,2-Dibromoethane	#0.3836	0.4151	0.4383	0.4651	0.4604	0.4850	0.4669	0.4449	8	AVG #
1-Chlorohexane	0.5707	0.5541	0.5699	0.5965	0.5817	0.6134	0.5674	0.5791	3	AVG
Chlorobenzene	#1.1218	1.1903	1.1919	1.2427	1.1876	1.2319	1.1280	1.1849	4	AVG #
1,1,1,2-Tetrachloroethane	0.3245	0.3701	0.3790	0.4098	0.4002	0.4225	0.3939	0.3857	8	AVG
Ethylbenzene	#1.8373	1.9654	2.0274	2.1344	2.0509	2.1446	1.8443	2.0006	6	AVG #
m+p-Xylene	#0.7000	0.7729	0.8069	0.8476	0.8147	0.8480	0.7367	0.7895	7	AVG #
o-Xylene	#0.6927	0.7524	0.7894	0.8332	0.7990	0.8304	0.7375	0.7764	7	AVG #
Styrene	#0.9637	1.1437	1.2528	1.3675	1.3464	1.4231	1.2587	1.2508	12	AVG #
Bromoform	#0.2344	0.2517	0.2822	0.3147	0.3293	0.3568	0.3621	0.3045	16	AVG #
Isopropylbenzene	#1.6722	1.9074	2.0114	2.1232	2.0434	2.1267	1.8136	1.9568	9	AVG #
Cyclohexanone	0.3113	0.3698	0.3853	0.4004	0.4010	0.4503	0.3999	0.3883	11	AVG
Bromobenzene	0.8914	0.9313	0.9516	1.0024	0.9729	1.0155	0.9153	0.9543	5	AVG
1,1,2,2-Tetrachloroethane	#1.2607	1.3458	1.3379	1.4036	1.3782	1.4328	1.2991	1.3512	4	AVG #
1,2,3-Trichloropropane	0.4145	0.4083	0.4299	0.4422	0.4326	0.4534	0.4195	0.4286	4	AVG
trans-1,4-Dichloro-2-butene	0.3892	0.4218	0.4441	0.4572	0.4548	0.4695	0.4040	0.4344	7	AVG
n-Propylbenzene	4.0410	4.4872	4.5759	4.7986	4.6258	4.7615	3.8353	4.4465	8	AVG
2-Chlorotoluene	0.8041	0.8950	0.9341	0.9663	0.9338	0.9769	0.9018	0.9160	6	AVG
4-Chlorotoluene	0.8377	0.9554	0.9762	1.0170	0.9760	1.0285	0.9478	0.9627	7	AVG
1,3,5-Trimethylbenzene	2.7214	3.1267	3.3076	3.4580	3.3466	3.4916	3.0297	3.2116	9	AVG
tert-Butylbenzene	0.5825	0.6313	0.6648	0.7220	0.6975	0.7336	0.6701	0.6716	8	AVG
Pentachloroethane	0.4505	0.4863	0.5063	0.5183	0.5412	0.5671	0.5509	0.5172	8	AVG
1,2,4-Trimethylbenzene	2.8604	3.3013	3.4590	3.6568	3.5484	3.6866	3.1437	3.3795	9	AVG
sec-Butylbenzene	3.6708	4.1065	4.2394	4.4768	4.3204	4.4867	3.6694	4.1386	8	AVG
1,3-Dichlorobenzene	#1.7171	1.7853	1.8471	1.9214	1.8697	1.9490	1.7002	1.8271	5	AVG #
p-Isopropyltoluene	2.9353	3.4414	3.5633	3.8087	3.6973	3.8399	3.1845	3.4958	10	AVG
1,4-Dichlorobenzene	#1.7721	1.8626	1.9133	1.9816	1.9174	2.0017	1.7576	1.8866	5	AVG #
1,2,3-Trimethylbenzene	3.1494	3.3827	3.4122	3.4681	3.3411	3.5074	2.9898	3.3215	6	AVG
Benzyl Chloride	2.1921	2.4301	2.6388	2.9046	2.9432	3.1043	2.7896	2.7147	12	AVG
1,3-Diethylbenzene	1.8531	2.1585	2.1738	2.2390	2.1664	2.2886	2.0140	2.1276	7	AVG
1,4-Diethylbenzene	1.9085	2.2765	2.3182	2.3766	2.2812	2.4114	2.0801	2.2361	8	AVG
1,2-Dichlorobenzene	#1.6571	1.7568	1.7820	1.8584	1.7963	1.8797	1.6914	1.7745	5	AVG #
n-Butylbenzene	1.6552	1.9021	1.9023	1.9960	1.9338	2.0146	1.7592	1.8805	7	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.6172	1.8381	1.8457	1.8772	1.7939	1.8998	1.6691	1.7916	6	AVG
1,2-Dibromo-3-chloropropane	#0.2908	0.2919	0.3172	0.3421	0.3444	0.3757	0.3668	0.3327	10	AVG #
1,3,5-Trichlorobenzene	1.2352	1.2791	1.3008	1.3661	1.3159	1.4128	1.3476	1.3225	4	AVG
1,2,4-Trichlorobenzene	#1.1632	1.1739	1.2277	1.2742	1.2447	1.3360	1.2704	1.2414	5	AVG #
Hexachlorobutadiene	0.5449	0.5441	0.5431	0.5726	0.5487	0.5912	0.5739	0.5598	3	AVG
Naphthalene	4.3161	4.3872	4.6155	4.8711	4.7251	4.9549	3.9167	4.5409	8	AVG
1,2,3-Trichlorobenzene	1.1713	1.1562	1.1871	1.2282	1.1905	1.2831	1.2044	1.2030	4	AVG
2-Methylnaphthalene	2.3925	2.3396	2.5509	2.6605	2.5142	2.8035	2.3027	2.5091	7	AVG
Dibromofluoromethane	0.2258	0.2262	0.2260	0.2281	0.2263	0.2273	0.2300	0.2271	1	AVG
Dibromofluoromethane(2)	0.2295	0.2310	0.2326	0.2319	0.2313	0.2326	0.2337	0.2318	1	AVG
1,2-Dichloroethane-d4	0.0599	0.0608	0.0606	0.0598	0.0602	0.0586	0.0592	0.0599	1	AVG
1,2-Dichloroethane-d4(2)	0.2700	0.2700	0.2665	0.2658	0.2674	0.2640	0.2663	0.2671	1	AVG
1,2-Dichloroethane-d4(3)	0.0382	0.0385	0.0382	0.0385	0.0382	0.0379	0.0377	0.0382	1	AVG
Toluene-d8	1.3160	1.3081	1.2997	1.3068	1.3024	1.3001	1.3063	1.3056	0	AVG
Toluene-d8(2)	0.8449	0.8351	0.8311	0.8378	0.8370	0.8376	0.8429	0.8381	1	AVG
4-Bromofluorobenzene	0.4967	0.4965	0.4932	0.4937	0.4939	0.4938	0.4953	0.4947	0	AVG
4-Bromofluorobenzene(2)	0.3831	0.3818	0.3784	0.3806	0.3803	0.3800	0.3832	0.3810	0	AVG

Average %RSD 6

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP09355.i/20apr21a.b/ya21i01.d	VSTD300
/chem2/HP09355.i/20apr21a.b/ya21i02.d	VSTD100
/chem2/HP09355.i/20apr21a.b/ya21i03.d	VSTD050
/chem2/HP09355.i/20apr21a.b/ya21i04.d	VSTD020
/chem2/HP09355.i/20apr21a.b/ya21i05.d	VSTD010
/chem2/HP09355.i/20apr21a.b/ya21i06.d	VSTD004
/chem2/HP09355.i/20apr21a.b/ya21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	ya21i01.d	ya21i02.d	ya21i03.d	ya21i04.d	ya21i05.d	ya21i06.d	ya21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	381281	388401	393548	390431	407507	386560	376556	389183	3	Yes
Fluorobenzene	1254678	1242825	1312885	1294339	1308564	1291427	1266407	1281589	2	Yes
Chlorobenzene-d5	940346	921611	977085	956851	969376	949078	923376	948246	2	Yes
1,4-Dichlorobenzene-d4	498086	487855	518745	512562	518818	507990	497288	505906	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ya21i01.d	ya21i02.d	ya21i03.d	ya21i04.d	ya21i05.d	ya21i06.d	ya21i07.d	Avg. RT
t-Butyl alcohol-d10	4.355	4.343	4.349	4.349	4.356	4.361	4.355	4.353
Fluorobenzene	7.865	7.866	7.866	7.866	7.866	7.865	7.866	7.866
Chlorobenzene-d5	11.303	11.303	11.303	11.303	11.303	11.303	11.303	11.303
1,4-Dichlorobenzene-d4	13.183	13.177	13.177	13.177	13.177	13.176	13.176	13.177

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/22/2020 at 08:06.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3268	0.3006	18.40	20	-8	#
# Chloromethane	0.3000	0.3274	21.83	20	9	#
1,3-Butadiene	0.2435	0.2880	23.66	20	18	
# Vinyl Chloride	0.2992	0.3238	21.65	20	8	#
# Bromomethane	0.2068	0.2322	22.45	20	12	#
# Chloroethane	0.1657	0.1812	21.87	20	9	#
Dichlorofluoromethane	0.4410	0.4738	21.49	20	7	
n-Pentane	0.3957	0.4139	20.92	20	5	
# Trichlorofluoromethane	0.3427	0.4114	24.01	20	20	#
Ethyl ether	0.2678	0.2585	19.30	20	-3	
Freon 123a	0.3158	0.3331	21.09	20	5	
Acrolein	2.0551	1.9324	141.05	150	-6	
# 1,1-Dichloroethene	0.2751	0.2720	19.77	20	-1	#
# Acetone	0.9585	0.9516	148.92	150	-1	#
# Freon 113	0.2481	0.2676	21.57	20	8	#
2-Propanol	0.7122	0.6716	141.46	150	-6	
Methyl Iodide	0.4357	0.4327	19.87	20	-1	
# Carbon Disulfide	0.8901	0.9011	20.25	20	1	#
Allyl Chloride	0.4358	0.4936	22.65	20	13	
# Methyl Acetate	0.3939	0.4234	21.50	20	7	#
# Methylene Chloride	0.2947	0.3071	20.84	20	4	#
t-Butyl alcohol	1.2416	1.2366	199.20	200	0	
Acrylonitrile	0.2182	0.2166	99.25	100	-1	
# trans-1,2-Dichloroethene	0.3019	0.3041	20.14	20	1	#
# Methyl Tertiary Butyl Ether	0.8694	0.8597	19.78	20	-1	#
n-Hexane	0.4414	0.4747	21.51	20	8	
# 1,1-Dichloroethane	0.5120	0.5232	20.43	20	2	#
di-Isopropyl ether	0.9397	0.9712	20.67	20	3	
2-Chloro-1,3-butadiene	0.4143	0.4243	20.48	20	2	
Ethyl t-butyl ether	0.8412	0.8581	20.40	20	2	
# cis-1,2-Dichloroethene	0.3405	0.3569	20.96	20	5	#
# 2-Butanone	0.2944	0.3015	153.63	150	2	#
2,2-Dichloropropane	0.3857	0.4009	20.79	20	4	
Propionitrile	1.4794	1.5442	156.56	150	4	
Methacrylonitrile	0.2217	0.2267	153.43	150	2	
Bromochloromethane	0.1581	0.1677	21.21	20	6	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.3677	1.4191	103.76	100	4	
#	Chloroform	0.4916	0.4966	20.21	20	1	#
#	1,1,1-Trichloroethane	0.4214	0.4214	20.00	20	0	#
#	Cyclohexane	0.5261	0.5387	20.48	20	2	#
	1,1-Dichloropropene	0.4089	0.4167	20.38	20	2	
#	Carbon Tetrachloride	0.3562	0.3610	20.27	20	1	#
	Isobutyl Alcohol	0.4456	0.4403	494.00	500	-1	
#	Benzene	1.2424	1.2352	19.88	20	-1	#
#	1,2-Dichloroethane	0.3986	0.3973	19.94	20	0	#
	t-Amyl methyl ether	0.8487	0.8597	20.26	20	1	
	n-Heptane	0.4814	0.4654	19.34	20	-3	
	n-Butanol	0.4196	0.4166	992.80	1000	-1	
#	Trichloroethene	0.3078	0.3050	19.82	20	-1	#
#	Methylcyclohexane	0.5470	0.5945	21.74	20	9	#
#	1,2-Dichloropropane	0.3182	0.3287	20.66	20	3	#
	Dibromomethane	0.2018	0.2045	20.27	20	1	
	1,4-Dioxane	0.1009	0.0999	495.29	500	-1	
	Methyl Methacrylate	0.3186	0.3362	21.10	20	6	
#	Bromodichloromethane	0.3643	0.3673	20.17	20	1	#
	2-Nitropropane	0.1316	0.1255	19.07	20	-5	
	2-Chloroethyl Vinyl Ether	0.2541	0.2575	20.26	20	1	
#	cis-1,3-Dichloropropene	0.4996	0.5026	20.12	20	1	#
#	4-Methyl-2-pentanone	0.5486	0.5714	104.15	100	4	#
#	Toluene	1.0487	1.0498	20.02	20	0	#
#	trans-1,3-Dichloropropene	0.6259	0.6163	19.69	20	-2	#
	Ethyl Methacrylate	0.6773	0.6485	19.15	20	-4	
#	1,1,2-Trichloroethane	0.4126	0.4238	20.55	20	3	#
#	Tetrachloroethene	0.4279	0.4243	19.83	20	-1	#
	1,3-Dichloropropane	0.7028	0.6965	19.82	20	-1	
#	2-Hexanone	0.5873	0.6219	105.90	100	6	#
#	Dibromochloromethane	0.4126	0.4199	20.35	20	2	#
#	1,2-Dibromoethane	0.4449	0.4466	20.08	20	0	#
	1-Chlorohexane	0.5791	0.5612	19.38	20	-3	
#	Chlorobenzene	1.1849	1.1930	20.14	20	1	#
	1,1,1,2-Tetrachloroethane	0.3857	0.3899	20.22	20	1	
#	Ethylbenzene	2.0006	2.0267	20.26	20	1	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.7895	0.8115	41.11	40	3	#
# o-Xylene	0.7764	0.7888	20.32	20	2	#
# Styrene	1.2508	1.2922	20.66	20	3	#
# Bromoform	0.3045	0.2922	19.20	20	-4	#
# Isopropylbenzene	1.9568	2.0299	20.75	20	4	#
Cyclohexanone	0.3883	0.3701	476.60	500	-5	
Bromobenzene	0.9543	0.9433	19.77	20	-1	
# 1,1,2,2-Tetrachloroethane	1.3512	1.3462	19.93	20	0	#
1,2,3-Trichloropropane	0.4286	0.4254	19.85	20	-1	
trans-1,4-Dichloro-2-butene	0.4344	0.4534	104.38	100	4	
n-Propylbenzene	4.4465	4.5963	20.67	20	3	
2-Chlorotoluene	0.9160	0.9137	19.95	20	0	
4-Chlorotoluene	0.9627	0.9614	19.97	20	0	
1,3,5-Trimethylbenzene	3.2116	3.2730	20.38	20	2	
tert-Butylbenzene	0.6716	0.6539	19.47	20	-3	
Pentachloroethane	0.5172	0.5471	21.15	20	6	
1,2,4-Trimethylbenzene	3.3795	3.4015	20.13	20	1	
sec-Butylbenzene	4.1386	4.2418	20.50	20	2	
# 1,3-Dichlorobenzene	1.8271	1.8474	20.22	20	1	#
p-Isopropyltoluene	3.4958	3.5986	20.59	20	3	
# 1,4-Dichlorobenzene	1.8866	1.9156	20.31	20	2	#
1,2,3-Trimethylbenzene	3.3215	3.6350	21.89	20	9	
Benzyl Chloride	2.7147	2.4203	17.83	20	-11	
1,3-Diethylbenzene	2.1276	2.2561	21.21	20	6	
1,4-Diethylbenzene	2.2361	2.3758	21.25	20	6	
# 1,2-Dichlorobenzene	1.7745	1.7635	19.88	20	-1	#
n-Butylbenzene	1.8805	1.8589	19.77	20	-1	
1,2-Diethylbenzene	1.7916	1.8780	20.97	20	5	
# 1,2-Dibromo-3-chloropropane	0.3327	0.3223	19.37	20	-3	#
1,3,5-Trichlorobenzene	1.3225	1.2688	19.19	20	-4	
# 1,2,4-Trichlorobenzene	1.2414	1.1931	19.22	20	-4	#
Hexachlorobutadiene	0.5598	0.5205	18.60	20	-7	
Naphthalene	4.5409	4.4994	19.82	20	-1	
1,2,3-Trichlorobenzene	1.2030	1.1402	18.96	20	-5	
2-Methylnaphthalene	2.5091	2.3638	18.84	20	-6	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09355.i/20apr21a.b/ya21i07.d
/chem2/HP09355.i/20apr21a.b/ya21i06.d
/chem2/HP09355.i/20apr21a.b/ya21i05.d
/chem2/HP09355.i/20apr21a.b/ya21i04.d
/chem2/HP09355.i/20apr21a.b/ya21i03.d
/chem2/HP09355.i/20apr21a.b/ya21i02.d
/chem2/HP09355.i/20apr21a.b/ya21i01.d

File /chem2/HP09355.i/20apr21a.b/ya21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09355.i/20may22a.b/yy22c01.d

RT Summary

Internal Standard Name	File ID: yy22c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.361	4.349	Yes
Fluorobenzene	7.866	7.866	Yes
Chlorobenzene-d5	11.303	11.303	Yes
1,4-Dichlorobenzene-d4	13.177	13.177	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: yy22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	458603	393548	196774	787096	Yes
Fluorobenzene	1403660	1312885	656442	2625770	Yes
Chlorobenzene-d5	1061412	977085	488542	1954170	Yes
1,4-Dichlorobenzene-d4	571512	518745	259372	1037490	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/22/2020 at 10:21

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Dichlorodifluoromethane	0.3268	0.3586	54.88	50	10	#
#	Chloromethane	0.3000	0.3043	50.72	50	1	#
	1,3-Butadiene	0.2435	0.2301	47.26	50	-5	
#	Vinyl Chloride	0.2992	0.3127	52.25	50	5	#
#	Bromomethane	0.2068	0.2257	54.58	50	9	#
#	Chloroethane	0.1657	0.1749	52.75	50	5	#
	n-Pentane	0.3957	0.3352	42.35	50	-15	
#	Trichlorofluoromethane	0.3427	0.3593	52.42	50	5	#
	Ethyl ether	0.2678	0.2494	46.55	50	-7	
	Freon 123a	0.3158	0.2947	46.66	50	-7	
	Acrolein	2.0551	1.7888	435.21	500	-13	
#	1,1-Dichloroethene	0.2751	0.2504	45.50	50	-9	#
#	1,1-Dichloroethene(2)	0.1212	0.1200	49.51	50	-1	#
#	Acetone	0.9585	0.9354	97.59	100	-2	#
#	Freon 113	0.2481	0.2356	47.47	50	-5	#
	2-Propanol	0.7122	0.6670	234.13	250	-6	
	Methyl Iodide	0.4357	0.4346	49.88	50	0	
#	Carbon Disulfide	0.8901	0.8213	46.14	50	-8	#
	Allyl Chloride	0.4358	0.4085	46.86	50	-6	
#	Methyl Acetate	0.3939	0.3786	48.06	50	-4	#
#	Methylene Chloride	0.2947	0.2895	49.13	50	-2	#
	t-Butyl alcohol	1.2416	1.2158	244.80	250	-2	
	Acrylonitrile	0.2182	0.2084	47.74	50	-5	
#	trans-1,2-Dichloroethene	0.3019	0.2891	47.87	50	-4	#
#	Methyl Tertiary Butyl Ether	0.8694	0.8269	47.56	50	-5	#
	n-Hexane	0.4414	0.4075	46.17	50	-8	
#	1,1-Dichloroethane	0.5120	0.4862	47.48	50	-5	#
	di-Isopropyl ether	0.9397	0.8494	45.20	50	-10	
	2-Chloro-1,3-butadiene	0.4143	0.4088	49.33	50	-1	
	Ethyl t-butyl ether	0.8412	0.8066	47.94	50	-4	
#	cis-1,2-Dichloroethene	0.3405	0.3241	47.59	50	-5	#
#	2-Butanone	0.2944	0.2732	92.81	100	-7	#
	2,2-Dichloropropane	0.3857	0.3825	49.59	50	-1	
	Propionitrile	1.4794	1.3841	233.89	250	-6	
	Methacrylonitrile	0.2217	0.2167	122.20	125	-2	
	Bromochloromethane	0.1581	0.1631	51.58	50	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.3677	1.2665	92.61	100	-7	
# Chloroform	0.4916	0.4746	48.27	50	-3	#
# 1,1,1-Trichloroethane	0.4214	0.4095	48.59	50	-3	#
# Cyclohexane	0.5261	0.4662	44.30	50	-11	#
# Cyclohexane(2)	0.4373	0.4096	46.83	50	-6	#
# Cyclohexane(3)	0.1607	0.1498	46.62	50	-7	#
1,1-Dichloropropene	0.4089	0.3932	48.08	50	-4	
# Carbon Tetrachloride	0.3562	0.3472	48.73	50	-3	#
Isobutyl Alcohol	0.4456	0.3912	548.64	625	-12	
# Benzene	1.2424	1.1849	47.69	50	-5	#
# 1,2-Dichloroethane	0.3986	0.3857	48.39	50	-3	#
# 1,2-Dichloroethane(2)	0.0369	0.0385	52.11	50	4	#<-
t-Amyl methyl ether	0.8487	0.8488	50.00	50	0	
n-Heptane	0.4814	0.4321	44.88	50	-10	
n-Butanol	0.4196	0.3685	1097.61	1250	-12	
# Trichloroethene	0.3078	0.3015	48.98	50	-2	#
# Methylcyclohexane	0.5470	0.5179	47.34	50	-5	#
# Methylcyclohexane(2)	0.2412	0.2347	48.66	50	-3	#
# 1,2-Dichloropropane	0.3182	0.3003	47.18	50	-6	#
Dibromomethane	0.2018	0.1985	49.19	50	-2	
1,4-Dioxane	0.1009	0.1026	636.04	625	2	
Methyl Methacrylate	0.3186	0.3275	51.39	50	3	
# Bromodichloromethane	0.3643	0.3655	50.18	50	0	#
2-Nitropropane	0.1316	0.1324	100.58	100	1	
2-Chloroethyl Vinyl Ether	0.2541	0.2545	50.08	50	0	
# cis-1,3-Dichloropropene	0.4996	0.4886	48.90	50	-2	#
# 4-Methyl-2-pentanone	0.5486	0.5084	92.68	100	-7	#
# Toluene	1.0487	1.0142	48.35	50	-3	#
# trans-1,3-Dichloropropene	0.6259	0.6241	49.86	50	0	#
Ethyl Methacrylate	0.6773	0.6871	50.72	50	1	
# 1,1,2-Trichloroethane	0.4126	0.4065	49.27	50	-1	#
# Tetrachloroethene	0.4279	0.4196	49.03	50	-2	#
1,3-Dichloropropane	0.7028	0.6661	47.39	50	-5	
# 2-Hexanone	0.5873	0.5428	92.42	100	-8	#
# Dibromochloromethane	0.4126	0.4147	50.26	50	1	#
# 1,2-Dibromoethane	0.4449	0.4411	49.57	50	-1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.5791	0.5493	47.43	50	-5	
#	Chlorobenzene	1.1849	1.1485	48.46	50	-3	#
	1,1,1,2-Tetrachloroethane	0.3857	0.3815	49.46	50	-1	
#	Ethylbenzene	2.0006	1.9434	48.57	50	-3	#
#	m+p-Xylene	0.7895	0.7850	99.42	100	-1	#
#	o-Xylene	0.7764	0.7580	48.82	50	-2	#
#	Styrene	1.2508	1.2845	51.35	50	3	#
#	Bromoform	0.3045	0.3194	52.46	50	5	#
#	Isopropylbenzene	1.9568	1.9297	49.31	50	-1	#
	Cyclohexanone	0.3883	0.3307	532.23	625	-15	
	Bromobenzene	0.9543	0.9382	49.15	50	-2	
#	1,1,2,2-Tetrachloroethane	1.3512	1.2542	46.41	50	-7	#
	1,2,3-Trichloropropane	0.4286	0.4090	47.71	50	-5	
	trans-1,4-Dichloro-2-butene	0.4344	0.3914	112.62	125	-10	
	n-Propylbenzene	4.4465	4.2902	48.24	50	-4	
	2-Chlorotoluene	0.9160	0.8863	48.38	50	-3	
	4-Chlorotoluene	0.9627	0.9280	48.20	50	-4	
	1,3,5-Trimethylbenzene	3.2116	3.0998	48.26	50	-3	
	tert-Butylbenzene	0.6716	0.6451	48.02	50	-4	
	Pentachloroethane	0.5172	0.5214	50.40	50	1	
	1,2,4-Trimethylbenzene	3.3795	3.2732	48.43	50	-3	
	sec-Butylbenzene	4.1386	4.0101	48.45	50	-3	
#	1,3-Dichlorobenzene	1.8271	1.7846	48.84	50	-2	#
	p-Isopropyltoluene	3.4958	3.4458	49.28	50	-1	
#	1,4-Dichlorobenzene	1.8866	1.8245	48.36	50	-3	#
	1,2,3-Trimethylbenzene	3.3215	3.1673	47.68	50	-5	
	Benzyl Chloride	2.7147	2.7971	51.52	50	3	
	1,3-Diethylbenzene	2.1276	2.0346	47.81	50	-4	
	1,4-Diethylbenzene	2.2361	2.1460	47.99	50	-4	
#	1,2-Dichlorobenzene	1.7745	1.7096	48.17	50	-4	#
	n-Butylbenzene	1.8805	1.7636	46.89	50	-6	
	1,2-Diethylbenzene	1.7916	1.6927	47.24	50	-6	
#	1,2-Dibromo-3-chloropropane	0.3327	0.3220	48.39	50	-3	#
	1,3,5-Trichlorobenzene	1.3225	1.2598	47.63	50	-5	
#	1,2,4-Trichlorobenzene	1.2414	1.1642	46.89	50	-6	#
	Hexachlorobutadiene	0.5598	0.5046	45.07	50	-10	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.5409	4.3737	48.16	50	-4
1,2,3-Trichlorobenzene	1.2030	1.1014	45.78	50	-8
2-Methylnaphthalene	2.5091	2.1460	42.76	50	-14
Dibromofluoromethane	0.2271	0.2253	49.61	50	-1
Dibromofluoromethane(2)	0.2318	0.2301	49.63	50	-1
1,2-Dichloroethane-d4	0.0599	0.0614	51.22	50	2
1,2-Dichloroethane-d4(2)	0.2671	0.2687	50.30	50	1
1,2-Dichloroethane-d4(3)	0.0382	0.0387	50.75	50	2
Toluene-d8	1.3056	1.2710	48.67	50	-3
Toluene-d8(2)	0.8381	0.8151	48.63	50	-3
4-Bromofluorobenzene	0.4947	0.4743	47.94	50	-4
4-Bromofluorobenzene(2)	0.3810	0.3894	51.10	50	2

Average %Drift 4

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): yy22c01.d Date Analyzed: 05/22/20

Instrument ID: HP09355 Time Analyzed: 09:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	458603	4.361	1403660	7.866	1061412	11.303	571512	13.176
UPPER LIMIT	917206	4.861	2807320	8.366	2122824	11.803	1143024	13.676
LOWER LIMIT	229302	3.861	701830	7.366	530706	10.803	285756	12.676
LAB SAMPLE ID								
01 LCSY94	467977	4.374	1390983	7.866	1043777	11.303	560618	13.176
02 VBLKY94	432906	4.355	1346258	7.866	1001973	11.303	526202	13.176
03 1316348	428605	4.361	1316294	7.859	982060	11.303	524225	13.176
04 1316310	439309	4.367	1300910	7.866	967099	11.303	511828	13.176
05 1316311MS	442955	4.367	1314892	7.866	983591	11.297	530314	13.176
06 1316312MSD	465698	4.362	1346251	7.860	1008567	11.297	542894	13.177
07 1316313	446232	4.362	1292202	7.866	961035	11.303	512068	13.177
08 1316314	411760	4.356	1261648	7.866	938210	11.303	497837	13.177
09 1316315	402345	4.361	1238985	7.859	924455	11.297	488160	13.176
10 1316316	397430	4.361	1222001	7.859	913631	11.303	486900	13.176
11 1316317	400520	4.349	1205351	7.859	899030	11.297	475911	13.176
12 1316318	385025	4.362	1190068	7.866	884819	11.303	470452	13.177
13 1316319	395492	4.349	1182959	7.859	884905	11.297	468905	13.176
14 1316320	372775	4.355	1166407	7.860	870161	11.297	458621	13.177
15 1316341	380472	4.361	1158800	7.866	855942	11.297	457077	13.176
16 1316387	364225	4.362	1144572	7.866	849038	11.303	449887	13.177
17 1316388	375526	4.368	1131301	7.866	840506	11.303	447367	13.176
18 1316389	360813	4.361	1121327	7.865	836552	11.303	438457	13.176
19 1316390	360432	4.361	1108605	7.859	830055	11.303	437489	13.176
20 1316391	349302	4.368	1096630	7.860	817460	11.303	430541	13.177
21 1316392	352988	4.355	1074164	7.860	804292	11.303	422127	13.177
22 1316393	349617	4.374	1066815	7.866	798179	11.303	420134	13.176

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): yy22c01.d Date Analyzed: 05/22/20

Instrument ID: HP09355 Time Analyzed: 09:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	458603	4.361	1403660	7.866	1061412	11.303	571512	13.176
UPPER LIMIT	917206	4.861	2807320	8.366	2122824	11.803	1143024	13.676
LOWER LIMIT	229302	3.861	701830	7.366	530706	10.803	285756	12.676
LAB SAMPLE ID								
23 1316394	340423	4.355	1056711	7.866	796628	11.303	412211	13.177
24 1316395	417471	4.362	1034486	7.866	766104	11.303	401106	13.177

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

^

Sample Data

Volatiles by GC/MS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58301

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316310

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s03.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	0.8	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	0.7	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	7	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.8	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

58301 Lancaster Laboratories 1316310
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s03.d Injection date and time: **22-MAY-2020 11:33**
Data file Sample Info. Line: 58301;1316310;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.367(-0.006)	458	65	439309M (-4)	250.00	
66) Fluorobenzene	7.866(0.000)	1033	96	1300910 (-7)	50.00	
100) Chlorobenzene-d5	11.303(0.000)	1598	117	967099 (-9)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	511828 (-10)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971(0.000)	113	293038	49.594	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428(0.000)	102	79391	50.949	102%		80 - 120
83) Toluene-d8	(3)	9.855(0.001)	98	1225280	48.519	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294(0.000)	95	448357	46.857	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)	3.692(0.002)	58	1368	0.812	0.81		J	0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.456(-0.000)	63	5829	0.438	0.44		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.278(-0.000)	96	6104	0.689	0.69		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.990(-0.000)	97	18999	1.733	1.73			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	8.346(0.000)	95	57691	7.203	7.20			0.2	1
75) 1,4-Dioxane	(1)			Not Detected					29	250
88) Toluene	(3)			Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.475(0.000)	166	6601	0.797	0.80		J	0.2	1
104) Ethylbenzene	(3)			Not Detected					0.4	1
106) m+p-Xylene	(3)			Not Detected					1	5
107) o-Xylene	(3)			Not Detected					0.4	1
108) Xylene (Total)	(3)			Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
148) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Data file: /chem2/HP09355.i/20may22a.b/yy22s03.d Injection date and time: **22-MAY-2020 11:33**
Data file Sample Info. Line: 58301;1316310;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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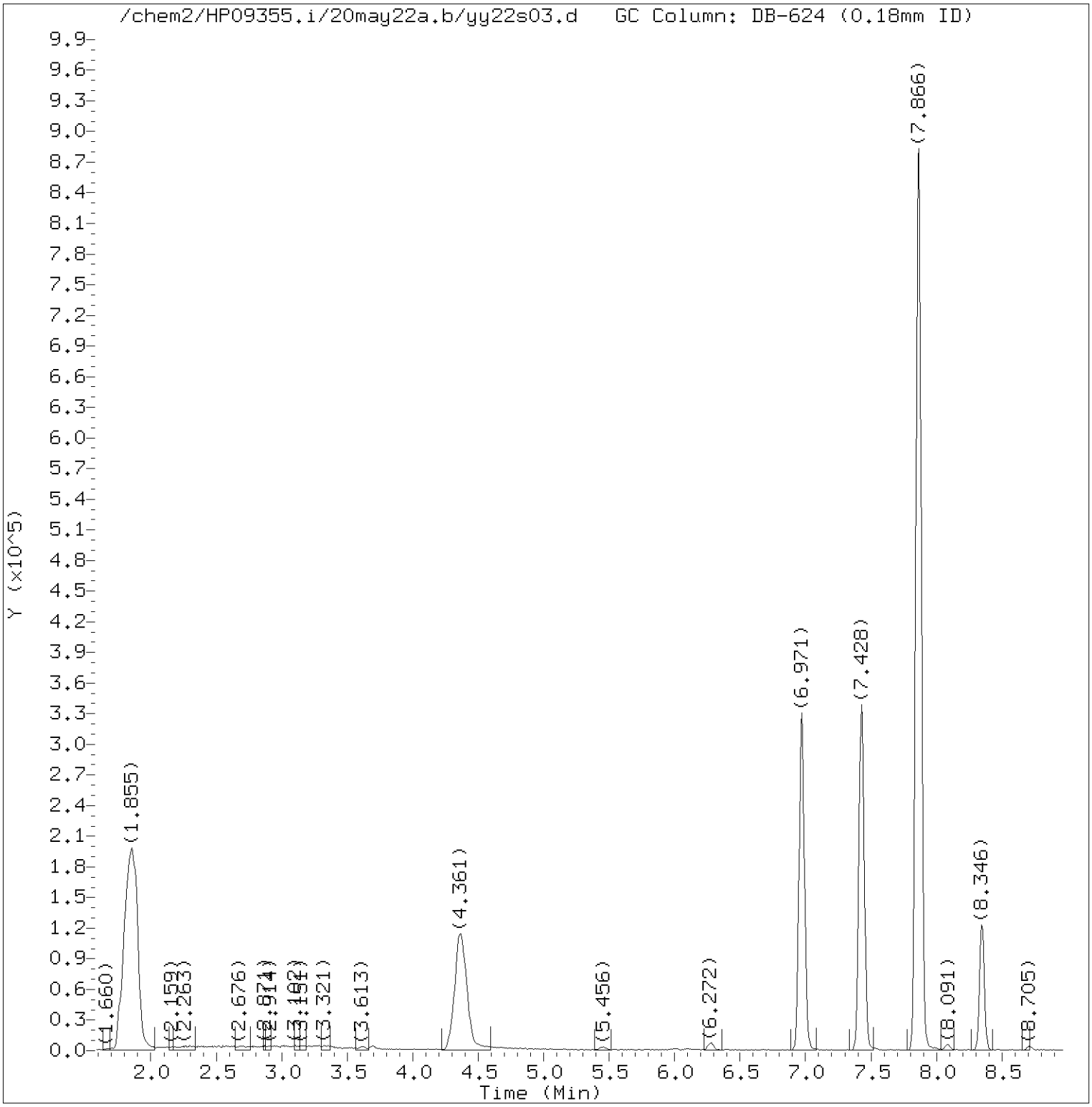
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

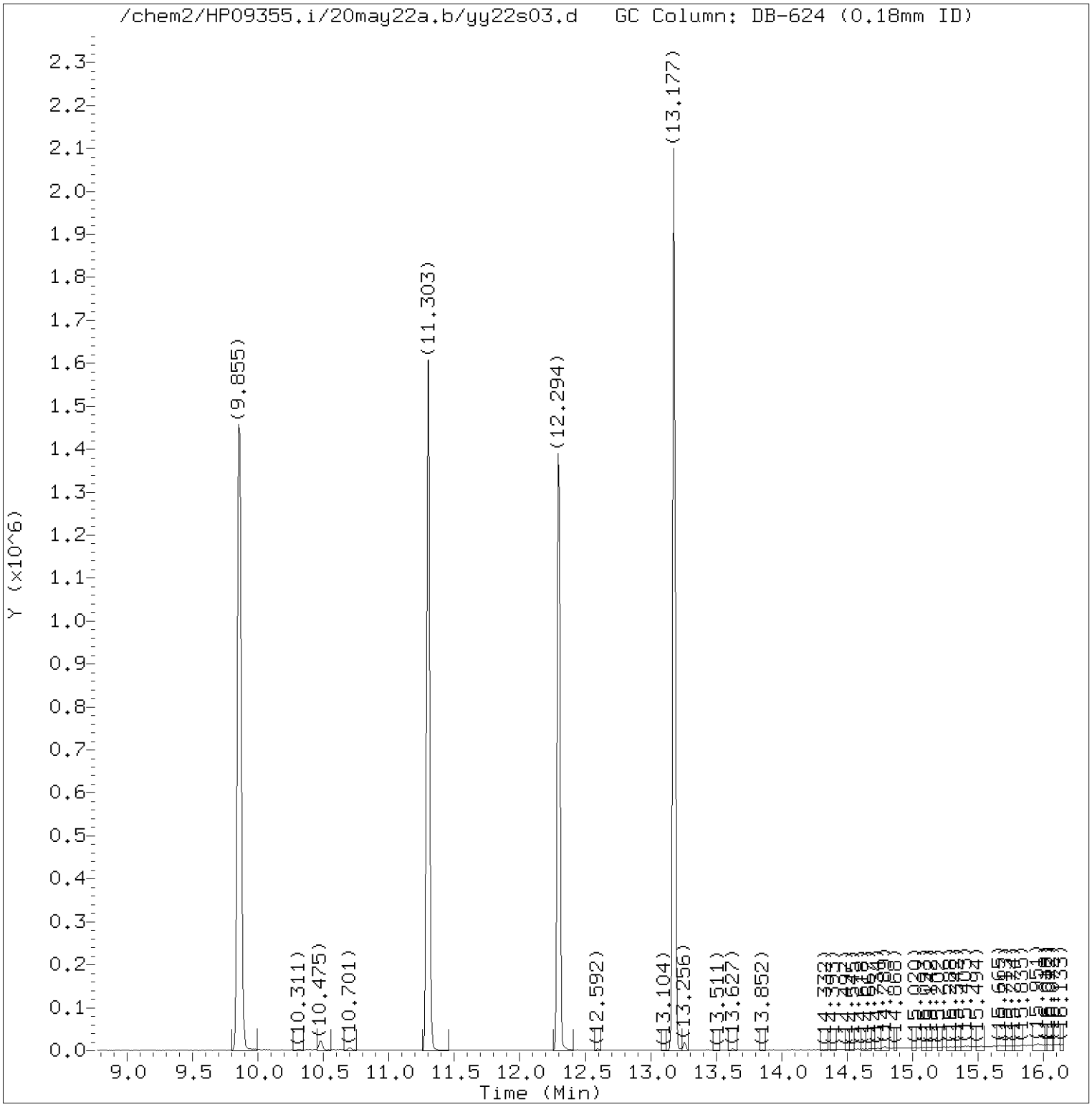
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

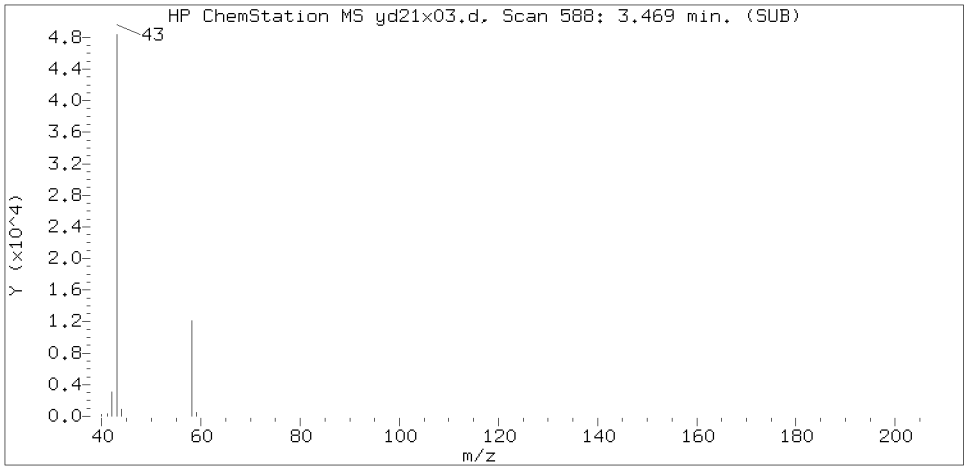
Sample Name: 58301 Lab Sample ID: 1316310

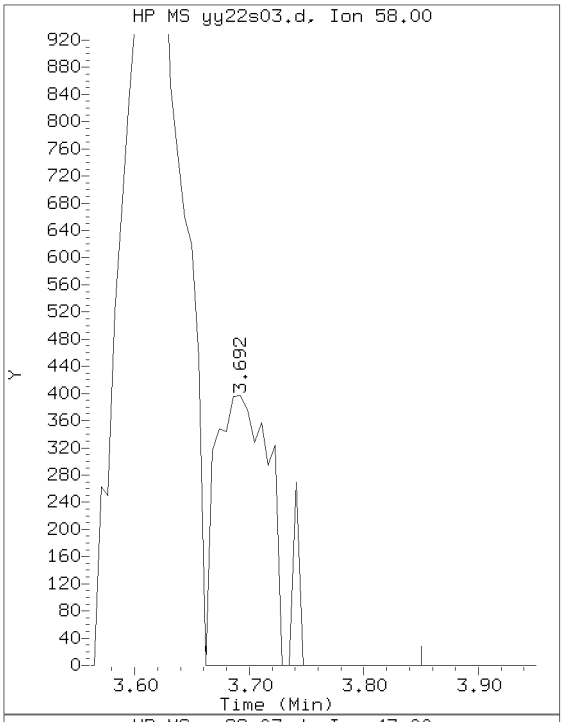
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.692	58	1368	0.812
29)*t-Butyl alcohol-d10	(1)	4.367	65	439309M	250.000
36) 1,1-Dichloroethane	(2)	5.456	63	5829	0.438
42) cis-1,2-Dichloroethene	(2)	6.278	96	6104	0.689
52)$Dibromofluoromethane	(2)	6.971	113	293038	49.594
53) 1,1,1-Trichloroethane	(2)	6.990	97	18999	1.733
57)$1,2-Dichloroethane-d4	(2)	7.428	102	79391	50.949
66)*Fluorobenzene	(2)	7.866	96	1300910	50.000
71) Trichloroethene	(2)	8.346	95	57691	7.203
83)$Toluene-d8	(3)	9.855	98	1225280	48.519
93) Tetrachloroethene	(3)	10.475	166	6601	0.797
100)*Chlorobenzene-d5	(3)	11.303	117	967099	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	448357	46.857
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	511828	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

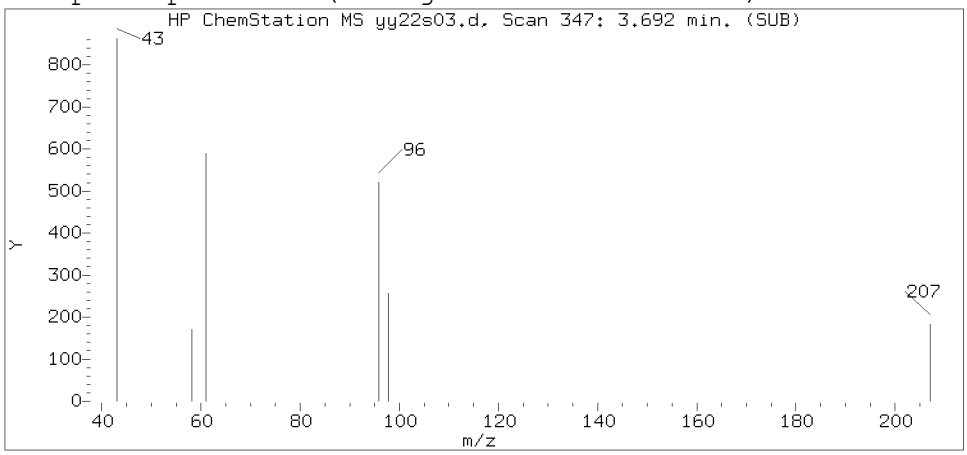
Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

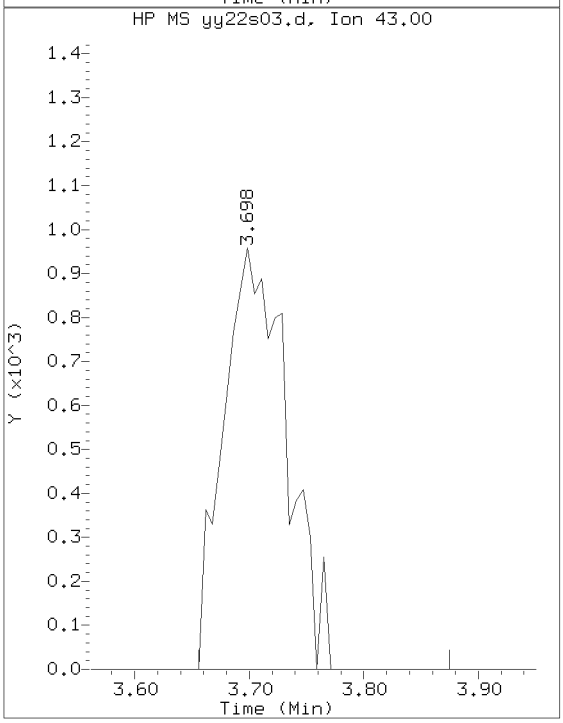
Reference Standard Spectrum for Acetone



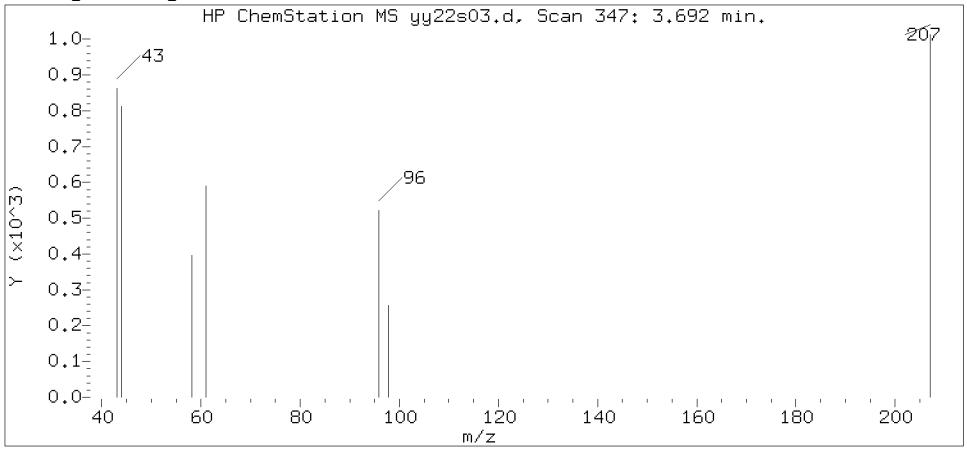


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

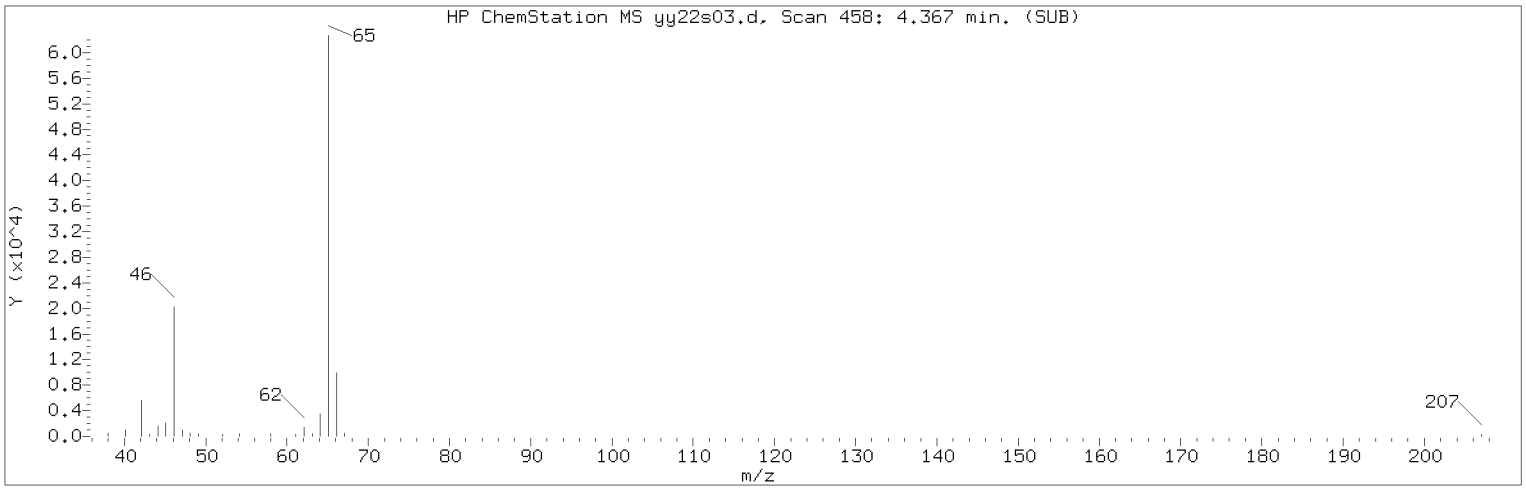
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

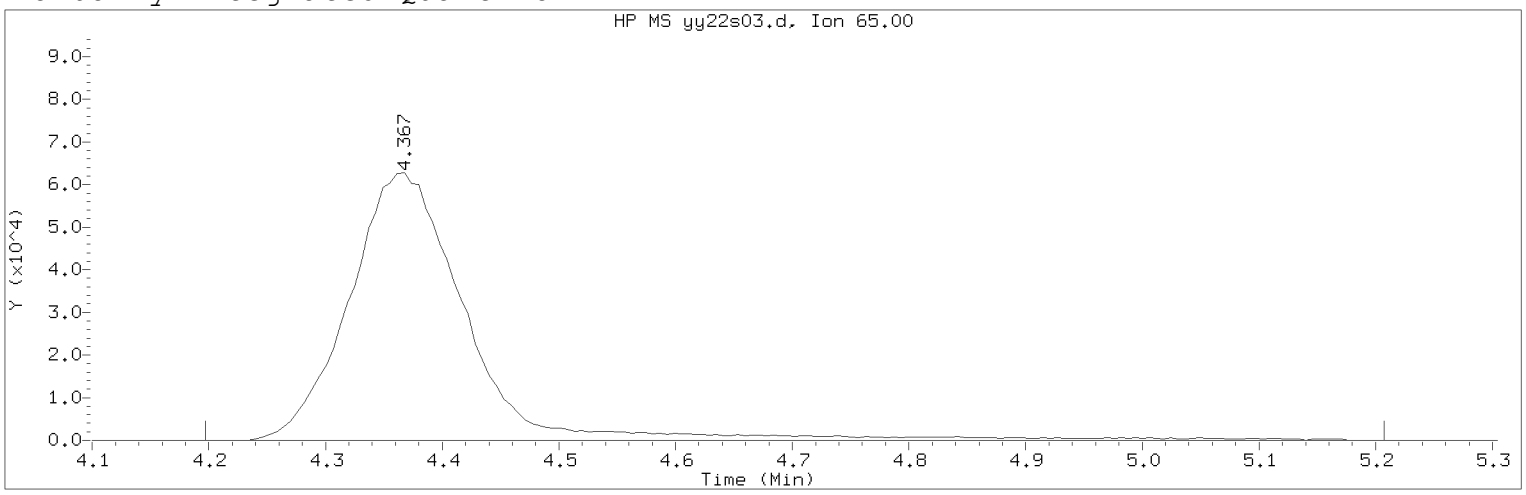
Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 347
Retention Time (minutes)	: 3.692
Relative Retention Time	: 0.00257
Quant Ion	: 58.00
Area (flag)	: 1368
On-Column Amount (ng)	: 0.8122

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

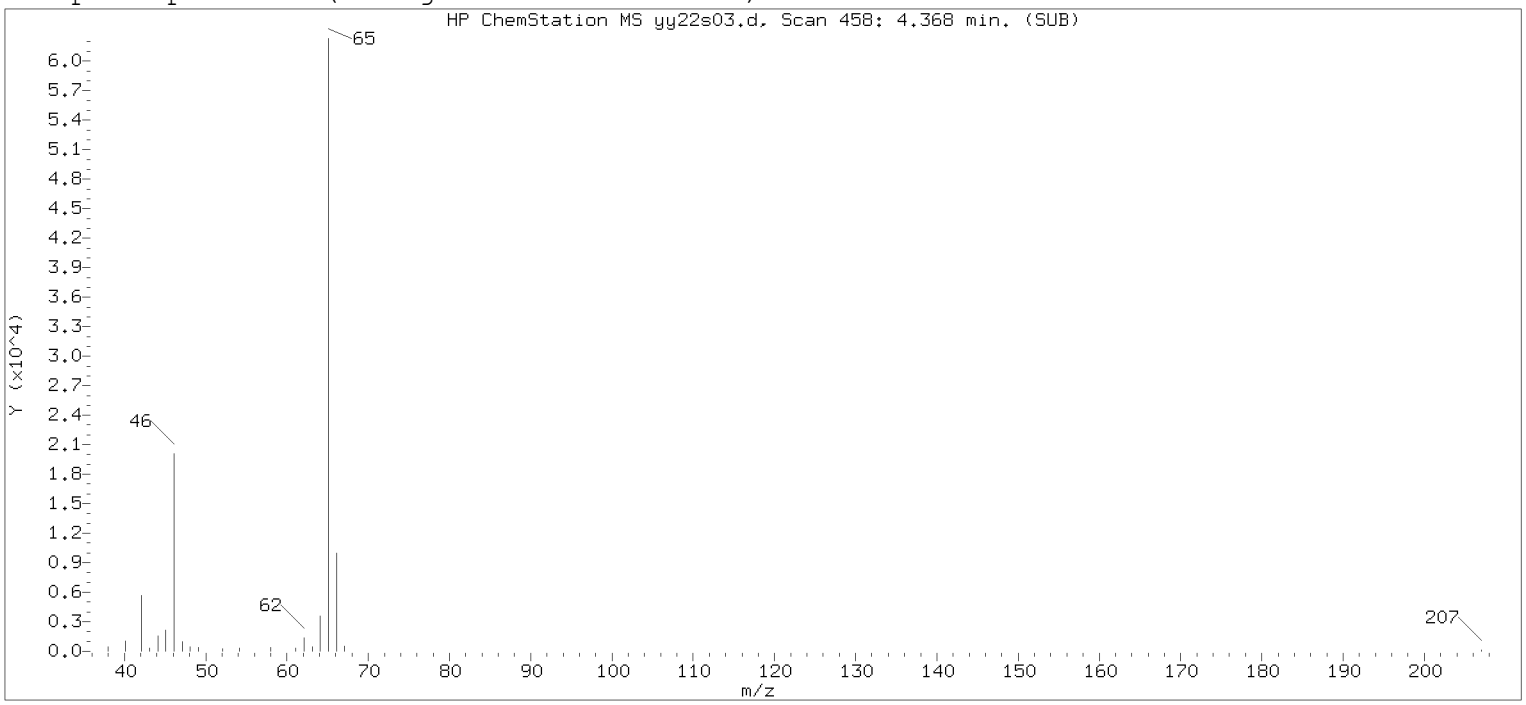
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 458
Retention Time (minutes): 4.367
Quant Ion : 65.00
Area (flag) : 439309M
On-Column Amount (ng) : 250.0000
Integration start scan : 429 Integration stop scan: 595
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

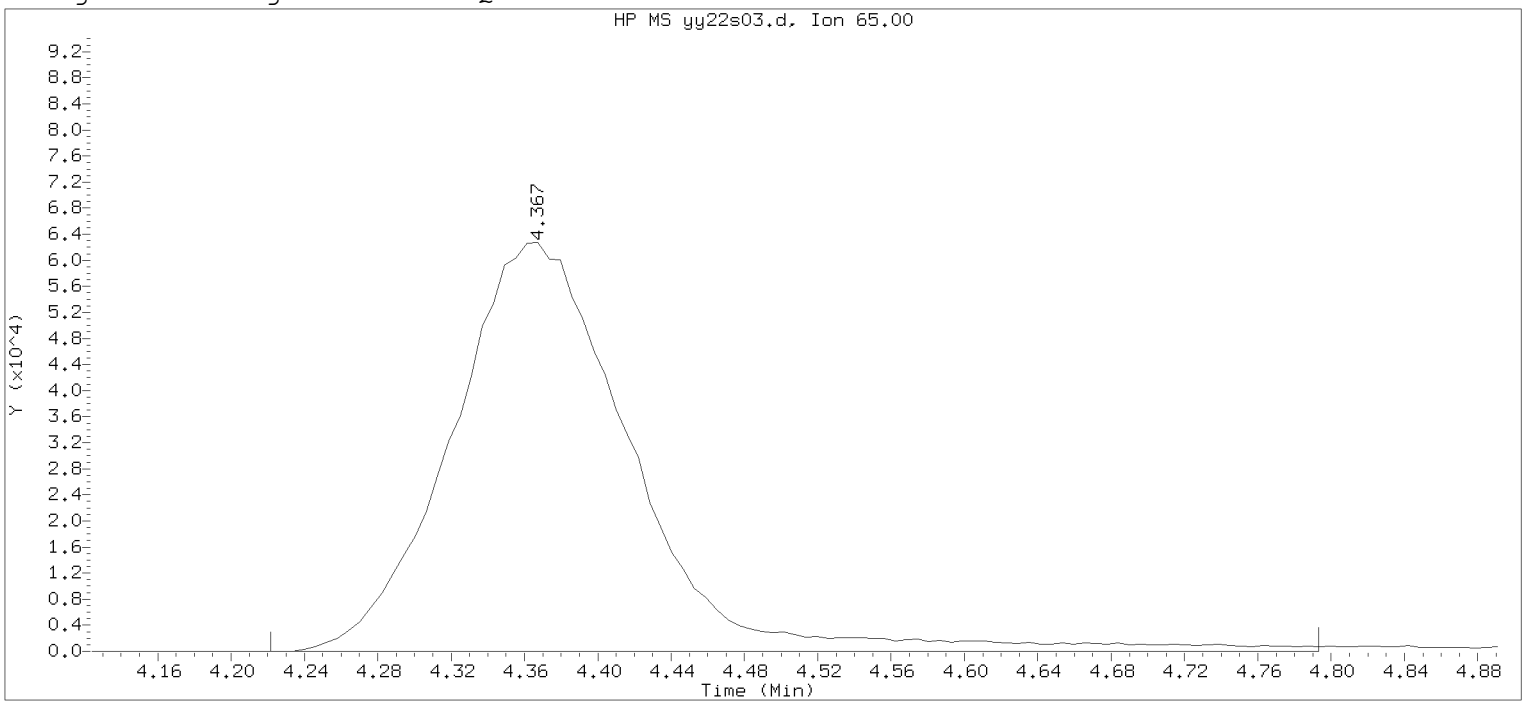
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

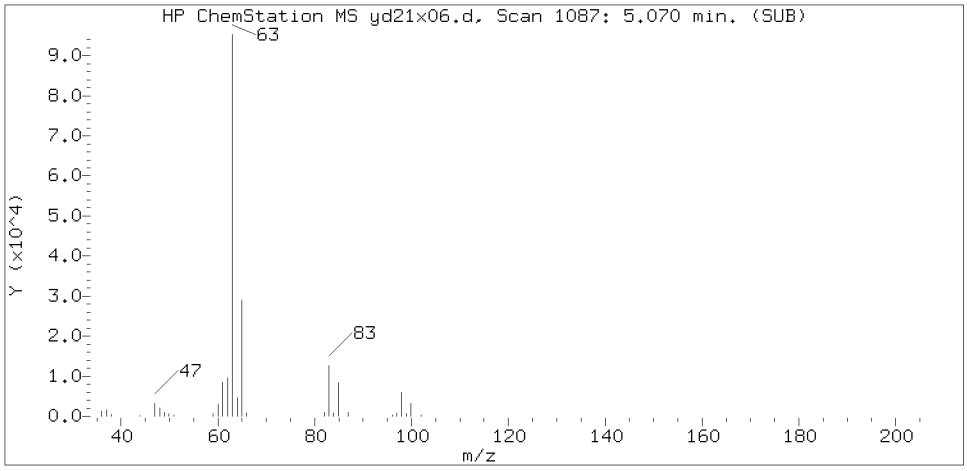
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:50 Automation

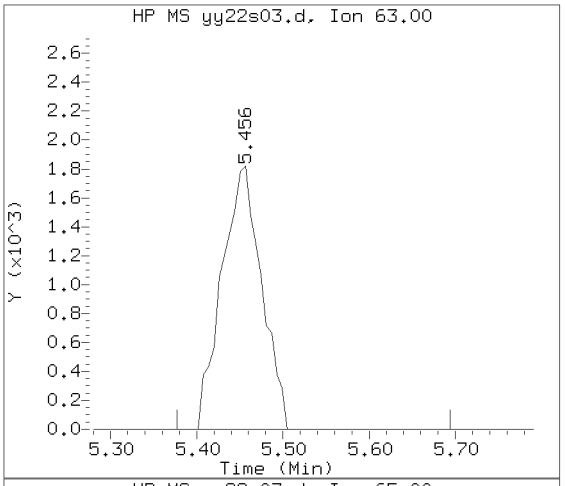
Sample Name: 58301 Lab Sample ID: 1316310

Compound Number	: 29		
Compound Name	: t-Butyl alcohol-d10		
Scan Number	: 458		
Retention Time (minutes)	: 4.367		
Quant Ion	: 65.00		
Area	: 428170		
On-column Amount (ng)	: 250.0000		
Integration start scan	: 433	Integration stop scan:	527
Y at integration start	: 0	Y at integration end:	0

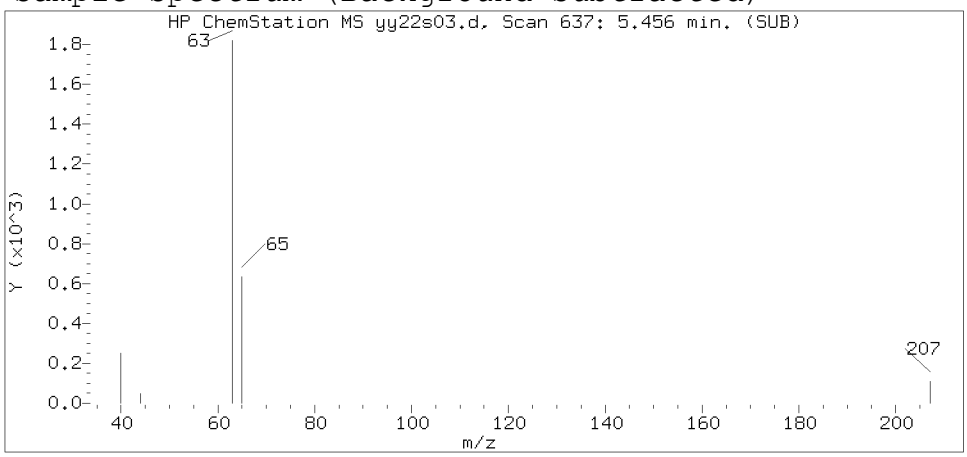
Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: DVV10203

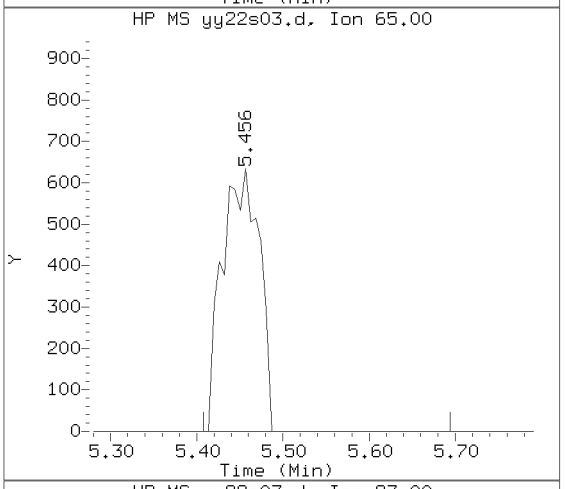
Reference Standard Spectrum for 1,1-Dichloroethane



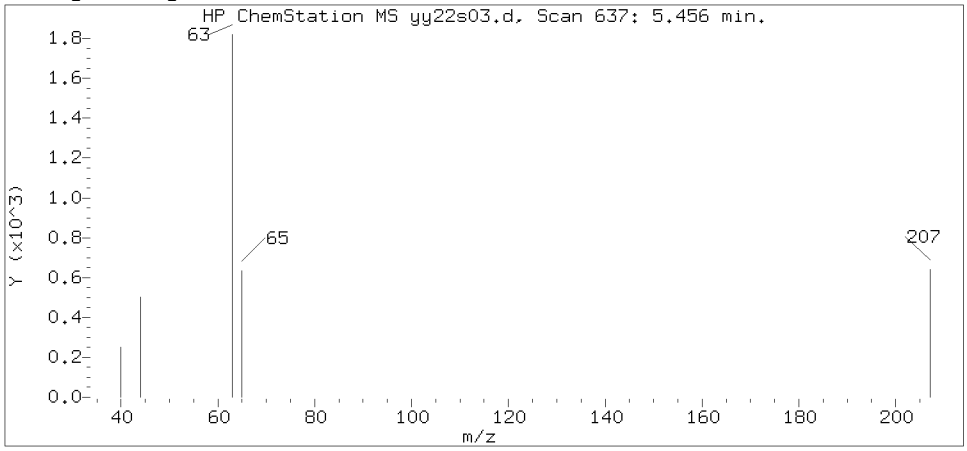


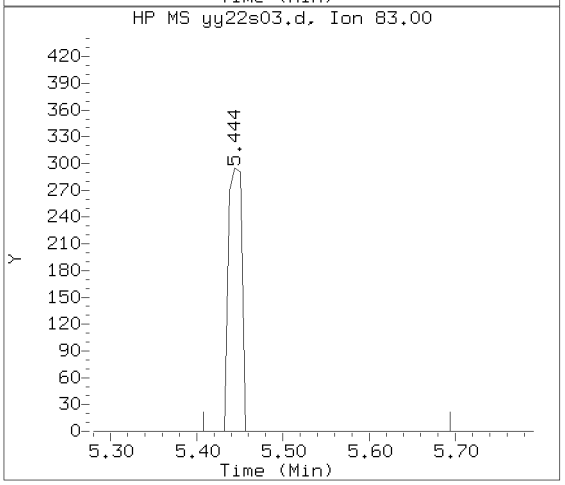
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

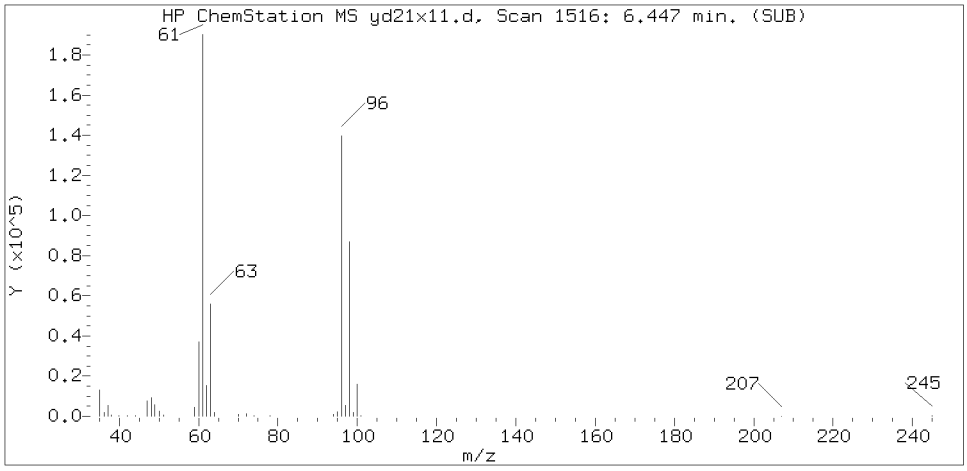
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

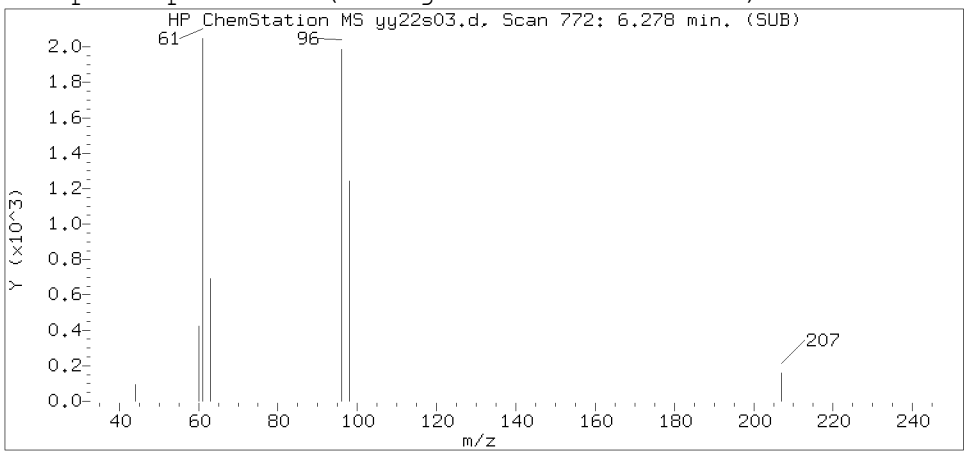
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 637
Retention Time (minutes): 5.456
Relative Retention Time :-0.00077
Quant Ion : 63.00
Area (flag) : 5829
On-Column Amount (ng) : 0.4375

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

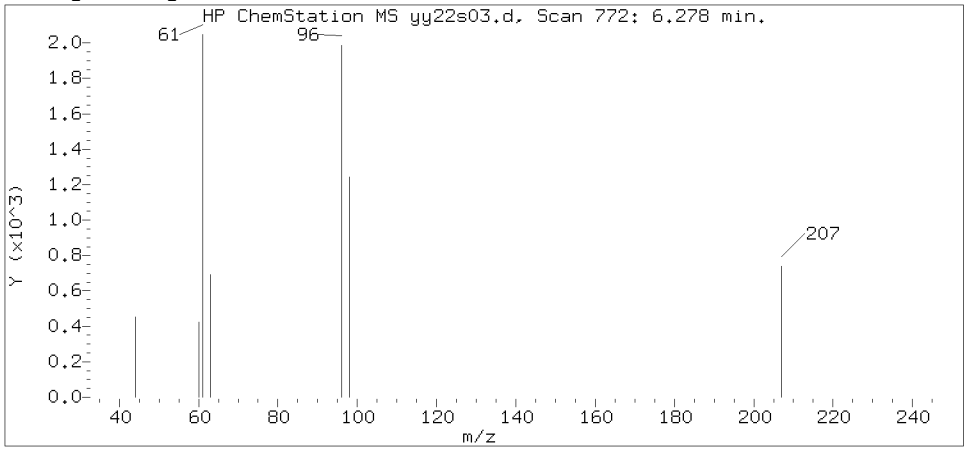
Reference Standard Spectrum for cis-1,2-Dichloroethene

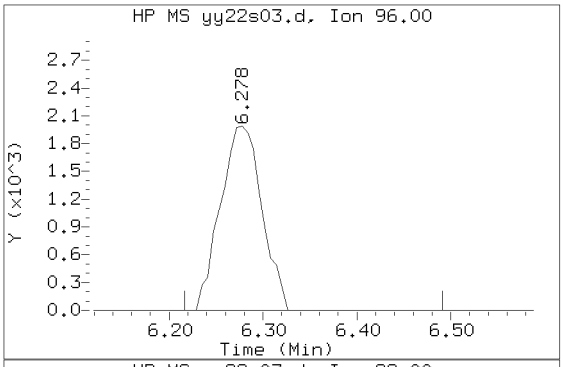


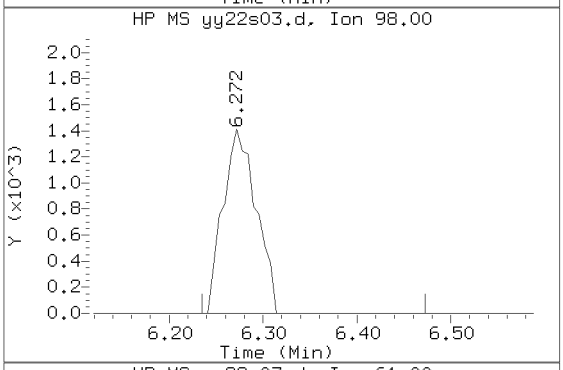
Sample Spectrum (Background Subtracted)

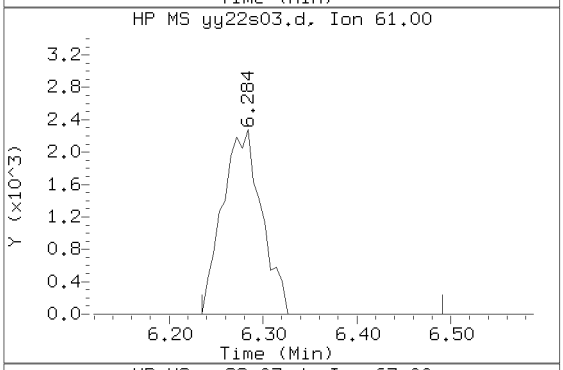


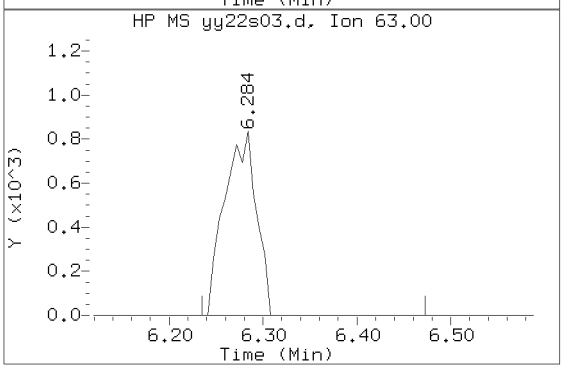
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Compound Number	: 42
Compound Name	: cis-1,2-Dichloroethene
Scan Number	: 772
Retention Time (minutes)	: 6.278
Relative Retention Time	:-0.00077
Quant Ion	: 96.00
Area (flag)	: 6104
On-Column Amount (ng)	: 0.6890

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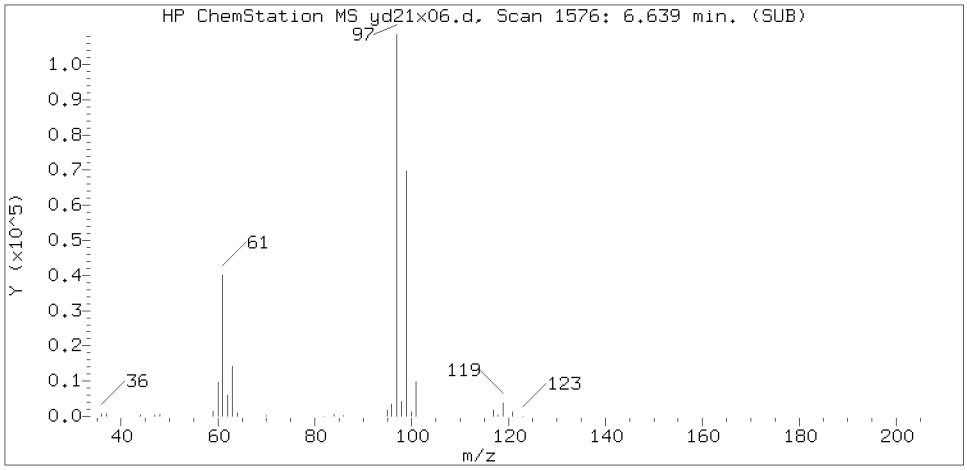
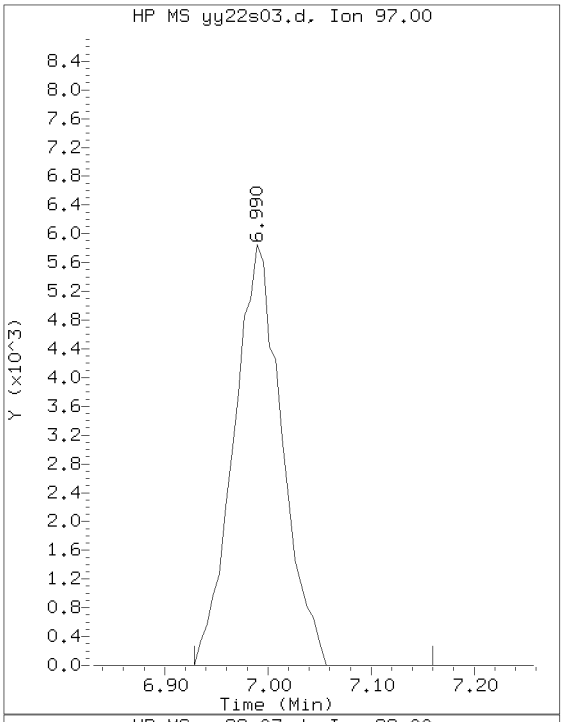
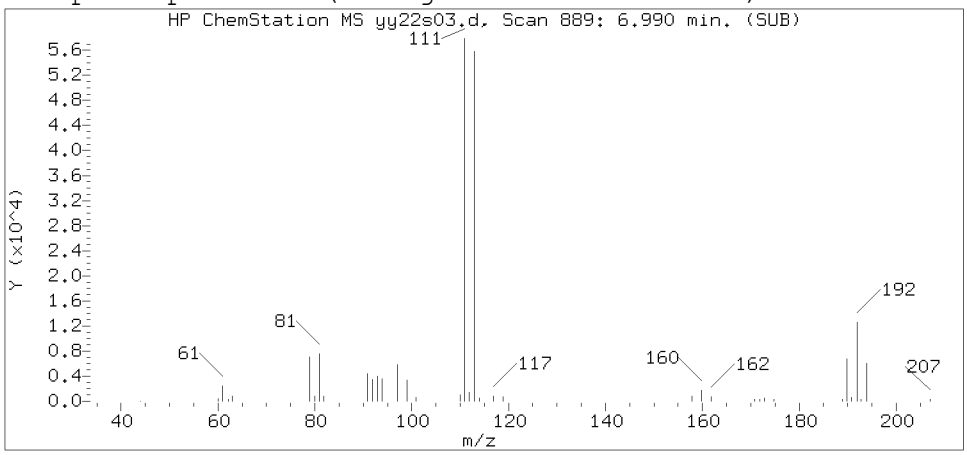
Target 3.5 esignature user ID: dvv10203

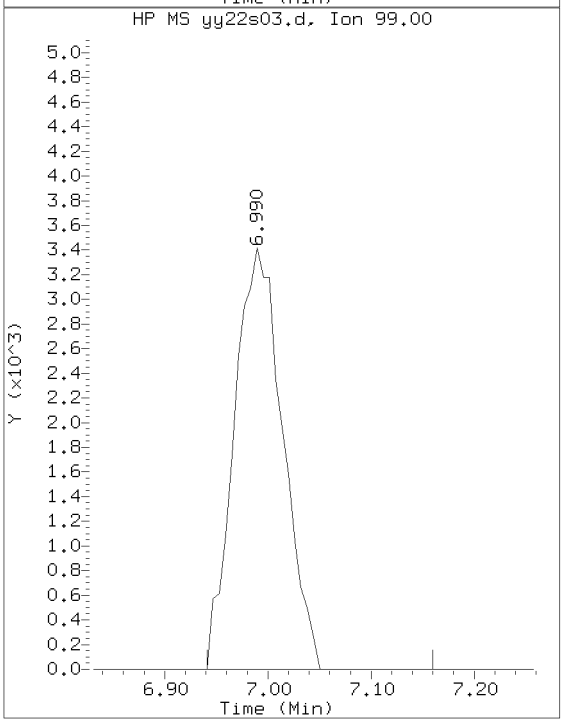
Reference Standard Spectrum for 1,1,1-Trichloroethane



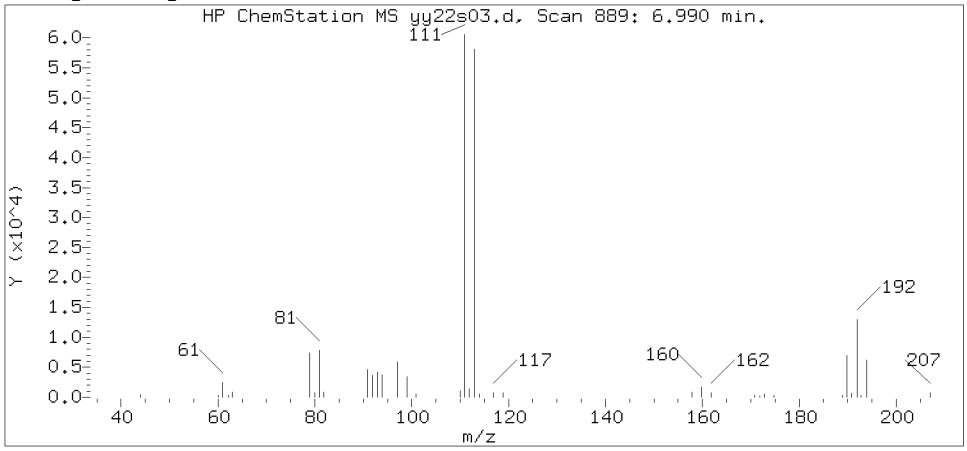


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Relative Retention Time :-0.00000
Quant Ion : 97.00
Area (flag) : 18999
On-Column Amount (ng) : 1.7329

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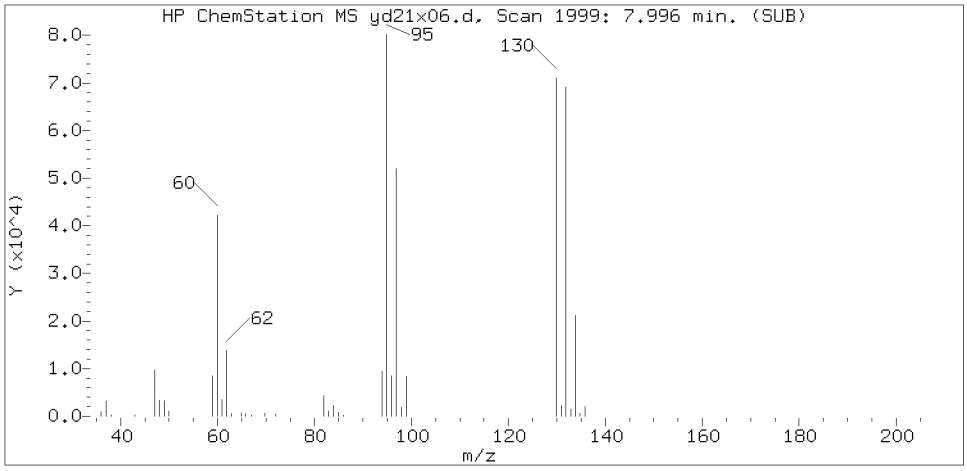
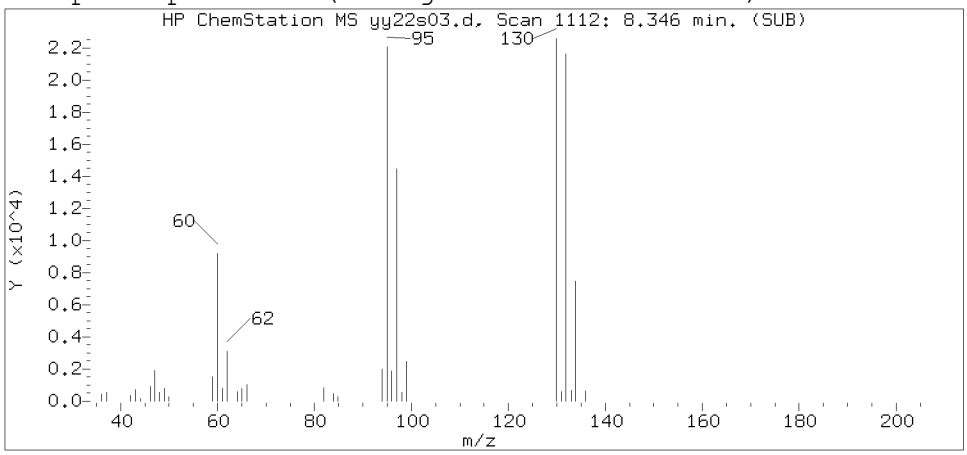
Target 3.5 esignature user ID: dvv10203

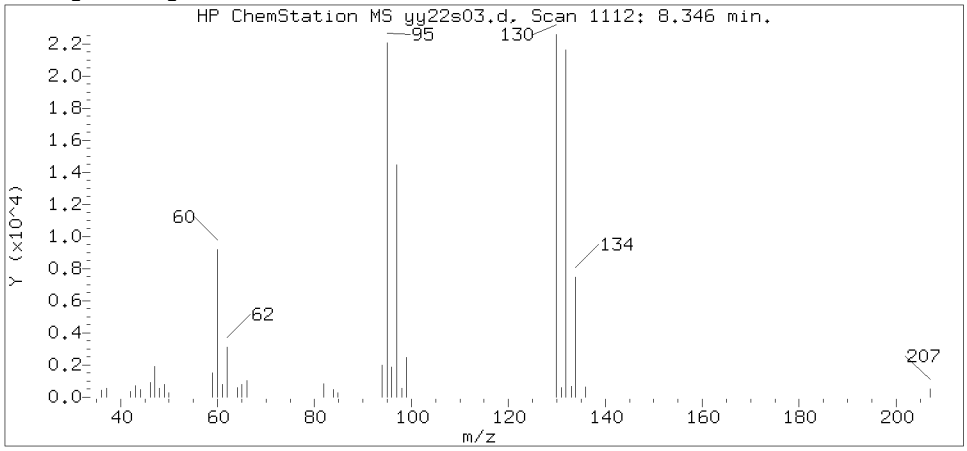
Reference Standard Spectrum for Trichloroethene

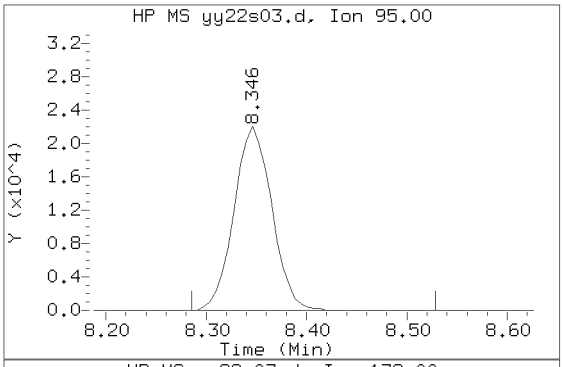


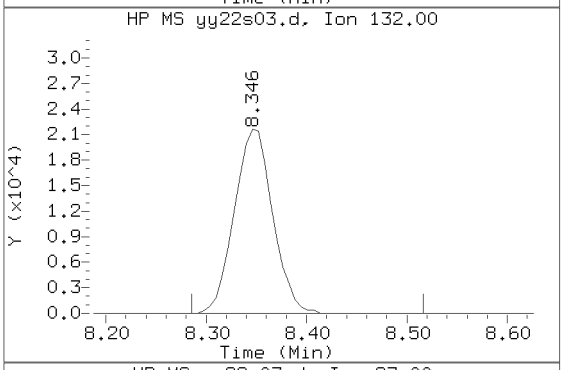
Sample Spectrum (Background Subtracted)

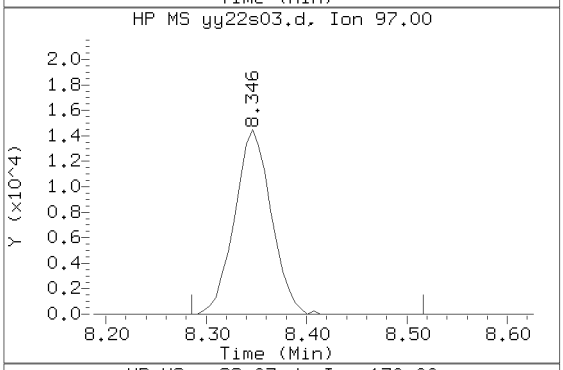


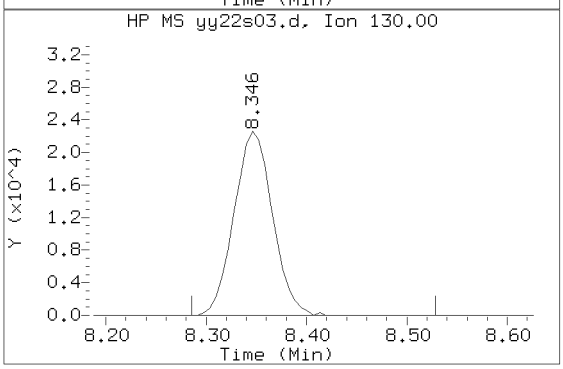
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1112
Retention Time (minutes)	: 8.346
Relative Retention Time	: 0.00000
Quant Ion	: 95.00
Area (flag)	: 57691
On-Column Amount (ng)	: 7.2032

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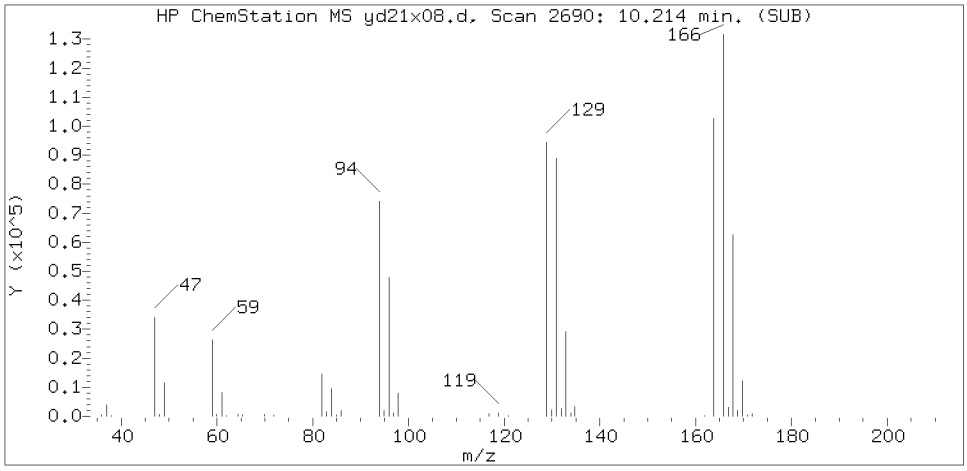
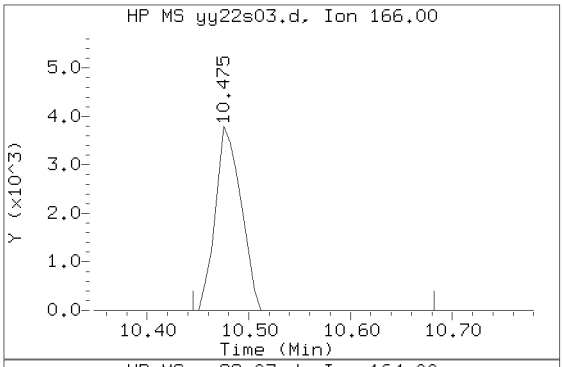
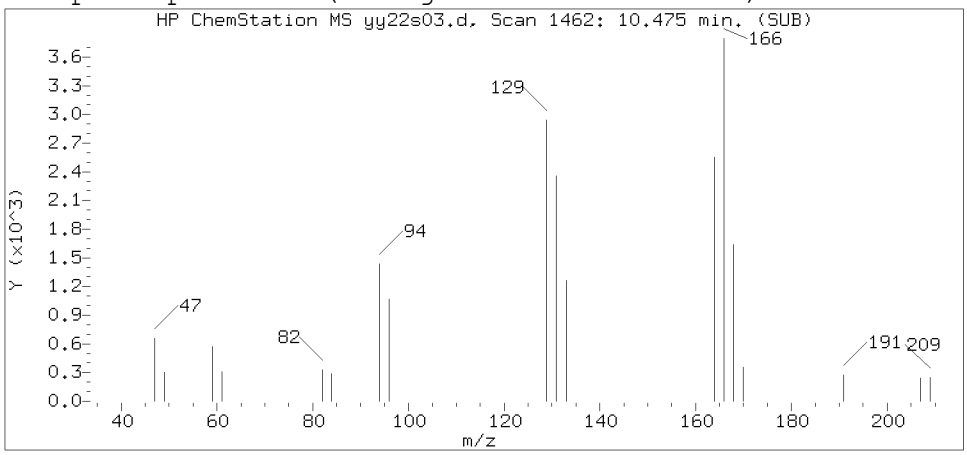
Target 3.5 esignature user ID: dvv10203

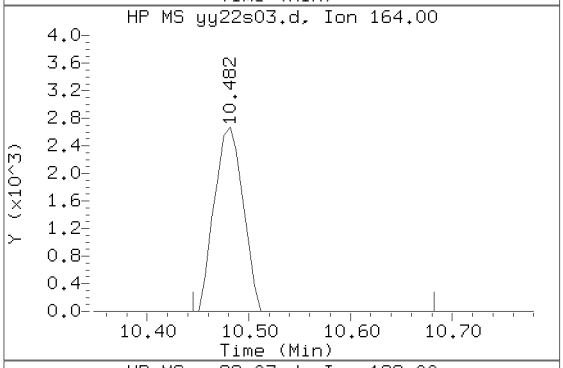
Reference Standard Spectrum for Tetrachloroethene

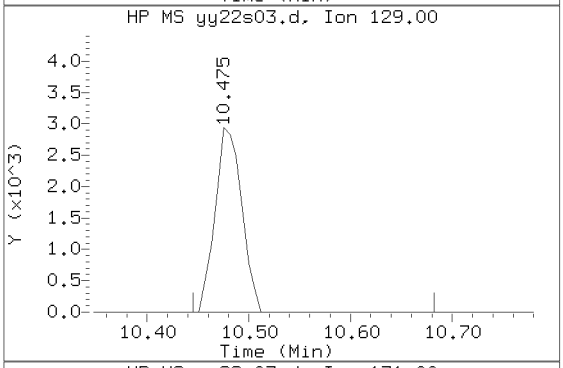




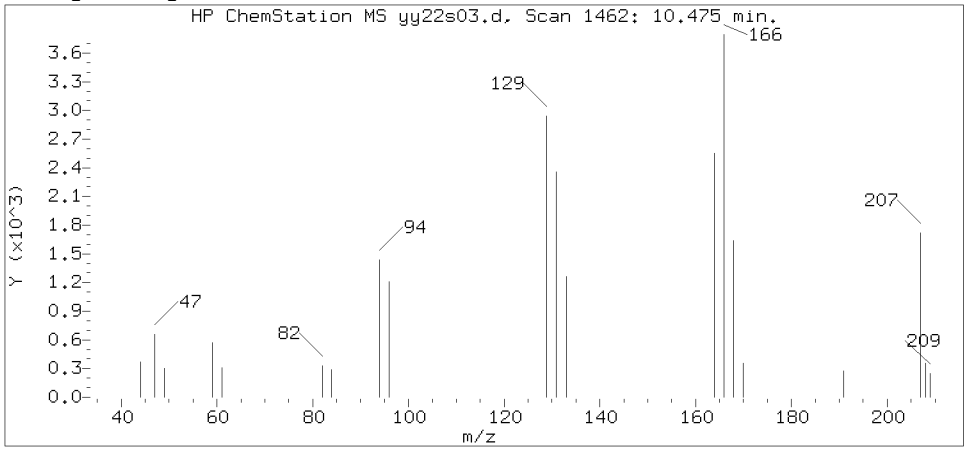
Sample Spectrum (Background Subtracted)

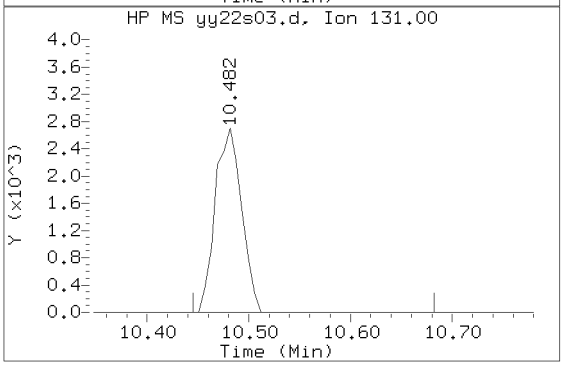






Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s03.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:33 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:45 dvv10203

Sample Name: 58301 Lab Sample ID: 1316310

Compound Number	: 93
Compound Name	: Tetrachloroethene
Scan Number	: 1462
Retention Time (minutes)	: 10.475
Relative Retention Time	: 0.00054
Quant Ion	: 166.00
Area (flag)	: 6601
On-Column Amount (ng)	: 0.7975

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Target 3.5 esignature user ID: dvv10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58302

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316313

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s06.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	9	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	0.4	J
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	2	J
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	2	
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s06.d Injection date and time: **22-MAY-2020 13:00**
Data file Sample Info. Line: 58302;1316313;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.362	(0.000)	457	65	446232M	(-3)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1292202	(-8)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	961035	(-9)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	512068	(-10)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(0.000)	113	293190	49.954	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	78977	51.025	102%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1209393	48.192	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(0.000)	95	446393	46.946	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.710	(-0.002)	58	15737	9.198	9.20		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)	4.027	(-0.000)	76	9235	0.401	0.40		J	0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)	6.217	(0.001)	43	16110	2.117	2.12		J	0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)	9.934	(0.000)	92	30601	1.518	1.52			0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s06.d Injection date and time: **22-MAY-2020 13:00**
Data file Sample Info. Line: 58302;1316313;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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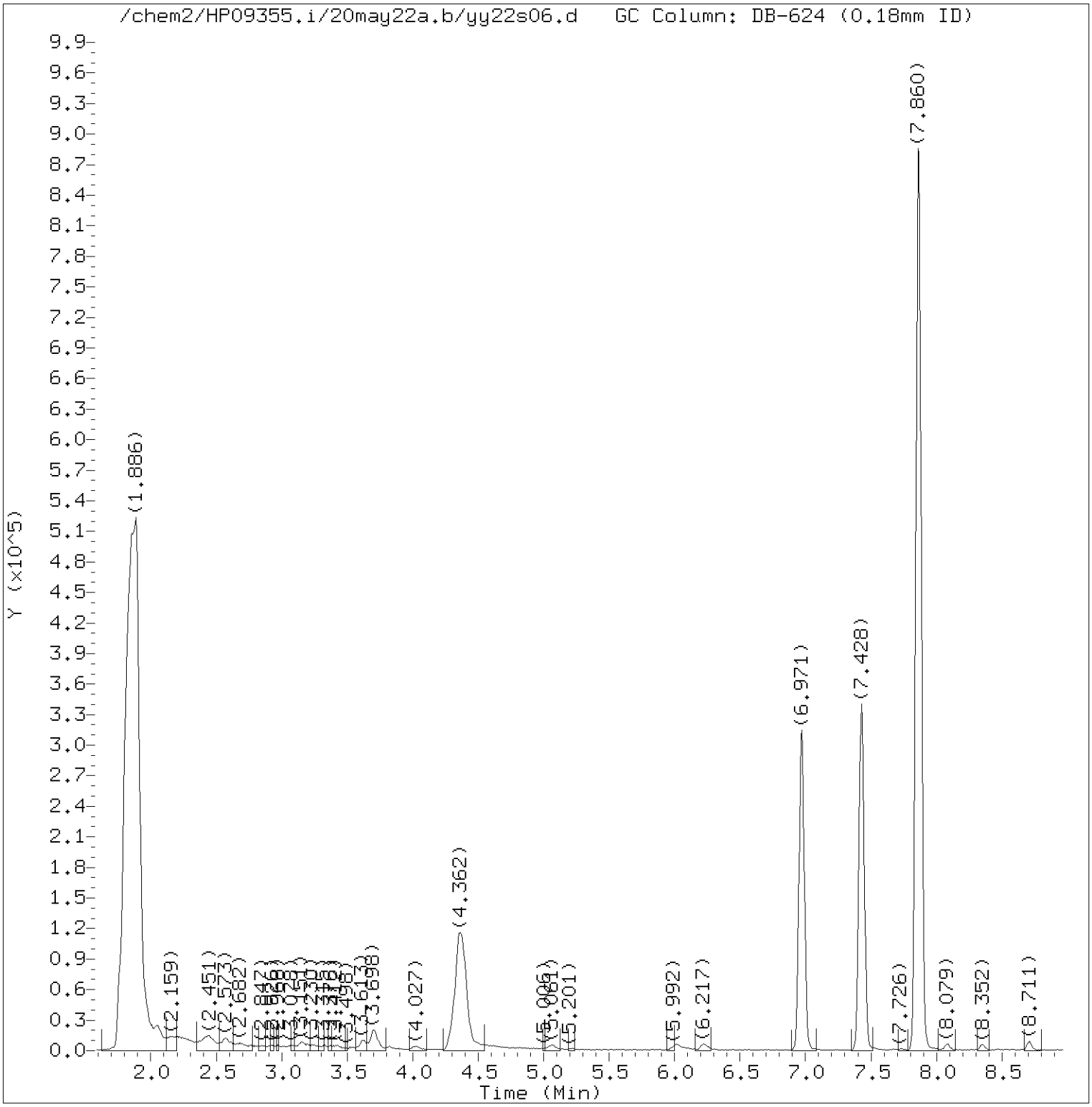
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

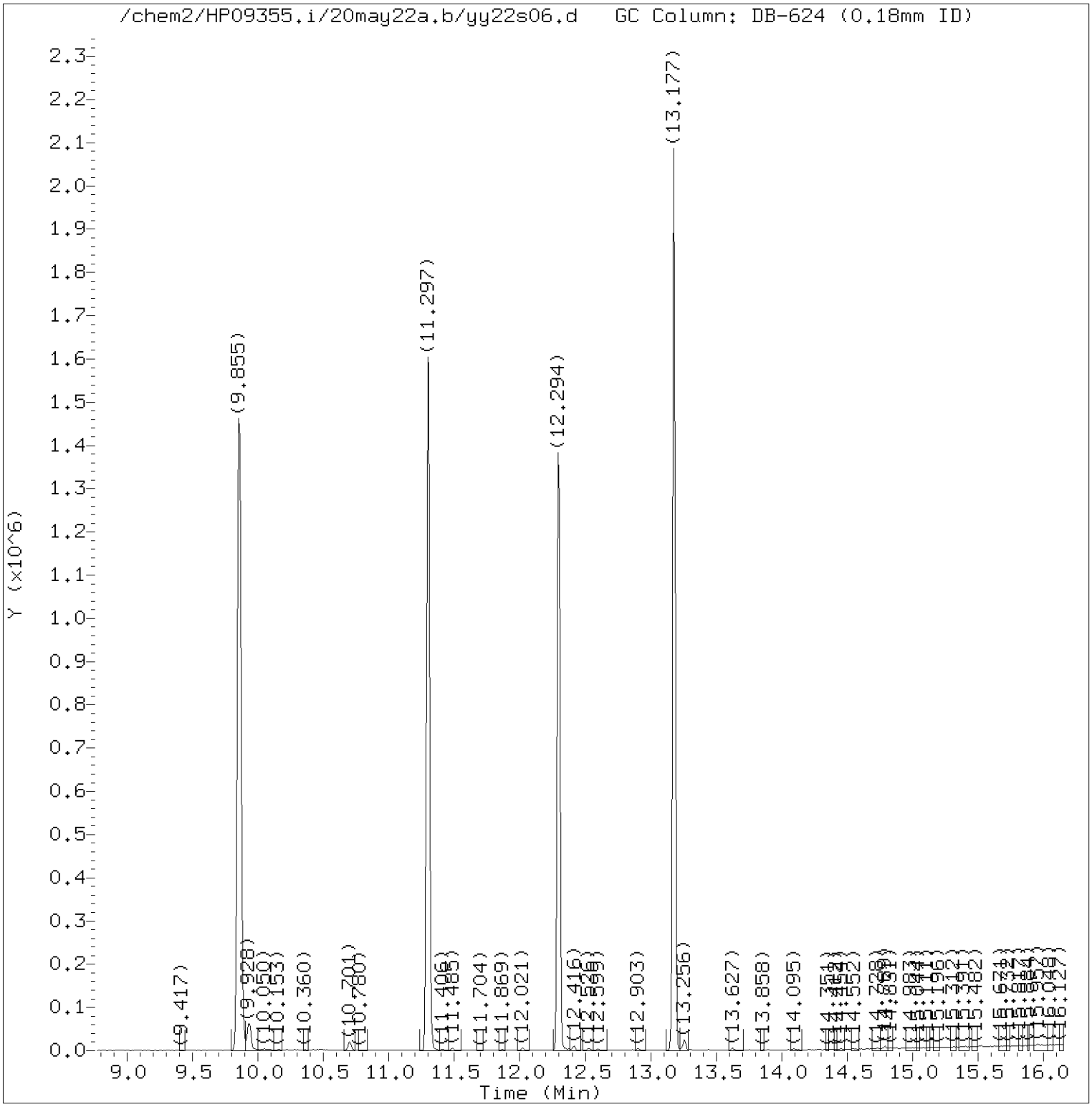
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.711	58	15737	9.198
23) Carbon Disulfide	(2)	4.027	76	9235	0.401
29)*t-Butyl alcohol-d10	(1)	4.362	65	446232M	250.000
44) 2-Butanone	(2)	6.217	43	16110	2.117
52)$Dibromofluoromethane	(2)	6.971	113	293190	49.954
57)$1,2-Dichloroethane-d4	(2)	7.428	102	78977	51.025
66)*Fluorobenzene	(2)	7.866	96	1292202	50.000
83)$Toluene-d8	(3)	9.855	98	1209393	48.192
88) Toluene	(3)	9.934	92	30601	1.518
100)*Chlorobenzene-d5	(3)	11.303	117	961035	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	446393	46.946
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	512068	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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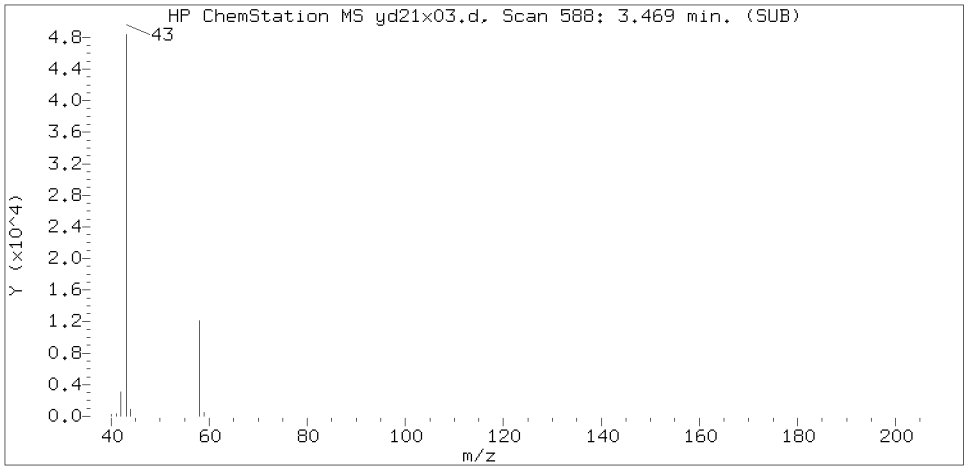
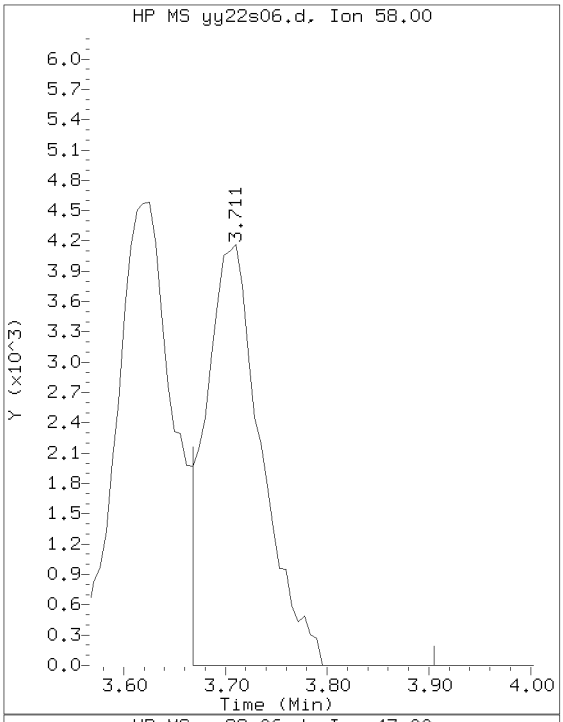
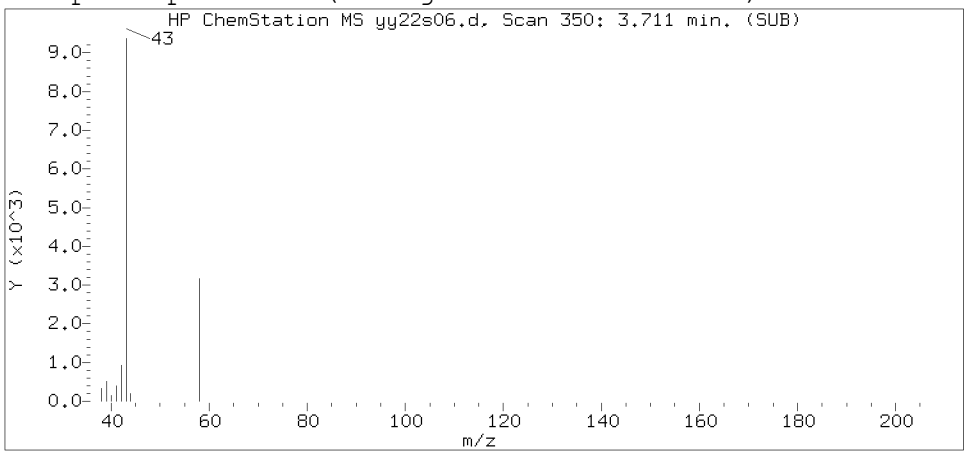
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

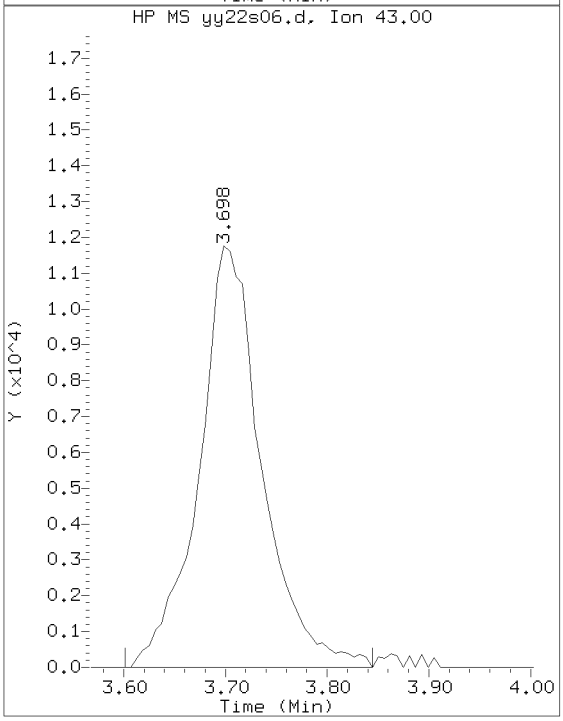
Reference Standard Spectrum for Acetone



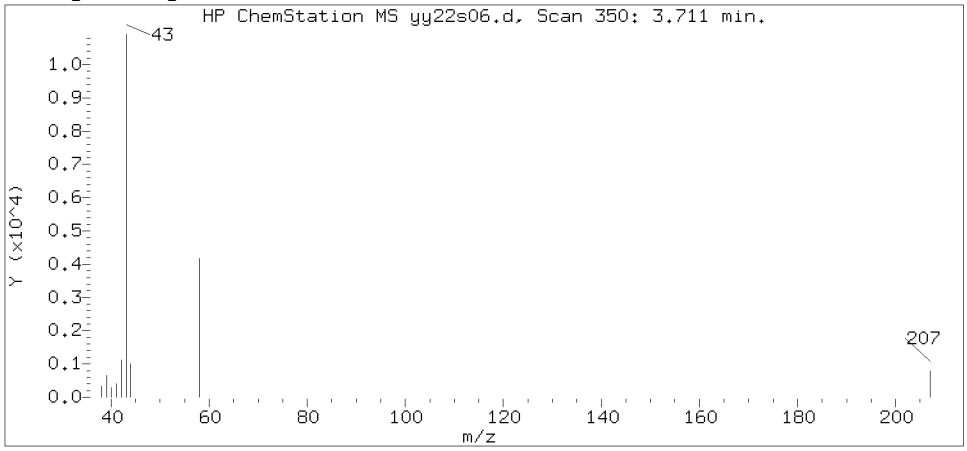


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 350
Retention Time (minutes)	: 3.711
Relative Retention Time	:-0.00279
Quant Ion	: 58.00
Area (flag)	: 15737
On-Column Amount (ng)	: 9.1983

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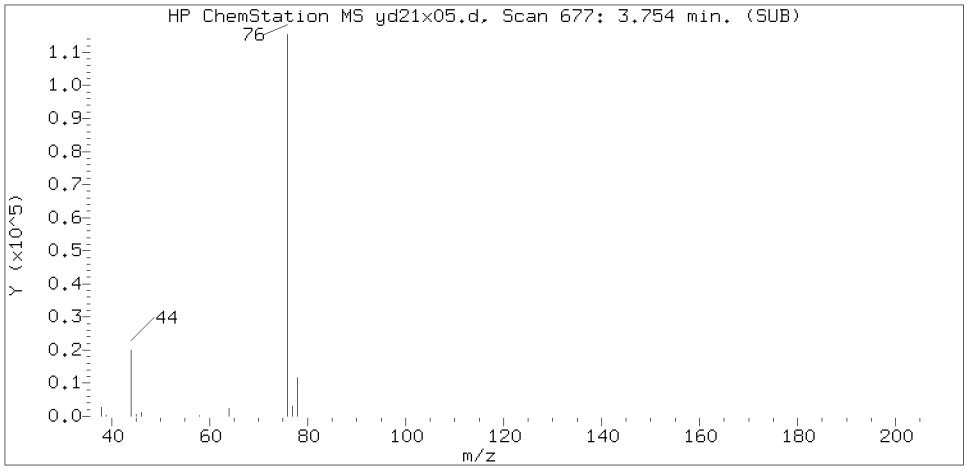
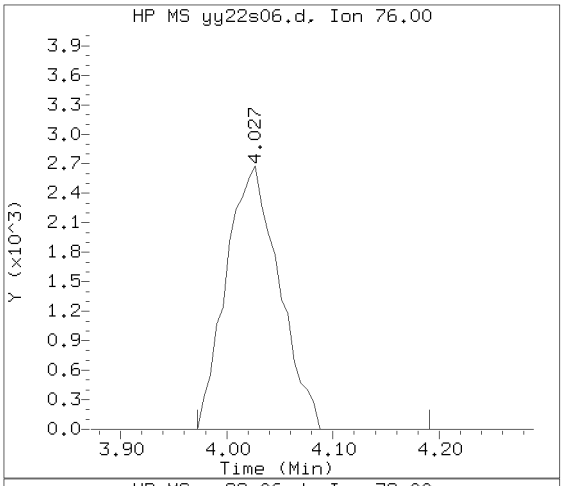
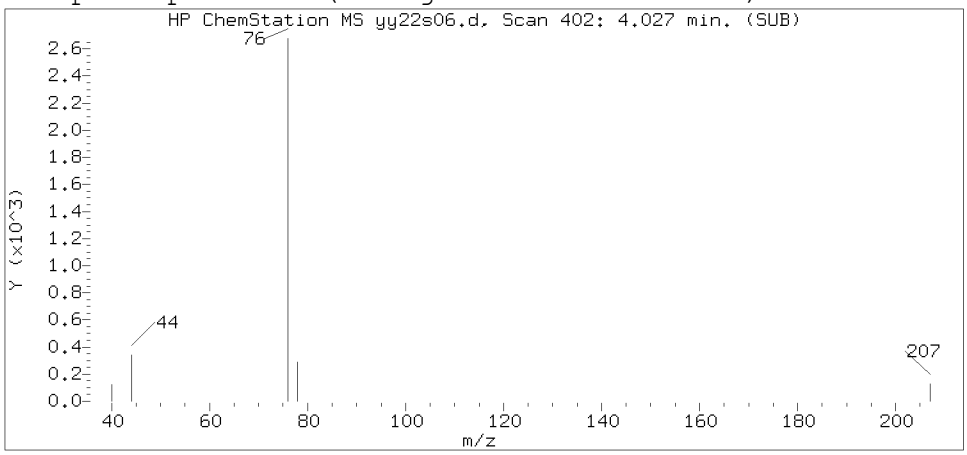
Target 3.5 esignature user ID: dvv10203

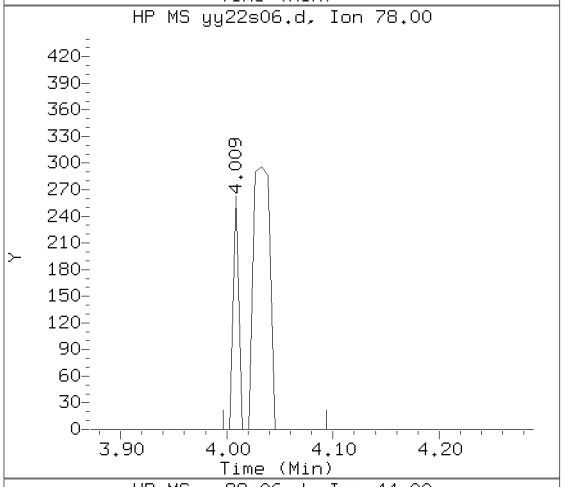
Reference Standard Spectrum for Carbon Disulfide



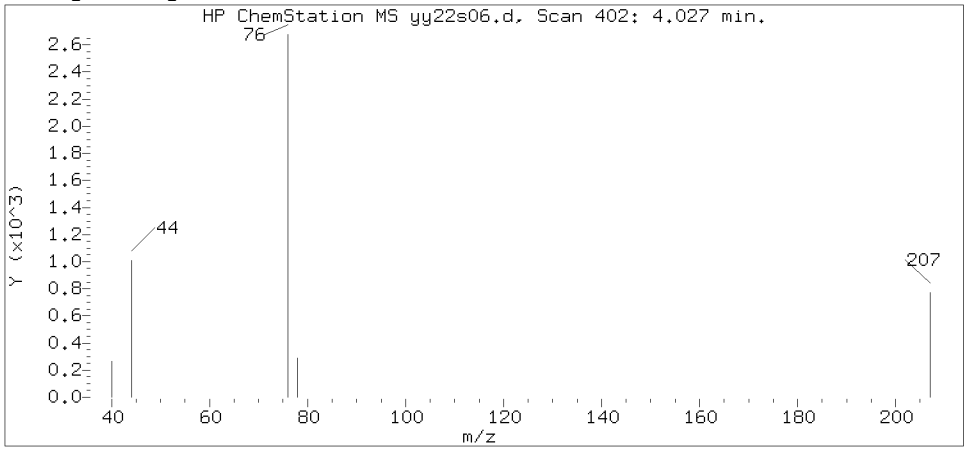


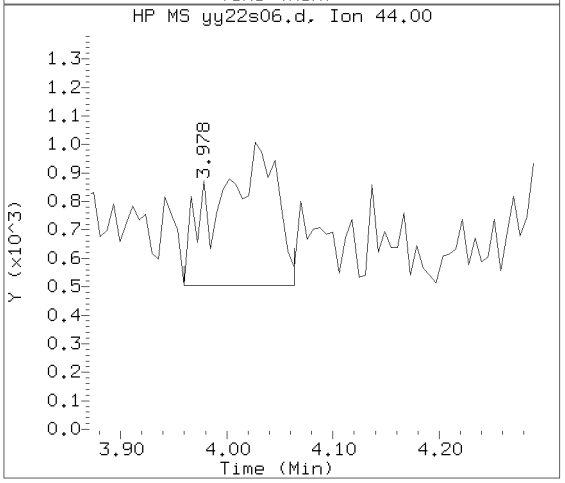
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 402
Retention Time (minutes): 4.027
Relative Retention Time :-0.00078
Quant Ion : 76.00
Area (flag) : 9235
On-Column Amount (ng) : 0.4015

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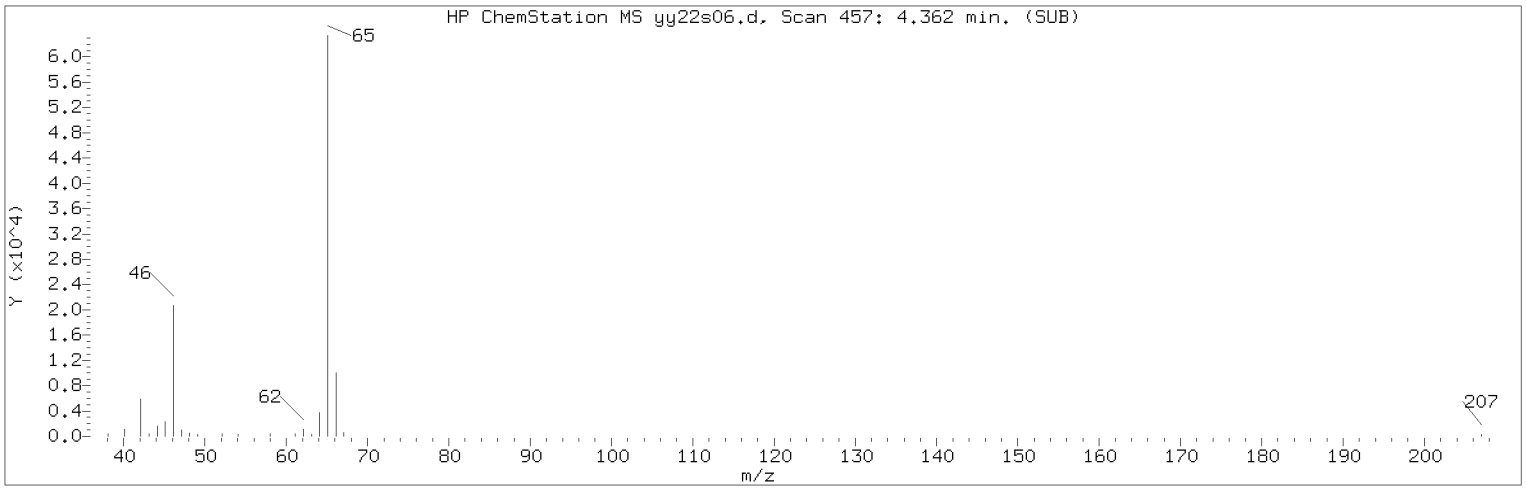
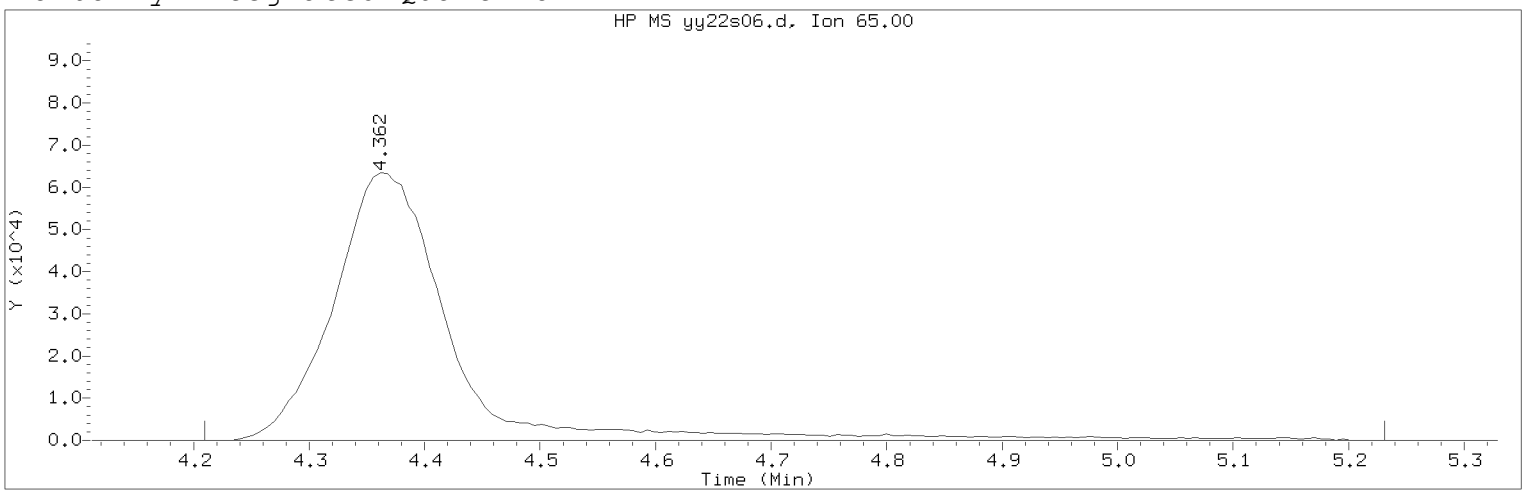
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

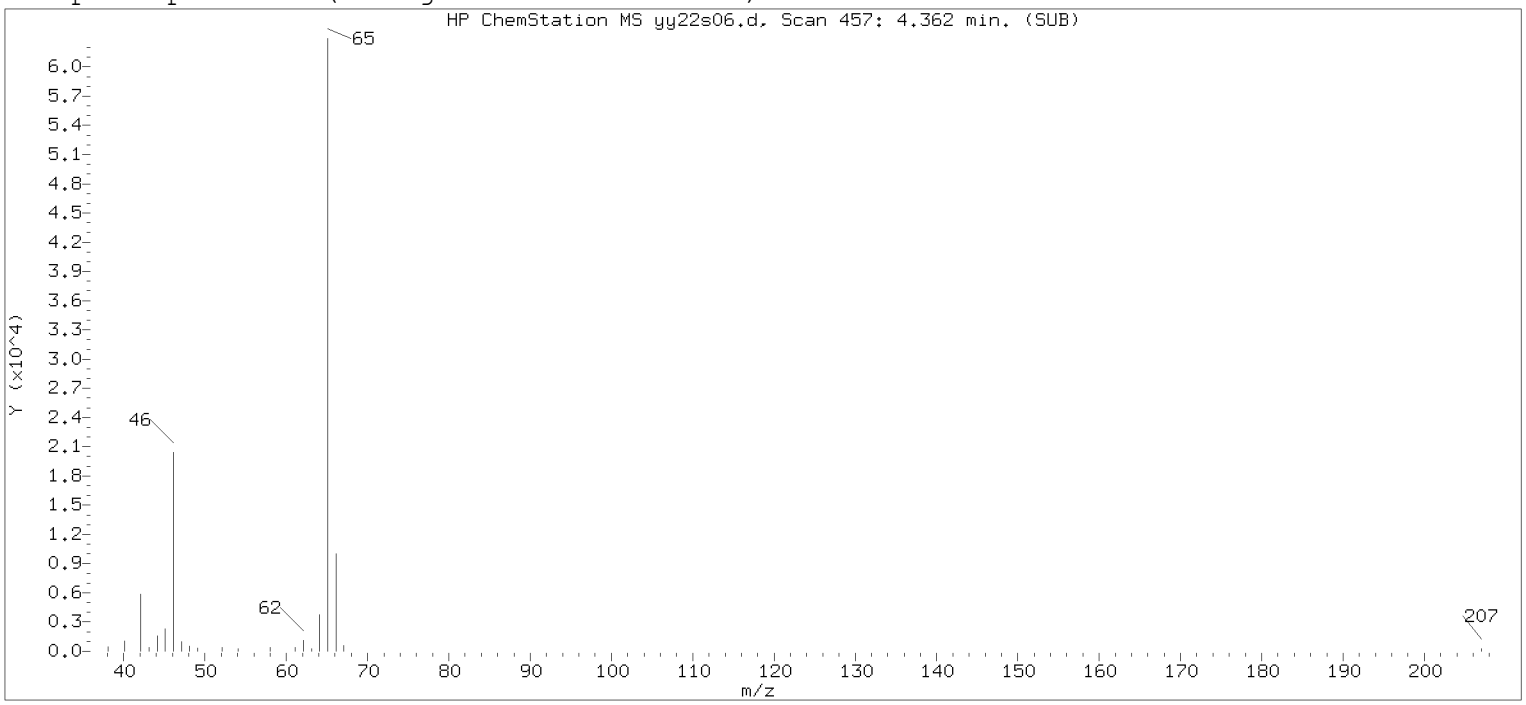
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.362
Quant Ion : 65.00
Area (flag) : 446232M
On-Column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 599
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

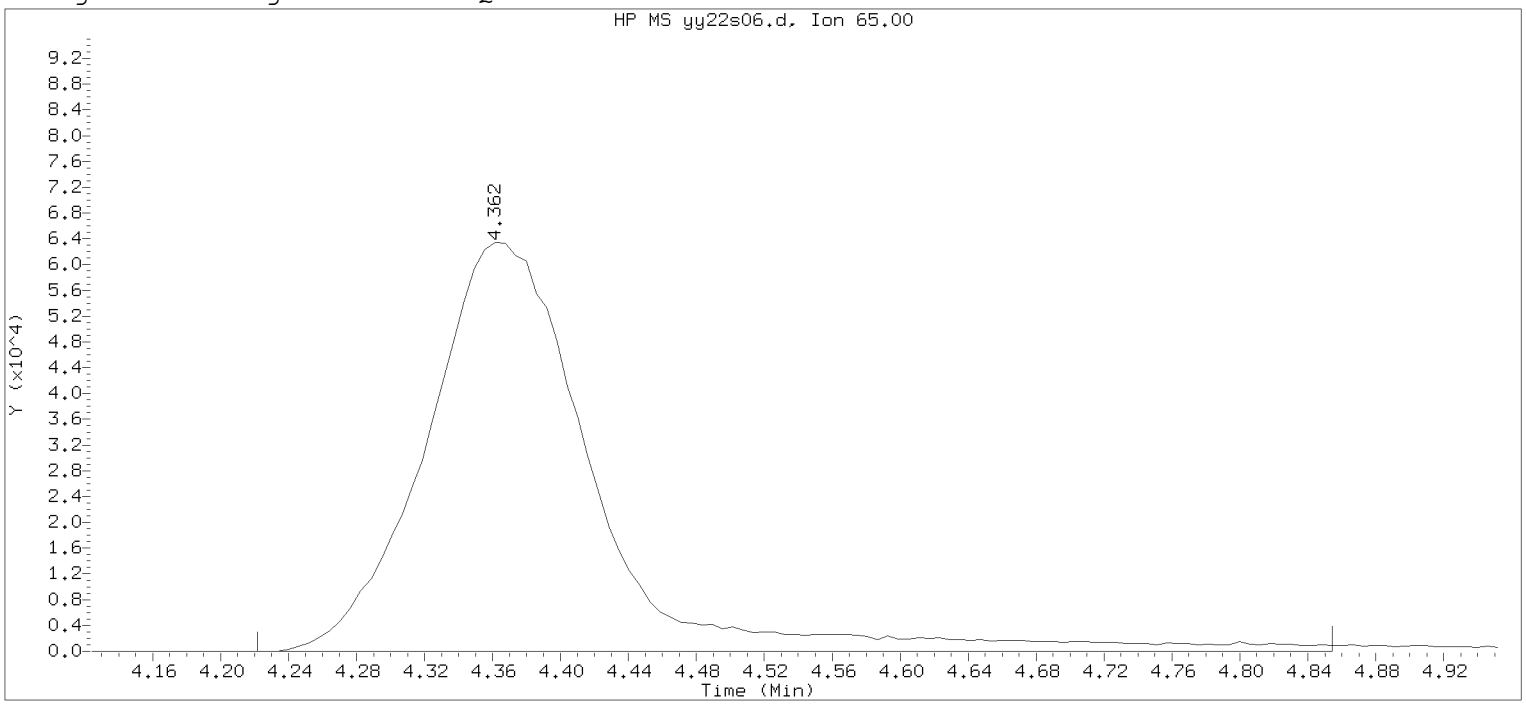
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:17 Automation

Sample Name: 58302 Lab Sample ID: 1316313

Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.362
Quant Ion : 65.00
Area : 433937
On-column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 537
Y at integration start : 0 Y at integration end: 0

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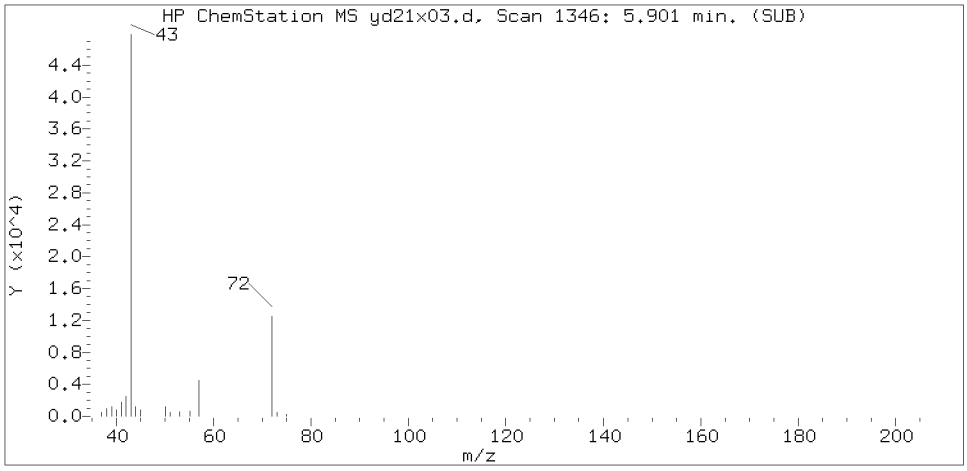
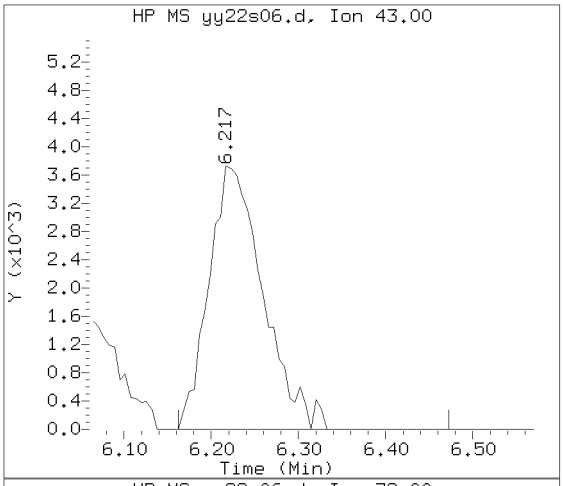
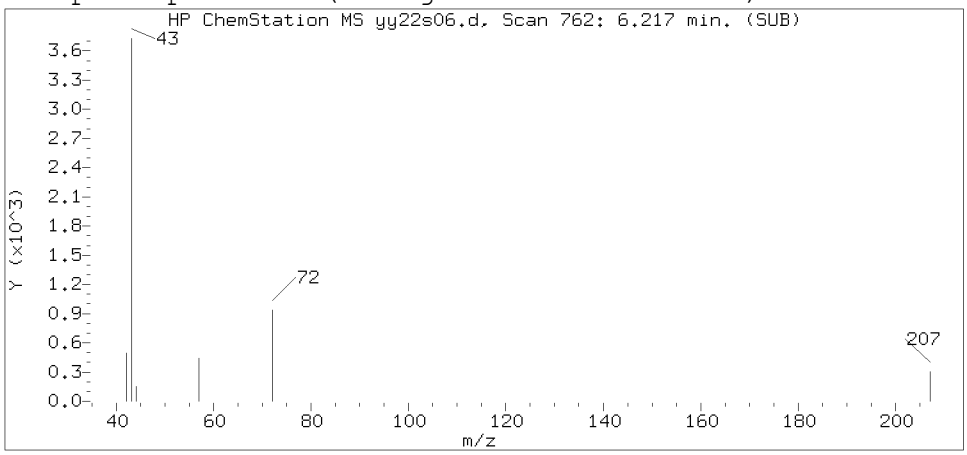
Target 3.5 esignature user Don V. Viray

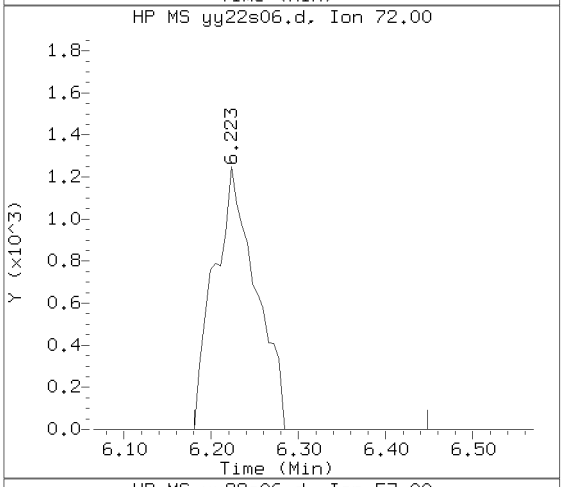
Reference Standard Spectrum for 2-Butanone



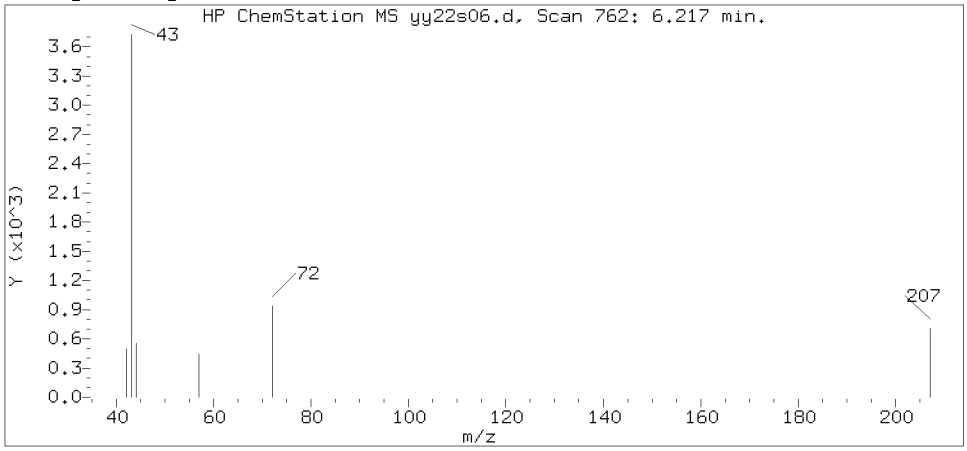


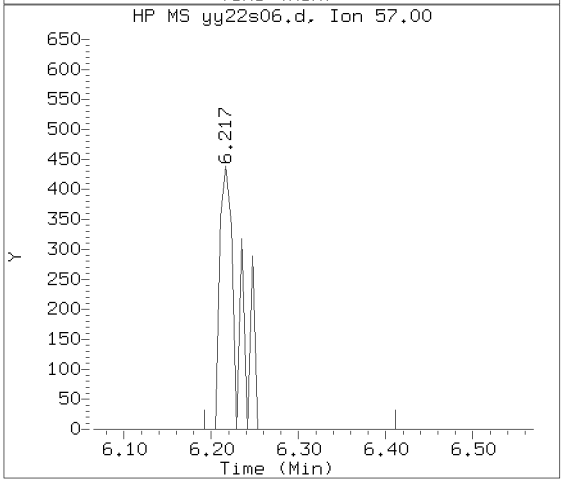
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Compound Number	: 44
Compound Name	: 2-Butanone
Scan Number	: 762
Retention Time (minutes)	: 6.217
Relative Retention Time	: 0.00154
Quant Ion	: 43.00
Area (flag)	: 16110
On-Column Amount (ng)	: 2.1174

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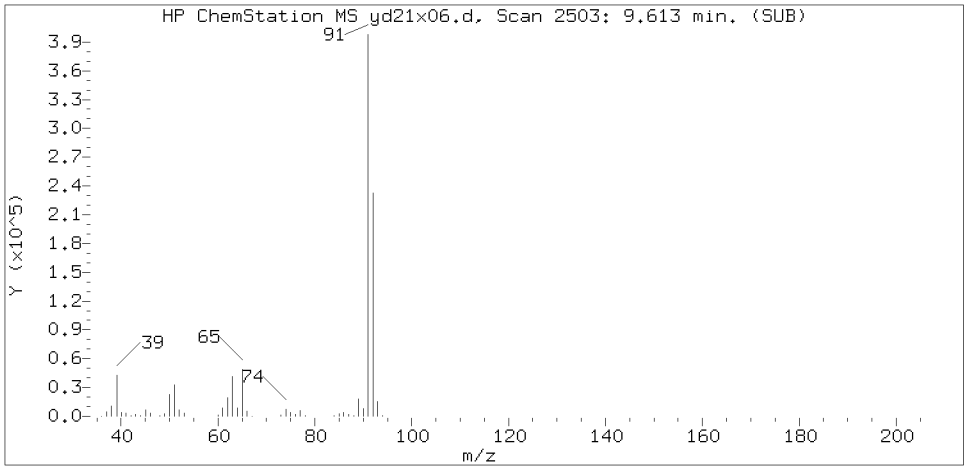
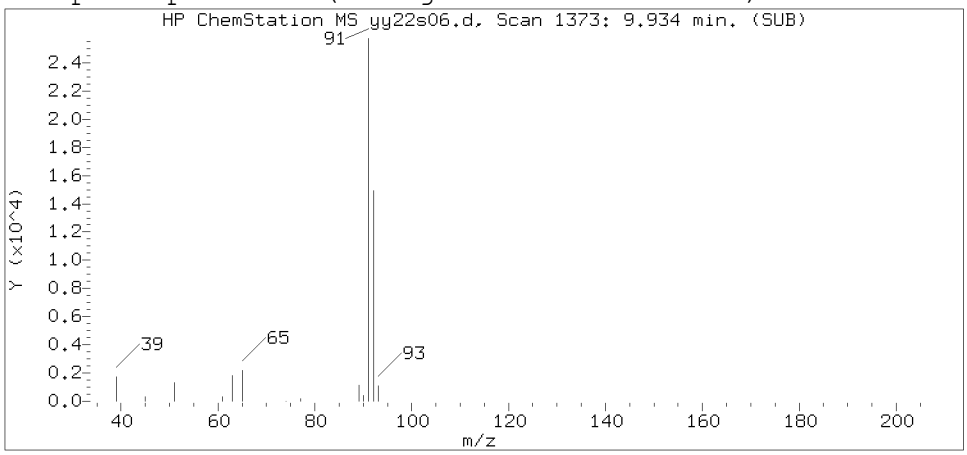
Target 3.5 esignature user ID: dvv10203

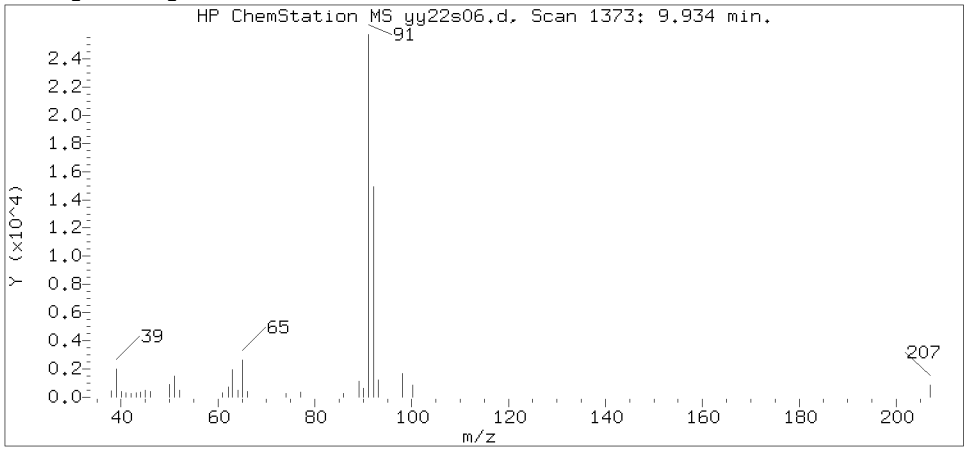
Reference Standard Spectrum for Toluene

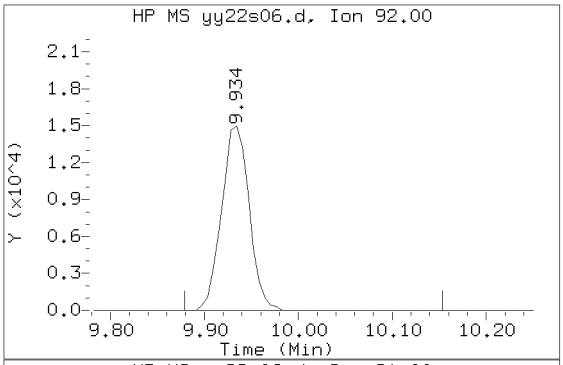


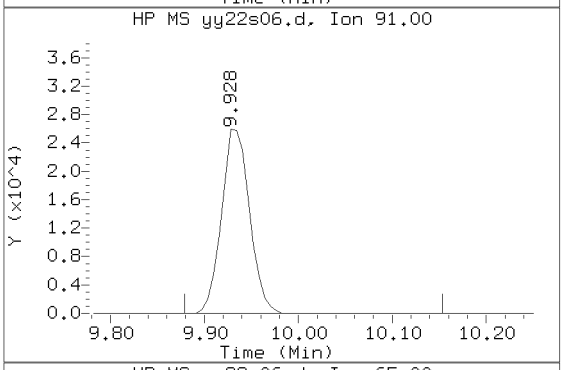
Sample Spectrum (Background Subtracted)

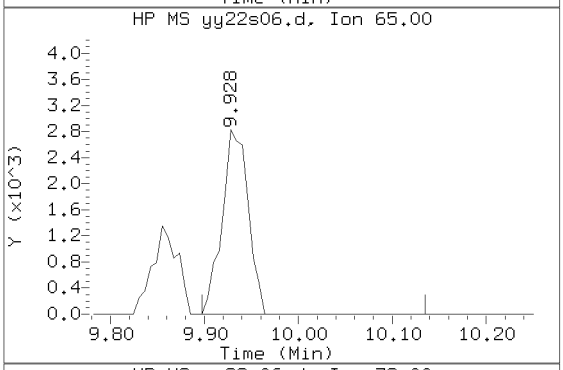


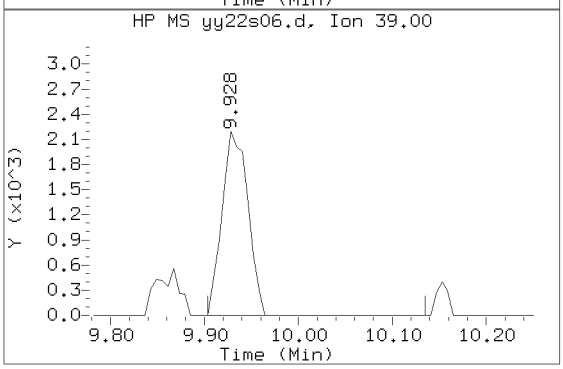
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s06.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:00 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:48 dvv10203

Sample Name: 58302 Lab Sample ID: 1316313

Compound Number	: 88
Compound Name	: Toluene
Scan Number	: 1373
Retention Time (minutes)	: 9.934
Relative Retention Time	: 0.00000
Quant Ion	: 92.00
Area (flag)	: 30601
On-Column Amount (ng)	: 1.5182

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58303

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316314

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s07.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.6	J
156-59-2	cis-1,2-Dichloroethene	0.9	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	9	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s07.d Injection date and time: **22-MAY-2020 13:22**
Data file Sample Info. Line: 58303;1316314;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.356	(0.006)	456	65	411760	(-10)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1261648	(-10)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	938210	(-12)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	497837	(-13)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965	(0.001)	113	288245	50.301	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	78027	51.632	103%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1182888	48.283	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.295	(0.000)	95	433663	46.717	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.444	(0.000)	63	7246	0.561	0.56		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.278	(-0.000)	96	7819	0.910	0.91		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.984	(0.000)	97	19310	1.816	1.82			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.340	(0.000)	95	66083	8.508	8.51			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.482	(-0.000)	166	9316	1.160	1.16			0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s07.d Injection date and time: **22-MAY-2020 13:22**
Data file Sample Info. Line: 58303;1316314;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

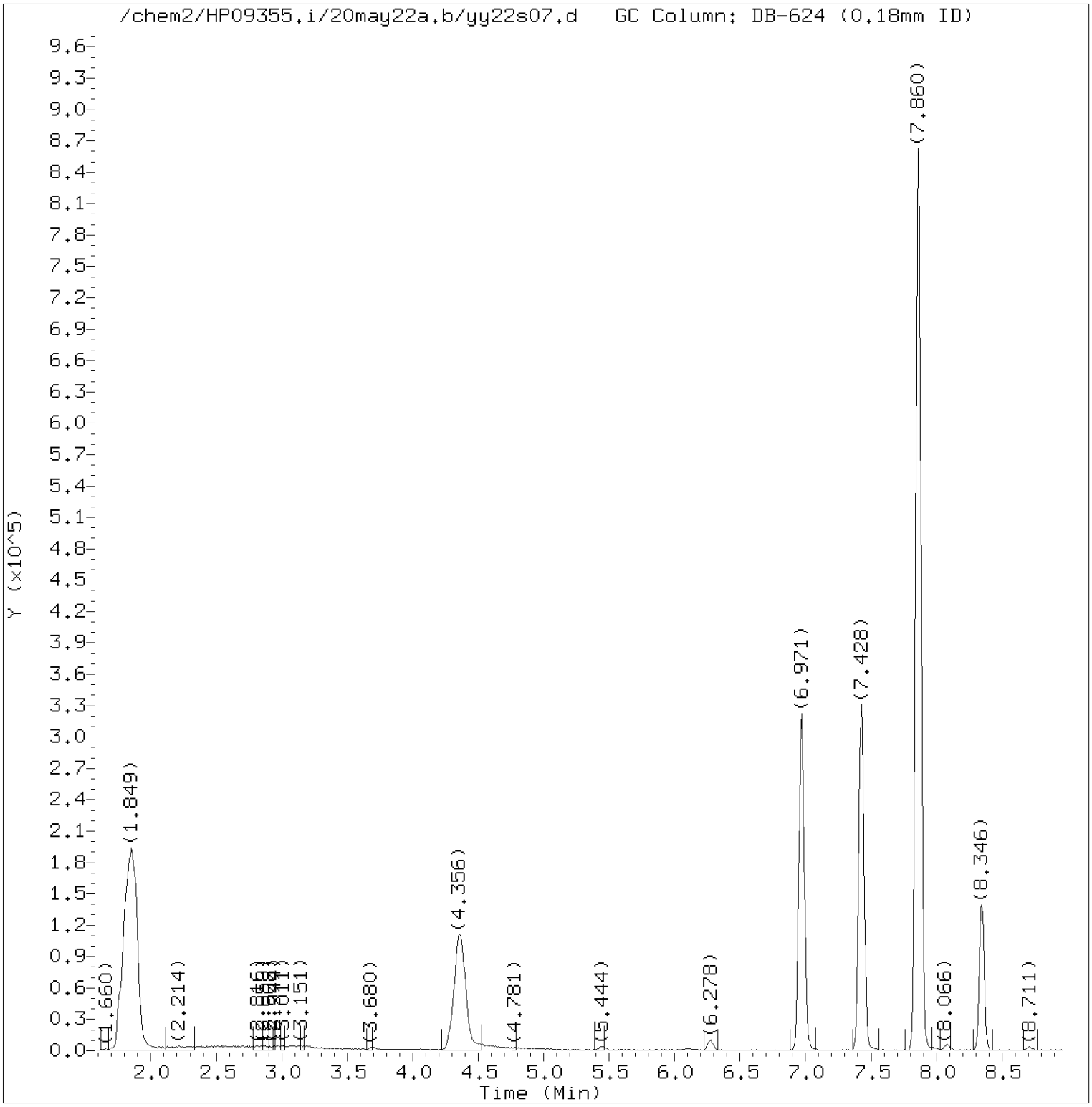
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

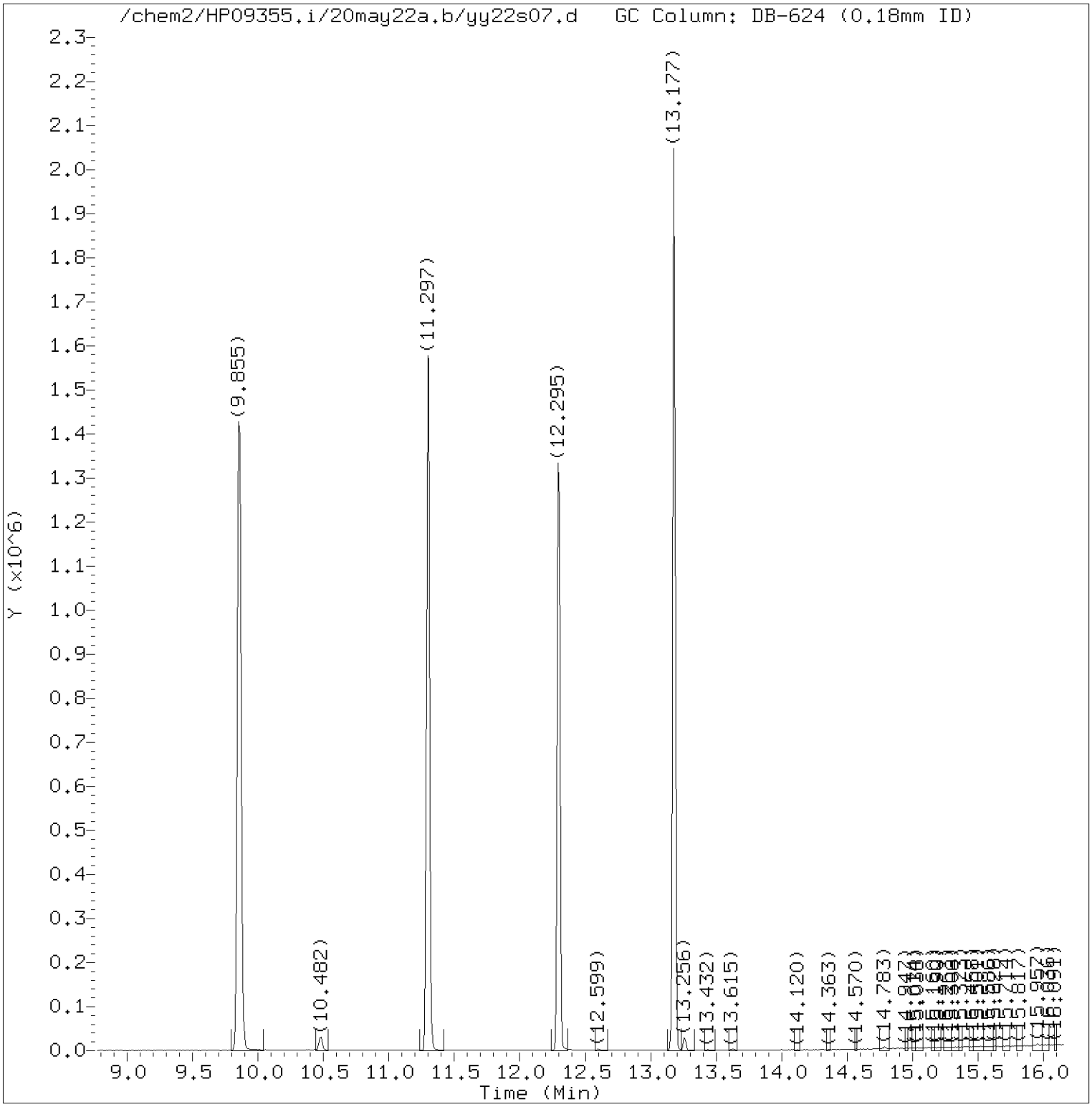
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.356	65	411760	250.000
36) 1,1-Dichloroethane	(2)	5.444	63	7246	0.561
42) cis-1,2-Dichloroethene	(2)	6.278	96	7819	0.910
52)$Dibromofluoromethane	(2)	6.965	113	288245	50.301
53) 1,1,1-Trichloroethane	(2)	6.984	97	19310	1.816
57)$1,2-Dichloroethane-d4	(2)	7.428	102	78027	51.632
66)*Fluorobenzene	(2)	7.866	96	1261648	50.000
71) Trichloroethene	(2)	8.340	95	66083	8.508
83)$Toluene-d8	(3)	9.855	98	1182888	48.283
93) Tetrachloroethene	(3)	10.482	166	9316	1.160
100)*Chlorobenzene-d5	(3)	11.303	117	938210	50.000
114)$4-Bromofluorobenzene	(3)	12.295	95	433663	46.717
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	497837	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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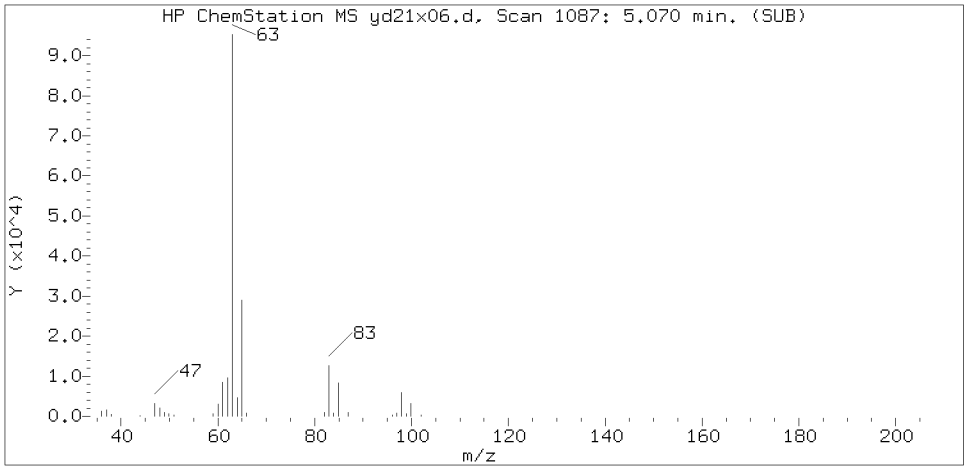
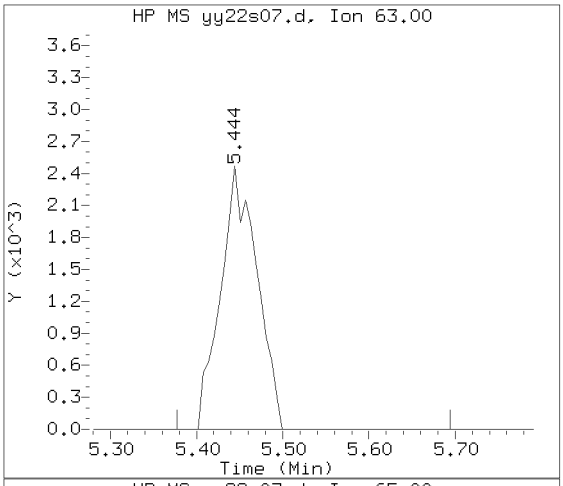
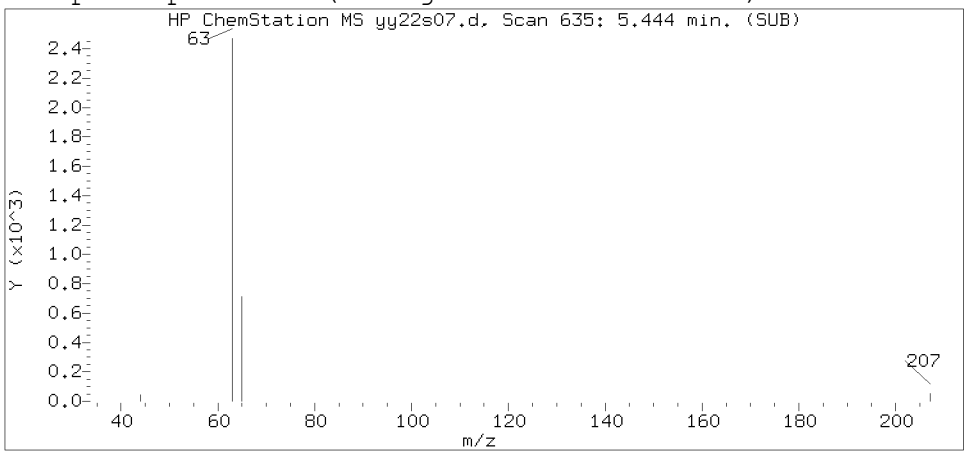
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

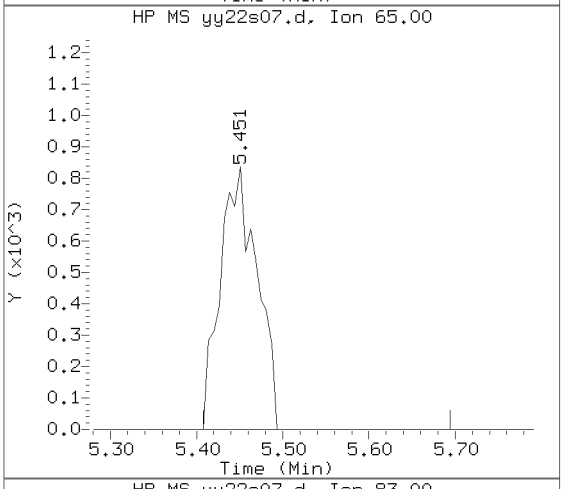
Reference Standard Spectrum for 1,1-Dichloroethane



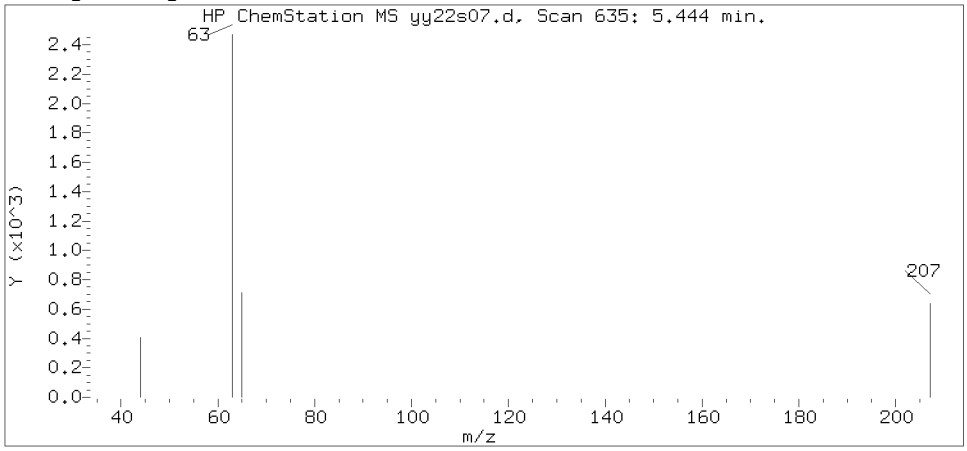


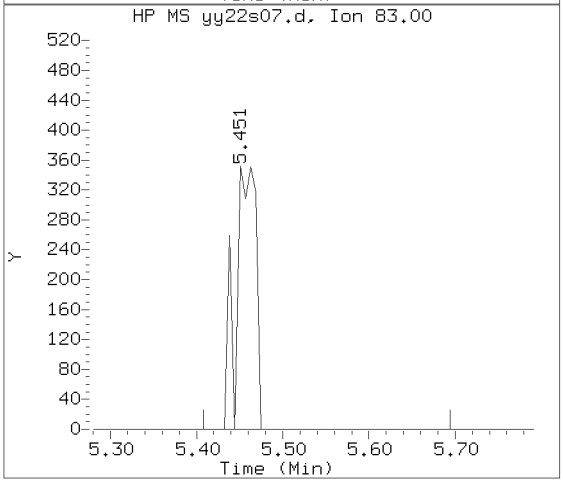
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 635
Retention Time (minutes)	: 5.444
Relative Retention Time	: 0.00076
Quant Ion	: 63.00
Area (flag)	: 7246
On-Column Amount (ng)	: 0.5608

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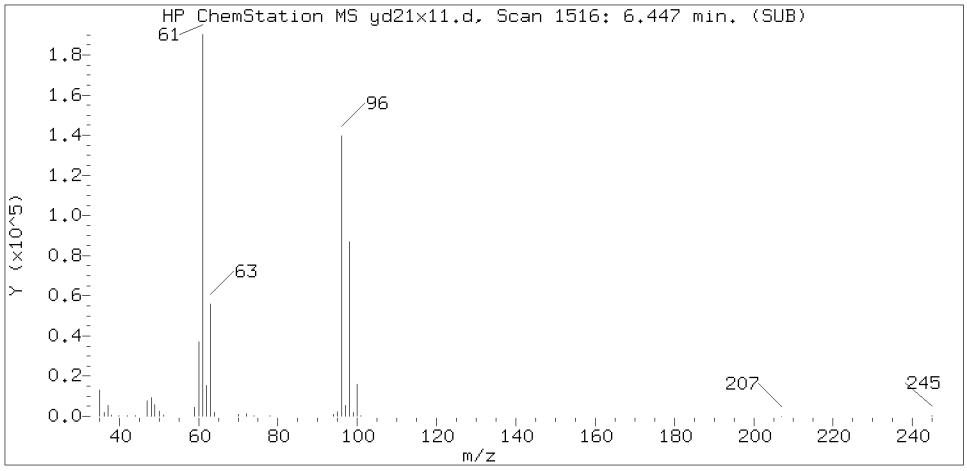
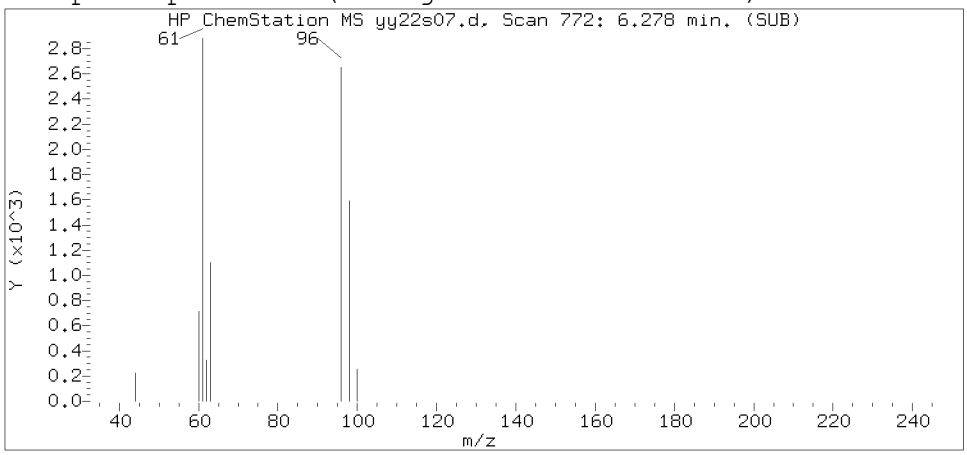
Target 3.5 esignature user ID: dvv10203

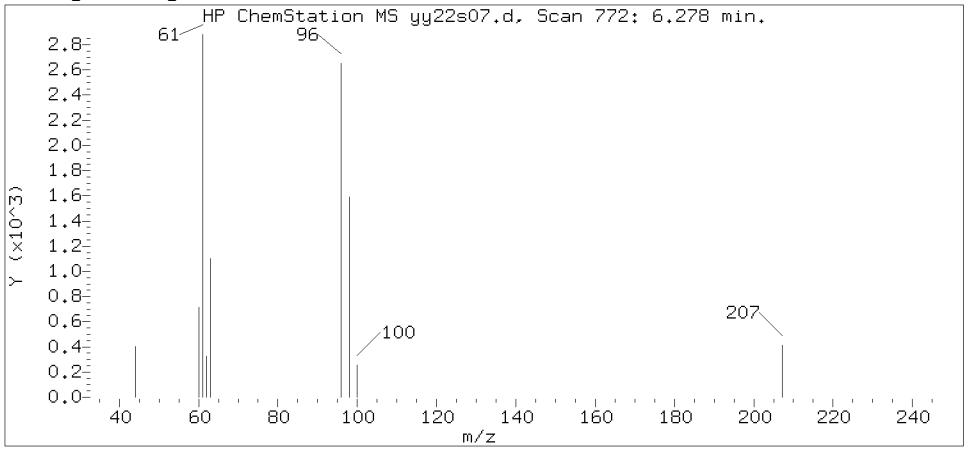
Reference Standard Spectrum for cis-1,2-Dichloroethene

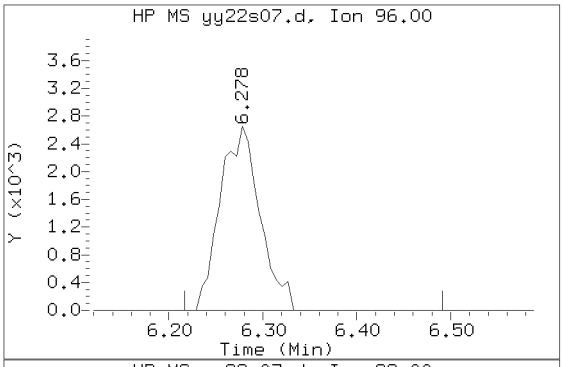


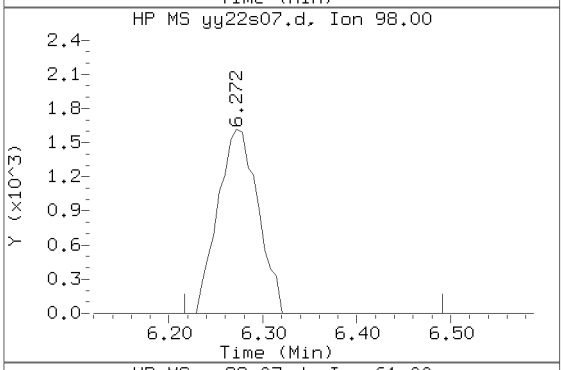
Sample Spectrum (Background Subtracted)

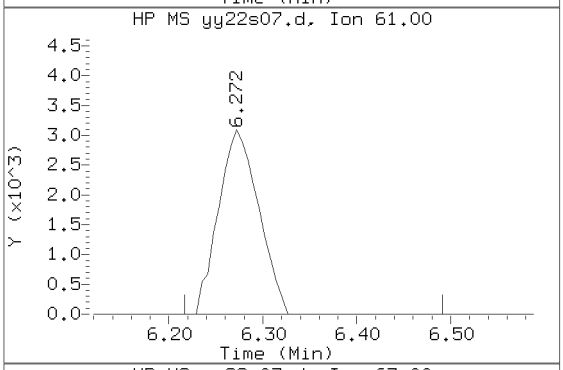


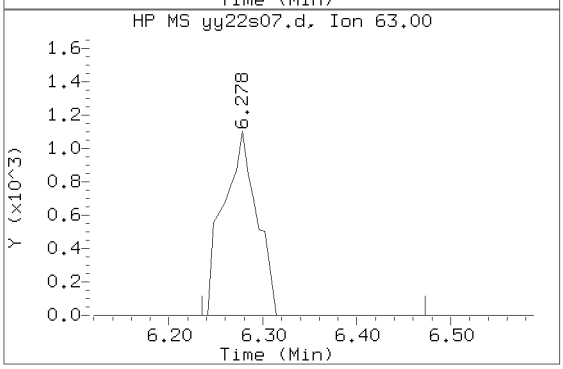
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 772
Retention Time (minutes): 6.278
Relative Retention Time :-0.00078
Quant Ion : 96.00
Area (flag) : 7819
On-Column Amount (ng) : 0.9101

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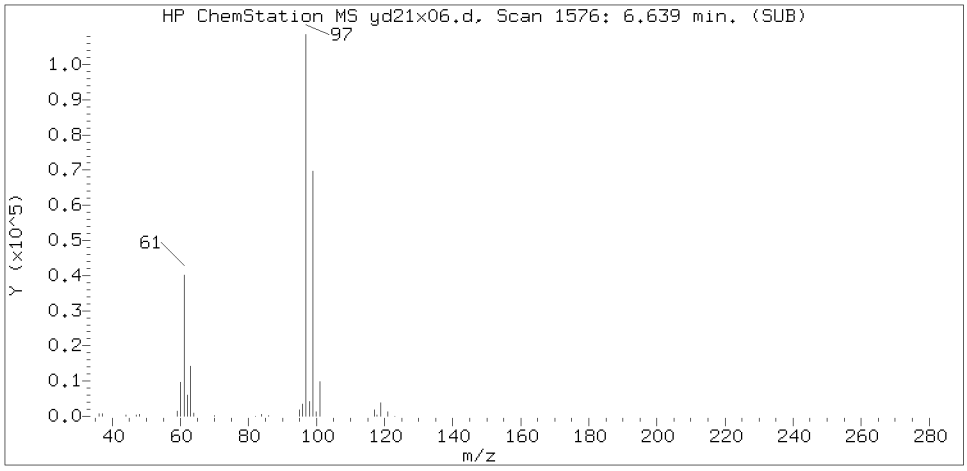
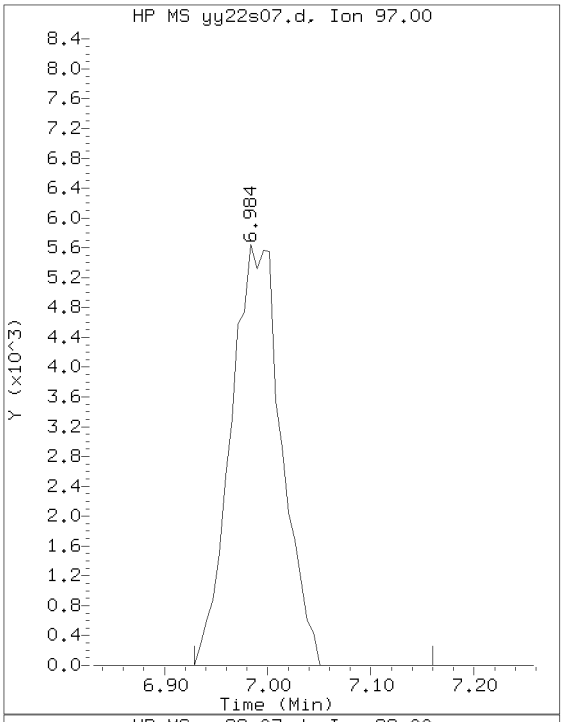
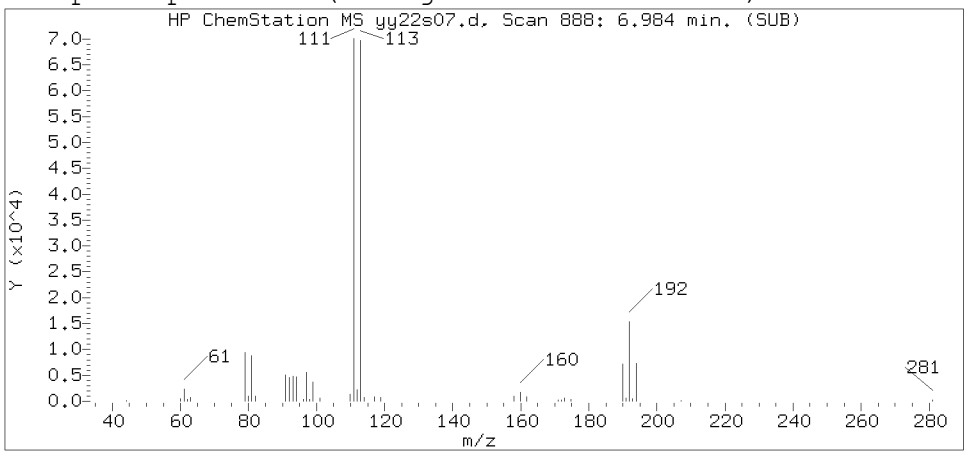
Target 3.5 esignature user ID: dvv10203

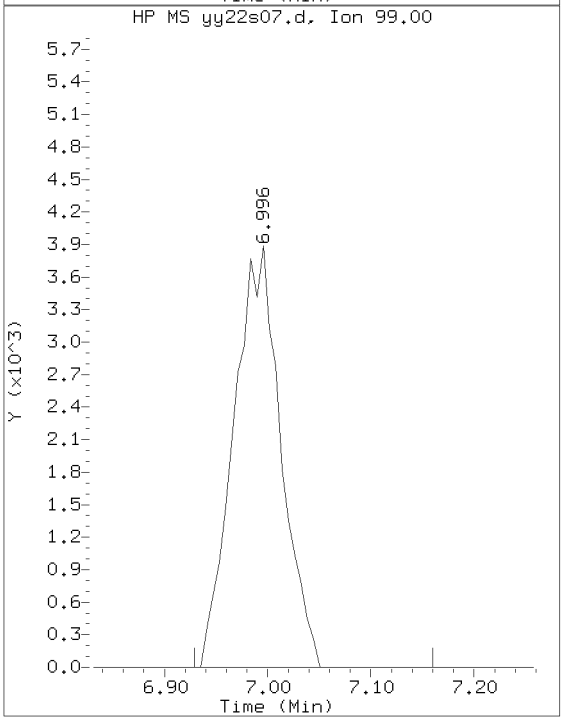
Reference Standard Spectrum for 1,1,1-Trichloroethane



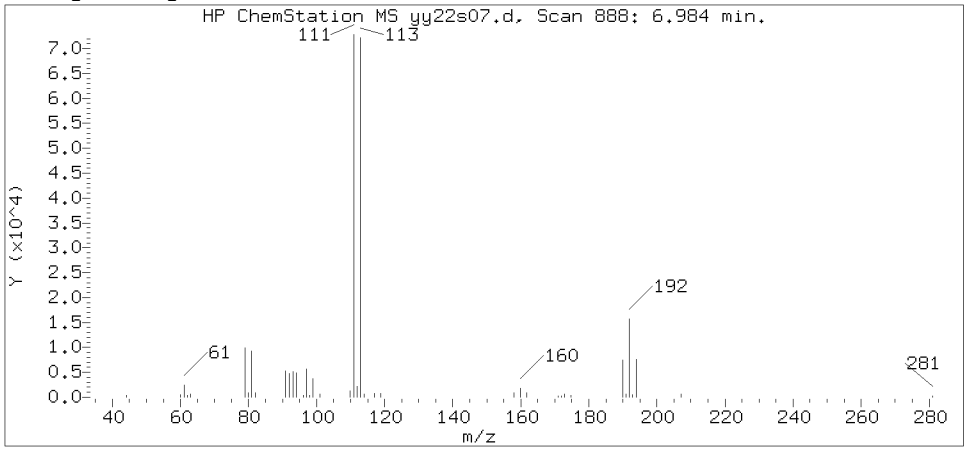


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 888
Retention Time (minutes)	: 6.984
Relative Retention Time	: 0.00077
Quant Ion	: 97.00
Area (flag)	: 19310
On-Column Amount (ng)	: 1.8161

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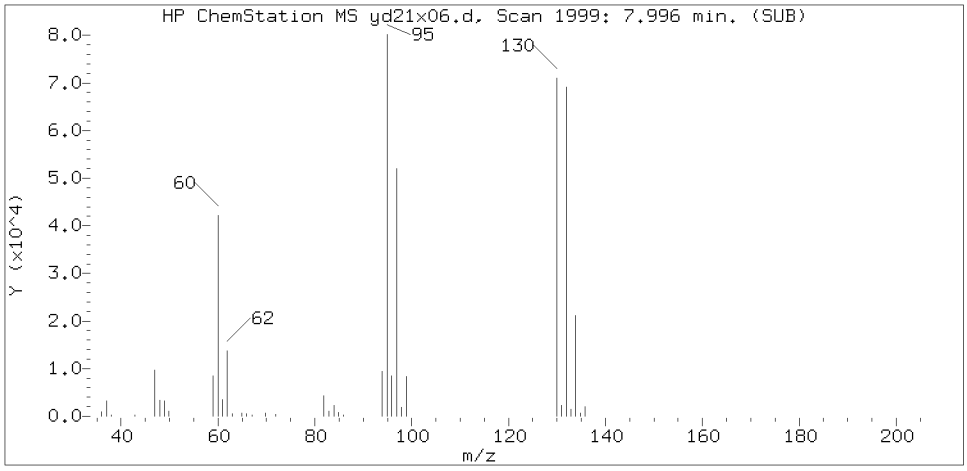
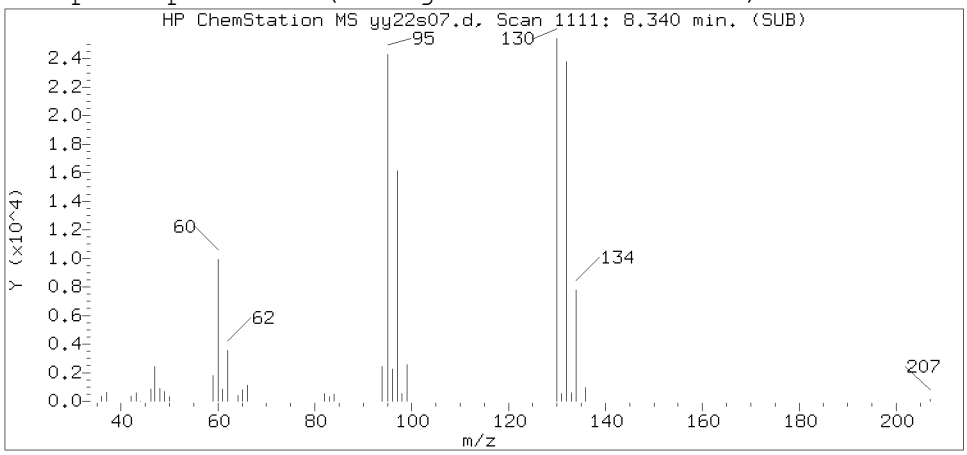
Target 3.5 esignature user ID: dvv10203

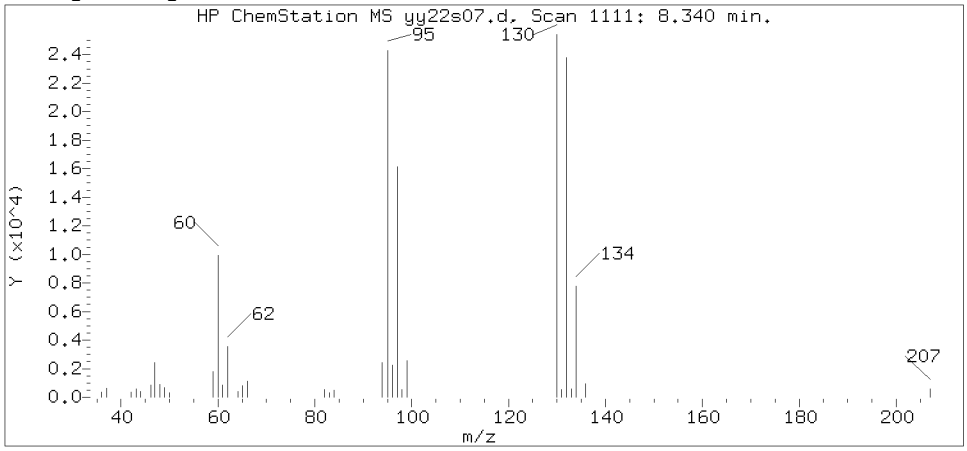
Reference Standard Spectrum for Trichloroethene

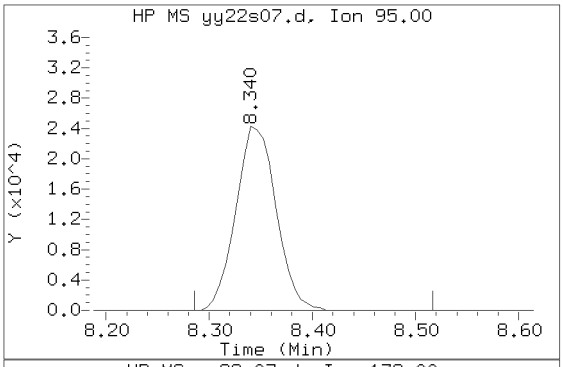


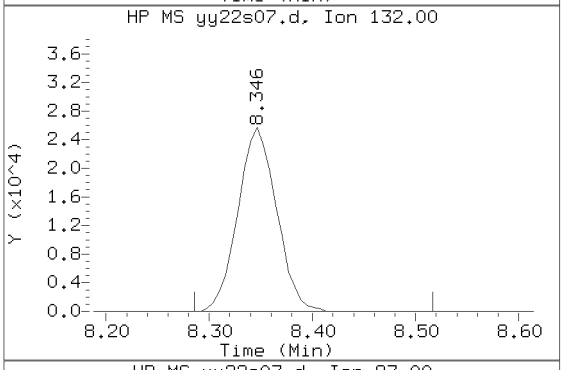
Sample Spectrum (Background Subtracted)

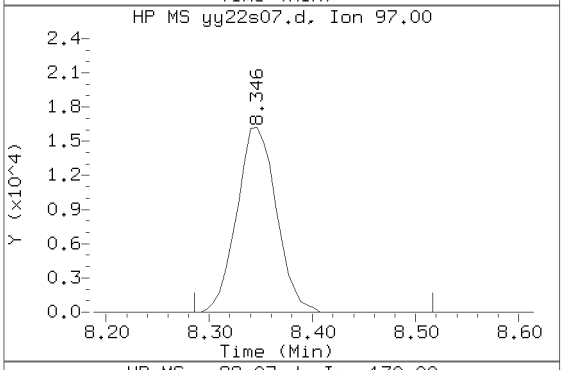


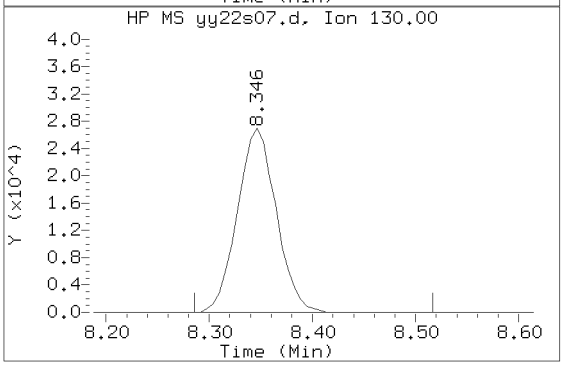
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1111
Retention Time (minutes)	: 8.340
Relative Retention Time	: 0.00077
Quant Ion	: 95.00
Area (flag)	: 66083
On-Column Amount (ng)	: 8.5079

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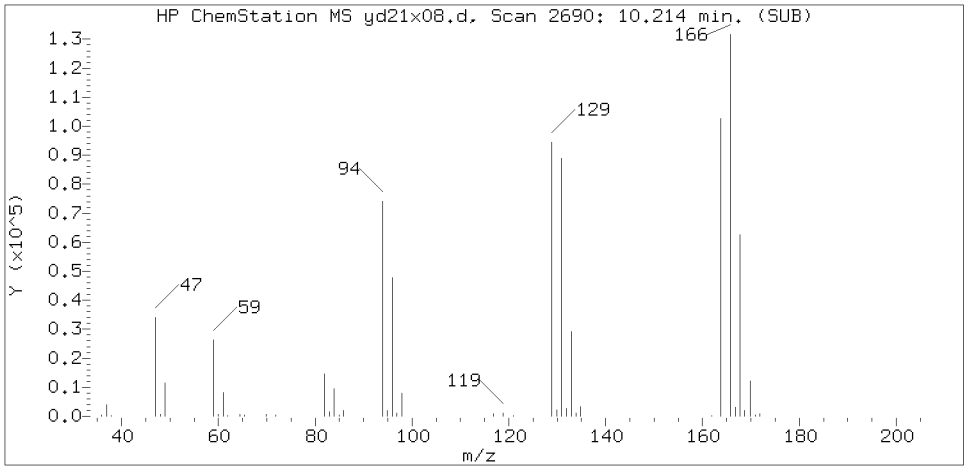
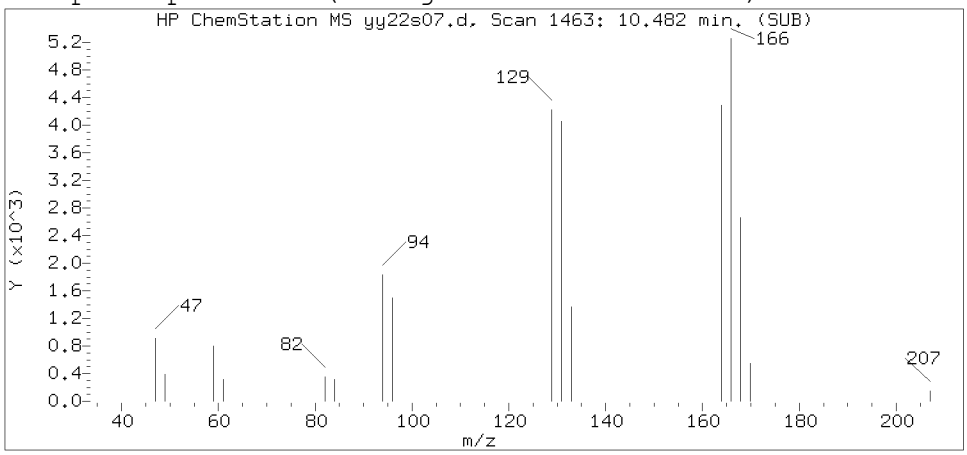
Target 3.5 esignature user ID: dvv10203

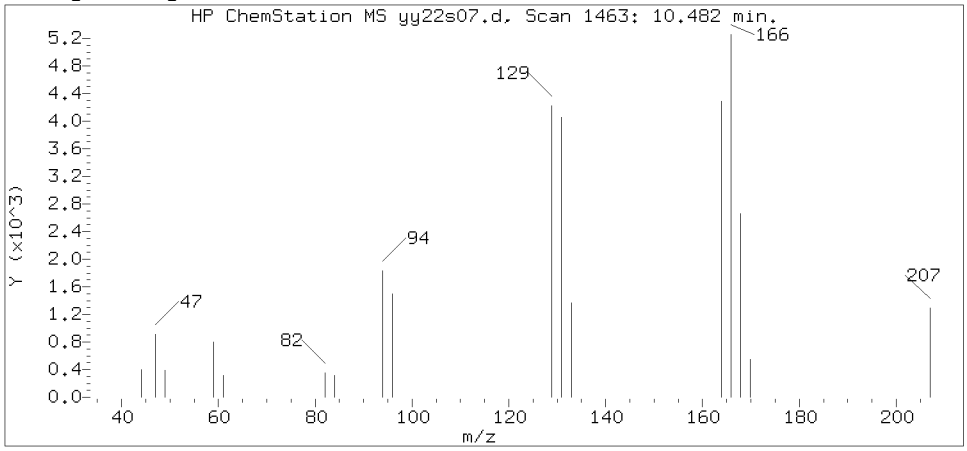
Reference Standard Spectrum for Tetrachloroethene

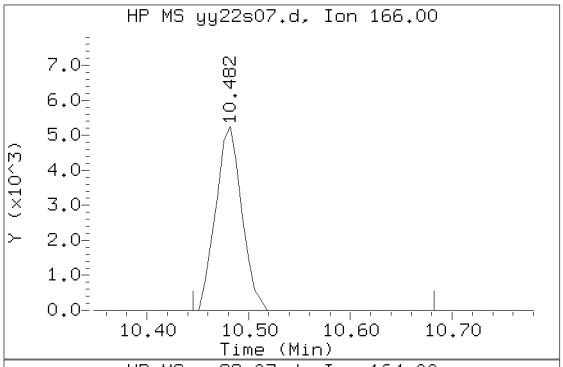


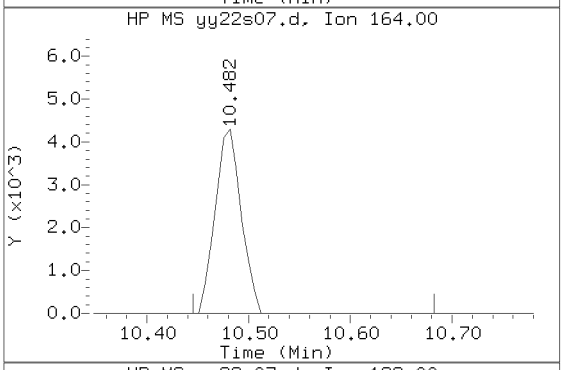
Sample Spectrum (Background Subtracted)

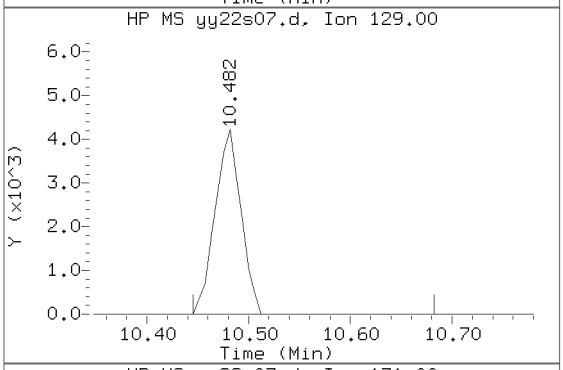


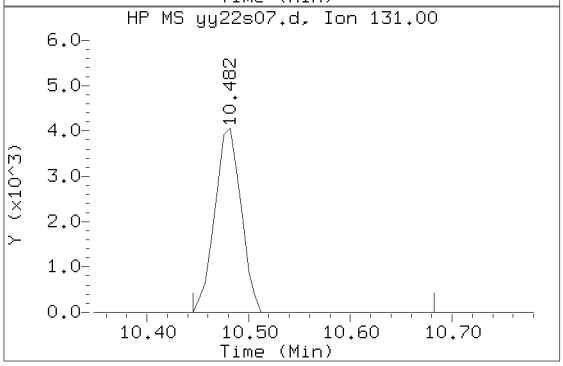
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s07.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:22 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:39 Automation

Sample Name: 58303 Lab Sample ID: 1316314

Compound Number : 93
Compound Name : Tetrachloroethene
Scan Number : 1463
Retention Time (minutes): 10.482
Relative Retention Time :-0.00000
Quant Ion : 166.00
Area (flag) : 9316
On-Column Amount (ng) : 1.1602

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58304

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316315

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s08.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	3	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.5	J
156-59-2	cis-1,2-Dichloroethene	0.6	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	7	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.8	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s08.d Injection date and time: **22-MAY-2020 13:44**
Data file Sample Info. Line: 58304;1316315;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.361	(0.000)	457	65	402345	(-12)	250.00	
66) Fluorobenzene	7.859	(0.006)	1032	96	1238985	(-12)	50.00	
100) Chlorobenzene-d5	11.297	(0.006)	1597	117	924455	(-13)	50.00	
131) 1,4-Dichlorobenzene-d4	13.176	(0.000)	1906	152	488160	(-15)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(-0.001)	113	281080	49.948	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(-0.001)	102	76991	51.879	104%		80 - 120
83) Toluene-d8	(3)	9.855	(0.000)	98	1162174	48.143	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(-0.001)	95	427165	46.702	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.450	(-0.000)	63	5711	0.450	0.45		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.278	(-0.001)	96	5198	0.616	0.62		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.983	(0.000)	97	17285	1.655	1.66			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.346	(-0.000)	95	53241	6.980	6.98			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.481	(-0.000)	166	6334	0.801	0.80		J	0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s08.d Injection date and time: **22-MAY-2020 13:44**
Data file Sample Info. Line: 58304;1316315;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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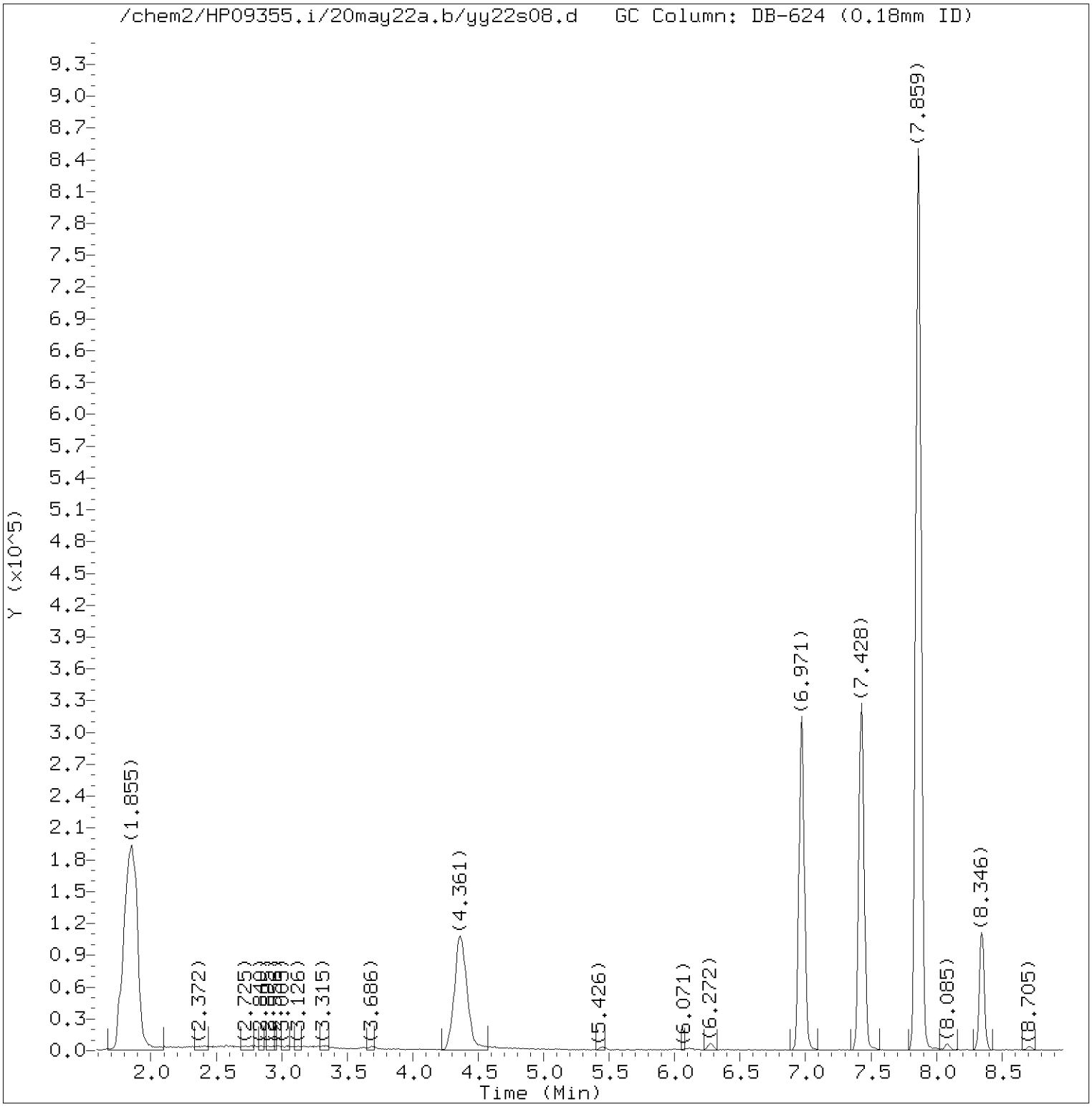
Secondary review performed and digitally signed by Rachel Krueger on 05/28/2020 at 23:12. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

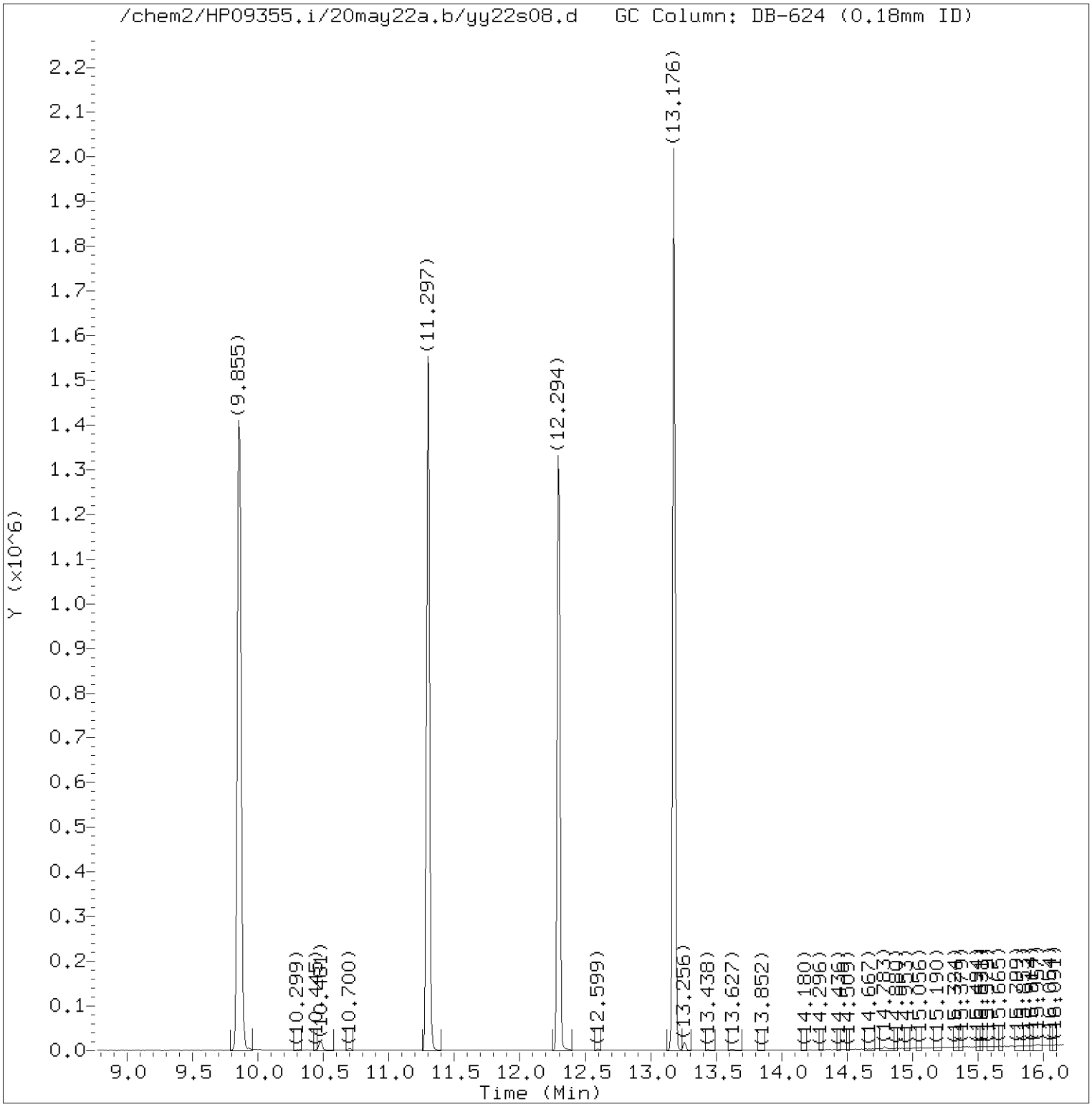
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Digitally signed by Kevin A. Sposito
on 05/28/2020 at 19:09.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Digitally signed by Kevin A. Sposito
on 05/28/2020 at 19:09.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.361	65	402345	250.000
36) 1,1-Dichloroethane	(2)	5.450	63	5711	0.450
42) cis-1,2-Dichloroethene	(2)	6.278	96	5198	0.616
52)$Dibromofluoromethane	(2)	6.971	113	281080	49.948
53) 1,1,1-Trichloroethane	(2)	6.983	97	17285	1.655
57)$1,2-Dichloroethane-d4	(2)	7.428	102	76991	51.879
66)*Fluorobenzene	(2)	7.859	96	1238985	50.000
71) Trichloroethene	(2)	8.346	95	53241	6.980
83)$Toluene-d8	(3)	9.855	98	1162174	48.143
93) Tetrachloroethene	(3)	10.481	166	6334	0.801
100)*Chlorobenzene-d5	(3)	11.297	117	924455	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	427165	46.702
131)*1,4-Dichlorobenzene-d4	(4)	13.176	152	488160	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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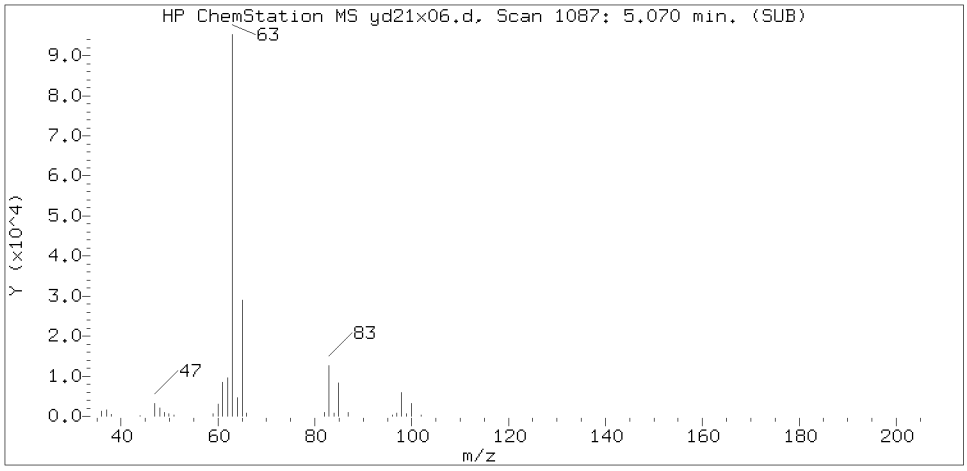
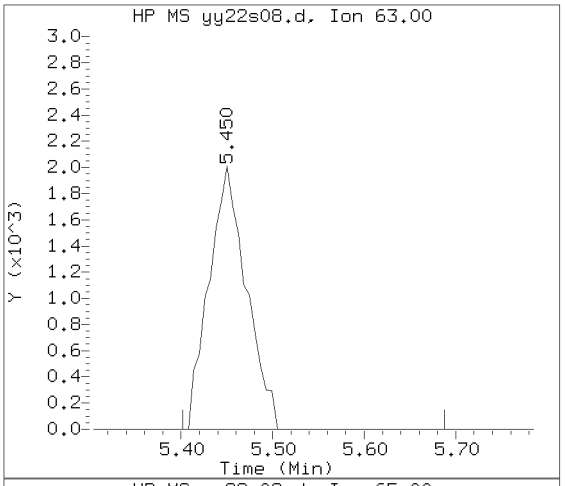
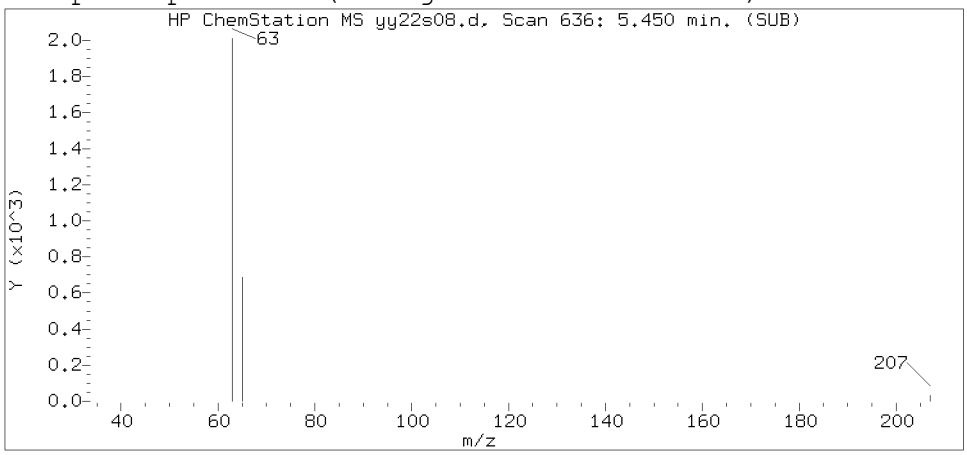
on 05/28/2020 at 19:09.
Target 3.5 esignature user ID: kas02648

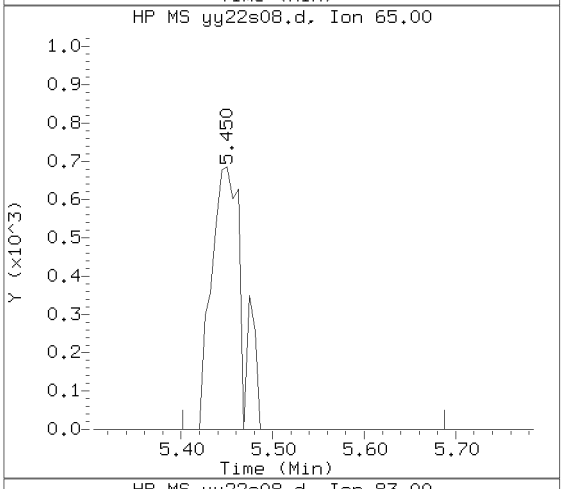
Reference Standard Spectrum for 1,1-Dichloroethane



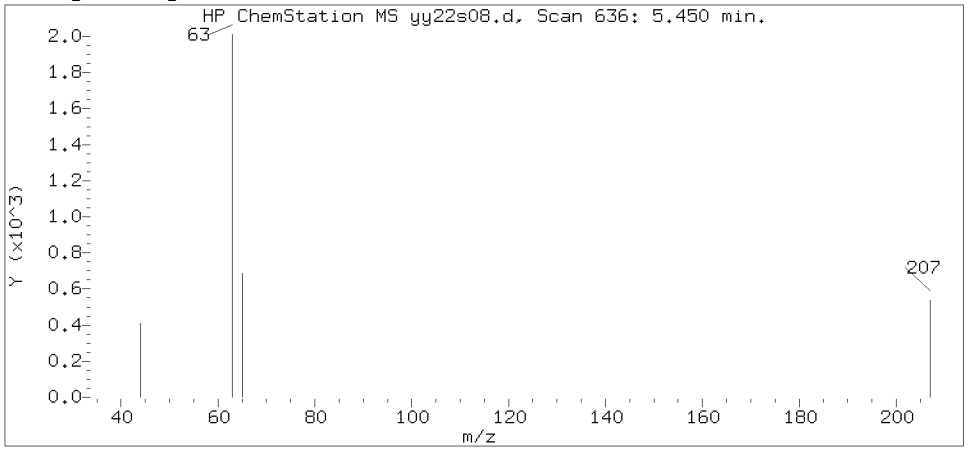


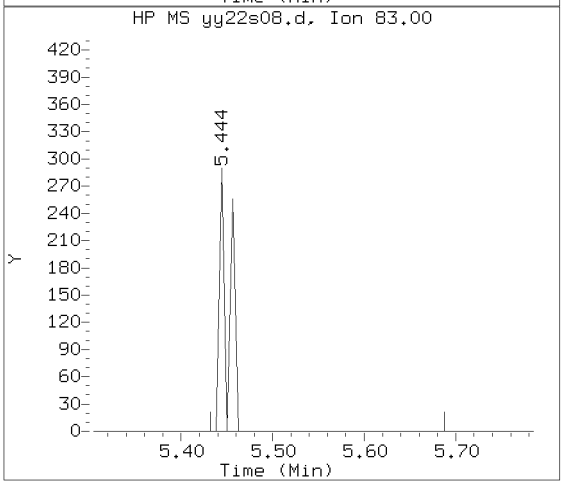
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 636
Retention Time (minutes): 5.450
Relative Retention Time :-0.00054
Quant Ion : 63.00
Area (flag) : 5711
On-Column Amount (ng) : 0.4501

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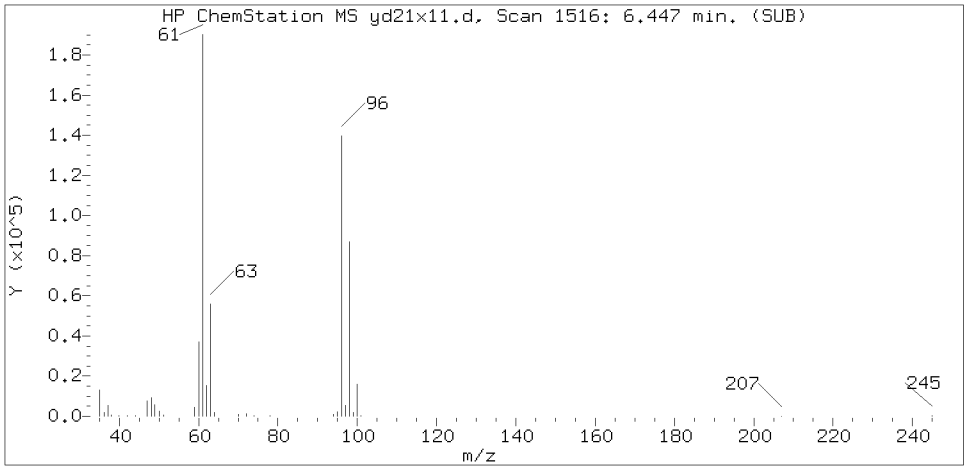
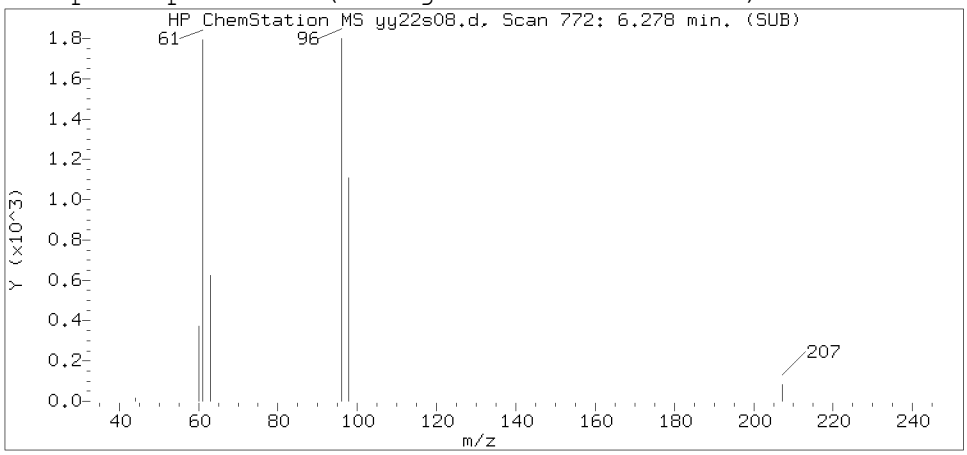
Target 3.5 esignature user ID: kas02648

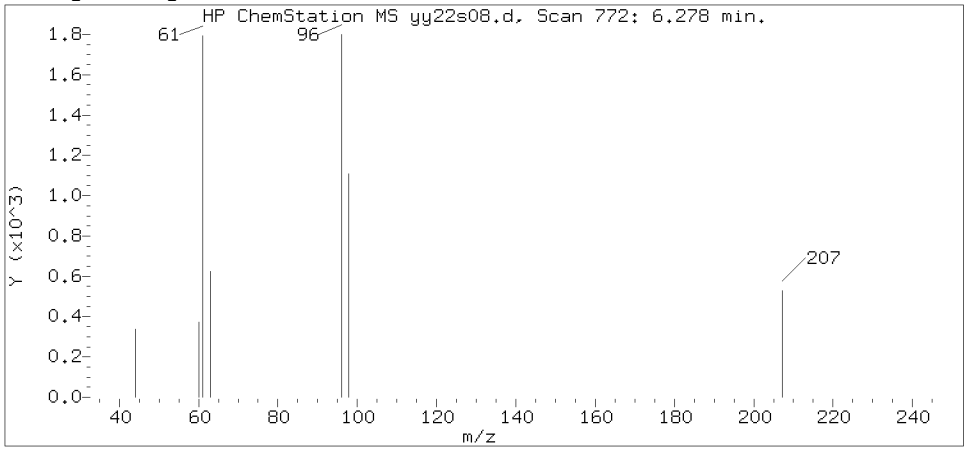
Reference Standard Spectrum for cis-1,2-Dichloroethene

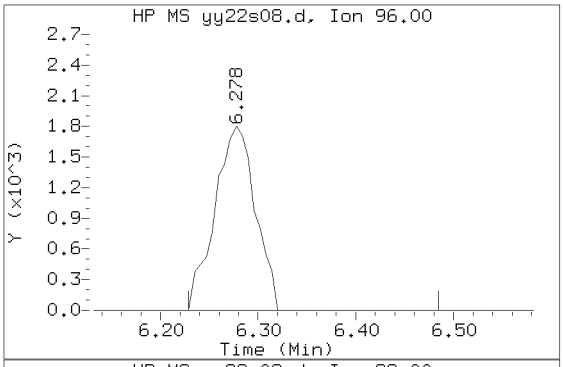


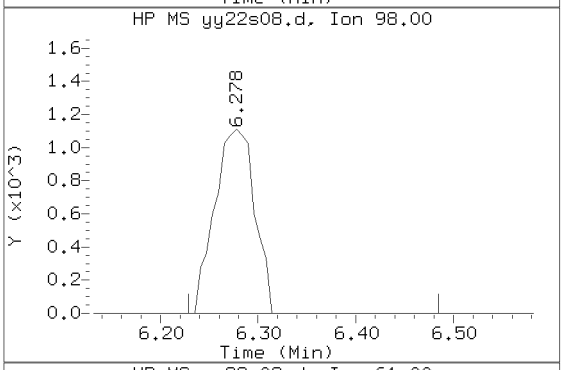
Sample Spectrum (Background Subtracted)

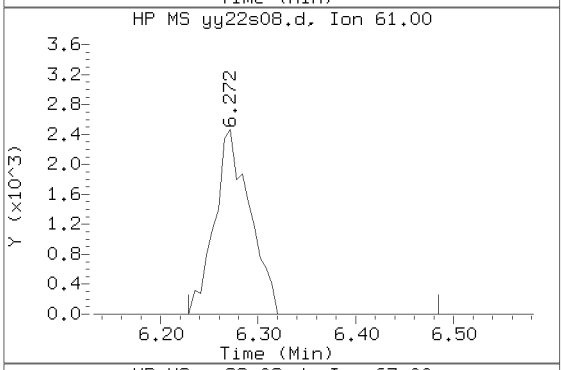


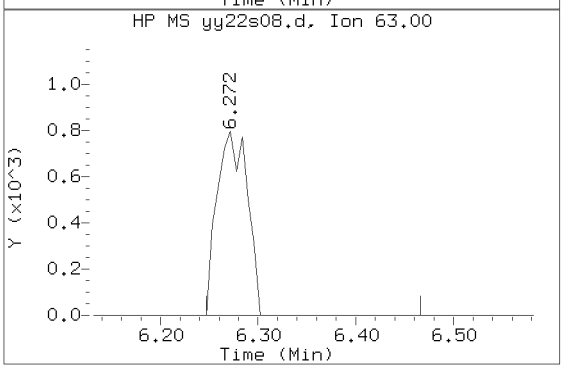
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 772
Retention Time (minutes): 6.278
Relative Retention Time :-0.00139
Quant Ion : 96.00
Area (flag) : 5198
On-Column Amount (ng) : 0.6161

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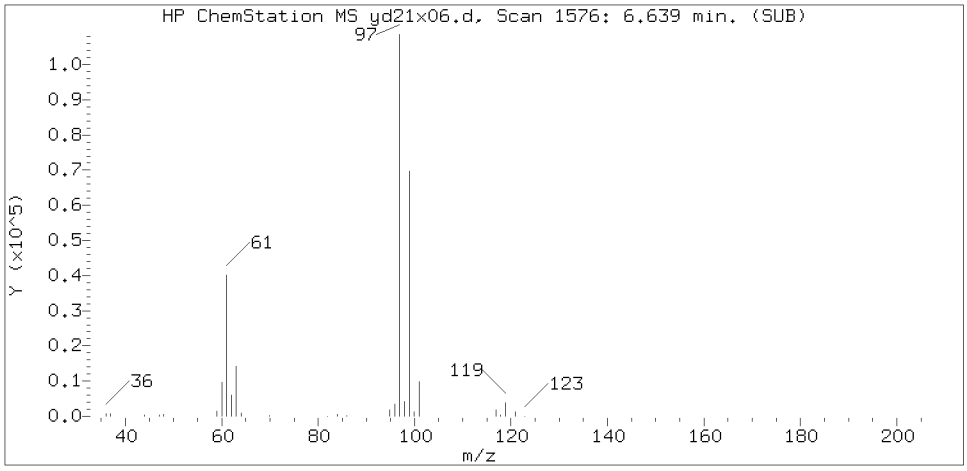
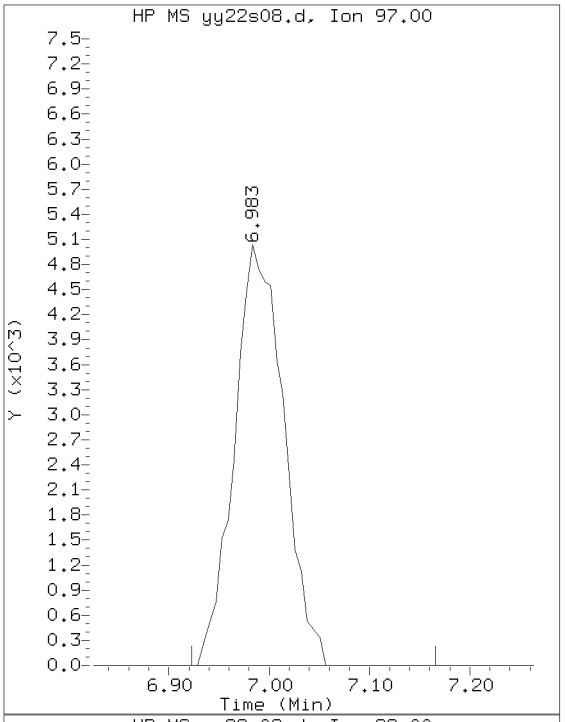
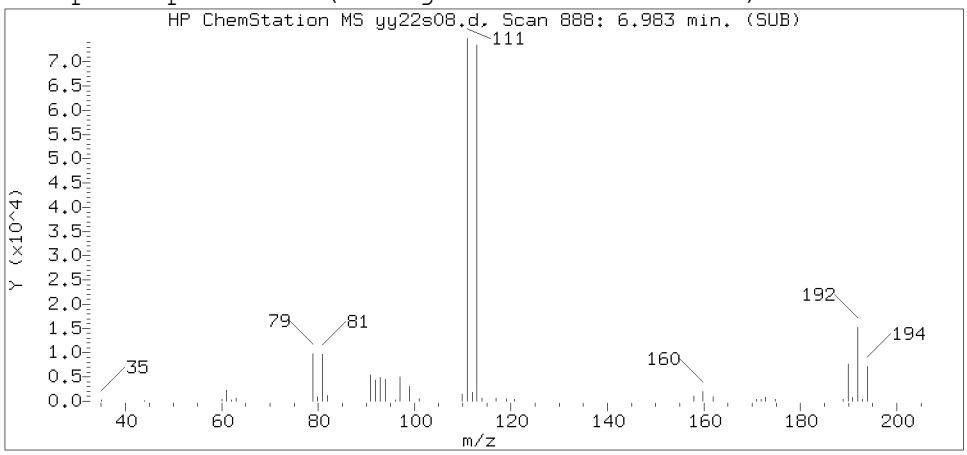
Target 3.5 esignature user ID: kas02648

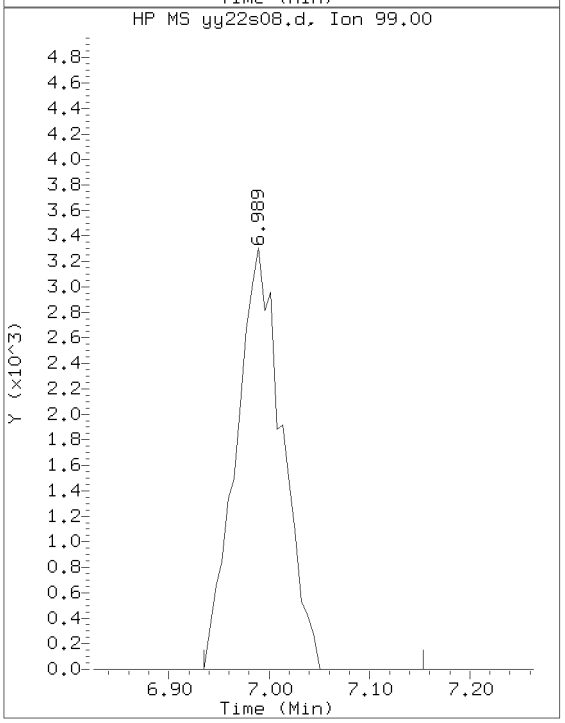
Reference Standard Spectrum for 1,1,1-Trichloroethane



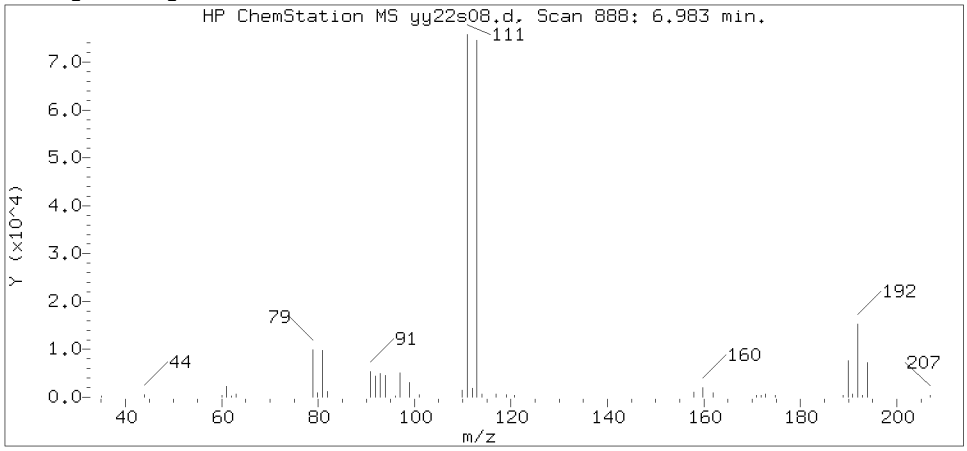


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

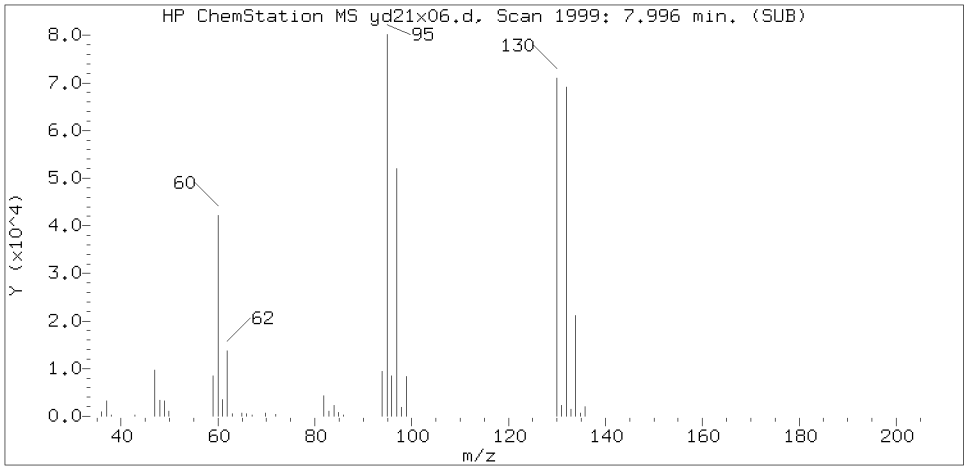
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

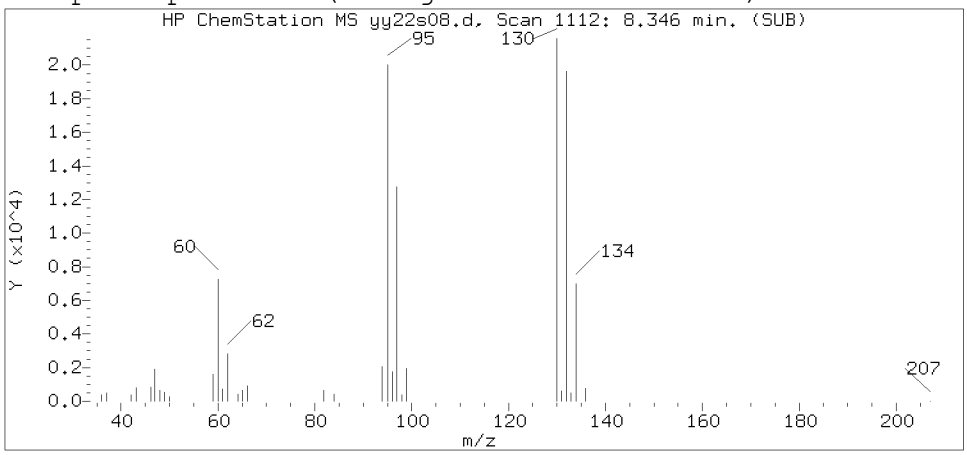
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 888
Retention Time (minutes)	: 6.983
Relative Retention Time	: 0.00009
Quant Ion	: 97.00
Area (flag)	: 17285
On-Column Amount (ng)	: 1.6553

Digitally signed by Kevin A. Sposito on 05/28/2020 at 19:09.
Target 3.5 esignature user ID: kas02648

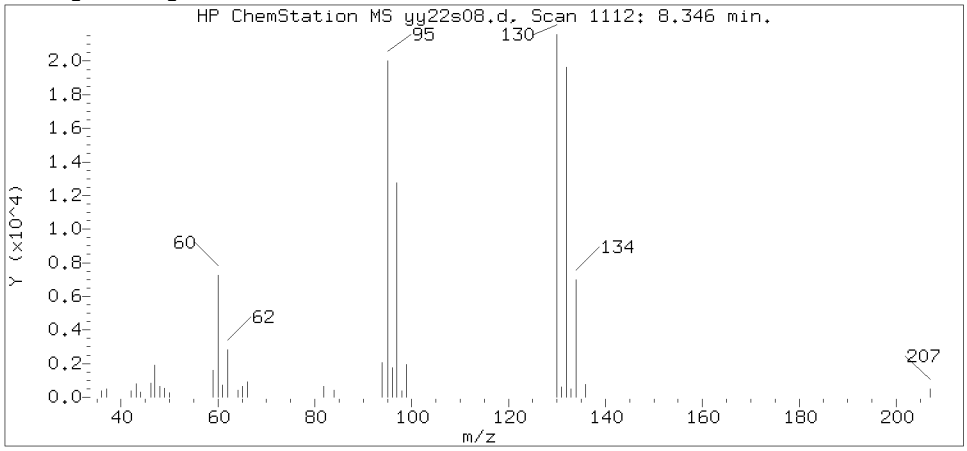
Reference Standard Spectrum for Trichloroethene

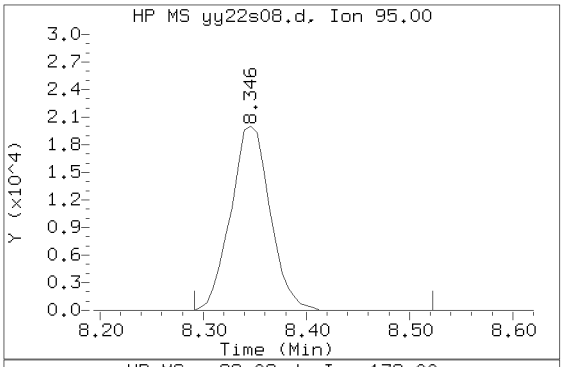


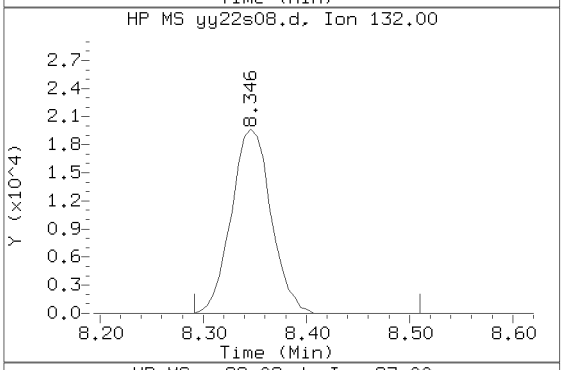
Sample Spectrum (Background Subtracted)

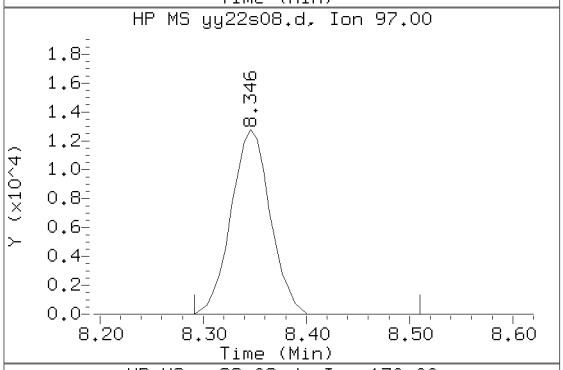


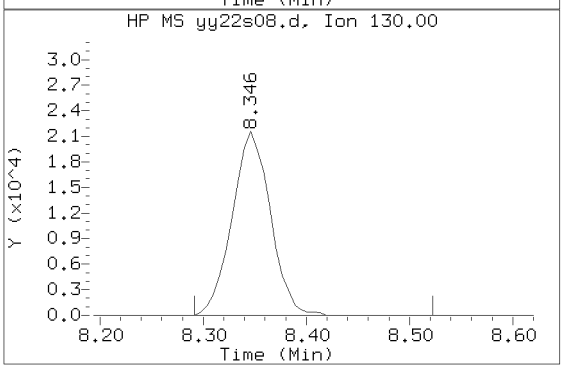
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1112
Retention Time (minutes): 8.346
Relative Retention Time :-0.00082
Quant Ion : 95.00
Area (flag) : 53241
On-Column Amount (ng) : 6.9798

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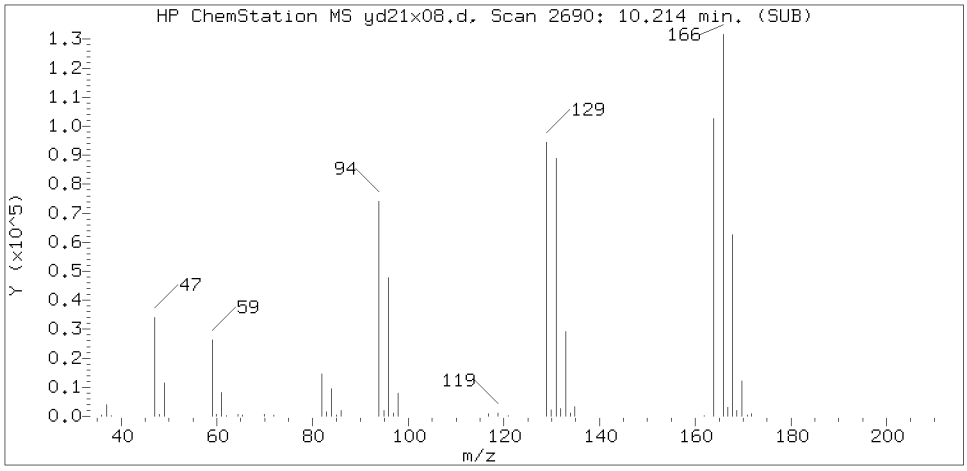
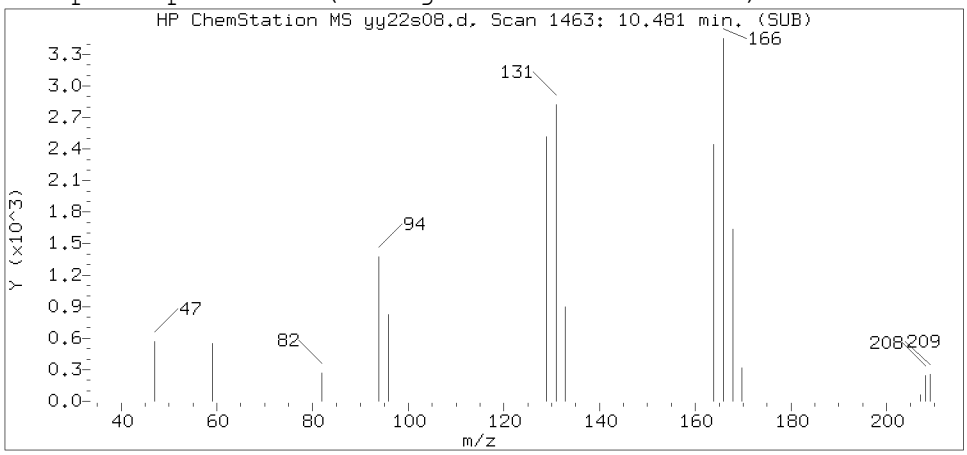
Target 3.5 esignature user ID: kas02648

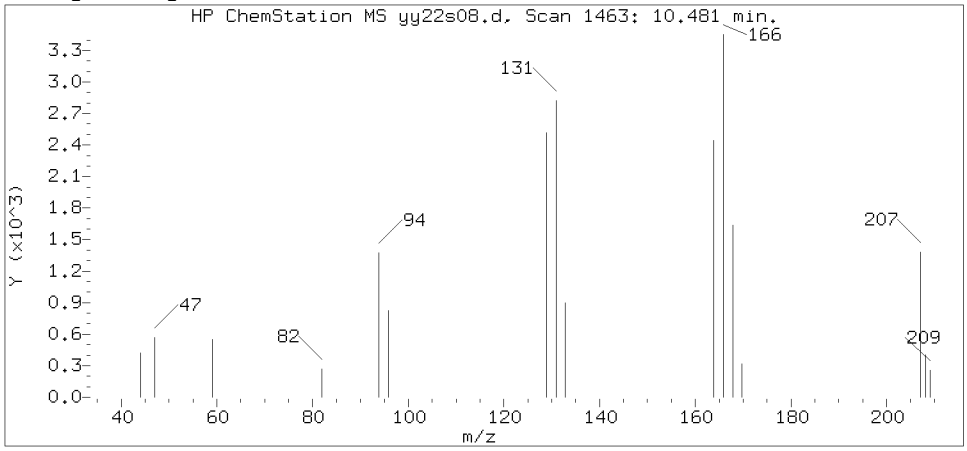
Reference Standard Spectrum for Tetrachloroethene

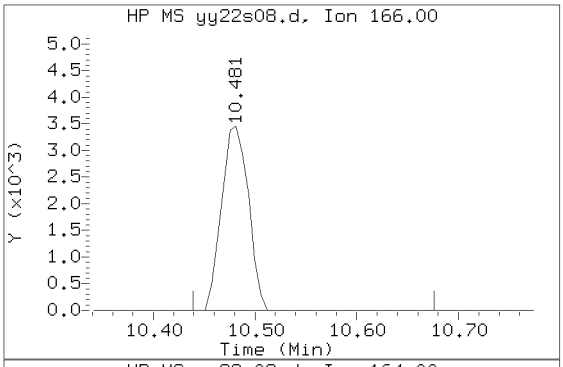


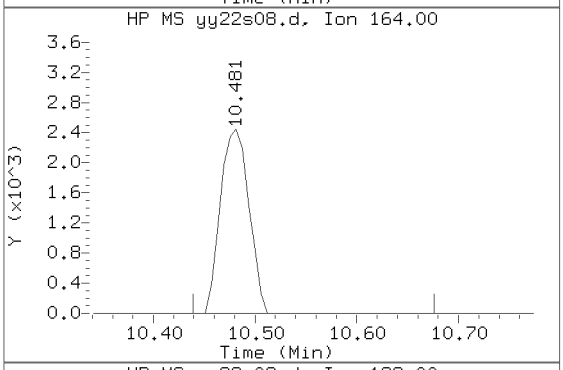
Sample Spectrum (Background Subtracted)

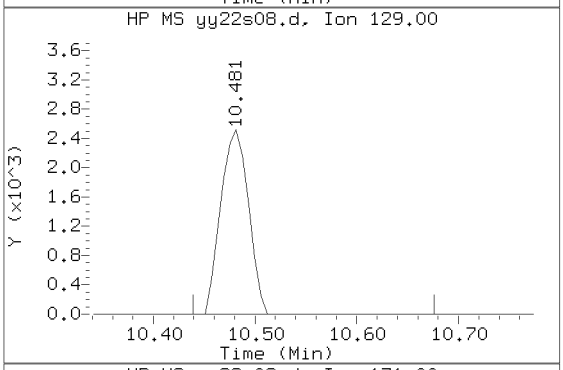


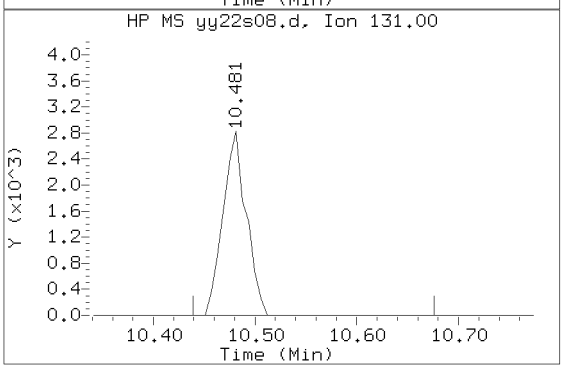
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s08.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 13:44 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 28-May-2020 19:09 kas02648

Sample Name: 58304 Lab Sample ID: 1316315

Compound Number : 93
Compound Name : Tetrachloroethene
Scan Number : 1463
Retention Time (minutes): 10.481
Relative Retention Time :-0.00050
Quant Ion : 166.00
Area (flag) : 6334
On-Column Amount (ng) : 0.8005

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Target 3.5 esignature user ID: kas02648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
58305

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316316

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s09.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.2	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.5	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	4	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.2	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

58305 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316316

Data file: /chem2/HP09355.i/20may22a.b/yy22s09.d Injection date and time: **22-MAY-2020 14:06**
Data file Sample Info. Line: 58305;1316316;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.361	(0.000)	457	65	397430	(-13)	250.00	
66) Fluorobenzene	7.859	(0.006)	1032	96	1222001	(-13)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	913631	(-14)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	486900	(-15)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965	(0.000)	113	278212	50.125	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(-0.001)	102	74495	50.895	102%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1152566	48.311	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(0.000)	95	422078	46.692	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	3.668	(0.002)	96	1479	0.220	0.22		J	0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.456	(-0.001)	63	6174	0.493	0.49		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.990	(-0.000)	97	22997	2.233	2.23			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.346	(-0.000)	95	30416	4.043	4.04			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.475	(0.000)	166	1705	0.218	0.22		J	0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s09.d Injection date and time: **22-MAY-2020 14:06**
Data file Sample Info. Line: 58305;1316316;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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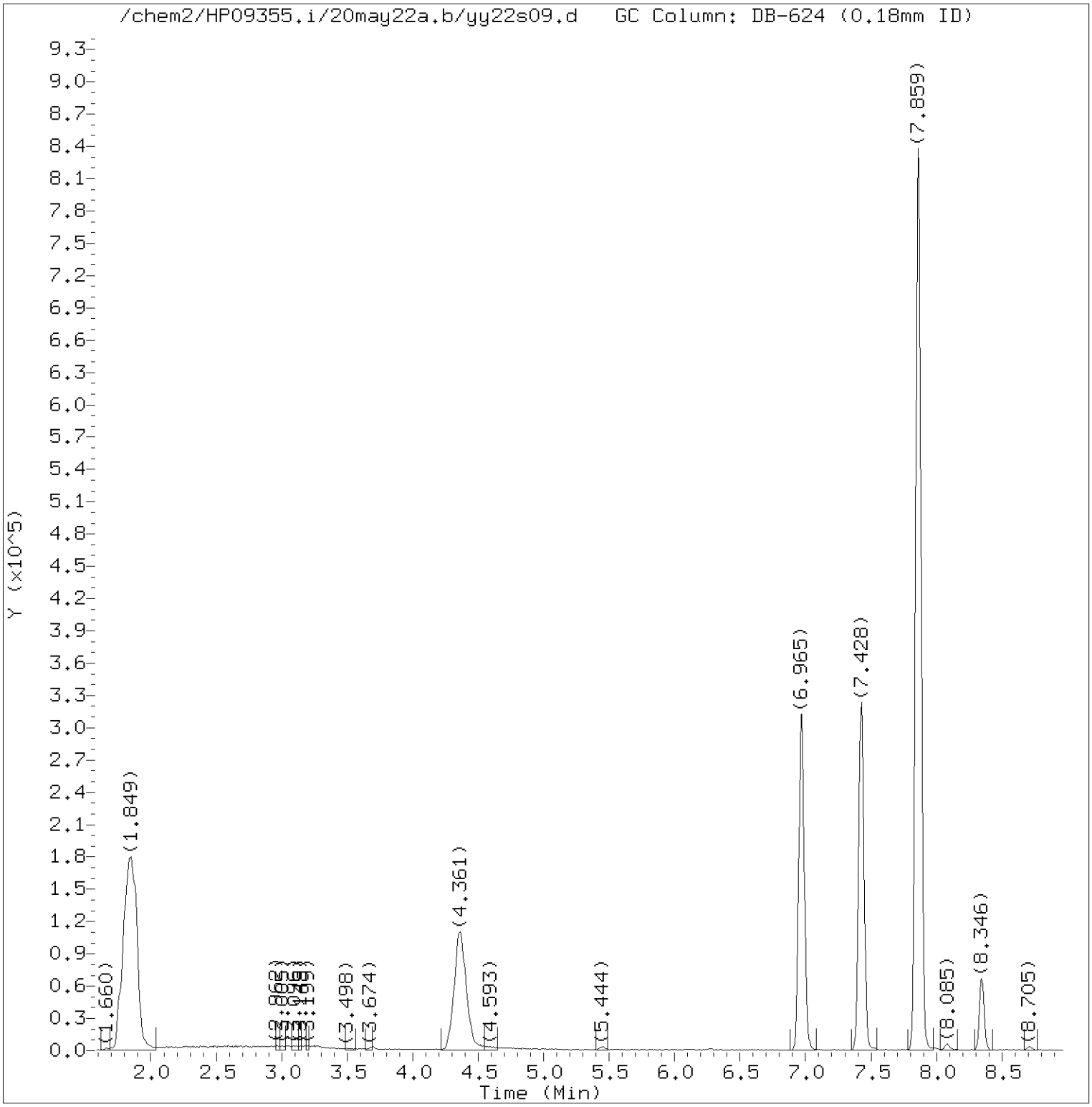
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

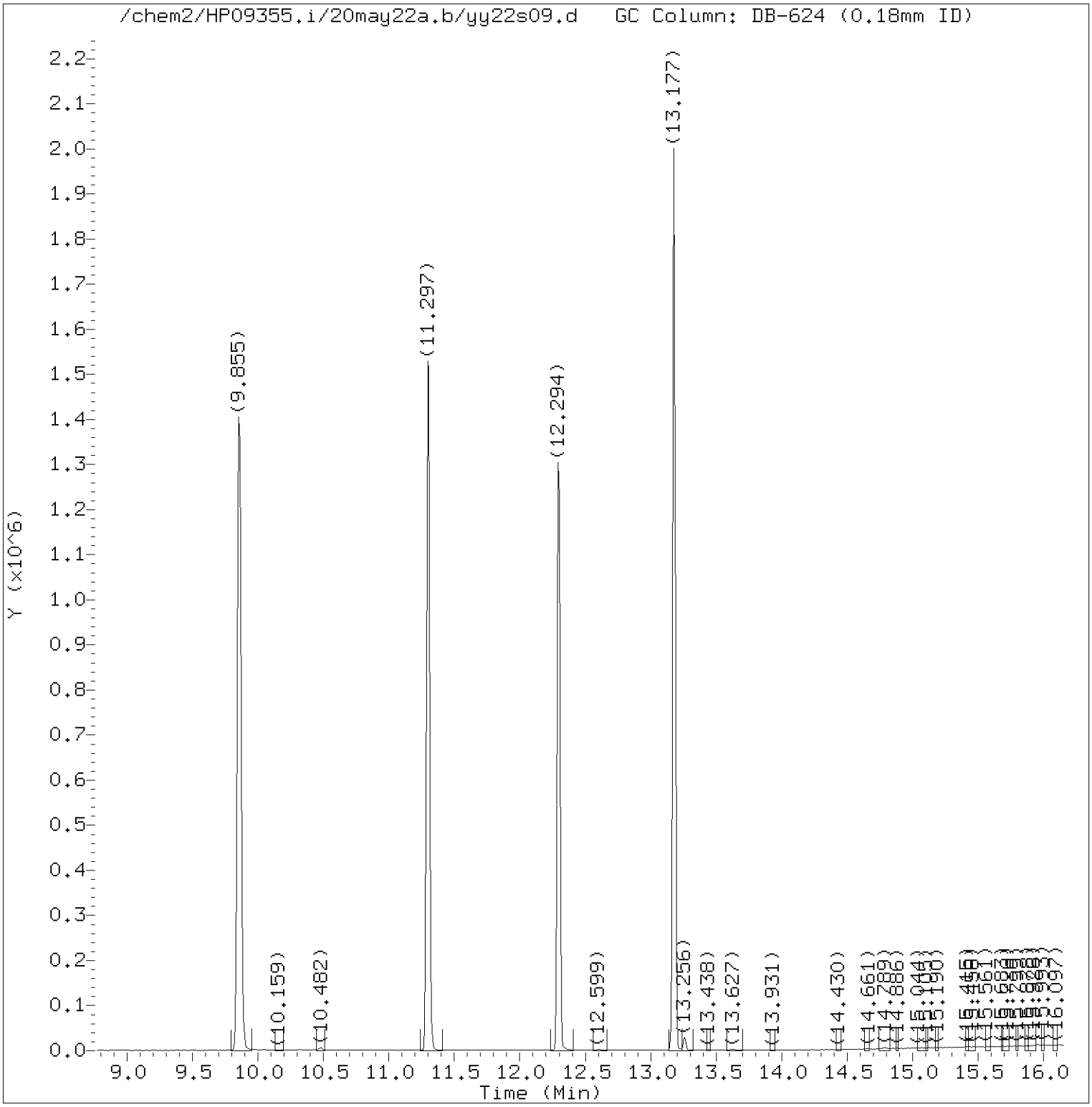
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	3.668	96	1479	0.220
29)*t-Butyl alcohol-d10	(1)	4.361	65	397430	250.000
36) 1,1-Dichloroethane	(2)	5.456	63	6174	0.493
52)$Dibromofluoromethane	(2)	6.965	113	278212	50.125
53) 1,1,1-Trichloroethane	(2)	6.990	97	22997	2.233
57)$1,2-Dichloroethane-d4	(2)	7.428	102	74495	50.895
66)*Fluorobenzene	(2)	7.859	96	1222001	50.000
71) Trichloroethene	(2)	8.346	95	30416	4.043
83)$Toluene-d8	(3)	9.855	98	1152566	48.311
93) Tetrachloroethene	(3)	10.475	166	1705	0.218
100)*Chlorobenzene-d5	(3)	11.303	117	913631	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	422078	46.692
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	486900	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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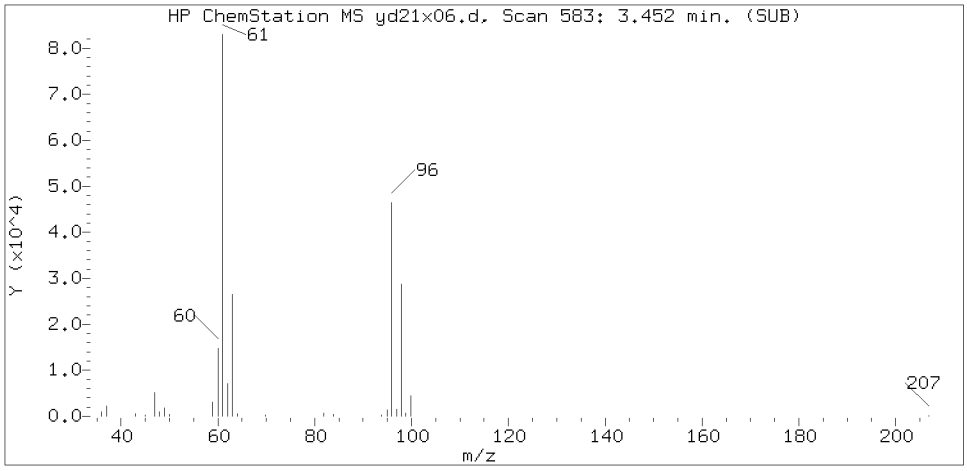
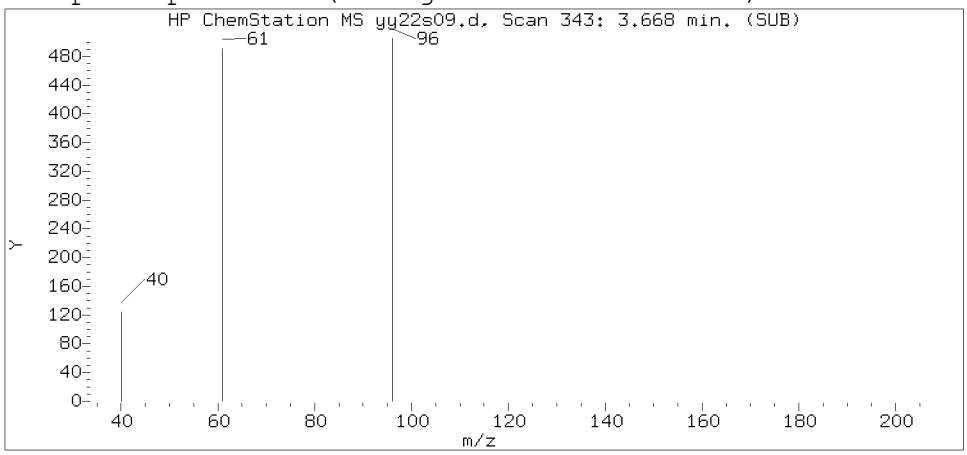
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

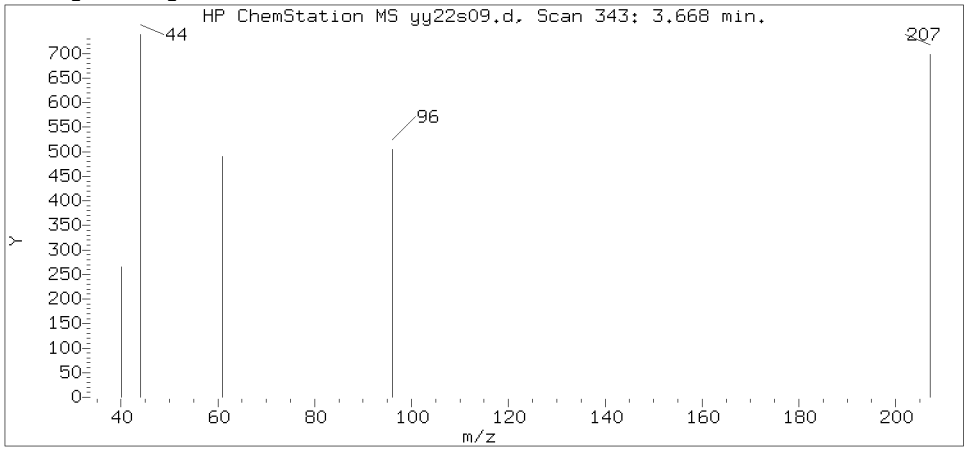
Reference Standard Spectrum for 1,1-Dichloroethene

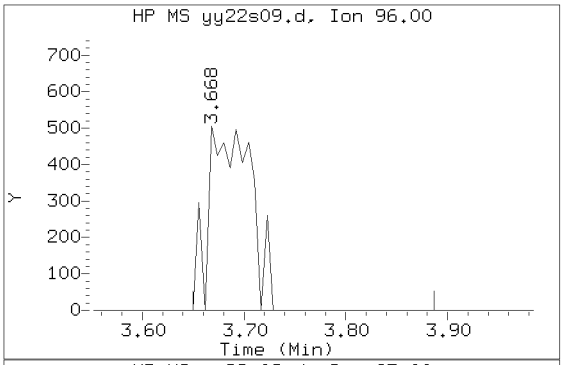


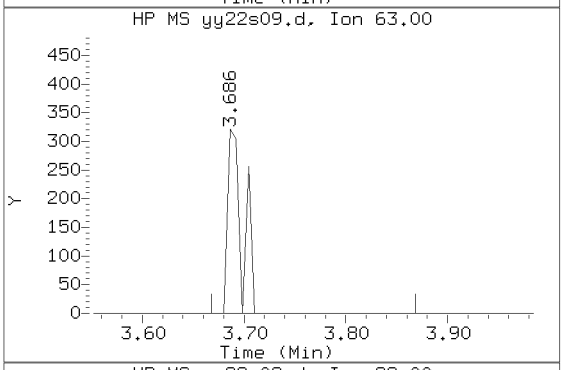
Sample Spectrum (Background Subtracted)

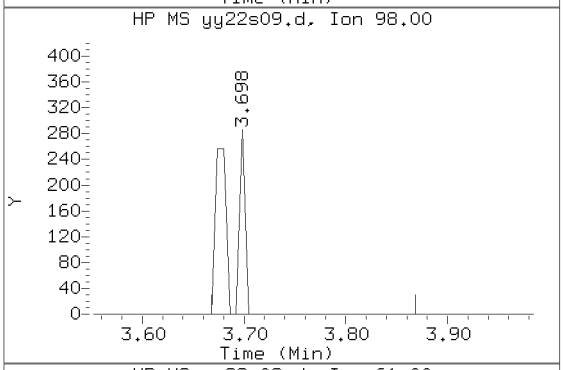


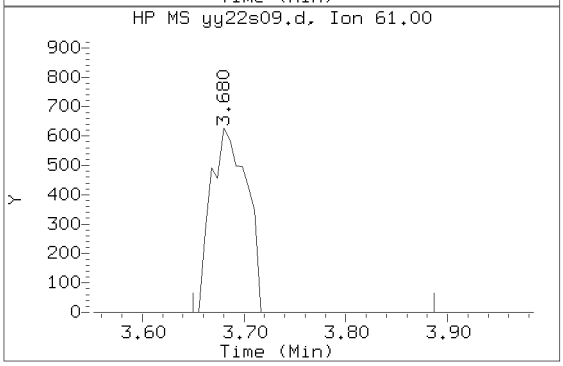
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compound Number	: 17
Compound Name	: 1,1-Dichloroethene
Scan Number	: 343
Retention Time (minutes)	: 3.668
Relative Retention Time	: 0.00273
Quant Ion	: 96.00
Area (flag)	: 1479
On-Column Amount (ng)	: 0.2200

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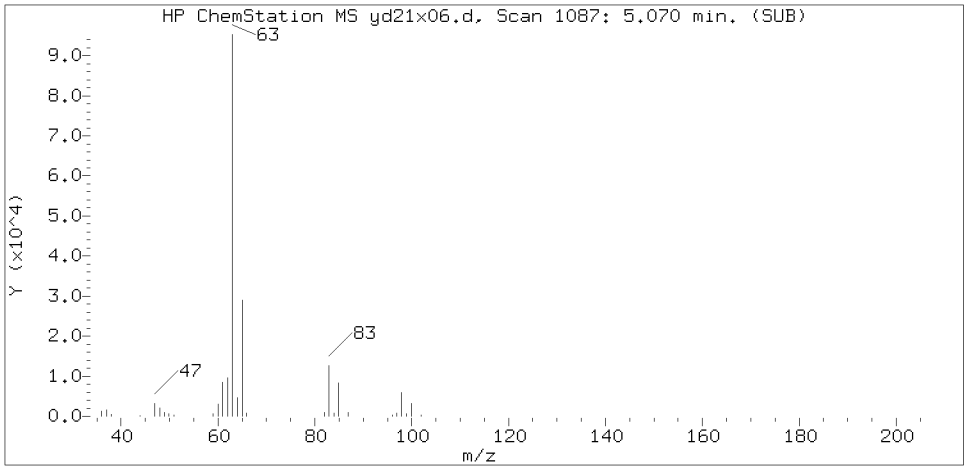
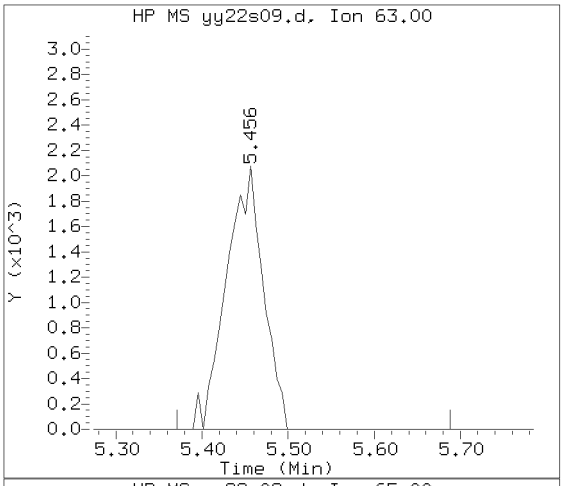
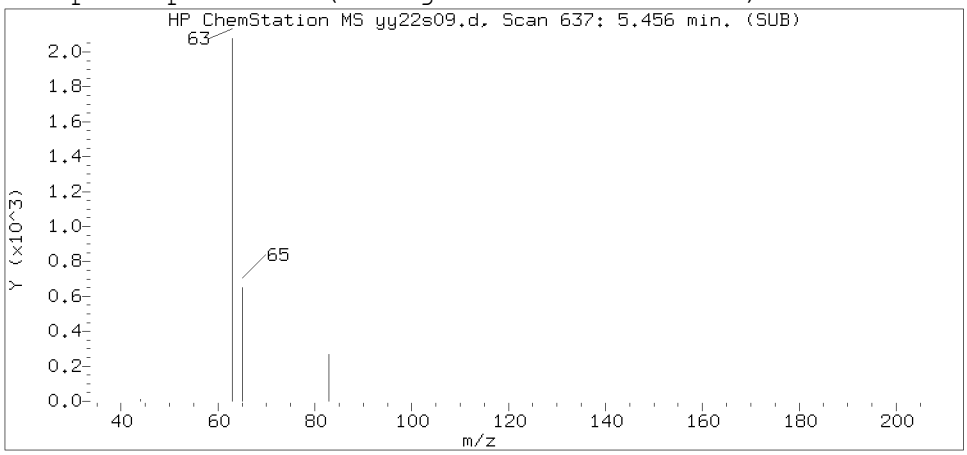
Target 3.5 esignature user ID: kas02648

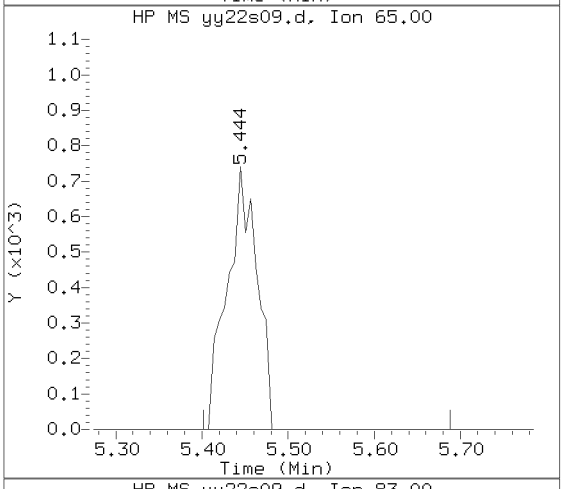
Reference Standard Spectrum for 1,1-Dichloroethane



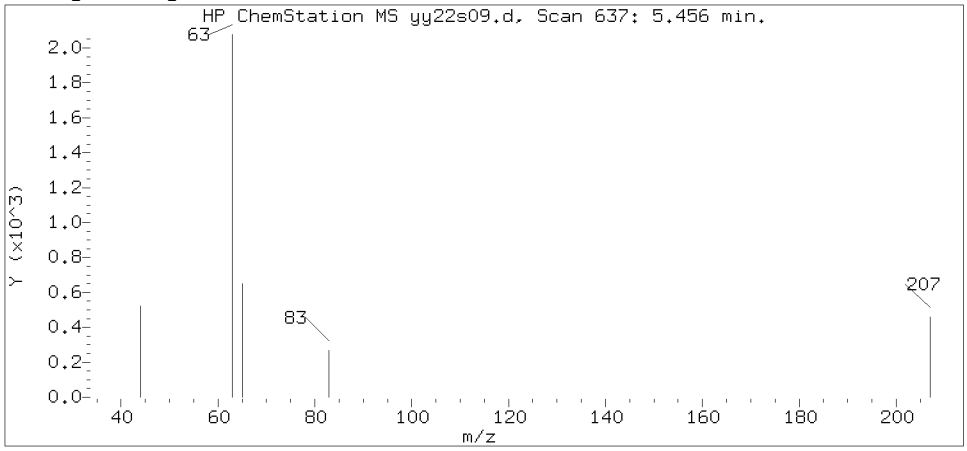


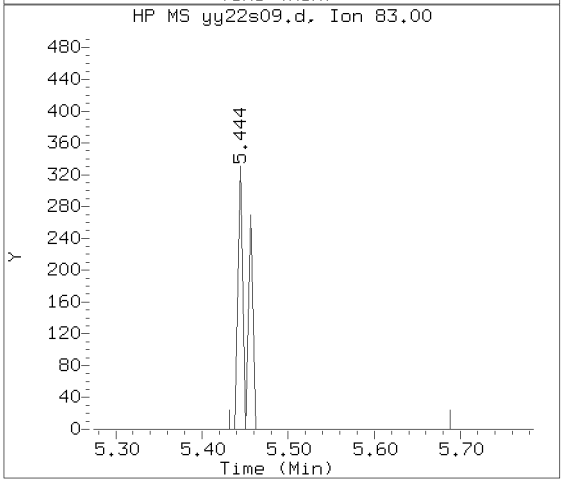
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 637
Retention Time (minutes): 5.456
Relative Retention Time :-0.00131
Quant Ion : 63.00
Area (flag) : 6174
On-Column Amount (ng) : 0.4934

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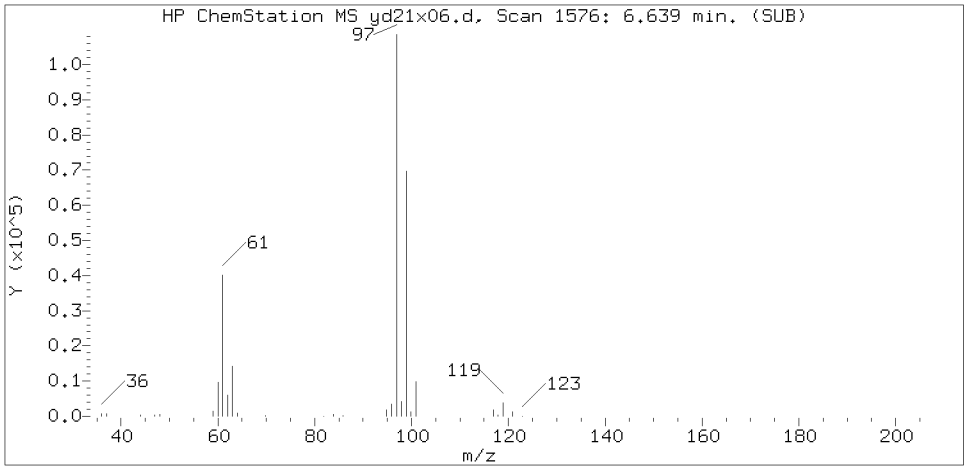
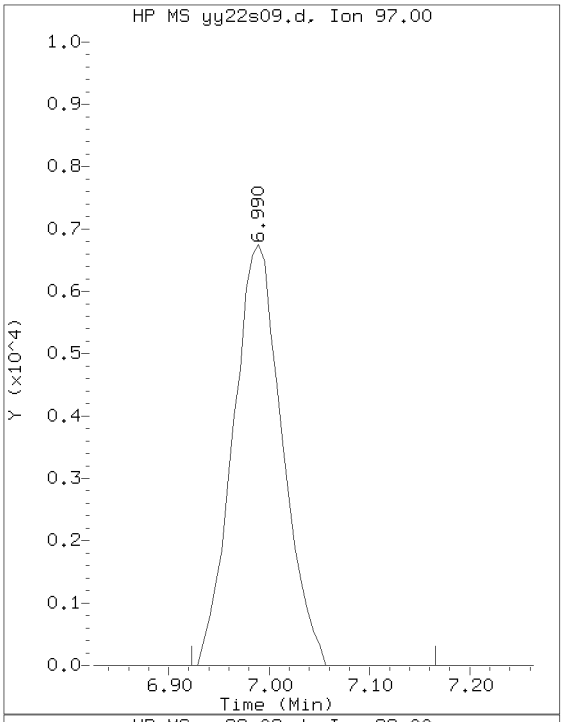
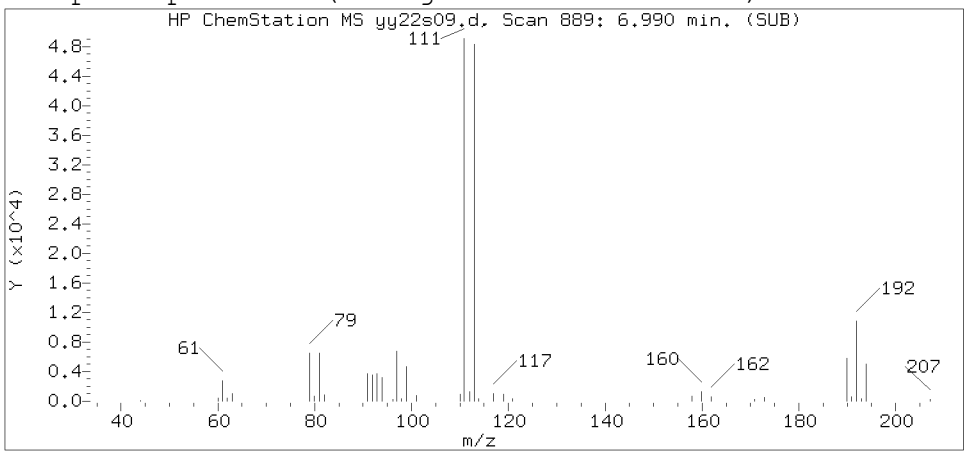
Target 3.5 esignature user ID: kas02648

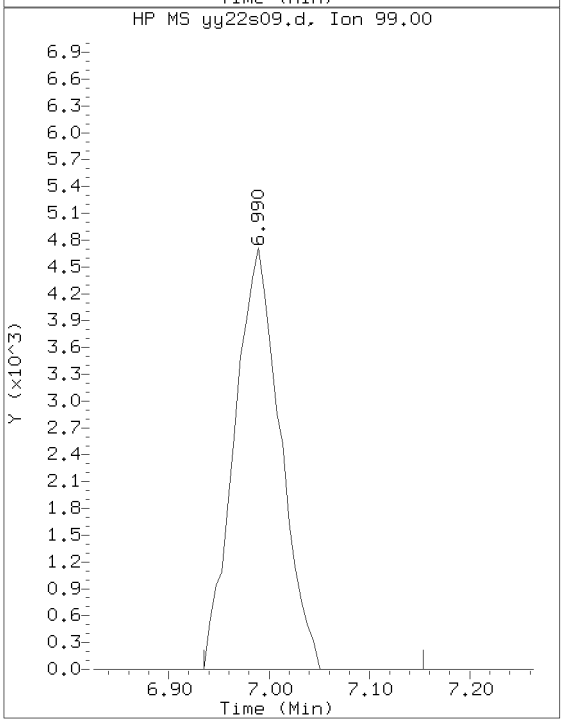
Reference Standard Spectrum for 1,1,1-Trichloroethane



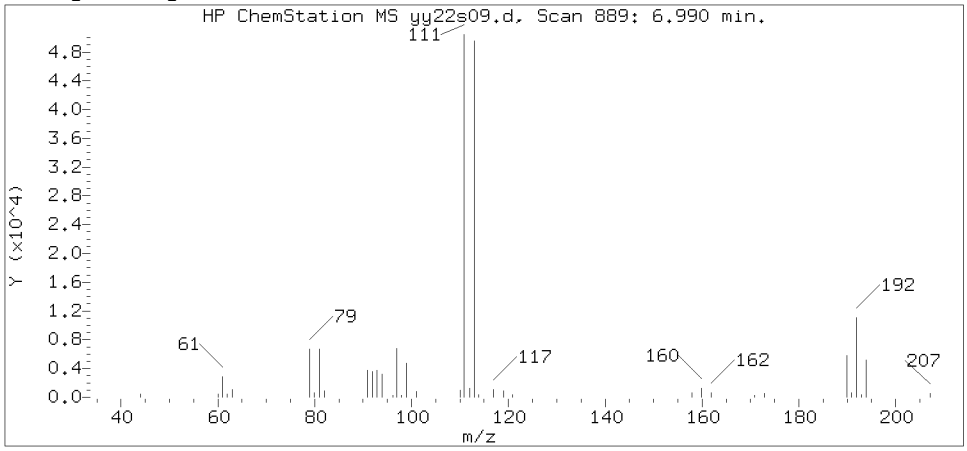


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Relative Retention Time :-0.00069
Quant Ion : 97.00
Area (flag) : 22997
On-Column Amount (ng) : 2.2330

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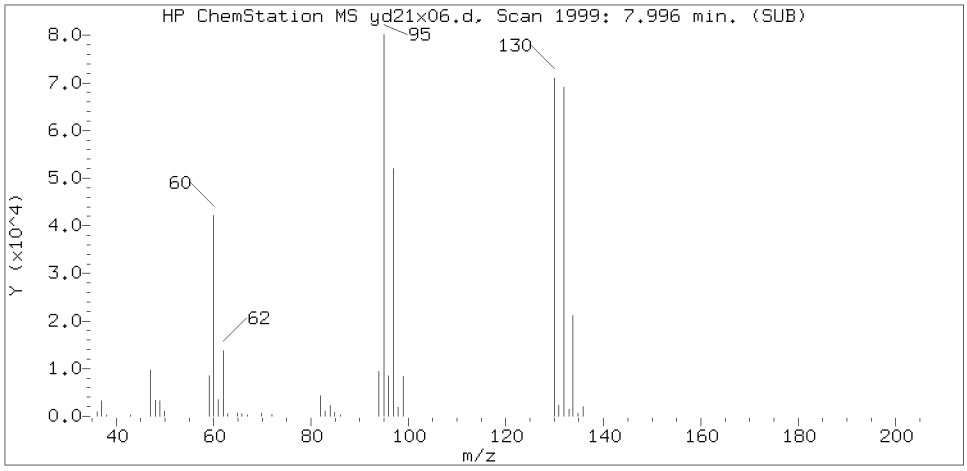
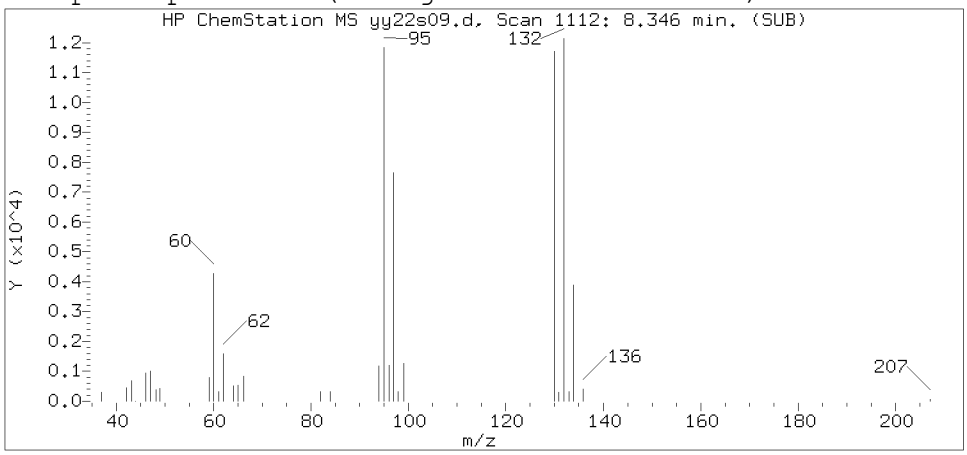
Target 3.5 esignature user ID: kas02648

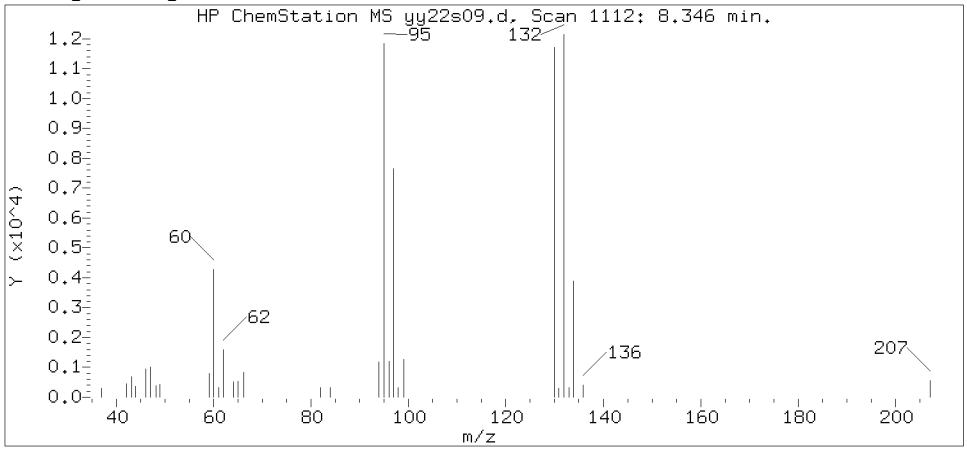
Reference Standard Spectrum for Trichloroethene

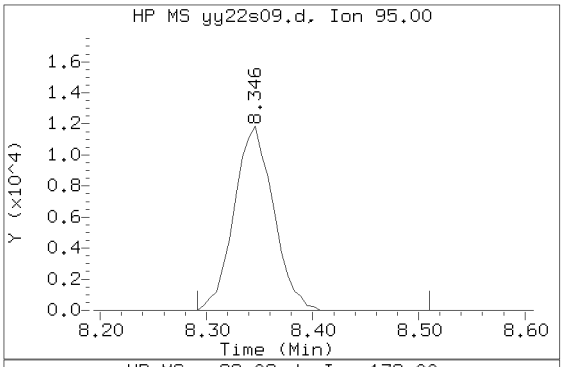


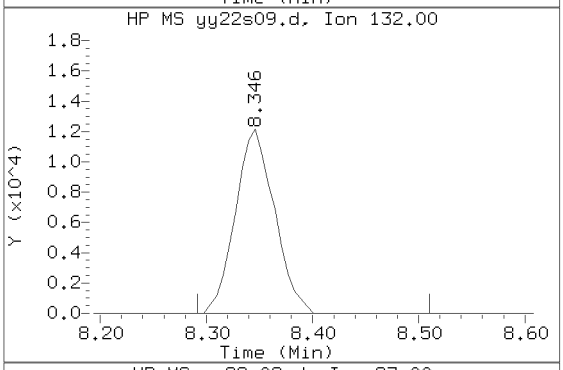
Sample Spectrum (Background Subtracted)

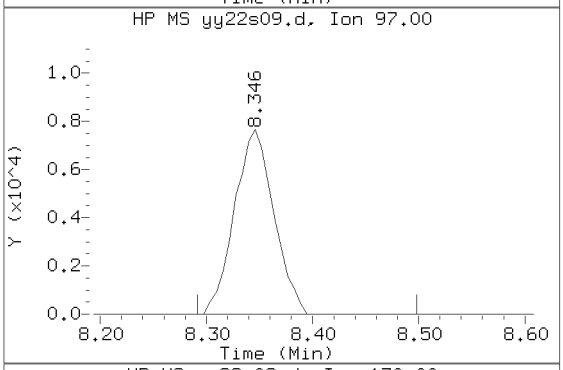


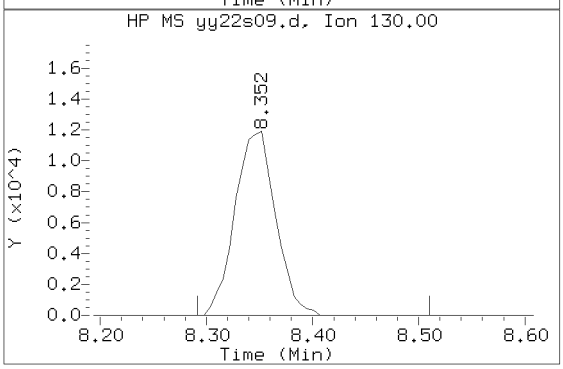
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1112
Retention Time (minutes): 8.346
Relative Retention Time :-0.00082
Quant Ion : 95.00
Area (flag) : 30416
On-Column Amount (ng) : 4.0430

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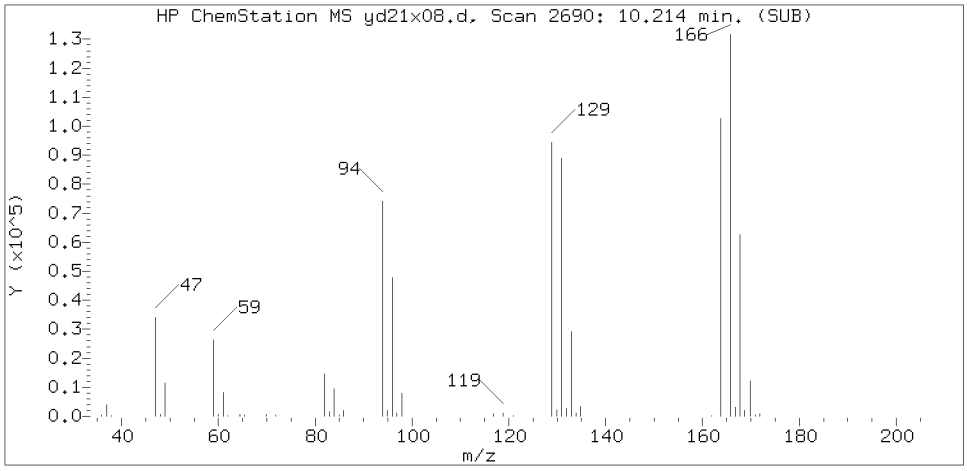
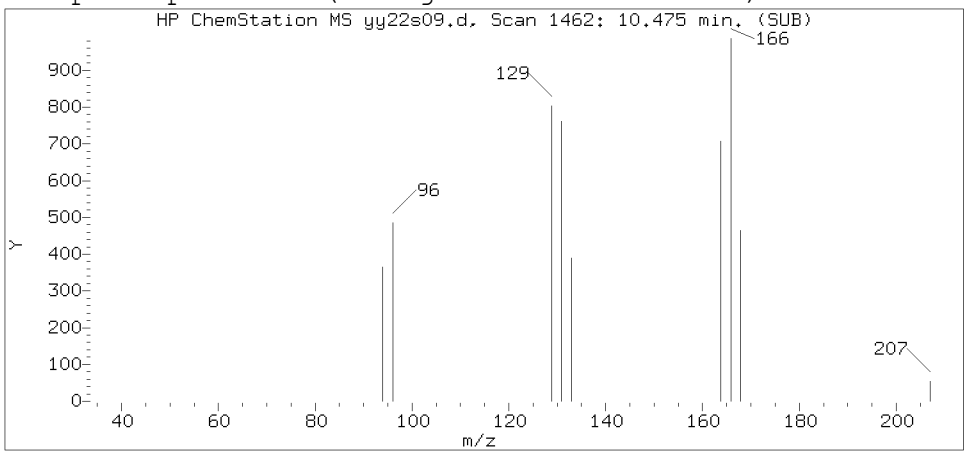
Target 3.5 esignature user ID: kas02648

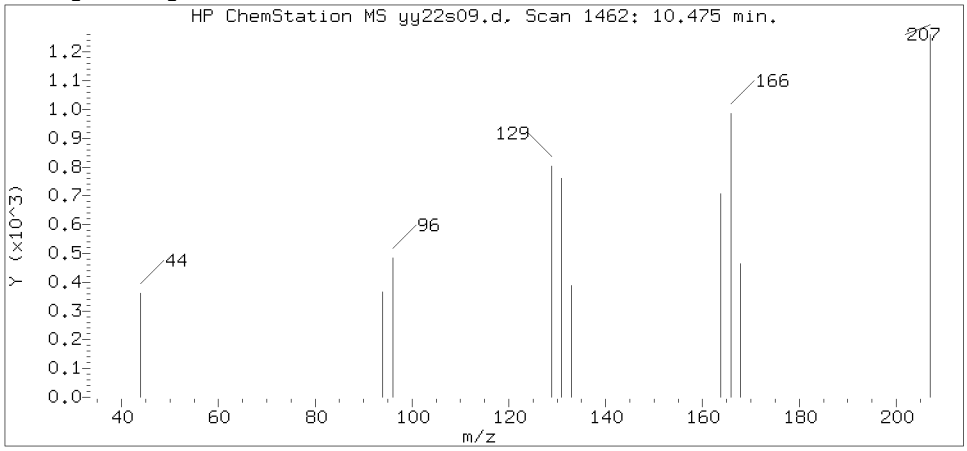
Reference Standard Spectrum for Tetrachloroethene

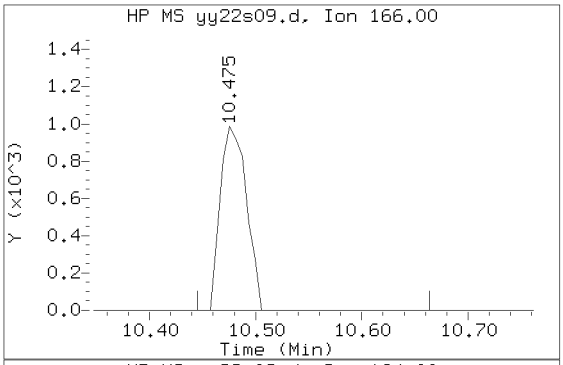


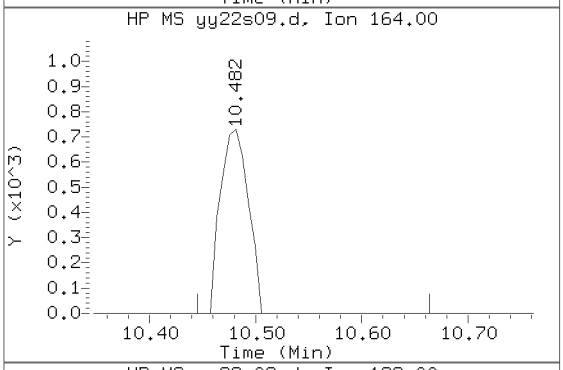
Sample Spectrum (Background Subtracted)

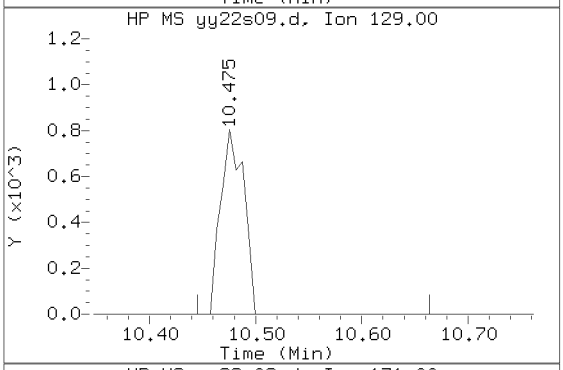


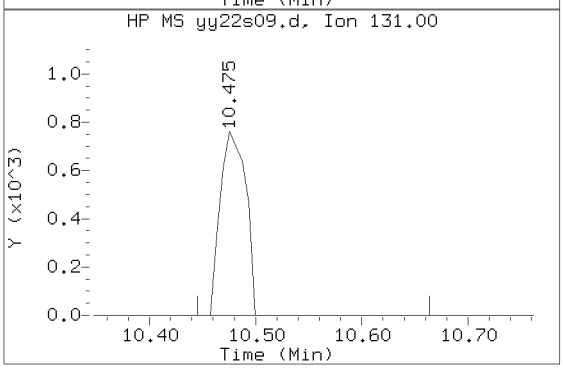
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s09.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:06 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:23 Automation

Sample Name: 58305 Lab Sample ID: 1316316

Compound Number	: 93
Compound Name	: Tetrachloroethene
Scan Number	: 1462
Retention Time (minutes)	: 10.475
Relative Retention Time	: 0.00054
Quant Ion	: 166.00
Area (flag)	: 1705
On-Column Amount (ng)	: 0.2181

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Target 3.5 esignature user ID: kas02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58306

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316317

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s10.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	0.3	J
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	1	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.4	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.6	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s10.d Injection date and time: **22-MAY-2020 14:28**
Data file Sample Info. Line: 58306;1316317;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.349(0.012)	455	65	400520 (-13)	250.00	
66) Fluorobenzene	7.859(0.006)	1032	96	1205351 (-14)	50.00	
100) Chlorobenzene-d5	11.297(0.006)	1597	117	899030 (-15)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	475911 (-17)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965(0.000)	113	277990	50.777	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.421(0.000)	102	74750	51.775	104%		80 - 120
83) Toluene-d8	(3)	9.855(0.000)	98	1133723	48.293	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294(-0.001)	95	411934	46.310	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.366(0.000)	62	2128	0.295	0.30		J	0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.444(0.000)	63	4415	0.358	0.36		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.272(-0.000)	96	9818	1.196	1.20			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.983(0.000)	97	3821	0.376	0.38		J	0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	8.346(-0.000)	95	7262	0.979	0.98		J	0.2	1
75) 1,4-Dioxane	(1)			Not Detected					29	250
88) Toluene	(3)			Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.482(-0.000)	166	4427	0.575	0.58		J	0.2	1
104) Ethylbenzene	(3)			Not Detected					0.4	1
106) m+p-Xylene	(3)			Not Detected					1	5
107) o-Xylene	(3)			Not Detected					0.4	1
108) Xylene (Total)	(3)			Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
148) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s10.d Injection date and time: **22-MAY-2020 14:28**
Data file Sample Info. Line: 58306;1316317;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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BLANK INTENTIONALLY

Total number of targets = 24

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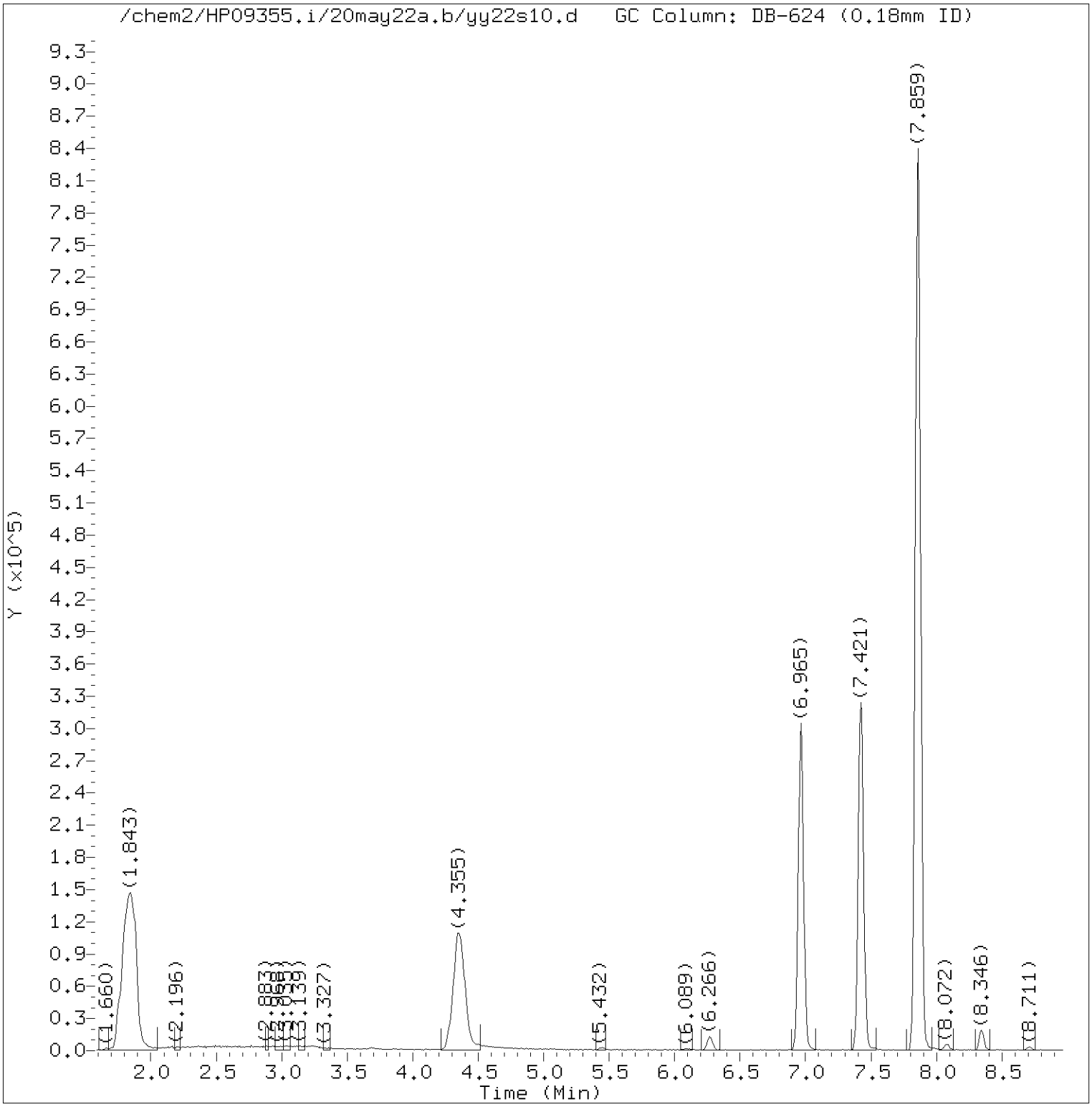
Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

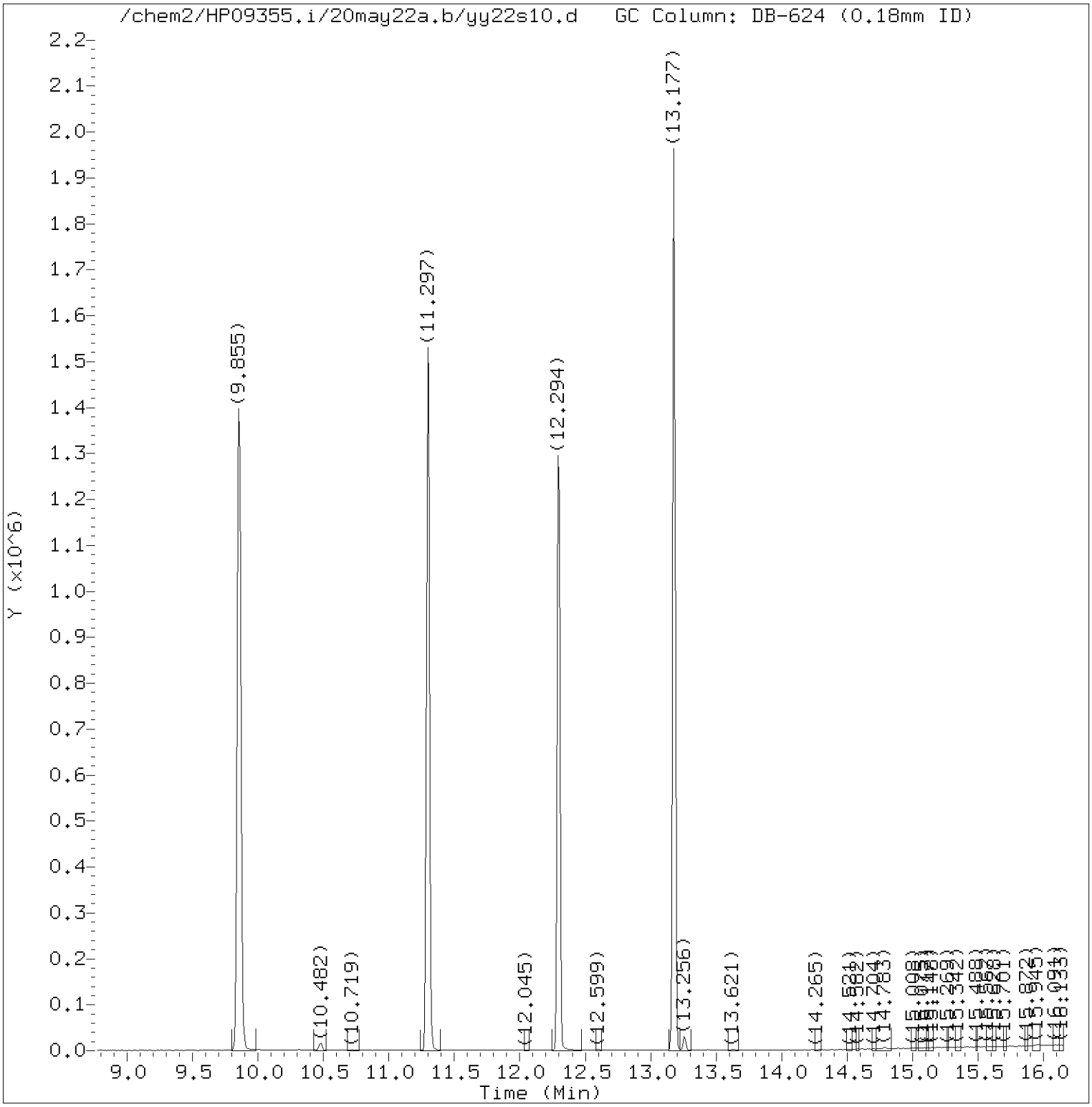
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.366	62	2128	0.295
29)*t-Butyl alcohol-d10	(1)	4.349	65	400520	250.000
36) 1,1-Dichloroethane	(2)	5.444	63	4415	0.358
42) cis-1,2-Dichloroethene	(2)	6.272	96	9818	1.196
52)$Dibromofluoromethane	(2)	6.965	113	277990	50.777
53) 1,1,1-Trichloroethane	(2)	6.983	97	3821	0.376
57)$1,2-Dichloroethane-d4	(2)	7.421	102	74750	51.775
66)*Fluorobenzene	(2)	7.859	96	1205351	50.000
71) Trichloroethene	(2)	8.346	95	7262	0.979
83)$Toluene-d8	(3)	9.855	98	1133723	48.293
93) Tetrachloroethene	(3)	10.482	166	4427	0.575
100)*Chlorobenzene-d5	(3)	11.297	117	899030	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	411934	46.310
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	475911	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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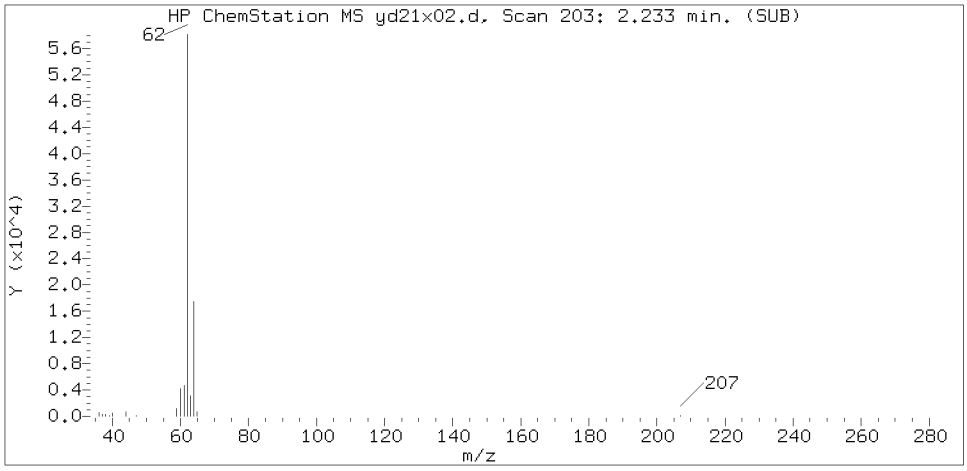
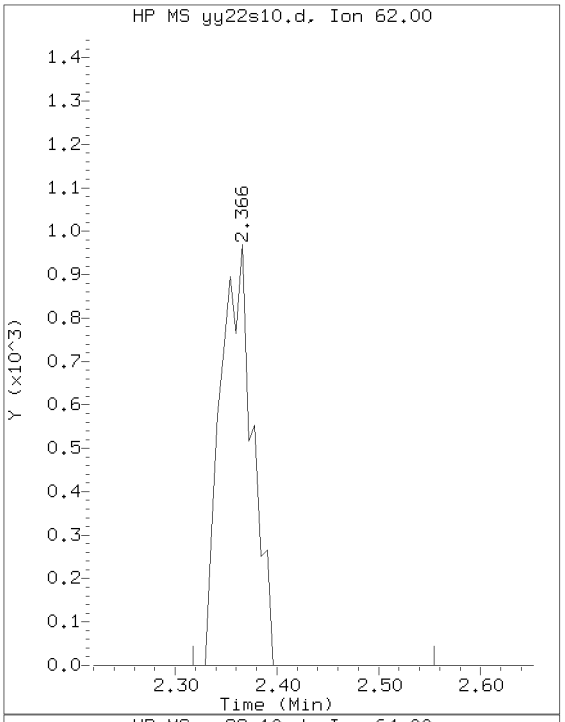
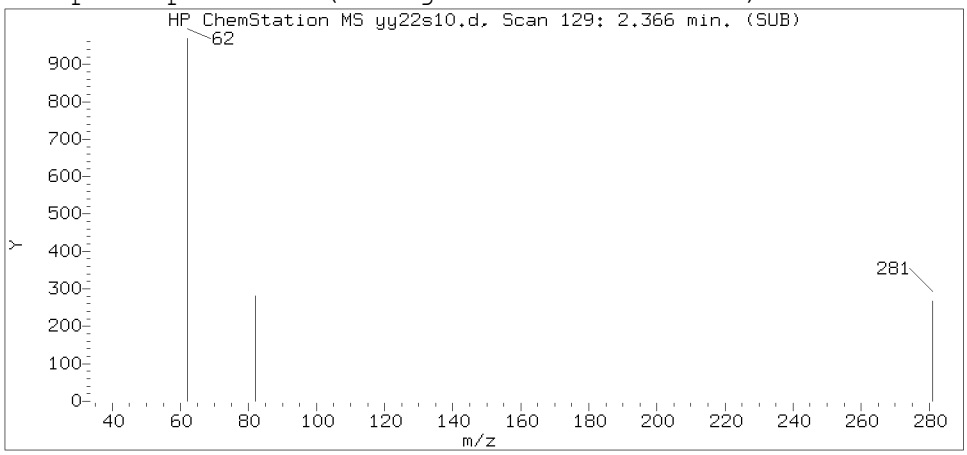
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

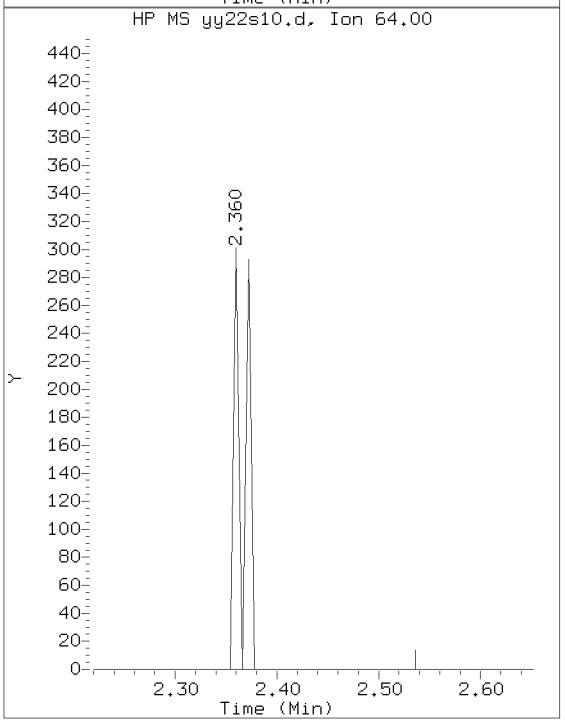
Reference Standard Spectrum for Vinyl Chloride



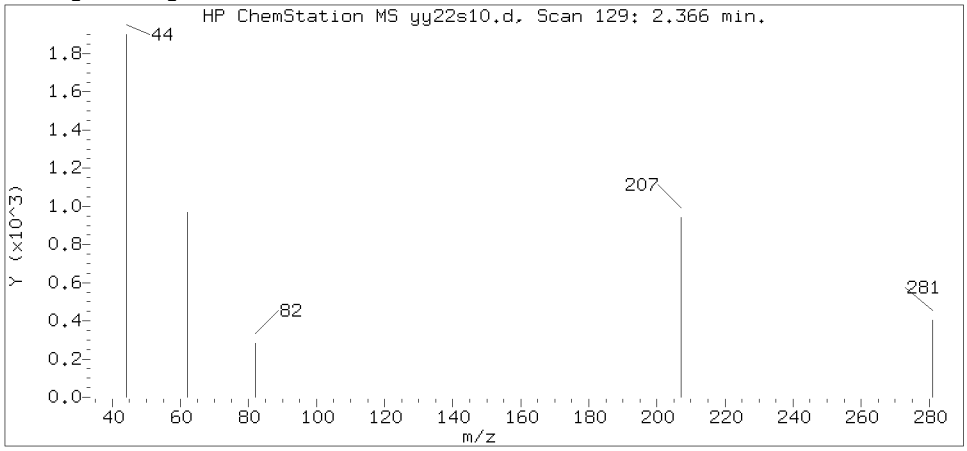


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number	: 6
Compound Name	: Vinyl Chloride
Scan Number	: 129
Retention Time (minutes)	: 2.366
Relative Retention Time	: 0.00054
Quant Ion	: 62.00
Area (flag)	: 2128
On-Column Amount (ng)	: 0.2950

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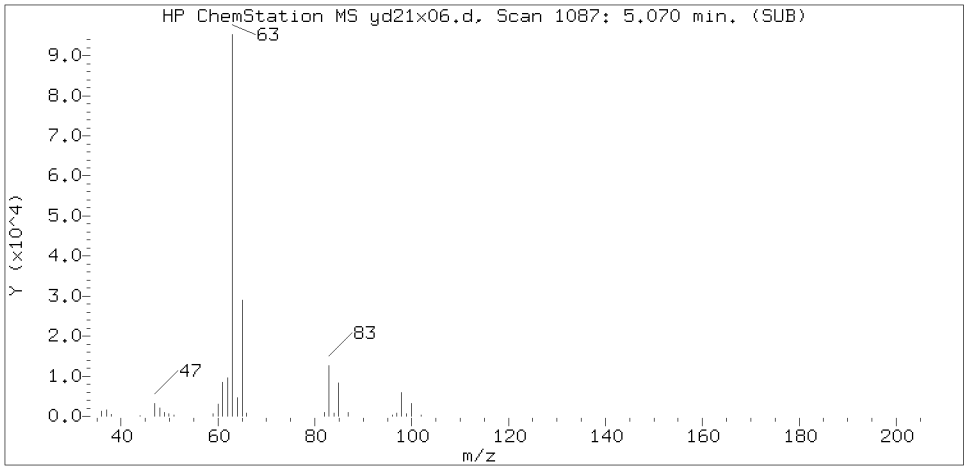
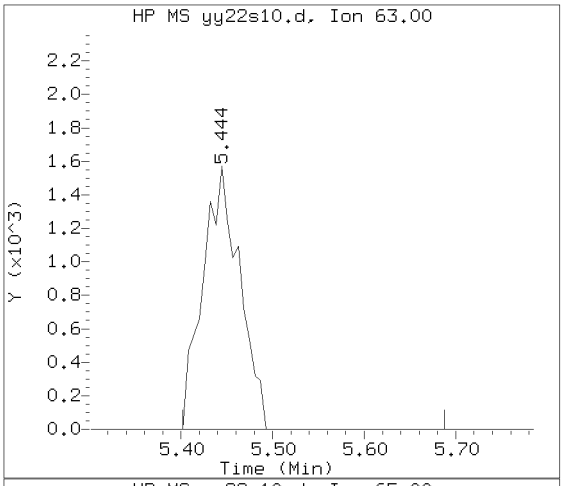
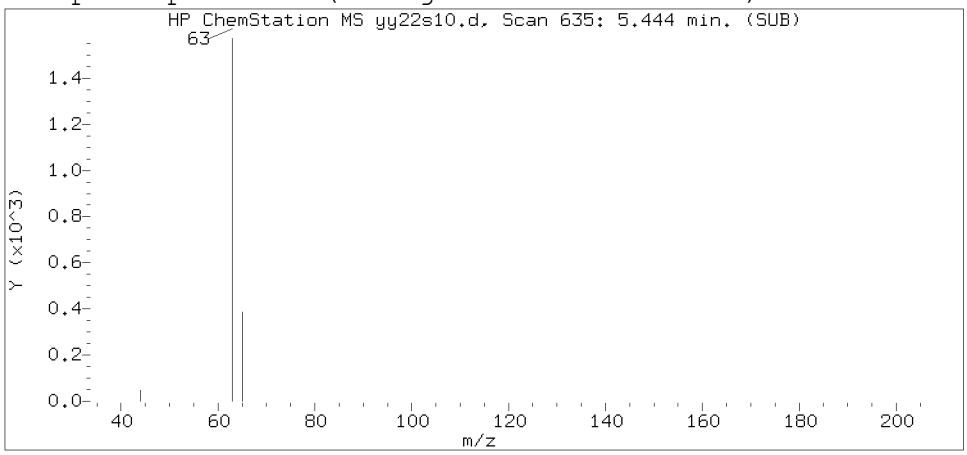
Target 3.5 esignature user ID: kas02648

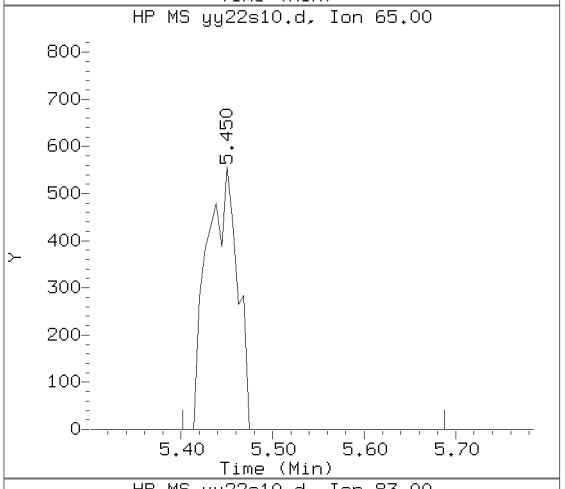
Reference Standard Spectrum for 1,1-Dichloroethane



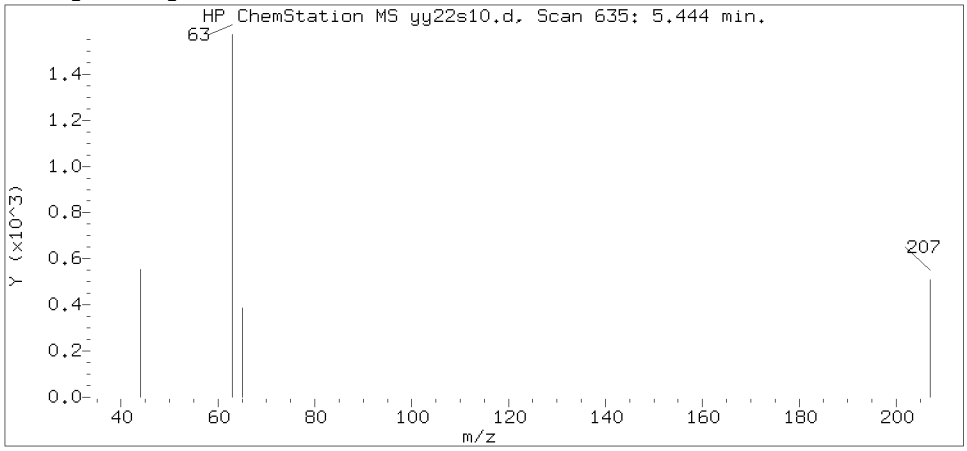


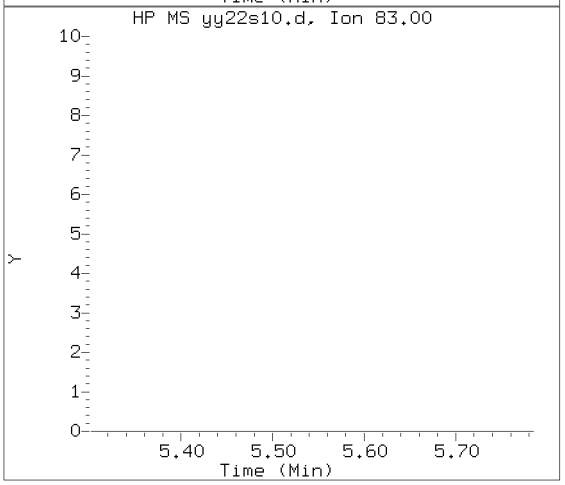
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 635
Retention Time (minutes)	: 5.444
Relative Retention Time	: 0.00024
Quant Ion	: 63.00
Area (flag)	: 4415
On-Column Amount (ng)	: 0.3577

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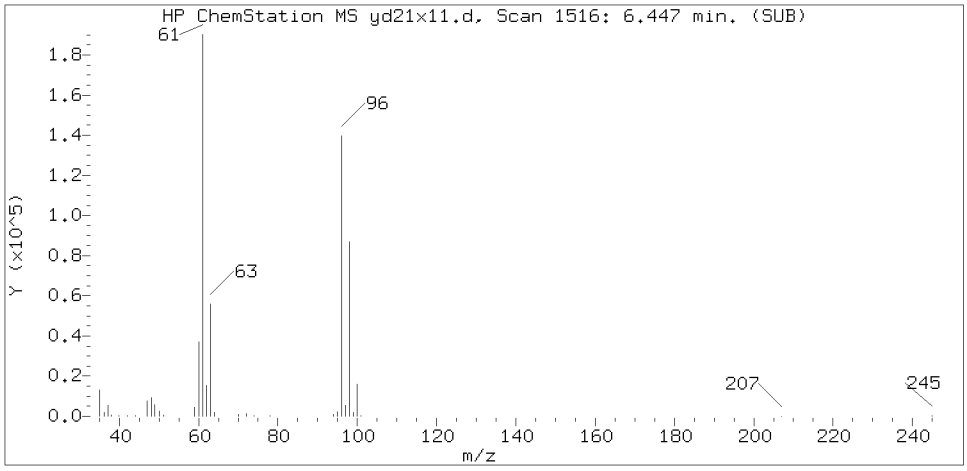
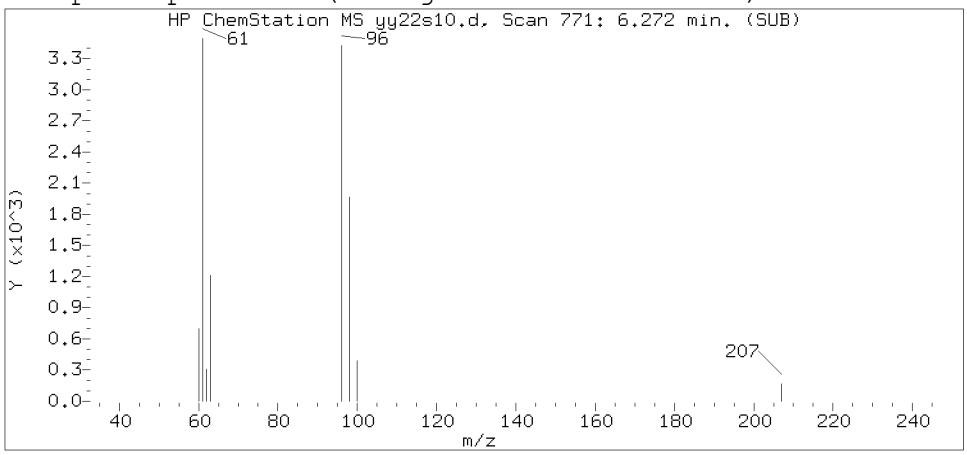
Target 3.5 esignature user ID: kas02648

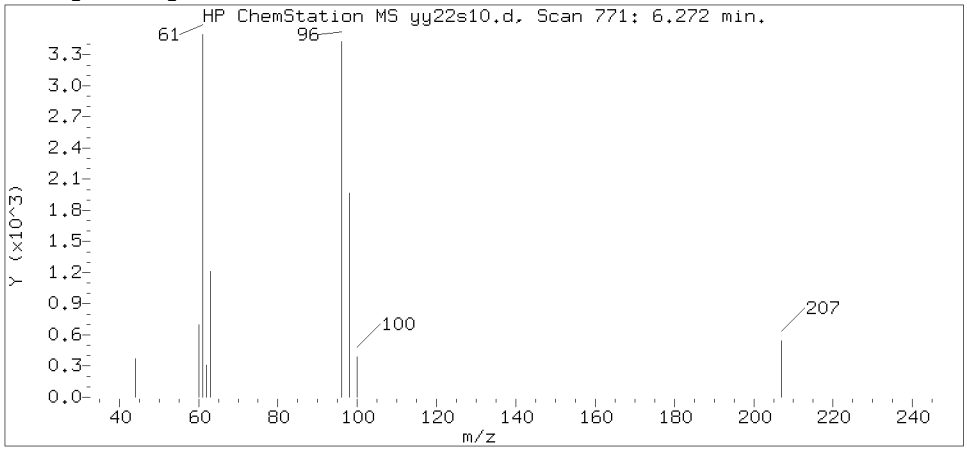
Reference Standard Spectrum for cis-1,2-Dichloroethene

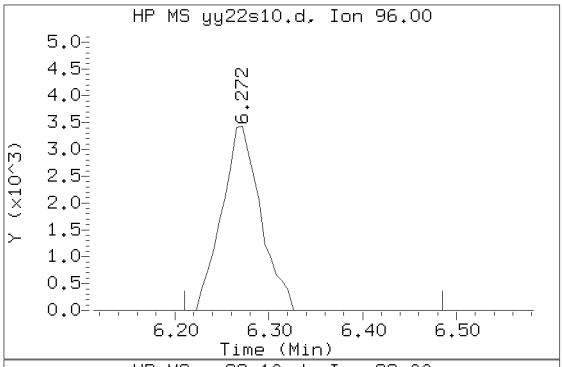


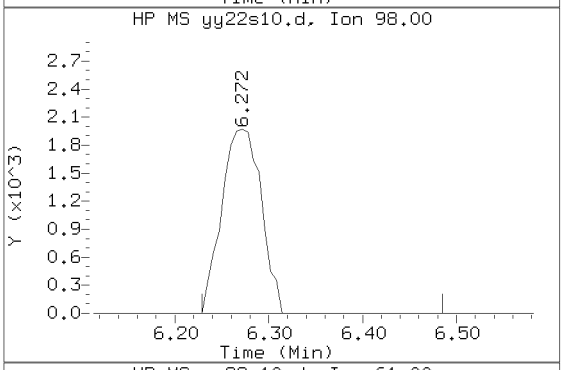
Sample Spectrum (Background Subtracted)

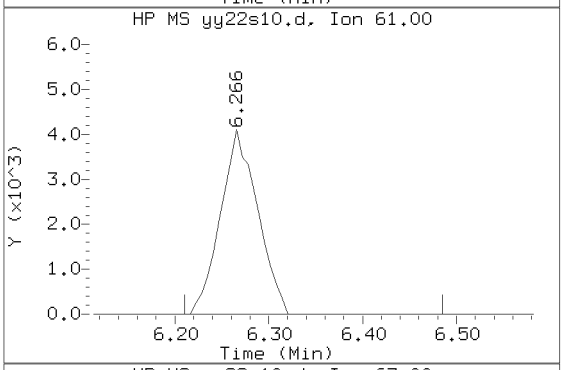


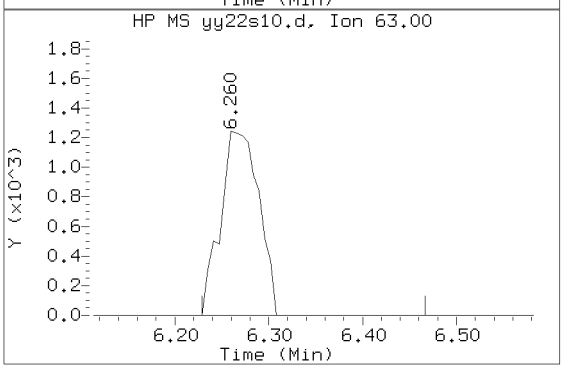
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 771
Retention Time (minutes): 6.272
Relative Retention Time :-0.00062
Quant Ion : 96.00
Area (flag) : 9818
On-Column Amount (ng) : 1.1961

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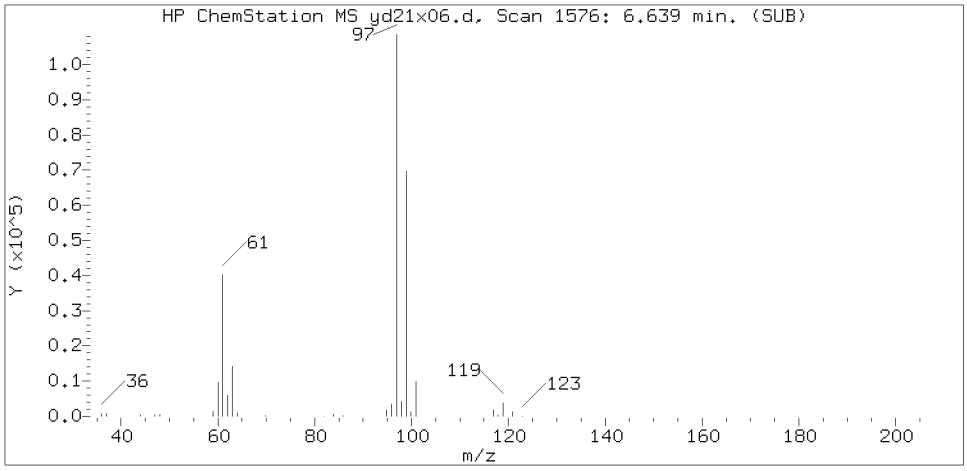
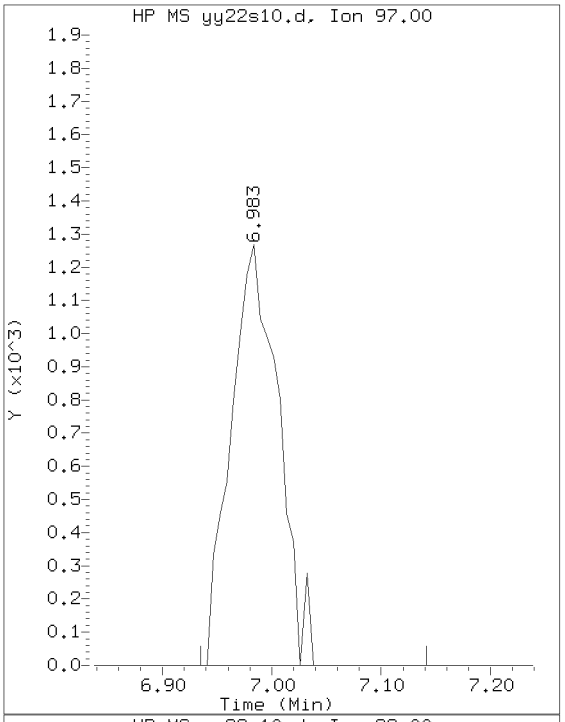
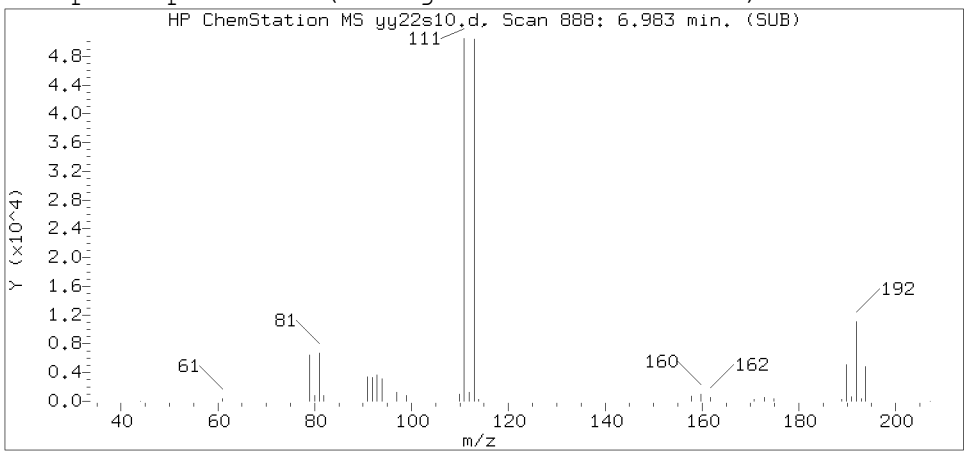
Target 3.5 esignature user ID: kas02648

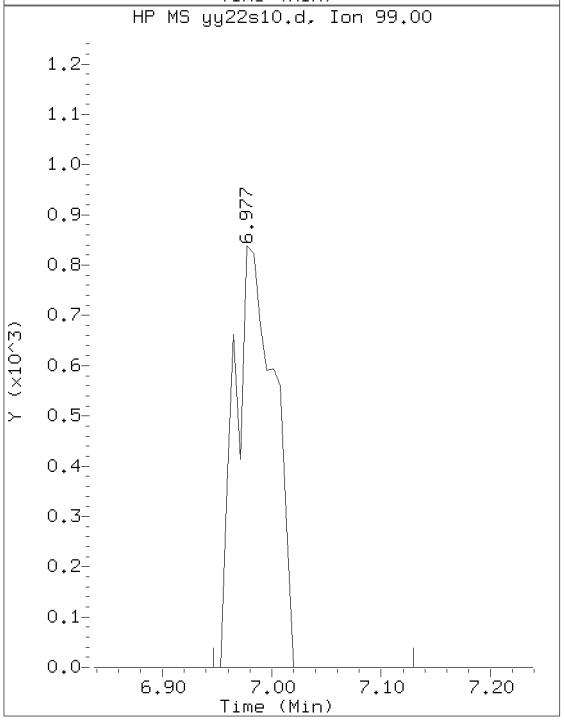
Reference Standard Spectrum for 1,1,1-Trichloroethane



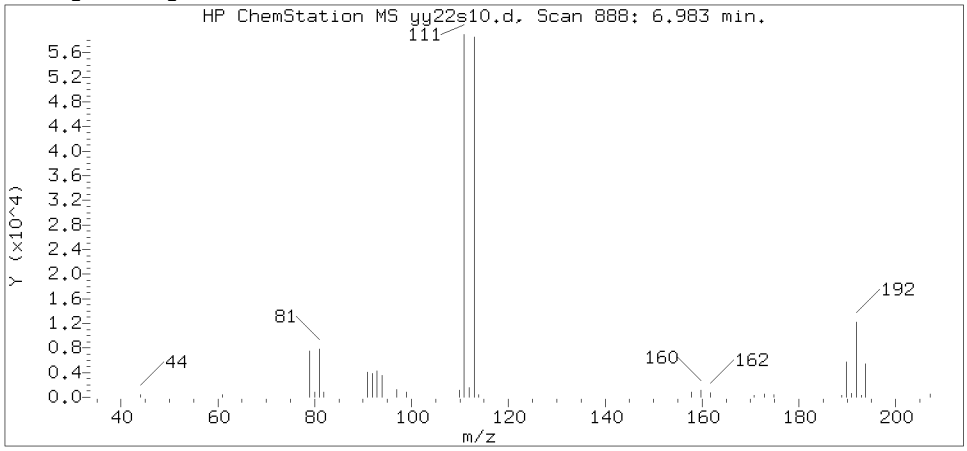


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 888
Retention Time (minutes)	: 6.983
Relative Retention Time	: 0.00009
Quant Ion	: 97.00
Area (flag)	: 3821
On-Column Amount (ng)	: 0.3762

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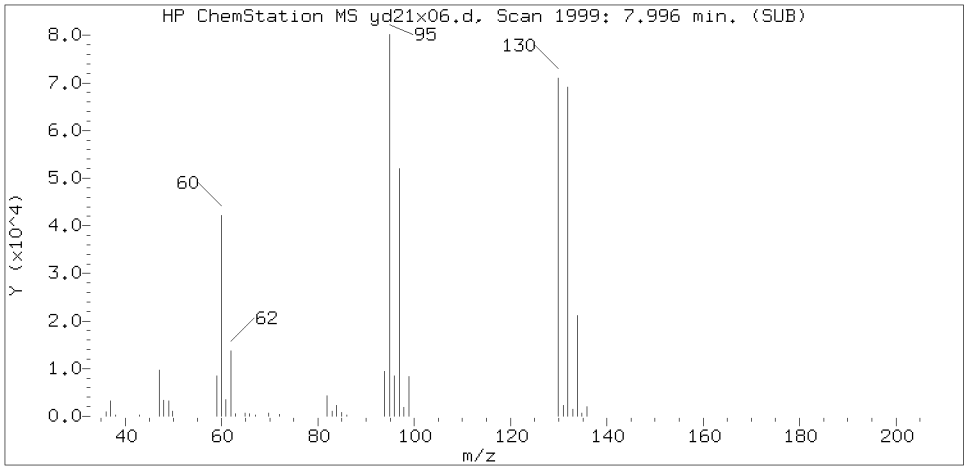
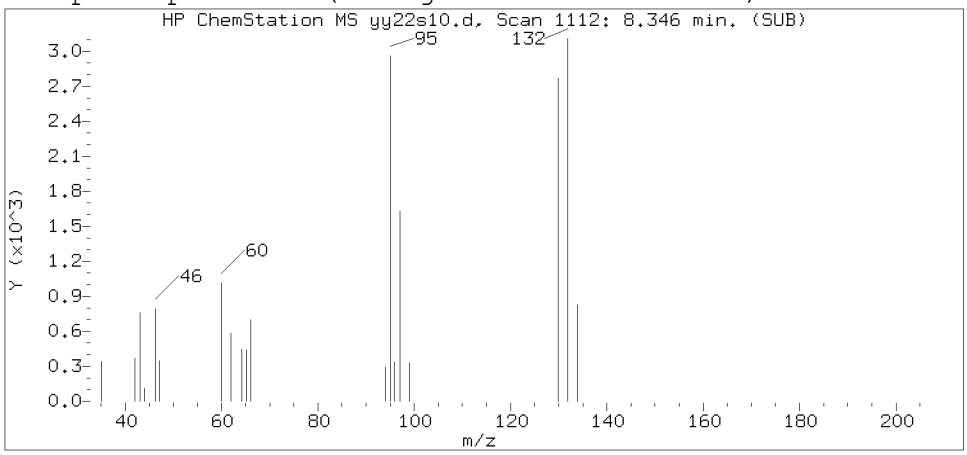
Target 3.5 esignature user ID: kas02648

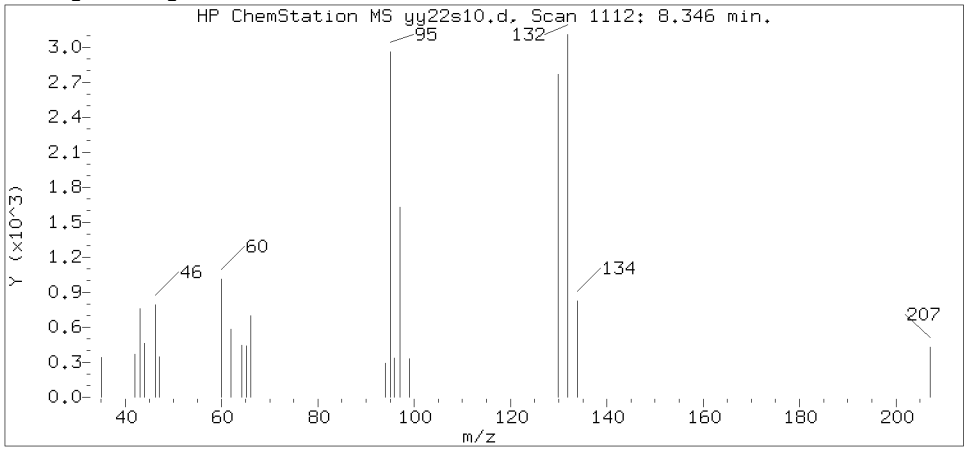
Reference Standard Spectrum for Trichloroethene

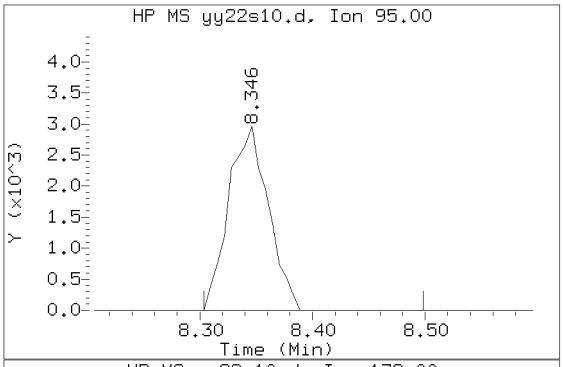


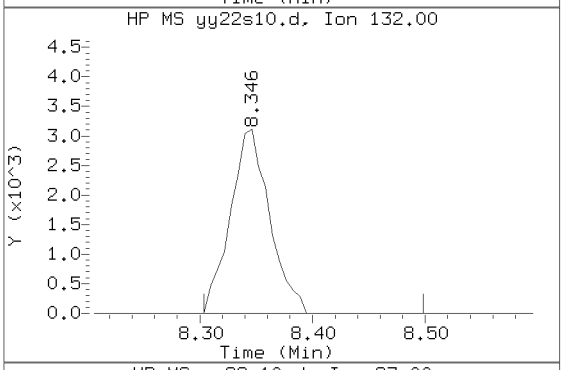
Sample Spectrum (Background Subtracted)

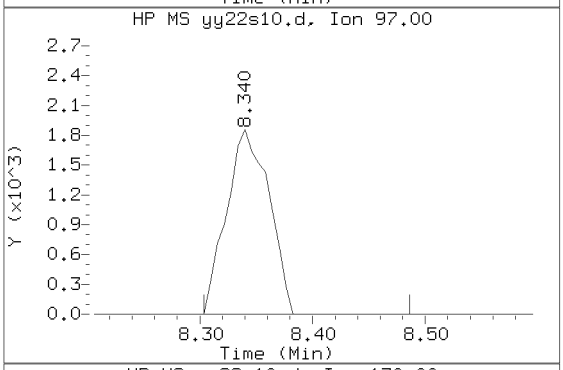


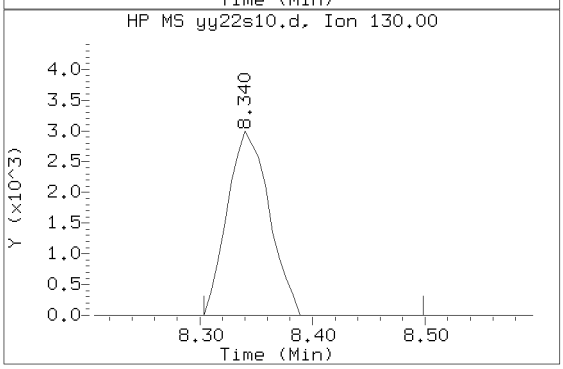
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1112
Retention Time (minutes): 8.346
Relative Retention Time :-0.00082
Quant Ion : 95.00
Area (flag) : 7262
On-Column Amount (ng) : 0.9787

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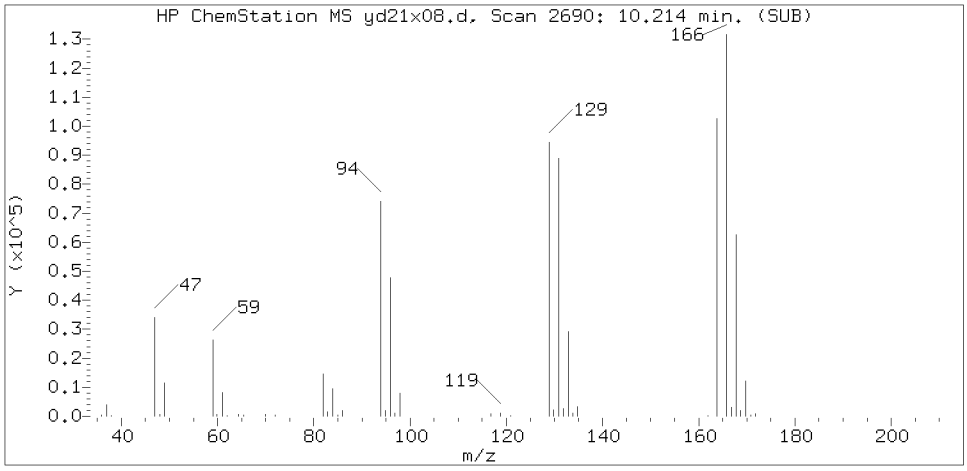
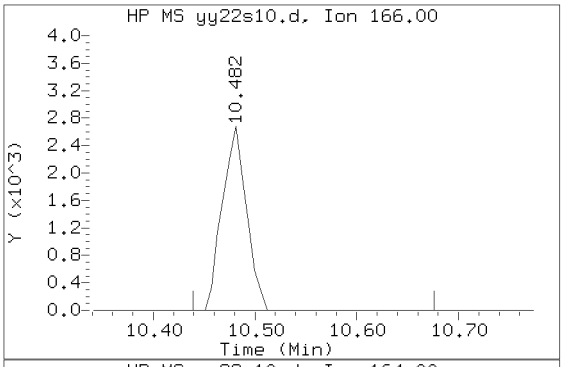
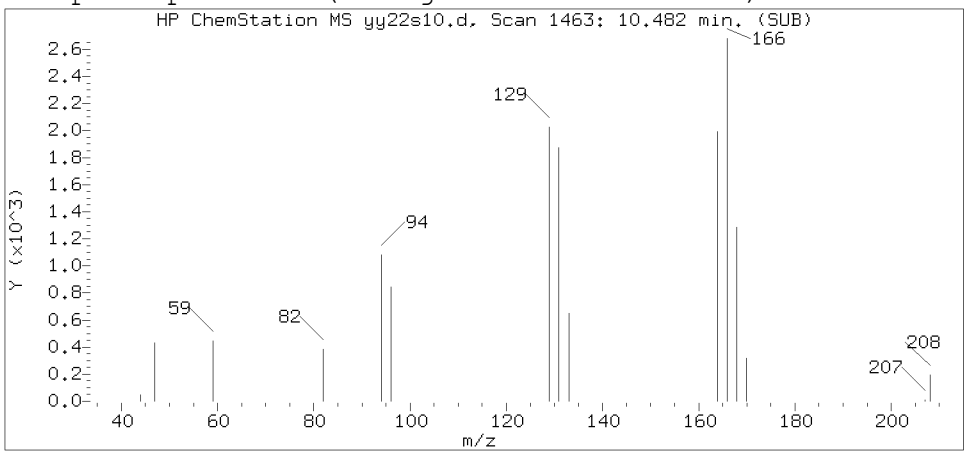
Target 3.5 esignature user ID: kas02648

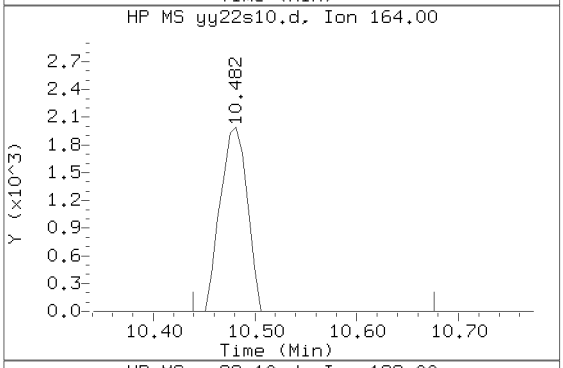
Reference Standard Spectrum for Tetrachloroethene

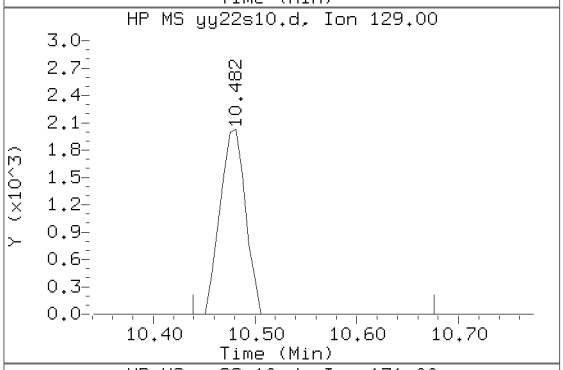




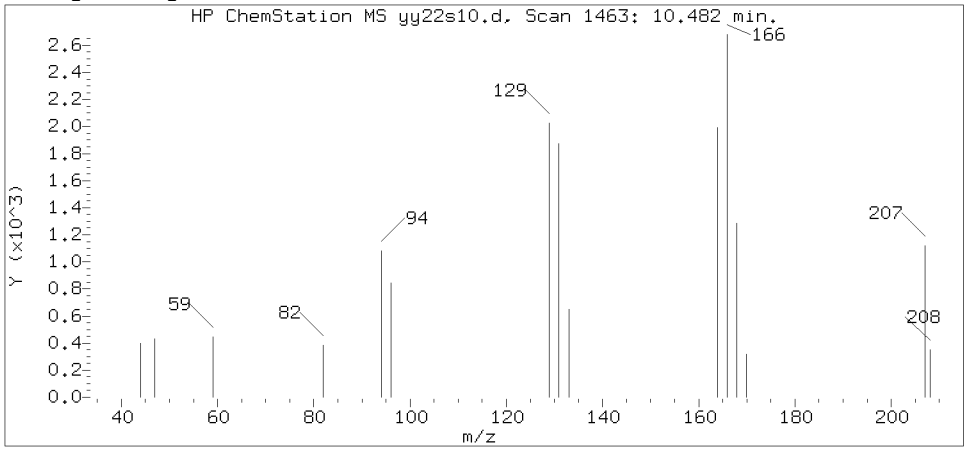
Sample Spectrum (Background Subtracted)

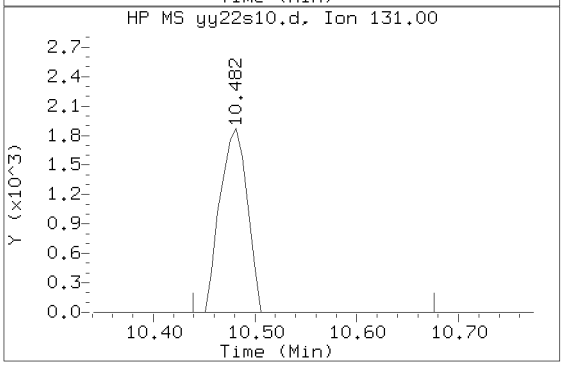






Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s10.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:28 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 14:45 Automation

Sample Name: 58306 Lab Sample ID: 1316317

Compound Number : 93
Compound Name : Tetrachloroethene
Scan Number : 1463
Retention Time (minutes): 10.482
Relative Retention Time :-0.00050
Quant Ion : 166.00
Area (flag) : 4427
On-Column Amount (ng) : 0.5754

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Target 3.5 esignature user ID: kas02648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
58307

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316318

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s11.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.6	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.7	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s11.d Injection date and time: **22-MAY-2020 14:50**
Data file Sample Info. Line: 58307;1316318;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.362	(0.000)	457	65	385025	(-16)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1190068	(-15)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	884819	(-17)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	470452	(-18)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(0.000)	113	274157	50.720	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	73457	51.532	103%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1122504	48.583	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.295	(0.000)	95	410253	46.862	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.346	(0.000)	95	4107	0.561	0.56		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.482	(-0.000)	166	5404	0.714	0.71		J	0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP09355.i/20may22a.b/yy22s11.d Injection date and time: **22-MAY-2020 14:50**
Data file Sample Info. Line: 58307;1316318;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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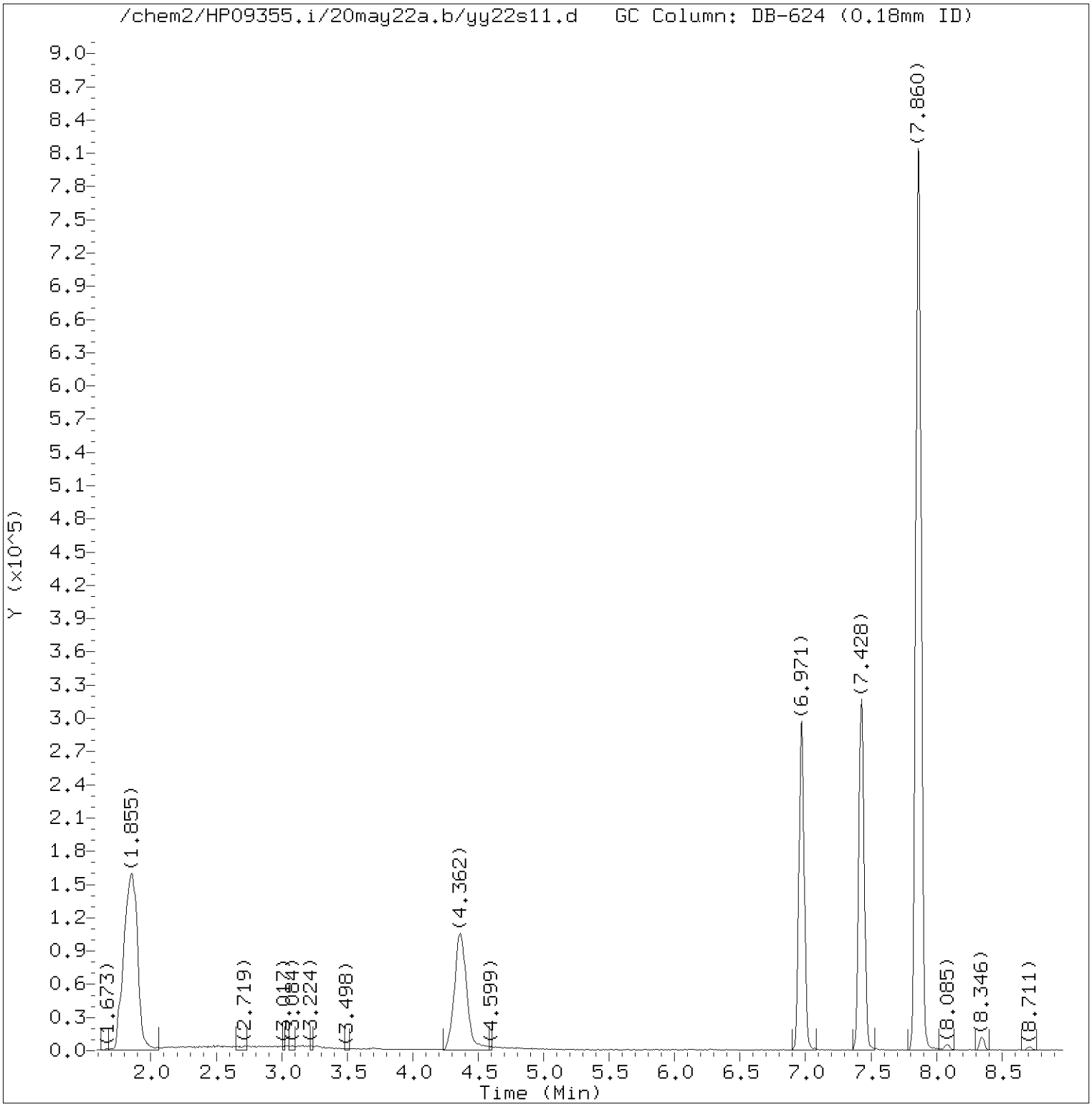
Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

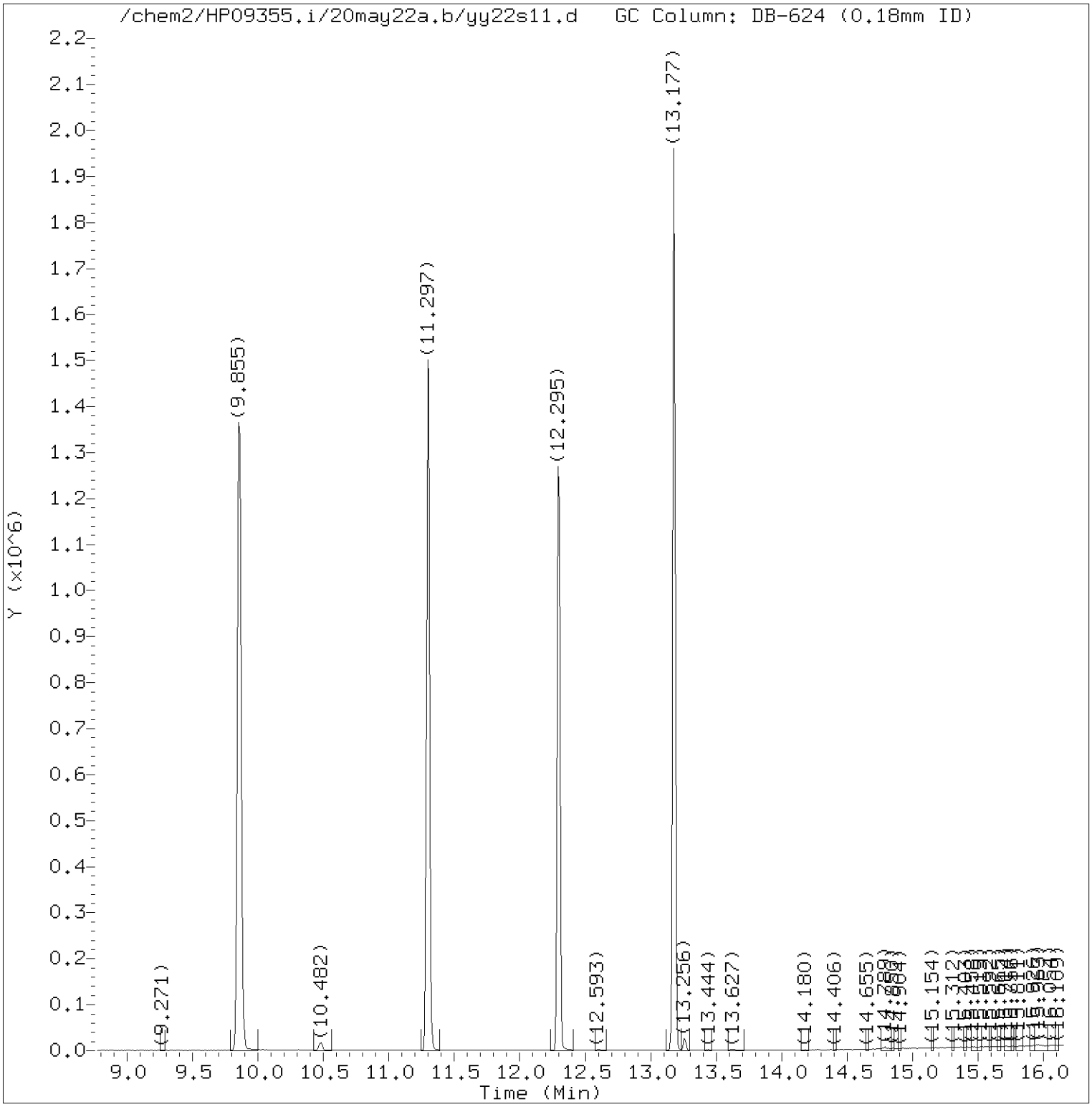
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s11.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:50 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Sample Name: 58307 Lab Sample ID: 1316318

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s11.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:50 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Sample Name: 58307 Lab Sample ID: 1316318

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s11.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:50 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Sample Name: 58307 Lab Sample ID: 1316318

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.362	65	385025	250.000
52)$Dibromofluoromethane	(2)	6.971	113	274157	50.720
57)$1,2-Dichloroethane-d4	(2)	7.428	102	73457	51.532
66)*Fluorobenzene	(2)	7.866	96	1190068	50.000
71) Trichloroethene	(2)	8.346	95	4107	0.561
83)$Toluene-d8	(3)	9.855	98	1122504	48.583
93) Tetrachloroethene	(3)	10.482	166	5404	0.714
100)*Chlorobenzene-d5	(3)	11.303	117	884819	50.000
114)$4-Bromofluorobenzene	(3)	12.295	95	410253	46.862
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	470452	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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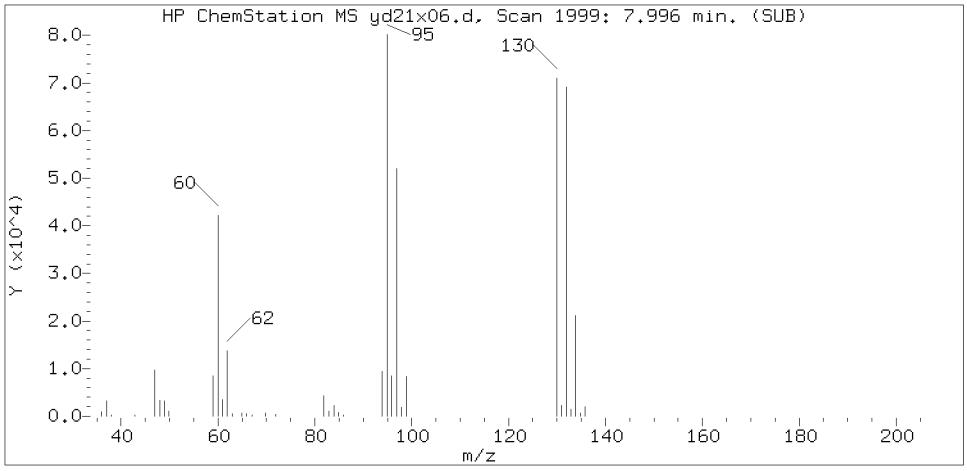
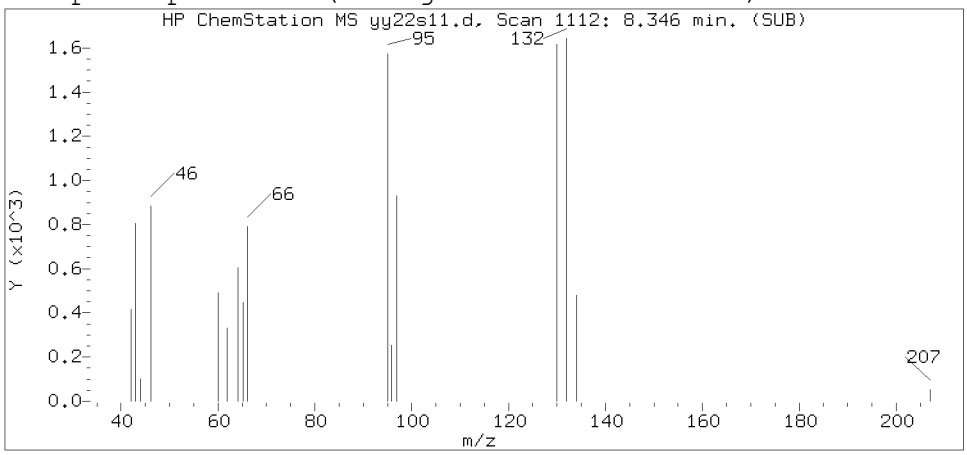
Target 3.5 esignature user ID: kas02648

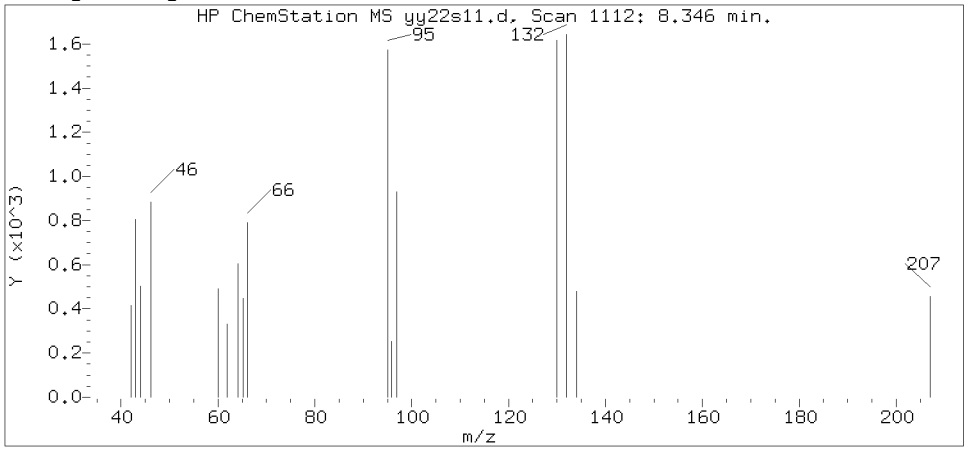
Reference Standard Spectrum for Trichloroethene

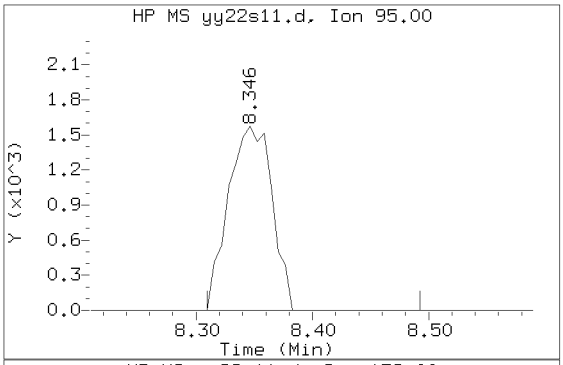


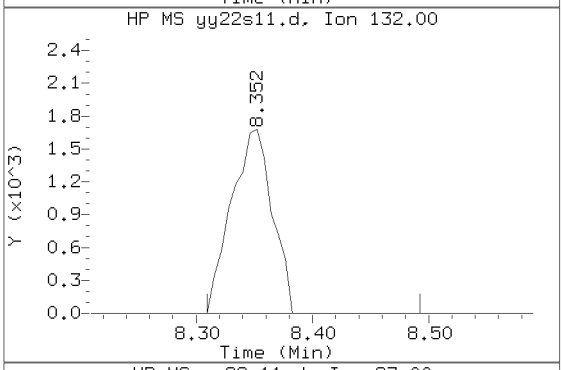
Sample Spectrum (Background Subtracted)

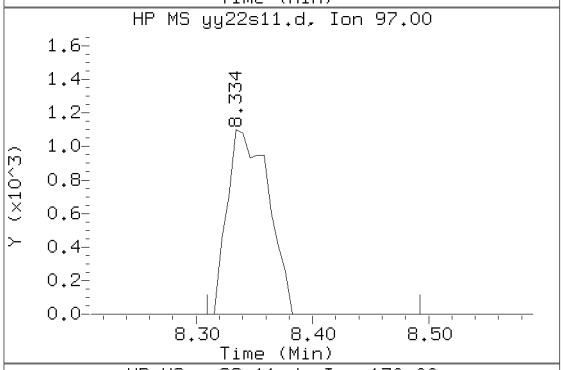


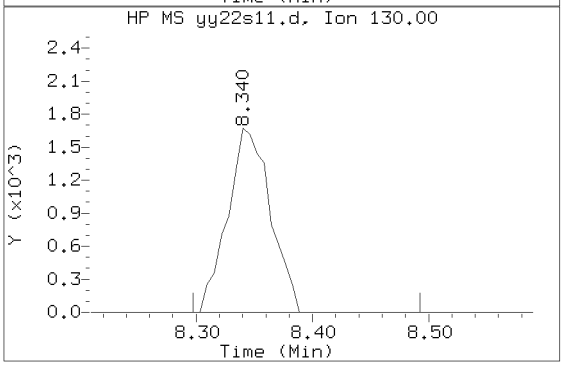
Sample Spectrum (Unaltered)











Data File: /chem2/HP09355.i/20may22a.b/yy22s11.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:50 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Sample Name: 58307 Lab Sample ID: 1316318

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1112
Retention Time (minutes)	: 8.346
Relative Retention Time	: 0.00000
Quant Ion	: 95.00
Area (flag)	: 4107
On-Column Amount (ng)	: 0.5607

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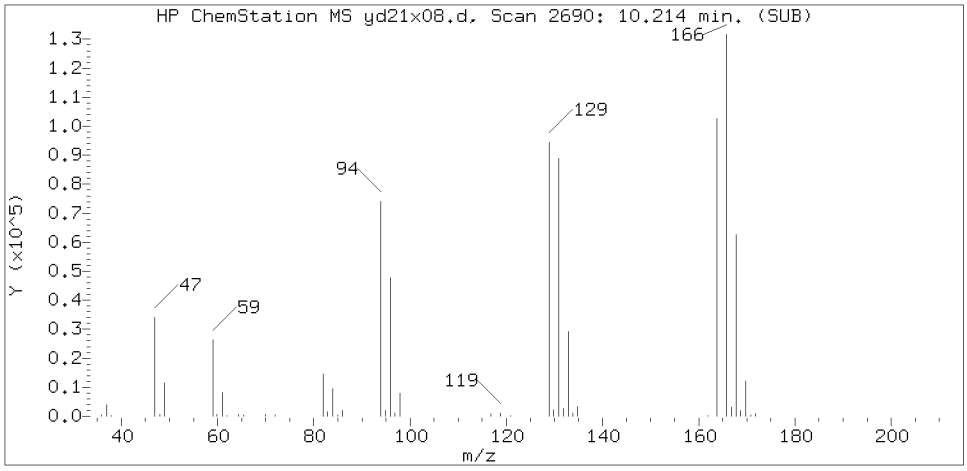
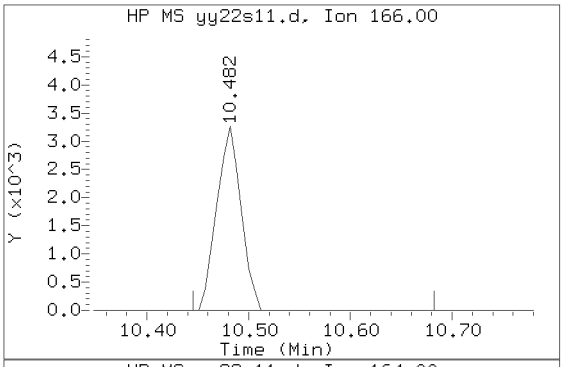
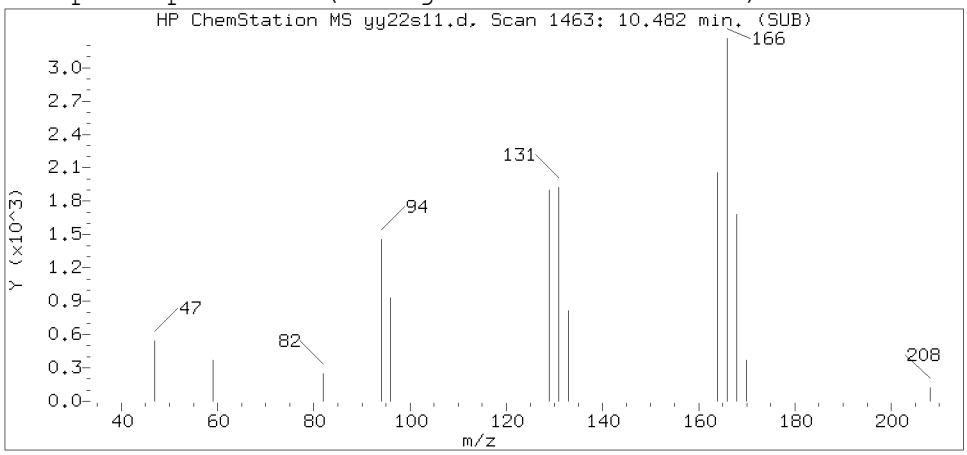
Target 3.5 esignature user ID: kas02648

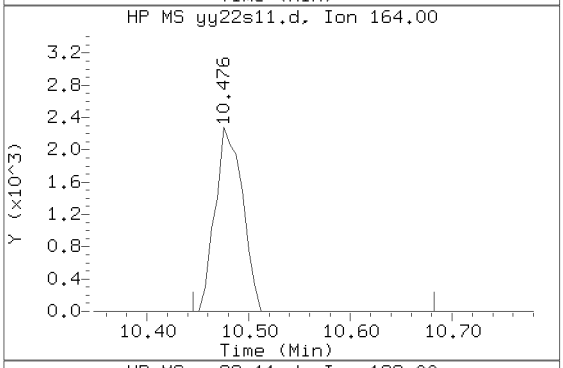
Reference Standard Spectrum for Tetrachloroethene

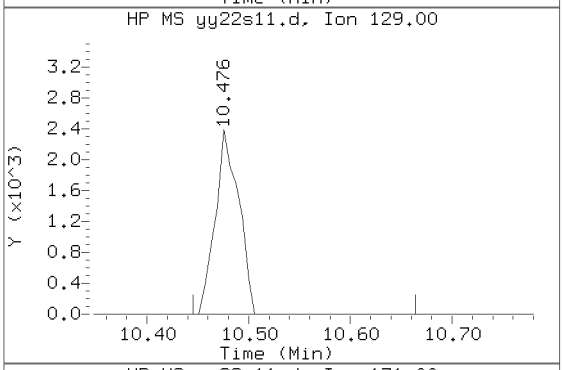




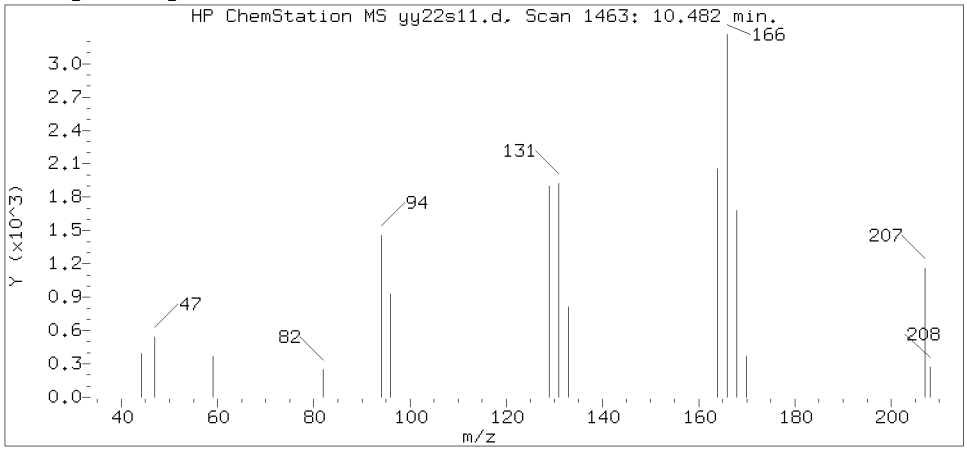
Sample Spectrum (Background Subtracted)

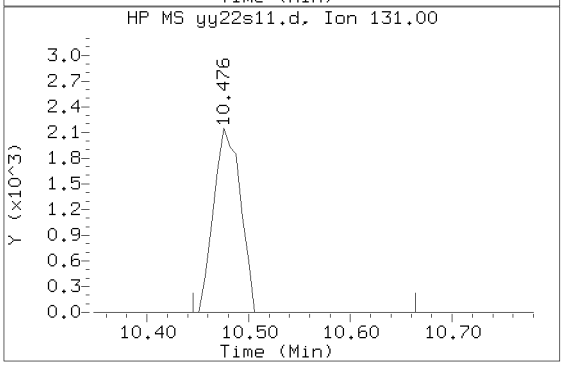






Sample Spectrum (Unaltered)





Data File: /chem2/HP09355.i/20may22a.b/yy22s11.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 14:50 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:07 Automation

Sample Name: 58307 Lab Sample ID: 1316318

Compound Number : 93
Compound Name : Tetrachloroethene
Scan Number : 1463
Retention Time (minutes): 10.482
Relative Retention Time :-0.00000
Quant Ion : 166.00
Area (flag) : 5404
On-Column Amount (ng) : 0.7136

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Target 3.5 esignature user ID: kas02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58308

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316319

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s12.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

Data file: /chem2/HP09355.i/20may22a.b/yy22s12.d Injection date and time: **22-MAY-2020 15:12**
Data file Sample Info. Line: 58308;1316319;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:29 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.349	(0.012)	455	65	395492	(-14)	250.00	
66) Fluorobenzene	7.859	(0.006)	1032	96	1182959	(-16)	50.00	
100) Chlorobenzene-d5	11.297	(0.006)	1597	117	884905	(-17)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	468905	(-18)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965	(0.000)	113	271757	50.578	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.421	(0.000)	102	74398	52.506	105%		80 - 120
83) Toluene-d8	(3)	9.855	(0.000)	98	1125278	48.698	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(-0.001)	95	409652	46.789	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Data file: /chem2/HP09355.i/20may22a.b/yy22s12.d Injection date and time: **22-MAY-2020 15:12**
Data file Sample Info. Line: 58308;1316319;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:29 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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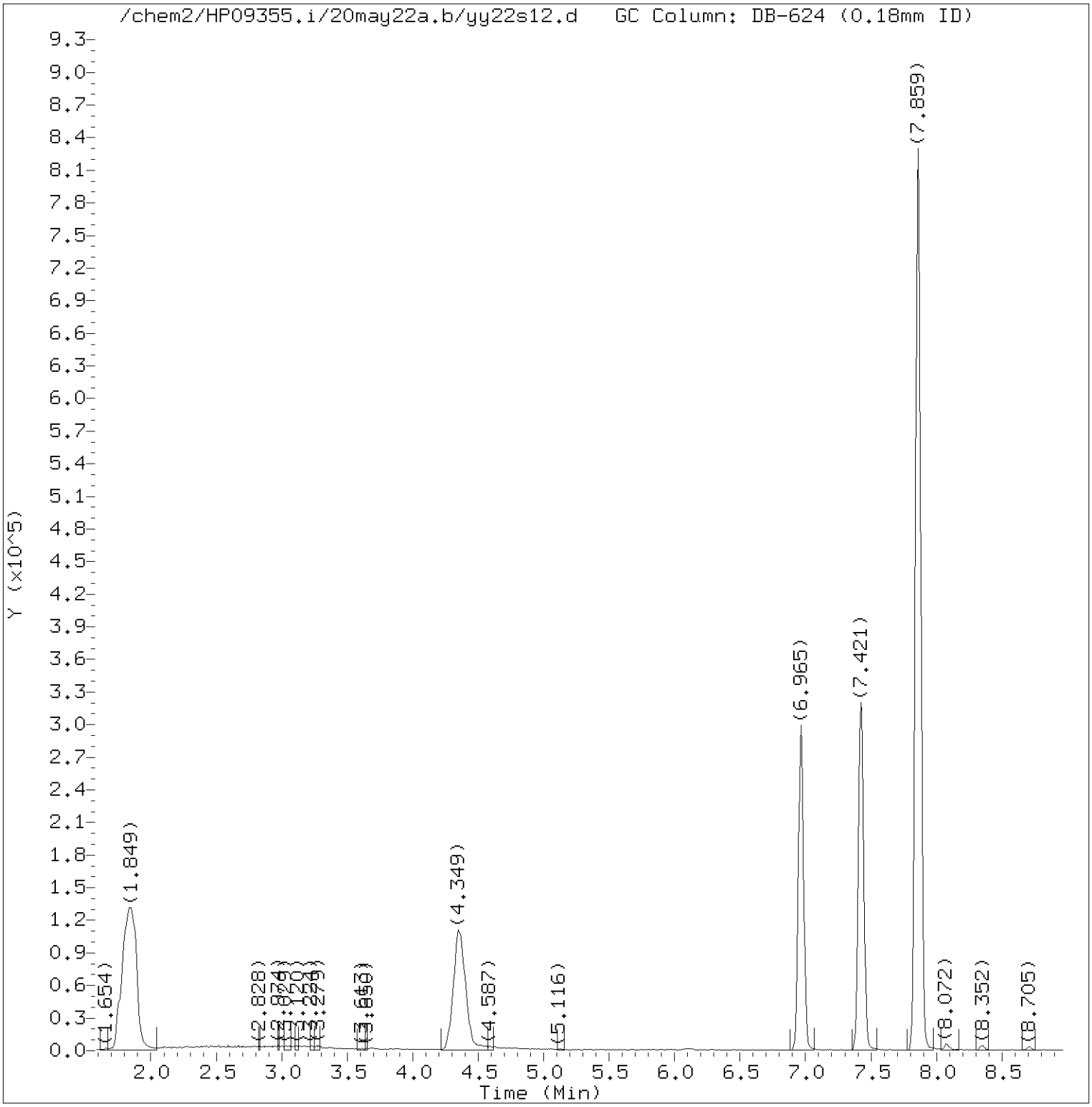
Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

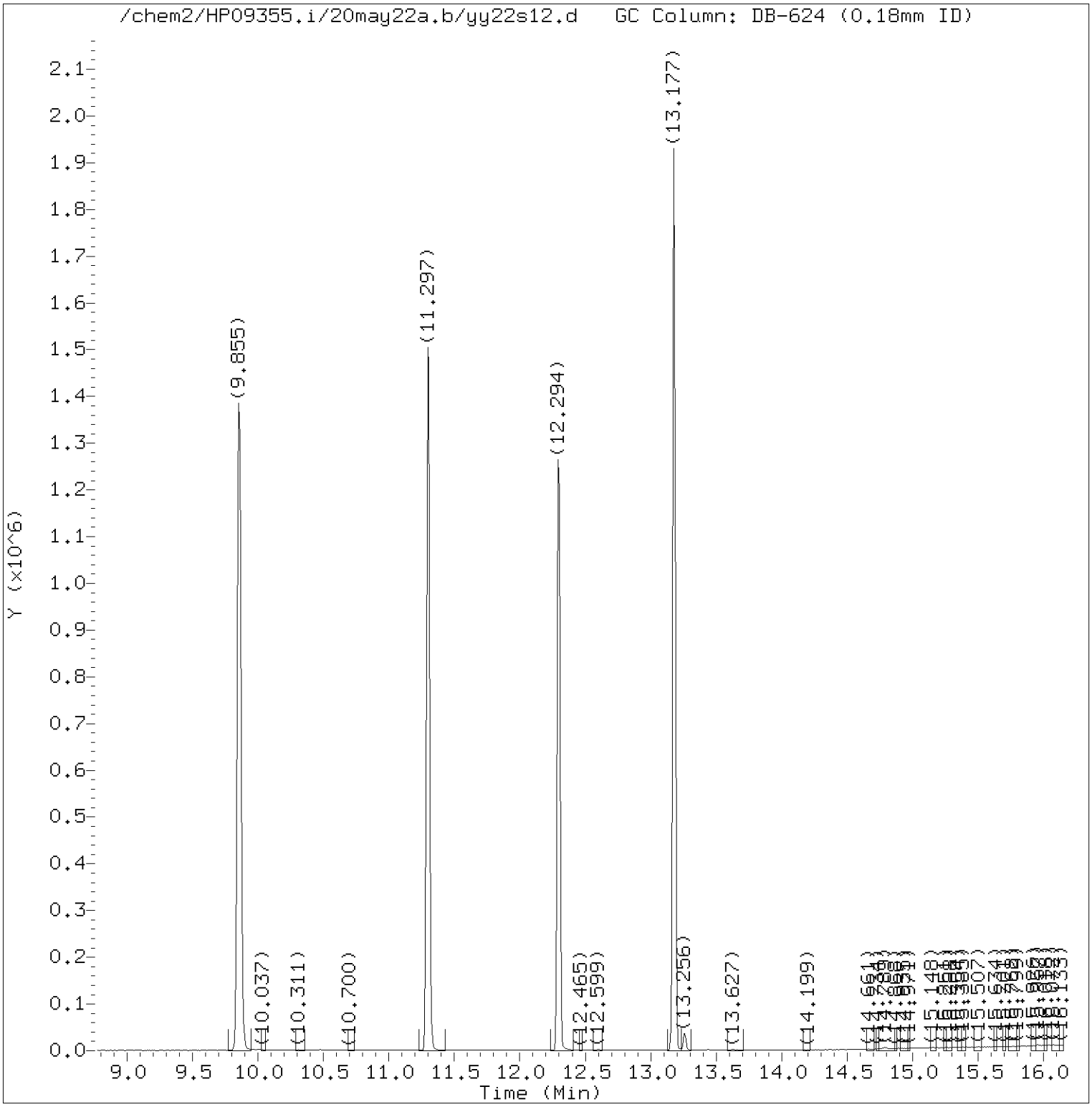
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s12.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:12 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:29 Automation

Sample Name: 58308 Lab Sample ID: 1316319

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s12.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:12 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:29 Automation

Sample Name: 58308 Lab Sample ID: 1316319

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s12.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:12 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:29 Automation

Sample Name: 58308 Lab Sample ID: 1316319

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.349	65	395492	250.000
52)$Dibromofluoromethane	(2)	6.965	113	271757	50.578
57)$1,2-Dichloroethane-d4	(2)	7.421	102	74398	52.506
66)*Fluorobenzene	(2)	7.859	96	1182959	50.000
83)$Toluene-d8	(3)	9.855	98	1125278	48.698
100)*Chlorobenzene-d5	(3)	11.297	117	884905	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	409652	46.789
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	468905	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58309

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316320

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s13.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

58309 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316320

Data file: /chem2/HP09355.i/20may22a.b/yy22s13.d Injection date and time: **22-MAY-2020 15:34**
Data file Sample Info. Line: 58309;1316320;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:51 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.355	(0.006)	456	65	372775	(-19)	250.00	
66) Fluorobenzene	7.860	(0.006)	1032	96	1166407	(-17)	50.00	
100) Chlorobenzene-d5	11.297	(0.006)	1597	117	870161	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	458621	(-20)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965	(0.000)	113	269631	50.895	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.422	(0.000)	102	71412	51.114	102%		80 - 120
83) Toluene-d8	(3)	9.855	(0.000)	98	1098265	48.334	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(-0.001)	95	398455	46.281	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Data file: /chem2/HP09355.i/20may22a.b/yy22s13.d Injection date and time: **22-MAY-2020 15:34**
Data file Sample Info. Line: 58309;1316320;1;0;;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 15:51 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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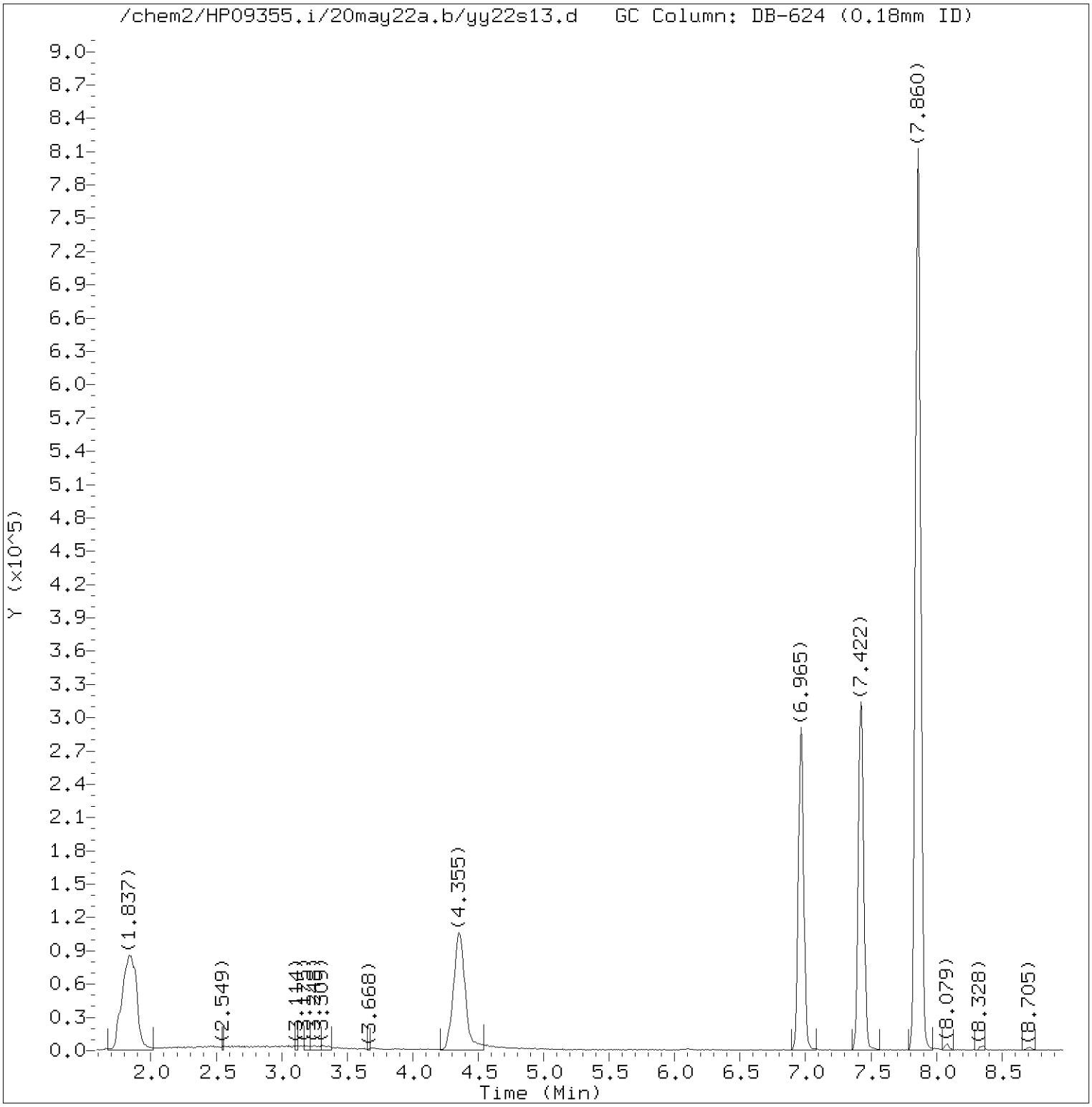
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

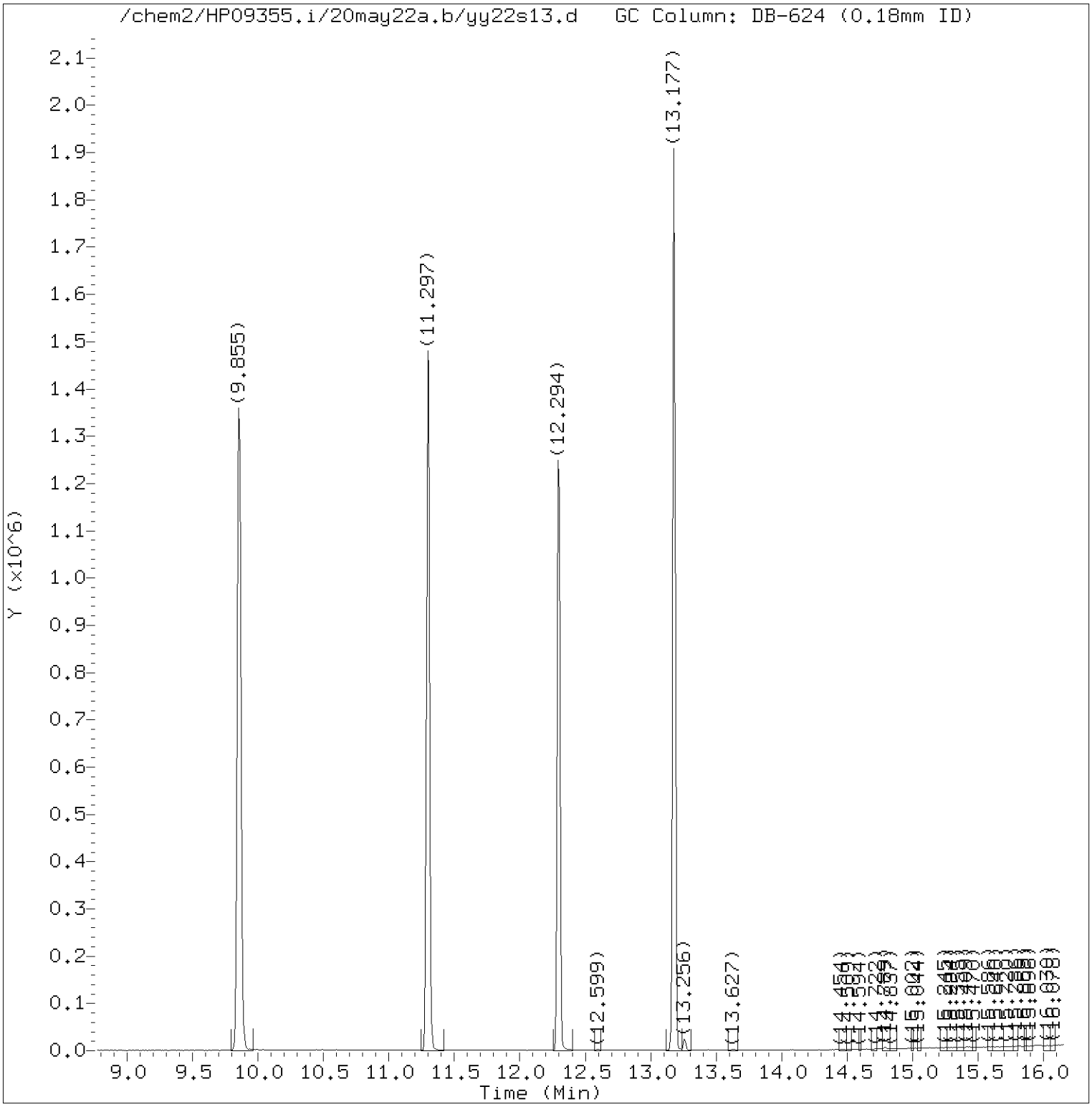
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s13.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:34 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:51 Automation

Sample Name: 58309 Lab Sample ID: 1316320

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s13.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:34 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:51 Automation

Sample Name: 58309 Lab Sample ID: 1316320

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s13.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:34 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 15:51 Automation

Sample Name: 58309 Lab Sample ID: 1316320

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.355	65	372775	250.000
52)$Dibromofluoromethane	(2)	6.965	113	269631	50.895
57)$1,2-Dichloroethane-d4	(2)	7.422	102	71412	51.114
66)*Fluorobenzene	(2)	7.860	96	1166407	50.000
83)$Toluene-d8	(3)	9.855	98	1098265	48.334
100)*Chlorobenzene-d5	(3)	11.297	117	870161	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	398455	46.281
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	458621	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - C:\MSDCHEM\1\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	YA21T01.D	50NGBFB	04/21/2020	20:37		
KAS02648	YA21T02.D	50NGBFB	04/21/2020	20:52		
KAS02648	YA21T03.D	50NGBFB	04/21/2020	21:04		
KAS02648	YA21T04.D	50NGBFB	04/21/2020	21:21		
KAS02648	YA21X01.D	CBLK	04/21/2020	21:31		
KAS02648	YA21I01.D	VSTD300	04/21/2020	21:54		
KAS02648	YA21I02.D	VSTD100	04/21/2020	22:16		
KAS02648	YA21I03.D	VSTD050	04/21/2020	22:38		
KAS02648	YA21I04.D	VSTD020	04/21/2020	23:00		
KAS02648	YA21I05.D	VSTD010	04/21/2020	23:22		
KAS02648	YA21I06.D	VSTD004	04/21/2020	23:44		
KAS02648	YA21I07.D	VSTD001	04/22/2020	00:06		
KAS02648	YA21X02.D	CBLK	04/22/2020	00:28		
KAS02648	YA21V01.D	YLGICV	04/22/2020	00:49		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - C:\MSDCHEM\1\DATA\20MAY22A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
dvv10203	YY22T01.D	50NGBFB	05/22/2020	08:33		
dvv10203	YY22T02.D	50NGBFB	05/22/2020	08:47		
dvv10203	YY22T03.D	50NGBFB	05/22/2020	09:08		
DVV10203	YY22X01.D	BLK	05/22/2020	09:20	Y201431AA	
DVV10203	YY22C01.D	VSTD050	05/22/2020	09:42	Y201431AA	
DVV10203	YY22S01.D	LCSY94	05/22/2020	10:04	Y201431AA	
DVV10203	YY22R01.D	RLVY94	05/22/2020	10:26	Y201431AA	
DVV10203	YY22B01.D	VBLKY94	05/22/2020	10:48	Y201431AA	
DVV10203	YY22S02.D	1316348	05/22/2020	11:11	Y201431AA	
DVV10203	YY22S03.D	1316310	05/22/2020	11:33	Y201431AA	
DVV10203	YY22S04.D	1316311MS	05/22/2020	11:54	Y201431AA	
DVV10203	YY22S05.D	1316312MSD	05/22/2020	12:16	Y201431AA	
DVV10203	YY22X02.D	BLK	05/22/2020	12:38	Y201431AA	
DVV10203	YY22S06.D	1316313	05/22/2020	13:00	Y201431AA	
DVV10203	YY22S07.D	1316314	05/22/2020	13:22	Y201431AA	
DVV10203	YY22S08.D	1316315	05/22/2020	13:44	Y201431AA	
DVV10203	YY22S09.D	1316316	05/22/2020	14:06	Y201431AA	
DVV10203	YY22S10.D	1316317	05/22/2020	14:28	Y201431AA	
DVV10203	YY22S11.D	1316318	05/22/2020	14:50	Y201431AA	
DVV10203	YY22S12.D	1316319	05/22/2020	15:12	Y201431AA	
DVV10203	YY22S13.D	1316320	05/22/2020	15:34	Y201431AA	
DVV10203	YY22S14.D	1316341	05/22/2020	15:56	Y201431AA	
DVV10203	YY22S15.D	1316387	05/22/2020	16:18	Y201431AA	
DVV10203	YY22S16.D	1316388	05/22/2020	16:40	Y201431AA	
DVV10203	YY22S17.D	1316389	05/22/2020	17:02	Y201431AA	
DVV10203	YY22S18.D	1316390	05/22/2020	17:24	Y201431AA	
DVV10203	YY22S19.D	1316391	05/22/2020	17:46	Y201431AA	
DVV10203	YY22S20.D	1316392	05/22/2020	18:08	Y201431AA	
DVV10203	YY22S21.D	1316393	05/22/2020	18:30	Y201431AA	
DVV10203	YY22S22.D	1316394	05/22/2020	18:52	Y201431AA	
DVV10203	YY22S23.D	1316395	05/22/2020	19:14	Y201431AA	

Data File: /chem2/HP09355.i/20apr21a.b/ya21t04.d

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20

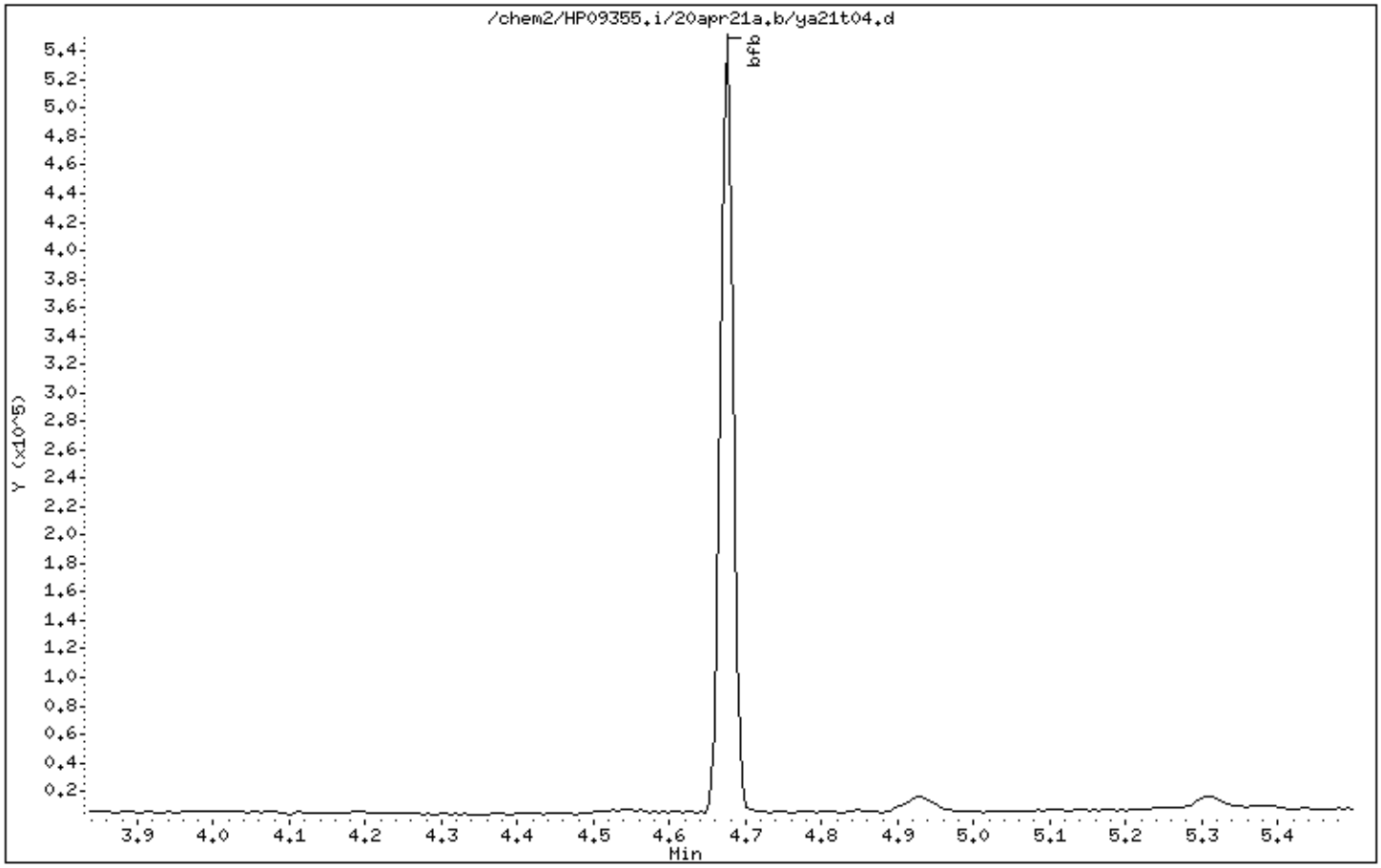
Instrument: HP09355.i

Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP09355.i/20apr21a.b/ya21t04.d

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20

Instrument: HP09355.i

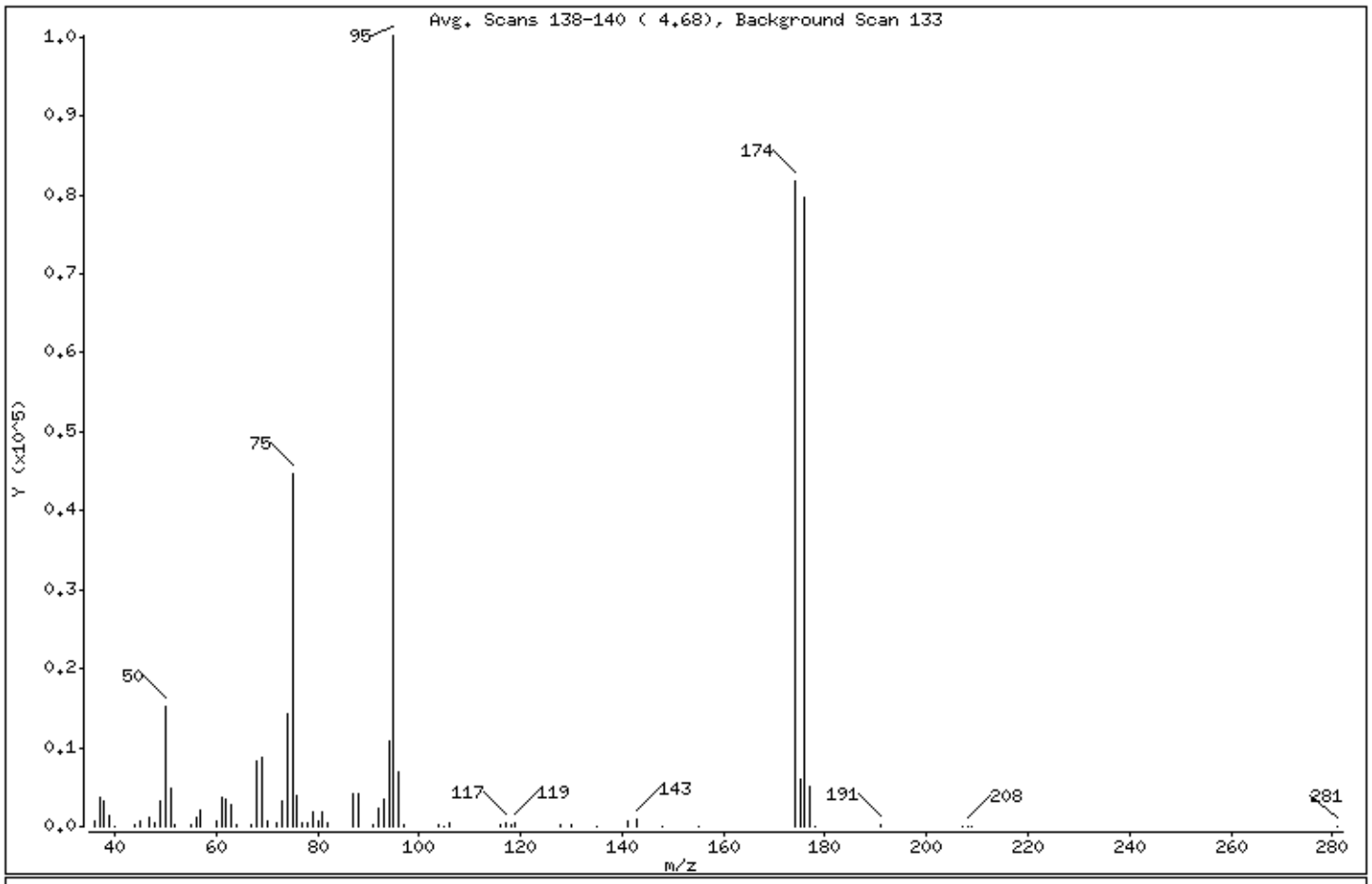
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.26
75	30.00 - 60.00% of mass 95	44.59
96	5.00 - 9.00% of mass 95	6.91
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	81.64
175	5.00 - 9.00% of mass 174	6.02 (7.37)
176	95.00 - 101.00% of mass 174	79.63 (97.54)
177	5.00 - 9.00% of mass 176	5.16 (6.48)

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20 Instrument: HP09355.i

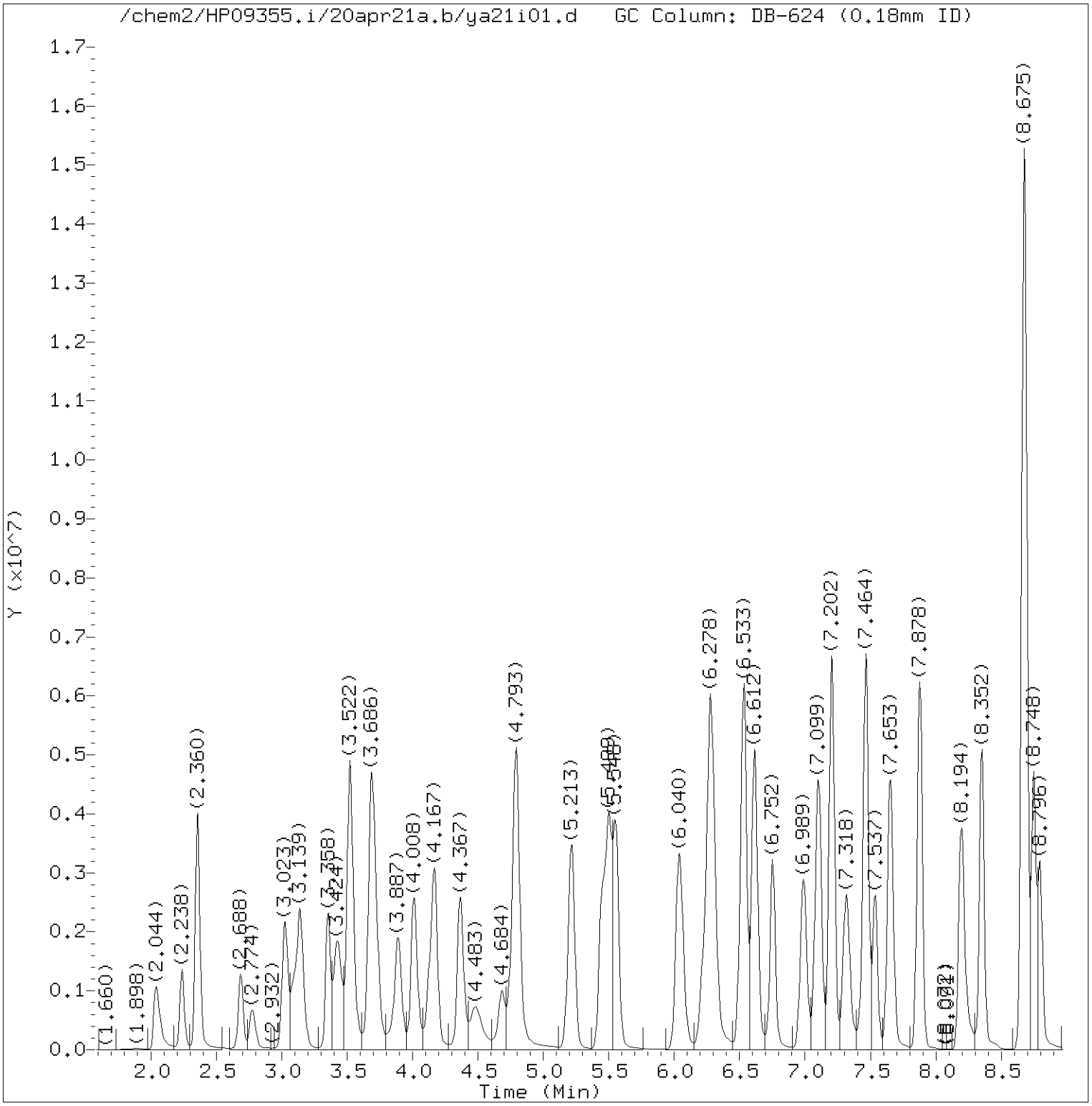
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ya21t04.d
Spectrum: Avg. Scans 138-140 (4.68), Background Scan 133
Location of Maximum: 95.00
Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	589	62.00	3458	87.00	4141	135.00	94
37.00	3683	63.00	2777	88.00	4114	141.00	735
38.00	3218	64.00	233	91.00	325	143.00	828
39.00	1387	67.00	198	92.00	2260	148.00	106
40.00	101	68.00	8256	93.00	3556	155.00	88
44.00	280	69.00	8840	94.00	10710	174.00	81760
45.00	755	70.00	777	95.00	100152	175.00	6025
47.00	1208	72.00	479	96.00	6923	176.00	79752
48.00	501	73.00	3336	97.00	216	177.00	5168
49.00	3145	74.00	14290	104.00	220	178.00	86
50.00	15286	75.00	44656	105.00	90	191.00	123
51.00	4945	76.00	4017	106.00	365	207.00	19
52.00	179	77.00	553	116.00	304	208.00	50
55.00	178	78.00	388	117.00	497	209.00	2
56.00	1115	79.00	1734	118.00	244	281.00	104
57.00	2042	80.00	591	119.00	503		
60.00	733	81.00	1932	128.00	339		
61.00	3775	82.00	481	130.00	288		



Total Ion Chromatogram (TIC)

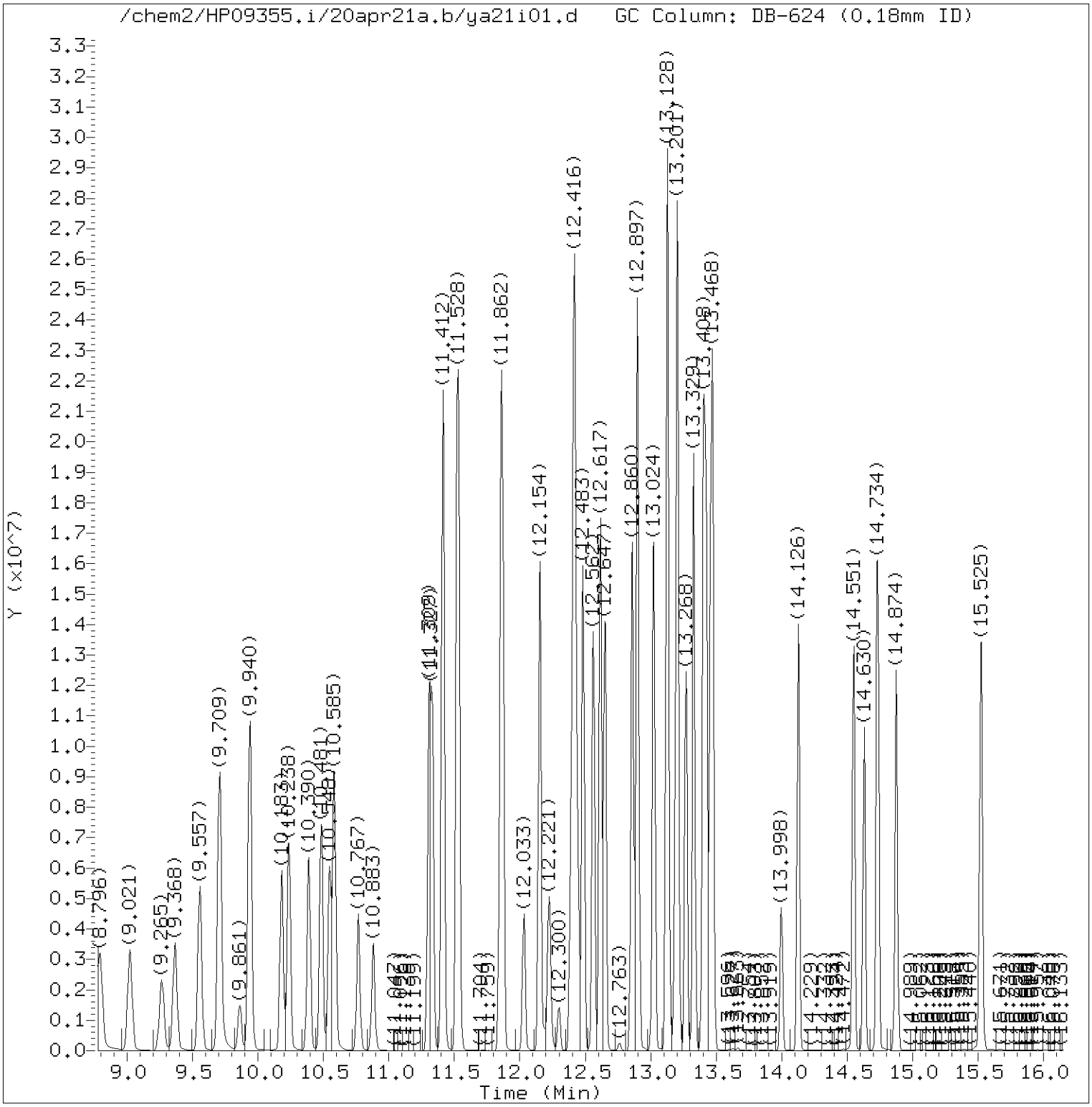
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	2413655M	300.000
4) Chloromethane	(2)	2.238	50	2004732	300.000
5) 1,3-Butadiene	(2)	2.360	39	1685693	300.000
6) Vinyl Chloride	(2)	2.360	62	2013749	300.000
8) Bromomethane	(2)	2.688	94	1279984	300.000
9) Chloroethane	(2)	2.780	64	1065953	300.000
10) Dichlorofluoromethane	(2)	3.023	67	3011703	300.000
12) Trichlorofluoromethane	(2)	3.096	101	2514998	300.000
11) n-Pentane	(2)	3.145	43	2534906	300.000
14) Ethyl ether	(2)	3.351	59	1919688	300.000
15) Freon 123a	(2)	3.431	67	2290667	300.000
16) Acrolein	(1)	3.522	56	8356255	3000.000
17) 1,1-Dichloroethene	(2)	3.680	96	1846867	300.000
17) 1,1-Dichloroethene	(2)	3.680	63	907726	300.000
18) Acetone	(1)	3.692	58	823191	600.000
19) Freon 113	(2)	3.710	101	1909580	300.000
21) 2-Propanol	(1)	3.862	45	1549802	1500.000
22) Methyl Iodide	(2)	3.893	142	3286967	300.000
23) Carbon Disulfide	(2)	4.008	76	6582028	300.000
27) Methyl Acetate	(2)	4.130	43	2865310	300.000
25) Allyl Chloride	(2)	4.167	41	3129336	300.000
29)*t-Butyl alcohol-d10	(1)	4.355	65	381281M	250.000
28) Methylene Chloride	(2)	4.367	84	2179291	300.000
30) t-Butyl alcohol	(1)	4.483	59	2712417	1500.000
31) Acrylonitrile	(2)	4.684	53	1581102	300.000
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	5996926	300.000
32) trans-1,2-Dichloroethene	(2)	4.793	96	2133943	300.000
34) n-Hexane	(2)	5.219	57	3354175	300.000
36) 1,1-Dichloroethane	(2)	5.444	63	3786796	300.000
38) di-Isopropyl ether	(2)	5.499	45	6805444	300.000
39) 2-Chloro-1,3-butadiene	(2)	5.554	53	3266131	300.000
40) Ethyl t-butyl ether	(2)	6.040	59	5974879	300.000
43) 1,2-Dichloroethene (Total)	(2)		96	4558567	600.000
44) 2-Butanone	(2)	6.229	43	4200266	600.000
42) cis-1,2-Dichloroethene	(2)	6.272	96	2424624	300.000
45) 2,2-Dichloropropane	(2)	6.290	77	2913006	300.000
47) Propionitrile	(1)	6.308	54	3176928M	1500.000
48) Methacrylonitrile	(2)	6.533	67	4044708	750.000

M = Compound was manually integrated.
* = Compound is an internal standard.

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Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	1180705	300.000
50) Tetrahydrofuran	(1)	6.624	71	1221112	600.000
51) Chloroform	(2)	6.752	83	3676311	300.000
52)$Dibromofluoromethane	(2)	6.971	113	288524	50.000
52)$Dibromofluoromethane	(2)	6.971	111	293225	50.000
53) 1,1,1-Trichloroethane	(2)	6.989	97	3231676	300.000
54) Cyclohexane	(2)	7.099	56	4007858	300.000
54) Cyclohexane	(2)	7.105	84	3373756	300.000
54) Cyclohexane	(2)	7.105	69	1251240	300.000
55) 1,1-Dichloropropene	(2)	7.202	75	3100914	300.000
56) Carbon Tetrachloride	(2)	7.208	117	2819295	300.000
58) Isobutyl Alcohol	(1)	7.318	41	2448069	3750.000
57)$1,2-Dichloroethane-d4	(2)	7.434	102	74244	50.000
57)$1,2-Dichloroethane-d4	(2)	7.434	65	334115	50.000
57)$1,2-Dichloroethane-d4	(2)	7.434	104	47320	50.000
60) Benzene	(2)	7.464	78	8987853	300.000
61) 1,2-Dichloroethane	(2)	7.537	62	2930873	300.000
61) 1,2-Dichloroethane	(2)	7.537	98	293469	300.000
65) t-Amyl methyl ether	(2)	7.653	73	5912386	300.000
66)*Fluorobenzene	(2)	7.865	96	1254678	50.000
67) n-Heptane	(2)	7.878	43	3552600	300.000
69) n-Butanol	(1)	8.194	56	4720547M	7500.000
71) Trichloroethene	(2)	8.352	95	2365386	300.000
72) Methylcyclohexane	(2)	8.669	83	4011266	300.000
72) Methylcyclohexane	(2)	8.669	98	1801966	300.000
73) 1,2-Dichloropropane	(2)	8.681	63	2290141	300.000
76) Methyl Methacrylate	(2)	8.748	69	2637826	300.000
75) 1,4-Dioxane	(1)	8.760	88	588988M	3750.000
74) Dibromomethane	(2)	8.796	93	1565518	300.000
78) Bromodichloromethane	(2)	9.021	83	2982601	300.000
79) 2-Nitropropane	(2)	9.265	41	2031678	600.000
80) 2-Chloroethyl Vinyl Ether	(2)	9.368	63	2057220	300.000
81) cis-1,3-Dichloropropene	(2)	9.557	75	3983408	300.000
82) 4-Methyl-2-pentanone	(2)	9.709	43	7997993	600.000
83)$Toluene-d8	(3)	9.861	98	1228388	50.000
83)$Toluene-d8	(3)	9.861	100	792618	50.000
88) Toluene	(3)	9.940	92	5757892	300.000
90) 1,3-Dichloropropene (total)	(3)		100	7738484	600.000

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Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.183	75	3755076	300.000
91) Ethyl Methacrylate	(3)	10.238	69	4239202	300.000
92) 1,1,2-Trichloroethane	(3)	10.390	97	2339063	300.000
93) Tetrachloroethene	(3)	10.488	166	2437592	300.000
94) 1,3-Dichloropropane	(3)	10.548	76	3903563	300.000
96) 2-Hexanone	(3)	10.585	43	6330738	600.000
97) Dibromochloromethane	(3)	10.767	129	2602680	300.000
99) 1,2-Dibromoethane	(3)	10.883	107	2634207	300.000
100)*Chlorobenzene-d5	(3)	11.303	117	940346	50.000
101) 1-Chlorohexane	(3)	11.309	91	3201456	300.000
102) Chlorobenzene	(3)	11.333	112	6364106	300.000
103) 1,1,1,2-Tetrachloroethane	(3)	11.412	131	2222421	300.000
104) Ethylbenzene	(3)	11.412	91	10405703	300.000
106) m+p-Xylene	(3)	11.528	106	8312534	600.000
108) Xylene (Total)	(3)		106	12473493	900.000
107) o-Xylene	(3)	11.856	106	4160959	300.000
109) Styrene	(3)	11.868	104	7101709	300.000
110) Bromoform	(3)	12.033	173	2043068	300.000
111) Isopropylbenzene	(3)	12.154	105	10232494	300.000
112) Cyclohexanone	(1)	12.221	55	2286856	3750.000
114)$4-Bromofluorobenzene	(3)	12.300	95	465729	50.000
114)$4-Bromofluorobenzene	(3)	12.300	174	360314	50.000
116) 1,1,2,2-Tetrachloroethane	(4)	12.392	83	3882427	300.000
118) trans-1,4-Dichloro-2-butene	(4)	12.416	53	3018157	750.000
115) Bromobenzene	(4)	12.416	156	2735446	300.000
117) 1,2,3-Trichloropropane	(4)	12.440	110	1253671	300.000
119) n-Propylbenzene	(4)	12.483	91	11461870	300.000
120) 2-Chlorotoluene	(4)	12.562	126	2695047	300.000
122) 1,3,5-Trimethylbenzene	(4)	12.617	105	9054231	300.000
121) 4-Chlorotoluene	(4)	12.653	126	2832594	300.000
124) tert-Butylbenzene	(4)	12.860	134	2002497M	300.000
125) Pentachloroethane	(4)	12.897	167	1646477	300.000
126) 1,2,4-Trimethylbenzene	(4)	12.903	105	9394928	300.000
127) sec-Butylbenzene	(4)	13.024	105	10966145	300.000
129) 1,3-Dichlorobenzene	(4)	13.122	146	5080942	300.000
130) p-Isopropyltoluene	(4)	13.128	119	9517000	300.000
131)*1,4-Dichlorobenzene-d4	(4)	13.183	152	498086	50.000
133) 1,4-Dichlorobenzene	(4)	13.201	146	5252495	300.000

M = Compound was manually integrated.
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on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.207	105	8935182	300.000
135) Benzyl Chloride	(4)	13.268	91	8336682	300.000
136) 1,3-Diethylbenzene	(4)	13.329	119	6018826	300.000
141) Diethylbenzene (total)	(4)		100	17223447	900.000
137) 1,4-Diethylbenzene	(4)	13.402	119	6216498	300.000
139) n-Butylbenzene	(4)	13.420	92	5257466	300.000
138) 1,2-Dichlorobenzene	(4)	13.456	146	5054775	300.000
140) 1,2-Diethylbenzene	(4)	13.475	119	4988123	300.000
142) 1,2-Dibromo-3-chloropropane	(4)	13.998	75	1096295	300.000
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	4027387	300.000
146) 1,2,4-Trichlorobenzene	(4)	14.551	180	3796477	300.000
147) Hexachlorobutadiene	(4)	14.630	225	1715103	300.000
148) Naphthalene	(4)	14.734	128	11705201	300.000
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	3599223	300.000
150) 2-Methylnaphthalene	(4)	15.525	142	6881775	300.000

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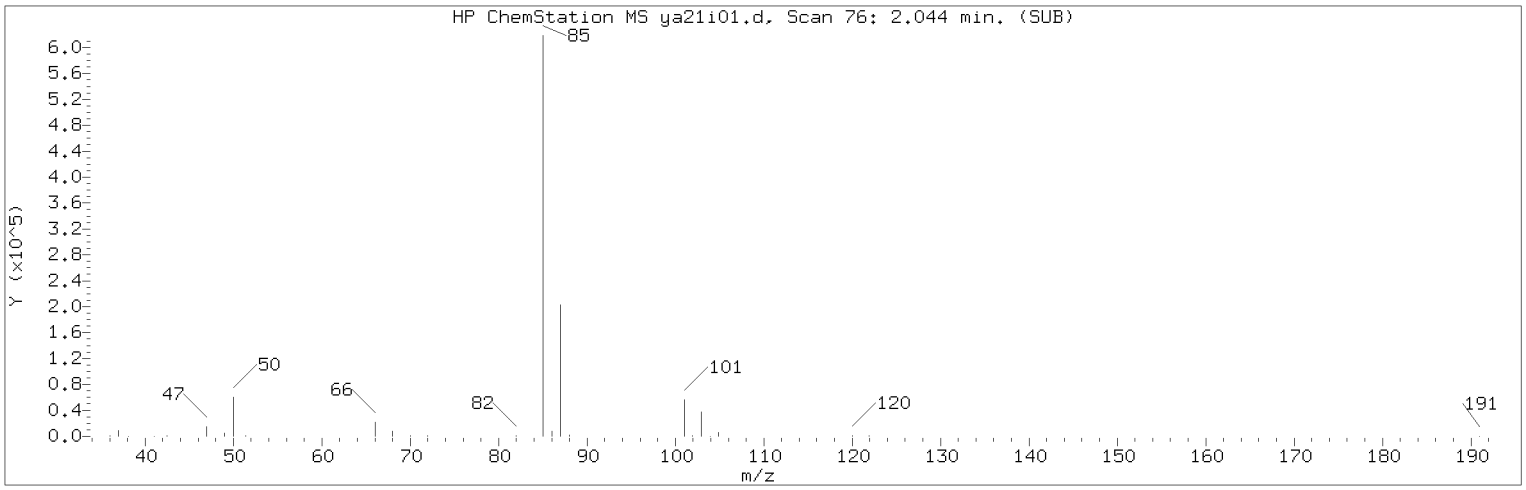
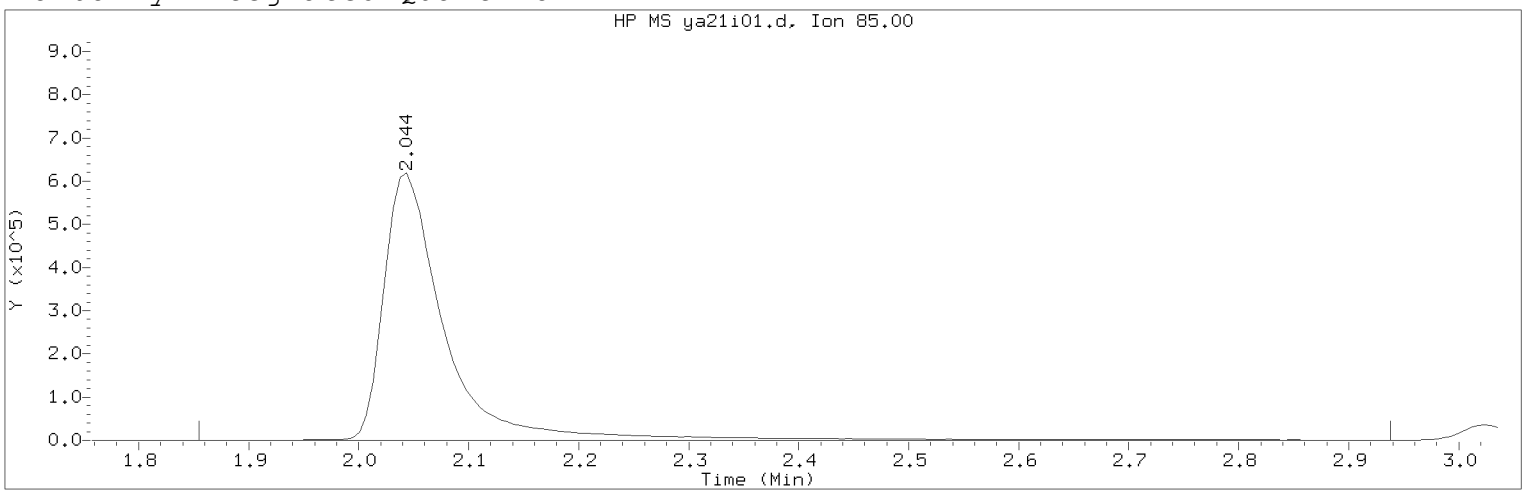
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

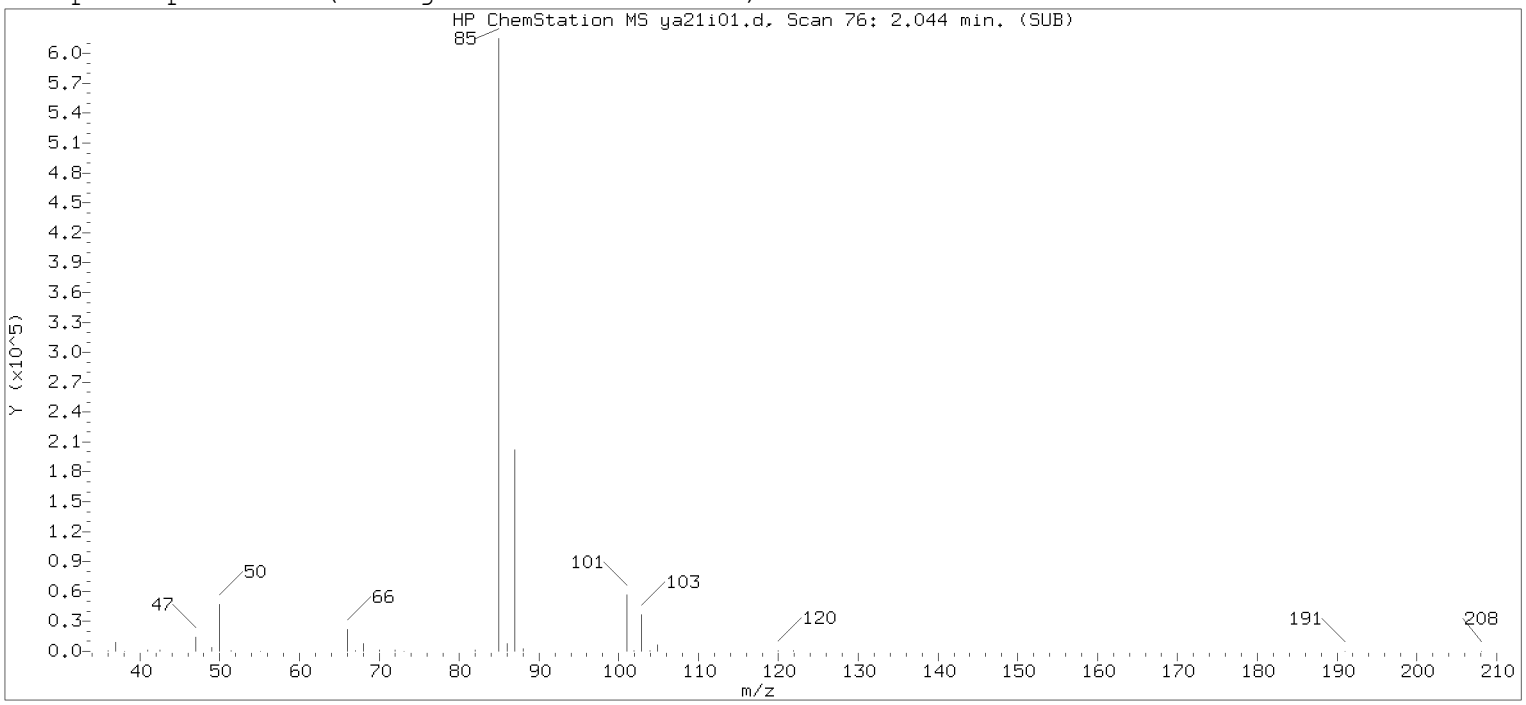
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 2413655M
On-Column Amount (ng) : 300.0000
Integration start scan : 44 Integration stop scan: 222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

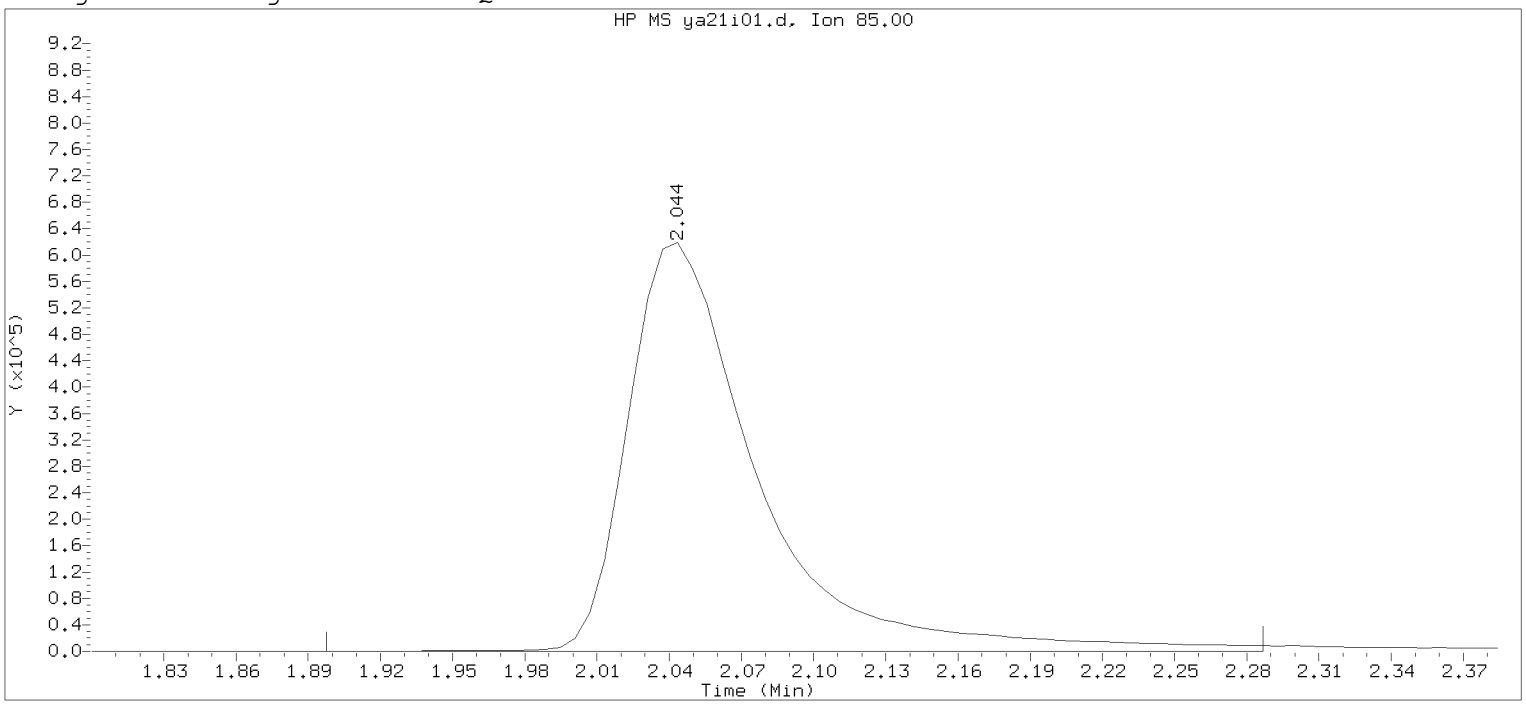
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

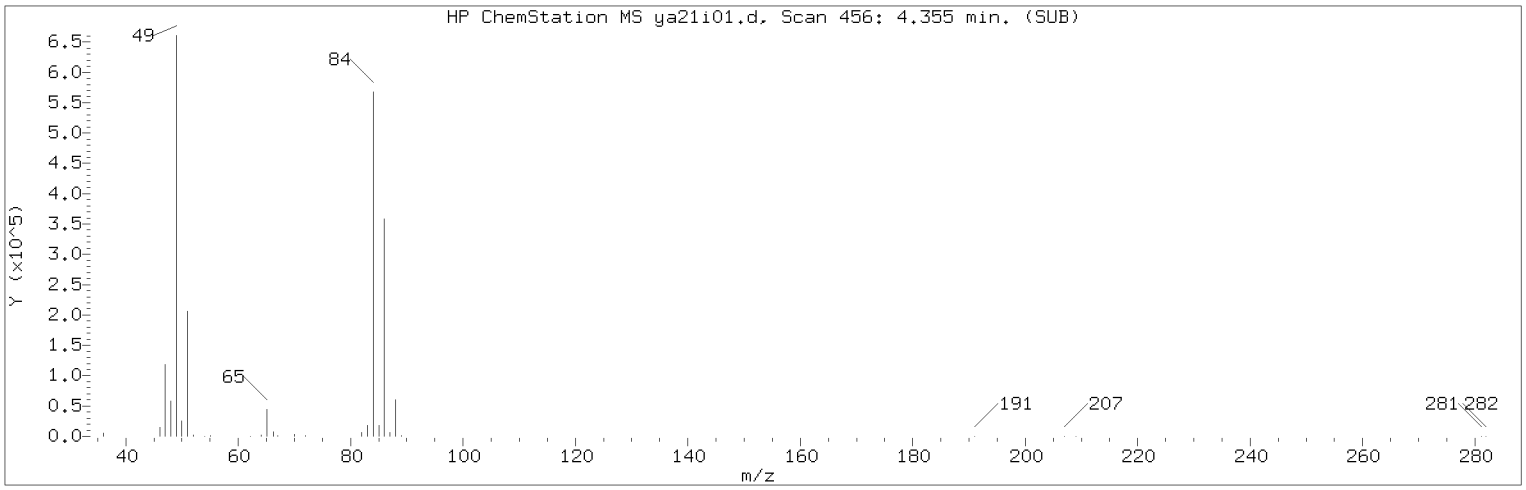
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

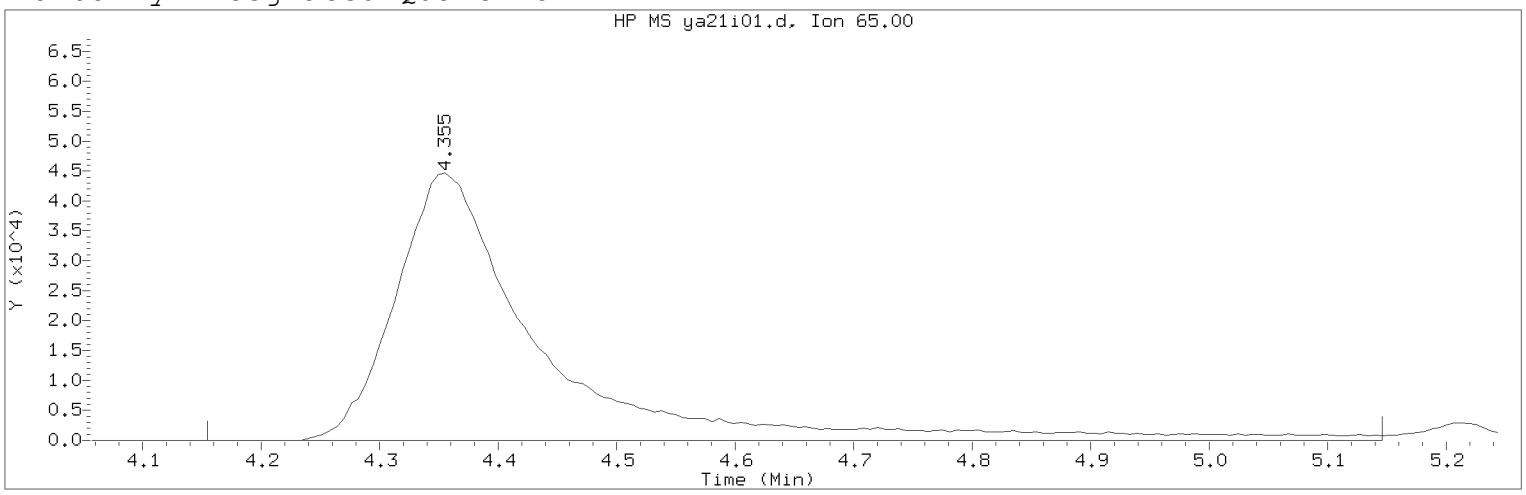
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 2322463
On-column Amount (ng) : 287.7507
Integration start scan : 51 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

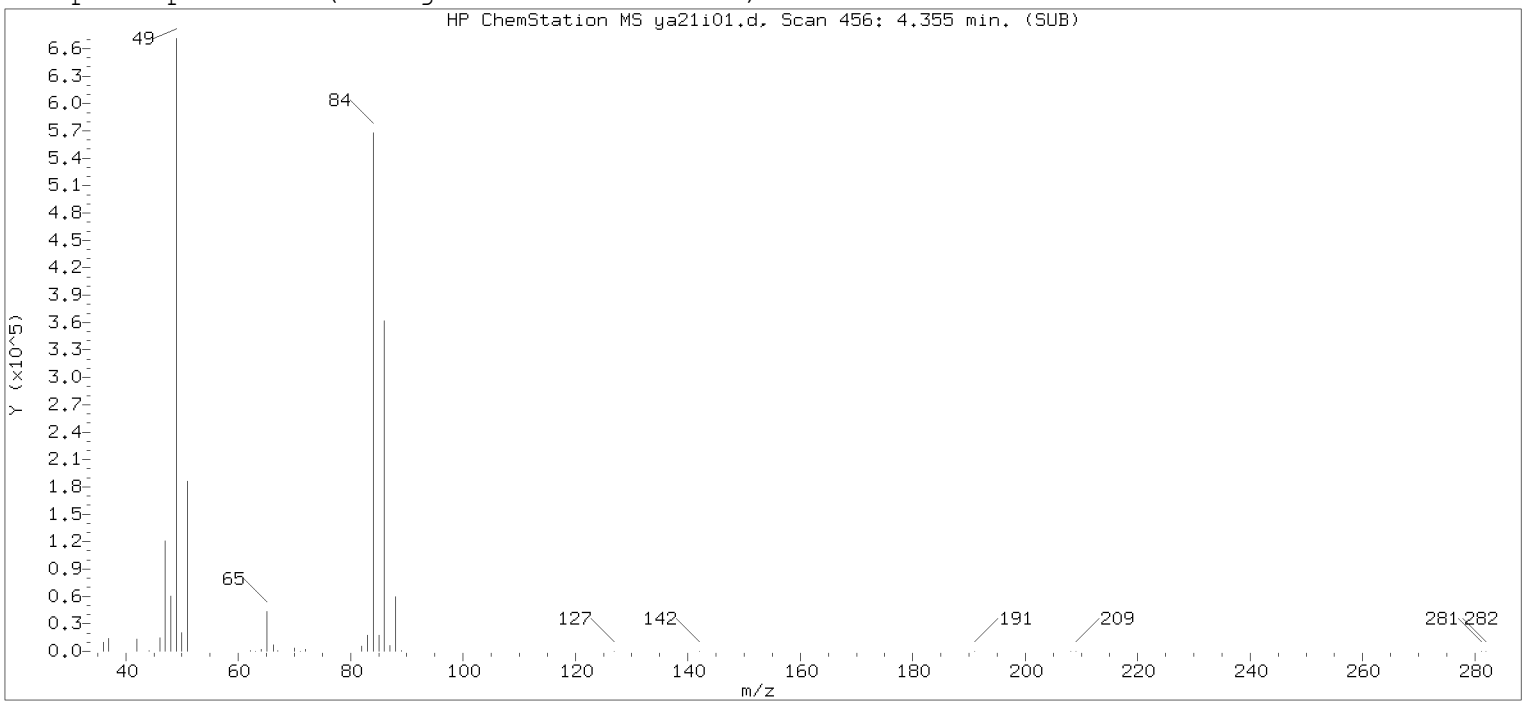
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area (flag) : 381281M
On-Column Amount (ng) : 250.0000
Integration start scan : 422 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

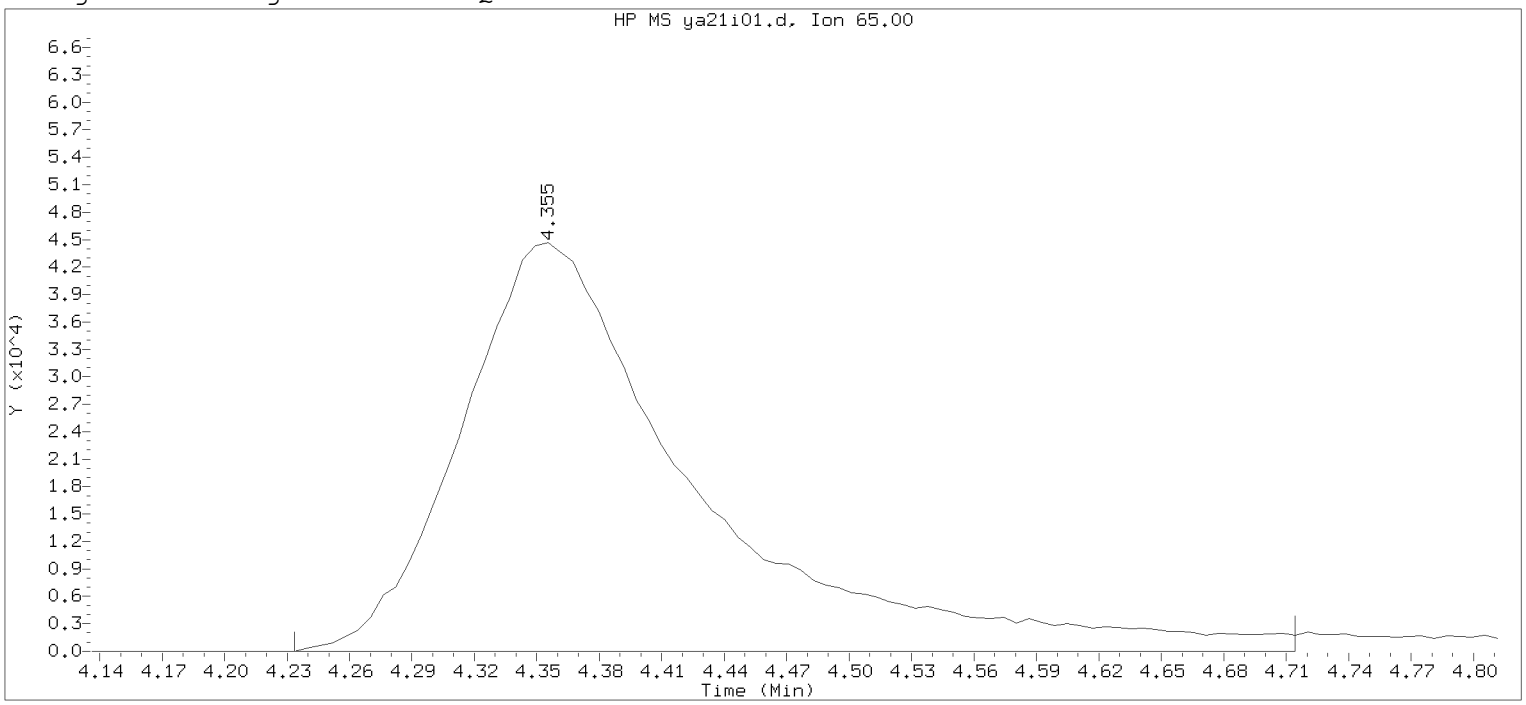
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

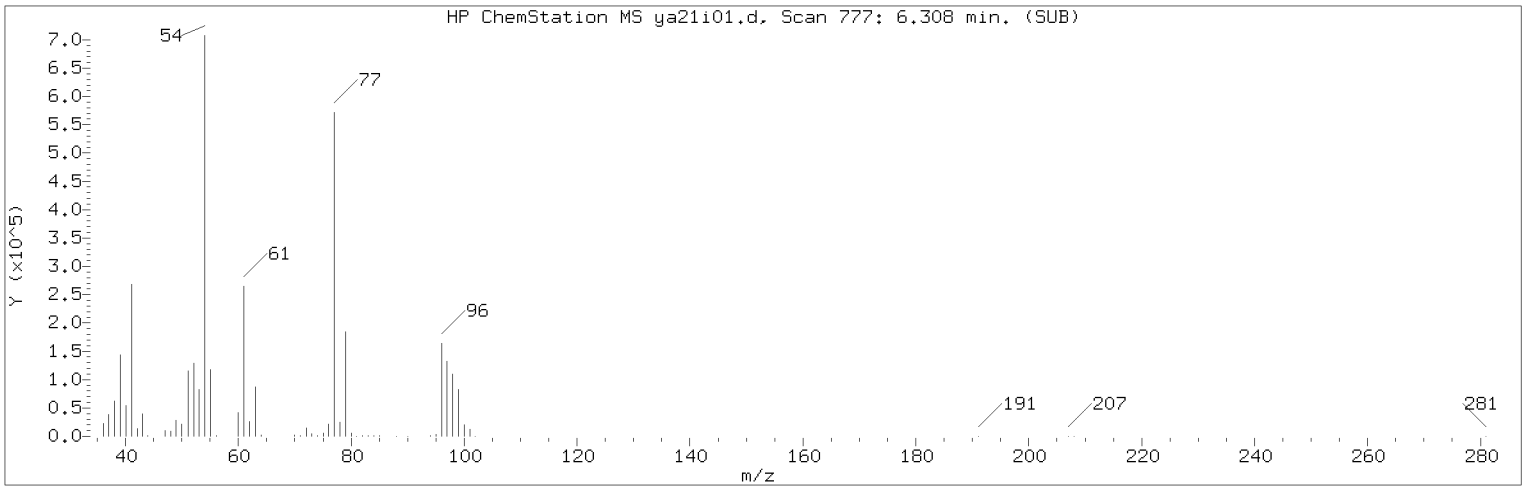
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

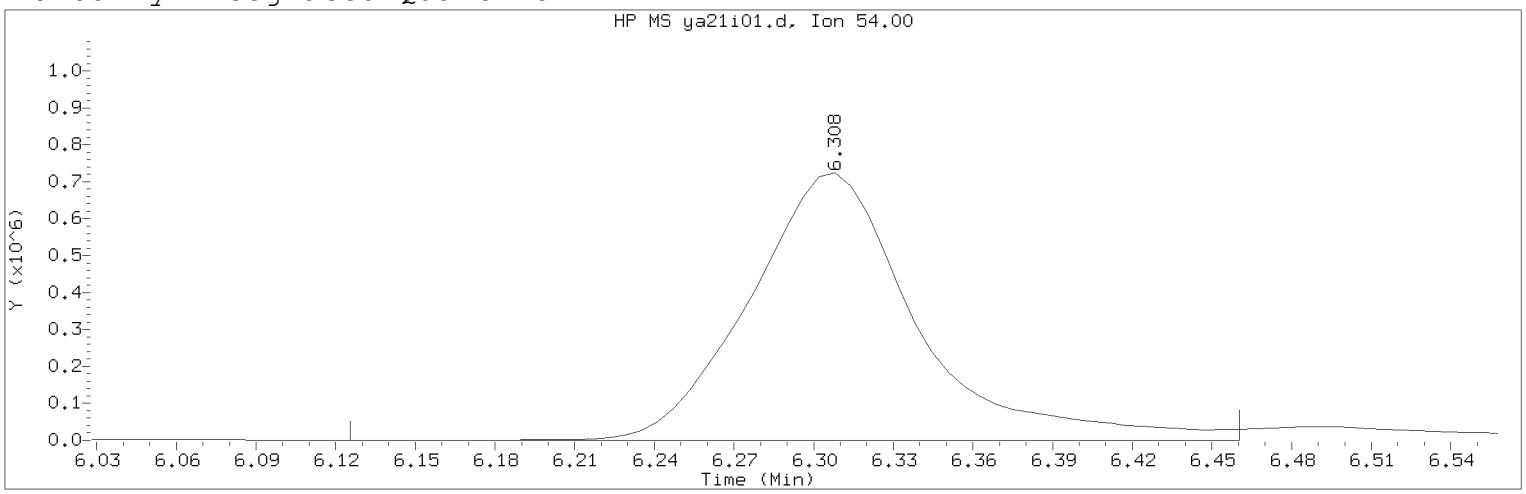
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area : 350149
On-column Amount (ng) : 250.0000
Integration start scan : 435 Integration stop scan: 514
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

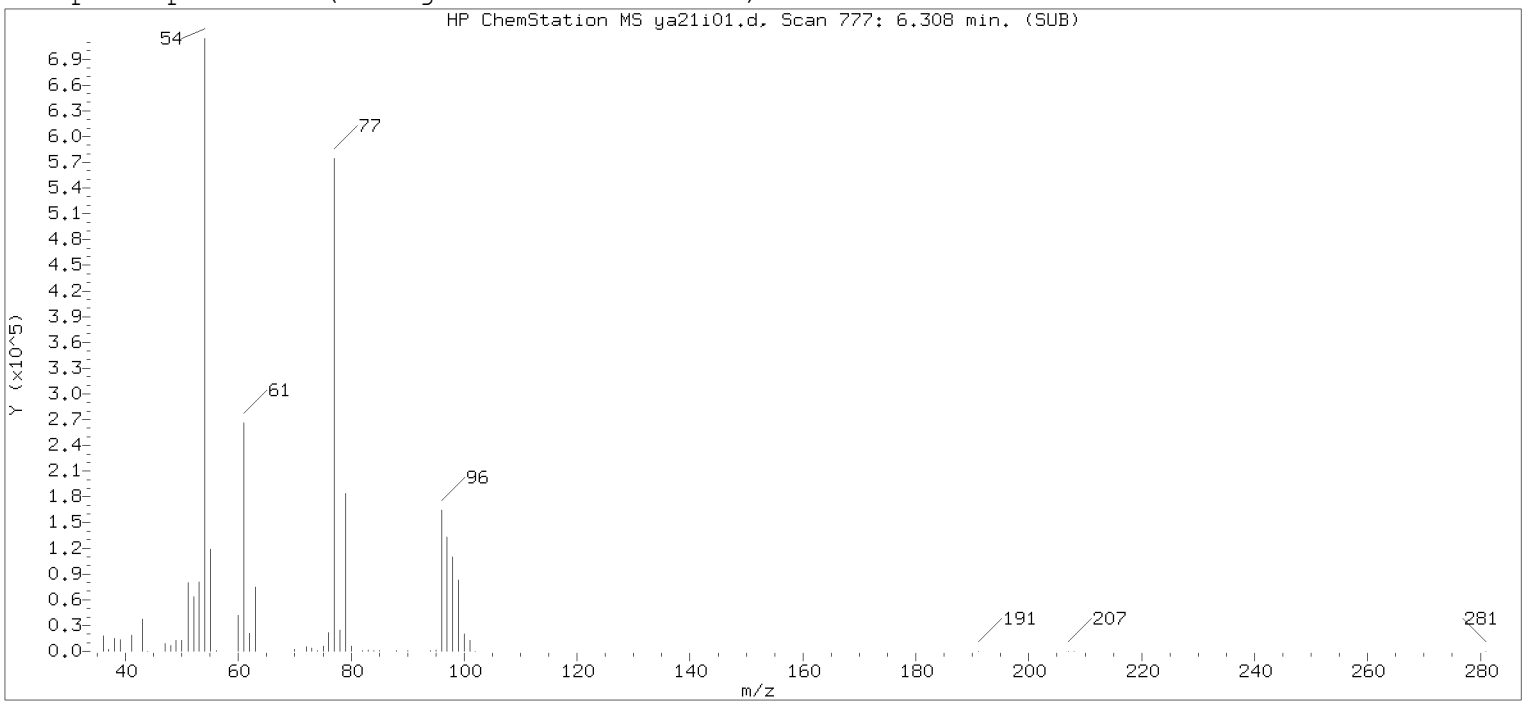
Compound Number : 47
Compound Name : Propionitrile
Scan Number : 777
Retention Time (minutes): 6.308
Quant Ion : 54.00
Area (flag) : 3176928M
On-Column Amount (ng) : 1500.0000
Integration start scan : 746 Integration stop scan: 801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

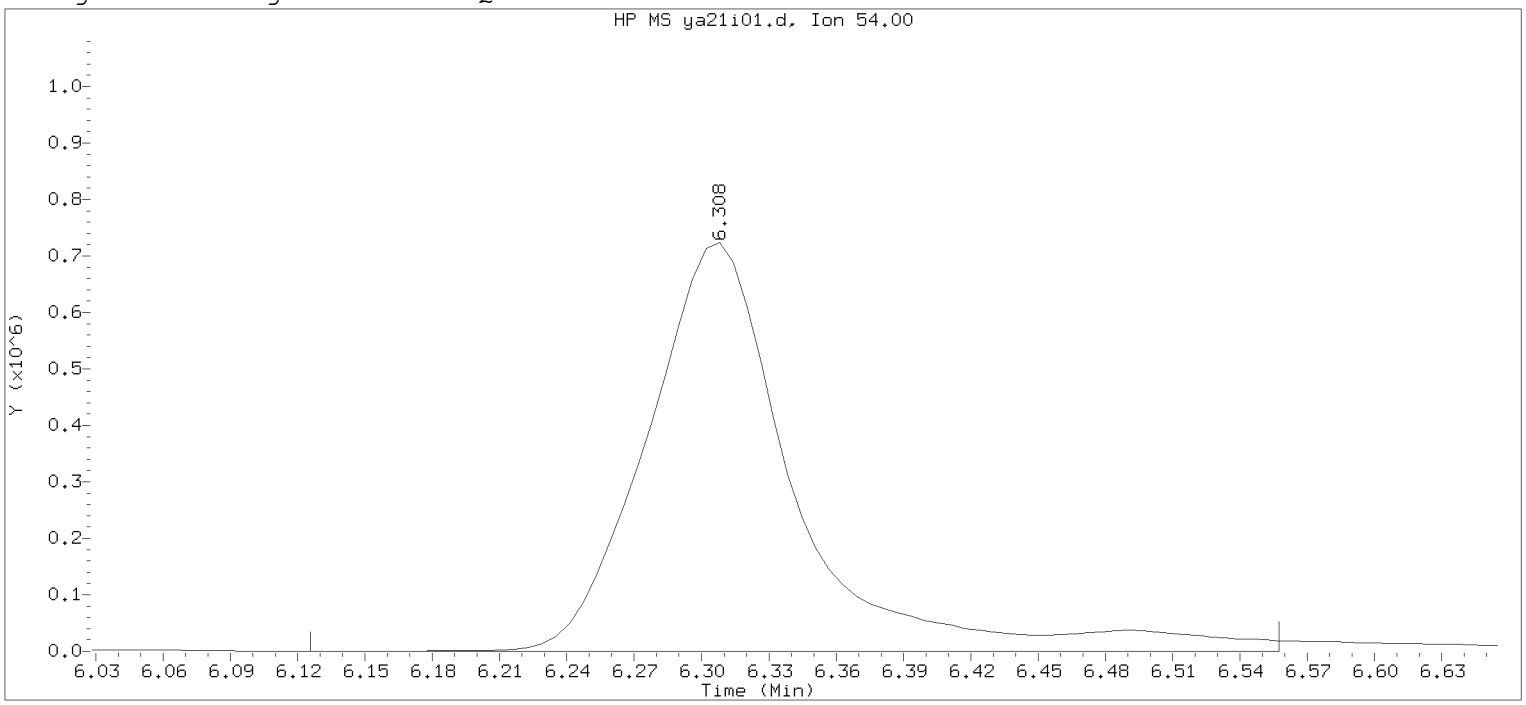
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

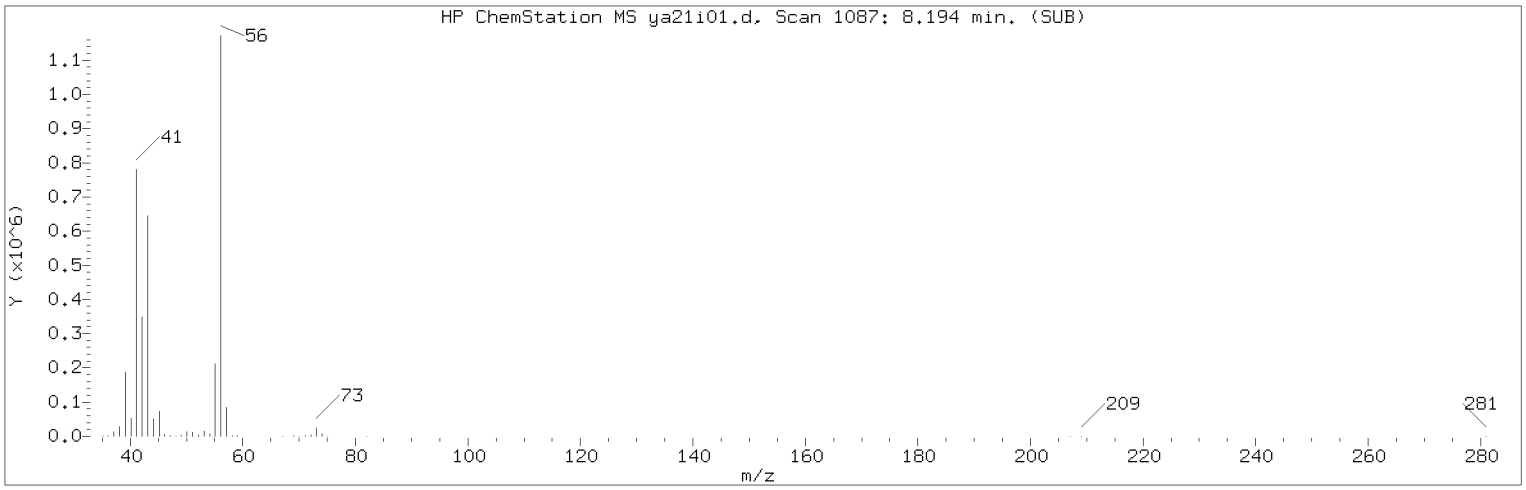
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

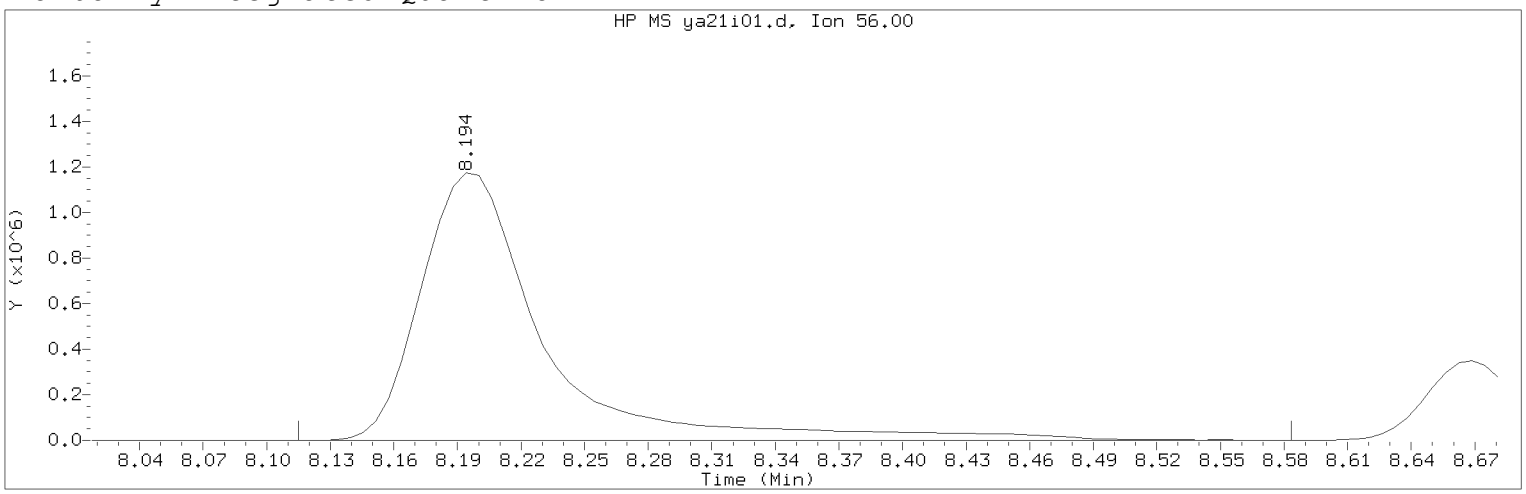
Compound Number : 47
Compound Name : Propionitrile
Scan Number : 777
Retention Time (minutes): 6.308
Quant Ion : 54.00
Area : 3342807
On-column Amount (ng) : 1554.0321
Integration start scan : 746 Integration stop scan: 817
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe01

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

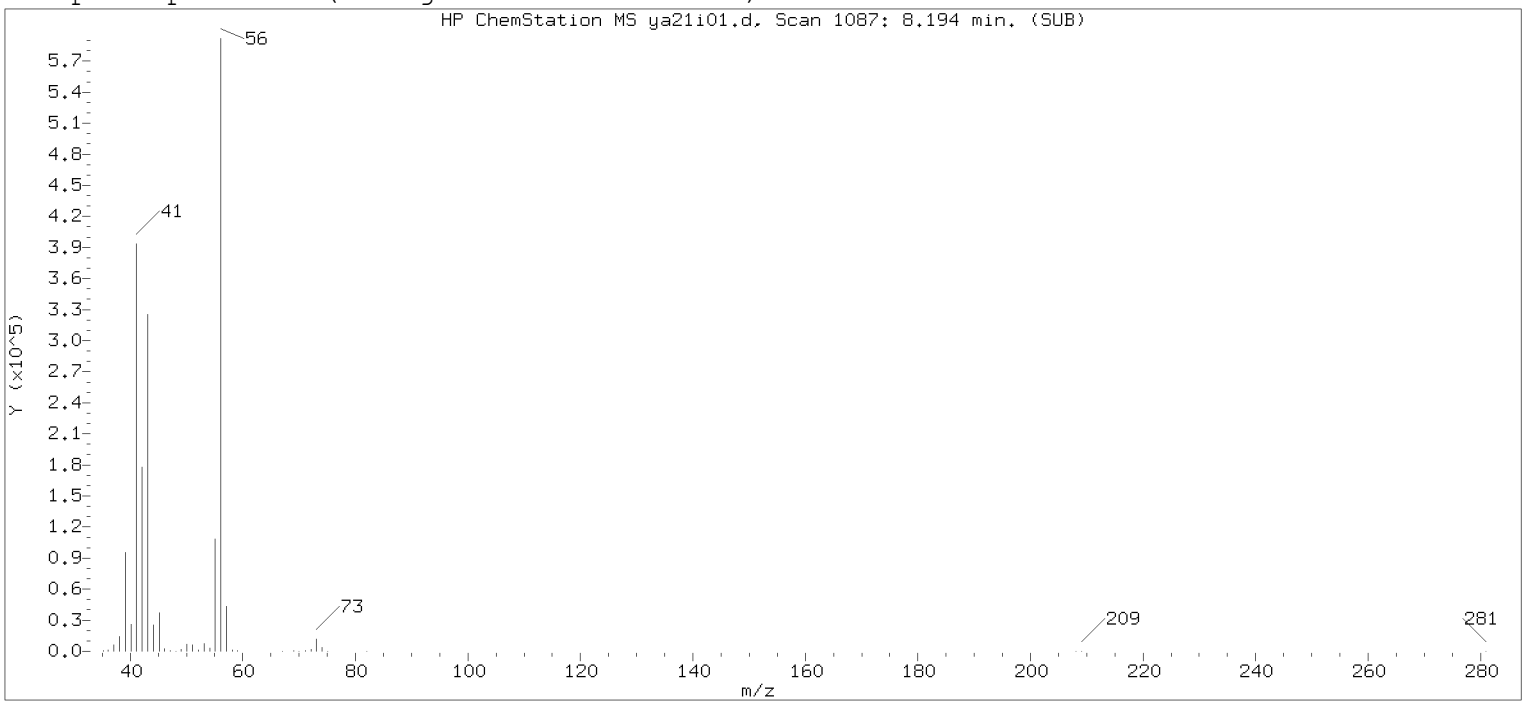
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1087
Retention Time (minutes): 8.194
Quant Ion : 56.00
Area (flag) : 4720547M
On-Column Amount (ng) : 7500.0000
Integration start scan : 1073 Integration stop scan: 1150
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

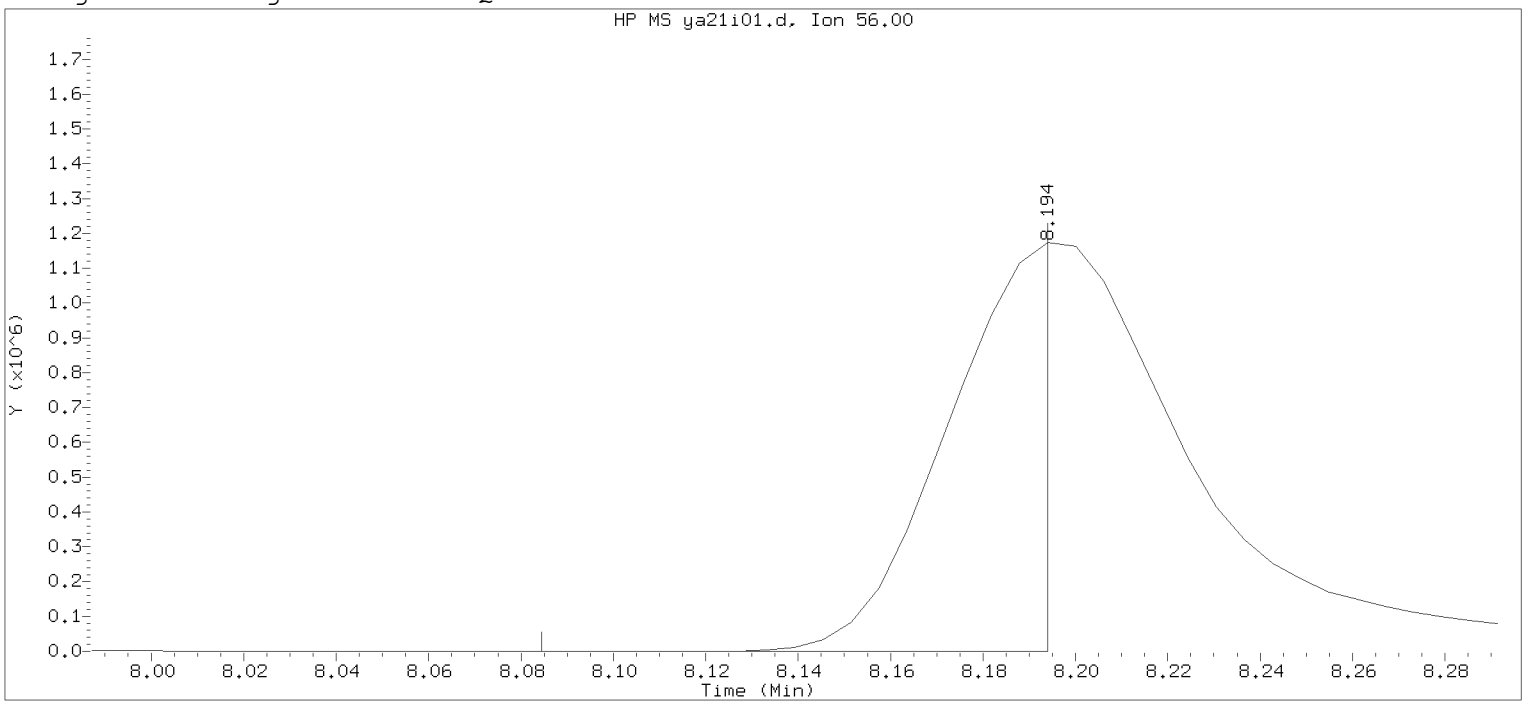
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

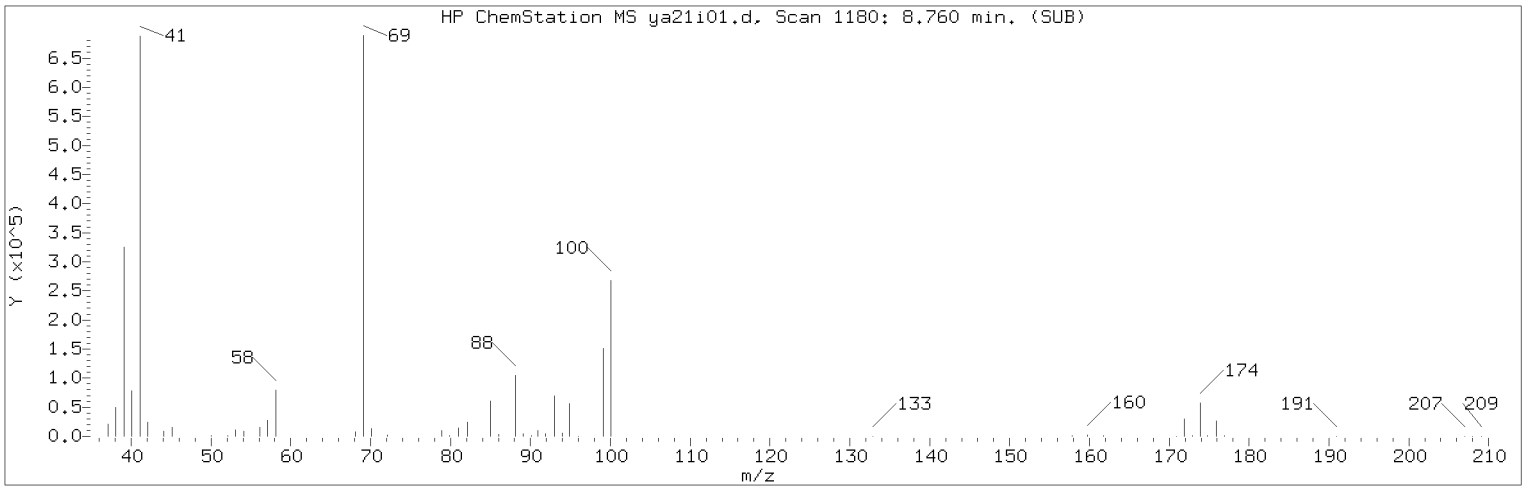
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

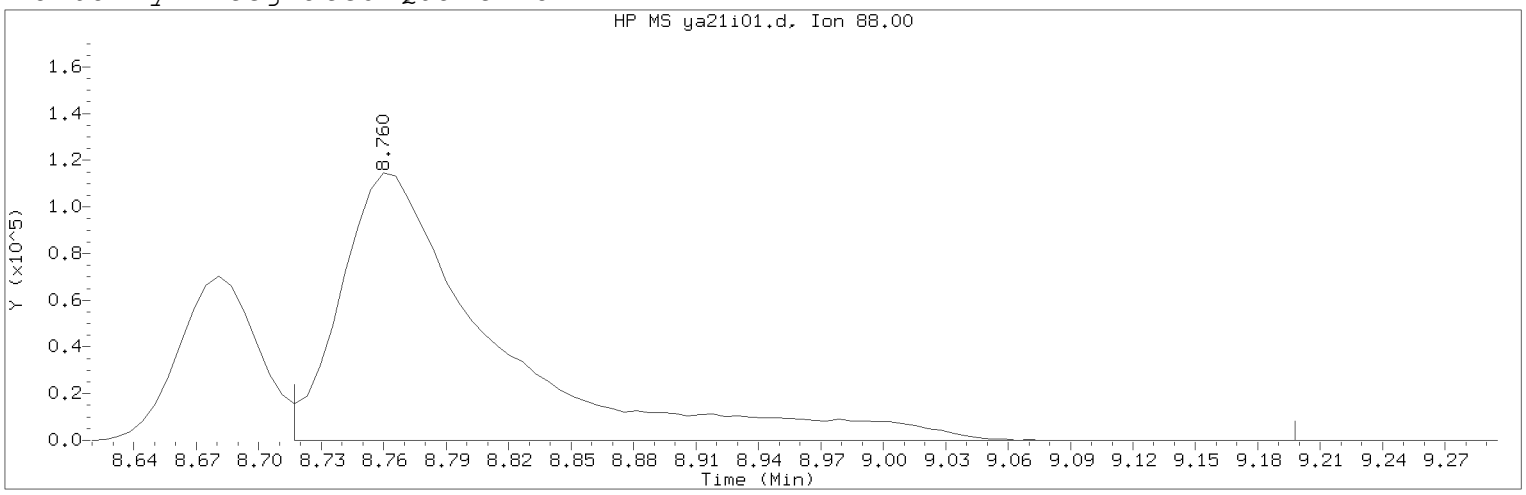
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1087
Retention Time (minutes): 8.194
Quant Ion : 56.00
Area : 1696220
On-column Amount (ng) : 3106.6950
Integration start scan : 1068 Integration stop scan: 1086
Y at integration start : 369 Y at integration end: 369

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

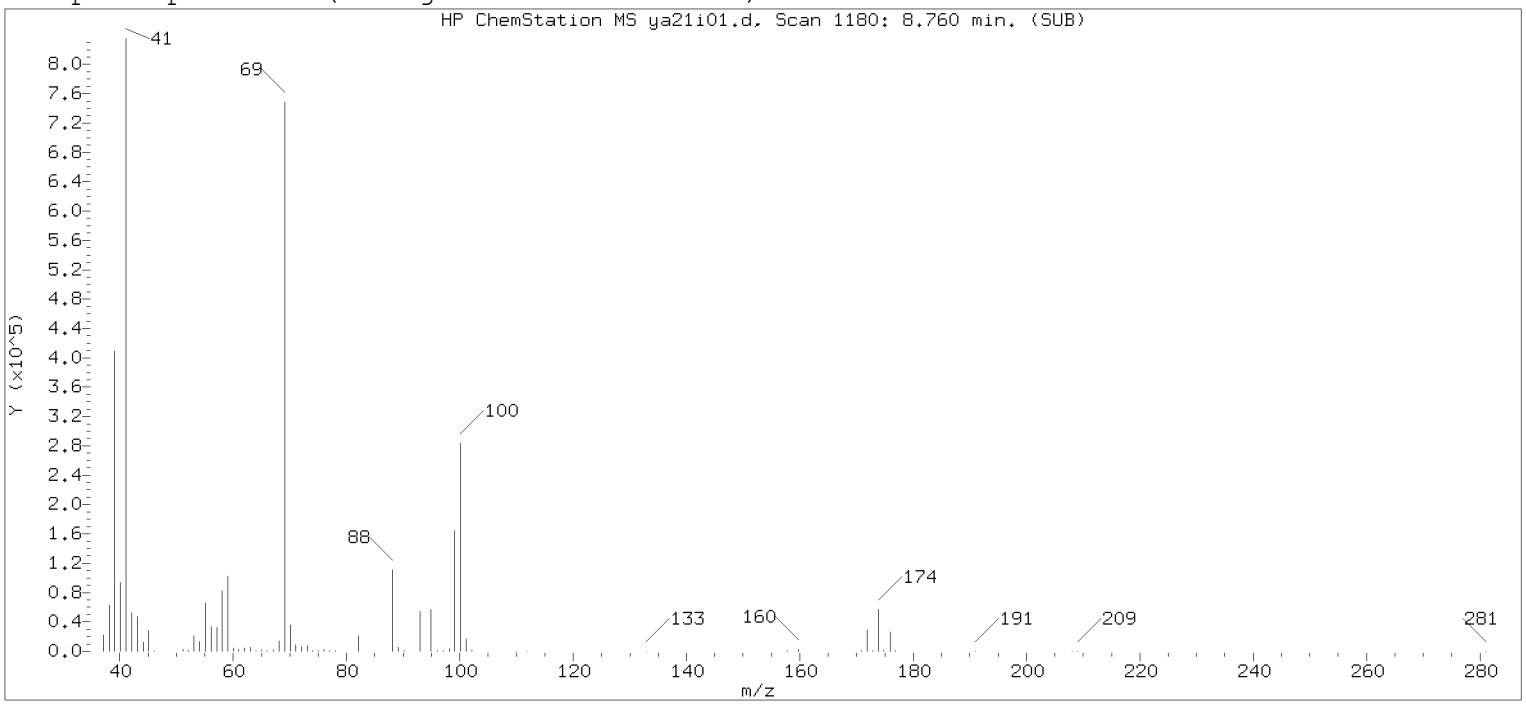
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 588988M
On-Column Amount (ng) : 3750.0000
Integration start scan : 1172 Integration stop scan: 1251
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

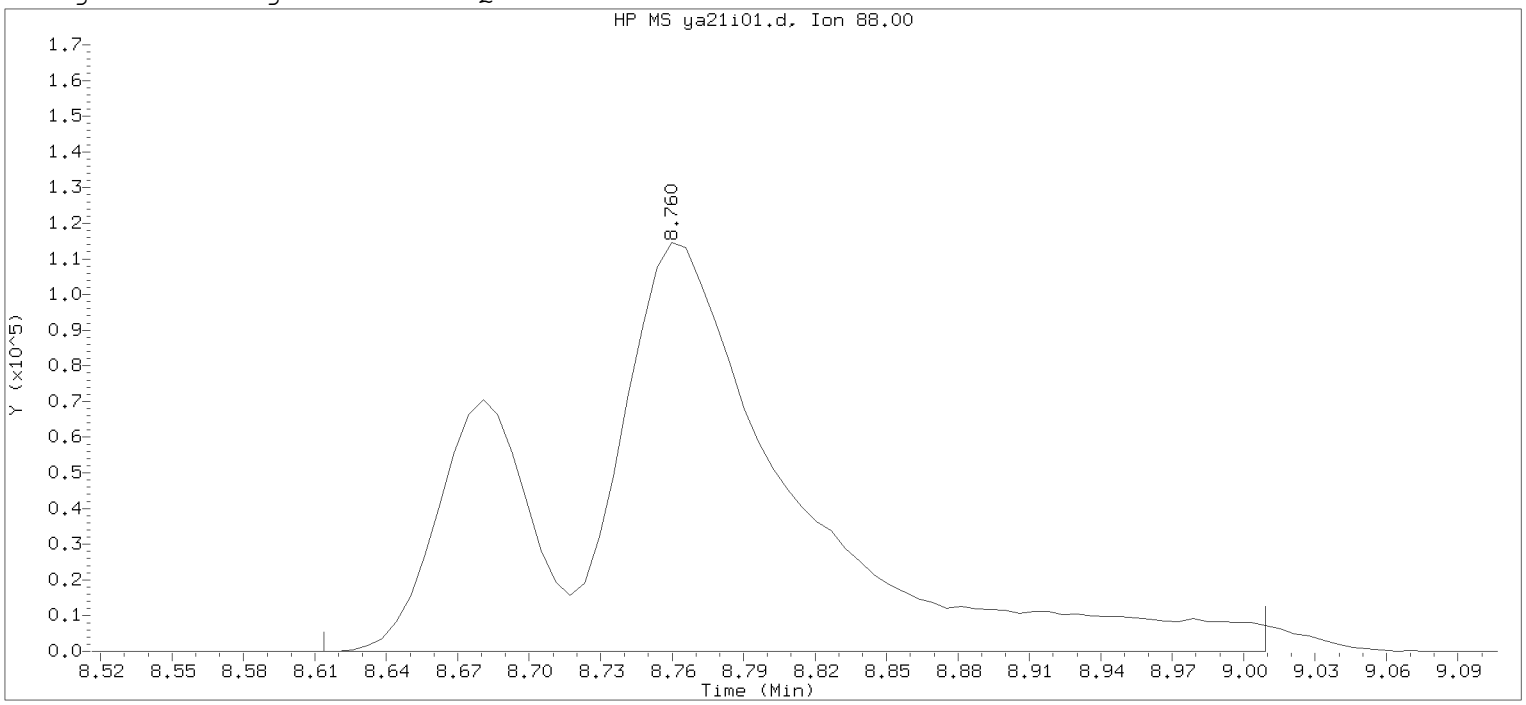
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

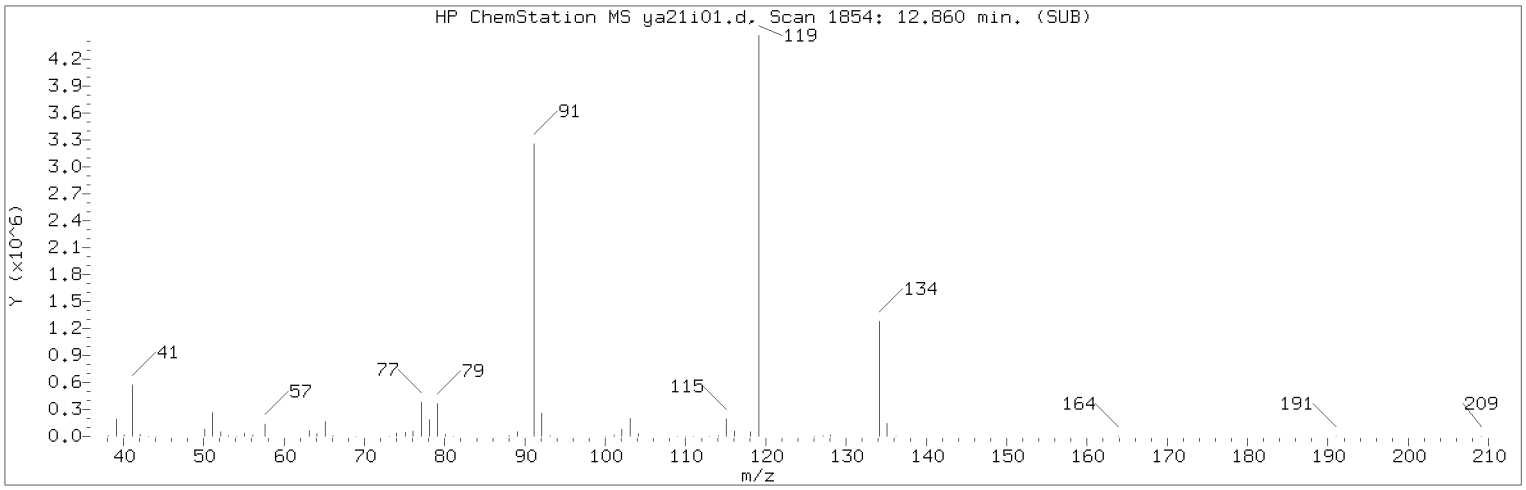
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

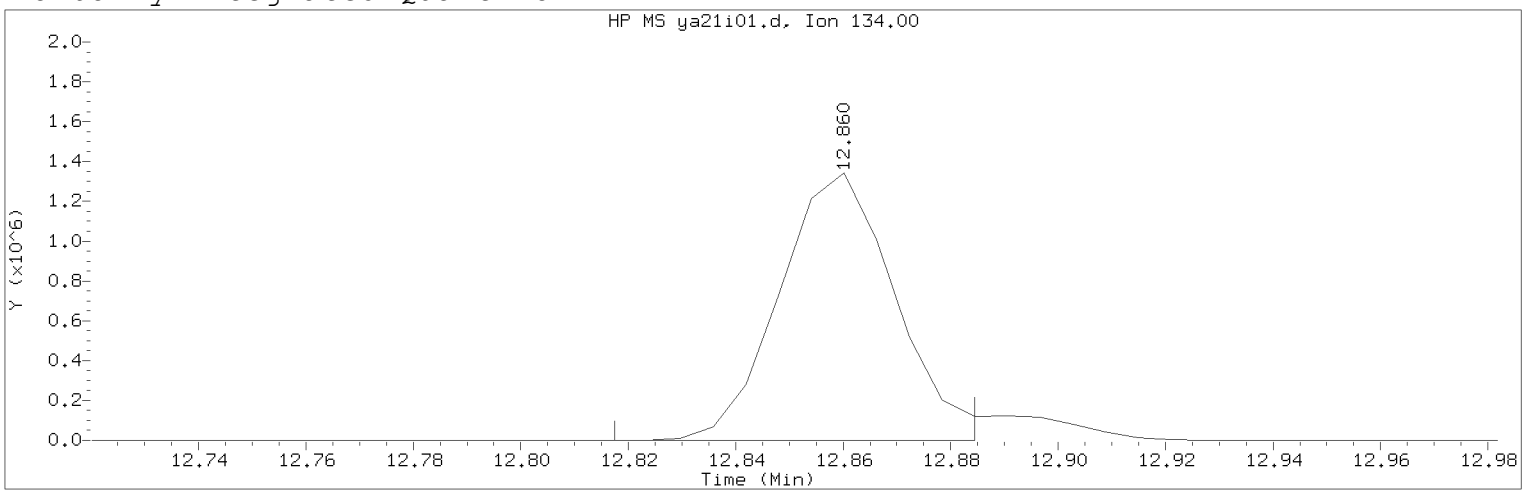
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area : 762298
On-column Amount (ng) : 4561.5709
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

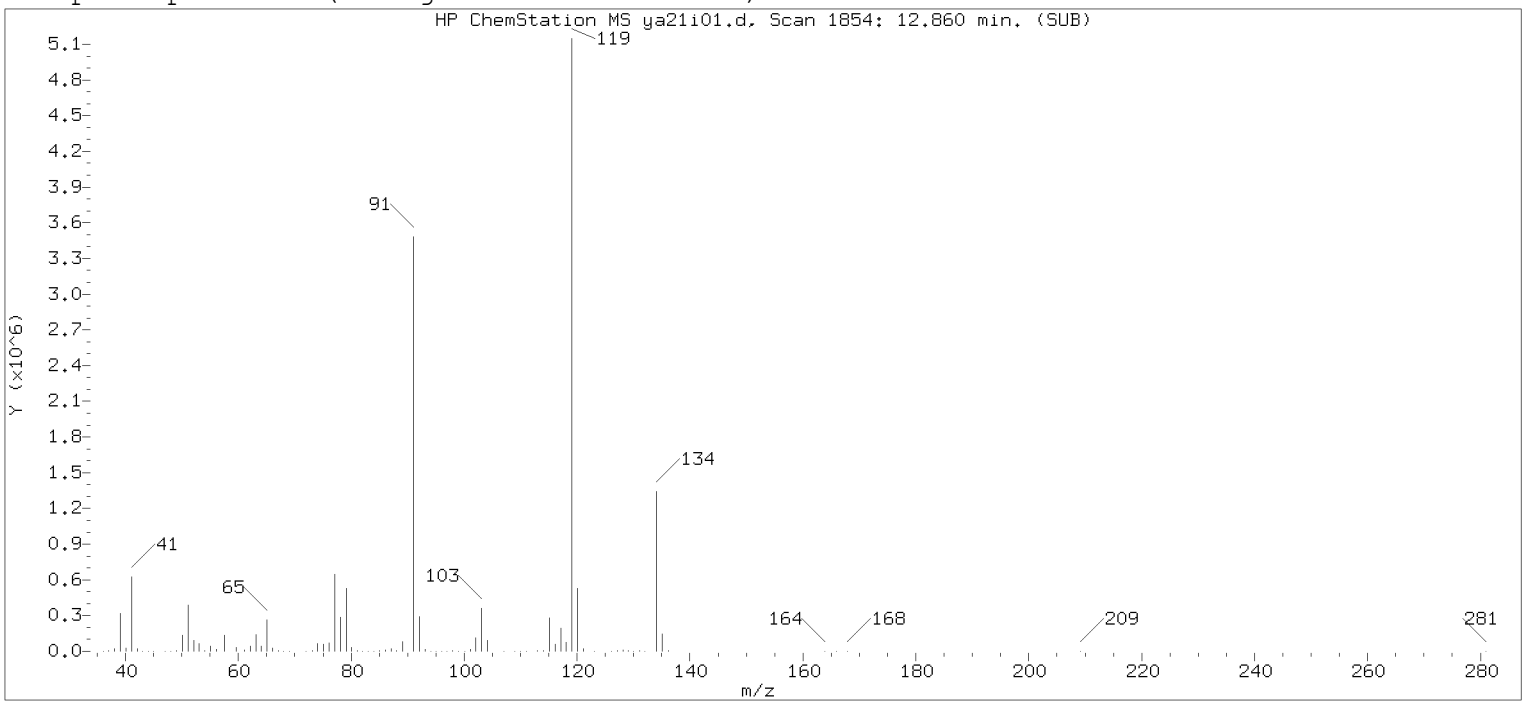
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1854
Retention Time (minutes): 12.860
Quant Ion : 134.00
Area (flag) : 2002497M
On-Column Amount (ng) : 300.0000
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

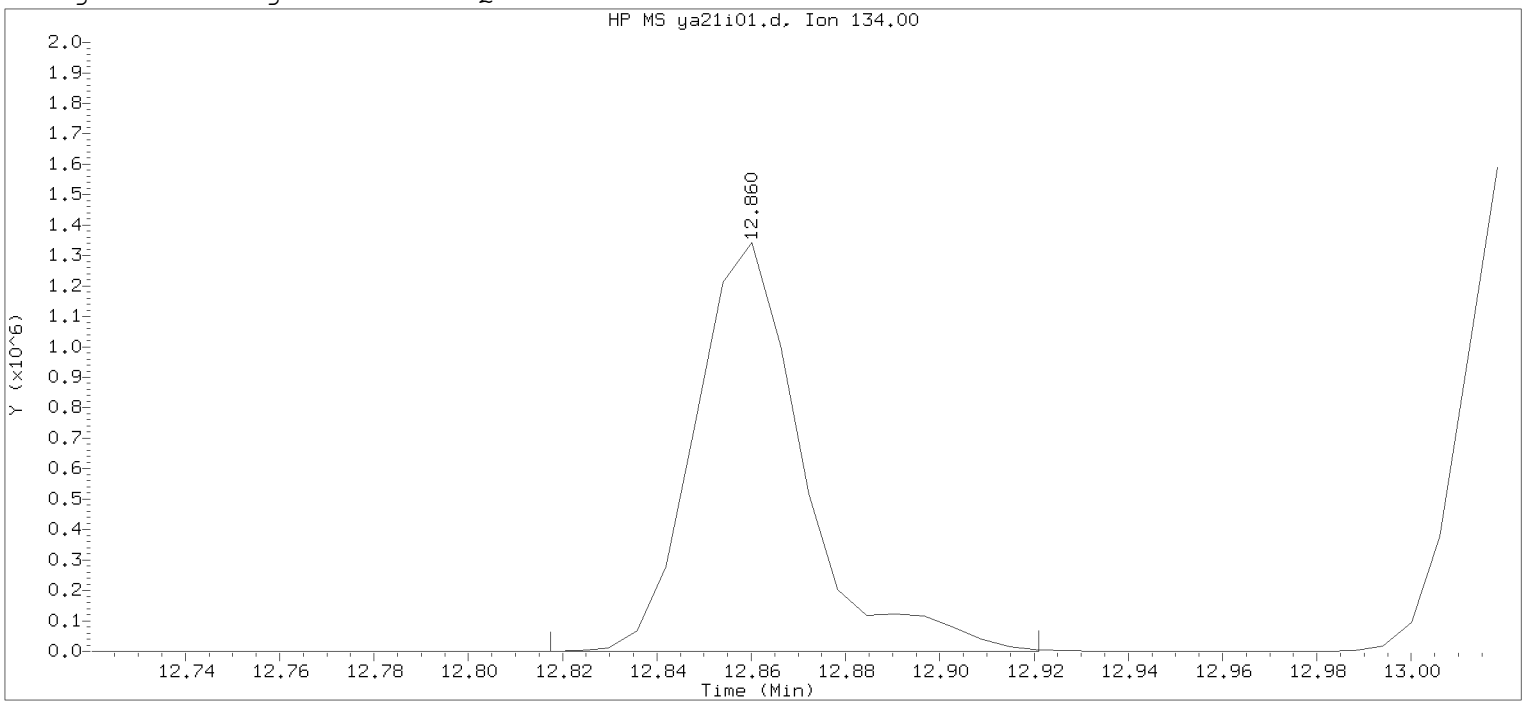
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



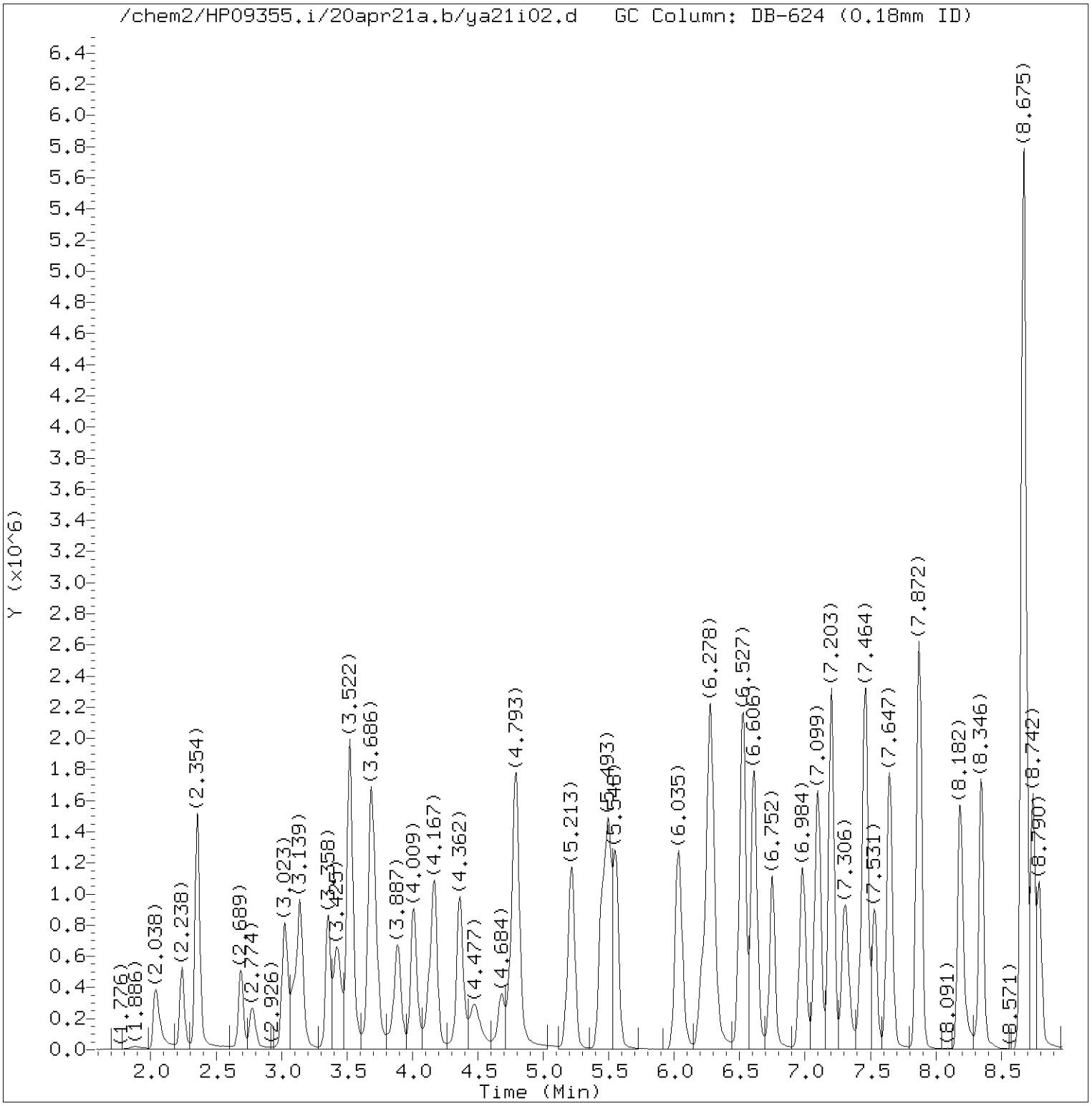
Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1854
Retention Time (minutes): 12.860
Quant Ion : 134.00
Area : 2139549
On-column Amount (ng) : 308.2635
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user id: jkh09052



Total Ion Chromatogram (TIC)

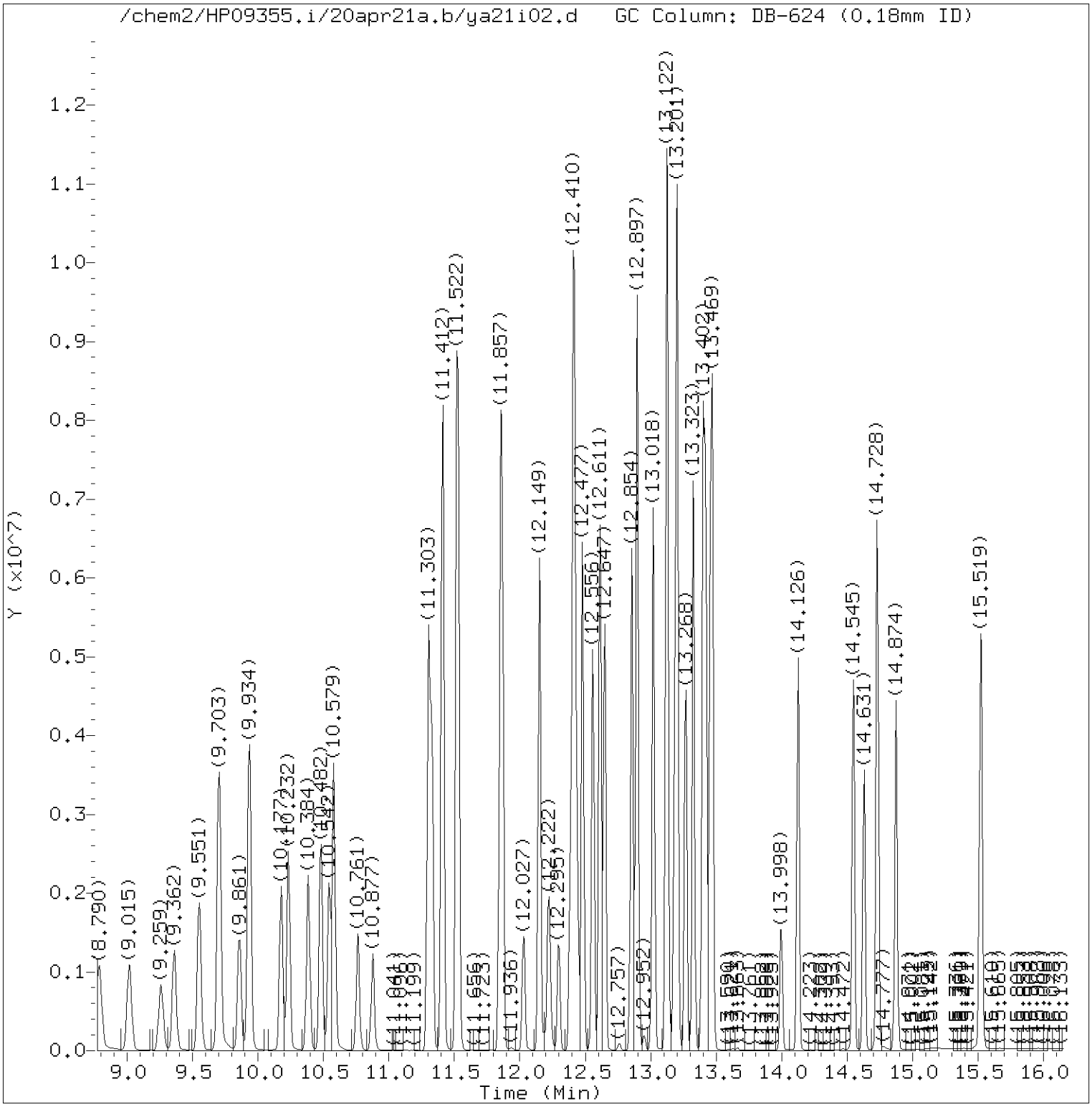
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.038	85	871843M	104.488
4) Chloromethane	(2)	2.238	50	792851	108.999
5) 1,3-Butadiene	(2)	2.354	39	651500	107.856
6) Vinyl Chloride	(2)	2.360	62	795553	108.945
8) Bromomethane	(2)	2.689	94	509105	109.281
9) Chloroethane	(2)	2.774	64	410801	107.714
10) Dichlorofluoromethane	(2)	3.023	67	1108569	105.428
12) Trichlorofluoromethane	(2)	3.096	101	888187	103.362
11) n-Pentane	(2)	3.139	43	972698	107.499
14) Ethyl ether	(2)	3.358	59	724767	106.692
15) Freon 123a	(2)	3.425	67	811507	103.518
16) Acrolein	(1)	3.522	56	3201292	1060.254
17) 1,1-Dichloroethene	(2)	3.680	96	647724	103.015
17) 1,1-Dichloroethene	(2)	3.680	63	320038	103.279
18) Acetone	(1)	3.686	58	301848	207.681
19) Freon 113	(2)	3.711	101	660719	102.339
21) 2-Propanol	(1)	3.857	45	556804	514.107
22) Methyl Iodide	(2)	3.887	142	1134031	102.196
23) Carbon Disulfide	(2)	4.009	76	2298651	102.803
27) Methyl Acetate	(2)	4.130	43	1015609	103.544
25) Allyl Chloride	(2)	4.167	41	1126229	104.305
29)*t-Butyl alcohol-d10	(1)	4.343	65	388401M	250.000
28) Methylene Chloride	(2)	4.362	84	761550	102.835
30) t-Butyl alcohol	(1)	4.477	59	959628	510.264
31) Acrylonitrile	(2)	4.678	53	570450	104.430
33) Methyl Tertiary Butyl Ether	(2)	4.775	73	2153361	104.192
32) trans-1,2-Dichloroethene	(2)	4.793	96	747582	102.960
34) n-Hexane	(2)	5.219	57	1190364	103.606
36) 1,1-Dichloroethane	(2)	5.444	63	1340313	103.473
38) di-Isopropyl ether	(2)	5.493	45	2482114	104.970
39) 2-Chloro-1,3-butadiene	(2)	5.554	53	1141123	102.825
40) Ethyl t-butyl ether	(2)	6.035	59	2187972	105.171
43) 1,2-Dichloroethene (Total)	(2)		96	1599617	206.074
44) 2-Butanone	(2)	6.223	43	1539611	210.439
42) cis-1,2-Dichloroethene	(2)	6.272	96	852035	103.114
45) 2,2-Dichloropropane	(2)	6.284	77	1015649	102.722
47) Propionitrile	(1)	6.302	54	1132718	512.202
48) Methacrylonitrile	(2)	6.527	67	1444658	259.816

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.606	128	412555	102.830
50) Tetrahydrofuran	(1)	6.619	71	441359	206.243
51) Chloroform	(2)	6.752	83	1284937	102.844
52)$Dibromofluoromethane	(2)	6.965	113	282528	49.712
52)$Dibromofluoromethane	(2)	6.965	111	289048	49.879
53) 1,1,1-Trichloroethane	(2)	6.984	97	1107000	101.838
54) Cyclohexane	(2)	7.099	56	1420379	103.537
54) Cyclohexane	(2)	7.099	84	1185508	103.111
54) Cyclohexane	(2)	7.099	69	437286	102.839
55) 1,1-Dichloropropene	(2)	7.203	75	1085319	102.913
56) Carbon Tetrachloride	(2)	7.203	117	955901	101.326
58) Isobutyl Alcohol	(1)	7.306	41	876388	1283.033
57)$1,2-Dichloroethane-d4	(2)	7.428	102	72869	49.770
57)$1,2-Dichloroethane-d4	(2)	7.428	65	328108	49.784
57)$1,2-Dichloroethane-d4	(2)	7.428	104	47057	50.098
60) Benzene	(2)	7.464	78	3205085	103.847
61) 1,2-Dichloroethane	(2)	7.531	62	1007394M	102.008
61) 1,2-Dichloroethane	(2)	7.537	98	100477	101.813
65) t-Amyl methyl ether	(2)	7.647	73	2187346	105.681
66)*Fluorobenzene	(2)	7.866	96	1242825	50.000
67) n-Heptane	(2)	7.878	43	1260112	103.580
69) n-Butanol	(1)	8.188	56	1740853M	2603.143
71) Trichloroethene	(2)	8.346	95	811585	101.920
72) Methylcyclohexane	(2)	8.663	83	1469758	105.200
72) Methylcyclohexane	(2)	8.663	98	651769	104.555
73) 1,2-Dichloropropane	(2)	8.675	63	841648	105.350
76) Methyl Methacrylate	(2)	8.742	69	888565	101.000
75) 1,4-Dioxane	(1)	8.754	88	215840M	1297.628
74) Dibromomethane	(2)	8.790	93	534603	101.683
78) Bromodichloromethane	(2)	9.015	83	1008362	101.182
79) 2-Nitropropane	(2)	9.259	41	718100	206.807
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	715293	102.584
81) cis-1,3-Dichloropropene	(2)	9.551	75	1382534	102.494
82) 4-Methyl-2-pentanone	(2)	9.703	43	3051806	214.440
83)$Toluene-d8	(3)	9.861	98	1198143	49.880
83)$Toluene-d8	(3)	9.855	100	771906	49.841
88) Toluene	(3)	9.934	92	2026786	103.729
90) 1,3-Dichloropropene (total)	(3)		100	2674789	205.094

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	1292255	102.600
91) Ethyl Methacrylate	(3)	10.232	69	1476629	103.205
92) 1,1,2-Trichloroethane	(3)	10.384	97	808898	102.844
93) Tetrachloroethene	(3)	10.482	166	840598	102.704
94) 1,3-Dichloropropane	(3)	10.542	76	1369356	103.558
96) 2-Hexanone	(3)	10.579	43	2421348	215.732
97) Dibromochloromethane	(3)	10.761	129	861019	100.628
99) 1,2-Dibromoethane	(3)	10.877	107	893937	101.902
100)*Chlorobenzene-d5	(3)	11.303	117	921611	50.000
101) 1-Chlorohexane	(3)	11.303	91	1130660	103.895
102) Chlorobenzene	(3)	11.327	112	2270648	104.404
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	778695	103.499
104) Ethylbenzene	(3)	11.412	91	3953011	107.529
106) m+p-Xylene	(3)	11.522	106	3125964	214.048
108) Xylene (Total)	(3)		106	4656566	319.974
107) o-Xylene	(3)	11.850	106	1530602	105.926
109) Styrene	(3)	11.869	104	2623011	106.129
110) Bromoform	(3)	12.033	173	657653	99.260
111) Isopropylbenzene	(3)	12.149	105	3919914	107.945
112) Cyclohexanone	(1)	12.222	55	874577	1324.236
114)$4-Bromofluorobenzene	(3)	12.295	95	455061	49.924
114)$4-Bromofluorobenzene	(3)	12.301	174	350168	49.789
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	1397998	104.893
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	1145228	268.755
115) Bromobenzene	(4)	12.416	156	990855	105.190
117) 1,2,3-Trichloropropane	(4)	12.434	110	442369	103.882
119) n-Propylbenzene	(4)	12.477	91	4645891	110.774
120) 2-Chlorotoluene	(4)	12.556	126	953157	103.997
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	3406748	107.083
121) 4-Chlorotoluene	(4)	12.647	126	1003554	104.084
124) tert-Butylbenzene	(4)	12.854	134	715748M	104.524
125) Pentachloroethane	(4)	12.891	167	553279	101.442
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	3597055	107.949
127) sec-Butylbenzene	(4)	13.018	105	4377698	110.020
129) 1,3-Dichlorobenzene	(4)	13.122	146	1901645	106.819
130) p-Isopropyltoluene	(4)	13.128	119	3746632	109.330
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	487855	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	1953039	106.493

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	3422248	107.966
135) Benzyl Chloride	(4)	13.268	91	3028890	105.340
136) 1,3-Diethylbenzene	(4)	13.323	119	2232962	106.381
141) Diethylbenzene (total)	(4)		100	6439398	320.220
137) 1,4-Diethylbenzene	(4)	13.402	119	2352828	107.375
139) n-Butylbenzene	(4)	13.420	92	1965625	106.766
138) 1,2-Dichlorobenzene	(4)	13.456	146	1834061	105.273
140) 1,2-Diethylbenzene	(4)	13.469	119	1853608	106.463
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	366569	101.193
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	1378529	102.363
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	1303550	102.519
147) Hexachlorobutadiene	(4)	14.631	225	576888	101.489
148) Naphthalene	(4)	14.728	128	4834509	111.702
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	1251933	103.166
150) 2-Methylnaphthalene	(4)	15.519	142	2735396	109.807

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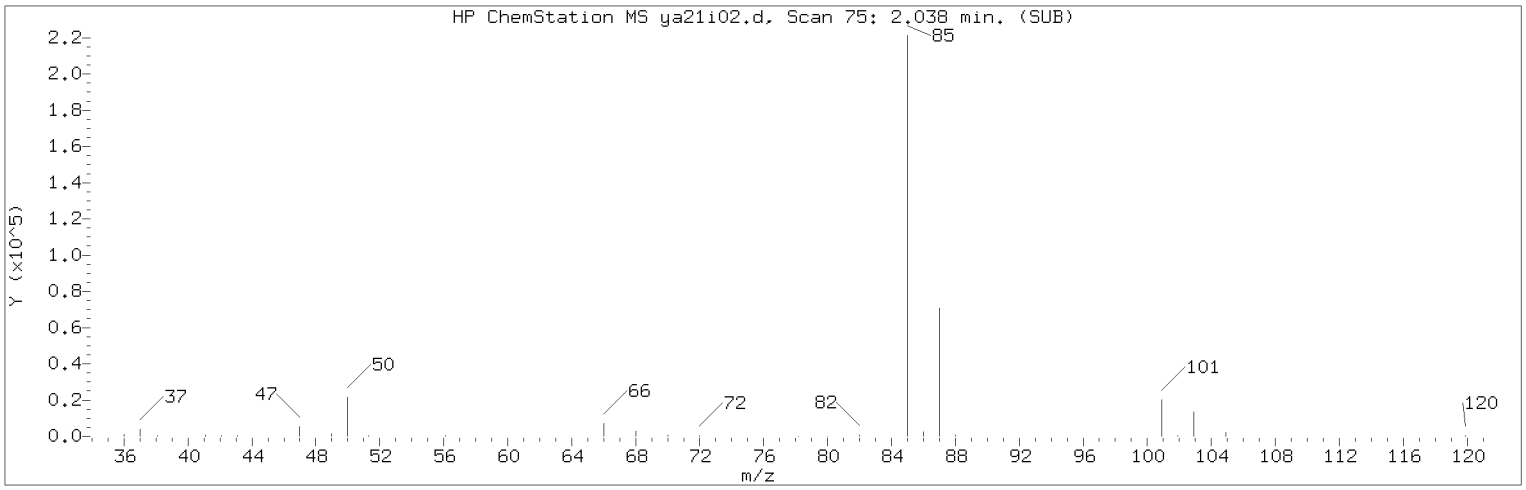
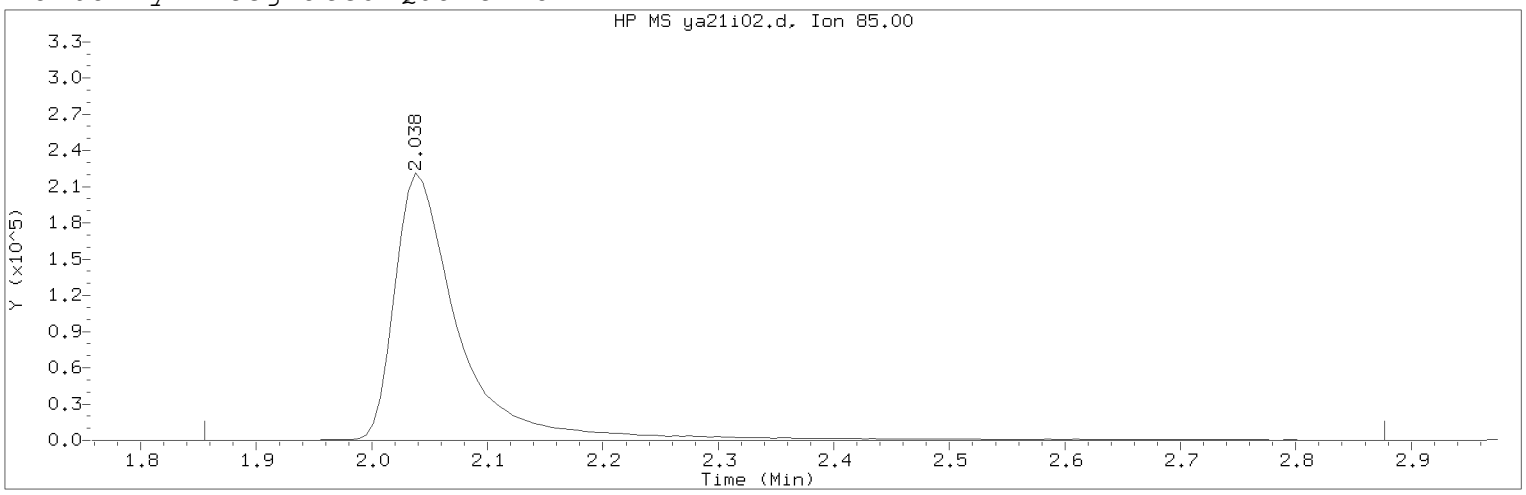
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

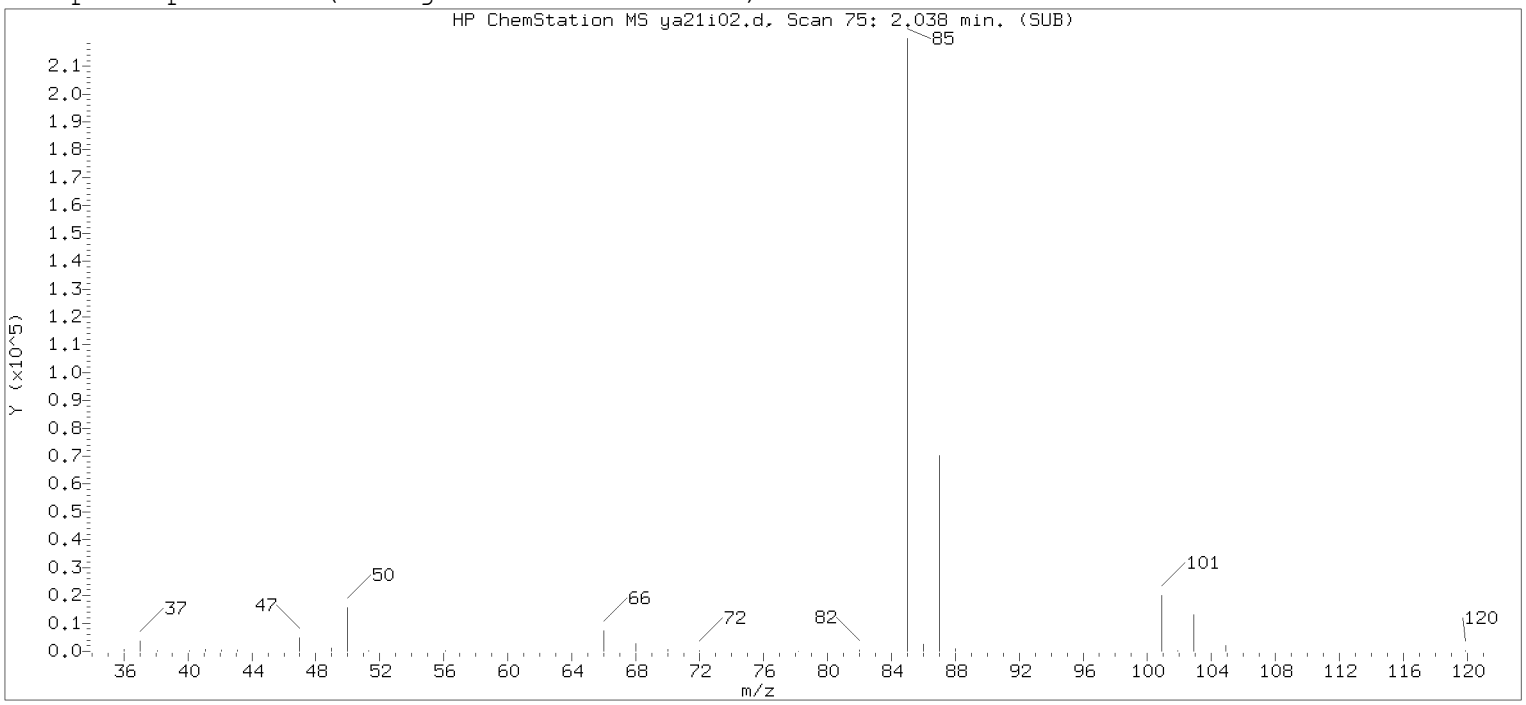
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 75
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area (flag) : 871843M
On-Column Amount (ng) : 104.4878
Integration start scan : 44 Integration stop scan: 212
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

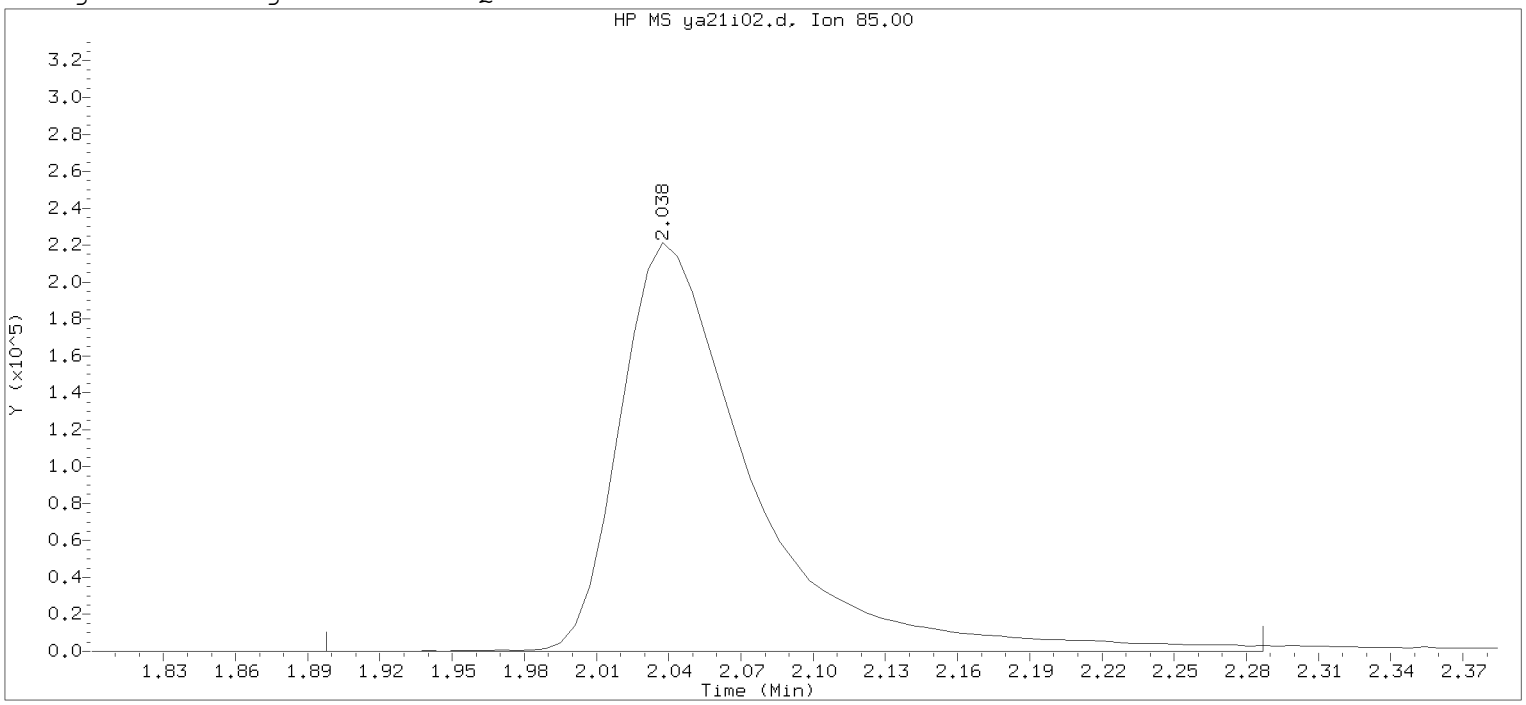
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

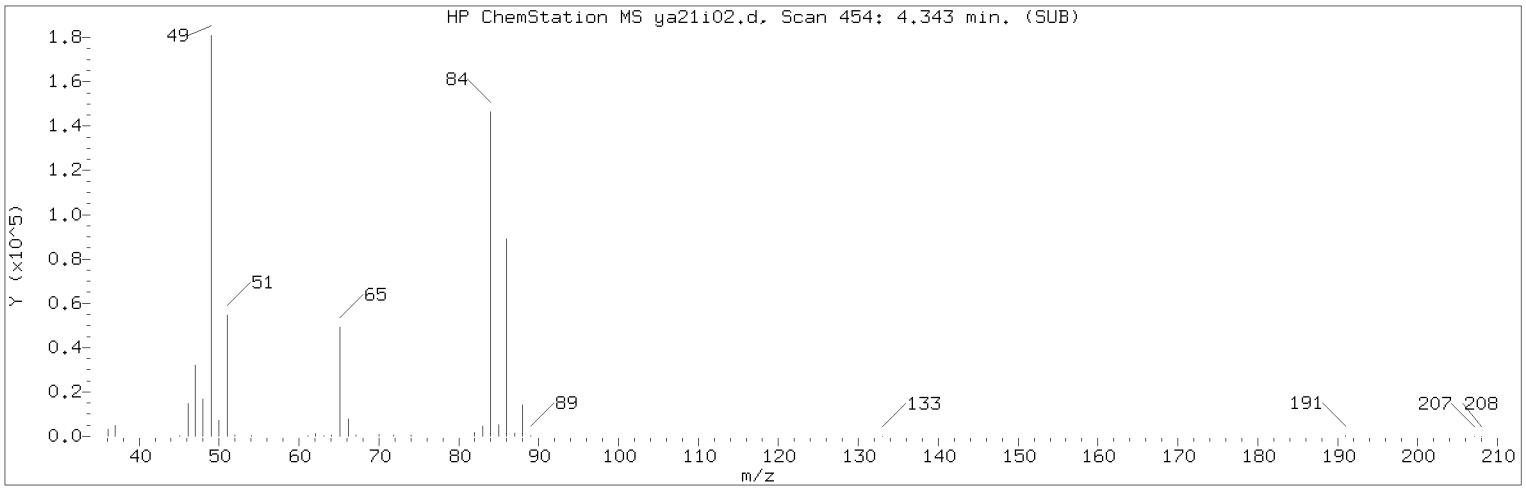
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

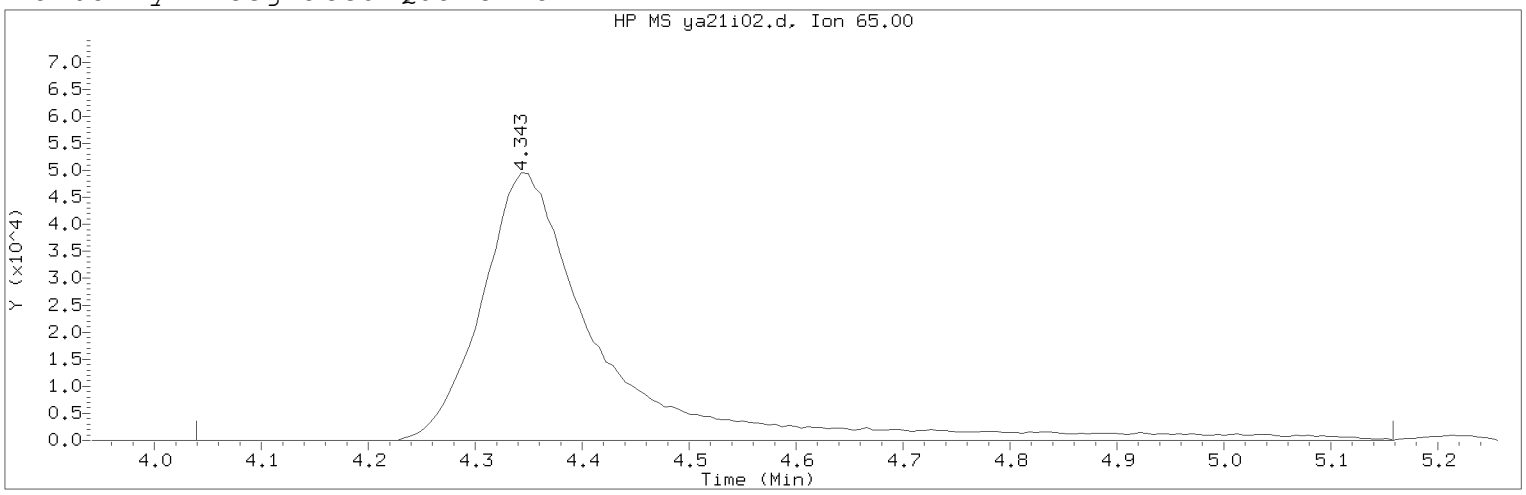
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 75
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area : 839923
On-column Amount (ng) : 105.0581
Integration start scan : 51 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

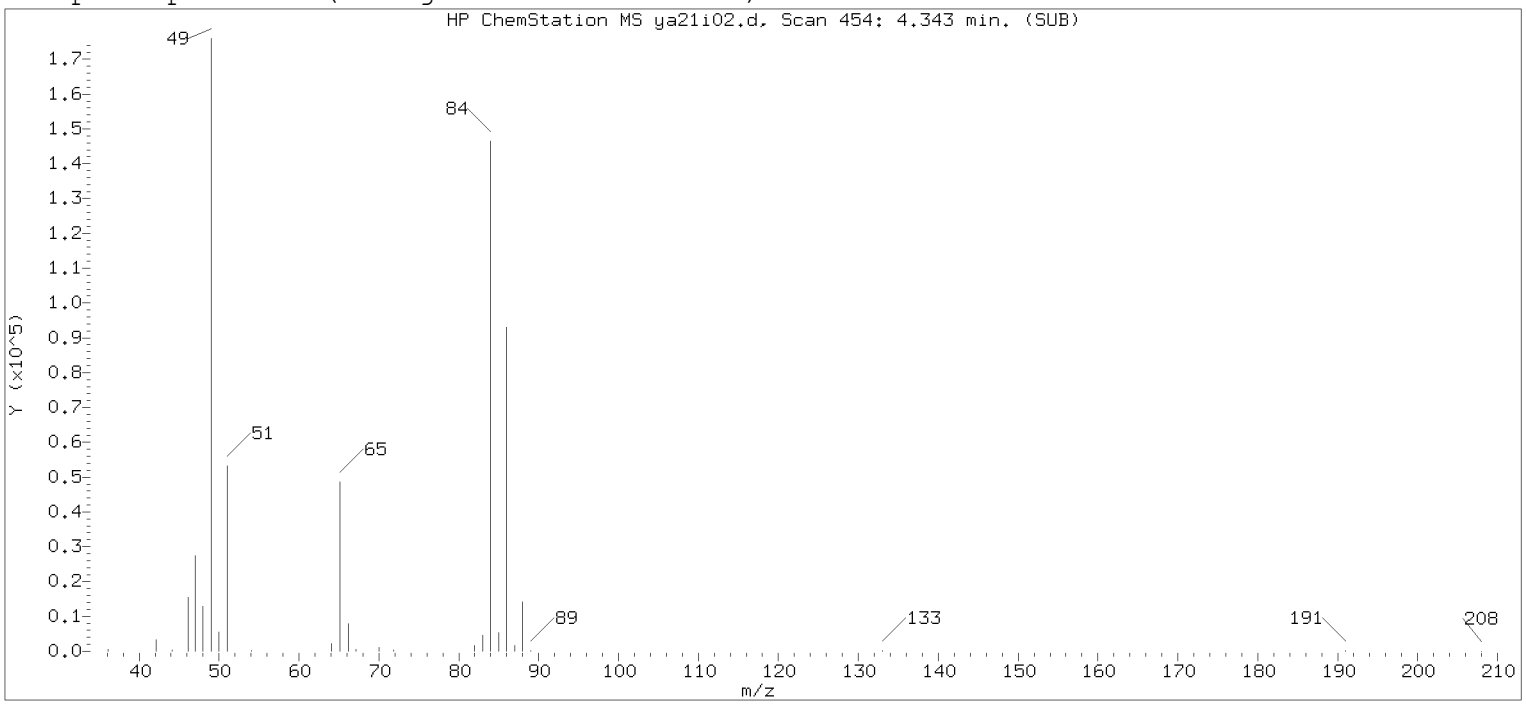
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 454
Retention Time (minutes): 4.343
Quant Ion : 65.00
Area (flag) : 388401M
On-Column Amount (ng) : 250.0000
Integration start scan : 403 Integration stop scan: 587
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

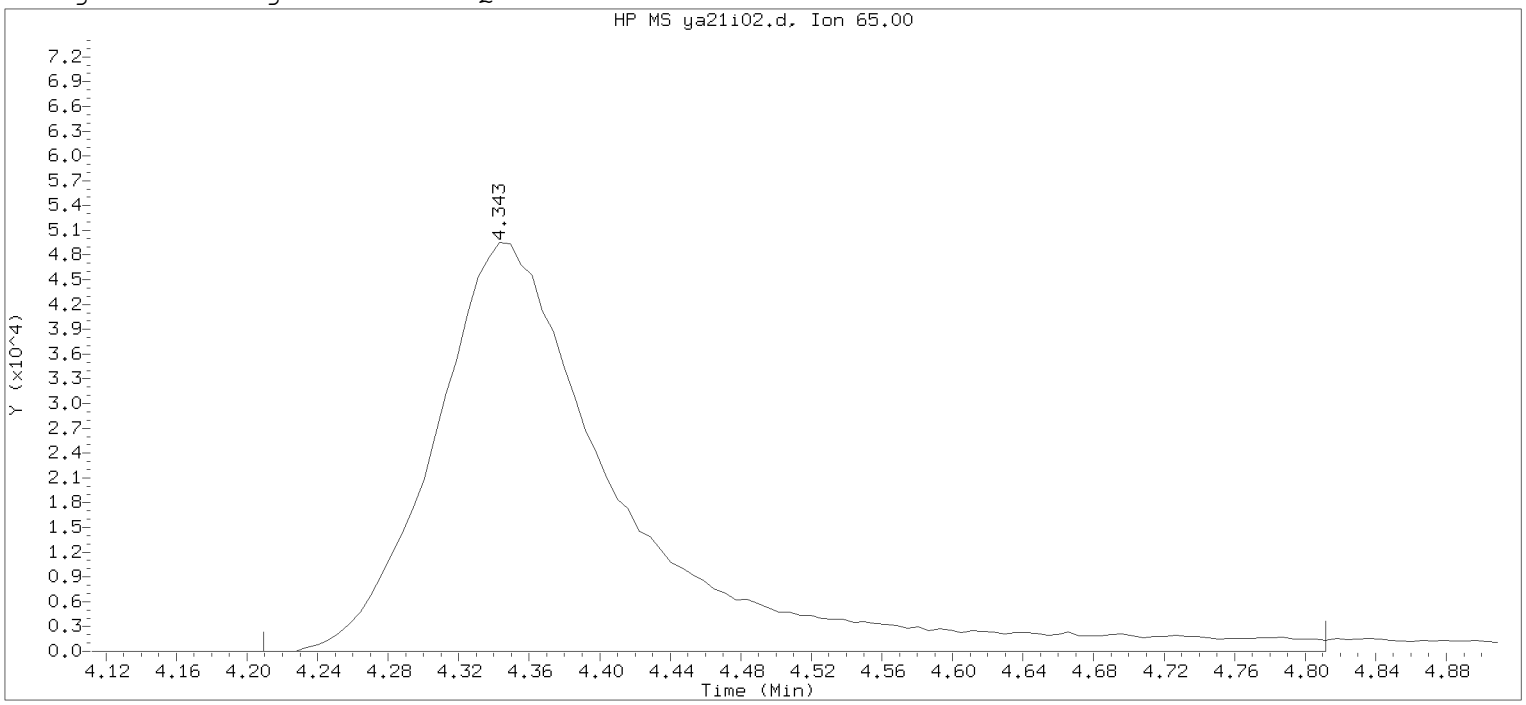
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

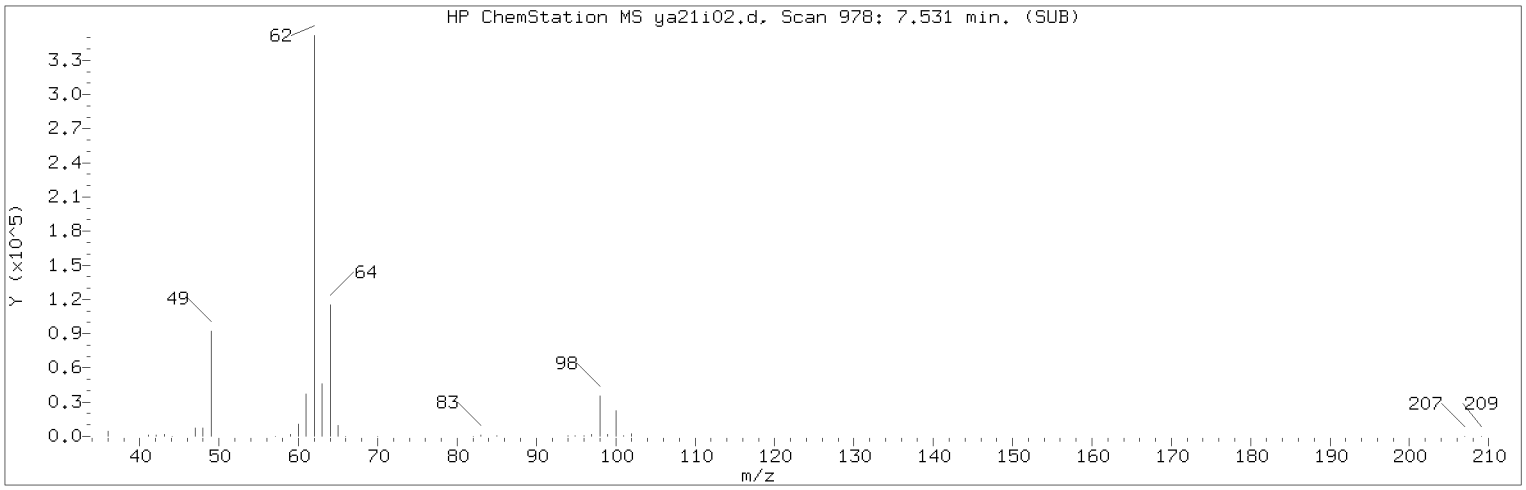
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

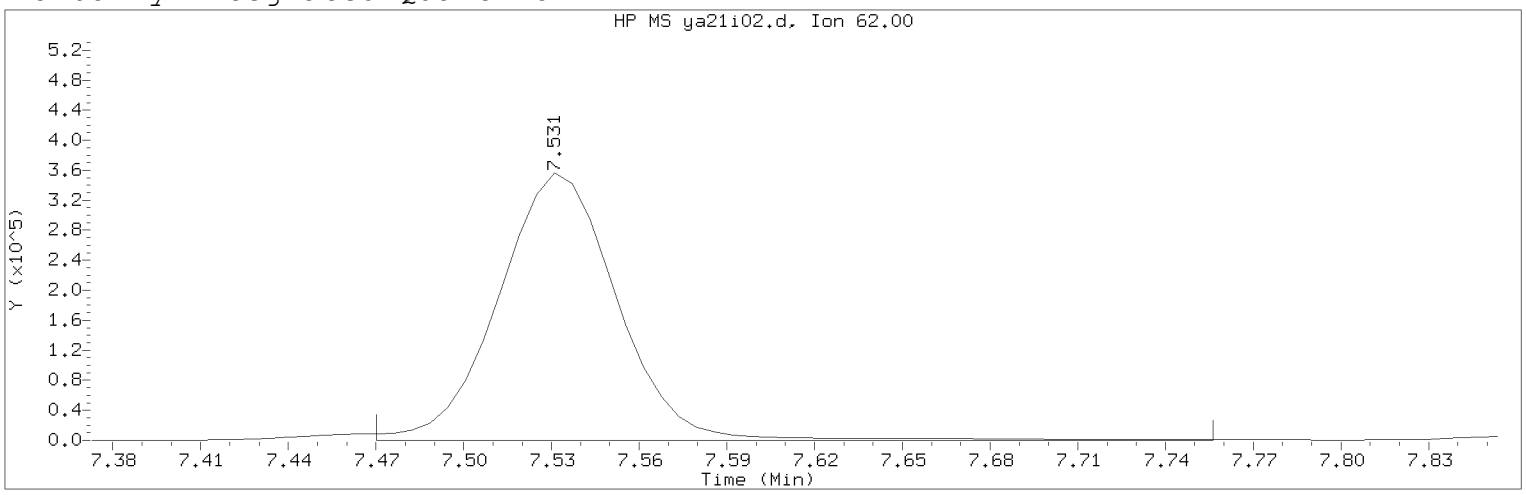
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 454
Retention Time (minutes): 4.343
Quant Ion : 65.00
Area : 367456
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 530
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

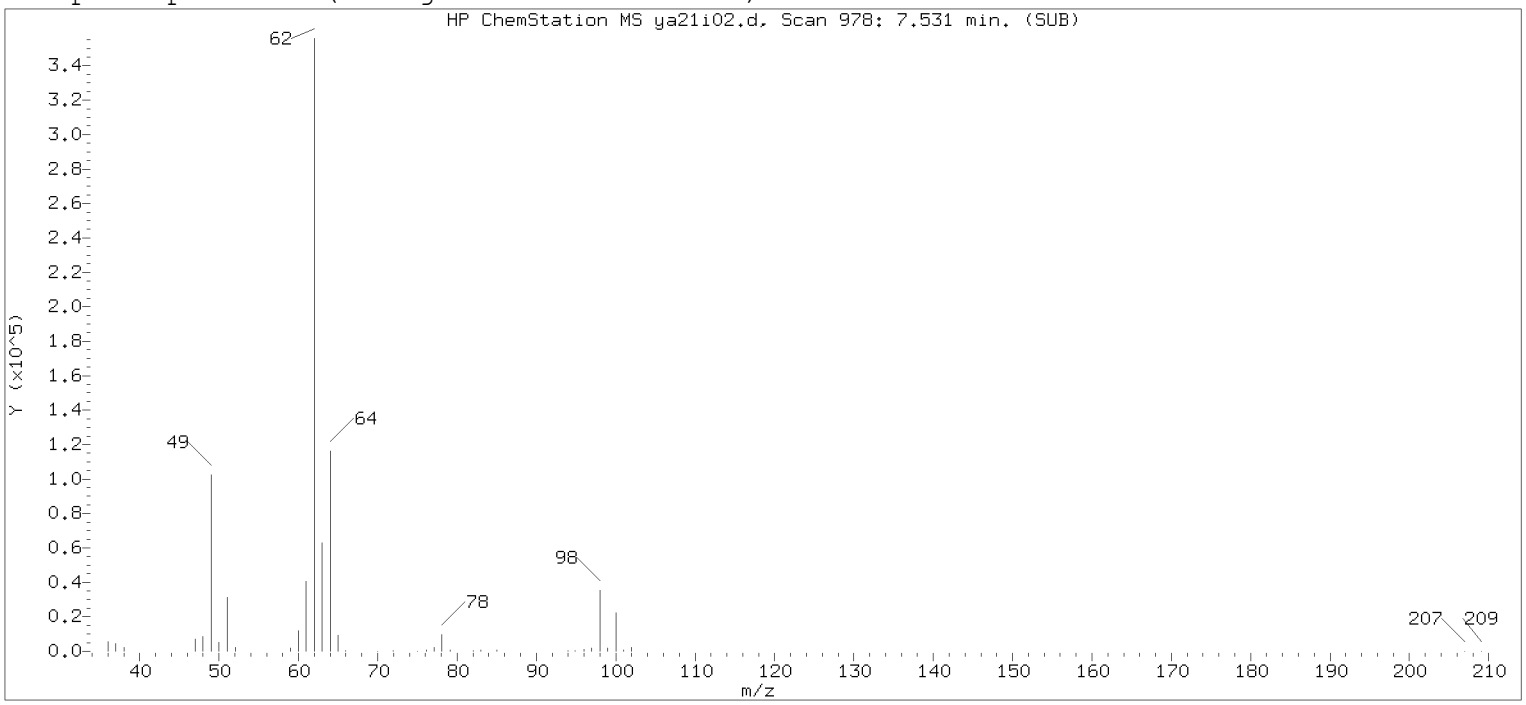
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 1007394M
On-Column Amount (ng) : 102.0083
Integration start scan : 967 Integration stop scan: 1014
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

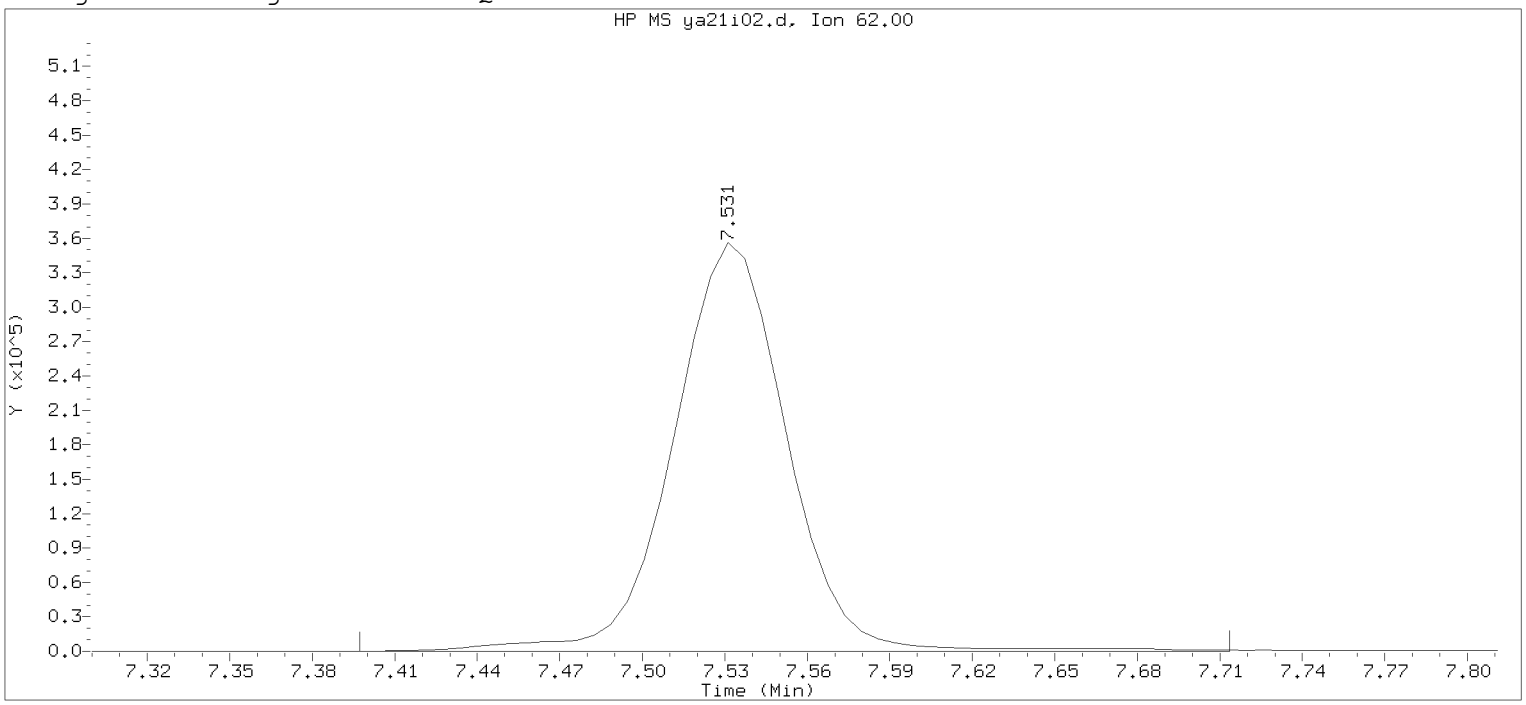
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

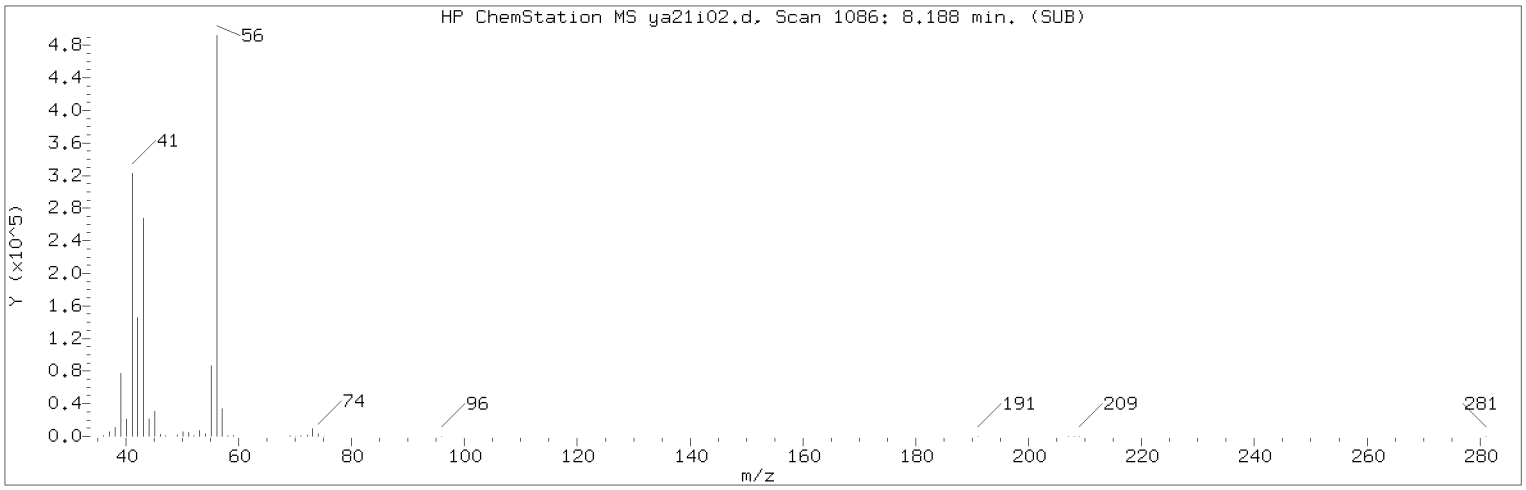
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

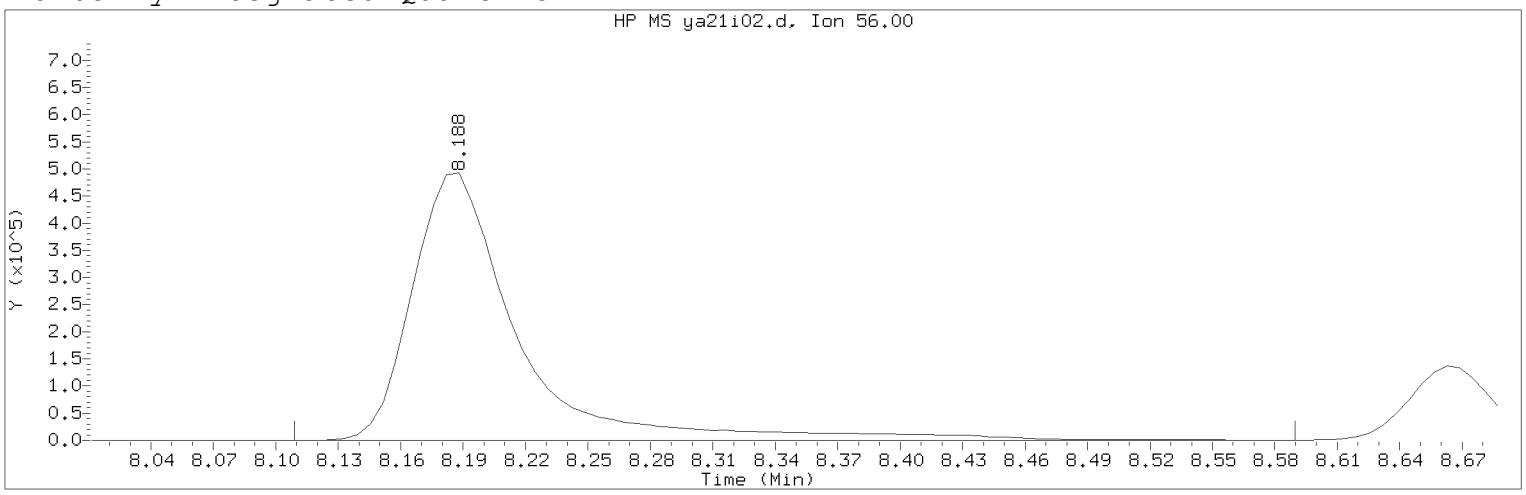
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 1019690
On-column Amount (ng) : 102.5688
Integration start scan : 955 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

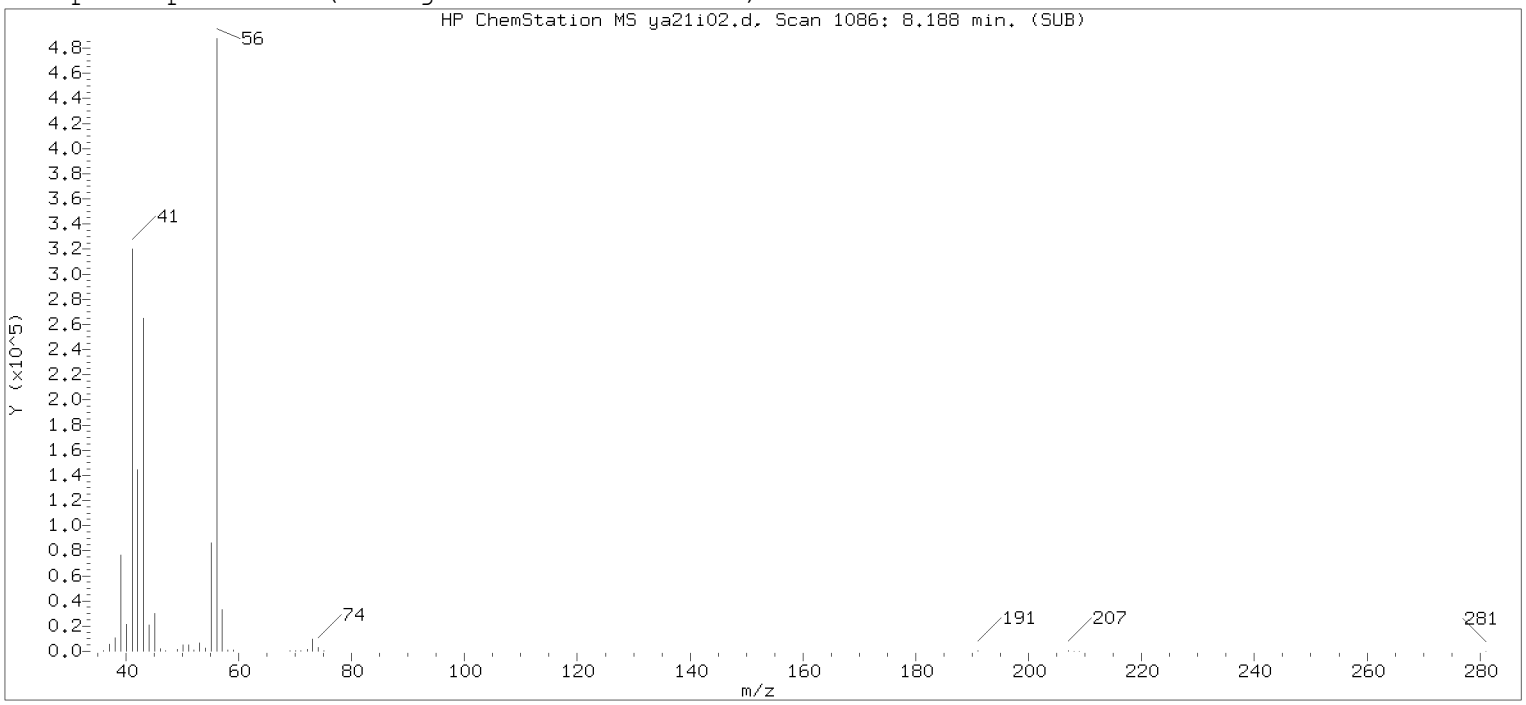
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1086
Retention Time (minutes): 8.188
Quant Ion : 56.00
Area (flag) : 1740853M
On-Column Amount (ng) : 2603.1429
Integration start scan : 1072 Integration stop scan: 1151
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

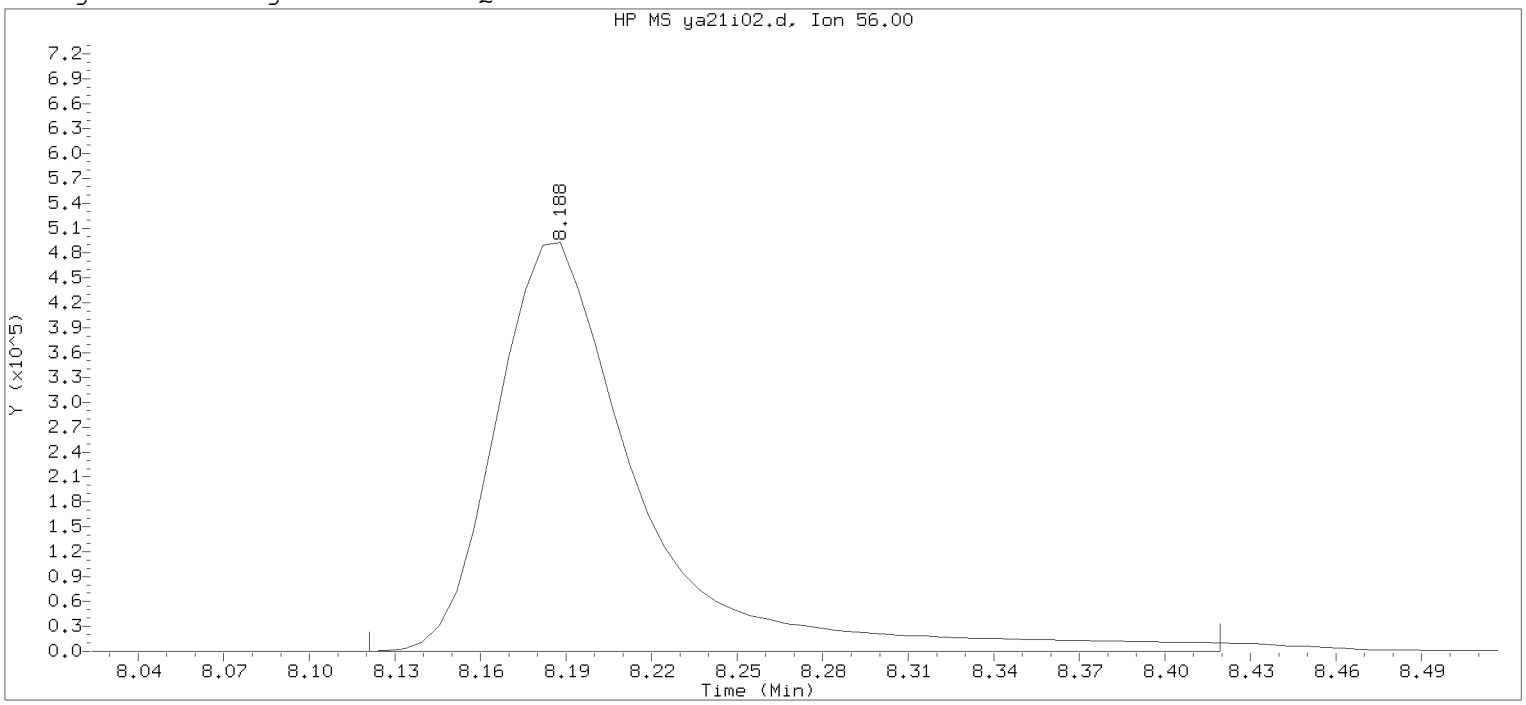
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

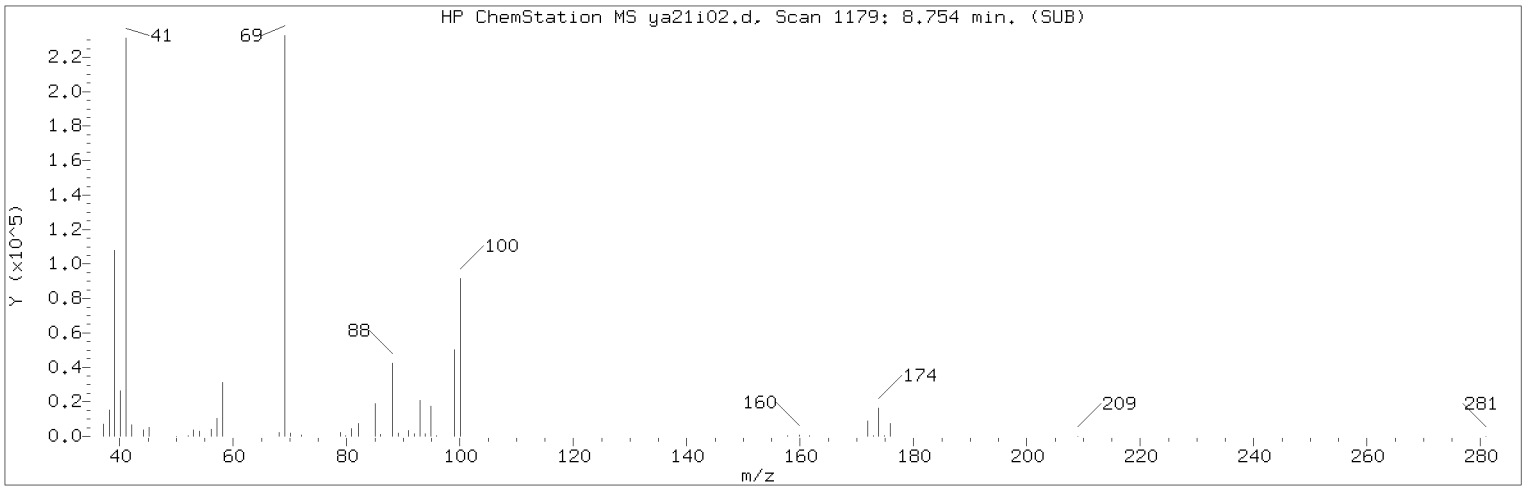
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

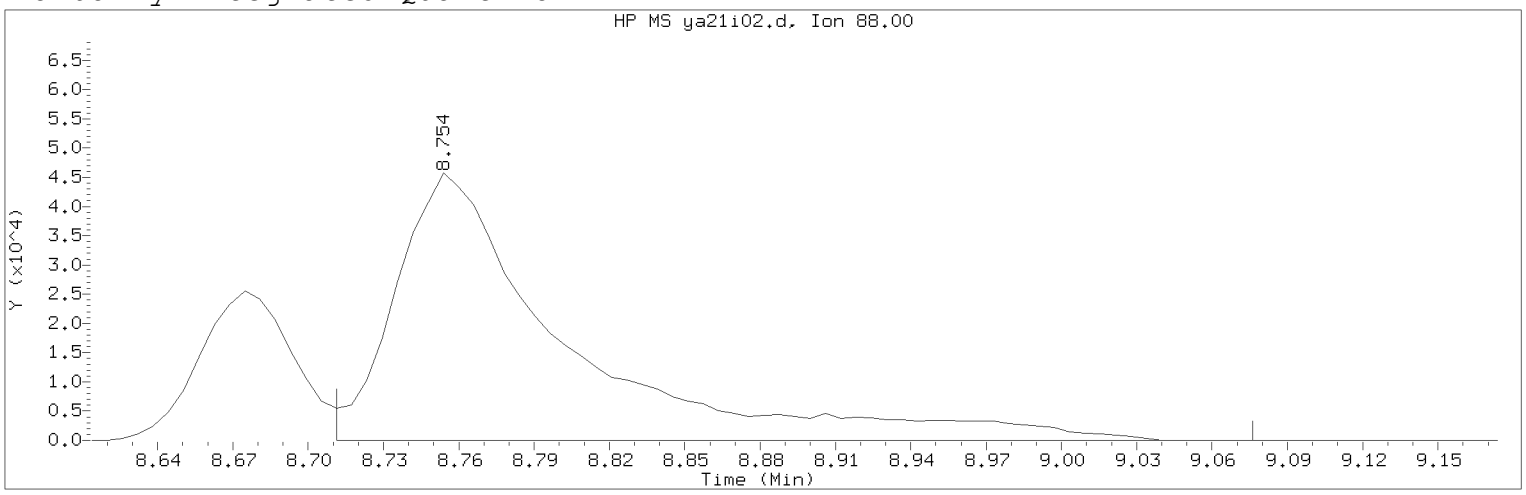
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1086
Retention Time (minutes): 8.188
Quant Ion : 56.00
Area : 1714670
On-column Amount (ng) : 2993.6531
Integration start scan : 1074 Integration stop scan: 1123
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

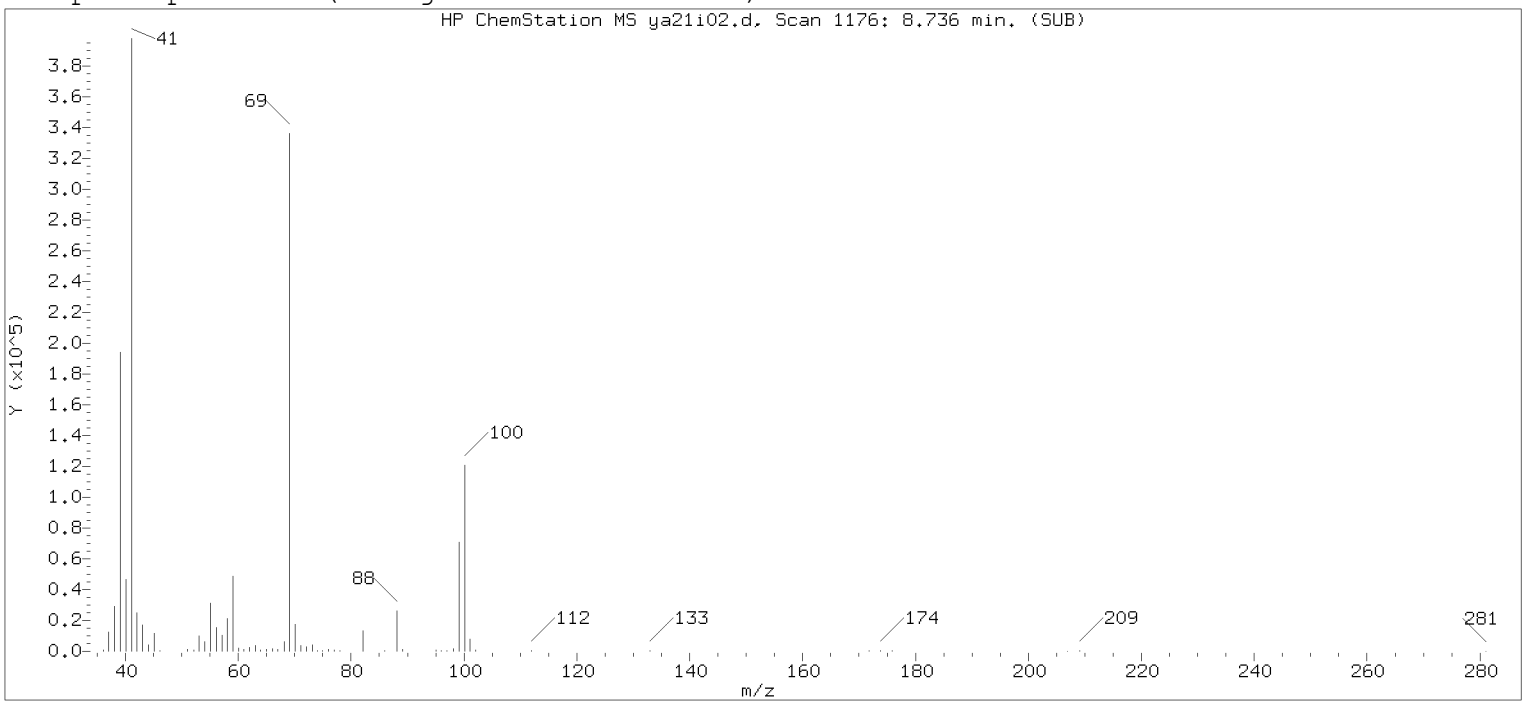
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 215840M
On-Column Amount (ng) : 1297.6283
Integration start scan : 1171 Integration stop scan: 1231
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

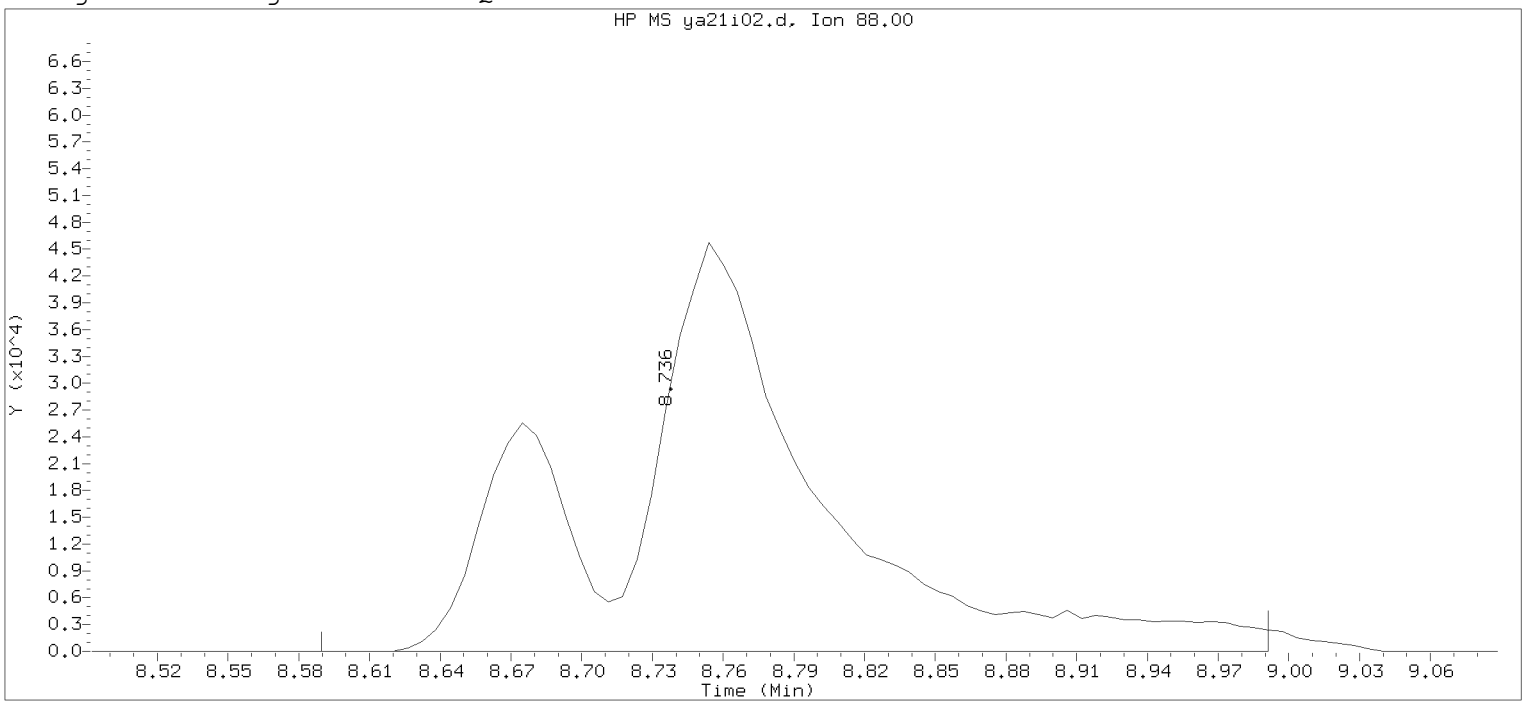
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

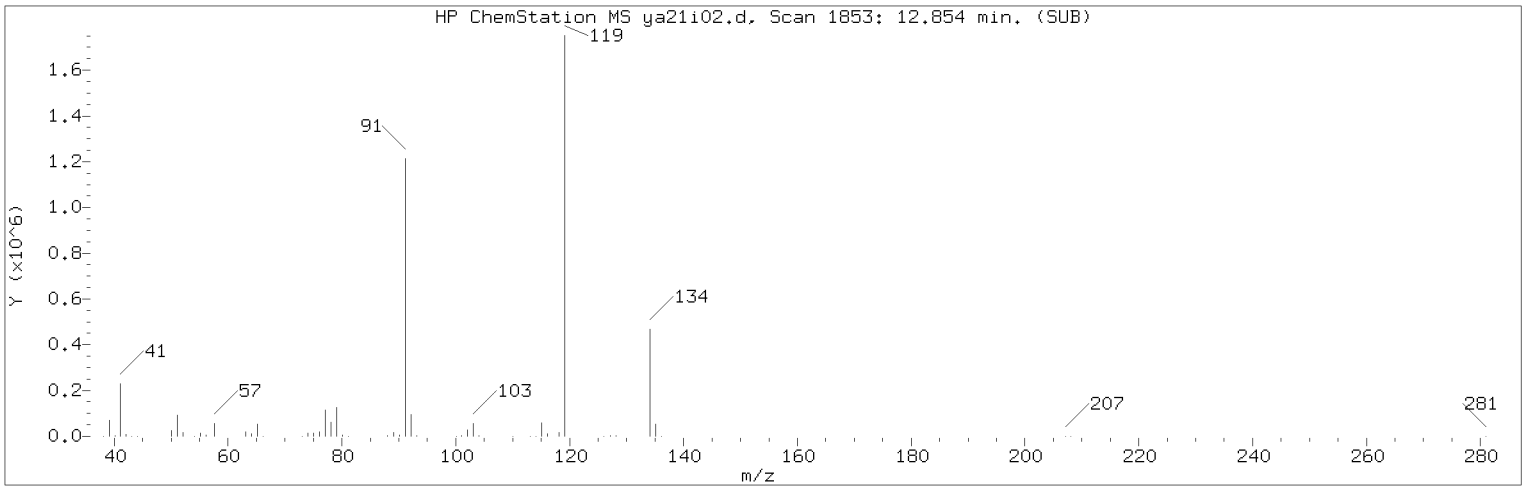
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

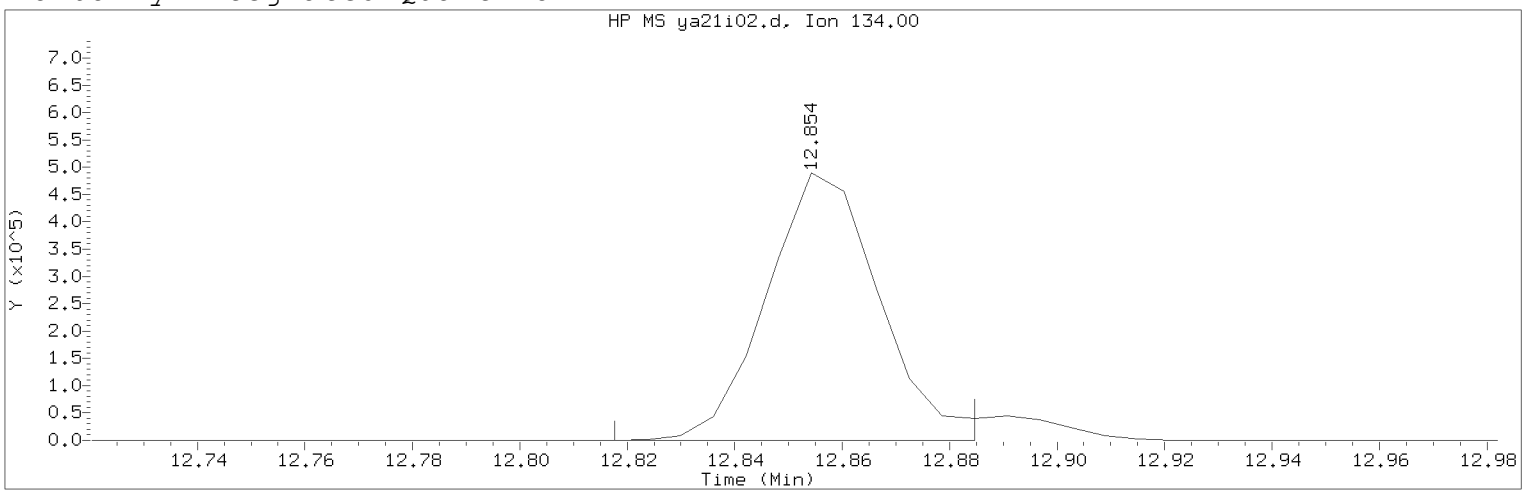
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1176
Retention Time (minutes): 8.736
Quant Ion : 88.00
Area : 277357
On-column Amount (ng) : 1582.3920
Integration start scan : 1151 Integration stop scan: 1217
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

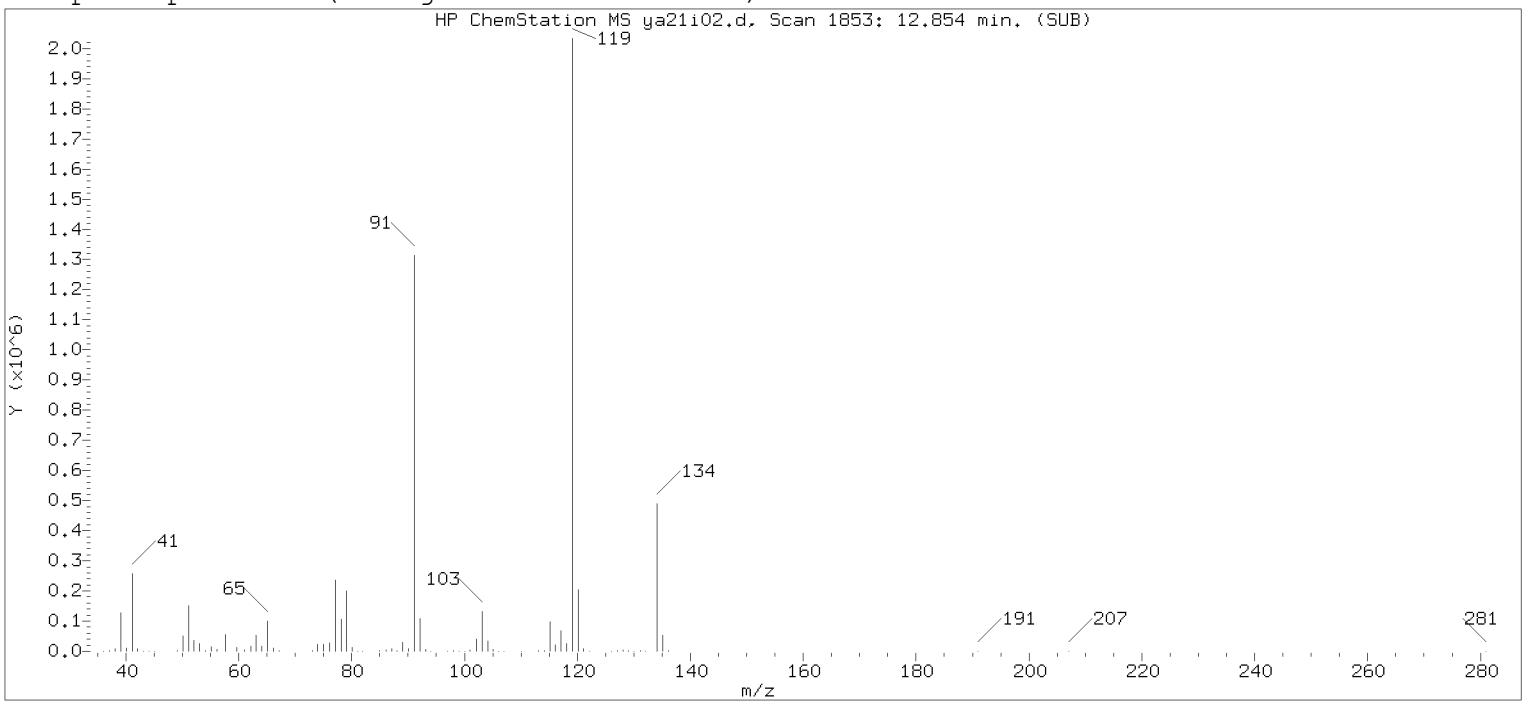
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 715748M
On-Column Amount (ng) : 104.5241
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

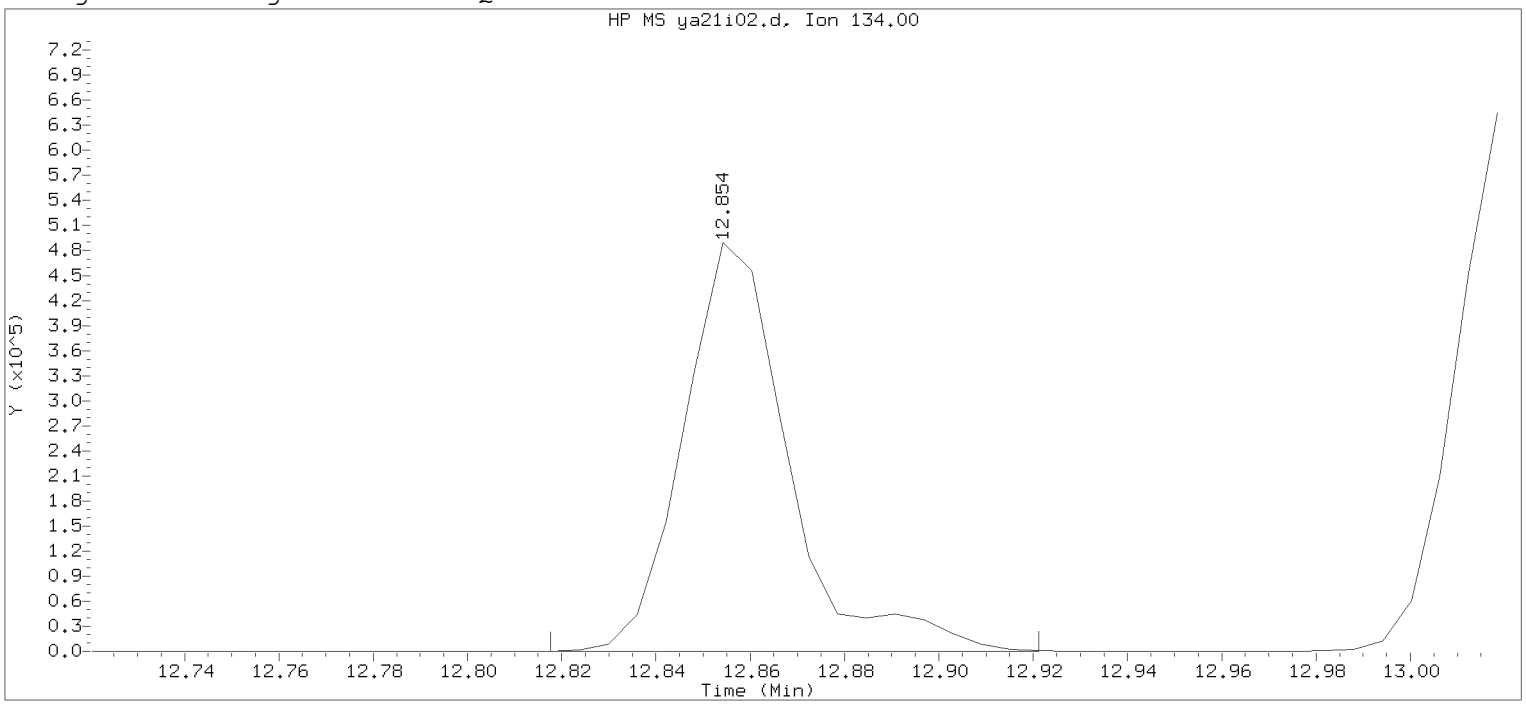
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



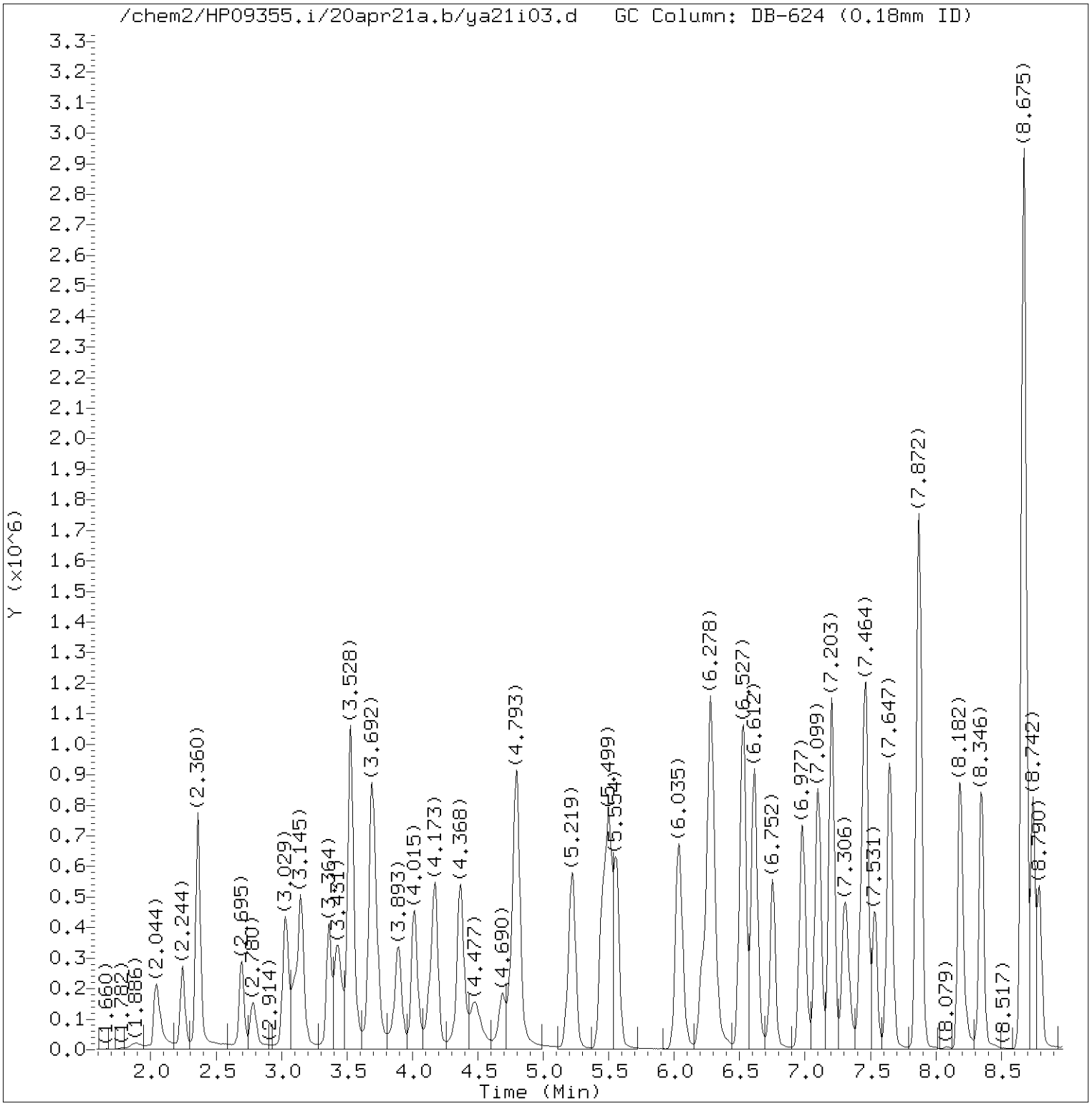
Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 757828
On-column Amount (ng) : 111.4766
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

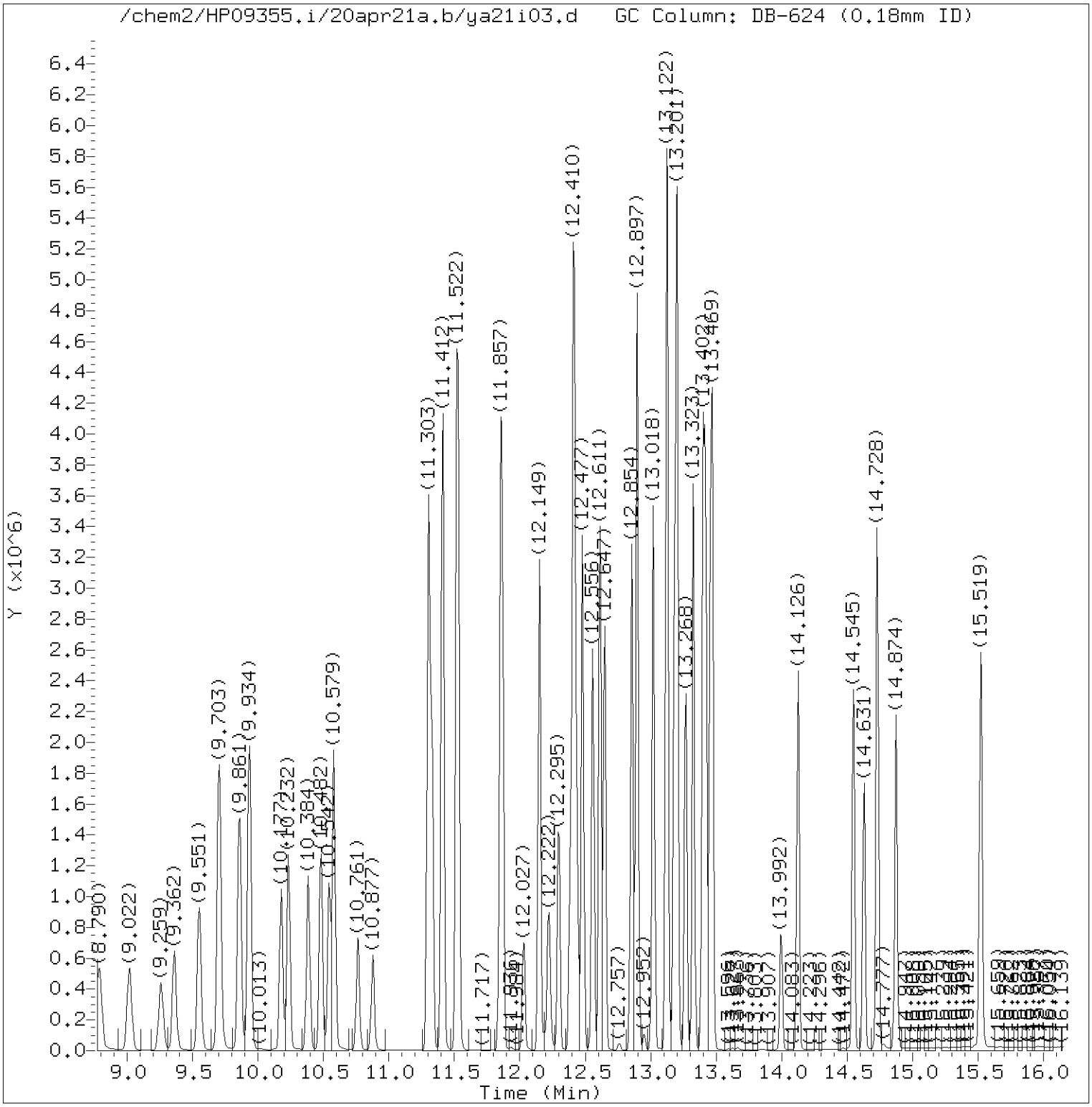
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	466628M	51.922
4) Chloromethane	(2)	2.244	50	399546	51.314
5) 1,3-Butadiene	(2)	2.360	39	318216	49.913
6) Vinyl Chloride	(2)	2.360	62	406092	51.732
8) Bromomethane	(2)	2.695	94	282069	54.651
9) Chloroethane	(2)	2.780	64	225621	53.847
10) Dichlorofluoromethane	(2)	3.029	67	582697	51.613
12) Trichlorofluoromethane	(2)	3.096	101	467956	51.024
11) n-Pentane	(2)	3.145	43	494364	51.134
14) Ethyl ether	(2)	3.358	59	339295	48.154
15) Freon 123a	(2)	3.425	67	417632M	50.287
16) Acrolein	(1)	3.528	56	1716818	539.180
17) 1,1-Dichloroethene	(2)	3.686	96	333145	50.104
17) 1,1-Dichloroethene	(2)	3.686	63	162549	49.771
18) Acetone	(1)	3.692	58	151777	102.020
19) Freon 113	(2)	3.717	101	335492	49.458
21) 2-Propanol	(1)	3.863	45	281067	254.047
22) Methyl Iodide	(2)	3.893	142	577682	49.518
23) Carbon Disulfide	(2)	4.015	76	1171245	49.724
27) Methyl Acetate	(2)	4.136	43	515289	49.821
25) Allyl Chloride	(2)	4.173	41	565511	49.719
29)*t-Butyl alcohol-d10	(1)	4.349	65	393548M	250.000
28) Methylene Chloride	(2)	4.368	84	388424	49.767
30) t-Butyl alcohol	(1)	4.477	59	493860	256.037
31) Acrylonitrile	(2)	4.684	53	302921	51.636
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	1109339	50.538
32) trans-1,2-Dichloroethene	(2)	4.800	96	385332	50.158
34) n-Hexane	(2)	5.219	57	600865	49.670
36) 1,1-Dichloroethane	(2)	5.450	63	681251	49.857
38) di-Isopropyl ether	(2)	5.499	45	1272310	50.620
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	565084	48.787
40) Ethyl t-butyl ether	(2)	6.035	59	1129947	50.935
43) 1,2-Dichloroethene (Total)	(2)		96	822068	100.181
44) 2-Butanone	(2)	6.223	43	810214	103.171
42) cis-1,2-Dichloroethene	(2)	6.272	96	436736	50.022
45) 2,2-Dichloropropane	(2)	6.290	77	515194	49.548
47) Propionitrile	(1)	6.302	54	589246	258.497
48) Methacrylonitrile	(2)	6.527	67	740934	125.760

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	206804	49.190
50) Tetrahydrofuran	(1)	6.619	71	234464	105.277
51) Chloroform	(2)	6.752	83	649643	49.478
52)$Dibromofluoromethane	(2)	6.971	113	297135	49.661
52)$Dibromofluoromethane	(2)	6.971	111	303724	49.742
53) 1,1,1-Trichloroethane	(2)	6.990	97	557921	49.049
54) Cyclohexane	(2)	7.099	56	716898	49.645
54) Cyclohexane	(2)	7.099	84	594334	49.285
54) Cyclohexane	(2)	7.099	69	221829	49.588
55) 1,1-Dichloropropene	(2)	7.203	75	546645	49.375
56) Carbon Tetrachloride	(2)	7.209	117	478515	48.660
58) Isobutyl Alcohol	(1)	7.306	41	442780	634.758
57)$1,2-Dichloroethane-d4	(2)	7.434	102	79098	50.755
57)$1,2-Dichloroethane-d4	(2)	7.428	65	351091	50.285
57)$1,2-Dichloroethane-d4	(2)	7.428	104	50177	50.378
60) Benzene	(2)	7.464	78	1630471	50.006
61) 1,2-Dichloroethane	(2)	7.531	62	508558M	49.159
61) 1,2-Dichloroethane	(2)	7.537	98	51240	49.430
65) t-Amyl methyl ether	(2)	7.647	73	1128707	51.070
66)*Fluorobenzene	(2)	7.866	96	1312885	50.000
67) n-Heptane	(2)	7.878	43	639949	49.864
69) n-Butanol	(1)	8.188	56	884015	1285.879
71) Trichloroethene	(2)	8.346	95	408172	49.006
72) Methylcyclohexane	(2)	8.663	83	734617	49.850
72) Methylcyclohexane	(2)	8.669	98	323297	49.393
73) 1,2-Dichloropropane	(2)	8.675	63	426799	50.380
76) Methyl Methacrylate	(2)	8.742	69	448184	48.802
75) 1,4-Dioxane	(1)	8.760	88	101511M	609.682
74) Dibromomethane	(2)	8.790	93	268701	48.908
78) Bromodichloromethane	(2)	9.022	83	497131	48.113
79) 2-Nitropropane	(2)	9.259	41	374405	101.372
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	357453	49.009
81) cis-1,3-Dichloropropene	(2)	9.551	75	688869	48.884
82) 4-Methyl-2-pentanone	(2)	9.703	43	1577481	103.233
83)$Toluene-d8	(3)	9.861	98	1272568	49.980
83)$Toluene-d8	(3)	9.861	100	817862	49.873
88) Toluene	(3)	9.934	92	1029074	49.784
90) 1,3-Dichloropropene (total)	(3)		100	1332895	97.690

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	644026	48.806
91) Ethyl Methacrylate	(3)	10.232	69	733523	48.892
92) 1,1,2-Trichloroethane	(3)	10.384	97	407120	49.209
93) Tetrachloroethene	(3)	10.482	166	412985	48.369
94) 1,3-Dichloropropane	(3)	10.542	76	696785	49.801
96) 2-Hexanone	(3)	10.579	43	1273441	104.571
97) Dibromochloromethane	(3)	10.761	129	423492	47.739
99) 1,2-Dibromoethane	(3)	10.877	107	449818	48.898
100)*Chlorobenzene-d5	(3)	11.303	117	977085	50.000
101) 1-Chlorohexane	(3)	11.303	91	568383	49.506
102) Chlorobenzene	(3)	11.327	112	1160386	50.216
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	390995	49.341
104) Ethylbenzene	(3)	11.412	91	2003894	50.934
106) m+p-Xylene	(3)	11.522	106	1592130	101.869
108) Xylene (Total)	(3)		106	2372813	152.505
107) o-Xylene	(3)	11.850	106	780683	50.636
109) Styrene	(3)	11.869	104	1315562	50.137
110) Bromoform	(3)	12.033	173	321736	47.121
111) Isopropylbenzene	(3)	12.149	105	1996583	51.225
112) Cyclohexanone	(1)	12.222	55	394544	600.935
114)$4-Bromofluorobenzene	(3)	12.295	95	482587	49.958
114)$4-Bromofluorobenzene	(3)	12.301	174	371585	49.890
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	714936	50.298
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	589860	128.408
115) Bromobenzene	(4)	12.416	156	504690	50.258
117) 1,2,3-Trichloropropane	(4)	12.434	110	224416	49.707
119) n-Propylbenzene	(4)	12.477	91	2399593	52.476
120) 2-Chlorotoluene	(4)	12.556	126	484404	49.803
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	1736011	50.871
121) 4-Chlorotoluene	(4)	12.647	126	506318	49.589
124) tert-Butylbenzene	(4)	12.854	134	361829M	49.795
125) Pentachloroethane	(4)	12.891	167	280749	48.928
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	1840733	51.284
127) sec-Butylbenzene	(4)	13.018	105	2241183	51.942
129) 1,3-Dichlorobenzene	(4)	13.122	146	969878	50.817
130) p-Isopropyltoluene	(4)	13.128	119	1917934	51.726
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	518745	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	994629	50.665

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

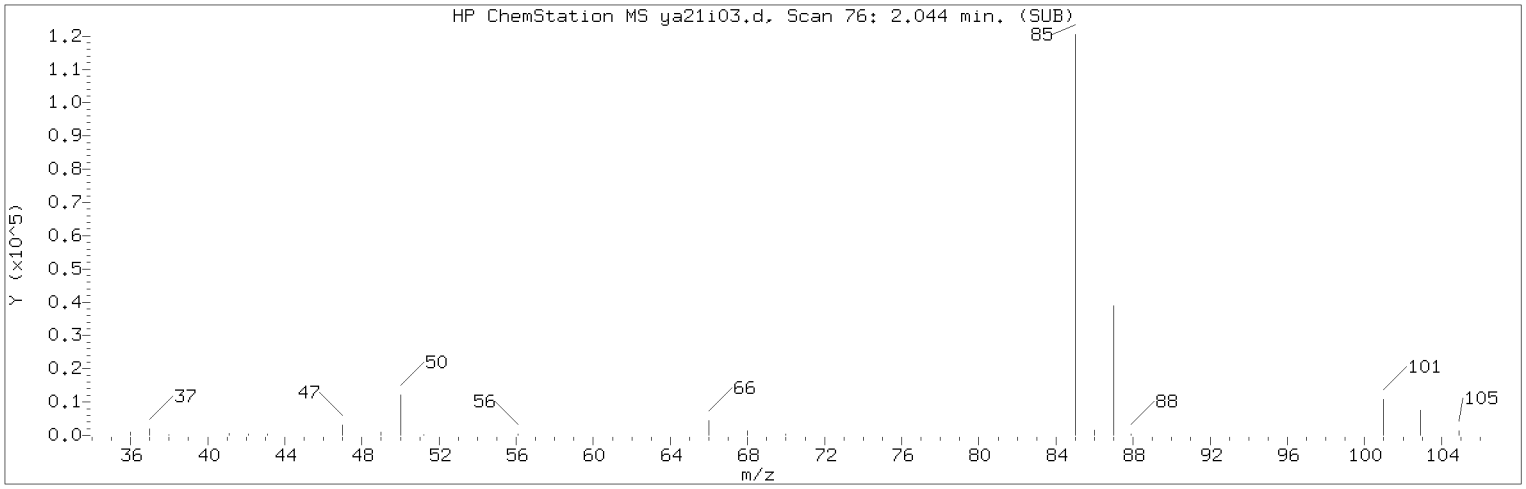
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

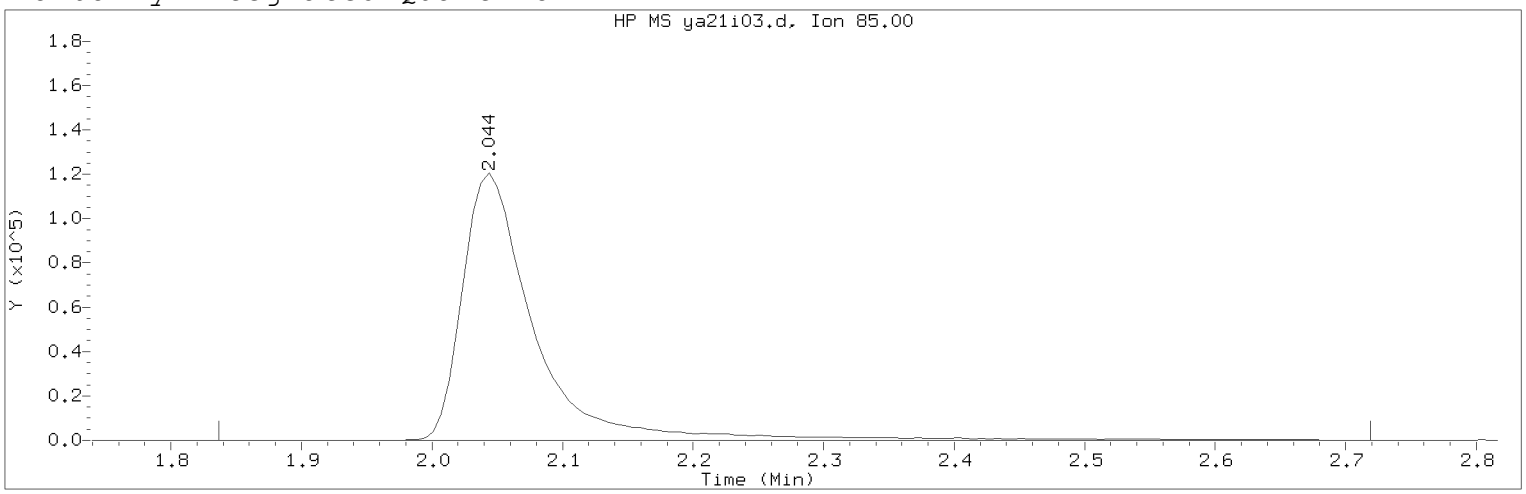
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	1733177	50.940
135) Benzyl Chloride	(4)	13.268	91	1526765	49.958
136) 1,3-Diethylbenzene	(4)	13.323	119	1123827	50.234
141) Diethylbenzene (total)	(4)		100	3237770	150.934
137) 1,4-Diethylbenzene	(4)	13.402	119	1183377	50.524
139) n-Butylbenzene	(4)	13.420	92	1003158	50.822
138) 1,2-Dichlorobenzene	(4)	13.456	146	931814	50.200
140) 1,2-Diethylbenzene	(4)	13.469	119	930566	50.176
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	178649	47.527
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	682630	48.422
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	645687	48.482
147) Hexachlorobutadiene	(4)	14.631	225	284644	48.025
148) Naphthalene	(4)	14.728	128	2451121	52.128
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	617578	48.553
150) 2-Methylnaphthalene	(4)	15.519	142	1304244	49.490

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

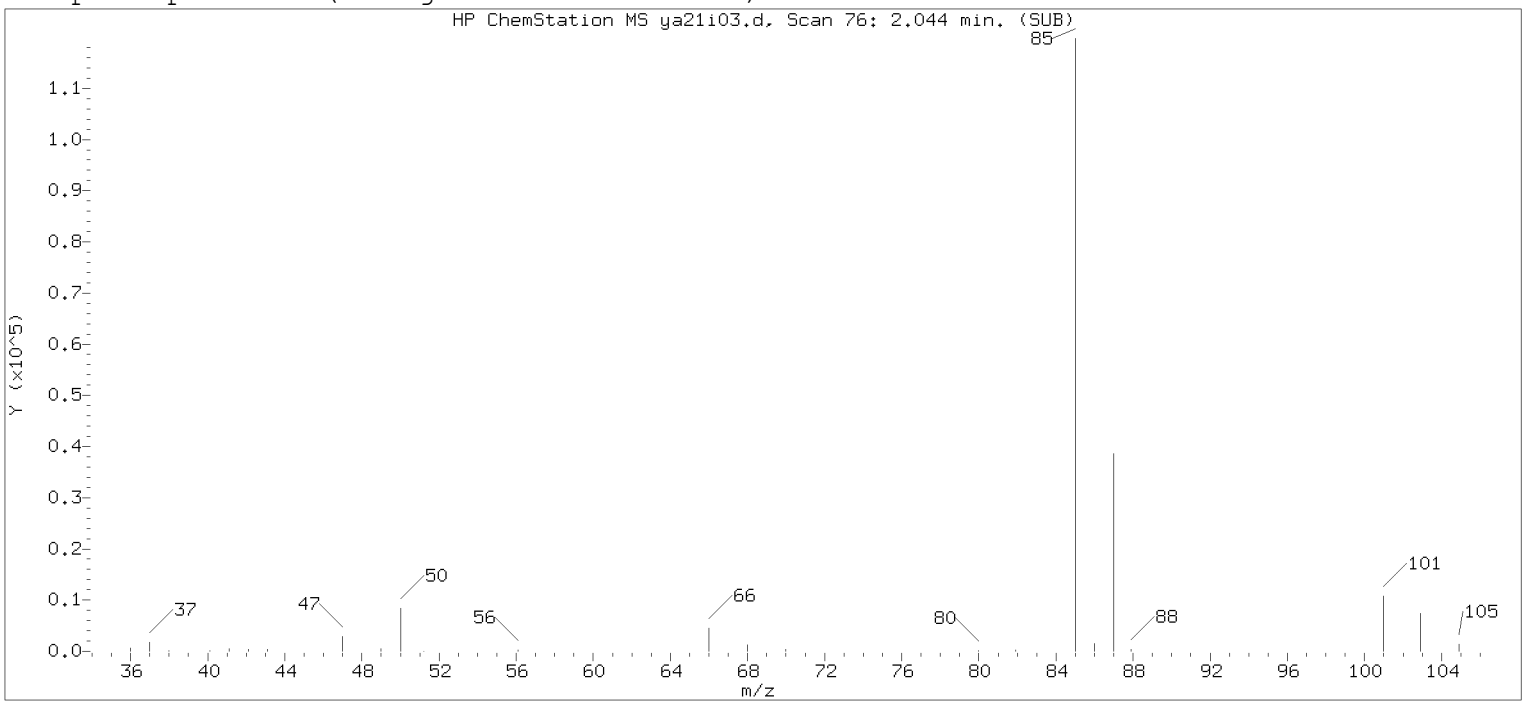
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 466628M
On-Column Amount (ng) : 51.9221
Integration start scan : 41 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

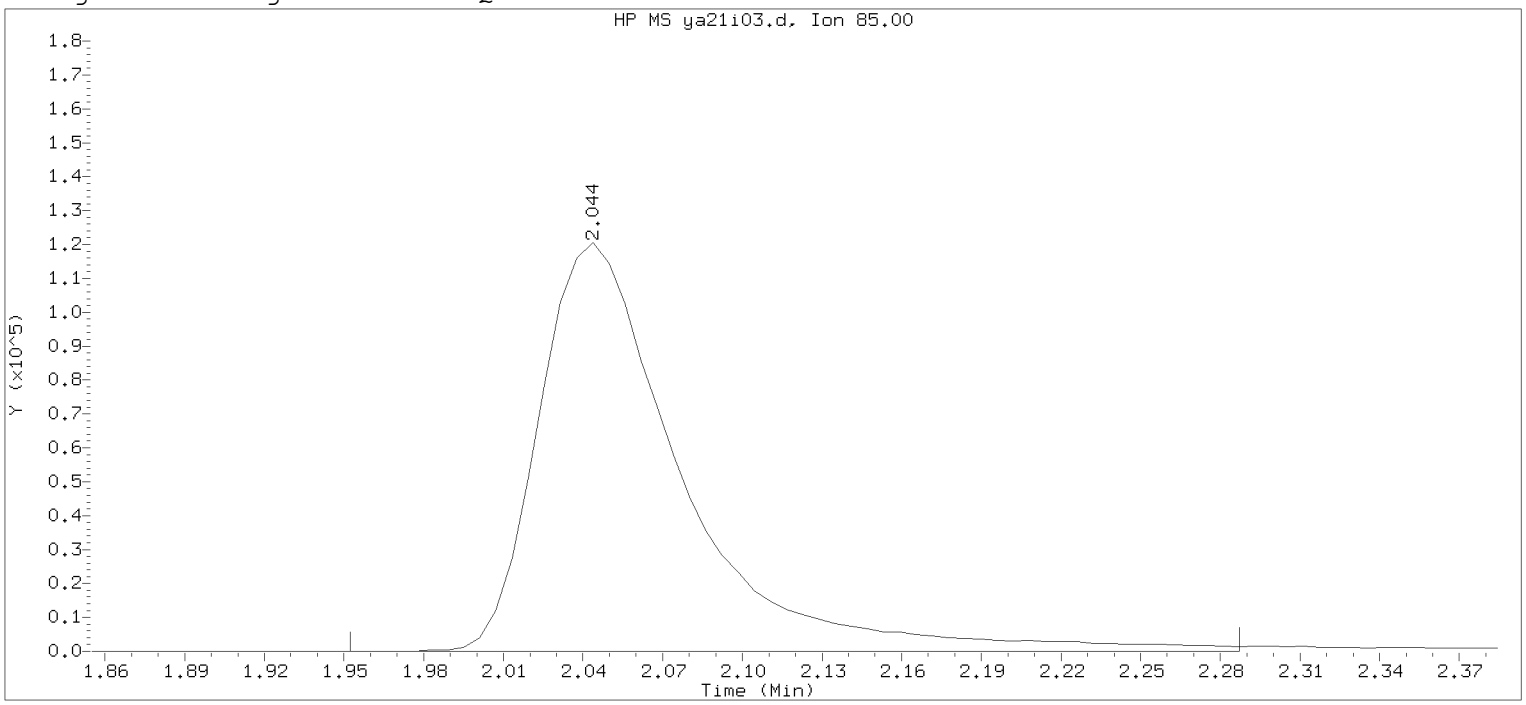
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

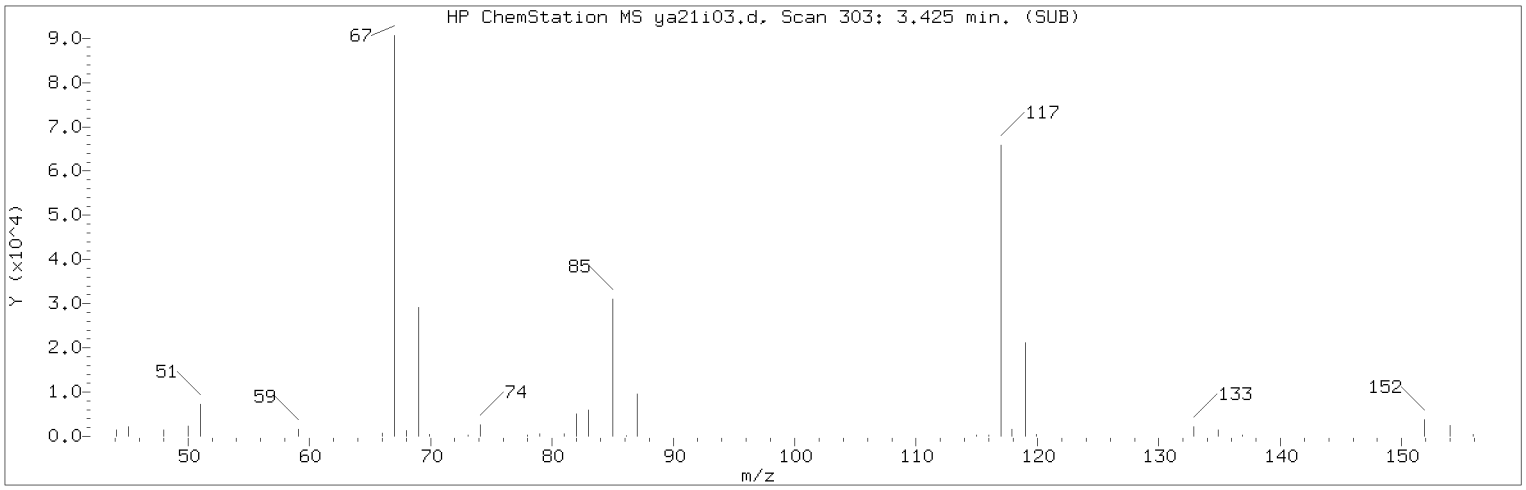
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

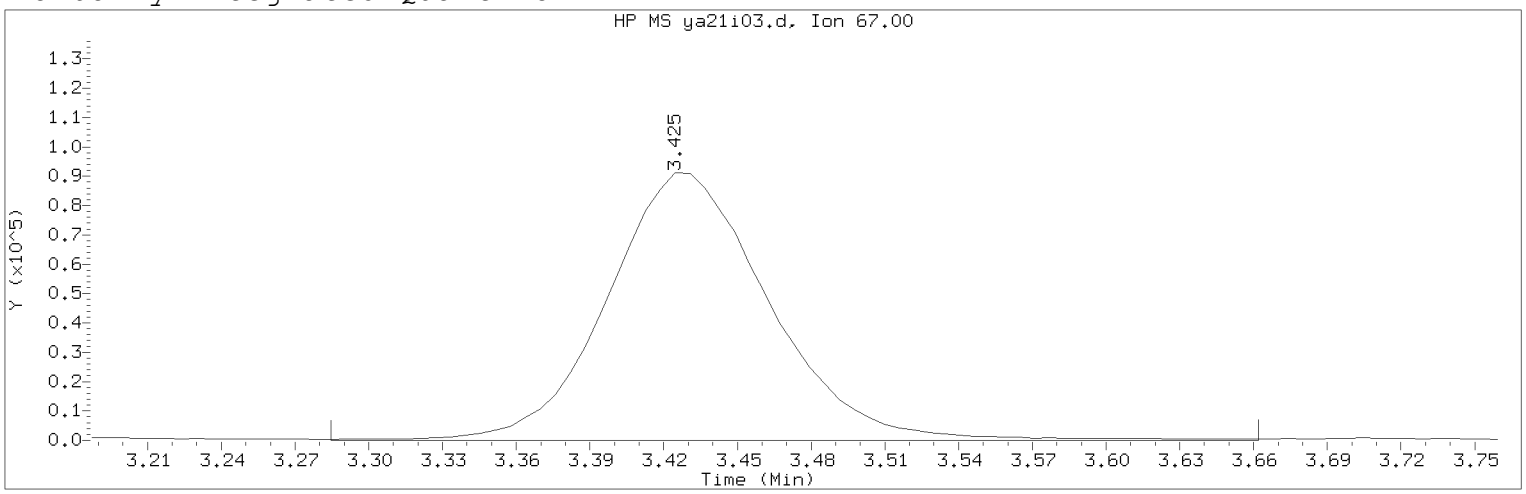
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 450797
On-column Amount (ng) : 45.9246
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

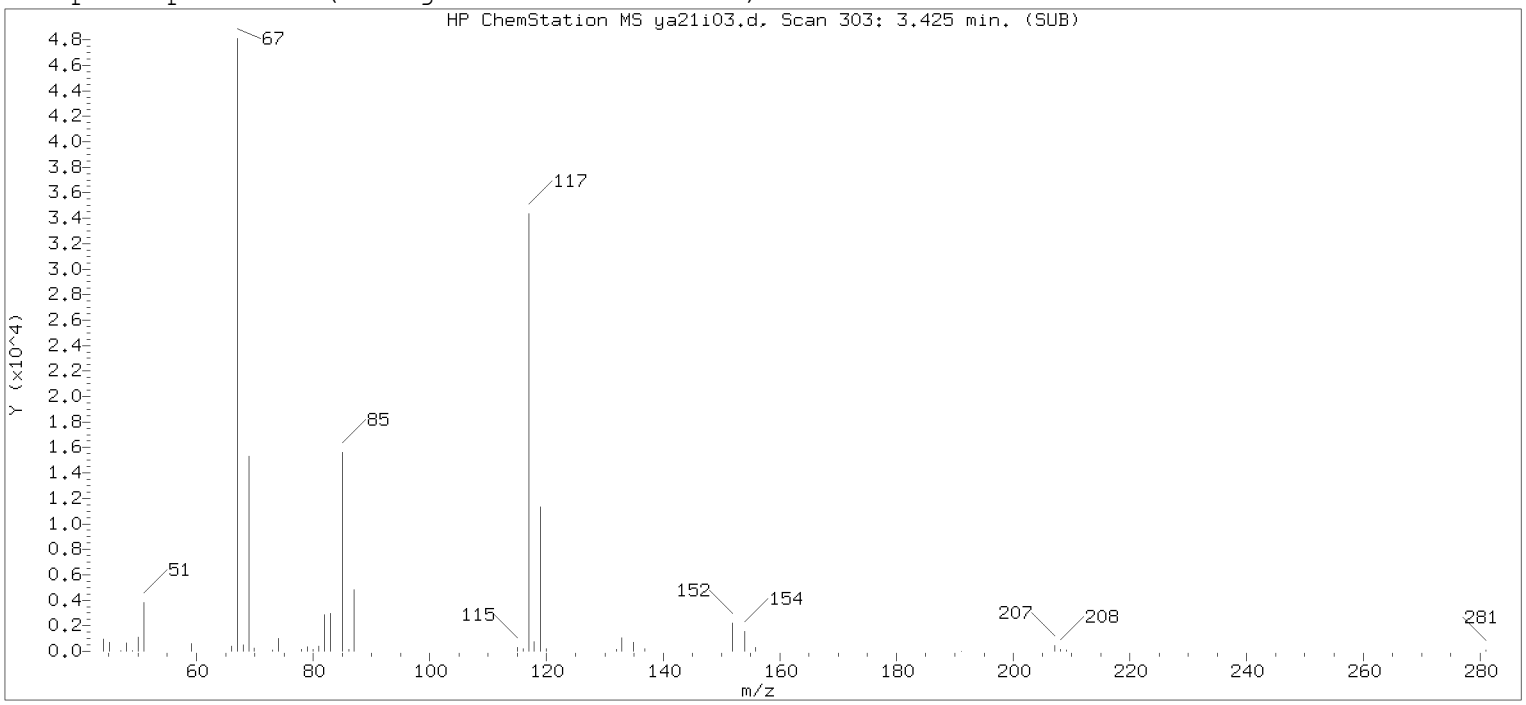
Compound Number : 15
Compound Name : Freon 123a
Scan Number : 303
Retention Time (minutes): 3.425
Quant Ion : 67.00
Area (flag) : 417632M
On-Column Amount (ng) : 50.2869
Integration start scan : 279 Integration stop scan: 341
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

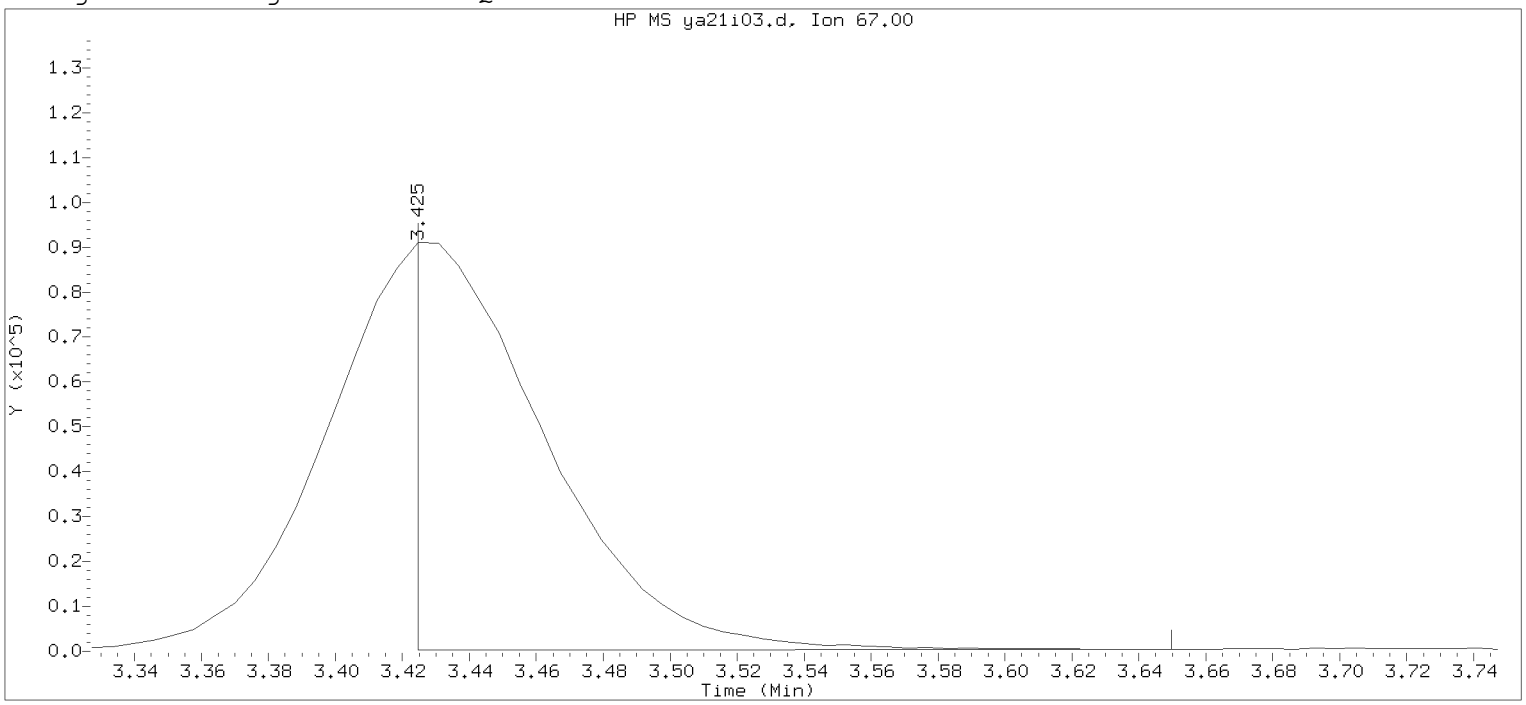
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

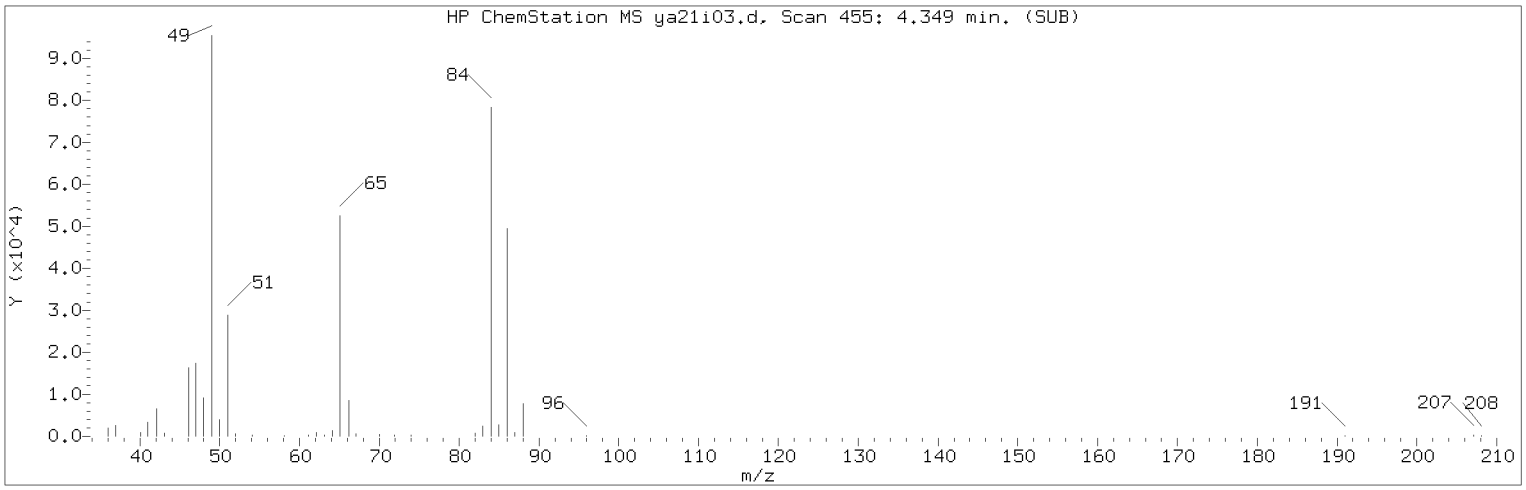
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

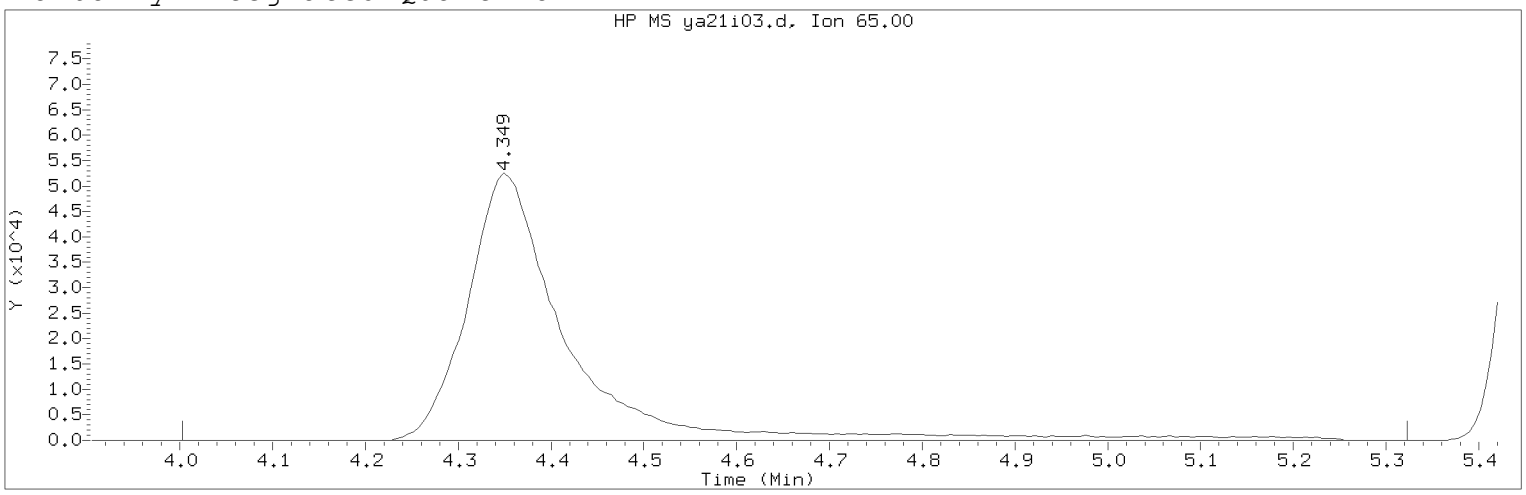
Compound Number : 15
Compound Name : Freon 123a
Scan Number : 303
Retention Time (minutes): 3.425
Quant Ion : 67.00
Area : 236932
On-column Amount (ng) : 32.6616
Integration start scan : 302 Integration stop scan: 339
Y at integration start : 312 Y at integration end: 400

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

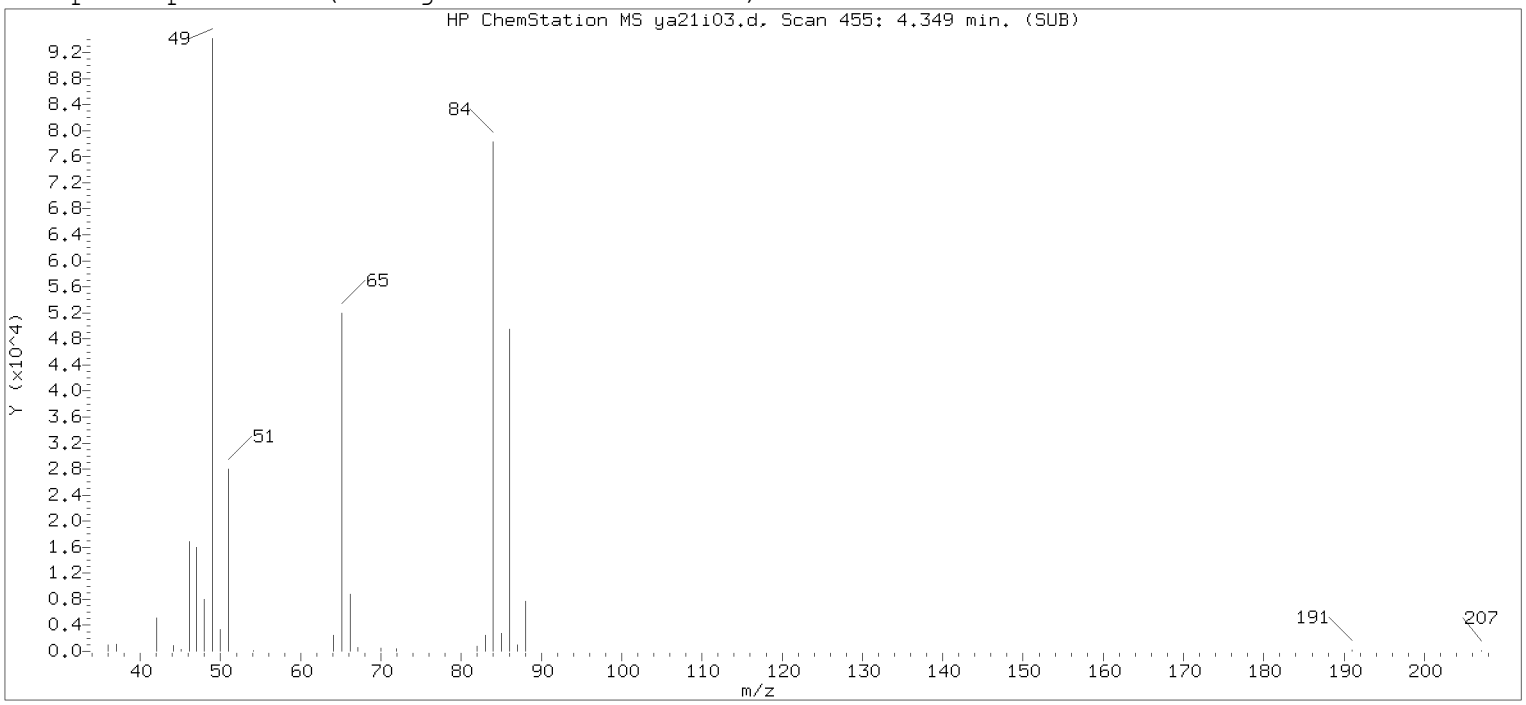
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area (flag) : 393548M
On-Column Amount (ng) : 250.0000
Integration start scan : 397 Integration stop scan: 614
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

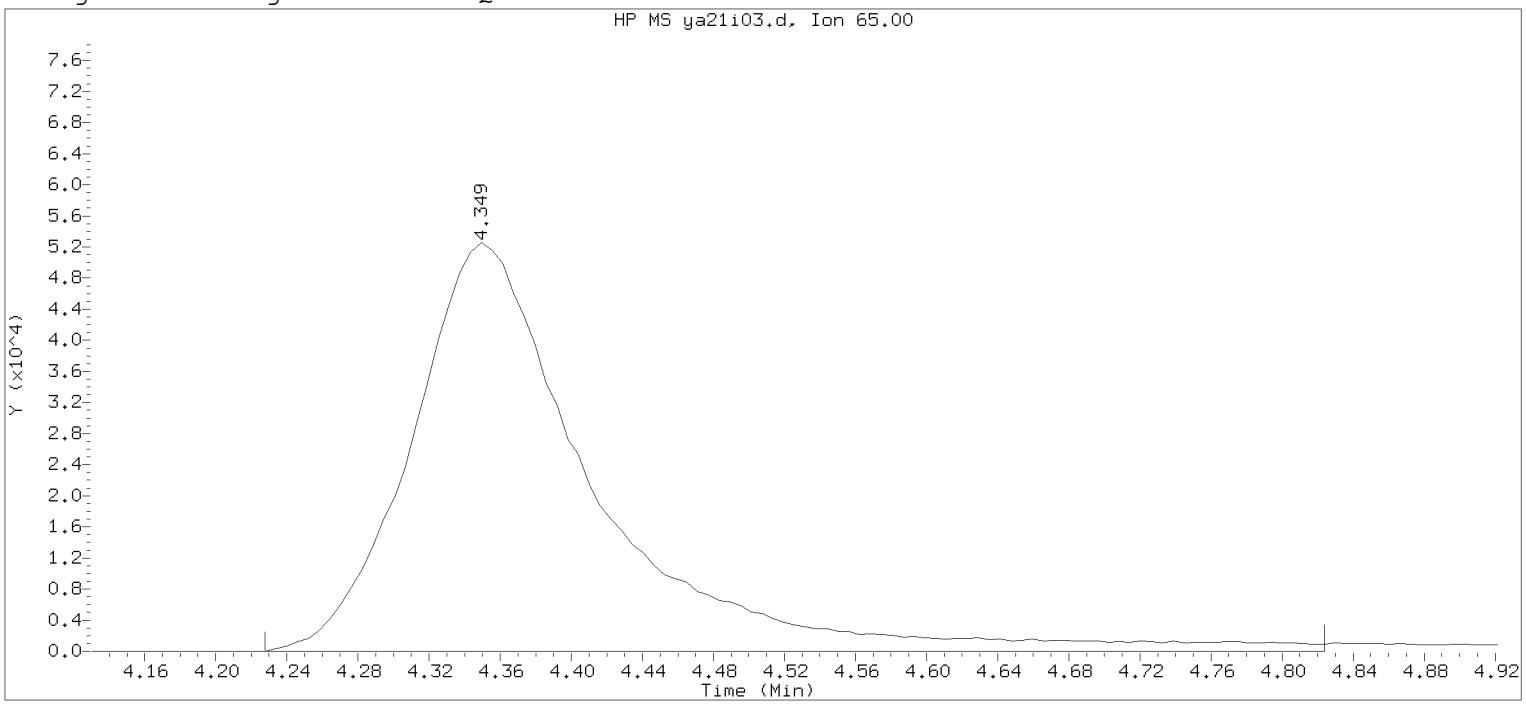
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

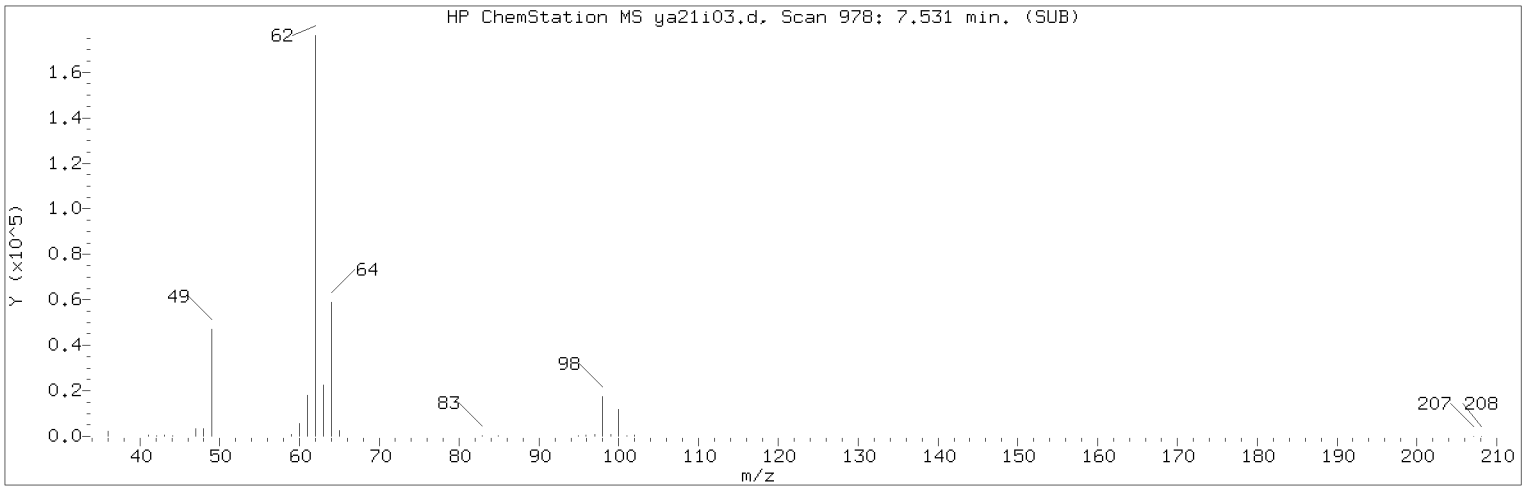
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

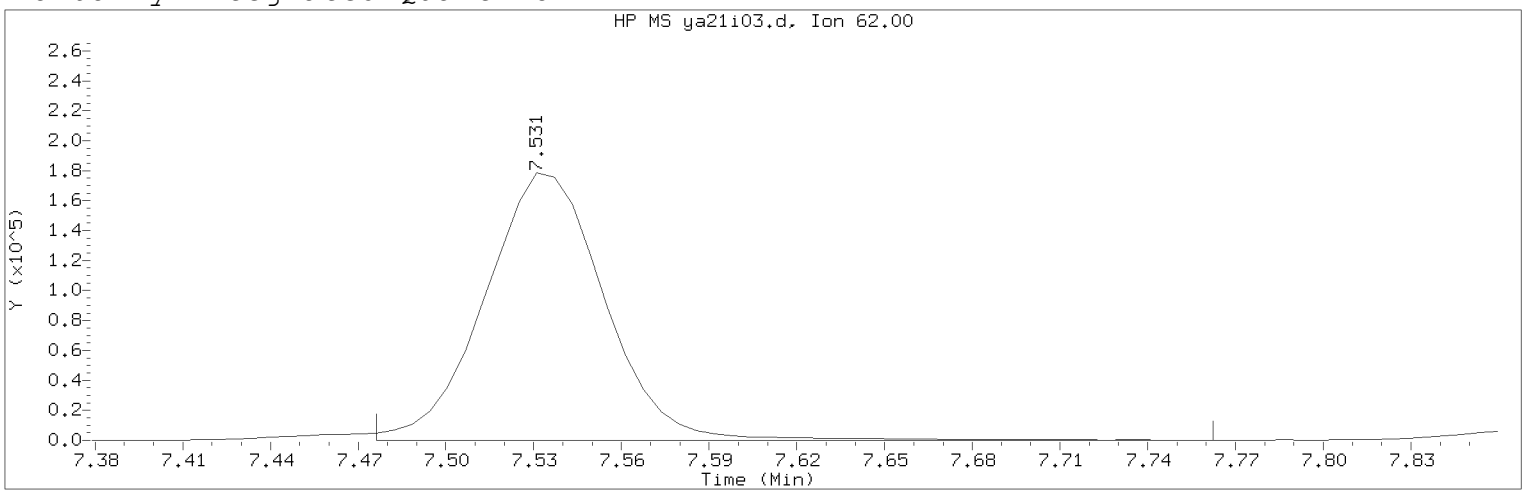
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area : 374900
On-column Amount (ng) : 250.0000
Integration start scan : 434 Integration stop scan: 532
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh00052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

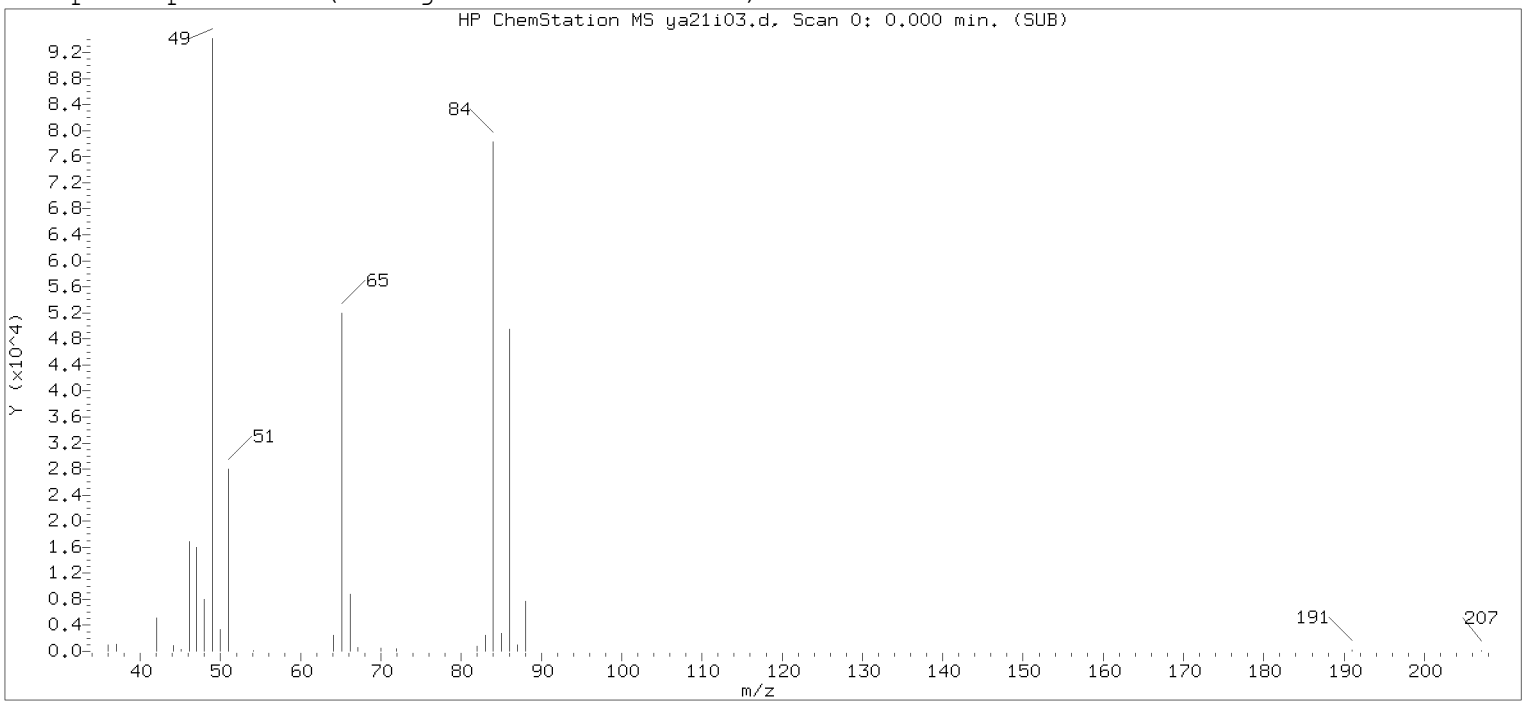
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 508558M
On-Column Amount (ng) : 49.1585
Integration start scan : 968 Integration stop scan: 1015
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

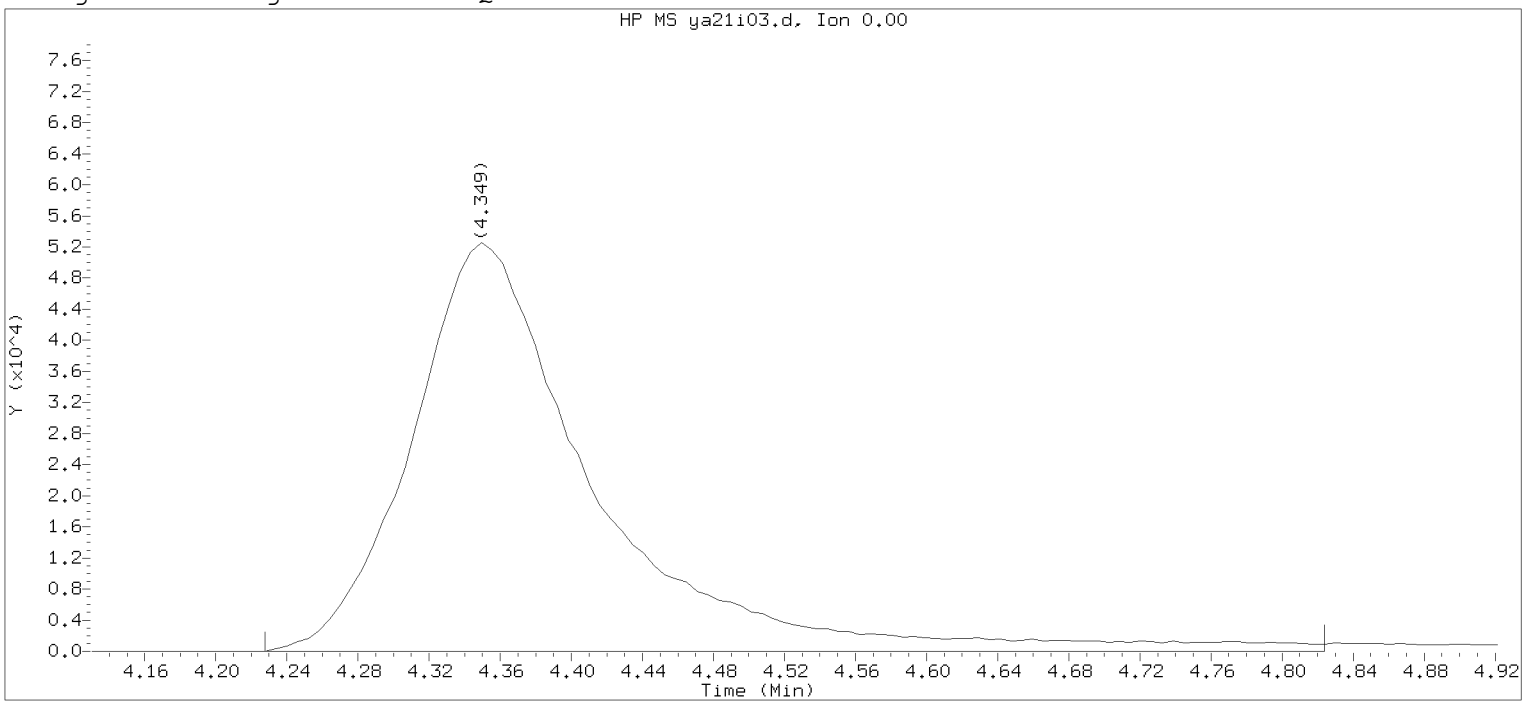
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

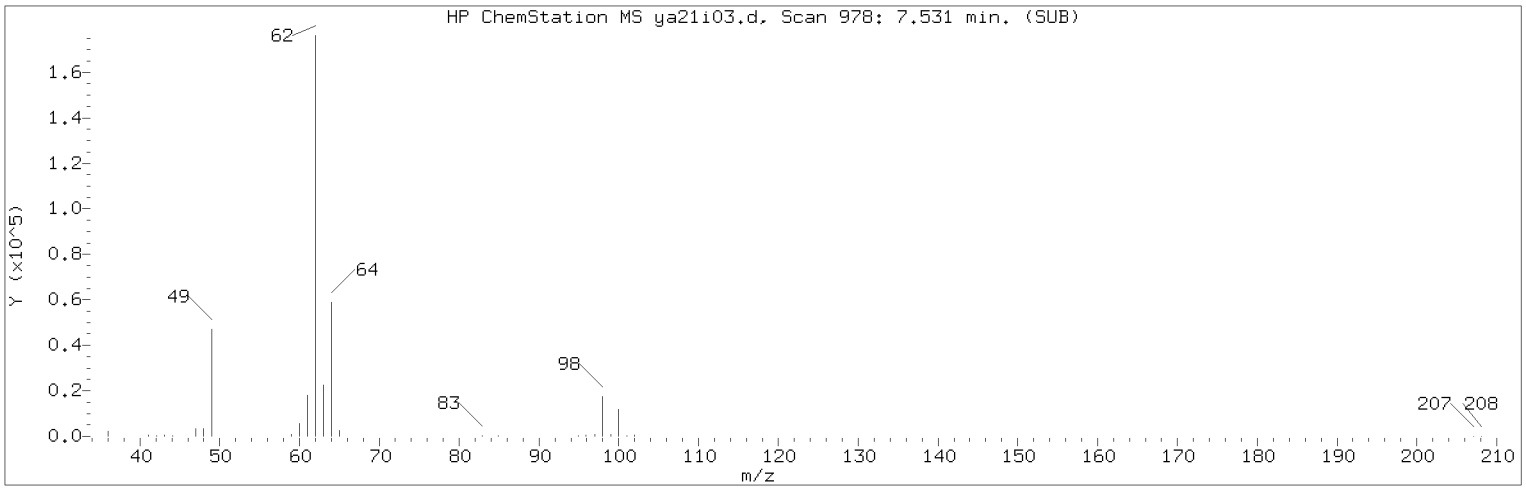
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

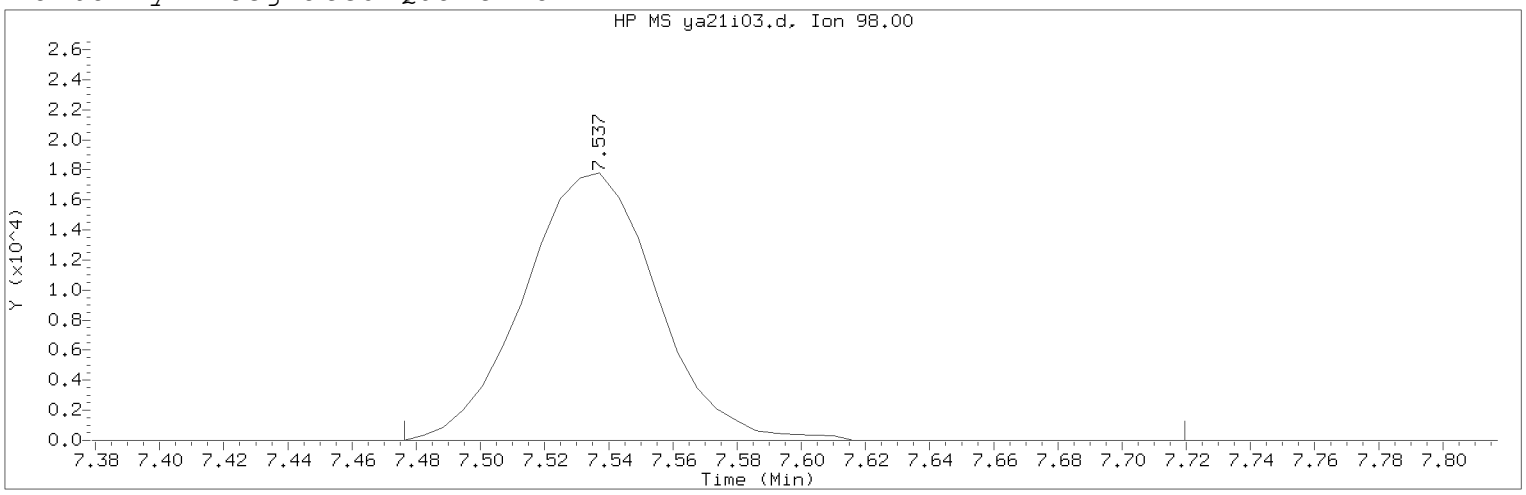
Compound Number : 0
Compound Name : t-Butyl alcohol-d10
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 0 Integration stop scan: 0
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

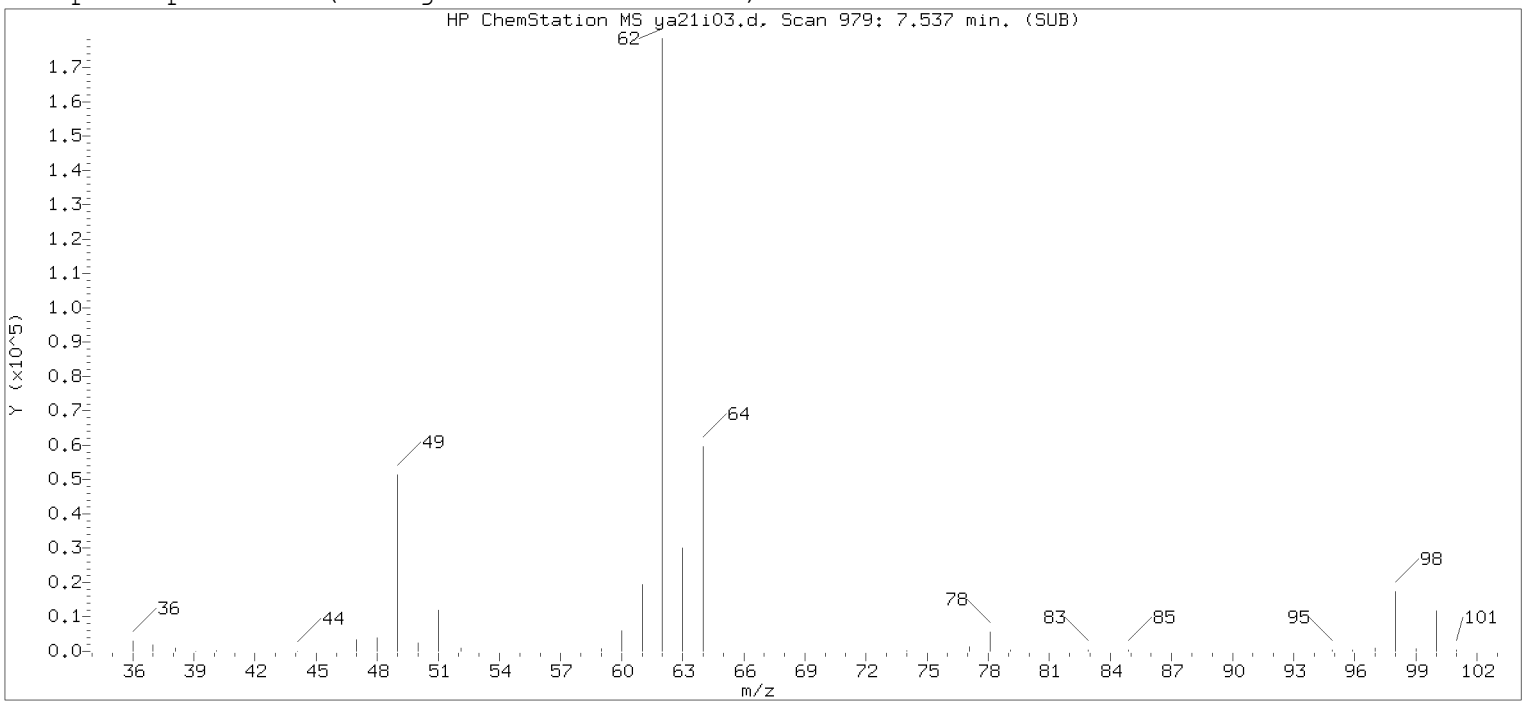
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 979
Retention Time (minutes): 7.537
Quant Ion : 98.00
Area (flag) : 51240M
On-Column Amount (ng) : 49.4305
Integration start scan : 968 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

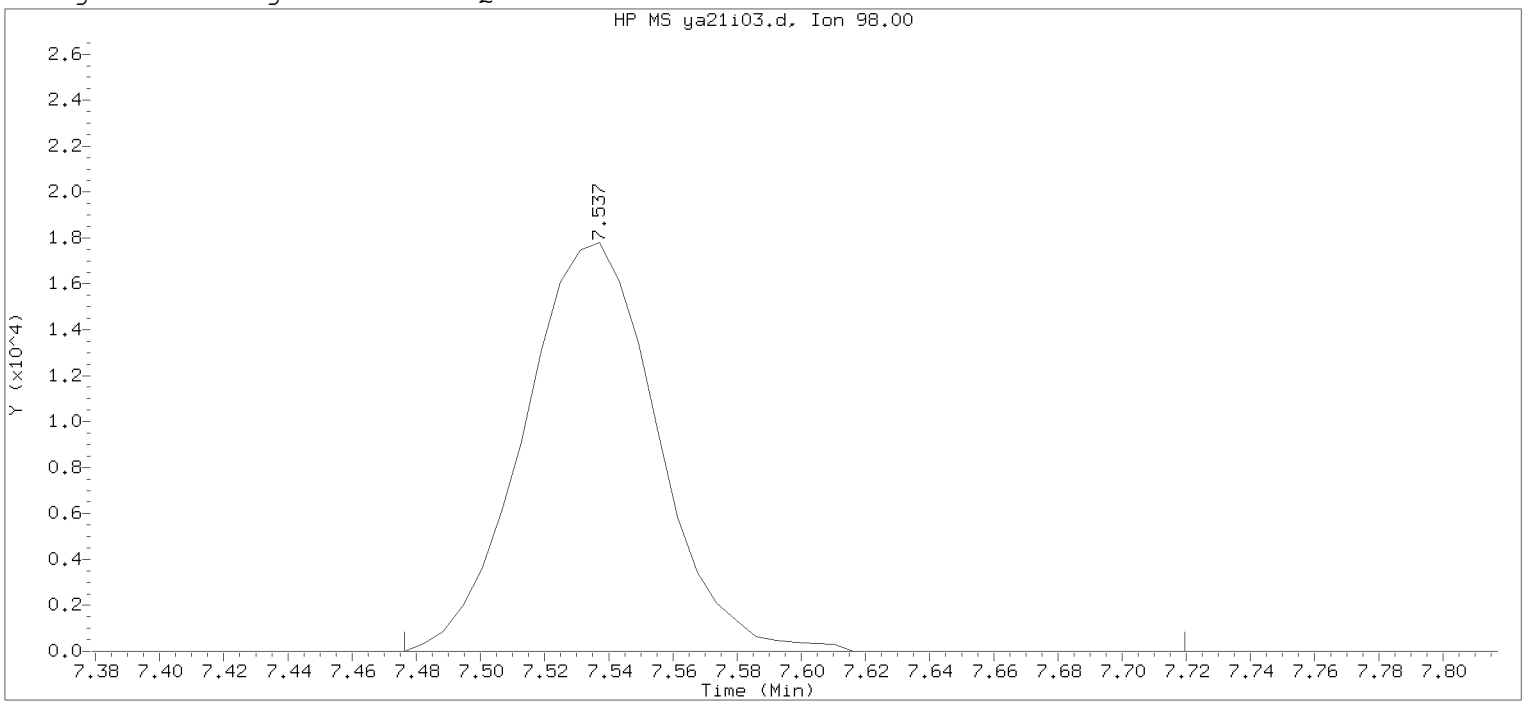
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

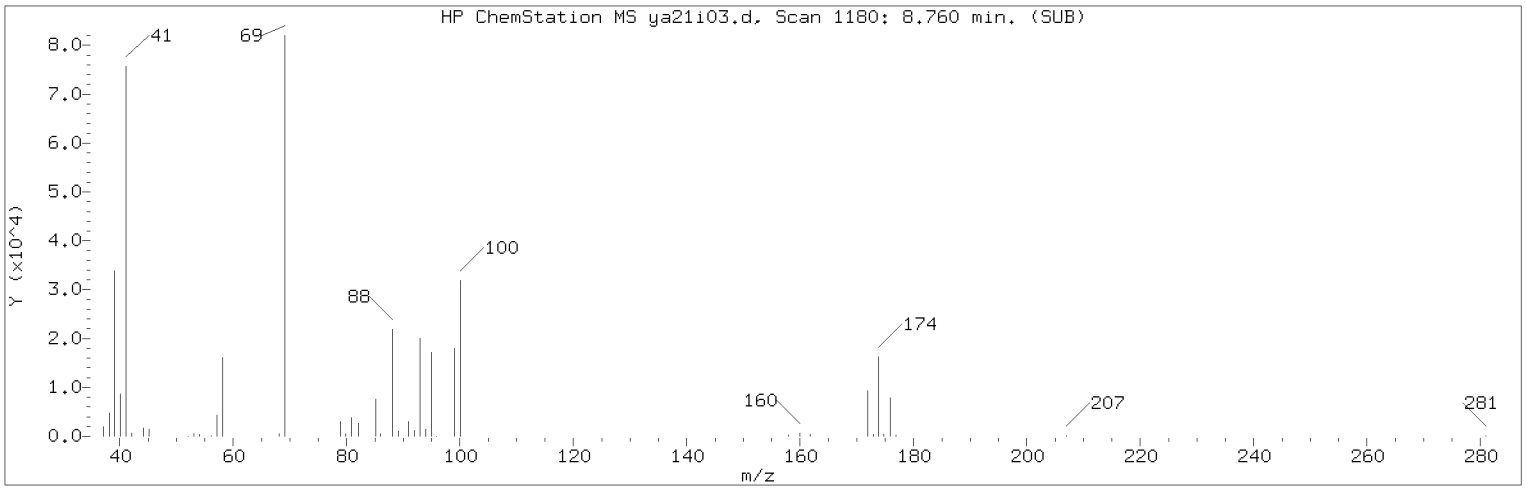
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

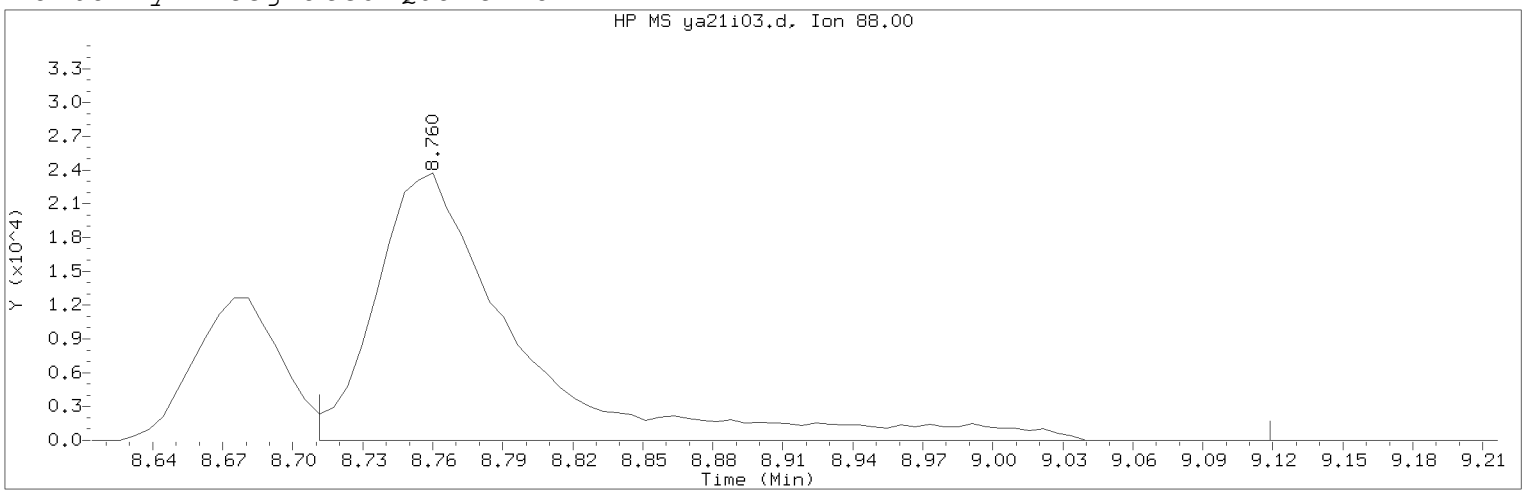
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 979
Retention Time (minutes): 7.537
Quant Ion : 98.00
Area : 51240
On-column Amount (ng) : 56.3939
Integration start scan : 968 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09057

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

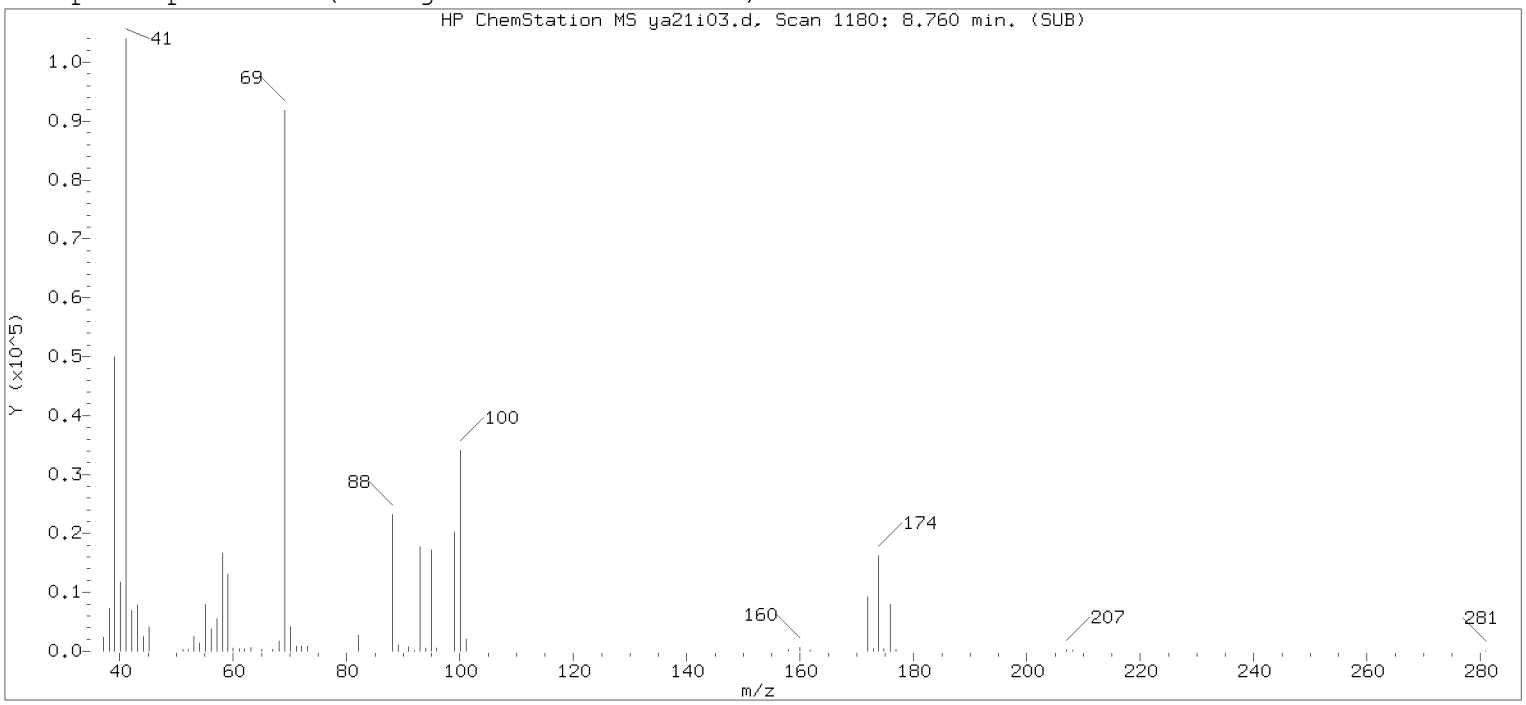
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 101511M
On-Column Amount (ng) : 609.6824
Integration start scan : 1171 Integration stop scan: 1238
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

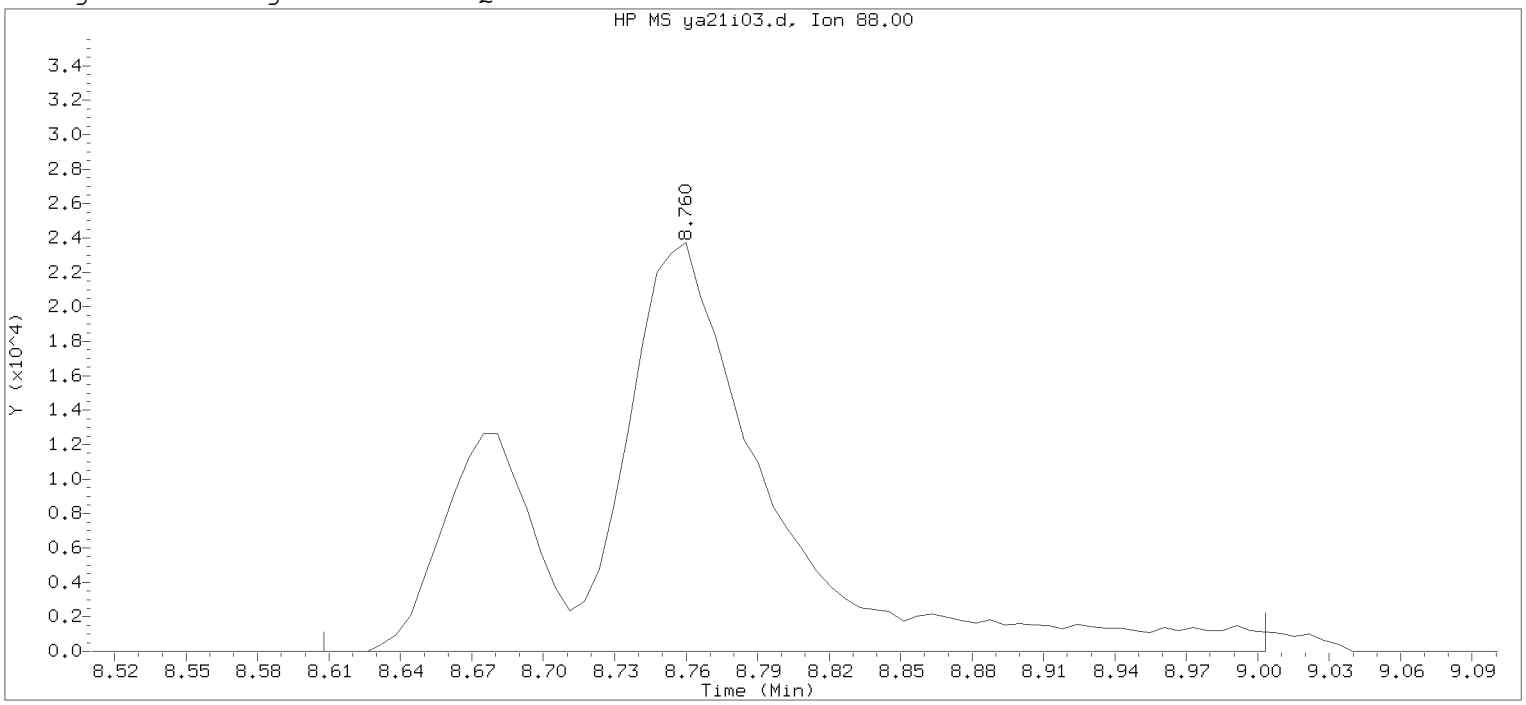
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

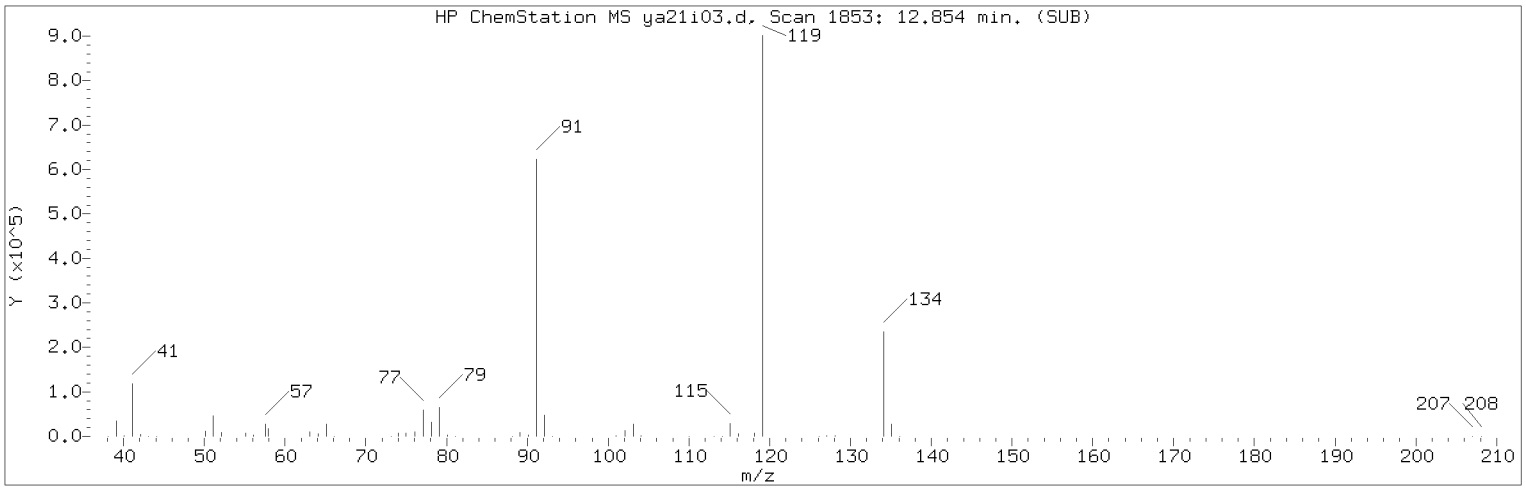
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

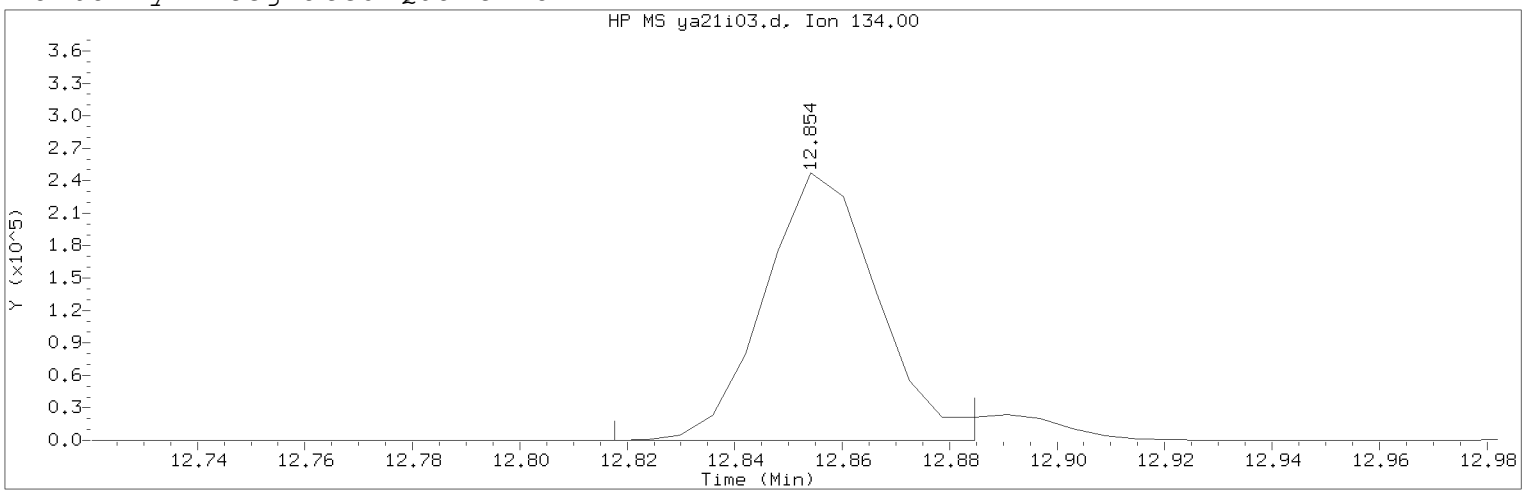
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area : 132134
On-column Amount (ng) : 791.0711
Integration start scan : 1154 Integration stop scan: 1219
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

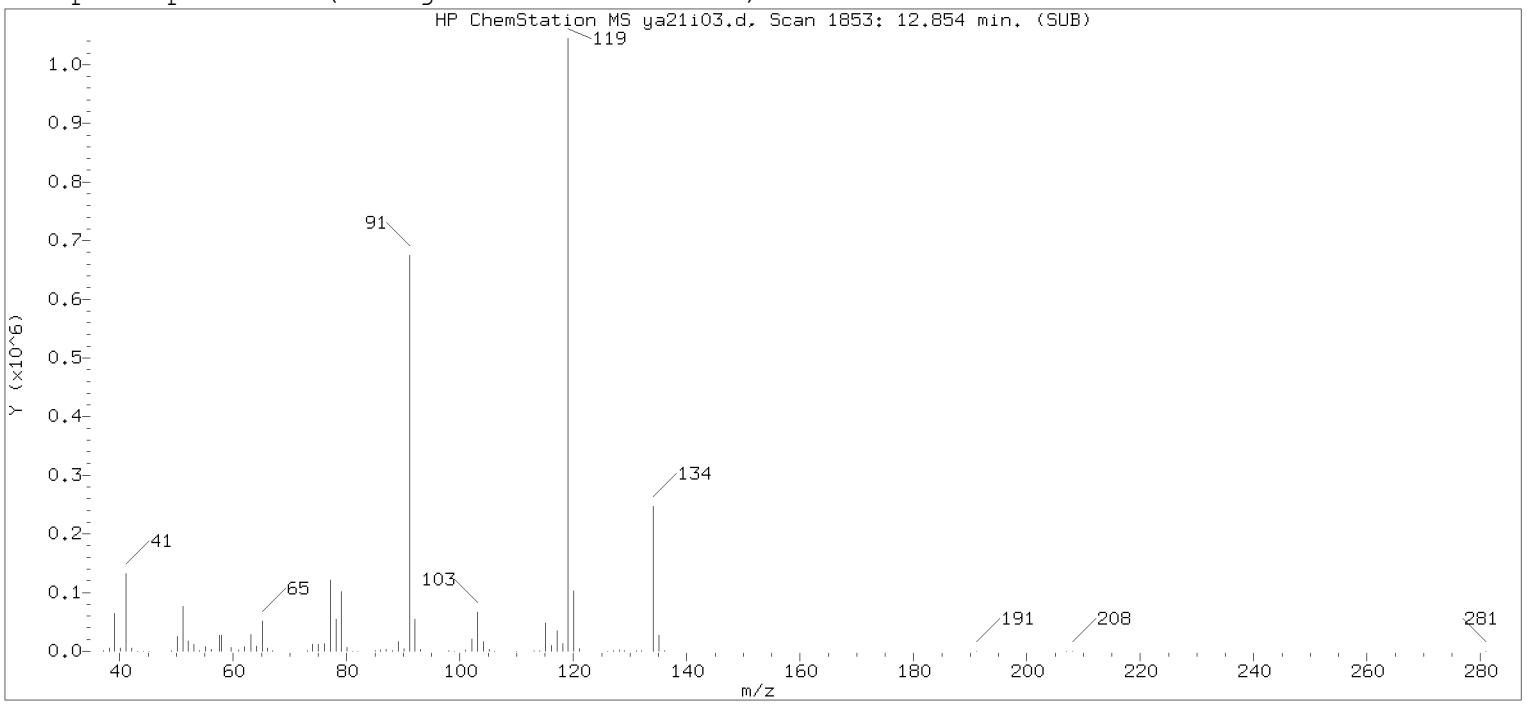
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 361829M
On-Column Amount (ng) : 49.7950
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

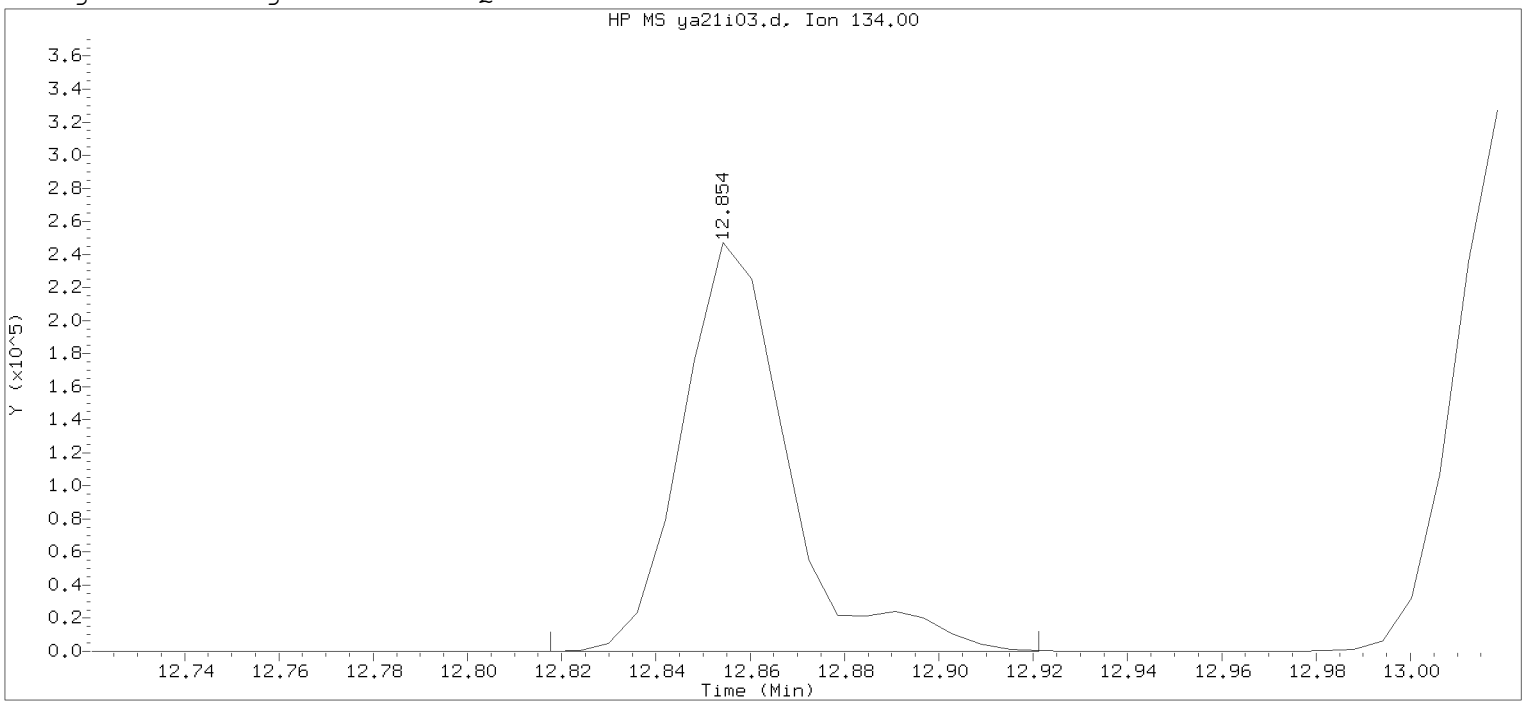
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



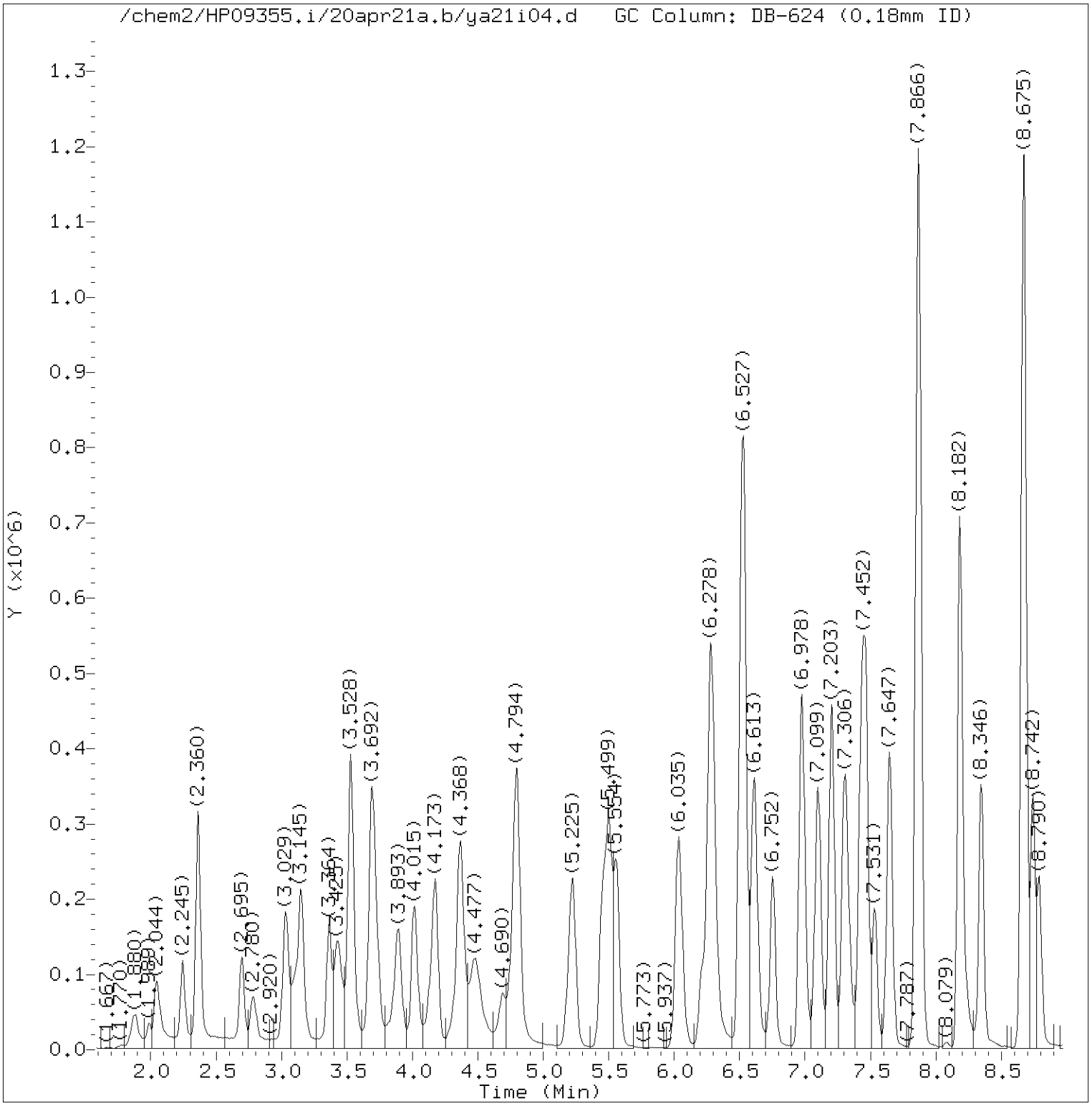
Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 383826
On-column Amount (ng) : 58.5800
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user id: JKHOWE



Total Ion Chromatogram (TIC)

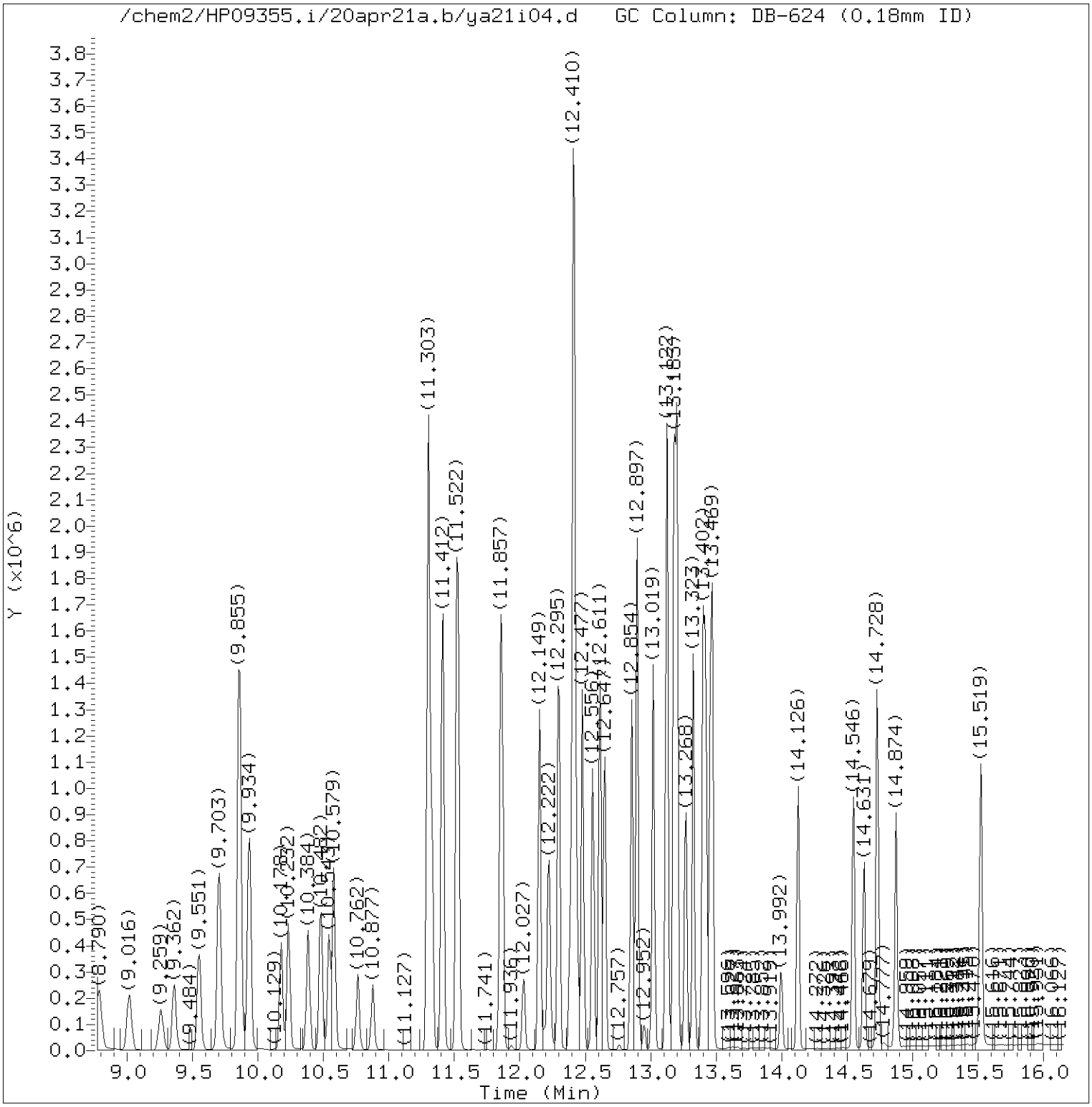
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	177843M	20.054
4) Chloromethane	(2)	2.245	50	159360	20.565
5) 1,3-Butadiene	(2)	2.360	39	129650	20.467
6) Vinyl Chloride	(2)	2.360	62	159759	20.479
8) Bromomethane	(2)	2.695	94	112541	21.547
9) Chloroethane	(2)	2.786	64	90891	21.466
10) Dichlorofluoromethane	(2)	3.029	67	233912	20.752
12) Trichlorofluoromethane	(2)	3.102	101	181598	20.063
11) n-Pentane	(2)	3.145	43	203379	20.987
14) Ethyl ether	(2)	3.364	59	133803	19.441
15) Freon 123a	(2)	3.425	67	172389	20.781
16) Acrolein	(1)	3.528	56	631087	199.835
17) 1,1-Dichloroethene	(2)	3.686	96	139792	20.978
17) 1,1-Dichloroethene	(2)	3.686	63	66032	20.379
18) Acetone	(1)	3.698	58	60675	40.827
19) Freon 113	(2)	3.711	101	137225	20.387
21) 2-Propanol	(1)	3.863	45	227243	205.232
22) Methyl Iodide	(2)	3.893	142	237728	20.498
23) Carbon Disulfide	(2)	4.015	76	482307	20.571
27) Methyl Acetate	(2)	4.136	43	200344	19.735
25) Allyl Chloride	(2)	4.179	41	227767	20.233
29)*t-Butyl alcohol-d10	(1)	4.349	65	390431M	250.000
28) Methylene Chloride	(2)	4.368	84	159958	20.585
30) t-Butyl alcohol	(1)	4.483	59	392097	203.654
31) Acrylonitrile	(2)	4.690	53	111073	19.398
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	457818	20.854
32) trans-1,2-Dichloroethene	(2)	4.800	96	159905	20.823
34) n-Hexane	(2)	5.225	57	244589	20.379
36) 1,1-Dichloroethane	(2)	5.451	63	279345	20.548
38) di-Isopropyl ether	(2)	5.499	45	516228	20.618
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	226522	19.878
40) Ethyl t-butyl ether	(2)	6.035	59	462514	20.849
43) 1,2-Dichloroethene (Total)	(2)		96	340381	41.540
44) 2-Butanone	(2)	6.217	43	295441	38.604
42) cis-1,2-Dichloroethene	(2)	6.272	96	180476	20.717
45) 2,2-Dichloropropane	(2)	6.290	77	208336	20.242
47) Propionitrile	(1)	6.296	54	477405	208.215
48) Methacrylonitrile	(2)	6.527	67	594994	101.816

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.613	128	84378	20.267
50) Tetrahydrofuran	(1)	6.619	71	84246	38.580
51) Chloroform	(2)	6.752	83	266485	20.437
52)$Dibromofluoromethane	(2)	6.971	113	295200	50.033
52)$Dibromofluoromethane	(2)	6.971	111	300144	49.895
53) 1,1,1-Trichloroethane	(2)	6.990	97	227228	20.196
54) Cyclohexane	(2)	7.099	56	289388	20.244
54) Cyclohexane	(2)	7.099	84	241656	20.244
54) Cyclohexane	(2)	7.099	69	89633	20.242
55) 1,1-Dichloropropene	(2)	7.203	75	223089	20.327
56) Carbon Tetrachloride	(2)	7.209	117	193561	19.974
58) Isobutyl Alcohol	(1)	7.306	41	350085	504.397
57)$1,2-Dichloroethane-d4	(2)	7.428	102	77362	50.264
57)$1,2-Dichloroethane-d4	(2)	7.428	65	344013	49.983
57)$1,2-Dichloroethane-d4	(2)	7.428	104	49816	50.547
60) Benzene	(2)	7.464	78	670392	20.635
61) 1,2-Dichloroethane	(2)	7.531	62	208042M	20.297
61) 1,2-Dichloroethane	(2)	7.531	98	20635	20.143
65) t-Amyl methyl ether	(2)	7.647	73	461415	20.870
66)*Fluorobenzene	(2)	7.866	96	1294339	50.000
67) n-Heptane	(2)	7.878	43	259184	20.361
69) n-Butanol	(1)	8.182	56	686043M	1004.402
71) Trichloroethene	(2)	8.346	95	167297	20.279
72) Methylcyclohexane	(2)	8.663	83	298309	20.397
72) Methylcyclohexane	(2)	8.663	98	130446	20.161
73) 1,2-Dichloropropane	(2)	8.675	63	173564	20.580
76) Methyl Methacrylate	(2)	8.742	69	173167	19.337
75) 1,4-Dioxane	(1)	8.754	88	80550M	490.681
74) Dibromomethane	(2)	8.790	93	109077	20.104
78) Bromodichloromethane	(2)	9.022	83	198928	19.644
79) 2-Nitropropane	(2)	9.259	41	133277	37.396
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	139110	19.506
81) cis-1,3-Dichloropropene	(2)	9.551	75	272374	19.702
82) 4-Methyl-2-pentanone	(2)	9.703	43	574855	38.603
83)$Toluene-d8	(3)	9.855	98	1250386	50.111
83)$Toluene-d8	(3)	9.855	100	801679	49.940
88) Toluene	(3)	9.934	92	420596	20.578
90) 1,3-Dichloropropene (total)	(3)		100	523351	39.266

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on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.178	75	250977	19.563
91) Ethyl Methacrylate	(3)	10.232	69	278031	19.182
92) 1,1,2-Trichloroethane	(3)	10.384	97	163662	20.150
93) Tetrachloroethene	(3)	10.482	166	172771	20.493
94) 1,3-Dichloropropane	(3)	10.543	76	278527	20.245
96) 2-Hexanone	(3)	10.579	43	459180	38.867
97) Dibromochloromethane	(3)	10.762	129	165318	19.264
99) 1,2-Dibromoethane	(3)	10.877	107	178000	19.818
100)*Chlorobenzene-d5	(3)	11.303	117	956851	50.000
101) 1-Chlorohexane	(3)	11.303	91	228289	20.227
102) Chlorobenzene	(3)	11.327	112	475624	20.754
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	156857	20.159
104) Ethylbenzene	(3)	11.412	91	816914	20.889
106) m+p-Xylene	(3)	11.522	106	648803	41.766
108) Xylene (Total)	(3)		106	967684	62.595
107) o-Xylene	(3)	11.850	106	318881	20.829
109) Styrene	(3)	11.869	104	523406	20.276
110) Bromoform	(3)	12.033	173	120443	18.472
111) Isopropylbenzene	(3)	12.149	105	812641	20.952
112) Cyclohexanone	(1)	12.222	55	312656	484.858
114)$4-Bromofluorobenzene	(3)	12.295	95	472367	49.951
114)$4-Bromofluorobenzene	(3)	12.301	174	364207	49.950
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	287764M	20.365
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	468705	102.428
115) Bromobenzene	(4)	12.416	156	205519	20.530
117) 1,2,3-Trichloropropane	(4)	12.434	110	90667	20.242
119) n-Propylbenzene	(4)	12.477	91	983842	21.302
120) 2-Chlorotoluene	(4)	12.556	126	198114	20.457
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	708977	20.760
121) 4-Chlorotoluene	(4)	12.647	126	208513	20.497
124) tert-Butylbenzene	(4)	12.854	134	148019M	20.459
125) Pentachloroethane	(4)	12.891	167	106261	19.042
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	749726	20.843
127) sec-Butylbenzene	(4)	13.019	105	917863	21.125
129) 1,3-Dichlorobenzene	(4)	13.122	146	393932	20.660
130) p-Isopropyltoluene	(4)	13.128	119	780887	20.970
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	512562	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	406267	20.700

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Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.201	105	711049	20.851
135)	Benzyl Chloride	(4)	13.268	91	595505	19.790
136)	1,3-Diethylbenzene	(4)	13.323	119	459056	20.570
141)	Diethylbenzene (total)	(4)		100	1331210	62.094
137)	1,4-Diethylbenzene	(4)	13.396	119	487272	20.781
139)	n-Butylbenzene	(4)	13.420	92	409236	20.728
138)	1,2-Dichlorobenzene	(4)	13.457	146	381018	20.575
140)	1,2-Diethylbenzene	(4)	13.469	119	384882	20.743
142)	1,2-Dibromo-3-chloropropane	(4)	13.992	75	70135	19.151
144)	1,3,5-Trichlorobenzene	(4)	14.126	180	280075	20.080
146)	1,2,4-Trichlorobenzene	(4)	14.546	180	261249	19.889
147)	Hexachlorobutadiene	(4)	14.631	225	117390	20.034
148)	Naphthalene	(4)	14.728	128	998695	21.101
149)	1,2,3-Trichlorobenzene	(4)	14.874	180	251813	20.027
150)	2-Methylnaphthalene	(4)	15.519	142	545468	20.702

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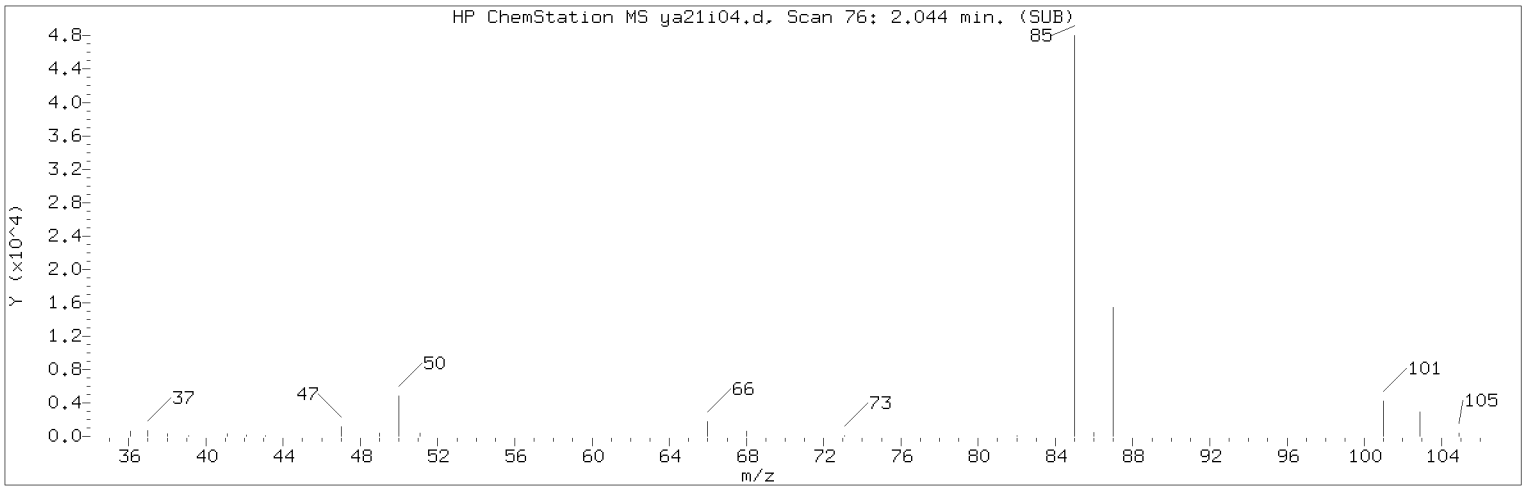
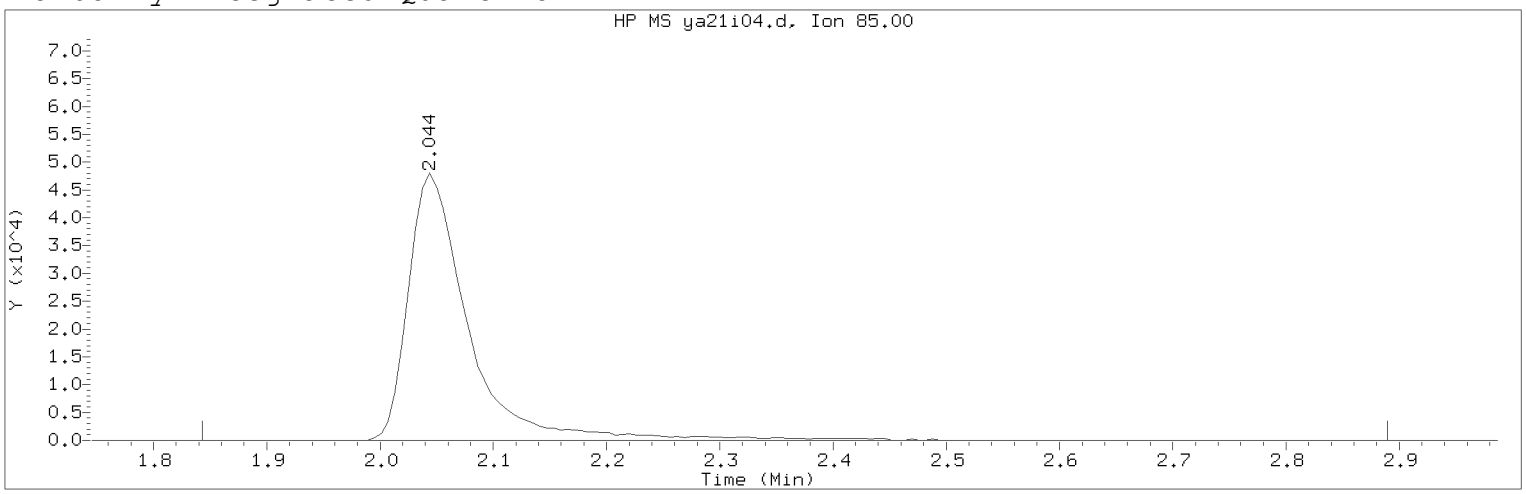
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

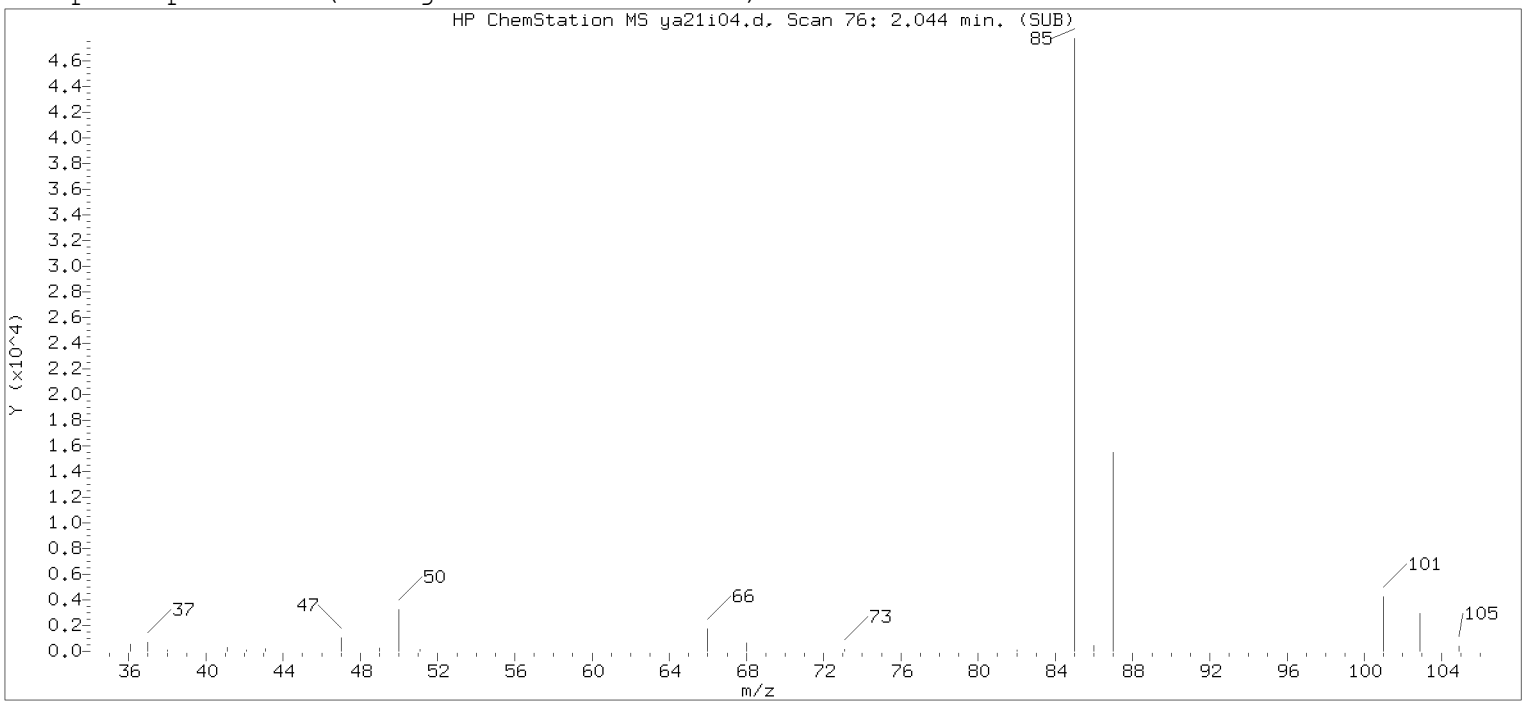
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 177843M
On-Column Amount (ng) : 20.0542
Integration start scan : 42 Integration stop scan: 214
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

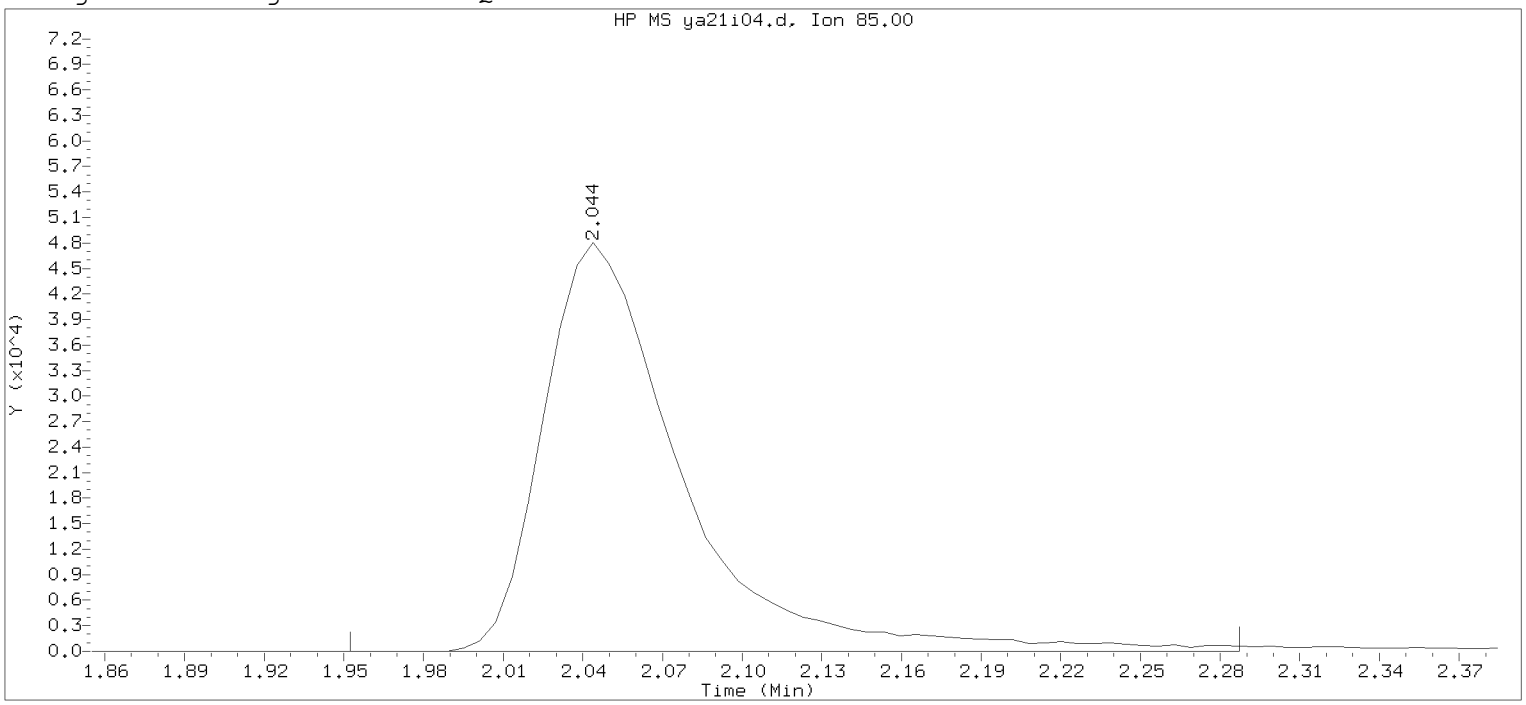
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

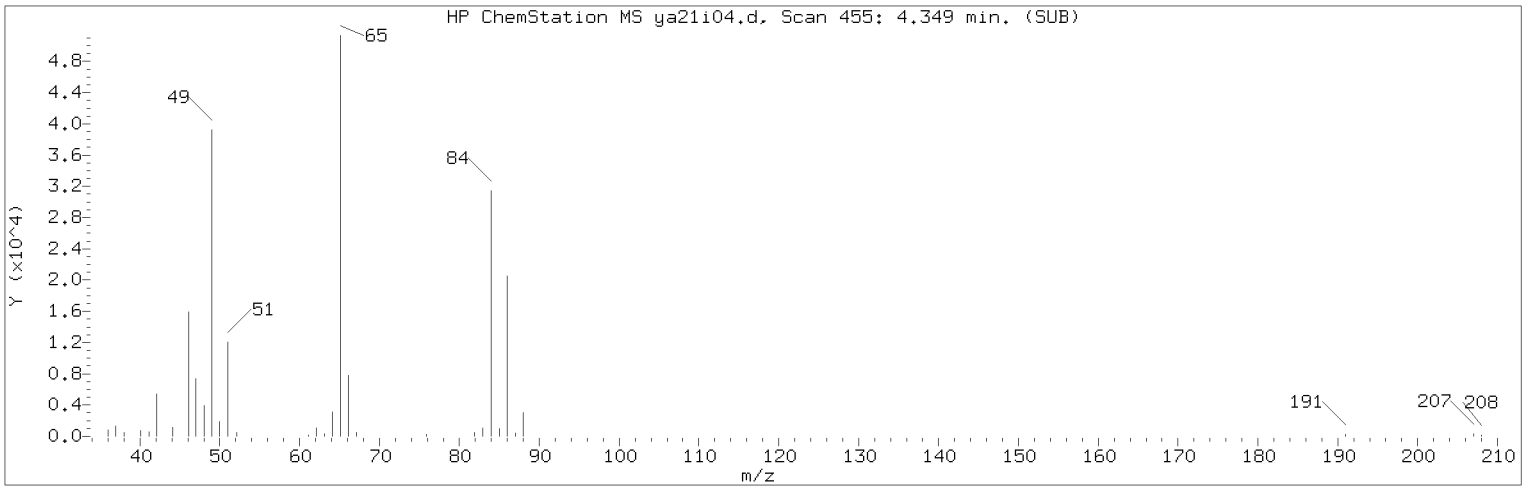
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

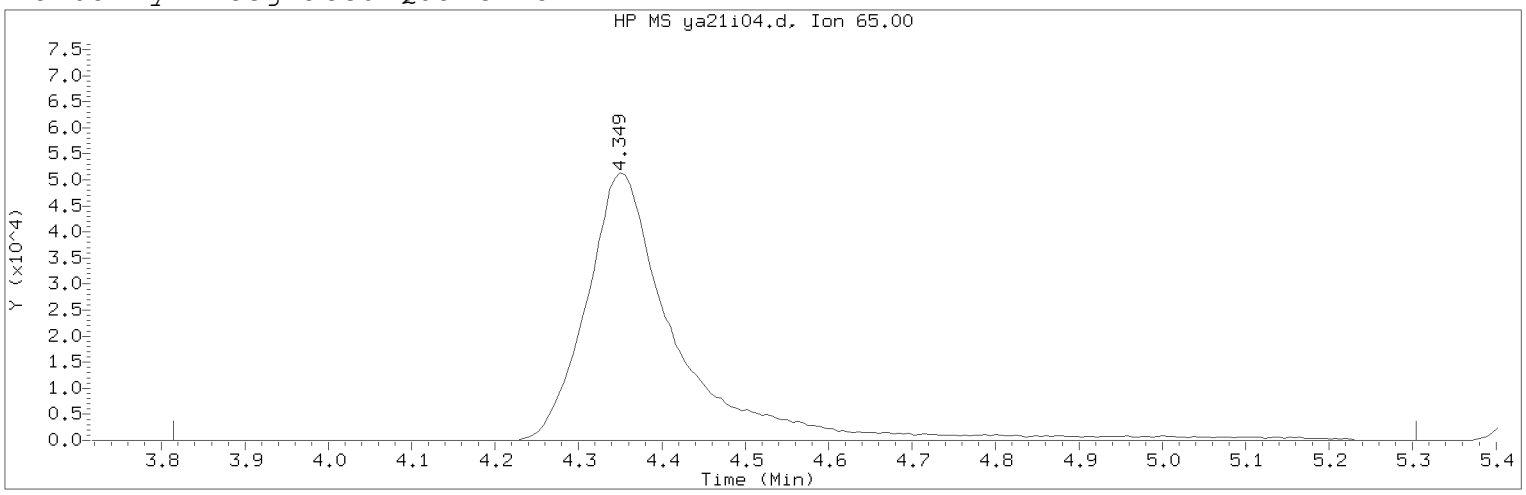
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 173825
On-column Amount (ng) : 20.8768
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

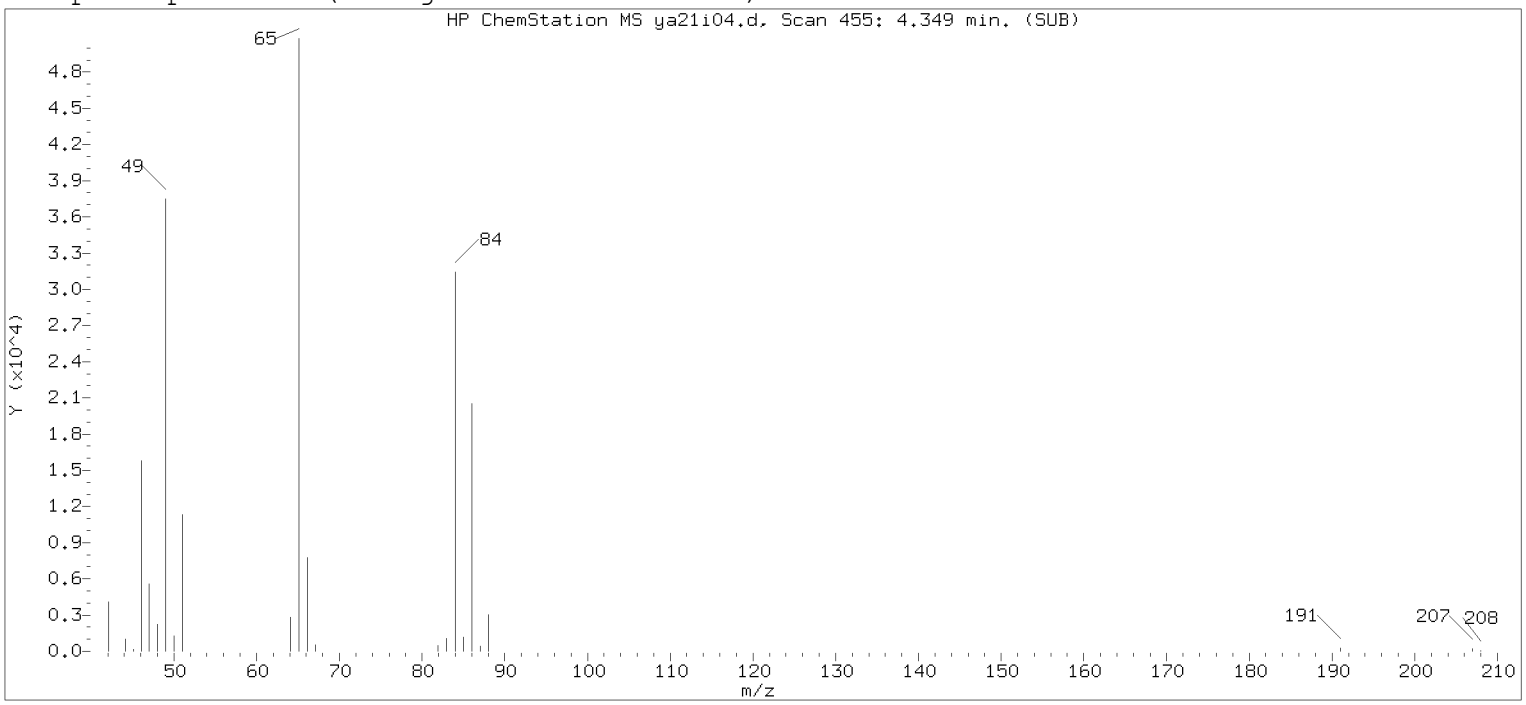
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area (flag) : 390431M
On-Column Amount (ng) : 250.0000
Integration start scan : 366 Integration stop scan: 611
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

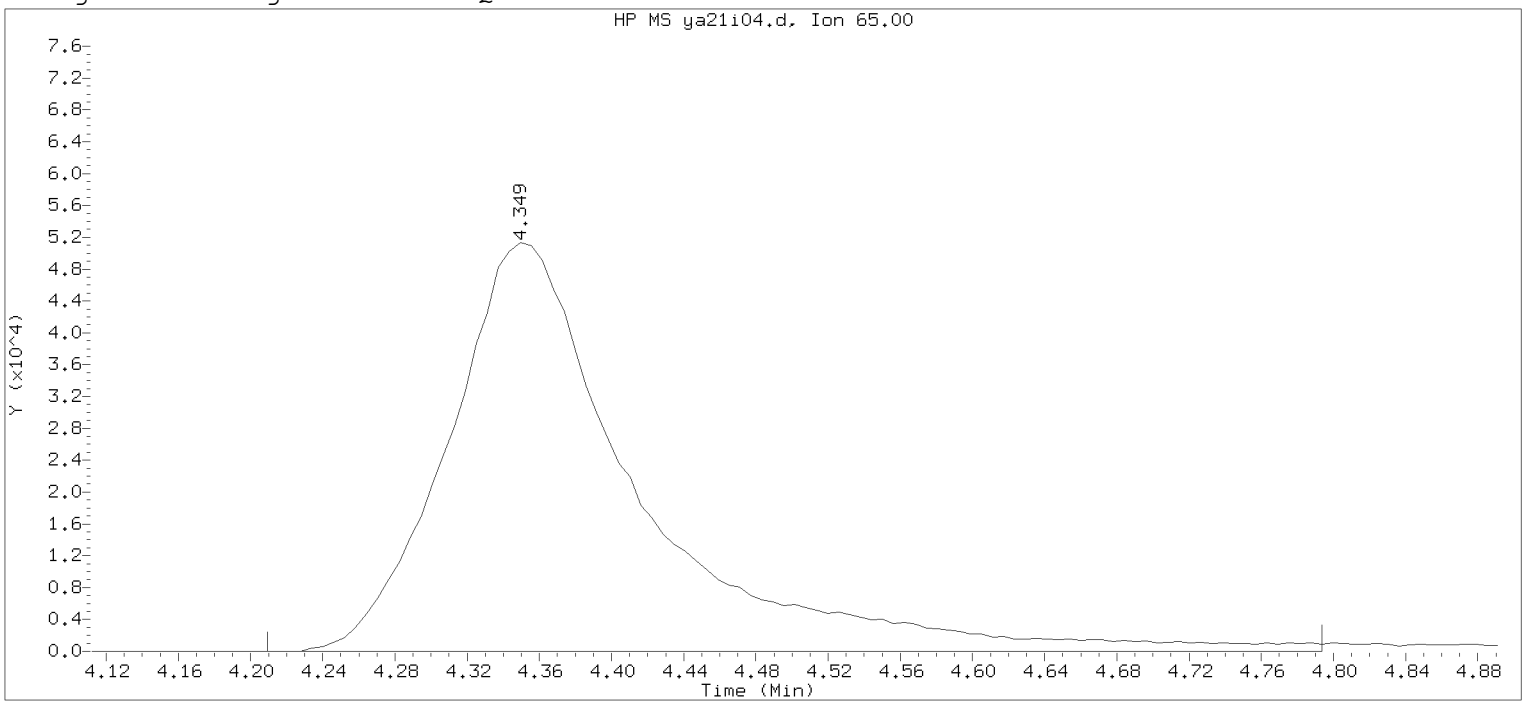
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

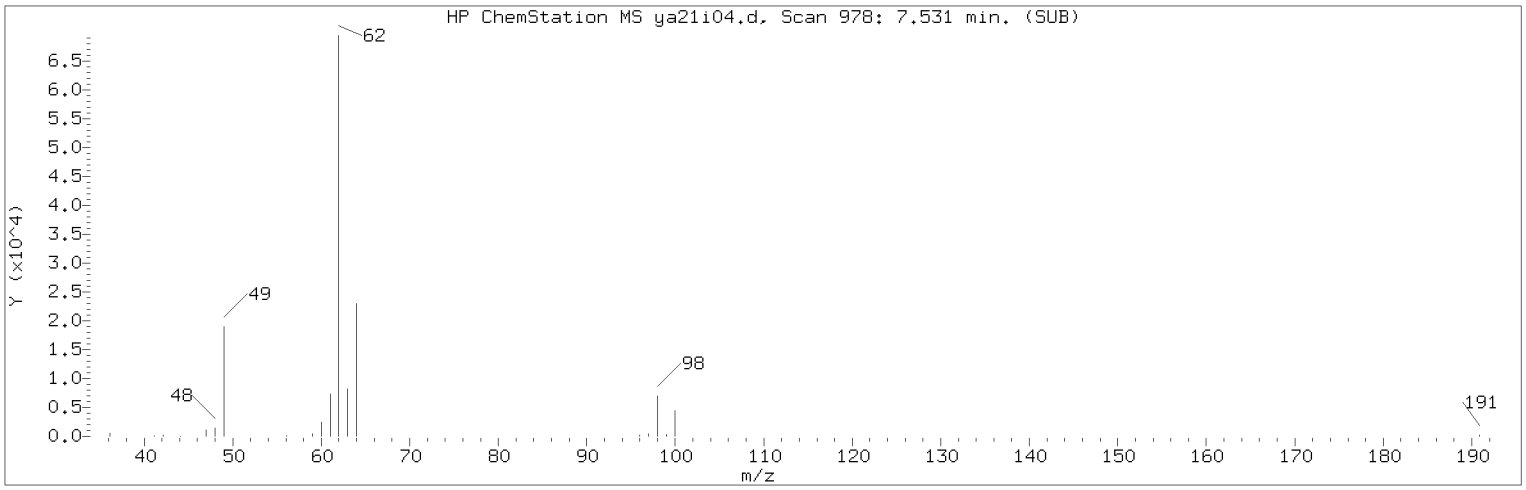
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

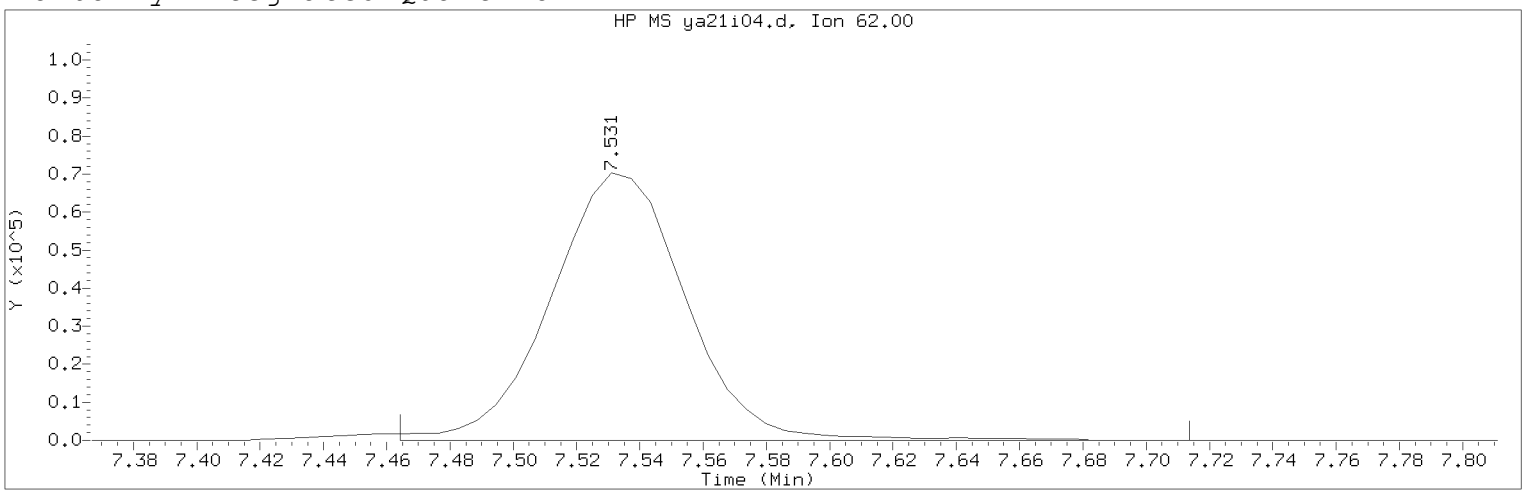
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area : 373785
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 527
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

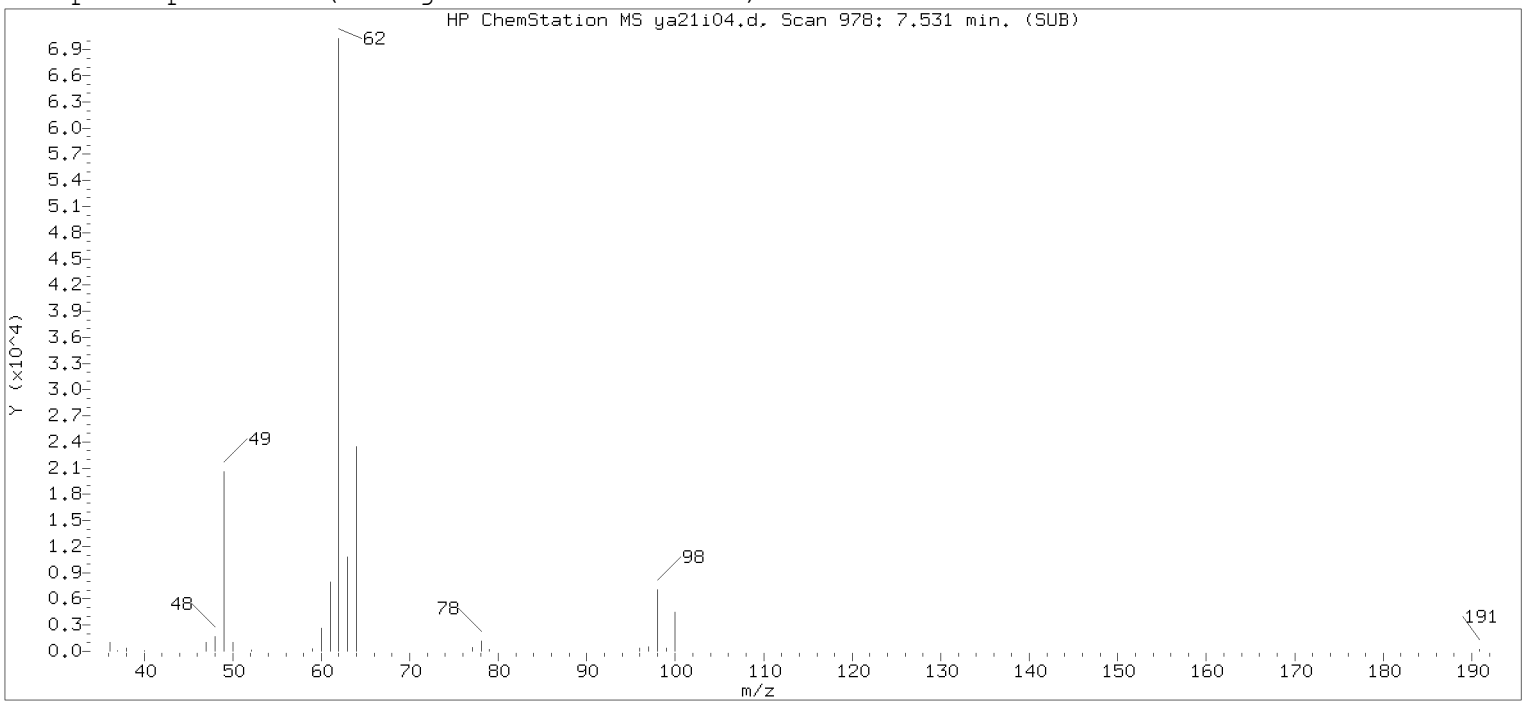
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 208042M
On-Column Amount (ng) : 20.2970
Integration start scan : 966 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

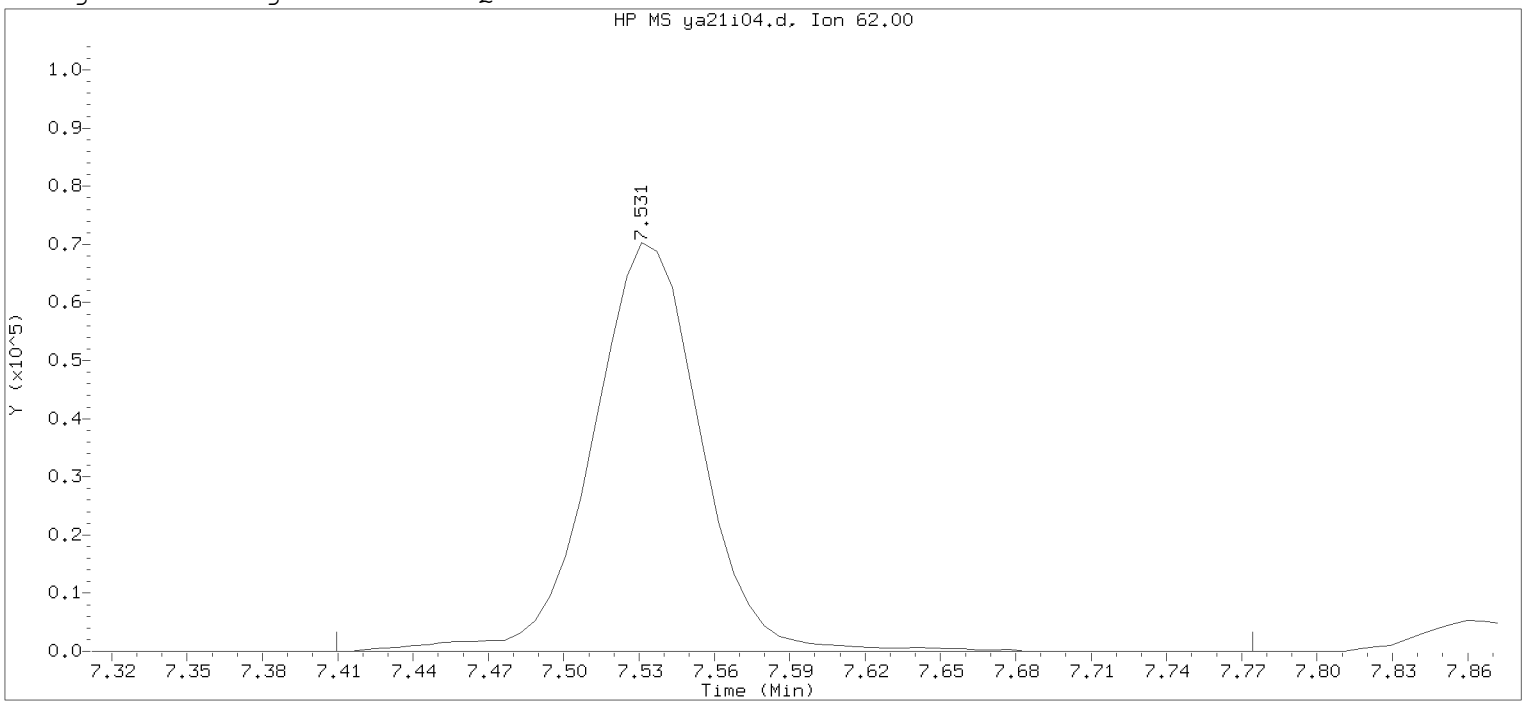
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

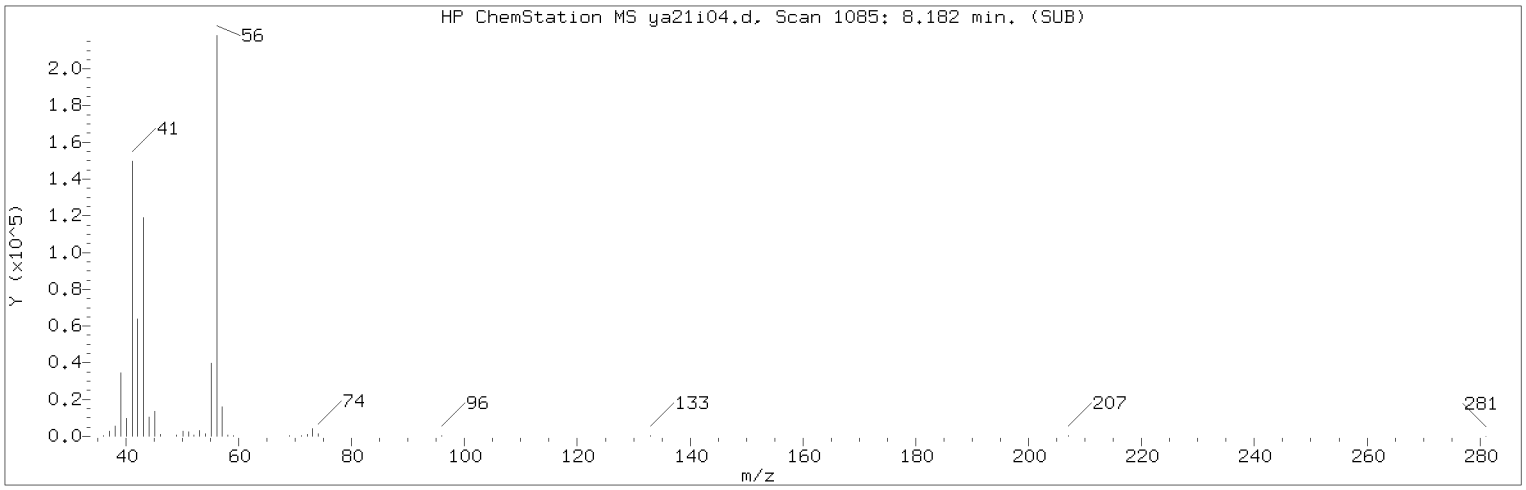
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

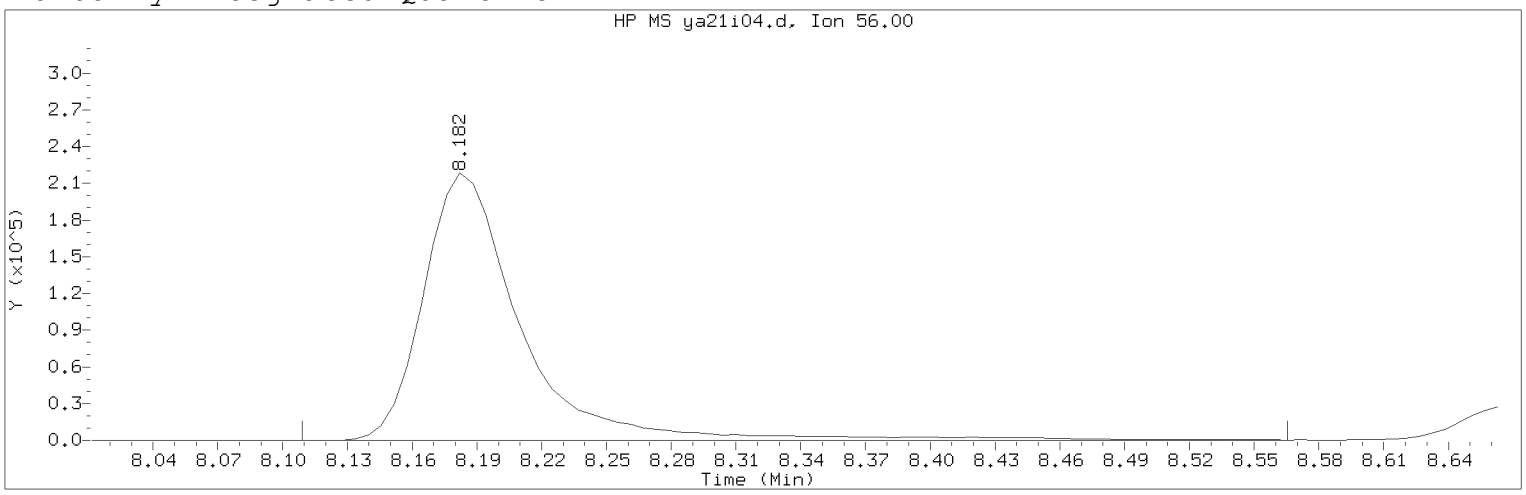
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 210519
On-column Amount (ng) : 20.3330
Integration start scan : 957 Integration stop scan: 1017
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

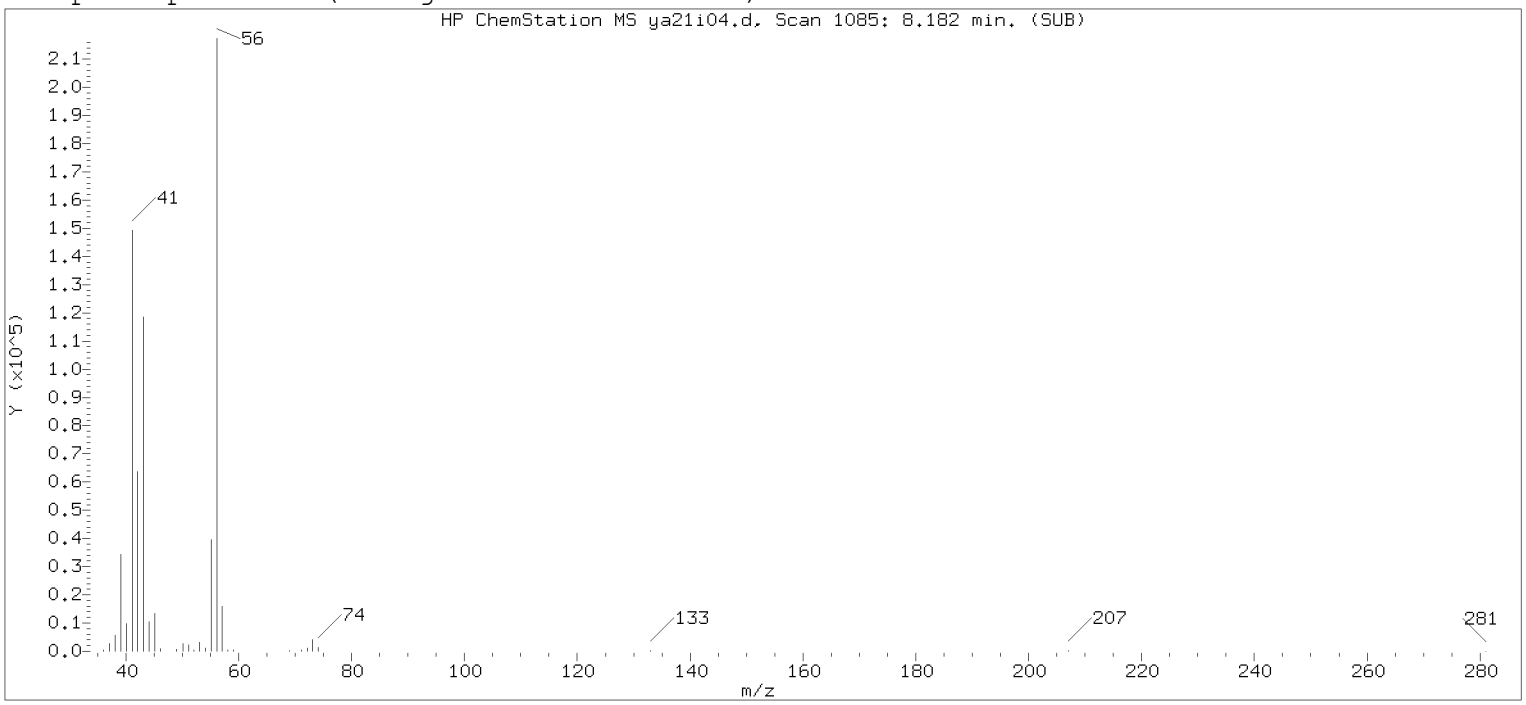
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area (flag) : 686043M
On-Column Amount (ng) : 1004.4020
Integration start scan : 1072 Integration stop scan: 1147
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

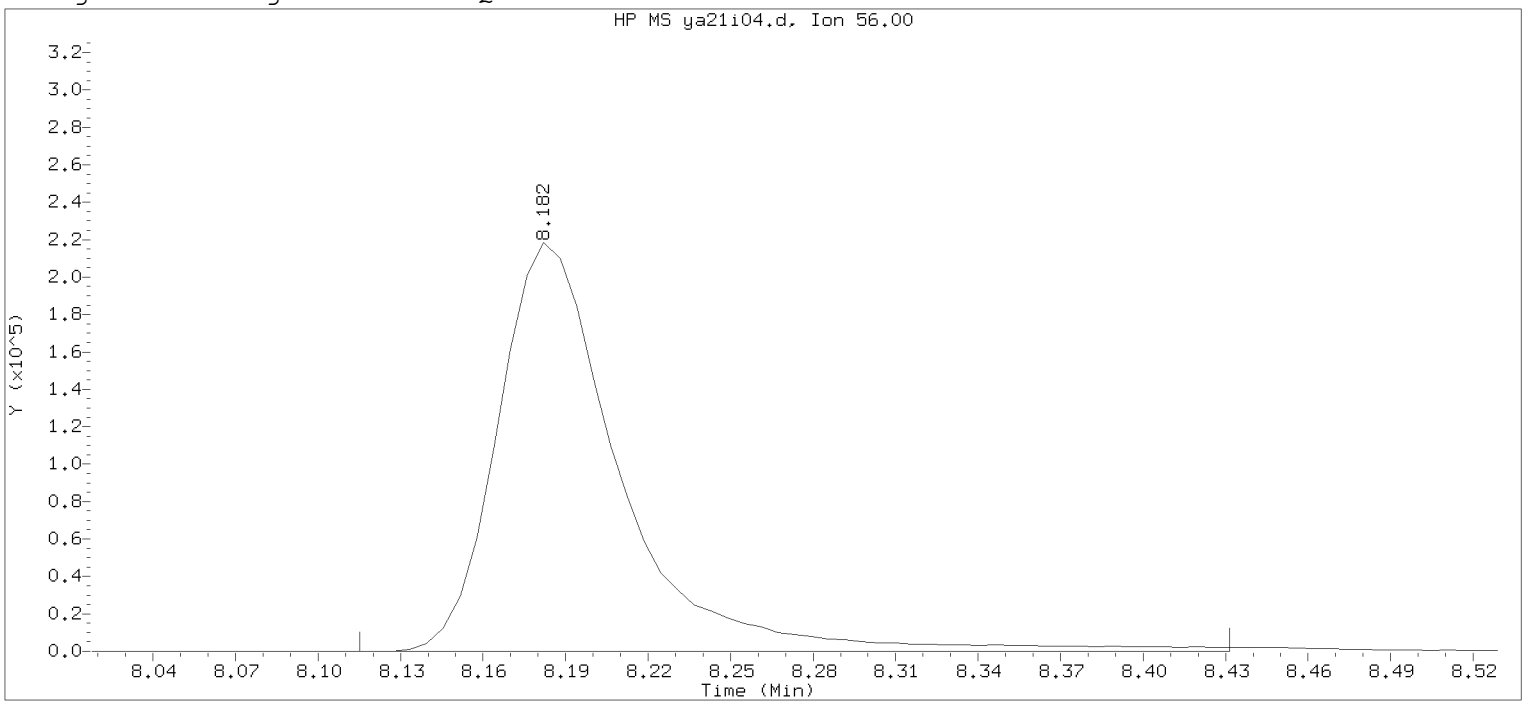
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

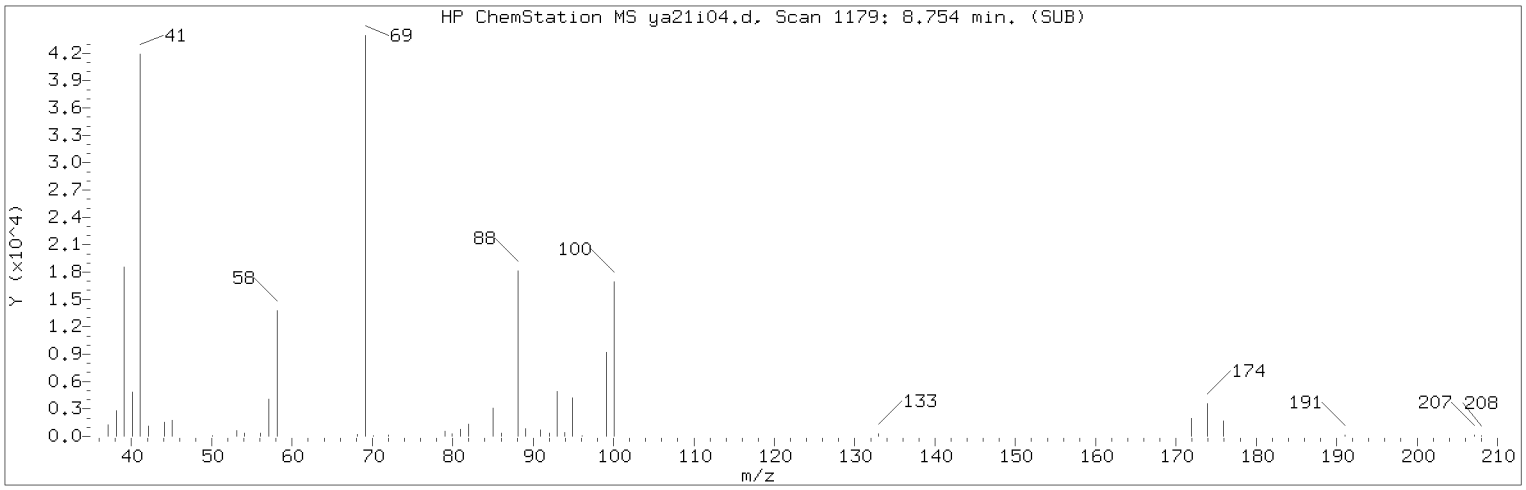
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

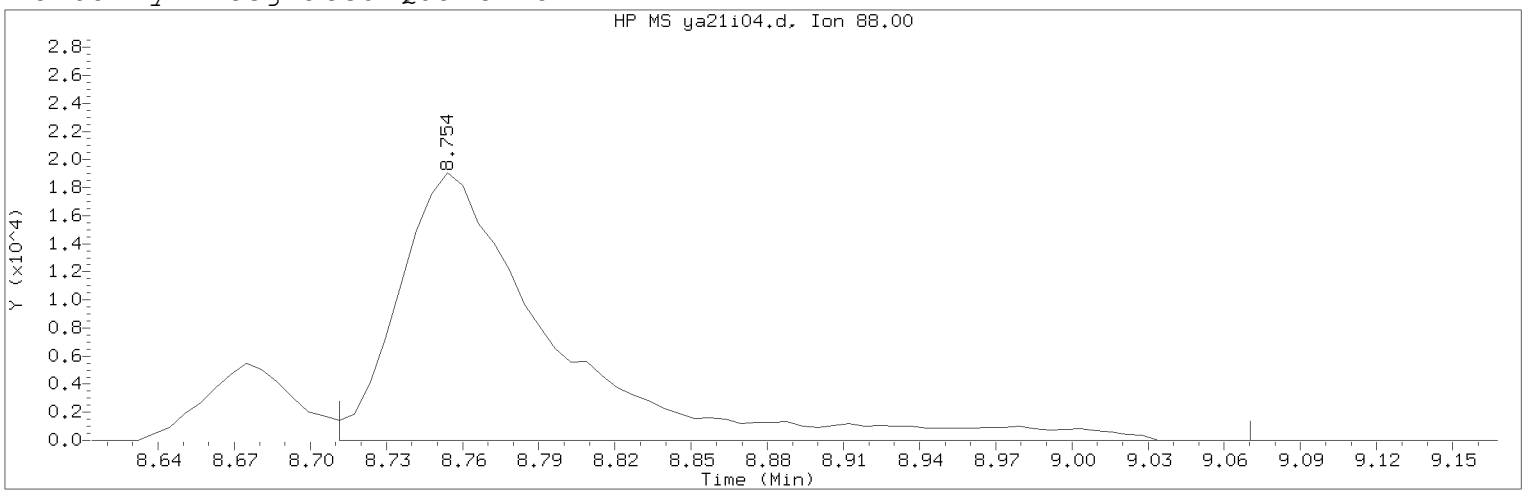
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area : 678859
On-column Amount (ng) : 1165.1548
Integration start scan : 1073 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

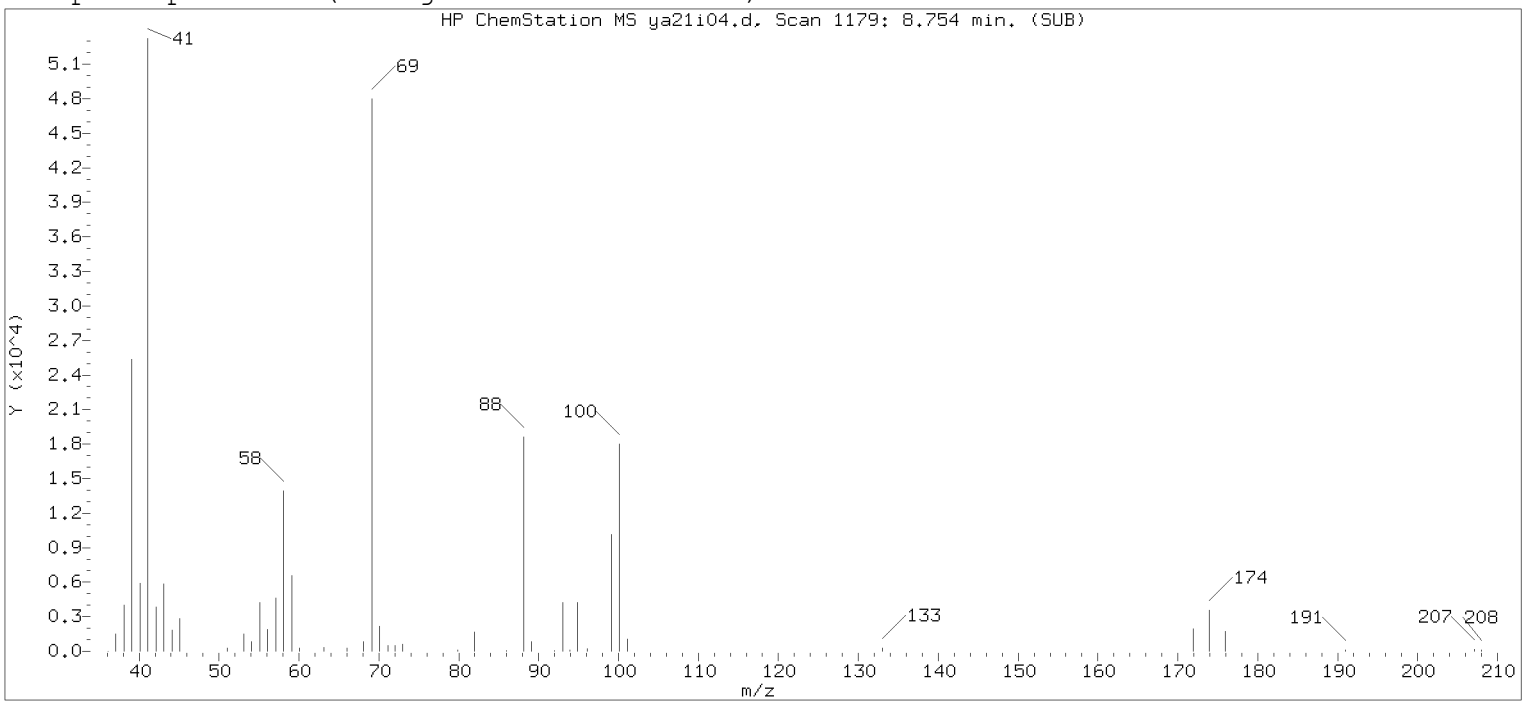
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 80550M
On-Column Amount (ng) : 490.6810
Integration start scan : 1171 Integration stop scan: 1230
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

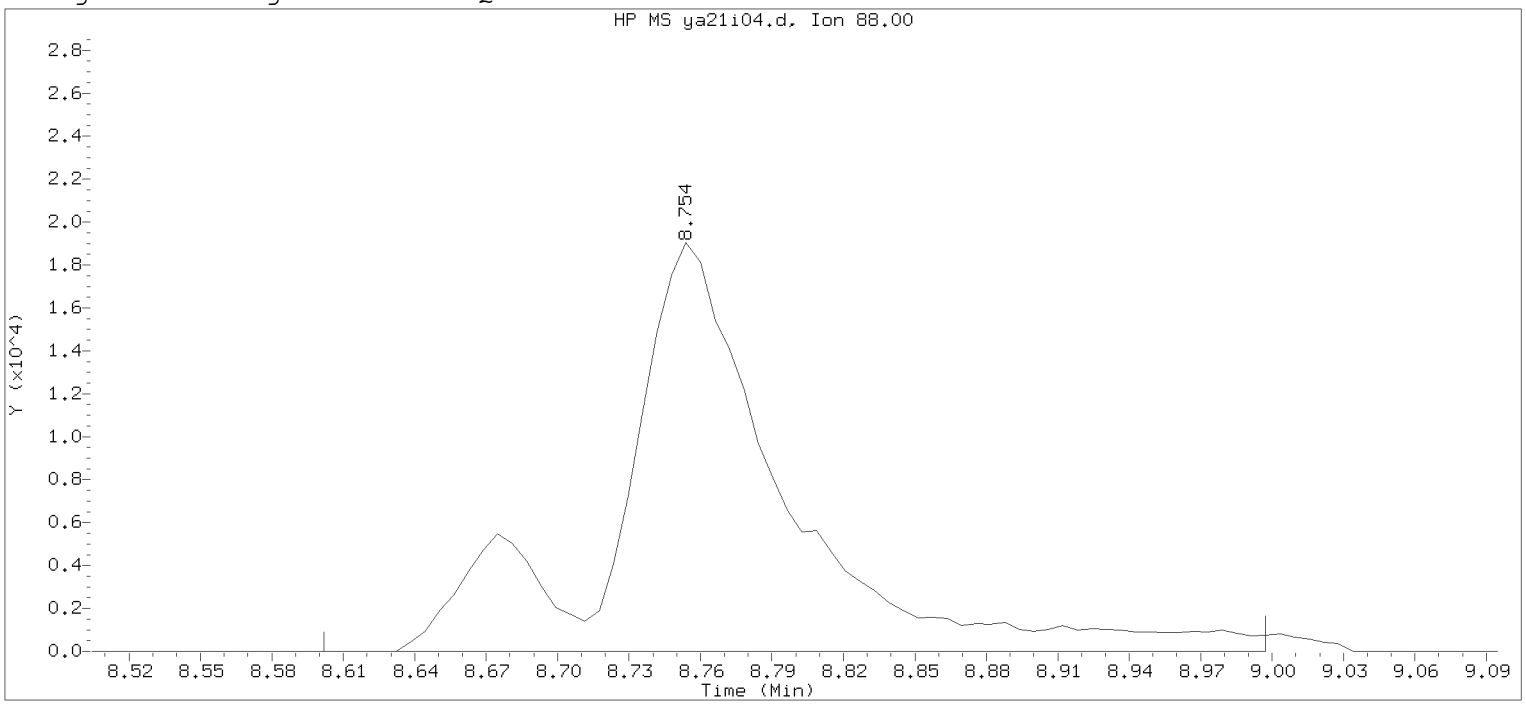
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

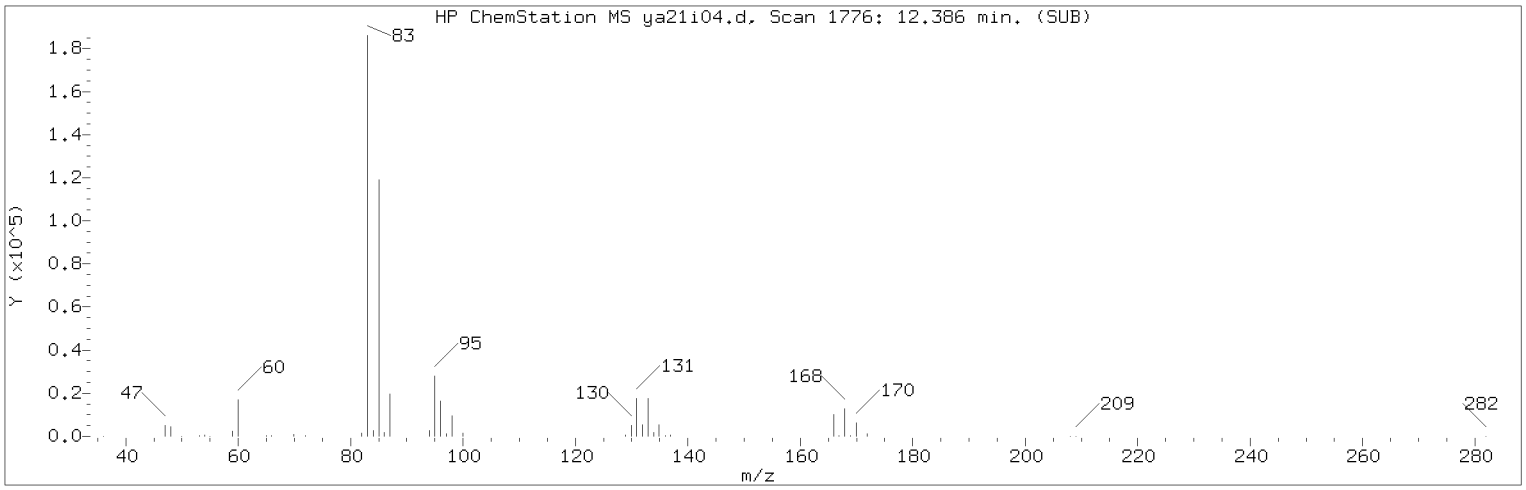
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

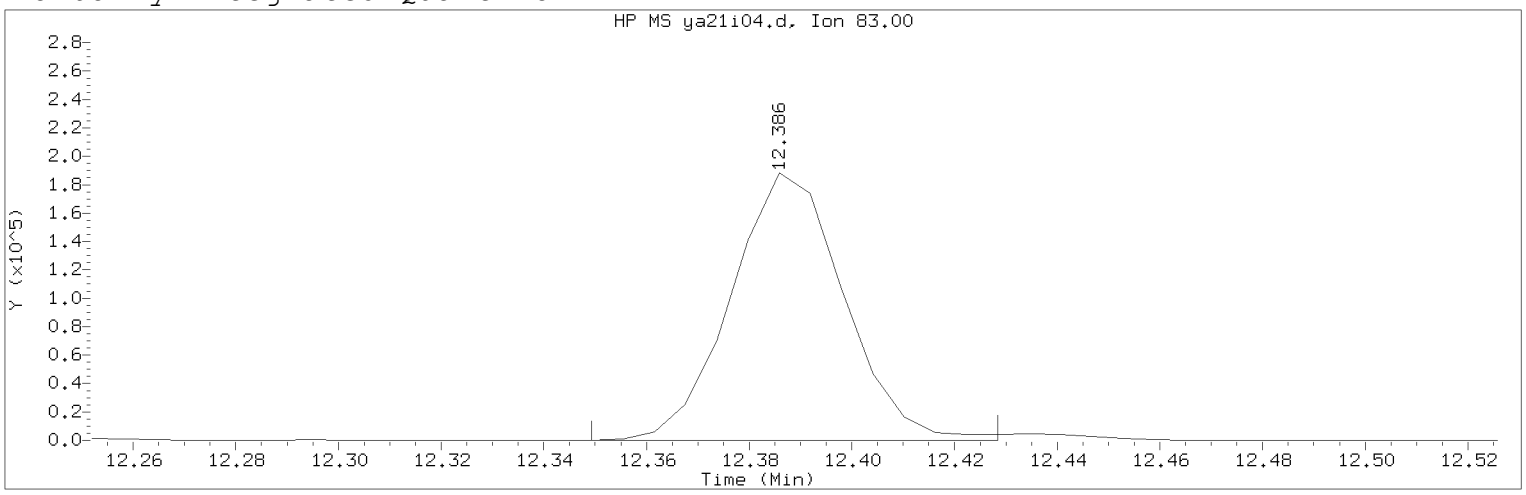
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 92470
On-column Amount (ng) : 518.6336
Integration start scan : 1153 Integration stop scan: 1218
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

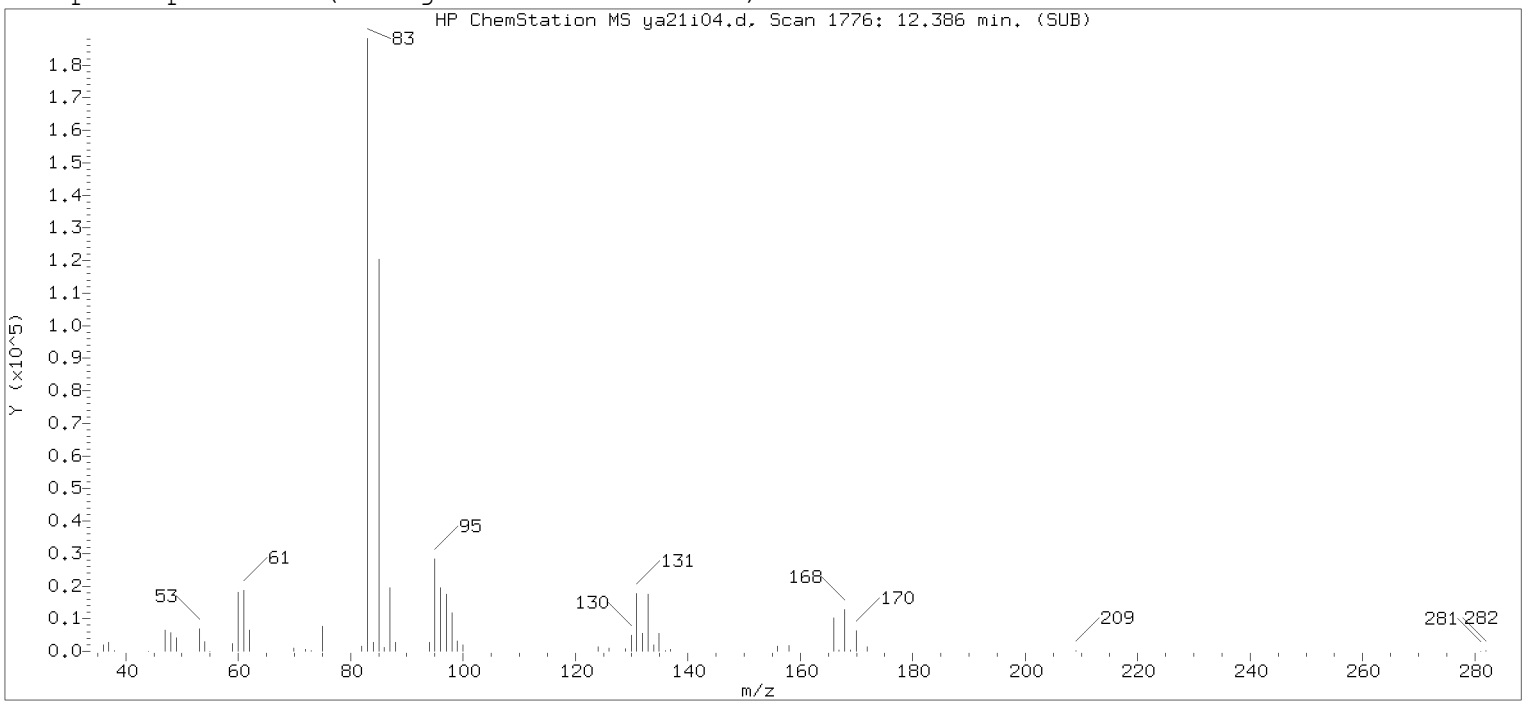
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area (flag) : 287764M
On-Column Amount (ng) : 20.3647
Integration start scan : 1769 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

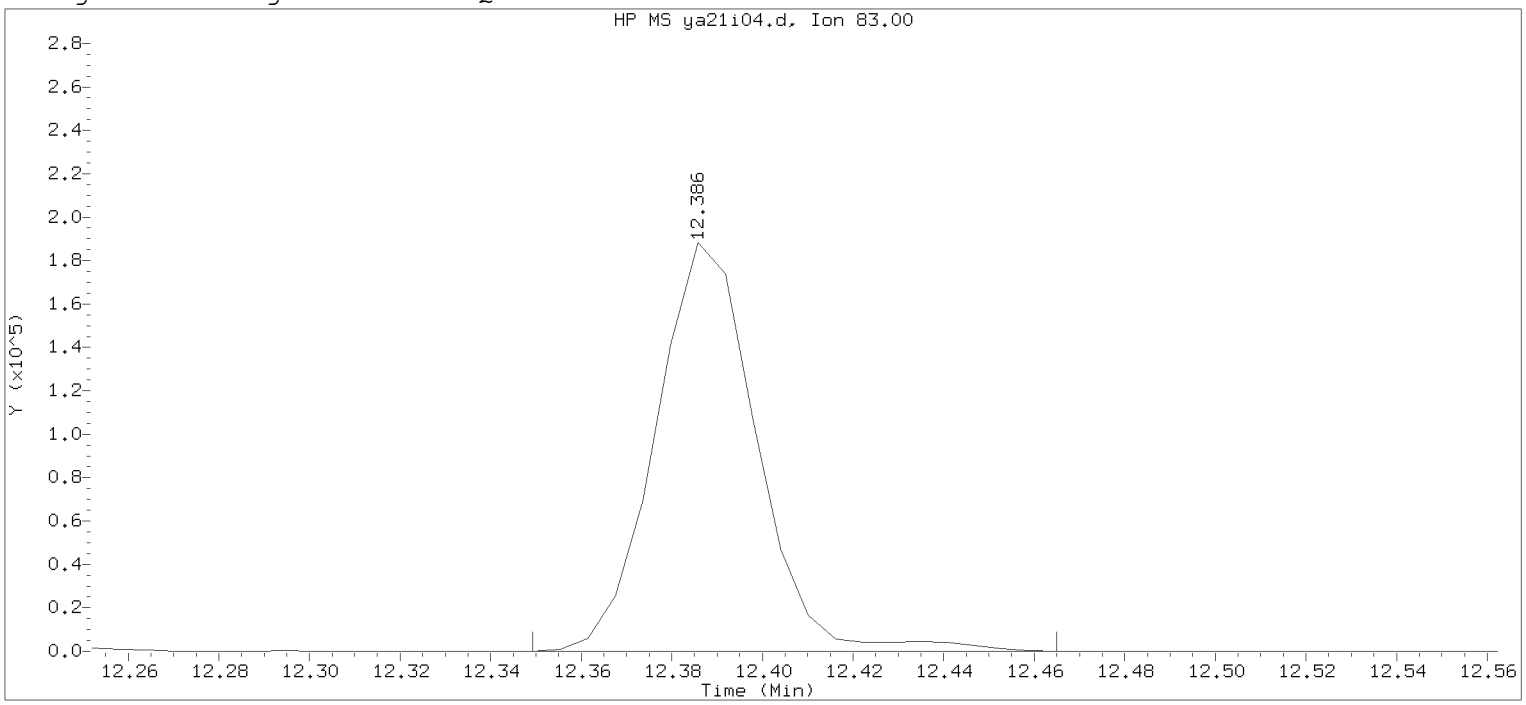
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

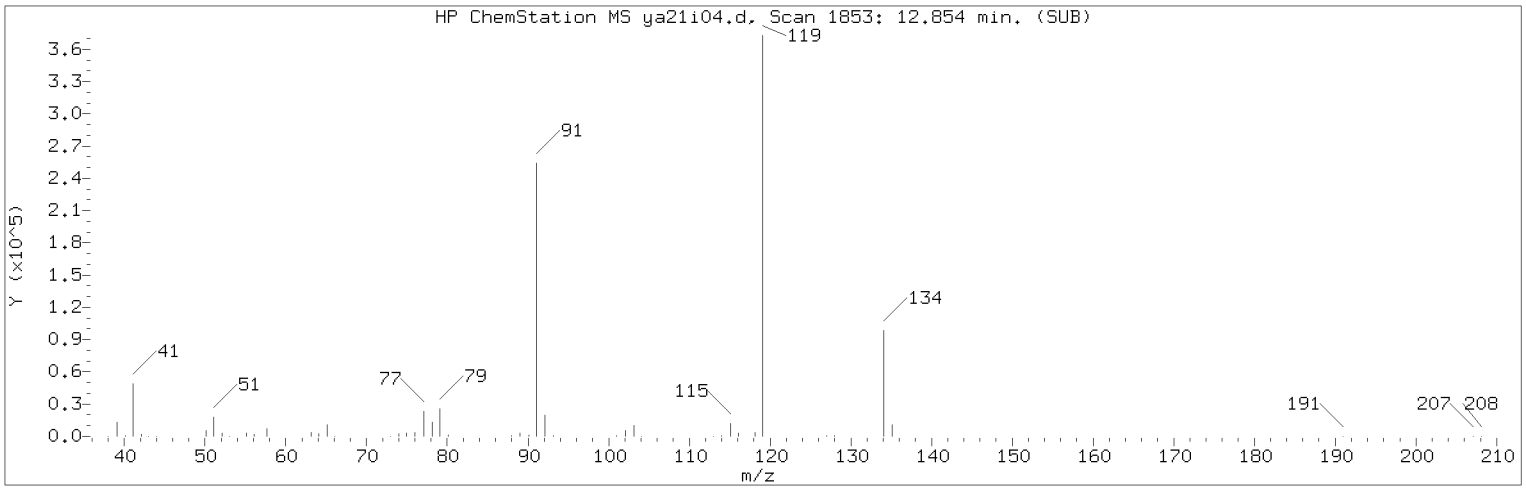
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

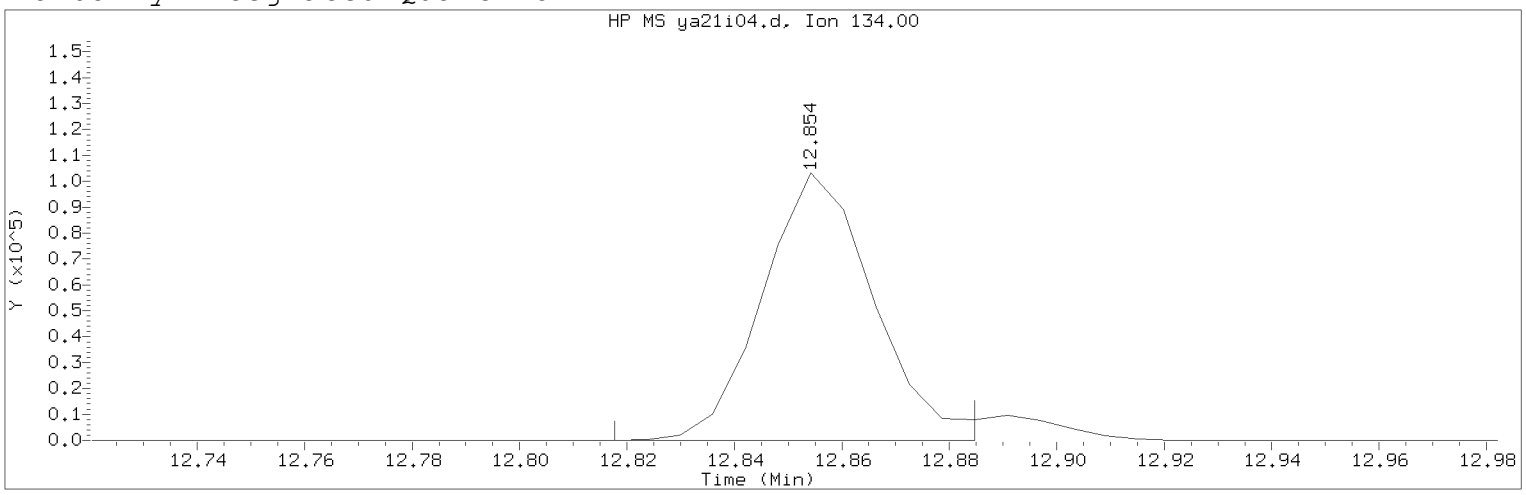
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area : 292432
On-column Amount (ng) : 21.0112
Integration start scan : 1769 Integration stop scan: 1788
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

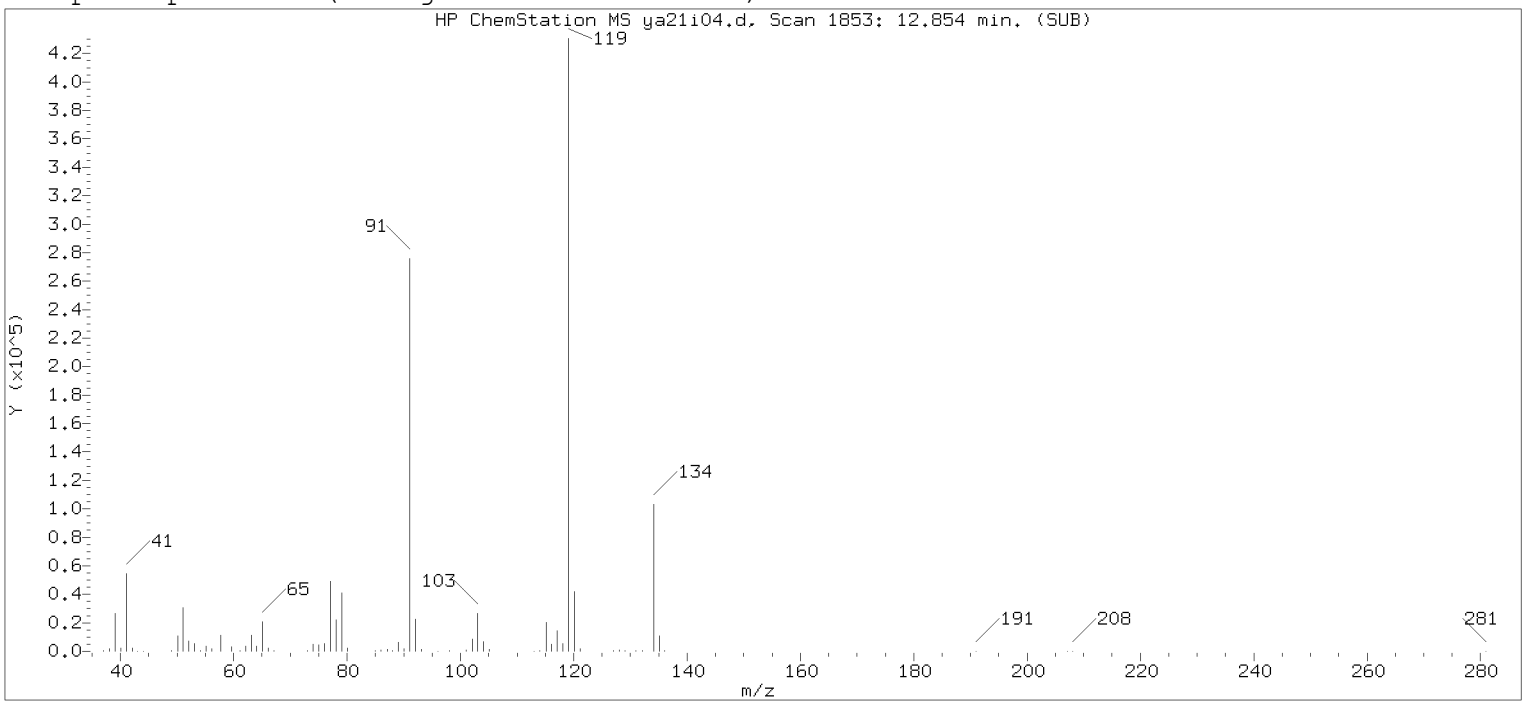
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 148019M
On-Column Amount (ng) : 20.4586
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

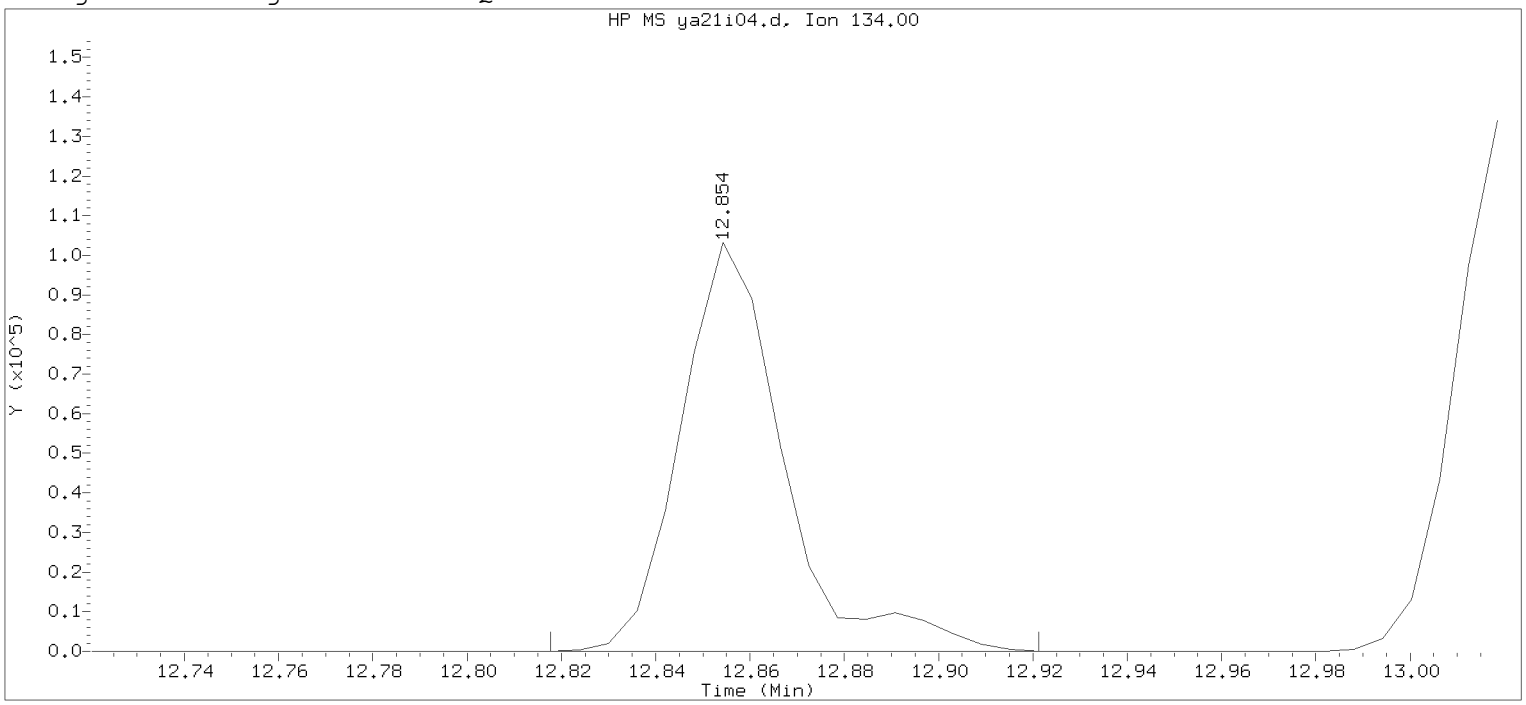
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



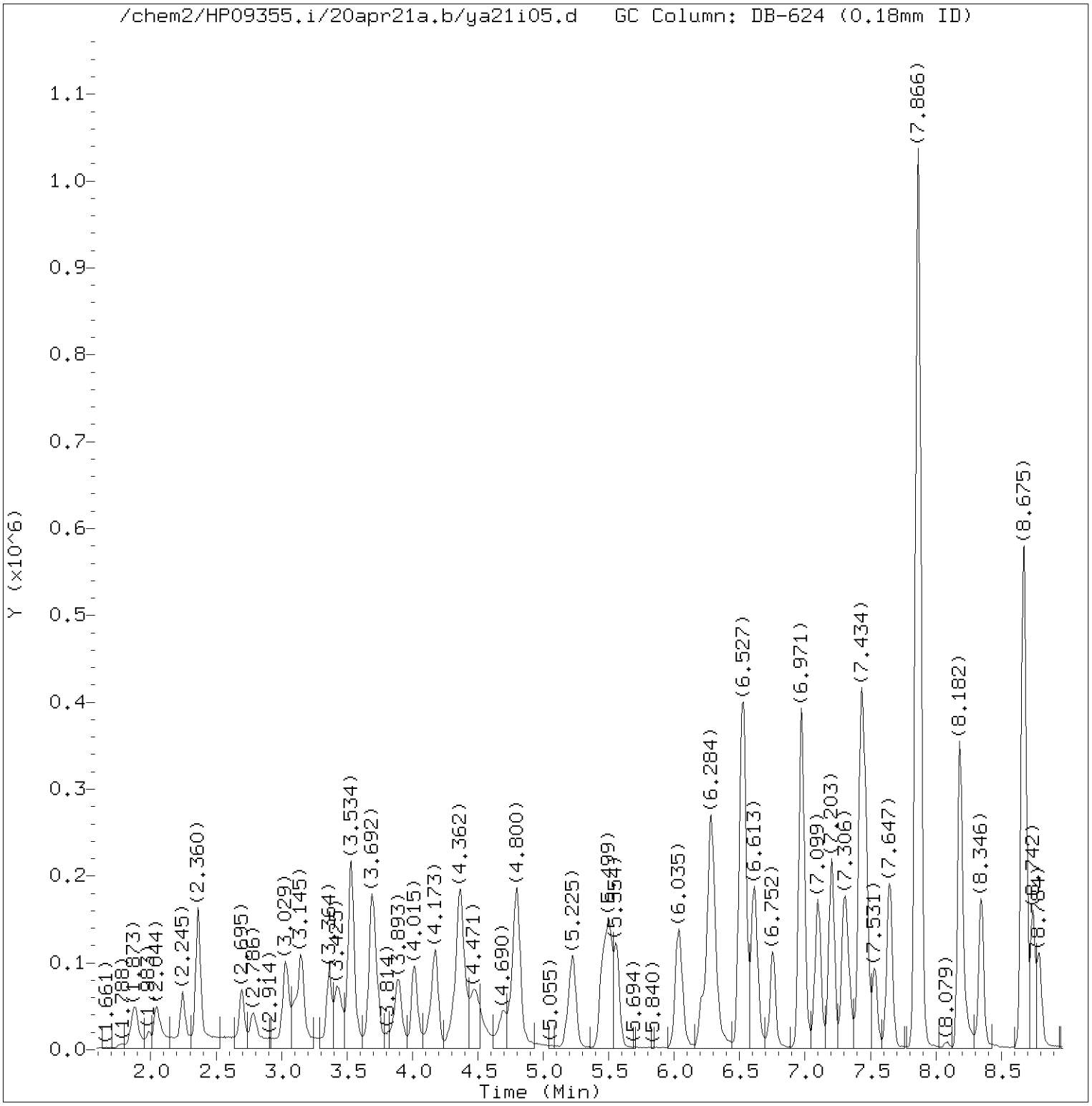
Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 156893
On-column Amount (ng) : 21.9666
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

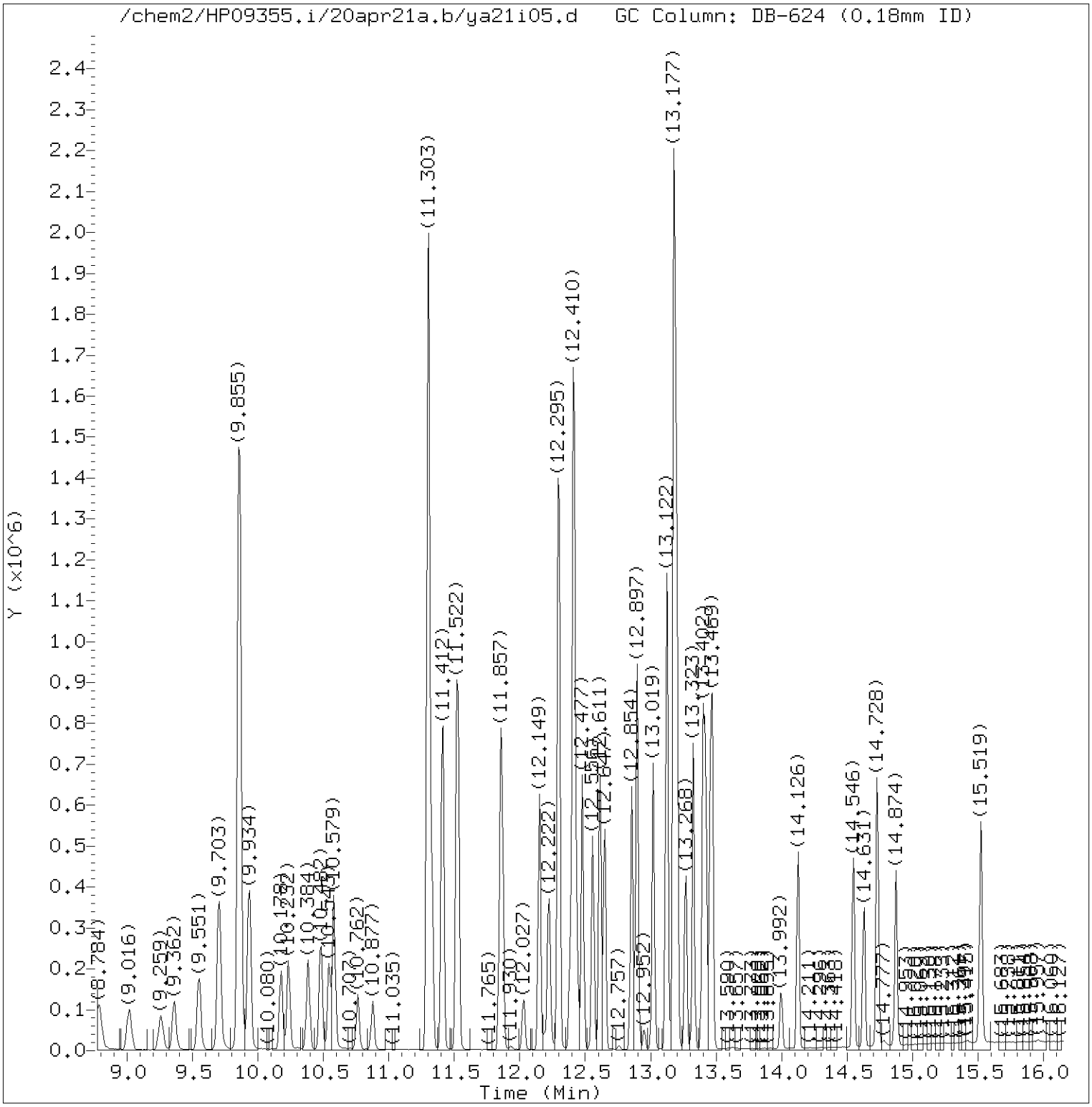
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	90631M	10.087
4) Chloromethane	(2)	2.245	50	81136	10.283
5) 1,3-Butadiene	(2)	2.360	39	63059	9.877
6) Vinyl Chloride	(2)	2.360	62	82257	10.341
8) Bromomethane	(2)	2.695	94	56696	10.581
9) Chloroethane	(2)	2.786	64	45494	10.496
10) Dichlorofluoromethane	(2)	3.029	67	122740	10.607
12) Trichlorofluoromethane	(2)	3.096	101	92189	10.059
11) n-Pentane	(2)	3.151	43	99451	10.120
14) Ethyl ether	(2)	3.364	59	71656	10.237
15) Freon 123a	(2)	3.425	67	82519	9.871
16) Acrolein	(1)	3.534	56	355841	106.265
17) 1,1-Dichloroethene	(2)	3.686	96	70229	10.337
17) 1,1-Dichloroethene	(2)	3.686	63	32114	9.842
18) Acetone	(1)	3.699	58	34162	21.587
19) Freon 113	(2)	3.711	101	65554	9.704
21) 2-Propanol	(1)	3.863	45	109516	95.766
22) Methyl Iodide	(2)	3.893	142	115763	9.898
23) Carbon Disulfide	(2)	4.015	76	232374	9.842
27) Methyl Acetate	(2)	4.143	43	101944	9.946
25) Allyl Chloride	(2)	4.179	41	112801	9.929
29)*t-Butyl alcohol-d10	(1)	4.356	65	407507M	250.000
28) Methylene Chloride	(2)	4.368	84	77950	9.938
30) t-Butyl alcohol	(1)	4.483	59	201321	100.147
31) Acrylonitrile	(2)	4.696	53	62684	10.652
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	225697	10.135
32) trans-1,2-Dichloroethene	(2)	4.800	96	79939	10.236
34) n-Hexane	(2)	5.219	57	115016	9.579
36) 1,1-Dichloroethane	(2)	5.451	63	136009	9.916
38) di-Isopropyl ether	(2)	5.499	45	248445	9.851
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	106477	9.384
40) Ethyl t-butyl ether	(2)	6.035	59	223683	9.979
43) 1,2-Dichloroethene (Total)	(2)		96	168725	20.301
44) 2-Butanone	(2)	6.217	43	163387	20.884
42) cis-1,2-Dichloroethene	(2)	6.272	96	88786	10.065
45) 2,2-Dichloropropane	(2)	6.284	77	101584	9.809
47) Propionitrile	(1)	6.302	54	242620	101.102
48) Methacrylonitrile	(2)	6.527	67	296300	50.122

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.613	128	41567	9.900
50) Tetrahydrofuran	(1)	6.625	71	46968	20.483
51) Chloroform	(2)	6.752	83	129227	9.842
52)$Dibromofluoromethane	(2)	6.971	113	295797	49.671
52)$Dibromofluoromethane	(2)	6.971	111	304399	50.042
53) 1,1,1-Trichloroethane	(2)	6.990	97	109210	9.678
54) Cyclohexane	(2)	7.099	56	137345	9.599
54) Cyclohexane	(2)	7.099	84	114513	9.587
54) Cyclohexane	(2)	7.099	69	41824	9.467
55) 1,1-Dichloropropene	(2)	7.203	75	108059	9.790
56) Carbon Tetrachloride	(2)	7.209	117	91863	9.495
58) Isobutyl Alcohol	(1)	7.306	41	176160	244.508
57)$1,2-Dichloroethane-d4	(2)	7.428	102	79352	50.794
57)$1,2-Dichloroethane-d4	(2)	7.428	65	348757	50.097
57)$1,2-Dichloroethane-d4	(2)	7.428	104	49984	50.133
60) Benzene	(2)	7.464	78	325223	9.921
61) 1,2-Dichloroethane	(2)	7.531	62	103902	10.021
61) 1,2-Dichloroethane	(2)	7.531	98	9926	9.665
65) t-Amyl methyl ether	(2)	7.647	73	226764	10.116
66)*Fluorobenzene	(2)	7.866	96	1308564	50.000
67) n-Heptane	(2)	7.872	43	124652	9.747
69) n-Butanol	(1)	8.182	56	337962M	479.030
71) Trichloroethene	(2)	8.346	95	80408	9.711
72) Methylcyclohexane	(2)	8.663	83	144186	9.800
72) Methylcyclohexane	(2)	8.669	98	63120	9.717
73) 1,2-Dichloropropane	(2)	8.675	63	84197	9.900
76) Methyl Methacrylate	(2)	8.736	69	80481	9.091
75) 1,4-Dioxane	(1)	8.754	88	41144M	242.043
74) Dibromomethane	(2)	8.790	93	52316	9.626
78) Bromodichloromethane	(2)	9.016	83	93086	9.260
79) 2-Nitropropane	(2)	9.259	41	71530	19.882
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	65168M	9.216
81) cis-1,3-Dichloropropene	(2)	9.551	75	128793	9.362
82) 4-Methyl-2-pentanone	(2)	9.703	43	309755	20.457
83)$Toluene-d8	(3)	9.855	98	1259927	49.872
83)$Toluene-d8	(3)	9.855	100	805614	49.629
88) Toluene	(3)	9.934	92	202138	9.809
90) 1,3-Dichloropropene (total)	(3)		100	247197	18.637

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.178	75	118404	9.275
91) Ethyl Methacrylate	(3)	10.232	69	125893	8.825
92) 1,1,2-Trichloroethane	(3)	10.384	97	79117M	9.690
93) Tetrachloroethene	(3)	10.482	166	82317	9.708
94) 1,3-Dichloropropane	(3)	10.543	76	135535	9.778
96) 2-Hexanone	(3)	10.579	43	247307	20.527
97) Dibromochloromethane	(3)	10.762	129	76264	8.993
99) 1,2-Dibromoethane	(3)	10.877	107	84971	9.464
100)*Chlorobenzene-d5	(3)	11.303	117	969376	50.000
101) 1-Chlorohexane	(3)	11.303	91	110492	9.729
102) Chlorobenzene	(3)	11.327	112	231085	9.962
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	73479	9.450
104) Ethylbenzene	(3)	11.412	91	393063	9.937
106) m+p-Xylene	(3)	11.522	106	312867	19.904
108) Xylene (Total)	(3)		106	465904	29.797
107) o-Xylene	(3)	11.851	106	153037	9.893
109) Styrene	(3)	11.869	104	242879	9.421
110) Bromoform	(3)	12.027	173	54717	8.578
111) Isopropylbenzene	(3)	12.149	105	389961	9.939
112) Cyclohexanone	(1)	12.222	55	157017	236.454
114)$4-Bromofluorobenzene	(3)	12.295	95	478079	49.921
114)$4-Bromofluorobenzene	(3)	12.301	174	366786	49.722
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	138826M	9.763
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	230393	49.793
115) Bromobenzene	(4)	12.416	156	98744	9.795
117) 1,2,3-Trichloropropane	(4)	12.435	110	44611	9.871
119) n-Propylbenzene	(4)	12.477	91	474810	10.125
120) 2-Chlorotoluene	(4)	12.556	126	96923	9.910
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	343212	9.943
121) 4-Chlorotoluene	(4)	12.647	126	101299	9.870
124) tert-Butylbenzene	(4)	12.854	134	68980	9.530
125) Pentachloroethane	(4)	12.891	167	52540	9.433
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	358919	9.886
127) sec-Butylbenzene	(4)	13.019	105	439894	10.002
129) 1,3-Dichlorobenzene	(4)	13.122	146	191662	9.944
130) p-Isopropyltoluene	(4)	13.128	119	369737	9.847
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	518818	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	198526	9.995

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

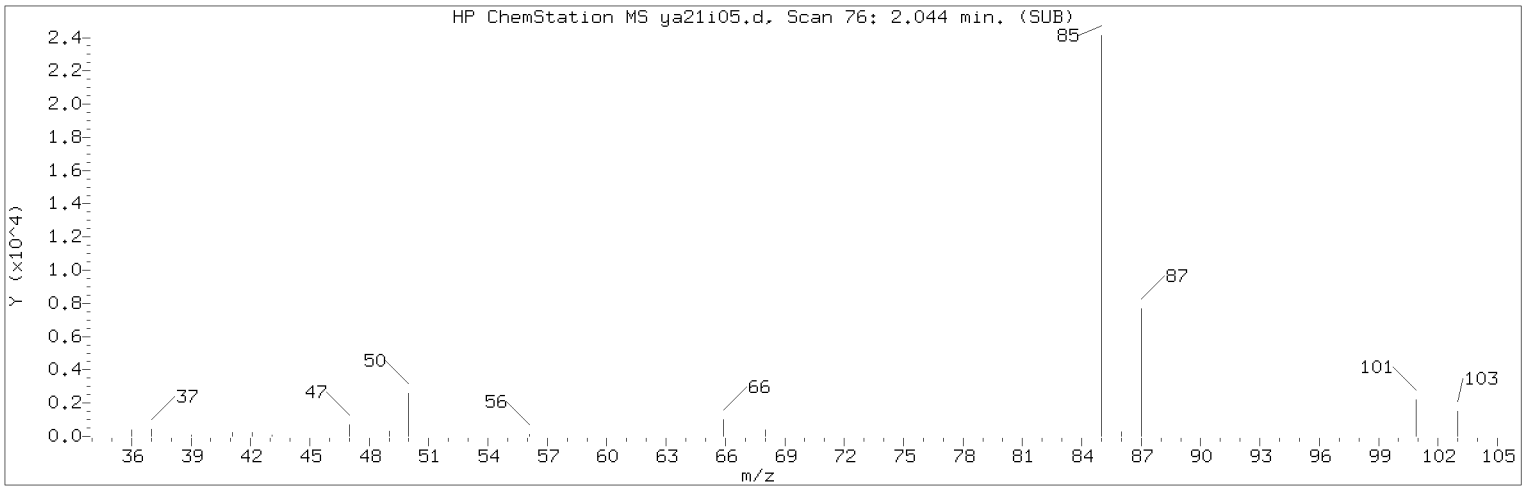
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

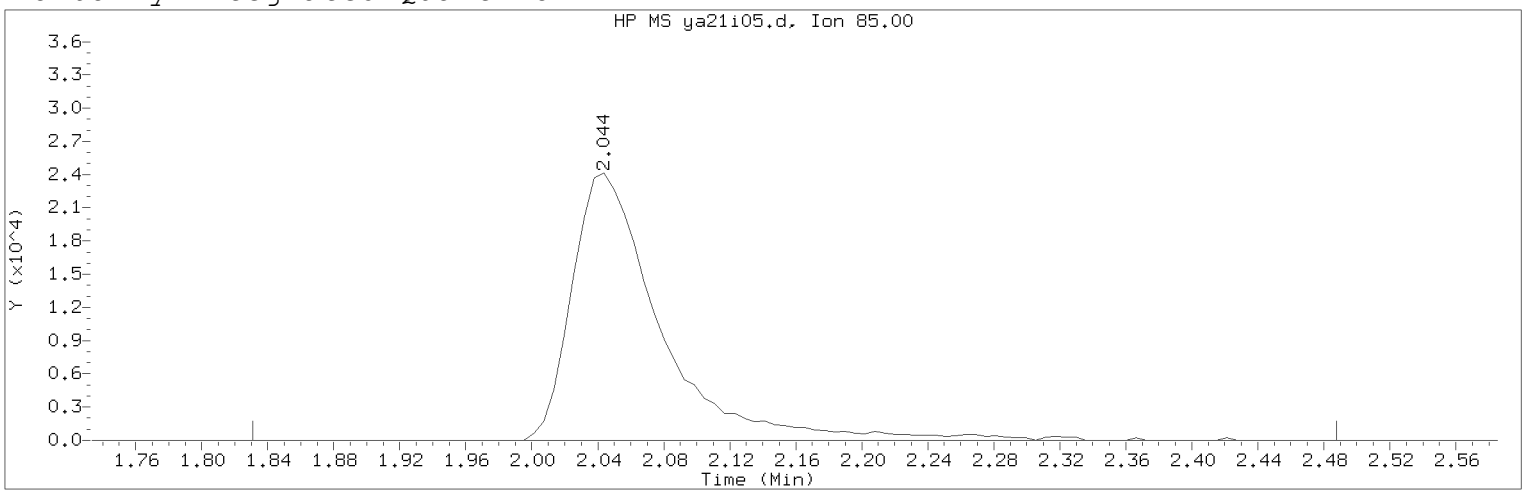
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	354059	10.205
135) Benzyl Chloride	(4)	13.268	91	273815	9.175
136) 1,3-Diethylbenzene	(4)	13.323	119	225558	9.988
141) Diethylbenzene (total)	(4)		100	657615	30.253
137) 1,4-Diethylbenzene	(4)	13.396	119	240544	10.108
139) n-Butylbenzene	(4)	13.420	92	197390	9.902
138) 1,2-Dichlorobenzene	(4)	13.457	146	184911	9.892
140) 1,2-Diethylbenzene	(4)	13.469	119	191513	10.157
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	32913	9.082
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	134976	9.645
146) 1,2,4-Trichlorobenzene	(4)	14.546	180	127390	9.662
147) Hexachlorobutadiene	(4)	14.631	225	56351	9.597
148) Naphthalene	(4)	14.728	128	478924	9.998
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	123175	9.741
150) 2-Methylnaphthalene	(4)	15.519	142	264693	9.940

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

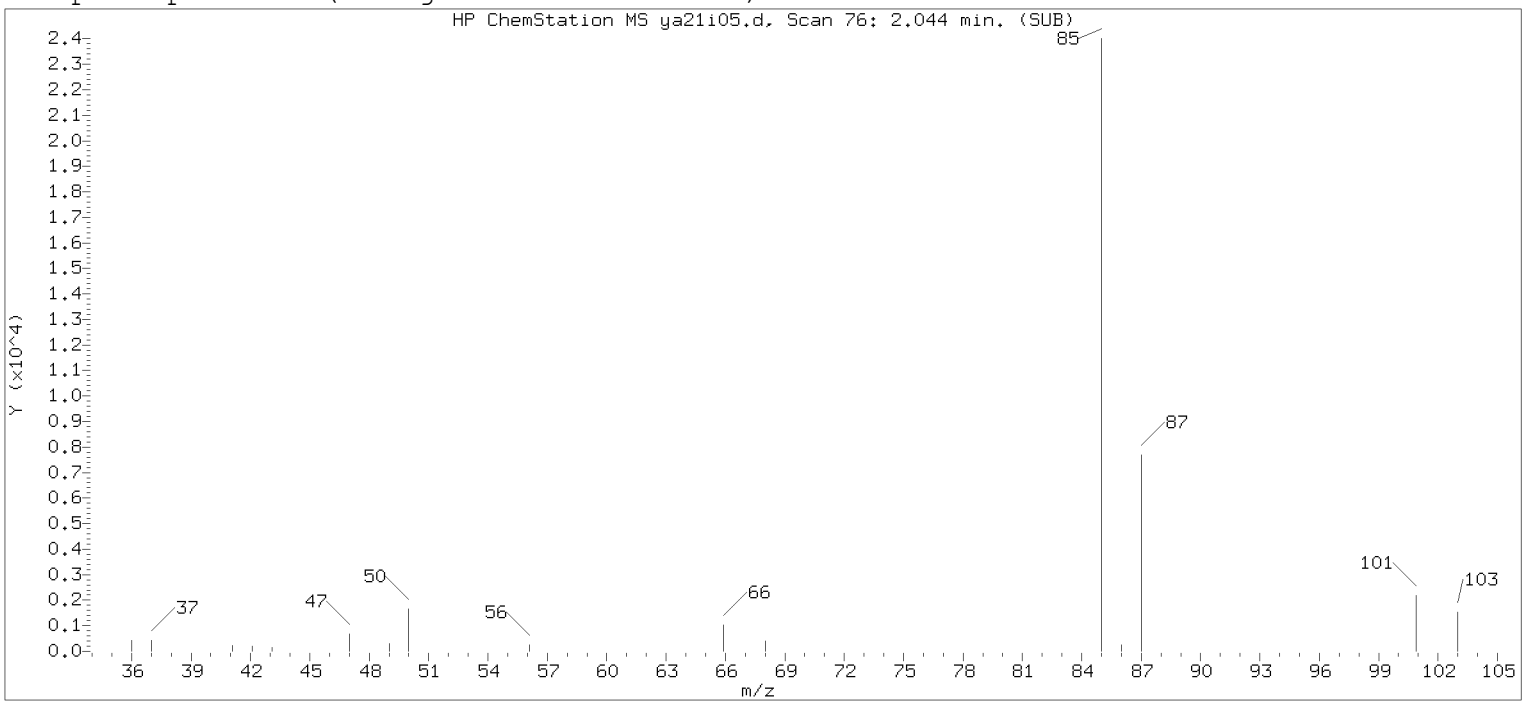
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 90631M
On-Column Amount (ng) : 10.0868
Integration start scan : 40 Integration stop scan: 148
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

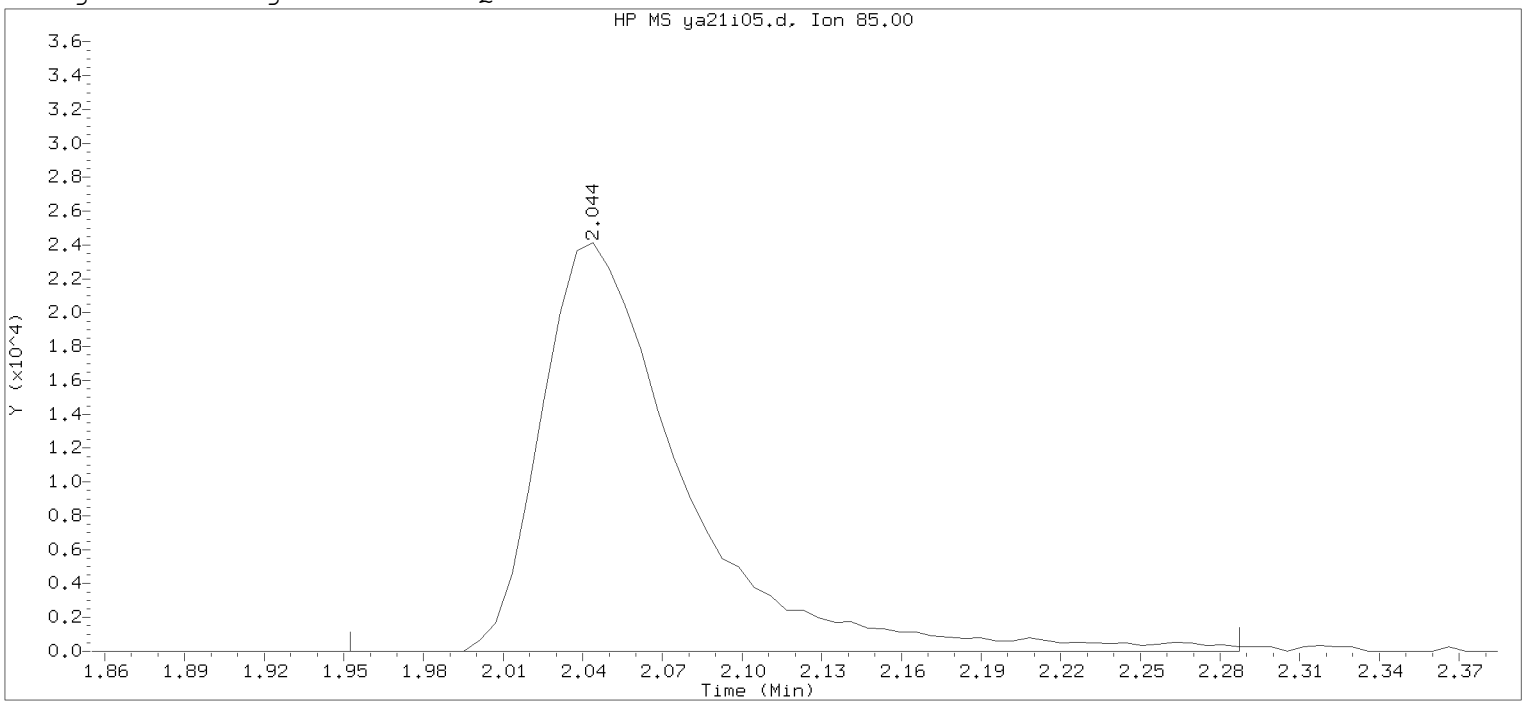
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

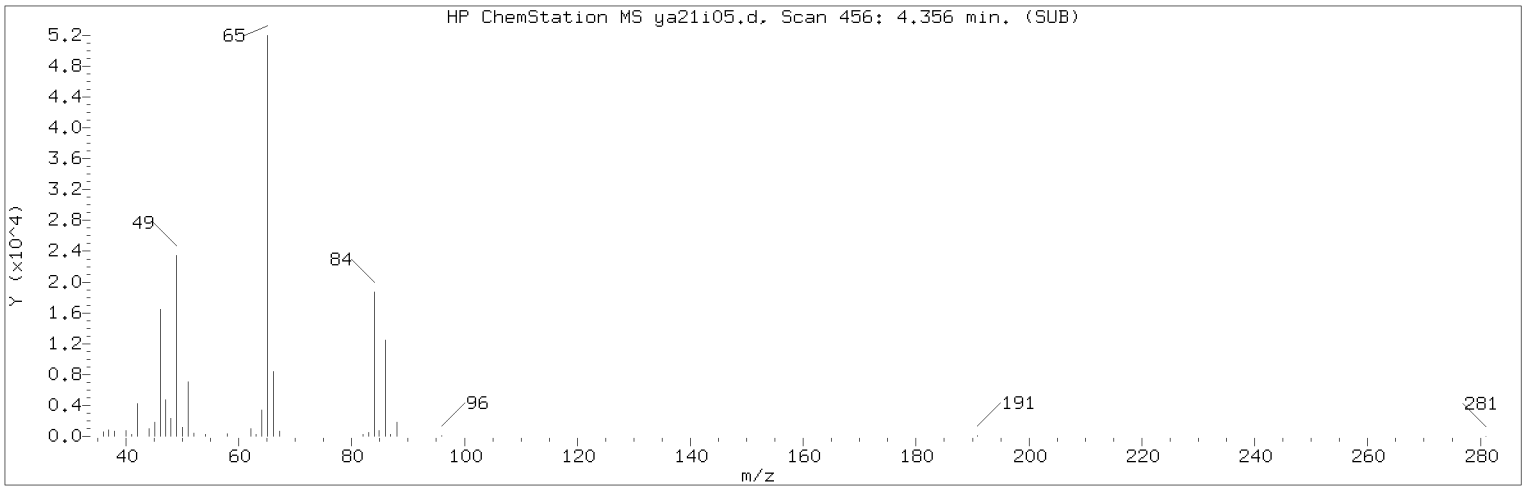
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

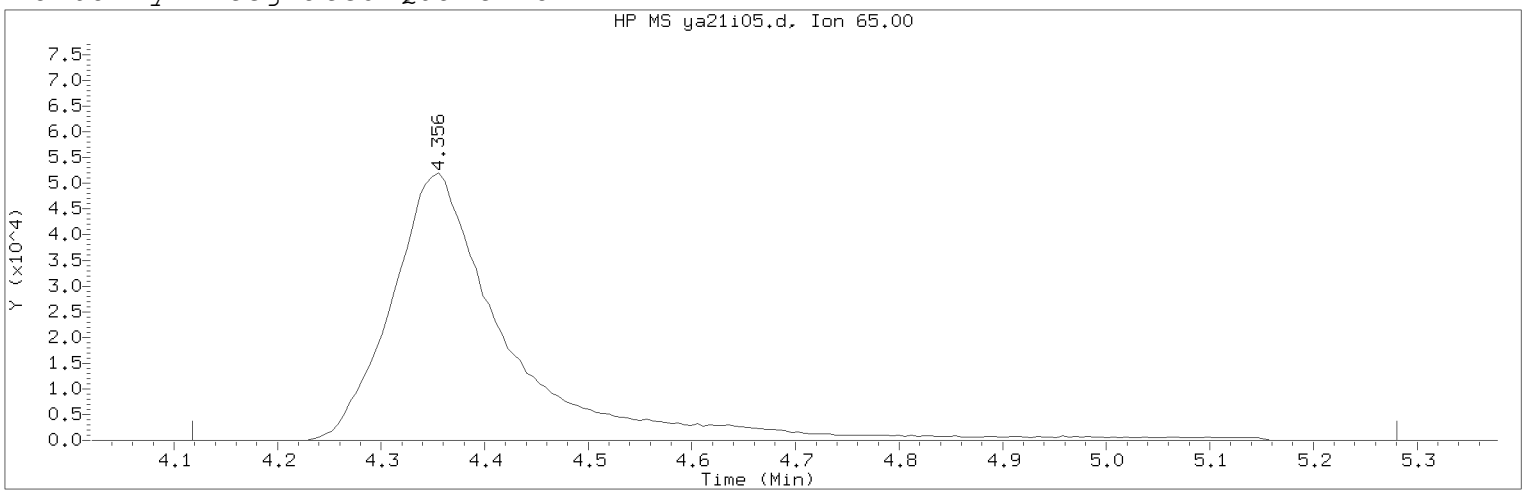
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 89786
On-column Amount (ng) : 10.6664
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

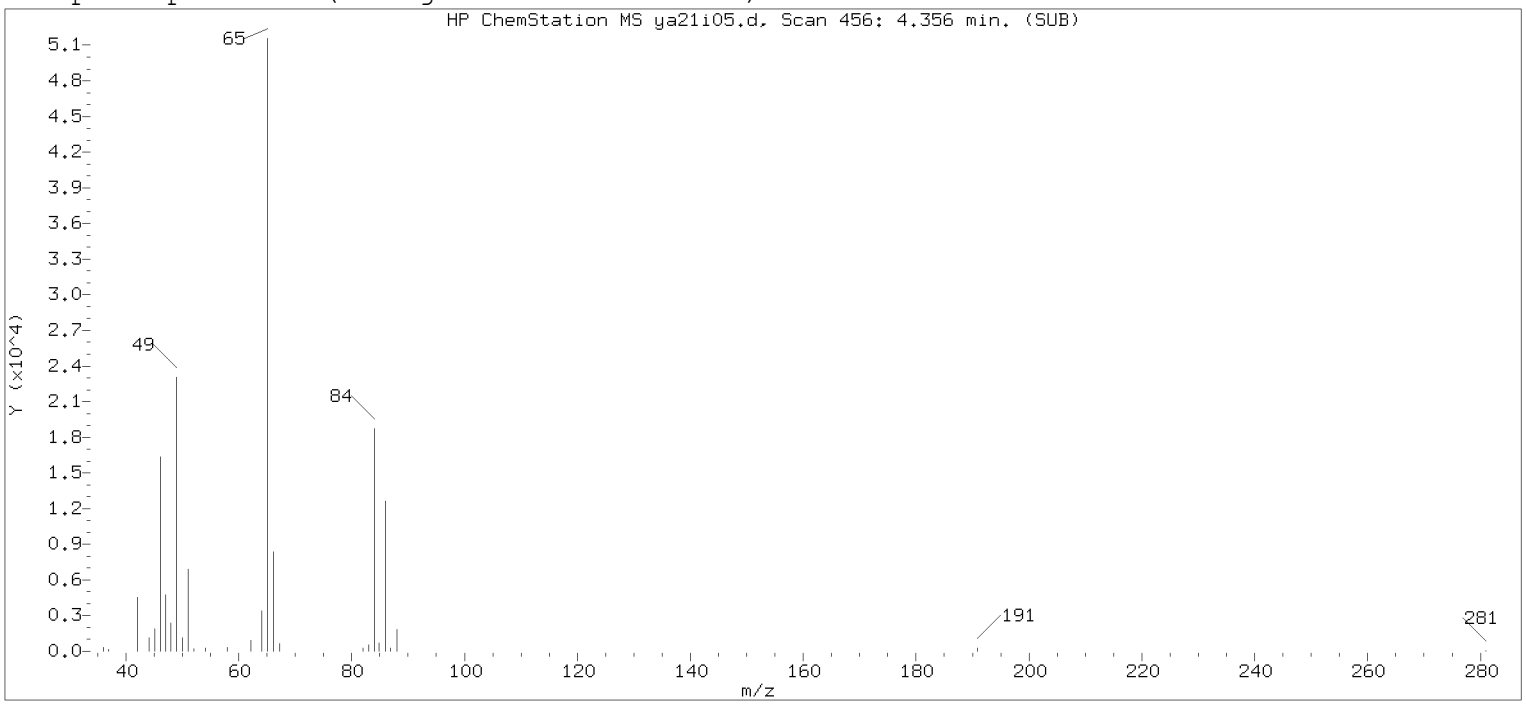
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.356
Quant Ion : 65.00
Area (flag) : 407507M
On-Column Amount (ng) : 250.0000
Integration start scan : 416 Integration stop scan: 607
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

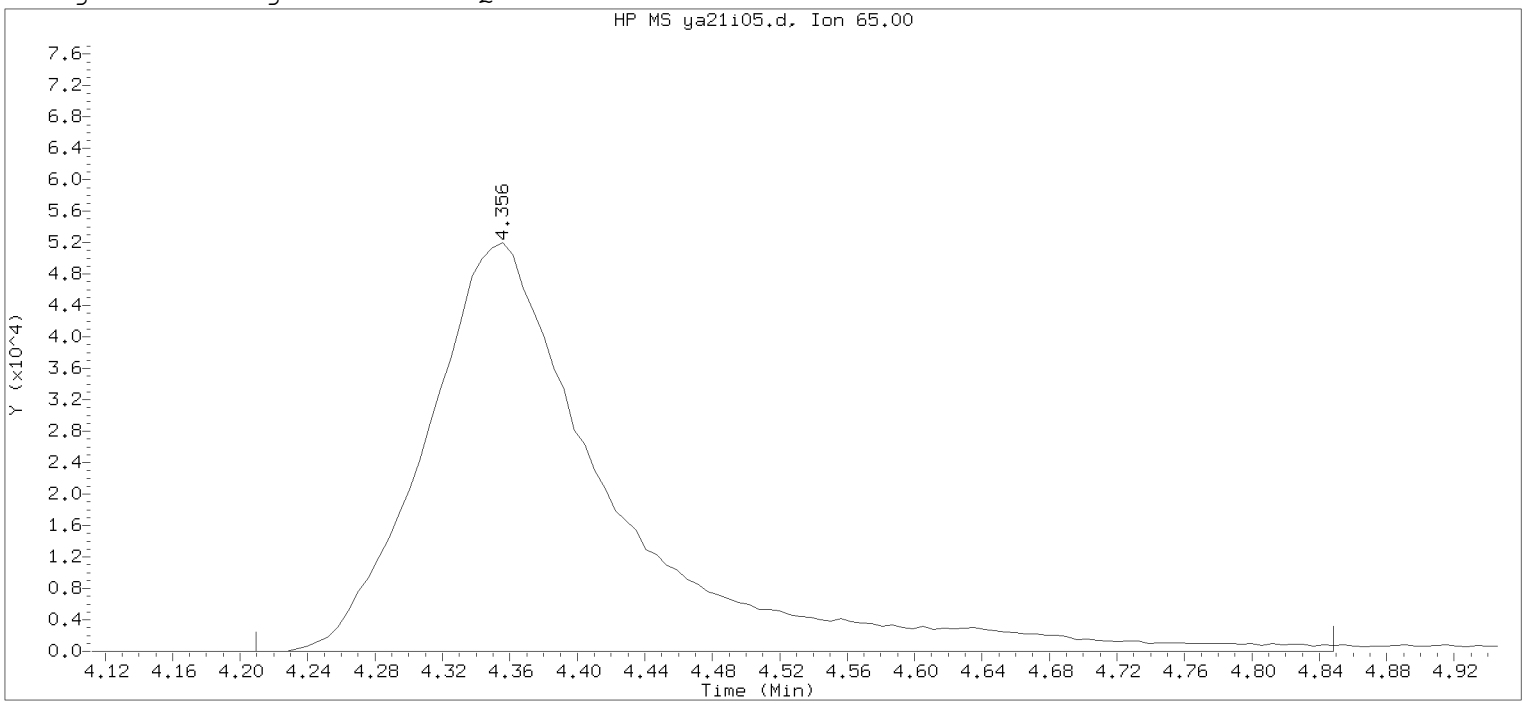
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

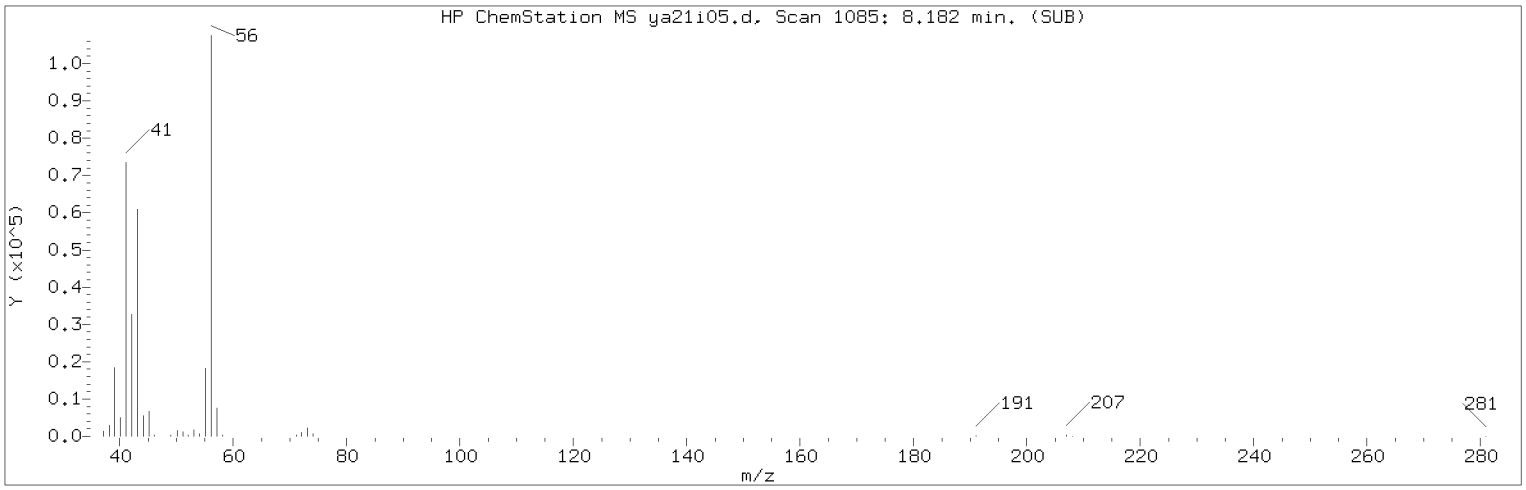
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

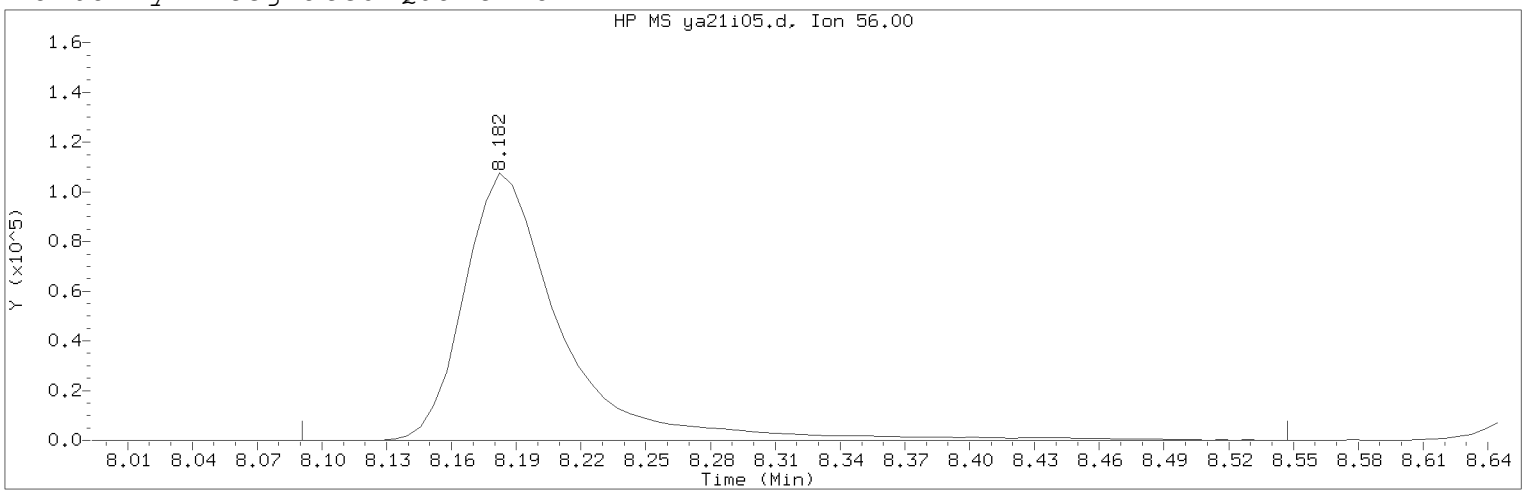
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.356
Quant Ion : 65.00
Area : 396599
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 536
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

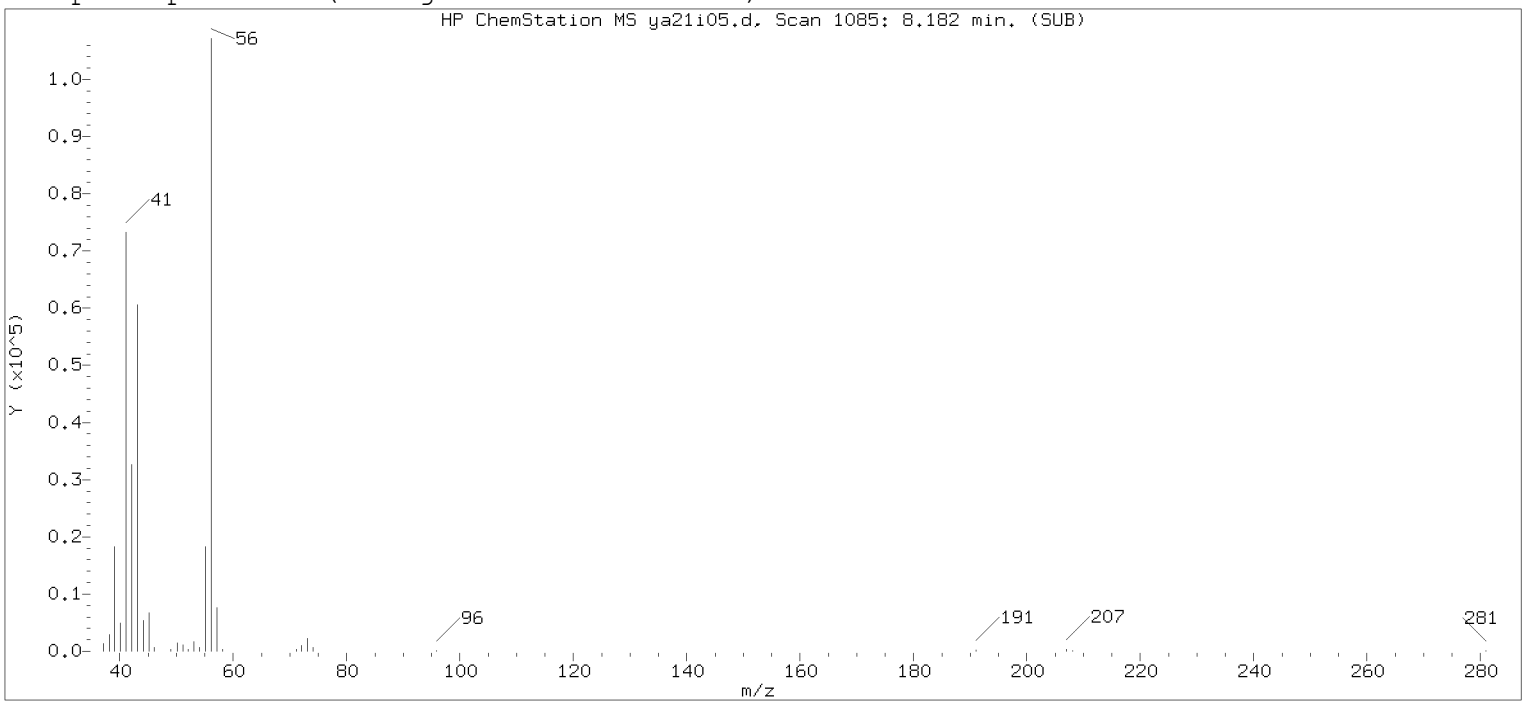
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area (flag) : 337962M
On-Column Amount (ng) : 479.0304
Integration start scan : 1069 Integration stop scan: 1144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

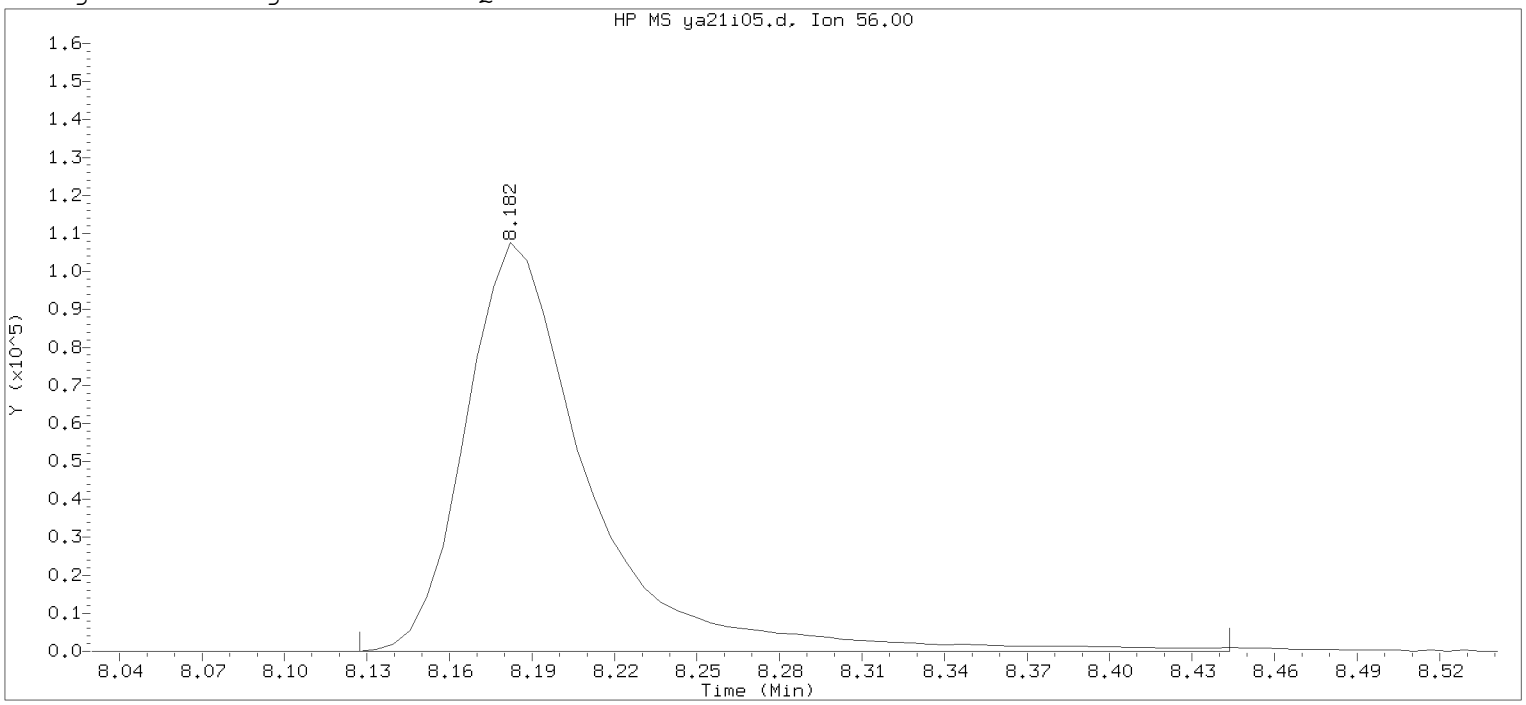
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

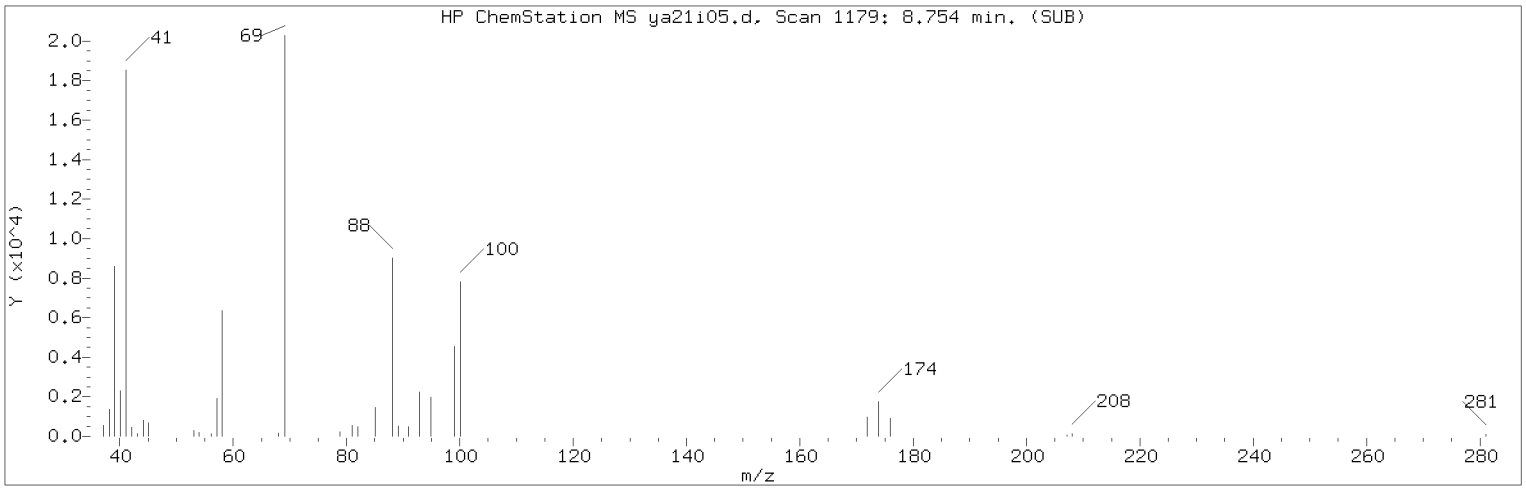
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

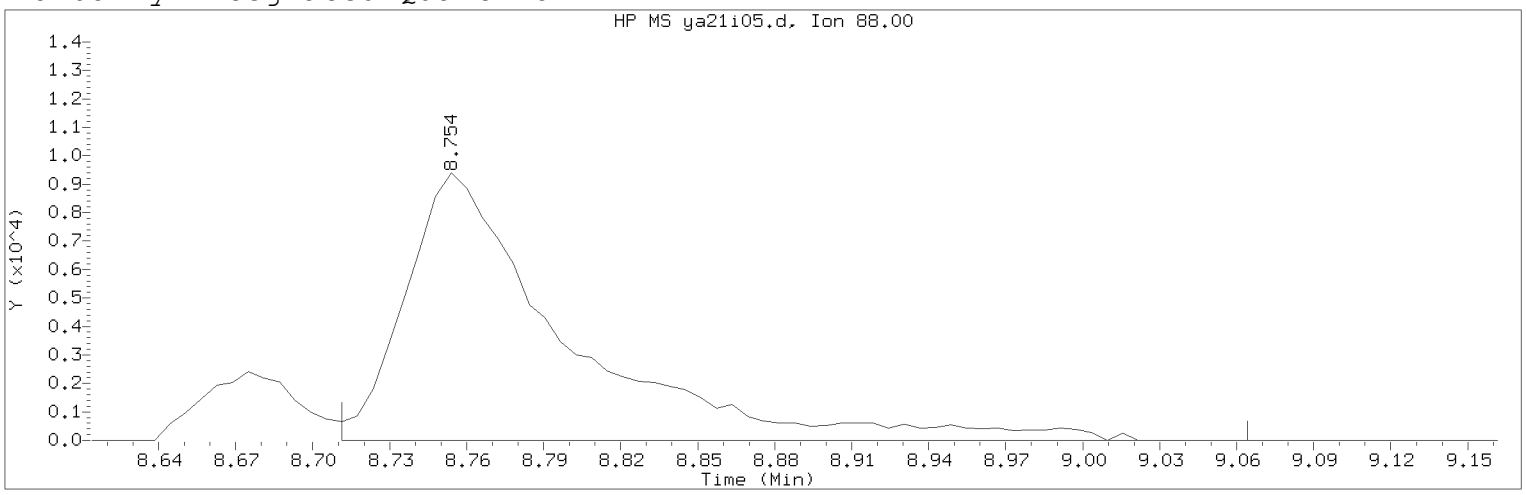
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area : 335737
On-column Amount (ng) : 543.0931
Integration start scan : 1075 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

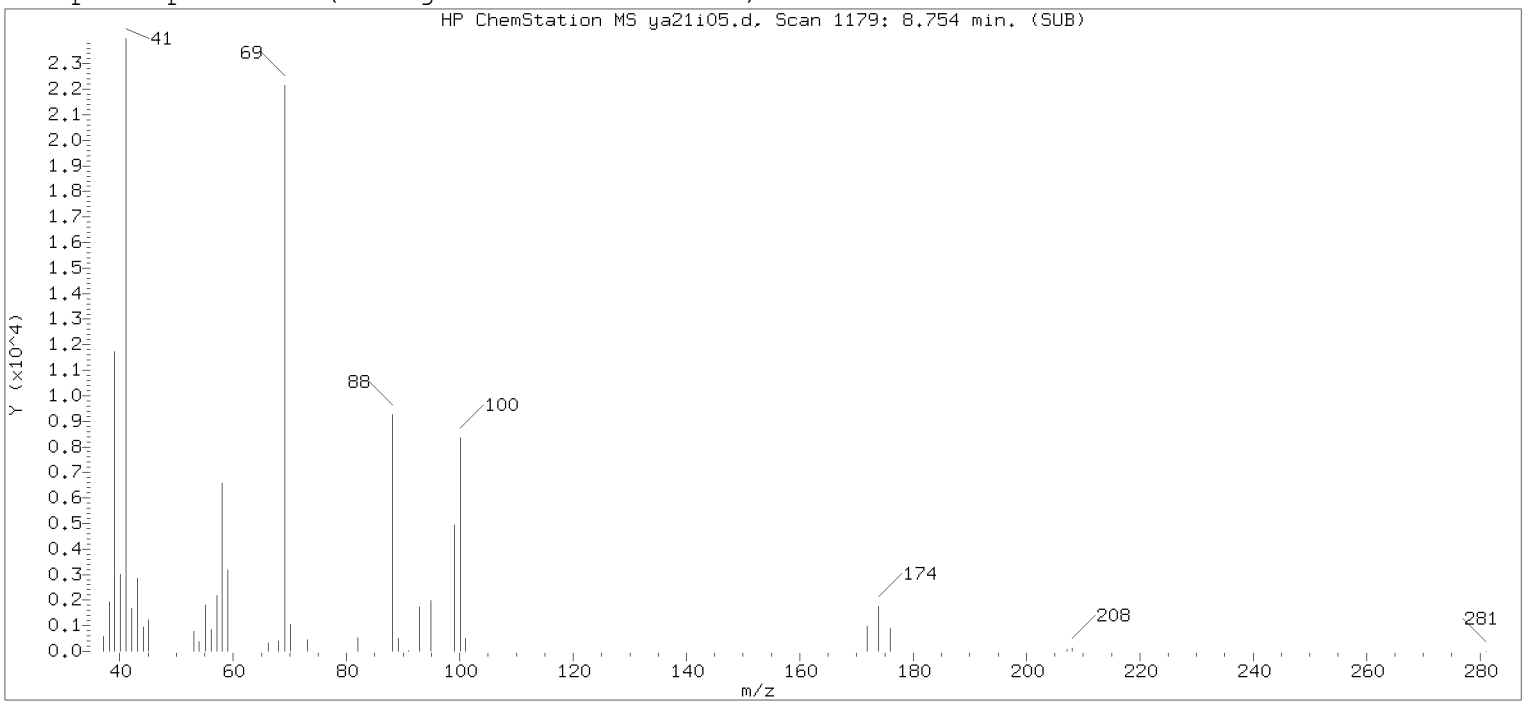
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 41144M
On-Column Amount (ng) : 242.0425
Integration start scan : 1171 Integration stop scan: 1229
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

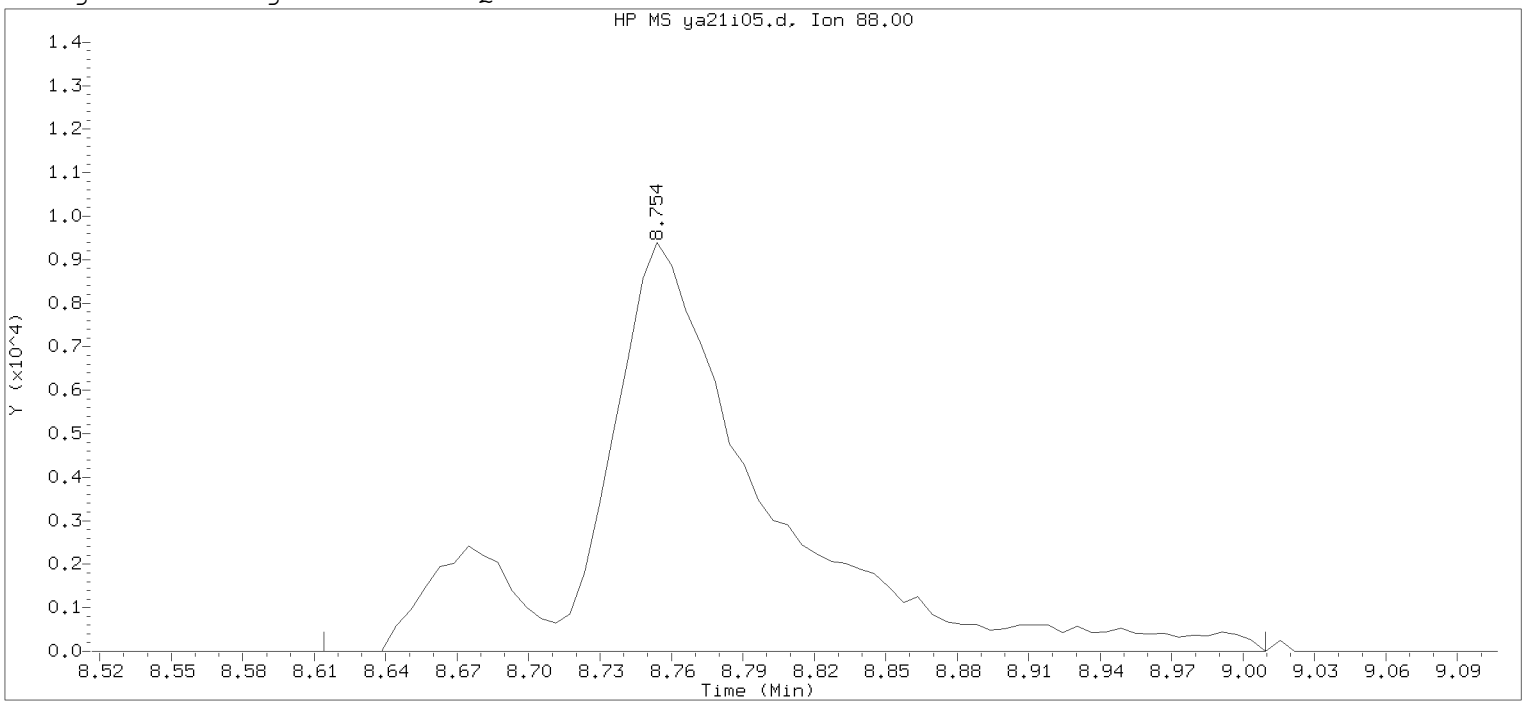
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

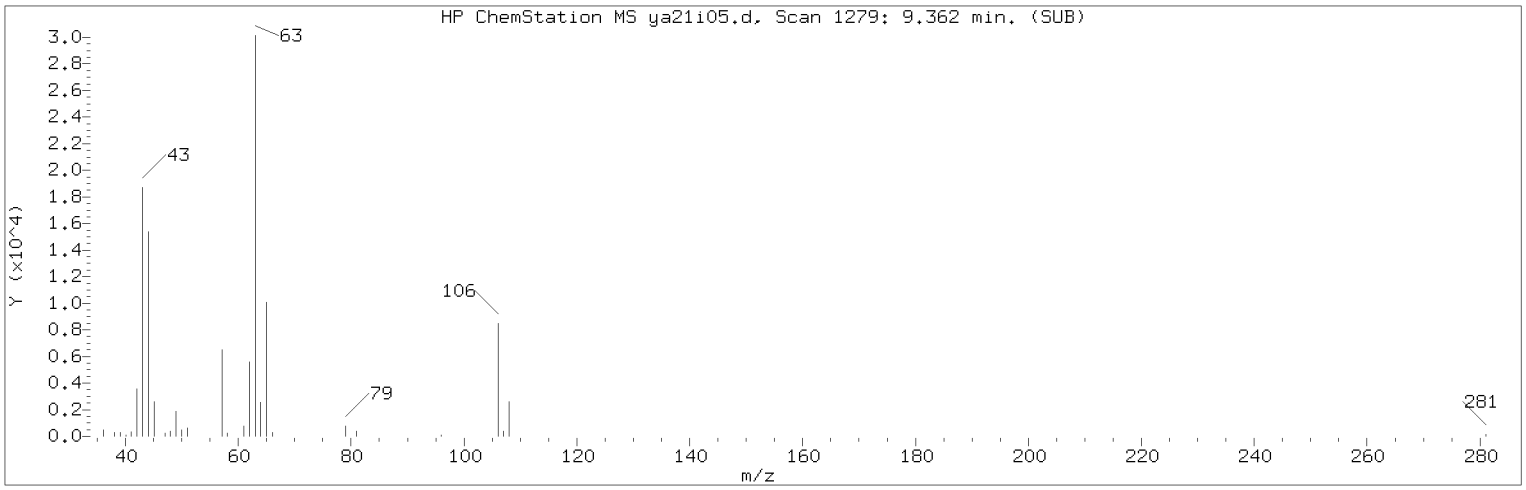
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

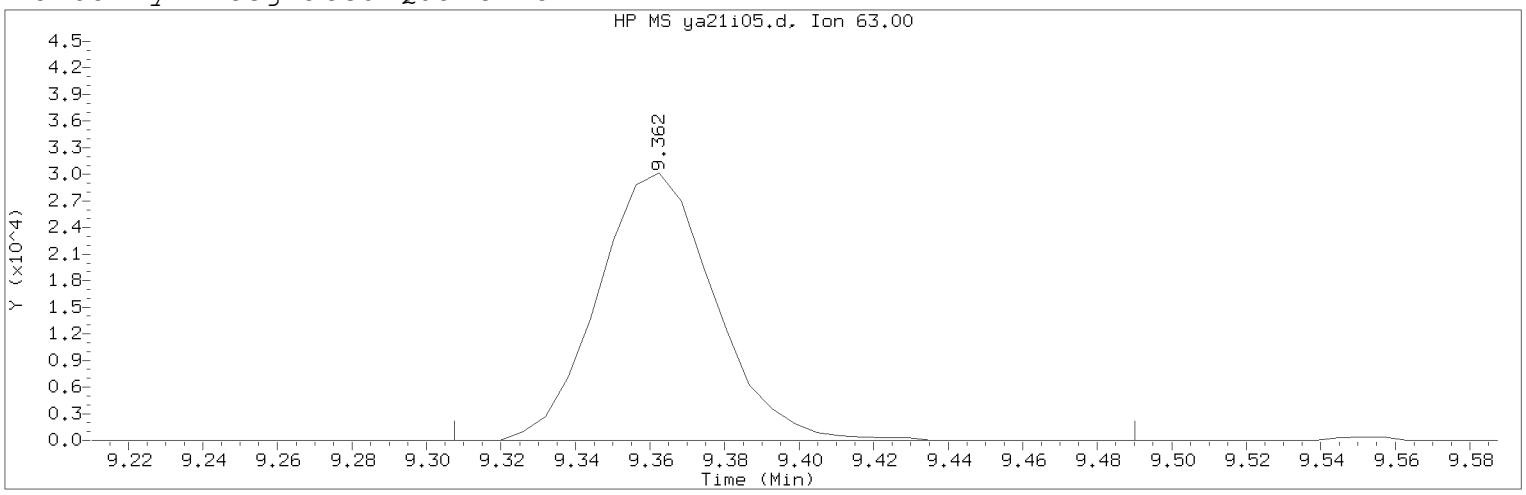
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 47173
On-column Amount (ng) : 249.3585
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

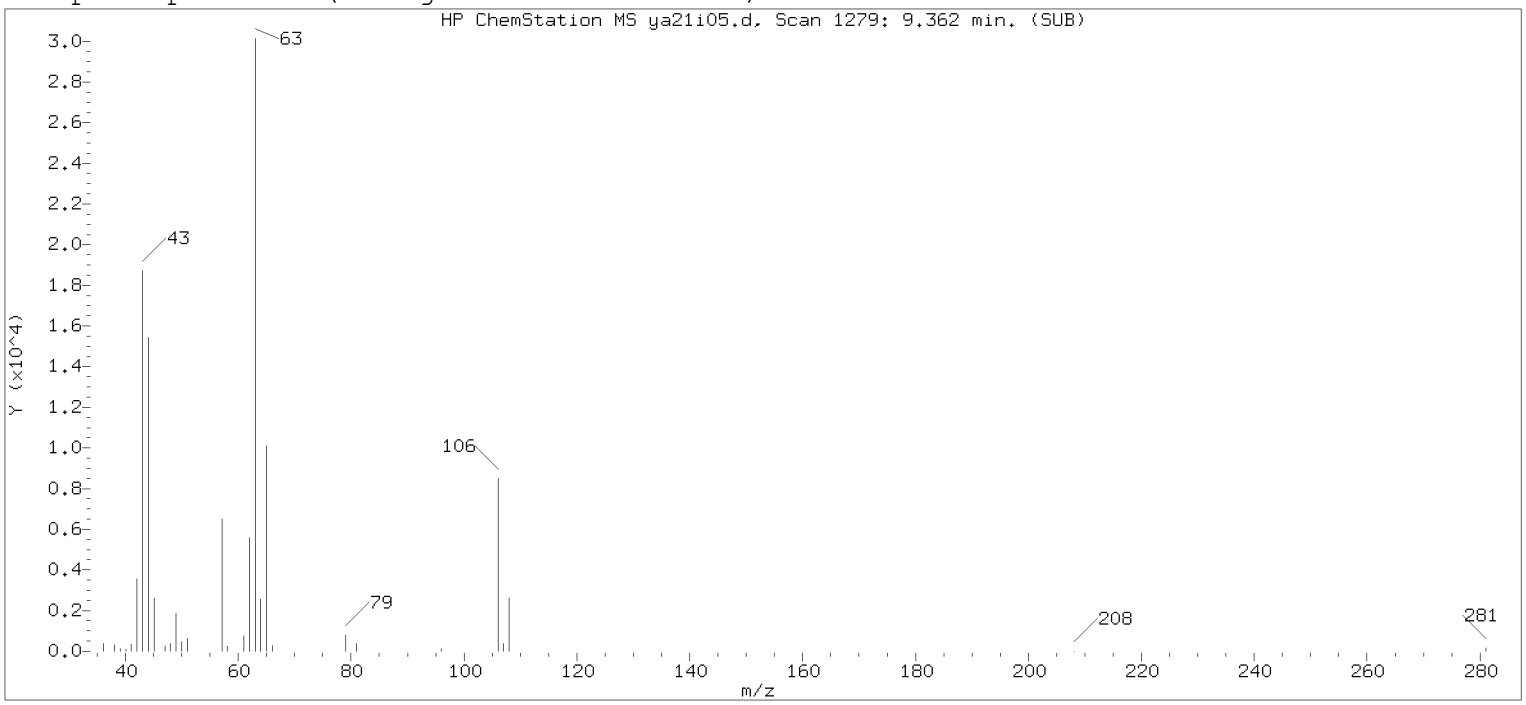
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1279
Retention Time (minutes): 9.362
Quant Ion : 63.00
Area (flag) : 65168M
On-Column Amount (ng) : 9.2156
Integration start scan : 1269 Integration stop scan: 1299
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

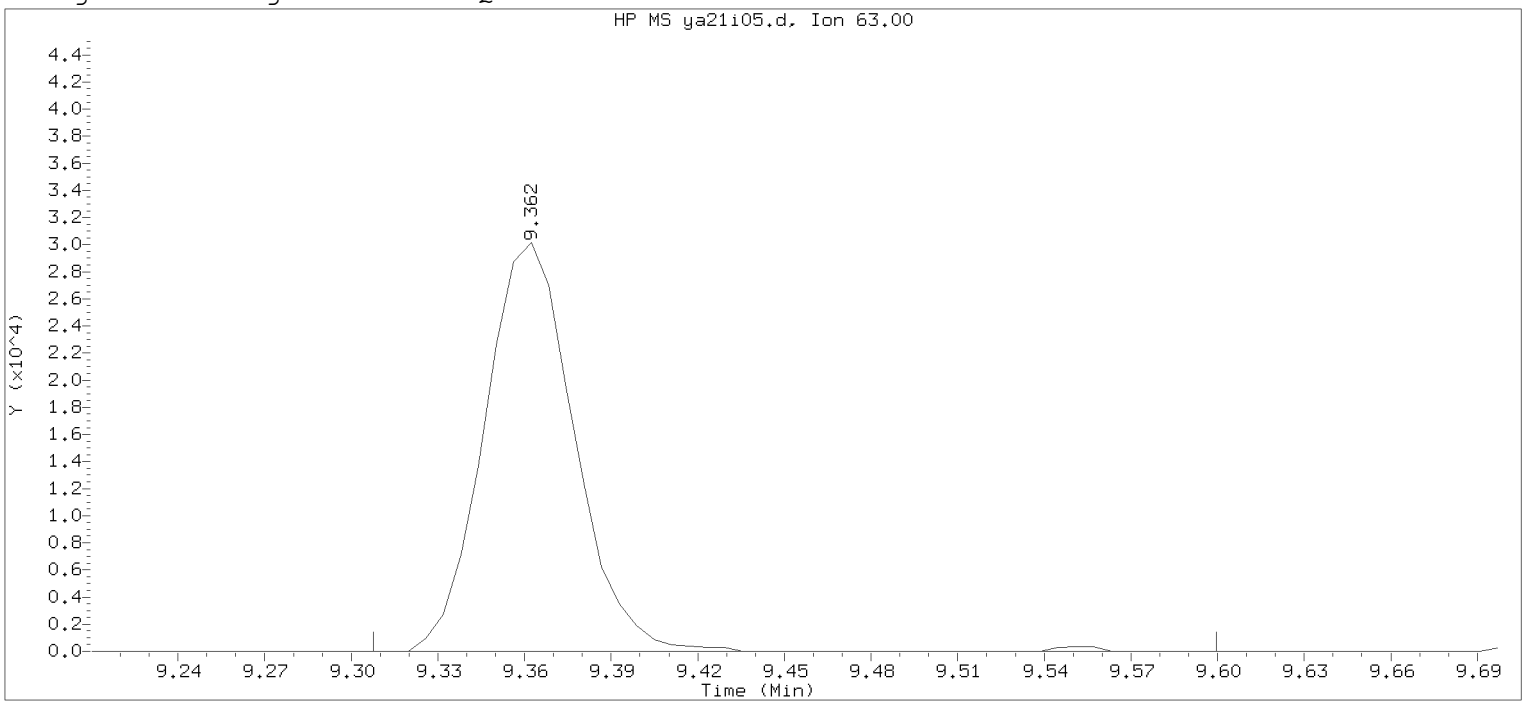
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

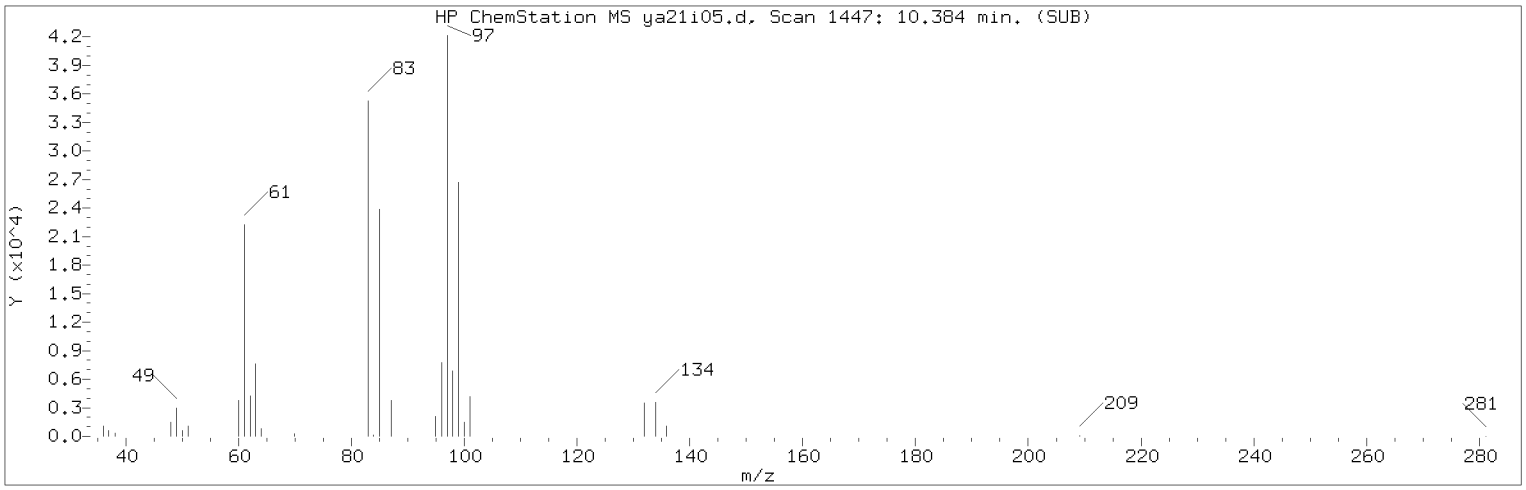
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

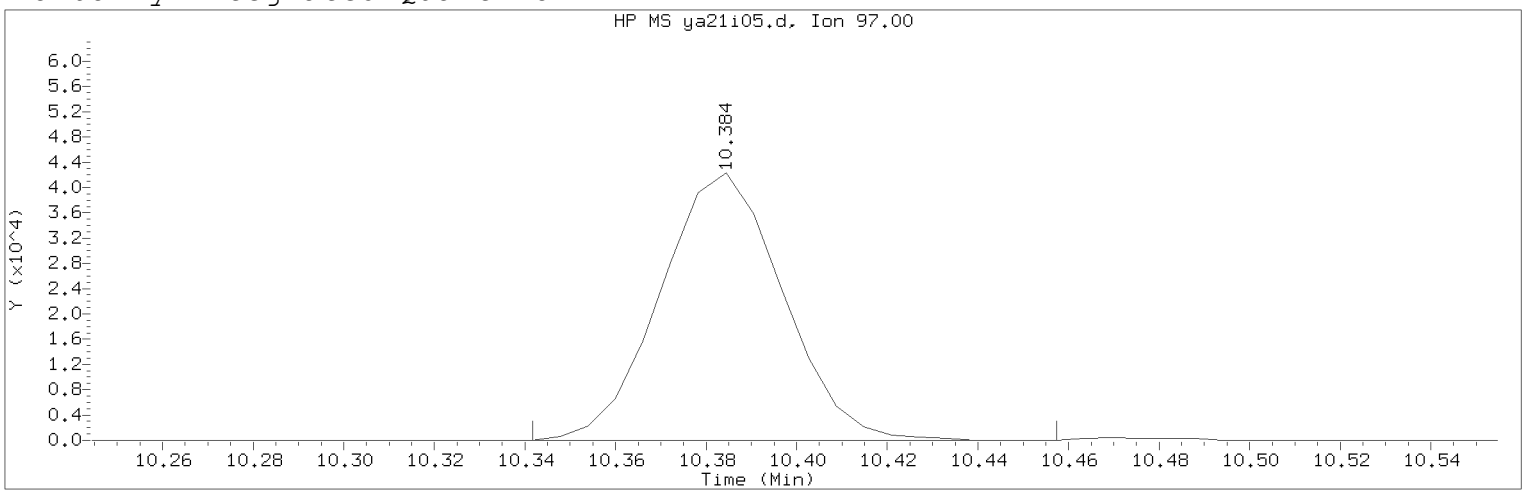
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1279
Retention Time (minutes): 9.362
Quant Ion : 63.00
Area : 65528
On-column Amount (ng) : 9.8446
Integration start scan : 1269 Integration stop scan: 1317
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKW jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

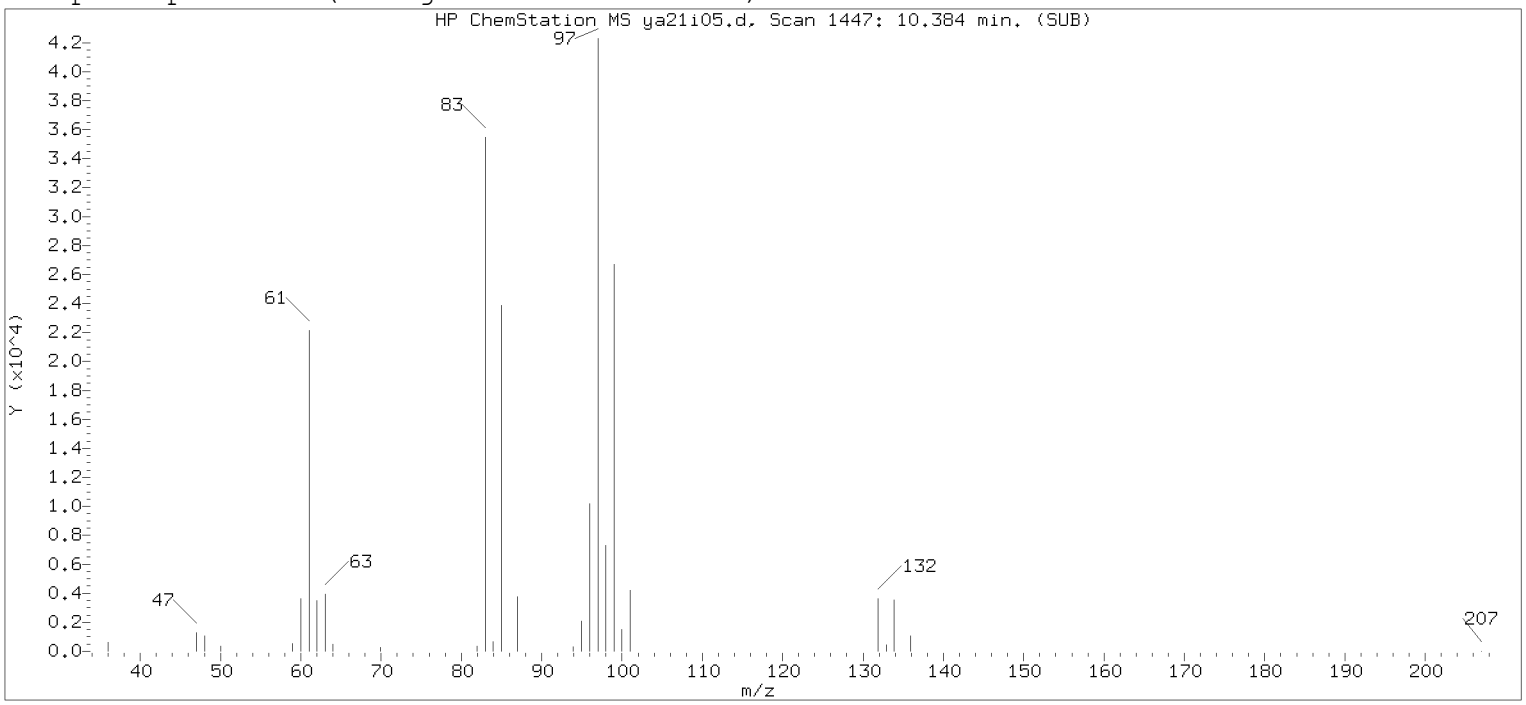
Compound Number : 92
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1447
Retention Time (minutes): 10.384
Quant Ion : 97.00
Area (flag) : 79117M
On-Column Amount (ng) : 9.6896
Integration start scan : 1439 Integration stop scan: 1458
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

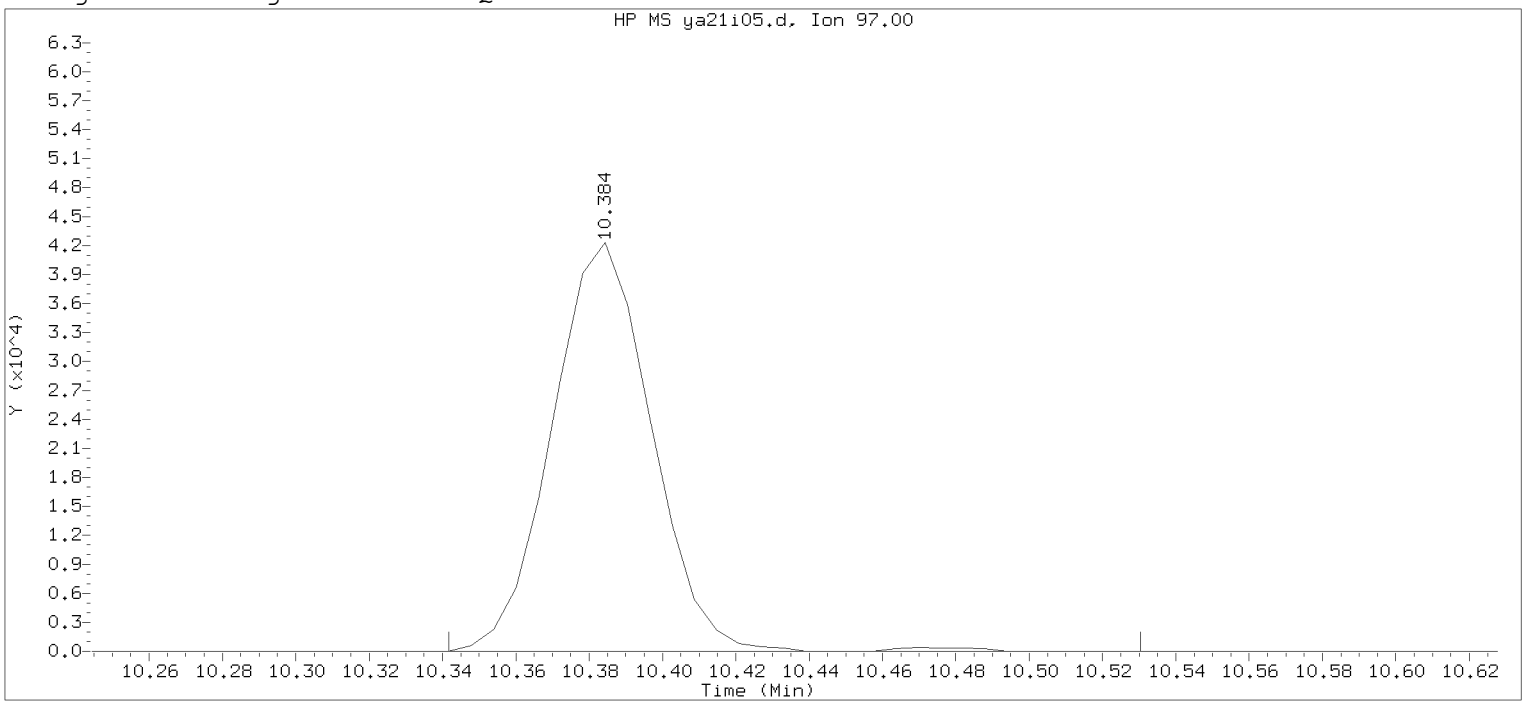
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

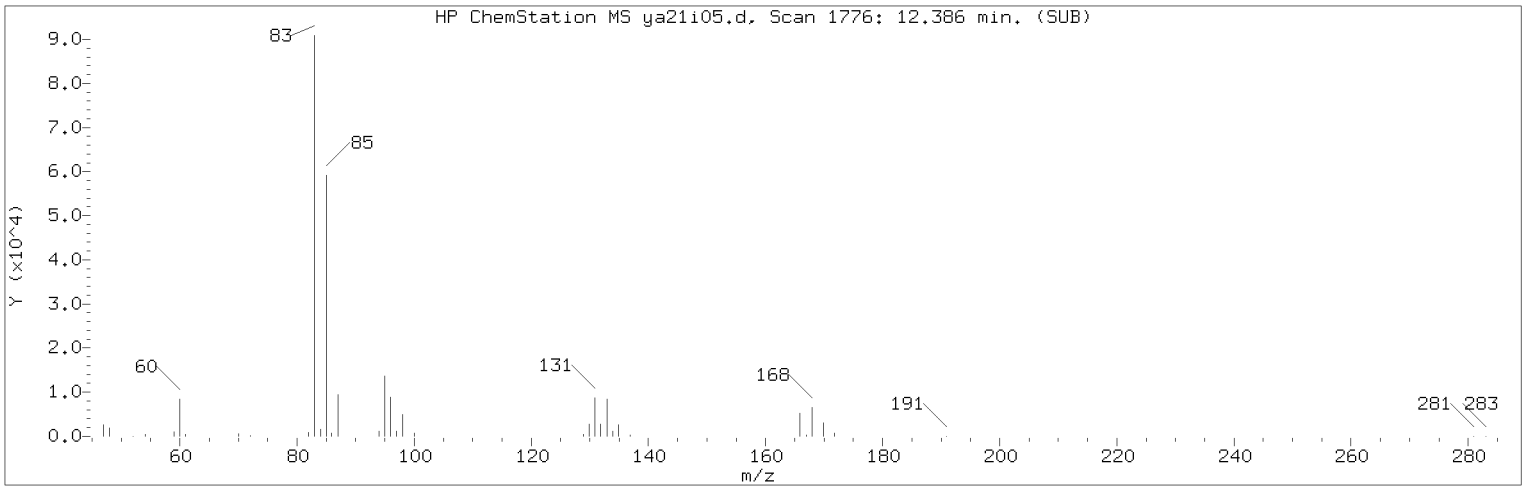
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

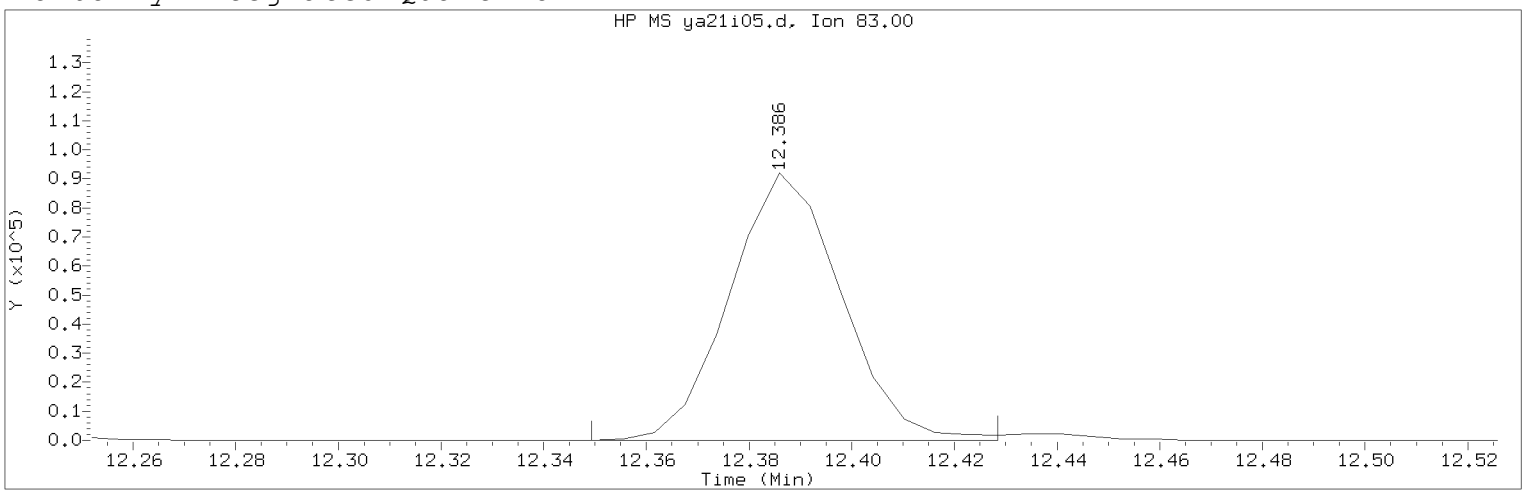
Compound Number : 92
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1447
Retention Time (minutes): 10.384
Quant Ion : 97.00
Area : 79715
On-column Amount (ng) : 9.9555
Integration start scan : 1439 Integration stop scan: 1470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

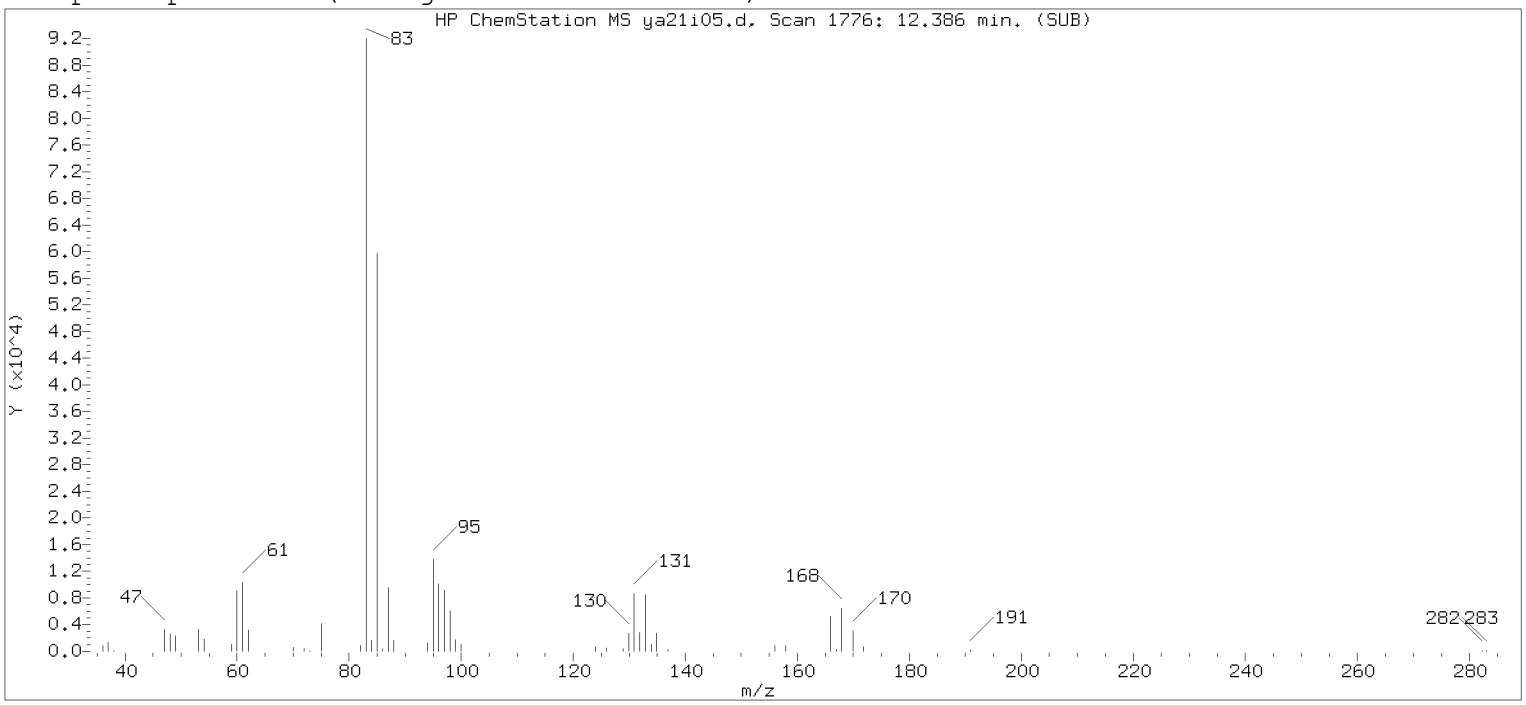
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area (flag) : 138826M
On-Column Amount (ng) : 9.7635
Integration start scan : 1769 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

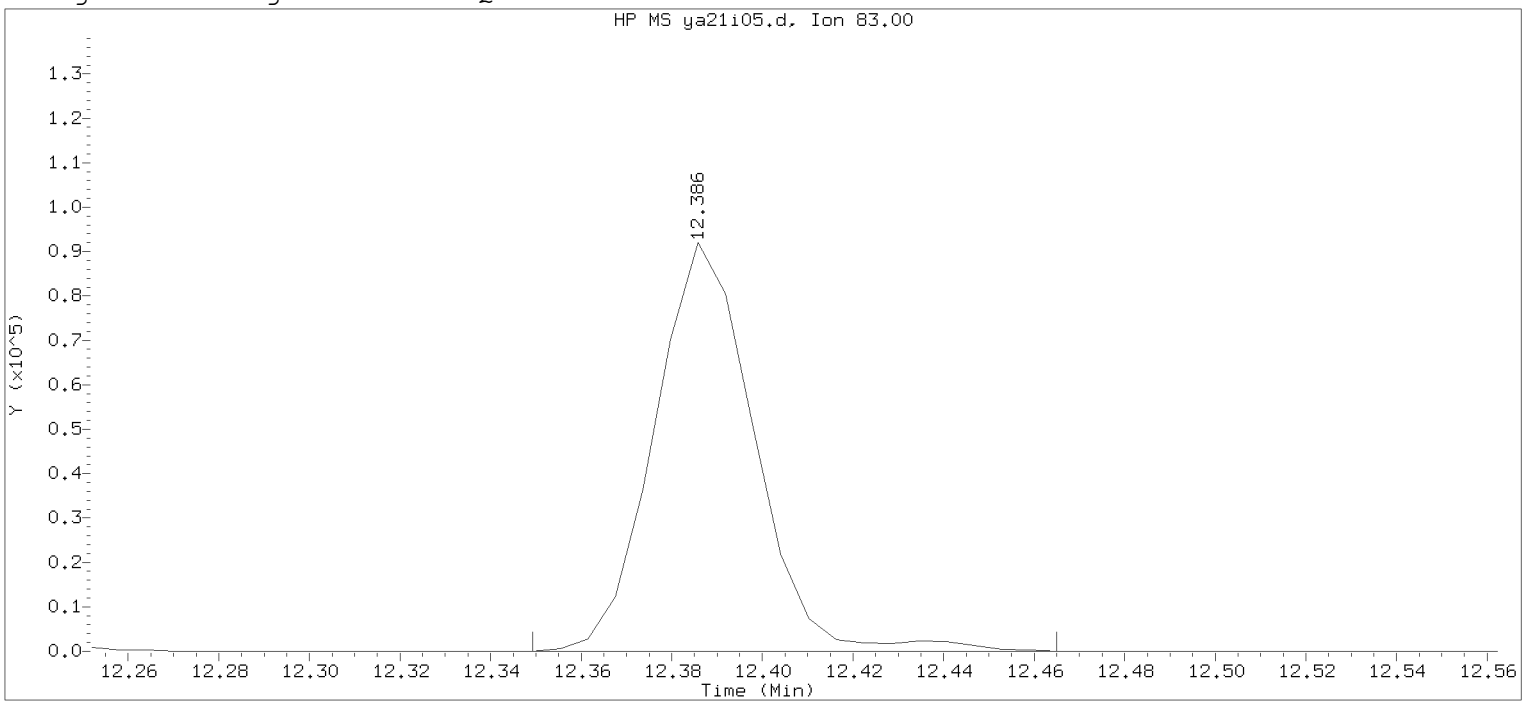
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



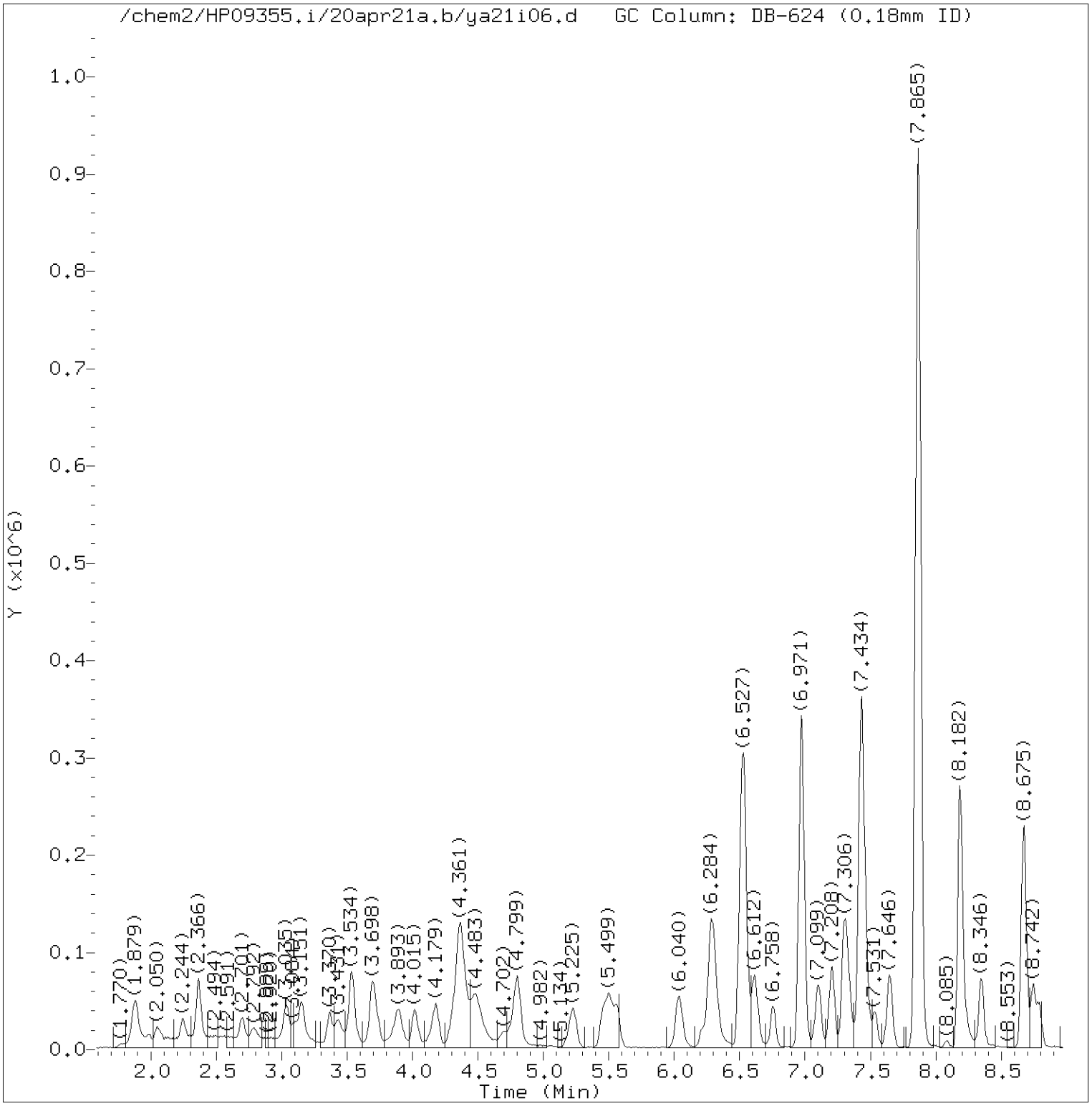
Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area : 141197
On-column Amount (ng) : 10.0227
Integration start scan : 1769 Integration stop scan: 1788
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

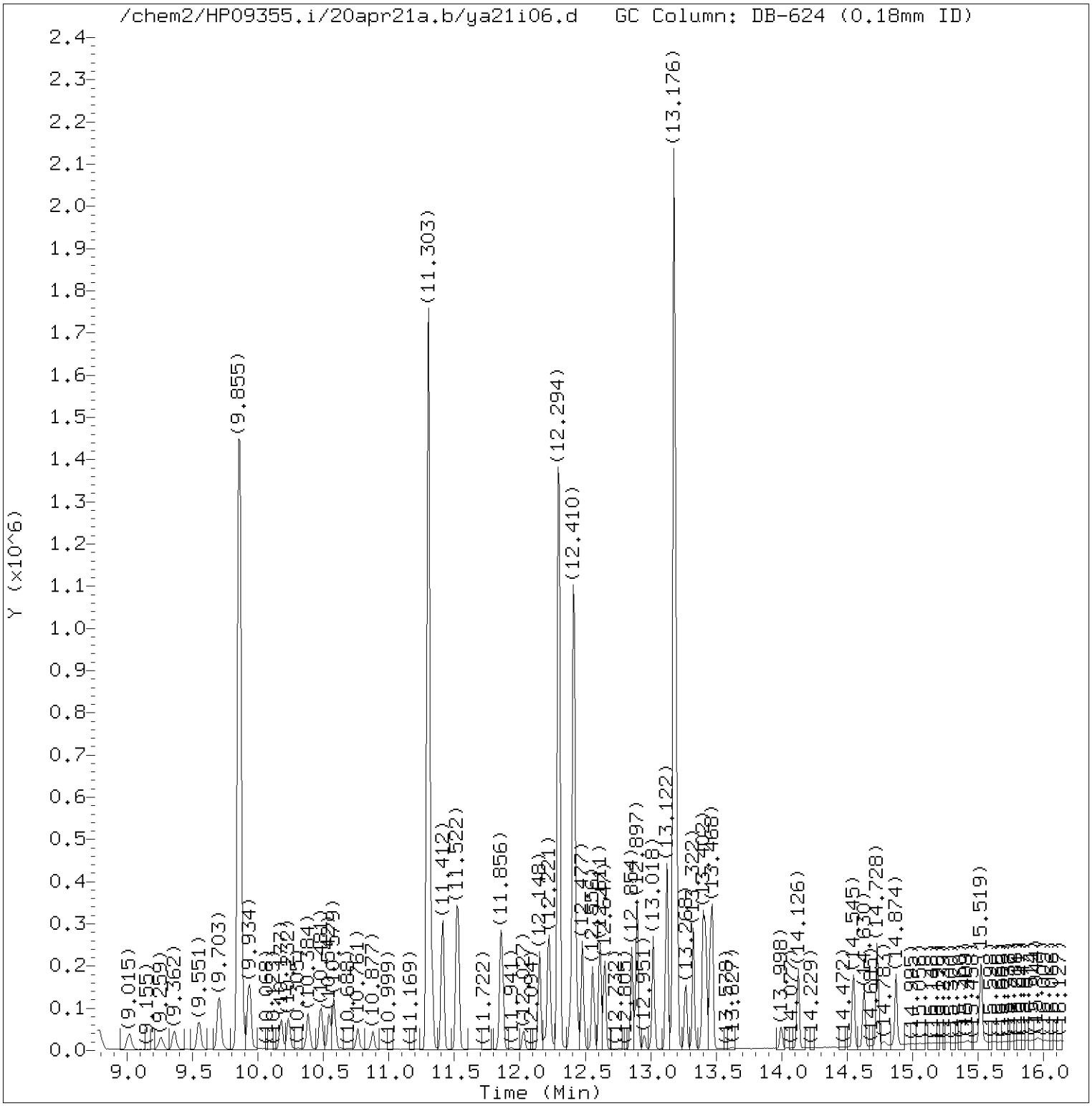
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.050	85	32245	3.692
4) Chloromethane	(2)	2.250	50	30583	3.939
5) 1,3-Butadiene	(2)	2.366	39	26315	4.146
6) Vinyl Chloride	(2)	2.366	62	30882	3.945
8) Bromomethane	(2)	2.701	94	22322	4.183
9) Chloroethane	(2)	2.792	64	17931	4.158
10) Dichlorofluoromethane	(2)	3.029	67	46791	4.081
12) Trichlorofluoromethane	(2)	3.102	101	36093	3.992
11) n-Pentane	(2)	3.151	43	41702	4.247
14) Ethyl ether	(2)	3.364	59	28499	4.104
15) Freon 123a	(2)	3.431	67	33734	4.074
16) Acrolein	(1)	3.534	56	126824	39.938
17) 1,1-Dichloroethene	(2)	3.686	96	30025	4.390
17) 1,1-Dichloroethene	(2)	3.686	63	12363	3.865
18) Acetone	(1)	3.704	58	12333	8.179
19) Freon 113	(2)	3.716	101	25147	3.808
21) 2-Propanol	(1)	3.875	45	88415	81.250
22) Methyl Iodide	(2)	3.899	142	44678	3.892
23) Carbon Disulfide	(2)	4.021	76	92979	3.992
27) Methyl Acetate	(2)	4.148	43	39220	3.897
25) Allyl Chloride	(2)	4.179	41	46502	4.122
29)*t-Butyl alcohol-d10	(1)	4.361	65	386560	250.000
28) Methylene Chloride	(2)	4.374	84	29840	3.878
30) t-Butyl alcohol	(1)	4.489	59	154831	80.993
31) Acrylonitrile	(2)	4.702	53	22280	3.863
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	89798	4.071
32) trans-1,2-Dichloroethene	(2)	4.805	96	32071	4.133
34) n-Hexane	(2)	5.225	57	44284	3.778
36) 1,1-Dichloroethane	(2)	5.456	63	52317	3.887
38) di-Isopropyl ether	(2)	5.499	45	94735	3.837
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	40542	3.679
40) Ethyl t-butyl ether	(2)	6.034	59	84740	3.858
43) 1,2-Dichloroethene (Total)	(2)		96	68117	8.250
44) 2-Butanone	(2)	6.223	43	58737	7.670
42) cis-1,2-Dichloroethene	(2)	6.284	96	36046	4.116
45) 2,2-Dichloropropane	(2)	6.290	77	39611	3.896
47) Propionitrile	(1)	6.302	54	186330	81.538
48) Methacrylonitrile	(2)	6.527	67	223106	38.523

* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	16505	3.986
50) Tetrahydrofuran	(1)	6.624	71	16191	7.531
51) Chloroform	(2)	6.758	83	50172	3.893
52)$Dibromofluoromethane	(2)	6.971	113	292092	49.749
52)$Dibromofluoromethane	(2)	6.971	111	298369	49.751
53) 1,1,1-Trichloroethane	(2)	6.983	97	43076	3.890
54) Cyclohexane	(2)	7.099	56	52524	3.764
54) Cyclohexane	(2)	7.105	84	43569	3.743
54) Cyclohexane	(2)	7.093	69	16128	3.746
55) 1,1-Dichloropropene	(2)	7.202	75	41204	3.817
56) Carbon Tetrachloride	(2)	7.208	117	35581	3.769
58) Isobutyl Alcohol	(1)	7.306	41	138619	202.351
57)$1,2-Dichloroethane-d4	(2)	7.434	102	78583	50.805
57)$1,2-Dichloroethane-d4	(2)	7.427	65	348643	50.619
57)$1,2-Dichloroethane-d4	(2)	7.434	104	49661	50.391
60) Benzene	(2)	7.464	78	129050	3.991
61) 1,2-Dichloroethane	(2)	7.537	62	41151	4.018
61) 1,2-Dichloroethane	(2)	7.531	98	3747	3.744
65) t-Amyl methyl ether	(2)	7.646	73	87291	3.955
66)*Fluorobenzene	(2)	7.865	96	1291427	50.000
67) n-Heptane	(2)	7.878	43	49020	3.903
69) n-Butanol	(1)	8.182	56	249919	377.613
71) Trichloroethene	(2)	8.346	95	31254	3.853
72) Methylcyclohexane	(2)	8.662	83	57273	3.954
72) Methylcyclohexane	(2)	8.669	98	24845	3.896
73) 1,2-Dichloropropane	(2)	8.675	63	32309	3.874
76) Methyl Methacrylate	(2)	8.742	69	29051	3.421
75) 1,4-Dioxane	(1)	8.754	88	30623M	191.522
74) Dibromomethane	(2)	8.790	93	20359	3.828
78) Bromodichloromethane	(2)	9.015	83	34740	3.576
79) 2-Nitropropane	(2)	9.259	41	24931M	7.168
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	23915	3.511
81) cis-1,3-Dichloropropene	(2)	9.551	75	46728	3.524
82) 4-Methyl-2-pentanone	(2)	9.703	43	104618	7.150
83)$Toluene-d8	(3)	9.861	98	1241534	50.163
83)$Toluene-d8	(3)	9.861	100	792578	49.892
88) Toluene	(3)	9.934	92	78537	3.910
90) 1,3-Dichloropropene (total)	(3)		100	89634	7.040

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	42906	3.516
91) Ethyl Methacrylate	(3)	10.232	69	43254	3.218
92) 1,1,2-Trichloroethane	(3)	10.384	97	30366	3.831
93) Tetrachloroethene	(3)	10.481	166	31645	3.842
94) 1,3-Dichloropropane	(3)	10.542	76	51773	3.845
96) 2-Hexanone	(3)	10.579	43	81518	7.071
97) Dibromochloromethane	(3)	10.761	129	28237	3.488
99) 1,2-Dibromoethane	(3)	10.877	107	31520	3.649
100)*Chlorobenzene-d5	(3)	11.303	117	949078	50.000
101) 1-Chlorohexane	(3)	11.303	91	42074	3.818
102) Chlorobenzene	(3)	11.327	112	90372	3.983
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	28097	3.739
104) Ethylbenzene	(3)	11.412	91	149223	3.877
106) m+p-Xylene	(3)	11.522	106	117370	7.686
108) Xylene (Total)	(3)		106	174496	11.495
107) o-Xylene	(3)	11.850	106	57126	3.808
109) Styrene	(3)	11.868	104	86838	3.523
110) Bromoform	(3)	12.027	173	19113	3.185
111) Isopropylbenzene	(3)	12.148	105	144819	3.807
112) Cyclohexanone	(1)	12.221	55	114366	184.392
114)$4-Bromofluorobenzene	(3)	12.294	95	471205M	50.213
114)$4-Bromofluorobenzene	(3)	12.300	174	362330	50.141
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	54693	3.940
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	171417	38.181
115) Bromobenzene	(4)	12.416	156	37846	3.861
117) 1,2,3-Trichloropropane	(4)	12.434	110	16593	3.789
119) n-Propylbenzene	(4)	12.477	91	182355	3.976
120) 2-Chlorotoluene	(4)	12.556	126	36373	3.830
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	127067	3.798
121) 4-Chlorotoluene	(4)	12.647	126	38826	3.886
124) tert-Butylbenzene	(4)	12.854	134	25655	3.678
125) Pentachloroethane	(4)	12.891	167	19764	3.682
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	134162	3.810
127) sec-Butylbenzene	(4)	13.018	105	166885	3.896
129) 1,3-Dichlorobenzene	(4)	13.122	146	72555	3.870
130) p-Isopropyltoluene	(4)	13.128	119	139857	3.835
131)*1,4-Dichlorobenzene-d4	(4)	13.176	152	507990	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	75696	3.910

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

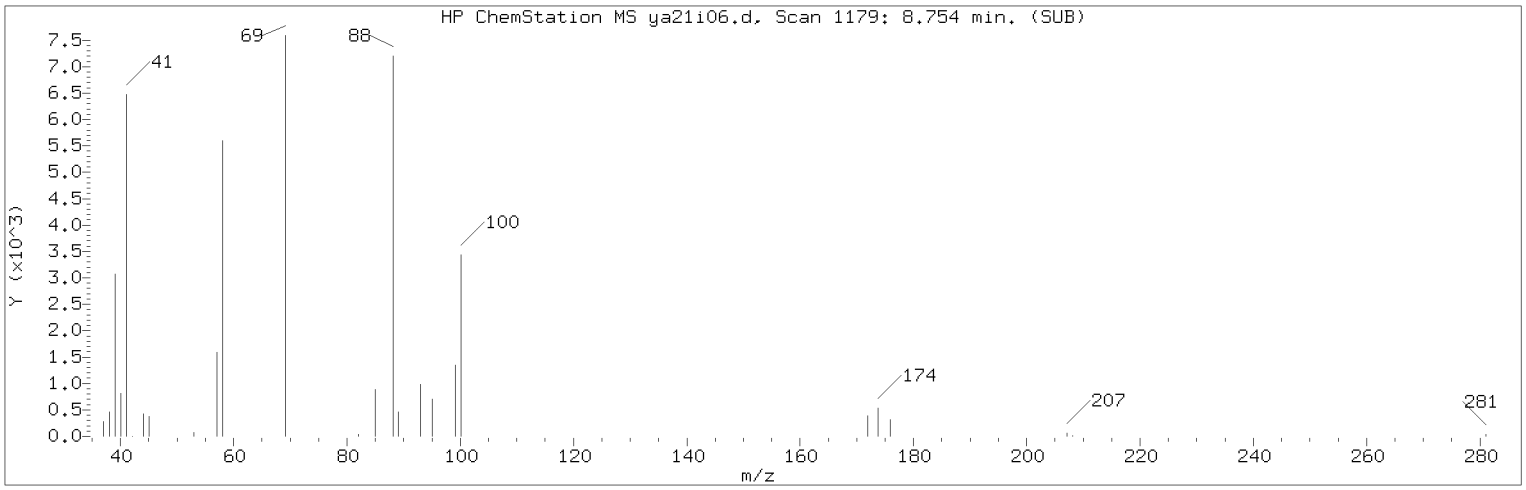
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

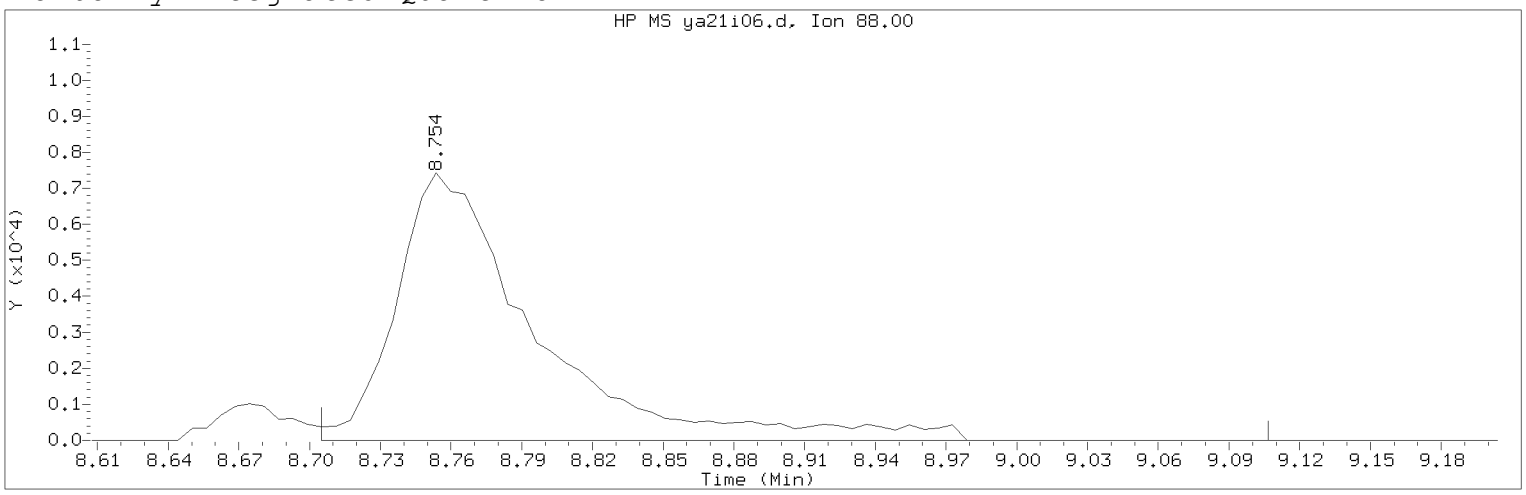
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	137472	4.039
135) Benzyl Chloride	(4)	13.268	91	98757	3.469
136) 1,3-Diethylbenzene	(4)	13.322	119	87721	3.973
141) Diethylbenzene (total)	(4)		100	254934	11.986
137) 1,4-Diethylbenzene	(4)	13.402	119	92516	3.975
139) n-Butylbenzene	(4)	13.420	92	77298	3.967
138) 1,2-Dichlorobenzene	(4)	13.456	146	71394	3.917
140) 1,2-Diethylbenzene	(4)	13.468	119	74697	4.038
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	11861	3.437
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	51983	3.827
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	47706	3.743
147) Hexachlorobutadiene	(4)	14.630	225	22112	3.871
148) Naphthalene	(4)	14.728	128	178292	3.833
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	46987	3.828
150) 2-Methylnaphthalene	(4)	15.525	142	95080	3.701

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

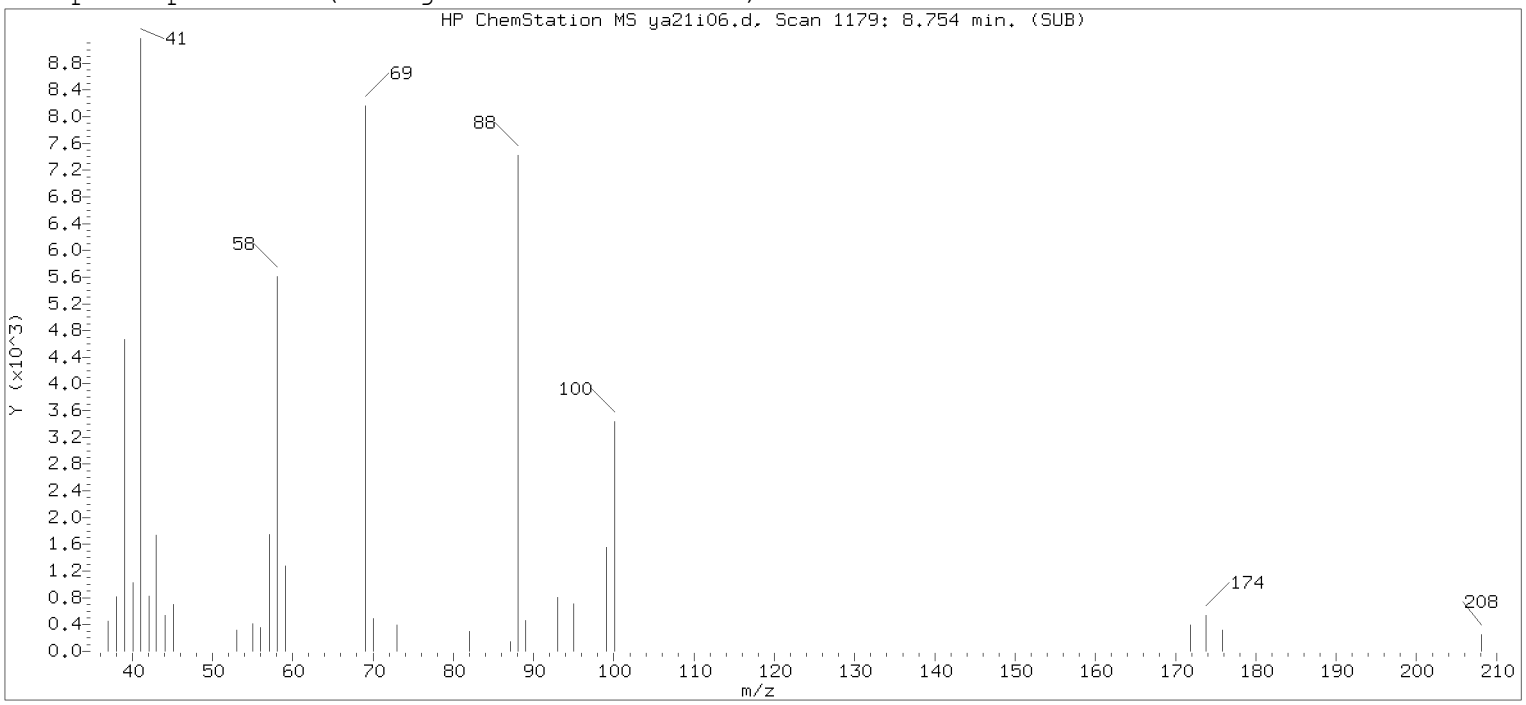
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 30623M
On-Column Amount (ng) : 191.5216
Integration start scan : 1170 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

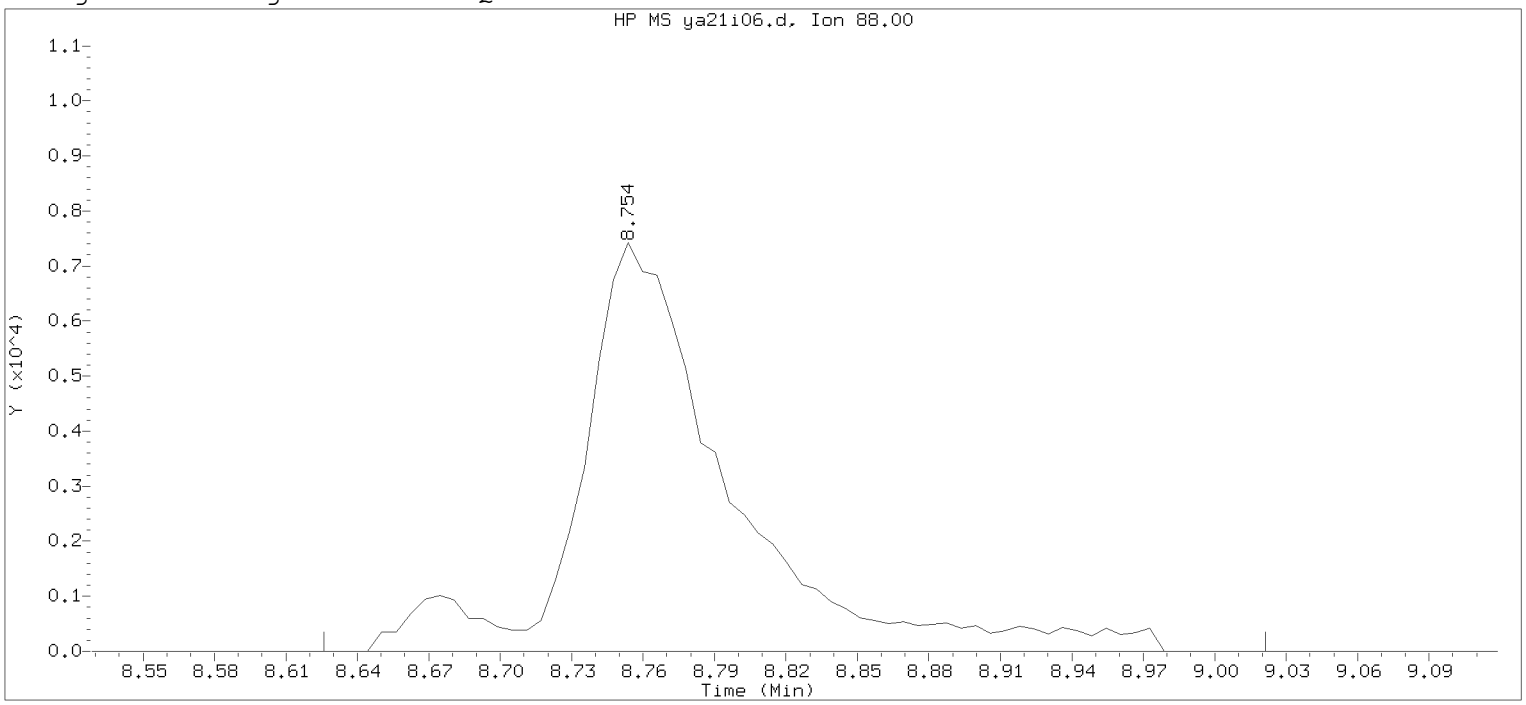
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

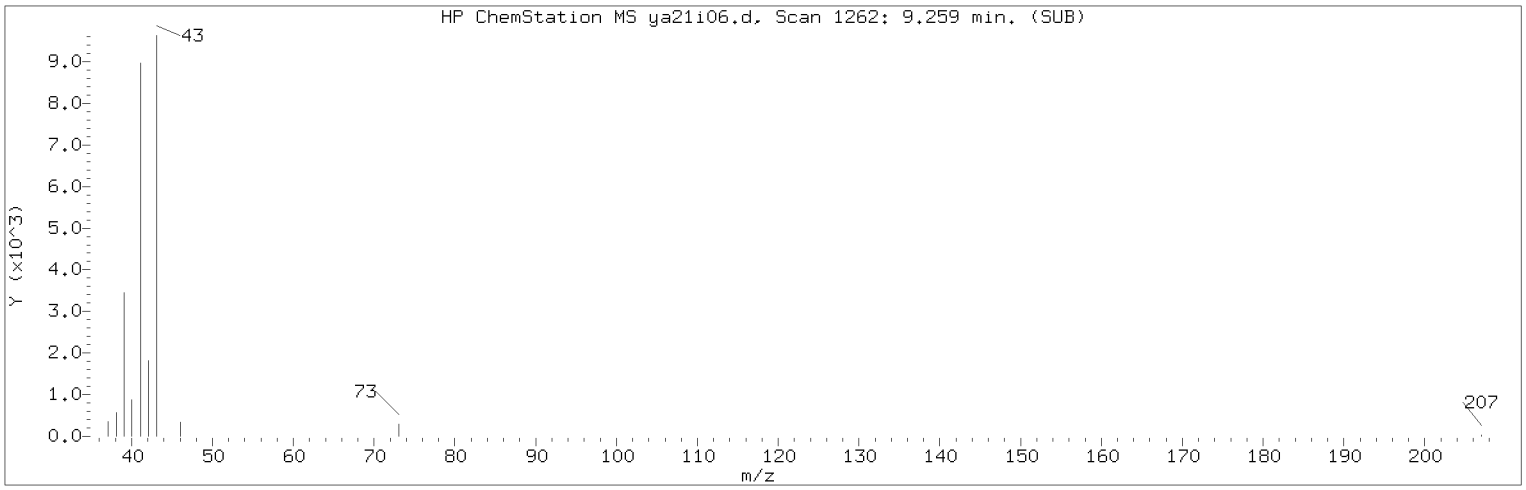
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

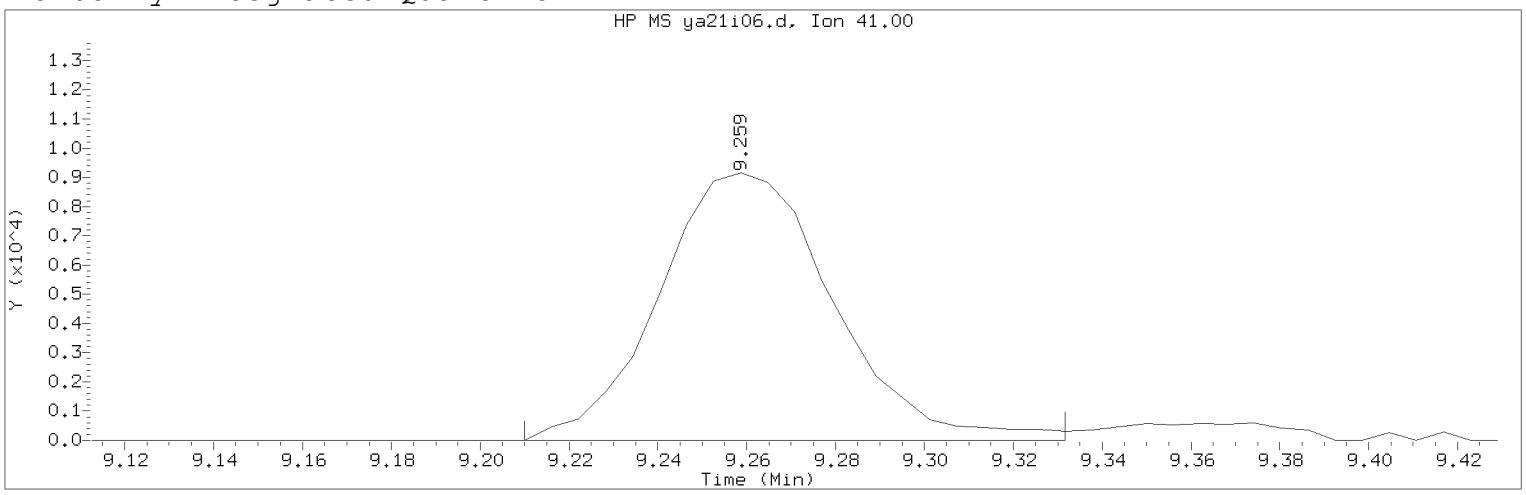
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 32777
On-column Amount (ng) : 177.7605
Integration start scan : 1157 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

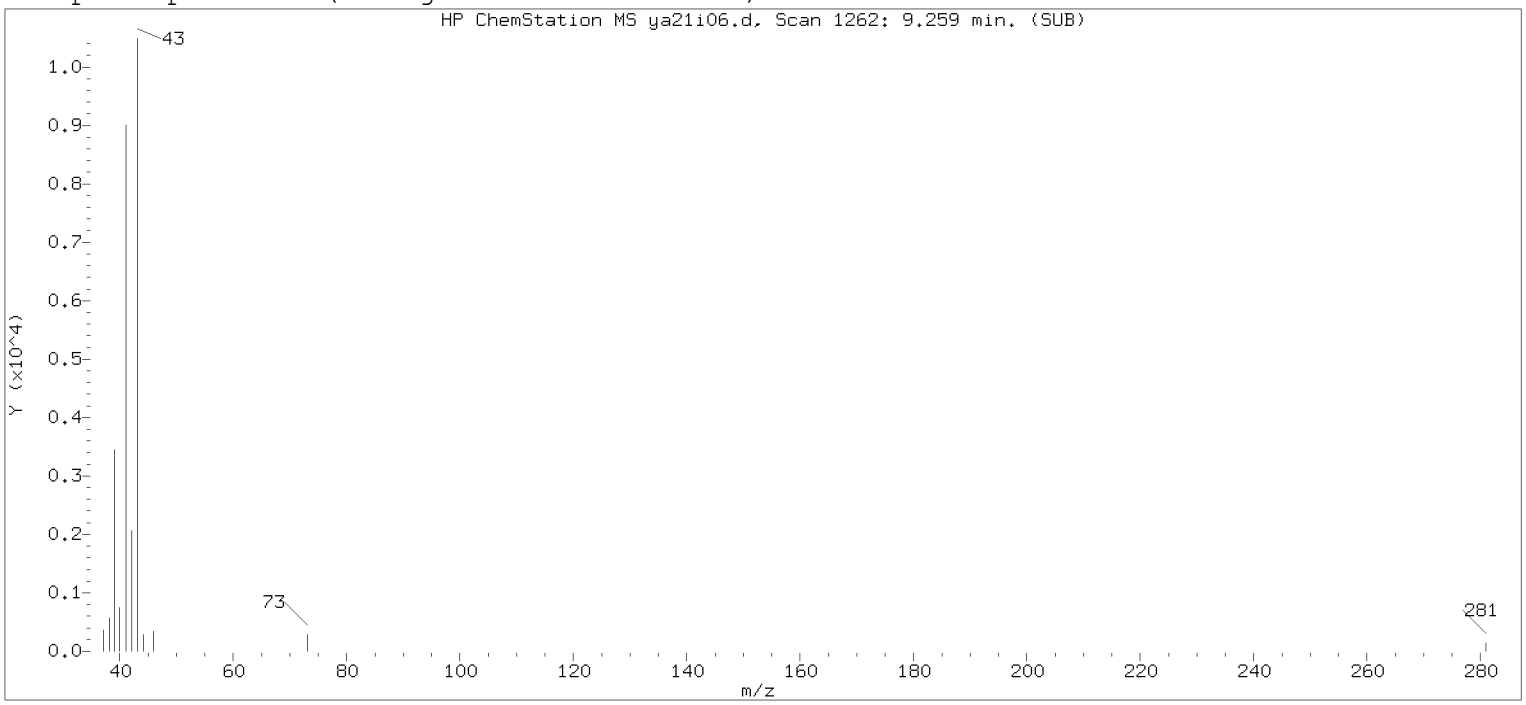
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1262
Retention Time (minutes): 9.259
Quant Ion : 41.00
Area (flag) : 24931M
On-Column Amount (ng) : 7.1677
Integration start scan : 1253 Integration stop scan: 1273
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

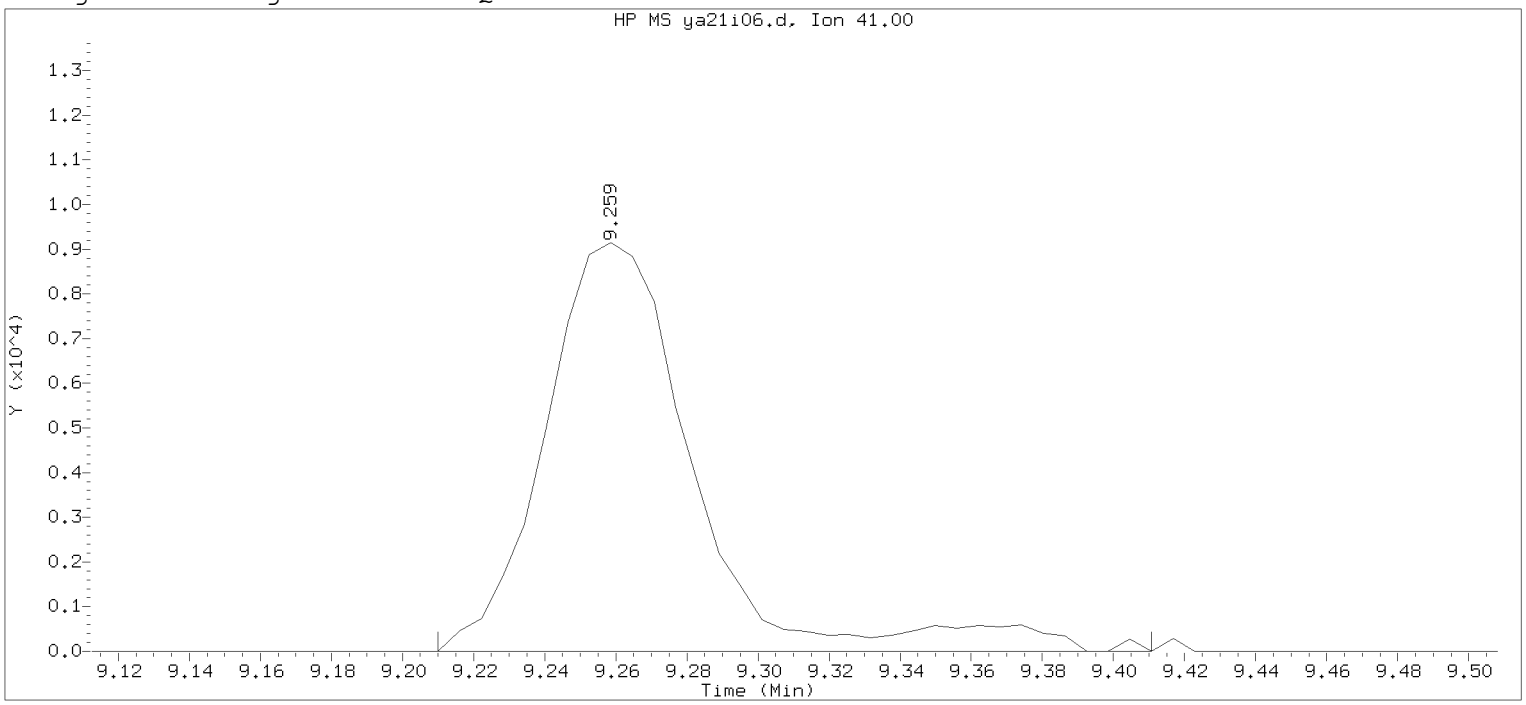
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

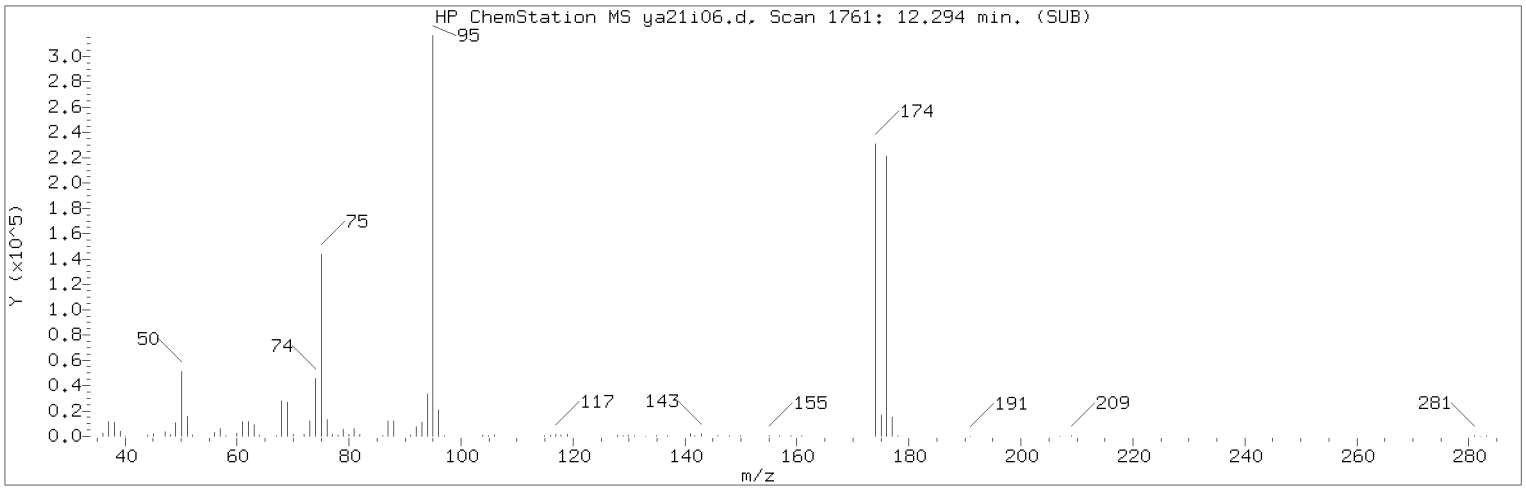
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

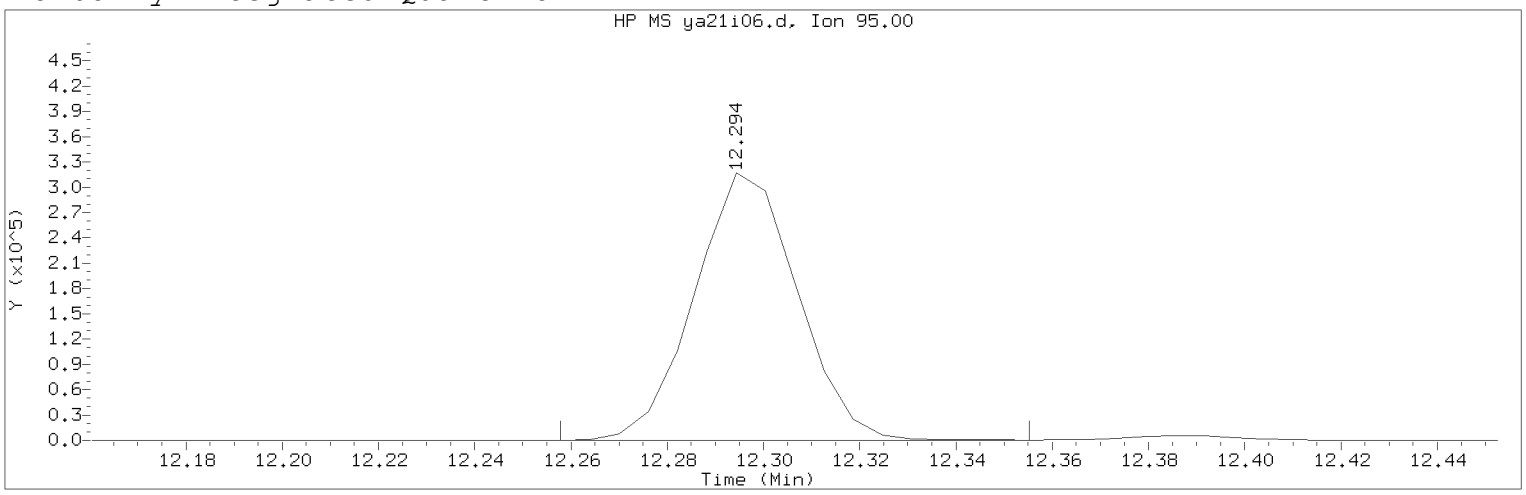
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1262
Retention Time (minutes): 9.259
Quant Ion : 41.00
Area : 26626
On-column Amount (ng) : 7.7622
Integration start scan : 1253 Integration stop scan: 1286
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

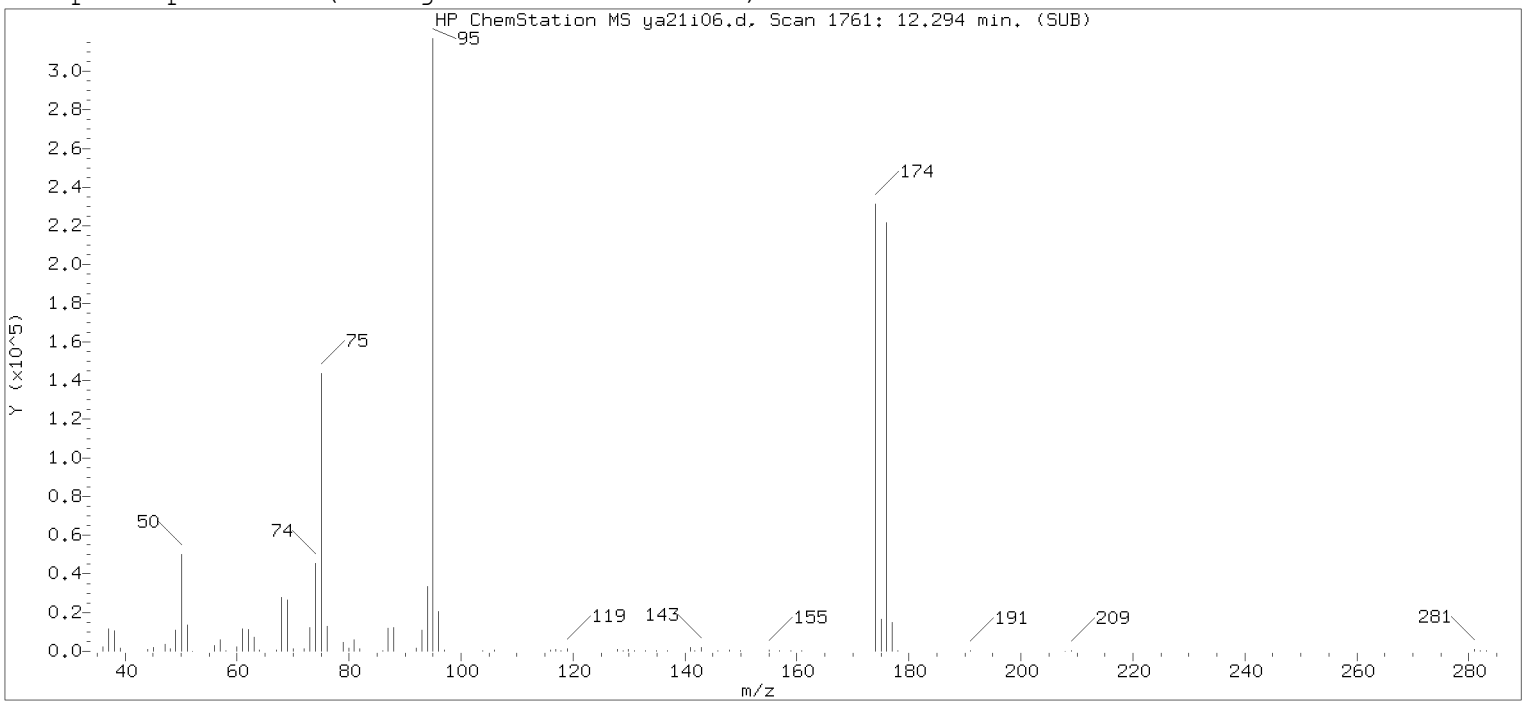
Compound Number : 114
Compound Name : 4-Bromofluorobenzene
Scan Number : 1761
Retention Time (minutes): 12.294
Quant Ion : 95.00
Area (flag) : 471205M
On-Column Amount (ng) : 50.2130
Integration start scan : 1754 Integration stop scan: 1770
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

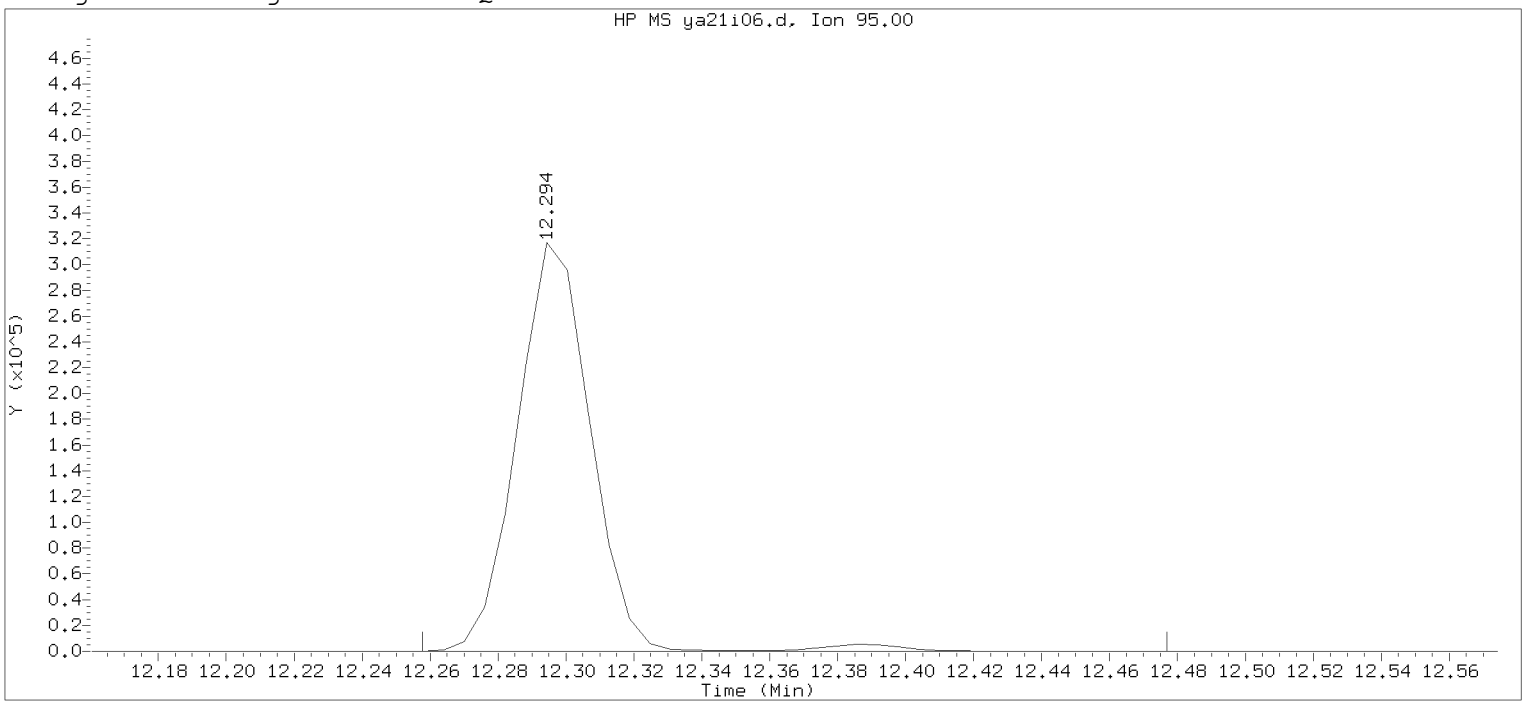
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



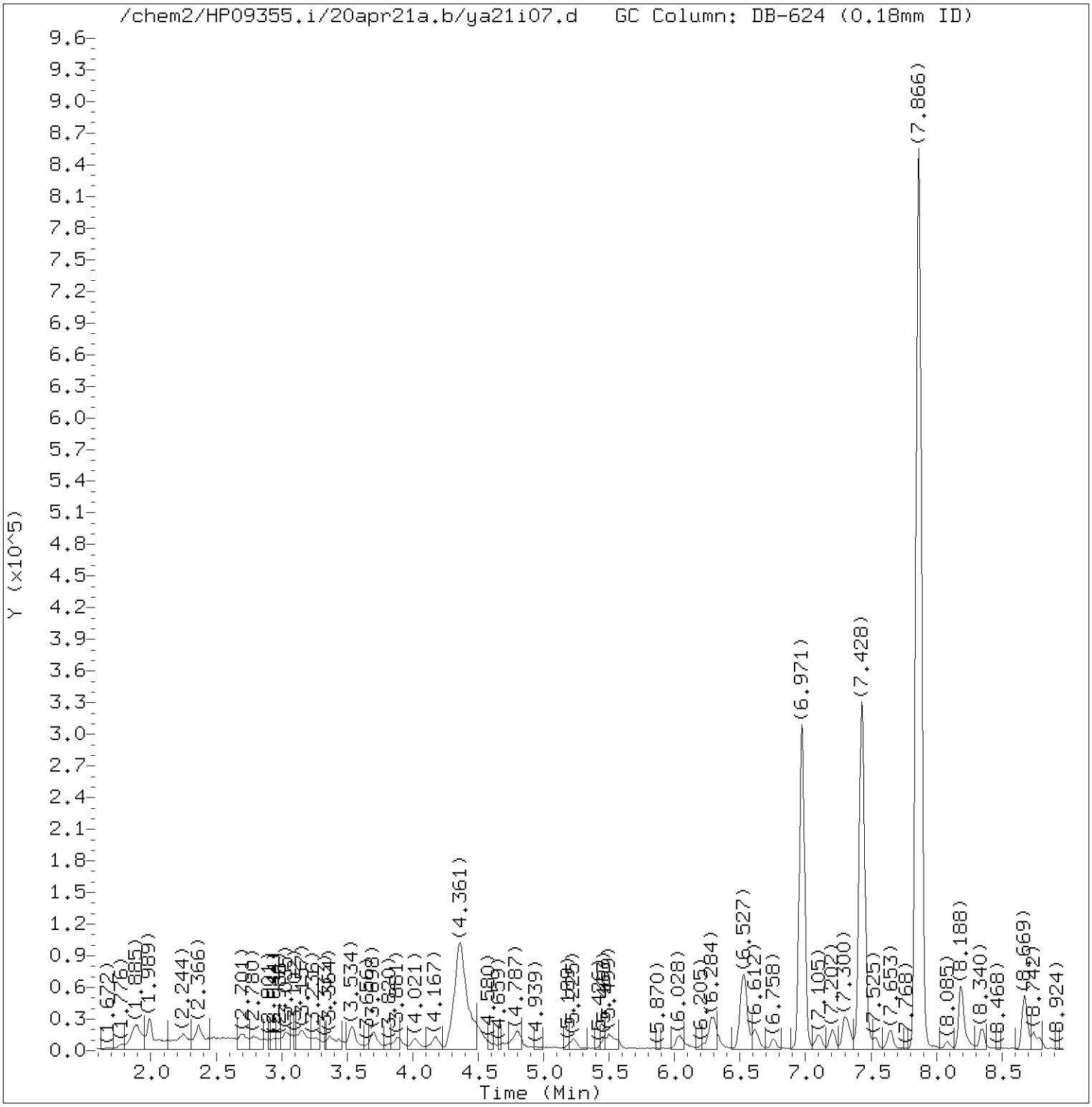
Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 114
Compound Name : 4-Bromofluorobenzene
Scan Number : 1761
Retention Time (minutes): 12.294
Quant Ion : 95.00
Area : 479783
On-column Amount (ng) : 50.9605
Integration start scan : 1754 Integration stop scan: 1790
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

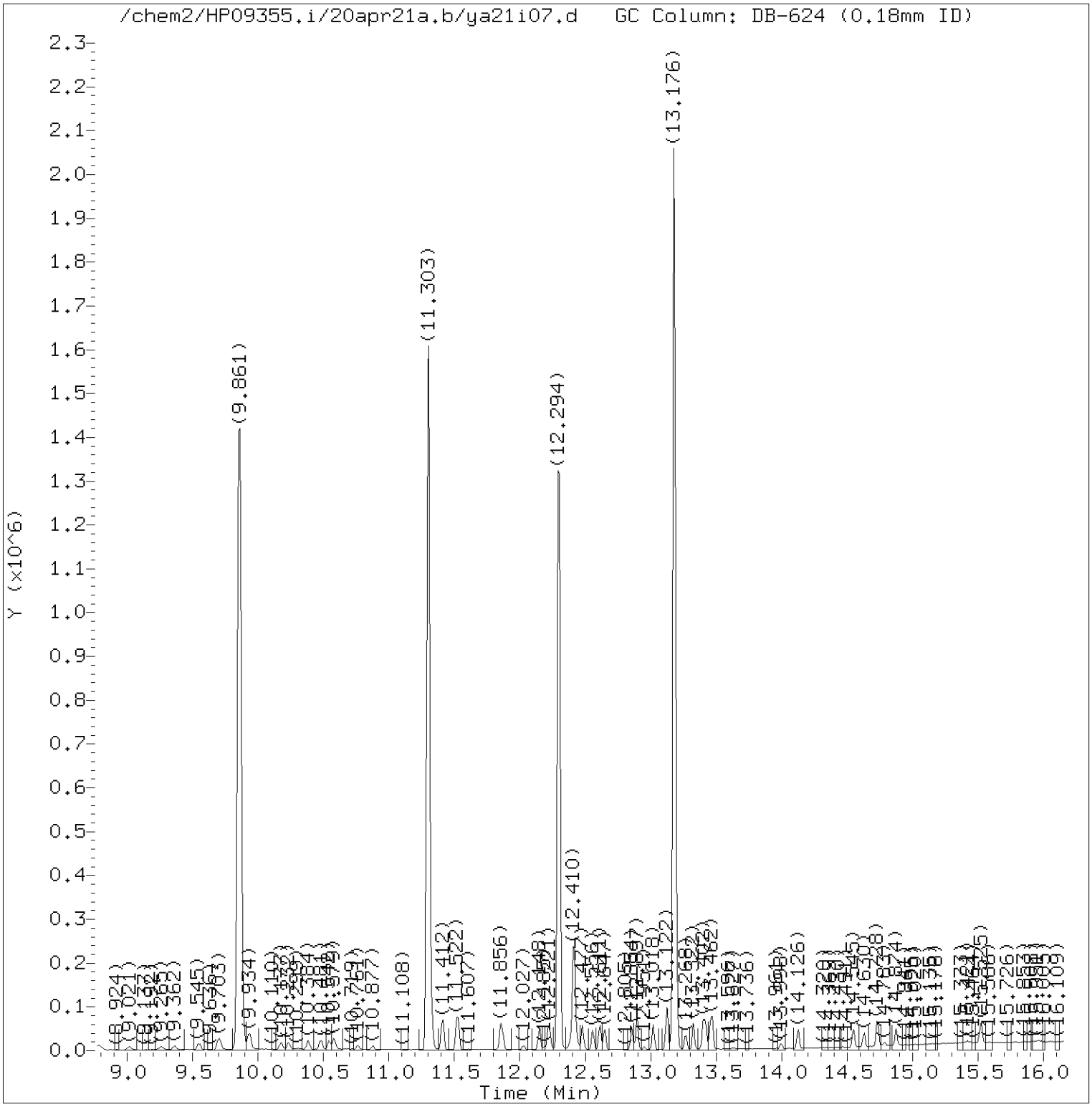
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	6553	0.792
4) Chloromethane	(2)	2.244	50	7519	0.989
5) 1,3-Butadiene	(2)	2.366	39	5821	0.944
6) Vinyl Chloride	(2)	2.366	62	6984	0.922
8) Bromomethane	(2)	2.707	94	5266	1.005
9) Chloroethane	(2)	2.792	64	4017	0.957
10) Dichlorofluoromethane	(2)	3.029	67	10735	0.961
12) Trichlorofluoromethane	(2)	3.102	101	7574	0.872
11) n-Pentane	(2)	3.151	43	12391	1.236
14) Ethyl ether	(2)	3.376	59	6630	0.977
15) Freon 123a	(2)	3.443	67	7276	0.910
16) Acrolein	(1)	3.540	56	31081	10.041
17) 1,1-Dichloroethene	(2)	3.692	96	8536	1.225
17) 1,1-Dichloroethene	(2)	3.680	63	2667	0.869
18) Acetone	(1)	3.698	58	2585	1.791
19) Freon 113	(2)	3.717	101	5140	0.818
21) 2-Propanol	(1)	3.881	45	22976	21.419
22) Methyl Iodide	(2)	3.899	142	9697	0.879
23) Carbon Disulfide	(2)	4.021	76	20765	0.921
27) Methyl Acetate	(2)	4.142	43	10622	1.065
25) Allyl Chloride	(2)	4.185	41	10897	0.987
29)*t-Butyl alcohol-d10	(1)	4.355	65	376556	250.000
28) Methylene Chloride	(2)	4.367	84	6974	0.934
30) t-Butyl alcohol	(1)	4.495	59	38363	20.513
31) Acrylonitrile	(2)	4.702	53	4756	0.860
33) Methyl Tertiary Butyl Ether	(2)	4.775	73	24359	1.106
32) trans-1,2-Dichloroethene	(2)	4.812	96	7879	1.030
34) n-Hexane	(2)	5.219	57	9291	0.831
36) 1,1-Dichloroethane	(2)	5.450	63	11588	0.894
38) di-Isopropyl ether	(2)	5.499	45	21354	0.897
39) 2-Chloro-1,3-butadiene	(2)	5.572	53	8609	0.820
40) Ethyl t-butyl ether	(2)	6.047	59	19905	0.934
43) 1,2-Dichloroethene (Total)	(2)		96	16725	2.056
44) 2-Butanone	(2)	6.229	43	14276	1.915
42) cis-1,2-Dichloroethene	(2)	6.278	96	8846	1.026
45) 2,2-Dichloropropane	(2)	6.296	77	8555	0.876
47) Propionitrile	(1)	6.302	54	44848	20.126
48) Methacrylonitrile	(2)	6.527	67	52263	9.309

* = Compound is an internal standard.

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on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.618	128	3666	0.916
50) Tetrahydrofuran	(1)	6.624	71	3709	1.800
51) Chloroform	(2)	6.752	83	11320	0.909
52)$Dibromofluoromethane	(2)	6.971	113	285945	49.712
52)$Dibromofluoromethane	(2)	6.971	111	290589	49.494
53) 1,1,1-Trichloroethane	(2)	6.989	97	9550	0.895
54) Cyclohexane	(2)	7.105	56	11171	0.838
54) Cyclohexane	(2)	7.093	84	9049	0.817
54) Cyclohexane	(2)	7.105	69	3155	0.775
55) 1,1-Dichloropropene	(2)	7.202	75	8981	0.867
56) Carbon Tetrachloride	(2)	7.215	117	7609	0.843
58) Isobutyl Alcohol	(1)	7.306	41	34721	51.731
57)$1,2-Dichloroethane-d4	(2)	7.428	102	75882	50.024
57)$1,2-Dichloroethane-d4	(2)	7.428	65	341980	50.541
57)$1,2-Dichloroethane-d4	(2)	7.428	104	48355	50.030
60) Benzene	(2)	7.470	78	30014	0.954
61) 1,2-Dichloroethane	(2)	7.537	62	10406	1.031
61) 1,2-Dichloroethane	(2)	7.537	98	661	0.706
65) t-Amyl methyl ether	(2)	7.653	73	20605	0.959
66)*Fluorobenzene	(2)	7.866	96	1266407	50.000
67) n-Heptane	(2)	7.878	43	11455	0.939
69) n-Butanol	(1)	8.182	56	55586	87.950
71) Trichloroethene	(2)	8.352	95	6846	0.878
72) Methylcyclohexane	(2)	8.669	83	11744	0.848
72) Methylcyclohexane	(2)	8.675	98	5235	0.857
73) 1,2-Dichloropropane	(2)	8.675	63	7338	0.911
76) Methyl Methacrylate	(2)	8.742	69	6532	0.809
75) 1,4-Dioxane	(1)	8.766	88	6446M	42.430
74) Dibromomethane	(2)	8.790	93	4485	0.878
78) Bromodichloromethane	(2)	9.015	83	7424	0.805
79) 2-Nitropropane	(2)	9.265	41	5748	1.724
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	4977	0.773
81) cis-1,3-Dichloropropene	(2)	9.551	75	10553	0.834
82) 4-Methyl-2-pentanone	(2)	9.703	43	22331	1.607
83)$Toluene-d8	(3)	9.861	98	1215192	50.398
83)$Toluene-d8	(3)	9.861	100	780139	50.407
88) Toluene	(3)	9.934	92	18311	0.945
90) 1,3-Dichloropropene (total)	(3)		100	20231	1.671

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	9678	0.837
91) Ethyl Methacrylate	(3)	10.232	69	9090	0.727
92) 1,1,2-Trichloroethane	(3)	10.384	97	7059	0.926
93) Tetrachloroethene	(3)	10.481	166	7241	0.916
94) 1,3-Dichloropropane	(3)	10.542	76	12238	0.943
96) 2-Hexanone	(3)	10.579	43	17247	1.590
97) Dibromochloromethane	(3)	10.761	129	6078	0.798
99) 1,2-Dibromoethane	(3)	10.877	107	7085	0.862
100)*Chlorobenzene-d5	(3)	11.303	117	923376	50.000
101) 1-Chlorohexane	(3)	11.303	91	10540	0.986
102) Chlorobenzene	(3)	11.327	112	20716	0.947
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	5992	0.841
104) Ethylbenzene	(3)	11.412	91	33931	0.918
106) m+p-Xylene	(3)	11.522	106	25855	1.773
108) Xylene (Total)	(3)		106	38648	2.666
107) o-Xylene	(3)	11.850	106	12793	0.892
109) Styrene	(3)	11.869	104	17797	0.770
110) Bromoform	(3)	12.027	173	4328	0.770
111) Isopropylbenzene	(3)	12.148	105	30881	0.855
112) Cyclohexanone	(1)	12.221	55	23441M	40.081
114)$4-Bromofluorobenzene	(3)	12.294	95	458604	50.197
114)$4-Bromofluorobenzene	(3)	12.300	174	353771	50.273
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	12539	0.933
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	38710	8.960
115) Bromobenzene	(4)	12.416	156	8866	0.934
117) 1,2,3-Trichloropropane	(4)	12.440	110	4123	0.967
119) n-Propylbenzene	(4)	12.477	91	40191	0.909
120) 2-Chlorotoluene	(4)	12.556	126	7997	0.878
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	27066	0.847
121) 4-Chlorotoluene	(4)	12.653	126	8332	0.870
124) tert-Butylbenzene	(4)	12.854	134	5793M	0.867
125) Pentachloroethane	(4)	12.891	167	4481	0.871
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	28449	0.846
127) sec-Butylbenzene	(4)	13.018	105	36509	0.887
129) 1,3-Dichlorobenzene	(4)	13.122	146	17078	0.940
130) p-Isopropyltoluene	(4)	13.128	119	29194	0.840
131)*1,4-Dichlorobenzene-d4	(4)	13.176	152	497288	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	17625	0.939

M = Compound was manually integrated.
* = Compound is an internal standard.
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Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

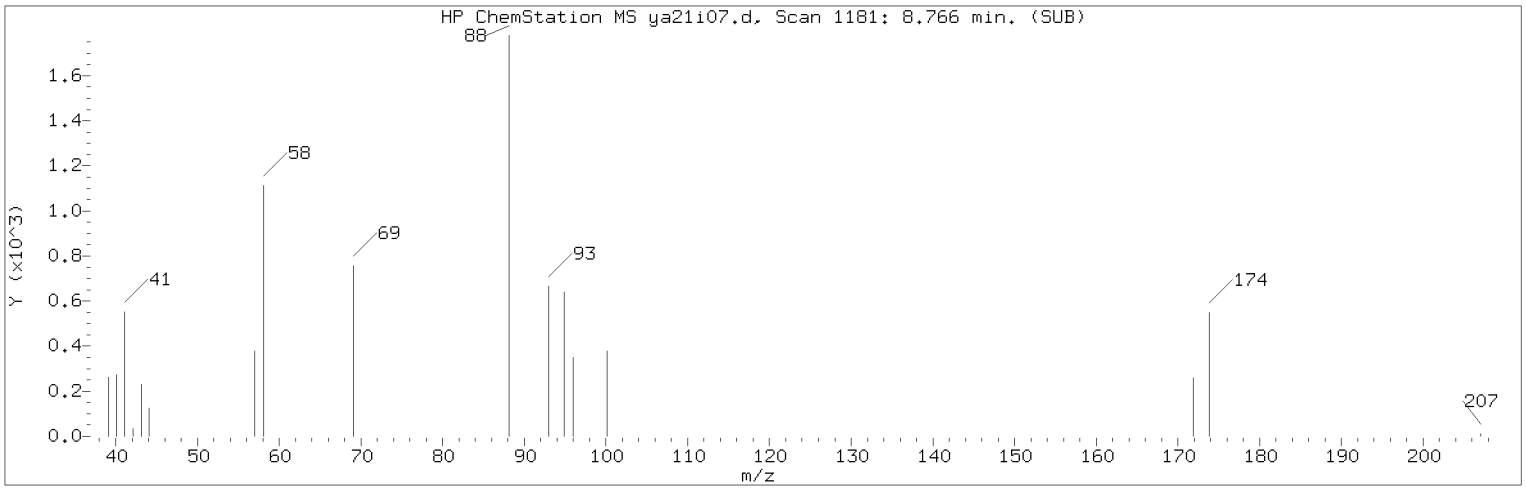
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

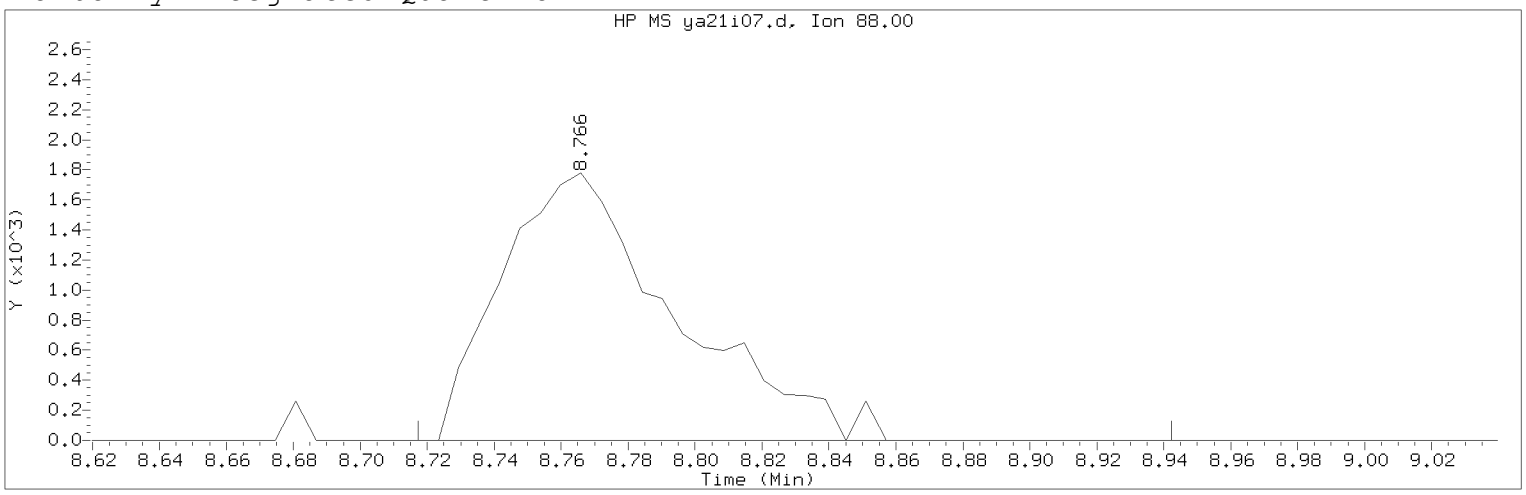
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	31323	0.948
135) Benzyl Chloride	(4)	13.268	91	21802	0.808
136) 1,3-Diethylbenzene	(4)	13.322	119	18430	0.871
141) Diethylbenzene (total)	(4)		100	53495	2.627
137) 1,4-Diethylbenzene	(4)	13.402	119	18981	0.853
139) n-Butylbenzene	(4)	13.420	92	16462	0.880
138) 1,2-Dichlorobenzene	(4)	13.456	146	16481	0.934
140) 1,2-Diethylbenzene	(4)	13.469	119	16084	0.903
142) 1,2-Dibromo-3-chloropropane	(4)	13.998	75	2892	0.874
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	12285	0.934
146) 1,2,4-Trichlorobenzene	(4)	14.551	180	11569	0.937
147) Hexachlorobutadiene	(4)	14.630	225	5419	0.973
148) Naphthalene	(4)	14.728	128	42927	0.950
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	11649	0.974
150) 2-Methylnaphthalene	(4)	15.525	142	23795	0.954

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

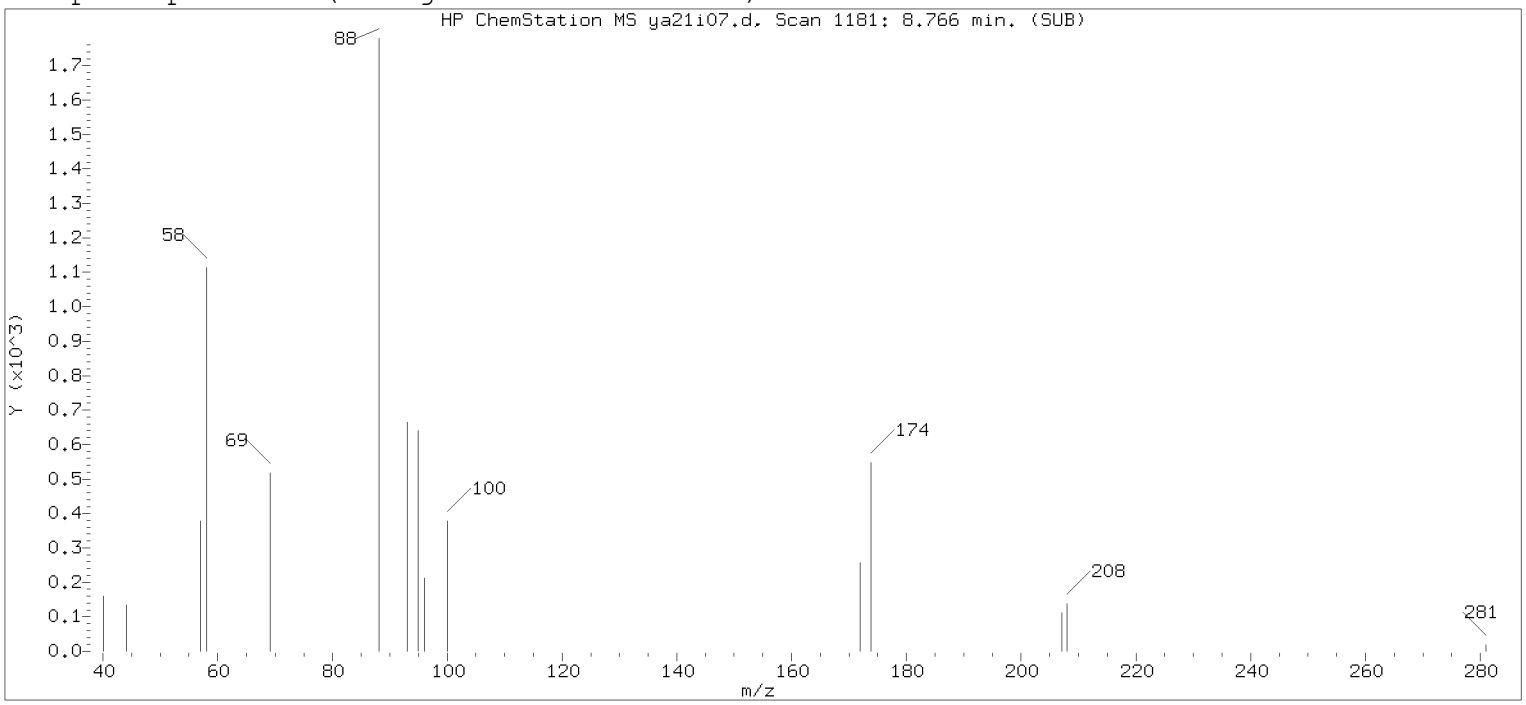
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1181
Retention Time (minutes): 8.766
Quant Ion : 88.00
Area (flag) : 6446M
On-Column Amount (ng) : 42.4298
Integration start scan : 1172 Integration stop scan: 1209
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

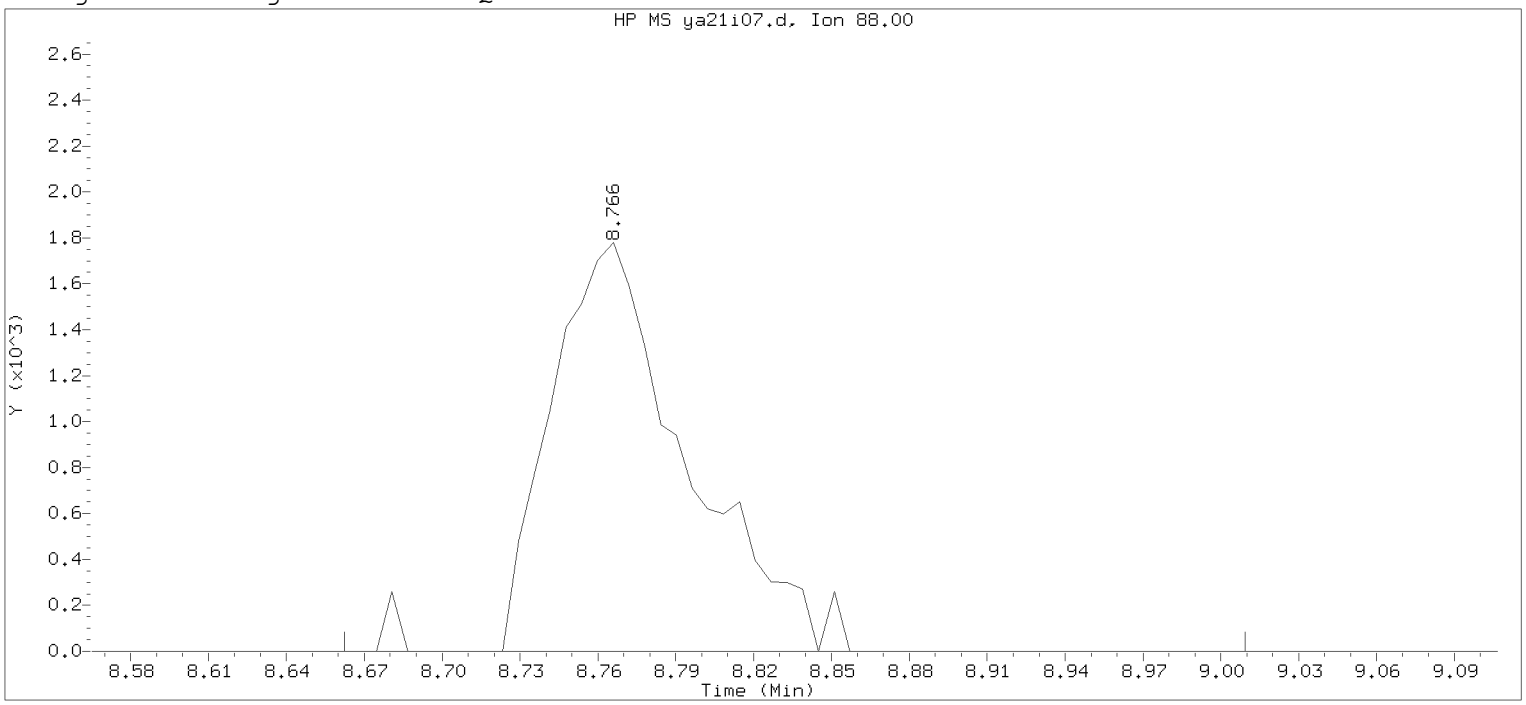
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

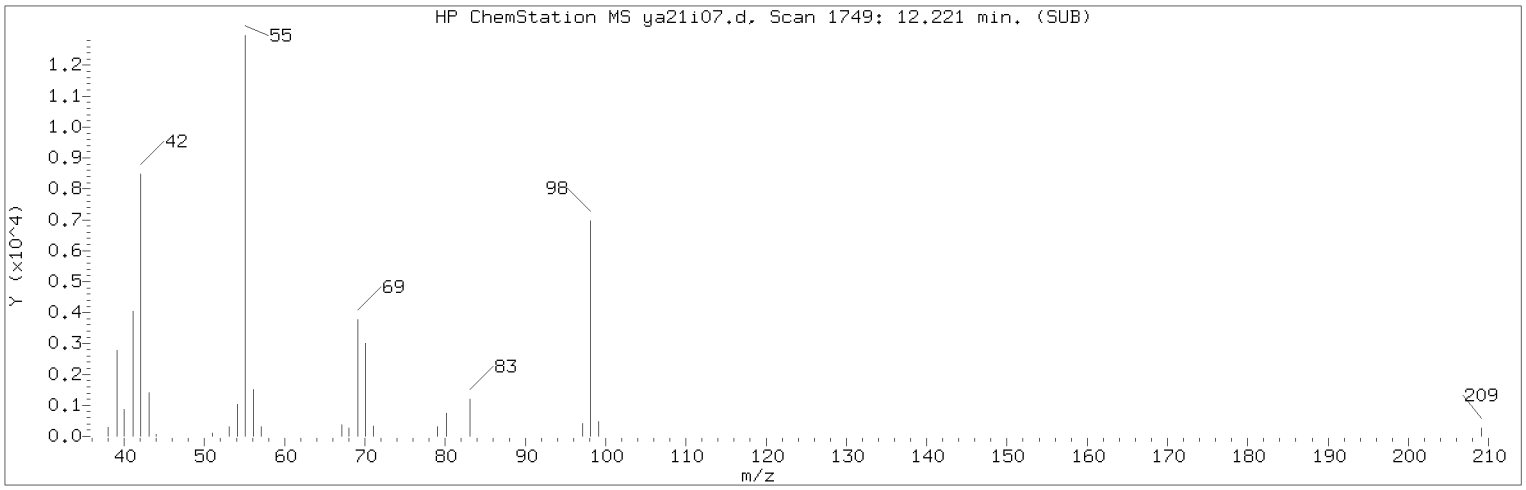
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

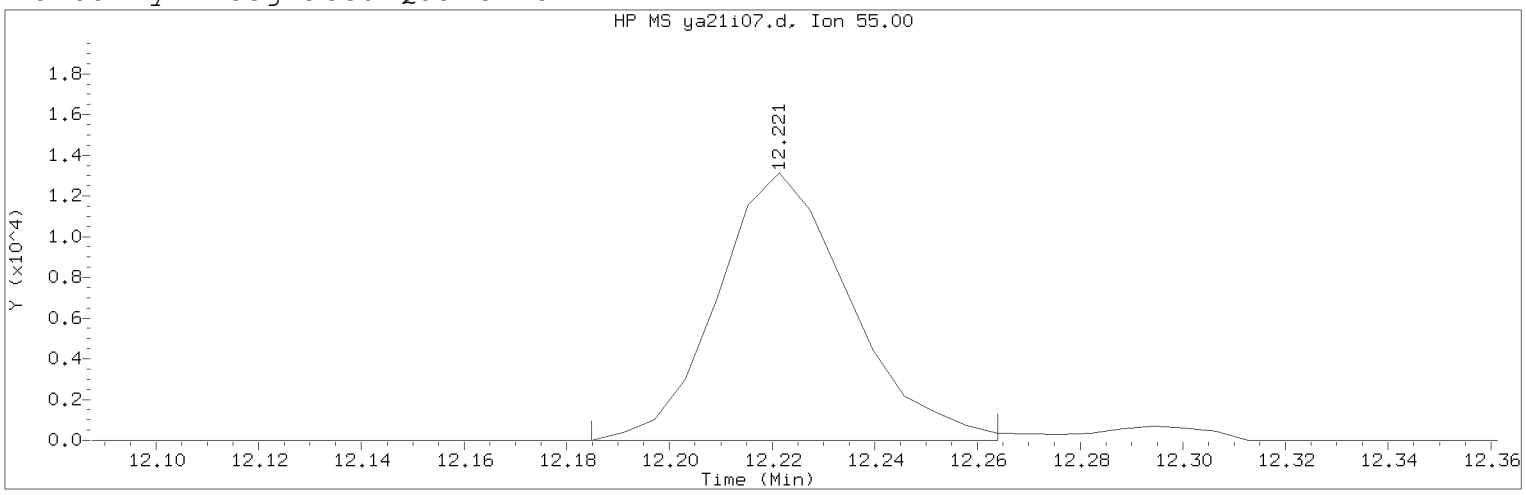
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1181
Retention Time (minutes): 8.766
Quant Ion : 88.00
Area : 6541
On-column Amount (ng) : 36.4181
Integration start scan : 1163 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

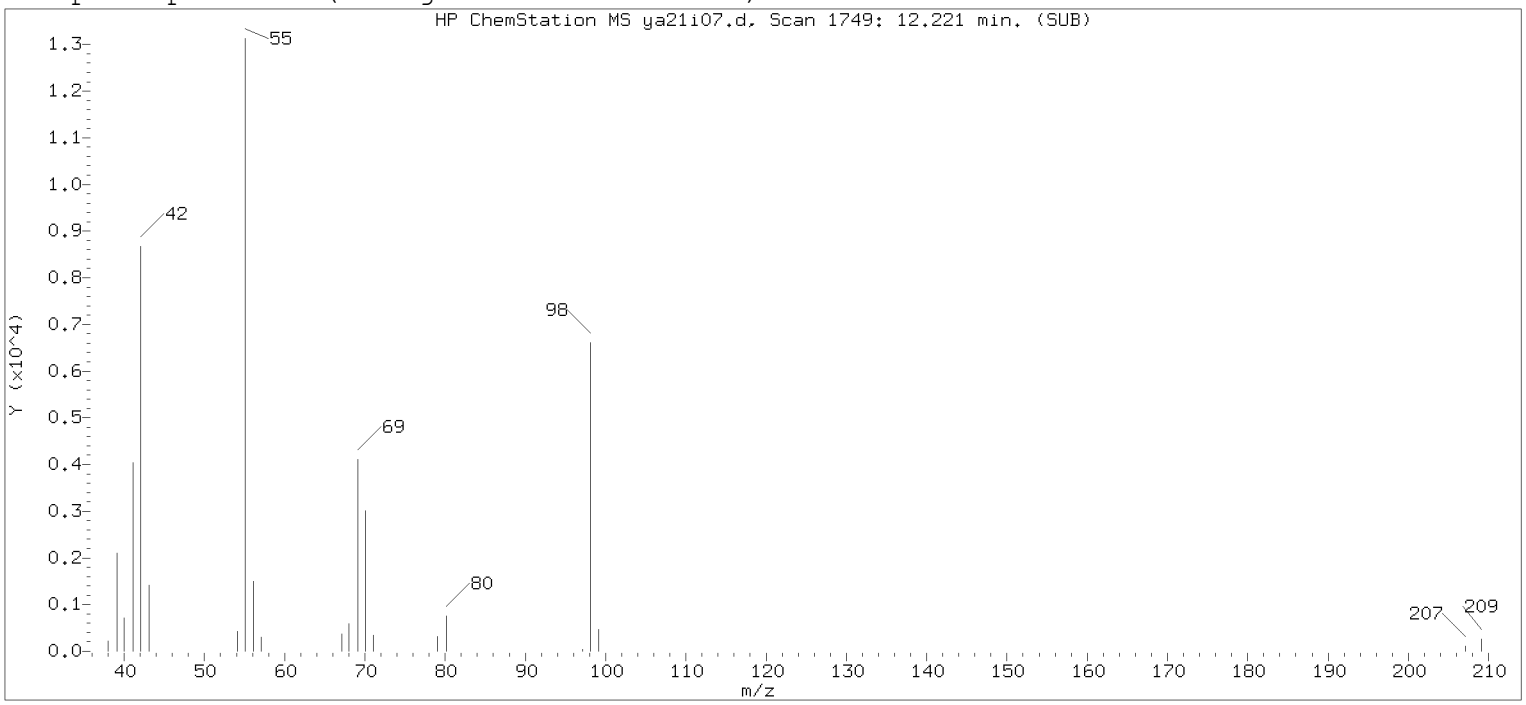
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1749
Retention Time (minutes): 12.221
Quant Ion : 55.00
Area (flag) : 23441M
On-Column Amount (ng) : 40.0807
Integration start scan : 1742 Integration stop scan: 1755
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

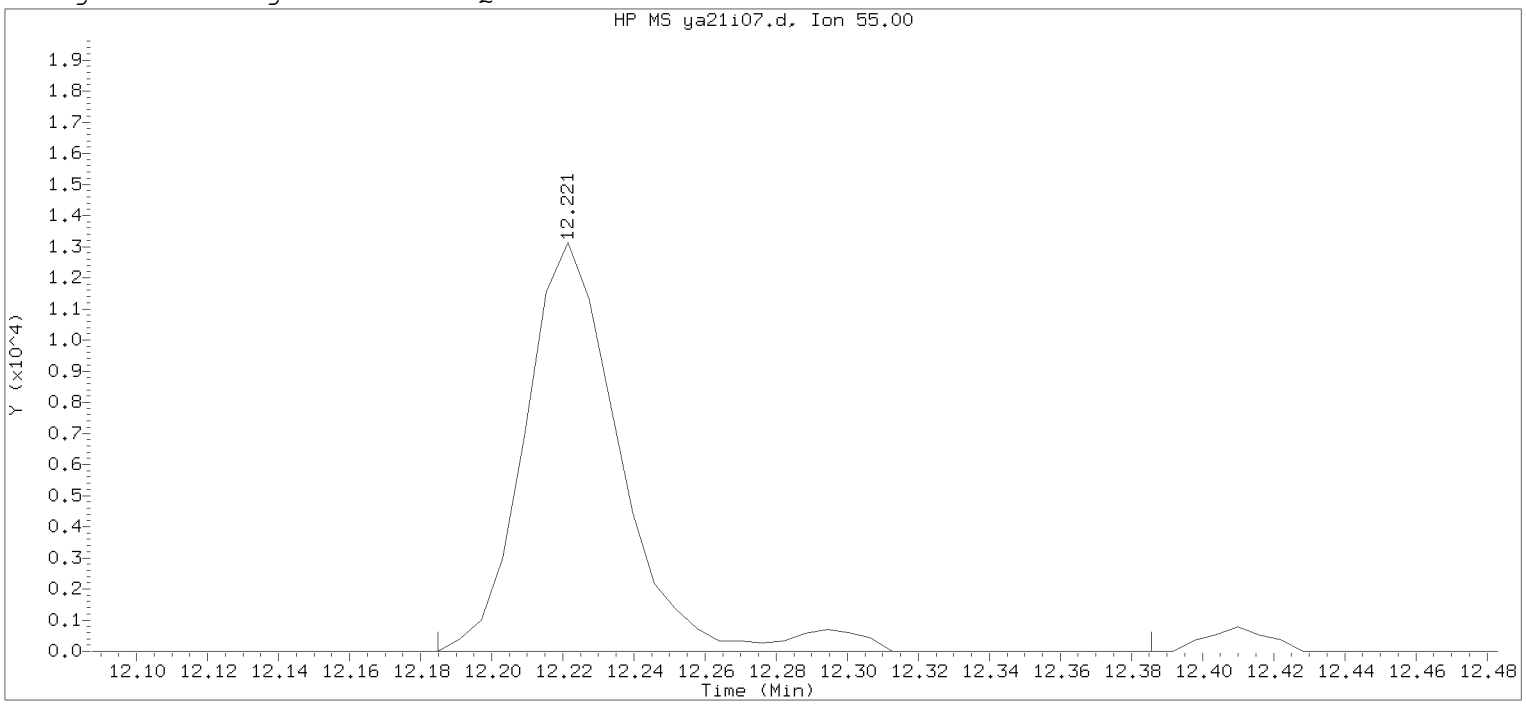
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

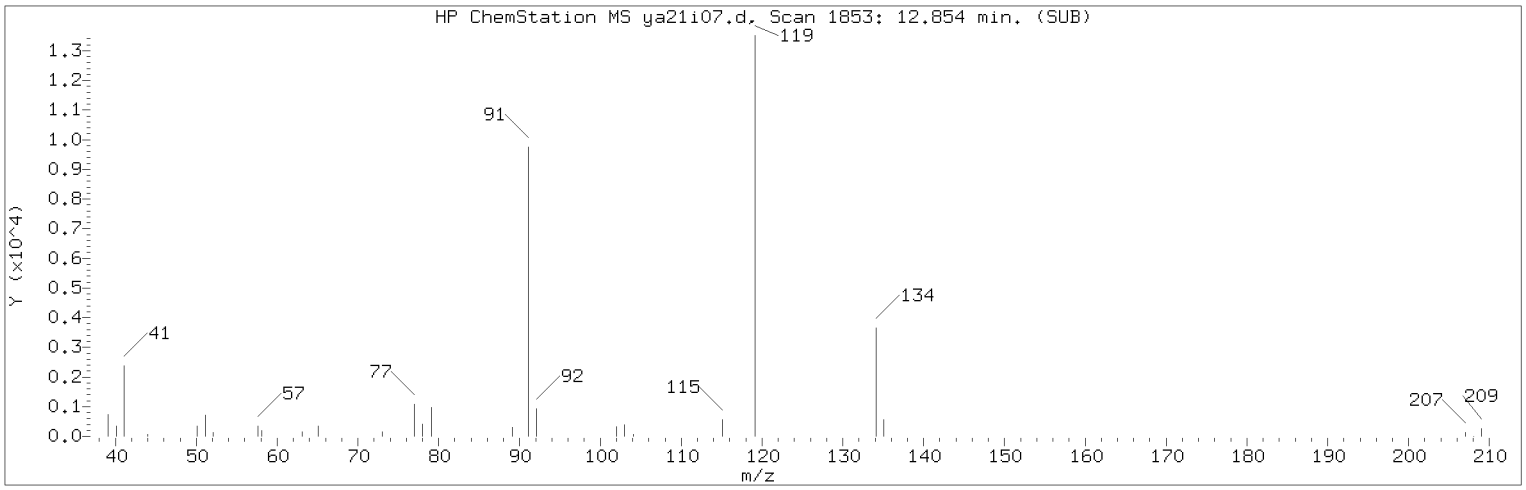
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

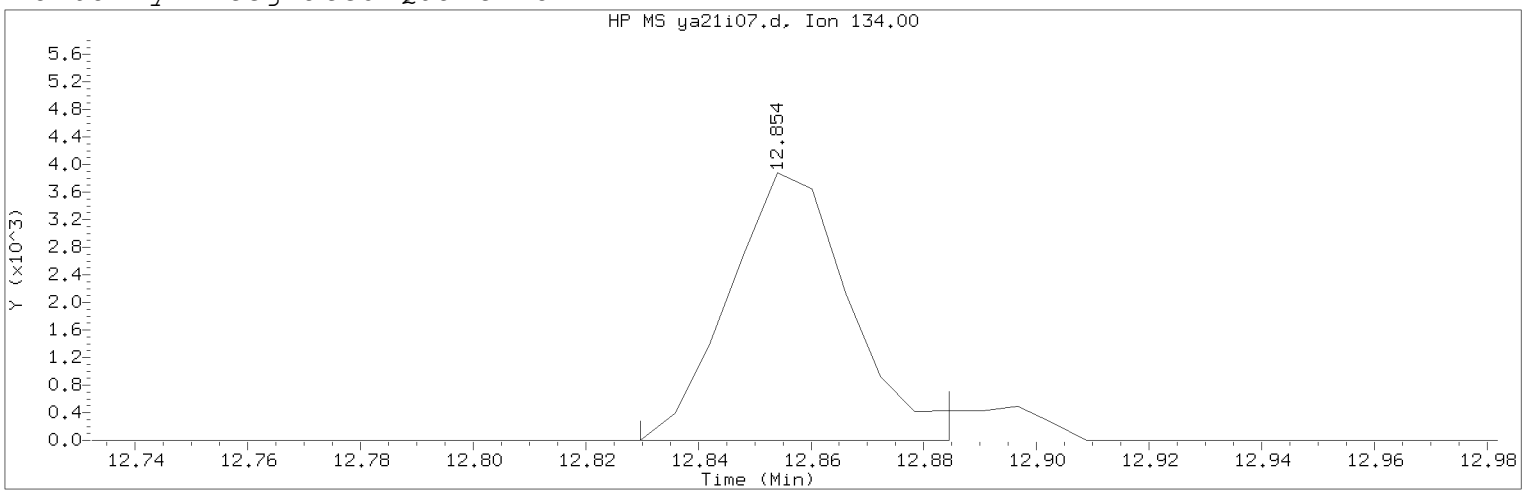
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1749
Retention Time (minutes): 12.221
Quant Ion : 55.00
Area : 24630
On-column Amount (ng) : 40.5410
Integration start scan : 1742 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKHOWE

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

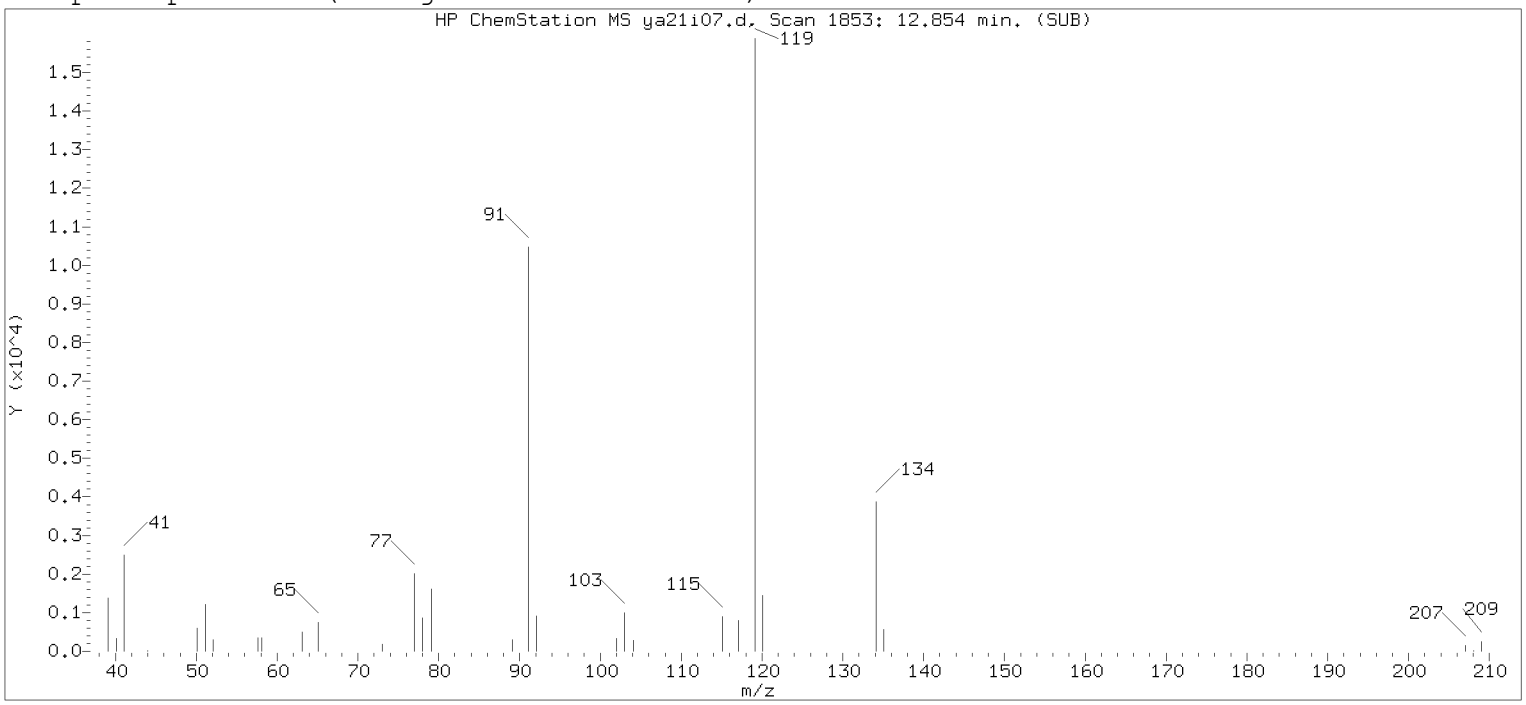
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 5793M
On-Column Amount (ng) : 0.8672
Integration start scan : 1848 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

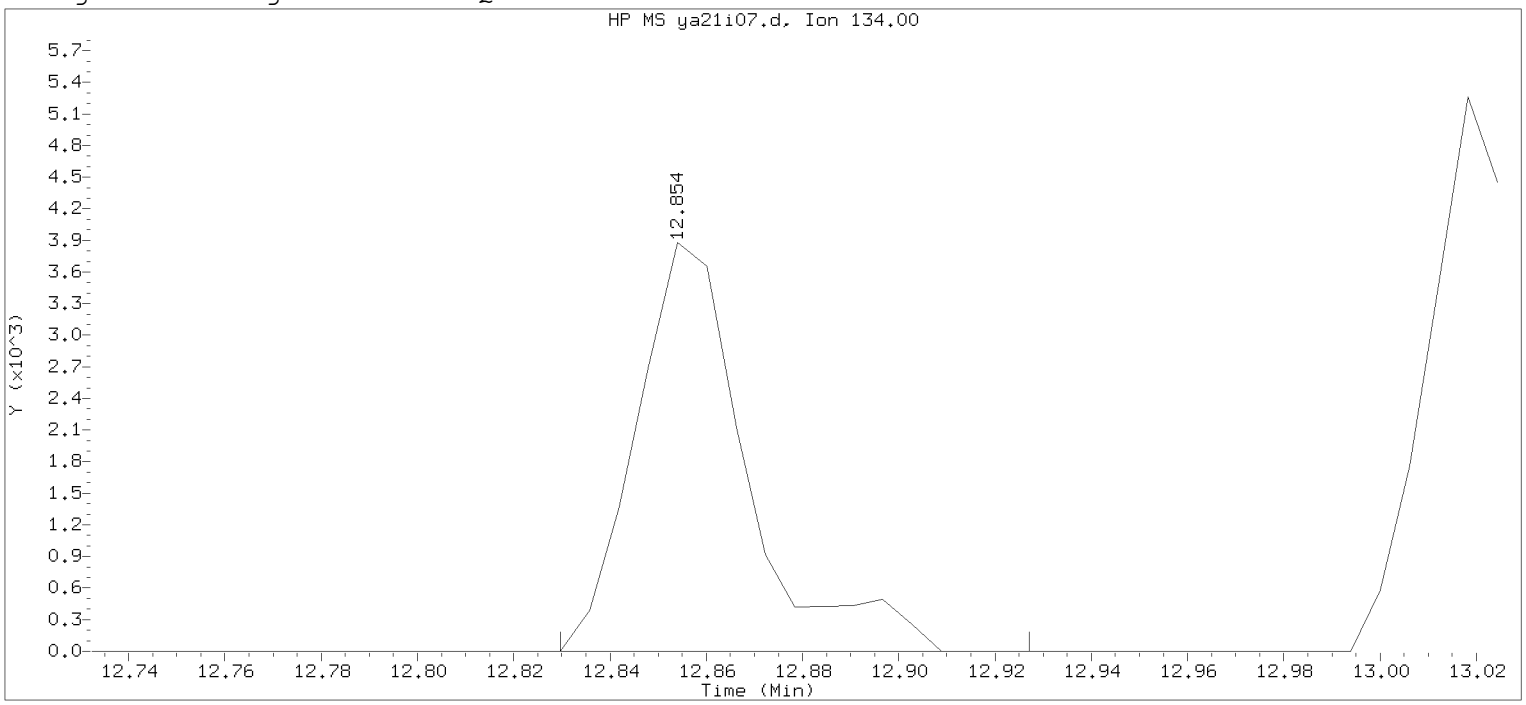
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



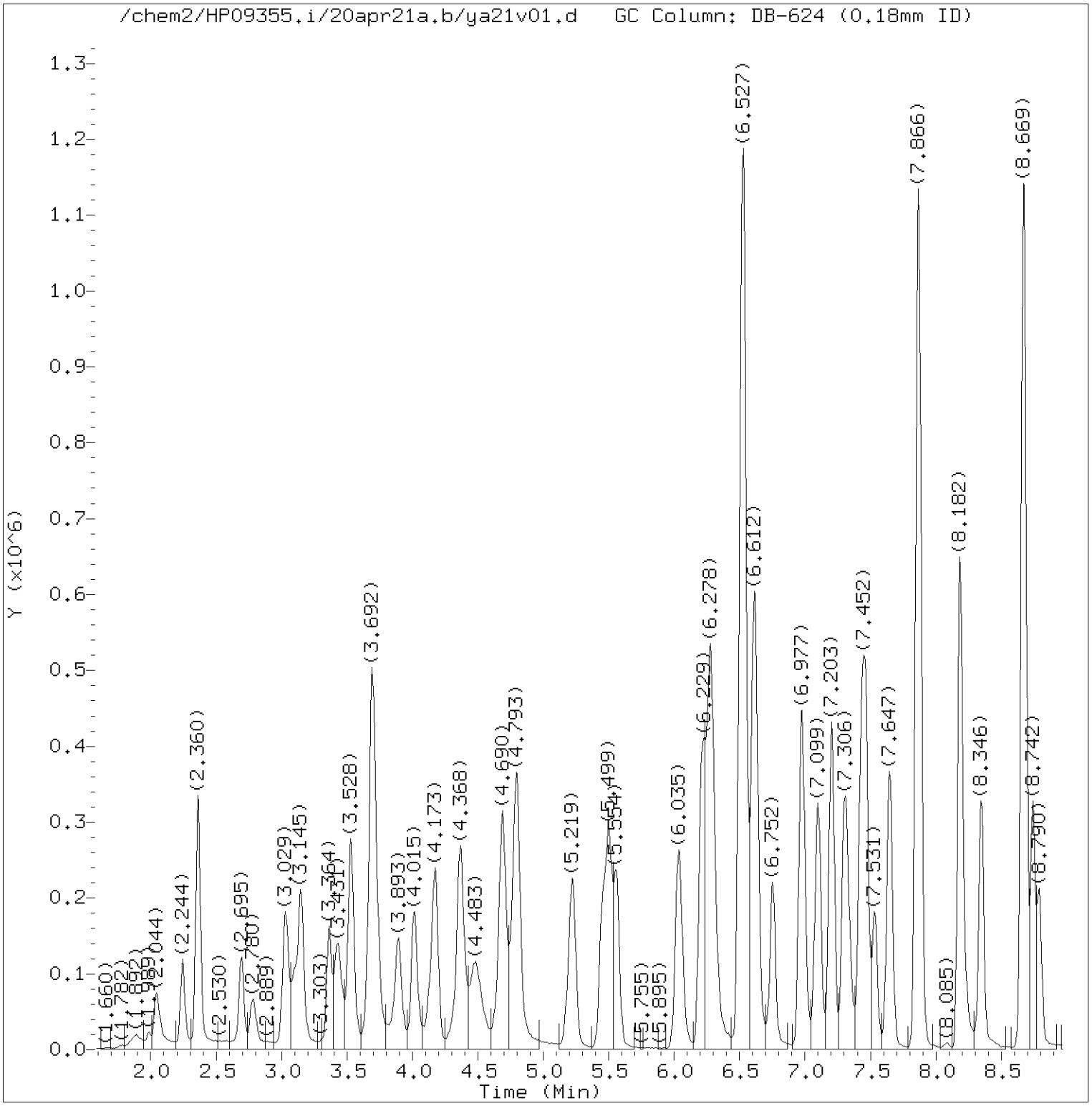
Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 6223
On-column Amount (ng) : 0.8981
Integration start scan : 1848 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user id: jkh09052



Total Ion Chromatogram (TIC)

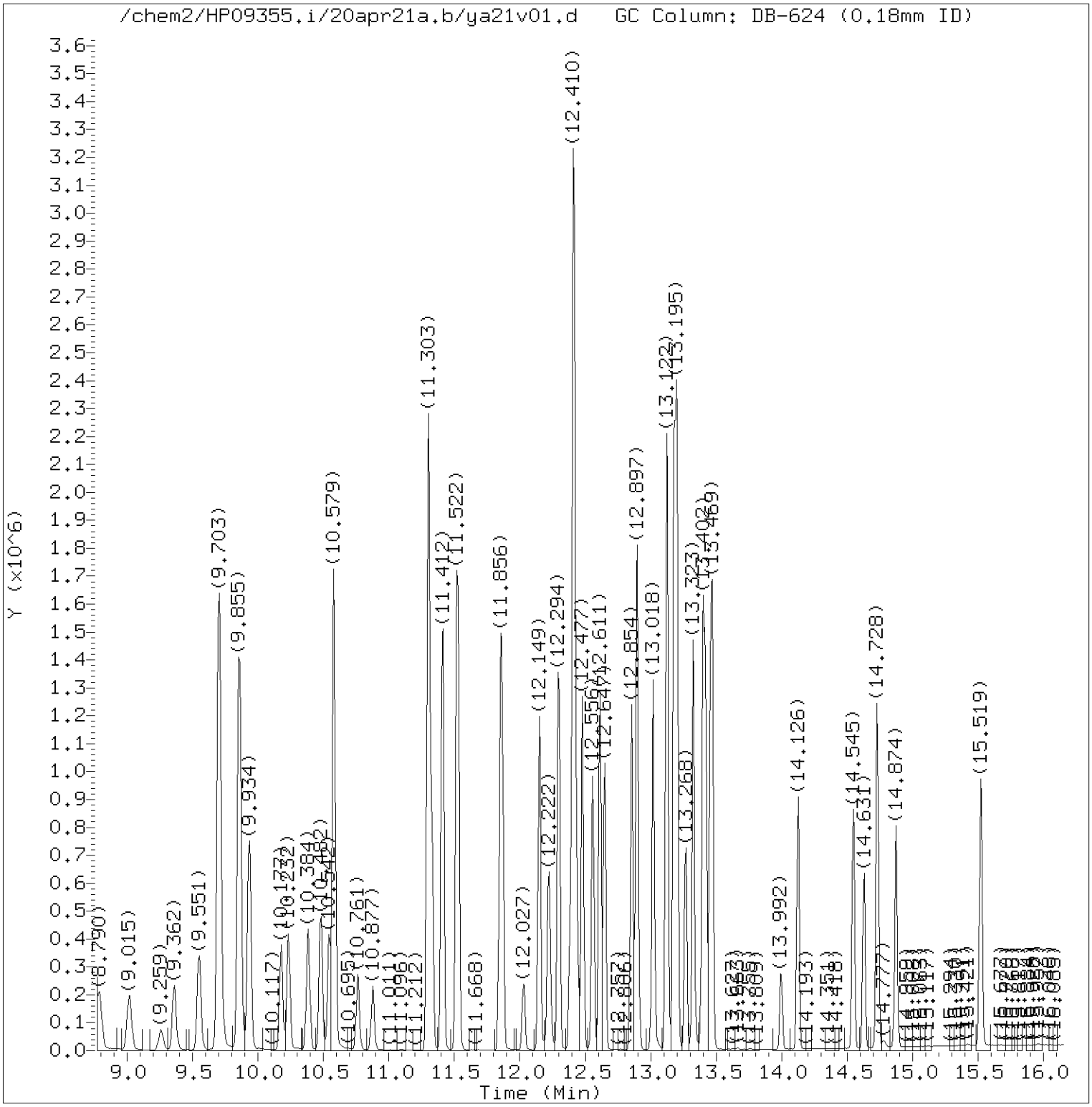
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	149080M	18.399
4) Chloromethane	(2)	2.244	50	162370	21.825
5) 1,3-Butadiene	(2)	2.360	39	142841	23.661
6) Vinyl Chloride	(2)	2.360	62	160586	21.646
8) Bromomethane	(2)	2.695	94	115129	22.452
9) Chloroethane	(2)	2.780	64	89864	21.866
10) Dichlorofluoromethane	(2)	3.029	67	234965	21.485
12) Trichlorofluoromethane	(2)	3.096	101	204026	24.007
11) n-Pentane	(2)	3.145	43	205253	20.917
14) Ethyl ether	(2)	3.364	59	128200	19.304
15) Freon 123a	(2)	3.431	67	165198	21.094
16) Acrolein	(1)	3.528	56	438546	141.048
17) 1,1-Dichloroethene	(2)	3.686	96	134864	19.772
18) Acetone	(1)	3.698	58	215959	148.923
19) Freon 113	(2)	3.717	101	132723	21.573
21) 2-Propanol	(1)	3.863	45	152418	141.458
22) Methyl Iodide	(2)	3.893	142	214601	19.866
23) Carbon Disulfide	(2)	4.015	76	446858	20.248
27) Methyl Acetate	(2)	4.143	43	209950	21.497
25) Allyl Chloride	(2)	4.179	41	244761	22.650
29)*t-Butyl alcohol-d10	(1)	4.355	65	378230M	250.000
28) Methylene Chloride	(2)	4.368	84	152279	20.842
30) t-Butyl alcohol	(1)	4.483	59	374189	199.195
31) Acrylonitrile	(2)	4.684	53	537112	99.254
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	426306	19.777
32) trans-1,2-Dichloroethene	(2)	4.800	96	150787	20.141
34) n-Hexane	(2)	5.219	57	235388	21.510
36) 1,1-Dichloroethane	(2)	5.450	63	259435	20.434
38) di-Isopropyl ether	(2)	5.499	45	481634	20.670
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	210428	20.485
40) Ethyl t-butyl ether	(2)	6.035	59	425551	20.402
43) 1,2-Dichloroethene (Total)	(2)		96	327762	41.103
44) 2-Butanone	(2)	6.217	43	1121422	153.627
42) cis-1,2-Dichloroethene	(2)	6.272	96	176975	20.962
45) 2,2-Dichloropropane	(2)	6.290	77	198818	20.791
47) Propionitrile	(1)	6.302	54	350429	156.561
48) Methacrylonitrile	(2)	6.527	67	843295	153.427
49) Bromochloromethane	(2)	6.612	128	83158	21.214

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.625	71	214695	103.758
51) Chloroform	(2)	6.752	83	246284	20.205
52)$Dibromofluoromethane	(2)	6.971	113	281756	50.037
53) 1,1,1-Trichloroethane	(2)	6.990	97	208967M	20.000
54) Cyclohexane	(2)	7.099	56	267142	20.477
55) 1,1-Dichloropropene	(2)	7.203	75	206662	20.385
56) Carbon Tetrachloride	(2)	7.209	117	179007	20.269
58) Isobutyl Alcohol	(1)	7.306	41	333041	494.000
57)$1,2-Dichloroethane-d4	(2)	7.428	102	74349	50.067
60) Benzene	(2)	7.464	78	612544	19.884
61) 1,2-Dichloroethane	(2)	7.531	62	197009M	19.935
65) t-Amyl methyl ether	(2)	7.647	73	426325	20.258
66)*Fluorobenzene	(2)	7.866	96	1239758	50.000
67) n-Heptane	(2)	7.878	43	230810	19.336
69) n-Butanol	(1)	8.182	56	630260	992.803
71) Trichloroethene	(2)	8.346	95	151265	19.818
72) Methylcyclohexane	(2)	8.669	83	294820	21.738
73) 1,2-Dichloropropane	(2)	8.675	63	163028	20.664
76) Methyl Methacrylate	(2)	8.742	69	166698	21.101
75) 1,4-Dioxane	(1)	8.754	88	75580M	495.294
74) Dibromomethane	(2)	8.790	93	101431	20.274
78) Bromodichloromethane	(2)	9.022	83	182169	20.170
79) 2-Nitropropane	(2)	9.259	41	62245	19.070
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	127673	20.261
81) cis-1,3-Dichloropropene	(2)	9.551	75	249218	20.118
82) 4-Methyl-2-pentanone	(2)	9.703	43	1416686	104.155
83)$Toluene-d8	(3)	9.855	98	1197204	49.952
88) Toluene	(3)	9.934	92	385407	20.021
90) 1,3-Dichloropropene (total)	(3)		100	475482	39.811
89) trans-1,3-Dichloropropene	(3)	10.177	75	226264	19.693
91) Ethyl Methacrylate	(3)	10.232	69	238080	19.150
92) 1,1,2-Trichloroethane	(3)	10.384	97	155604	20.546
93) Tetrachloroethene	(3)	10.482	166	155761	19.828
94) 1,3-Dichloropropane	(3)	10.542	76	255702	19.822
96) 2-Hexanone	(3)	10.579	43	1141598	105.895
97) Dibromochloromethane	(3)	10.761	129	154158	20.354
99) 1,2-Dibromoethane	(3)	10.877	107	163958	20.076
100)*Chlorobenzene-d5	(3)	11.303	117	917833	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.303	91	206050	19.383
102) Chlorobenzene	(3)	11.327	112	437995	20.137
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	143136	20.217
104) Ethylbenzene	(3)	11.412	91	744074	20.261
106) m+p-Xylene	(3)	11.522	106	595843	41.112
108) Xylene (Total)	(3)		106	885430	61.432
107) o-Xylene	(3)	11.850	106	289587	20.320
109) Styrene	(3)	11.869	104	474392	20.661
110) Bromoform	(3)	12.033	173	107277	19.195
111) Isopropylbenzene	(3)	12.149	105	745243	20.747
112) Cyclohexanone	(1)	12.222	55	279979	476.603
114)$4-Bromofluorobenzene	(3)	12.294	95	451532	49.722
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	265645	19.927
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	447346	104.383
115) Bromobenzene	(4)	12.416	156	186139	19.769
117) 1,2,3-Trichloropropane	(4)	12.434	110	83942	19.849
119) n-Propylbenzene	(4)	12.477	91	906973	20.674
120) 2-Chlorotoluene	(4)	12.556	126	180296	19.950
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	645836	20.382
121) 4-Chlorotoluene	(4)	12.647	126	189718	19.974
124) tert-Butylbenzene	(4)	12.854	134	129030	19.471
125) Pentachloroethane	(4)	12.891	167	107951	21.153
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	671207	20.131
127) sec-Butylbenzene	(4)	13.018	105	837007	20.499
129) 1,3-Dichlorobenzene	(4)	13.122	146	364544	20.222
130) p-Isopropyltoluene	(4)	13.128	119	710095	20.588
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	493313	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	377997	20.308
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	717285	21.888
135) Benzyl Chloride	(4)	13.268	91	477577	17.831
136) 1,3-Diethylbenzene	(4)	13.323	119	445190	21.208
141) Diethylbenzene (total)	(4)		100	1284576	63.423
137) 1,4-Diethylbenzene	(4)	13.396	119	468805	21.250
139) n-Butylbenzene	(4)	13.420	92	366800	19.770
138) 1,2-Dichlorobenzene	(4)	13.456	146	347977	19.875
140) 1,2-Diethylbenzene	(4)	13.469	119	370581	20.965
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	63594	19.374
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	250367	19.188

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

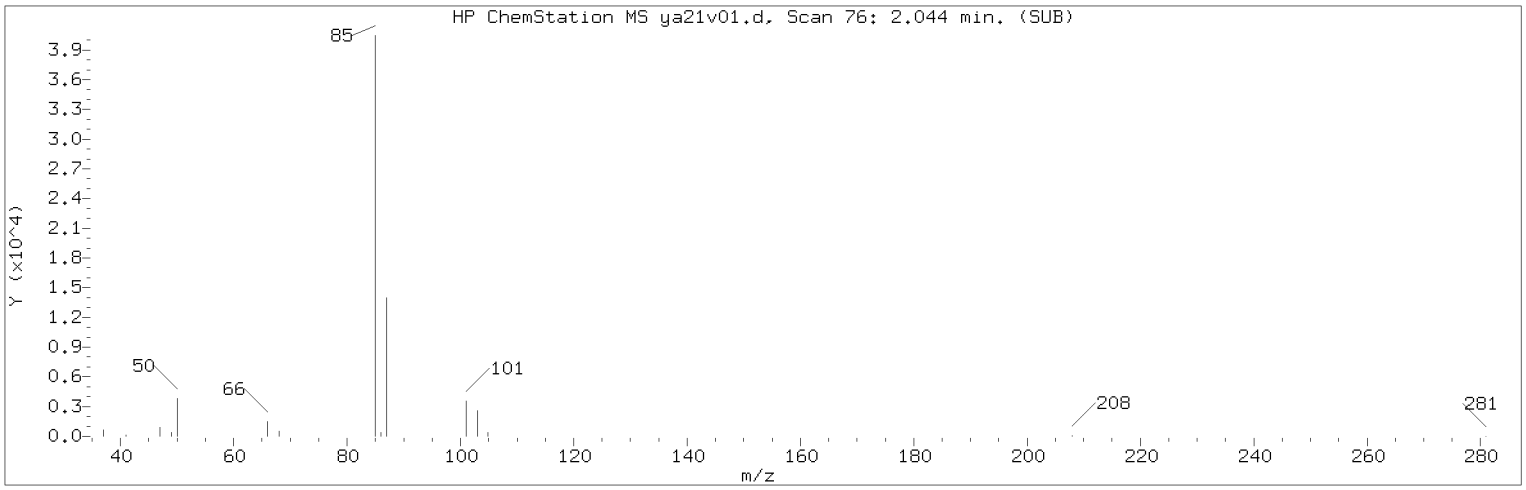
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

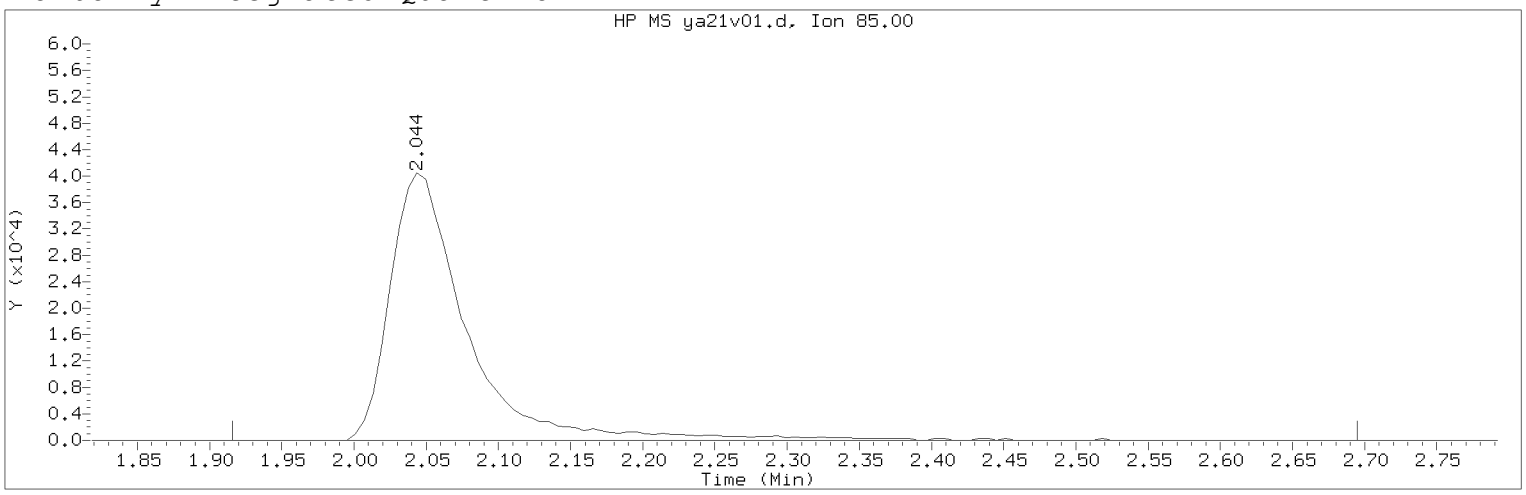
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	235433	19.222
147) Hexachlorobutadiene	(4)	14.631	225	102714	18.598
148) Naphthalene	(4)	14.728	128	887839	19.817
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	224984	18.956
150) 2-Methylnaphthalene	(4)	15.519	142	466442	18.842

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

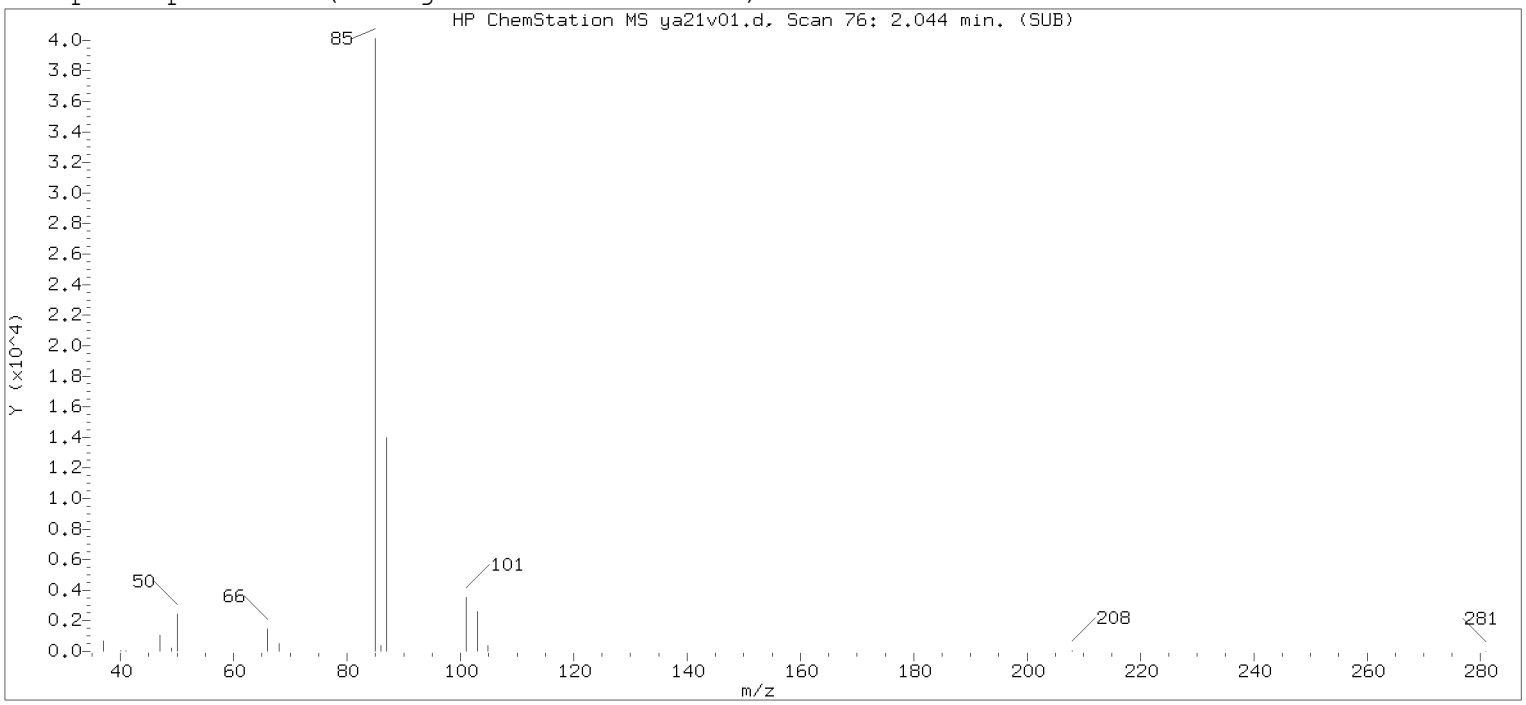
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 149080M
On-Column Amount (ng) : 18.3994
Integration start scan : 54 Integration stop scan: 182
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

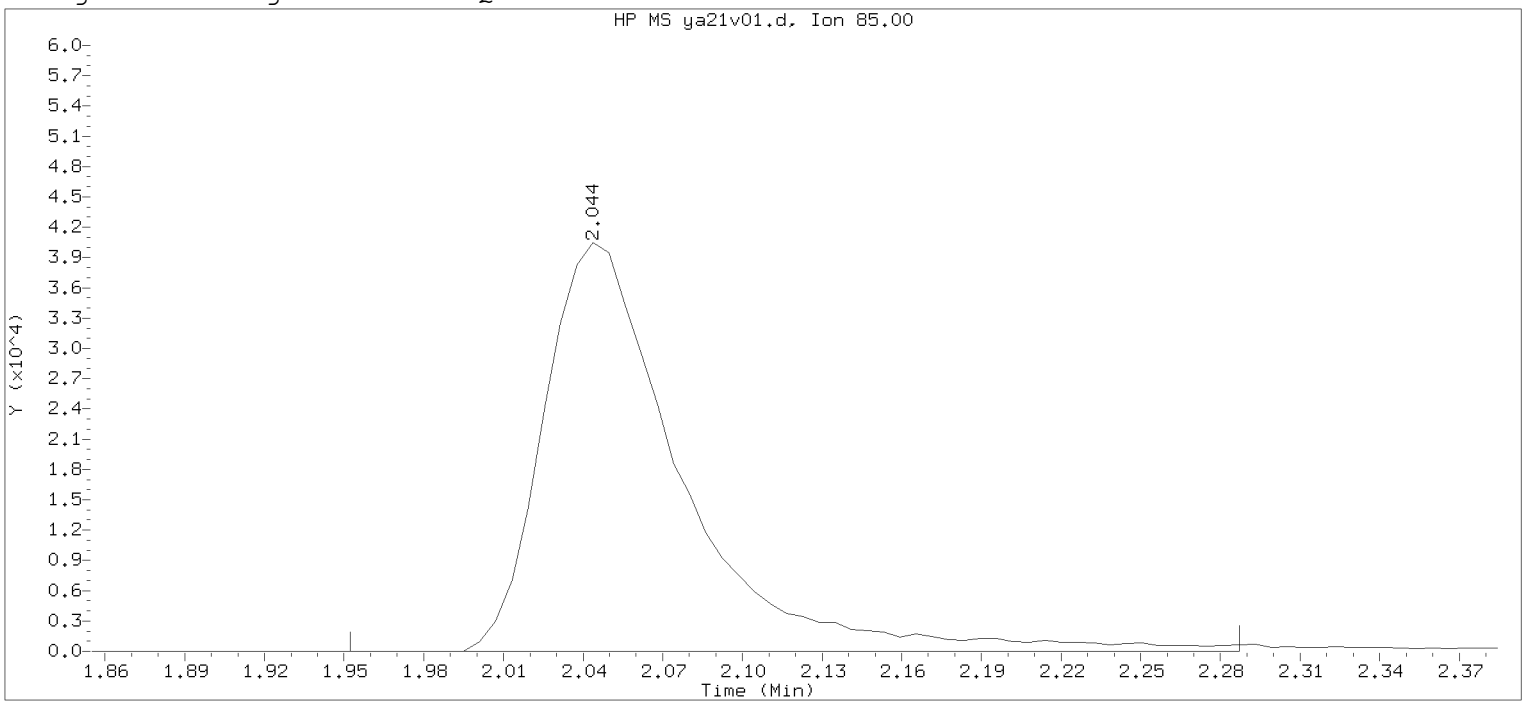
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

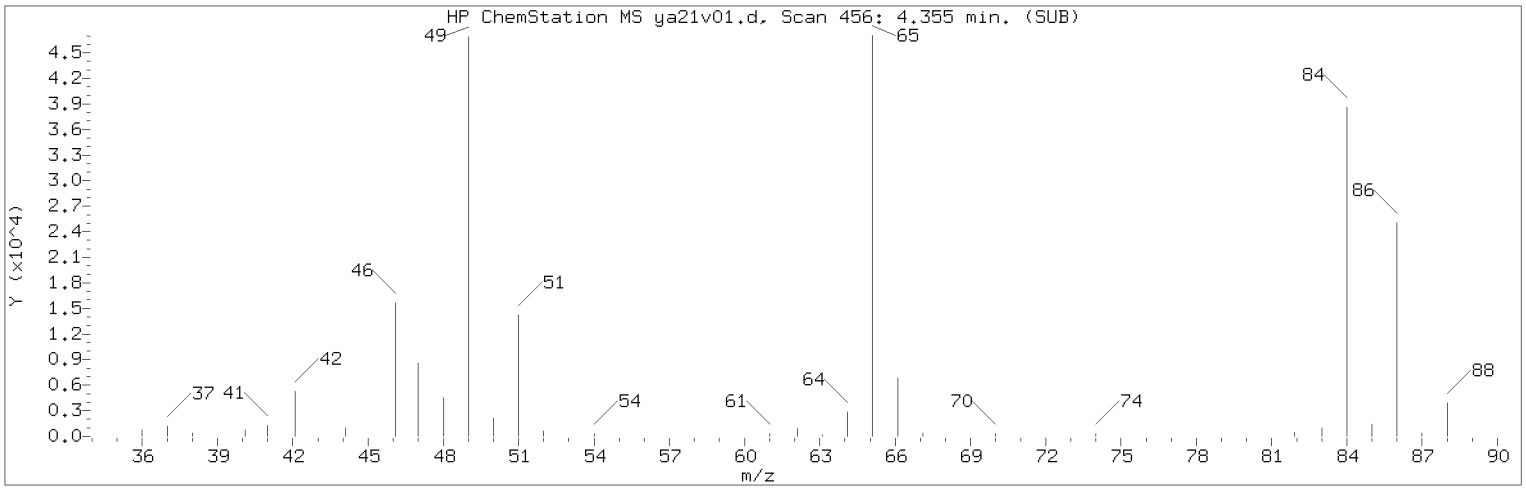
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

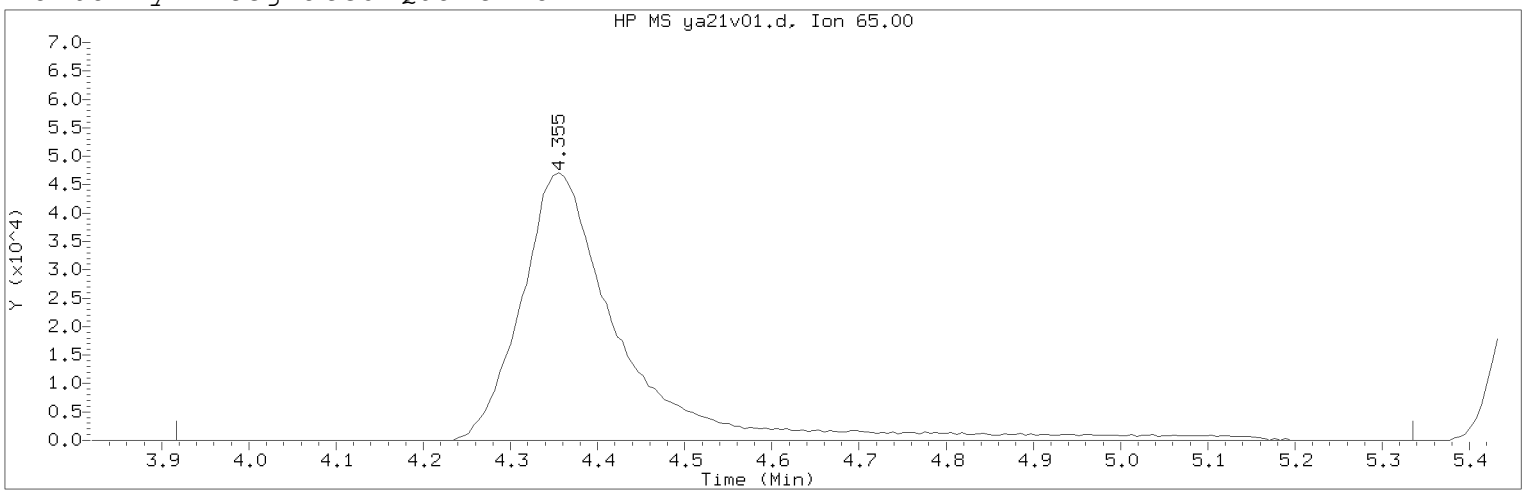
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 146189
On-column Amount (ng) : 18.0427
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

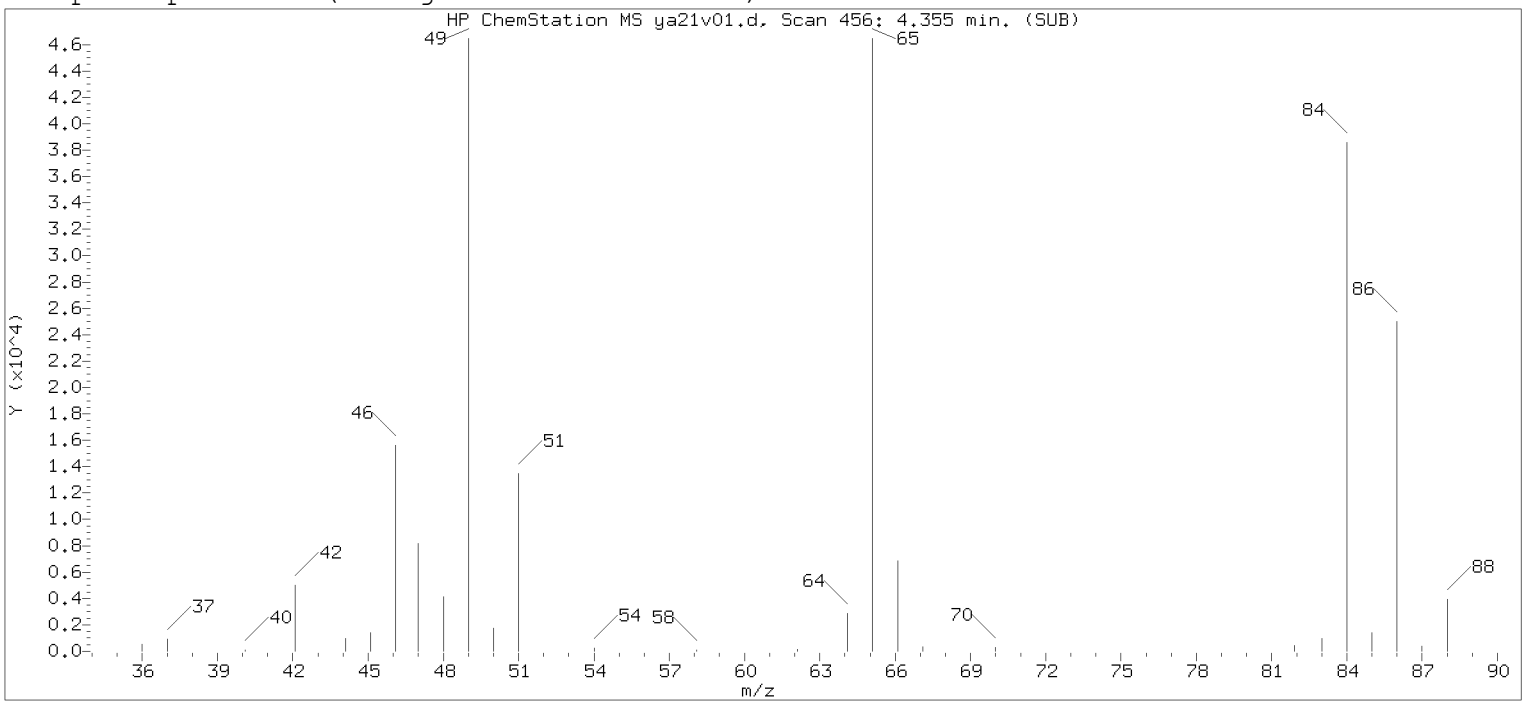
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area (flag) : 378230M
On-Column Amount (ng) : 250.0000
Integration start scan : 383 Integration stop scan: 616
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

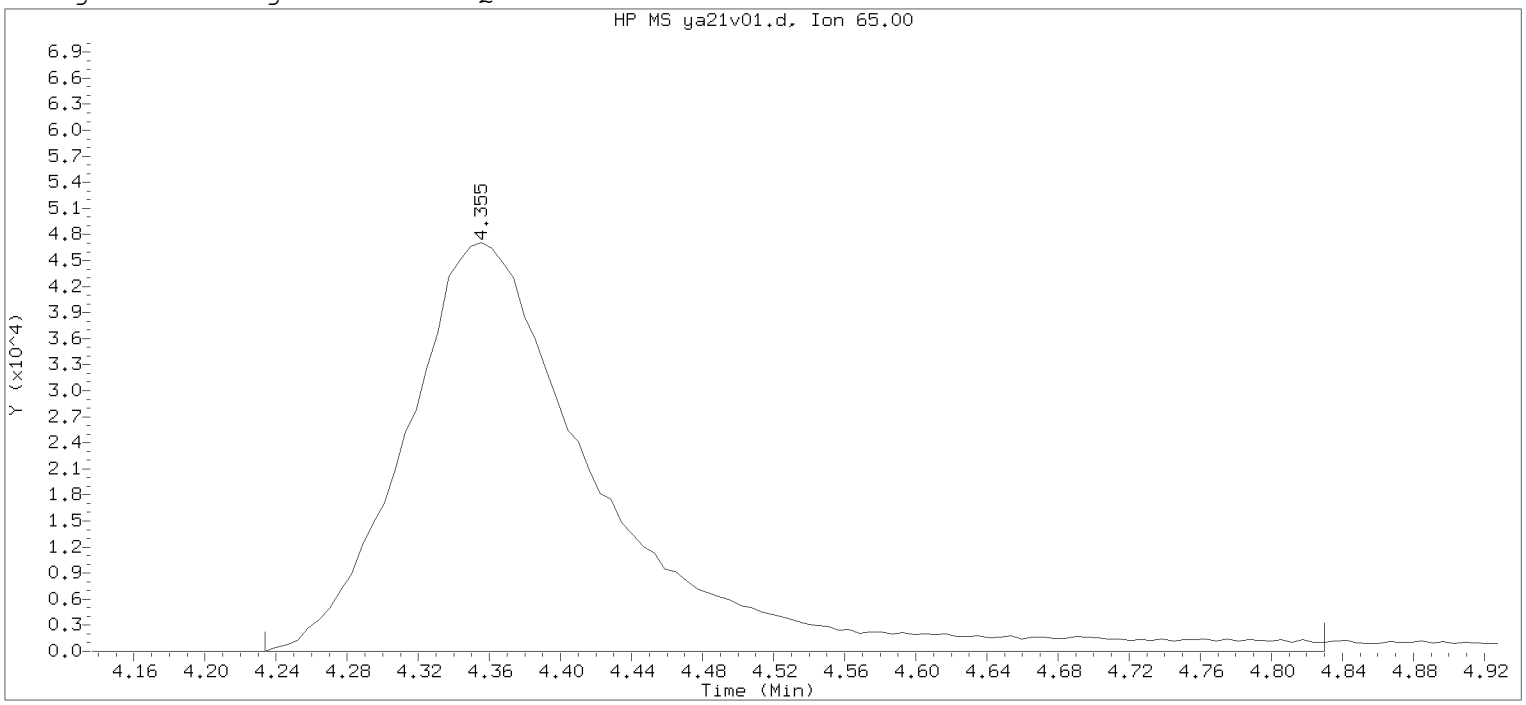
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

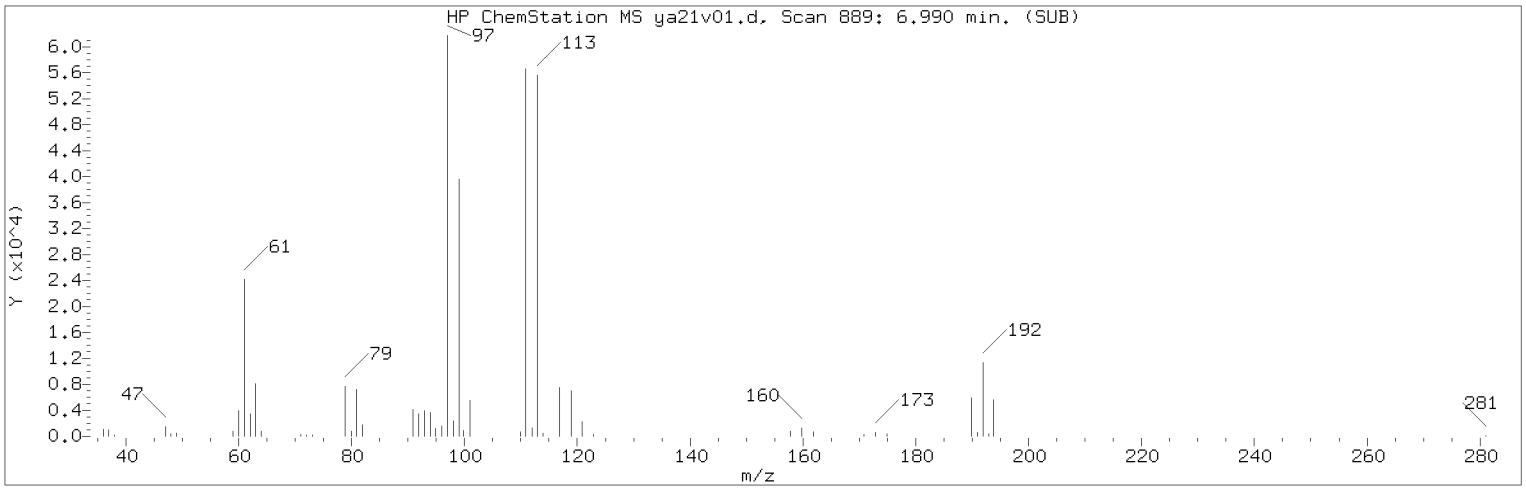
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

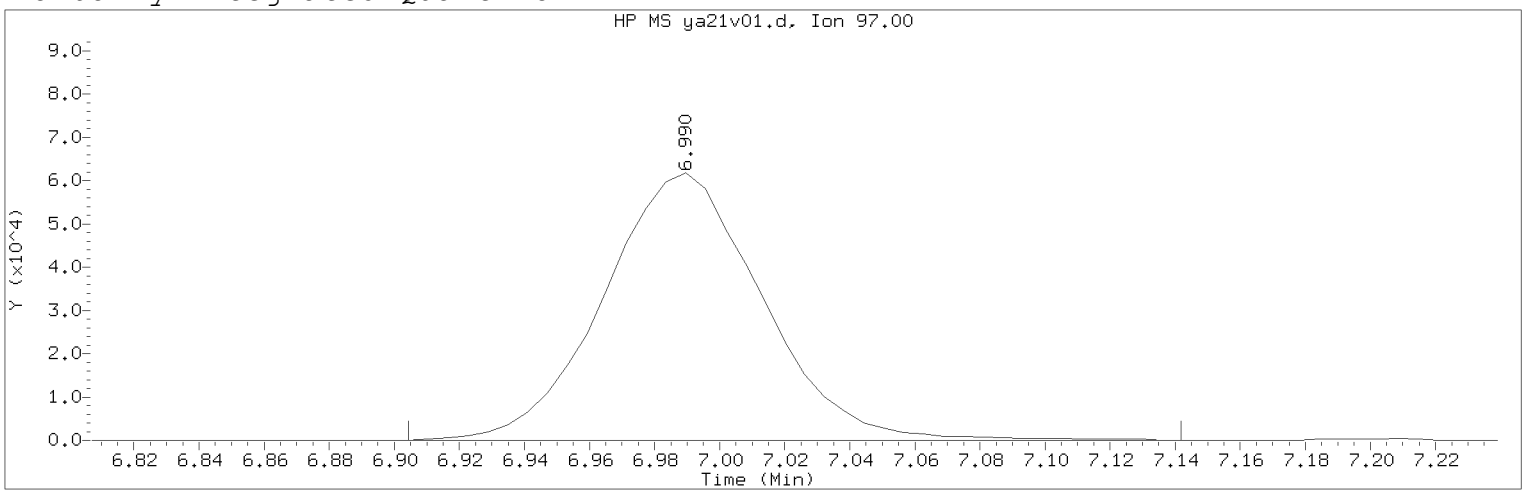
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area : 360290
On-column Amount (ng) : 250.0000
Integration start scan : 435 Integration stop scan: 533
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

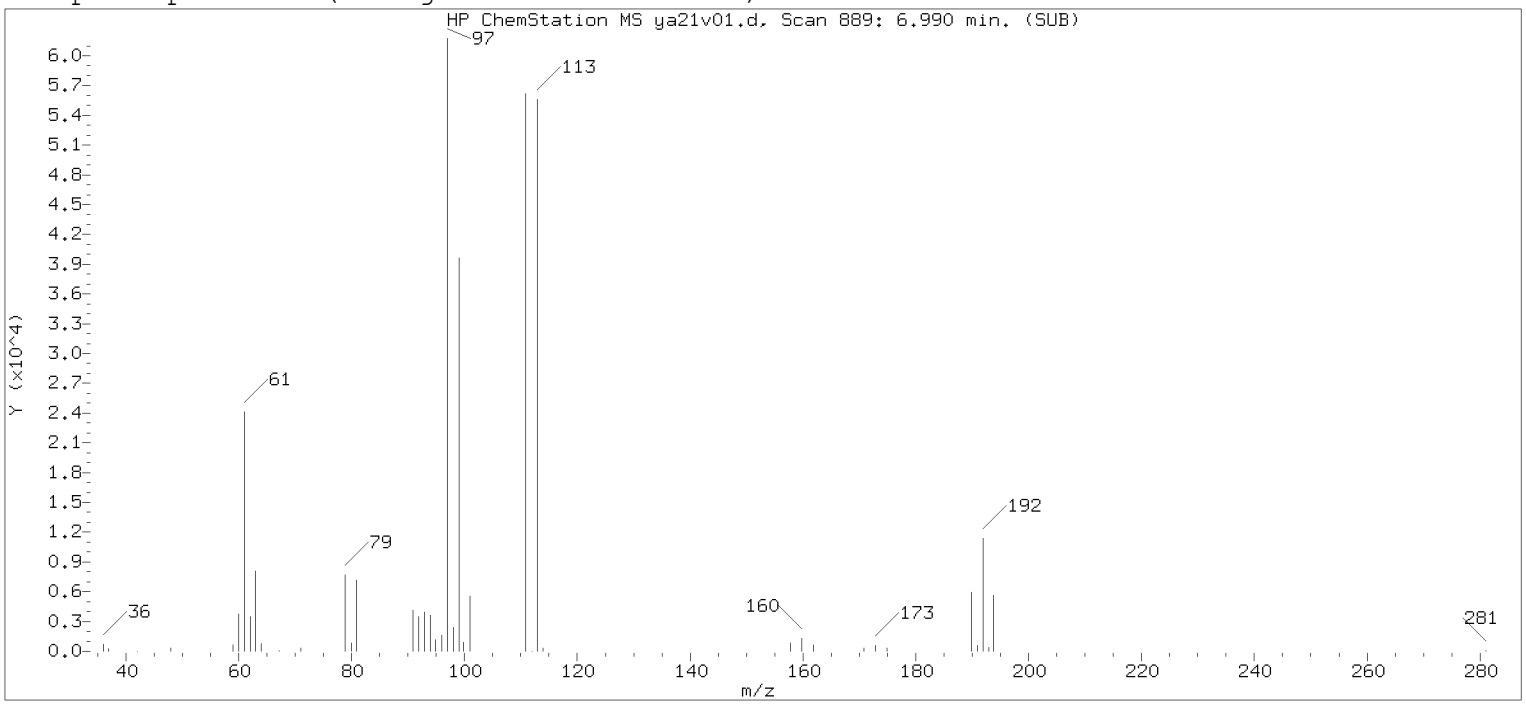
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Quant Ion : 97.00
Area (flag) : 208967M
On-Column Amount (ng) : 19.9996
Integration start scan : 874 Integration stop scan: 913
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

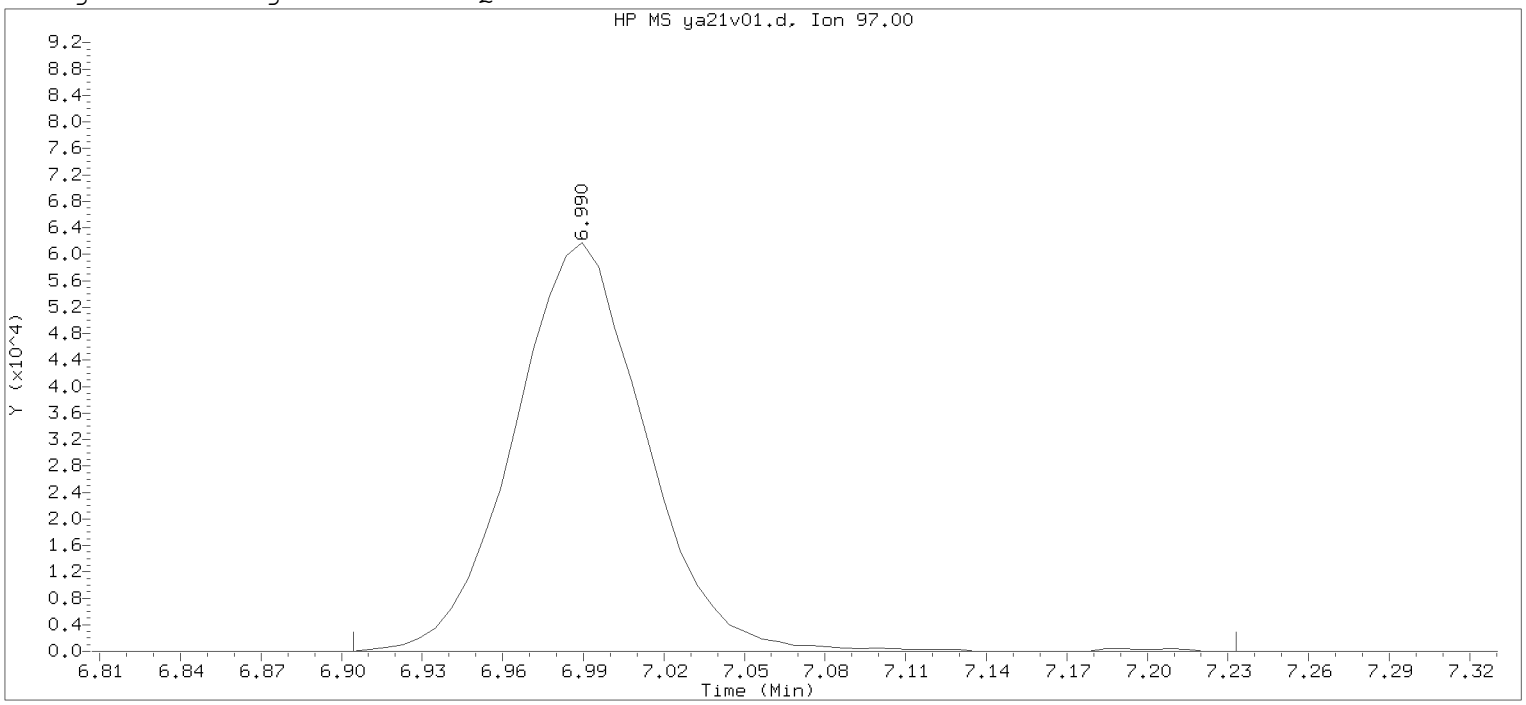
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

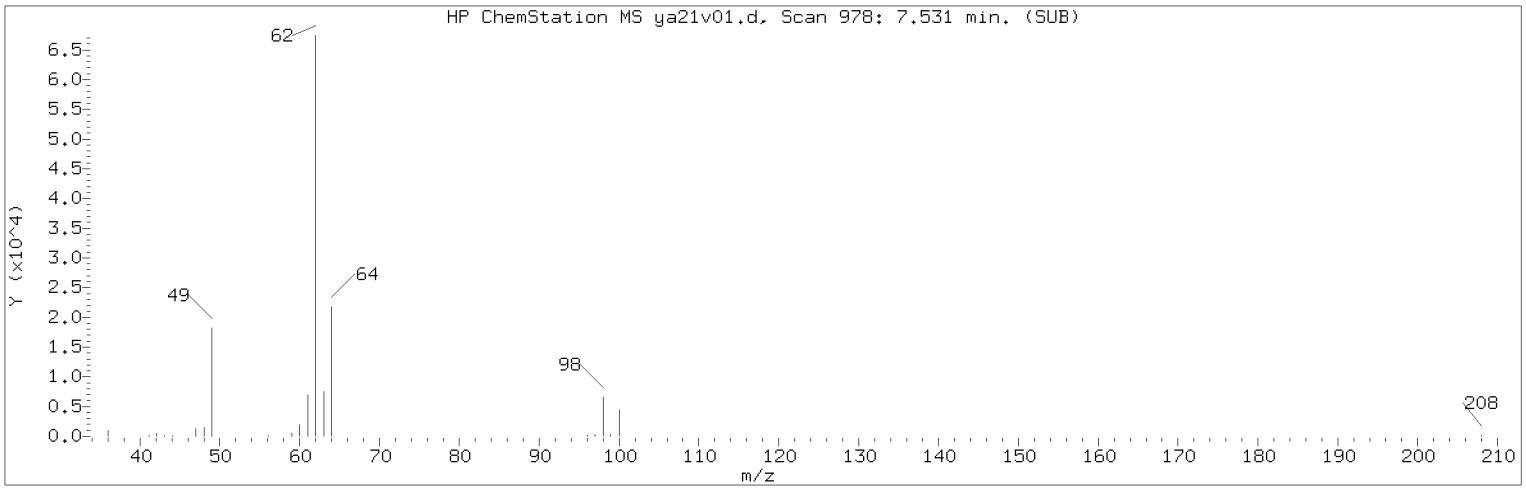
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

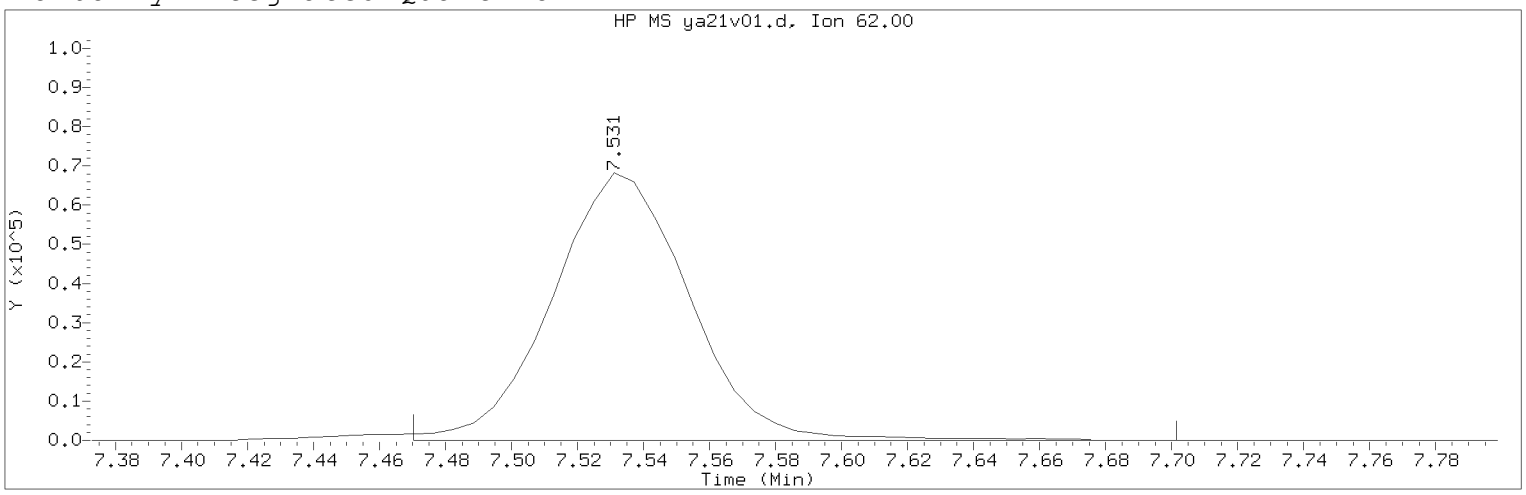
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Quant Ion : 97.00
Area : 209725
On-column Amount (ng) : 20.0722
Integration start scan : 874 Integration stop scan: 928
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

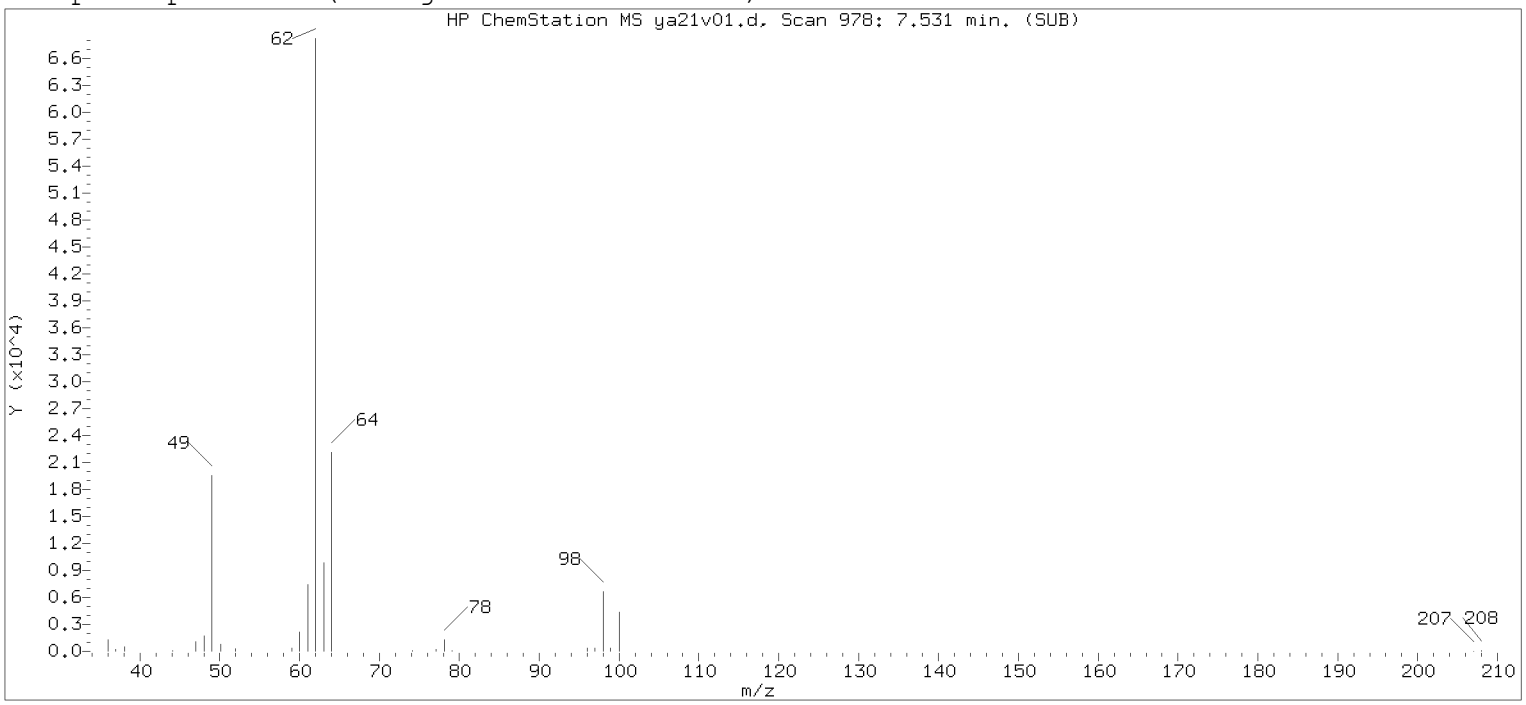
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 197009M
On-Column Amount (ng) : 19.9352
Integration start scan : 967 Integration stop scan: 1005
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

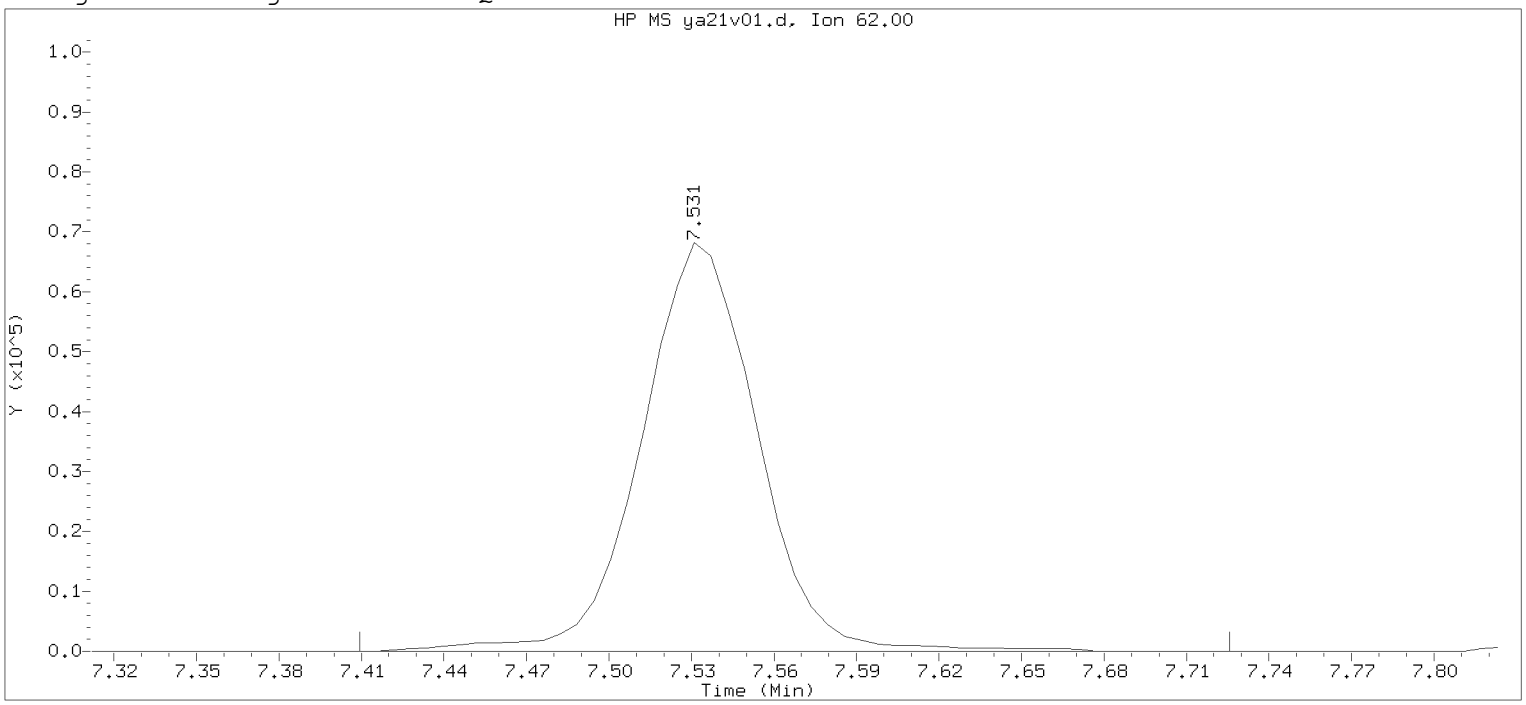
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

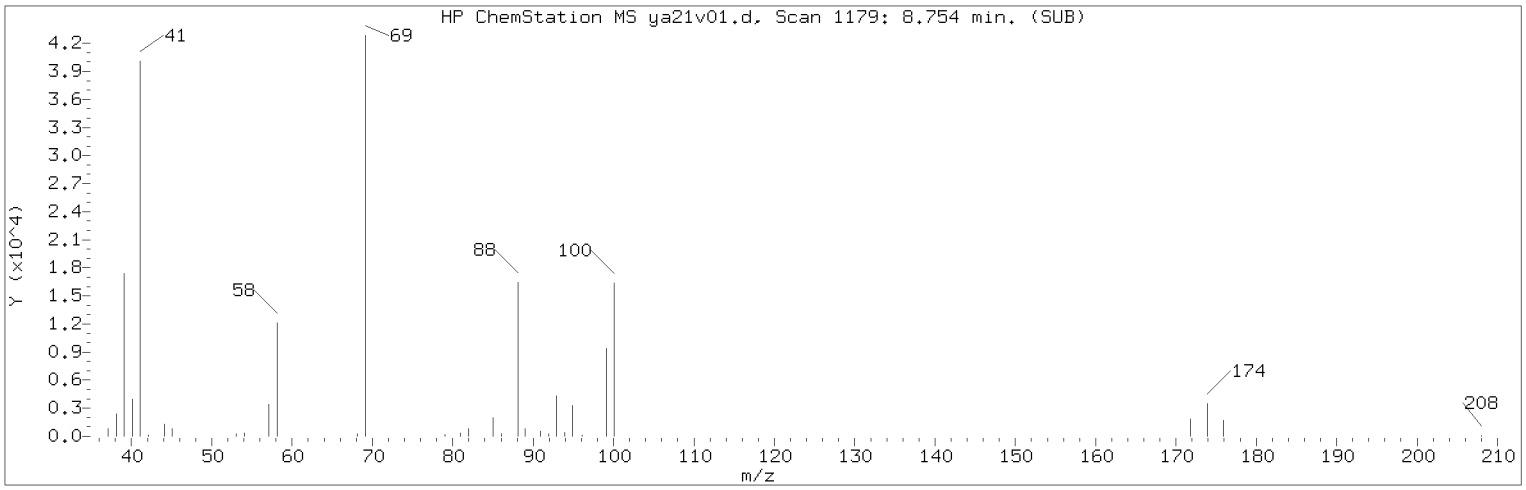
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

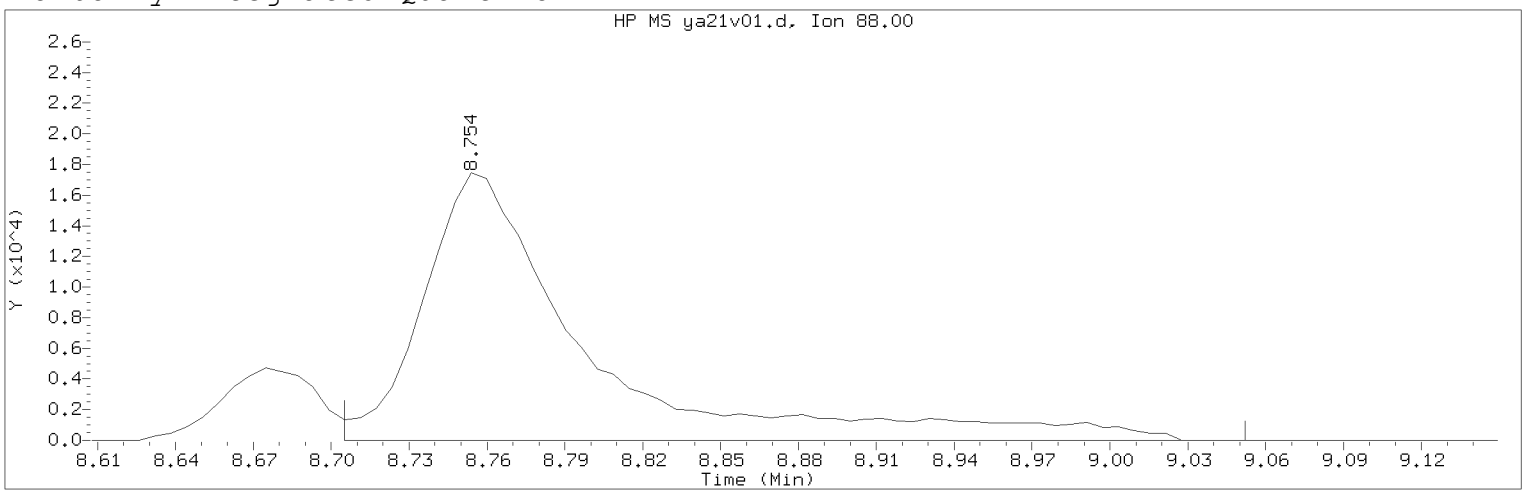
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 199698
On-column Amount (ng) : 20.2072
Integration start scan : 957 Integration stop scan: 1009
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

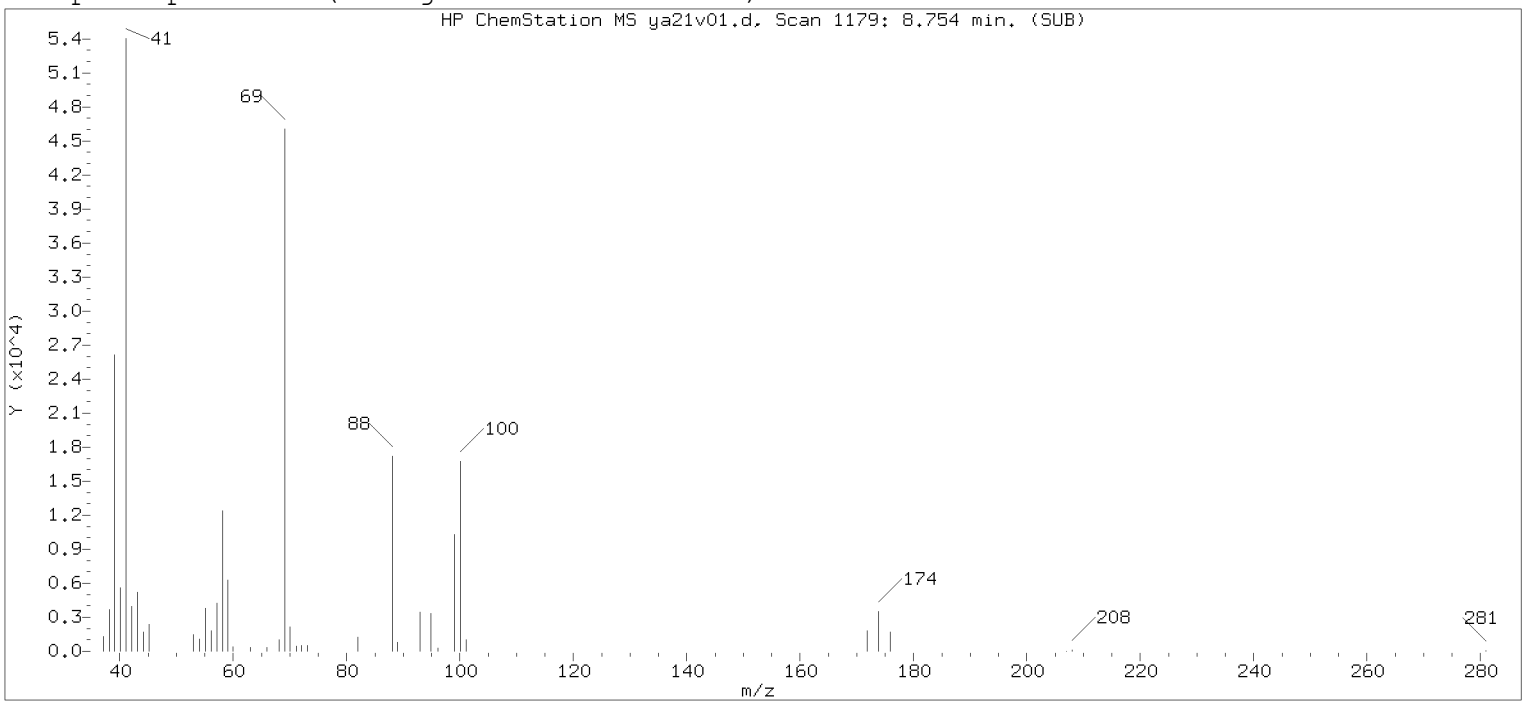
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 75580M
On-Column Amount (ng) : 495.2938
Integration start scan : 1170 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

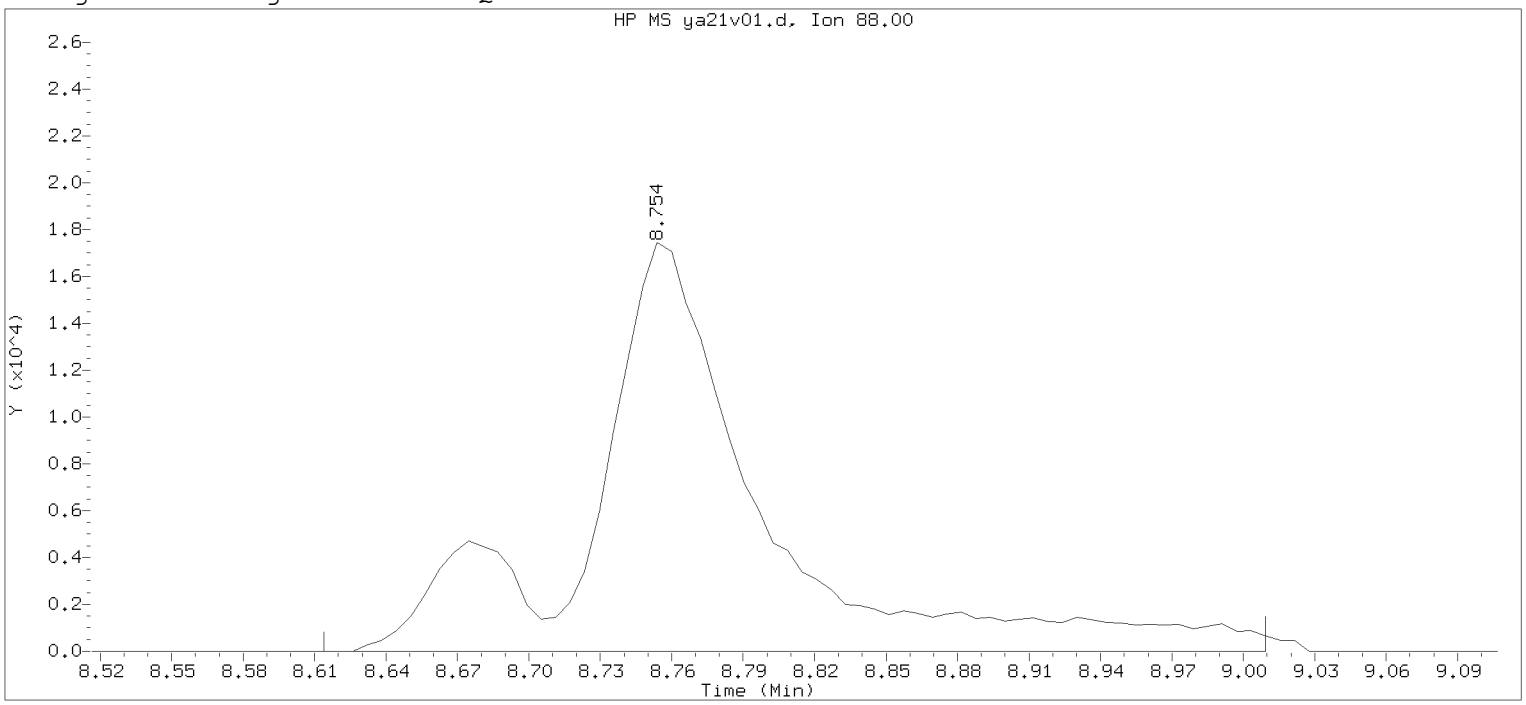
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 86862
On-column Amount (ng) : 597.5710
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Data File: /chem2/HP09355.i/20may22a.b/yy22t03.d

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20

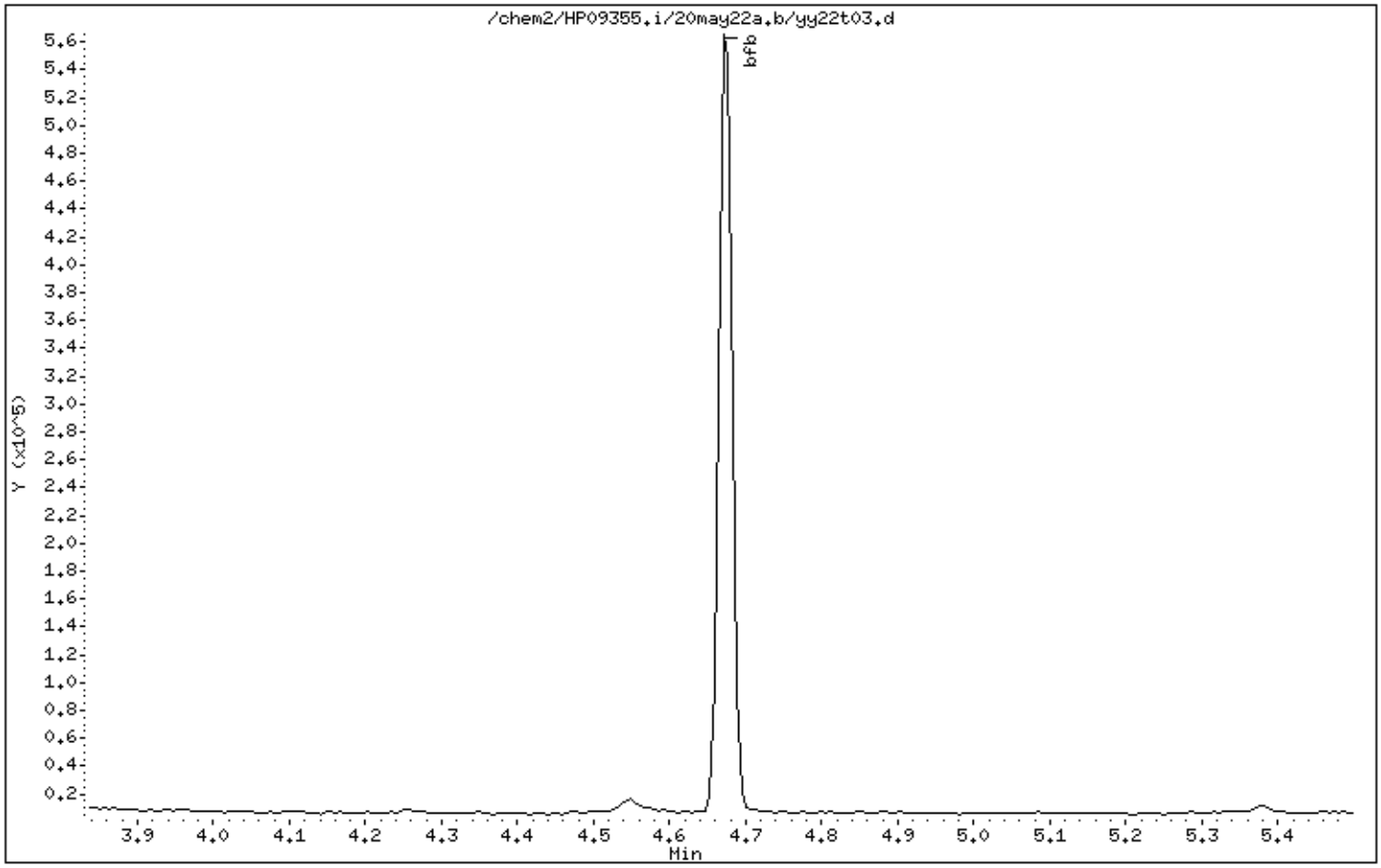
Instrument: HP09355.i

Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP09355.i/20may22a.b/yy22t03.d

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20

Instrument: HP09355.i

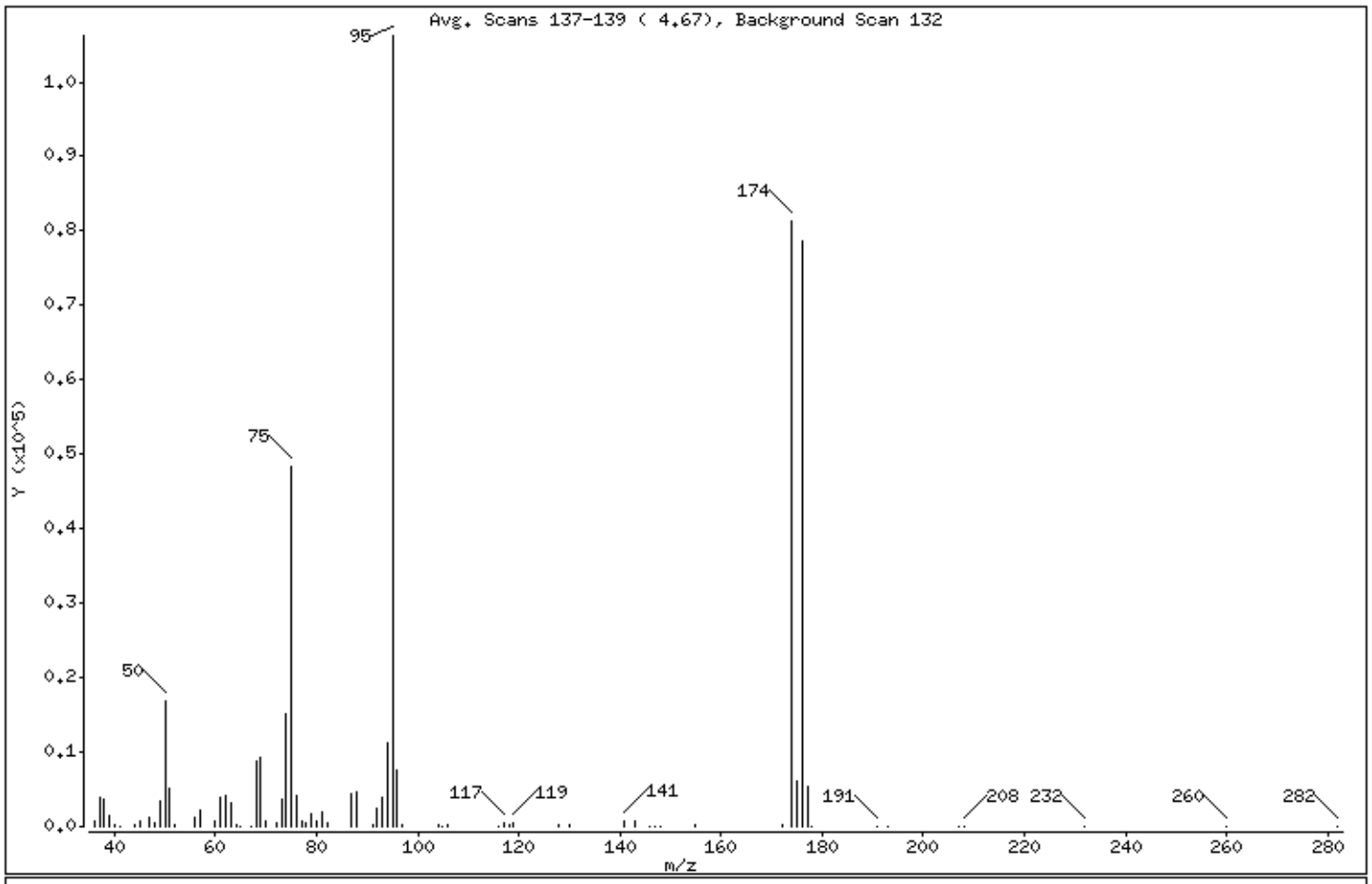
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.94
75	30.00 - 60.00% of mass 95	45.49
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	76.63
175	5.00 - 9.00% of mass 174	5.65 (7.37)
176	95.00 - 101.00% of mass 174	74.13 (96.74)
177	5.00 - 9.00% of mass 176	5.17 (6.97)

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20 Instrument: HP09355.i

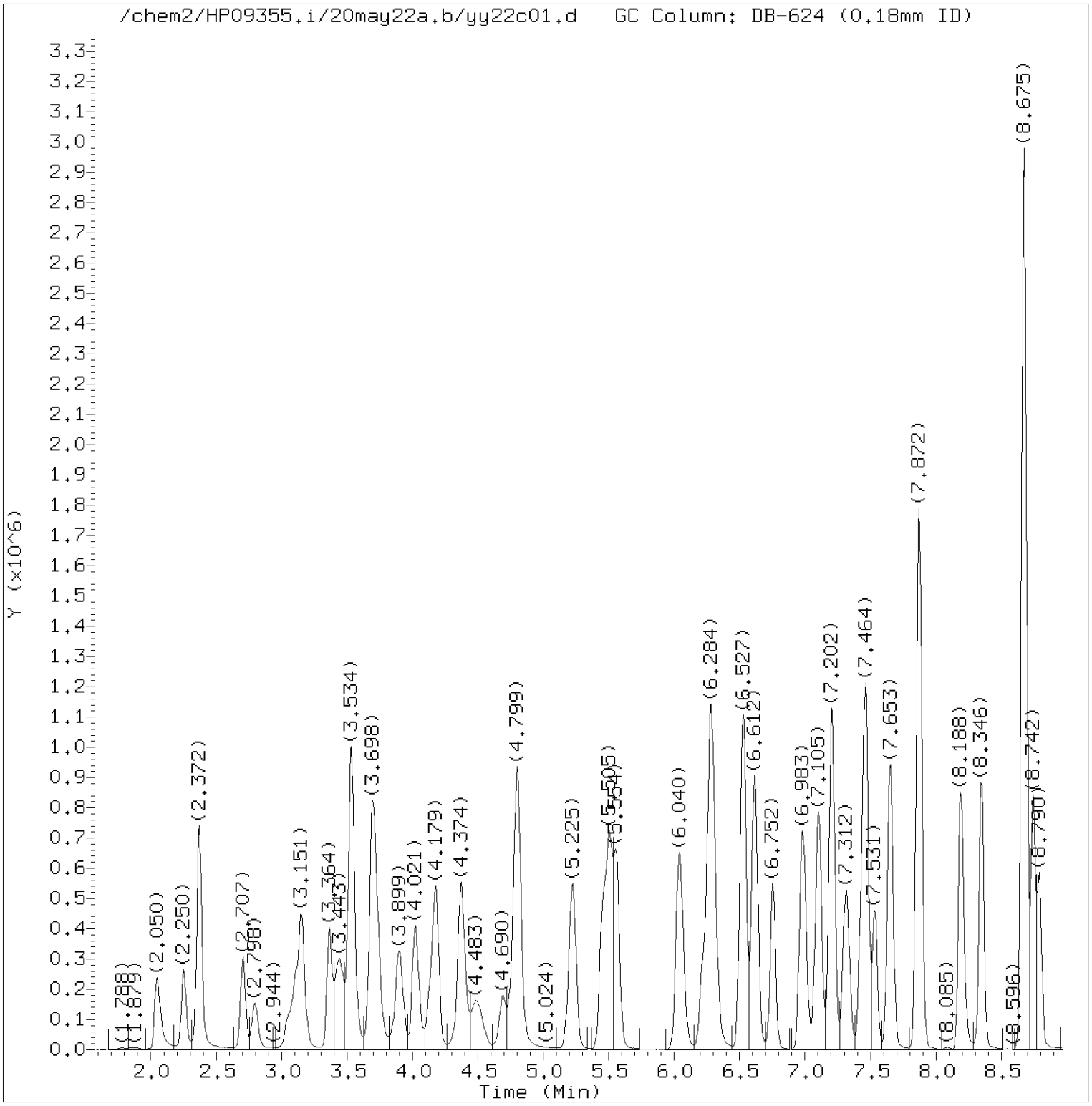
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: yy22t03.d
Spectrum: Avg. Scans 137-139 (4.67), Background Scan 132
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	754	63.00	3085	88.00	4571	146.00	104
37.00	3854	64.00	334	91.00	257	147.00	91
38.00	3595	65.00	114	92.00	2431	148.00	85
39.00	1485	67.00	93	93.00	3906	155.00	180
40.00	201	68.00	8809	94.00	11298	172.00	236
41.00	86	69.00	9323	95.00	106232	174.00	81400
44.00	196	70.00	708	96.00	7621	175.00	6000
45.00	830	72.00	495	97.00	188	176.00	78744
47.00	1226	73.00	3680	104.00	263	177.00	5488
48.00	537	74.00	15230	105.00	90	178.00	101
49.00	3371	75.00	48328	106.00	297	191.00	91
50.00	16928	76.00	4211	116.00	98	193.00	84
51.00	5134	77.00	626	117.00	515	207.00	13
52.00	250	78.00	385	118.00	202	208.00	39
56.00	1203	79.00	1786	119.00	552	232.00	110
57.00	2142	80.00	744	128.00	254	260.00	77
60.00	816	81.00	1971	130.00	252	282.00	89
61.00	4011	82.00	518	141.00	740		
62.00	4053	87.00	4473	143.00	710		



Total Ion Chromatogram (TIC)

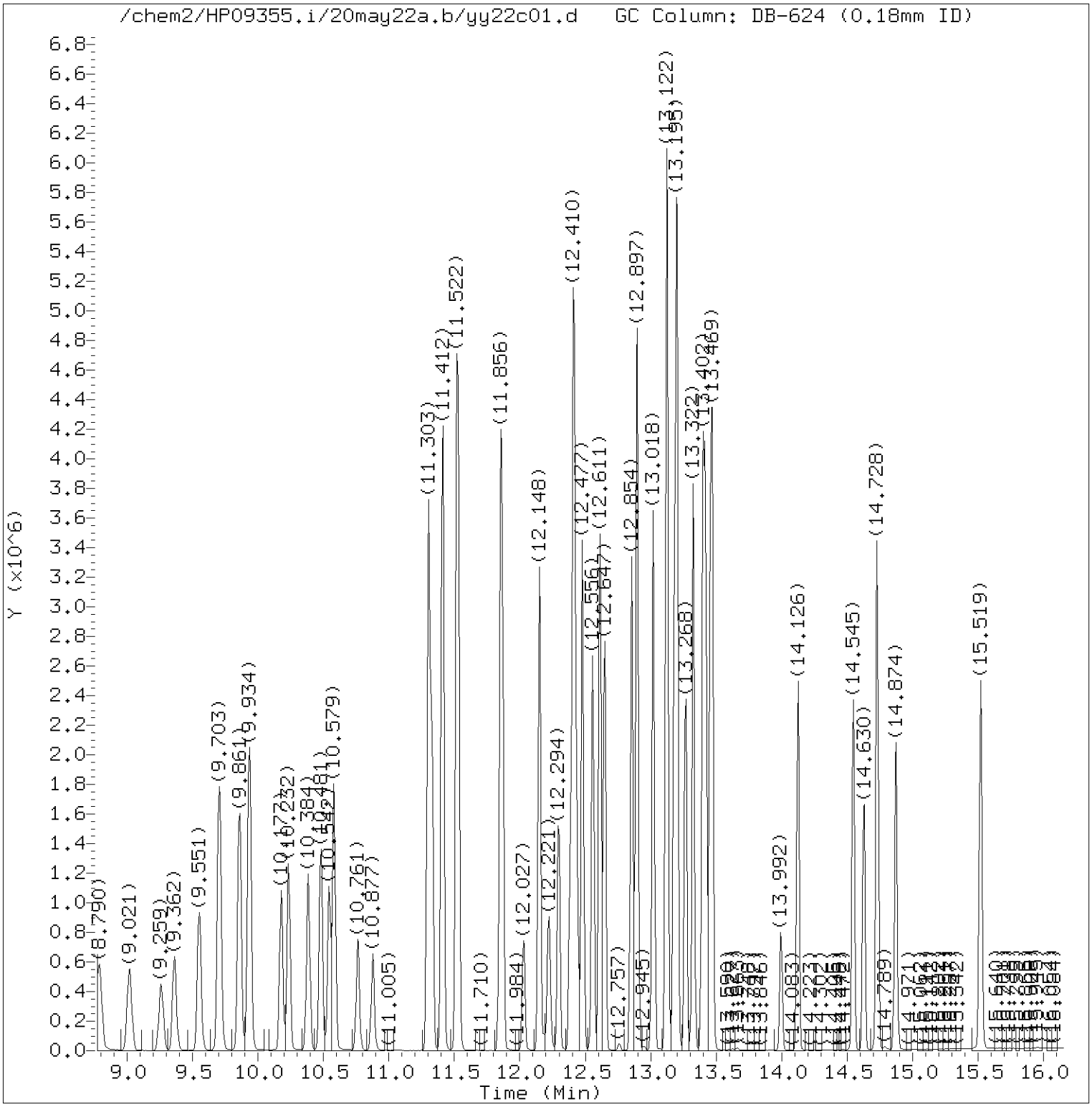
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.050	85	503423	54.877
4) Chloromethane	(2)	2.250	50	427198	50.717
5) 1,3-Butadiene	(2)	2.372	39	323036	47.262
6) Vinyl Chloride	(2)	2.372	62	438906	52.254
8) Bromomethane	(2)	2.707	94	316855	54.575
9) Chloroethane	(2)	2.798	64	245439	52.747
12) Trichlorofluoromethane	(2)	3.108	101	504395	52.421
11) n-Pentane	(2)	3.151	43	470517	42.350
14) Ethyl ether	(2)	3.364	59	350031	46.552
15) Freon 123a	(2)	3.443	67	413719	46.659
16) Acrolein	(1)	3.534	56	1640687	435.208
17) 1,1-Dichloroethene	(2)	3.692	96	351419	45.504
17) 1,1-Dichloroethene	(2)	3.692	63	168441	49.508
18) Acetone	(1)	3.698	58	171584	97.586
19) Freon 113	(2)	3.729	101	330646	47.468
21) 2-Propanol	(1)	3.875	45	305879	234.131
22) Methyl Iodide	(2)	3.905	142	610077	49.881
23) Carbon Disulfide	(2)	4.021	76	1152828	46.137
27) Methyl Acetate	(2)	4.142	43	531422M	48.060
25) Allyl Chloride	(2)	4.179	41	573388	46.864
29)*t-Butyl alcohol-d10	(1)	4.361	65	458603M	250.000
28) Methylene Chloride	(2)	4.374	84	406425	49.130
30) t-Butyl alcohol	(1)	4.495	59	557580	244.802
31) Acrylonitrile	(2)	4.690	53	292480	47.737
33) Methyl Tertiary Butyl Ether	(2)	4.787	73	1160625	47.556
32) trans-1,2-Dichloroethene	(2)	4.806	96	405791	47.874
34) n-Hexane	(2)	5.225	57	572041	46.169
36) 1,1-Dichloroethane	(2)	5.450	63	682507	47.480
38) di-Isopropyl ether	(2)	5.505	45	1192321	45.196
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	573765	49.333
40) Ethyl t-butyl ether	(2)	6.040	59	1132243	47.943
43) 1,2-Dichloroethene (Total)	(2)		96	860688	95.463
44) 2-Butanone	(2)	6.229	43	767085	92.814
42) cis-1,2-Dichloroethene	(2)	6.272	96	454897	47.589
45) 2,2-Dichloropropane	(2)	6.296	77	536946	49.593
47) Propionitrile	(1)	6.302	54	634744	233.885
48) Methacrylonitrile	(2)	6.527	67	760445	122.198
49) Bromochloromethane	(2)	6.612	128	228907	51.578

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.624	71	232336	92.605
51) Chloroform	(2)	6.752	83	666195	48.273
52)$Dibromofluoromethane	(2)	6.971	113	316259	49.606
52)$Dibromofluoromethane	(2)	6.971	111	322957	49.629
53) 1,1,1-Trichloroethane	(2)	6.989	97	574859	48.594
54) Cyclohexane	(2)	7.105	56	654332	44.299
54) Cyclohexane	(2)	7.105	84	574893	46.829
54) Cyclohexane	(2)	7.105	69	210280	46.619
55) 1,1-Dichloropropene	(2)	7.202	75	551862	48.078
56) Carbon Tetrachloride	(2)	7.208	117	487291	48.734
58) Isobutyl Alcohol	(1)	7.318	41	448473	548.638
57)$1,2-Dichloroethane-d4	(2)	7.428	102	86119	51.221
57)$1,2-Dichloroethane-d4	(2)	7.428	65	377206	50.296
57)$1,2-Dichloroethane-d4	(2)	7.434	104	54371	50.754
60) Benzene	(2)	7.464	78	1663256	47.687
61) 1,2-Dichloroethane	(2)	7.531	62	541425	48.389
61) 1,2-Dichloroethane	(2)	7.537	98	54038	52.108
65) t-Amyl methyl ether	(2)	7.653	73	1191427	50.003
66)*Fluorobenzene	(2)	7.866	96	1403660	50.000
67) n-Heptane	(2)	7.878	43	606590	44.883
69) n-Butanol	(1)	8.194	56	844864	1097.615
71) Trichloroethene	(2)	8.346	95	423230	48.975
72) Methylcyclohexane	(2)	8.669	83	726974	47.343
72) Methylcyclohexane	(2)	8.669	98	329463	48.664
73) 1,2-Dichloropropane	(2)	8.675	63	421450	47.182
76) Methyl Methacrylate	(2)	8.742	69	459645	51.388
75) 1,4-Dioxane	(1)	8.760	88	117681M	636.037
74) Dibromomethane	(2)	8.790	93	278612	49.186
78) Bromodichloromethane	(2)	9.015	83	513093	50.176
79) 2-Nitropropane	(2)	9.259	41	371680	100.576
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	357267	50.076
81) cis-1,3-Dichloropropene	(2)	9.551	75	685794	48.897
82) 4-Methyl-2-pentanone	(2)	9.703	43	1427324	92.684
83)$Toluene-d8	(3)	9.861	98	1349025	48.672
83)$Toluene-d8	(3)	9.861	100	865185	48.632
88) Toluene	(3)	9.934	92	1076451	48.355
90) 1,3-Dichloropropene (total)	(3)		100	1348267	98.756
89) trans-1,3-Dichloropropene	(3)	10.177	75	662473	49.859

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on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.232	69	729279	50.725
92) 1,1,2-Trichloroethane	(3)	10.384	97	431494	49.268
93) Tetrachloroethene	(3)	10.481	166	445405	49.029
94) 1,3-Dichloropropane	(3)	10.542	76	706955	47.389
96) 2-Hexanone	(3)	10.579	43	1152192	92.420
97) Dibromochloromethane	(3)	10.761	129	440183	50.257
99) 1,2-Dibromoethane	(3)	10.877	107	468140	49.567
100)*Chlorobenzene-d5	(3)	11.303	117	1061412	50.000
101) 1-Chlorohexane	(3)	11.303	91	583084	47.430
102) Chlorobenzene	(3)	11.327	112	1219003	48.464
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	404944	49.458
104) Ethylbenzene	(3)	11.412	91	2062718	48.569
106) m+p-Xylene	(3)	11.522	106	1666326	99.420
108) Xylene (Total)	(3)		106	2470835	148.236
107) o-Xylene	(3)	11.850	106	804509	48.815
109) Styrene	(3)	11.869	104	1363382	51.346
110) Bromoform	(3)	12.027	173	339030	52.457
111) Isopropylbenzene	(3)	12.148	105	2048259	49.308
112) Cyclohexanone	(1)	12.221	55	379095	532.231
114)$4-Bromofluorobenzene	(3)	12.294	95	503409	47.936
114)$4-Bromofluorobenzene	(3)	12.300	174	413336	51.099
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	716771	46.411
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	559173	112.624
115) Bromobenzene	(4)	12.416	156	536188	49.153
117) 1,2,3-Trichloropropane	(4)	12.434	110	233749	47.709
119) n-Propylbenzene	(4)	12.477	91	2451882	48.242
120) 2-Chlorotoluene	(4)	12.556	126	506540	48.380
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	1771588	48.259
121) 4-Chlorotoluene	(4)	12.647	126	530355	48.198
124) tert-Butylbenzene	(4)	12.854	134	368692	48.024
125) Pentachloroethane	(4)	12.891	167	297980	50.401
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	1870650	48.427
127) sec-Butylbenzene	(4)	13.018	105	2291838	48.448
129) 1,3-Dichlorobenzene	(4)	13.122	146	1019929	48.837
130) p-Isopropyltoluene	(4)	13.128	119	1969295	49.285
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	571512	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	1042748	48.356
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	1810134	47.678

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	Benzyl Chloride	(4)	13.268	91	1598553	51.518
136)	1,3-Diethylbenzene	(4)	13.322	119	1162815	47.815
141)	Diethylbenzene (total)	(4)		100	3356692	143.042
137)	1,4-Diethylbenzene	(4)	13.396	119	1226465	47.986
139)	n-Butylbenzene	(4)	13.420	92	1007906	46.892
138)	1,2-Dichlorobenzene	(4)	13.450	146	977049	48.170
140)	1,2-Diethylbenzene	(4)	13.469	119	967412	47.242
142)	1,2-Dibromo-3-chloropropane	(4)	13.992	75	184016	48.391
144)	1,3,5-Trichlorobenzene	(4)	14.126	180	719995	47.629
146)	1,2,4-Trichlorobenzene	(4)	14.545	180	665367	46.890
147)	Hexachlorobutadiene	(4)	14.630	225	288357	45.067
148)	Naphthalene	(4)	14.728	128	2499613	48.158
149)	1,2,3-Trichlorobenzene	(4)	14.874	180	629454	45.778
150)	2-Methylnaphthalene	(4)	15.519	142	1226437	42.763

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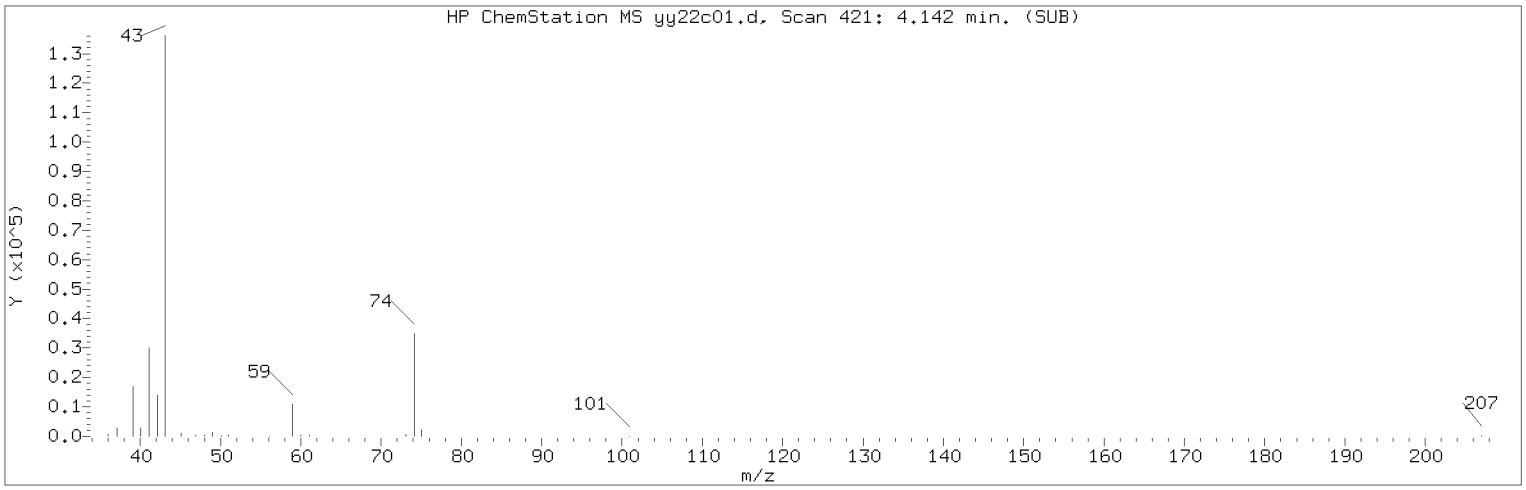
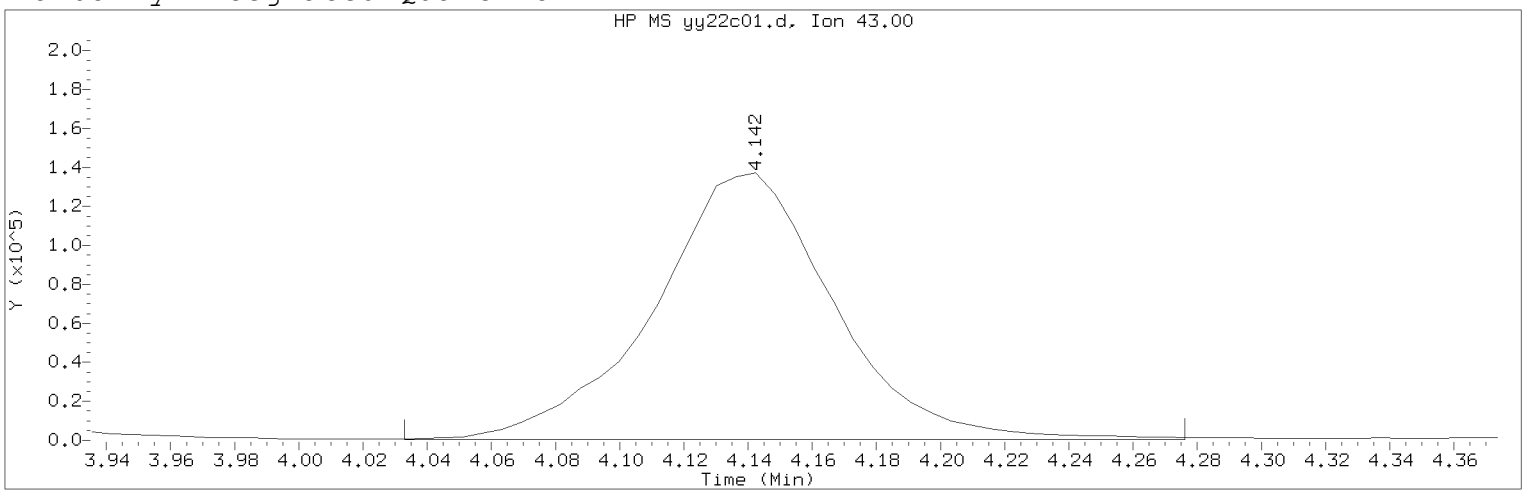
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

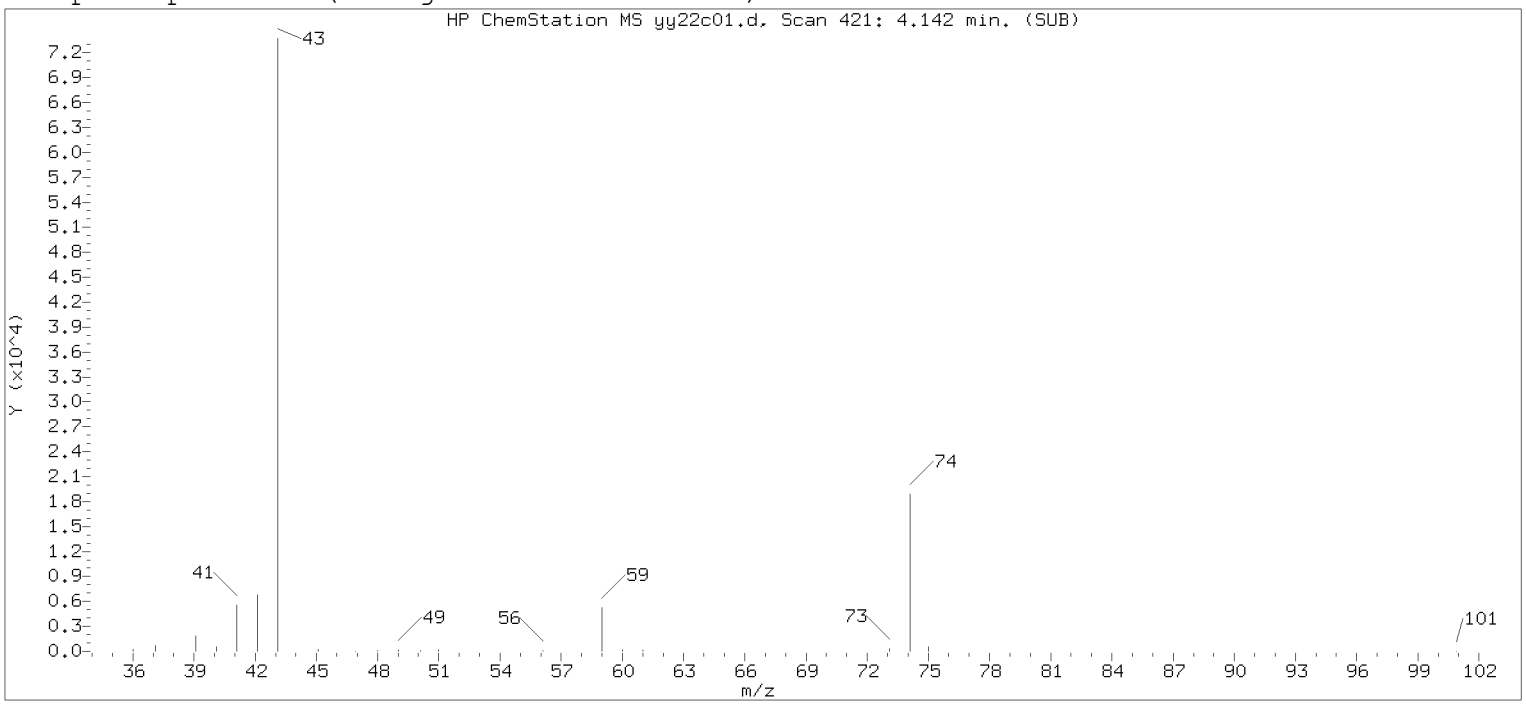
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 421
Retention Time (minutes): 4.142
Quant Ion : 43.00
Area (flag) : 531422M
On-Column Amount (ng) : 48.0598
Integration start scan : 402 Integration stop scan: 442
Y at integration start : 489 Y at integration end: 489

Reason for manual integration: improper integration

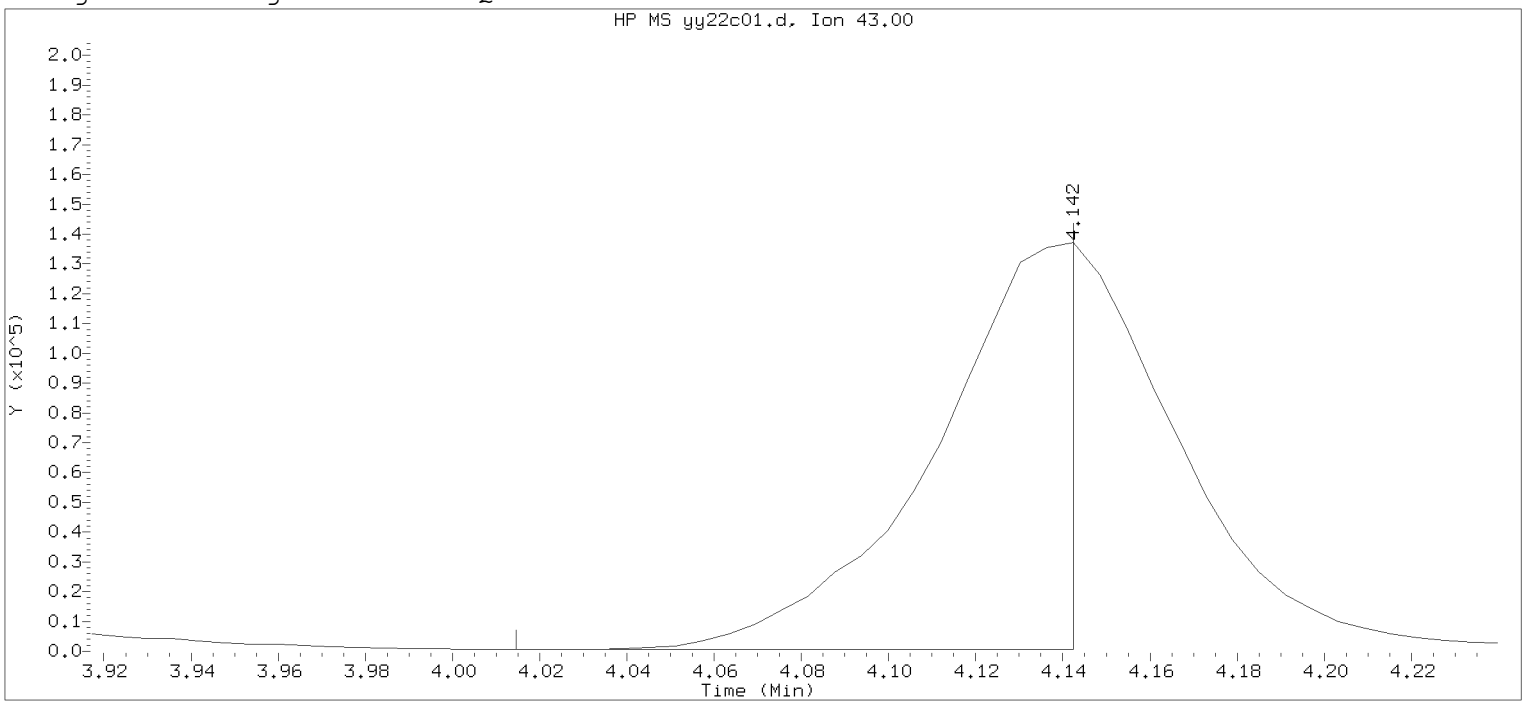
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

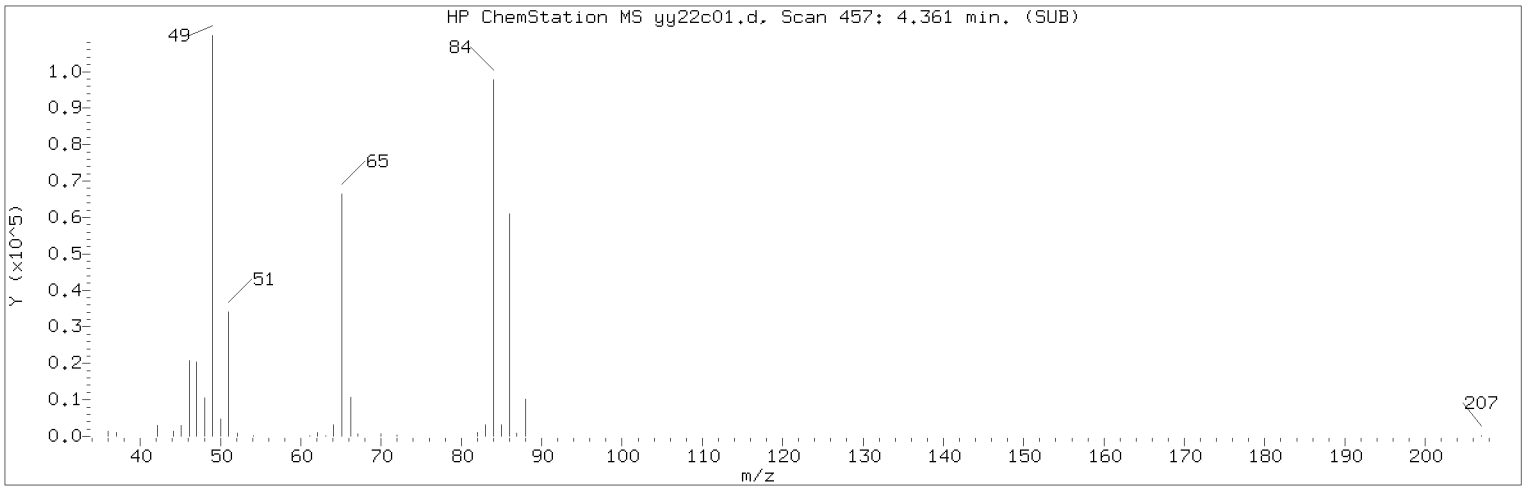
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

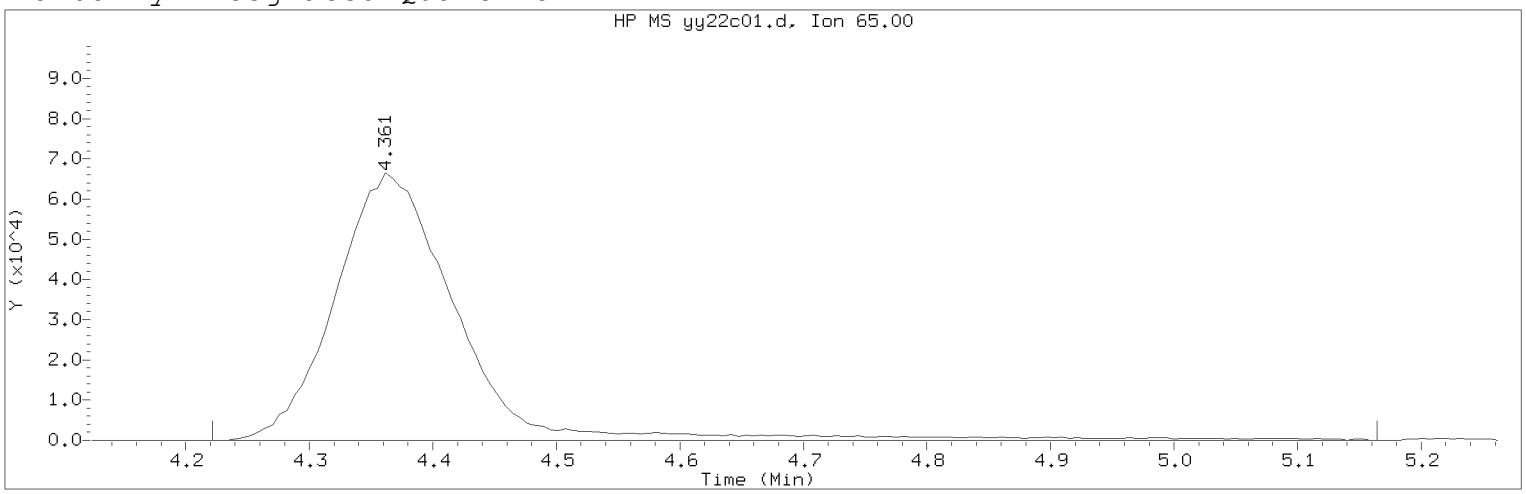
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 421
Retention Time (minutes): 4.142
Quant Ion : 43.00
Area : 293223
On-column Amount (ng) : 26.5180
Integration start scan : 399 Integration stop scan: 420
Y at integration start : 585 Y at integration end: 585

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user id: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

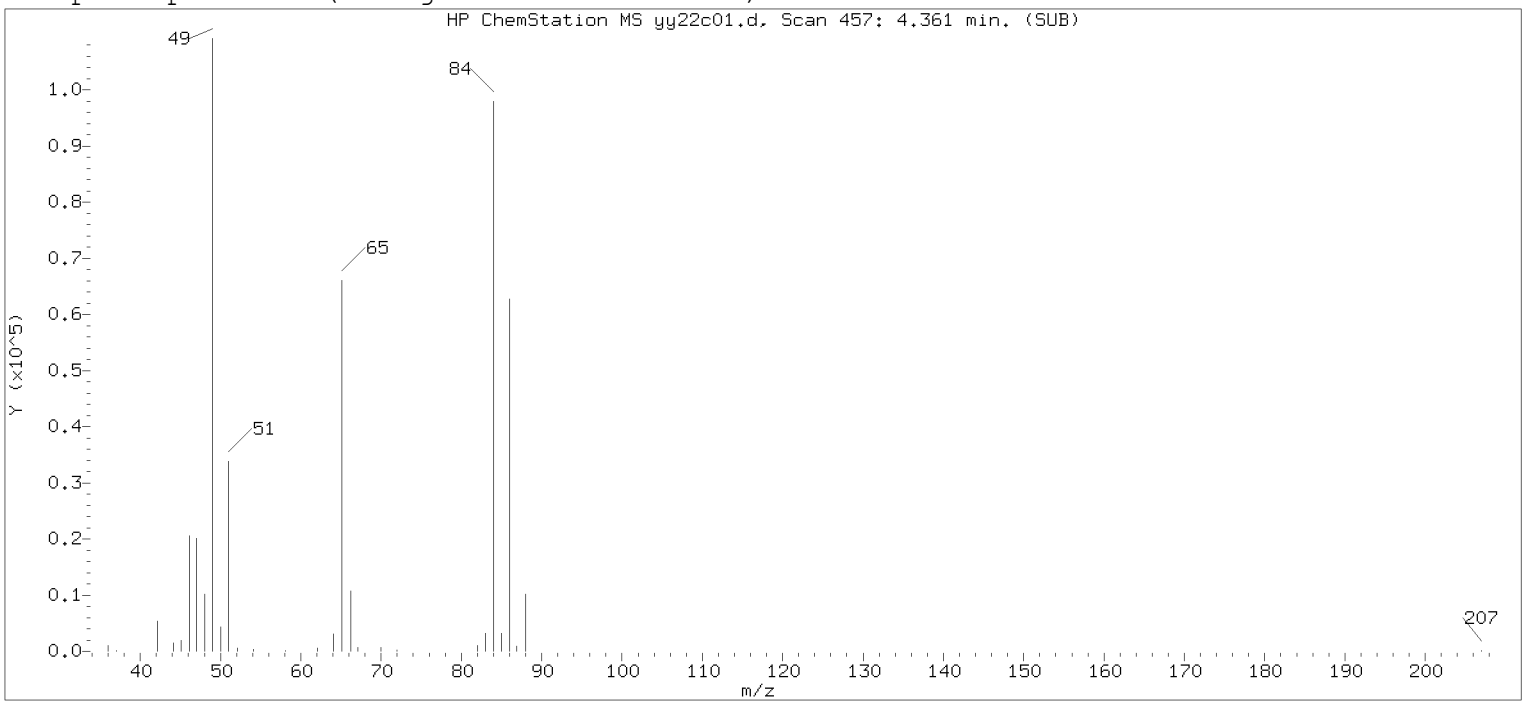
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.361
Quant Ion : 65.00
Area (flag) : 458603M
On-Column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 588
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

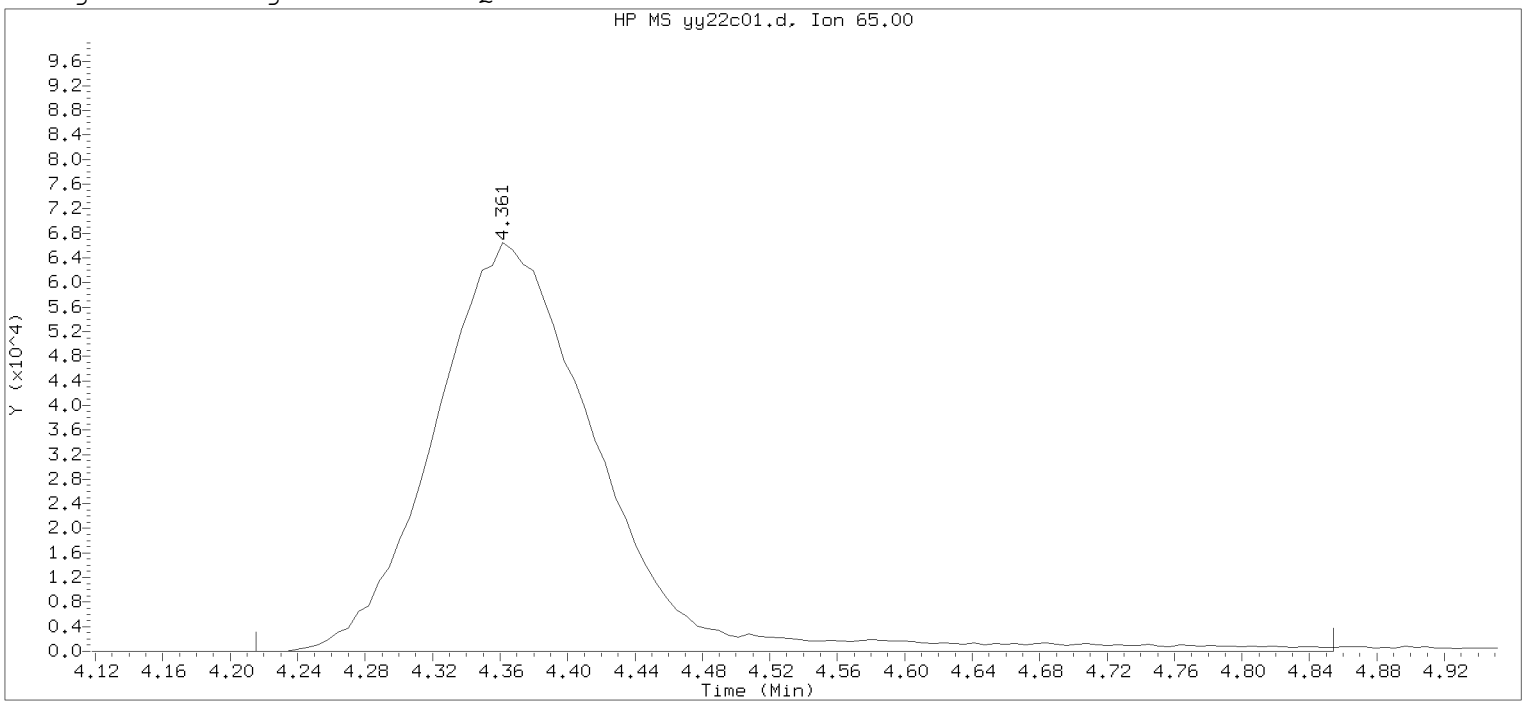
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

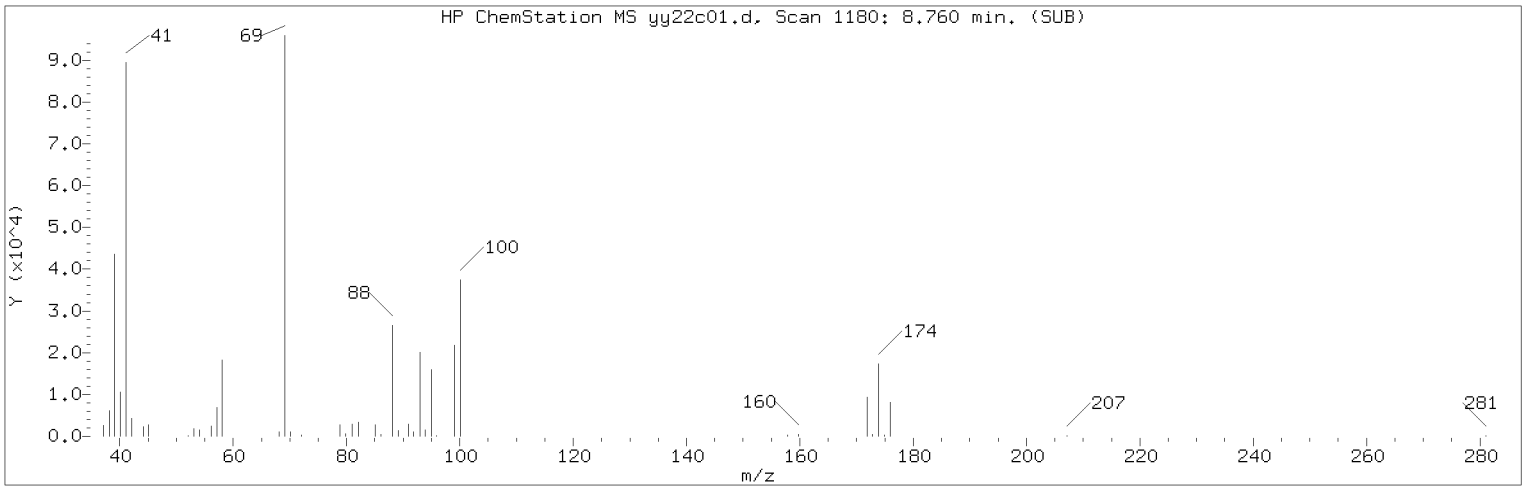
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

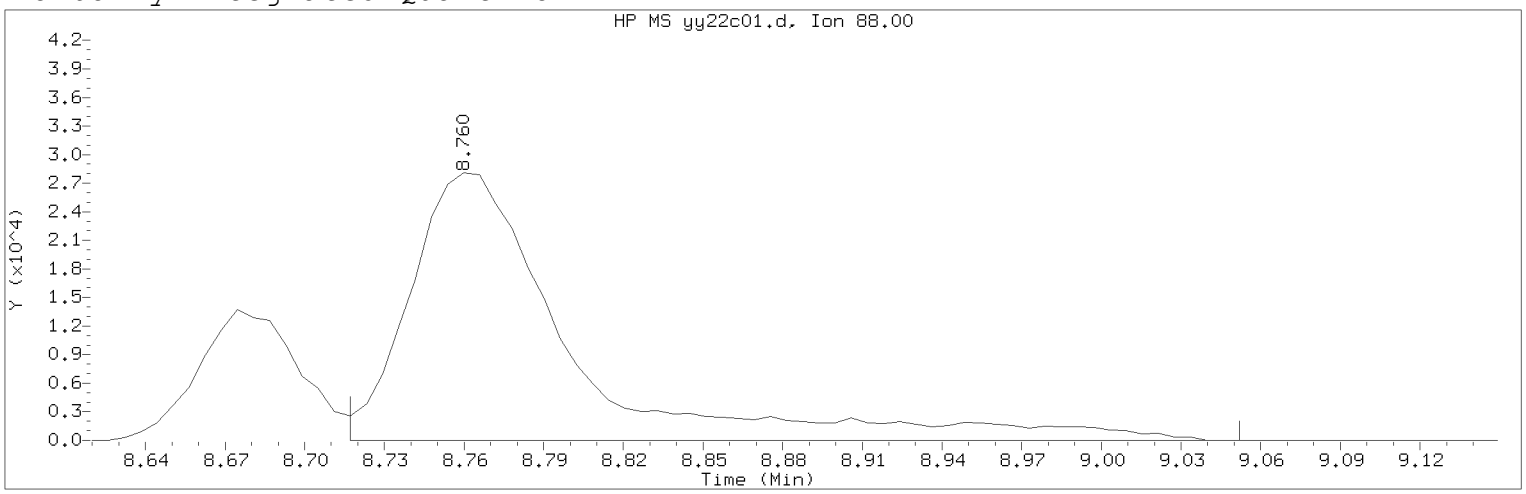
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.361
Quant Ion : 65.00
Area : 449771
On-column Amount (ng) : 250.0000
Integration start scan : 432 Integration stop scan: 537
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

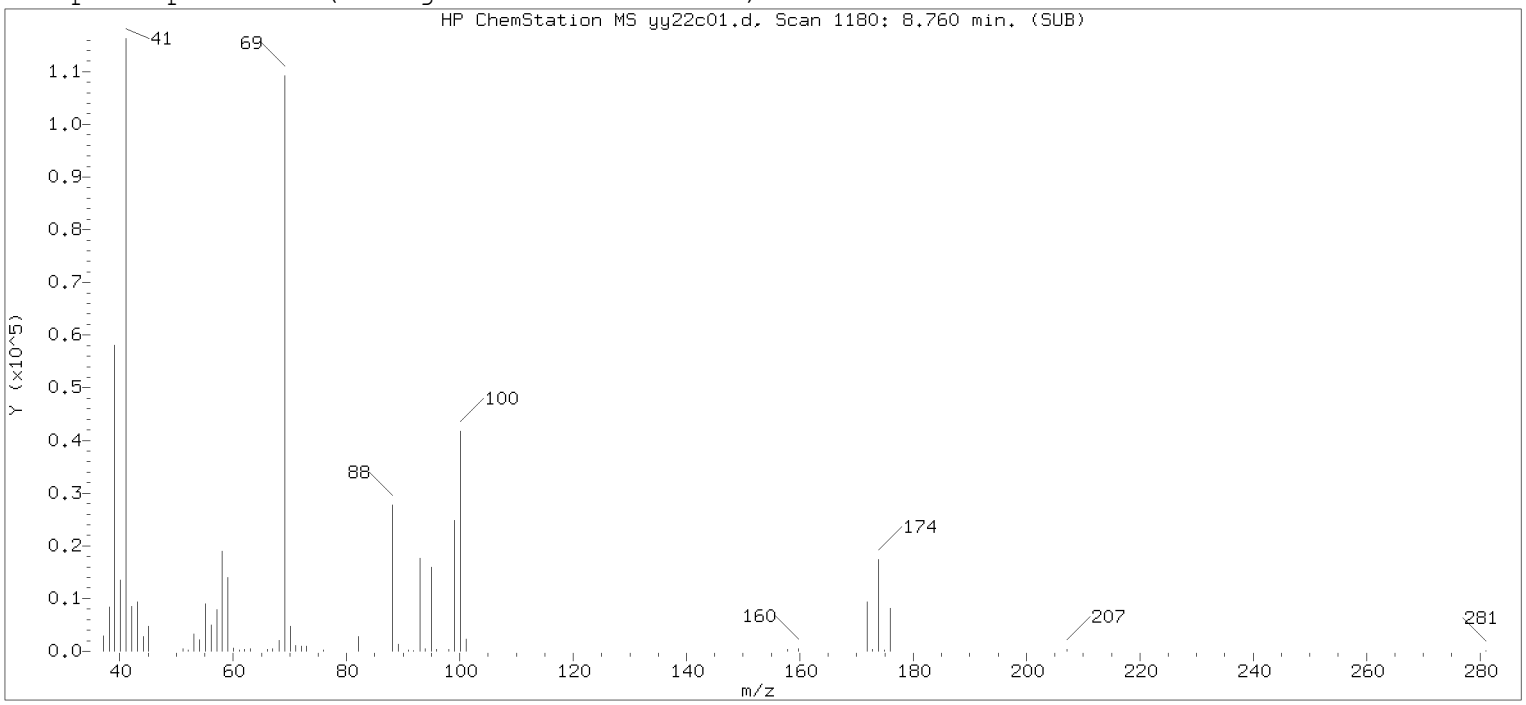
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 117681M
On-Column Amount (ng) : 636.0366
Integration start scan : 1172 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

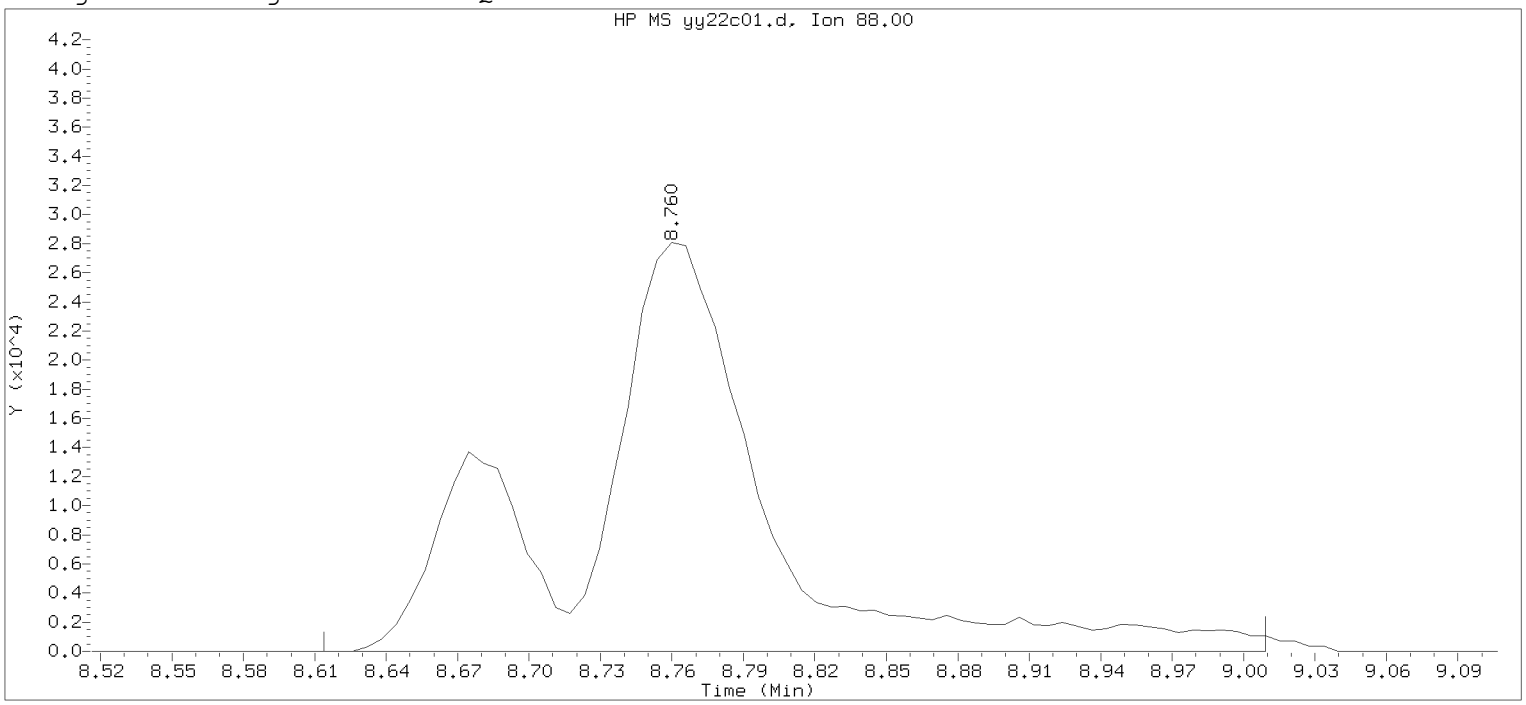
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area : 152121
On-column Amount (ng) : 838.3159
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user id: DVV10203

Raw QC Data

Volatiles by GC/MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKY94

Data file: /chem2/HP09355.i/20may22a.b/yy22b01.d
Data file Sample Info. Line: VBLKY94;VBLKY94;1;3;;;;;;
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Injection date and time: **22-MAY-2020 10:48**
Instrument ID: **HP09355.i** Batch: **Y201431AA**

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.355	(0.006)	456	65	432906	(-6)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1346258	(-4)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	1001973	(-6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	526202	(-8)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(0.000)	113	303747	49.675	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	82436	51.121	102%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1267133	48.430	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(0.000)	95	464253	46.830	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22b01.d Injection date and time: **22-MAY-2020 10:48**
Data file Sample Info. Line: VBLKY94;VBLKY94;1;3;;;;;; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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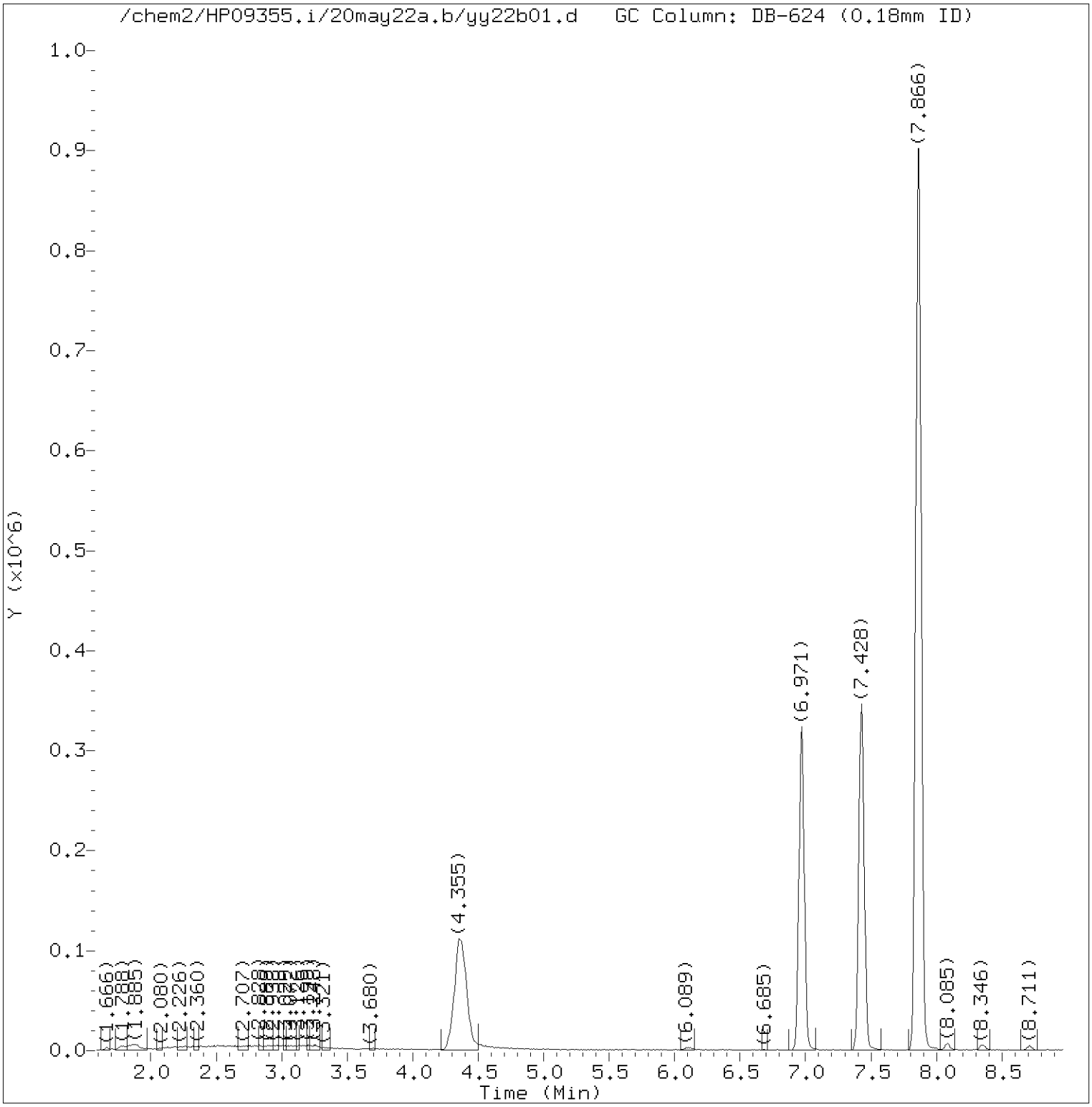
Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

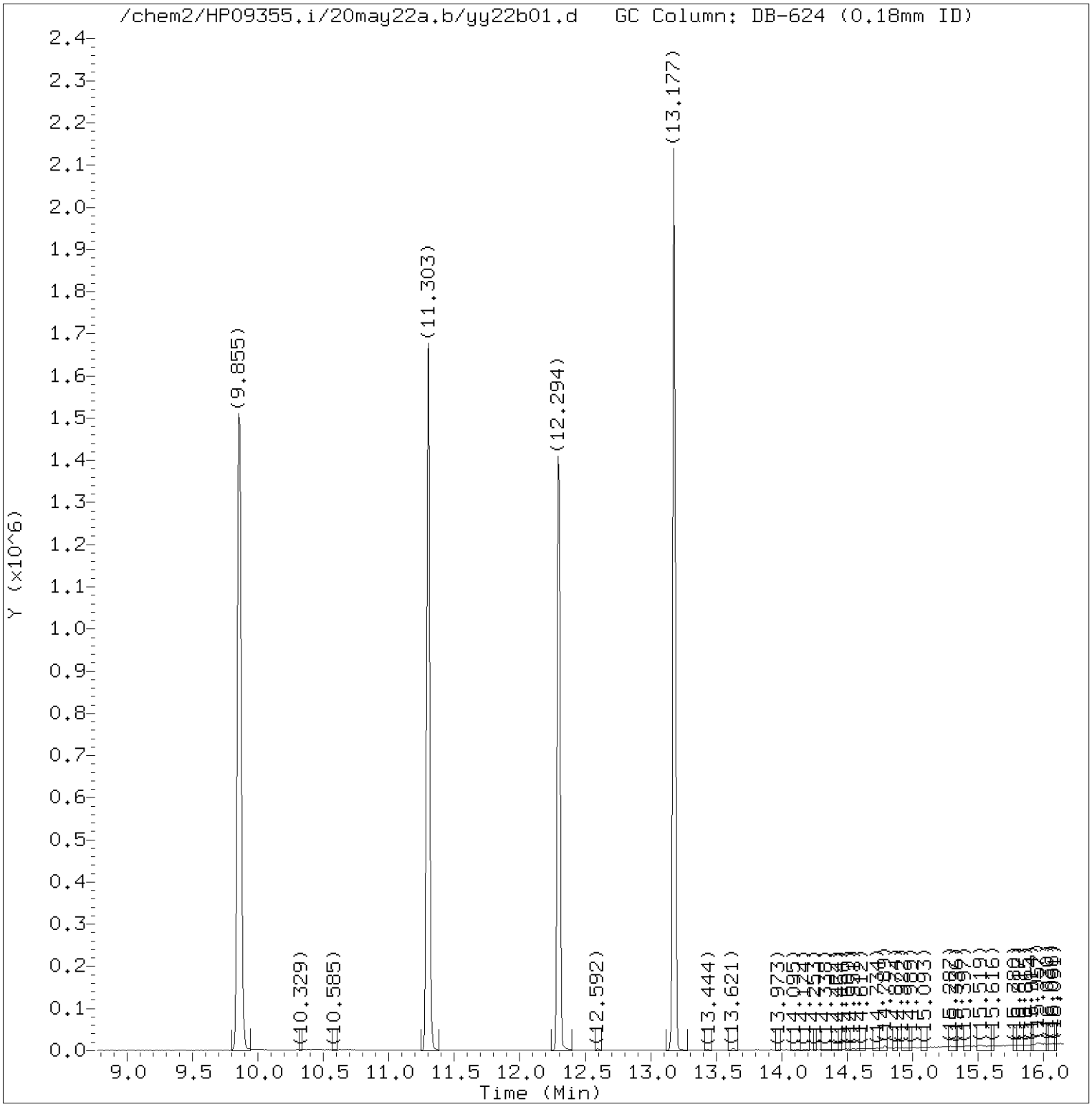
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.355	65	432906	250.000
52)$Dibromofluoromethane	(2)	6.971	113	303747	49.675
57)$1,2-Dichloroethane-d4	(2)	7.428	102	82436	51.121
66)*Fluorobenzene	(2)	7.866	96	1346258	50.000
83)$Toluene-d8	(3)	9.855	98	1267133	48.430
100)*Chlorobenzene-d5	(3)	11.303	117	1001973	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	464253	46.830
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	526202	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58301MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316311

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s04.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	150	
76-13-1	Freon 113	21	
75-15-0	Carbon Disulfide	20	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	23	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	21	
79-01-6	Trichloroethene	29	
123-91-1	1,4-Dioxane	480	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	22	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	64	
95-50-1	1,2-Dichlorobenzene	21	
91-20-3	Naphthalene	19	

FORM I VOA

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58301MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1316311MS

Data file: /chem2/HP09355.i/20may22a.b/yy22s04.d Injection date and time: **22-MAY-2020 11:54**
Data file Sample Info. Line: 58301MS;1316311MS;1;3;MS;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.367(-0.006)	458	65	442955M (-3)	250.00	
66) Fluorobenzene	7.866(0.000)	1033	96	1314892 (-6)	50.00	
100) Chlorobenzene-d5	11.297(0.006)	1597	117	983591 (-7)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	530314 (-7)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971(0.000)	113	296254	49.605	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428(0.000)	102	80239	50.946	102%		80 - 120
83) Toluene-d8	(3)	9.855(0.000)	98	1258315	48.992	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294(-0.001)	95	469720	48.267	97%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.366(0.000)	62	167661	21.308	21.31			0.2	1
17) 1,1-Dichloroethene	(2)	3.686(0.000)	96	147242	20.353	20.35			0.2	1
18) Acetone	(1)	3.698(0.001)	58	251633	148.168	148.17			0.7	20
19) Freon 113	(2)	3.729(-0.000)	101	135591	20.780	20.78			0.2	10
23) Carbon Disulfide	(2)	4.021(-0.000)	76	470341	20.094	20.09			0.2	5
28) Methylene Chloride	(2)	4.367(0.000)	84	164285	21.200	21.20			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.799(0.000)	96	166837	21.012	21.01			0.2	1
36) 1,1-Dichloroethane	(2)	5.450(-0.000)	63	283561	21.058	21.06			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.272(-0.000)	96	200971	22.444	22.44			0.2	1
44) 2-Butanone	(2)	6.223(0.000)	43	1145215	147.921	147.92			0.3	10
51) Chloroform	(2)	6.752(-0.000)	83	271331	20.988	20.99			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.990(-0.000)	97	253313	22.858	22.86			0.3	1
60) Benzene	(2)	7.464(-0.000)	78	672218	20.574	20.57			0.2	1
61) 1,2-Dichloroethane	(2)	7.531(-0.000)	62	219846	20.975	20.97			0.3	1
71) Trichloroethene	(2)	8.346(0.000)	95	232319	28.698	28.70			0.2	1
75) 1,4-Dioxane	(1)	8.754(0.004)	88	86475M	483.887	483.89			29	250
88) Toluene	(3)	9.934(-0.000)	92	431283	20.906	20.91			0.2	1
93) Tetrachloroethene	(3)	10.481(-0.000)	166	188730	22.418	22.42			0.2	1
104) Ethylbenzene	(3)	11.412(-0.000)	91	819497	20.823	20.82			0.4	1
106) m+p-Xylene	(3)	11.522(-0.000)	106	669921	43.133	43.13			1	5
107) o-Xylene	(3)	11.850(-0.000)	106	315218	20.640	20.64			0.4	1
108) Xylene (Total)	(3)		106	985139	63.773	63.77			1	6
138) 1,2-Dichlorobenzene	(4)	13.450(0.000)	146	387873	20.608	20.61			0.2	5
148) Naphthalene	(4)	14.728(0.000)	128	913856	18.974	18.97			1	5

M = Compound was manually integrated.

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Data file: /chem2/HP09355.i/20may22a.b/yy22s04.d Injection date and time: **22-MAY-2020 11:54**
Data file Sample Info. Line: 58301MS;1316311MS;1;3;MS;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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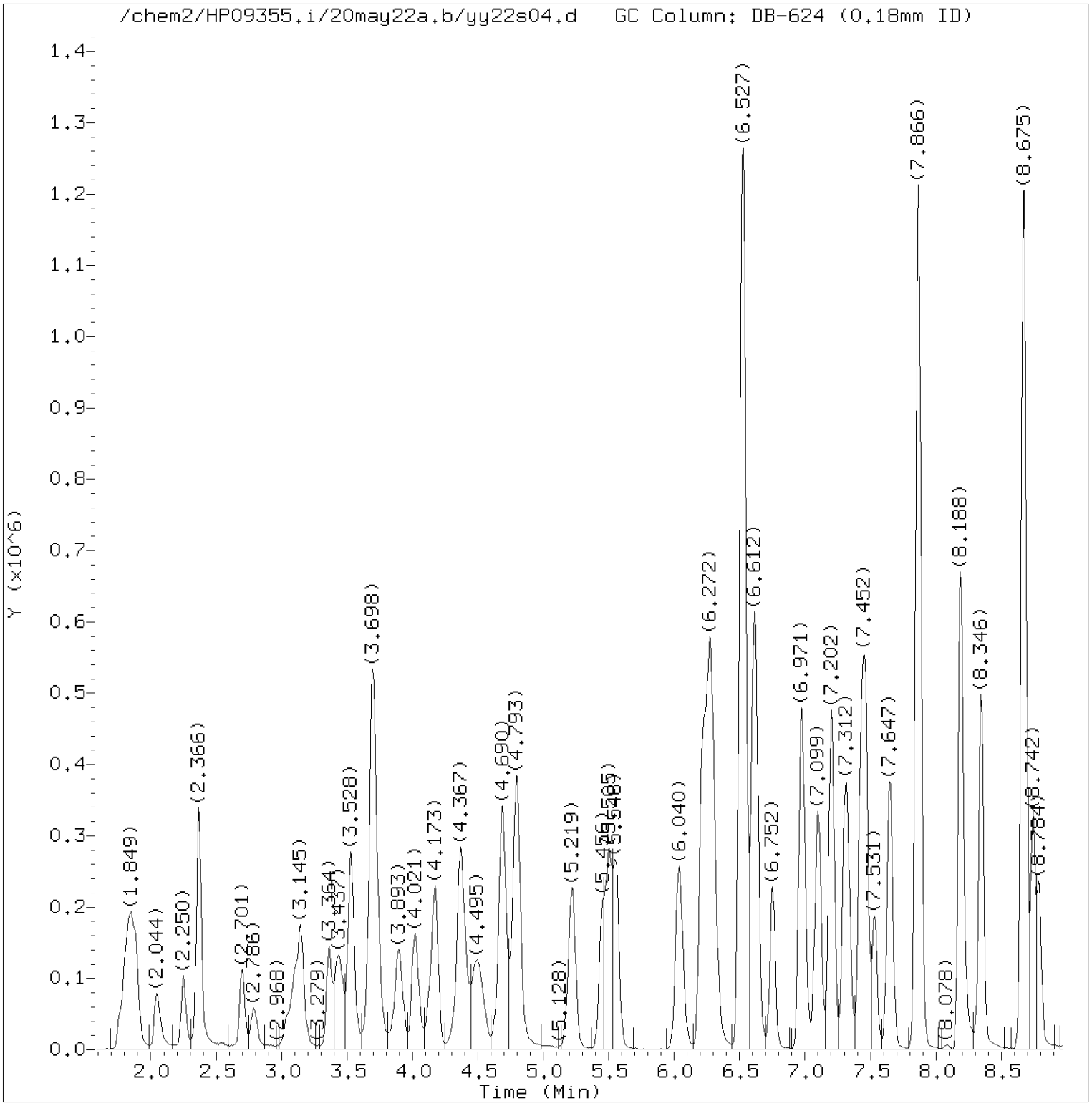
Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

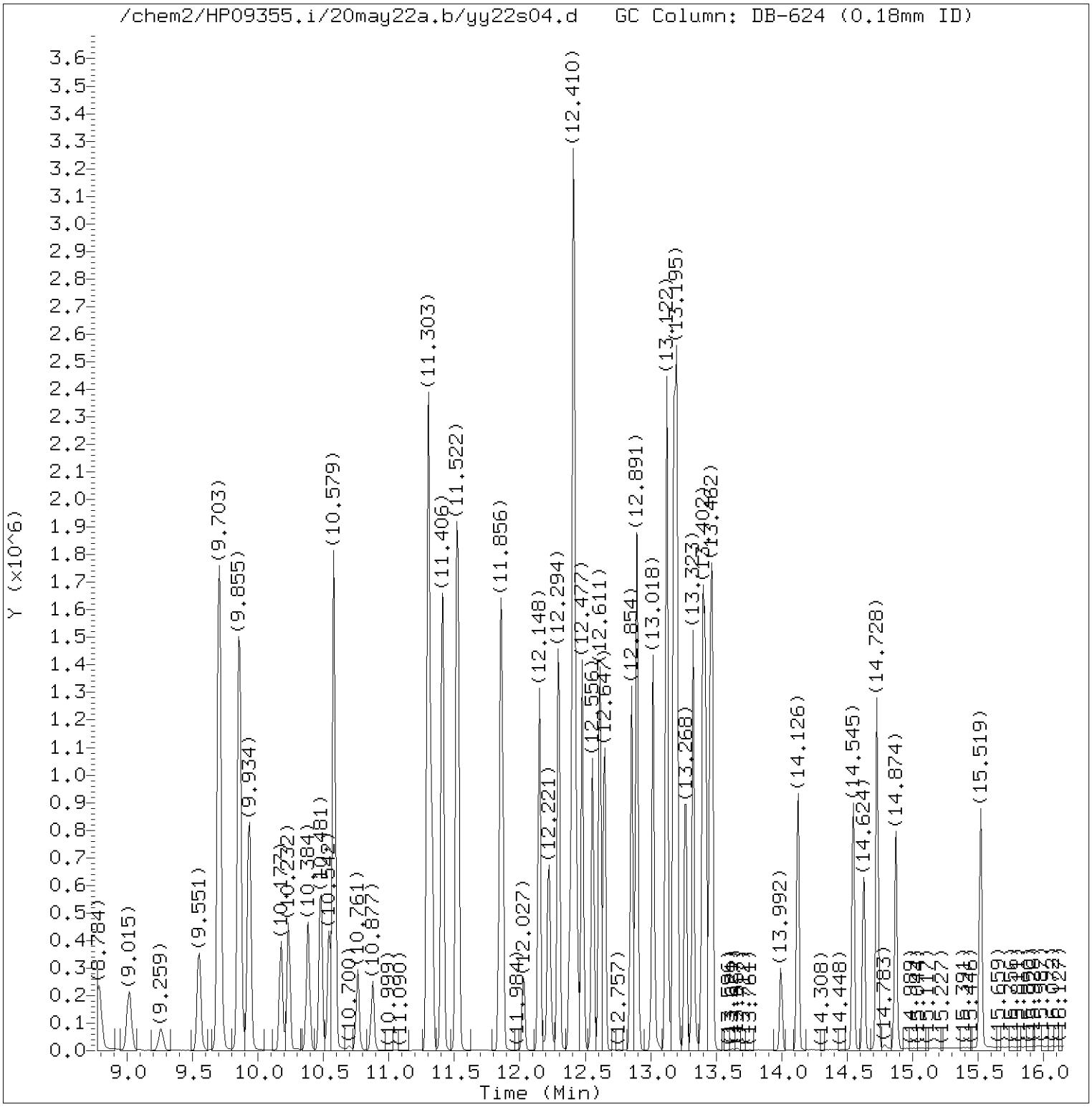
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Sample Name: 58301MS Lab Sample ID: 1316311MS

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Sample Name: 58301MS Lab Sample ID: 1316311MS

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

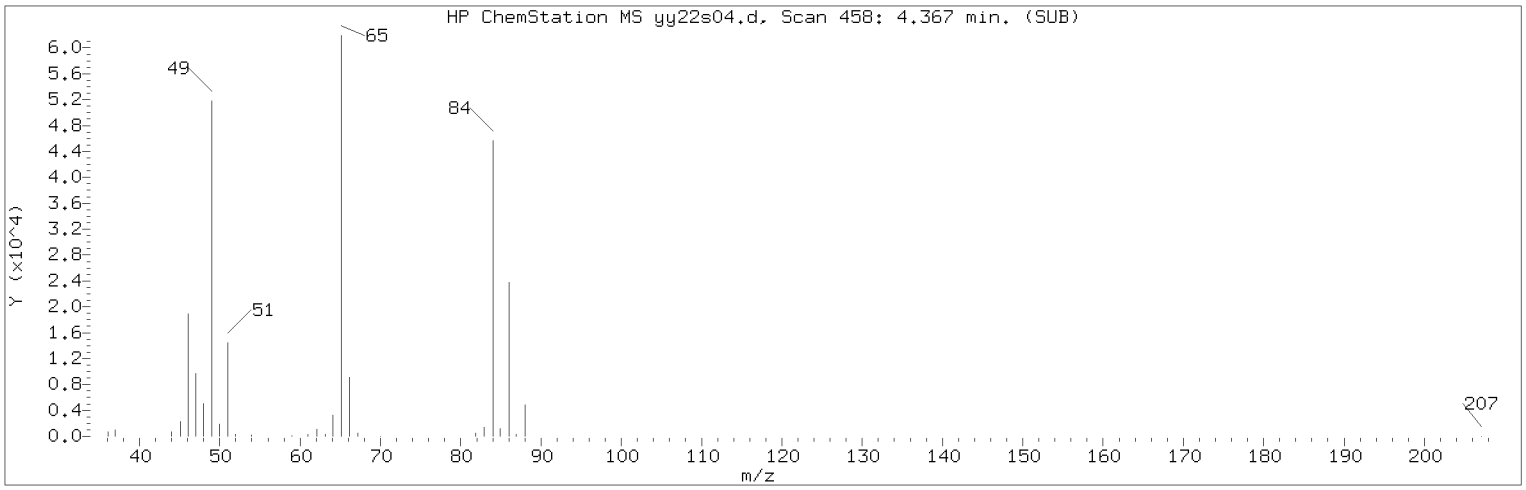
Sample Name: 58301MS Lab Sample ID: 1316311MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.366	62	167661	21.308
17) 1,1-Dichloroethene	(2)	3.686	96	147242	20.353
18) Acetone	(1)	3.698	58	251633	148.168
19) Freon 113	(2)	3.729	101	135591	20.780
23) Carbon Disulfide	(2)	4.021	76	470341	20.094
28) Methylene Chloride	(2)	4.367	84	164285	21.200
29)*t-Butyl alcohol-d10	(1)	4.367	65	442955M	250.000
32) trans-1,2-Dichloroethene	(2)	4.799	96	166837	21.012
36) 1,1-Dichloroethane	(2)	5.450	63	283561	21.058
44) 2-Butanone	(2)	6.223	43	1145215	147.921
42) cis-1,2-Dichloroethene	(2)	6.272	96	200971	22.444
51) Chloroform	(2)	6.752	83	271331	20.988
52)$Dibromofluoromethane	(2)	6.971	113	296254	49.605
53) 1,1,1-Trichloroethane	(2)	6.990	97	253313	22.858
57)$1,2-Dichloroethane-d4	(2)	7.428	102	80239	50.946
60) Benzene	(2)	7.464	78	672218	20.574
61) 1,2-Dichloroethane	(2)	7.531	62	219846	20.975
66)*Fluorobenzene	(2)	7.866	96	1314892	50.000
71) Trichloroethene	(2)	8.346	95	232319	28.698
75) 1,4-Dioxane	(1)	8.754	88	86475M	483.887
83)$Toluene-d8	(3)	9.855	98	1258315	48.992
88) Toluene	(3)	9.934	92	431283	20.906
93) Tetrachloroethene	(3)	10.481	166	188730	22.418
100)*Chlorobenzene-d5	(3)	11.297	117	983591	50.000
104) Ethylbenzene	(3)	11.412	91	819497	20.823
106) m+p-Xylene	(3)	11.522	106	669921	43.133
108) Xylene (Total)	(3)		106	985139	63.773
107) o-Xylene	(3)	11.850	106	315218	20.640
114)$4-Bromofluorobenzene	(3)	12.294	95	469720	48.267
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	530314	50.000
138) 1,2-Dichlorobenzene	(4)	13.450	146	387873	20.608
148) Naphthalene	(4)	14.728	128	913856	18.974

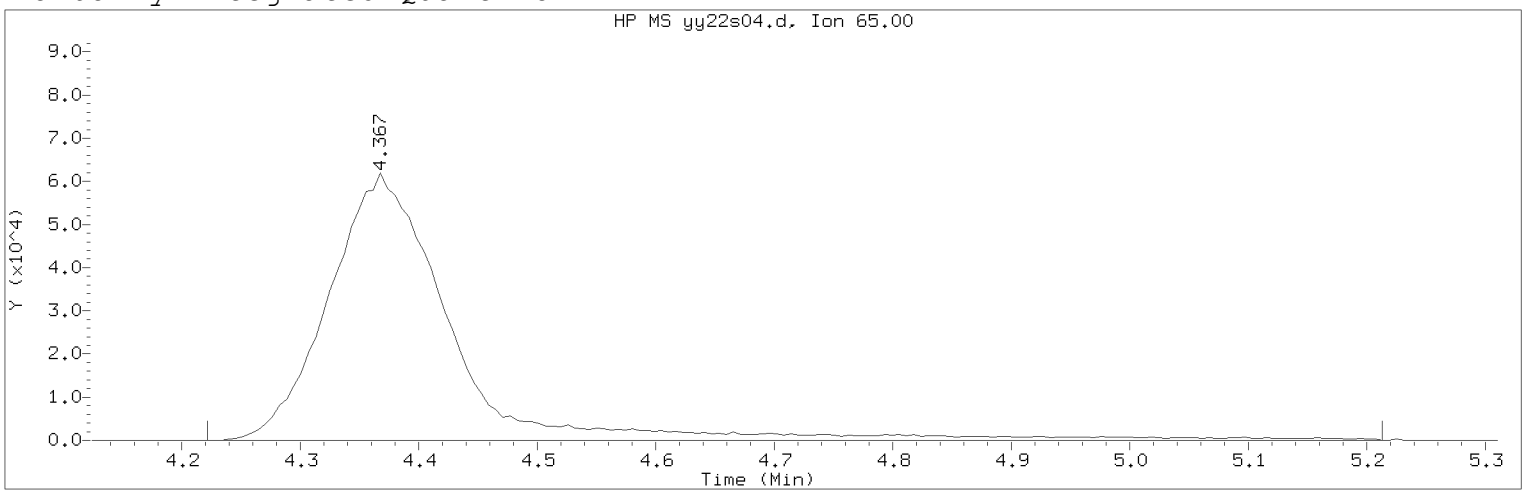
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Sample Name: 58301MS Lab Sample ID: 1316311MS

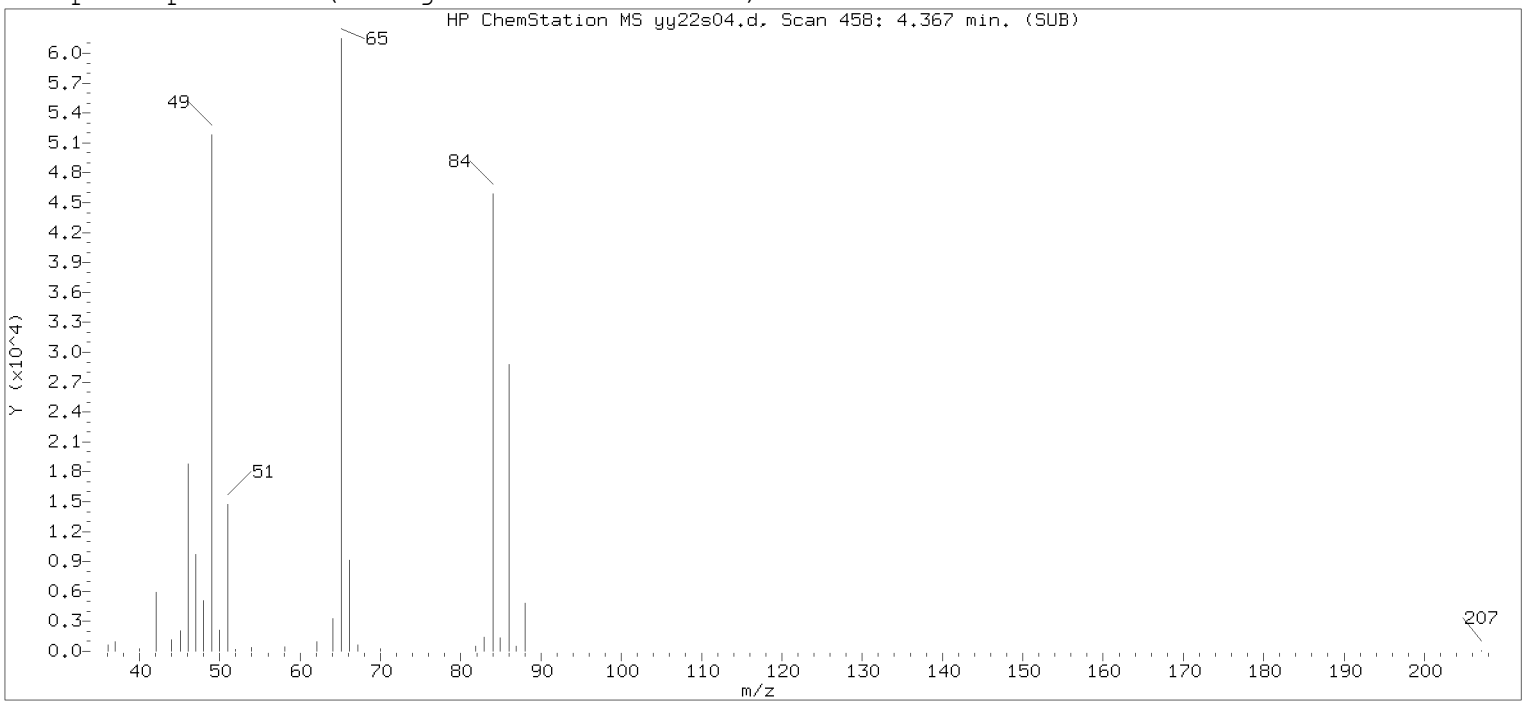
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 458
Retention Time (minutes): 4.367
Quant Ion : 65.00
Area (flag) : 442955M
On-Column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 596
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

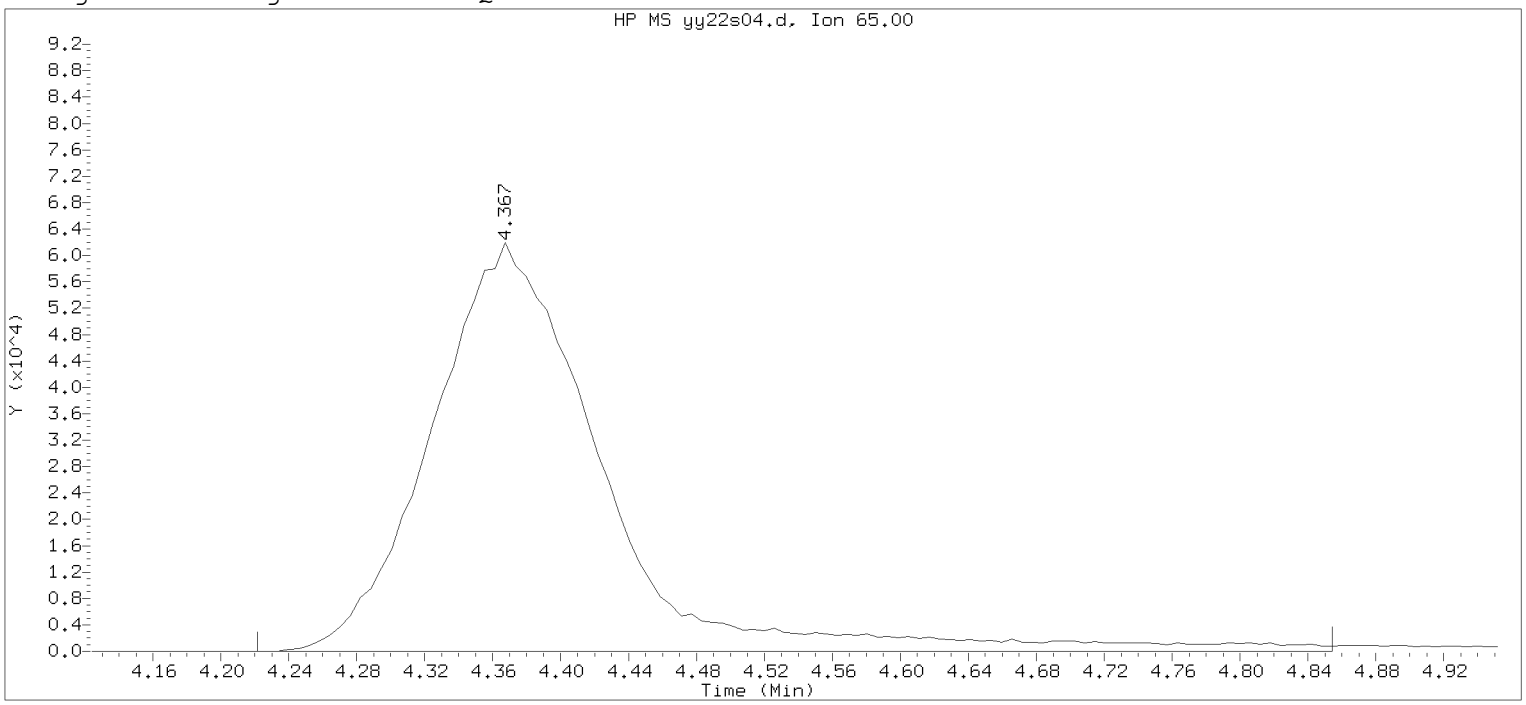
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

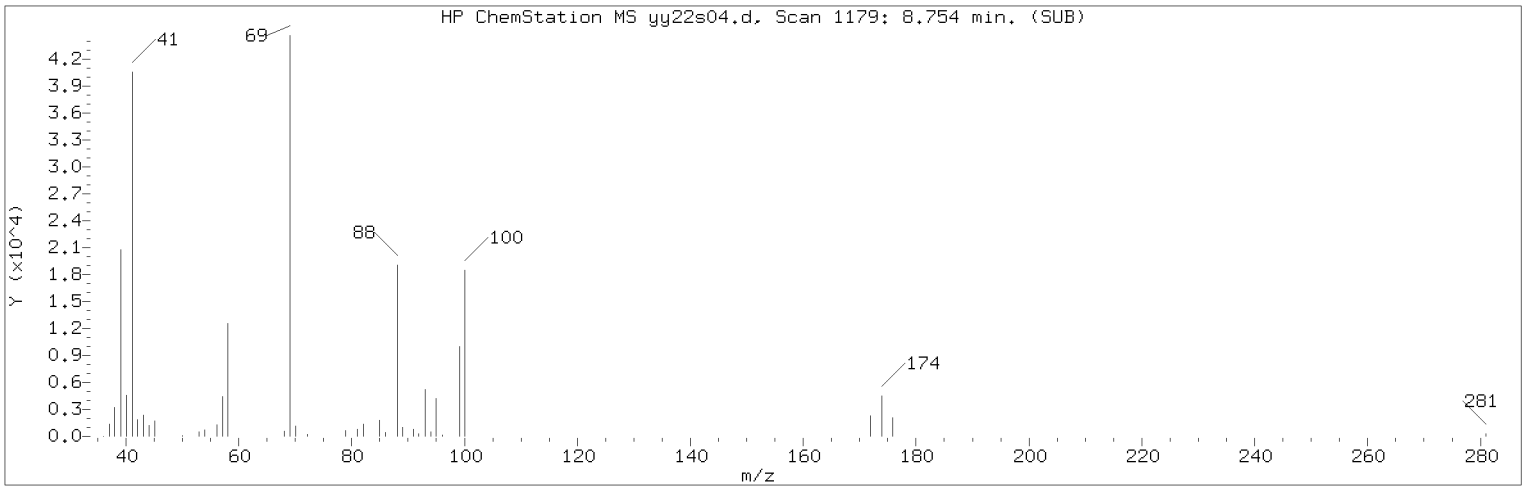
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 12:12 Automation

Sample Name: 58301MS Lab Sample ID: 1316311MS

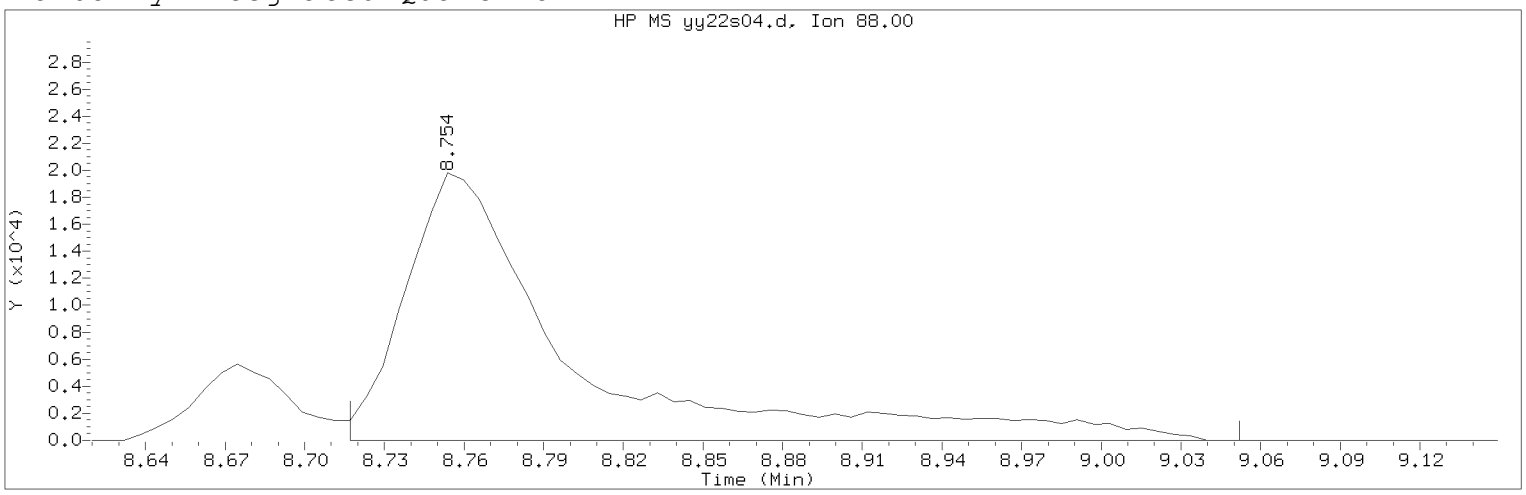
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 458
Retention Time (minutes): 4.367
Quant Ion : 65.00
Area : 429703
On-column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 537
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:46 dvv10203

Sample Name: 58301MS Lab Sample ID: 1316311MS

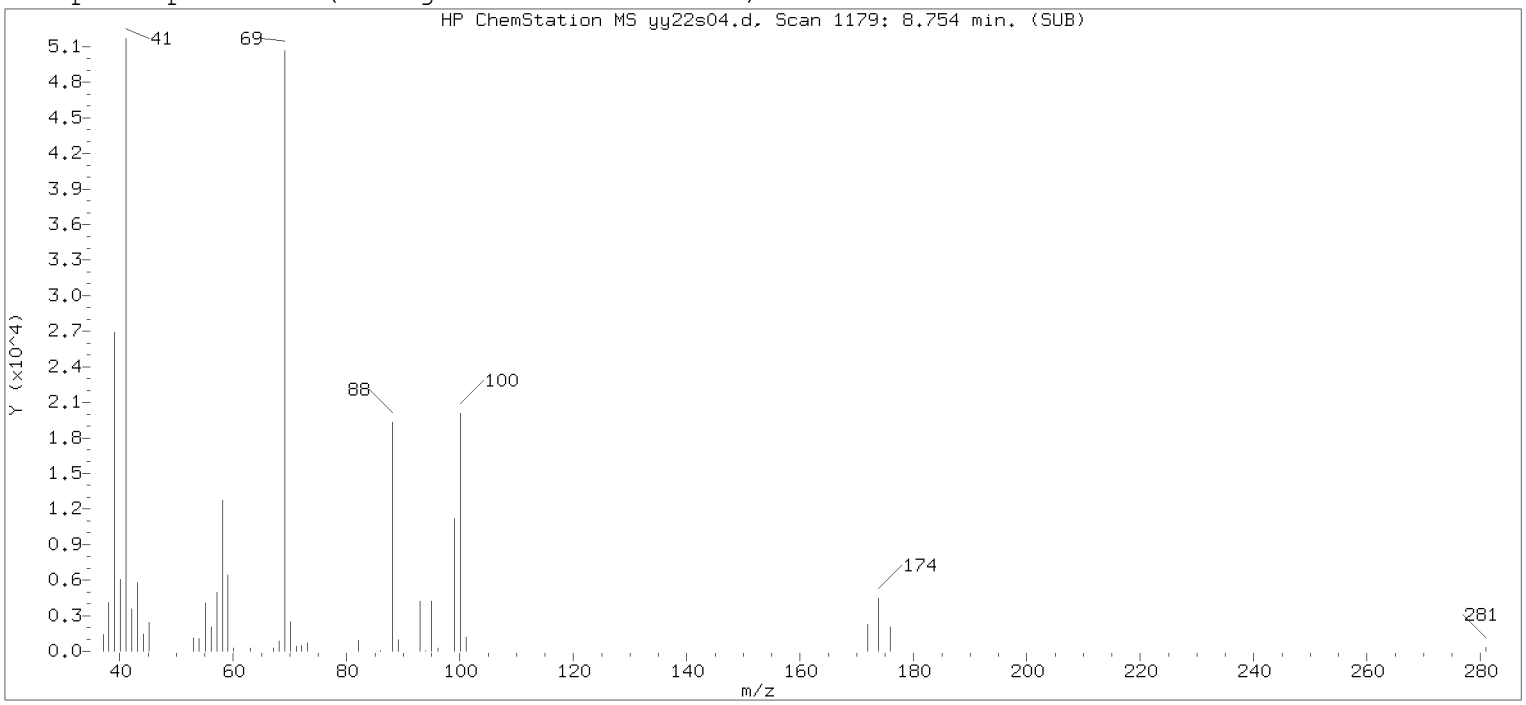
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 86475M
On-Column Amount (ng) : 483.8873
Integration start scan : 1172 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

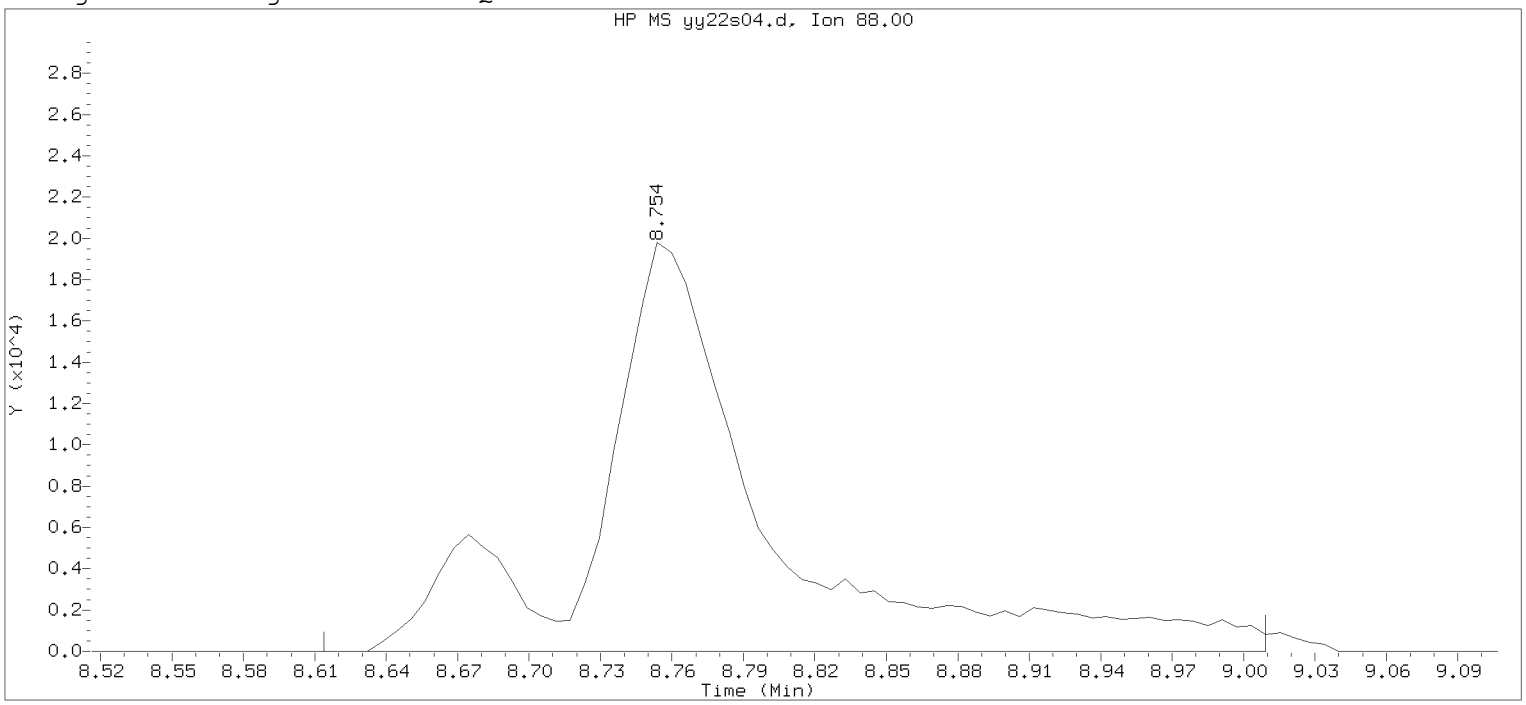
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s04.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:54 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 12:12 Automation

Sample Name: 58301MS Lab Sample ID: 1316311MS

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1179		
Retention Time (minutes)	: 8.754		
Quant Ion	: 88.00		
Area	: 99407		
On-column Amount (ng)	: 573.4027		
Integration start scan	: 1155	Integration stop scan:	1220
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user id: DVV10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

58301MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316312

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s05.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	150	
76-13-1	Freon 113	20	
75-15-0	Carbon Disulfide	20	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	20	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	22	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	21	
79-01-6	Trichloroethene	28	
123-91-1	1,4-Dioxane	480	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	22	
100-41-4	Ethylbenzene	20	
1330-20-7	Xylene (Total)	61	
95-50-1	1,2-Dichlorobenzene	19	
91-20-3	Naphthalene	18	

FORM I VOA

^

58301MSD Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316312MSD

Data file: /chem2/HP09355.i/20may22a.b/yy22s05.d Injection date and time: **22-MAY-2020 12:16**
Data file Sample Info. Line: 58301MSD;1316312MSD;1;3;MSD;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.362(0.000)	457	65	465698M (2)	250.00	
66) Fluorobenzene	7.860(0.006)	1032	96	1346251 (-4)	50.00	
100) Chlorobenzene-d5	11.297(0.006)	1597	117	1008567 (-5)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	542894 (-5)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.965(0.000)	113	299800	49.030	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.422(0.000)	102	81961	50.827	102%		80 - 120
83) Toluene-d8	(3)	9.855(0.000)	98	1287484	48.886	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.295(-0.001)	95	480860	48.188	96%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.360(0.001)	62	171910	21.339	21.34			0.2	1
17) 1,1-Dichloroethene	(2)	3.674(0.001)	96	147763	19.949	19.95			0.2	1
18) Acetone	(1)	3.686(0.002)	58	275958M	154.557	154.56			0.7	20
19) Freon 113	(2)	3.711(0.001)	101	133289	19.951	19.95			0.2	10
23) Carbon Disulfide	(2)	4.009(0.001)	76	474921	19.817	19.82			0.2	5
28) Methylene Chloride	(2)	4.362(0.001)	84	166359	20.968	20.97			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.787(0.001)	96	165395	20.345	20.34			0.2	1
36) 1,1-Dichloroethane	(2)	5.438(0.001)	63	288046	20.893	20.89			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.272(-0.000)	96	204264	22.280	22.28			0.2	1
44) 2-Butanone	(2)	6.217(0.000)	43	1171864	147.838	147.84			0.3	10
51) Chloroform	(2)	6.746(0.000)	83	273705	20.679	20.68			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.984(0.000)	97	254085	22.394	22.39			0.3	1
60) Benzene	(2)	7.458(0.000)	78	678032	20.269	20.27			0.2	1
61) 1,2-Dichloroethane	(2)	7.525(0.000)	62	220888	20.583	20.58			0.3	1
71) Trichloroethene	(2)	8.340(-0.000)	95	233335	28.152	28.15			0.2	1
75) 1,4-Dioxane	(1)	8.754(0.001)	88	90797M	483.260	483.26			29	250
88) Toluene	(3)	9.934(-0.000)	92	433721	20.504	20.50			0.2	1
93) Tetrachloroethene	(3)	10.482(-0.000)	166	186439	21.598	21.60			0.2	1
104) Ethylbenzene	(3)	11.412(-0.000)	91	822011	20.369	20.37			0.4	1
106) m+p-Xylene	(3)	11.522(-0.000)	106	659055	41.382	41.38			1	5
107) o-Xylene	(3)	11.850(-0.000)	106	313928	20.046	20.05			0.4	1
108) Xylene (Total)	(3)		106	972983	61.429	61.43			1	6
138) 1,2-Dichlorobenzene	(4)	13.450(0.000)	146	374104	19.416	19.42			0.2	5
148) Naphthalene	(4)	14.728(0.000)	128	890420	18.059	18.06			1	5

M = Compound was manually integrated.

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Data file: /chem2/HP09355.i/20may22a.b/yy22s05.d Injection date and time: **22-MAY-2020 12:16**
Data file Sample Info. Line: 58301MSD;1316312MSD;1;3;MSD;JCW54;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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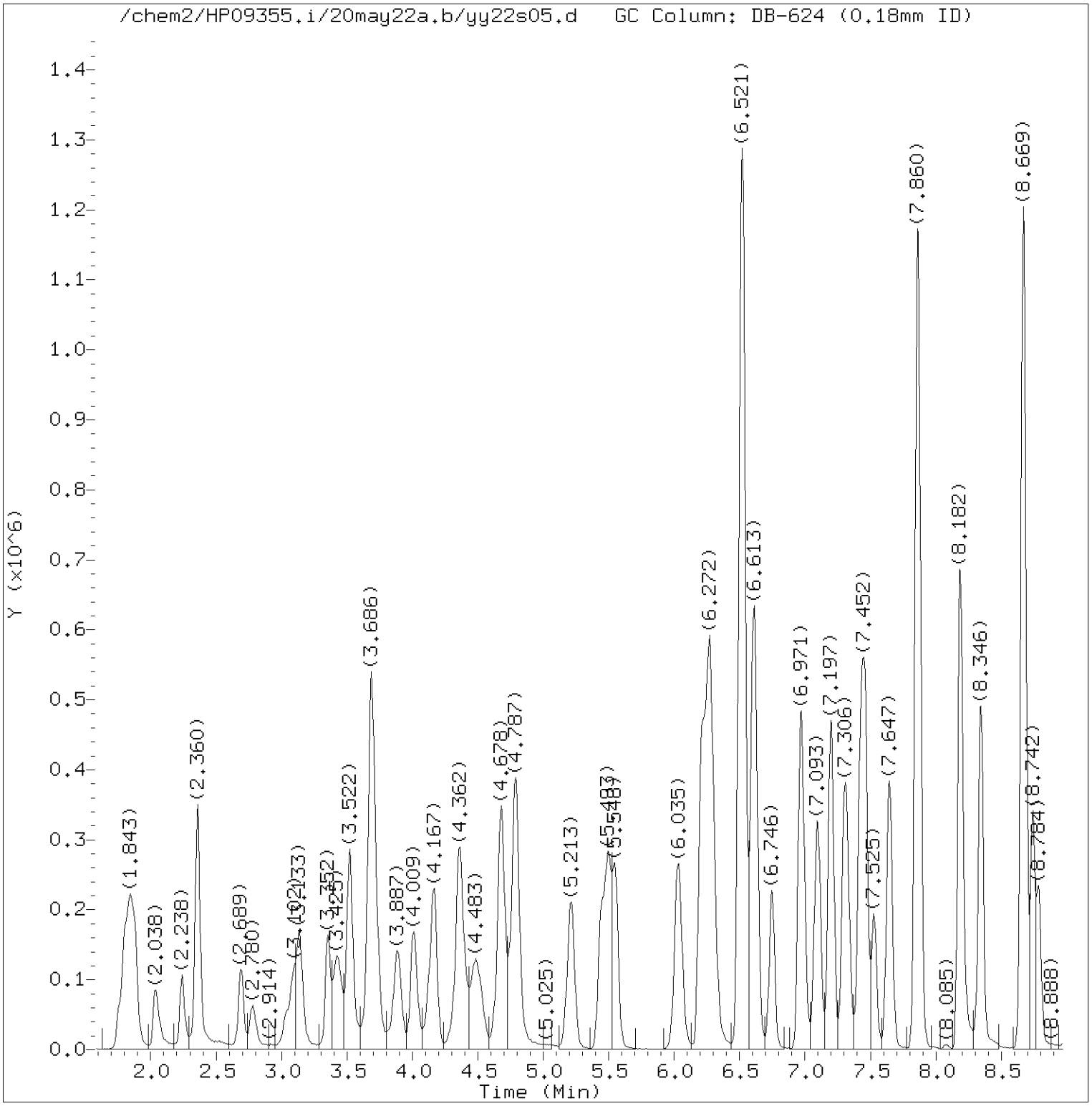
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

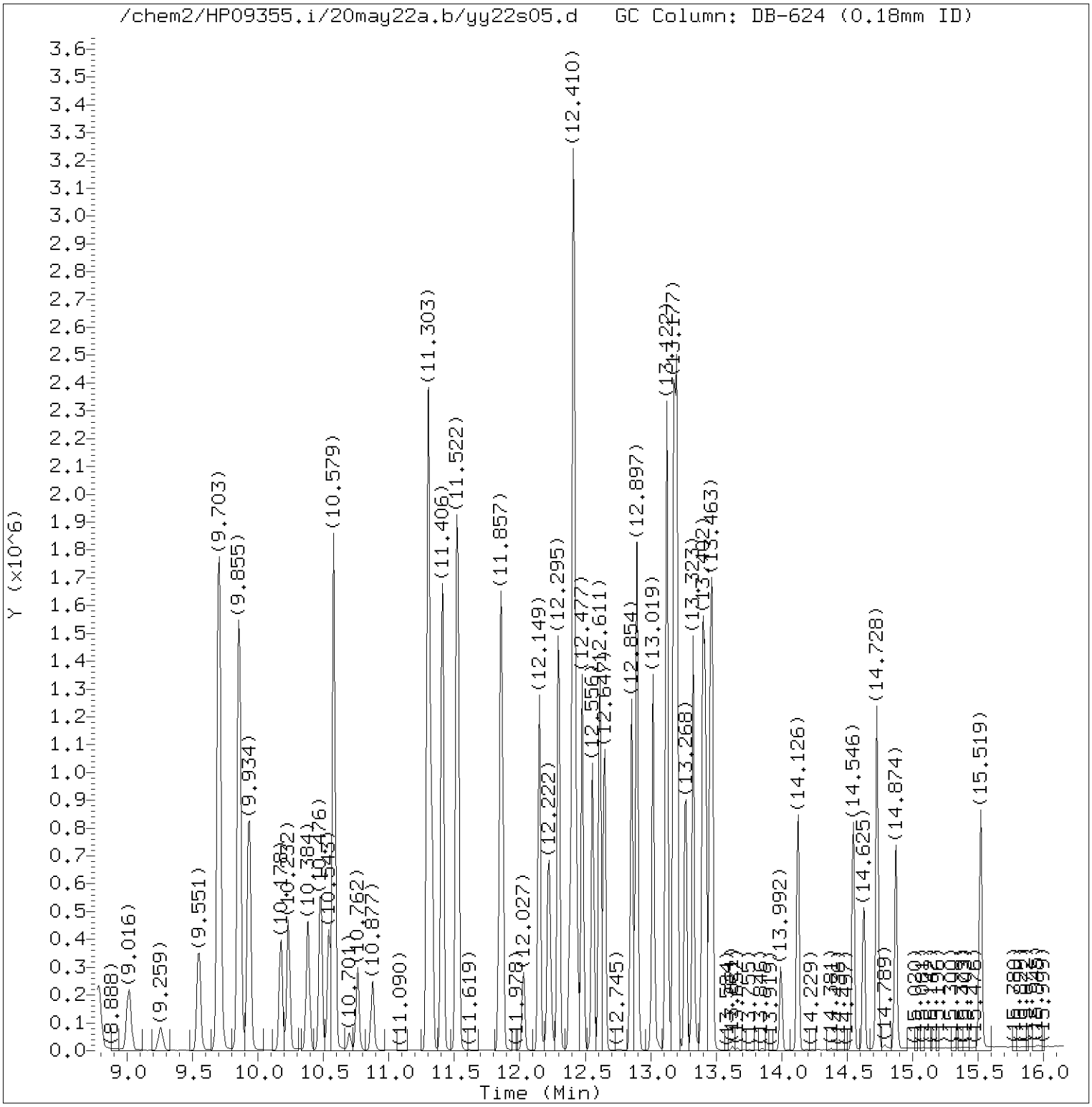
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

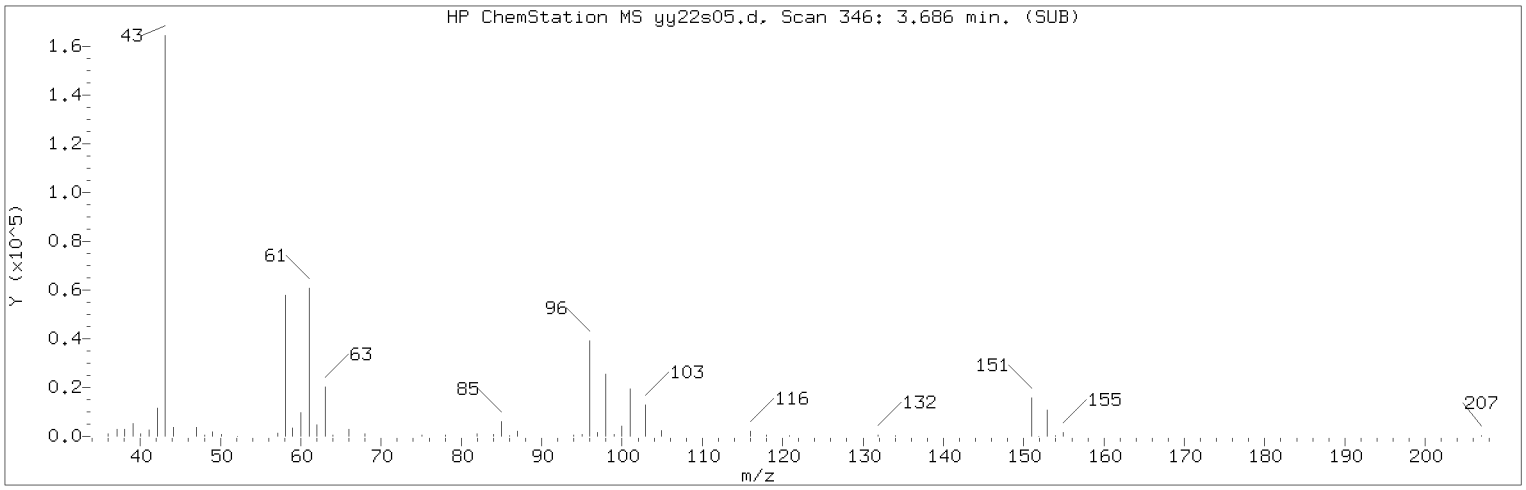
Sample Name: 58301MSD Lab Sample ID: 1316312MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.360	62	171910	21.339
17) 1,1-Dichloroethene	(2)	3.674	96	147763	19.949
18) Acetone	(1)	3.686	58	275958M	154.557
19) Freon 113	(2)	3.711	101	133289	19.951
23) Carbon Disulfide	(2)	4.009	76	474921	19.817
28) Methylene Chloride	(2)	4.362	84	166359	20.968
29)*t-Butyl alcohol-d10	(1)	4.362	65	465698M	250.000
32) trans-1,2-Dichloroethene	(2)	4.787	96	165395	20.345
36) 1,1-Dichloroethane	(2)	5.438	63	288046	20.893
44) 2-Butanone	(2)	6.217	43	1171864	147.838
42) cis-1,2-Dichloroethene	(2)	6.272	96	204264	22.280
51) Chloroform	(2)	6.746	83	273705	20.679
52)$Dibromofluoromethane	(2)	6.965	113	299800	49.030
53) 1,1,1-Trichloroethane	(2)	6.984	97	254085	22.394
57)$1,2-Dichloroethane-d4	(2)	7.422	102	81961	50.827
60) Benzene	(2)	7.458	78	678032	20.269
61) 1,2-Dichloroethane	(2)	7.525	62	220888	20.583
66)*Fluorobenzene	(2)	7.860	96	1346251	50.000
71) Trichloroethene	(2)	8.340	95	233335	28.152
75) 1,4-Dioxane	(1)	8.754	88	90797M	483.260
83)$Toluene-d8	(3)	9.855	98	1287484	48.886
88) Toluene	(3)	9.934	92	433721	20.504
93) Tetrachloroethene	(3)	10.482	166	186439	21.598
100)*Chlorobenzene-d5	(3)	11.297	117	1008567	50.000
104) Ethylbenzene	(3)	11.412	91	822011	20.369
106) m+p-Xylene	(3)	11.522	106	659055	41.382
108) Xylene (Total)	(3)		106	972983	61.429
107) o-Xylene	(3)	11.850	106	313928	20.046
114)$4-Bromofluorobenzene	(3)	12.295	95	480860	48.188
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	542894	50.000
138) 1,2-Dichlorobenzene	(4)	13.450	146	374104	19.416
148) Naphthalene	(4)	14.728	128	890420	18.059

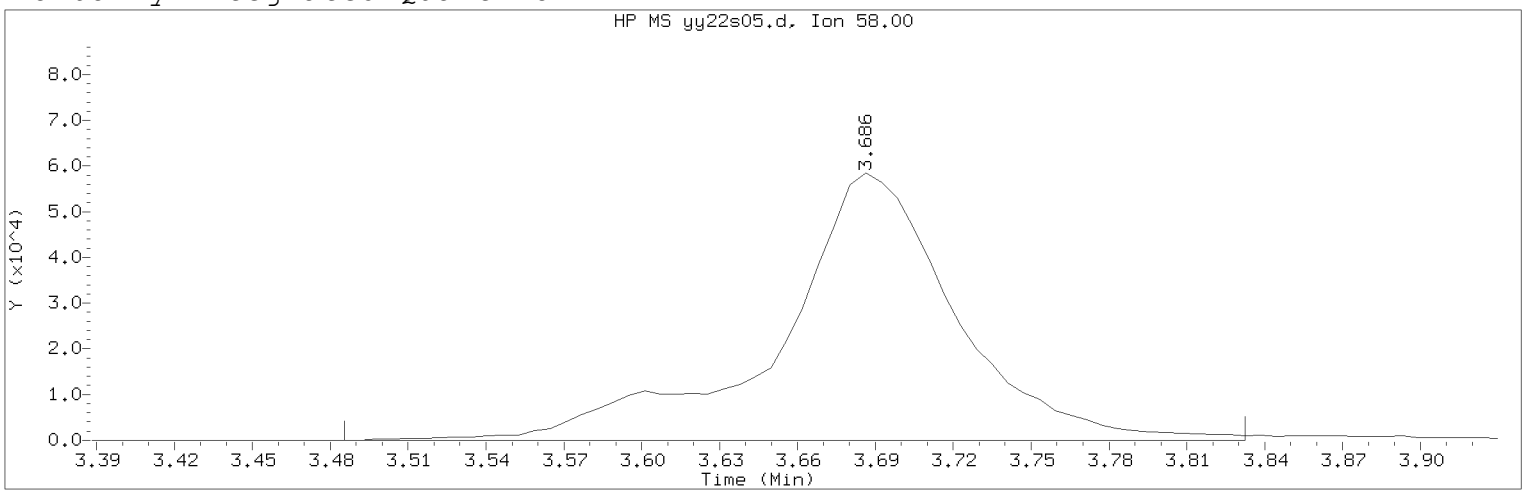
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

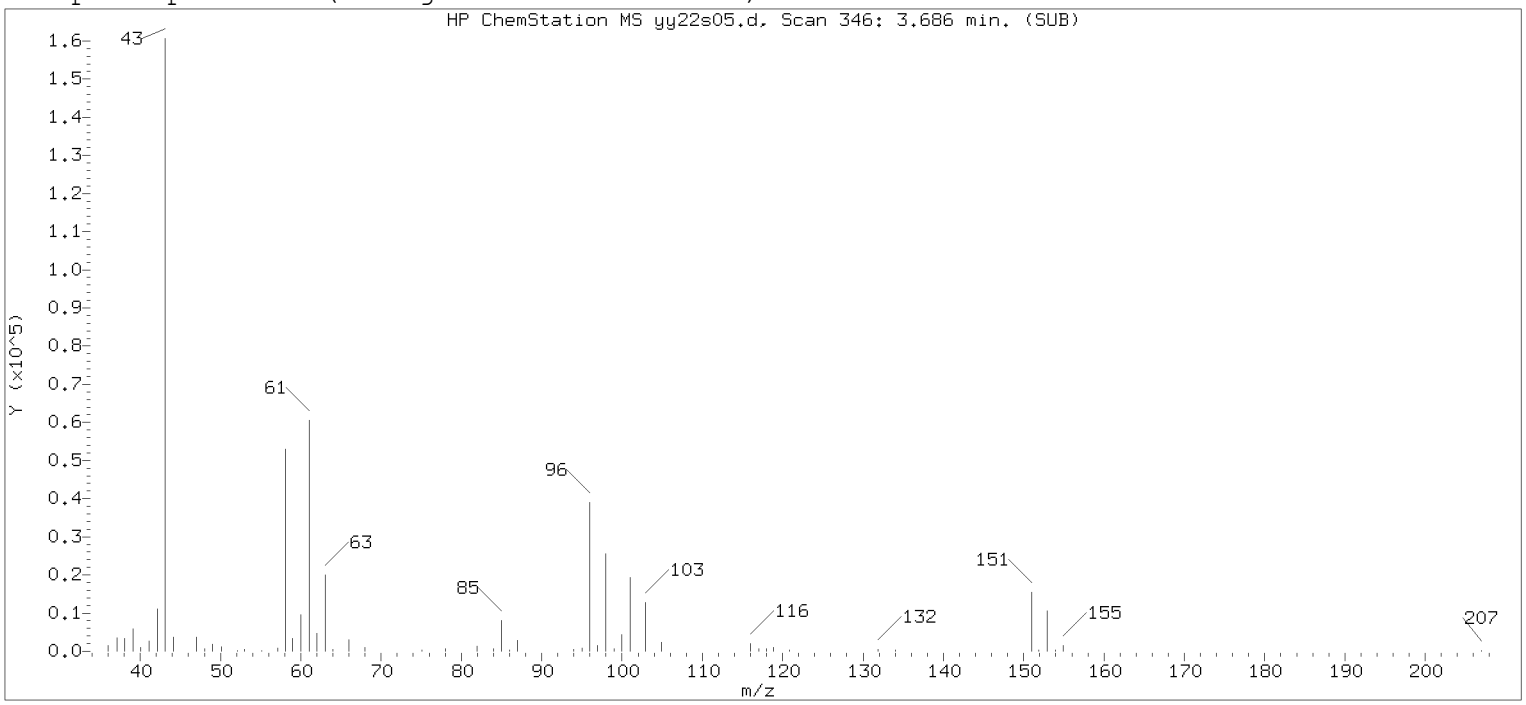
Compound Number : 18
Compound Name : Acetone
Scan Number : 346
Retention Time (minutes): 3.686
Quant Ion : 58.00
Area (flag) : 275958M
On-Column Amount (ng) : 154.5566
Integration start scan : 312 Integration stop scan: 369
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

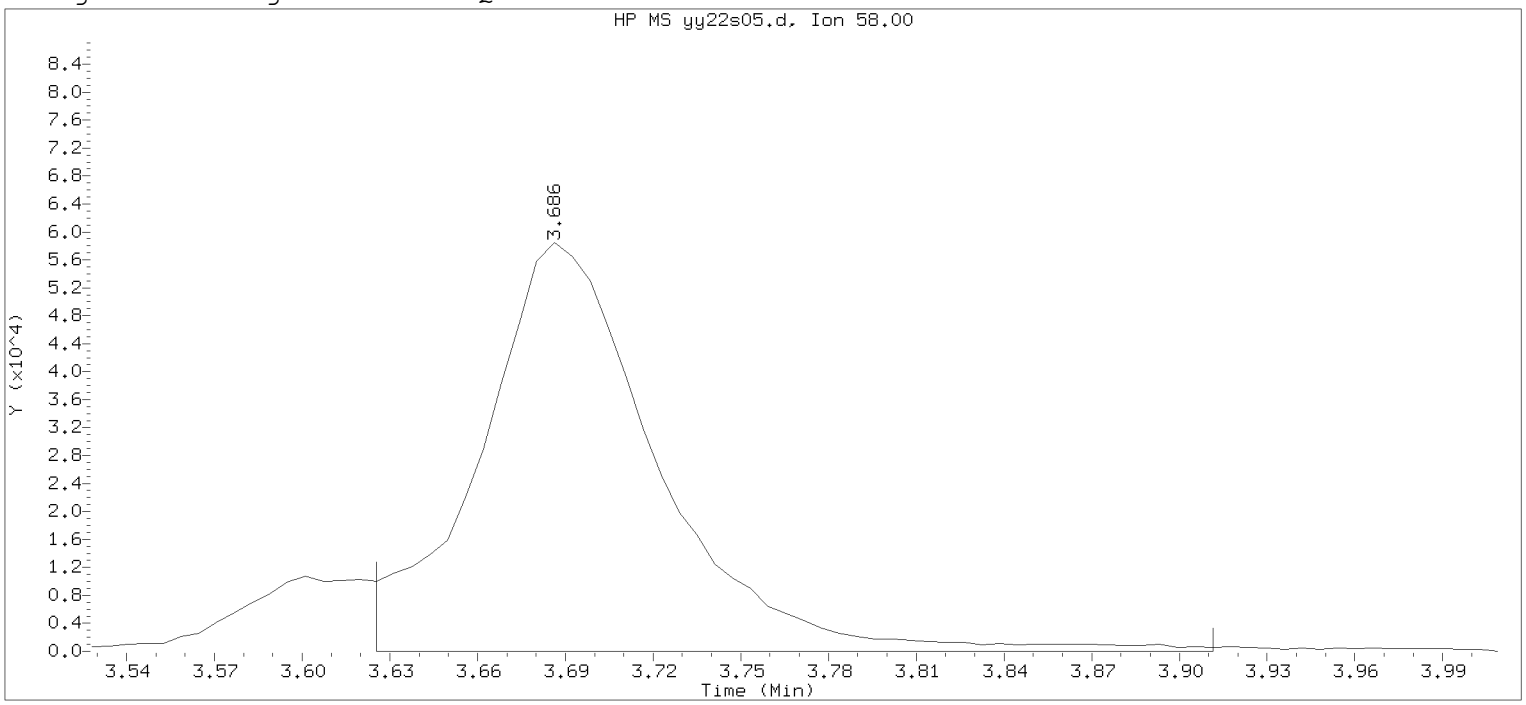
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

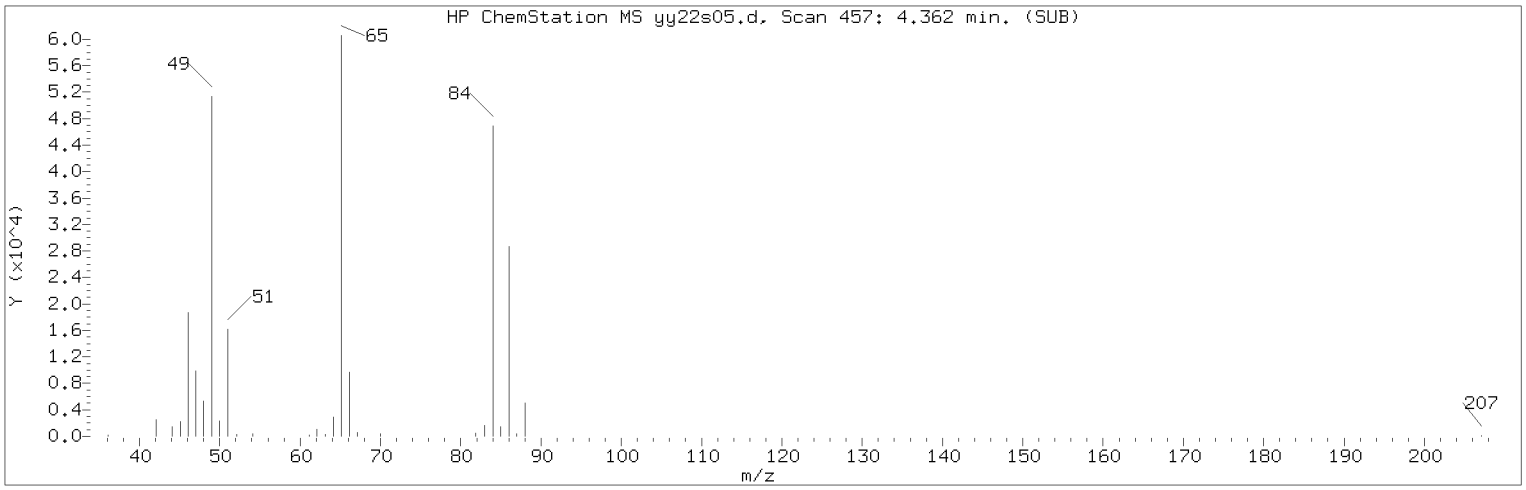
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 12:33 Automation

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

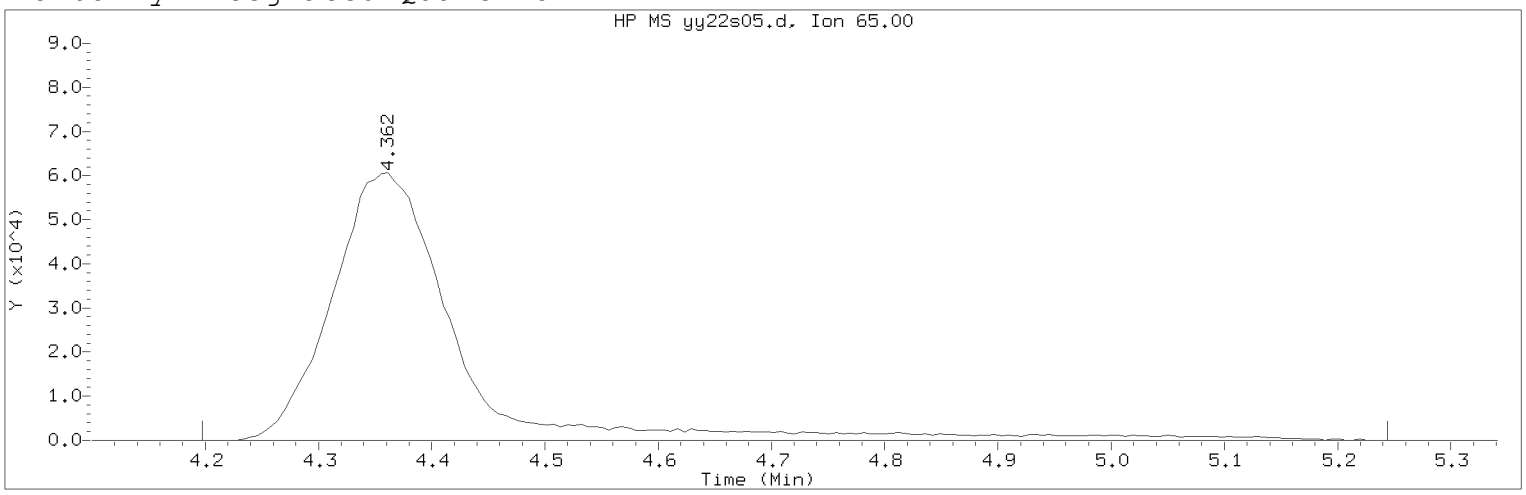
Compound Number : 18
Compound Name : Acetone
Scan Number : 346
Retention Time (minutes): 3.686
Quant Ion : 58.00
Area : 246304
On-column Amount (ng) : 151.8296
Integration start scan : 335 Integration stop scan: 382
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user id: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

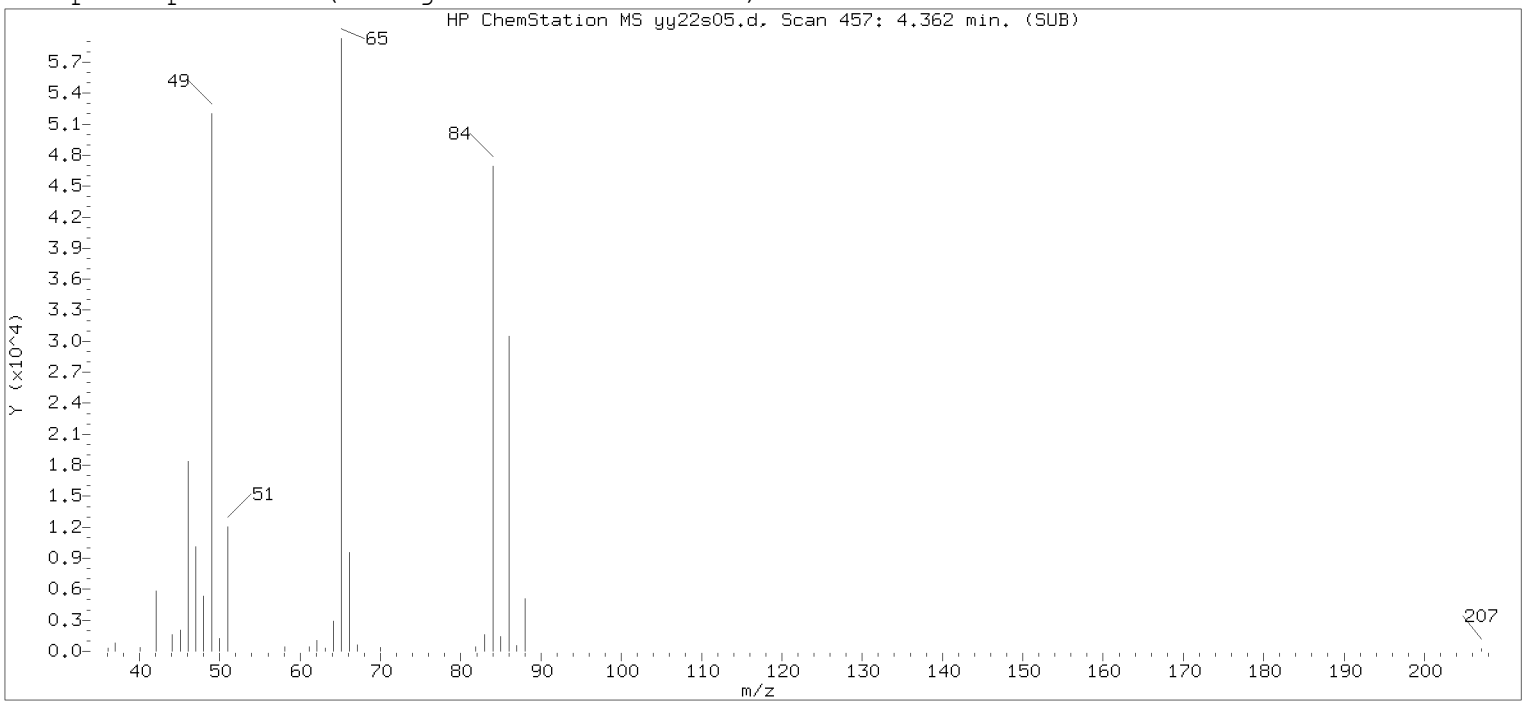
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.362
Quant Ion : 65.00
Area (flag) : 465698M
On-Column Amount (ng) : 250.0000
Integration start scan : 429 Integration stop scan: 601
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

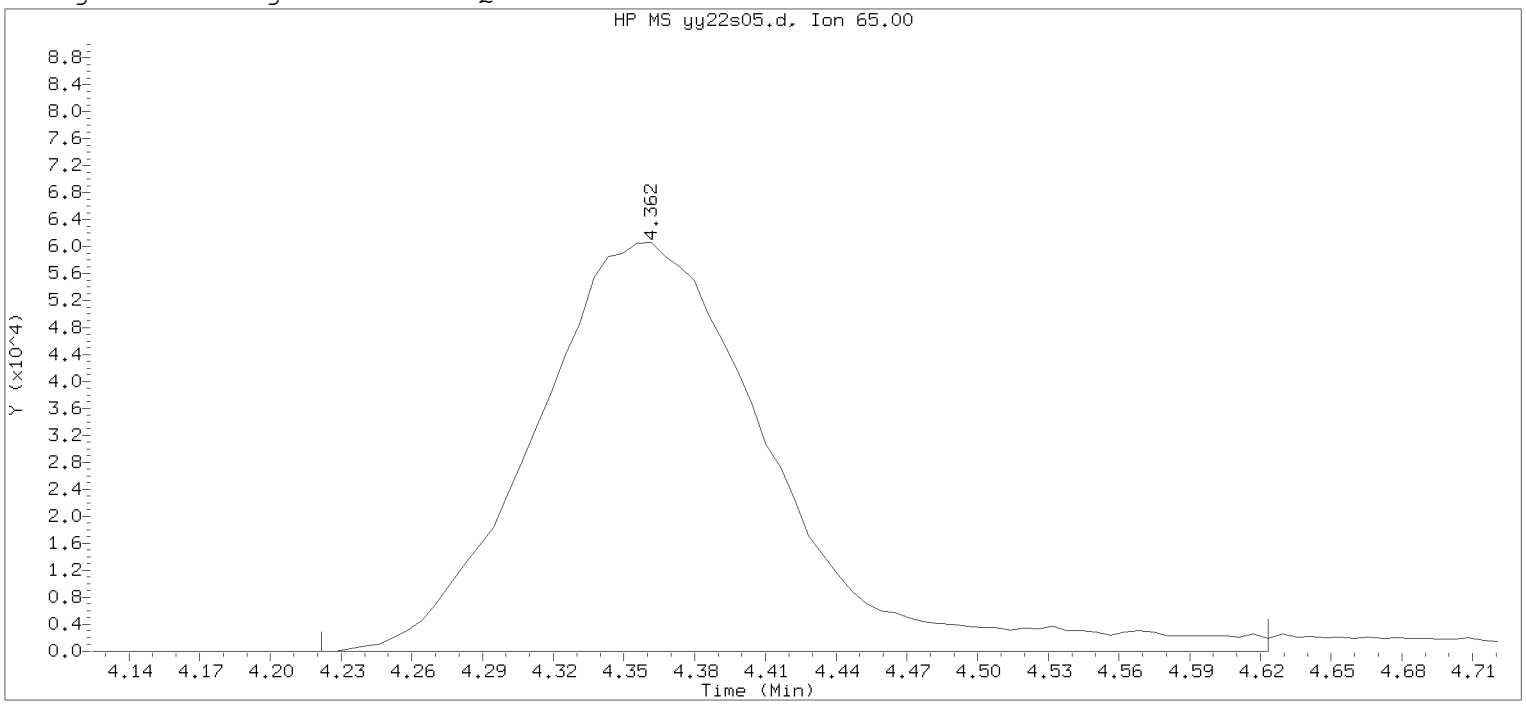
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

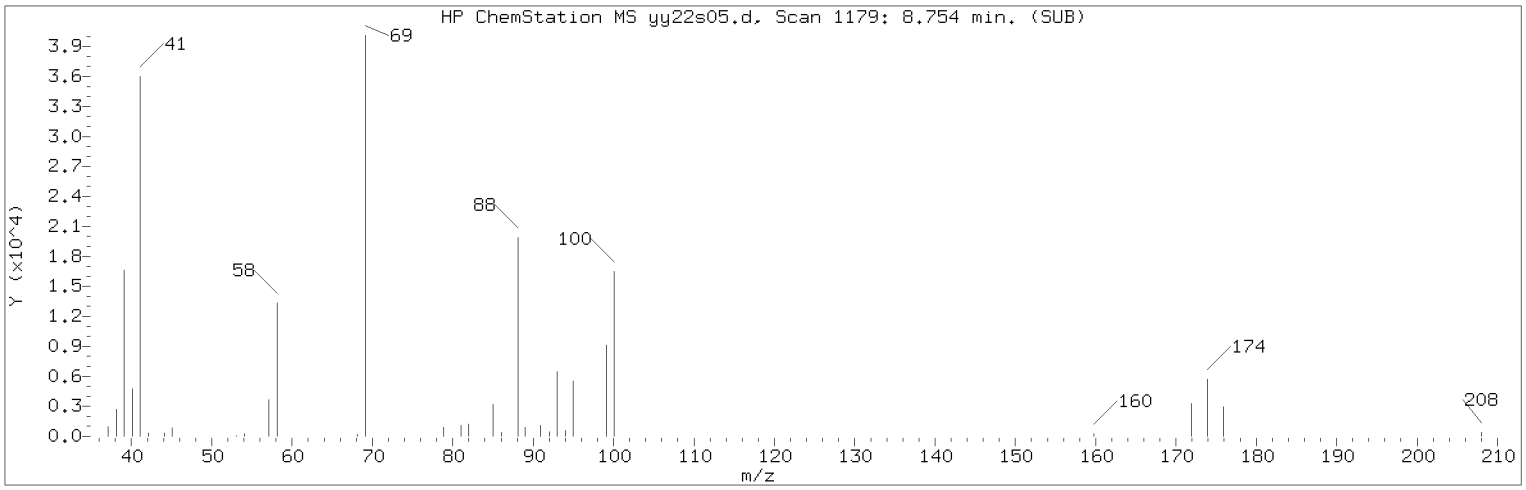
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 12:33 Automation

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

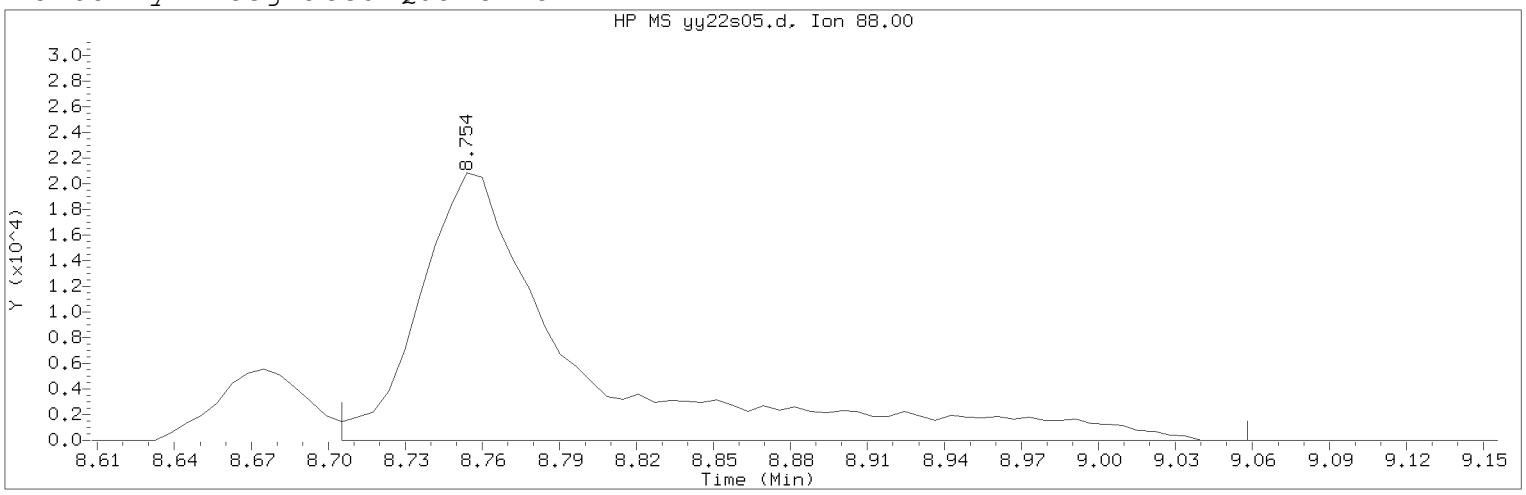
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.362
Quant Ion : 65.00
Area : 423120
On-column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 499
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user id: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 13:47 dvv10203

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

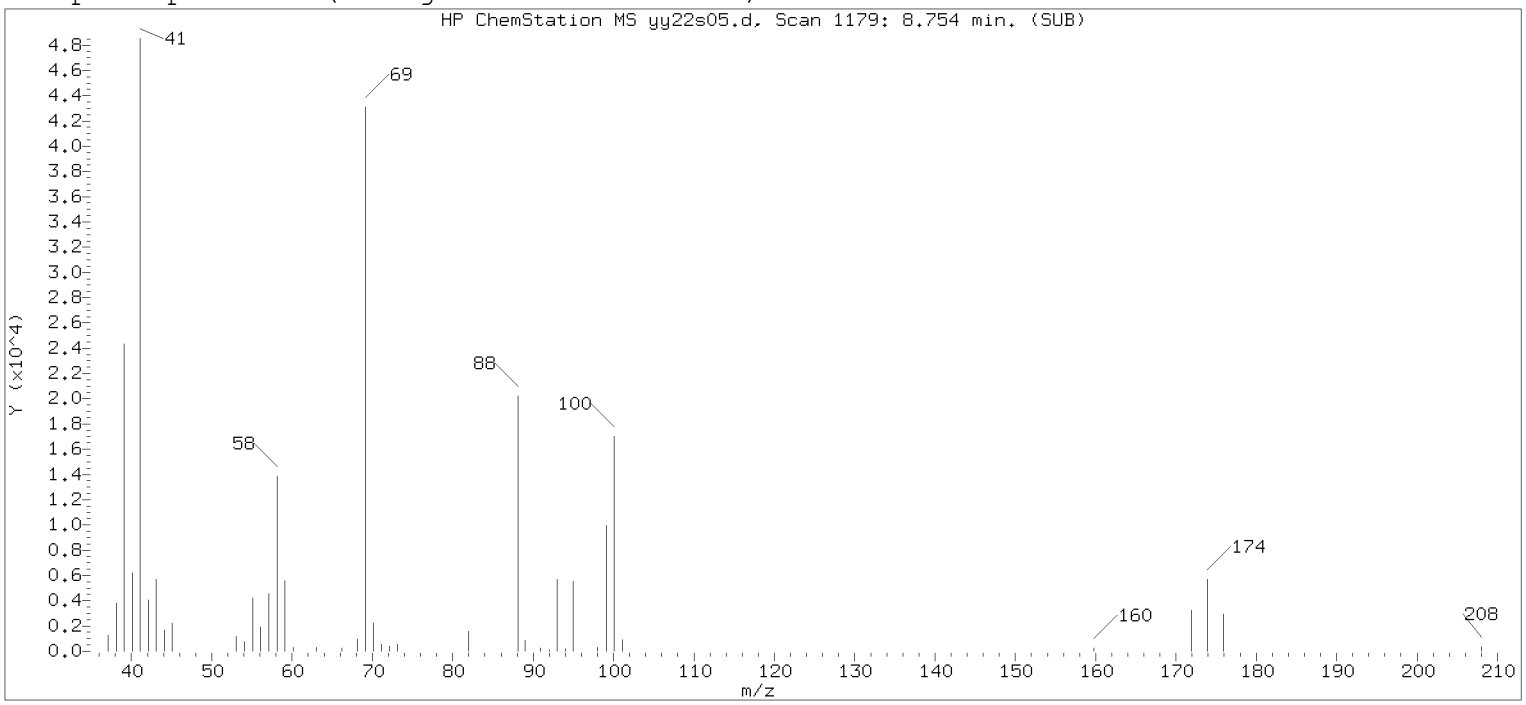
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 90797M
On-Column Amount (ng) : 483.2597
Integration start scan : 1170 Integration stop scan: 1228
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

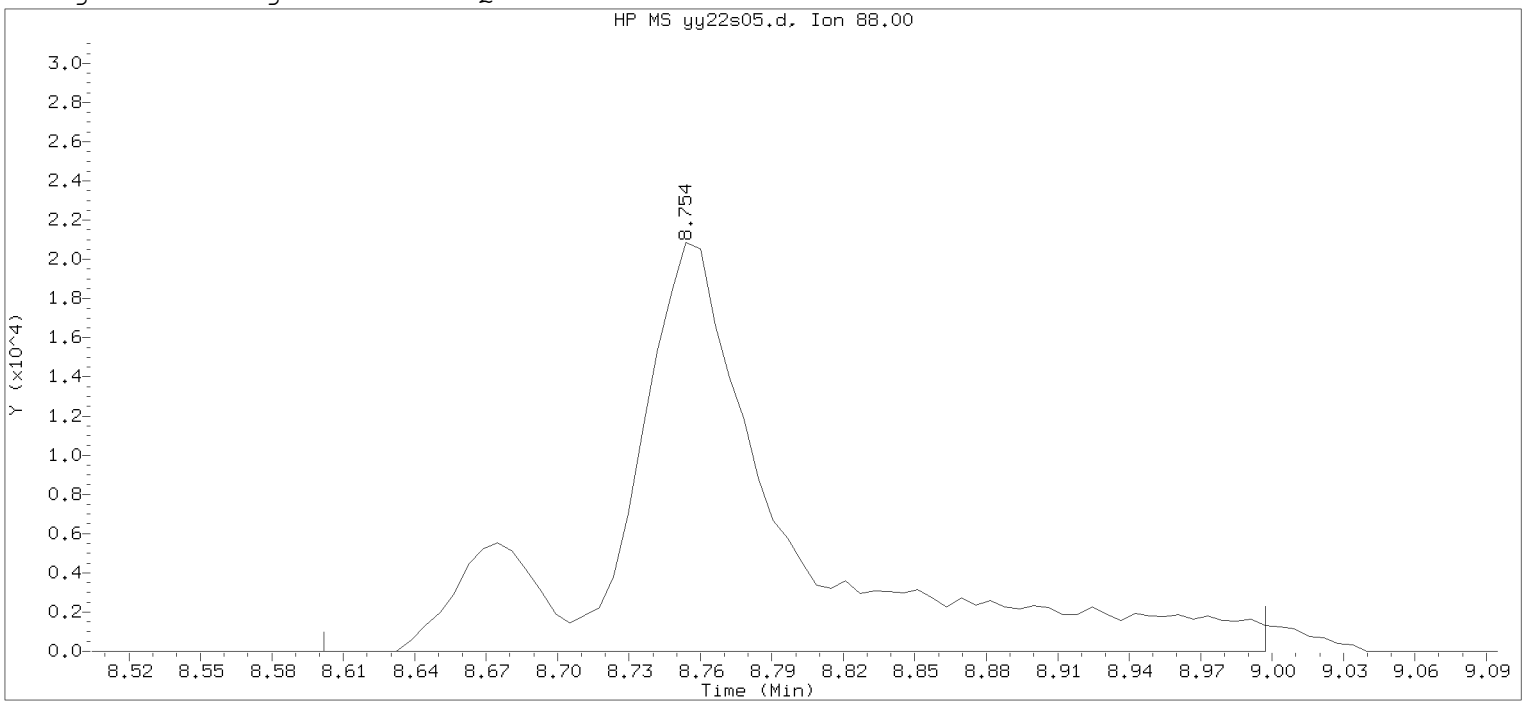
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s05.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 12:16 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 12:33 Automation

Sample Name: 58301MSD Lab Sample ID: 1316312MSD

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1179		
Retention Time (minutes)	: 8.754		
Quant Ion	: 88.00		
Area	: 102078		
On-column Amount (ng)	: 597.9698		
Integration start scan	: 1153	Integration stop scan:	1218
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: DVV10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY94

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY94

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	19	
75-35-4	1,1-Dichloroethene	18	
67-64-1	Acetone	140	
76-13-1	Freon 113	17	
75-15-0	Carbon Disulfide	18	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	19	
75-34-3	1,1-Dichloroethane	19	
156-59-2	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	20	
123-91-1	1,4-Dioxane	490	
108-88-3	Toluene	20	
127-18-4	Tetrachloroethene	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	60	
95-50-1	1,2-Dichlorobenzene	20	
91-20-3	Naphthalene	19	

FORM I VOA

^

Data file: /chem2/HP09355.i/20may22a.b/yy22s01.d Injection date and time: **22-MAY-2020 10:04**
Data file Sample Info. Line: LCSY94;LCSY94;1;3;LCS;;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.374(-0.012)	459	65	467977M (2)	250.00	
66) Fluorobenzene	7.866(0.000)	1033	96	1390983 (-1)	50.00	
100) Chlorobenzene-d5	11.303(0.000)	1598	117	1043777 (-2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	560618 (-2)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971(0.000)	113	310319	49.118	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428(0.000)	102	84051	50.447	101%		80 - 120
83) Toluene-d8	(3)	9.861(0.000)	98	1337227	49.062	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294(0.000)	95	497134	48.138	96%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.372(-0.000)	62	160774	19.315	19.32			0.2	1
17) 1,1-Dichloroethene	(2)	3.686(0.000)	96	137816	18.008	18.01			0.2	1
18) Acetone	(1)	3.698(0.002)	58	249815	139.233	139.23			0.7	20
19) Freon 113	(2)	3.717(0.001)	101	119605	17.327	17.33			0.2	10
23) Carbon Disulfide	(2)	4.021(-0.000)	76	453742	18.325	18.32			0.2	5
28) Methylene Chloride	(2)	4.368(0.000)	84	164907	20.116	20.12			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.806(-0.000)	96	160191	19.071	19.07			0.2	1
36) 1,1-Dichloroethane	(2)	5.450(-0.000)	63	275784	19.360	19.36			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.272(-0.000)	96	190817	20.144	20.14			0.2	1
44) 2-Butanone	(2)	6.223(0.000)	43	1194922	145.899	145.90			0.3	10
51) Chloroform	(2)	6.758(-0.000)	83	271309	19.838	19.84			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.990(0.000)	97	227473	19.404	19.40			0.3	1
60) Benzene	(2)	7.464(-0.000)	78	666094	19.272	19.27			0.2	1
61) 1,2-Dichloroethane	(2)	7.531(-0.000)	62	220777	19.911	19.91			0.3	1
71) Trichloroethene	(2)	8.346(0.000)	95	168811	19.713	19.71			0.2	1
75) 1,4-Dioxane	(1)	8.754(0.006)	88	92162M	488.132	488.13			29	250
88) Toluene	(3)	9.934(-0.000)	92	428060	19.553	19.55			0.2	1
93) Tetrachloroethene	(3)	10.482(-0.000)	166	175218	19.613	19.61			0.2	1
104) Ethylbenzene	(3)	11.412(0.000)	91	814952	19.513	19.51			0.4	1
106) m+p-Xylene	(3)	11.522(0.000)	106	660489	40.073	40.07			1	5
107) o-Xylene	(3)	11.850(0.000)	106	317838	19.611	19.61			0.4	1
108) Xylene (Total)	(3)		106	978327	59.685	59.68			1	6
138) 1,2-Dichlorobenzene	(4)	13.450(-0.000)	146	394027	19.804	19.80			0.2	5
148) Naphthalene	(4)	14.728(0.000)	128	977712	19.203	19.20			1	5

M = Compound was manually integrated.

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s01.d Injection date and time: **22-MAY-2020 10:04**
Data file Sample Info. Line: LCSY94;LCSY94;1;3;LCS;;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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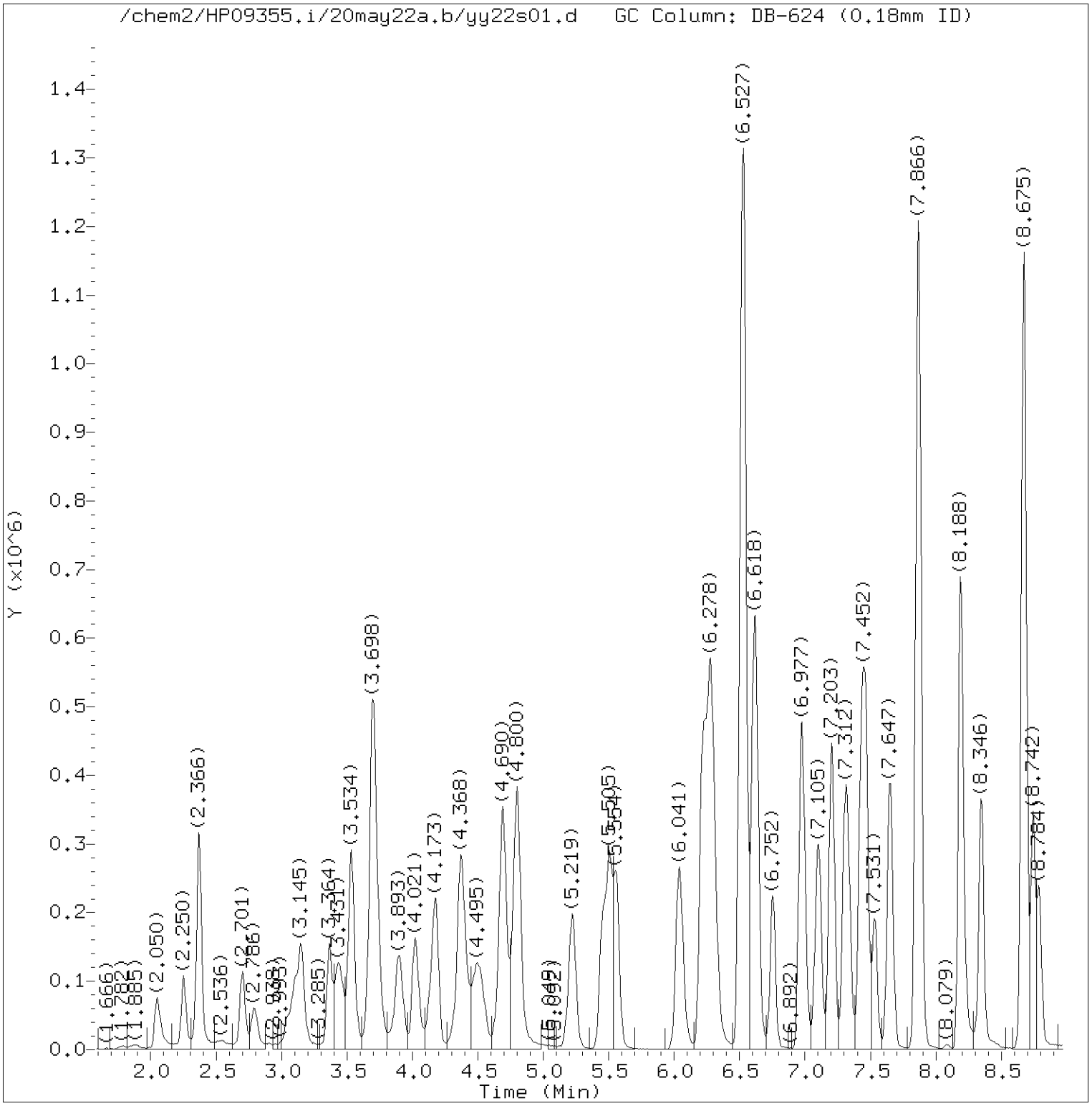
Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

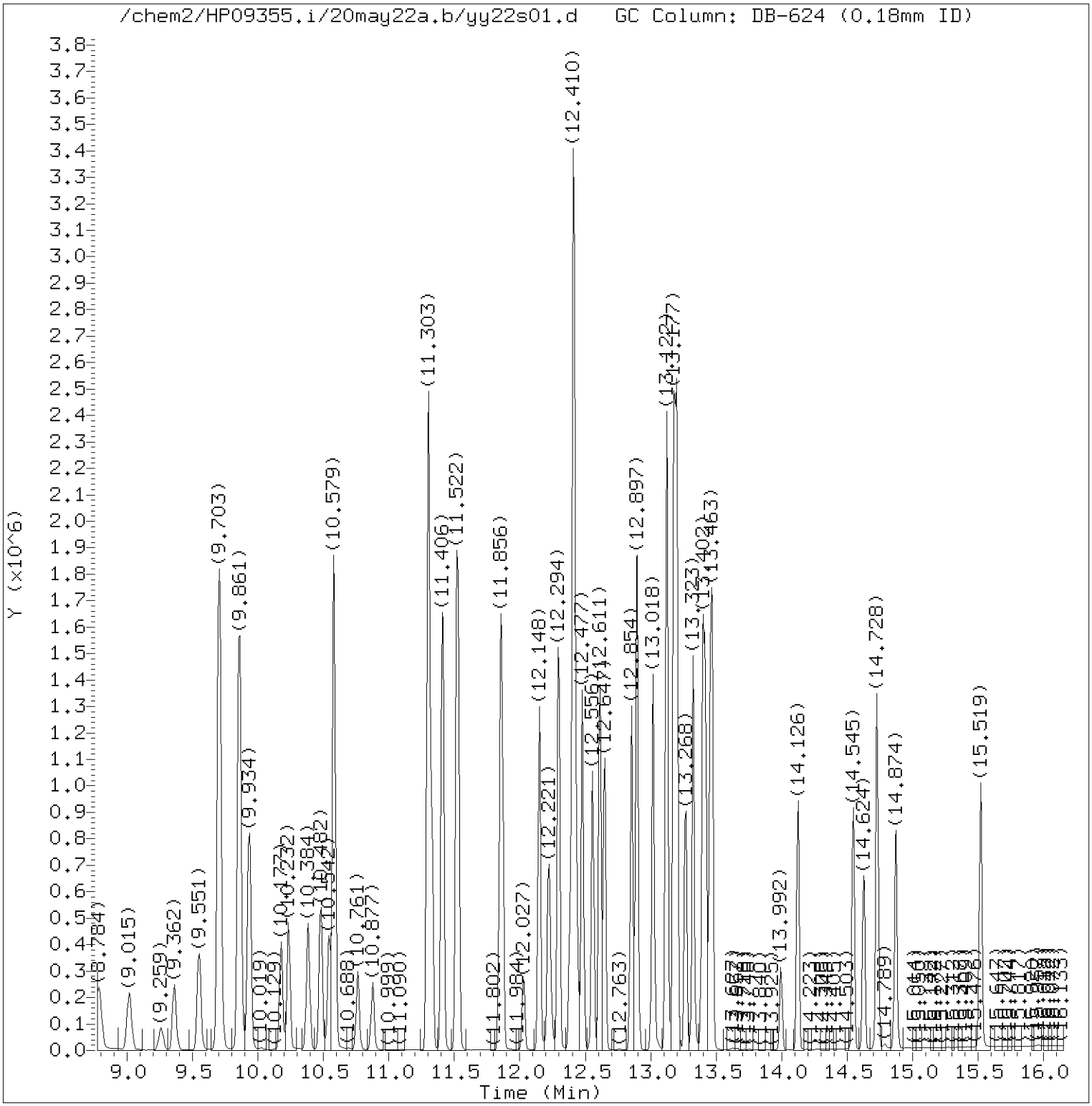
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

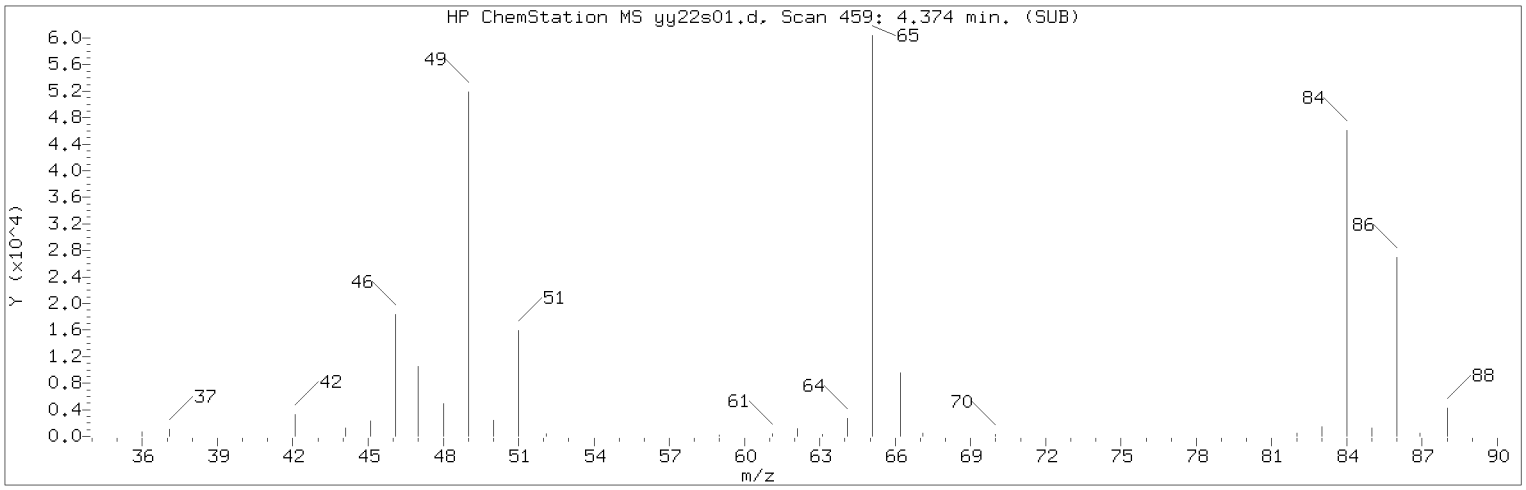
Sample Name: LCSY94 Lab Sample ID: LCSY94

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.372	62	160774	19.315
17) 1,1-Dichloroethene	(2)	3.686	96	137816	18.008
18) Acetone	(1)	3.698	58	249815	139.233
19) Freon 113	(2)	3.717	101	119605	17.327
23) Carbon Disulfide	(2)	4.021	76	453742	18.325
28) Methylene Chloride	(2)	4.368	84	164907	20.116
29)*t-Butyl alcohol-d10	(1)	4.374	65	467977M	250.000
32) trans-1,2-Dichloroethene	(2)	4.806	96	160191	19.071
36) 1,1-Dichloroethane	(2)	5.450	63	275784	19.360
44) 2-Butanone	(2)	6.223	43	1194922	145.899
42) cis-1,2-Dichloroethene	(2)	6.272	96	190817	20.144
51) Chloroform	(2)	6.758	83	271309	19.838
52)$Dibromofluoromethane	(2)	6.971	113	310319	49.118
53) 1,1,1-Trichloroethane	(2)	6.990	97	227473	19.404
57)$1,2-Dichloroethane-d4	(2)	7.428	102	84051	50.447
60) Benzene	(2)	7.464	78	666094	19.272
61) 1,2-Dichloroethane	(2)	7.531	62	220777	19.911
66)*Fluorobenzene	(2)	7.866	96	1390983	50.000
71) Trichloroethene	(2)	8.346	95	168811	19.713
75) 1,4-Dioxane	(1)	8.754	88	92162M	488.132
83)$Toluene-d8	(3)	9.861	98	1337227	49.062
88) Toluene	(3)	9.934	92	428060	19.553
93) Tetrachloroethene	(3)	10.482	166	175218	19.613
100)*Chlorobenzene-d5	(3)	11.303	117	1043777	50.000
104) Ethylbenzene	(3)	11.412	91	814952	19.513
106) m+p-Xylene	(3)	11.522	106	660489	40.073
108) Xylene (Total)	(3)		106	978327	59.685
107) o-Xylene	(3)	11.850	106	317838	19.611
114)$4-Bromofluorobenzene	(3)	12.294	95	497134	48.138
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	560618	50.000
138) 1,2-Dichlorobenzene	(4)	13.450	146	394027	19.804
148) Naphthalene	(4)	14.728	128	977712	19.203

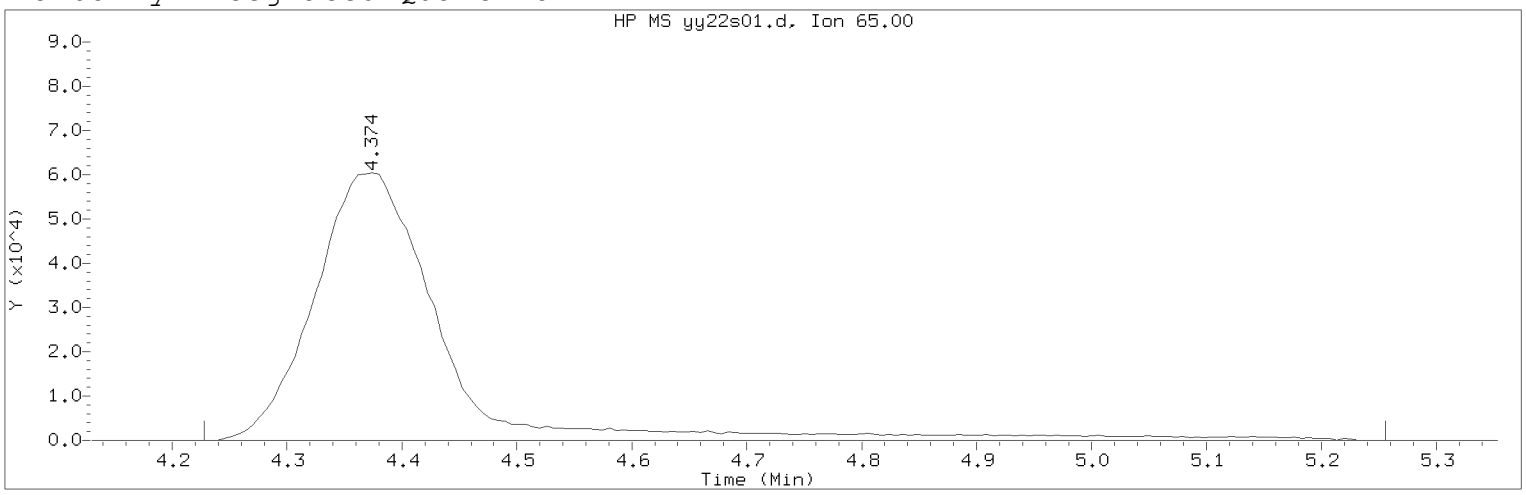
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

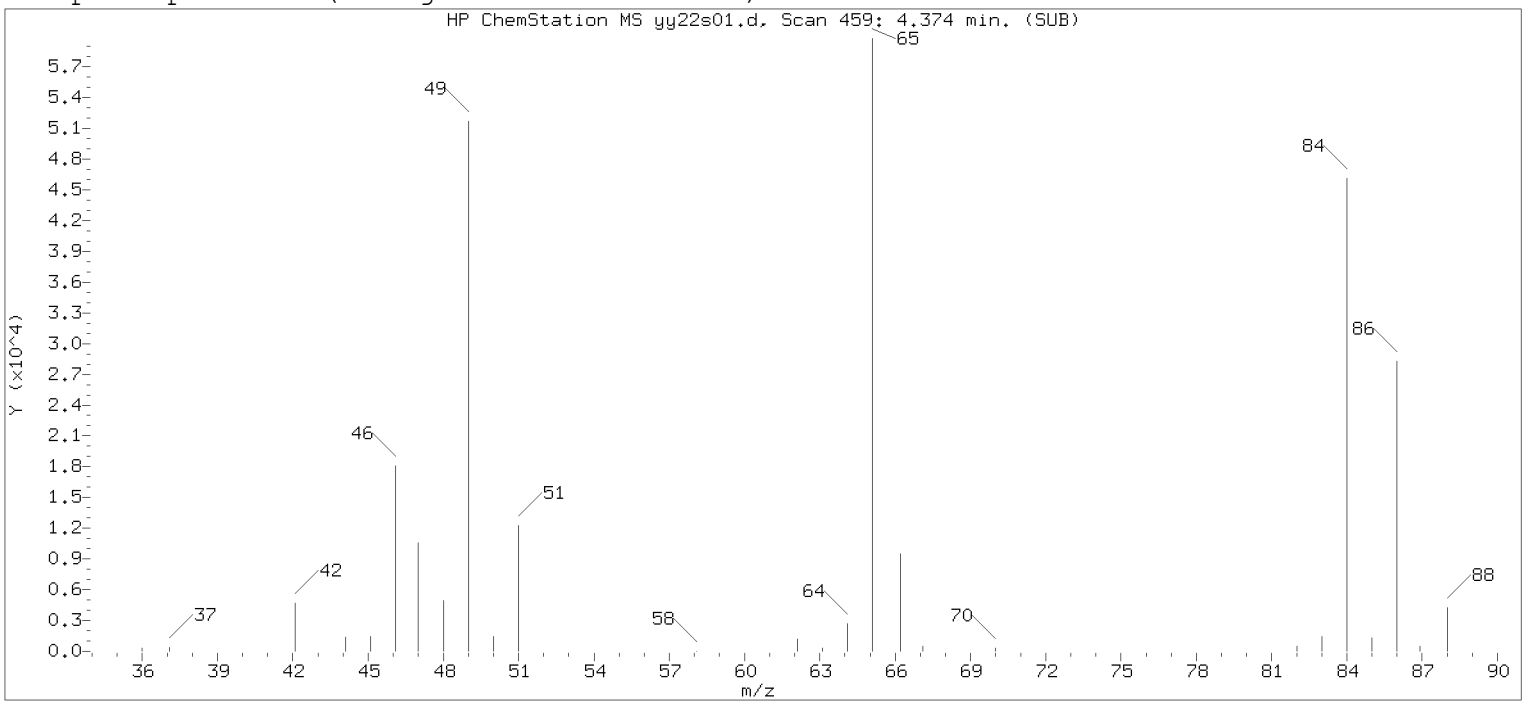
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 459
Retention Time (minutes): 4.374
Quant Ion : 65.00
Area (flag) : 467977M
On-Column Amount (ng) : 250.0000
Integration start scan : 434 Integration stop scan: 603
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

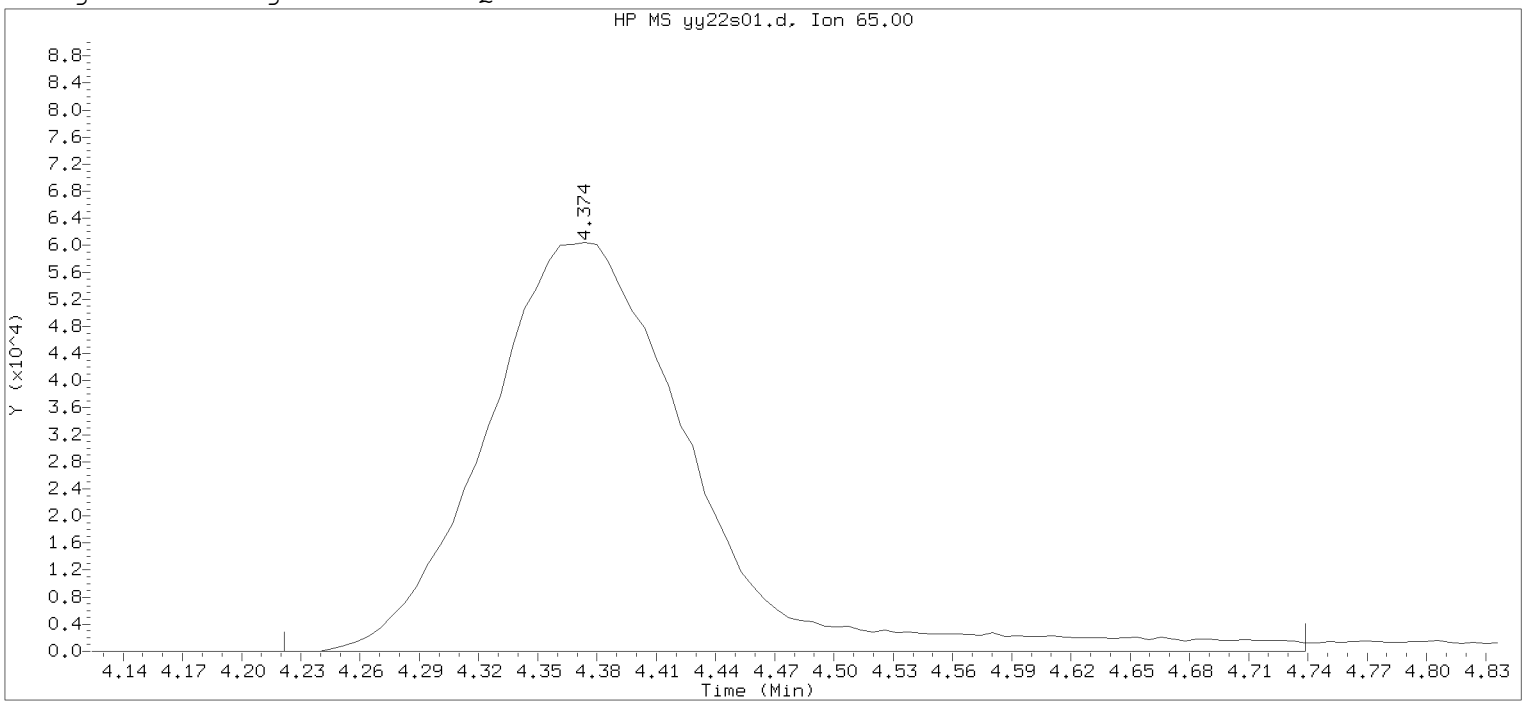
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

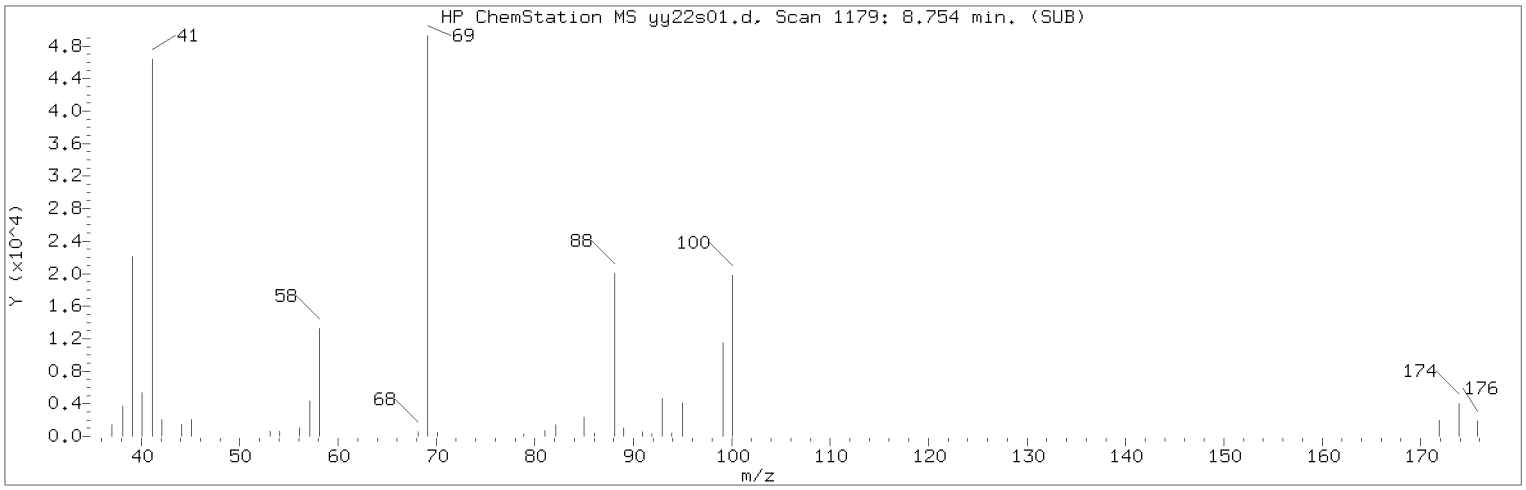
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:21 Automation

Sample Name: LCSY94 Lab Sample ID: LCSY94

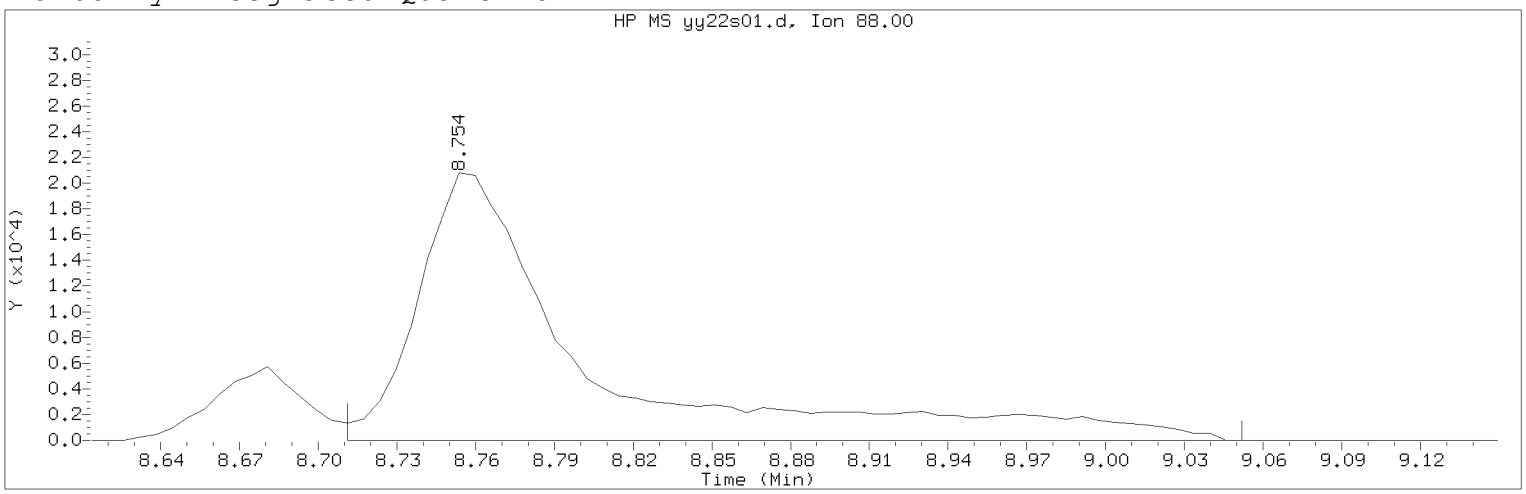
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 459
Retention Time (minutes): 4.374
Quant Ion : 65.00
Area : 439293
On-column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 518
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

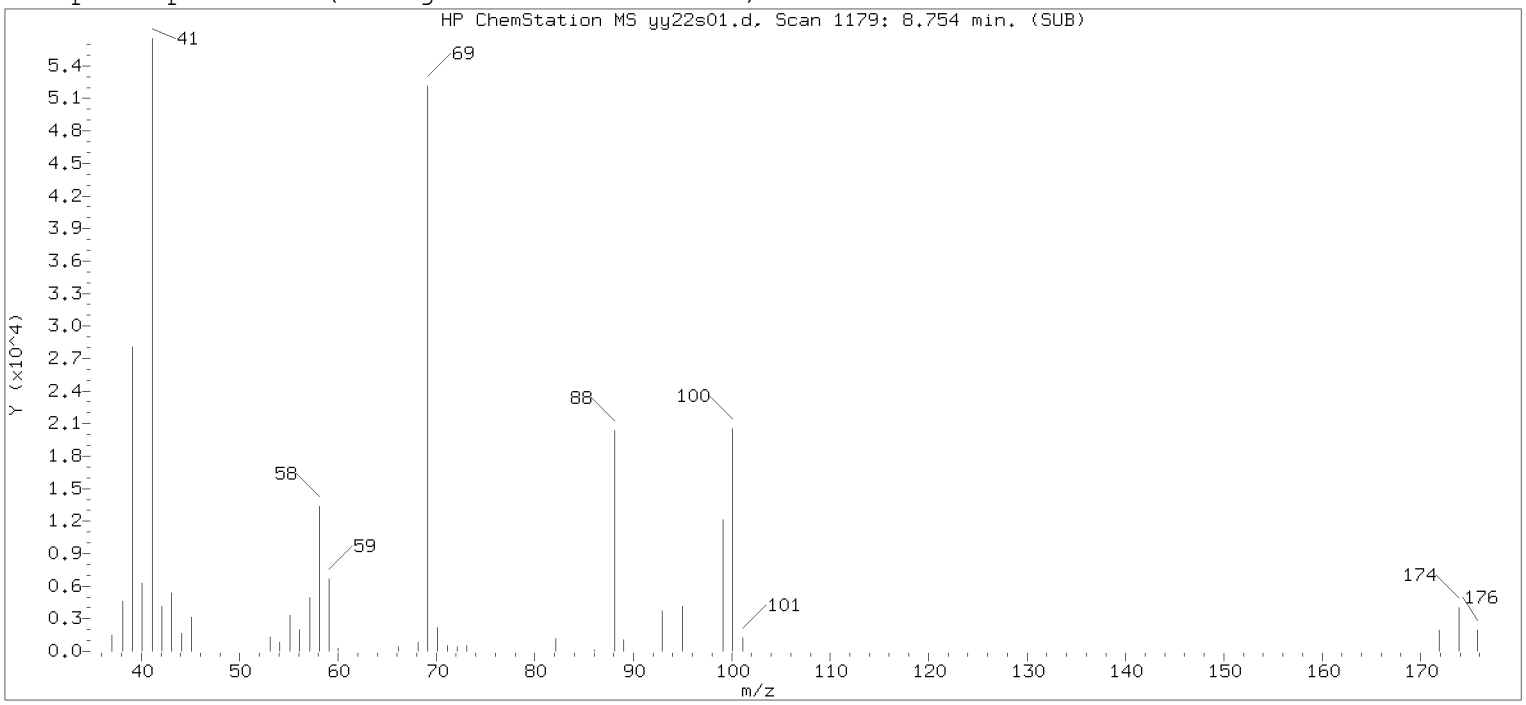
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 92162M
On-Column Amount (ng) : 488.1320
Integration start scan : 1171 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

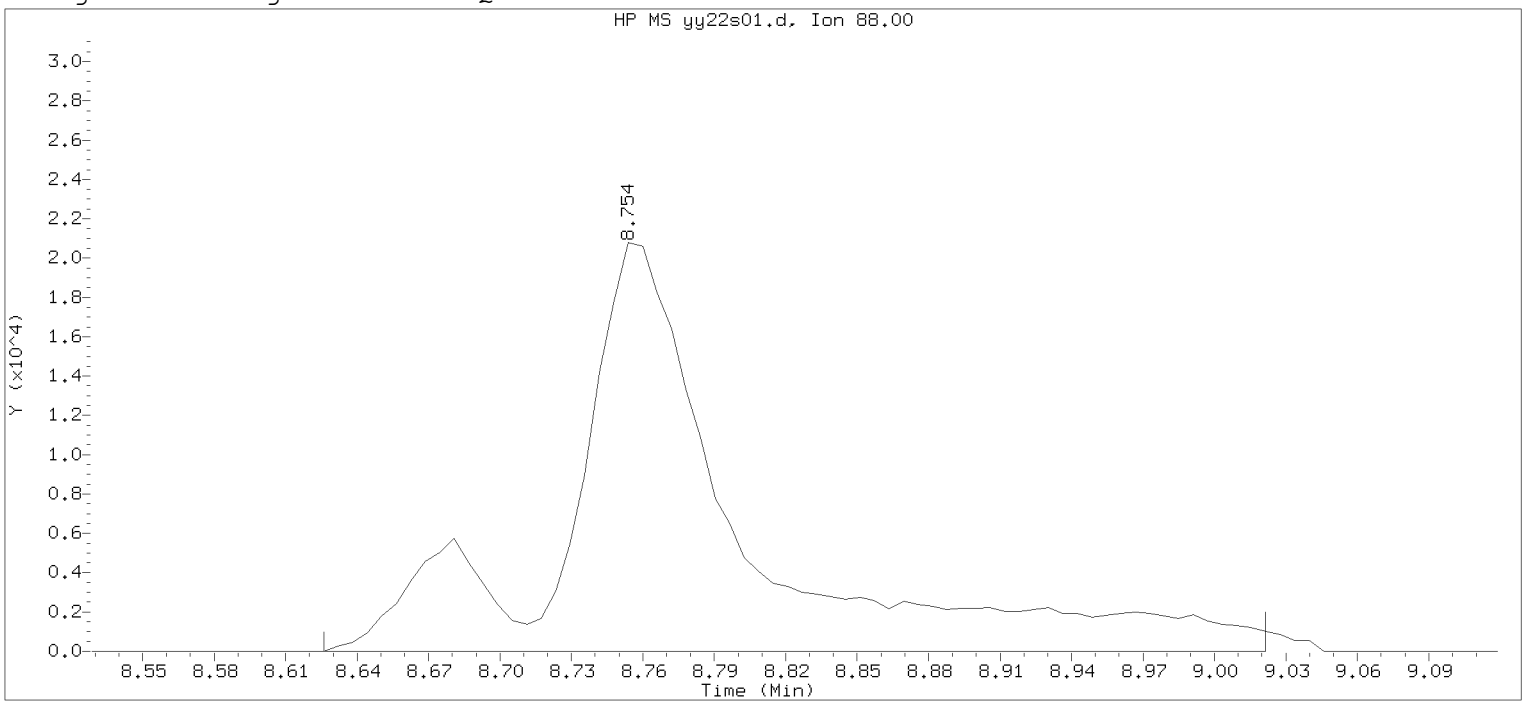
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:21 Automation

Sample Name: LCSY94 Lab Sample ID: LCSY94

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 104680
On-column Amount (ng) : 590.6342
Integration start scan : 1157 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 11:08.
Target 3.5 esignature user id: DVV10203

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Groundwater Samples
Collected on 05/12/20-05/13/20

SDG# JCW55

GROUP	SAMPLE NUMBERS
2099834	1316321-1316329

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M. Kauffman **Date:** **06/11/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

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Table of Contents for SDG# JCW55

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 27
   a. Case Narrative/Conformance Summary 28
   b. Quality Control and Calibration Summary Forms 33
   c. Sample Data 79
   d. Standards Data 127
   e. Raw QC Data 420

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Sample Reference List for SDG Number JCW55
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1316321	J02-BR02	05/12/2020 16:15	05/15/2020 11:04	UC001
1316322	J02-UC01	05/12/2020 17:05	05/15/2020 11:04	UC002
1316323	J02-BR01	05/13/2020 16:35	05/15/2020 11:04	UC003
1316324	J01-UC02	05/13/2020 10:55	05/15/2020 11:04	UC004
1316325	J01-BR02	05/13/2020 12:50	05/15/2020 11:04	UC005
1316326	J01-BR01	05/13/2020 14:50	05/15/2020 11:04	UC006
1316327	J01-UC01	05/13/2020 08:50	05/15/2020 11:04	UC007
1316328	J01-UC01 MS	05/13/2020 08:50	05/15/2020 11:04	UC007
1316329	J01-UC01 MSD	05/13/2020 08:50	05/15/2020 11:04	UC007

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Sample pH Log

SDG: JCW55

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1316321	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:50PM	2002
1316322	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:50PM	2002
1316323	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:39PM	30941
1316324	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:39PM	30941
1316325	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316326	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316327	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316328	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316329	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: May 27, 2020 09:03

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2099834
SDG: JCW55
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
J02-BR02 Grab Groundwater	05/12/2020 16:15	1316321
J02-UC01 Grab Groundwater	05/12/2020 17:05	1316322
J02-BR01 Grab Groundwater	05/13/2020 16:35	1316323
J01-UC02 Grab Groundwater	05/13/2020 10:55	1316324
J01-BR02 Grab Groundwater	05/13/2020 12:50	1316325
J01-BR01 Grab Groundwater	05/13/2020 14:50	1316326
J01-UC01 Grab Groundwater	05/13/2020 08:50	1316327
J01-UC01 MS Grab Groundwater	05/13/2020 08:50	1316328
J01-UC01 MSD Grab Groundwater	05/13/2020 08:50	1316329

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **J02-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 16:15
SDG#: JCW55-01

VHB
ELLE Sample #: GW 1316321
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 15:46	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 15:45	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J02-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 17:05
SDG#: JCW55-02

VHB
ELLE Sample #: GW 1316322
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 16:08	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 16:07	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J02-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 16:35
SDG#: JCW55-03

VHB
ELLE Sample #: GW 1316323
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 17:45	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 17:44	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 10:55
SDG#: JCW55-04

VHB
ELLE Sample #: GW 1316324
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 18:06	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 18:05	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 12:50
SDG#: JCW55-05

VHB
ELLE Sample #: GW 1316325
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 18:26	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 18:25	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 14:50
SDG#: JCW55-06

VHB
ELLE Sample #: GW 1316326
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 18:47	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 18:46	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 08:50
SDG#: JCW55-07BKG

VHB
ELLE Sample #: GW 1316327
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.3 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.7 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	9	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	3	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 16:02	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 16:01	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-UC01 MS Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 08:50
SDG#: JCW55-07MS

VHB
ELLE Sample #: GW 1316328
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Acetone	67-64-1	170	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	140	0.3	10	1
11997	Carbon Disulfide	75-15-0	18	0.2	5	1
11997	Chloroform	67-66-3	20	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	21	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	20	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	22	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	23	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	21	0.2	1	1
11997	1,4-Dioxane	123-91-1	640	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	21	0.2	10	1
11997	Methylene Chloride	75-09-2	21	0.3	1	1
11997	Naphthalene	91-20-3	20	1	5	1
11997	Tetrachloroethene	127-18-4	32	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	22	0.3	1	1
11997	Trichloroethene	79-01-6	25	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	64	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 16:23	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 16:22	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J01-UC01 MSD Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 08:50
SDG#: JCW55-07MSD

VHB
ELLE Sample #: GW 1316329
ELLE Group #: 2099834
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Acetone	67-64-1	160	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	140	0.3	10	1
11997	Carbon Disulfide	75-15-0	18	0.2	5	1
11997	Chloroform	67-66-3	20	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	21	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	20	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	20	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	22	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	22	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	21	0.2	1	1
11997	1,4-Dioxane	123-91-1	610	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	21	0.2	10	1
11997	Methylene Chloride	75-09-2	21	0.3	1	1
11997	Naphthalene	91-20-3	20	1	5	1
11997	Tetrachloroethene	127-18-4	33	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	22	0.3	1	1
11997	Trichloroethene	79-01-6	25	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	64	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 16:43	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 16:42	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 05/27/2020 09:03

Group Number: 2099834

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 5201441AA	Sample number(s): 1316323-1316329		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: N201431AA	Sample number(s): 1316321-1316322		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/27/2020 09:03

Group Number: 2099834

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5201441AA	Sample number(s): 1316323-1316329								
Acetone	150	194.67			130		54-157		
Benzene	20	18.42			92		80-120		
2-Butanone	150	144.29			96		59-135		
Carbon Disulfide	20	15.71			79		65-128		
Chloroform	20	18.56			93		80-120		
1,2-Dichlorobenzene	20	19.7			99		80-120		
1,1-Dichloroethane	20	18.24			91		80-120		
1,2-Dichloroethane	20	18.84			94		73-124		
1,1-Dichloroethene	20	18.58			93		80-131		
cis-1,2-Dichloroethene	20	19.51			98		80-125		
trans-1,2-Dichloroethene	20	18.45			92		80-126		
1,4-Dioxane	500	645			129		63-146		
Ethylbenzene	20	19.49			97		80-120		
Freon 113	20	17.37			87		73-139		
Methylene Chloride	20	18.86			94		80-120		
Naphthalene	20	19.39			97		53-124		
Tetrachloroethene	20	19.97			100		80-120		
Toluene	20	18.85			94		80-120		
1,1,1-Trichloroethane	20	18.1			90		67-126		
Trichloroethene	20	18.51			93		80-120		
Vinyl Chloride	20	18.09			90		56-120		
Xylene (Total)	60	58.64			98		80-120		
Batch number: N201431AA	Sample number(s): 1316321-1316322								
Acetone	150	182.87			122		54-157		
Benzene	20	20.4			102		80-120		
2-Butanone	150	144.76			97		59-135		
Carbon Disulfide	20	20.62			103		65-128		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/27/2020 09:03

Group Number: 2099834

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroform	20	19.1			95		80-120		
1,2-Dichlorobenzene	20	19.85			99		80-120		
1,1-Dichloroethane	20	19.82			99		80-120		
1,2-Dichloroethane	20	18.29			91		73-124		
1,1-Dichloroethene	20	20.49			102		80-131		
cis-1,2-Dichloroethene	20	20.82			104		80-125		
trans-1,2-Dichloroethene	20	19.82			99		80-126		
1,4-Dioxane	500	466.27			93		63-146		
Ethylbenzene	20	20.03			100		80-120		
Freon 113	20	21.81			109		73-139		
Methylene Chloride	20	19.87			99		80-120		
Naphthalene	20	19.07			95		53-124		
Tetrachloroethene	20	20.98			105		80-120		
Toluene	20	19.66			98		80-120		
1,1,1-Trichloroethane	20	18.1			91		67-126		
Trichloroethene	20	19.17			96		80-120		
Vinyl Chloride	20	15.66			78		56-120		
Xylene (Total)	60	60.89			101		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 5201441AA	Sample number(s): 1316323-1316329 UNSPK: 1316327									
Acetone	N.D.	150	167.24	150	160.79	111	107	54-157	4	30
Benzene	N.D.	20	20.28	20	20.22	101	101	80-120	0	30
2-Butanone	N.D.	150	138.46	150	138	92	92	59-135	0	30
Carbon Disulfide	N.D.	20	17.92	20	18.02	90	90	65-128	1	30
Chloroform	N.D.	20	20.42	20	20.26	102	101	80-120	1	30
1,2-Dichlorobenzene	N.D.	20	20.86	20	20.8	104	104	80-120	0	30
1,1-Dichloroethane	0.253	20	20.65	20	20.49	102	101	80-120	1	30
1,2-Dichloroethane	N.D.	20	19.99	20	19.76	100	99	73-124	1	30
1,1-Dichloroethene	N.D.	20	21.95	20	21.69	110	108	80-131	1	30
cis-1,2-Dichloroethene	0.749	20	22.58	20	22.34	109	108	80-120	1	30
trans-1,2-Dichloroethene	N.D.	20	20.79	20	20.78	104	104	80-120	0	30
1,4-Dioxane	N.D.	500	638.18	500	608.89	128	122	63-146	5	30
Ethylbenzene	N.D.	20	21.35	20	21.33	107	107	80-120	0	30
Freon 113	N.D.	20	20.76	20	20.52	104	103	73-139	1	30
Methylene Chloride	N.D.	20	20.79	20	20.54	104	103	80-120	1	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/27/2020 09:03

Group Number: 2099834

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Naphthalene	N.D.	20	19.7	20	19.67	98	98	53-124	0	30
Tetrachloroethene	8.97	20	32.32	20	33.09	117	121*	80-120	2	30
Toluene	N.D.	20	20.76	20	20.68	104	103	80-120	0	30
1,1,1-Trichloroethane	1.55	20	22.27	20	22.3	104	104	67-126	0	30
Trichloroethene	3.27	20	24.63	20	24.71	107	107	80-120	0	30
Vinyl Chloride	N.D.	20	21.46	20	21.08	107	105	56-120	2	30
Xylene (Total)	N.D.	60	64.02	60	64.23	107	107	80-120	0	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201441AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316323	98	103	100	95
1316324	98	103	99	95
1316325	98	102	99	95
1316326	99	103	99	95
1316327	97	102	99	95
1316328	99	101	101	99
1316329	98	101	101	100
Blank	97	102	99	95
LCS	98	102	101	99
MS	99	101	101	99
MSD	98	101	101	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: N201431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316321	96	96	88	88
1316322	96	99	95	88
Blank	94	98	96	89
LCS	95	97	96	90
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

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Quality Control Summary

Client Name: VHB
Group Number: 2099834
Reported: 05/27/2020 09:03

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 6886 Group # 2091834 Sample # 131632 1-9

COC # 606396

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AD-New Windsor/58300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: NY	For Compliance: Yes ☐ No ☒

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Water	Ground	Potable	Surface	NPDES	Other:	Total # of Containers	8260C - VOCs										Remarks
J02-BR02	5/12/20	1615	X					X						3	X										
J02-UC01	5/12/20	1705	X					X						3	X										
J02-BR01	5/13/20	1635	X					X						3	X										
J01-UC02	5/13/20	1055	X					X						3	X										
J01-BR02	5/13/20	1250	X					X						3	X										
J01-BR01	5/13/20	1450	X					X						3	X										
J01-UC01	5/13/20	0850	X					X						9	X										MS/MSD

Analysis Requested — Preservation and Filtration Codes: F

For Lab Use Only
FSC:
SCR#:

Preservation Codes

H=HCl	T=Thiosulfate
N=HNO_3	B=NaOH
S=H_2SO_4	P=H_3PO_4
F=Field Filtered	O=Other

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days:

E-mail address: glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP)	Type VI (Raw Data Only)	
Type III (Reduced non-CLP)	NJ DKQP	TX TRRP-13
NYSDEC Category A or B	MA MCP	CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/14/20	1700			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	5/15/2020	1104

EDD Required? Yes No
If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS _____ FedEx _____ Other _____

Temperature upon receipt 2.4 °C

ES

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Sample Administration Receipt Documentation Log

Doc Log ID: 284647

Group Number(s): 2099834

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/15/2020
Number of Packages:	1	Number of Projects:	4
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.4	DT	Wet	Y	Bagged	N

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Lancaster, PA 17601-5994
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F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW55

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1316321	J02-BR02	X		1	
1316322	J02-UC01	X		1	
1316323	J02-BR01	X		1	
1316324	J01-UC02	X		1	
1316325	J01-BR02	X		1	
1316326	J01-BR01	X		1	
1316327	J01-UC01	X		1	Unspiked
1316328	J01-UC01 MS	X		1	Matrix Spike
1316329	J01-UC01 MSD	X		1	Matrix Spike Duplicate

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Batch#: 5201441AA (Sample number(s): 1316323-1316329, UNSPK: 1316327)
The recovery(ies) for the following analyte(s) in the MSD exceeded the acceptance window indicating a positive bias:Tetrachloroethene

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW55

GC/MS Volatiles

Fraction: Volatiles by GC/MS

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g / L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW55

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	5201441AA	VBLK567	05/23/2020 15:36
		LCS567	05/23/2020 14:54
		1316323	05/23/2020 17:45
		1316324	05/23/2020 18:06
		1316325	05/23/2020 18:26
		1316326	05/23/2020 18:47
		1316327 UNSPK	05/23/2020 16:02
		1316328 MS	05/23/2020 16:23
		1316329 MSD	05/23/2020 16:43
VOCs- 5ml Water by 8260C/D	N201431AA	VBLKN45	05/22/2020 12:06
		LCSN45	05/22/2020 11:22
		1316321	05/22/2020 15:46
		1316322	05/22/2020 16:08

Fraction: Volatiles by GC/MS

5201441AA / VBLK567 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/23/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
Acetone	05/23/20	N.D.	ug/l	0.7	20
Freon 113	05/23/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/23/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/23/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/23/20	N.D.	ug/l	0.2	1
2-Butanone	05/23/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
Chloroform	05/23/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/23/20	N.D.	ug/l	0.3	1
Benzene	05/23/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/23/20	N.D.	ug/l	0.3	1
Trichloroethene	05/23/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/23/20	N.D.	ug/l	29	250
Toluene	05/23/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/23/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/23/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/23/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/23/20	N.D.	ug/l	0.2	5
Naphthalene	05/23/20	N.D.	ug/l	1	5

N201431AA / VBLKN45 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Acetone	05/22/20	N.D.	ug/l	0.7	20
Freon 113	05/22/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/22/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/22/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/22/20	N.D.	ug/l	0.2	1
2-Butanone	05/22/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Chloroform	05/22/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/22/20	N.D.	ug/l	0.3	1
Benzene	05/22/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/22/20	N.D.	ug/l	0.3	1
Trichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/22/20	N.D.	ug/l	29	250
Toluene	05/22/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/22/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/22/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/22/20	N.D.	ug/l	1	6

Fraction: Volatiles by GC/MS

N201431AA / VBLKN45 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,2-Dichlorobenzene	05/22/20	N.D.	ug/l	0.2	5
Naphthalene	05/22/20	N.D.	ug/l	1	5

Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW55
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201441AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK567	102	80 - 120	95	80 - 120	97	80 - 120	99	80 - 120
LCS567	102	80 - 120	99	80 - 120	98	80 - 120	101	80 - 120
1316323	103	80 - 120	95	80 - 120	98	80 - 120	100	80 - 120
1316324	103	80 - 120	95	80 - 120	98	80 - 120	99	80 - 120
1316325	102	80 - 120	95	80 - 120	98	80 - 120	99	80 - 120
1316326	103	80 - 120	95	80 - 120	99	80 - 120	99	80 - 120
1316327 UNSPK	102	80 - 120	95	80 - 120	97	80 - 120	99	80 - 120
1316328 MS	101	80 - 120	99	80 - 120	99	80 - 120	101	80 - 120
1316329 MSD	101	80 - 120	100	80 - 120	98	80 - 120	101	80 - 120

N201431AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKN45	98	80 - 120	89	80 - 120	94	80 - 120	96	80 - 120
LCSN45	97	80 - 120	90	80 - 120	95	80 - 120	96	80 - 120
1316321	96	80 - 120	88	80 - 120	96	80 - 120	88	80 - 120
1316322	99	80 - 120	88	80 - 120	96	80 - 120	95	80 - 120

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1316327 MS: 1316328 MSD: 1316329 **Analyte**	Batch: **5201441AA** (Sample number(s): 1316323-1316329)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	N.D.	21.46	21.08	107	105	56-120	2	30
1,1-Dichloroethene	20	N.D.	21.95	21.69	110	108	80-131	1	30
Acetone	150	N.D.	167.24	160.79	111	107	54-157	4	30
Freon 113	20	N.D.	20.76	20.52	104	103	73-139	1	30
Carbon Disulfide	20	N.D.	17.92	18.02	90	90	65-128	1	30
Methylene Chloride	20	N.D.	20.79	20.54	104	103	80-120	1	30
trans-1,2-Dichloroethene	20	N.D.	20.79	20.78	104	104	80-120	0	30
1,1-Dichloroethane	20	0.253 J	20.65	20.49	102	101	80-120	1	30
2-Butanone	150	N.D.	138.46	138.	92	92	59-135	0	30
cis-1,2-Dichloroethene	20	0.749 J	22.58	22.34	109	108	80-120	1	30
1,1,1-Trichloroethane	20	1.55	22.27	22.3	104	104	67-126	0	30
Chloroform	20	N.D.	20.42	20.26	102	101	80-120	1	30
1,2-Dichloroethane	20	N.D.	19.99	19.76	100	99	73-124	1	30
Benzene	20	N.D.	20.28	20.22	101	101	80-120	0	30
Trichloroethene	20	3.27	24.63	24.71	107	107	80-120	0	30
1,4-Dioxane	500	N.D.	638.18	608.89	128	122	63-146	5	30
Toluene	20	N.D.	20.76	20.68	104	103	80-120	0	30
Tetrachloroethene	20	8.97	32.32	33.09	117	121 *	80-120	2	30
Ethylbenzene	20	N.D.	21.35	21.33	107	107	80-120	0	30
Xylene (Total)	60	N.D.	64.02	64.23	107	107	80-120	0	30
1,2-Dichlorobenzene	20	N.D.	20.86	20.8	104	104	80-120	0	30
Naphthalene	20	N.D.	19.7	19.67	98	98	53-124	0	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW55
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS567	Batch: **5201441AA** (Sample number(s): 1316323-1316329)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	18.09	NA	90	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.58	NA	93	NA	80-131	NA	NA
Acetone	150	194.67	NA	130	NA	54-157	NA	NA
Freon 113	20	17.37	NA	87	NA	73-139	NA	NA
Carbon Disulfide	20	15.71	NA	79	NA	65-128	NA	NA
Methylene Chloride	20	18.86	NA	94	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	18.45	NA	92	NA	80-126	NA	NA
1,1-Dichloroethane	20	18.24	NA	91	NA	80-120	NA	NA
2-Butanone	150	144.29	NA	96	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	19.51	NA	98	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.1	NA	90	NA	67-126	NA	NA
Chloroform	20	18.56	NA	93	NA	80-120	NA	NA
1,2-Dichloroethane	20	18.84	NA	94	NA	73-124	NA	NA
Benzene	20	18.42	NA	92	NA	80-120	NA	NA
Trichloroethene	20	18.51	NA	93	NA	80-120	NA	NA
1,4-Dioxane	500	645	NA	129	NA	63-146	NA	NA
Toluene	20	18.85	NA	94	NA	80-120	NA	NA
Tetrachloroethene	20	19.97	NA	100	NA	80-120	NA	NA
Ethylbenzene	20	19.49	NA	97	NA	80-120	NA	NA
Xylene (Total)	60	58.64	NA	98	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.7	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.39	NA	97	NA	53-124	NA	NA

LCS: LCSN45	Batch: **N201431AA** (Sample number(s): 1316321-1316322)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	15.66	NA	78	NA	56-120	NA	NA
1,1-Dichloroethene	20	20.49	NA	102	NA	80-131	NA	NA
Acetone	150	182.87	NA	122	NA	54-157	NA	NA
Freon 113	20	21.81	NA	109	NA	73-139	NA	NA
Carbon Disulfide	20	20.62	NA	103	NA	65-128	NA	NA
Methylene Chloride	20	19.87	NA	99	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.82	NA	99	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.82	NA	99	NA	80-120	NA	NA
2-Butanone	150	144.76	NA	97	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.82	NA	104	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.1	NA	91	NA	67-126	NA	NA
Chloroform	20	19.1	NA	95	NA	80-120	NA	NA
1,2-Dichloroethane	20	18.29	NA	91	NA	73-124	NA	NA
Benzene	20	20.4	NA	102	NA	80-120	NA	NA
Trichloroethene	20	19.17	NA	96	NA	80-120	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSN45	Batch: **N201431AA** (Sample number(s): 1316321-1316322)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	500	466.27	NA	93	NA	63-146	NA	NA
Toluene	20	19.66	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	20.98	NA	105	NA	80-120	NA	NA
Ethylbenzene	20	20.03	NA	100	NA	80-120	NA	NA
Xylene (Total)	60	60.89	NA	101	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.85	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.07	NA	95	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: nj09t01.d BFB Injection Date: 01/09/20

Instrument ID: HP07159 BFB Injection Time: 06:57

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.24
75	30.0 - 60.0% of mass 95	48.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.40
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	77.86
175	5.0 - 9.0% of mass 174	6.18 (7.94)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.98 (96.30)1
177	5.0 - 9.0% of mass 176	5.08 (6.77)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	nj09i01.d	01/09/20	07:53
02	VSTD100	nj09i02.d	01/09/20	08:15
03	VSTD50	nj09i03.d	01/09/20	08:37
04	VSTD20	nj09i04.d	01/09/20	08:58
05	VSTD10	nj09i05.d	01/09/20	09:20
06	VSTD4	nj09i06.d	01/09/20	09:42
07	VSTD1	nj09i07.d	01/09/20	10:04
08	LCSNICV	nj09l01.d	01/09/20	10:26

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ny22c01.d	05/22/20	11:00
02	LCSN45	ny22s01.d	05/22/20	11:22
03	VBLKN45	ny22b01.d	05/22/20	12:06
04	1315379	ny22s02.d	05/22/20	12:28
05	1315372	ny22s03.d	05/22/20	12:50
06	1315373	ny22s04.d	05/22/20	13:12
07	1315374MS	ny22s05.d	05/22/20	13:34
08	1315375MSD	ny22s06.d	05/22/20	13:56
09	1315377	ny22s07.d	05/22/20	14:18
10	1315378	ny22s08.d	05/22/20	14:40
11	1315380	ny22s09.d	05/22/20	15:02
12	1315381	ny22s10.d	05/22/20	15:24
13	1316321	ny22s11.d	05/22/20	15:46
14	1316322	ny22s12.d	05/22/20	16:08
15	1316330	ny22s13.d	05/22/20	16:30
16	1316331	ny22s14.d	05/22/20	16:52
17	1316332	ny22s15.d	05/22/20	17:14
18	1316333	ny22s16.d	05/22/20	17:36
19	1316334	ny22s17.d	05/22/20	17:58
20	1316335	ny22s18.d	05/22/20	18:20
21	1316336	ny22s19.d	05/22/20	18:42
22	1316337	ny22s20.d	05/22/20	19:04

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316338	ny22s21.d	05/22/20	19:26
24	1316339	ny22s22.d	05/22/20	19:48
25	1316340	ny22s23.d	05/22/20	20:10

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5a21t01.d BFB Injection Date: 04/21/20

Instrument ID: HP26285 BFB Injection Time: 20:36

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.28
75	30.0 - 60.0% of mass 95	45.20
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.52 (0.67)1
174	Greater than 50.0% of mass 95	77.82
175	5.0 - 9.0% of mass 174	5.61 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.39 (96.88)1
177	5.0 - 9.0% of mass 176	4.85 (6.43)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	5a21i01.d	04/21/20	21:19
02	VSTD100	5a21i02.d	04/21/20	21:40
03	VSTD50	5a21i03.d	04/21/20	22:00
04	VSTD20	5a21i04.d	04/21/20	22:21
05	VSTD10	5a21i05.d	04/21/20	22:42
06	VSTD4	5a21i06.d	04/21/20	23:02
07	VSTD1	5a21i07.d	04/21/20	23:23
08	LG5ICV	5a21v01.d	04/22/20	00:05

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y23t01.d BFB Injection Date: 05/23/20

Instrument ID: HP26285 BFB Injection Time: 14:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.23
75	30.0 - 60.0% of mass 95	45.82
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.72
173	Less than 2.0% of mass 174	0.50 (0.67)1
174	Greater than 50.0% of mass 95	74.03
175	5.0 - 9.0% of mass 174	5.26 (7.11)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.43 (96.49)1
177	5.0 - 9.0% of mass 176	4.71 (6.59)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y23c01.d	05/23/20	14:34
02	LCS567	5y23s01.d	05/23/20	14:54
03	VBLK567	5y23b01.d	05/23/20	15:36
04	1316327	5y23s02.d	05/23/20	16:02
05	1316328MS	5y23s03.d	05/23/20	16:23
06	1316329MSD	5y23s04.d	05/23/20	16:43
07	1315727	5y23s05.d	05/23/20	17:04
08	1315728	5y23s06.d	05/23/20	17:25
09	1316323	5y23s07.d	05/23/20	17:45
10	1316324	5y23s08.d	05/23/20	18:06
11	1316325	5y23s09.d	05/23/20	18:26
12	1316326	5y23s10.d	05/23/20	18:47
13	1316342	5y23s11.d	05/23/20	19:07
14	1316343	5y23s12.d	05/23/20	19:28
15	1316344	5y23s13.d	05/23/20	19:49
16	1316345	5y23s14.d	05/23/20	20:09
17	1316346	5y23s15.d	05/23/20	20:30
18	1315721	5y23s16.d	05/23/20	20:51
19	1315722	5y23s17.d	05/23/20	21:33
20	1315722DL	5y23s22.d	05/23/20	21:54
21	1315724	5y23s18.d	05/23/20	22:14
22	1315724DL	5y23s23.d	05/23/20	22:35

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y23t01.d BFB Injection Date: 05/23/20

Instrument ID: HP26285 BFB Injection Time: 14:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.23
75	30.0 - 60.0% of mass 95	45.82
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.72
173	Less than 2.0% of mass 174	0.50 (0.67)1
174	Greater than 50.0% of mass 95	74.03
175	5.0 - 9.0% of mass 174	5.26 (7.11)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.43 (96.49)1
177	5.0 - 9.0% of mass 176	4.71 (6.59)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1315725	5y23s19.d	05/23/20	22:55
24	1315725DL	5y23s24.d	05/23/20	23:16
25	1315726	5y23s20.d	05/23/20	23:37
26	1315726DL	5y23s25.d	05/23/20	23:59
27	1315730	5y23s26.d	05/24/20	00:19
28	1315730DL	5y23s27.d	05/24/20	00:40

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.2714	0.4214	0.4413	0.4332	0.4032	0.4058	0.3479	0.3892	15	AVG #
Chloromethane	#0.3920	0.4415	0.4410	0.4303	0.4050	0.4167	0.3926	0.4170	5	AVG #
1,3-Butadiene	0.3289	0.3289	0.2971	0.2885	0.2717	0.2688	0.2530	0.2910	10	AVG
Vinyl Chloride	#0.3462	0.4308	0.4432	0.4258	0.4060	0.4071	0.3815	0.4058	8	AVG #
Bromomethane	#0.2532	0.3008	0.2954	0.2881	0.2719	0.2783	0.2599	0.2782	6	AVG #
Chloroethane	#0.2259	0.2411	0.2517	0.2501	0.2333	0.2377	0.2228	0.2375	5	AVG #
Dichlorofluoromethane	0.5392	0.5819	0.5687	0.5568	0.5269	0.5311	0.5030	0.5439	5	AVG
n-Pentane	0.5121	0.4794	0.4627	0.4541	0.3322	0.4410	0.3772	0.4370	14	AVG
Trichlorofluoromethane	#0.3864	0.4841	0.4854	0.4759	0.4475	0.4446	0.3980	0.4460	9	AVG #
Ethanol	0.0715	0.0627	0.0610	0.0559	0.0578	0.0603	0.0544	0.0605	9	AVG
Freon 123a	0.3032	0.3614	0.3427	0.3439	0.3197	0.3161	0.3002	0.3267	7	AVG
Acrolein	1.6769	1.6889	1.7869	1.7898	1.7188	1.5925	1.6134	1.6953	5	AVG
1,1-Dichloroethene	#0.2465	0.2719	0.2743	0.2713	0.2545	0.2549	0.2461	0.2599	5	AVG #
1,1-Dichloroethene(2)	#0.1224	0.1506	0.1420	0.1434	0.1324	0.1343	0.1296	0.1364	7	AVG #
Acetone	#0.7137	0.6887	0.7657	0.7643	0.7295	0.6722	0.6642	0.7140	6	AVG #
Freon 113	#0.1884	0.2667	0.2627	0.2692	0.2165	0.2598	0.2248	0.2412	13	AVG #
2-Propanol	0.5235	0.4362	0.4906	0.4741	0.4650	0.4777	0.4344	0.4716	7	AVG
Methyl Iodide	0.4385	0.5139	0.4965	0.5062	0.4813	0.4913	0.4685	0.4852	5	AVG
Carbon Disulfide	#0.7353	0.8779	0.8713	0.8698	0.8254	0.8310	0.8075	0.8312	6	AVG #
Allyl Chloride	0.4689	0.4850	0.4837	0.4525	0.4428	0.4542	0.4251	0.4589	5	AVG
Methyl Acetate	#0.4068	0.3072	0.3188	0.3078	0.3005	0.3019	0.2921	0.3193	12	AVG #
Methylene Chloride	#0.3501	0.3244	0.3024	0.3053	0.2912	0.2999	0.2877	0.3087	7	AVG #
t-Butyl alcohol	0.8780	0.8996	1.0064	0.9835	0.9685	0.9259	0.8625	0.9320	6	AVG
Acrylonitrile	0.1561	0.1828	0.1809	0.1870	0.1746	0.1640	0.1618	0.1725	7	AVG
trans-1,2-Dichloroethene	#0.2892	0.3082	0.3038	0.3055	0.2885	0.2971	0.2848	0.2967	3	AVG #
Methyl Tertiary Butyl Ether	#0.8822	0.8700	0.8588	0.8661	0.8260	0.8374	0.7720	0.8446	4	AVG #
n-Hexane	0.3469	0.4473	0.4472	0.4616	0.3056	0.4542	0.4046	0.4096	15	AVG
1,1-Dichloroethane	#0.4977	0.5694	0.5504	0.5604	0.5370	0.5472	0.5270	0.5413	4	AVG #
di-Isopropyl ether	0.8999	0.9647	0.9532	0.9563	0.9229	0.9437	0.8866	0.9325	3	AVG
2-Chloro-1,3-butadiene	0.4160	0.5137	0.4973	0.4983	0.4746	0.4800	0.4649	0.4778	7	AVG
Ethyl t-butyl ether	0.8675	0.9216	0.9168	0.9202	0.8821	0.8849	0.8110	0.8863	4	AVG
cis-1,2-Dichloroethene	#0.3232	0.3468	0.3437	0.3533	0.3291	0.3386	0.3243	0.3370	3	AVG #
2-Butanone	#0.2372	0.2527	0.2513	0.2543	0.2499	0.2218	0.2209	0.2411	6	AVG #
2,2-Dichloropropane	0.4364	0.4991	0.4940	0.5030	0.4762	0.4780	0.4585	0.4779	5	AVG
Propionitrile	1.0327	1.0491	1.1074	1.1008	1.1067	1.1119	1.1113	1.0886	3	AVG
Methacrylonitrile	0.1657	0.1712	0.1759	0.1785	0.1767	0.1794	0.1721	0.1742	3	AVG
Bromochloromethane	0.1409	0.1642	0.1636	0.1631	0.1629	0.1651	0.1556	0.1593	5	AVG
Tetrahydrofuran	1.0976	1.1004	1.1527	1.1756	1.1886	1.0759	1.1204	1.1301	4	AVG
Chloroform	#0.5258	0.5374	0.5406	0.5374	0.5182	0.5301	0.5064	0.5280	2	AVG #
1,1,1-Trichloroethane	#0.4151	0.5090	0.4967	0.5015	0.4765	0.4794	0.4655	0.4777	7	AVG #
Cyclohexane	#0.4091	0.5371	0.5405	0.5355	0.4288	0.5174	0.4709	0.4913	11	AVG #
Cyclohexane(2)	#0.3646	0.4610	0.4692	0.4644	0.3784	0.4505	0.4092	0.4282	10	AVG #
Cyclohexane(3)	#0.1292	0.1640	0.1681	0.1688	0.1353	0.1651	0.1505	0.1544	11	AVG #
1,1-Dichloropropene	0.3914	0.4570	0.4477	0.4429	0.4294	0.4341	0.4219	0.4321	5	AVG
Carbon Tetrachloride	#0.3478	0.4396	0.4349	0.4347	0.4098	0.4160	0.4003	0.4119	8	AVG #
Isobutyl Alcohol	0.3557	0.3246	0.3265	0.3436	0.3303	0.3296	0.3267	0.3339	3	AVG
Benzene	#1.1881	1.2701	1.2536	1.2581	1.2187	1.2373	1.1832	1.2299	3	AVG #
1,2-Dichloroethane	#0.4716	0.4340	0.4290	0.4369	0.4240	0.4318	0.4184	0.4351	4	AVG #
1,2-Dichloroethane(2)	#0.0160	0.0394	0.0389	0.0389	0.0383	0.0403	0.0387	0.0358	24	AVG #<-
t-Amyl methyl ether	0.9085	0.9245	0.9215	0.9255	0.8839	0.8763	0.7836	0.8891	6	AVG
n-Heptane	0.4279	0.5090	0.5088	0.5178	0.3233	0.5272	0.4956	0.4728	16	AVG
n-Butanol	0.2599	0.2726	0.2896	0.3017	0.2891	0.3027	0.2975	0.2876	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3101	0.3363	0.3298	0.3321	0.3179	0.3252	0.3165	0.3240	3	AVG #
Methylcyclohexane	#0.4051	0.5628	0.5772	0.5557	0.5365	0.5752	0.5159	0.5326	11	AVG #
Methylcyclohexane(2)	#0.1908	0.2700	0.2695	0.2590	0.2558	0.2691	0.2417	0.2508	11	AVG #
1,2-Dichloropropane	#0.2751	0.3244	0.3157	0.3227	0.3172	0.3261	0.3202	0.3145	6	AVG #
Dibromomethane	0.2077	0.1982	0.1982	0.2025	0.1989	0.2019	0.1965	0.2006	2	AVG
1,4-Dioxane	0.0602	0.0715	0.0737	0.0730	0.0730	0.0791	0.0781	0.0727	8	AVG
Methyl Methacrylate	0.2534	0.2838	0.2942	0.2940	0.2946	0.3022	0.2909	0.2876	6	AVG
Bromodichloromethane	#0.3797	0.4207	0.4111	0.4191	0.4058	0.4210	0.4088	0.4094	4	AVG #
2-Nitropropane	0.1582	0.1498	0.1500	0.1555	0.1556	0.1363	0.1355	0.1487	6	AVG
2-Chloroethyl Vinyl Ether	0.2158	0.2373	0.2859	0.2662	0.2387	0.2562	0.2413	0.2488	9	AVG
cis-1,3-Dichloropropene	#0.4819	0.5308	0.5215	0.5323	0.5238	0.5410	0.5251	0.5223	4	AVG #
4-Methyl-2-pentanone	#0.4674	0.4768	0.5106	0.5225	0.5291	0.4614	0.4520	0.4886	6	AVG #
Toluene	#1.0178	1.0869	1.0857	1.0784	1.0518	1.0716	1.0228	1.0593	3	AVG #
trans-1,3-Dichloropropene	#0.6167	0.6558	0.6561	0.6691	0.6667	0.6814	0.6564	0.6575	3	AVG #
Ethyl Methacrylate	0.5974	0.6450	0.6563	0.6725	0.6715	0.6892	0.6534	0.6550	4	AVG
1,1,2-Trichloroethane	#0.3505	0.3765	0.3817	0.3850	0.3813	0.3843	0.3660	0.3750	3	AVG #
Tetrachloroethene	#0.4050	0.4844	0.5052	0.4791	0.4565	0.4687	0.4483	0.4639	7	AVG #
1,3-Dichloropropane	0.6055	0.6538	0.6584	0.6649	0.6612	0.6724	0.6404	0.6509	3	AVG
2-Hexanone	#0.4390	0.4971	0.5434	0.5429	0.5545	0.4704	0.4626	0.5014	9	AVG #
Dibromochloromethane	#0.3817	0.4093	0.4406	0.4427	0.4445	0.4545	0.4395	0.4304	6	AVG #
1,2-Dibromoethane	#0.3969	0.3953	0.4170	0.4215	0.4154	0.4249	0.4039	0.4107	3	AVG #
Chlorobenzene	#1.0921	1.2209	1.2210	1.2136	1.1794	1.2070	1.1420	1.1823	4	AVG #
1,1,1,2-Tetrachloroethane	0.3781	0.4336	0.4337	0.4396	0.4290	0.4395	0.4289	0.4261	5	AVG
Ethylbenzene	#1.9141	2.1201	2.1442	2.1357	2.0289	2.0781	1.9216	2.0489	5	AVG #
m+p-Xylene	#0.7414	0.8196	0.8300	0.8396	0.8021	0.8241	0.7784	0.8050	4	AVG #
o-Xylene	#0.7234	0.8040	0.8225	0.8098	0.7907	0.8163	0.7758	0.7918	4	AVG #
Styrene	#1.2039	1.3522	1.3518	1.3756	1.3441	1.3782	1.3030	1.3298	5	AVG #
Bromoform	#0.2792	0.3231	0.3231	0.3367	0.3343	0.3455	0.3326	0.3249	7	AVG #
Isopropylbenzene	#1.9267	2.1670	2.1977	2.2117	2.0640	2.1396	1.9312	2.0911	6	AVG #
Cyclohexanone	0.2682	0.2859	0.2878	0.2892	0.2905	0.3114	0.3067	0.2914	5	AVG
Bromobenzene	0.8590	0.9347	0.9520	0.9521	0.9162	0.9519	0.9072	0.9247	4	AVG
1,1,2,2-Tetrachloroethane	#1.1119	1.0954	1.0823	1.1623	1.0897	1.1128	1.0441	1.0998	3	AVG #
1,2,3-Trichloropropane	0.3412	0.3569	0.3511	0.3503	0.3464	0.3556	0.3372	0.3484	2	AVG
trans-1,4-Dichloro-2-butene	0.3446	0.3655	0.3842	0.3925	0.3848	0.3980	0.3787	0.3783	5	AVG
n-Propylbenzene	4.1802	4.7758	4.7515	4.7694	4.3570	4.5797	3.9696	4.4833	7	AVG
2-Chlorotoluene	0.8466	0.9393	0.9507	0.9583	0.9146	0.9521	0.9087	0.9243	4	AVG
4-Chlorotoluene	0.8940	0.9830	0.9767	0.9804	0.9447	0.9885	0.9382	0.9579	4	AVG
1,3,5-Trimethylbenzene	2.9971	3.4185	3.4269	3.4689	3.2054	3.3947	3.0831	3.2849	6	AVG
tert-Butylbenzene	0.6596	0.7249	0.7572	0.7566	0.6913	0.7620	0.7438	0.7279	5	AVG
Pentachloroethane	0.4971	0.5357	0.6283	0.6111	0.6072	0.6136	0.5871	0.5829	8	AVG
1,2,4-Trimethylbenzene	3.1541	3.5076	3.5618	3.5842	3.3486	3.5151	3.1947	3.4094	5	AVG
sec-Butylbenzene	3.8993	4.5177	4.4995	4.5472	4.0996	4.4283	3.8777	4.2670	7	AVG
1,3-Dichlorobenzene	#1.7025	1.8294	1.8450	1.8675	1.7695	1.8450	1.7309	1.7986	4	AVG #
p-Isopropyltoluene	3.3403	3.8663	3.9299	3.9495	3.5947	3.8713	3.4403	3.7132	7	AVG
1,4-Dichlorobenzene	#1.8052	1.8392	1.8452	1.8832	1.7956	1.8573	1.7420	1.8240	3	AVG #
1,2,3-Trimethylbenzene	3.0121	3.2851	3.6110	3.4491	3.3949	3.3811	3.0300	3.3090	7	AVG
Benzyl Chloride	2.1944	2.3823	2.4442	2.5363	2.5108	2.5658	2.3823	2.4309	5	AVG
1,3-Diethylbenzene	1.8619	2.2341	2.4272	2.3289	2.2979	2.3053	2.1041	2.2227	8	AVG
1,4-Diethylbenzene	1.9700	2.3836	2.5747	2.4844	2.4308	2.4500	2.2277	2.3602	9	AVG
1,2-Dichlorobenzene	#1.6578	1.7288	1.7434	1.7576	1.6911	1.7273	1.6306	1.7052	3	AVG #
n-Butylbenzene	1.6847	1.9966	1.9833	2.0135	1.8270	2.0103	1.8925	1.9154	6	AVG
1,2-Diethylbenzene	1.6855	1.8684	2.0458	1.9375	1.9123	1.9292	1.7843	1.8804	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane#	0.2879	0.2891	0.2960	0.3107	0.2985	0.3047	0.2937	0.2972	3	AVG #
1,3,5-Trichlorobenzene	1.2762	1.3558	1.3851	1.4172	1.3161	1.4227	1.3413	1.3592	4	AVG
1,2,4-Trichlorobenzene #	1.0911	1.1843	1.1818	1.2373	1.1774	1.2396	1.1844	1.1851	4	AVG #
Hexachlorobutadiene	0.5000	0.5456	0.5374	0.5624	0.4858	0.5668	0.5546	0.5361	6	AVG
Naphthalene	3.5547	3.7308	3.7828	3.8932	3.7890	3.8310	3.4298	3.7159	4	AVG
1,2,3-Trichlorobenzene	1.0209	1.0676	1.0899	1.1265	1.0814	1.1317	1.0973	1.0879	3	AVG
2-Methylnaphthalene	1.9309	1.9687	2.2870	2.2237	2.2375	2.2397	2.1372	2.1464	7	AVG
Dibromofluoromethane	0.2529	0.2501	0.2484	0.2469	0.2485	0.2469	0.2433	0.2481	1	AVG
Dibromofluoromethane(2)	0.2539	0.2581	0.2528	0.2535	0.2522	0.2535	0.2494	0.2534	1	AVG
1,2-Dichloroethane-d4	0.0623	0.0629	0.0625	0.0647	0.0629	0.0625	0.0614	0.0627	2	AVG
1,2-Dichloroethane-d4(2)	0.3078	0.3028	0.2972	0.2958	0.2963	0.2974	0.2963	0.2991	2	AVG
1,2-Dichloroethane-d4(3)	0.0403	0.0401	0.0400	0.0396	0.0403	0.0405	0.0387	0.0399	2	AVG
Toluene-d8	1.2964	1.2989	1.3109	1.3110	1.3079	1.3022	1.3009	1.3040	0	AVG
Toluene-d8(2)	0.8523	0.8598	0.8615	0.8651	0.8673	0.8645	0.8771	0.8639	1	AVG
4-Bromofluorobenzene	0.5128	0.5146	0.5173	0.5163	0.5148	0.5139	0.5166	0.5152	0	AVG
4-Bromofluorobenzene(2)	0.4114	0.4140	0.4143	0.4146	0.4118	0.4092	0.4139	0.4127	0	AVG

Average %RSD 6

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i01.d	VSTD300
/chem/HP07159.i/20jan09a.b/nj09i02.d	VSTD100
/chem/HP07159.i/20jan09a.b/nj09i03.d	VSTD050
/chem/HP07159.i/20jan09a.b/nj09i04.d	VSTD020
/chem/HP07159.i/20jan09a.b/nj09i05.d	VSTD010
/chem/HP07159.i/20jan09a.b/nj09i06.d	VSTD004
/chem/HP07159.i/20jan09a.b/nj09i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	369636	383443	386370	385090	387060	392656	388809	384723	2	Yes
Fluorobenzene	1311659	1313106	1307289	1297518	1306648	1299393	1304310	1305703	0	Yes
Chlorobenzene-d5	997921	996040	985480	985958	991927	995569	1001788	993526	1	Yes
1,4-Dichlorobenzene-d4	555000	546174	543996	541869	544310	544490	552754	546942	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. RT
t-Butyl alcohol-d10	4.427	4.425	4.423	4.415	4.425	4.421	4.418	4.422
Fluorobenzene	7.937	7.935	7.933	7.932	7.935	7.931	7.934	7.934
Chlorobenzene-d5	11.375	11.373	11.370	11.369	11.372	11.369	11.371	11.371
1,4-Dichlorobenzene-d4	13.248	13.246	13.250	13.249	13.246	13.248	13.251	13.248

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 01/09/2020 at 12:11.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.3302	16.97	20	-15	#
# Chloromethane	0.4170	0.3533	16.94	20	-15	#
1,3-Butadiene	0.2910	0.2352	16.17	20	-19	
# Vinyl Chloride	0.4058	0.3591	17.70	20	-12	#
# Bromomethane	0.2782	0.2532	18.20	20	-9	#
# Chloroethane	0.2375	0.2168	18.26	20	-9	#
Dichlorofluoromethane	0.5439	0.4978	18.30	20	-8	
n-Pentane	0.4370	0.3666	16.78	20	-16	
# Trichlorofluoromethane	0.4460	0.4455	19.98	20	0	#
Ethanol	0.0605	0.0587	484.98	500	-3	
Freon 123a	0.3267	0.3129	19.15	20	-4	
Acrolein	1.6953	1.4582	129.02	150	-14	
# 1,1-Dichloroethene	0.2599	0.2315	17.81	20	-11	#
# Acetone	0.7140	0.6652	139.74	150	-7	#
# Freon 113	0.2412	0.2377	19.71	20	-1	#
2-Propanol	0.4716	0.3757	119.48	150	-20	
Methyl Iodide	0.4852	0.4395	18.12	20	-9	
# Carbon Disulfide	0.8312	0.7064	17.00	20	-15	#
Allyl Chloride	0.4589	0.4414	19.24	20	-4	
# Methyl Acetate	0.3193	0.3054	19.13	20	-4	#
# Methylene Chloride	0.3087	0.2897	18.77	20	-6	#
t-Butyl alcohol	0.9320	0.9051	194.21	200	-3	
Acrylonitrile	0.1725	0.1528	88.58	100	-11	
# trans-1,2-Dichloroethene	0.2967	0.2840	19.14	20	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.8098	19.18	20	-4	#
n-Hexane	0.4096	0.3838	18.74	20	-6	
# 1,1-Dichloroethane	0.5413	0.5232	19.33	20	-3	#
di-Isopropyl ether	0.9325	0.8969	19.24	20	-4	
2-Chloro-1,3-butadiene	0.4778	0.4632	19.39	20	-3	
Ethyl t-butyl ether	0.8863	0.8655	19.53	20	-2	
# cis-1,2-Dichloroethene	0.3370	0.3417	20.28	20	1	#
# 2-Butanone	0.2411	0.2134	132.74	150	-12	#
2,2-Dichloropropane	0.4779	0.4684	19.60	20	-2	
Propionitrile	1.0886	1.0668	147.00	150	-2	
Methacrylonitrile	0.1742	0.1713	147.52	150	-2	
Bromochloromethane	0.1593	0.1594	20.01	20	0	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1301	1.0358	91.65	100	-8	
#	Chloroform	0.5280	0.5226	19.80	20	-1	#
#	1,1,1-Trichloroethane	0.4777	0.4639	19.42	20	-3	#
#	Cyclohexane	0.4913	0.4571	18.61	20	-7	#
	1,1-Dichloropropene	0.4321	0.4099	18.98	20	-5	
#	Carbon Tetrachloride	0.4119	0.3981	19.33	20	-3	#
	Isobutyl Alcohol	0.3339	0.3163	473.74	500	-5	
#	Benzene	1.2299	1.1779	19.15	20	-4	#
#	1,2-Dichloroethane	0.4351	0.4269	19.62	20	-2	#
	t-Amyl methyl ether	0.8891	0.8780	19.75	20	-1	
	n-Heptane	0.4728	0.4155	17.58	20	-12	
	n-Butanol	0.2876	0.2744	954.06	1000	-5	
#	Trichloroethene	0.3240	0.3085	19.04	20	-5	#
#	Methylcyclohexane	0.5326	0.5419	20.35	20	2	#
#	1,2-Dichloropropane	0.3145	0.3170	20.16	20	1	#
	Dibromomethane	0.2006	0.1977	19.71	20	-1	
	1,4-Dioxane	0.0727	0.0792	545.38	500	9	
	Methyl Methacrylate	0.2876	0.2883	20.05	20	0	
#	Bromodichloromethane	0.4094	0.4021	19.64	20	-2	#
	2-Nitropropane	0.1487	0.1343	18.06	20	-10	
	2-Chloroethyl Vinyl Ether	0.2488	0.2349	18.89	20	-6	
#	cis-1,3-Dichloropropene	0.5223	0.5168	19.79	20	-1	#
#	4-Methyl-2-pentanone	0.4886	0.4538	92.89	100	-7	#
#	Toluene	1.0593	1.0206	19.27	20	-4	#
#	trans-1,3-Dichloropropene	0.6575	0.6225	18.94	20	-5	#
	Ethyl Methacrylate	0.6550	0.6136	18.74	20	-6	
#	1,1,2-Trichloroethane	0.3750	0.3766	20.08	20	0	#
#	Tetrachloroethene	0.4639	0.4475	19.29	20	-4	#
	1,3-Dichloropropane	0.6509	0.6381	19.61	20	-2	
#	2-Hexanone	0.5014	0.4529	90.33	100	-10	#
#	Dibromochloromethane	0.4304	0.4329	20.12	20	1	#
#	1,2-Dibromoethane	0.4107	0.4017	19.56	20	-2	#
#	Chlorobenzene	1.1823	1.1642	19.69	20	-2	#
	1,1,1,2-Tetrachloroethane	0.4261	0.4150	19.48	20	-3	
#	Ethylbenzene	2.0489	2.0156	19.67	20	-2	#
#	m+p-Xylene	0.8050	0.7973	39.61	40	-1	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	o-Xylene	0.7918	0.7737	19.54	20	-2	#
#	Styrene	1.3298	1.3149	19.78	20	-1	#
#	Bromoform	0.3249	0.3182	19.58	20	-2	#
#	Isopropylbenzene	2.0911	2.1005	20.09	20	0	#
	Cyclohexanone	0.2914	0.2998	514.44	500	3	
	Bromobenzene	0.9247	0.9282	20.08	20	0	
#	1,1,2,2-Tetrachloroethane	1.0998	1.1095	20.18	20	1	#
	1,2,3-Trichloropropane	0.3484	0.3444	19.77	20	-1	
	trans-1,4-Dichloro-2-butene	0.3783	0.3830	101.24	100	1	
	n-Propylbenzene	4.4833	4.5764	20.42	20	2	
	2-Chlorotoluene	0.9243	0.9202	19.91	20	0	
	4-Chlorotoluene	0.9579	0.9381	19.59	20	-2	
	1,3,5-Trimethylbenzene	3.2849	3.2822	19.98	20	0	
	tert-Butylbenzene	0.7279	0.7241	19.89	20	-1	
	Pentachloroethane	0.5829	0.5596	19.20	20	-4	
	1,2,4-Trimethylbenzene	3.4094	3.3529	19.67	20	-2	
	sec-Butylbenzene	4.2670	4.2821	20.07	20	0	
#	1,3-Dichlorobenzene	1.7986	1.7905	19.91	20	0	#
	p-Isopropyltoluene	3.7132	3.7353	20.12	20	1	
#	1,4-Dichlorobenzene	1.8240	1.8246	20.01	20	0	#
	1,2,3-Trimethylbenzene	3.3090	3.3545	20.27	20	1	
	Benzyl Chloride	2.4309	2.1774	17.91	20	-10	
	1,3-Diethylbenzene	2.2227	2.2013	19.81	20	-1	
	1,4-Diethylbenzene	2.3602	2.3250	19.70	20	-1	
#	1,2-Dichlorobenzene	1.7052	1.7048	19.99	20	0	#
	n-Butylbenzene	1.9154	1.8828	19.66	20	-2	
	1,2-Diethylbenzene	1.8804	1.8472	19.65	20	-2	
#	1,2-Dibromo-3-chloropropane	0.2972	0.2901	19.52	20	-2	#
	1,3,5-Trichlorobenzene	1.3592	1.3643	20.08	20	0	
#	1,2,4-Trichlorobenzene	1.1851	1.2133	20.48	20	2	#
	Hexachlorobutadiene	0.5361	0.5089	18.99	20	-5	
	Naphthalene	3.7159	3.7282	20.07	20	0	
	1,2,3-Trichlorobenzene	1.0879	1.1059	20.33	20	2	
	2-Methylnaphthalene	2.1464	2.0222	18.84	20	-6	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3250	0.4265	0.4232	0.4095	0.4323	0.4213	0.3967	0.4049	9	AVG #
Chloromethane	#0.3082	0.3704	0.3357	0.3196	0.3179	0.3164	0.2807	0.3212	8	AVG #
1,3-Butadiene	0.7671	0.6878	0.4049	0.3888	0.3035	0.3064	0.2670	0.4465	45	AVG
Vinyl Chloride	#0.2589	0.3027	0.2926	0.2862	0.2988	0.2915	0.2580	0.2841	6	AVG #
Bromomethane	#0.1819	0.2061	0.2013	0.1930	0.1997	0.1910	0.1622	0.1907	8	AVG #
Chloroethane	#0.1175	0.1445	0.1421	0.1380	0.1400	0.1397	0.1198	0.1345	8	AVG #
Dichlorofluoromethane	0.4299	0.4707	0.4598	0.4373	0.4435	0.4467	0.3805	0.4383	7	AVG
n-Pentane	0.3856	0.3626	0.3195	0.3100	0.3069	0.3142	0.2685	0.3239	12	AVG
Trichlorofluoromethane	#0.2945	0.3766	0.3675	0.3543	0.3695	0.3627	0.3104	0.3480	9	AVG #
Ethyl ether	0.2225	0.2597	0.2463	0.2366	0.2477	0.2533	0.2131	0.2399	7	AVG
Freon 123a	0.3357	0.3986	0.3711	0.3740	0.3618	0.3725	0.3287	0.3632	7	AVG
Acrolein	1.6475	1.6888	1.7109	1.5312	1.6360	1.6208	1.2455	1.5830	10	AVG
1,1-Dichloroethene	#0.2392	0.2870	0.2721	0.2744	0.2734	0.2812	0.2650	0.2703	6	AVG #
1,1-Dichloroethene(2)	#0.1060	0.1486	0.1379	0.1399	0.1395	0.1429	0.1337	0.1355	10	AVG #
Acetone	#0.6455	0.7888	0.8532	0.7662	0.8282	0.8438	0.7394	0.7807	9	AVG #
Freon 113	#0.2477	0.3139	0.3071	0.3153	0.3201	0.3291	0.3087	0.3060	9	AVG #
2-Propanol	0.6044	0.6226	0.6414	0.6403	0.6679	0.6685	0.6021	0.6353	4	AVG
Methyl Iodide	0.4576	0.5393	0.5160	0.5273	0.5199	0.5367	0.5118	0.5155	5	AVG
Carbon Disulfide	#0.8669	0.9807	0.9312	0.9538	0.9571	0.9982	0.9687	0.9510	4	AVG #
Allyl Chloride	0.4072	0.4819	0.4628	0.4509	0.4561	0.4712	0.4376	0.4525	5	AVG
Methyl Acetate	#0.4003	0.4289	0.3845	0.3806	0.3802	0.3897	0.3641	0.3898	5	AVG #
Methylene Chloride	#0.2762	0.3184	0.3048	0.3097	0.3068	0.3164	0.3008	0.3047	5	AVG #
t-Butyl alcohol	1.1173	1.1779	1.1695	1.2069	1.2245	1.2107	1.1360	1.1775	3	AVG
Acrylonitrile	0.1791	0.2084	0.2208	0.2009	0.2186	0.2159	0.1963	0.2057	7	AVG
trans-1,2-Dichloroethene	#0.2727	0.3192	0.3027	0.3102	0.3069	0.3129	0.2929	0.3025	5	AVG #
Methyl Tertiary Butyl Ether	#0.7410	0.8407	0.8123	0.8215	0.8126	0.8267	0.7460	0.8001	5	AVG #
n-Hexane	0.3797	0.4640	0.4451	0.4668	0.4628	0.4761	0.4453	0.4485	7	AVG
1,1-Dichloroethane	#0.4868	0.5677	0.5516	0.5604	0.5577	0.5707	0.5384	0.5476	5	AVG #
di-Isopropyl ether	0.9194	1.0171	0.9833	1.0016	0.9910	1.0151	0.9190	0.9781	4	AVG
2-Chloro-1,3-butadiene	0.3849	0.4781	0.4622	0.4769	0.4846	0.4988	0.4710	0.4652	8	AVG
Ethyl t-butyl ether	0.8271	0.9189	0.8794	0.8951	0.8763	0.8852	0.7961	0.8683	5	AVG
cis-1,2-Dichloroethene	#0.3076	0.3563	0.3454	0.3525	0.3469	0.3563	0.3301	0.3422	5	AVG #
2-Butanone	#0.3011	0.3009	0.3154	0.2879	0.3088	0.3054	0.2767	0.2994	4	AVG #
2,2-Dichloropropane	0.4139	0.4790	0.4571	0.4703	0.4707	0.4848	0.4586	0.4620	5	AVG
Propionitrile	1.1954	1.2956	1.2810	1.2795	1.2867	1.3607	1.2742	1.2819	4	AVG
Methacrylonitrile	0.1908	0.2081	0.2069	0.2084	0.2086	0.2150	0.1965	0.2049	4	AVG
Bromochloromethane	0.1419	0.1671	0.1601	0.1594	0.1560	0.1628	0.1497	0.1567	5	AVG
Tetrahydrofuran	1.0611	1.1764	1.2109	1.0939	1.2096	1.2535	1.1044	1.1586	6	AVG
Chloroform	#0.4885	0.5732	0.5473	0.5597	0.5579	0.5732	0.5450	0.5493	5	AVG #
1,1,1-Trichloroethane	#0.4198	0.5074	0.4874	0.5066	0.5068	0.5254	0.5080	0.4945	7	AVG #
Cyclohexane	#0.4921	0.5816	0.5699	0.5913	0.5947	0.6153	0.5866	0.5759	7	AVG #
Cyclohexane(2)	#0.4033	0.4847	0.4798	0.4846	0.4909	0.5071	0.4846	0.4764	7	AVG #
Cyclohexane(3)	#0.1431	0.1860	0.1783	0.1818	0.1857	0.1915	0.1841	0.1786	9	AVG #
1,1-Dichloropropene	0.3913	0.4688	0.4469	0.4558	0.4544	0.4717	0.4469	0.4480	6	AVG
Carbon Tetrachloride	#0.3546	0.4308	0.4193	0.4424	0.4508	0.4702	0.4521	0.4315	9	AVG #
Isobutyl Alcohol	0.3629	0.3875	0.3900	0.3957	0.4136	0.4118	0.3861	0.3925	4	AVG
Benzene	#1.2062	1.3955	1.3439	1.3671	1.3518	1.3834	1.2764	1.3320	5	AVG #
1,2-Dichloroethane	#0.4318	0.4233	0.3988	0.4055	0.4000	0.4145	0.3899	0.4091	4	AVG #
1,2-Dichloroethane(2)	#0.0203	0.0381	0.0357	0.0369	0.0367	0.0383	0.0362	0.0346	18	AVG #<-
t-Amyl methyl ether	0.8162	0.9187	0.8895	0.9005	0.8865	0.8848	0.7688	0.8664	6	AVG
n-Heptane	0.4147	0.4545	0.4202	0.4352	0.4366	0.4554	0.4163	0.4333	4	AVG
n-Butanol	0.2899	0.3287	0.3321	0.3439	0.3681	0.3593	0.3489	0.3387	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3148	0.3610	0.3482	0.3568	0.3543	0.3658	0.3459	0.3496	5	AVG #
Methylcyclohexane	#0.4850	0.5833	0.5508	0.5607	0.5606	0.5935	0.5549	0.5555	6	AVG #
Methylcyclohexane(2)	#0.2002	0.2512	0.2335	0.2360	0.2367	0.2524	0.2364	0.2352	7	AVG #
1,2-Dichloropropane	#0.2979	0.3424	0.3349	0.3433	0.3407	0.3503	0.3247	0.3334	5	AVG #
Dibromomethane	0.1841	0.2141	0.2088	0.2146	0.2151	0.2235	0.2095	0.2100	6	AVG
1,4-Dioxane	0.0563	0.0855	0.0866	0.0887	0.0879	0.0903	0.0928	0.0840	15	AVG
Methyl Methacrylate	0.2661	0.3033	0.3036	0.3174	0.3274	0.3429	0.3232	0.3120	8	AVG
Bromodichloromethane	#0.3346	0.3947	0.3946	0.4157	0.4242	0.4494	0.4367	0.4071	9	AVG #
2-Nitropropane	0.1216	0.1315	0.1444	0.1356	0.1535	0.1555	0.1450	0.1410	9	AVG
2-Chloroethyl Vinyl Ether	0.2203	0.2544	0.2513	0.2615	0.2688	0.2827	0.2674	0.2580	8	AVG
cis-1,3-Dichloropropene	#0.4197	0.4998	0.4976	0.5297	0.5421	0.5682	0.5444	0.5145	9	AVG #
4-Methyl-2-pentanone	#0.5069	0.5701	0.6119	0.5613	0.6248	0.6191	0.5461	0.5771	8	AVG #
Toluene	#0.9992	1.1475	1.1077	1.1178	1.1041	1.1109	0.9973	1.0835	6	AVG #
trans-1,3-Dichloropropene	#0.4674	0.5542	0.5670	0.6006	0.6195	0.6492	0.6115	0.5813	10	AVG #
Ethyl Methacrylate	0.5576	0.6389	0.6557	0.6810	0.7019	0.7241	0.6681	0.6610	8	AVG
1,1,2-Trichloroethane	#0.3543	0.3972	0.3886	0.3964	0.3956	0.4054	0.3741	0.3873	5	AVG #
Tetrachloroethene	#0.4109	0.4840	0.4786	0.4692	0.4630	0.4723	0.4388	0.4595	6	AVG #
1,3-Dichloropropane	0.5970	0.6581	0.6478	0.6532	0.6524	0.6703	0.6234	0.6431	4	AVG
2-Hexanone	#0.5011	0.5634	0.6203	0.5644	0.6306	0.6156	0.5343	0.5757	8	AVG #
Dibromochloromethane	#0.3212	0.3871	0.4003	0.4234	0.4392	0.4622	0.4358	0.4099	11	AVG #
1,2-Dibromoethane	#0.3768	0.4263	0.4302	0.4362	0.4418	0.4541	0.4237	0.4270	6	AVG #
1-Chlorohexane	0.6263	0.6562	0.6327	0.6409	0.6455	0.6521	0.5571	0.6301	5	AVG
Chlorobenzene	#1.1108	1.2413	1.1993	1.2163	1.2047	1.2245	1.0345	1.1759	6	AVG #
1,1,1,2-Tetrachloroethane	0.3424	0.4080	0.4082	0.4271	0.4339	0.4417	0.3785	0.4057	9	AVG
Ethylbenzene	#1.8868	2.1933	2.1574	2.2097	2.1969	2.2103	1.8107	2.0950	8	AVG #
m+p-Xylene	#0.7422	0.8509	0.8358	0.8499	0.8426	0.8385	0.6667	0.8038	9	AVG #
o-Xylene	#0.7151	0.8184	0.8078	0.8256	0.8250	0.8292	0.6861	0.7867	8	AVG #
Styrene	#1.0386	1.2698	1.2980	1.3570	1.3724	1.3858	1.1539	1.2679	10	AVG #
Bromoform	#0.2026	0.2648	0.2822	0.3055	0.3313	0.3509	0.3387	0.2966	17	AVG #
Isopropylbenzene	#1.8530	2.1682	2.1334	2.1676	2.1562	2.1677	1.8060	2.0646	8	AVG #
Cyclohexanone	0.3346	0.3785	0.3793	0.3871	0.3974	0.4159	0.4085	0.3859	7	AVG
Bromobenzene	0.8858	0.9950	0.9675	0.9859	0.9790	1.0004	0.8588	0.9532	6	AVG
1,1,2,2-Tetrachloroethane	#1.1337	1.3479	1.2939	1.3302	1.3550	1.3978	1.1960	1.2935	7	AVG #
1,2,3-Trichloropropane	0.3613	0.3946	0.3823	0.3915	0.3964	0.3965	0.3437	0.3809	5	AVG
trans-1,4-Dichloro-2-butene	0.1124	0.1725	0.1974	0.2289	0.2572	0.2866	0.2862	0.2202	29	1STDEG
n-Propylbenzene	4.1377	5.0093	4.8710	4.9942	4.9587	4.9680	3.8666	4.6865	10	AVG
2-Chlorotoluene	0.8693	0.9996	0.9755	0.9958	0.9816	1.0025	0.9001	0.9606	6	AVG
4-Chlorotoluene	0.8631	1.0032	0.9905	1.0103	1.0063	1.0201	0.8991	0.9704	6	AVG
1,3,5-Trimethylbenzene	2.8614	3.4243	3.3941	3.5011	3.4757	3.5301	2.8741	3.2944	9	AVG
tert-Butylbenzene	0.5925	0.6731	0.6511	0.6755	0.6863	0.6975	0.6072	0.6547	6	AVG
Pentachloroethane	0.4145	0.5395	0.5220	0.5646	0.5756	0.6025	0.5438	0.5375	11	AVG
1,2,4-Trimethylbenzene	2.9495	3.5118	3.4920	3.6093	3.5933	3.6435	2.9484	3.3925	9	AVG
sec-Butylbenzene	3.6416	4.3450	4.1870	4.3216	4.2930	4.3534	3.4501	4.0845	9	AVG
1,3-Dichlorobenzene	#1.6682	1.8837	1.8318	1.8444	1.8396	1.8724	1.6104	1.7929	6	AVG #
p-Isopropyltoluene	2.9264	3.5689	3.5105	3.6001	3.6197	3.6510	2.9665	3.4062	9	AVG
1,4-Dichlorobenzene	#1.7510	1.9001	1.8617	1.8814	1.8653	1.8798	1.5978	1.8196	6	AVG #
1,2,3-Trimethylbenzene	2.9599	3.5124	3.3584	3.3686	3.3577	3.4363	2.8016	3.2564	8	AVG
Benzyl Chloride	1.7319	2.2549	2.4434	2.6619	2.7965	2.8961	2.5863	2.4816	16	AVG
1,3-Diethylbenzene	1.6804	2.1026	2.0355	2.0417	2.0306	2.1028	1.7829	1.9681	8	AVG
1,4-Diethylbenzene	1.7348	2.2168	2.1064	2.1157	2.1084	2.1731	1.7942	2.0356	9	AVG
1,2-Dichlorobenzene	#1.6224	1.7896	1.7522	1.7851	1.7633	1.7935	1.5494	1.7222	6	AVG #
n-Butylbenzene	1.5438	1.7996	1.7385	1.7993	1.7969	1.8465	1.5022	1.7181	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

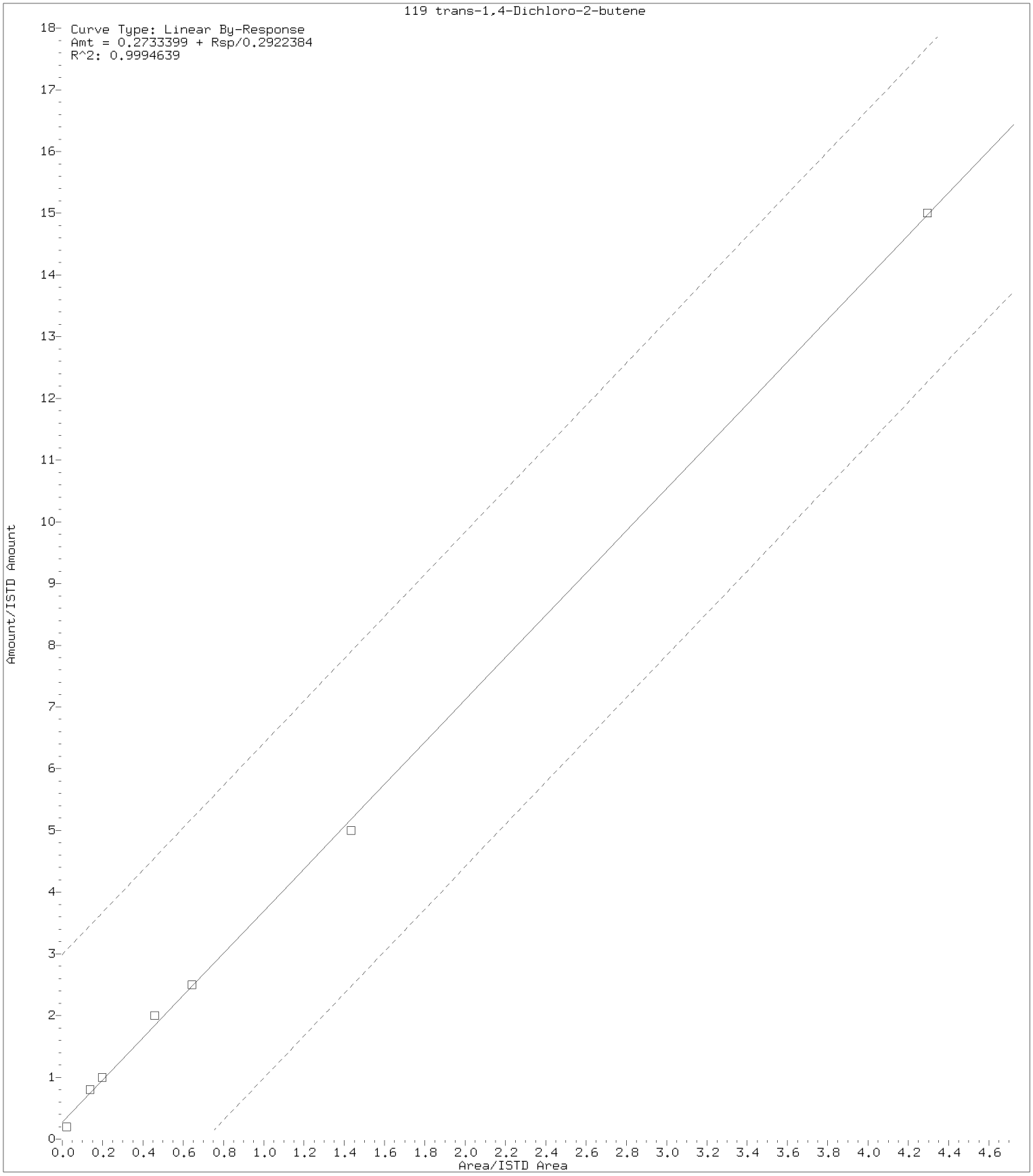
LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.4953	1.7921	1.7091	1.7222	1.6962	1.7516	1.4848	1.6645	7	AVG
1,2-Dibromo-3-chloropropane	#0.2592	0.3074	0.3150	0.3362	0.3563	0.3626	0.3492	0.3266	11	AVG #
1,3,5-Trichlorobenzene	1.0599	1.1510	1.1311	1.1715	1.1685	1.2021	1.0786	1.1375	5	AVG
1,2,4-Trichlorobenzene	#0.9677	1.0946	1.0697	1.0907	1.1027	1.1358	1.0195	1.0687	5	AVG #
Hexachlorobutadiene	0.3727	0.4147	0.4034	0.4211	0.4201	0.4361	0.4089	0.4110	5	AVG
Naphthalene	3.8142	4.3363	4.3353	4.4846	4.5265	4.5548	3.5723	4.2320	9	AVG
1,2,3-Trichlorobenzene	0.9804	1.0849	1.0540	1.0824	1.0902	1.1186	0.9921	1.0575	5	AVG
2-Methylnaphthalene	1.7785	2.1215	2.2024	2.3299	2.3869	2.4989	2.0727	2.1987	11	AVG
Dibromofluoromethane	0.2469	0.2479	0.2481	0.2493	0.2492	0.2505	0.2513	0.2490	1	AVG
Dibromofluoromethane(2)	0.2540	0.2552	0.2541	0.2543	0.2544	0.2560	0.2569	0.2550	0	AVG
1,2-Dichloroethane-d4	0.0557	0.0560	0.0558	0.0557	0.0559	0.0557	0.0550	0.0557	1	AVG
1,2-Dichloroethane-d4(2)	0.2726	0.2732	0.2713	0.2715	0.2725	0.2728	0.2723	0.2723	0	AVG
1,2-Dichloroethane-d4(3)	0.0358	0.0359	0.0355	0.0360	0.0357	0.0359	0.0349	0.0357	1	AVG
Toluene-d8	1.2511	1.2382	1.2417	1.2273	1.2232	1.2188	1.2010	1.2288	1	AVG
Toluene-d8(2)	0.8221	0.8125	0.8162	0.8056	0.8064	0.8044	0.7964	0.8091	1	AVG
4-Bromofluorobenzene	0.5144	0.5106	0.5128	0.5125	0.5201	0.5209	0.5328	0.5177	1	AVG
4-Bromofluorobenzene(2)	0.4030	0.4031	0.4002	0.3999	0.4030	0.4027	0.4153	0.4039	1	AVG

Average %RSD 7

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:37.
Target 3.5 esignature user ID: clm27445

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i01.d	VSTD300
/chem2/HP26285.i/20apr21a.b/5a21i02.d	VSTD100
/chem2/HP26285.i/20apr21a.b/5a21i03.d	VSTD050
/chem2/HP26285.i/20apr21a.b/5a21i04.d	VSTD020
/chem2/HP26285.i/20apr21a.b/5a21i05.d	VSTD010
/chem2/HP26285.i/20apr21a.b/5a21i06.d	VSTD004
/chem2/HP26285.i/20apr21a.b/5a21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	363110	347877	370304	374444	368547	345244	361518	361578	3	Yes
Fluorobenzene	1056605	1036304	1062743	1075151	1065691	1010545	1067423	1053495	2	Yes
Chlorobenzene-d5	869195	831366	842446	845669	825598	782414	814804	830213	3	Yes
1,4-Dichlorobenzene-d4	462526	432195	435155	434870	424651	399968	420878	430035	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. RT
t-Butyl alcohol-d10	3.490	3.472	3.478	3.484	3.478	3.490	3.484	3.482
Fluorobenzene	6.928	6.928	6.934	6.929	6.928	6.928	6.928	6.929
Chlorobenzene-d5	10.684	10.684	10.684	10.684	10.684	10.678	10.678	10.682
1,4-Dichlorobenzene-d4	12.671	12.671	12.671	12.671	12.671	12.671	12.671	12.671

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/23/2020 at 07:23.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.3713	18.34	20	-8	#
# Chloromethane	0.3212	0.3445	21.45	20	7	#
1,3-Butadiene	0.4465	0.4229	18.94	20	-5	
# Vinyl Chloride	0.2841	0.3123	21.98	20	10	#
# Bromomethane	0.1907	0.1598	16.75	20	-16	#
# Chloroethane	0.1345	0.1449	21.55	20	8	#
Dichlorofluoromethane	0.4383	0.4574	20.87	20	4	
n-Pentane	0.3239	0.3319	20.49	20	2	
# Trichlorofluoromethane	0.3480	0.4090	23.51	20	18	#
Ethyl ether	0.2399	0.2386	19.89	20	-1	
Freon 123a	0.3632	0.3784	20.84	20	4	
Acrolein	1.5830	1.4407	136.52	150	-9	
# 1,1-Dichloroethene	0.2703	0.2871	21.24	20	6	#
# Acetone	0.7807	0.8193	157.42	150	5	#
# Freon 113	0.3060	0.3265	21.34	20	7	#
2-Propanol	0.6353	0.6615	156.18	150	4	
Methyl Iodide	0.5155	0.5107	19.81	20	-1	
# Carbon Disulfide	0.9510	0.9385	19.74	20	-1	#
Allyl Chloride	0.4525	0.5034	22.25	20	11	
# Methyl Acetate	0.3898	0.4209	21.60	20	8	#
# Methylene Chloride	0.3047	0.3159	20.73	20	4	#
t-Butyl alcohol	1.1775	1.2466	211.73	200	6	
Acrylonitrile	0.2057	0.1993	96.88	100	-3	
# trans-1,2-Dichloroethene	0.3025	0.3064	20.26	20	1	#
# Methyl Tertiary Butyl Ether	0.8001	0.8076	20.19	20	1	#
n-Hexane	0.4485	0.4757	21.21	20	6	
# 1,1-Dichloroethane	0.5476	0.5553	20.28	20	1	#
di-Isopropyl ether	0.9781	0.9871	20.18	20	1	
2-Chloro-1,3-butadiene	0.4652	0.4709	20.25	20	1	
Ethyl t-butyl ether	0.8683	0.8738	20.13	20	1	
# cis-1,2-Dichloroethene	0.3422	0.3657	21.38	20	7	#
# 2-Butanone	0.2994	0.2977	149.12	150	-1	#
2,2-Dichloropropane	0.4620	0.4617	19.98	20	0	
Propionitrile	1.2819	1.2758	149.29	150	0	
Methacrylonitrile	0.2049	0.2061	150.90	150	1	
Bromochloromethane	0.1567	0.1675	21.38	20	7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1586	1.1347	97.94	100	-2	
#	Chloroform	0.5493	0.5516	20.09	20	0	#
#	1,1,1-Trichloroethane	0.4945	0.4942	19.99	20	0	#
#	Cyclohexane	0.5759	0.5737	19.92	20	0	#
	1,1-Dichloropropene	0.4480	0.4474	19.98	20	0	
#	Carbon Tetrachloride	0.4315	0.4376	20.28	20	1	#
	Isobutyl Alcohol	0.3925	0.3866	492.46	500	-2	
#	Benzene	1.3320	1.3247	19.89	20	-1	#
#	1,2-Dichloroethane	0.4091	0.3995	19.53	20	-2	#
	t-Amyl methyl ether	0.8664	0.8773	20.25	20	1	
	n-Heptane	0.4333	0.4133	19.08	20	-5	
	n-Butanol	0.3387	0.3329	982.85	1000	-2	
#	Trichloroethene	0.3496	0.3489	19.96	20	0	#
#	Methylcyclohexane	0.5555	0.5947	21.41	20	7	#
#	1,2-Dichloropropane	0.3334	0.3403	20.41	20	2	#
	Dibromomethane	0.2100	0.2116	20.16	20	1	
	1,4-Dioxane	0.0840	0.0874	520.44	500	4	
	Methyl Methacrylate	0.3120	0.3249	20.83	20	4	
#	Bromodichloromethane	0.4071	0.4063	19.96	20	0	#
	2-Nitropropane	0.1410	0.1305	18.51	20	-7	
	2-Chloroethyl Vinyl Ether	0.2580	0.2595	20.11	20	1	
#	cis-1,3-Dichloropropene	0.5145	0.5055	19.65	20	-2	#
#	4-Methyl-2-pentanone	0.5771	0.5701	98.77	100	-1	#
#	Toluene	1.0835	1.1093	20.48	20	2	#
#	trans-1,3-Dichloropropene	0.5813	0.5787	19.91	20	0	#
	Ethyl Methacrylate	0.6610	0.6319	19.12	20	-4	
#	1,1,2-Trichloroethane	0.3873	0.4031	20.81	20	4	#
#	Tetrachloroethene	0.4595	0.4869	21.19	20	6	#
	1,3-Dichloropropane	0.6431	0.6389	19.87	20	-1	
#	2-Hexanone	0.5757	0.5977	103.83	100	4	#
#	Dibromochloromethane	0.4099	0.4280	20.88	20	4	#
#	1,2-Dibromoethane	0.4270	0.4344	20.35	20	2	#
	1-Chlorohexane	0.6301	0.6259	19.87	20	-1	
#	Chlorobenzene	1.1759	1.2141	20.65	20	3	#
	1,1,1,2-Tetrachloroethane	0.4057	0.4181	20.61	20	3	
#	Ethylbenzene	2.0950	2.1694	20.71	20	4	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.8038	0.8477	42.18	40	5	#
# o-Xylene	0.7867	0.8195	20.83	20	4	#
# Styrene	1.2679	1.3376	21.10	20	5	#
# Bromoform	0.2966	0.2946	19.87	20	-1	#
# Isopropylbenzene	2.0646	2.1743	21.06	20	5	#
Cyclohexanone	0.3859	0.3679	476.66	500	-5	
Bromobenzene	0.9532	0.9905	20.78	20	4	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3483	20.85	20	4	#
1,2,3-Trichloropropane	0.3809	0.3947	20.73	20	4	
trans-1,4-Dichloro-2-butene	0.2202	0.2397	95.68	100	-4	
n-Propylbenzene	4.6865	4.9784	21.25	20	6	
2-Chlorotoluene	0.9606	0.9849	20.51	20	3	
4-Chlorotoluene	0.9704	1.0028	20.67	20	3	
1,3,5-Trimethylbenzene	3.2944	3.4482	20.93	20	5	
tert-Butylbenzene	0.6547	0.6841	20.90	20	4	
Pentachloroethane	0.5375	0.5838	21.72	20	9	
1,2,4-Trimethylbenzene	3.3925	3.5071	20.68	20	3	
sec-Butylbenzene	4.0845	4.2601	20.86	20	4	
# 1,3-Dichlorobenzene	1.7929	1.8468	20.60	20	3	#
p-Isopropyltoluene	3.4062	3.5759	21.00	20	5	
# 1,4-Dichlorobenzene	1.8196	1.8946	20.82	20	4	#
1,2,3-Trimethylbenzene	3.2564	3.6816	22.61	20	13	
Benzyl Chloride	2.4816	2.2494	18.13	20	-9	
1,3-Diethylbenzene	1.9681	2.1587	21.94	20	10	
1,4-Diethylbenzene	2.0356	2.2309	21.92	20	10	
# 1,2-Dichlorobenzene	1.7222	1.7928	20.82	20	4	#
n-Butylbenzene	1.7181	1.7634	20.53	20	3	
1,2-Diethylbenzene	1.6645	1.8071	21.71	20	9	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3324	20.36	20	2	#
1,3,5-Trichlorobenzene	1.1375	1.1537	20.28	20	1	
# 1,2,4-Trichlorobenzene	1.0687	1.0982	20.55	20	3	#
Hexachlorobutadiene	0.4110	0.4030	19.61	20	-2	
Naphthalene	4.2320	4.3798	20.70	20	3	
1,2,3-Trichlorobenzene	1.0575	1.0700	20.24	20	1	
2-Methylnaphthalene	2.1987	2.3281	21.18	20	6	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i07.d
/chem/HP07159.i/20jan09a.b/nj09i06.d
/chem/HP07159.i/20jan09a.b/nj09i05.d
/chem/HP07159.i/20jan09a.b/nj09i04.d
/chem/HP07159.i/20jan09a.b/nj09i03.d
/chem/HP07159.i/20jan09a.b/nj09i02.d
/chem/HP07159.i/20jan09a.b/nj09i01.d

File /chem/HP07159.i/20jan09a.b/nj09i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07159.i/20may22a.b/ny22c01.d

RT Summary

Internal Standard Name	File ID: ny22c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.422	4.423	Yes
Fluorobenzene	7.926	7.933	Yes
Chlorobenzene-d5	11.363	11.370	Yes
1,4-Dichlorobenzene-d4	13.243	13.250	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ny22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	282380	386370	193185	772740	Yes
Fluorobenzene	1055917	1307289	653644	2614578	Yes
Chlorobenzene-d5	834018	985480	492740	1970960	Yes
1,4-Dichlorobenzene-d4	495632	543996	271998	1087992	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/22/2020 at 11:39

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.4116	52.87	50	6	#
# Chloromethane	0.4170	0.3771	45.22	50	-10	#
1,3-Butadiene	0.2910	0.3180	54.64	50	9	
# Vinyl Chloride	0.4058	0.3820	47.06	50	-6	#
# Bromomethane	0.2782	0.2567	46.13	50	-8	#
# Chloroethane	0.2375	0.2240	47.16	50	-6	#
n-Pentane	0.4370	0.4965	56.81	50	14	
# Trichlorofluoromethane	0.4460	0.4257	47.72	50	-5	#
Ethanol	0.0605	0.0662	1367.95	1250	9	
Freon 123a	0.3267	0.3145	48.13	50	-4	
Acrolein	1.6953	1.5098	445.30	500	-11	
# 1,1-Dichloroethene	0.2599	0.2518	48.44	50	-3	#
# 1,1-Dichloroethene(2)	0.1364	0.1306	47.87	50	-4	#
# Acetone	0.7140	0.7010	98.17	100	-2	#
# Freon 113	0.2412	0.2709	56.18	50	12	#
2-Propanol	0.4716	0.4734	250.93	250	0	
Methyl Iodide	0.4852	0.4686	48.29	50	-3	
# Carbon Disulfide	0.8312	0.8386	50.45	50	1	#
Allyl Chloride	0.4589	0.4468	48.69	50	-3	
# Methyl Acetate	0.3193	0.3013	47.18	50	-6	#
# Methylene Chloride	0.3087	0.2844	46.07	50	-8	#
t-Butyl alcohol	0.9320	1.0756	288.50	250	15	
Acrylonitrile	0.1725	0.1513	43.86	50	-12	
# trans-1,2-Dichloroethene	0.2967	0.2846	47.95	50	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.7566	44.79	50	-10	#
n-Hexane	0.4096	0.4734	57.79	50	16	
# 1,1-Dichloroethane	0.5413	0.5247	48.46	50	-3	#
di-Isopropyl ether	0.9325	0.9011	48.32	50	-3	
2-Chloro-1,3-butadiene	0.4778	0.4638	48.53	50	-3	
Ethyl t-butyl ether	0.8863	0.8018	45.24	50	-10	
# cis-1,2-Dichloroethene	0.3370	0.3217	47.72	50	-5	#
# 2-Butanone	0.2411	0.2167	89.86	100	-10	#
2,2-Dichloropropane	0.4779	0.4221	44.16	50	-12	
Propionitrile	1.0886	1.2700	291.67	250	17	
Methacrylonitrile	0.1742	0.1744	125.11	125	0	
Bromochloromethane	0.1593	0.1661	52.14	50	4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1301	1.0876	96.24	100	-4	
# Chloroform	0.5280	0.4971	47.08	50	-6	#
# 1,1,1-Trichloroethane	0.4777	0.4377	45.81	50	-8	#
# Cyclohexane	0.4913	0.5502	55.99	50	12	#
# Cyclohexane(2)	0.4282	0.4881	56.99	50	14	#
# Cyclohexane(3)	0.1544	0.1677	54.30	50	9	#
1,1-Dichloropropene	0.4321	0.4165	48.20	50	-4	
# Carbon Tetrachloride	0.4119	0.3918	47.56	50	-5	#
Isobutyl Alcohol	0.3339	0.3844	719.60	625	15	
# Benzene	1.2299	1.1900	48.38	50	-3	#
# 1,2-Dichloroethane	0.4351	0.3894	44.74	50	-11	#
# 1,2-Dichloroethane(2)	0.0358	0.0373	52.12	50	4	#<-
t-Amyl methyl ether	0.8891	0.8263	46.47	50	-7	
n-Heptane	0.4728	0.5136	54.32	50	9	
n-Butanol	0.2876	0.3327	1446.16	1250	16	
# Trichloroethene	0.3240	0.3023	46.65	50	-7	#
# Methylcyclohexane	0.5326	0.6257	58.74	50	17	#
# Methylcyclohexane(2)	0.2508	0.2958	58.97	50	18	#
# 1,2-Dichloropropane	0.3145	0.3135	49.85	50	0	#
Dibromomethane	0.2006	0.1879	46.83	50	-6	
1,4-Dioxane	0.0727	0.0763	655.98	625	5	
Methyl Methacrylate	0.2876	0.2852	49.58	50	-1	
# Bromodichloromethane	0.4094	0.3825	46.71	50	-7	#
2-Nitropropane	0.1487	0.1158	77.89	100	-22	<-
2-Chloroethyl Vinyl Ether	0.2488	0.2373	47.69	50	-5	
# cis-1,3-Dichloropropene	0.5223	0.4970	47.57	50	-5	#
# 4-Methyl-2-pentanone	0.4886	0.4836	98.98	100	-1	#
# Toluene	1.0593	0.9952	46.97	50	-6	#
# trans-1,3-Dichloropropene	0.6575	0.5995	45.59	50	-9	#
Ethyl Methacrylate	0.6550	0.6184	47.20	50	-6	
# 1,1,2-Trichloroethane	0.3750	0.3590	47.86	50	-4	#
# Tetrachloroethene	0.4639	0.5008	53.98	50	8	#
1,3-Dichloropropane	0.6509	0.6241	47.94	50	-4	
# 2-Hexanone	0.5014	0.5009	99.90	100	0	#
# Dibromochloromethane	0.4304	0.4163	48.36	50	-3	#
# 1,2-Dibromoethane	0.4107	0.3890	47.36	50	-5	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Chlorobenzene	1.1823	1.1439	48.38	50	-3	#
	1,1,1,2-Tetrachloroethane	0.4261	0.4180	49.05	50	-2	
#	Ethylbenzene	2.0489	1.9880	48.51	50	-3	#
#	m+p-Xylene	0.8050	0.7953	98.79	100	-1	#
#	o-Xylene	0.7918	0.7865	49.67	50	-1	#
#	Styrene	1.3298	1.3407	50.41	50	1	#
#	Bromoform	0.3249	0.3457	53.20	50	6	#
#	Isopropylbenzene	2.0911	2.2580	53.99	50	8	#
	Cyclohexanone	0.2914	0.3316	711.31	625	14	
	Bromobenzene	0.9247	0.9125	49.34	50	-1	
#	1,1,2,2-Tetrachloroethane	1.0998	1.1299	51.37	50	3	#
	1,2,3-Trichloropropane	0.3484	0.3410	48.94	50	-2	
	trans-1,4-Dichloro-2-butene	0.3783	0.3191	105.42	125	-16	
	n-Propylbenzene	4.4833	4.4767	49.93	50	0	
	2-Chlorotoluene	0.9243	0.9148	49.48	50	-1	
	4-Chlorotoluene	0.9579	0.9496	49.57	50	-1	
	1,3,5-Trimethylbenzene	3.2849	3.2297	49.16	50	-2	
	tert-Butylbenzene	0.7279	0.7631	52.41	50	5	
	Pentachloroethane	0.5829	0.5029	43.14	50	-14	
	1,2,4-Trimethylbenzene	3.4094	3.3385	48.96	50	-2	
	sec-Butylbenzene	4.2670	4.3377	50.83	50	2	
#	1,3-Dichlorobenzene	1.7986	1.7597	48.92	50	-2	#
	p-Isopropyltoluene	3.7132	3.7217	50.11	50	0	
#	1,4-Dichlorobenzene	1.8240	1.7958	49.23	50	-2	#
	1,2,3-Trimethylbenzene	3.3090	3.1908	48.21	50	-4	
	Benzyl Chloride	2.4309	2.2392	46.06	50	-8	
	1,3-Diethylbenzene	2.2227	2.2111	49.74	50	-1	
	1,4-Diethylbenzene	2.3602	2.3169	49.08	50	-2	
#	1,2-Dichlorobenzene	1.7052	1.7021	49.91	50	0	#
	n-Butylbenzene	1.9154	1.8848	49.20	50	-2	
	1,2-Diethylbenzene	1.8804	1.8342	48.77	50	-2	
#	1,2-Dibromo-3-chloropropane	0.2972	0.2687	45.20	50	-10	#
	1,3,5-Trichlorobenzene	1.3592	1.2947	47.63	50	-5	
#	1,2,4-Trichlorobenzene	1.1851	1.1324	47.77	50	-4	#
	Hexachlorobutadiene	0.5361	0.5006	46.69	50	-7	
	Naphthalene	3.7159	3.6688	49.37	50	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2,3-Trichlorobenzene	1.0879	1.0381	47.71	50	-5
2-Methylnaphthalene	2.1464	1.8947	44.14	50	-12
Dibromofluoromethane	0.2481	0.2357	47.49	50	-5
Dibromofluoromethane(2)	0.2534	0.2402	47.41	50	-5
1,2-Dichloroethane-d4	0.0627	0.0599	47.70	50	-5
1,2-Dichloroethane-d4(2)	0.2991	0.2905	48.56	50	-3
1,2-Dichloroethane-d4(3)	0.0399	0.0386	48.29	50	-3
Toluene-d8	1.3040	1.2114	46.45	50	-7
Toluene-d8(2)	0.8639	0.8056	46.62	50	-7
4-Bromofluorobenzene	0.5152	0.5084	49.34	50	-1
4-Bromofluorobenzene(2)	0.4127	0.4301	52.11	50	4

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may23a.b/5y23c01.d

RT Summary

Internal Standard Name	File ID: 5y23c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.502	3.478	Yes
Fluorobenzene	6.916	6.934	Yes
Chlorobenzene-d5	10.671	10.684	Yes
1,4-Dichlorobenzene-d4	12.665	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y23c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	299566	370304	185152	740608	Yes
Fluorobenzene	996784	1062743	531372	2125486	Yes
Chlorobenzene-d5	776530	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	414707	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/23/2020 at 15:10

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4760	58.78	50	18	#
# Chloromethane	0.3212	0.3225	50.20	50	0	#
1,3-Butadiene	0.4465	0.2895	32.42	50	-35	<-
# Vinyl Chloride	0.2841	0.3160	55.62	50	11	#
# Bromomethane	0.1907	0.2207	57.86	50	16	#
# Chloroethane	0.1345	0.1501	55.79	50	12	#
n-Pentane	0.3239	0.2988	46.13	50	-8	
# Trichlorofluoromethane	0.3480	0.3970	57.05	50	14	#
Ethyl ether	0.2399	0.1919	40.00	50	-20	
Freon 123a	0.3632	0.3365	46.33	50	-7	
Acrolein	1.5830	1.7107	540.35	500	8	
# 1,1-Dichloroethene	0.2703	0.2564	47.42	50	-5	#
# 1,1-Dichloroethene(2)	0.1355	0.1332	49.17	50	-2	#
# Acetone	0.7807	0.9309	119.24	100	19	#
# Freon 113	0.3060	0.2957	48.31	50	-3	#
2-Propanol	0.6353	0.5182	203.92	250	-18	
Methyl Iodide	0.5155	0.4897	47.49	50	-5	
# Carbon Disulfide	0.9510	0.8102	42.60	50	-15	#
Allyl Chloride	0.4525	0.4259	47.06	50	-6	
# Methyl Acetate	0.3898	0.3775	48.42	50	-3	#
# Methylene Chloride	0.3047	0.2872	47.12	50	-6	#
t-Butyl alcohol	1.1775	1.0453	221.93	250	-11	
Acrylonitrile	0.2057	0.2078	50.51	50	1	
# trans-1,2-Dichloroethene	0.3025	0.2831	46.79	50	-6	#
# Methyl Tertiary Butyl Ether	0.8001	0.7737	48.35	50	-3	#
n-Hexane	0.4485	0.4024	44.86	50	-10	
# 1,1-Dichloroethane	0.5476	0.5068	46.27	50	-7	#
di-Isopropyl ether	0.9781	0.8888	45.44	50	-9	
2-Chloro-1,3-butadiene	0.4652	0.4365	46.91	50	-6	
Ethyl t-butyl ether	0.8683	0.7902	45.50	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3228	47.17	50	-6	#
# 2-Butanone	0.2994	0.2962	98.91	100	-1	#
2,2-Dichloropropane	0.4620	0.4124	44.63	50	-11	
Propionitrile	1.2819	1.4151	275.98	250	10	
Methacrylonitrile	0.2049	0.1952	119.08	125	-5	
Bromochloromethane	0.1567	0.1556	49.65	50	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.3505	116.57	100	17	
# Chloroform	0.5493	0.5218	47.50	50	-5	#
# 1,1,1-Trichloroethane	0.4945	0.4725	47.77	50	-4	#
# Cyclohexane	0.5759	0.5257	45.63	50	-9	#
# Cyclohexane(2)	0.4764	0.4416	46.35	50	-7	#
# Cyclohexane(3)	0.1786	0.1639	45.87	50	-8	#
1,1-Dichloropropene	0.4480	0.4169	46.53	50	-7	
# Carbon Tetrachloride	0.4315	0.4092	47.42	50	-5	#
Isobutyl Alcohol	0.3925	0.4084	650.28	625	4	
# Benzene	1.3320	1.2455	46.75	50	-6	#
# 1,2-Dichloroethane	0.4091	0.3892	47.56	50	-5	#
# 1,2-Dichloroethane(2)	0.0346	0.0352	50.80	50	2	#<-
t-Amyl methyl ether	0.8664	0.8000	46.16	50	-8	
n-Heptane	0.4333	0.3824	44.13	50	-12	
n-Butanol	0.3387	0.3621	1336.57	1250	7	
# Trichloroethene	0.3496	0.3313	47.39	50	-5	#
# Methylcyclohexane	0.5555	0.5401	48.61	50	-3	#
# Methylcyclohexane(2)	0.2352	0.2278	48.44	50	-3	#
# 1,2-Dichloropropane	0.3334	0.3166	47.47	50	-5	#
Dibromomethane	0.2100	0.2032	48.38	50	-3	
1,4-Dioxane	0.0840	0.1028	764.67	625	22	<-
Methyl Methacrylate	0.3120	0.3018	48.37	50	-3	
# Bromodichloromethane	0.4071	0.3872	47.56	50	-5	#
2-Nitropropane	0.1410	0.1460	103.53	100	4	
2-Chloroethyl Vinyl Ether	0.2580	0.2506	48.56	50	-3	
# cis-1,3-Dichloropropene	0.5145	0.4939	48.00	50	-4	#
# 4-Methyl-2-pentanone	0.5771	0.6002	103.99	100	4	#
# Toluene	1.0835	1.0401	48.00	50	-4	#
# trans-1,3-Dichloropropene	0.5813	0.5907	50.81	50	2	#
Ethyl Methacrylate	0.6610	0.6483	49.04	50	-2	
# 1,1,2-Trichloroethane	0.3873	0.3909	50.45	50	1	#
# Tetrachloroethene	0.4595	0.4585	49.88	50	0	#
1,3-Dichloropropane	0.6431	0.6336	49.25	50	-1	
# 2-Hexanone	0.5757	0.6264	108.82	100	9	#
# Dibromochloromethane	0.4099	0.4111	50.15	50	0	#
# 1,2-Dibromoethane	0.4270	0.4301	50.37	50	1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.6301	0.6014	47.72	50	-5	
#	Chlorobenzene	1.1759	1.1733	49.89	50	0	#
	1,1,1,2-Tetrachloroethane	0.4057	0.4176	51.47	50	3	
#	Ethylbenzene	2.0950	2.1131	50.43	50	1	#
#	m+p-Xylene	0.8038	0.8099	100.76	100	1	#
#	o-Xylene	0.7867	0.7977	50.70	50	1	#
#	Styrene	1.2679	1.3056	51.49	50	3	#
#	Bromoform	0.2966	0.3045	51.34	50	3	#
#	Isopropylbenzene	2.0646	2.0939	50.71	50	1	#
	Cyclohexanone	0.3859	0.3851	623.75	625	0	
	Bromobenzene	0.9532	0.9482	49.74	50	-1	
#	1,1,2,2-Tetrachloroethane	1.2935	1.3099	50.63	50	1	#
	1,2,3-Trichloropropane	0.3809	0.3814	50.07	50	0	
	trans-1,4-Dichloro-2-butene	0.2202	0.2879	136.79	125	9	
	n-Propylbenzene	4.6865	4.6295	49.39	50	-1	
	2-Chlorotoluene	0.9606	0.9331	48.57	50	-3	
	4-Chlorotoluene	0.9704	0.9563	49.27	50	-1	
	1,3,5-Trimethylbenzene	3.2944	3.2710	49.64	50	-1	
	tert-Butylbenzene	0.6547	0.6497	49.62	50	-1	
	Pentachloroethane	0.5375	0.5452	50.71	50	1	
	1,2,4-Trimethylbenzene	3.3925	3.4254	50.48	50	1	
	sec-Butylbenzene	4.0845	4.0591	49.69	50	-1	
#	1,3-Dichlorobenzene	1.7929	1.7796	49.63	50	-1	#
	p-Isopropyltoluene	3.4062	3.4233	50.25	50	1	
#	1,4-Dichlorobenzene	1.8196	1.8040	49.57	50	-1	#
	1,2,3-Trimethylbenzene	3.2564	3.2472	49.86	50	0	
	Benzyl Chloride	2.4816	2.3857	48.07	50	-4	
	1,3-Diethylbenzene	1.9681	1.9692	50.03	50	0	
	1,4-Diethylbenzene	2.0356	2.0475	50.29	50	1	
#	1,2-Dichlorobenzene	1.7222	1.7046	49.49	50	-1	#
	n-Butylbenzene	1.7181	1.6788	48.86	50	-2	
	1,2-Diethylbenzene	1.6645	1.6455	49.43	50	-1	
#	1,2-Dibromo-3-chloropropane	0.3266	0.3285	50.30	50	1	#
	1,3,5-Trichlorobenzene	1.1375	1.1315	49.73	50	-1	
#	1,2,4-Trichlorobenzene	1.0687	1.0626	49.71	50	-1	#
	Hexachlorobutadiene	0.4110	0.3967	48.26	50	-3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.2320	4.3456	51.34	50	3
1,2,3-Trichlorobenzene	1.0575	1.0509	49.69	50	-1
2-Methylnaphthalene	2.1987	2.2203	50.49	50	1
Dibromofluoromethane	0.2490	0.2459	49.38	50	-1
Dibromofluoromethane(2)	0.2550	0.2523	49.47	50	-1
1,2-Dichloroethane-d4	0.0557	0.0558	50.05	50	0
1,2-Dichloroethane-d4(2)	0.2723	0.2765	50.77	50	2
1,2-Dichloroethane-d4(3)	0.0357	0.0359	50.29	50	1
Toluene-d8	1.2288	1.2351	50.26	50	1
Toluene-d8(2)	0.8091	0.8080	49.94	50	0
4-Bromofluorobenzene	0.5177	0.5125	49.49	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4111	50.89	50	2

Average %Drift 5

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
01 LCSN45	317361	4.410	1191852	7.920	899461	11.363	495502	13.243
02 VBLKN45	321315	4.398	1158785	7.926	862795	11.363	450523	13.243
03 1315379	287541	4.398	1164969	7.920	874028	11.364	475046	13.244
04 1315372	280489	4.391	1162205	7.920	866965	11.363	469380	13.242
05 1315373	252012	4.415	1157165	7.925	862462	11.362	468536	13.242
06 1315374MS	276555	4.392	1205813	7.926	833512	11.364	495280	13.243
07 1315375MSD	280373	4.400	1198065	7.923	900749	11.366	495899	13.240
08 1315377	332803	4.391	1157175	7.920	885341	11.363	431316	13.243
09 1315378	334202	4.394	1170211	7.923	878018	11.366	476596	13.240
10 1315380	248107	4.404	1144895	7.926	869803	11.363	473519	13.243
11 1315381	331975	4.412	1141438	7.922	873259	11.366	475238	13.245
12 1316321	282793	4.398	1051527	7.920	887863	11.363	479575	13.243
13 1316322	336881	4.406	1162369	7.923	880487	11.366	474544	13.246
14 1316330	328621	4.404	1172750	7.920	873558	11.363	474944	13.243
15 1316331	292921	4.397	1151341	7.926	872417	11.363	474131	13.242
16 1316332	305023	4.400	1157387	7.917	884326	11.366	474359	13.240
17 1316333	287917	4.397	1157179	7.925	882870	11.363	473115	13.242
18 1316334	281897	4.405	1015455	7.922	851710	11.365	461758	13.245
19 1316335	318185	4.400	1147854	7.923	866383	11.366	465372	13.240
20 1316336	297920	4.406	1142108	7.922	865324	11.365	465342	13.239
21 1316337	316397	4.404	1006412	7.920	766546	11.364	462477	13.243
22 1316338	286008	4.392	1131155	7.920	866546	11.363	463740	13.243

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
23 1316339	286583	4.405	1018373	7.922	850921	11.365	466286	13.245
24 1316340	317946	4.401	1137043	7.924	866213	11.367	462851	13.240

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y23c01.d Date Analyzed: 05/23/20

Instrument ID: HP26285 Time Analyzed: 14:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	299566	3.502	996784	6.916	776530	10.671	414707	12.665
UPPER LIMIT	599132	4.002	1993568	7.416	1553060	11.171	829414	13.165
LOWER LIMIT	149783	3.002	498392	6.416	388265	10.171	207354	12.165
LAB SAMPLE ID								
01 LCS567	283549	3.478	997523	6.922	773893	10.672	408577	12.665
02 VBLK567	276314	3.484	975534	6.916	753626	10.672	392354	12.665
03 1316327	314157	3.466	983233	6.904	759348	10.666	396301	12.665
04 1316328MS	276064	3.478	955197	6.922	745550	10.671	394000	12.665
05 1316329MSD	290430	3.484	964164	6.922	750256	10.672	397892	12.665
06 1315727	315349	3.478	995471	6.916	780864	10.665	406949	12.665
07 1315728	330398	3.484	1007970	6.916	775410	10.665	404889	12.665
08 1316323	281576	3.484	934998	6.922	723559	10.665	377575	12.659
09 1316324	271339	3.490	915861	6.916	708554	10.665	370524	12.659
10 1316325	272109	3.508	919256	6.922	715475	10.665	373347	12.659
11 1316326	281526	3.490	908408	6.916	704836	10.665	368895	12.659
12 1316342	264847	3.502	907277	6.922	702743	10.666	369970	12.659
13 1316343	265340	3.496	912109	6.922	708472	10.665	370837	12.659
14 1316344	264316	3.502	909038	6.916	705454	10.666	372344	12.659
15 1316345	265954	3.490	917899	6.916	713968	10.665	377045	12.659
16 1316346	255258	3.484	887334	6.916	690775	10.665	366329	12.659
17 1315721	278841	3.460	925627	6.910	744624	10.666	386165	12.659
18 1315722	300893	3.502	907613	6.916	715245	10.659	373644	12.653
19 1315722DL	284844	3.484	904955	6.910	699702	10.659	364469	12.653
20 1315724	279624	3.478	911276	6.910	714087	10.659	375925	12.653
21 1315724DL	264831	3.484	920300	6.910	707121	10.659	378845	12.653
22 1315725	279831	3.478	945541	6.910	745875	10.659	389156	12.653

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y23c01.d Date Analyzed: 05/23/20

Instrument ID: HP26285 Time Analyzed: 14:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	299566	3.502	996784	6.916	776530	10.671	414707	12.665
UPPER LIMIT	599132	4.002	1993568	7.416	1553060	11.171	829414	13.165
LOWER LIMIT	149783	3.002	498392	6.416	388265	10.171	207354	12.165
LAB SAMPLE ID								
23 1315725DL	288328	3.490	962093	6.904	751974	10.659	393017	12.653
24 1315726	340016	3.508	961729	6.904	764616	10.660	397123	12.653
25 1315726DL	296256	3.465	979850	6.904	763341	10.653	401972	12.653
26 1315730	338499	3.496	972538	6.904	775024	10.659	402230	12.653
27 1315730DL	292691	3.490	958202	6.910	744328	10.653	391737	12.647

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC001

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316321

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s11.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC001 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316321

Data file: /chem/HP07159.i/20may22a.b/ny22s11.d Injection date and time: **22-MAY-2020 15:46**
Data file Sample Info. Line: UC001;1316321;1;0;;JCW55;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.398	(0.024)	503	65	282793	(0)	250.00	
66) Fluorobenzene	7.920	(0.006)	1082	96	1051527	(0)	50.00	
100) Chlorobenzene-d5	11.363	(0.000)	1648	117	887863	(6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(0.000)	1957	152	479575	(-3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.032	(-0.001)	113	249239	47.761	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488	(0.000)	102	63612	48.212	96%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1022221	44.145	88%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	401964	43.939	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:45. Target 3.5 esignature user ID: sej02002

UC001 Lancaster Laboratories 1316321
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s11.d Injection date and time: **22-MAY-2020 15:46**
Data file Sample Info. Line: UC001;1316321;1;0;;JCW55;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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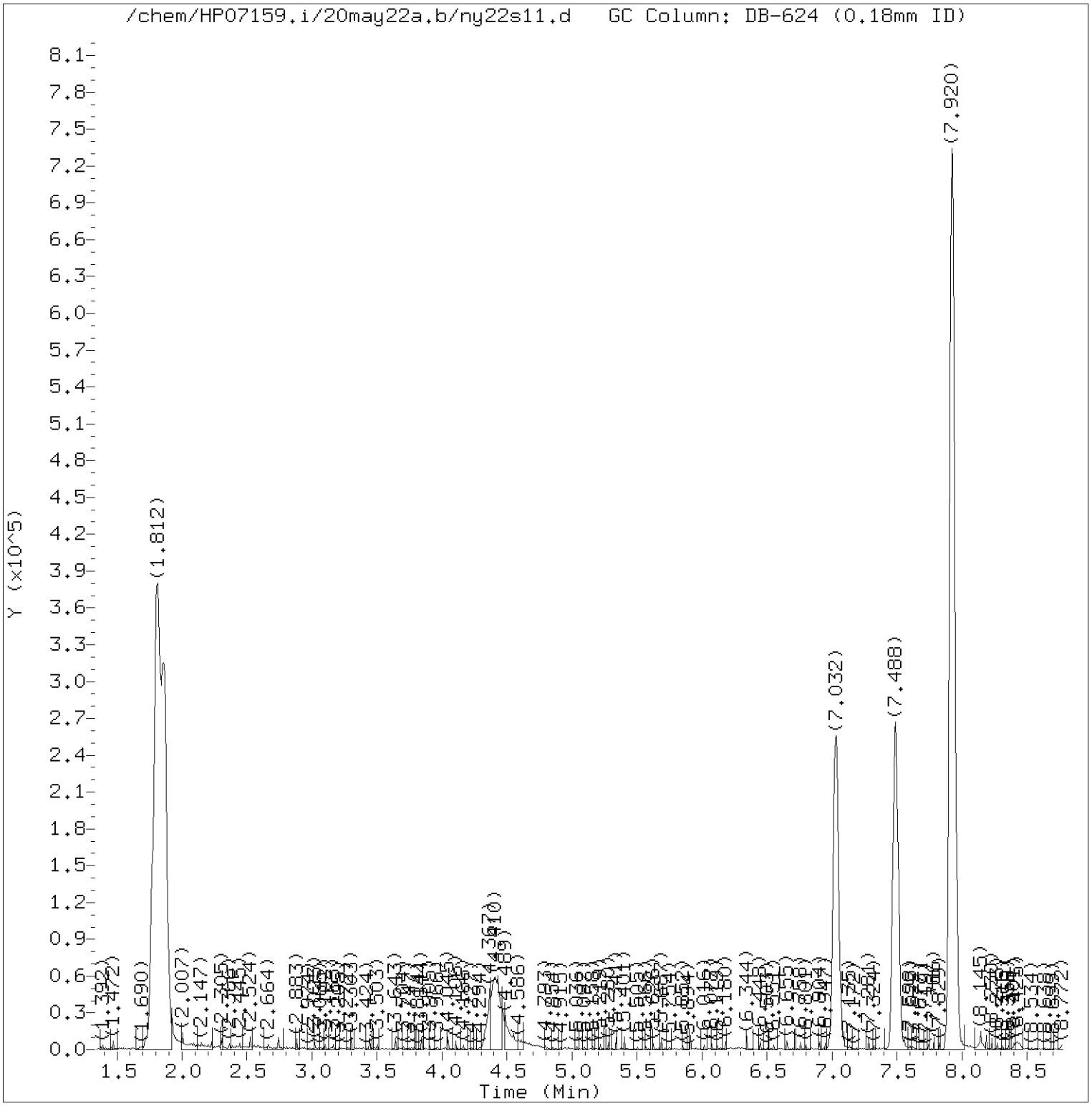
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:45. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

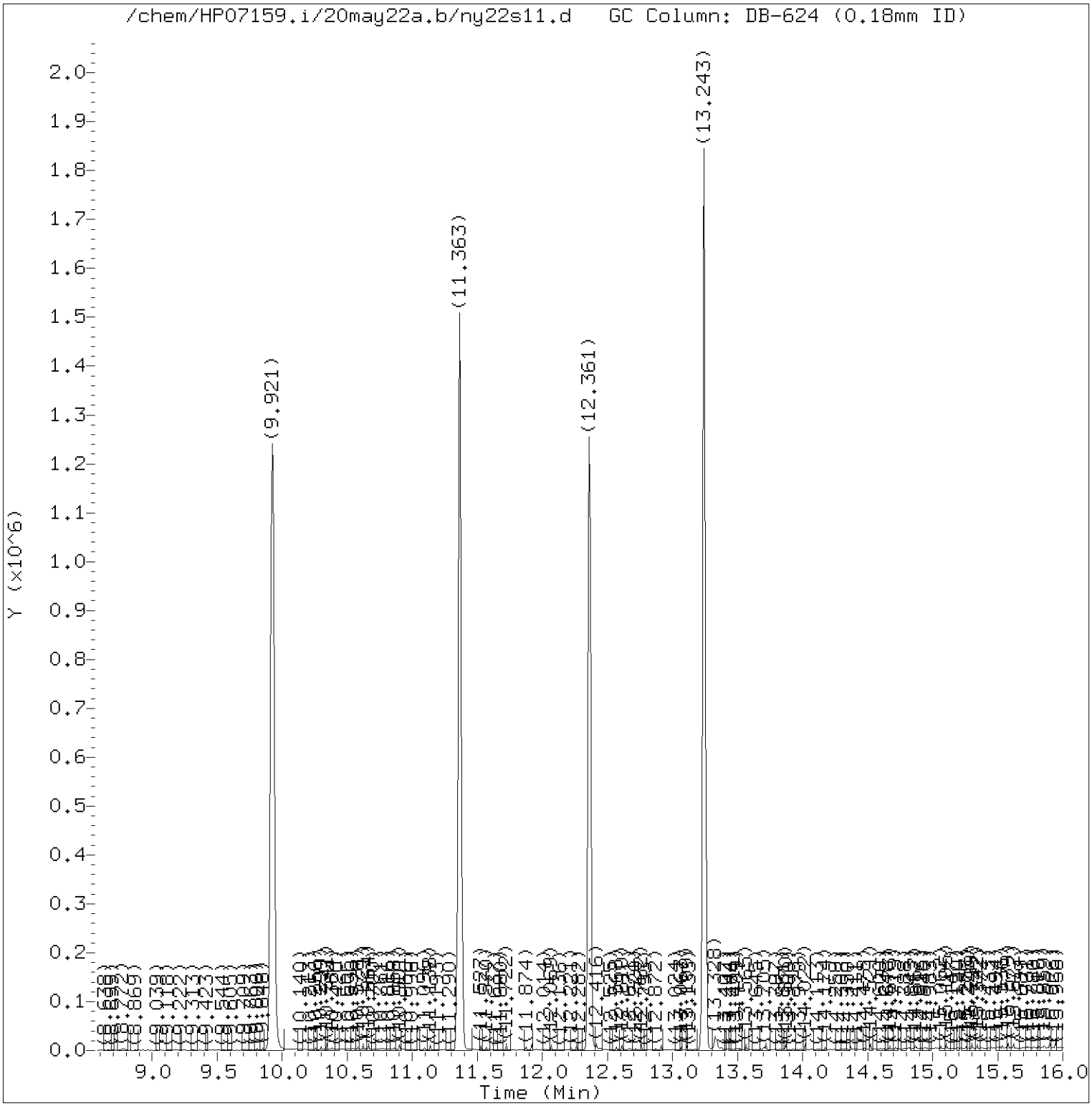
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s11.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 15:46 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC001 Lab Sample ID: 1316321

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:45.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s11.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 15:46 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC001 Lab Sample ID: 1316321

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:45.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s11.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 15:46 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC001 Lab Sample ID: 1316321

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.398	65	282793	250.000
52)$Dibromofluoromethane	(2)	7.032	113	249239	47.761
57)$1,2-Dichloroethane-d4	(2)	7.488	102	63612	48.212
66)*Fluorobenzene	(2)	7.920	96	1051527	50.000
83)$Toluene-d8	(3)	9.921	98	1022221	44.145
100)*Chlorobenzene-d5	(3)	11.363	117	887863	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	401964	43.939
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	479575	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:45.
Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC002

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316322

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s12.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC002 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316322

Data file: /chem/HP07159.i/20may22a.b/ny22s12.d Injection date and time: **22-MAY-2020 16:08**
Data file Sample Info. Line: UC002;1316322;1;0;;JCW55;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.406	(0.015)	504	65	336881	(19)	250.00	
66) Fluorobenzene	7.923	(0.003)	1082	96	1162369	(10)	50.00	
100) Chlorobenzene-d5	11.366	(-0.003)	1648	117	880487	(6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.246	(-0.003)	1957	152	474544	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.028	(0.000)	113	276500	47.933	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.485	(0.001)	102	72468	49.686	99%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1095754	47.717	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.358	(0.001)	95	399118	43.993	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:07. Target 3.5 esignature user ID: sej02002

UC002 Lancaster Laboratories 1316322
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s12.d Injection date and time: **22-MAY-2020 16:08**
Data file Sample Info. Line: UC002;1316322;1;0;;JCW55;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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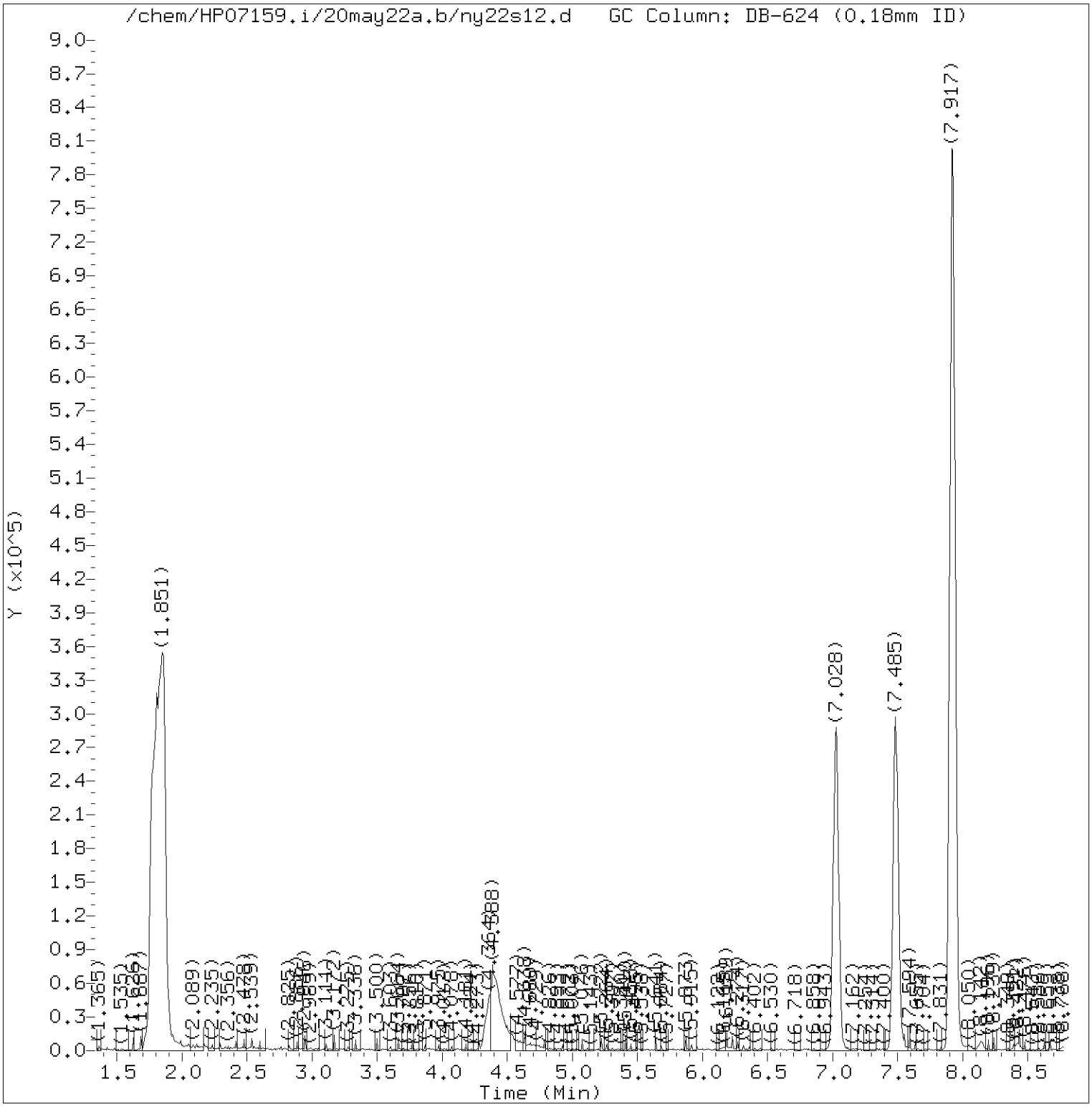
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:07. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

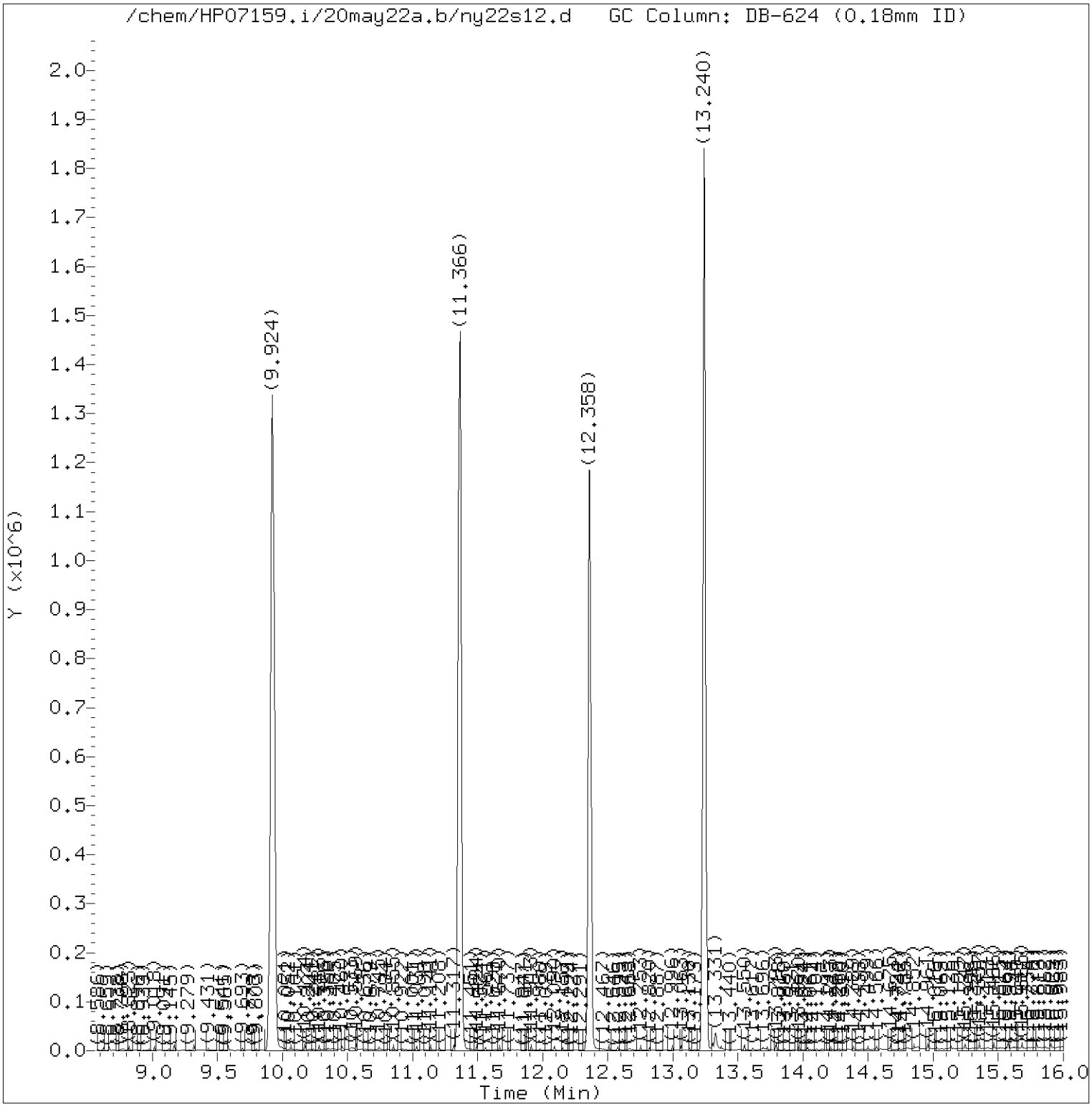
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s12.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:08 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC002 Lab Sample ID: 1316322

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:07.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s12.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:08 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC002 Lab Sample ID: 1316322

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:07.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s12.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:08 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: UC002 Lab Sample ID: 1316322

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.406	65	336881	250.000
52)$Dibromofluoromethane	(2)	7.028	113	276500	47.933
57)$1,2-Dichloroethane-d4	(2)	7.485	102	72468	49.686
66)*Fluorobenzene	(2)	7.923	96	1162369	50.000
83)$Toluene-d8	(3)	9.924	98	1095754	47.717
100)*Chlorobenzene-d5	(3)	11.366	117	880487	50.000
114)$4-Bromofluorobenzene	(3)	12.358	95	399118	43.993
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	474544	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:07.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
UC003

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316323

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s07.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC003 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316323

Data file: /chem2/HP26285.i/20may23a.b/5y23s07.d Injection date and time: **23-MAY-2020 17:45**
Data file Sample Info. Line: UC003;1316323;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:04 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.484	(0.018)	344	65	281576	(-6)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	934998	(-6)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	723559	(-7)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	377575	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(0.000)	113	227391	48.827	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	53689	51.547	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	885976	49.825	100%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	357744	47.749	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:35. Target 3.5 esignature user ID: ljg30941

UC003 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316323

Data file: /chem2/HP26285.i/20may23a.b/5y23s07.d Injection date and time: **23-MAY-2020 17:45**
Data file Sample Info. Line: UC003;1316323;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:04 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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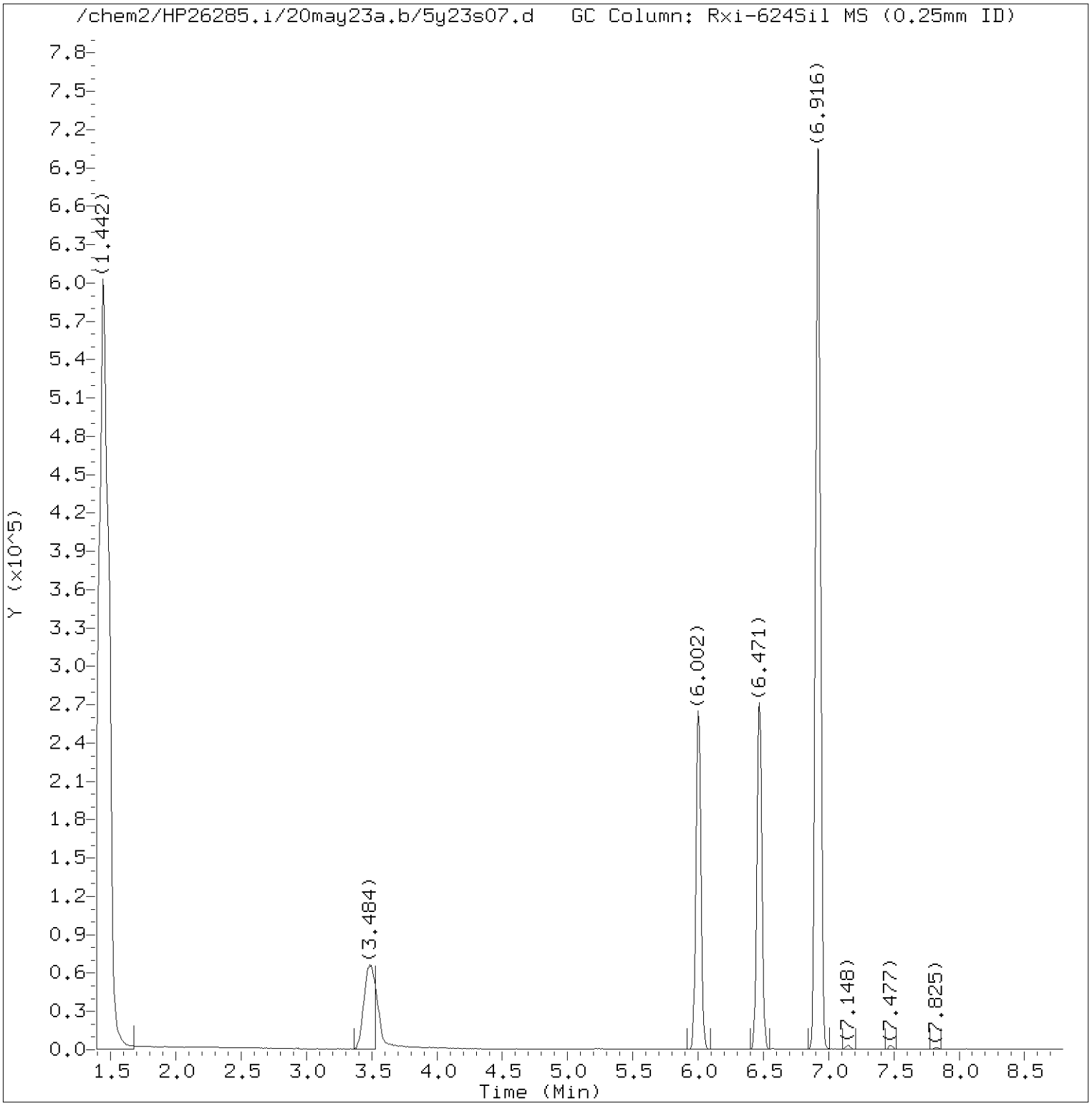
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:35. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

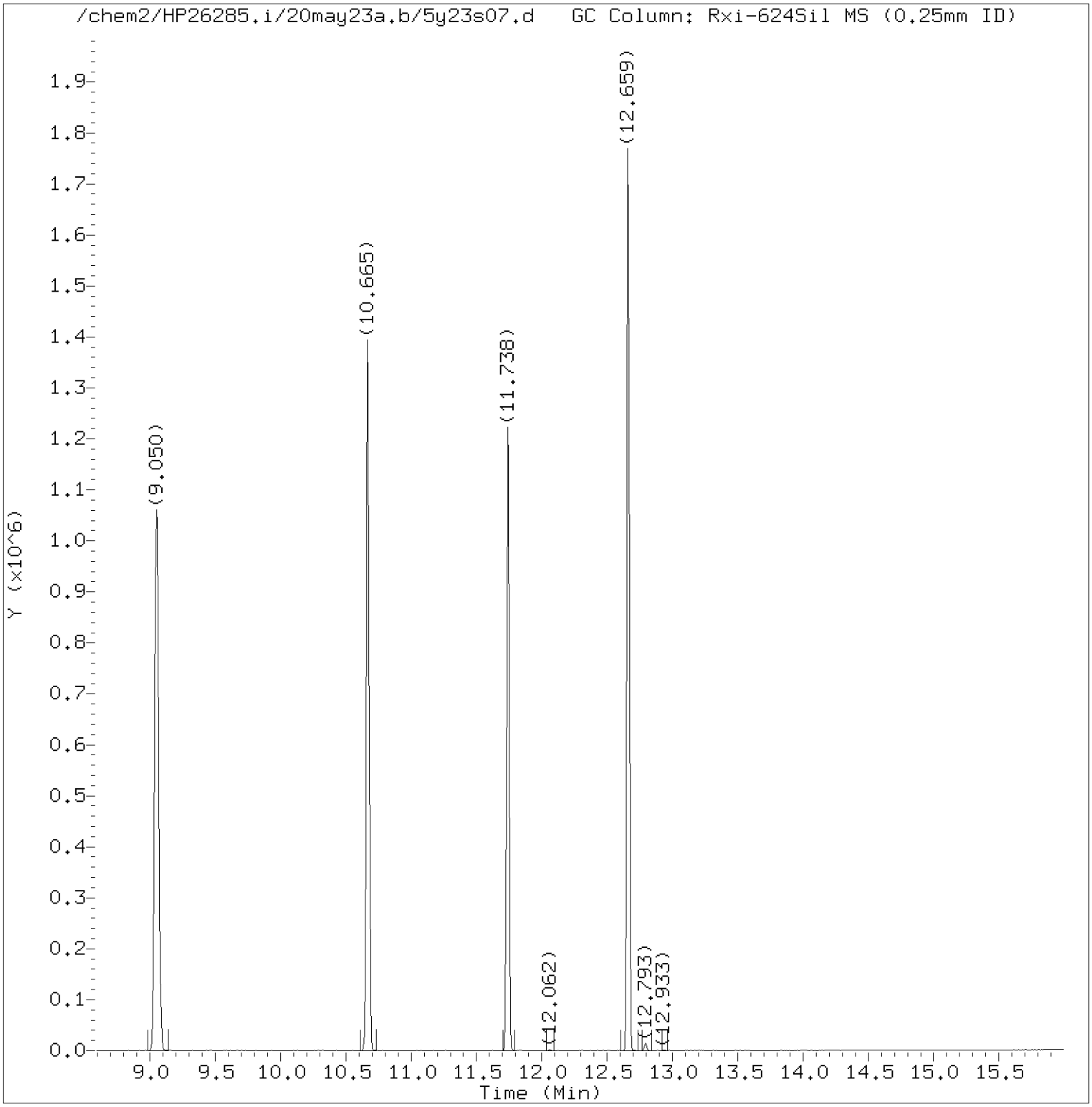
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s07.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 17:45 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:04 chemist

Sample Name: UC003 Lab Sample ID: 1316323

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s07.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 17:45 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:04 chemist

Sample Name: UC003 Lab Sample ID: 1316323

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s07.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 17:45 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:04 chemist

Sample Name: UC003 Lab Sample ID: 1316323

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.484	65	281576	250.000
52)$Dibromofluoromethane	(2)	6.002	113	227391	48.827
57)$1,2-Dichloroethane-d4	(2)	6.471	102	53689	51.547
66)*Fluorobenzene	(2)	6.922	96	934998	50.000
84)$Toluene-d8	(3)	9.050	98	885976	49.825
101)*Chlorobenzene-d5	(3)	10.665	117	723559	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	357744	47.749
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	377575	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
UC004

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316324

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s08.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC004 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316324

Data file: /chem2/HP26285.i/20may23a.b/5y23s08.d Injection date and time: **23-MAY-2020 18:06**
Data file Sample Info. Line: UC004;1316324;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:25 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.490	(0.012)	345	65	271339	(-9)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	915861	(-8)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	708554	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	370524	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	223721	49.043	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(-0.001)	102	52550	51.507	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	863716	49.601	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	349616	47.652	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:35. Target 3.5 esignature user ID: ljg30941

UC004 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316324

Data file: /chem2/HP26285.i/20may23a.b/5y23s08.d Injection date and time: **23-MAY-2020 18:06**
Data file Sample Info. Line: UC004;1316324;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:25 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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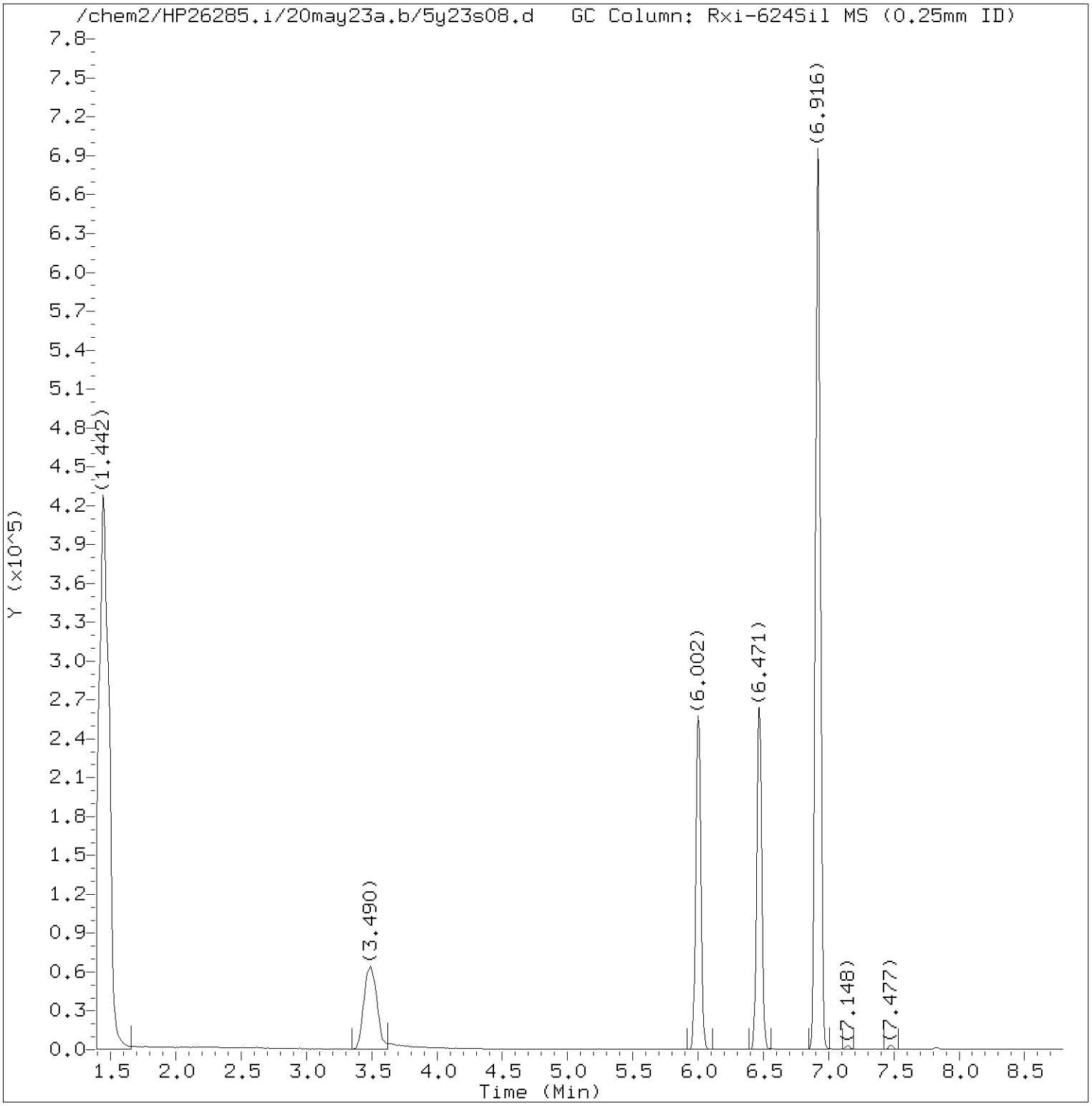
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:35. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

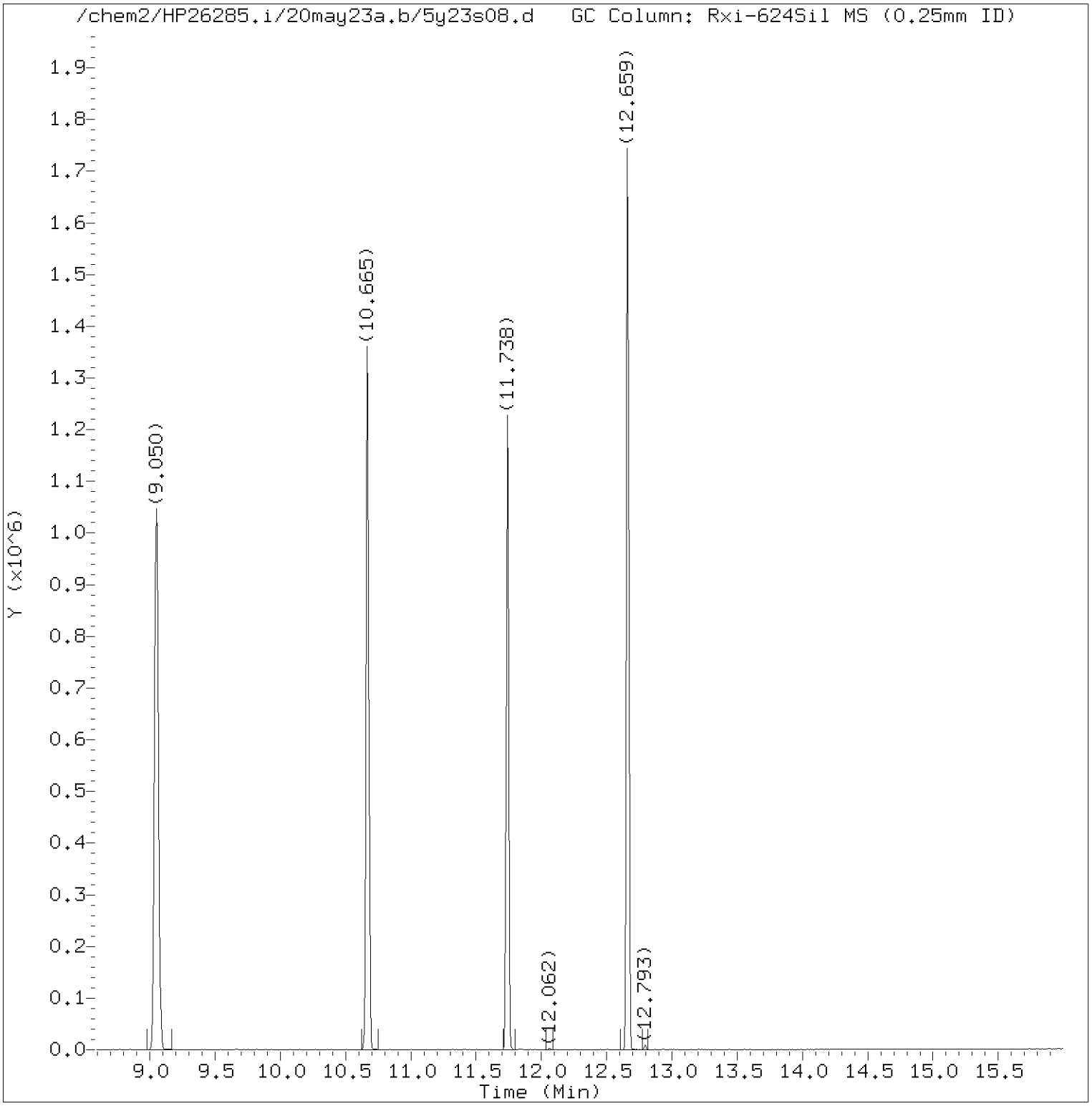
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s08.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:06 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:25 chemist

Sample Name: UC004 Lab Sample ID: 1316324

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s08.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:06 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:25 chemist

Sample Name: UC004 Lab Sample ID: 1316324

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s08.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:06 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:25 chemist

Sample Name: UC004 Lab Sample ID: 1316324

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.490	65	271339	250.000
52)$Dibromofluoromethane	(2)	6.002	113	223721	49.043
57)$1,2-Dichloroethane-d4	(2)	6.471	102	52550	51.507
66)*Fluorobenzene	(2)	6.916	96	915861	50.000
84)$Toluene-d8	(3)	9.050	98	863716	49.601
101)*Chlorobenzene-d5	(3)	10.665	117	708554	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	349616	47.652
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	370524	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:35.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC005

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316325

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s09.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC005 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316325

Data file: /chem2/HP26285.i/20may23a.b/5y23s09.d Injection date and time: **23-MAY-2020 18:26**
Data file Sample Info. Line: UC005;1316325;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:45 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.508	(-0.006)	348	65	272109	(-9)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	919256	(-8)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	715475	(-8)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	373347	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.008	(-0.001)	113	225101	49.163	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.477	(-0.001)	102	52281	51.054	102%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	870157	49.488	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	350711	47.339	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

UC005 Lancaster Laboratories 1316325
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s09.d Injection date and time: **23-MAY-2020 18:26**
Data file Sample Info. Line: UC005;1316325;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 18:45 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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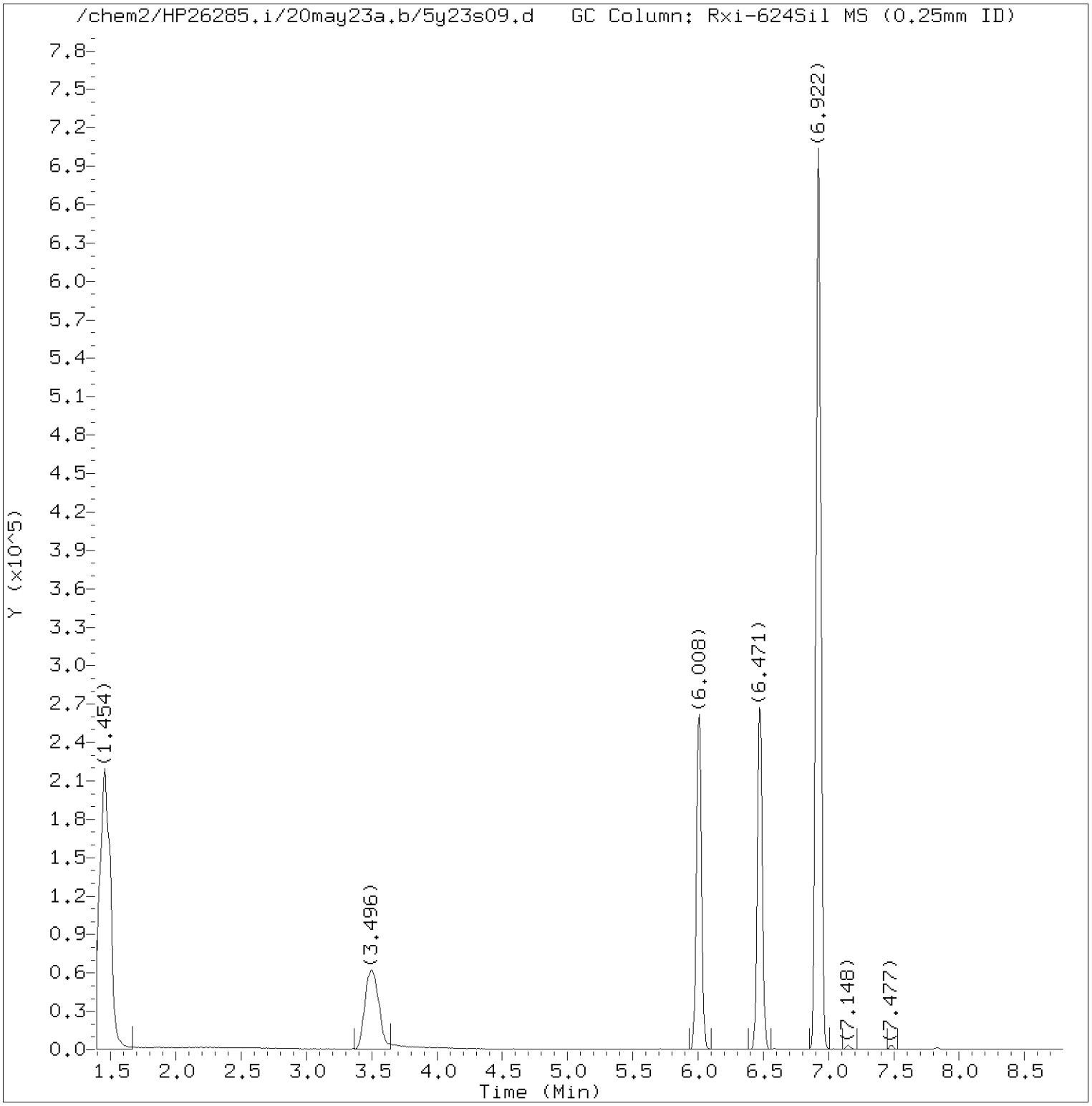
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

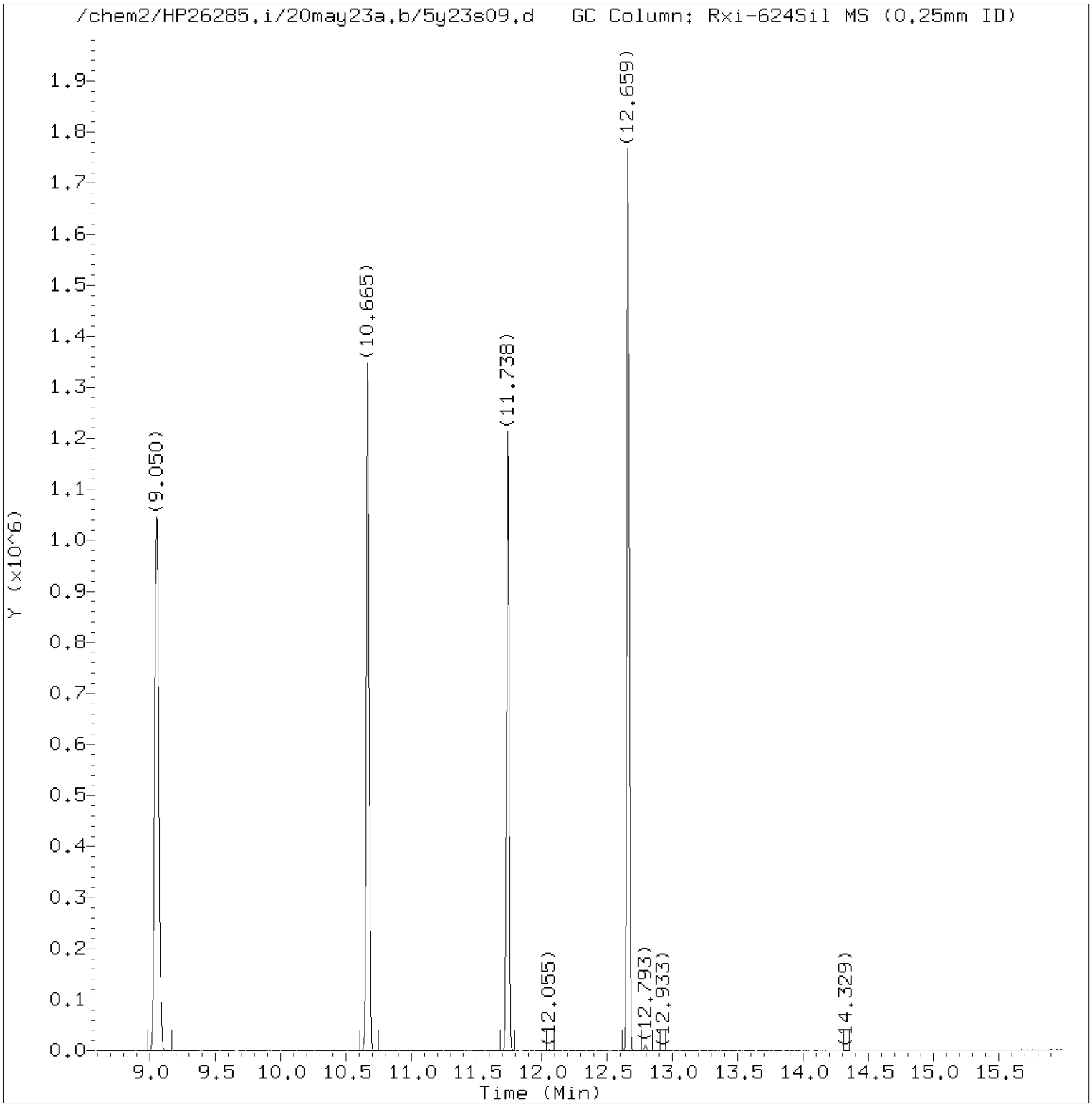
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s09.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:26 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:45 chemist

Sample Name: UC005 Lab Sample ID: 1316325

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s09.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:26 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:45 chemist

Sample Name: UC005 Lab Sample ID: 1316325

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s09.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:26 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 18:45 chemist

Sample Name: UC005 Lab Sample ID: 1316325

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.508	65	272109	250.000
52)$Dibromofluoromethane	(2)	6.008	113	225101	49.163
57)$1,2-Dichloroethane-d4	(2)	6.477	102	52281	51.054
66)*Fluorobenzene	(2)	6.922	96	919256	50.000
84)$Toluene-d8	(3)	9.050	98	870157	49.488
101)*Chlorobenzene-d5	(3)	10.665	117	715475	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	350711	47.339
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	373347	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
UC006

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316326

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s10.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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UC006 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316326

Data file: /chem2/HP26285.i/20may23a.b/5y23s10.d Injection date and time: **23-MAY-2020 18:47**
Data file Sample Info. Line: UC006;1316326;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:06 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.490	(0.012)	345	65	281526	(-6)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	908408	(-9)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	704836	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	368895	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	223669	49.434	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.465	(0.000)	102	52356	51.738	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	858108	49.539	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	347304	47.587	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

UC006 Lancaster Laboratories 1316326
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s10.d Injection date and time: **23-MAY-2020 18:47**
Data file Sample Info. Line: UC006;1316326;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:06 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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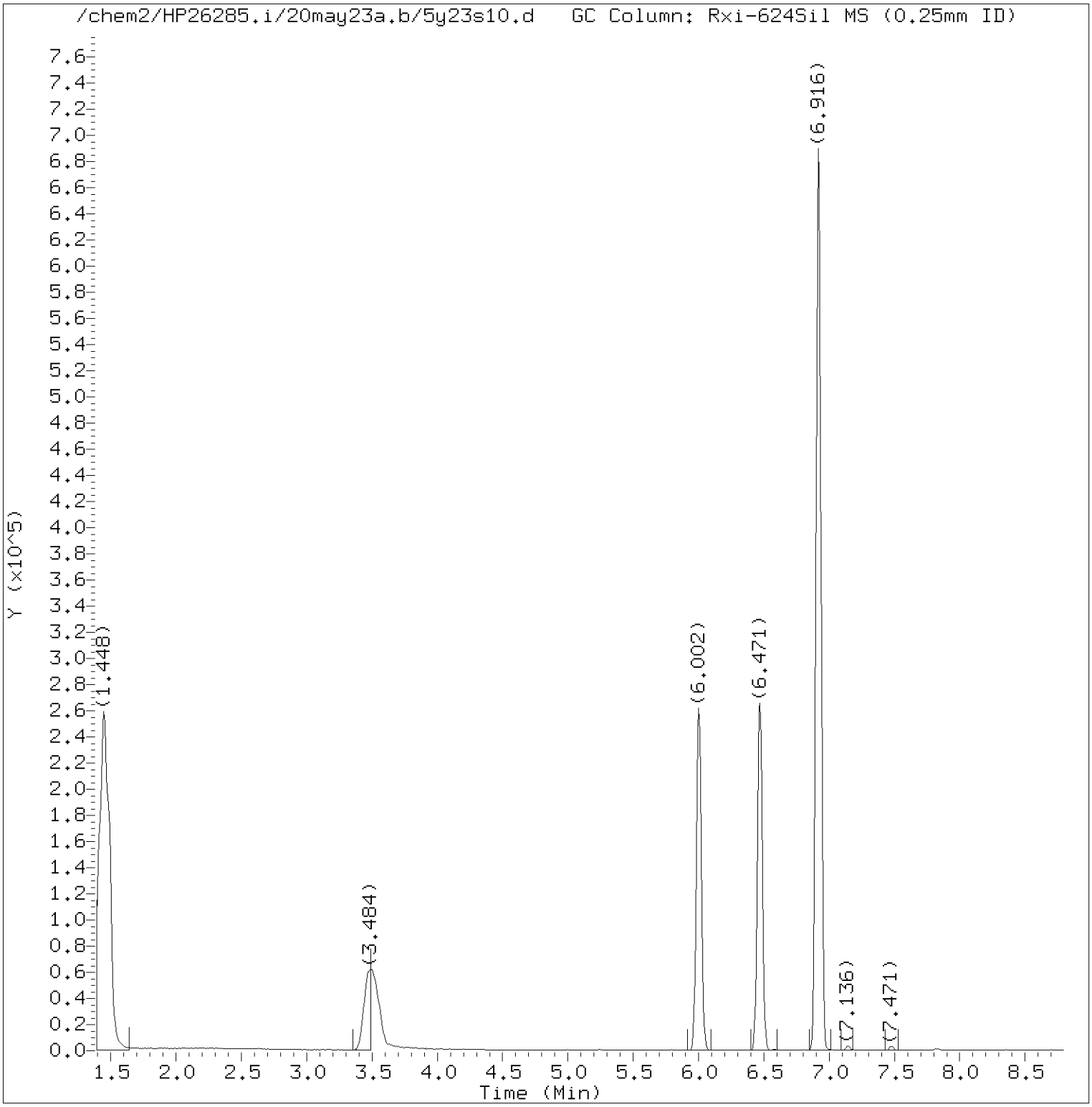
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

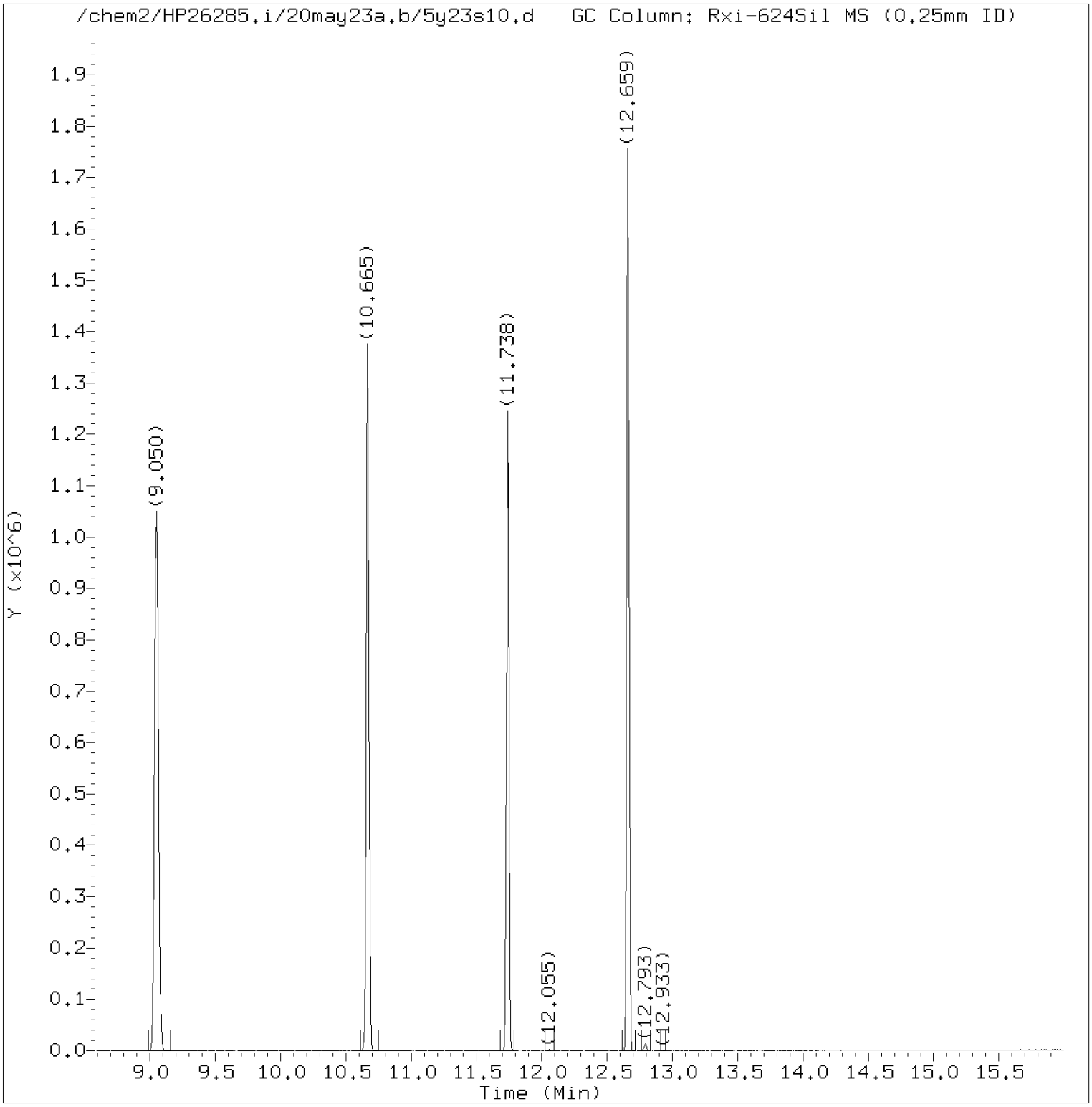
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s10.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:47 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:06 chemist

Sample Name: UC006 Lab Sample ID: 1316326

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s10.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:47 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:06 chemist

Sample Name: UC006 Lab Sample ID: 1316326

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s10.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 18:47 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:06 chemist

Sample Name: UC006 Lab Sample ID: 1316326

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.490	65	281526	250.000
52)$Dibromofluoromethane	(2)	6.002	113	223669	49.434
57)$1,2-Dichloroethane-d4	(2)	6.465	102	52356	51.738
66)*Fluorobenzene	(2)	6.916	96	908408	50.000
84)$Toluene-d8	(3)	9.050	98	858108	49.539
101)*Chlorobenzene-d5	(3)	10.665	117	704836	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	347304	47.587
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	368895	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC007

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316327

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s02.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.3	J
156-59-2	cis-1,2-Dichloroethene	0.7	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	3	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	9	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

UC007 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316327

Data file: /chem2/HP26285.i/20may23a.b/5y23s02.d Injection date and time: **23-MAY-2020 16:02**
Data file Sample Info. Line: UC007;1316327;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466	(0.036)	341	65	314157	(5)	250.00	
66) Fluorobenzene	6.904	(0.012)	905	96	983233	(-1)	50.00	
101) Chlorobenzene-d5	10.666	(0.006)	1522	117	759348	(-2)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	396301	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.984	(0.000)	113	238658	48.732	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.453	(0.000)	102	56021	51.147	102%		80 - 120
84) Toluene-d8	(3)	9.044	(0.000)	98	927124	49.681	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.739	(0.000)	95	374880	47.678	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.386	(-0.000)	63	2728	0.253	0.25		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.258	(-0.000)	96	5039	0.749	0.75		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.984	(0.000)	97	15074	1.550	1.55			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.404	(-0.001)	95	22467	3.268	3.27			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.745	(0.000)	166	62590	8.968	8.97			0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

UC007 Lancaster Laboratories 1316327
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s02.d Injection date and time: **23-MAY-2020 16:02**
Data file Sample Info. Line: UC007;1316327;1;0;;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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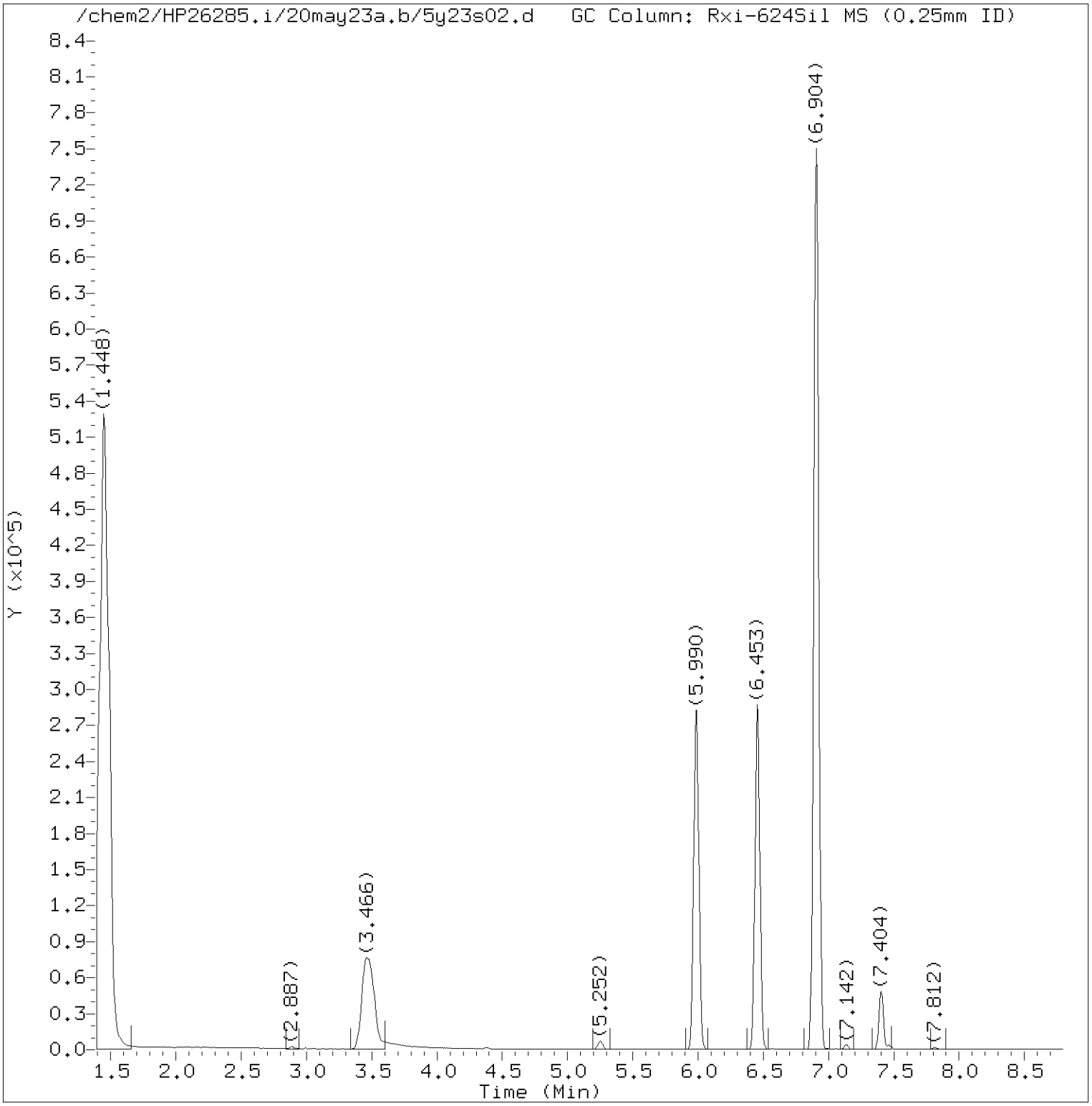
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:59. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

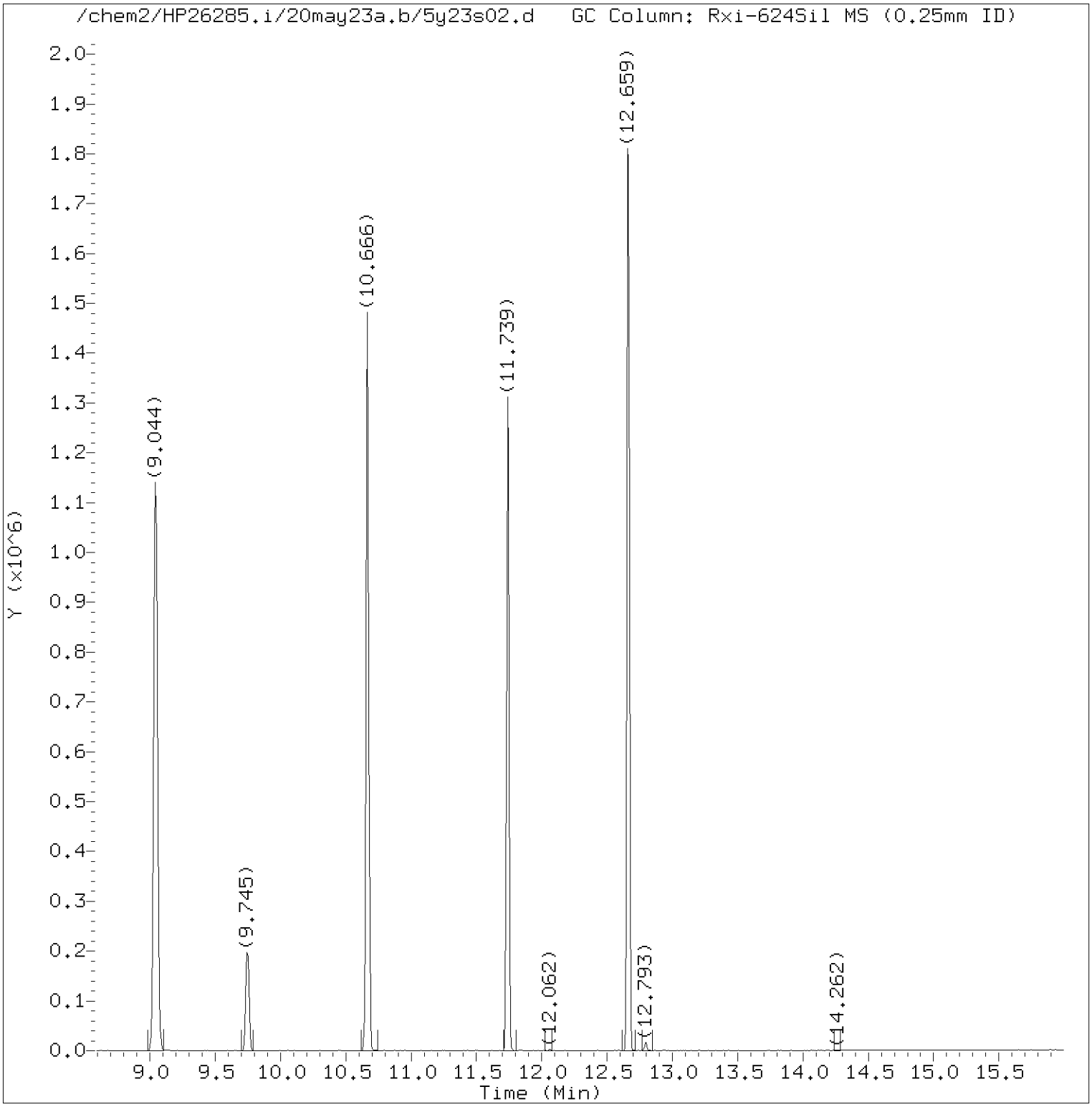
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	314157	250.000
36) 1,1-Dichloroethane	(2)	4.386	63	2728	0.253
42) cis-1,2-Dichloroethene	(2)	5.258	96	5039	0.749
53) 1,1,1-Trichloroethane	(2)	5.984	97	15074	1.550
52)$Dibromofluoromethane	(2)	5.984	113	238658	48.732
57)$1,2-Dichloroethane-d4	(2)	6.453	102	56021	51.147
66)*Fluorobenzene	(2)	6.904	96	983233	50.000
71) Trichloroethene	(2)	7.404	95	22467	3.268
84)$Toluene-d8	(3)	9.044	98	927124	49.681
94) Tetrachloroethene	(3)	9.745	166	62590	8.968
101)*Chlorobenzene-d5	(3)	10.666	117	759348	50.000
115)$4-Bromofluorobenzene	(3)	11.739	95	374880	47.678
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	396301	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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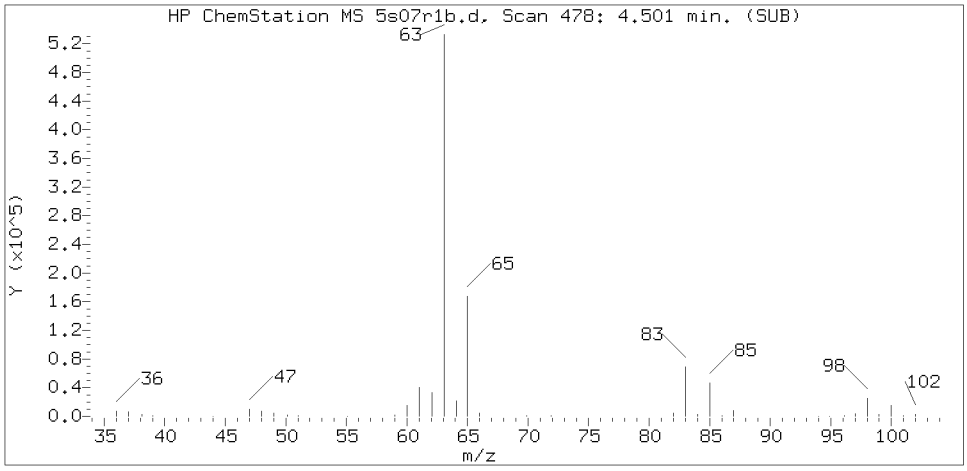
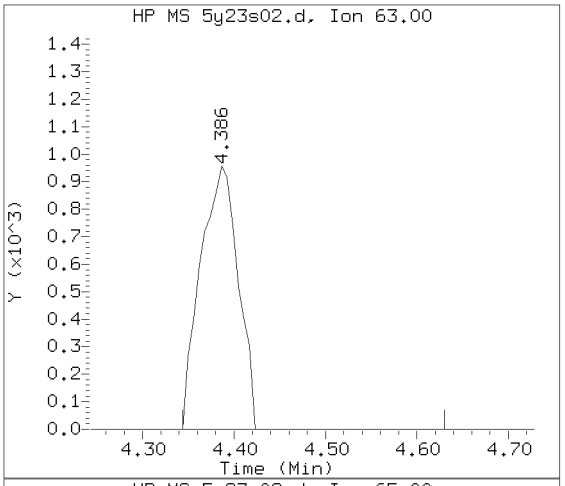
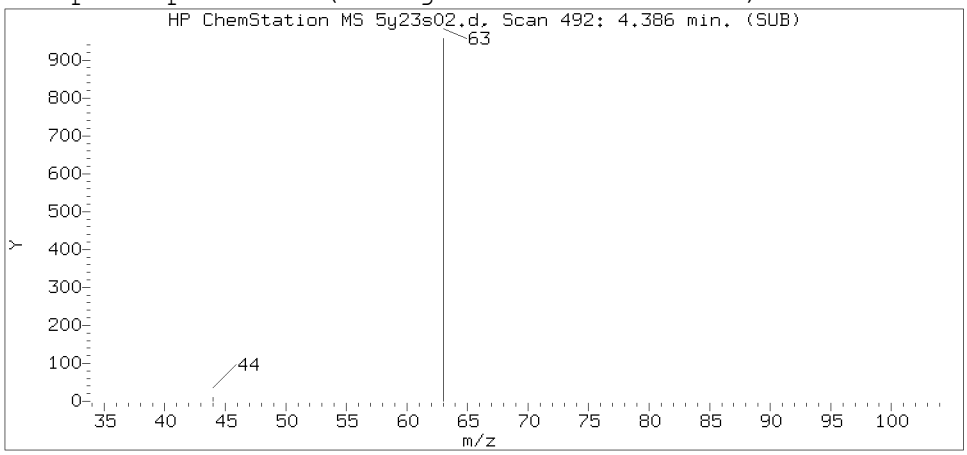
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

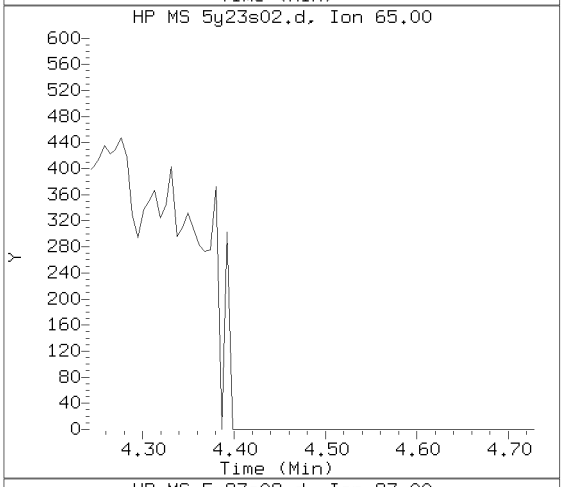
Reference Standard Spectrum for 1,1-Dichloroethane



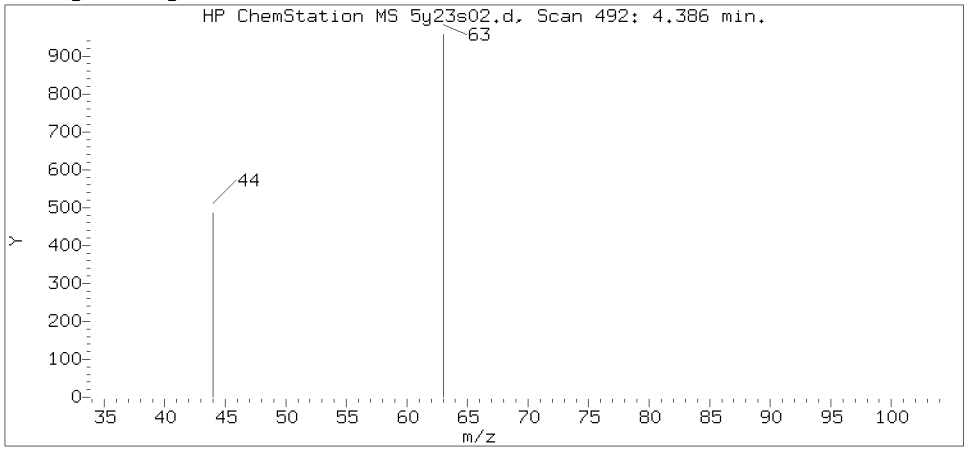


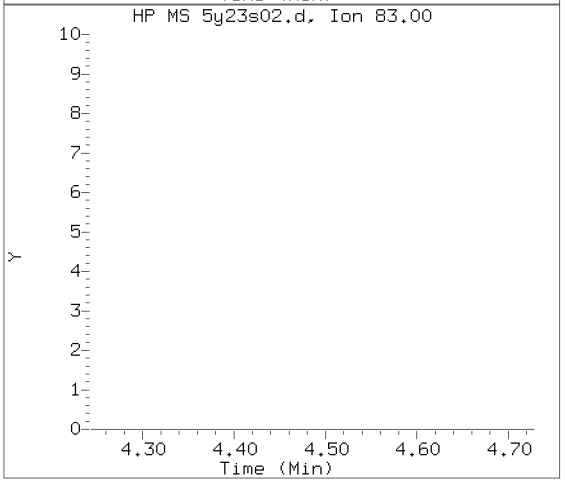
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

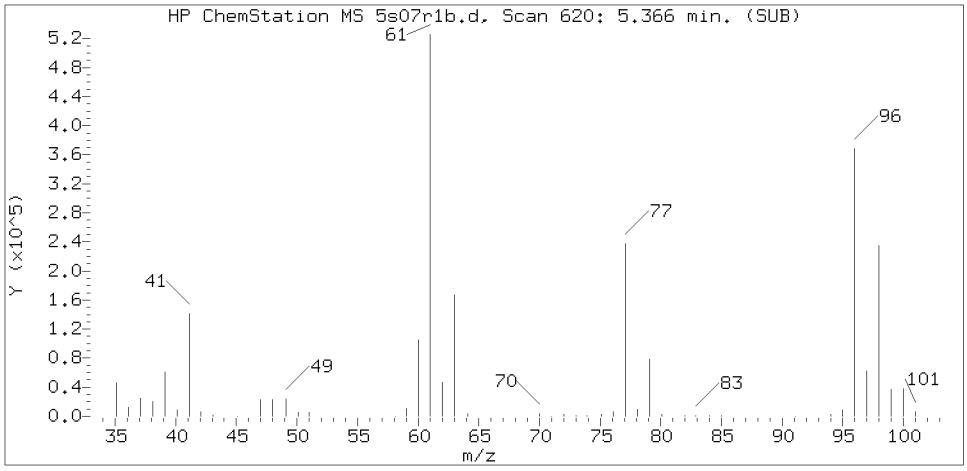
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

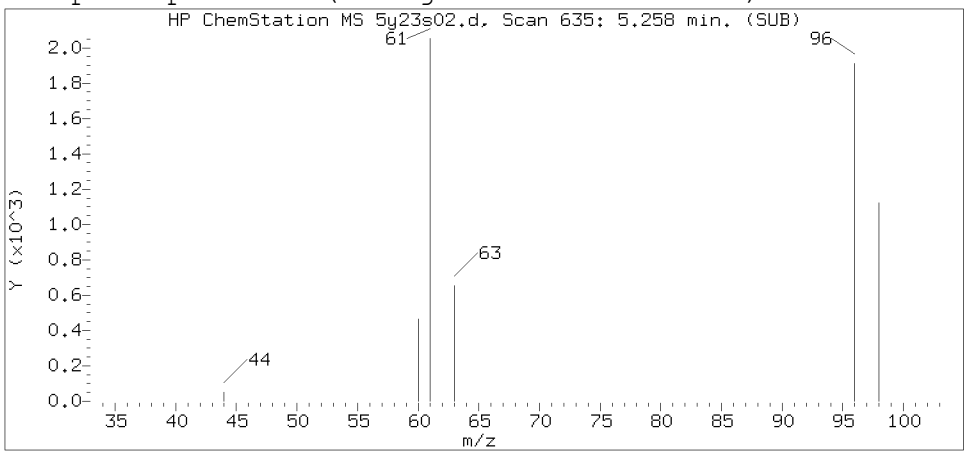
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 492
Retention Time (minutes): 4.386
Relative Retention Time :-0.00025
Quant Ion : 63.00
Area (flag) : 2728
On-Column Amount (ng) : 0.2533

Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

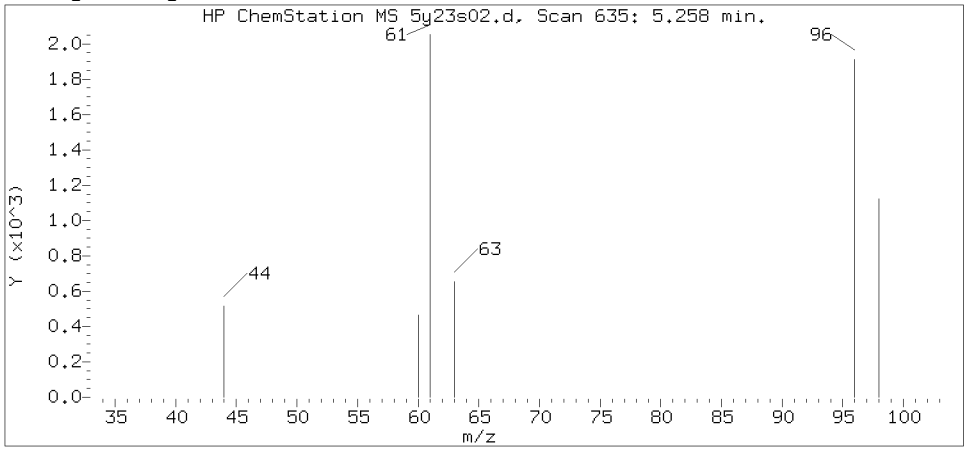
Reference Standard Spectrum for cis-1,2-Dichloroethene

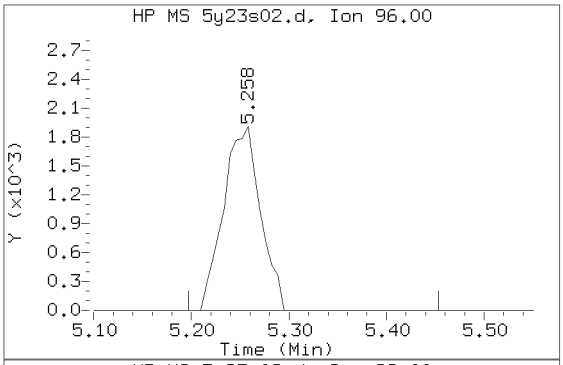


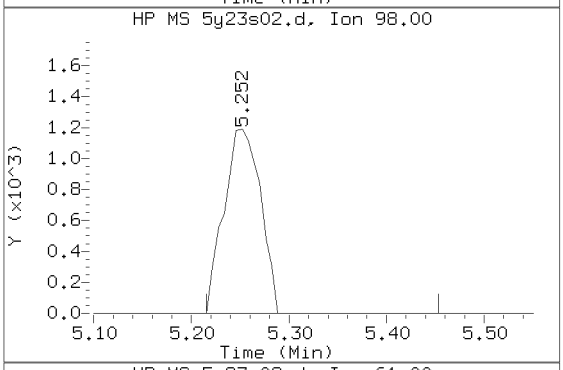
Sample Spectrum (Background Subtracted)

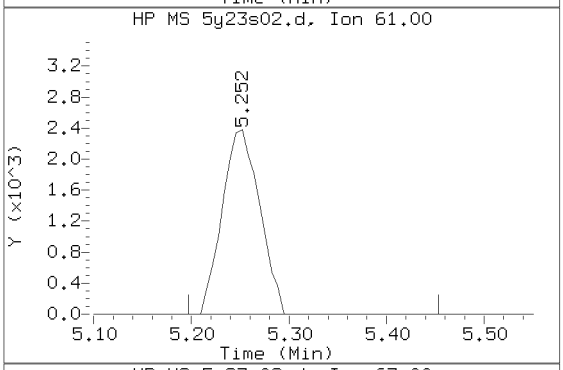


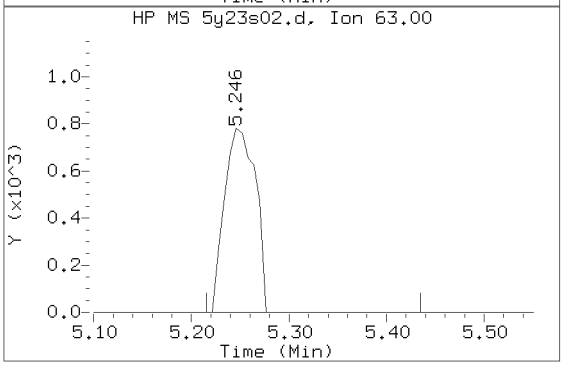
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

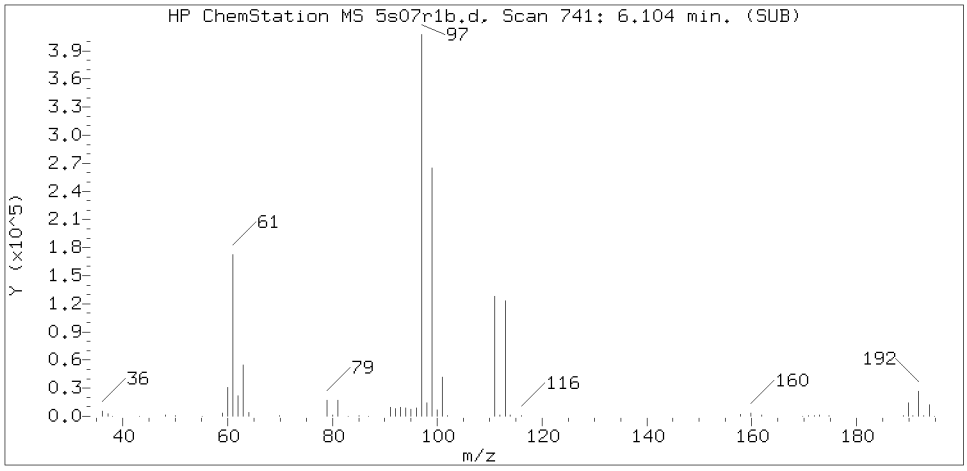
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

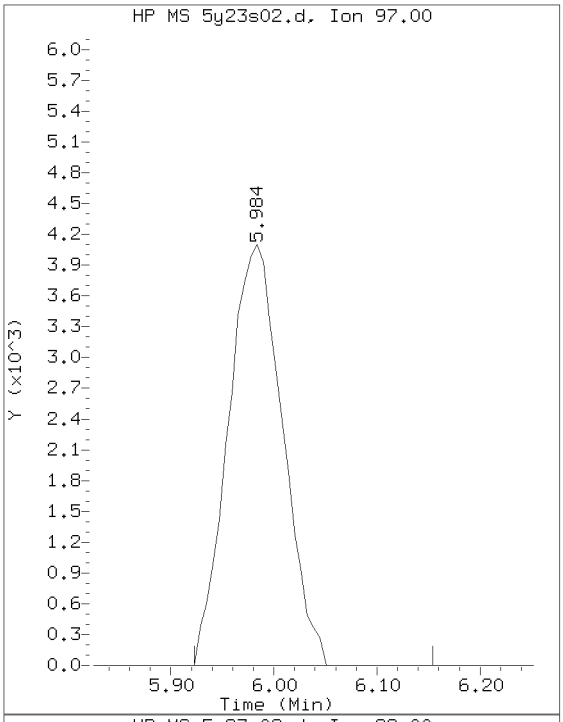
Sample Name: UC007 Lab Sample ID: 1316327

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 635
Retention Time (minutes): 5.258
Relative Retention Time :-0.00047
Quant Ion : 96.00
Area (flag) : 5039
On-Column Amount (ng) : 0.7489

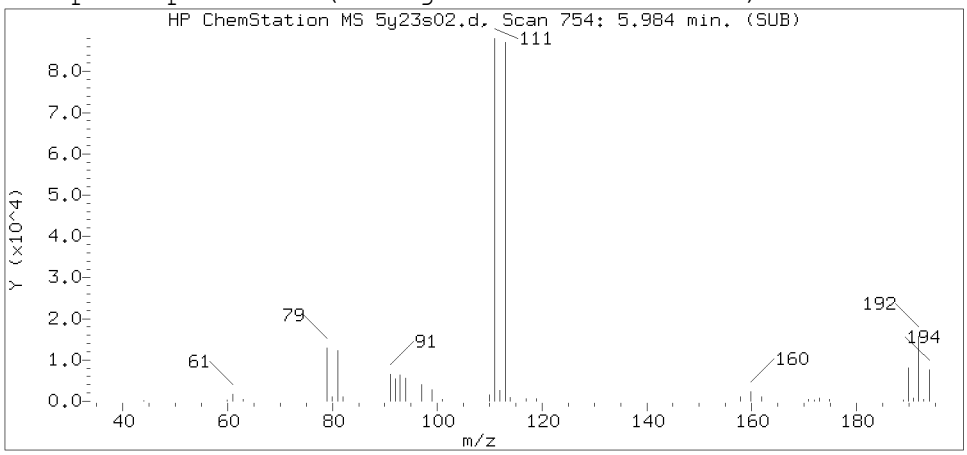
Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

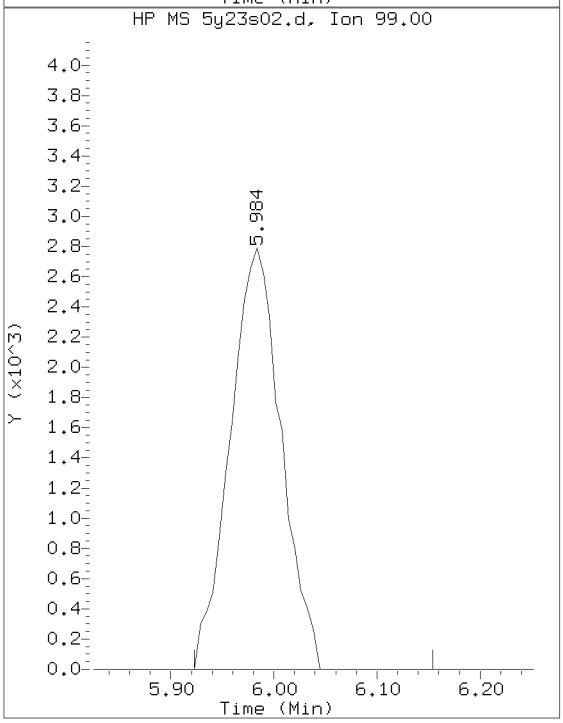
Reference Standard Spectrum for 1,1,1-Trichloroethane



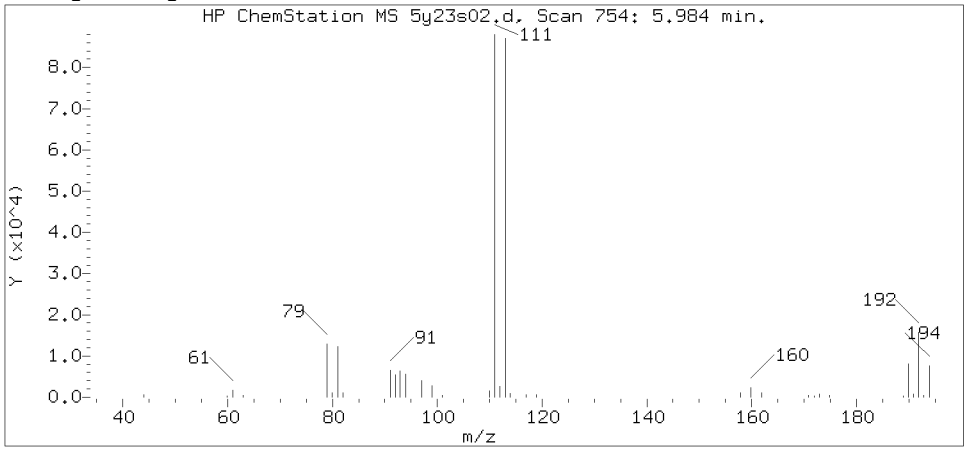


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

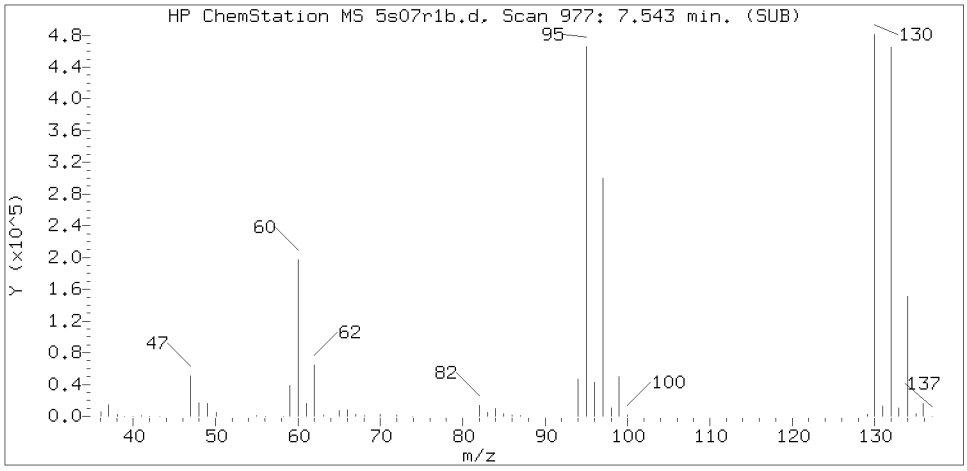
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

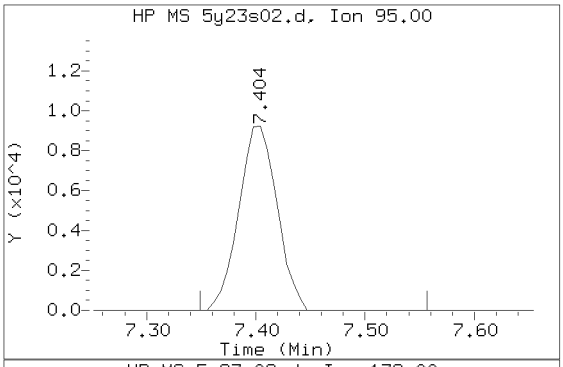
Sample Name: UC007 Lab Sample ID: 1316327

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 754
Retention Time (minutes): 5.984
Relative Retention Time : 0.00023
Quant Ion : 97.00
Area (flag) : 15074
On-Column Amount (ng) : 1.5501

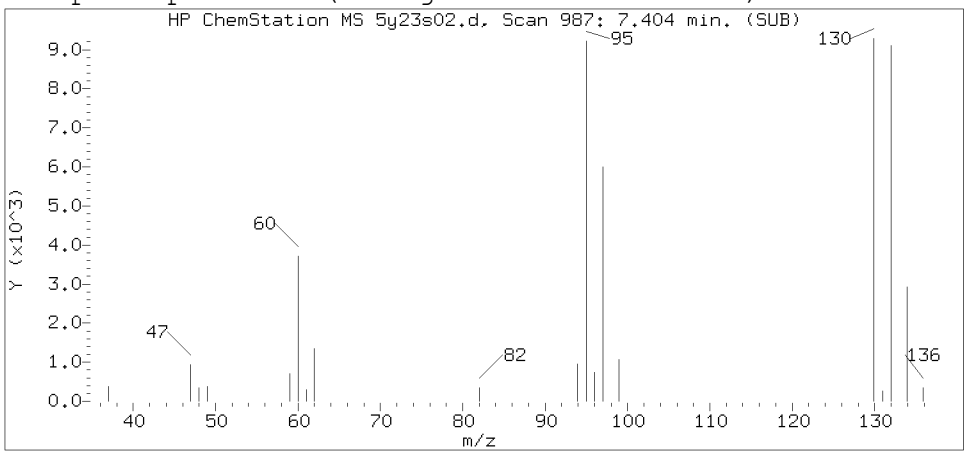
Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

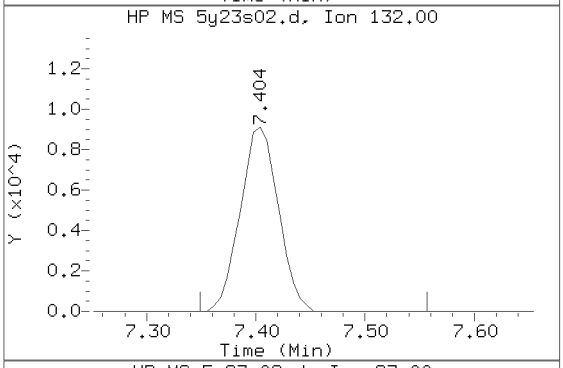
Reference Standard Spectrum for Trichloroethene

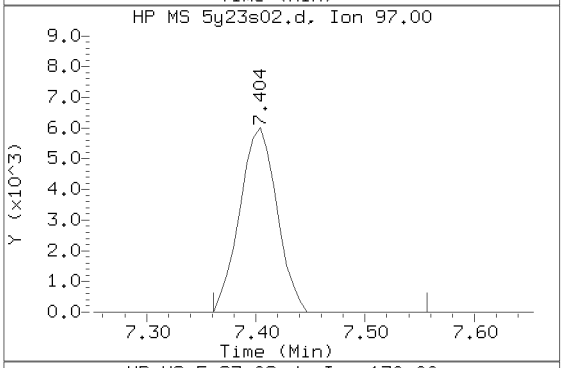




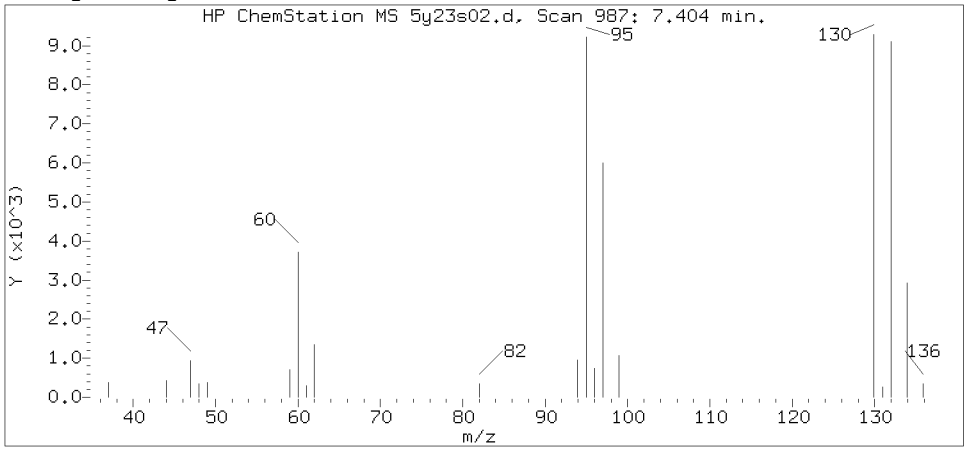
Sample Spectrum (Background Subtracted)

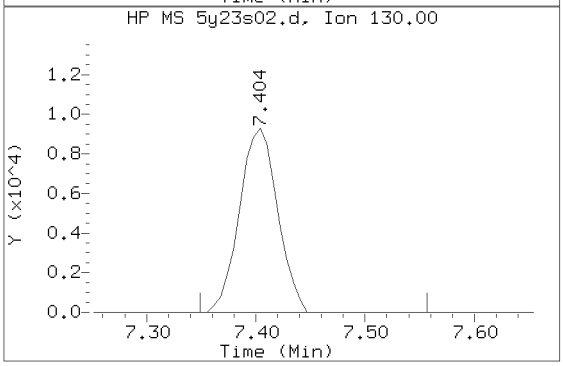






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

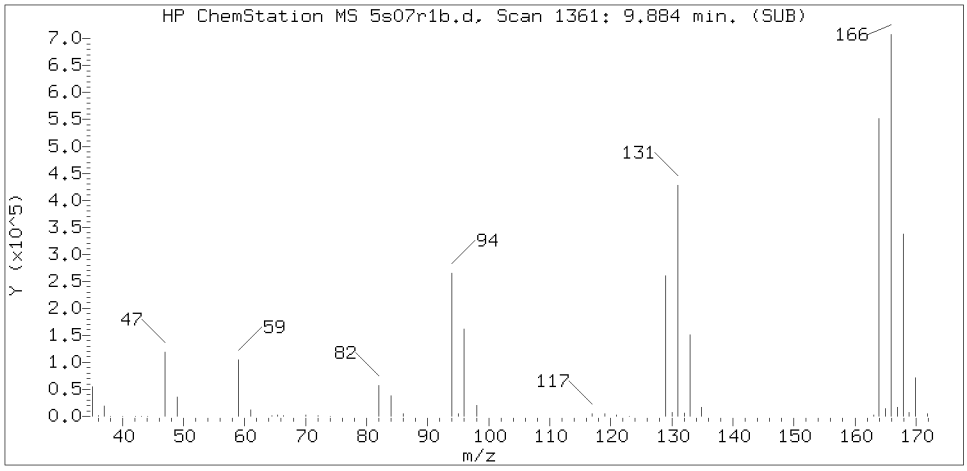
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

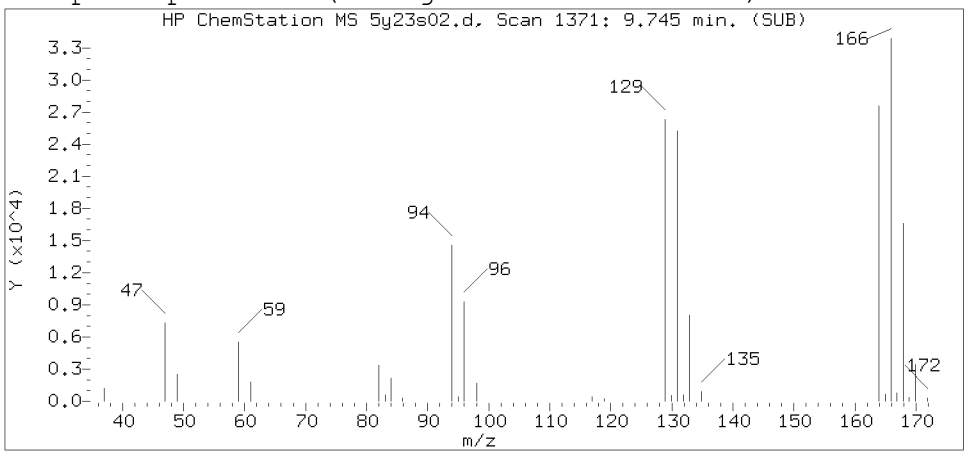
Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 987
Retention Time (minutes): 7.404
Relative Retention Time :-0.00101
Quant Ion : 95.00
Area (flag) : 22467
On-Column Amount (ng) : 3.2685

Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

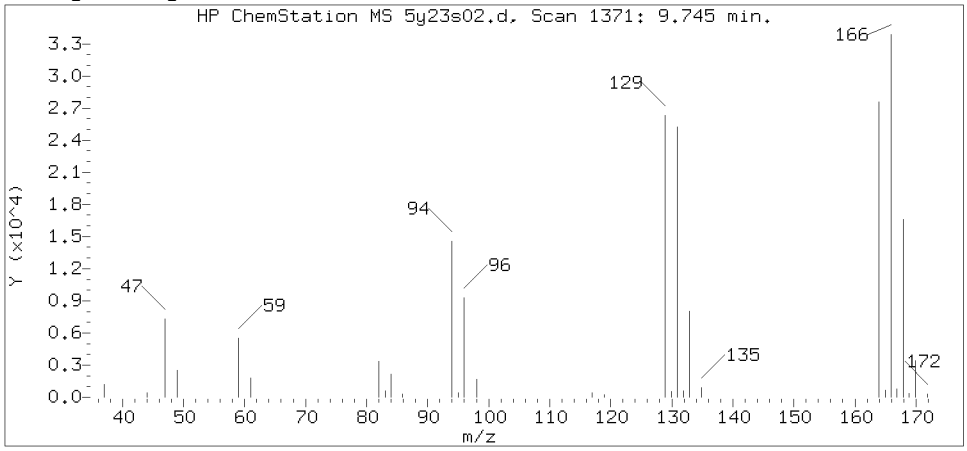
Reference Standard Spectrum for Tetrachloroethene

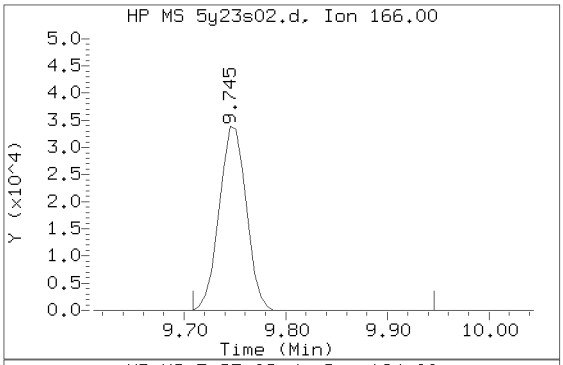


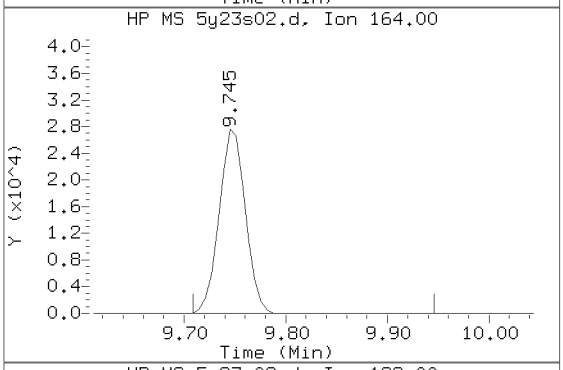
Sample Spectrum (Background Subtracted)

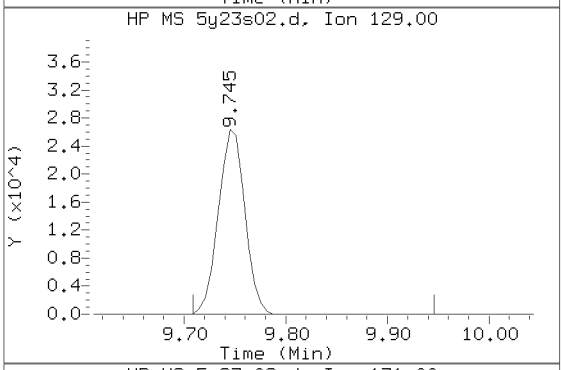


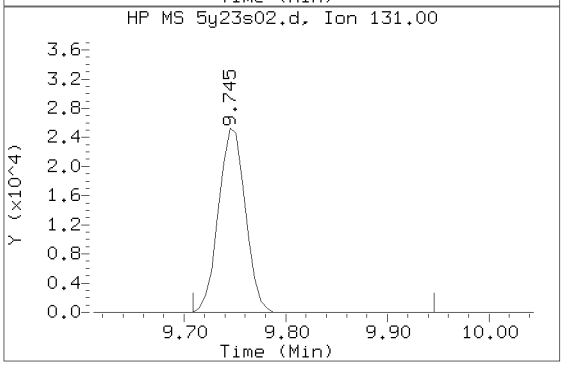
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s02.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007 Lab Sample ID: 1316327

Compound Number	: 94
Compound Name	: Tetrachloroethene
Scan Number	: 1371
Retention Time (minutes)	: 9.745
Relative Retention Time	: 0.00005
Quant Ion	: 166.00
Area (flag)	: 62590
On-Column Amount (ng)	: 8.9683

Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - O:\20jan09a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
amd00492	nj09t01.D	50NGBFB	01/09/2020	06:57		
amd00492	NJ09I01.D	VSTD300	01/09/2020	07:53		
amd00492	NJ09I02.D	VSTD100	01/09/2020	08:15		
amd00492	NJ09I03.D	VSTD050	01/09/2020	08:37		
amd00492	NJ09I04.D	VSTD020	01/09/2020	08:58		
amd00492	NJ09I05.D	VSTD010	01/09/2020	09:20		
amd00492	NJ09I06.D	VSTD004	01/09/2020	09:42		
amd00492	NJ09I07.D	VSTD001	01/09/2020	10:04		
amd00492	NJ09l01.D	ICVNLG	01/09/2020	10:26		
amd00492	NJ09B01.D	VBLKN00	01/09/2020	11:10		
amd00492	NJ09M01.D	MDLN01	01/09/2020	11:32		
amd00492	NJ09M02.D	MDLN02	01/09/2020	11:54		
amd00492	NJ09M03.D	MDLN03	01/09/2020	12:16		
amd00492	NJ09X01.D	BLANK	01/09/2020	07:09		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5A21T01.D	50 ng BFB	04/21/2020	20:36		
KAS02648	5A21X01.D	BLK	04/21/2020	20:59		
KAS02648	5A21I01.D	VSTD300	04/21/2020	21:19		
KAS02648	5A21I02.D	VSTD100	04/21/2020	21:40		
KAS02648	5A21I03.D	VSTD050	04/21/2020	22:00		
KAS02648	5A21I04.D	VSTD020	04/21/2020	22:21		
KAS02648	5A21I05.D	VSTD010	04/21/2020	22:42		
KAS02648	5A21I06.D	VSTD004	04/21/2020	23:02		
KAS02648	5A21I07.D	VSTD001	04/21/2020	23:23		
KAS02648	5A21X02.D	BLK	04/21/2020	23:44		
KAS02648	5A21V01.D	LG5ICV	04/22/2020	00:05		

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - D:\DATAHP11\20MAY22A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lcp00895	NY22T01.D	50NGBFB	05/22/2020	09:26		
LCP00895	NY22X00.D	CBLKN	05/22/2020	10:38	N201431AA	
LCP00895	NY22C01.D	VSTD050	05/22/2020	11:00	N201431AA	
LCP00895	NY22B01.D	VBLKN45	05/22/2020	12:06	N201431AA	
LCP00895	NY22S02.D	1315379	05/22/2020	12:28	N201431AA	
LCP00895	NY22S03.D	1315372	05/22/2020	12:50	N201431AA	
LCP00895	NY22S04.D	1315373	05/22/2020	13:12	N201431AA	
LCP00895	NY22S05.D	1315374MS	05/22/2020	13:34	N201431AA	
LCP00895	NY22S06.D	1315375MSD	05/22/2020	13:56	N201431AA	
LCP00895	NY22S07.D	1315377	05/22/2020	14:18	N201431AA	
LCP00895	NY22S08.D	1315378	05/22/2020	14:40	N201431AA	
LCP00895	NY22S09.D	1315380	05/22/2020	15:02	N201431AA	
LCP00895	NY22S10.D	1315381	05/22/2020	15:24	N201431AA	
LCP00895	NY22S11.D	1316321	05/22/2020	15:46	N201431AA	
LCP00895	NY22S12.D	1316322	05/22/2020	16:08	N201431AA	
LCP00895	NY22S13.D	1316330	05/22/2020	16:30	N201431AA	
LCP00895	NY22S14.D	1316331	05/22/2020	16:52	N201431AA	
LCP00895	NY22S15.D	1316332	05/22/2020	17:14	N201431AA	
LCP00895	NY22S16.D	1316333	05/22/2020	17:36	N201431AA	
LCP00895	NY22S17.D	1316334	05/22/2020	17:58	N201431AA	
LCP00895	NY22S18.D	1316335	05/22/2020	18:20	N201431AA	
LCP00895	NY22S19.D	1316336	05/22/2020	18:42	N201431AA	
LCP00895	NY22S20.D	1316337	05/22/2020	19:04	N201431AA	
LCP00895	NY22S21.D	1316338	05/22/2020	19:26	N201431AA	
LCP00895	NY22S22.D	1316339	05/22/2020	19:48	N201431AA	
LCP00895	NY22S23.D	1316340	05/22/2020	20:10	N201431AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20may23a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5Y23T01.D	50NGBFB	05/23/2020	14:02	5201441AA	
KAS02648	5Y23X01.D	BLANK	05/23/2020	14:13	5201441AA	
KAS02648	5Y23C01.D	VSTD050	05/23/2020	14:34	5201441AA	
KAS02648	5Y23S01.D	LCS567	05/23/2020	14:54	5201441AA	
KAS02648	5Y23X02.D	BLANK	05/23/2020	15:15	5201441AA	
KAS02648	5Y23B01.D	VBLK567	05/23/2020	15:36	5201441AA	
KAS02648	5Y23S02.D	1316327	05/23/2020	16:02	5201441AA	
KAS02648	5Y23S03.D	1316328MS	05/23/2020	16:23	5201441AA	
KAS02648	5Y23S04.D	1316329MSD	05/23/2020	16:43	5201441AA	
KAS02648	5Y23S05.D	1315727	05/23/2020	17:04	5201441AA	
KAS02648	5Y23S06.D	1315728	05/23/2020	17:25	5201441AA	
KAS02648	5Y23S07.D	1316323	05/23/2020	17:45	5201441AA	
KAS02648	5Y23S08.D	1316324	05/23/2020	18:06	5201441AA	
KAS02648	5Y23S09.D	1316325	05/23/2020	18:26	5201441AA	
KAS02648	5Y23S10.D	1316326	05/23/2020	18:47	5201441AA	
KAS02648	5Y23S11.D	1316342	05/23/2020	19:07	5201441AA	
KAS02648	5Y23S12.D	1316343	05/23/2020	19:28	5201441AA	
KAS02648	5Y23S13.D	1316344	05/23/2020	19:49	5201441AA	
KAS02648	5Y23S14.D	1316345	05/23/2020	20:09	5201441AA	
KAS02648	5Y23S15.D	1316346	05/23/2020	20:30	5201441AA	
KAS02648	5Y23S16.D	1315721	05/23/2020	20:51	5201441AA	
KAS02648	5Y23S21.D	1315721DL	05/23/2020	21:12	5201441AA	10
KAS02648	5Y23S17.D	1315722	05/23/2020	21:33	5201441AA	2
KAS02648	5Y23S22.D	1315722DL	05/23/2020	21:54	5201441AA	20
KAS02648	5Y23S18.D	1315724	05/23/2020	22:14	5201441AA	5
KAS02648	5Y23S23.D	1315724DL	05/23/2020	22:35	5201441AA	50
KAS02648	5Y23S19.D	1315725	05/23/2020	22:55	5201441AA	5
KAS02648	5Y23S24.D	1315725DL	05/23/2020	23:16	5201441AA	50
KAS02648	5Y23S20.D	1315726	05/23/2020	23:37	5201441AA	
KAS02648	5Y23S25.D	1315726DL	05/23/2020	23:59	5201441AA	10
KAS02648	5Y23S26.D	1315730	05/24/2020	00:19	5201441AA	5
KAS02648	5Y23S27.D	1315730DL	05/24/2020	00:40	5201441AA	50

Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

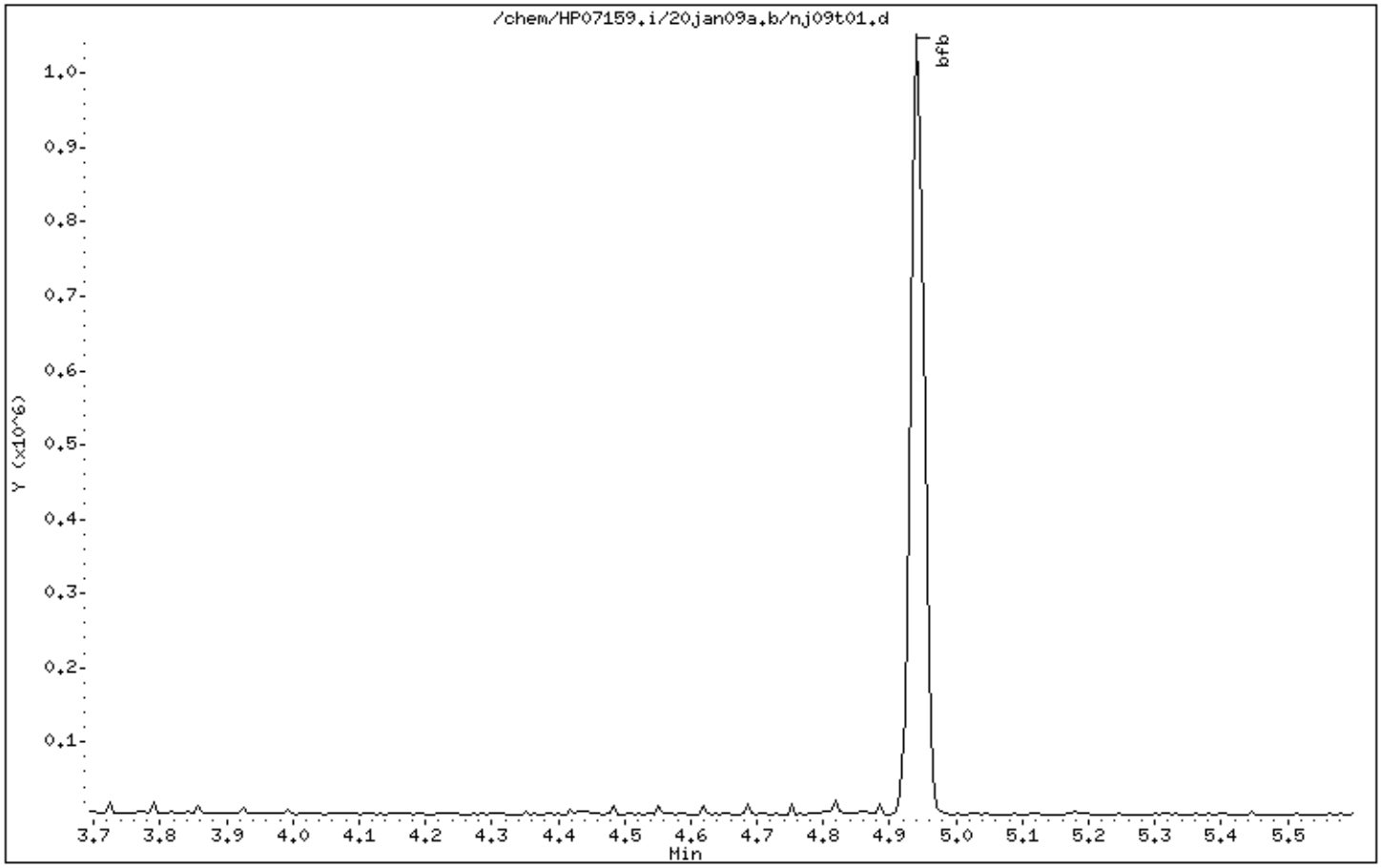
Instrument: HP07159.i

Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

Instrument: HP07159.i

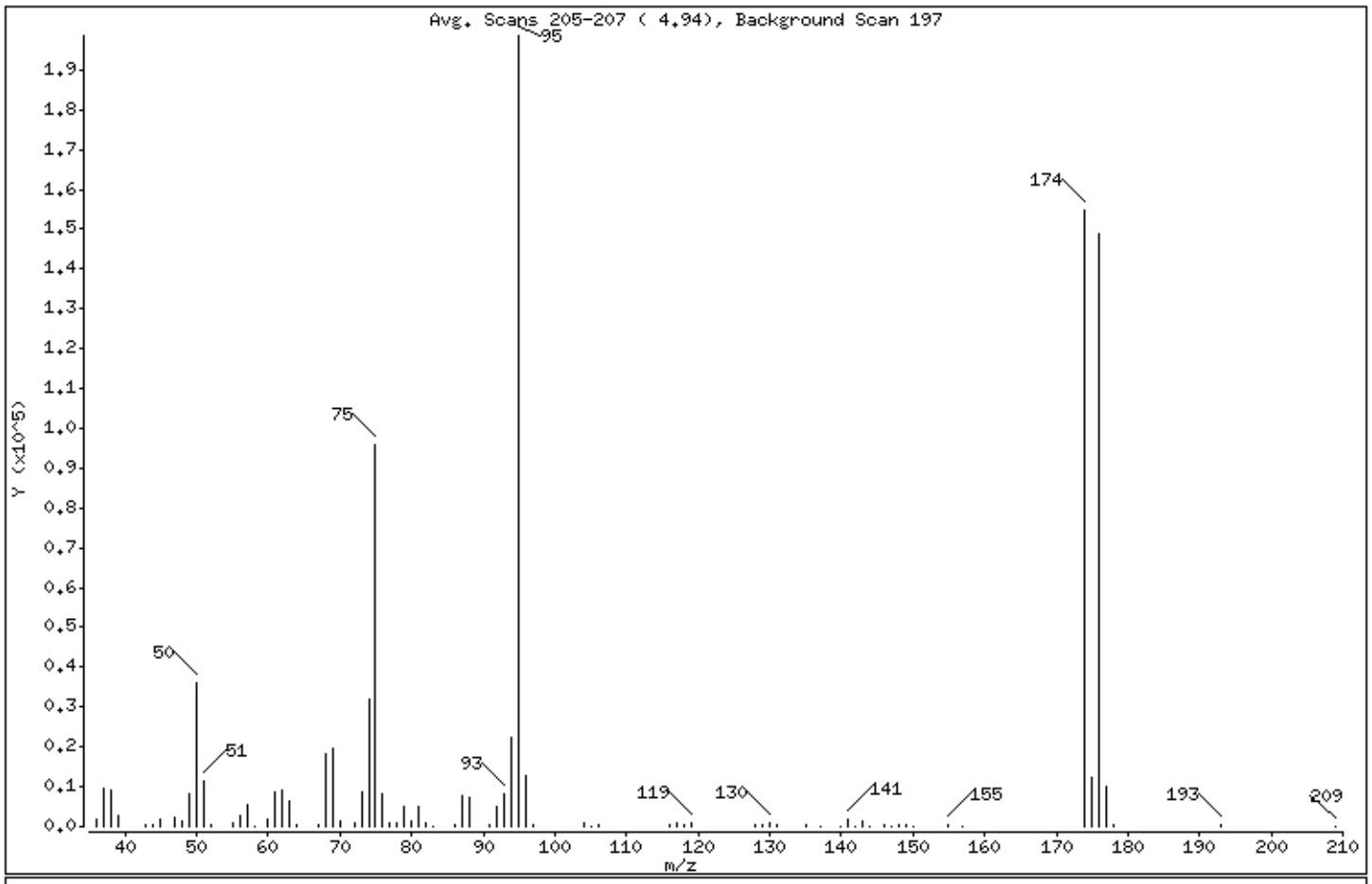
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.24
75	30.00 - 60.00% of mass 95	48.22
96	5.00 - 9.00% of mass 95	6.40
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.86
175	5.00 - 9.00% of mass 174	6.18 (7.94)
176	95.00 - 101.00% of mass 174	74.98 (96.30)
177	5.00 - 9.00% of mass 176	5.08 (6.77)

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19 Instrument: HP07159.i

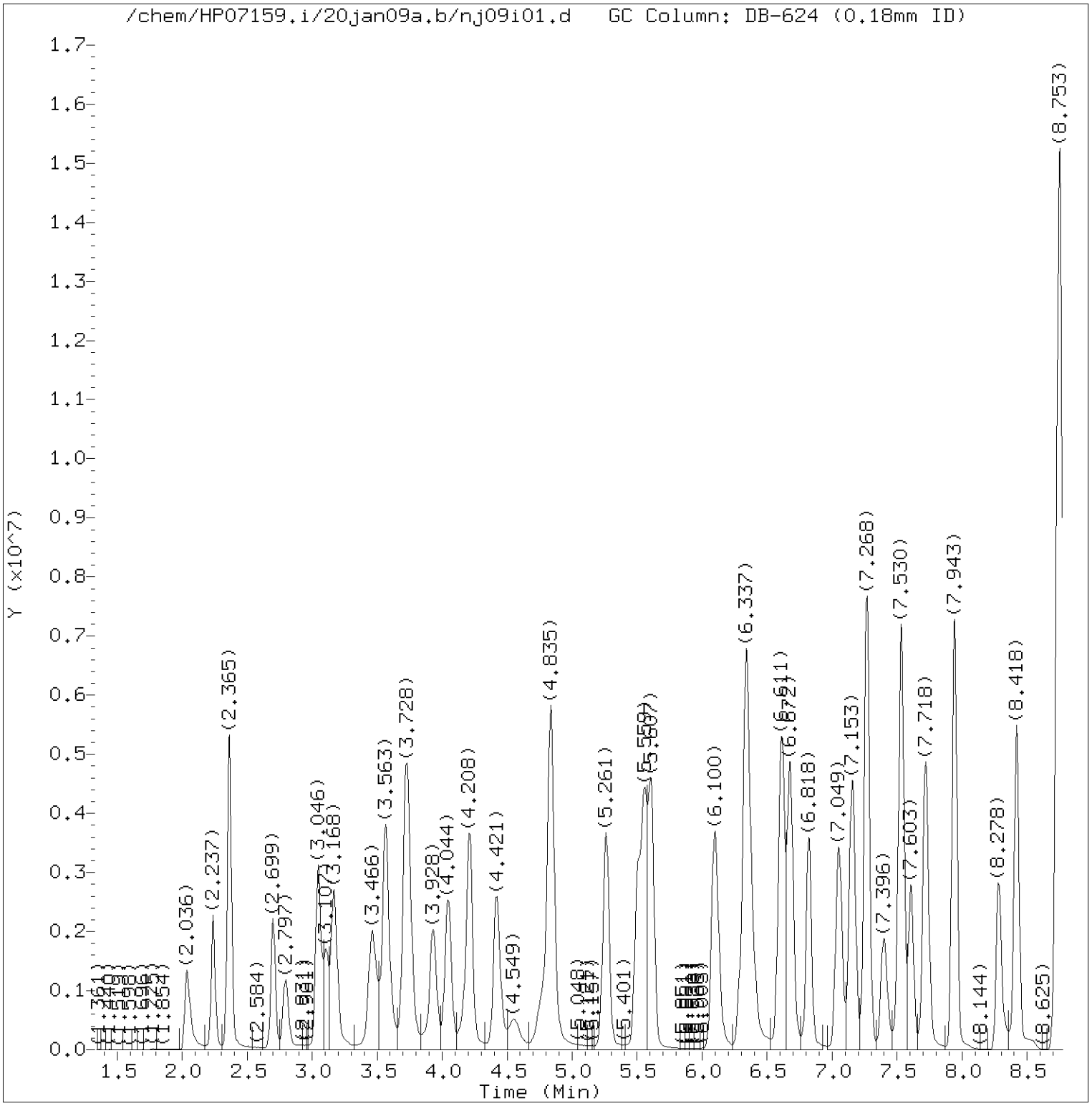
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: nj09t01.d
Spectrum: Avg. Scans 205-207 (4.94), Background Scan 197
Location of Maximum: 95.00
Number of points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1953	64.00	666	92.00	5080	142.00	95
37.00	9560	67.00	678	93.00	8056	143.00	1498
38.00	8918	68.00	18480	94.00	22344	144.00	84
39.00	2843	69.00	19424	95.00	198592	146.00	319
43.00	350	70.00	1523	96.00	12706	147.00	87
44.00	450	72.00	1082	97.00	496	148.00	442
45.00	1655	73.00	8728	104.00	818	149.00	281
47.00	2085	74.00	31872	105.00	90	150.00	214
48.00	1312	75.00	95760	106.00	678	155.00	337
49.00	8082	76.00	8401	116.00	637	157.00	132
50.00	36224	77.00	1091	117.00	1059	174.00	154624
51.00	11259	78.00	888	118.00	628	175.00	12278
52.00	532	79.00	4897	119.00	1082	176.00	148864
55.00	740	80.00	1500	128.00	639	177.00	10081
56.00	2915	81.00	4870	129.00	262	178.00	324
57.00	5531	82.00	1040	130.00	700	193.00	349
58.00	90	83.00	86	131.00	393	209.00	93
60.00	1942	86.00	292	135.00	352		
61.00	8880	87.00	7728	137.00	222		
62.00	9156	88.00	7312	140.00	196		
63.00	6262	91.00	680	141.00	1693		



Total Ion Chromatogram (TIC)

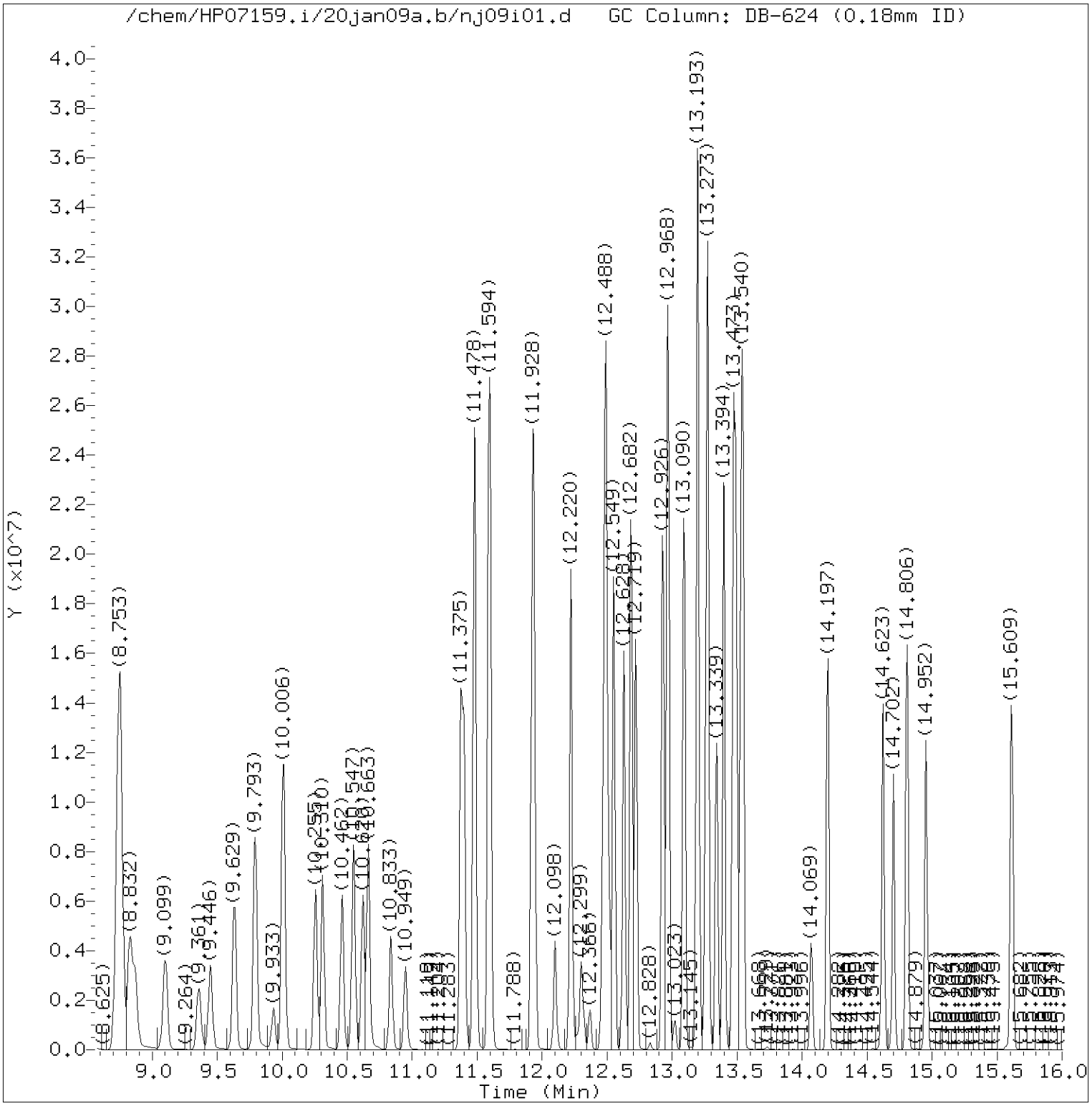
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.036	85	2738246M	268.201
4) Chloromethane	(2)	2.237	50	3089997	282.457
6) Vinyl Chloride	(2)	2.359	62	3002390	282.029
5) 1,3-Butadiene	(2)	2.365	39	1990849M	260.806
8) Bromomethane	(2)	2.699	94	2045532	280.243
9) Chloroethane	(2)	2.797	64	1753734	281.462
10) Dichlorofluoromethane	(2)	3.046	67	3958703	277.427
12) Trichlorofluoromethane	(2)	3.107	101	3132174	267.714
11) n-Pentane	(2)	3.168	43	2968834	258.991
13) Ethanol	(1)	3.247	45	603558	6746.236
15) Freon 123a	(2)	3.460	67	2362460	275.623
16) Acrolein	(1)	3.563	56	7156452	2855.044
17) 1,1-Dichloroethene	(2)	3.722	96	1936948	284.072
17) 1,1-Dichloroethene	(2)	3.715	63	1019849	285.033
18) Acetone	(1)	3.740	58	589186	558.067
19) Freon 113	(2)	3.740	101	1769286	279.670
21) 2-Propanol	(1)	3.916	45	963309	1381.464
22) Methyl Iodide	(2)	3.928	142	3686681	289.671
23) Carbon Disulfide	(2)	4.044	76	6354733	291.445
27) Methyl Acetate	(2)	4.184	43	2298966	274.450
25) Allyl Chloride	(2)	4.214	41	3345372	277.910
28) Methylene Chloride	(2)	4.421	84	2264482	279.619
29)*t-Butyl alcohol-d10	(1)	4.427	65	369636M	250.000
30) t-Butyl alcohol	(1)	4.549	59	1912785	1388.033
31) Acrylonitrile	(2)	4.756	53	1273489	281.492
33) Methyl Tertiary Butyl Ether	(2)	4.829	73	6075255	274.189
32) trans-1,2-Dichloroethene	(2)	4.841	96	2241389	287.940
34) n-Hexane	(2)	5.261	57	3184011	296.303
36) 1,1-Dichloroethane	(2)	5.504	63	4147607	292.081
38) di-Isopropyl ether	(2)	5.559	45	6977493	285.241
39) 2-Chloro-1,3-butadiene	(2)	5.607	53	3658718	291.885
40) Ethyl t-butyl ether	(2)	6.100	59	6382601	274.517
43) 1,2-Dichloroethene (Total)	(2)		96	4793474	576.617
44) 2-Butanone	(2)	6.301	43	3476315	549.542
42) cis-1,2-Dichloroethene	(2)	6.337	96	2552085	288.677
45) 2,2-Dichloropropane	(2)	6.356	77	3608394	287.823
47) Propionitrile	(1)	6.392	54	2464615	1531.294
48) Methacrylonitrile	(2)	6.611	67	3385627	740.870

M = Compound was manually integrated.
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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	1224500	292.939
50) Tetrahydrofuran	(1)	6.684	71	993933	594.816
51) Chloroform	(2)	6.818	83	3985674	287.757
52)$Dibromofluoromethane	(2)	7.037	113	319180	49.034
52)$Dibromofluoromethane	(2)	7.037	111	327131	49.218
53) 1,1,1-Trichloroethane	(2)	7.055	97	3663654	292.369
54) Cyclohexane	(2)	7.159	56	3705806	287.516
54) Cyclohexane	(2)	7.153	84	3220654	286.708
54) Cyclohexane	(2)	7.159	69	1184347	292.344
55) 1,1-Dichloropropene	(2)	7.268	75	3320490	292.956
56) Carbon Tetrachloride	(2)	7.268	117	3150399	291.582
58) Isobutyl Alcohol	(1)	7.396	41	1811417	3669.512
57)$1,2-Dichloroethane-d4	(2)	7.505	102	80508	48.916
57)$1,2-Dichloroethane-d4	(2)	7.499	65	388669	49.092
57)$1,2-Dichloroethane-d4	(2)	7.505	104	50708	48.423
60) Benzene	(2)	7.530	78	9312058	288.626
61) 1,2-Dichloroethane	(2)	7.603	62	3292851	288.491
61) 1,2-Dichloroethane	(2)	7.609	98	304801	324.451
65) t-Amyl methyl ether	(2)	7.718	73	6167179	264.407
66)*Fluorobenzene	(2)	7.937	96	1311659	50.000
67) n-Heptane	(2)	7.943	43	3900362	314.466
69) n-Butanol	(1)	8.278	56	3298825	7757.808
71) Trichloroethene	(2)	8.418	95	2491166	293.087
72) Methylcyclohexane	(2)	8.734	83	4060354	290.602
72) Methylcyclohexane	(2)	8.734	98	1902493	289.125
73) 1,2-Dichloropropane	(2)	8.759	63	2519735	305.420
76) Methyl Methacrylate	(2)	8.826	69	2289707	303.491
75) 1,4-Dioxane	(1)	8.838	88	432869M	4029.569
74) Dibromomethane	(2)	8.868	93	1546073	293.841
78) Bromodichloromethane	(2)	9.099	83	3217314	299.525
79) 2-Nitropropane	(2)	9.361	41	2132246	546.554
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	1898732	290.945
81) cis-1,3-Dichloropropene	(2)	9.635	75	4132146	301.569
82) 4-Methyl-2-pentanone	(2)	9.793	43	7115176	555.148
83)$Toluene-d8	(3)	9.933	98	1298243	49.882
83)$Toluene-d8	(3)	9.933	100	875240	50.760
88) Toluene	(3)	10.012	92	6123859	289.655
90) 1,3-Dichloropropene (total)	(3)		100	8062158	601.069

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	3930012	299.500
91) Ethyl Methacrylate	(3)	10.310	69	3912057	299.232
92) 1,1,2-Trichloroethane	(3)	10.462	97	2191289	292.742
93) Tetrachloroethene	(3)	10.547	166	2684174	289.918
94) 1,3-Dichloropropane	(3)	10.620	76	3834320	295.134
96) 2-Hexanone	(3)	10.663	43	5540032	553.584
97) Dibromochloromethane	(3)	10.833	129	2631468	306.341
99) 1,2-Dibromoethane	(3)	10.949	107	2418151	295.016
100)*Chlorobenzene-d5	(3)	11.375	117	997921	50.000
102) Chlorobenzene	(3)	11.399	112	6837485	289.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	2567918	301.987
104) Ethylbenzene	(3)	11.484	91	11505554	281.351
106) m+p-Xylene	(3)	11.594	106	9321027	580.123
108) Xylene (Total)	(3)		106	13965856	874.052
107) o-Xylene	(3)	11.922	106	4644829	293.929
109) Styrene	(3)	11.940	104	7801626	293.944
110) Bromoform	(3)	12.098	173	1991378	307.069
111) Isopropylbenzene	(3)	12.220	105	11563233	277.059
112) Cyclohexanone	(1)	12.299	55	1700768	3947.839
114)$4-Bromofluorobenzene	(3)	12.366	95	515503	50.135
114)$4-Bromofluorobenzene	(3)	12.366	174	412996	50.136
116) 1,1,2,2-Tetrachloroethane	(4)	12.463	83	3476859	284.810
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	3152731	750.782
115) Bromobenzene	(4)	12.488	156	3020963	294.309
117) 1,2,3-Trichloropropane	(4)	12.512	110	1122982	290.397
119) n-Propylbenzene	(4)	12.549	91	13218612	265.623
120) 2-Chlorotoluene	(4)	12.628	126	3026075	294.941
122) 1,3,5-Trimethylbenzene	(4)	12.682	105	10266701	281.566
121) 4-Chlorotoluene	(4)	12.719	126	3124276	293.828
124) tert-Butylbenzene	(4)	12.926	134	2476958M	306.546
125) Pentachloroethane	(4)	12.962	167	1955079	302.182
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	10638442	281.107
127) sec-Butylbenzene	(4)	13.090	105	12912890	272.630
129) 1,3-Dichlorobenzene	(4)	13.193	146	5763977	288.719
130) p-Isopropyltoluene	(4)	13.200	119	11456230	277.953
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	555000	50.000
133) 1,4-Dichlorobenzene	(4)	13.266	146	5801015	286.528
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	10089970	274.704

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.339	91	7933164	294.011
141) Diethylbenzene (total)	(4)		100	20366768	851.816
136) 1,3-Diethylbenzene	(4)	13.400	119	7006552	283.981
137) 1,4-Diethylbenzene	(4)	13.473	119	7418367	283.166
139) n-Butylbenzene	(4)	13.492	92	6302004	296.409
138) 1,2-Dichlorobenzene	(4)	13.528	146	5429890	286.871
140) 1,2-Diethylbenzene	(4)	13.546	119	5941849	284.669
142) 1,2-Dibromo-3-chloropropane	(4)	14.069	75	978104	296.467
144) 1,3,5-Trichlorobenzene	(4)	14.197	180	4466448	296.046
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	3943896	299.803
147) Hexachlorobutadiene	(4)	14.702	225	1846864	310.363
148) Naphthalene	(4)	14.806	128	11421392	276.905
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	3653958	302.586
150) 2-Methylnaphthalene	(4)	15.609	142	7116852	298.715

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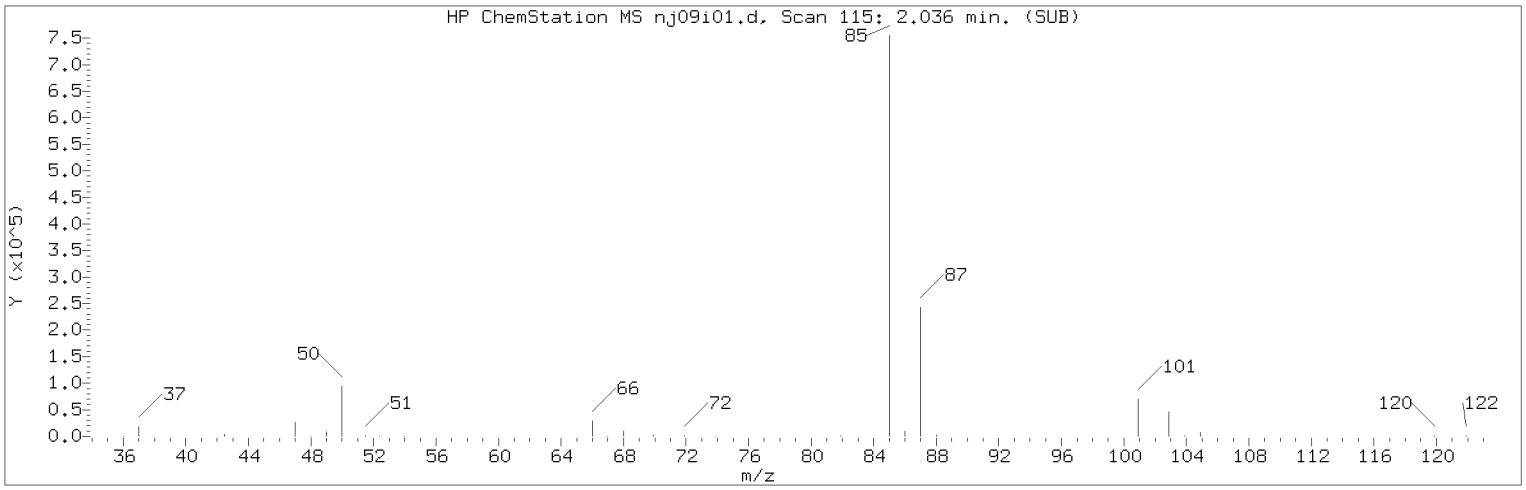
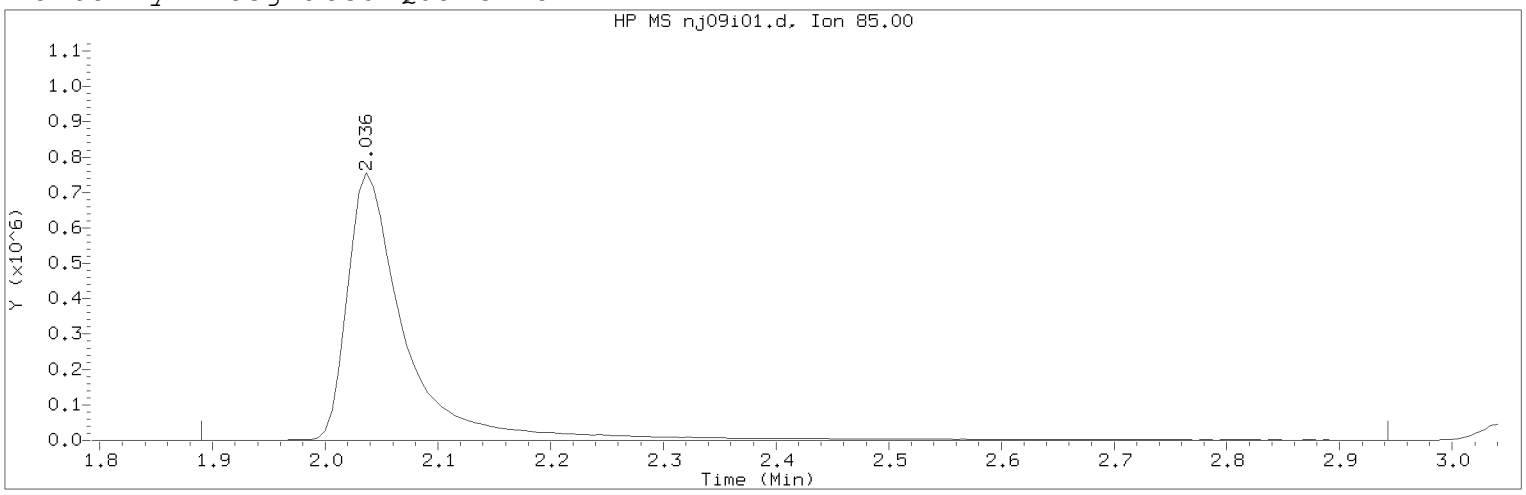
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

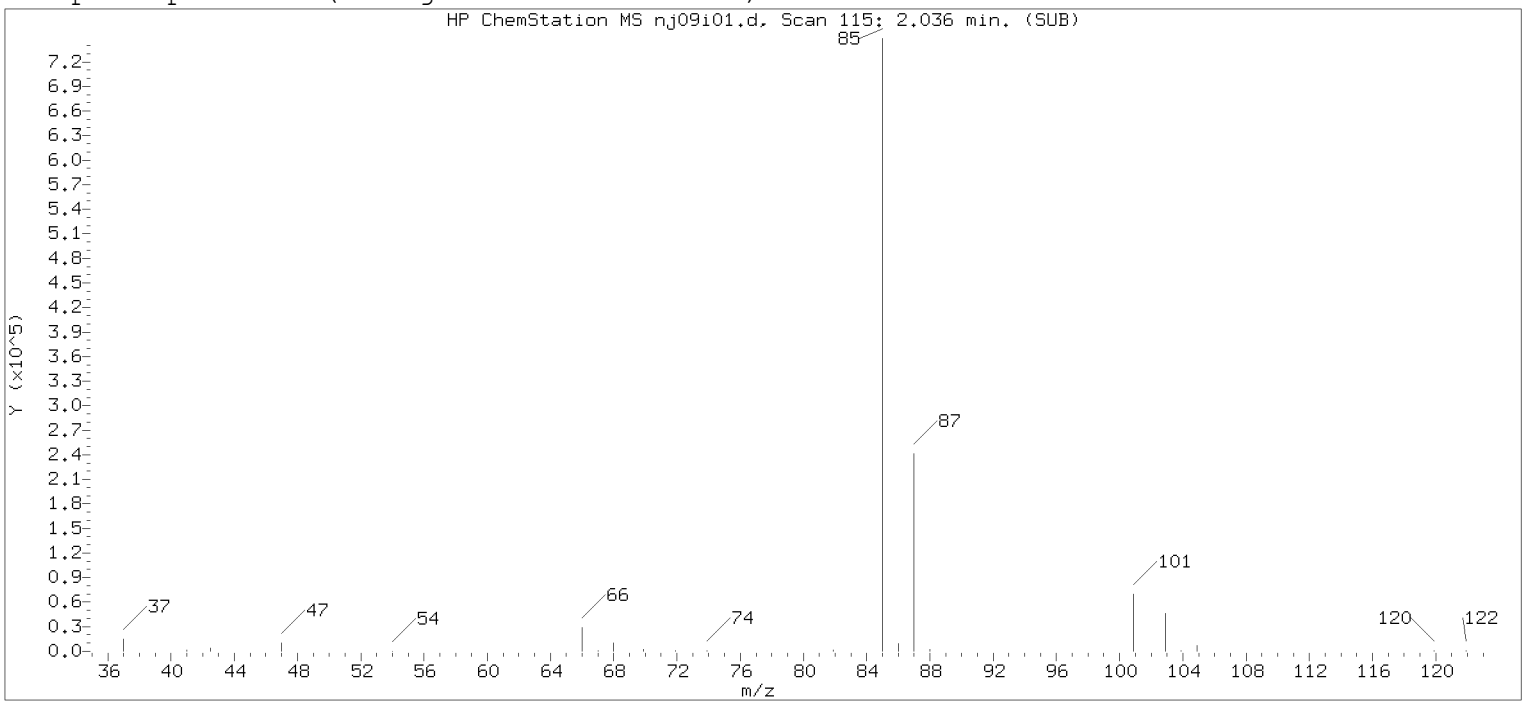
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area (flag) : 2738246M
On-Column Amount (ng) : 268.2007
Integration start scan : 90 Integration stop scan: 263
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

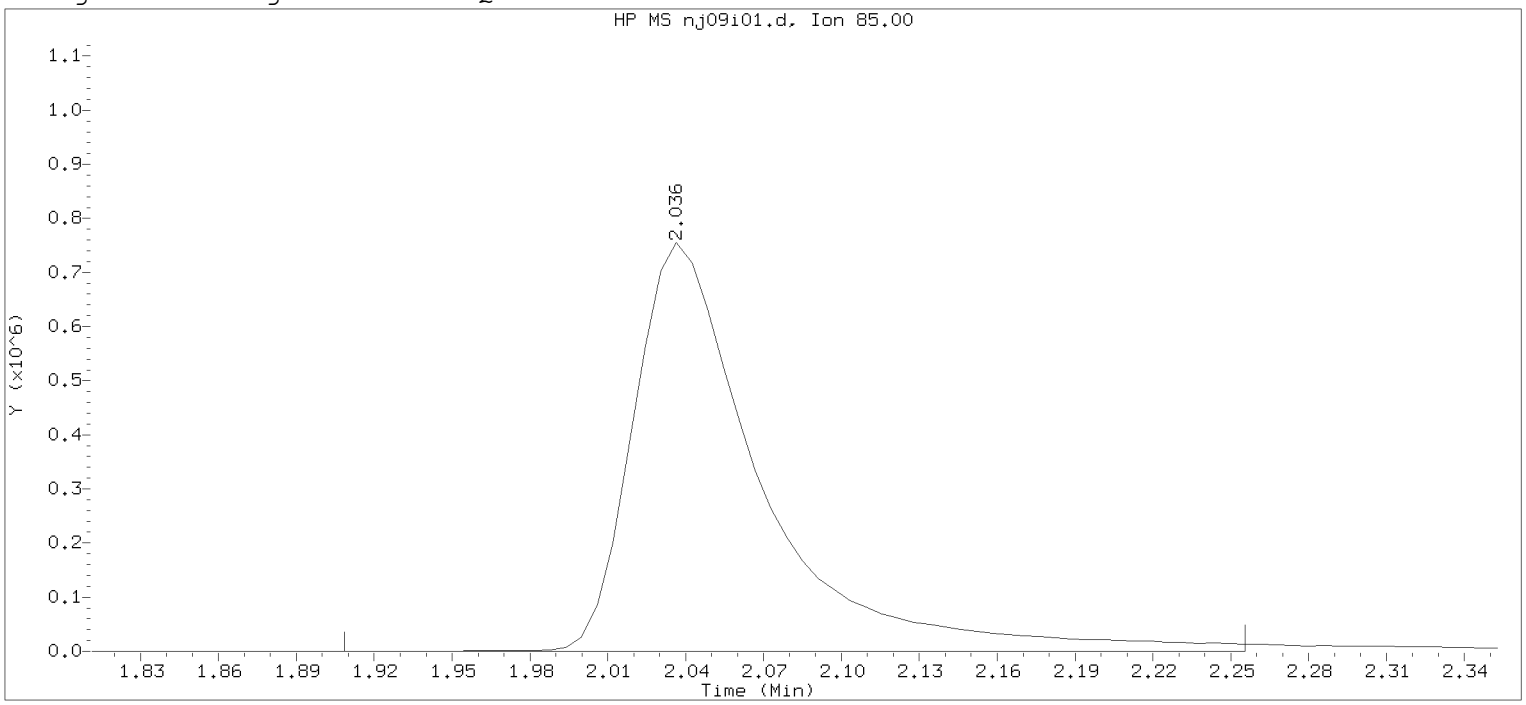
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

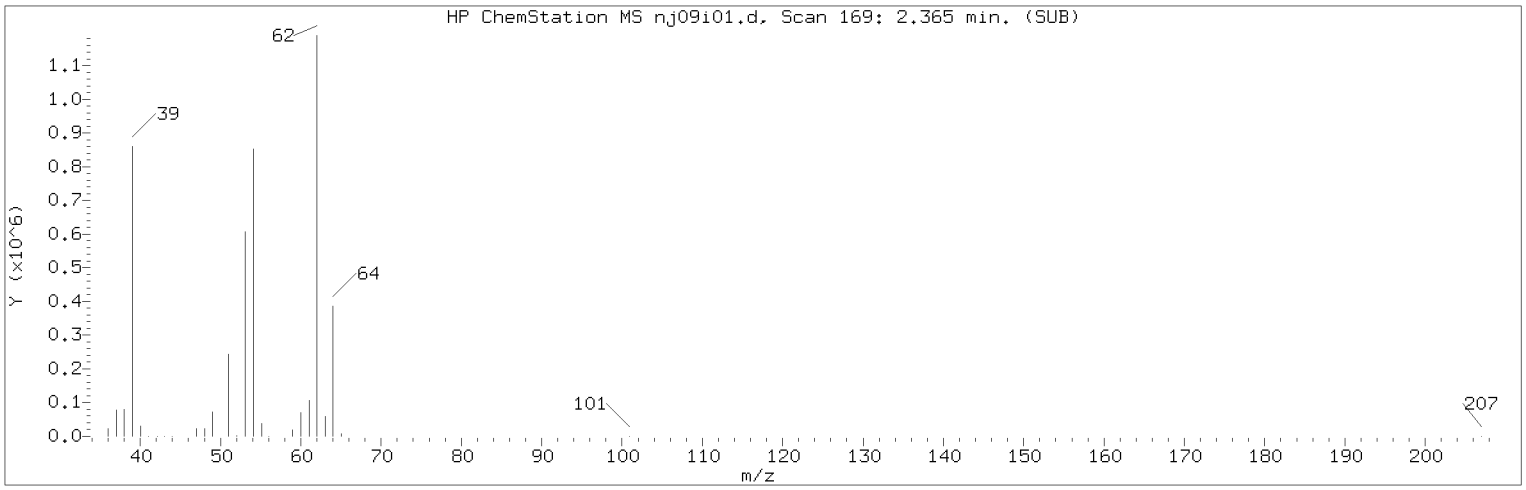
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

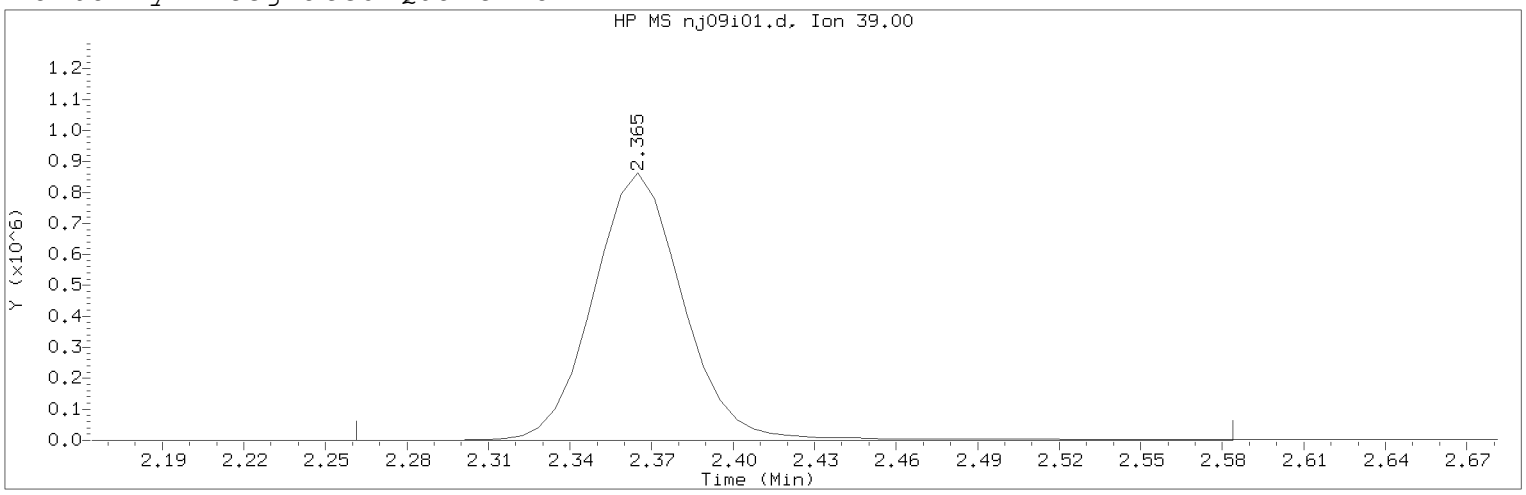
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area : 2601810
On-column Amount (ng) : 264.4213
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

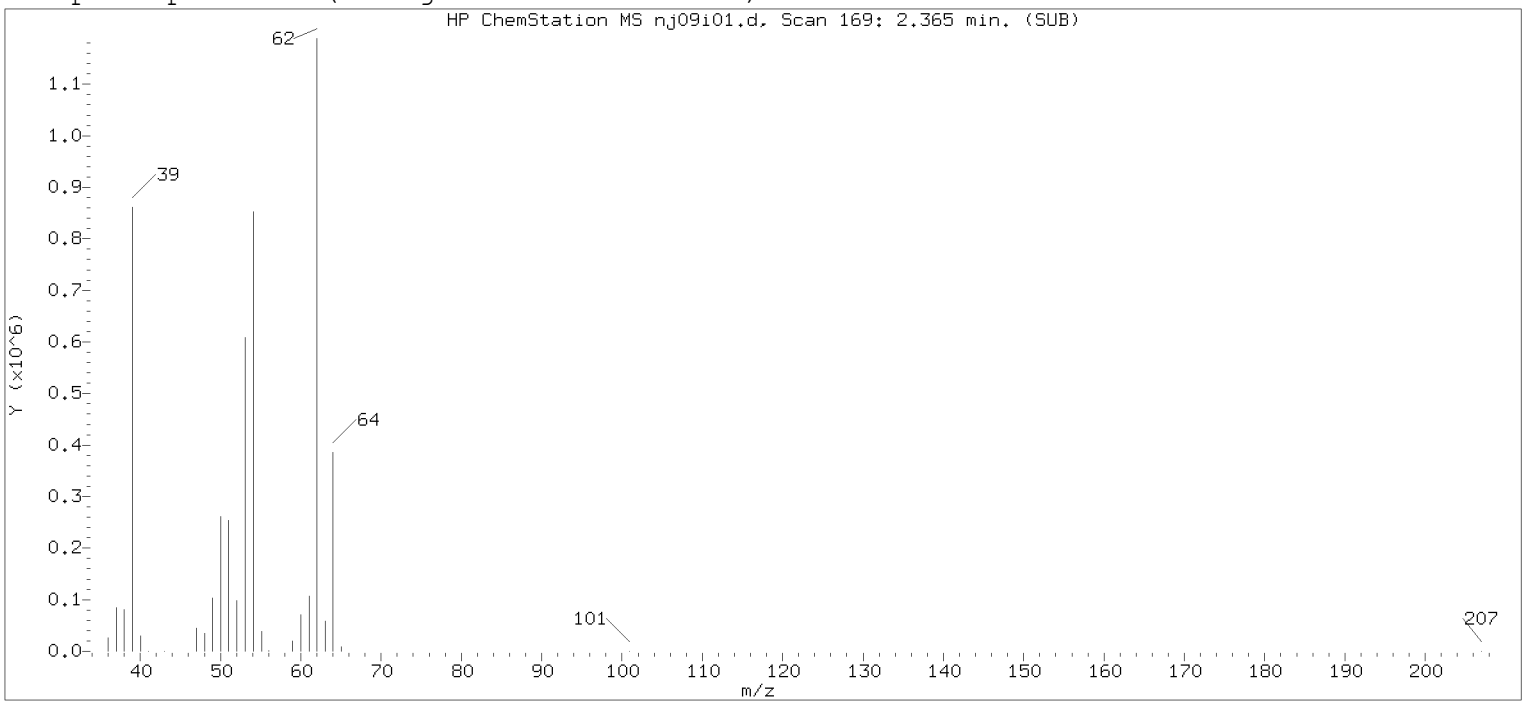
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 1990849M
On-Column Amount (ng) : 260.8062
Integration start scan : 151 Integration stop scan: 204
Y at integration start : 230 Y at integration end: 230

Reason for manual integration: improper integration

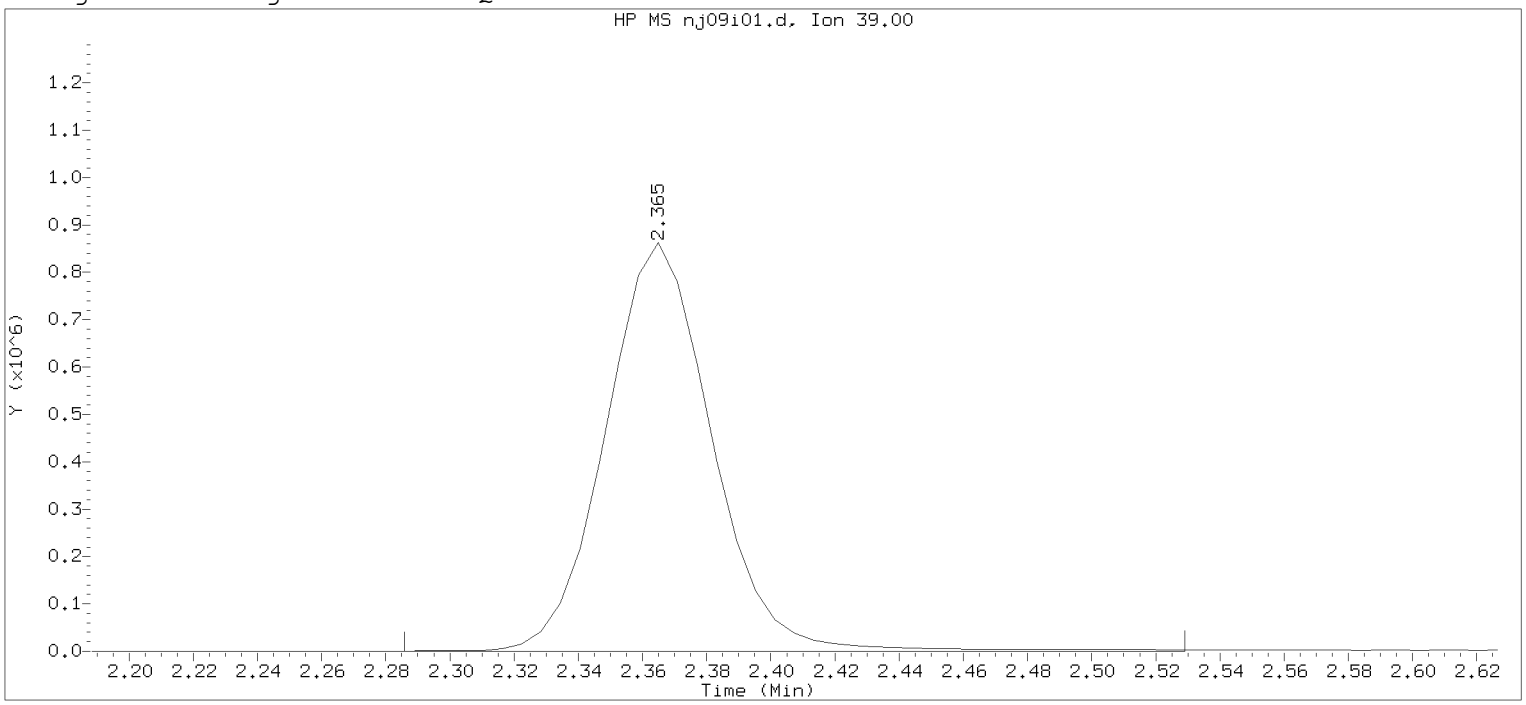
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

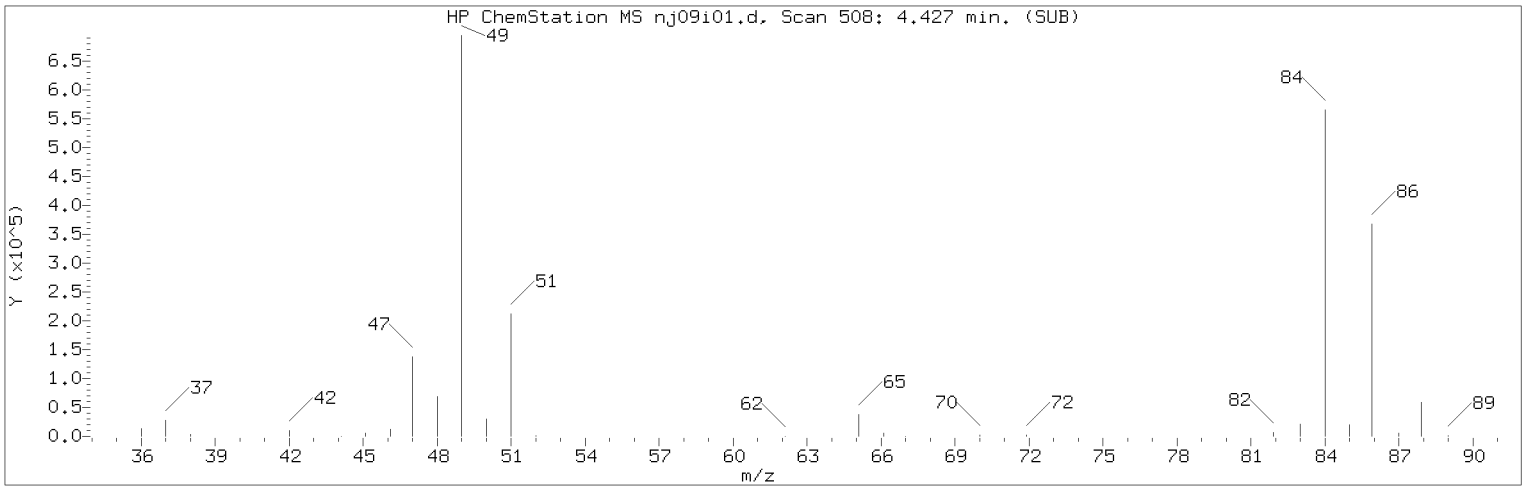
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

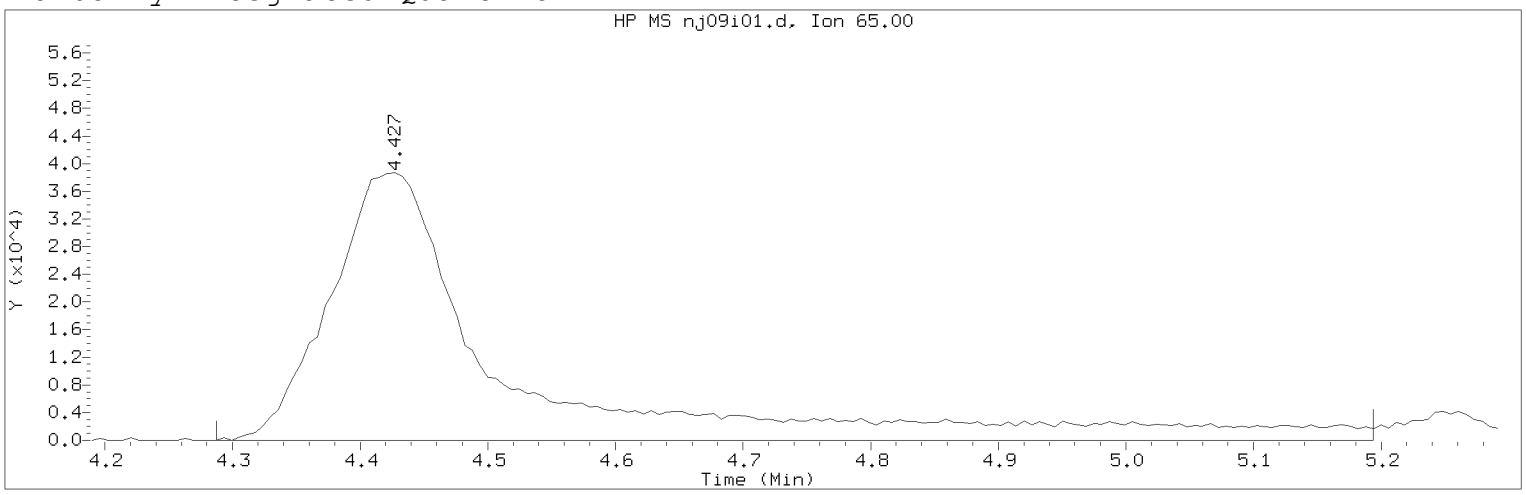
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 1979580
On-column Amount (ng) : 262.5678
Integration start scan : 155 Integration stop scan: 195
Y at integration start : 295 Y at integration end: 662

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

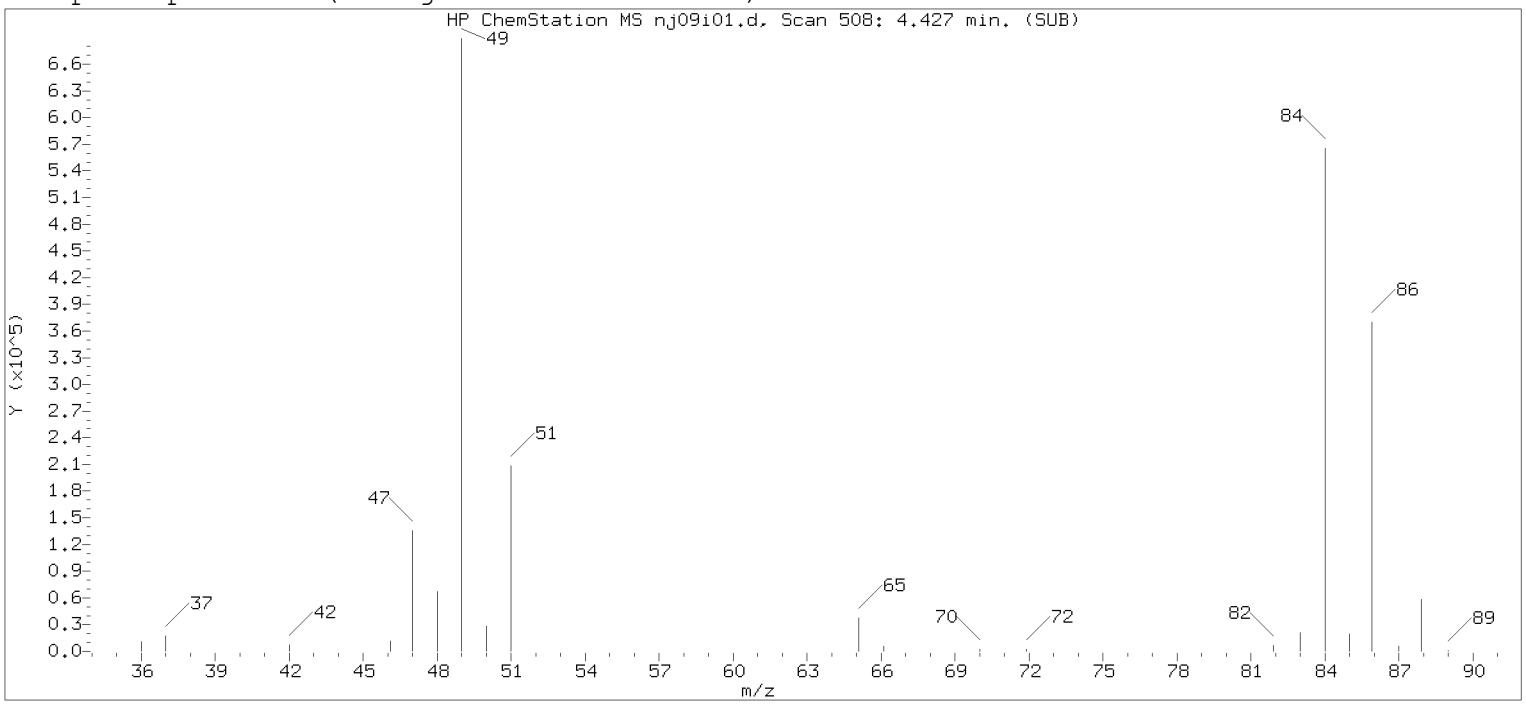
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area (flag) : 369636M
On-Column Amount (ng) : 250.0000
Integration start scan : 484 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

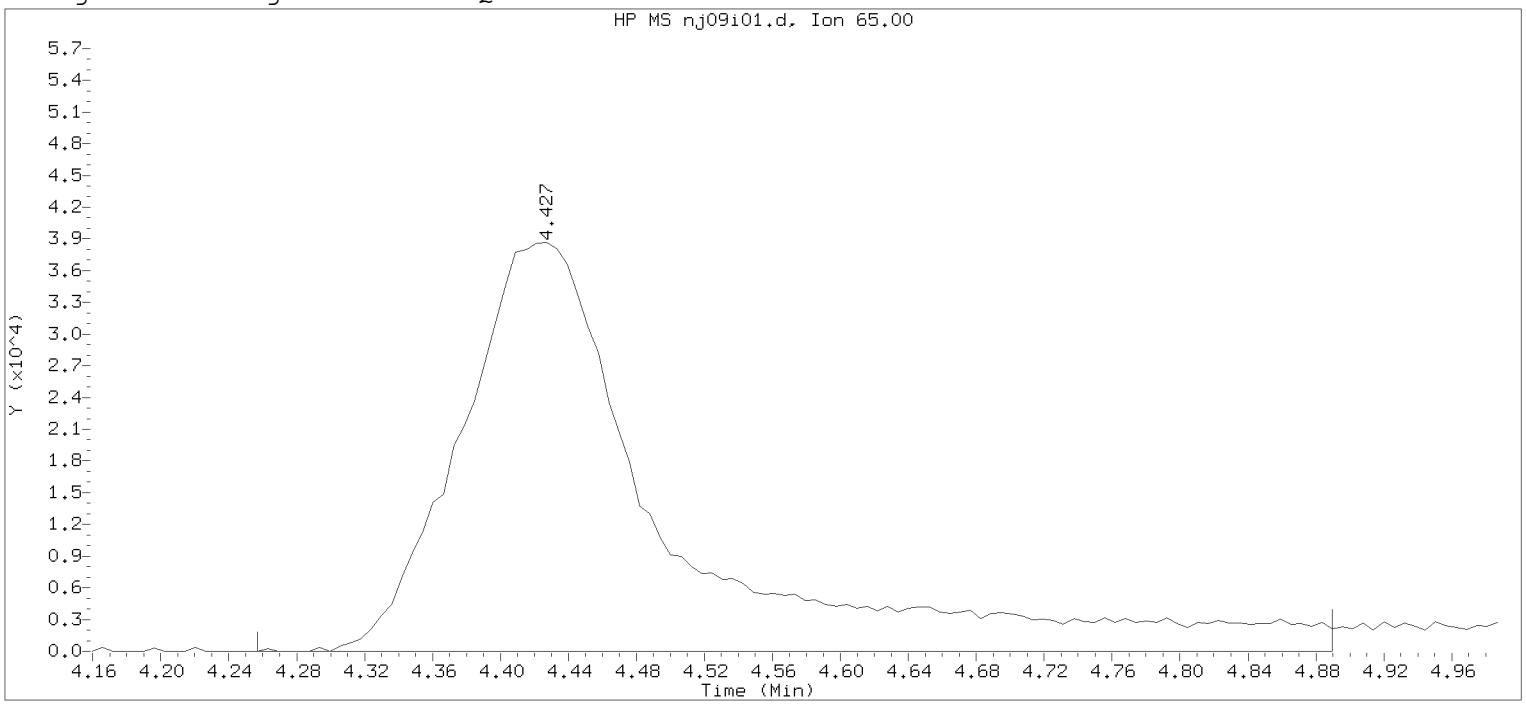
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

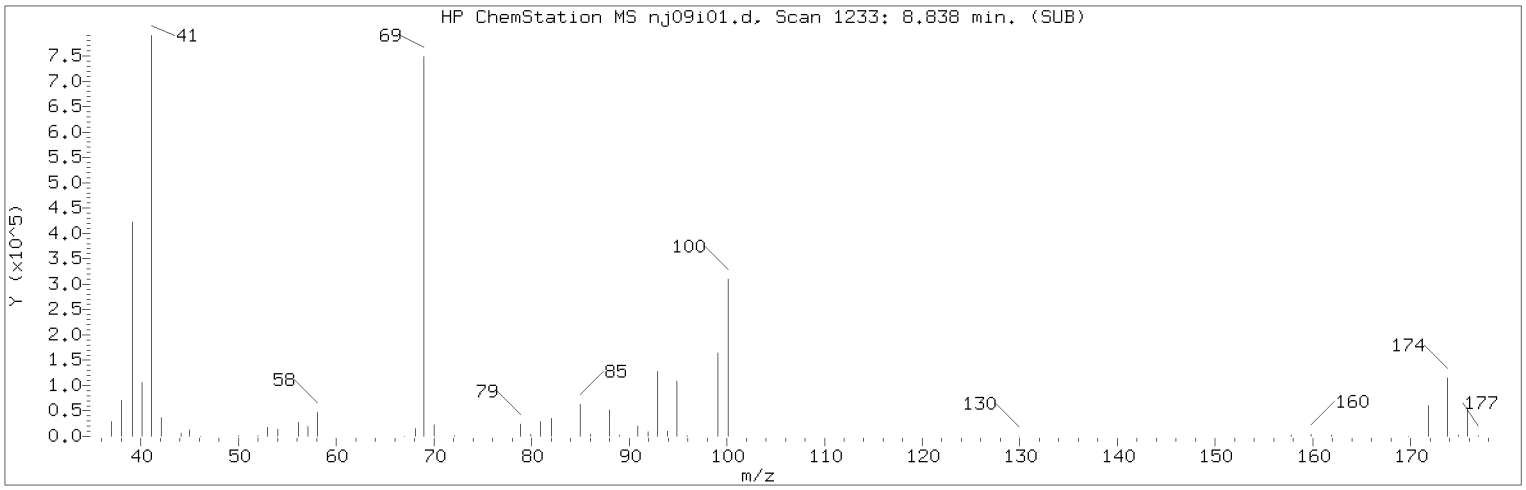
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

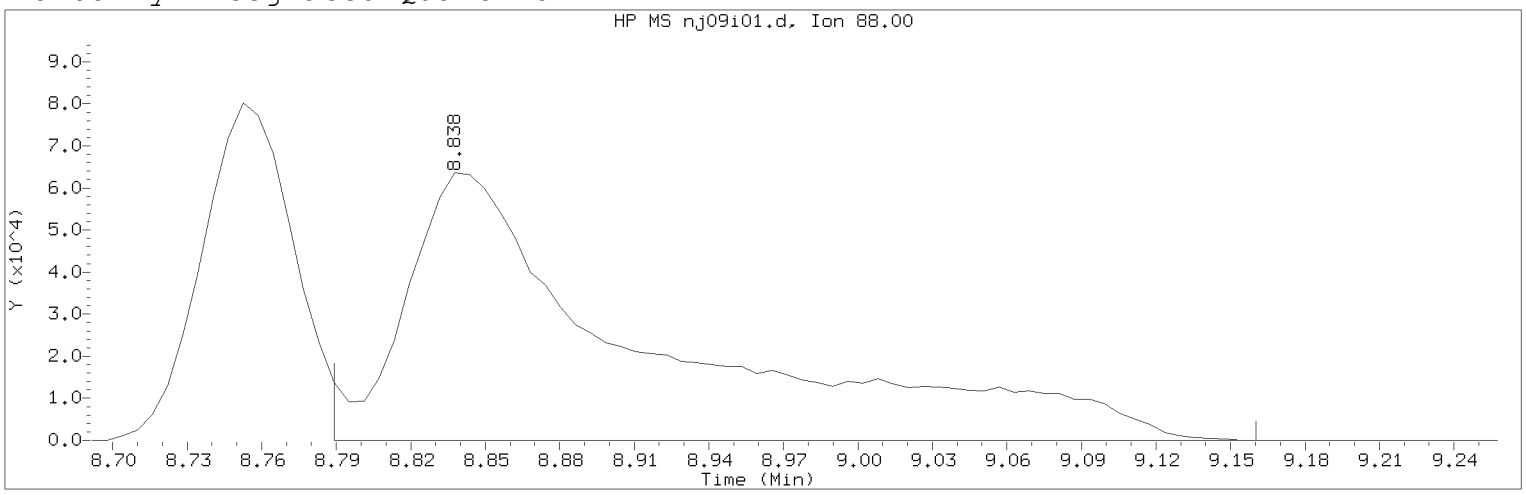
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area : 329635
On-column Amount (ng) : 250.0000
Integration start scan : 479 Integration stop scan: 583
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

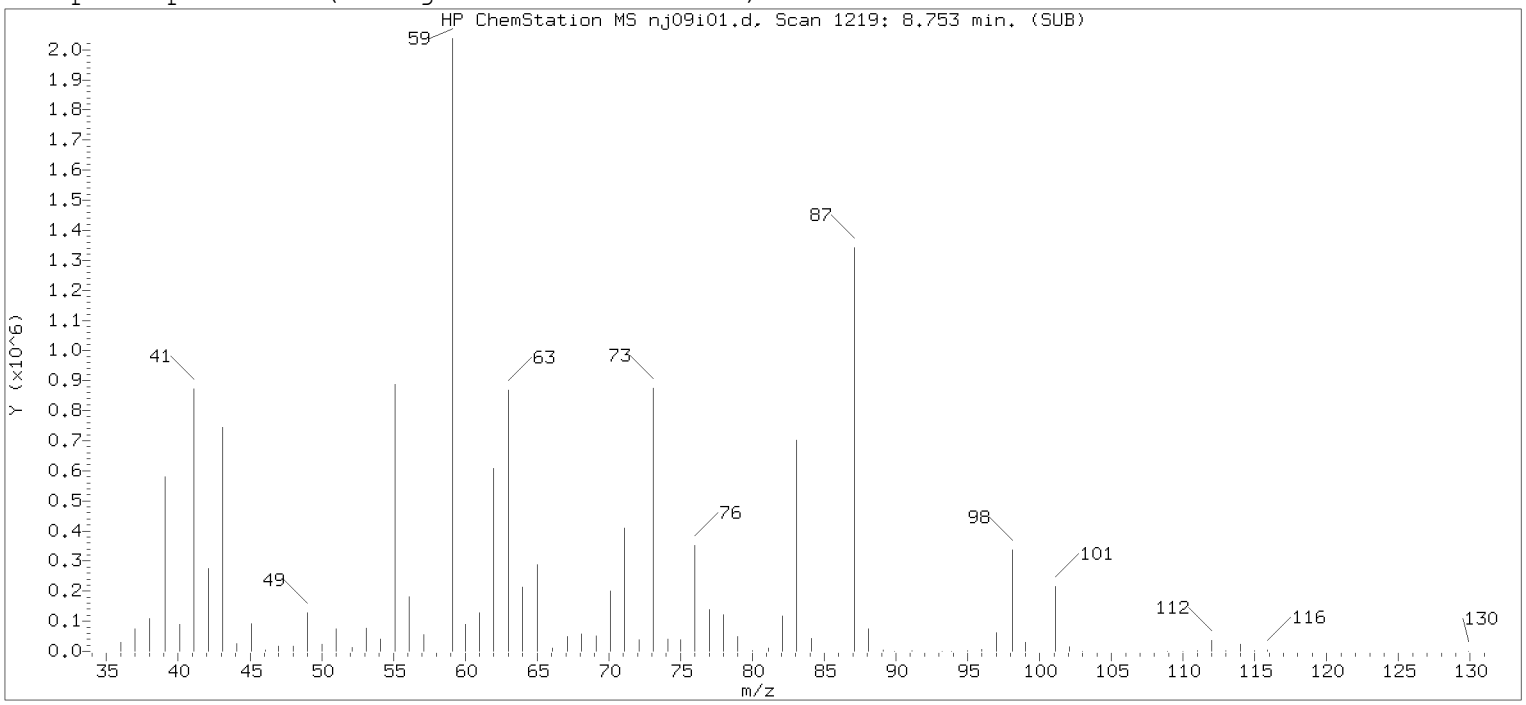
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.838
Quant Ion : 88.00
Area (flag) : 432869M
On-Column Amount (ng) : 4029.5691
Integration start scan : 1224 Integration stop scan: 1285
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

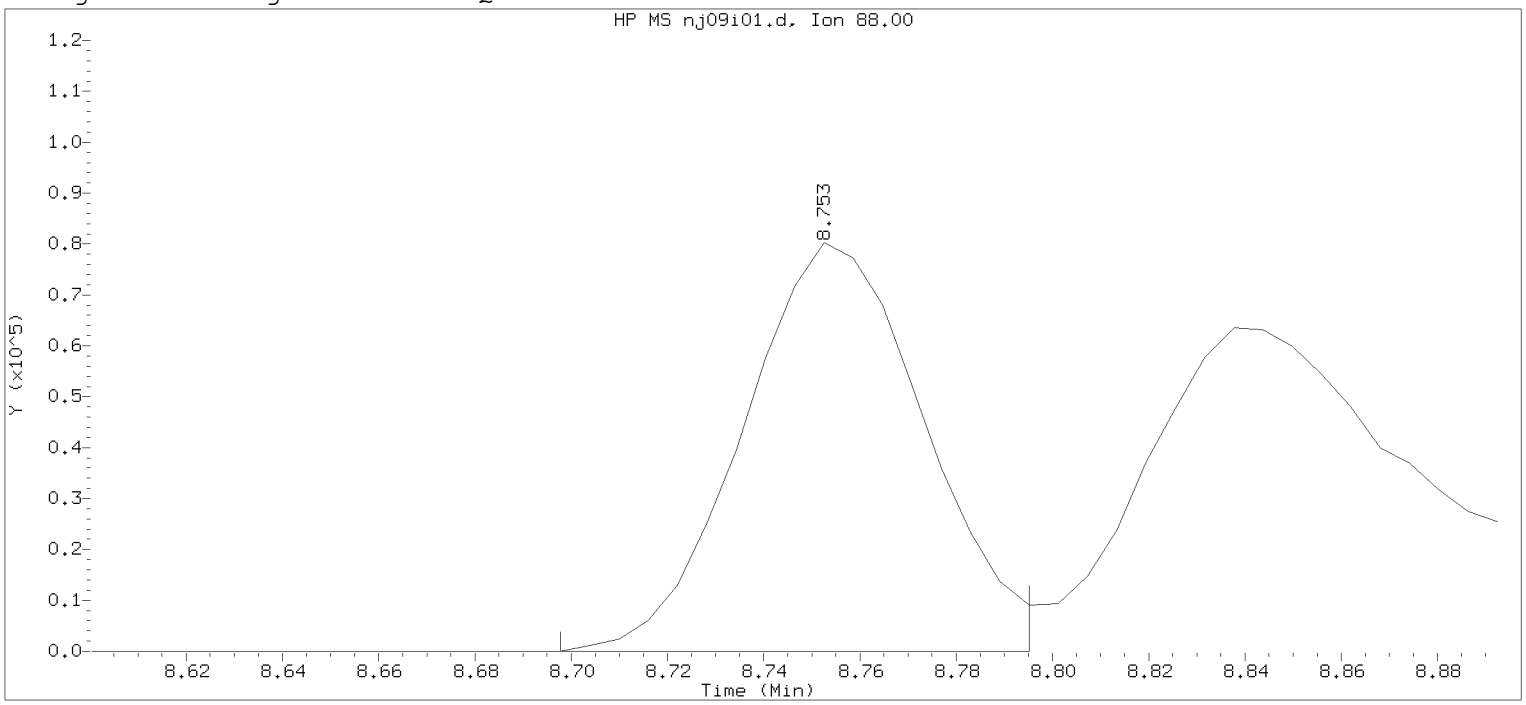
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1219		
Retention Time (minutes)	: 8.753		
Quant Ion	: 88.00		
Area	: 208880		
On-column Amount (ng)	: 2918.2242		
Integration start scan	: 1209	Integration stop scan:	1225
Y at integration start	: 0	Y at integration end:	0

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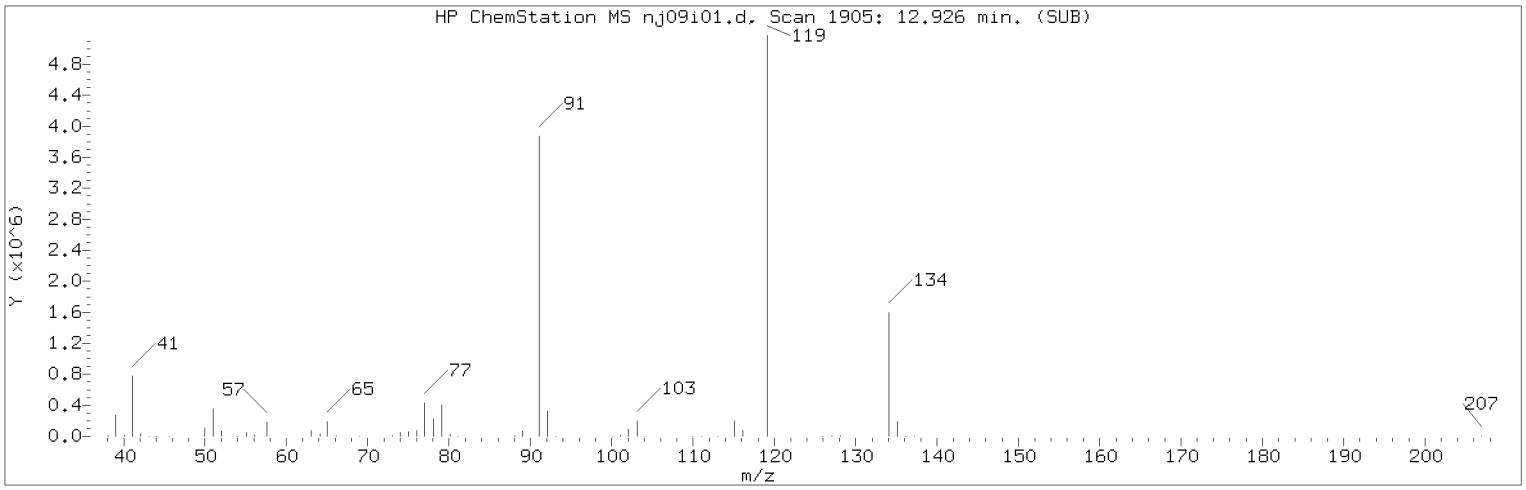
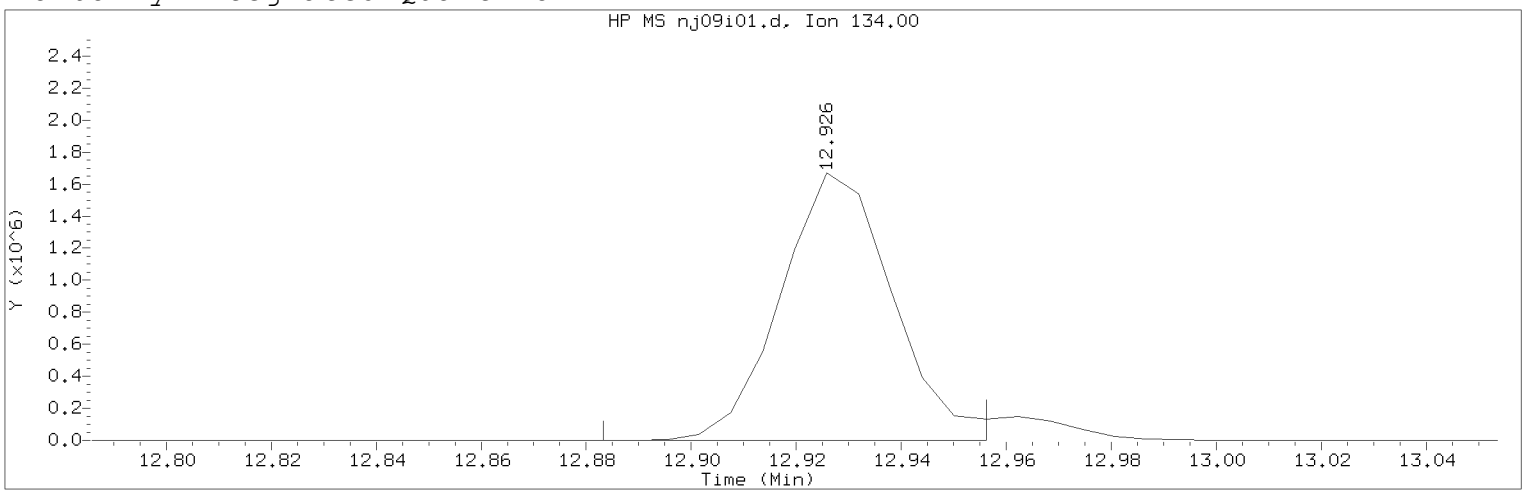
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

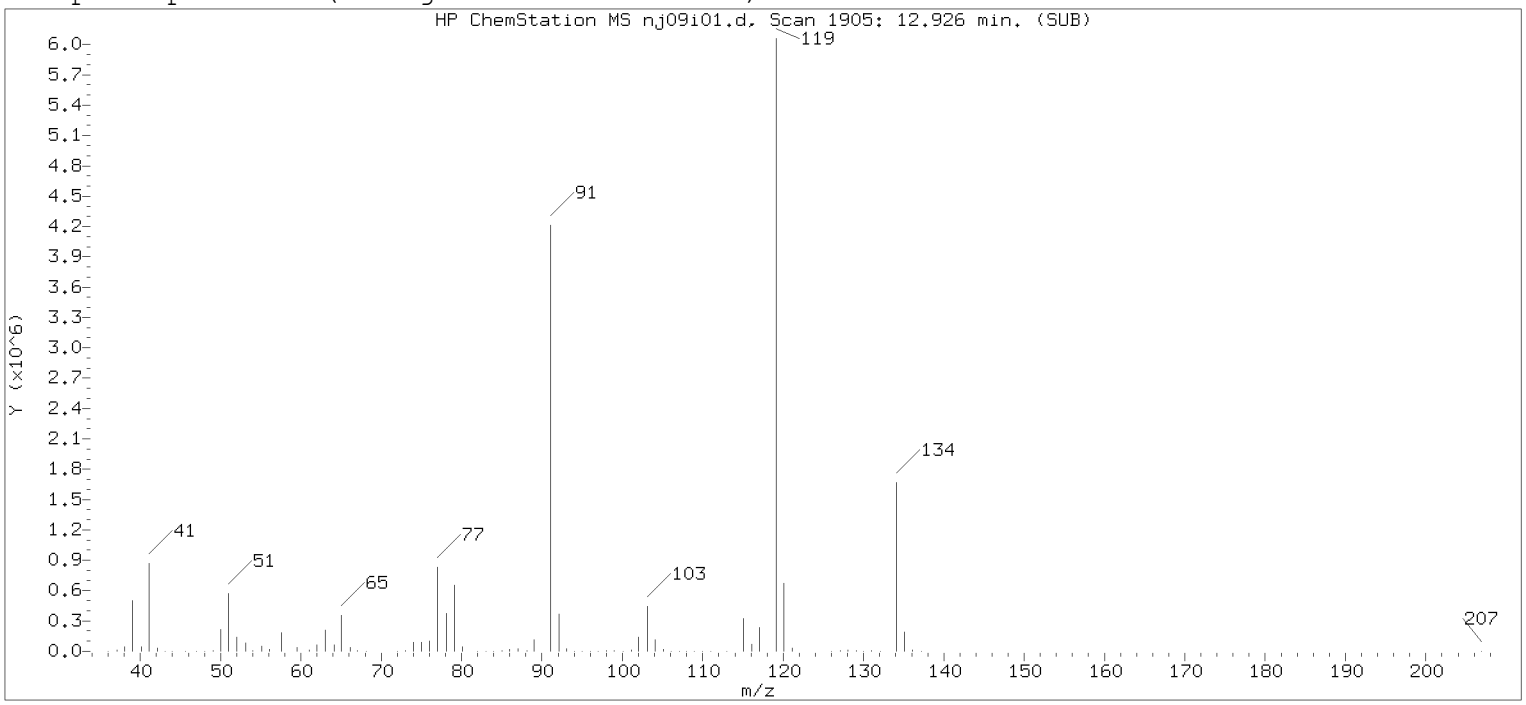
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area (flag) : 2476958M
On-Column Amount (ng) : 306.5457
Integration start scan : 1897 Integration stop scan: 1909
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

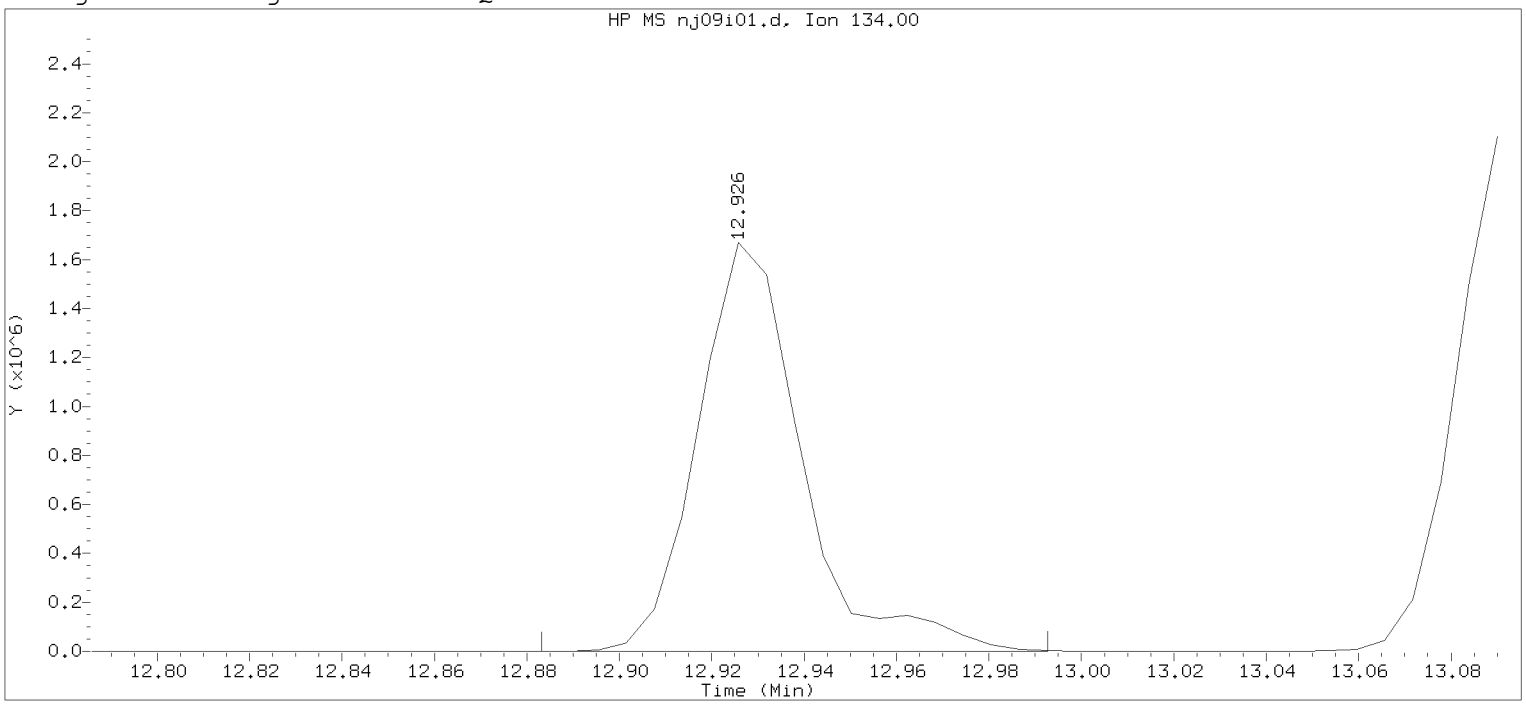
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



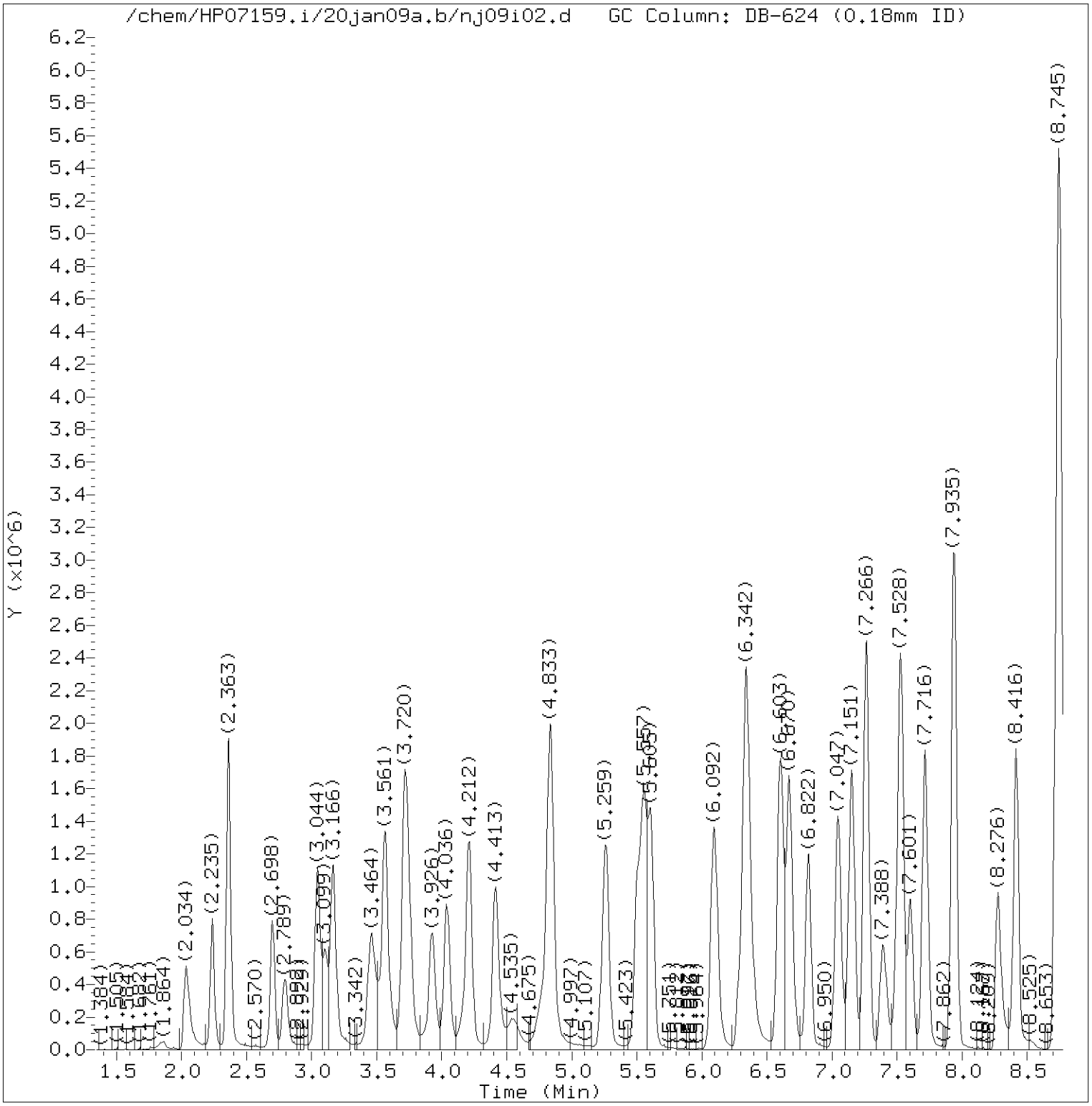
Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area : 2610442
On-column Amount (ng) : 312.3028
Integration start scan : 1897 Integration stop scan: 1915
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: JCW amd00492



Total Ion Chromatogram (TIC)

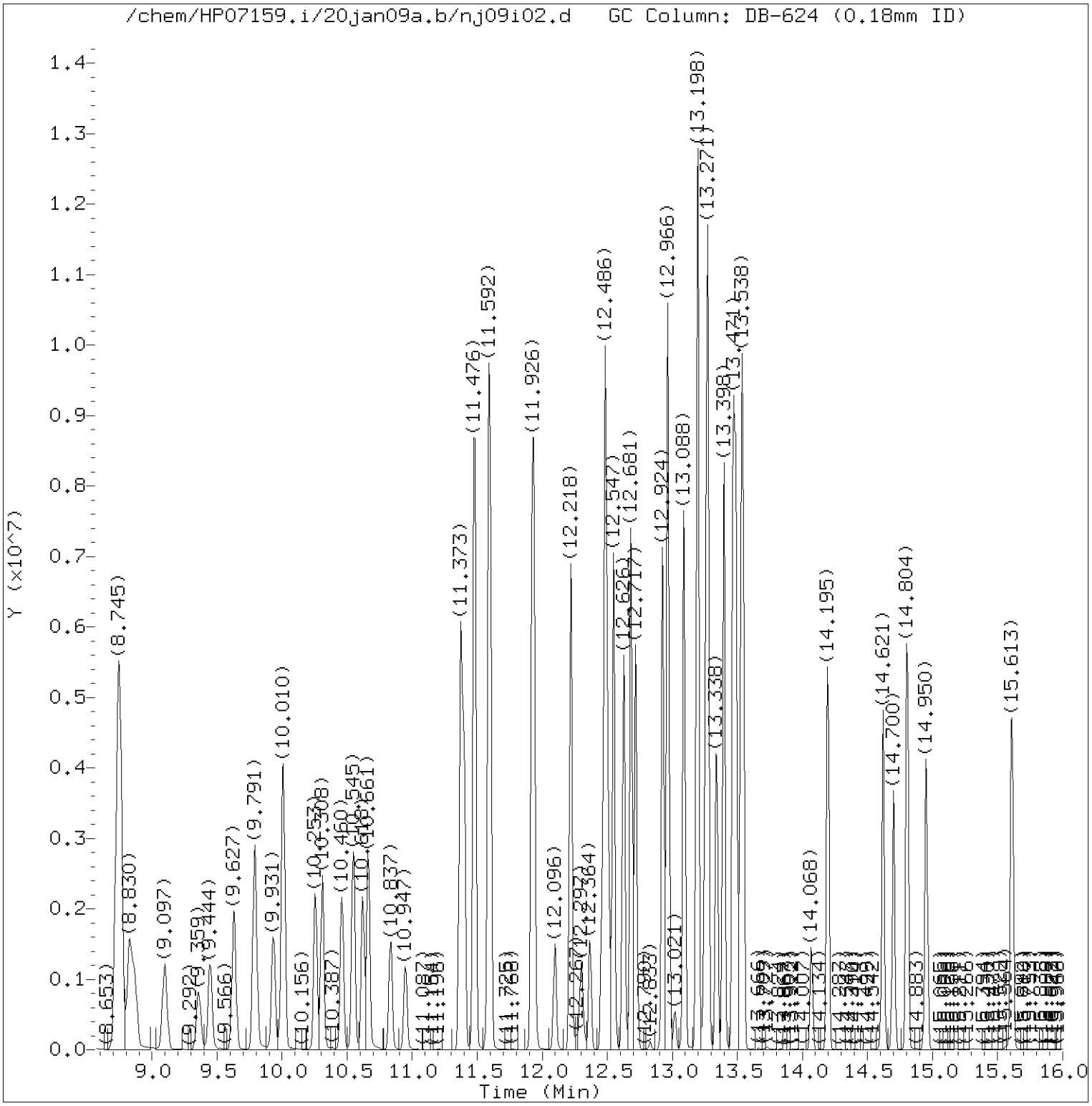
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	1065649M	104.261
4) Chloromethane	(2)	2.235	50	1094278	99.918
6) Vinyl Chloride	(2)	2.357	62	1069201	100.325
5) 1,3-Butadiene	(2)	2.363	39	705862M	92.368
8) Bromomethane	(2)	2.698	94	730957	100.032
9) Chloroethane	(2)	2.795	64	624167	100.064
10) Dichlorofluoromethane	(2)	3.044	67	1394718	97.635
12) Trichlorofluoromethane	(2)	3.105	101	1167619	99.689
11) n-Pentane	(2)	3.166	43	1158175	100.924
13) Ethanol	(1)	3.239	45	231093	2490.020
15) Freon 123a	(2)	3.458	67	830241	96.756
16) Acrolein	(1)	3.561	56	2442482	939.333
17) 1,1-Dichloroethene	(2)	3.713	96	669338	98.057
17) 1,1-Dichloroethene	(2)	3.713	63	352749	98.480
19) Freon 113	(2)	3.732	101	682211	107.718
18) Acetone	(1)	3.738	58	206215	188.290
21) 2-Propanol	(1)	3.914	45	366318	506.414
22) Methyl Iodide	(2)	3.926	142	1290126	101.256
23) Carbon Disulfide	(2)	4.036	76	2182426	99.981
27) Methyl Acetate	(2)	4.182	43	792737	94.532
25) Allyl Chloride	(2)	4.212	41	1192901	98.989
28) Methylene Chloride	(2)	4.413	84	787597	97.145
29)*t-Butyl alcohol-d10	(1)	4.425	65	383443M	250.000
30) t-Butyl alcohol	(1)	4.547	59	710037	496.693
31) Acrylonitrile	(2)	4.754	53	430634	95.083
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	2199223	99.146
32) trans-1,2-Dichloroethene	(2)	4.839	96	780157	100.112
34) n-Hexane	(2)	5.259	57	1192872	110.886
36) 1,1-Dichloroethane	(2)	5.502	63	1437072	101.089
38) di-Isopropyl ether	(2)	5.557	45	2478314	101.202
39) 2-Chloro-1,3-butadiene	(2)	5.612	53	1260534	100.452
40) Ethyl t-butyl ether	(2)	6.092	59	2323818	99.838
43) 1,2-Dichloroethene (Total)	(2)		96	1669505	200.599
44) 2-Butanone	(2)	6.293	43	1164793	183.930
42) cis-1,2-Dichloroethene	(2)	6.335	96	889348	100.487
45) 2,2-Dichloropropane	(2)	6.354	77	1255398	100.026
47) Propionitrile	(1)	6.378	54	852719	510.727
48) Methacrylonitrile	(2)	6.603	67	1178085	257.514

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	433584	103.613
50) Tetrahydrofuran	(1)	6.682	71	330036	190.397
51) Chloroform	(2)	6.816	83	1392137	100.398
52)$Dibromofluoromethane	(2)	7.041	113	324228	49.754
52)$Dibromofluoromethane	(2)	7.041	111	332864	50.026
53) 1,1,1-Trichloroethane	(2)	7.053	97	1258983	100.359
54) Cyclohexane	(2)	7.151	56	1358801	105.307
54) Cyclohexane	(2)	7.151	84	1183085	105.204
54) Cyclohexane	(2)	7.151	69	433665	106.928
55) 1,1-Dichloropropene	(2)	7.266	75	1140054	100.472
56) Carbon Tetrachloride	(2)	7.266	117	1092426	100.997
58) Isobutyl Alcohol	(1)	7.394	41	631953M	1234.094
57)$1,2-Dichloroethane-d4	(2)	7.497	102	82020	49.780
57)$1,2-Dichloroethane-d4	(2)	7.497	65	390530	49.272
57)$1,2-Dichloroethane-d4	(2)	7.497	104	53204	50.750
60) Benzene	(2)	7.528	78	3249542	100.608
61) 1,2-Dichloroethane	(2)	7.601	62	1133993	99.241
61) 1,2-Dichloroethane	(2)	7.607	98	105964	112.671
65) t-Amyl methyl ether	(2)	7.716	73	2301266	98.554
66)*Fluorobenzene	(2)	7.935	96	1313106	50.000
67) n-Heptane	(2)	7.941	43	1384590	111.509
69) n-Butanol	(1)	8.276	56	1160735	2631.396
71) Trichloroethene	(2)	8.416	95	854107	100.375
72) Methylcyclohexane	(2)	8.732	83	1510509	107.989
72) Methylcyclohexane	(2)	8.732	98	706582	107.262
73) 1,2-Dichloropropane	(2)	8.757	63	856520	103.706
76) Methyl Methacrylate	(2)	8.824	69	793736	105.090
75) 1,4-Dioxane	(1)	8.848	88	151647M	1360.847
74) Dibromomethane	(2)	8.866	93	530251	100.667
78) Bromodichloromethane	(2)	9.097	83	1105753	102.830
79) 2-Nitropropane	(2)	9.359	41	716120	183.359
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	672942	103.002
81) cis-1,3-Dichloropropene	(2)	9.627	75	1420758	103.574
82) 4-Methyl-2-pentanone	(2)	9.791	43	2423521	188.882
83)$Toluene-d8	(3)	9.931	98	1297051	49.930
83)$Toluene-d8	(3)	9.931	100	861087	50.033
88) Toluene	(3)	10.010	92	2134807	101.166
90) 1,3-Dichloropropene (total)	(3)		100	2778189	207.217

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	1357431	103.643
91) Ethyl Methacrylate	(3)	10.308	69	1372978	105.217
92) 1,1,2-Trichloroethane	(3)	10.460	97	765532	102.463
93) Tetrachloroethene	(3)	10.545	166	933658	101.035
94) 1,3-Dichloropropane	(3)	10.618	76	1339481	103.297
96) 2-Hexanone	(3)	10.661	43	1874151	187.627
97) Dibromochloromethane	(3)	10.837	129	905427	105.604
99) 1,2-Dibromoethane	(3)	10.947	107	846446	103.462
100)*Chlorobenzene-d5	(3)	11.373	117	996040	50.000
102) Chlorobenzene	(3)	11.397	112	2404391	102.089
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	875426	103.144
104) Ethylbenzene	(3)	11.482	91	4139783	101.423
106) m+p-Xylene	(3)	11.592	106	3283487	204.744
108) Xylene (Total)	(3)		106	4909663	307.844
107) o-Xylene	(3)	11.920	106	1626176	103.100
109) Styrene	(3)	11.938	104	2745510	103.639
110) Bromoform	(3)	12.096	173	688243	106.327
111) Isopropylbenzene	(3)	12.218	105	4262236	102.317
112) Cyclohexanone	(1)	12.297	55	596928	1335.703
114)$4-Bromofluorobenzene	(3)	12.364	95	511888	49.878
114)$4-Bromofluorobenzene	(3)	12.370	174	407556	49.569
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	1215567	101.183
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	1086804	262.991
115) Bromobenzene	(4)	12.486	156	1039816	102.938
117) 1,2,3-Trichloropropane	(4)	12.510	110	388444	102.073
119) n-Propylbenzene	(4)	12.547	91	5002648	102.151
120) 2-Chlorotoluene	(4)	12.626	126	1039981	103.001
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	3708233	103.342
121) 4-Chlorotoluene	(4)	12.717	126	1079774	103.190
124) tert-Butylbenzene	(4)	12.924	134	832423M	104.685
125) Pentachloroethane	(4)	12.960	167	670316	105.280
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	3839680	103.098
127) sec-Butylbenzene	(4)	13.088	105	4837222	103.779
129) 1,3-Dichlorobenzene	(4)	13.192	146	2015433	102.585
130) p-Isopropyltoluene	(4)	13.198	119	4228792	104.258
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	546174	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	2028787	101.827
134) 1,2,3-Trimethylbenzene	(4)	13.277	105	3693364	102.178

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.338	91	2802781	105.553
141) Diethylbenzene (total)	(4)		100	7301811	310.113
136) 1,3-Diethylbenzene	(4)	13.398	119	2518192	103.714
137) 1,4-Diethylbenzene	(4)	13.471	119	2676243	103.806
139) n-Butylbenzene	(4)	13.490	92	2195996	104.956
138) 1,2-Dichlorobenzene	(4)	13.526	146	1886768	101.292
140) 1,2-Diethylbenzene	(4)	13.544	119	2107376	102.594
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	332843	102.516
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	1554051	104.670
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	1354118	104.599
147) Hexachlorobutadiene	(4)	14.700	225	619194	105.736
148) Naphthalene	(4)	14.804	128	4184771	103.097
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	1236265	104.030
150) 2-Methylnaphthalene	(4)	15.613	142	2446500	104.346

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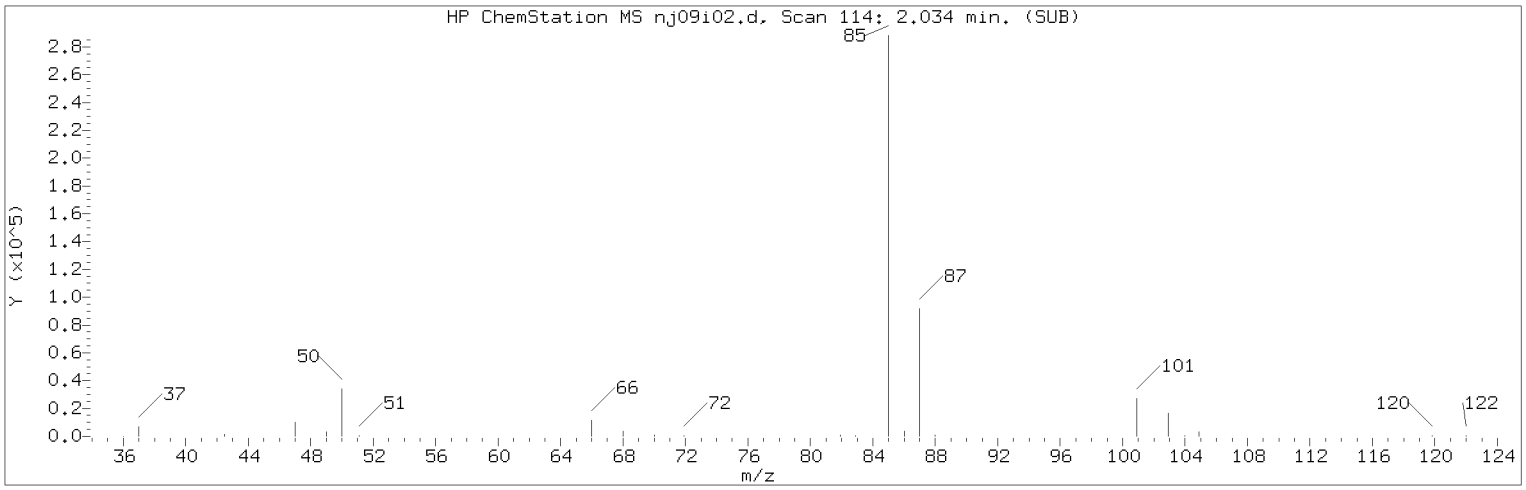
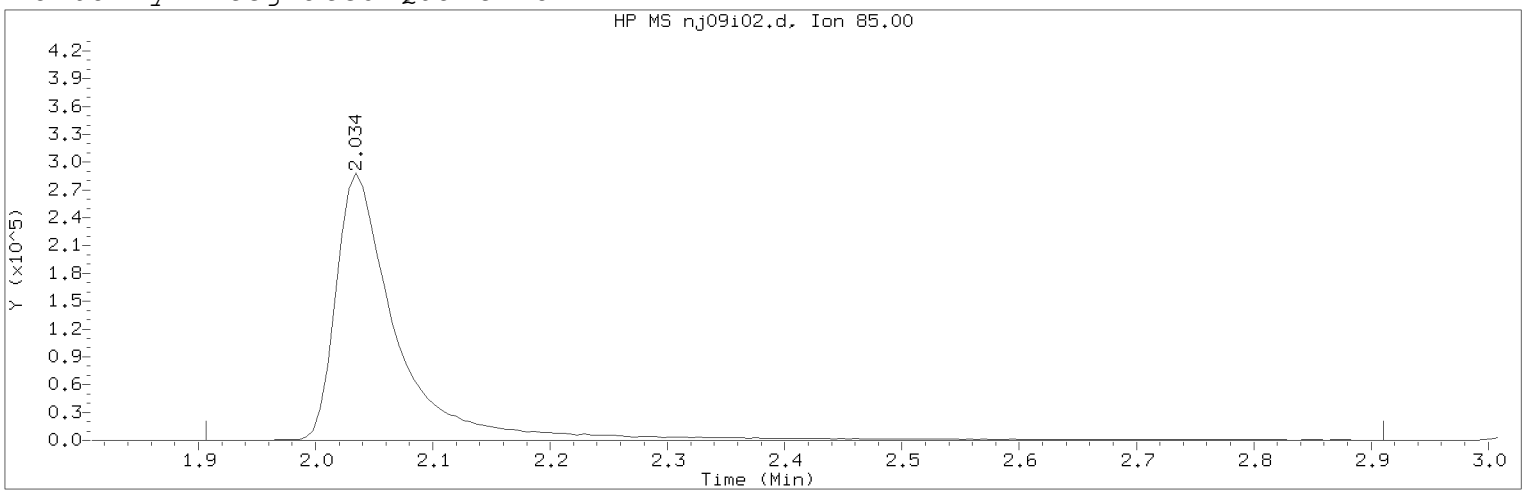
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

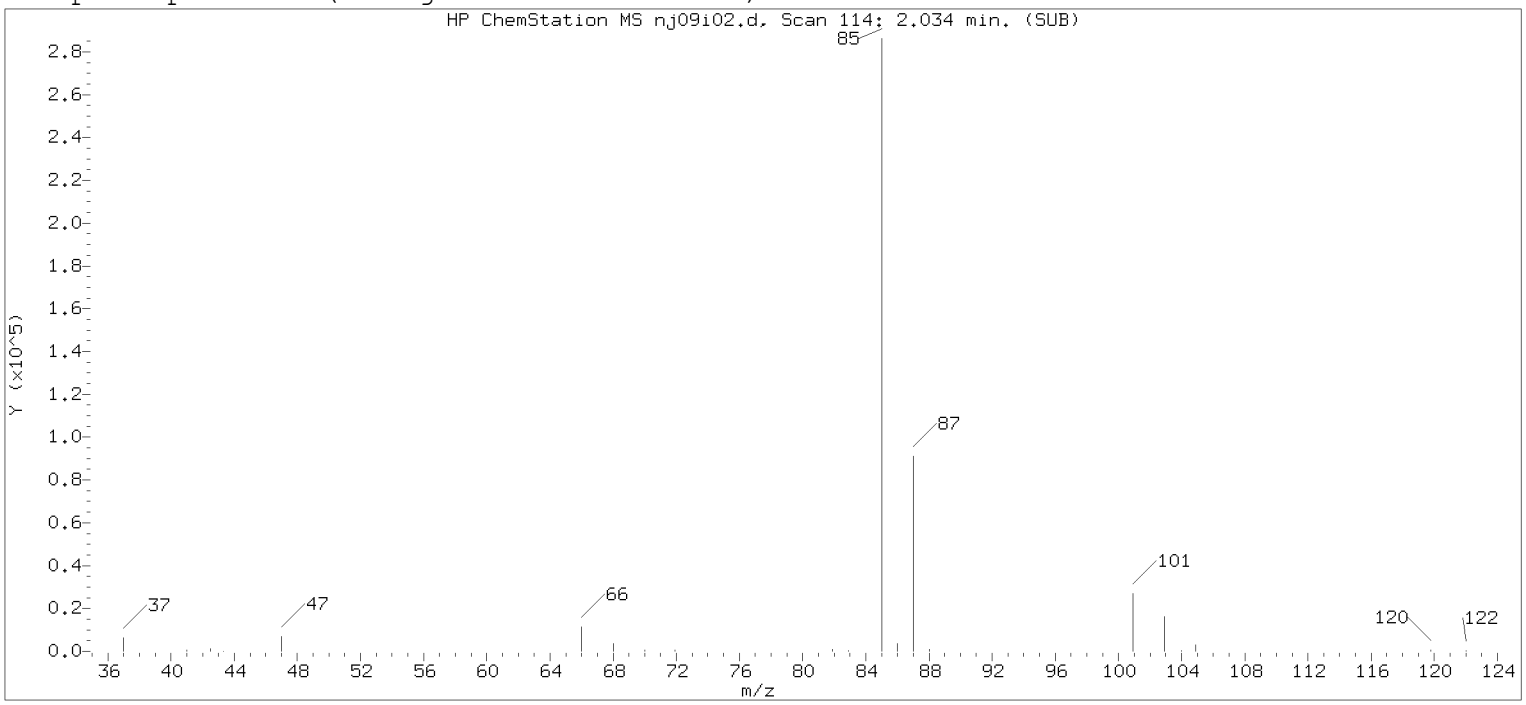
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 1065649M
On-Column Amount (ng) : 104.2612
Integration start scan : 92 Integration stop scan: 257
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

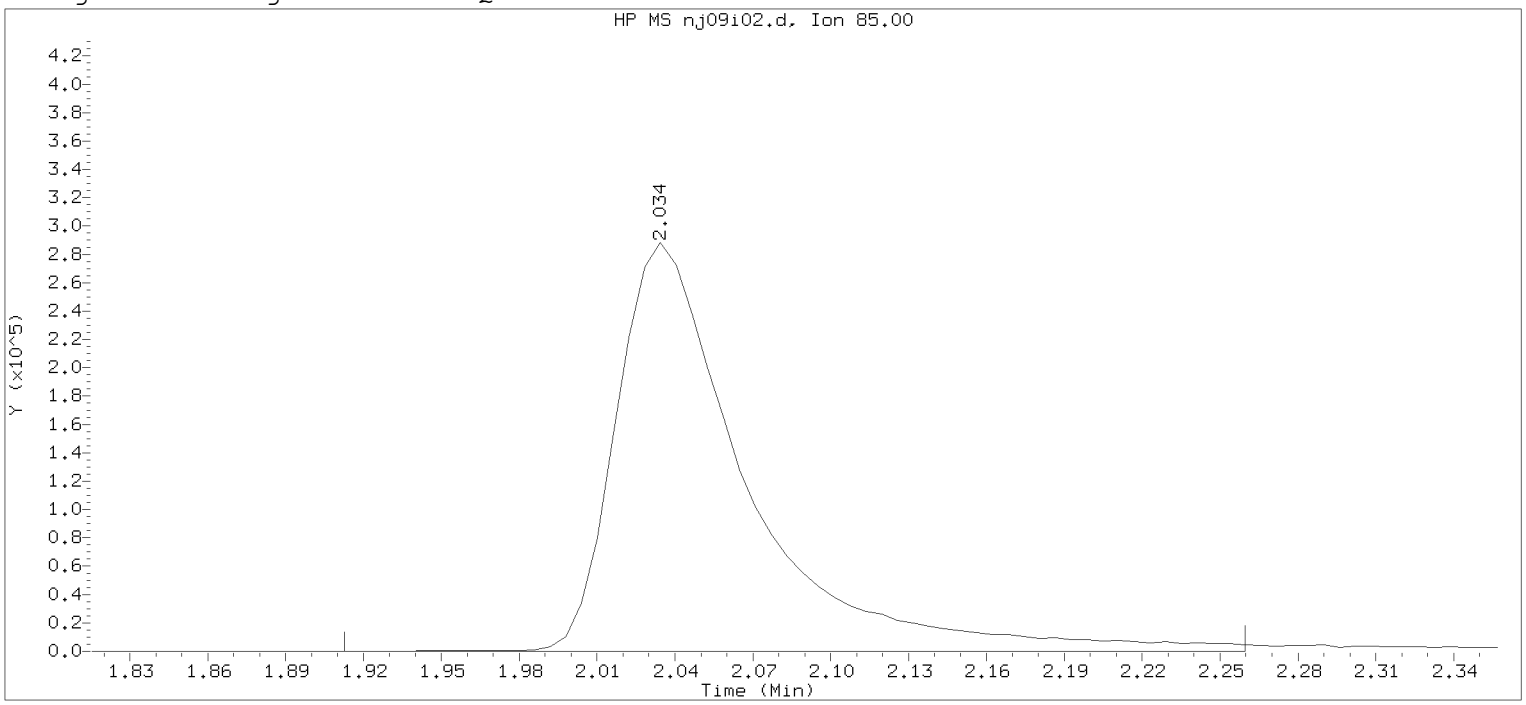
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

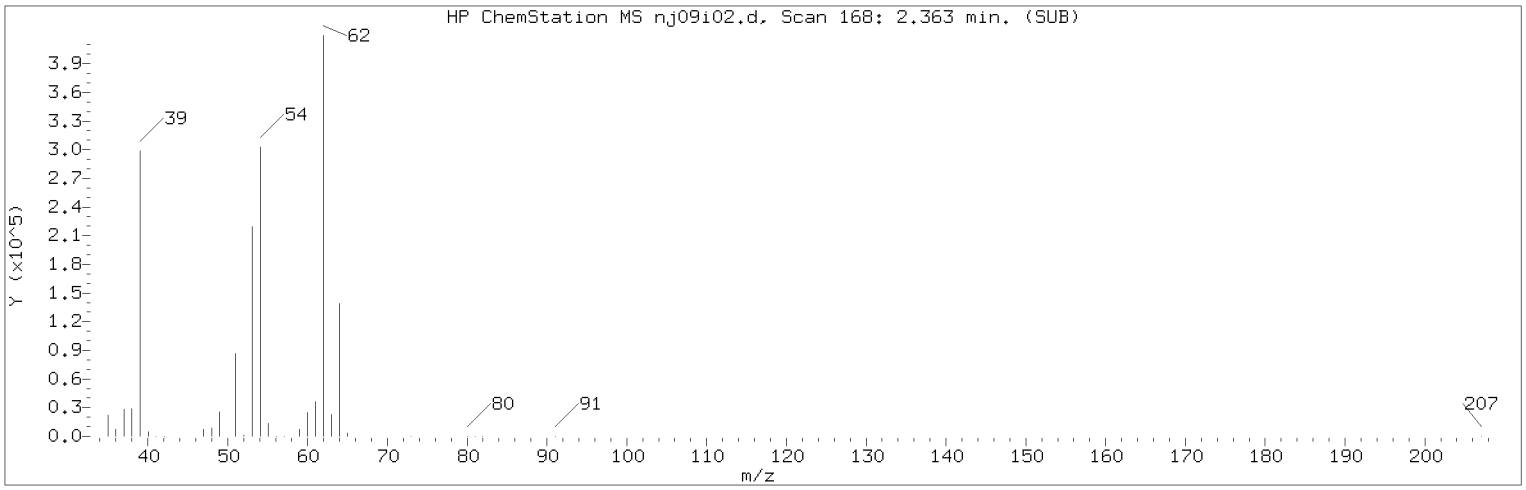
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

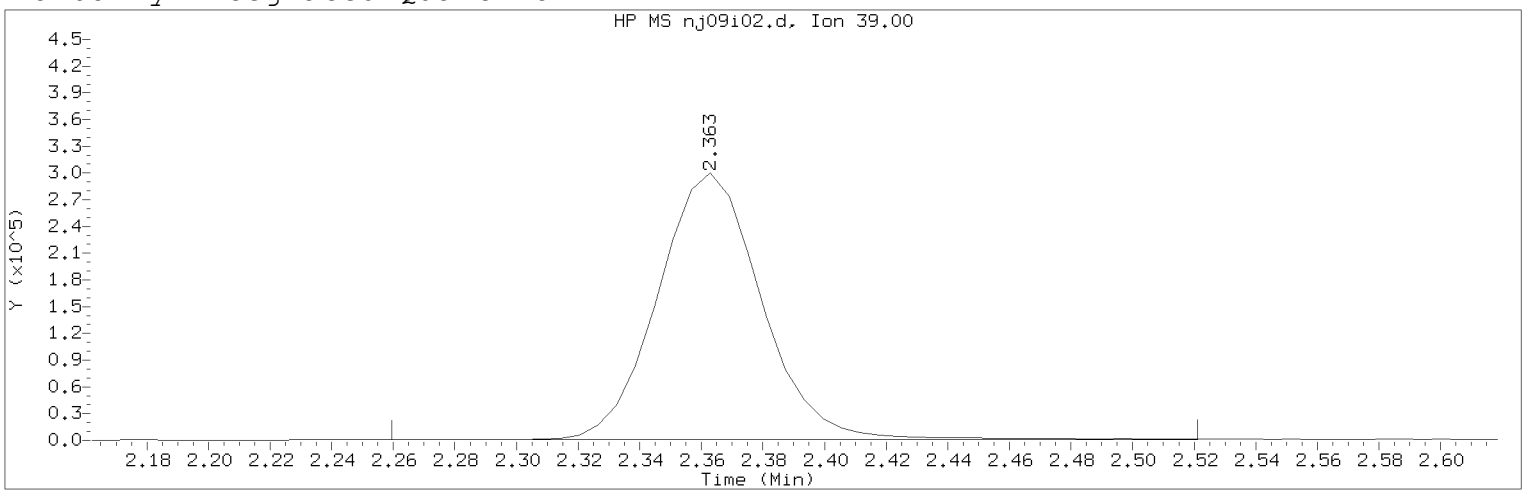
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 1012941
On-column Amount (ng) : 102.8315
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

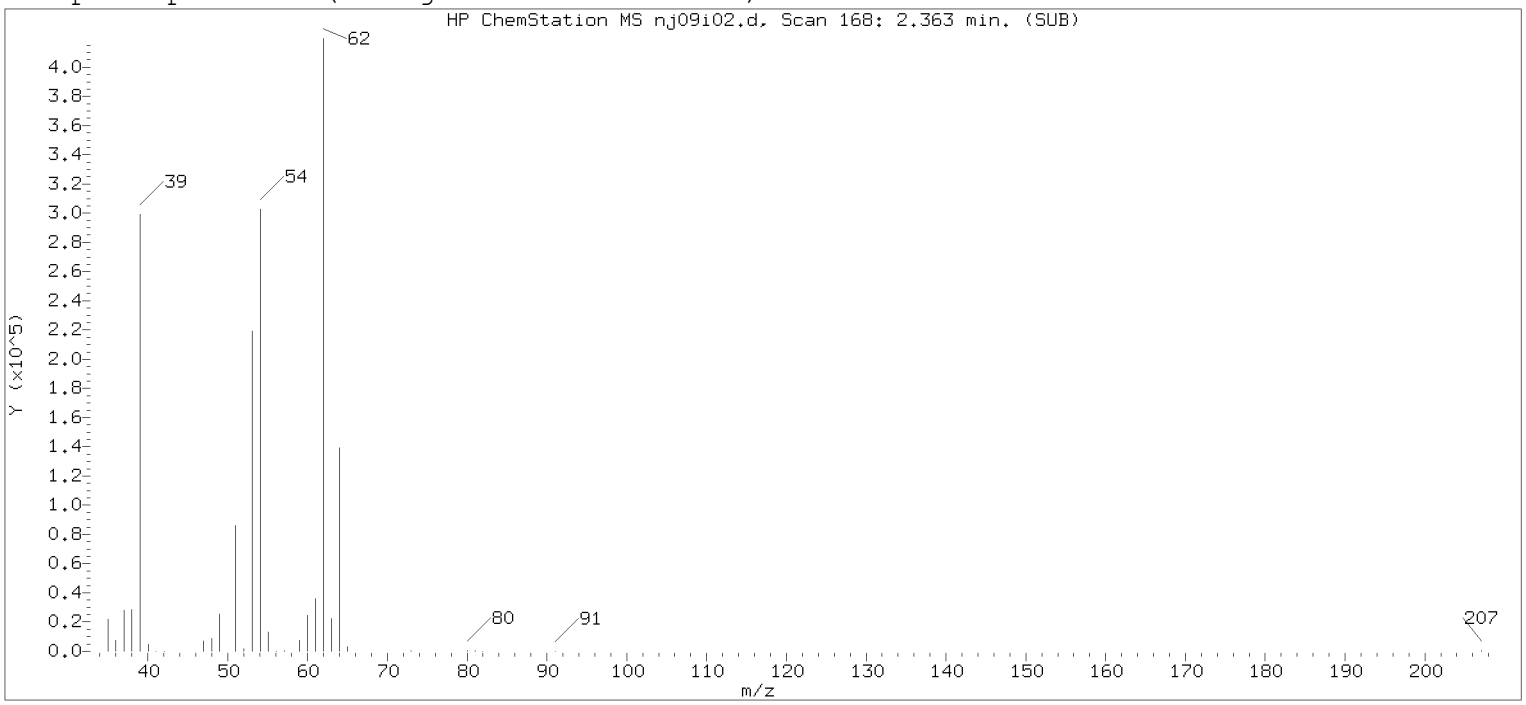
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 705862M
On-Column Amount (ng) : 92.3678
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 370 Y at integration end: 370

Reason for manual integration: improper integration

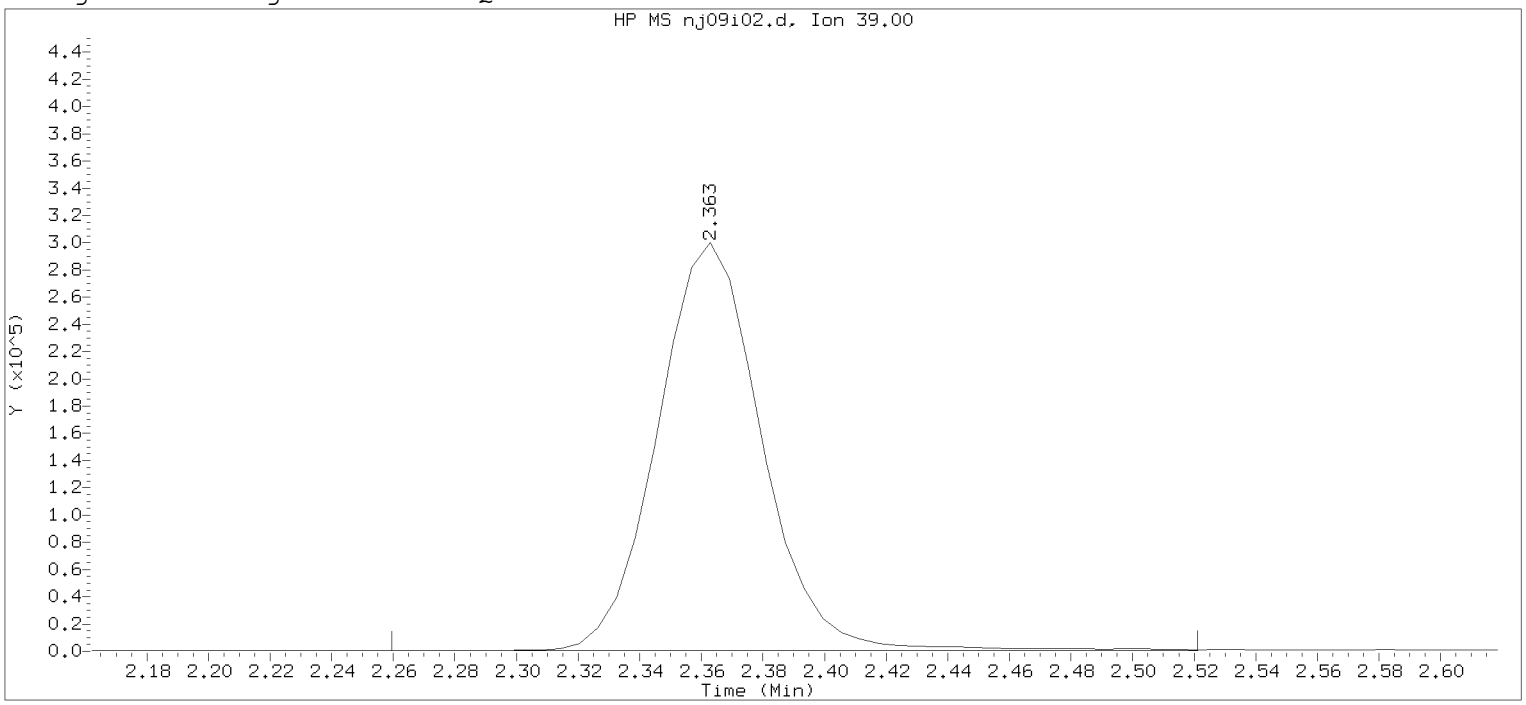
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 703523
On-column Amount (ng) : 93.1168
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 376 Y at integration end: 645

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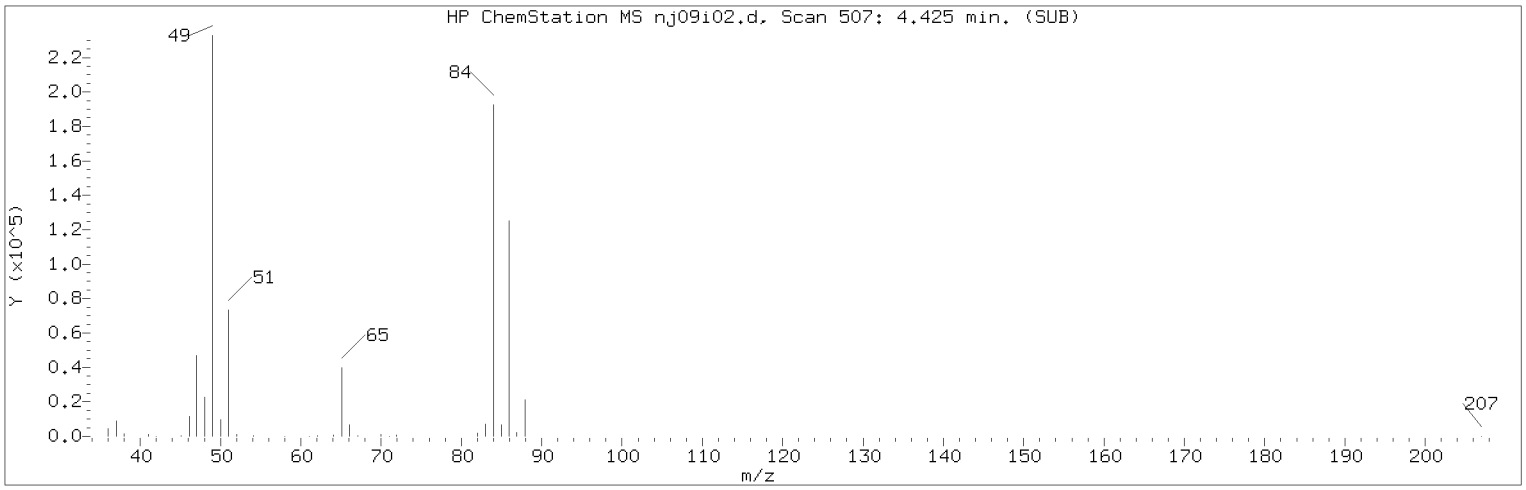
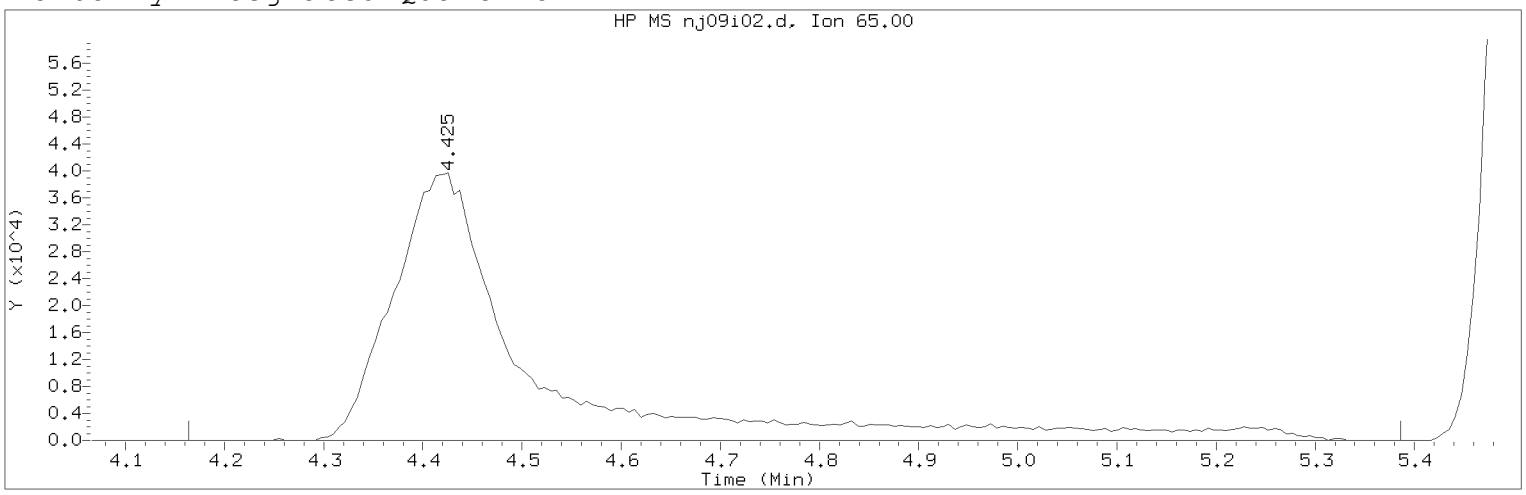
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

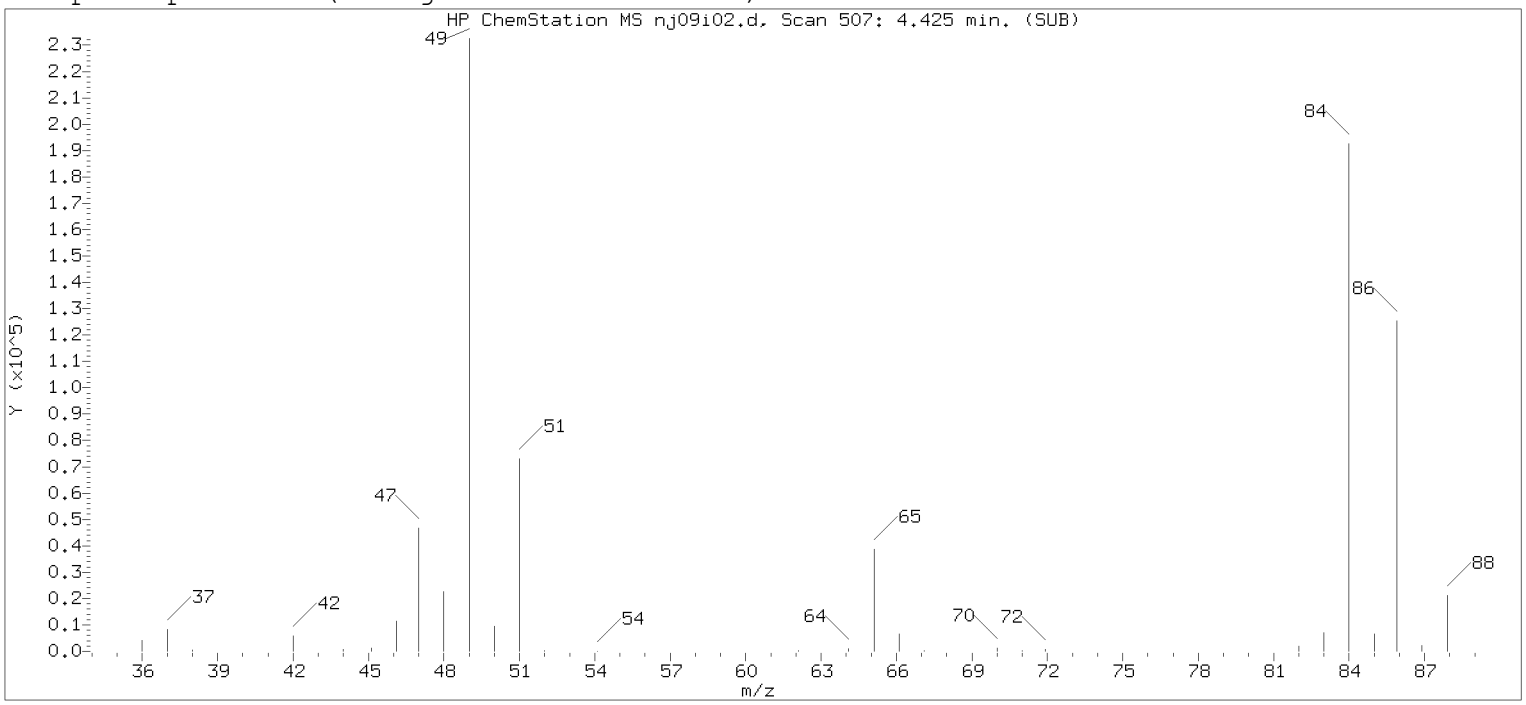
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 383443M
On-Column Amount (ng) : 250.0000
Integration start scan : 463 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

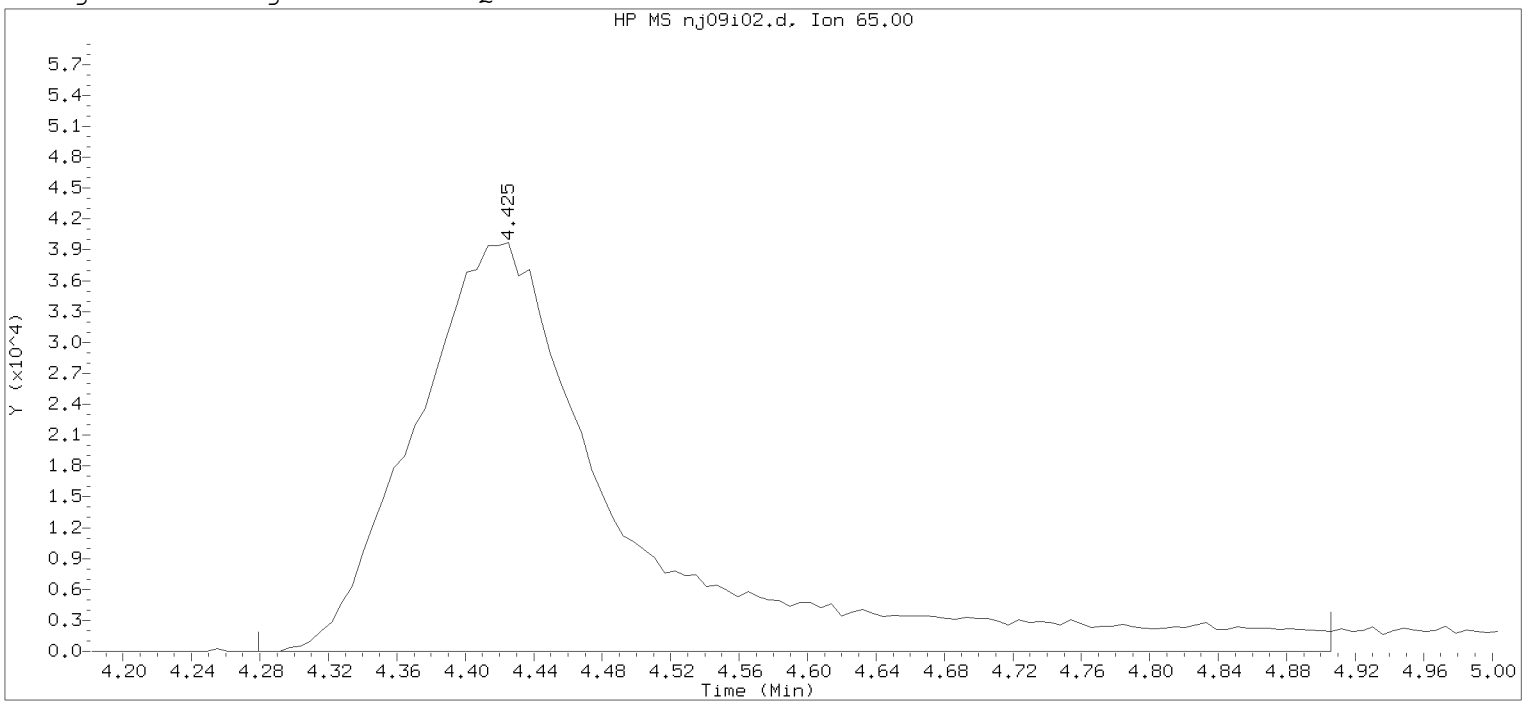
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

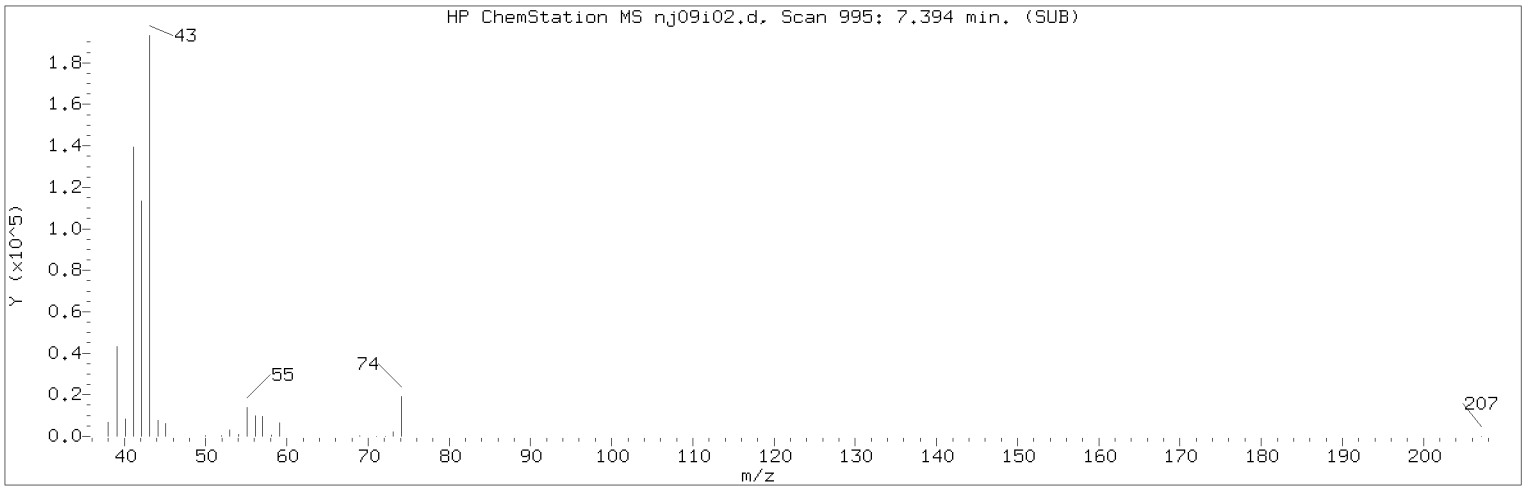
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

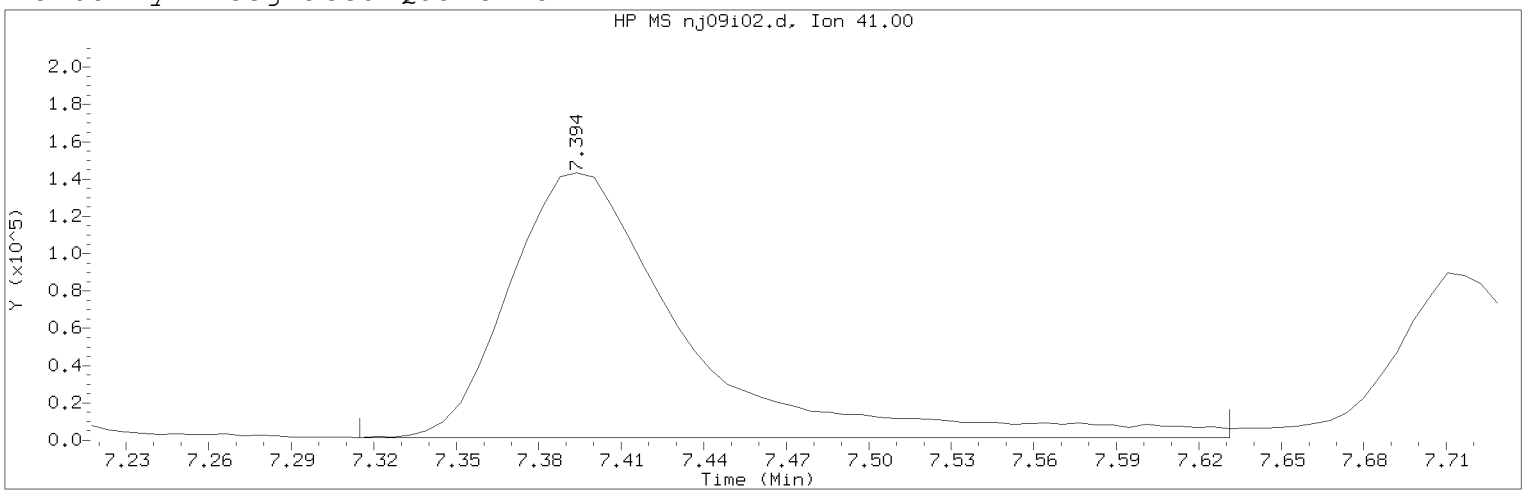
Compound Number	: 29		
Compound Name	: t-Butyl alcohol-d10		
Scan Number	: 507		
Retention Time (minutes)	: 4.425		
Quant Ion	: 65.00		
Area	: 343722		
On-column Amount (ng)	: 250.0000		
Integration start scan	: 482	Integration stop scan:	585
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

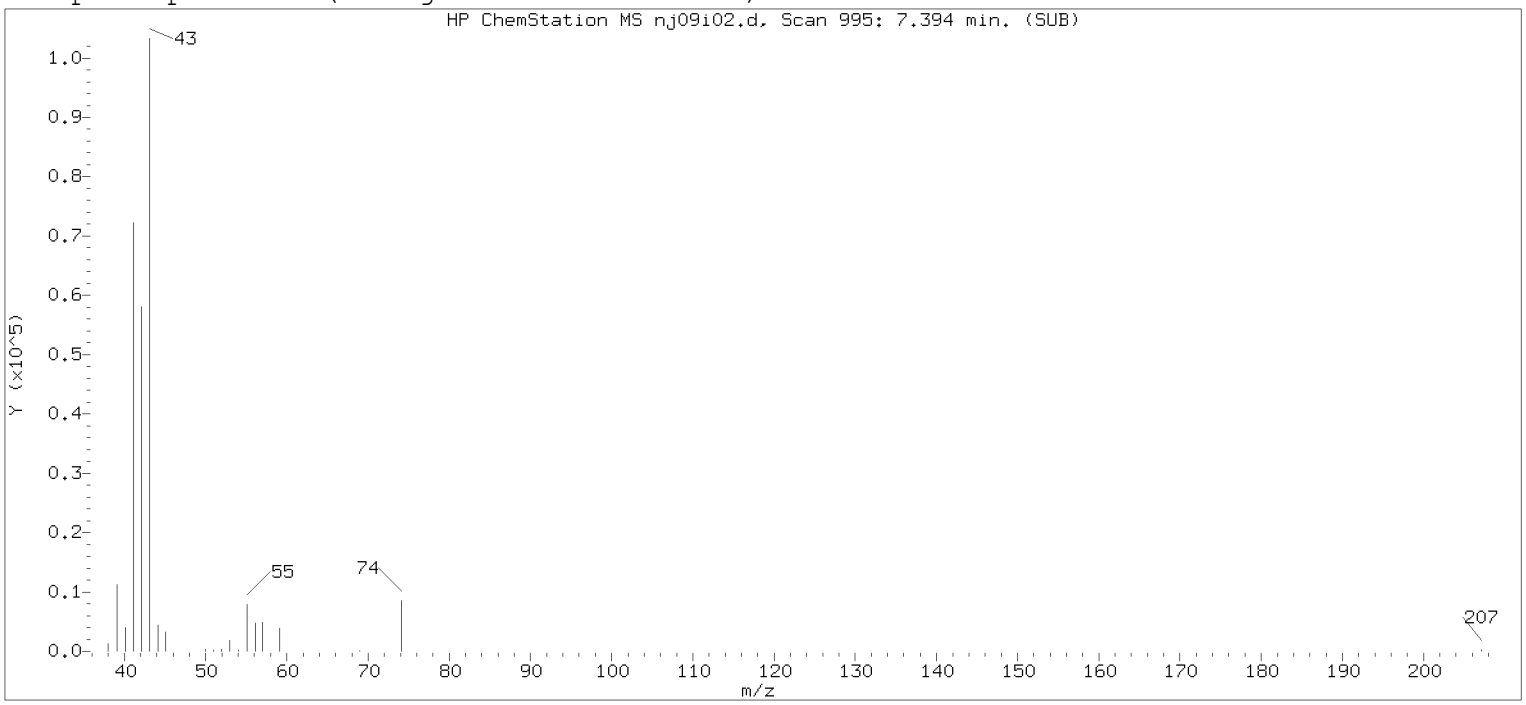
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area (flag) : 631953M
On-Column Amount (ng) : 1234.0938
Integration start scan : 981 Integration stop scan: 1033
Y at integration start : 1492 Y at integration end: 1492

Reason for manual integration: improper integration

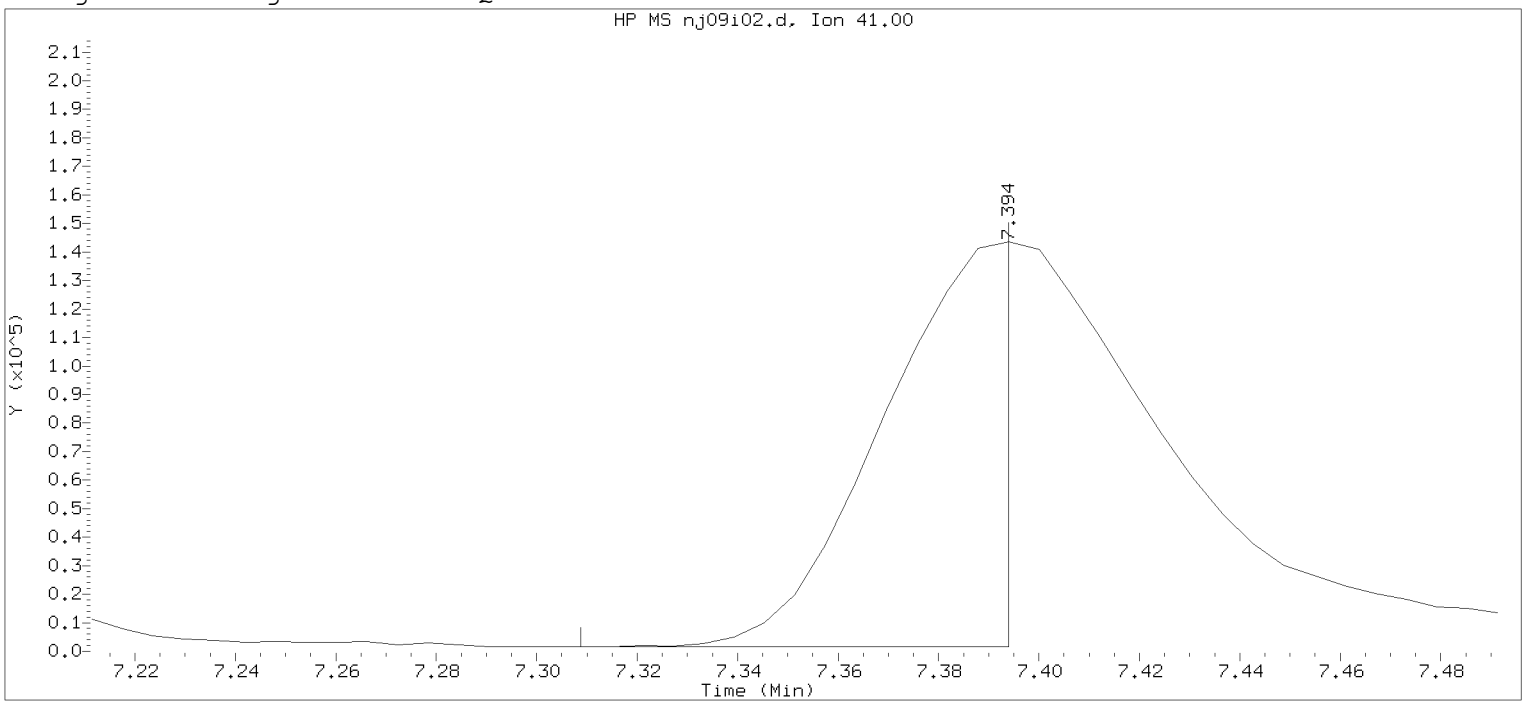
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

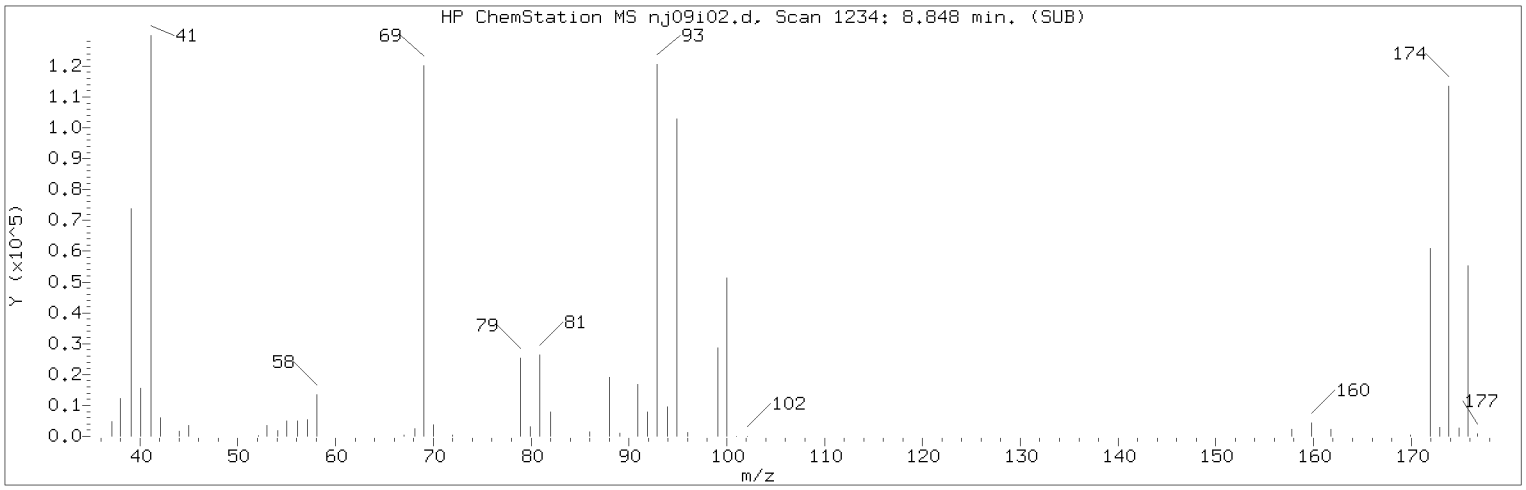
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

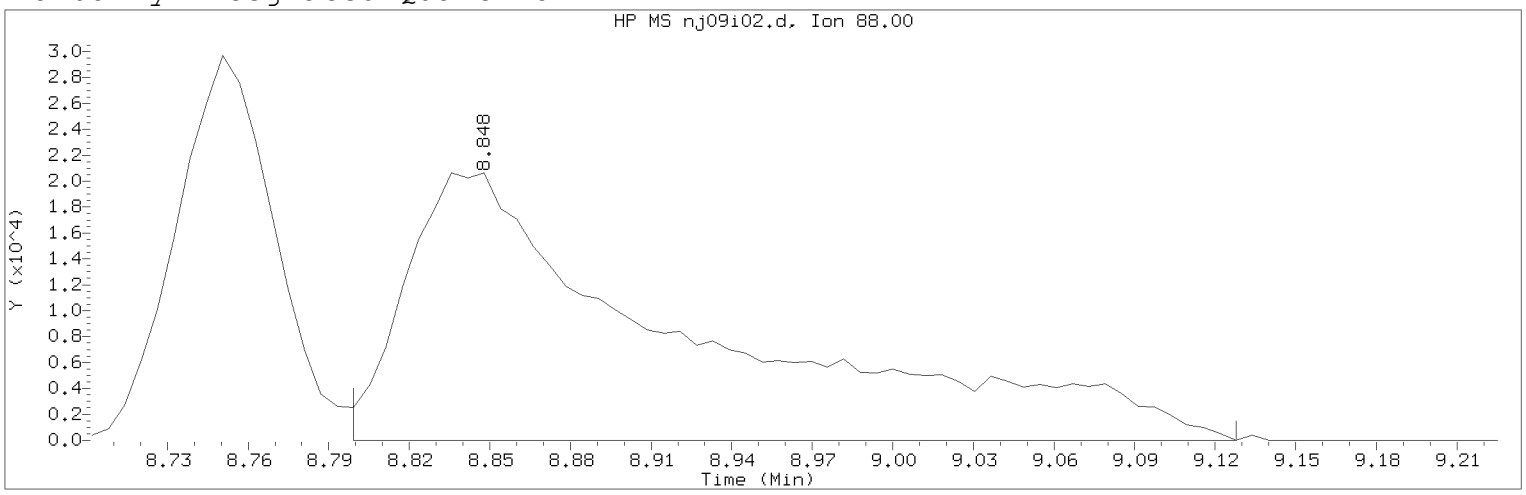
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area : 237047
On-column Amount (ng) : 786.5514
Integration start scan : 980 Integration stop scan: 994
Y at integration start : 1563 Y at integration end: 1563

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

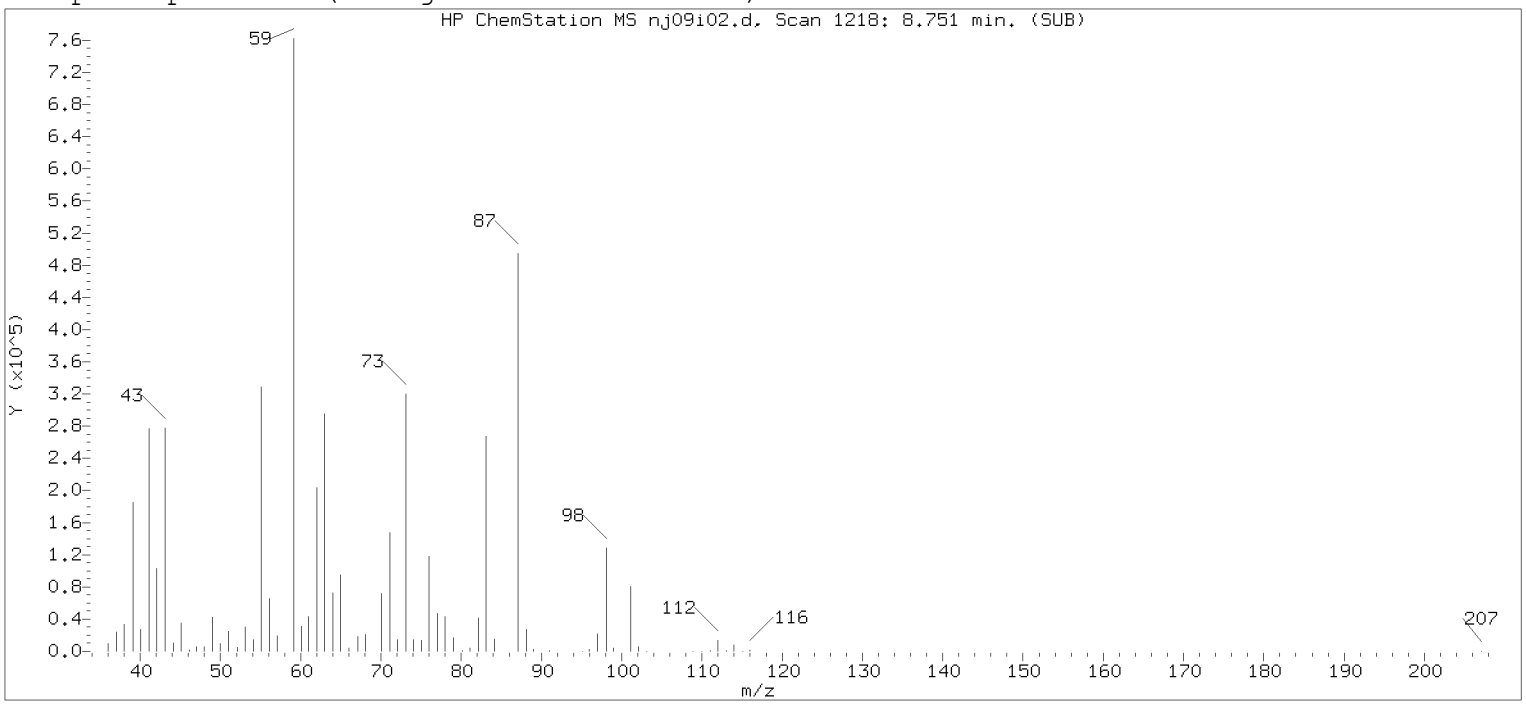
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.848
Quant Ion : 88.00
Area (flag) : 151647M
On-Column Amount (ng) : 1360.8473
Integration start scan : 1225 Integration stop scan: 1279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

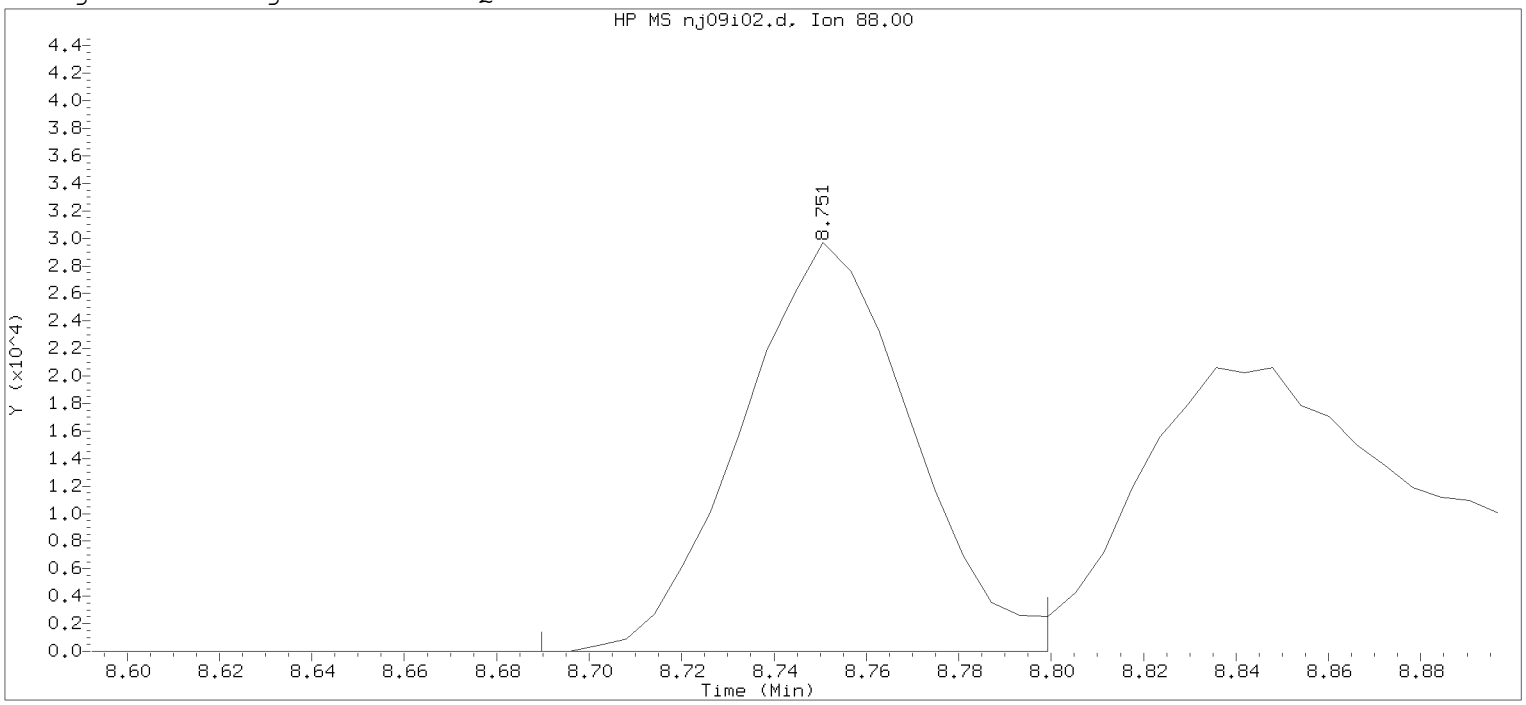
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

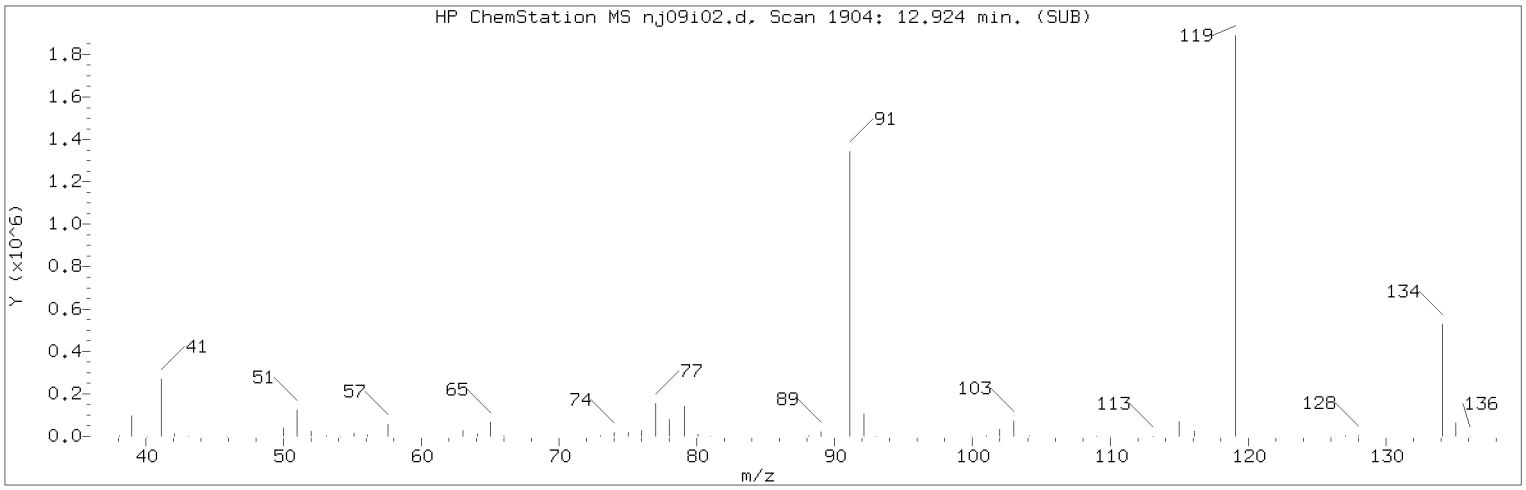
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

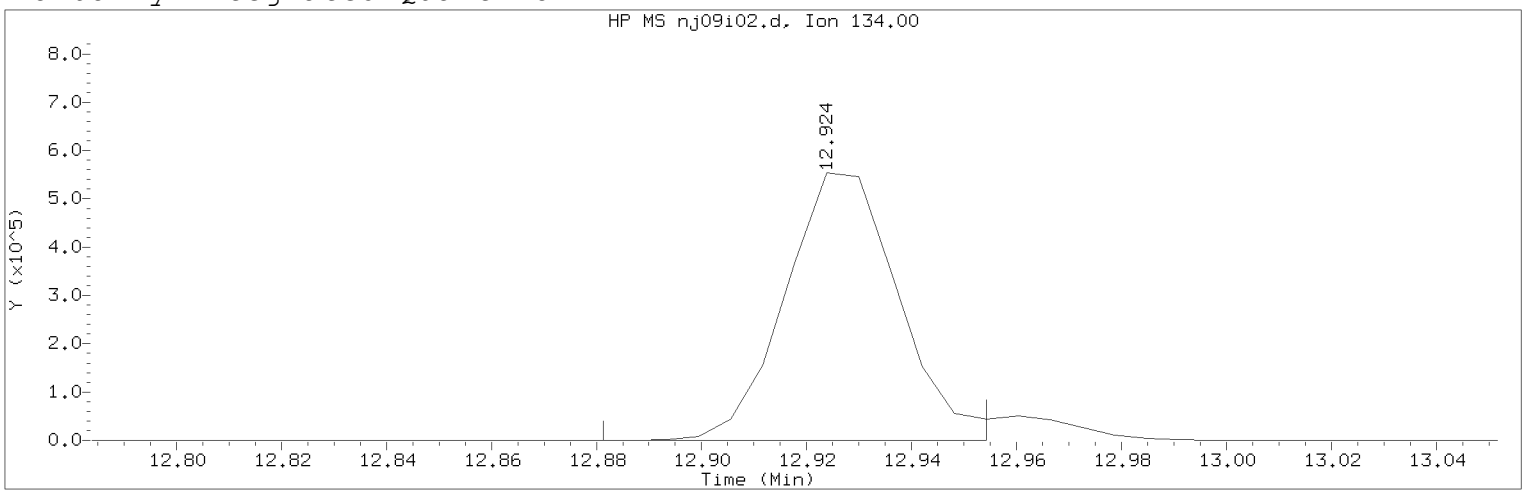
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 75794
On-column Amount (ng) : 1015.5177
Integration start scan : 1207 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: JCW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

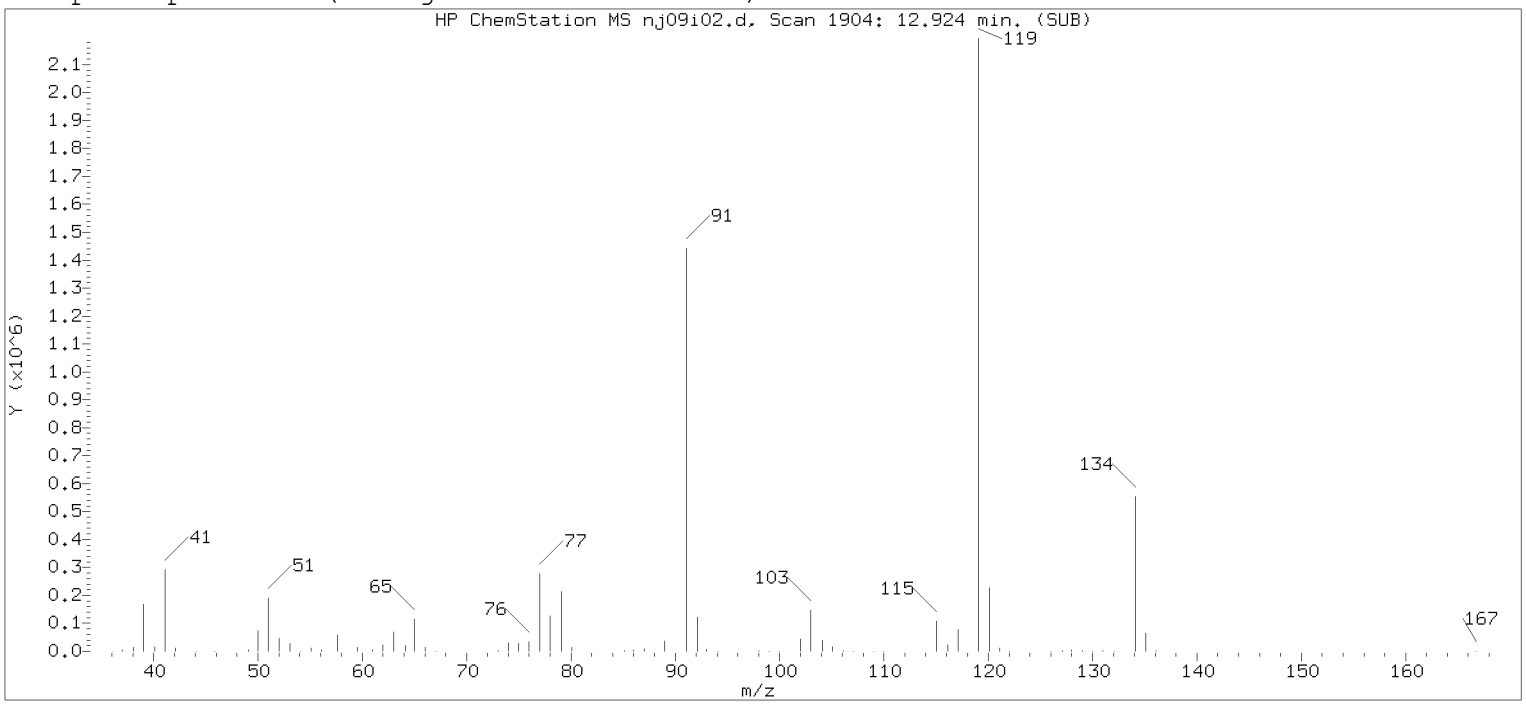
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 832423M
On-Column Amount (ng) : 104.6846
Integration start scan : 1896 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

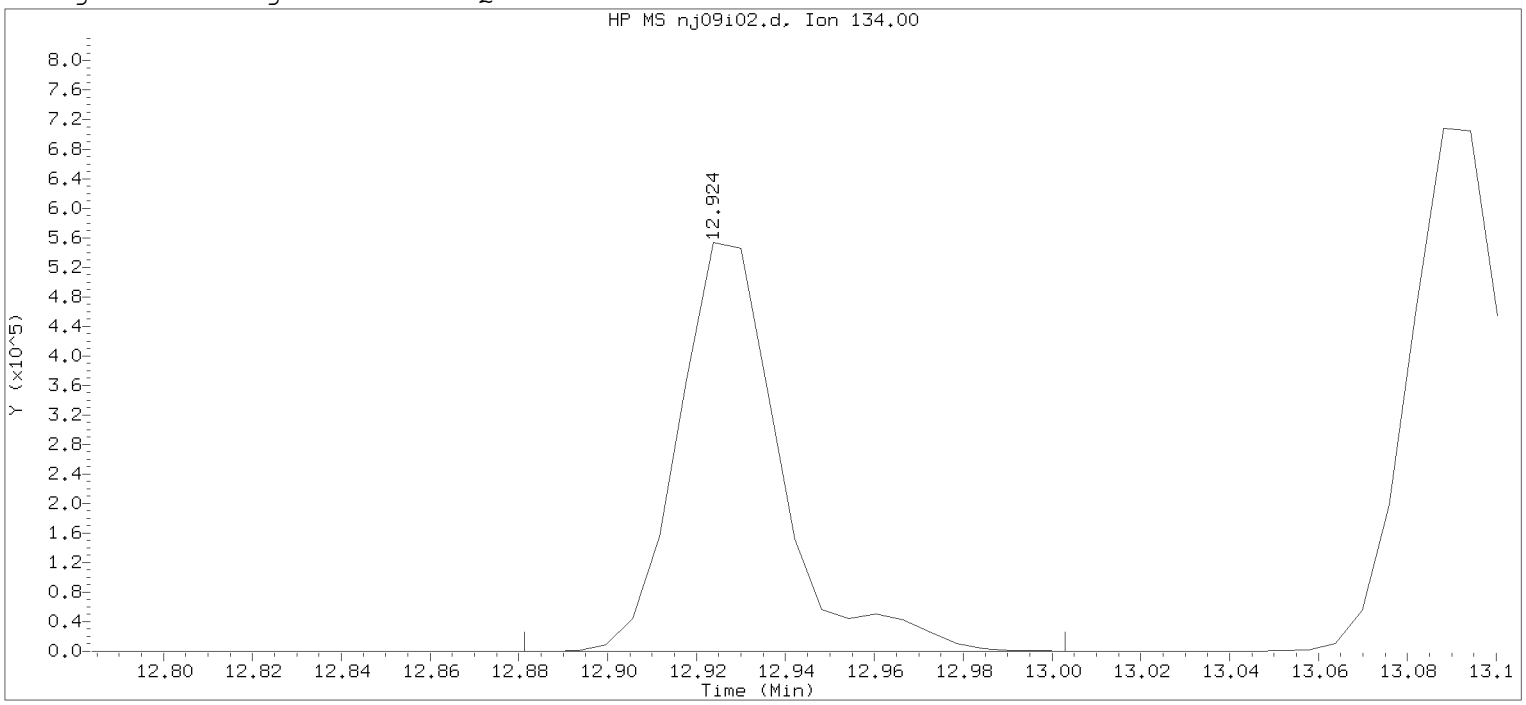
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



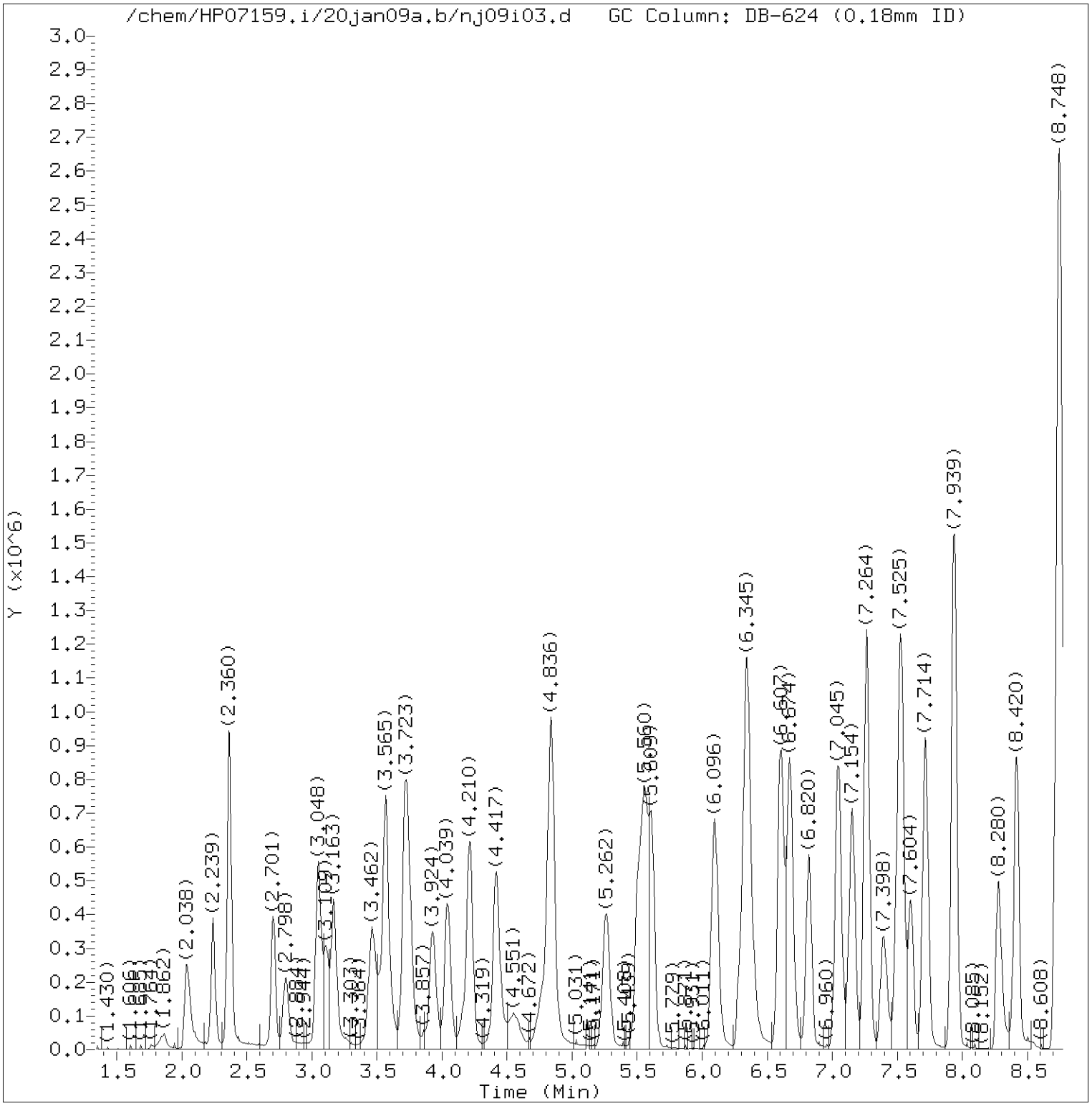
Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 881807
On-column Amount (ng) : 107.2006
Integration start scan : 1896 Integration stop scan: 1916
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

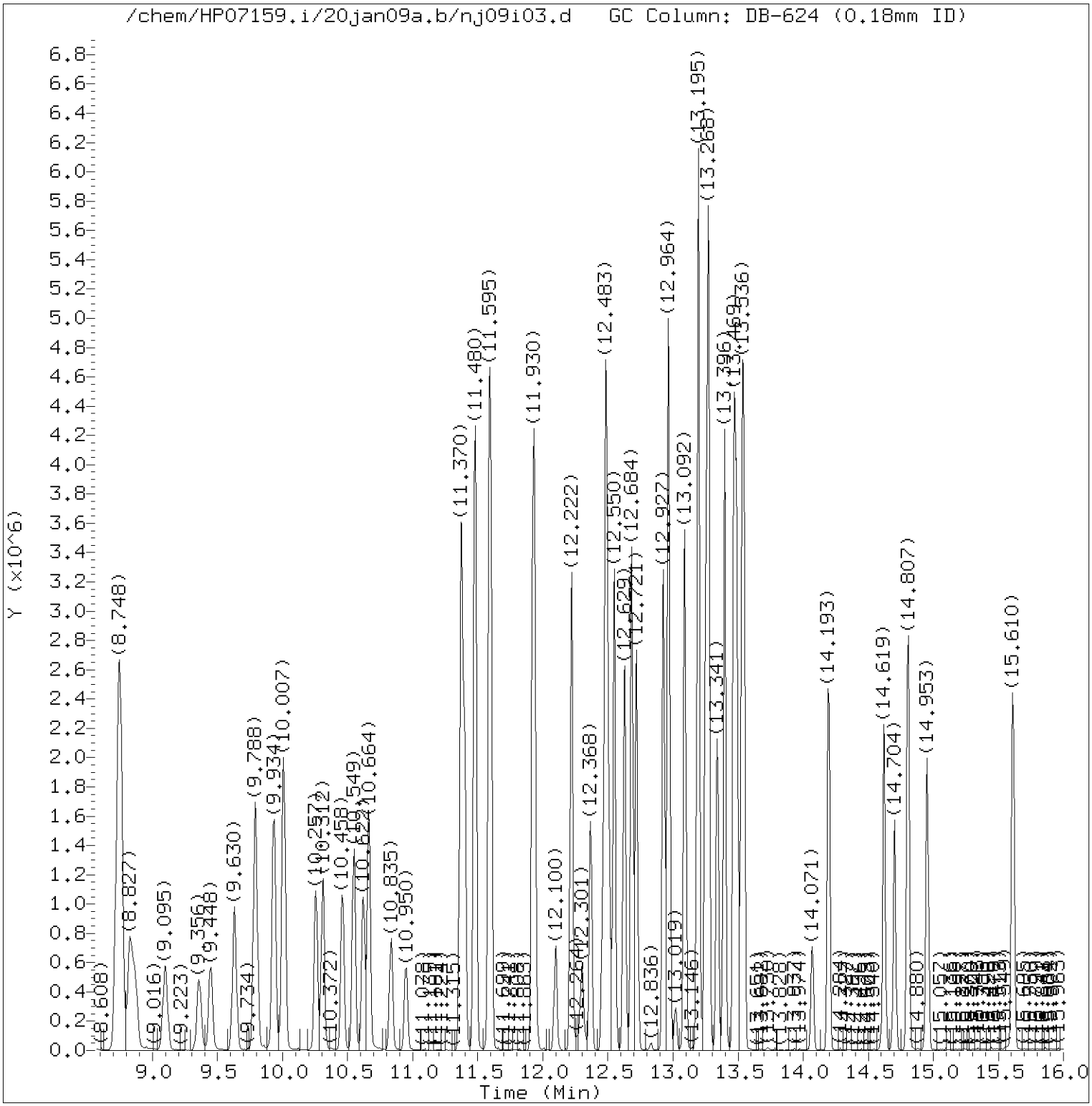
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.038	85	527144M	51.804
4) Chloromethane	(2)	2.239	50	529447	48.559
6) Vinyl Chloride	(2)	2.360	62	530741	50.022
5) 1,3-Butadiene	(2)	2.367	39	355149M	46.681
8) Bromomethane	(2)	2.701	94	355397	48.853
9) Chloroethane	(2)	2.798	64	304981	49.111
10) Dichlorofluoromethane	(2)	3.048	67	688803	48.433
12) Trichlorofluoromethane	(2)	3.109	101	584978	50.166
11) n-Pentane	(2)	3.163	43	434271	38.011
13) Ethanol	(1)	3.261	45	111715	1194.607
15) Freon 123a	(2)	3.455	67	418005	48.931
16) Acrolein	(1)	3.565	56	1328208	506.935
17) 1,1-Dichloroethene	(2)	3.717	96	332691	48.955
17) 1,1-Dichloroethene	(2)	3.717	63	173113	48.544
19) Freon 113	(2)	3.735	101	283064	44.893
18) Acetone	(1)	3.741	58	112741	102.161
21) 2-Propanol	(1)	3.918	45	179669M	246.501
22) Methyl Iodide	(2)	3.924	142	629218	49.604
23) Carbon Disulfide	(2)	4.039	76	1079092	49.655
27) Methyl Acetate	(2)	4.185	43	392865	47.057
25) Allyl Chloride	(2)	4.216	41	578827	48.246
28) Methylene Chloride	(2)	4.411	84	380651	47.160
29)*t-Butyl alcohol-d10	(1)	4.423	65	386370M	250.000
30) t-Butyl alcohol	(1)	4.551	59	374193	259.777
31) Acrylonitrile	(2)	4.757	53	228245	50.620
33) Methyl Tertiary Butyl Ether	(2)	4.824	73	1079796	48.896
32) trans-1,2-Dichloroethene	(2)	4.843	96	377116	48.608
34) n-Hexane	(2)	5.268	57	399483	37.300
36) 1,1-Dichloroethane	(2)	5.506	63	702069	49.606
38) di-Isopropyl ether	(2)	5.560	45	1206454	49.485
39) 2-Chloro-1,3-butadiene	(2)	5.615	53	620497	49.668
40) Ethyl t-butyl ether	(2)	6.096	59	1153214	49.766
43) 1,2-Dichloroethene (Total)	(2)		96	807382	97.440
44) 2-Butanone	(2)	6.296	43	653401	103.636
42) cis-1,2-Dichloroethene	(2)	6.339	96	430266	48.832
45) 2,2-Dichloropropane	(2)	6.351	77	622560	49.824
47) Propionitrile	(1)	6.388	54	427612	254.173
48) Methacrylonitrile	(2)	6.601	67	577339	126.760

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	213003	51.127
50) Tetrahydrofuran	(1)	6.680	71	183689	105.167
51) Chloroform	(2)	6.820	83	677419	49.072
52)$Dibromofluoromethane	(2)	7.039	113	324858	50.073
52)$Dibromofluoromethane	(2)	7.039	111	329753	49.779
53) 1,1,1-Trichloroethane	(2)	7.051	97	622865	49.872
54) Cyclohexane	(2)	7.154	56	560506	43.632
54) Cyclohexane	(2)	7.154	84	494708	44.187
54) Cyclohexane	(2)	7.154	69	176892	43.810
55) 1,1-Dichloropropene	(2)	7.264	75	561348	49.691
56) Carbon Tetrachloride	(2)	7.264	117	535686	49.746
58) Isobutyl Alcohol	(1)	7.398	41	319042	618.313
57)$1,2-Dichloroethane-d4	(2)	7.501	102	82253	50.143
57)$1,2-Dichloroethane-d4	(2)	7.501	65	387310M	49.531
57)$1,2-Dichloroethane-d4	(2)	7.495	104	52729	50.521
60) Benzene	(2)	7.531	78	1593132	49.544
61) 1,2-Dichloroethane	(2)	7.604	62	554246	48.720
61) 1,2-Dichloroethane	(2)	7.610	98	50080	53.487
65) t-Amyl methyl ether	(2)	7.714	73	1155497	49.706
66)*Fluorobenzene	(2)	7.933	96	1307289	50.000
67) n-Heptane	(2)	7.939	43	422678	34.192
69) n-Butanol	(1)	8.280	56	558559	1256.665
71) Trichloroethene	(2)	8.414	95	415585	49.057
72) Methylcyclohexane	(2)	8.730	83	701355	50.364
72) Methylcyclohexane	(2)	8.730	98	334358	50.983
73) 1,2-Dichloropropane	(2)	8.754	63	414718	50.437
76) Methyl Methacrylate	(2)	8.827	69	385108	51.215
75) 1,4-Dioxane	(1)	8.839	88	70481M	627.690
74) Dibromomethane	(2)	8.864	93	260016	49.583
78) Bromodichloromethane	(2)	9.101	83	530456	49.549
79) 2-Nitropropane	(2)	9.356	41	406791	104.620
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	312088	47.982
81) cis-1,3-Dichloropropene	(2)	9.630	75	684759	50.142
82) 4-Methyl-2-pentanone	(2)	9.788	43	1383360	108.295
83)$Toluene-d8	(3)	9.934	98	1288871	50.147
83)$Toluene-d8	(3)	9.934	100	854716	50.195
88) Toluene	(3)	10.007	92	1036570	49.648
90) 1,3-Dichloropropene (total)	(3)		100	1341815	100.847

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.257	75	657056	50.705
91) Ethyl Methacrylate	(3)	10.312	69	661745	51.256
92) 1,1,2-Trichloroethane	(3)	10.458	97	375770	50.834
93) Tetrachloroethene	(3)	10.549	166	449859	49.203
94) 1,3-Dichloropropane	(3)	10.622	76	651612	50.789
96) 2-Hexanone	(3)	10.658	43	1092889	110.585
97) Dibromochloromethane	(3)	10.835	129	438059	51.640
99) 1,2-Dibromoethane	(3)	10.950	107	409383	50.575
100)*Chlorobenzene-d5	(3)	11.370	117	985480	50.000
102) Chlorobenzene	(3)	11.394	112	1162260	49.878
103) 1,1,1,2-Tetrachloroethane	(3)	11.480	131	422811	50.350
104) Ethylbenzene	(3)	11.480	91	1999441	49.511
106) m+p-Xylene	(3)	11.595	106	1580832	99.630
108) Xylene (Total)	(3)		106	2360020	149.560
107) o-Xylene	(3)	11.924	106	779188	49.930
109) Styrene	(3)	11.936	104	1324554	50.536
110) Bromoform	(3)	12.100	173	329436	51.440
111) Isopropylbenzene	(3)	12.222	105	2034021	49.351
112) Cyclohexanone	(1)	12.301	55	280570	623.055
114)$4-Bromofluorobenzene	(3)	12.368	95	507353	49.965
114)$4-Bromofluorobenzene	(3)	12.368	174	405865	49.892
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	592788	49.541
115) Bromobenzene	(4)	12.483	156	498425	49.540
118) trans-1,4-Dichloro-2-butene	(4)	12.489	53	523292	127.136
117) 1,2,3-Trichloropropane	(4)	12.514	110	188436	49.714
119) n-Propylbenzene	(4)	12.550	91	2370186	48.591
120) 2-Chlorotoluene	(4)	12.629	126	497529	49.473
122) 1,3,5-Trimethylbenzene	(4)	12.684	105	1743735	48.790
121) 4-Chlorotoluene	(4)	12.721	126	513936	49.312
124) tert-Butylbenzene	(4)	12.927	134	376089	47.486
125) Pentachloroethane	(4)	12.964	167	330304	52.085
126) 1,2,4-Trimethylbenzene	(4)	12.970	105	1821603	49.107
127) sec-Butylbenzene	(4)	13.092	105	2230146	48.037
129) 1,3-Dichlorobenzene	(4)	13.195	146	962585	49.191
130) p-Isopropyltoluene	(4)	13.195	119	1955496	48.404
131)*1,4-Dichlorobenzene-d4	(4)	13.250	152	543996	50.000
133) 1,4-Dichlorobenzene	(4)	13.268	146	976788	49.222
134) 1,2,3-Trimethylbenzene	(4)	13.274	105	1846821	51.298

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

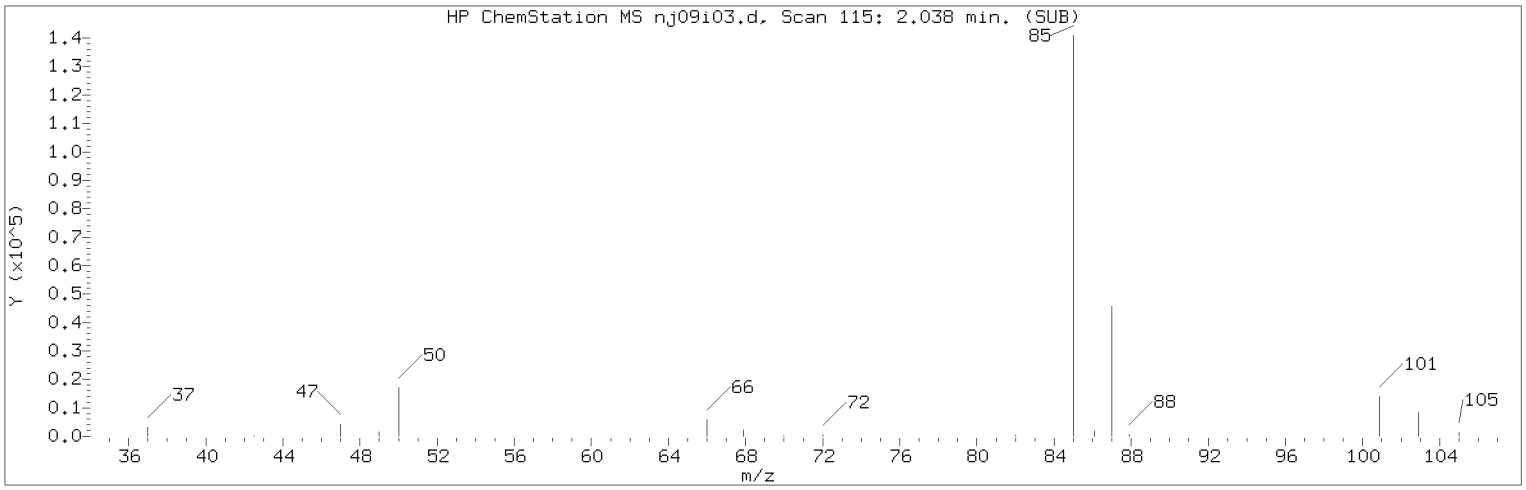
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

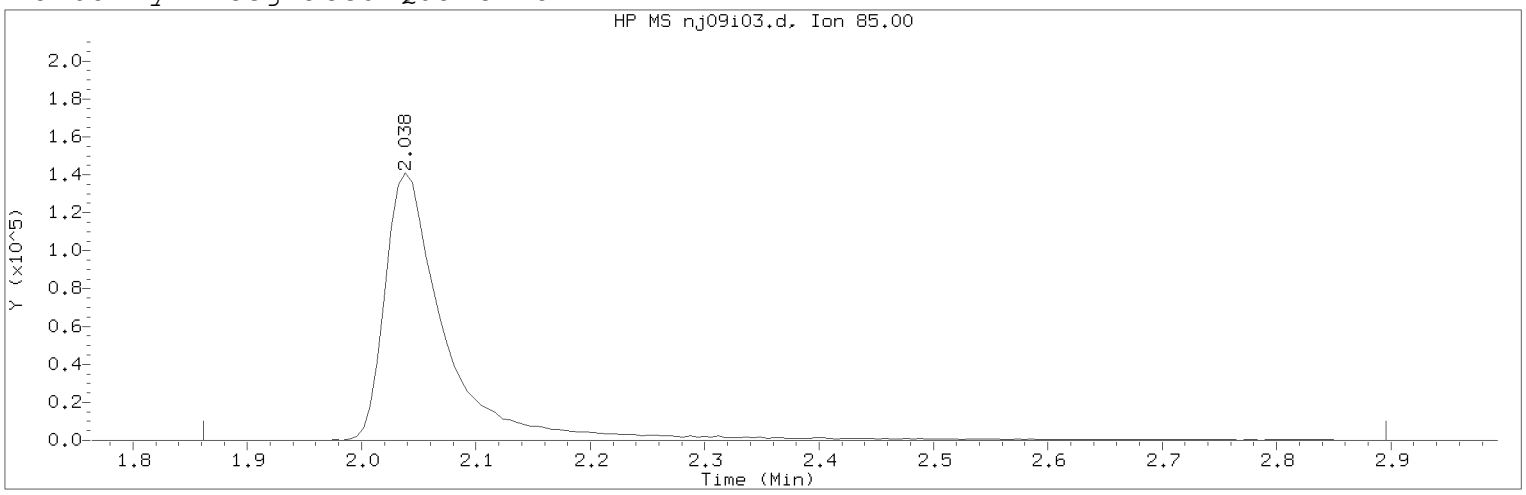
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	Benzyl Chloride	(4)	13.341	91	1365843	51.644
141)	Diethylbenzene (total)	(4)		100	3612705	154.035
136)	1,3-Diethylbenzene	(4)	13.396	119	1250049	51.690
137)	1,4-Diethylbenzene	(4)	13.469	119	1322364	51.497
139)	n-Butylbenzene	(4)	13.487	92	993898	47.693
138)	1,2-Dichlorobenzene	(4)	13.524	146	919971	49.587
140)	1,2-Diethylbenzene	(4)	13.542	119	1040292	50.848
142)	1,2-Dibromo-3-chloropropane	(4)	14.071	75	162361	50.208
144)	1,3,5-Trichlorobenzene	(4)	14.199	180	715968	48.416
146)	1,2,4-Trichlorobenzene	(4)	14.625	180	640491	49.673
147)	Hexachlorobutadiene	(4)	14.704	225	264291	45.312
148)	Naphthalene	(4)	14.807	128	2061174	50.983
149)	1,2,3-Trichlorobenzene	(4)	14.953	180	588297	49.703
150)	2-Methylnaphthalene	(4)	15.610	142	1217198	52.123

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

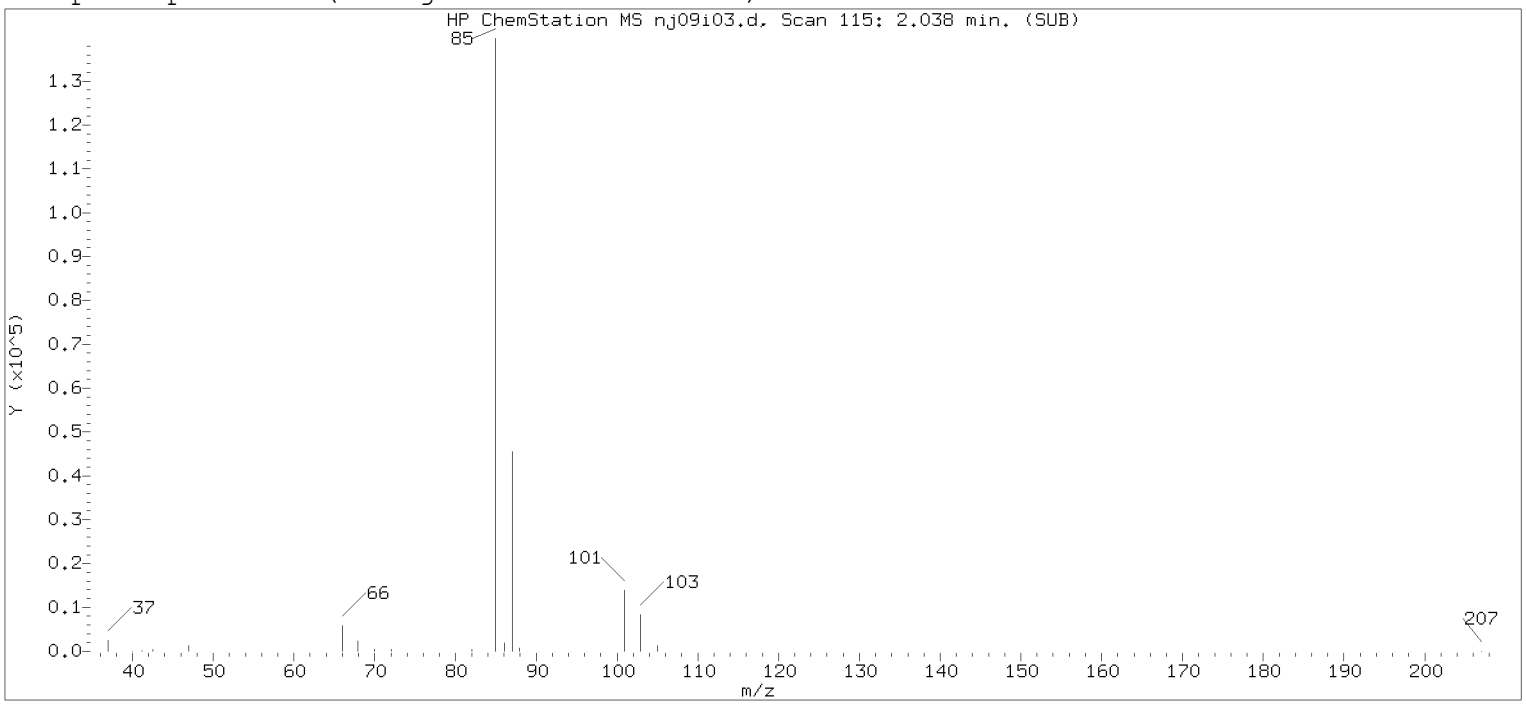
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area (flag) : 527144M
On-Column Amount (ng) : 51.8043
Integration start scan : 85 Integration stop scan: 255
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

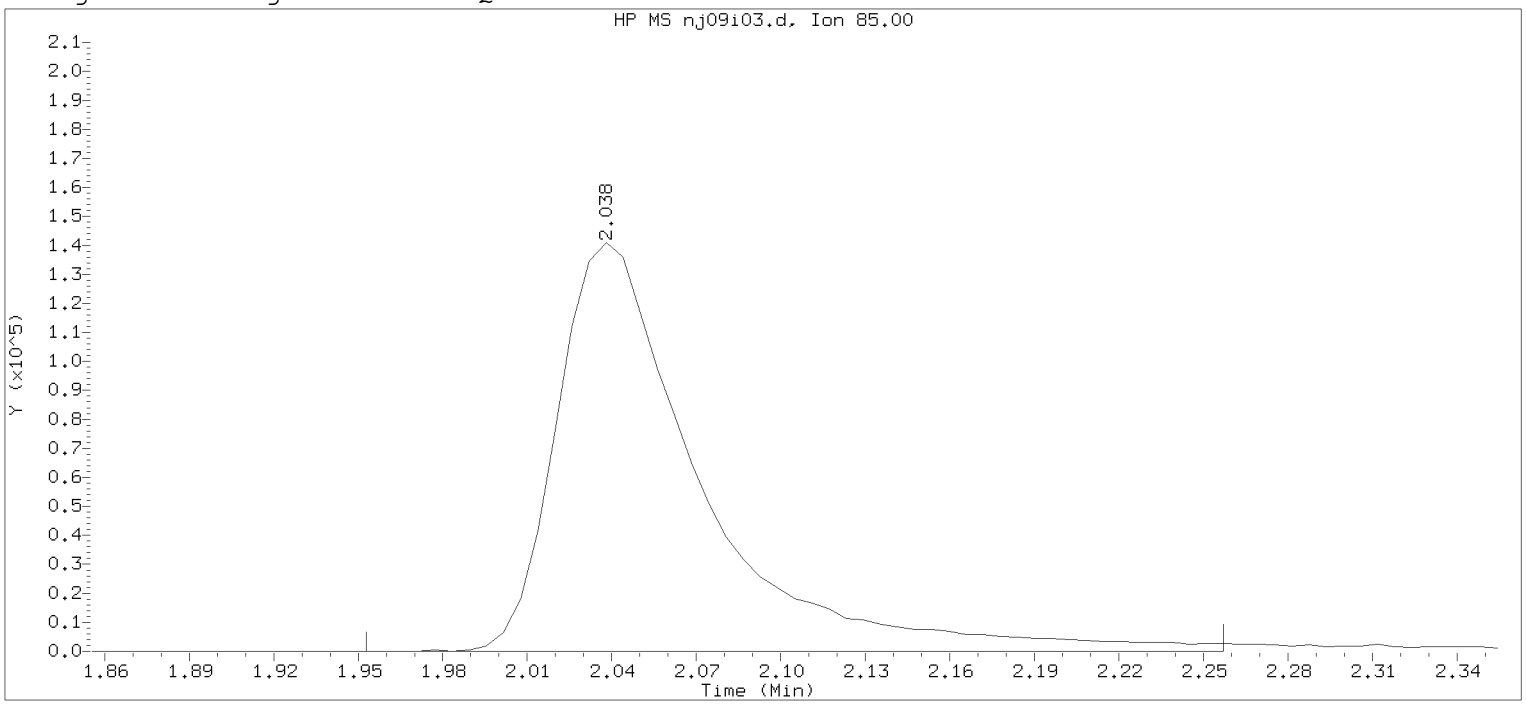
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

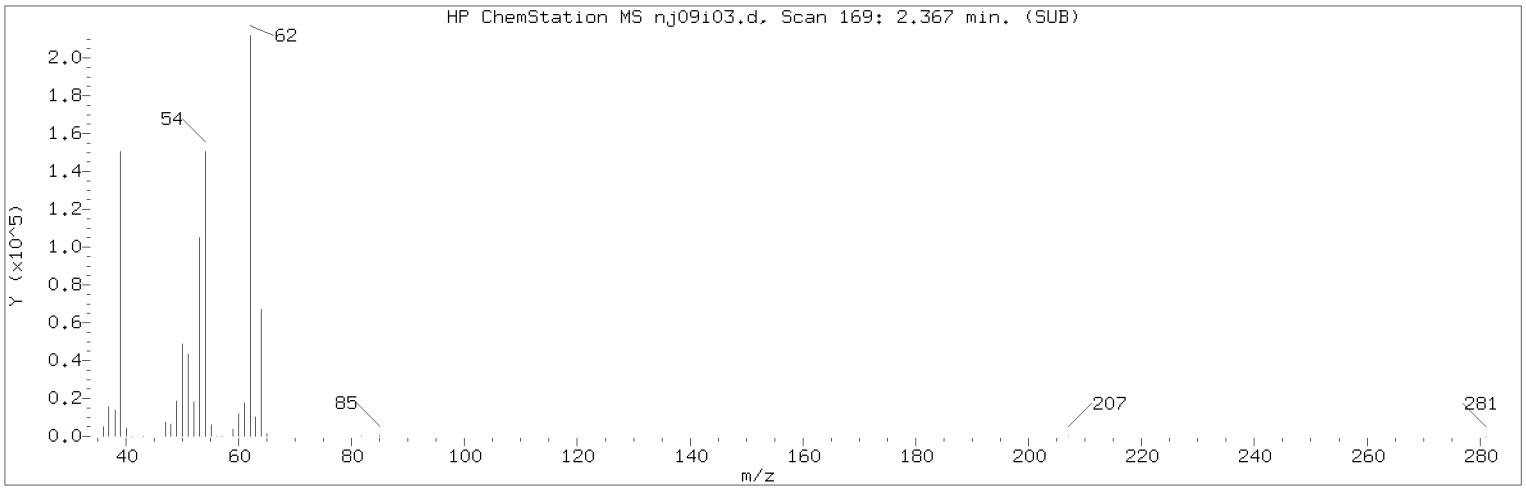
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

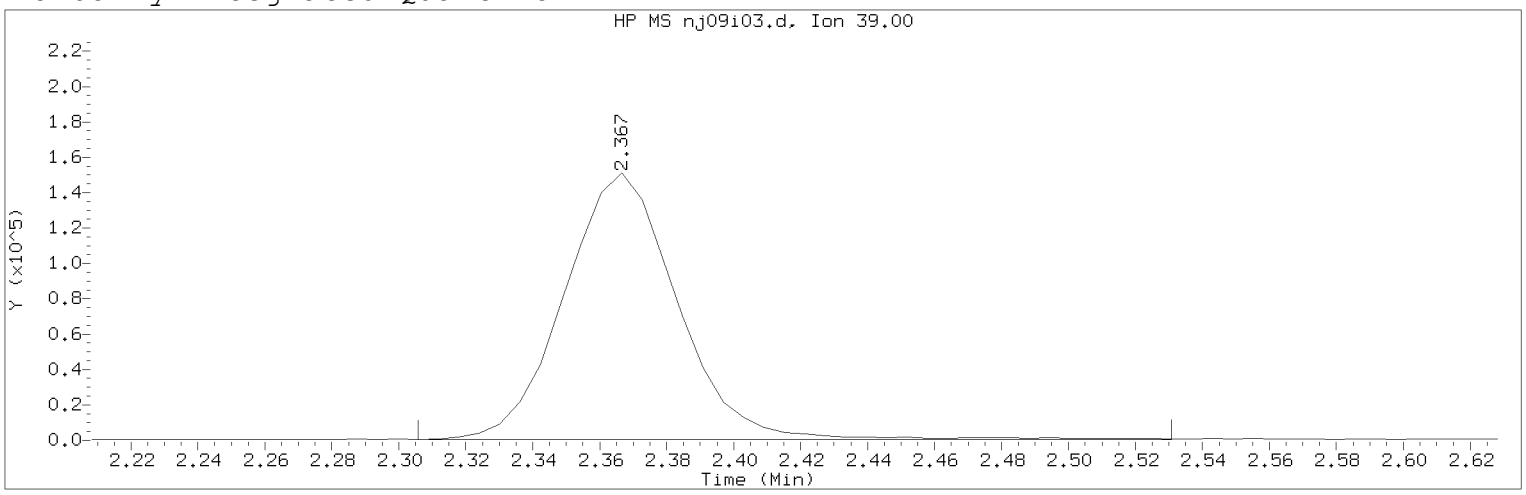
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area : 499221
On-column Amount (ng) : 50.9053
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

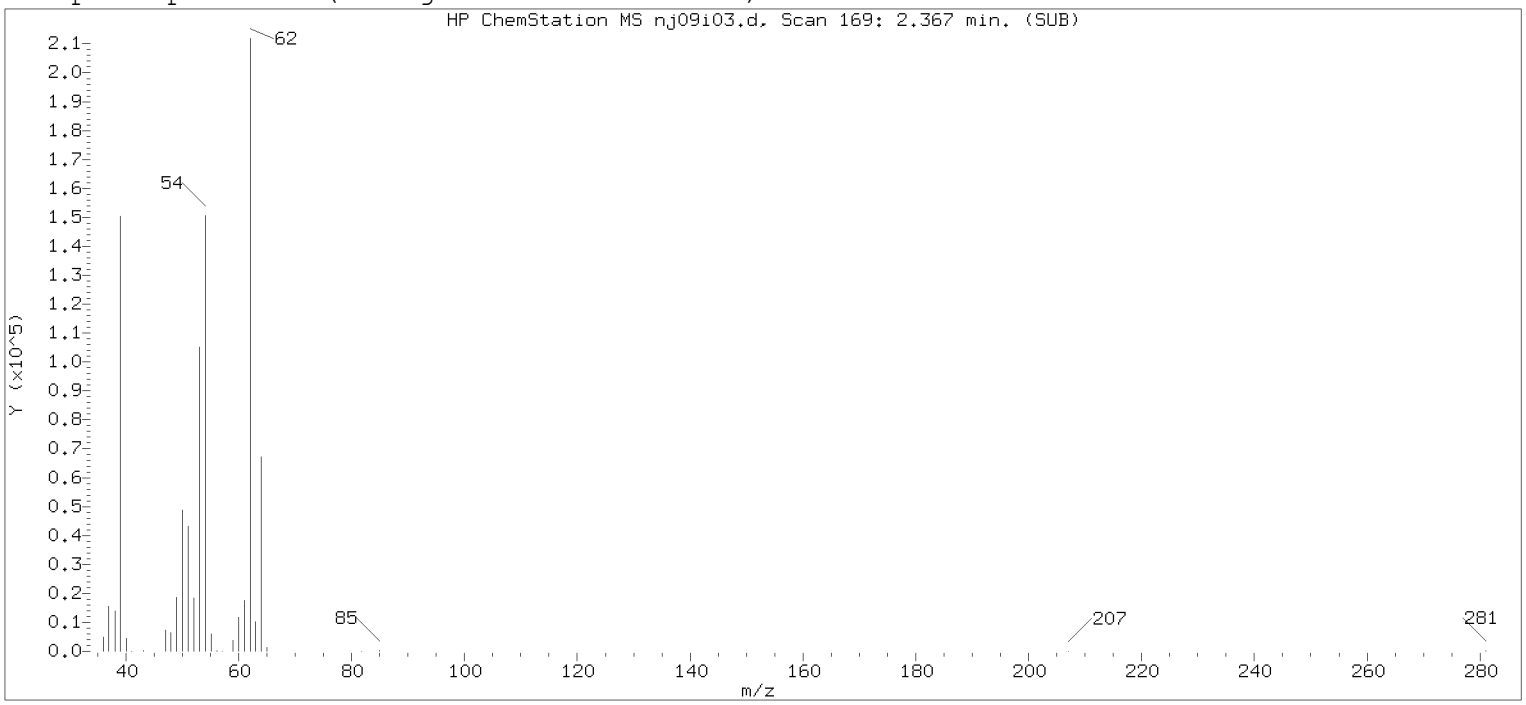
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area (flag) : 355149M
On-Column Amount (ng) : 46.6809
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 288 Y at integration end: 288

Reason for manual integration: improper integration

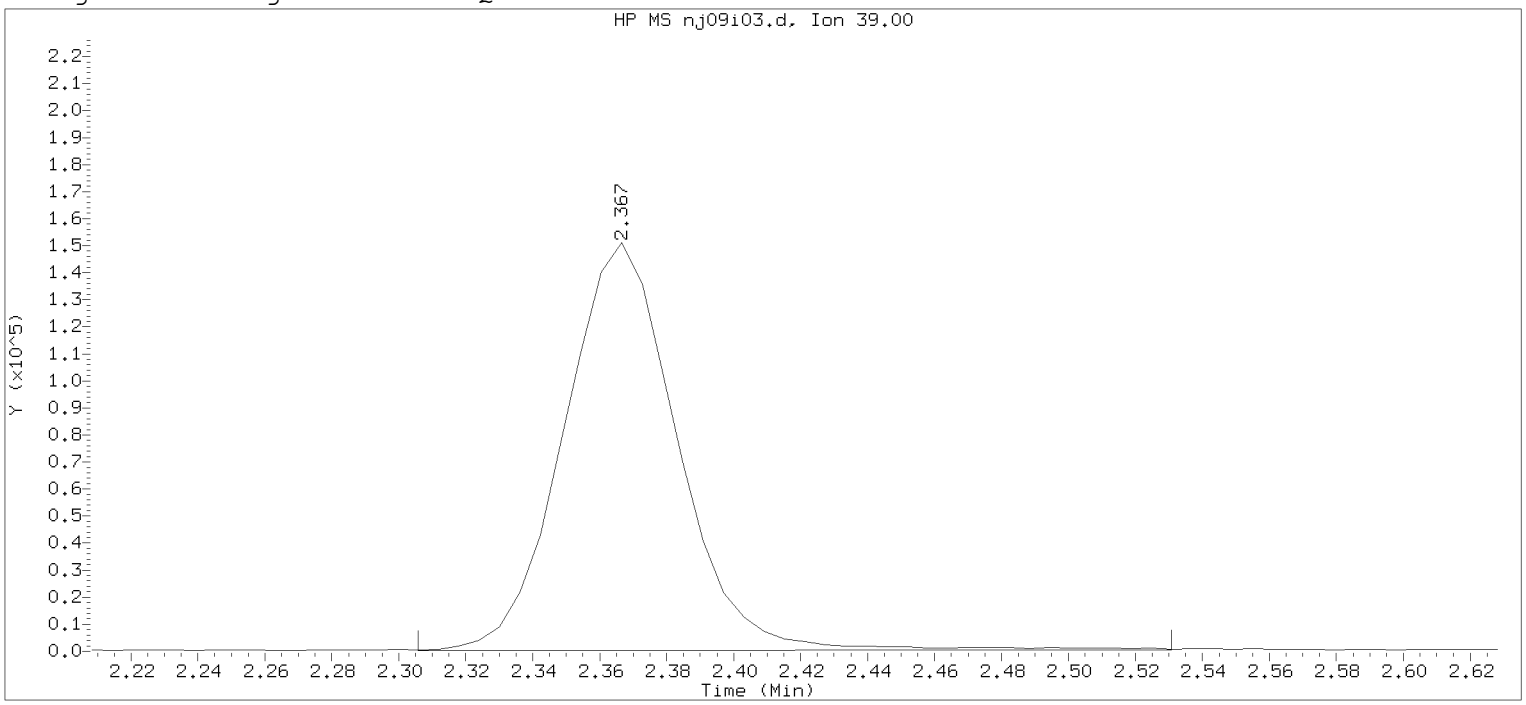
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

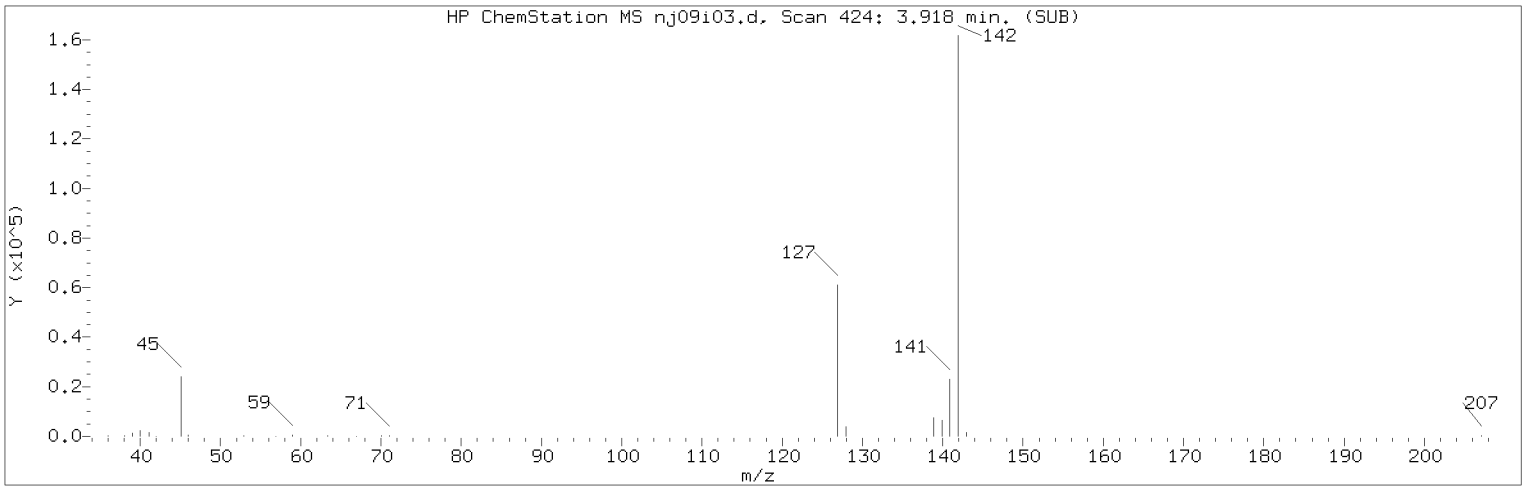
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

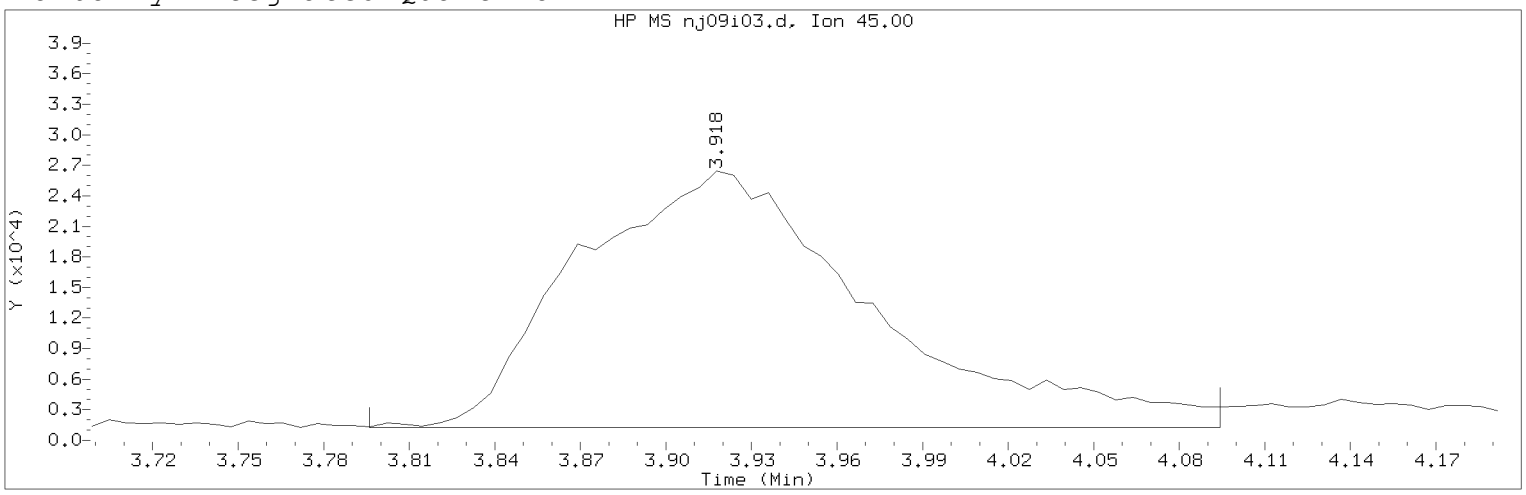
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area : 354416
On-column Amount (ng) : 47.0597
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 305 Y at integration end: 358

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

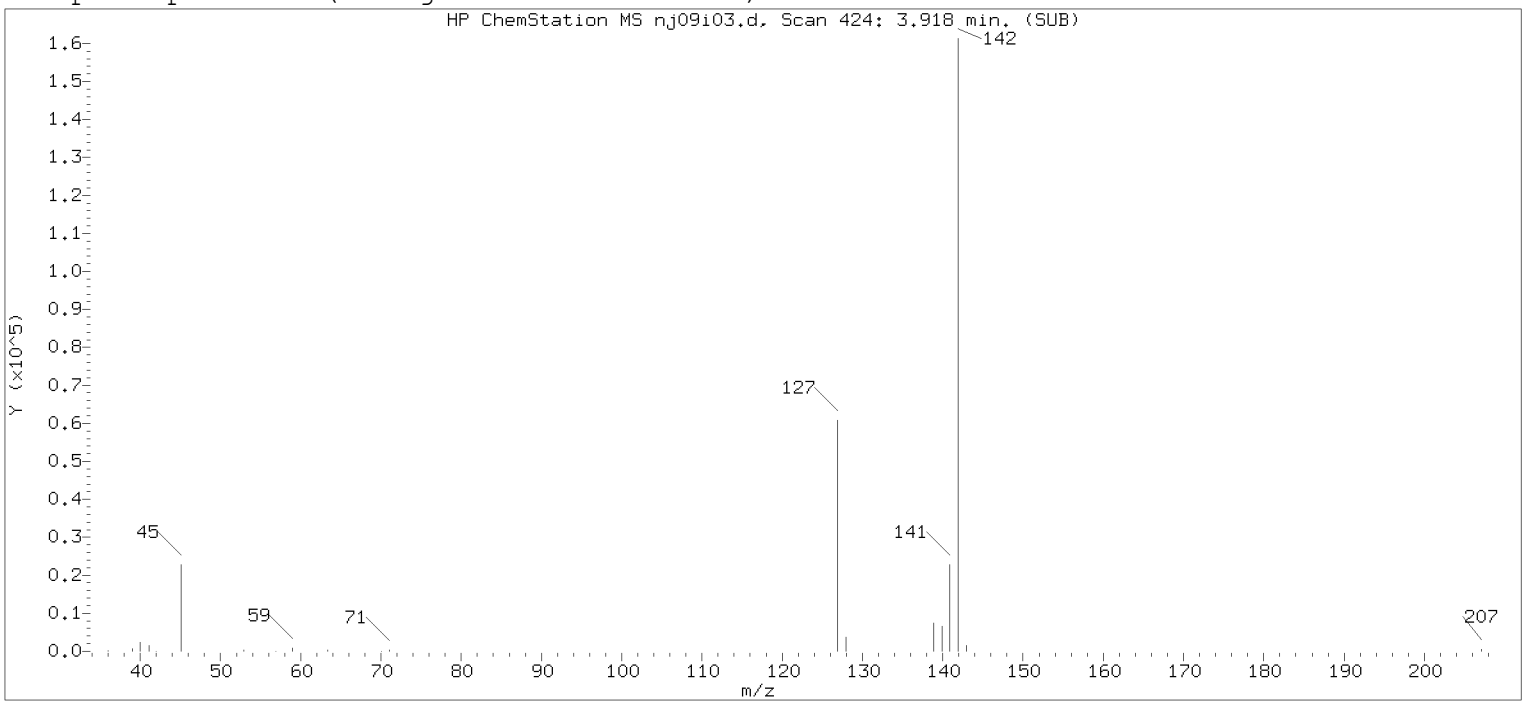
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area (flag) : 179669M
On-Column Amount (ng) : 246.5006
Integration start scan : 403 Integration stop scan: 452
Y at integration start : 1271 Y at integration end: 1271

Reason for manual integration: improper integration

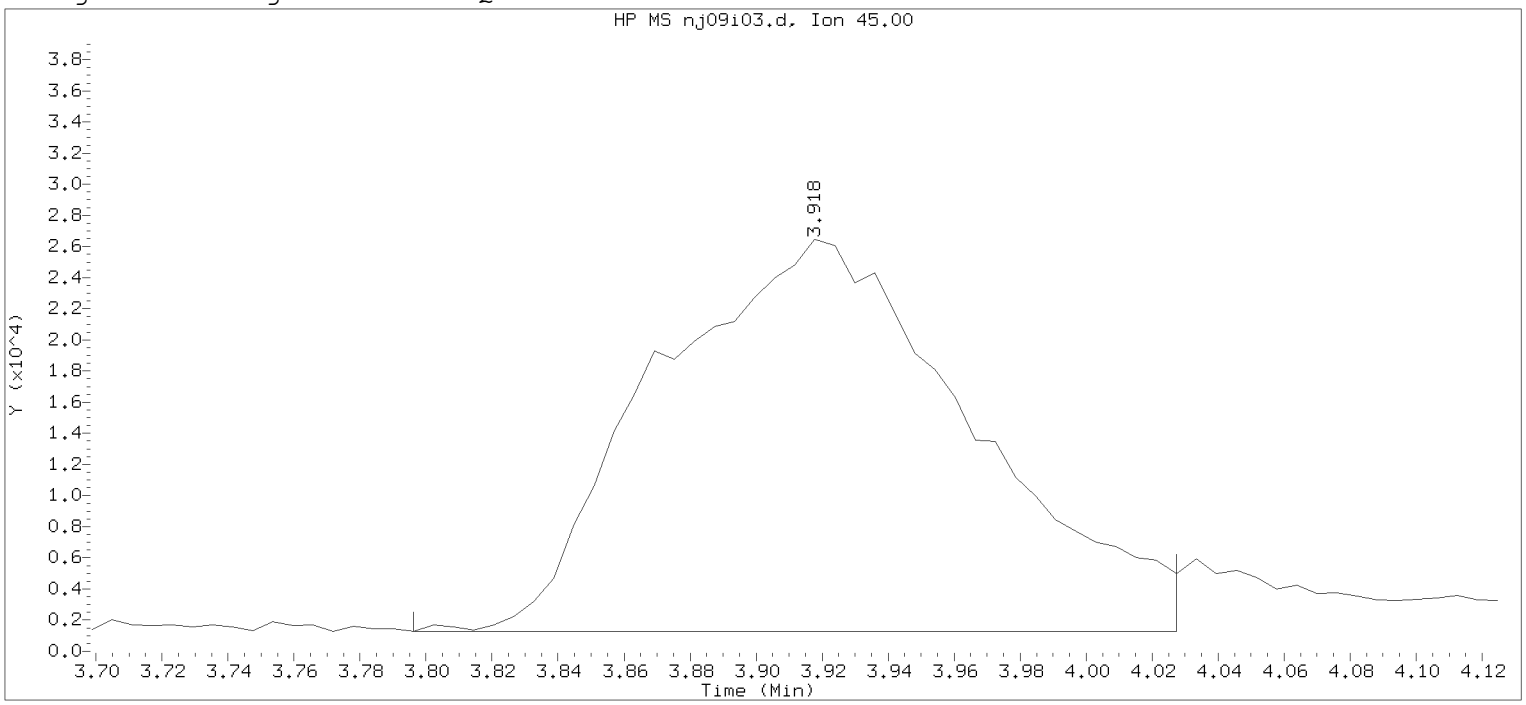
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

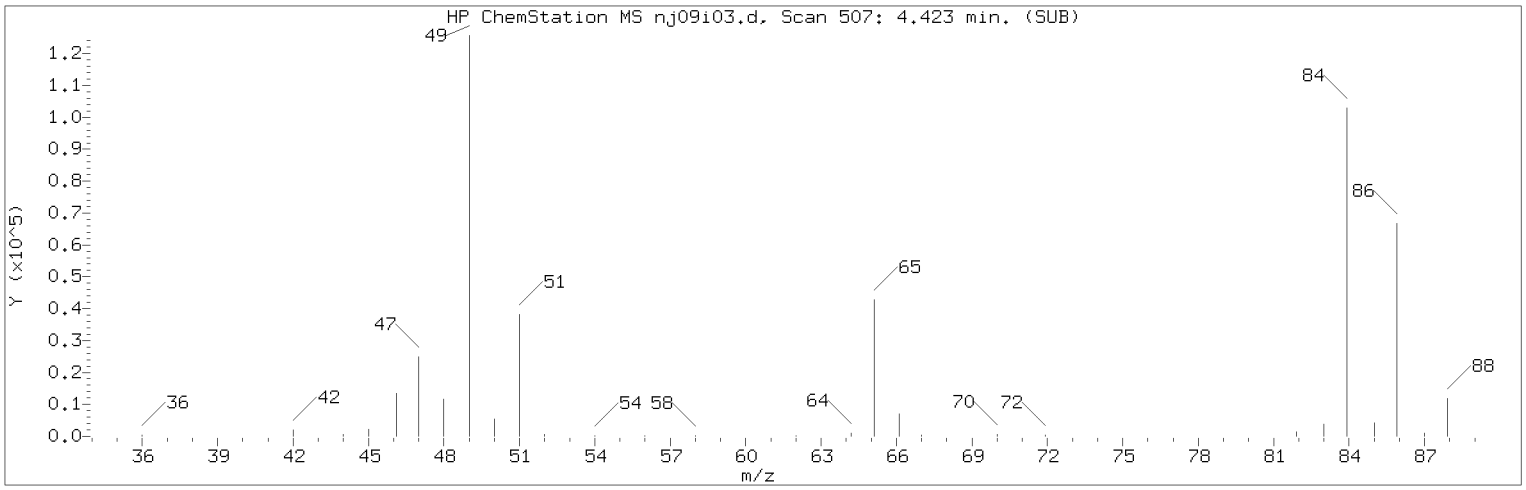
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

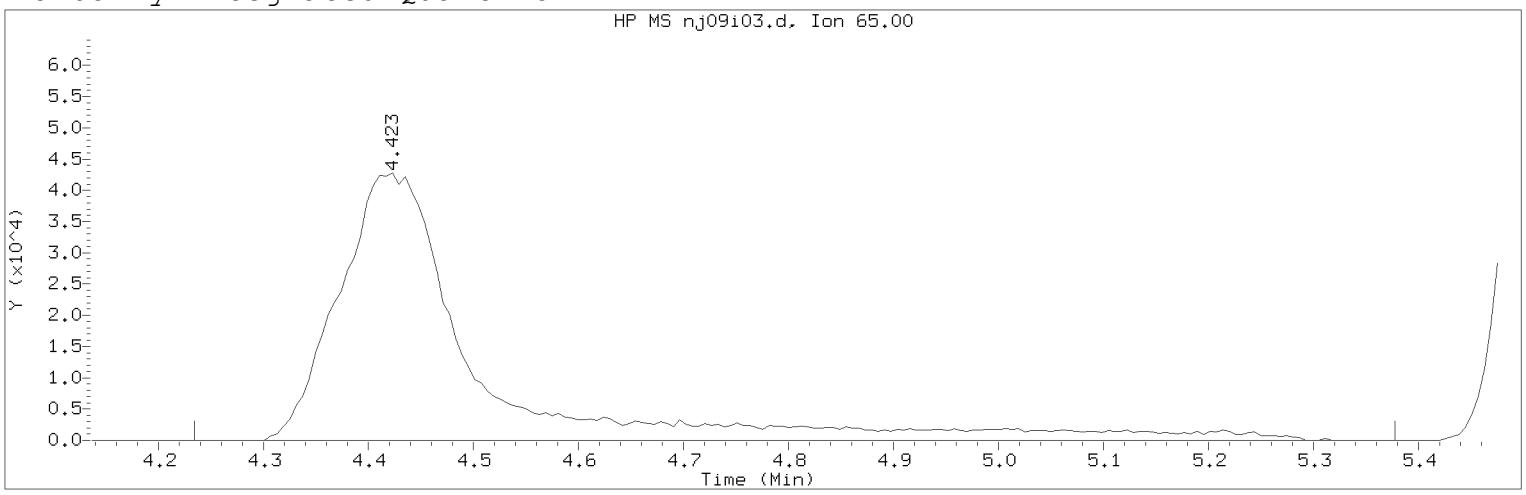
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area : 167056
On-column Amount (ng) : 245.3399
Integration start scan : 403 Integration stop scan: 441
Y at integration start : 1272 Y at integration end: 1272

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01987

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

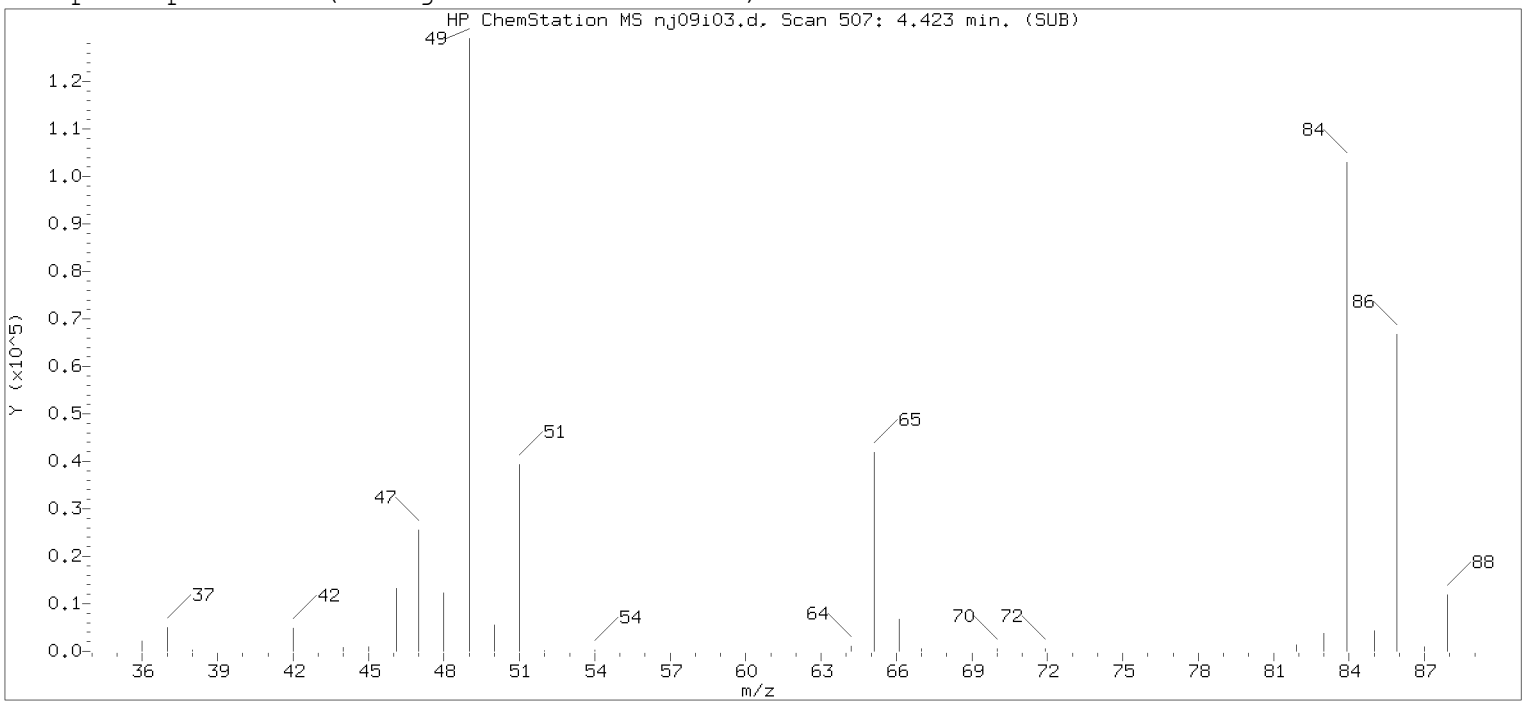
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area (flag) : 386370M
On-Column Amount (ng) : 250.0000
Integration start scan : 475 Integration stop scan: 663
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

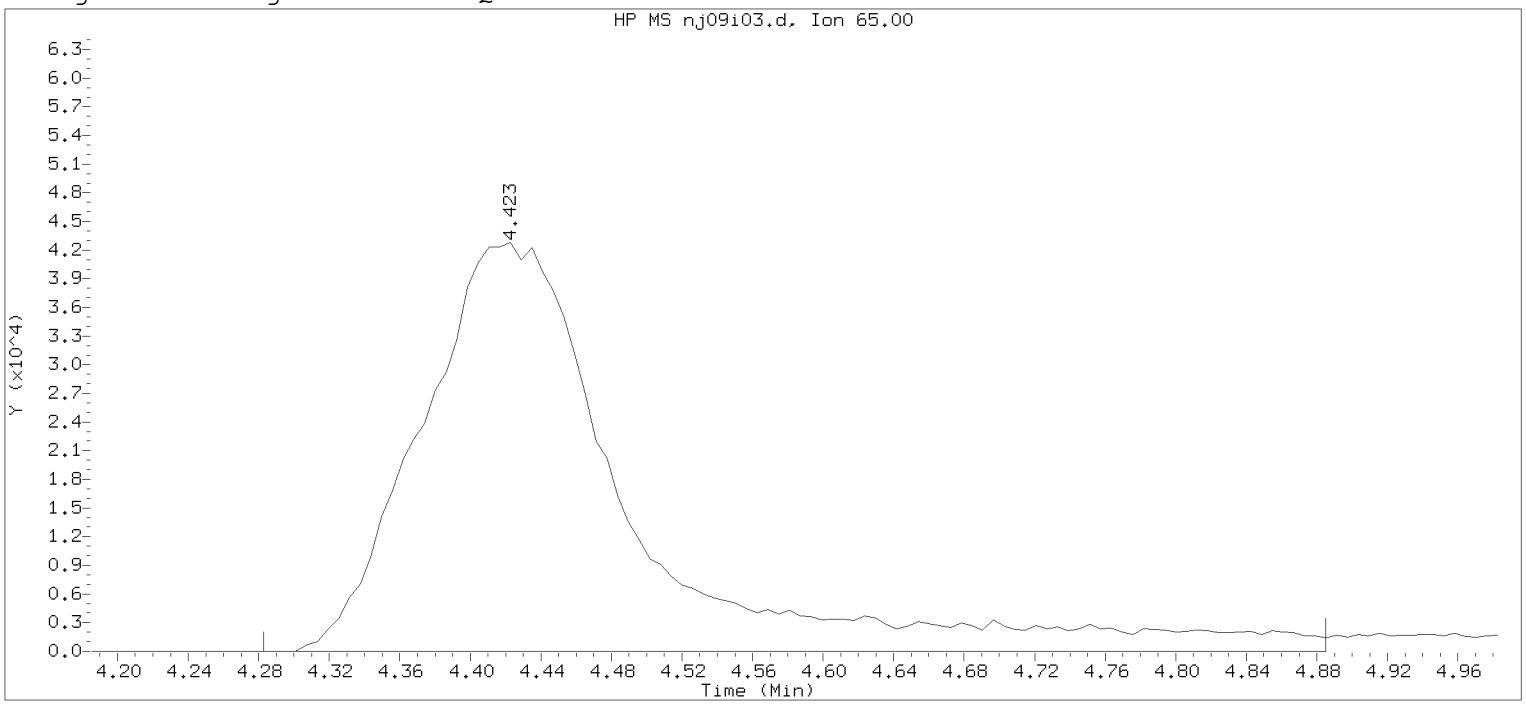
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

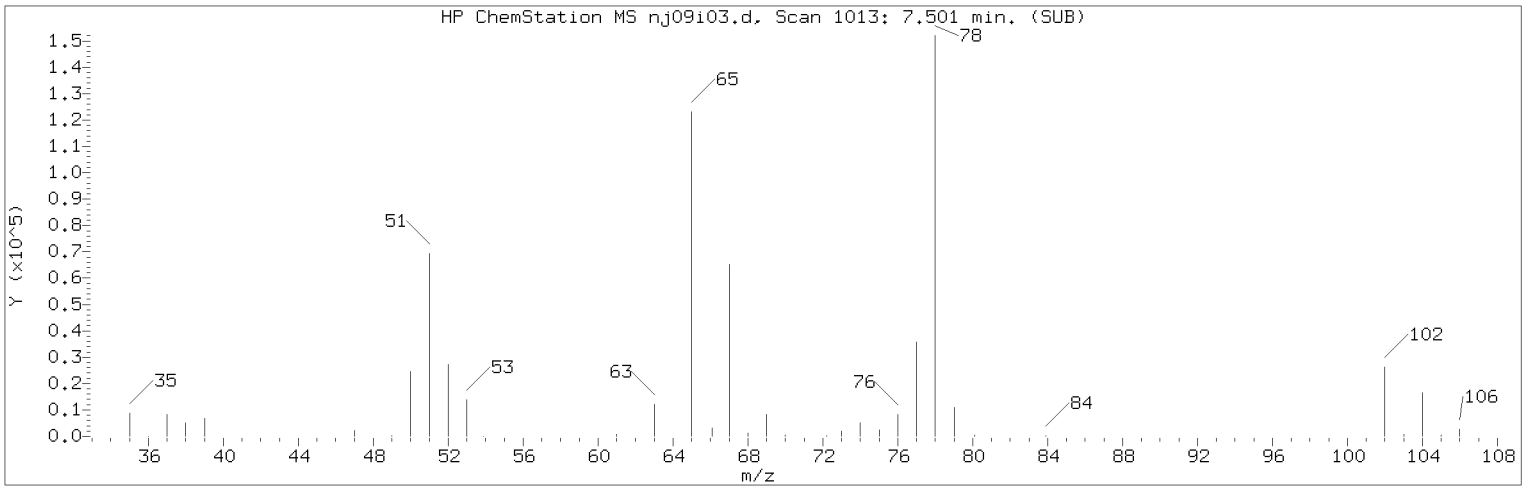
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

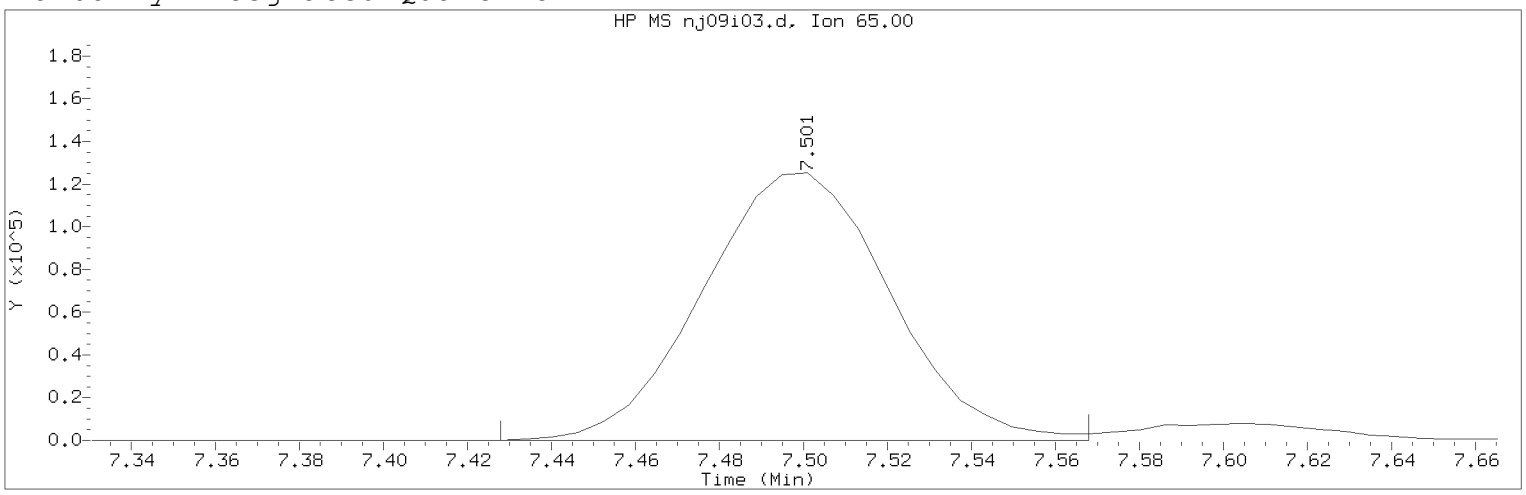
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area : 352606
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01987

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

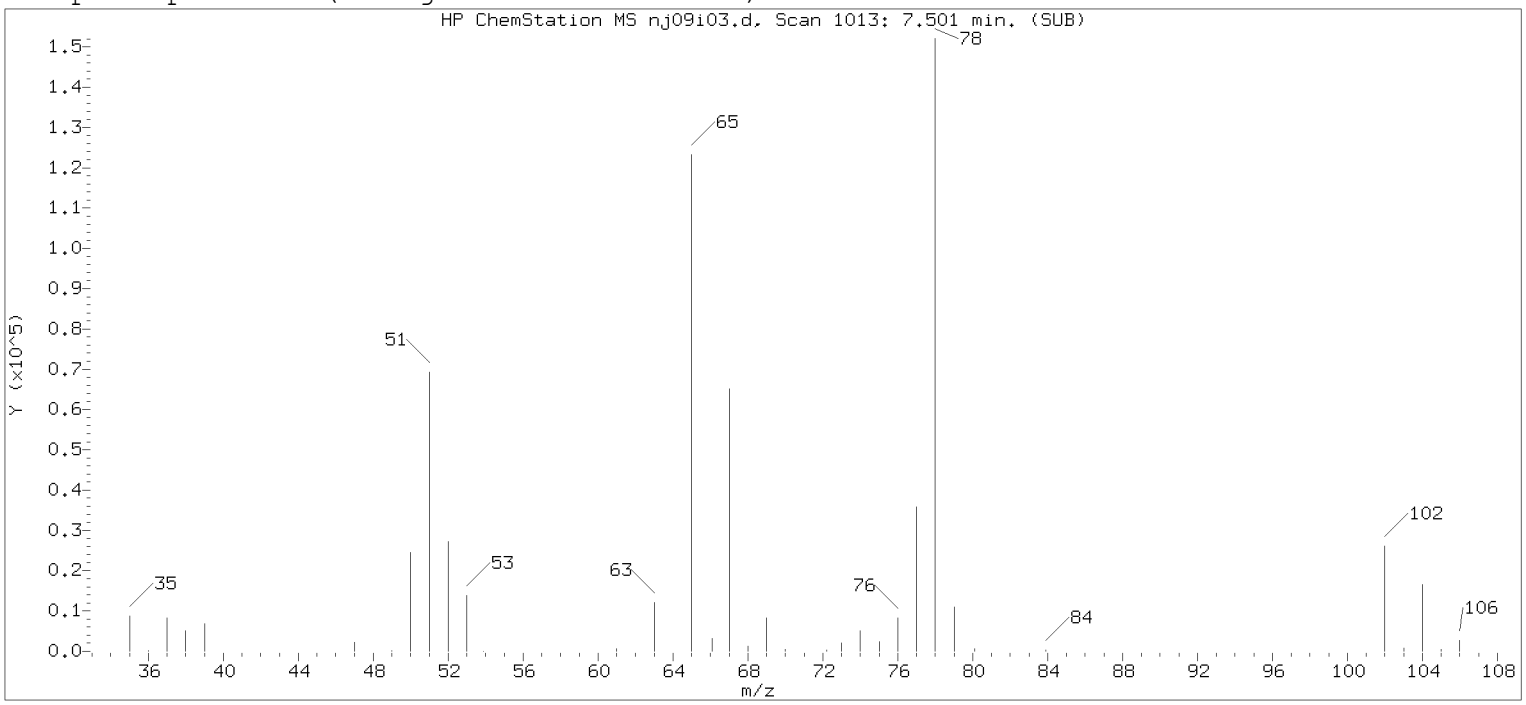
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area (flag) : 387310M
On-Column Amount (ng) : 49.5305
Integration start scan : 1000 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

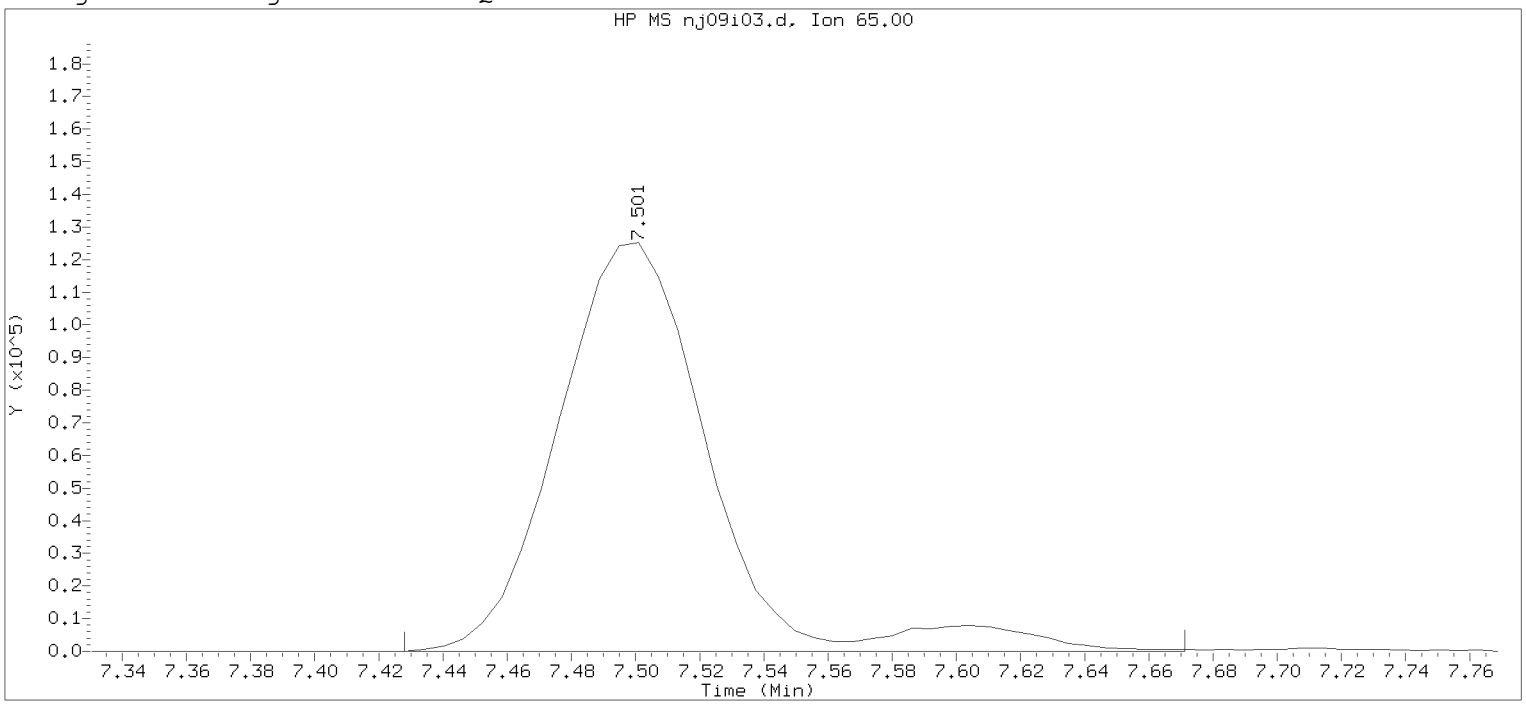
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

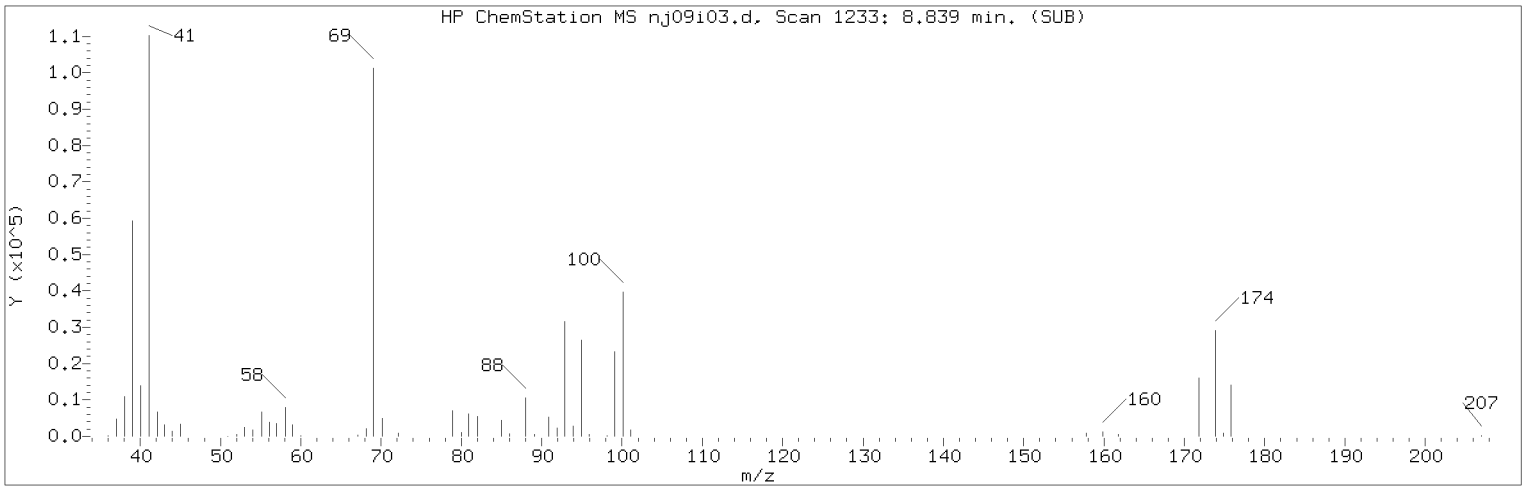
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

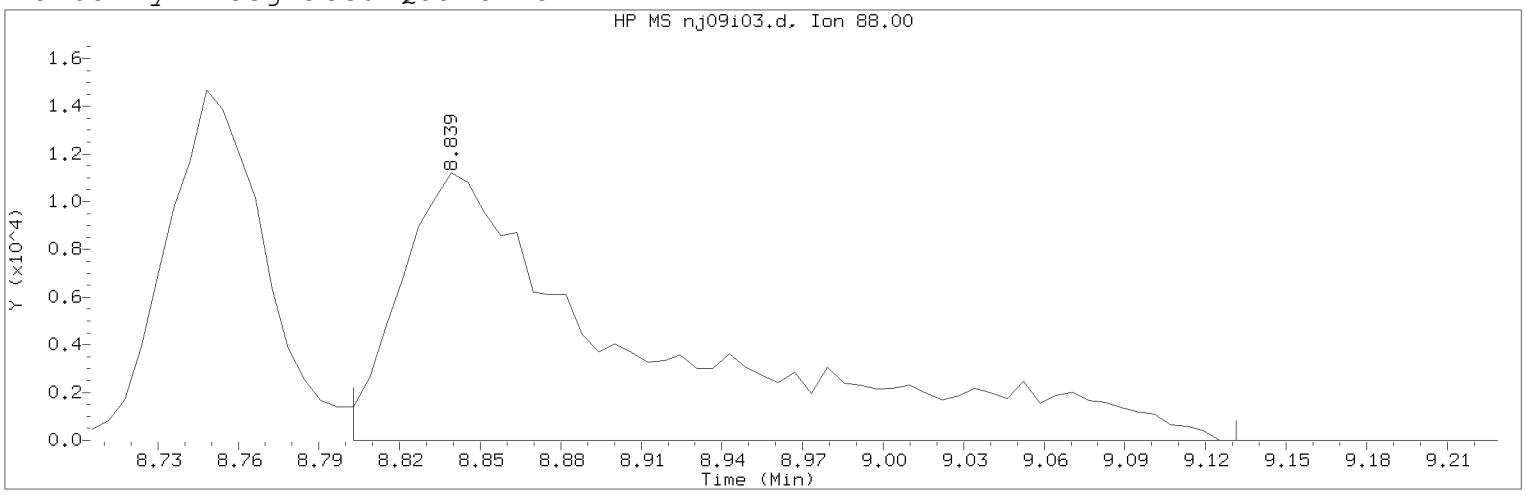
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area : 412235
On-column Amount (ng) : 52.2423
Integration start scan : 1000 Integration stop scan: 1040
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01987

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

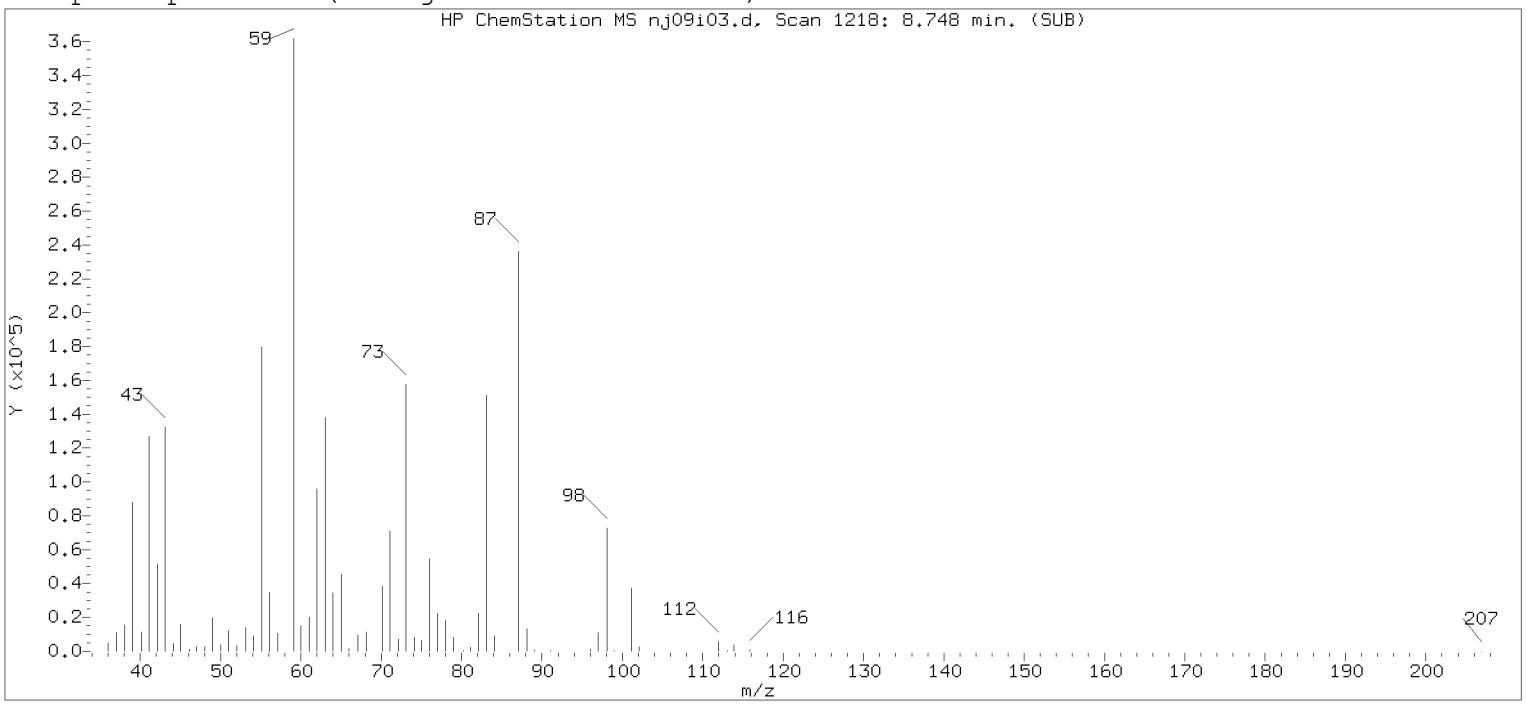
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.839
Quant Ion : 88.00
Area (flag) : 70481M
On-Column Amount (ng) : 627.6898
Integration start scan : 1226 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

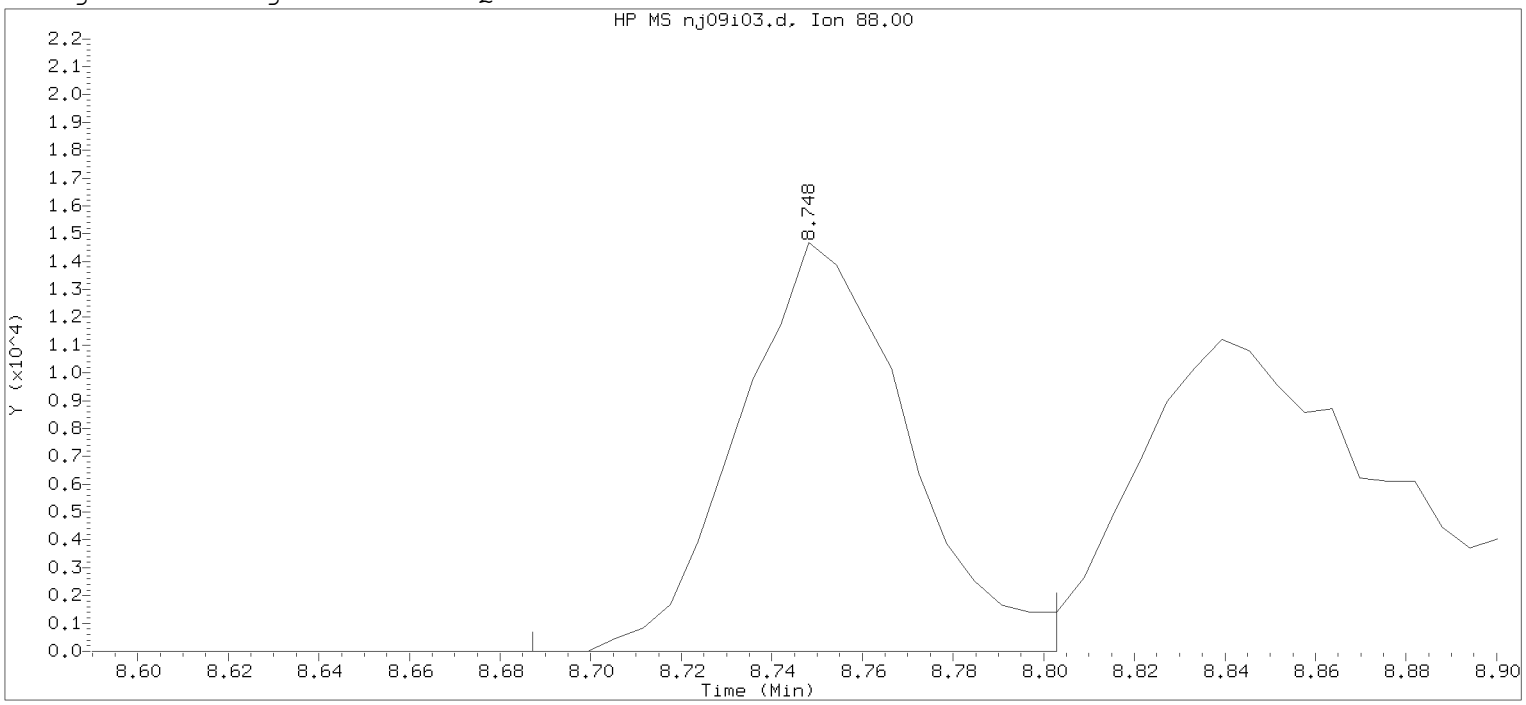
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



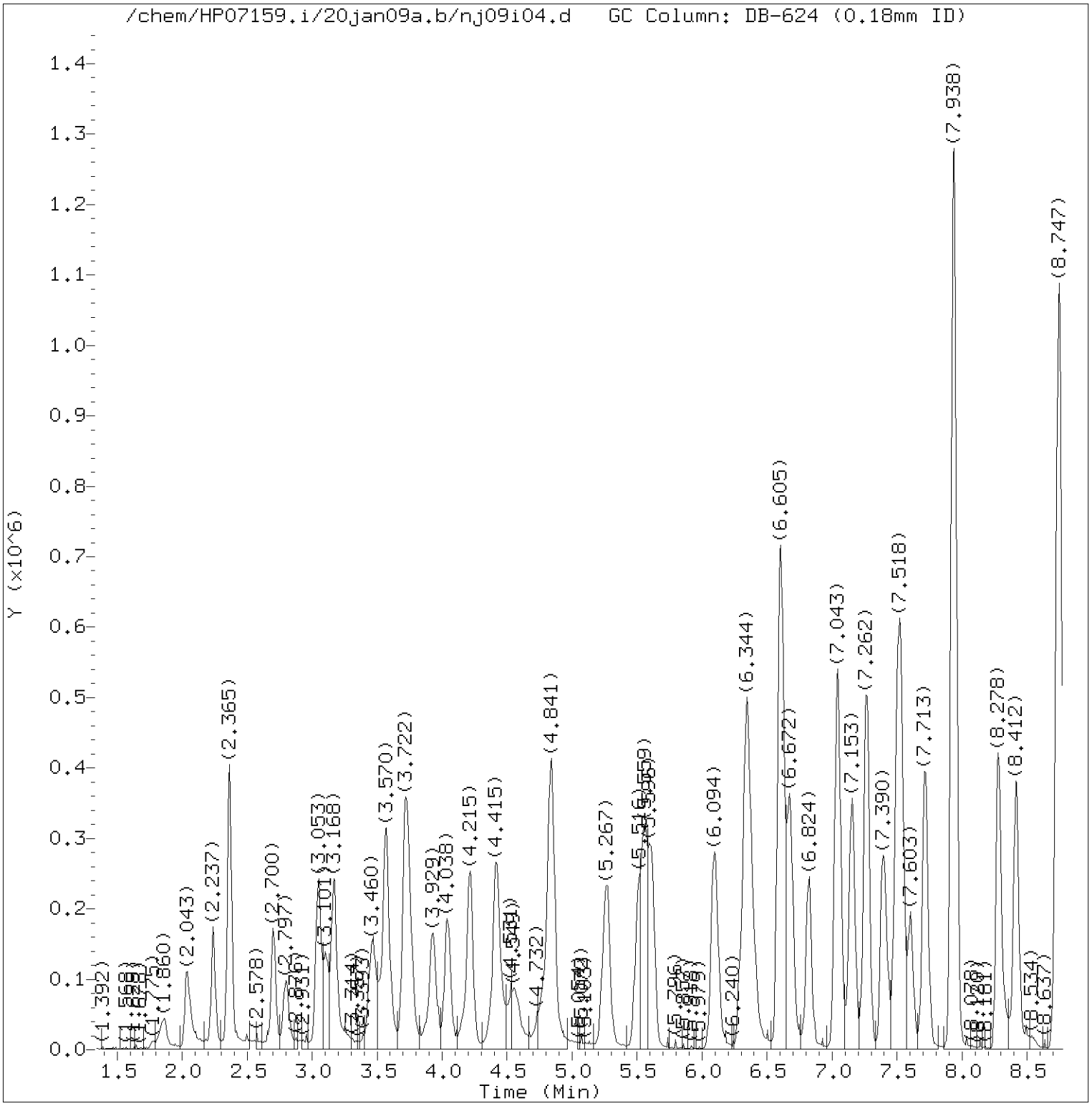
Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.748
Quant Ion : 88.00
Area : 37406
On-column Amount (ng) : 488.5599
Integration start scan : 1207 Integration stop scan: 1226
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01987



Total Ion Chromatogram (TIC)

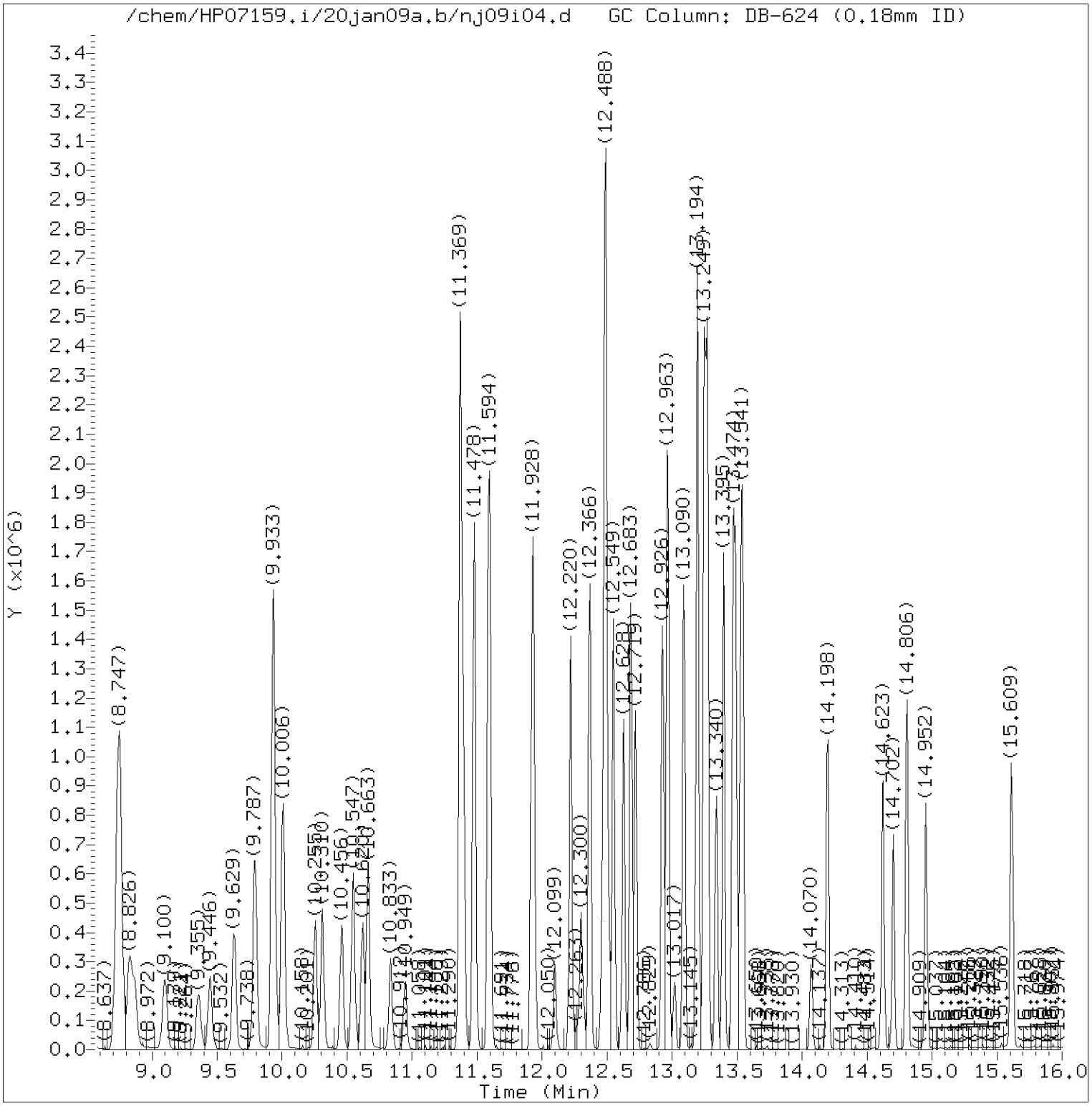
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	224850M	22.263
4) Chloromethane	(2)	2.237	50	223328	20.637
6) Vinyl Chloride	(2)	2.359	62	220994	20.985
5) 1,3-Butadiene	(2)	2.365	39	149726M	19.828
8) Bromomethane	(2)	2.700	94	149534	20.710
9) Chloroethane	(2)	2.797	64	129796	21.058
10) Dichlorofluoromethane	(2)	3.047	67	288984	20.473
12) Trichlorofluoromethane	(2)	3.107	101	247020	21.343
11) n-Pentane	(2)	3.168	43	235702	20.786
13) Ethanol	(1)	3.253	45	86067	923.403
15) Freon 123a	(2)	3.466	67	178466	21.048
16) Acrolein	(1)	3.570	56	551402	211.152
17) 1,1-Dichloroethene	(2)	3.716	96	140820	20.878
17) 1,1-Dichloroethene	(2)	3.716	63	74421	21.026
18) Acetone	(1)	3.746	58	47094	42.817
19) Freon 113	(2)	3.746	101	139717	22.326
21) 2-Propanol	(1)	3.916	45	146046M	201.037
22) Methyl Iodide	(2)	3.929	142	262725	20.868
23) Carbon Disulfide	(2)	4.038	76	451451	20.930
27) Methyl Acetate	(2)	4.184	43	159758	19.280
25) Allyl Chloride	(2)	4.215	41	234828	19.720
28) Methylene Chloride	(2)	4.415	84	158454	19.779
29)*t-Butyl alcohol-d10	(1)	4.415	65	385090M	250.000
30) t-Butyl alcohol	(1)	4.555	59	302977	211.035
31) Acrylonitrile	(2)	4.762	53	97069	21.690
33) Methyl Tertiary Butyl Ether	(2)	4.823	73	449496	20.508
32) trans-1,2-Dichloroethene	(2)	4.841	96	158576	20.593
34) n-Hexane	(2)	5.267	57	239576	22.538
36) 1,1-Dichloroethane	(2)	5.504	63	290827	20.704
38) di-Isopropyl ether	(2)	5.559	45	496346	20.512
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	258603	20.856
40) Ethyl t-butyl ether	(2)	6.094	59	477574	20.764
43) 1,2-Dichloroethene (Total)	(2)		96	341920	41.558
44) 2-Butanone	(2)	6.295	43	263939	42.179
42) cis-1,2-Dichloroethene	(2)	6.344	96	183344	20.965
45) 2,2-Dichloropropane	(2)	6.350	77	261086	21.052
47) Propionitrile	(1)	6.380	54	339134	202.252
48) Methacrylonitrile	(2)	6.605	67	463087	102.441

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	84627	20.466
50) Tetrahydrofuran	(1)	6.678	71	72434	41.608
51) Chloroform	(2)	6.824	83	278912	20.356
52)$Dibromofluoromethane	(2)	7.043	113	320361	49.752
52)$Dibromofluoromethane	(2)	7.037	111	328971	50.034
53) 1,1,1-Trichloroethane	(2)	7.049	97	260301	20.999
54) Cyclohexane	(2)	7.153	56	277919	21.797
54) Cyclohexane	(2)	7.153	84	241047	21.692
54) Cyclohexane	(2)	7.153	69	87601	21.859
56) Carbon Tetrachloride	(2)	7.262	117	225623	21.110
55) 1,1-Dichloropropene	(2)	7.268	75	229866	20.501
58) Isobutyl Alcohol	(1)	7.396	41	264667	514.638
57)$1,2-Dichloroethane-d4	(2)	7.500	102	83999	51.593
57)$1,2-Dichloroethane-d4	(2)	7.494	65	383745	48.998
57)$1,2-Dichloroethane-d4	(2)	7.494	104	51322	49.543
60) Benzene	(2)	7.530	78	652953	20.459
61) 1,2-Dichloroethane	(2)	7.603	62	226751	20.082
61) 1,2-Dichloroethane	(2)	7.603	98	20202	21.739
65) t-Amyl methyl ether	(2)	7.713	73	480348	20.819
66)*Fluorobenzene	(2)	7.932	96	1297518	50.000
67) n-Heptane	(2)	7.944	43	268761	21.905
69) n-Butanol	(1)	8.278	56	464747	1049.079
71) Trichloroethene	(2)	8.418	95	172382	20.502
72) Methylcyclohexane	(2)	8.729	83	288388	20.865
72) Methylcyclohexane	(2)	8.729	98	134403	20.648
73) 1,2-Dichloropropane	(2)	8.753	63	167468	20.520
76) Methyl Methacrylate	(2)	8.826	69	152600	20.447
75) 1,4-Dioxane	(1)	8.844	88	56238M	502.509
74) Dibromomethane	(2)	8.868	93	105118	20.196
78) Bromodichloromethane	(2)	9.100	83	217526	20.472
79) 2-Nitropropane	(2)	9.355	41	161437	41.832
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	138170	21.403
81) cis-1,3-Dichloropropene	(2)	9.629	75	276244	20.380
82) 4-Methyl-2-pentanone	(2)	9.787	43	542400	42.781
83)$Toluene-d8	(3)	9.933	98	1292625	50.269
83)$Toluene-d8	(3)	9.933	100	852988	50.069
88) Toluene	(3)	10.006	92	425285	20.360
90) 1,3-Dichloropropene (total)	(3)		100	540121	40.734

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	263877	20.354
91) Ethyl Methacrylate	(3)	10.310	69	265241	20.534
92) 1,1,2-Trichloroethane	(3)	10.456	97	151849	20.532
93) Tetrachloroethene	(3)	10.547	166	188956	20.657
94) 1,3-Dichloropropane	(3)	10.620	76	262220	20.428
96) 2-Hexanone	(3)	10.663	43	428260	43.313
97) Dibromochloromethane	(3)	10.833	129	174606	20.573
99) 1,2-Dibromoethane	(3)	10.949	107	166216	20.524
100)*Chlorobenzene-d5	(3)	11.369	117	985958	50.000
102) Chlorobenzene	(3)	11.399	112	478632	20.530
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	173372	20.636
104) Ethylbenzene	(3)	11.478	91	842267	20.846
106) m+p-Xylene	(3)	11.594	106	662286	41.720
108) Xylene (Total)	(3)		106	981676	62.176
107) o-Xylene	(3)	11.922	106	319390	20.457
109) Styrene	(3)	11.934	104	542524	20.689
110) Bromoform	(3)	12.099	173	132803	20.727
111) Isopropylbenzene	(3)	12.220	105	872257	21.153
112) Cyclohexanone	(1)	12.300	55	222730	496.255
114)$4-Bromofluorobenzene	(3)	12.366	95	509023	50.106
114)$4-Bromofluorobenzene	(3)	12.366	174	408759	50.224
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	251933	21.137
115) Bromobenzene	(4)	12.482	156	206372	20.592
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	425332	103.742
117) 1,2,3-Trichloropropane	(4)	12.512	110	75922	20.109
119) n-Propylbenzene	(4)	12.549	91	1033750	21.276
120) 2-Chlorotoluene	(4)	12.628	126	207715	20.736
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	751871	21.120
121) 4-Chlorotoluene	(4)	12.719	126	212503	20.469
124) tert-Butylbenzene	(4)	12.926	134	163997	20.788
125) Pentachloroethane	(4)	12.963	167	132462	20.970
126) 1,2,4-Trimethylbenzene	(4)	12.969	105	776872	21.025
127) sec-Butylbenzene	(4)	13.090	105	985593	21.313
129) 1,3-Dichlorobenzene	(4)	13.194	146	404786	20.767
130) p-Isopropyltoluene	(4)	13.194	119	856038	21.273
131)*1,4-Dichlorobenzene-d4	(4)	13.249	152	541869	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	408173	20.649
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	747580	20.846

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.340	91	549732	20.867
141) Diethylbenzene (total)	(4)		100	1463210	62.614
136) 1,3-Diethylbenzene	(4)	13.395	119	504775	20.955
137) 1,4-Diethylbenzene	(4)	13.468	119	538479	21.052
139) n-Butylbenzene	(4)	13.486	92	436420	21.024
138) 1,2-Dichlorobenzene	(4)	13.528	146	380948	20.614
140) 1,2-Diethylbenzene	(4)	13.541	119	419956	20.607
142) 1,2-Dibromo-3-chloropropane	(4)	14.070	75	67351	20.909
144) 1,3,5-Trichlorobenzene	(4)	14.198	180	307173	20.853
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	268190	20.881
147) Hexachlorobutadiene	(4)	14.702	225	121909	20.983
148) Naphthalene	(4)	14.806	128	843851	20.954
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	244159	20.709
150) 2-Methylnaphthalene	(4)	15.609	142	481991	20.721

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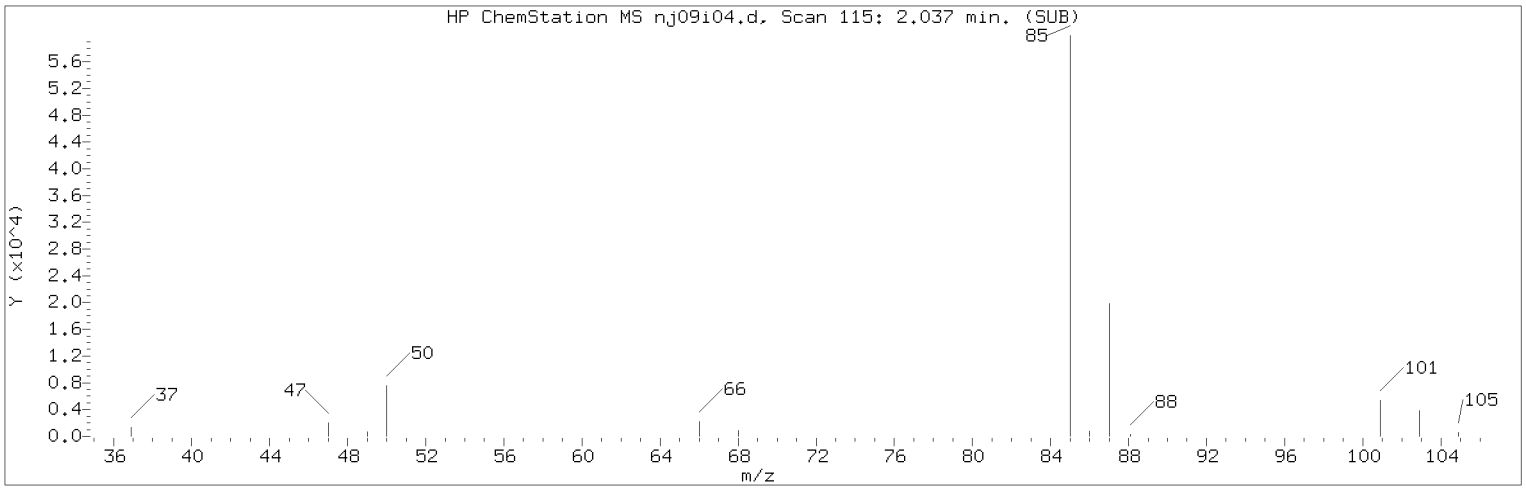
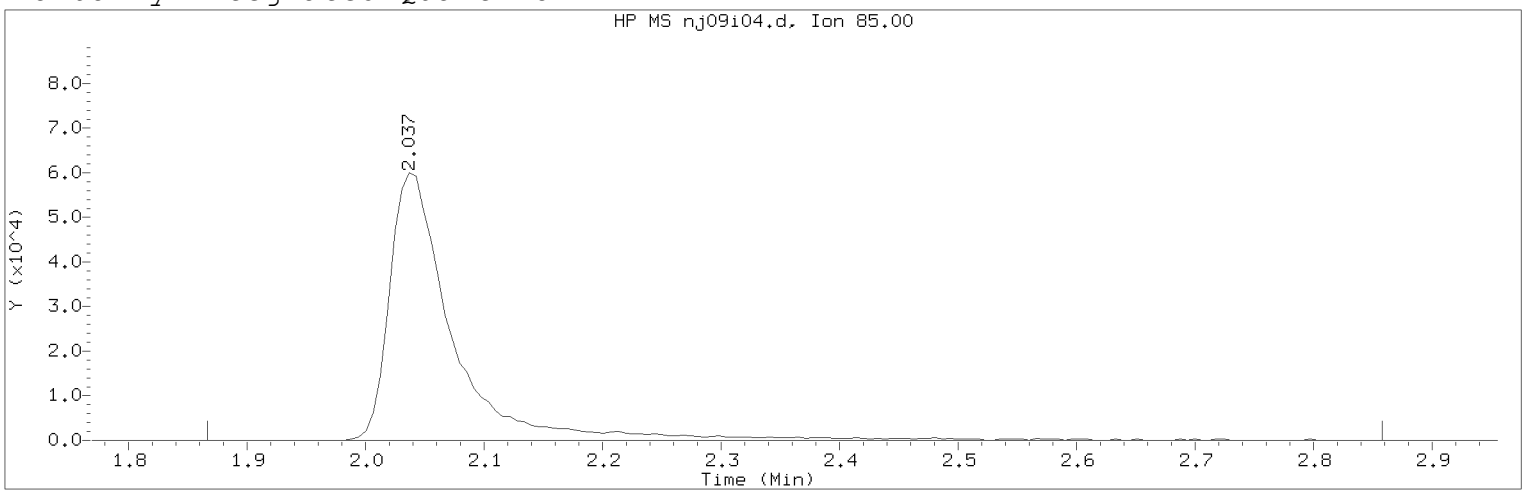
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

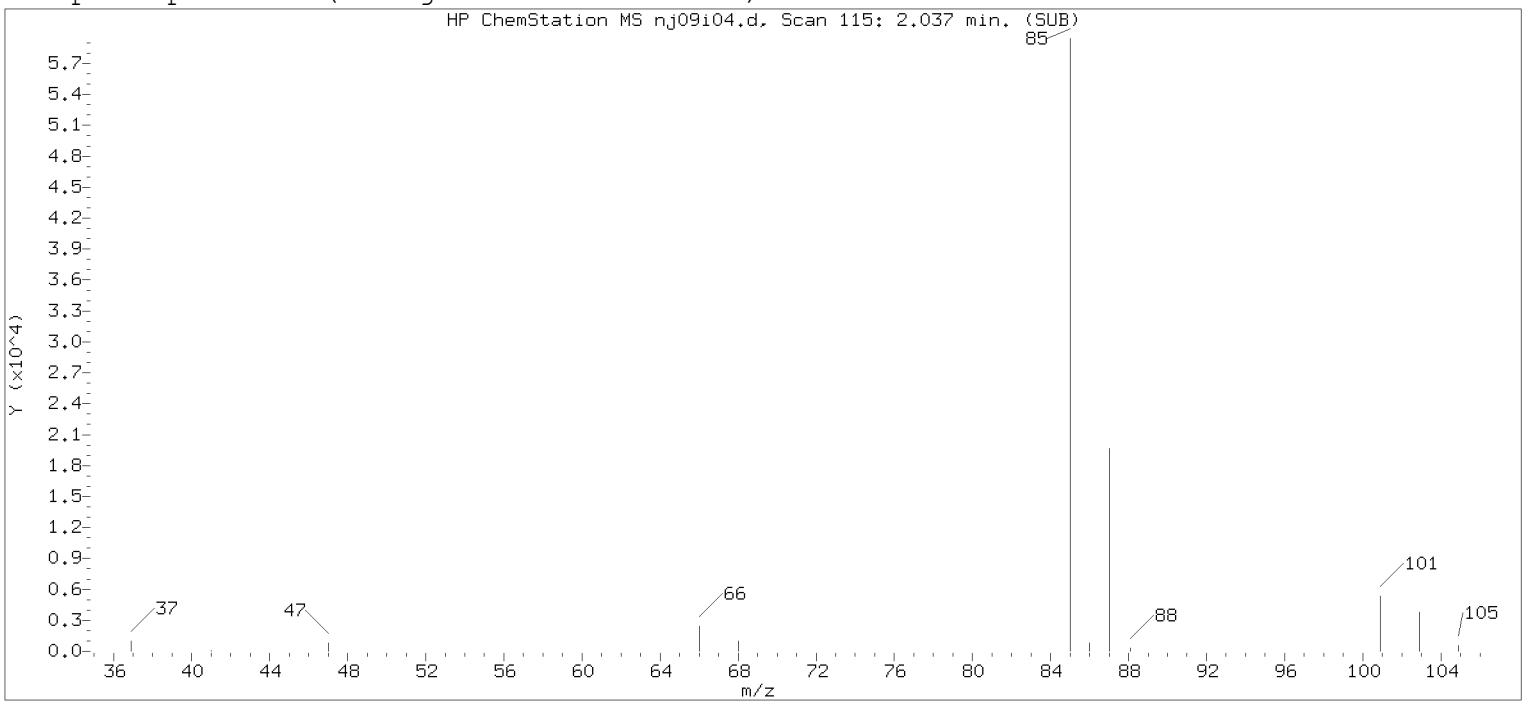
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area (flag) : 224850M
On-Column Amount (ng) : 22.2632
Integration start scan : 86 Integration stop scan: 249
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

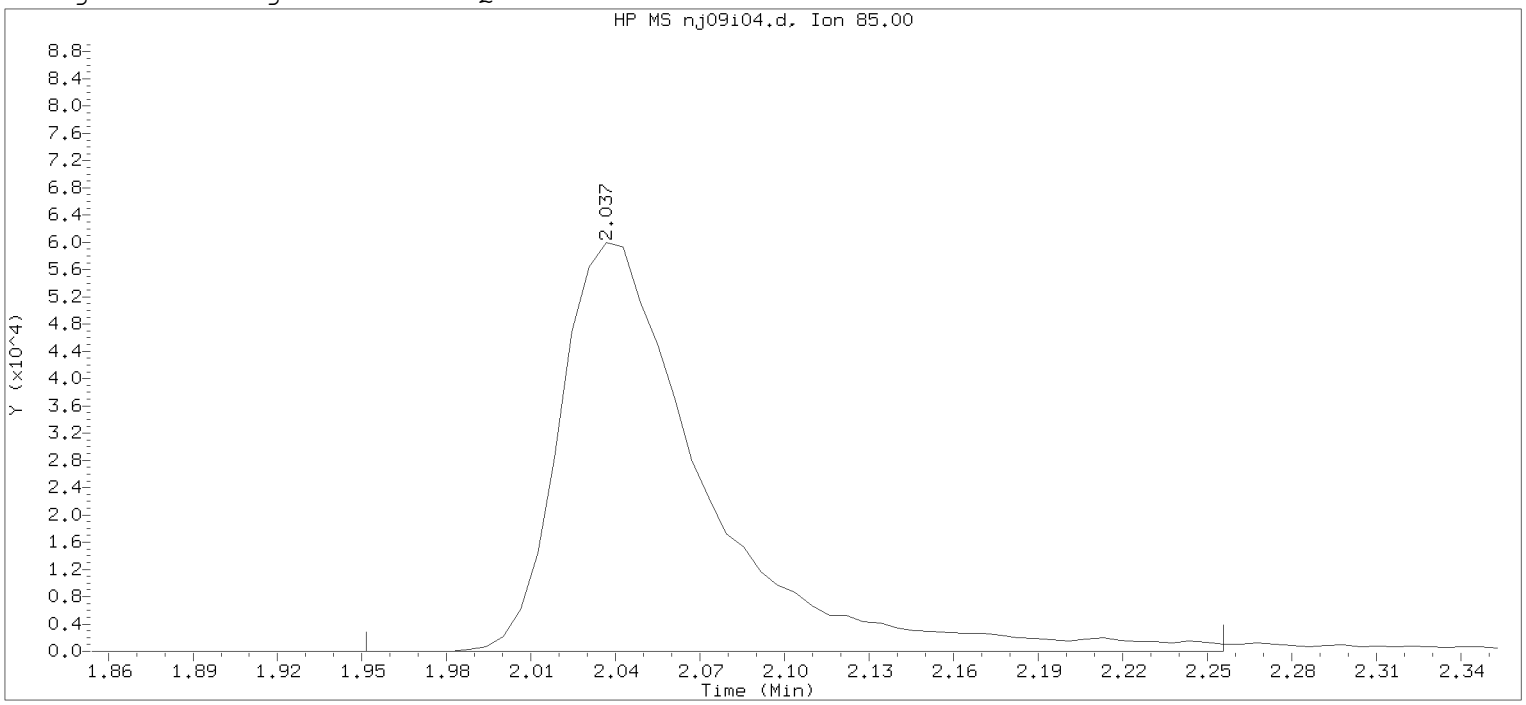
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

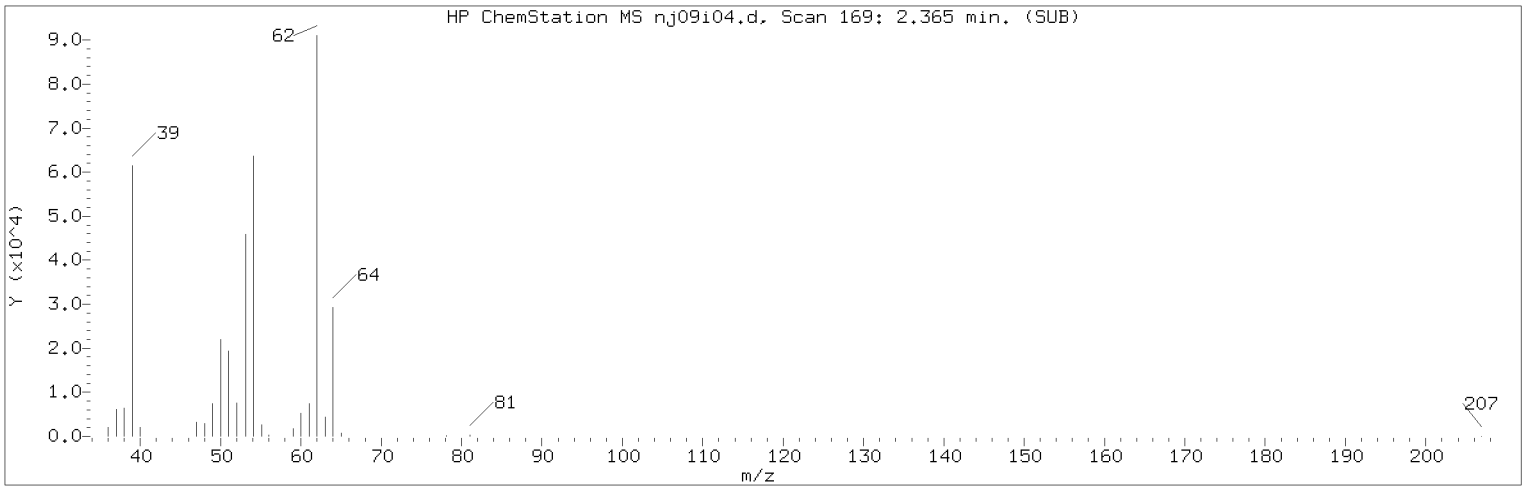
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

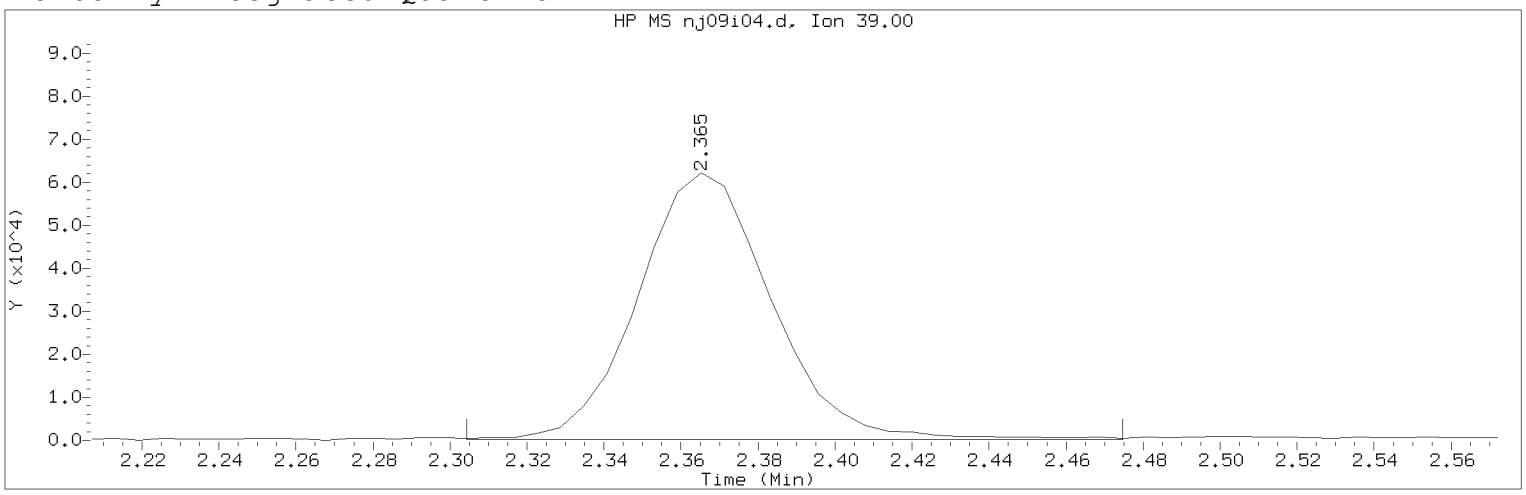
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area : 213925
On-column Amount (ng) : 21.9782
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

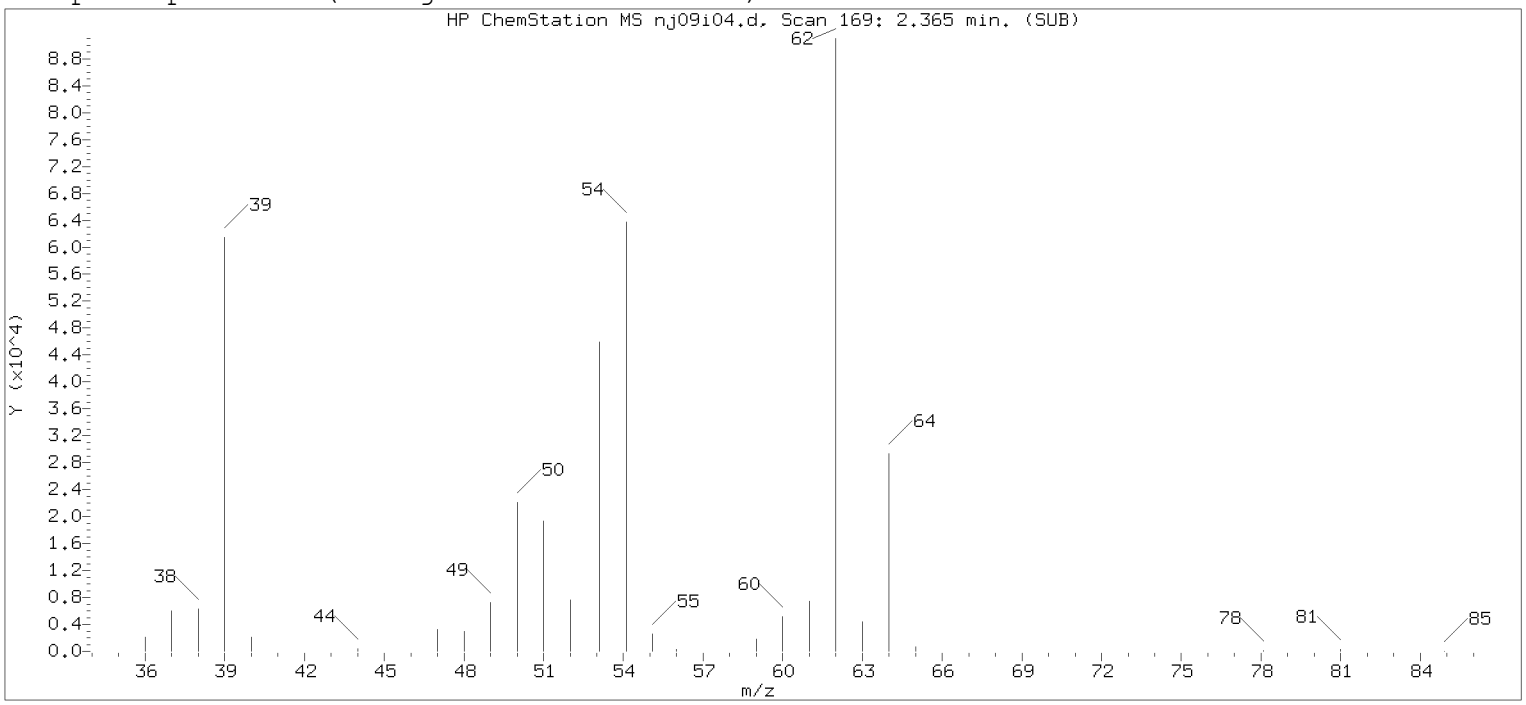
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 149726M
On-Column Amount (ng) : 19.8283
Integration start scan : 158 Integration stop scan: 186
Y at integration start : 105 Y at integration end: 105

Reason for manual integration: improper integration

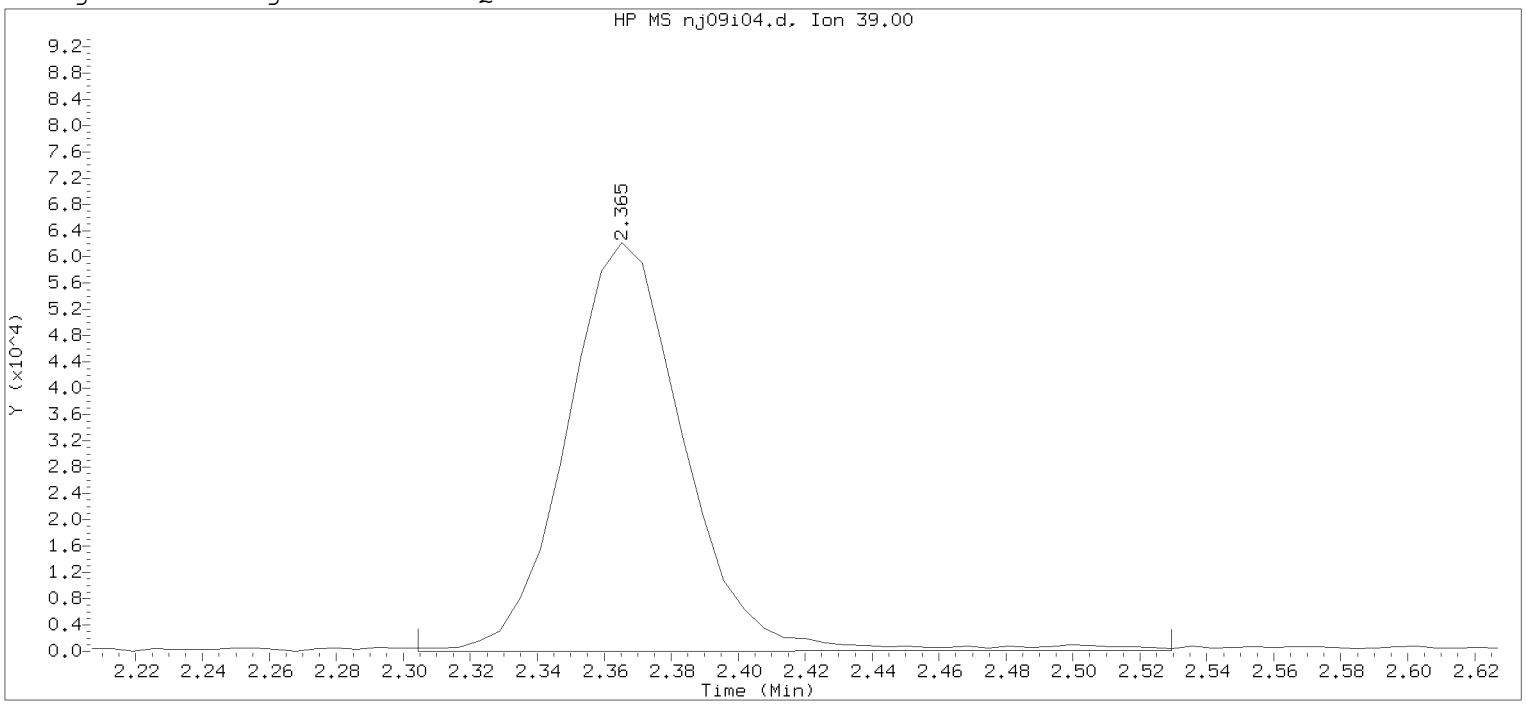
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

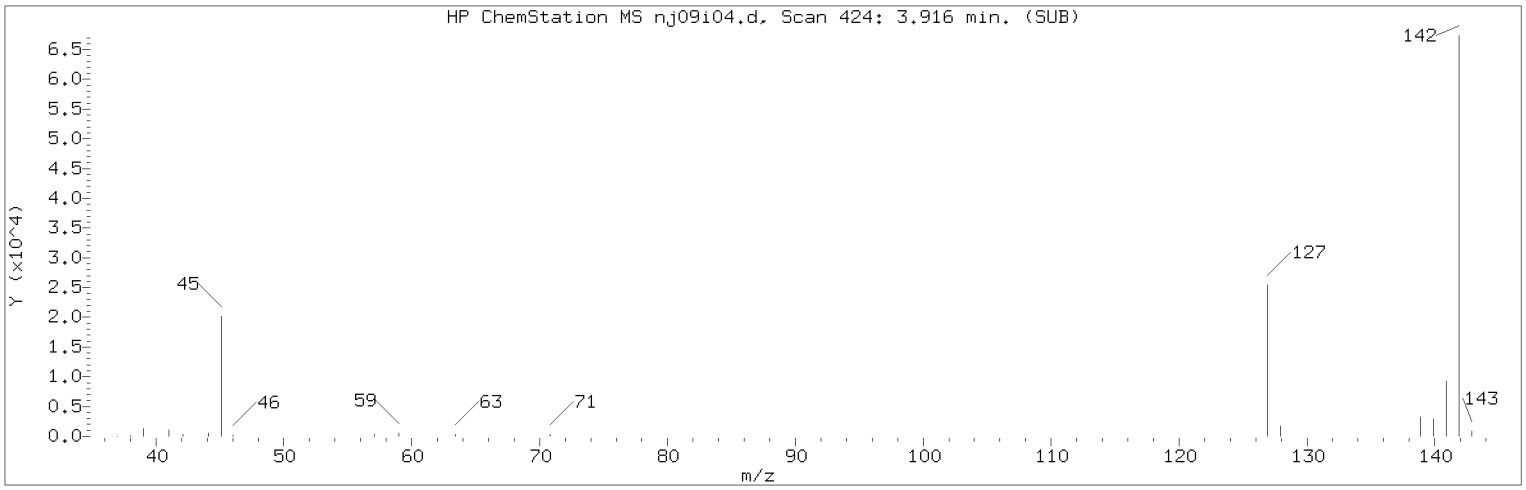
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

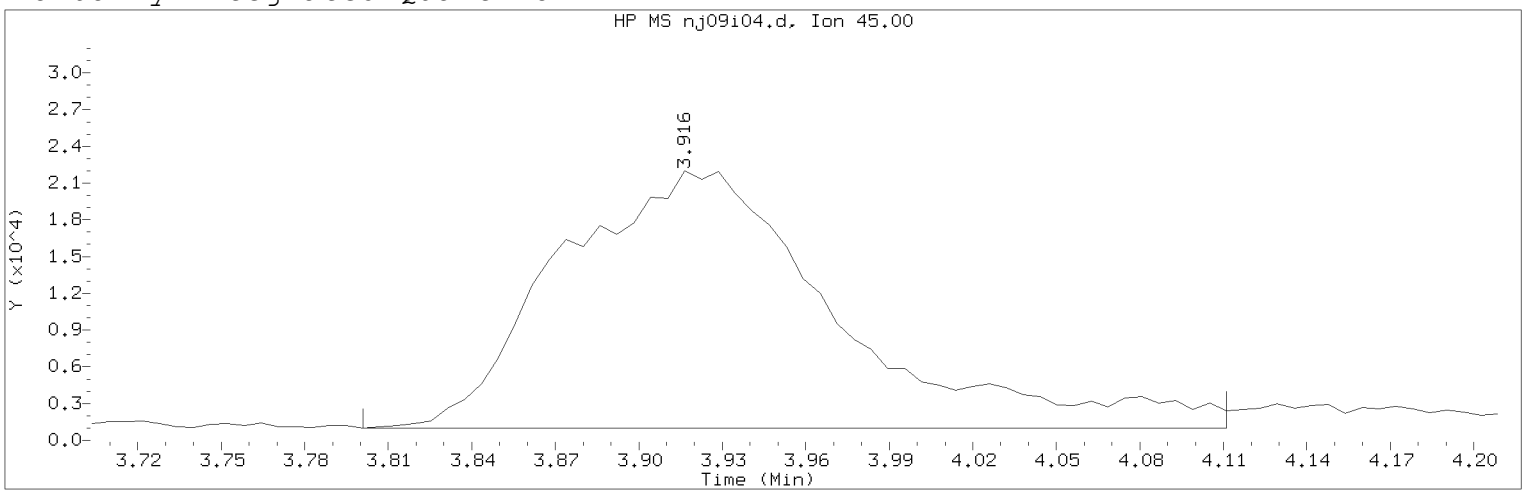
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 152078
On-column Amount (ng) : 20.2986
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 39 Y at integration end: 93

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

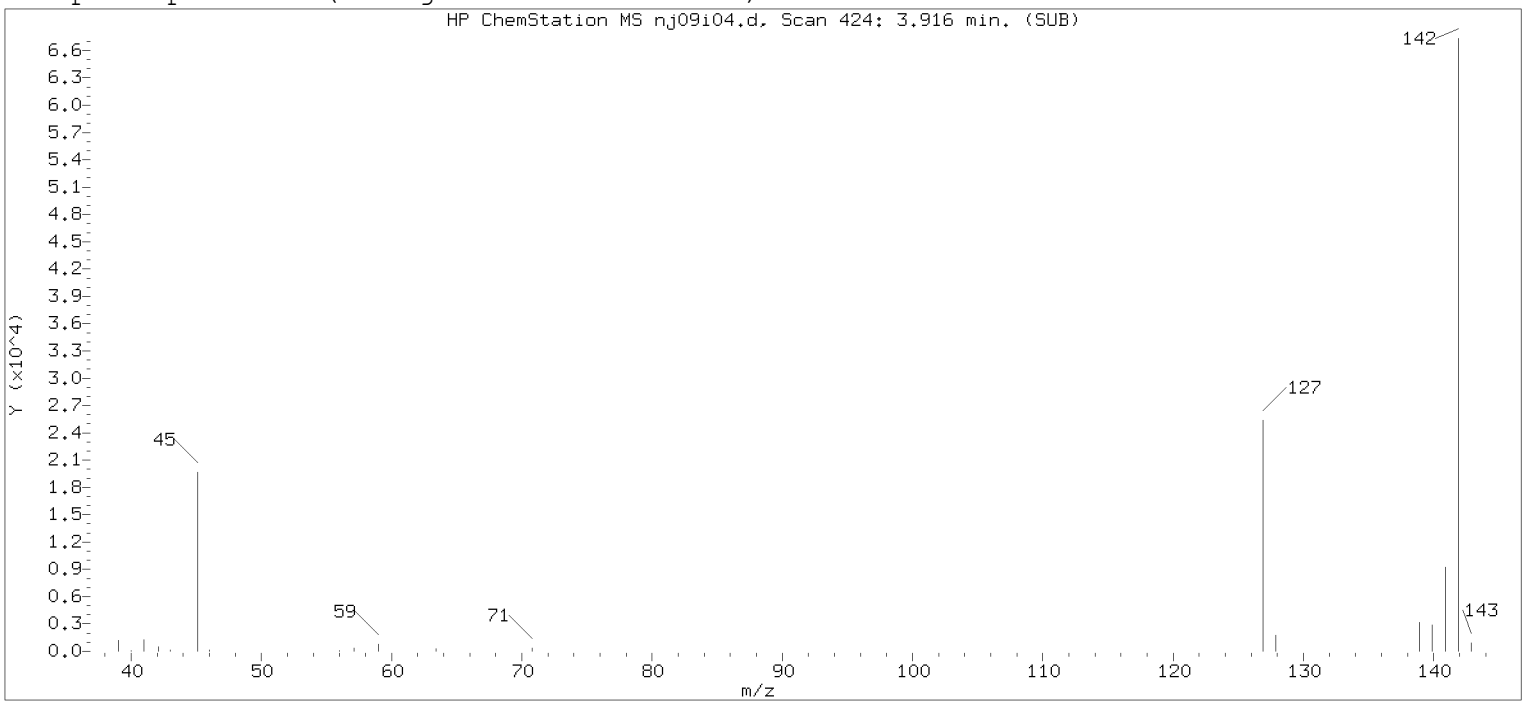
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 146046M
On-Column Amount (ng) : 201.0368
Integration start scan : 404 Integration stop scan: 455
Y at integration start : 979 Y at integration end: 979

Reason for manual integration: improper integration

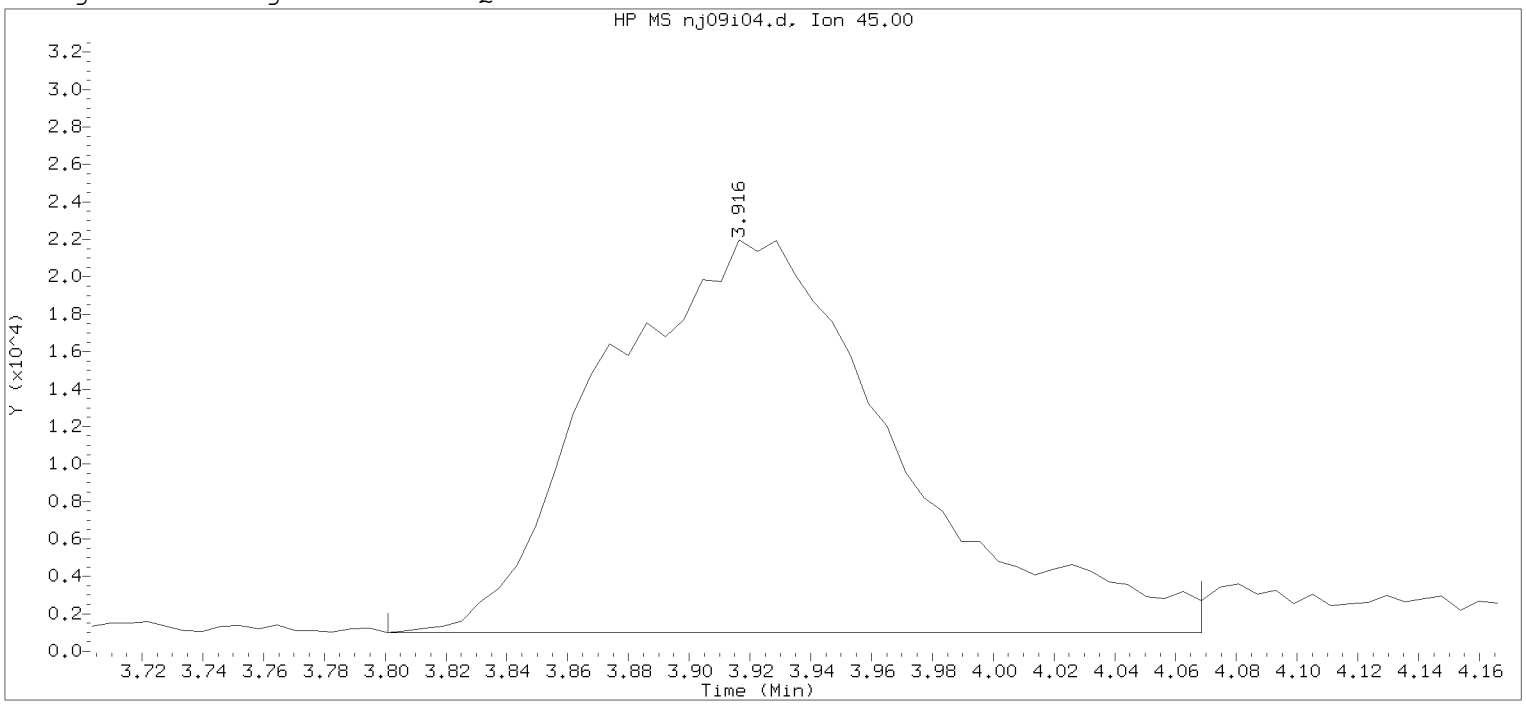
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

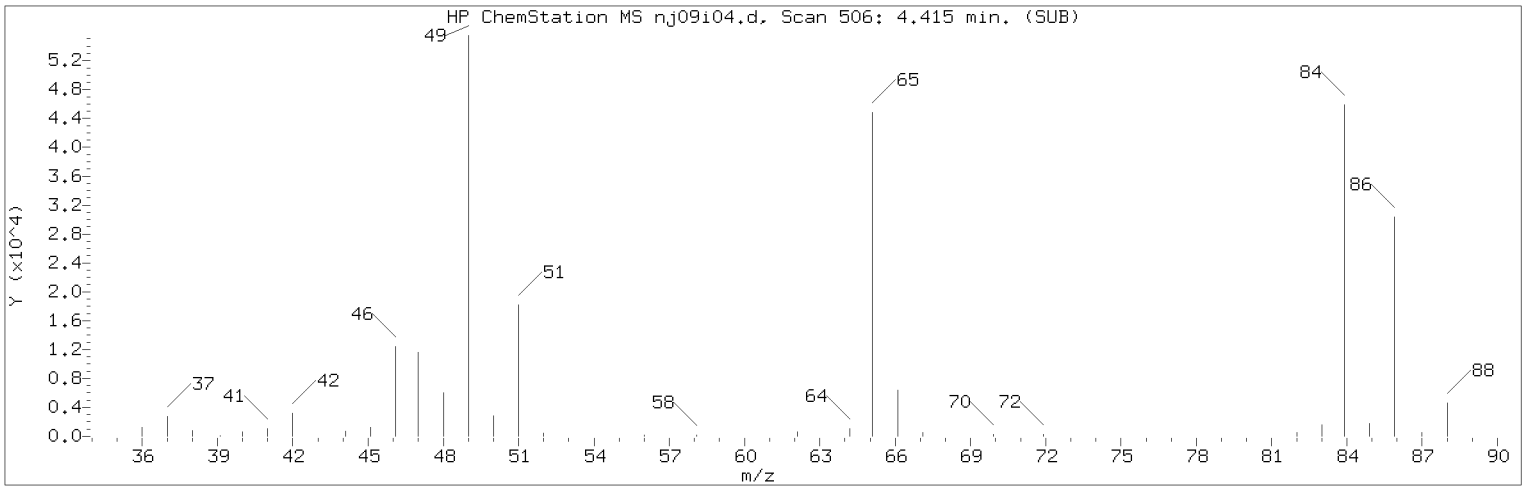
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

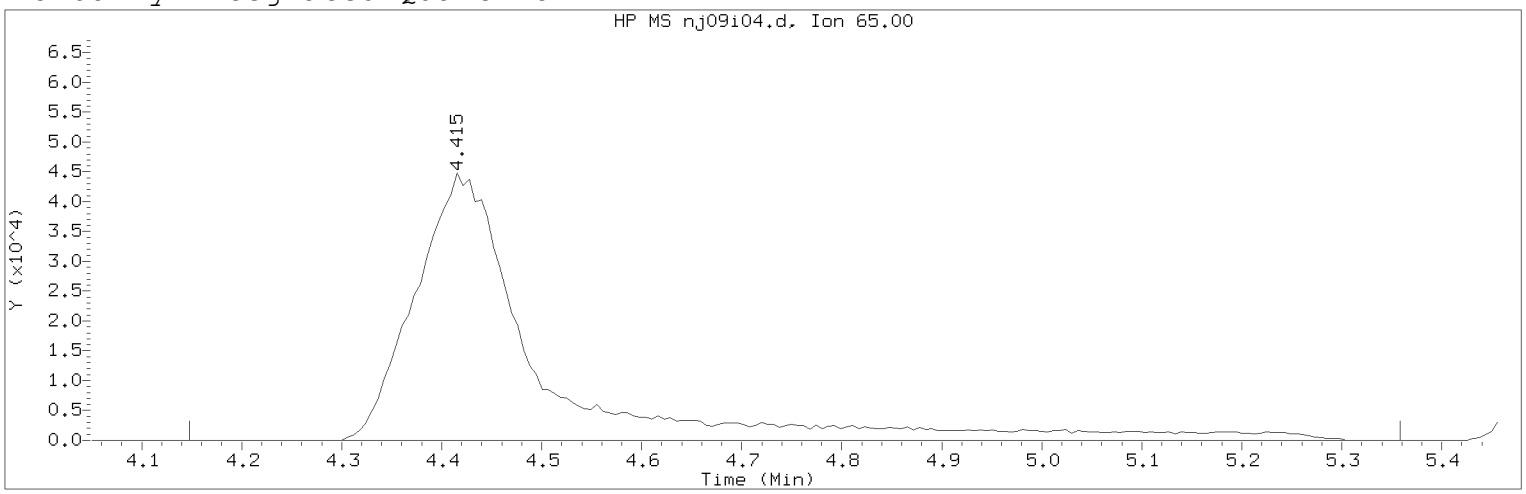
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 140440
On-column Amount (ng) : 206.0956
Integration start scan : 404 Integration stop scan: 448
Y at integration start : 980 Y at integration end: 980

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

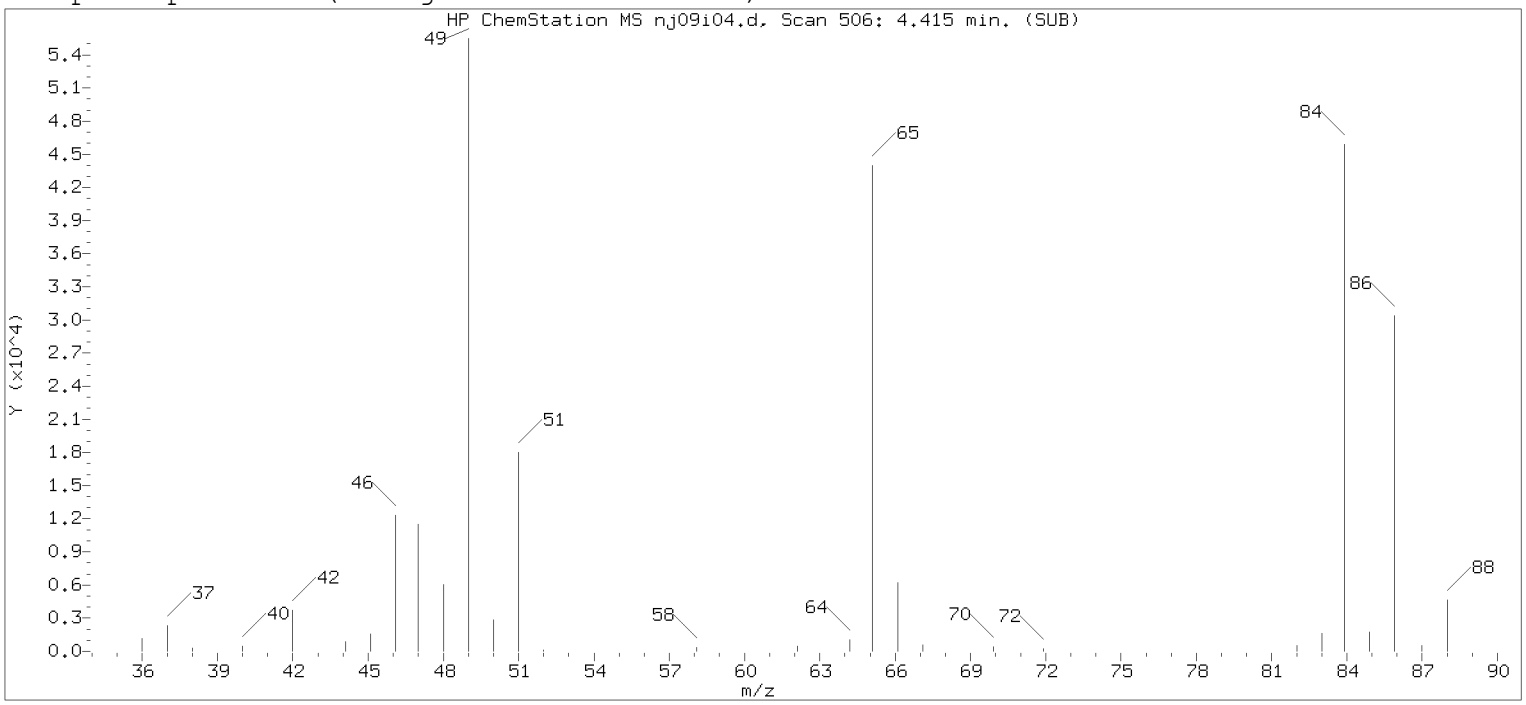
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area (flag) : 385090M
On-Column Amount (ng) : 250.0000
Integration start scan : 461 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

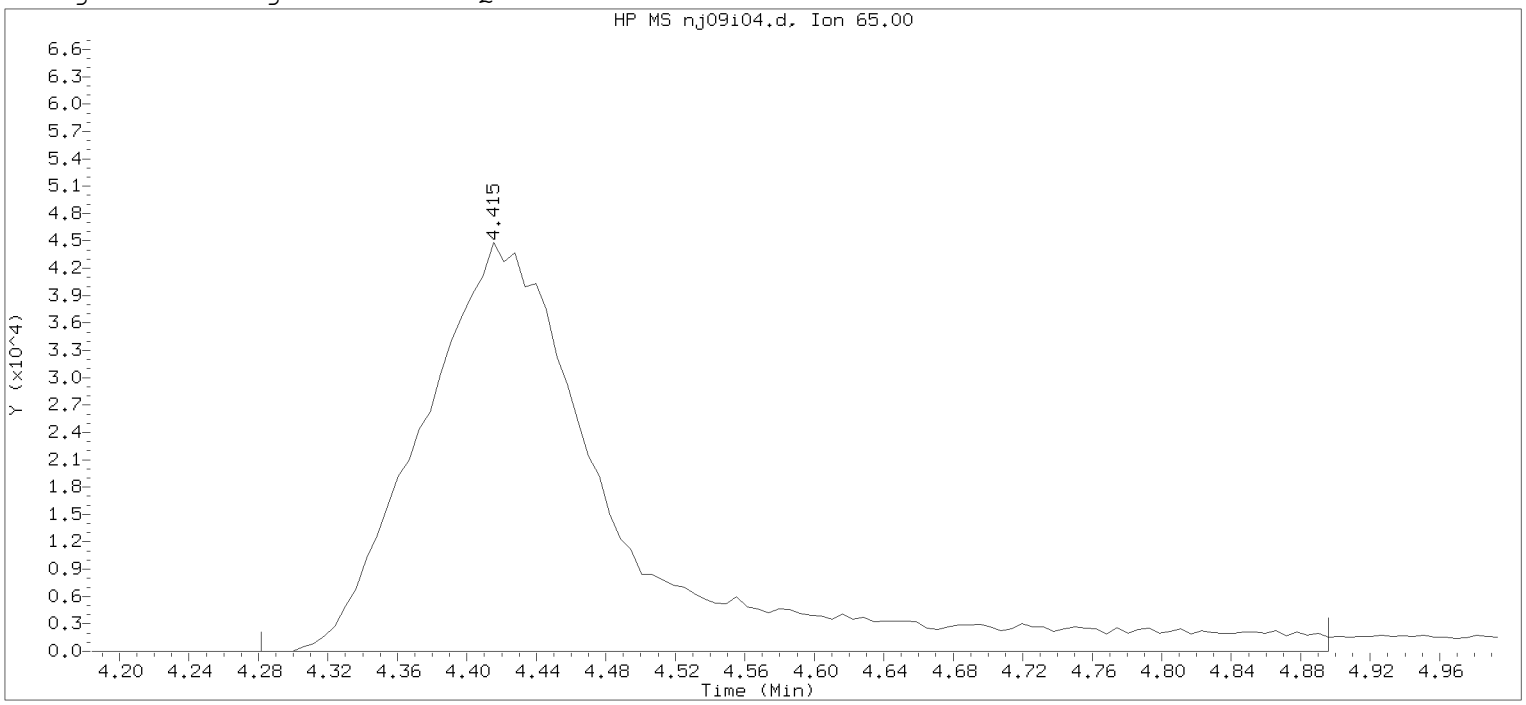
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

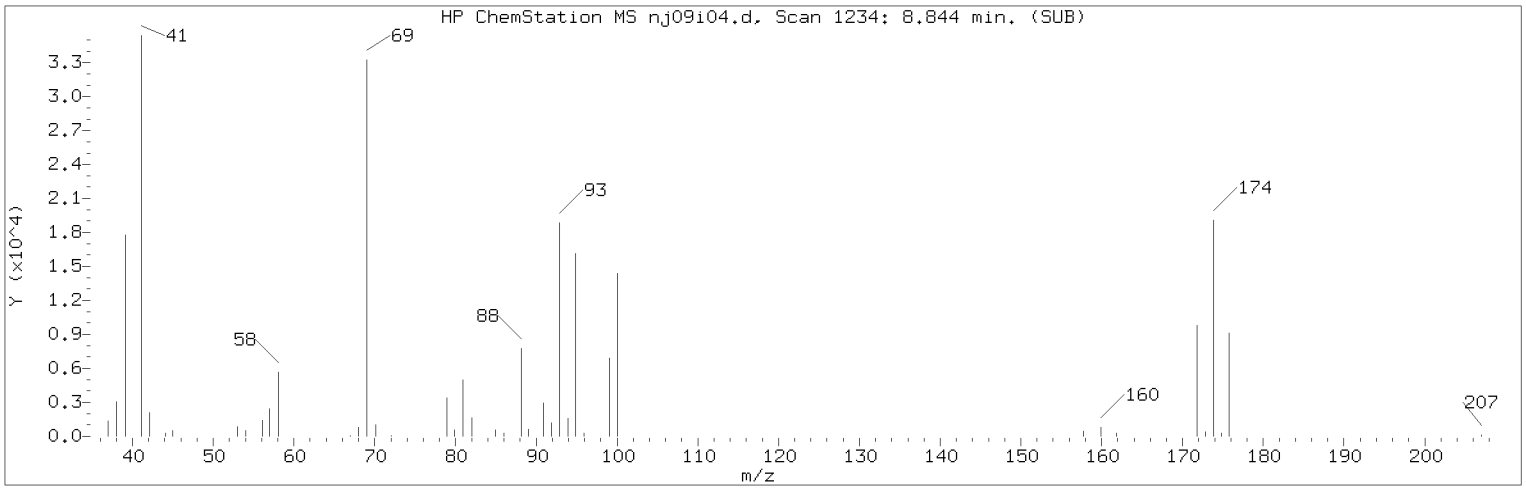
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

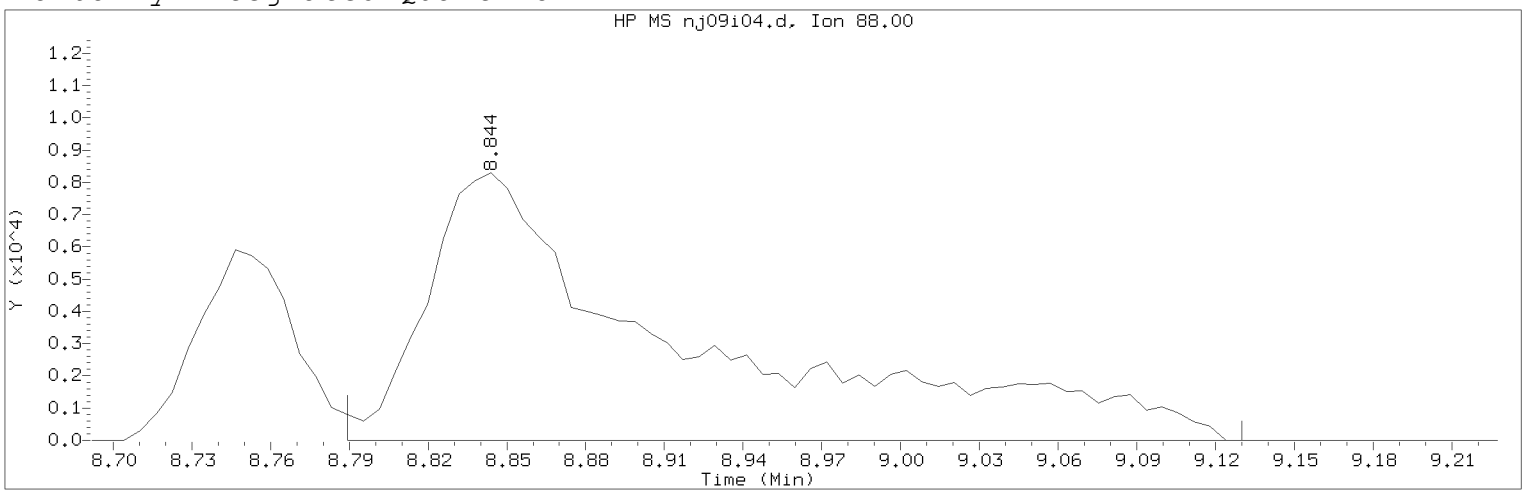
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area : 352873
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

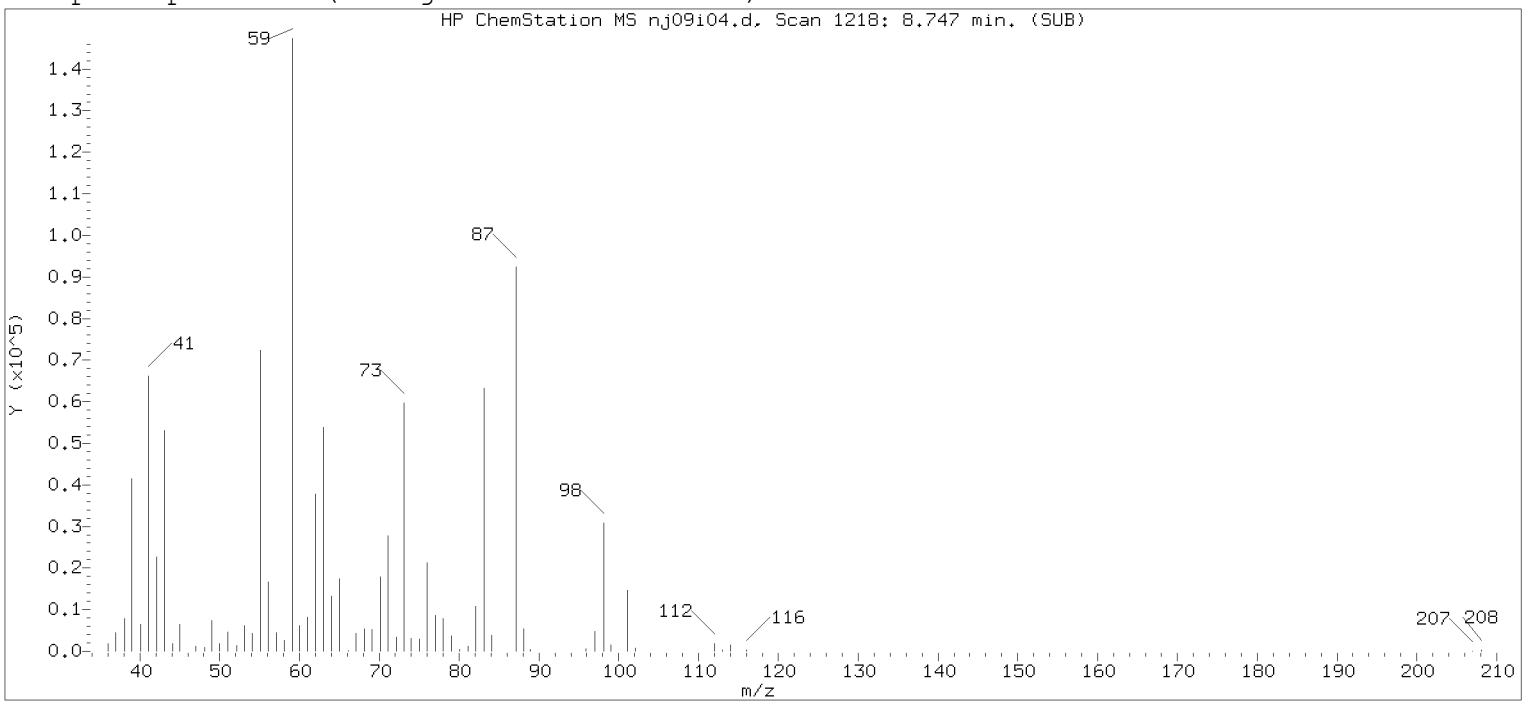
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 56238M
On-Column Amount (ng) : 502.5092
Integration start scan : 1224 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

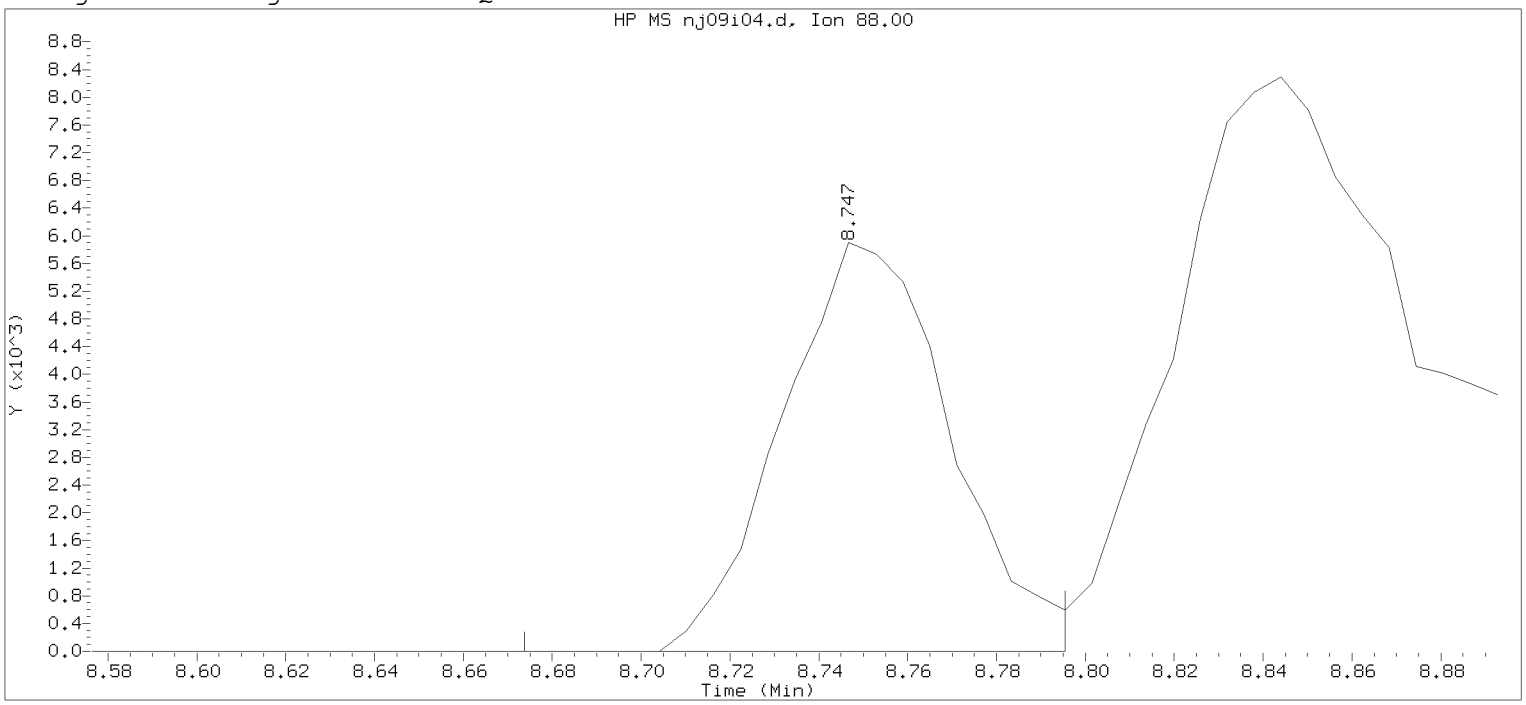
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



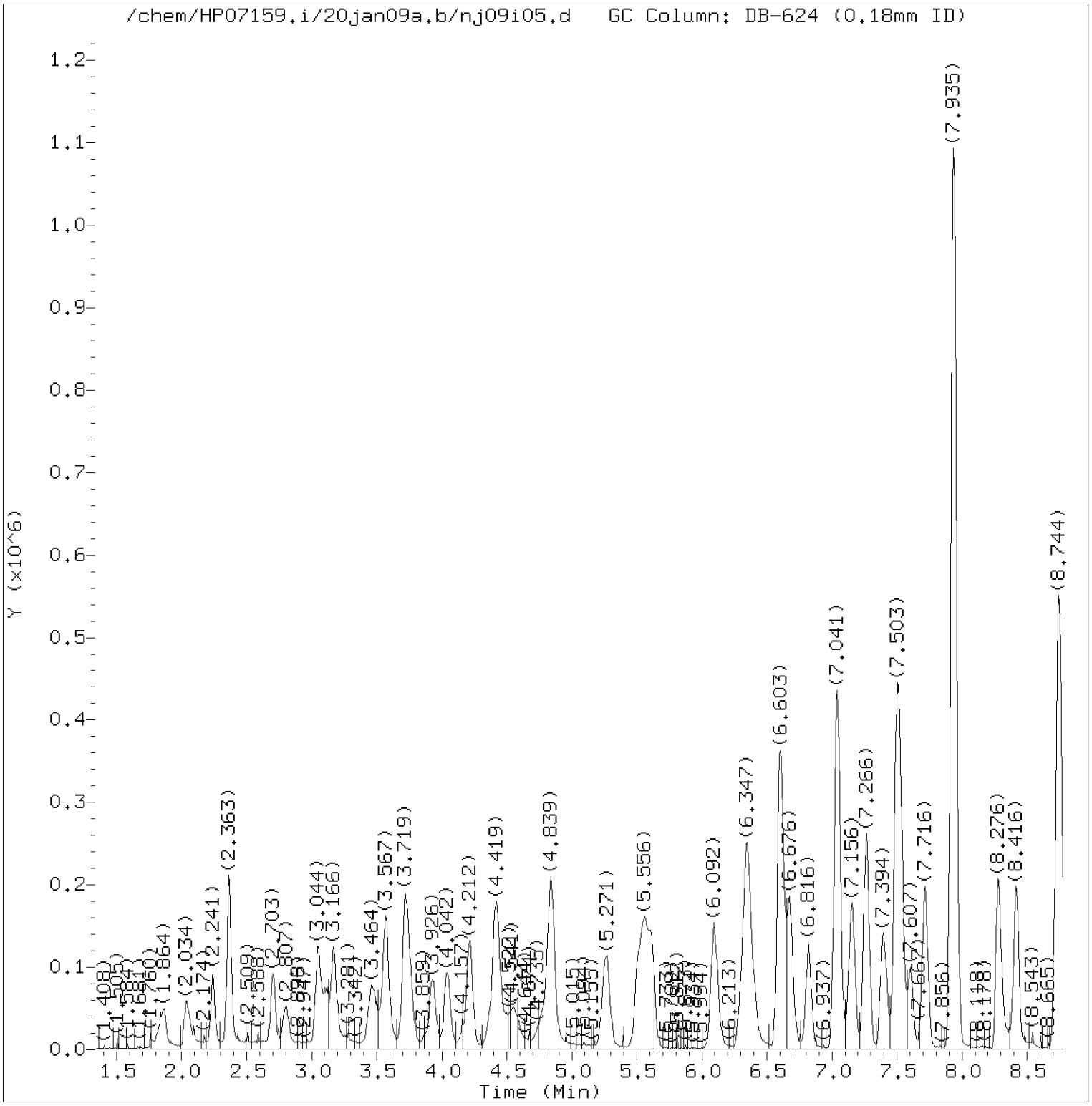
Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.747
Quant Ion : 88.00
Area : 15422
On-column Amount (ng) : 201.2803
Integration start scan : 1205 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

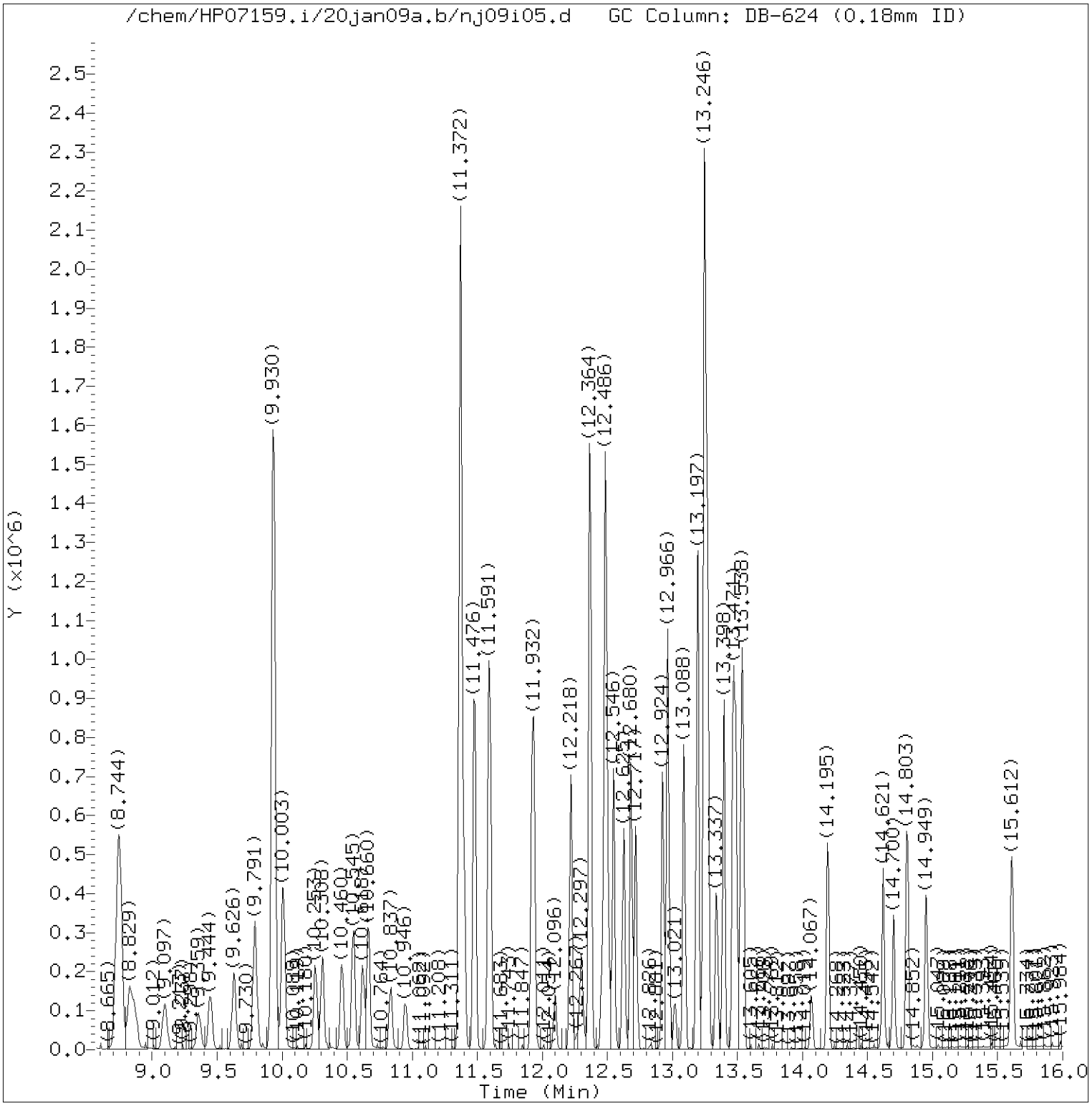
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	115327M	11.339
4) Chloromethane	(2)	2.241	50	115246	10.575
5) 1,3-Butadiene	(2)	2.363	39	77649M	10.211
6) Vinyl Chloride	(2)	2.363	62	115833	10.922
8) Bromomethane	(2)	2.703	94	77203	10.618
9) Chloroethane	(2)	2.795	64	65784	10.598
10) Dichlorofluoromethane	(2)	3.050	67	148619	10.455
12) Trichlorofluoromethane	(2)	3.111	101	126844	10.883
11) n-Pentane	(2)	3.172	43	120912	10.588
13) Ethanol	(1)	3.251	45	47197	503.794
15) Freon 123a	(2)	3.470	67	89552	10.488
16) Acrolein	(1)	3.567	56	276658	105.403
17) 1,1-Dichloroethene	(2)	3.719	96	71676	10.552
17) 1,1-Dichloroethene	(2)	3.713	63	37118	10.414
18) Acetone	(1)	3.737	58	23710	21.447
19) Freon 113	(2)	3.737	101	68658	10.894
21) 2-Propanol	(1)	3.926	45	75955M	104.022
22) Methyl Iodide	(2)	3.926	142	129746	10.234
23) Carbon Disulfide	(2)	4.042	76	227699	10.483
27) Methyl Acetate	(2)	4.182	43	83322	9.985
25) Allyl Chloride	(2)	4.212	41	126399	10.541
28) Methylene Chloride	(2)	4.413	84	79031	9.796
29)*t-Butyl alcohol-d10	(1)	4.425	65	387060M	250.000
30) t-Butyl alcohol	(1)	4.553	59	155810	107.975
31) Acrylonitrile	(2)	4.766	53	47287	10.492
33) Methyl Tertiary Butyl Ether	(2)	4.833	73	224435	10.168
32) trans-1,2-Dichloroethene	(2)	4.845	96	79395	10.239
34) n-Hexane	(2)	5.264	57	116867	10.917
36) 1,1-Dichloroethane	(2)	5.508	63	143829	10.168
38) di-Isopropyl ether	(2)	5.556	45	249110	10.223
39) 2-Chloro-1,3-butadiene	(2)	5.617	53	129960	10.408
40) Ethyl t-butyl ether	(2)	6.098	59	239578	10.344
43) 1,2-Dichloroethene (Total)	(2)		96	169213	20.437
44) 2-Butanone	(2)	6.293	43	131354	20.844
42) cis-1,2-Dichloroethene	(2)	6.341	96	89818	10.199
45) 2,2-Dichloropropane	(2)	6.353	77	129094	10.337
47) Propionitrile	(1)	6.384	54	171449	101.728
48) Methacrylonitrile	(2)	6.603	67	229879	50.497

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	42760	10.269
50) Tetrahydrofuran	(1)	6.676	71	35694	20.399
51) Chloroform	(2)	6.822	83	141277	10.239
52)$Dibromofluoromethane	(2)	7.035	113	324529	50.047
52)$Dibromofluoromethane	(2)	7.035	111	330287	49.884
53) 1,1,1-Trichloroethane	(2)	7.053	97	129813	10.399
54) Cyclohexane	(2)	7.156	56	141244	11.000
54) Cyclohexane	(2)	7.156	84	122617	10.957
54) Cyclohexane	(2)	7.156	69	43925	10.884
55) 1,1-Dichloropropene	(2)	7.260	75	117003	10.362
56) Carbon Tetrachloride	(2)	7.266	117	113651	10.559
58) Isobutyl Alcohol	(1)	7.394	41	126394	244.519
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81622	49.783
57)$1,2-Dichloroethane-d4	(2)	7.497	65	388294	49.232
57)$1,2-Dichloroethane-d4	(2)	7.497	104	52228	50.066
60) Benzene	(2)	7.527	78	327608	10.193
61) 1,2-Dichloroethane	(2)	7.601	62	112112	9.860
61) 1,2-Dichloroethane	(2)	7.607	98	10176	10.874
65) t-Amyl methyl ether	(2)	7.716	73	240828	10.365
66)*Fluorobenzene	(2)	7.935	96	1306648	50.000
67) n-Heptane	(2)	7.941	43	132953	10.760
69) n-Butanol	(1)	8.276	56	224191	503.494
71) Trichloroethene	(2)	8.416	95	86191	10.179
72) Methylcyclohexane	(2)	8.732	83	150829	10.836
72) Methylcyclohexane	(2)	8.732	98	70438	10.746
73) 1,2-Dichloropropane	(2)	8.750	63	82506	10.039
76) Methyl Methacrylate	(2)	8.823	69	76884	10.230
75) 1,4-Dioxane	(1)	8.842	88	28522M	253.558
74) Dibromomethane	(2)	8.860	93	51805	9.884
78) Bromodichloromethane	(2)	9.103	83	107443	10.041
79) 2-Nitropropane	(2)	9.359	41	78418	20.178
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	74712	11.492
81) cis-1,3-Dichloropropene	(2)	9.632	75	136278	9.984
82) 4-Methyl-2-pentanone	(2)	9.791	43	266895	20.904
83)$Toluene-d8	(3)	9.930	98	1300330	50.264
83)$Toluene-d8	(3)	9.930	100	854504	49.857
88) Toluene	(3)	10.010	92	215392	10.249
90) 1,3-Dichloropropene (total)	(3)		100	266447	19.964

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	130169	9.980
91) Ethyl Methacrylate	(3)	10.308	69	130196	10.019
92) 1,1,2-Trichloroethane	(3)	10.460	97	75730	10.178
93) Tetrachloroethene	(3)	10.545	166	100234	10.892
94) 1,3-Dichloropropane	(3)	10.618	76	130614	10.114
96) 2-Hexanone	(3)	10.660	43	215593	21.673
97) Dibromochloromethane	(3)	10.831	129	87408	10.237
99) 1,2-Dibromoethane	(3)	10.946	107	82718	10.153
100)*Chlorobenzene-d5	(3)	11.372	117	991927	50.000
102) Chlorobenzene	(3)	11.397	112	242234	10.328
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	86037	10.179
104) Ethylbenzene	(3)	11.482	91	425382	10.465
106) m+p-Xylene	(3)	11.591	106	329331	20.621
108) Xylene (Total)	(3)		106	492496	31.008
107) o-Xylene	(3)	11.920	106	163165	10.388
109) Styrene	(3)	11.938	104	268175	10.165
110) Bromoform	(3)	12.102	173	64108	9.945
111) Isopropylbenzene	(3)	12.218	105	435995	10.510
112) Cyclohexanone	(1)	12.297	55	111384	246.907
114)$4-Bromofluorobenzene	(3)	12.364	95	513125	50.205
114)$4-Bromofluorobenzene	(3)	12.370	174	410943	50.188
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	117824	9.841
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	209105	50.774
115) Bromobenzene	(4)	12.486	156	103636	10.295
117) 1,2,3-Trichloropropane	(4)	12.510	110	38220	10.078
119) n-Propylbenzene	(4)	12.546	91	517262	10.598
120) 2-Chlorotoluene	(4)	12.625	126	103490	10.285
122) 1,3,5-Trimethylbenzene	(4)	12.680	105	373059	10.432
121) 4-Chlorotoluene	(4)	12.717	126	106321	10.196
124) tert-Butylbenzene	(4)	12.924	134	82434M	10.402
125) Pentachloroethane	(4)	12.960	167	68399	10.780
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	387746	10.447
127) sec-Butylbenzene	(4)	13.088	105	489826	10.545
129) 1,3-Dichlorobenzene	(4)	13.191	146	200849	10.258
130) p-Isopropyltoluene	(4)	13.197	119	427821	10.584
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	544310	50.000
133) 1,4-Dichlorobenzene	(4)	13.264	146	200867	10.116
134) 1,2,3-Trimethylbenzene	(4)	13.276	105	393098	10.912

M = Compound was manually integrated.
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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

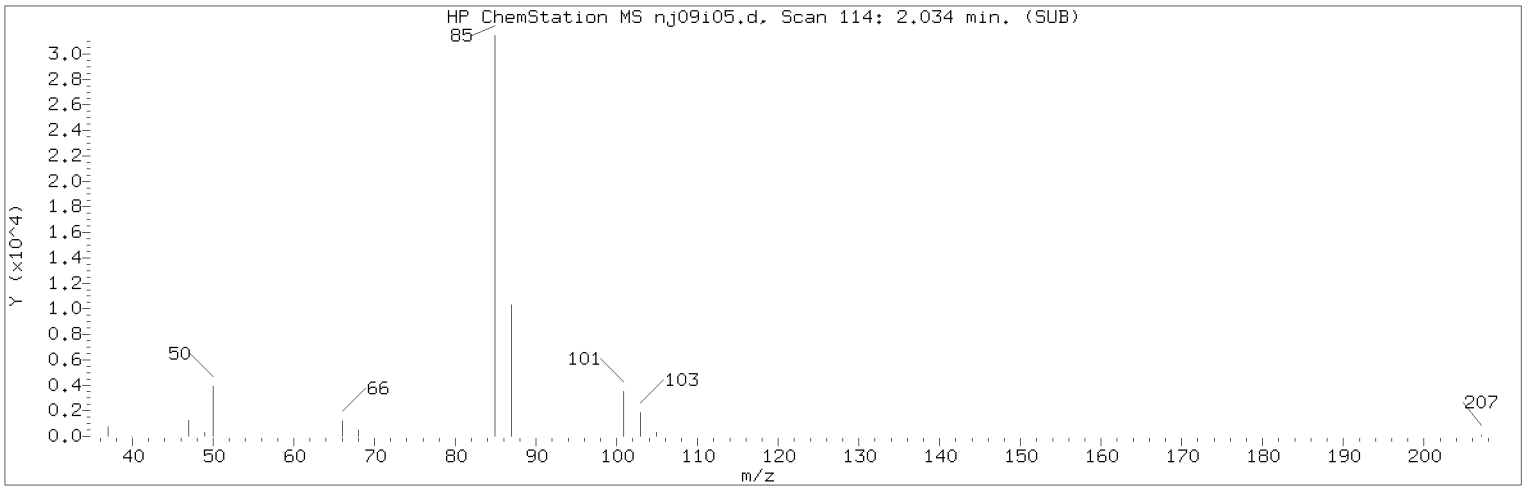
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

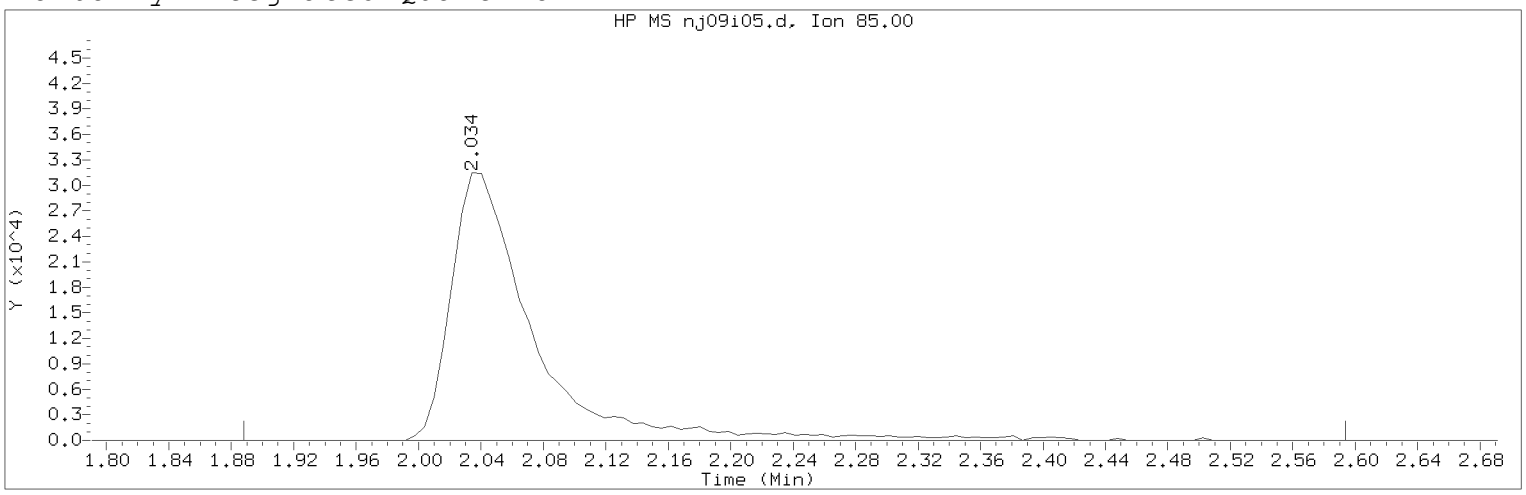
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.343	91	266077	10.055
141) Diethylbenzene (total)	(4)		100	767226	32.708
136) 1,3-Diethylbenzene	(4)	13.398	119	264233	10.920
137) 1,4-Diethylbenzene	(4)	13.471	119	280286	10.909
139) n-Butylbenzene	(4)	13.489	92	215902	10.354
138) 1,2-Dichlorobenzene	(4)	13.526	146	189793	10.224
140) 1,2-Diethylbenzene	(4)	13.544	119	222707	10.879
142) 1,2-Dibromo-3-chloropropane	(4)	14.067	75	32218	9.957
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	150782	10.190
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	128653	9.972
147) Hexachlorobutadiene	(4)	14.706	225	58502	10.024
148) Naphthalene	(4)	14.803	128	411801	10.180
149) 1,2,3-Trichlorobenzene	(4)	14.955	180	118648	10.018
150) 2-Methylnaphthalene	(4)	15.612	142	248971	10.655

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

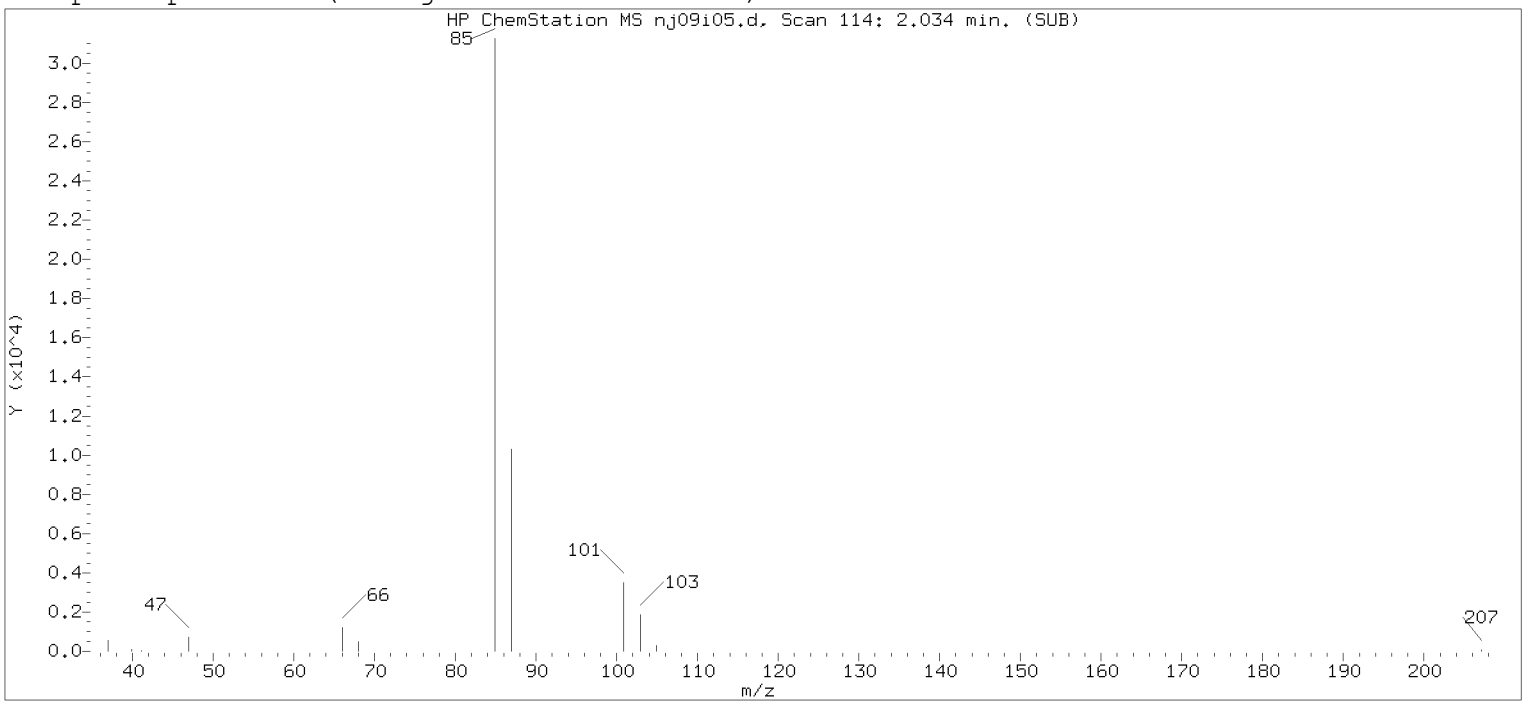
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 115327M
On-Column Amount (ng) : 11.3392
Integration start scan : 89 Integration stop scan: 205
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

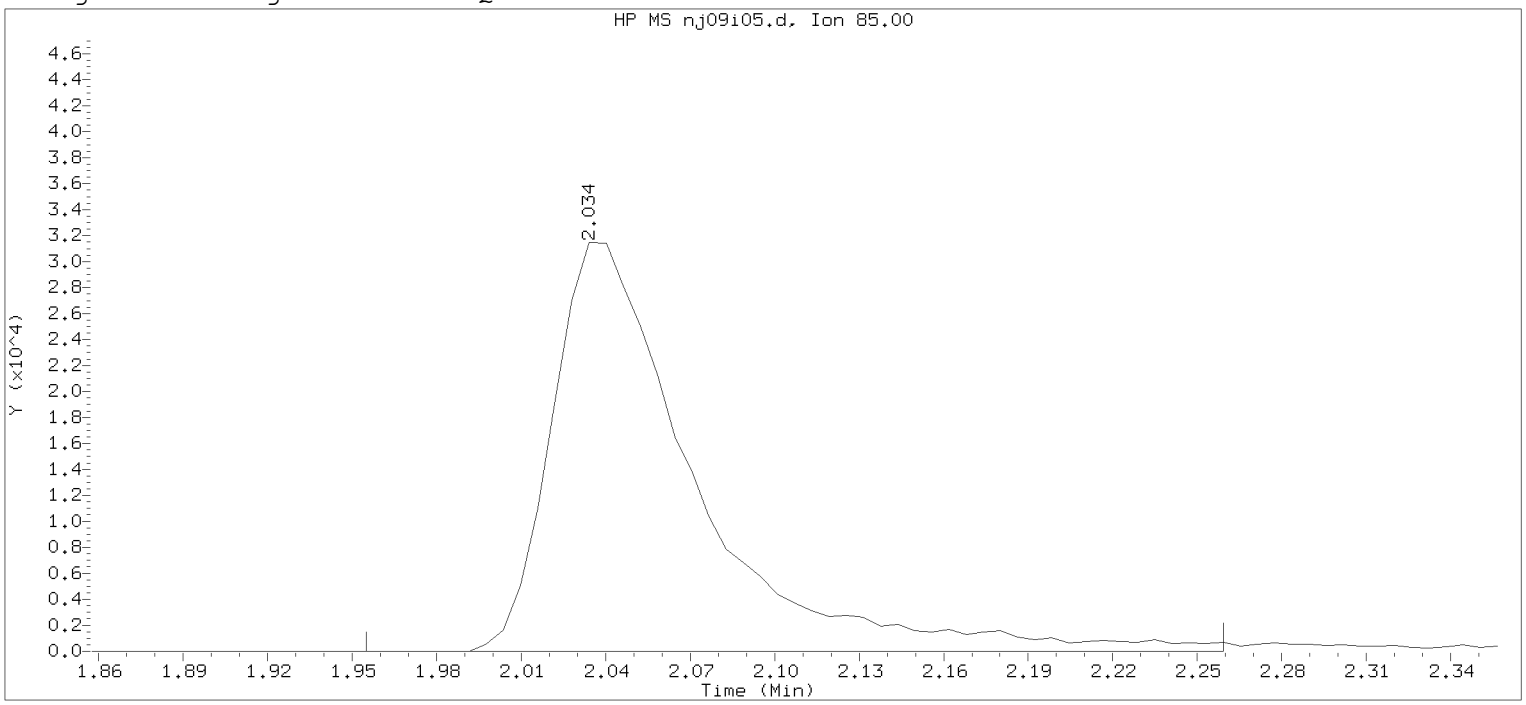
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

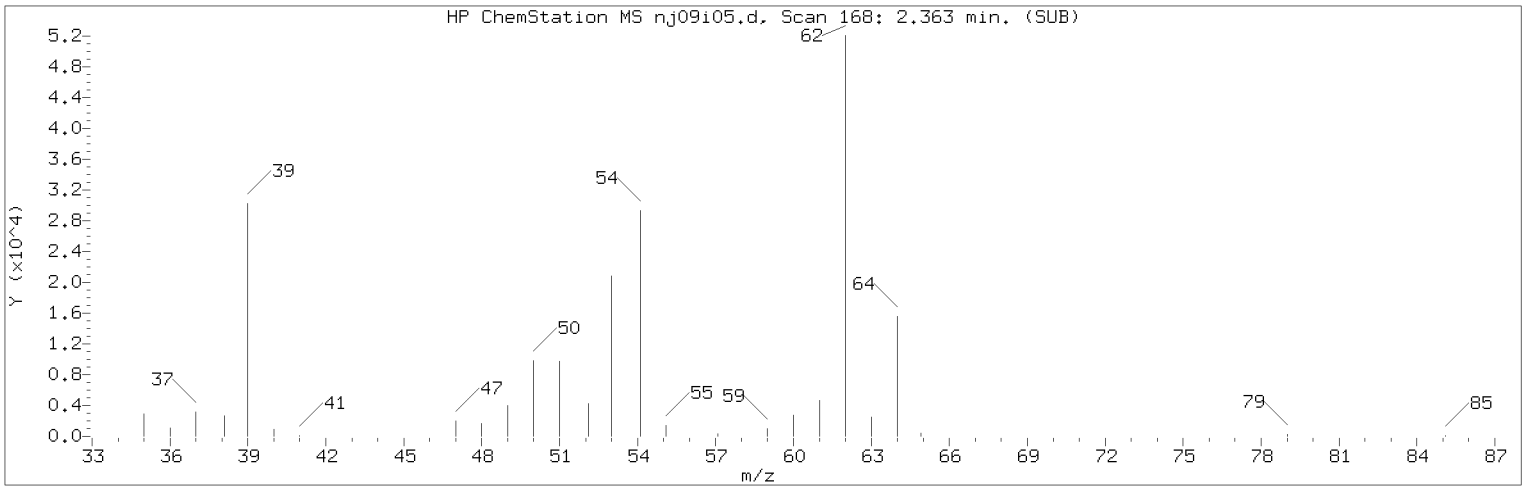
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

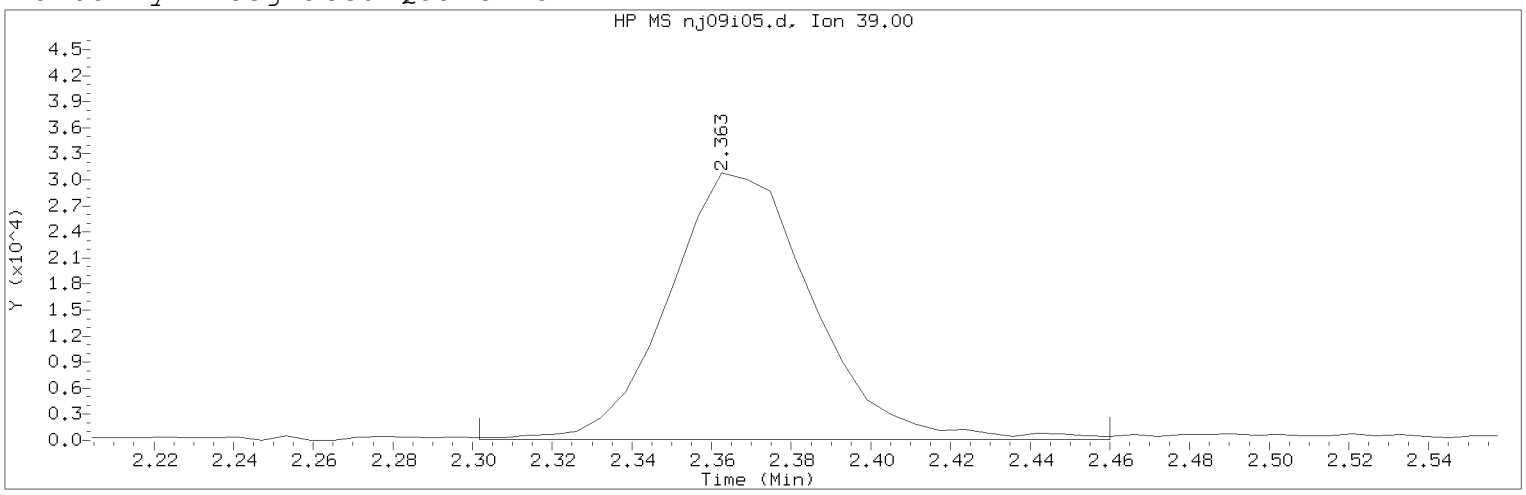
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 111353
On-column Amount (ng) : 11.3602
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

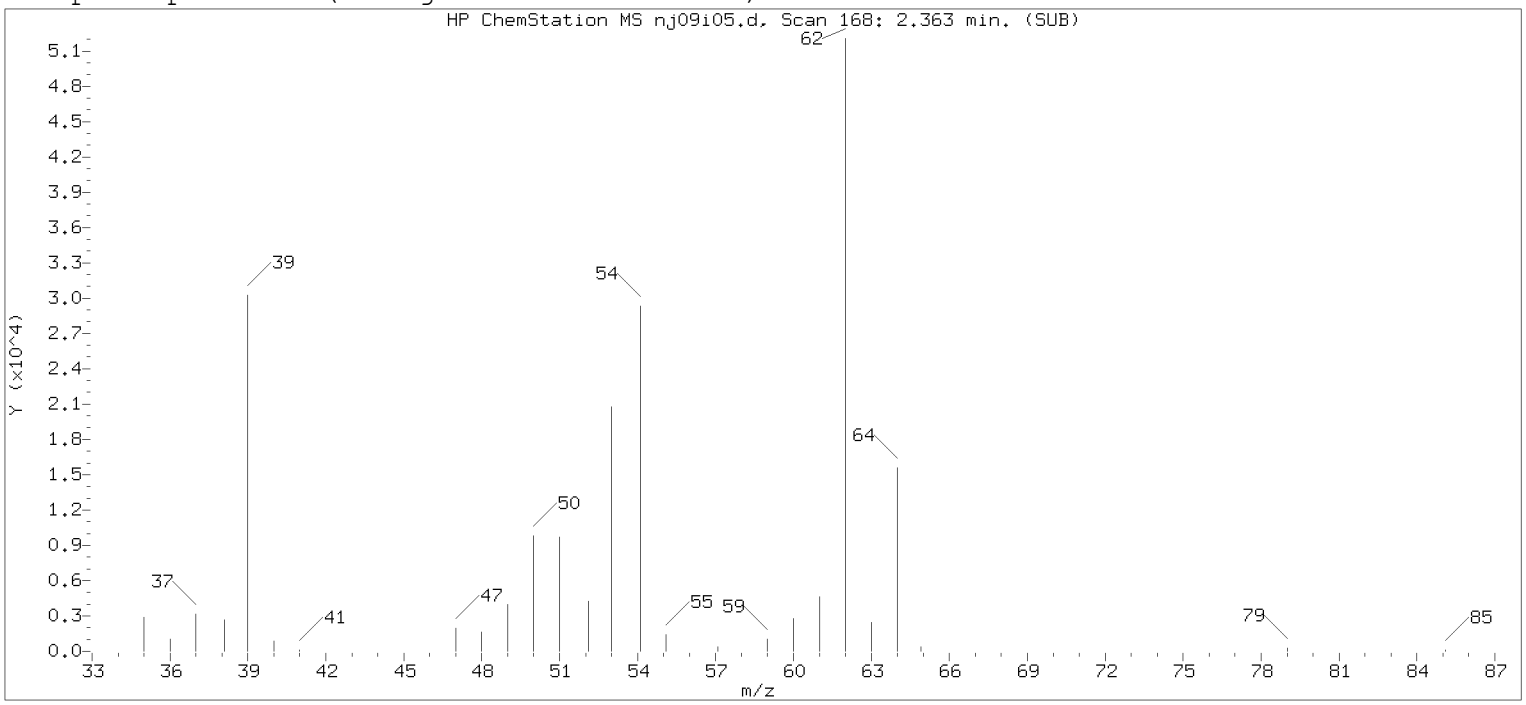
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 77649M
On-Column Amount (ng) : 10.2112
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 83 Y at integration end: 83

Reason for manual integration: improper integration

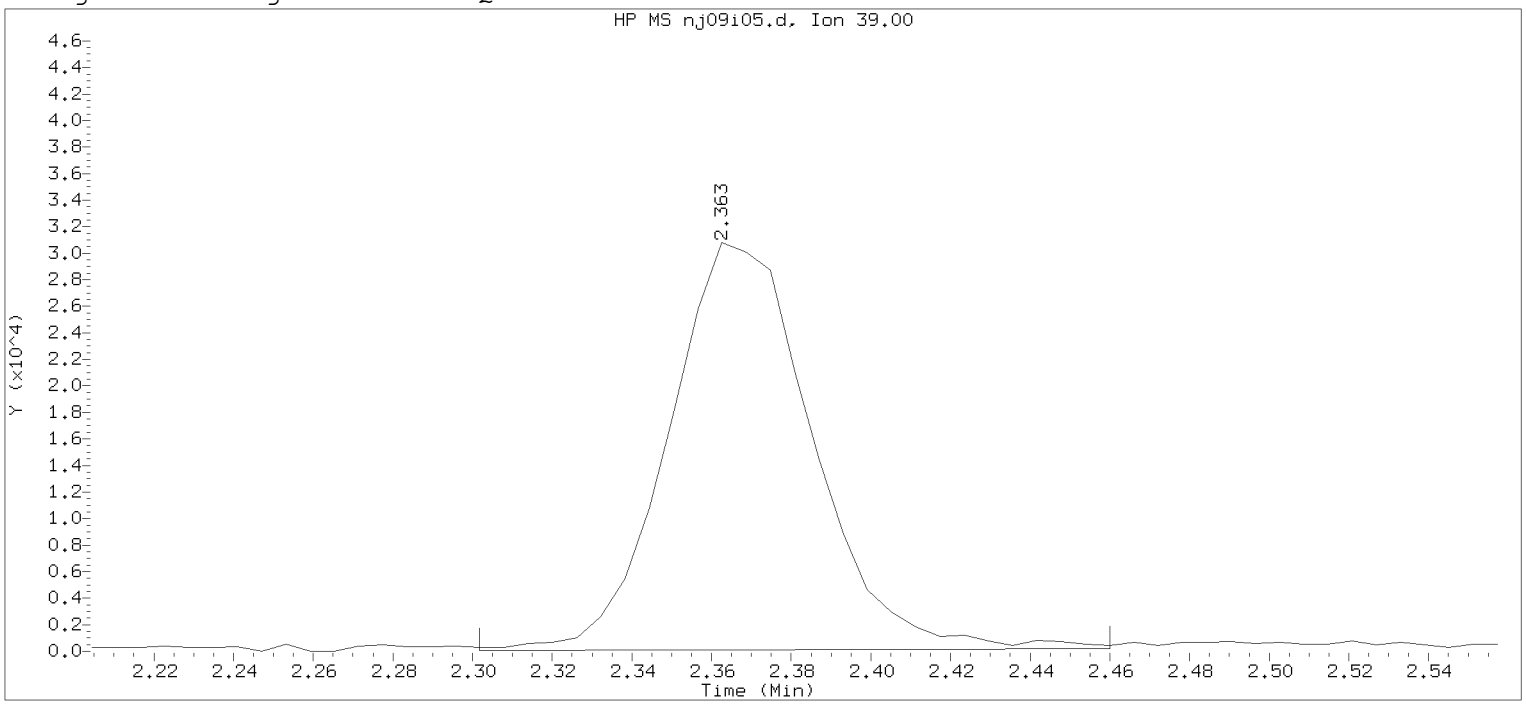
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

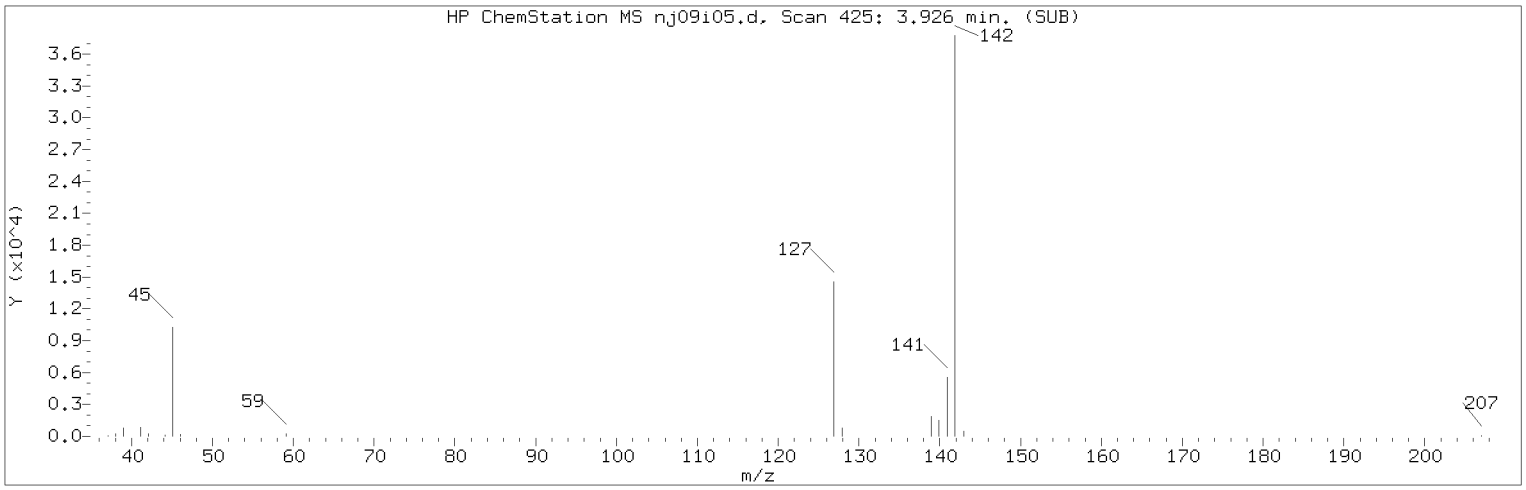
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

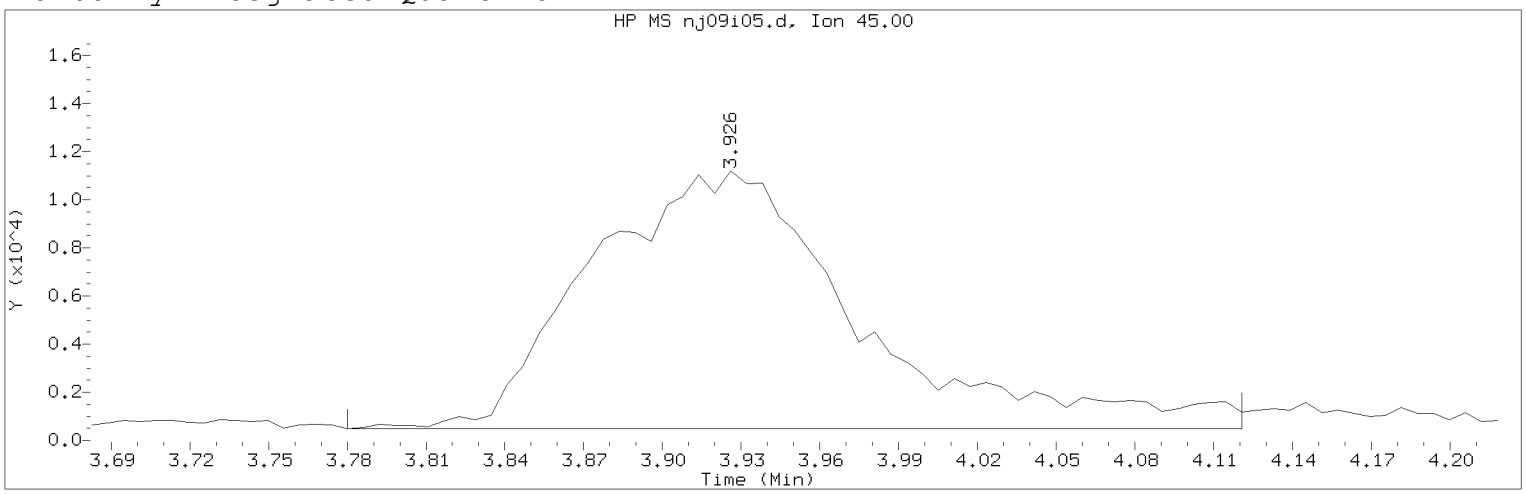
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 77180
On-column Amount (ng) : 10.2235
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 63 Y at integration end: 182

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

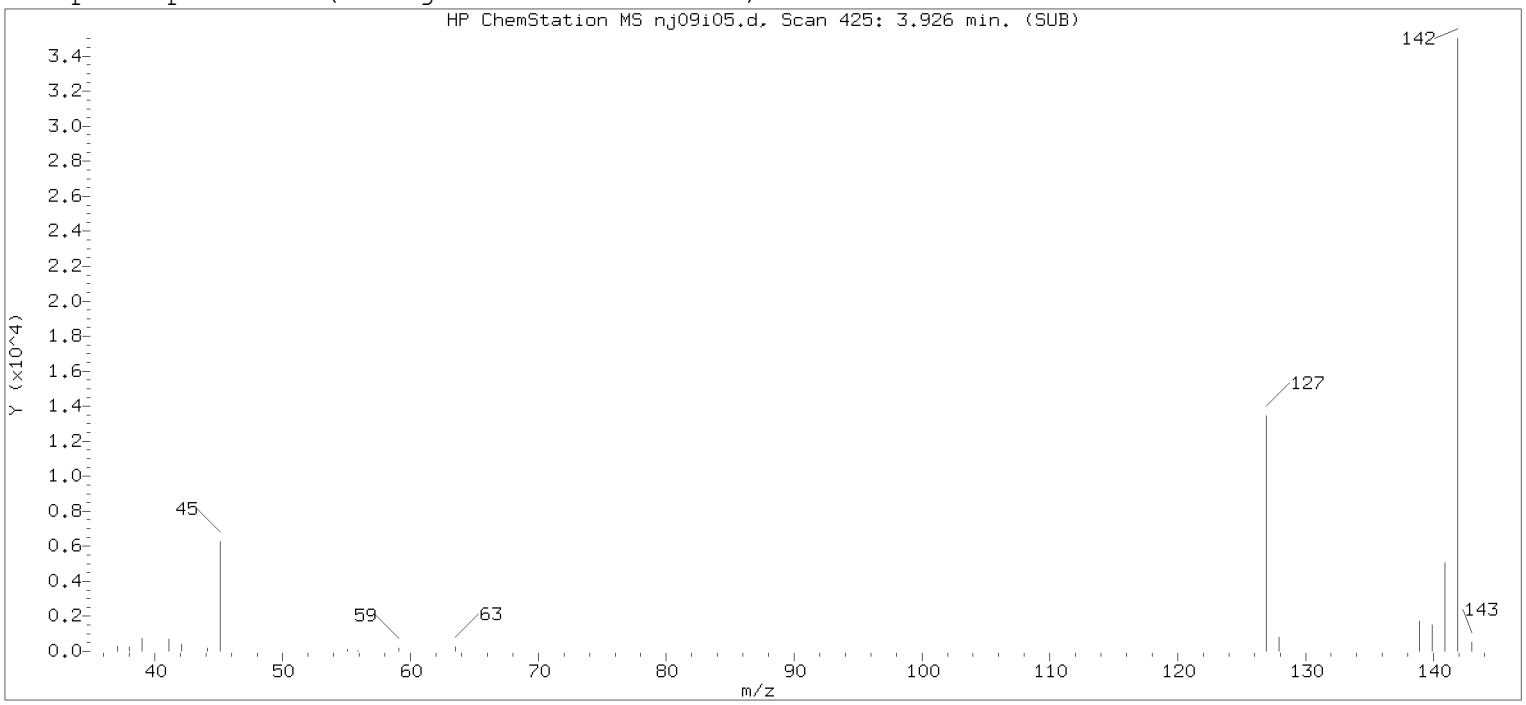
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area (flag) : 75955M
On-Column Amount (ng) : 104.0223
Integration start scan : 400 Integration stop scan: 456
Y at integration start : 481 Y at integration end: 481

Reason for manual integration: improper integration

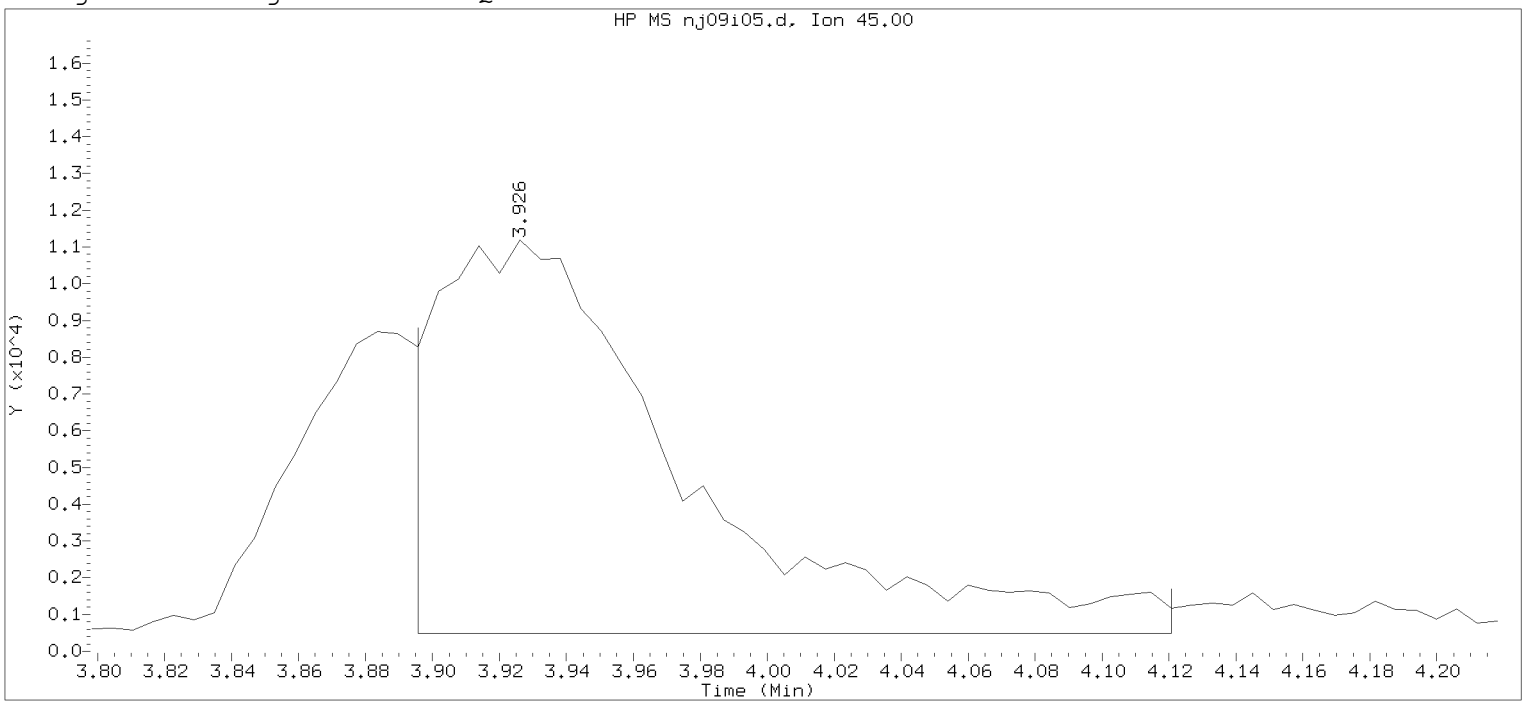
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

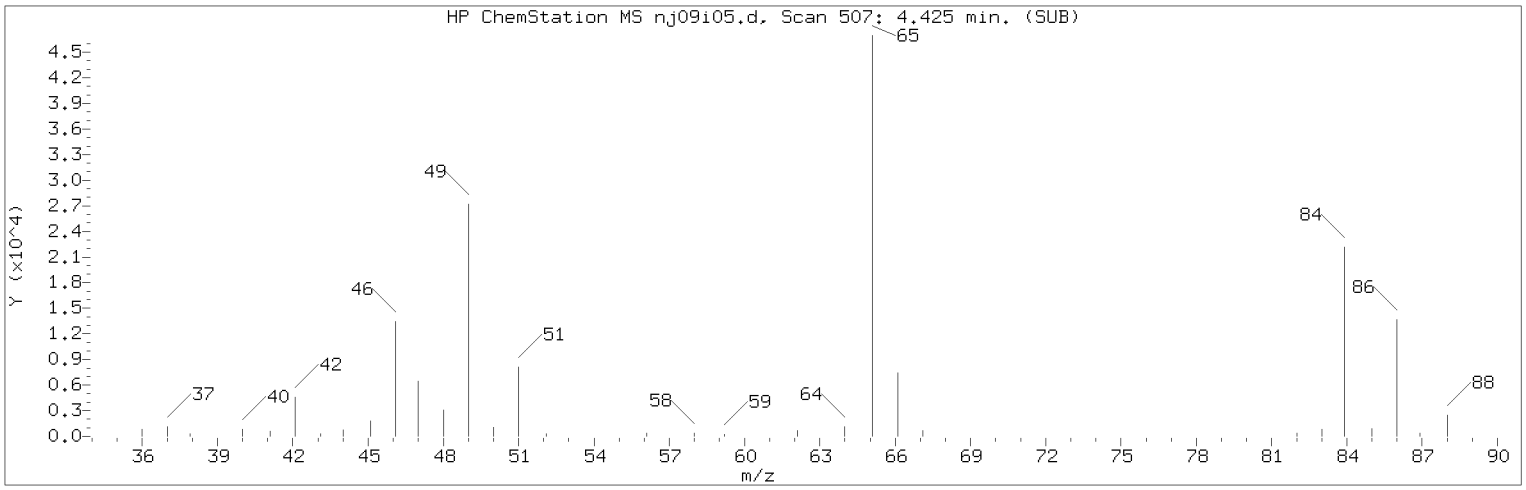
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

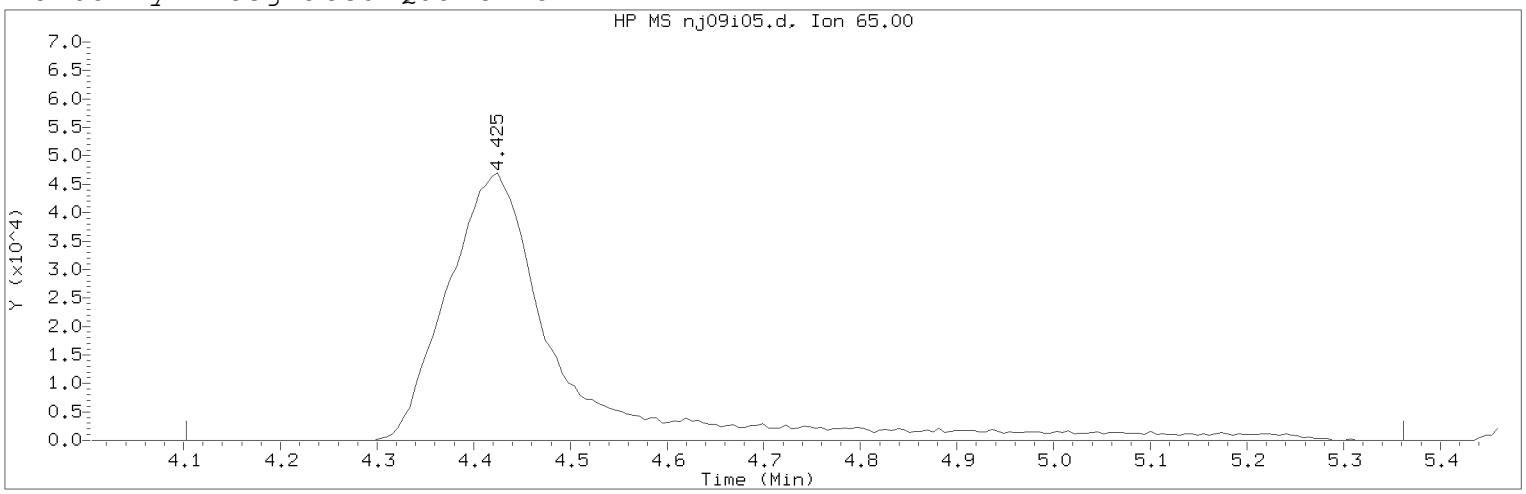
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area : 55091
On-column Amount (ng) : 81.2722
Integration start scan : 419 Integration stop scan: 456
Y at integration start : 483 Y at integration end: 483

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

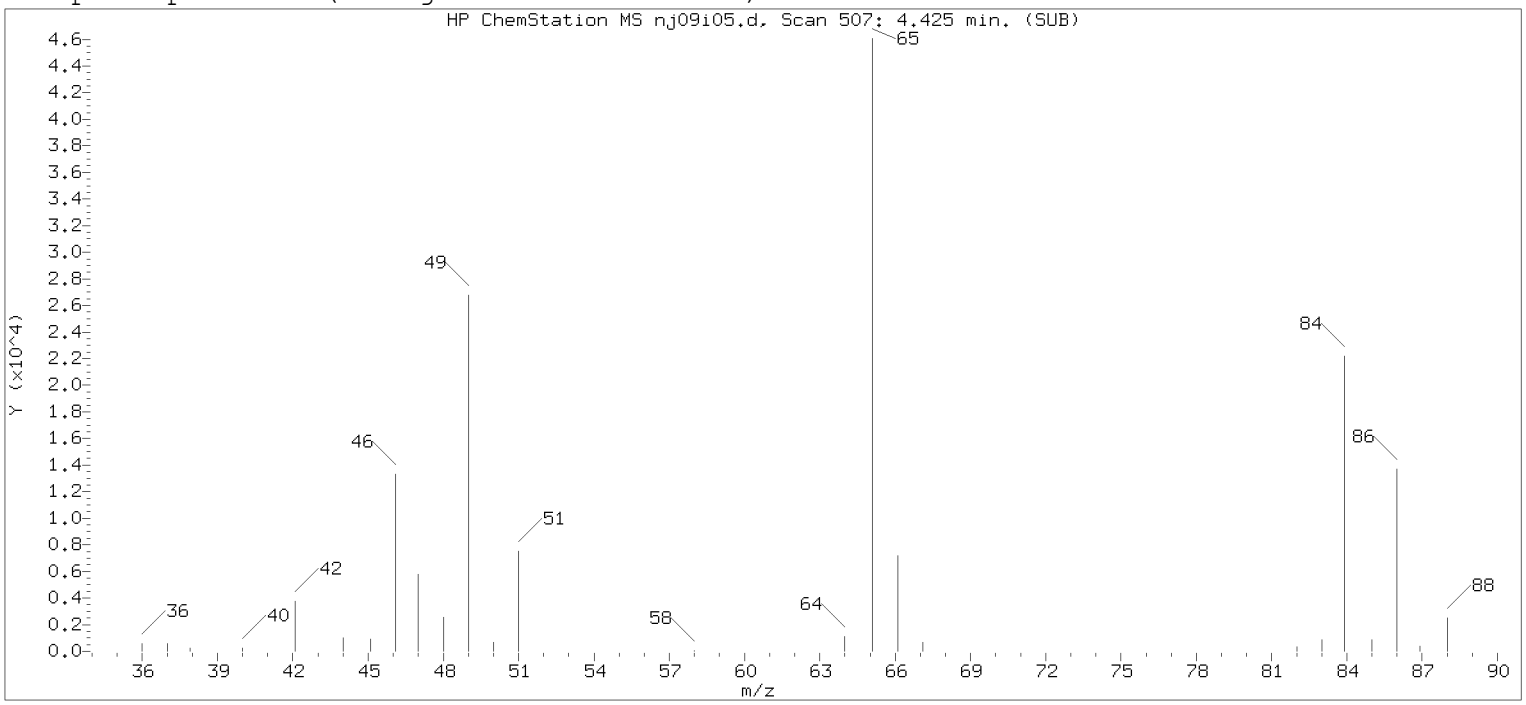
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 387060M
On-Column Amount (ng) : 250.0000
Integration start scan : 453 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

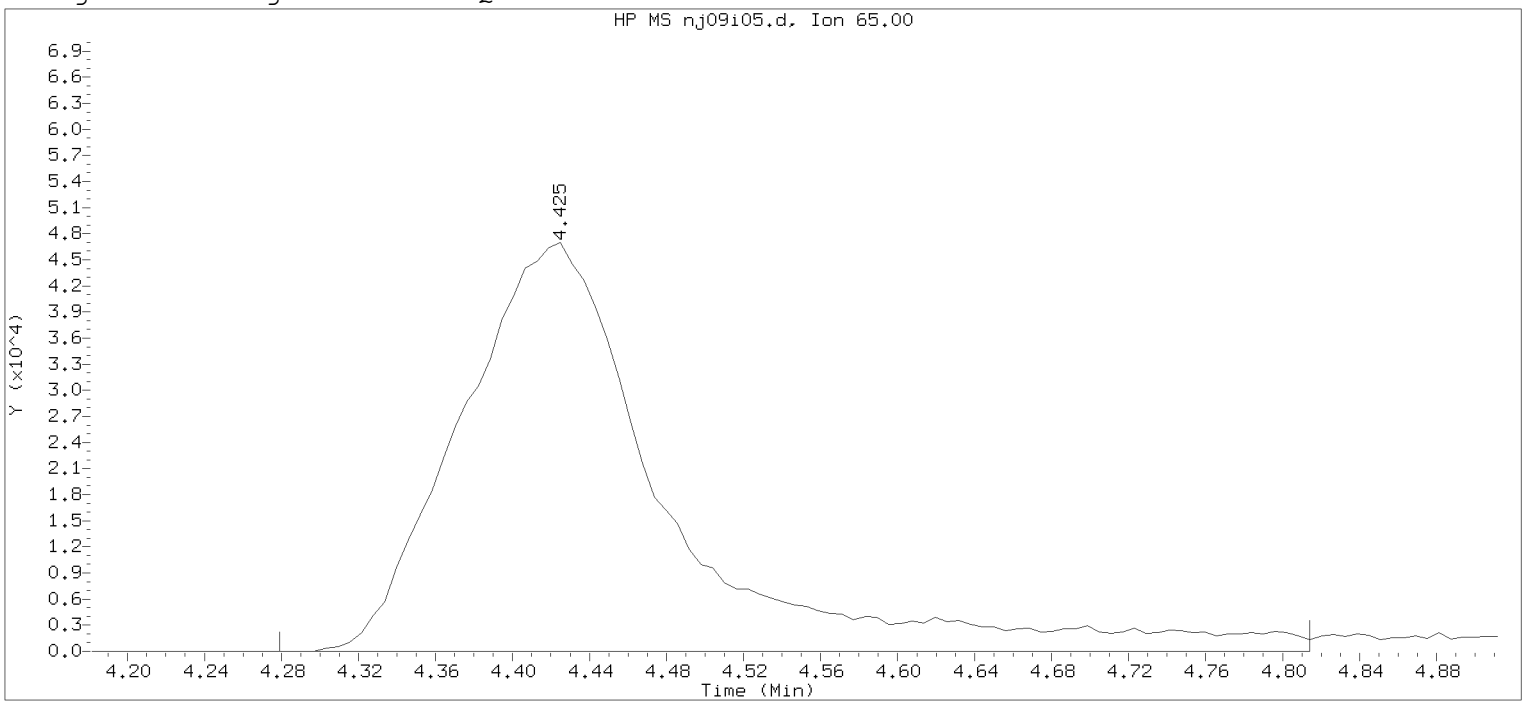
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

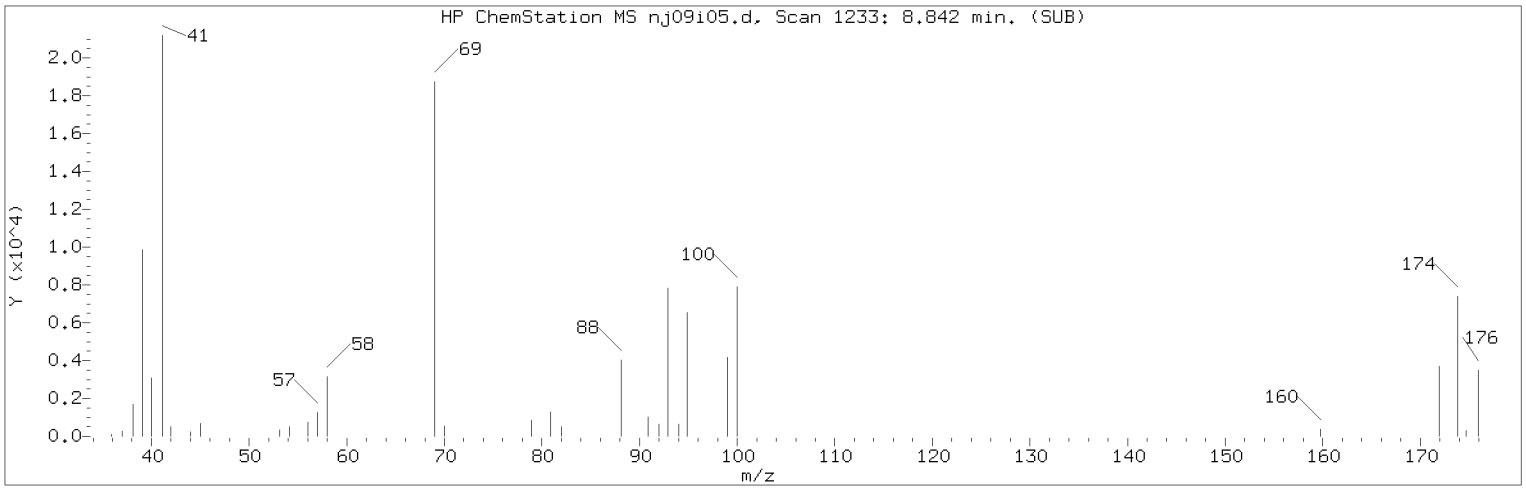
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

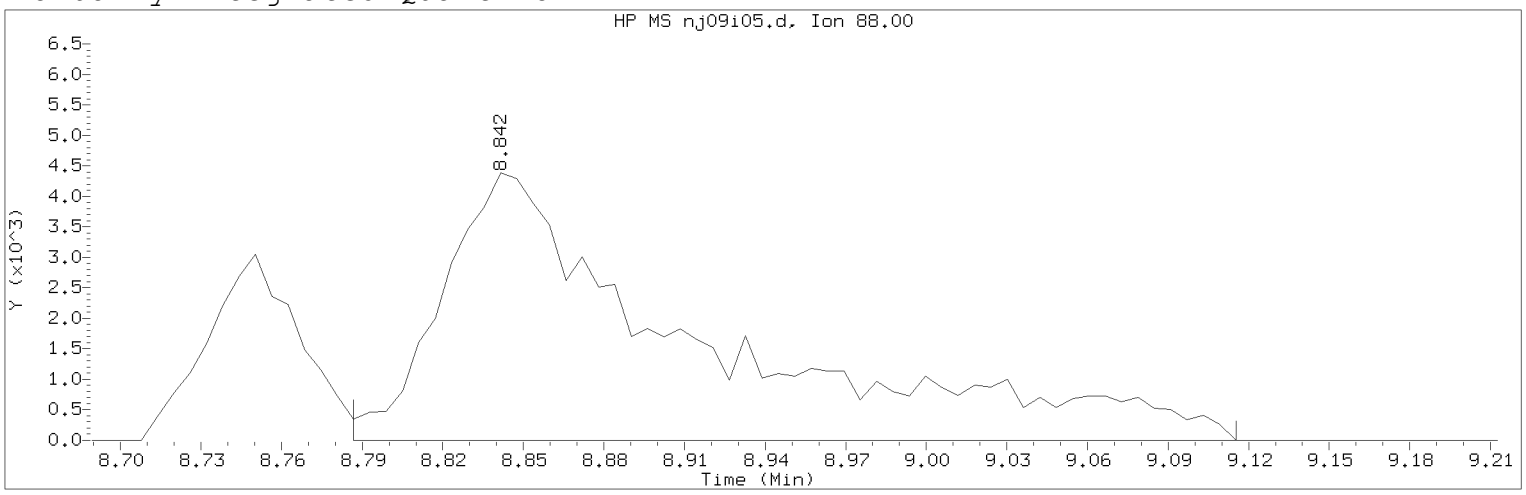
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area : 351025
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

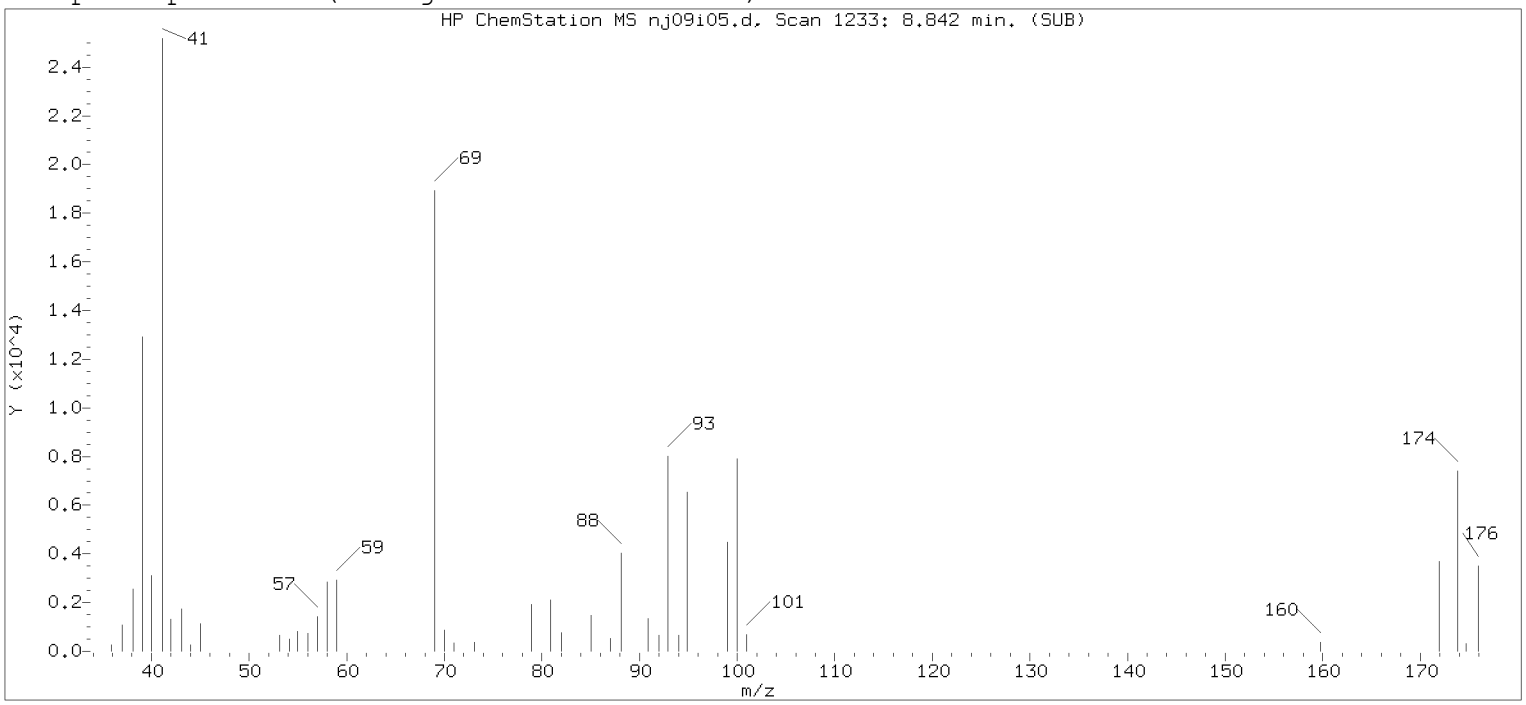
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 28522M
On-Column Amount (ng) : 253.5584
Integration start scan : 1223 Integration stop scan: 1277
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

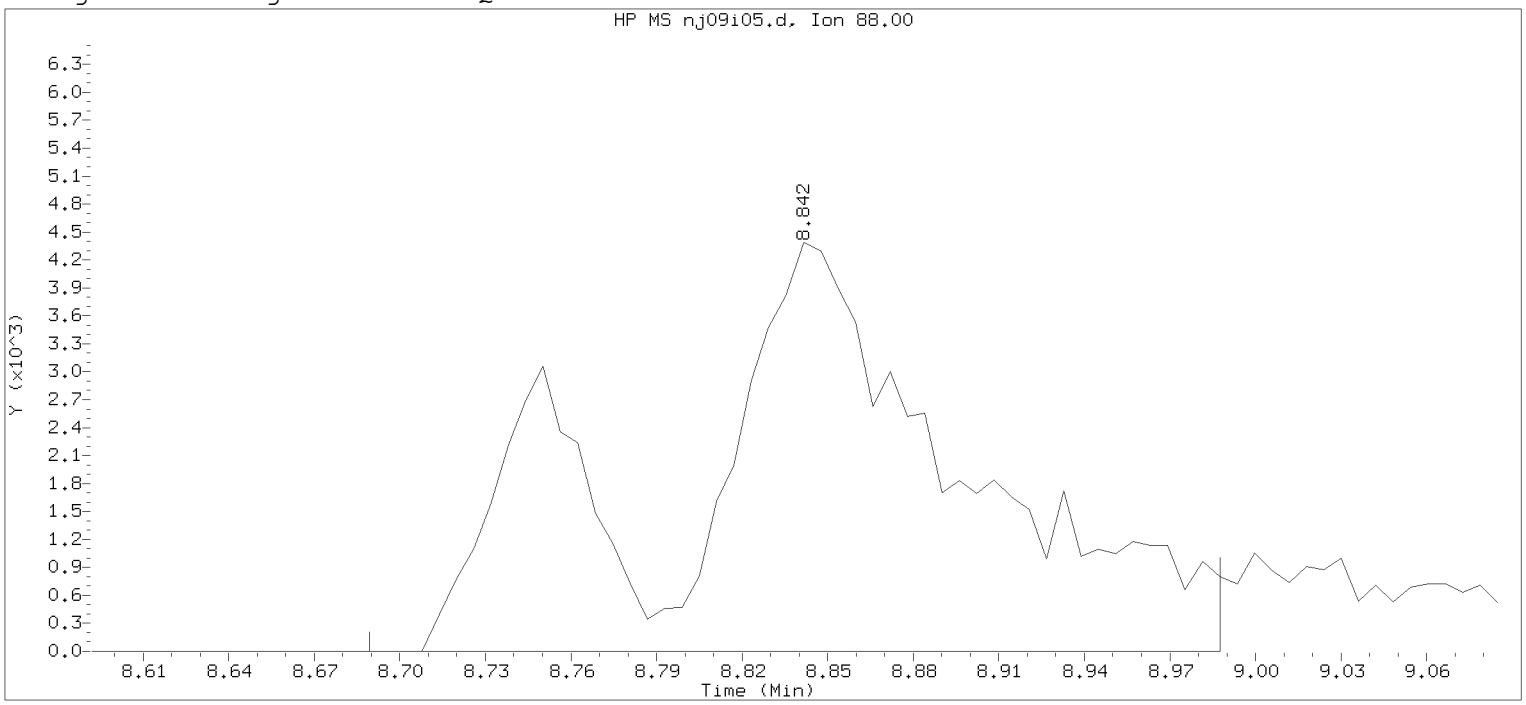
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

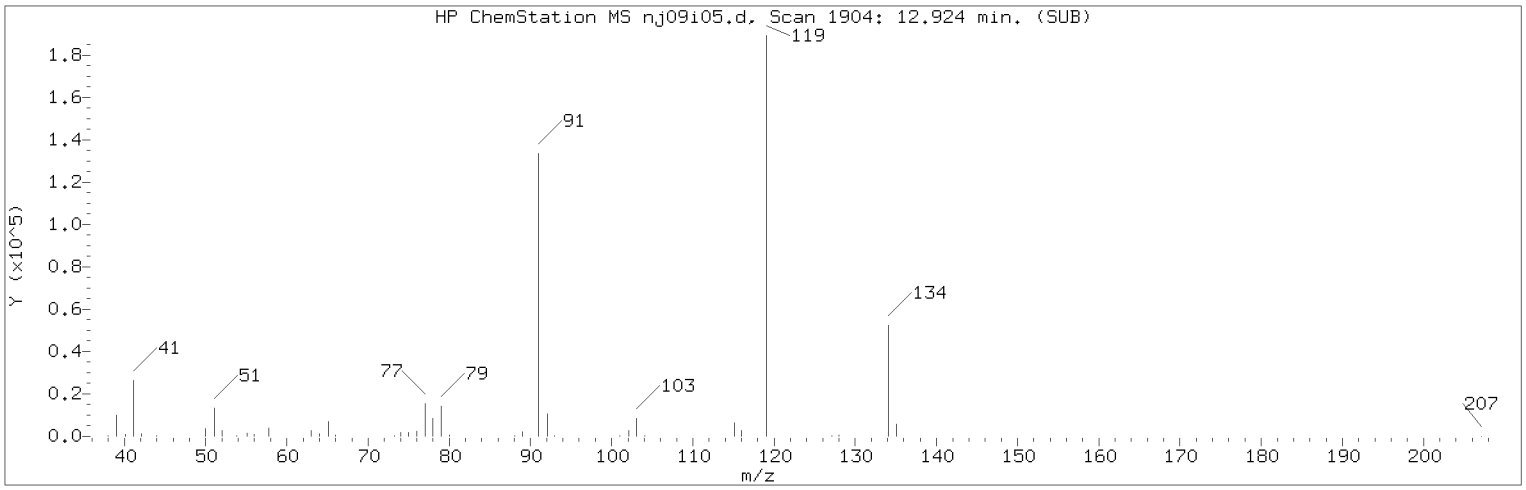
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

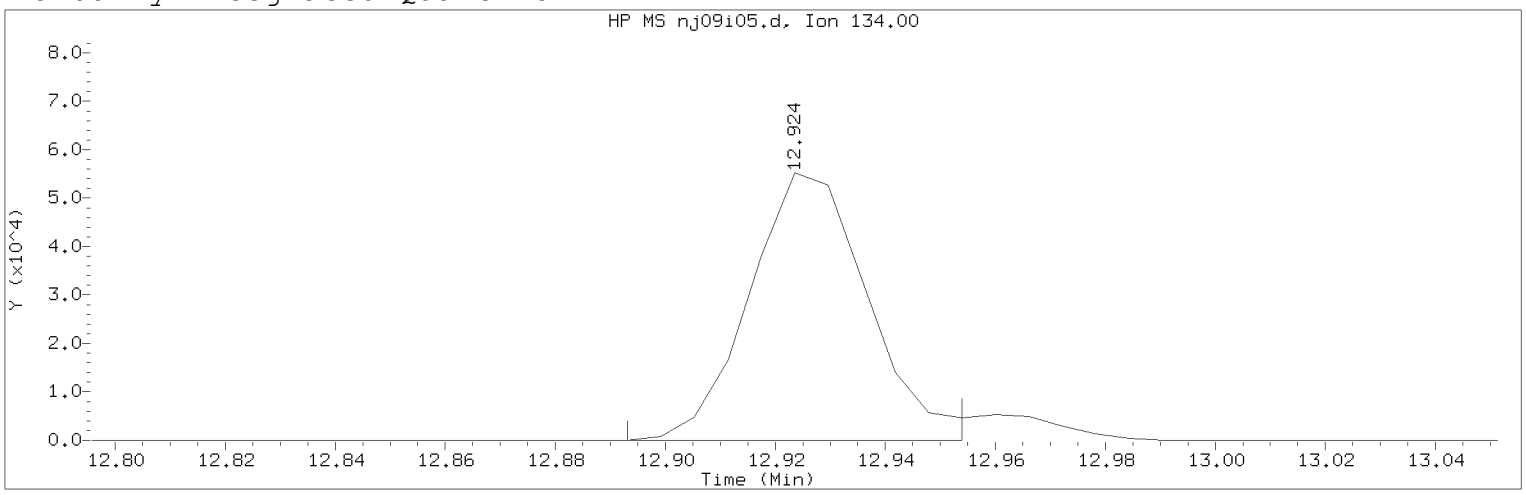
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area : 30682
On-column Amount (ng) : 402.5407
Integration start scan : 1207 Integration stop scan: 1256
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

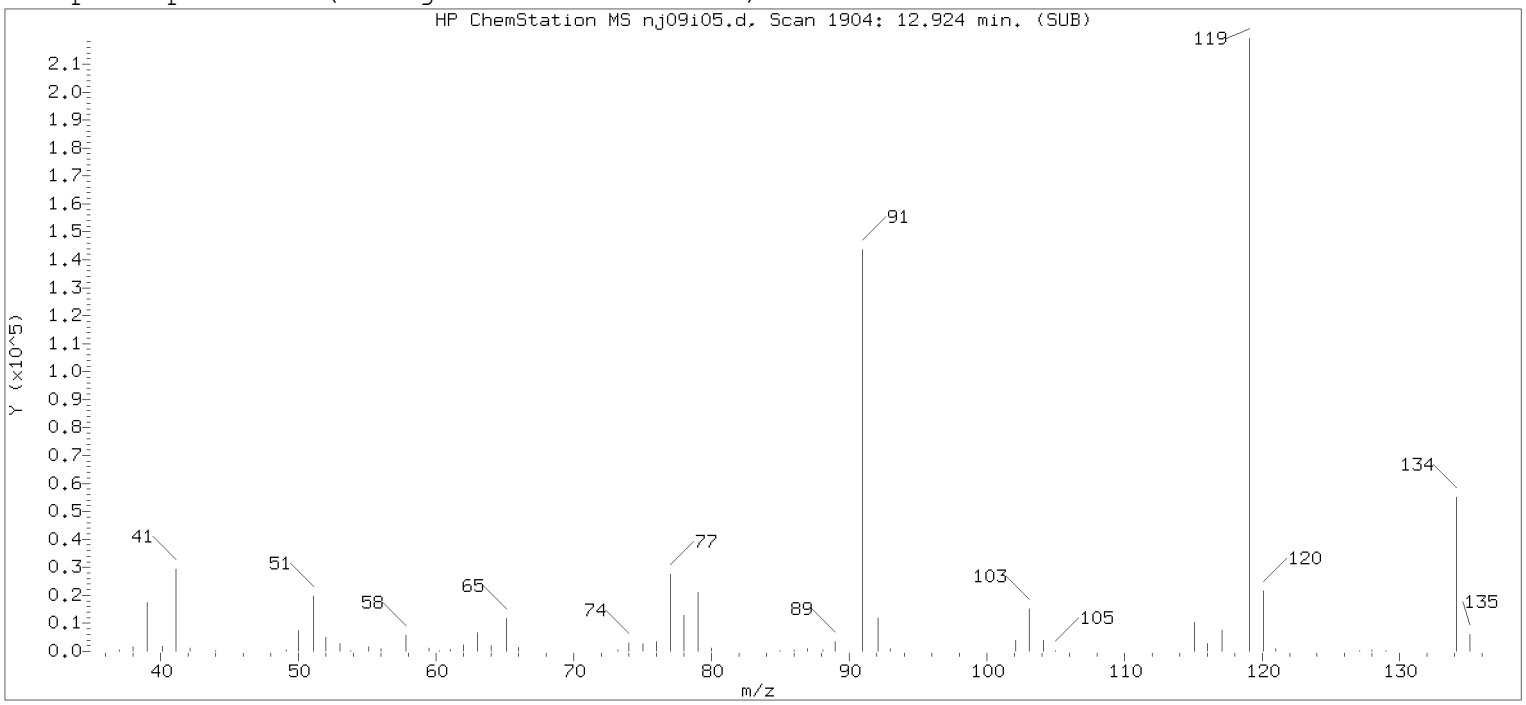
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 82434M
On-Column Amount (ng) : 10.4023
Integration start scan : 1898 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

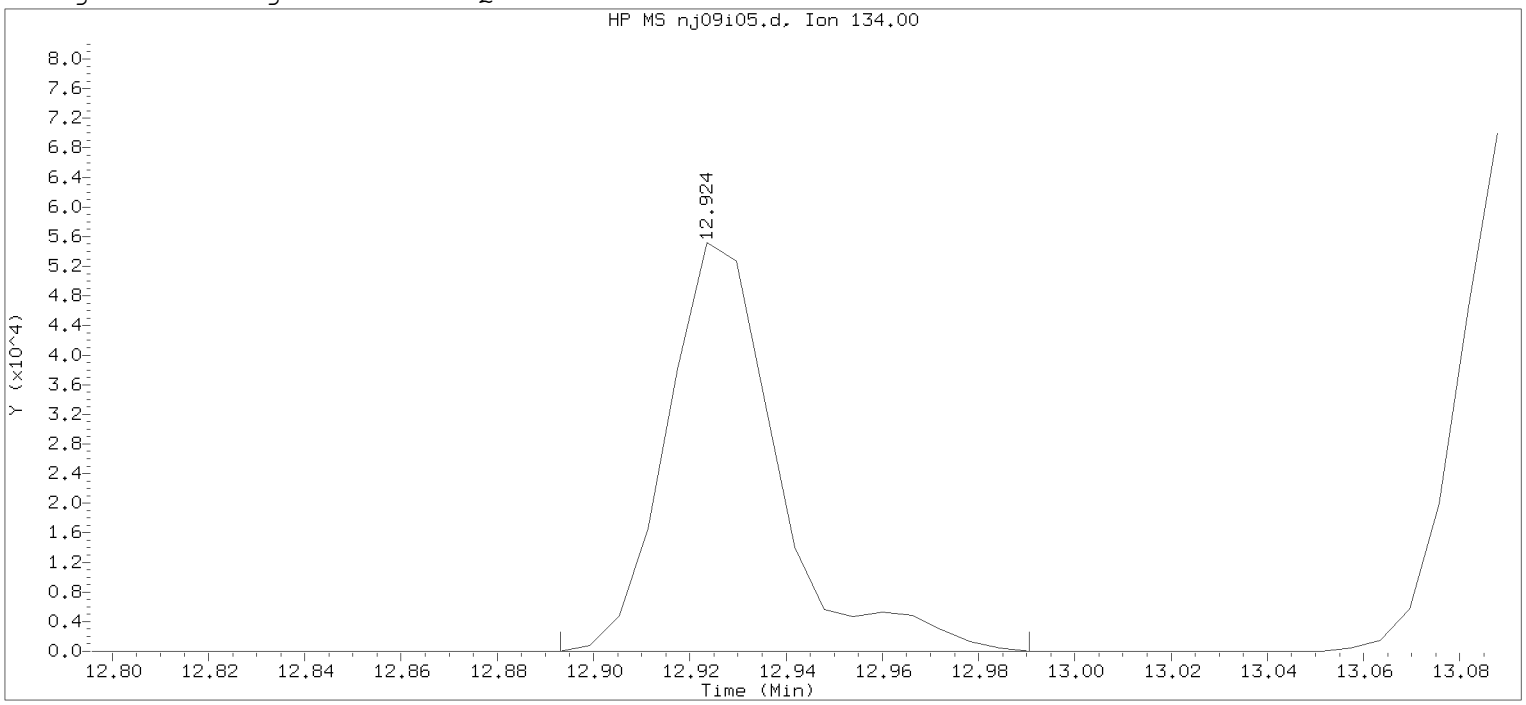
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



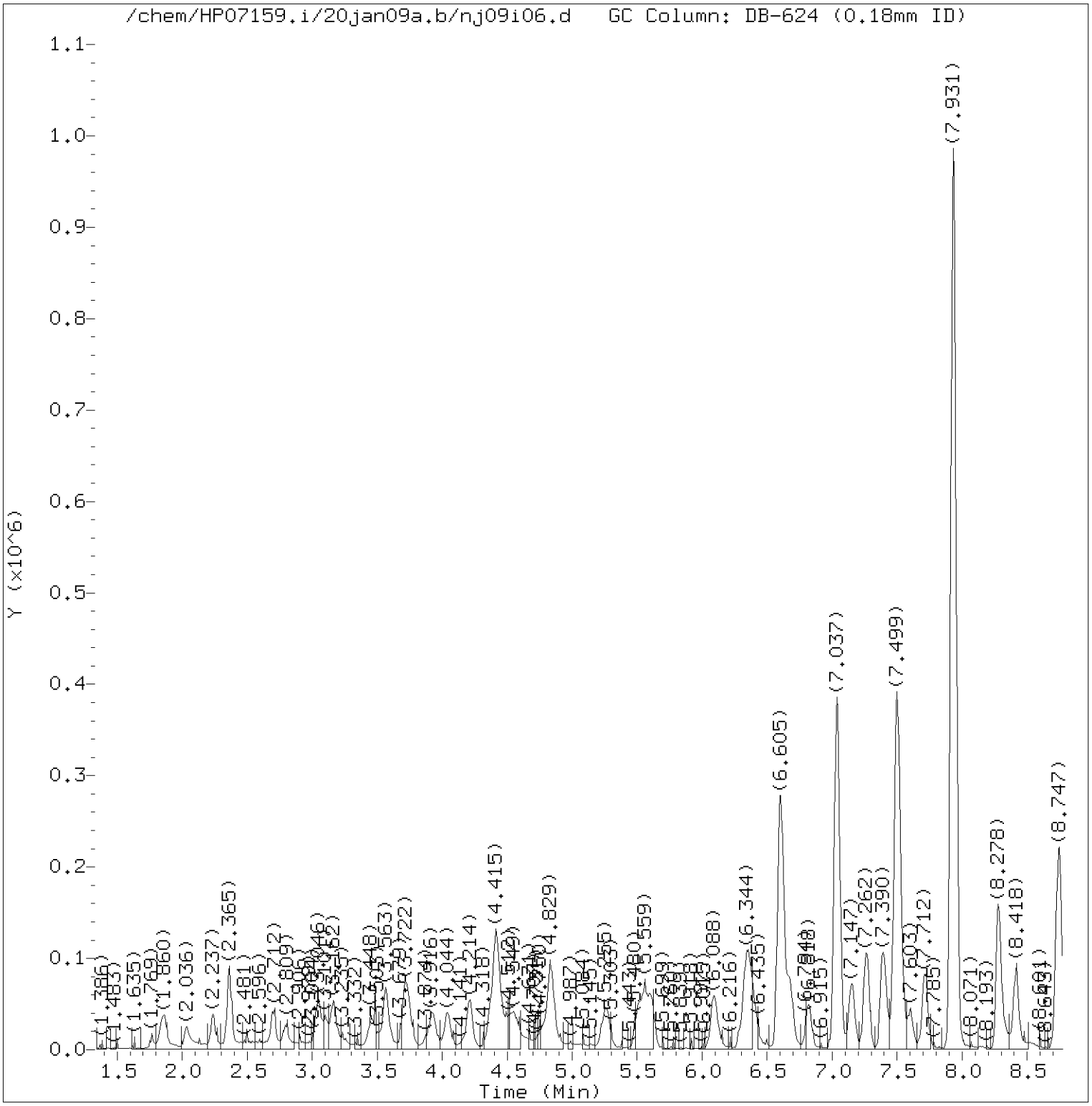
Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 87844
On-column Amount (ng) : 10.7157
Integration start scan : 1898 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492



Total Ion Chromatogram (TIC)

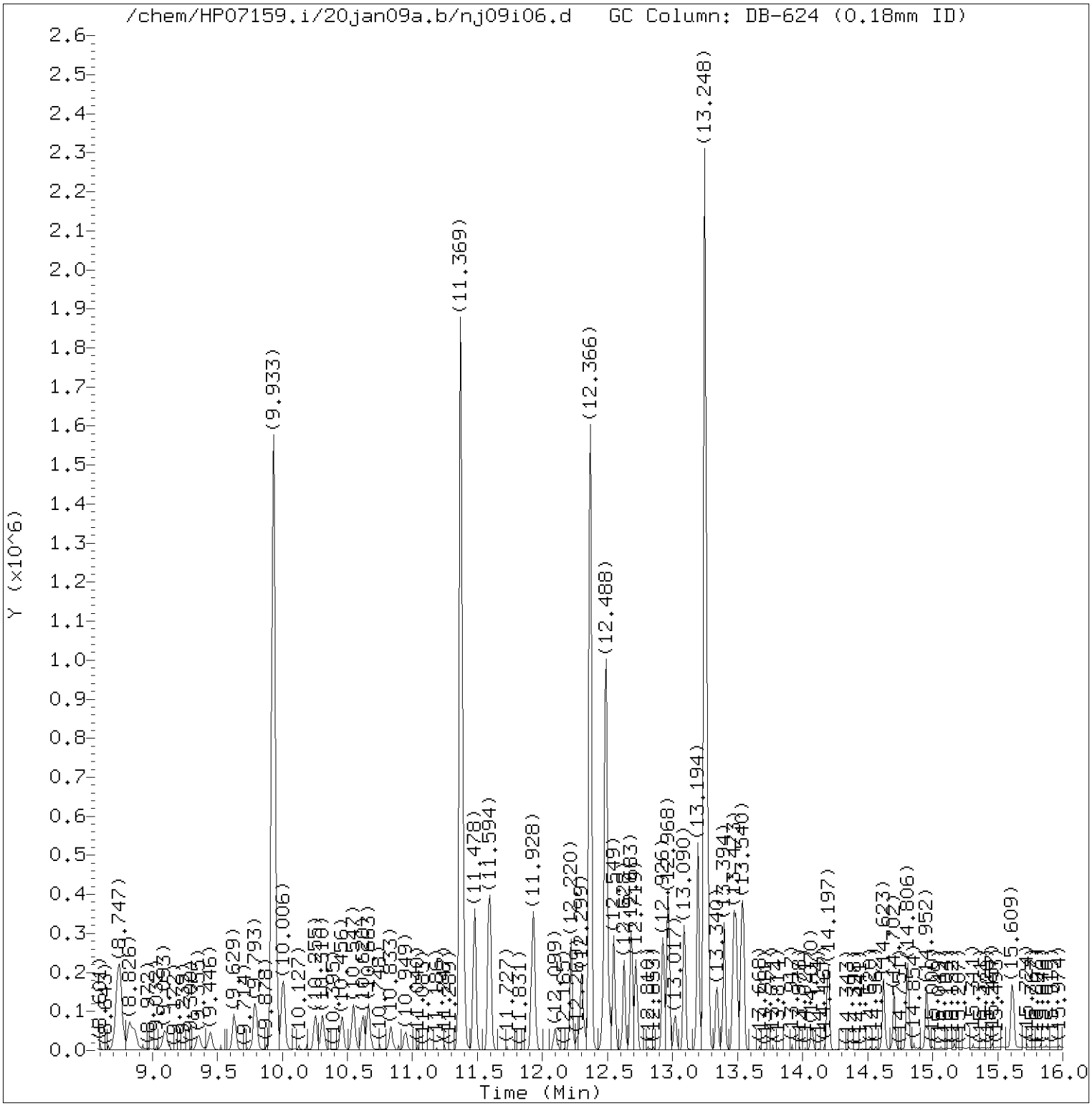
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.030	85	43809M	4.331
4) Chloromethane	(2)	2.237	50	45892	4.235
6) Vinyl Chloride	(2)	2.359	62	44787	4.247
5) 1,3-Butadiene	(2)	2.365	39	34191M	4.521
8) Bromomethane	(2)	2.693	94	31269	4.324
9) Chloroethane	(2)	2.797	64	25062	4.060
10) Dichlorofluoromethane	(2)	3.040	67	60489	4.279
12) Trichlorofluoromethane	(2)	3.107	101	50321	4.342
11) n-Pentane	(2)	3.162	43	49836	4.389
13) Ethanol	(1)	3.241	45	24623	259.087
15) Freon 123a	(2)	3.460	67	37564	4.424
16) Acrolein	(1)	3.570	56	106105	39.849
17) 1,1-Dichloroethene	(2)	3.709	96	28265	4.184
17) 1,1-Dichloroethene	(2)	3.716	63	15658	4.417
18) Acetone	(1)	3.740	58	8654	7.716
19) Freon 113	(2)	3.740	101	27719	4.423
21) 2-Propanol	(1)	3.916	45	54807M	73.990
22) Methyl Iodide	(2)	3.916	142	53417	4.237
23) Carbon Disulfide	(2)	4.038	76	91256	4.225
27) Methyl Acetate	(2)	4.184	43	31939	3.849
25) Allyl Chloride	(2)	4.214	41	50417	4.228
28) Methylene Chloride	(2)	4.415	84	33719	4.203
29)*t-Butyl alcohol-d10	(1)	4.421	65	392656M	250.000
30) t-Butyl alcohol	(1)	4.549	59	113038	77.218
31) Acrylonitrile	(2)	4.762	53	18999	4.239
33) Methyl Tertiary Butyl Ether	(2)	4.817	73	90436	4.120
32) trans-1,2-Dichloroethene	(2)	4.841	96	32038	4.155
34) n-Hexane	(2)	5.267	57	46495	4.368
36) 1,1-Dichloroethane	(2)	5.504	63	59192	4.208
38) di-Isopropyl ether	(2)	5.553	45	100280	4.138
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	53399	4.300
40) Ethyl t-butyl ether	(2)	6.088	59	95806	4.160
43) 1,2-Dichloroethene (Total)	(2)		96	68085	8.271
44) 2-Butanone	(2)	6.295	43	52528	8.382
42) cis-1,2-Dichloroethene	(2)	6.344	96	36047	4.116
45) 2,2-Dichloropropane	(2)	6.350	77	51884	4.178
47) Propionitrile	(1)	6.392	54	131823	77.101
48) Methacrylonitrile	(2)	6.605	67	177945	39.307

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	17066	4.121
50) Tetrahydrofuran	(1)	6.684	71	13826	7.789
51) Chloroform	(2)	6.824	83	55868	4.072
52)$Dibromofluoromethane	(2)	7.037	113	324919	50.387
52)$Dibromofluoromethane	(2)	7.037	111	335437	50.944
53) 1,1,1-Trichloroethane	(2)	7.055	97	52910	4.262
54) Cyclohexane	(2)	7.153	56	55837	4.373
54) Cyclohexane	(2)	7.153	84	47923	4.306
54) Cyclohexane	(2)	7.159	69	17047	4.248
55) 1,1-Dichloropropene	(2)	7.262	75	47504	4.231
56) Carbon Tetrachloride	(2)	7.262	117	45699	4.270
58) Isobutyl Alcohol	(1)	7.390	41	101971	194.459
57)$1,2-Dichloroethane-d4	(2)	7.493	102	81714	50.117
57)$1,2-Dichloroethane-d4	(2)	7.499	65	393432	50.162
57)$1,2-Dichloroethane-d4	(2)	7.493	104	52083	50.205
60) Benzene	(2)	7.524	78	132026	4.131
61) 1,2-Dichloroethane	(2)	7.597	62	45115	3.990
61) 1,2-Dichloroethane	(2)	7.603	98	4100	4.406
65) t-Amyl methyl ether	(2)	7.718	73	96106	4.159
66)*Fluorobenzene	(2)	7.931	96	1299393	50.000
67) n-Heptane	(2)	7.937	43	52911	4.306
69) n-Butanol	(1)	8.278	56	171282	379.187
71) Trichloroethene	(2)	8.418	95	34960	4.152
72) Methylcyclohexane	(2)	8.728	83	58507	4.227
72) Methylcyclohexane	(2)	8.722	98	28070	4.306
73) 1,2-Dichloropropane	(2)	8.753	63	33722	4.126
76) Methyl Methacrylate	(2)	8.820	69	29497M	3.947
75) 1,4-Dioxane	(1)	8.844	88	22465M	196.866
74) Dibromomethane	(2)	8.862	93	20606	3.953
78) Bromodichloromethane	(2)	9.099	83	43728	4.109
79) 2-Nitropropane	(2)	9.355	41	31152	8.061
80) 2-Chloroethyl Vinyl Ether	(2)	9.452	63	24665	3.815
81) cis-1,3-Dichloropropene	(2)	9.629	75	55174	4.065
82) 4-Methyl-2-pentanone	(2)	9.793	43	99136	7.808
83)$Toluene-d8	(3)	9.933	98	1293116	49.802
83)$Toluene-d8	(3)	9.933	100	855967	49.759
88) Toluene	(3)	10.006	92	86567	4.104
90) 1,3-Dichloropropene (total)	(3)		100	107405	8.055

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	52231	3.990
91) Ethyl Methacrylate	(3)	10.310	69	51374	3.939
92) 1,1,2-Trichloroethane	(3)	10.462	97	29986	4.015
93) Tetrachloroethene	(3)	10.547	166	38579	4.177
94) 1,3-Dichloropropane	(3)	10.620	76	52073	4.018
96) 2-Hexanone	(3)	10.663	43	79178	7.930
97) Dibromochloromethane	(3)	10.833	129	32595	3.803
99) 1,2-Dibromoethane	(3)	10.949	107	31486	3.850
100)*Chlorobenzene-d5	(3)	11.369	117	995569	50.000
102) Chlorobenzene	(3)	11.399	112	97238	4.131
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	34535	4.071
104) Ethylbenzene	(3)	11.478	91	168856	4.139
106) m+p-Xylene	(3)	11.594	106	130557	8.145
108) Xylene (Total)	(3)		106	194592	12.207
107) o-Xylene	(3)	11.922	106	64035	4.062
109) Styrene	(3)	11.934	104	107696	4.067
110) Bromoform	(3)	12.099	173	25735	3.978
111) Isopropylbenzene	(3)	12.220	105	172592	4.145
112) Cyclohexanone	(1)	12.299	55	89801	196.226
114)$4-Bromofluorobenzene	(3)	12.366	95	512275	49.939
114)$4-Bromofluorobenzene	(3)	12.366	174	412208	50.159
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	47714	3.984
115) Bromobenzene	(4)	12.482	156	40716	4.043
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	159223	38.649
117) 1,2,3-Trichloropropane	(4)	12.512	110	15546	4.098
119) n-Propylbenzene	(4)	12.549	91	208029	4.261
120) 2-Chlorotoluene	(4)	12.628	126	40915	4.065
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	148908	4.163
121) 4-Chlorotoluene	(4)	12.719	126	42819	4.105
124) tert-Butylbenzene	(4)	12.926	134	31578	3.983
125) Pentachloroethane	(4)	12.962	167	23333	3.676
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	152787	4.115
127) sec-Butylbenzene	(4)	13.090	105	196789	4.235
129) 1,3-Dichlorobenzene	(4)	13.194	146	79689	4.069
130) p-Isopropyltoluene	(4)	13.200	119	168415	4.165
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	544490	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	80115	4.033
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	143096	3.971

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.340	91	103769	3.920
141) Diethylbenzene (total)	(4)		100	282530	12.035
136) 1,3-Diethylbenzene	(4)	13.394	119	97314	4.020
137) 1,4-Diethylbenzene	(4)	13.467	119	103829	4.040
139) n-Butylbenzene	(4)	13.492	92	86969	4.169
138) 1,2-Dichlorobenzene	(4)	13.528	146	75304	4.055
140) 1,2-Diethylbenzene	(4)	13.540	119	81387	3.974
142) 1,2-Dibromo-3-chloropropane	(4)	14.070	75	12592	3.890
144) 1,3,5-Trichlorobenzene	(4)	14.197	180	59059	3.990
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	51588	3.997
147) Hexachlorobutadiene	(4)	14.702	225	23765	4.071
148) Naphthalene	(4)	14.806	128	162510	4.016
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	46505	3.925
150) 2-Methylnaphthalene	(4)	15.615	142	85753	3.669

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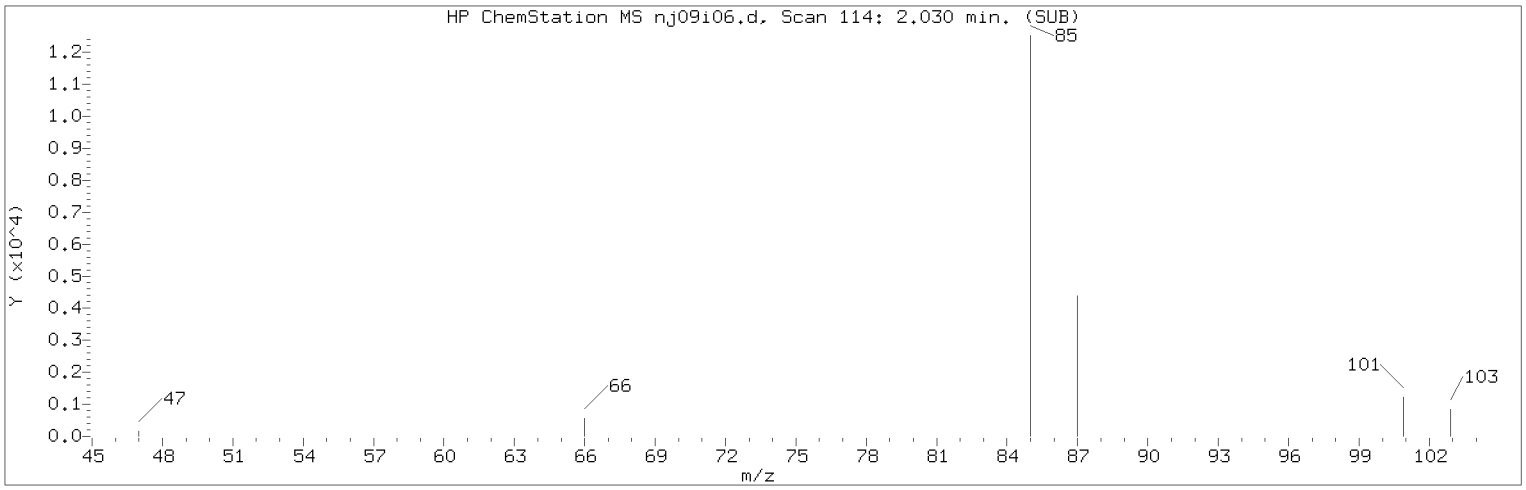
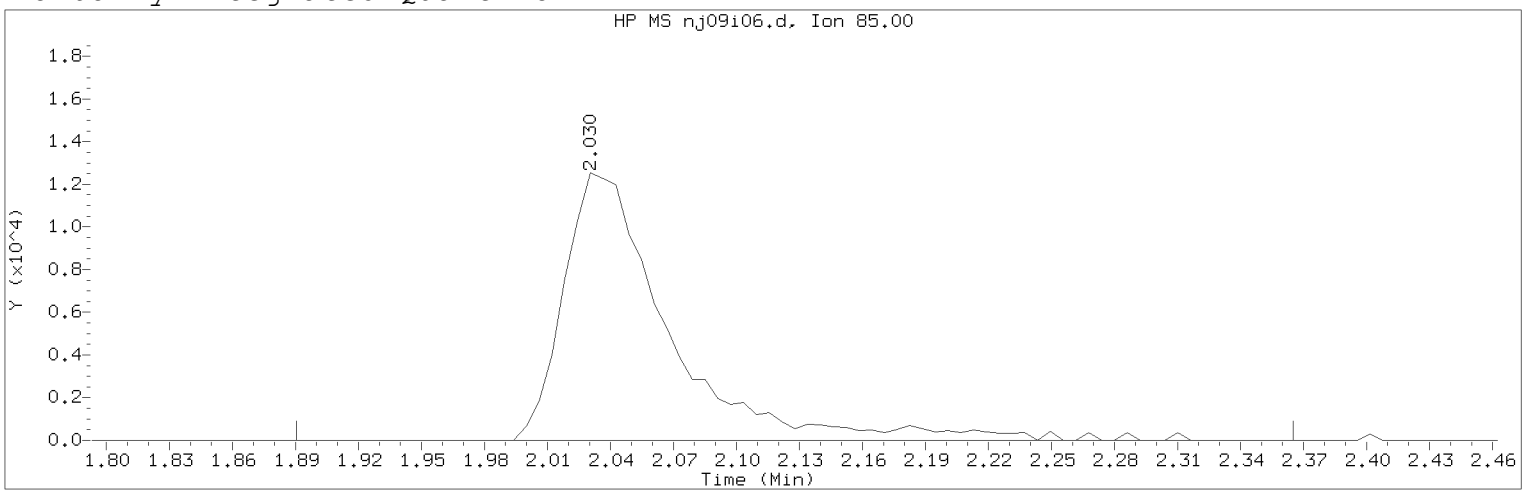
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

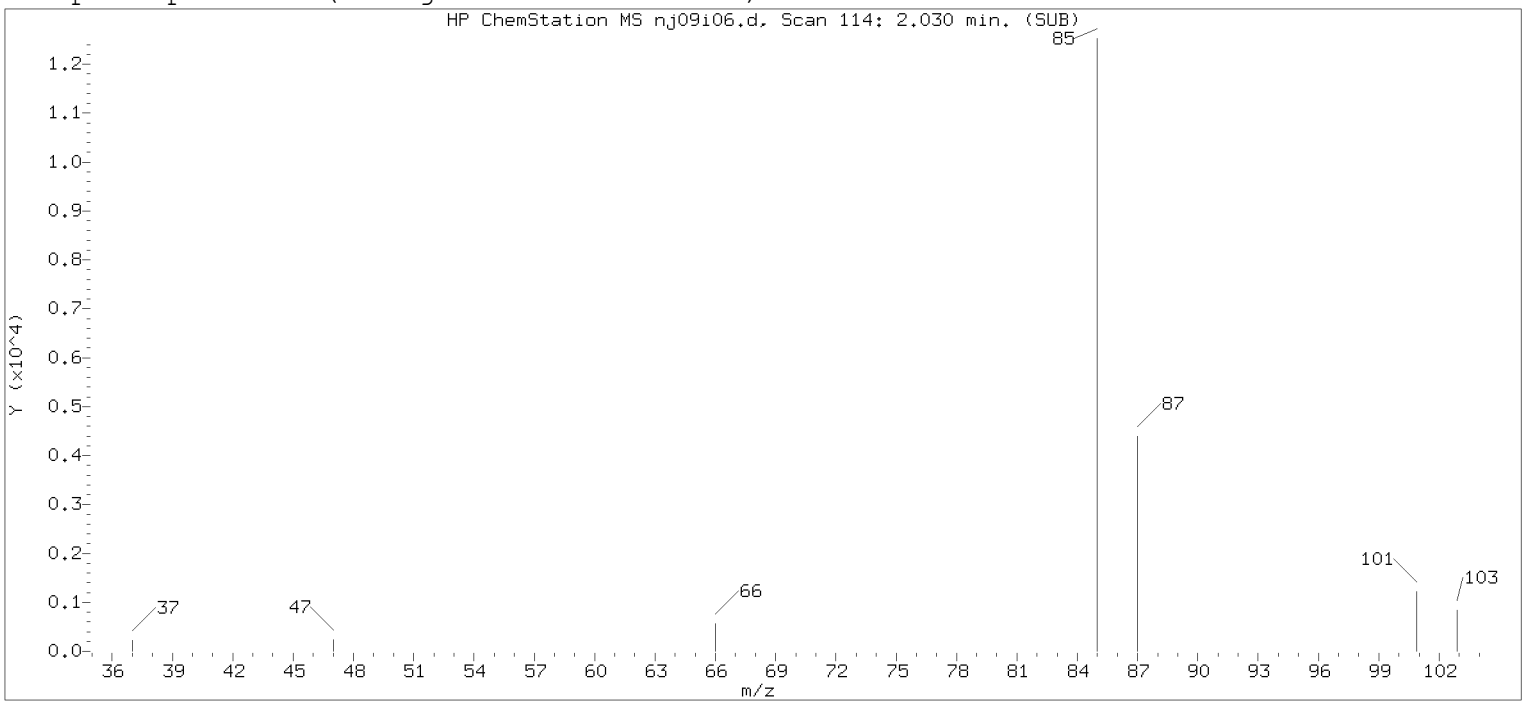
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area (flag) : 43809M
On-Column Amount (ng) : 4.3314
Integration start scan : 90 Integration stop scan: 168
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

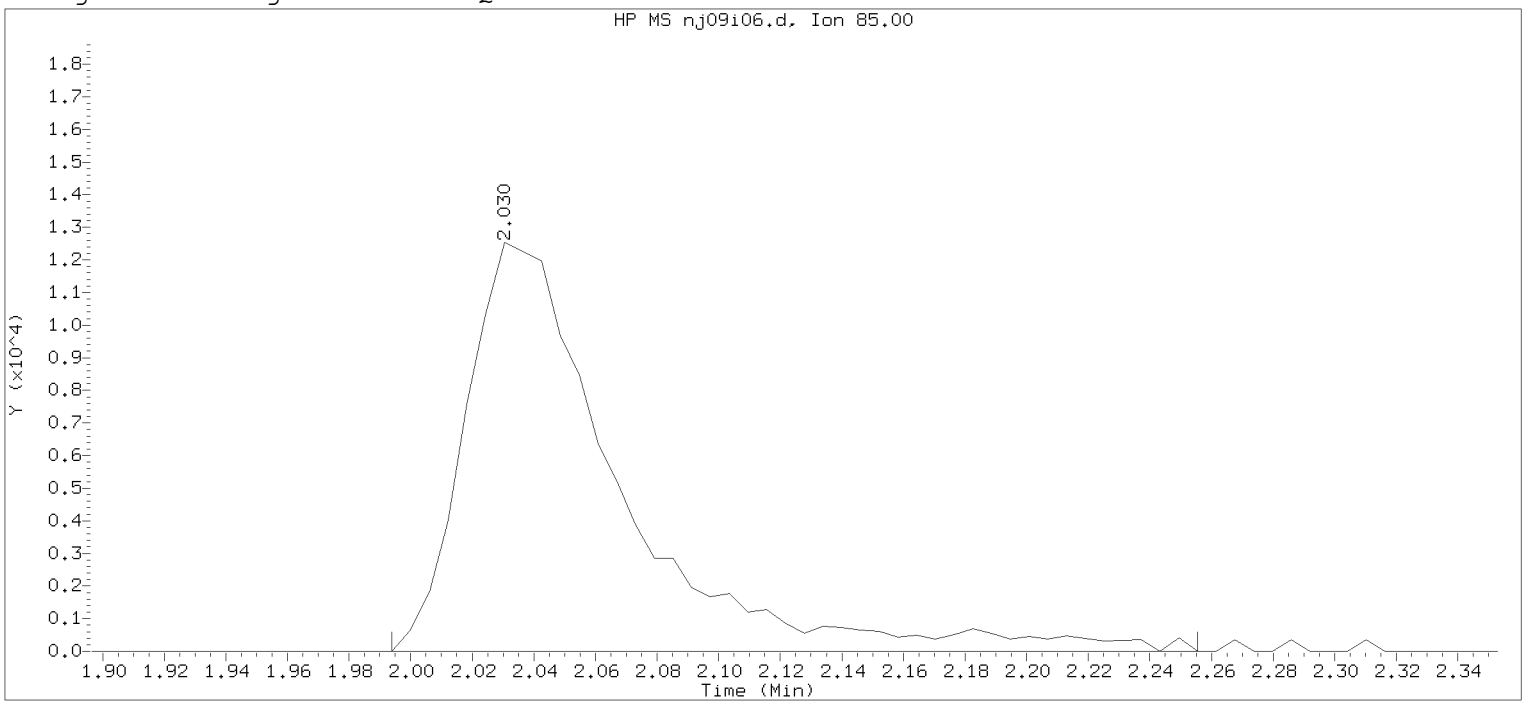
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

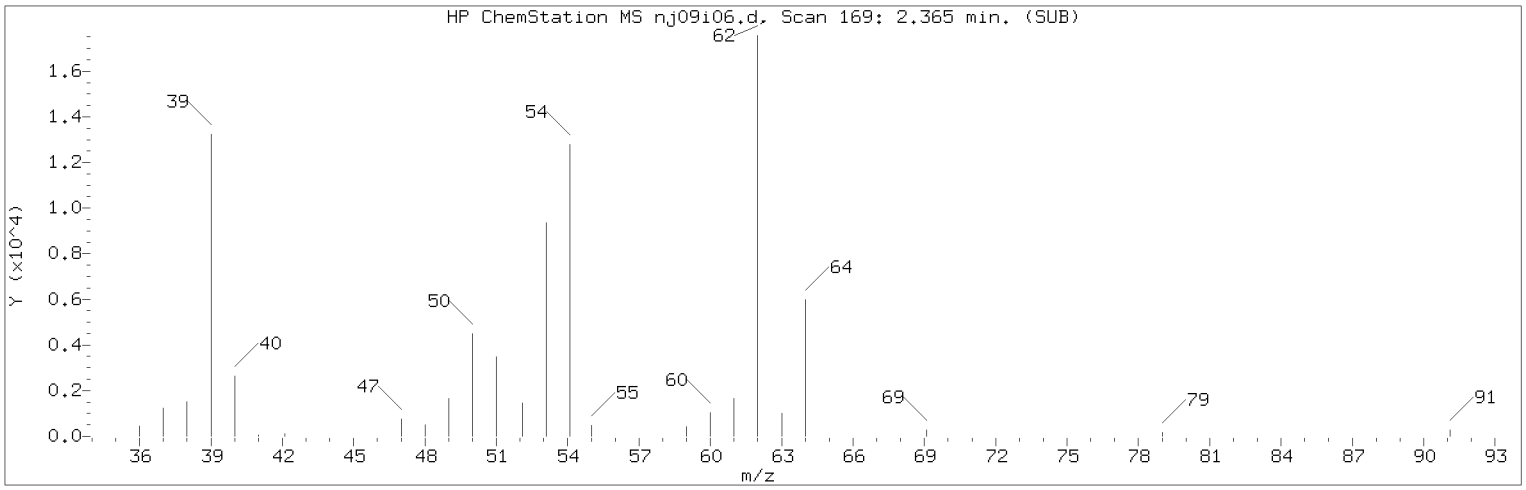
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

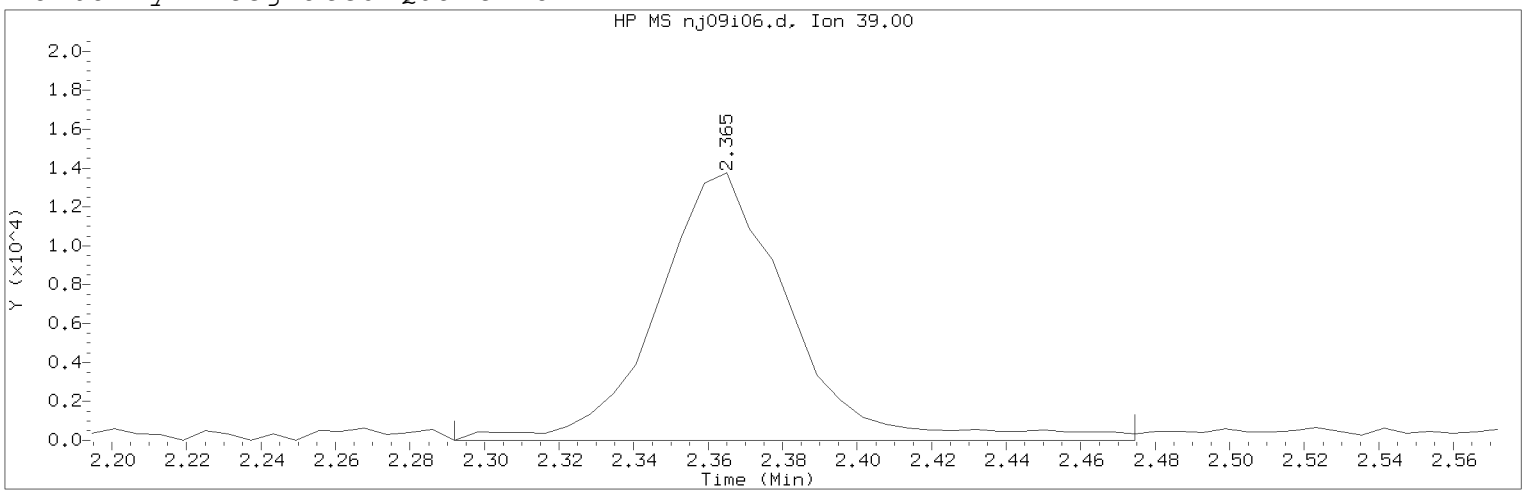
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area : 43422
On-column Amount (ng) : 4.4546
Integration start scan : 107 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

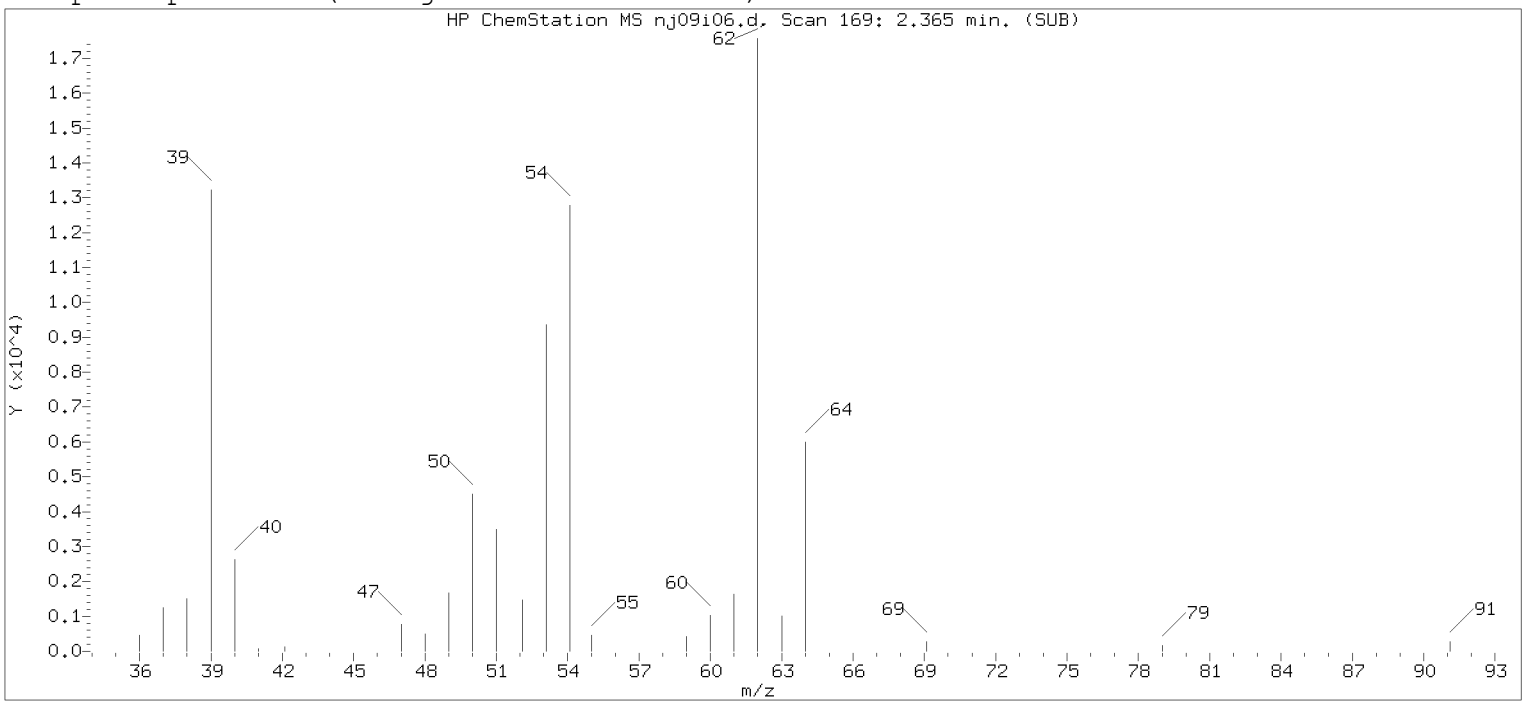
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 34191M
On-Column Amount (ng) : 4.5214
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

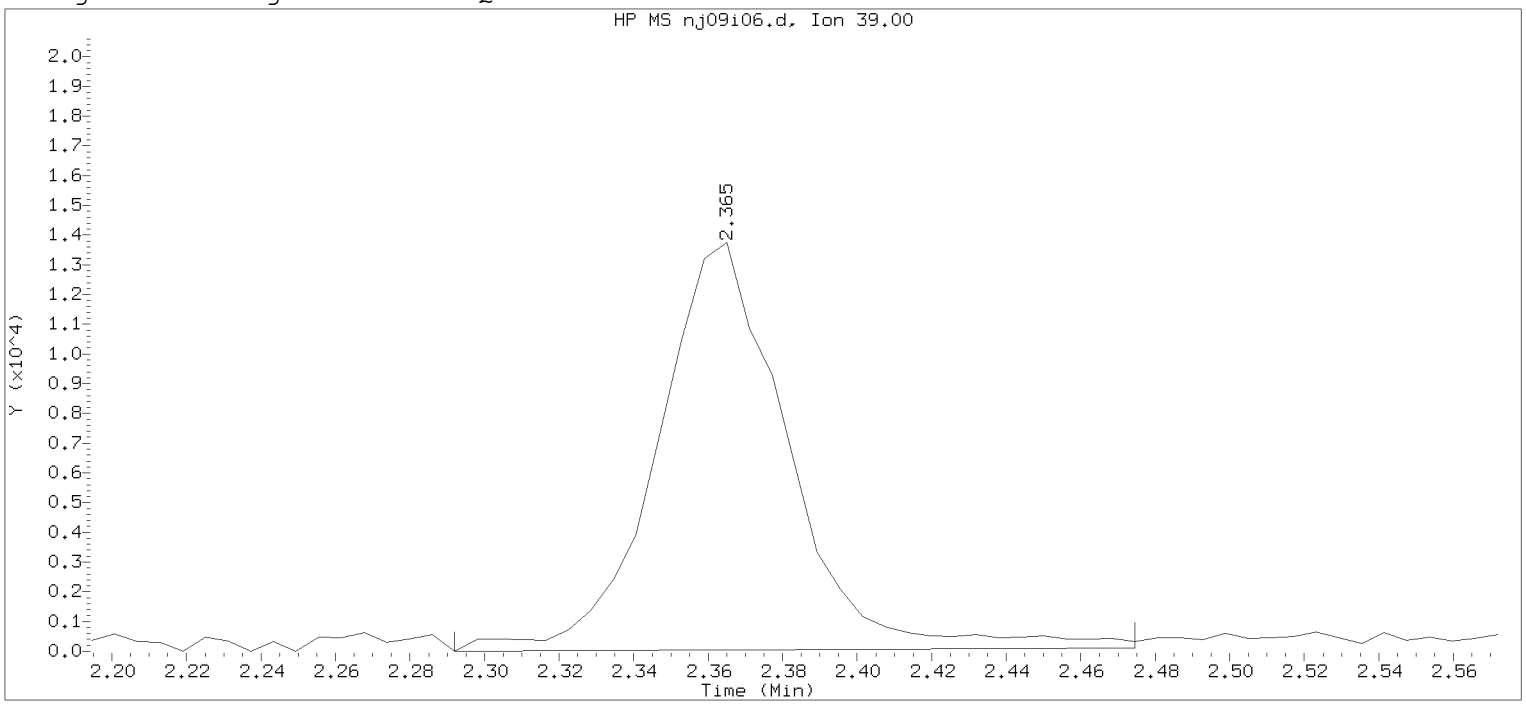
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 33497
On-column Amount (ng) : 4.4429
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 116

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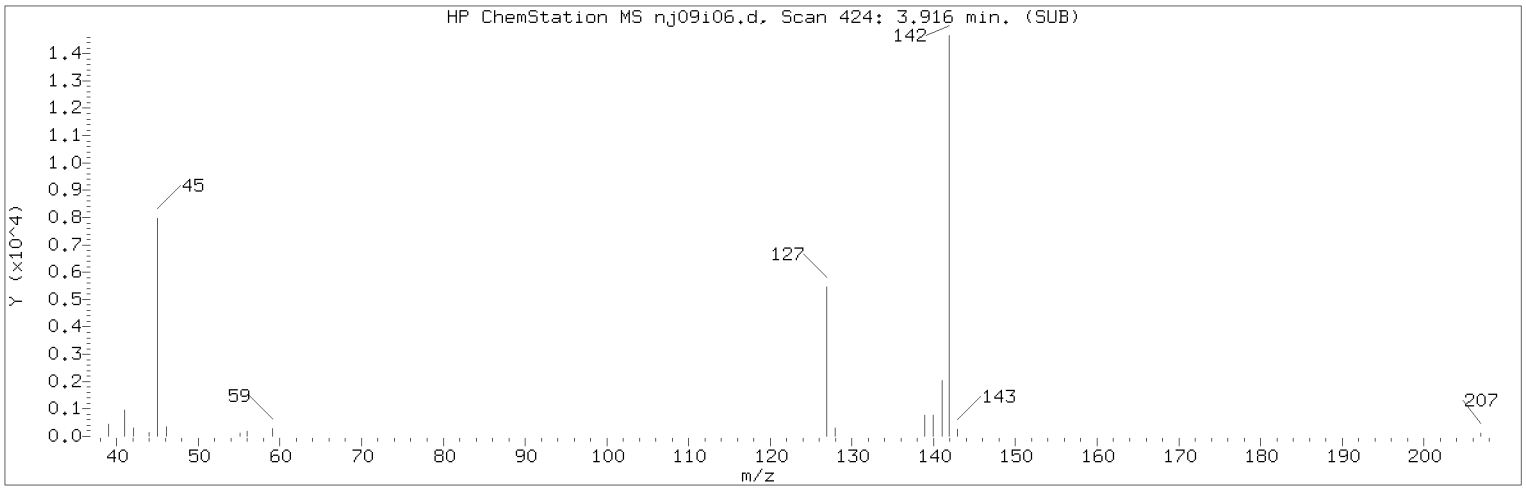
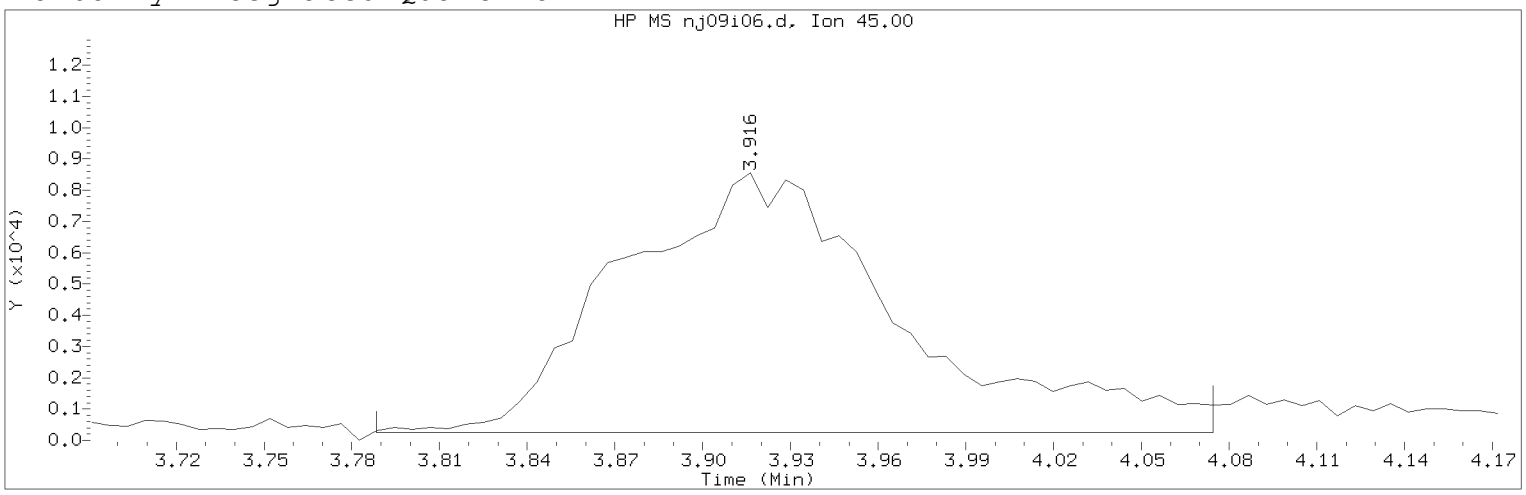
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

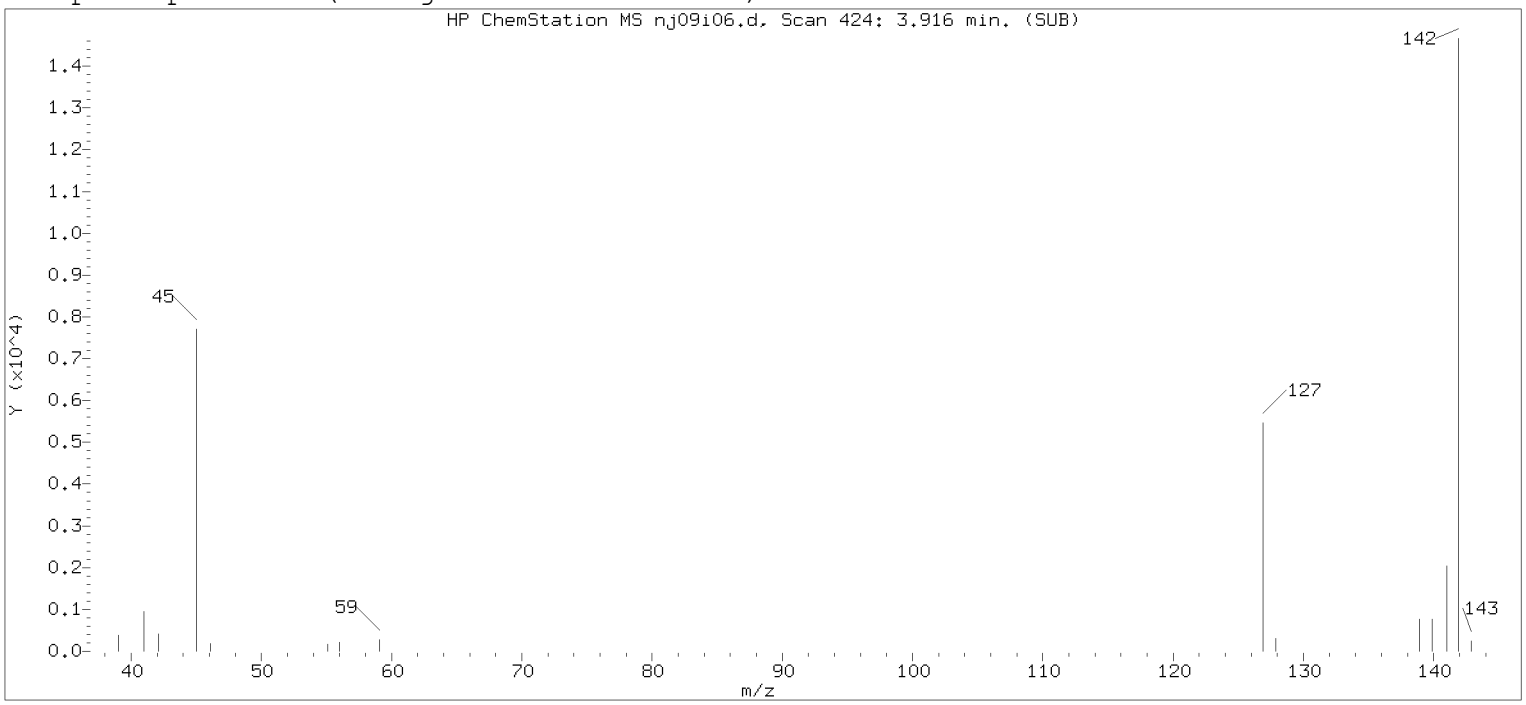
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 54807M
On-Column Amount (ng) : 73.9898
Integration start scan : 402 Integration stop scan: 449
Y at integration start : 245 Y at integration end: 245

Reason for manual integration: improper integration

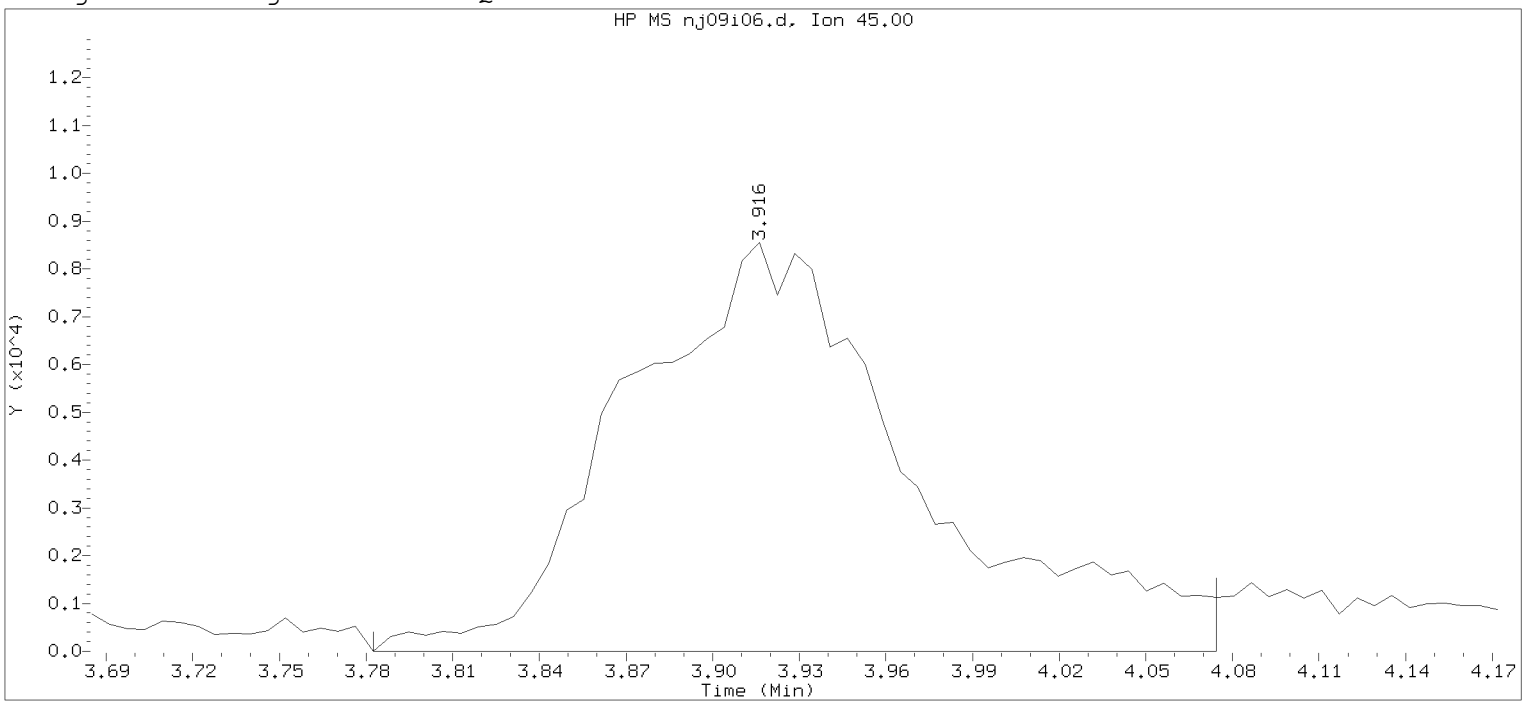
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

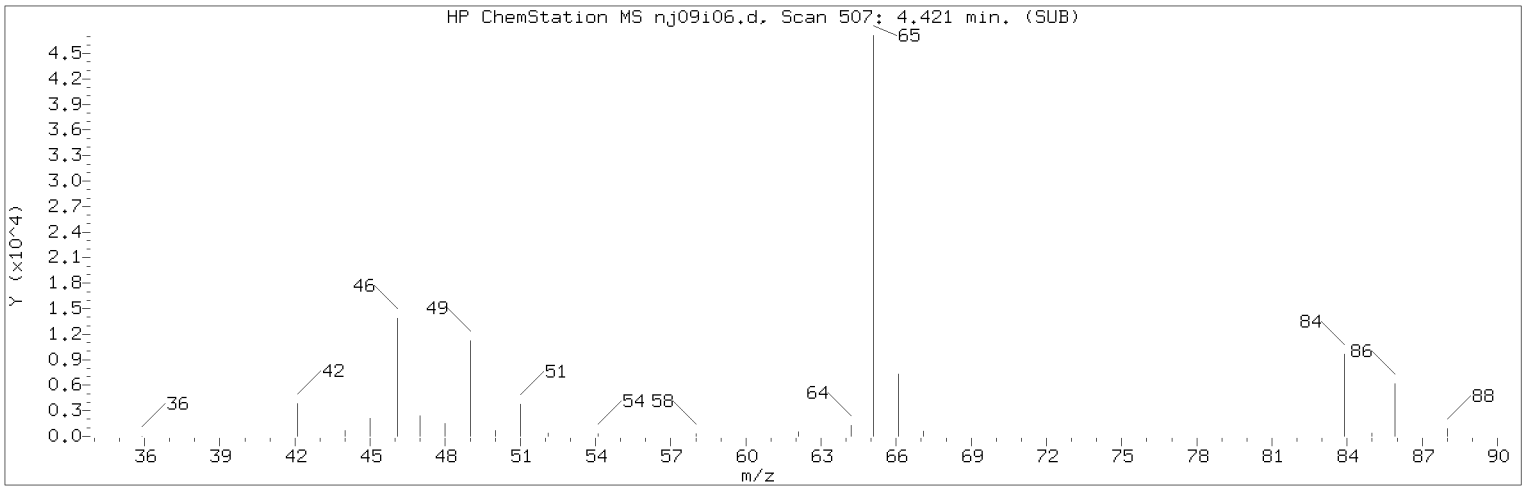
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

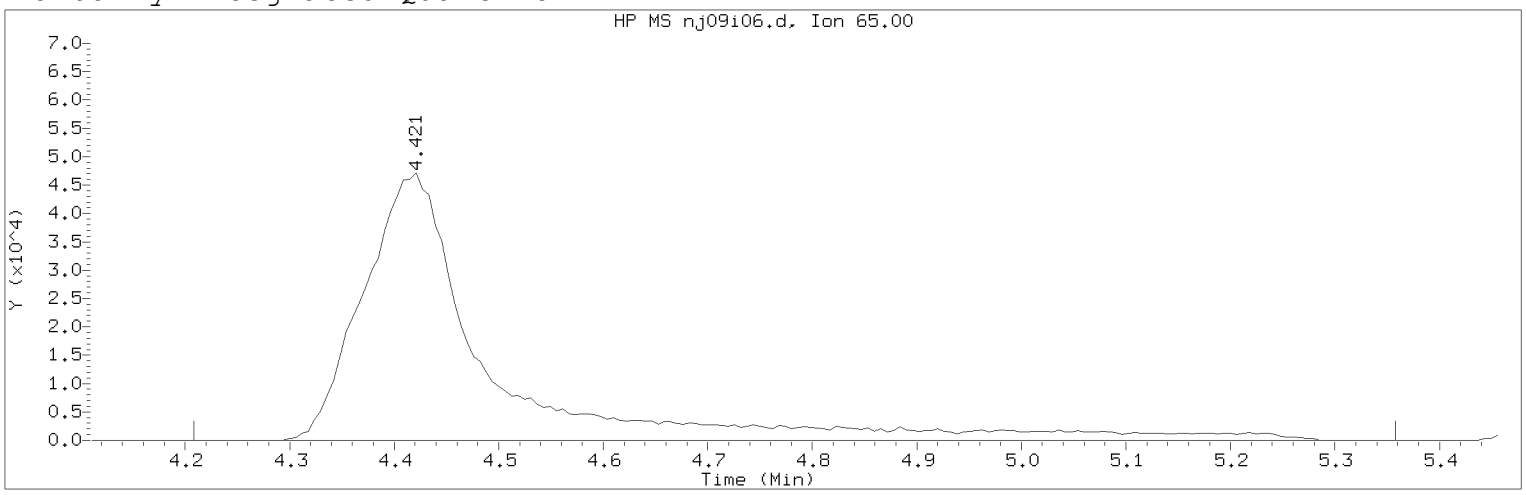
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 58894
On-column Amount (ng) : 84.9174
Integration start scan : 401 Integration stop scan: 449
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

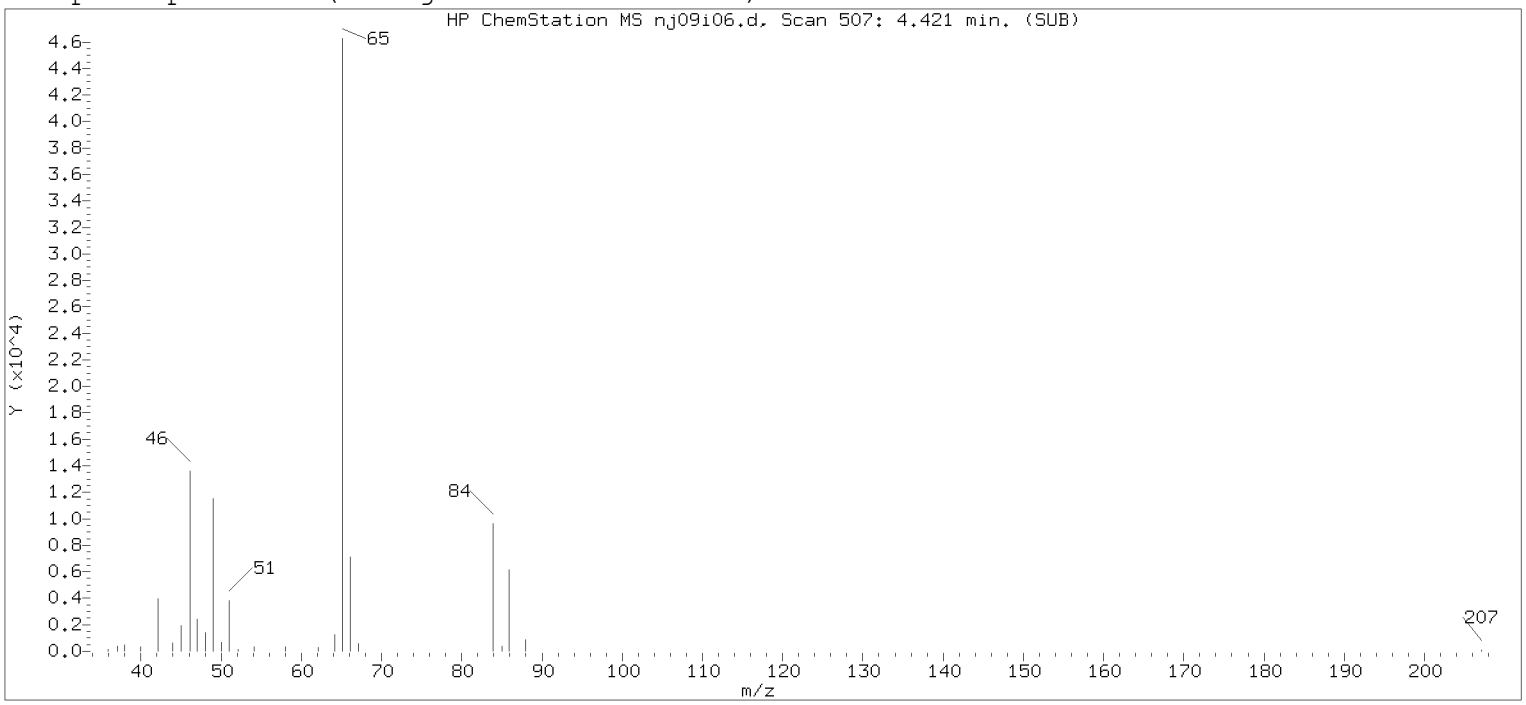
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area (flag) : 392656M
On-Column Amount (ng) : 250.0000
Integration start scan : 471 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

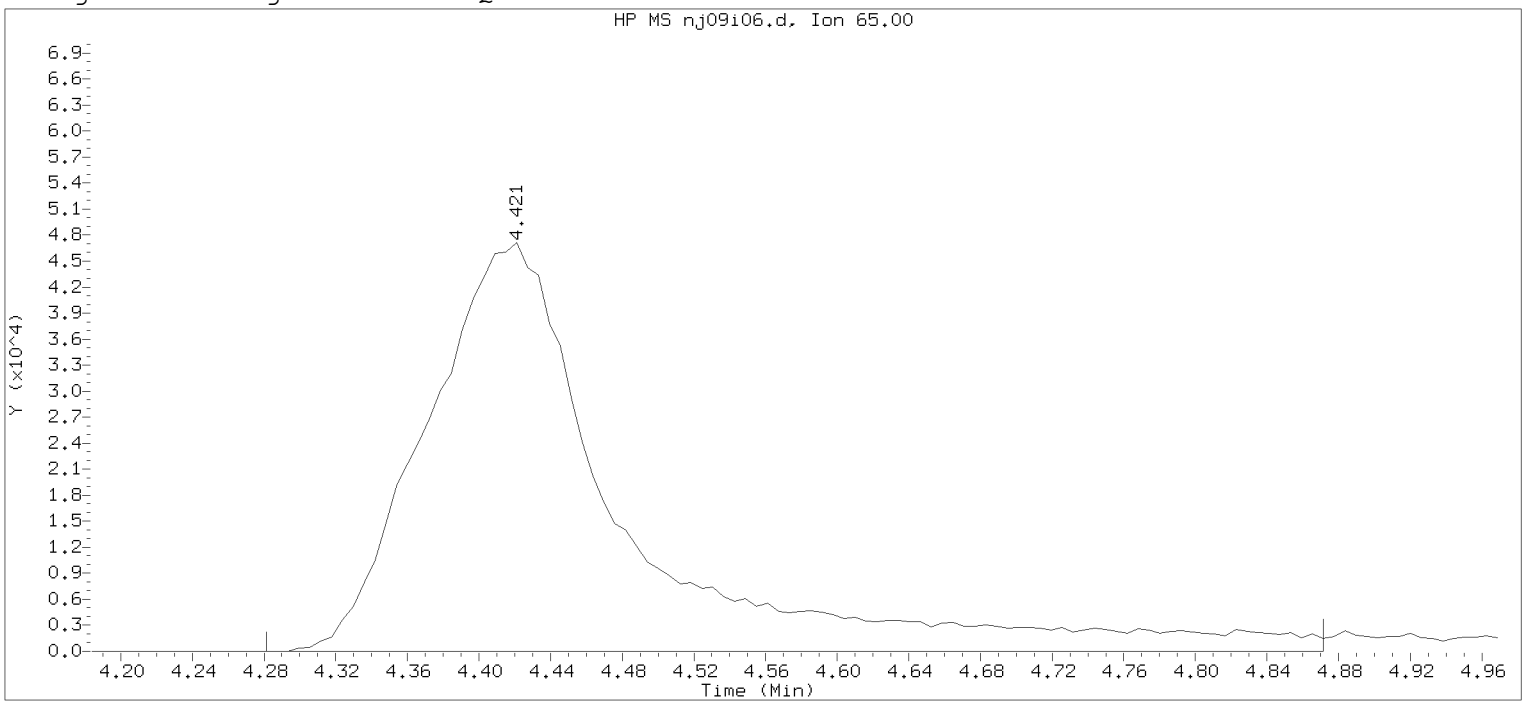
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

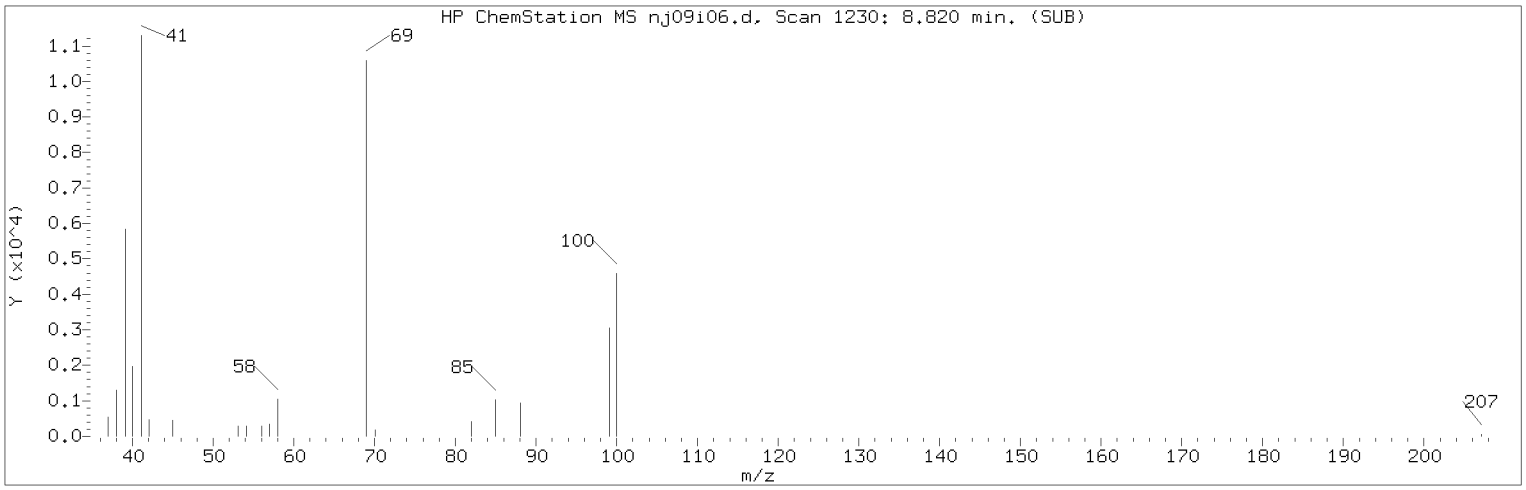
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

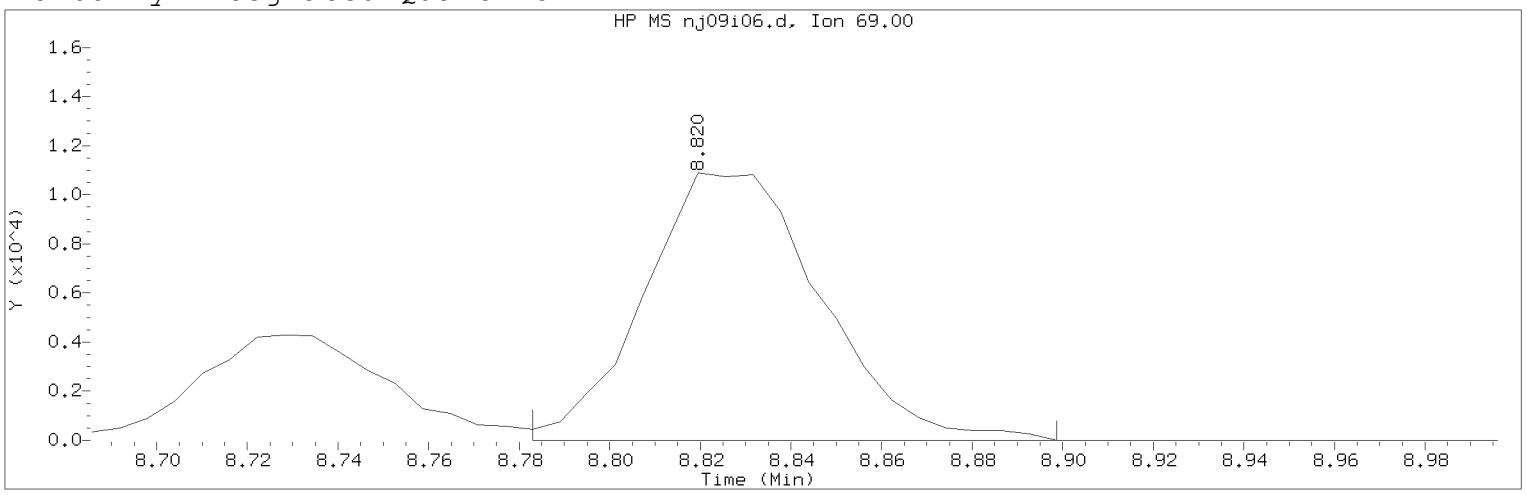
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area : 359148
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 580
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

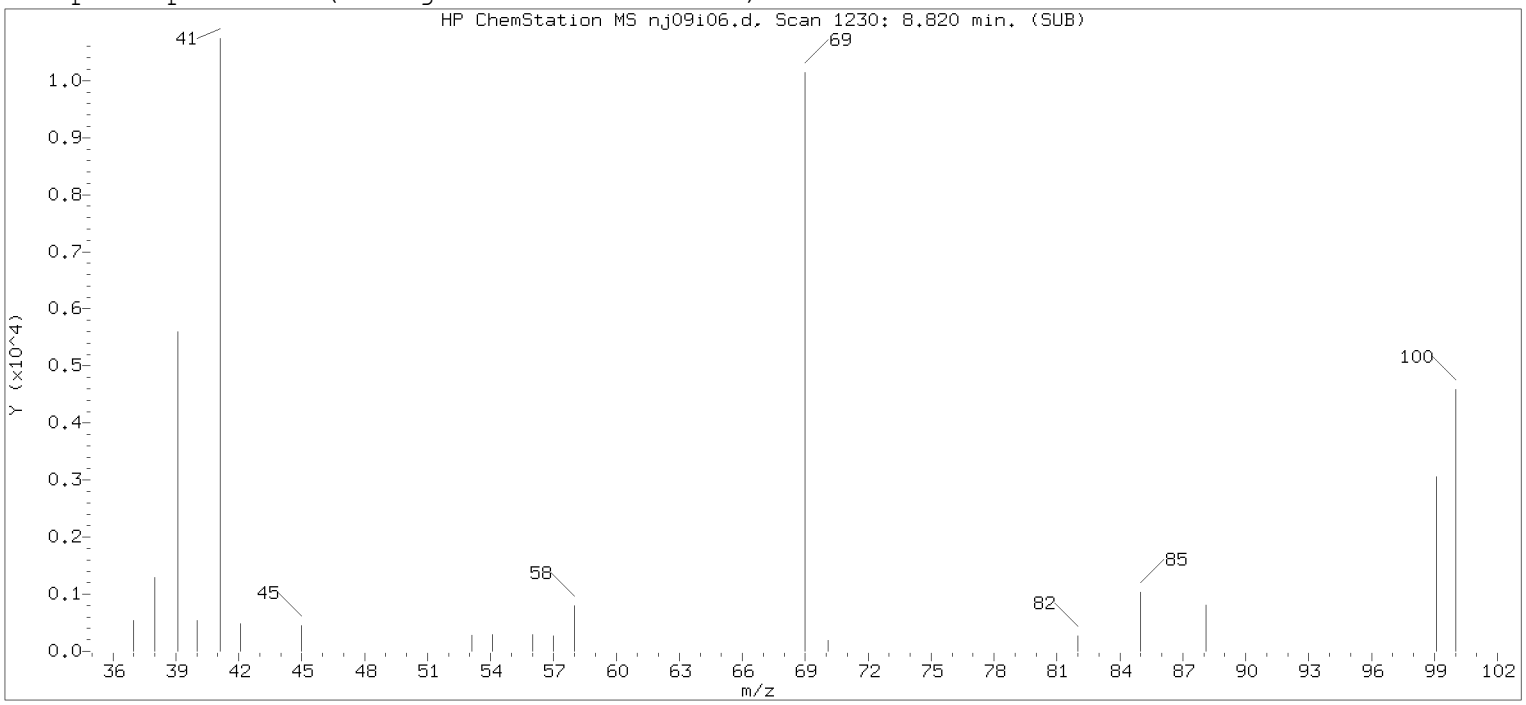
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area (flag) : 29497M
On-Column Amount (ng) : 3.9466
Integration start scan : 1223 Integration stop scan: 1242
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

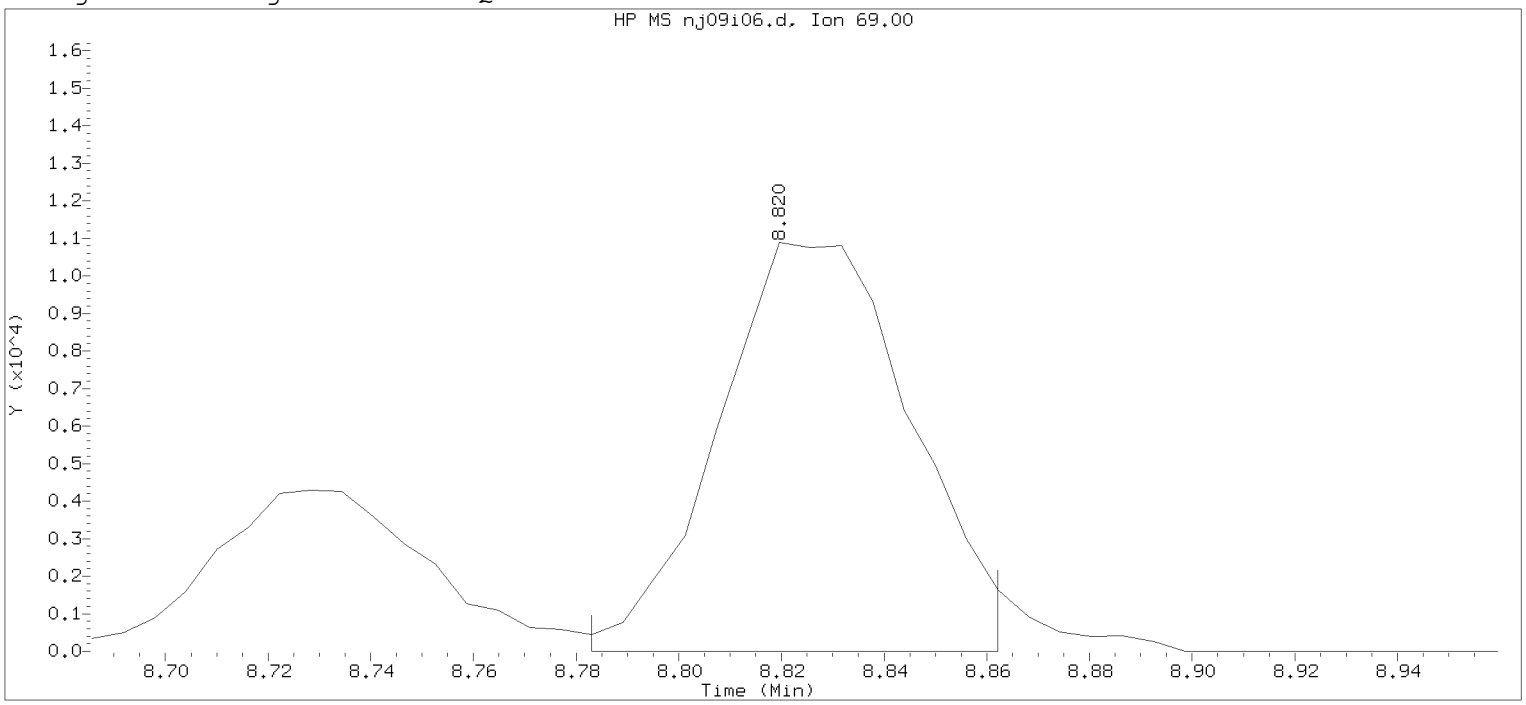
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

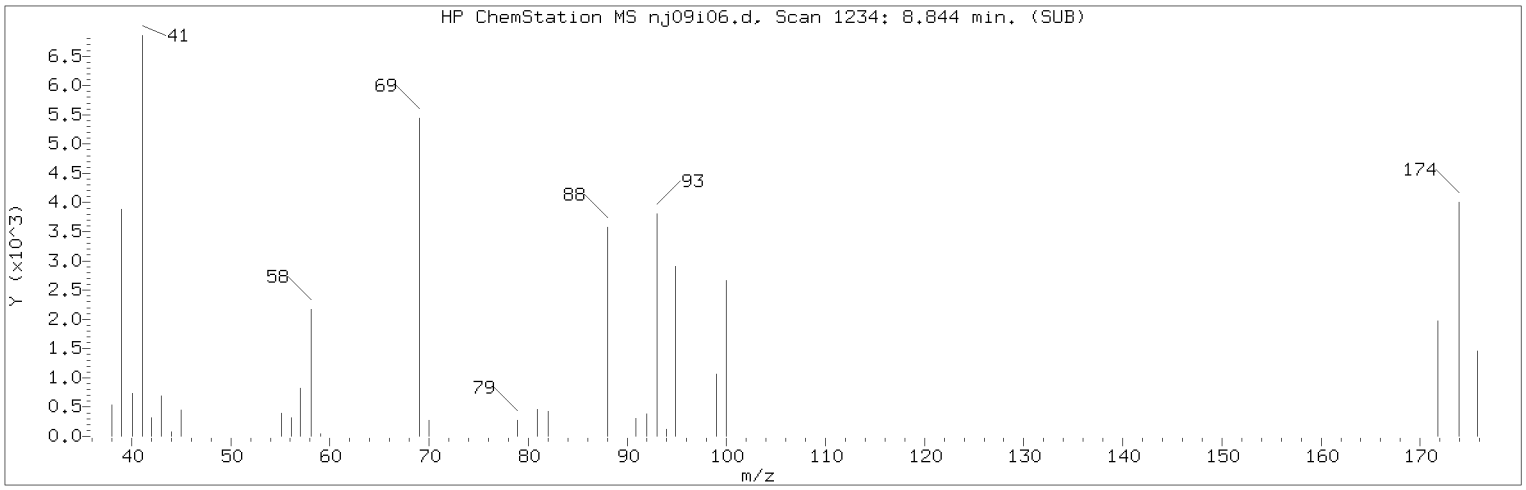
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

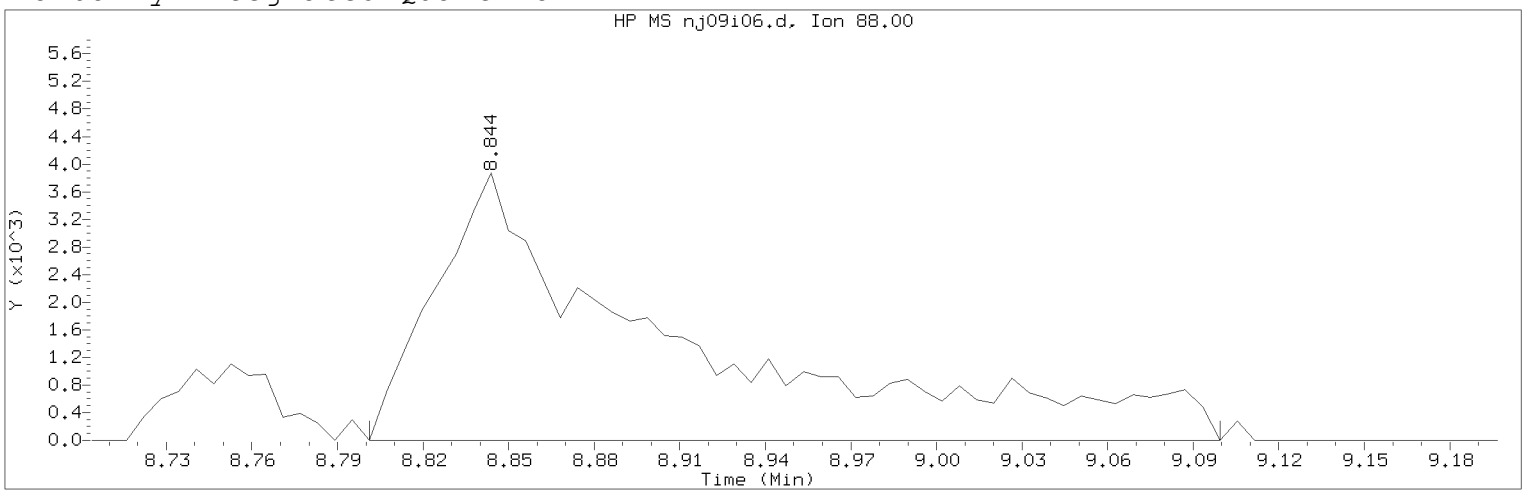
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area : 28216
On-column Amount (ng) : 3.7985
Integration start scan : 1223 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

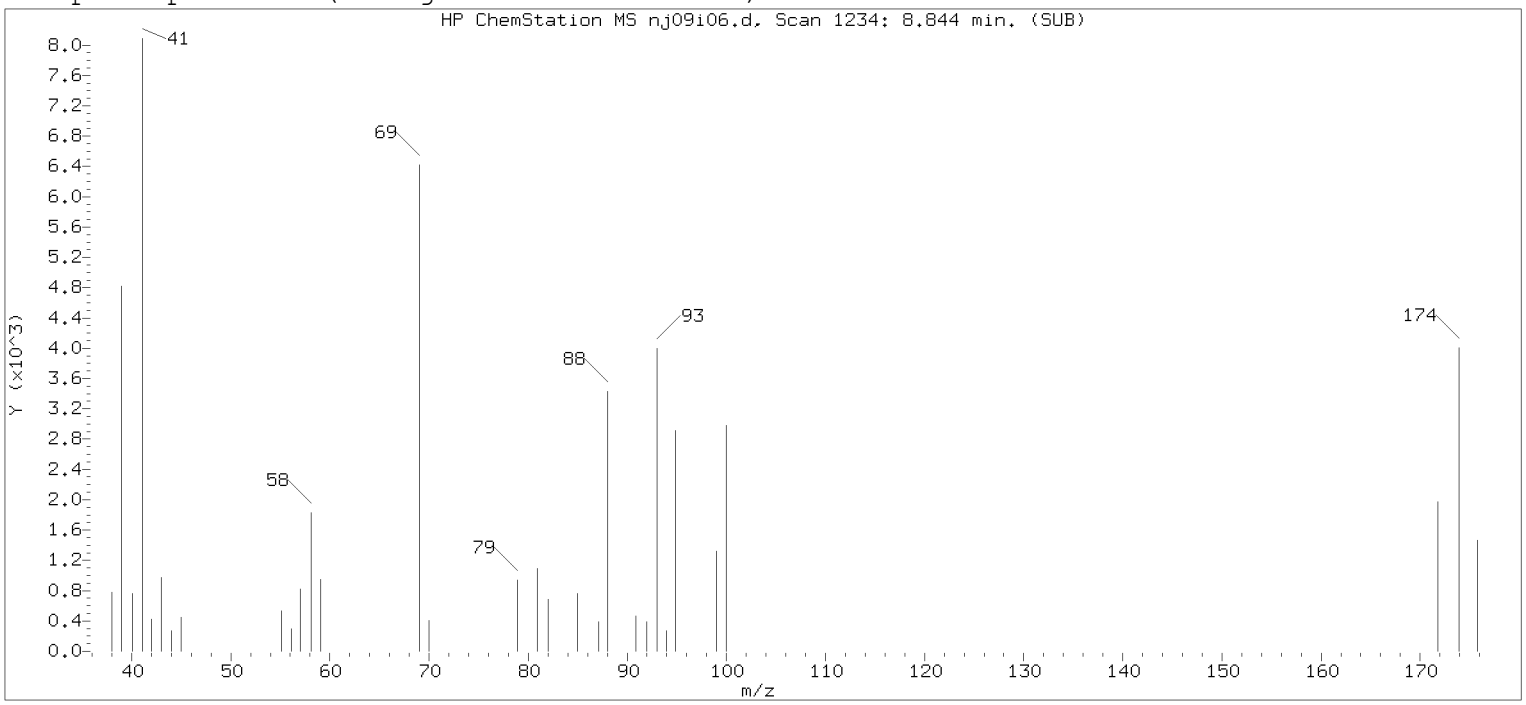
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 22465M
On-Column Amount (ng) : 196.8659
Integration start scan : 1226 Integration stop scan: 1275
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

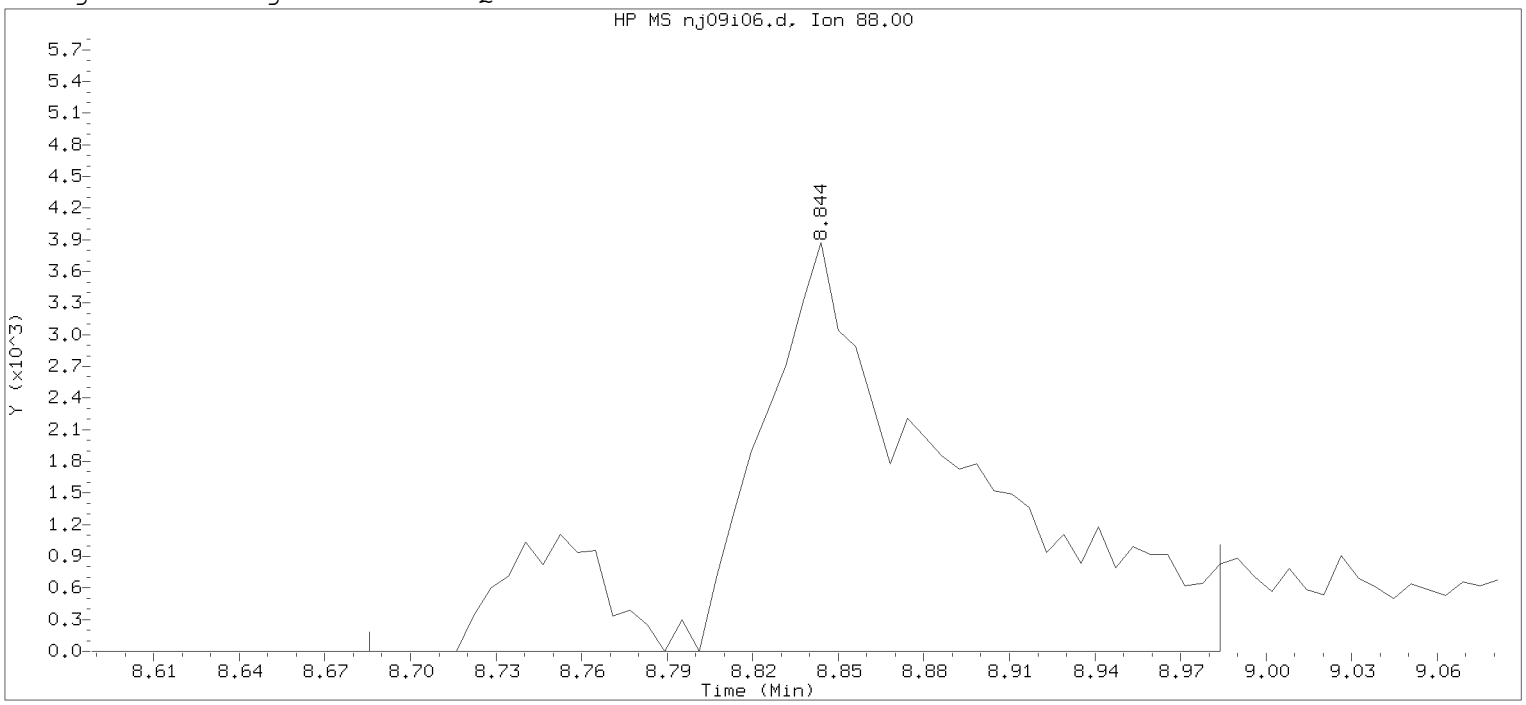
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



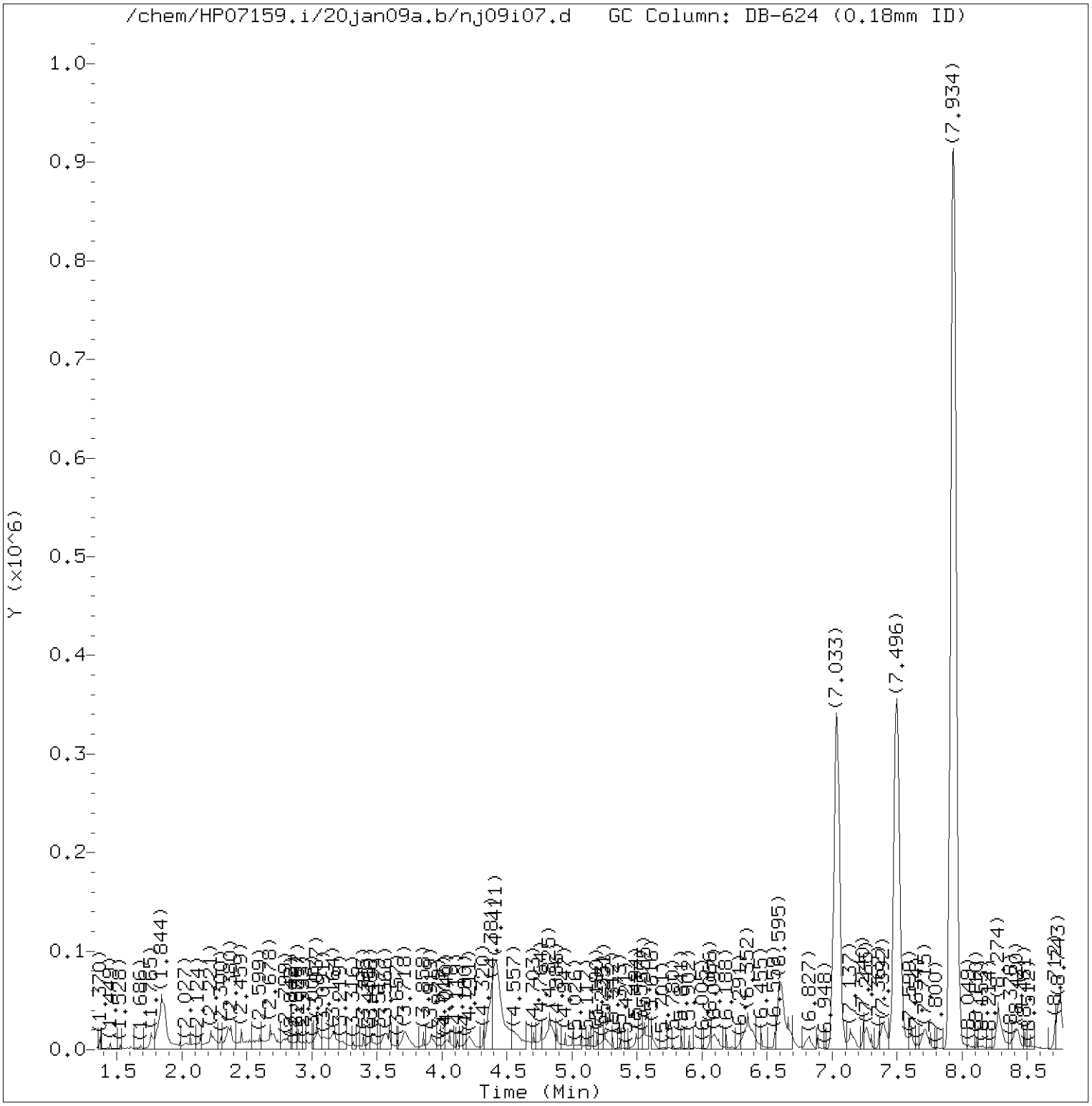
Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1234		
Retention Time (minutes)	: 8.844		
Quant Ion	: 88.00		
Area	: 20886		
On-column Amount (ng)	: 267.8227		
Integration start scan	: 1207	Integration stop scan:	1256
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

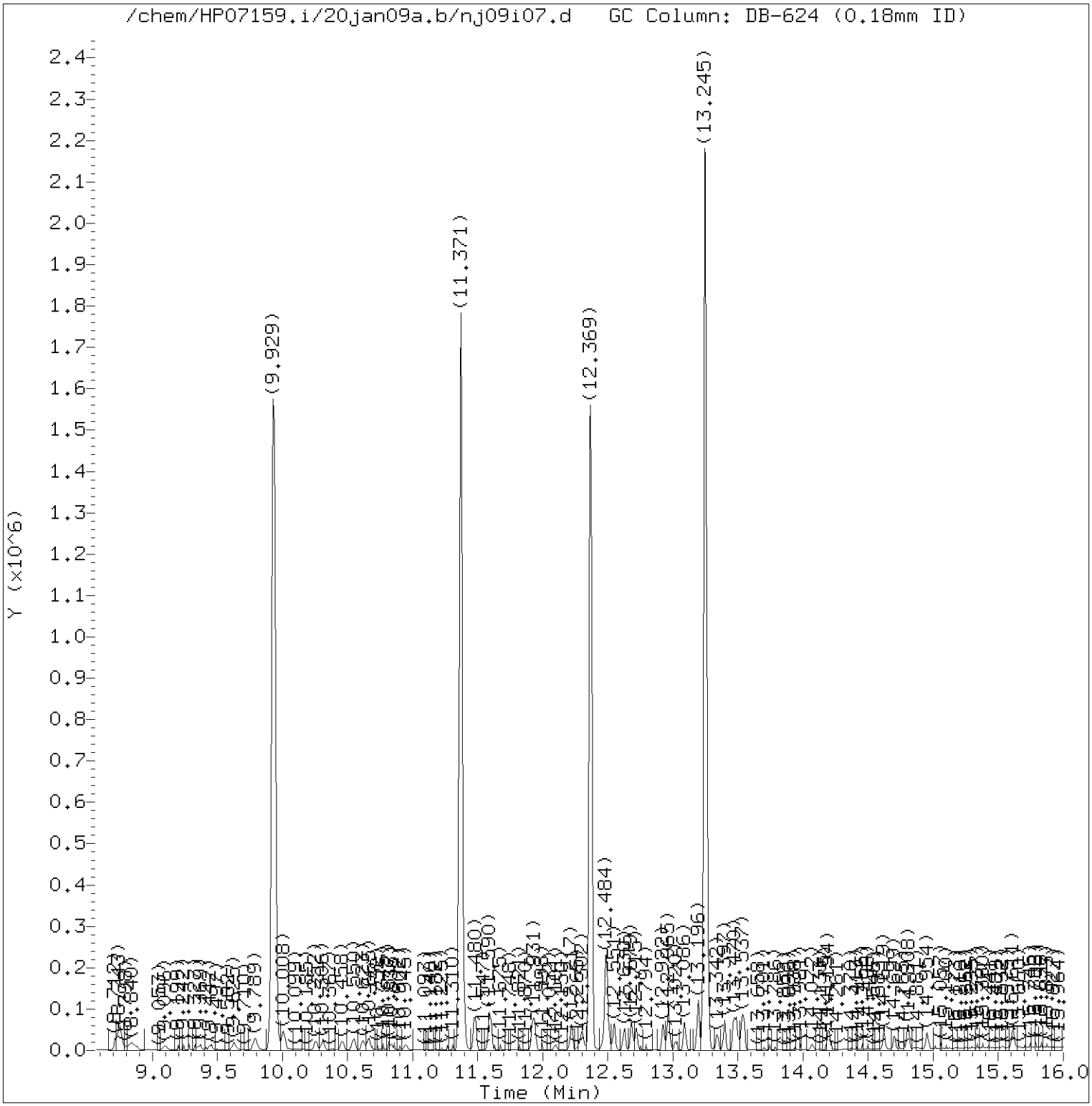
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.033	85	7080	0.697
4) Chloromethane	(2)	2.234	50	10227	0.940
5) 1,3-Butadiene	(2)	2.355	39	8581	1.130
6) Vinyl Chloride	(2)	2.355	62	9030	0.853
8) Bromomethane	(2)	2.696	94	6606	0.910
9) Chloroethane	(2)	2.799	64	5893	0.951
10) Dichlorofluoromethane	(2)	3.037	67	14066	0.991
12) Trichlorofluoromethane	(2)	3.103	101	10081	0.866
11) n-Pentane	(2)	3.164	43	13359	1.172
13) Ethanol	(1)	3.219	45	6949M	73.842
15) Freon 123a	(2)	3.456	67	7909	0.928
16) Acrolein	(1)	3.560	56	26079	9.891
17) 1,1-Dichloroethene	(2)	3.712	96	6429	0.948
17) 1,1-Dichloroethene	(2)	3.712	63	3192	0.897
18) Acetone	(1)	3.742	58	2220	1.999
19) Freon 113	(2)	3.742	101	4915	0.781
21) 2-Propanol	(1)	3.919	45	16282M	22.198
22) Methyl Iodide	(2)	3.919	142	11439	0.904
23) Carbon Disulfide	(2)	4.040	76	19180	0.885
27) Methyl Acetate	(2)	4.180	43	10612	1.274
25) Allyl Chloride	(2)	4.217	41	12231	1.022
28) Methylene Chloride	(2)	4.411	84	9132	1.134
29)*t-Butyl alcohol-d10	(1)	4.418	65	388809M	250.000
30) t-Butyl alcohol	(1)	4.539	59	27309	18.840
31) Acrylonitrile	(2)	4.776	53	4071	0.905
33) Methyl Tertiary Butyl Ether	(2)	4.825	73	23012	1.044
32) trans-1,2-Dichloroethene	(2)	4.843	96	7545	0.975
34) n-Hexane	(2)	5.251	57	9050	0.847
36) 1,1-Dichloroethane	(2)	5.500	63	12984	0.920
38) di-Isopropyl ether	(2)	5.555	45	23475	0.965
39) 2-Chloro-1,3-butadiene	(2)	5.610	53	10851	0.871
40) Ethyl t-butyl ether	(2)	6.097	59	22629	0.979
43) 1,2-Dichloroethene (Total)	(2)		96	15977	1.934
44) 2-Butanone	(2)	6.297	43	12375	1.967
42) cis-1,2-Dichloroethene	(2)	6.340	96	8432	0.959
45) 2,2-Dichloropropane	(2)	6.352	77	11384	0.913
47) Propionitrile	(1)	6.382	54	32122	18.974
48) Methacrylonitrile	(2)	6.595	67	43216	9.510

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	3676	0.884
50) Tetrahydrofuran	(1)	6.693	71	3414	1.942
51) Chloroform	(2)	6.814	83	13715	0.996
52)$Dibromofluoromethane	(2)	7.033	113	329817	50.953
52)$Dibromofluoromethane	(2)	7.033	111	331227	50.115
53) 1,1,1-Trichloroethane	(2)	7.052	97	10828	0.869
54) Cyclohexane	(2)	7.149	56	10673	0.833
54) Cyclohexane	(2)	7.149	84	9512	0.852
54) Cyclohexane	(2)	7.155	69	3371	0.837
55) 1,1-Dichloropropene	(2)	7.265	75	10211	0.906
56) Carbon Tetrachloride	(2)	7.271	117	9072	0.844
58) Isobutyl Alcohol	(1)	7.398	41	27656	53.262
57)$1,2-Dichloroethane-d4	(2)	7.496	102	81288	49.668
57)$1,2-Dichloroethane-d4	(2)	7.496	65	401526	51.001
57)$1,2-Dichloroethane-d4	(2)	7.496	104	52578	50.491
60) Benzene	(2)	7.526	78	30992	0.966
61) 1,2-Dichloroethane	(2)	7.605	62	12303	1.084
61) 1,2-Dichloroethane	(2)	7.605	98	417M	0.446
65) t-Amyl methyl ether	(2)	7.715	73	23699	1.022
66)*Fluorobenzene	(2)	7.934	96	1304310	50.000
67) n-Heptane	(2)	7.946	43	11162	0.905
69) n-Butanol	(1)	8.281	56	40421	90.370
71) Trichloroethene	(2)	8.420	95	8090	0.957
72) Methylcyclohexane	(2)	8.731	83	10567	0.761
72) Methylcyclohexane	(2)	8.731	98	4976	0.760
73) 1,2-Dichloropropane	(2)	8.749	63	7176	0.875
76) Methyl Methacrylate	(2)	8.828	69	6611	0.881
75) 1,4-Dioxane	(1)	8.852	88	4683M	41.444
74) Dibromomethane	(2)	8.865	93	5419	1.036
78) Bromodichloromethane	(2)	9.096	83	9904	0.927
79) 2-Nitropropane	(2)	9.363	41	8254	2.128
80) 2-Chloroethyl Vinyl Ether	(2)	9.442	63	5629	0.867
81) cis-1,3-Dichloropropene	(2)	9.631	75	12571	0.923
82) 4-Methyl-2-pentanone	(2)	9.789	43	24386	1.913
83)$Toluene-d8	(3)	9.929	98	1298705	49.707
83)$Toluene-d8	(3)	9.929	100	853824	49.327
88) Toluene	(3)	10.008	92	20393	0.961
90) 1,3-Dichloropropene (total)	(3)		100	24927	1.861

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$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.258	75	12356	0.938
91) Ethyl Methacrylate	(3)	10.312	69	11969	0.912
92) 1,1,2-Trichloroethane	(3)	10.458	97	7023	0.935
93) Tetrachloroethene	(3)	10.550	166	8114	0.873
94) 1,3-Dichloropropane	(3)	10.617	76	12132	0.930
96) 2-Hexanone	(3)	10.659	43	17593	1.751
97) Dibromochloromethane	(3)	10.836	129	7647	0.887
99) 1,2-Dibromoethane	(3)	10.945	107	7952	0.966
100)*Chlorobenzene-d5	(3)	11.371	117	1001788	50.000
102) Chlorobenzene	(3)	11.395	112	21881	0.924
103) 1,1,1,2-Tetrachloroethane	(3)	11.474	131	7576	0.887
104) Ethylbenzene	(3)	11.480	91	38351	0.934
106) m+p-Xylene	(3)	11.590	106	29710	1.842
108) Xylene (Total)	(3)		106	44203	2.756
107) o-Xylene	(3)	11.925	106	14493	0.914
109) Styrene	(3)	11.937	104	24121	0.905
110) Bromoform	(3)	12.101	173	5593	0.859
111) Isopropylbenzene	(3)	12.223	105	38603	0.921
112) Cyclohexanone	(1)	12.302	55	20857	46.026
114)$4-Bromofluorobenzene	(3)	12.369	95	513753	49.772
114)$4-Bromofluorobenzene	(3)	12.369	174	412085	49.832
116) 1,1,2,2-Tetrachloroethane	(4)	12.460	83	12292	1.011
115) Bromobenzene	(4)	12.484	156	9496	0.929
118) trans-1,4-Dichloro-2-butene	(4)	12.490	53	38092	9.108
117) 1,2,3-Trichloropropane	(4)	12.509	110	3772	0.979
119) n-Propylbenzene	(4)	12.551	91	46212	0.932
120) 2-Chlorotoluene	(4)	12.630	126	9359	0.916
122) 1,3,5-Trimethylbenzene	(4)	12.685	105	33133	0.912
121) 4-Chlorotoluene	(4)	12.721	126	9883	0.933
124) tert-Butylbenzene	(4)	12.928	134	7292M	0.906
125) Pentachloroethane	(4)	12.965	167	5495	0.853
126) 1,2,4-Trimethylbenzene	(4)	12.965	105	34869	0.925
127) sec-Butylbenzene	(4)	13.086	105	43107	0.914
129) 1,3-Dichlorobenzene	(4)	13.196	146	18821	0.947
130) p-Isopropyltoluene	(4)	13.196	119	36927	0.900
131)*1,4-Dichlorobenzene-d4	(4)	13.251	152	552754	50.000
133) 1,4-Dichlorobenzene	(4)	13.263	146	19957	0.990
134) 1,2,3-Trimethylbenzene	(4)	13.275	105	33299	0.910

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

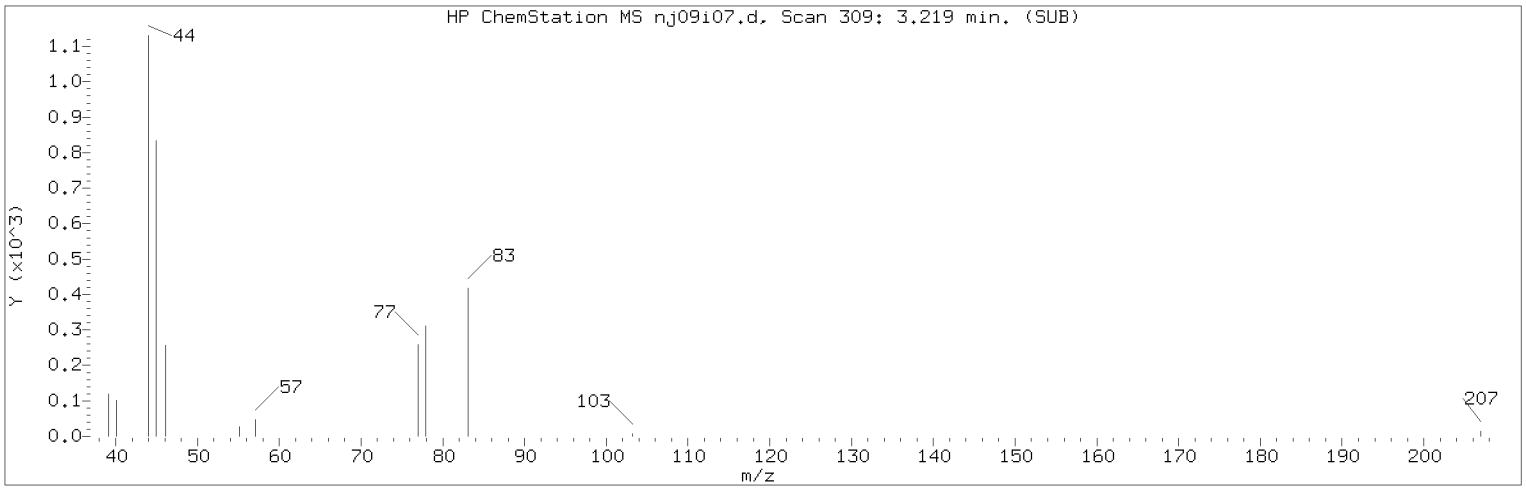
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

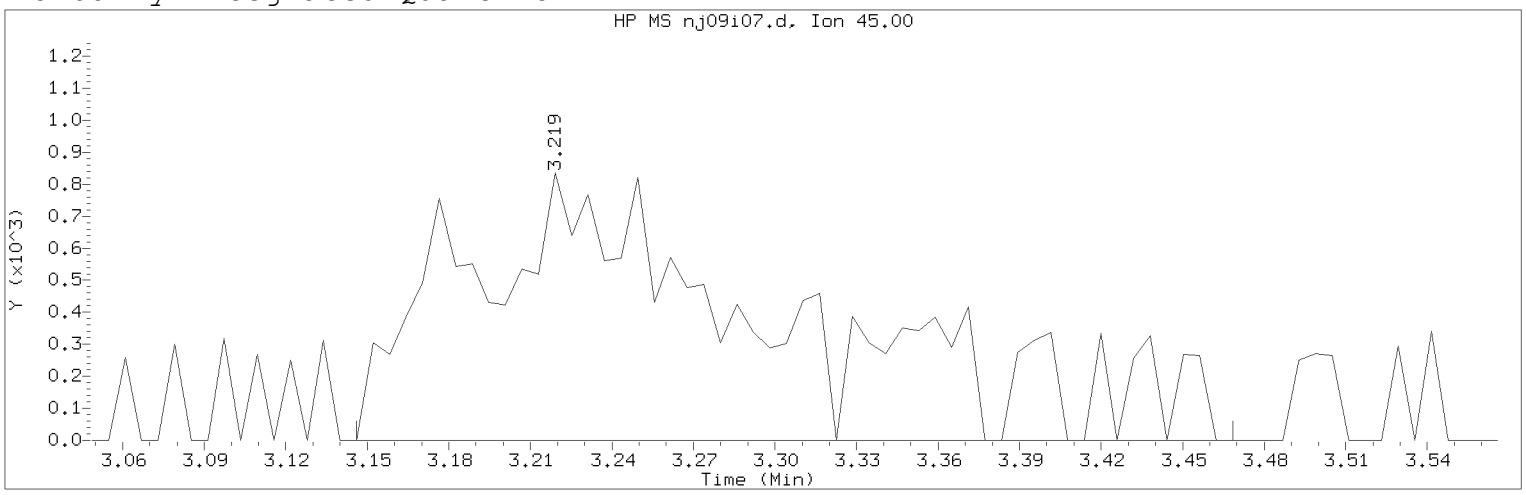
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.342	91	24259	0.903
141) Diethylbenzene (total)	(4)		100	60994	2.569
136) 1,3-Diethylbenzene	(4)	13.397	119	20583	0.838
137) 1,4-Diethylbenzene	(4)	13.470	119	21778	0.835
139) n-Butylbenzene	(4)	13.488	92	18625	0.880
138) 1,2-Dichlorobenzene	(4)	13.524	146	18327	0.972
140) 1,2-Diethylbenzene	(4)	13.543	119	18633	0.896
142) 1,2-Dibromo-3-chloropropane	(4)	14.072	75	3183	0.969
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	14108	0.939
146) 1,2,4-Trichlorobenzene	(4)	14.619	180	12062	0.921
147) Hexachlorobutadiene	(4)	14.699	225	5527	0.933
148) Naphthalene	(4)	14.808	128	39298	0.957
149) 1,2,3-Trichlorobenzene	(4)	14.954	180	11286	0.938
150) 2-Methylnaphthalene	(4)	15.611	142	21346	0.900

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

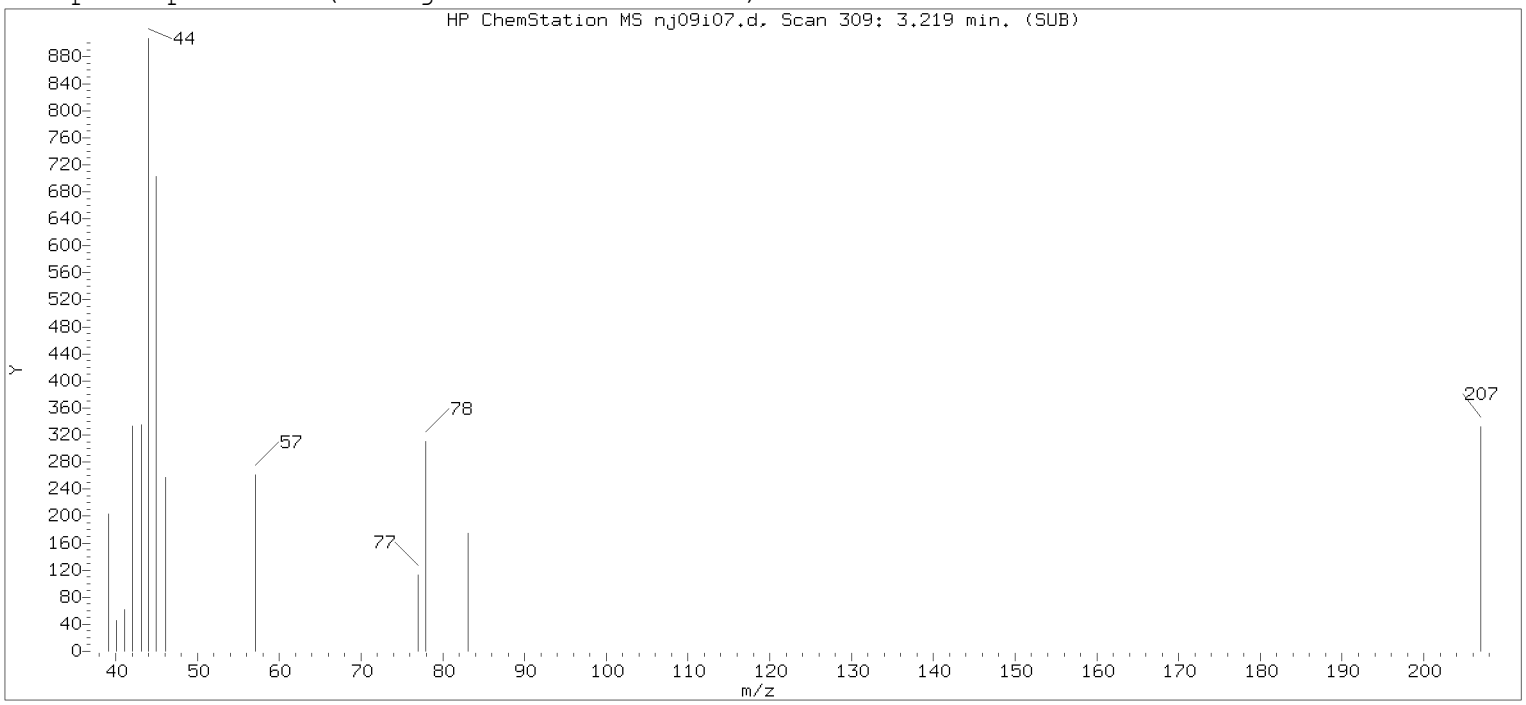
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area (flag) : 6949M
On-Column Amount (ng) : 73.8419
Integration start scan : 296 Integration stop scan: 349
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

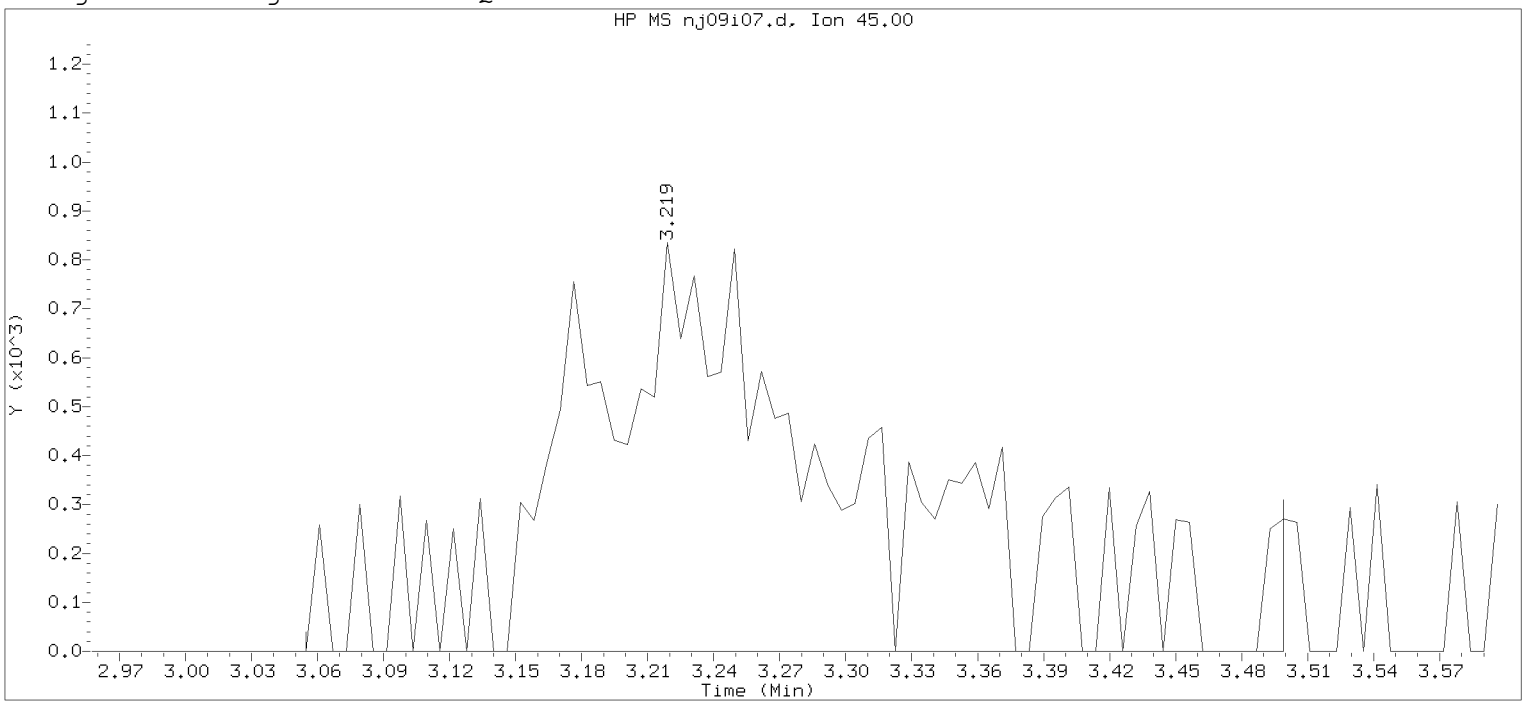
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

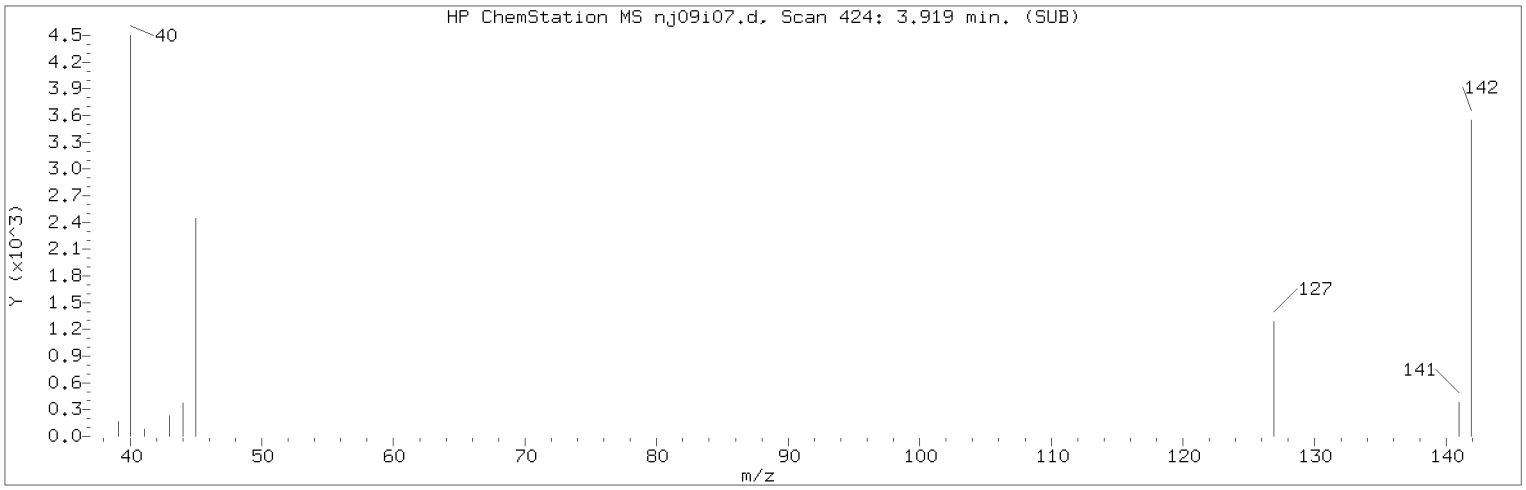
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

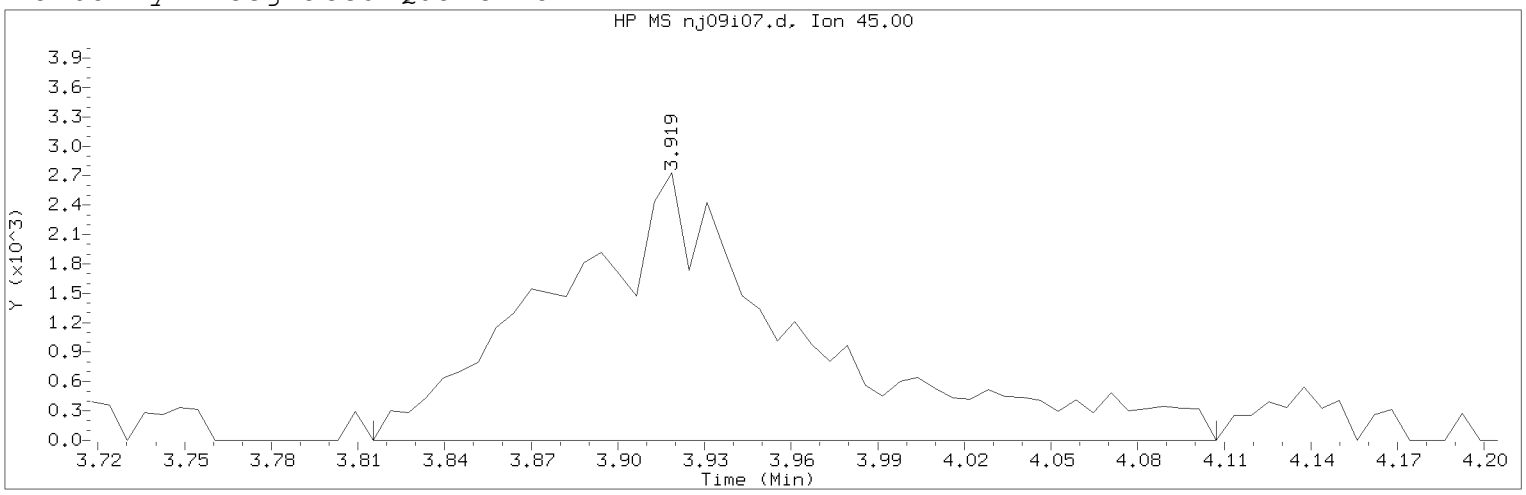
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area : 7713
On-column Amount (ng) : 86.1168
Integration start scan : 281 Integration stop scan: 354
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

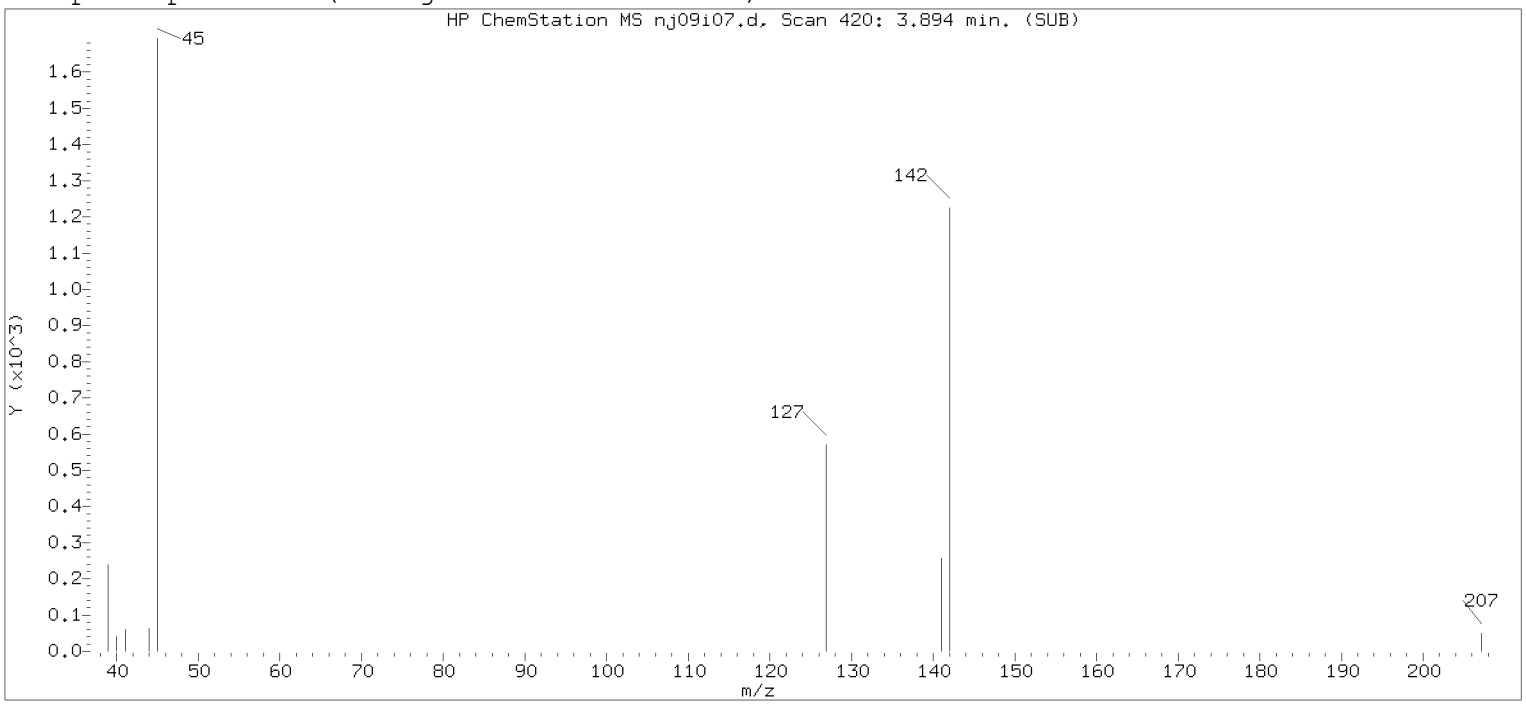
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.919
Quant Ion : 45.00
Area (flag) : 16282M
On-Column Amount (ng) : 22.1983
Integration start scan : 406 Integration stop scan: 454
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

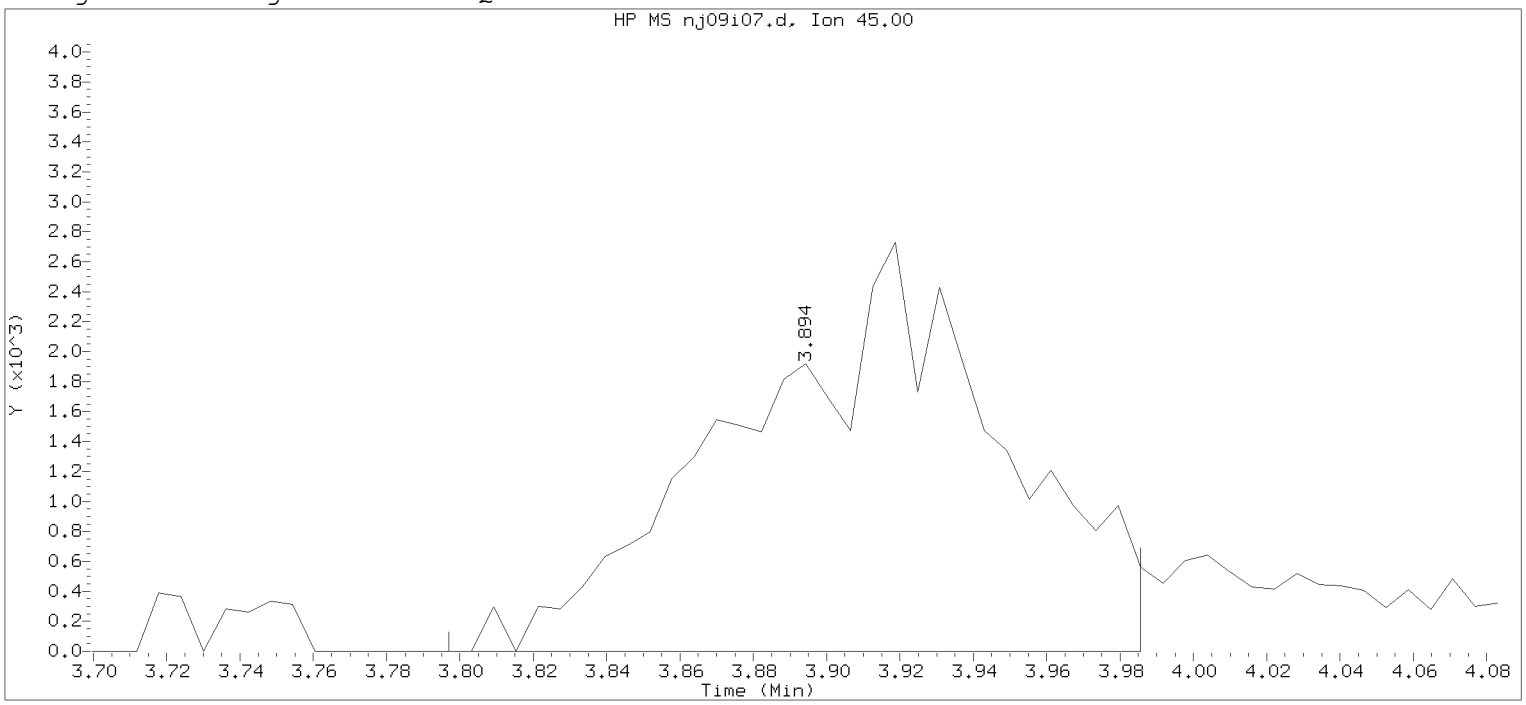
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

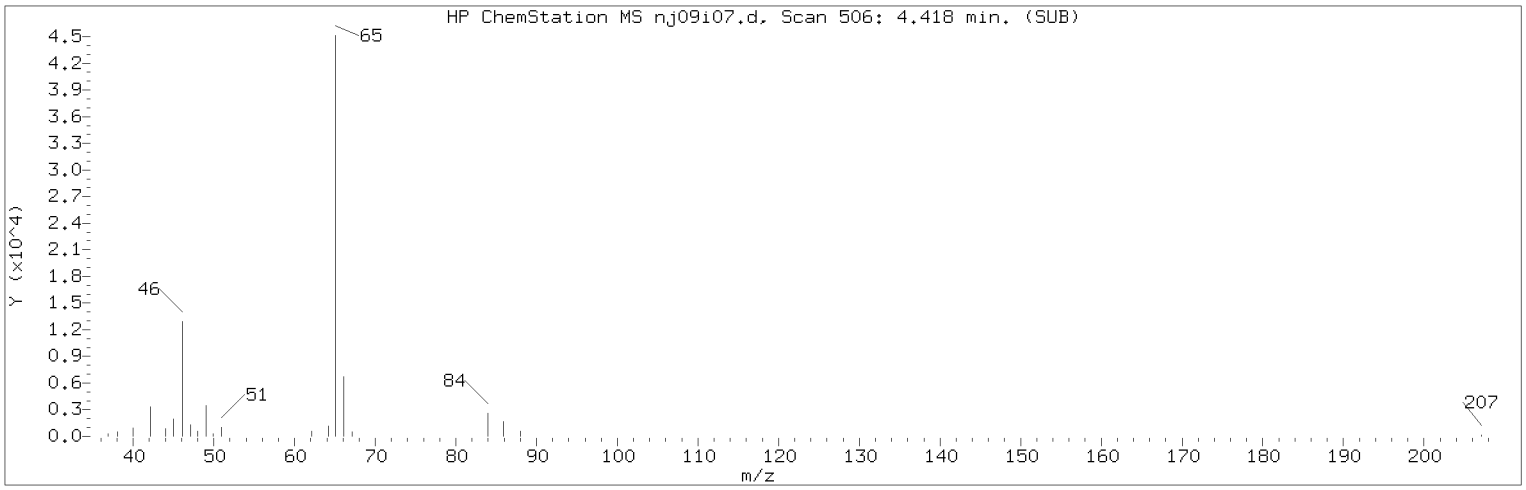
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

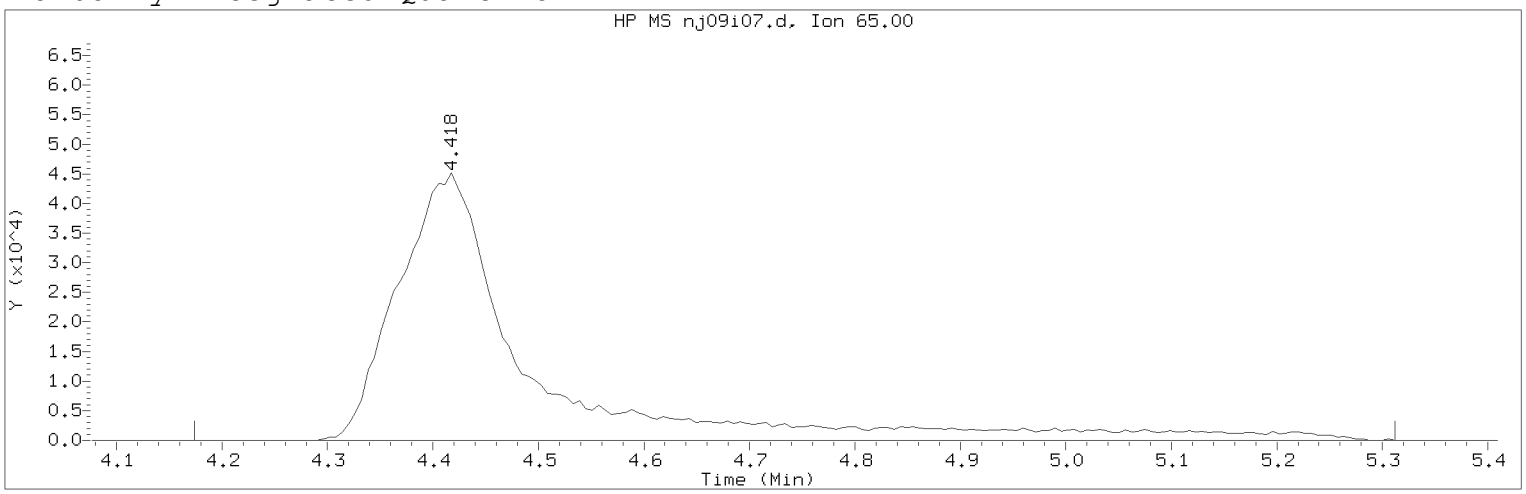
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 420
Retention Time (minutes): 3.894
Quant Ion : 45.00
Area : 13378
On-column Amount (ng) : 20.0282
Integration start scan : 403 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

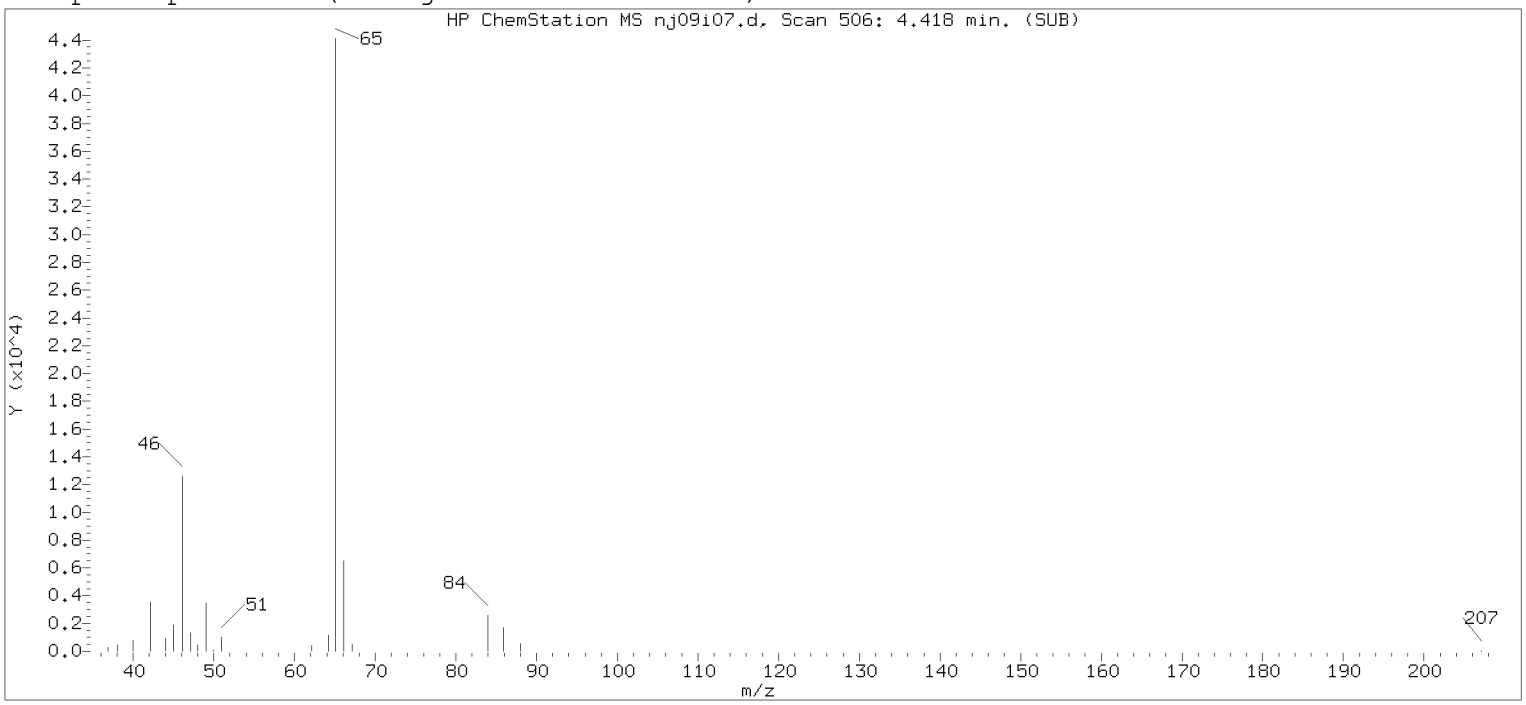
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area (flag) : 388809M
On-Column Amount (ng) : 250.0000
Integration start scan : 465 Integration stop scan: 652
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

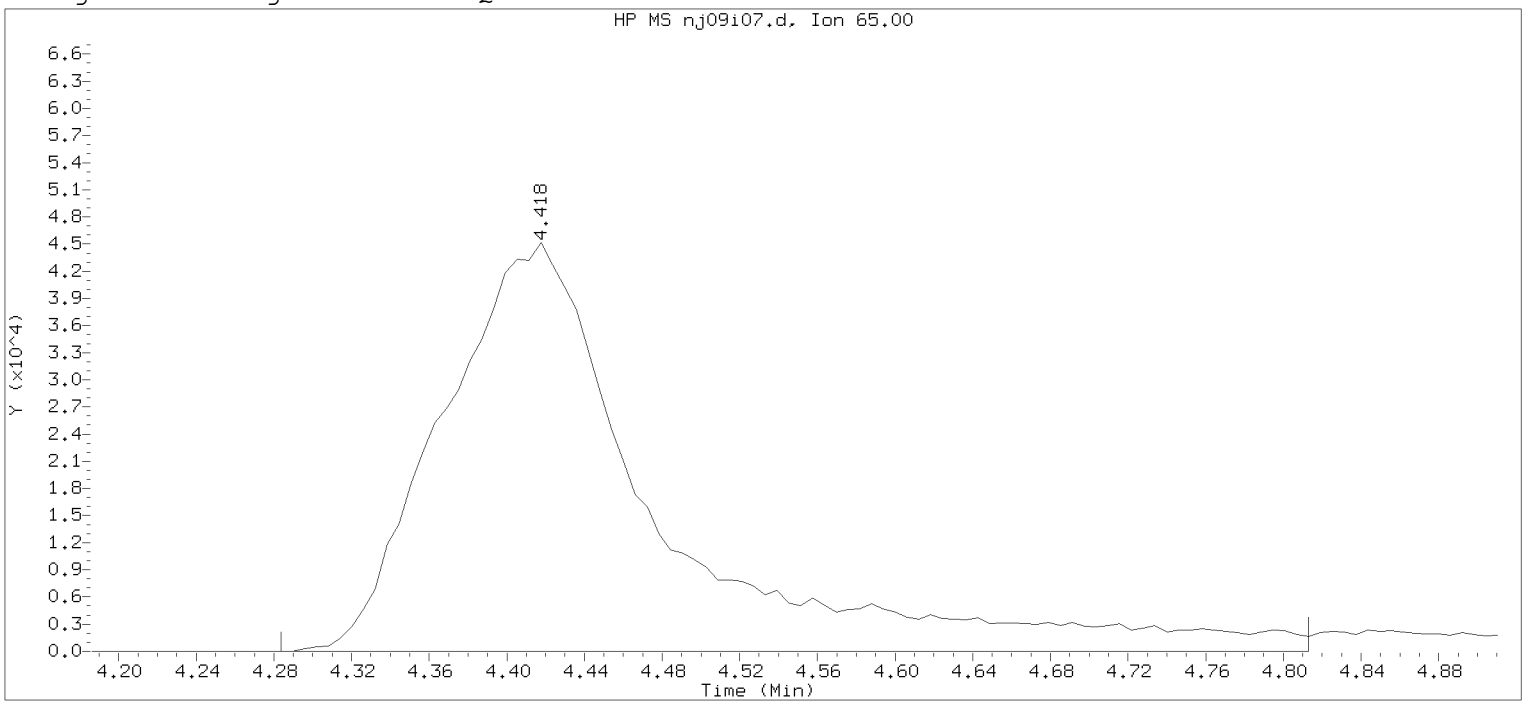
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

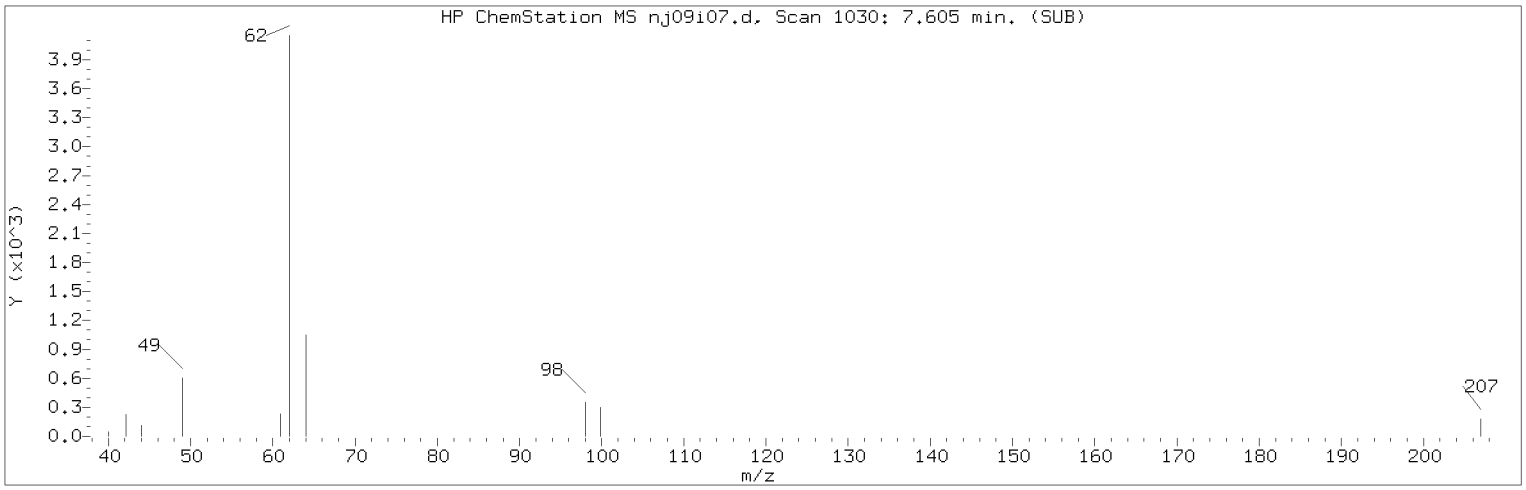
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

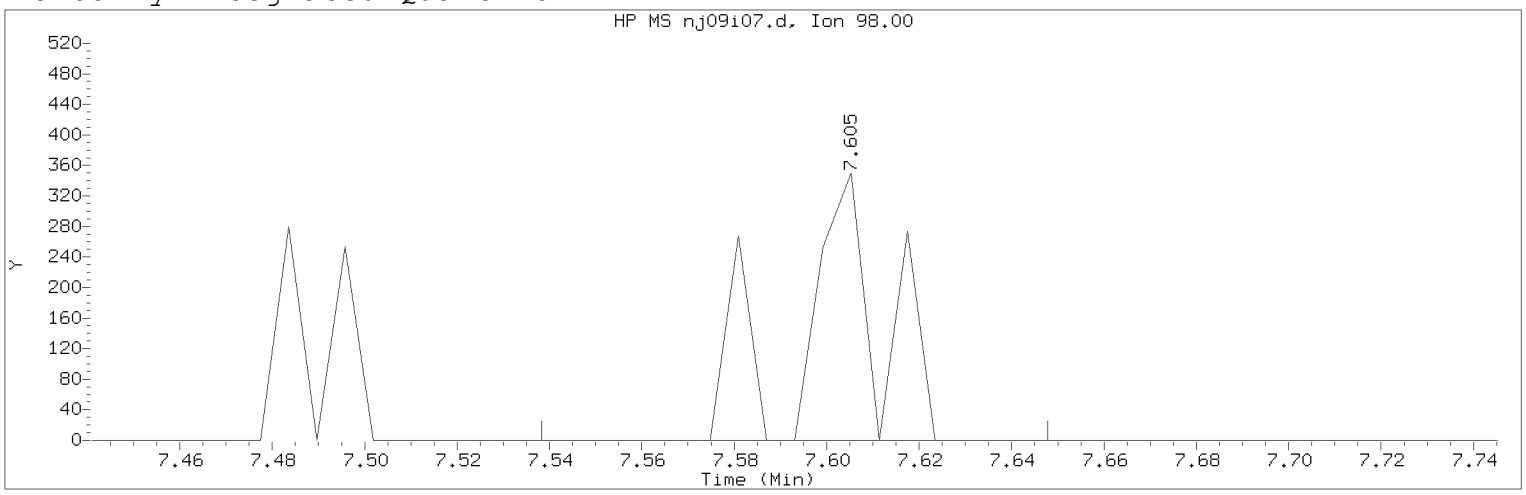
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area : 345911
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

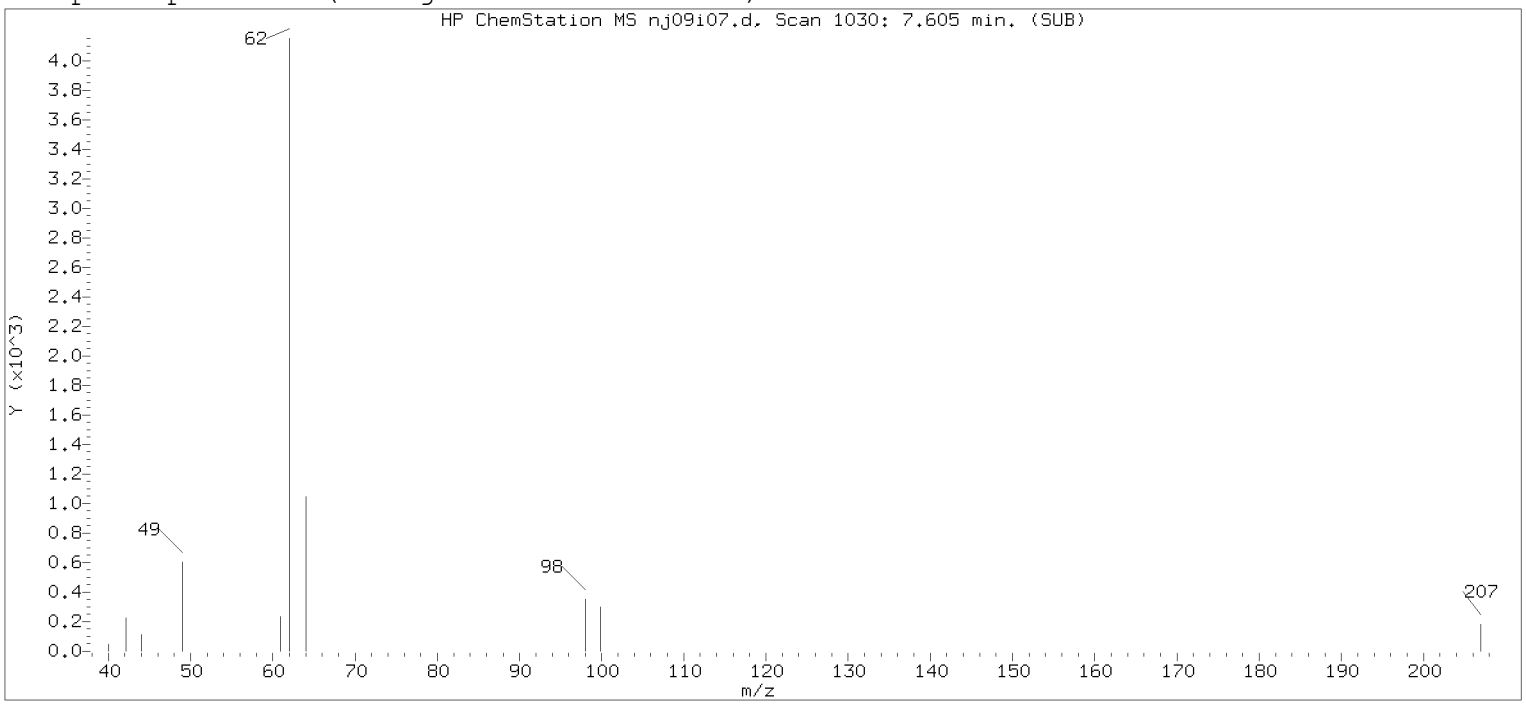
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1030
Retention Time (minutes): 7.605
Quant Ion : 98.00
Area (flag) : 417M
On-Column Amount (ng) : 0.4464
Integration start scan : 1018 Integration stop scan: 1036
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

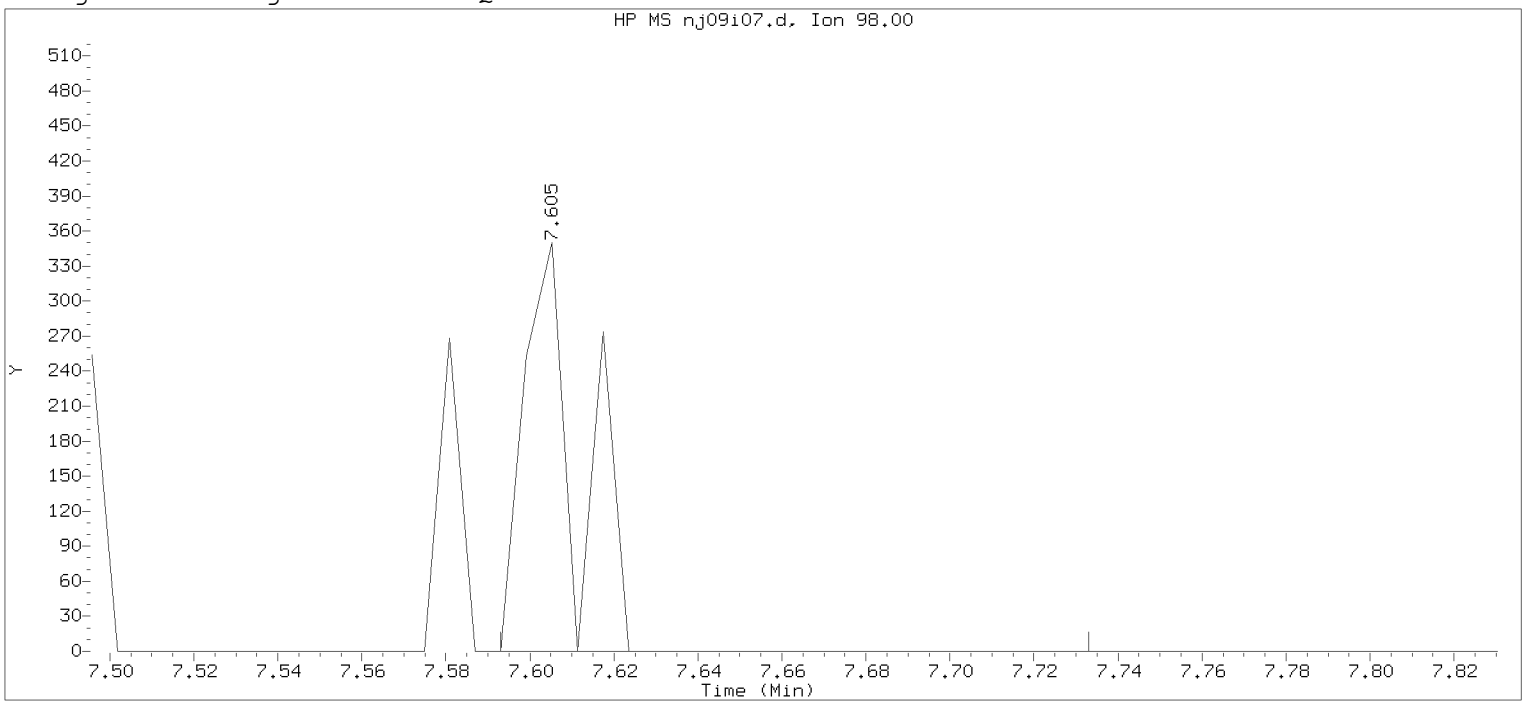
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

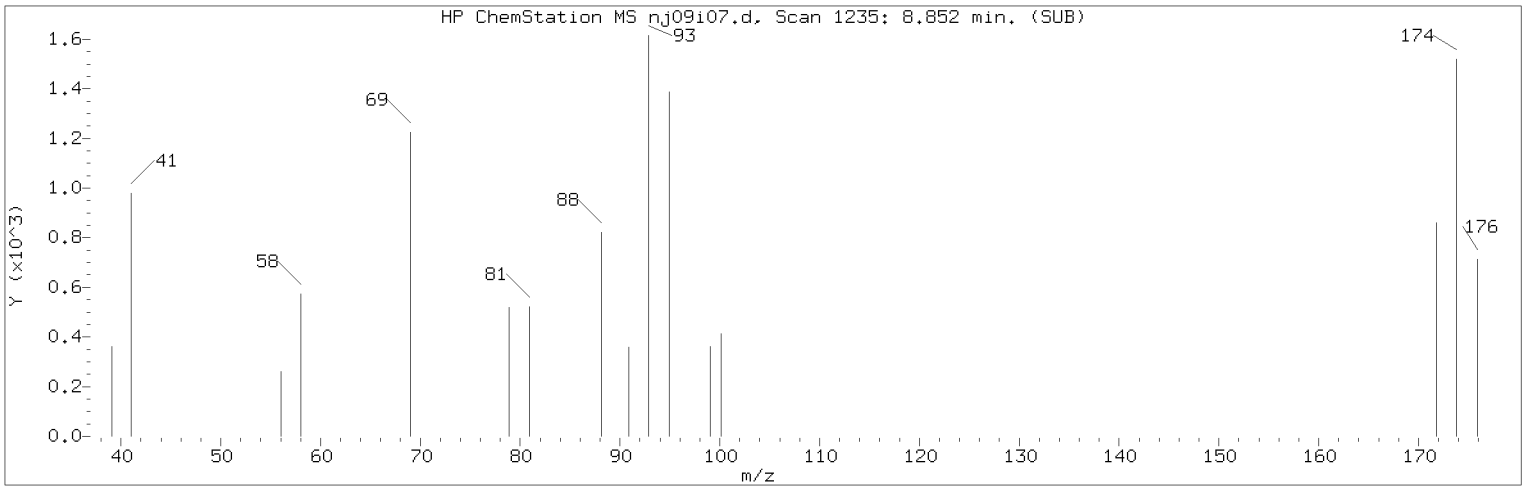
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

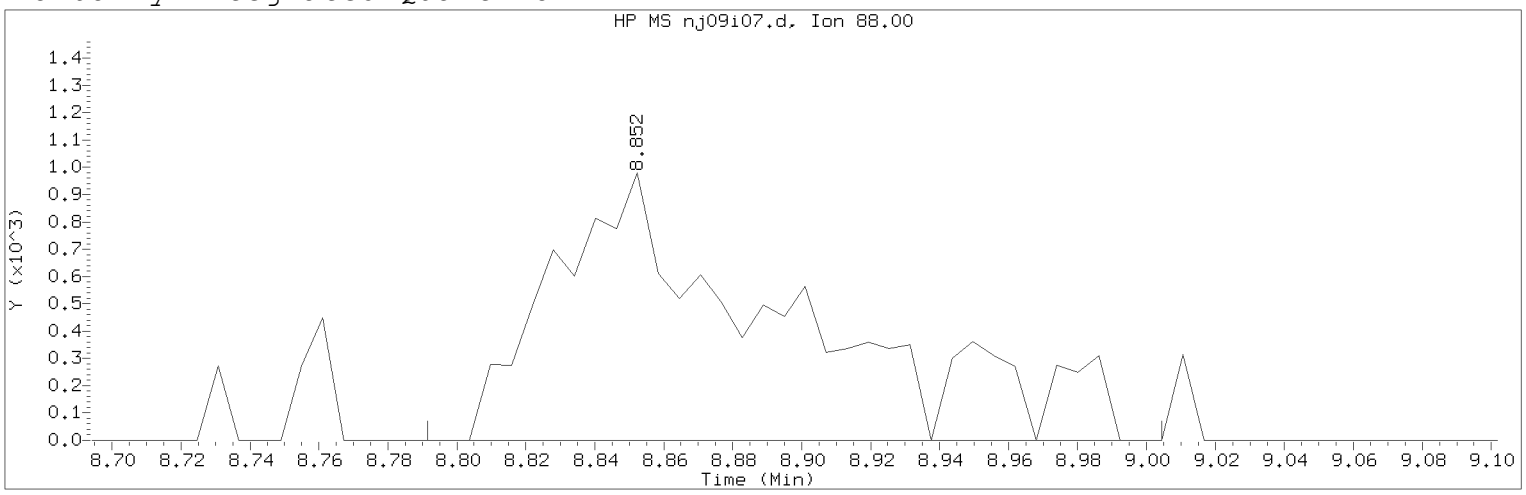
Compound Number	: 61		
Compound Name	: 1,2-Dichloroethane		
Scan Number	: 1030		
Retention Time (minutes)	: 7.605		
Quant Ion	: 98.00		
Area	: 320		
On-column Amount (ng)	: 0.3478		
Integration start scan	: 1027	Integration stop scan:	1050
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

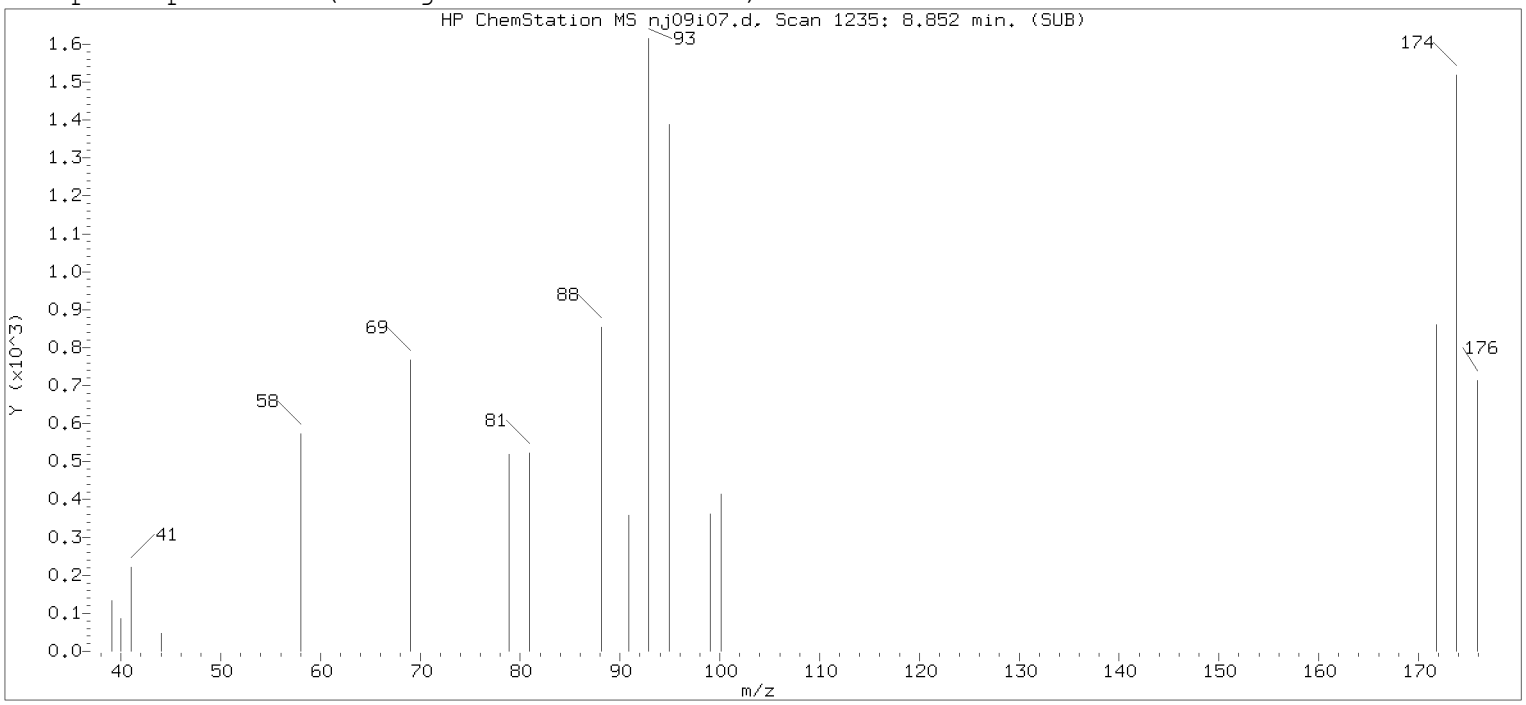
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area (flag) : 4683M
On-Column Amount (ng) : 41.4442
Integration start scan : 1224 Integration stop scan: 1259
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

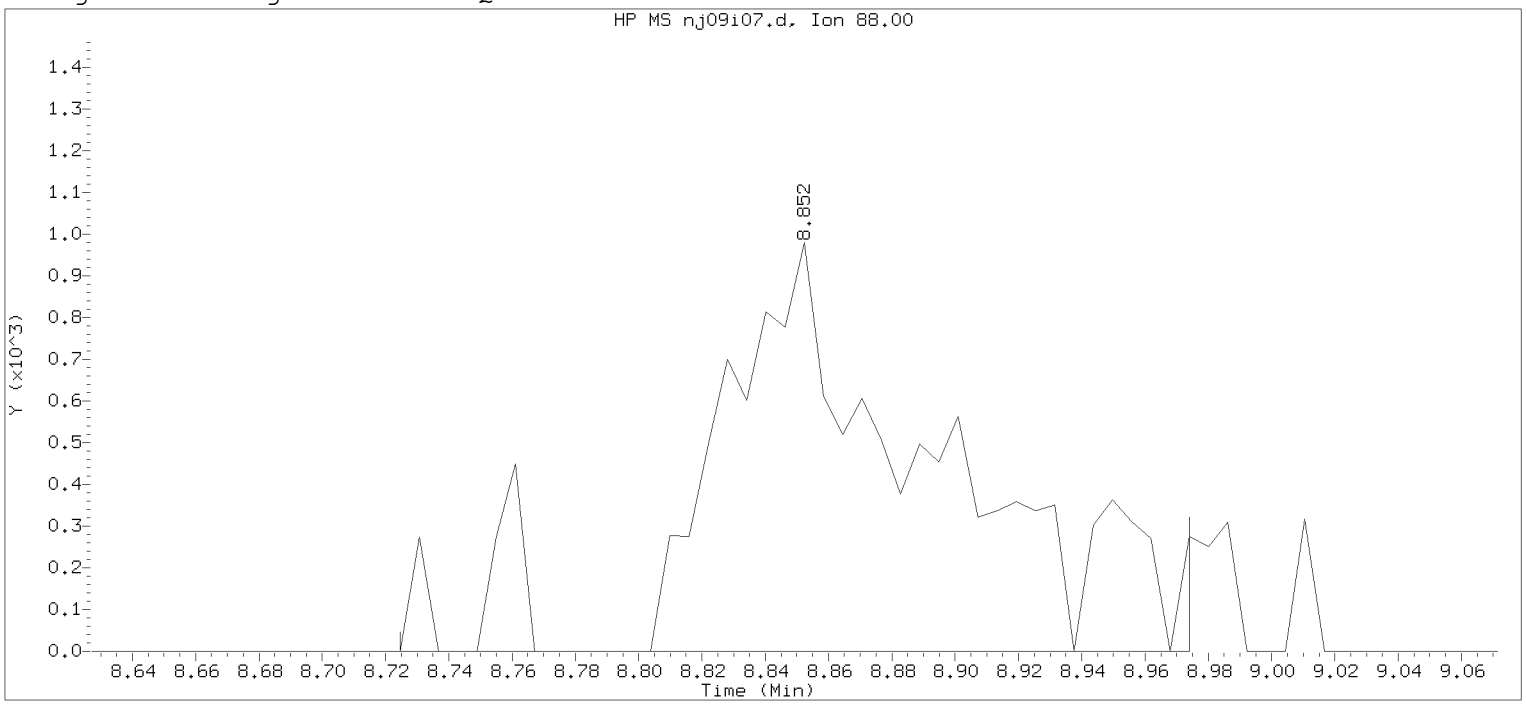
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

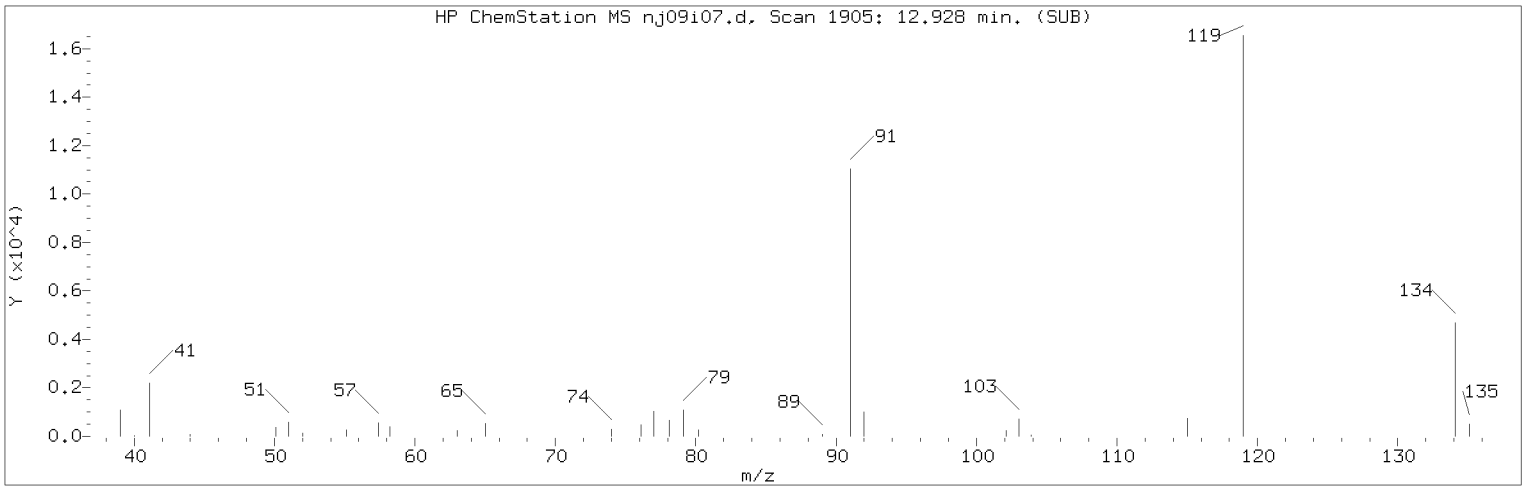
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

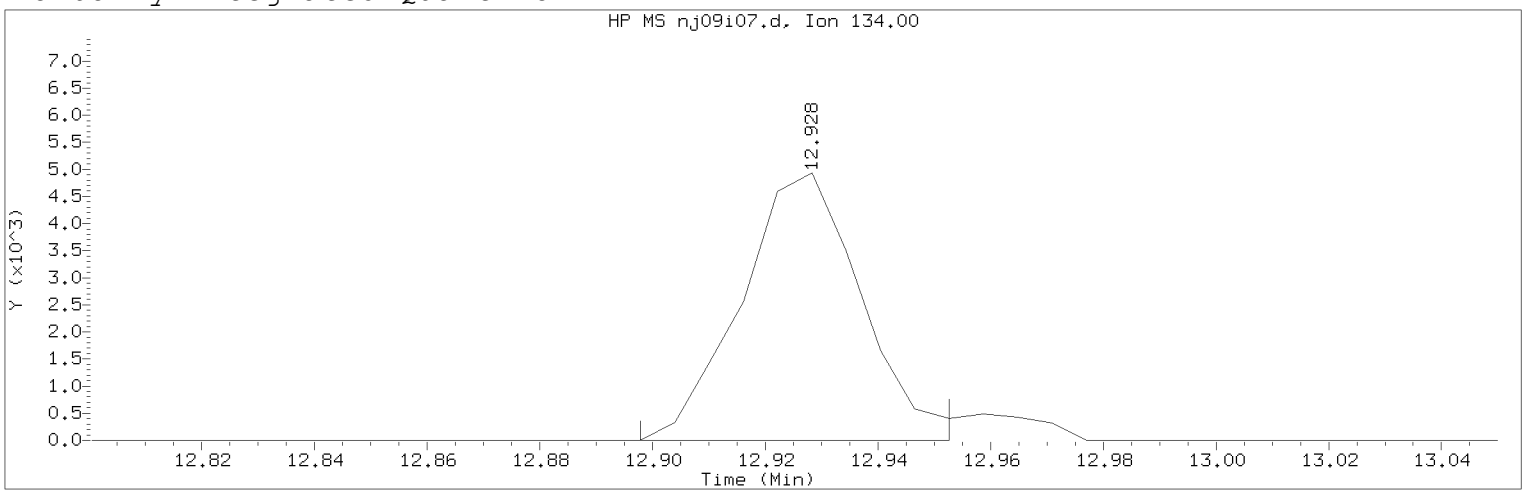
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area : 4792
On-column Amount (ng) : 63.8068
Integration start scan : 1213 Integration stop scan: 1254
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

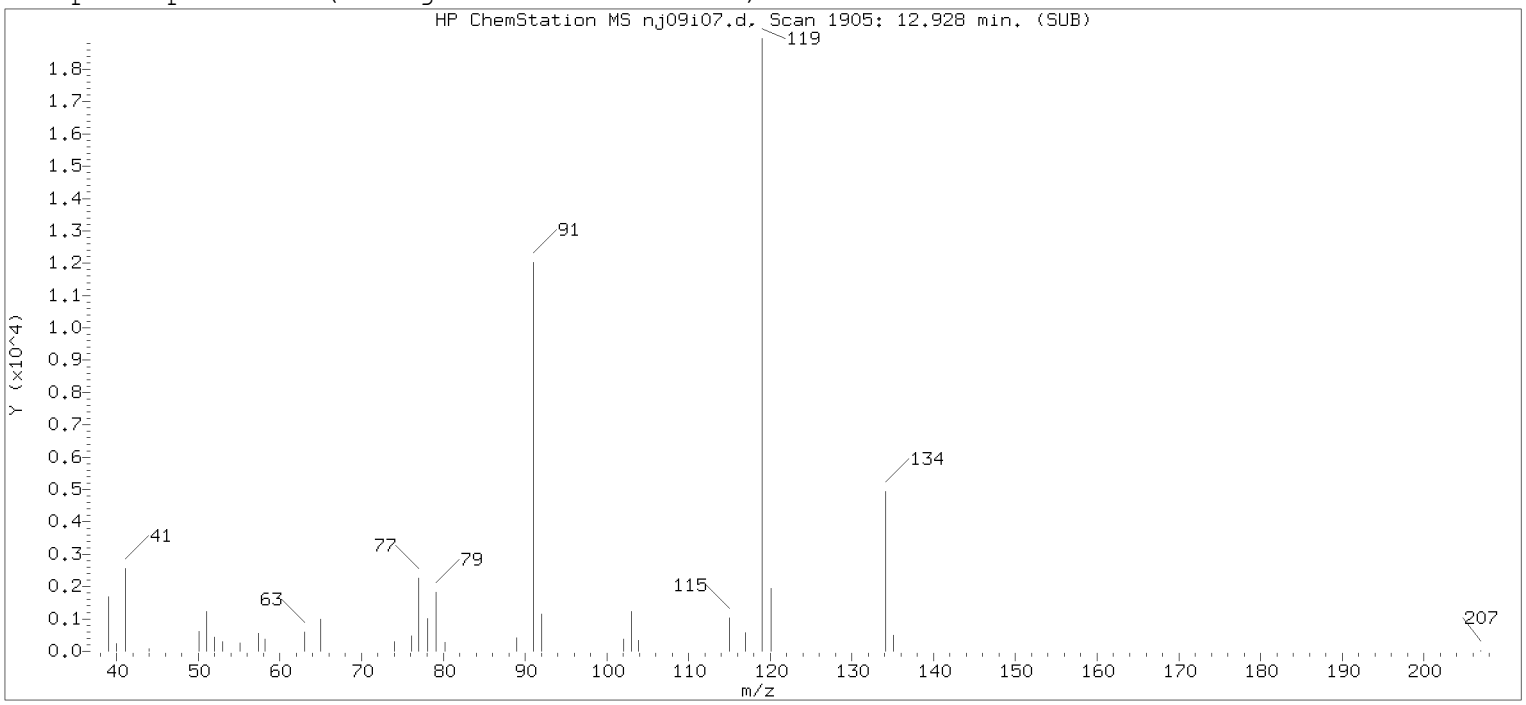
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area (flag) : 7292M
On-Column Amount (ng) : 0.9061
Integration start scan : 1899 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

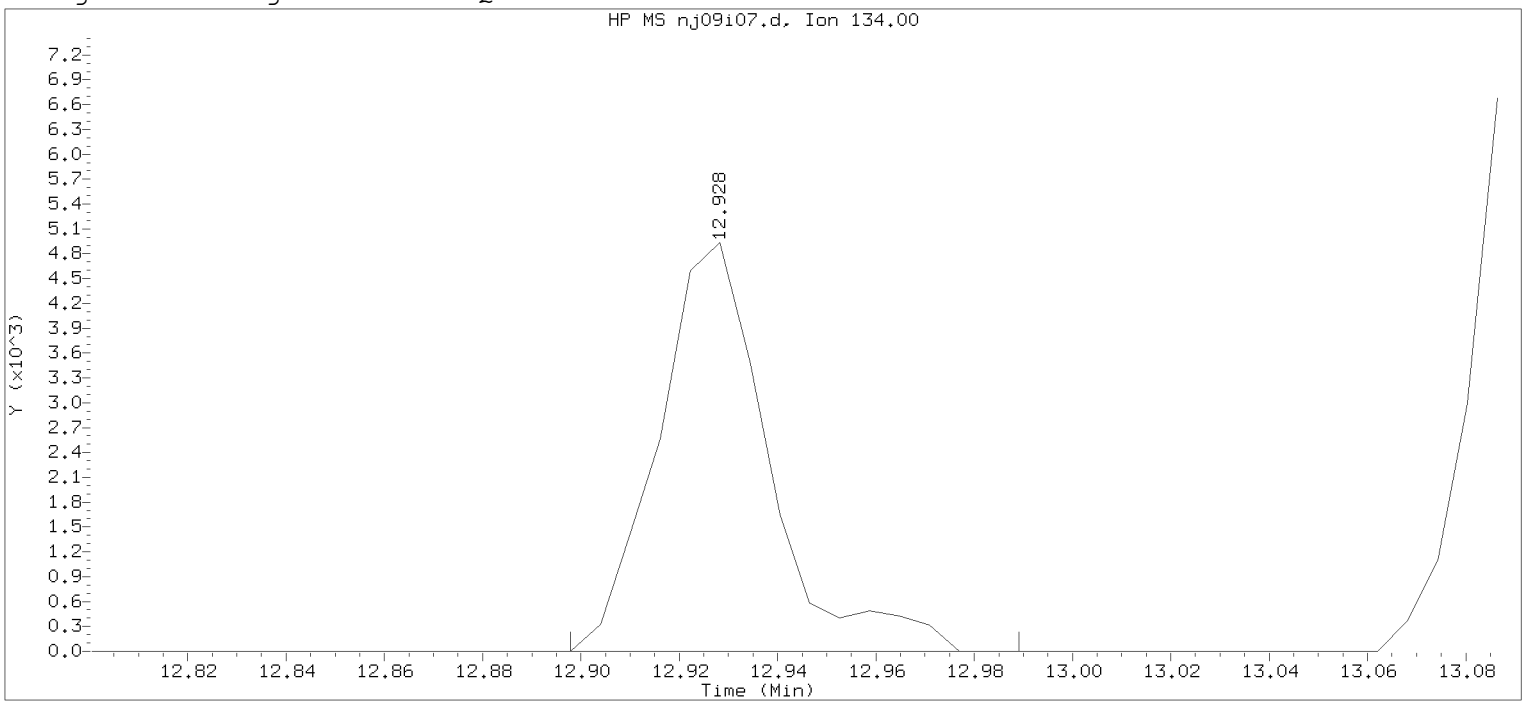
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



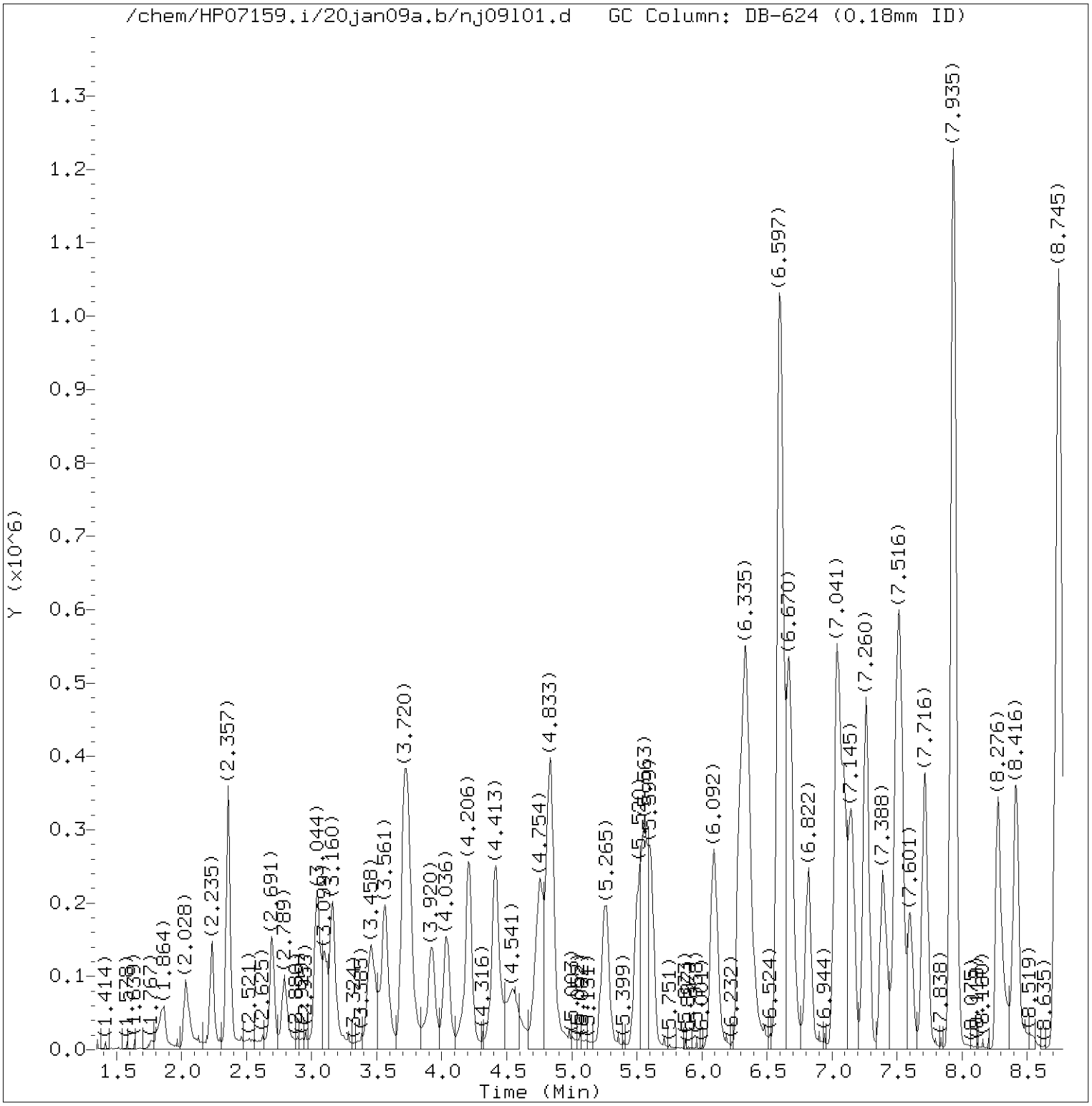
Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area : 7741
On-column Amount (ng) : 0.9299
Integration start scan : 1899 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492



Total Ion Chromatogram (TIC)

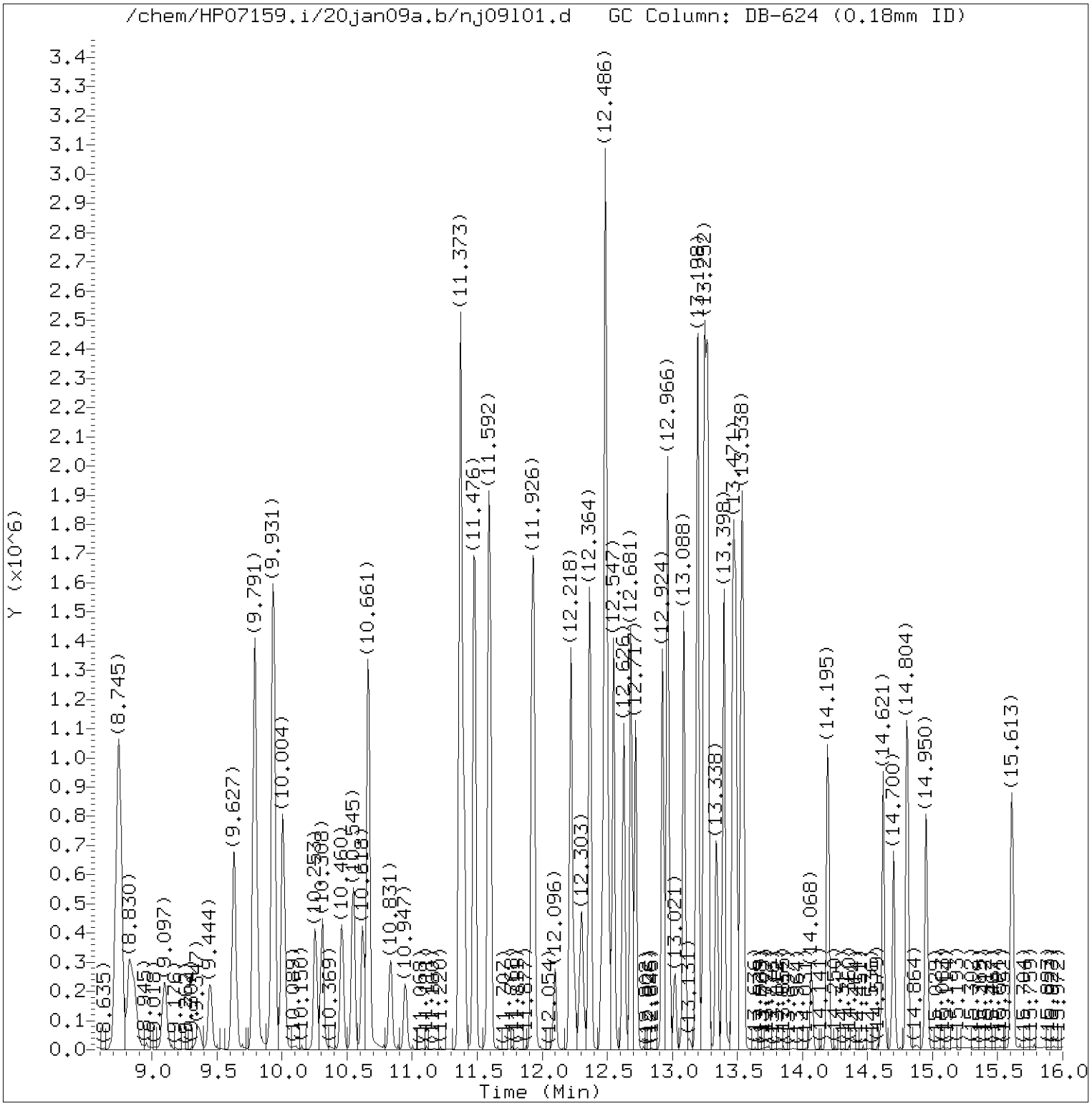
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	172887M	16.967
4) Chloromethane	(2)	2.235	50	184992	16.943
6) Vinyl Chloride	(2)	2.357	62	188033	17.698
5) 1,3-Butadiene	(2)	2.363	39	123154M	16.165
8) Bromomethane	(2)	2.691	94	132573	18.199
9) Chloroethane	(2)	2.789	64	113549	18.260
10) Dichlorofluoromethane	(2)	3.038	67	260659	18.303
12) Trichlorofluoromethane	(2)	3.099	101	233281	19.978
11) n-Pentane	(2)	3.160	43	191981	16.781
13) Ethanol	(1)	3.227	45	45809	484.983
15) Freon 123a	(2)	3.458	67	163827	19.151
16) Acrolein	(1)	3.561	56	341433	129.019
17) 1,1-Dichloroethene	(2)	3.707	96	121203	17.811
19) Freon 113	(2)	3.732	101	124454	19.711
18) Acetone	(1)	3.750	58	155756	139.737
22) Methyl Iodide	(2)	3.920	142	230118	18.116
21) 2-Propanol	(1)	3.926	45	87961	119.481
23) Carbon Disulfide	(2)	4.036	76	369879	16.997
27) Methyl Acetate	(2)	4.188	43	159905	19.127
25) Allyl Chloride	(2)	4.212	41	231154	19.240
28) Methylene Chloride	(2)	4.413	84	151683	18.767
29)*t-Butyl alcohol-d10	(1)	4.419	65	390248M	250.000
30) t-Butyl alcohol	(1)	4.553	59	282560	194.213
31) Acrylonitrile	(2)	4.754	53	399953	88.580
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	424064	19.177
32) trans-1,2-Dichloroethene	(2)	4.839	96	148725	19.144
34) n-Hexane	(2)	5.253	57	200972	18.739
36) 1,1-Dichloroethane	(2)	5.502	63	273982	19.332
38) di-Isopropyl ether	(2)	5.557	45	469654	19.237
39) 2-Chloro-1,3-butadiene	(2)	5.605	53	242564	19.389
40) Ethyl t-butyl ether	(2)	6.092	59	453185	19.530
43) 1,2-Dichloroethene (Total)	(2)		96	327646	39.422
44) 2-Butanone	(2)	6.293	43	838072	132.744
42) cis-1,2-Dichloroethene	(2)	6.329	96	178921	20.278
45) 2,2-Dichloropropane	(2)	6.348	77	245245	19.600
47) Propionitrile	(1)	6.378	54	249794	147.003
48) Methacrylonitrile	(2)	6.597	67	672805	147.518
49) Bromochloromethane	(2)	6.670	128	83465	20.007

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.676	71	161692	91.653
51) Chloroform	(2)	6.816	83	273654	19.796
52)$Dibromofluoromethane	(2)	7.035	113	327682	50.439
53) 1,1,1-Trichloroethane	(2)	7.047	97	242925	19.424
54) Cyclohexane	(2)	7.151	56	239373	18.608
55) 1,1-Dichloropropene	(2)	7.260	75	214656	18.976
56) Carbon Tetrachloride	(2)	7.260	117	208434	19.329
58) Isobutyl Alcohol	(1)	7.394	41	246899	473.743
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81217M	49.444
60) Benzene	(2)	7.528	78	616763	19.154
61) 1,2-Dichloroethane	(2)	7.601	62	223553	19.624
65) t-Amyl methyl ether	(2)	7.716	73	459749	19.750
66)*Fluorobenzene	(2)	7.929	96	1309085	50.000
67) n-Heptane	(2)	7.935	43	217579	17.577
69) n-Butanol	(1)	8.276	56	428313	954.058
71) Trichloroethene	(2)	8.410	95	161539	19.042
72) Methylcyclohexane	(2)	8.726	83	283782	20.350
73) 1,2-Dichloropropane	(2)	8.751	63	165995	20.160
76) Methyl Methacrylate	(2)	8.824	69	150988	20.052
75) 1,4-Dioxane	(1)	8.842	88	61853M	545.377
74) Dibromomethane	(2)	8.860	93	103521	19.714
78) Bromodichloromethane	(2)	9.097	83	210550	19.640
79) 2-Nitropropane	(2)	9.359	41	70302	18.056
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	123006	18.885
81) cis-1,3-Dichloropropene	(2)	9.627	75	270616	19.789
82) 4-Methyl-2-pentanone	(2)	9.791	43	1188234	92.892
83)$Toluene-d8	(3)	9.931	98	1310155	49.875
88) Toluene	(3)	10.004	92	411185	19.269
90) 1,3-Dichloropropene (total)	(3)		100	521418	38.726
89) trans-1,3-Dichloropropene	(3)	10.253	75	250802	18.937
91) Ethyl Methacrylate	(3)	10.308	69	247225	18.736
92) 1,1,2-Trichloroethane	(3)	10.460	97	151735	20.084
93) Tetrachloroethene	(3)	10.545	166	180295	19.294
94) 1,3-Dichloropropane	(3)	10.618	76	257089	19.606
96) 2-Hexanone	(3)	10.661	43	912359	90.325
97) Dibromochloromethane	(3)	10.831	129	174399	20.115
99) 1,2-Dibromoethane	(3)	10.947	107	161829	19.561
100)*Chlorobenzene-d5	(3)	11.373	117	1007216	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.397	112	469051	19.695
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	167194	19.481
104) Ethylbenzene	(3)	11.482	91	812040	19.674
106) m+p-Xylene	(3)	11.592	106	642426	39.614
108) Xylene (Total)	(3)		106	954122	59.157
107) o-Xylene	(3)	11.920	106	311696	19.542
109) Styrene	(3)	11.938	104	529744	19.775
110) Bromoform	(3)	12.096	173	128184	19.583
111) Isopropylbenzene	(3)	12.218	105	846257	20.089
112) Cyclohexanone	(1)	12.297	55	233984	514.439
114)$4-Bromofluorobenzene	(3)	12.364	95	516611	49.779
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	244630	20.176
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	422238	101.238
115) Bromobenzene	(4)	12.486	156	204667	20.076
117) 1,2,3-Trichloropropane	(4)	12.510	110	75948	19.774
119) n-Propylbenzene	(4)	12.547	91	1009049	20.415
120) 2-Chlorotoluene	(4)	12.626	126	202889	19.910
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	723706	19.983
121) 4-Chlorotoluene	(4)	12.717	126	206836	19.585
124) tert-Butylbenzene	(4)	12.924	134	159664M	19.895
125) Pentachloroethane	(4)	12.960	167	123390	19.202
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	739278	19.668
127) sec-Butylbenzene	(4)	13.088	105	944178	20.071
129) 1,3-Dichlorobenzene	(4)	13.192	146	394795	19.911
130) p-Isopropyltoluene	(4)	13.198	119	823611	20.119
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	551230	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	402308	20.007
134) 1,2,3-Trimethylbenzene	(4)	13.271	105	739639	20.275
135) Benzyl Chloride	(4)	13.338	91	480091	17.914
141) Diethylbenzene (total)	(4)		100	1405294	59.155
136) 1,3-Diethylbenzene	(4)	13.398	119	485360	19.807
137) 1,4-Diethylbenzene	(4)	13.471	119	512643	19.702
139) n-Butylbenzene	(4)	13.490	92	415139	19.659
138) 1,2-Dichlorobenzene	(4)	13.526	146	375889	19.995
140) 1,2-Diethylbenzene	(4)	13.544	119	407291	19.646
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	63970	19.522
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	300827	20.076
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	267533	20.476

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.700	225	112216	18.987
148) Naphthalene	(4)	14.804	128	822043	20.066
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	243832	20.330
150) 2-Methylnaphthalene	(4)	15.613	142	445871	18.843

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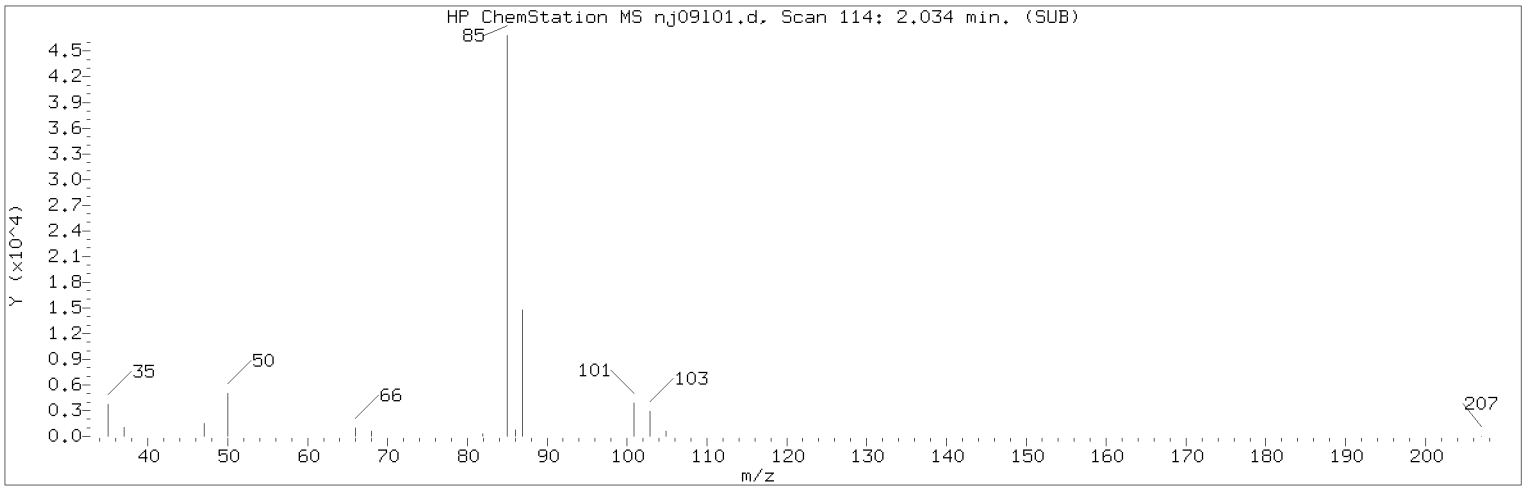
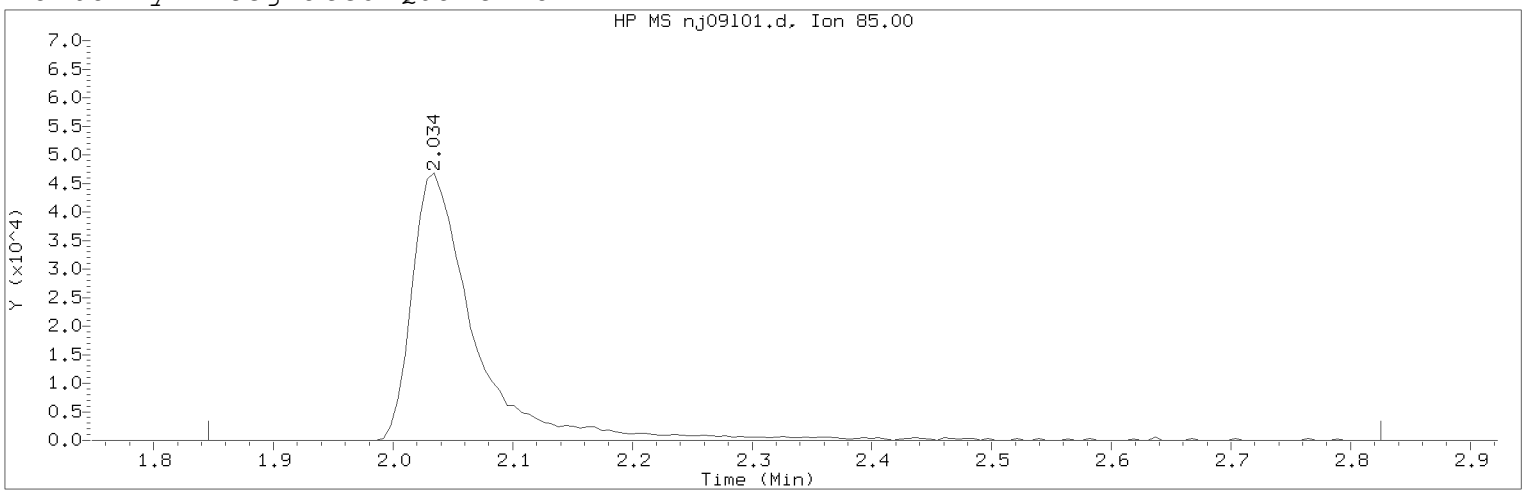
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

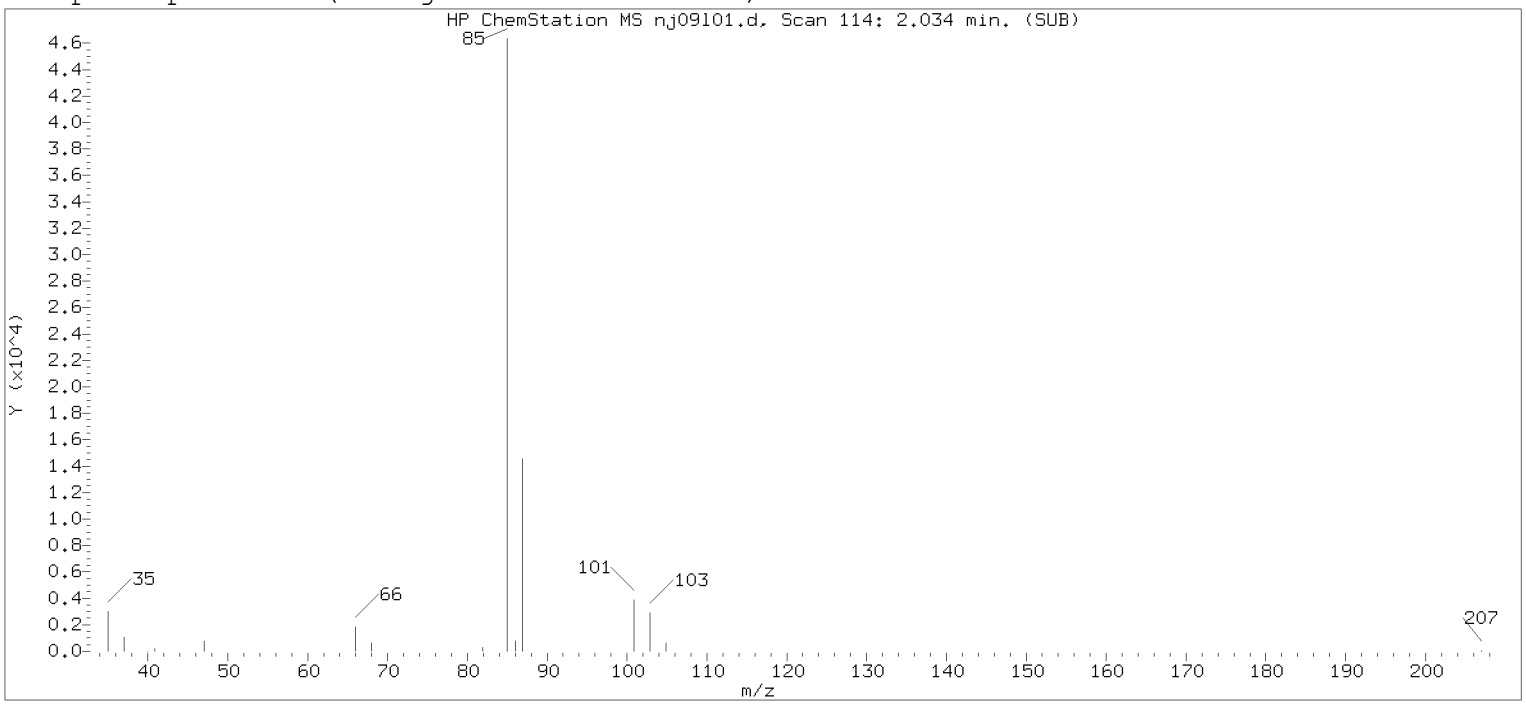
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 172887M
On-Column Amount (ng) : 16.9669
Integration start scan : 82 Integration stop scan: 243
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

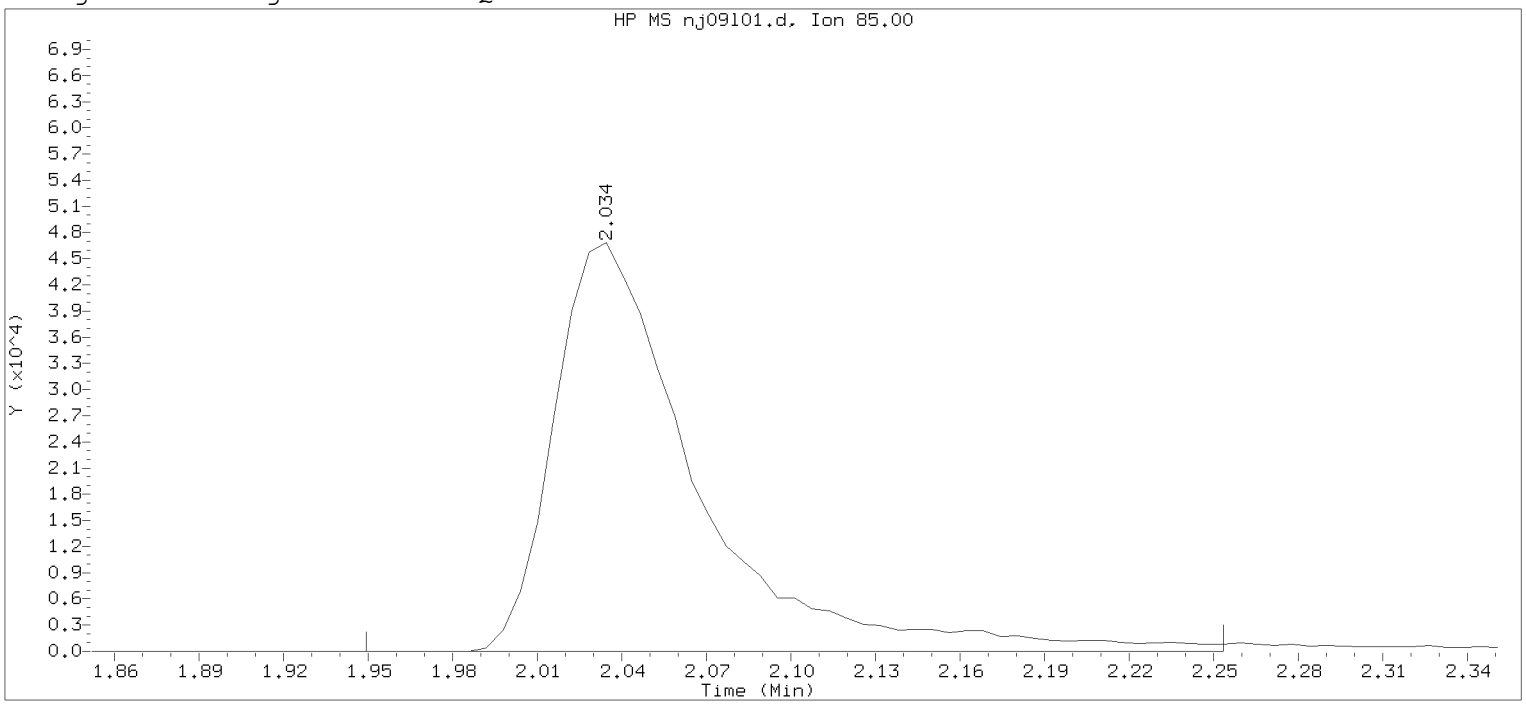
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

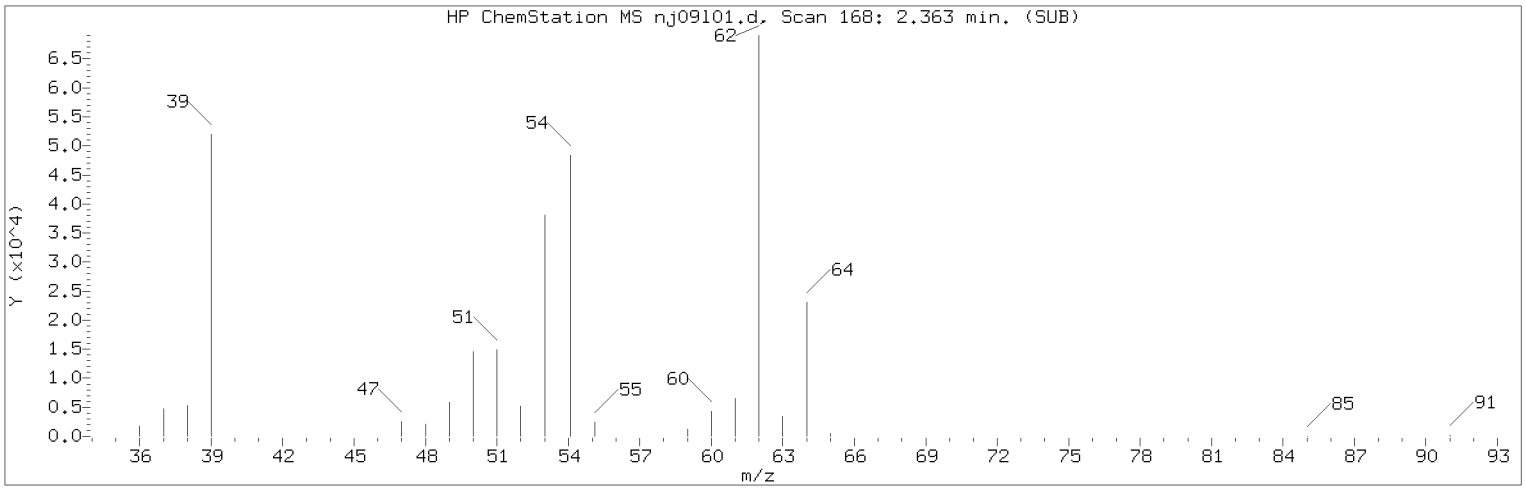
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

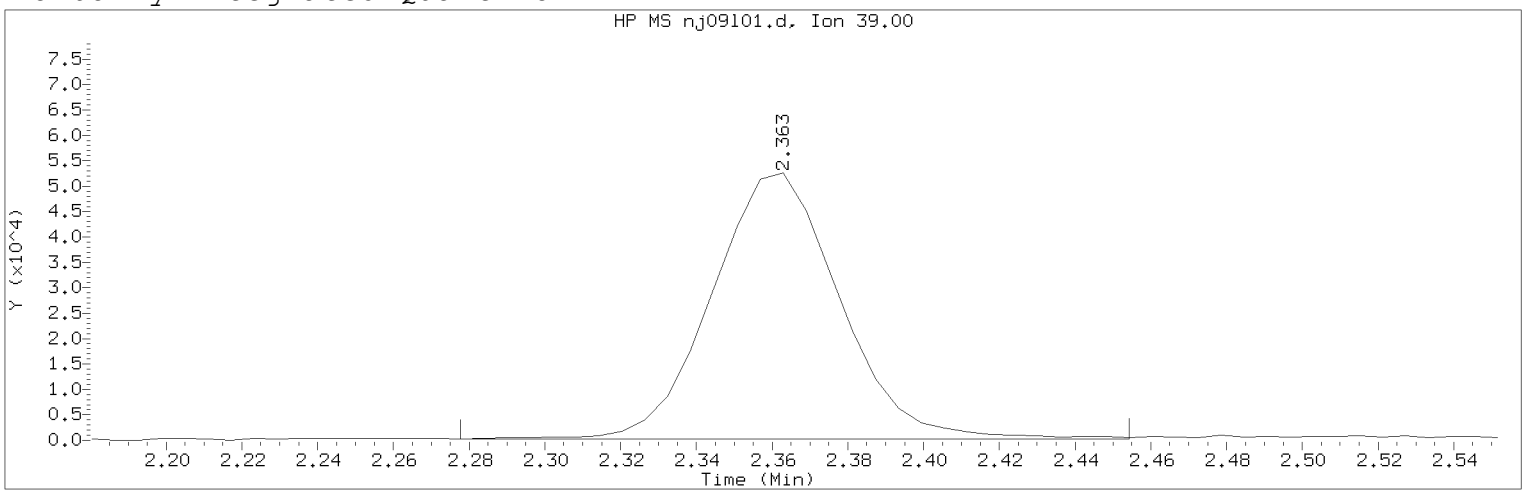
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 165219
On-column Amount (ng) : 16.2144
Integration start scan : 99 Integration stop scan: 149
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

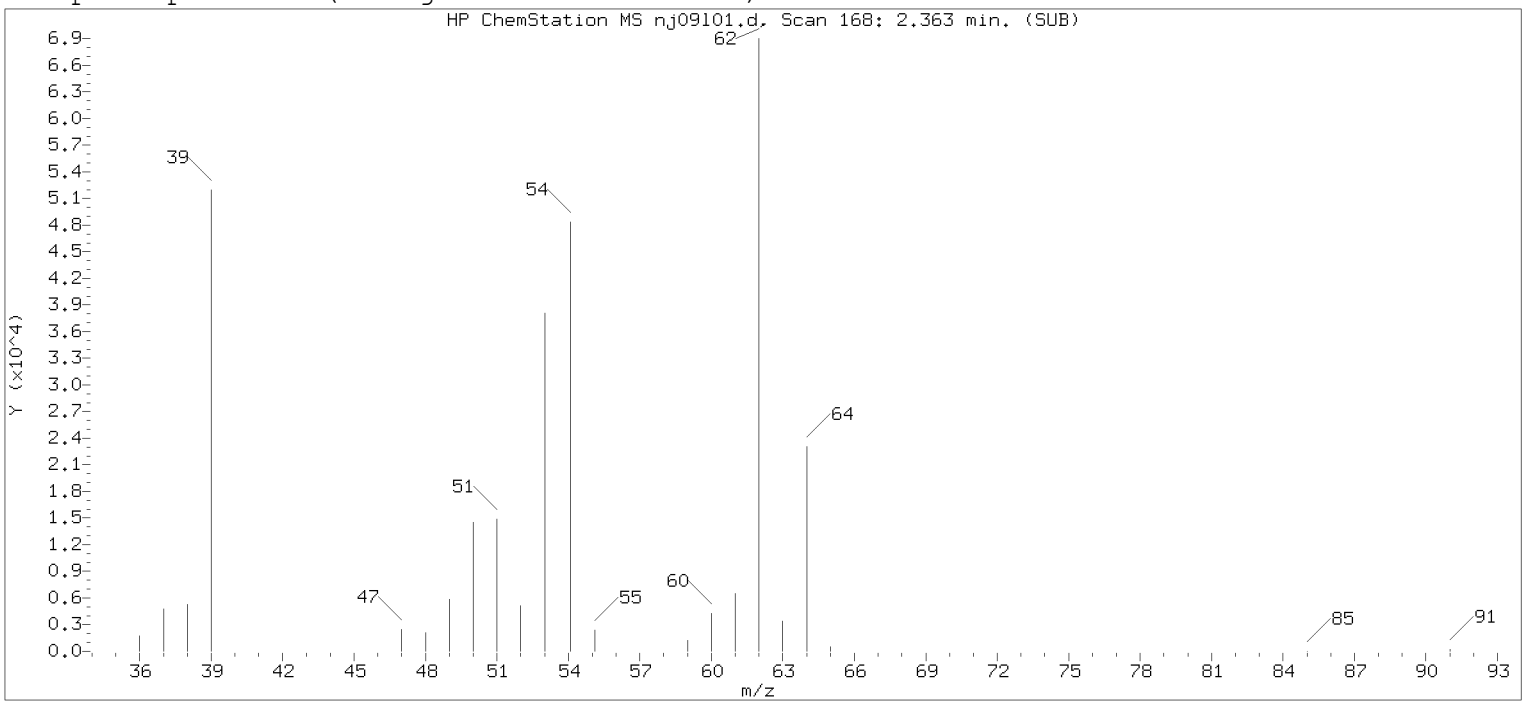
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 123154M
On-Column Amount (ng) : 16.1652
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 222 Y at integration end: 222

Reason for manual integration: improper integration

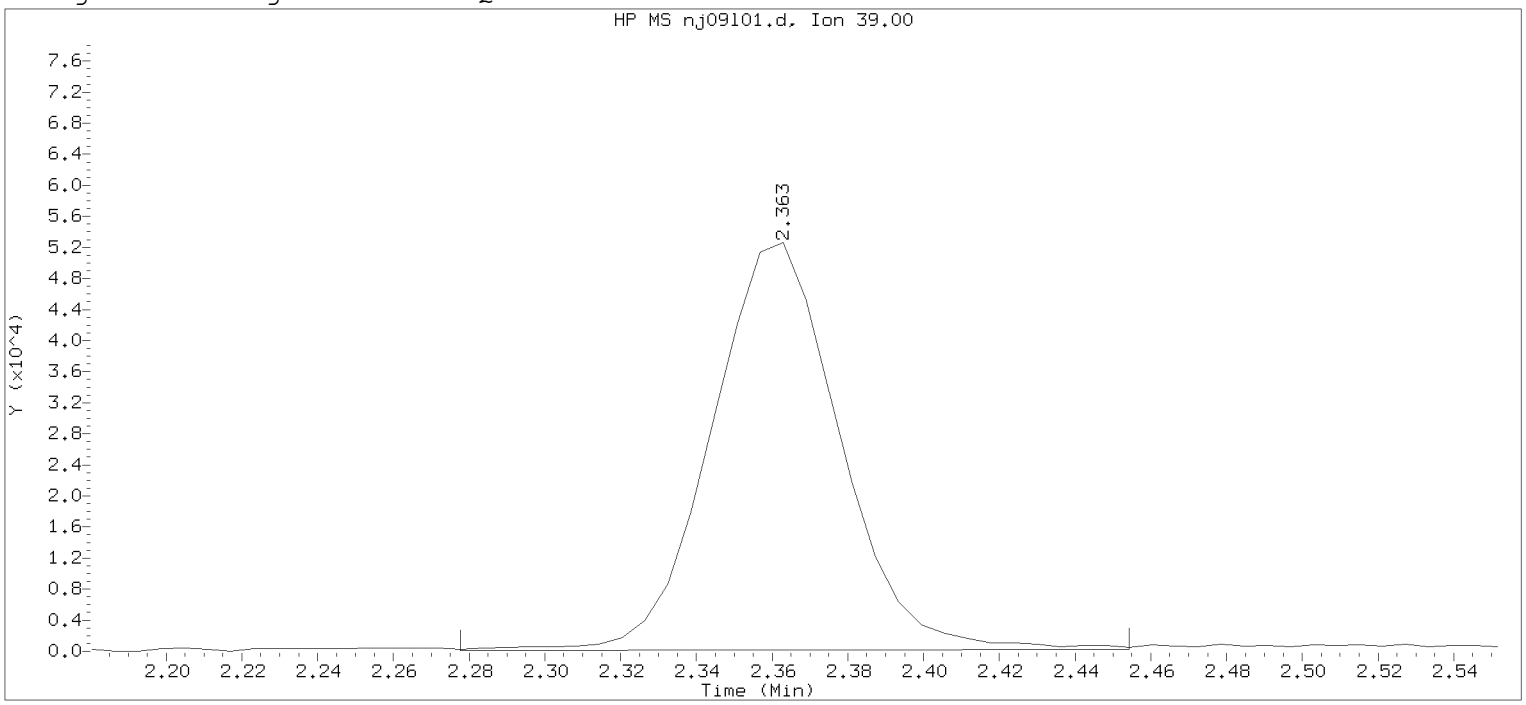
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

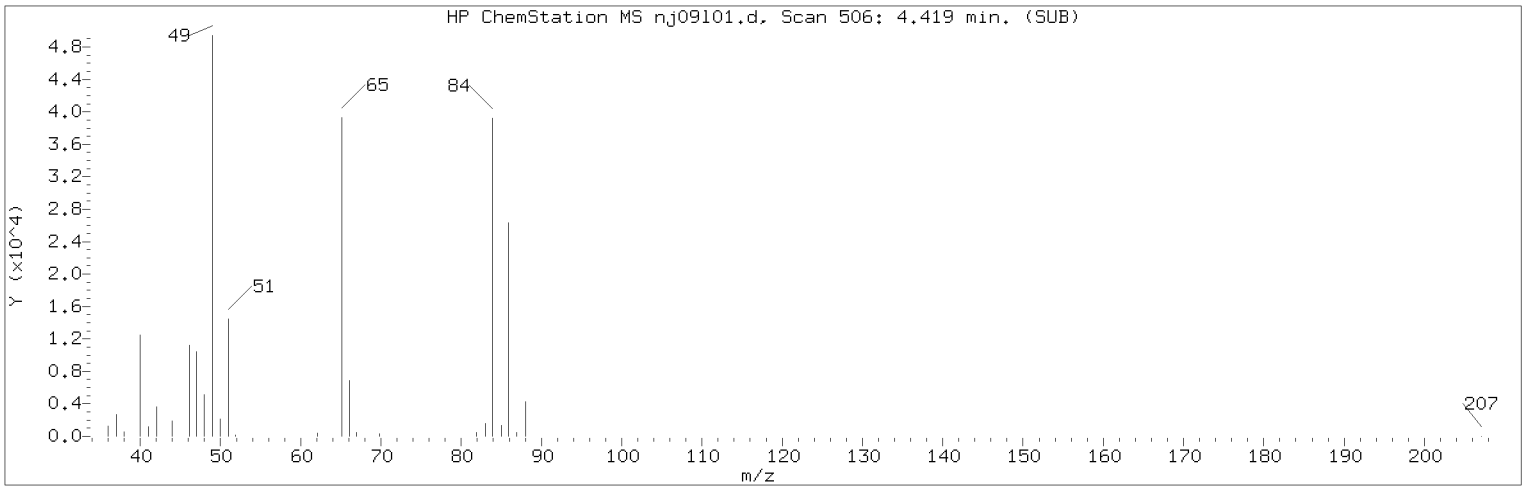
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

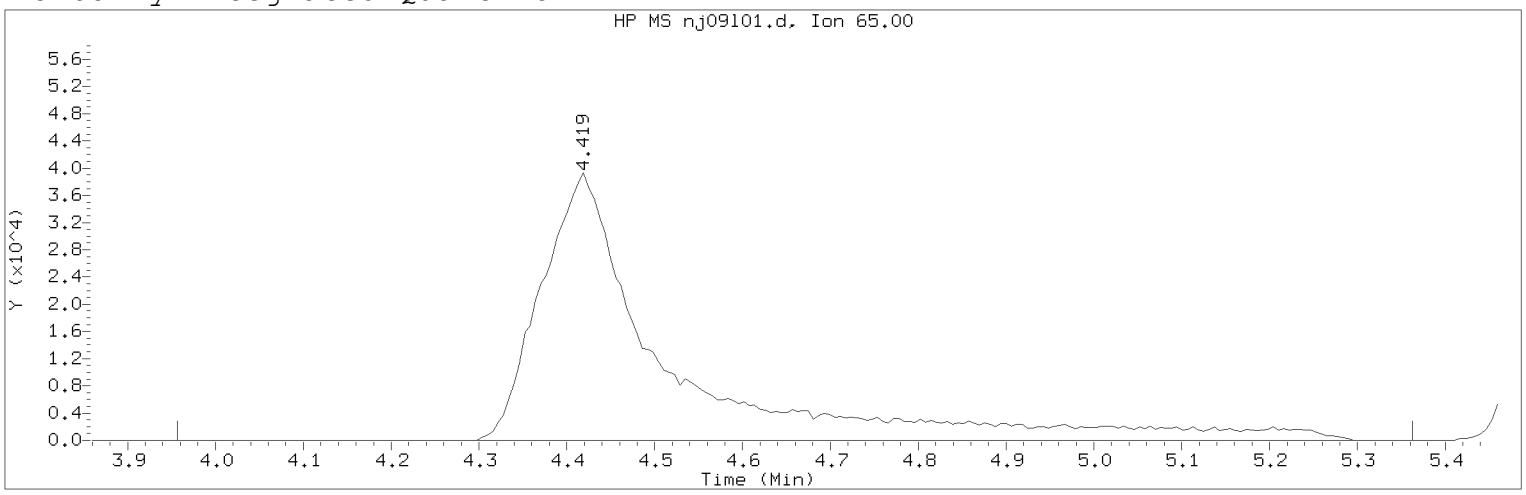
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 123778
On-column Amount (ng) : 16.2471
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 98 Y at integration end: 217

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

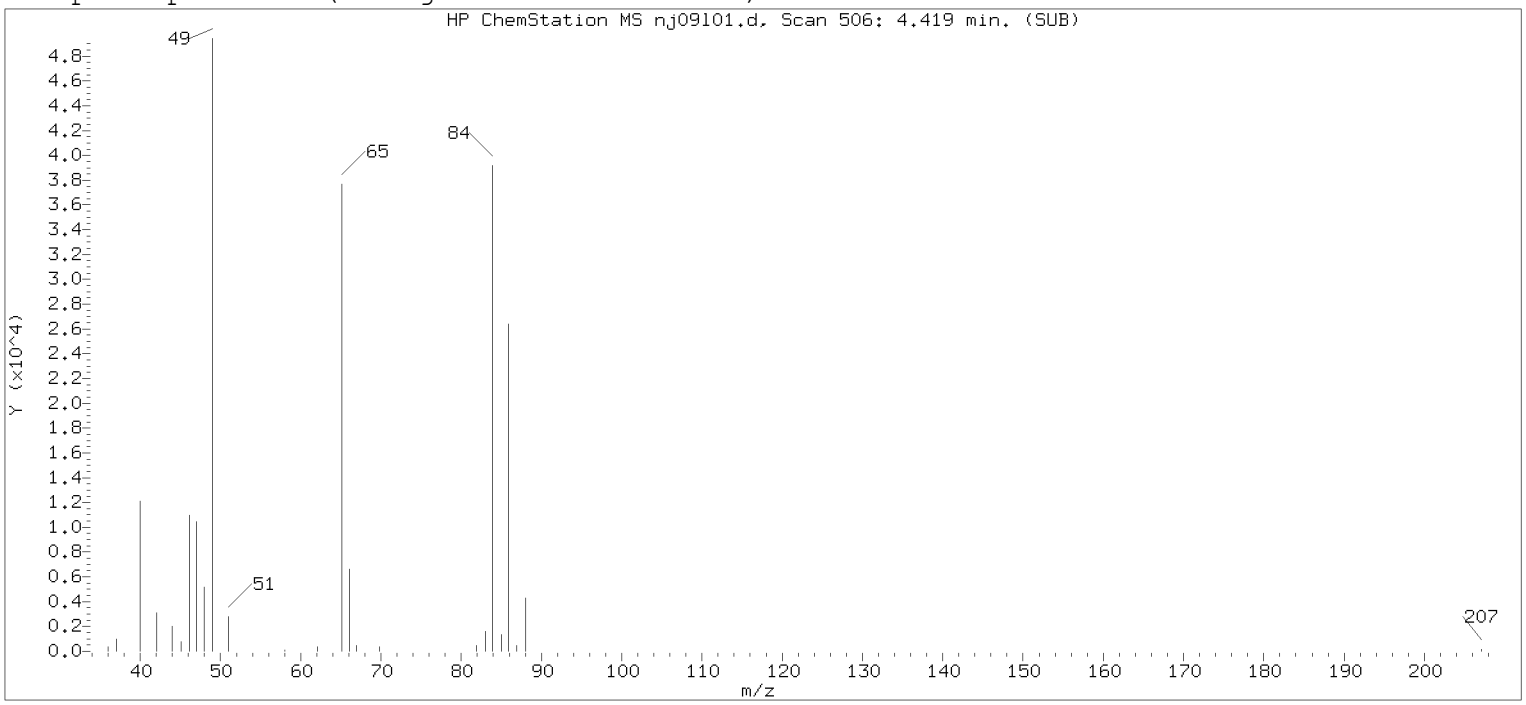
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area (flag) : 390248M
On-Column Amount (ng) : 250.0000
Integration start scan : 429 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

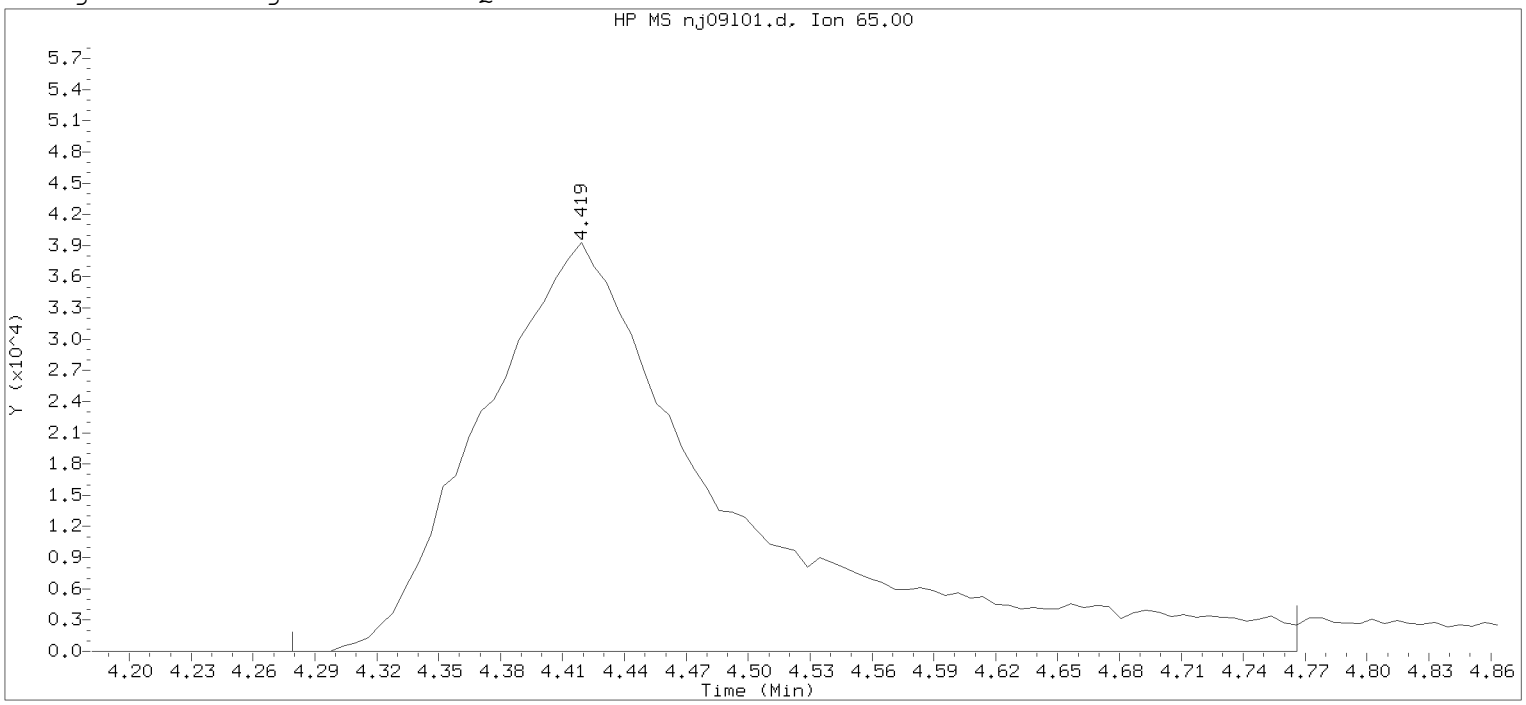
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

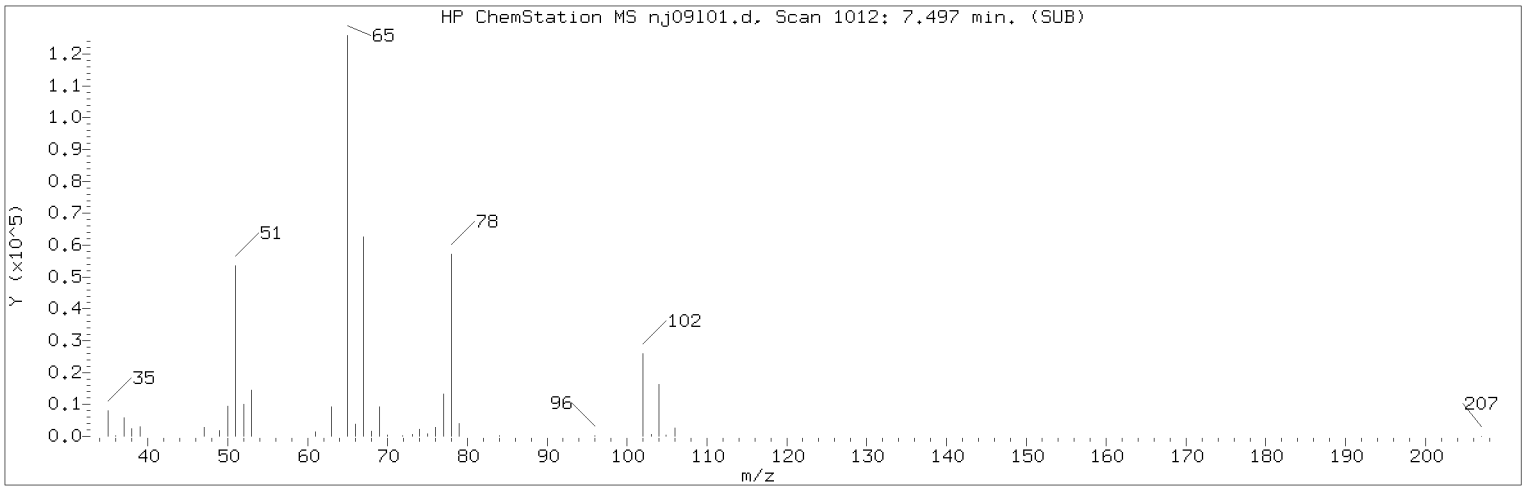
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

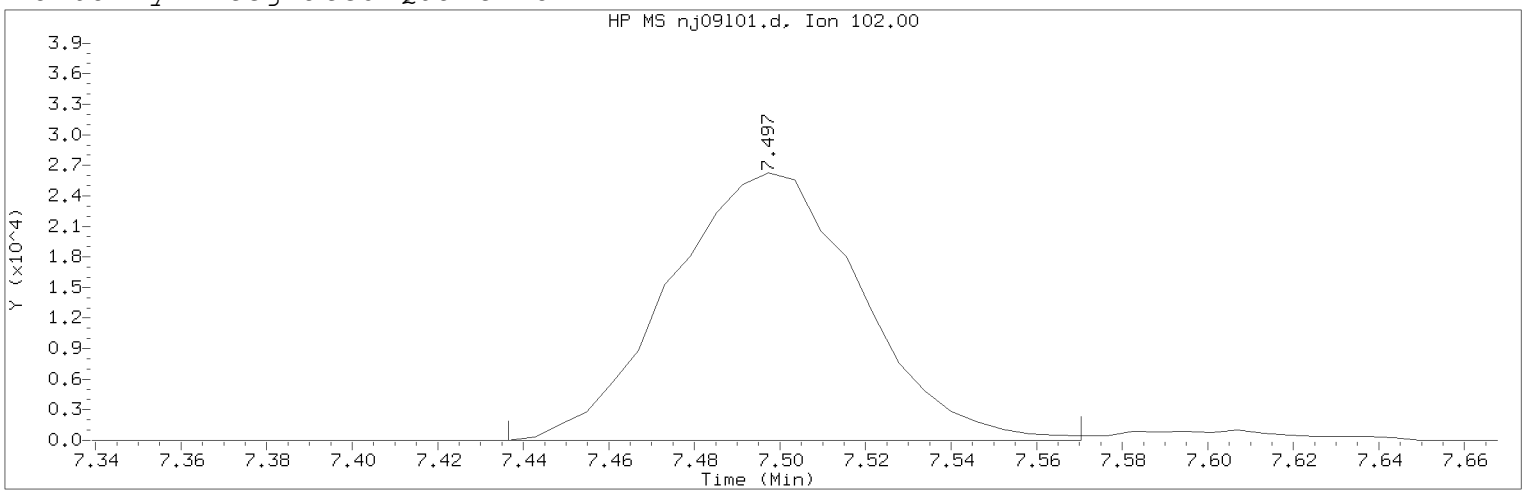
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area : 329830
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

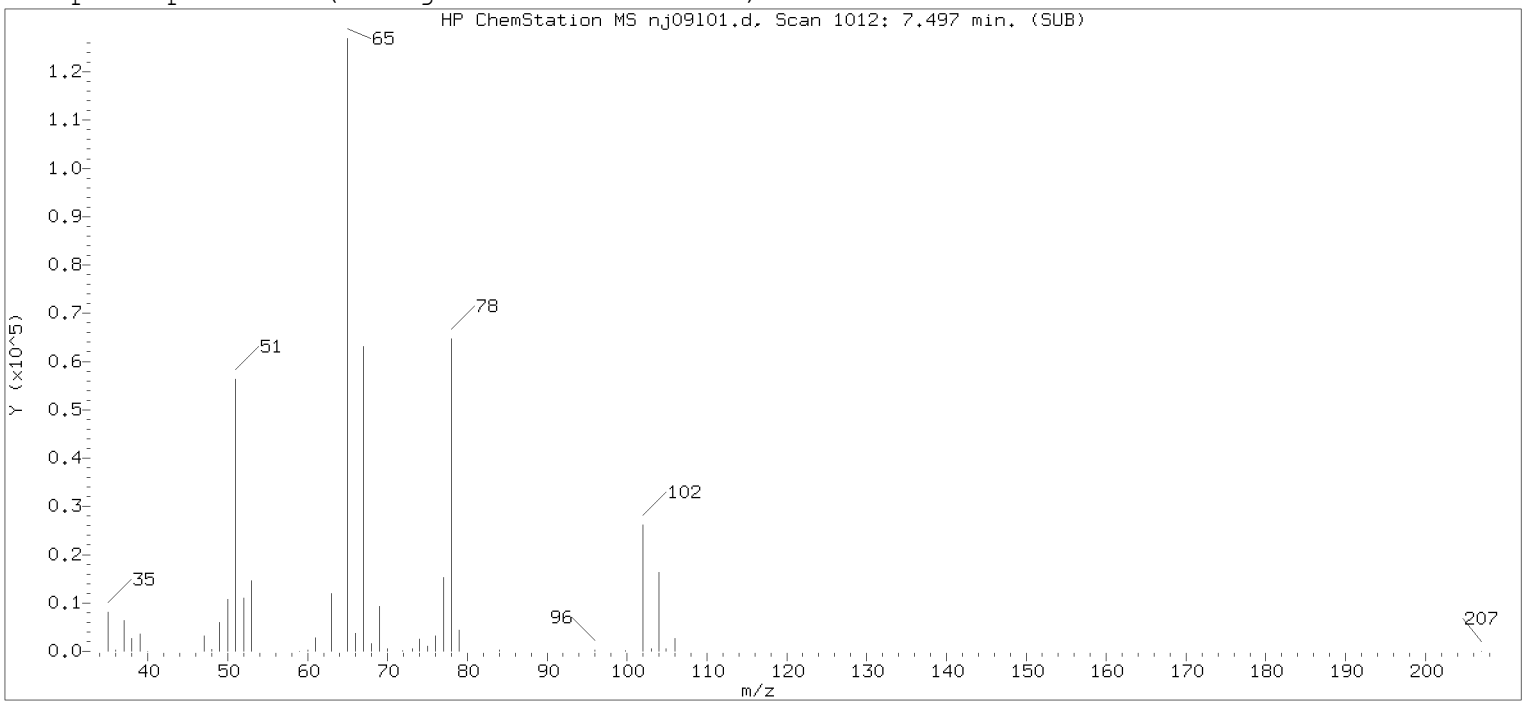
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area (flag) : 81217M
On-Column Amount (ng) : 49.4437
Integration start scan : 1001 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

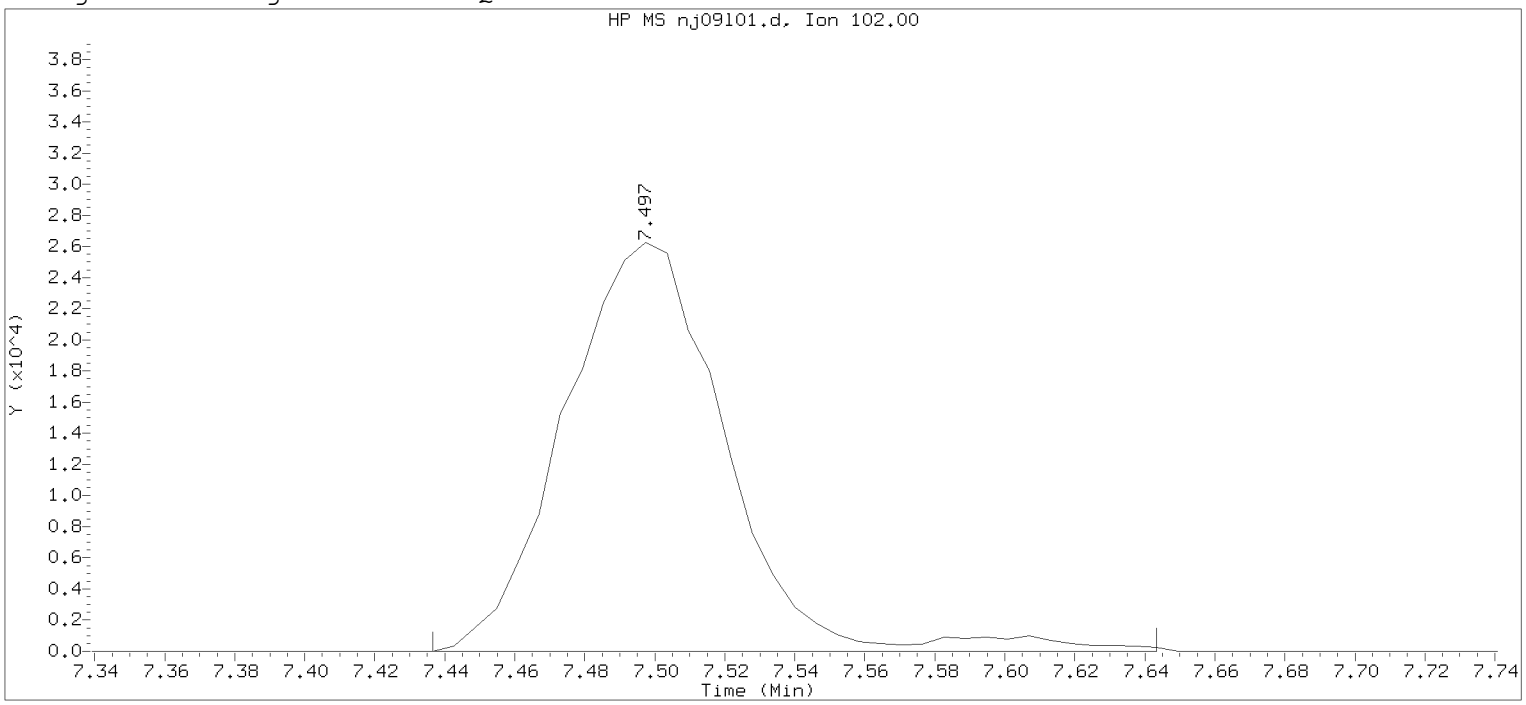
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

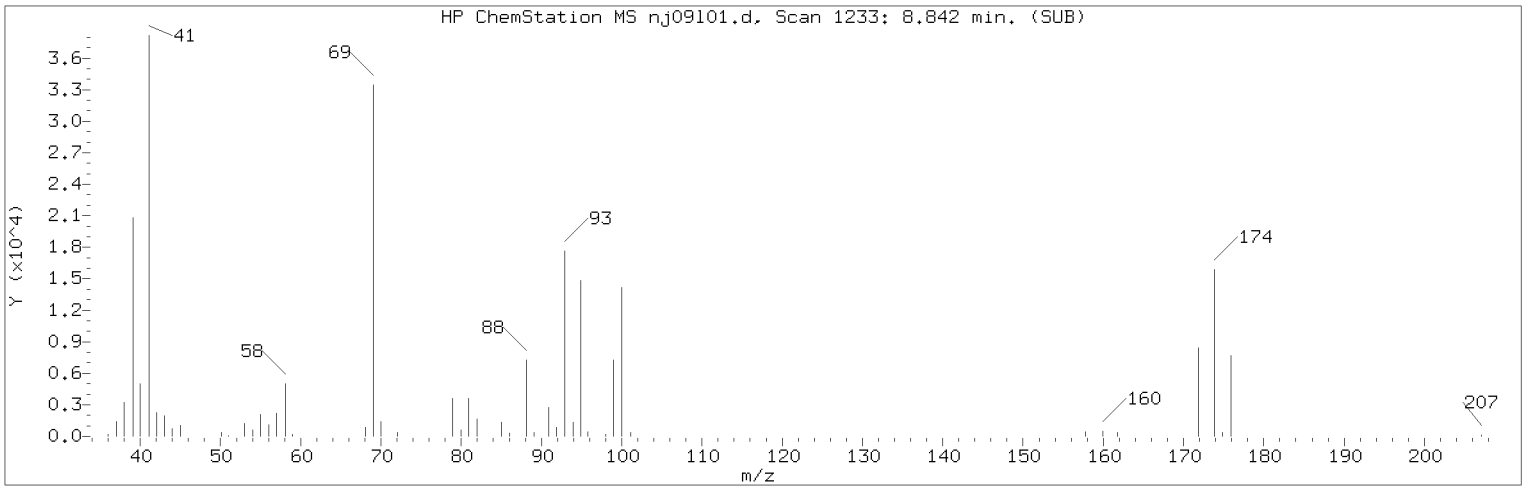
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

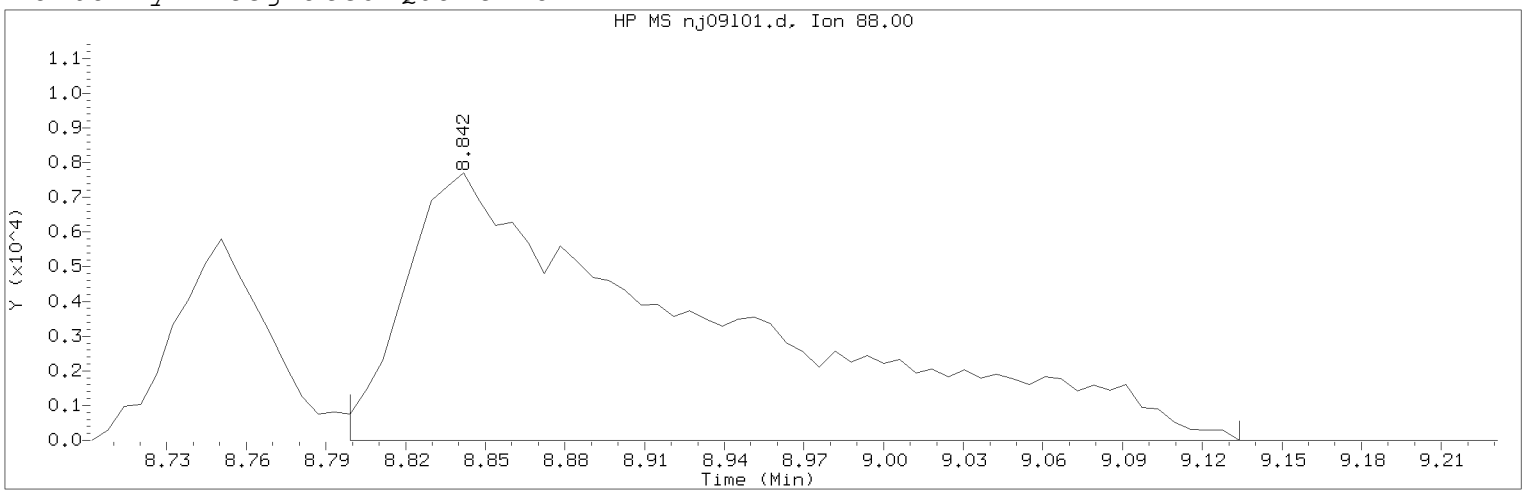
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area : 83865
On-column Amount (ng) : 51.0558
Integration start scan : 1001 Integration stop scan: 1035
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

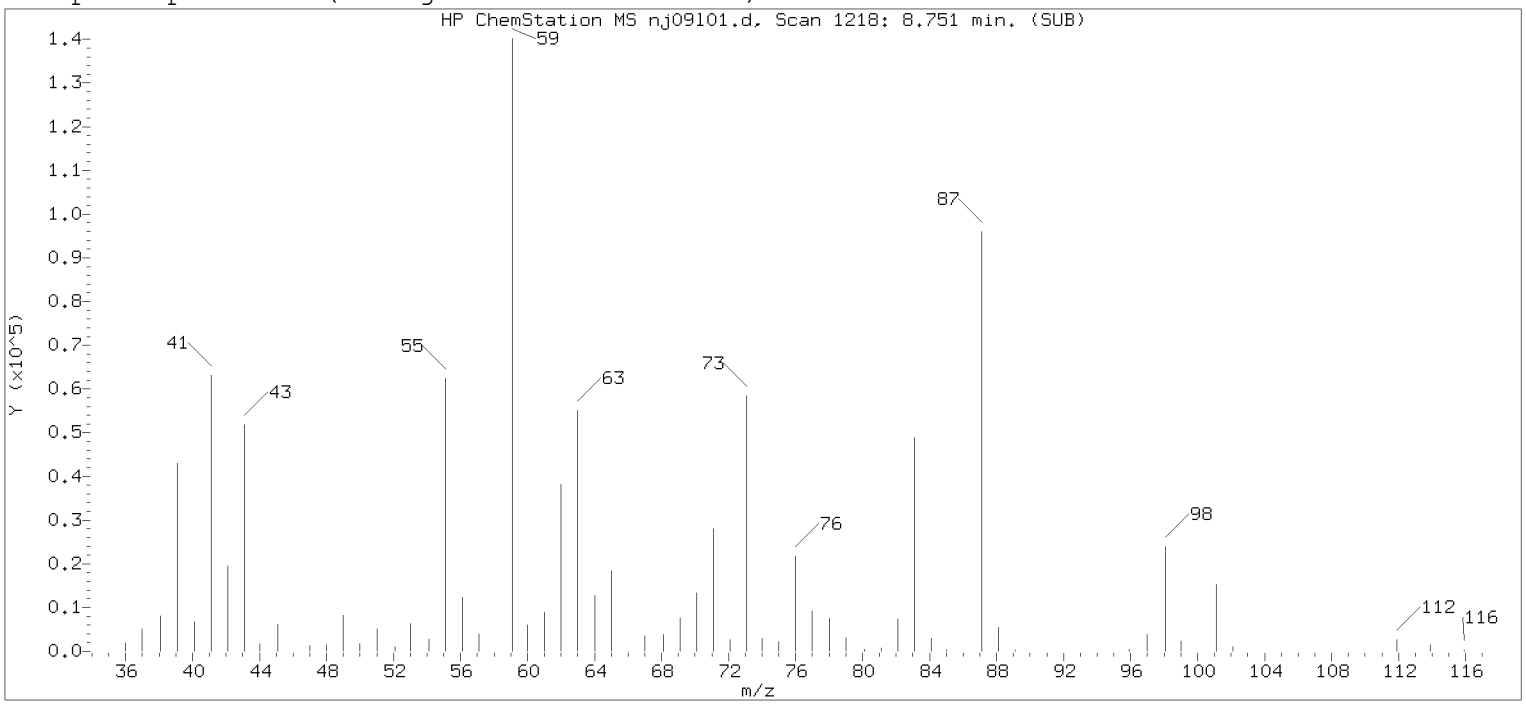
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 61853M
On-Column Amount (ng) : 545.3766
Integration start scan : 1225 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

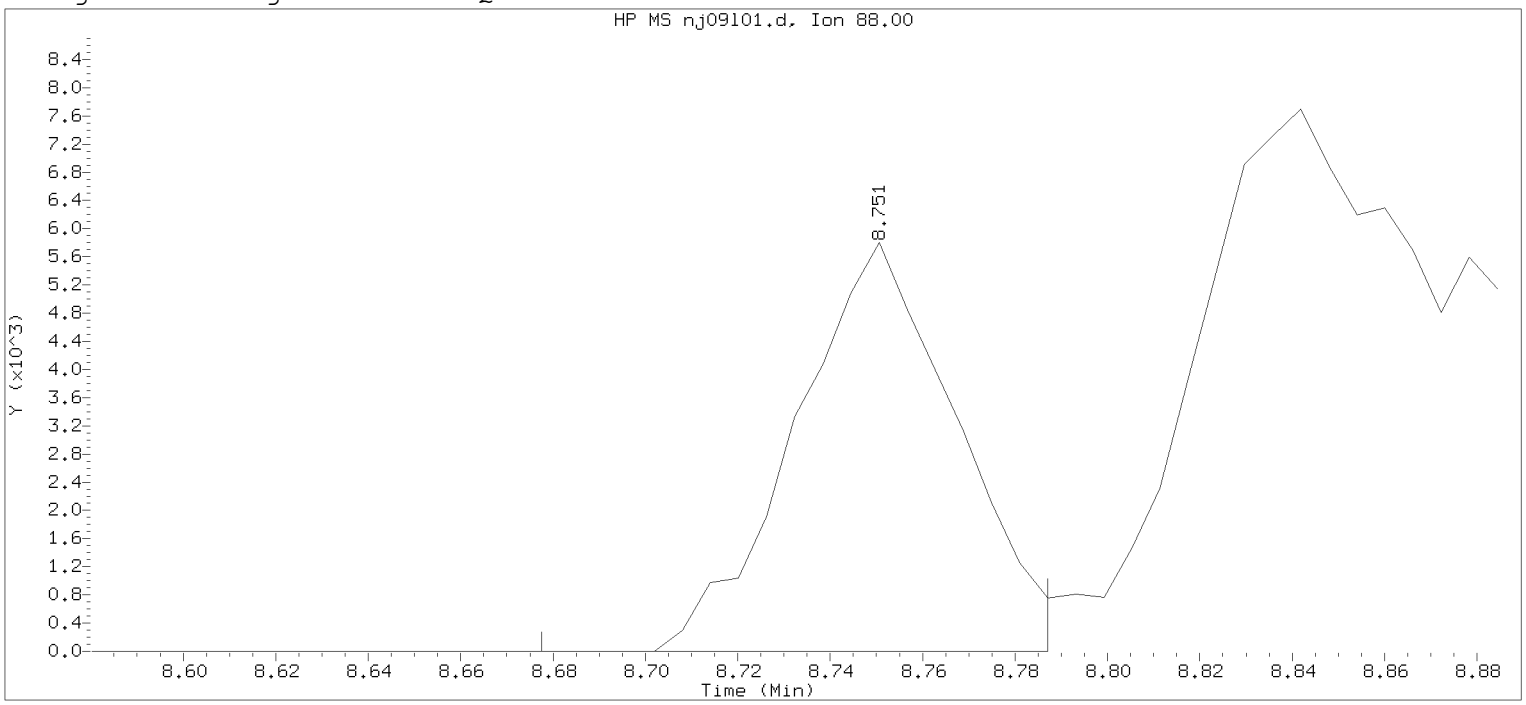
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

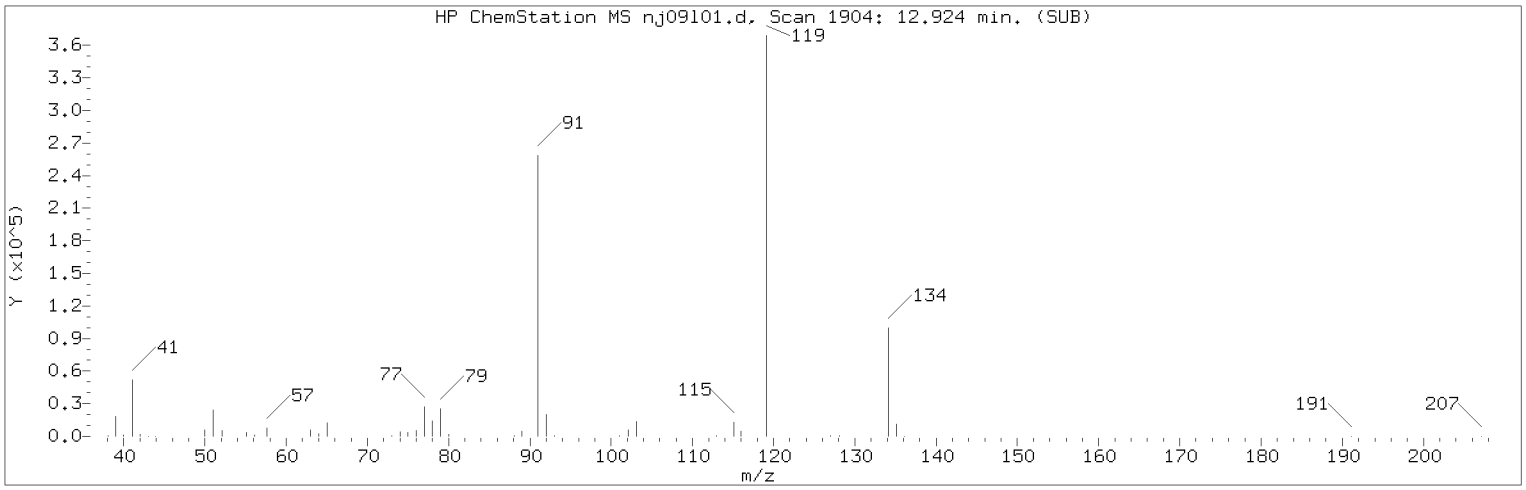
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

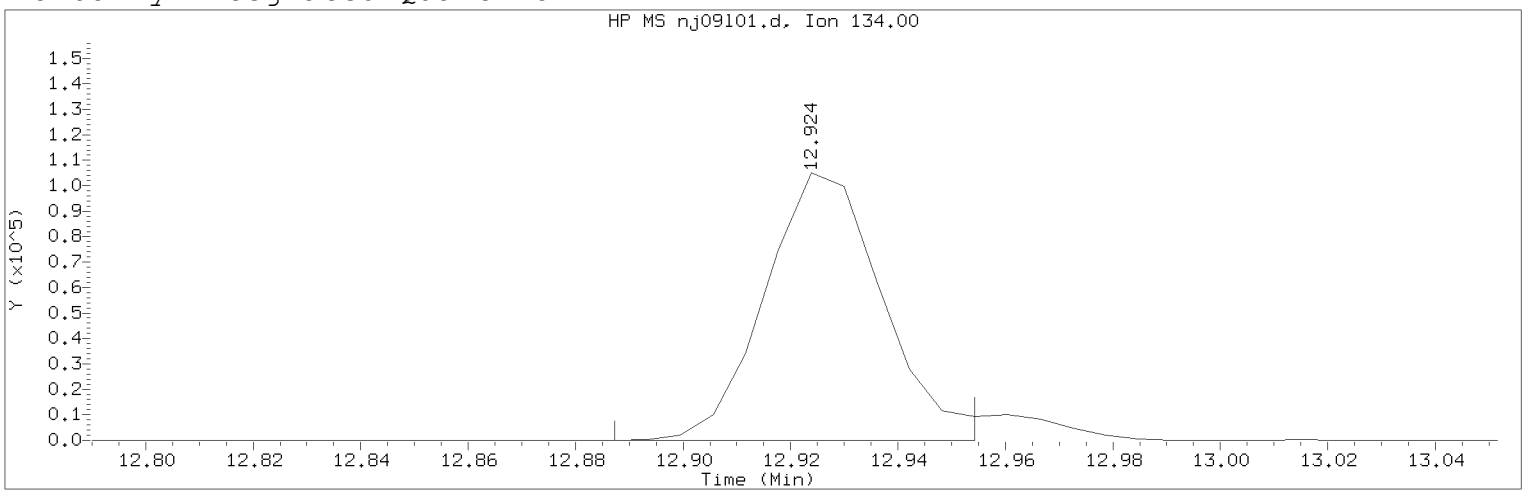
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 13966
On-column Amount (ng) : 145.7067
Integration start scan : 1205 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

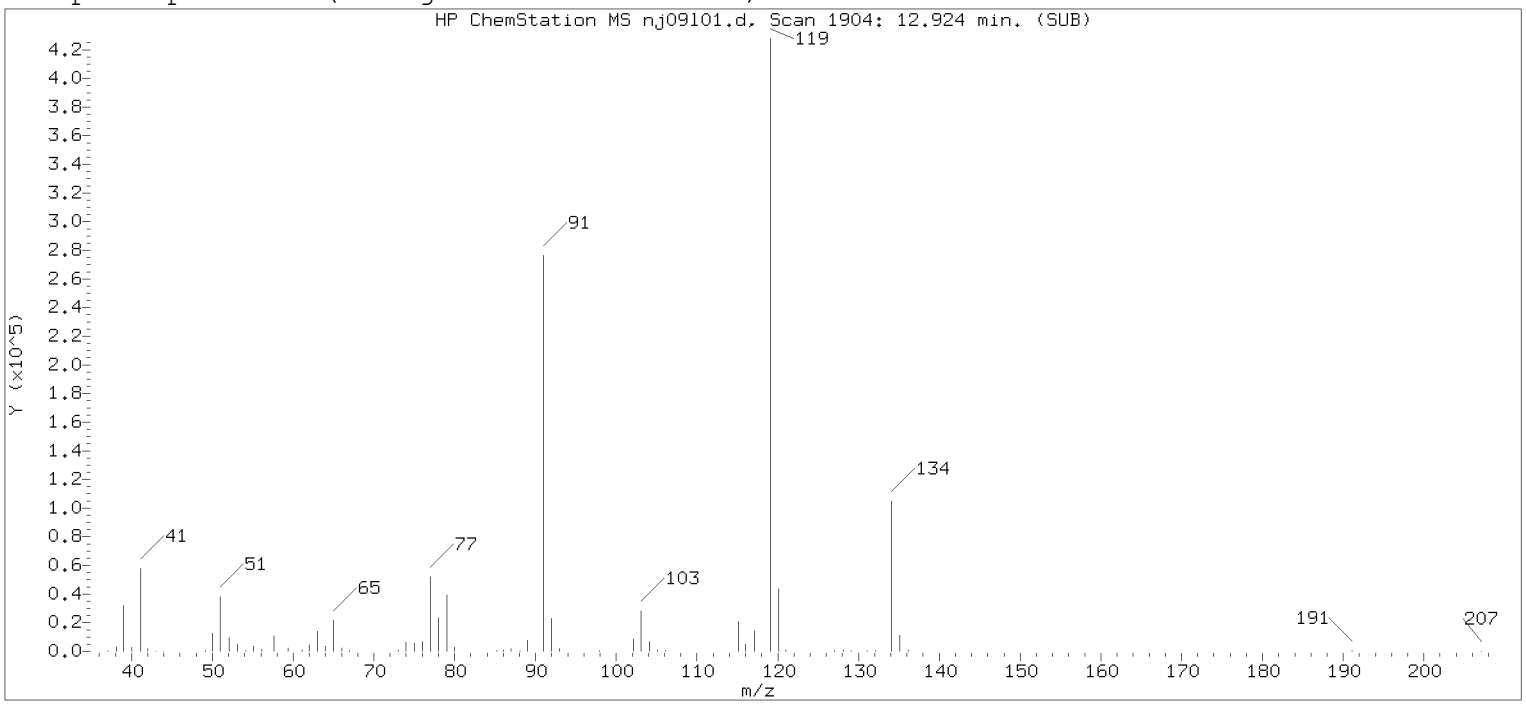
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 159664M
On-Column Amount (ng) : 19.8950
Integration start scan : 1897 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

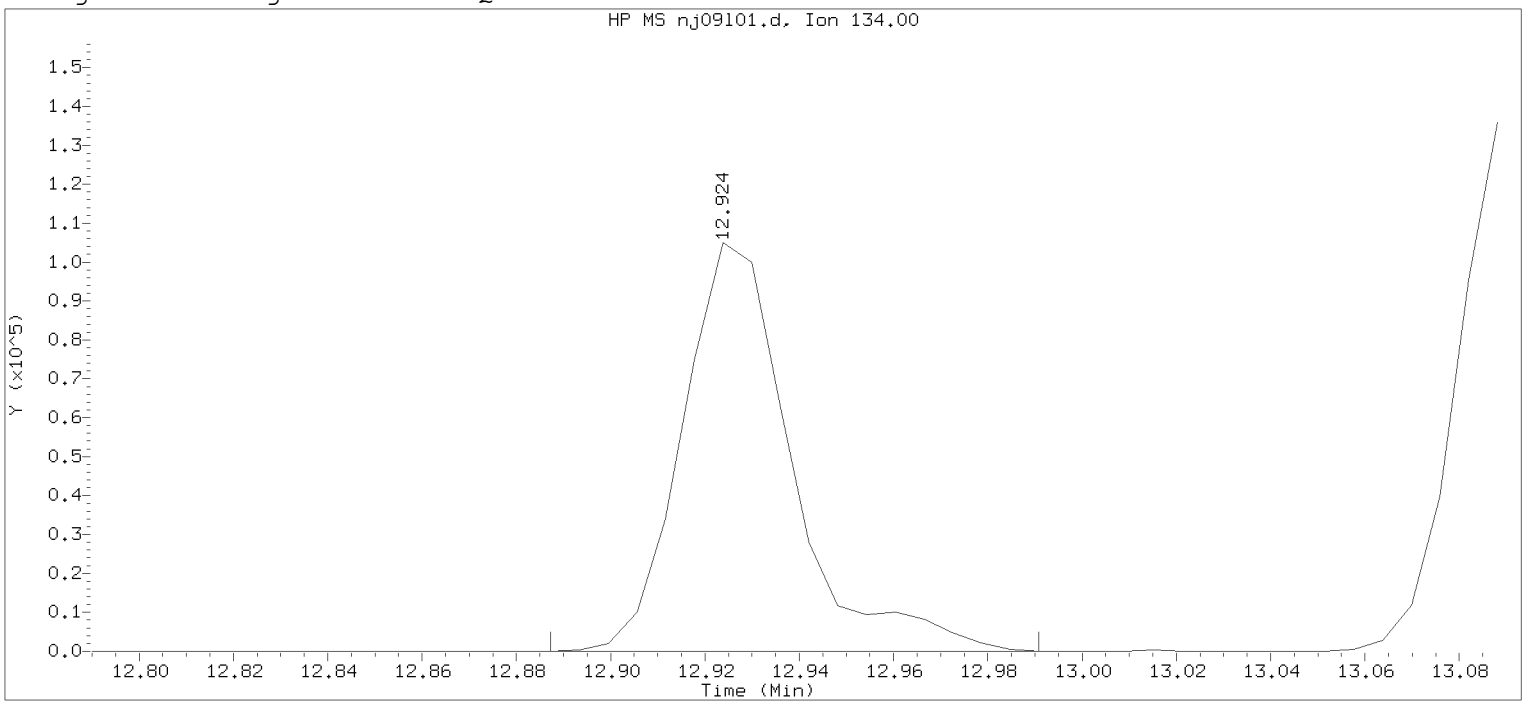
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 169051
On-column Amount (ng) : 21.0648
Integration start scan : 1897 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Page 1

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

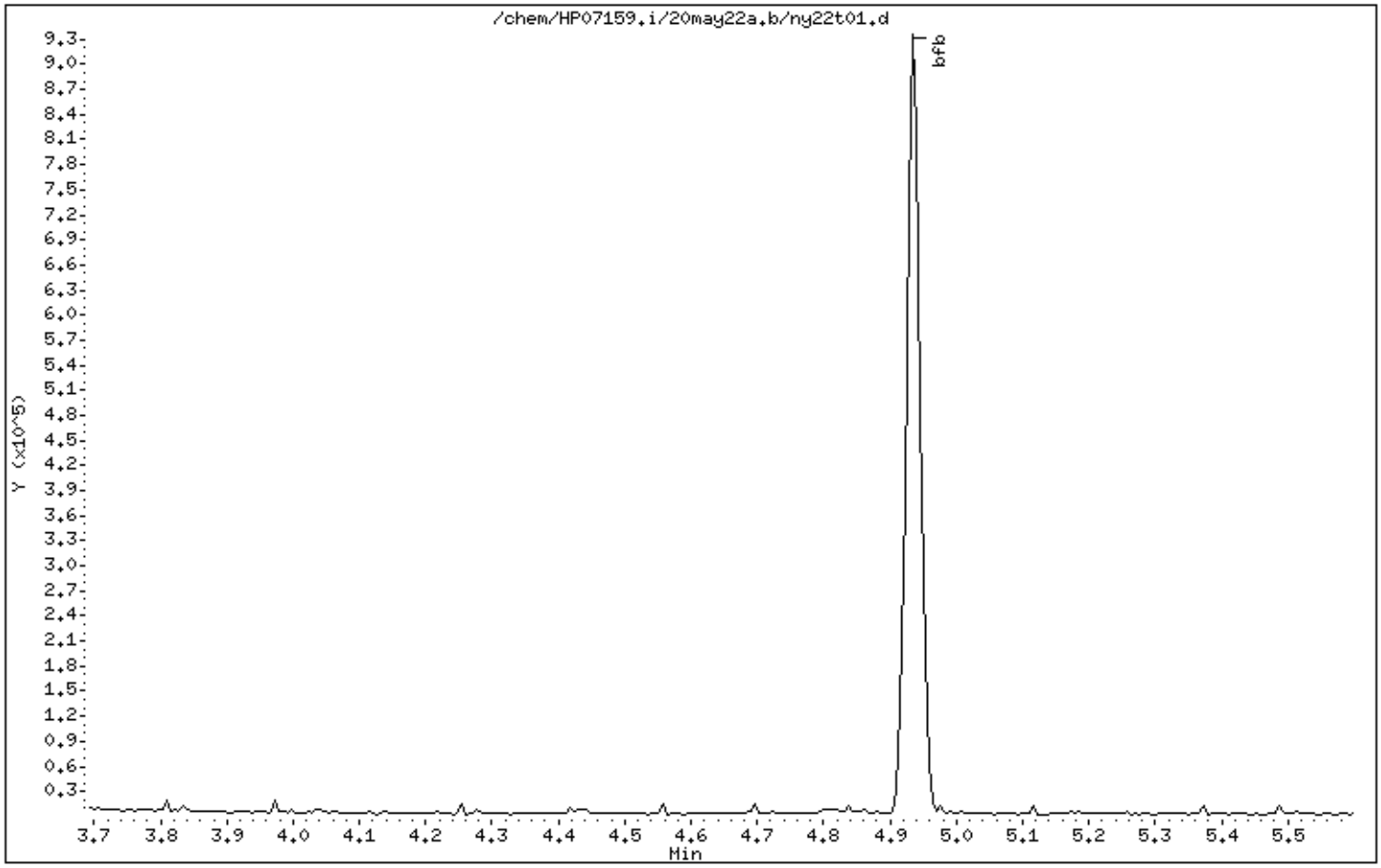
Instrument: HP07159.i

Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

Instrument: HP07159.i

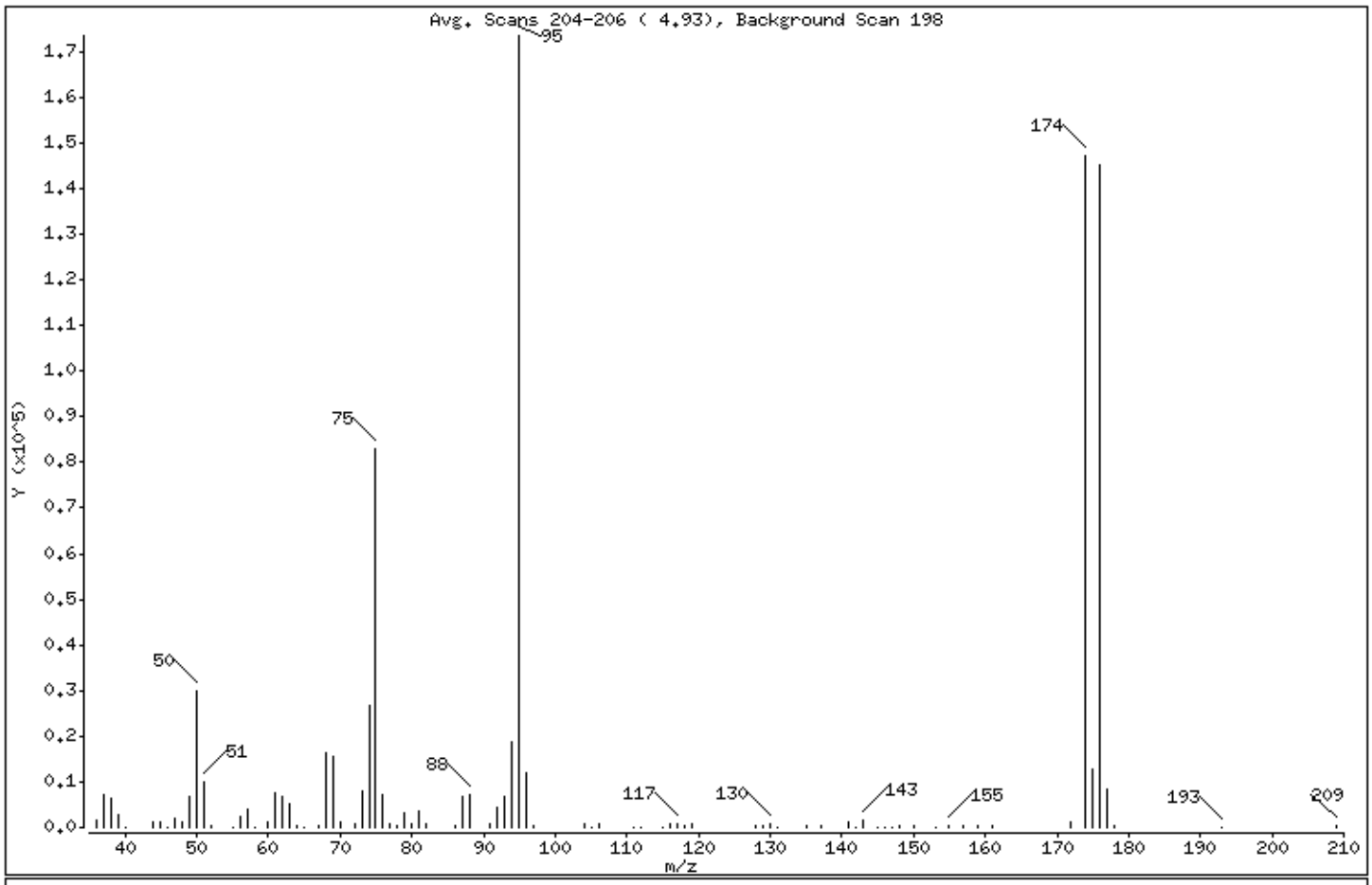
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.35
75	30.00 - 60.00% of mass 95	47.85
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	84.93
175	5.00 - 9.00% of mass 174	7.33 (8.63)
176	95.00 - 101.00% of mass 174	83.78 (98.65)
177	5.00 - 9.00% of mass 176	4.93 (5.88)

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20 Instrument: HP07159.i

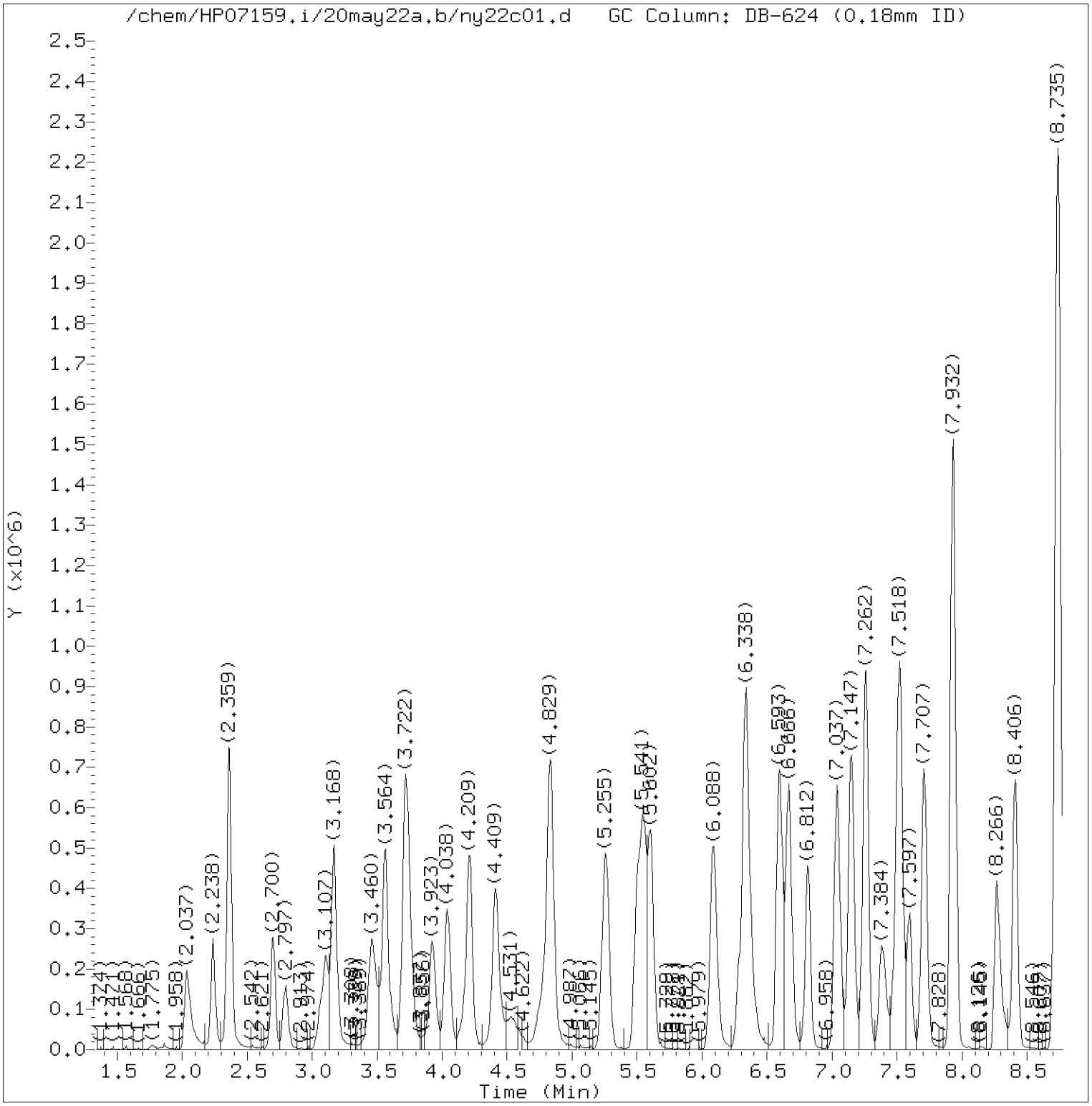
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ny22t01.d
Spectrum: Avg. Scans 204-206 (4.93), Background Scan 198
Location of Maximum: 95.00
Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1543	64.00	548	93.00	6925	142.00	184
37.00	7090	65.00	86	94.00	18800	143.00	1577
38.00	6266	67.00	260	95.00	173504	145.00	86
39.00	2619	68.00	16226	96.00	11859	146.00	92
40.00	30	69.00	15724	97.00	588	147.00	131
44.00	1071	70.00	1203	104.00	768	148.00	332
45.00	1375	72.00	893	105.00	104	150.00	231
46.00	117	73.00	7916	106.00	658	153.00	99
47.00	1804	74.00	26824	111.00	168	155.00	480
48.00	1013	75.00	83024	112.00	87	157.00	202
49.00	6831	76.00	7320	115.00	88	159.00	314
50.00	30096	77.00	772	116.00	627	161.00	283
51.00	9995	78.00	583	117.00	758	172.00	1179
52.00	449	79.00	3192	118.00	424	174.00	147328
55.00	96	80.00	838	119.00	639	175.00	12724
56.00	2212	81.00	3646	128.00	582	176.00	145344
57.00	4041	82.00	786	129.00	385	177.00	8548
58.00	105	86.00	212	130.00	748	178.00	383
60.00	1374	87.00	6732	131.00	102	193.00	146
61.00	7523	88.00	7218	135.00	406	209.00	272
62.00	6766	91.00	710	137.00	245		
63.00	5150	92.00	4242	141.00	1376		



Total Ion Chromatogram (TIC)

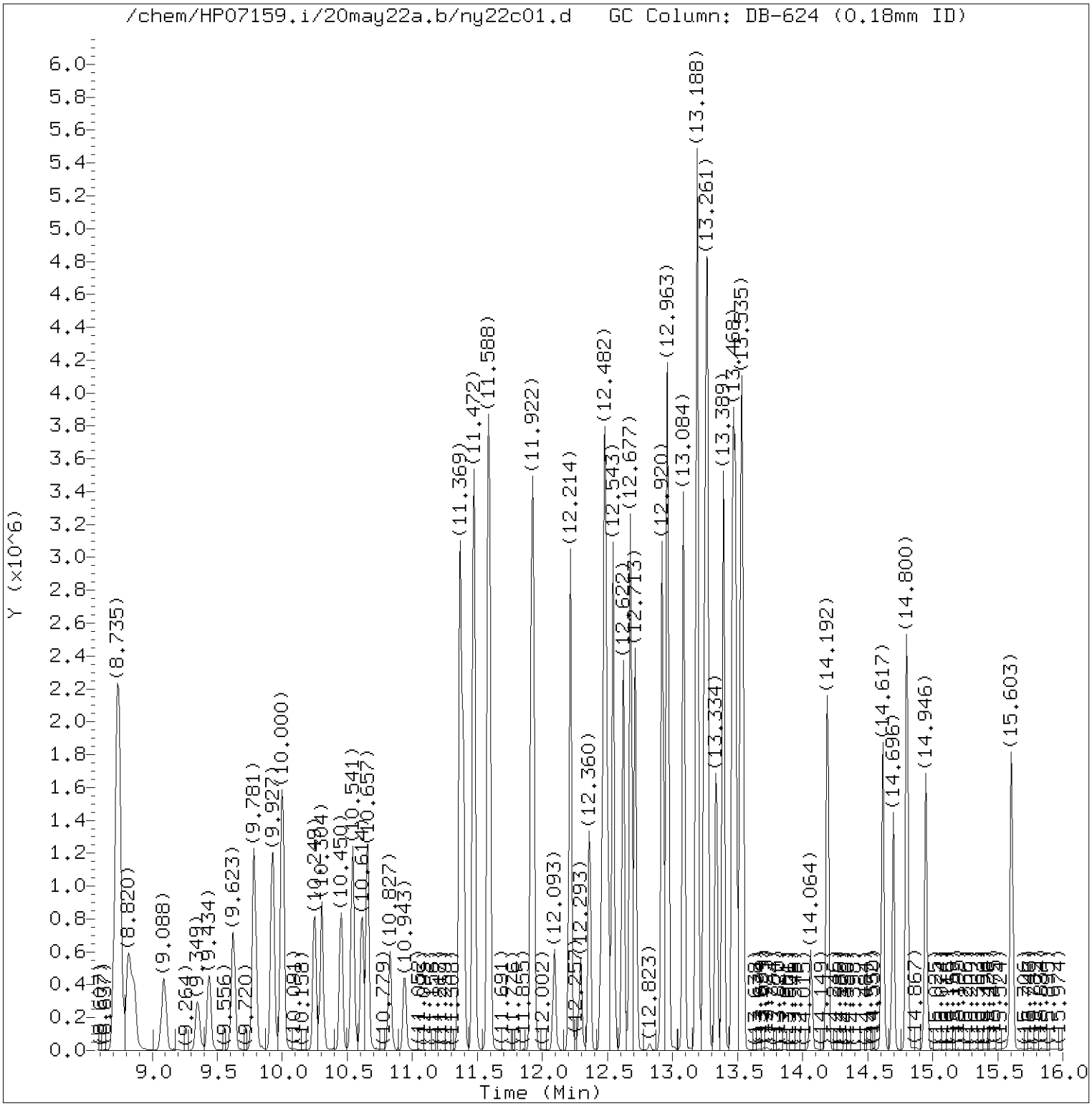
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	434571	52.874
4) Chloromethane	(2)	2.238	50	398216	45.217
6) Vinyl Chloride	(2)	2.359	62	403328	47.063
5) 1,3-Butadiene	(2)	2.365	39	335747	54.637
8) Bromomethane	(2)	2.700	94	271046	46.128
9) Chloroethane	(2)	2.797	64	236575	47.165
12) Trichlorofluoromethane	(2)	3.107	101	449484	47.723
11) n-Pentane	(2)	3.168	43	524257	56.811
13) Ethanol	(1)	3.235	45	93495	1367.953
15) Freon 123a	(2)	3.460	67	332121	48.132
16) Acrolein	(1)	3.564	56	852696	445.297
17) 1,1-Dichloroethene	(2)	3.716	96	265871	48.436
17) 1,1-Dichloroethene	(2)	3.716	63	137886	47.871
18) Acetone	(1)	3.740	58	79174	98.165
19) Freon 113	(2)	3.740	101	286096	56.176
21) 2-Propanol	(1)	3.910	45	133674	250.935
22) Methyl Iodide	(2)	3.923	142	494755	48.289
23) Carbon Disulfide	(2)	4.038	76	885500	50.447
27) Methyl Acetate	(2)	4.178	43	318153	47.180
25) Allyl Chloride	(2)	4.209	41	471820	48.689
28) Methylene Chloride	(2)	4.415	84	300336	46.068
29)*t-Butyl alcohol-d10	(1)	4.422	65	282380	250.000
30) t-Butyl alcohol	(1)	4.537	59	303717	288.498
31) Acrylonitrile	(2)	4.744	53	159751	43.864
33) Methyl Tertiary Butyl Ether	(2)	4.811	73	798907	44.789
32) trans-1,2-Dichloroethene	(2)	4.841	96	300509	47.955
34) n-Hexane	(2)	5.255	57	499883	57.786
36) 1,1-Dichloroethane	(2)	5.498	63	554022	48.465
38) di-Isopropyl ether	(2)	5.547	45	951491	48.318
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	489737	48.533
40) Ethyl t-butyl ether	(2)	6.082	59	846676	45.236
43) 1,2-Dichloroethene (Total)	(2)		96	640147	95.678
44) 2-Butanone	(2)	6.283	43	457600	89.858
42) cis-1,2-Dichloroethene	(2)	6.332	96	339638	47.723
45) 2,2-Dichloropropane	(2)	6.344	77	445708	44.162
47) Propionitrile	(1)	6.386	54	358625	291.669
48) Methacrylonitrile	(2)	6.593	67	460266	125.113
49) Bromochloromethane	(2)	6.666	128	175438	52.135

* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.666	71	122848	96.235
51) Chloroform	(2)	6.812	83	524902	47.075
52)$Dibromofluoromethane	(2)	7.031	113	248839	47.486
52)$Dibromofluoromethane	(2)	7.031	111	253672	47.410
53) 1,1,1-Trichloroethane	(2)	7.043	97	462153	45.814
54) Cyclohexane	(2)	7.147	56	580953	55.990
54) Cyclohexane	(2)	7.147	84	515352	56.989
54) Cyclohexane	(2)	7.141	69	177075	54.295
55) 1,1-Dichloropropene	(2)	7.256	75	439817	48.202
56) Carbon Tetrachloride	(2)	7.256	117	413711	47.565
58) Isobutyl Alcohol	(1)	7.384	41	271368M	719.597
57)$1,2-Dichloroethane-d4	(2)	7.494	102	63198	47.699
57)$1,2-Dichloroethane-d4	(2)	7.488	65	306730	48.564
57)$1,2-Dichloroethane-d4	(2)	7.494	104	40708	48.289
60) Benzene	(2)	7.524	78	1256540	48.379
61) 1,2-Dichloroethane	(2)	7.597	62	411135	44.744
61) 1,2-Dichloroethane	(2)	7.597	98	39414	52.116
65) t-Amyl methyl ether	(2)	7.707	73	872487	46.466
66)*Fluorobenzene	(2)	7.926	96	1055917	50.000
67) n-Heptane	(2)	7.932	43	542359	54.318
69) n-Butanol	(1)	8.266	56	469783	1446.163
71) Trichloroethene	(2)	8.406	95	319213	46.651
72) Methylcyclohexane	(2)	8.723	83	660730	58.742
72) Methylcyclohexane	(2)	8.723	98	312359	58.967
73) 1,2-Dichloropropane	(2)	8.747	63	331049	49.846
76) Methyl Methacrylate	(2)	8.820	69	301128	49.580
75) 1,4-Dioxane	(1)	8.826	88	53832M	655.980
74) Dibromomethane	(2)	8.856	93	198355	46.829
78) Bromodichloromethane	(2)	9.094	83	403915	46.711
79) 2-Nitropropane	(2)	9.349	41	244620	77.890
80) 2-Chloroethyl Vinyl Ether	(2)	9.434	63	250521	47.685
81) cis-1,3-Dichloropropene	(2)	9.623	75	524755	47.573
82) 4-Methyl-2-pentanone	(2)	9.781	43	1021300	98.985
83)$Toluene-d8	(3)	9.921	98	1010294	46.447
83)$Toluene-d8	(3)	9.927	100	671892	46.624
88) Toluene	(3)	10.000	92	830011	46.974
90) 1,3-Dichloropropene (total)	(3)		100	1024736	93.164
89) trans-1,3-Dichloropropene	(3)	10.249	75	499981	45.591

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.304	69	515718	47.199
92) 1,1,2-Trichloroethane	(3)	10.450	97	299402	47.859
93) Tetrachloroethene	(3)	10.541	166	417694	53.981
94) 1,3-Dichloropropane	(3)	10.614	76	520493	47.937
96) 2-Hexanone	(3)	10.651	43	835552	99.900
97) Dibromochloromethane	(3)	10.827	129	347197	48.362
99) 1,2-Dibromoethane	(3)	10.937	107	324470	47.365
100)*Chlorobenzene-d5	(3)	11.363	117	834018	50.000
102) Chlorobenzene	(3)	11.393	112	954031	48.377
103) 1,1,1,2-Tetrachloroethane	(3)	11.472	131	348604	49.052
104) Ethylbenzene	(3)	11.472	91	1657998	48.512
106) m+p-Xylene	(3)	11.588	106	1326529	98.786
108) Xylene (Total)	(3)		106	1982519	148.455
107) o-Xylene	(3)	11.916	106	655990	49.670
109) Styrene	(3)	11.928	104	1118128	50.407
110) Bromoform	(3)	12.093	173	288337	53.199
111) Isopropylbenzene	(3)	12.214	105	1883174	53.989
112) Cyclohexanone	(1)	12.293	55	234103	711.315
114)$4-Bromofluorobenzene	(3)	12.360	95	424039	49.344
114)$4-Bromofluorobenzene	(3)	12.360	174	358735	52.107
116) 1,1,2,2-Tetrachloroethane	(4)	12.458	83	560031	51.370
115) Bromobenzene	(4)	12.476	156	452278	49.340
118) trans-1,4-Dichloro-2-butene	(4)	12.482	53	395349	105.424
117) 1,2,3-Trichloropropane	(4)	12.506	110	169001	48.937
119) n-Propylbenzene	(4)	12.543	91	2218771	49.926
120) 2-Chlorotoluene	(4)	12.622	126	453383	49.483
122) 1,3,5-Trimethylbenzene	(4)	12.677	105	1600737	49.159
121) 4-Chlorotoluene	(4)	12.713	126	470658	49.566
124) tert-Butylbenzene	(4)	12.920	134	378216	52.414
125) Pentachloroethane	(4)	12.957	167	249242	43.138
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	1654680	48.960
127) sec-Butylbenzene	(4)	13.084	105	2149897	50.828
129) 1,3-Dichlorobenzene	(4)	13.188	146	872158	48.919
130) p-Isopropyltoluene	(4)	13.194	119	1844591	50.115
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495632	50.000
133) 1,4-Dichlorobenzene	(4)	13.261	146	890049	49.228
134) 1,2,3-Trimethylbenzene	(4)	13.267	105	1581484	48.214
135) Benzyl Chloride	(4)	13.334	91	1109815	46.058

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

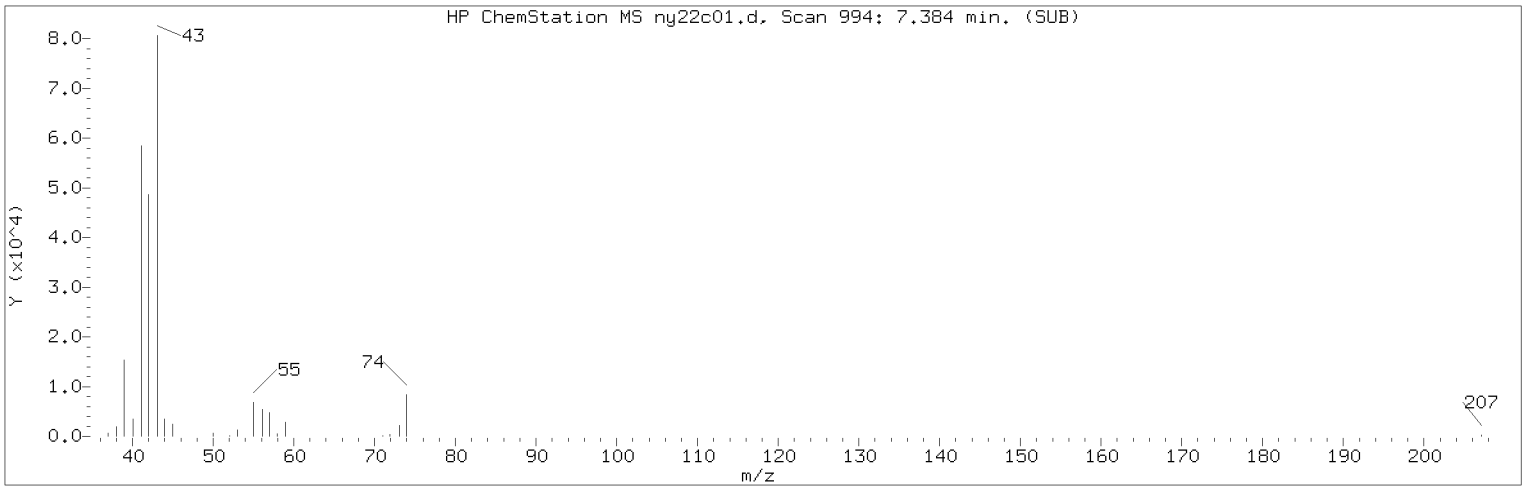
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

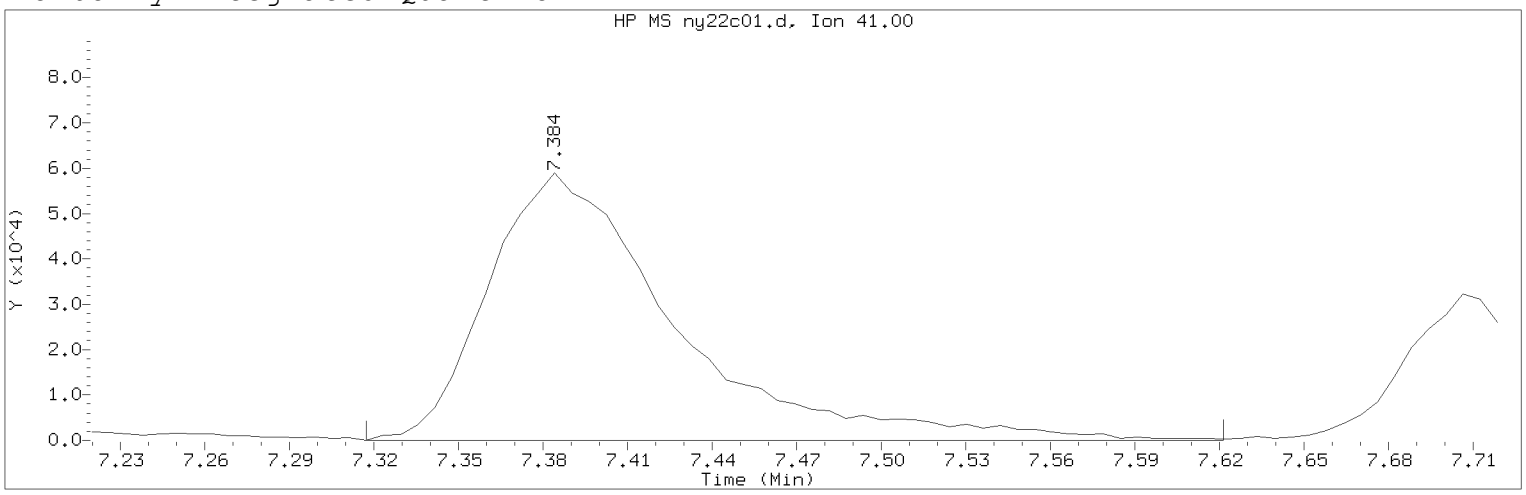
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
141) Diethylbenzene (total)	(4)		100	3153337	147.593
136) 1,3-Diethylbenzene	(4)	13.389	119	1095914	49.739
137) 1,4-Diethylbenzene	(4)	13.462	119	1148322	49.083
139) n-Butylbenzene	(4)	13.486	92	934158	49.200
138) 1,2-Dichlorobenzene	(4)	13.522	146	843595	49.907
140) 1,2-Diethylbenzene	(4)	13.535	119	909101	48.771
142) 1,2-Dibromo-3-chloropropane	(4)	14.064	75	133178	45.202
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	641689	47.627
146) 1,2,4-Trichlorobenzene	(4)	14.617	180	561234	47.774
147) Hexachlorobutadiene	(4)	14.696	225	248130	46.693
148) Naphthalene	(4)	14.800	128	1818373	49.366
149) 1,2,3-Trichlorobenzene	(4)	14.946	180	514512	47.711
150) 2-Methylnaphthalene	(4)	15.603	142	939072	44.137

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

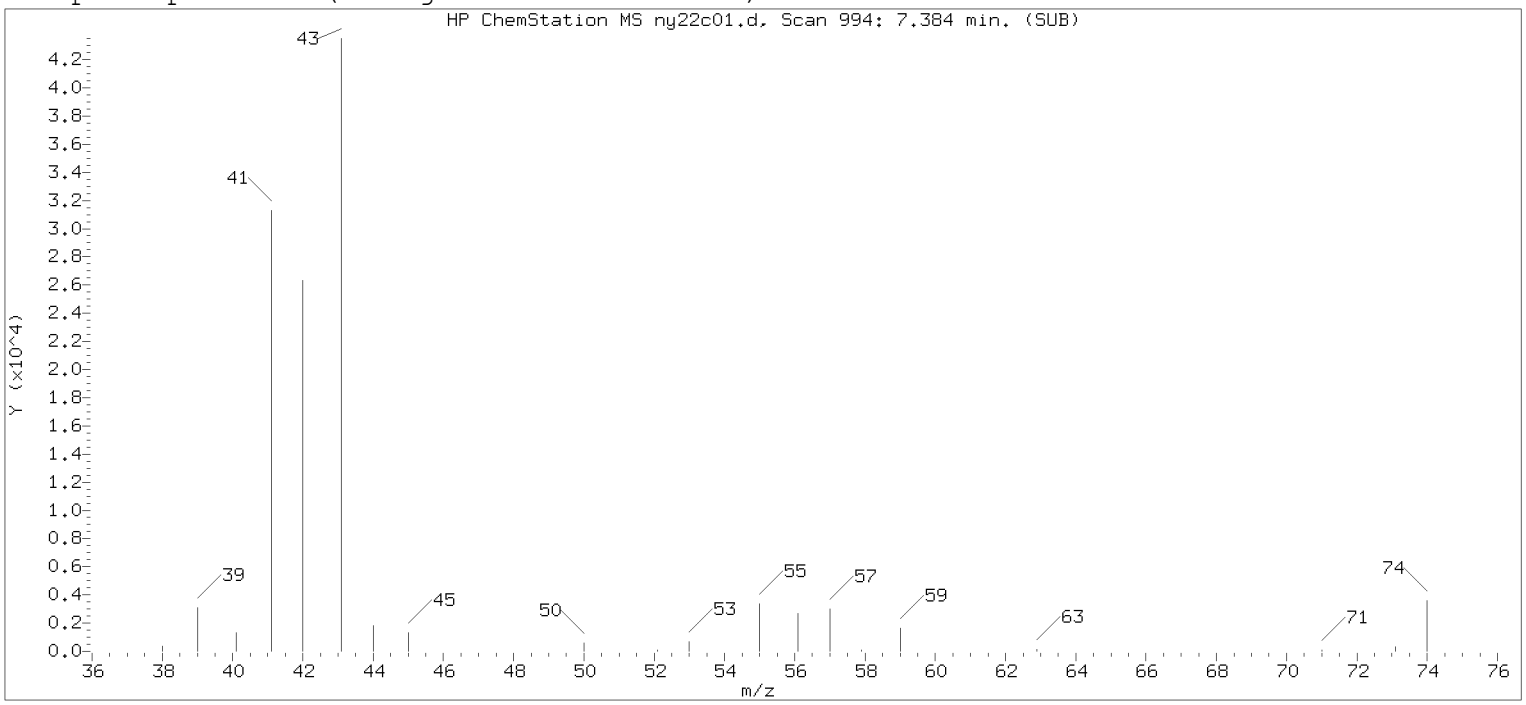
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area (flag) : 271368M
On-Column Amount (ng) : 719.5968
Integration start scan : 982 Integration stop scan: 1032
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

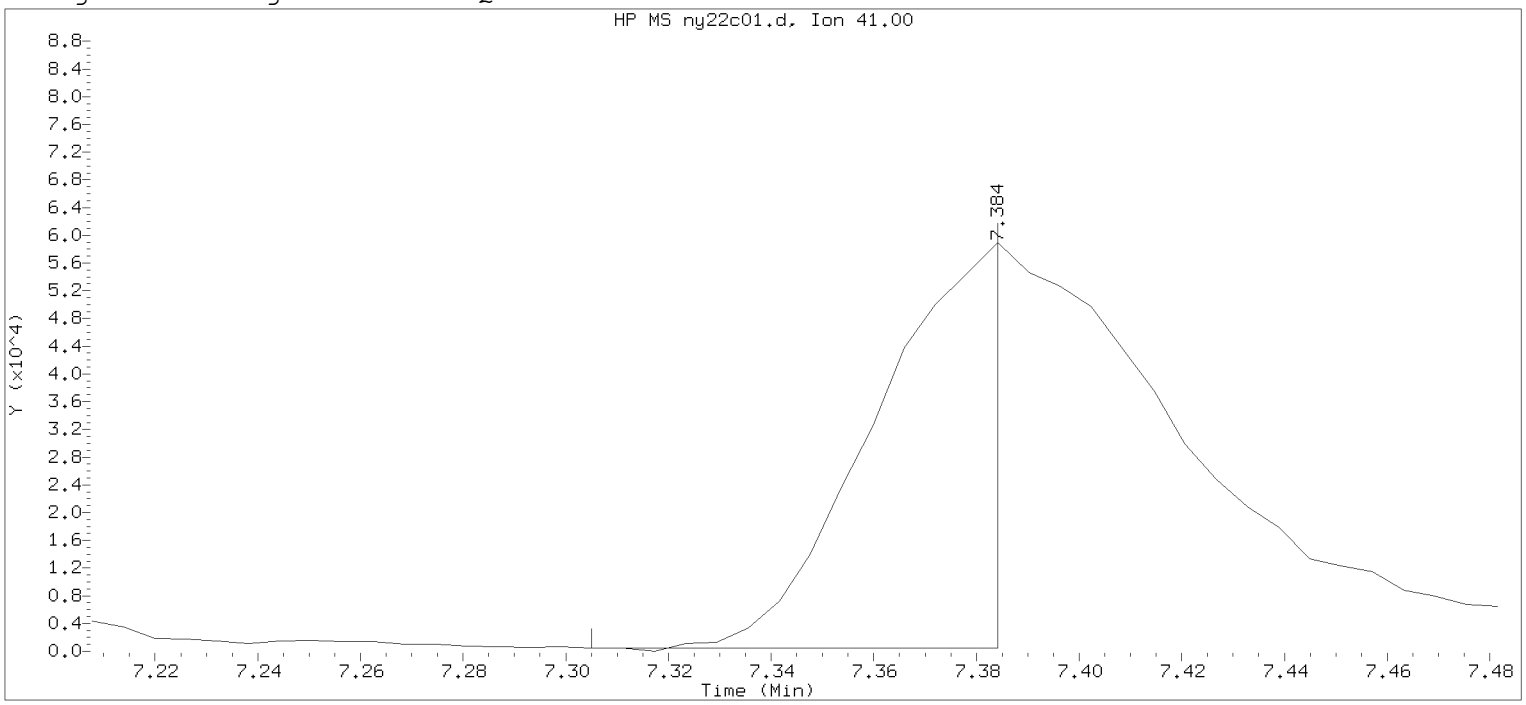
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

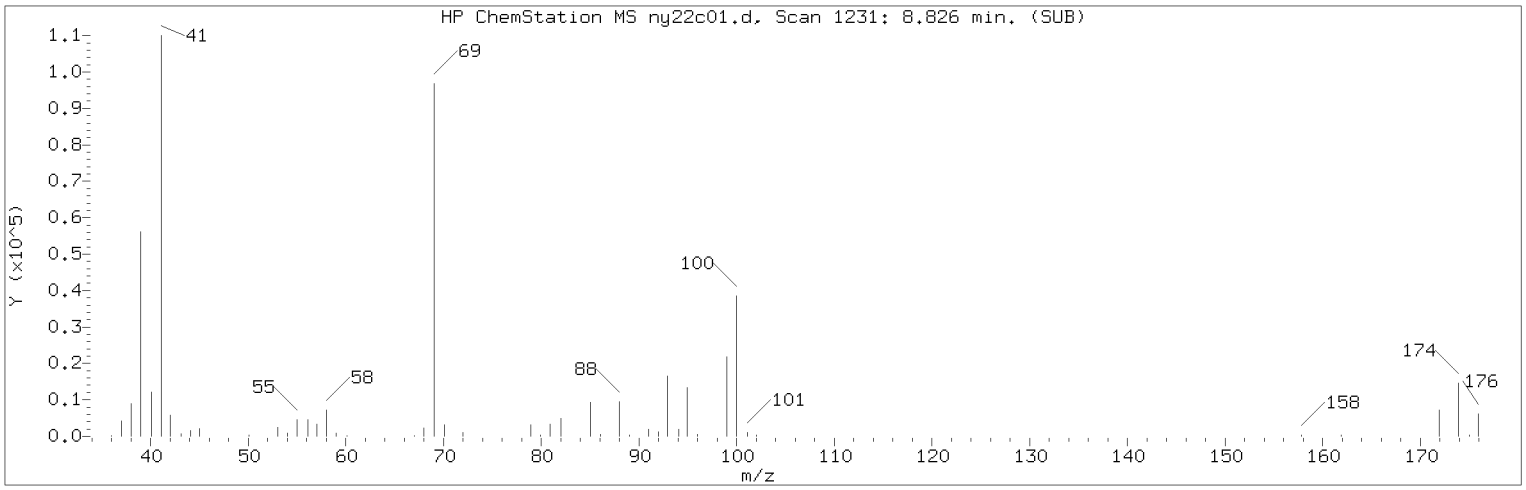
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

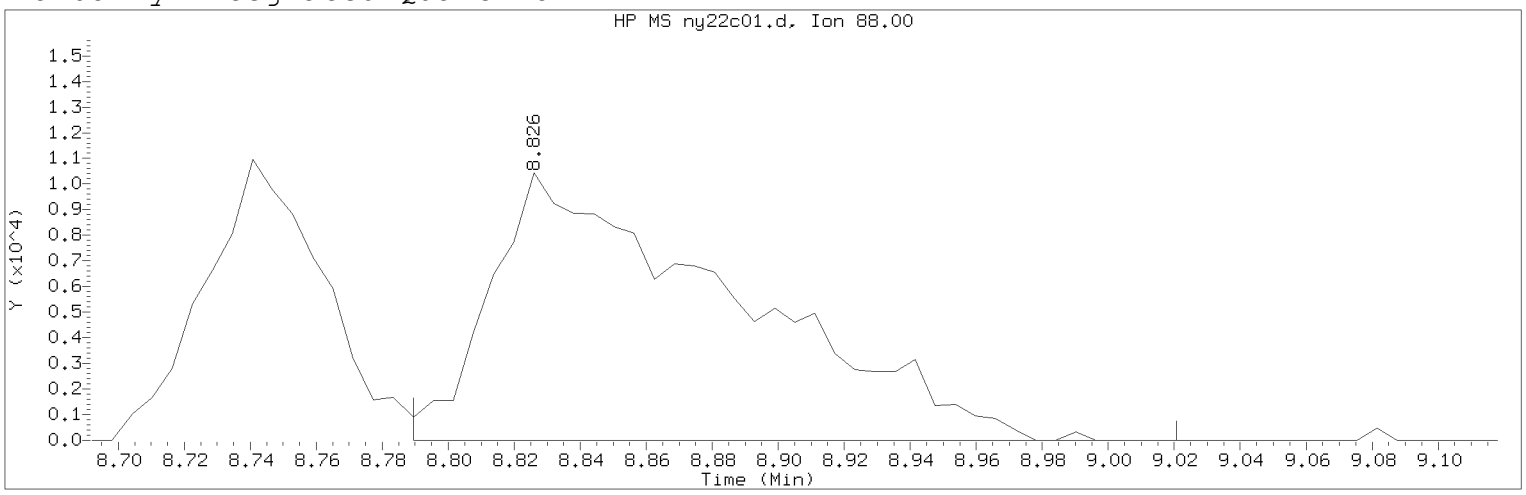
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area : 93143
On-column Amount (ng) : 246.9928
Integration start scan : 980 Integration stop scan: 993
Y at integration start : 481 Y at integration end: 481

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

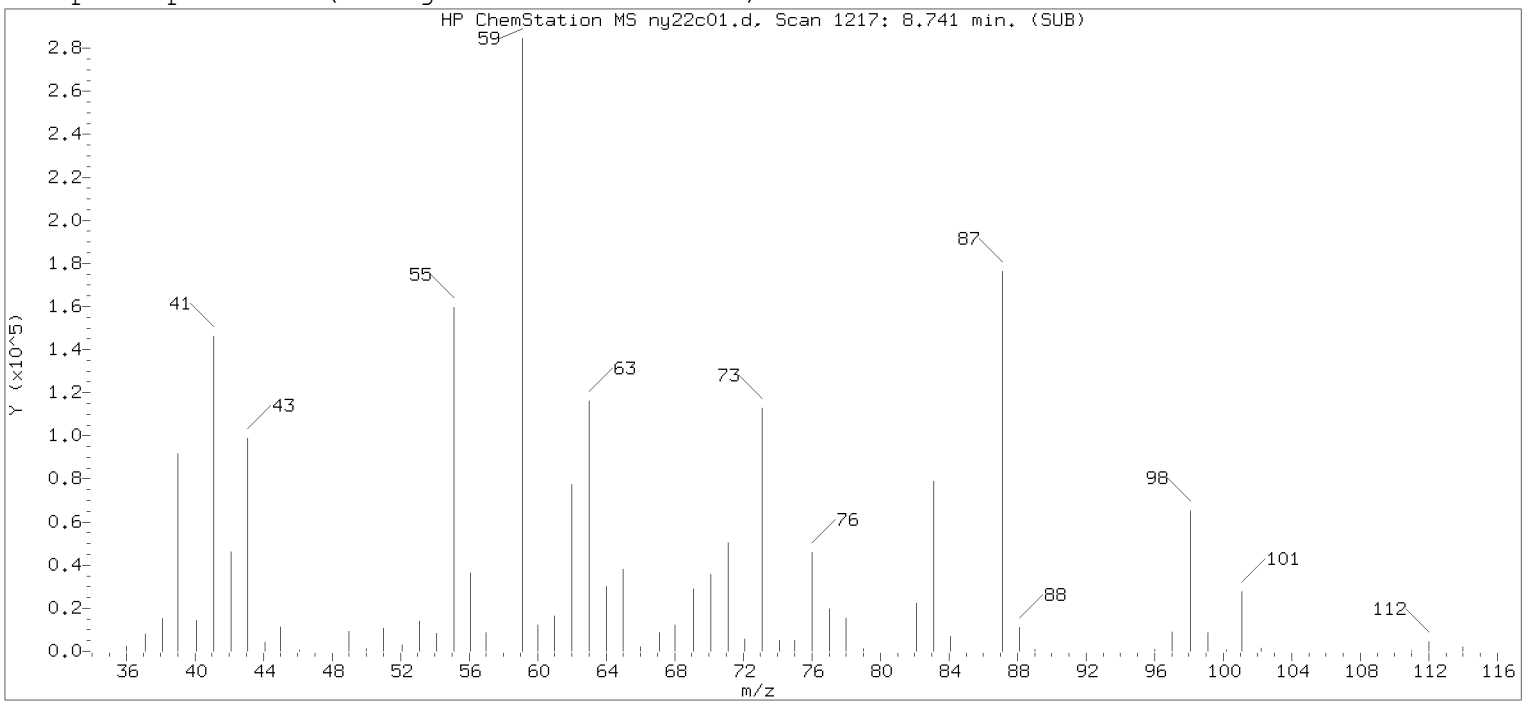
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.826
Quant Ion : 88.00
Area (flag) : 53832M
On-Column Amount (ng) : 655.9798
Integration start scan : 1224 Integration stop scan: 1262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

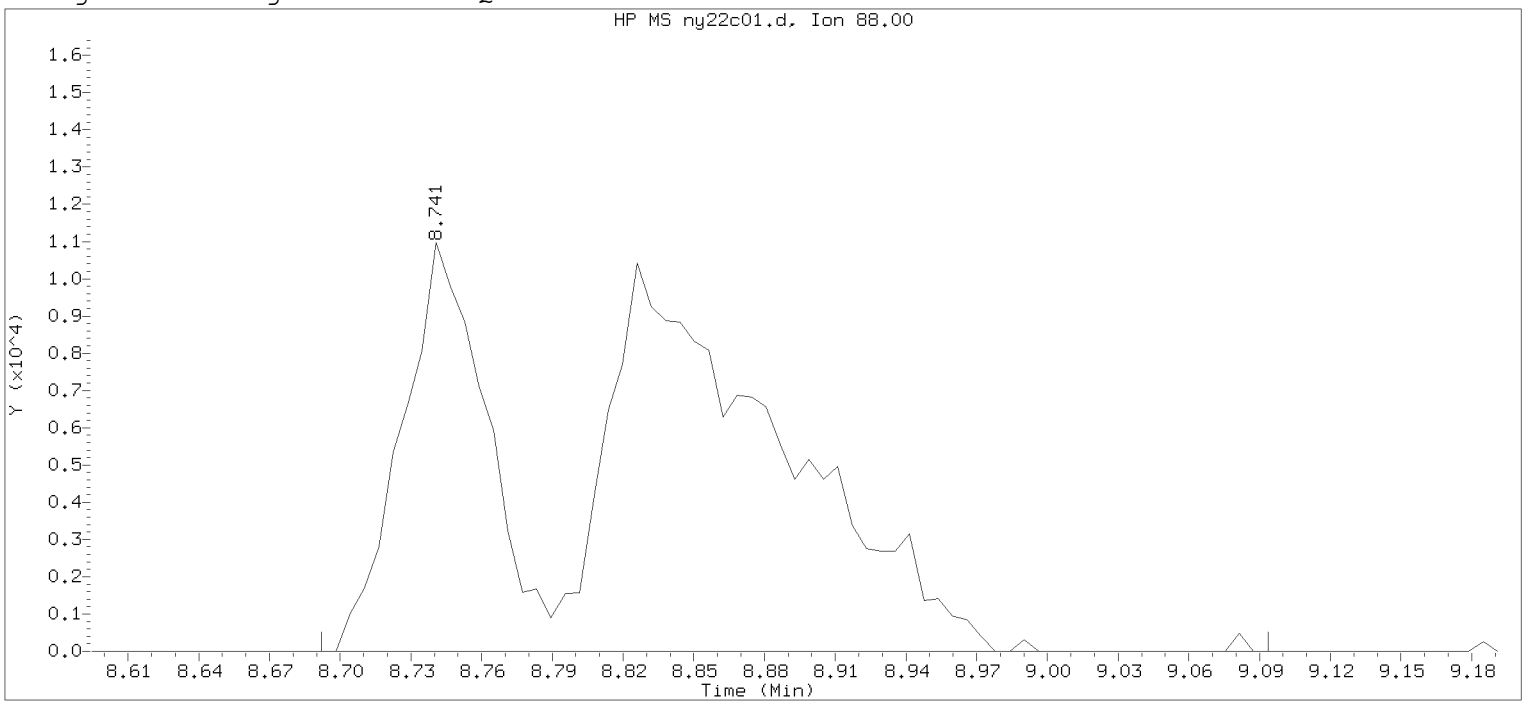
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.741
Quant Ion : 88.00
Area : 81261
On-column Amount (ng) : 990.2132
Integration start scan : 1208 Integration stop scan: 1274
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

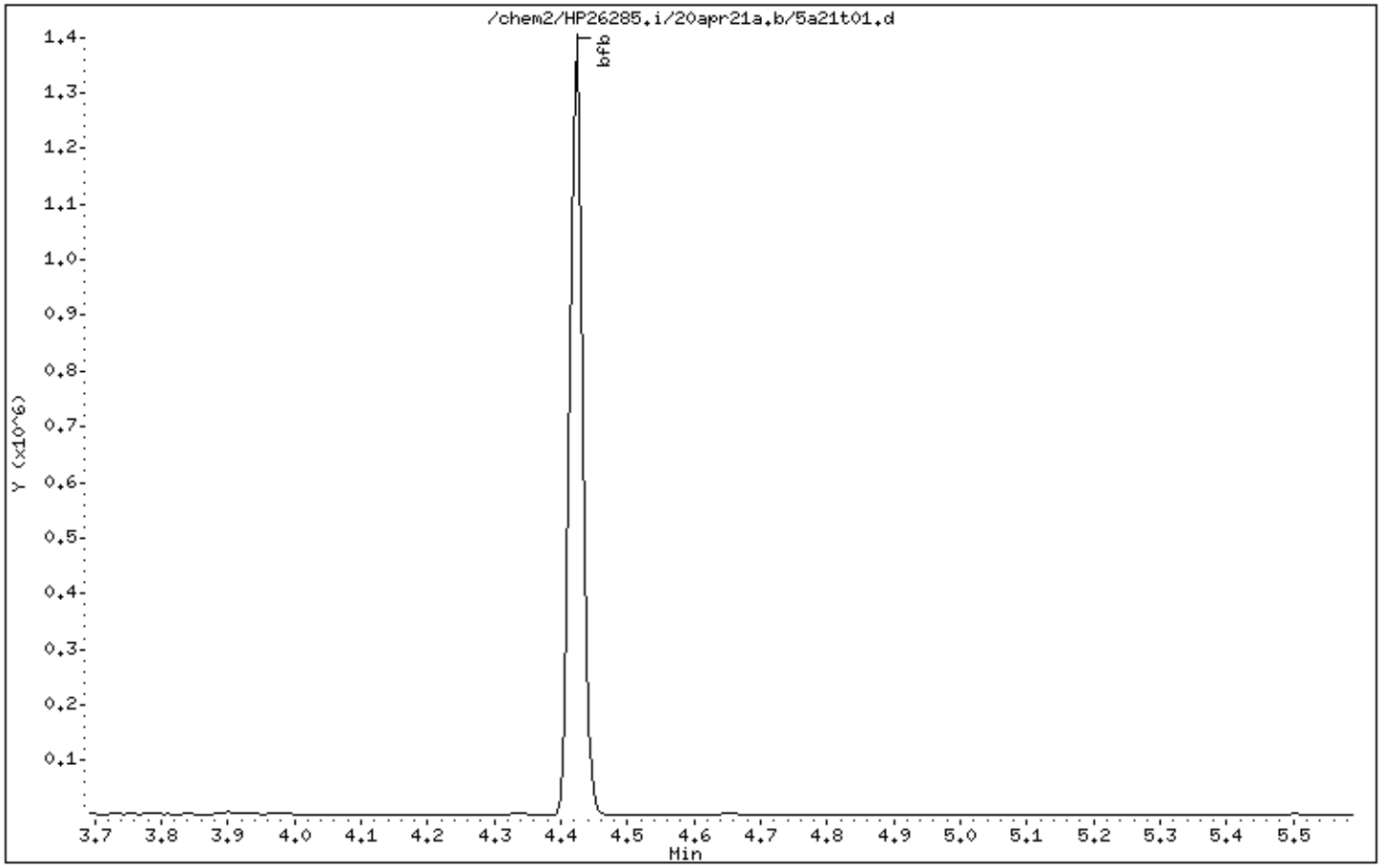
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

Instrument: HP26285.i

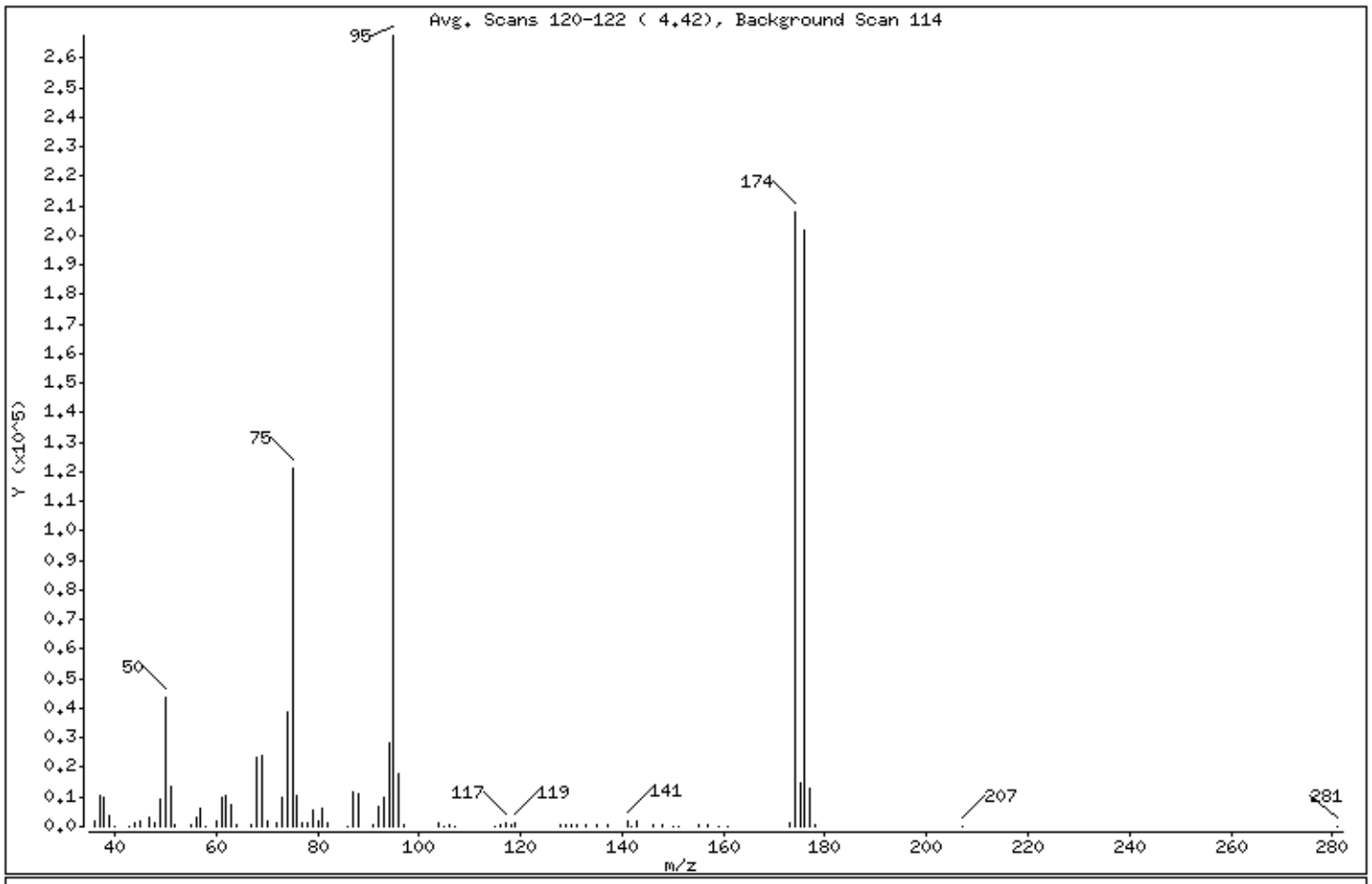
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.28
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	0.52 (0.67)
174	50.00 - 100.00% of mass 95	77.82
175	5.00 - 9.00% of mass 174	5.61 (7.21)
176	95.00 - 101.00% of mass 174	75.39 (96.88)
177	5.00 - 9.00% of mass 176	4.85 (6.43)

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20 Instrument: HP26285.i

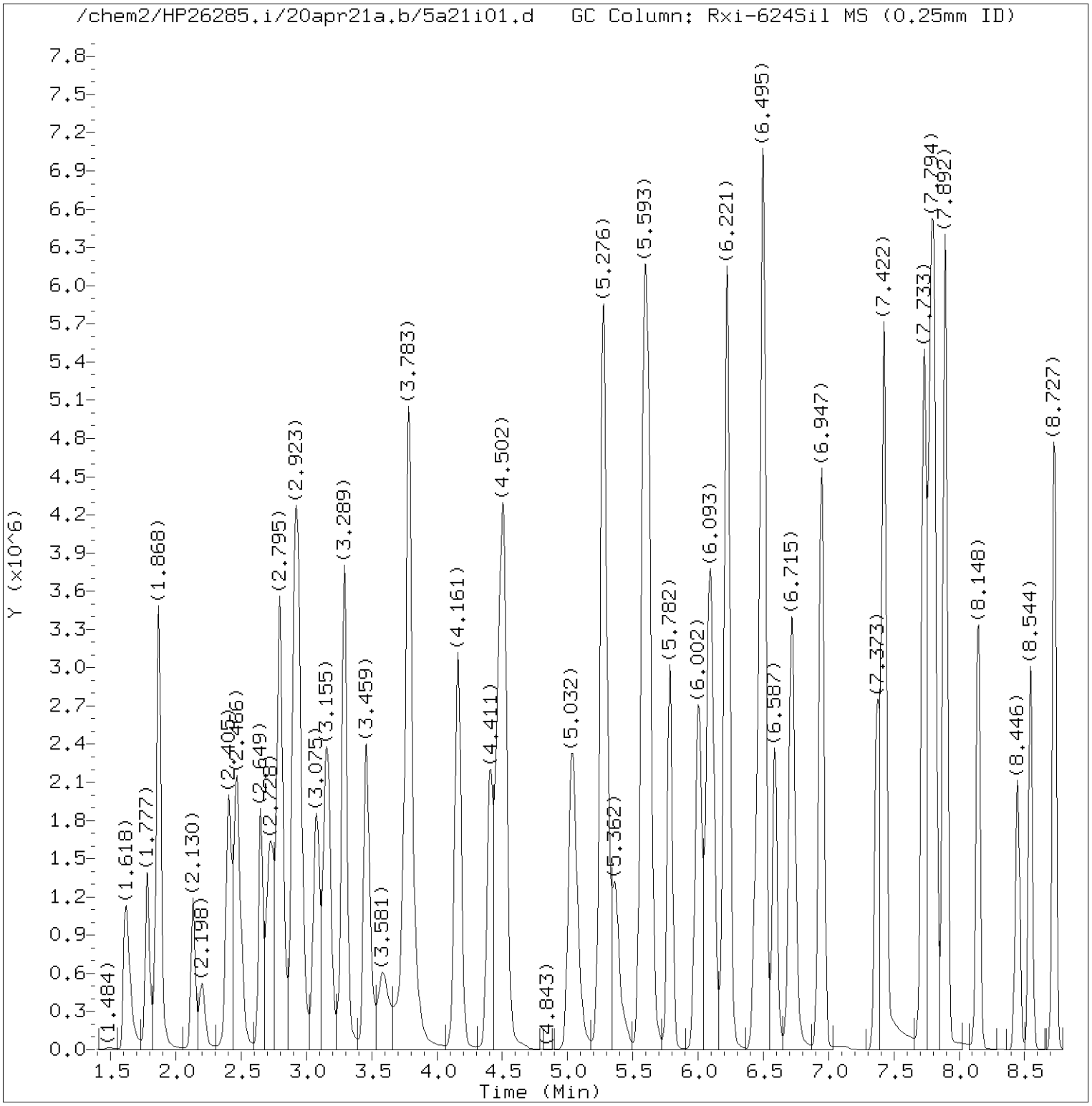
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5a21t01.d
Spectrum: Avg. Scans 120-122 (4.42), Background Scan 114
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1859	63.00	7563	92.00	6626	137.00	416
37.00	10659	64.00	691	93.00	9904	141.00	2114
38.00	9637	67.00	643	94.00	28296	142.00	170
39.00	3822	68.00	23688	95.00	267648	143.00	1976
40.00	46	69.00	23744	96.00	17848	146.00	317
43.00	89	70.00	1883	97.00	561	148.00	581
44.00	1347	72.00	1214	104.00	985	150.00	114
45.00	2117	73.00	10018	105.00	287	151.00	104
47.00	3360	74.00	38552	106.00	920	155.00	650
48.00	1250	75.00	120968	107.00	94	157.00	358
49.00	9060	76.00	10309	115.00	188	159.00	114
50.00	43568	77.00	1497	116.00	721	161.00	189
51.00	13630	78.00	1072	117.00	1379	173.00	1394
52.00	611	79.00	5472	118.00	834	174.00	208256
55.00	676	80.00	1787	119.00	1226	175.00	15026
56.00	3306	81.00	5890	128.00	862	176.00	201728
57.00	5865	82.00	1362	129.00	418	177.00	12981
58.00	201	86.00	188	130.00	914	178.00	386
60.00	1989	87.00	11389	131.00	328	207.00	75
61.00	10148	88.00	11066	133.00	345	281.00	206
62.00	10316	91.00	818	135.00	469		



Total Ion Chromatogram (TIC)

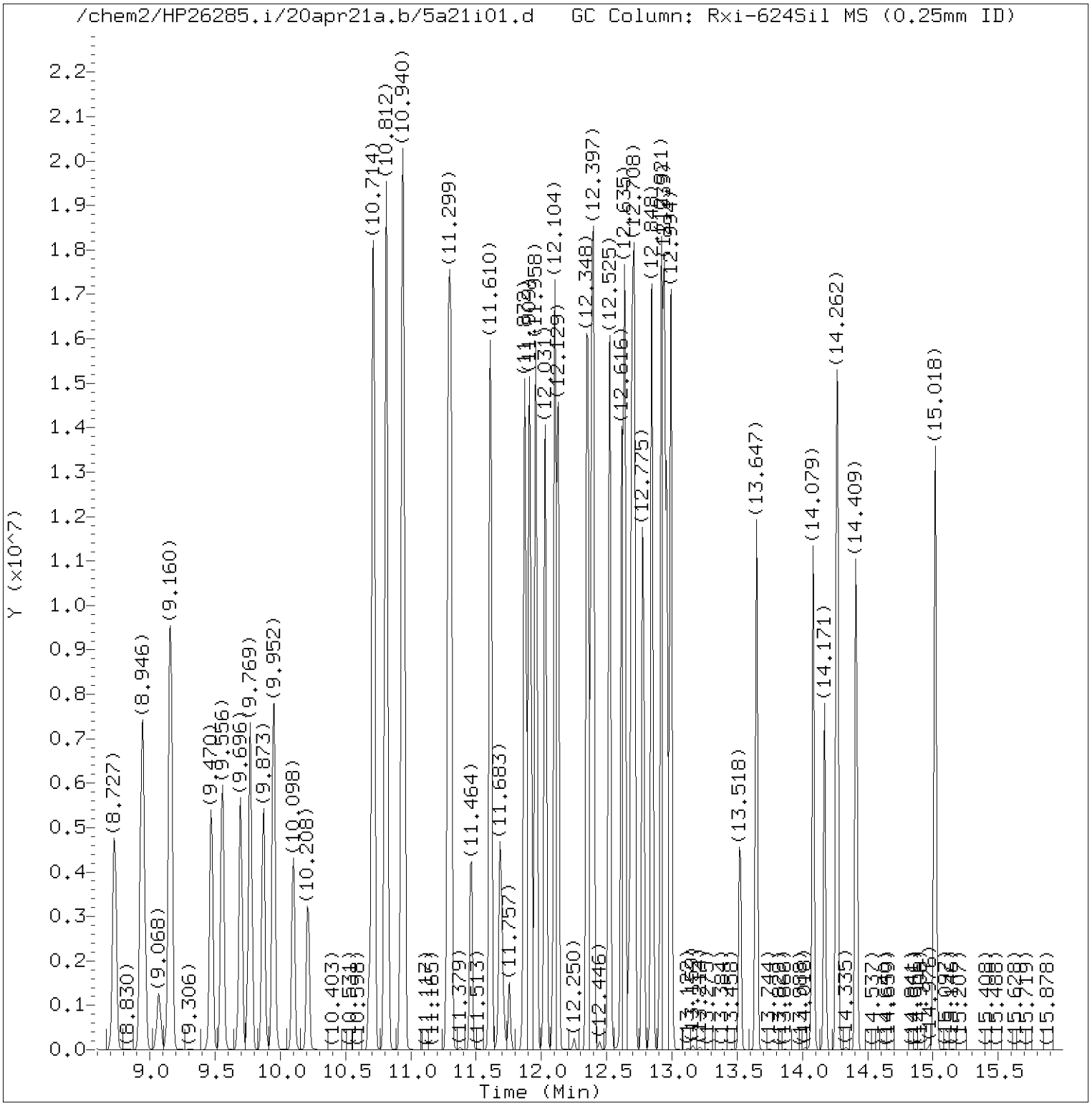
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	2514781	293.886
4) Chloromethane	(2)	1.777	50	1779525	260.361
5) 1,3-Butadiene	(2)	1.862	39	1692569	179.387
6) Vinyl Chloride	(2)	1.868	62	1635639	272.442
8) Bromomethane	(2)	2.130	94	1028216	255.090
9) Chloroethane	(2)	2.198	64	759321	267.130
10) Dichlorofluoromethane	(2)	2.405	67	2412071	260.399
12) Trichlorofluoromethane	(2)	2.441	101	1968139	267.668
11) n-Pentane	(2)	2.472	43	1702407	248.729
14) Ethyl ether	(2)	2.649	59	1350690	266.456
15) Freon 123a	(2)	2.722	67	2083785	271.498
16) Acrolein	(1)	2.795	56	5427011	2360.411
17) 1,1-Dichloroethene	(2)	2.905	96	1680210	294.103
17) 1,1-Dichloroethene	(2)	2.905	63	847789	296.090
19) Freon 113	(2)	2.935	101	1957046	302.645
18) Acetone	(1)	2.941	58	644334	568.222
22) Methyl Iodide	(2)	3.075	142	3244772	297.857
21) 2-Propanol	(1)	3.088	45	1311806	1421.652
23) Carbon Disulfide	(2)	3.155	76	6141301	305.602
27) Methyl Acetate	(2)	3.277	43	2308362	280.248
25) Allyl Chloride	(2)	3.295	41	2774449	290.117
28) Methylene Chloride	(2)	3.459	84	1906798	296.101
29)*t-Butyl alcohol-d10	(1)	3.490	65	363110M	250.000
30) t-Butyl alcohol	(1)	3.581	59	2474869M	1447.019
31) Acrylonitrile	(2)	3.740	53	1244590	286.266
32) trans-1,2-Dichloroethene	(2)	3.783	96	1856699	290.450
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	4729659	279.720
34) n-Hexane	(2)	4.161	57	2823354	297.858
36) 1,1-Dichloroethane	(2)	4.404	63	3413350	294.965
38) di-Isopropyl ether	(2)	4.471	45	5826089	281.879
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	2986113	303.744
40) Ethyl t-butyl ether	(2)	5.032	59	5047239	275.067
42) cis-1,2-Dichloroethene	(2)	5.270	96	2092441	289.396
44) 2-Butanone	(2)	5.270	43	3508151	554.406
45) 2,2-Dichloropropane	(2)	5.288	77	2907210	297.741
47) Propionitrile	(1)	5.368	54	2776028	1491.001
48) Methacrylonitrile	(2)	5.587	67	3113931	719.149
49) Bromochloromethane	(2)	5.618	128	949029	286.579

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	962421	571.941
51) Chloroform	(2)	5.782	83	3454950	297.665
53) 1,1,1-Trichloroethane	(2)	6.002	97	3220555	308.180
52)$Dibromofluoromethane	(2)	6.008	113	265501	50.449
52)$Dibromofluoromethane	(2)	6.008	111	271428	50.372
54) Cyclohexane	(2)	6.093	56	3718949	305.559
54) Cyclohexane	(2)	6.093	84	3072191	305.152
54) Cyclohexane	(2)	6.093	69	1167415	309.242
43) 1,2-Dichloroethene (Total)	(2)		96	3949140	579.846
56) Carbon Tetrachloride	(2)	6.215	117	2866099	314.348
55) 1,1-Dichloropropene	(2)	6.227	75	2833013	299.261
58) Isobutyl Alcohol	(1)	6.459	41	2102817	3688.520
57)$1,2-Dichloroethane-d4	(2)	6.477	102	58127	49.384
57)$1,2-Dichloroethane-d4	(2)	6.477	65	287760	50.004
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36918	48.985
60) Benzene	(2)	6.502	78	8091915	287.471
61) 1,2-Dichloroethane	(2)	6.587	62	2471700	285.891
61) 1,2-Dichloroethane	(2)	6.587	98	229468	313.856
65) t-Amyl methyl ether	(2)	6.715	73	4873975	266.199
66)*Fluorobenzene	(2)	6.928	96	1056605	50.000
67) n-Heptane	(2)	6.947	43	2638875	288.213
69) n-Butanol	(1)	7.373	56	3800976	7726.750
71) Trichloroethene	(2)	7.428	95	2193082	296.890
73) Methylcyclohexane	(2)	7.733	83	3517963	299.657
73) Methylcyclohexane	(2)	7.733	98	1498995	301.607
74) 1,2-Dichloropropane	(2)	7.776	63	2058190	292.092
76) 1,4-Dioxane	(1)	7.879	88	505646M	4143.915
75) Dibromomethane	(2)	7.885	93	1328443	299.400
77) Methyl Methacrylate	(2)	7.898	69	2048784	310.762
79) Bromodichloromethane	(2)	8.148	83	2768802	321.810
80) 2-Nitropropane	(2)	8.446	41	1838471	616.936
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	1695315	310.886
82) cis-1,3-Dichloropropene	(2)	8.727	75	3451312	317.433
83) 4-Methyl-2-pentanone	(2)	8.946	43	6923514	567.670
84)$Toluene-d8	(3)	9.068	98	1043925	48.871
84)$Toluene-d8	(3)	9.068	100	692193	49.214
89) Toluene	(3)	9.160	92	5200843	276.121
90) trans-1,3-Dichloropropene	(3)	9.470	75	3189196	315.576

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	3484392	303.213
93) 1,1,2-Trichloroethane	(3)	9.696	97	1950775	289.700
94) Tetrachloroethene	(3)	9.769	166	2288562	286.479
95) 1,3-Dichloropropane	(3)	9.873	76	3251231	290.792
97) 2-Hexanone	(3)	9.946	43	5572720	556.867
91) 1,3-Dichloropropene (total)	(3)		100	6640508	633.008
98) Dibromochloromethane	(3)	10.098	129	2272719	318.957
100) 1,2-Dibromoethane	(3)	10.208	107	2209467	297.643
101)*Chlorobenzene-d5	(3)	10.684	117	869195	50.000
103) Chlorobenzene	(3)	10.714	112	5394866	263.916
102) 1-Chlorohexane	(3)	10.714	91	2905458	265.245
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	1973861	279.894
105) Ethylbenzene	(3)	10.812	91	9442911	259.282
107) m+p-Xylene	(3)	10.940	106	6954208	497.686
108) o-Xylene	(3)	11.287	106	3578067	261.618
110) Styrene	(3)	11.306	104	6017910	273.026
111) Bromoform	(3)	11.464	173	1766291	342.616
112) Isopropylbenzene	(3)	11.610	105	9418520	262.423
113) Cyclohexanone	(1)	11.683	55	2225130	3970.108
115)$4-Bromofluorobenzene	(3)	11.757	95	463125	51.457
115)$4-Bromofluorobenzene	(3)	11.757	174	360966	51.412
109) Xylene (Total)	(3)		106	10532275	759.304
116) Bromobenzene	(4)	11.872	156	2383355	270.294
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	3318957	277.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	1985915	748.278
118) 1,2,3-Trichloropropane	(4)	11.921	110	953780	270.703
120) n-Propylbenzene	(4)	11.958	91	10730524	247.518
121) 2-Chlorotoluene	(4)	12.031	126	2497956	281.107
123) 1,3,5-Trimethylbenzene	(4)	12.104	105	7976165	261.729
122) 4-Chlorotoluene	(4)	12.129	126	2495146	277.968
125) tert-Butylbenzene	(4)	12.354	134	1685066M	278.218
126) Pentachloroethane	(4)	12.378	167	1509123	303.509
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	8182264	260.724
128) sec-Butylbenzene	(4)	12.525	105	9574539	253.403
130) 1,3-Dichlorobenzene	(4)	12.616	146	4469009	269.455
131) p-Isopropyltoluene	(4)	12.641	119	8232580	261.279
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	462526	50.000
134) 1,4-Dichlorobenzene	(4)	12.695	146	4434033	263.430

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	7774791	258.098
136) Benzyl Chloride	(4)	12.775	91	7177348	312.660
137) 1,3-Diethylbenzene	(4)	12.848	119	4947733	271.768
138) 1,4-Diethylbenzene	(4)	12.921	119	4979240	264.422
140) n-Butylbenzene	(4)	12.939	92	4168841	262.298
139) 1,2-Dichlorobenzene	(4)	12.964	146	4299940	269.902
141) 1,2-Diethylbenzene	(4)	12.994	119	4120446	267.611
142) Diethylbenzene (total)	(4)		100	14047419	803.801
143) 1,2-Dibromo-3-chloropropane	(4)	13.518	75	969124	320.802
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	2993247	284.456
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	2829365	286.205
148) Hexachlorobutadiene	(4)	14.171	225	1134842	298.493
149) Naphthalene	(4)	14.268	128	9913701	253.236
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	2753131	281.432
151) 2-Methylnaphthalene	(4)	15.018	142	5752055	282.809

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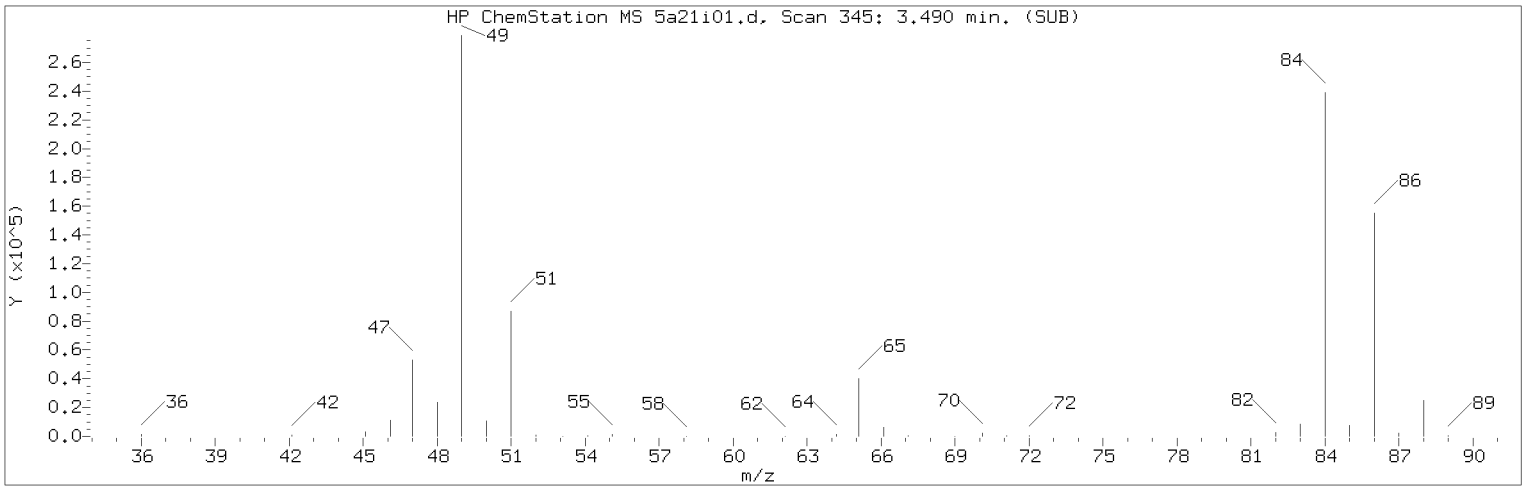
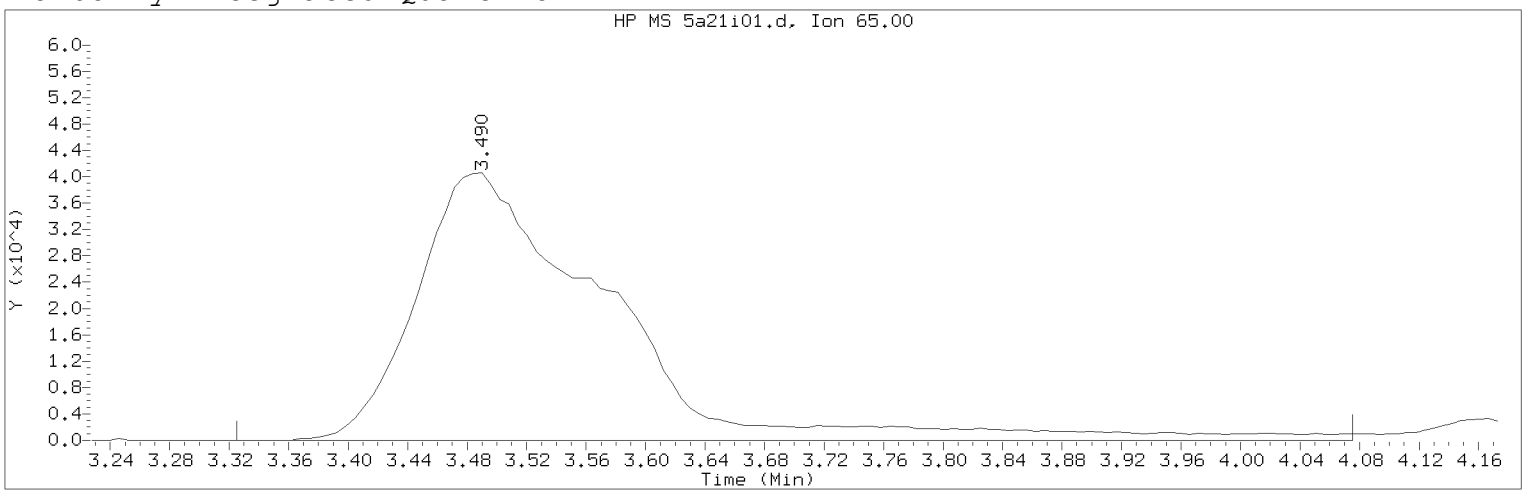
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

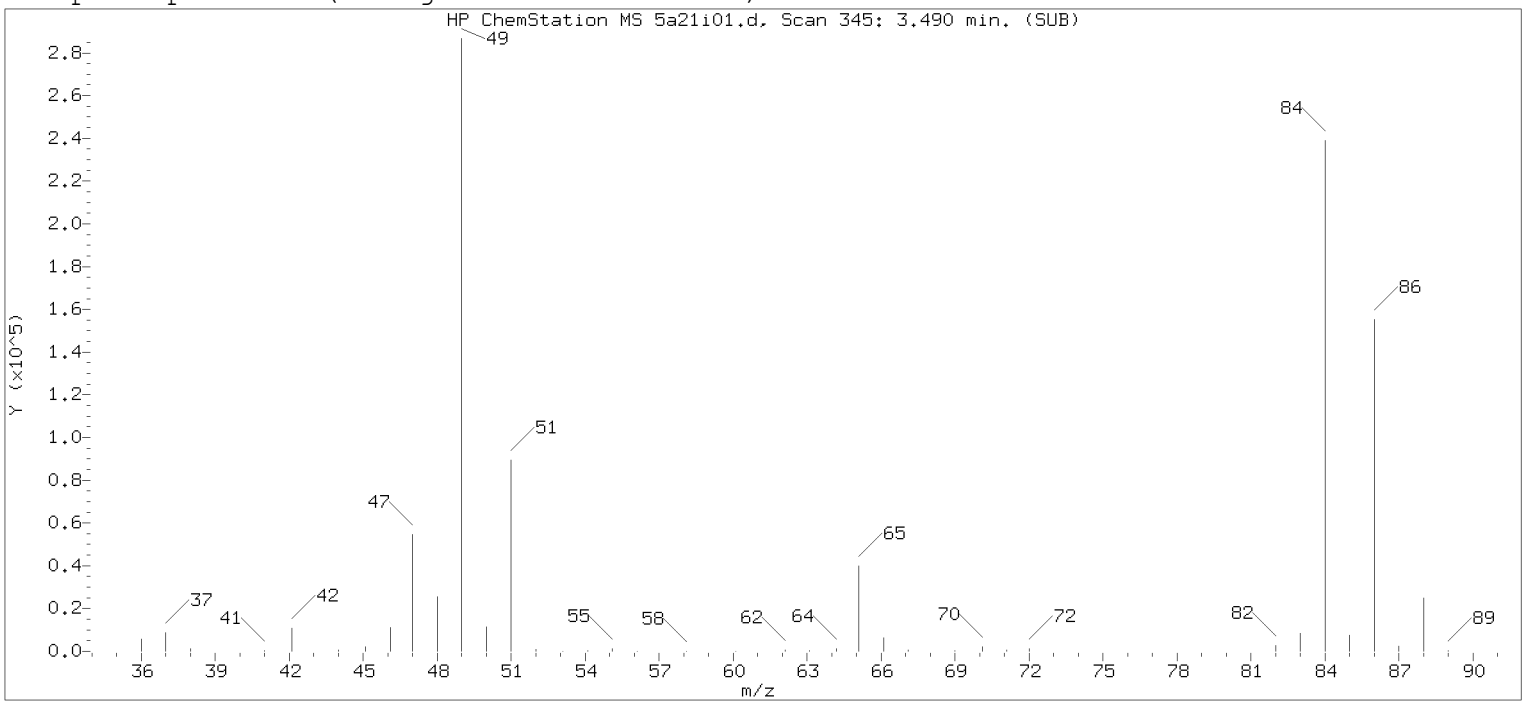
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 363110M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 440
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

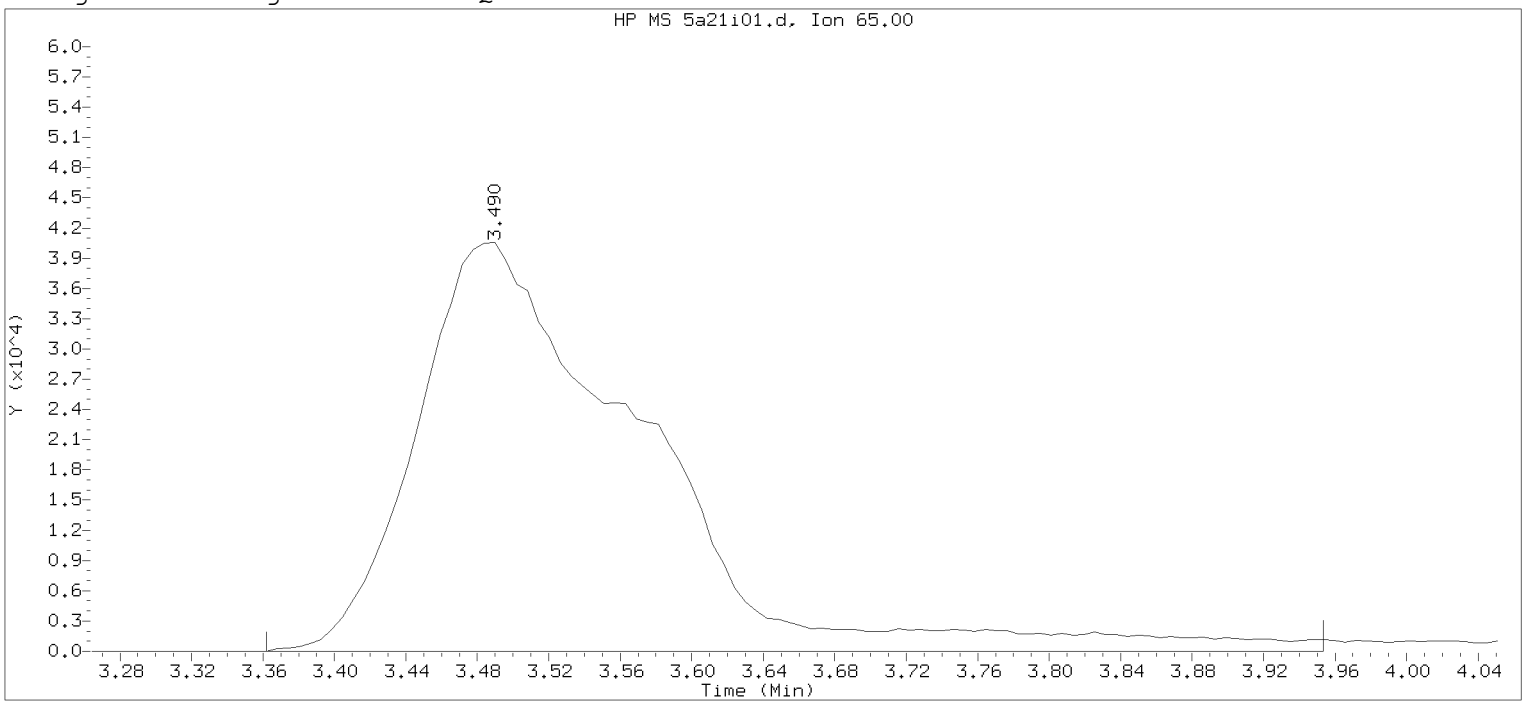
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

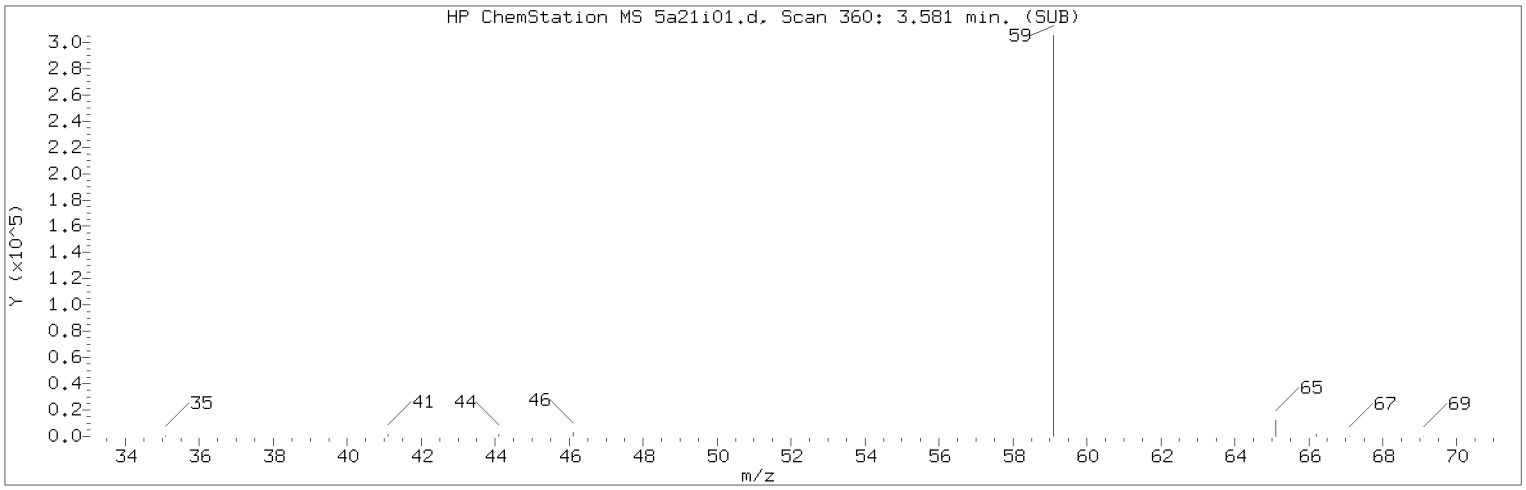
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

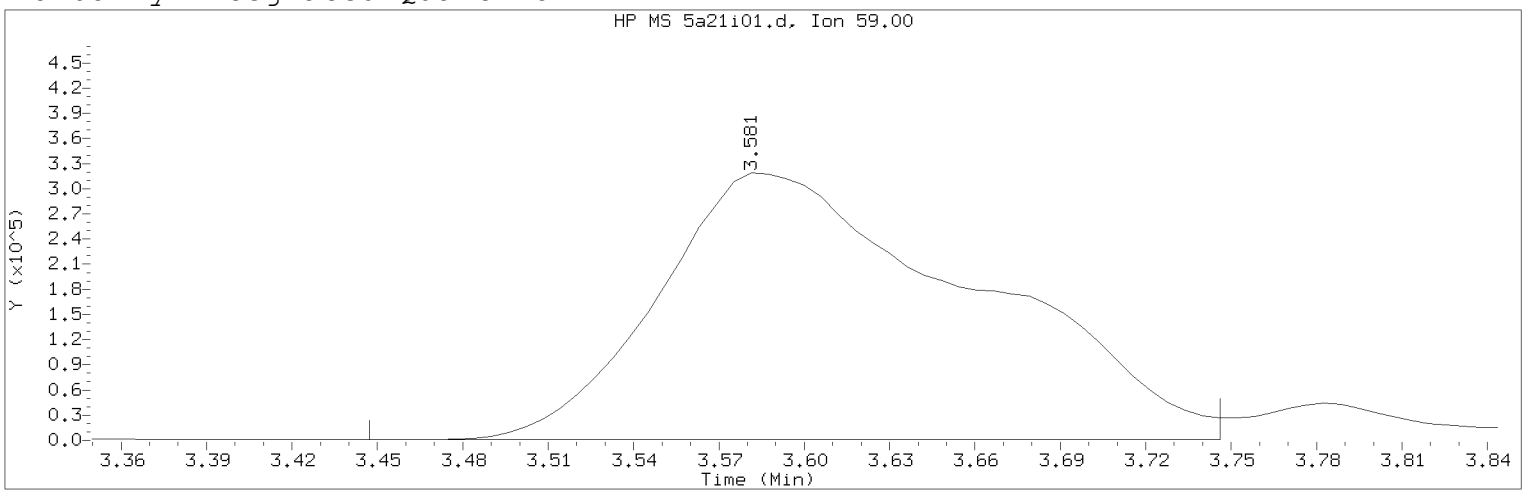
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 355812
On-column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

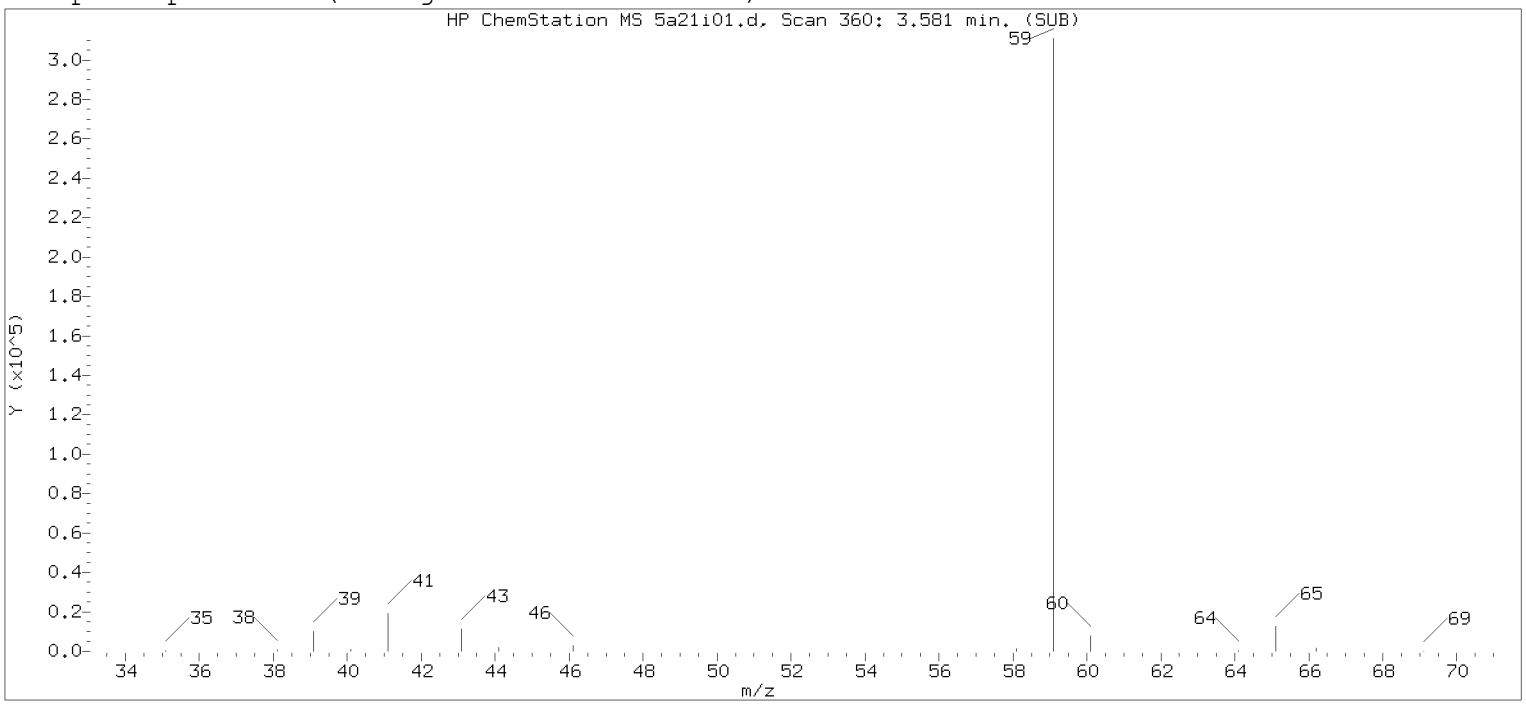
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area (flag) : 2474869M
On-Column Amount (ng) : 1447.0190
Integration start scan : 337 Integration stop scan: 386
Y at integration start : 427 Y at integration end: 427

Reason for manual integration: improper integration

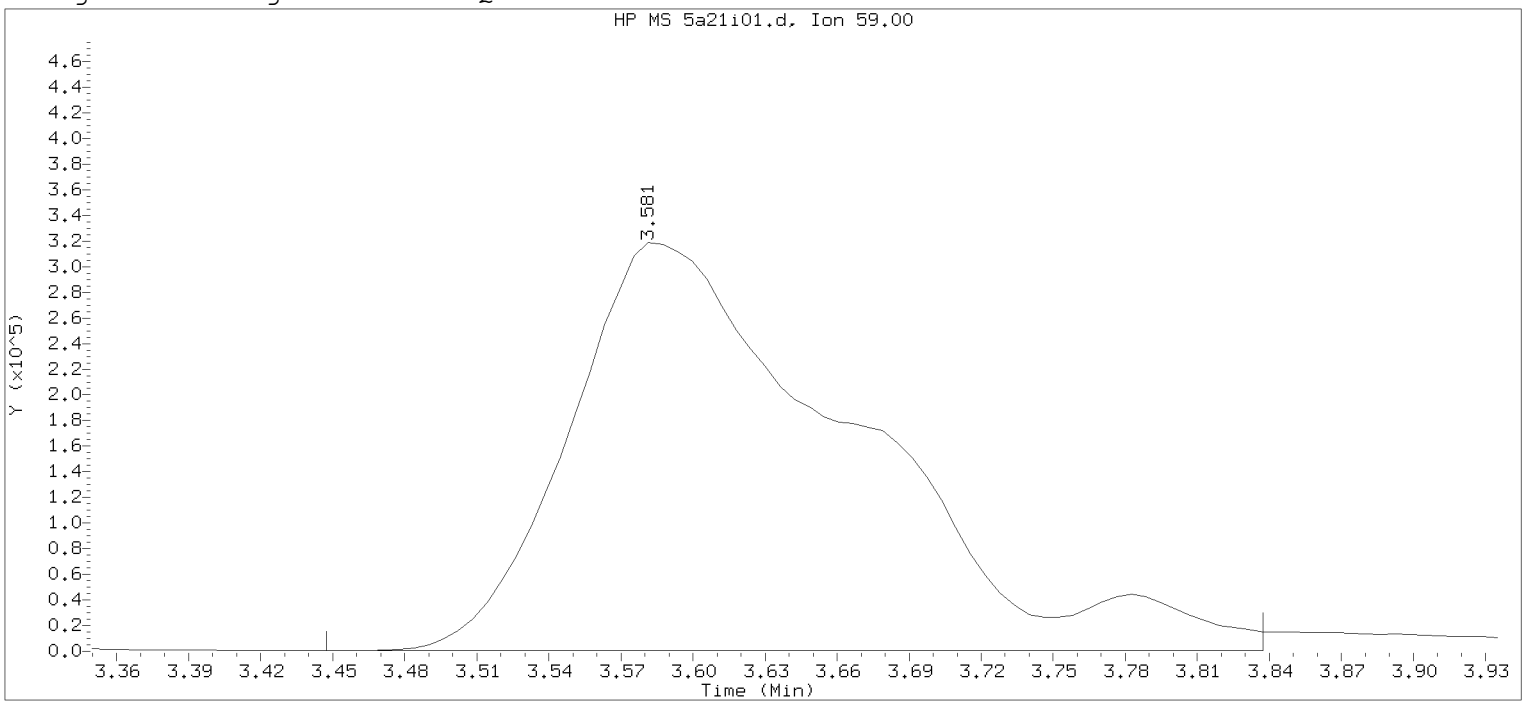
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

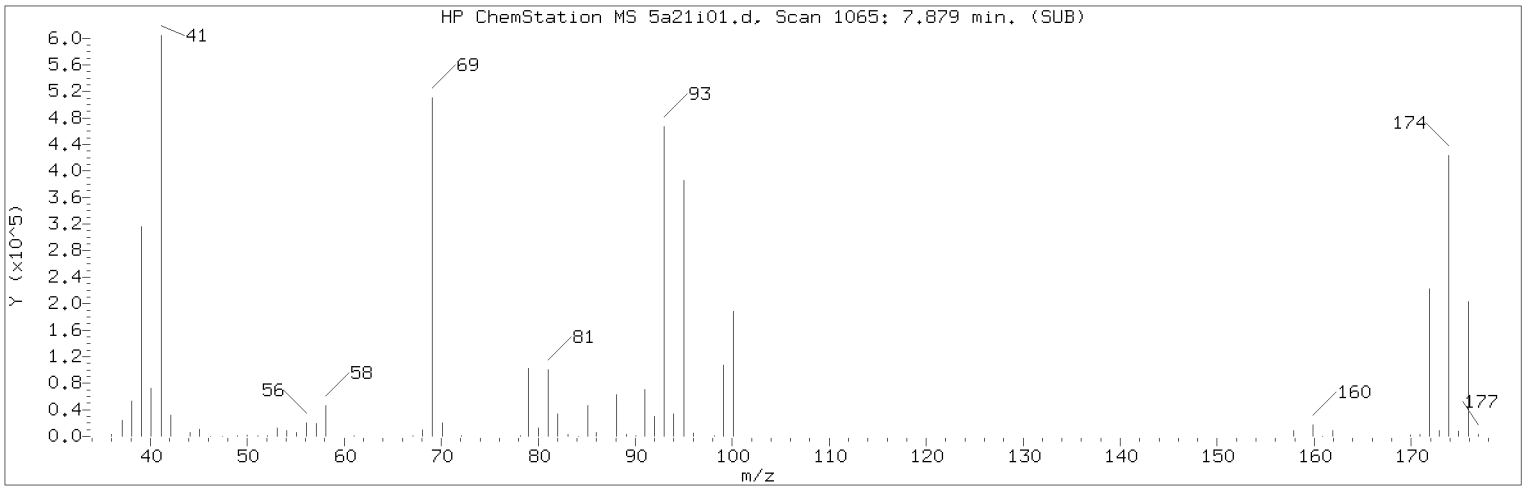
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

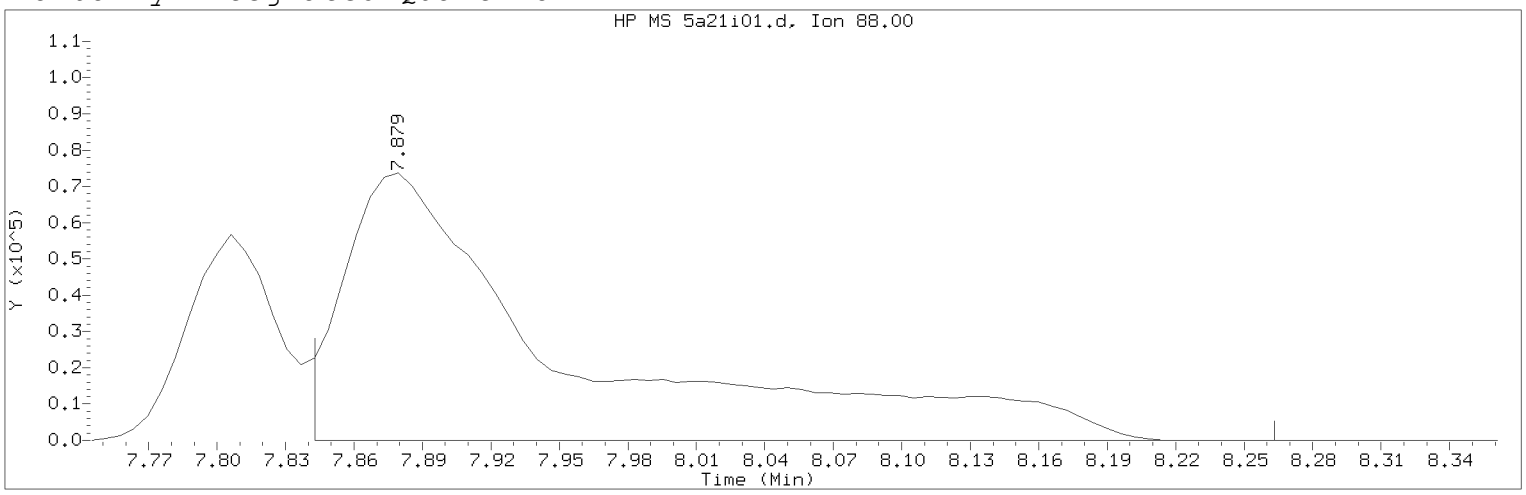
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area : 2634322
On-column Amount (ng) : 1505.7364
Integration start scan : 337 Integration stop scan: 401
Y at integration start : 427 Y at integration end: 427

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

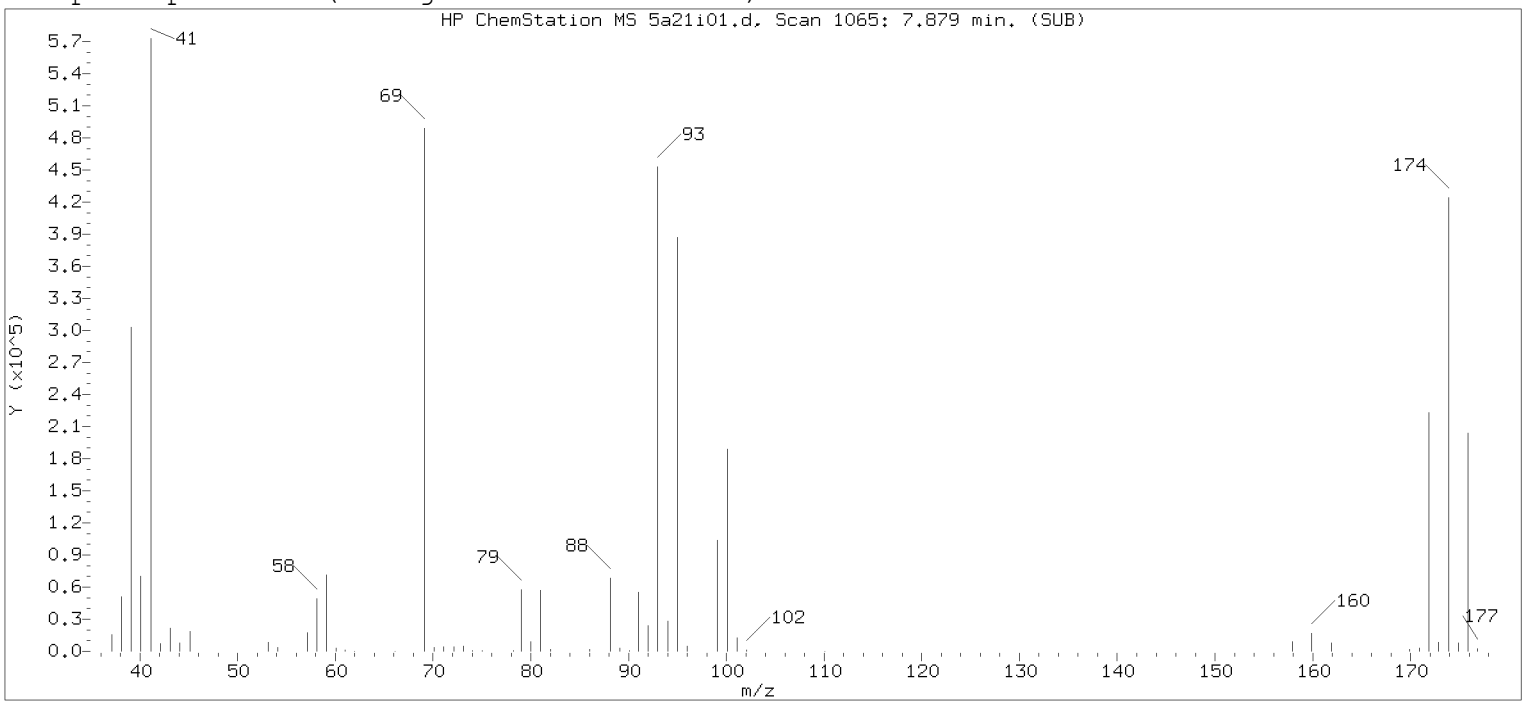
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 505646M
On-Column Amount (ng) : 4143.9152
Integration start scan : 1058 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

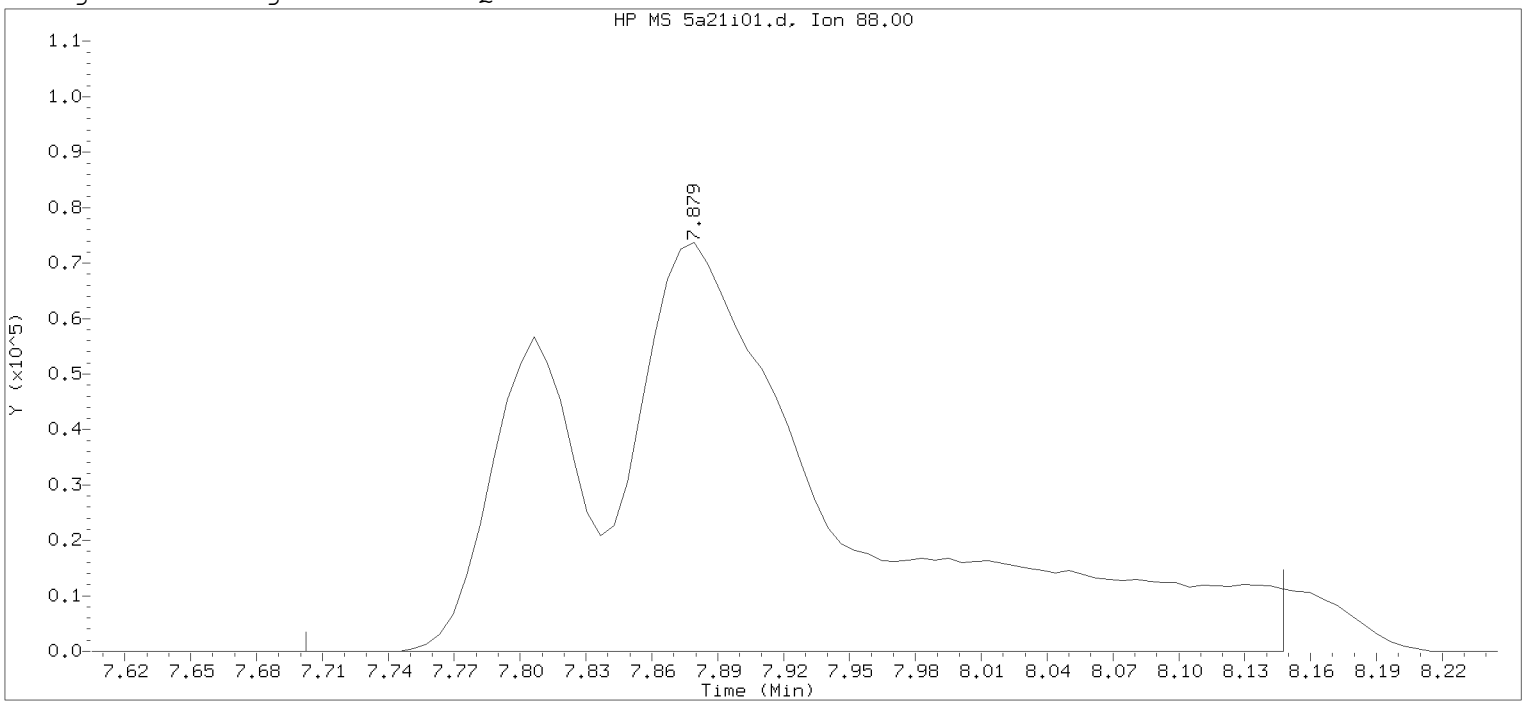
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

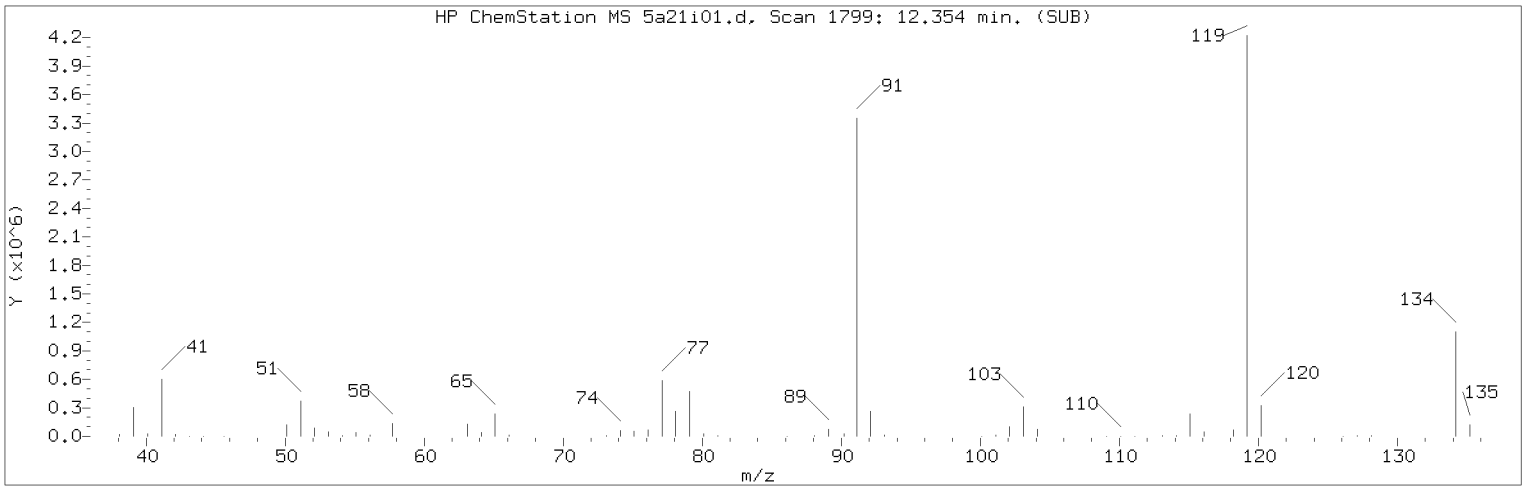
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

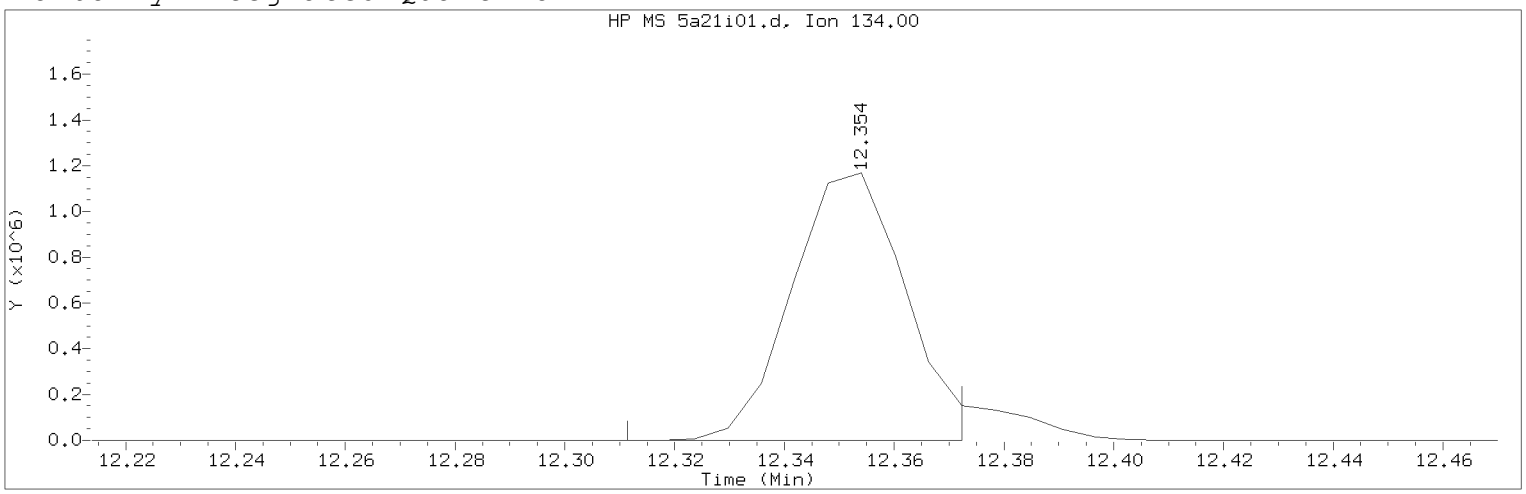
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area : 634455
On-column Amount (ng) : 4311.6616
Integration start scan : 1035 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

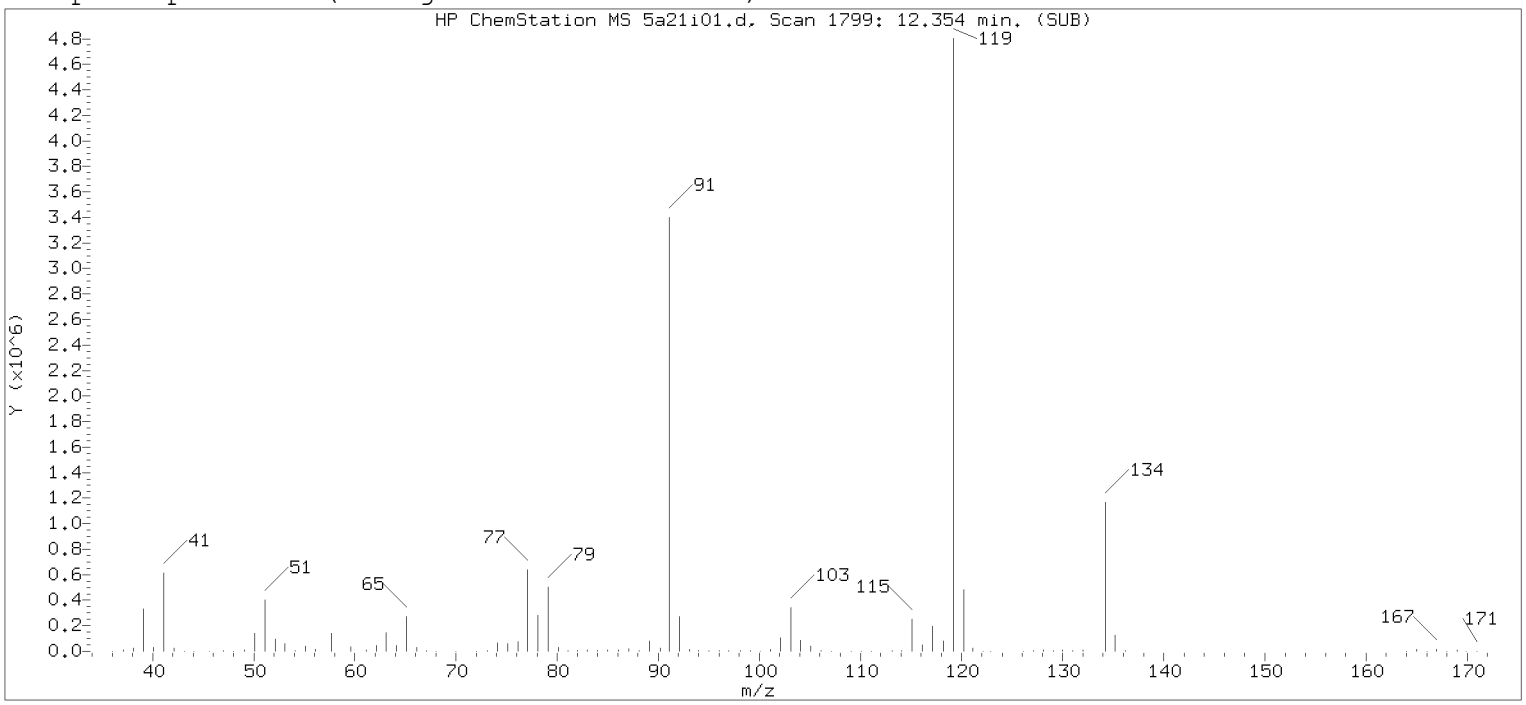
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area (flag) : 1685066M
On-Column Amount (ng) : 278.2183
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

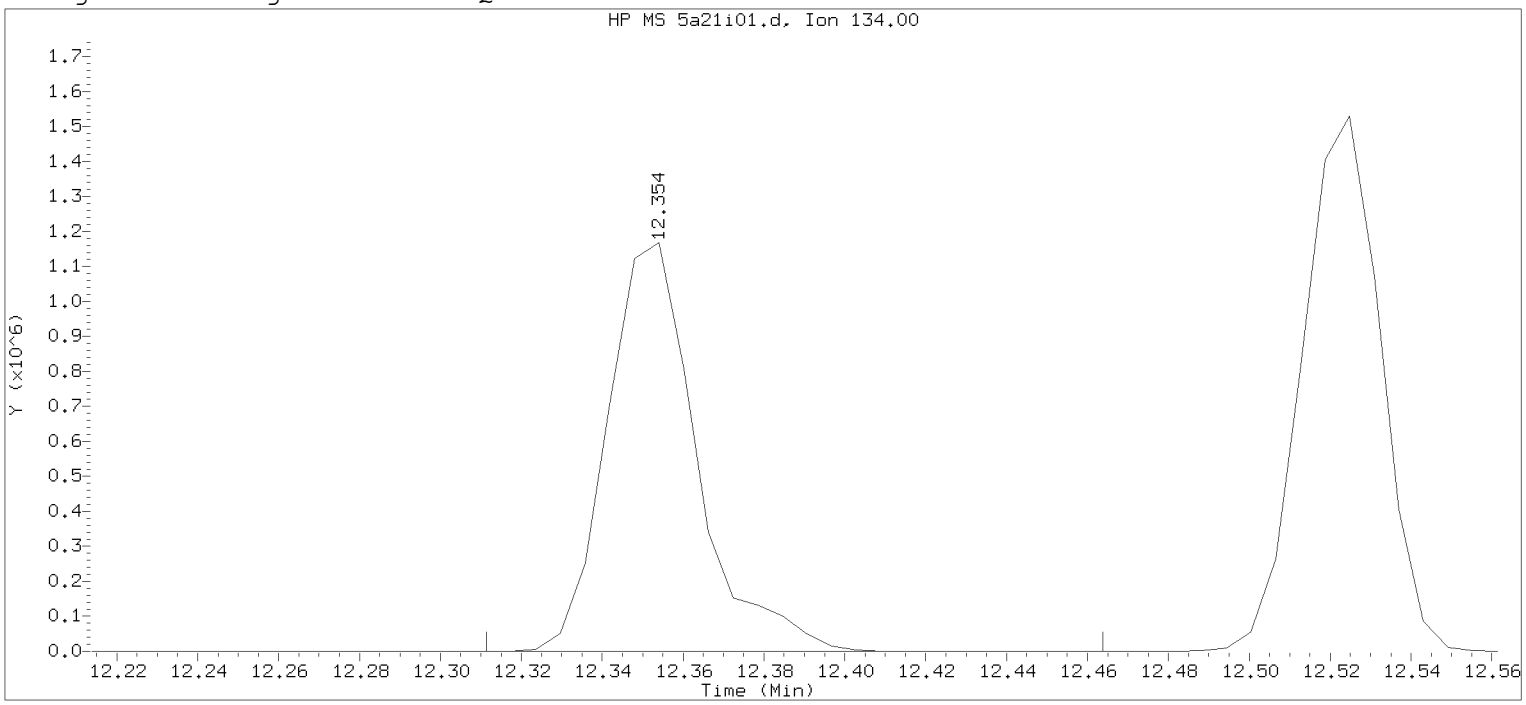
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



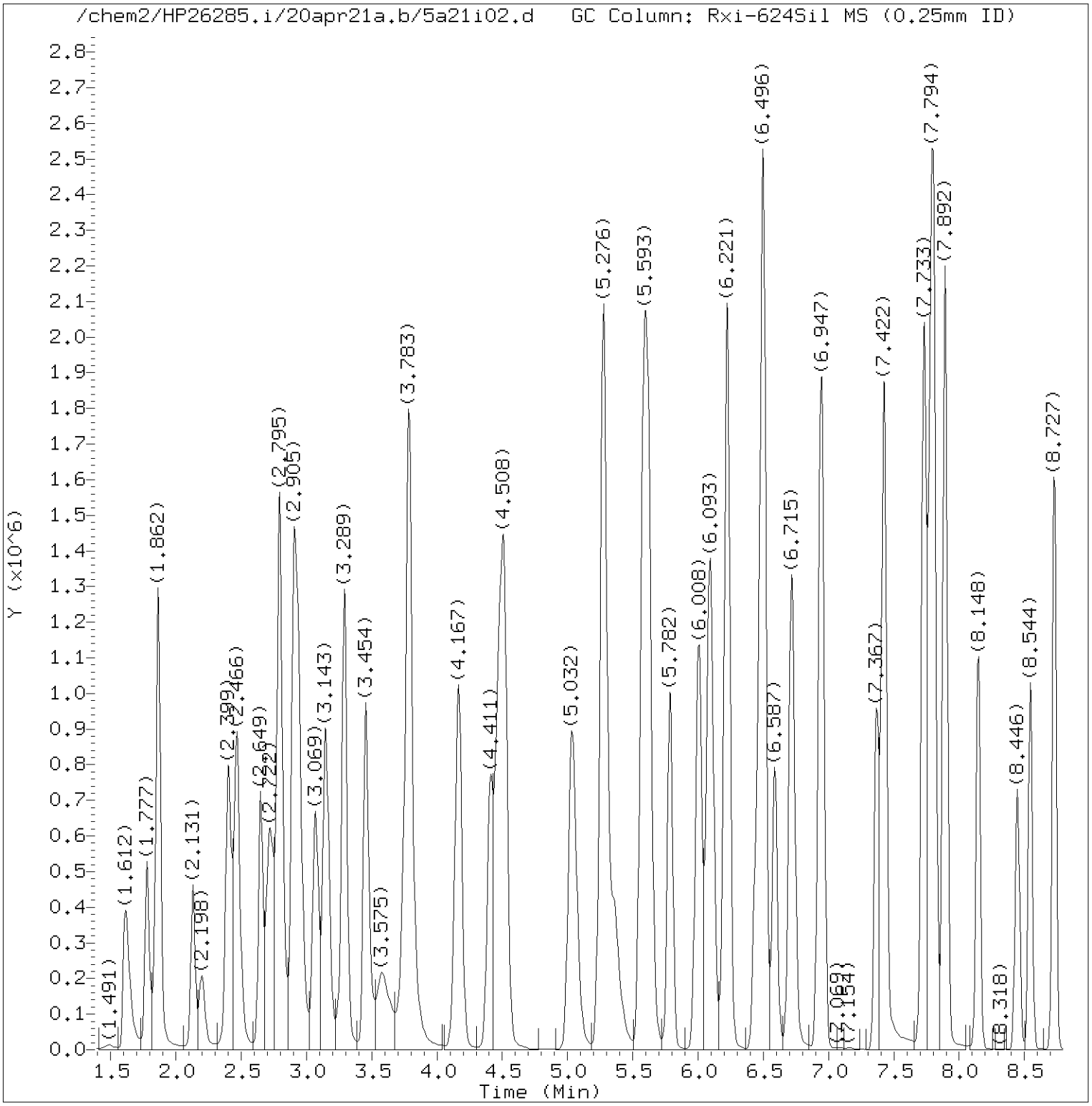
Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area : 1795576
On-column Amount (ng) : 291.1602
Integration start scan : 1791 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

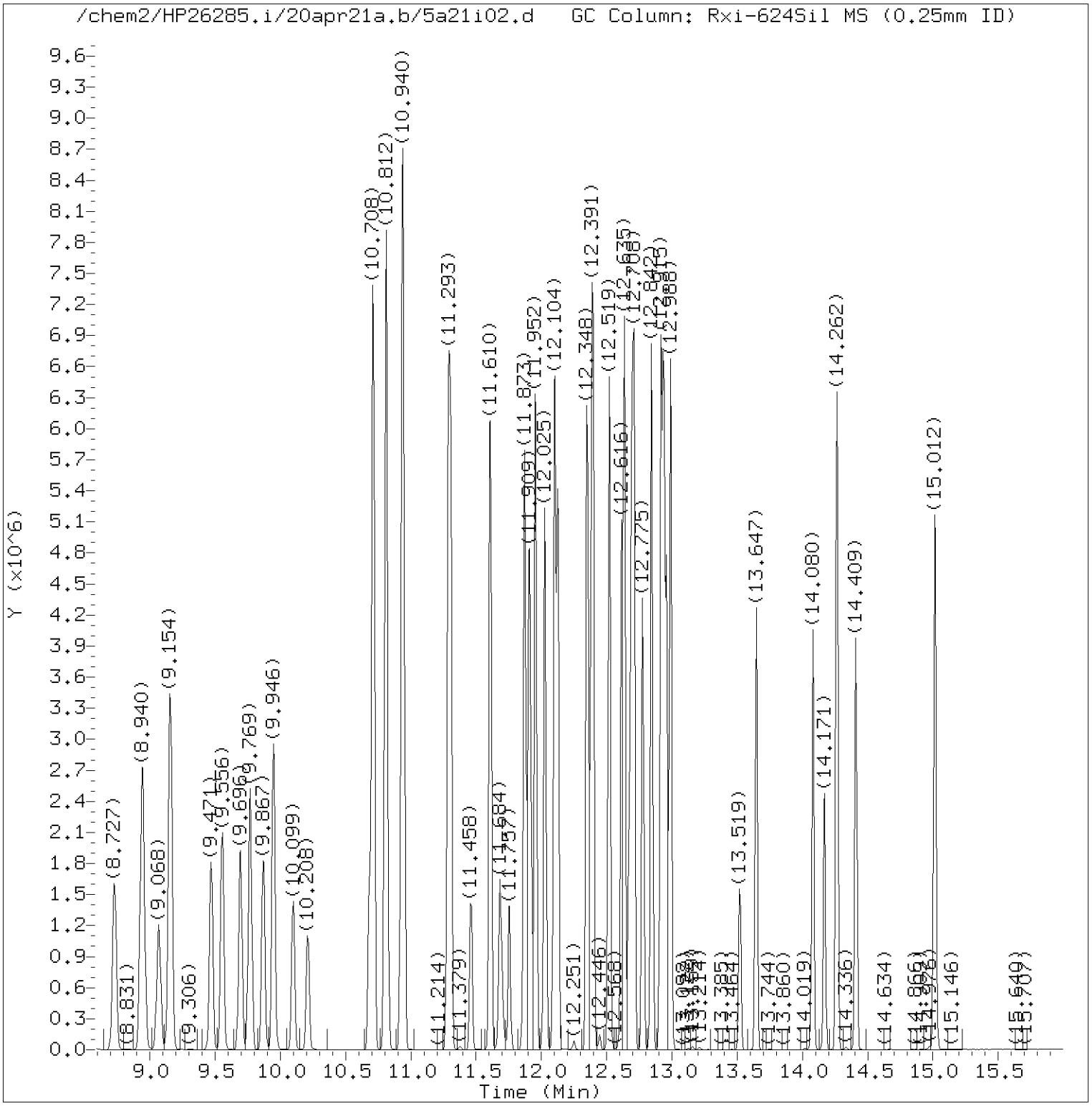
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	873226	104.047
4) Chloromethane	(2)	1.777	50	655841	97.836
5) 1,3-Butadiene	(2)	1.862	39	634972	68.616
6) Vinyl Chloride	(2)	1.868	62	604184	102.608
8) Bromomethane	(2)	2.131	94	395793	100.116
9) Chloroethane	(2)	2.198	64	289634	103.890
10) Dichlorofluoromethane	(2)	2.399	67	925922	101.918
12) Trichlorofluoromethane	(2)	2.442	101	751734	104.239
11) n-Pentane	(2)	2.472	43	651119	96.995
14) Ethyl ether	(2)	2.649	59	525058	105.609
15) Freon 123a	(2)	2.716	67	771972	102.551
16) Acrolein	(1)	2.795	56	2255420	1023.922
17) 1,1-Dichloroethene	(2)	2.899	96	582916	104.032
17) 1,1-Dichloroethene	(2)	2.899	63	296111	105.443
19) Freon 113	(2)	2.929	101	682149	107.557
18) Acetone	(1)	2.935	58	234830	216.159
22) Methyl Iodide	(2)	3.069	142	1112268	104.102
21) 2-Propanol	(1)	3.082	45	465082	526.097
23) Carbon Disulfide	(2)	3.143	76	2068953	104.972
27) Methyl Acetate	(2)	3.277	43	807702	99.981
25) Allyl Chloride	(2)	3.295	41	976677	104.129
28) Methylene Chloride	(2)	3.454	84	655842	103.839
29)*t-Butyl alcohol-d10	(1)	3.472	65	347877M	250.000
30) t-Butyl alcohol	(1)	3.588	59	842379	514.093
31) Acrylonitrile	(2)	3.740	53	447540	104.954
32) trans-1,2-Dichloroethene	(2)	3.783	96	648552	103.443
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	1713425	103.320
34) n-Hexane	(2)	4.167	57	986803	106.145
36) 1,1-Dichloroethane	(2)	4.405	63	1182811	104.215
38) di-Isopropyl ether	(2)	4.472	45	2103879	103.784
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	1033766	107.213
40) Ethyl t-butyl ether	(2)	5.032	59	1834635	101.944
44) 2-Butanone	(2)	5.264	43	1265905	203.974
42) cis-1,2-Dichloroethene	(2)	5.276	96	738513	104.141
45) 2,2-Dichloropropane	(2)	5.282	77	1004742	104.916
47) Propionitrile	(1)	5.362	54	946715	530.745
48) Methacrylonitrile	(2)	5.581	67	1113996	262.312
49) Bromochloromethane	(2)	5.618	128	337485	103.907

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	348863	216.398
51) Chloroform	(2)	5.782	83	1188040	104.362
53) 1,1,1-Trichloroethane	(2)	6.002	97	1089021	106.252
52)$Dibromofluoromethane	(2)	6.008	113	259630	50.300
52)$Dibromofluoromethane	(2)	6.008	111	265266	50.193
54) Cyclohexane	(2)	6.093	56	1275315	106.836
54) Cyclohexane	(2)	6.093	84	1050963	106.434
54) Cyclohexane	(2)	6.093	69	396926	107.203
43) 1,2-Dichloroethene (Total)	(2)		96	1387065	207.584
56) Carbon Tetrachloride	(2)	6.215	117	974553	108.981
55) 1,1-Dichloropropene	(2)	6.227	75	977668	105.297
58) Isobutyl Alcohol	(1)	6.453	41	716282	1311.436
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57676	49.961
57)$1,2-Dichloroethane-d4	(2)	6.477	65	282752	50.096
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37247	50.390
60) Benzene	(2)	6.502	78	2867187	103.854
61) 1,2-Dichloroethane	(2)	6.587	62	859134	101.319
61) 1,2-Dichloroethane	(2)	6.587	98	79345	110.650
65) t-Amyl methyl ether	(2)	6.715	73	1833906	102.124
66)*Fluorobenzene	(2)	6.928	96	1036304	50.000
67) n-Heptane	(2)	6.953	43	943779	105.097
69) n-Butanol	(1)	7.367	56	1249826	2651.941
71) Trichloroethene	(2)	7.428	95	758145	104.645
73) Methylcyclohexane	(2)	7.727	83	1230133	106.834
73) Methylcyclohexane	(2)	7.733	98	523046	107.302
74) 1,2-Dichloropropane	(2)	7.776	63	725959	105.044
76) 1,4-Dioxane	(1)	7.873	88	157068M	1343.583
75) Dibromomethane	(2)	7.892	93	463304	106.463
77) Methyl Methacrylate	(2)	7.898	69	710702	109.912
79) Bromodichloromethane	(2)	8.148	83	931524	110.389
80) 2-Nitropropane	(2)	8.446	41	644513	220.516
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	585861	109.539
82) cis-1,3-Dichloropropene	(2)	8.727	75	1177656	110.436
83) 4-Methyl-2-pentanone	(2)	8.940	43	2566204	214.529
84)$Toluene-d8	(3)	9.068	98	1013239	49.593
84)$Toluene-d8	(3)	9.068	100	668715	49.709
89) Toluene	(3)	9.154	92	1847083	102.527
90) trans-1,3-Dichloropropene	(3)	9.471	75	1079462	111.675

M = Compound was manually integrated.
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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	1204012	109.541
93) 1,1,2-Trichloroethane	(3)	9.696	97	674136	104.668
94) Tetrachloroethene	(3)	9.769	166	785305	102.776
95) 1,3-Dichloropropane	(3)	9.867	76	1114528	104.220
97) 2-Hexanone	(3)	9.946	43	2047052	213.864
91) 1,3-Dichloropropene (total)	(3)		100	2257118	222.111
98) Dibromochloromethane	(3)	10.099	129	768472	112.756
100) 1,2-Dibromoethane	(3)	10.208	107	755002	106.336
101)*Chlorobenzene-d5	(3)	10.684	117	831366	50.000
102) 1-Chlorohexane	(3)	10.708	91	1084300	103.492
103) Chlorobenzene	(3)	10.714	112	2035939	104.130
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	734441	108.883
105) Ethylbenzene	(3)	10.812	91	3675216	105.505
107) m+p-Xylene	(3)	10.940	106	2788515	208.644
108) o-Xylene	(3)	11.287	106	1378774	105.399
110) Styrene	(3)	11.306	104	2304191	109.295
111) Bromoform	(3)	11.464	173	583396	118.313
112) Isopropylbenzene	(3)	11.610	105	3604265	104.993
113) Cyclohexanone	(1)	11.684	55	723334	1347.095
115)$4-Bromofluorobenzene	(3)	11.751	95	433090	50.309
115)$4-Bromofluorobenzene	(3)	11.757	174	334791	49.854
109) Xylene (Total)	(3)		106	4167289	314.043
116) Bromobenzene	(4)	11.867	156	864771	104.955
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	1208260	108.065
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	619236	258.804
118) 1,2,3-Trichloropropane	(4)	11.915	110	342708	104.094
120) n-Propylbenzene	(4)	11.952	91	4294298	106.007
121) 2-Chlorotoluene	(4)	12.025	126	866539	104.359
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	3051340	107.153
122) 4-Chlorotoluene	(4)	12.129	126	881743	105.123
125) tert-Butylbenzene	(4)	12.348	134	602948M	106.538
126) Pentachloroethane	(4)	12.379	167	520795	112.091
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	3149431	107.398
128) sec-Butylbenzene	(4)	12.519	105	3763052	106.584
130) 1,3-Dichlorobenzene	(4)	12.616	146	1618478	104.433
131) p-Isopropyltoluene	(4)	12.635	119	3155925	107.189
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	432195	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	1624875	103.310

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	2970272	105.523
136) Benzyl Chloride	(4)	12.775	91	2503346	116.704
137) 1,3-Diethylbenzene	(4)	12.842	119	1817627	106.845
138) 1,4-Diethylbenzene	(4)	12.915	119	1878412	106.754
140) n-Butylbenzene	(4)	12.933	92	1596134	107.475
139) 1,2-Dichlorobenzene	(4)	12.958	146	1550292	104.139
141) 1,2-Diethylbenzene	(4)	12.988	119	1514030	105.233
142) Diethylbenzene (total)	(4)		100	5210069	318.831
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	313410	111.027
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	1039095	105.678
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	981755	106.279
148) Hexachlorobutadiene	(4)	14.171	225	376946	106.105
149) Naphthalene	(4)	14.262	128	3937085	107.627
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	966916	105.777
151) 2-Methylnaphthalene	(4)	15.012	142	2160027	113.654

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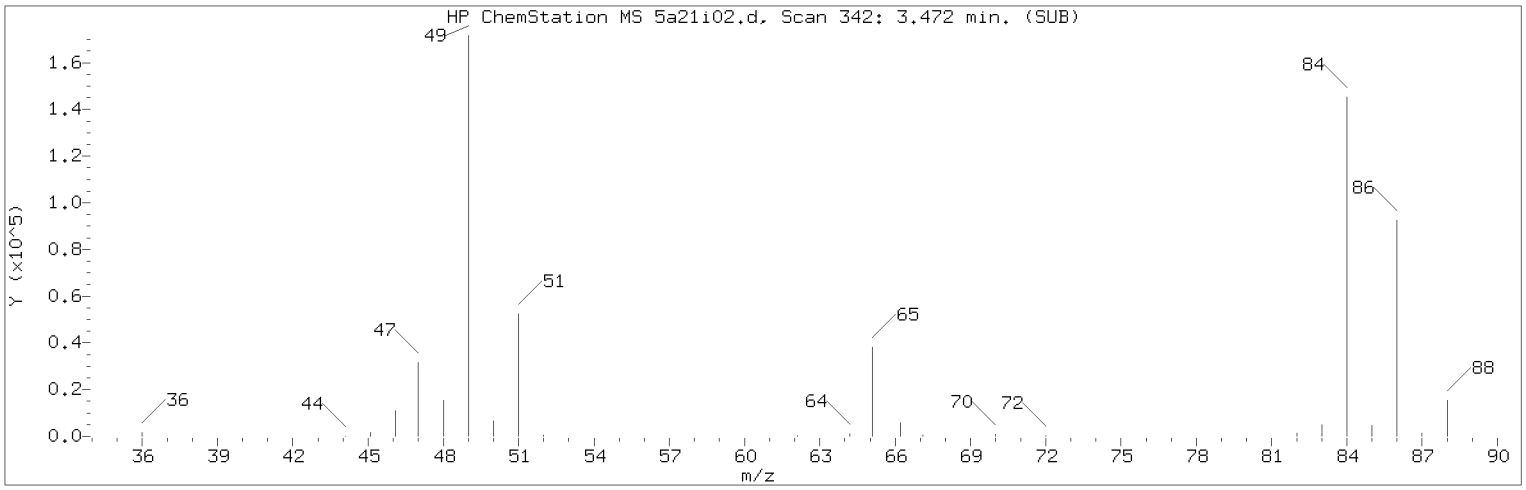
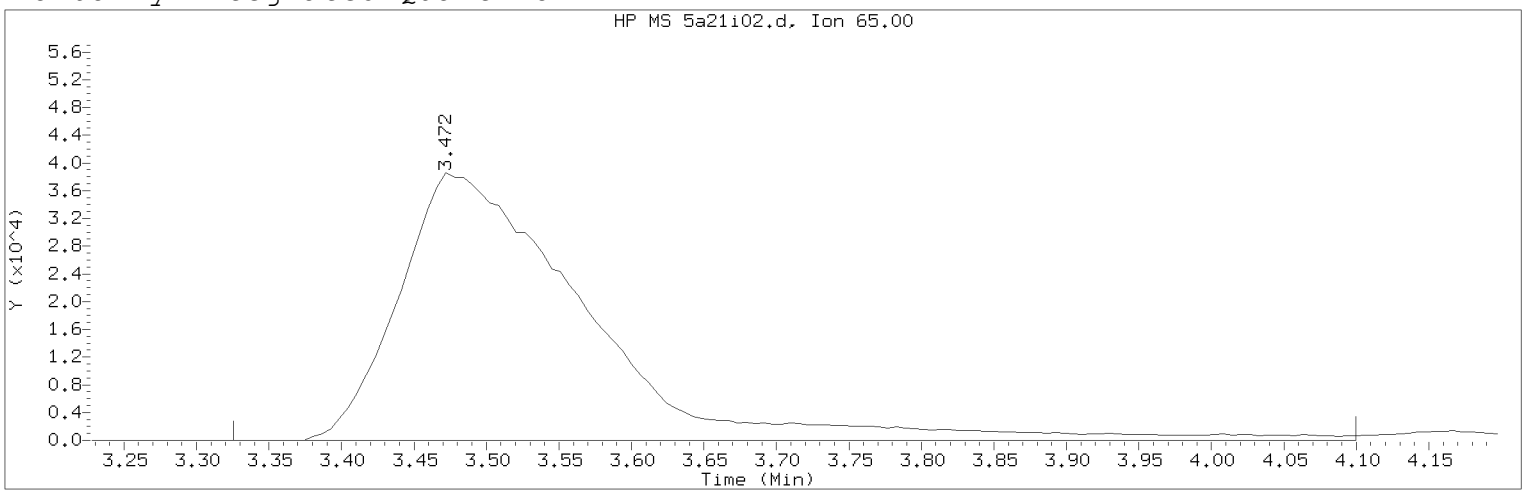
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

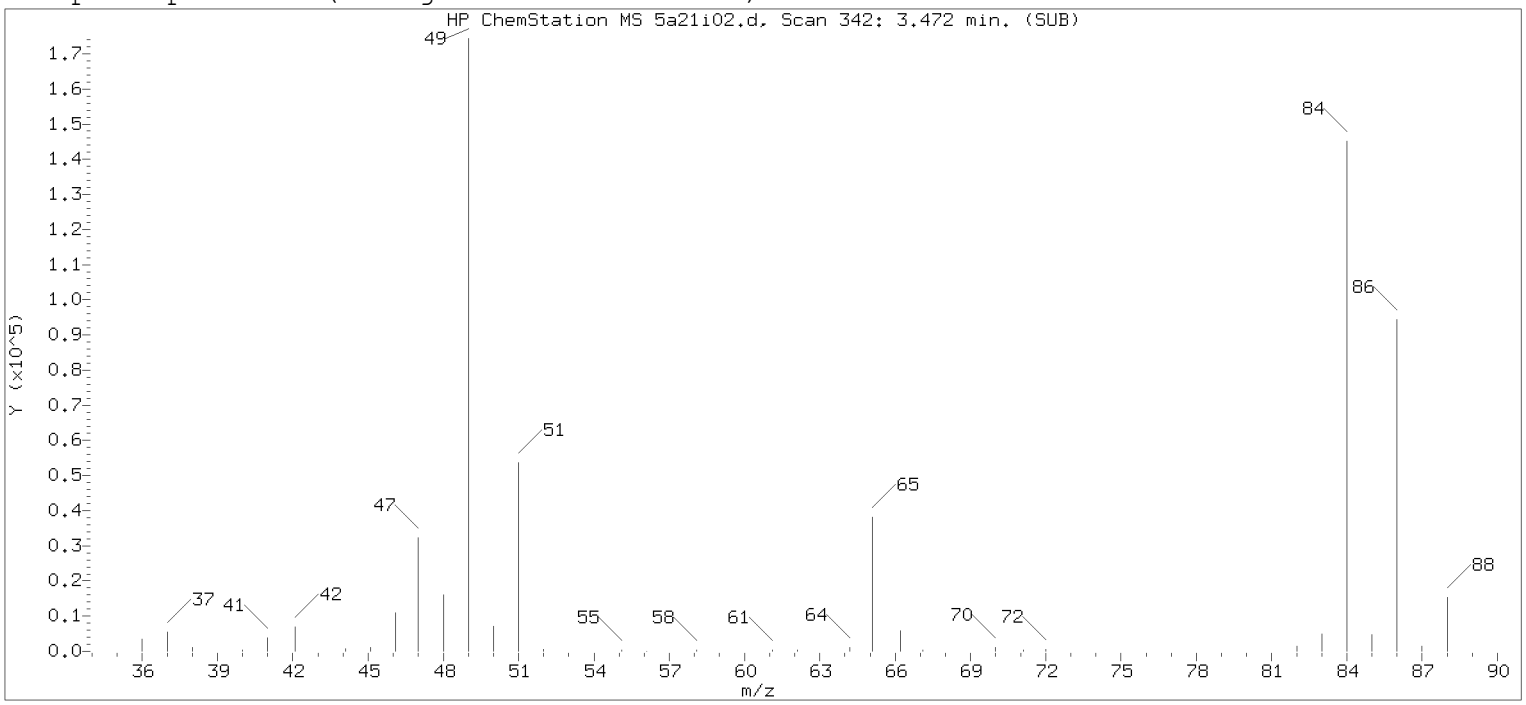
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area (flag) : 347877M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 444
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

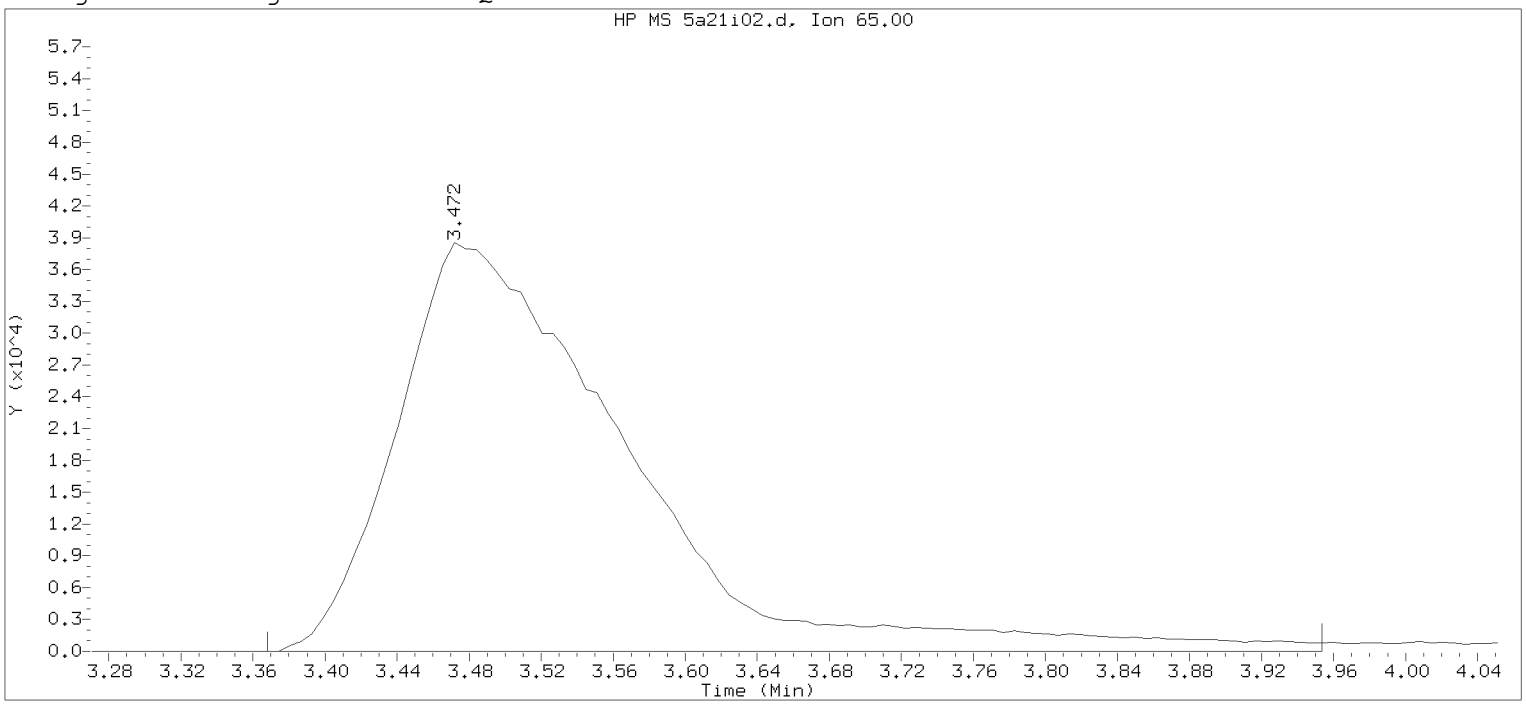
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

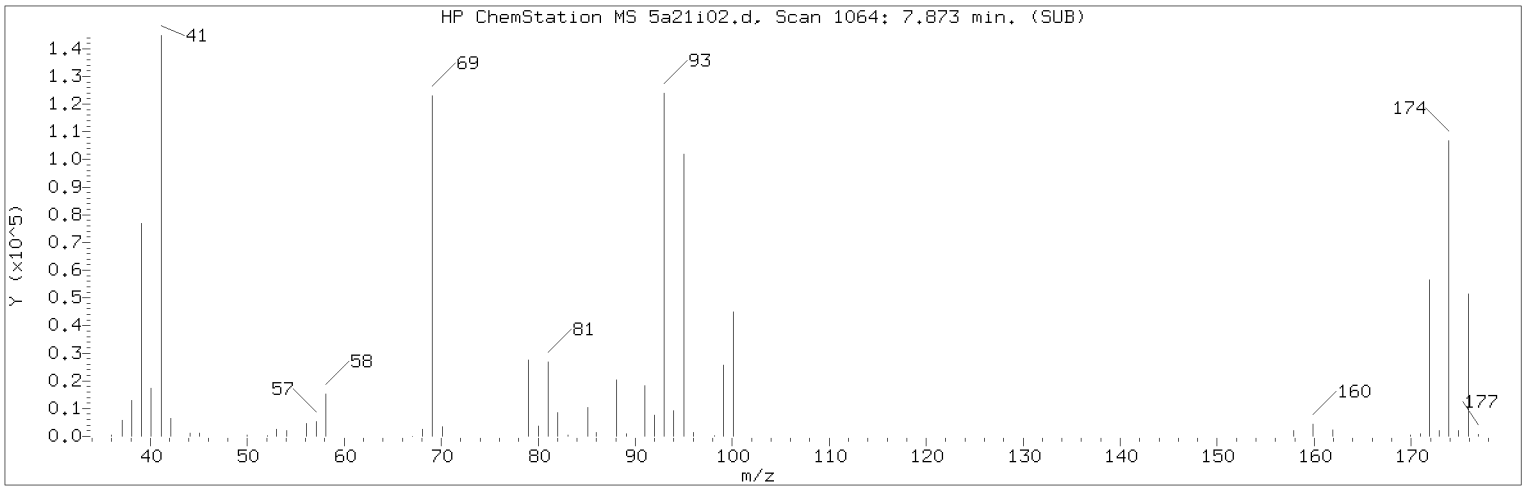
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

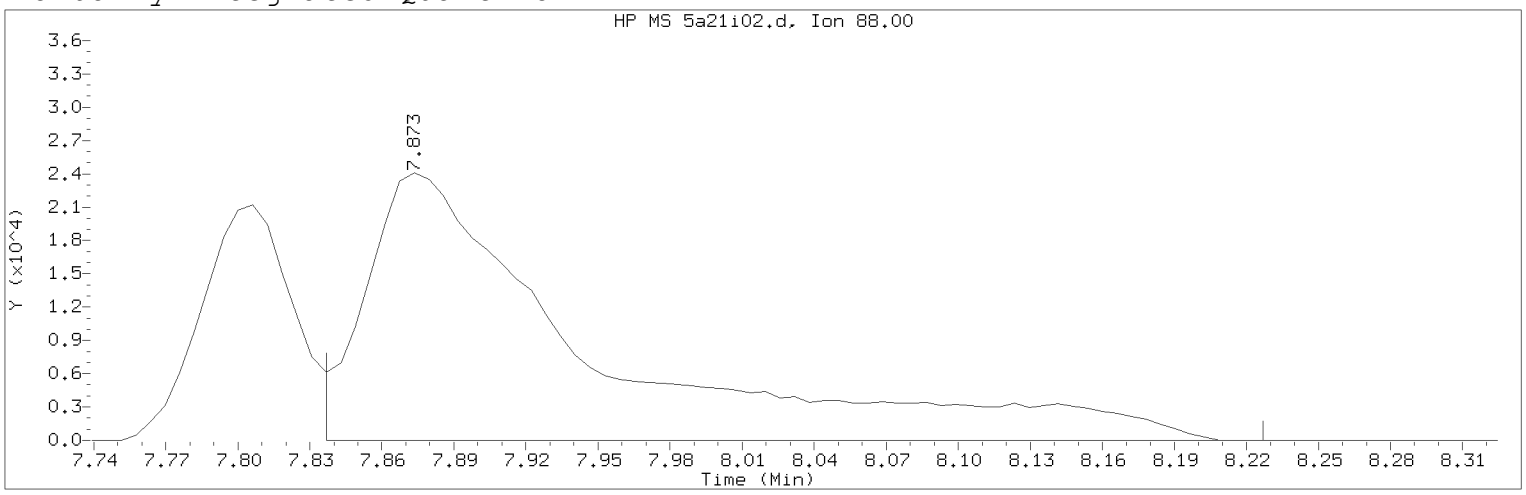
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area : 341170
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

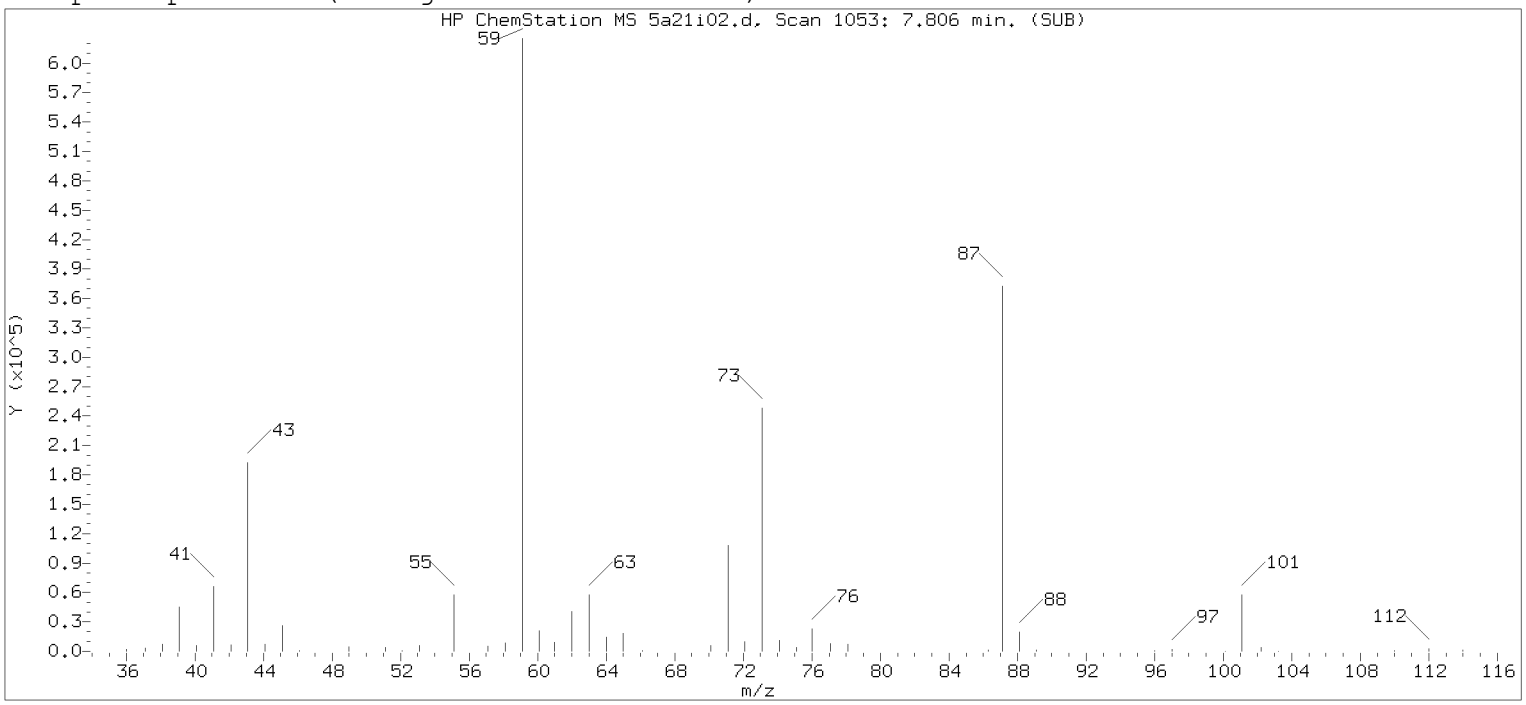
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 157068M
On-Column Amount (ng) : 1343.5830
Integration start scan : 1057 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

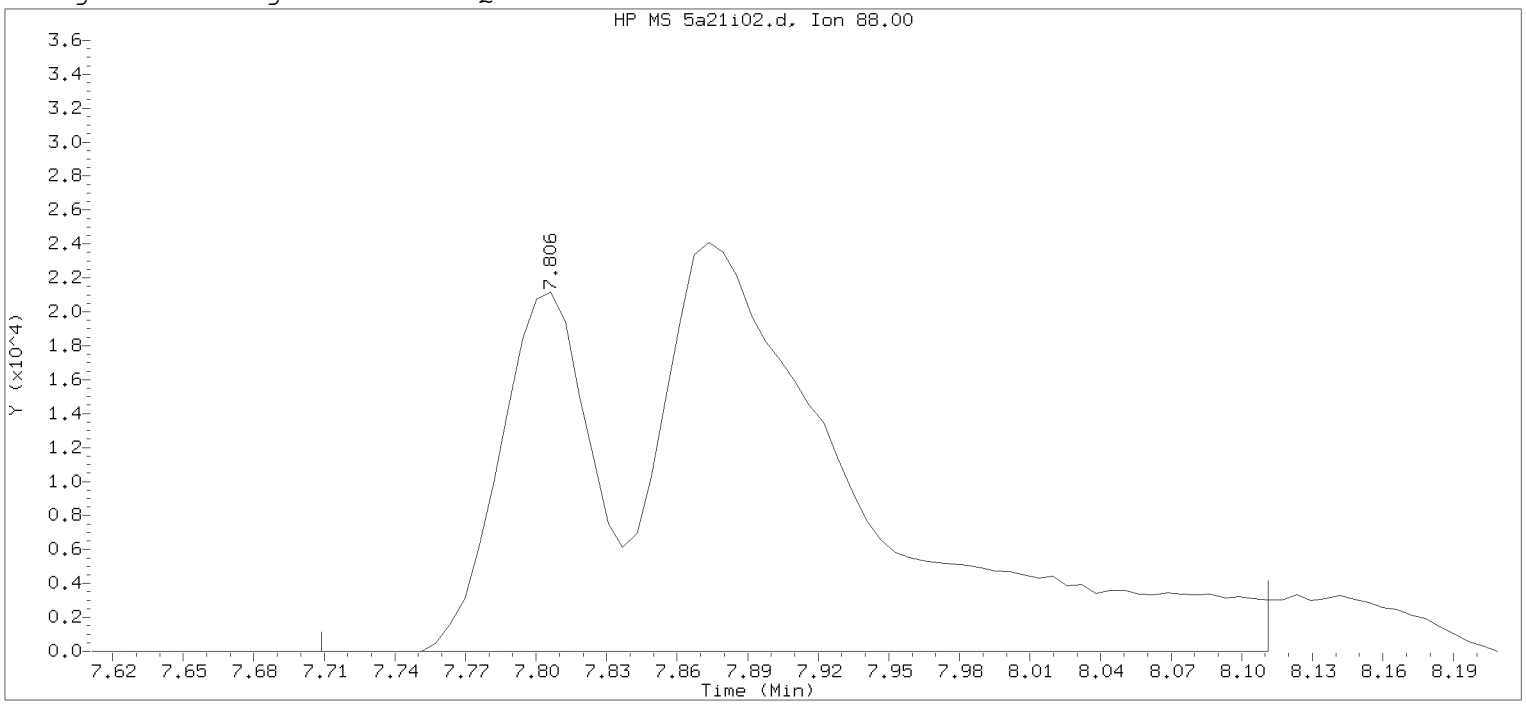
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

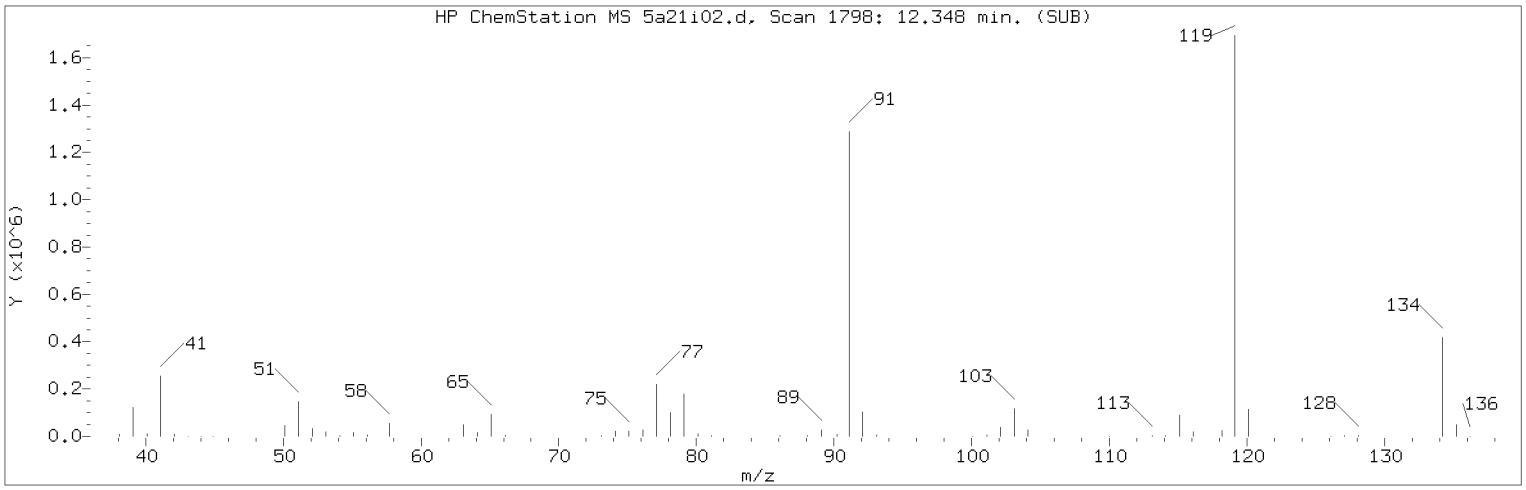
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

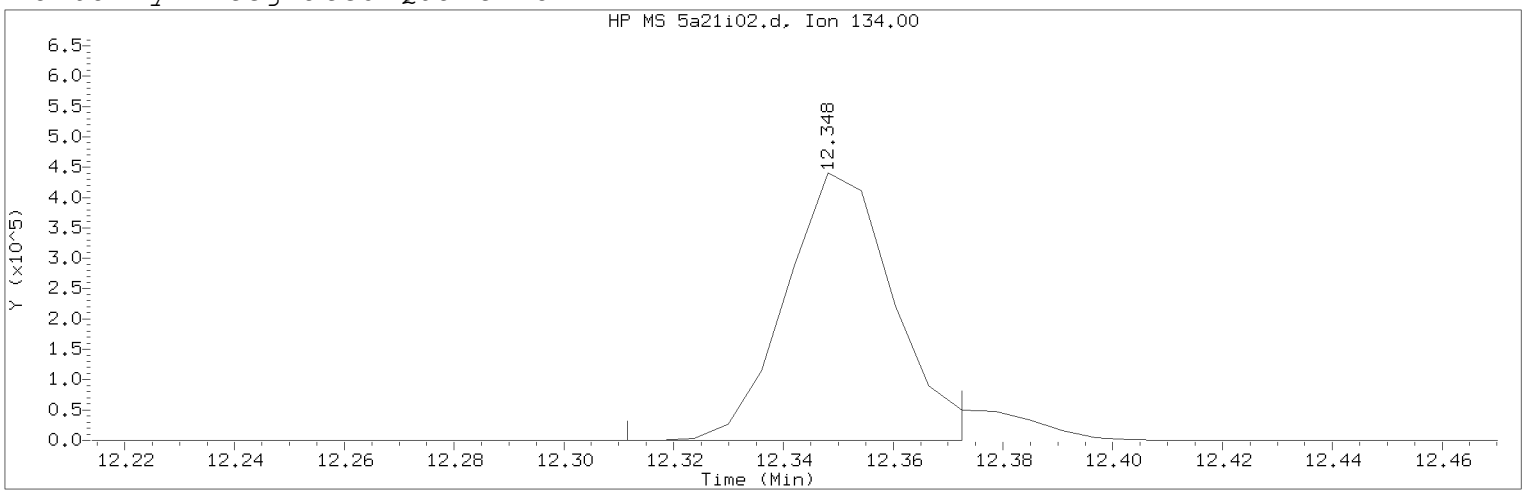
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1053
Retention Time (minutes): 7.806
Quant Ion : 88.00
Area : 198541
On-column Amount (ng) : 1350.5622
Integration start scan : 1036 Integration stop scan: 1102
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

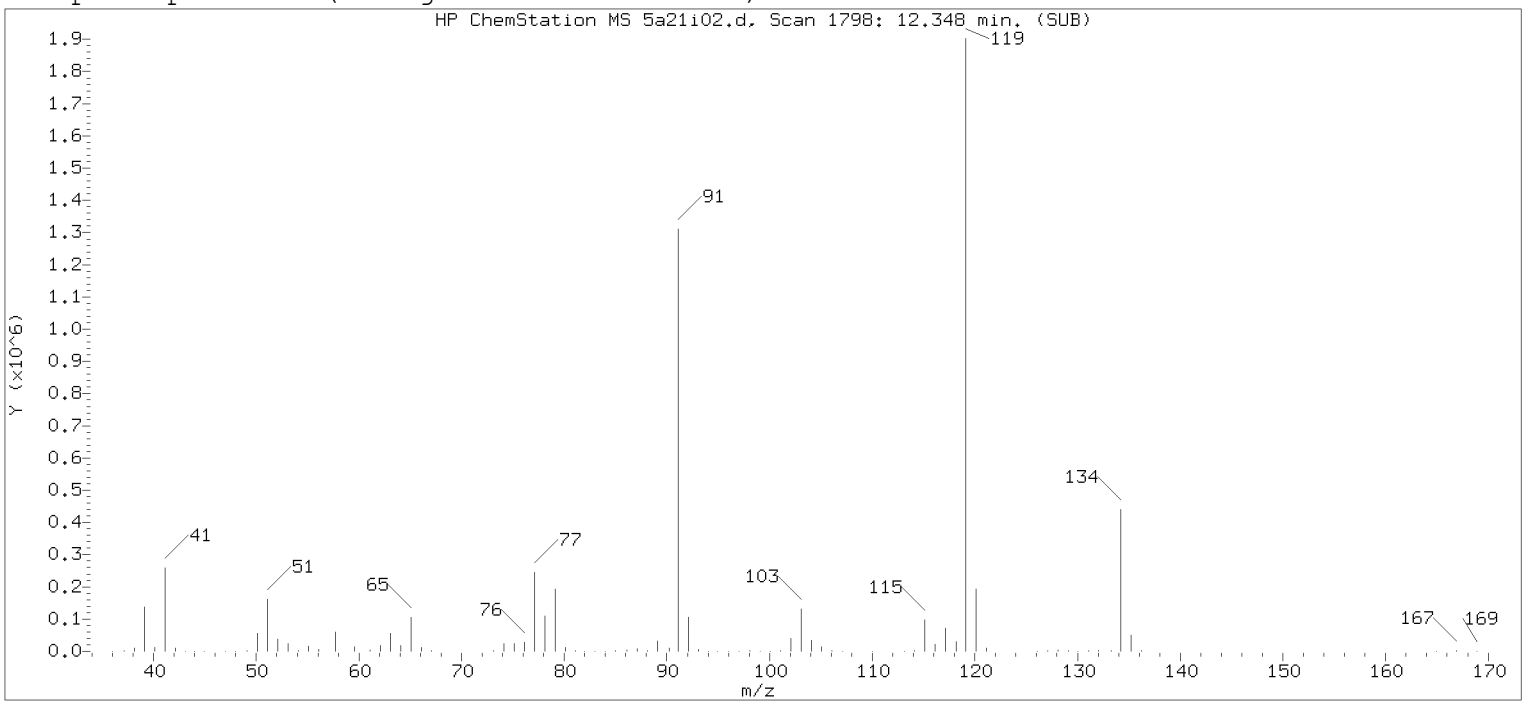
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 602948M
On-Column Amount (ng) : 106.5381
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

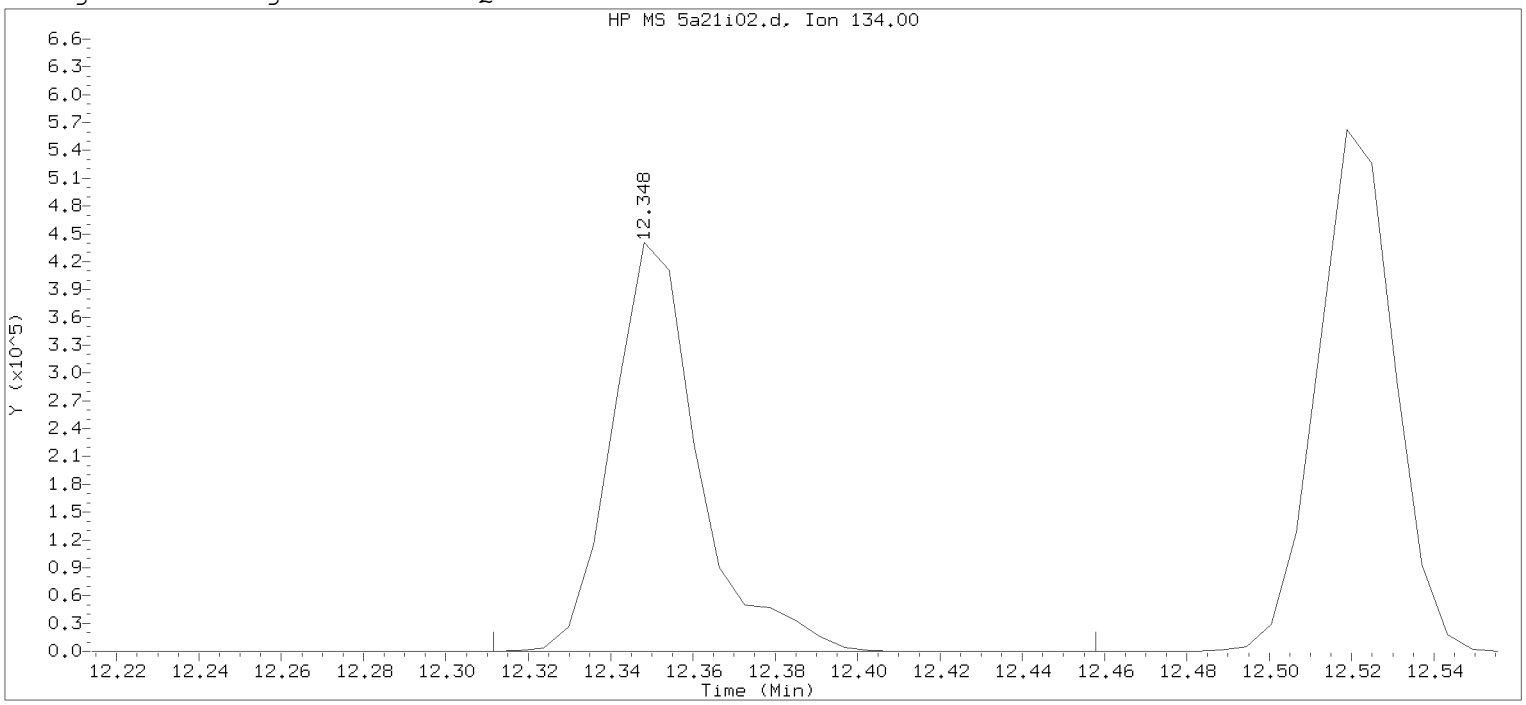
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



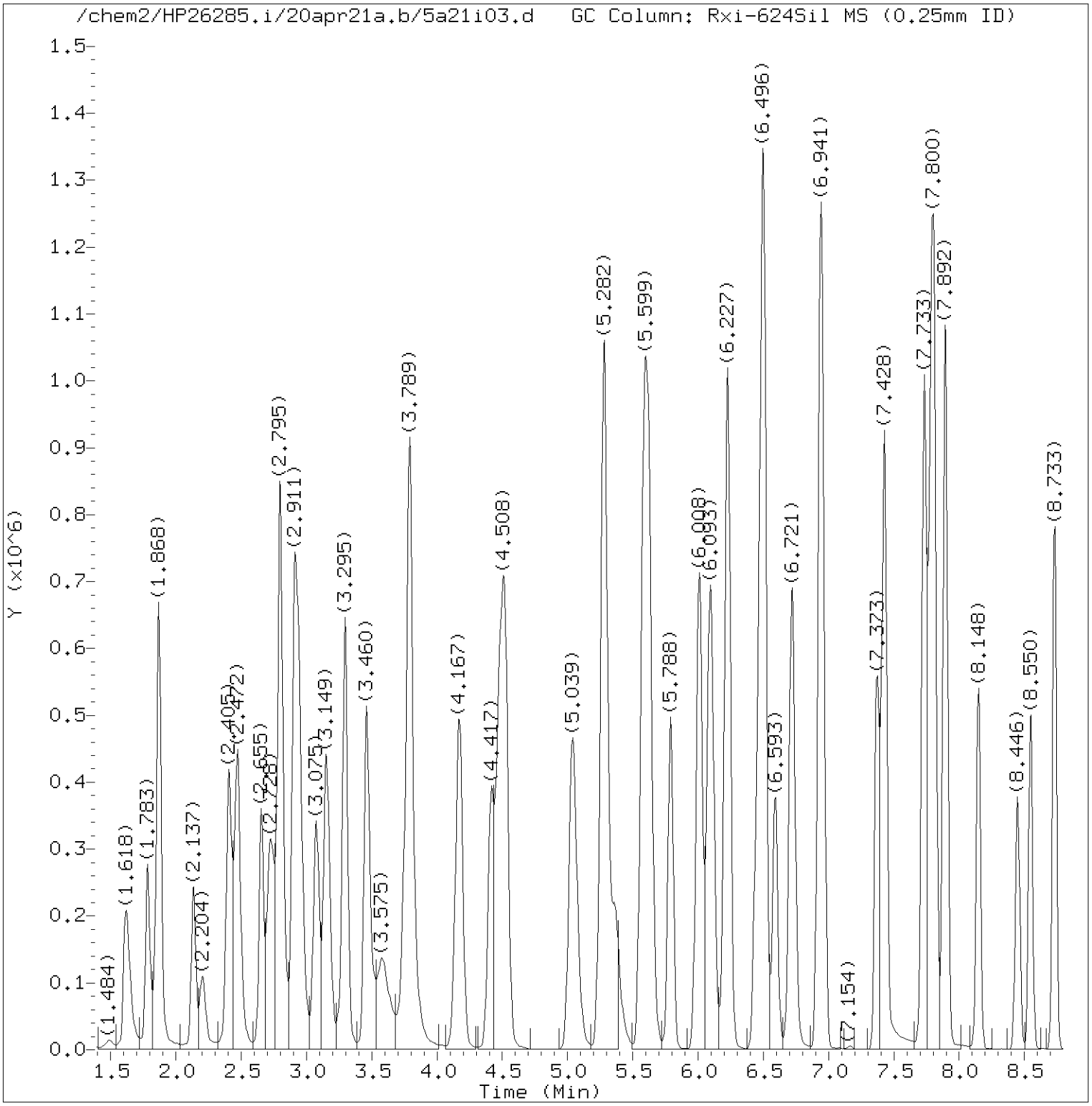
Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 640336
On-column Amount (ng) : 107.1483
Integration start scan : 1791 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

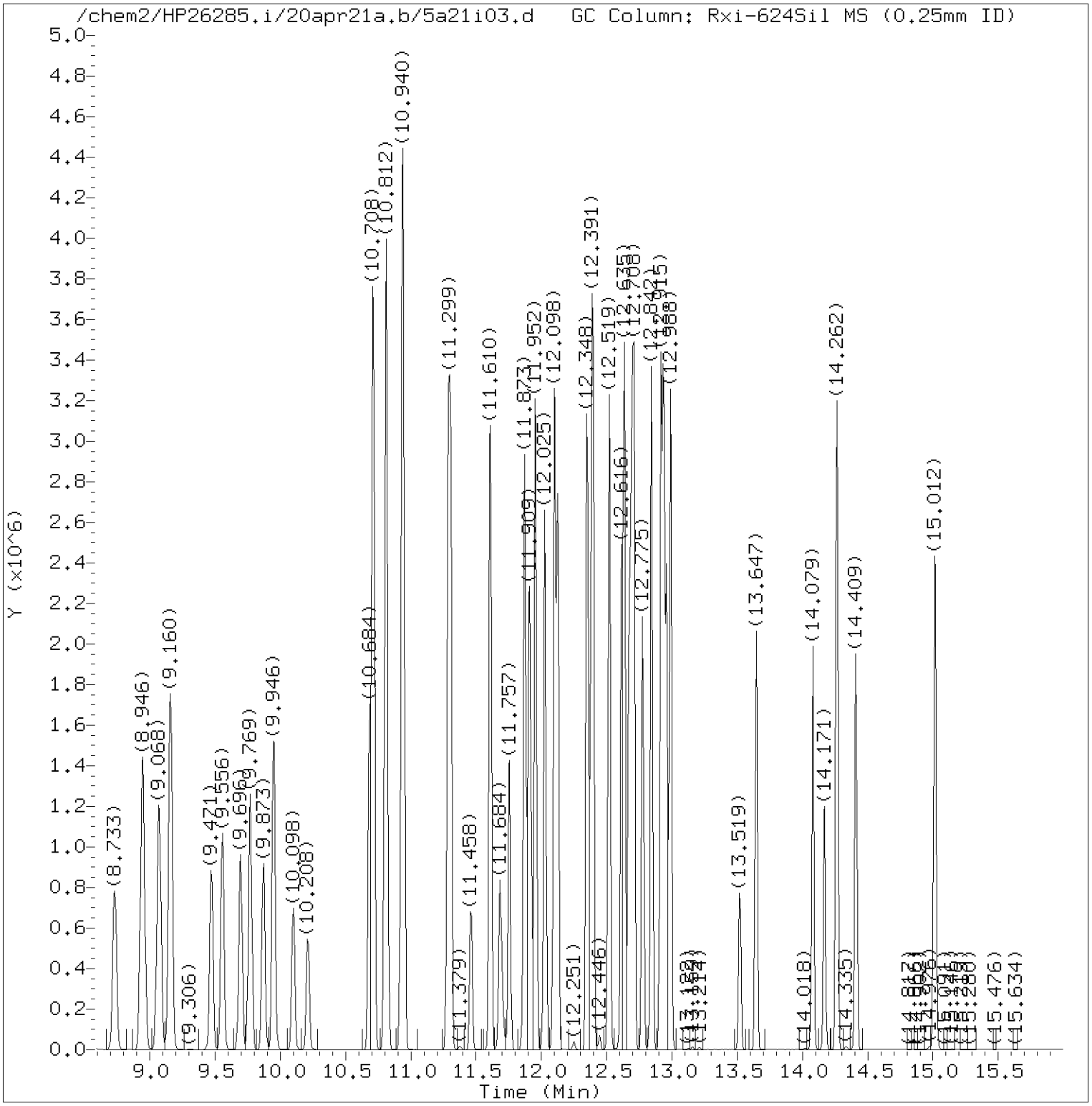
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	459427	53.380
4) Chloromethane	(2)	1.777	50	337795	49.137
5) 1,3-Butadiene	(2)	1.868	39	322506	33.983
6) Vinyl Chloride	(2)	1.874	62	317567	52.590
8) Bromomethane	(2)	2.137	94	212217	52.345
9) Chloroethane	(2)	2.204	64	148764	52.033
10) Dichlorofluoromethane	(2)	2.405	67	471274	50.583
12) Trichlorofluoromethane	(2)	2.448	101	392697	53.099
11) n-Pentane	(2)	2.478	43	326134	47.374
14) Ethyl ether	(2)	2.655	59	263214	51.625
15) Freon 123a	(2)	2.728	67	384551	49.814
16) Acrolein	(1)	2.801	56	1211648	516.753
17) 1,1-Dichloroethene	(2)	2.905	96	290561	50.566
17) 1,1-Dichloroethene	(2)	2.905	63	148228	51.470
18) Acetone	(1)	2.941	58	122675	106.082
19) Freon 113	(2)	2.941	101	340156	52.299
22) Methyl Iodide	(2)	3.075	142	552548	50.429
21) 2-Propanol	(1)	3.088	45	247311	262.813
23) Carbon Disulfide	(2)	3.149	76	1017161	50.323
27) Methyl Acetate	(2)	3.283	43	404064	48.772
25) Allyl Chloride	(2)	3.301	41	484707	50.392
28) Methylene Chloride	(2)	3.460	84	326045	50.338
29)*t-Butyl alcohol-d10	(1)	3.478	65	370304M	250.000
30) t-Butyl alcohol	(1)	3.588	59	453454	259.977
31) Acrylonitrile	(2)	3.746	53	232307	53.124
32) trans-1,2-Dichloroethene	(2)	3.789	96	326138	50.724
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	863622	50.781
34) n-Hexane	(2)	4.173	57	491875	51.592
36) 1,1-Dichloroethane	(2)	4.411	63	592688	50.921
38) di-Isopropyl ether	(2)	4.478	45	1053201	50.662
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	515013	52.084
40) Ethyl t-butyl ether	(2)	5.039	59	931255	50.459
44) 2-Butanone	(2)	5.270	43	656308	103.120
42) cis-1,2-Dichloroethene	(2)	5.282	96	368640	50.690
45) 2,2-Dichloropropane	(2)	5.288	77	500185	50.930
47) Propionitrile	(1)	5.368	54	476475	250.942
48) Methacrylonitrile	(2)	5.587	67	554277	127.268
49) Bromochloromethane	(2)	5.624	128	165738	49.759

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	179161	104.402
51) Chloroform	(2)	5.788	83	592887	50.786
53) 1,1,1-Trichloroethane	(2)	6.008	97	538643	51.246
52)$Dibromofluoromethane	(2)	6.014	113	264881	50.040
52)$Dibromofluoromethane	(2)	6.014	111	270386	49.889
54) Cyclohexane	(2)	6.093	56	632036	51.630
54) Cyclohexane	(2)	6.093	84	521687	51.518
54) Cyclohexane	(2)	6.093	69	197405	51.990
43) 1,2-Dichloroethene (Total)	(2)		96	694778	101.415
56) Carbon Tetrachloride	(2)	6.215	117	479110	52.244
55) 1,1-Dichloropropene	(2)	6.233	75	482899	50.716
58) Isobutyl Alcohol	(1)	6.453	41	382857	658.517
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59422	50.193
57)$1,2-Dichloroethane-d4	(2)	6.483	65	289602	50.033
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37924	50.029
60) Benzene	(2)	6.502	78	1436583	50.741
61) 1,2-Dichloroethane	(2)	6.593	62	425067	48.882
61) 1,2-Dichloroethane	(2)	6.593	98	38969	52.992
65) t-Amyl methyl ether	(2)	6.721	73	942139	51.159
66)*Fluorobenzene	(2)	6.934	96	1062743	50.000
67) n-Heptane	(2)	6.953	43	463995	50.384
69) n-Butanol	(1)	7.373	56	681476	1358.414
71) Trichloroethene	(2)	7.428	95	376563	50.683
73) Methylcyclohexane	(2)	7.733	83	595748	50.452
73) Methylcyclohexane	(2)	7.733	98	251504	50.312
74) 1,2-Dichloropropane	(2)	7.776	63	362077	51.088
76) 1,4-Dioxane	(1)	7.879	88	81378M	653.960
75) Dibromomethane	(2)	7.892	93	228623	51.229
77) Methyl Methacrylate	(2)	7.898	69	347950	52.473
79) Bromodichloromethane	(2)	8.148	83	450848	52.098
80) 2-Nitropropane	(2)	8.446	41	326295	108.862
81) 2-Chloroethyl Vinyl Ether	(2)	8.550	63	285666	52.083
82) cis-1,3-Dichloropropene	(2)	8.733	75	576071	52.678
83) 4-Methyl-2-pentanone	(2)	8.946	43	1327912	108.249
84)$Toluene-d8	(3)	9.068	98	1030482	49.773
84)$Toluene-d8	(3)	9.068	100	679337	49.834
89) Toluene	(3)	9.160	92	930169	50.952
90) trans-1,3-Dichloropropene	(3)	9.471	75	521871	53.280

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	591279	53.087
93) 1,1,2-Trichloroethane	(3)	9.696	97	333288	51.066
94) Tetrachloroethene	(3)	9.769	166	390028	50.373
95) 1,3-Dichloropropane	(3)	9.873	76	549584	50.716
97) 2-Hexanone	(3)	9.946	43	1062422	109.536
91) 1,3-Dichloropropene (total)	(3)		100	1097942	105.957
98) Dibromochloromethane	(3)	10.098	129	370040	53.581
100) 1,2-Dibromoethane	(3)	10.208	107	372185	51.730
101)*Chlorobenzene-d5	(3)	10.684	117	842446	50.000
102) 1-Chlorohexane	(3)	10.708	91	543784	51.219
103) Chlorobenzene	(3)	10.714	112	1014909	51.226
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	365528	53.478
105) Ethylbenzene	(3)	10.812	91	1850788	52.432
107) m+p-Xylene	(3)	10.940	106	1419617	104.822
108) o-Xylene	(3)	11.287	106	695047	52.433
110) Styrene	(3)	11.306	104	1156203	54.121
111) Bromoform	(3)	11.458	173	279092	55.856
112) Isopropylbenzene	(3)	11.610	105	1816493	52.219
113) Cyclohexanone	(1)	11.684	55	367855	643.581
115)$4-Bromofluorobenzene	(3)	11.751	95	438187	50.232
115)$4-Bromofluorobenzene	(3)	11.757	174	339512	49.892
109) Xylene (Total)	(3)		106	2114664	157.256
116) Bromobenzene	(4)	11.866	156	426024	51.354
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	589637	52.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	279818	123.685
118) 1,2,3-Trichloropropane	(4)	11.915	110	172477	52.032
120) n-Propylbenzene	(4)	11.952	91	2157784	52.904
121) 2-Chlorotoluene	(4)	12.025	126	427135	51.091
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	1512463	52.751
122) 4-Chlorotoluene	(4)	12.123	126	437883	51.850
125) tert-Butylbenzene	(4)	12.348	134	298649M	52.411
126) Pentachloroethane	(4)	12.379	167	250481	53.544
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	1563641	52.959
128) sec-Butylbenzene	(4)	12.519	105	1868106	52.552
130) 1,3-Dichlorobenzene	(4)	12.616	146	800517	51.302
131) p-Isopropyltoluene	(4)	12.635	119	1575115	53.134
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	435155	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	811678	51.256

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

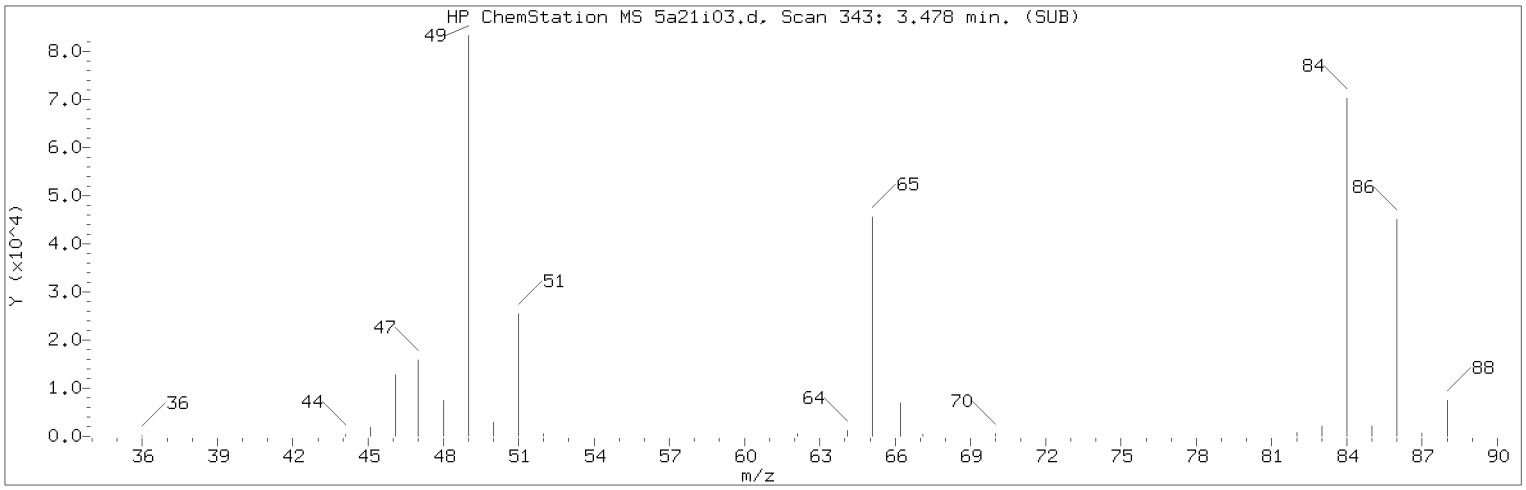
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

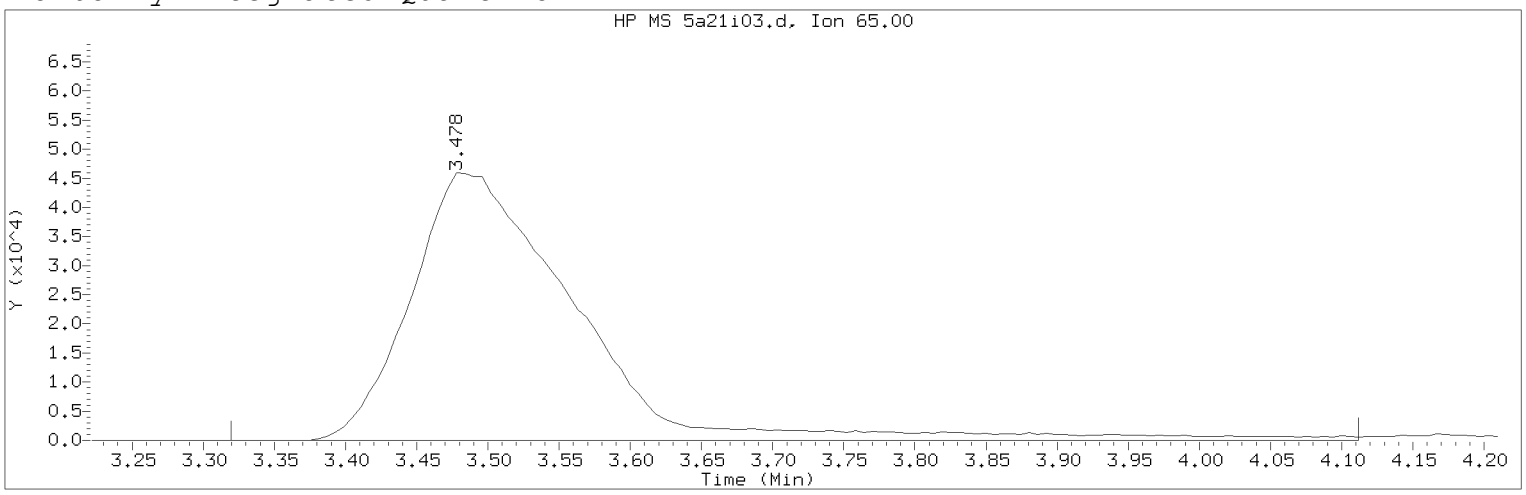
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	1461119	51.555
136)	Benzyl Chloride	(4)	12.775	91	1216929	56.346
137)	1,3-Diethylbenzene	(4)	12.842	119	883628	51.589
138)	1,4-Diethylbenzene	(4)	12.915	119	917465	51.787
140)	n-Butylbenzene	(4)	12.933	92	781919	52.292
139)	1,2-Dichlorobenzene	(4)	12.958	146	767329	51.194
141)	1,2-Diethylbenzene	(4)	12.988	119	738126	50.954
142)	Diethylbenzene (total)	(4)		100	2539219	154.330
143)	1,2-Dibromo-3-chloropropane	(4)	13.519	75	155063	54.558
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	508462	51.360
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	479860	51.593
148)	Hexachlorobutadiene	(4)	14.171	225	182815	51.110
149)	Naphthalene	(4)	14.262	128	1969712	53.479
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	474408	51.546
151)	2-Methylnaphthalene	(4)	15.018	142	1038673	54.280

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

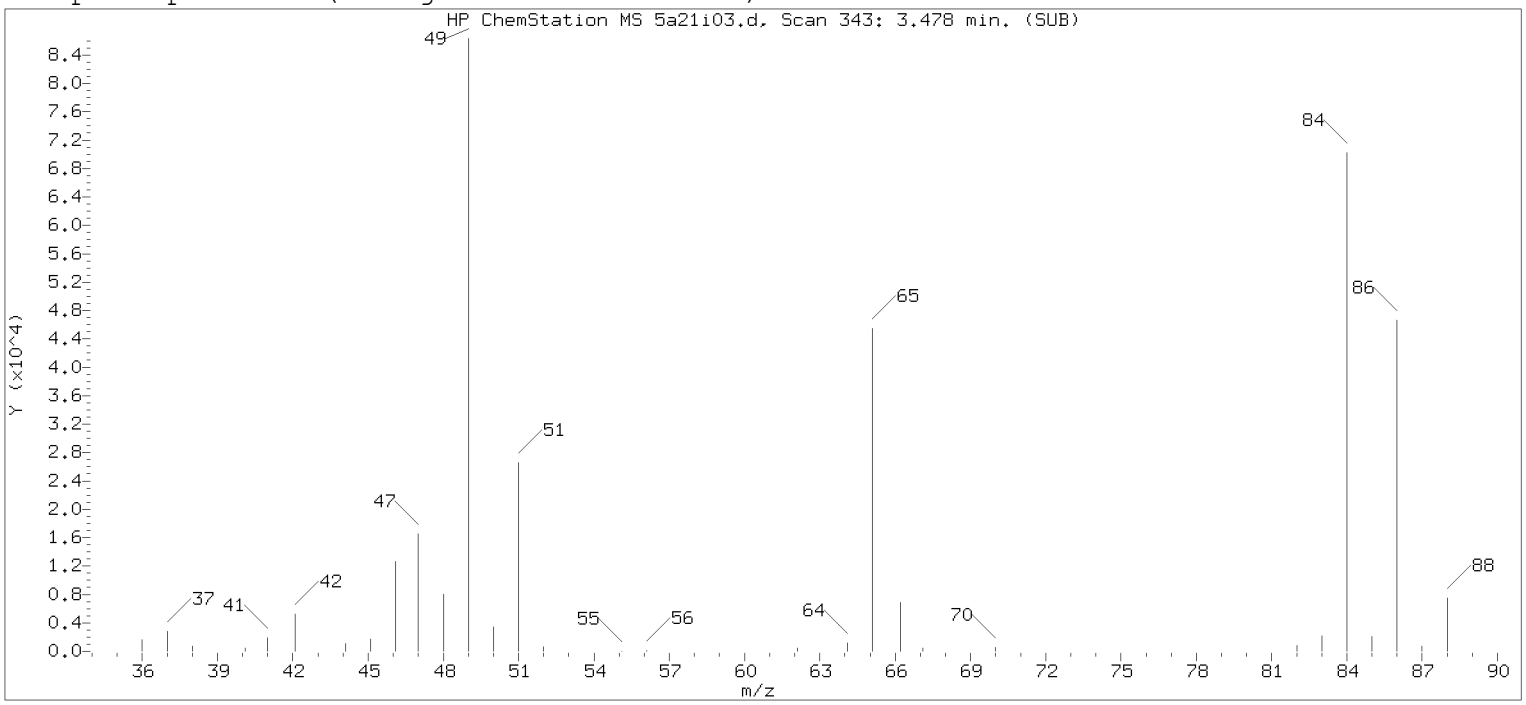
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 370304M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 446
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

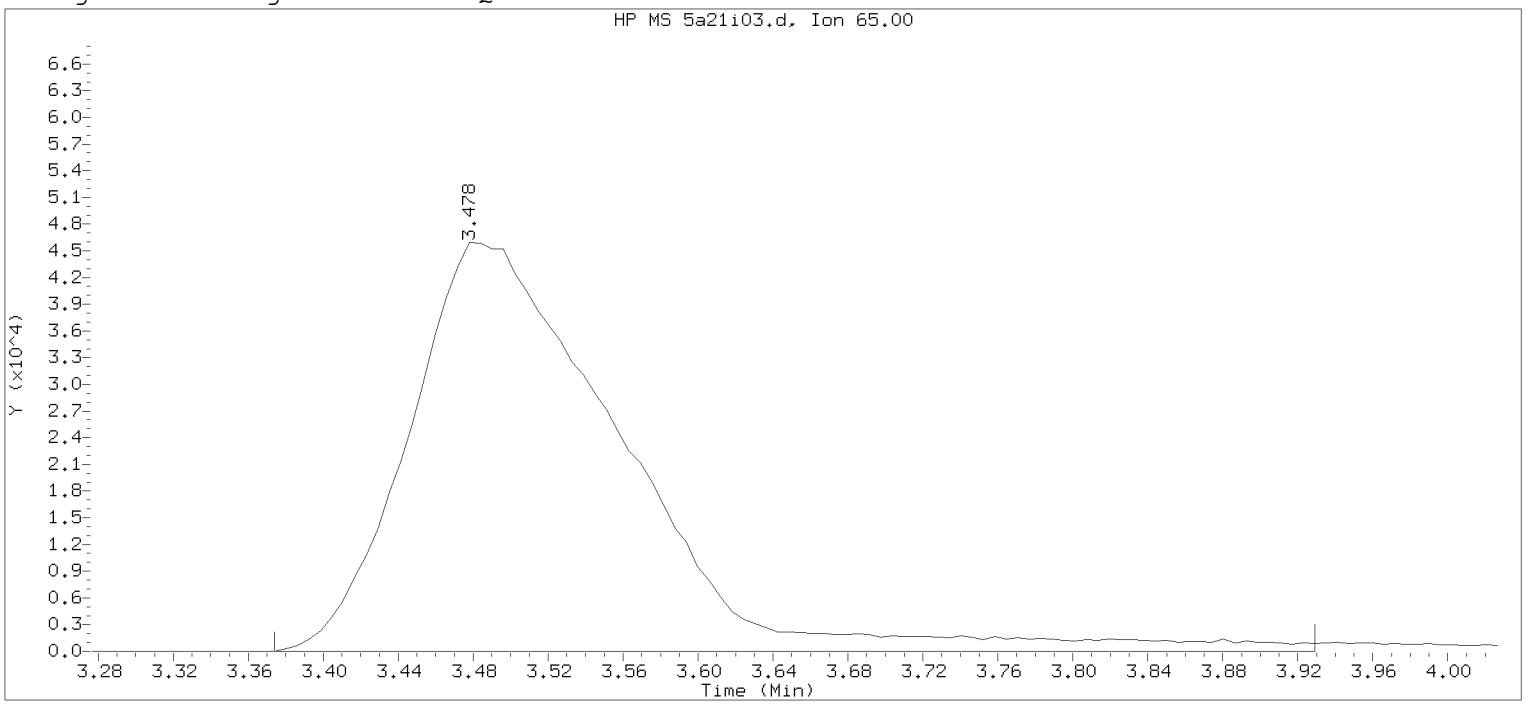
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

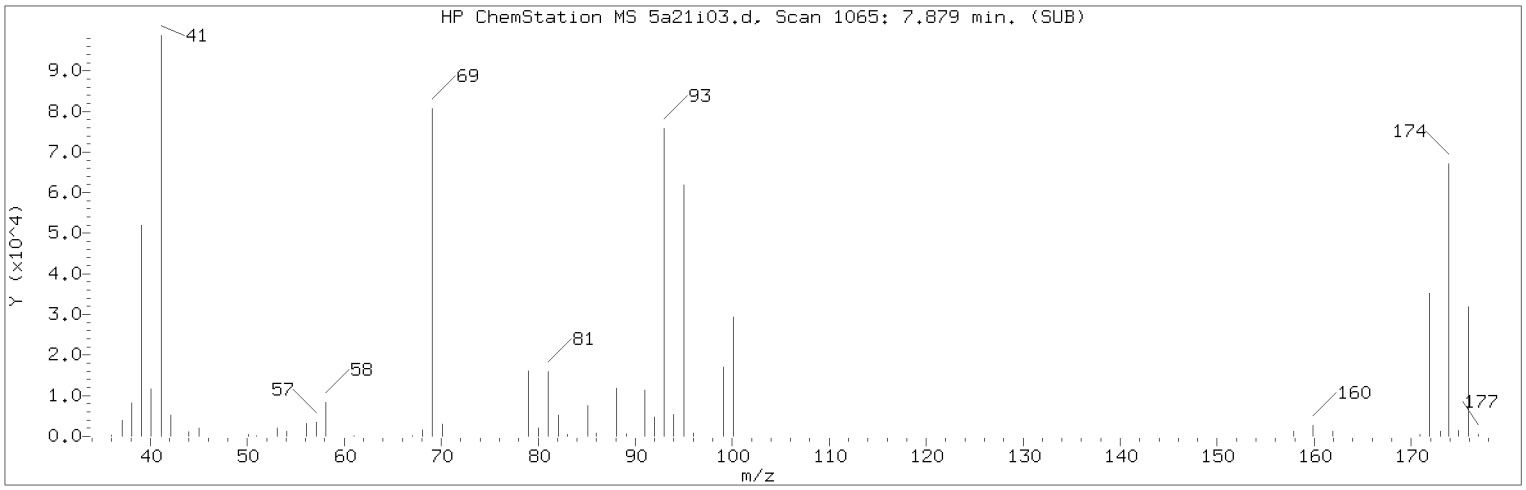
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

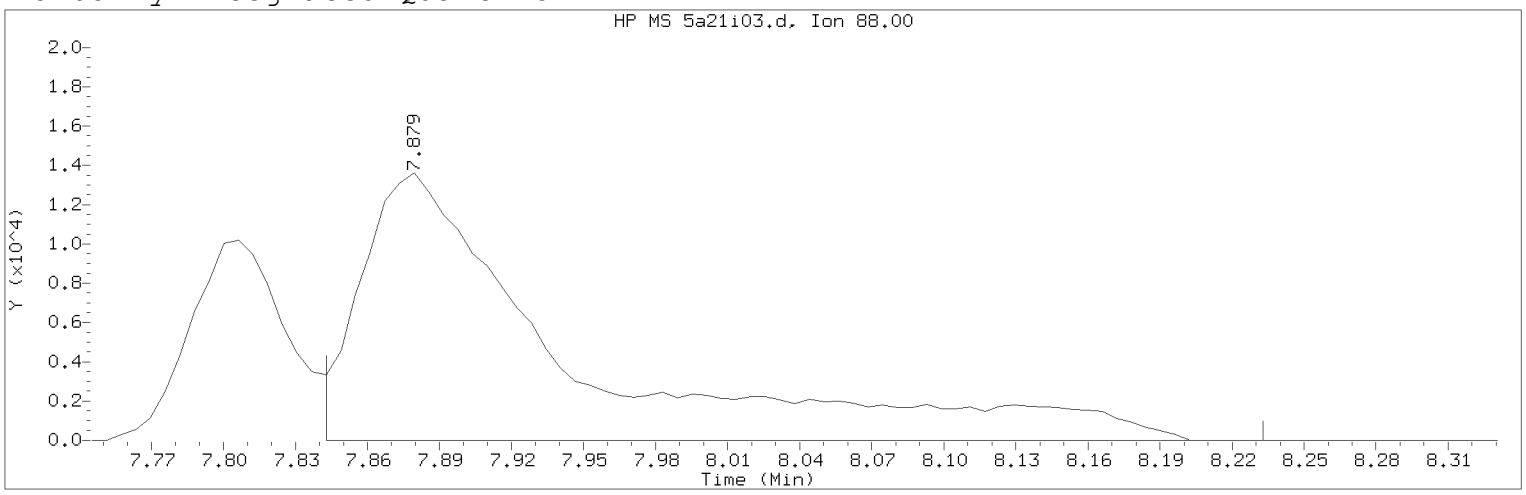
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 362266
On-column Amount (ng) : 250.0000
Integration start scan : 325 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

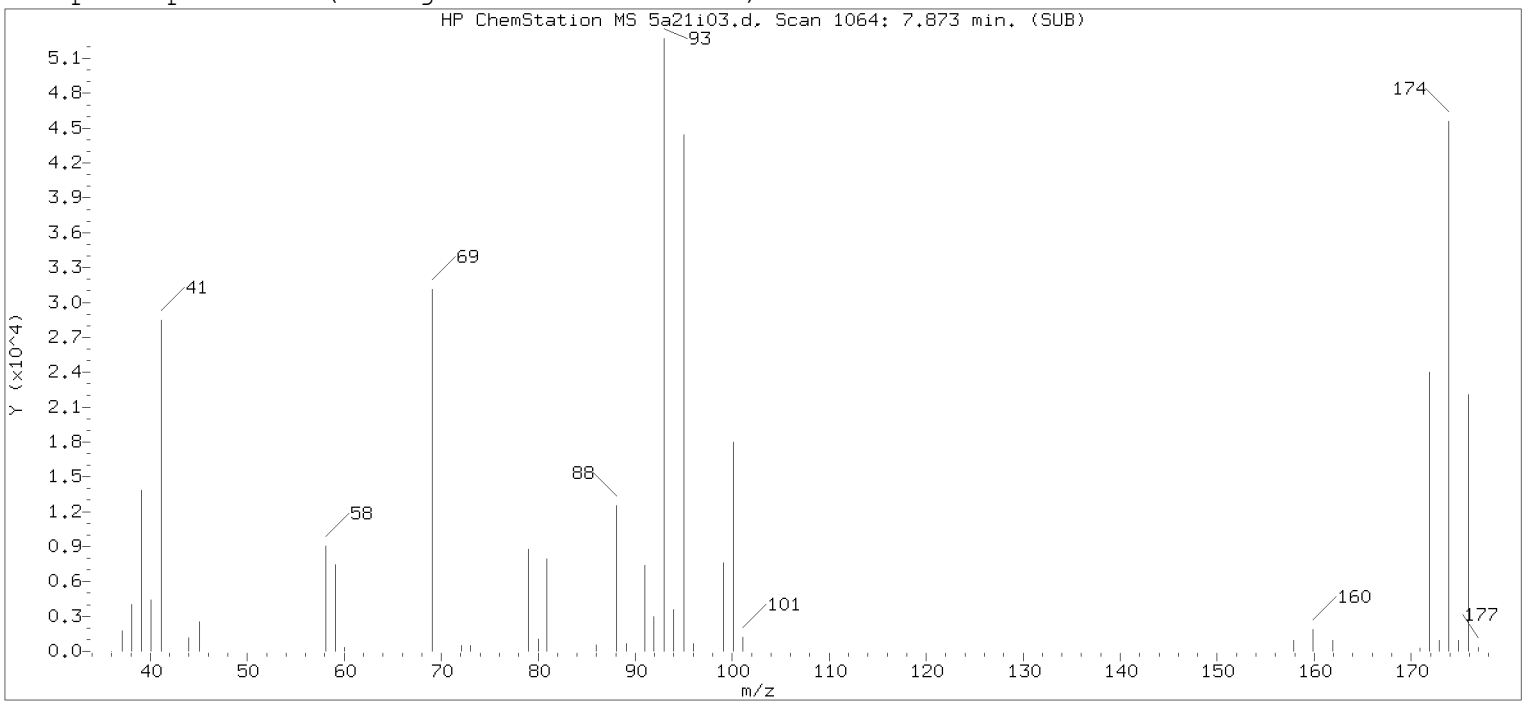
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 81378M
On-Column Amount (ng) : 653.9599
Integration start scan : 1058 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

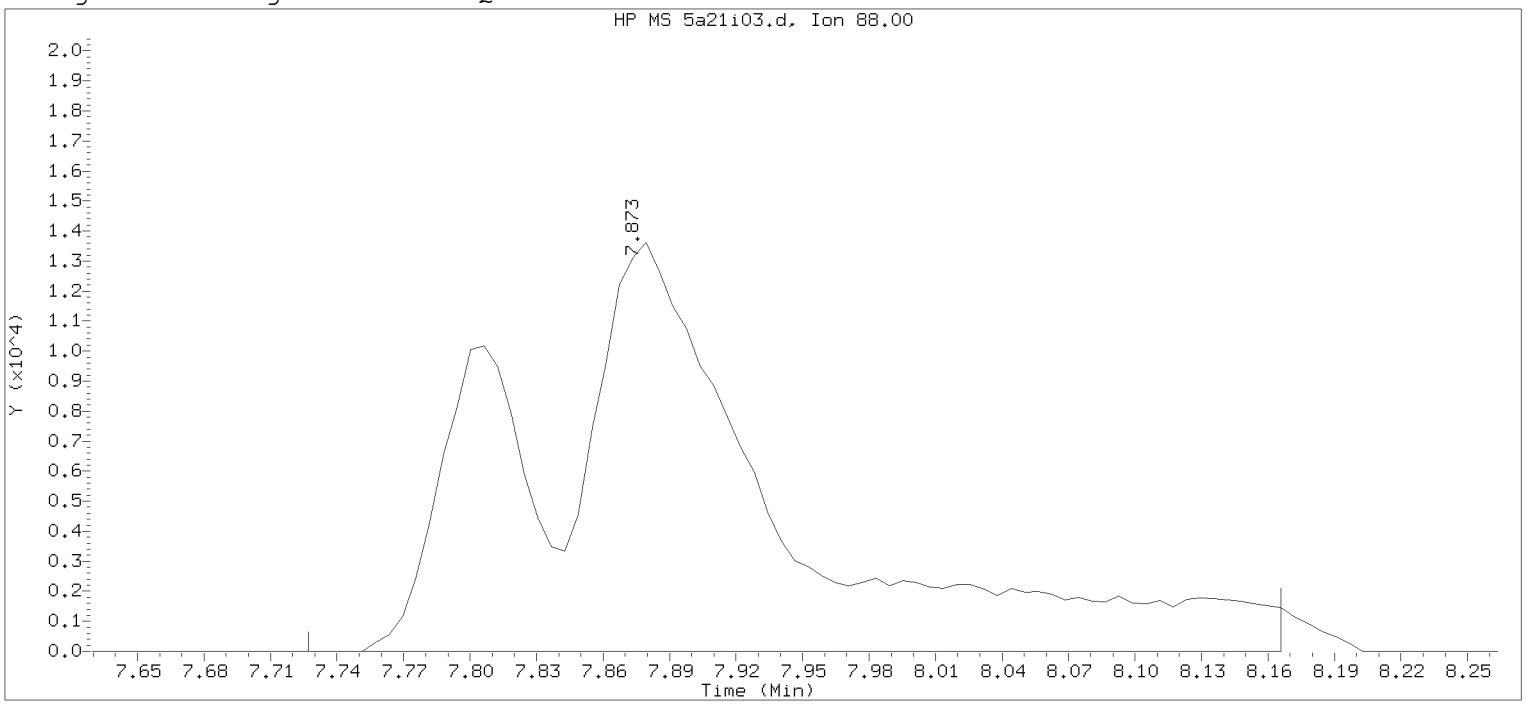
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

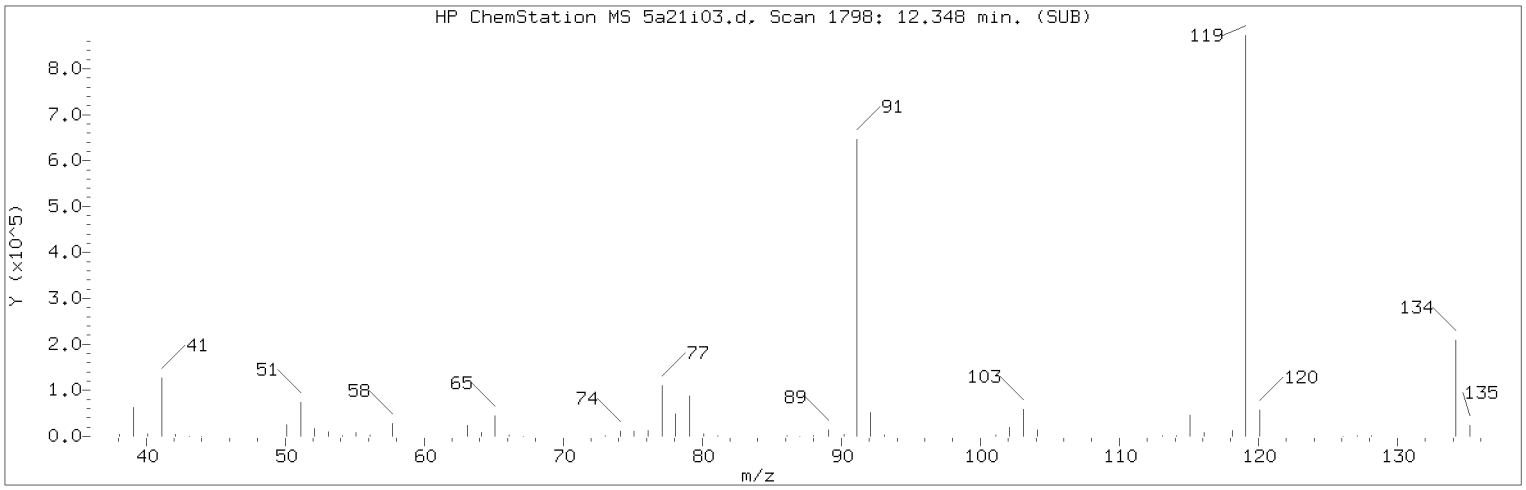
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

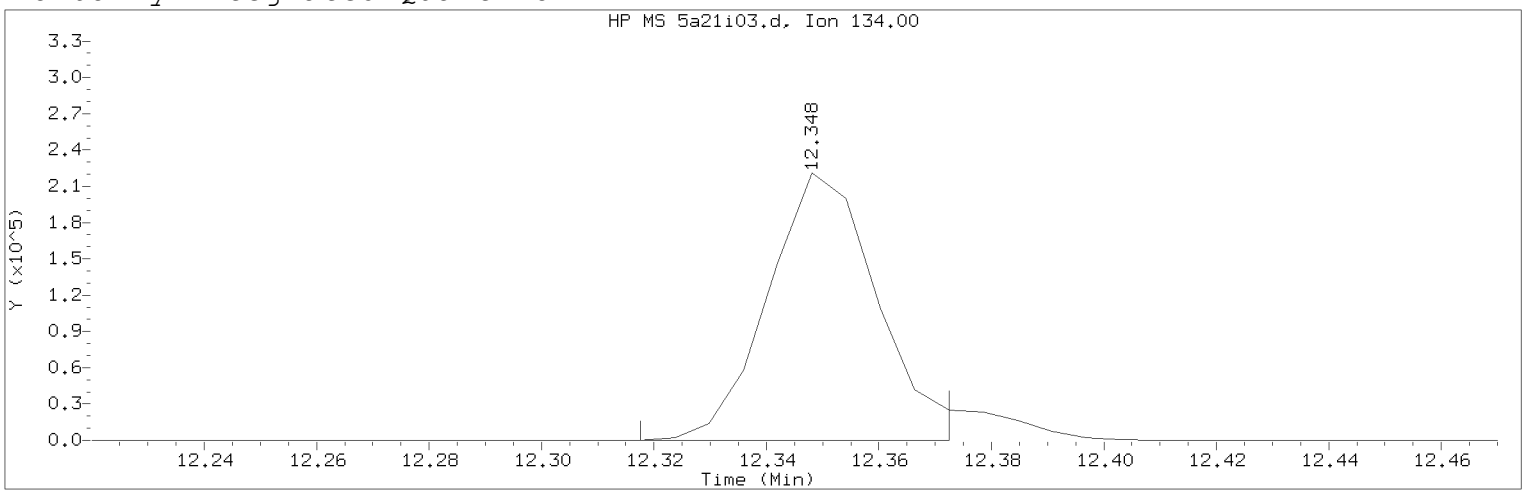
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 107258
On-column Amount (ng) : 750.0099
Integration start scan : 1039 Integration stop scan: 1111
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

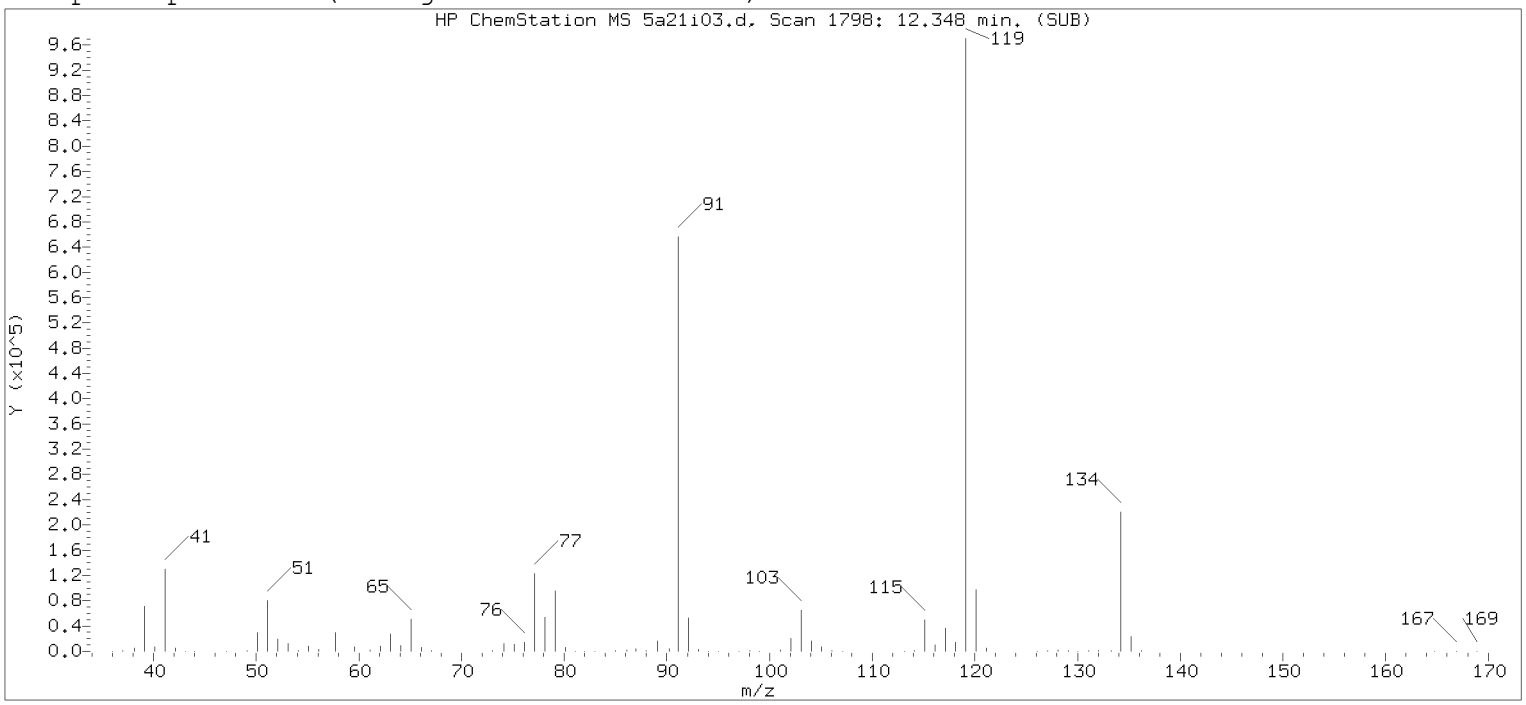
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 298649M
On-Column Amount (ng) : 52.4110
Integration start scan : 1792 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

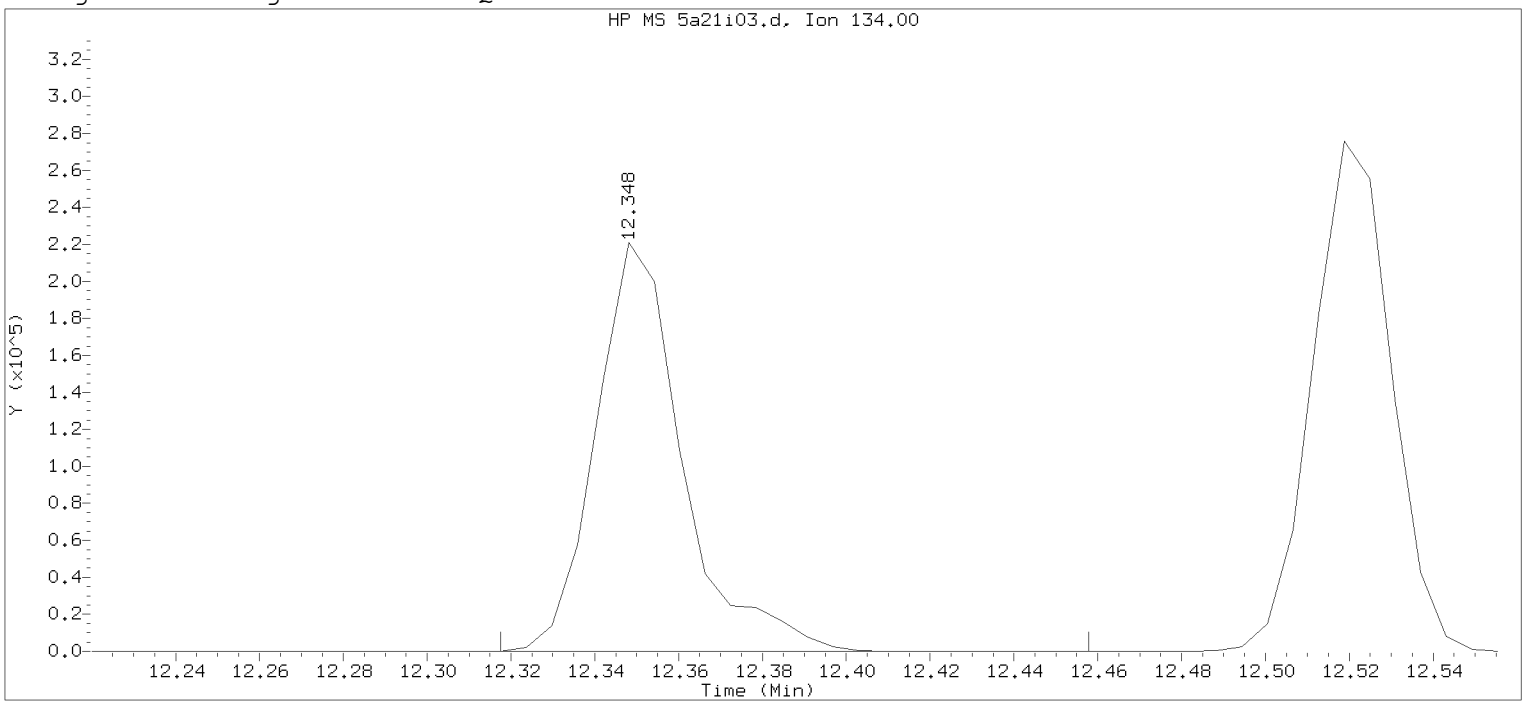
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



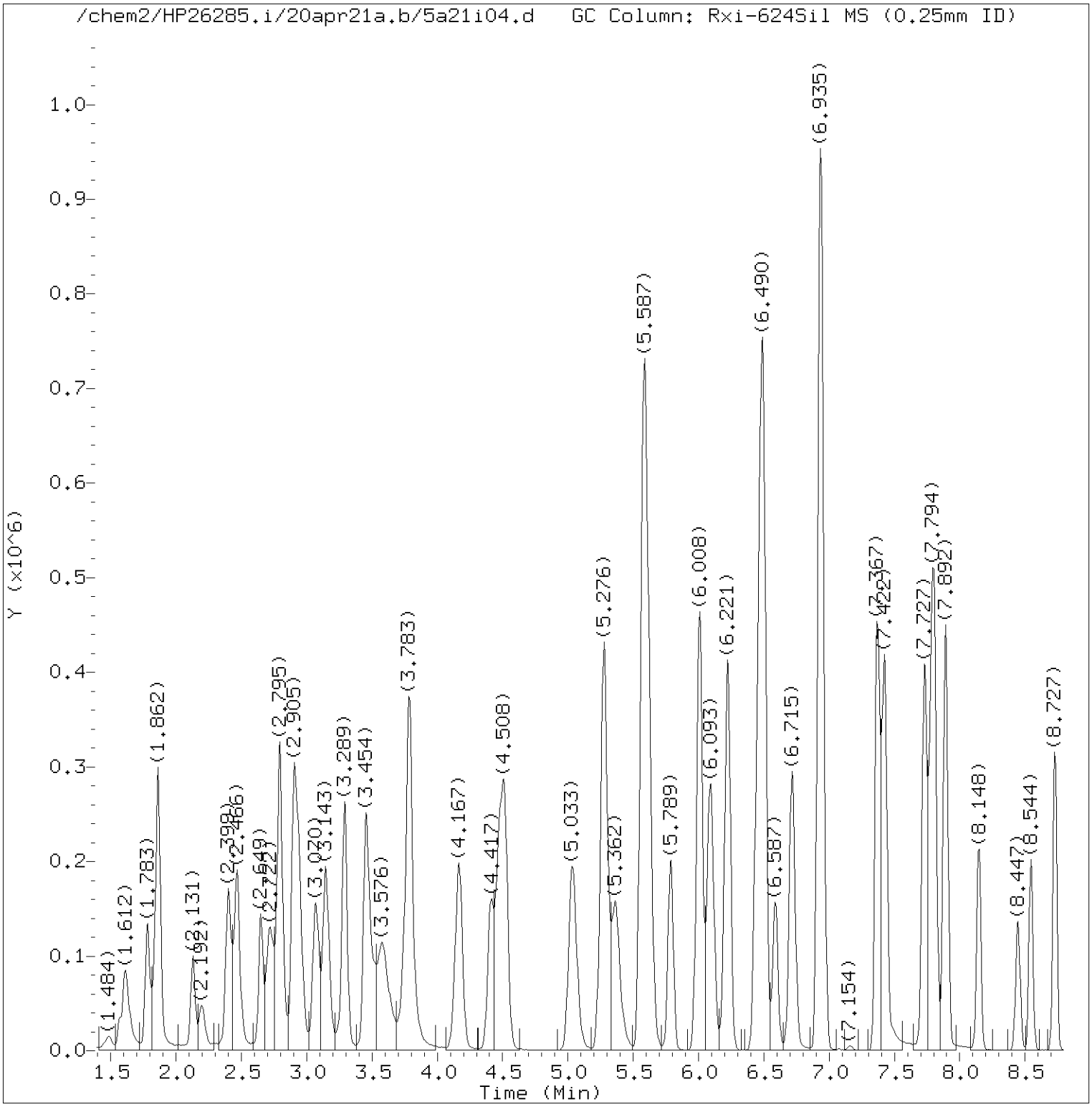
Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 316930
On-column Amount (ng) : 49.2990
Integration start scan : 1792 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger



Total Ion Chromatogram (TIC)

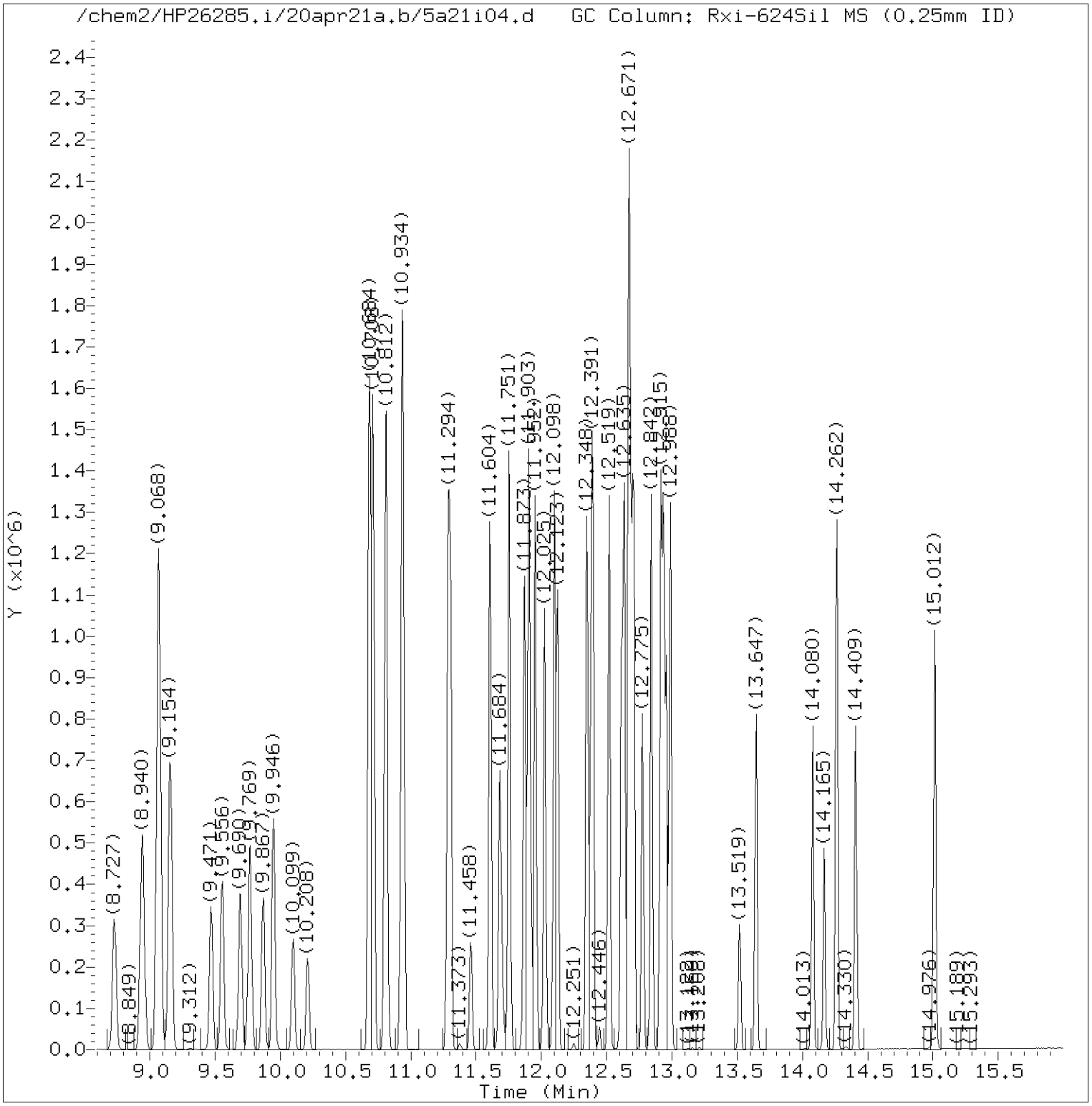
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	176107	20.225
4) Chloromethane	(2)	1.777	50	137441	19.762
5) 1,3-Butadiene	(2)	1.856	39	167227	17.418
6) Vinyl Chloride	(2)	1.869	62	123095	20.150
8) Bromomethane	(2)	2.131	94	83021	20.241
9) Chloroethane	(2)	2.198	64	59332	20.513
10) Dichlorofluoromethane	(2)	2.399	67	188045	19.951
12) Trichlorofluoromethane	(2)	2.442	101	152369	20.365
11) n-Pentane	(2)	2.466	43	133320	19.143
14) Ethyl ether	(2)	2.649	59	101749	19.726
15) Freon 123a	(2)	2.716	67	160831	20.593
16) Acrolein	(1)	2.795	56	458690	193.463
17) 1,1-Dichloroethene	(2)	2.899	96	118012	20.300
17) 1,1-Dichloroethene	(2)	2.899	63	60161	20.649
19) Freon 113	(2)	2.929	101	135617	20.611
18) Acetone	(1)	2.935	58	45901	39.254
22) Methyl Iodide	(2)	3.063	142	226771	20.458
21) 2-Propanol	(1)	3.088	45	191798	201.567
23) Carbon Disulfide	(2)	3.149	76	410208	20.061
27) Methyl Acetate	(2)	3.277	43	163698	19.531
25) Allyl Chloride	(2)	3.295	41	193933	19.929
28) Methylene Chloride	(2)	3.454	84	133170	20.323
29)*t-Butyl alcohol-d10	(1)	3.484	65	374444M	250.000
30) t-Butyl alcohol	(1)	3.588	59	361536	204.986
31) Acrylonitrile	(2)	3.740	53	86420	19.534
32) trans-1,2-Dichloroethene	(2)	3.789	96	133401	20.508
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	353312	20.535
34) n-Hexane	(2)	4.167	57	200748	20.813
36) 1,1-Dichloroethane	(2)	4.405	63	240987	20.466
38) di-Isopropyl ether	(2)	4.478	45	430753	20.481
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	205108	20.503
40) Ethyl t-butyl ether	(2)	5.033	59	384962	20.618
44) 2-Butanone	(2)	5.264	43	247601	38.454
42) cis-1,2-Dichloroethene	(2)	5.276	96	151588	20.604
45) 2,2-Dichloropropane	(2)	5.289	77	202238	20.355
47) Propionitrile	(1)	5.368	54	383292	199.634
48) Methacrylonitrile	(2)	5.581	67	448172	101.718
49) Bromochloromethane	(2)	5.618	128	68545	20.342

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	65537	37.768
51) Chloroform	(2)	5.789	83	240712	20.381
53) 1,1,1-Trichloroethane	(2)	6.002	97	217888	20.490
52)$Dibromofluoromethane	(2)	6.014	113	268044	50.054
52)$Dibromofluoromethane	(2)	6.008	111	273439	49.870
54) Cyclohexane	(2)	6.093	56	254296	20.533
54) Cyclohexane	(2)	6.087	84	208410	20.344
54) Cyclohexane	(2)	6.087	69	78176	20.351
43) 1,2-Dichloroethene (Total)	(2)		96	284989	41.112
56) Carbon Tetrachloride	(2)	6.215	117	190269	20.508
55) 1,1-Dichloropropene	(2)	6.227	75	196038	20.351
58) Isobutyl Alcohol	(1)	6.453	41	296319	504.036
57)$1,2-Dichloroethane-d4	(2)	6.484	102	59913	50.023
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291867	49.843
57)$1,2-Dichloroethane-d4	(2)	6.477	104	38655	50.405
60) Benzene	(2)	6.502	78	587925	20.526
61) 1,2-Dichloroethane	(2)	6.587	62	174387	19.823
61) 1,2-Dichloroethane	(2)	6.587	98	15862	21.321
65) t-Amyl methyl ether	(2)	6.715	73	387268	20.786
66)*Fluorobenzene	(2)	6.929	96	1075151	50.000
67) n-Heptane	(2)	6.953	43	187178	20.091
69) n-Butanol	(1)	7.367	56	515020	1015.260
71) Trichloroethene	(2)	7.428	95	153449	20.415
73) Methylcyclohexane	(2)	7.727	83	241143	20.186
73) Methylcyclohexane	(2)	7.727	98	101510	20.072
74) 1,2-Dichloropropane	(2)	7.776	63	147620	20.588
76) 1,4-Dioxane	(1)	7.873	88	66419M	527.847
75) Dibromomethane	(2)	7.886	93	92310	20.446
77) Methyl Methacrylate	(2)	7.892	69	136501	20.348
79) Bromodichloromethane	(2)	8.148	83	178766	20.419
80) 2-Nitropropane	(2)	8.447	41	116656	38.471
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	112482	20.271
82) cis-1,3-Dichloropropene	(2)	8.727	75	227783	20.589
83) 4-Methyl-2-pentanone	(2)	8.940	43	482790	38.902
84)$Toluene-d8	(3)	9.068	98	1037913	49.941
84)$Toluene-d8	(3)	9.068	100	681258	49.784
89) Toluene	(3)	9.160	92	378117	20.633
90) trans-1,3-Dichloropropene	(3)	9.471	75	203161	20.662

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	230361	20.604
93) 1,1,2-Trichloroethane	(3)	9.696	97	134083	20.466
94) Tetrachloroethene	(3)	9.769	166	158715	20.420
95) 1,3-Dichloropropane	(3)	9.867	76	220946	20.311
97) 2-Hexanone	(3)	9.946	43	381856	39.219
91) 1,3-Dichloropropene (total)	(3)		100	430944	41.251
98) Dibromochloromethane	(3)	10.099	129	143238	20.662
100) 1,2-Dibromoethane	(3)	10.208	107	147552	20.430
101)*Chlorobenzene-d5	(3)	10.684	117	845669	50.000
103) Chlorobenzene	(3)	10.708	112	411422	20.687
102) 1-Chlorohexane	(3)	10.708	91	216785	20.341
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	144477	21.057
105) Ethylbenzene	(3)	10.812	91	747467	21.095
107) m+p-Xylene	(3)	10.934	106	574961	42.292
108) o-Xylene	(3)	11.287	106	279276	20.988
110) Styrene	(3)	11.306	104	459033	21.405
111) Bromoform	(3)	11.458	173	103338	20.603
112) Isopropylbenzene	(3)	11.604	105	733240	20.998
113) Cyclohexanone	(1)	11.684	55	289862	501.521
115)$4-Bromofluorobenzene	(3)	11.751	95	433370	49.490
115)$4-Bromofluorobenzene	(3)	11.757	174	338199	49.509
109) Xylene (Total)	(3)		106	854237	63.280
116) Bromobenzene	(4)	11.867	156	171502	20.687
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	231383	20.567
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	199102	92.001
118) 1,2,3-Trichloropropane	(4)	11.915	110	68108	20.560
120) n-Propylbenzene	(4)	11.952	91	868732	21.313
121) 2-Chlorotoluene	(4)	12.025	126	173212	20.732
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	609013	21.255
122) 4-Chlorotoluene	(4)	12.123	126	175742	20.823
125) tert-Butylbenzene	(4)	12.348	134	117503M	20.635
126) Pentachloroethane	(4)	12.379	167	98208	21.007
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	627833	21.278
128) sec-Butylbenzene	(4)	12.519	105	751728	21.161
130) 1,3-Dichlorobenzene	(4)	12.610	146	320824	20.574
131) p-Isopropyltoluene	(4)	12.635	119	626227	21.139
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	434870	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	327263	20.679

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

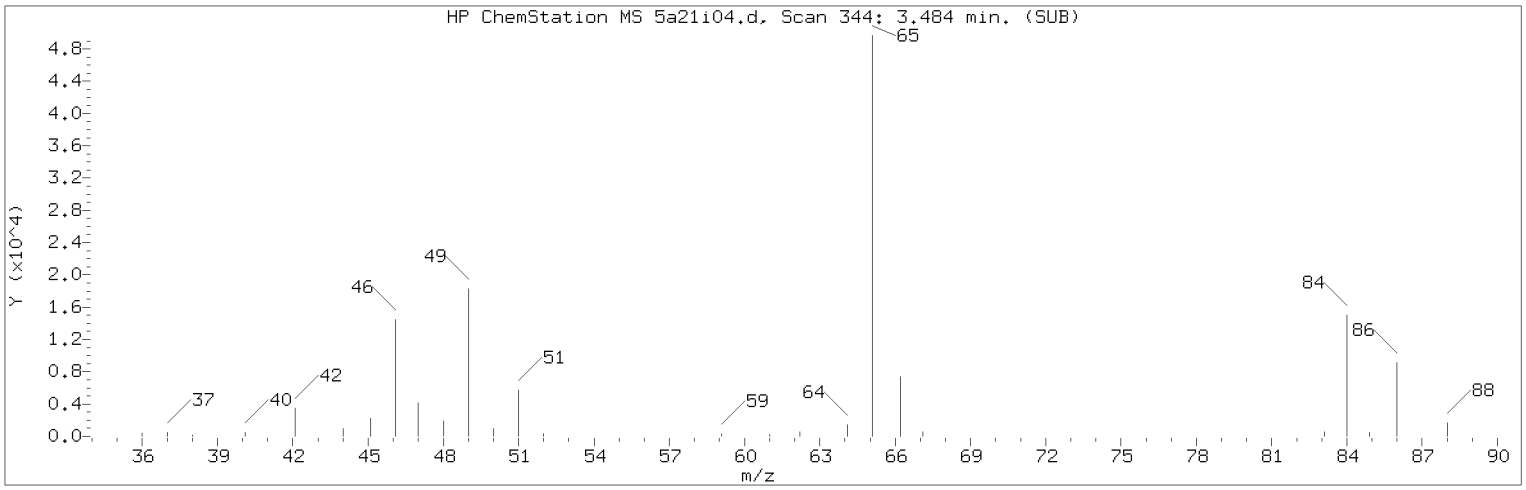
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

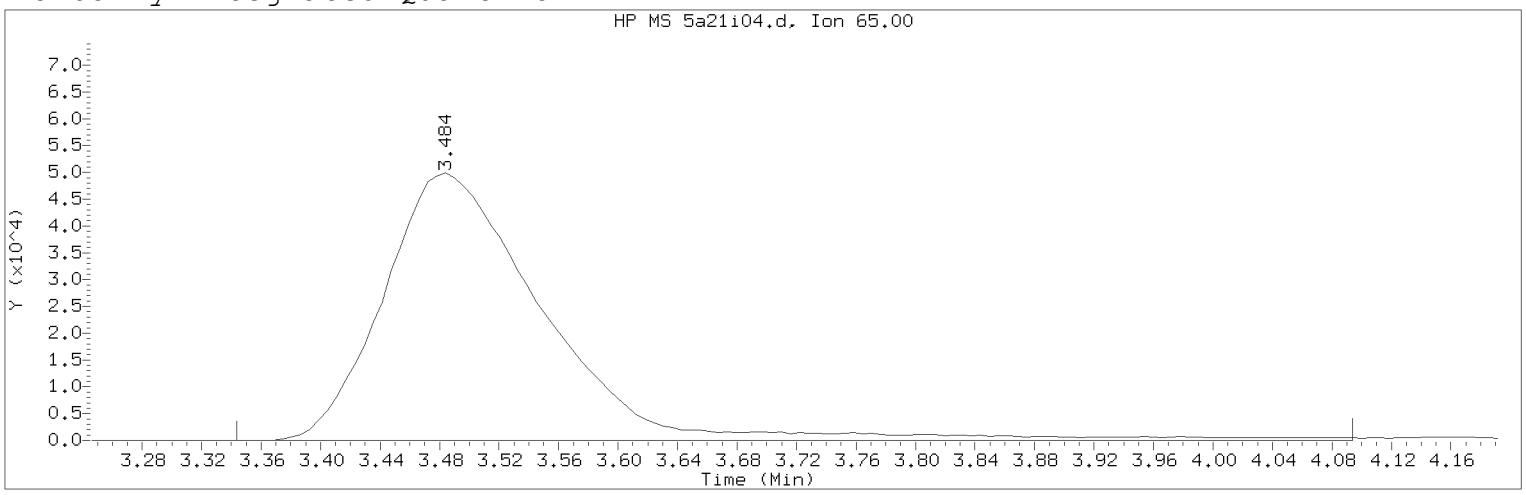
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	585964	20.689
136) Benzyl Chloride	(4)	12.775	91	463026	21.453
137) 1,3-Diethylbenzene	(4)	12.842	119	355157	20.749
138) 1,4-Diethylbenzene	(4)	12.915	119	368021	20.787
140) n-Butylbenzene	(4)	12.933	92	312980	20.945
139) 1,2-Dichlorobenzene	(4)	12.958	146	310508	20.730
141) 1,2-Diethylbenzene	(4)	12.988	119	299568	20.693
142) Diethylbenzene (total)	(4)		100	1022746	62.229
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	58485	20.591
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	203775	20.597
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	189717	20.411
148) Hexachlorobutadiene	(4)	14.171	225	73242	20.490
149) Naphthalene	(4)	14.262	128	780086	21.194
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	188286	20.471
151) 2-Methylnaphthalene	(4)	15.012	142	405277	21.193

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

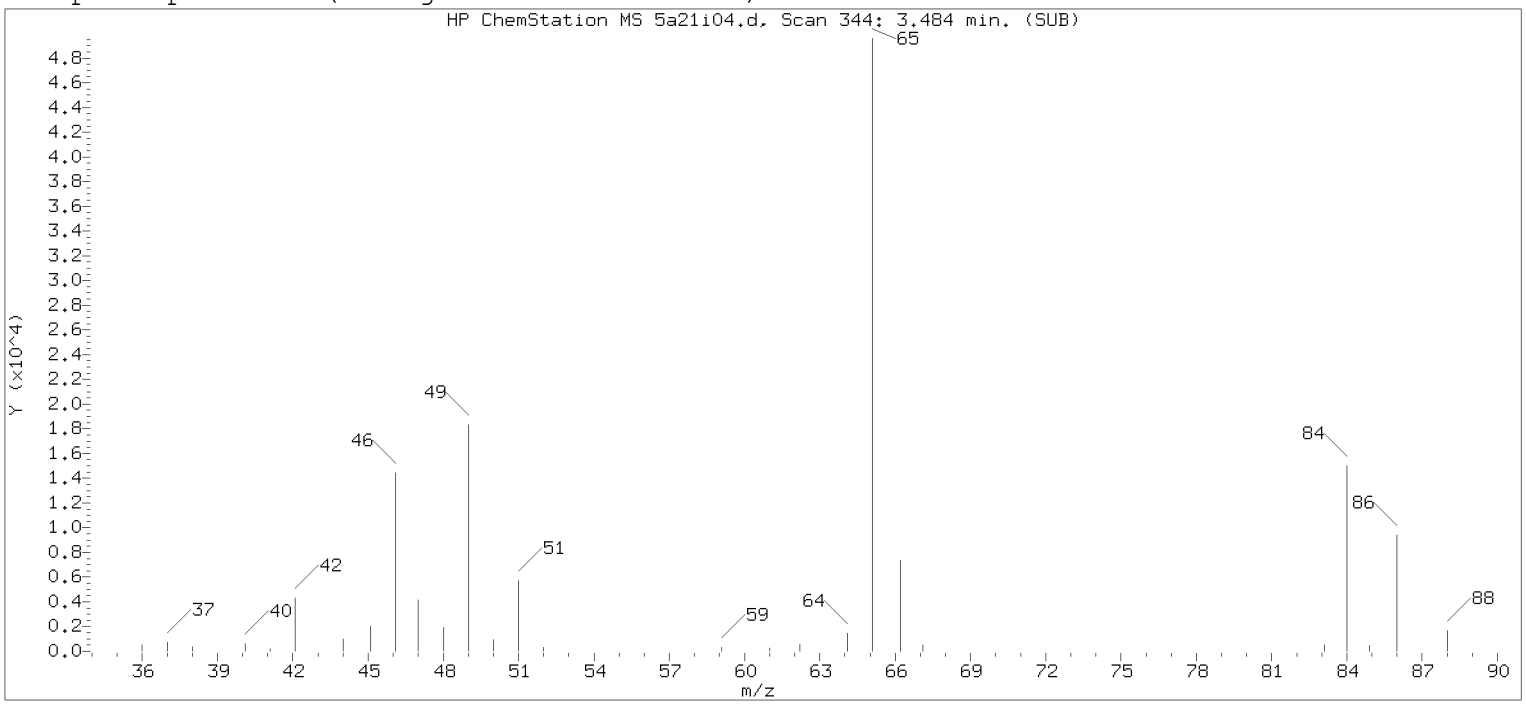
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 374444M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 443
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

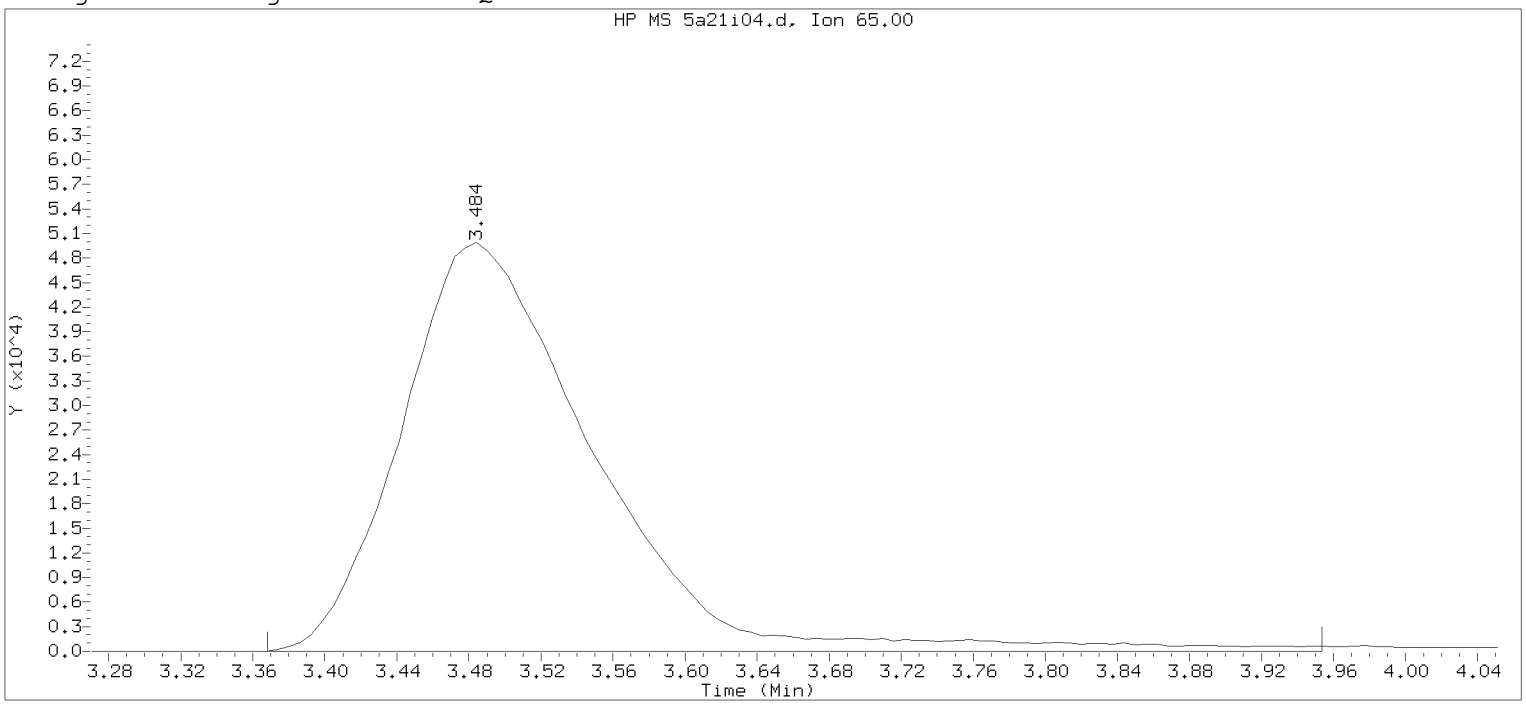
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

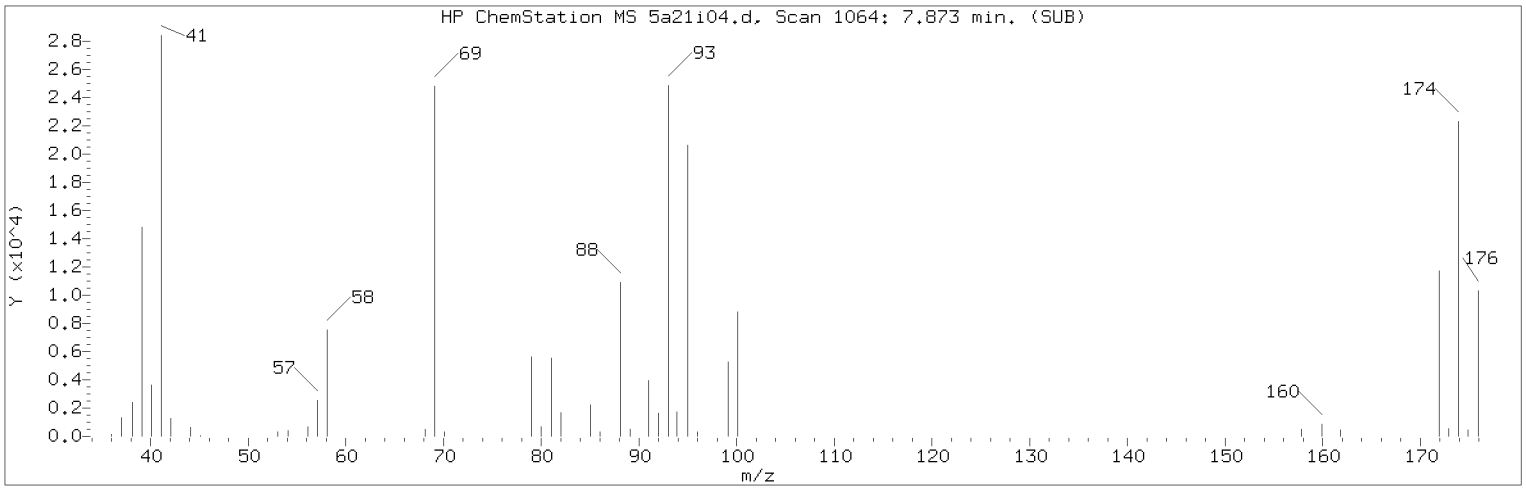
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

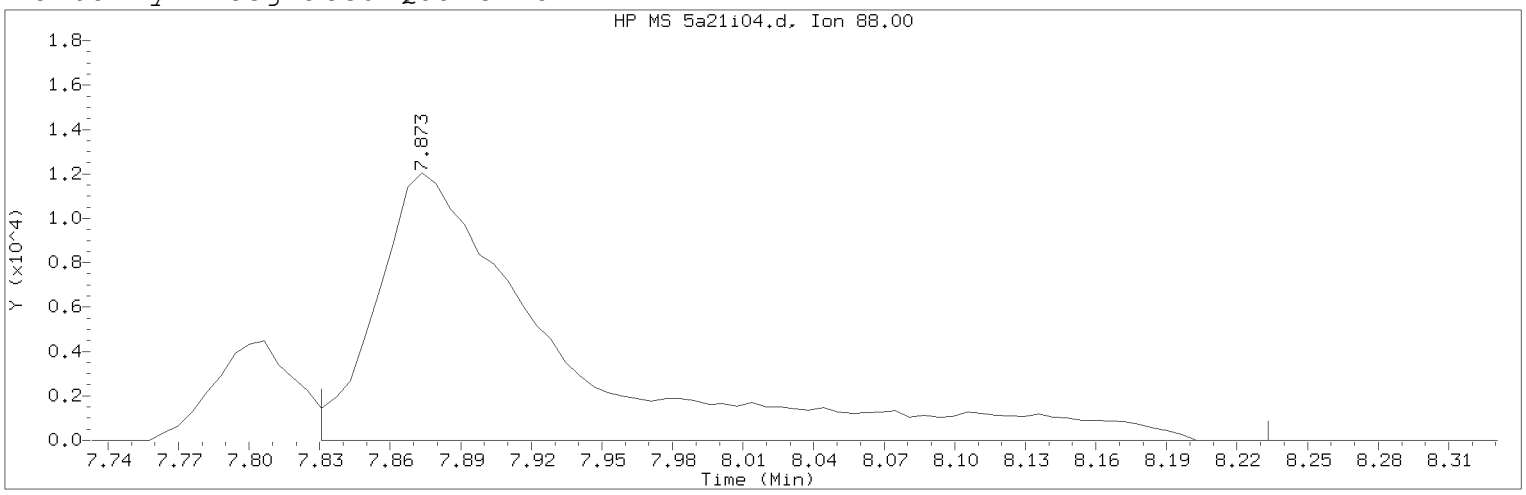
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 370124
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

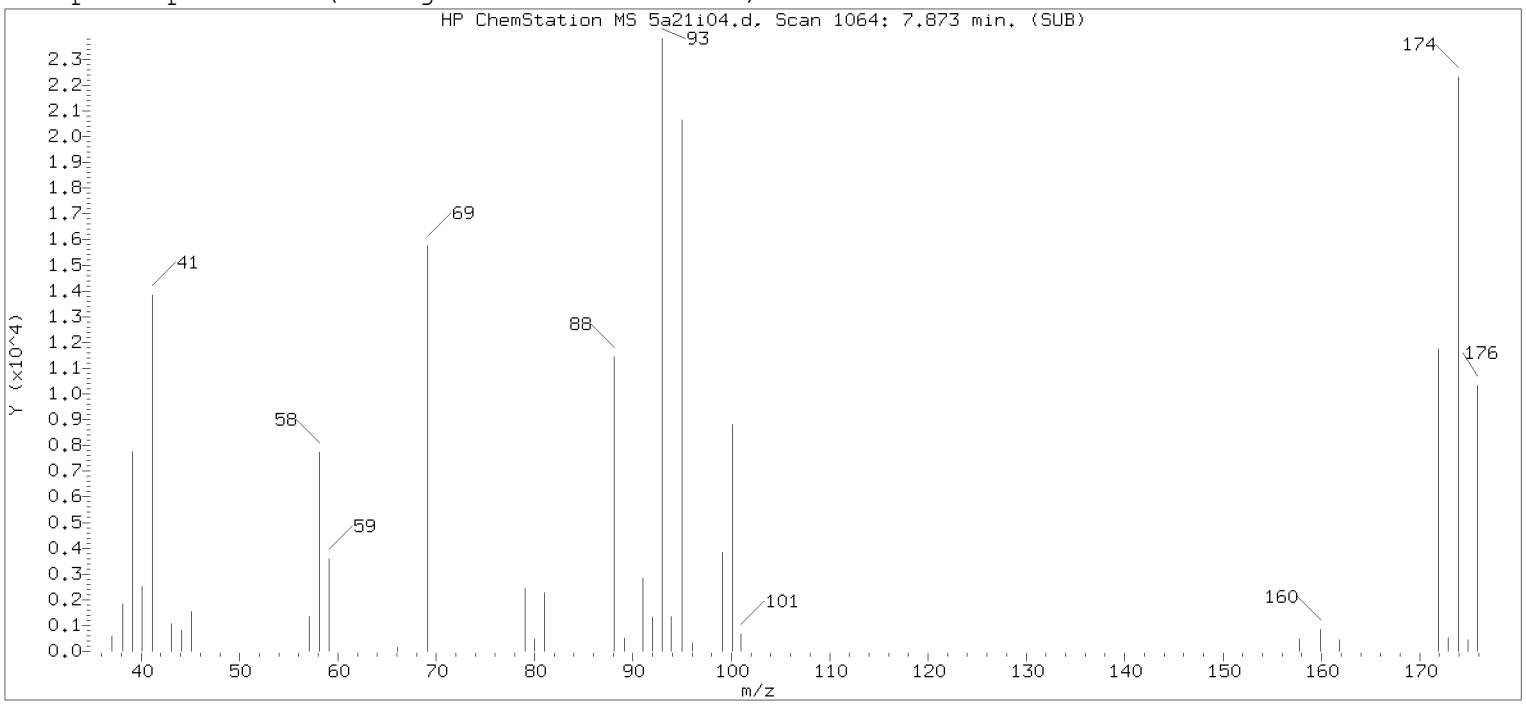
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 66419M
On-Column Amount (ng) : 527.8469
Integration start scan : 1056 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

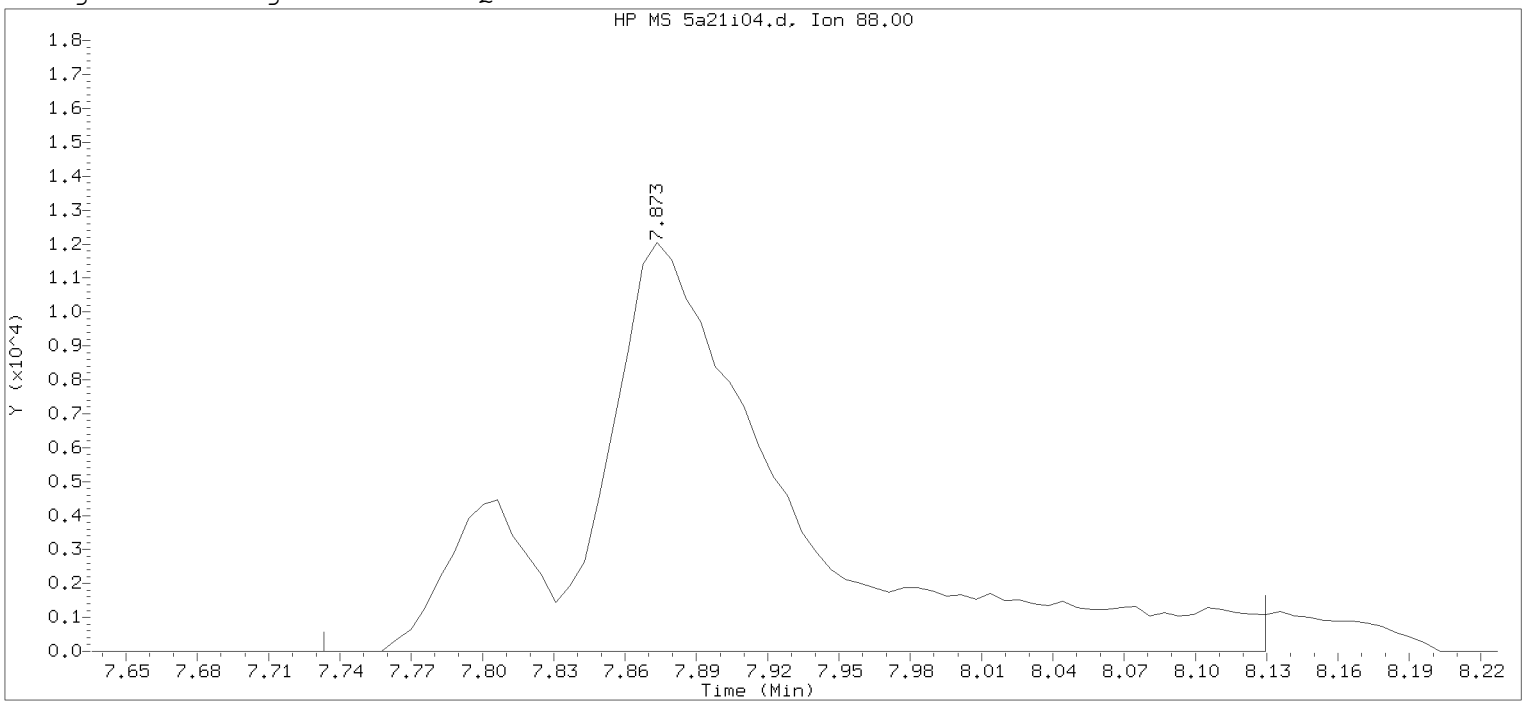
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

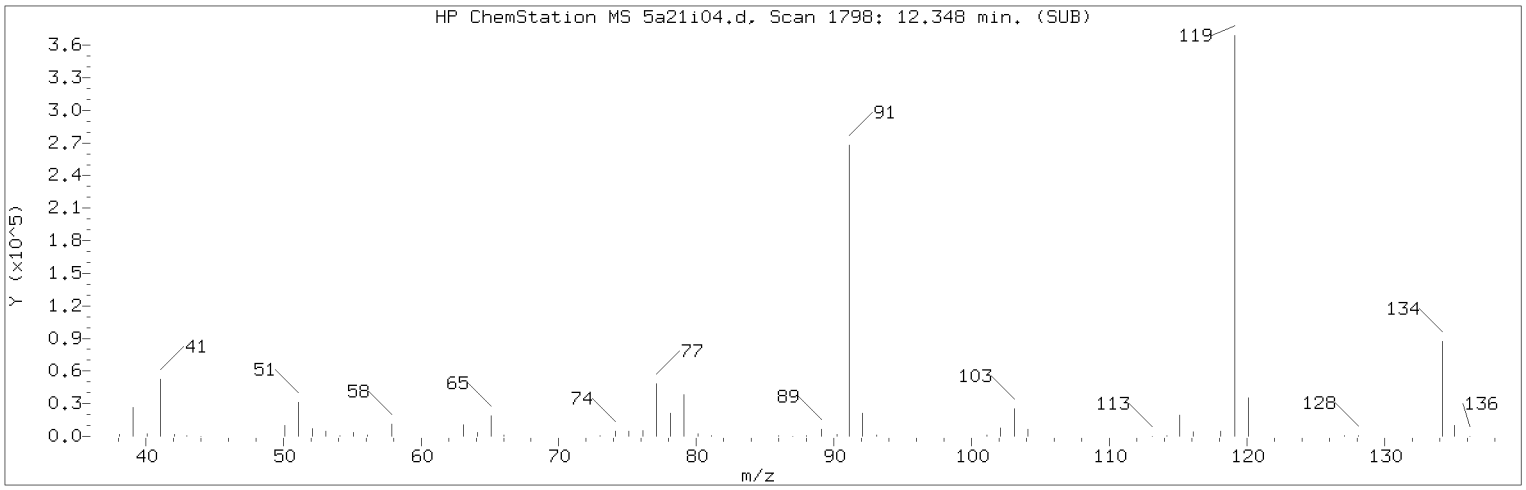
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

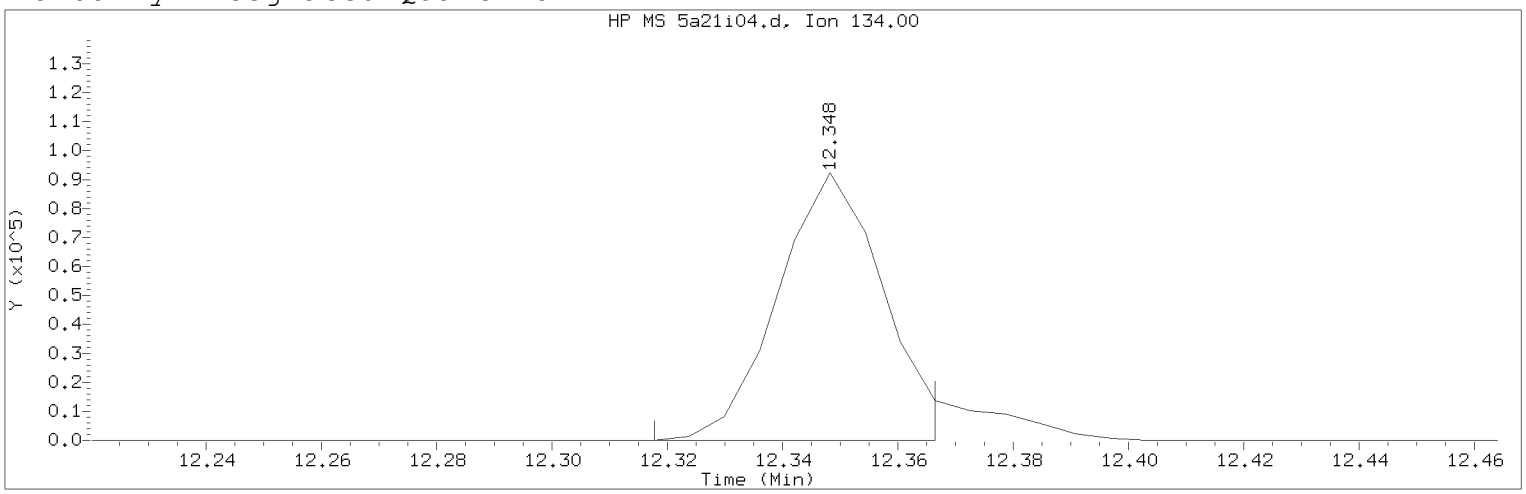
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 73501
On-column Amount (ng) : 470.0717
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

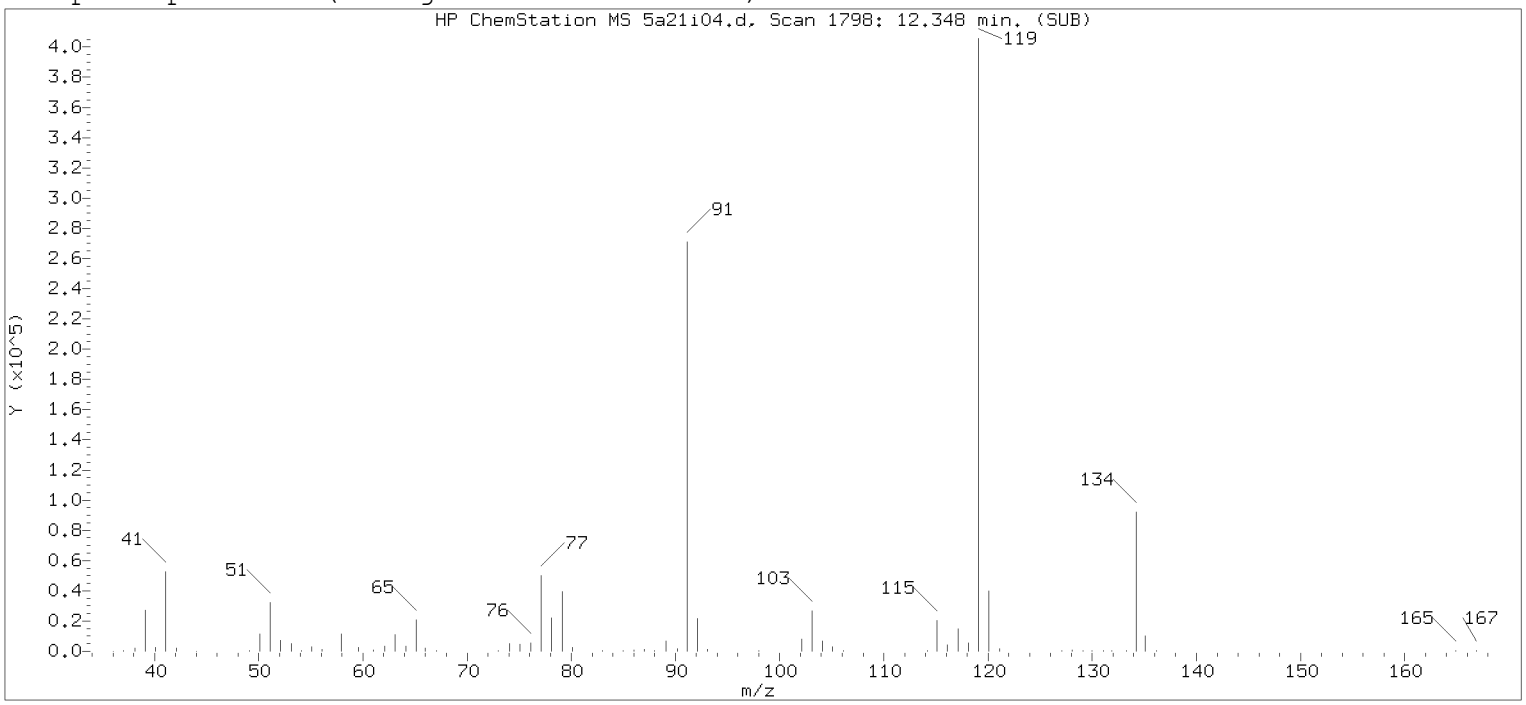
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 117503M
On-Column Amount (ng) : 20.6345
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

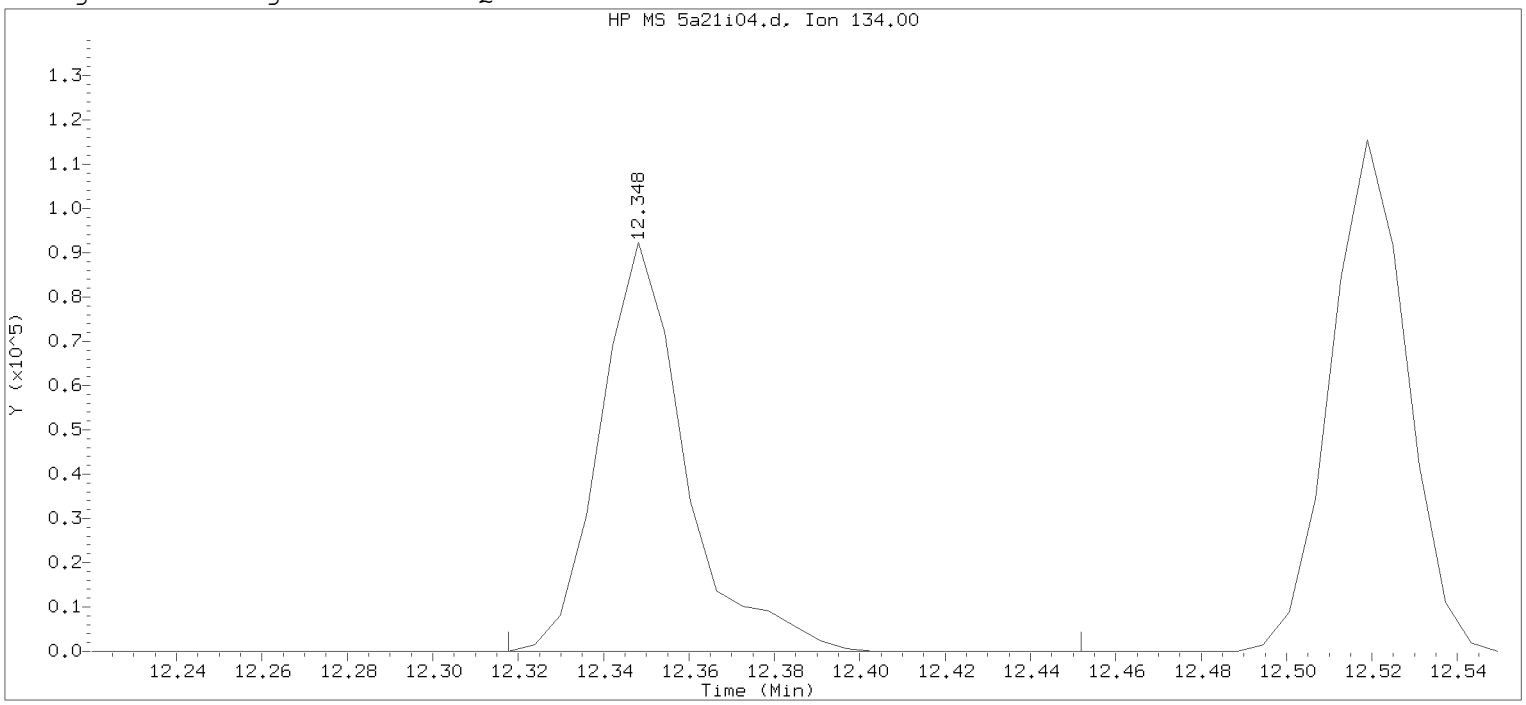
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



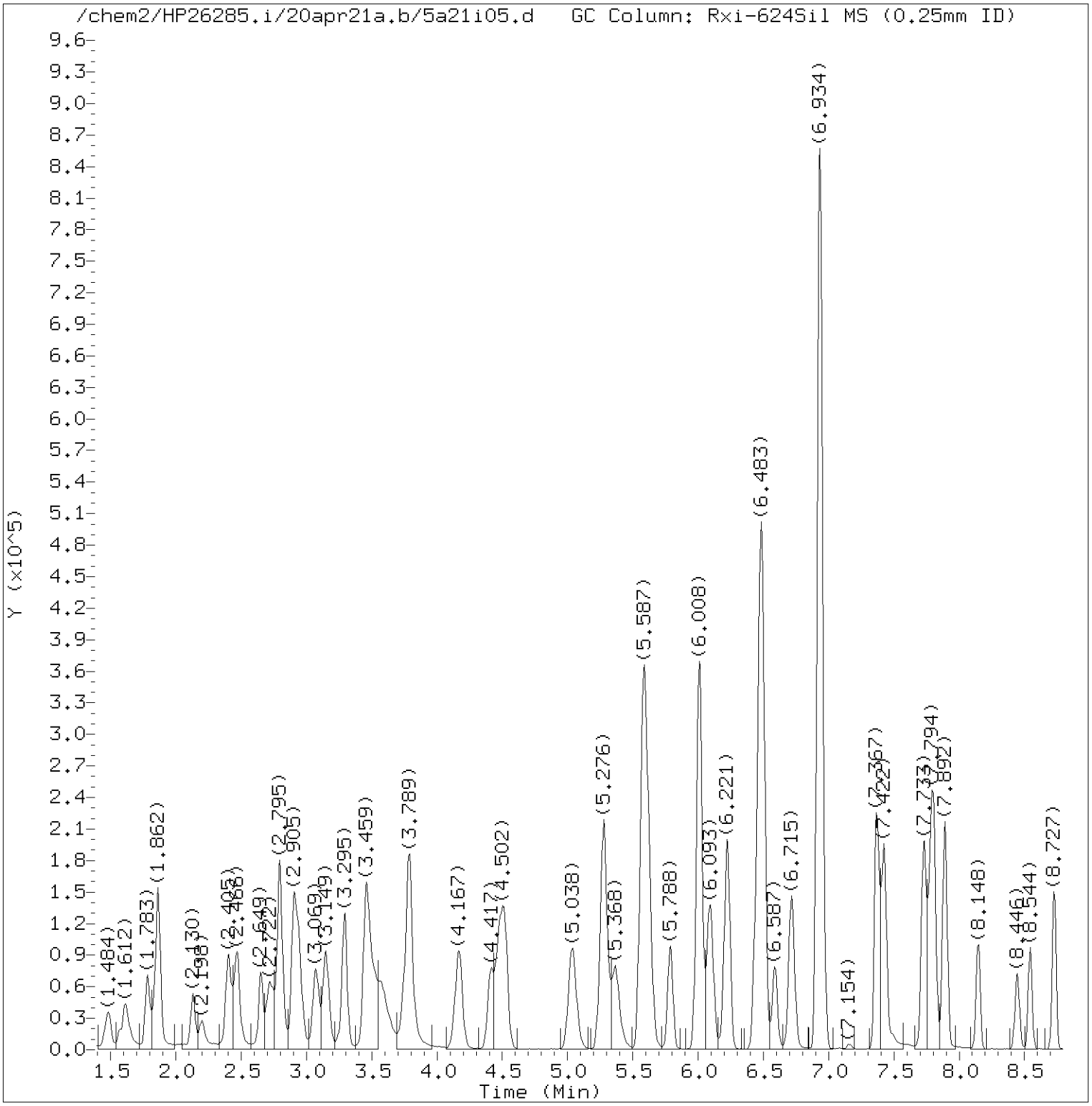
Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 127683
On-column Amount (ng) : 20.9115
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

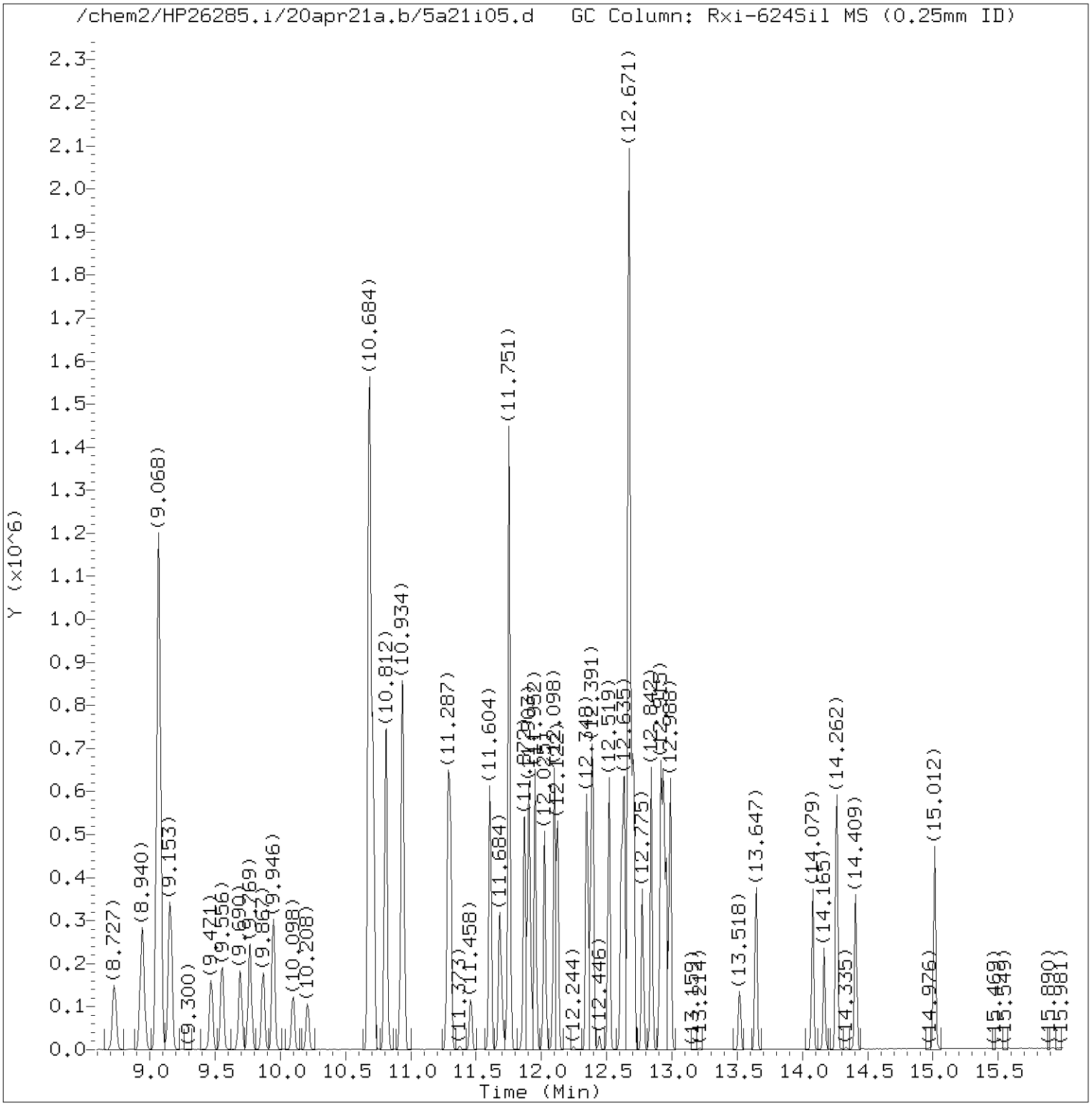
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	90205	10.452
4) Chloromethane	(2)	1.777	50	71545	10.378
5) 1,3-Butadiene	(2)	1.856	39	86291	9.068
6) Vinyl Chloride	(2)	1.868	62	62356	10.298
8) Bromomethane	(2)	2.130	94	42903	10.553
9) Chloroethane	(2)	2.198	64	30296	10.567
10) Dichlorofluoromethane	(2)	2.405	67	97996	10.489
12) Trichlorofluoromethane	(2)	2.441	101	78339	10.563
11) n-Pentane	(2)	2.472	43	68099	9.865
14) Ethyl ether	(2)	2.649	59	52497	10.268
15) Freon 123a	(2)	2.722	67	79096	10.218
16) Acrolein	(1)	2.795	56	252226	108.084
17) 1,1-Dichloroethene	(2)	2.899	96	57993	10.065
17) 1,1-Dichloroethene	(2)	2.899	63	29384	10.175
18) Acetone	(1)	2.941	58	25156	21.857
19) Freon 113	(2)	2.941	101	65457	10.036
22) Methyl Iodide	(2)	3.069	142	109970	10.009
21) 2-Propanol	(1)	3.088	45	94551	100.957
23) Carbon Disulfide	(2)	3.149	76	198468	9.792
27) Methyl Acetate	(2)	3.283	43	81962	9.866
25) Allyl Chloride	(2)	3.295	41	98639	10.226
28) Methylene Chloride	(2)	3.453	84	64974	10.004
29)*t-Butyl alcohol-d10	(1)	3.478	65	368547M	250.000
30) t-Butyl alcohol	(1)	3.588	59	172401	99.313
31) Acrylonitrile	(2)	3.746	53	47066	10.733
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	173129	10.152
32) trans-1,2-Dichloroethene	(2)	3.789	96	64527	10.008
34) n-Hexane	(2)	4.167	57	94872	9.923
36) 1,1-Dichloroethane	(2)	4.411	63	117563	10.073
38) di-Isopropyl ether	(2)	4.471	45	209578	10.053
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	98506	9.934
40) Ethyl t-butyl ether	(2)	5.038	59	187431	10.128
44) 2-Butanone	(2)	5.270	43	134437	21.064
42) cis-1,2-Dichloroethene	(2)	5.276	96	73625	10.096
45) 2,2-Dichloropropane	(2)	5.282	77	97436	9.894
47) Propionitrile	(1)	5.368	54	188839	99.929
48) Methacrylonitrile	(2)	5.581	67	220510	50.492
49) Bromochloromethane	(2)	5.624	128	34123	10.216

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	35702	20.904
51) Chloroform	(2)	5.788	83	116640	9.964
52)$Dibromofluoromethane	(2)	6.008	113	264399	49.811
52)$Dibromofluoromethane	(2)	6.014	111	270750	49.818
53) 1,1,1-Trichloroethane	(2)	6.008	97	103888	9.856
54) Cyclohexane	(2)	6.093	56	121473	9.895
54) Cyclohexane	(2)	6.093	84	102260	10.071
54) Cyclohexane	(2)	6.093	69	38003	9.981
43) 1,2-Dichloroethene (Total)	(2)		96	138152	20.104
56) Carbon Tetrachloride	(2)	6.215	117	89359	9.717
55) 1,1-Dichloropropene	(2)	6.227	75	95259	9.977
58) Isobutyl Alcohol	(1)	6.453	41	143748	248.426
57)$1,2-Dichloroethane-d4	(2)	6.477	102	59505M	50.124
57)$1,2-Dichloroethane-d4	(2)	6.477	65	289071	49.804
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37791	49.716
60) Benzene	(2)	6.502	78	286428	10.089
61) 1,2-Dichloroethane	(2)	6.587	62	85001	9.748
61) 1,2-Dichloroethane	(2)	6.593	98	7607	10.316
65) t-Amyl methyl ether	(2)	6.715	73	189587	10.266
66)*Fluorobenzene	(2)	6.928	96	1065691	50.000
67) n-Heptane	(2)	6.953	43	89571	9.699
69) n-Butanol	(1)	7.367	56	244784	490.264
71) Trichloroethene	(2)	7.428	95	74216	9.961
73) Methylcyclohexane	(2)	7.733	83	117405	9.915
73) Methylcyclohexane	(2)	7.733	98	49758	9.926
74) 1,2-Dichloropropane	(2)	7.776	63	71376	10.043
76) 1,4-Dioxane	(1)	7.873	88	31904M	257.605
75) Dibromomethane	(2)	7.885	93	44493	9.942
77) Methyl Methacrylate	(2)	7.892	69	64708	9.731
79) Bromodichloromethane	(2)	8.148	83	84113	9.693
80) 2-Nitropropane	(2)	8.446	41	61555	20.480
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	53554	9.737
82) cis-1,3-Dichloropropene	(2)	8.727	75	106067	9.672
83) 4-Methyl-2-pentanone	(2)	8.940	43	260820	21.203
84)$Toluene-d8	(3)	9.068	98	1025182	50.528
84)$Toluene-d8	(3)	9.068	100	673846	50.440
89) Toluene	(3)	9.153	92	182907	10.224
90) trans-1,3-Dichloropropene	(3)	9.471	75	93619	9.753

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$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	108268	9.919
93) 1,1,2-Trichloroethane	(3)	9.690	97	64165	10.032
94) Tetrachloroethene	(3)	9.769	166	79032	10.416
95) 1,3-Dichloropropane	(3)	9.867	76	106961	10.072
97) 2-Hexanone	(3)	9.946	43	204853	21.551
91) 1,3-Dichloropropene (total)	(3)		100	199686	19.425
98) Dibromochloromethane	(3)	10.098	129	66102	9.767
100) 1,2-Dibromoethane	(3)	10.208	107	71037	10.075
101)*Chlorobenzene-d5	(3)	10.684	117	825598	50.000
103) Chlorobenzene	(3)	10.708	112	198021	10.199
102) 1-Chlorohexane	(3)	10.708	91	104471	10.041
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	67396	10.061
105) Ethylbenzene	(3)	10.812	91	356222	10.298
107) m+p-Xylene	(3)	10.940	106	276013	20.796
108) o-Xylene	(3)	11.287	106	133376	10.267
110) Styrene	(3)	11.306	104	214319	10.237
111) Bromoform	(3)	11.458	173	46594	9.515
112) Isopropylbenzene	(3)	11.604	105	352266	10.333
113) Cyclohexanone	(1)	11.684	55	139805	245.762
115)$4-Bromofluorobenzene	(3)	11.751	95	423376	49.525
115)$4-Bromofluorobenzene	(3)	11.751	174	330390	49.542
109) Xylene (Total)	(3)		106	409389	31.063
116) Bromobenzene	(4)	11.866	156	82170	10.150
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	109894	10.003
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	83843	47.448
118) 1,2,3-Trichloropropane	(4)	11.915	110	32467	10.037
120) n-Propylbenzene	(4)	11.952	91	413695	10.394
121) 2-Chlorotoluene	(4)	12.025	126	82850	10.155
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	288261	10.303
122) 4-Chlorotoluene	(4)	12.122	126	84124	10.208
125) tert-Butylbenzene	(4)	12.348	134	55294M	9.944
126) Pentachloroethane	(4)	12.378	167	44337	9.712
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	296576	10.293
128) sec-Butylbenzene	(4)	12.519	105	355600	10.251
130) 1,3-Dichlorobenzene	(4)	12.610	146	155576	10.217
131) p-Isopropyltoluene	(4)	12.635	119	298147	10.306
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	424651	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	158115	10.232

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

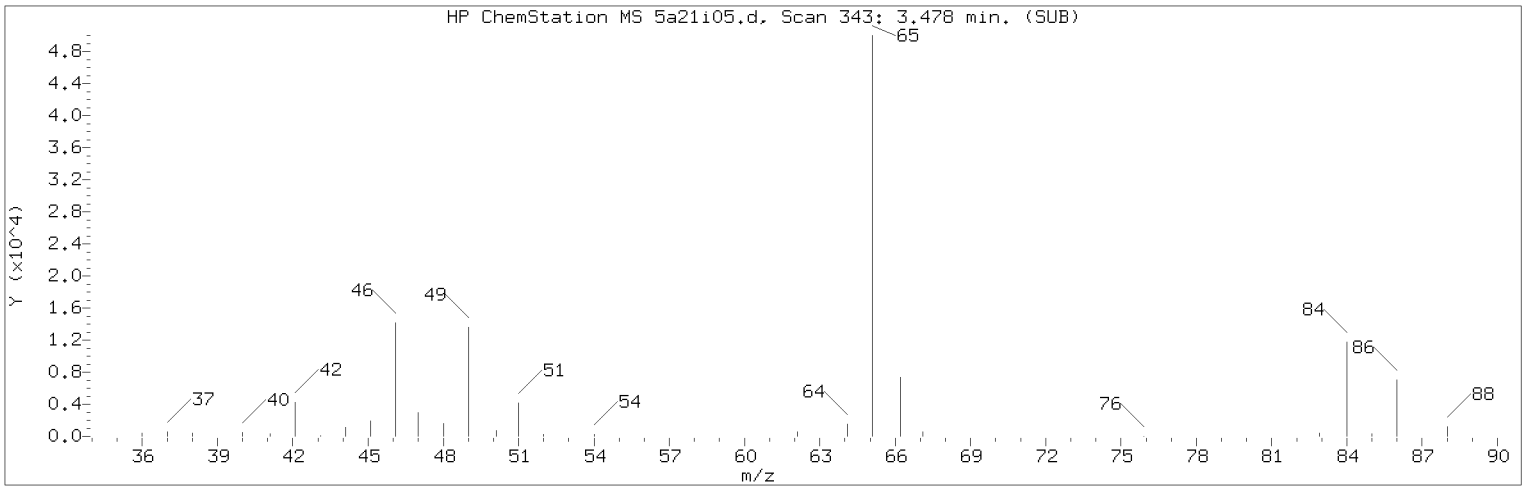
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

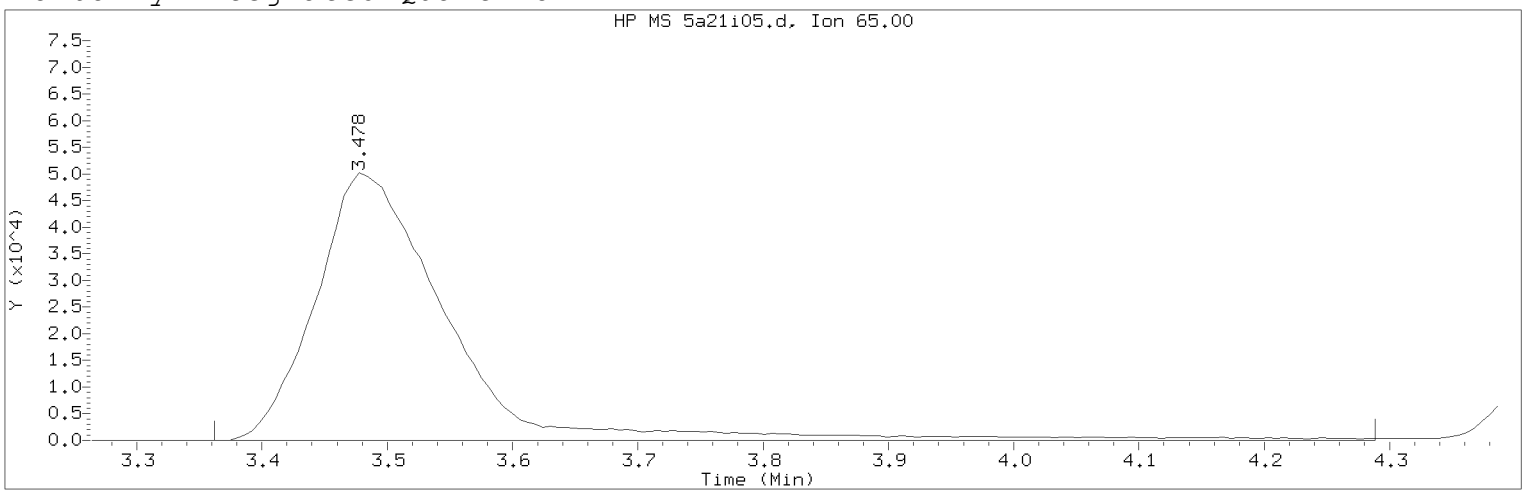
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	285226	10.313
136) Benzyl Chloride	(4)	12.775	91	207519	9.846
137) 1,3-Diethylbenzene	(4)	12.842	119	172875	10.343
138) 1,4-Diethylbenzene	(4)	12.915	119	178899	10.348
140) n-Butylbenzene	(4)	12.933	92	147655	10.119
139) 1,2-Dichlorobenzene	(4)	12.958	146	148814	10.174
141) 1,2-Diethylbenzene	(4)	12.988	119	145158	10.268
142) Diethylbenzene (total)	(4)		100	496932	30.959
143) 1,2-Dibromo-3-chloropropane	(4)	13.518	75	26754	9.646
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	96065	9.944
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	90853	10.010
148) Hexachlorobutadiene	(4)	14.165	225	34259	9.815
149) Naphthalene	(4)	14.262	128	368201	10.244
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	89515	9.967
151) 2-Methylnaphthalene	(4)	15.012	142	187053	10.017

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

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Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

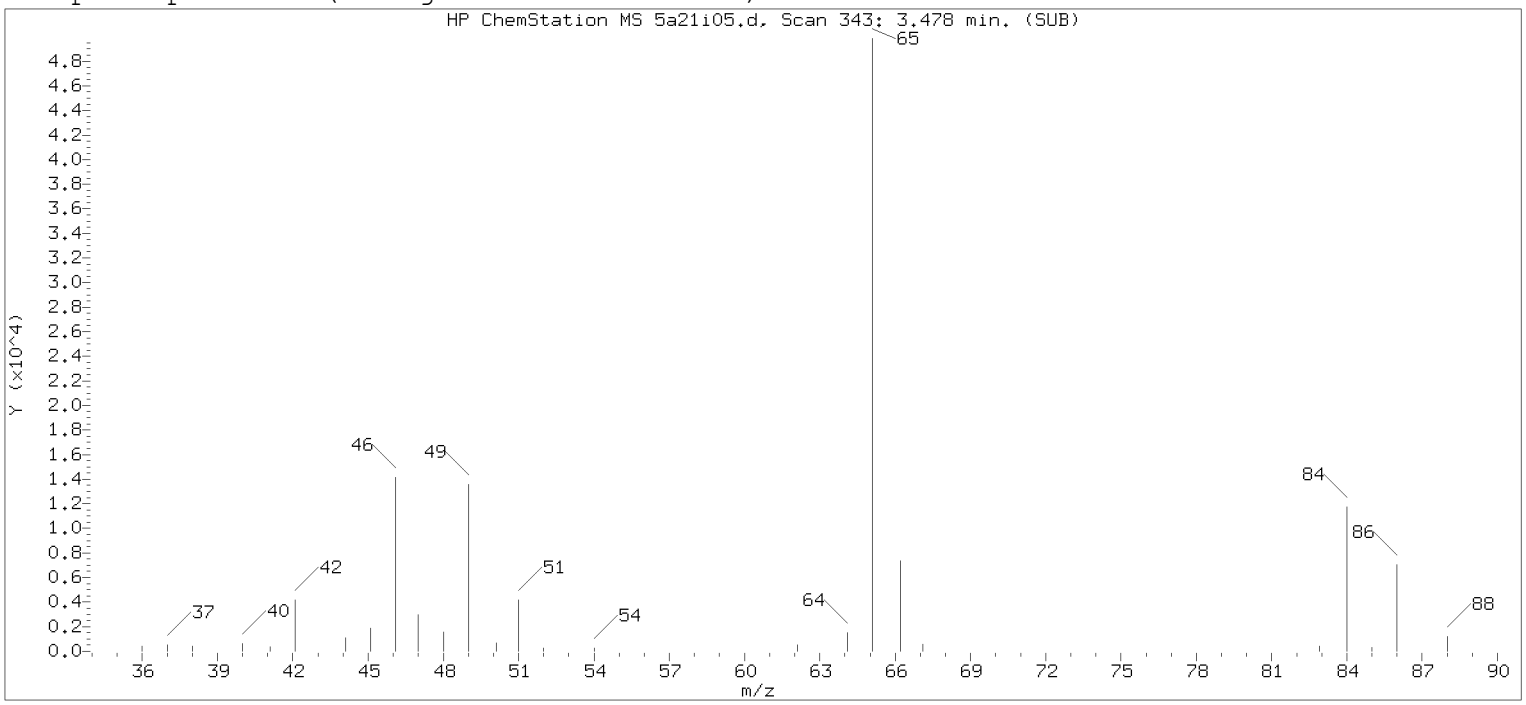
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 368547M
On-Column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 475
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

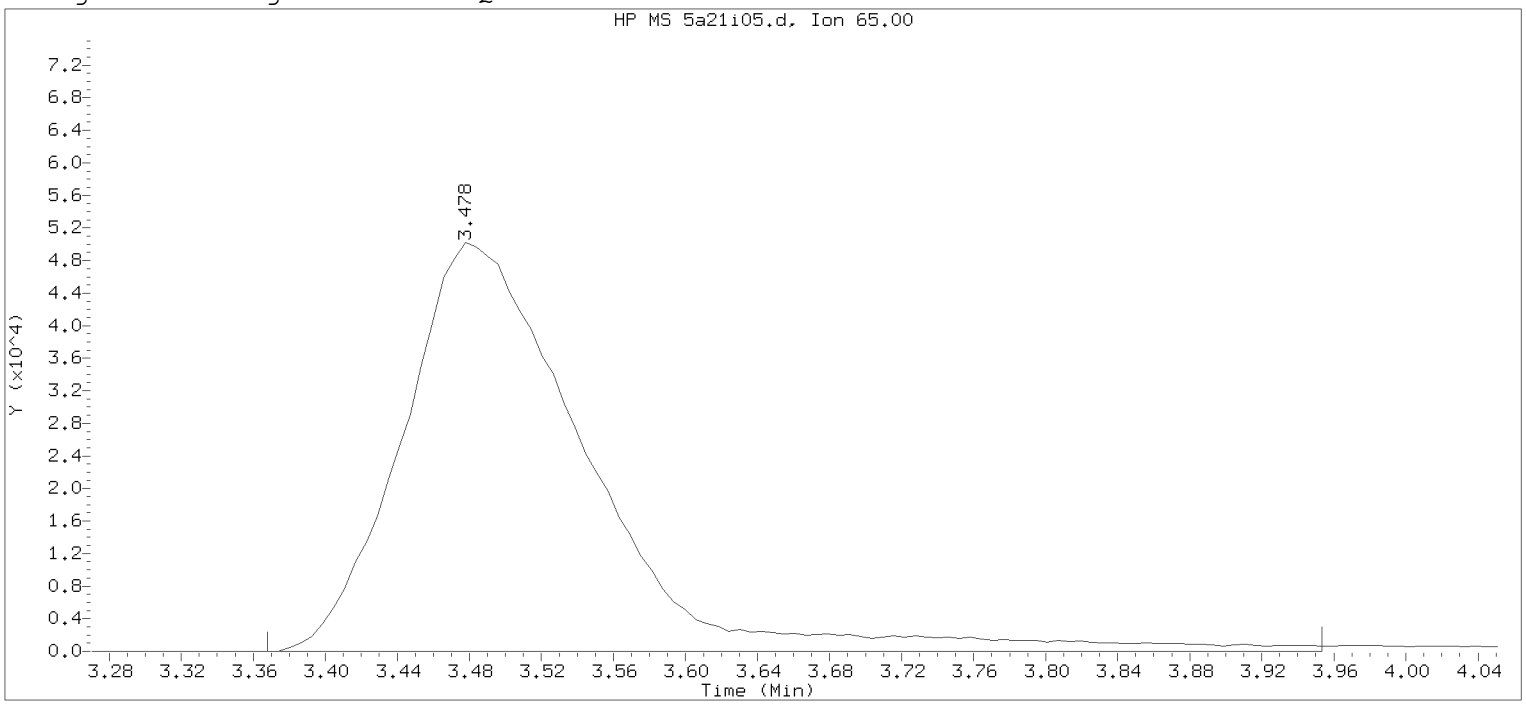
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

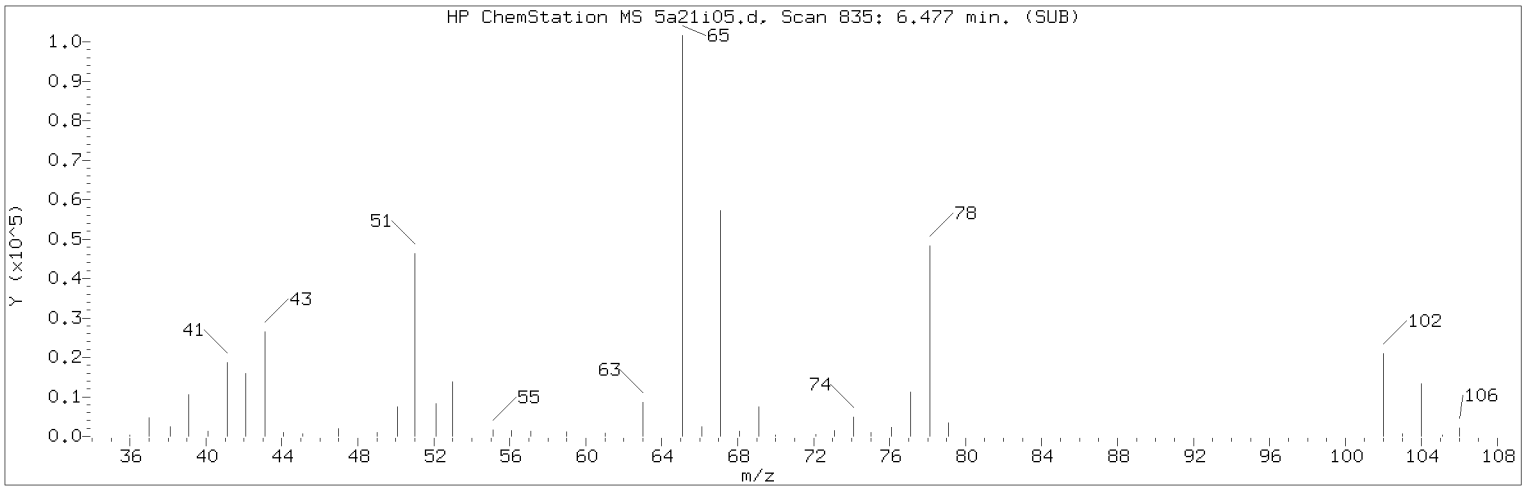
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

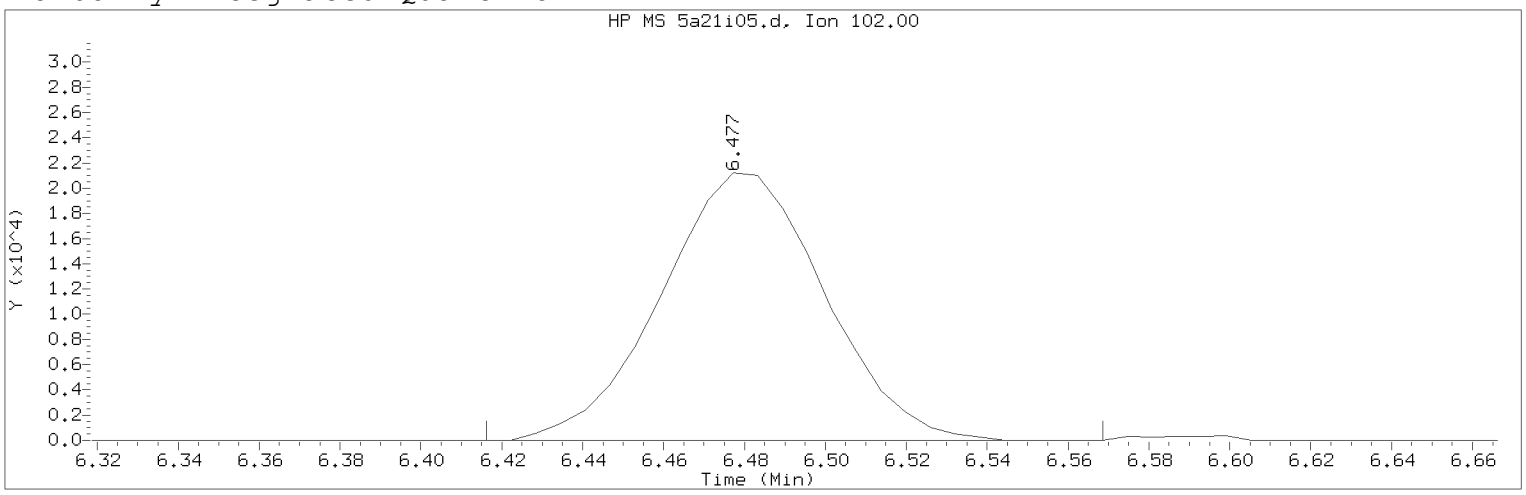
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 358381
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

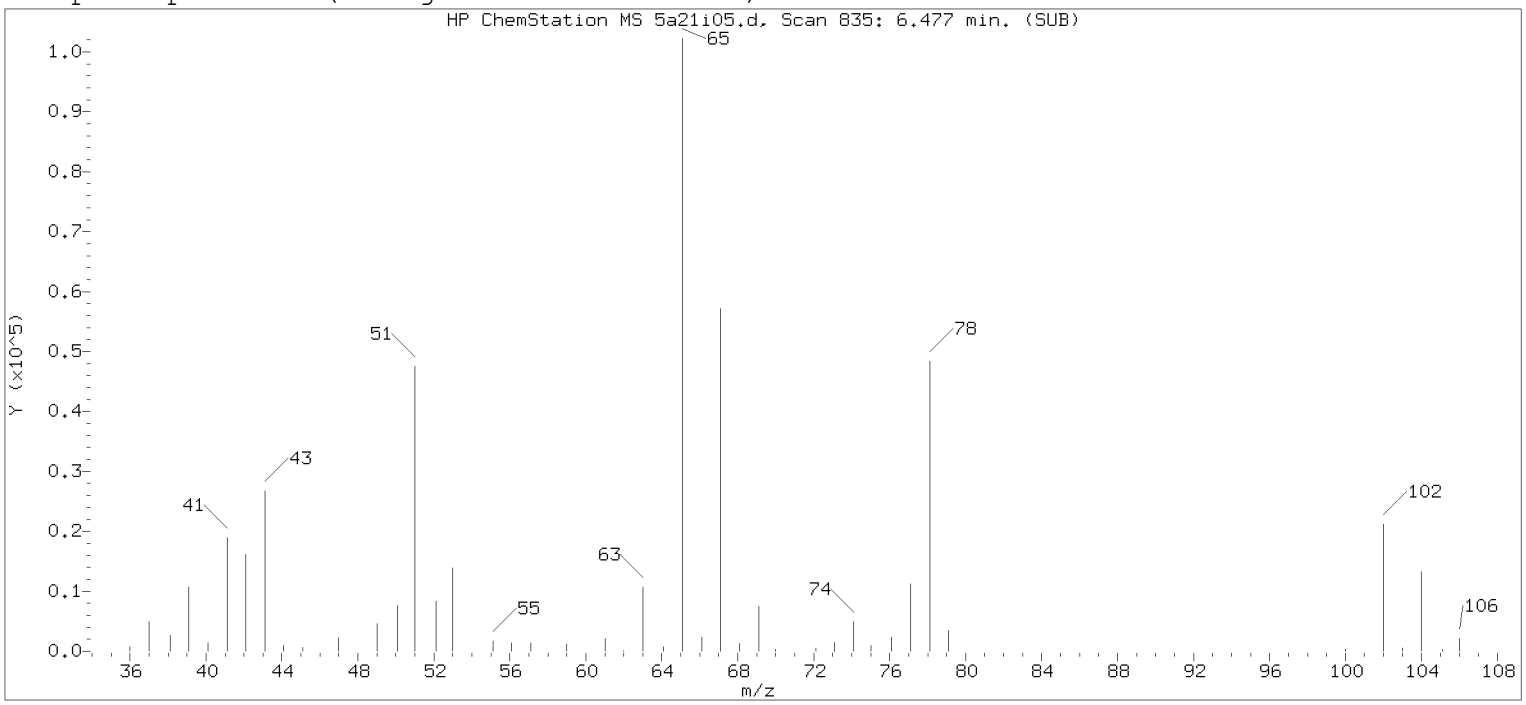
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area (flag) : 59505M
On-Column Amount (ng) : 50.1238
Integration start scan : 824 Integration stop scan: 849
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

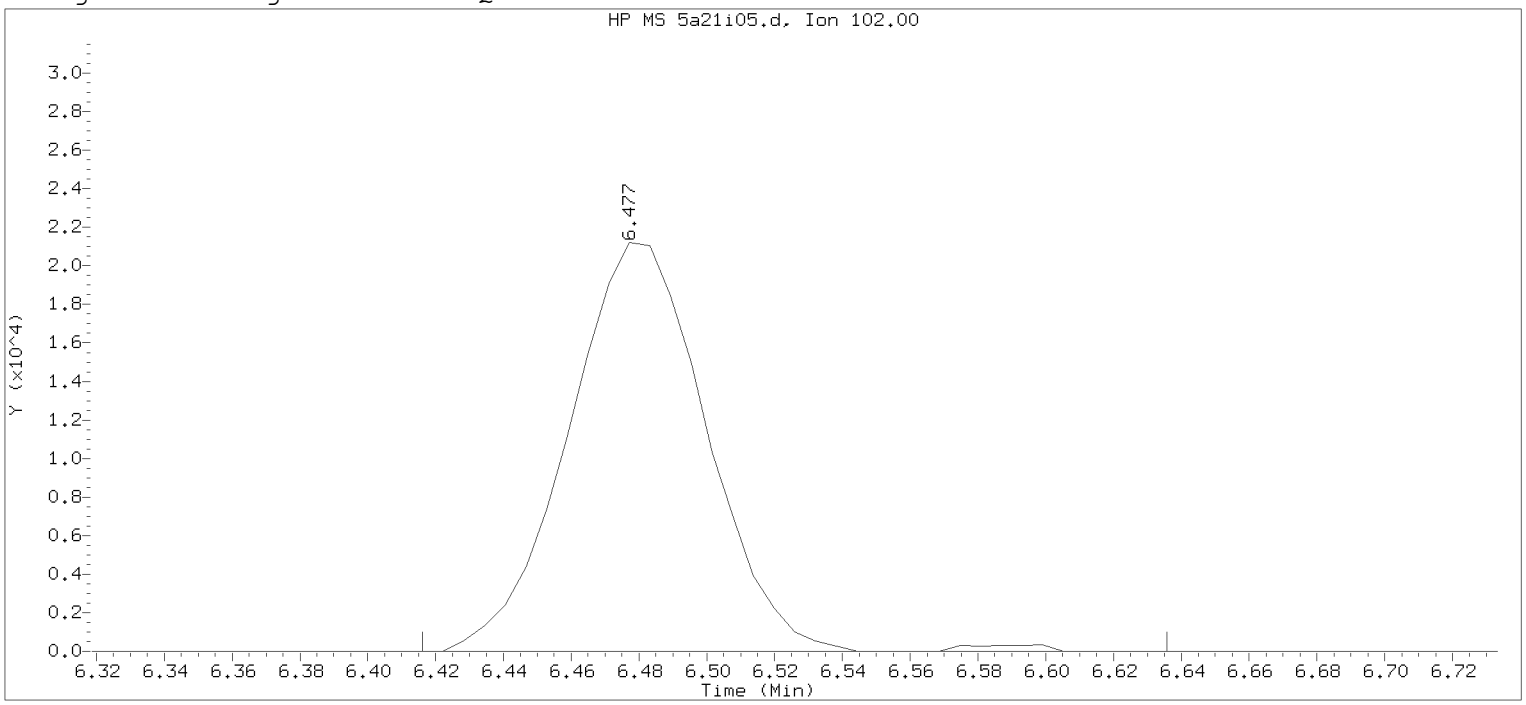
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

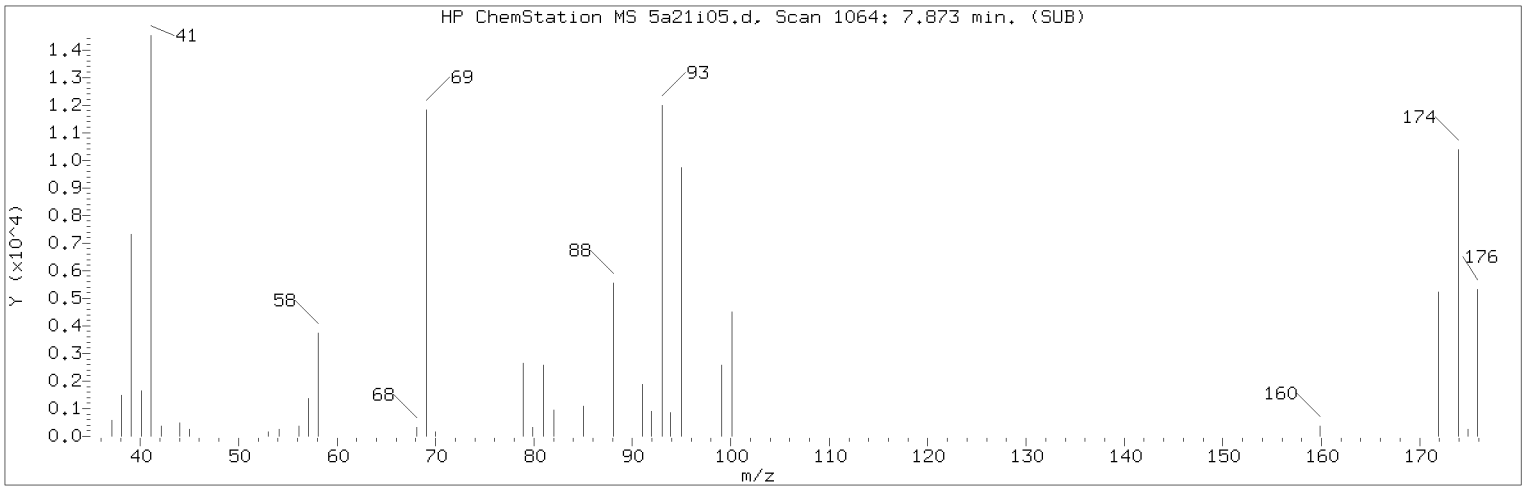
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

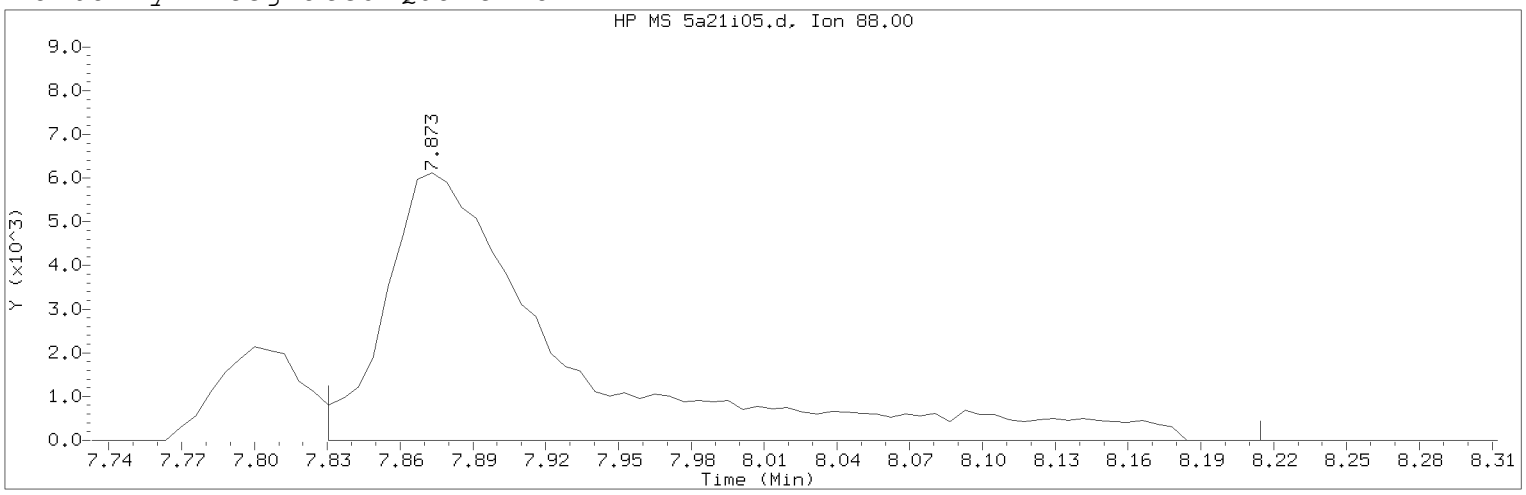
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area : 60057
On-column Amount (ng) : 50.5589
Integration start scan : 824 Integration stop scan: 860
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

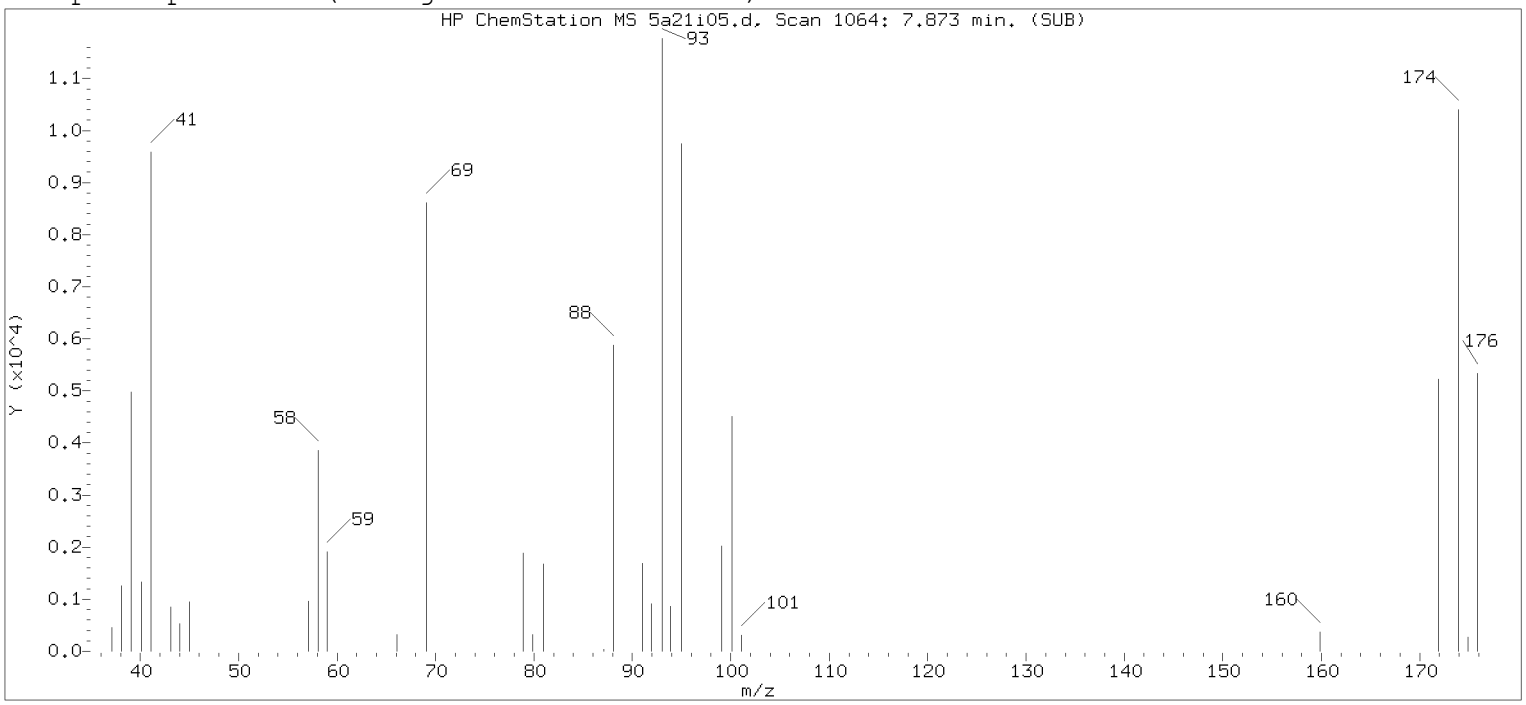
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 31904M
On-Column Amount (ng) : 257.6053
Integration start scan : 1056 Integration stop scan: 1119
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

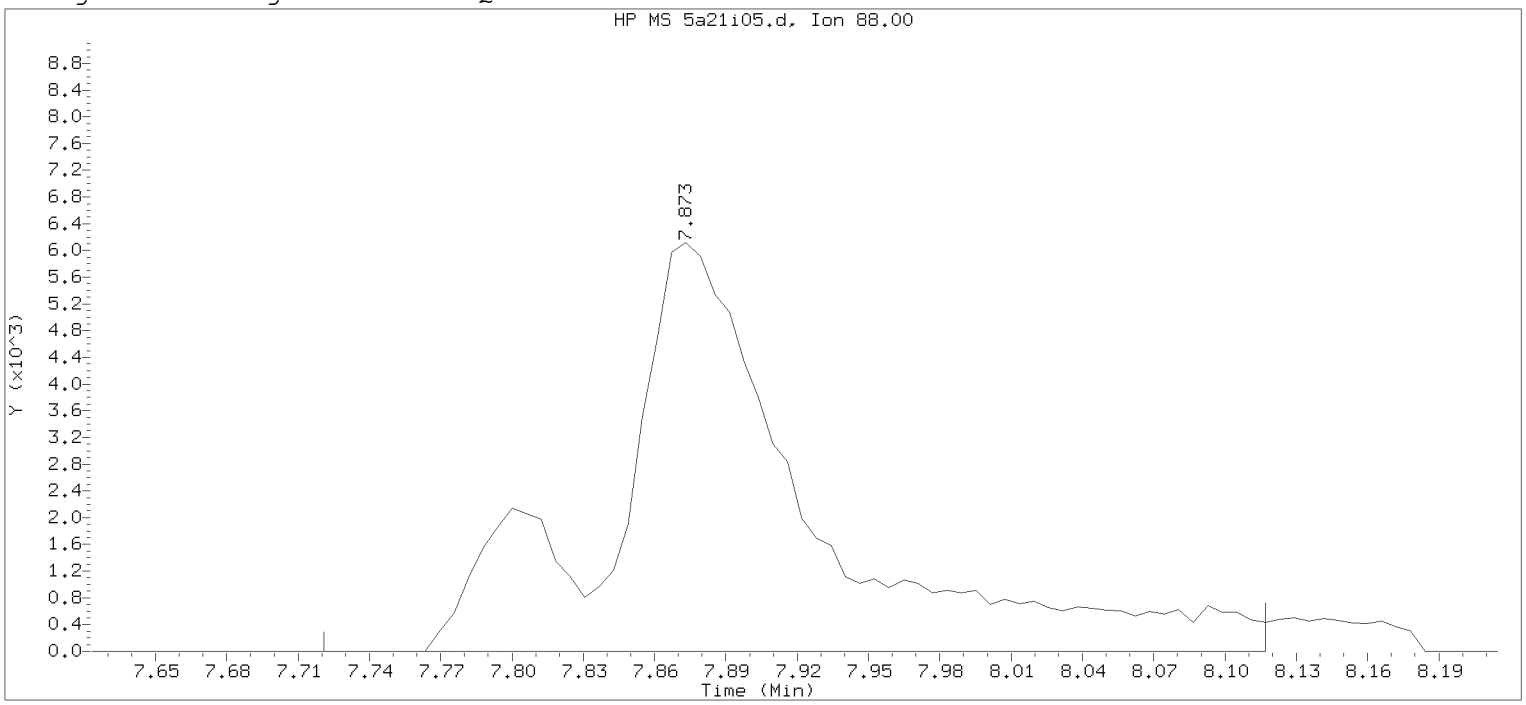
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

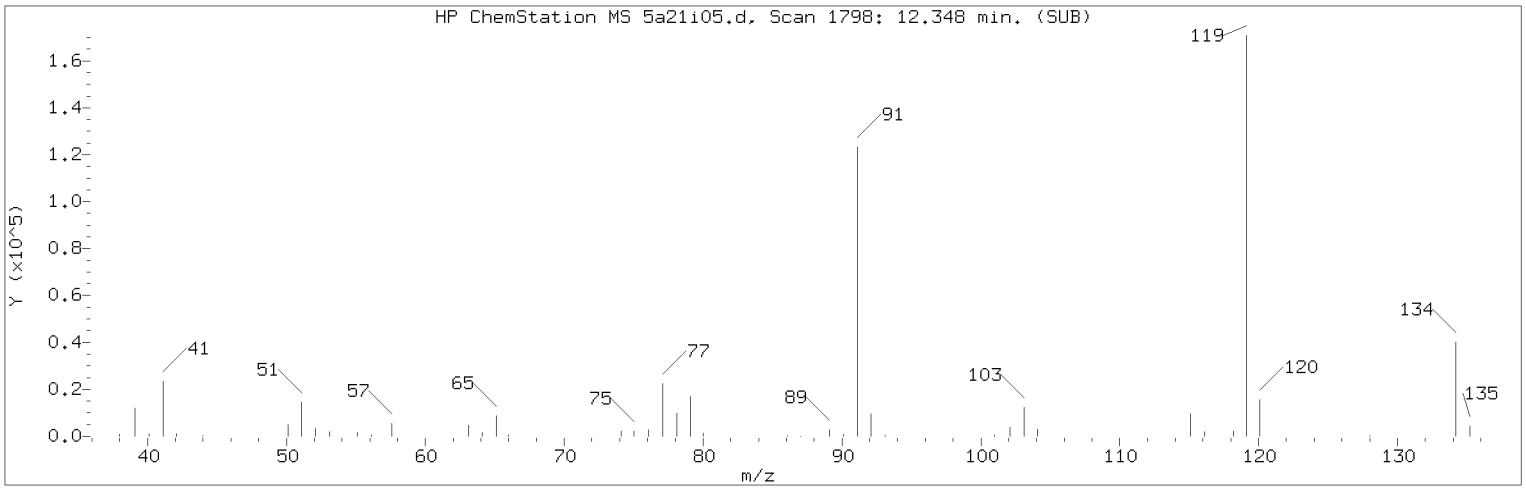
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

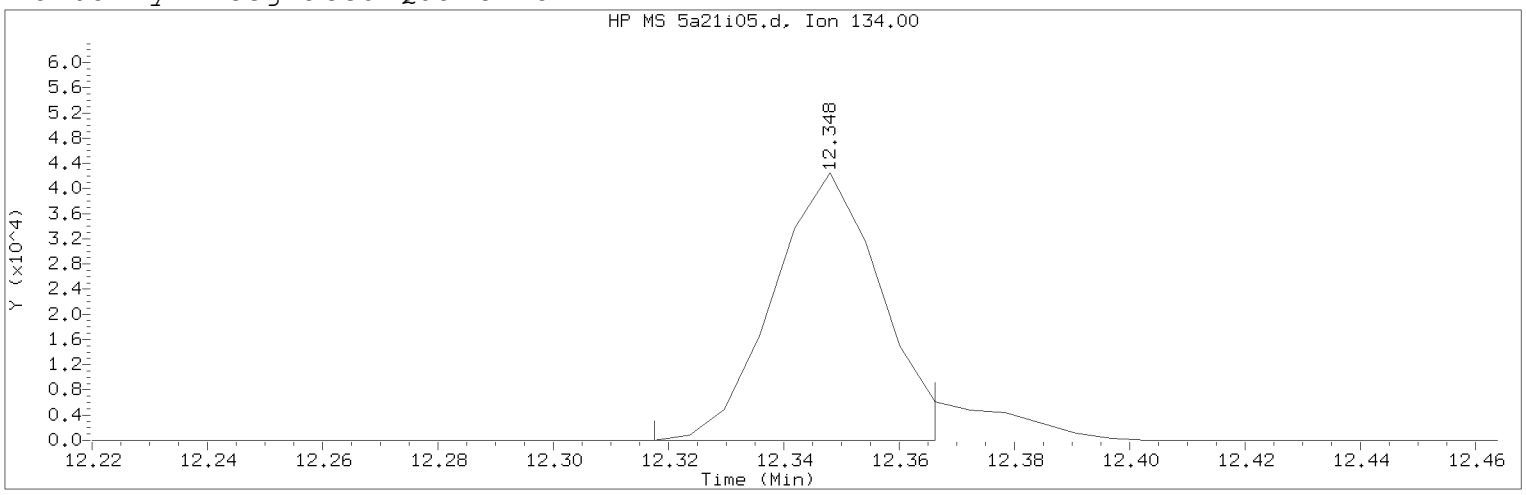
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 35370
On-column Amount (ng) : 236.7248
Integration start scan : 1038 Integration stop scan: 1103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

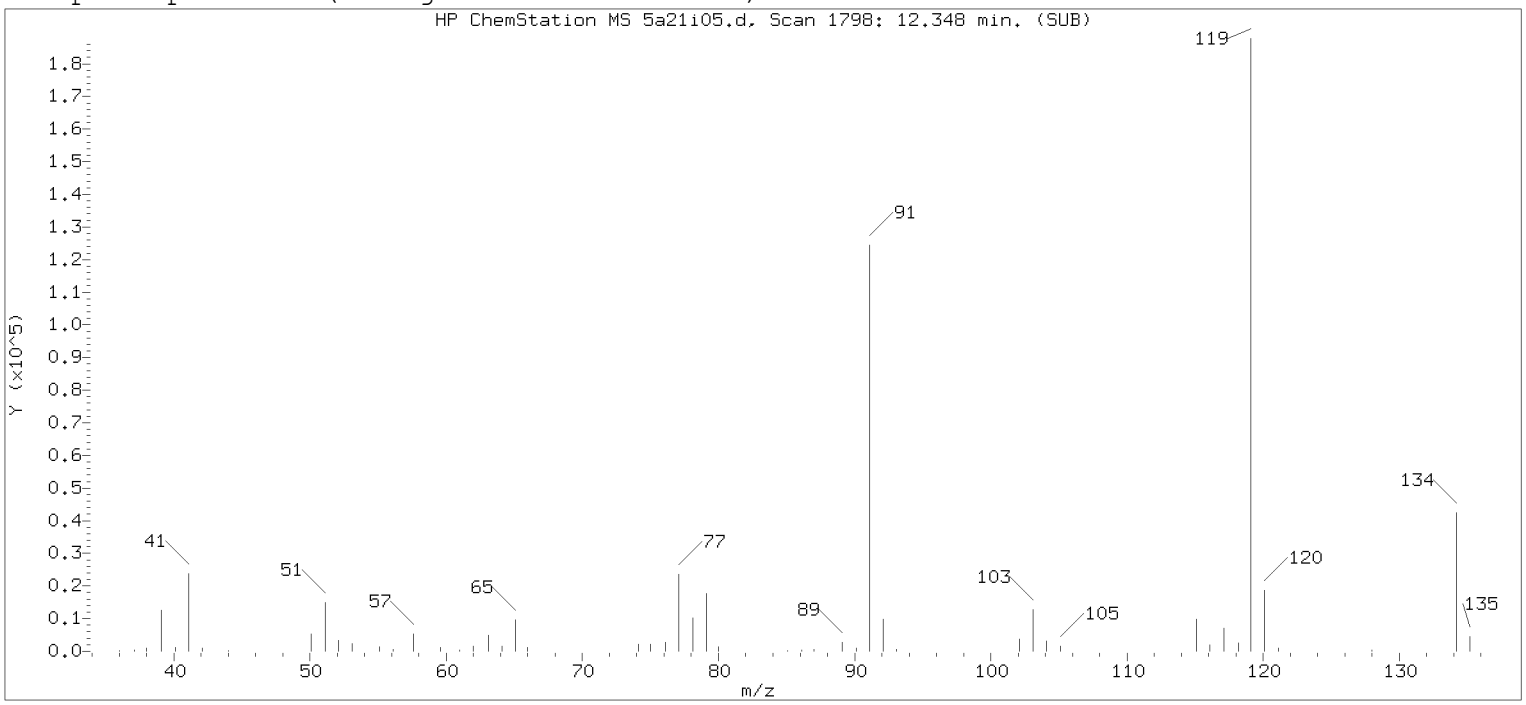
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 55294M
On-Column Amount (ng) : 9.9438
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

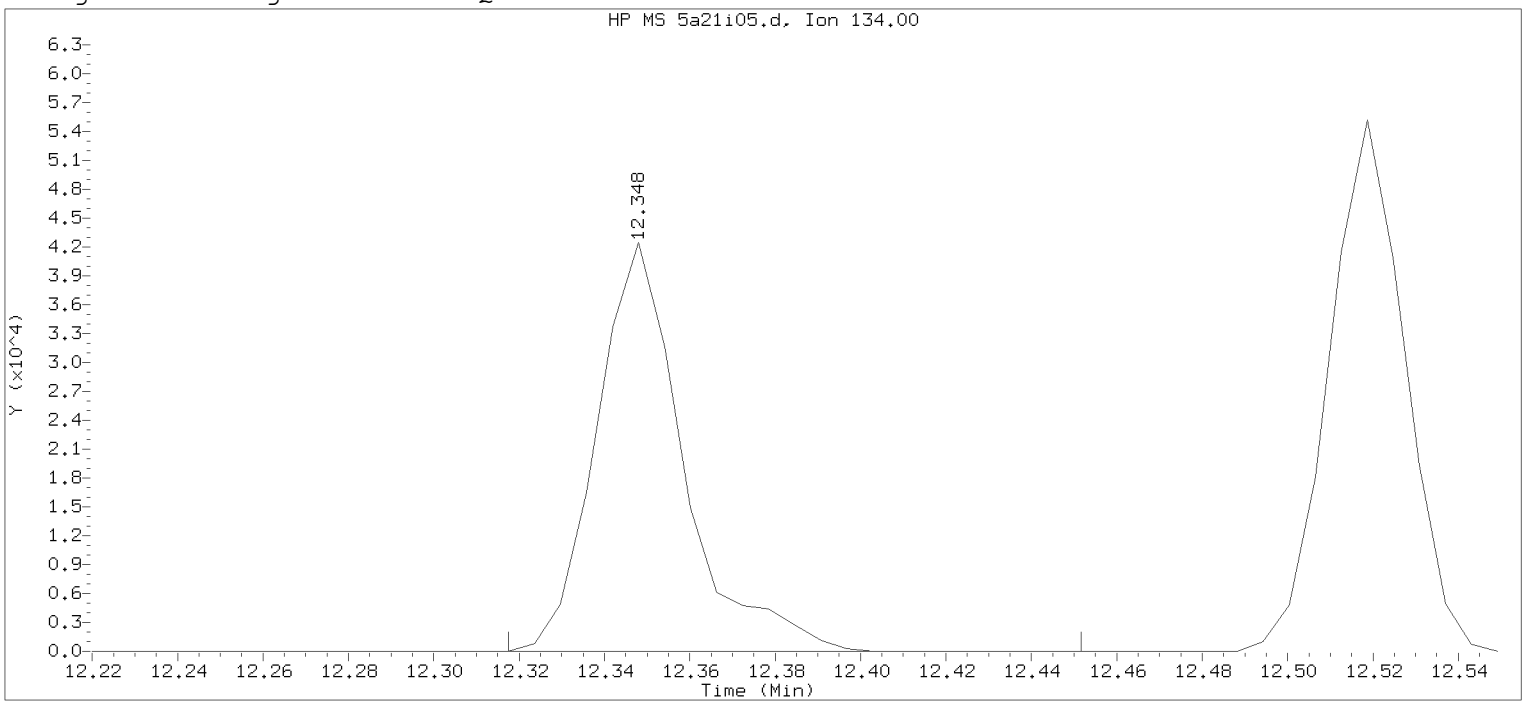
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



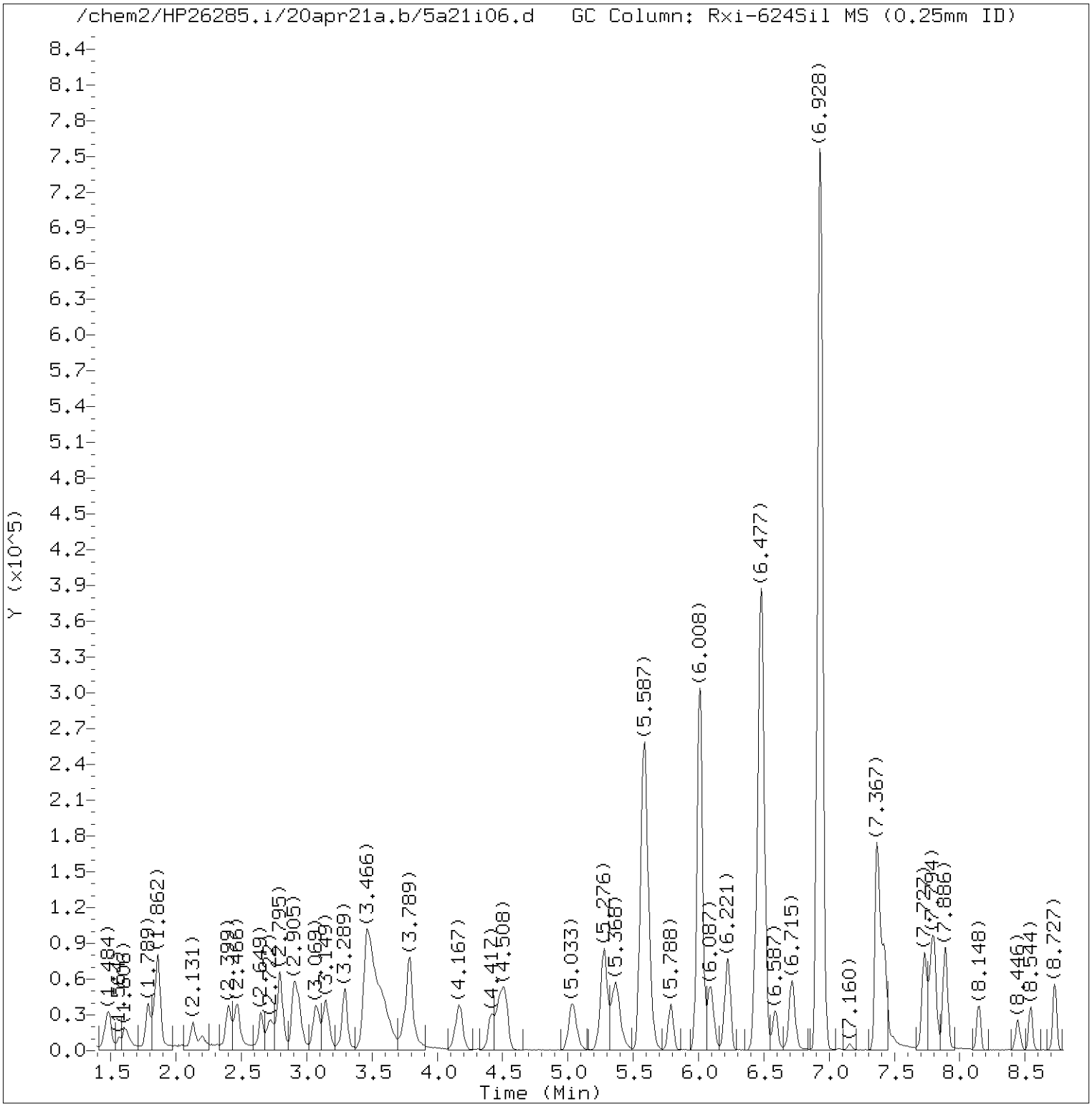
Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 60150
On-column Amount (ng) : 10.0705
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

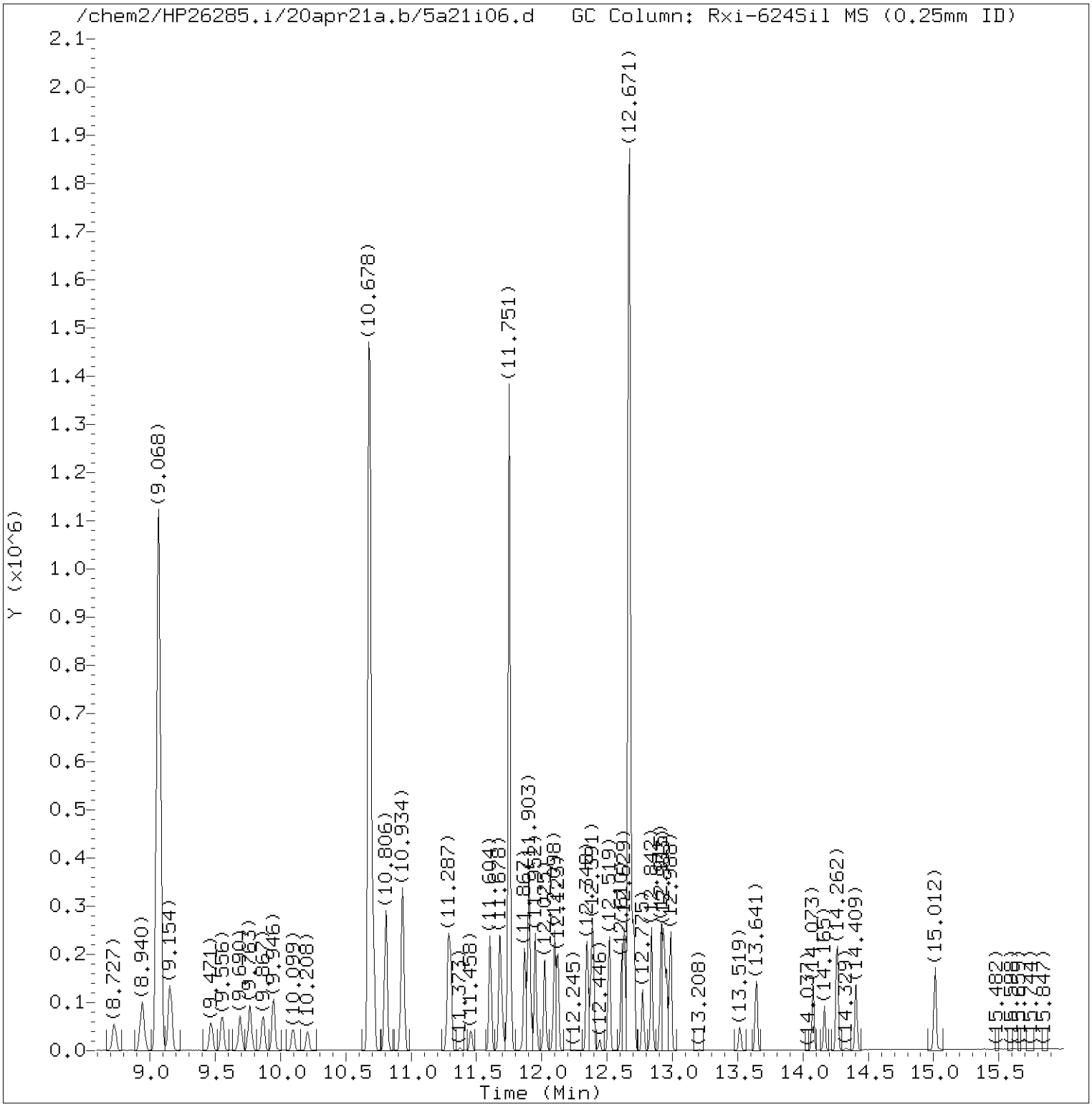
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.619	85	34476	4.213
4) Chloromethane	(2)	1.777	50	29941	4.580
5) 1,3-Butadiene	(2)	1.856	39	55604	6.162
6) Vinyl Chloride	(2)	1.868	62	24470	4.262
8) Bromomethane	(2)	2.131	94	16661	4.322
9) Chloroethane	(2)	2.198	64	11678	4.296
10) Dichlorofluoromethane	(2)	2.399	67	38057	4.296
12) Trichlorofluoromethane	(2)	2.442	101	30449	4.330
11) n-Pentane	(2)	2.472	43	29312	4.478
14) Ethyl ether	(2)	2.655	59	20997	4.331
15) Freon 123a	(2)	2.722	67	32224	4.390
16) Acrolein	(1)	2.801	56	93288	42.674
17) 1,1-Dichloroethene	(2)	2.899	96	23204	4.247
17) 1,1-Dichloroethene	(2)	2.899	63	12012	4.386
19) Freon 113	(2)	2.929	101	25378	4.103
18) Acetone	(1)	2.941	58	8714	8.082
22) Methyl Iodide	(2)	3.063	142	43602	4.185
21) 2-Propanol	(1)	3.082	45	68781	78.398
23) Carbon Disulfide	(2)	3.149	76	79286	4.125
27) Methyl Acetate	(2)	3.283	43	34676	4.402
25) Allyl Chloride	(2)	3.295	41	38956	4.259
28) Methylene Chloride	(2)	3.460	84	25742	4.180
29)*t-Butyl alcohol-d10	(1)	3.490	65	345244M	250.000
30) t-Butyl alcohol	(1)	3.588	59	130136	80.026
31) Acrylonitrile	(2)	3.740	53	16850	4.052
32) trans-1,2-Dichloroethene	(2)	3.789	96	25808	4.221
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	67965	4.203
34) n-Hexane	(2)	4.167	57	37512	4.138
36) 1,1-Dichloroethane	(2)	4.411	63	45897	4.147
38) di-Isopropyl ether	(2)	4.472	45	82225	4.160
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	38653	4.111
40) Ethyl t-butyl ether	(2)	5.033	59	74286	4.233
44) 2-Butanone	(2)	5.264	43	48644	8.038
42) cis-1,2-Dichloroethene	(2)	5.276	96	28807	4.166
45) 2,2-Dichloropropane	(2)	5.289	77	38728	4.147
47) Propionitrile	(1)	5.368	54	143140	80.859
48) Methacrylonitrile	(2)	5.587	67	168253	40.628
49) Bromochloromethane	(2)	5.618	128	13506	4.264

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	12997	8.123
51) Chloroform	(2)	5.788	83	46340	4.174
53) 1,1,1-Trichloroethane	(2)	6.002	97	41024	4.105
52)$Dibromofluoromethane	(2)	6.008	113	250494	49.767
52)$Dibromofluoromethane	(2)	6.014	111	257903	50.044
54) Cyclohexane	(2)	6.093	56	47020	4.039
54) Cyclohexane	(2)	6.093	84	39183	4.069
54) Cyclohexane	(2)	6.087	69	15033	4.164
43) 1,2-Dichloroethene (Total)	(2)		96	54615	8.387
56) Carbon Tetrachloride	(2)	6.215	117	34824	3.994
55) 1,1-Dichloropropene	(2)	6.227	75	37898	4.186
58) Isobutyl Alcohol	(1)	6.453	41	107038	197.470
57)$1,2-Dichloroethane-d4	(2)	6.477	102	56616	50.293
57)$1,2-Dichloroethane-d4	(2)	6.477	65	276097	50.164
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36268	50.316
60) Benzene	(2)	6.502	78	112819	4.191
61) 1,2-Dichloroethane	(2)	6.587	62	34225	4.139
61) 1,2-Dichloroethane	(2)	6.587	98	3083	4.409
65) t-Amyl methyl ether	(2)	6.715	73	74270	4.241
66)*Fluorobenzene	(2)	6.928	96	1010545	50.000
67) n-Heptane	(2)	6.953	43	36742	4.196
69) n-Butanol	(1)	7.367	56	181564	388.189
71) Trichloroethene	(2)	7.422	95	29188	4.131
73) Methylcyclohexane	(2)	7.727	83	47155	4.200
73) Methylcyclohexane	(2)	7.727	98	20305	4.272
74) 1,2-Dichloropropane	(2)	7.776	63	27684	4.108
76) 1,4-Dioxane	(1)	7.880	88	23612M	203.521
75) Dibromomethane	(2)	7.886	93	17306	4.078
77) Methyl Methacrylate	(2)	7.892	69	24521	3.889
79) Bromodichloromethane	(2)	8.148	83	31908	3.878
80) 2-Nitropropane	(2)	8.446	41	21269	7.463
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	20564	3.943
82) cis-1,3-Dichloropropene	(2)	8.727	75	40408	3.886
83) 4-Methyl-2-pentanone	(2)	8.940	43	92185	7.903
84)$Toluene-d8	(3)	9.068	98	968812	50.385
84)$Toluene-d8	(3)	9.068	100	635718	50.212
89) Toluene	(3)	9.154	92	71824	4.236
90) trans-1,3-Dichloropropene	(3)	9.465	75	34689	3.813

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	39991	3.866
93) 1,1,2-Trichloroethane	(3)	9.690	97	24859	4.101
94) Tetrachloroethene	(3)	9.763	166	30292	4.212
95) 1,3-Dichloropropane	(3)	9.867	76	41190	4.093
97) 2-Hexanone	(3)	9.946	43	70525	7.829
91) 1,3-Dichloropropene (total)	(3)		100	75097	7.699
98) Dibromochloromethane	(3)	10.093	129	24227	3.777
100) 1,2-Dibromoethane	(3)	10.208	107	26686	3.994
101)*Chlorobenzene-d5	(3)	10.678	117	782414	50.000
103) Chlorobenzene	(3)	10.708	112	77695	4.222
102) 1-Chlorohexane	(3)	10.708	91	41072	4.165
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	25538	4.023
105) Ethylbenzene	(3)	10.812	91	137287	4.188
107) m+p-Xylene	(3)	10.934	106	106522	8.469
108) o-Xylene	(3)	11.281	106	51224	4.161
110) Styrene	(3)	11.300	104	79480	4.006
111) Bromoform	(3)	11.458	173	16572	3.571
112) Isopropylbenzene	(3)	11.604	105	135714	4.201
113) Cyclohexanone	(1)	11.678	55	104529	196.153
115)$4-Bromofluorobenzene	(3)	11.751	95	399475	49.308
115)$4-Bromofluorobenzene	(3)	11.751	174	315416	49.907
109) Xylene (Total)	(3)		106	157746	12.630
116) Bromobenzene	(4)	11.867	156	31836	4.175
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	43128	4.168
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	55180	37.271
118) 1,2,3-Trichloropropane	(4)	11.915	110	12625	4.144
120) n-Propylbenzene	(4)	11.952	91	160284	4.276
121) 2-Chlorotoluene	(4)	12.025	126	31984	4.162
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	109570	4.158
122) 4-Chlorotoluene	(4)	12.123	126	32100	4.135
125) tert-Butylbenzene	(4)	12.348	134	21537M	4.112
126) Pentachloroethane	(4)	12.379	167	17264	4.015
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	112369	4.141
128) sec-Butylbenzene	(4)	12.519	105	139030	4.255
130) 1,3-Dichlorobenzene	(4)	12.610	146	60272	4.202
131) p-Isopropyltoluene	(4)	12.629	119	114197	4.191
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	399968	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	60798	4.177

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	112388	4.314
136) Benzyl Chloride	(4)	12.775	91	72151	3.635
137) 1,3-Diethylbenzene	(4)	12.842	119	67279	4.273
138) 1,4-Diethylbenzene	(4)	12.915	119	70931	4.356
140) n-Butylbenzene	(4)	12.933	92	57583	4.190
139) 1,2-Dichlorobenzene	(4)	12.958	146	57262	4.156
141) 1,2-Diethylbenzene	(4)	12.988	119	57341	4.307
142) Diethylbenzene (total)	(4)		100	195551	12.936
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	9836	3.765
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	36830	4.047
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	35023	4.097
148) Hexachlorobutadiene	(4)	14.165	225	13270	4.036
149) Naphthalene	(4)	14.262	128	138750	4.099
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	34713	4.103
151) 2-Methylnaphthalene	(4)	15.012	142	67881	3.859

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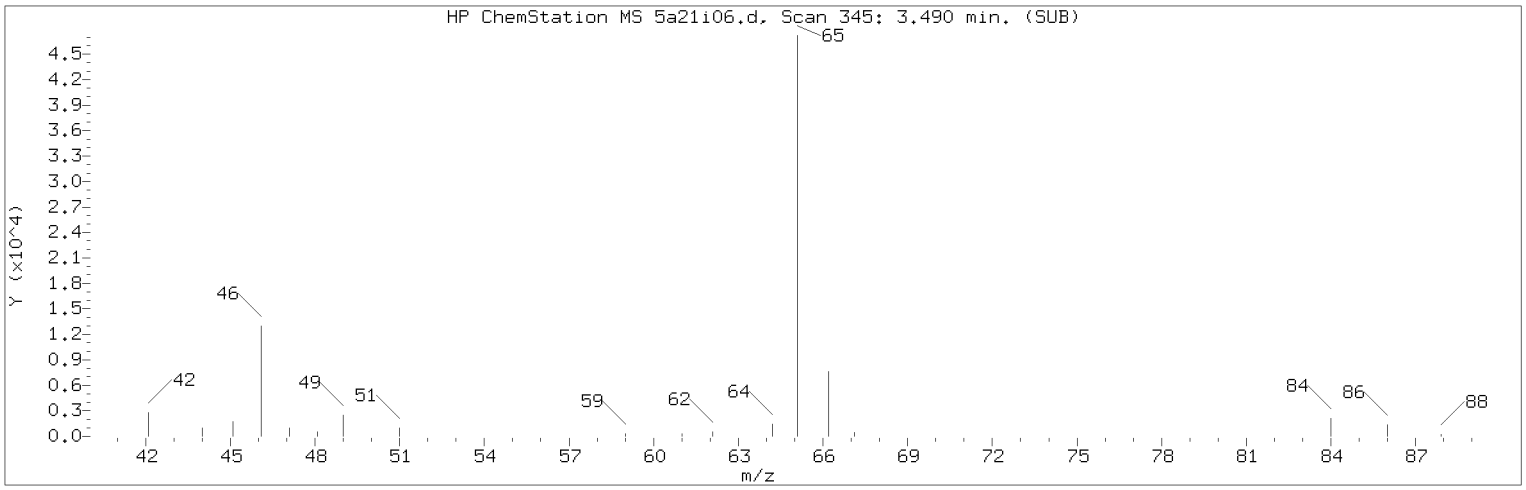
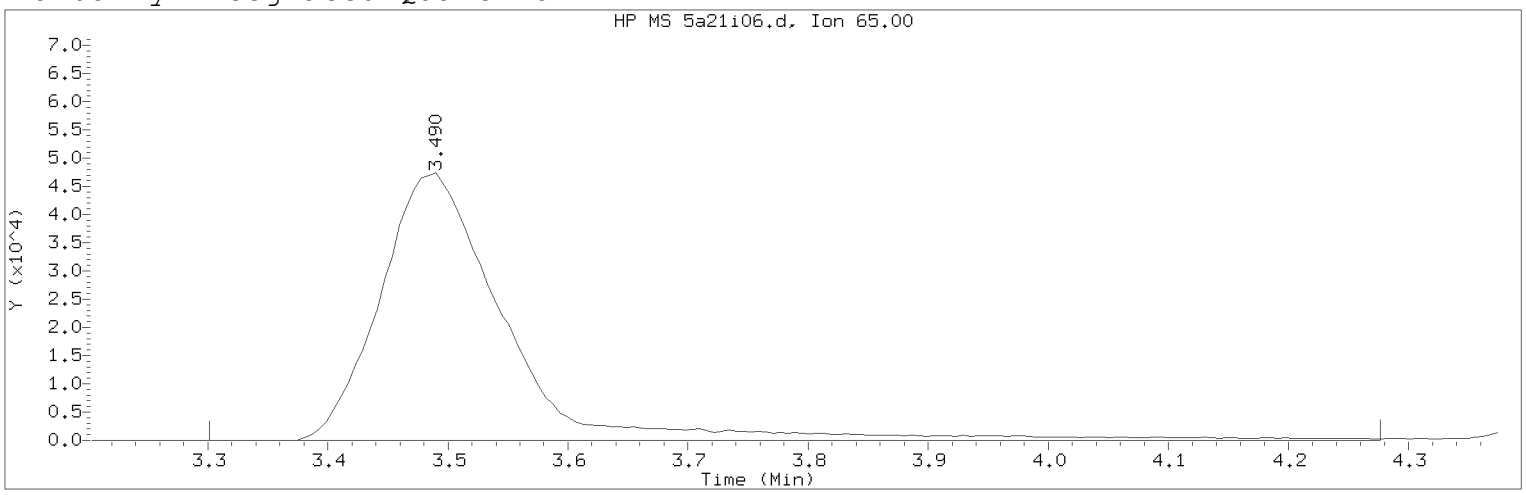
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

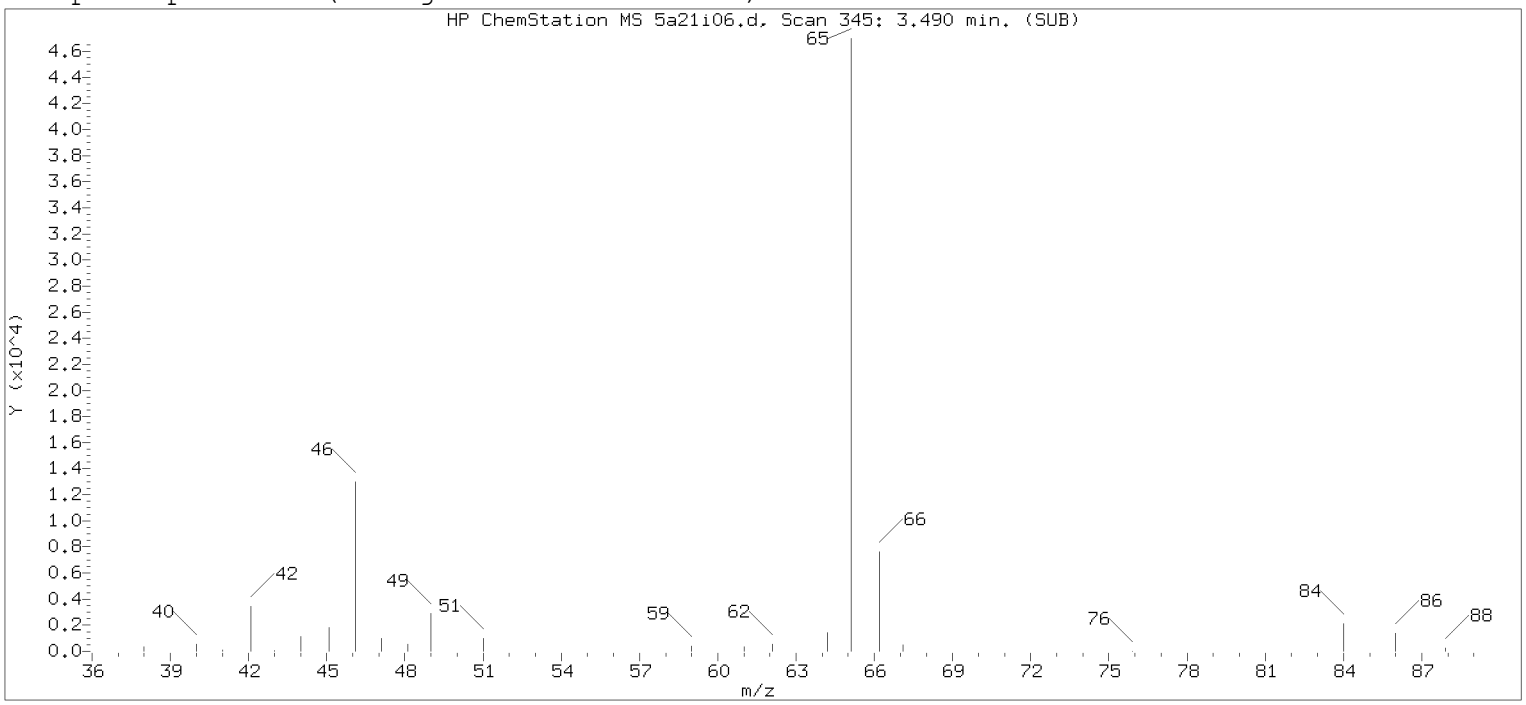
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 345244M
On-Column Amount (ng) : 250.0000
Integration start scan : 313 Integration stop scan: 473
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

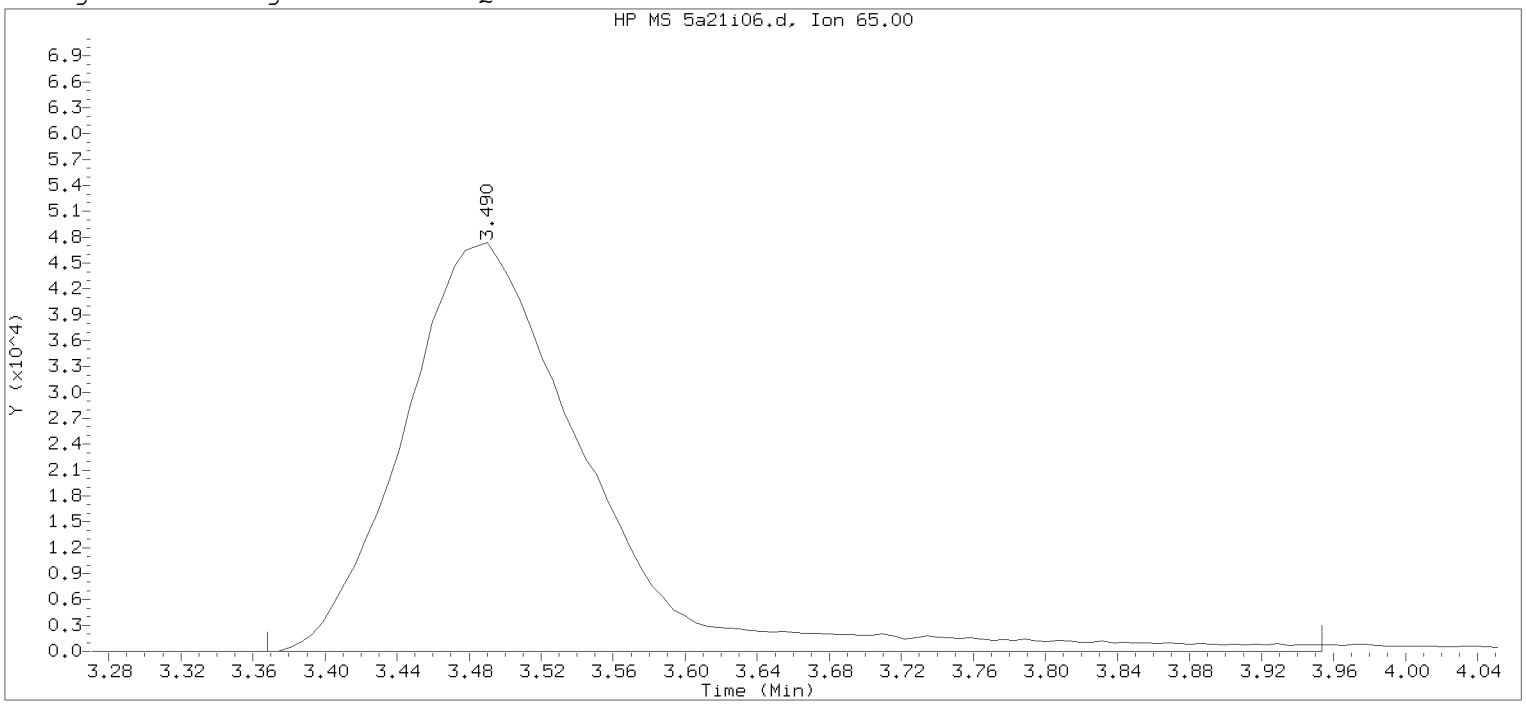
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

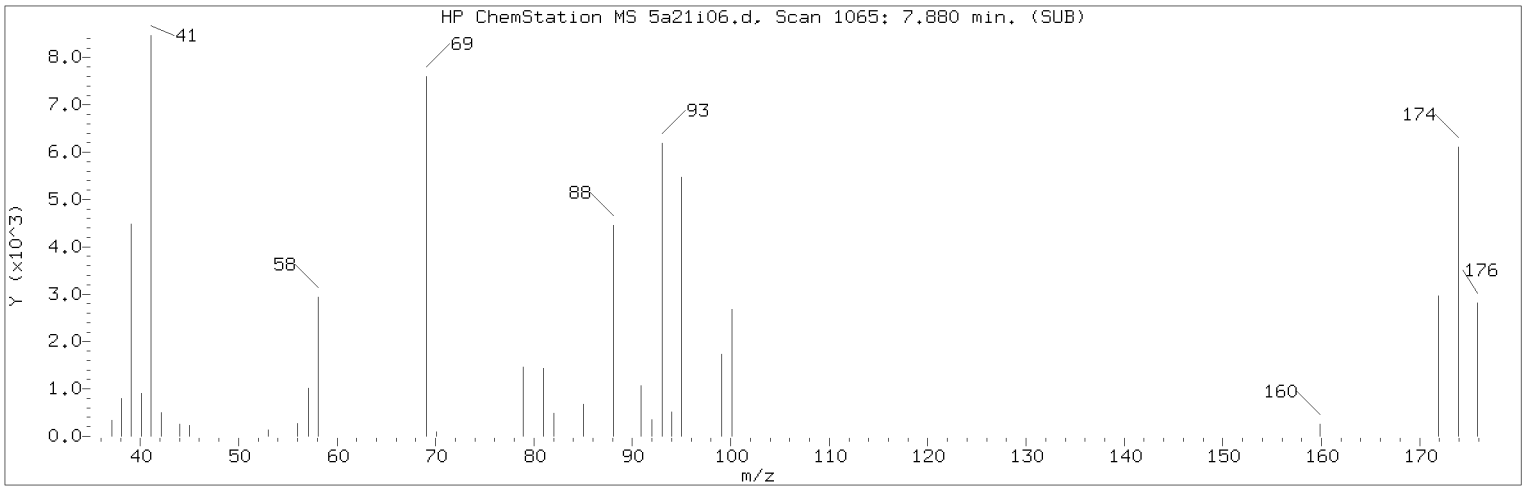
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

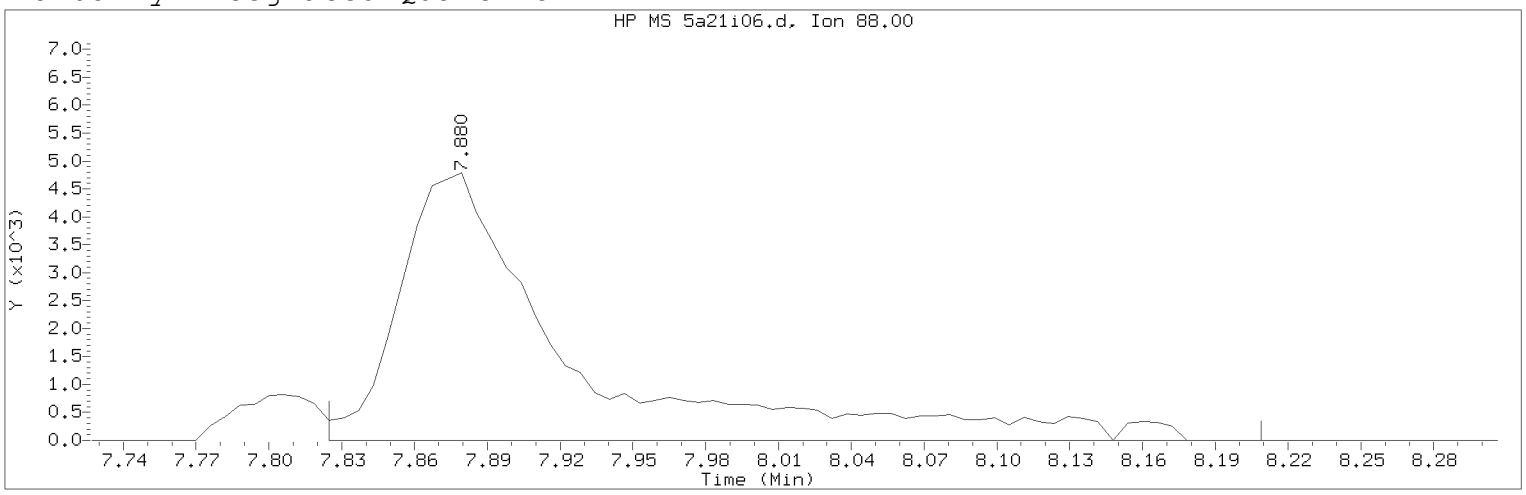
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 335904
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

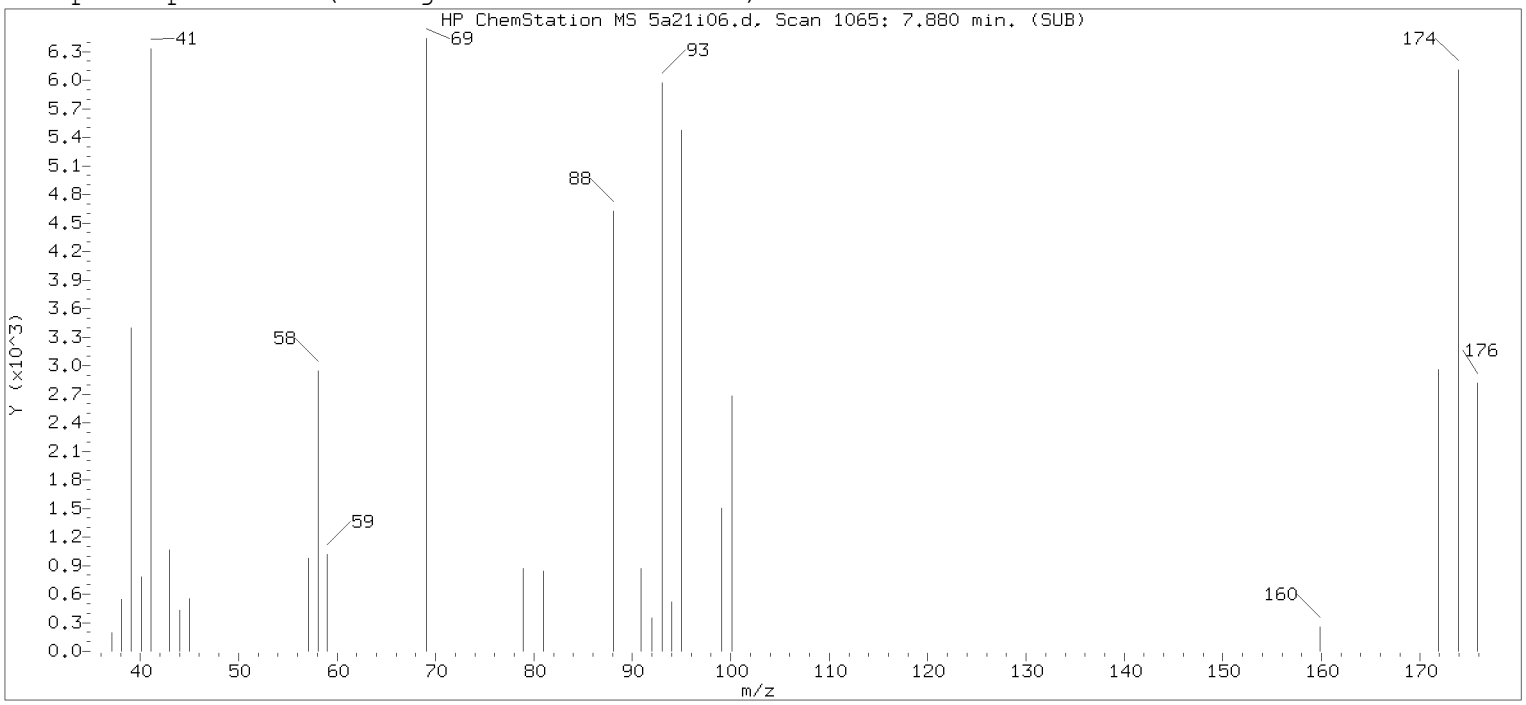
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area (flag) : 23612M
On-Column Amount (ng) : 203.5210
Integration start scan : 1055 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

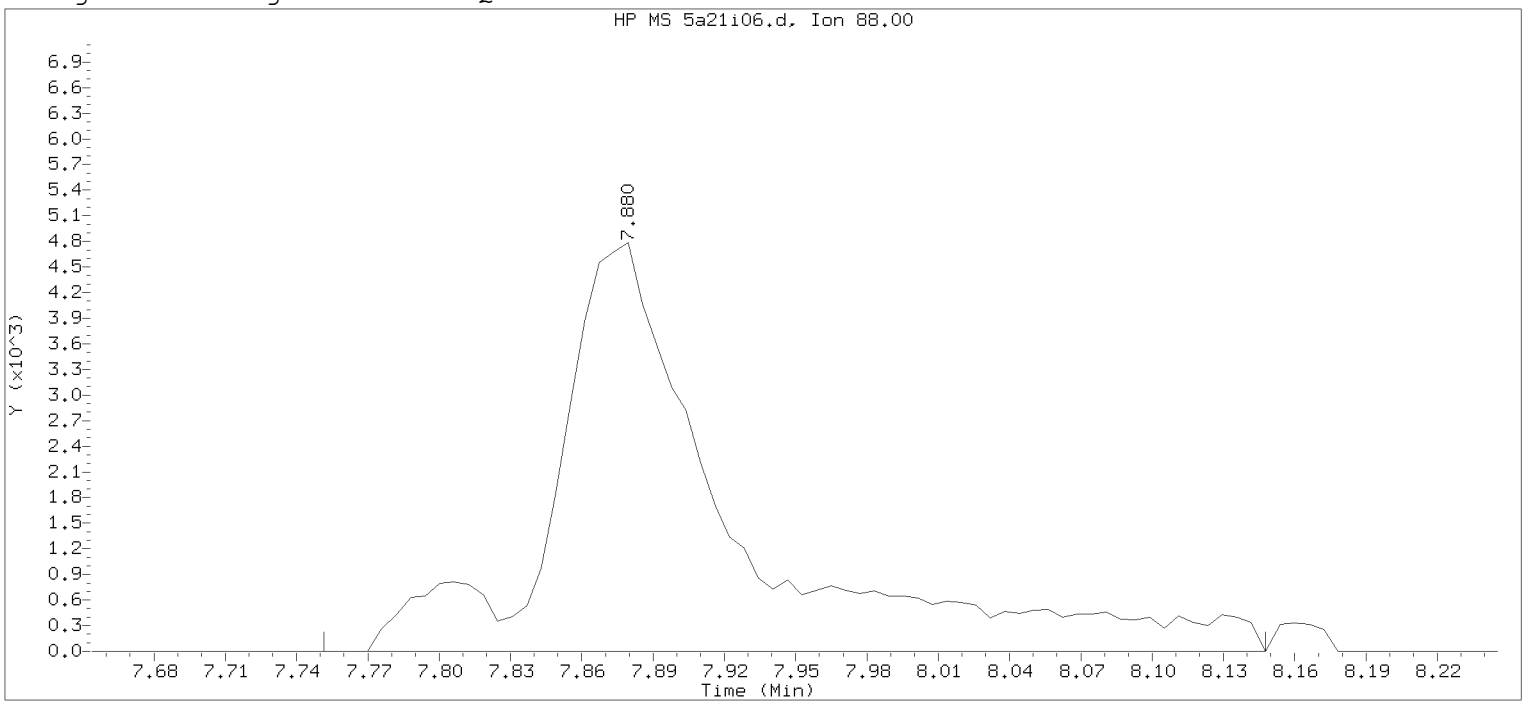
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

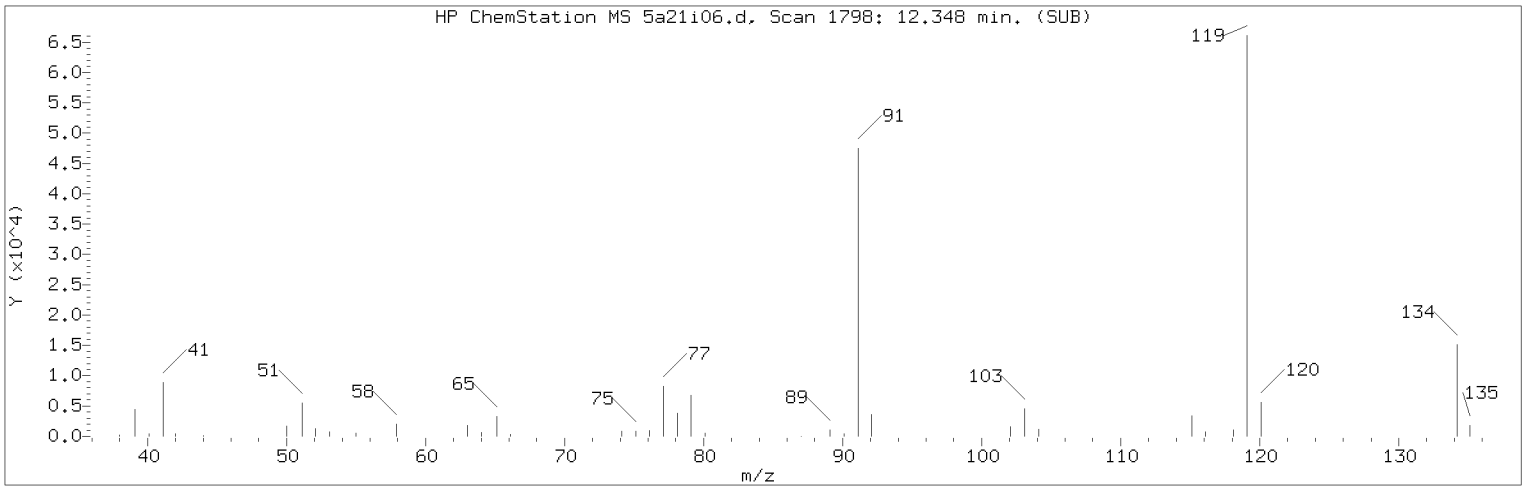
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

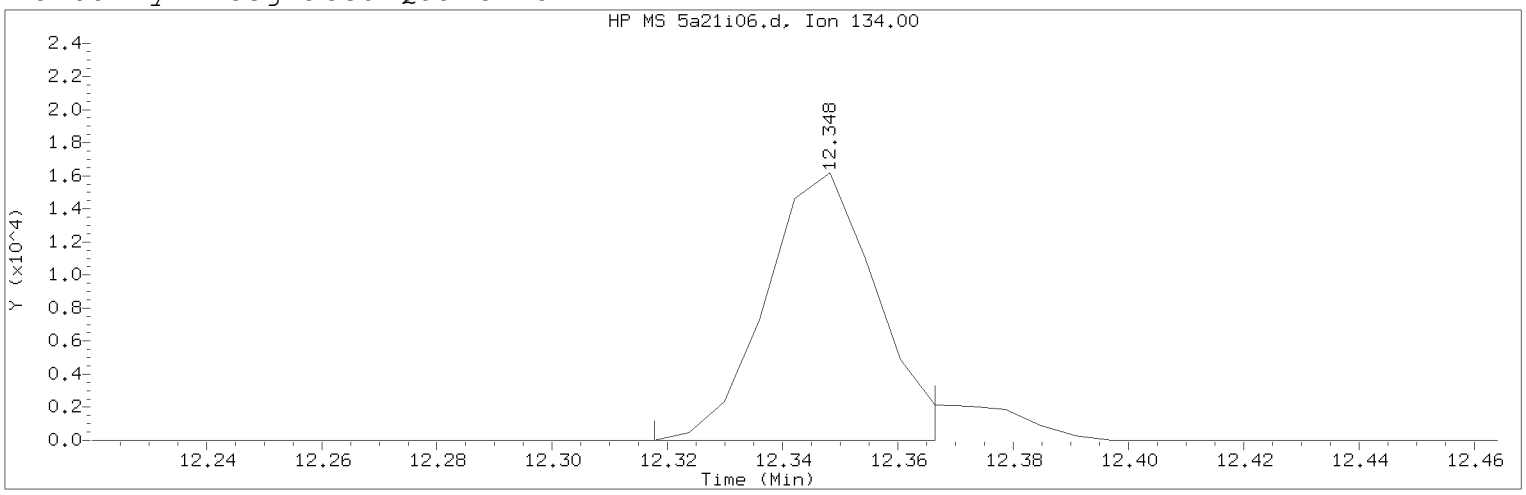
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area : 25003
On-column Amount (ng) : 181.7905
Integration start scan : 1043 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

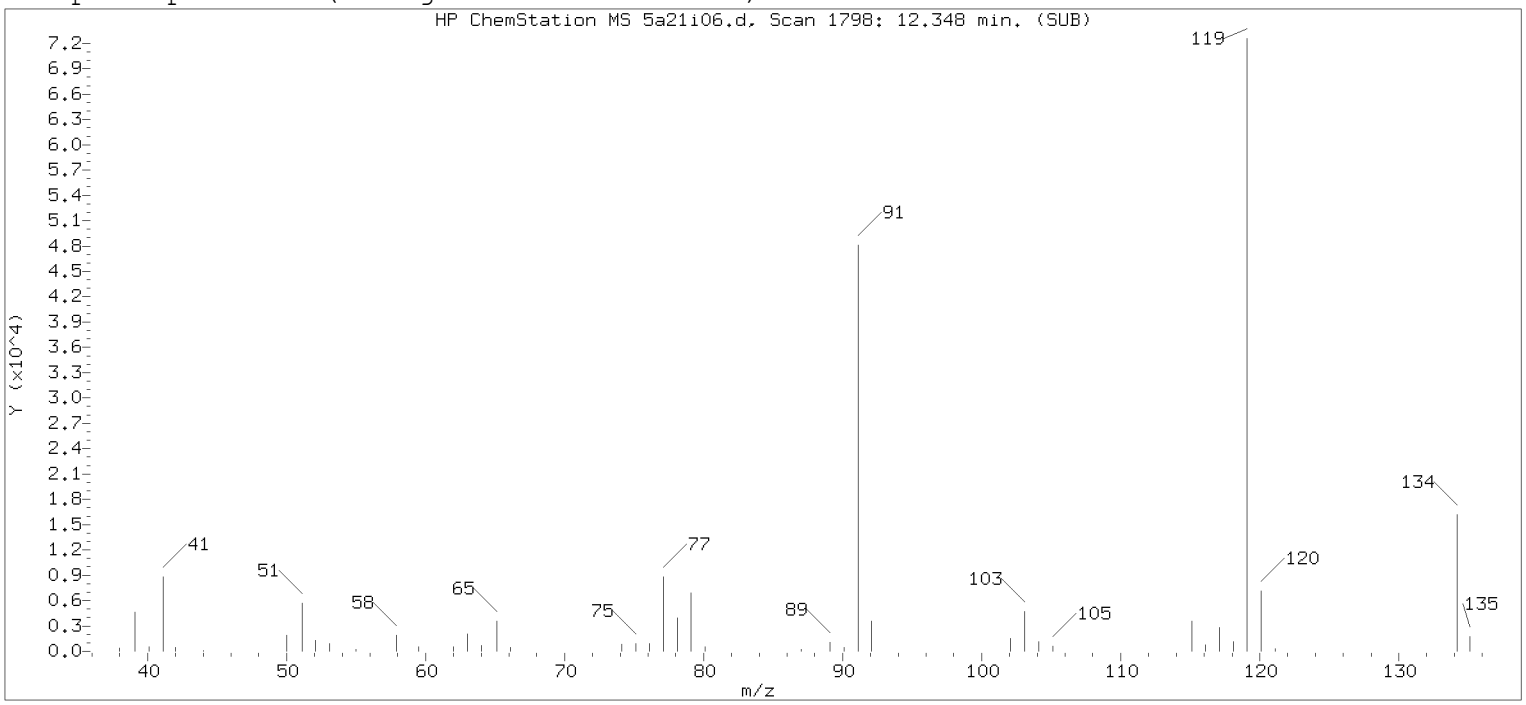
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 21537M
On-Column Amount (ng) : 4.1121
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

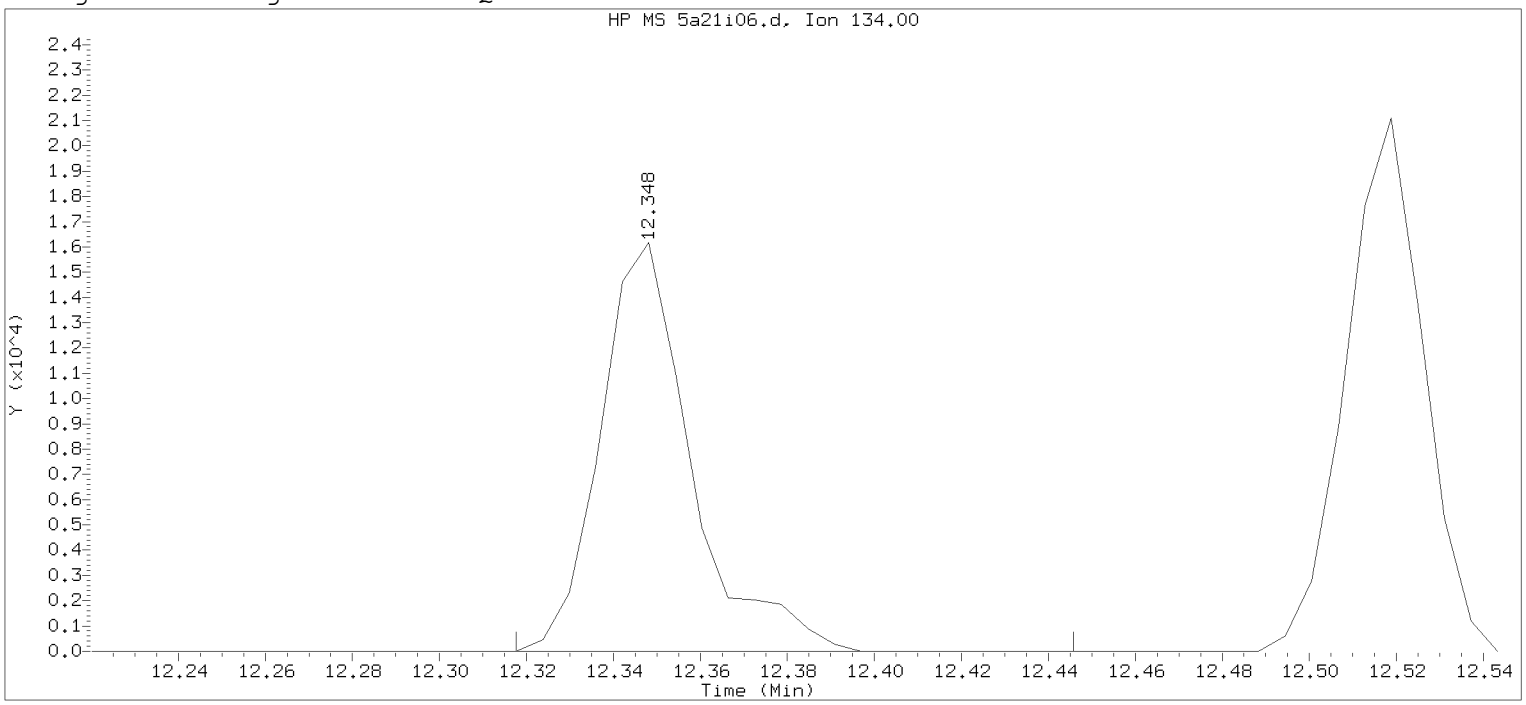
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



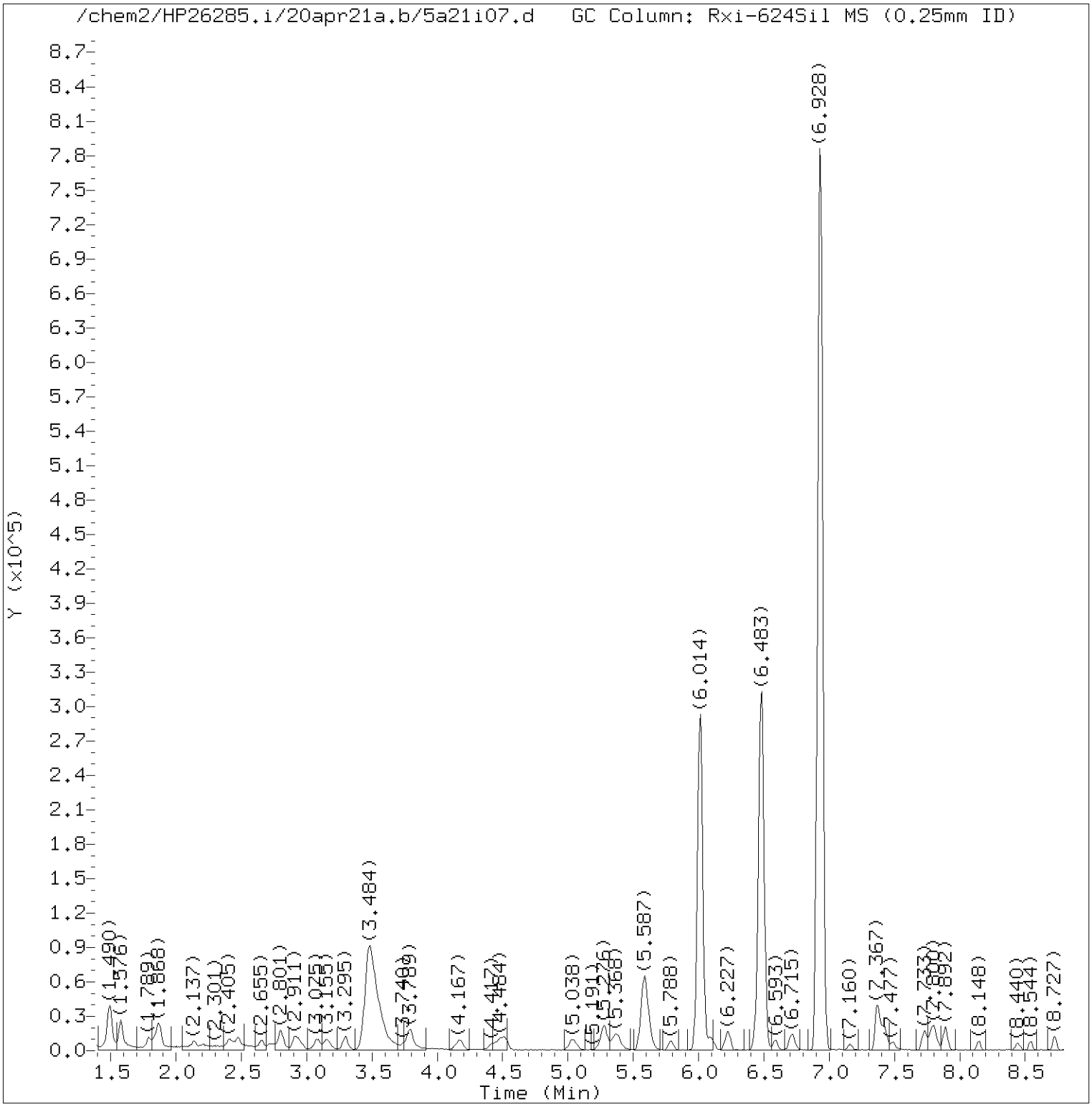
Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 23385
On-column Amount (ng) : 4.1298
Integration start scan : 1792 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

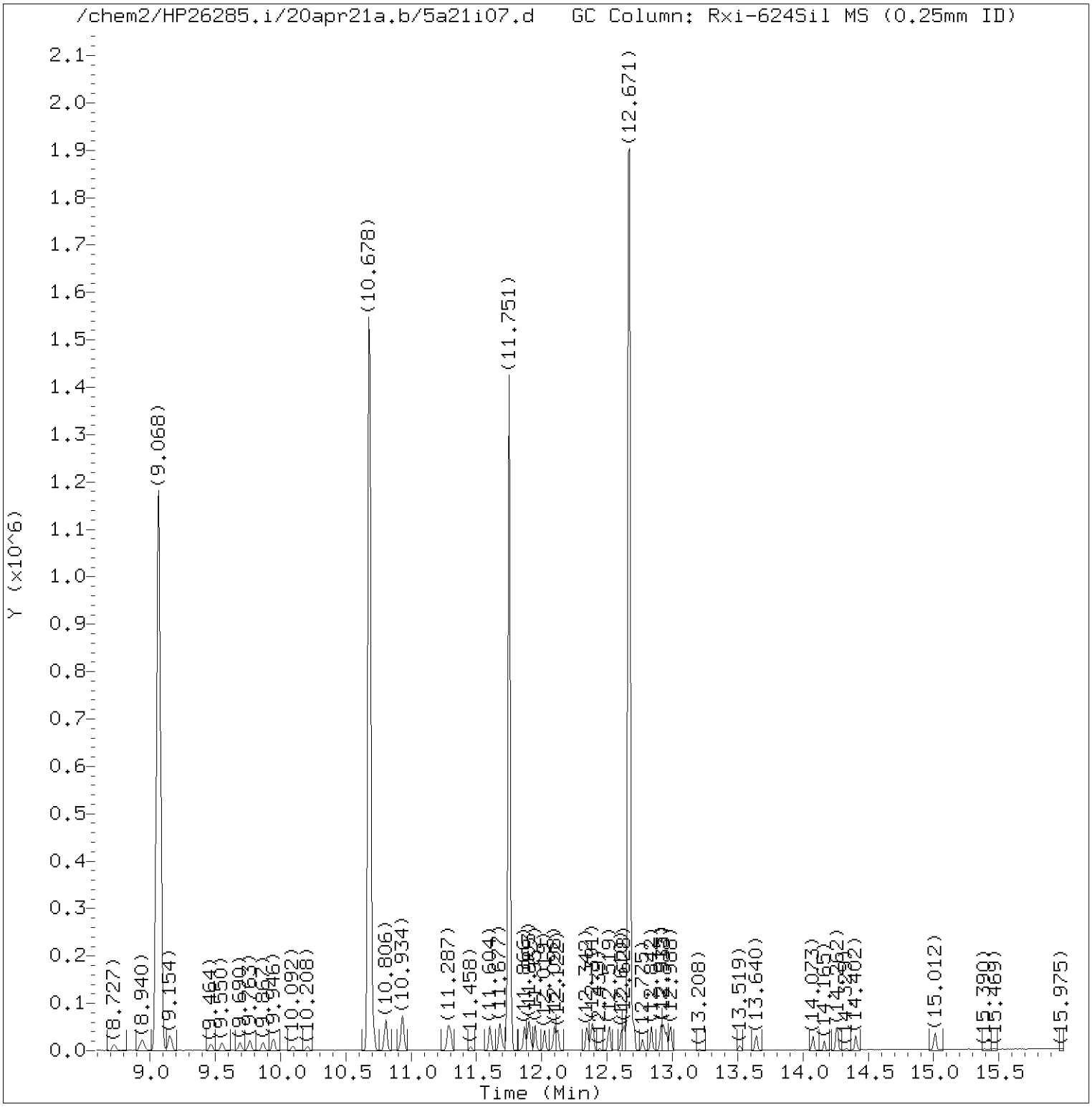
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	6939	0.803
4) Chloromethane	(2)	1.789	50	6579M	0.953
5) 1,3-Butadiene	(2)	1.868	39	16377	1.718
6) Vinyl Chloride	(2)	1.874	62	5527	0.911
8) Bromomethane	(2)	2.137	94	3884	0.954
9) Chloroethane	(2)	2.204	64	2509	0.874
10) Dichlorofluoromethane	(2)	2.411	67	9178	0.981
12) Trichlorofluoromethane	(2)	2.448	101	6287	0.846
11) n-Pentane	(2)	2.478	43	8231	1.190
14) Ethyl ether	(2)	2.655	59	4749	0.927
15) Freon 123a	(2)	2.734	67	7167	0.924
16) Acrolein	(1)	2.801	56	23824	10.408
17) 1,1-Dichloroethene	(2)	2.911	96	5107	0.885
17) 1,1-Dichloroethene	(2)	2.905	63	2264	0.783
19) Freon 113	(2)	2.923	101	5289	0.810
18) Acetone	(1)	2.947	58	1867	1.654
22) Methyl Iodide	(2)	3.075	142	9768	0.888
21) 2-Propanol	(1)	3.088	45	17481	19.028
23) Carbon Disulfide	(2)	3.149	76	18507M	0.912
27) Methyl Acetate	(2)	3.283	43	8546	1.027
25) Allyl Chloride	(2)	3.301	41	8694M	0.900
28) Methylene Chloride	(2)	3.460	84	5897	0.906
29)*t-Butyl alcohol-d10	(1)	3.484	65	361518M	250.000
30) t-Butyl alcohol	(1)	3.600	59	32314M	18.977
31) Acrylonitrile	(2)	3.740	53	3824	0.871
32) trans-1,2-Dichloroethene	(2)	3.789	96	5821	0.901
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	15820M	0.926
34) n-Hexane	(2)	4.179	57	8105	0.846
36) 1,1-Dichloroethane	(2)	4.417	63	10392	0.889
38) di-Isopropyl ether	(2)	4.478	45	19628	0.940
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	8217	0.827
40) Ethyl t-butyl ether	(2)	5.038	59	17658	0.953
44) 2-Butanone	(2)	5.270	43	12857	2.011
42) cis-1,2-Dichloroethene	(2)	5.276	96	6566	0.899
45) 2,2-Dichloropropane	(2)	5.282	77	8837	0.896
47) Propionitrile	(1)	5.368	54	34573	18.651
48) Methacrylonitrile	(2)	5.587	67	40726	9.310
49) Bromochloromethane	(2)	5.618	128	3030	0.906

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	3069	1.832
51) Chloroform	(2)	5.788	83	10429	0.889
53) 1,1,1-Trichloroethane	(2)	6.002	97	8963	0.849
52)$Dibromofluoromethane	(2)	6.014	113	263595	49.579
52)$Dibromofluoromethane	(2)	6.014	111	271166	49.814
54) Cyclohexane	(2)	6.087	56	10506	0.854
54) Cyclohexane	(2)	6.093	84	8610	0.847
54) Cyclohexane	(2)	6.087	69	3054	0.801
43) 1,2-Dichloroethene (Total)	(2)		96	12387	1.800
56) Carbon Tetrachloride	(2)	6.215	117	7571	0.822
55) 1,1-Dichloropropene	(2)	6.227	75	8354	0.874
58) Isobutyl Alcohol	(1)	6.453	41	26237M	46.225
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59481	50.022
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291006	50.056
57)$1,2-Dichloroethane-d4	(2)	6.483	104	38189	50.158
60) Benzene	(2)	6.502	78	25751	0.906
61) 1,2-Dichloroethane	(2)	6.587	62	9219	1.056
61) 1,2-Dichloroethane	(2)	6.587	98	434	0.588
65) t-Amyl methyl ether	(2)	6.721	73	17424	0.942
66)*Fluorobenzene	(2)	6.928	96	1067423	50.000
67) n-Heptane	(2)	6.953	43	8854	0.957
69) n-Butanol	(1)	7.367	56	41924	85.600
71) Trichloroethene	(2)	7.422	95	6720	0.901
73) Methylcyclohexane	(2)	7.727	83	10354	0.873
73) Methylcyclohexane	(2)	7.733	98	4274	0.851
74) 1,2-Dichloropropane	(2)	7.770	63	6360	0.893
76) 1,4-Dioxane	(1)	7.879	88	4070	33.502
77) Methyl Methacrylate	(2)	7.892	69	5680	0.853
75) Dibromomethane	(2)	7.892	93	3930	0.877
79) Bromodichloromethane	(2)	8.148	83	7143	0.822
80) 2-Nitropropane	(2)	8.440	41	5190	1.724
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	4703	0.854
82) cis-1,3-Dichloropropene	(2)	8.727	75	8961	0.816
83) 4-Methyl-2-pentanone	(2)	8.940	43	21641	1.756
84)$Toluene-d8	(3)	9.068	98	1019435	50.910
84)$Toluene-d8	(3)	9.068	100	669873	50.807
89) Toluene	(3)	9.154	92	16283	0.922
90) trans-1,3-Dichloropropene	(3)	9.471	75	7617	0.804

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	9087	0.844
93) 1,1,2-Trichloroethane	(3)	9.690	97	5773	0.915
94) Tetrachloroethene	(3)	9.763	166	6696	0.894
95) 1,3-Dichloropropane	(3)	9.867	76	9729	0.928
97) 2-Hexanone	(3)	9.946	43	16333	1.741
91) 1,3-Dichloropropene (total)	(3)		100	16578	1.620
98) Dibromochloromethane	(3)	10.098	129	5234	0.784
100) 1,2-Dibromoethane	(3)	10.208	107	6141	0.882
101)*Chlorobenzene-d5	(3)	10.678	117	814804	50.000
103) Chlorobenzene	(3)	10.708	112	18102	0.945
102) 1-Chlorohexane	(3)	10.708	91	10207	0.994
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	5579	0.844
105) Ethylbenzene	(3)	10.806	91	30747	0.901
107) m+p-Xylene	(3)	10.934	106	24189	1.847
108) o-Xylene	(3)	11.281	106	11654	0.909
110) Styrene	(3)	11.299	104	16925	0.819
111) Bromoform	(3)	11.458	173	3302	0.683
112) Isopropylbenzene	(3)	11.604	105	30197	0.898
113) Cyclohexanone	(1)	11.677	55	24191M	43.352
115)$4-Bromofluorobenzene	(3)	11.751	95	419145	49.679
115)$4-Bromofluorobenzene	(3)	11.751	174	328326	49.885
109) Xylene (Total)	(3)		106	35843	2.756
116) Bromobenzene	(4)	11.866	156	7456	0.929
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	9543	0.876
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	9462	17.513
118) 1,2,3-Trichloropropane	(4)	11.915	110	3041	0.949
120) n-Propylbenzene	(4)	11.952	91	34829	0.883
121) 2-Chlorotoluene	(4)	12.025	126	7317	0.905
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	24086	0.869
122) 4-Chlorotoluene	(4)	12.122	126	7265	0.889
125) tert-Butylbenzene	(4)	12.348	134	4987M	0.905
126) Pentachloroethane	(4)	12.372	167	3489	0.771
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	24828	0.869
128) sec-Butylbenzene	(4)	12.519	105	30653	0.892
130) 1,3-Dichlorobenzene	(4)	12.610	146	14042	0.930
131) p-Isopropyltoluene	(4)	12.628	119	24633	0.859
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	420878	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	14739	0.962

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	24915	0.909
136) Benzyl Chloride	(4)	12.775	91	14578	0.698
137) 1,3-Diethylbenzene	(4)	12.842	119	14145	0.854
138) 1,4-Diethylbenzene	(4)	12.915	119	14603	0.852
140) n-Butylbenzene	(4)	12.933	92	12995M	0.899
139) 1,2-Dichlorobenzene	(4)	12.958	146	13657	0.942
141) 1,2-Diethylbenzene	(4)	12.988	119	12587	0.898
142) Diethylbenzene (total)	(4)		100	41335	2.604
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	2182	0.794
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	8922	0.932
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	8146	0.906
148) Hexachlorobutadiene	(4)	14.165	225	3137	0.907
149) Naphthalene	(4)	14.262	128	32106	0.901
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	8253	0.927
151) 2-Methylnaphthalene	(4)	15.012	142	14971	0.809

M = Compound was manually integrated.

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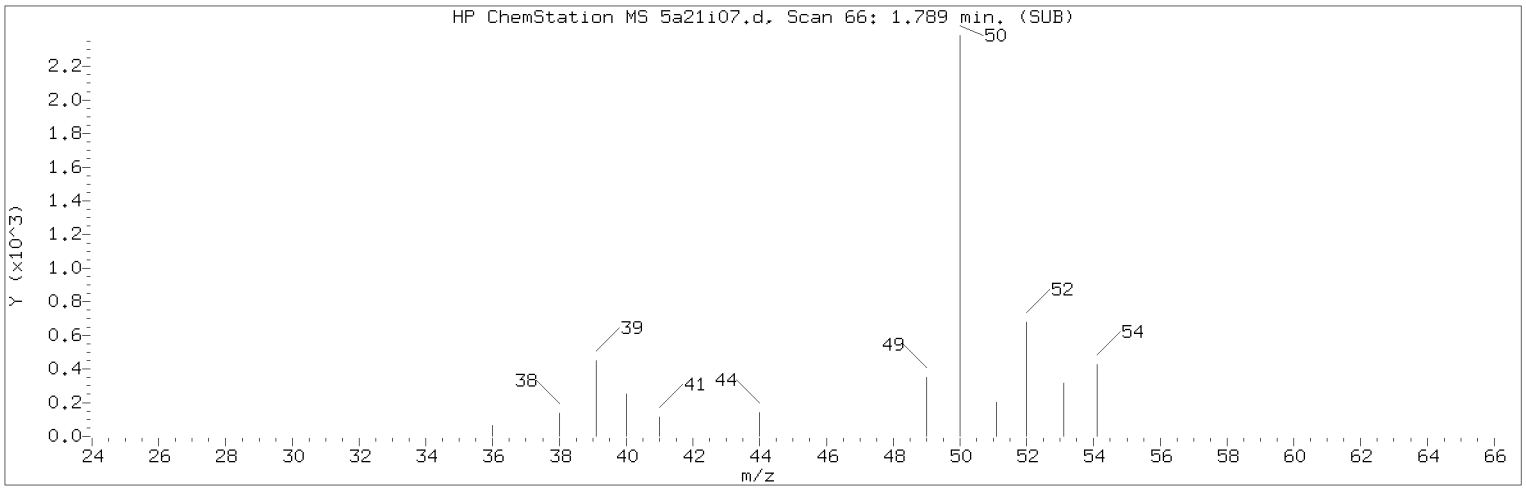
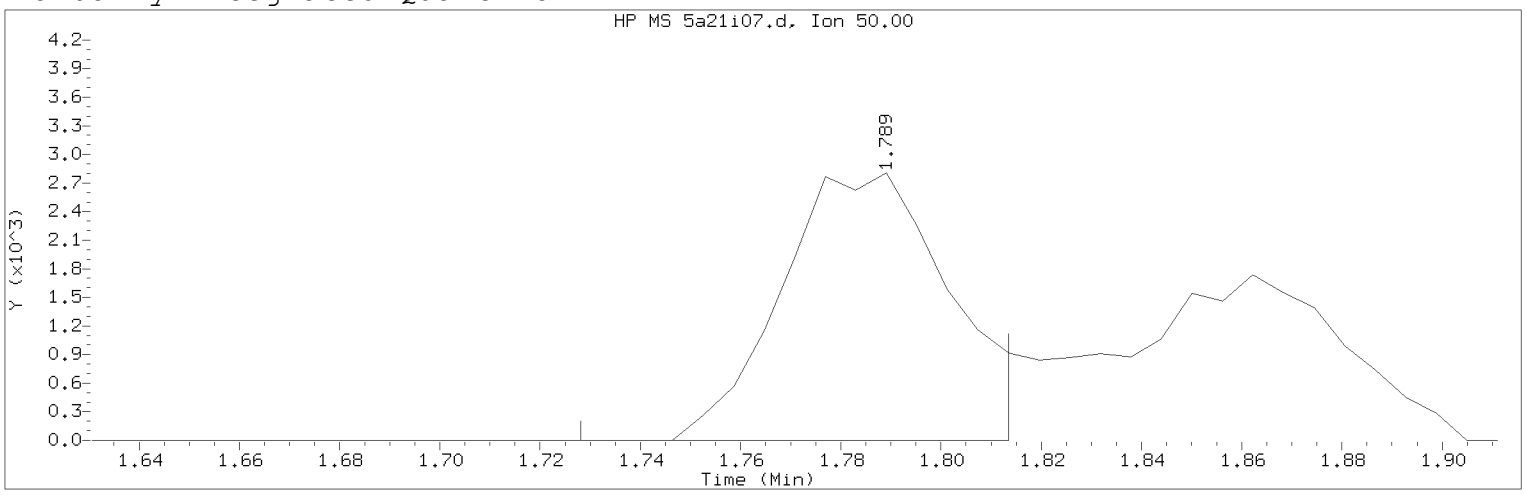
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

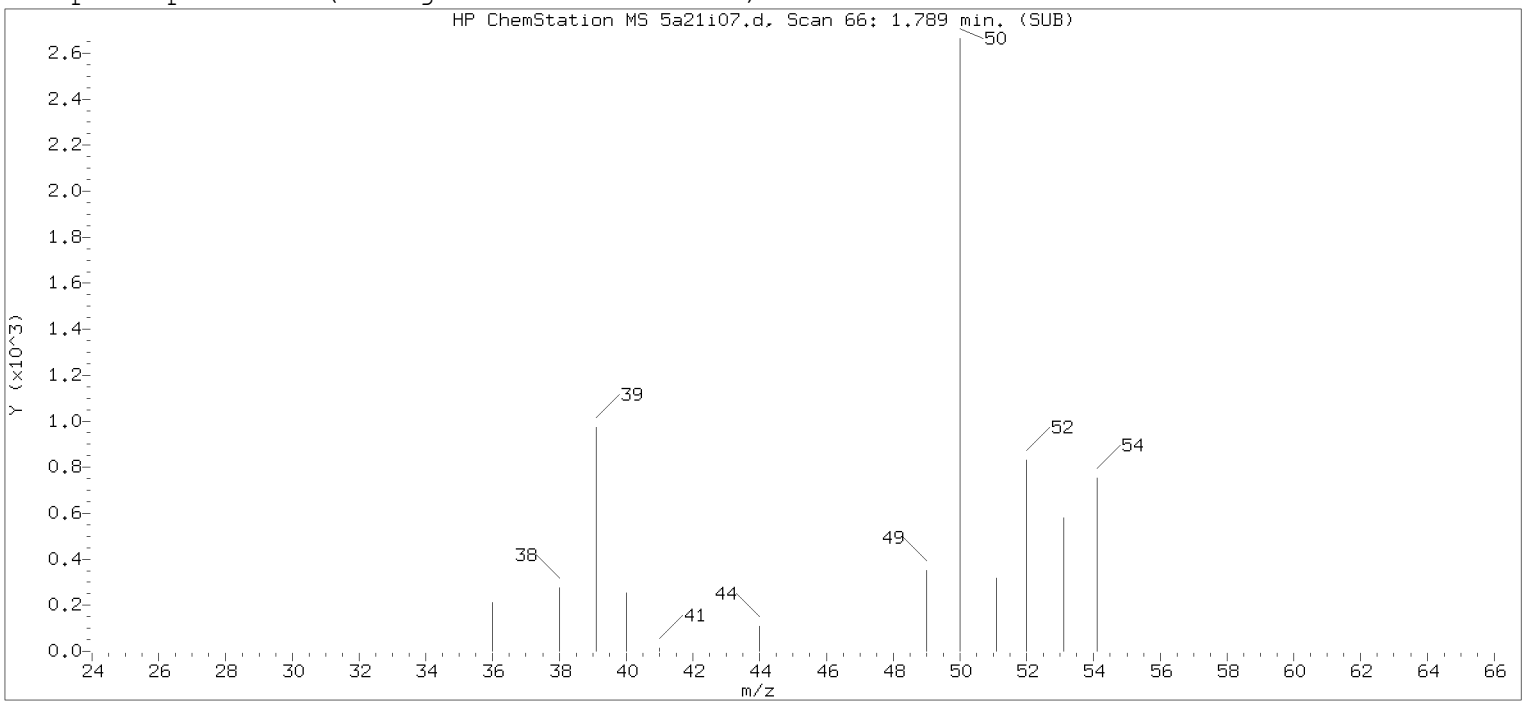
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area (flag) : 6579M
On-Column Amount (ng) : 0.9528
Integration start scan : 55 Integration stop scan: 69
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

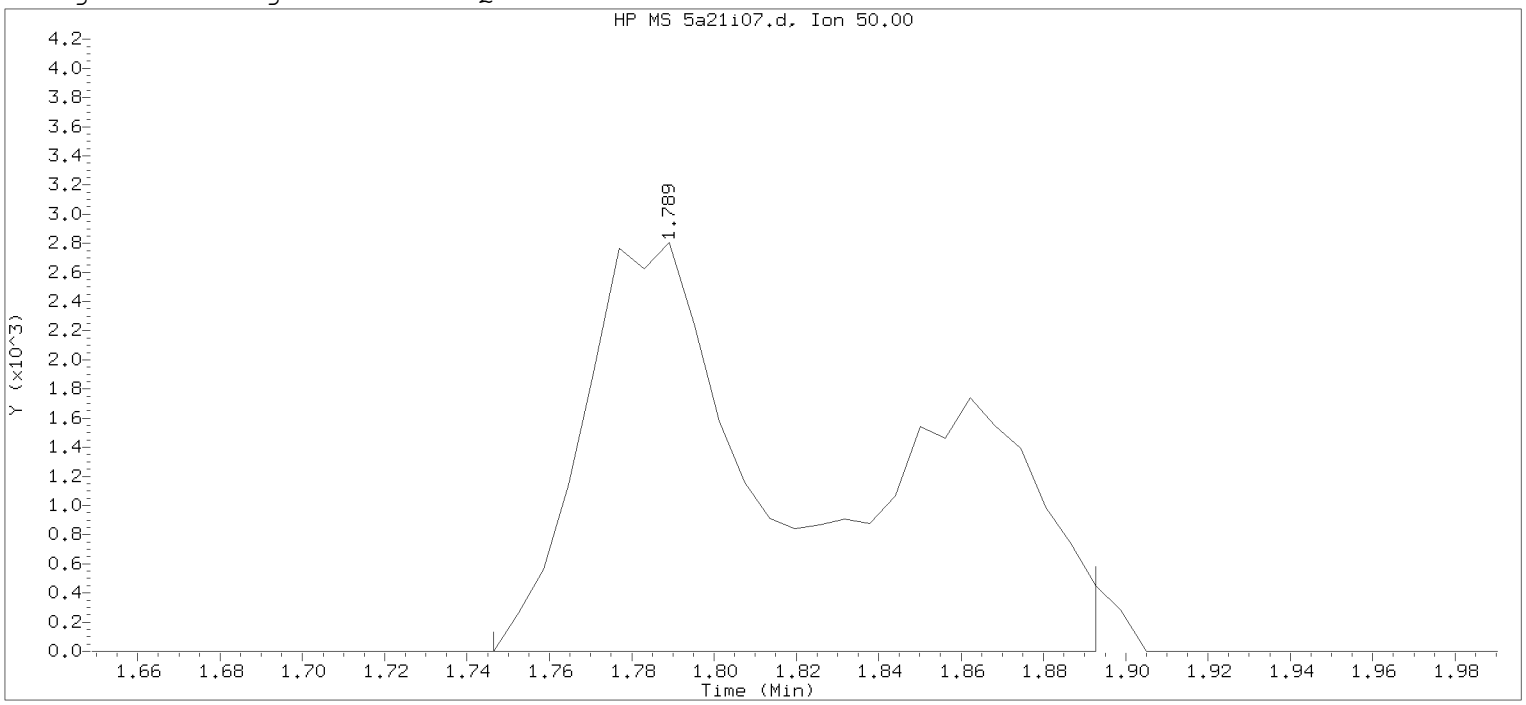
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

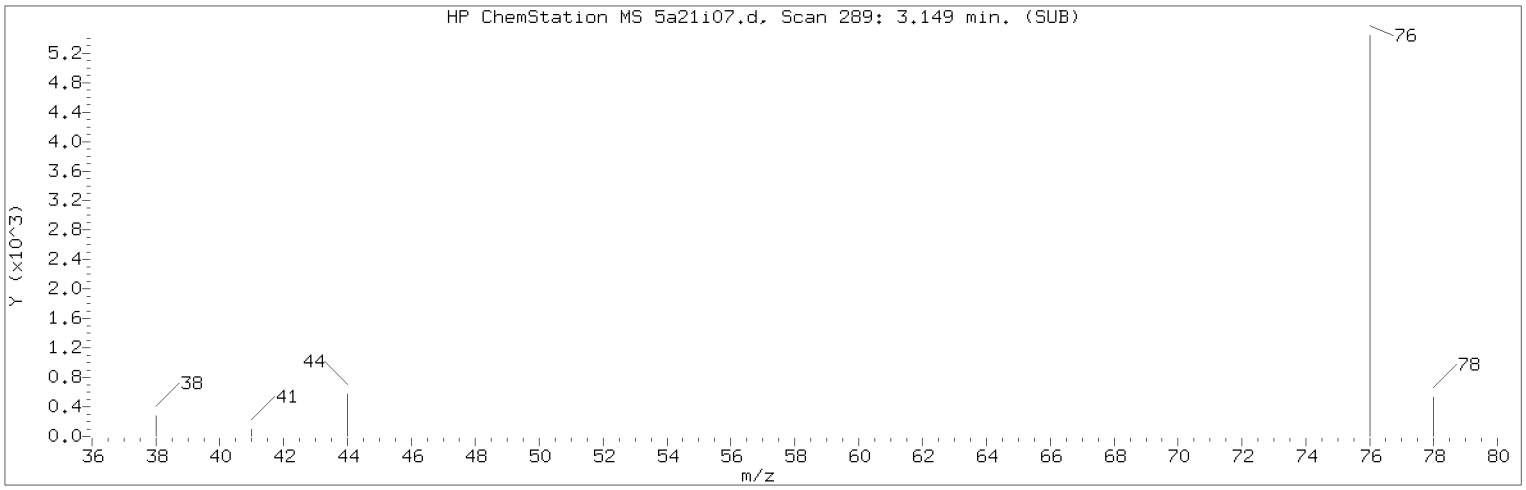
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

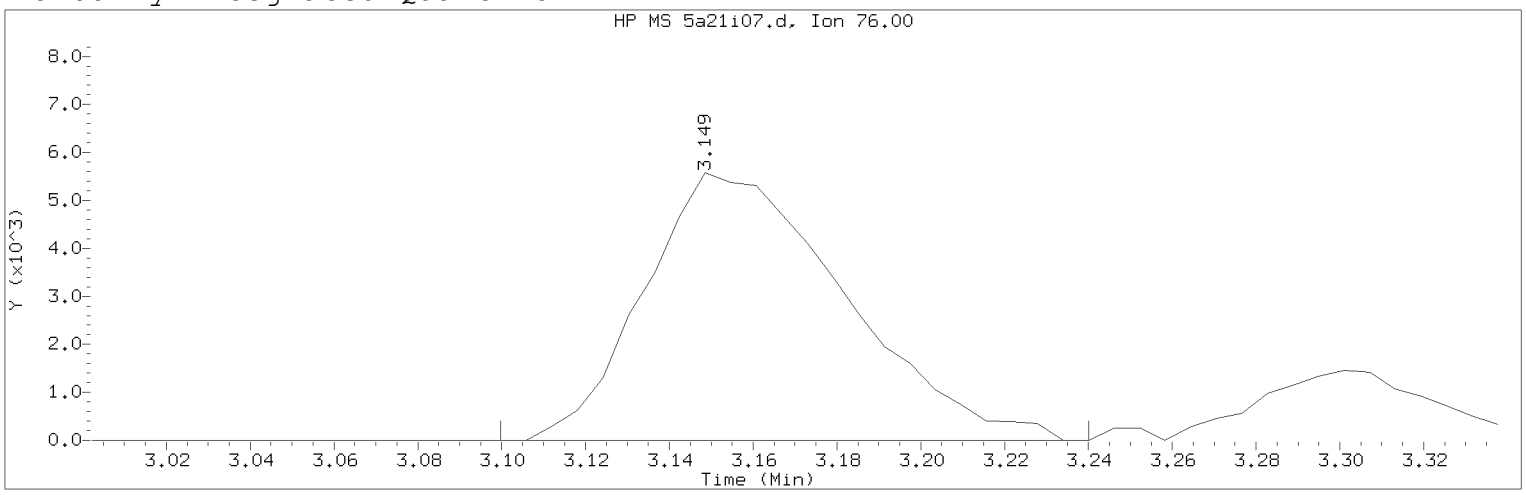
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area : 11768
On-column Amount (ng) : 1.5486
Integration start scan : 58 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

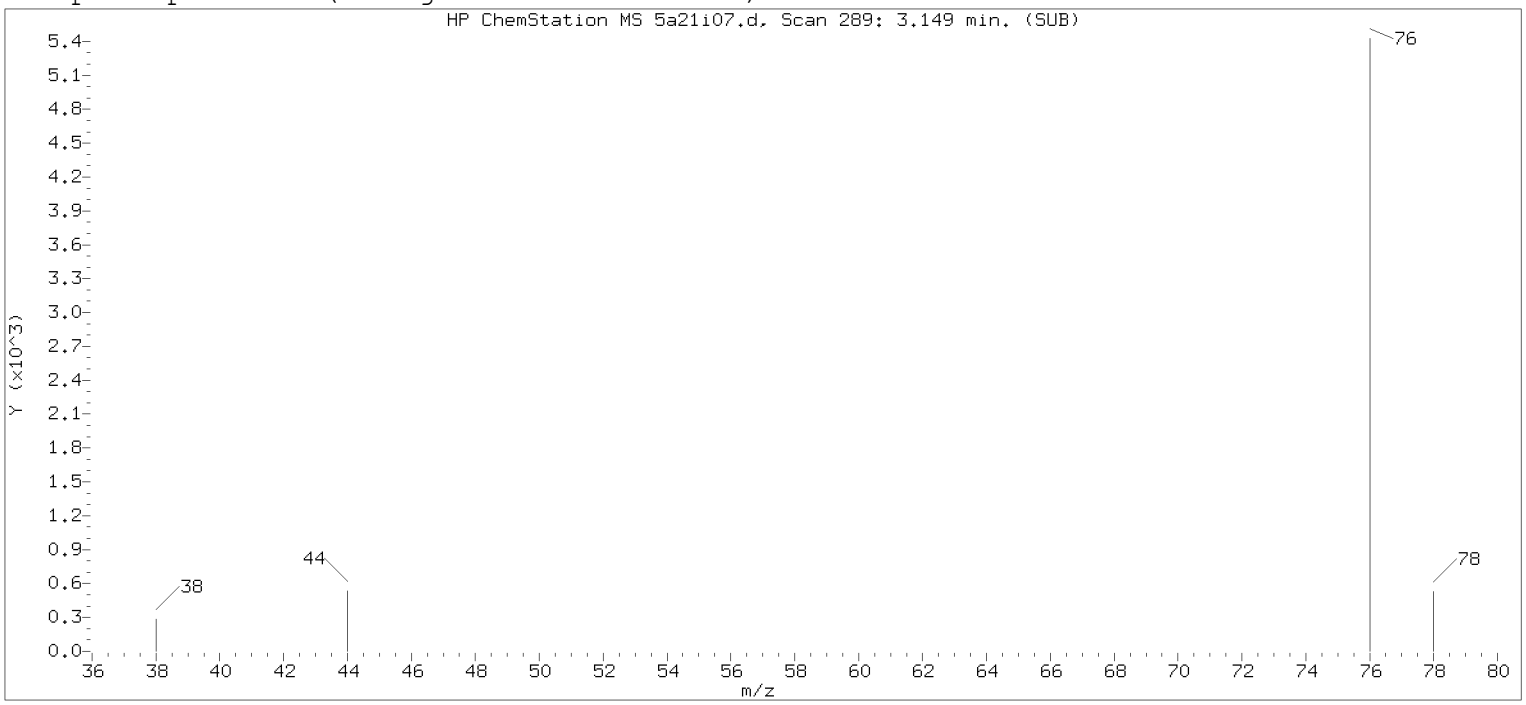
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area (flag) : 18507M
On-Column Amount (ng) : 0.9116
Integration start scan : 280 Integration stop scan: 303
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

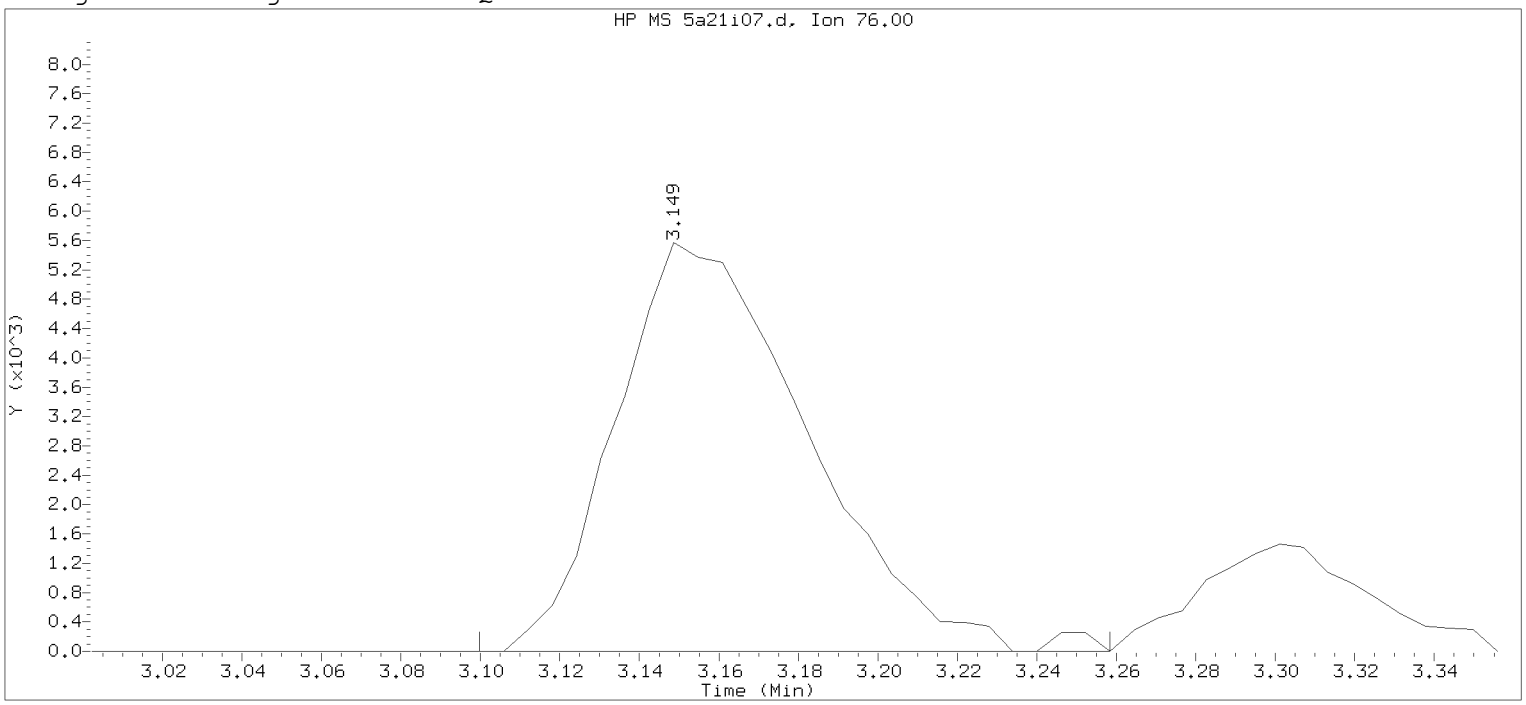
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area : 18694
On-column Amount (ng) : 0.9196
Integration start scan : 280 Integration stop scan: 306
Y at integration start : 0 Y at integration end: 0

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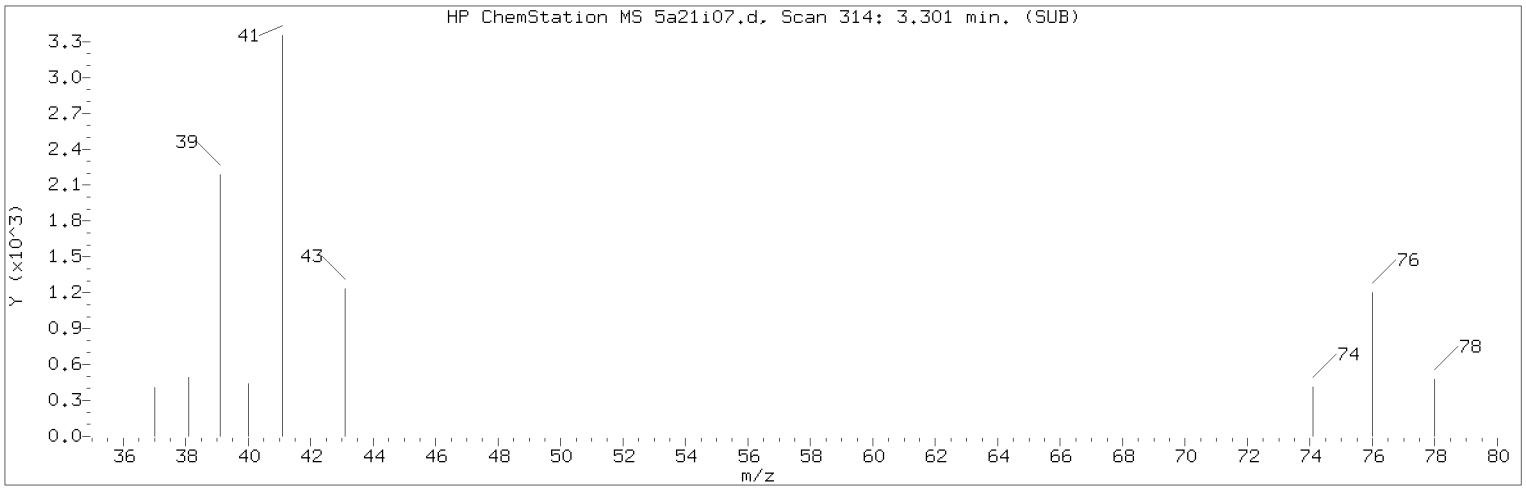
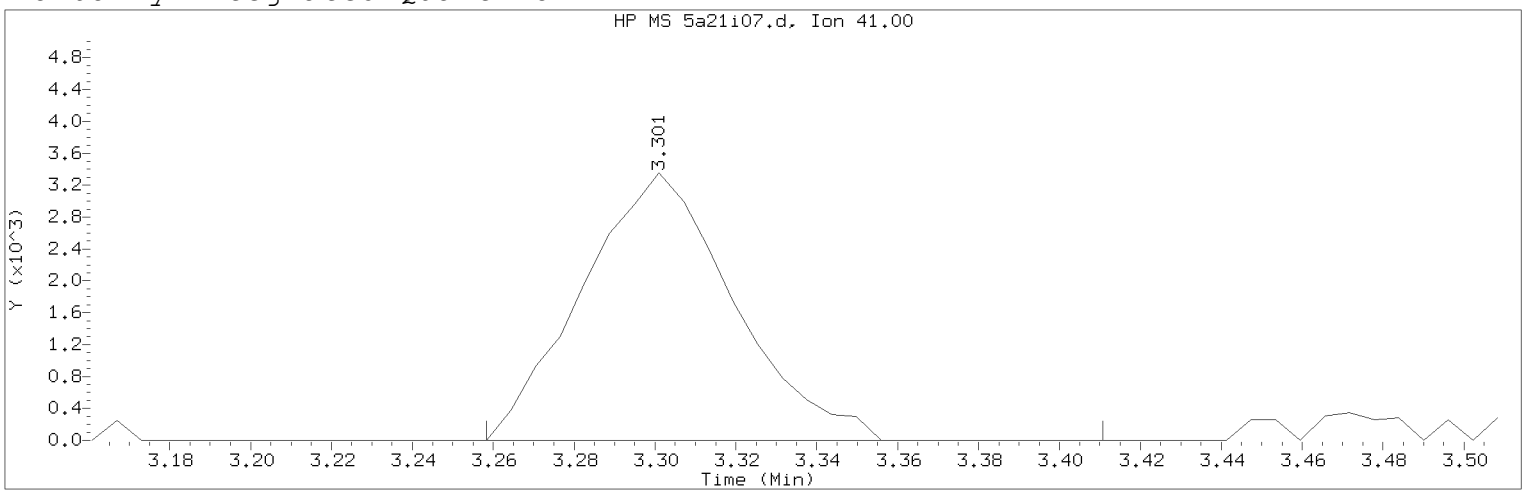
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

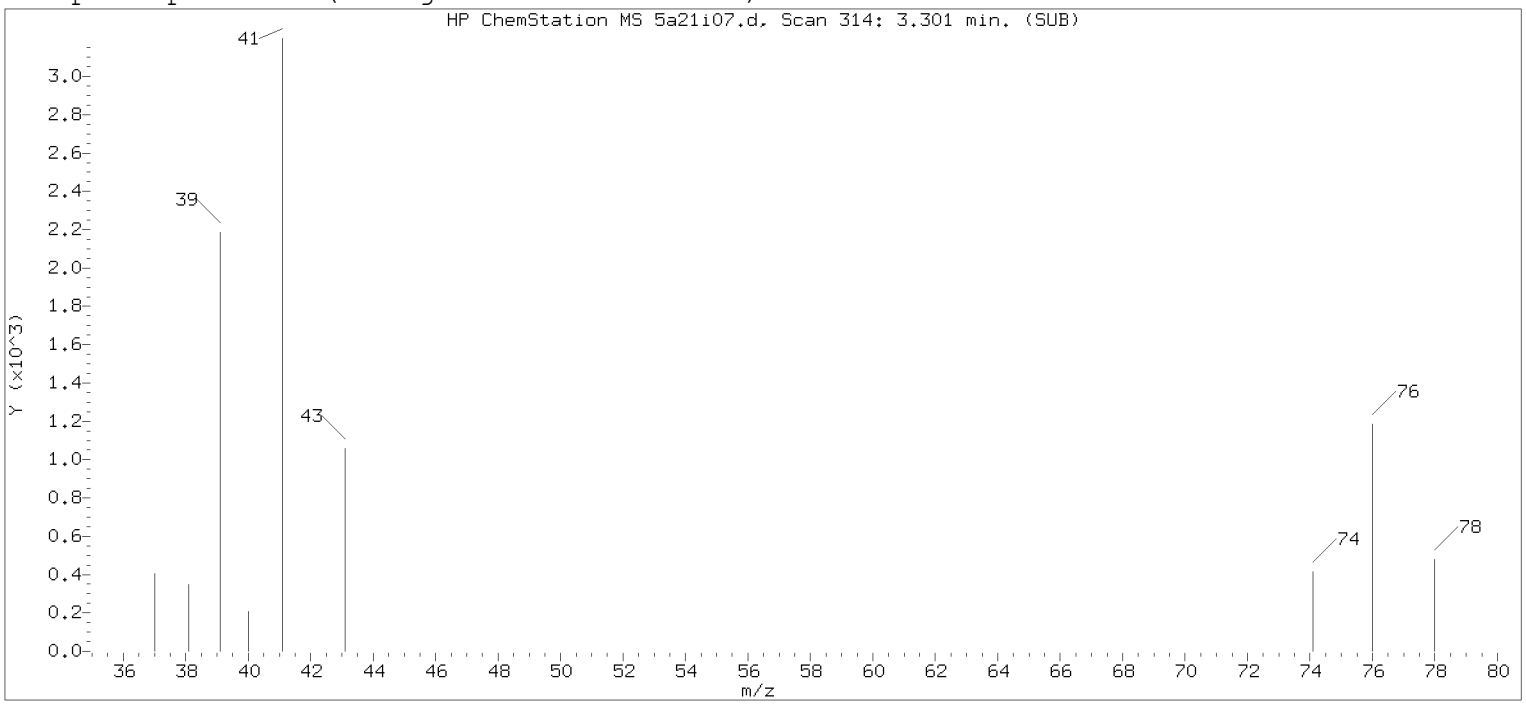
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area (flag) : 8694M
On-Column Amount (ng) : 0.8999
Integration start scan : 306 Integration stop scan: 331
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

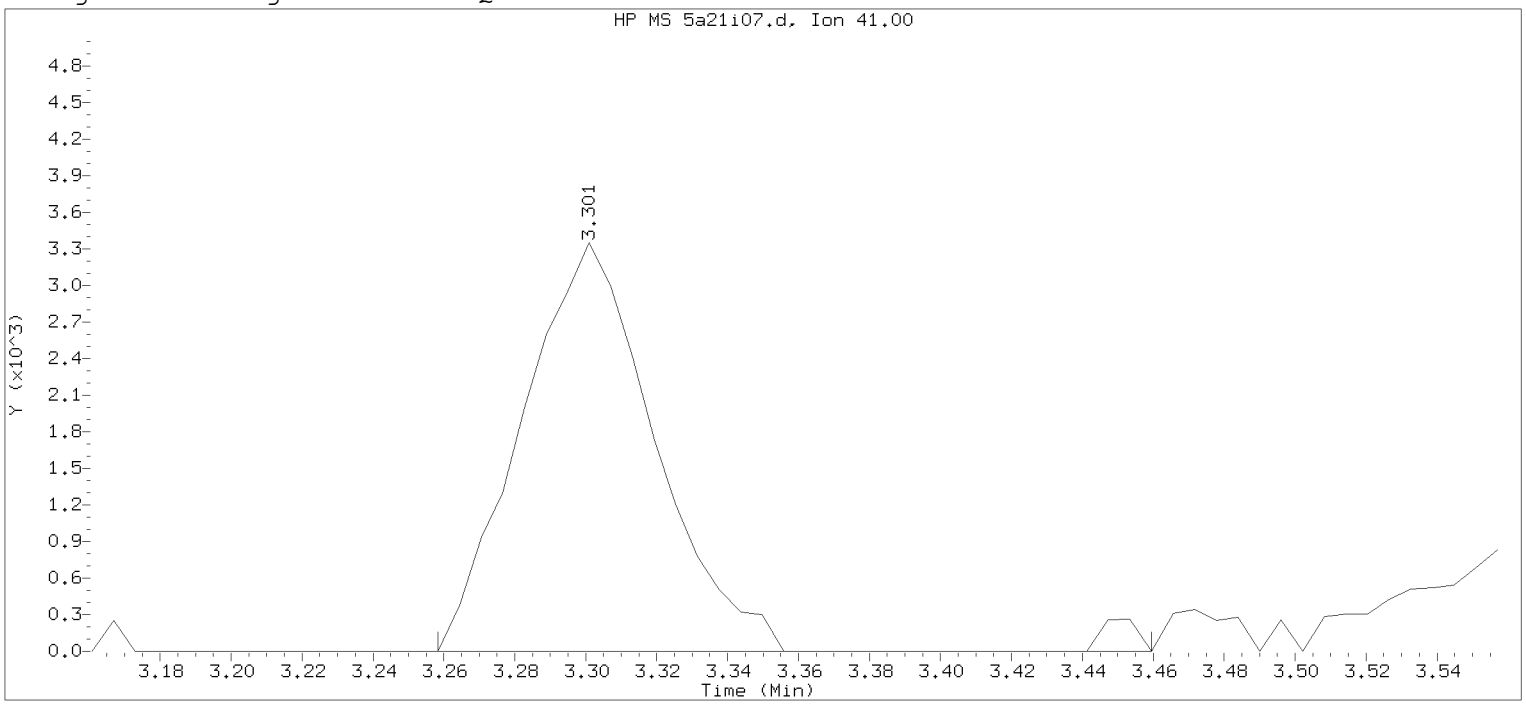
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

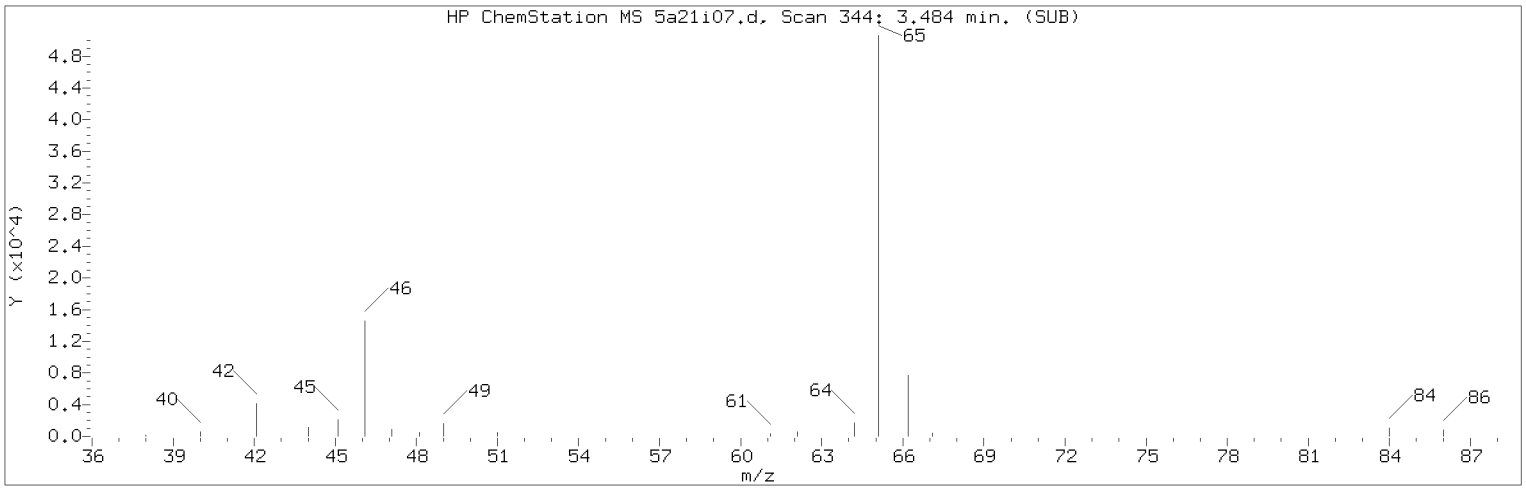
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

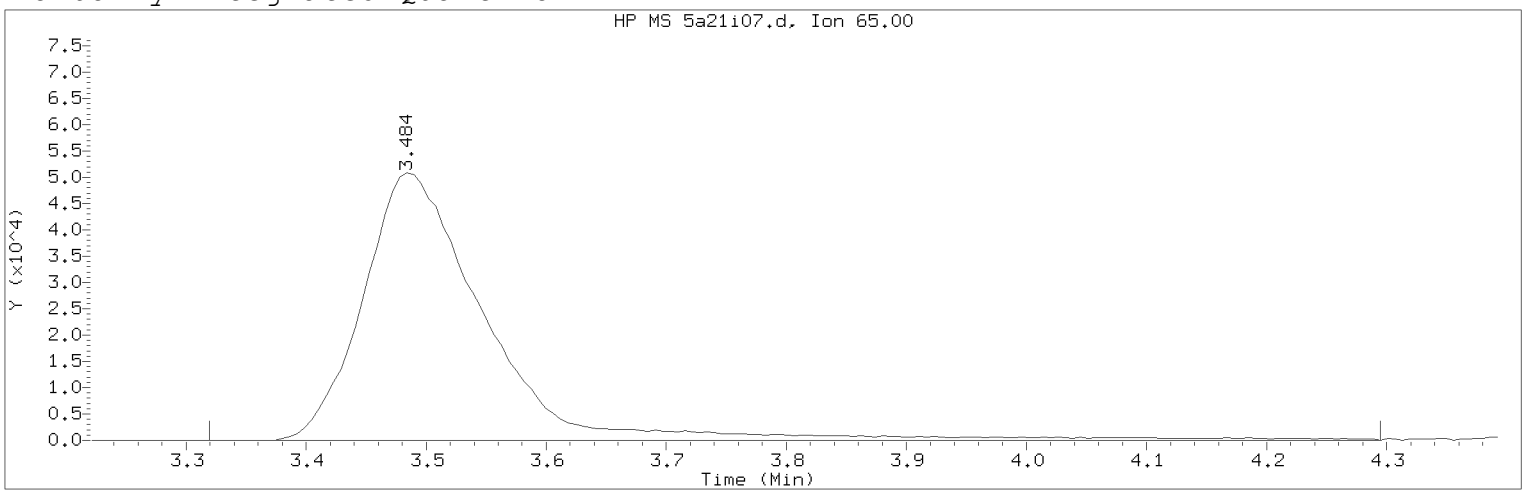
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area : 8884
On-column Amount (ng) : 0.9170
Integration start scan : 306 Integration stop scan: 339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

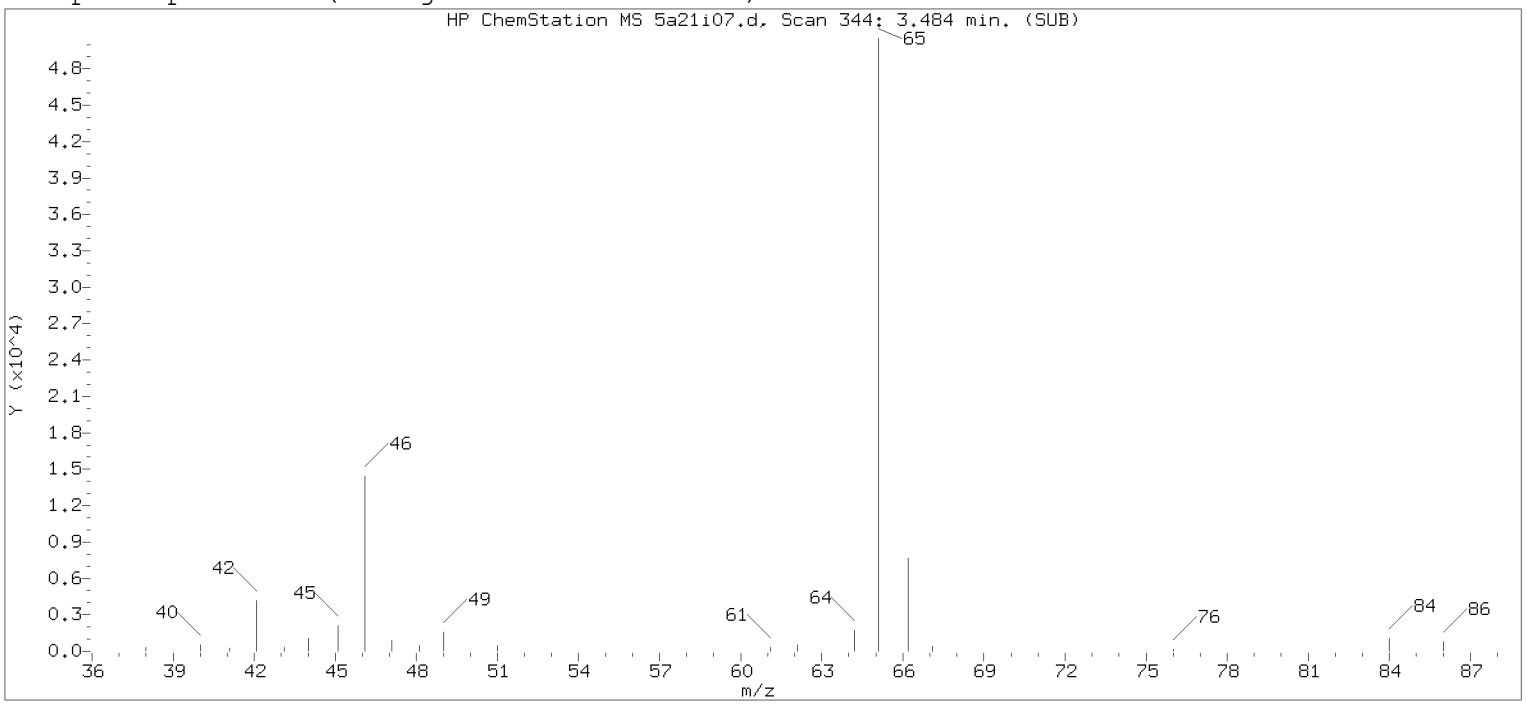
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 361518M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 476
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

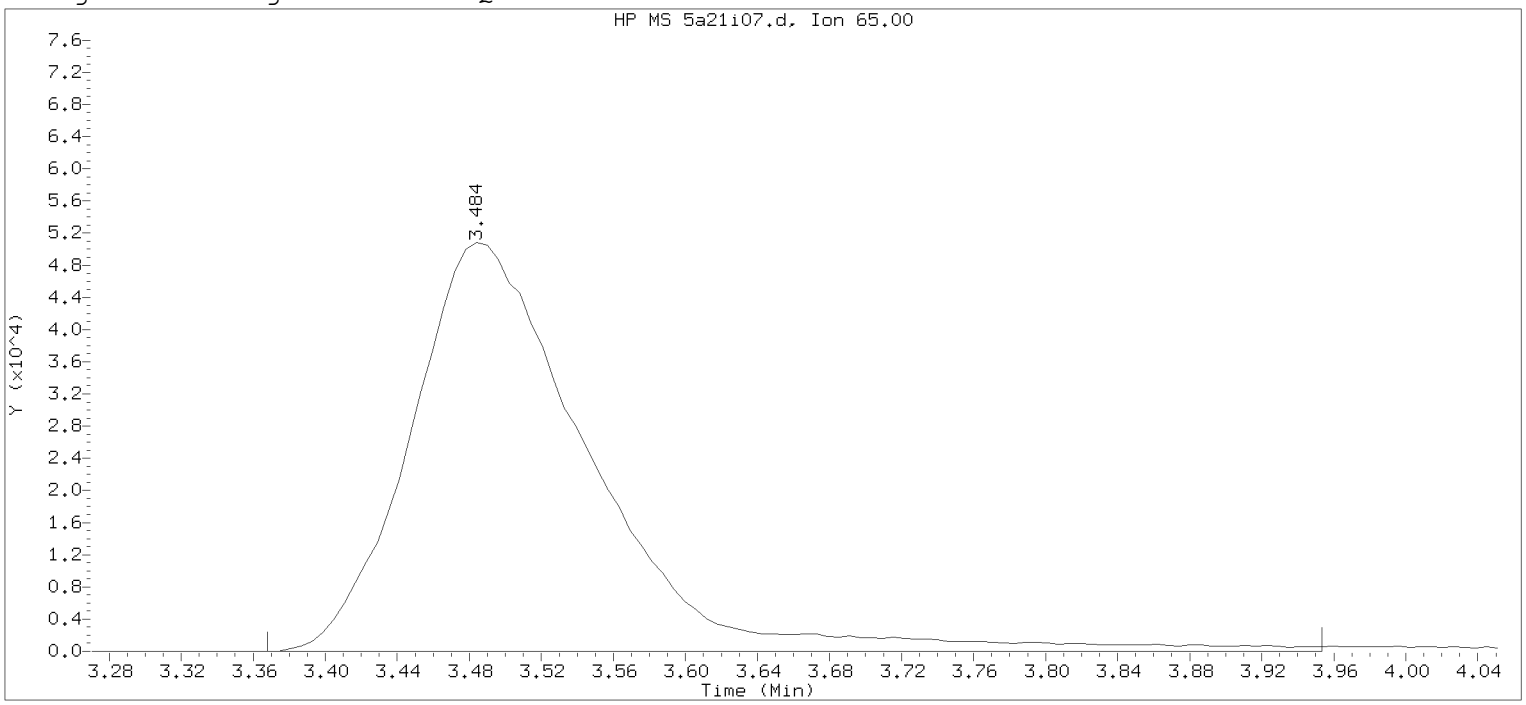
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

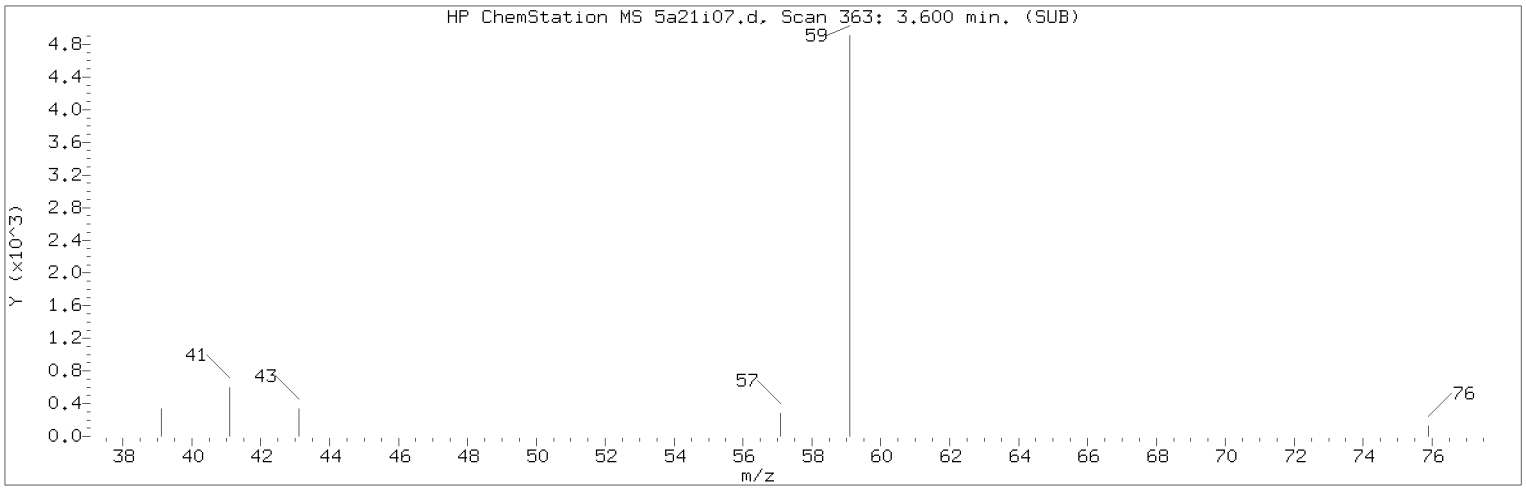
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

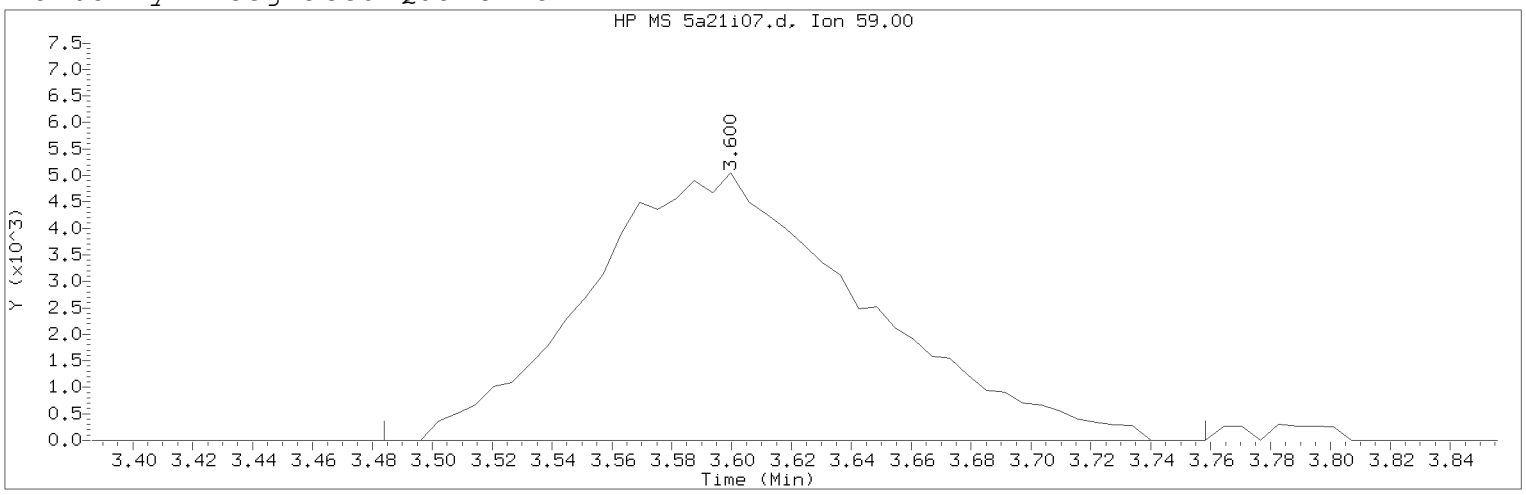
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 352847
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

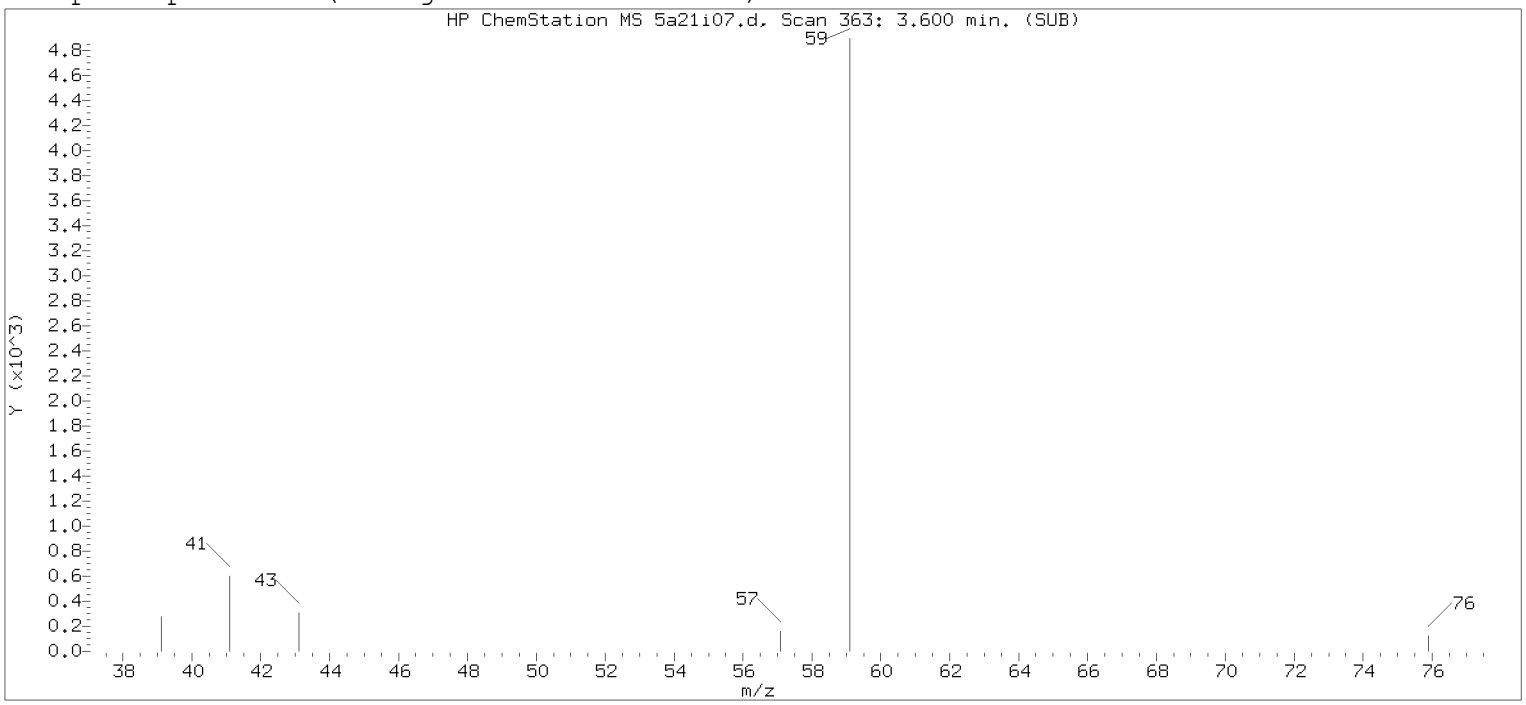
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area (flag) : 32314M
On-Column Amount (ng) : 18.9767
Integration start scan : 343 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

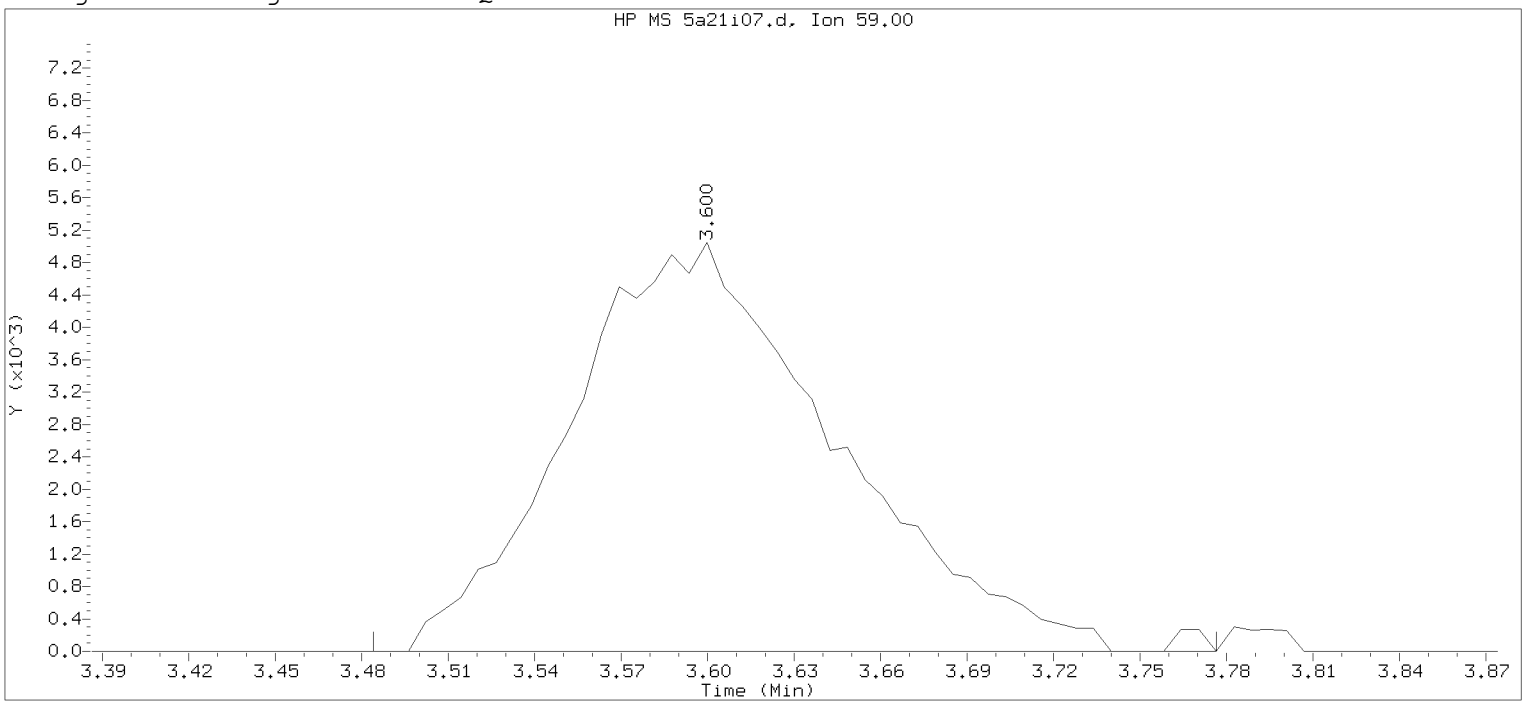
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

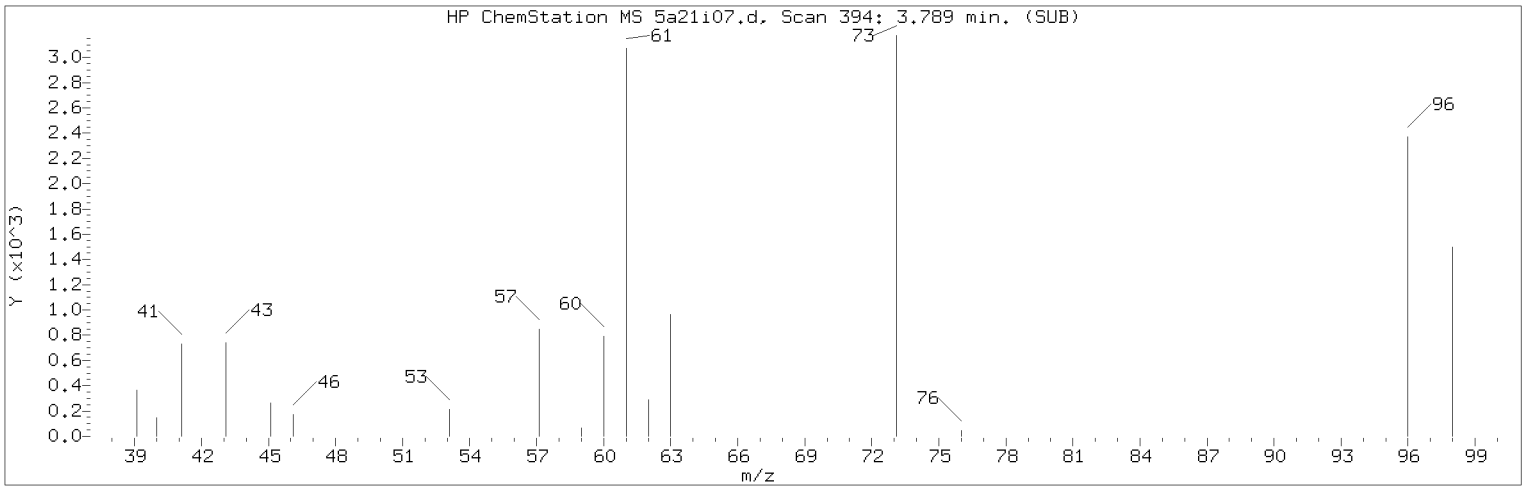
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

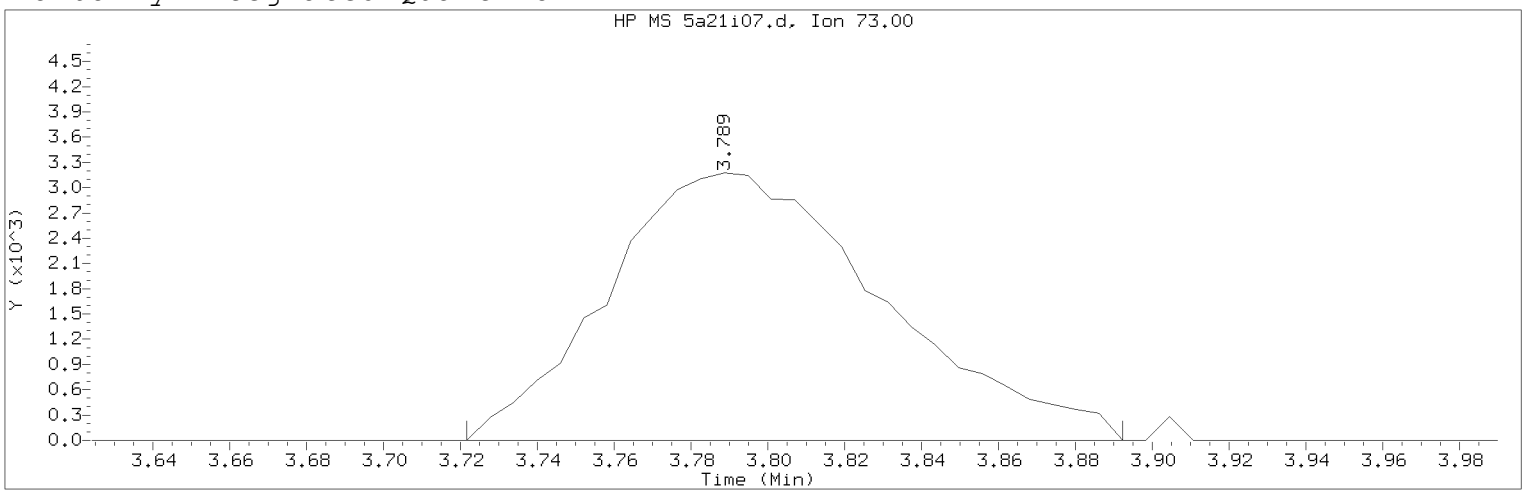
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area : 32510
On-column Amount (ng) : 19.0163
Integration start scan : 343 Integration stop scan: 391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

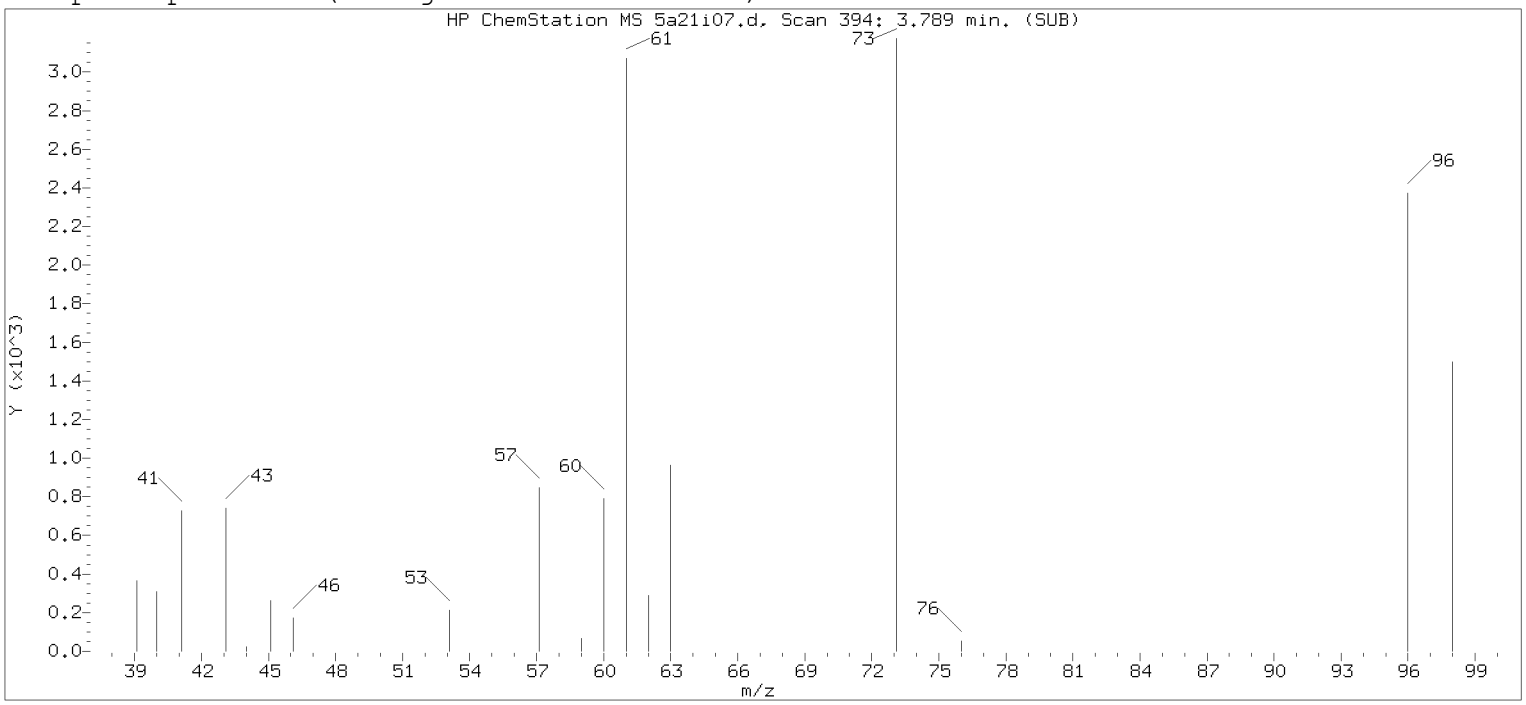
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area (flag) : 15820M
On-Column Amount (ng) : 0.9261
Integration start scan : 382 Integration stop scan: 410
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

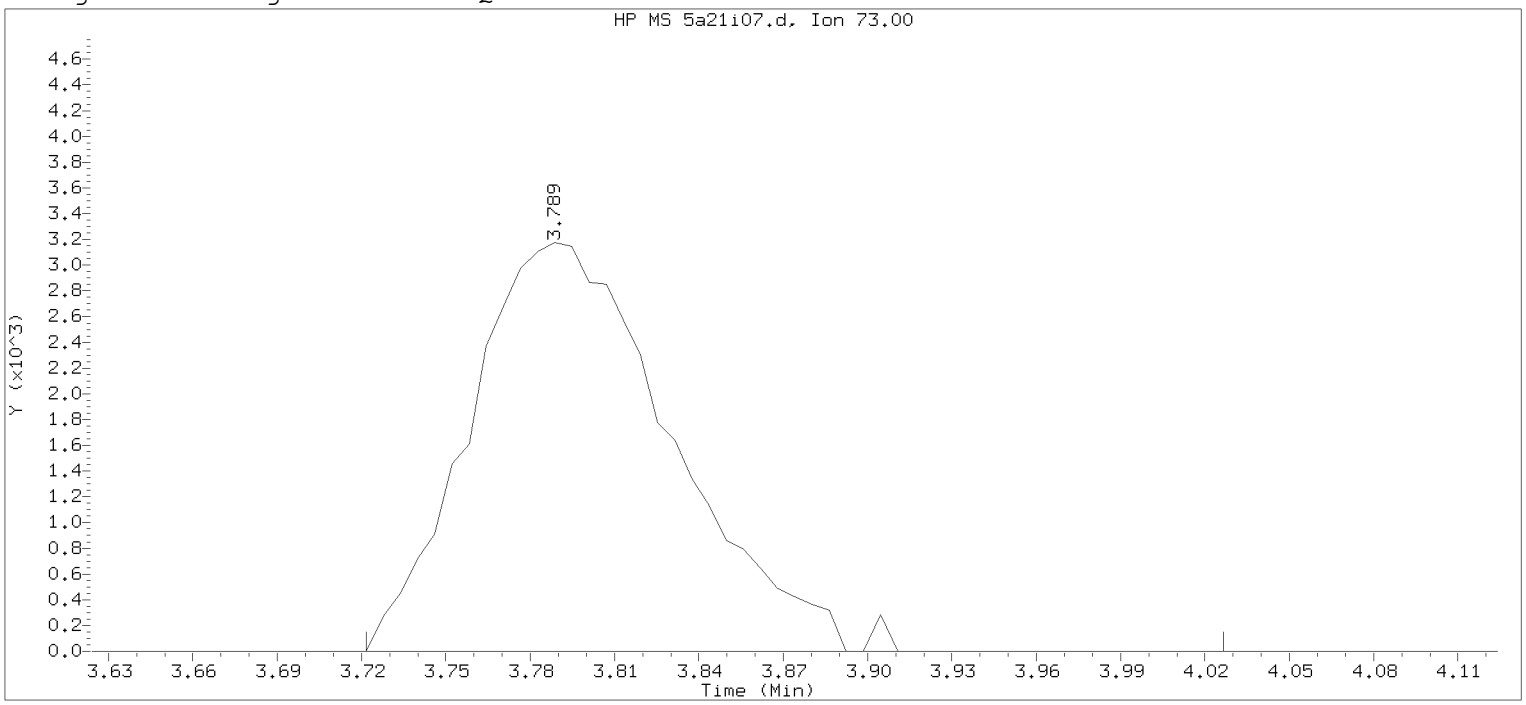
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

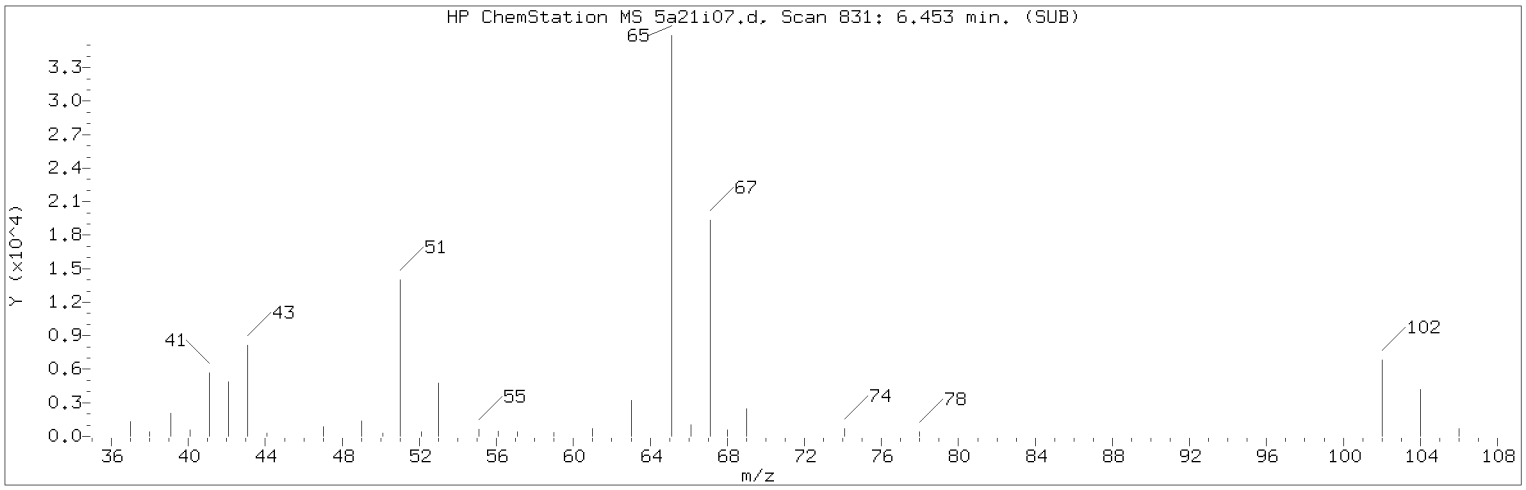
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

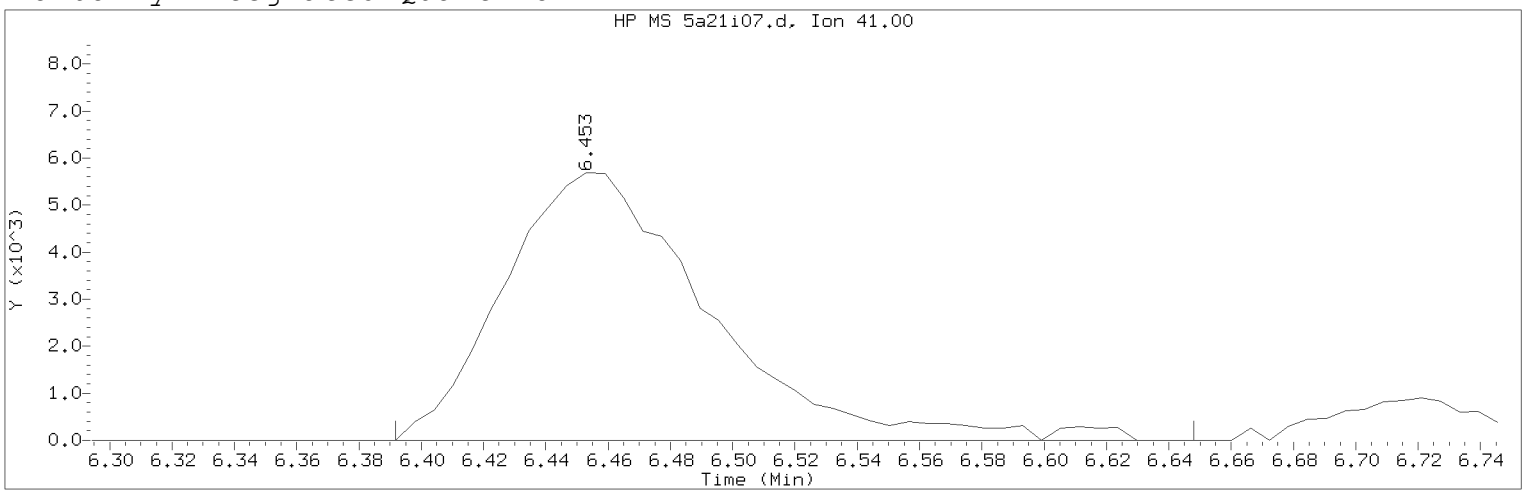
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area : 15924
On-column Amount (ng) : 0.9314
Integration start scan : 382 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

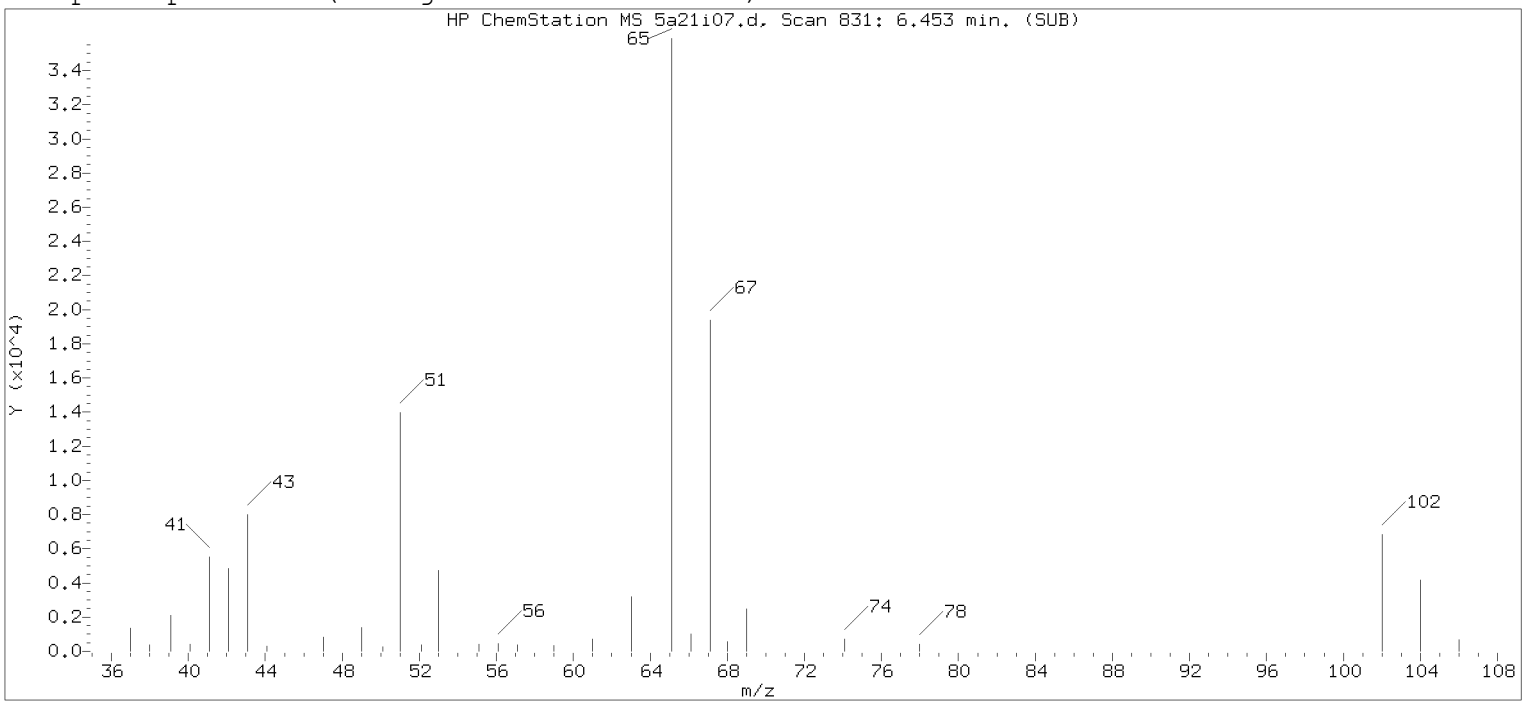
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area (flag) : 26237M
On-Column Amount (ng) : 46.2246
Integration start scan : 820 Integration stop scan: 862
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

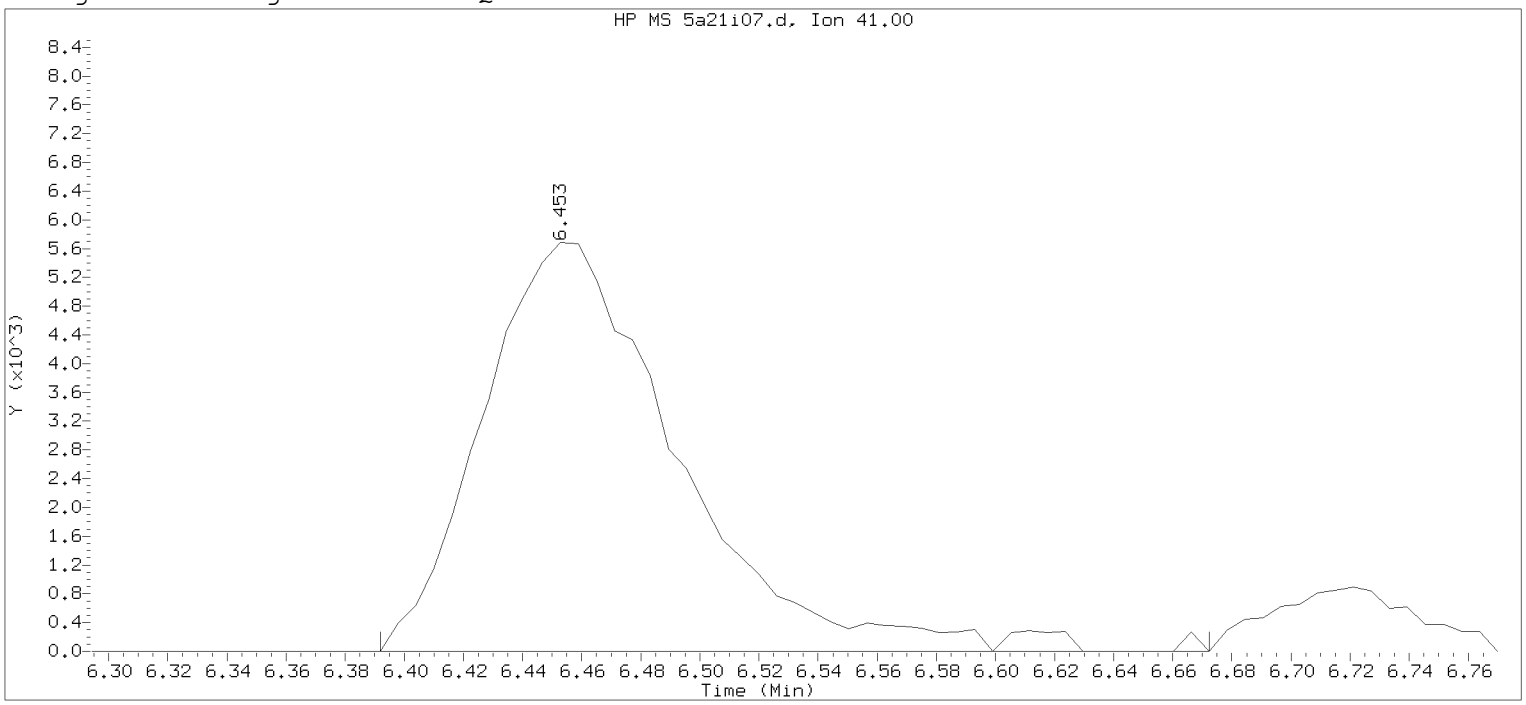
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

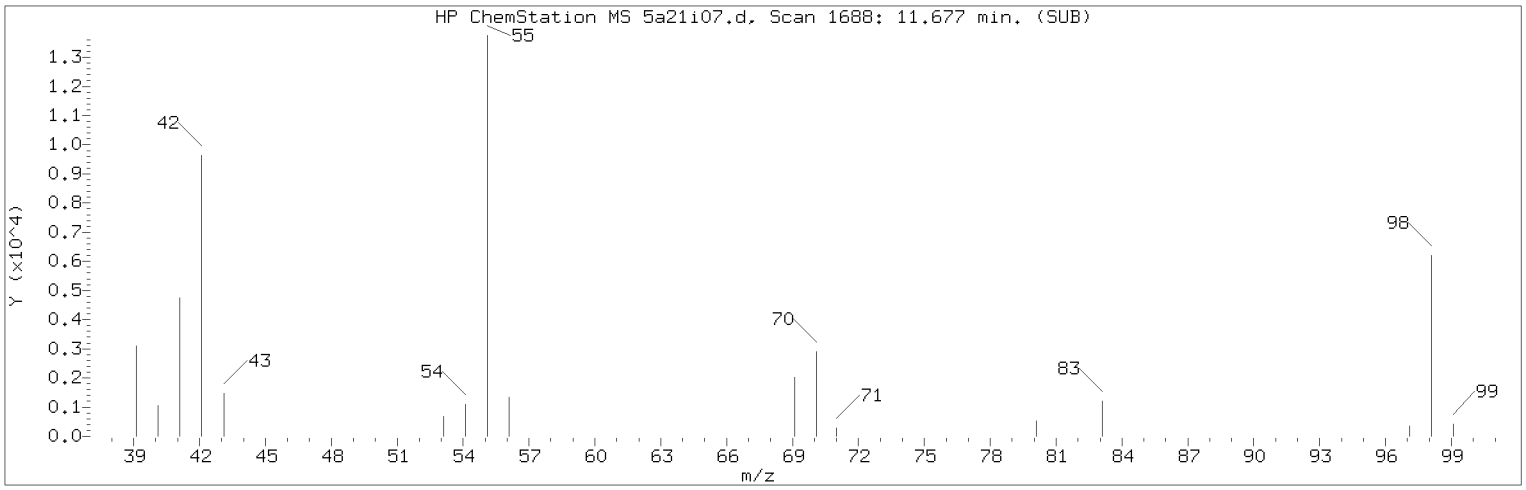
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

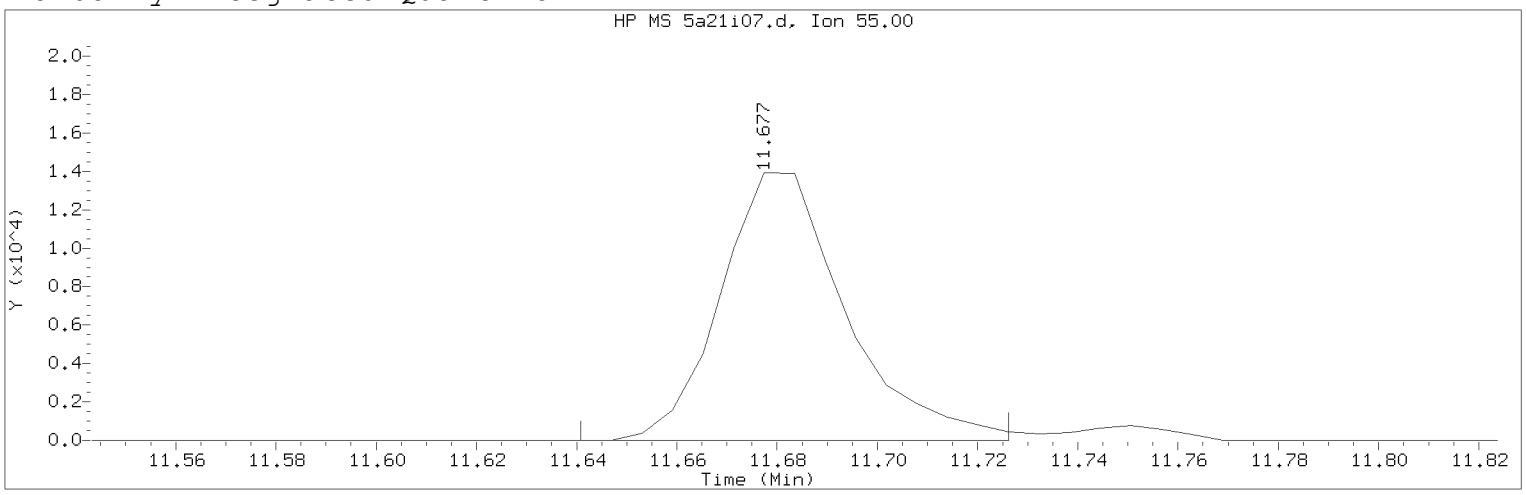
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area : 26334
On-column Amount (ng) : 46.6405
Integration start scan : 820 Integration stop scan: 866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

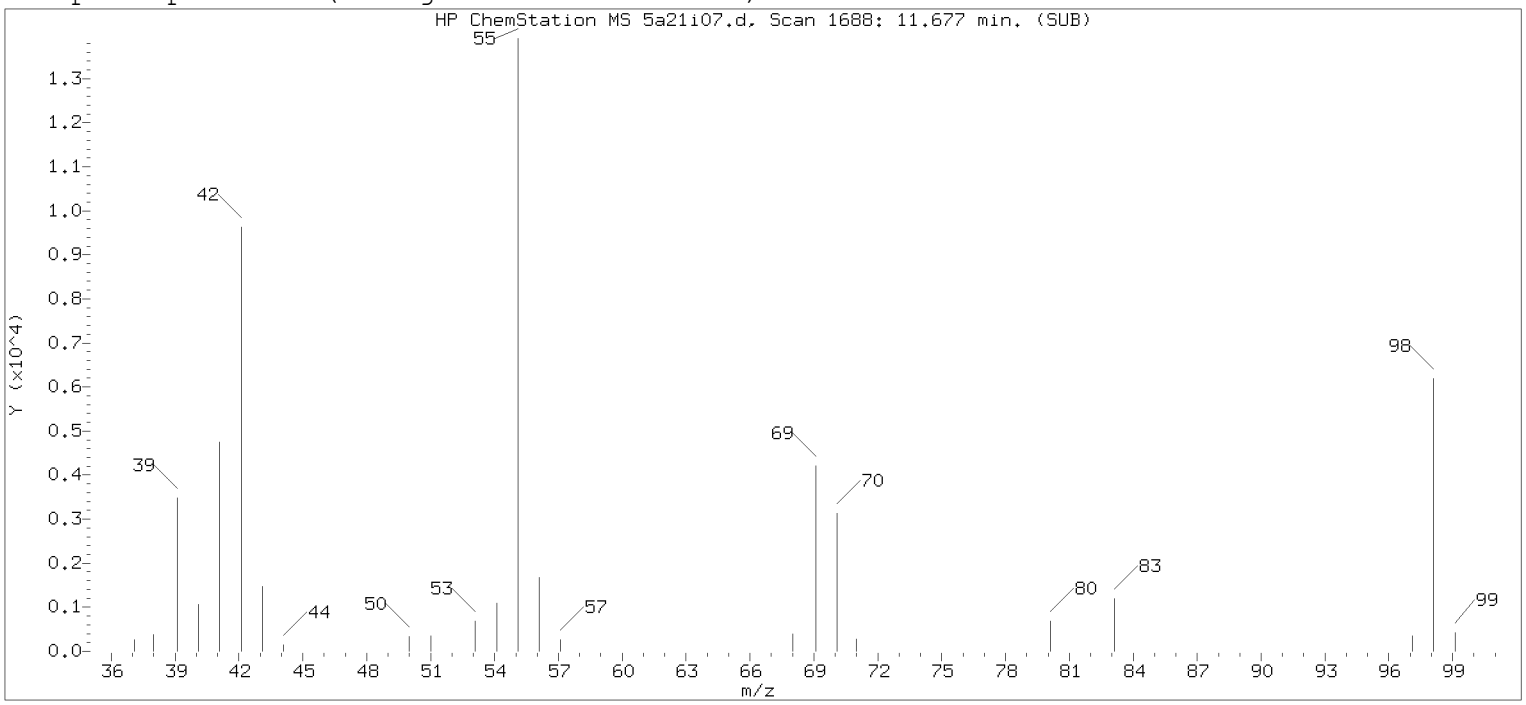
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area (flag) : 24191M
On-Column Amount (ng) : 43.3520
Integration start scan : 1681 Integration stop scan: 1695
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

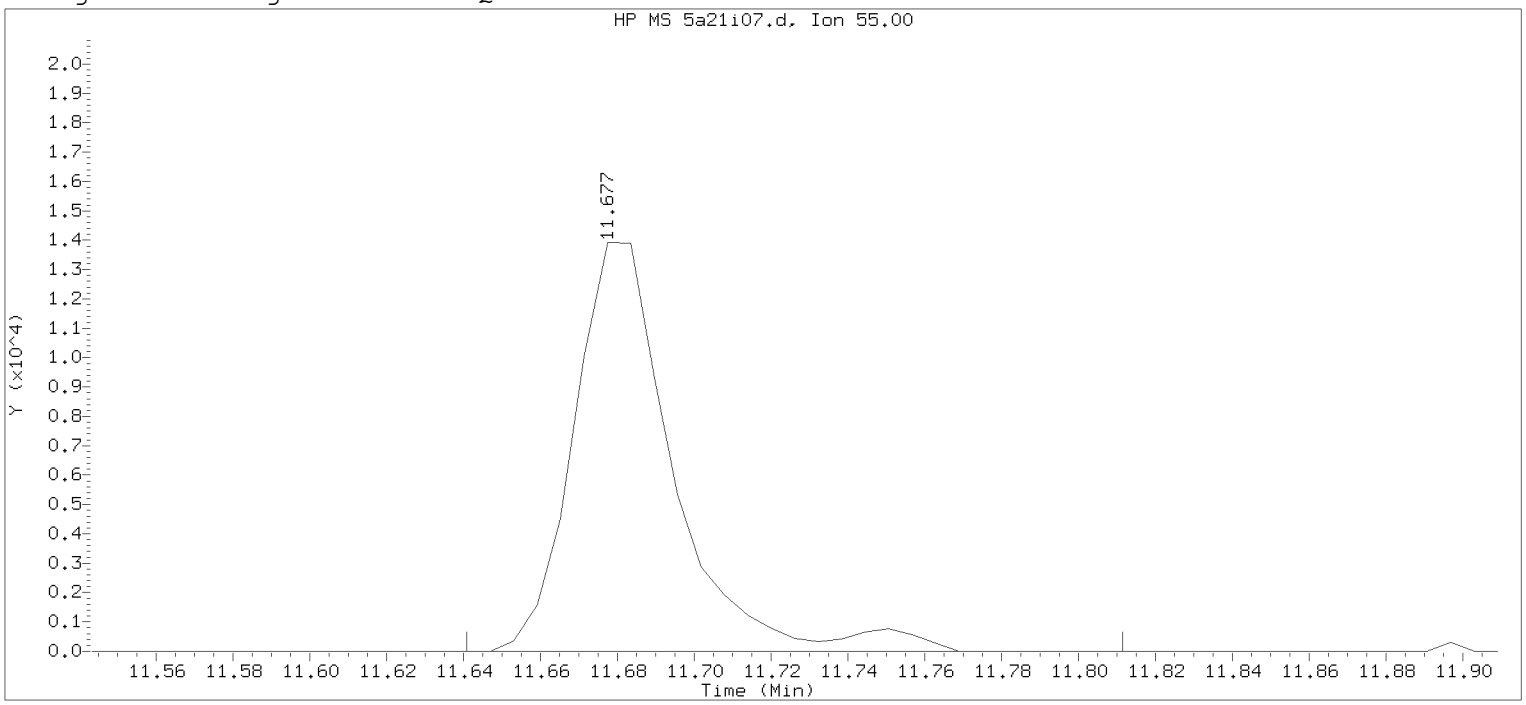
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

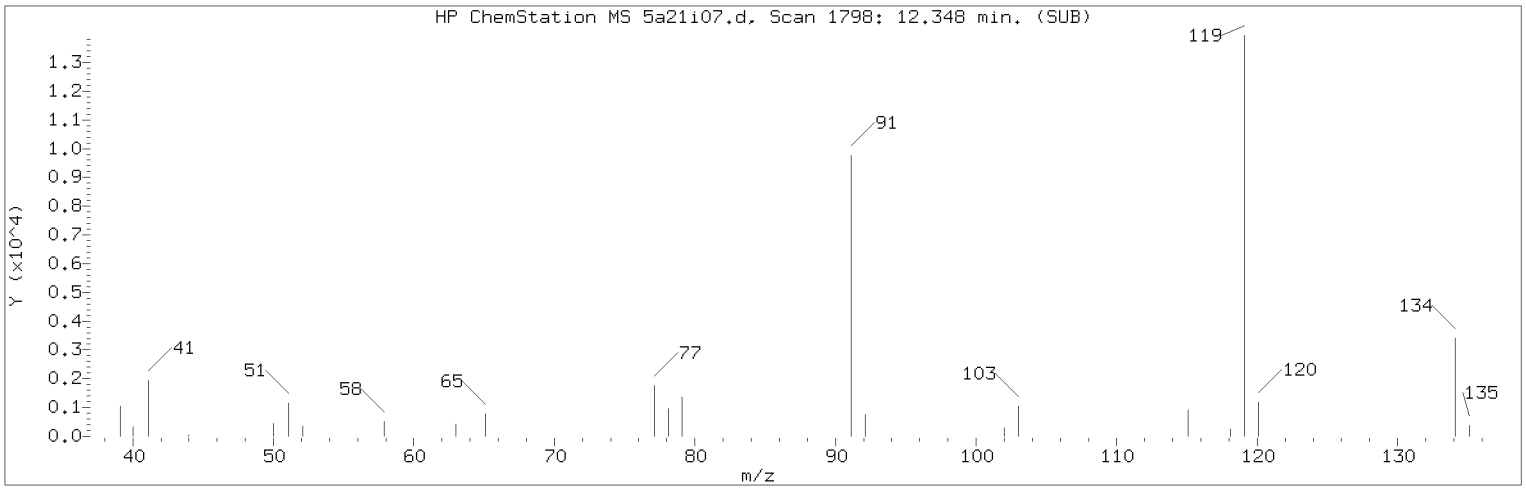
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

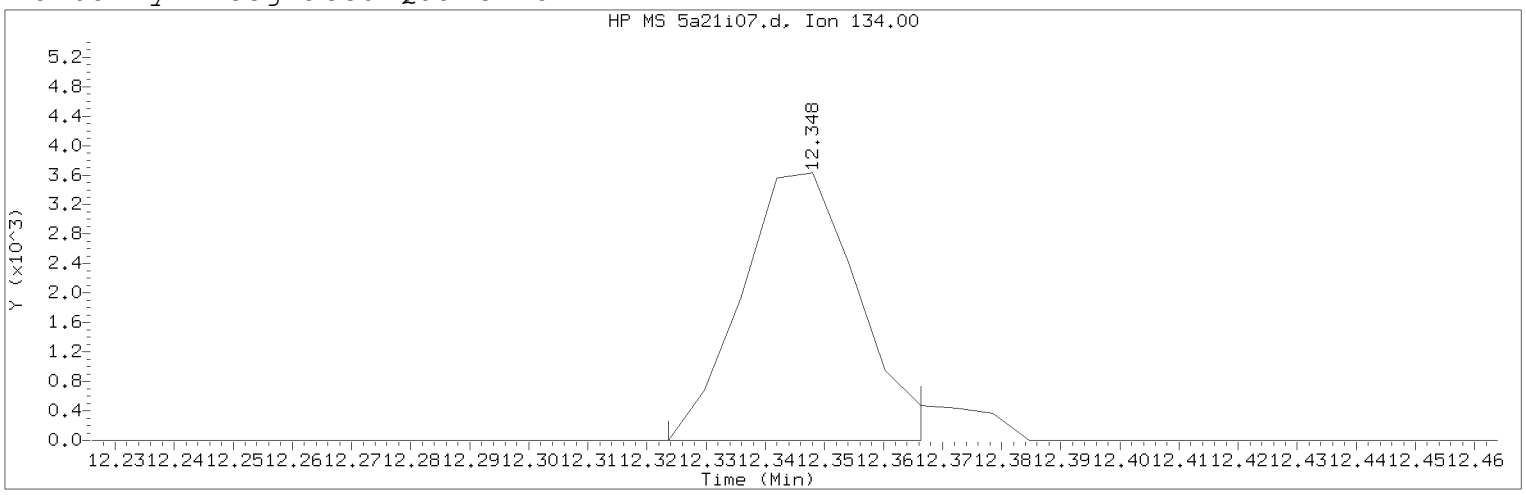
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area : 25283
On-column Amount (ng) : 45.3144
Integration start scan : 1681 Integration stop scan: 1709
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

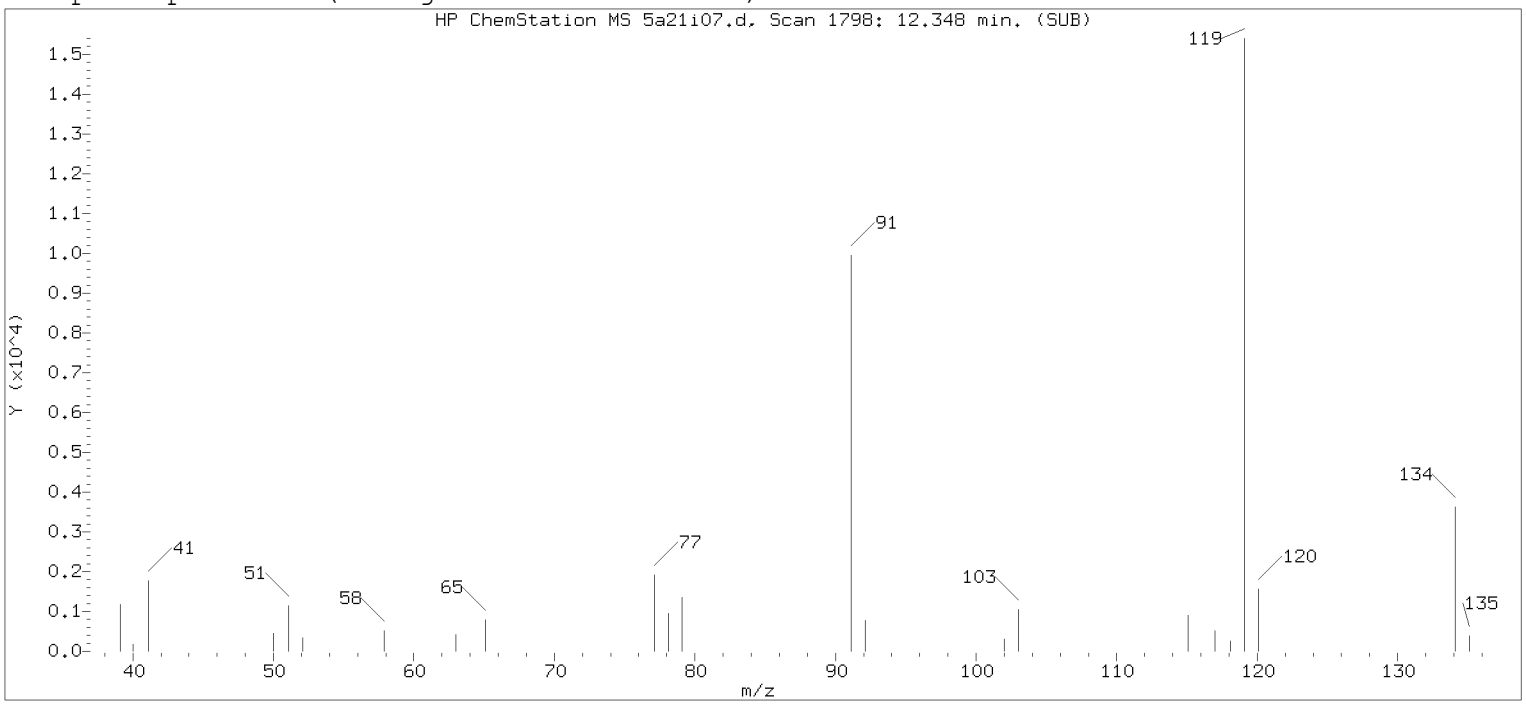
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 4987M
On-Column Amount (ng) : 0.9049
Integration start scan : 1793 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

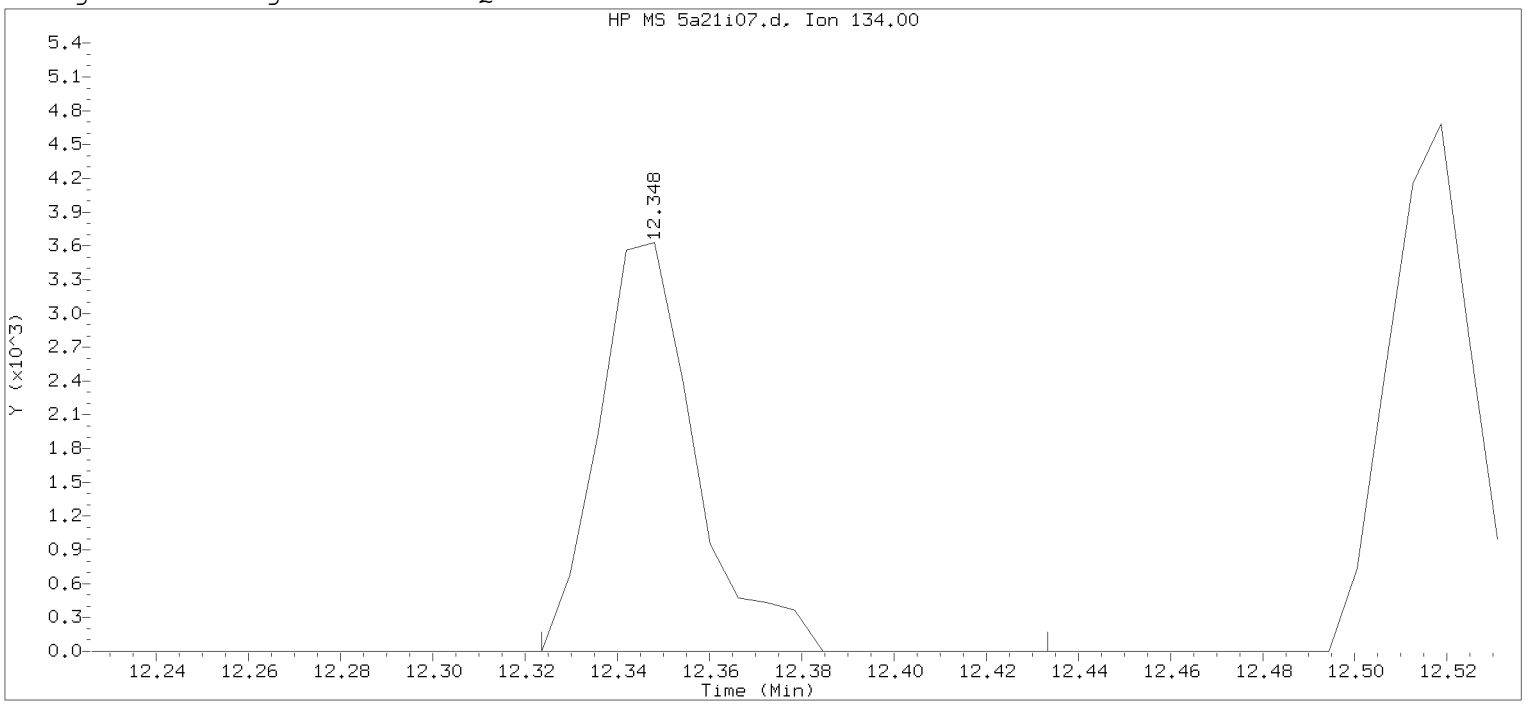
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

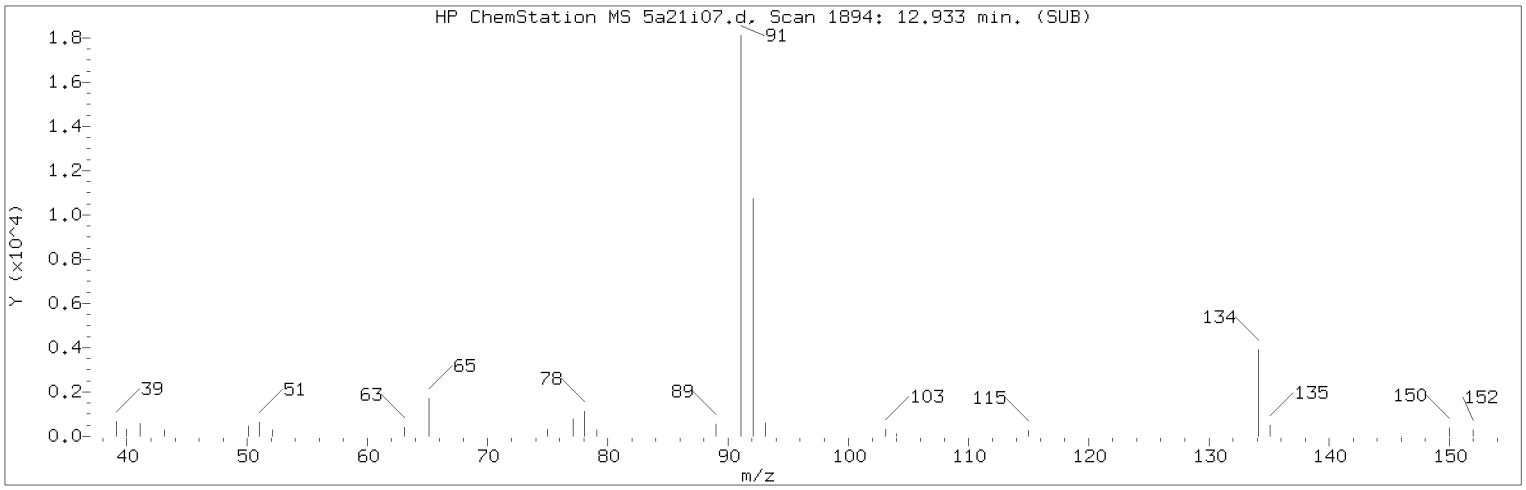
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

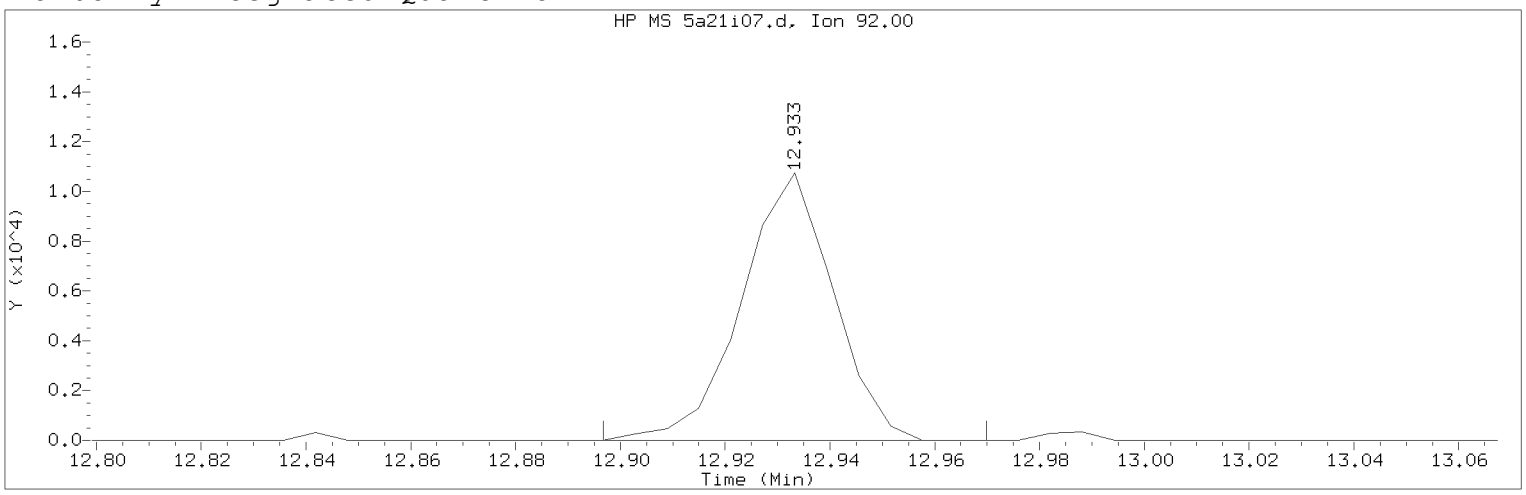
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 5280
On-column Amount (ng) : 0.9008
Integration start scan : 1793 Integration stop scan: 1811
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

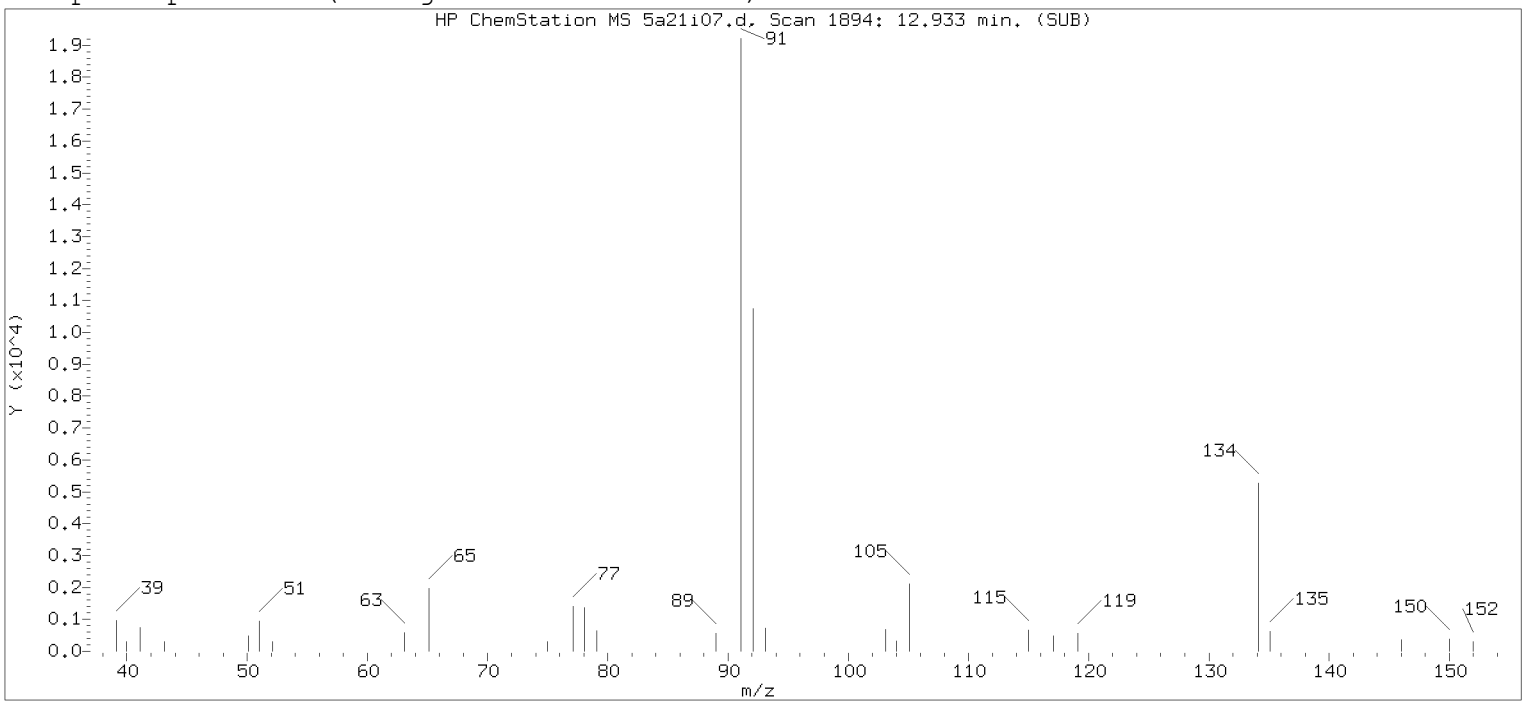
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area (flag) : 12995M
On-Column Amount (ng) : 0.8985
Integration start scan : 1887 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

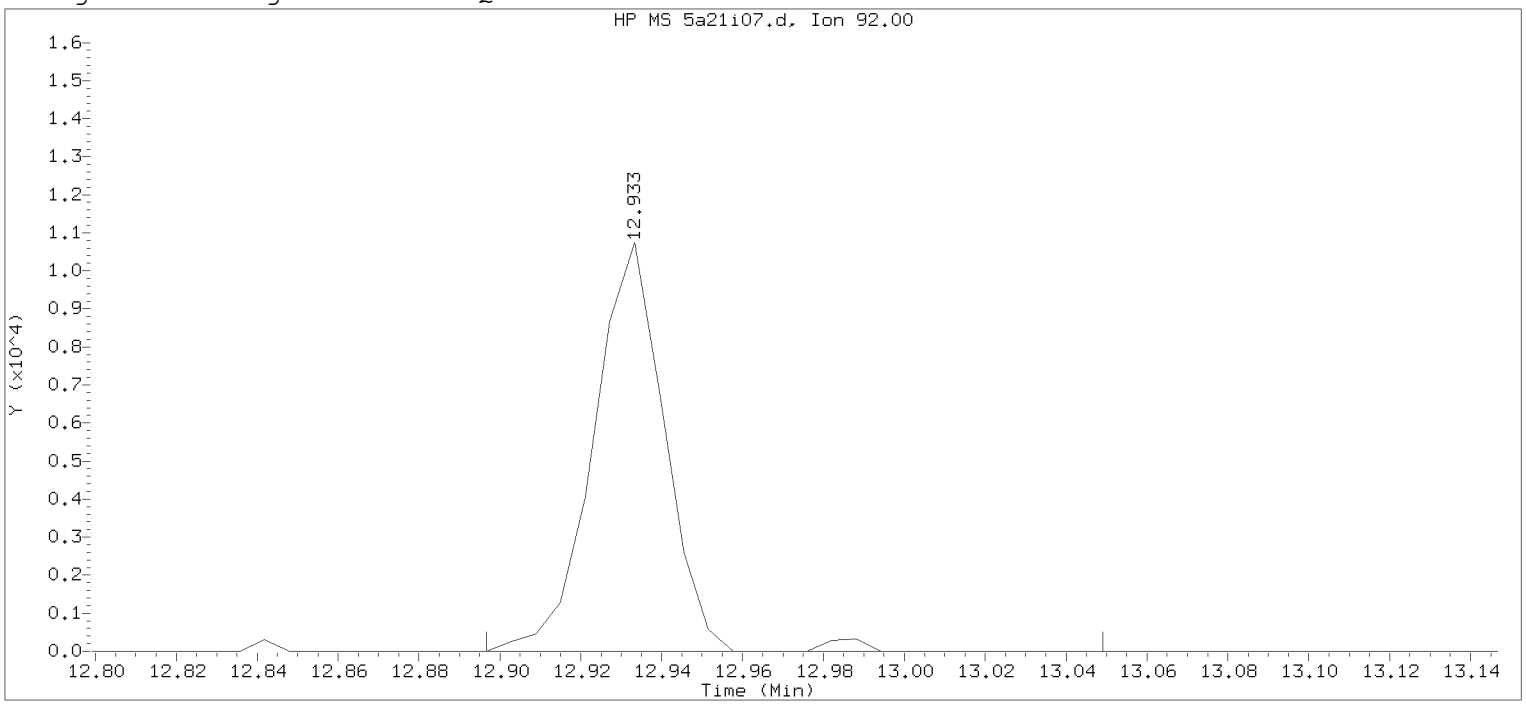
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
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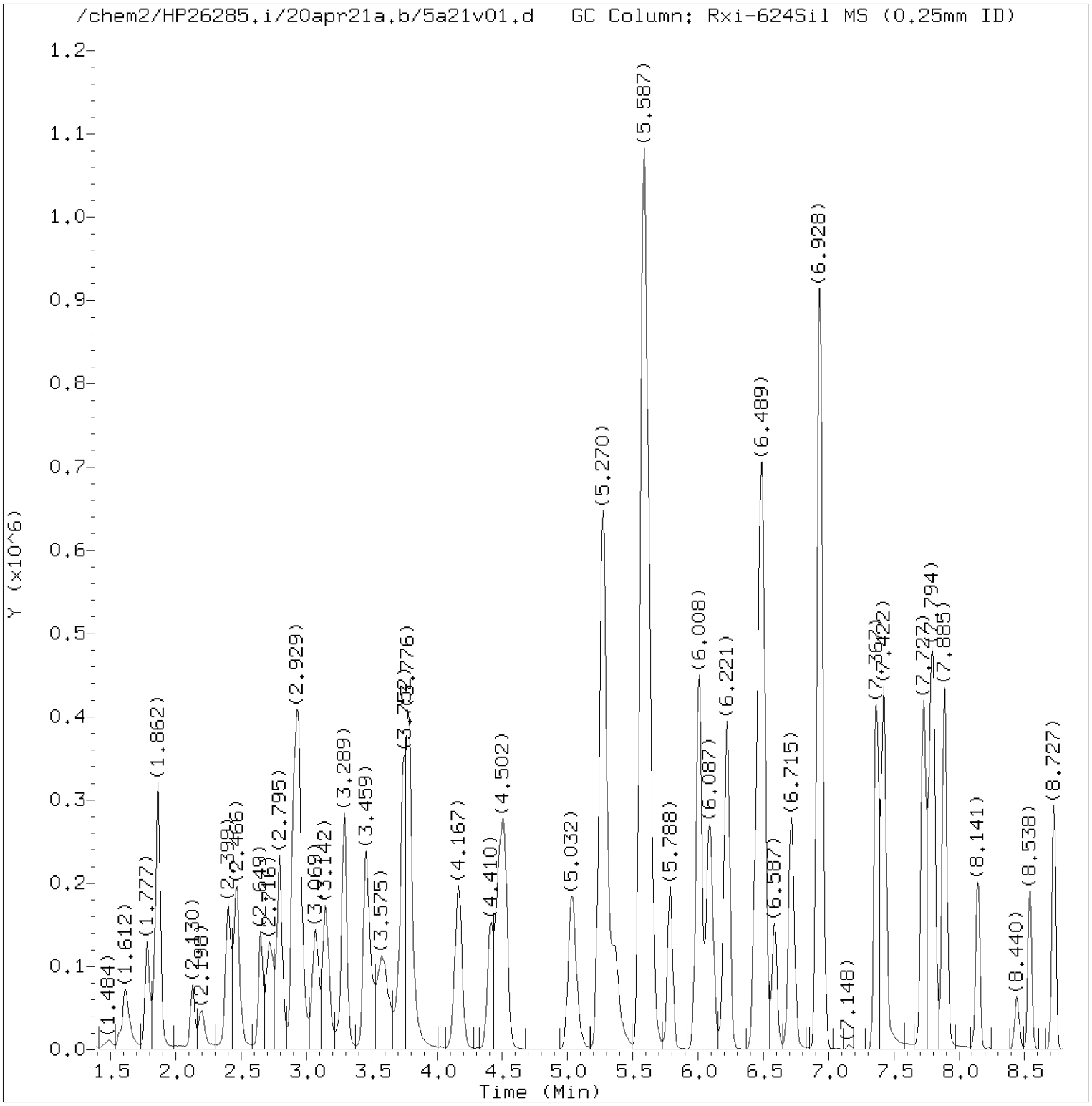
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area : 13218
On-column Amount (ng) : 0.9120
Integration start scan : 1887 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

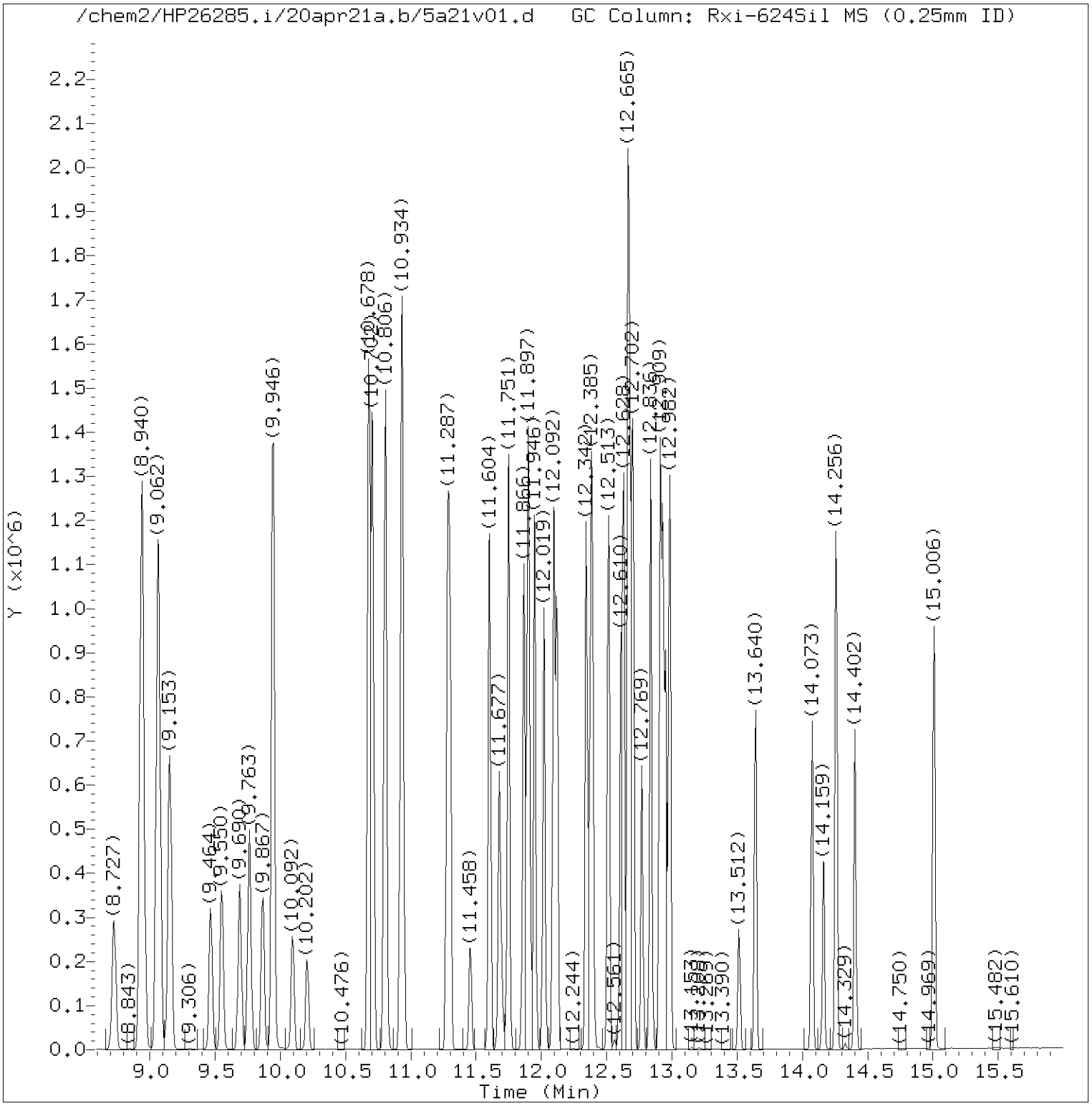
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	153929	18.338
4) Chloromethane	(2)	1.777	50	142840	21.449
5) 1,3-Butadiene	(2)	1.856	39	175348	18.945
6) Vinyl Chloride	(2)	1.868	62	129473	21.984
8) Bromomethane	(2)	2.130	94	66235	16.751
9) Chloroethane	(2)	2.198	64	60087	21.549
10) Dichlorofluoromethane	(2)	2.399	67	189640	20.870
12) Trichlorofluoromethane	(2)	2.441	101	169578	23.510
11) n-Pentane	(2)	2.472	43	137590	20.493
14) Ethyl ether	(2)	2.649	59	98927	19.894
15) Freon 123a	(2)	2.716	67	156875	20.836
16) Acrolein	(1)	2.795	56	315459	136.518
17) 1,1-Dichloroethene	(2)	2.905	96	119026	21.239
18) Acetone	(1)	2.935	58	179400	157.417
19) Freon 113	(2)	2.935	101	135384	21.343
22) Methyl Iodide	(2)	3.069	142	211731	19.813
21) 2-Propanol	(1)	3.081	45	144837	156.180
23) Carbon Disulfide	(2)	3.142	76	389090	19.738
27) Methyl Acetate	(2)	3.277	43	174516	21.598
25) Allyl Chloride	(2)	3.295	41	208700	22.247
28) Methylene Chloride	(2)	3.453	84	130962	20.731
29)*t-Butyl alcohol-d10	(1)	3.484	65	364936M	250.000
30) t-Butyl alcohol	(1)	3.587	59	363942	211.727
31) Acrylonitrile	(2)	3.740	53	413194	96.882
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	334830	20.187
32) trans-1,2-Dichloroethene	(2)	3.789	96	127049	20.260
34) n-Hexane	(2)	4.167	57	197244	21.213
36) 1,1-Dichloroethane	(2)	4.410	63	230235	20.282
38) di-Isopropyl ether	(2)	4.478	45	409230	20.184
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	195245	20.245
40) Ethyl t-butyl ether	(2)	5.038	59	362275	20.127
44) 2-Butanone	(2)	5.264	43	925621	149.118
42) cis-1,2-Dichloroethene	(2)	5.276	96	151628	21.378
45) 2,2-Dichloropropane	(2)	5.282	77	191399	19.982
47) Propionitrile	(1)	5.368	54	279353	149.289
48) Methacrylonitrile	(2)	5.581	67	640971	150.902
49) Bromochloromethane	(2)	5.618	128	69450	21.379
50) Tetrahydrofuran	(1)	5.630	71	165640	97.943

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.788	83	228695	20.086
53) 1,1,1-Trichloroethane	(2)	6.002	97	204895	19.987
52)$Dibromofluoromethane	(2)	6.008	113	258345	50.042
54) Cyclohexane	(2)	6.087	56	237837	19.921
43) 1,2-Dichloroethene (Total)	(2)		96	278677	41.638
56) Carbon Tetrachloride	(2)	6.215	117	181425	20.284
55) 1,1-Dichloropropene	(2)	6.227	75	185502	19.975
58) Isobutyl Alcohol	(1)	6.453	41	282165	492.465
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57776	50.038
60) Benzene	(2)	6.502	78	549206	19.890
61) 1,2-Dichloroethane	(2)	6.587	62	165650	19.532
65) t-Amyl methyl ether	(2)	6.715	73	363717	20.250
66)*Fluorobenzene	(2)	6.928	96	1036492	50.000
67) n-Heptane	(2)	6.947	43	171340	19.077
69) n-Butanol	(1)	7.367	56	485921	982.854
71) Trichloroethene	(2)	7.422	95	144668	19.965
73) Methylcyclohexane	(2)	7.727	83	246562	21.409
74) 1,2-Dichloropropane	(2)	7.776	63	141108	20.414
76) 1,4-Dioxane	(1)	7.867	88	63824M	520.439
75) Dibromomethane	(2)	7.885	93	87732	20.156
77) Methyl Methacrylate	(2)	7.892	69	134720	20.831
79) Bromodichloromethane	(2)	8.141	83	168466	19.960
80) 2-Nitropropane	(2)	8.440	41	54115	18.512
81) 2-Chloroethyl Vinyl Ether	(2)	8.538	63	107594	20.113
82) cis-1,3-Dichloropropene	(2)	8.727	75	209585	19.651
83) 4-Methyl-2-pentanone	(2)	8.940	43	1181742	98.773
84)$Toluene-d8	(3)	9.062	98	996070	50.667
89) Toluene	(3)	9.153	92	354959	20.477
90) trans-1,3-Dichloropropene	(3)	9.464	75	185163	19.908
92) Ethyl Methacrylate	(3)	9.550	69	202199	19.119
93) 1,1,2-Trichloroethane	(3)	9.690	97	128978	20.812
94) Tetrachloroethene	(3)	9.763	166	155797	21.191
95) 1,3-Dichloropropane	(3)	9.867	76	204418	19.866
97) 2-Hexanone	(3)	9.940	43	956228	103.826
91) 1,3-Dichloropropene (total)	(3)		100	394748	39.559
98) Dibromochloromethane	(3)	10.092	129	136958	20.885
100) 1,2-Dibromoethane	(3)	10.202	107	139008	20.347
101)*Chlorobenzene-d5	(3)	10.678	117	799942	50.000

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	388499	20.651
102) 1-Chlorohexane	(3)	10.708	91	200269	19.866
104) 1,1,1,2-Tetrachloroethane	(3)	10.800	131	133789	20.614
105) Ethylbenzene	(3)	10.806	91	694156	20.710
107) m+p-Xylene	(3)	10.934	106	542472	42.184
108) o-Xylene	(3)	11.281	106	262207	20.832
110) Styrene	(3)	11.299	104	428010	21.099
111) Bromoform	(3)	11.458	173	94256	19.866
112) Isopropylbenzene	(3)	11.604	105	695740	21.063
113) Cyclohexanone	(1)	11.677	55	268497	476.659
115)$4-Bromofluorobenzene	(3)	11.751	95	406882	49.122
109) Xylene (Total)	(3)		106	804679	63.015
116) Bromobenzene	(4)	11.866	156	162891	20.782
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	221731	20.847
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	197086	95.682
118) 1,2,3-Trichloropropane	(4)	11.909	110	64916	20.727
120) n-Propylbenzene	(4)	11.946	91	818744	21.246
121) 2-Chlorotoluene	(4)	12.019	126	161976	20.506
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	567082	20.934
122) 4-Chlorotoluene	(4)	12.116	126	164921	20.669
125) tert-Butylbenzene	(4)	12.342	134	112503M	20.897
126) Pentachloroethane	(4)	12.372	167	96008	21.722
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	576776	20.675
128) sec-Butylbenzene	(4)	12.513	105	700610	20.860
130) 1,3-Dichlorobenzene	(4)	12.610	146	303723	20.601
131) p-Isopropyltoluene	(4)	12.628	119	588086	20.997
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	411145	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	311579	20.825
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	605473	22.612
136) Benzyl Chloride	(4)	12.769	91	369928	18.129
137) 1,3-Diethylbenzene	(4)	12.836	119	355013	21.937
138) 1,4-Diethylbenzene	(4)	12.909	119	366890	21.919
140) n-Butylbenzene	(4)	12.927	92	289999	20.527
139) 1,2-Dichlorobenzene	(4)	12.952	146	294834	20.819
141) 1,2-Diethylbenzene	(4)	12.982	119	297190	21.714
142) Diethylbenzene (total)	(4)		100	1019093	65.569
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	54669	20.358
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	189738	20.285

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Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2,4-Trichlorobenzene	(4)	14.073	180	180603	20.552
148) Hexachlorobutadiene	(4)	14.165	225	66276	19.611
149) Naphthalene	(4)	14.256	128	720292	20.699
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	175964	20.235
151) 2-Methylnaphthalene	(4)	15.006	142	382869	21.177

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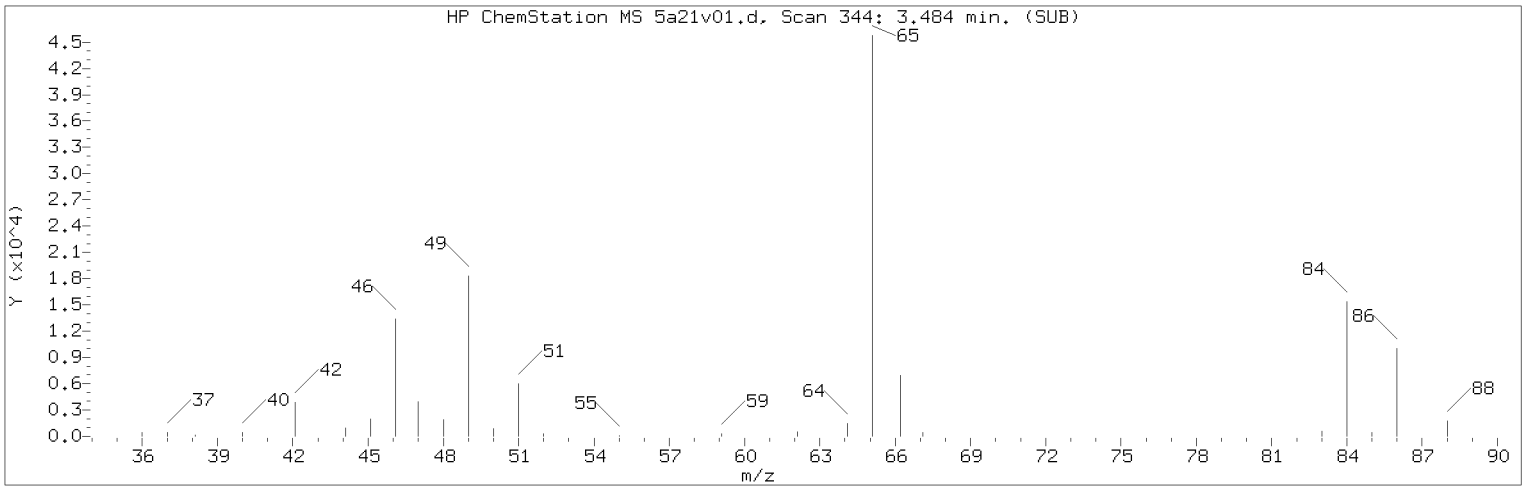
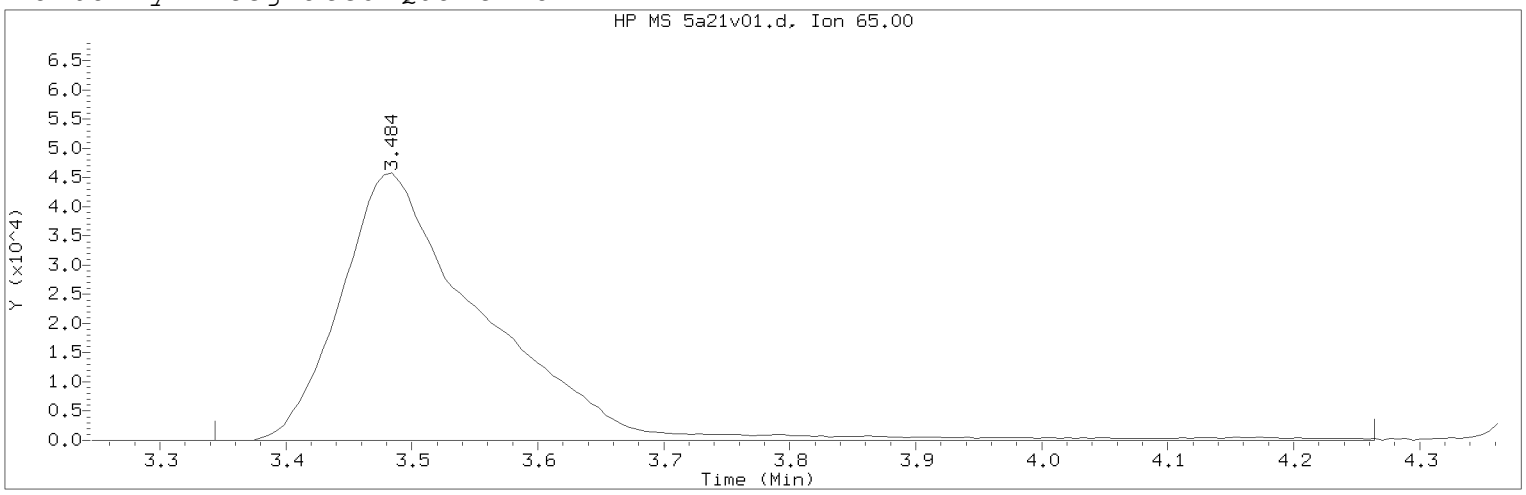
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

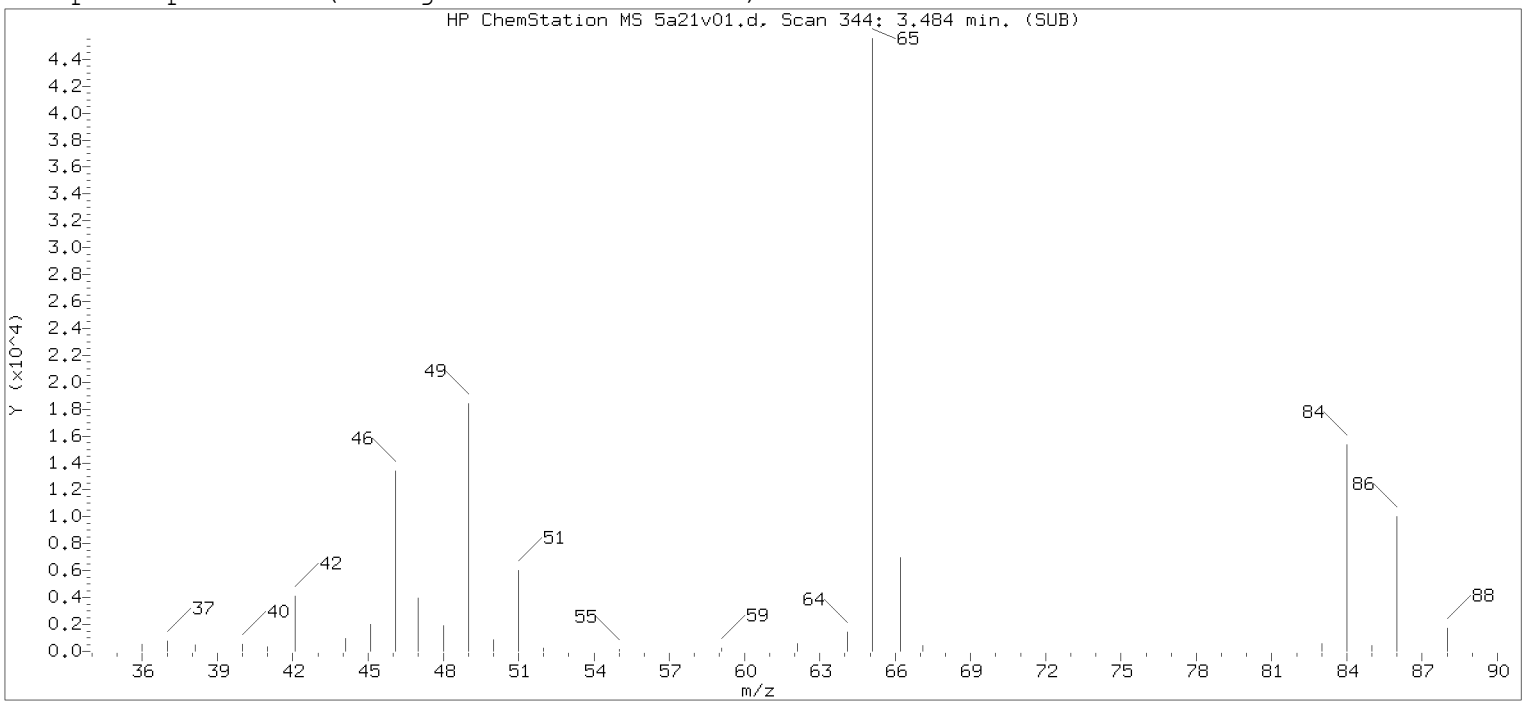
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 364936M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

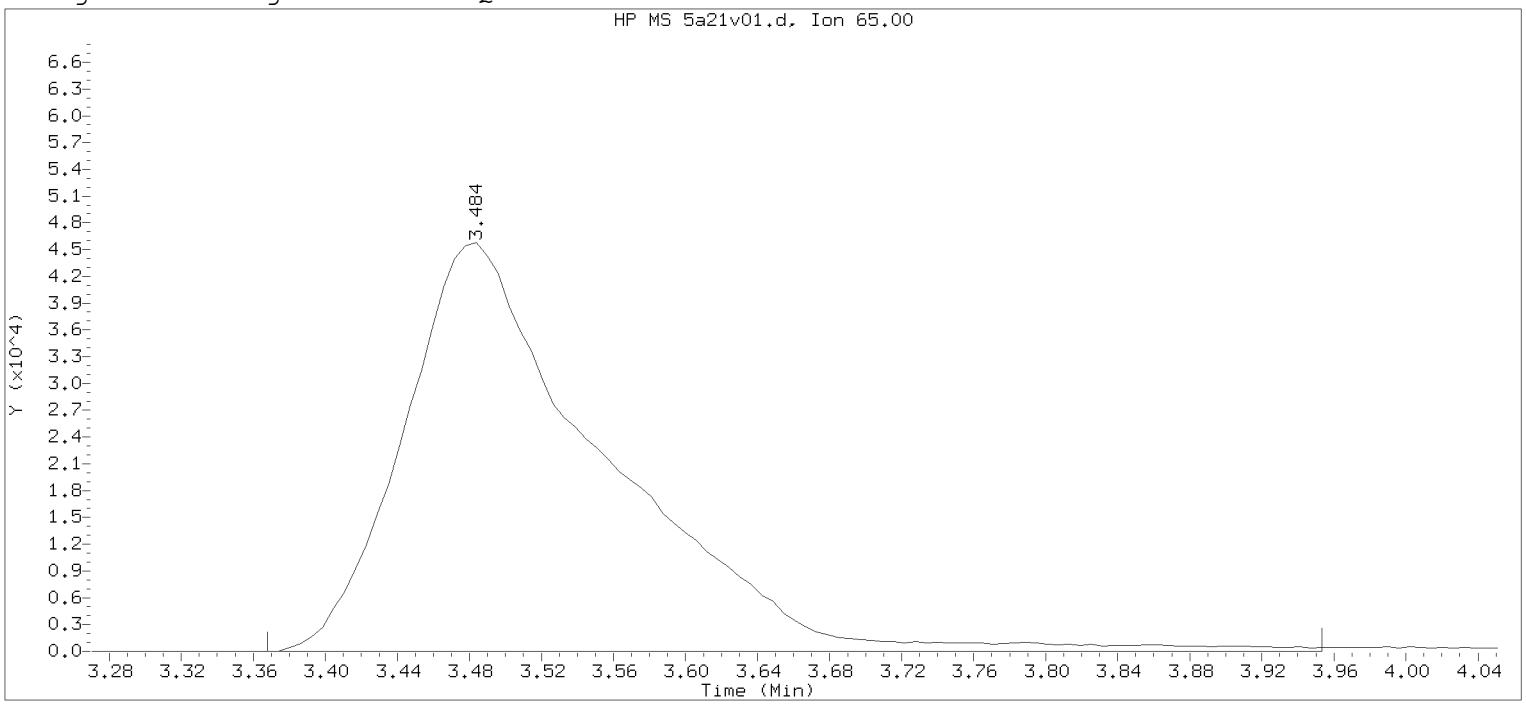
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

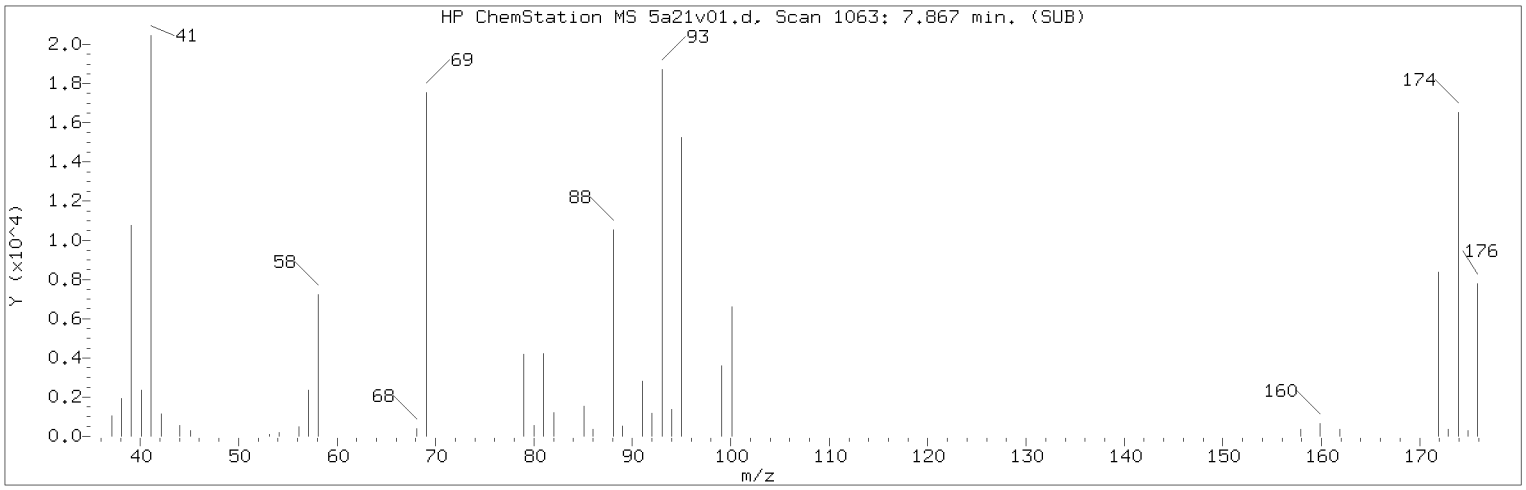
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

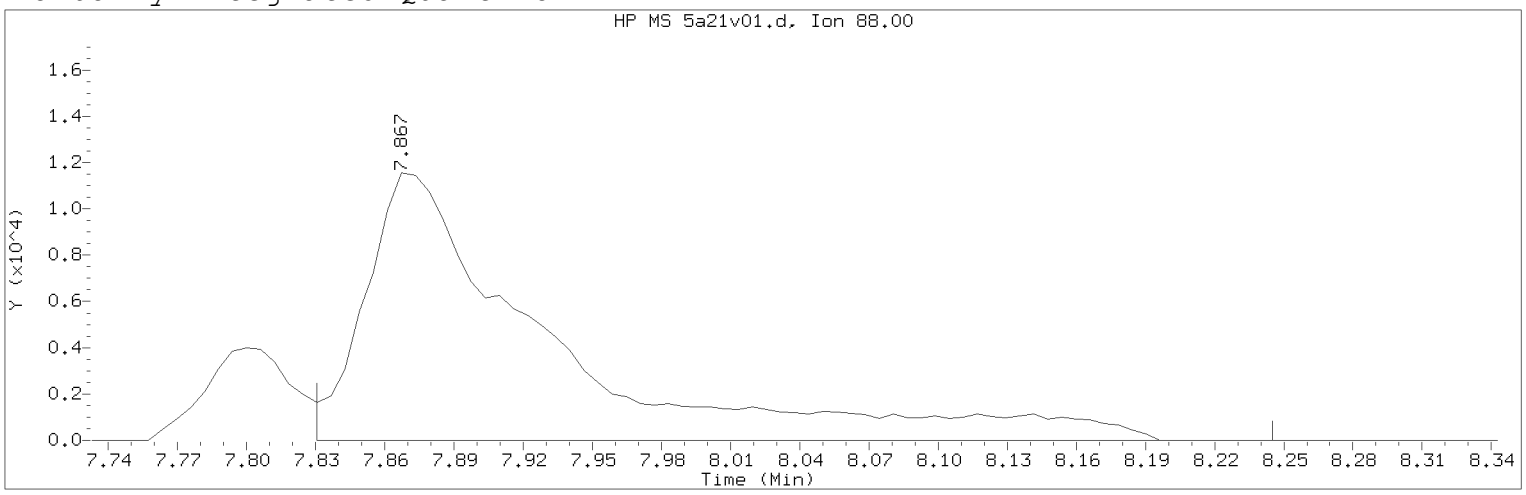
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 357592
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

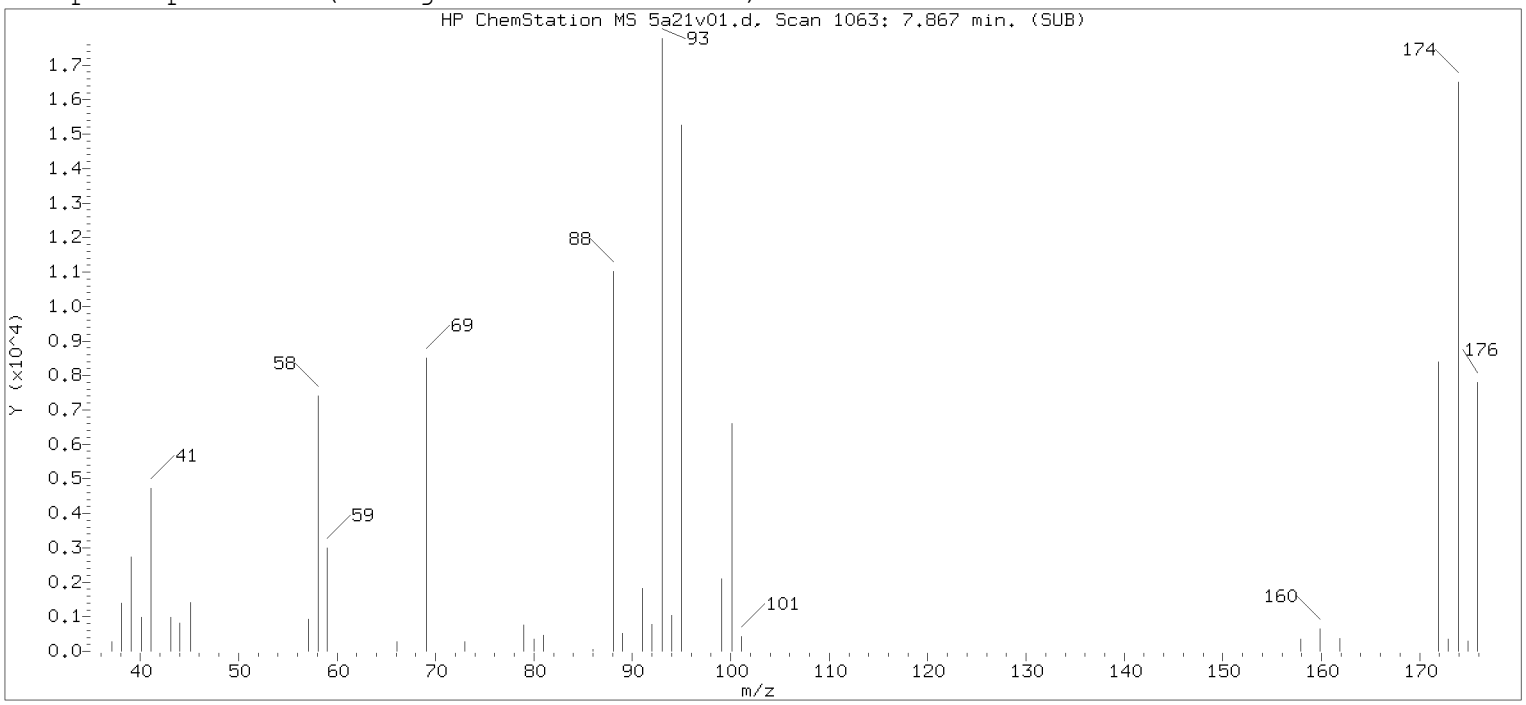
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area (flag) : 63824M
On-Column Amount (ng) : 520.4390
Integration start scan : 1056 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

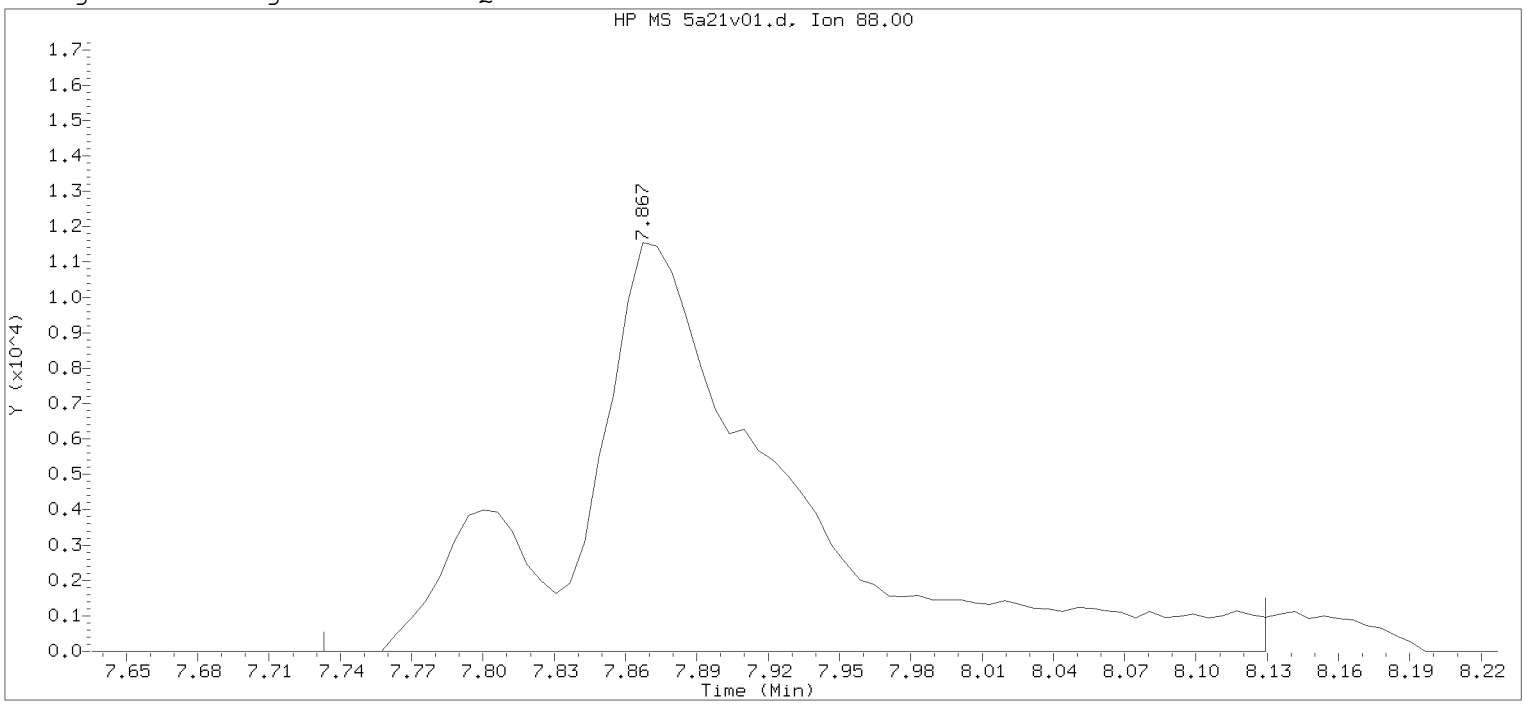
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

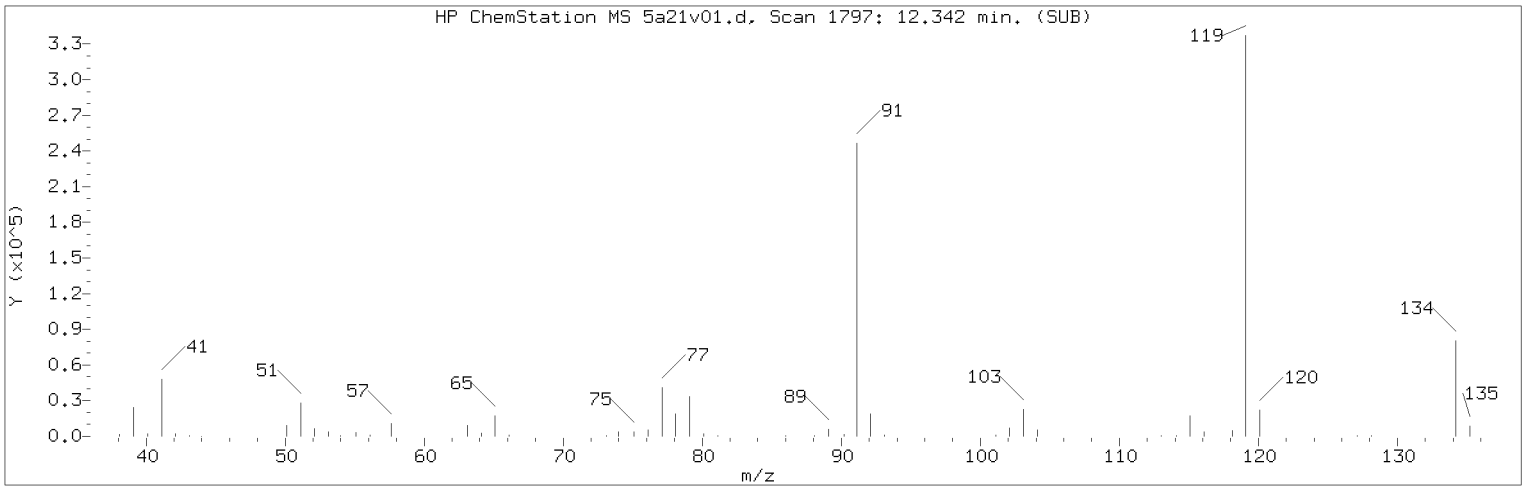
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

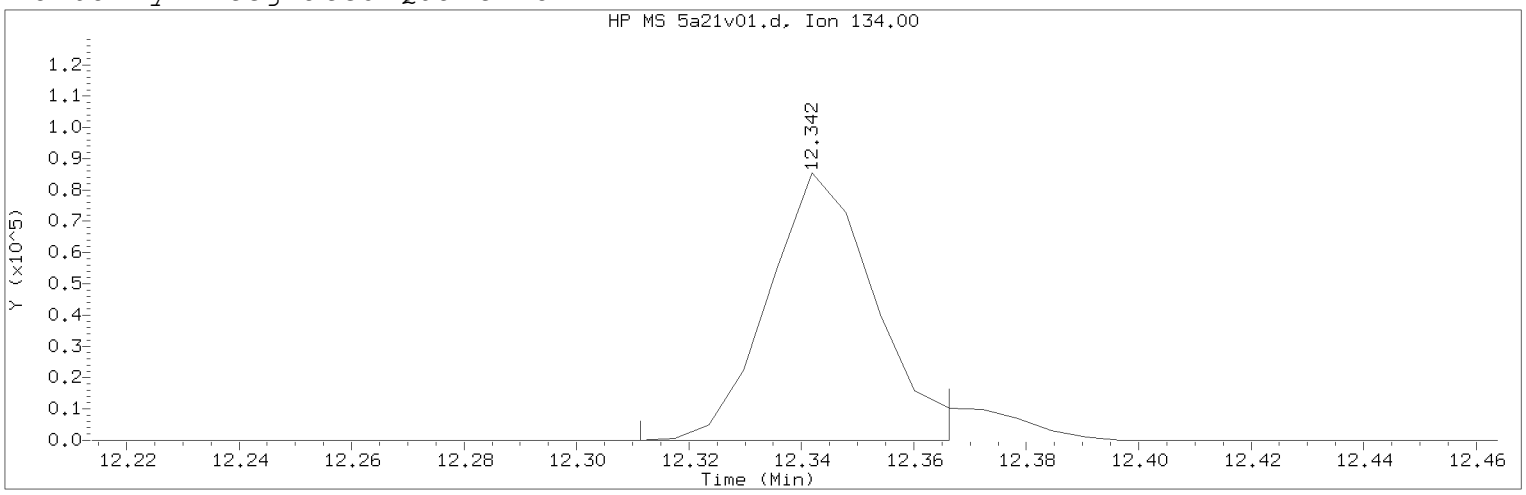
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area : 70811
On-column Amount (ng) : 589.2768
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KASPOSITO

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

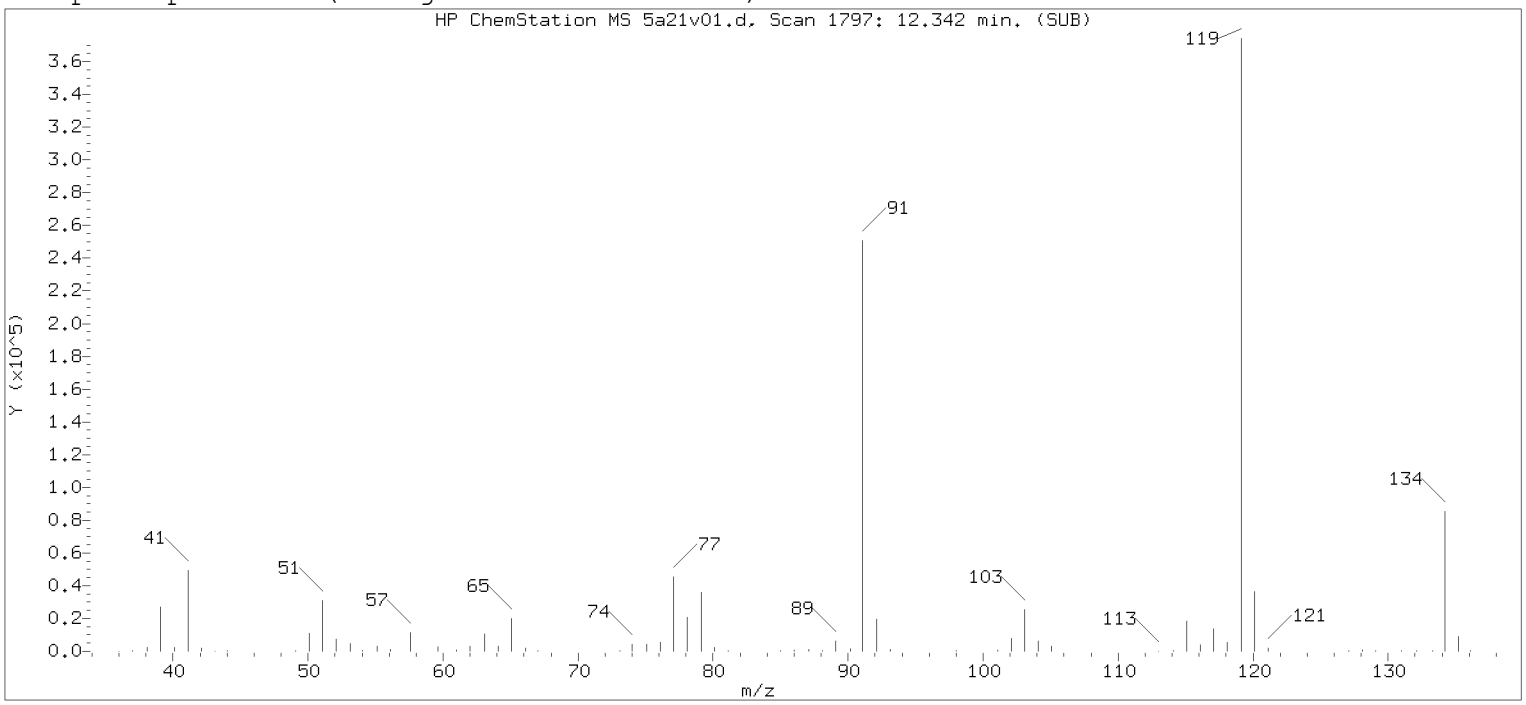
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 112503M
On-Column Amount (ng) : 20.8965
Integration start scan : 1791 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

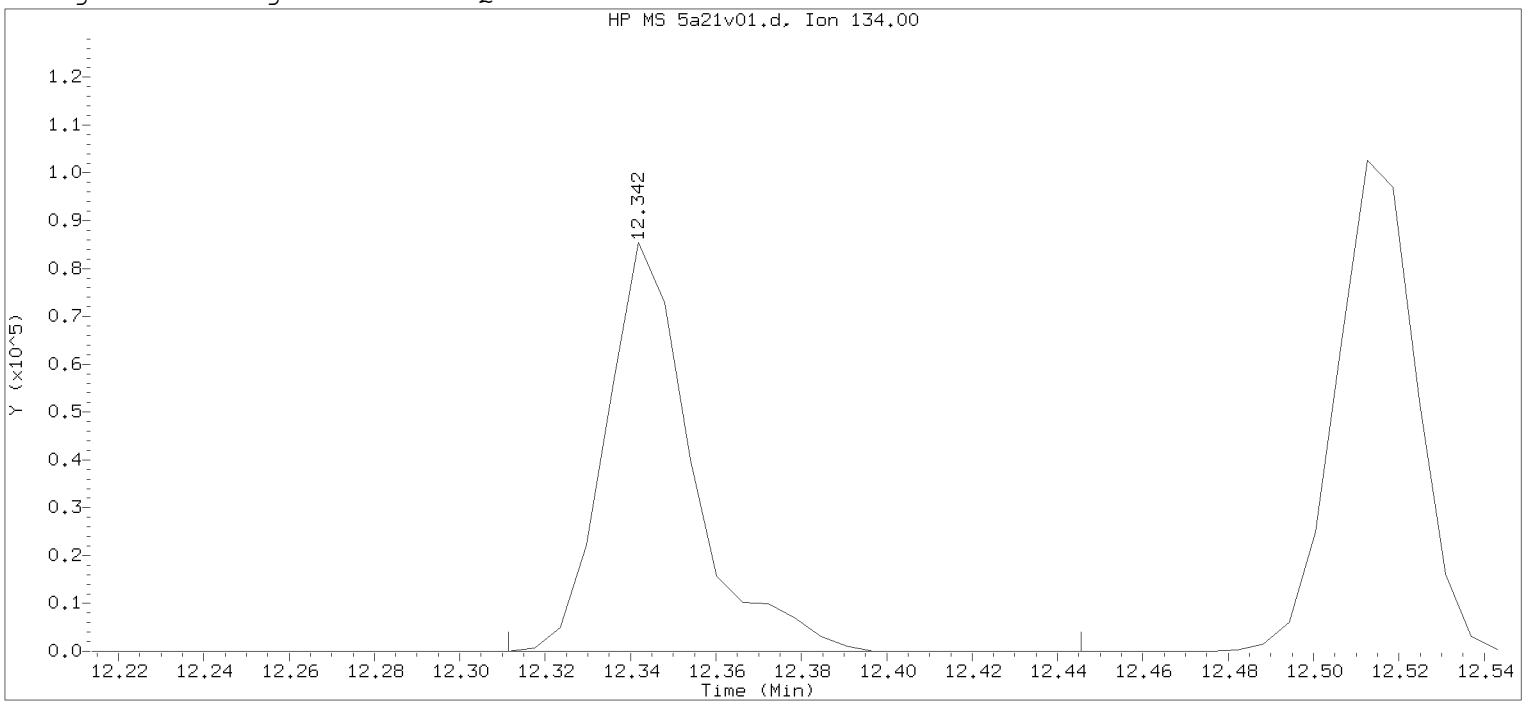
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 120170
On-column Amount (ng) : 22.3208
Integration start scan : 1791 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KAS02648

Data File: /chem2/HP26285.i/20may23a.b/5y23t01.d

Date : 23-MAY-2020 14:02

Client ID: jan28-20

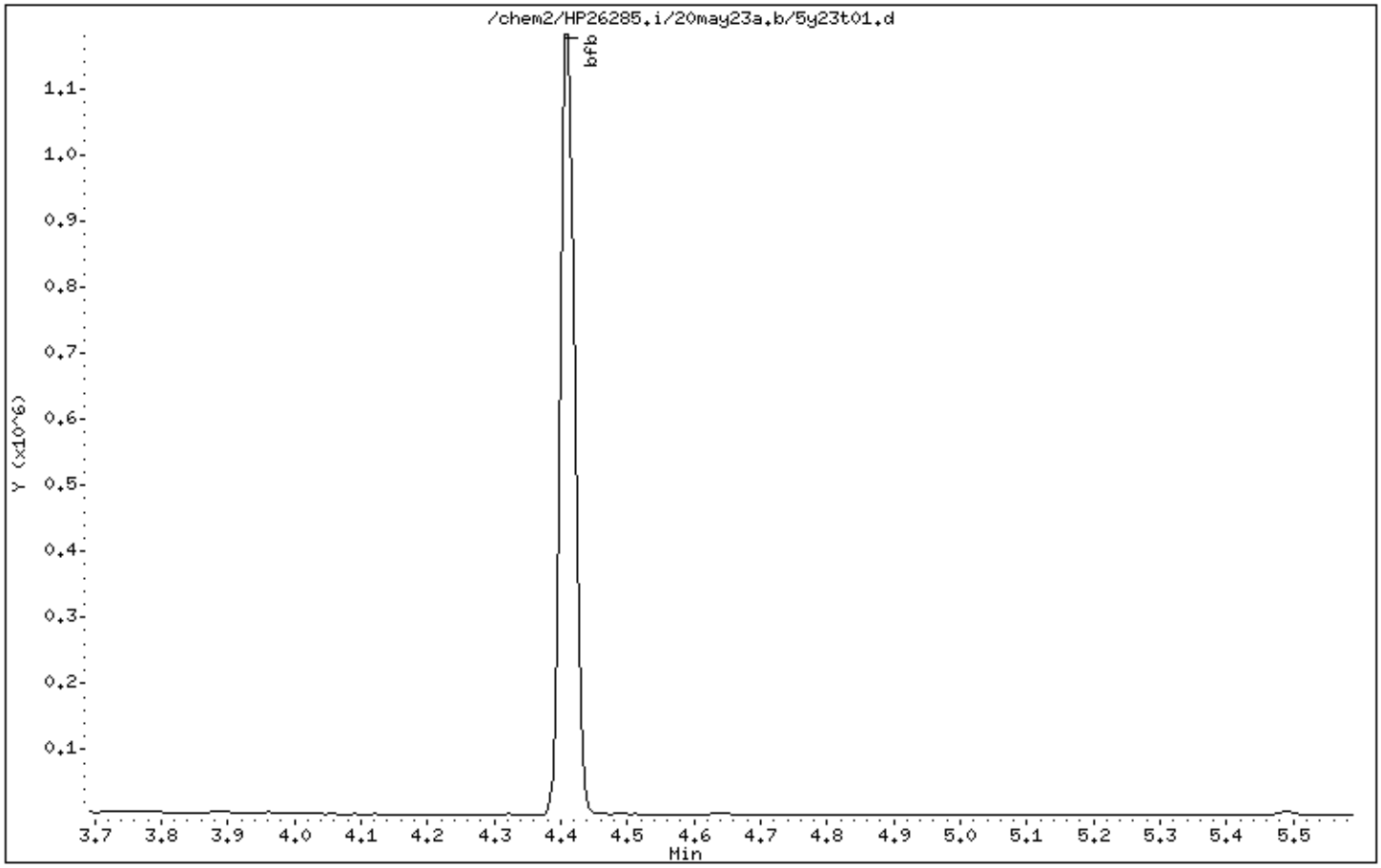
Instrument: HP26285.i

Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may23a.b/5y23t01.d

Date : 23-MAY-2020 14:02

Client ID: jan28-20

Instrument: HP26285.i

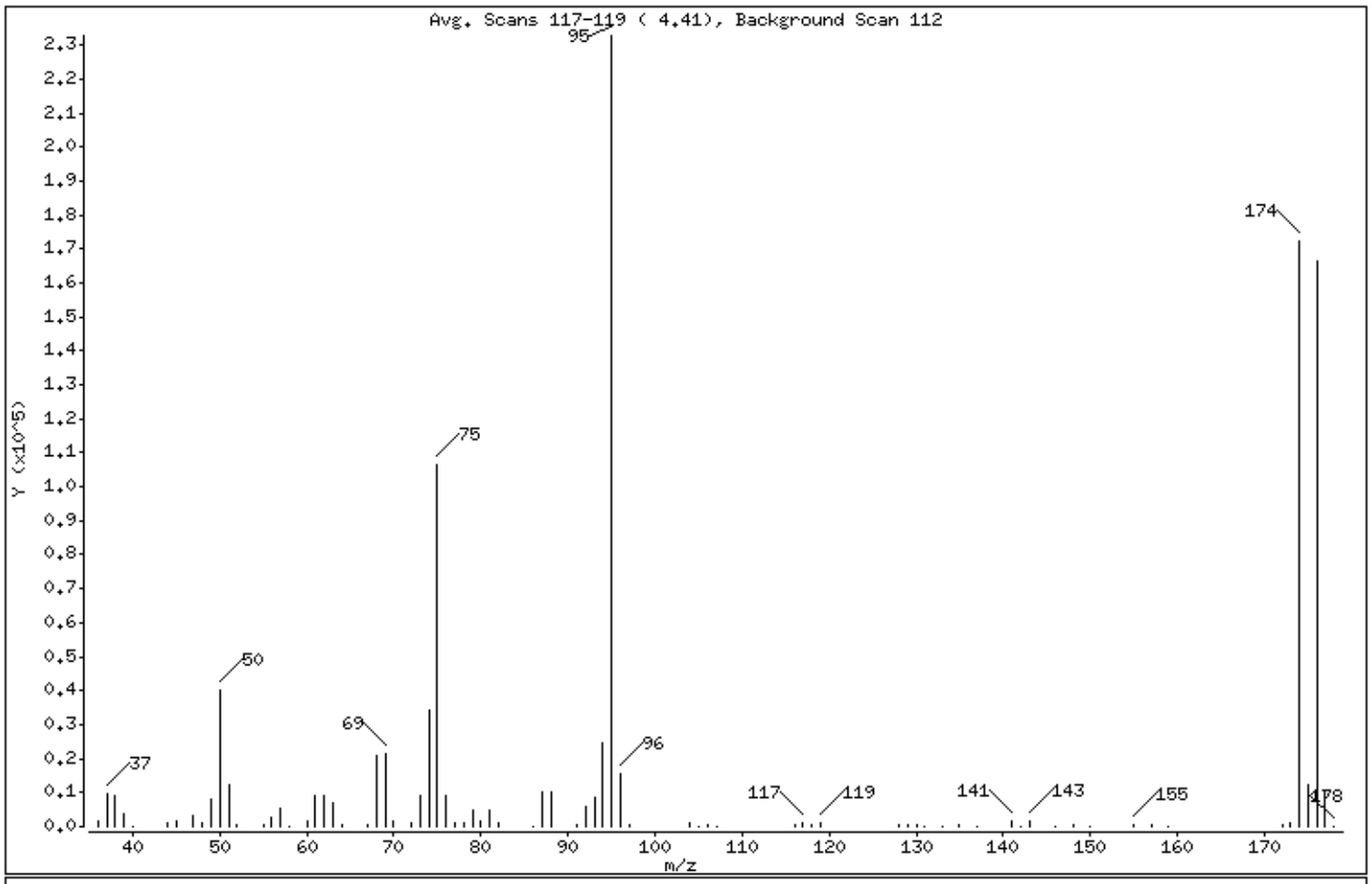
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.23
75	30.00 - 60.00% of mass 95	45.82
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.50 (0.67)
174	50.00 - 100.00% of mass 95	74.03
175	5.00 - 9.00% of mass 174	5.26 (7.11)
176	95.00 - 101.00% of mass 174	71.43 (96.49)
177	5.00 - 9.00% of mass 176	4.71 (6.59)

Date : 23-MAY-2020 14:02

Client ID: jan28-20 Instrument: HP26285.i

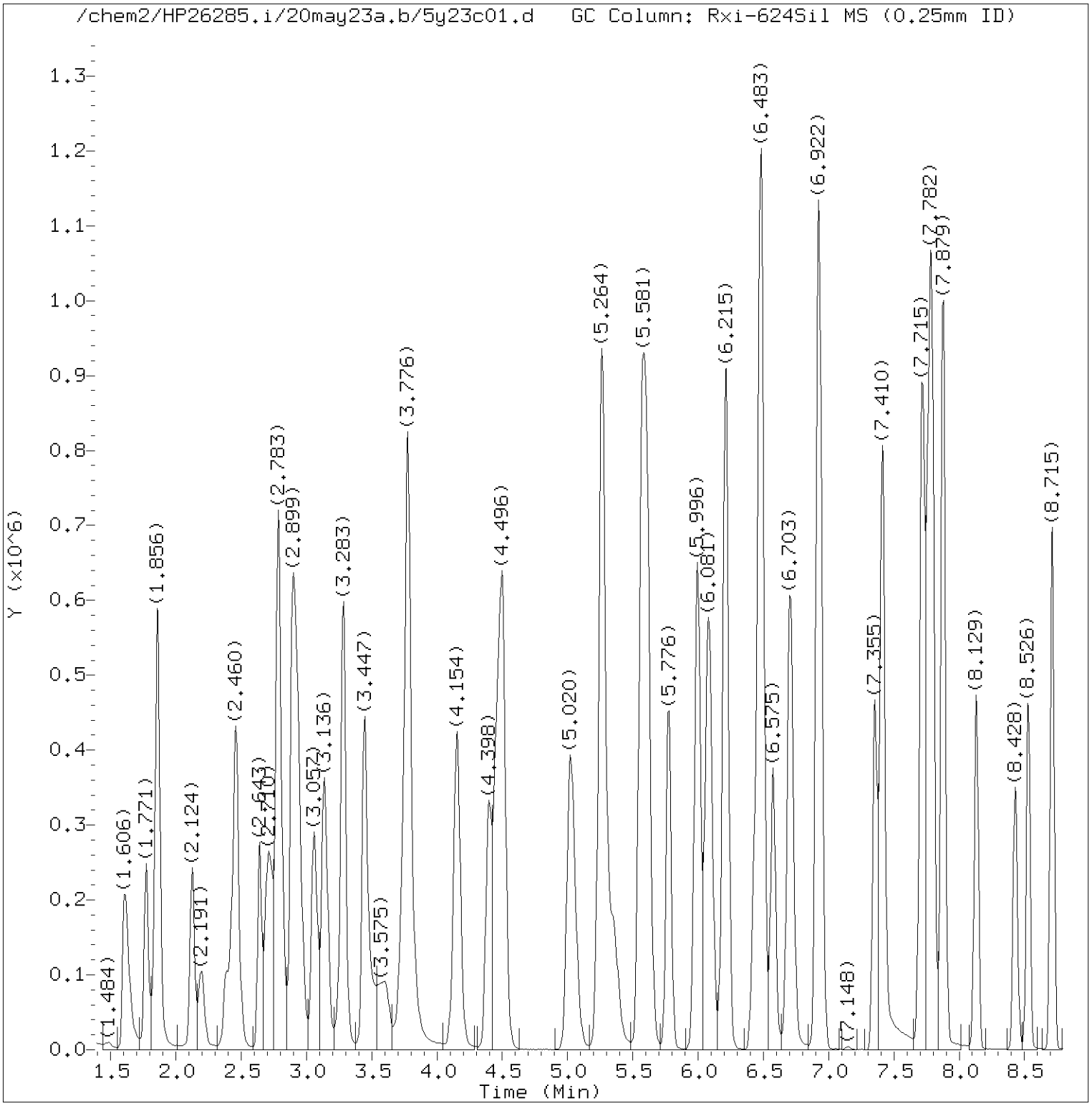
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y23t01.d
Spectrum: Avg. Scans 117-119 (4.41), Background Scan 112
Location of Maximum: 95.00
Number of points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1839	63.00	6821	91.00	712	135.00	379
37.00	9862	64.00	646	92.00	5680	137.00	217
38.00	8858	67.00	606	93.00	8790	141.00	1677
39.00	3526	68.00	20976	94.00	24440	142.00	97
40.00	203	69.00	21440	95.00	232768	143.00	1743
44.00	1020	70.00	1670	96.00	15633	146.00	200
45.00	1799	72.00	929	97.00	498	148.00	459
47.00	3222	73.00	8857	104.00	854	150.00	99
48.00	1158	74.00	34240	105.00	260	155.00	484
49.00	8269	75.00	106672	106.00	714	157.00	373
50.00	40120	76.00	9192	107.00	83	159.00	93
51.00	12255	77.00	1318	116.00	674	172.00	278
52.00	575	78.00	869	117.00	1122	173.00	1163
55.00	594	79.00	4674	118.00	703	174.00	172288
56.00	2833	80.00	1399	119.00	998	175.00	12253
57.00	5349	81.00	4919	128.00	745	176.00	166272
58.00	84	82.00	1008	129.00	384	177.00	10963
60.00	1773	86.00	211	130.00	736	178.00	267
61.00	9181	87.00	10085	131.00	219		
62.00	9291	88.00	9906	133.00	114		



Total Ion Chromatogram (TIC)

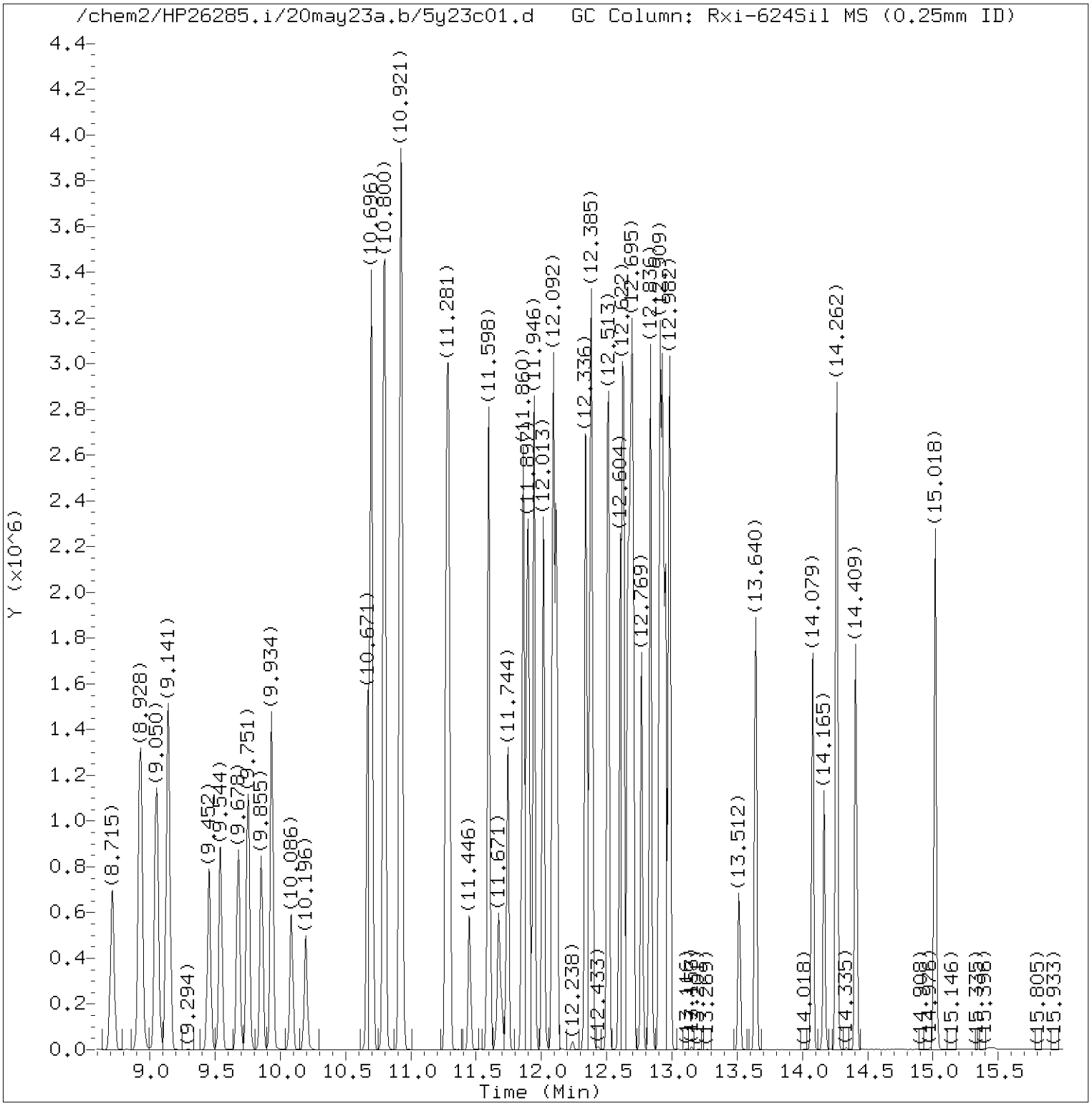
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	474502	58.780
4) Chloromethane	(2)	1.771	50	321469	50.195
5) 1,3-Butadiene	(2)	1.856	39	288551	32.417
6) Vinyl Chloride	(2)	1.862	62	315014	55.620
8) Bromomethane	(2)	2.124	94	220027	57.862
9) Chloroethane	(2)	2.198	64	149617	55.794
12) Trichlorofluoromethane	(2)	2.435	101	395751	57.053
11) n-Pentane	(2)	2.460	43	297828	46.125
14) Ethyl ether	(2)	2.643	59	191302	40.004
15) Freon 123a	(2)	2.710	67	335464	46.331
16) Acrolein	(1)	2.783	56	1024944	540.347
17) 1,1-Dichloroethene	(2)	2.893	96	255576	47.421
17) 1,1-Dichloroethene	(2)	2.893	63	132816	49.170
19) Freon 113	(2)	2.923	101	294703	48.309
18) Acetone	(1)	2.929	58	111549	119.239
22) Methyl Iodide	(2)	3.057	142	488082	47.493
21) 2-Propanol	(1)	3.069	45	155238	203.924
23) Carbon Disulfide	(2)	3.136	76	807597	42.599
27) Methyl Acetate	(2)	3.264	43	376253	48.421
25) Allyl Chloride	(2)	3.283	41	424523	47.055
28) Methylene Chloride	(2)	3.447	84	286257	47.120
29)*t-Butyl alcohol-d10	(1)	3.502	65	299566	250.000
30) t-Butyl alcohol	(1)	3.600	59	313149	221.931
31) Acrylonitrile	(2)	3.728	53	207173	50.511
32) trans-1,2-Dichloroethene	(2)	3.776	96	282149	46.786
33) Methyl Tertiary Butyl Ether	(2)	3.776	73	771175	48.346
34) n-Hexane	(2)	4.154	57	401129	44.858
36) 1,1-Dichloroethane	(2)	4.392	63	505128	46.270
38) di-Isopropyl ether	(2)	4.465	45	885929	45.436
39) 2-Chloro-1,3-butadiene	(2)	4.502	53	435105	46.914
40) Ethyl t-butyl ether	(2)	5.020	59	787682	45.504
44) 2-Butanone	(2)	5.258	43	590464	98.913
42) cis-1,2-Dichloroethene	(2)	5.264	96	321767	47.173
45) 2,2-Dichloropropane	(2)	5.276	77	411078	44.627
47) Propionitrile	(1)	5.355	54	423912	275.979
48) Methacrylonitrile	(2)	5.569	67	486431	119.081
49) Bromochloromethane	(2)	5.605	128	155115	49.651
50) Tetrahydrofuran	(1)	5.618	71	161831	116.572

* = Compound is an internal standard.

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on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.776	83	520148	47.503
52)$Dibromofluoromethane	(2)	5.996	113	245138	49.375
52)$Dibromofluoromethane	(2)	5.996	111	251455	49.466
53) 1,1,1-Trichloroethane	(2)	5.996	97	470940	47.770
54) Cyclohexane	(2)	6.081	56	523973	45.635
54) Cyclohexane	(2)	6.081	84	440187	46.346
54) Cyclohexane	(2)	6.081	69	163362	45.871
43) 1,2-Dichloroethene (Total)	(2)		96	603916	93.959
56) Carbon Tetrachloride	(2)	6.203	117	407894	47.422
55) 1,1-Dichloropropene	(2)	6.215	75	415589	46.535
58) Isobutyl Alcohol	(1)	6.447	41	305847	650.280
57)$1,2-Dichloroethane-d4	(2)	6.465	102	55573	50.048
57)$1,2-Dichloroethane-d4	(2)	6.465	65	275640	50.772
57)$1,2-Dichloroethane-d4	(2)	6.471	104	35754	50.288
60) Benzene	(2)	6.489	78	1241453	46.750
61) 1,2-Dichloroethane	(2)	6.575	62	387905	47.560
61) 1,2-Dichloroethane	(2)	6.575	98	35041	50.804
65) t-Amyl methyl ether	(2)	6.703	73	797389	46.164
66)*Fluorobenzene	(2)	6.916	96	996784	50.000
67) n-Heptane	(2)	6.934	43	381144	44.126
69) n-Butanol	(1)	7.355	56	542431	1336.571
71) Trichloroethene	(2)	7.410	95	330234	47.389
73) Methylcyclohexane	(2)	7.715	83	538343	48.608
73) Methylcyclohexane	(2)	7.715	98	227114	48.439
74) 1,2-Dichloropropane	(2)	7.764	63	315562	47.471
76) 1,4-Dioxane	(1)	7.861	88	76977M	764.671
75) Dibromomethane	(2)	7.873	93	202527	48.384
77) Methyl Methacrylate	(2)	7.879	69	300837	48.370
79) Bromodichloromethane	(2)	8.129	83	386004	47.557
80) 2-Nitropropane	(2)	8.428	41	291047	103.528
81) 2-Chloroethyl Vinyl Ether	(2)	8.526	63	249803	48.558
82) cis-1,3-Dichloropropene	(2)	8.715	75	492296	47.996
83) 4-Methyl-2-pentanone	(2)	8.928	43	1196509	103.991
84)$Toluene-d8	(3)	9.050	98	959114	50.258
84)$Toluene-d8	(3)	9.050	100	627469	49.936
89) Toluene	(3)	9.141	92	807644	47.996
90) trans-1,3-Dichloropropene	(3)	9.452	75	458733	50.809
92) Ethyl Methacrylate	(3)	9.544	69	503425	49.036

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) 1,1,2-Trichloroethane	(3)	9.678	97	303522	50.453
94) Tetrachloroethene	(3)	9.751	166	356018	49.884
95) 1,3-Dichloropropane	(3)	9.855	76	491984	49.254
97) 2-Hexanone	(3)	9.934	43	972882	108.819
98) Dibromochloromethane	(3)	10.086	129	319227	50.147
91) 1,3-Dichloropropene (total)	(3)		100	951029	98.805
100) 1,2-Dibromoethane	(3)	10.196	107	334020	50.366
101)*Chlorobenzene-d5	(3)	10.671	117	776530	50.000
103) Chlorobenzene	(3)	10.696	112	911124	49.891
102) 1-Chlorohexane	(3)	10.696	91	466973	47.718
104) 1,1,1,2-Tetrachloroethane	(3)	10.793	131	324292	51.472
105) Ethylbenzene	(3)	10.800	91	1640923	50.433
107) m+p-Xylene	(3)	10.921	106	1257831	100.760
108) o-Xylene	(3)	11.275	106	619454	50.698
110) Styrene	(3)	11.293	104	1013868	51.487
111) Bromoform	(3)	11.452	173	236435	51.335
112) Isopropylbenzene	(3)	11.598	105	1625994	50.710
113) Cyclohexanone	(1)	11.671	55	288415MA	623.752
115)$4-Bromofluorobenzene	(3)	11.744	95	397940	49.491
115)$4-Bromofluorobenzene	(3)	11.744	174	319231	50.893
109) Xylene (Total)	(3)		106	1877285	151.458
116) Bromobenzene	(4)	11.860	156	393227	49.738
117) 1,1,2,2-Tetrachloroethane	(4)	11.866	83	543222	50.634
119) trans-1,4-Dichloro-2-butene	(4)	11.891	53	298438	136.792
118) 1,2,3-Trichloropropane	(4)	11.903	110	158175	50.070
120) n-Propylbenzene	(4)	11.946	91	1919906	49.392
121) 2-Chlorotoluene	(4)	12.013	126	386969	48.569
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	1356508	49.645
122) 4-Chlorotoluene	(4)	12.116	126	396564	49.273
125) tert-Butylbenzene	(4)	12.342	134	269454M	49.619
126) Pentachloroethane	(4)	12.366	167	226093	50.714
127) 1,2,4-Trimethylbenzene	(4)	12.385	105	1420551	50.485
128) sec-Butylbenzene	(4)	12.513	105	1683332	49.689
130) 1,3-Dichlorobenzene	(4)	12.604	146	737999	49.628
131) p-Isopropyltoluene	(4)	12.628	119	1419663	50.251
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	414707	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	748129	49.572
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	1346627	49.858

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
136) Benzyl Chloride	(4)	12.769	91	989368	48.069
137) 1,3-Diethylbenzene	(4)	12.836	119	816636	50.028
138) 1,4-Diethylbenzene	(4)	12.909	119	849103	50.291
140) n-Butylbenzene	(4)	12.927	92	696224	48.857
139) 1,2-Dichlorobenzene	(4)	12.952	146	706923	49.489
141) 1,2-Diethylbenzene	(4)	12.982	119	682389	49.430
142) Diethylbenzene (total)	(4)		100	2348128	149.749
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	136244	50.300
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	469231	49.734
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	440659	49.715
148) Hexachlorobutadiene	(4)	14.165	225	164524	48.264
149) Naphthalene	(4)	14.262	128	1802168	51.343
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	435836	49.690
151) 2-Methylnaphthalene	(4)	15.018	142	920764	50.491

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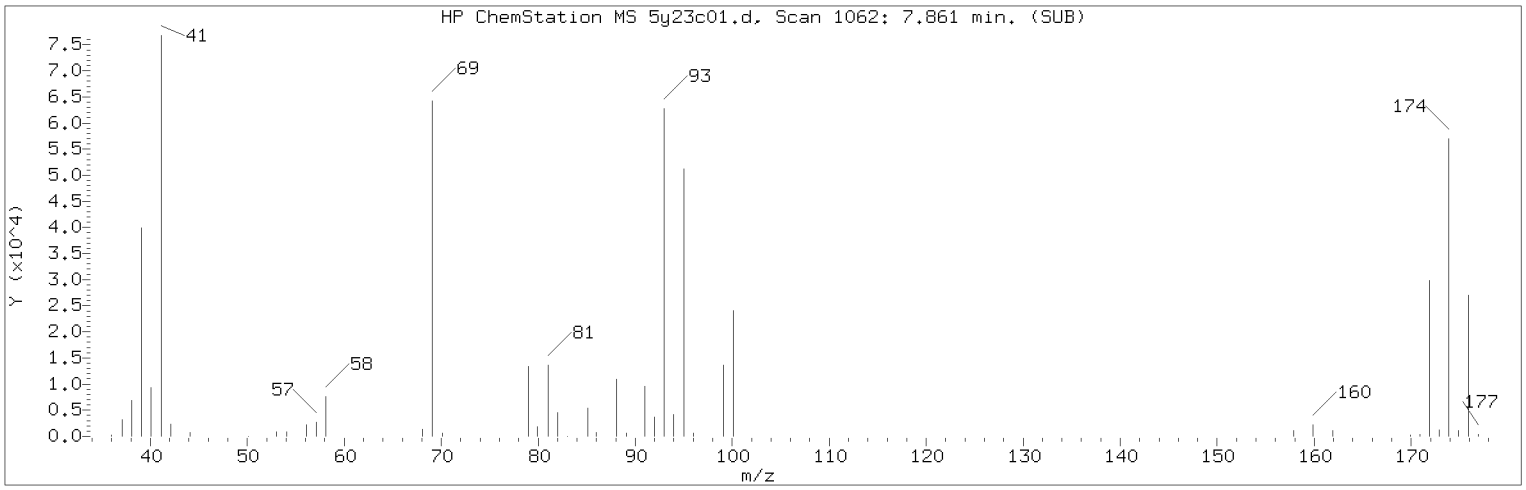
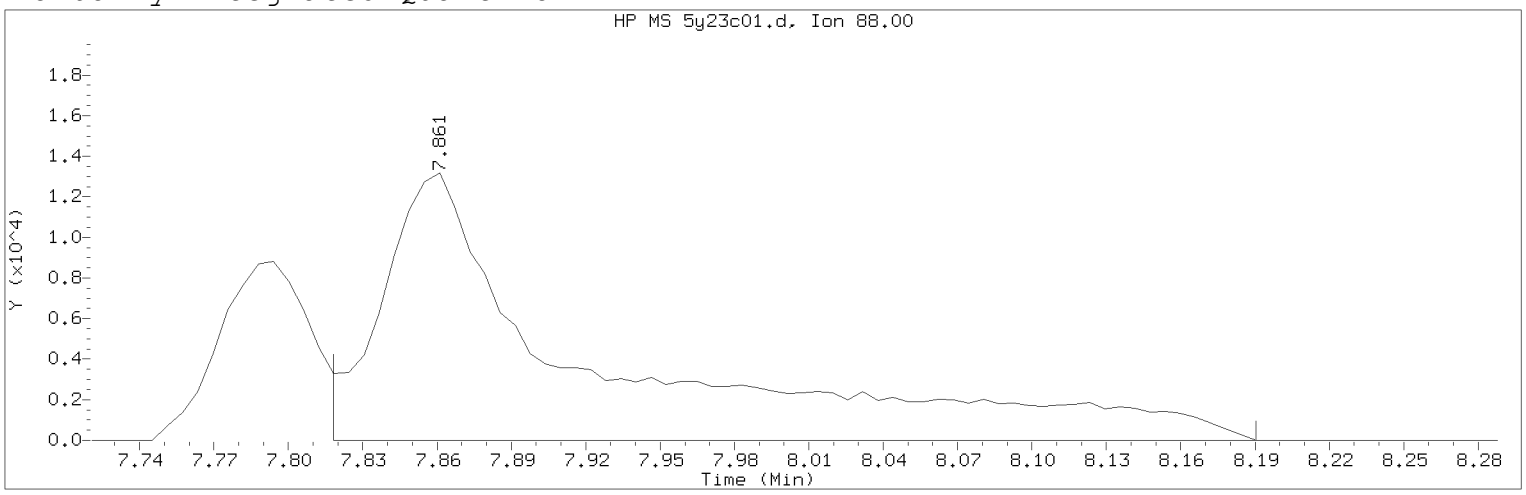
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

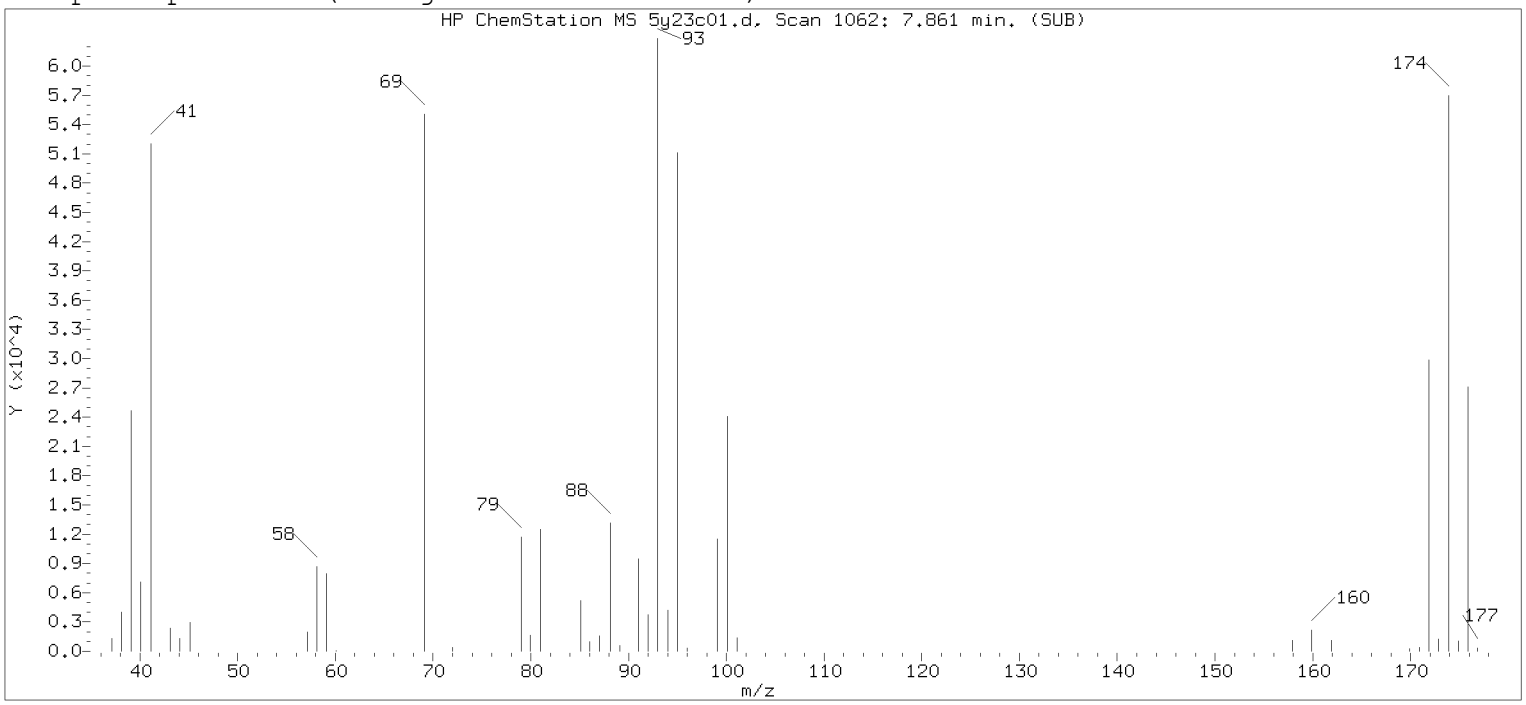
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 76977M
On-Column Amount (ng) : 764.6713
Integration start scan : 1054 Integration stop scan: 1115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

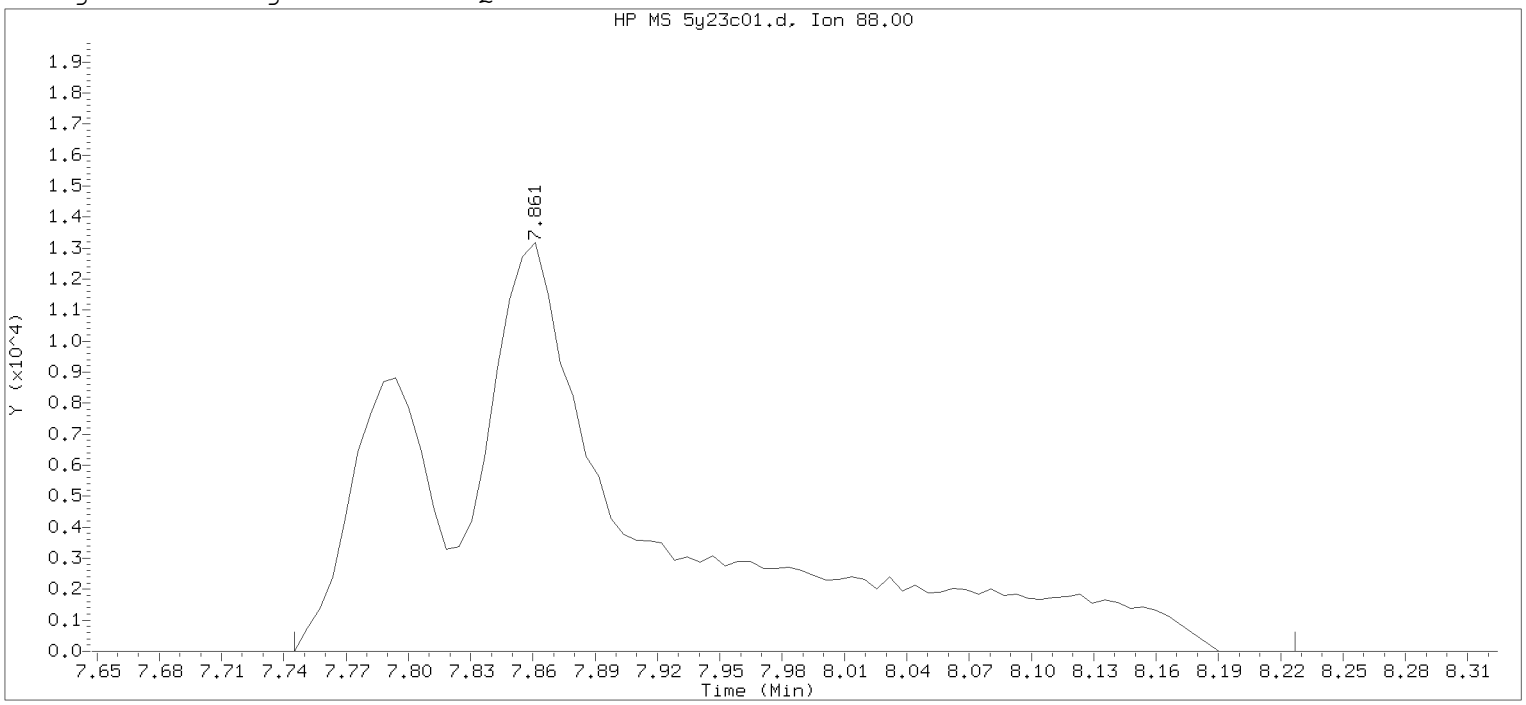
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

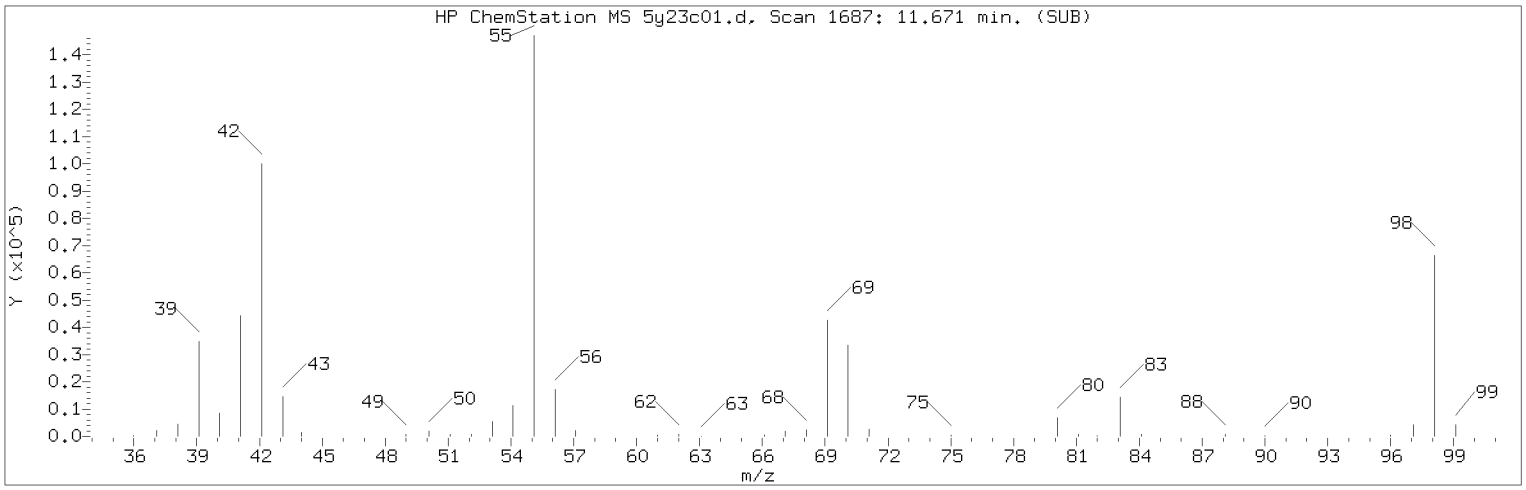
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

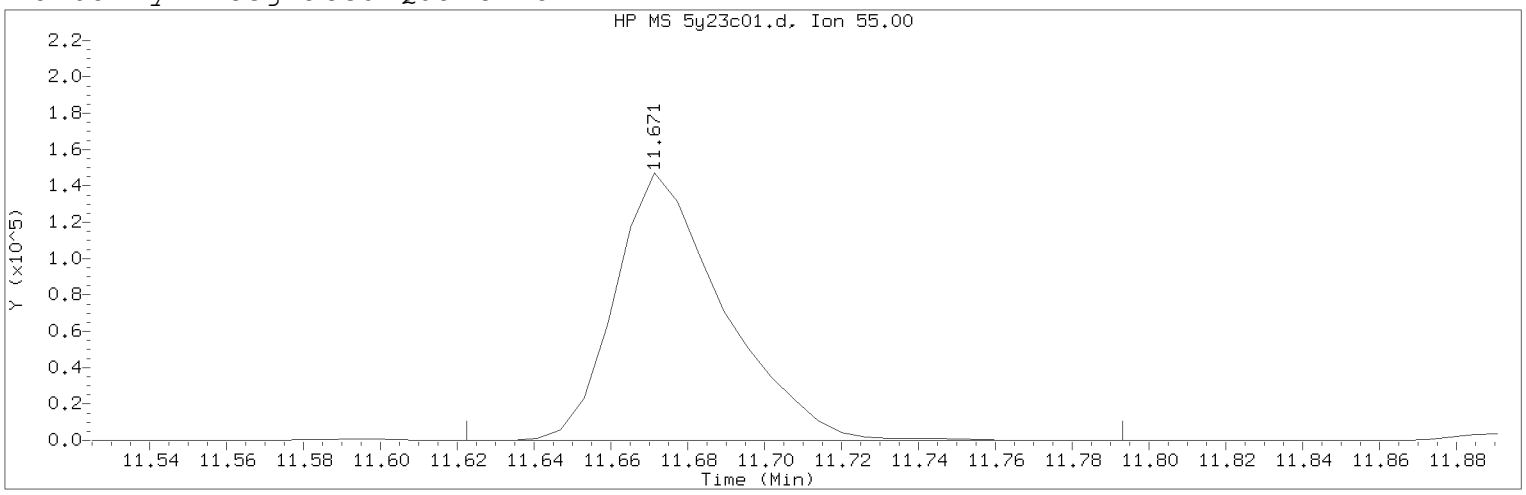
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 98668
On-column Amount (ng) : 980.1421
Integration start scan : 1042 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:10.
Target 3.5 esignature user: KASPOSITO

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

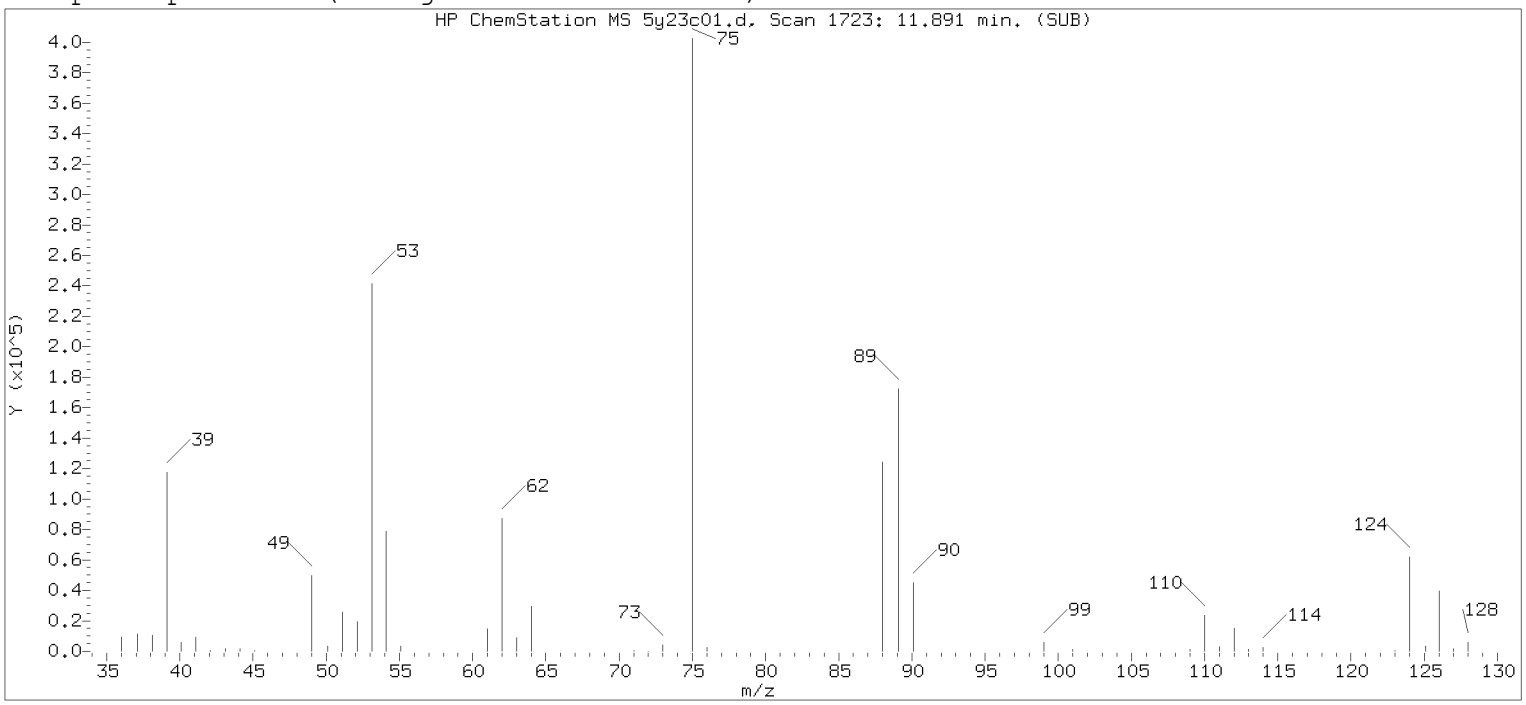
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1687
Retention Time (minutes): 11.671
Quant Ion : 55.00
Area (flag) : 288415MA
On-Column Amount (ng) : 623.7517
Integration start scan : 1678 Integration stop scan: 1706
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

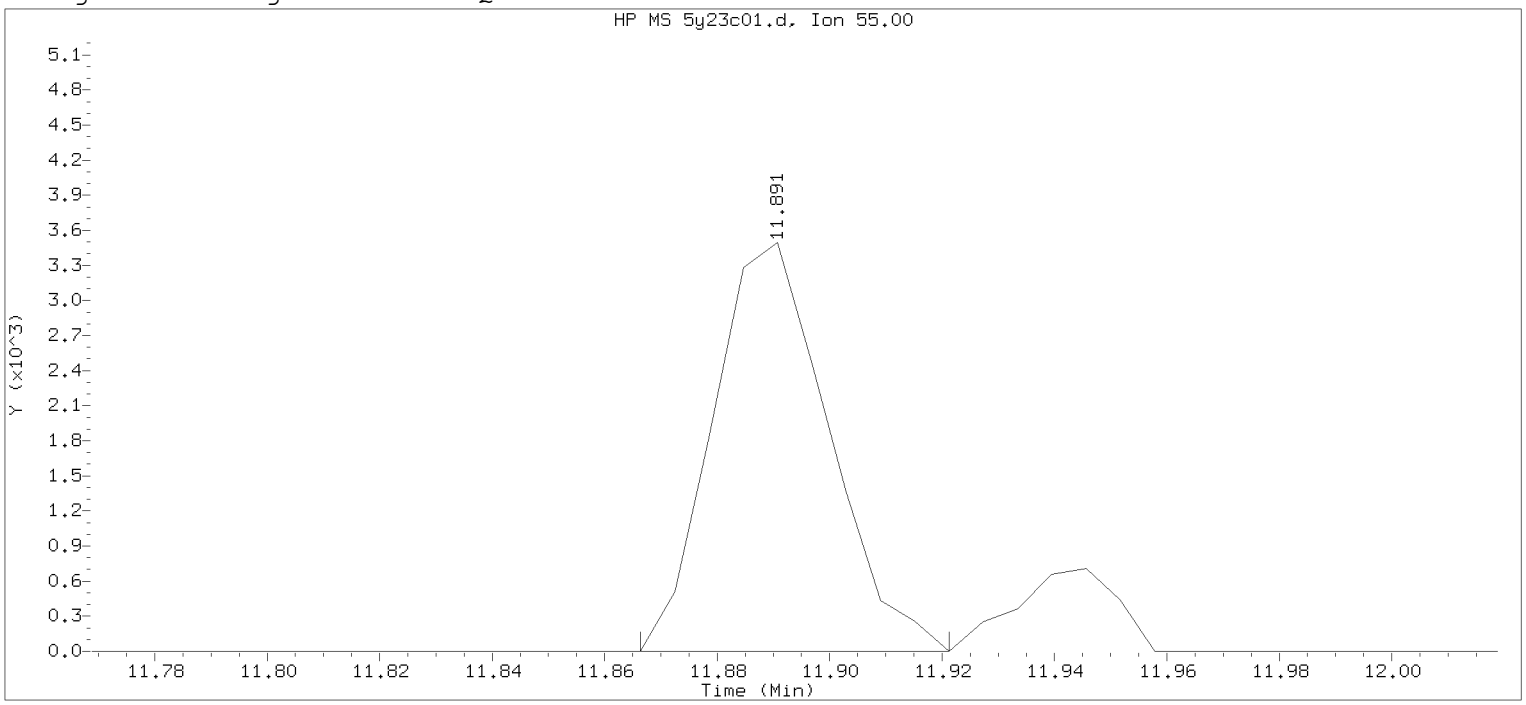
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

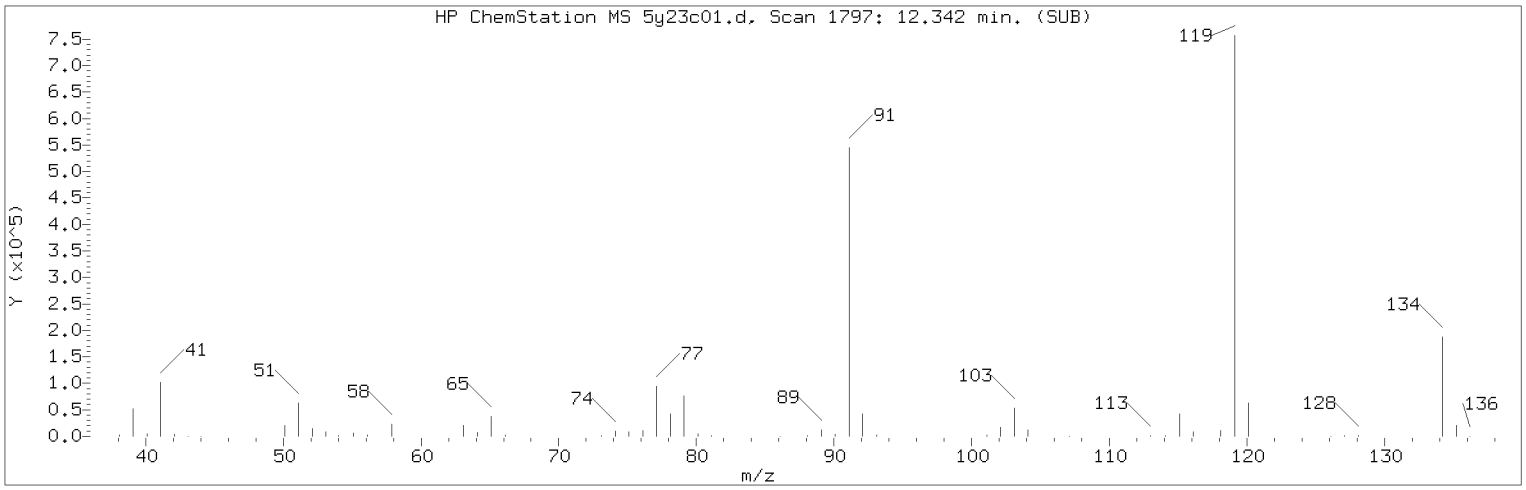
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

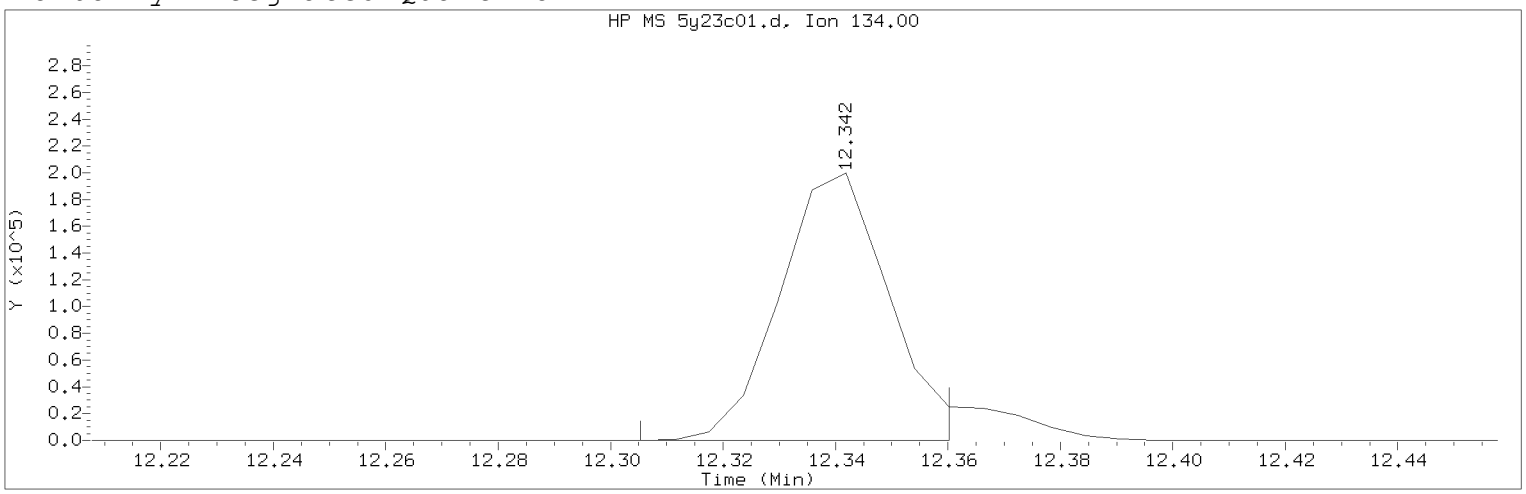
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1723
Retention Time (minutes): 11.891
Quant Ion : 55.00
Area : 4985
On-column Amount (ng) : 10.7830
Integration start scan : 1718 Integration stop scan: 1727
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:10.
Target 3.5 esignature user: KASposito

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

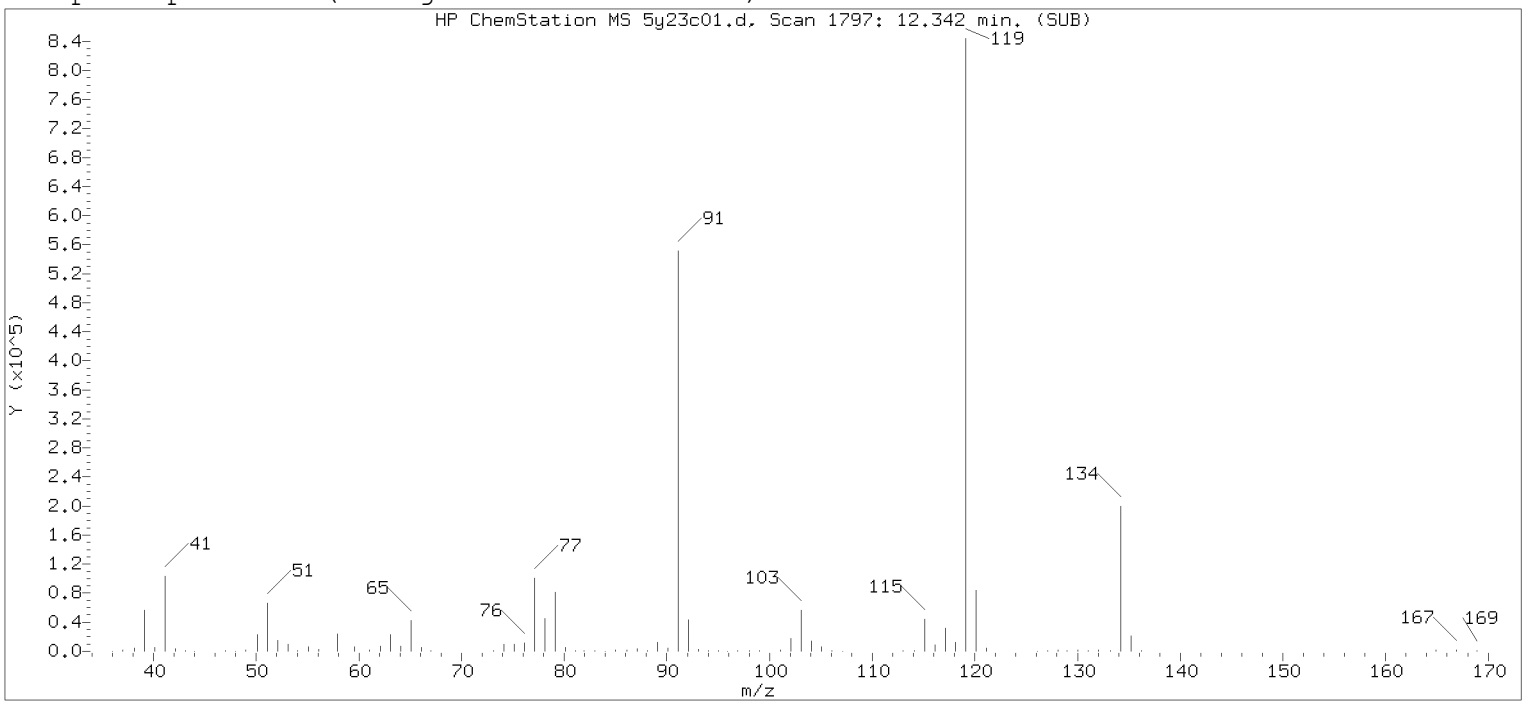
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 269454M
On-Column Amount (ng) : 49.6191
Integration start scan : 1790 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

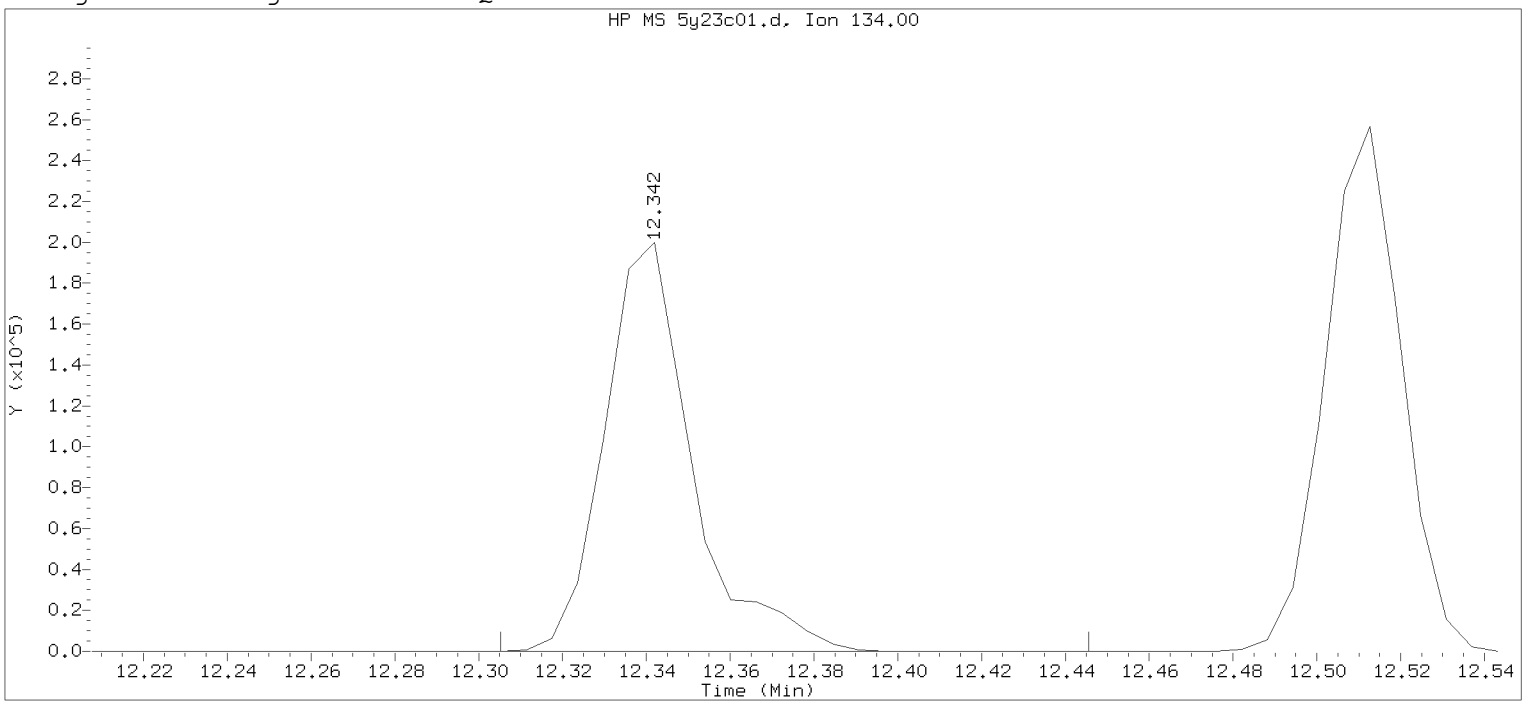
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 290245
On-column Amount (ng) : 53.4477
Integration start scan : 1790 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user: KAS02648

Raw QC Data

Volatiles by GC/MS

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d Injection date and time: **23-MAY-2020 15:36**
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.484	(0.018)	344	65	276314	(-8)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	975534	(-2)	50.00	
101) Chlorobenzene-d5	10.672	(0.000)	1523	117	753626	(-3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	392354	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	236076	48.586	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(-0.001)	102	55553	51.120	102%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	918531	49.595	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.744	(0.000)	95	372449	47.728	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d Injection date and time: **23-MAY-2020 15:36**
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d Injection date and time: **23-MAY-2020 15:36**
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

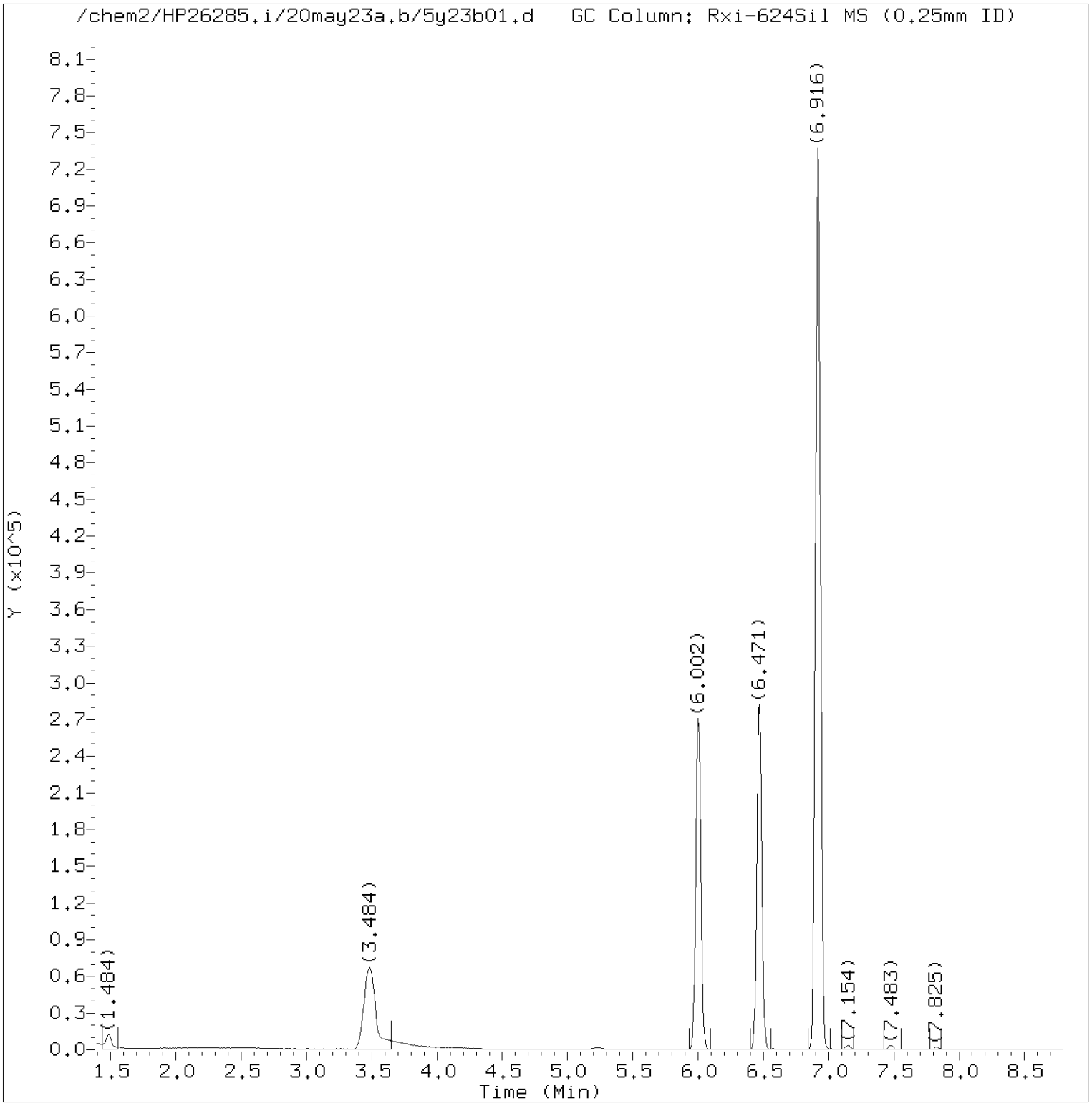
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:57. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

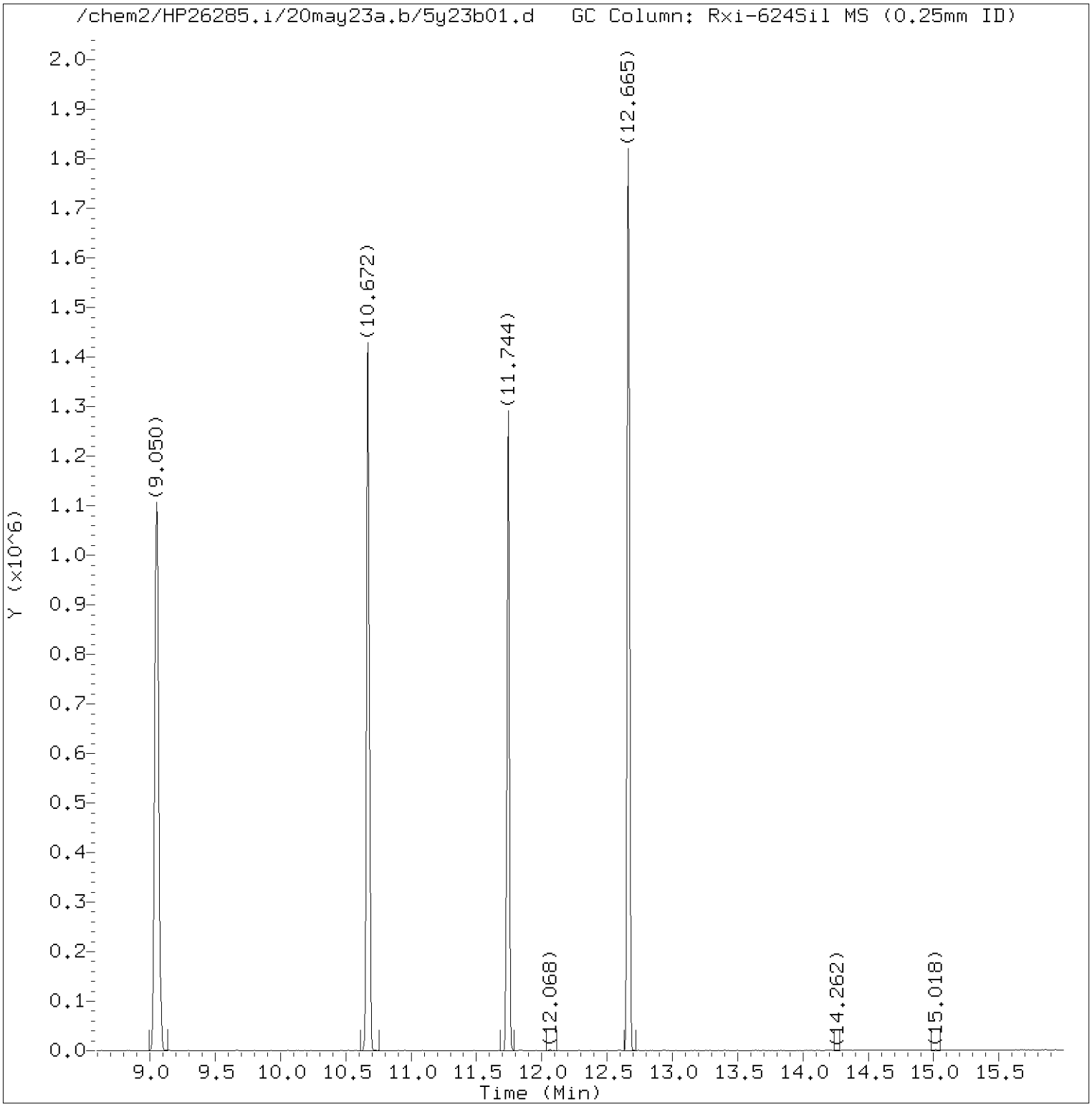
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.484	65	276314	250.000
52)$Dibromofluoromethane	(2)	6.002	113	236076	48.586
57)$1,2-Dichloroethane-d4	(2)	6.471	102	55553	51.120
66)*Fluorobenzene	(2)	6.916	96	975534	50.000
84)$Toluene-d8	(3)	9.050	98	918531	49.595
101)*Chlorobenzene-d5	(3)	10.672	117	753626	50.000
115)$4-Bromofluorobenzene	(3)	11.744	95	372449	47.728
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	392354	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.398	(0.024)	503	65	321315	(14)	250.00	
66) Fluorobenzene	7.926	(0.000)	1083	96	1158785	(10)	50.00	
100) Chlorobenzene-d5	11.363	(0.000)	1648	117	862795	(3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(0.000)	1957	152	450523	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026	(0.001)	113	270155	46.978	94%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.482	(0.002)	102	70945	48.792	98%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1084248	48.184	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	394483	44.374	89%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
13) Ethanol	(1)				Not Detected					280	750
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:49. Target 3.5 esignature user ID: sej02002

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

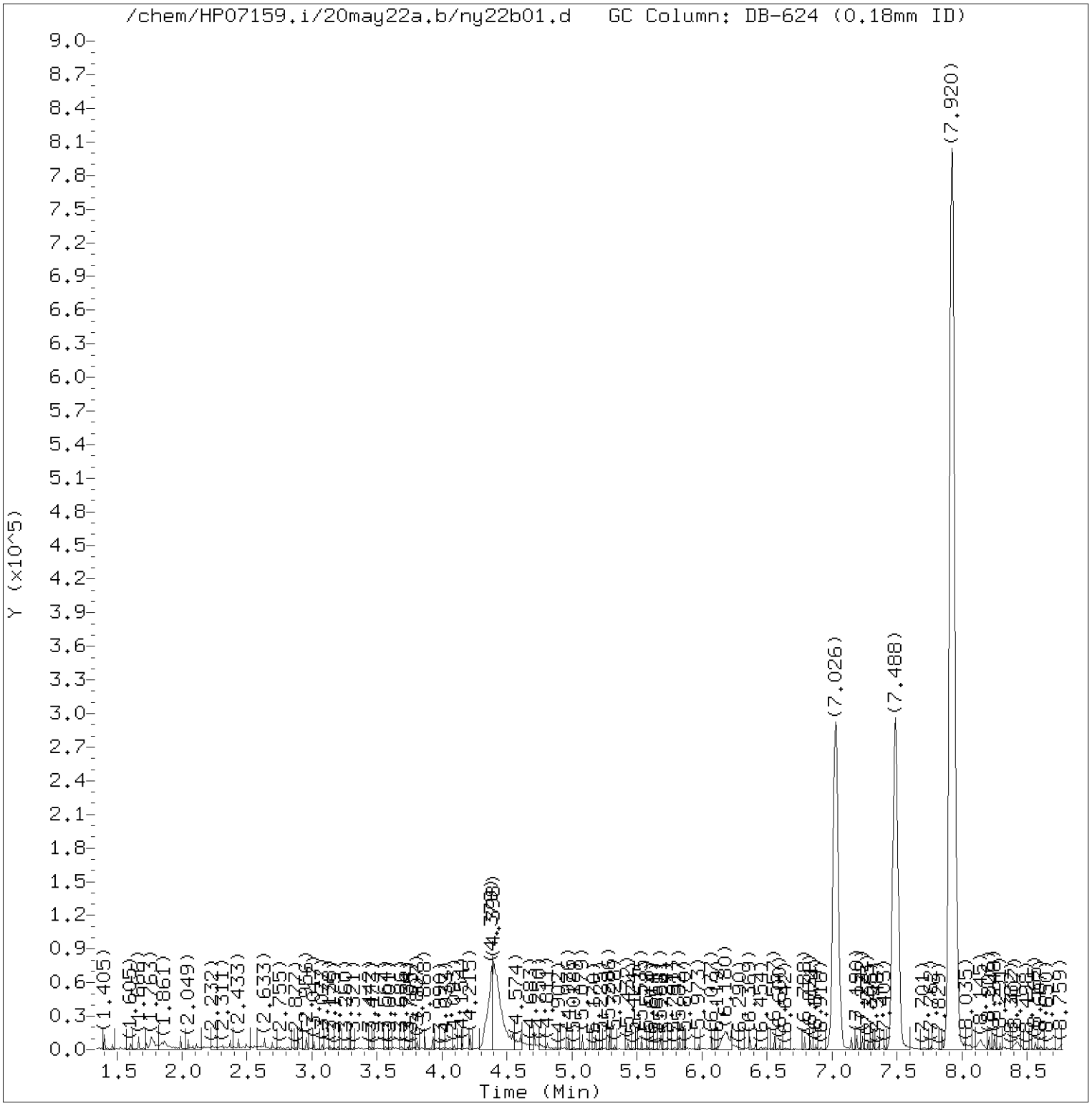
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 109

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:49. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

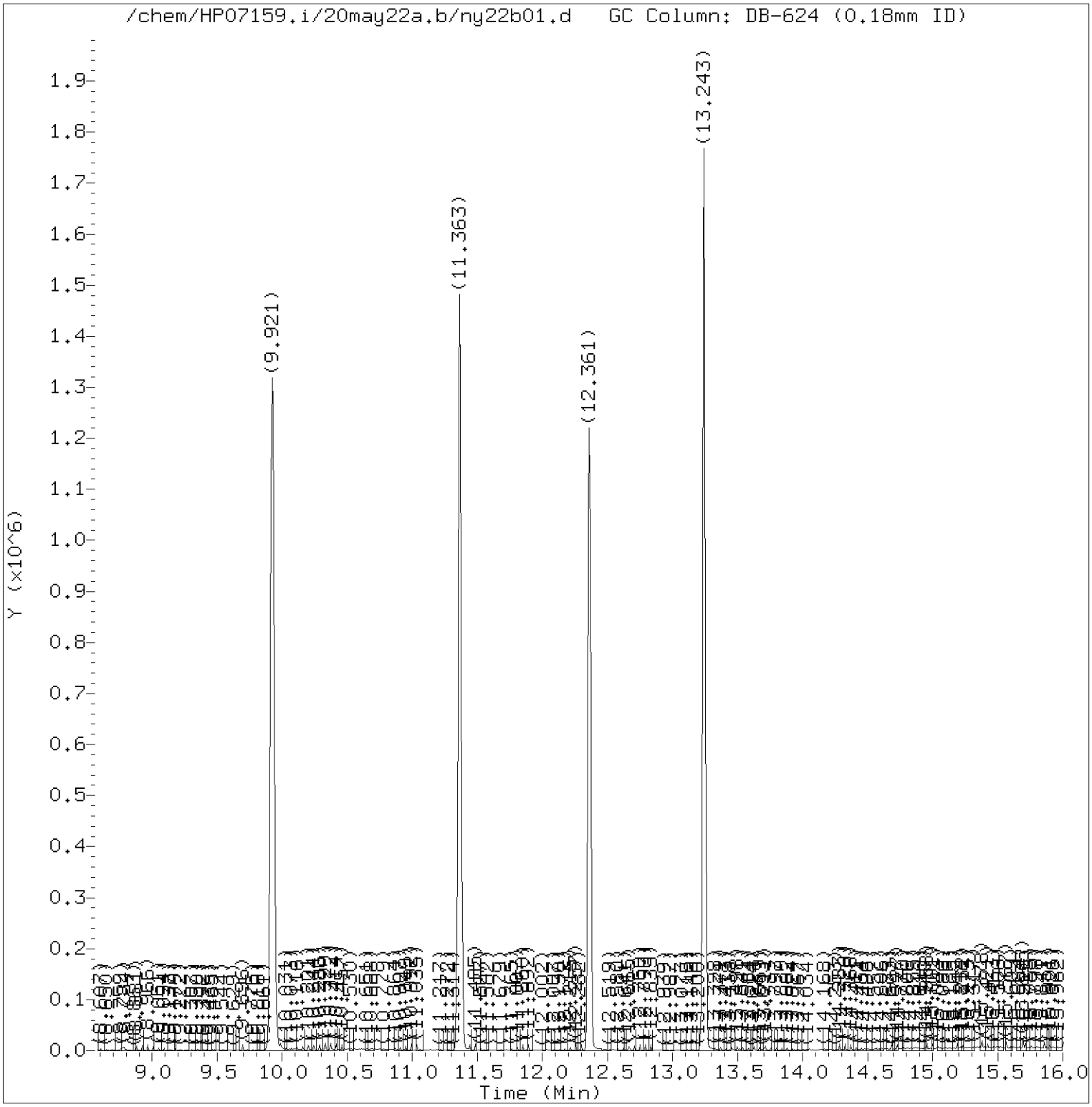
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.398	65	321315	250.000
52)$Dibromofluoromethane	(2)	7.026	113	270155	46.978
57)$1,2-Dichloroethane-d4	(2)	7.482	102	70945	48.792
66)*Fluorobenzene	(2)	7.926	96	1158785	50.000
83)$Toluene-d8	(3)	9.921	98	1084248	48.184
100)*Chlorobenzene-d5	(3)	11.363	117	862795	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	394483	44.374
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	450523	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC007MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316328

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s03.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	170	
76-13-1	Freon 113	21	
75-15-0	Carbon Disulfide	18	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	23	
78-93-3	2-Butanone	140	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	22	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	25	
123-91-1	1,4-Dioxane	640	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	32	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	64	
95-50-1	1,2-Dichlorobenzene	21	
91-20-3	Naphthalene	20	

FORM I VOA

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UC007MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1316328MS

Data file: /chem2/HP26285.i/20may23a.b/5y23s03.d Injection date and time: **23-MAY-2020 16:23**
Data file Sample Info. Line: UC007MS;1316328MS;1;3;MS;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.478	(0.024)	343	65	276064	(-8)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	955197	(-4)	50.00	
101) Chlorobenzene-d5	10.671	(0.000)	1523	117	745550	(-4)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	394000	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(0.000)	113	234764	49.344	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	53505	50.283	101%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	922172	50.331	101%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.001)	95	380774	49.323	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)	1.874	(-0.001)	62	116480	21.461	21.46			0.2	1
17) 1,1-Dichloroethene	(2)	2.898	(-0.000)	96	113364	21.950	21.95			0.2	1
18) Acetone	(1)	2.935	(-0.007)	58	144183	167.244	167.24			0.7	20
19) Freon 113	(2)	2.935	(-0.001)	101	121378	20.763	20.76			0.2	10
23) Carbon Disulfide	(2)	3.148	(-0.001)	76	325549	17.920	17.92			0.2	5
28) Methylene Chloride	(2)	3.453	(-0.000)	84	121045	20.792	20.79			0.3	1
32) trans-1,2-Dichloroethene	(2)	3.782	(-0.000)	96	120171	20.795	20.79			0.2	1
36) 1,1-Dichloroethane	(2)	4.404	(-0.001)	63	216006	20.648	20.65			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.270	(-0.000)	96	147592	22.580	22.58			0.2	1
44) 2-Butanone	(2)	5.258	(0.000)	43	792066	138.462	138.46			0.3	10
51) Chloroform	(2)	5.782	(-0.000)	83	214310	20.424	20.42			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.996	(0.000)	97	210376	22.268	22.27			0.3	1
60) Benzene	(2)	6.489	(0.000)	78	515971	20.276	20.28			0.2	1
61) 1,2-Dichloroethane	(2)	6.581	(-0.000)	62	156251	19.992	19.99			0.3	1
71) Trichloroethene	(2)	7.416	(0.000)	95	164472	24.629	24.63			0.2	1
76) 1,4-Dioxane	(1)	7.861	(-0.015)	88	59203M	638.170	638.17			29	250
89) Toluene	(3)	9.141	(0.000)	92	335414	20.761	20.76			0.2	1
94) Tetrachloroethene	(3)	9.751	(0.000)	166	221447	32.318	32.32			0.2	1
105) Ethylbenzene	(3)	10.799	(-0.000)	91	666990	21.351	21.35			0.4	1
107) m+p-Xylene	(3)	10.921	(-0.000)	106	516530	43.097	43.10			1	5
108) o-Xylene	(3)	11.275	(-0.000)	106	245459	20.924	20.92			0.4	1
109) Xylene (Total)	(3)			106	761989	64.020	64.02			1	6
139) 1,2-Dichlorobenzene	(4)	12.952	(-0.000)	146	283035	20.856	20.86			0.2	5
149) Naphthalene	(4)	14.262	(-0.000)	128	656793	19.695	19.70			1	5

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may23a.b/5y23s03.d Injection date and time: **23-MAY-2020 16:23**
Data file Sample Info. Line: UC007MS;1316328MS;1;3;MS;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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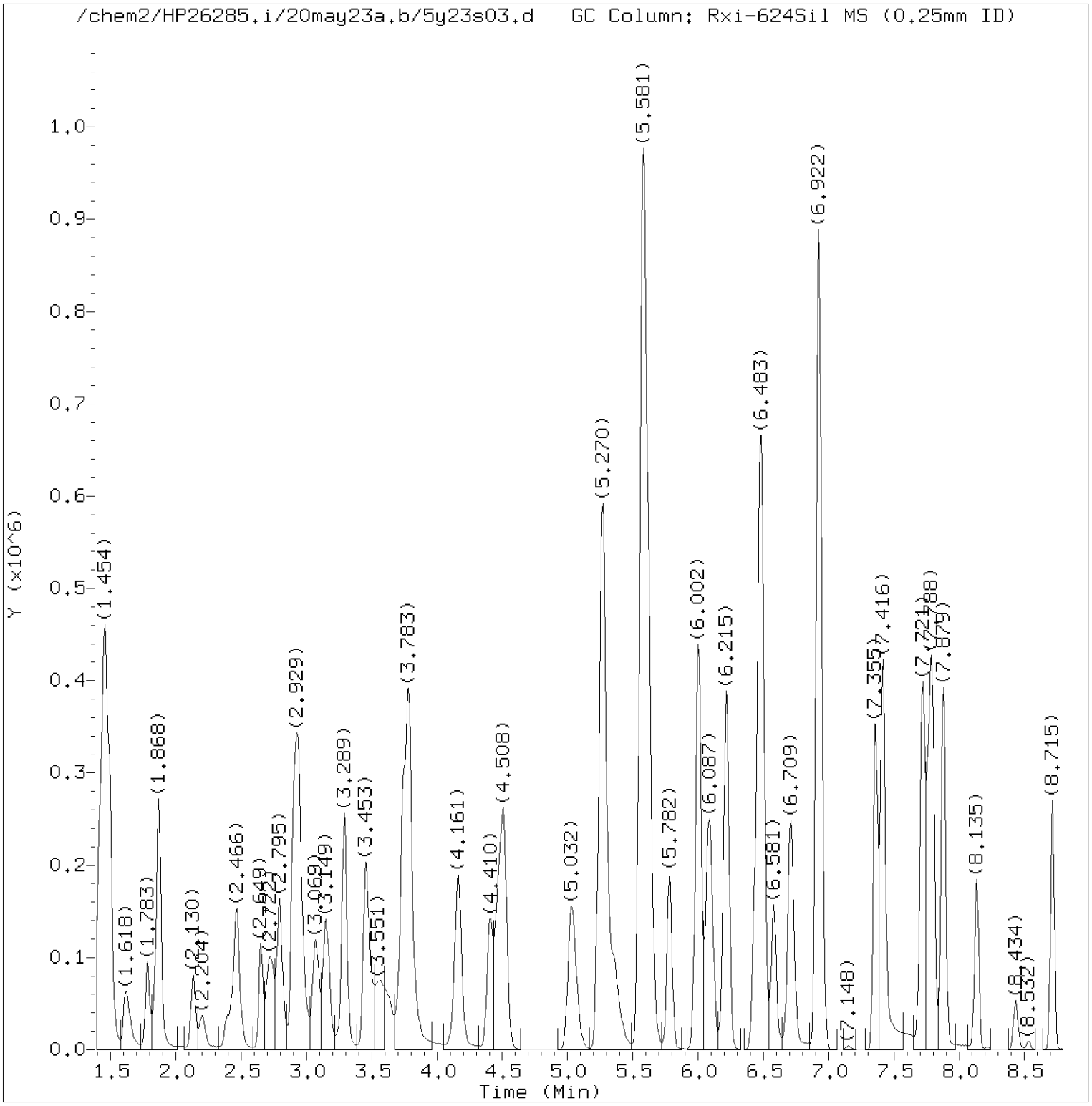
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:59. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

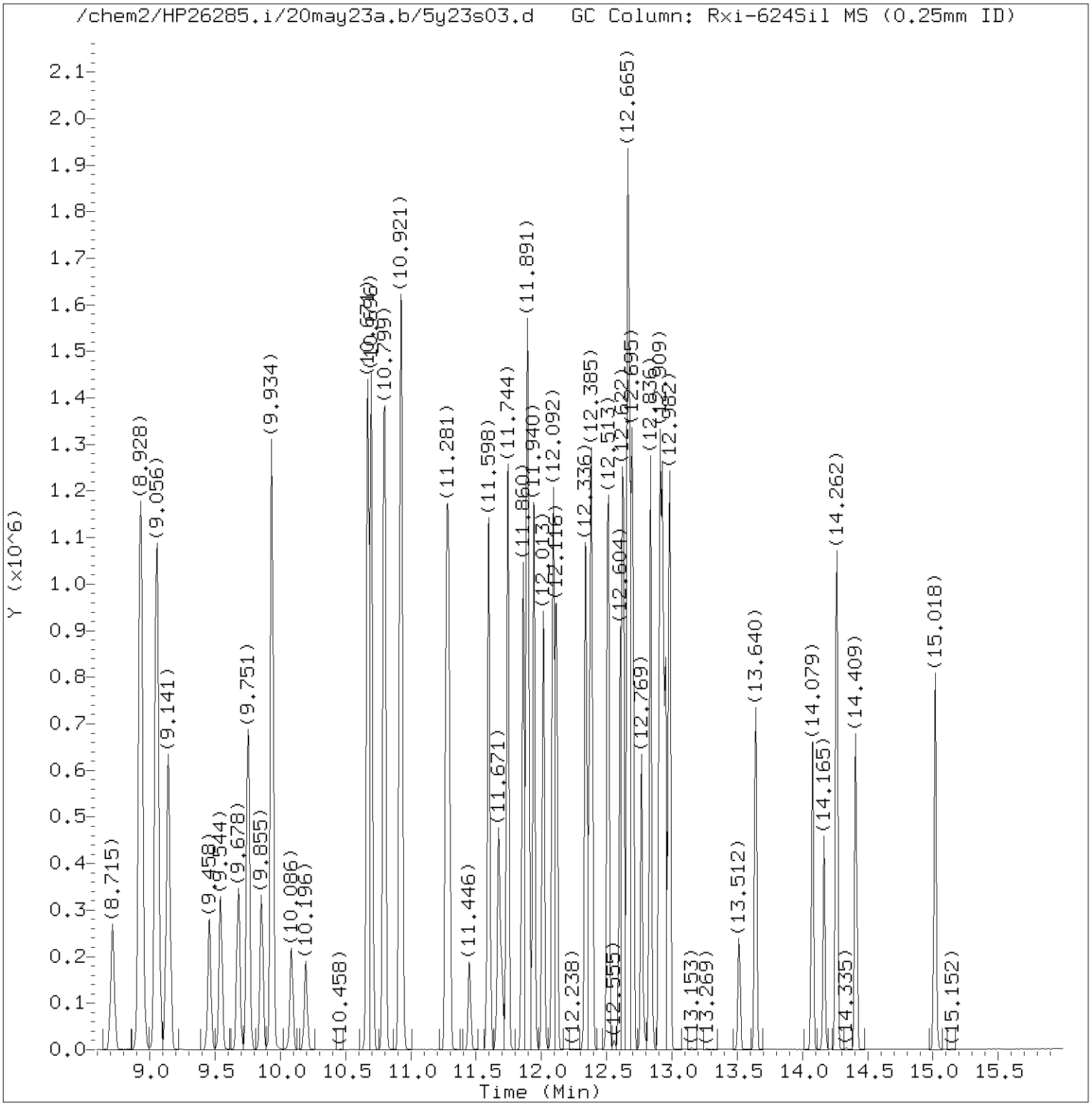
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s03.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MS Lab Sample ID: 1316328MS

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s03.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MS Lab Sample ID: 1316328MS

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s03.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

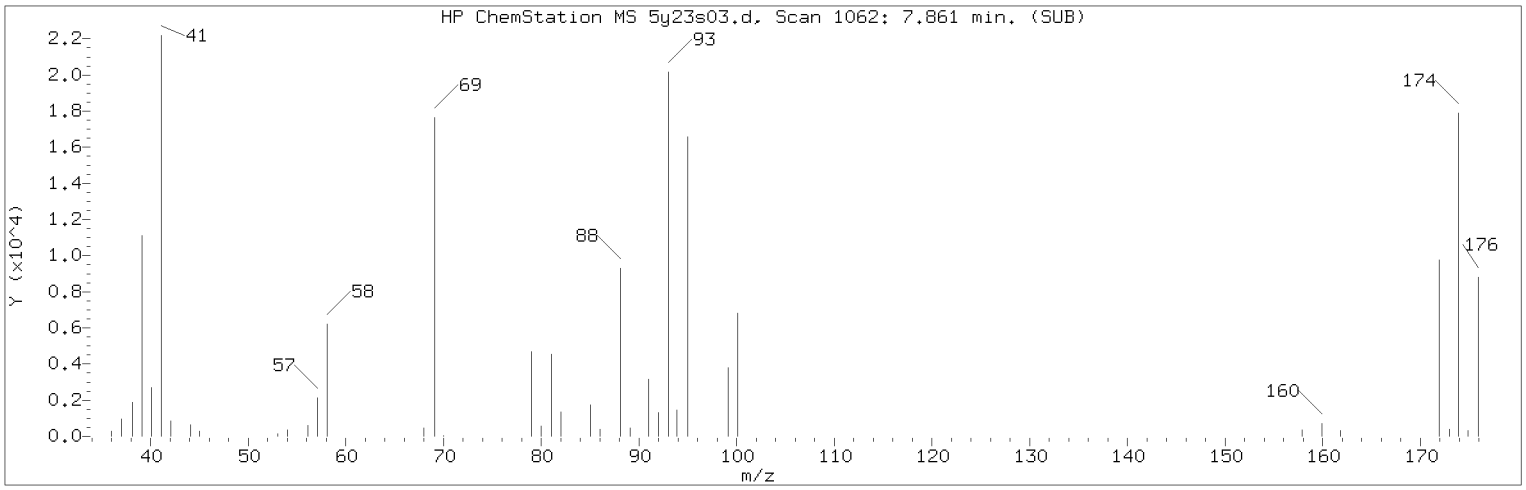
Sample Name: UC007MS Lab Sample ID: 1316328MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	1.874	62	116480	21.461
17) 1,1-Dichloroethene	(2)	2.899	96	113364	21.950
18) Acetone	(1)	2.935	58	144183	167.244
19) Freon 113	(2)	2.935	101	121378	20.763
23) Carbon Disulfide	(2)	3.149	76	325549	17.920
28) Methylene Chloride	(2)	3.453	84	121045	20.792
29)*t-Butyl alcohol-d10	(1)	3.478	65	276064	250.000
32) trans-1,2-Dichloroethene	(2)	3.783	96	120171	20.795
36) 1,1-Dichloroethane	(2)	4.404	63	216006	20.648
44) 2-Butanone	(2)	5.258	43	792066	138.462
42) cis-1,2-Dichloroethene	(2)	5.270	96	147592	22.580
51) Chloroform	(2)	5.782	83	214310	20.424
53) 1,1,1-Trichloroethane	(2)	5.996	97	210376	22.268
52)$Dibromofluoromethane	(2)	6.002	113	234764	49.344
57)$1,2-Dichloroethane-d4	(2)	6.471	102	53505	50.283
60) Benzene	(2)	6.489	78	515971	20.276
61) 1,2-Dichloroethane	(2)	6.581	62	156251	19.992
66)*Fluorobenzene	(2)	6.922	96	955197	50.000
71) Trichloroethene	(2)	7.416	95	164472	24.629
76) 1,4-Dioxane	(1)	7.861	88	59203M	638.170
84)$Toluene-d8	(3)	9.056	98	922172	50.331
89) Toluene	(3)	9.141	92	335414	20.761
94) Tetrachloroethene	(3)	9.751	166	221447	32.318
101)*Chlorobenzene-d5	(3)	10.671	117	745550	50.000
105) Ethylbenzene	(3)	10.799	91	666990	21.351
107) m+p-Xylene	(3)	10.921	106	516530	43.097
108) o-Xylene	(3)	11.275	106	245459	20.924
115)$4-Bromofluorobenzene	(3)	11.738	95	380774	49.323
109) Xylene (Total)	(3)		106	761989	64.020
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	394000	50.000
139) 1,2-Dichlorobenzene	(4)	12.951	146	283035	20.856
149) Naphthalene	(4)	14.262	128	656793	19.695

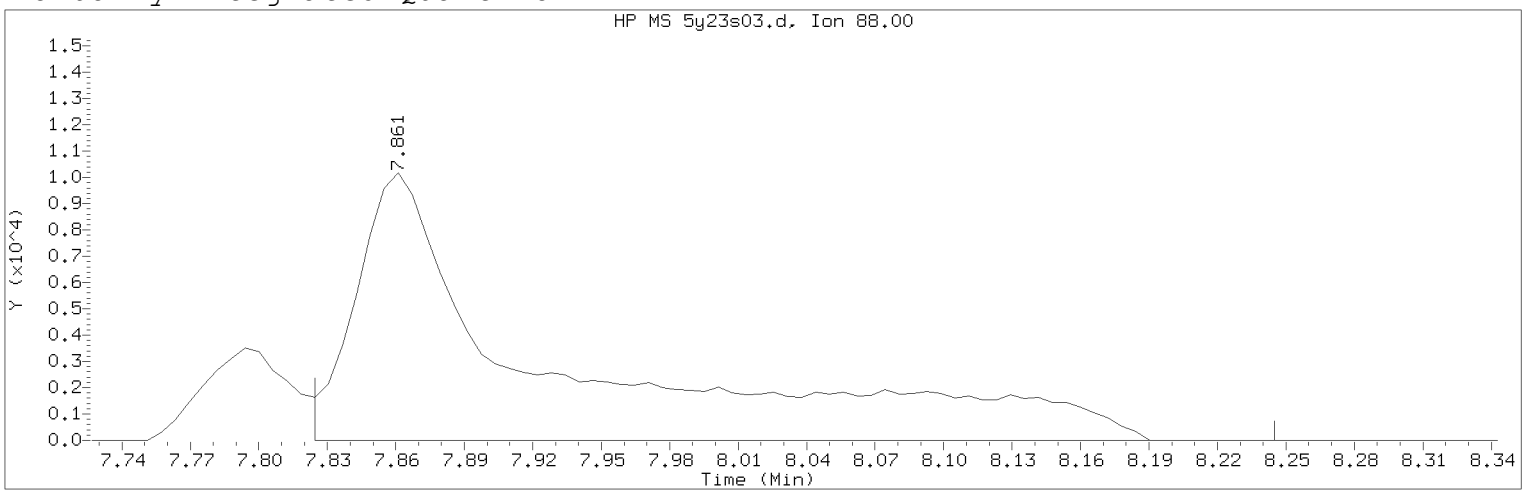
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s03.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MS Lab Sample ID: 1316328MS

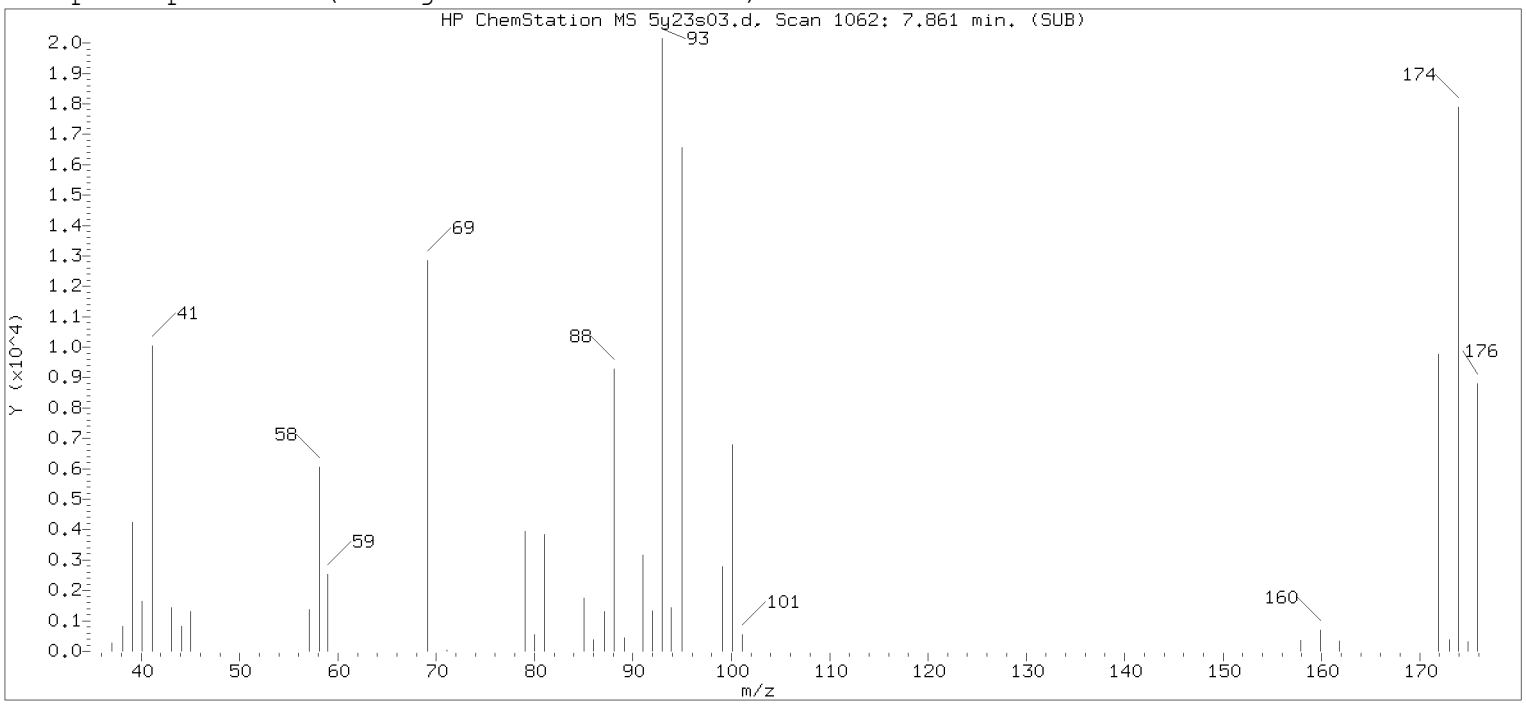
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 59203M
On-Column Amount (ng) : 638.1701
Integration start scan : 1055 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

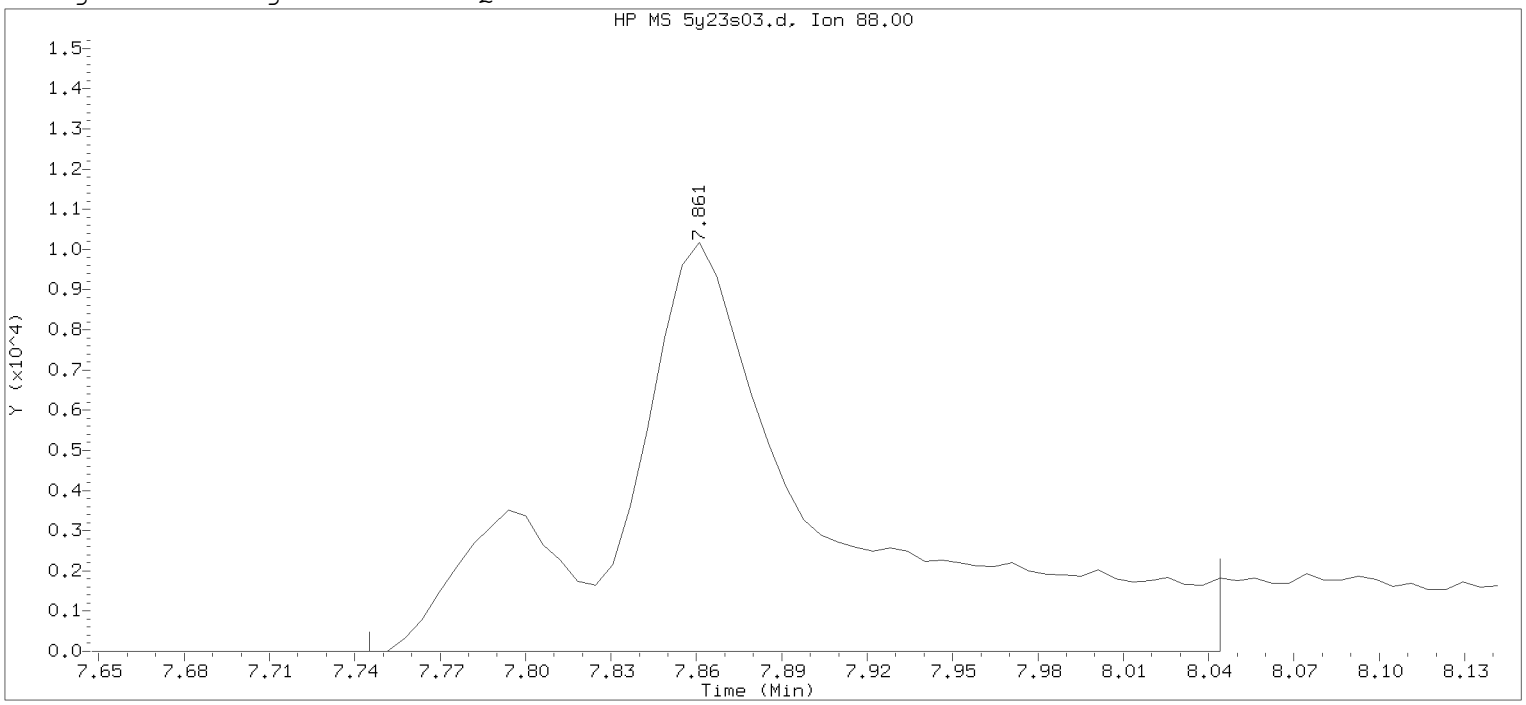
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:59.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s03.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:24 ljg30941

Sample Name: UC007MS Lab Sample ID: 1316328MS

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 55083
On-column Amount (ng) : 593.7695
Integration start scan : 1042 Integration stop scan: 1091
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

UC007MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316329

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s04.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	160	
76-13-1	Freon 113	21	
75-15-0	Carbon Disulfide	18	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	20	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	140	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	22	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	25	
123-91-1	1,4-Dioxane	610	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	33	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	64	
95-50-1	1,2-Dichlorobenzene	21	
91-20-3	Naphthalene	20	

FORM I VOA

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Data file: /chem2/HP26285.i/20may23a.b/5y23s04.d Injection date and time: **23-MAY-2020 16:43**
Data file Sample Info. Line: UC007MSD;1316329MSD;1;3;MSD;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.484	(0.018)	344	65	290430	(-3)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	964164	(-3)	50.00	
101) Chlorobenzene-d5	10.672	(0.000)	1523	117	750256	(-3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	397892	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(0.000)	113	235961	49.135	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	54146	50.412	101%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	929424	50.408	101%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.745	(0.000)	95	387534	49.884	100%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	115502	21.083	21.08			0.2	1
17) 1,1-Dichloroethene	(2)	2.899	(-0.000)	96	113068	21.689	21.69			0.2	1
18) Acetone	(1)	2.935	(-0.006)	58	145834	160.791	160.79			0.7	20
19) Freon 113	(2)	2.929	(-0.000)	101	121107	20.524	20.52			0.2	10
23) Carbon Disulfide	(2)	3.149	(-0.001)	76	330377	18.016	18.02			0.2	5
28) Methylene Chloride	(2)	3.453	(-0.000)	84	120674	20.536	20.54			0.3	1
32) trans-1,2-Dichloroethene	(2)	3.789	(-0.001)	96	121216	20.780	20.78			0.2	1
36) 1,1-Dichloroethane	(2)	4.404	(-0.001)	63	216389	20.492	20.49			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.270	(-0.000)	96	147364	22.335	22.34			0.2	1
44) 2-Butanone	(2)	5.264	(-0.000)	43	796822	137.998	138.00			0.3	10
51) Chloroform	(2)	5.782	(-0.000)	83	214624	20.264	20.26			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.996	(0.000)	97	212628	22.297	22.30			0.3	1
60) Benzene	(2)	6.489	(0.000)	78	519362	20.220	20.22			0.2	1
61) 1,2-Dichloroethane	(2)	6.581	(-0.000)	62	155926	19.764	19.76			0.3	1
71) Trichloroethene	(2)	7.416	(0.000)	95	166577	24.713	24.71			0.2	1
76) 1,4-Dioxane	(1)	7.861	(-0.011)	88	59425M	608.878	608.88			29	250
89) Toluene	(3)	9.141	(-0.000)	92	336194	20.679	20.68			0.2	1
94) Tetrachloroethene	(3)	9.757	(-0.000)	166	228188	33.093	33.09			0.2	1
105) Ethylbenzene	(3)	10.800	(0.000)	91	670582	21.332	21.33			0.4	1
107) m+p-Xylene	(3)	10.922	(0.000)	106	521863	43.269	43.27			1	5
108) o-Xylene	(3)	11.275	(0.000)	106	247463	20.962	20.96			0.4	1
109) Xylene (Total)	(3)			106	769326	64.231	64.23			1	6
139) 1,2-Dichlorobenzene	(4)	12.952	(0.000)	146	285073	20.800	20.80			0.2	5
149) Naphthalene	(4)	14.262	(0.000)	128	662301	19.666	19.67			1	5

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may23a.b/5y23s04.d Injection date and time: **23-MAY-2020 16:43**
Data file Sample Info. Line: UC007MSD;1316329MSD;1;3;MSD;JCW55;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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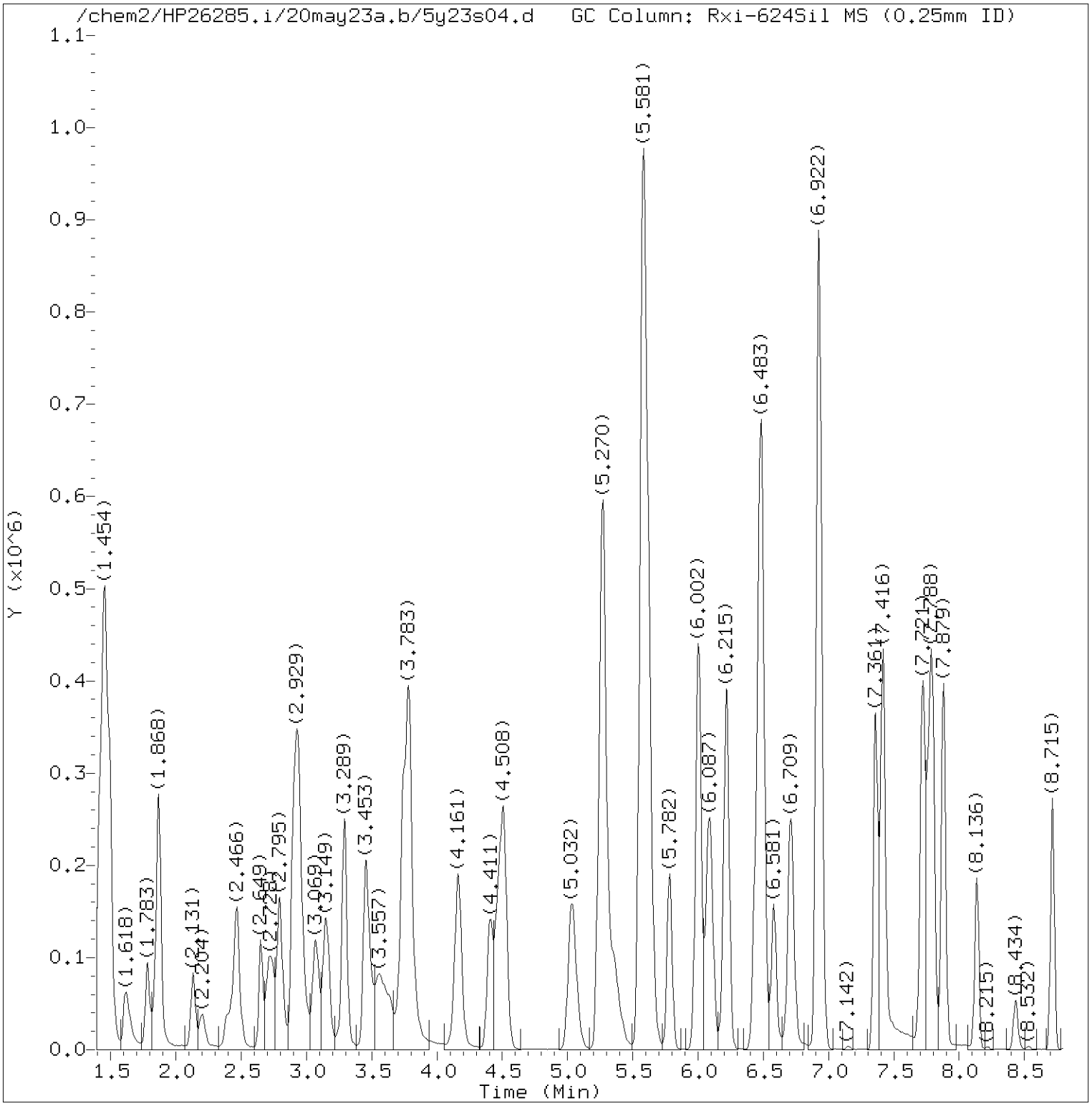
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:31. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:59. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

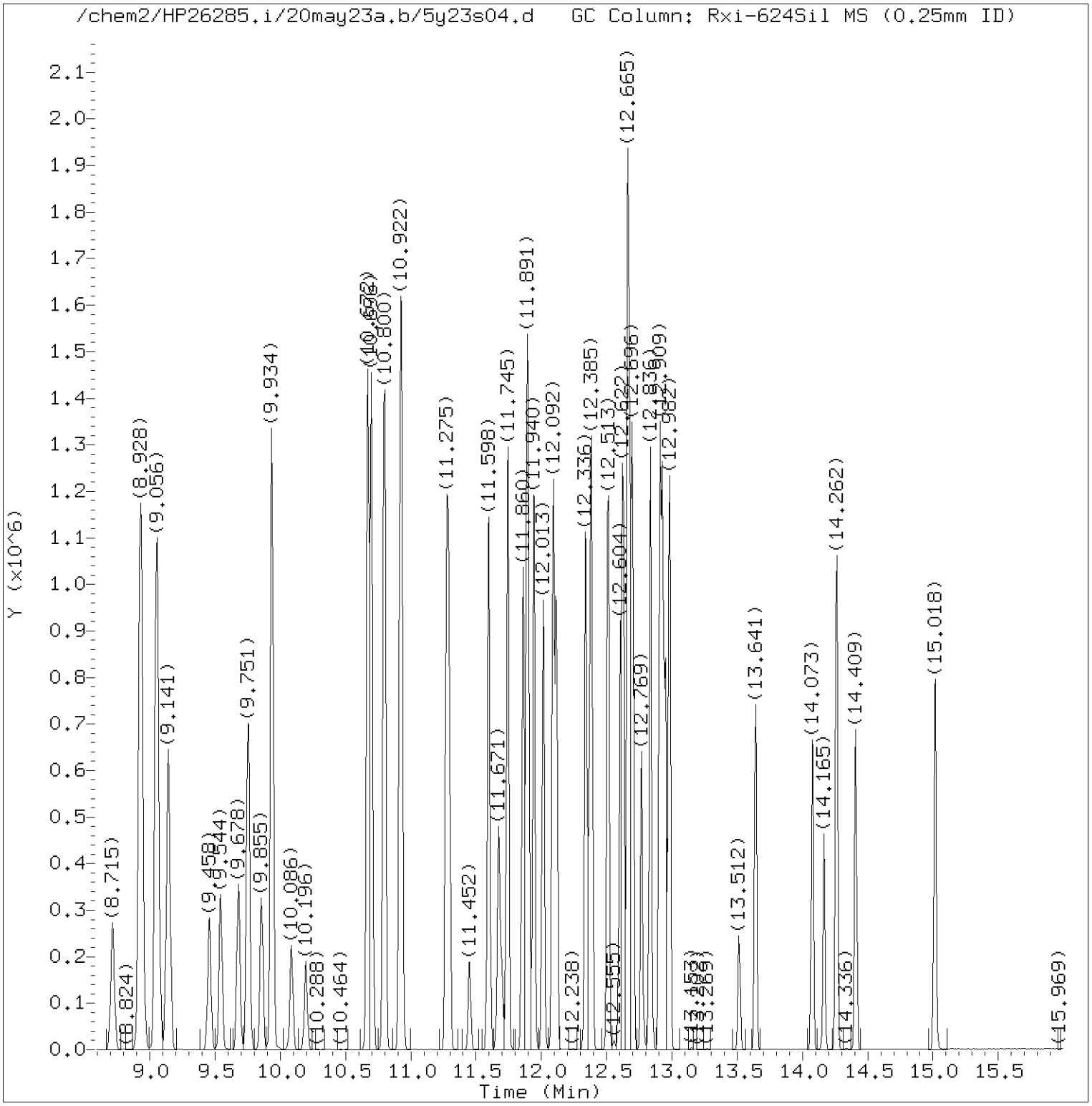
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s04.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:43 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MSD Lab Sample ID: 1316329MSD

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s04.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:43 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MSD Lab Sample ID: 1316329MSD

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s04.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:43 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

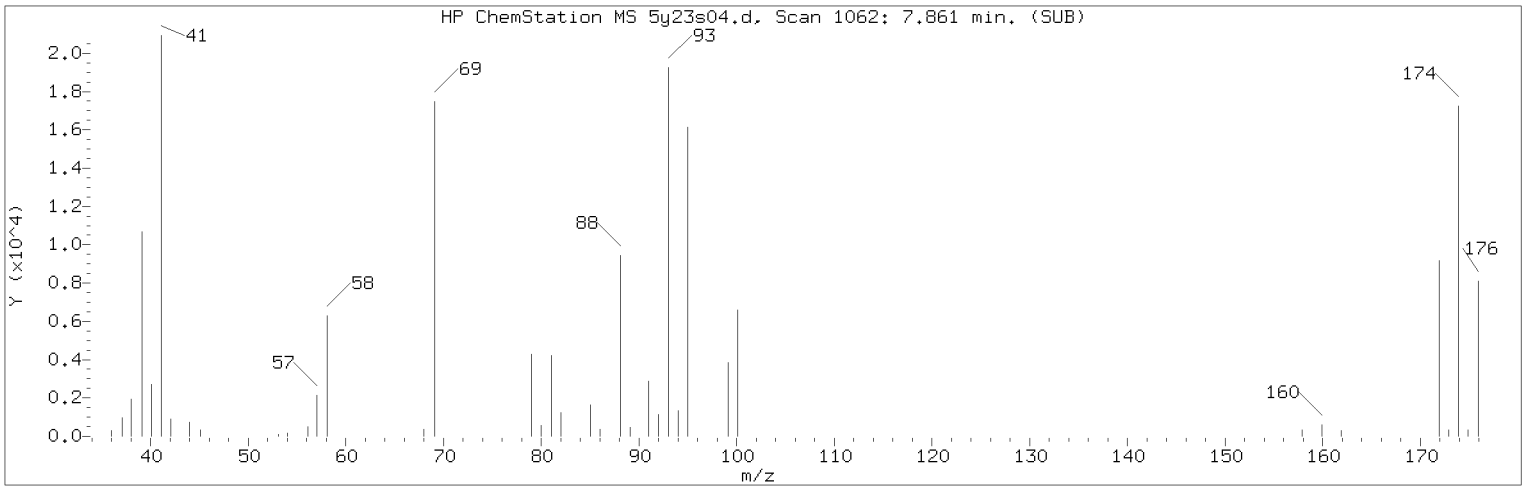
Sample Name: UC007MSD Lab Sample ID: 1316329MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	1.868	62	115502	21.083
17) 1,1-Dichloroethene	(2)	2.899	96	113068	21.689
19) Freon 113	(2)	2.929	101	121107	20.524
18) Acetone	(1)	2.935	58	145834	160.791
23) Carbon Disulfide	(2)	3.149	76	330377	18.016
28) Methylene Chloride	(2)	3.453	84	120674	20.536
29)*t-Butyl alcohol-d10	(1)	3.484	65	290430	250.000
32) trans-1,2-Dichloroethene	(2)	3.789	96	121216	20.780
36) 1,1-Dichloroethane	(2)	4.405	63	216389	20.492
44) 2-Butanone	(2)	5.264	43	796822	137.998
42) cis-1,2-Dichloroethene	(2)	5.270	96	147364	22.335
51) Chloroform	(2)	5.782	83	214624	20.264
53) 1,1,1-Trichloroethane	(2)	5.996	97	212628	22.297
52)$Dibromofluoromethane	(2)	6.002	113	235961	49.135
57)$1,2-Dichloroethane-d4	(2)	6.471	102	54146	50.412
60) Benzene	(2)	6.489	78	519362	20.220
61) 1,2-Dichloroethane	(2)	6.581	62	155926	19.764
66)*Fluorobenzene	(2)	6.922	96	964164	50.000
71) Trichloroethene	(2)	7.416	95	166577	24.713
76) 1,4-Dioxane	(1)	7.861	88	59425M	608.878
84)$Toluene-d8	(3)	9.056	98	929424	50.408
89) Toluene	(3)	9.141	92	336194	20.679
94) Tetrachloroethene	(3)	9.757	166	228188	33.093
101)*Chlorobenzene-d5	(3)	10.672	117	750256	50.000
105) Ethylbenzene	(3)	10.800	91	670582	21.332
107) m+p-Xylene	(3)	10.922	106	521863	43.269
108) o-Xylene	(3)	11.275	106	247463	20.962
115)$4-Bromofluorobenzene	(3)	11.745	95	387534	49.884
109) Xylene (Total)	(3)		106	769326	64.231
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	397892	50.000
139) 1,2-Dichlorobenzene	(4)	12.952	146	285073	20.800
149) Naphthalene	(4)	14.262	128	662301	19.666

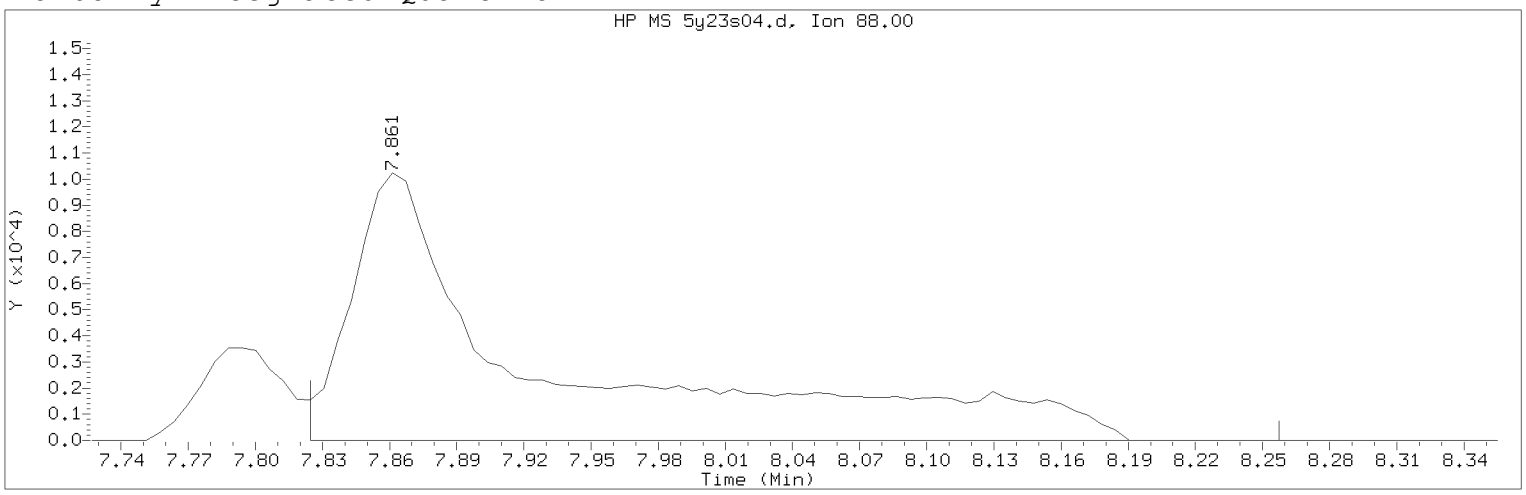
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s04.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:43 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:30 ljg30941

Sample Name: UC007MSD Lab Sample ID: 1316329MSD

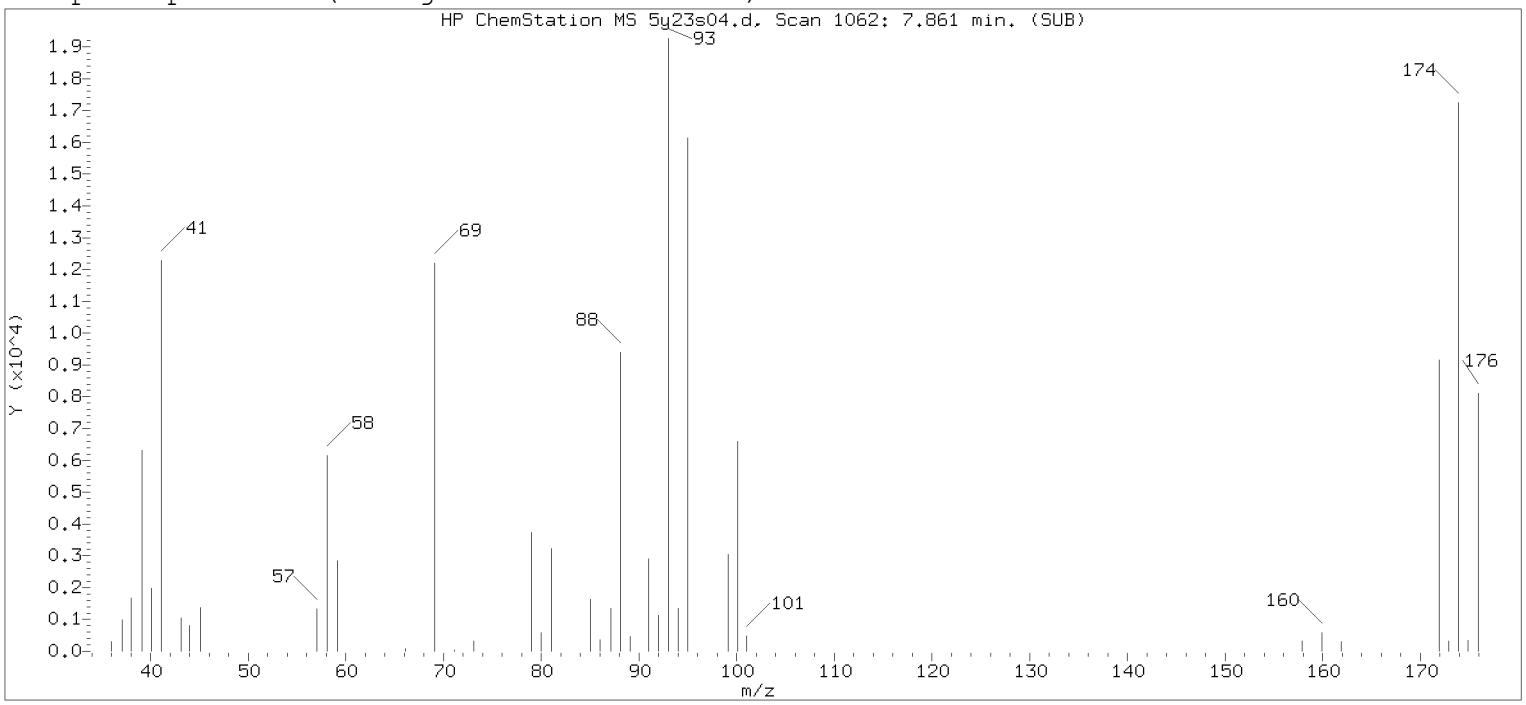
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 59425M
On-Column Amount (ng) : 608.8779
Integration start scan : 1055 Integration stop scan: 1126
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

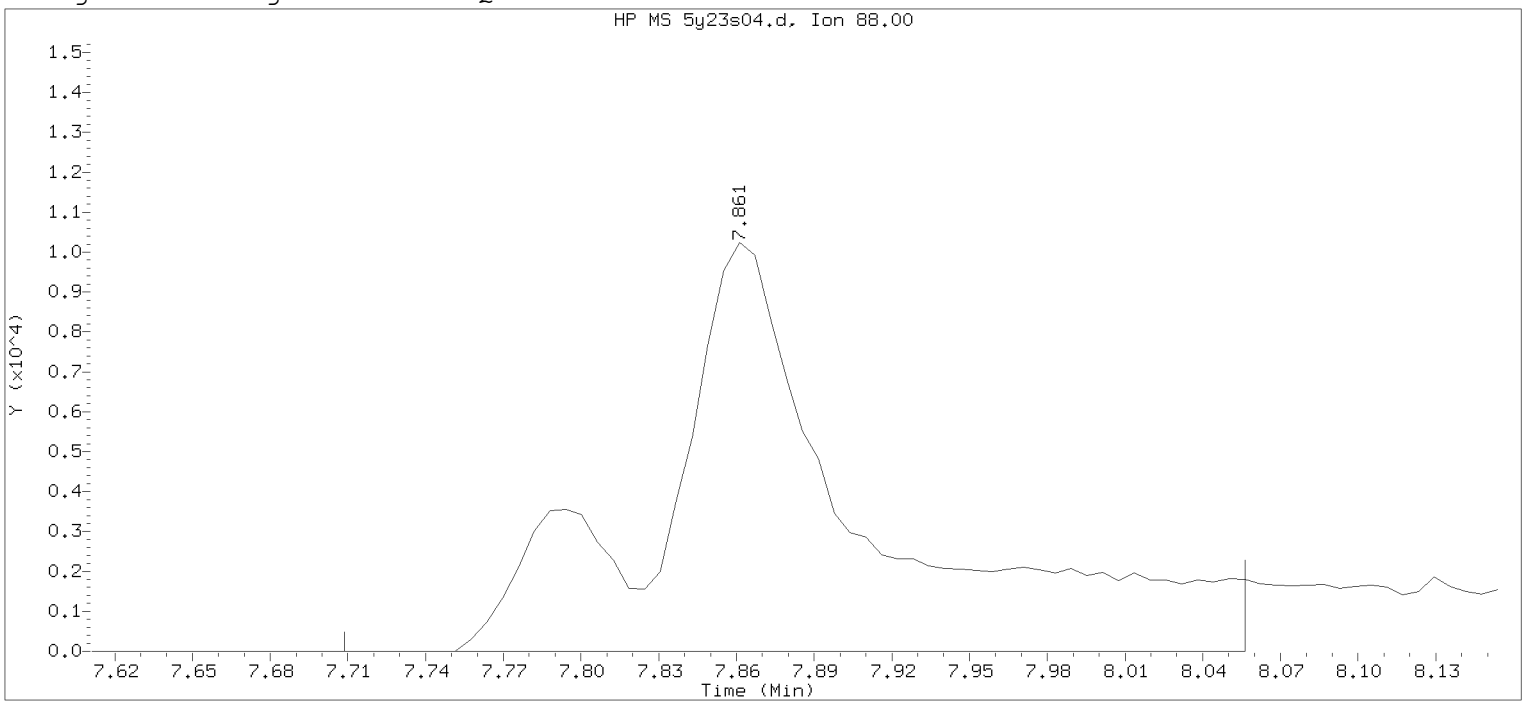
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/24/2020 at 23:31.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:59.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s04.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 16:43 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 24-May-2020 23:25 ljg30941

Sample Name: UC007MSD Lab Sample ID: 1316329MSD

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 57076
On-column Amount (ng) : 584.8158
Integration start scan : 1036 Integration stop scan: 1093
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/24/2020 at 23:31.
Target 3.5 esignature user: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	17	
106-99-0	1,3-Butadiene	15	
75-01-4	Vinyl Chloride	18	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	14	
75-69-4	Trichlorofluoromethane	18	
60-29-7	Ethyl ether	17	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	120	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	190	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	110	
74-88-4	Methyl Iodide	18	
75-15-0	Carbon Disulfide	16	
107-05-1	Allyl Chloride	18	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl alcohol	180	
107-13-1	Acrylonitrile	91	
156-60-5	trans-1,2-Dichloroethene	18	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	18	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	38	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	17	
107-12-0	Propionitrile	160	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	17	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	18	
78-83-1	Isobutyl Alcohol	510	
71-43-2	Benzene	18	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	1000	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	19	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	650	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	18	
79-46-9	2-Nitropropane	16	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	94	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	36	
97-63-2	Ethyl Methacrylate	18	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	19	
591-78-6	2-Hexanone	100	
124-48-1	Dibromochloromethane	18	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	19	
179601-23-1	m+p-Xylene	39	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	59	
100-42-5	Styrene	19	
75-25-2	Bromoform	17	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	590	
108-86-1	Bromobenzene	19	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	20	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	20	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	19	
76-01-7	Pentachloroethane	18	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	19	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	17	
141-93-5	1,3-Diethylbenzene	19	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	18	

FORM I VOA

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.478	(0.024)	343	65	283549	(-5)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	997523	(0)	50.00	
101) Chlorobenzene-d5	10.672	(0.000)	1523	117	773893	(0)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	408577	(-1)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(0.000)	113	242954	48.899	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	56521	50.864	102%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	959627	50.457	101%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.745	(0.000)	95	397519	49.607	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
3) Dichlorodifluoromethane	(2)	1.612	(-0.000)	85	118058	14.614	14.61			0.2	1
4) Chloromethane	(2)	1.777	(-0.000)	50	105946	16.530	16.53			0.2	1
5) 1,3-Butadiene	(2)	1.862	(-0.000)	39	137129	15.394	15.39			1	3
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	102531	18.090	18.09			0.2	1
8) Bromomethane	(2)	2.130	(-0.000)	94	66344	17.434	17.43			0.3	1
9) Chloroethane	(2)	2.198	(0.000)	64	46195	17.214	17.21			0.2	1
11) n-Pentane	(2)	2.466	(-0.000)	43	91106	14.099	14.10			0.4	10
12) Trichlorofluoromethane	(2)	2.441	(-0.000)	101	124166	17.887	17.89			0.2	1
14) Ethyl ether	(2)	2.649	(-0.000)	59	79462	16.604	16.60			0.2	5
15) Freon 123a	(2)	2.722	(-0.001)	67	115623	15.957	15.96			0.4	5
16) Acrolein	(1)	2.795	(-0.009)	56	224308	124.934	124.93			2	100
17) 1,1-Dichloroethene	(2)	2.899	(-0.000)	96	100215	18.581	18.58			0.2	1
18) Acetone	(1)	2.941	(-0.009)	58	172381	194.673	194.67			0.7	20
19) Freon 113	(2)	2.935	(-0.001)	101	106018	17.366	17.37			0.2	10
21) 2-Propanol	(1)	3.082	(-0.009)	45	78481	108.918	108.92			18	100
22) Methyl Iodide	(2)	3.063	(-0.000)	142	182844	17.778	17.78			0.2	1
23) Carbon Disulfide	(2)	3.149	(-0.001)	76	298128	15.714	15.71			0.2	5
25) Allyl Chloride	(2)	3.295	(-0.001)	41	166473	18.439	18.44			0.3	5
27) Methyl Acetate	(2)	3.277	(-0.001)	43	151931	19.538	19.54			0.3	5
28) Methylene Chloride	(2)	3.453	(-0.000)	84	114641	18.857	18.86			0.3	1
30) t-Butyl alcohol	(1)	3.600	(-0.007)	59	237770	178.028	178.03			12	50
31) Acrylonitrile	(2)	3.740	(-0.001)	53	374088	91.140	91.14			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.783	(-0.000)	96	111373	18.454	18.45			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.783	(-0.000)	73	288989	18.104	18.10			0.2	1
34) n-Hexane	(2)	4.161	(-0.000)	57	151336	16.911	16.91			2	5
36) 1,1-Dichloroethane	(2)	4.404	(-0.001)	63	199246	18.238	18.24			0.2	1
38) di-Isopropyl ether	(2)	4.472	(-0.000)	45	339757	17.412	17.41			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.514	(-0.001)	53	163336	17.598	17.60			0.2	5
40) Ethyl t-butyl ether	(2)	5.032	(-0.001)	59	301723	17.417	17.42			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.270	(-0.000)	96	133162	19.508	19.51			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	244535	37.962	37.96			0.4	2

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56. Target 3.5 esignature user ID: kas02648

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.264(-0.000)	43	861998	144.293	144.29			0.3	10
45) 2,2-Dichloropropane	(2)	5.282(-0.000)	77	160449	17.406	17.41			0.3	1
47) Propionitrile	(1)	5.362(-0.012)	54	238828	164.267	164.27			14	100
48) Methacrylonitrile	(2)	5.575(-0.000)	67	570153	139.473	139.47			6	50
49) Bromochloromethane	(2)	5.612(-0.000)	128	59475	19.023	19.02			0.2	5
50) Tetrahydrofuran	(1)	5.630(-0.014)	71	149944	114.110	114.11			0.7	10
51) Chloroform	(2)	5.782(-0.000)	83	203334	18.556	18.56			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.996(0.000)	97	178569	18.100	18.10			0.3	1
54) Cyclohexane	(2)	6.087(-0.000)	56	200303	17.432	17.43			1	5
55) 1,1-Dichloropropene	(2)	6.221(-0.000)	75	163075	18.246	18.25			0.2	5
56) Carbon Tetrachloride	(2)	6.209(-0.000)	117	154001	17.891	17.89			0.2	1
58) Isobutyl Alcohol	(1)	6.441(-0.011)	41	228355	512.946	512.95			36	250
60) Benzene	(2)	6.496(-0.000)	78	489472	18.419	18.42			0.2	1
61) 1,2-Dichloroethane	(2)	6.581(-0.000)	62	153768	18.839	18.84			0.3	1
65) t-Amyl methyl ether	(2)	6.709(-0.000)	73	312718	18.091	18.09			0.8	5
67) n-Heptane	(2)	6.947(-0.000)	43	145109	16.787	16.79			2	5
69) n-Butanol	(1)	7.361(-0.016)	56	385716	1004.106	1004.11			61	250
71) Trichloroethene	(2)	7.416(0.000)	95	129111	18.514	18.51			0.2	1
73) Methylcyclohexane	(2)	7.721(0.000)	83	208670	18.827	18.83			0.5	5
74) 1,2-Dichloropropane	(2)	7.764(0.000)	63	125468	18.861	18.86			0.2	1
75) Dibromomethane	(2)	7.879(0.000)	93	78114	18.648	18.65			0.2	1
76) 1,4-Dioxane	(1)	7.861(-0.015)	88	61459M	645.000	645.00			29	250
77) Methyl Methacrylate	(2)	7.879(0.001)	69	112291	18.041	18.04			0.2	5
79) Bromodichloromethane	(2)	8.136(0.000)	83	144158	17.747	17.75			0.2	1
80) 2-Nitropropane	(2)	8.434(0.000)	41	45940	16.329	16.33			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.532(0.000)	63	92100	17.890	17.89			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.715(0.001)	75	183168	17.845	17.84			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.928(0.001)	43	1083446	94.095	94.10			0.5	10
89) Toluene	(3)	9.141(-0.000)	92	316043	18.846	18.85			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.458(-0.000)	75	161162	17.911	17.91			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	344330	35.756	35.76			0.4	2
92) Ethyl Methacrylate	(3)	9.544(-0.000)	69	183436	17.928	17.93			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(-0.000)	97	118033	19.687	19.69			0.2	1
94) Tetrachloroethene	(3)	9.757(-0.000)	166	142017	19.967	19.97			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(-0.000)	76	187591	18.844	18.84			0.2	1
97) 2-Hexanone	(3)	9.934(-0.000)	43	908487	101.962	101.96			0.3	10
98) Dibromochloromethane	(3)	10.086(-0.000)	129	114119	17.988	17.99			0.2	1
100) 1,2-Dibromoethane	(3)	10.196(-0.000)	107	125285	18.956	18.96			0.2	1
102) 1-Chlorohexane	(3)	10.696(0.000)	91	175989	18.045	18.04			0.3	5
103) Chlorobenzene	(3)	10.696(0.000)	112	355582	19.537	19.54			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.794(0.000)	131	118939	18.943	18.94			0.2	1
105) Ethylbenzene	(3)	10.800(-0.000)	91	631959	19.489	19.49			0.4	1
107) m+p-Xylene	(3)	10.928(-0.000)	106	488494	39.265	39.26			1	5
108) o-Xylene	(3)	11.275(-0.000)	106	235930	19.375	19.37			0.4	1
109) Xylene (Total)	(3)		106	724424	58.640	58.64			1	6
110) Styrene	(3)	11.293(0.000)	104	381273	19.428	19.43			0.2	5
111) Bromoform	(3)	11.452(0.000)	173	77065	16.790	16.79			1	4
112) Isopropylbenzene	(3)	11.598(0.000)	105	622063	19.467	19.47			0.2	5
113) Cyclohexanone	(1)	11.671(-0.023)	55	259662A	593.288	593.29			25	100
116) Bromobenzene	(4)	11.860(-0.000)	156	150835	19.365	19.36			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.866(-0.000)	83	208970	19.770	19.77			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.903(-0.000)	110	61450	19.744	19.74			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.891(-0.000)	53	228483	109.345	109.35			6	50
120) n-Propylbenzene	(4)	11.946(-0.000)	91	754072	19.691	19.69			0.2	5

M = Compound was manually integrated. A = User selected an alternate peak.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.013(-0.000)	126	149221	19.010	19.01			0.2	5
122) 4-Chlorotoluene	(4)	12.116(-0.000)	126	152566	19.241	19.24			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.092(-0.000)	105	516286	19.178	19.18			0.3	5
125) tert-Butylbenzene	(4)	12.342(-0.000)	134	101214M	18.918	18.92			0.3	5
126) Pentachloroethane	(4)	12.366(-0.000)	167	80382	18.301	18.30			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.385(-0.000)	105	526308	18.985	18.98			1	5
128) sec-Butylbenzene	(4)	12.513(-0.000)	105	641589	19.223	19.22			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.604(-0.000)	146	283679	19.363	19.36			0.2	5
131) p-Isopropyltoluene	(4)	12.628(-0.000)	119	541625	19.459	19.46			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.683(0.000)	146	292135	19.648	19.65			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.696(0.000)	105	531722	19.982	19.98			0.3	5
136) Benzyl Chloride	(4)	12.769(0.000)	91	350957	17.307	17.31			1	5
137) 1,3-Diethylbenzene	(4)	12.836(0.000)	119	312448	19.428	19.43			0.2	5
138) 1,4-Diethylbenzene	(4)	12.909(0.000)	119	325072	19.542	19.54			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.952(0.000)	146	277282	19.703	19.70			0.2	5
140) n-Butylbenzene	(4)	12.927(-0.000)	92	266607	18.990	18.99			0.2	5
141) 1,2-Diethylbenzene	(4)	12.982(-0.000)	119	262998	19.336	19.34			0.2	5
142) Diethylbenzene (total)	(4)		100	900518	58.307	58.31			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.512(0.000)	75	49891	18.696	18.70			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.640(0.000)	180	178387	19.191	19.19			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.079(0.000)	180	166987	19.122	19.12			0.3	5
148) Hexachlorobutadiene	(4)	14.165(0.000)	225	64130	19.095	19.10			2	5
149) Naphthalene	(4)	14.262(0.000)	128	670527	19.390	19.39			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.409(0.000)	180	166538	19.272	19.27			0.4	5
151) 2-Methylnaphthalene	(4)	15.018(0.000)	142	331340	18.442	18.44			2	4

M = Compound was manually integrated.

Total number of targets = 110

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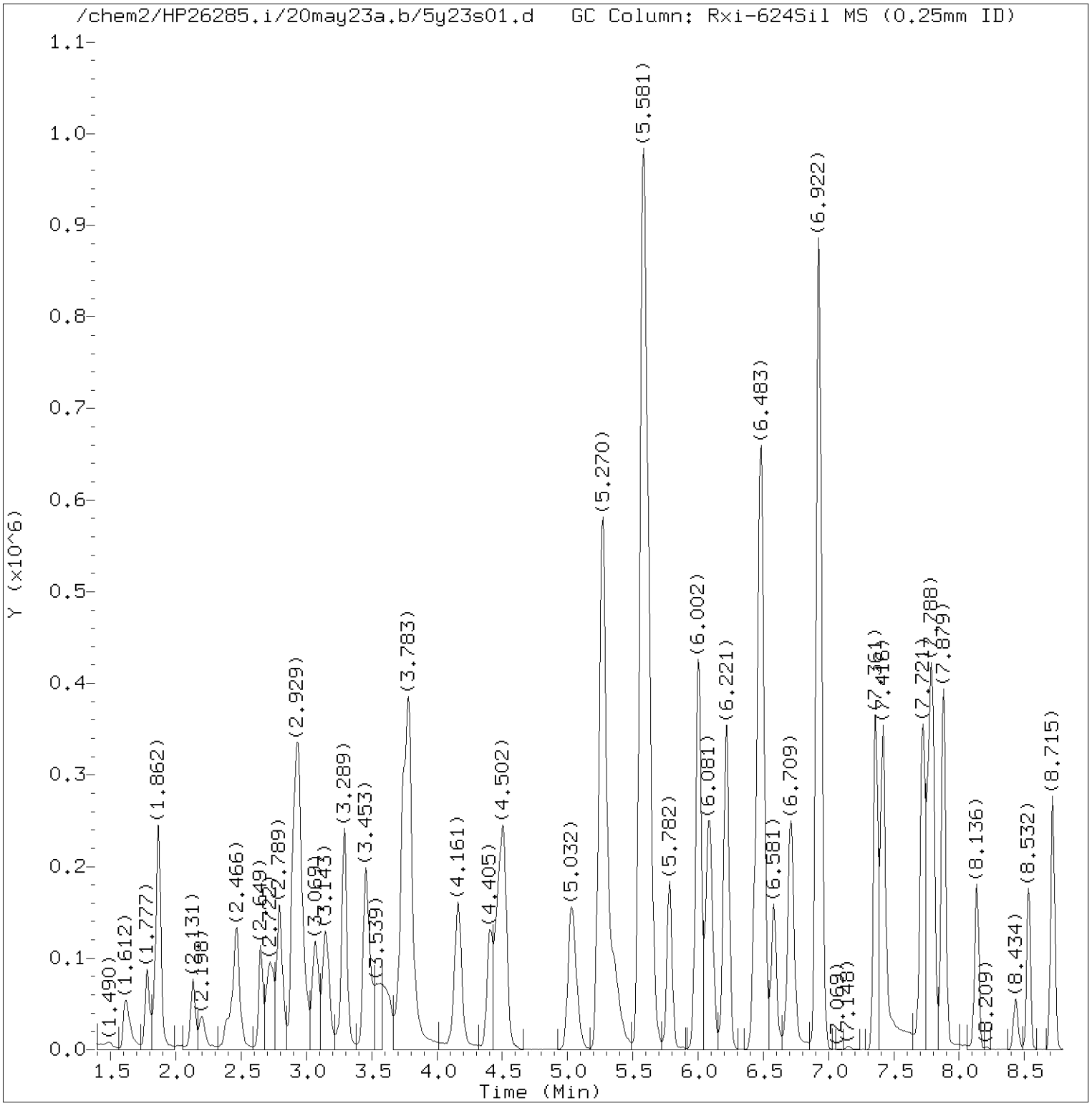
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

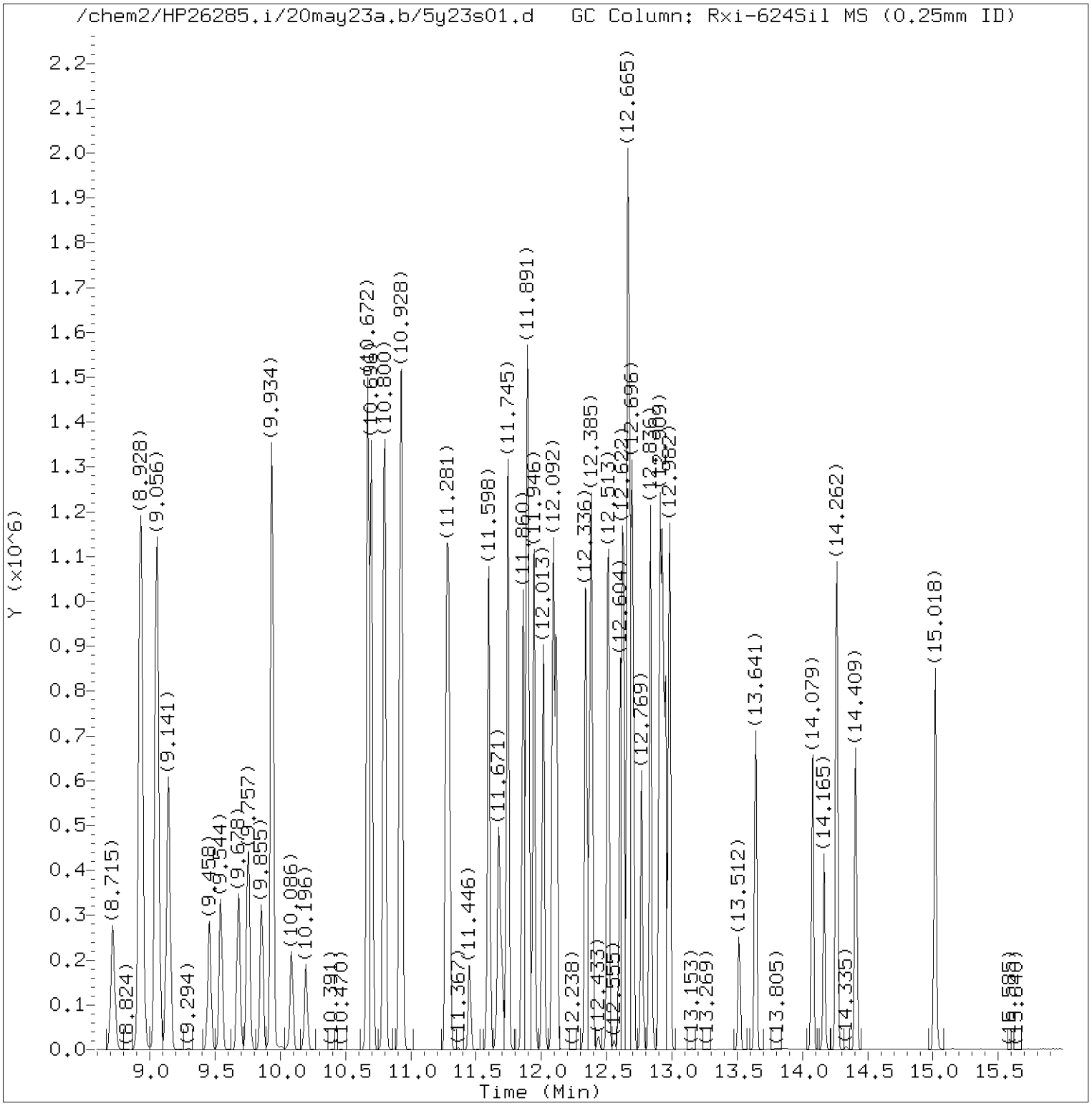
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	118058	14.614
4) Chloromethane	(2)	1.777	50	105946	16.530
5) 1,3-Butadiene	(2)	1.862	39	137129	15.394
6) Vinyl Chloride	(2)	1.868	62	102531	18.090
8) Bromomethane	(2)	2.131	94	66344	17.434
9) Chloroethane	(2)	2.198	64	46195	17.214
12) Trichlorofluoromethane	(2)	2.441	101	124166	17.887
11) n-Pentane	(2)	2.466	43	91106	14.099
14) Ethyl ether	(2)	2.649	59	79462	16.604
15) Freon 123a	(2)	2.722	67	115623	15.957
16) Acrolein	(1)	2.795	56	224308	124.934
17) 1,1-Dichloroethene	(2)	2.899	96	100215	18.581
19) Freon 113	(2)	2.935	101	106018	17.366
18) Acetone	(1)	2.941	58	172381	194.673
22) Methyl Iodide	(2)	3.063	142	182844	17.778
21) 2-Propanol	(1)	3.082	45	78481	108.918
23) Carbon Disulfide	(2)	3.149	76	298128	15.714
27) Methyl Acetate	(2)	3.277	43	151931	19.538
25) Allyl Chloride	(2)	3.295	41	166473	18.439
28) Methylene Chloride	(2)	3.453	84	114641	18.857
29)*t-Butyl alcohol-d10	(1)	3.478	65	283549	250.000
30) t-Butyl alcohol	(1)	3.600	59	237770	178.028
31) Acrylonitrile	(2)	3.740	53	374088	91.140
32) trans-1,2-Dichloroethene	(2)	3.783	96	111373	18.454
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	288989	18.104
34) n-Hexane	(2)	4.161	57	151336	16.911
36) 1,1-Dichloroethane	(2)	4.405	63	199246	18.238
38) di-Isopropyl ether	(2)	4.472	45	339757	17.412
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	163336	17.598
40) Ethyl t-butyl ether	(2)	5.032	59	301723	17.417
44) 2-Butanone	(2)	5.264	43	861998	144.293
42) cis-1,2-Dichloroethene	(2)	5.270	96	133162	19.508
45) 2,2-Dichloropropane	(2)	5.282	77	160449	17.406
47) Propionitrile	(1)	5.362	54	238828	164.267
48) Methacrylonitrile	(2)	5.575	67	570153	139.473
49) Bromochloromethane	(2)	5.612	128	59475	19.023
50) Tetrahydrofuran	(1)	5.630	71	149944	114.110
51) Chloroform	(2)	5.782	83	203334	18.556

* = Compound is an internal standard.

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on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.996	97	178569	18.100
52)$Dibromofluoromethane	(2)	6.002	113	242954	48.899
54) Cyclohexane	(2)	6.087	56	200303	17.432
43) 1,2-Dichloroethene (Total)	(2)		96	244535	37.962
56) Carbon Tetrachloride	(2)	6.209	117	154001	17.891
55) 1,1-Dichloropropene	(2)	6.221	75	163075	18.246
58) Isobutyl Alcohol	(1)	6.441	41	228355	512.946
57)$1,2-Dichloroethane-d4	(2)	6.471	102	56521	50.864
60) Benzene	(2)	6.496	78	489472	18.419
61) 1,2-Dichloroethane	(2)	6.581	62	153768	18.839
65) t-Amyl methyl ether	(2)	6.709	73	312718	18.091
66)*Fluorobenzene	(2)	6.922	96	997523	50.000
67) n-Heptane	(2)	6.947	43	145109	16.787
69) n-Butanol	(1)	7.361	56	385716	1004.106
71) Trichloroethene	(2)	7.416	95	129111	18.514
73) Methylcyclohexane	(2)	7.721	83	208670	18.827
74) 1,2-Dichloropropane	(2)	7.764	63	125468	18.861
76) 1,4-Dioxane	(1)	7.861	88	61459M	645.000
75) Dibromomethane	(2)	7.879	93	78114	18.648
77) Methyl Methacrylate	(2)	7.879	69	112291	18.041
79) Bromodichloromethane	(2)	8.136	83	144158	17.747
80) 2-Nitropropane	(2)	8.434	41	45940	16.329
81) 2-Chloroethyl Vinyl Ether	(2)	8.532	63	92100	17.890
82) cis-1,3-Dichloropropene	(2)	8.715	75	183168	17.845
83) 4-Methyl-2-pentanone	(2)	8.928	43	1083446	94.095
84)$Toluene-d8	(3)	9.056	98	959627	50.457
89) Toluene	(3)	9.141	92	316043	18.846
90) trans-1,3-Dichloropropene	(3)	9.458	75	161162	17.911
92) Ethyl Methacrylate	(3)	9.544	69	183436	17.928
93) 1,1,2-Trichloroethane	(3)	9.678	97	118033	19.687
94) Tetrachloroethene	(3)	9.757	166	142017	19.967
95) 1,3-Dichloropropane	(3)	9.855	76	187591	18.844
97) 2-Hexanone	(3)	9.934	43	908487	101.962
98) Dibromochloromethane	(3)	10.086	129	114119	17.988
91) 1,3-Dichloropropene (total)	(3)		100	344330	35.756
100) 1,2-Dibromoethane	(3)	10.196	107	125285	18.956
101)*Chlorobenzene-d5	(3)	10.672	117	773893	50.000
102) 1-Chlorohexane	(3)	10.696	91	175989	18.045

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.696	112	355582	19.537
104) 1,1,1,2-Tetrachloroethane	(3)	10.794	131	118939	18.943
105) Ethylbenzene	(3)	10.800	91	631959	19.489
107) m+p-Xylene	(3)	10.928	106	488494	39.265
108) o-Xylene	(3)	11.275	106	235930	19.375
110) Styrene	(3)	11.293	104	381273	19.428
111) Bromoform	(3)	11.452	173	77065	16.790
112) Isopropylbenzene	(3)	11.598	105	622063	19.467
113) Cyclohexanone	(1)	11.671	55	259662A	593.288
115)$4-Bromofluorobenzene	(3)	11.745	95	397519	49.607
109) Xylene (Total)	(3)		106	724424	58.640
116) Bromobenzene	(4)	11.860	156	150835	19.365
117) 1,1,2,2-Tetrachloroethane	(4)	11.866	83	208970	19.770
119) trans-1,4-Dichloro-2-butene	(4)	11.891	53	228483	109.345
118) 1,2,3-Trichloropropane	(4)	11.903	110	61450	19.744
120) n-Propylbenzene	(4)	11.946	91	754072	19.691
121) 2-Chlorotoluene	(4)	12.013	126	149221	19.010
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	516286	19.178
122) 4-Chlorotoluene	(4)	12.116	126	152566	19.241
125) tert-Butylbenzene	(4)	12.342	134	101214M	18.918
126) Pentachloroethane	(4)	12.366	167	80382	18.301
127) 1,2,4-Trimethylbenzene	(4)	12.385	105	526308	18.985
128) sec-Butylbenzene	(4)	12.513	105	641589	19.223
130) 1,3-Dichlorobenzene	(4)	12.604	146	283679	19.363
131) p-Isopropyltoluene	(4)	12.629	119	541625	19.459
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	408577	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	292135	19.648
135) 1,2,3-Trimethylbenzene	(4)	12.696	105	531722	19.982
136) Benzyl Chloride	(4)	12.769	91	350957	17.307
137) 1,3-Diethylbenzene	(4)	12.836	119	312448	19.428
138) 1,4-Diethylbenzene	(4)	12.909	119	325072	19.542
140) n-Butylbenzene	(4)	12.927	92	266607	18.990
139) 1,2-Dichlorobenzene	(4)	12.952	146	277282	19.703
141) 1,2-Diethylbenzene	(4)	12.982	119	262998	19.336
142) Diethylbenzene (total)	(4)		100	900518	58.307
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	49891	18.696
145) 1,3,5-Trichlorobenzene	(4)	13.641	180	178387	19.191
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	166987	19.122

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.165	225	64130	19.095
149) Naphthalene	(4)	14.262	128	670527	19.390
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	166538	19.272
151) 2-Methylnaphthalene	(4)	15.018	142	331340	18.442

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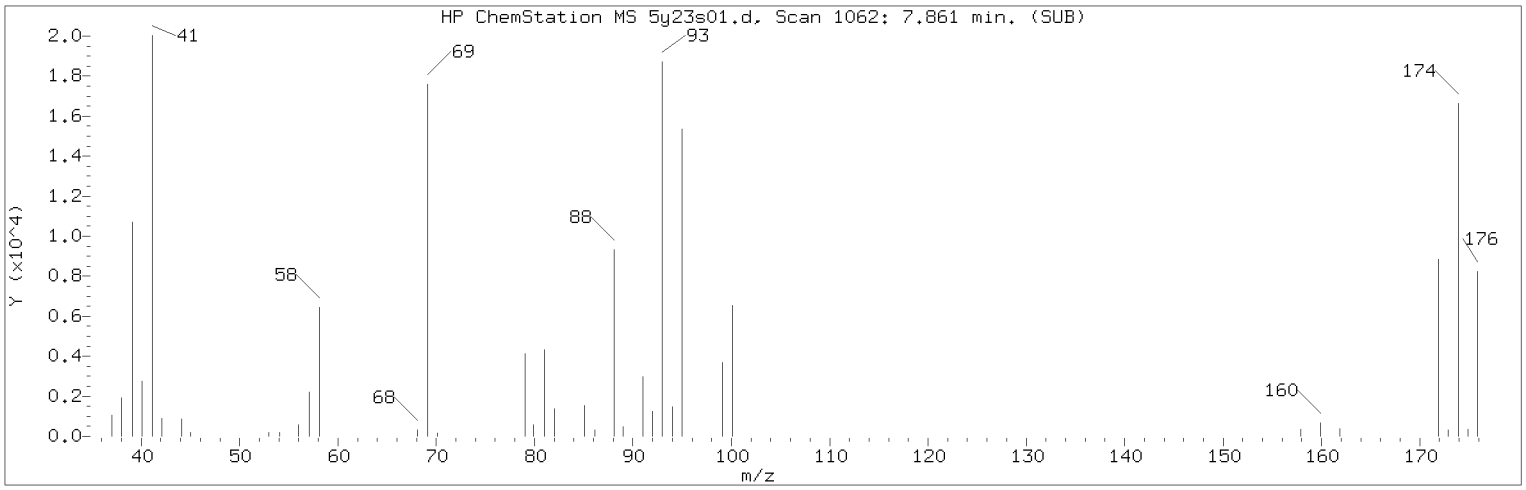
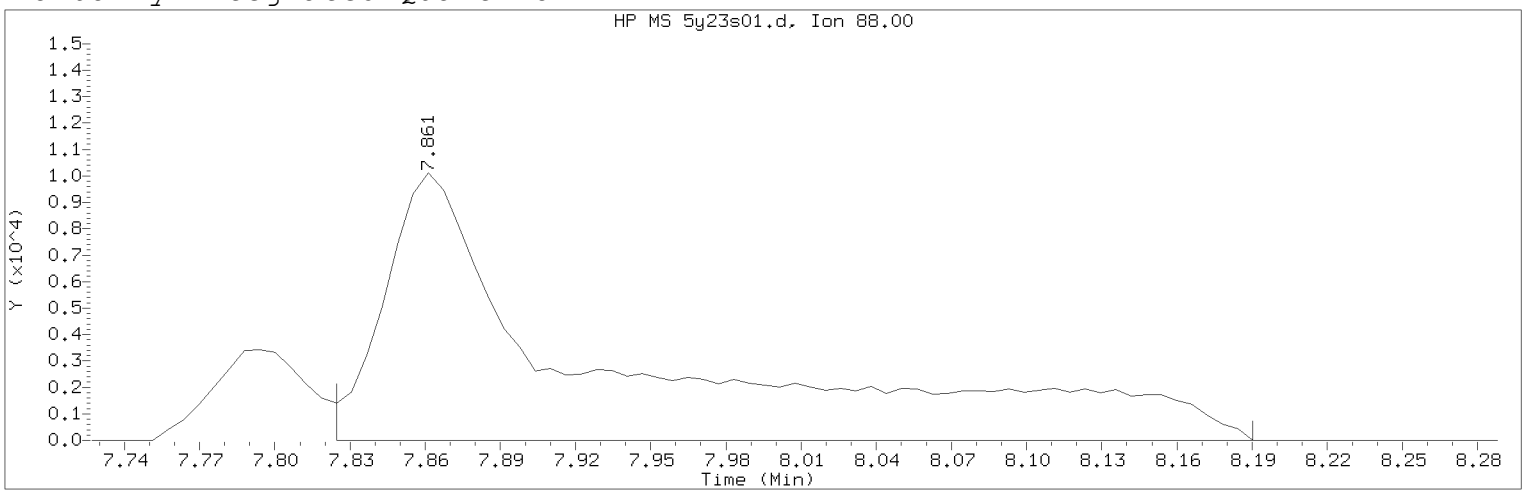
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
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Sample Name: LCS567 Lab Sample ID: LCS567

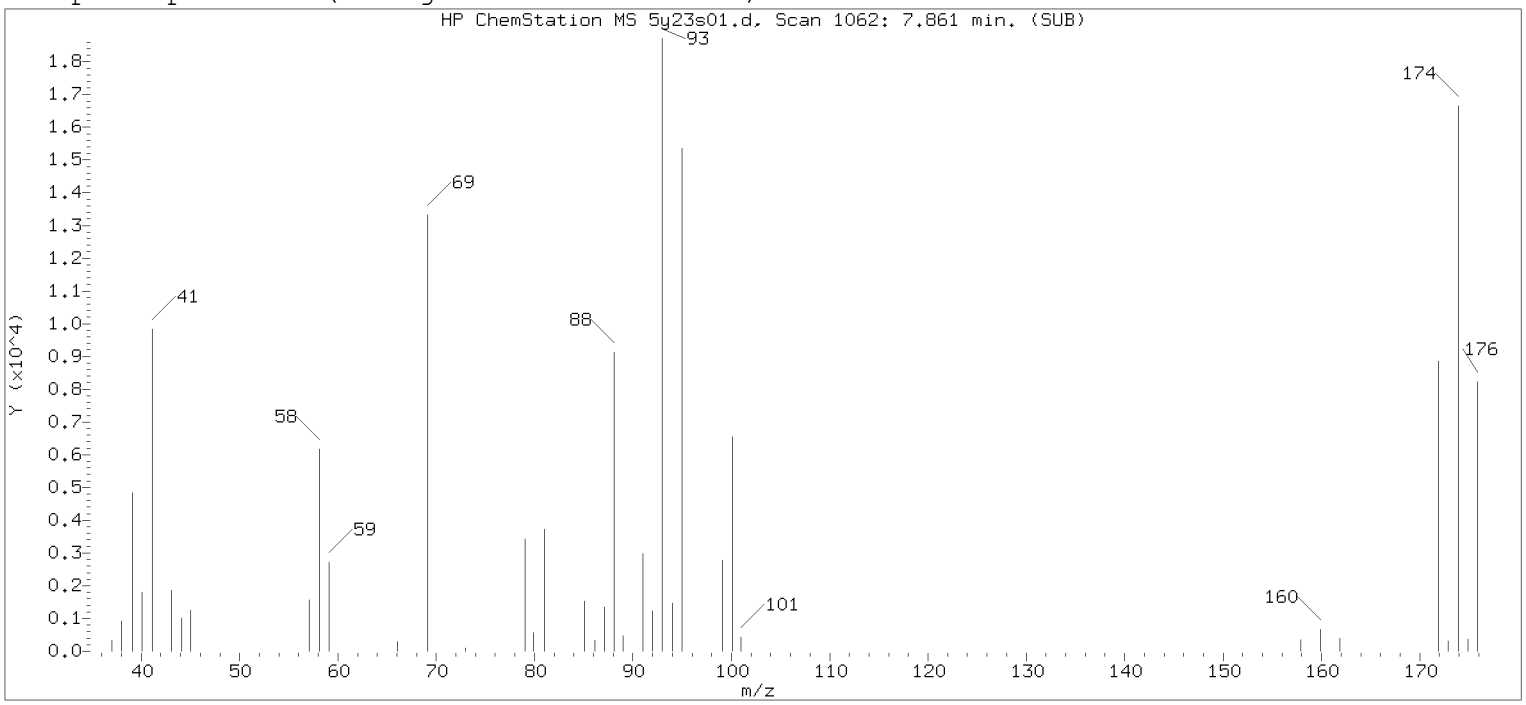
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 61459M
On-Column Amount (ng) : 645.0002
Integration start scan : 1055 Integration stop scan: 1115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

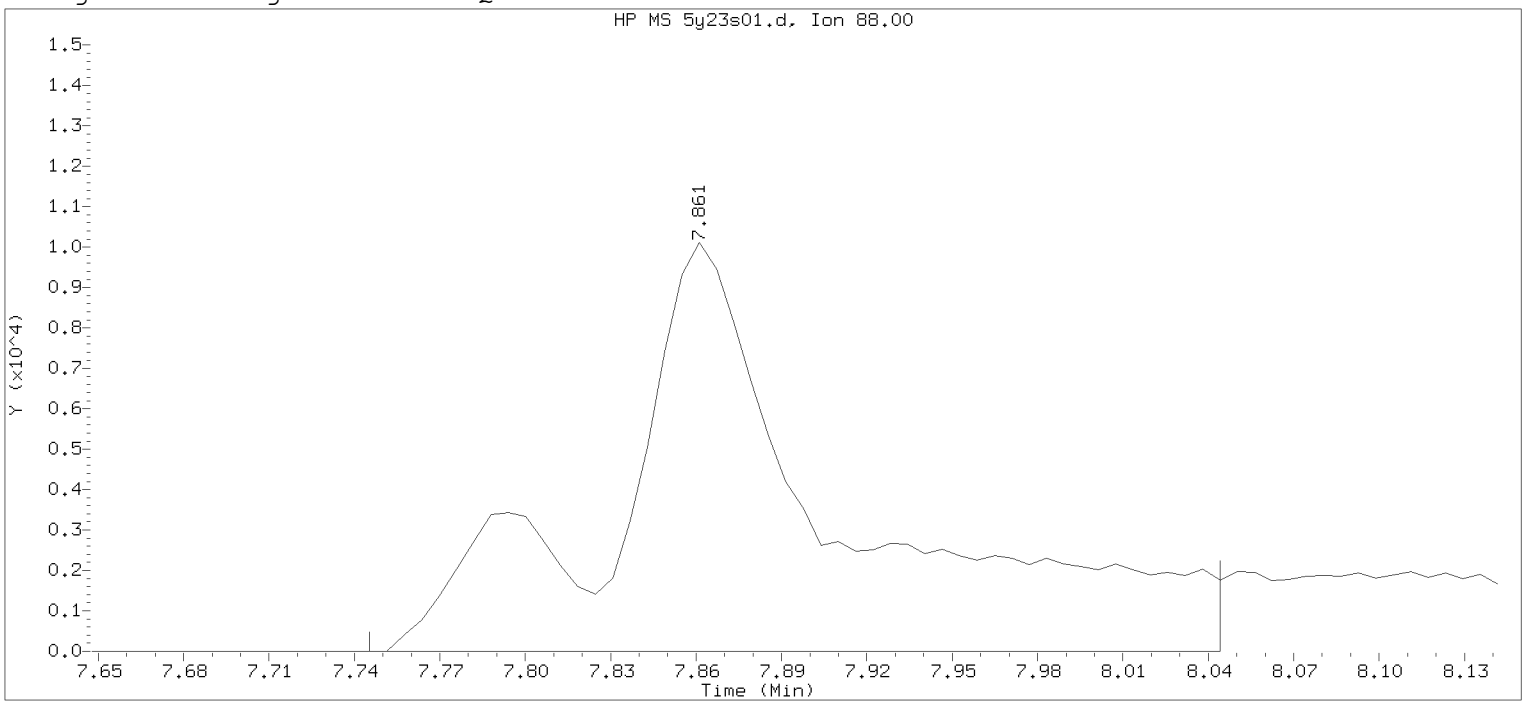
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

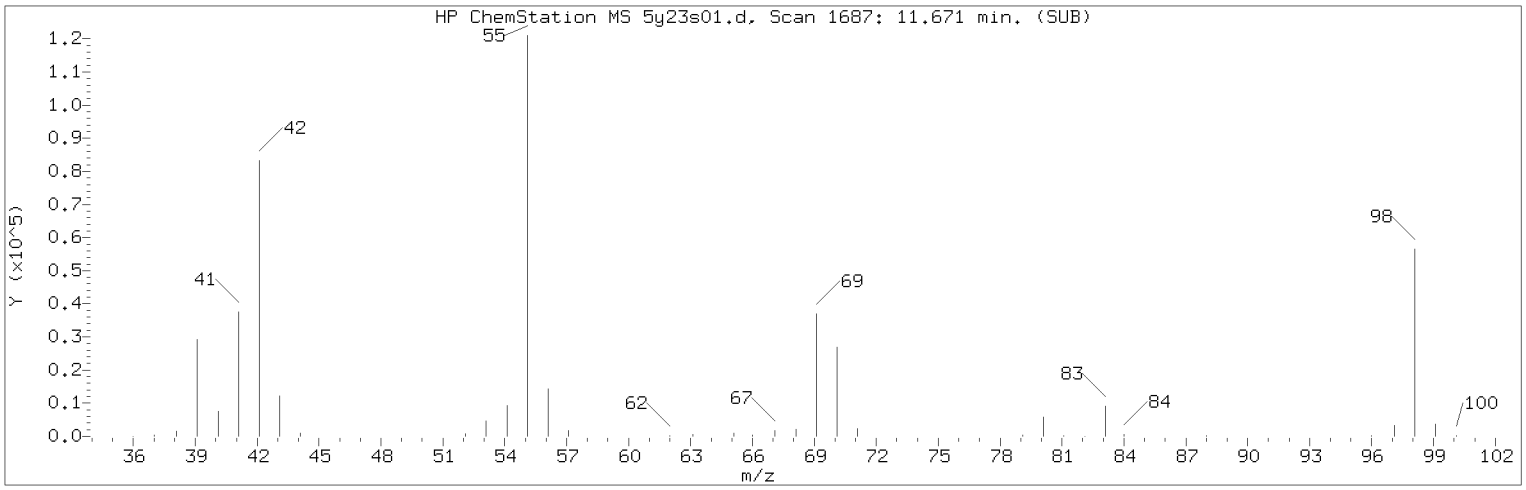
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

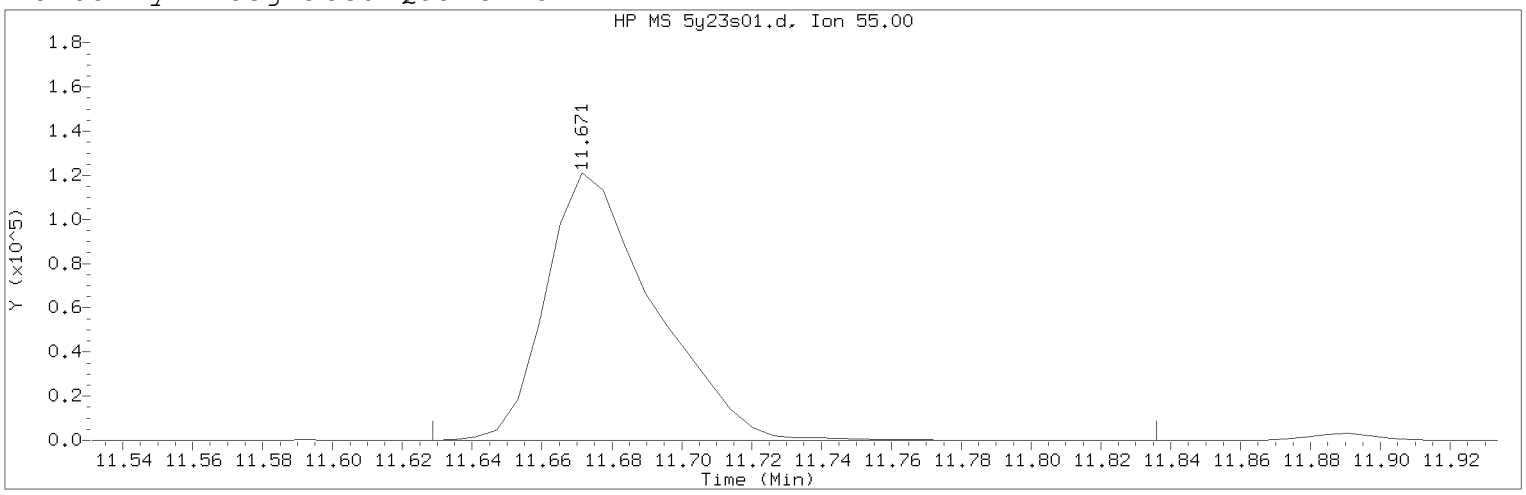
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 55963
On-column Amount (ng) : 587.3275
Integration start scan : 1042 Integration stop scan: 1091
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

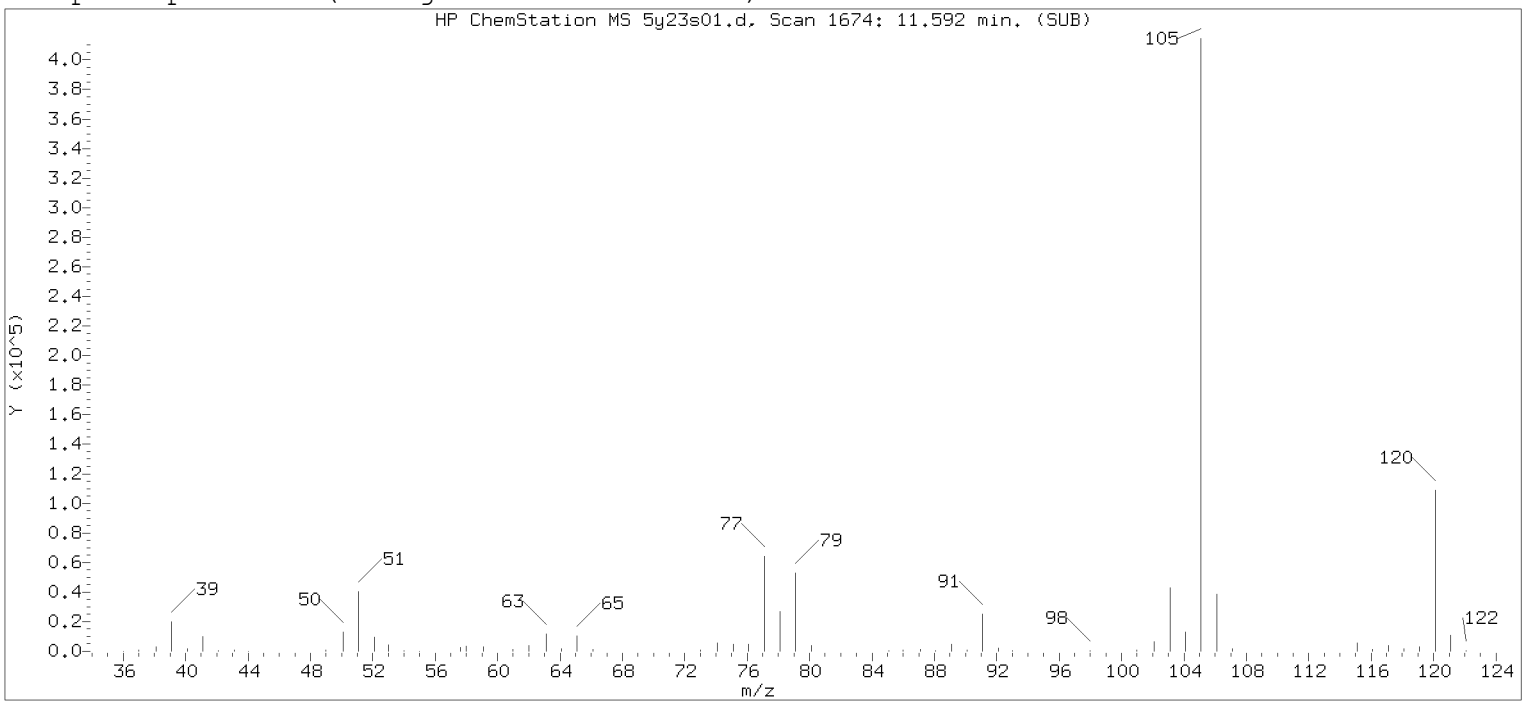
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1687
Retention Time (minutes): 11.671
Quant Ion : 55.00
Area (flag) : 259662A
On-Column Amount (ng) : 593.2878
Integration start scan : 1679 Integration stop scan: 1713
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

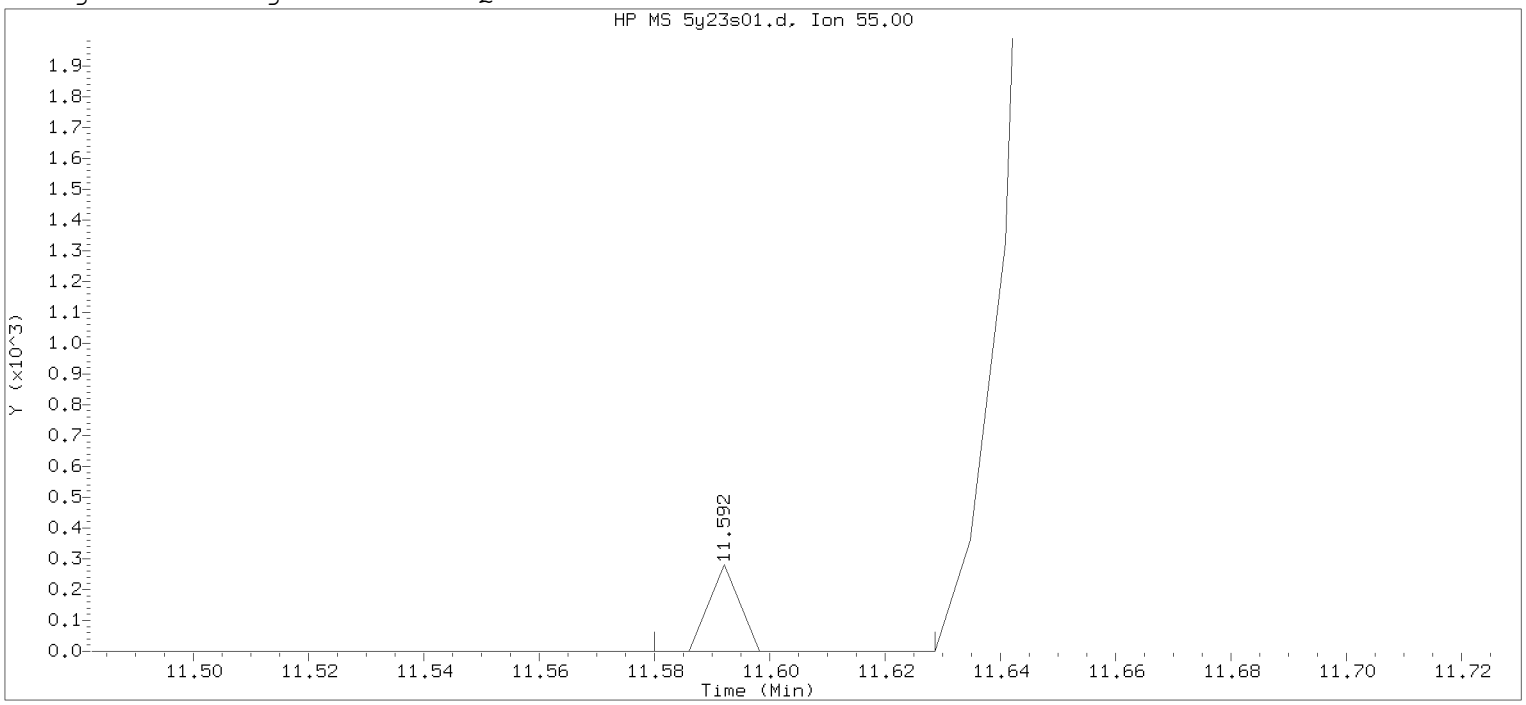
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

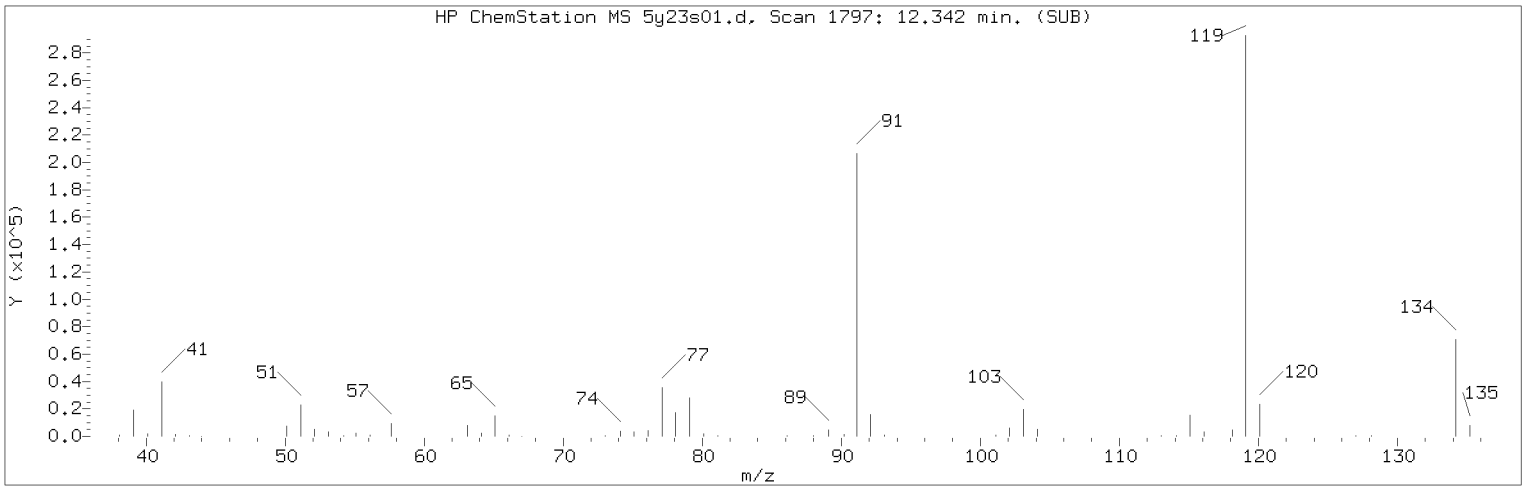
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

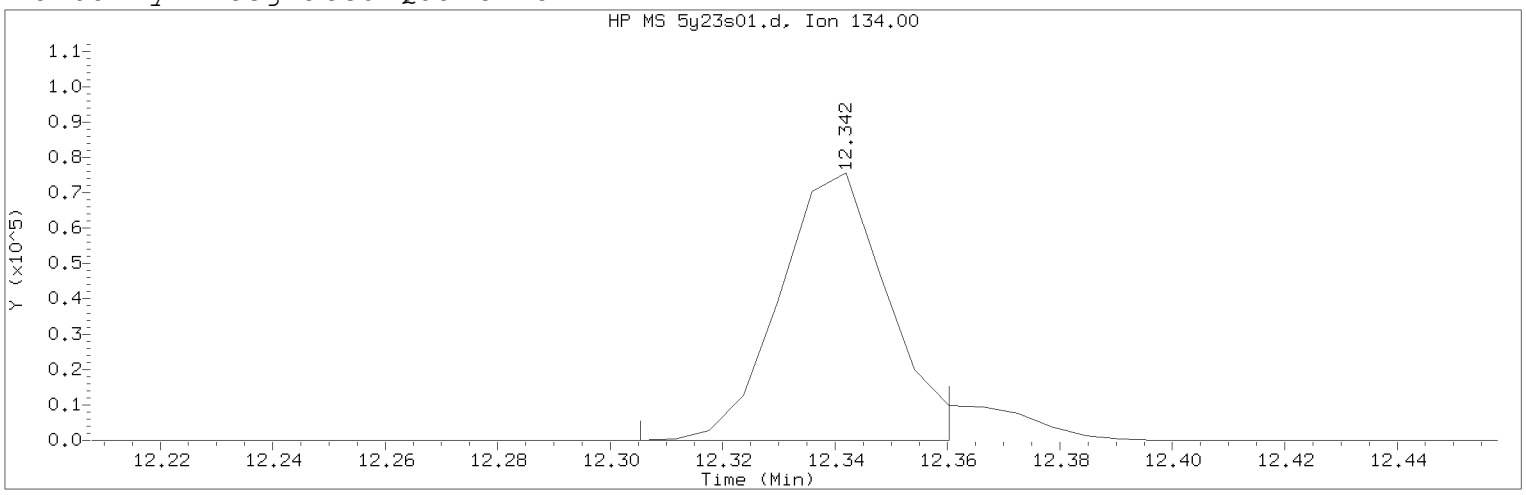
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1674
Retention Time (minutes): 11.592
Quant Ion : 55.00
Area : 103
On-column Amount (ng) : 0.2357
Integration start scan : 1671 Integration stop scan: 1679
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

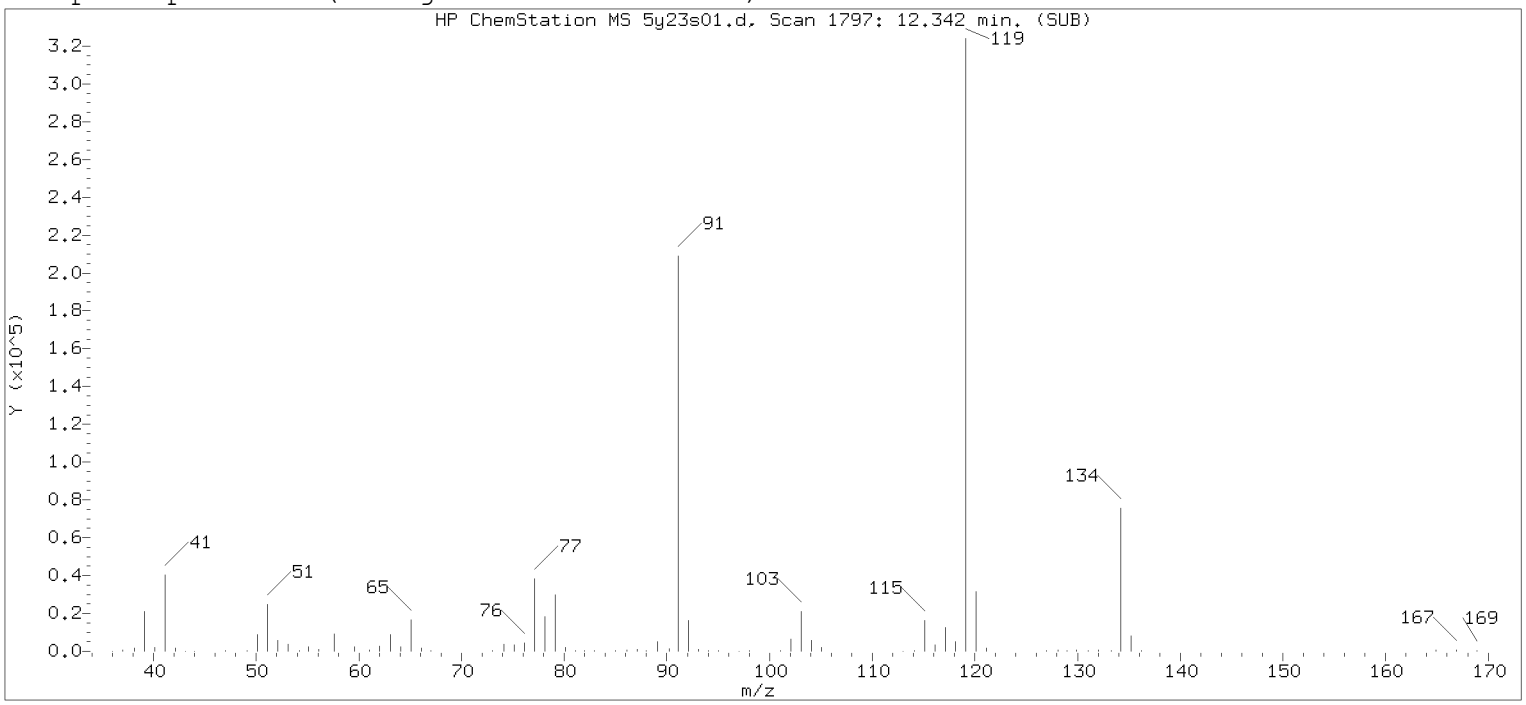
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 101214M
On-Column Amount (ng) : 18.9178
Integration start scan : 1790 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

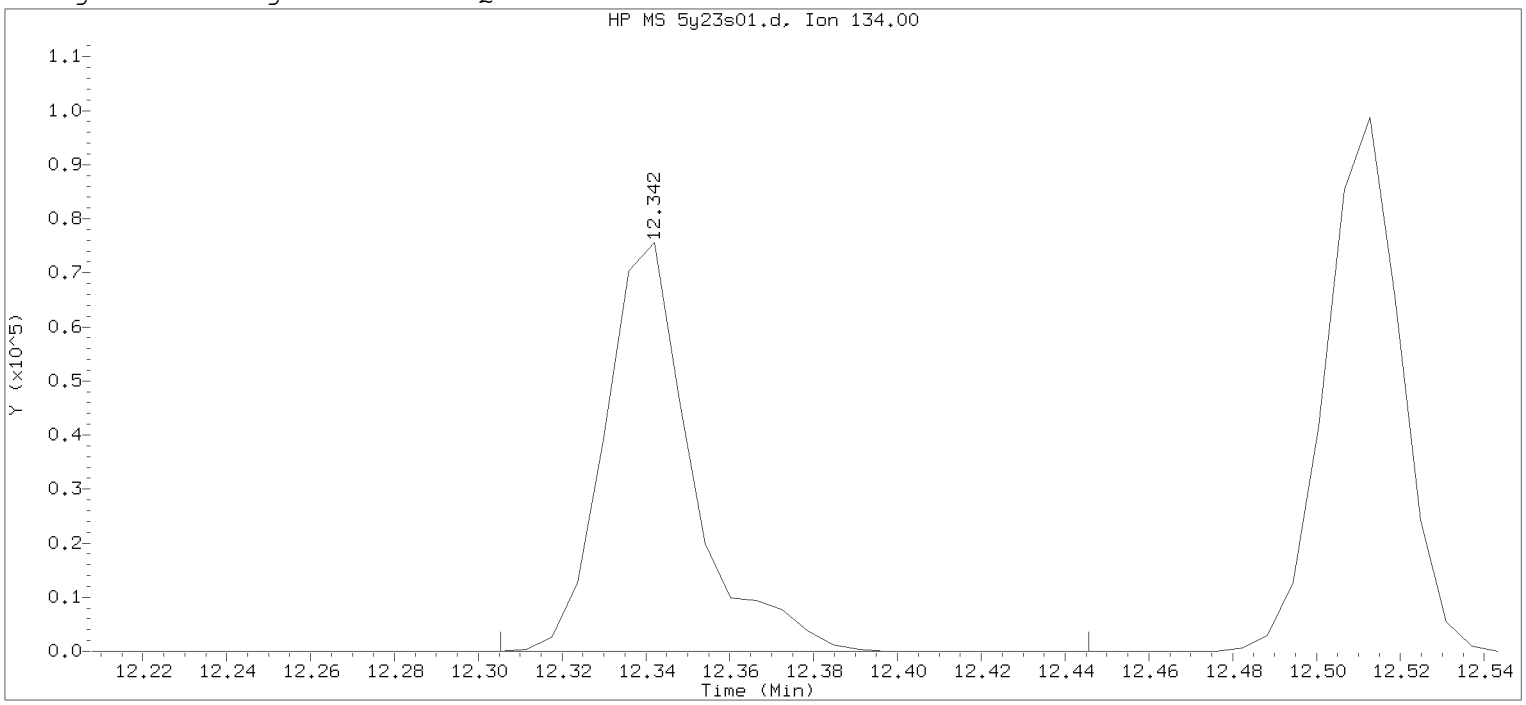
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 109441
On-column Amount (ng) : 20.4556
Integration start scan : 1790 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	16	
106-99-0	1,3-Butadiene	21	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	21	
75-69-4	Trichlorofluoromethane	19	
64-17-5	Ethanol	1100	
354-23-4	Freon 123a	21	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	180	
76-13-1	Freon 113	22	
67-63-0	2-Propanol	180	
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	21	
107-05-1	Allyl Chloride	20	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	230	
107-13-1	Acrylonitrile	98	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	23	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	20	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	19	
156-59-2	cis-1,2-Dichloroethene	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	41	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	23	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	550	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	18	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	21	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	23	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	470	
80-62-6	Methyl Methacrylate	20	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	14	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	94	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	37	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	94	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	41	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	61	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	460	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-butene	85	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	18	
95-63-6	1,2,4-Trimethylbenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	20	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	18	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	16	

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.410(0.011)	505	65	317361 (12)	250.00	
66) Fluorobenzene	7.920(0.005)	1082	96	1191852 (13)	50.00	
100) Chlorobenzene-d5	11.364(-0.001)	1648	117	899461 (8)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243(-0.001)	1957	152	495502 (0)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026(0.000)	113	281460	47.586	95%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488(0.000)	102	72452	48.446	97%		80 - 120
83) Toluene-d8	(3)	9.922(0.000)	98	1122813	47.864	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361(0.000)	95	415870	44.873	90%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.031(0.000)	85	137854	14.860	14.86			0.2	1
4) Chloromethane	(2)	2.232(0.000)	50	155510	15.644	15.64			0.2	1
5) 1,3-Butadiene	(2)	2.360(0.000)	39	148004	21.338	21.34			1	3
6) Vinyl Chloride	(2)	2.360(-0.000)	62	151466	15.658	15.66			0.2	1
8) Bromomethane	(2)	2.694(0.000)	94	111567	16.821	16.82			0.3	1
9) Chloroethane	(2)	2.786(0.001)	64	96747	17.088	17.09			0.2	1
11) n-Pentane	(2)	3.169(-0.000)	43	215352	20.675	20.68			0.4	10
12) Trichlorofluoromethane	(2)	3.102(0.000)	101	200087	18.821	18.82			0.2	1
13) Ethanol	(1)	3.248(-0.004)	45	83105	1081.908	1081.91			280	750
15) Freon 123a	(2)	3.455(0.000)	67	165169	21.207	21.21			0.4	5
16) Acrolein	(1)	3.564(-0.002)	56	306228	142.292	142.29			2	100
17) 1,1-Dichloroethene	(2)	3.710(0.000)	96	126976	20.494	20.49			0.2	1
18) Acetone	(1)	3.741(-0.002)	58	165761	182.868	182.87			0.7	20
19) Freon 113	(2)	3.741(-0.000)	101	125350	21.806	21.81			0.2	10
21) 2-Propanol	(1)	3.930(-0.006)	45	109865M	183.508	183.51			18	100
22) Methyl Iodide	(2)	3.923(-0.000)	142	218315	18.878	18.88			0.2	1
23) Carbon Disulfide	(2)	4.039(-0.000)	76	408506	20.618	20.62			0.2	5
25) Allyl Chloride	(2)	4.215(-0.001)	41	216707	19.812	19.81			0.3	5
27) Methyl Acetate	(2)	4.179(-0.000)	43	157137	20.645	20.64			0.3	5
28) Methylene Chloride	(2)	4.410(0.000)	84	146217	19.870	19.87			0.3	1
30) t-Butyl alcohol	(1)	4.550(-0.005)	59	268158	226.644	226.64			12	50
31) Acrylonitrile	(2)	4.751(-0.001)	53	402246	97.850	97.85			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.836(0.000)	96	140174	19.818	19.82			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.818(-0.001)	73	367860	18.271	18.27			0.2	1
34) n-Hexane	(2)	5.256(-0.000)	57	225765	23.122	23.12			2	5
36) 1,1-Dichloroethane	(2)	5.499(-0.000)	63	255700	19.817	19.82			0.2	1
38) di-Isopropyl ether	(2)	5.548(-0.000)	45	448580	20.181	20.18			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.602(-0.000)	53	218337	19.169	19.17			0.2	5
40) Ethyl t-butyl ether	(2)	6.083(-0.000)	59	401369	18.998	19.00			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.326(0.000)	96	167261	20.821	20.82			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	307435	40.639	40.64			0.4	2

M = Compound was manually integrated.

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48. Target 3.5 esignature user ID: sej02002

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.284(-0.000)	43	832091	144.761	144.76			0.3	10
45) 2,2-Dichloropropane	(2)	6.338(0.000)	77	208268	18.282	18.28			0.3	1
47) Propionitrile	(1)	6.381(-0.002)	54	252719	182.881	182.88			14	100
48) Methacrylonitrile	(2)	6.594(-0.000)	67	638736	153.824	153.82			6	50
49) Bromochloromethane	(2)	6.661(0.000)	128	77115	20.303	20.30			0.2	5
50) Tetrahydrofuran	(1)	6.667(-0.004)	71	158159	110.240	110.24			0.7	10
51) Chloroform	(2)	6.819(-0.001)	83	240328	19.095	19.10			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.044(-0.000)	97	206149	18.105	18.10			0.3	1
54) Cyclohexane	(2)	7.142(0.000)	56	271787	23.206	23.21			1	5
55) 1,1-Dichloropropene	(2)	7.251(0.000)	75	200657	19.483	19.48			0.2	5
56) Carbon Tetrachloride	(2)	7.263(-0.001)	117	185180	18.862	18.86			0.2	1
58) Isobutyl Alcohol	(1)	7.379(-0.003)	41	233018	549.794	549.79			36	250
60) Benzene	(2)	7.519(0.000)	78	597984	20.398	20.40			0.2	1
61) 1,2-Dichloroethane	(2)	7.586(0.000)	62	189708	18.291	18.29			0.3	1
65) t-Amyl methyl ether	(2)	7.701(0.000)	73	408493	19.274	19.27			0.8	5
67) n-Heptane	(2)	7.932(-0.000)	43	232632	20.641	20.64			2	5
69) n-Butanol	(1)	8.267(-0.005)	56	397187	1087.916	1087.92			61	250
71) Trichloroethene	(2)	8.407(-0.000)	95	148059	19.170	19.17			0.2	1
72) Methylcyclohexane	(2)	8.723(-0.000)	83	297276	23.415	23.41			0.5	5
73) 1,2-Dichloropropane	(2)	8.742(-0.000)	63	158071	21.086	21.09			0.2	1
74) Dibromomethane	(2)	8.851(-0.000)	93	92151	19.274	19.27			0.2	1
75) 1,4-Dioxane	(1)	8.827(-0.005)	88	43004M	466.264	466.26			29	250
76) Methyl Methacrylate	(2)	8.814(-0.000)	69	136914	19.972	19.97			0.2	5
78) Bromodichloromethane	(2)	9.088(-0.000)	83	180714	18.515	18.52			0.2	1
79) 2-Nitropropane	(2)	9.350(-0.000)	41	49977	14.098	14.10			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.435(-0.000)	63	111279	18.765	18.77			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.624(-0.000)	75	234752	18.855	18.85			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.782(-0.000)	43	1098300	94.307	94.31			0.5	10
88) Toluene	(3)	10.001(-0.000)	92	374623	19.659	19.66			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.250(-0.000)	75	209310	17.697	17.70			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552	36.55			0.4	2
91) Ethyl Methacrylate	(3)	10.305(-0.000)	69	224462	19.048	19.05			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.451(-0.000)	97	133238	19.748	19.75			0.2	1
93) Tetrachloroethene	(3)	10.542(-0.000)	166	175080	20.980	20.98			0.2	1
94) 1,3-Dichloropropane	(3)	10.615(-0.000)	76	229773	19.622	19.62			0.2	1
96) 2-Hexanone	(3)	10.652(-0.000)	43	847590	93.966	93.97			0.3	10
97) Dibromochloromethane	(3)	10.828(-0.000)	129	152462	19.692	19.69			0.2	1
99) 1,2-Dibromoethane	(3)	10.938(-0.000)	107	143506	19.424	19.42			0.2	1
102) Chlorobenzene	(3)	11.388(0.000)	112	422510	19.866	19.87			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.473(0.000)	131	144878	18.903	18.90			0.2	1
104) Ethylbenzene	(3)	11.473(0.000)	91	738218	20.028	20.03			0.4	1
106) m+p-Xylene	(3)	11.588(0.000)	106	594767	41.069	41.07			1	5
107) o-Xylene	(3)	11.917(0.000)	106	282336	19.822	19.82			0.4	1
108) Xylene (Total)	(3)		106	877103	60.892	60.89			1	6
109) Styrene	(3)	11.929(0.000)	104	467434	19.540	19.54			0.2	5
110) Bromoform	(3)	12.094(0.000)	173	107919	18.463	18.46			1	4
111) Isopropylbenzene	(3)	12.215(0.000)	105	749520	19.925	19.92			0.2	5
112) Cyclohexanone	(1)	12.294(-0.007)	55	169473A	458.179	458.18			25	100
115) Bromobenzene	(4)	12.477(-0.000)	156	183160	19.987	19.99			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.458(-0.000)	83	217439	19.950	19.95			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.507(-0.000)	110	66385	19.228	19.23			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.483(-0.000)	53	316904	84.528	84.53			6	50
119) n-Propylbenzene	(4)	12.544(-0.000)	91	913193	20.554	20.55			0.2	5
120) 2-Chlorotoluene	(4)	12.623(-0.000)	126	180417	19.696	19.70			0.2	5

M = Compound was manually integrated. A = User selected an alternate peak.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)	12.714(-0.000)	126	185058	19.494	19.49			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.678(-0.000)	105	633599	19.463	19.46			0.3	5
124) tert-Butylbenzene	(4)	12.921(-0.000)	134	149844	20.771	20.77			0.3	5
125) Pentachloroethane	(4)	12.957(-0.000)	167	103983	18.002	18.00			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.963(-0.000)	105	642200	19.007	19.01			1	5
127) sec-Butylbenzene	(4)	13.085(-0.000)	105	854567	20.209	20.21			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.188(-0.000)	146	353633	19.841	19.84			0.2	5
130) p-Isopropyltoluene	(4)	13.188(0.000)	119	731454	19.878	19.88			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.262(0.000)	146	357709	19.790	19.79			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.268(0.000)	105	647148	19.734	19.73			0.3	5
135) Benzyl Chloride	(4)	13.334(0.000)	91	445261	18.483	18.48			1	5
136) 1,3-Diethylbenzene	(4)	13.389(0.000)	119	432008	19.612	19.61			0.2	5
137) 1,4-Diethylbenzene	(4)	13.462(0.000)	119	458422	19.600	19.60			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.523(0.000)	146	335418	19.849	19.85			0.2	5
139) n-Butylbenzene	(4)	13.480(0.000)	92	359089	18.917	18.92			0.2	5
140) 1,2-Diethylbenzene	(4)	13.535(0.000)	119	358963	19.263	19.26			0.2	5
141) Diethylbenzene (total)	(4)		100	1249393	58.474	58.47			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.064(0.000)	75	53173	18.052	18.05			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.192(0.000)	180	250436	18.593	18.59			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.618(0.000)	180	221942	18.897	18.90			0.3	5
147) Hexachlorobutadiene	(4)	14.697(0.000)	225	98180	18.480	18.48			2	5
148) Naphthalene	(4)	14.801(0.000)	128	702183	19.068	19.07			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.947(0.000)	180	203128	18.841	18.84			0.4	5
150) 2-Methylnaphthalene	(4)	15.604(0.000)	142	348476	16.383	16.38			2	4

Total number of targets = 109

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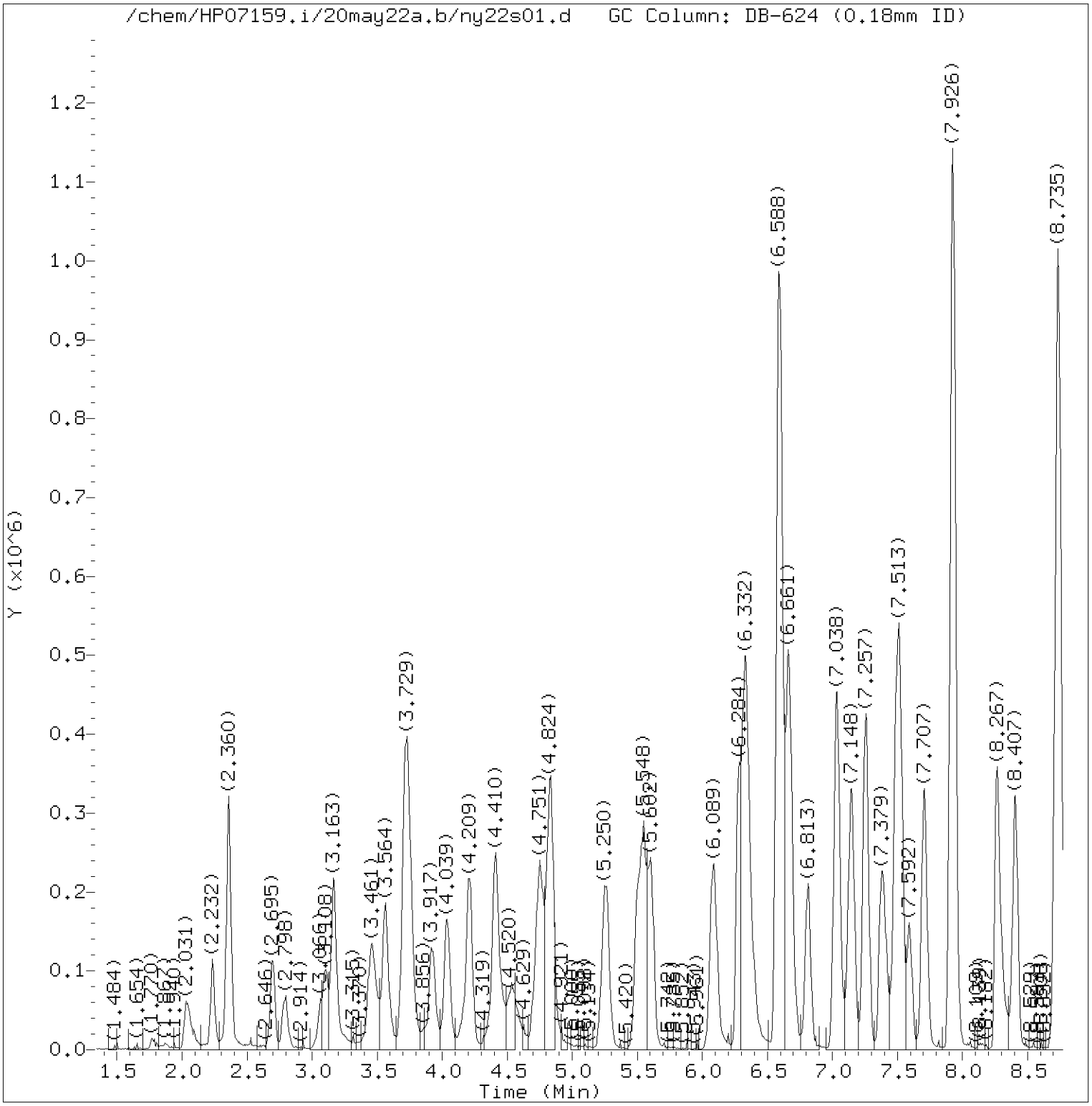
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

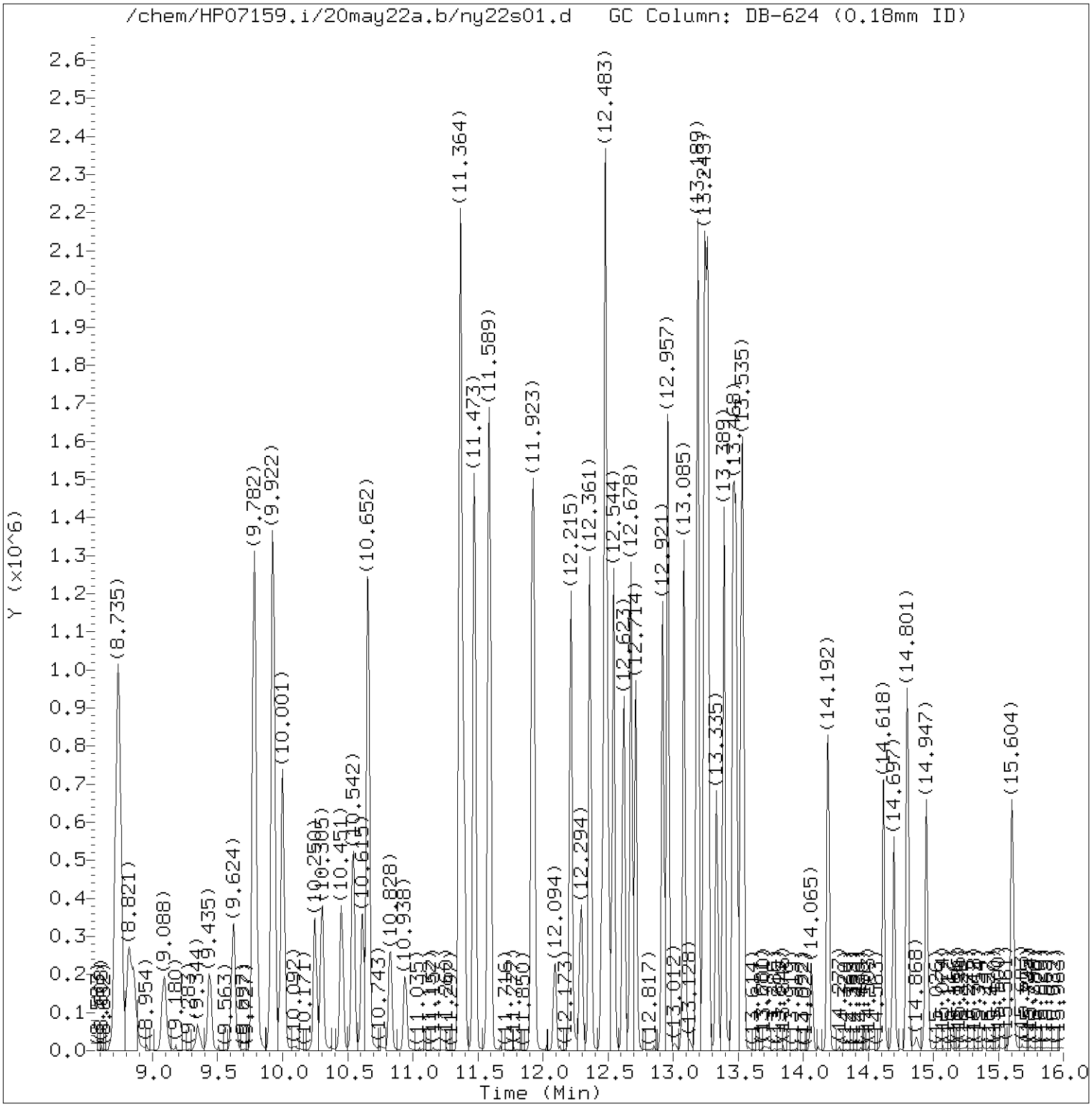
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.031	85	137854	14.860
4) Chloromethane	(2)	2.232	50	155510	15.644
5) 1,3-Butadiene	(2)	2.360	39	148004	21.338
6) Vinyl Chloride	(2)	2.360	62	151466	15.658
8) Bromomethane	(2)	2.695	94	111567	16.821
9) Chloroethane	(2)	2.786	64	96747	17.088
12) Trichlorofluoromethane	(2)	3.102	101	200087	18.821
11) n-Pentane	(2)	3.169	43	215352	20.675
13) Ethanol	(1)	3.248	45	83105	1081.908
15) Freon 123a	(2)	3.455	67	165169	21.207
16) Acrolein	(1)	3.564	56	306228	142.292
17) 1,1-Dichloroethene	(2)	3.711	96	126976	20.494
18) Acetone	(1)	3.741	58	165761	182.868
19) Freon 113	(2)	3.741	101	125350	21.806
22) Methyl Iodide	(2)	3.923	142	218315	18.878
21) 2-Propanol	(1)	3.930	45	109865M	183.508
23) Carbon Disulfide	(2)	4.039	76	408506	20.618
27) Methyl Acetate	(2)	4.179	43	157137	20.645
25) Allyl Chloride	(2)	4.215	41	216707	19.812
28) Methylene Chloride	(2)	4.410	84	146217	19.870
29)*t-Butyl alcohol-d10	(1)	4.410	65	317361	250.000
30) t-Butyl alcohol	(1)	4.550	59	268158	226.644
31) Acrylonitrile	(2)	4.751	53	402246	97.850
33) Methyl Tertiary Butyl Ether	(2)	4.818	73	367860	18.271
32) trans-1,2-Dichloroethene	(2)	4.836	96	140174	19.818
34) n-Hexane	(2)	5.256	57	225765	23.122
36) 1,1-Dichloroethane	(2)	5.499	63	255700	19.817
38) di-Isopropyl ether	(2)	5.548	45	448580	20.181
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	218337	19.169
40) Ethyl t-butyl ether	(2)	6.083	59	401369	18.998
43) 1,2-Dichloroethene (Total)	(2)		96	307435	40.639
44) 2-Butanone	(2)	6.284	43	832091	144.761
42) cis-1,2-Dichloroethene	(2)	6.326	96	167261	20.821
45) 2,2-Dichloropropane	(2)	6.339	77	208268	18.282
47) Propionitrile	(1)	6.381	54	252719	182.881
48) Methacrylonitrile	(2)	6.594	67	638736	153.824
49) Bromochloromethane	(2)	6.661	128	77115	20.303
50) Tetrahydrofuran	(1)	6.667	71	158159	110.240

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.819	83	240328	19.095
52)$Dibromofluoromethane	(2)	7.026	113	281460	47.586
53) 1,1,1-Trichloroethane	(2)	7.044	97	206149	18.105
54) Cyclohexane	(2)	7.142	56	271787	23.206
55) 1,1-Dichloropropene	(2)	7.251	75	200657	19.483
56) Carbon Tetrachloride	(2)	7.263	117	185180	18.862
58) Isobutyl Alcohol	(1)	7.379	41	233018	549.794
57)$1,2-Dichloroethane-d4	(2)	7.488	102	72452	48.446
60) Benzene	(2)	7.519	78	597984	20.398
61) 1,2-Dichloroethane	(2)	7.586	62	189708	18.291
65) t-Amyl methyl ether	(2)	7.701	73	408493	19.274
66)*Fluorobenzene	(2)	7.920	96	1191852	50.000
67) n-Heptane	(2)	7.932	43	232632	20.641
69) n-Butanol	(1)	8.267	56	397187	1087.916
71) Trichloroethene	(2)	8.407	95	148059	19.170
72) Methylcyclohexane	(2)	8.723	83	297276	23.415
73) 1,2-Dichloropropane	(2)	8.742	63	158071	21.086
76) Methyl Methacrylate	(2)	8.815	69	136914	19.972
75) 1,4-Dioxane	(1)	8.827	88	43004M	466.264
74) Dibromomethane	(2)	8.851	93	92151	19.274
78) Bromodichloromethane	(2)	9.088	83	180714	18.515
79) 2-Nitropropane	(2)	9.350	41	49977	14.098
80) 2-Chloroethyl Vinyl Ether	(2)	9.435	63	111279	18.765
81) cis-1,3-Dichloropropene	(2)	9.624	75	234752	18.855
82) 4-Methyl-2-pentanone	(2)	9.782	43	1098300	94.307
83)$Toluene-d8	(3)	9.922	98	1122813	47.864
88) Toluene	(3)	10.001	92	374623	19.659
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552
89) trans-1,3-Dichloropropene	(3)	10.250	75	209310	17.697
91) Ethyl Methacrylate	(3)	10.305	69	224462	19.048
92) 1,1,2-Trichloroethane	(3)	10.451	97	133238	19.748
93) Tetrachloroethene	(3)	10.542	166	175080	20.980
94) 1,3-Dichloropropane	(3)	10.615	76	229773	19.622
96) 2-Hexanone	(3)	10.652	43	847590	93.966
97) Dibromochloromethane	(3)	10.828	129	152462	19.692
99) 1,2-Dibromoethane	(3)	10.938	107	143506	19.424
100)*Chlorobenzene-d5	(3)	11.364	117	899461	50.000
102) Chlorobenzene	(3)	11.388	112	422510	19.866

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) 1,1,1,2-Tetrachloroethane	(3)	11.473	131	144878	18.903
104) Ethylbenzene	(3)	11.473	91	738218	20.028
106) m+p-Xylene	(3)	11.589	106	594767	41.069
108) Xylene (Total)	(3)		106	877103	60.892
107) o-Xylene	(3)	11.917	106	282336	19.822
109) Styrene	(3)	11.929	104	467434	19.540
110) Bromoform	(3)	12.094	173	107919	18.463
111) Isopropylbenzene	(3)	12.215	105	749520	19.925
112) Cyclohexanone	(1)	12.294	55	169473A	458.179
114)$4-Bromofluorobenzene	(3)	12.361	95	415870	44.873
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	217439	19.950
115) Bromobenzene	(4)	12.477	156	183160	19.987
118) trans-1,4-Dichloro-2-butene	(4)	12.483	53	316904	84.528
117) 1,2,3-Trichloropropane	(4)	12.507	110	66385	19.228
119) n-Propylbenzene	(4)	12.544	91	913193	20.554
120) 2-Chlorotoluene	(4)	12.623	126	180417	19.696
122) 1,3,5-Trimethylbenzene	(4)	12.678	105	633599	19.463
121) 4-Chlorotoluene	(4)	12.714	126	185058	19.494
124) tert-Butylbenzene	(4)	12.921	134	149844	20.771
125) Pentachloroethane	(4)	12.957	167	103983	18.002
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	642200	19.007
127) sec-Butylbenzene	(4)	13.085	105	854567	20.209
129) 1,3-Dichlorobenzene	(4)	13.189	146	353633	19.841
130) p-Isopropyltoluene	(4)	13.189	119	731454	19.878
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495502	50.000
133) 1,4-Dichlorobenzene	(4)	13.262	146	357709	19.790
134) 1,2,3-Trimethylbenzene	(4)	13.268	105	647148	19.734
135) Benzyl Chloride	(4)	13.335	91	445261	18.483
141) Diethylbenzene (total)	(4)		100	1249393	58.474
136) 1,3-Diethylbenzene	(4)	13.389	119	432008	19.612
137) 1,4-Diethylbenzene	(4)	13.462	119	458422	19.600
139) n-Butylbenzene	(4)	13.481	92	359089	18.917
138) 1,2-Dichlorobenzene	(4)	13.523	146	335418	19.849
140) 1,2-Diethylbenzene	(4)	13.535	119	358963	19.263
142) 1,2-Dibromo-3-chloropropane	(4)	14.065	75	53173	18.052
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	250436	18.593
146) 1,2,4-Trichlorobenzene	(4)	14.618	180	221942	18.897
147) Hexachlorobutadiene	(4)	14.697	225	98180	18.480

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

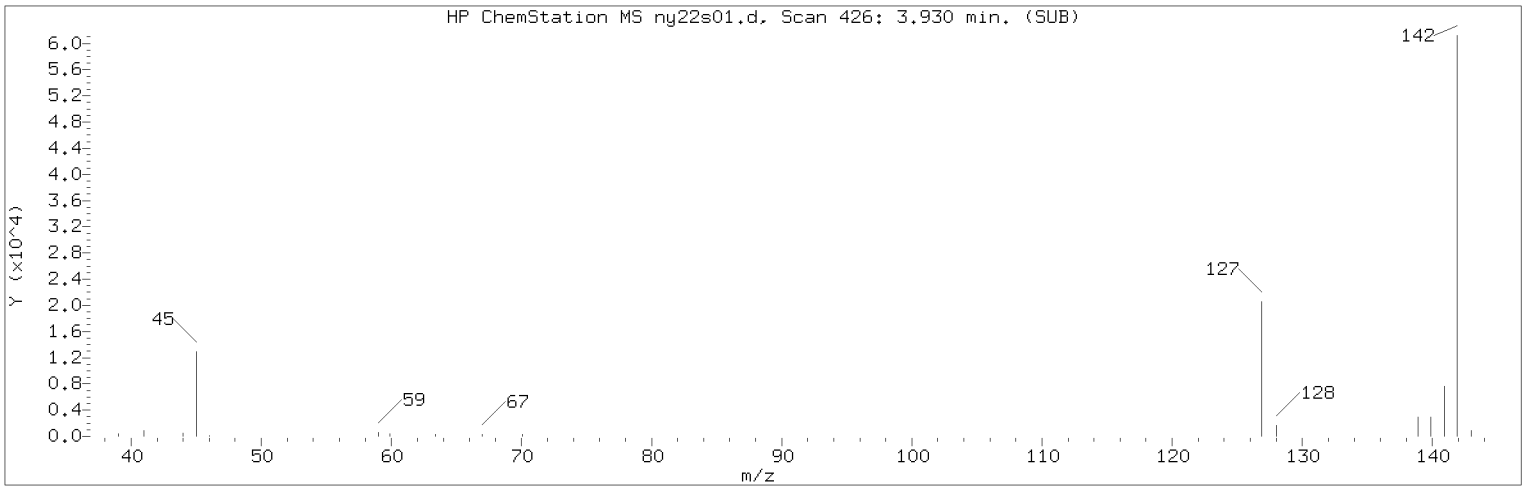
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

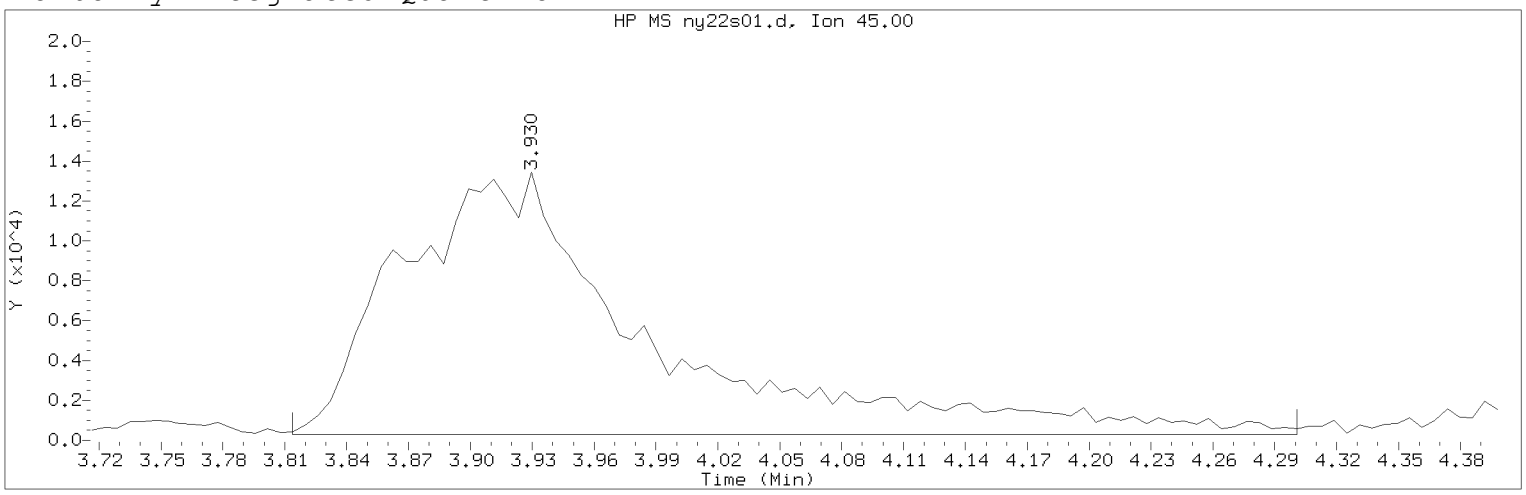
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Naphthalene	(4)	14.801	128	702183	19.068
149) 1,2,3-Trichlorobenzene	(4)	14.947	180	203128	18.841
150) 2-Methylnaphthalene	(4)	15.604	142	348476	16.383

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

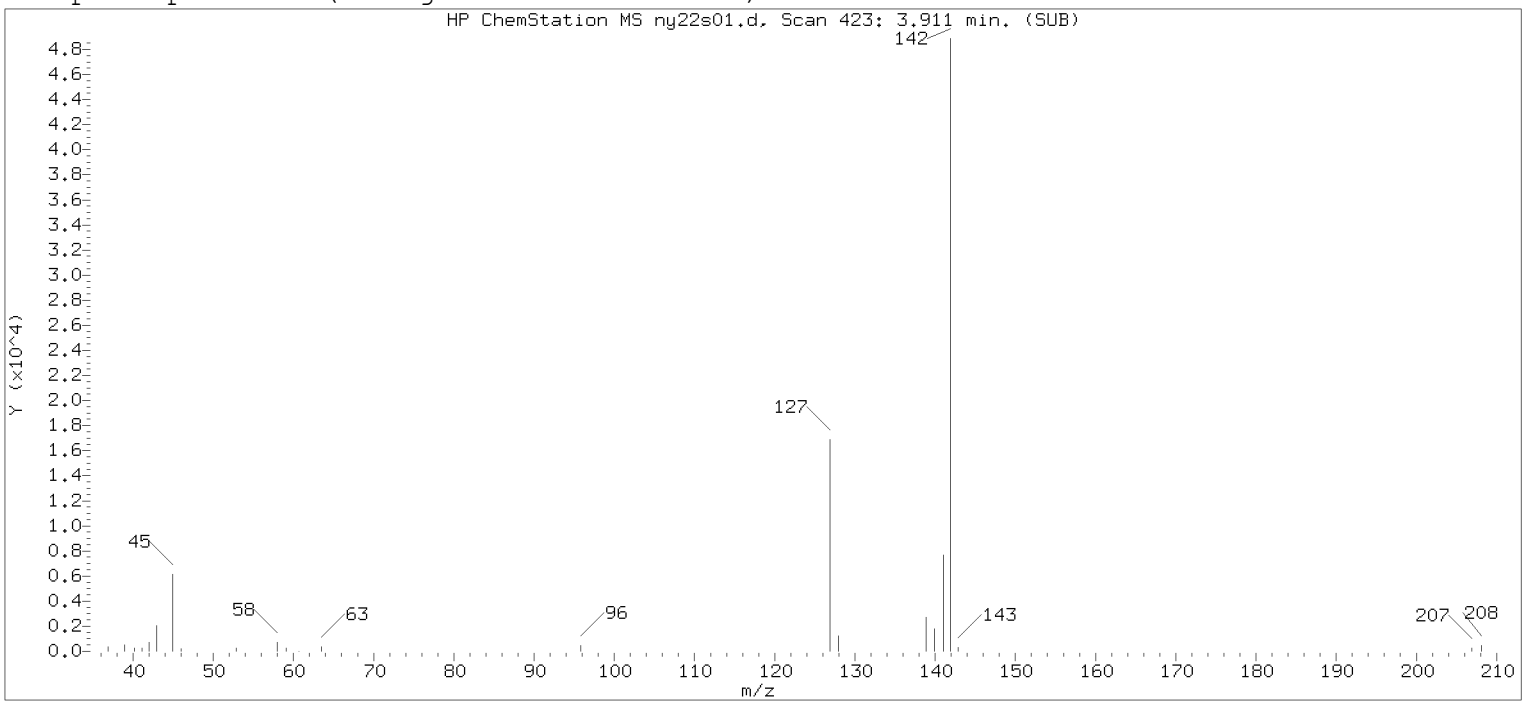
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 426
Retention Time (minutes): 3.930
Quant Ion : 45.00
Area (flag) : 109865M
On-Column Amount (ng) : 183.5076
Integration start scan : 406 Integration stop scan: 486
Y at integration start : 285 Y at integration end: 285

Reason for manual integration: improper integration

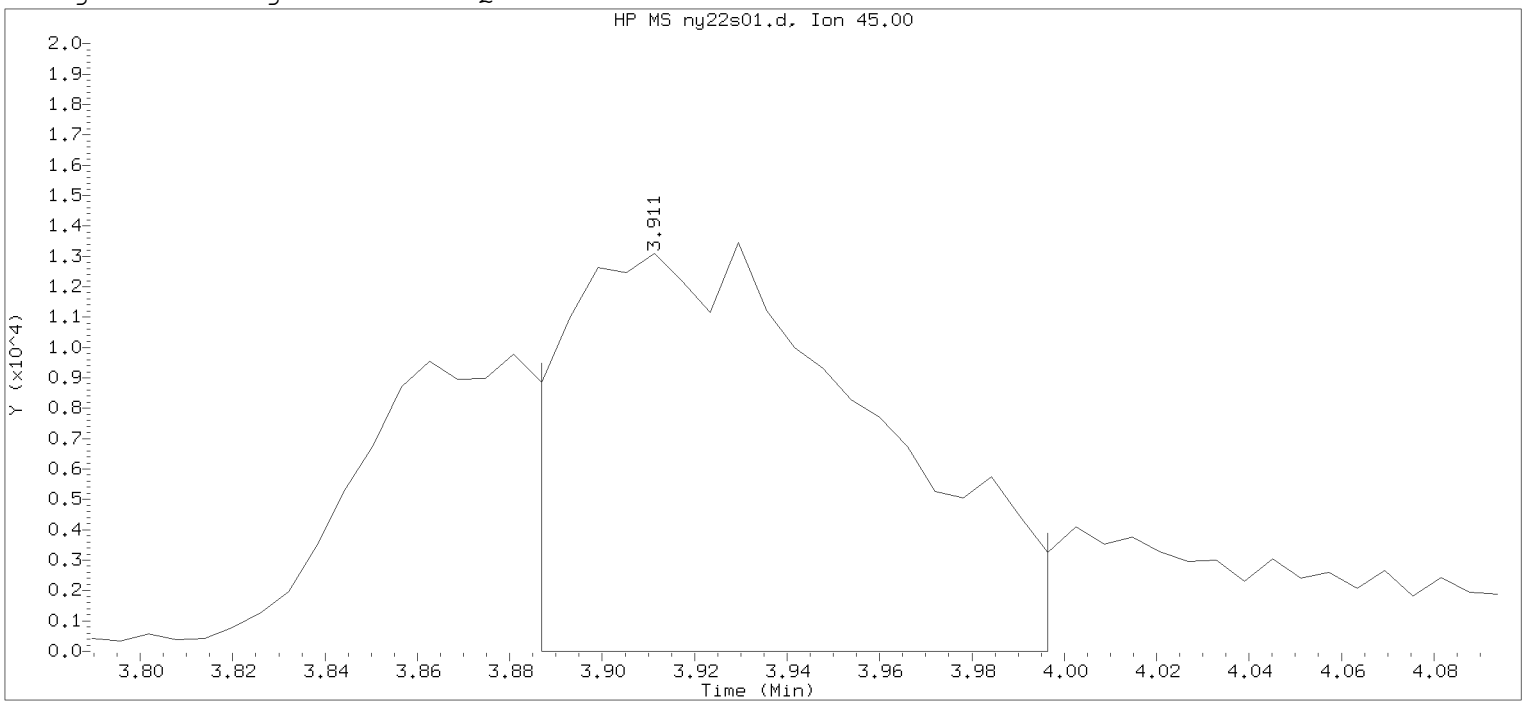
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

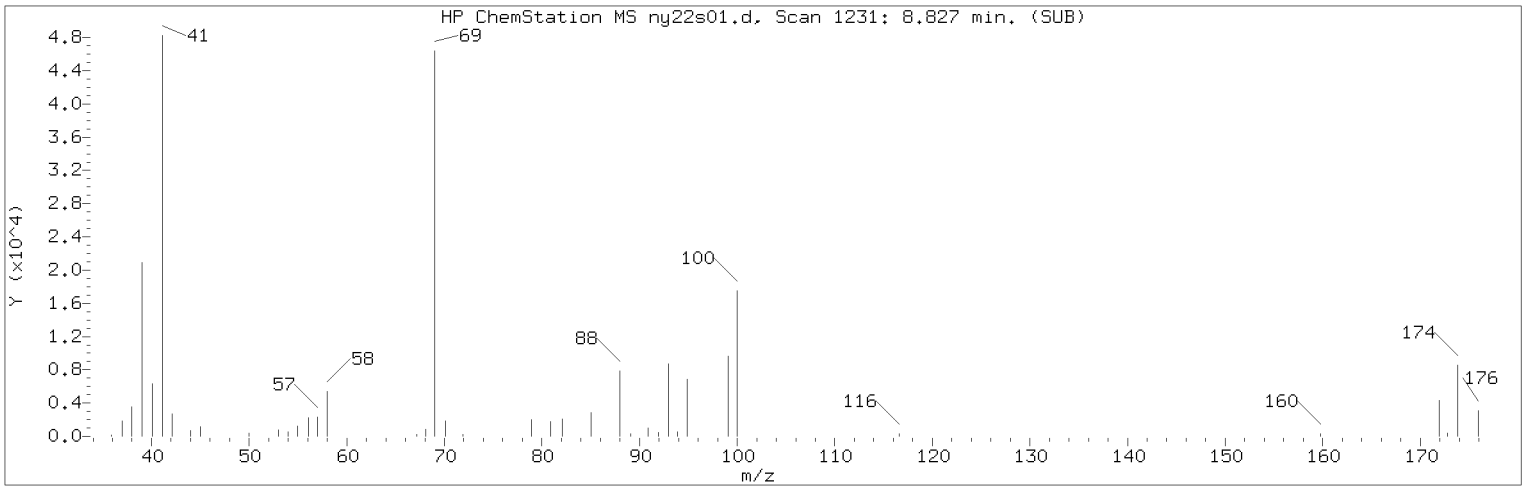
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

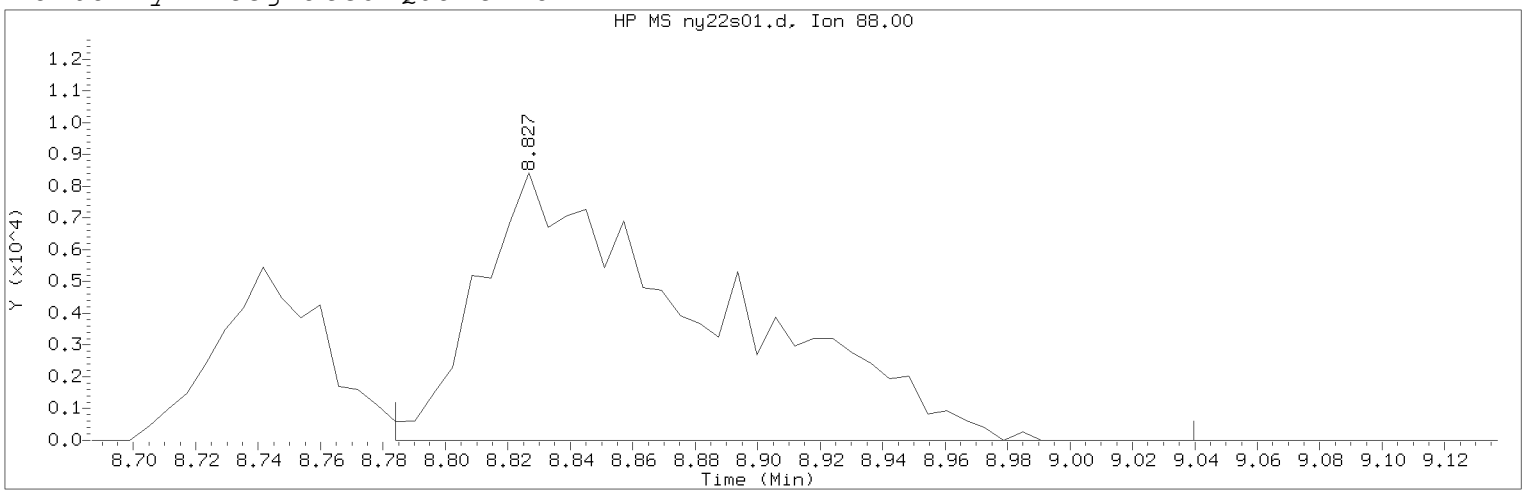
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 423
Retention Time (minutes): 3.911
Quant Ion : 45.00
Area : 60500
On-column Amount (ng) : 101.0542
Integration start scan : 418 Integration stop scan: 436
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

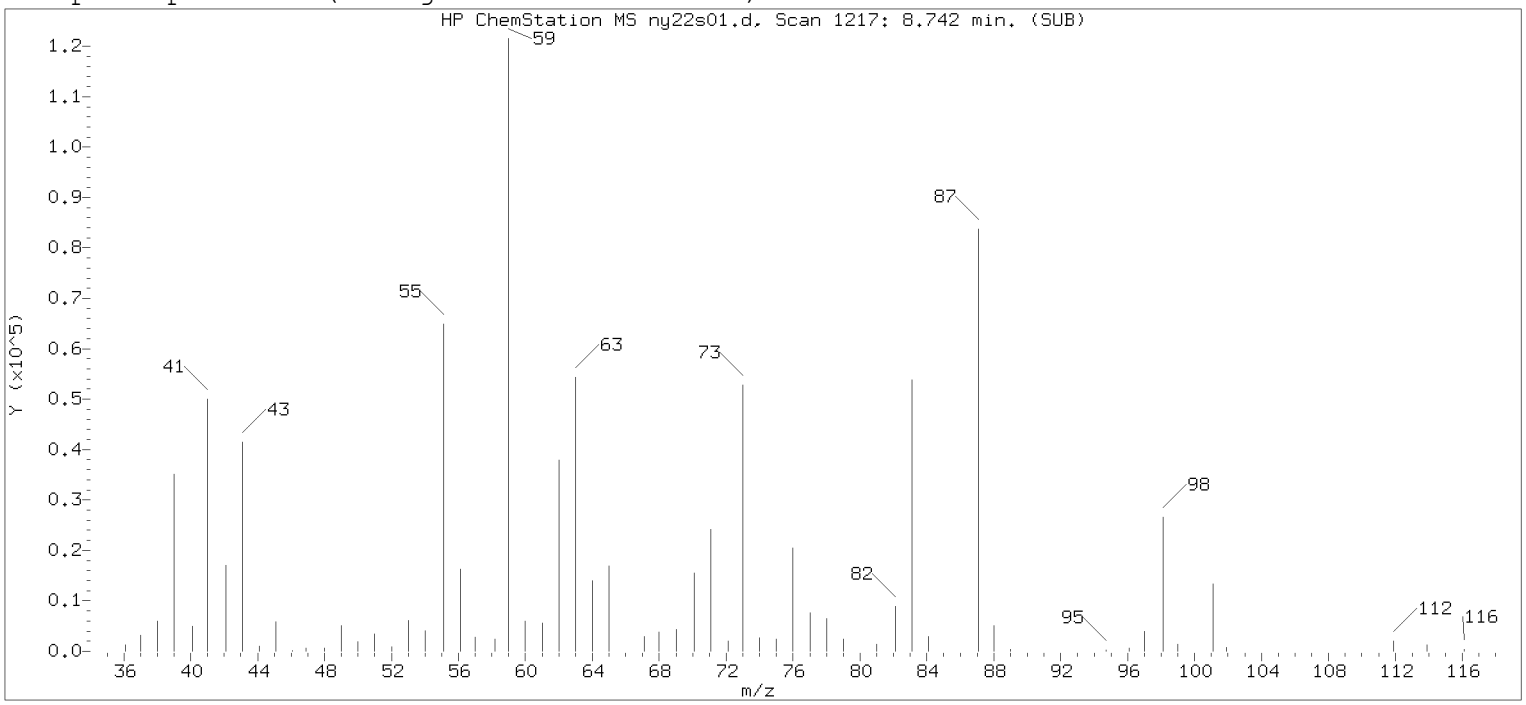
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.827
Quant Ion : 88.00
Area (flag) : 43004M
On-Column Amount (ng) : 466.2638
Integration start scan : 1223 Integration stop scan: 1265
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

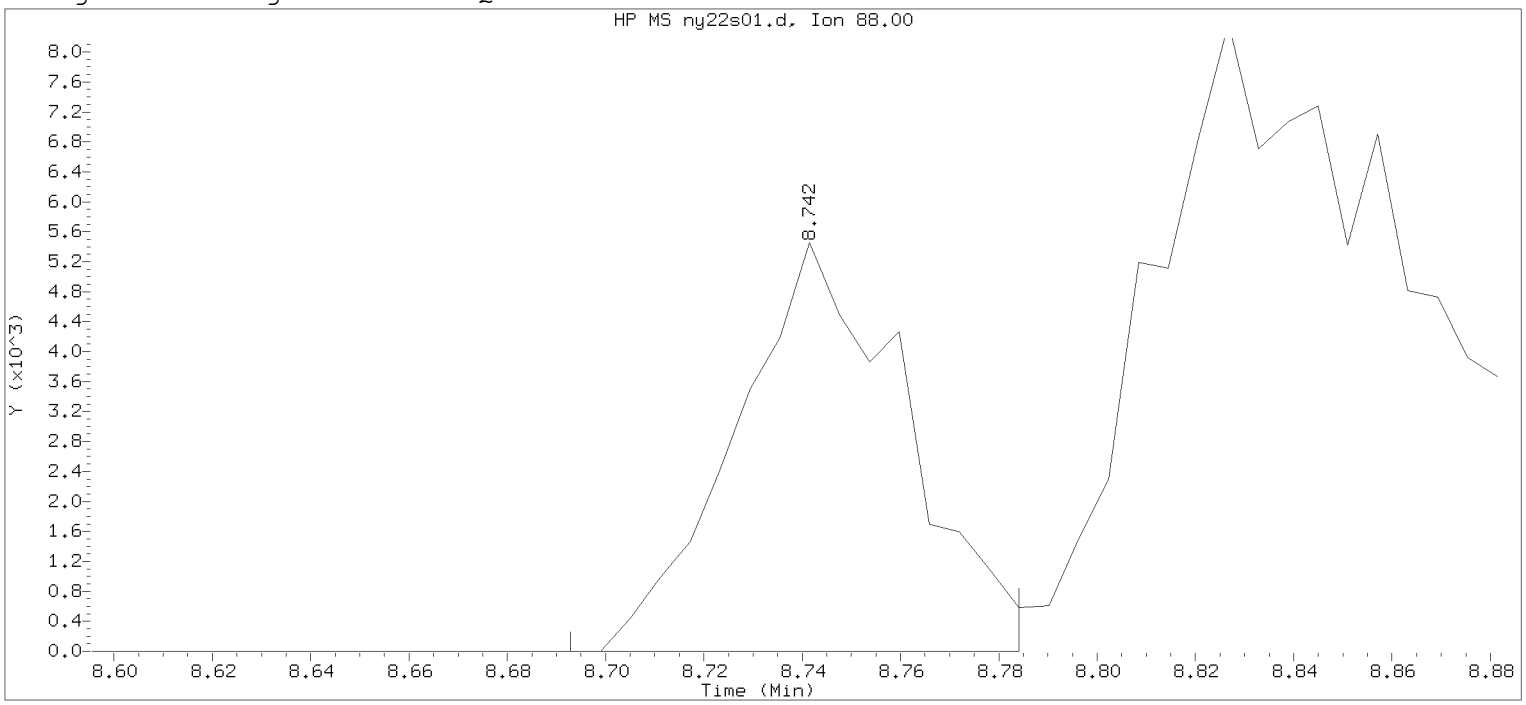
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.742
Quant Ion : 88.00
Area : 13053
On-column Amount (ng) : 141.5347
Integration start scan : 1208 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

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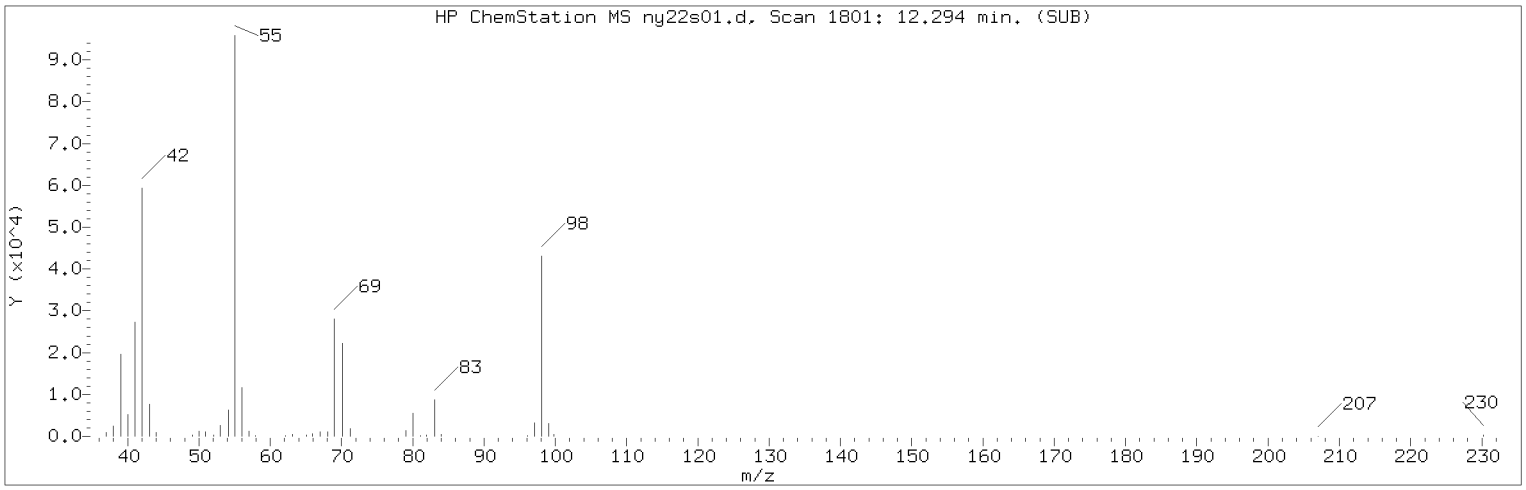
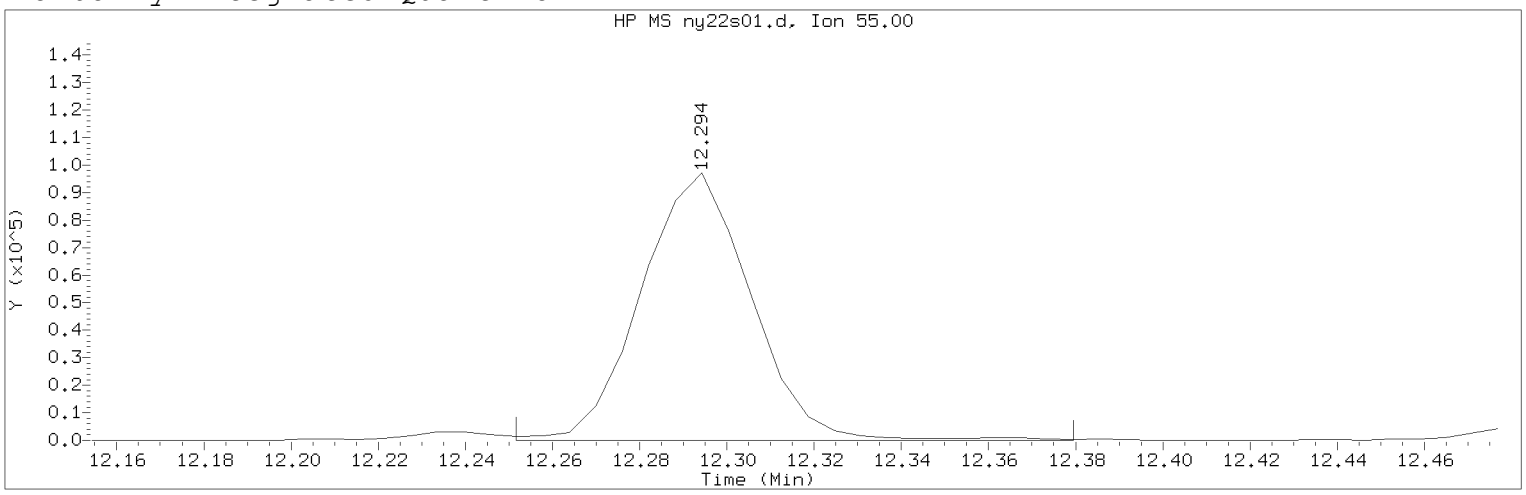
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

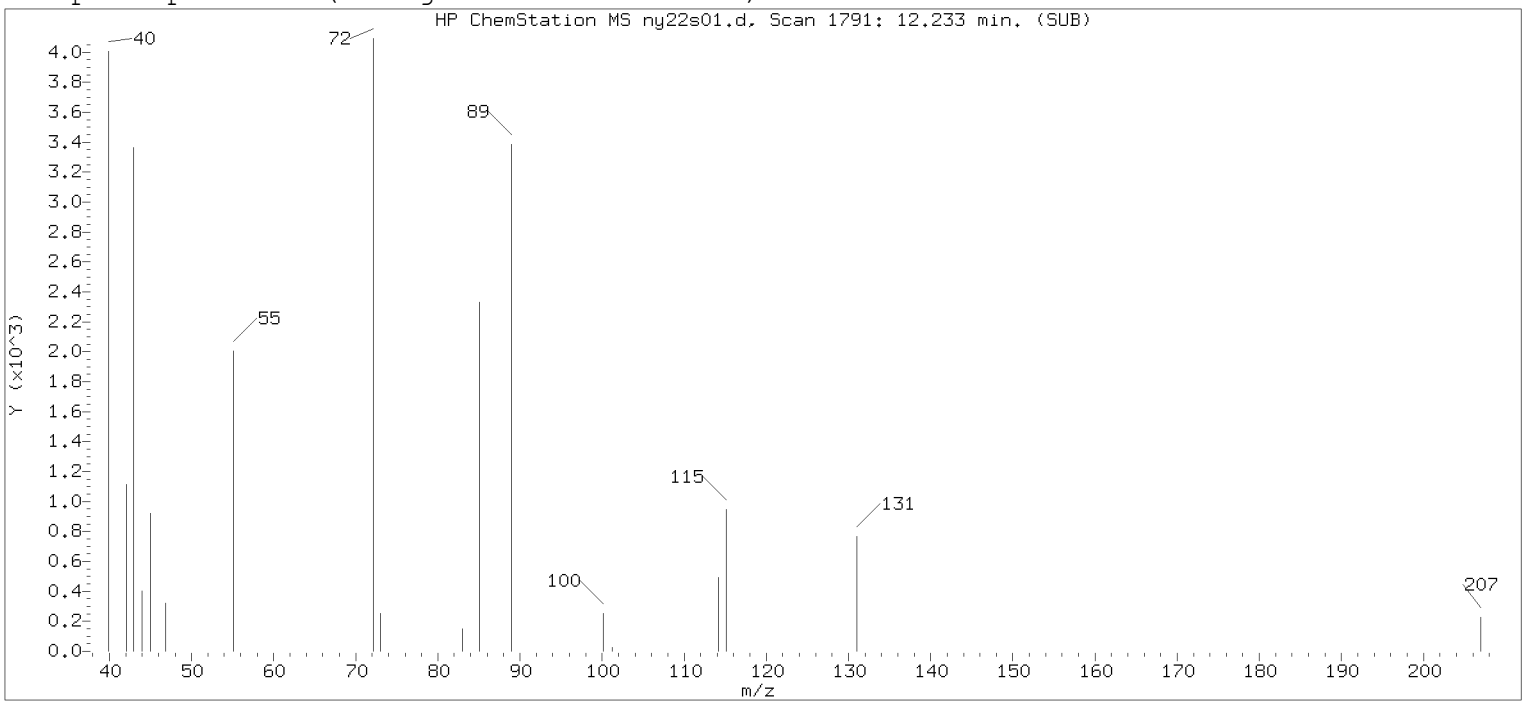
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1801
Retention Time (minutes): 12.294
Quant Ion : 55.00
Area (flag) : 169473A
On-Column Amount (ng) : 458.1795
Integration start scan : 1793 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

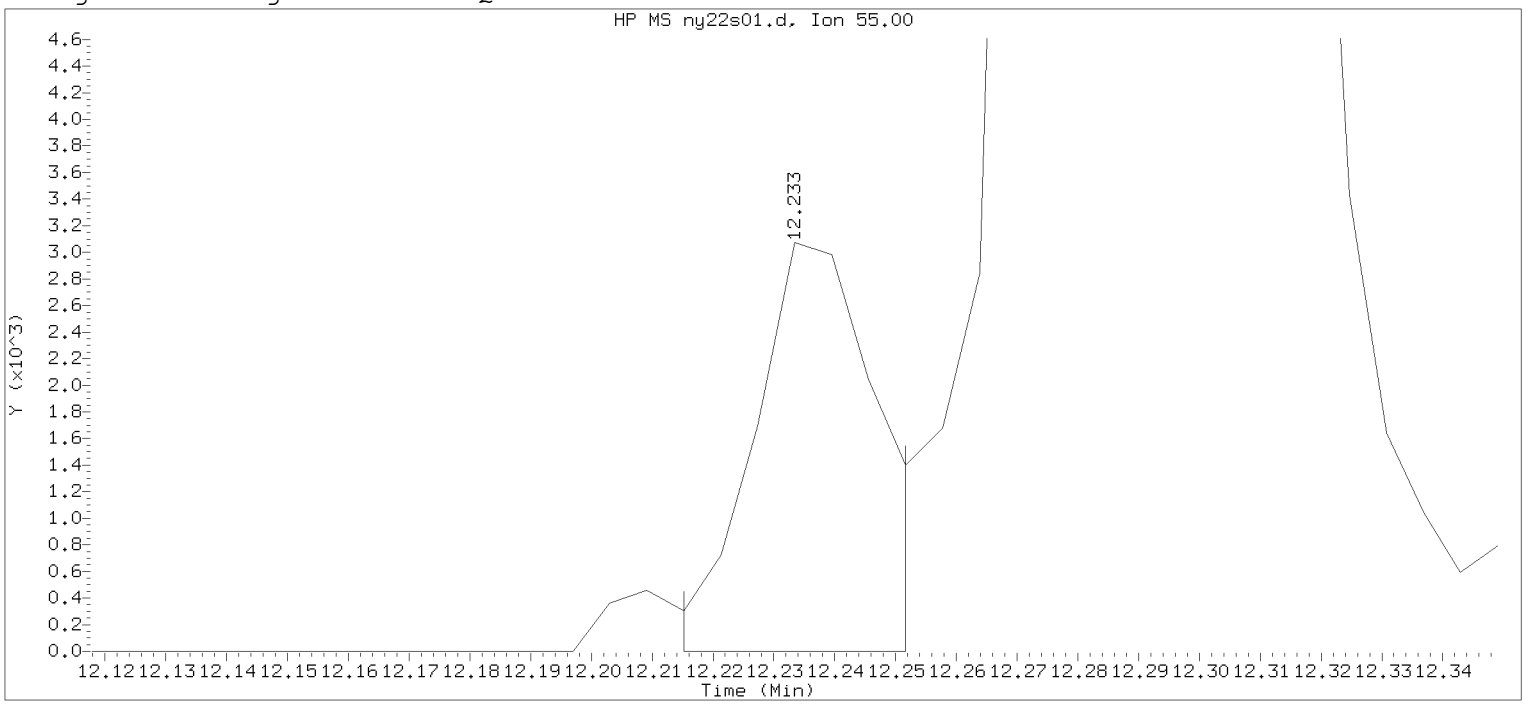
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1791
Retention Time (minutes): 12.233
Quant Ion : 55.00
Area : 4149
On-column Amount (ng) : 11.2184
Integration start scan : 1787 Integration stop scan: 1793
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user ID: sejo0086

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Surface Water and Water Samples
Collected on 05/11/20-05/12/20

SDG# JCW56

GROUP	SAMPLE NUMBERS
2099835	1316330-1316338

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **06/12/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

2425 New Holland Pike, Lancaster, PA 17601 | 717-656-2300 | Fax: 717-656-2681 | www.LancasterLabs.com

Table of Contents for SDG# JCW56

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 24
   a. Case Narrative/Conformance Summary 25
   b. Quality Control and Calibration Summary Forms 30
   c. Sample Data 54
   d. Standards Data 142
   e. Raw QC Data 301

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Sample Reference List for SDG Number JCW56
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1316330	PDB Blank	05/11/2020 14:15	05/15/2020 11:04	RS091
1316331	RS-12A	05/11/2020 14:50	05/15/2020 11:04	RS092
1316332	RS-01	05/11/2020 15:00	05/15/2020 11:04	RS093
1316333	RS-13	05/11/2020 15:15	05/15/2020 11:04	RS094
1316334	RS-06	05/11/2020 15:40	05/15/2020 11:04	RS095
1316335	RS-15	05/11/2020 15:50	05/15/2020 11:04	RS096
1316336	RS-09	05/12/2020 07:50	05/15/2020 11:04	RS097
1316337	RS-02	05/12/2020 08:00	05/15/2020 11:04	RS098
1316338	RS-10	05/12/2020 08:10	05/15/2020 11:04	RS099

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Sample pH Log

SDG: JCW56

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1316330	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:50PM	2002
1316331	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316332	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316333	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316334	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316335	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316336	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316337	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316338	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: May 26, 2020 22:22

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2099835
SDG: JCW56
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
PDB Blank Grab Water	05/11/2020 14:15	1316330
RS-12A Grab Surface Water	05/11/2020 14:50	1316331
RS-01 Grab Surface Water	05/11/2020 15:00	1316332
RS-13 Grab Surface Water	05/11/2020 15:15	1316333
RS-06 Grab Surface Water	05/11/2020 15:40	1316334
RS-15 Grab Surface Water	05/11/2020 15:50	1316335
RS-09 Grab Surface Water	05/12/2020 07:50	1316336
RS-02 Grab Surface Water	05/12/2020 08:00	1316337
RS-10 Grab Surface Water	05/12/2020 08:10	1316338

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **PDB Blank Grab Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 14:15
SDG#: JCW56-01BL

VHB
ELLE Sample #: WW 1316330
ELLE Group #: 2099835
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	0.8 J	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	0.6 J	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 16:30	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 16:29	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-12A Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 14:50
SDG#: JCW56-02

VHB
ELLE Sample #: WW 1316331
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.4 J	0.3	1	1
11997	Trichloroethene	79-01-6	0.3 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 16:52	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 16:51	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-01 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 15:00
SDG#: JCW56-03

VHB
ELLE Sample #: WW 1316332
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	0.7 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.3 J	0.3	1	1
11997	Trichloroethene	79-01-6	0.5 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 17:14	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 17:13	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-13 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 15:15
SDG#: JCW56-04

VHB
ELLE Sample #: WW 1316333
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.8 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.8 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	2	0.3	1	1
11997	Trichloroethene	79-01-6	8	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 17:36	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 17:35	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-06 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 15:40
SDG#: JCW56-05

VHB
ELLE Sample #: WW 1316334
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 17:58	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 17:57	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-15 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/11/2020 15:50
SDG#: JCW56-06

VHB
ELLE Sample #: WW 1316335
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	1	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 18:20	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 18:19	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-09 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 07:50
SDG#: JCW56-07

VHB
ELLE Sample #: WW 1316336
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.4 J	0.3	1	1
11997	Trichloroethene	79-01-6	1 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 18:42	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 18:41	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-02 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:00
SDG#: JCW56-08

VHB
ELLE Sample #: WW 1316337
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.2 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.2 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.5 J	0.3	1	1
11997	Trichloroethene	79-01-6	2	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 19:04	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 19:03	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RS-10 Grab Surface Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 08:10
SDG#: JCW56-09

VHB
ELLE Sample #: WW 1316338
ELLE Group #: 2099835
Matrix: Surface Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	0.8 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.2 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.2 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	0.5 J	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.3 J	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 19:26	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 19:25	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 05/26/2020 22:22

Group Number: 2099835

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: N201431AA	Sample number(s): 1316330-1316338		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: N201431AA	Sample number(s): 1316330-1316338								
Acetone	150	182.87			122		54-157		
Benzene	20	20.4			102		80-120		
2-Butanone	150	144.76			97		59-135		
Carbon Disulfide	20	20.62			103		65-128		
Chloroform	20	19.1			95		80-120		
1,2-Dichlorobenzene	20	19.85			99		80-120		
1,1-Dichloroethane	20	19.82			99		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/26/2020 22:22

Group Number: 2099835

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloroethane	20	18.29			91		73-124		
1,1-Dichloroethene	20	20.49			102		80-131		
cis-1,2-Dichloroethene	20	20.82			104		80-125		
trans-1,2-Dichloroethene	20	19.82			99		80-126		
1,4-Dioxane	500	466.27			93		63-146		
Ethylbenzene	20	20.03			100		80-120		
Freon 113	20	21.81			109		73-139		
Methylene Chloride	20	19.87			99		80-120		
Naphthalene	20	19.07			95		53-124		
Tetrachloroethene	20	20.98			105		80-120		
Toluene	20	19.66			98		80-120		
1,1,1-Trichloroethane	20	18.1			91		67-126		
Trichloroethene	20	19.17			96		80-120		
Vinyl Chloride	20	15.66			78		56-120		
Xylene (Total)	60	60.89			101		80-120		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: N201431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316330	97	99	96	89
1316331	97	100	96	88
1316332	96	101	95	88
1316333	96	99	95	88
1316334	98	97	95	89
1316335	95	97	95	87
1316336	98	97	95	88
1316337	98	98	95	97
1316338	96	99	94	88
Blank	94	98	96	89
LCS	95	97	96	90
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6056 Group # 209835 Sample # 1316330-8

COC #606393

Client Information

Client: VHB/The Johnson Company	Acct. #: 06556
Project Name/#: AD - New Windsor	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Adam Robfoy	Quote #:
State where samples were collected: NY	For Compliance: Yes ☐ No ☒

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☐ NPDES ☐ Surface ☒ | Other: ____

Analysis Requested

Preservation and Filtration Codes

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260 - VOCs									Remarks
PDB Blank	5/11/20	1415	X		3	DI	X									Diffusion Bag Blank
RS-12A	5/11/20	1450	X		3	X	X									
RS-01	5/11/20	1500	X		3	X	X									
RS-13	5/11/20	1515	X		3	X	X									
RS-06	5/11/20	1540	X		3	X	X									
RS-15	5/11/20	1550	X		3	X	X									
RS-09	5/12/20	750	X		3	X	X									
RS-02	5/12/20	800	X		3	X	X									
RS-10	5/12/20	810	X		3	X	X									

For Lab Use Only

FSC: ____

SCR#: 258866

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
[signature]	5-6-20	0800	[signature]	5/11/20	1400
[signature]	5/14/20	1700	[signature]		
			[signature]	5/15/20	1104

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 2.1 °C

ES

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Sample Administration Receipt Documentation Log

Doc Log ID: 284647

Group Number(s): 2099835

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/15/2020
Number of Packages:	1	Number of Projects:	4
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.4	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-2422
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW56

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1316330	PDB Blank	X		1	Blank
1316331	RS-12A	X		1	
1316332	RS-01	X		1	
1316333	RS-13	X		1	
1316334	RS-06	X		1	
1316335	RS-15	X		1	
1316336	RS-09	X		1	
1316337	RS-02	X		1	
1316338	RS-10	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW56

GC/MS Volatiles

Fraction: Volatiles by GC/MS

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g/L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW56

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	N201431AA	VBLKN45	05/22/2020 12:06
		LCSN45	05/22/2020 11:22
		1316330 BL	05/22/2020 16:30
		1316331	05/22/2020 16:52
		1316332	05/22/2020 17:14
		1316333	05/22/2020 17:36
		1316334	05/22/2020 17:58
		1316335	05/22/2020 18:20
		1316336	05/22/2020 18:42
		1316337	05/22/2020 19:04
		1316338	05/22/2020 19:26

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW56
Matrix: LIQUID

Fraction: Volatiles by GC/MS

N201431AA / VBLKN45 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Acetone	05/22/20	N.D.	ug/l	0.7	20
Freon 113	05/22/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/22/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/22/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/22/20	N.D.	ug/l	0.2	1
2-Butanone	05/22/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Chloroform	05/22/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/22/20	N.D.	ug/l	0.3	1
Benzene	05/22/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/22/20	N.D.	ug/l	0.3	1
Trichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/22/20	N.D.	ug/l	29	250
Toluene	05/22/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/22/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/22/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/22/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/22/20	N.D.	ug/l	0.2	5
Naphthalene	05/22/20	N.D.	ug/l	1	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW56
Matrix: LIQUID

Fraction: Volatiles by GC/MS

N201431AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKN45	98	80 - 120	89	80 - 120	94	80 - 120	96	80 - 120
LCSN45	97	80 - 120	90	80 - 120	95	80 - 120	96	80 - 120
1316330	99	80 - 120	89	80 - 120	97	80 - 120	96	80 - 120
1316331	100	80 - 120	88	80 - 120	97	80 - 120	96	80 - 120
1316332	101	80 - 120	88	80 - 120	96	80 - 120	95	80 - 120
1316333	99	80 - 120	88	80 - 120	96	80 - 120	95	80 - 120
1316334	97	80 - 120	89	80 - 120	98	80 - 120	95	80 - 120
1316335	97	80 - 120	87	80 - 120	95	80 - 120	95	80 - 120
1316336	97	80 - 120	88	80 - 120	98	80 - 120	95	80 - 120
1316337	98	80 - 120	97	80 - 120	98	80 - 120	95	80 - 120
1316338	99	80 - 120	88	80 - 120	96	80 - 120	94	80 - 120

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW56
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSN45	Batch: **N201431AA** (Sample number(s): 1316330-1316338)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	15.66	NA	78	NA	56-120	NA	NA
1,1-Dichloroethene	20	20.49	NA	102	NA	80-131	NA	NA
Acetone	150	182.87	NA	122	NA	54-157	NA	NA
Freon 113	20	21.81	NA	109	NA	73-139	NA	NA
Carbon Disulfide	20	20.62	NA	103	NA	65-128	NA	NA
Methylene Chloride	20	19.87	NA	99	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.82	NA	99	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.82	NA	99	NA	80-120	NA	NA
2-Butanone	150	144.76	NA	97	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.82	NA	104	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.1	NA	91	NA	67-126	NA	NA
Chloroform	20	19.1	NA	95	NA	80-120	NA	NA
1,2-Dichloroethane	20	18.29	NA	91	NA	73-124	NA	NA
Benzene	20	20.4	NA	102	NA	80-120	NA	NA
Trichloroethene	20	19.17	NA	96	NA	80-120	NA	NA
1,4-Dioxane	500	466.27	NA	93	NA	63-146	NA	NA
Toluene	20	19.66	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	20.98	NA	105	NA	80-120	NA	NA
Ethylbenzene	20	20.03	NA	100	NA	80-120	NA	NA
Xylene (Total)	60	60.89	NA	101	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.85	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.07	NA	95	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: nj09t01.d BFB Injection Date: 01/09/20

Instrument ID: HP07159 BFB Injection Time: 06:57

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.24
75	30.0 - 60.0% of mass 95	48.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.40
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	77.86
175	5.0 - 9.0% of mass 174	6.18 (7.94)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.98 (96.30)1
177	5.0 - 9.0% of mass 176	5.08 (6.77)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	nj09i01.d	01/09/20	07:53
02	VSTD100	nj09i02.d	01/09/20	08:15
03	VSTD50	nj09i03.d	01/09/20	08:37
04	VSTD20	nj09i04.d	01/09/20	08:58
05	VSTD10	nj09i05.d	01/09/20	09:20
06	VSTD4	nj09i06.d	01/09/20	09:42
07	VSTD1	nj09i07.d	01/09/20	10:04
08	LCSNICV	nj09l01.d	01/09/20	10:26

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ny22c01.d	05/22/20	11:00
02	LCSN45	ny22s01.d	05/22/20	11:22
03	VBLKN45	ny22b01.d	05/22/20	12:06
04	1315379	ny22s02.d	05/22/20	12:28
05	1315372	ny22s03.d	05/22/20	12:50
06	1315373	ny22s04.d	05/22/20	13:12
07	1315374MS	ny22s05.d	05/22/20	13:34
08	1315375MSD	ny22s06.d	05/22/20	13:56
09	1315377	ny22s07.d	05/22/20	14:18
10	1315378	ny22s08.d	05/22/20	14:40
11	1315380	ny22s09.d	05/22/20	15:02
12	1315381	ny22s10.d	05/22/20	15:24
13	1316321	ny22s11.d	05/22/20	15:46
14	1316322	ny22s12.d	05/22/20	16:08
15	1316330	ny22s13.d	05/22/20	16:30
16	1316331	ny22s14.d	05/22/20	16:52
17	1316332	ny22s15.d	05/22/20	17:14
18	1316333	ny22s16.d	05/22/20	17:36
19	1316334	ny22s17.d	05/22/20	17:58
20	1316335	ny22s18.d	05/22/20	18:20
21	1316336	ny22s19.d	05/22/20	18:42
22	1316337	ny22s20.d	05/22/20	19:04

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316338	ny22s21.d	05/22/20	19:26
24	1316339	ny22s22.d	05/22/20	19:48
25	1316340	ny22s23.d	05/22/20	20:10

FORM V VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.2714	0.4214	0.4413	0.4332	0.4032	0.4058	0.3479	0.3892	15	AVG #
Chloromethane	#0.3920	0.4415	0.4410	0.4303	0.4050	0.4167	0.3926	0.4170	5	AVG #
1,3-Butadiene	0.3289	0.3289	0.2971	0.2885	0.2717	0.2688	0.2530	0.2910	10	AVG
Vinyl Chloride	#0.3462	0.4308	0.4432	0.4258	0.4060	0.4071	0.3815	0.4058	8	AVG #
Bromomethane	#0.2532	0.3008	0.2954	0.2881	0.2719	0.2783	0.2599	0.2782	6	AVG #
Chloroethane	#0.2259	0.2411	0.2517	0.2501	0.2333	0.2377	0.2228	0.2375	5	AVG #
Dichlorofluoromethane	0.5392	0.5819	0.5687	0.5568	0.5269	0.5311	0.5030	0.5439	5	AVG
n-Pentane	0.5121	0.4794	0.4627	0.4541	0.3322	0.4410	0.3772	0.4370	14	AVG
Trichlorofluoromethane	#0.3864	0.4841	0.4854	0.4759	0.4475	0.4446	0.3980	0.4460	9	AVG #
Ethanol	0.0715	0.0627	0.0610	0.0559	0.0578	0.0603	0.0544	0.0605	9	AVG
Freon 123a	0.3032	0.3614	0.3427	0.3439	0.3197	0.3161	0.3002	0.3267	7	AVG
Acrolein	1.6769	1.6889	1.7869	1.7898	1.7188	1.5925	1.6134	1.6953	5	AVG
1,1-Dichloroethene	#0.2465	0.2719	0.2743	0.2713	0.2545	0.2549	0.2461	0.2599	5	AVG #
1,1-Dichloroethene(2)	#0.1224	0.1506	0.1420	0.1434	0.1324	0.1343	0.1296	0.1364	7	AVG #
Acetone	#0.7137	0.6887	0.7657	0.7643	0.7295	0.6722	0.6642	0.7140	6	AVG #
Freon 113	#0.1884	0.2667	0.2627	0.2692	0.2165	0.2598	0.2248	0.2412	13	AVG #
2-Propanol	0.5235	0.4362	0.4906	0.4741	0.4650	0.4777	0.4344	0.4716	7	AVG
Methyl Iodide	0.4385	0.5139	0.4965	0.5062	0.4813	0.4913	0.4685	0.4852	5	AVG
Carbon Disulfide	#0.7353	0.8779	0.8713	0.8698	0.8254	0.8310	0.8075	0.8312	6	AVG #
Allyl Chloride	0.4689	0.4850	0.4837	0.4525	0.4428	0.4542	0.4251	0.4589	5	AVG
Methyl Acetate	#0.4068	0.3072	0.3188	0.3078	0.3005	0.3019	0.2921	0.3193	12	AVG #
Methylene Chloride	#0.3501	0.3244	0.3024	0.3053	0.2912	0.2999	0.2877	0.3087	7	AVG #
t-Butyl alcohol	0.8780	0.8996	1.0064	0.9835	0.9685	0.9259	0.8625	0.9320	6	AVG
Acrylonitrile	0.1561	0.1828	0.1809	0.1870	0.1746	0.1640	0.1618	0.1725	7	AVG
trans-1,2-Dichloroethene	#0.2892	0.3082	0.3038	0.3055	0.2885	0.2971	0.2848	0.2967	3	AVG #
Methyl Tertiary Butyl Ether	#0.8822	0.8700	0.8588	0.8661	0.8260	0.8374	0.7720	0.8446	4	AVG #
n-Hexane	0.3469	0.4473	0.4472	0.4616	0.3056	0.4542	0.4046	0.4096	15	AVG
1,1-Dichloroethane	#0.4977	0.5694	0.5504	0.5604	0.5370	0.5472	0.5270	0.5413	4	AVG #
di-Isopropyl ether	0.8999	0.9647	0.9532	0.9563	0.9229	0.9437	0.8866	0.9325	3	AVG
2-Chloro-1,3-butadiene	0.4160	0.5137	0.4973	0.4983	0.4746	0.4800	0.4649	0.4778	7	AVG
Ethyl t-butyl ether	0.8675	0.9216	0.9168	0.9202	0.8821	0.8849	0.8110	0.8863	4	AVG
cis-1,2-Dichloroethene	#0.3232	0.3468	0.3437	0.3533	0.3291	0.3386	0.3243	0.3370	3	AVG #
2-Butanone	#0.2372	0.2527	0.2513	0.2543	0.2499	0.2218	0.2209	0.2411	6	AVG #
2,2-Dichloropropane	0.4364	0.4991	0.4940	0.5030	0.4762	0.4780	0.4585	0.4779	5	AVG
Propionitrile	1.0327	1.0491	1.1074	1.1008	1.1067	1.1119	1.1113	1.0886	3	AVG
Methacrylonitrile	0.1657	0.1712	0.1759	0.1785	0.1767	0.1794	0.1721	0.1742	3	AVG
Bromochloromethane	0.1409	0.1642	0.1636	0.1631	0.1629	0.1651	0.1556	0.1593	5	AVG
Tetrahydrofuran	1.0976	1.1004	1.1527	1.1756	1.1886	1.0759	1.1204	1.1301	4	AVG
Chloroform	#0.5258	0.5374	0.5406	0.5374	0.5182	0.5301	0.5064	0.5280	2	AVG #
1,1,1-Trichloroethane	#0.4151	0.5090	0.4967	0.5015	0.4765	0.4794	0.4655	0.4777	7	AVG #
Cyclohexane	#0.4091	0.5371	0.5405	0.5355	0.4288	0.5174	0.4709	0.4913	11	AVG #
Cyclohexane(2)	#0.3646	0.4610	0.4692	0.4644	0.3784	0.4505	0.4092	0.4282	10	AVG #
Cyclohexane(3)	#0.1292	0.1640	0.1681	0.1688	0.1353	0.1651	0.1505	0.1544	11	AVG #
1,1-Dichloropropene	0.3914	0.4570	0.4477	0.4429	0.4294	0.4341	0.4219	0.4321	5	AVG
Carbon Tetrachloride	#0.3478	0.4396	0.4349	0.4347	0.4098	0.4160	0.4003	0.4119	8	AVG #
Isobutyl Alcohol	0.3557	0.3246	0.3265	0.3436	0.3303	0.3296	0.3267	0.3339	3	AVG
Benzene	#1.1881	1.2701	1.2536	1.2581	1.2187	1.2373	1.1832	1.2299	3	AVG #
1,2-Dichloroethane	#0.4716	0.4340	0.4290	0.4369	0.4240	0.4318	0.4184	0.4351	4	AVG #
1,2-Dichloroethane(2)	#0.0160	0.0394	0.0389	0.0389	0.0383	0.0403	0.0387	0.0358	24	AVG #<-
t-Amyl methyl ether	0.9085	0.9245	0.9215	0.9255	0.8839	0.8763	0.7836	0.8891	6	AVG
n-Heptane	0.4279	0.5090	0.5088	0.5178	0.3233	0.5272	0.4956	0.4728	16	AVG
n-Butanol	0.2599	0.2726	0.2896	0.3017	0.2891	0.3027	0.2975	0.2876	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3101	0.3363	0.3298	0.3321	0.3179	0.3252	0.3165	0.3240	3	AVG #
Methylcyclohexane	#0.4051	0.5628	0.5772	0.5557	0.5365	0.5752	0.5159	0.5326	11	AVG #
Methylcyclohexane(2)	#0.1908	0.2700	0.2695	0.2590	0.2558	0.2691	0.2417	0.2508	11	AVG #
1,2-Dichloropropane	#0.2751	0.3244	0.3157	0.3227	0.3172	0.3261	0.3202	0.3145	6	AVG #
Dibromomethane	0.2077	0.1982	0.1982	0.2025	0.1989	0.2019	0.1965	0.2006	2	AVG
1,4-Dioxane	0.0602	0.0715	0.0737	0.0730	0.0730	0.0791	0.0781	0.0727	8	AVG
Methyl Methacrylate	0.2534	0.2838	0.2942	0.2940	0.2946	0.3022	0.2909	0.2876	6	AVG
Bromodichloromethane	#0.3797	0.4207	0.4111	0.4191	0.4058	0.4210	0.4088	0.4094	4	AVG #
2-Nitropropane	0.1582	0.1498	0.1500	0.1555	0.1556	0.1363	0.1355	0.1487	6	AVG
2-Chloroethyl Vinyl Ether	0.2158	0.2373	0.2859	0.2662	0.2387	0.2562	0.2413	0.2488	9	AVG
cis-1,3-Dichloropropene	#0.4819	0.5308	0.5215	0.5323	0.5238	0.5410	0.5251	0.5223	4	AVG #
4-Methyl-2-pentanone	#0.4674	0.4768	0.5106	0.5225	0.5291	0.4614	0.4520	0.4886	6	AVG #
Toluene	#1.0178	1.0869	1.0857	1.0784	1.0518	1.0716	1.0228	1.0593	3	AVG #
trans-1,3-Dichloropropene	#0.6167	0.6558	0.6561	0.6691	0.6667	0.6814	0.6564	0.6575	3	AVG #
Ethyl Methacrylate	0.5974	0.6450	0.6563	0.6725	0.6715	0.6892	0.6534	0.6550	4	AVG
1,1,2-Trichloroethane	#0.3505	0.3765	0.3817	0.3850	0.3813	0.3843	0.3660	0.3750	3	AVG #
Tetrachloroethene	#0.4050	0.4844	0.5052	0.4791	0.4565	0.4687	0.4483	0.4639	7	AVG #
1,3-Dichloropropane	0.6055	0.6538	0.6584	0.6649	0.6612	0.6724	0.6404	0.6509	3	AVG
2-Hexanone	#0.4390	0.4971	0.5434	0.5429	0.5545	0.4704	0.4626	0.5014	9	AVG #
Dibromochloromethane	#0.3817	0.4093	0.4406	0.4427	0.4445	0.4545	0.4395	0.4304	6	AVG #
1,2-Dibromoethane	#0.3969	0.3953	0.4170	0.4215	0.4154	0.4249	0.4039	0.4107	3	AVG #
Chlorobenzene	#1.0921	1.2209	1.2210	1.2136	1.1794	1.2070	1.1420	1.1823	4	AVG #
1,1,1,2-Tetrachloroethane	0.3781	0.4336	0.4337	0.4396	0.4290	0.4395	0.4289	0.4261	5	AVG
Ethylbenzene	#1.9141	2.1201	2.1442	2.1357	2.0289	2.0781	1.9216	2.0489	5	AVG #
m+p-Xylene	#0.7414	0.8196	0.8300	0.8396	0.8021	0.8241	0.7784	0.8050	4	AVG #
o-Xylene	#0.7234	0.8040	0.8225	0.8098	0.7907	0.8163	0.7758	0.7918	4	AVG #
Styrene	#1.2039	1.3522	1.3518	1.3756	1.3441	1.3782	1.3030	1.3298	5	AVG #
Bromoform	#0.2792	0.3231	0.3231	0.3367	0.3343	0.3455	0.3326	0.3249	7	AVG #
Isopropylbenzene	#1.9267	2.1670	2.1977	2.2117	2.0640	2.1396	1.9312	2.0911	6	AVG #
Cyclohexanone	0.2682	0.2859	0.2878	0.2892	0.2905	0.3114	0.3067	0.2914	5	AVG
Bromobenzene	0.8590	0.9347	0.9520	0.9521	0.9162	0.9519	0.9072	0.9247	4	AVG
1,1,2,2-Tetrachloroethane	#1.1119	1.0954	1.0823	1.1623	1.0897	1.1128	1.0441	1.0998	3	AVG #
1,2,3-Trichloropropane	0.3412	0.3569	0.3511	0.3503	0.3464	0.3556	0.3372	0.3484	2	AVG
trans-1,4-Dichloro-2-butene	0.3446	0.3655	0.3842	0.3925	0.3848	0.3980	0.3787	0.3783	5	AVG
n-Propylbenzene	4.1802	4.7758	4.7515	4.7694	4.3570	4.5797	3.9696	4.4833	7	AVG
2-Chlorotoluene	0.8466	0.9393	0.9507	0.9583	0.9146	0.9521	0.9087	0.9243	4	AVG
4-Chlorotoluene	0.8940	0.9830	0.9767	0.9804	0.9447	0.9885	0.9382	0.9579	4	AVG
1,3,5-Trimethylbenzene	2.9971	3.4185	3.4269	3.4689	3.2054	3.3947	3.0831	3.2849	6	AVG
tert-Butylbenzene	0.6596	0.7249	0.7572	0.7566	0.6913	0.7620	0.7438	0.7279	5	AVG
Pentachloroethane	0.4971	0.5357	0.6283	0.6111	0.6072	0.6136	0.5871	0.5829	8	AVG
1,2,4-Trimethylbenzene	3.1541	3.5076	3.5618	3.5842	3.3486	3.5151	3.1947	3.4094	5	AVG
sec-Butylbenzene	3.8993	4.5177	4.4995	4.5472	4.0996	4.4283	3.8777	4.2670	7	AVG
1,3-Dichlorobenzene	#1.7025	1.8294	1.8450	1.8675	1.7695	1.8450	1.7309	1.7986	4	AVG #
p-Isopropyltoluene	3.3403	3.8663	3.9299	3.9495	3.5947	3.8713	3.4403	3.7132	7	AVG
1,4-Dichlorobenzene	#1.8052	1.8392	1.8452	1.8832	1.7956	1.8573	1.7420	1.8240	3	AVG #
1,2,3-Trimethylbenzene	3.0121	3.2851	3.6110	3.4491	3.3949	3.3811	3.0300	3.3090	7	AVG
Benzyl Chloride	2.1944	2.3823	2.4442	2.5363	2.5108	2.5658	2.3823	2.4309	5	AVG
1,3-Diethylbenzene	1.8619	2.2341	2.4272	2.3289	2.2979	2.3053	2.1041	2.2227	8	AVG
1,4-Diethylbenzene	1.9700	2.3836	2.5747	2.4844	2.4308	2.4500	2.2277	2.3602	9	AVG
1,2-Dichlorobenzene	#1.6578	1.7288	1.7434	1.7576	1.6911	1.7273	1.6306	1.7052	3	AVG #
n-Butylbenzene	1.6847	1.9966	1.9833	2.0135	1.8270	2.0103	1.8925	1.9154	6	AVG
1,2-Diethylbenzene	1.6855	1.8684	2.0458	1.9375	1.9123	1.9292	1.7843	1.8804	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane#	0.2879	0.2891	0.2960	0.3107	0.2985	0.3047	0.2937	0.2972	3	AVG #
1,3,5-Trichlorobenzene	1.2762	1.3558	1.3851	1.4172	1.3161	1.4227	1.3413	1.3592	4	AVG
1,2,4-Trichlorobenzene #	1.0911	1.1843	1.1818	1.2373	1.1774	1.2396	1.1844	1.1851	4	AVG #
Hexachlorobutadiene	0.5000	0.5456	0.5374	0.5624	0.4858	0.5668	0.5546	0.5361	6	AVG
Naphthalene	3.5547	3.7308	3.7828	3.8932	3.7890	3.8310	3.4298	3.7159	4	AVG
1,2,3-Trichlorobenzene	1.0209	1.0676	1.0899	1.1265	1.0814	1.1317	1.0973	1.0879	3	AVG
2-Methylnaphthalene	1.9309	1.9687	2.2870	2.2237	2.2375	2.2397	2.1372	2.1464	7	AVG
Dibromofluoromethane	0.2529	0.2501	0.2484	0.2469	0.2485	0.2469	0.2433	0.2481	1	AVG
Dibromofluoromethane(2)	0.2539	0.2581	0.2528	0.2535	0.2522	0.2535	0.2494	0.2534	1	AVG
1,2-Dichloroethane-d4	0.0623	0.0629	0.0625	0.0647	0.0629	0.0625	0.0614	0.0627	2	AVG
1,2-Dichloroethane-d4(2)	0.3078	0.3028	0.2972	0.2958	0.2963	0.2974	0.2963	0.2991	2	AVG
1,2-Dichloroethane-d4(3)	0.0403	0.0401	0.0400	0.0396	0.0403	0.0405	0.0387	0.0399	2	AVG
Toluene-d8	1.2964	1.2989	1.3109	1.3110	1.3079	1.3022	1.3009	1.3040	0	AVG
Toluene-d8(2)	0.8523	0.8598	0.8615	0.8651	0.8673	0.8645	0.8771	0.8639	1	AVG
4-Bromofluorobenzene	0.5128	0.5146	0.5173	0.5163	0.5148	0.5139	0.5166	0.5152	0	AVG
4-Bromofluorobenzene(2)	0.4114	0.4140	0.4143	0.4146	0.4118	0.4092	0.4139	0.4127	0	AVG

Average %RSD 6

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i01.d	VSTD300
/chem/HP07159.i/20jan09a.b/nj09i02.d	VSTD100
/chem/HP07159.i/20jan09a.b/nj09i03.d	VSTD050
/chem/HP07159.i/20jan09a.b/nj09i04.d	VSTD020
/chem/HP07159.i/20jan09a.b/nj09i05.d	VSTD010
/chem/HP07159.i/20jan09a.b/nj09i06.d	VSTD004
/chem/HP07159.i/20jan09a.b/nj09i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	369636	383443	386370	385090	387060	392656	388809	384723	2	Yes
Fluorobenzene	1311659	1313106	1307289	1297518	1306648	1299393	1304310	1305703	0	Yes
Chlorobenzene-d5	997921	996040	985480	985958	991927	995569	1001788	993526	1	Yes
1,4-Dichlorobenzene-d4	555000	546174	543996	541869	544310	544490	552754	546942	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. RT
t-Butyl alcohol-d10	4.427	4.425	4.423	4.415	4.425	4.421	4.418	4.422
Fluorobenzene	7.937	7.935	7.933	7.932	7.935	7.931	7.934	7.934
Chlorobenzene-d5	11.375	11.373	11.370	11.369	11.372	11.369	11.371	11.371
1,4-Dichlorobenzene-d4	13.248	13.246	13.250	13.249	13.246	13.248	13.251	13.248

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 01/09/2020 at 12:11.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.3302	16.97	20	-15	#
# Chloromethane	0.4170	0.3533	16.94	20	-15	#
1,3-Butadiene	0.2910	0.2352	16.17	20	-19	
# Vinyl Chloride	0.4058	0.3591	17.70	20	-12	#
# Bromomethane	0.2782	0.2532	18.20	20	-9	#
# Chloroethane	0.2375	0.2168	18.26	20	-9	#
Dichlorofluoromethane	0.5439	0.4978	18.30	20	-8	
n-Pentane	0.4370	0.3666	16.78	20	-16	
# Trichlorofluoromethane	0.4460	0.4455	19.98	20	0	#
Ethanol	0.0605	0.0587	484.98	500	-3	
Freon 123a	0.3267	0.3129	19.15	20	-4	
Acrolein	1.6953	1.4582	129.02	150	-14	
# 1,1-Dichloroethene	0.2599	0.2315	17.81	20	-11	#
# Acetone	0.7140	0.6652	139.74	150	-7	#
# Freon 113	0.2412	0.2377	19.71	20	-1	#
2-Propanol	0.4716	0.3757	119.48	150	-20	
Methyl Iodide	0.4852	0.4395	18.12	20	-9	
# Carbon Disulfide	0.8312	0.7064	17.00	20	-15	#
Allyl Chloride	0.4589	0.4414	19.24	20	-4	
# Methyl Acetate	0.3193	0.3054	19.13	20	-4	#
# Methylene Chloride	0.3087	0.2897	18.77	20	-6	#
t-Butyl alcohol	0.9320	0.9051	194.21	200	-3	
Acrylonitrile	0.1725	0.1528	88.58	100	-11	
# trans-1,2-Dichloroethene	0.2967	0.2840	19.14	20	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.8098	19.18	20	-4	#
n-Hexane	0.4096	0.3838	18.74	20	-6	
# 1,1-Dichloroethane	0.5413	0.5232	19.33	20	-3	#
di-Isopropyl ether	0.9325	0.8969	19.24	20	-4	
2-Chloro-1,3-butadiene	0.4778	0.4632	19.39	20	-3	
Ethyl t-butyl ether	0.8863	0.8655	19.53	20	-2	
# cis-1,2-Dichloroethene	0.3370	0.3417	20.28	20	1	#
# 2-Butanone	0.2411	0.2134	132.74	150	-12	#
2,2-Dichloropropane	0.4779	0.4684	19.60	20	-2	
Propionitrile	1.0886	1.0668	147.00	150	-2	
Methacrylonitrile	0.1742	0.1713	147.52	150	-2	
Bromochloromethane	0.1593	0.1594	20.01	20	0	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1301	1.0358	91.65	100	-8	
#	Chloroform	0.5280	0.5226	19.80	20	-1	#
#	1,1,1-Trichloroethane	0.4777	0.4639	19.42	20	-3	#
#	Cyclohexane	0.4913	0.4571	18.61	20	-7	#
	1,1-Dichloropropene	0.4321	0.4099	18.98	20	-5	
#	Carbon Tetrachloride	0.4119	0.3981	19.33	20	-3	#
	Isobutyl Alcohol	0.3339	0.3163	473.74	500	-5	
#	Benzene	1.2299	1.1779	19.15	20	-4	#
#	1,2-Dichloroethane	0.4351	0.4269	19.62	20	-2	#
	t-Amyl methyl ether	0.8891	0.8780	19.75	20	-1	
	n-Heptane	0.4728	0.4155	17.58	20	-12	
	n-Butanol	0.2876	0.2744	954.06	1000	-5	
#	Trichloroethene	0.3240	0.3085	19.04	20	-5	#
#	Methylcyclohexane	0.5326	0.5419	20.35	20	2	#
#	1,2-Dichloropropane	0.3145	0.3170	20.16	20	1	#
	Dibromomethane	0.2006	0.1977	19.71	20	-1	
	1,4-Dioxane	0.0727	0.0792	545.38	500	9	
	Methyl Methacrylate	0.2876	0.2883	20.05	20	0	
#	Bromodichloromethane	0.4094	0.4021	19.64	20	-2	#
	2-Nitropropane	0.1487	0.1343	18.06	20	-10	
	2-Chloroethyl Vinyl Ether	0.2488	0.2349	18.89	20	-6	
#	cis-1,3-Dichloropropene	0.5223	0.5168	19.79	20	-1	#
#	4-Methyl-2-pentanone	0.4886	0.4538	92.89	100	-7	#
#	Toluene	1.0593	1.0206	19.27	20	-4	#
#	trans-1,3-Dichloropropene	0.6575	0.6225	18.94	20	-5	#
	Ethyl Methacrylate	0.6550	0.6136	18.74	20	-6	
#	1,1,2-Trichloroethane	0.3750	0.3766	20.08	20	0	#
#	Tetrachloroethene	0.4639	0.4475	19.29	20	-4	#
	1,3-Dichloropropane	0.6509	0.6381	19.61	20	-2	
#	2-Hexanone	0.5014	0.4529	90.33	100	-10	#
#	Dibromochloromethane	0.4304	0.4329	20.12	20	1	#
#	1,2-Dibromoethane	0.4107	0.4017	19.56	20	-2	#
#	Chlorobenzene	1.1823	1.1642	19.69	20	-2	#
	1,1,1,2-Tetrachloroethane	0.4261	0.4150	19.48	20	-3	
#	Ethylbenzene	2.0489	2.0156	19.67	20	-2	#
#	m+p-Xylene	0.8050	0.7973	39.61	40	-1	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	o-Xylene	0.7918	0.7737	19.54	20	-2	#
#	Styrene	1.3298	1.3149	19.78	20	-1	#
#	Bromoform	0.3249	0.3182	19.58	20	-2	#
#	Isopropylbenzene	2.0911	2.1005	20.09	20	0	#
	Cyclohexanone	0.2914	0.2998	514.44	500	3	
	Bromobenzene	0.9247	0.9282	20.08	20	0	
#	1,1,2,2-Tetrachloroethane	1.0998	1.1095	20.18	20	1	#
	1,2,3-Trichloropropane	0.3484	0.3444	19.77	20	-1	
	trans-1,4-Dichloro-2-butene	0.3783	0.3830	101.24	100	1	
	n-Propylbenzene	4.4833	4.5764	20.42	20	2	
	2-Chlorotoluene	0.9243	0.9202	19.91	20	0	
	4-Chlorotoluene	0.9579	0.9381	19.59	20	-2	
	1,3,5-Trimethylbenzene	3.2849	3.2822	19.98	20	0	
	tert-Butylbenzene	0.7279	0.7241	19.89	20	-1	
	Pentachloroethane	0.5829	0.5596	19.20	20	-4	
	1,2,4-Trimethylbenzene	3.4094	3.3529	19.67	20	-2	
	sec-Butylbenzene	4.2670	4.2821	20.07	20	0	
#	1,3-Dichlorobenzene	1.7986	1.7905	19.91	20	0	#
	p-Isopropyltoluene	3.7132	3.7353	20.12	20	1	
#	1,4-Dichlorobenzene	1.8240	1.8246	20.01	20	0	#
	1,2,3-Trimethylbenzene	3.3090	3.3545	20.27	20	1	
	Benzyl Chloride	2.4309	2.1774	17.91	20	-10	
	1,3-Diethylbenzene	2.2227	2.2013	19.81	20	-1	
	1,4-Diethylbenzene	2.3602	2.3250	19.70	20	-1	
#	1,2-Dichlorobenzene	1.7052	1.7048	19.99	20	0	#
	n-Butylbenzene	1.9154	1.8828	19.66	20	-2	
	1,2-Diethylbenzene	1.8804	1.8472	19.65	20	-2	
#	1,2-Dibromo-3-chloropropane	0.2972	0.2901	19.52	20	-2	#
	1,3,5-Trichlorobenzene	1.3592	1.3643	20.08	20	0	
#	1,2,4-Trichlorobenzene	1.1851	1.2133	20.48	20	2	#
	Hexachlorobutadiene	0.5361	0.5089	18.99	20	-5	
	Naphthalene	3.7159	3.7282	20.07	20	0	
	1,2,3-Trichlorobenzene	1.0879	1.1059	20.33	20	2	
	2-Methylnaphthalene	2.1464	2.0222	18.84	20	-6	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i07.d
/chem/HP07159.i/20jan09a.b/nj09i06.d
/chem/HP07159.i/20jan09a.b/nj09i05.d
/chem/HP07159.i/20jan09a.b/nj09i04.d
/chem/HP07159.i/20jan09a.b/nj09i03.d
/chem/HP07159.i/20jan09a.b/nj09i02.d
/chem/HP07159.i/20jan09a.b/nj09i01.d

File /chem/HP07159.i/20jan09a.b/nj09i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07159.i/20may22a.b/ny22c01.d

RT Summary

Internal Standard Name	File ID: ny22c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.422	4.423	Yes
Fluorobenzene	7.926	7.933	Yes
Chlorobenzene-d5	11.363	11.370	Yes
1,4-Dichlorobenzene-d4	13.243	13.250	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ny22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	282380	386370	193185	772740	Yes
Fluorobenzene	1055917	1307289	653644	2614578	Yes
Chlorobenzene-d5	834018	985480	492740	1970960	Yes
1,4-Dichlorobenzene-d4	495632	543996	271998	1087992	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/22/2020 at 11:39

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.4116	52.87	50	6	#
# Chloromethane	0.4170	0.3771	45.22	50	-10	#
1,3-Butadiene	0.2910	0.3180	54.64	50	9	
# Vinyl Chloride	0.4058	0.3820	47.06	50	-6	#
# Bromomethane	0.2782	0.2567	46.13	50	-8	#
# Chloroethane	0.2375	0.2240	47.16	50	-6	#
n-Pentane	0.4370	0.4965	56.81	50	14	
# Trichlorofluoromethane	0.4460	0.4257	47.72	50	-5	#
Ethanol	0.0605	0.0662	1367.95	1250	9	
Freon 123a	0.3267	0.3145	48.13	50	-4	
Acrolein	1.6953	1.5098	445.30	500	-11	
# 1,1-Dichloroethene	0.2599	0.2518	48.44	50	-3	#
# 1,1-Dichloroethene(2)	0.1364	0.1306	47.87	50	-4	#
# Acetone	0.7140	0.7010	98.17	100	-2	#
# Freon 113	0.2412	0.2709	56.18	50	12	#
2-Propanol	0.4716	0.4734	250.93	250	0	
Methyl Iodide	0.4852	0.4686	48.29	50	-3	
# Carbon Disulfide	0.8312	0.8386	50.45	50	1	#
Allyl Chloride	0.4589	0.4468	48.69	50	-3	
# Methyl Acetate	0.3193	0.3013	47.18	50	-6	#
# Methylene Chloride	0.3087	0.2844	46.07	50	-8	#
t-Butyl alcohol	0.9320	1.0756	288.50	250	15	
Acrylonitrile	0.1725	0.1513	43.86	50	-12	
# trans-1,2-Dichloroethene	0.2967	0.2846	47.95	50	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.7566	44.79	50	-10	#
n-Hexane	0.4096	0.4734	57.79	50	16	
# 1,1-Dichloroethane	0.5413	0.5247	48.46	50	-3	#
di-Isopropyl ether	0.9325	0.9011	48.32	50	-3	
2-Chloro-1,3-butadiene	0.4778	0.4638	48.53	50	-3	
Ethyl t-butyl ether	0.8863	0.8018	45.24	50	-10	
# cis-1,2-Dichloroethene	0.3370	0.3217	47.72	50	-5	#
# 2-Butanone	0.2411	0.2167	89.86	100	-10	#
2,2-Dichloropropane	0.4779	0.4221	44.16	50	-12	
Propionitrile	1.0886	1.2700	291.67	250	17	
Methacrylonitrile	0.1742	0.1744	125.11	125	0	
Bromochloromethane	0.1593	0.1661	52.14	50	4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1301	1.0876	96.24	100	-4	
# Chloroform	0.5280	0.4971	47.08	50	-6	#
# 1,1,1-Trichloroethane	0.4777	0.4377	45.81	50	-8	#
# Cyclohexane	0.4913	0.5502	55.99	50	12	#
# Cyclohexane(2)	0.4282	0.4881	56.99	50	14	#
# Cyclohexane(3)	0.1544	0.1677	54.30	50	9	#
1,1-Dichloropropene	0.4321	0.4165	48.20	50	-4	
# Carbon Tetrachloride	0.4119	0.3918	47.56	50	-5	#
Isobutyl Alcohol	0.3339	0.3844	719.60	625	15	
# Benzene	1.2299	1.1900	48.38	50	-3	#
# 1,2-Dichloroethane	0.4351	0.3894	44.74	50	-11	#
# 1,2-Dichloroethane(2)	0.0358	0.0373	52.12	50	4	#<-
t-Amyl methyl ether	0.8891	0.8263	46.47	50	-7	
n-Heptane	0.4728	0.5136	54.32	50	9	
n-Butanol	0.2876	0.3327	1446.16	1250	16	
# Trichloroethene	0.3240	0.3023	46.65	50	-7	#
# Methylcyclohexane	0.5326	0.6257	58.74	50	17	#
# Methylcyclohexane(2)	0.2508	0.2958	58.97	50	18	#
# 1,2-Dichloropropane	0.3145	0.3135	49.85	50	0	#
Dibromomethane	0.2006	0.1879	46.83	50	-6	
1,4-Dioxane	0.0727	0.0763	655.98	625	5	
Methyl Methacrylate	0.2876	0.2852	49.58	50	-1	
# Bromodichloromethane	0.4094	0.3825	46.71	50	-7	#
2-Nitropropane	0.1487	0.1158	77.89	100	-22	<-
2-Chloroethyl Vinyl Ether	0.2488	0.2373	47.69	50	-5	
# cis-1,3-Dichloropropene	0.5223	0.4970	47.57	50	-5	#
# 4-Methyl-2-pentanone	0.4886	0.4836	98.98	100	-1	#
# Toluene	1.0593	0.9952	46.97	50	-6	#
# trans-1,3-Dichloropropene	0.6575	0.5995	45.59	50	-9	#
Ethyl Methacrylate	0.6550	0.6184	47.20	50	-6	
# 1,1,2-Trichloroethane	0.3750	0.3590	47.86	50	-4	#
# Tetrachloroethene	0.4639	0.5008	53.98	50	8	#
1,3-Dichloropropane	0.6509	0.6241	47.94	50	-4	
# 2-Hexanone	0.5014	0.5009	99.90	100	0	#
# Dibromochloromethane	0.4304	0.4163	48.36	50	-3	#
# 1,2-Dibromoethane	0.4107	0.3890	47.36	50	-5	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	Chlorobenzene	1.1823	1.1439	48.38	50	-3	#
	1,1,1,2-Tetrachloroethane	0.4261	0.4180	49.05	50	-2	
#	Ethylbenzene	2.0489	1.9880	48.51	50	-3	#
#	m+p-Xylene	0.8050	0.7953	98.79	100	-1	#
#	o-Xylene	0.7918	0.7865	49.67	50	-1	#
#	Styrene	1.3298	1.3407	50.41	50	1	#
#	Bromoform	0.3249	0.3457	53.20	50	6	#
#	Isopropylbenzene	2.0911	2.2580	53.99	50	8	#
	Cyclohexanone	0.2914	0.3316	711.31	625	14	
	Bromobenzene	0.9247	0.9125	49.34	50	-1	
#	1,1,2,2-Tetrachloroethane	1.0998	1.1299	51.37	50	3	#
	1,2,3-Trichloropropane	0.3484	0.3410	48.94	50	-2	
	trans-1,4-Dichloro-2-butene	0.3783	0.3191	105.42	125	-16	
	n-Propylbenzene	4.4833	4.4767	49.93	50	0	
	2-Chlorotoluene	0.9243	0.9148	49.48	50	-1	
	4-Chlorotoluene	0.9579	0.9496	49.57	50	-1	
	1,3,5-Trimethylbenzene	3.2849	3.2297	49.16	50	-2	
	tert-Butylbenzene	0.7279	0.7631	52.41	50	5	
	Pentachloroethane	0.5829	0.5029	43.14	50	-14	
	1,2,4-Trimethylbenzene	3.4094	3.3385	48.96	50	-2	
	sec-Butylbenzene	4.2670	4.3377	50.83	50	2	
#	1,3-Dichlorobenzene	1.7986	1.7597	48.92	50	-2	#
	p-Isopropyltoluene	3.7132	3.7217	50.11	50	0	
#	1,4-Dichlorobenzene	1.8240	1.7958	49.23	50	-2	#
	1,2,3-Trimethylbenzene	3.3090	3.1908	48.21	50	-4	
	Benzyl Chloride	2.4309	2.2392	46.06	50	-8	
	1,3-Diethylbenzene	2.2227	2.2111	49.74	50	-1	
	1,4-Diethylbenzene	2.3602	2.3169	49.08	50	-2	
#	1,2-Dichlorobenzene	1.7052	1.7021	49.91	50	0	#
	n-Butylbenzene	1.9154	1.8848	49.20	50	-2	
	1,2-Diethylbenzene	1.8804	1.8342	48.77	50	-2	
#	1,2-Dibromo-3-chloropropane	0.2972	0.2687	45.20	50	-10	#
	1,3,5-Trichlorobenzene	1.3592	1.2947	47.63	50	-5	
#	1,2,4-Trichlorobenzene	1.1851	1.1324	47.77	50	-4	#
	Hexachlorobutadiene	0.5361	0.5006	46.69	50	-7	
	Naphthalene	3.7159	3.6688	49.37	50	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2,3-Trichlorobenzene	1.0879	1.0381	47.71	50	-5
2-Methylnaphthalene	2.1464	1.8947	44.14	50	-12
Dibromofluoromethane	0.2481	0.2357	47.49	50	-5
Dibromofluoromethane(2)	0.2534	0.2402	47.41	50	-5
1,2-Dichloroethane-d4	0.0627	0.0599	47.70	50	-5
1,2-Dichloroethane-d4(2)	0.2991	0.2905	48.56	50	-3
1,2-Dichloroethane-d4(3)	0.0399	0.0386	48.29	50	-3
Toluene-d8	1.3040	1.2114	46.45	50	-7
Toluene-d8(2)	0.8639	0.8056	46.62	50	-7
4-Bromofluorobenzene	0.5152	0.5084	49.34	50	-1
4-Bromofluorobenzene(2)	0.4127	0.4301	52.11	50	4

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
01 LCSN45	317361	4.410	1191852	7.920	899461	11.363	495502	13.243
02 VBLKN45	321315	4.398	1158785	7.926	862795	11.363	450523	13.243
03 1315379	287541	4.398	1164969	7.920	874028	11.364	475046	13.244
04 1315372	280489	4.391	1162205	7.920	866965	11.363	469380	13.242
05 1315373	252012	4.415	1157165	7.925	862462	11.362	468536	13.242
06 1315374MS	276555	4.392	1205813	7.926	833512	11.364	495280	13.243
07 1315375MSD	280373	4.400	1198065	7.923	900749	11.366	495899	13.240
08 1315377	332803	4.391	1157175	7.920	885341	11.363	431316	13.243
09 1315378	334202	4.394	1170211	7.923	878018	11.366	476596	13.240
10 1315380	248107	4.404	1144895	7.926	869803	11.363	473519	13.243
11 1315381	331975	4.412	1141438	7.922	873259	11.366	475238	13.245
12 1316321	282793	4.398	1051527	7.920	887863	11.363	479575	13.243
13 1316322	336881	4.406	1162369	7.923	880487	11.366	474544	13.246
14 1316330	328621	4.404	1172750	7.920	873558	11.363	474944	13.243
15 1316331	292921	4.397	1151341	7.926	872417	11.363	474131	13.242
16 1316332	305023	4.400	1157387	7.917	884326	11.366	474359	13.240
17 1316333	287917	4.397	1157179	7.925	882870	11.363	473115	13.242
18 1316334	281897	4.405	1015455	7.922	851710	11.365	461758	13.245
19 1316335	318185	4.400	1147854	7.923	866383	11.366	465372	13.240
20 1316336	297920	4.406	1142108	7.922	865324	11.365	465342	13.239
21 1316337	316397	4.404	1006412	7.920	766546	11.364	462477	13.243
22 1316338	286008	4.392	1131155	7.920	866546	11.363	463740	13.243

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
23 1316339	286583	4.405	1018373	7.922	850921	11.365	466286	13.245
24 1316340	317946	4.401	1137043	7.924	866213	11.367	462851	13.240

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RS091

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316330

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s13.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	0.8	J
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	0.6	J
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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RS091 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316330

Data file: /chem/HP07159.i/20may22a.b/ny22s13.d Injection date and time: **22-MAY-2020 16:30**
Data file Sample Info. Line: RS091;1316330;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.404	(0.018)	504	65	328621	(16)	250.00	
66) Fluorobenzene	7.920	(0.005)	1082	96	1172750	(11)	50.00	
100) Chlorobenzene-d5	11.363	(-0.001)	1648	117	873558	(5)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(-0.001)	1957	152	474944	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.032	(-0.001)	113	281595	48.384	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488	(0.000)	102	73012	49.616	99%		80 - 120
83) Toluene-d8	(3)	9.922	(0.000)	98	1095675	48.092	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	402732	44.744	89%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)	4.410	(0.000)	84	5929M	0.819	0.82		J	0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)	10.001	(-0.000)	92	10739	0.580	0.58		J	0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

M = Compound was manually integrated.

Digitally signed by Sara E. Johnson on 05/26/2020 at 17:19. Target 3.5 esignature user ID: sej02002

Data file: /chem/HP07159.i/20may22a.b/ny22s13.d Injection date and time: **22-MAY-2020 16:30**
Data file Sample Info. Line: RS091;1316330;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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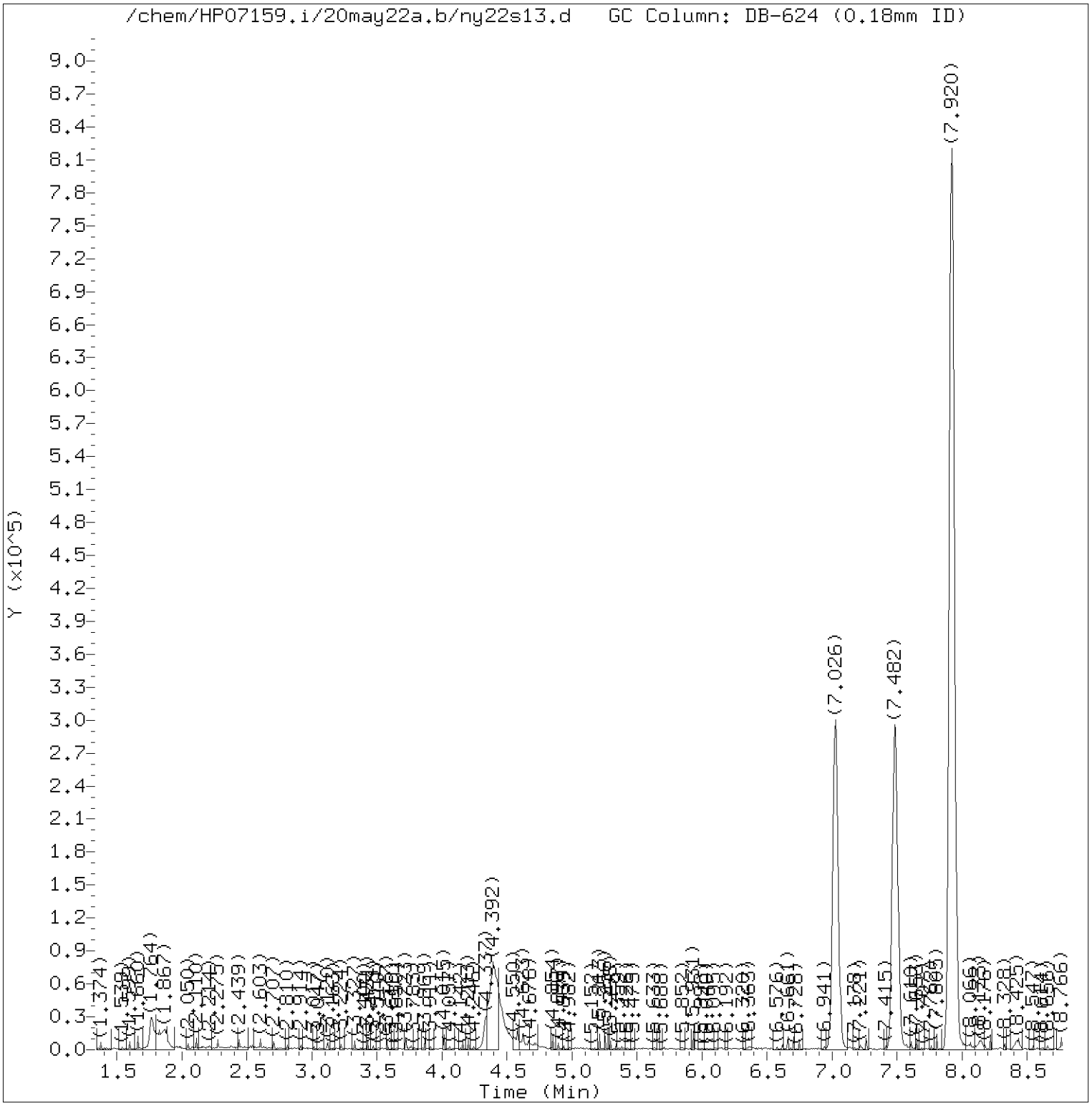
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/26/2020 at 17:19. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 05/26/2020 at 17:44. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

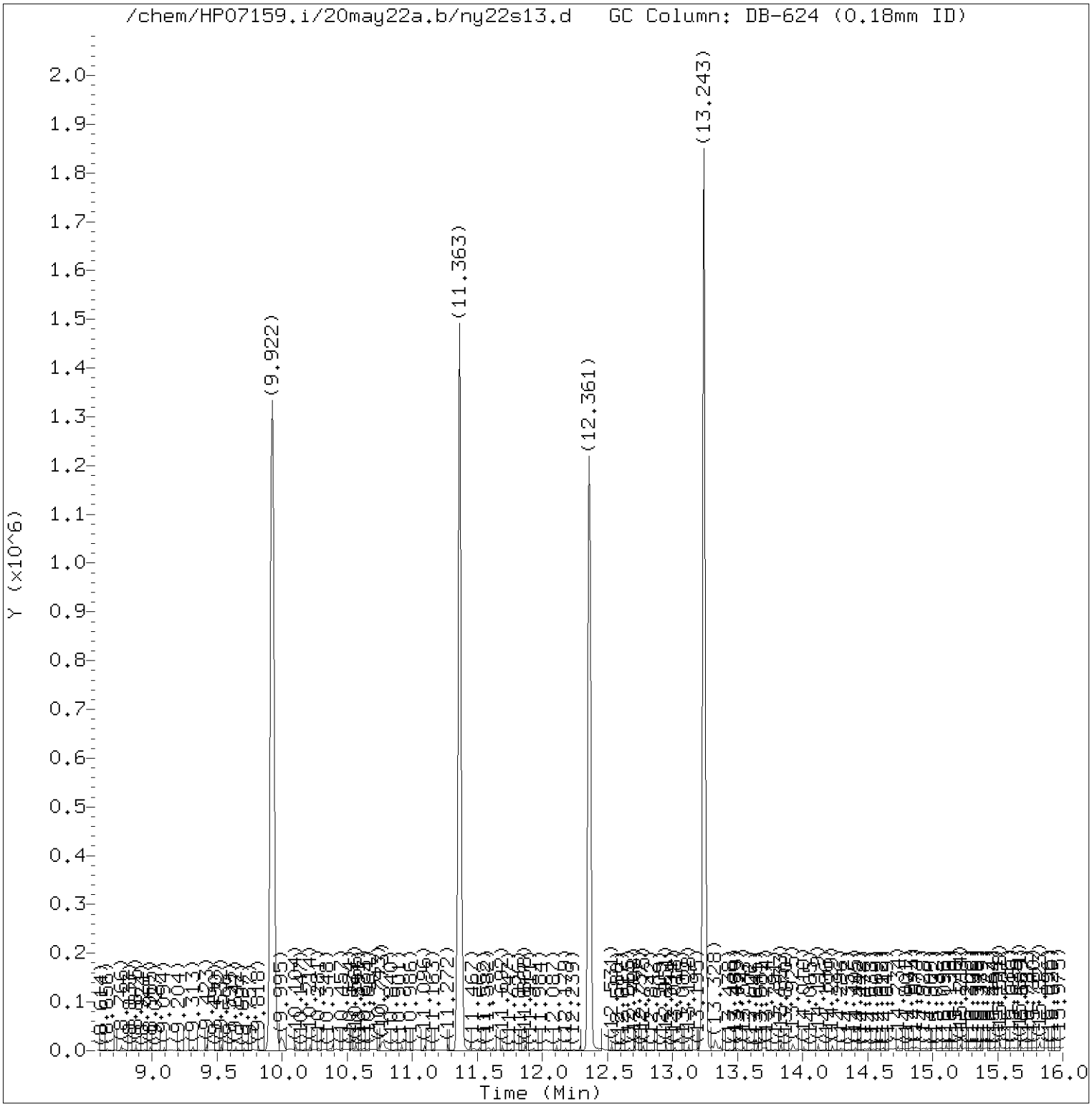
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Sample Name: RS091 Lab Sample ID: 1316330

Digitally signed by Sara E. Johnson
on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Sample Name: RS091 Lab Sample ID: 1316330

Digitally signed by Sara E. Johnson
on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

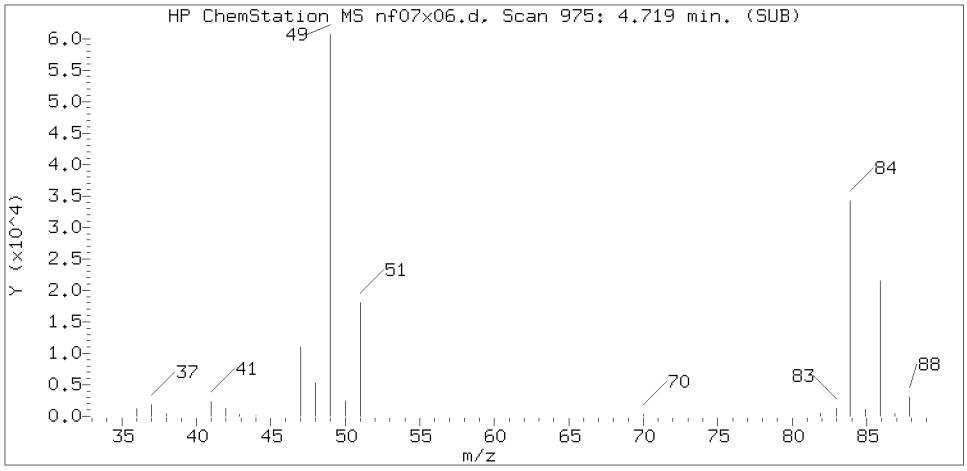
Sample Name: RS091 Lab Sample ID: 1316330

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.404	65	328621	250.000
28) Methylene Chloride	(2)	4.410	84	5929M	0.819
52)$Dibromofluoromethane	(2)	7.032	113	281595	48.384
57)$1,2-Dichloroethane-d4	(2)	7.488	102	73012	49.616
66)*Fluorobenzene	(2)	7.920	96	1172750	50.000
83)$Toluene-d8	(3)	9.922	98	1095675	48.092
88) Toluene	(3)	10.001	92	10739	0.580
100)*Chlorobenzene-d5	(3)	11.363	117	873558	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	402732	44.744
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	474944	50.000

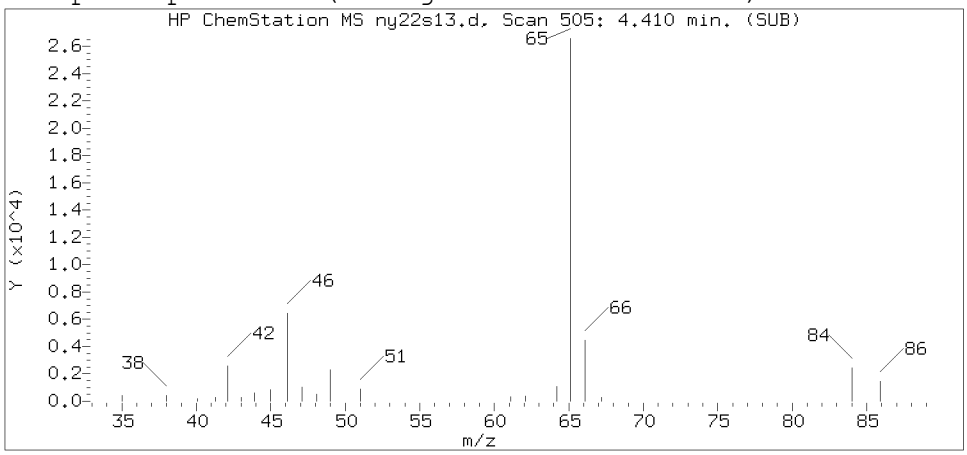
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002

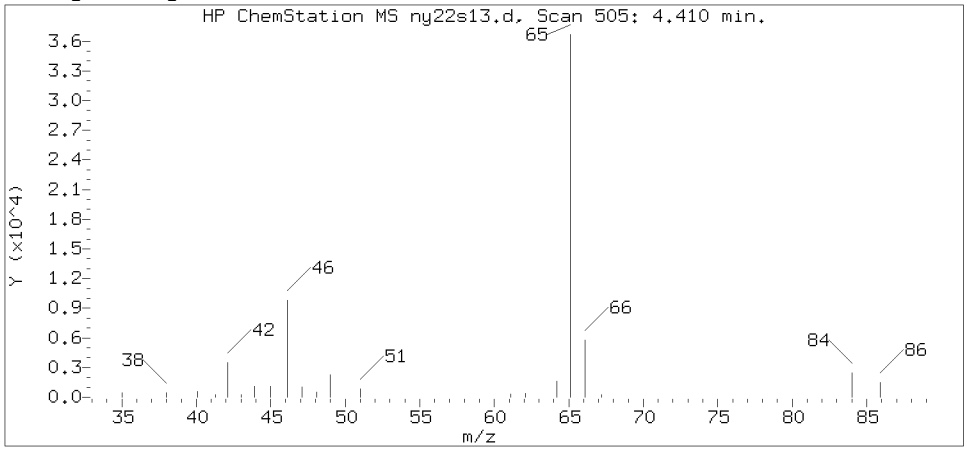
Reference Standard Spectrum for Methylene Chloride

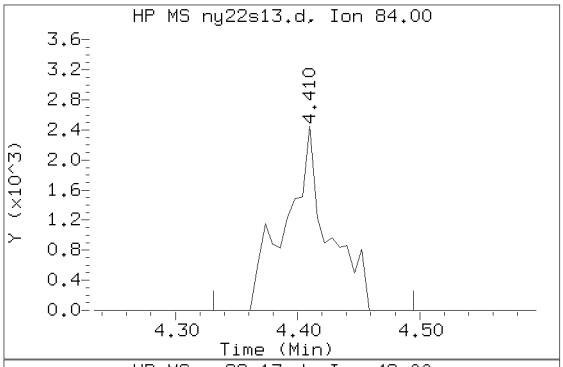


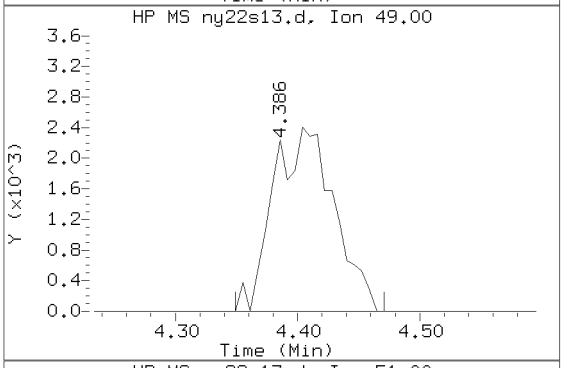
Sample Spectrum (Background Subtracted)

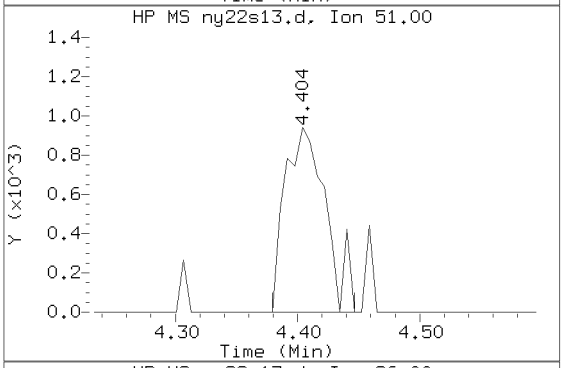


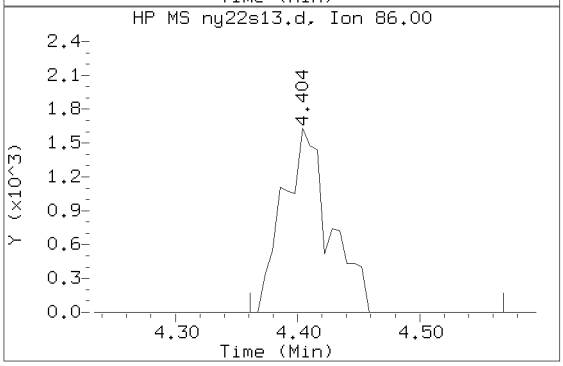
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

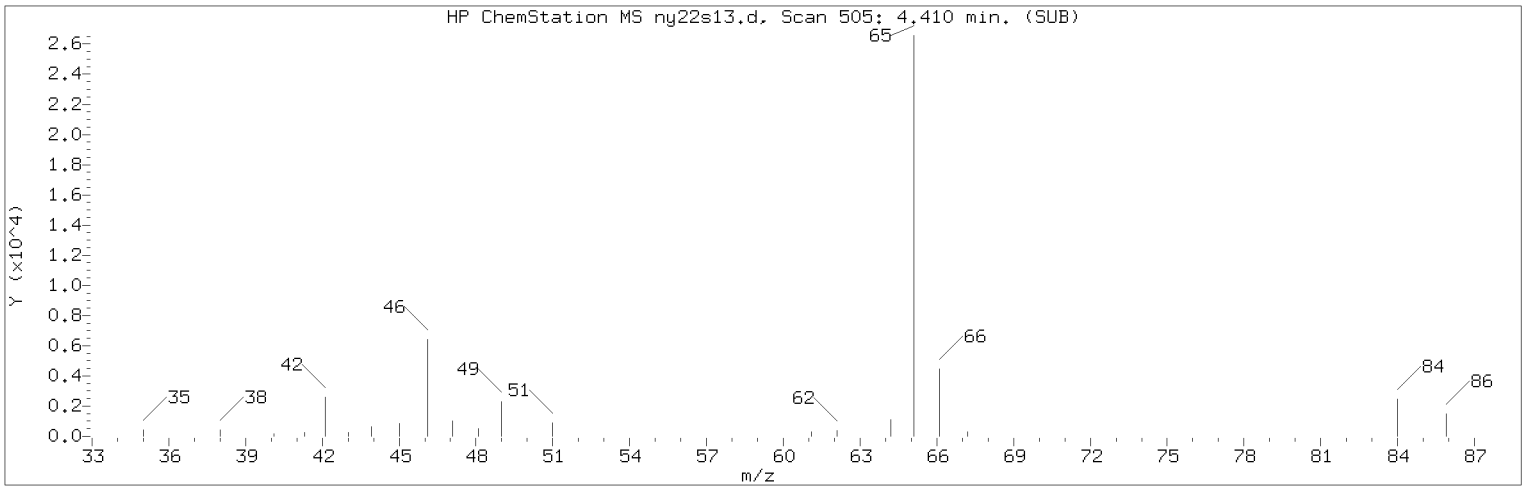
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Sample Name: RS091 Lab Sample ID: 1316330

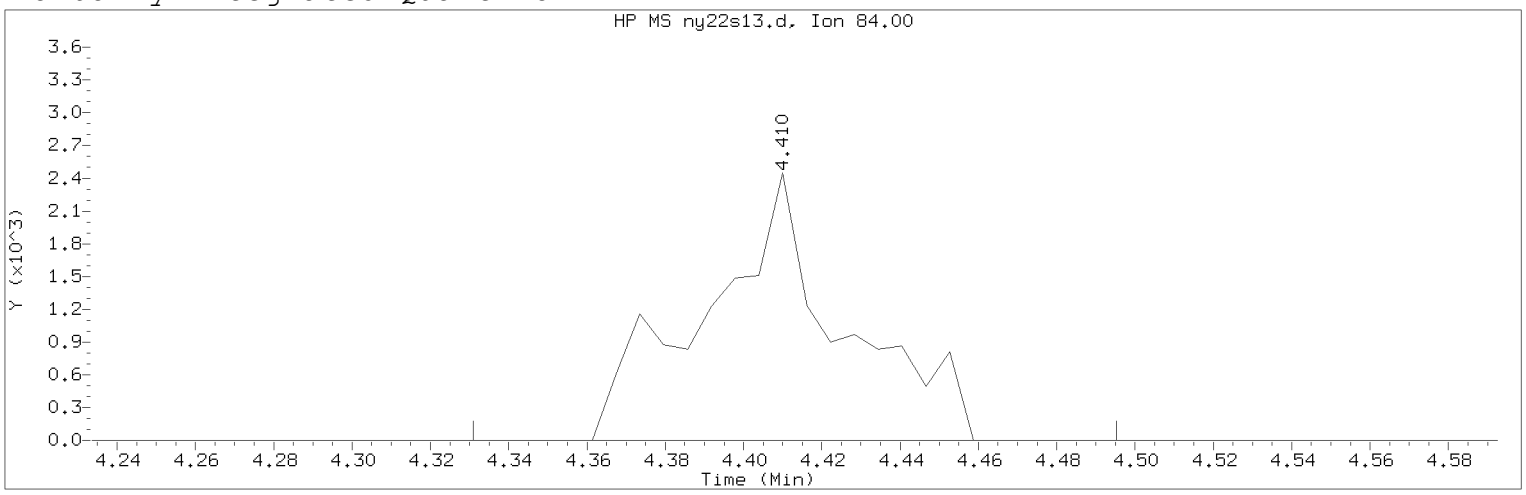
Compound Number	: 28
Compound Name	: Methylene Chloride
Scan Number	: 505
Retention Time (minutes)	: 4.410
Relative Retention Time	: 0.00030
Quant Ion	: 84.00
Area (flag)	: 5929M
On-Column Amount (ng)	: 0.8188

Digitally signed by Sara E. Johnson on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Sample Name: RS091 Lab Sample ID: 1316330

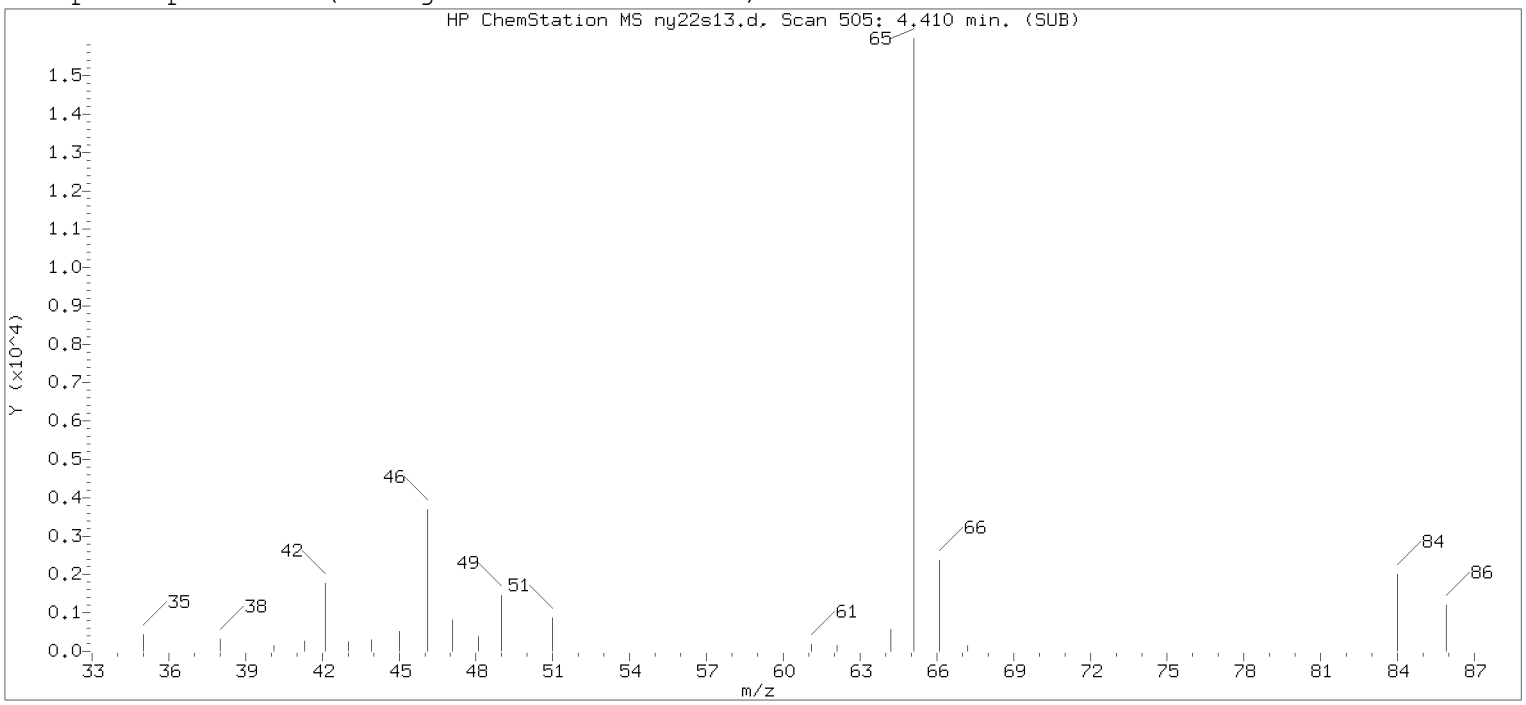
Compound Number : 28
Compound Name : Methylene Chloride
Scan Number : 505
Retention Time (minutes): 4.410
Quant Ion : 84.00
Area (flag) : 5929M
On-Column Amount (ng) : 0.8188
Integration start scan : 491 Integration stop scan: 518
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

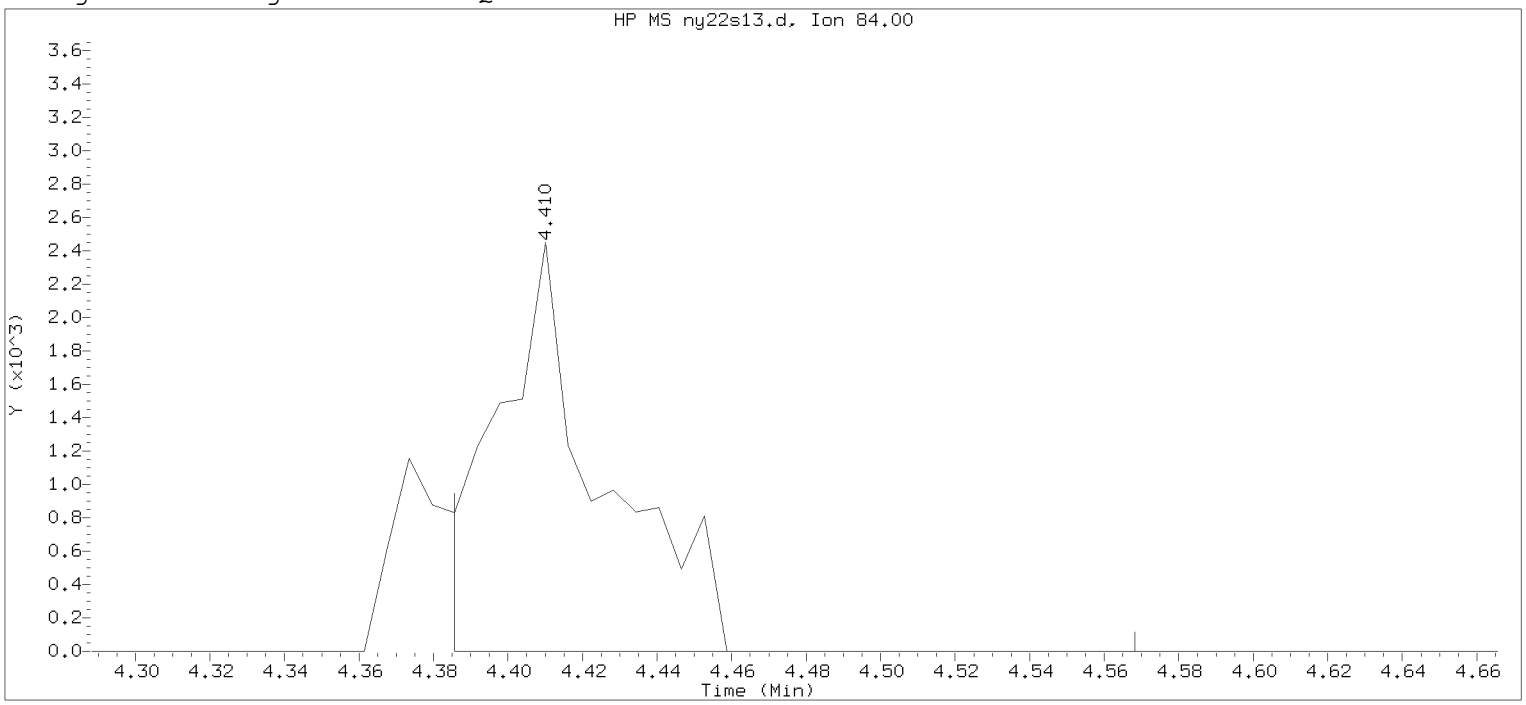
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 05/26/2020 at 17:44.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

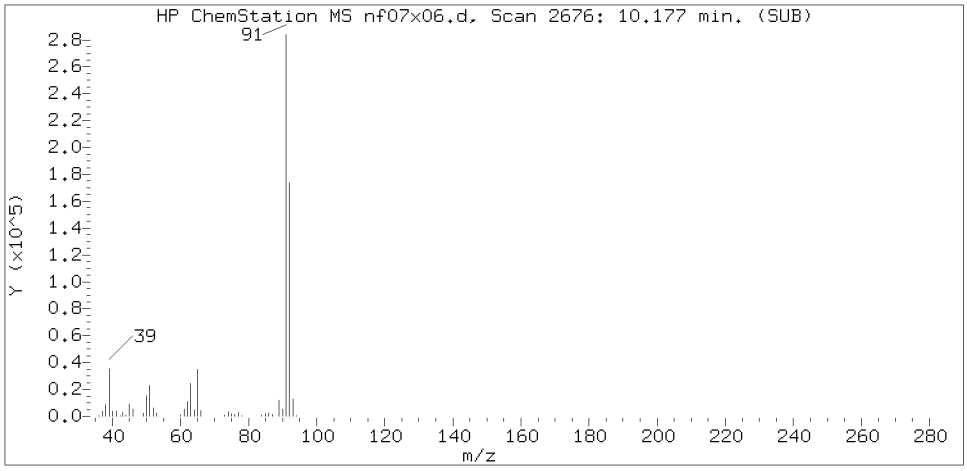
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: RS091 Lab Sample ID: 1316330

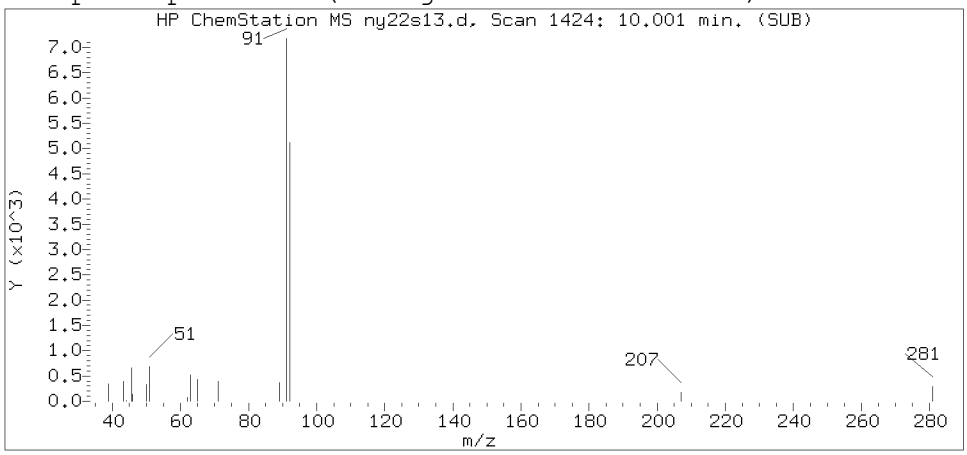
Compound Number : 28
Compound Name : Methylene Chloride
Scan Number : 505
Retention Time (minutes): 4.410
Quant Ion : 84.00
Area : 4815
On-column Amount (ng) : 0.6650
Integration start scan : 500 Integration stop scan: 530
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/26/2020 at 17:19.
Target 3.5 esignature user: Sara E. Johnson

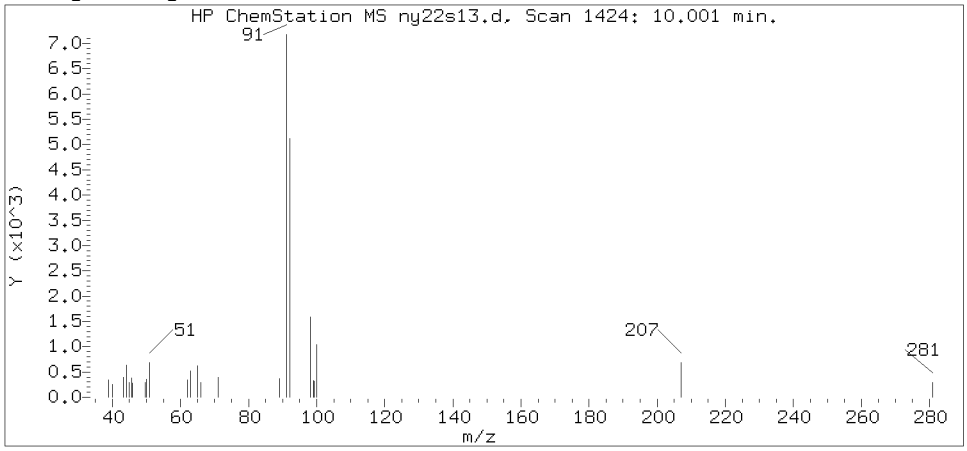
Reference Standard Spectrum for Toluene

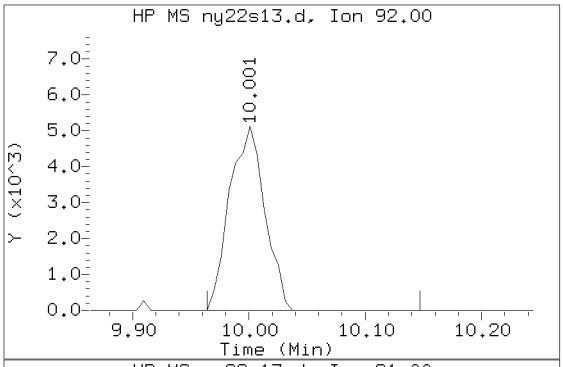


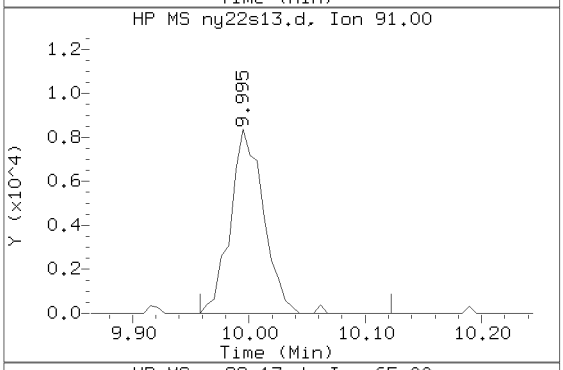
Sample Spectrum (Background Subtracted)

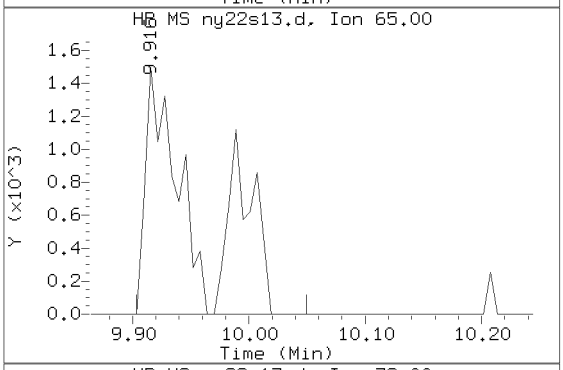


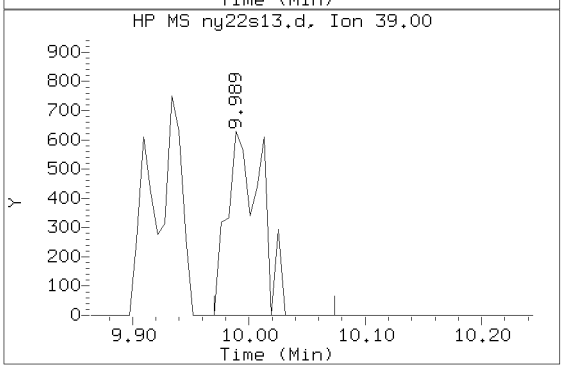
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s13.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:30 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 26-May-2020 17:17 sej02002

Sample Name: RS091 Lab Sample ID: 1316330

Compound Number : 88
Compound Name : Toluene
Scan Number : 1424
Retention Time (minutes): 10.001
Relative Retention Time :-0.00001
Quant Ion : 92.00
Area (flag) : 10739
On-Column Amount (ng) : 0.5803

Digitally signed by Sara E. Johnson on 05/26/2020 at 17:19.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RS092

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316331

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s14.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.4	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.3	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

RS092 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316331

Data file: /chem/HP07159.i/20may22a.b/ny22s14.d Injection date and time: **22-MAY-2020 16:52**
Data file Sample Info. Line: RS092;1316331;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.397	(0.024)	503	65	292921	(4)	250.00	
66) Fluorobenzene	7.926	(0.000)	1083	96	1151341	(9)	50.00	
100) Chlorobenzene-d5	11.363	(0.000)	1648	117	872417	(5)	50.00	
131) 1,4-Dichlorobenzene-d4	13.242	(0.000)	1957	152	474131	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.025	(0.001)	113	275763	48.263	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.481	(0.002)	102	71908	49.775	100%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1089211	47.871	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.360	(0.000)	95	396940	44.158	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.043	(0.000)	97	4242	0.386	0.39		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.400	(0.000)	95	2087	0.280	0.28		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:08. Target 3.5 esignature user ID: sej02002

RS092 Lancaster Laboratories 1316331
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s14.d Injection date and time: **22-MAY-2020 16:52**
Data file Sample Info. Line: RS092;1316331;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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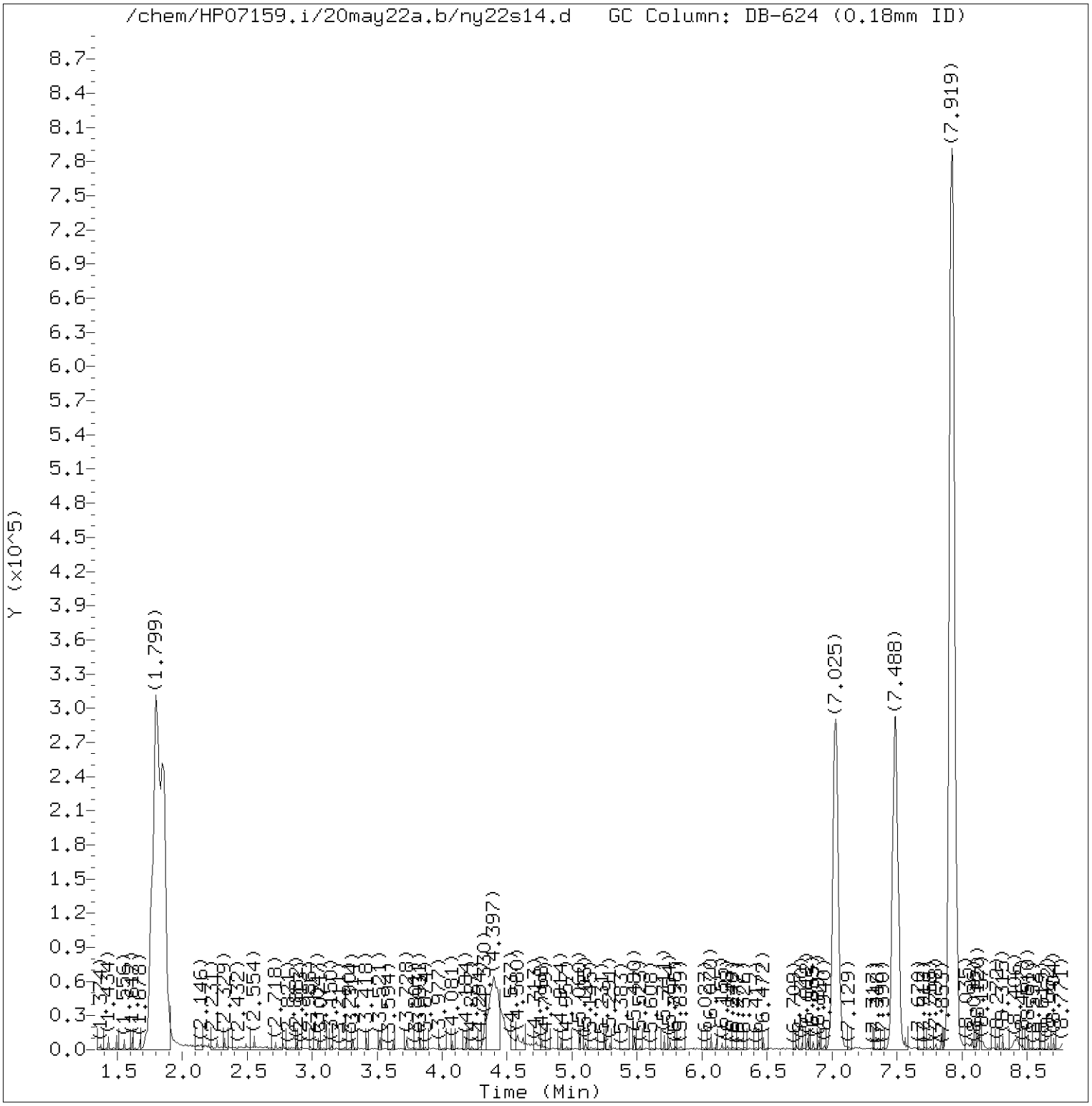
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:08. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

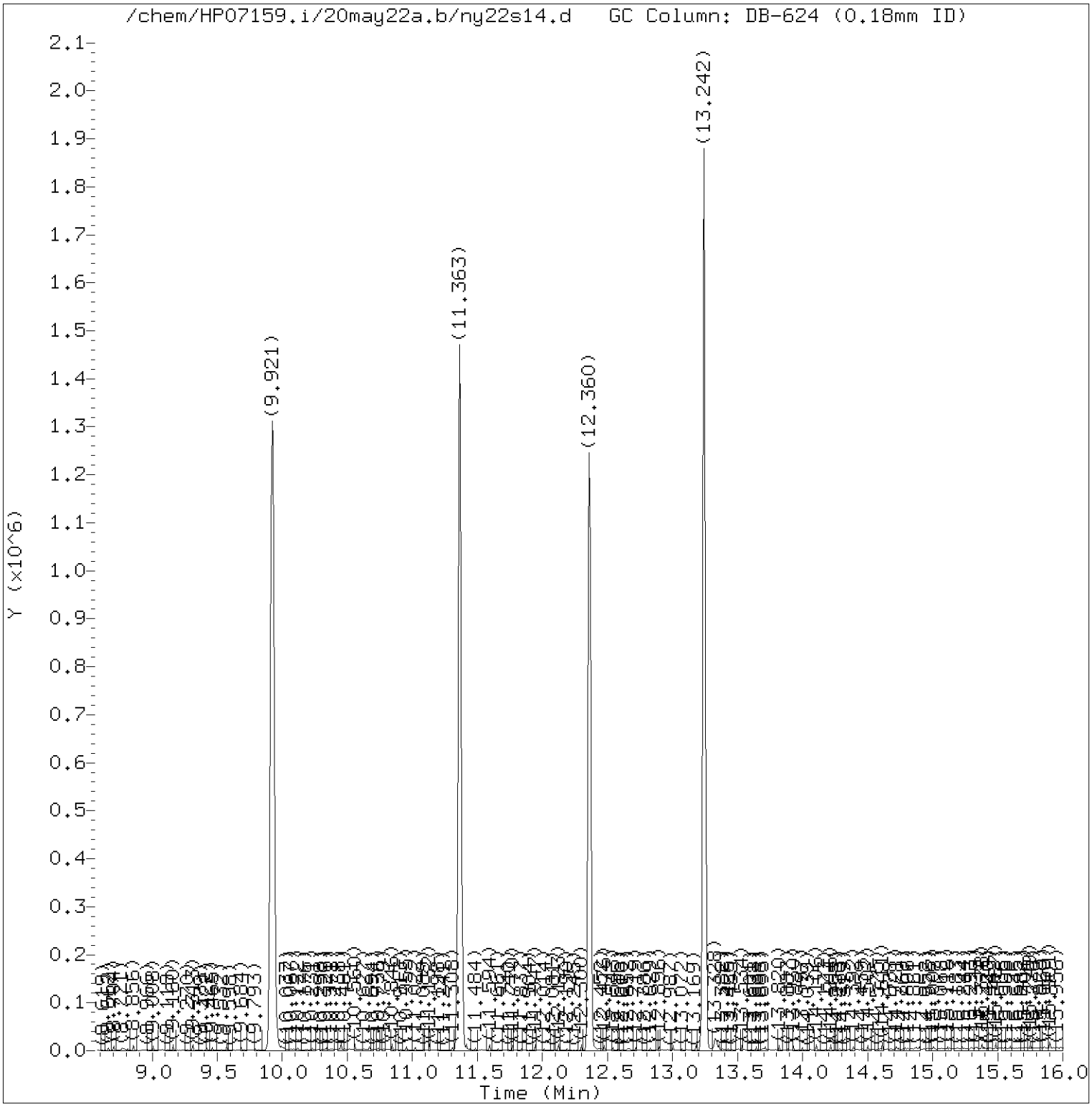
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s14.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:52 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: RS092 Lab Sample ID: 1316331

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s14.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:52 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: RS092 Lab Sample ID: 1316331

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s14.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:52 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

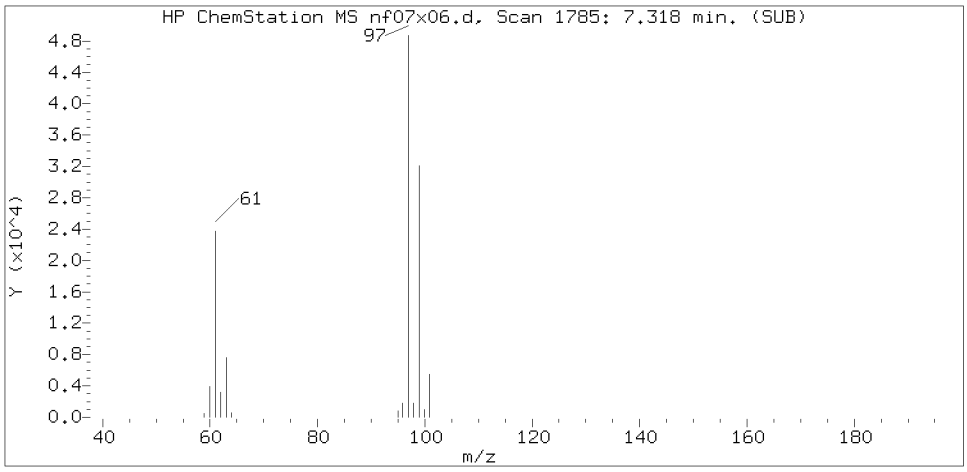
Sample Name: RS092 Lab Sample ID: 1316331

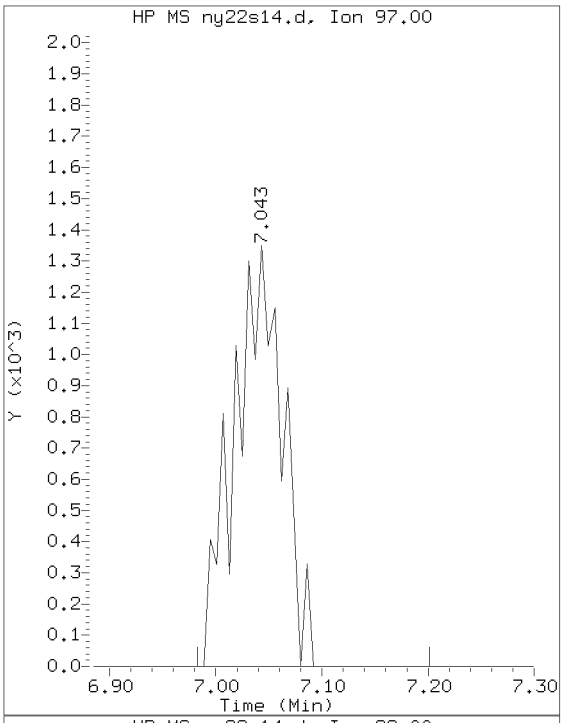
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.397	65	292921	250.000
52)$Dibromofluoromethane	(2)	7.025	113	275763	48.263
53) 1,1,1-Trichloroethane	(2)	7.043	97	4242	0.386
57)$1,2-Dichloroethane-d4	(2)	7.481	102	71908	49.775
66)*Fluorobenzene	(2)	7.926	96	1151341	50.000
71) Trichloroethene	(2)	8.400	95	2087	0.280
83)$Toluene-d8	(3)	9.921	98	1089211	47.871
100)*Chlorobenzene-d5	(3)	11.363	117	872417	50.000
114)$4-Bromofluorobenzene	(3)	12.360	95	396940	44.158
131)*1,4-Dichlorobenzene-d4	(4)	13.242	152	474131	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

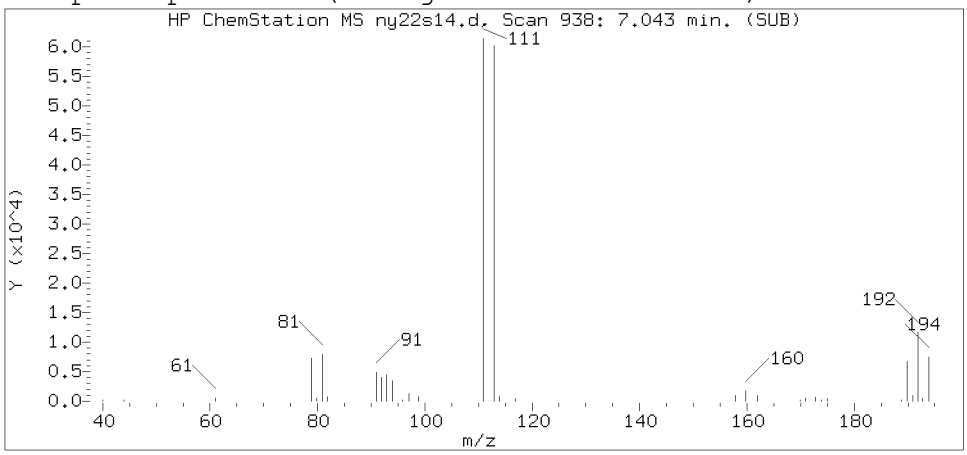
Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002

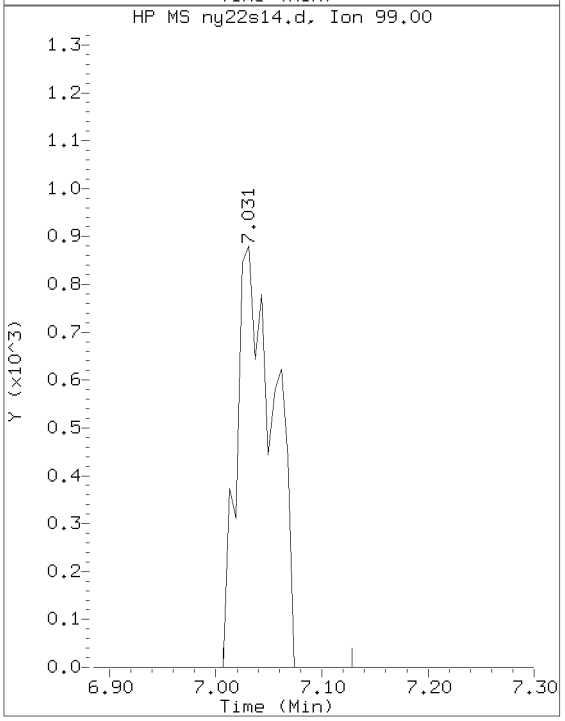
Reference Standard Spectrum for 1,1,1-Trichloroethane



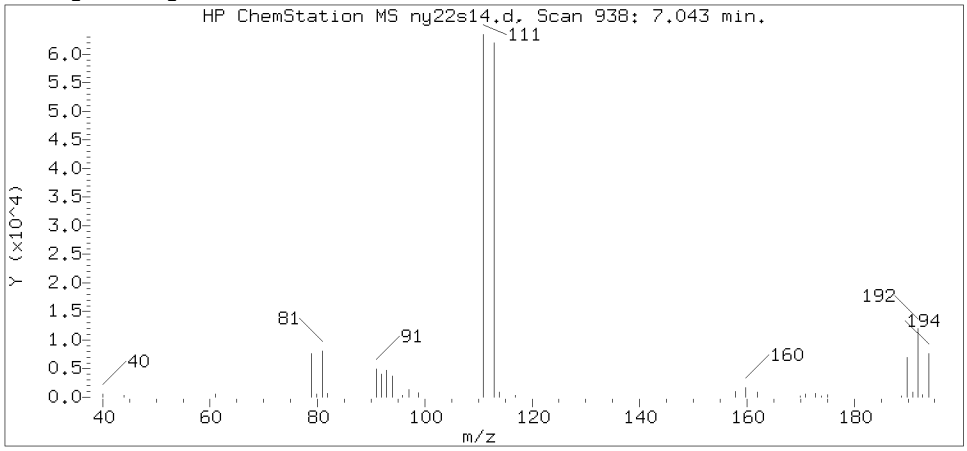


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s14.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:52 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: RS092 Lab Sample ID: 1316331

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 938
Retention Time (minutes)	: 7.043
Relative Retention Time	: 0.00000
Quant Ion	: 97.00
Area (flag)	: 4242
On-Column Amount (ng)	: 0.3857

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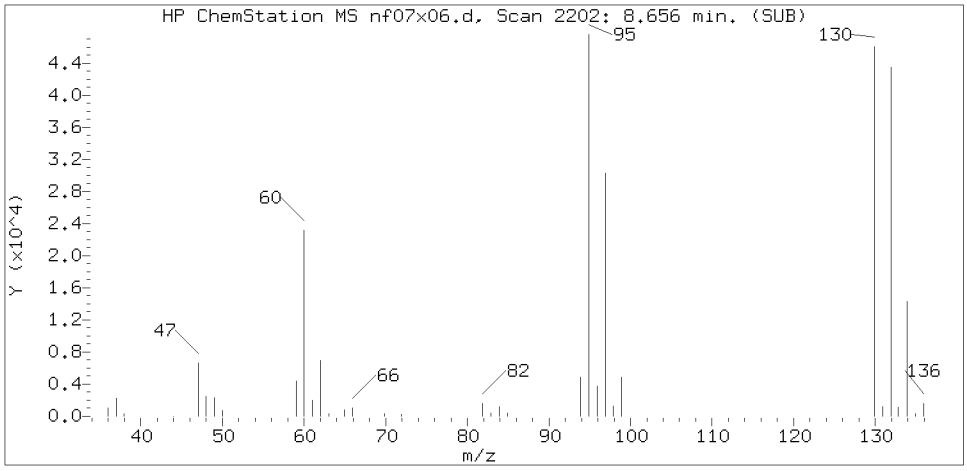
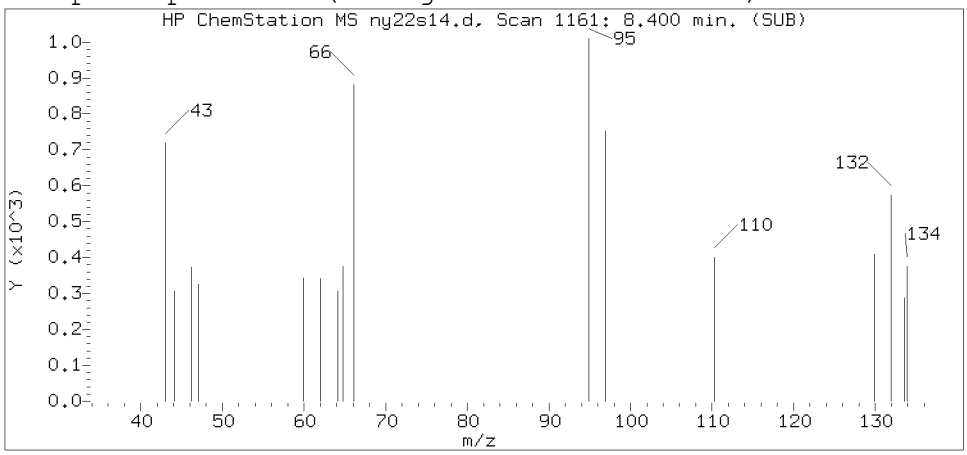
Target 3.5 esignature user ID: sej02092

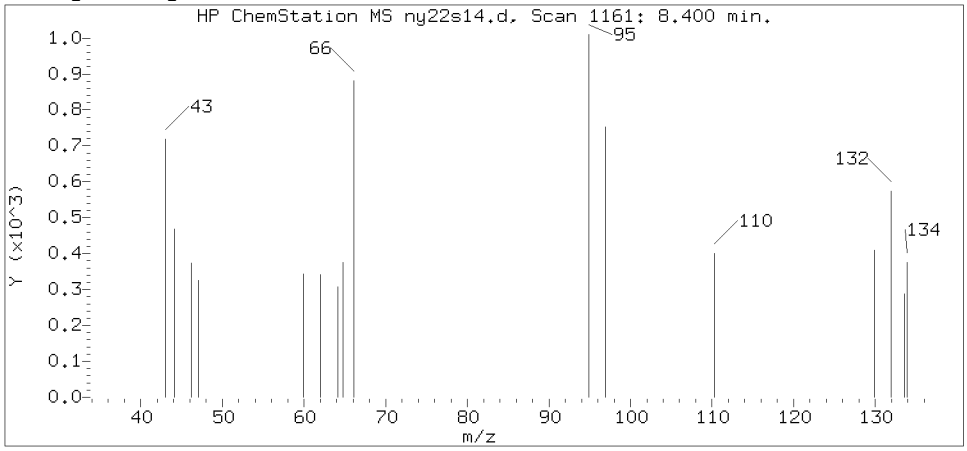
Reference Standard Spectrum for Trichloroethene

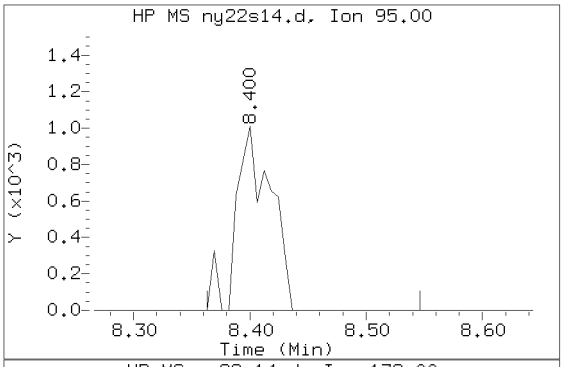


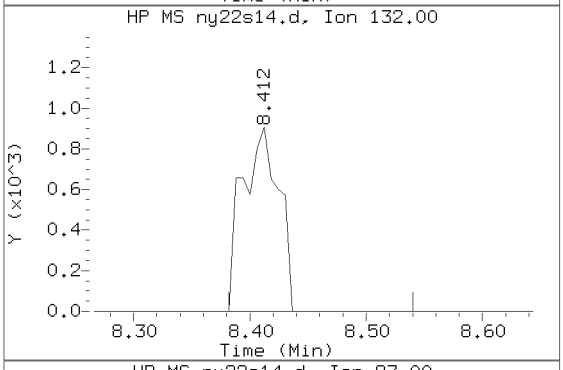
Sample Spectrum (Background Subtracted)

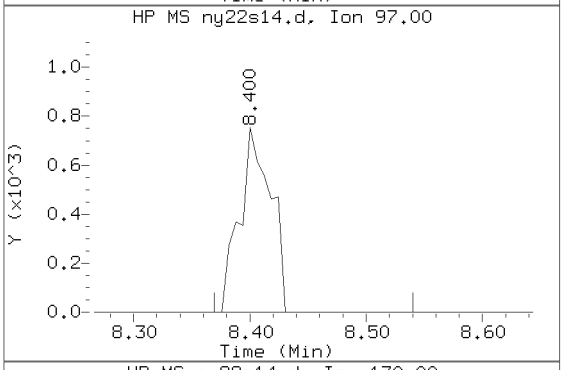


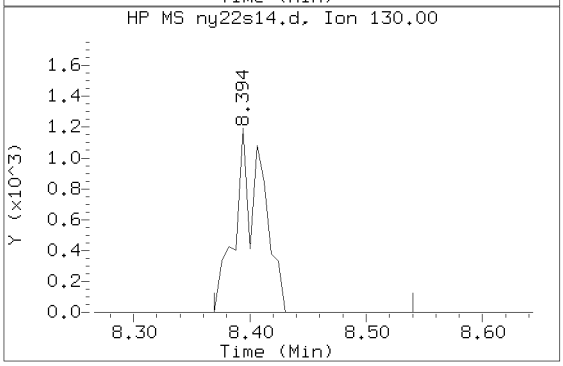
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s14.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 16:52 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:33 Automation

Sample Name: RS092 Lab Sample ID: 1316331

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1161
Retention Time (minutes)	: 8.400
Relative Retention Time	: 0.00077
Quant Ion	: 95.00
Area (flag)	: 2087
On-Column Amount (ng)	: 0.2798

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Target 3.5 esignature user ID: sej02092

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RS093

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316332

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s15.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	0.7	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.3	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.5	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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RS093 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316332

Data file: /chem/HP07159.i/20may22a.b/ny22s15.d Injection date and time: **22-MAY-2020 17:14**
Data file Sample Info. Line: RS093;1316332;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.401	(0.021)	503	65	305023	(8)	250.00	
66) Fluorobenzene	7.917	(0.009)	1081	96	1157387	(10)	50.00	
100) Chlorobenzene-d5	11.366	(-0.003)	1648	117	884326	(6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.240	(0.003)	1956	152	474359	(-4)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.029	(-0.001)	113	276738	48.181	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.485	(0.000)	102	73148	50.369	101%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1097291	47.576	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.358	(0.001)	95	400345	43.937	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.744	(-0.004)	58	638	0.732	0.73		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.028	(0.000)	97	3453	0.312	0.31		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.391	(0.000)	95	4101	0.547	0.55		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem/HP07159.i/20may22a.b/ny22s15.d Injection date and time: **22-MAY-2020 17:14**
Data file Sample Info. Line: RS093;1316332;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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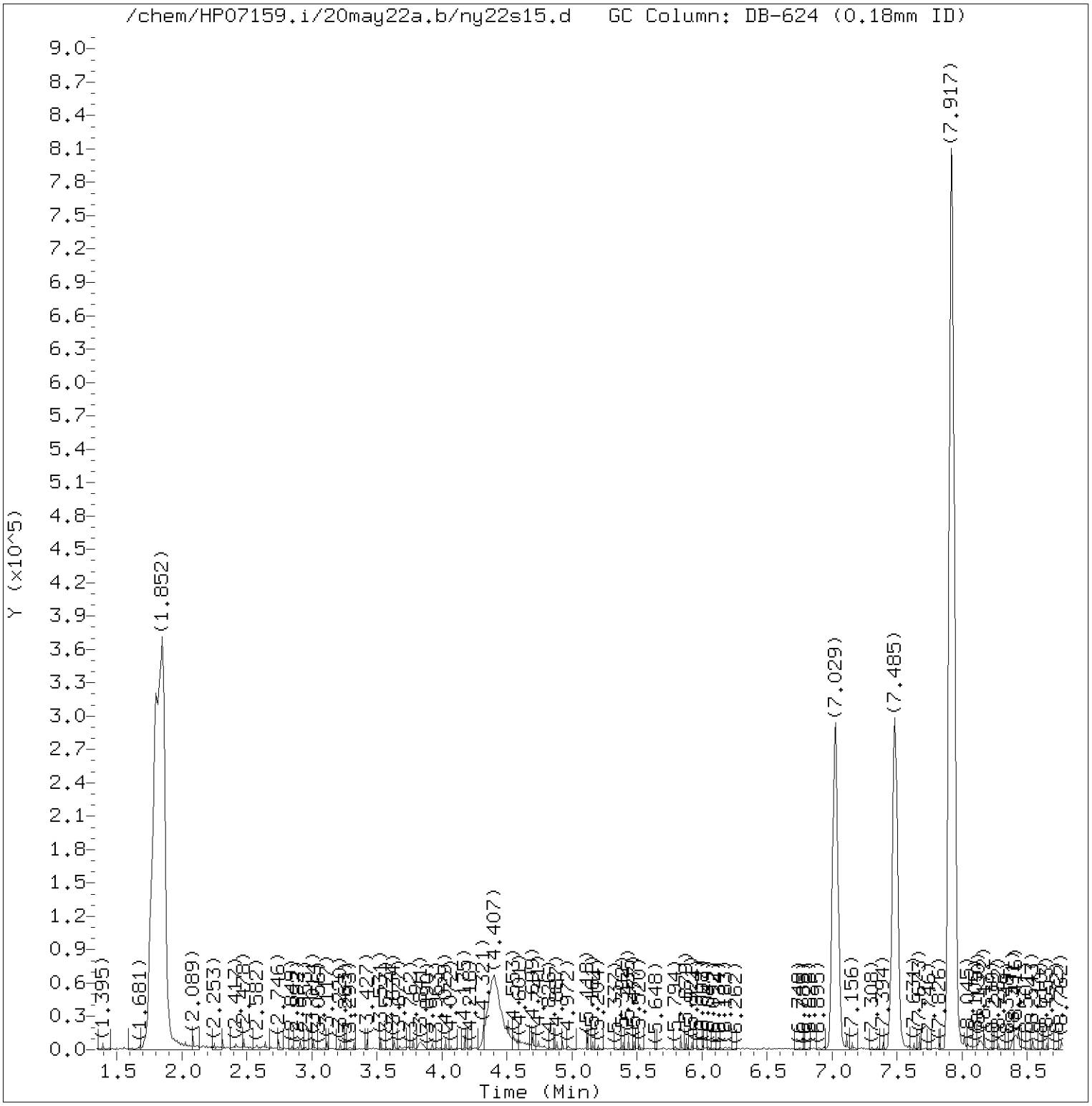
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:08. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

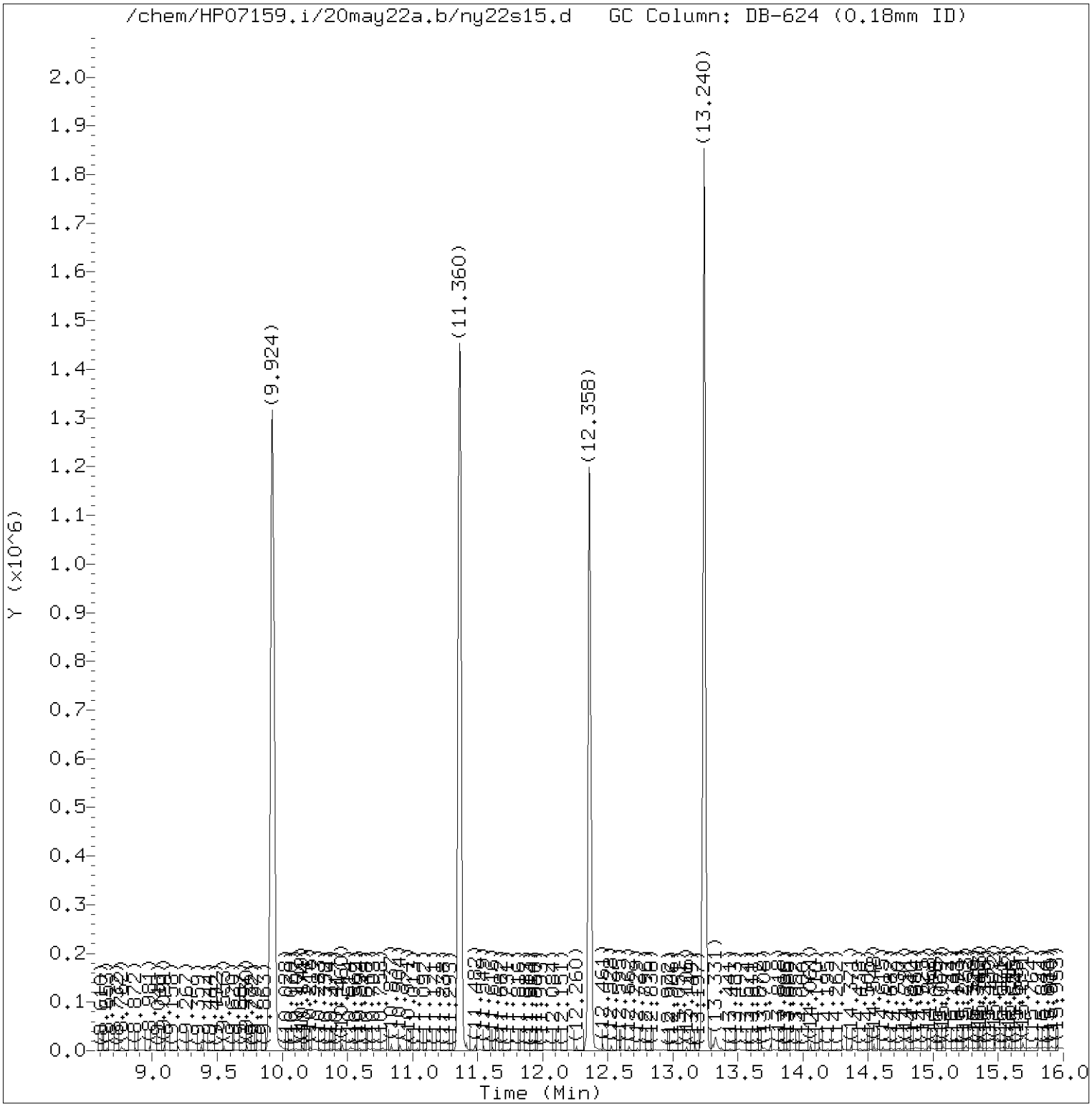
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS093 Lab Sample ID: 1316332

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS093 Lab Sample ID: 1316332

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS093 Lab Sample ID: 1316332

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.744	58	638	0.732
29)*t-Butyl alcohol-d10	(1)	4.401	65	305023	250.000
53) 1,1,1-Trichloroethane	(2)	7.029	97	3453	0.312
52)$Dibromofluoromethane	(2)	7.029	113	276738	48.181
57)$1,2-Dichloroethane-d4	(2)	7.485	102	73148	50.369
66)*Fluorobenzene	(2)	7.917	96	1157387	50.000
71) Trichloroethene	(2)	8.391	95	4101	0.547
83)$Toluene-d8	(3)	9.924	98	1097291	47.576
100)*Chlorobenzene-d5	(3)	11.366	117	884326	50.000
114)$4-Bromofluorobenzene	(3)	12.358	95	400345	43.937
131)*1,4-Dichlorobenzene-d4	(4)	13.240	152	474359	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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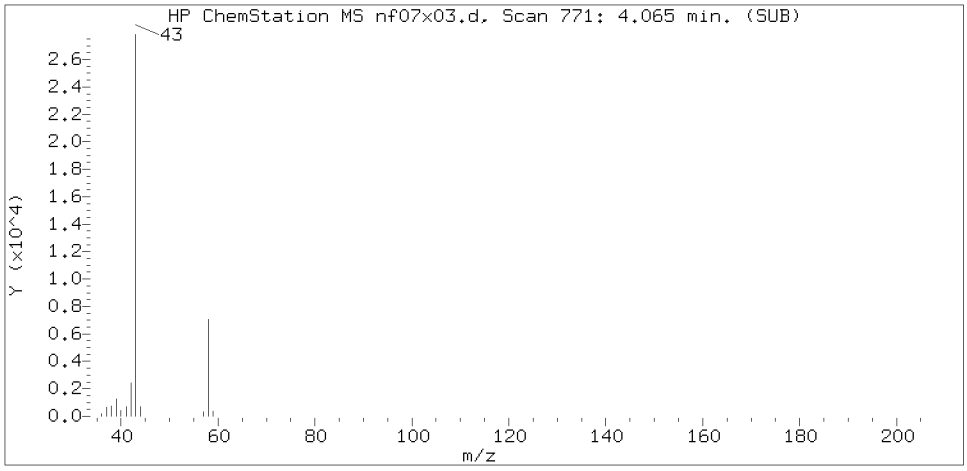
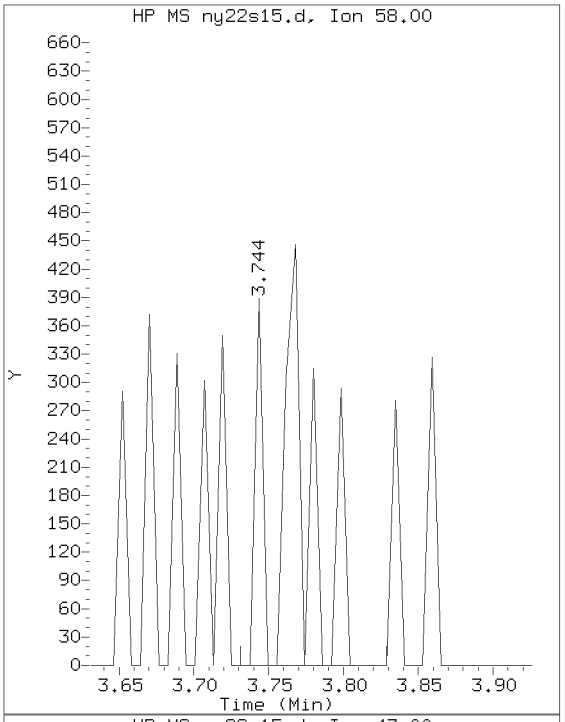
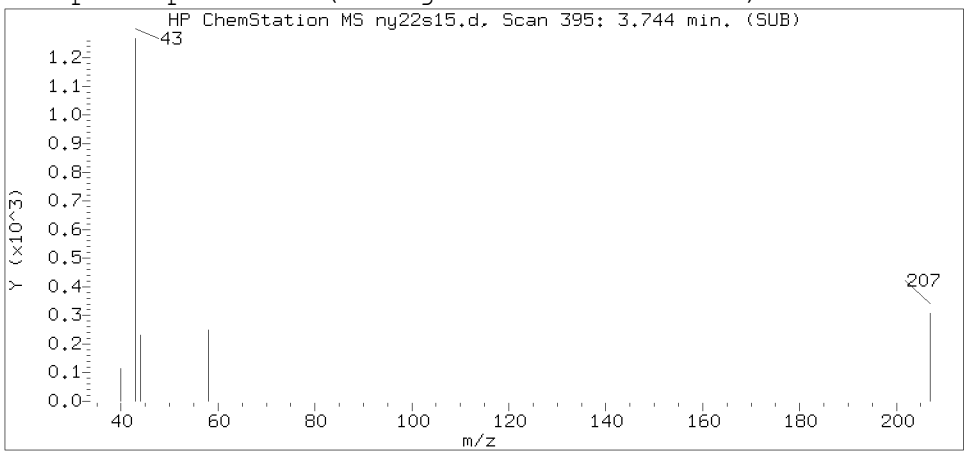
on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002

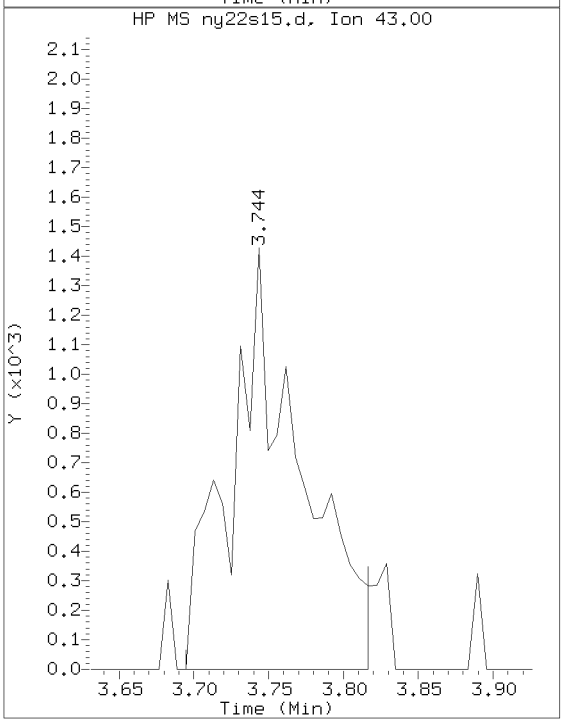
Reference Standard Spectrum for Acetone



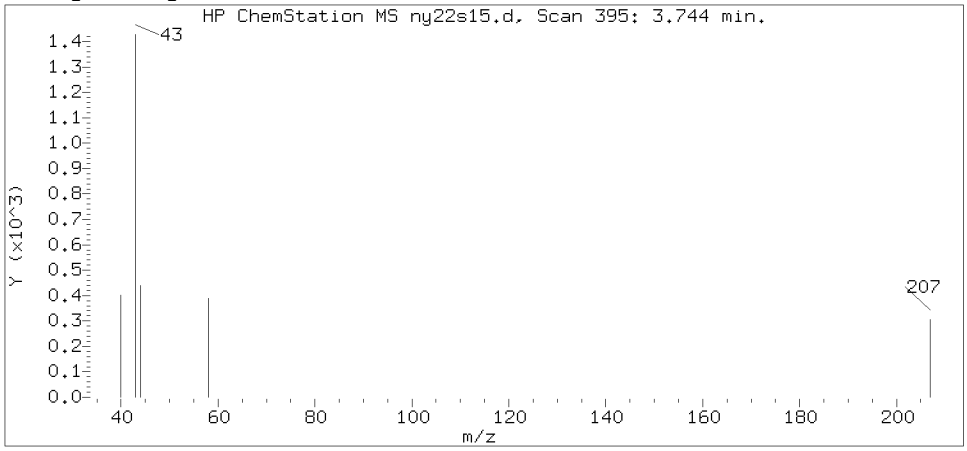


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

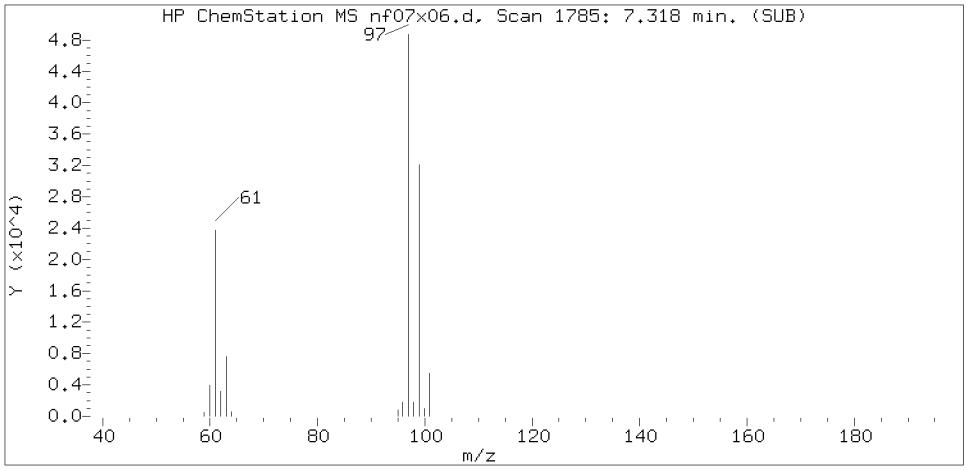
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

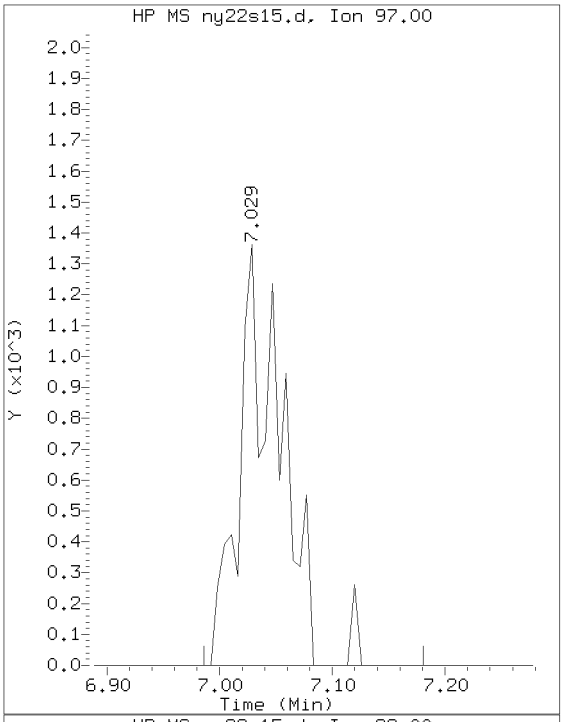
Sample Name: RS093 Lab Sample ID: 1316332

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 395
Retention Time (minutes)	: 3.744
Relative Retention Time	:-0.00480
Quant Ion	: 58.00
Area (flag)	: 638
On-Column Amount (ng)	: 0.7324

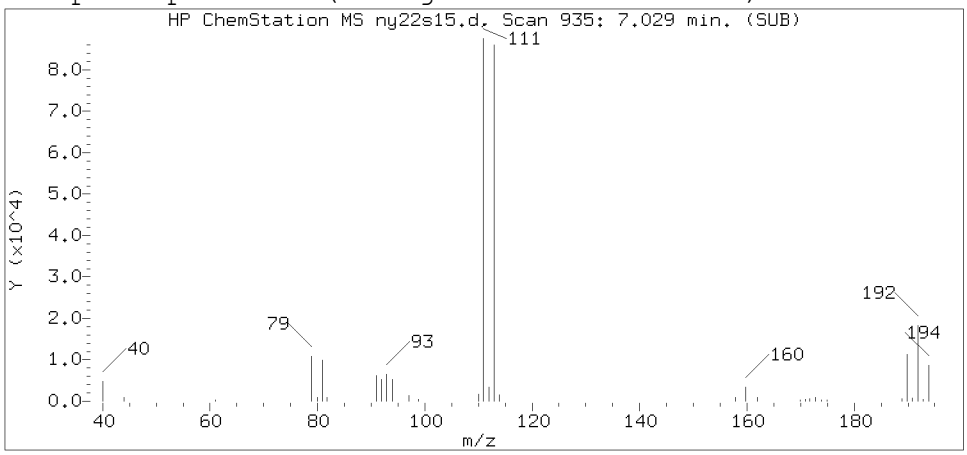
Digitally signed by Sara E. Johnson on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02093

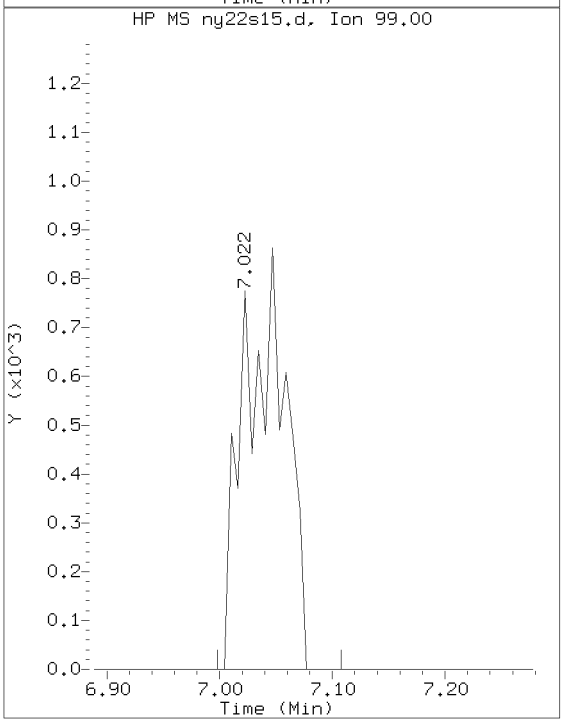
Reference Standard Spectrum for 1,1,1-Trichloroethane



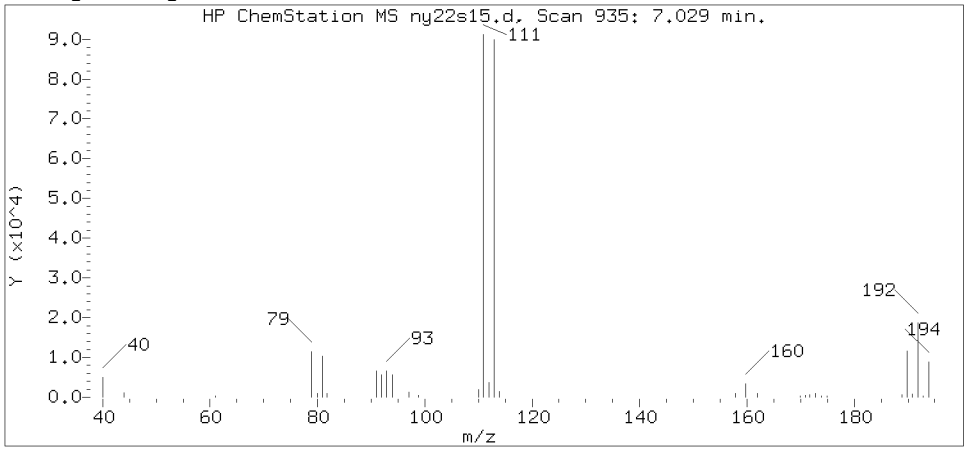


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

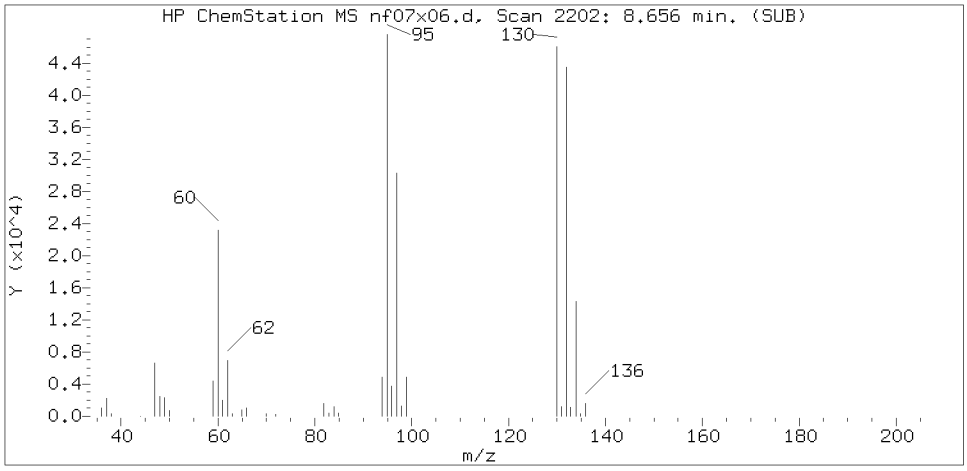
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS093 Lab Sample ID: 1316332

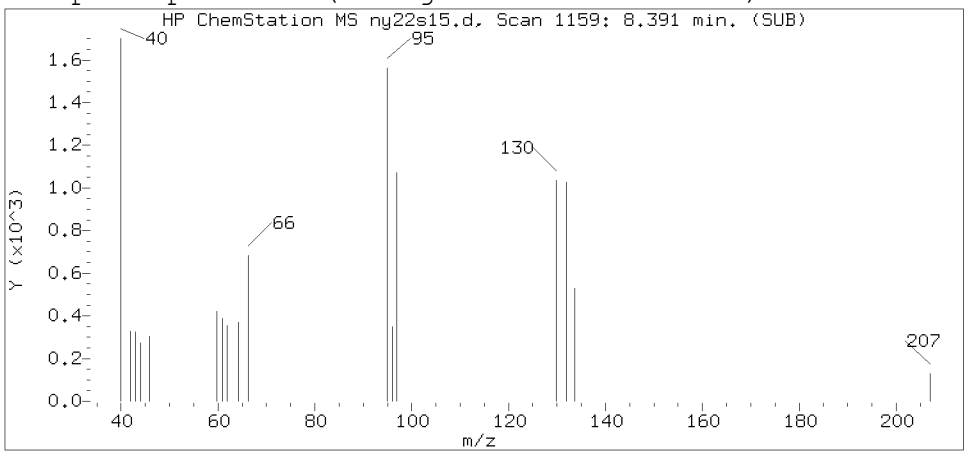
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 935
Retention Time (minutes)	: 7.029
Relative Retention Time	: 0.00089
Quant Ion	: 97.00
Area (flag)	: 3453
On-Column Amount (ng)	: 0.3124

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:08.
Target 3.5 esignature user ID: sej02002

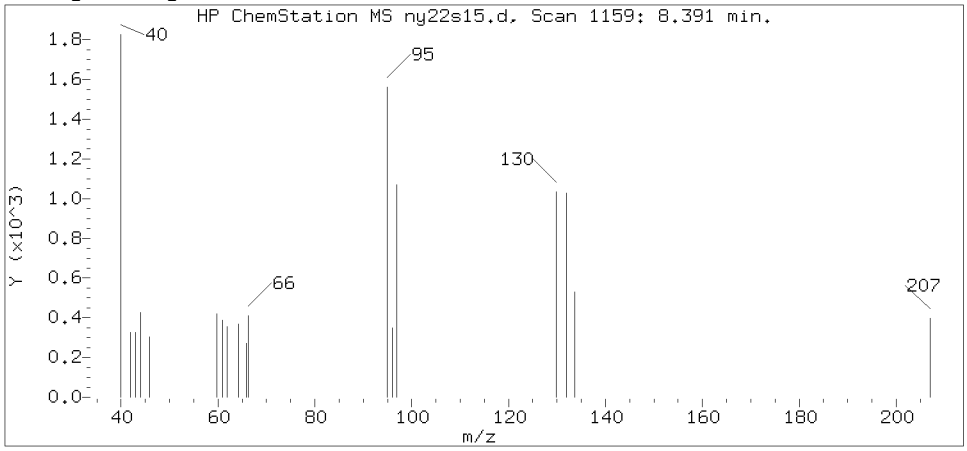
Reference Standard Spectrum for Trichloroethene

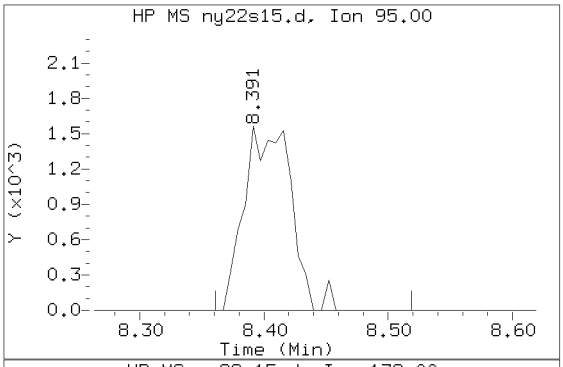


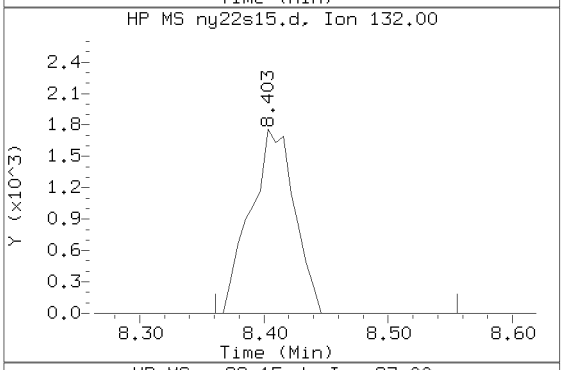
Sample Spectrum (Background Subtracted)

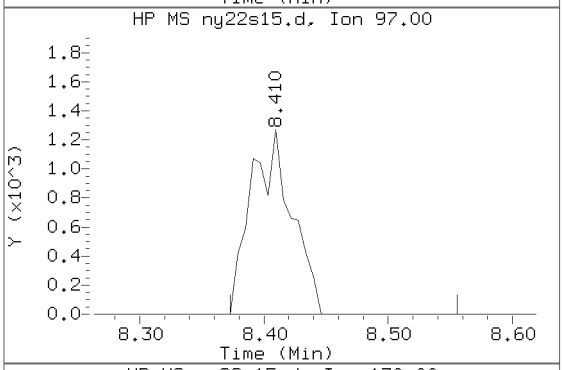


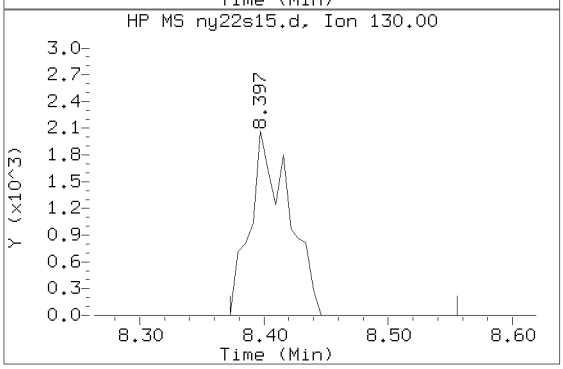
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s15.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:14 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS093 Lab Sample ID: 1316332

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1159
Retention Time (minutes)	: 8.391
Relative Retention Time	: 0.00070
Quant Ion	: 95.00
Area (flag)	: 4101
On-Column Amount (ng)	: 0.5469

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Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RS094

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316333

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s16.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.6	J
156-59-2	cis-1,2-Dichloroethene	0.8	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	2	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	8	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.8	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

RS094 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316333

Data file: /chem/HP07159.i/20may22a.b/ny22s16.d Injection date and time: **22-MAY-2020 17:36**
Data file Sample Info. Line: RS094;1316333;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.397	(0.024)	503	65	287917	(2)	250.00	
66) Fluorobenzene	7.925	(0.000)	1083	96	1157179	(10)	50.00	
100) Chlorobenzene-d5	11.363	(0.000)	1648	117	882870	(6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.242	(0.000)	1957	152	473115	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.031	(0.000)	113	276034	48.067	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.494	(0.000)	102	72111	49.663	99%		80 - 120
83) Toluene-d8	(3)	9.927	(-0.001)	98	1096969	47.641	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.360	(0.000)	95	399389	43.904	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.504	(-0.000)	63	6905	0.551	0.55		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.332	(0.000)	96	6295	0.807	0.81		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.043	(0.000)	97	19066	1.725	1.72			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.406	(-0.000)	95	58022	7.738	7.74			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.541	(0.000)	166	6691	0.817	0.82		J	0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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RS094 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316333

Data file: /chem/HP07159.i/20may22a.b/ny22s16.d Injection date and time: **22-MAY-2020 17:36**
Data file Sample Info. Line: RS094;1316333;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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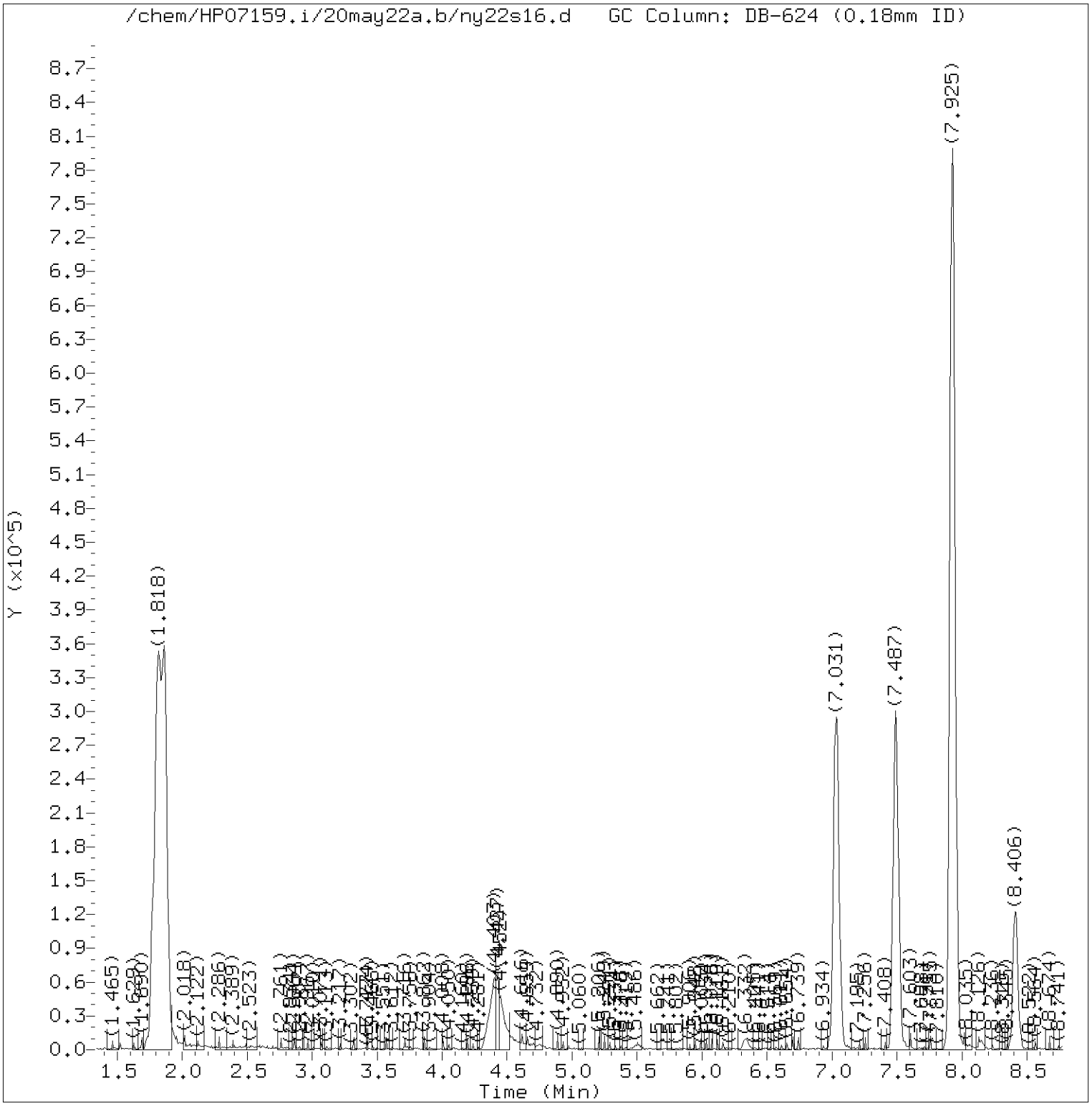
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:09. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

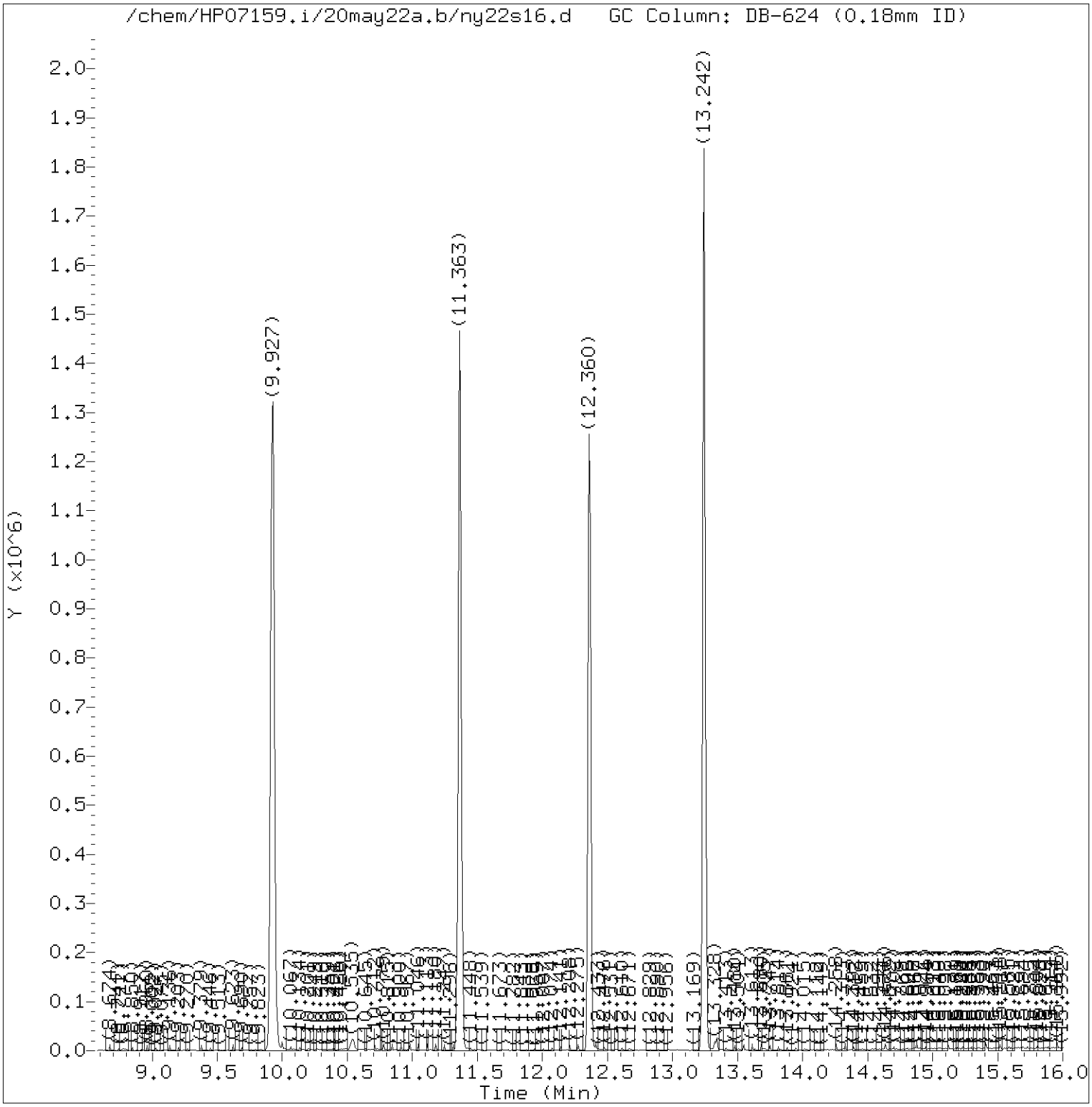
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:09.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:09.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.397	65	287917	250.000
36) 1,1-Dichloroethane	(2)	5.504	63	6905	0.551
42) cis-1,2-Dichloroethene	(2)	6.332	96	6295	0.807
52)$Dibromofluoromethane	(2)	7.031	113	276034	48.067
53) 1,1,1-Trichloroethane	(2)	7.043	97	19066	1.725
57)$1,2-Dichloroethane-d4	(2)	7.494	102	72111	49.663
66)*Fluorobenzene	(2)	7.925	96	1157179	50.000
71) Trichloroethene	(2)	8.406	95	58022	7.738
83)$Toluene-d8	(3)	9.927	98	1096969	47.641
93) Tetrachloroethene	(3)	10.541	166	6691	0.817
100)*Chlorobenzene-d5	(3)	11.363	117	882870	50.000
114)$4-Bromofluorobenzene	(3)	12.360	95	399389	43.904
131)*1,4-Dichlorobenzene-d4	(4)	13.242	152	473115	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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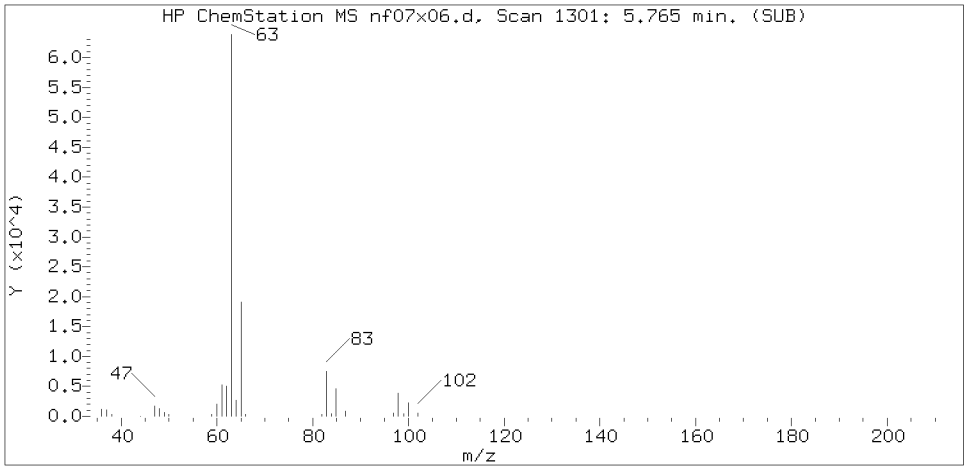
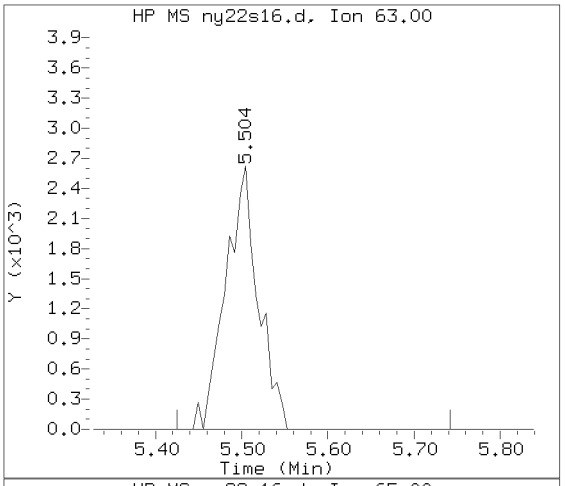
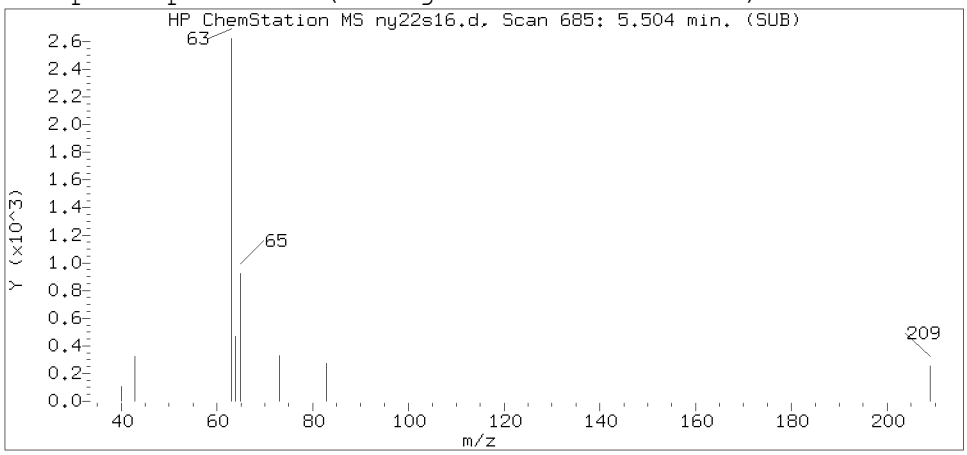
on 05/22/2020 at 21:09.
Target 3.5 esignature user ID: sej02002

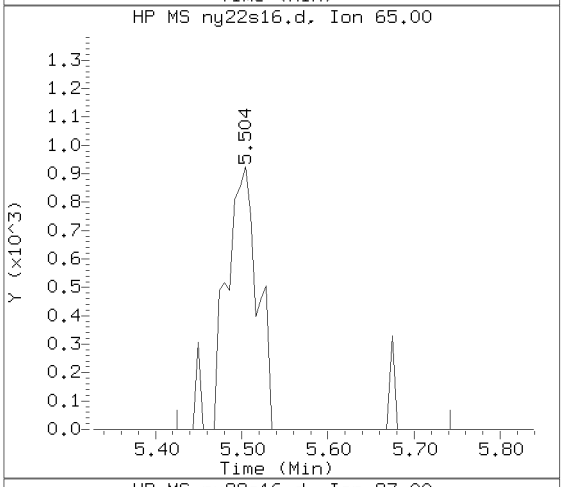
Reference Standard Spectrum for 1,1-Dichloroethane



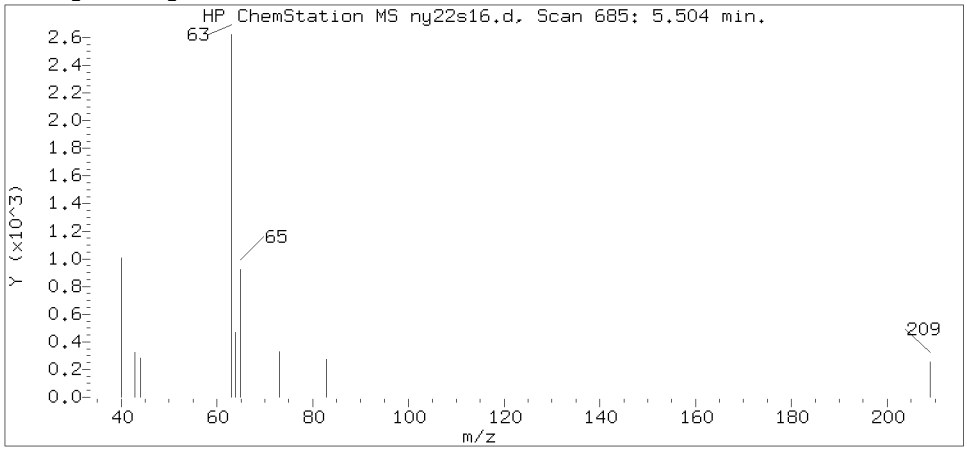


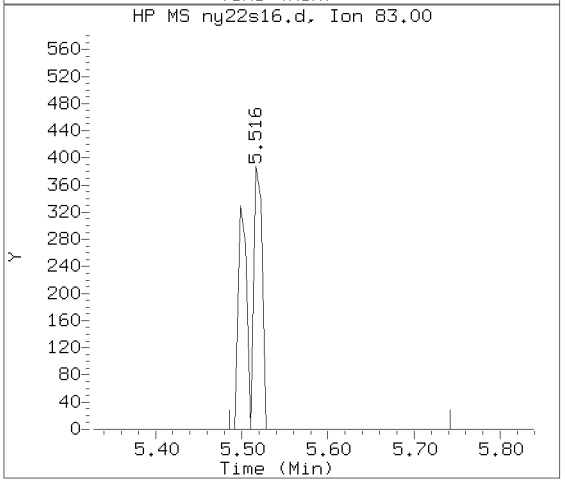
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

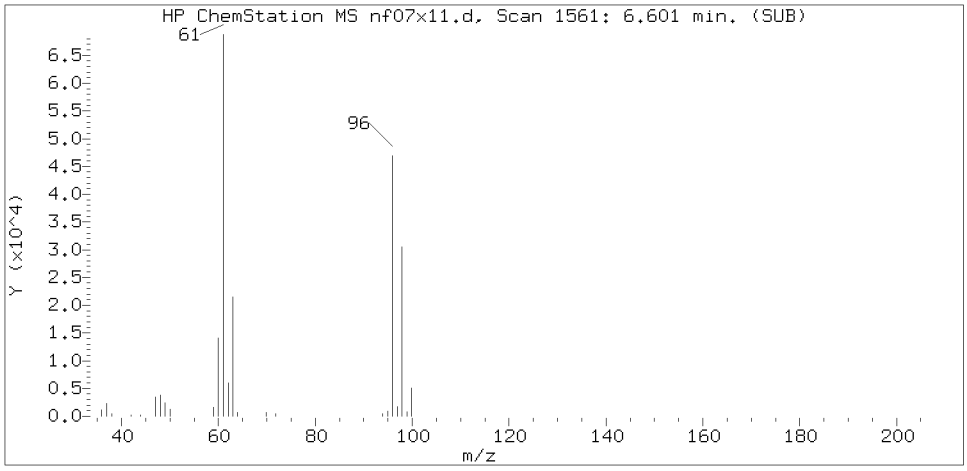
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

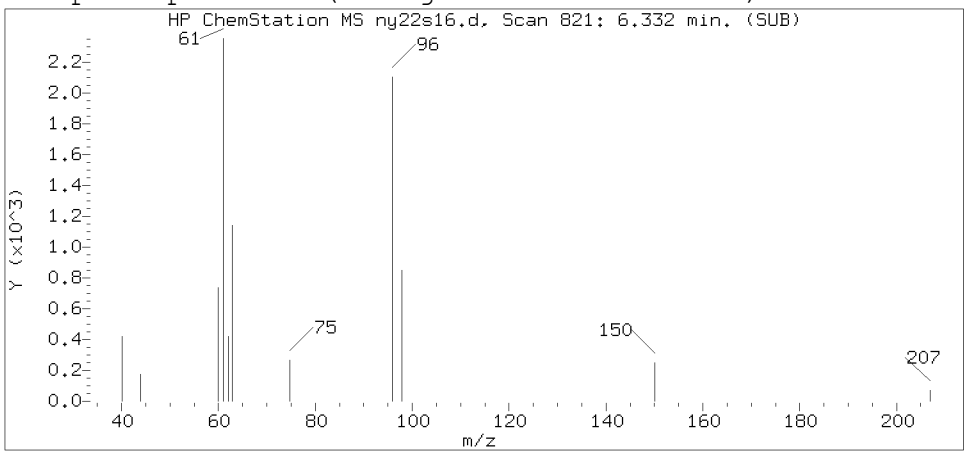
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 685
Retention Time (minutes): 5.504
Relative Retention Time :-0.00076
Quant Ion : 63.00
Area (flag) : 6905
On-Column Amount (ng) : 0.5512

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:09.
Target 3.5 esignature user ID: sej02002

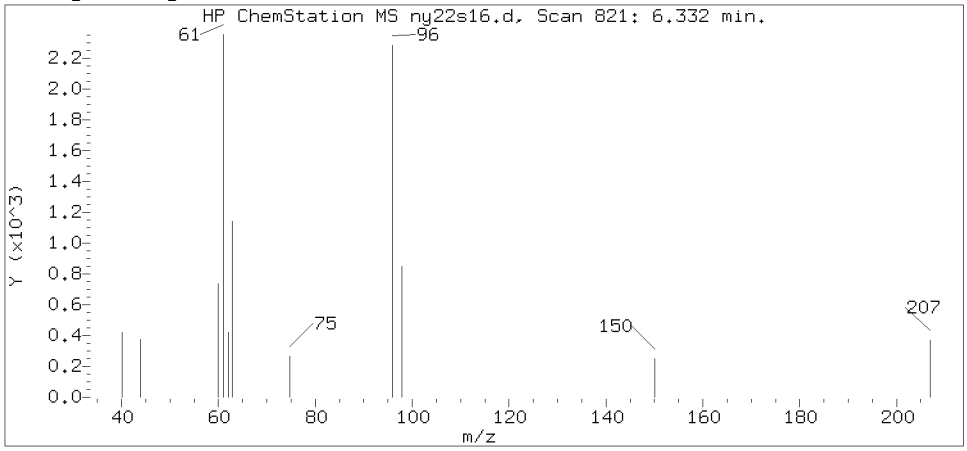
Reference Standard Spectrum for cis-1,2-Dichloroethene

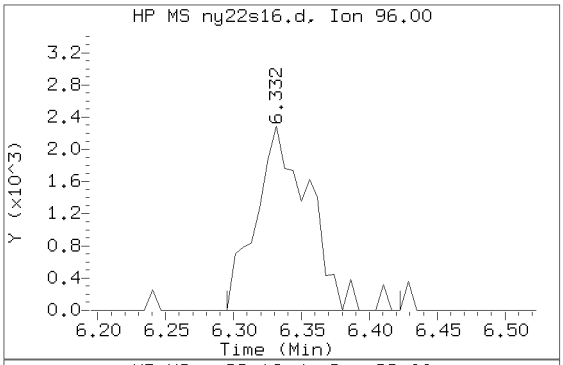


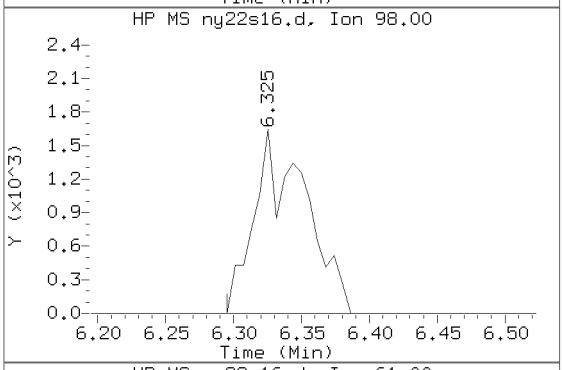
Sample Spectrum (Background Subtracted)

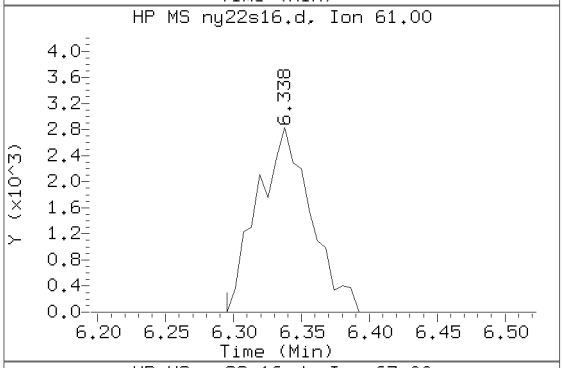


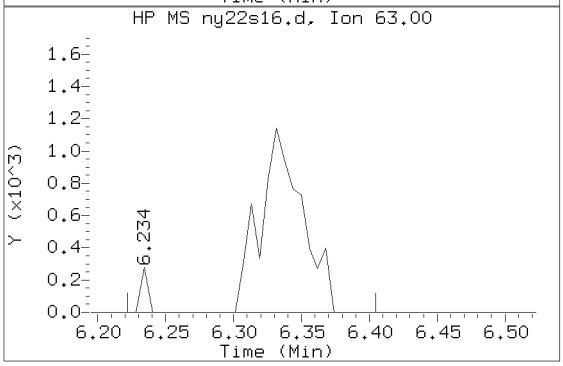
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 821
Retention Time (minutes): 6.332
Relative Retention Time : 0.00000
Quant Ion : 96.00
Area (flag) : 6295
On-Column Amount (ng) : 0.8071

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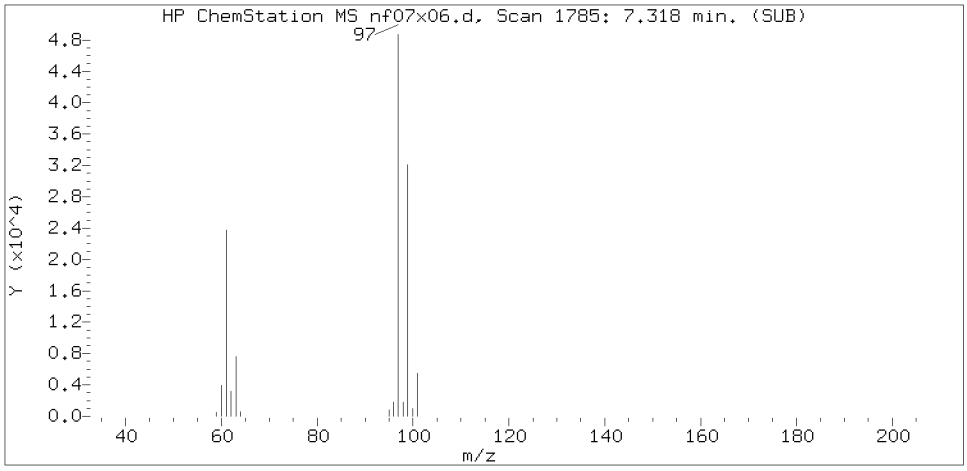
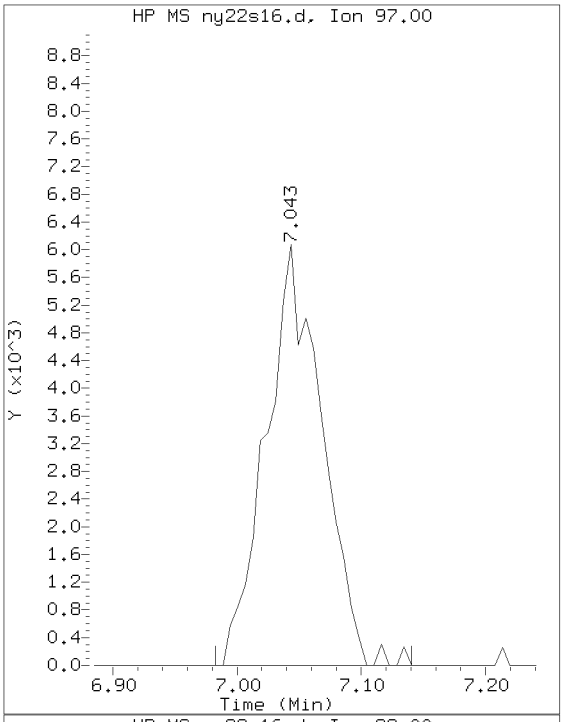
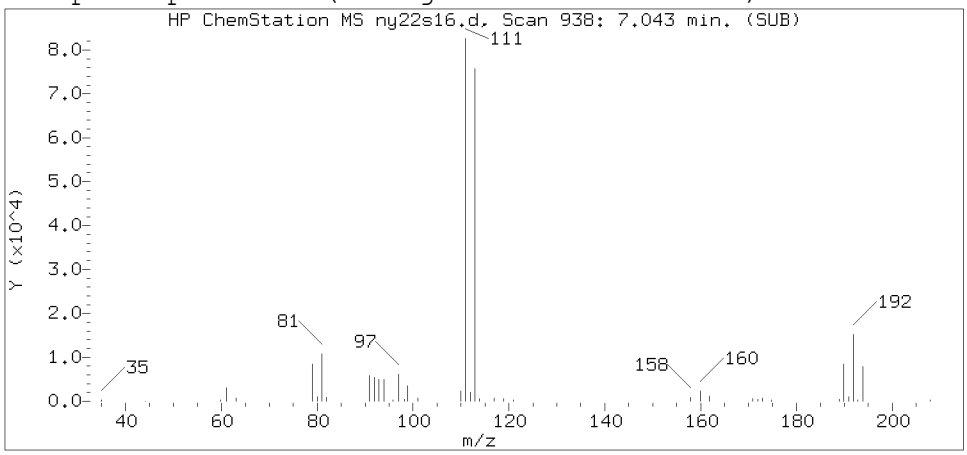
Target 3.5 esignature user ID: sej02002

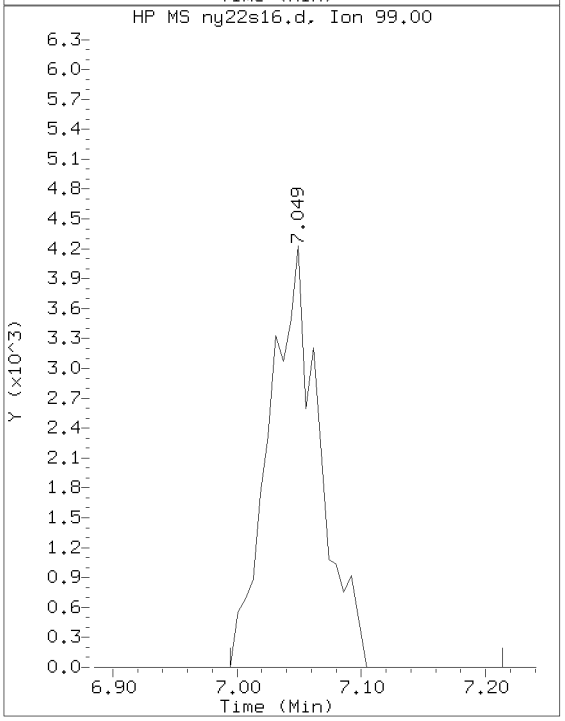
Reference Standard Spectrum for 1,1,1-Trichloroethane



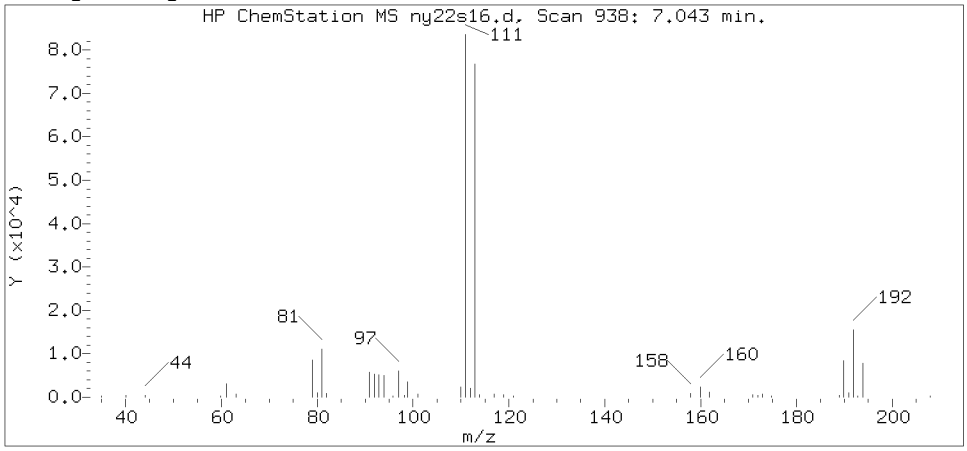


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 938
Retention Time (minutes)	: 7.043
Relative Retention Time	: 0.00000
Quant Ion	: 97.00
Area (flag)	: 19066
On-Column Amount (ng)	: 1.7247

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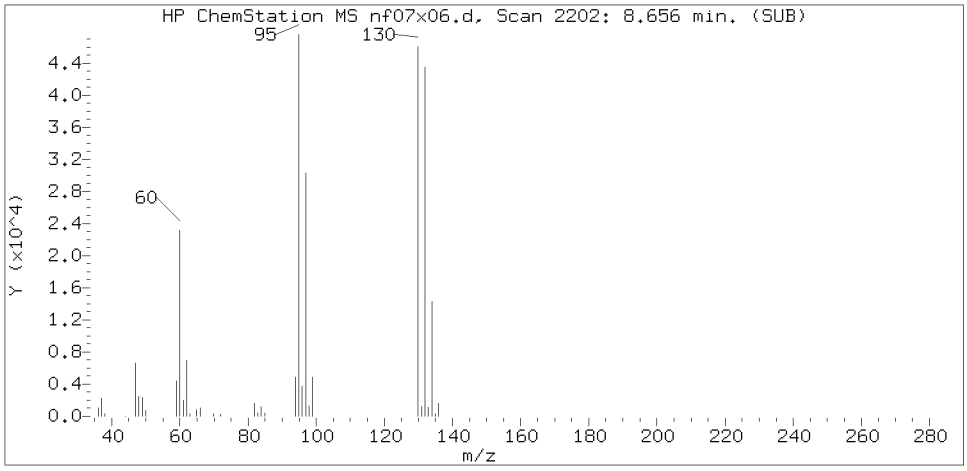
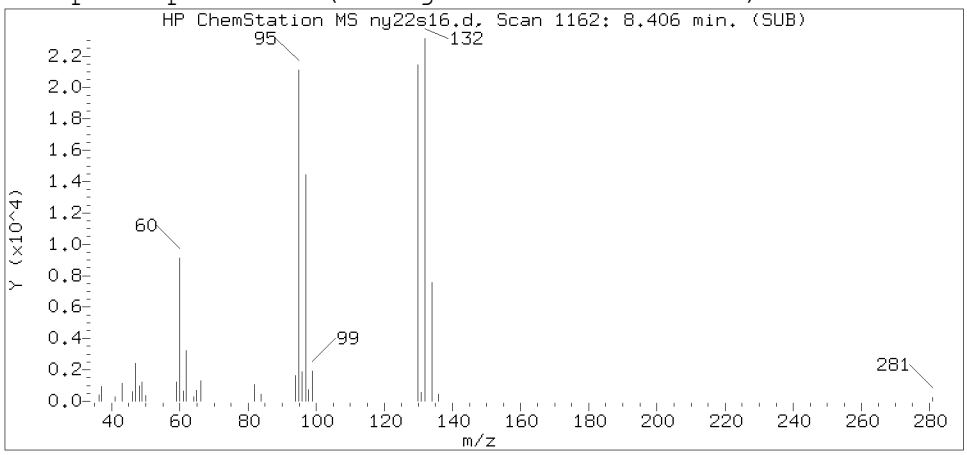
Target 3.5 esignature user ID: sej02002

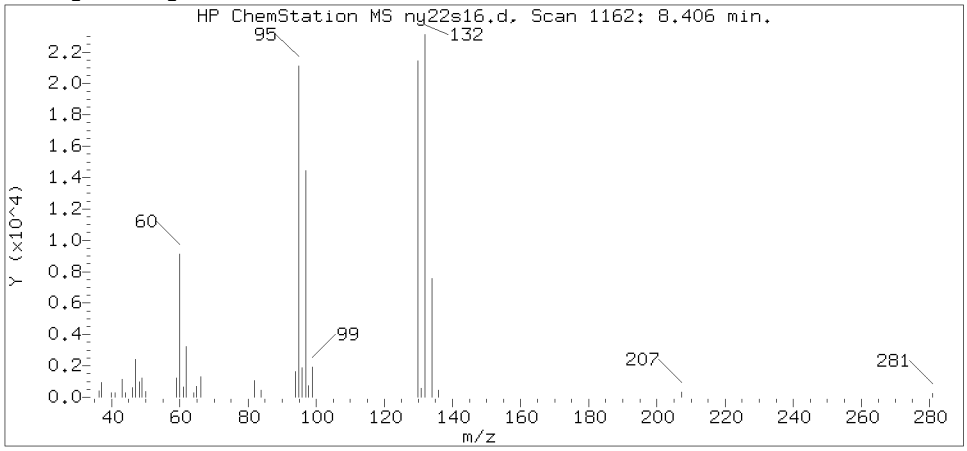
Reference Standard Spectrum for Trichloroethene

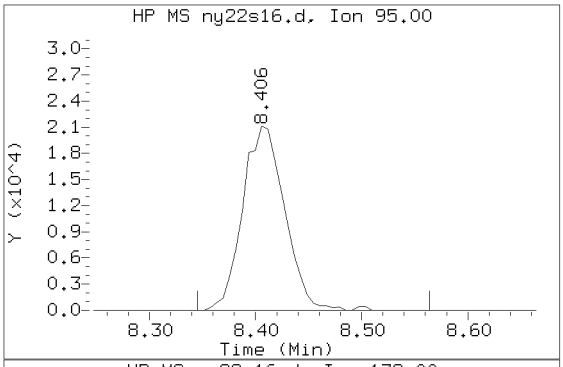


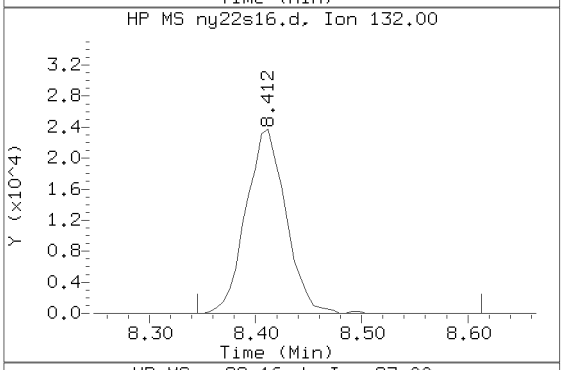
Sample Spectrum (Background Subtracted)

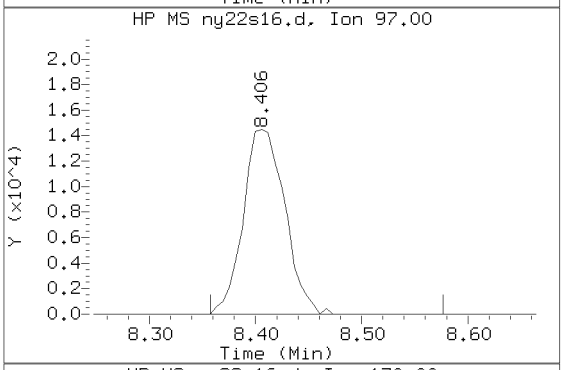


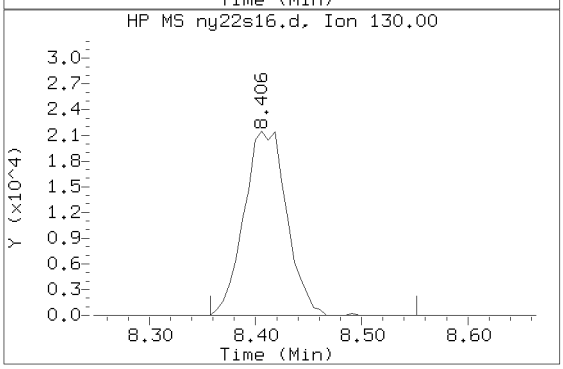
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1162
Retention Time (minutes): 8.406
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 58022
On-Column Amount (ng) : 7.7376

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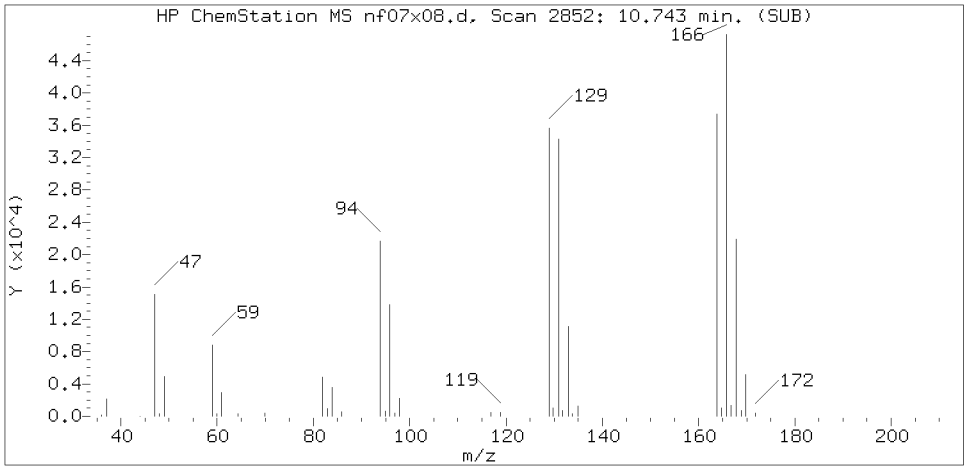
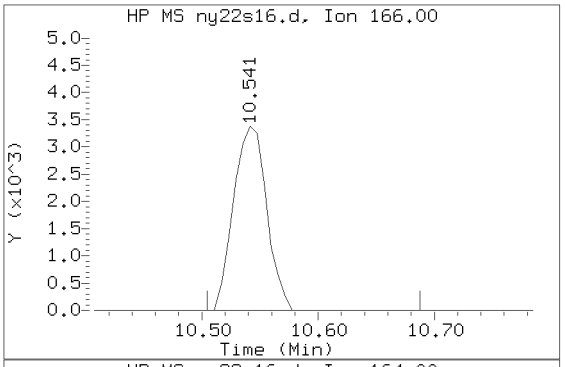
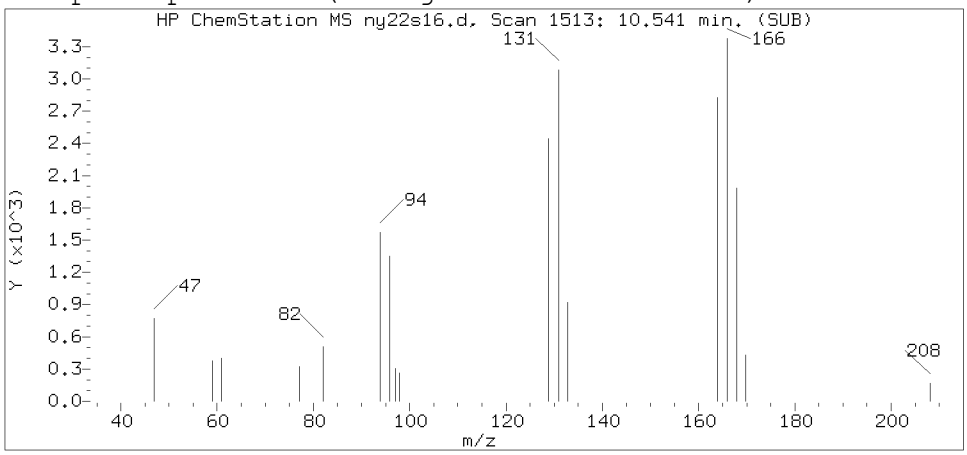
Target 3.5 esignature user ID: sej02002

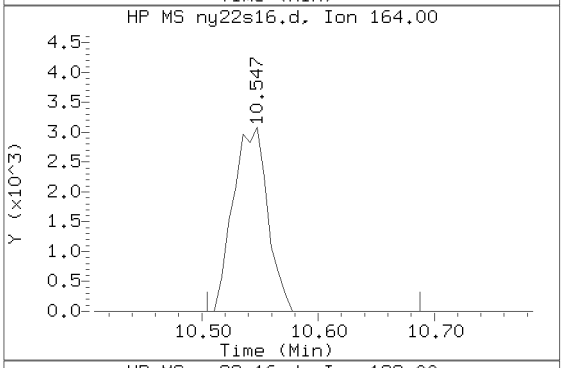
Reference Standard Spectrum for Tetrachloroethene

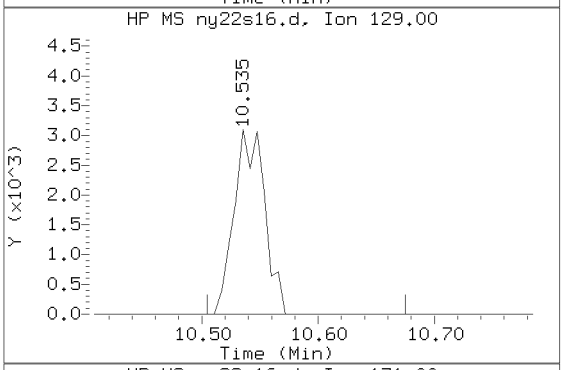




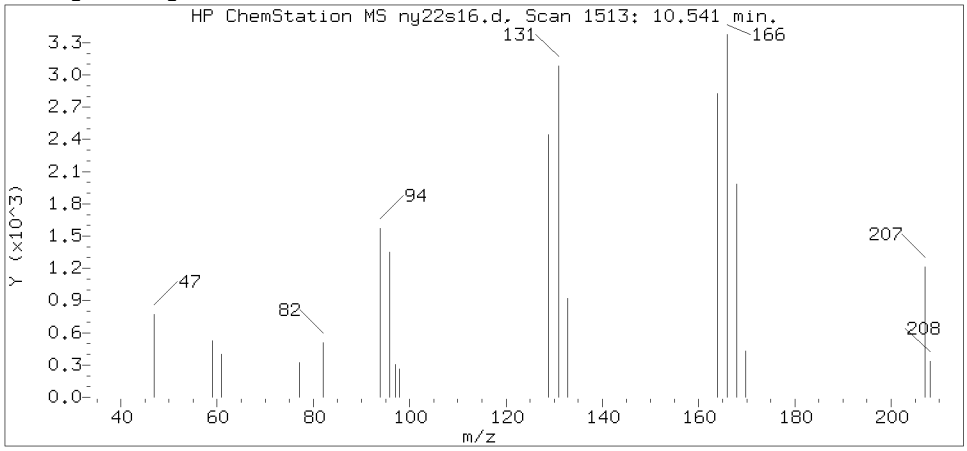
Sample Spectrum (Background Subtracted)

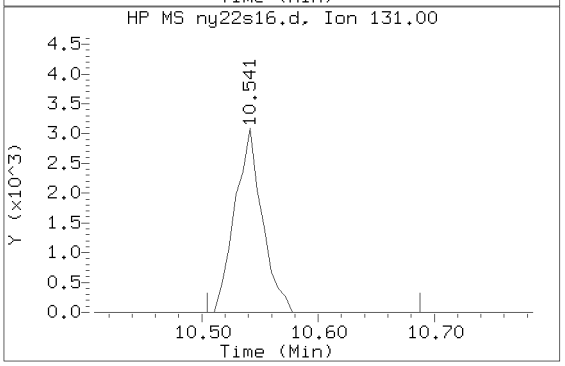






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s16.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:36 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS094 Lab Sample ID: 1316333

Compound Number	: 93
Compound Name	: Tetrachloroethene
Scan Number	: 1513
Retention Time (minutes)	: 10.541
Relative Retention Time	: 0.00000
Quant Ion	: 166.00
Area (flag)	: 6691
On-Column Amount (ng)	: 0.8170

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Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RS095

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316334

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s17.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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RS095 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316334

Data file: /chem/HP07159.i/20may22a.b/ny22s17.d Injection date and time: **22-MAY-2020 17:58**
Data file Sample Info. Line: RS095;1316334;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.405	(0.016)	504	65	281897	(0)	250.00	
66) Fluorobenzene	7.922	(0.004)	1082	96	1015455	(-4)	50.00	
100) Chlorobenzene-d5	11.365	(-0.002)	1648	117	851710	(2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.245	(-0.002)	1957	152	461758	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.027	(0.000)	113	246036	48.822	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.490	(0.000)	102	62037	48.688	97%		80 - 120
83) Toluene-d8	(3)	9.923	(0.000)	98	1057293	47.598	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.363	(0.000)	95	388458	44.265	89%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.736	(-0.002)	58	918	1.141	1.14		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem/HP07159.i/20may22a.b/ny22s17.d Injection date and time: **22-MAY-2020 17:58**
Data file Sample Info. Line: RS095;1316334;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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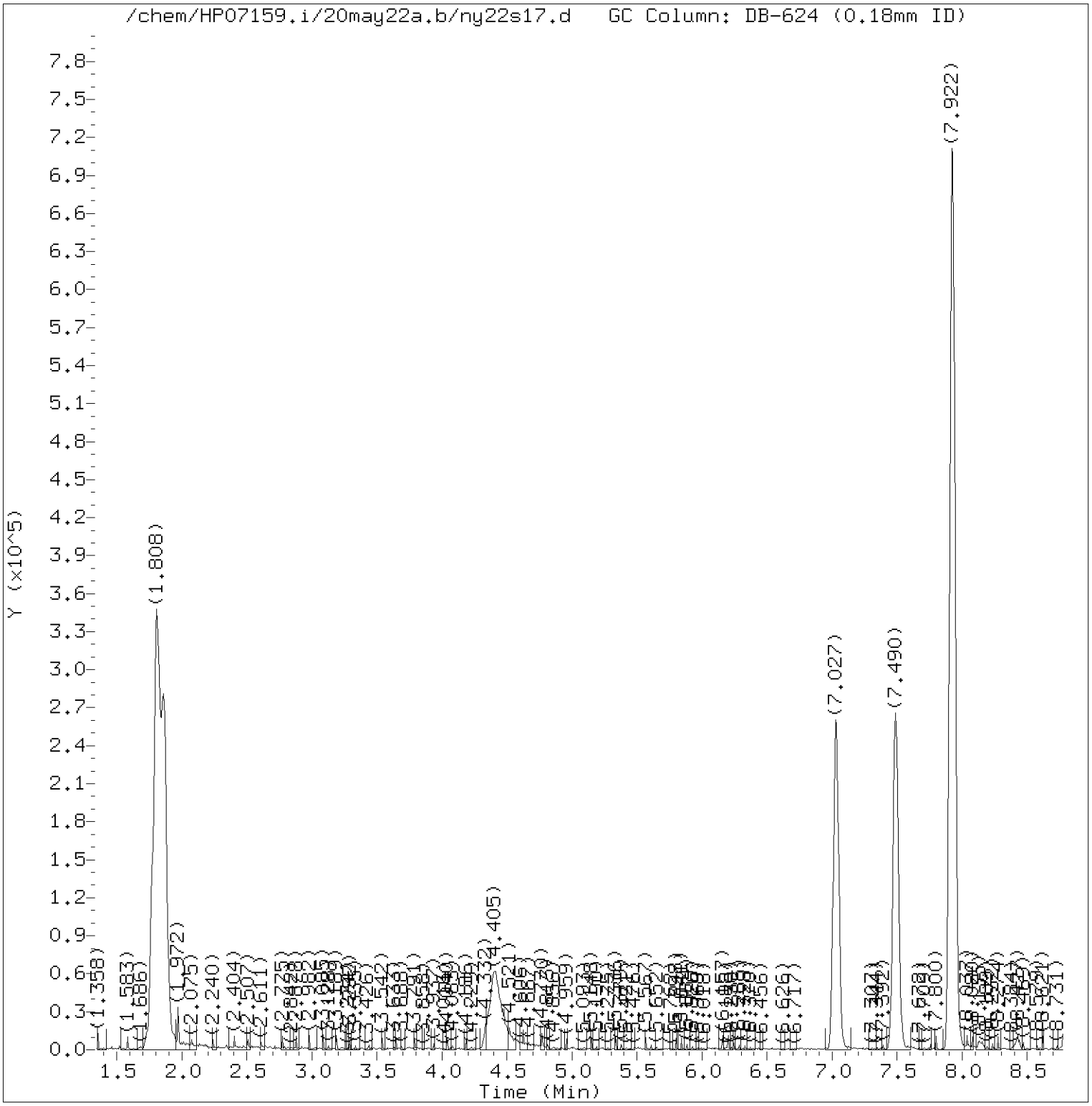
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:47. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

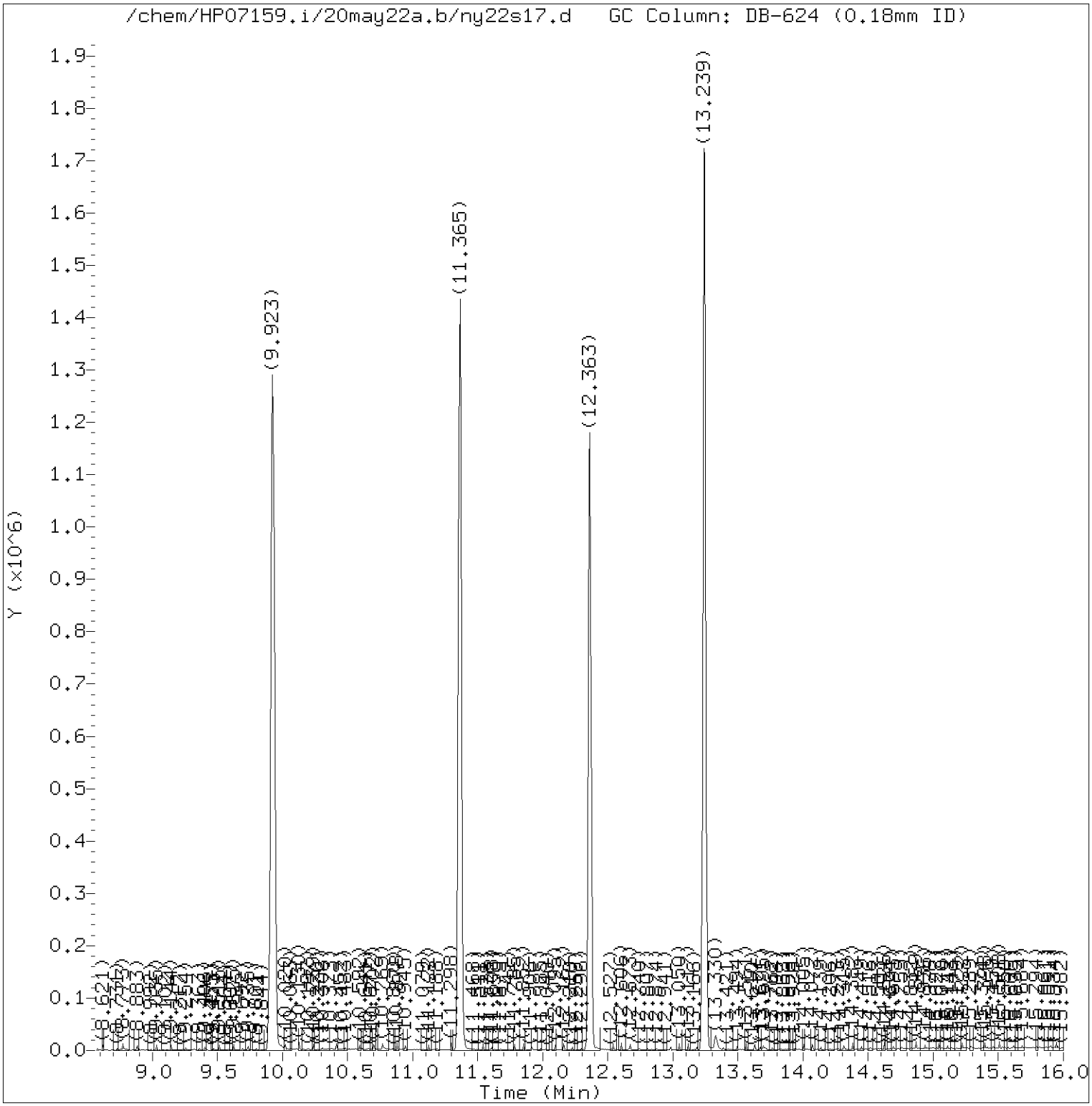
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s17.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:58 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS095 Lab Sample ID: 1316334

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:47.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s17.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:58 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS095 Lab Sample ID: 1316334

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:47.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s17.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:58 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS095 Lab Sample ID: 1316334

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.736	58	918	1.141
29)*t-Butyl alcohol-d10	(1)	4.405	65	281897	250.000
52)$Dibromofluoromethane	(2)	7.027	113	246036	48.822
57)$1,2-Dichloroethane-d4	(2)	7.490	102	62037	48.688
66)*Fluorobenzene	(2)	7.922	96	1015455	50.000
83)$Toluene-d8	(3)	9.923	98	1057293	47.598
100)*Chlorobenzene-d5	(3)	11.365	117	851710	50.000
114)$4-Bromofluorobenzene	(3)	12.363	95	388458	44.265
131)*1,4-Dichlorobenzene-d4	(4)	13.245	152	461758	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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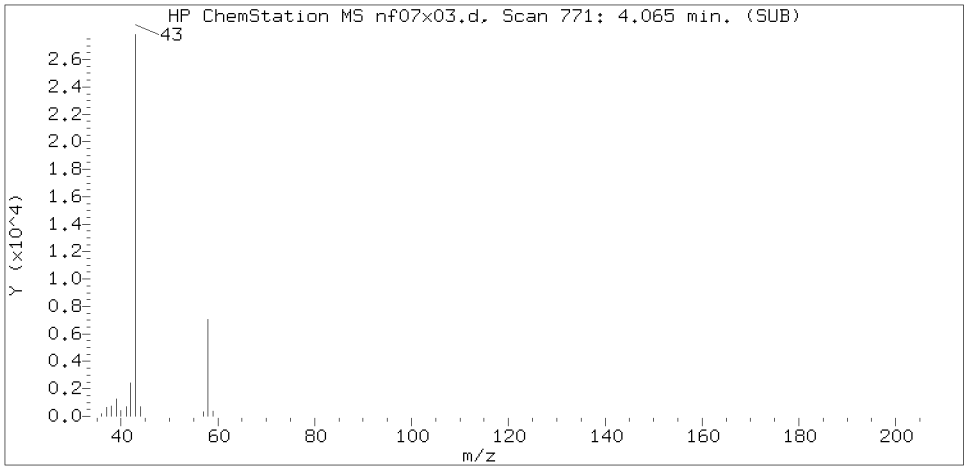
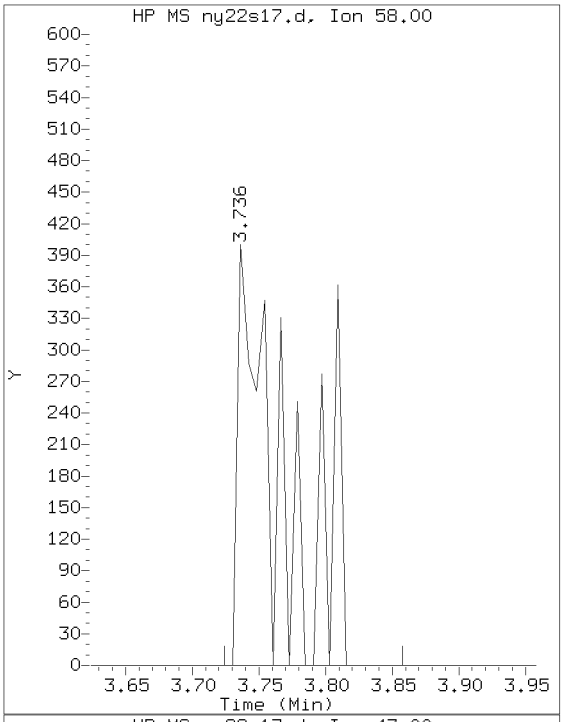
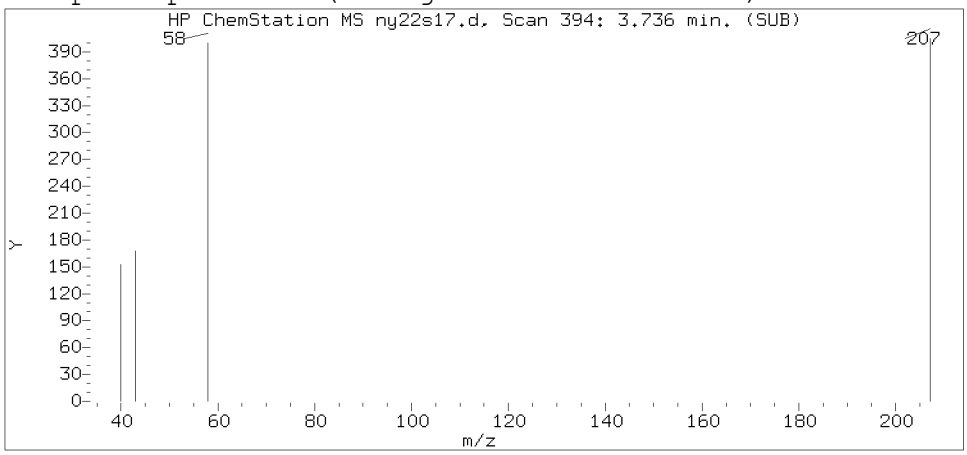
on 05/22/2020 at 21:47.
Target 3.5 esignature user ID: sej02002

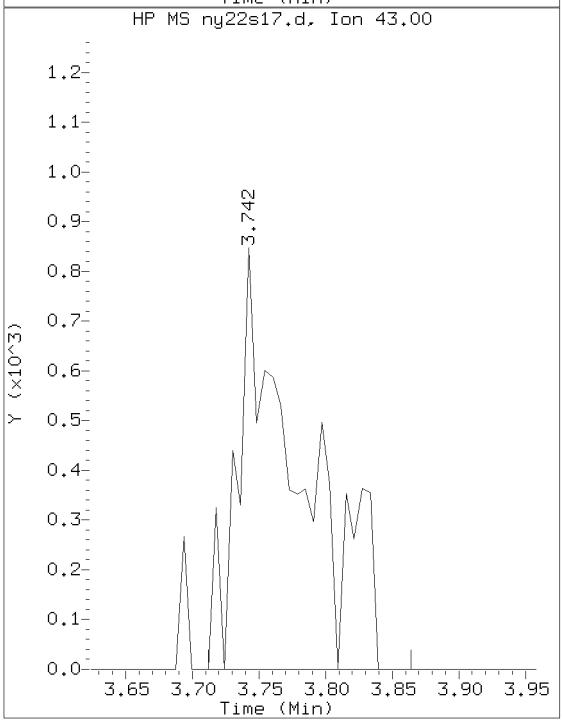
Reference Standard Spectrum for Acetone



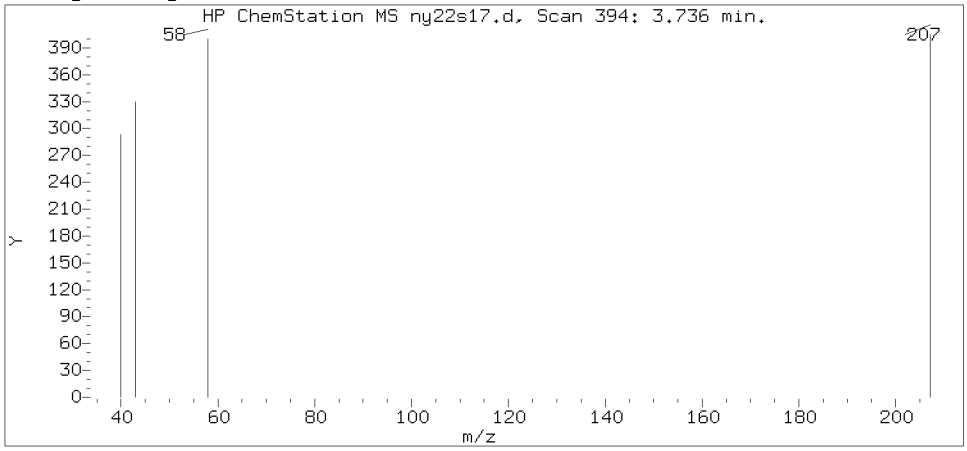


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s17.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 17:58 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:34 Automation

Sample Name: RS095 Lab Sample ID: 1316334

Compound Number : 18
Compound Name : Acetone
Scan Number : 394
Retention Time (minutes): 3.736
Relative Retention Time :-0.00220
Quant Ion : 58.00
Area (flag) : 918
On-Column Amount (ng) : 1.1406

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:47.
Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RS096

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316335

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s18.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

RS096 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316335

Data file: /chem/HP07159.i/20may22a.b/ny22s18.d Injection date and time: **22-MAY-2020 18:20**
Data file Sample Info. Line: RS096;1316335;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.400	(0.021)	503	65	318185	(13)	250.00	
66) Fluorobenzene	7.923	(0.003)	1082	96	1147854	(9)	50.00	
100) Chlorobenzene-d5	11.366	(-0.003)	1648	117	866383	(4)	50.00	
131) 1,4-Dichlorobenzene-d4	13.240	(0.003)	1956	152	465372	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.028	(0.000)	113	270713	47.523	95%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.485	(0.001)	102	70062	48.644	97%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1074713	47.562	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.358	(0.001)	95	388482	43.518	87%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.495	(0.000)	63	5301	0.427	0.43		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.047	(-0.000)	97	13579	1.238	1.24			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem/HP07159.i/20may22a.b/ny22s18.d Injection date and time: **22-MAY-2020 18:20**
Data file Sample Info. Line: RS096;1316335;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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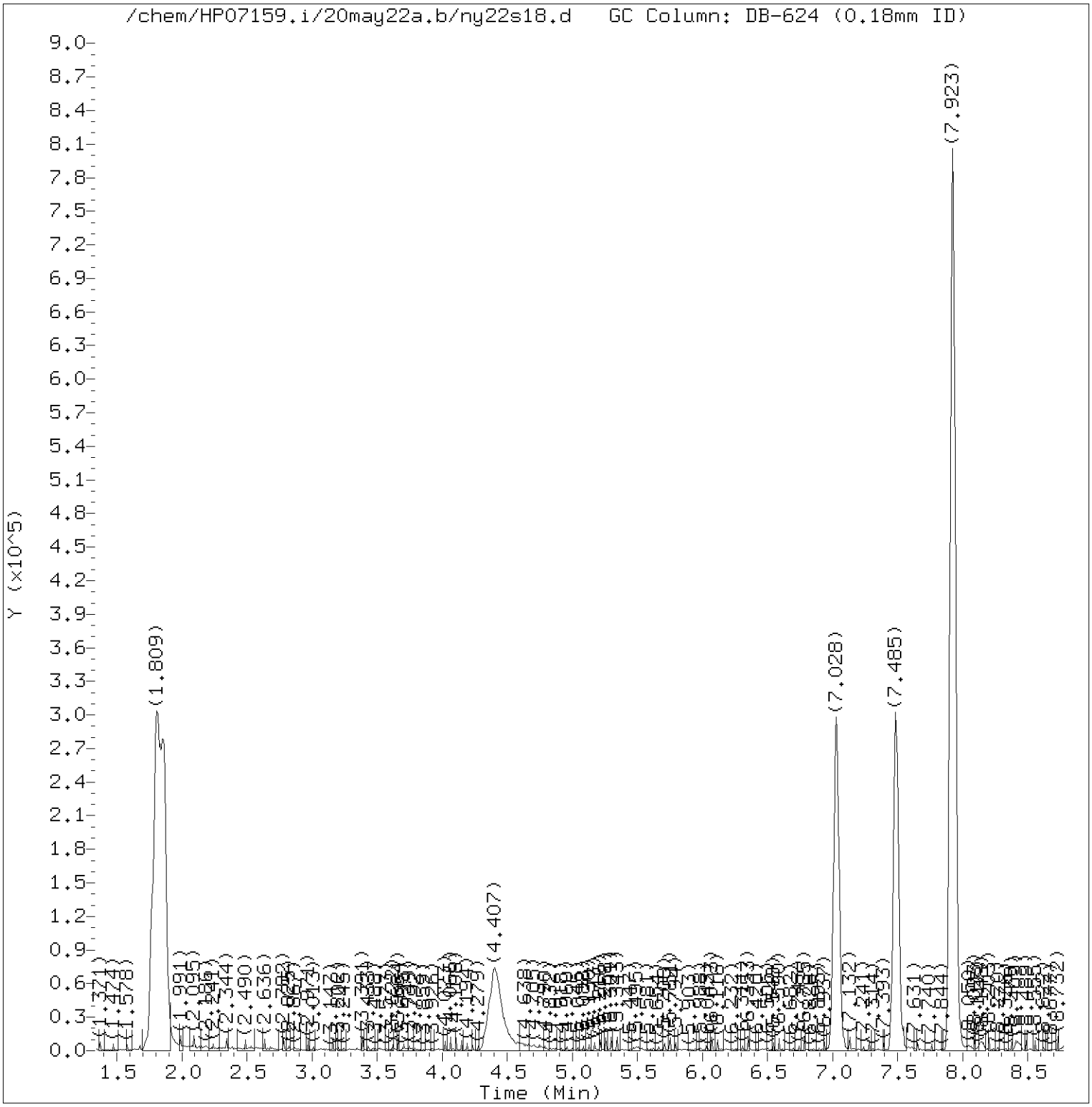
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:42. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

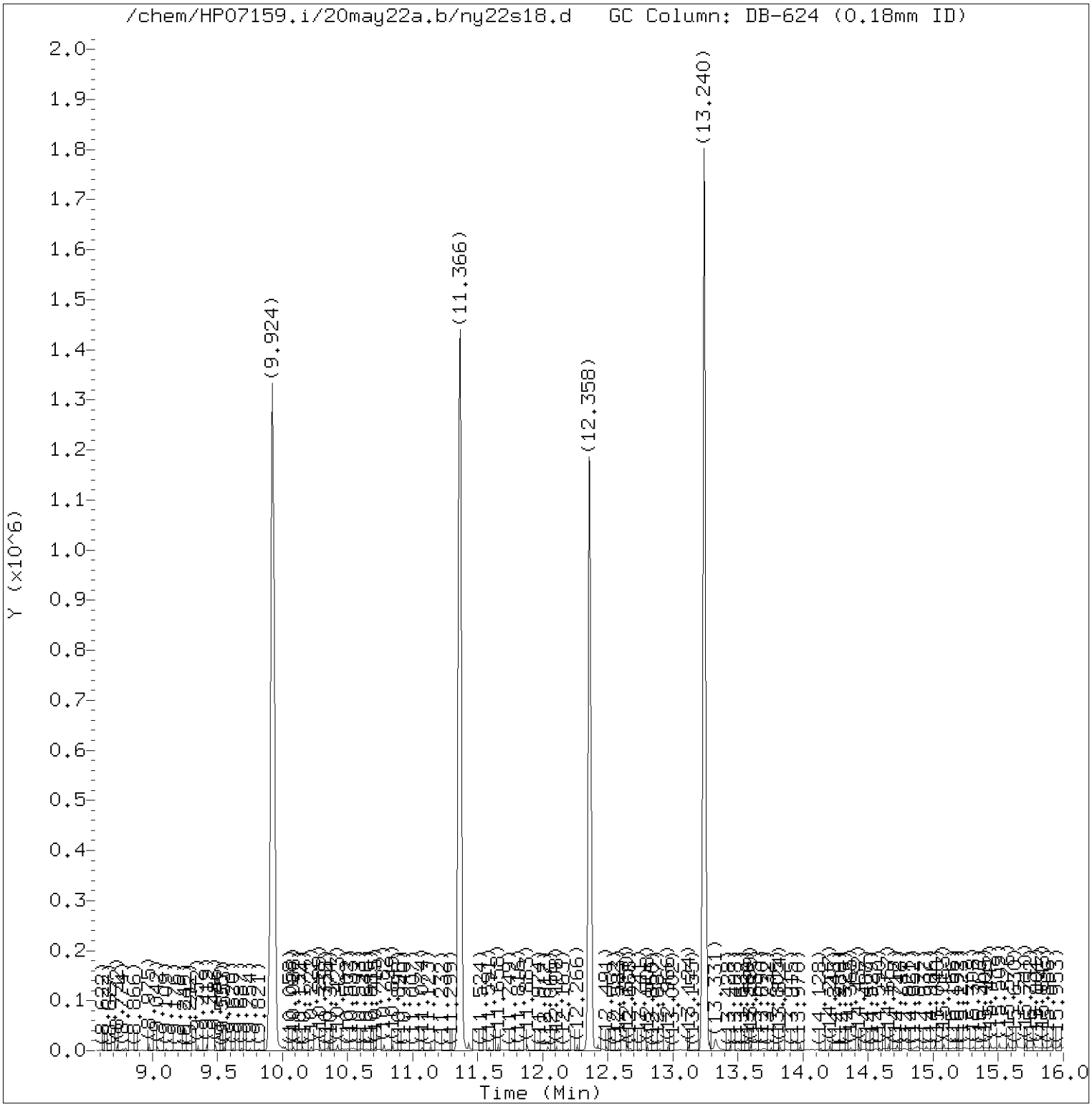
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s18.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:20 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS096 Lab Sample ID: 1316335

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s18.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:20 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS096 Lab Sample ID: 1316335

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s18.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:20 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS096 Lab Sample ID: 1316335

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.400	65	318185	250.000
36) 1,1-Dichloroethane	(2)	5.495	63	5301	0.427
52)$Dibromofluoromethane	(2)	7.028	113	270713	47.523
53) 1,1,1-Trichloroethane	(2)	7.047	97	13579	1.238
57)$1,2-Dichloroethane-d4	(2)	7.485	102	70062	48.644
66)*Fluorobenzene	(2)	7.923	96	1147854	50.000
83)$Toluene-d8	(3)	9.924	98	1074713	47.562
100)*Chlorobenzene-d5	(3)	11.366	117	866383	50.000
114)$4-Bromofluorobenzene	(3)	12.358	95	388482	43.518
131)*1,4-Dichlorobenzene-d4	(4)	13.240	152	465372	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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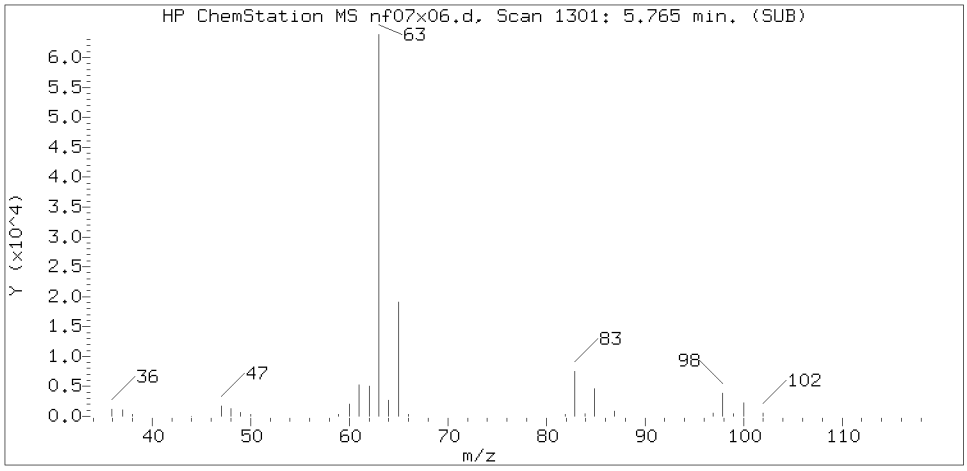
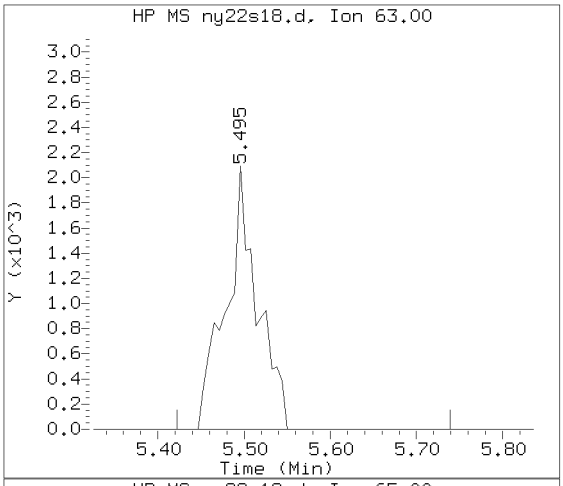
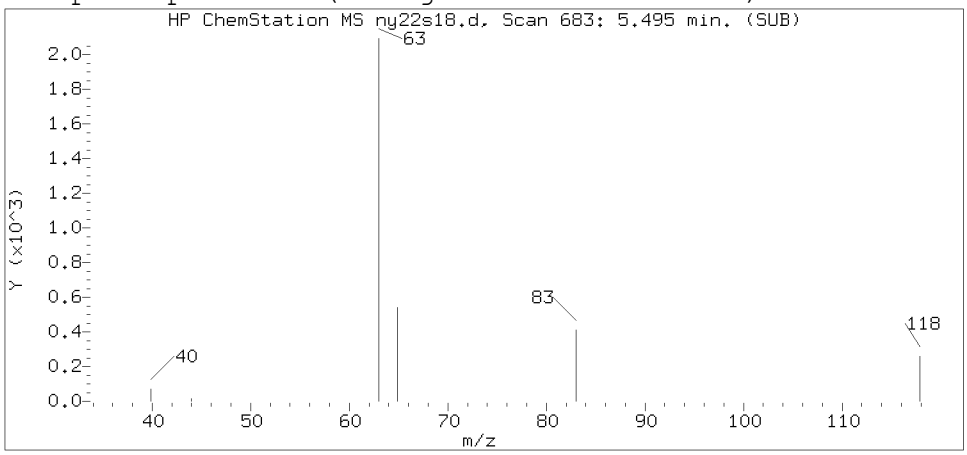
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

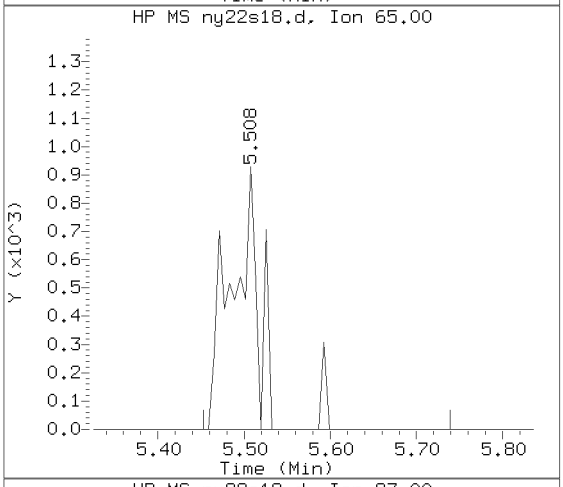
Reference Standard Spectrum for 1,1-Dichloroethane



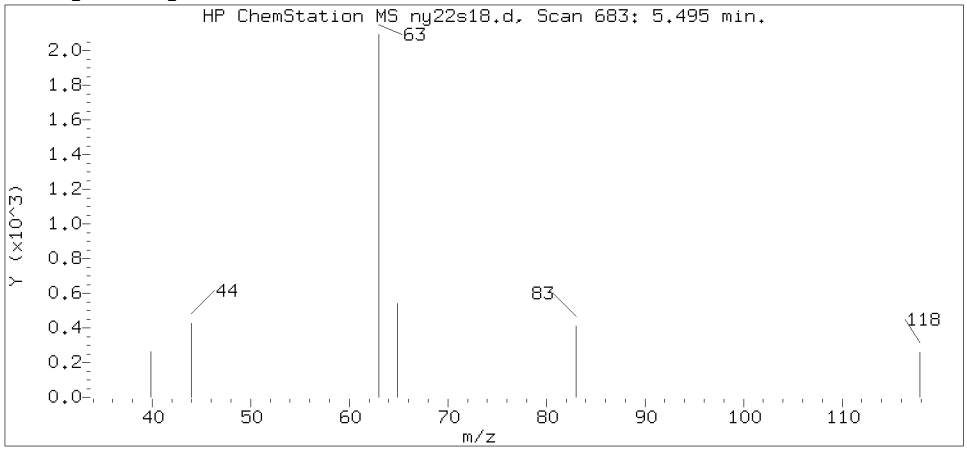


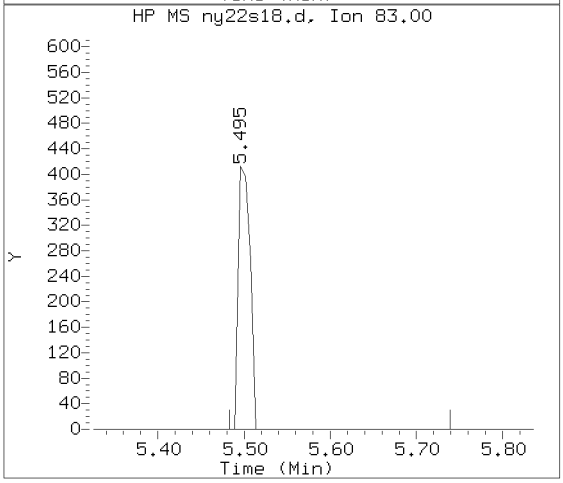
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s18.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:20 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS096 Lab Sample ID: 1316335

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 683
Retention Time (minutes): 5.495
Relative Retention Time : 0.00011
Quant Ion : 63.00
Area (flag) : 5301
On-Column Amount (ng) : 0.4266

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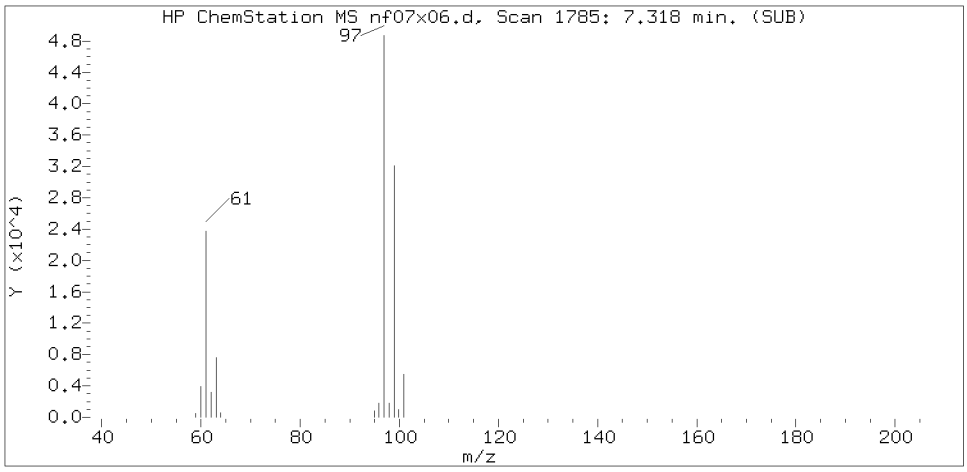
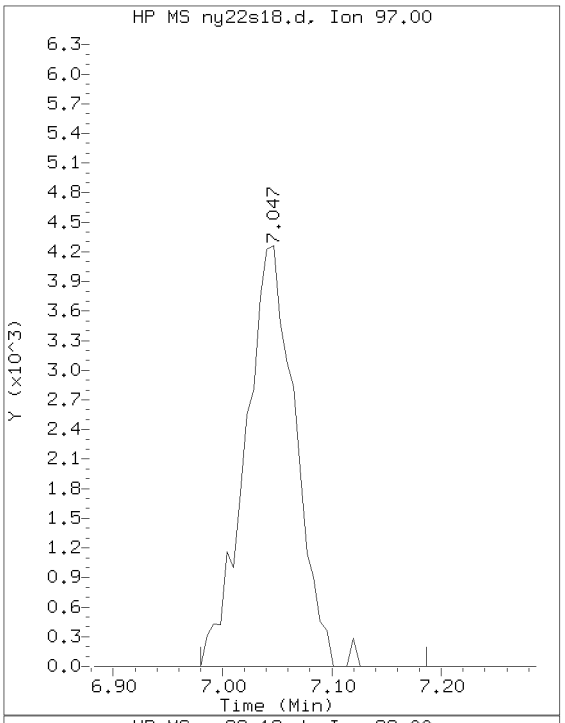
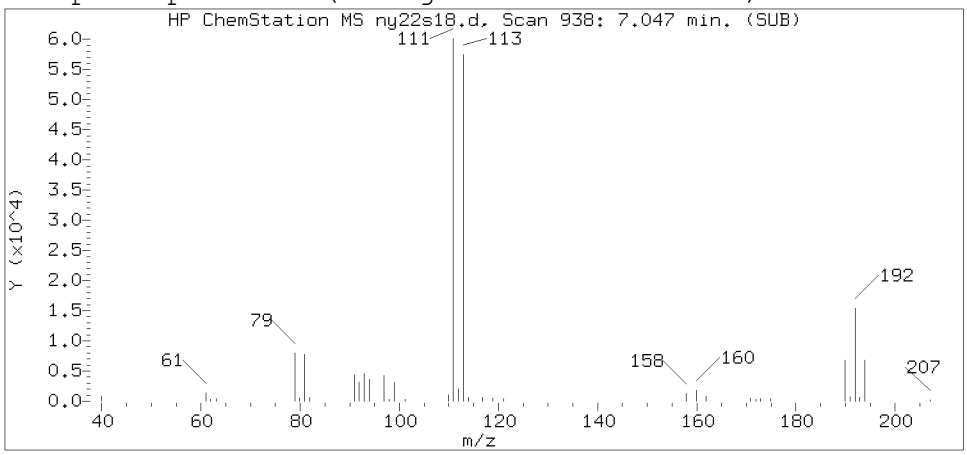
Target 3.5 esignature user ID: sej02002

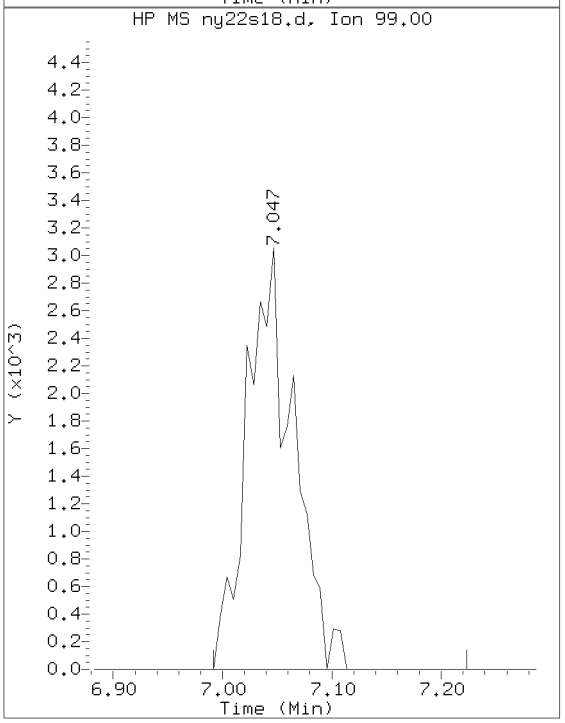
Reference Standard Spectrum for 1,1,1-Trichloroethane



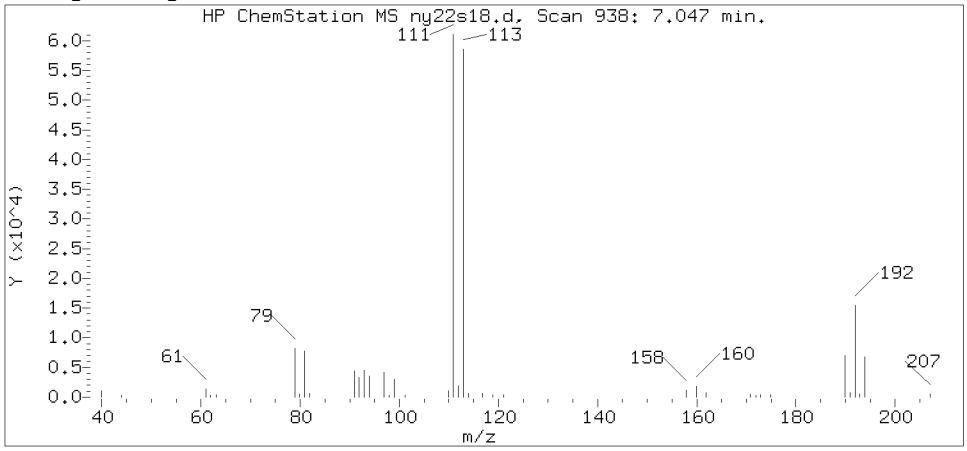


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s18.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:20 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS096 Lab Sample ID: 1316335

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 938
Retention Time (minutes)	: 7.047
Relative Retention Time	:-0.00073
Quant Ion	: 97.00
Area (flag)	: 13579
On-Column Amount (ng)	: 1.2384

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Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RS097

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316336

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s19.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.4	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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RS097 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316336

Data file: /chem/HP07159.i/20may22a.b/ny22s19.d Injection date and time: **22-MAY-2020 18:42**
Data file Sample Info. Line: RS097;1316336;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.406	(0.016)	504	65	297920	(6)	250.00	
66) Fluorobenzene	7.922	(0.004)	1082	96	1142108	(8)	50.00	
100) Chlorobenzene-d5	11.365	(-0.003)	1648	117	865324	(4)	50.00	
131) 1,4-Dichlorobenzene-d4	13.239	(0.004)	1956	152	465342	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.028	(0.000)	113	276524	48.787	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.484	(0.001)	102	69157	48.257	97%		80 - 120
83) Toluene-d8	(3)	9.923	(0.000)	98	1072537	47.524	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.363	(0.000)	95	393284	44.110	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.034	(0.000)	97	3863	0.354	0.35		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.396	(0.000)	95	7376	0.997	1.00		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:42. Target 3.5 esignature user ID: sej02002

RS097 Lancaster Laboratories 1316336
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s19.d Injection date and time: **22-MAY-2020 18:42**
Data file Sample Info. Line: RS097;1316336;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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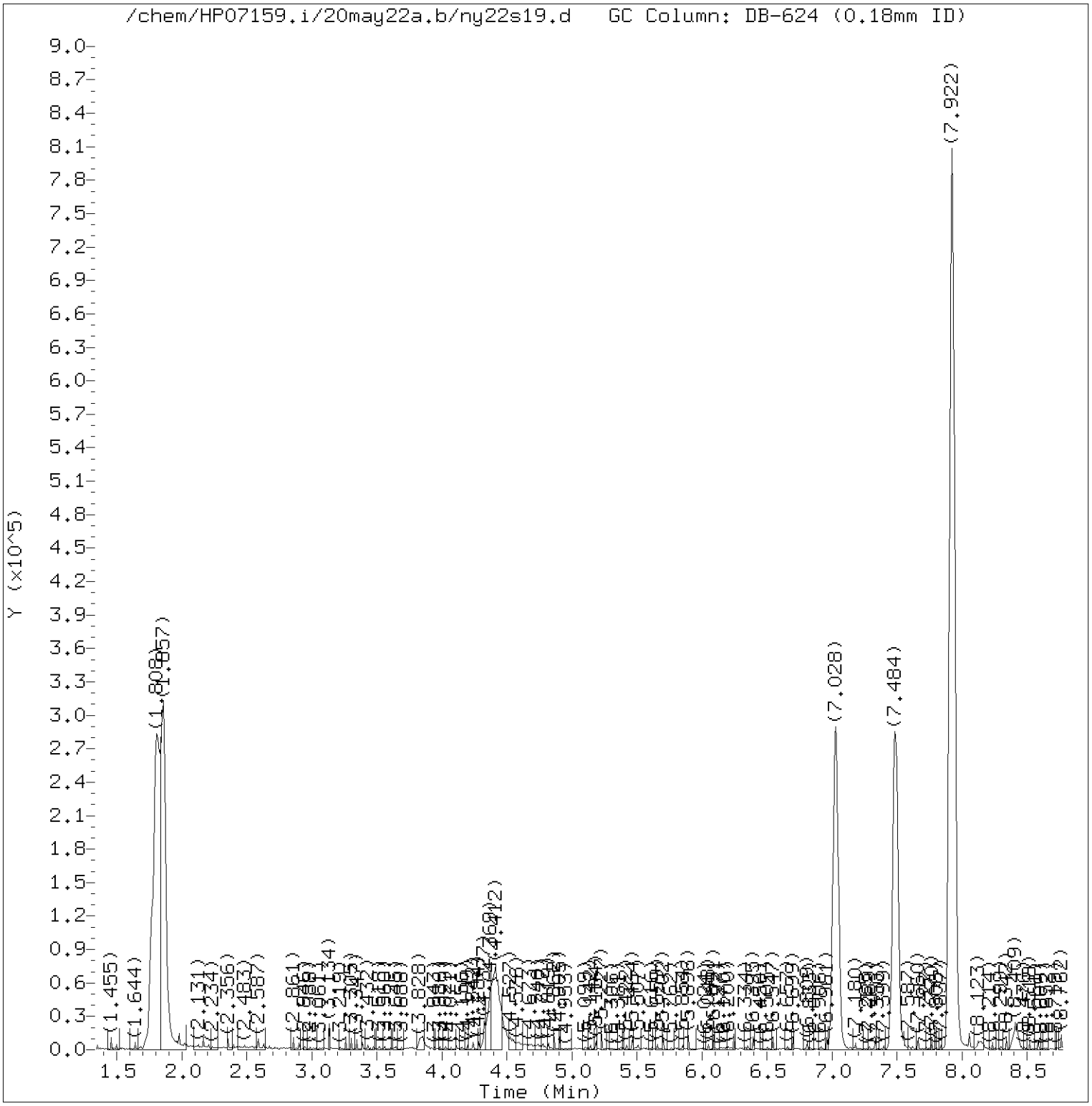
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:42. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

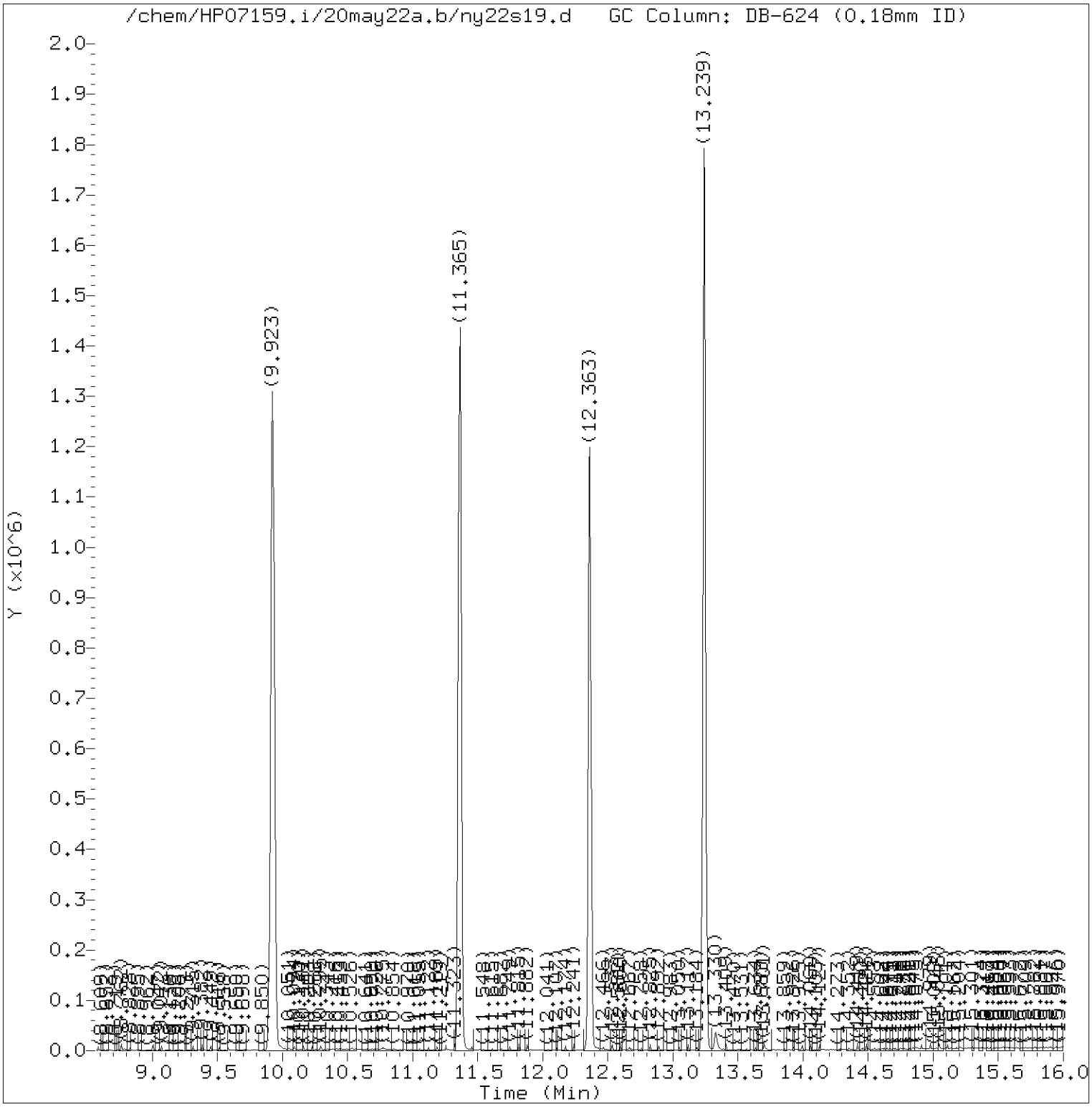
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s19.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:42 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Sample Name: RS097 Lab Sample ID: 1316336

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s19.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:42 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Sample Name: RS097 Lab Sample ID: 1316336

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s19.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:42 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

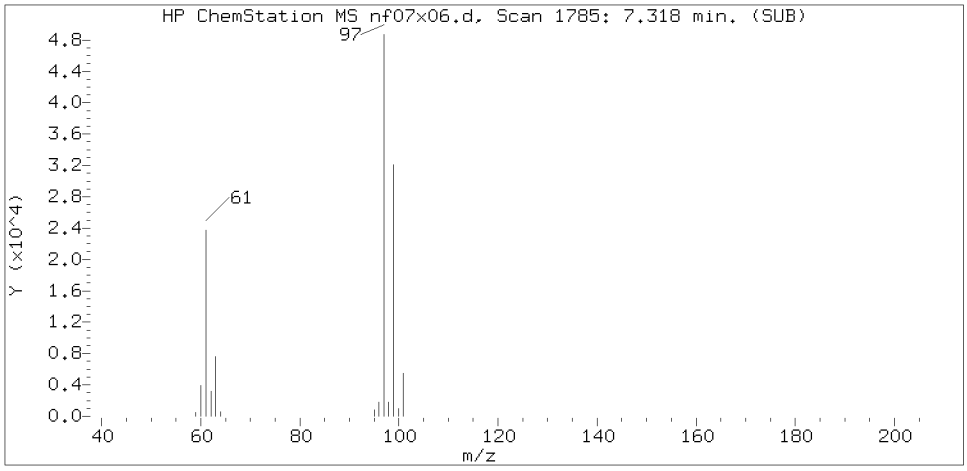
Sample Name: RS097 Lab Sample ID: 1316336

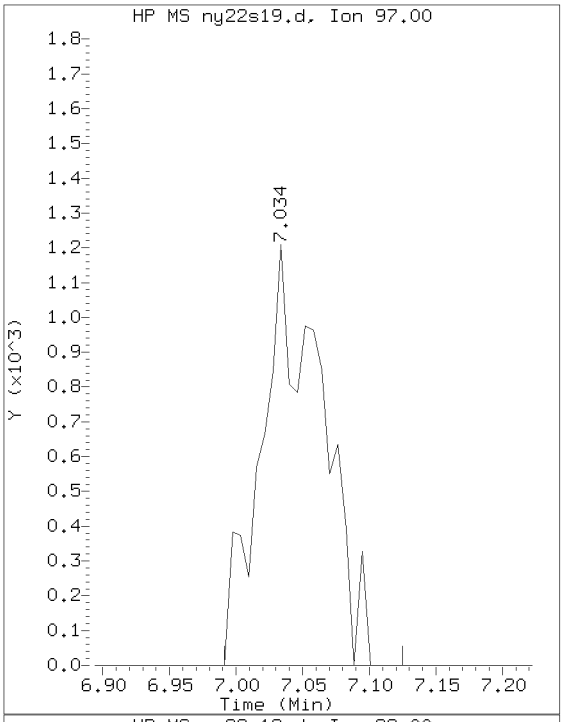
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.406	65	297920	250.000
52)$Dibromofluoromethane	(2)	7.028	113	276524	48.787
53) 1,1,1-Trichloroethane	(2)	7.034	97	3863	0.354
57)$1,2-Dichloroethane-d4	(2)	7.484	102	69157	48.257
66)*Fluorobenzene	(2)	7.922	96	1142108	50.000
71) Trichloroethene	(2)	8.397	95	7376	0.997
83)$Toluene-d8	(3)	9.923	98	1072537	47.524
100)*Chlorobenzene-d5	(3)	11.365	117	865324	50.000
114)$4-Bromofluorobenzene	(3)	12.363	95	393284	44.110
131)*1,4-Dichlorobenzene-d4	(4)	13.239	152	465342	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

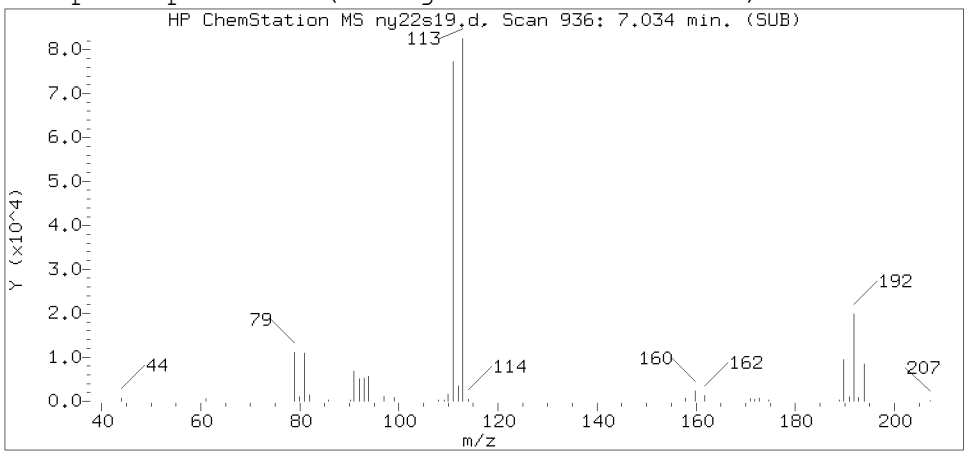
Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

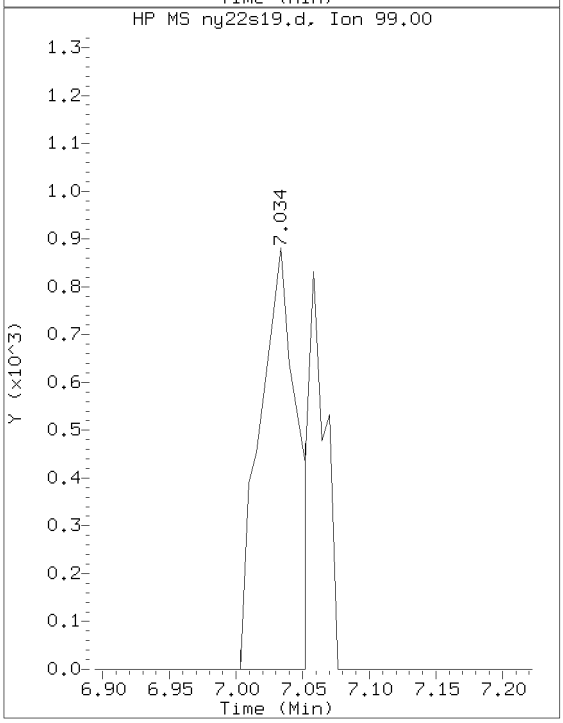
Reference Standard Spectrum for 1,1,1-Trichloroethane



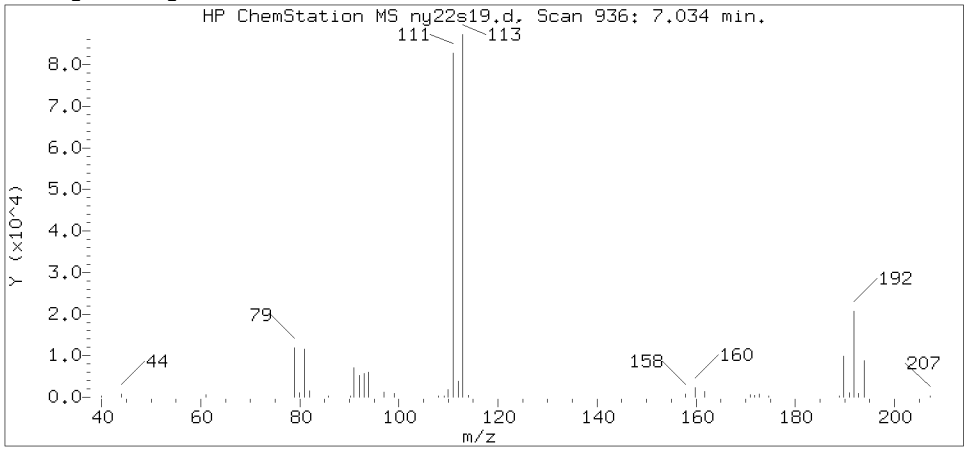


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s19.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:42 Analyst ID: LCP00895

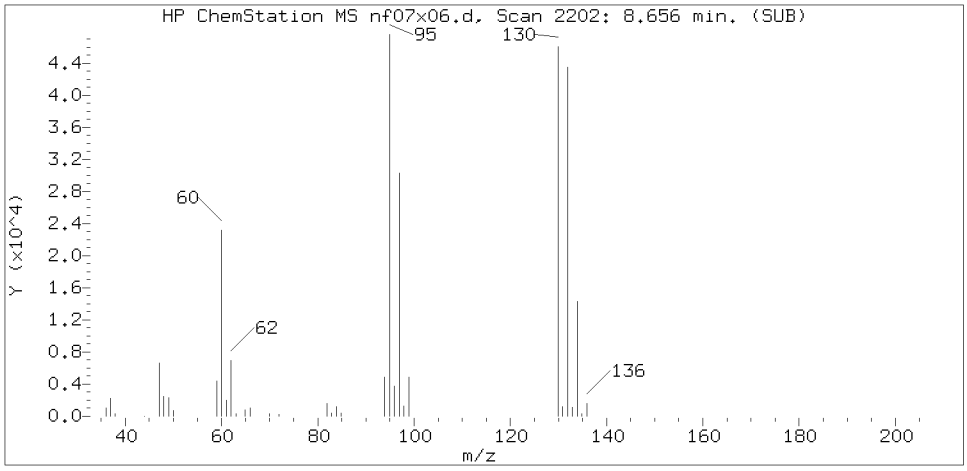
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Sample Name: RS097 Lab Sample ID: 1316336

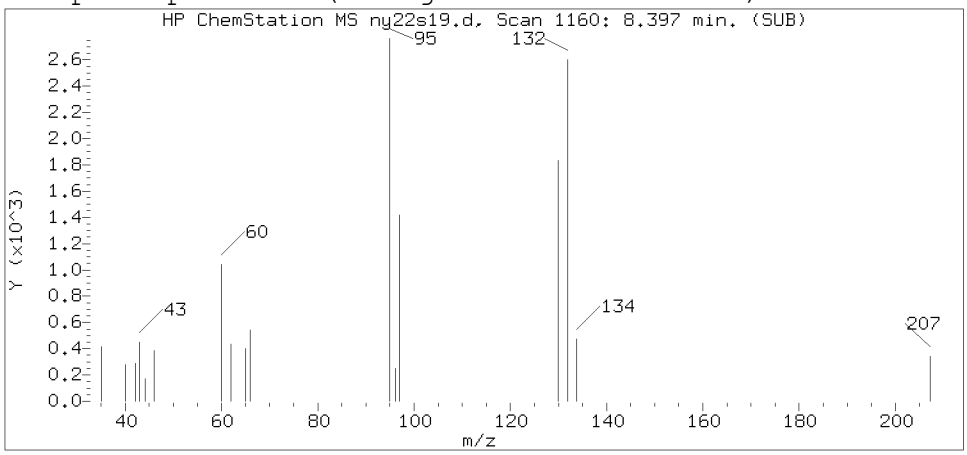
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 936
Retention Time (minutes)	: 7.034
Relative Retention Time	: 0.00082
Quant Ion	: 97.00
Area (flag)	: 3863
On-Column Amount (ng)	: 0.3540

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

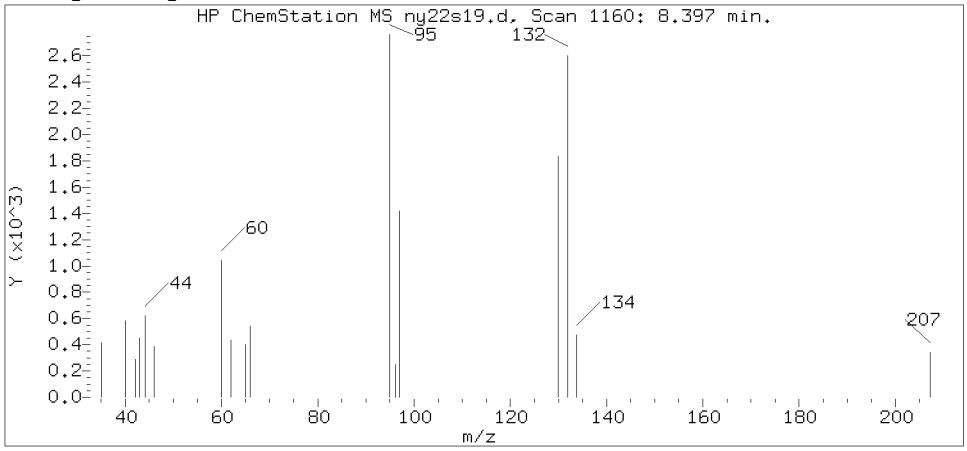
Reference Standard Spectrum for Trichloroethene

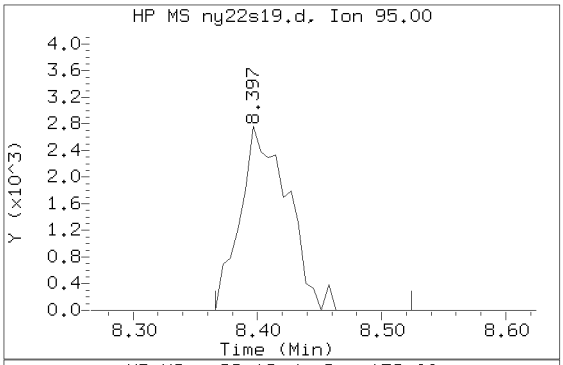


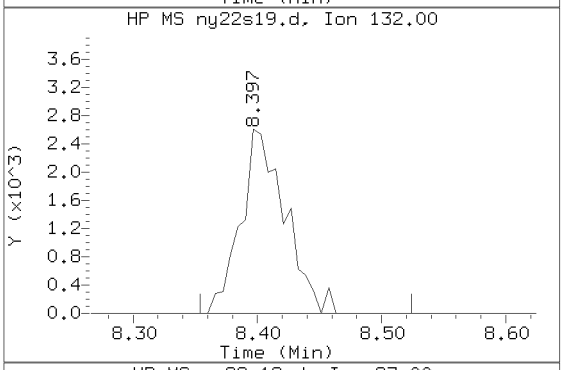
Sample Spectrum (Background Subtracted)

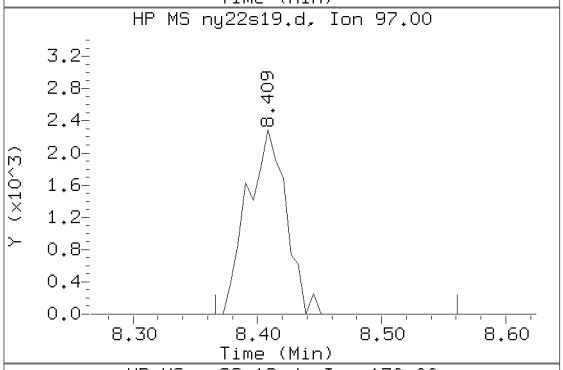


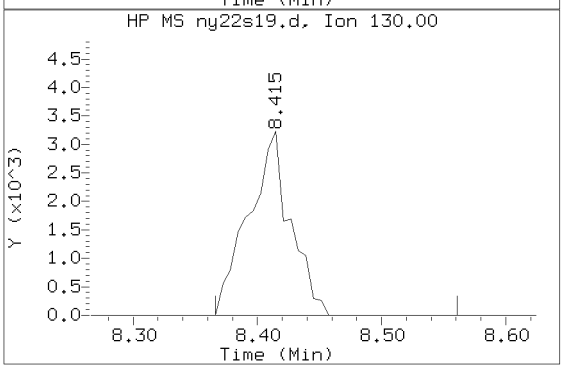
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s19.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 18:42 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:42 sej02002

Sample Name: RS097 Lab Sample ID: 1316336

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 1160
Retention Time (minutes)	: 8.397
Relative Retention Time	: 0.00074
Quant Ion	: 95.00
Area (flag)	: 7376
On-Column Amount (ng)	: 0.9966

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:42.
Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

RS098

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316337

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s20.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.2	J
156-59-2	cis-1,2-Dichloroethene	0.4	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.5	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	2	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.2	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

RS098 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316337

Data file: /chem/HP07159.i/20may22a.b/ny22s20.d Injection date and time: **22-MAY-2020 19:04**
Data file Sample Info. Line: RS098;1316337;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.404(0.017)	504	65	316397	(12)	250.00	
66) Fluorobenzene	7.920(0.005)	1082	96	1006412	(-5)	50.00	
100) Chlorobenzene-d5	11.364(-0.001)	1648	117	766546	(-8)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243(-0.001)	1957	152	462477	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026(0.000)	113	243774	48.808	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.482(0.001)	102	61916	49.030	98%		80 - 120
83) Toluene-d8	(3)	9.922(0.000)	98	947289	47.383	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361(0.000)	95	383689	48.579	97%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)	3.747(-0.004)	58	1004M	1.112	1.11		J	0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.511(-0.002)	63	2224	0.204	0.20		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.320(0.000)	96	2450	0.361	0.36		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.038(0.000)	97	4437	0.461	0.46		J	0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	8.401(-0.000)	95	12029	1.844	1.84			0.2	1
75) 1,4-Dioxane	(1)			Not Detected					29	250
88) Toluene	(3)			Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.530(0.001)	166	1649	0.232	0.23		J	0.2	1
104) Ethylbenzene	(3)			Not Detected					0.4	1
106) m+p-Xylene	(3)			Not Detected					1	5
107) o-Xylene	(3)			Not Detected					0.4	1
108) Xylene (Total)	(3)			Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
148) Naphthalene	(4)			Not Detected					1	5

M = Compound was manually integrated.

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43. Target 3.5 esignature user ID: sej02002

RS098 Lancaster Laboratories 1316337
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s20.d Injection date and time: **22-MAY-2020 19:04**
Data file Sample Info. Line: RS098;1316337;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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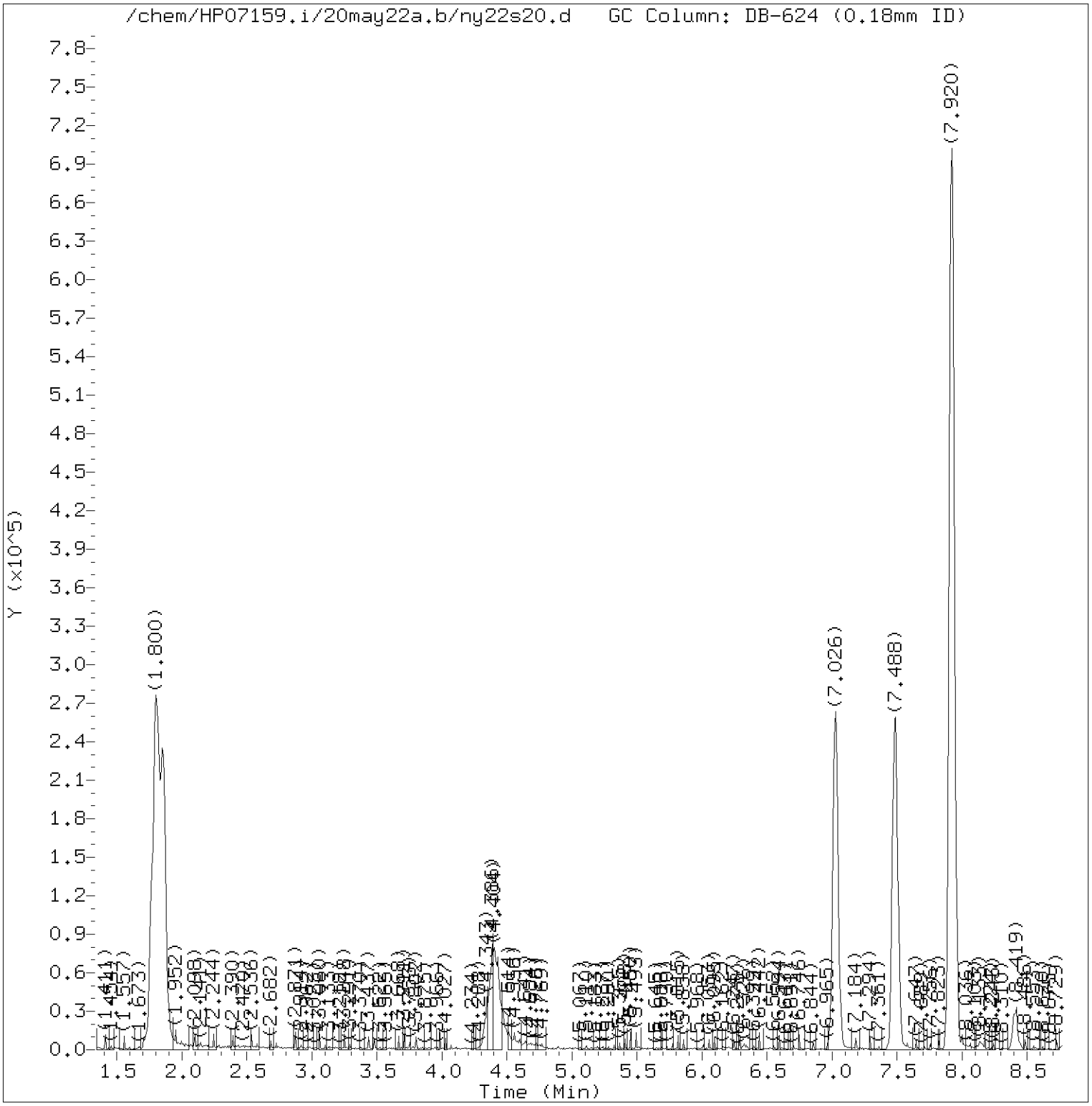
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

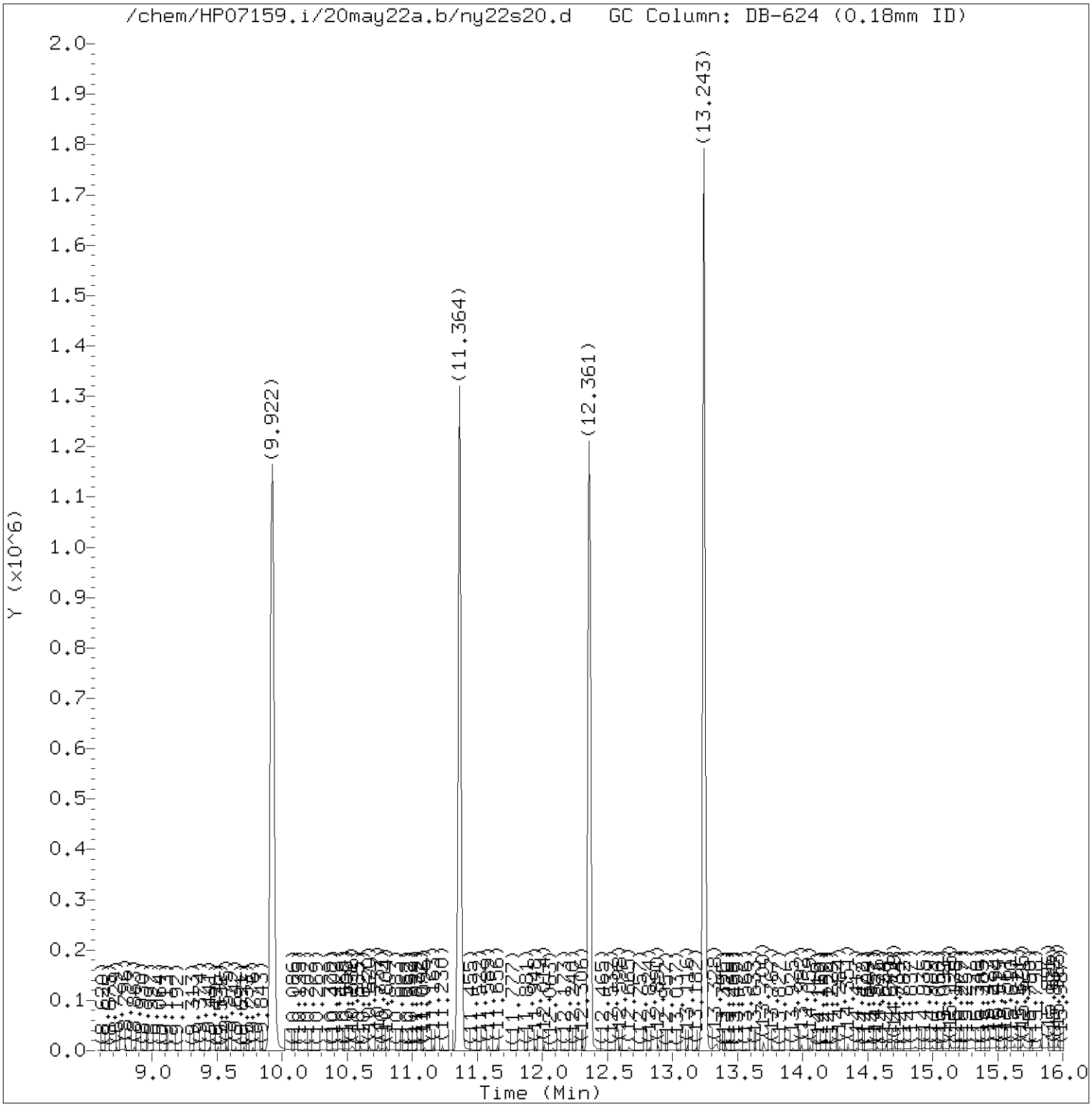
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

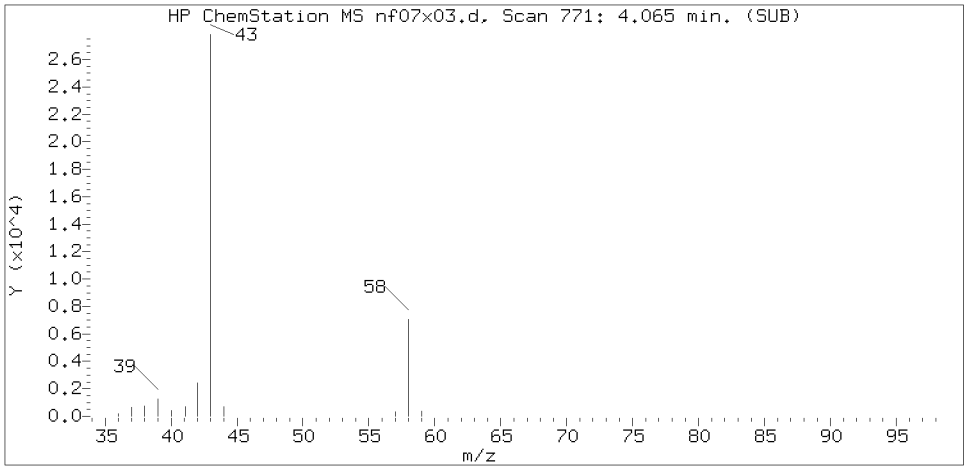
Sample Name: RS098 Lab Sample ID: 1316337

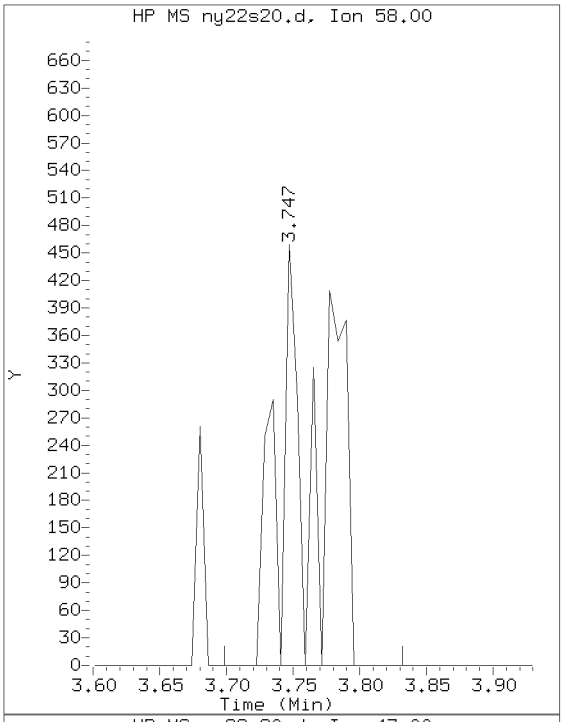
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.747	58	1004M	1.112
29)*t-Butyl alcohol-d10	(1)	4.404	65	316397	250.000
36) 1,1-Dichloroethane	(2)	5.511	63	2224	0.204
42) cis-1,2-Dichloroethene	(2)	6.320	96	2450	0.361
52)$Dibromofluoromethane	(2)	7.026	113	243774	48.808
53) 1,1,1-Trichloroethane	(2)	7.038	97	4437	0.461
57)$1,2-Dichloroethane-d4	(2)	7.482	102	61916	49.030
66)*Fluorobenzene	(2)	7.920	96	1006412	50.000
71) Trichloroethene	(2)	8.401	95	12029	1.844
83)$Toluene-d8	(3)	9.922	98	947289	47.383
93) Tetrachloroethene	(3)	10.530	166	1649	0.232
100)*Chlorobenzene-d5	(3)	11.364	117	766546	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	383689	48.579
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	462477	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

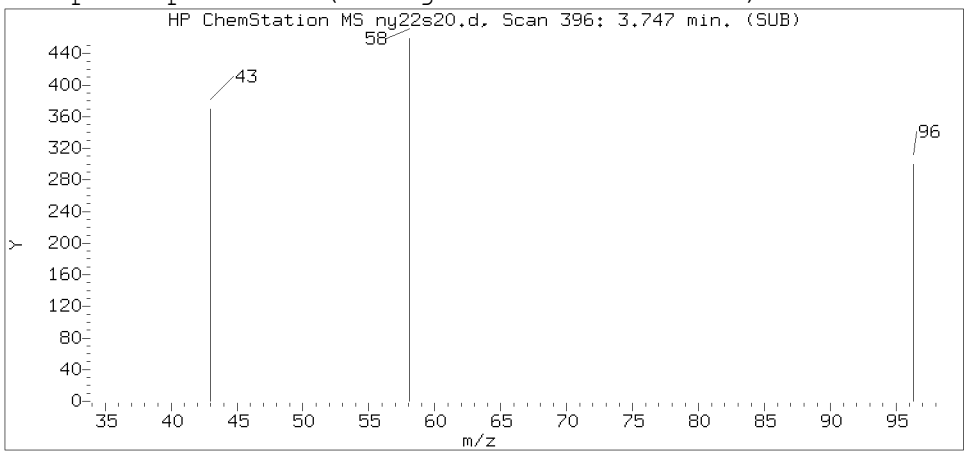
Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

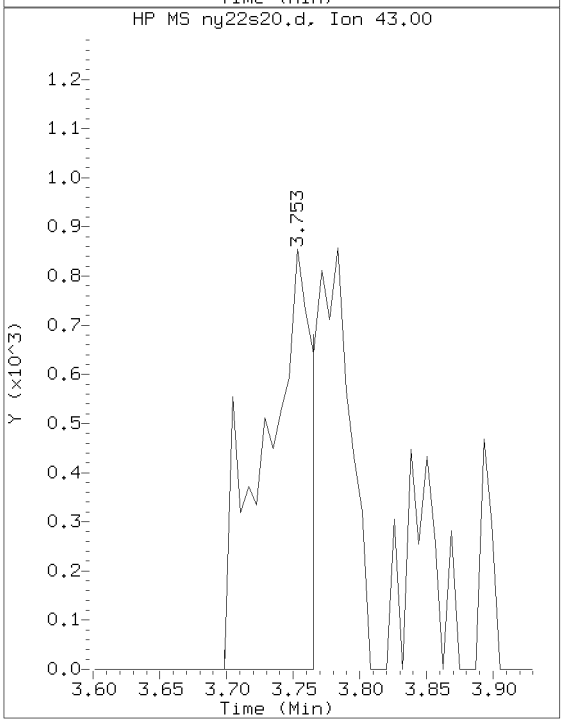
Reference Standard Spectrum for Acetone



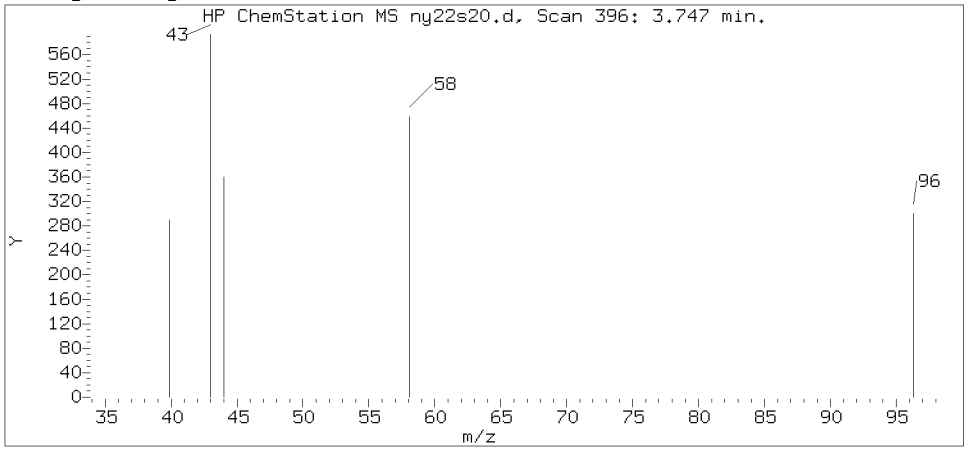


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

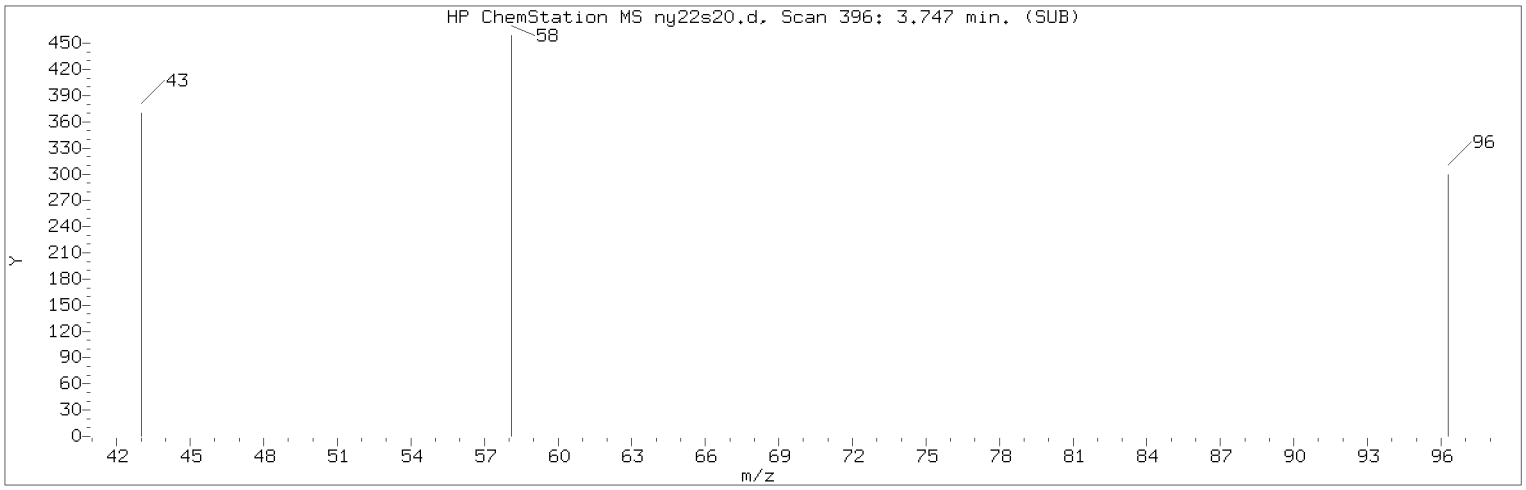
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

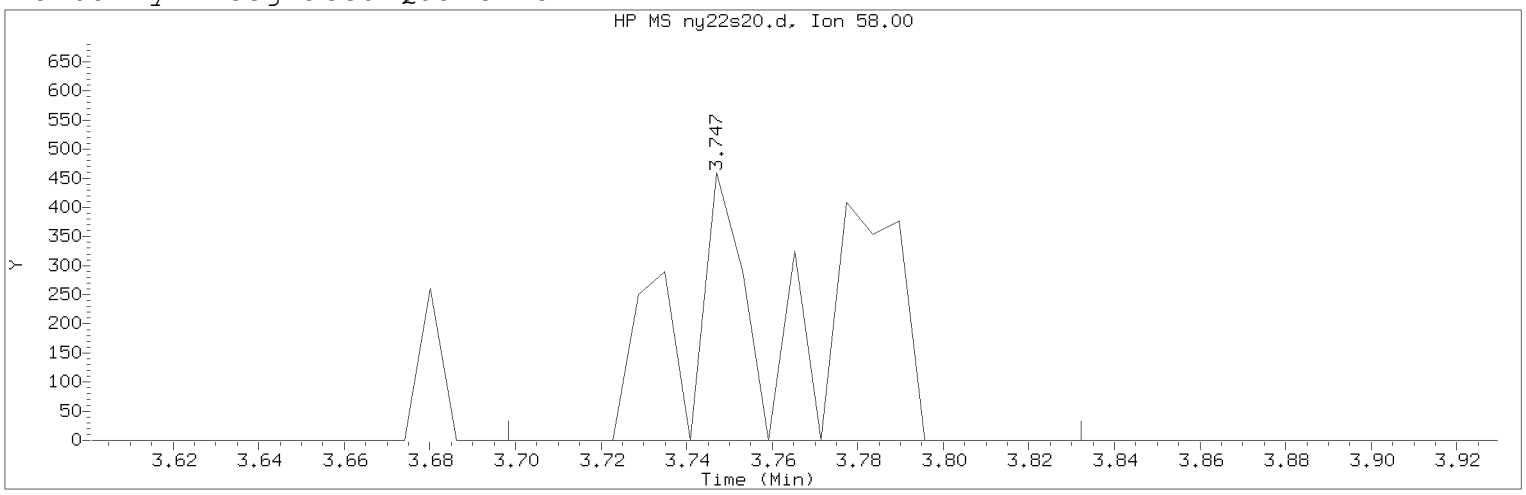
Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 396
Retention Time (minutes)	: 3.747
Relative Retention Time	:-0.00491
Quant Ion	: 58.00
Area (flag)	: 1004M
On-Column Amount (ng)	: 1.1119

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

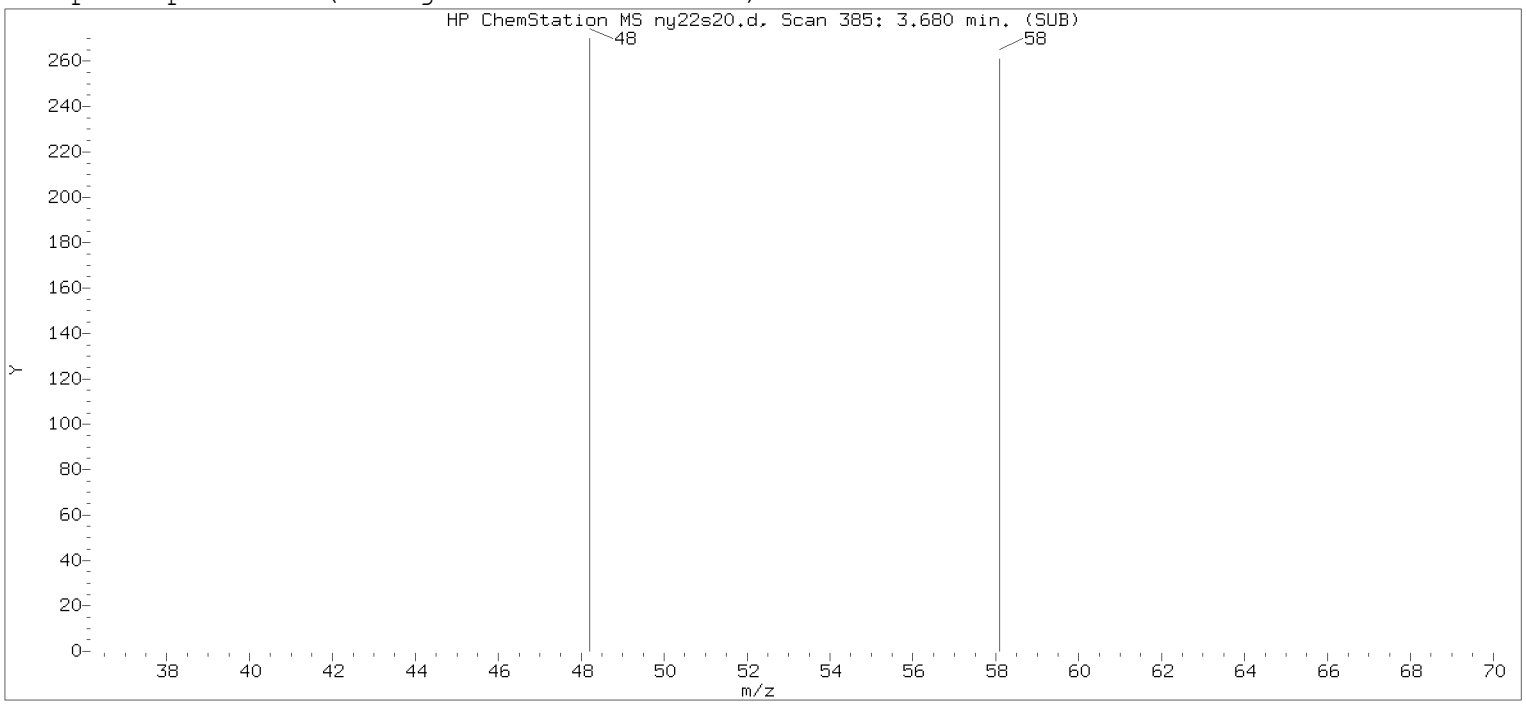
Compound Number : 18
Compound Name : Acetone
Scan Number : 396
Retention Time (minutes): 3.747
Quant Ion : 58.00
Area (flag) : 1004M
On-Column Amount (ng) : 1.1119
Integration start scan : 387 Integration stop scan: 409
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

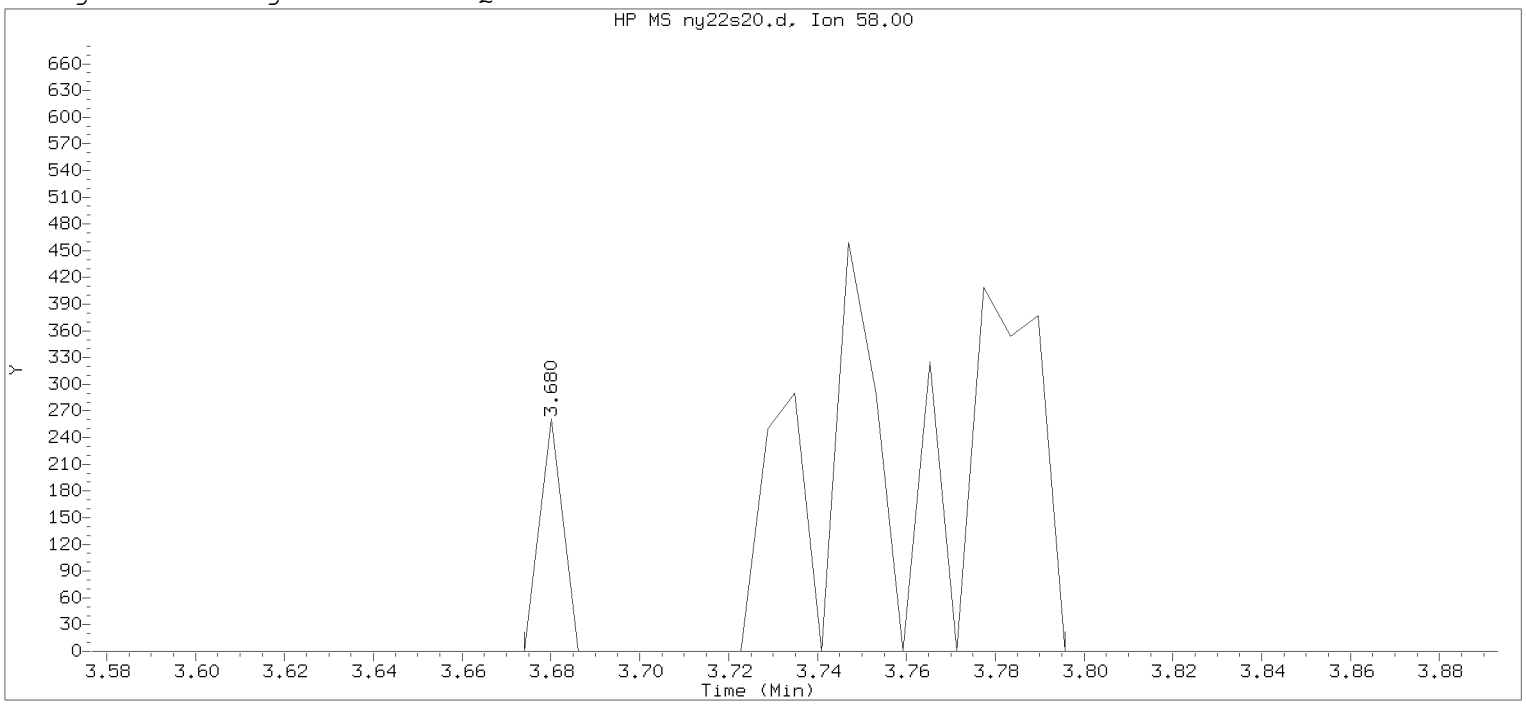
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

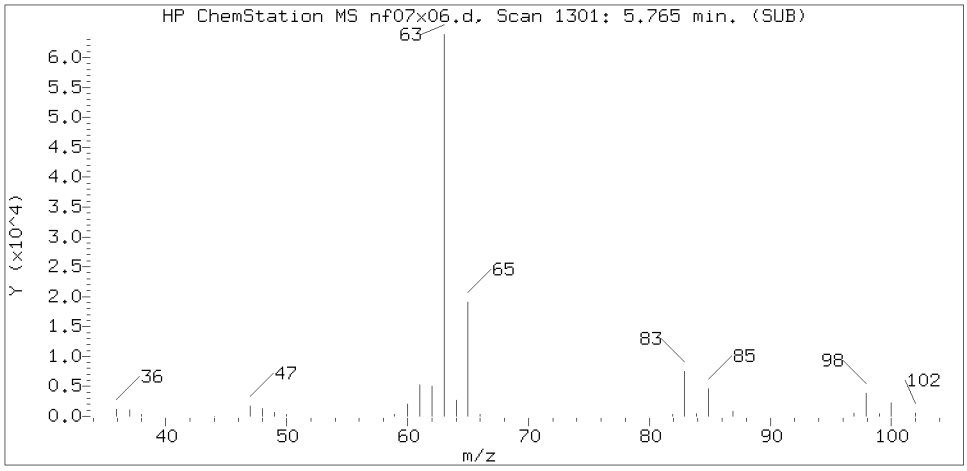
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

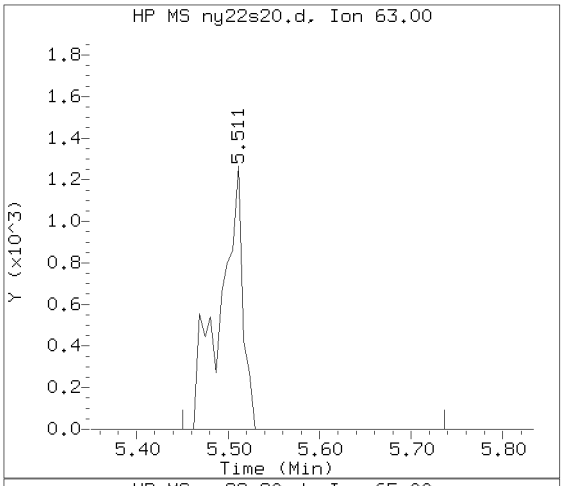
Sample Name: RS098 Lab Sample ID: 1316337

Compound Number : 18
Compound Name : Acetone
Scan Number : 385
Retention Time (minutes): 3.680
Quant Ion : 58.00
Area : 1100
On-column Amount (ng) : 1.2173
Integration start scan : 383 Integration stop scan: 403
Y at integration start : 0 Y at integration end: 0

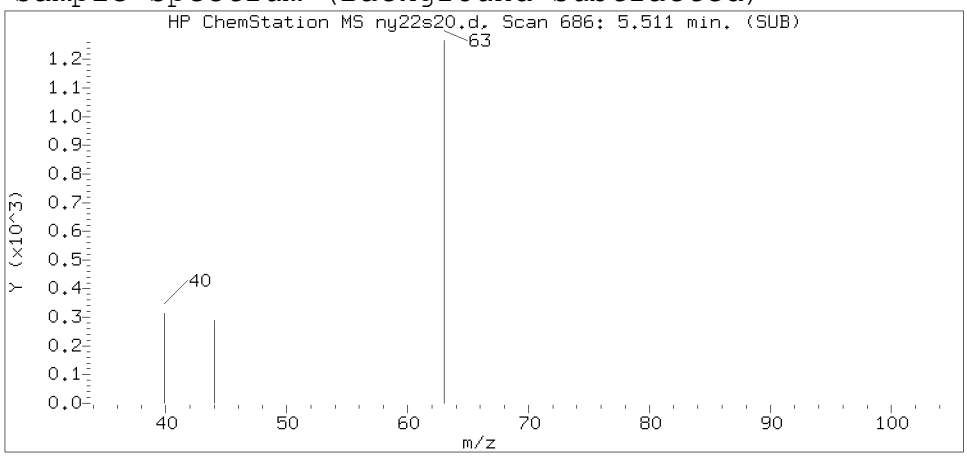
Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43.
Target 3.5 esignature user review 05/22/2020

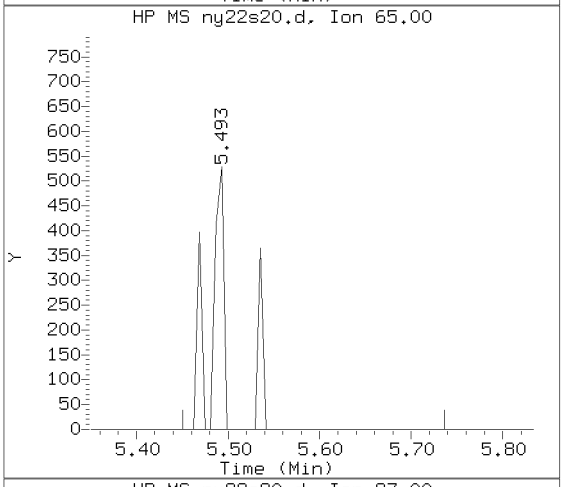
Reference Standard Spectrum for 1,1-Dichloroethane



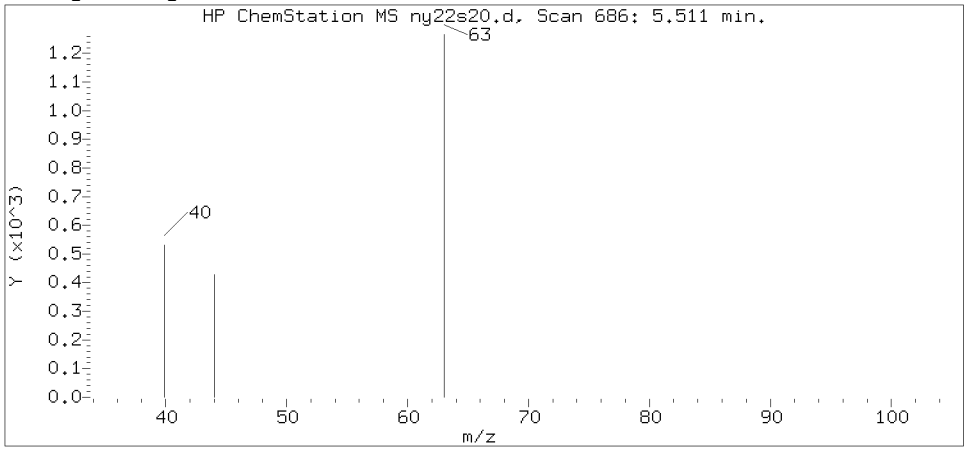


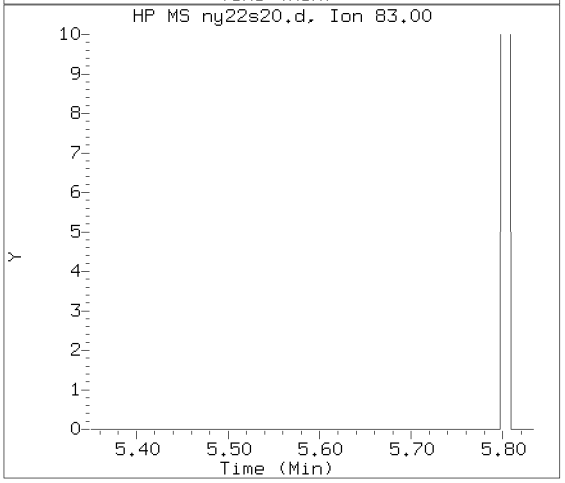
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 686
Retention Time (minutes): 5.511
Relative Retention Time :-0.00210
Quant Ion : 63.00
Area (flag) : 2224
On-Column Amount (ng) : 0.2041

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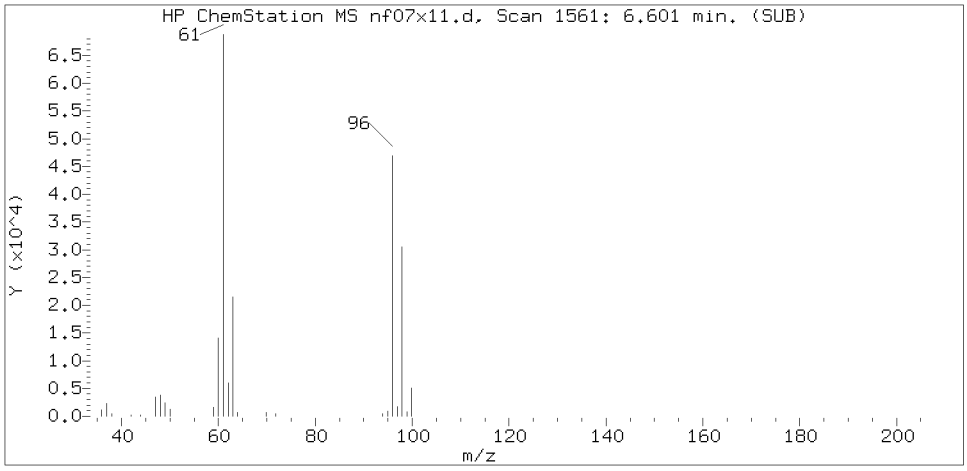
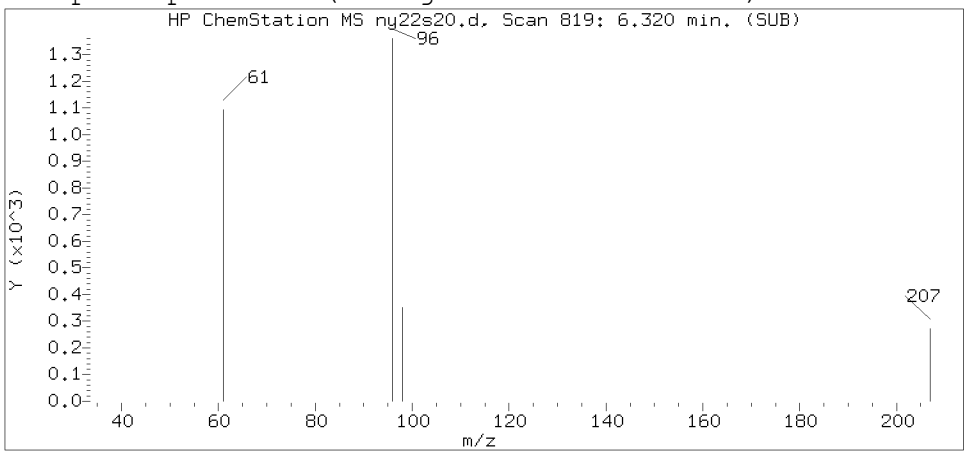
Target 3.5 esignature user ID: sej02002

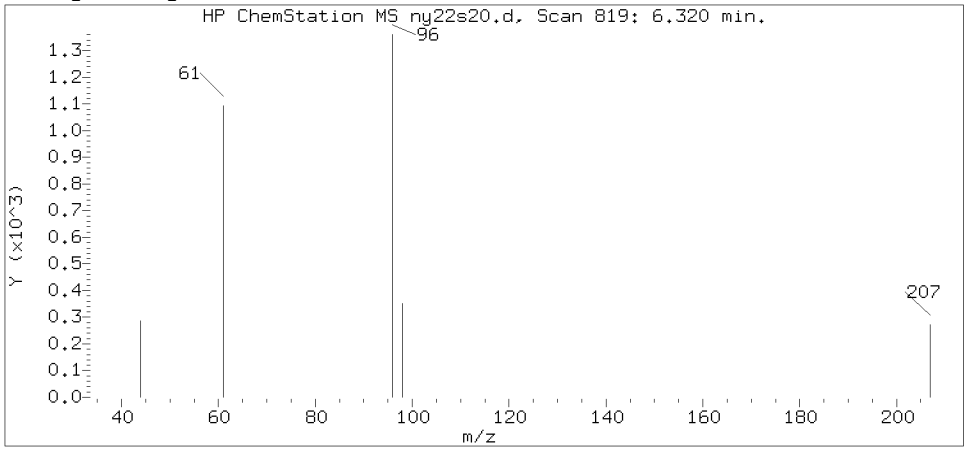
Reference Standard Spectrum for cis-1,2-Dichloroethene

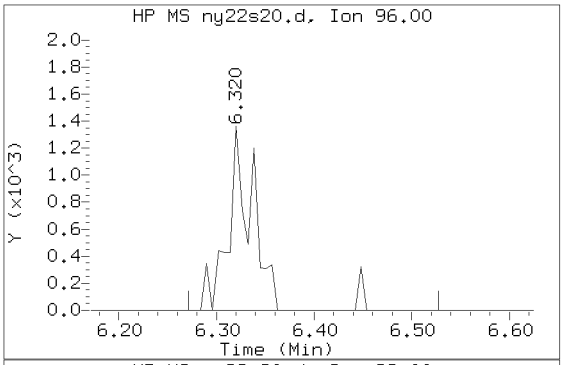


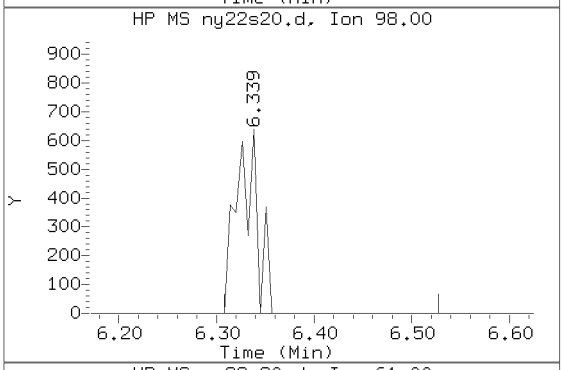
Sample Spectrum (Background Subtracted)

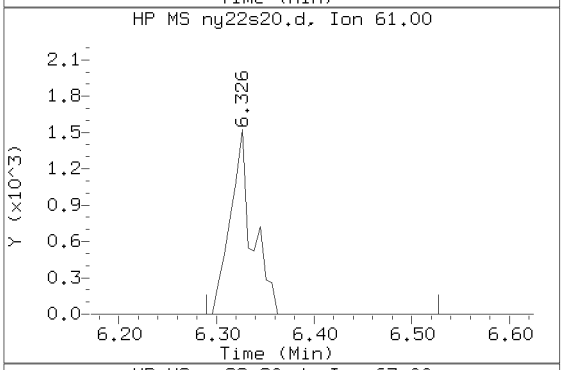


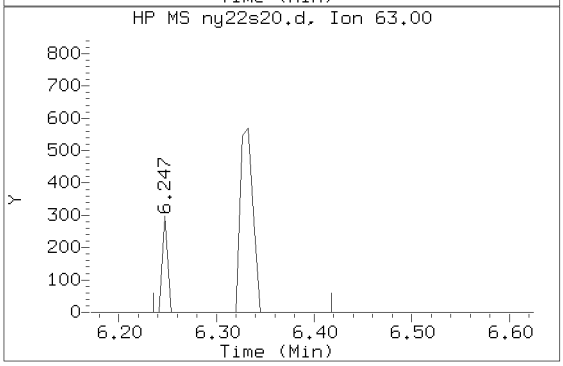
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Compound Number	: 42
Compound Name	: cis-1,2-Dichloroethene
Scan Number	: 819
Retention Time (minutes)	: 6.320
Relative Retention Time	: 0.00090
Quant Ion	: 96.00
Area (flag)	: 2450
On-Column Amount (ng)	: 0.3612

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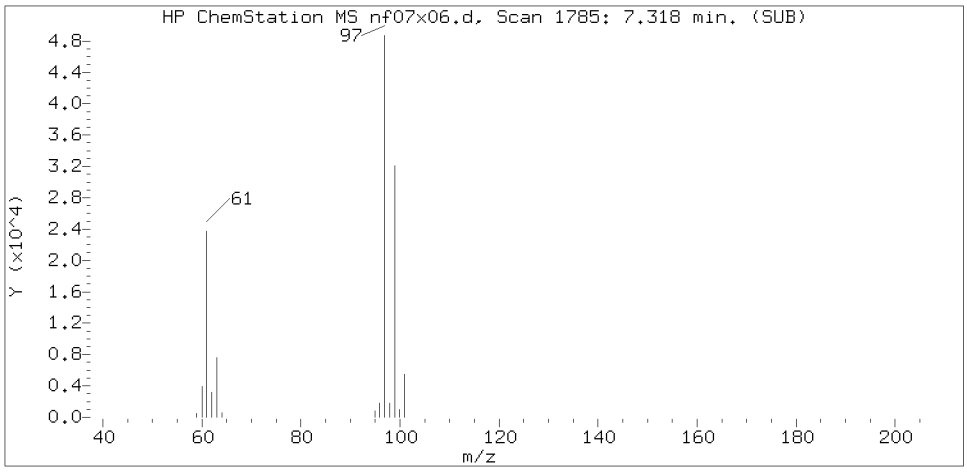
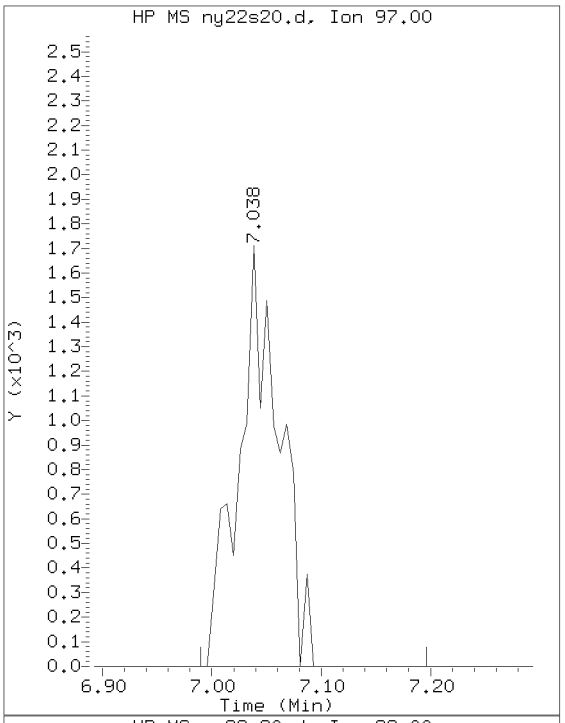
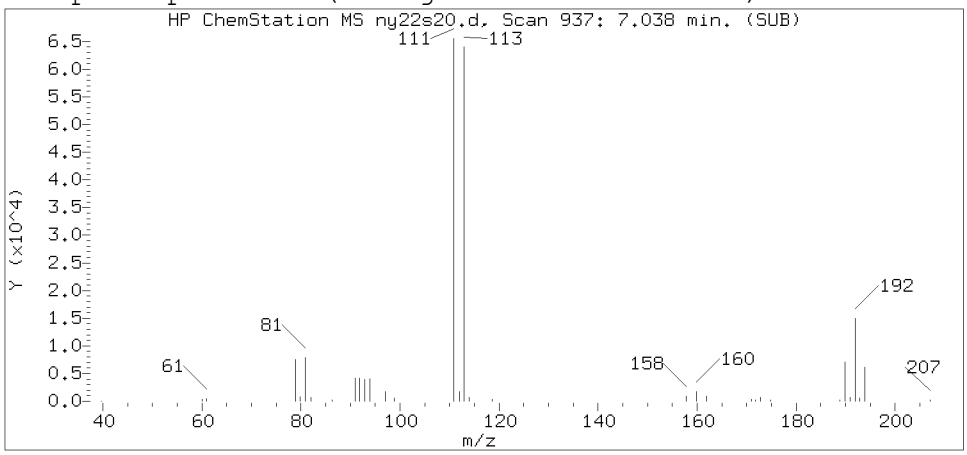
Target 3.5 esignature user ID: sej02002

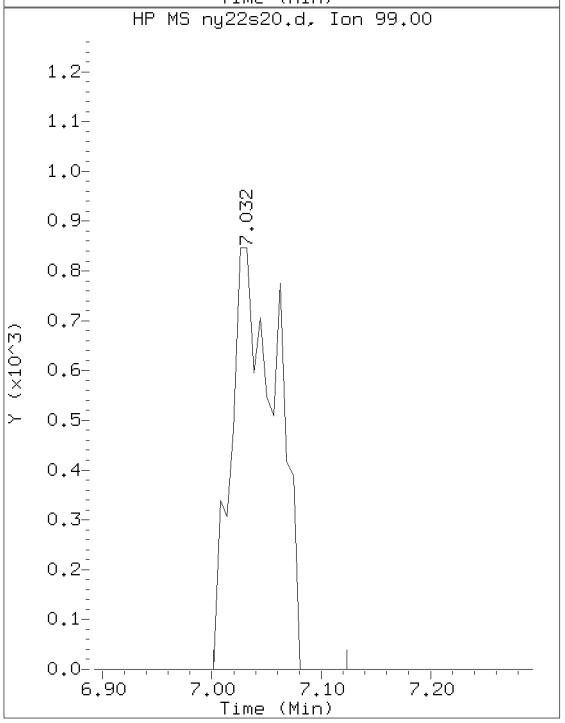
Reference Standard Spectrum for 1,1,1-Trichloroethane



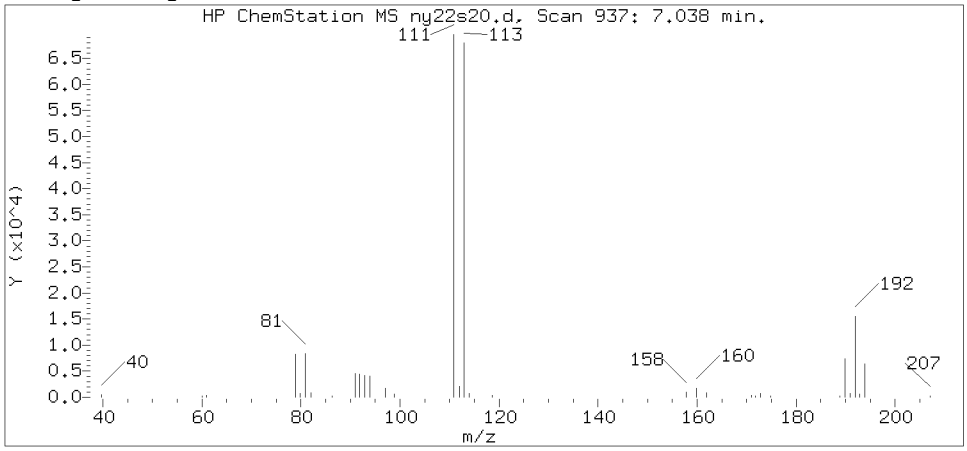


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 937
Retention Time (minutes)	: 7.038
Relative Retention Time	: 0.00008
Quant Ion	: 97.00
Area (flag)	: 4437
On-Column Amount (ng)	: 0.4615

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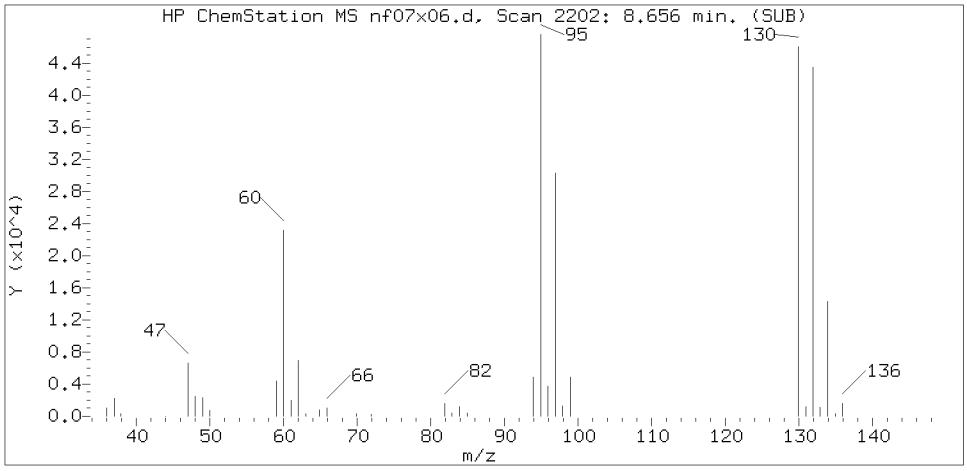
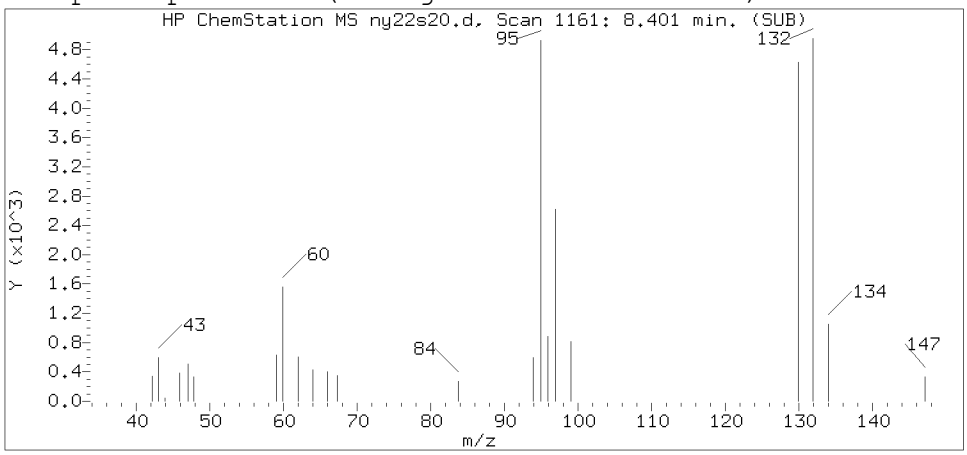
Target 3.5 esignature user ID: sej02002

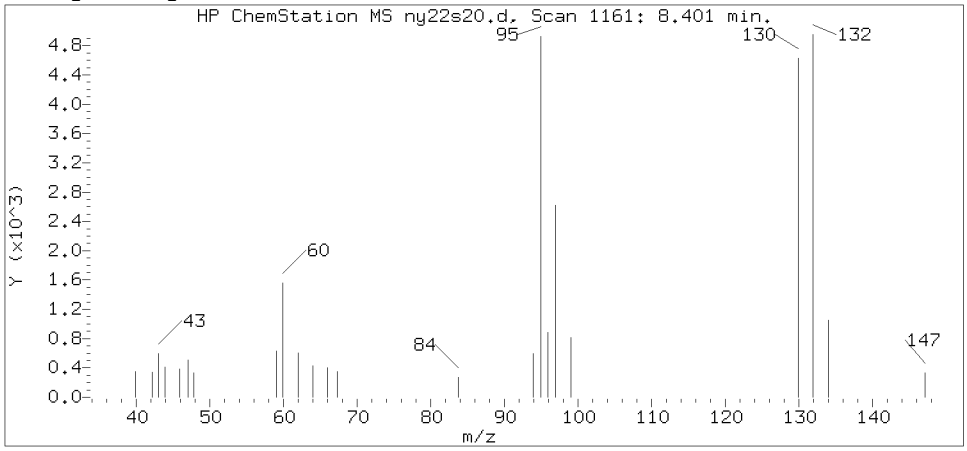
Reference Standard Spectrum for Trichloroethene

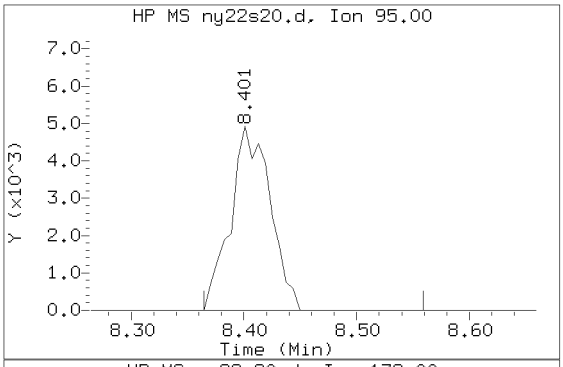


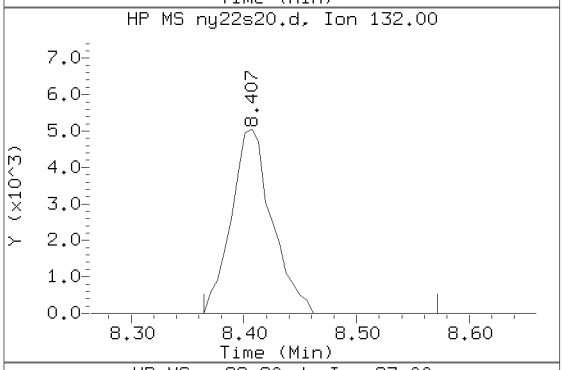
Sample Spectrum (Background Subtracted)

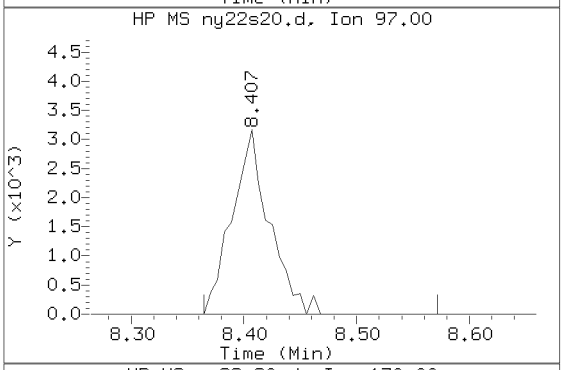


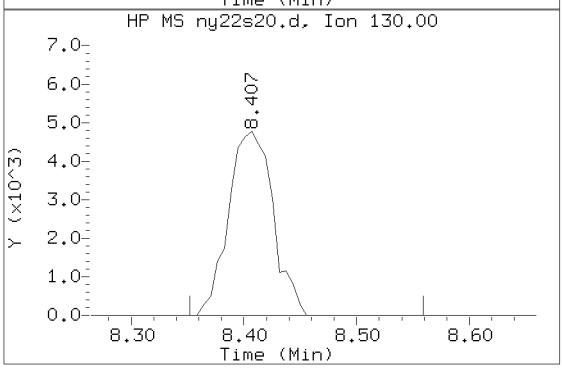
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

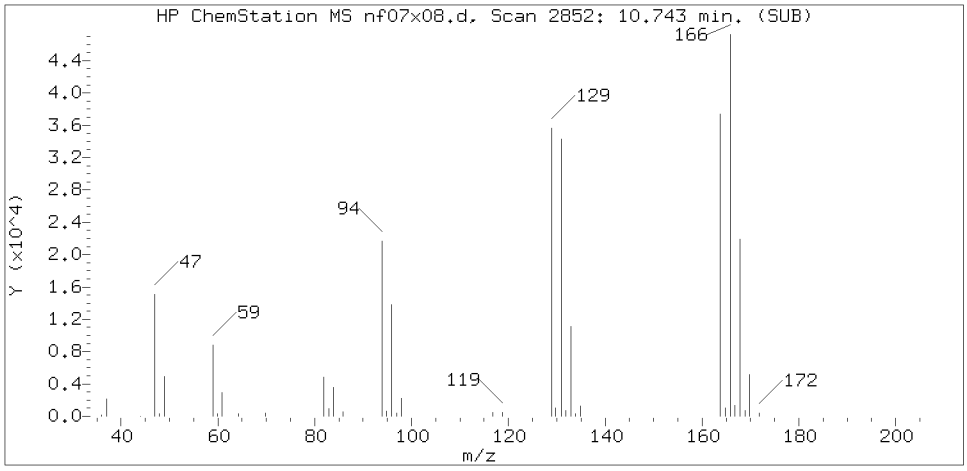
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

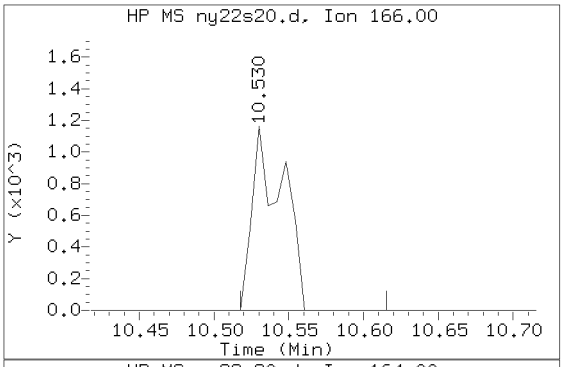
Sample Name: RS098 Lab Sample ID: 1316337

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1161
Retention Time (minutes): 8.401
Relative Retention Time :-0.00004
Quant Ion : 95.00
Area (flag) : 12029
On-Column Amount (ng) : 1.8445

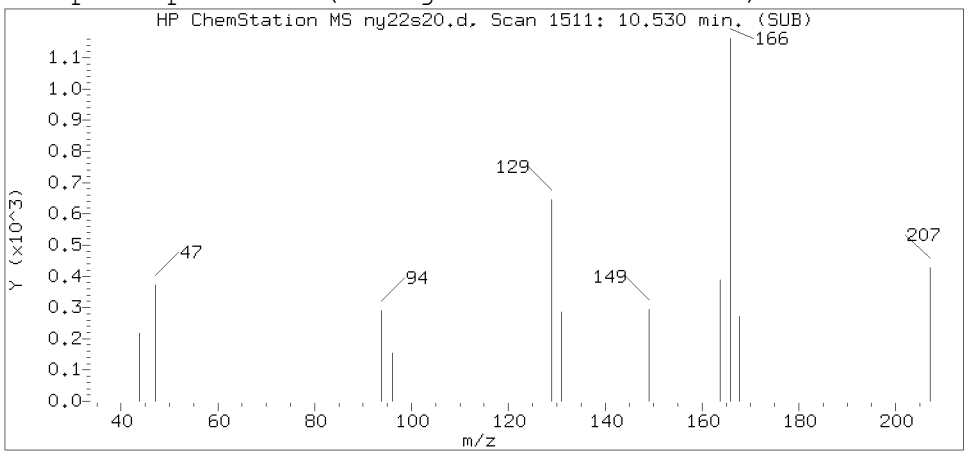
Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

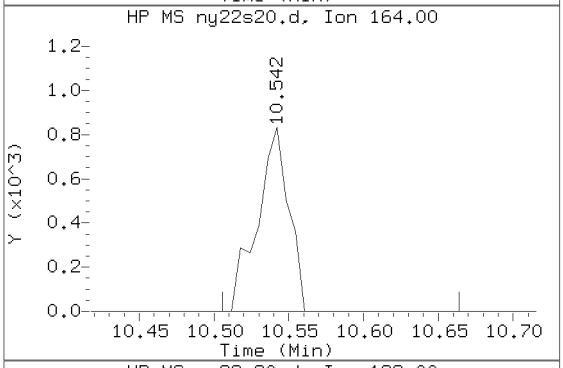
Reference Standard Spectrum for Tetrachloroethene

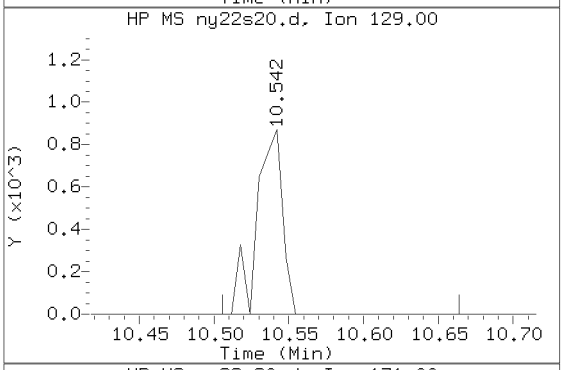




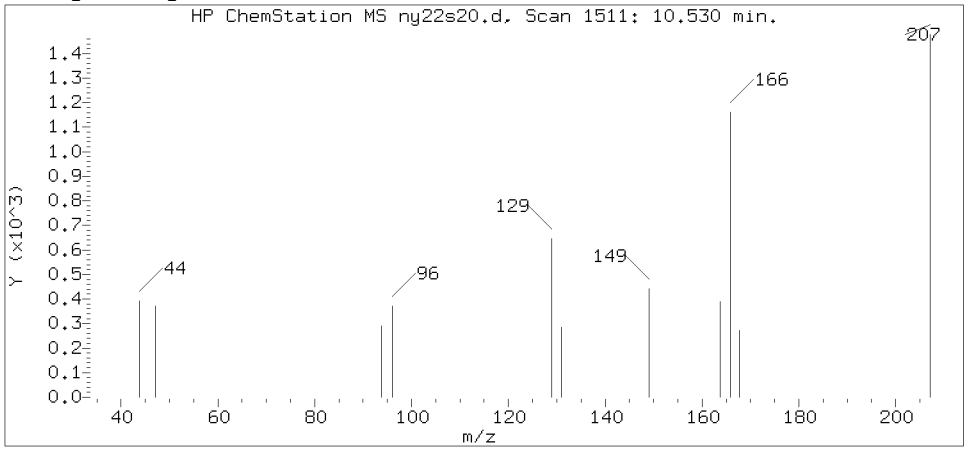
Sample Spectrum (Background Subtracted)

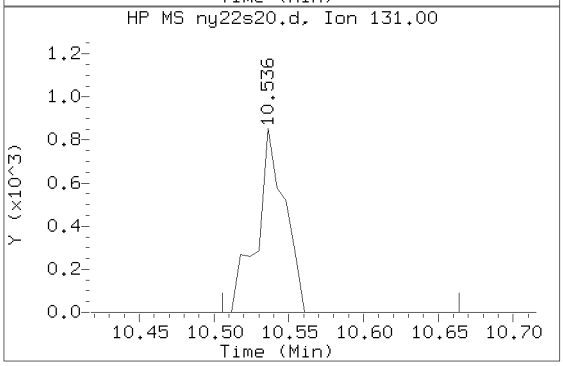






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s20.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:04 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:43 sej02002

Sample Name: RS098 Lab Sample ID: 1316337

Compound Number	: 93
Compound Name	: Tetrachloroethene
Scan Number	: 1511
Retention Time (minutes)	: 10.530
Relative Retention Time	: 0.00107
Quant Ion	: 166.00
Area (flag)	: 1649
On-Column Amount (ng)	: 0.2319

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:43.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
RS099

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316338

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s21.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	0.8	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.2	J
156-59-2	cis-1,2-Dichloroethene	0.2	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.3	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	0.5	J
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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RS099 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316338

Data file: /chem/HP07159.i/20may22a.b/ny22s21.d Injection date and time: **22-MAY-2020 19:26**
Data file Sample Info. Line: RS099;1316338;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.392	(0.030)	502	65	286008	(1)	250.00	
66) Fluorobenzene	7.920	(0.006)	1082	96	1131155	(7)	50.00	
100) Chlorobenzene-d5	11.363	(-0.001)	1648	117	866546	(4)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(-0.001)	1957	152	463740	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026	(0.000)	113	269836	48.068	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488	(0.000)	102	70262	49.503	99%		80 - 120
83) Toluene-d8	(3)	9.922	(0.000)	98	1060310	46.916	94%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	390689	43.757	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.728	(-0.003)	58	653	0.800	0.80		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.487	(0.000)	63	2540	0.207	0.21		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.338	(-0.001)	96	1556	0.204	0.20		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.050	(-0.001)	97	3540	0.328	0.33		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.407	(-0.000)	95	9703	1.324	1.32			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)	9.988	(0.001)	92	9680	0.527	0.53		J	0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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RS099 Lancaster Laboratories 1316338
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s21.d Injection date and time: **22-MAY-2020 19:26**
Data file Sample Info. Line: RS099;1316338;1;0;;JCW56;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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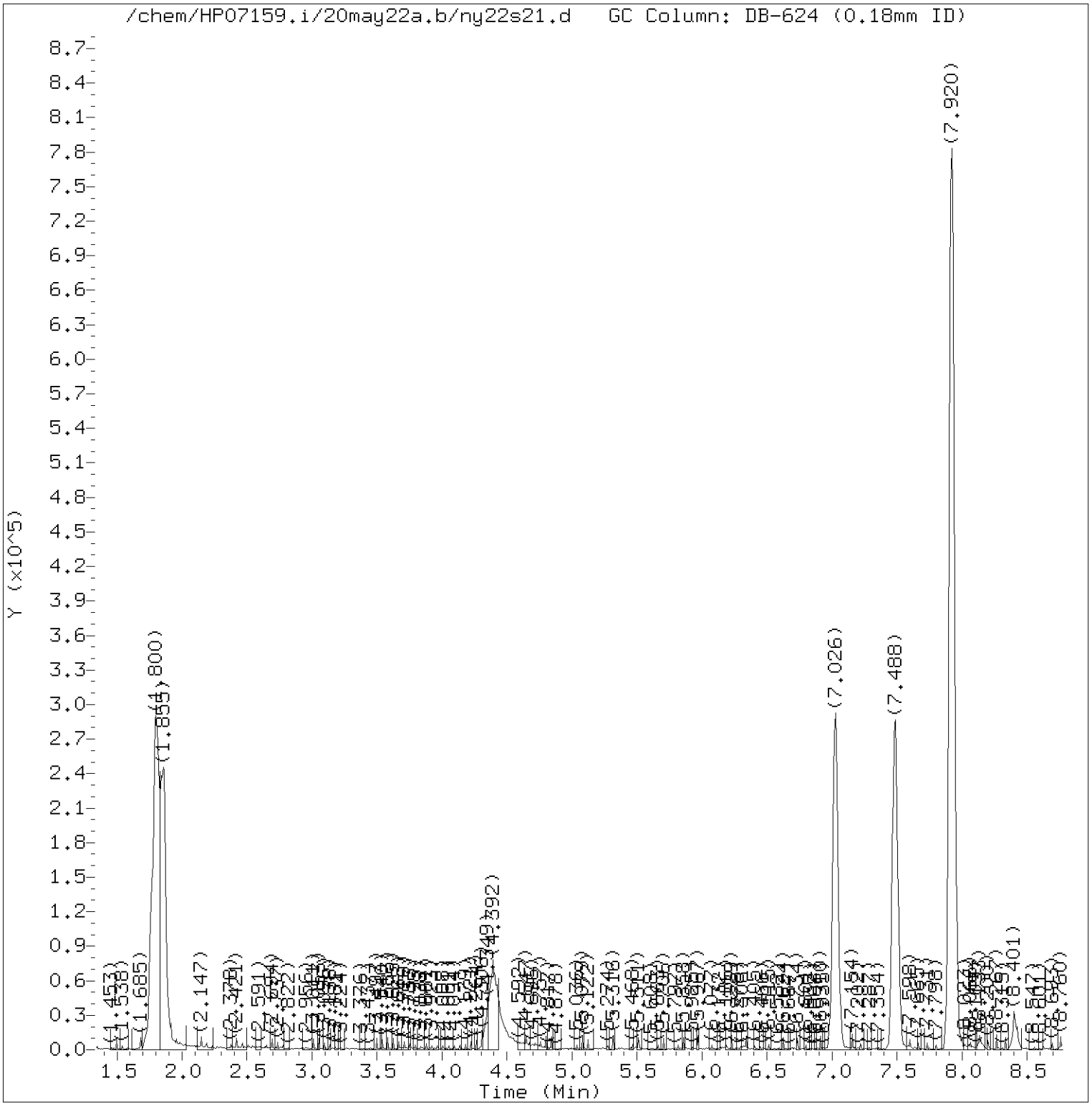
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

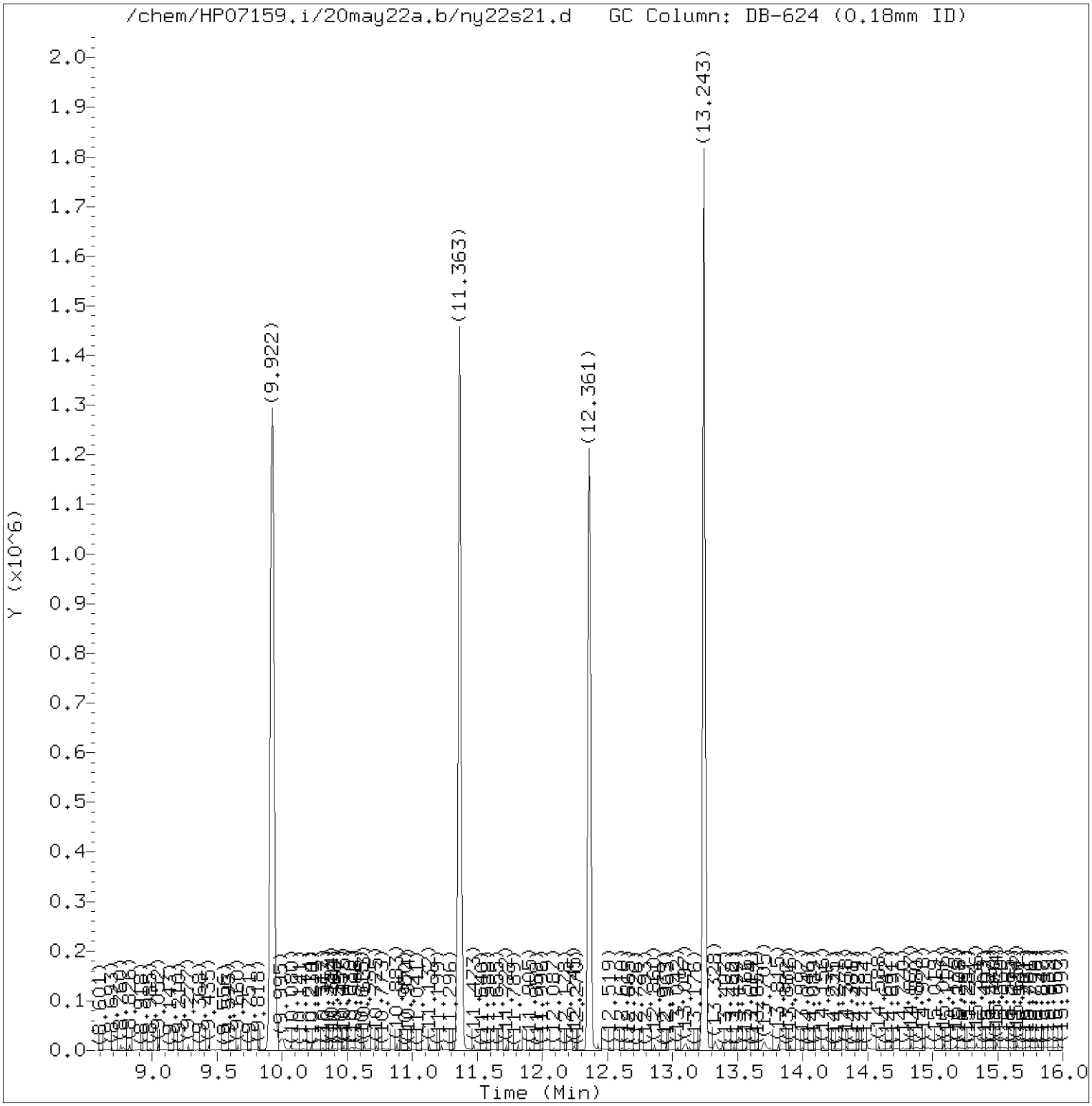
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

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on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.729	58	653	0.800
29)*t-Butyl alcohol-d10	(1)	4.392	65	286008	250.000
36) 1,1-Dichloroethane	(2)	5.487	63	2540	0.207
42) cis-1,2-Dichloroethene	(2)	6.338	96	1556	0.204
52)$Dibromofluoromethane	(2)	7.026	113	269836	48.068
53) 1,1,1-Trichloroethane	(2)	7.050	97	3540	0.328
57)$1,2-Dichloroethane-d4	(2)	7.488	102	70262	49.503
66)*Fluorobenzene	(2)	7.920	96	1131155	50.000
71) Trichloroethene	(2)	8.407	95	9703	1.324
83)$Toluene-d8	(3)	9.922	98	1060310	46.916
88) Toluene	(3)	9.988	92	9680	0.527
100)*Chlorobenzene-d5	(3)	11.363	117	866546	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	390689	43.757
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	463740	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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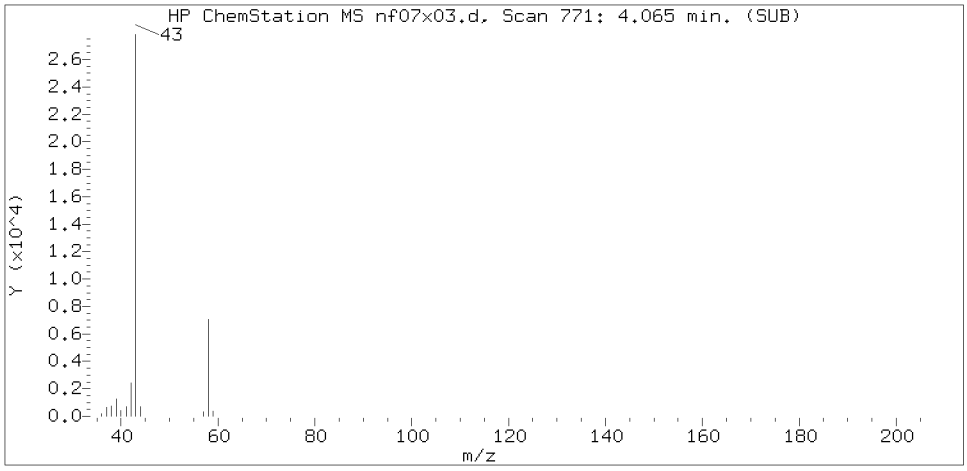
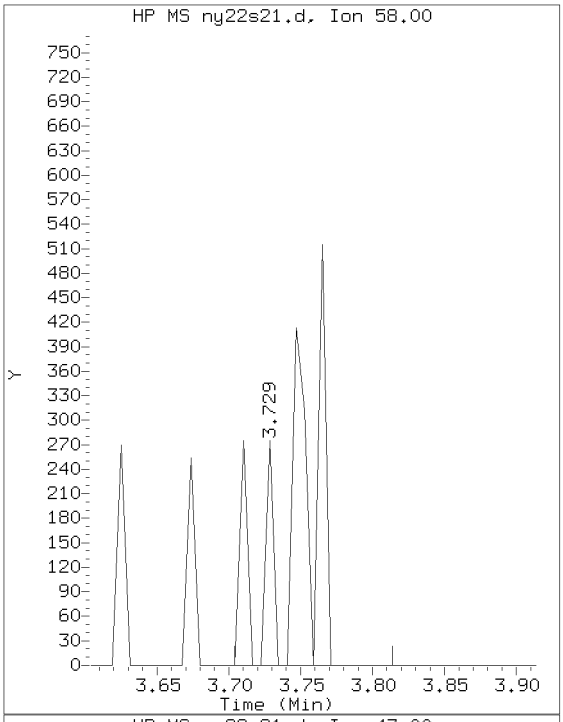
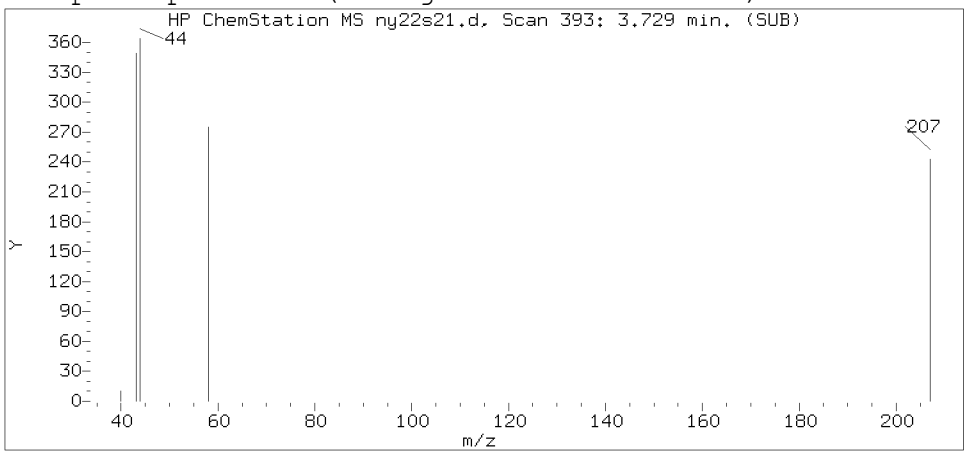
Target 3.5 esignature user ID: sej02002

Reference Standard Spectrum for Acetone

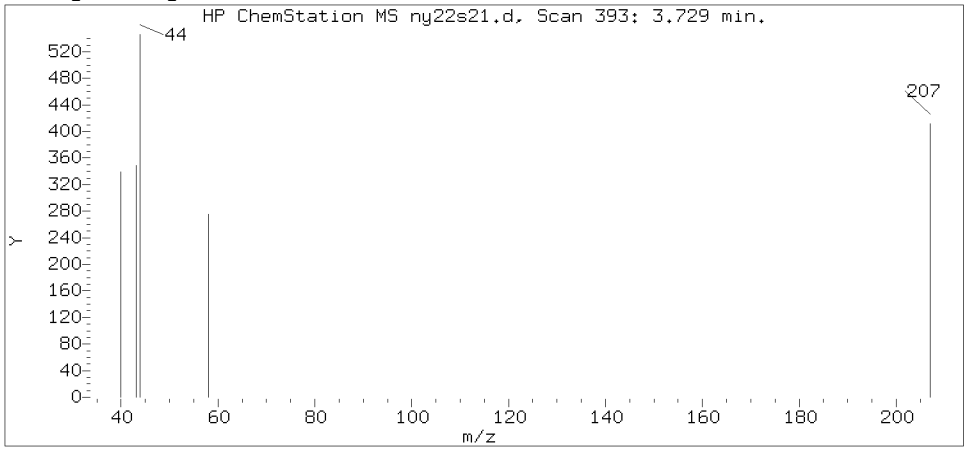


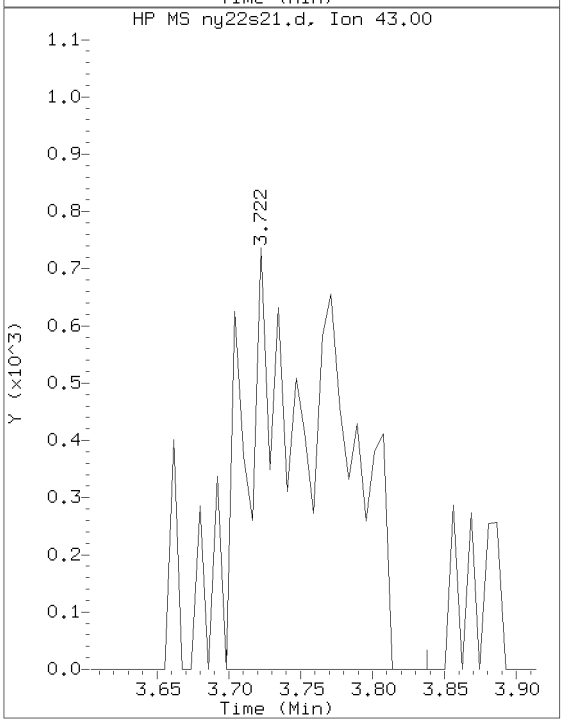


Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

Compound Number : 18
Compound Name : Acetone
Scan Number : 393
Retention Time (minutes): 3.729
Relative Retention Time :-0.00311
Quant Ion : 58.00
Area (flag) : 653
On-Column Amount (ng) : 0.7998

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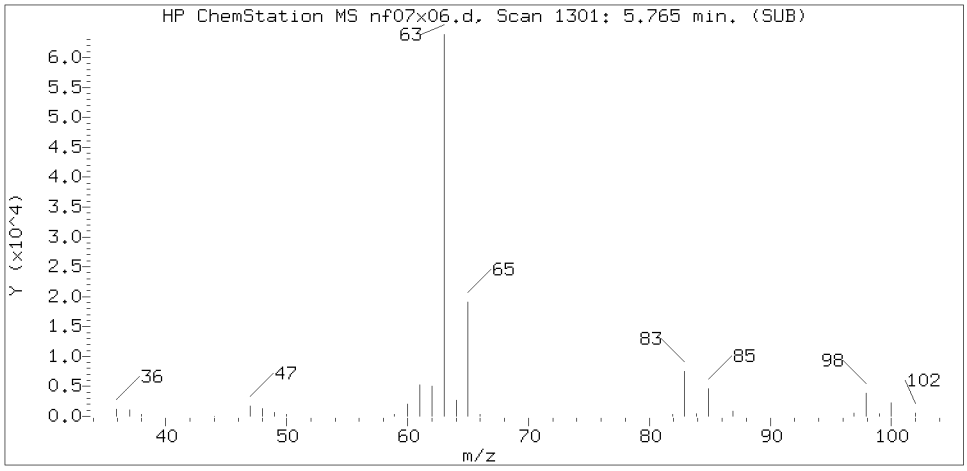
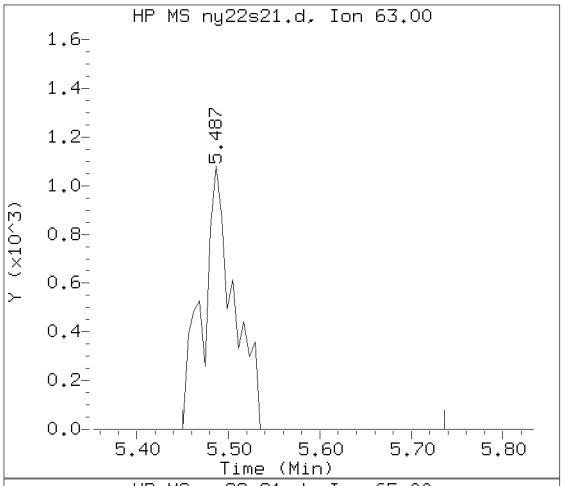
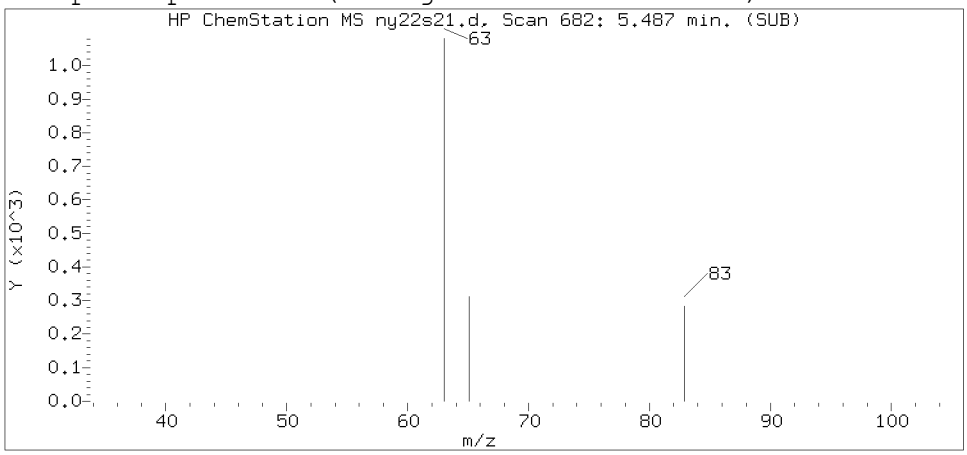
Target 3.5 esignature user ID: sej02002

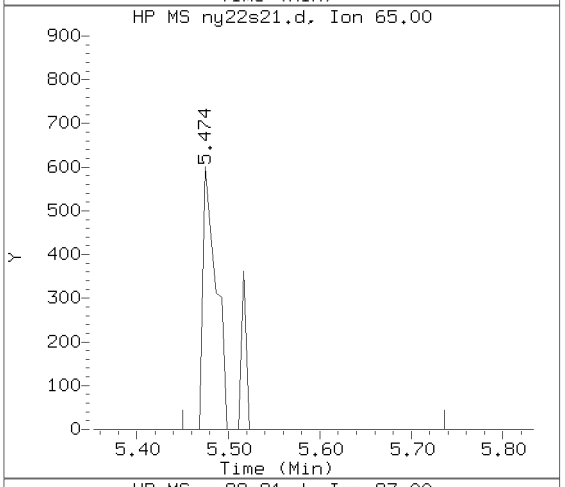
Reference Standard Spectrum for 1,1-Dichloroethane



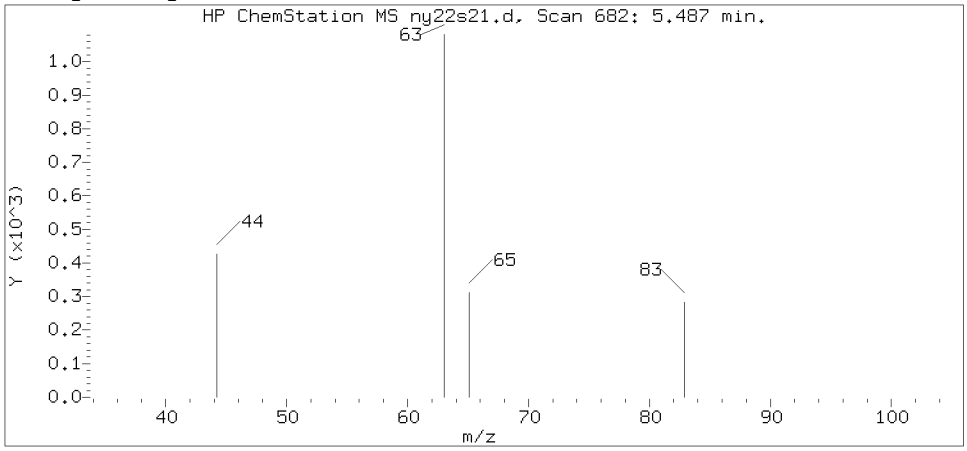


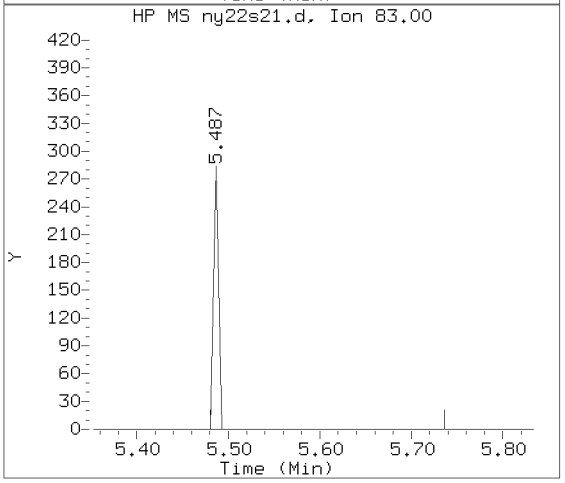
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

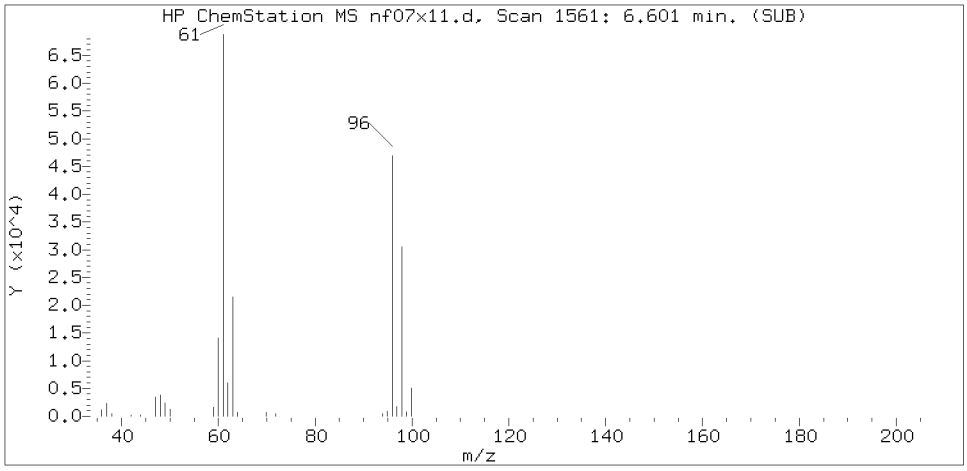
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

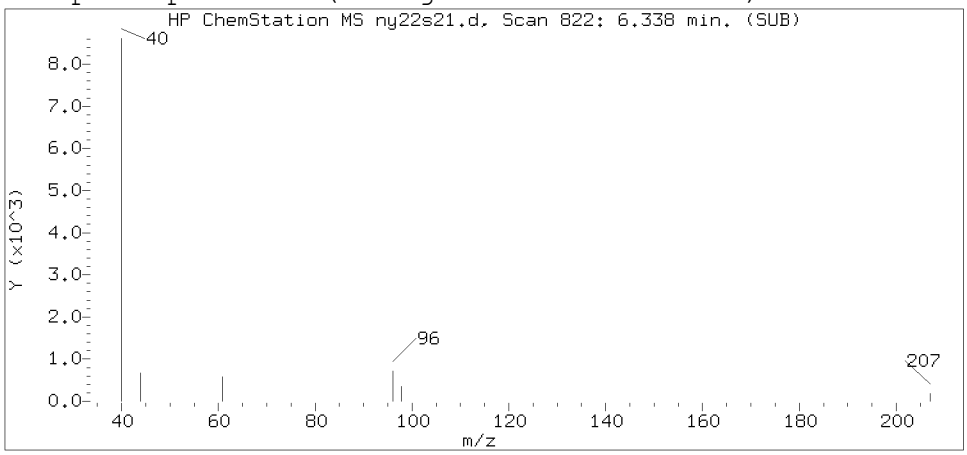
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 682
Retention Time (minutes): 5.487
Relative Retention Time : 0.00098
Quant Ion : 63.00
Area (flag) : 2540
On-Column Amount (ng) : 0.2074

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

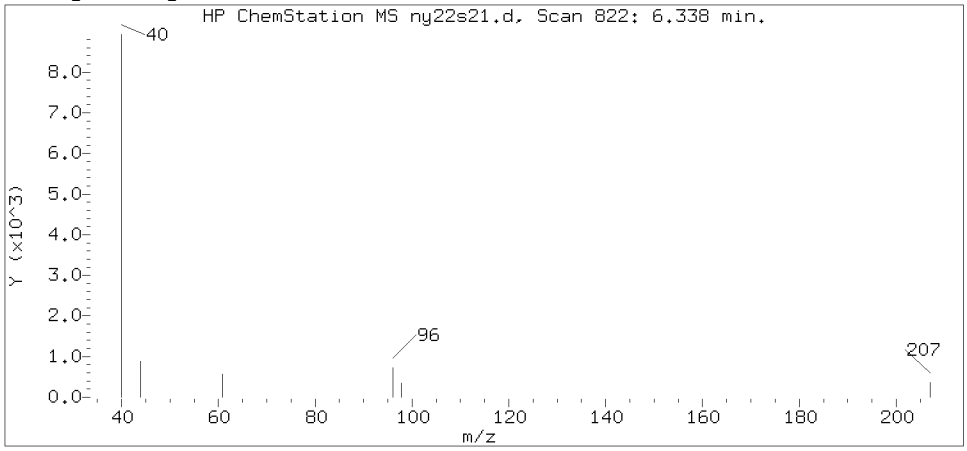
Reference Standard Spectrum for cis-1,2-Dichloroethene

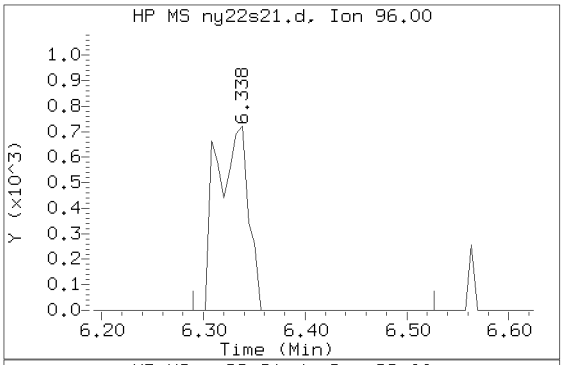


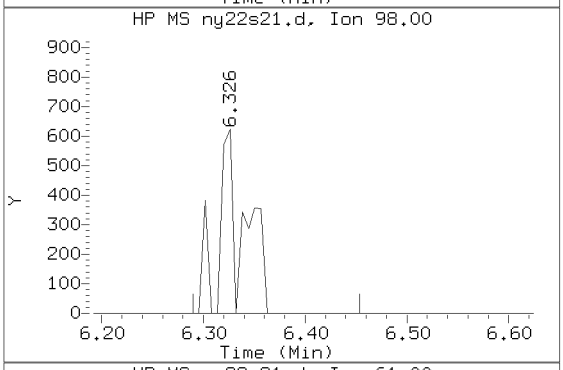
Sample Spectrum (Background Subtracted)

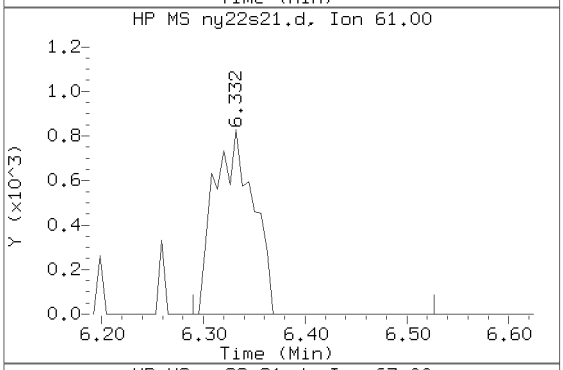


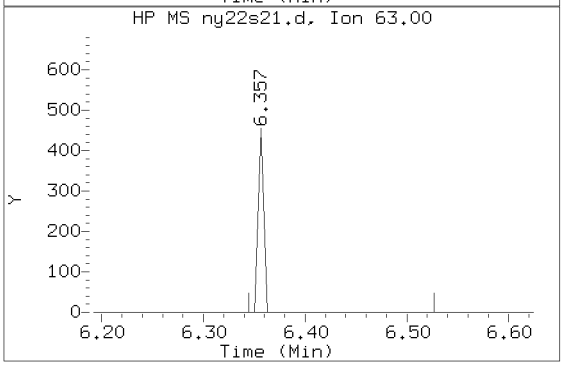
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

Compound Number	: 42
Compound Name	: cis-1,2-Dichloroethene
Scan Number	: 822
Retention Time (minutes)	: 6.338
Relative Retention Time	:-0.00140
Quant Ion	: 96.00
Area (flag)	: 1556
On-Column Amount (ng)	: 0.2041

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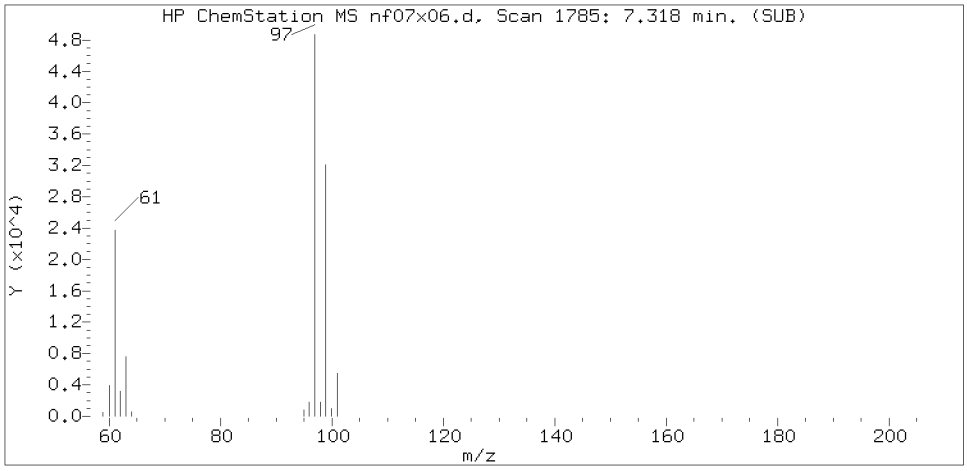
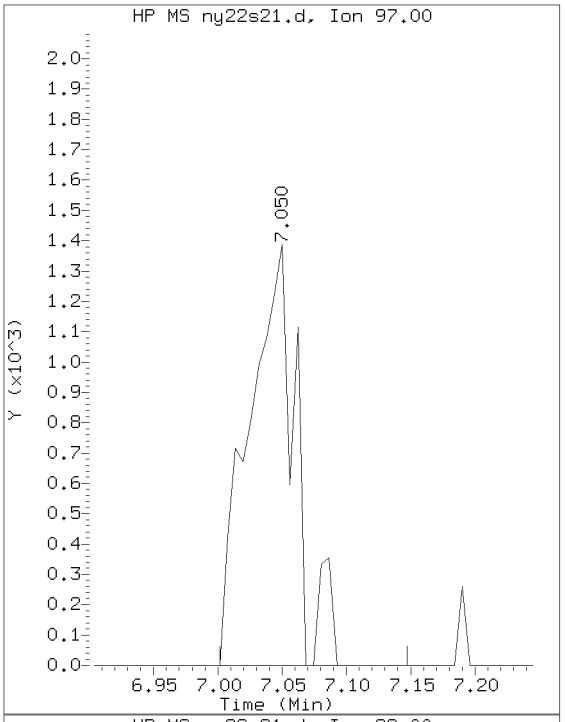
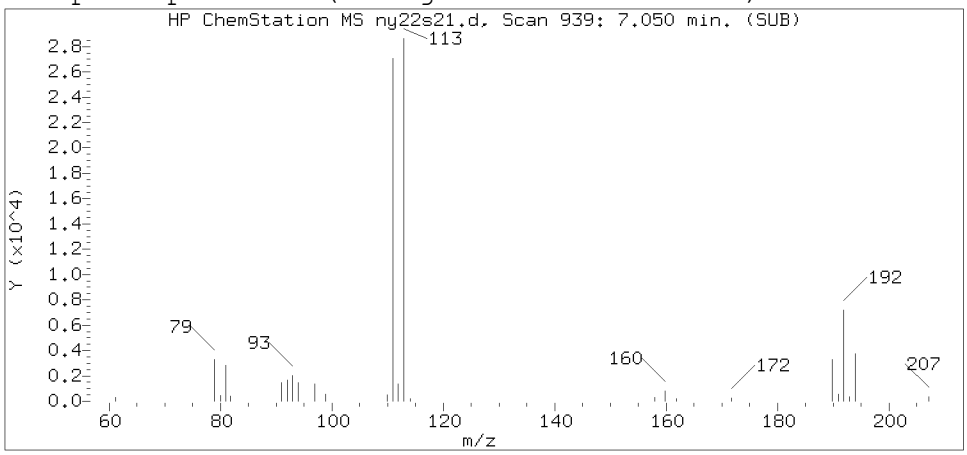
Target 3.5 esignature user ID: sej02002

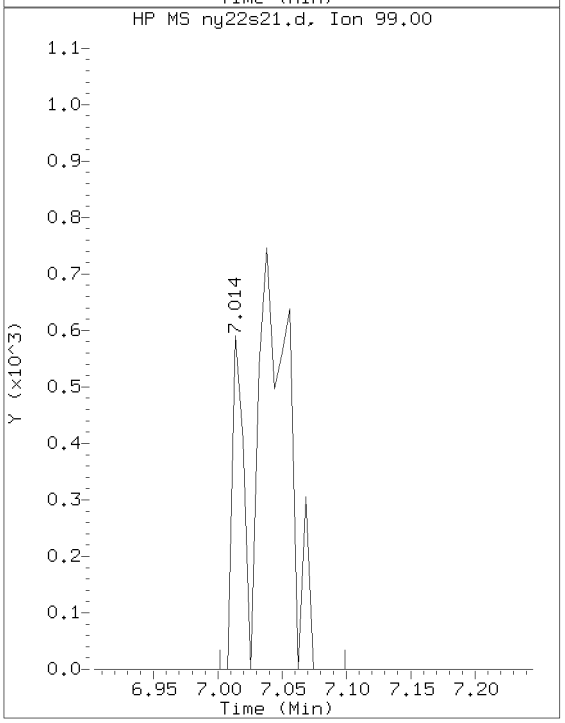
Reference Standard Spectrum for 1,1,1-Trichloroethane



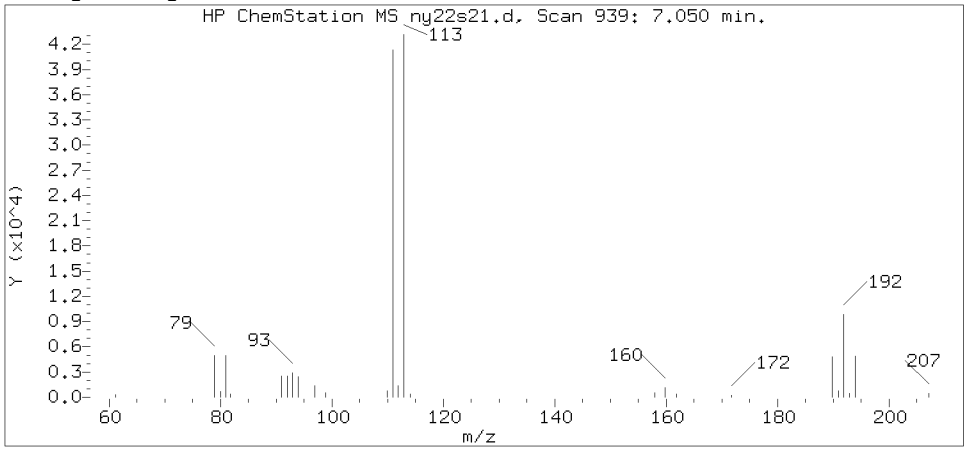


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

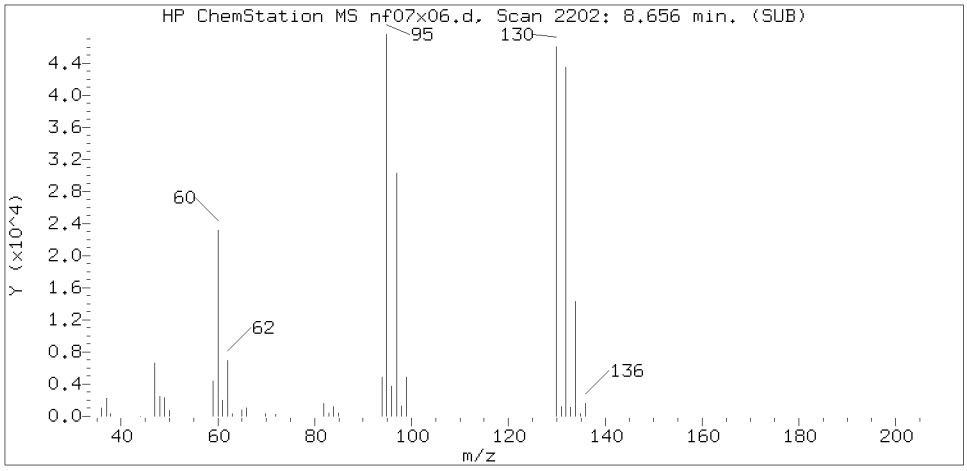
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

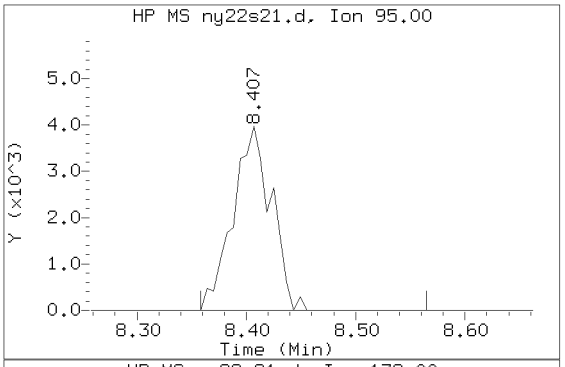
Sample Name: RS099 Lab Sample ID: 1316338

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 939
Retention Time (minutes): 7.050
Relative Retention Time :-0.00146
Quant Ion : 97.00
Area (flag) : 3540
On-Column Amount (ng) : 0.3276

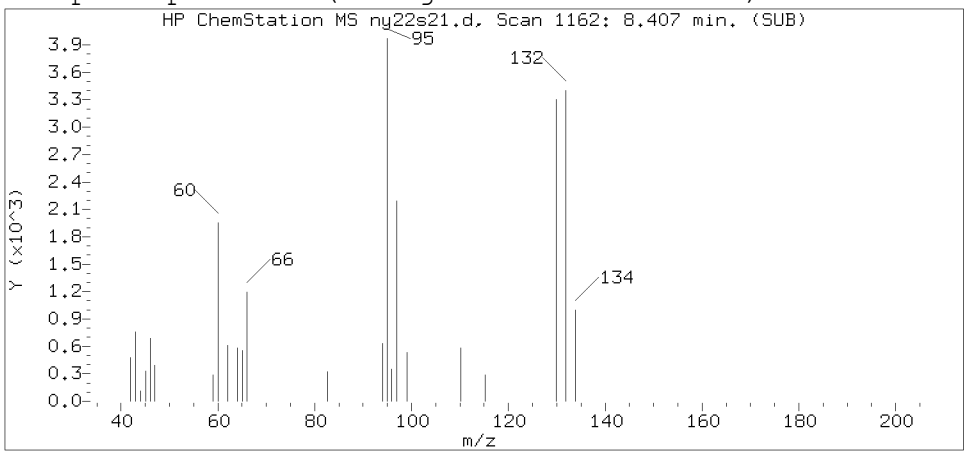
Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

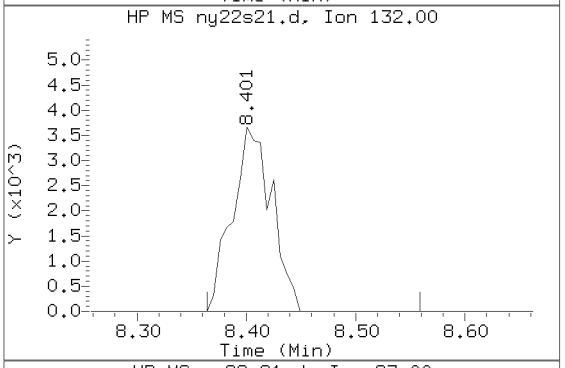
Reference Standard Spectrum for Trichloroethene

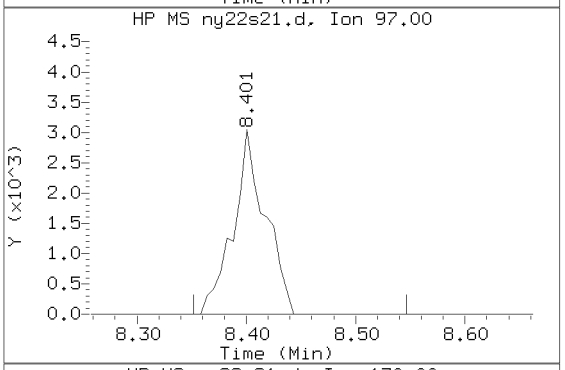




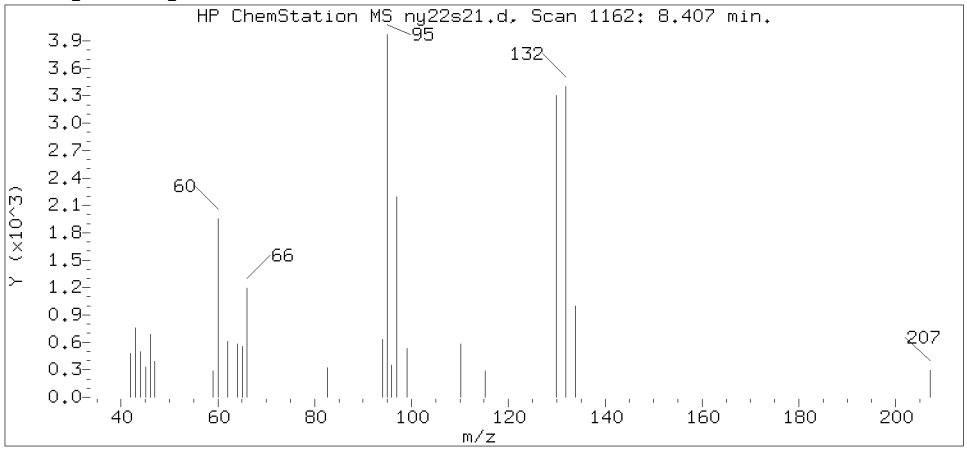
Sample Spectrum (Background Subtracted)

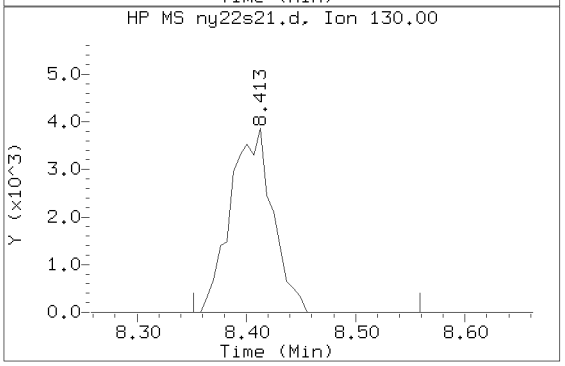






Sample Spectrum (Unaltered)





Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

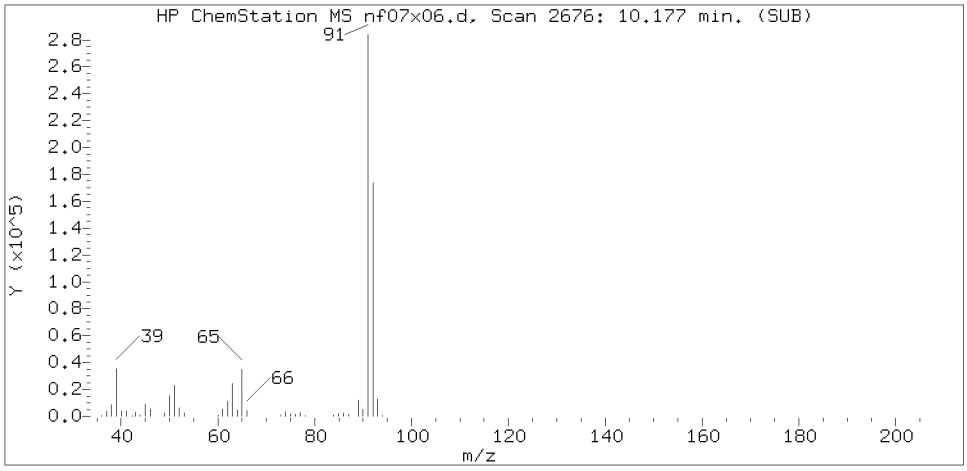
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

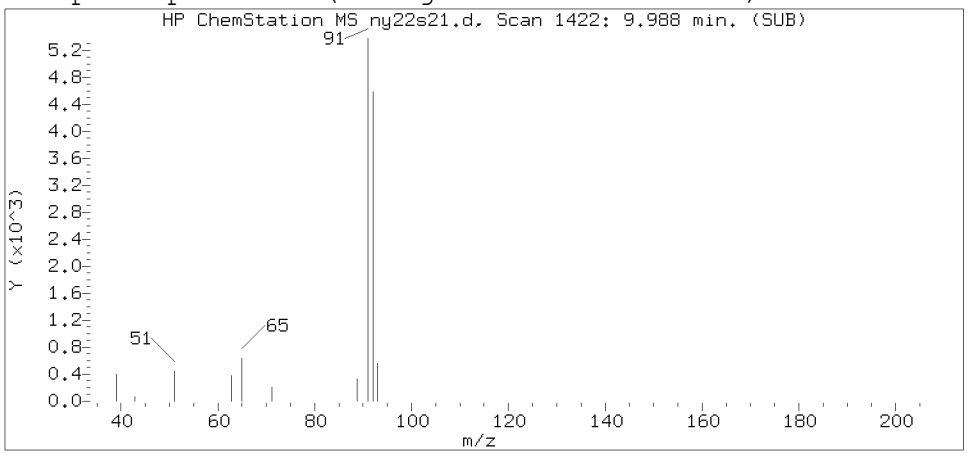
Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 1162
Retention Time (minutes): 8.407
Relative Retention Time :-0.00081
Quant Ion : 95.00
Area (flag) : 9703
On-Column Amount (ng) : 1.3238

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

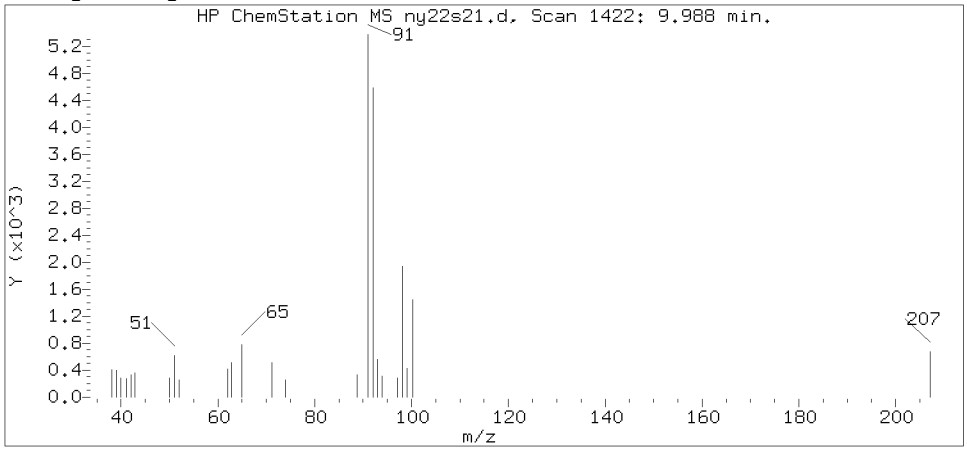
Reference Standard Spectrum for Toluene

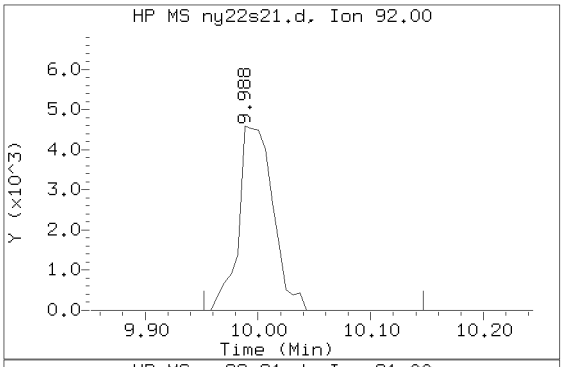


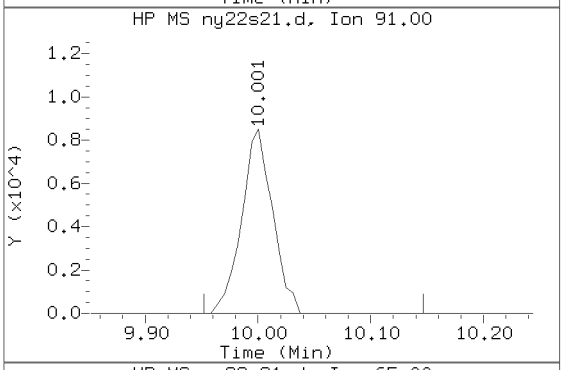
Sample Spectrum (Background Subtracted)

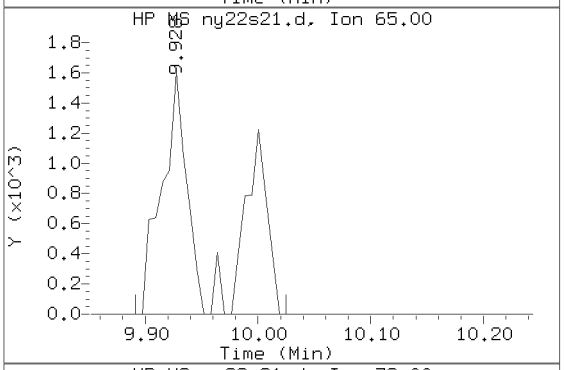


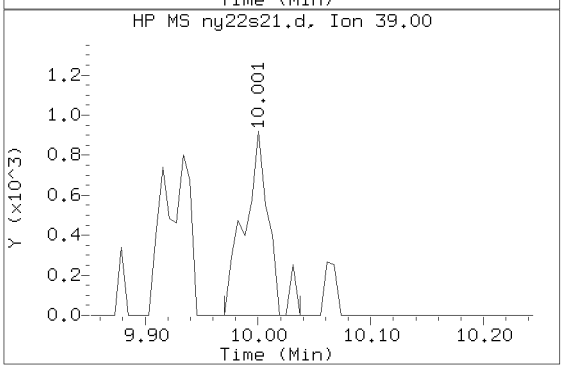
Sample Spectrum (Unaltered)











Data File: /chem/HP07159.i/20may22a.b/ny22s21.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:26 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:35 Automation

Sample Name: RS099 Lab Sample ID: 1316338

Compound Number	: 88
Compound Name	: Toluene
Scan Number	: 1422
Retention Time (minutes)	: 9.988
Relative Retention Time	: 0.00106
Quant Ion	: 92.00
Area (flag)	: 9680
On-Column Amount (ng)	: 0.5273

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - O:\20jan09a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
amd00492	nj09t01.D	50NGBFB	01/09/2020	06:57		
amd00492	NJ09I01.D	VSTD300	01/09/2020	07:53		
amd00492	NJ09I02.D	VSTD100	01/09/2020	08:15		
amd00492	NJ09I03.D	VSTD050	01/09/2020	08:37		
amd00492	NJ09I04.D	VSTD020	01/09/2020	08:58		
amd00492	NJ09I05.D	VSTD010	01/09/2020	09:20		
amd00492	NJ09I06.D	VSTD004	01/09/2020	09:42		
amd00492	NJ09I07.D	VSTD001	01/09/2020	10:04		
amd00492	NJ09l01.D	ICVNLG	01/09/2020	10:26		
amd00492	NJ09B01.D	VBLKN00	01/09/2020	11:10		
amd00492	NJ09M01.D	MDLN01	01/09/2020	11:32		
amd00492	NJ09M02.D	MDLN02	01/09/2020	11:54		
amd00492	NJ09M03.D	MDLN03	01/09/2020	12:16		
amd00492	NJ09X01.D	BLANK	01/09/2020	07:09		

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - D:\DATAHP11\20MAY22A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lcp00895	NY22T01.D	50NGBFB	05/22/2020	09:26		
LCP00895	NY22X00.D	CBLKN	05/22/2020	10:38	N201431AA	
LCP00895	NY22C01.D	VSTD050	05/22/2020	11:00	N201431AA	
LCP00895	NY22B01.D	VBLKN45	05/22/2020	12:06	N201431AA	
LCP00895	NY22S02.D	1315379	05/22/2020	12:28	N201431AA	
LCP00895	NY22S03.D	1315372	05/22/2020	12:50	N201431AA	
LCP00895	NY22S04.D	1315373	05/22/2020	13:12	N201431AA	
LCP00895	NY22S05.D	1315374MS	05/22/2020	13:34	N201431AA	
LCP00895	NY22S06.D	1315375MSD	05/22/2020	13:56	N201431AA	
LCP00895	NY22S07.D	1315377	05/22/2020	14:18	N201431AA	
LCP00895	NY22S08.D	1315378	05/22/2020	14:40	N201431AA	
LCP00895	NY22S09.D	1315380	05/22/2020	15:02	N201431AA	
LCP00895	NY22S10.D	1315381	05/22/2020	15:24	N201431AA	
LCP00895	NY22S11.D	1316321	05/22/2020	15:46	N201431AA	
LCP00895	NY22S12.D	1316322	05/22/2020	16:08	N201431AA	
LCP00895	NY22S13.D	1316330	05/22/2020	16:30	N201431AA	
LCP00895	NY22S14.D	1316331	05/22/2020	16:52	N201431AA	
LCP00895	NY22S15.D	1316332	05/22/2020	17:14	N201431AA	
LCP00895	NY22S16.D	1316333	05/22/2020	17:36	N201431AA	
LCP00895	NY22S17.D	1316334	05/22/2020	17:58	N201431AA	
LCP00895	NY22S18.D	1316335	05/22/2020	18:20	N201431AA	
LCP00895	NY22S19.D	1316336	05/22/2020	18:42	N201431AA	
LCP00895	NY22S20.D	1316337	05/22/2020	19:04	N201431AA	
LCP00895	NY22S21.D	1316338	05/22/2020	19:26	N201431AA	
LCP00895	NY22S22.D	1316339	05/22/2020	19:48	N201431AA	
LCP00895	NY22S23.D	1316340	05/22/2020	20:10	N201431AA	

Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

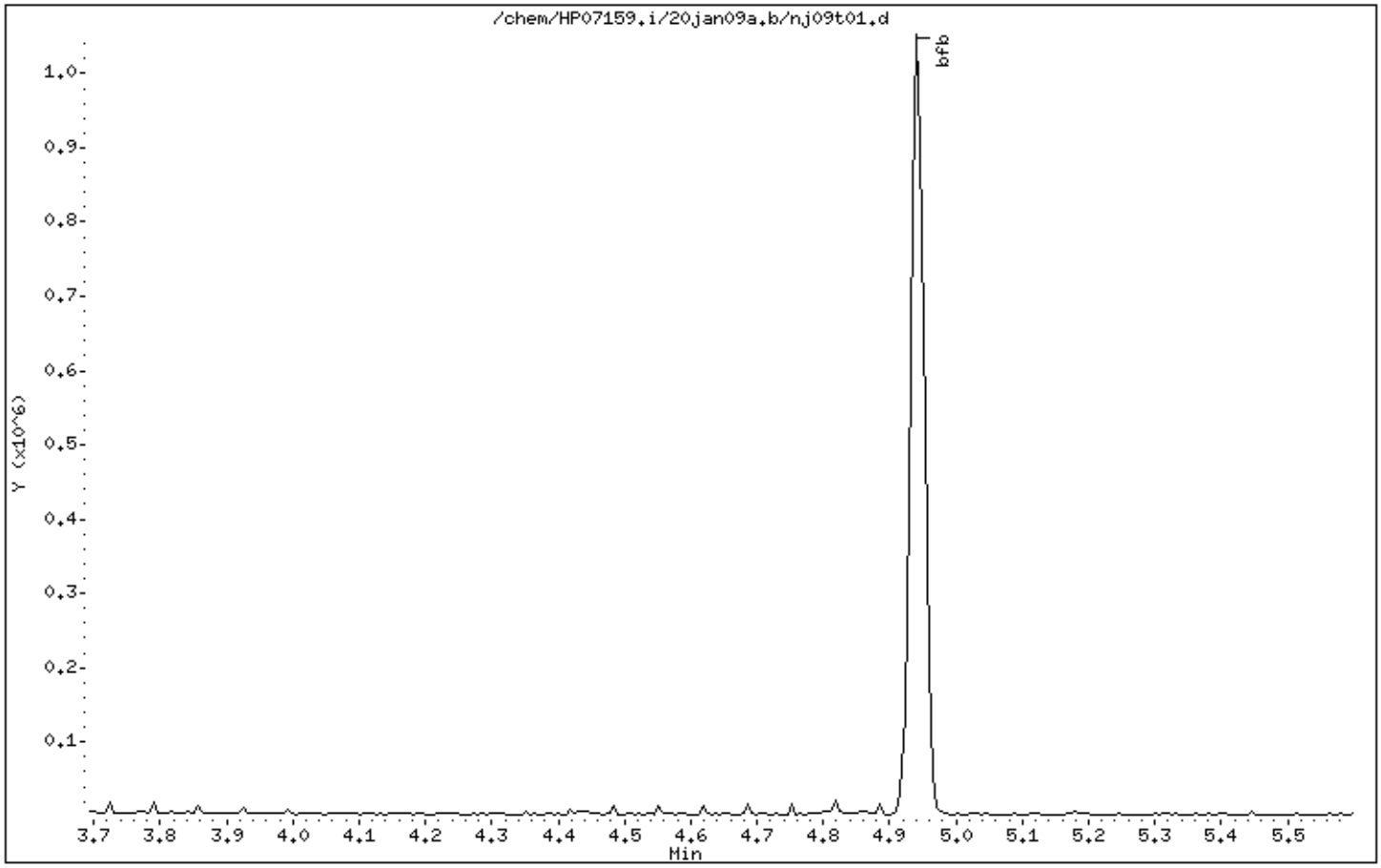
Instrument: HP07159.i

Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

Instrument: HP07159.i

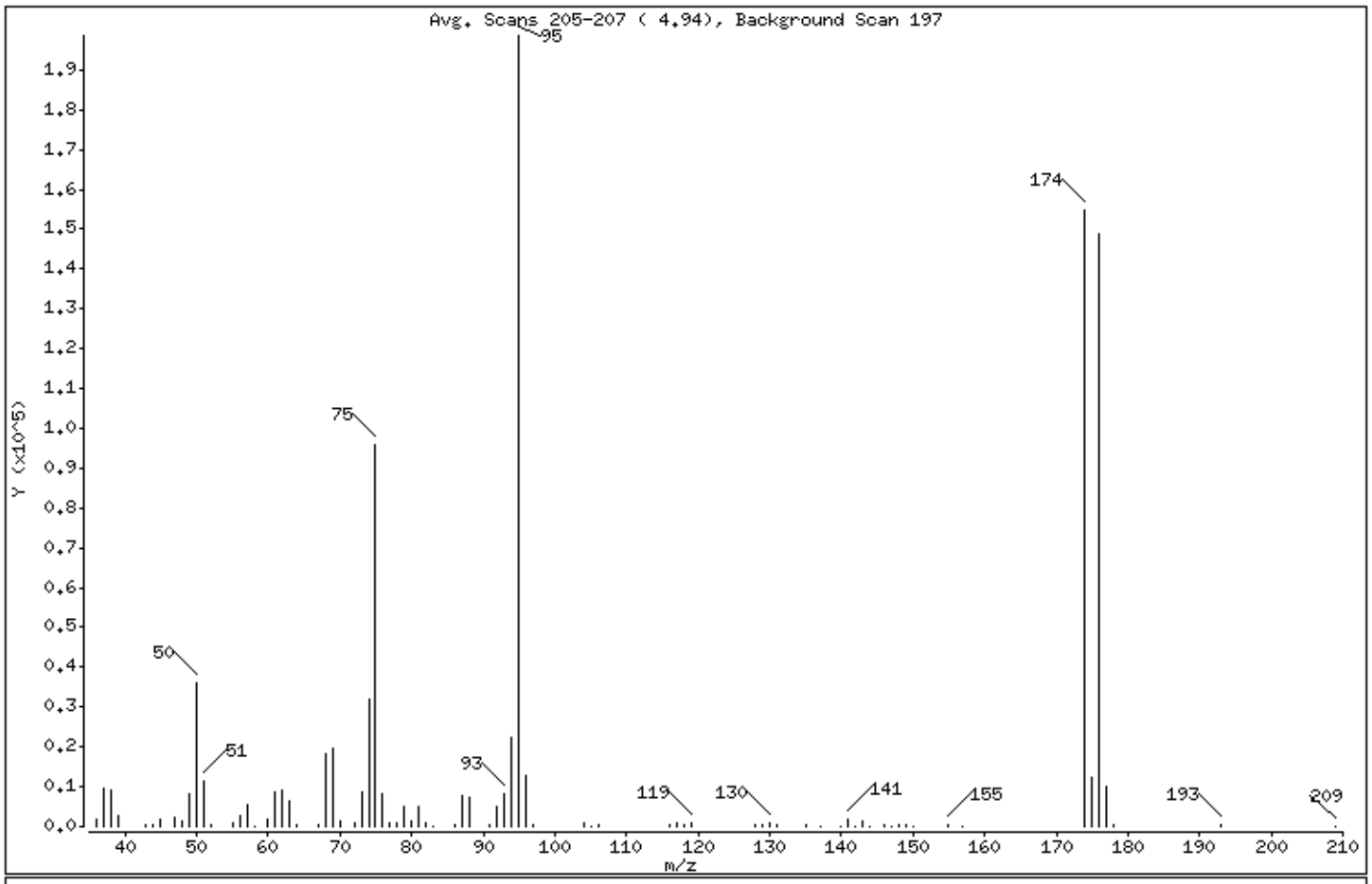
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.24
75	30.00 - 60.00% of mass 95	48.22
96	5.00 - 9.00% of mass 95	6.40
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.86
175	5.00 - 9.00% of mass 174	6.18 (7.94)
176	95.00 - 101.00% of mass 174	74.98 (96.30)
177	5.00 - 9.00% of mass 176	5.08 (6.77)

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19 Instrument: HP07159.i

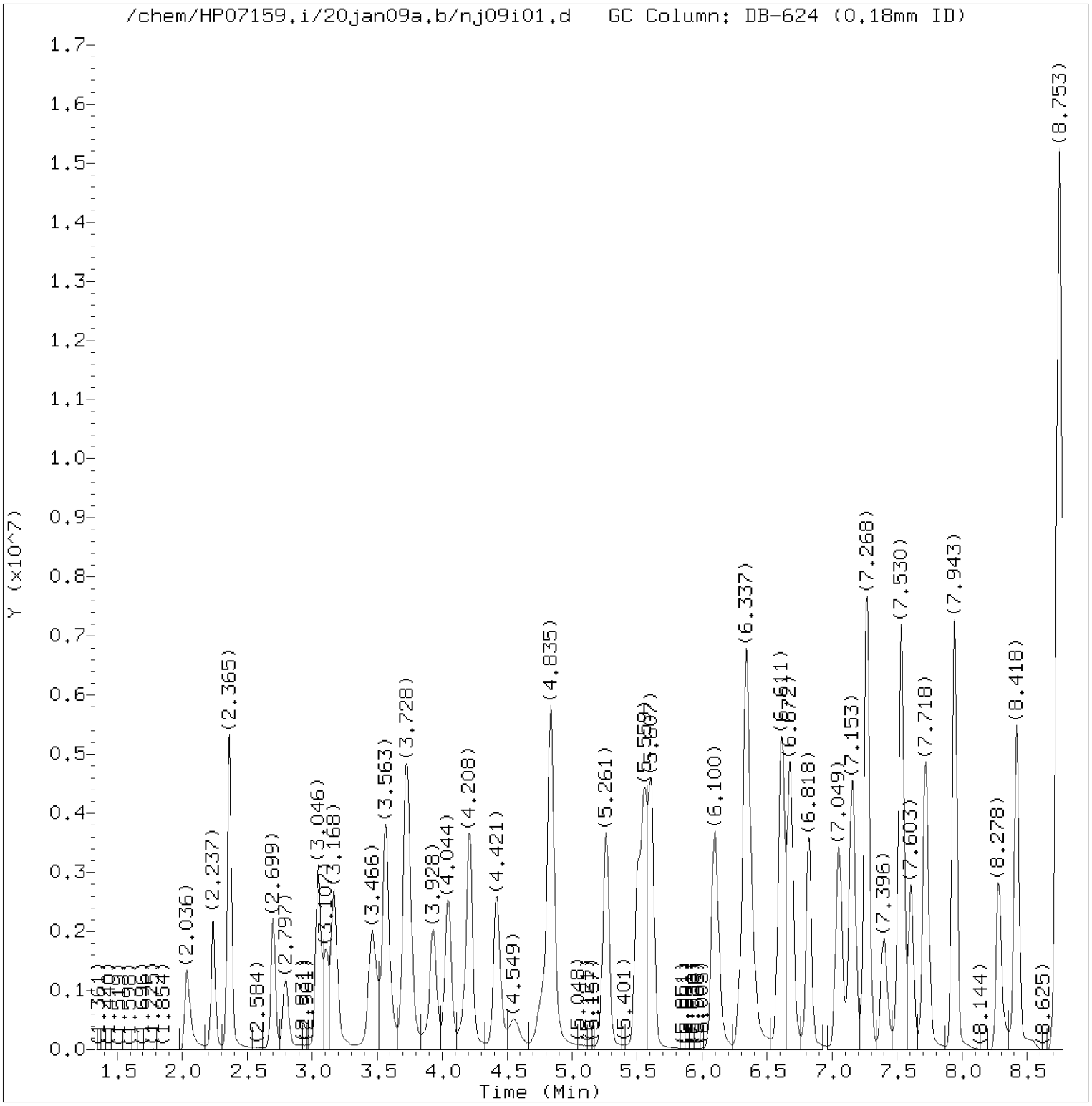
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: nj09t01.d
Spectrum: Avg. Scans 205-207 (4.94), Background Scan 197
Location of Maximum: 95.00
Number of points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1953	64.00	666	92.00	5080	142.00	95
37.00	9560	67.00	678	93.00	8056	143.00	1498
38.00	8918	68.00	18480	94.00	22344	144.00	84
39.00	2843	69.00	19424	95.00	198592	146.00	319
43.00	350	70.00	1523	96.00	12706	147.00	87
44.00	450	72.00	1082	97.00	496	148.00	442
45.00	1655	73.00	8728	104.00	818	149.00	281
47.00	2085	74.00	31872	105.00	90	150.00	214
48.00	1312	75.00	95760	106.00	678	155.00	337
49.00	8082	76.00	8401	116.00	637	157.00	132
50.00	36224	77.00	1091	117.00	1059	174.00	154624
51.00	11259	78.00	888	118.00	628	175.00	12278
52.00	532	79.00	4897	119.00	1082	176.00	148864
55.00	740	80.00	1500	128.00	639	177.00	10081
56.00	2915	81.00	4870	129.00	262	178.00	324
57.00	5531	82.00	1040	130.00	700	193.00	349
58.00	90	83.00	86	131.00	393	209.00	93
60.00	1942	86.00	292	135.00	352		
61.00	8880	87.00	7728	137.00	222		
62.00	9156	88.00	7312	140.00	196		
63.00	6262	91.00	680	141.00	1693		



Total Ion Chromatogram (TIC)

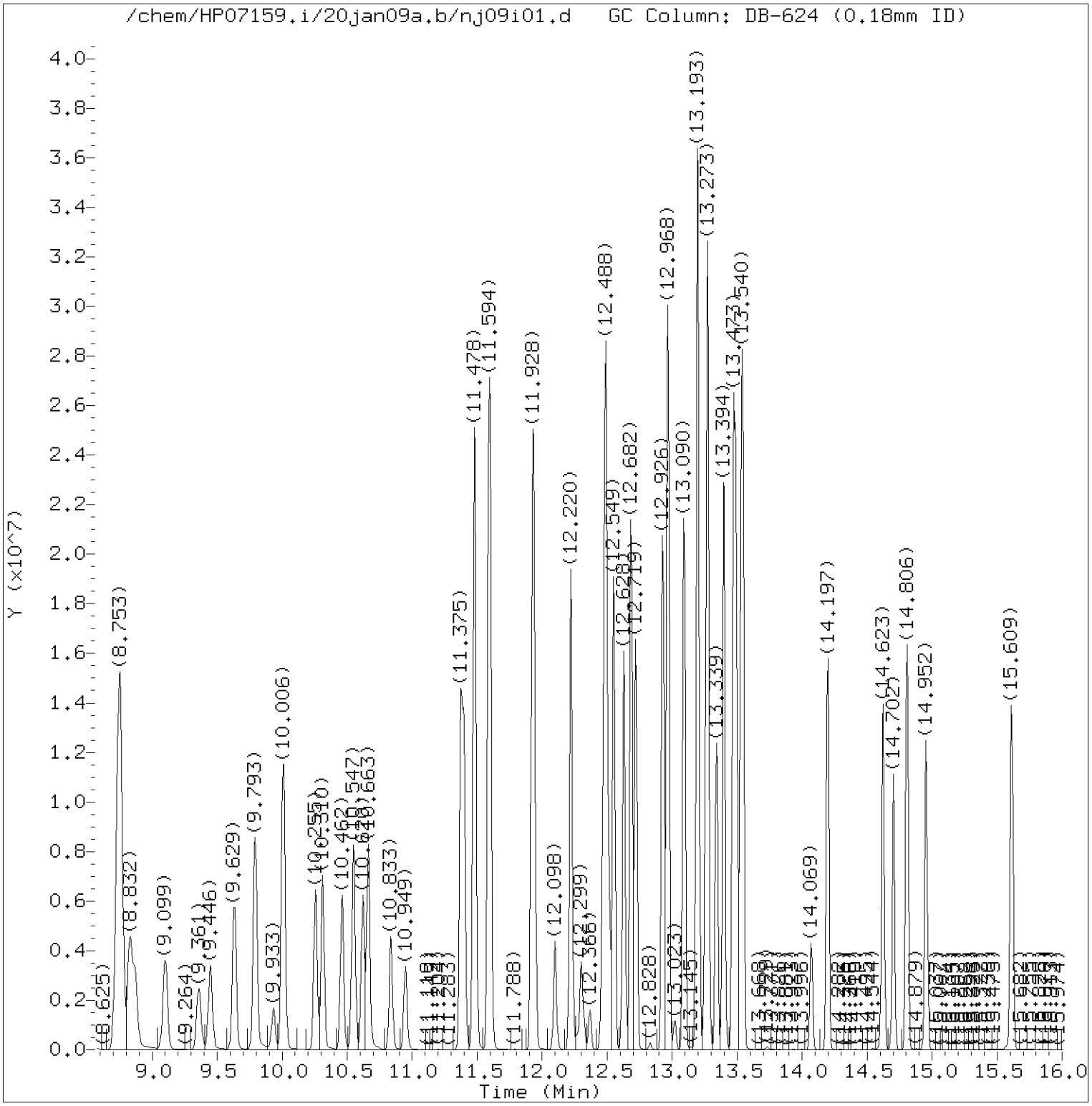
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.036	85	2738246M	268.201
4) Chloromethane	(2)	2.237	50	3089997	282.457
6) Vinyl Chloride	(2)	2.359	62	3002390	282.029
5) 1,3-Butadiene	(2)	2.365	39	1990849M	260.806
8) Bromomethane	(2)	2.699	94	2045532	280.243
9) Chloroethane	(2)	2.797	64	1753734	281.462
10) Dichlorofluoromethane	(2)	3.046	67	3958703	277.427
12) Trichlorofluoromethane	(2)	3.107	101	3132174	267.714
11) n-Pentane	(2)	3.168	43	2968834	258.991
13) Ethanol	(1)	3.247	45	603558	6746.236
15) Freon 123a	(2)	3.460	67	2362460	275.623
16) Acrolein	(1)	3.563	56	7156452	2855.044
17) 1,1-Dichloroethene	(2)	3.722	96	1936948	284.072
17) 1,1-Dichloroethene	(2)	3.715	63	1019849	285.033
18) Acetone	(1)	3.740	58	589186	558.067
19) Freon 113	(2)	3.740	101	1769286	279.670
21) 2-Propanol	(1)	3.916	45	963309	1381.464
22) Methyl Iodide	(2)	3.928	142	3686681	289.671
23) Carbon Disulfide	(2)	4.044	76	6354733	291.445
27) Methyl Acetate	(2)	4.184	43	2298966	274.450
25) Allyl Chloride	(2)	4.214	41	3345372	277.910
28) Methylene Chloride	(2)	4.421	84	2264482	279.619
29)*t-Butyl alcohol-d10	(1)	4.427	65	369636M	250.000
30) t-Butyl alcohol	(1)	4.549	59	1912785	1388.033
31) Acrylonitrile	(2)	4.756	53	1273489	281.492
33) Methyl Tertiary Butyl Ether	(2)	4.829	73	6075255	274.189
32) trans-1,2-Dichloroethene	(2)	4.841	96	2241389	287.940
34) n-Hexane	(2)	5.261	57	3184011	296.303
36) 1,1-Dichloroethane	(2)	5.504	63	4147607	292.081
38) di-Isopropyl ether	(2)	5.559	45	6977493	285.241
39) 2-Chloro-1,3-butadiene	(2)	5.607	53	3658718	291.885
40) Ethyl t-butyl ether	(2)	6.100	59	6382601	274.517
43) 1,2-Dichloroethene (Total)	(2)		96	4793474	576.617
44) 2-Butanone	(2)	6.301	43	3476315	549.542
42) cis-1,2-Dichloroethene	(2)	6.337	96	2552085	288.677
45) 2,2-Dichloropropane	(2)	6.356	77	3608394	287.823
47) Propionitrile	(1)	6.392	54	2464615	1531.294
48) Methacrylonitrile	(2)	6.611	67	3385627	740.870

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	1224500	292.939
50) Tetrahydrofuran	(1)	6.684	71	993933	594.816
51) Chloroform	(2)	6.818	83	3985674	287.757
52)$Dibromofluoromethane	(2)	7.037	113	319180	49.034
52)$Dibromofluoromethane	(2)	7.037	111	327131	49.218
53) 1,1,1-Trichloroethane	(2)	7.055	97	3663654	292.369
54) Cyclohexane	(2)	7.159	56	3705806	287.516
54) Cyclohexane	(2)	7.153	84	3220654	286.708
54) Cyclohexane	(2)	7.159	69	1184347	292.344
55) 1,1-Dichloropropene	(2)	7.268	75	3320490	292.956
56) Carbon Tetrachloride	(2)	7.268	117	3150399	291.582
58) Isobutyl Alcohol	(1)	7.396	41	1811417	3669.512
57)$1,2-Dichloroethane-d4	(2)	7.505	102	80508	48.916
57)$1,2-Dichloroethane-d4	(2)	7.499	65	388669	49.092
57)$1,2-Dichloroethane-d4	(2)	7.505	104	50708	48.423
60) Benzene	(2)	7.530	78	9312058	288.626
61) 1,2-Dichloroethane	(2)	7.603	62	3292851	288.491
61) 1,2-Dichloroethane	(2)	7.609	98	304801	324.451
65) t-Amyl methyl ether	(2)	7.718	73	6167179	264.407
66)*Fluorobenzene	(2)	7.937	96	1311659	50.000
67) n-Heptane	(2)	7.943	43	3900362	314.466
69) n-Butanol	(1)	8.278	56	3298825	7757.808
71) Trichloroethene	(2)	8.418	95	2491166	293.087
72) Methylcyclohexane	(2)	8.734	83	4060354	290.602
72) Methylcyclohexane	(2)	8.734	98	1902493	289.125
73) 1,2-Dichloropropane	(2)	8.759	63	2519735	305.420
76) Methyl Methacrylate	(2)	8.826	69	2289707	303.491
75) 1,4-Dioxane	(1)	8.838	88	432869M	4029.569
74) Dibromomethane	(2)	8.868	93	1546073	293.841
78) Bromodichloromethane	(2)	9.099	83	3217314	299.525
79) 2-Nitropropane	(2)	9.361	41	2132246	546.554
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	1898732	290.945
81) cis-1,3-Dichloropropene	(2)	9.635	75	4132146	301.569
82) 4-Methyl-2-pentanone	(2)	9.793	43	7115176	555.148
83)$Toluene-d8	(3)	9.933	98	1298243	49.882
83)$Toluene-d8	(3)	9.933	100	875240	50.760
88) Toluene	(3)	10.012	92	6123859	289.655
90) 1,3-Dichloropropene (total)	(3)		100	8062158	601.069

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	3930012	299.500
91) Ethyl Methacrylate	(3)	10.310	69	3912057	299.232
92) 1,1,2-Trichloroethane	(3)	10.462	97	2191289	292.742
93) Tetrachloroethene	(3)	10.547	166	2684174	289.918
94) 1,3-Dichloropropane	(3)	10.620	76	3834320	295.134
96) 2-Hexanone	(3)	10.663	43	5540032	553.584
97) Dibromochloromethane	(3)	10.833	129	2631468	306.341
99) 1,2-Dibromoethane	(3)	10.949	107	2418151	295.016
100)*Chlorobenzene-d5	(3)	11.375	117	997921	50.000
102) Chlorobenzene	(3)	11.399	112	6837485	289.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	2567918	301.987
104) Ethylbenzene	(3)	11.484	91	11505554	281.351
106) m+p-Xylene	(3)	11.594	106	9321027	580.123
108) Xylene (Total)	(3)		106	13965856	874.052
107) o-Xylene	(3)	11.922	106	4644829	293.929
109) Styrene	(3)	11.940	104	7801626	293.944
110) Bromoform	(3)	12.098	173	1991378	307.069
111) Isopropylbenzene	(3)	12.220	105	11563233	277.059
112) Cyclohexanone	(1)	12.299	55	1700768	3947.839
114)$4-Bromofluorobenzene	(3)	12.366	95	515503	50.135
114)$4-Bromofluorobenzene	(3)	12.366	174	412996	50.136
116) 1,1,2,2-Tetrachloroethane	(4)	12.463	83	3476859	284.810
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	3152731	750.782
115) Bromobenzene	(4)	12.488	156	3020963	294.309
117) 1,2,3-Trichloropropane	(4)	12.512	110	1122982	290.397
119) n-Propylbenzene	(4)	12.549	91	13218612	265.623
120) 2-Chlorotoluene	(4)	12.628	126	3026075	294.941
122) 1,3,5-Trimethylbenzene	(4)	12.682	105	10266701	281.566
121) 4-Chlorotoluene	(4)	12.719	126	3124276	293.828
124) tert-Butylbenzene	(4)	12.926	134	2476958M	306.546
125) Pentachloroethane	(4)	12.962	167	1955079	302.182
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	10638442	281.107
127) sec-Butylbenzene	(4)	13.090	105	12912890	272.630
129) 1,3-Dichlorobenzene	(4)	13.193	146	5763977	288.719
130) p-Isopropyltoluene	(4)	13.200	119	11456230	277.953
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	555000	50.000
133) 1,4-Dichlorobenzene	(4)	13.266	146	5801015	286.528
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	10089970	274.704

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.339	91	7933164	294.011
141) Diethylbenzene (total)	(4)		100	20366768	851.816
136) 1,3-Diethylbenzene	(4)	13.400	119	7006552	283.981
137) 1,4-Diethylbenzene	(4)	13.473	119	7418367	283.166
139) n-Butylbenzene	(4)	13.492	92	6302004	296.409
138) 1,2-Dichlorobenzene	(4)	13.528	146	5429890	286.871
140) 1,2-Diethylbenzene	(4)	13.546	119	5941849	284.669
142) 1,2-Dibromo-3-chloropropane	(4)	14.069	75	978104	296.467
144) 1,3,5-Trichlorobenzene	(4)	14.197	180	4466448	296.046
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	3943896	299.803
147) Hexachlorobutadiene	(4)	14.702	225	1846864	310.363
148) Naphthalene	(4)	14.806	128	11421392	276.905
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	3653958	302.586
150) 2-Methylnaphthalene	(4)	15.609	142	7116852	298.715

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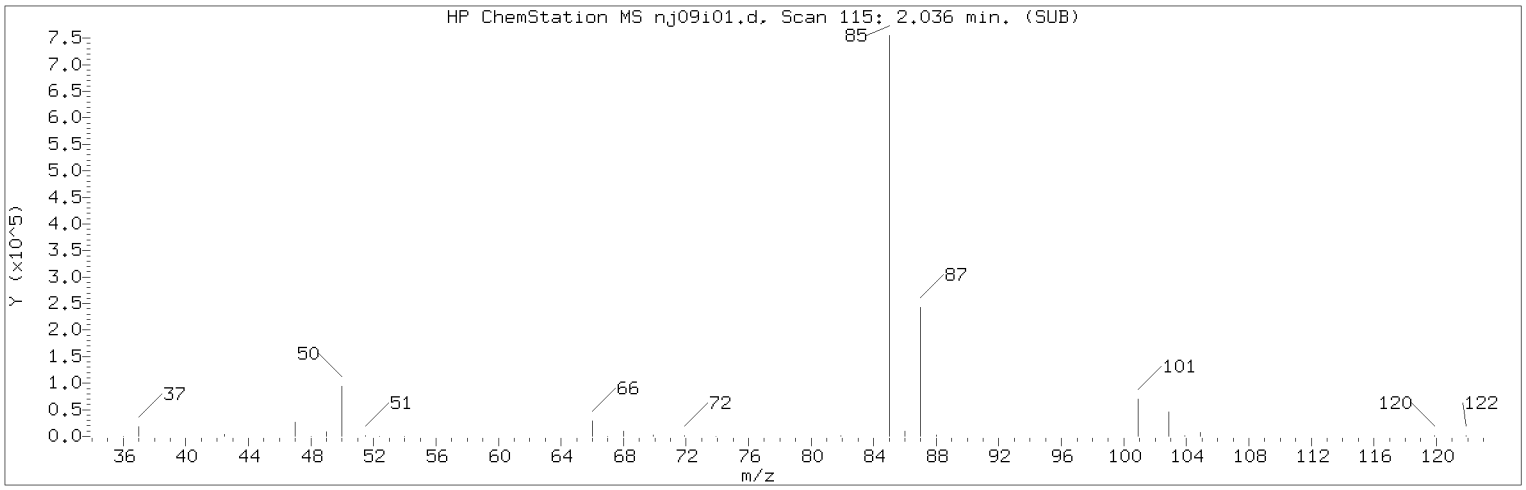
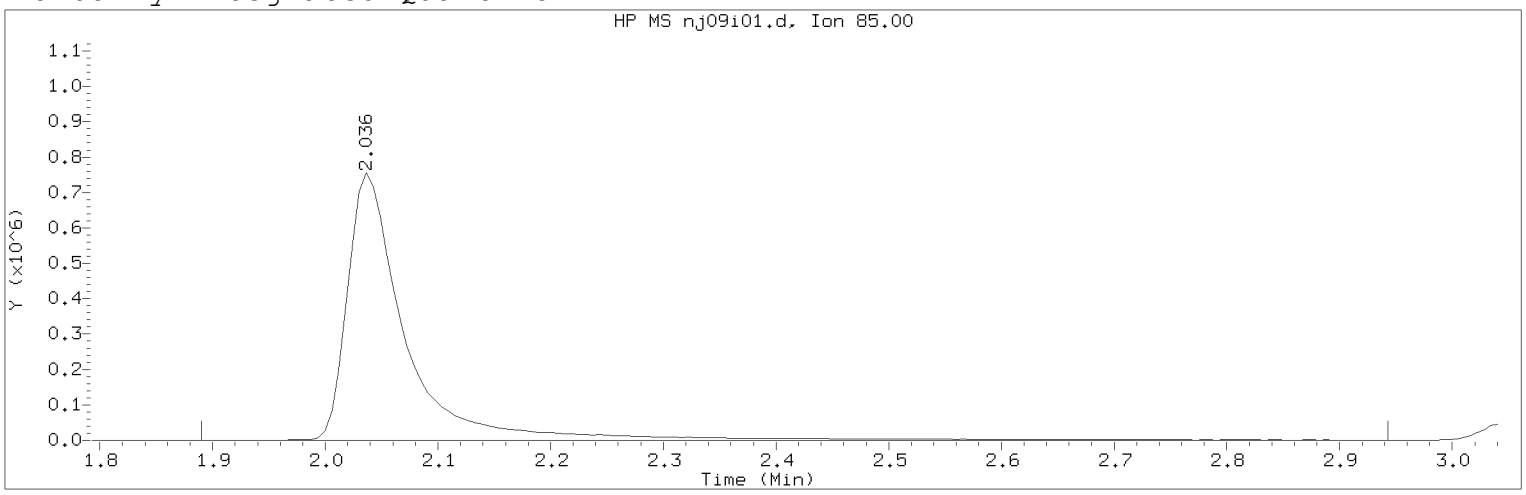
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

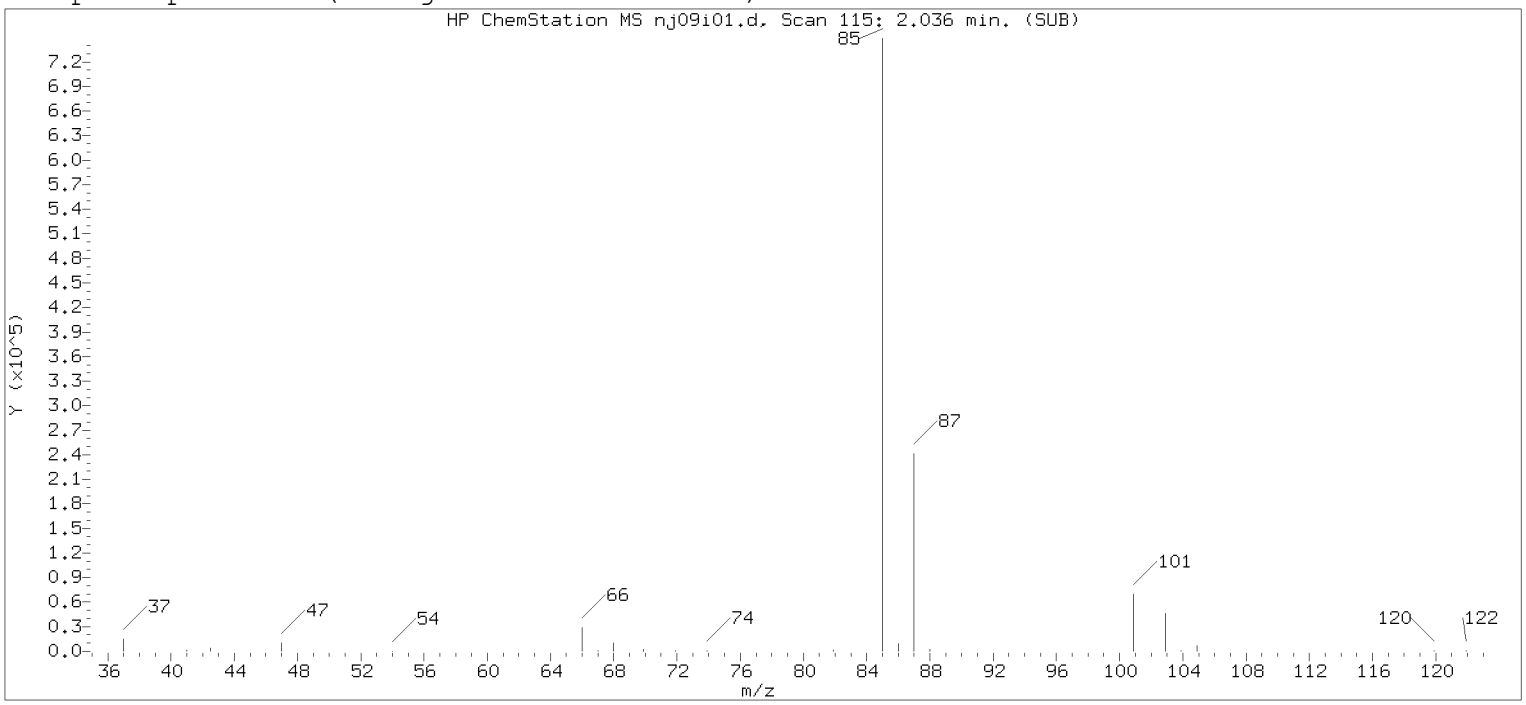
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area (flag) : 2738246M
On-Column Amount (ng) : 268.2007
Integration start scan : 90 Integration stop scan: 263
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

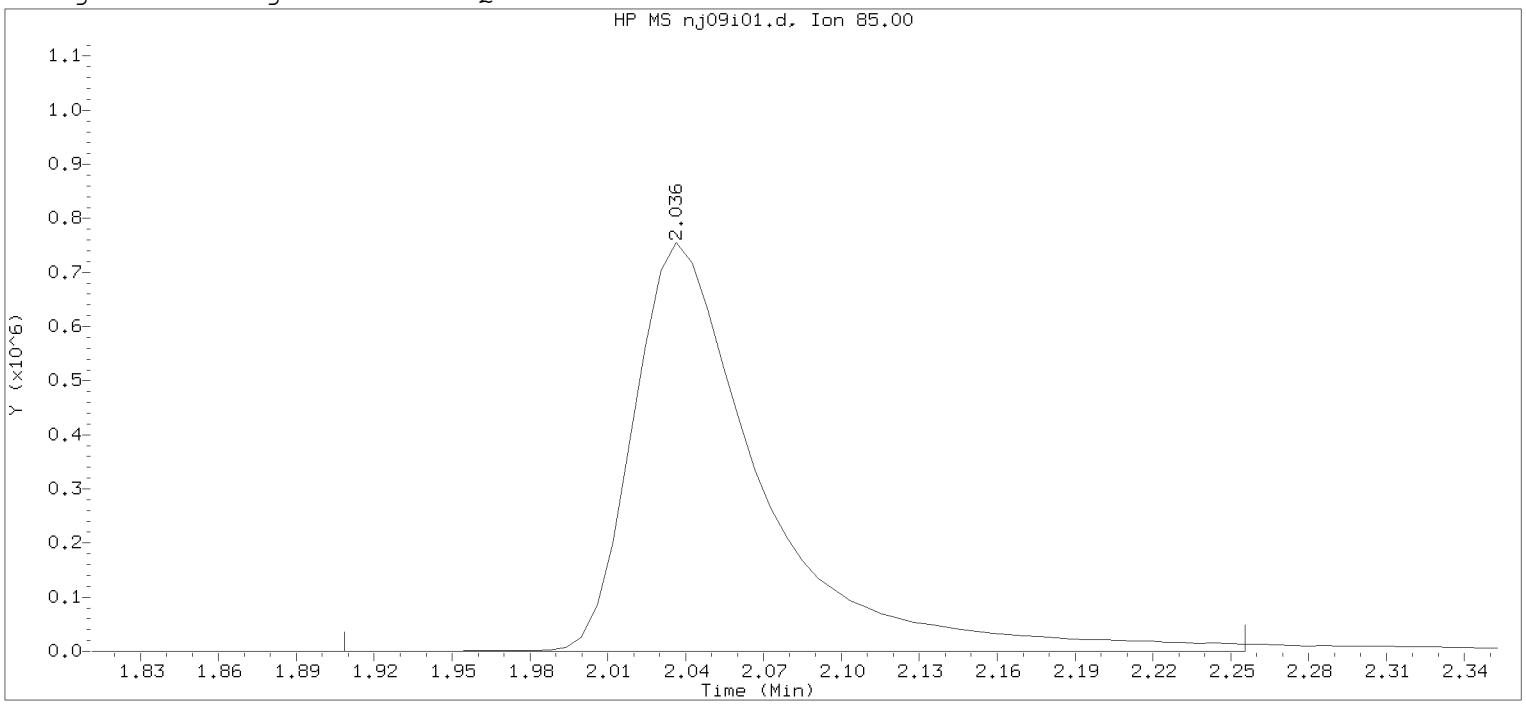
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

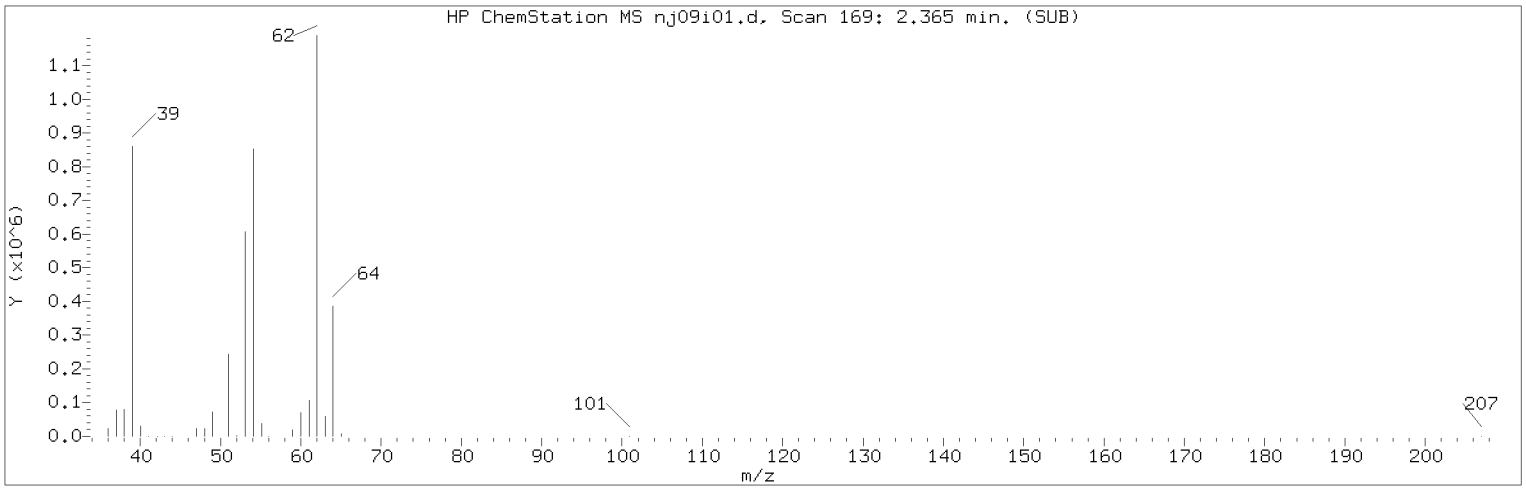
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

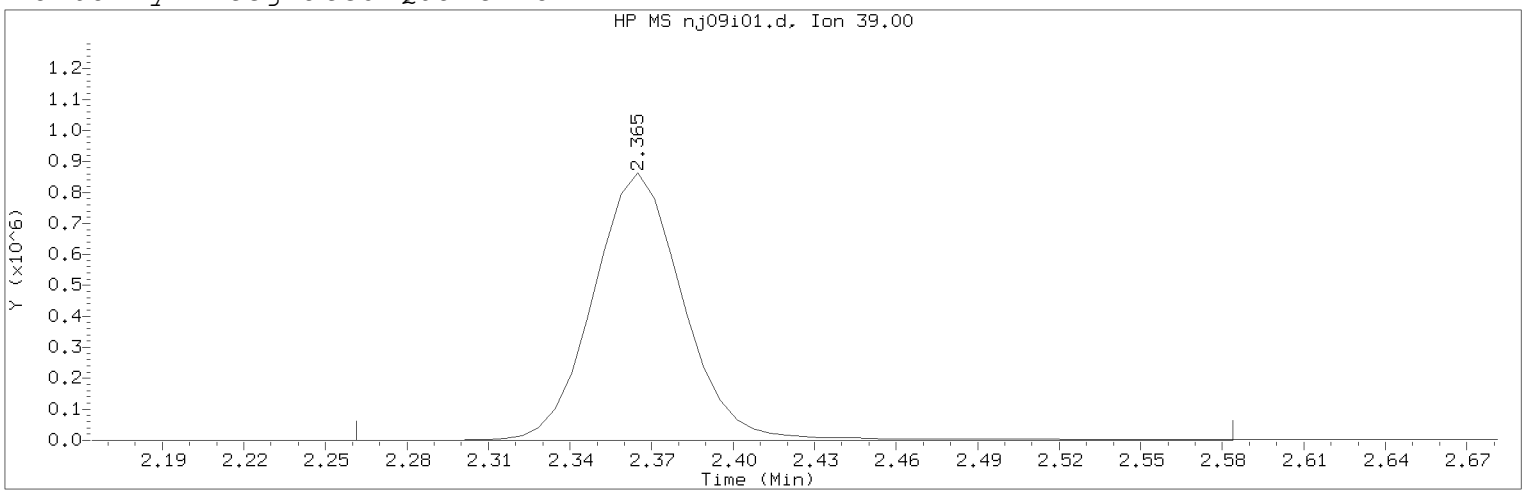
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area : 2601810
On-column Amount (ng) : 264.4213
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

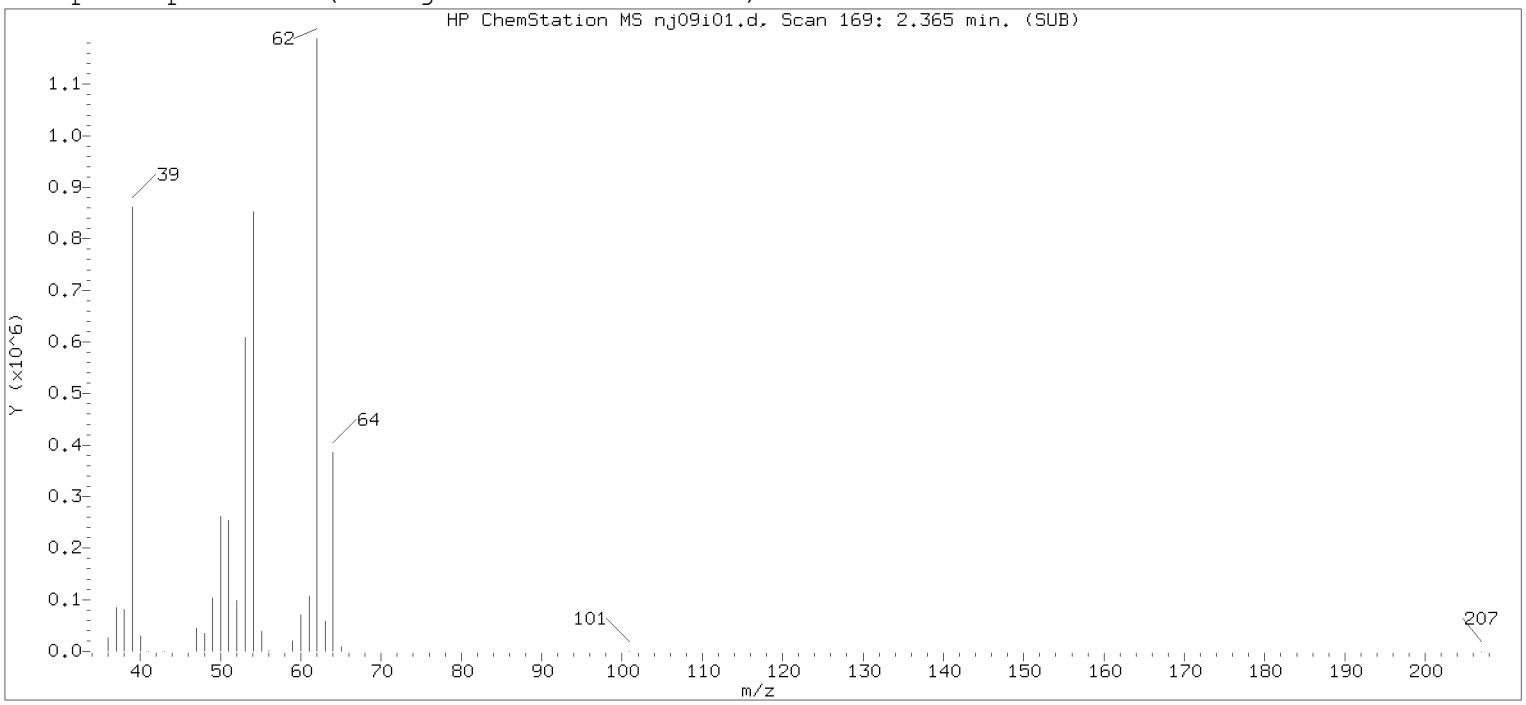
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 1990849M
On-Column Amount (ng) : 260.8062
Integration start scan : 151 Integration stop scan: 204
Y at integration start : 230 Y at integration end: 230

Reason for manual integration: improper integration

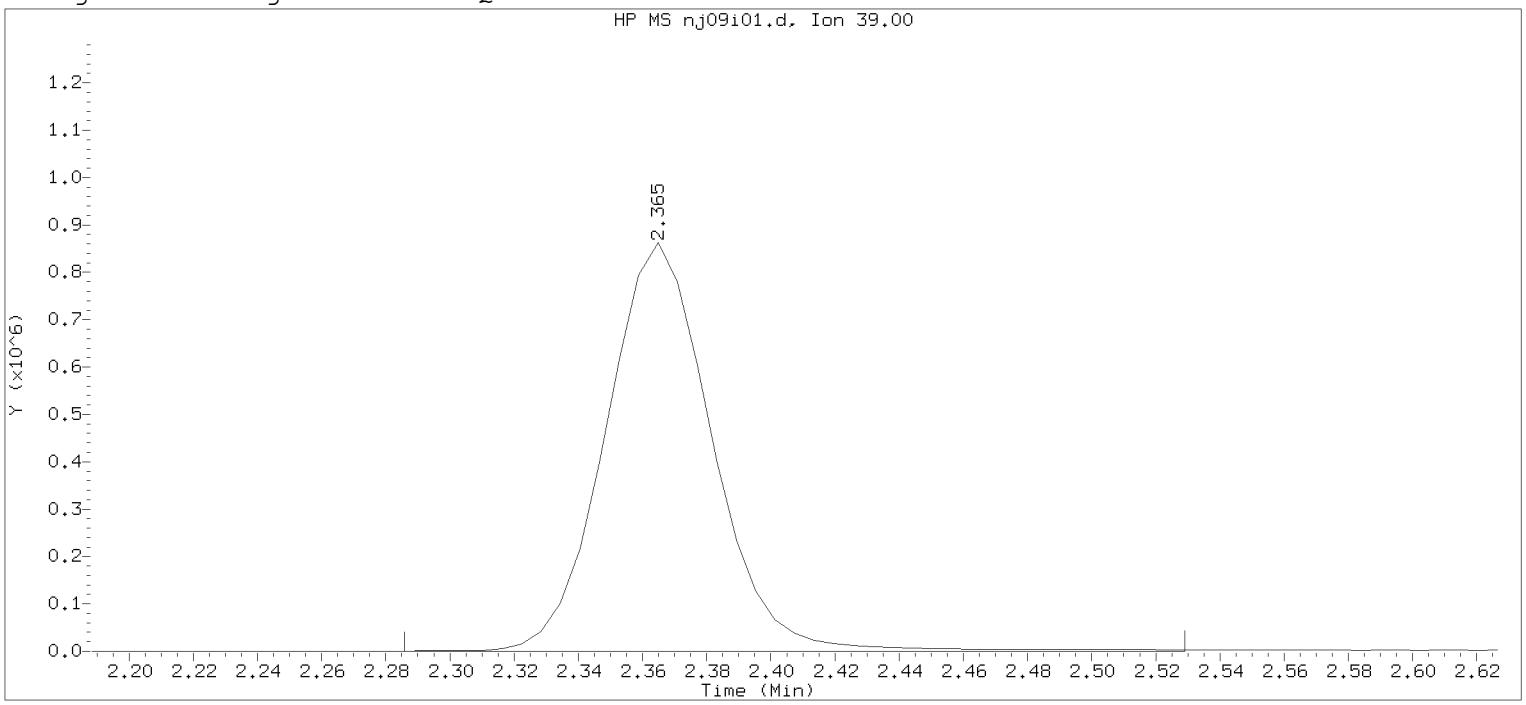
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 1979580
On-column Amount (ng) : 262.5678
Integration start scan : 155 Integration stop scan: 195
Y at integration start : 295 Y at integration end: 662

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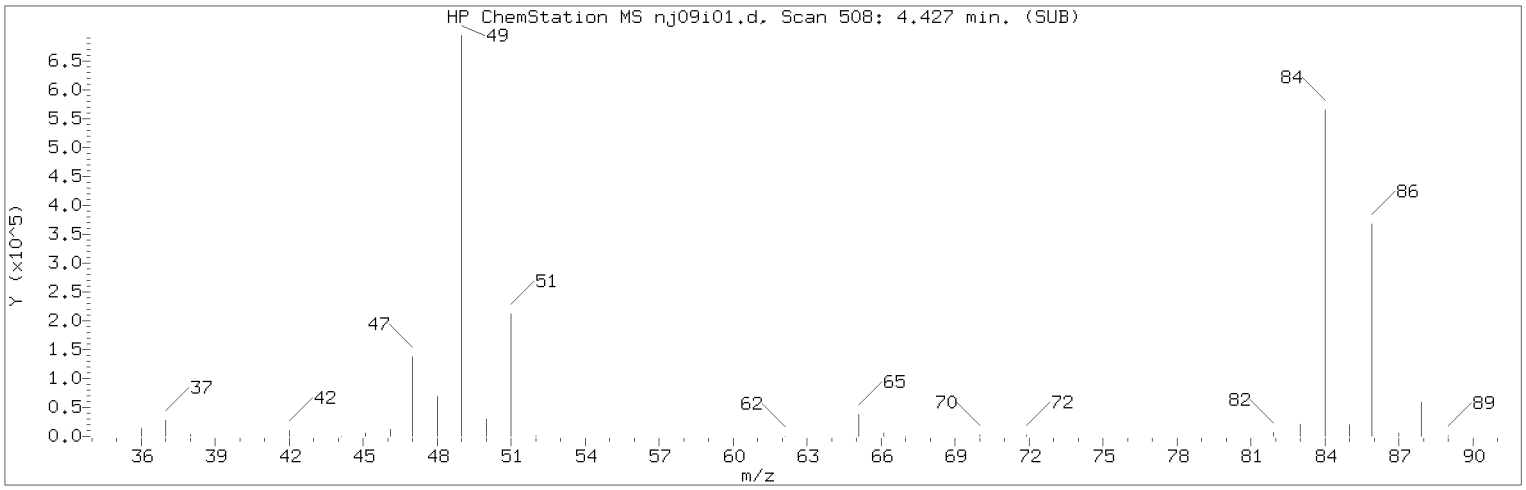
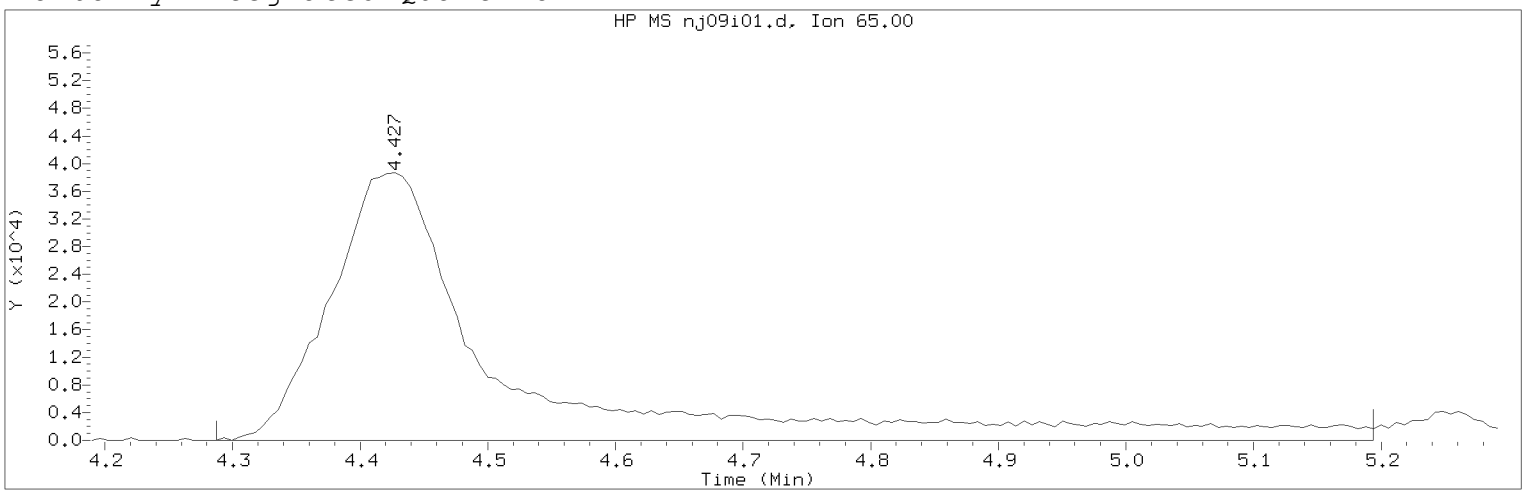
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

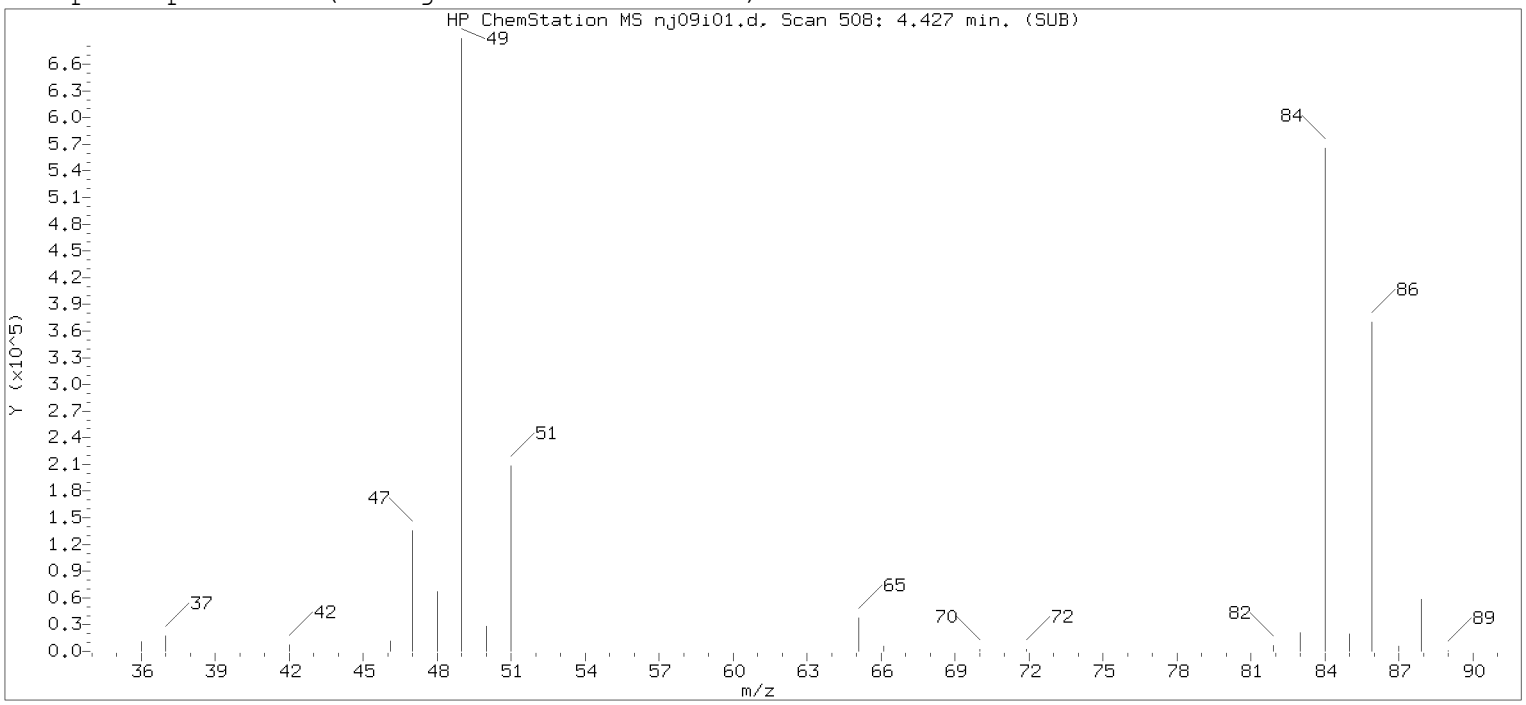
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area (flag) : 369636M
On-Column Amount (ng) : 250.0000
Integration start scan : 484 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

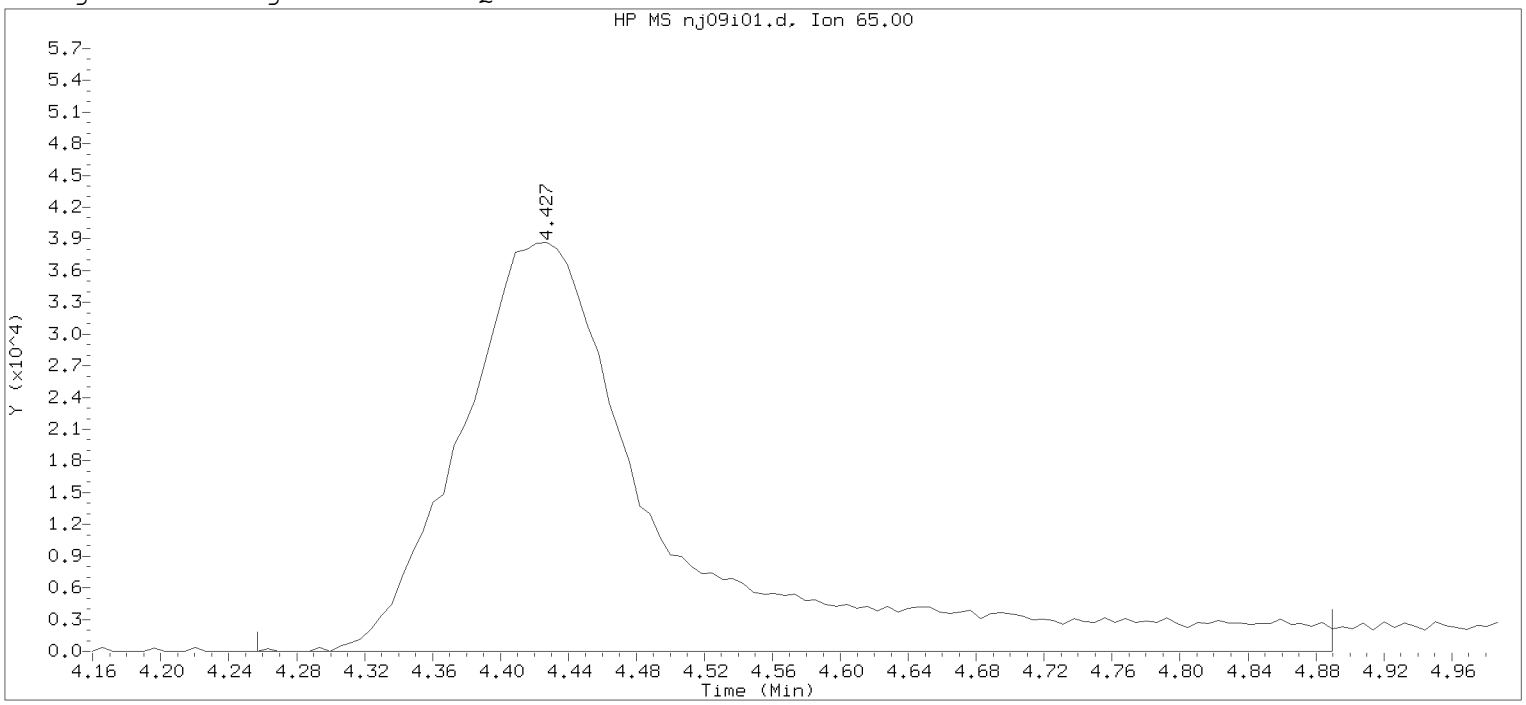
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

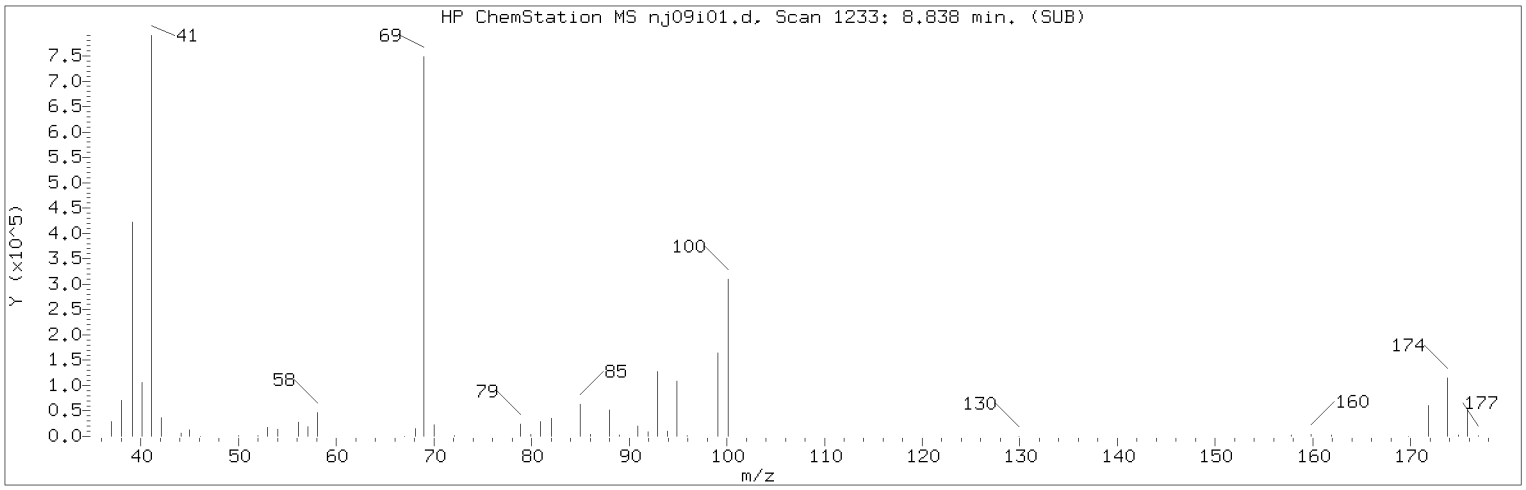
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

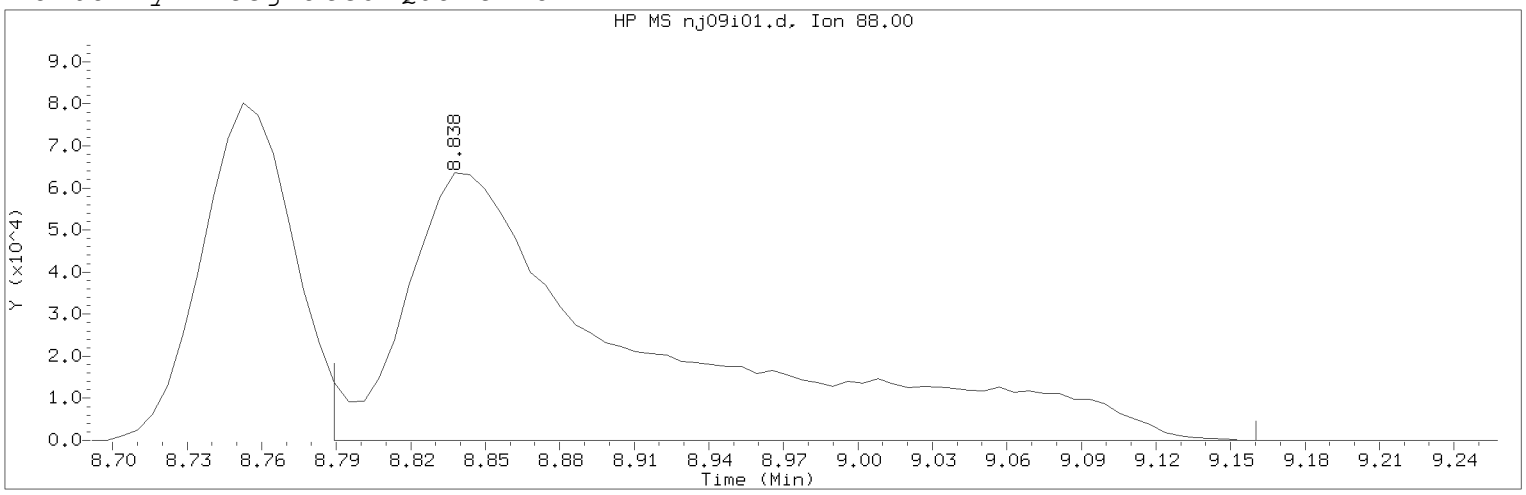
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area : 329635
On-column Amount (ng) : 250.0000
Integration start scan : 479 Integration stop scan: 583
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

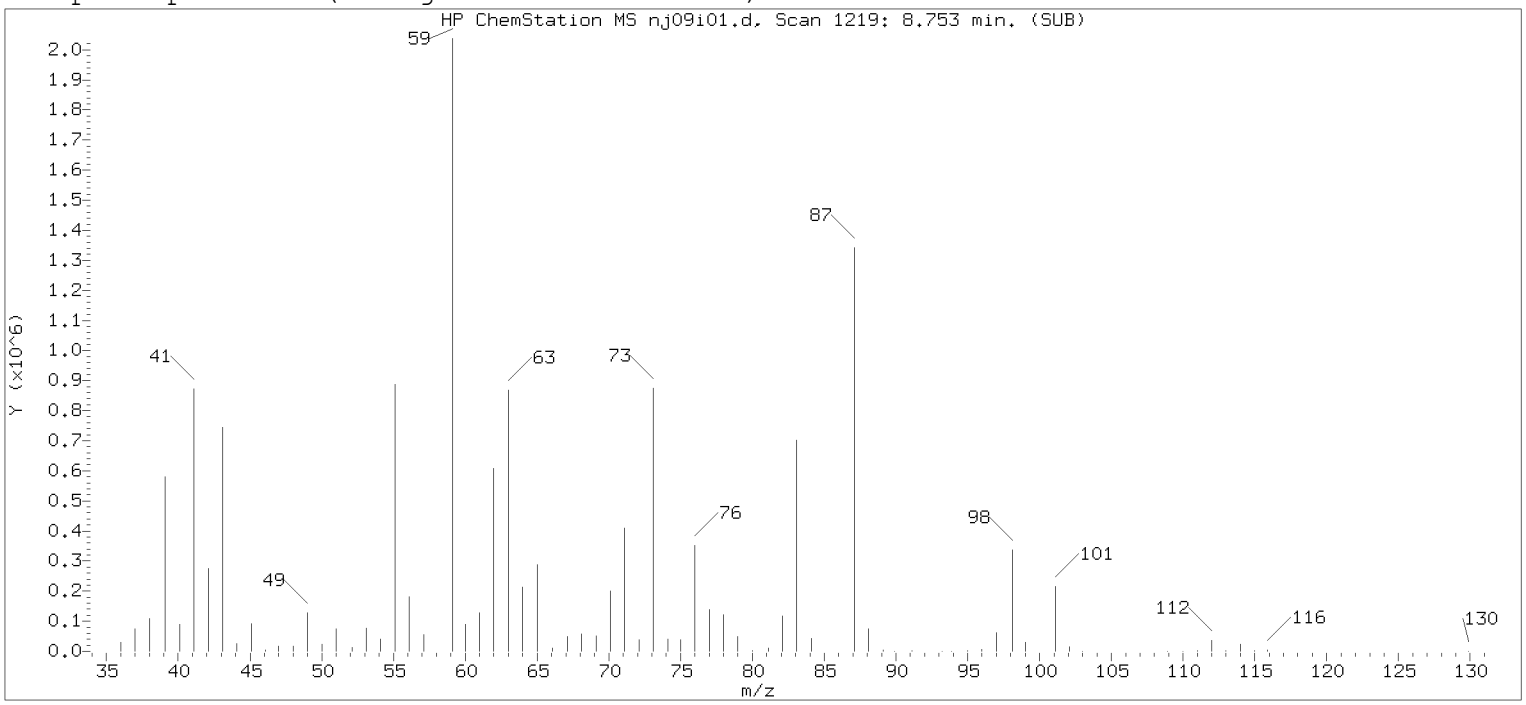
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.838
Quant Ion : 88.00
Area (flag) : 432869M
On-Column Amount (ng) : 4029.5691
Integration start scan : 1224 Integration stop scan: 1285
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

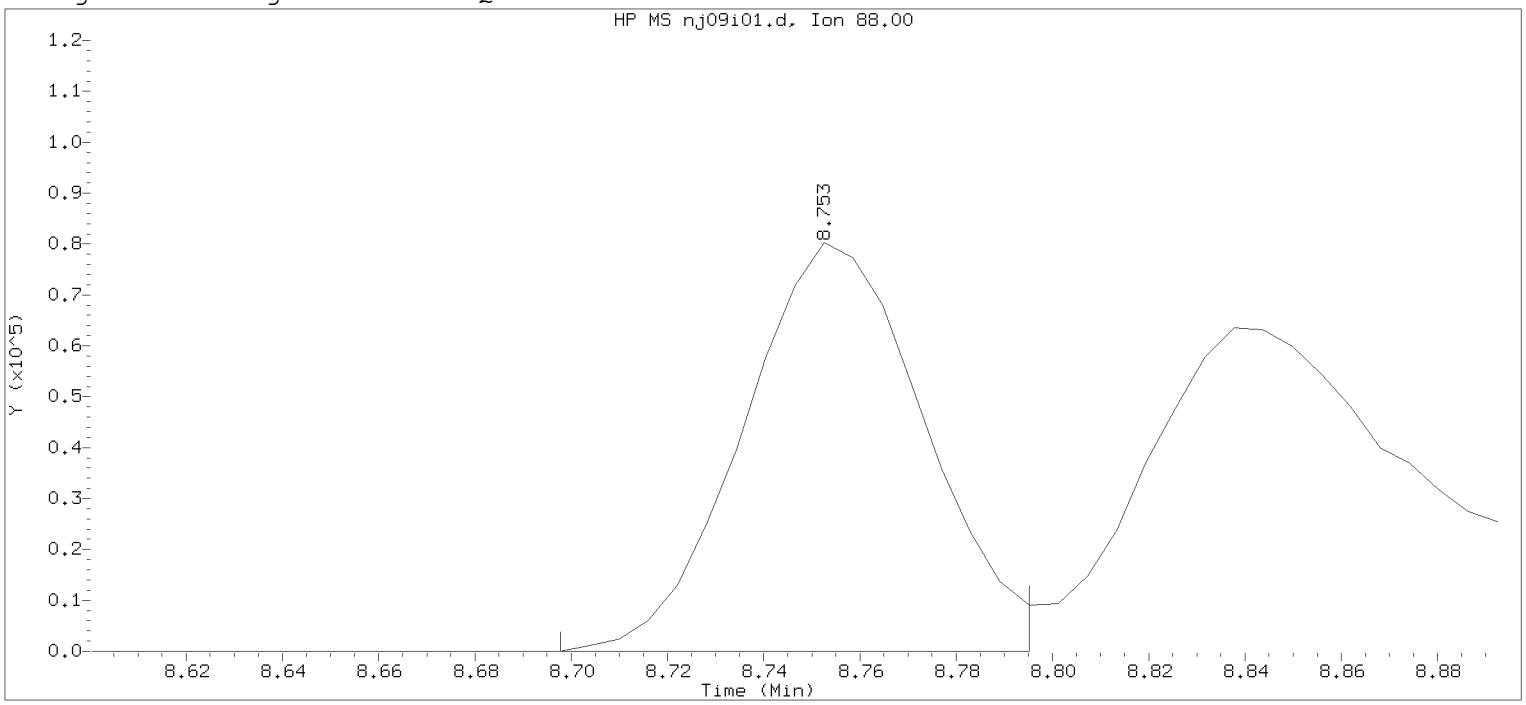
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

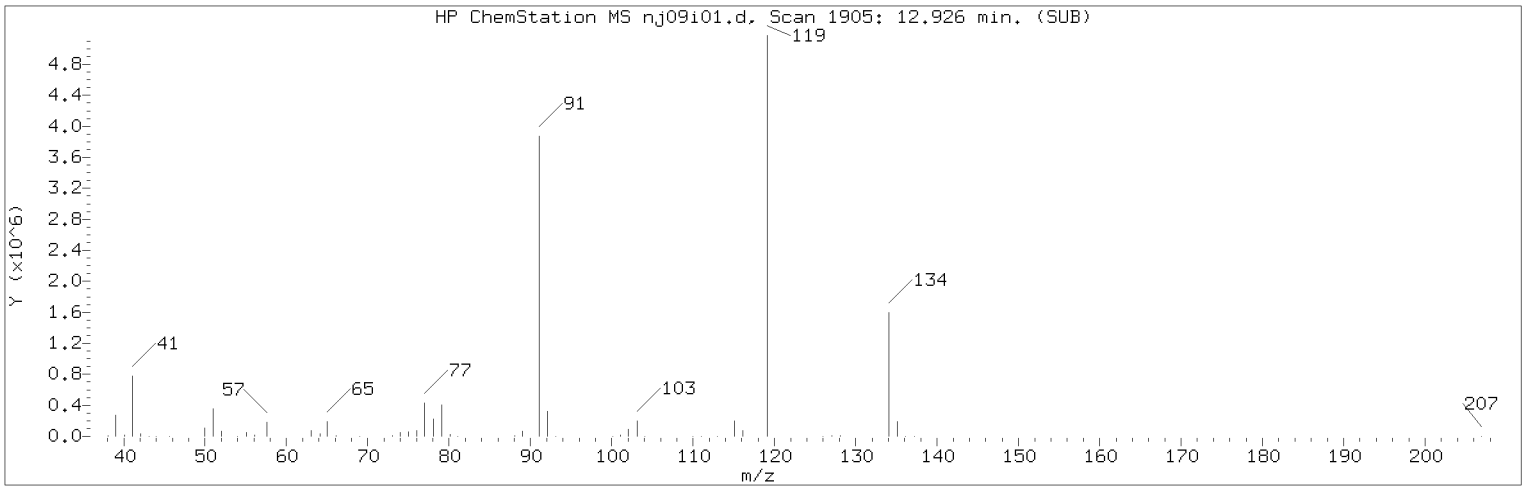
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

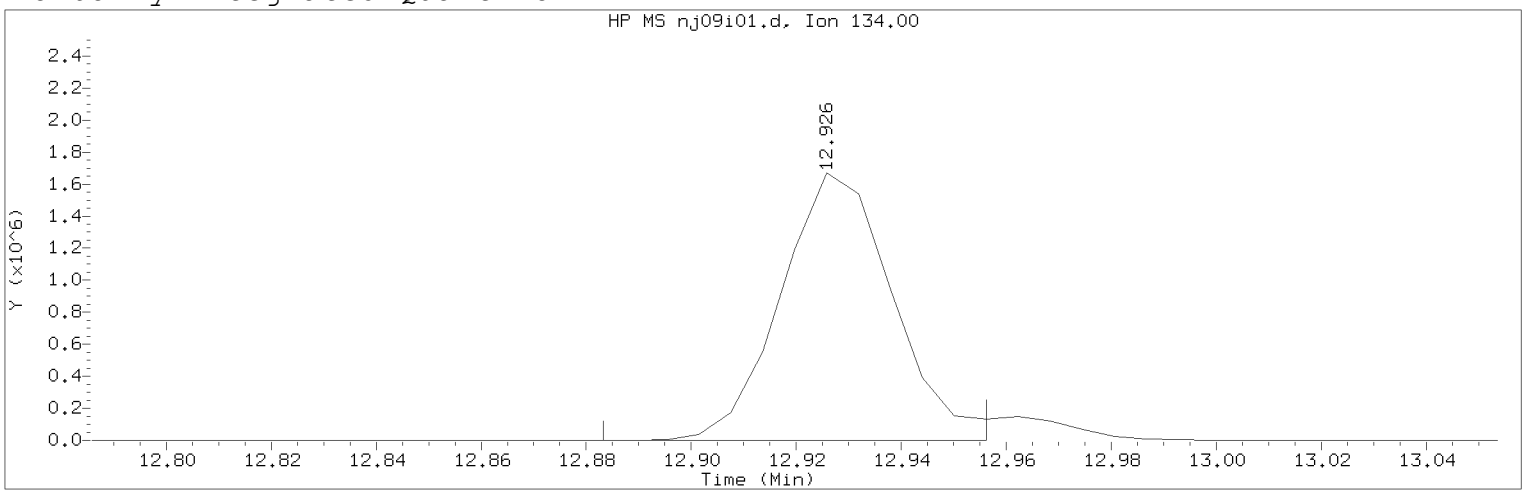
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1219		
Retention Time (minutes)	: 8.753		
Quant Ion	: 88.00		
Area	: 208880		
On-column Amount (ng)	: 2918.2242		
Integration start scan	: 1209	Integration stop scan:	1225
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

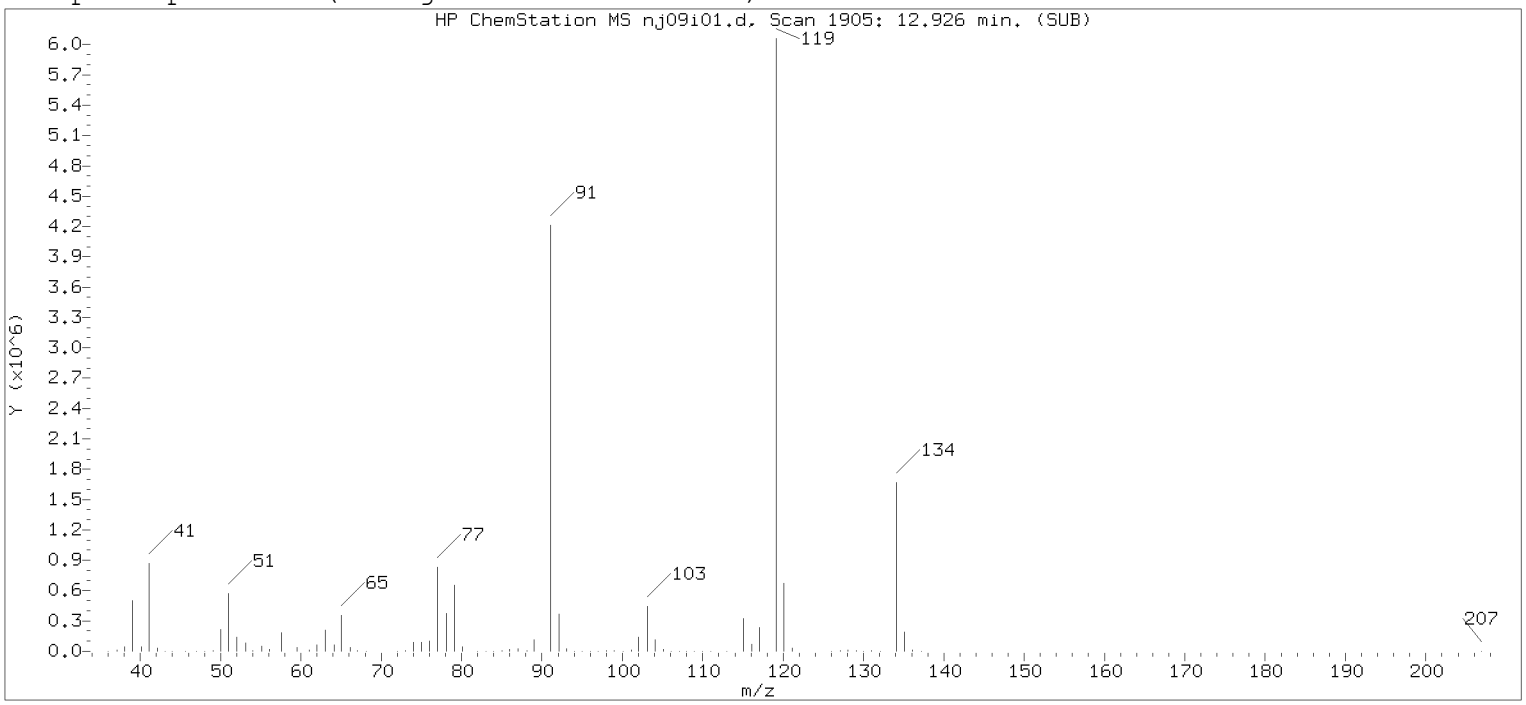
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area (flag) : 2476958M
On-Column Amount (ng) : 306.5457
Integration start scan : 1897 Integration stop scan: 1909
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

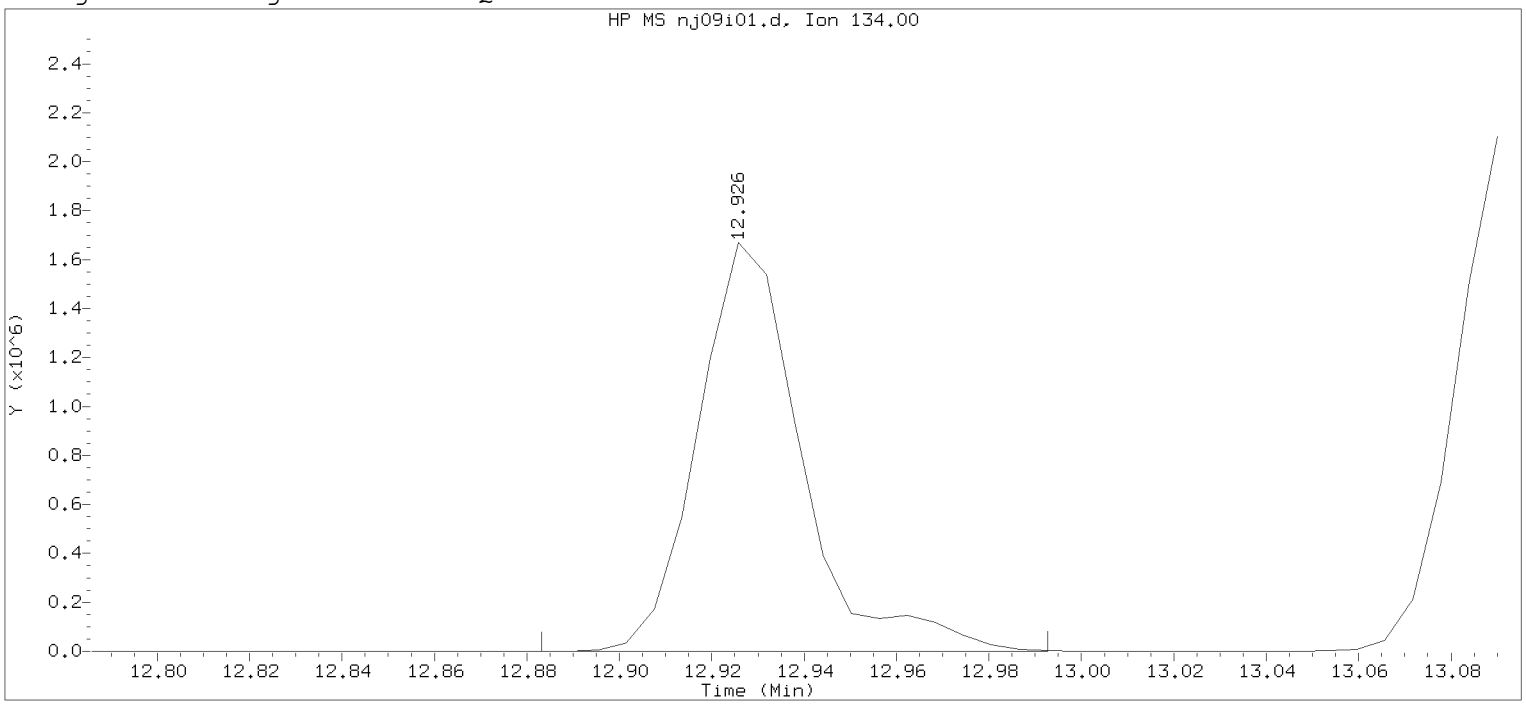
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



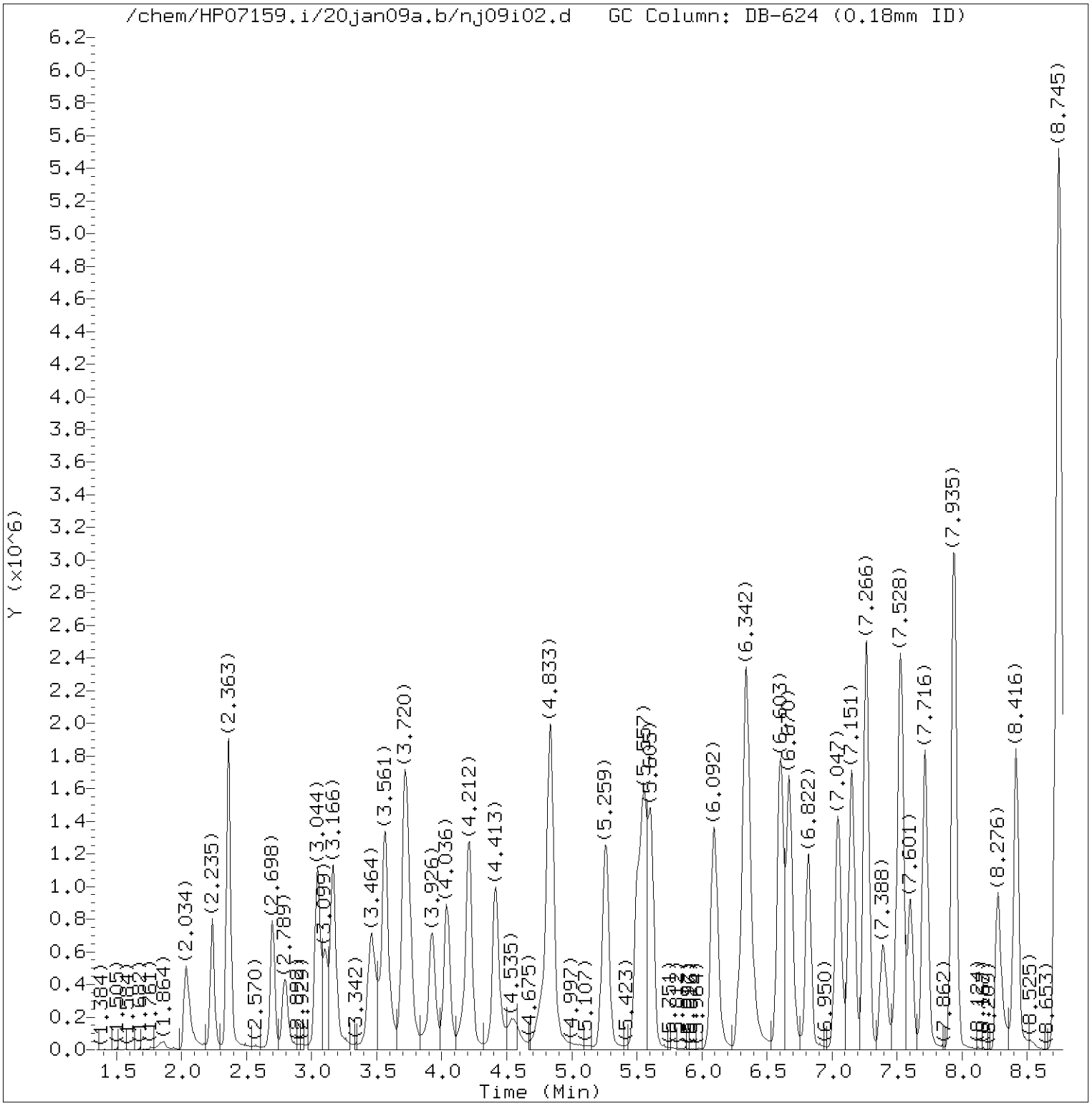
Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area : 2610442
On-column Amount (ng) : 312.3028
Integration start scan : 1897 Integration stop scan: 1915
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

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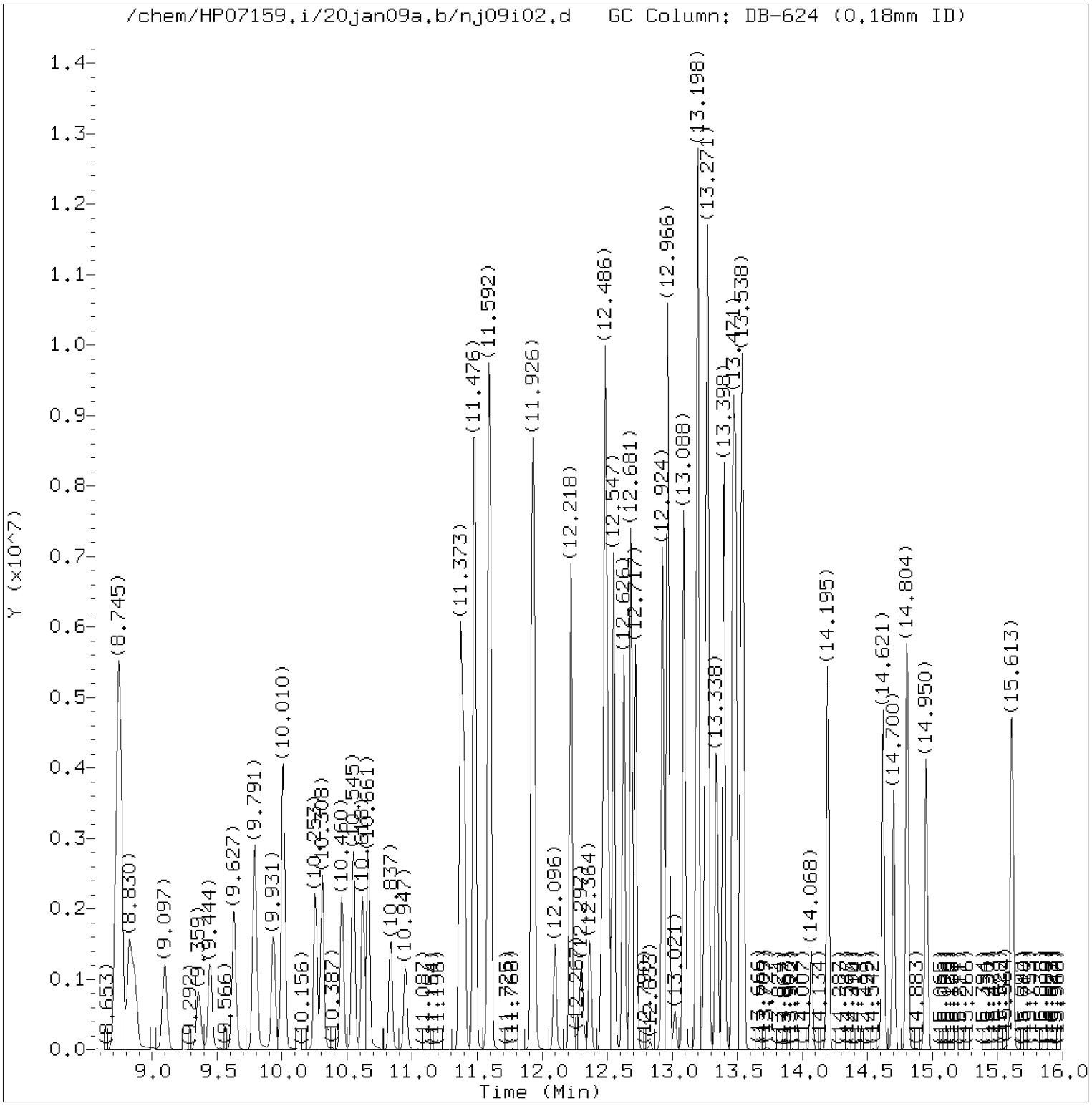
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	1065649M	104.261
4) Chloromethane	(2)	2.235	50	1094278	99.918
6) Vinyl Chloride	(2)	2.357	62	1069201	100.325
5) 1,3-Butadiene	(2)	2.363	39	705862M	92.368
8) Bromomethane	(2)	2.698	94	730957	100.032
9) Chloroethane	(2)	2.795	64	624167	100.064
10) Dichlorofluoromethane	(2)	3.044	67	1394718	97.635
12) Trichlorofluoromethane	(2)	3.105	101	1167619	99.689
11) n-Pentane	(2)	3.166	43	1158175	100.924
13) Ethanol	(1)	3.239	45	231093	2490.020
15) Freon 123a	(2)	3.458	67	830241	96.756
16) Acrolein	(1)	3.561	56	2442482	939.333
17) 1,1-Dichloroethene	(2)	3.713	96	669338	98.057
17) 1,1-Dichloroethene	(2)	3.713	63	352749	98.480
19) Freon 113	(2)	3.732	101	682211	107.718
18) Acetone	(1)	3.738	58	206215	188.290
21) 2-Propanol	(1)	3.914	45	366318	506.414
22) Methyl Iodide	(2)	3.926	142	1290126	101.256
23) Carbon Disulfide	(2)	4.036	76	2182426	99.981
27) Methyl Acetate	(2)	4.182	43	792737	94.532
25) Allyl Chloride	(2)	4.212	41	1192901	98.989
28) Methylene Chloride	(2)	4.413	84	787597	97.145
29)*t-Butyl alcohol-d10	(1)	4.425	65	383443M	250.000
30) t-Butyl alcohol	(1)	4.547	59	710037	496.693
31) Acrylonitrile	(2)	4.754	53	430634	95.083
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	2199223	99.146
32) trans-1,2-Dichloroethene	(2)	4.839	96	780157	100.112
34) n-Hexane	(2)	5.259	57	1192872	110.886
36) 1,1-Dichloroethane	(2)	5.502	63	1437072	101.089
38) di-Isopropyl ether	(2)	5.557	45	2478314	101.202
39) 2-Chloro-1,3-butadiene	(2)	5.612	53	1260534	100.452
40) Ethyl t-butyl ether	(2)	6.092	59	2323818	99.838
43) 1,2-Dichloroethene (Total)	(2)		96	1669505	200.599
44) 2-Butanone	(2)	6.293	43	1164793	183.930
42) cis-1,2-Dichloroethene	(2)	6.335	96	889348	100.487
45) 2,2-Dichloropropane	(2)	6.354	77	1255398	100.026
47) Propionitrile	(1)	6.378	54	852719	510.727
48) Methacrylonitrile	(2)	6.603	67	1178085	257.514

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	433584	103.613
50) Tetrahydrofuran	(1)	6.682	71	330036	190.397
51) Chloroform	(2)	6.816	83	1392137	100.398
52)$Dibromofluoromethane	(2)	7.041	113	324228	49.754
52)$Dibromofluoromethane	(2)	7.041	111	332864	50.026
53) 1,1,1-Trichloroethane	(2)	7.053	97	1258983	100.359
54) Cyclohexane	(2)	7.151	56	1358801	105.307
54) Cyclohexane	(2)	7.151	84	1183085	105.204
54) Cyclohexane	(2)	7.151	69	433665	106.928
55) 1,1-Dichloropropene	(2)	7.266	75	1140054	100.472
56) Carbon Tetrachloride	(2)	7.266	117	1092426	100.997
58) Isobutyl Alcohol	(1)	7.394	41	631953M	1234.094
57)$1,2-Dichloroethane-d4	(2)	7.497	102	82020	49.780
57)$1,2-Dichloroethane-d4	(2)	7.497	65	390530	49.272
57)$1,2-Dichloroethane-d4	(2)	7.497	104	53204	50.750
60) Benzene	(2)	7.528	78	3249542	100.608
61) 1,2-Dichloroethane	(2)	7.601	62	1133993	99.241
61) 1,2-Dichloroethane	(2)	7.607	98	105964	112.671
65) t-Amyl methyl ether	(2)	7.716	73	2301266	98.554
66)*Fluorobenzene	(2)	7.935	96	1313106	50.000
67) n-Heptane	(2)	7.941	43	1384590	111.509
69) n-Butanol	(1)	8.276	56	1160735	2631.396
71) Trichloroethene	(2)	8.416	95	854107	100.375
72) Methylcyclohexane	(2)	8.732	83	1510509	107.989
72) Methylcyclohexane	(2)	8.732	98	706582	107.262
73) 1,2-Dichloropropane	(2)	8.757	63	856520	103.706
76) Methyl Methacrylate	(2)	8.824	69	793736	105.090
75) 1,4-Dioxane	(1)	8.848	88	151647M	1360.847
74) Dibromomethane	(2)	8.866	93	530251	100.667
78) Bromodichloromethane	(2)	9.097	83	1105753	102.830
79) 2-Nitropropane	(2)	9.359	41	716120	183.359
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	672942	103.002
81) cis-1,3-Dichloropropene	(2)	9.627	75	1420758	103.574
82) 4-Methyl-2-pentanone	(2)	9.791	43	2423521	188.882
83)$Toluene-d8	(3)	9.931	98	1297051	49.930
83)$Toluene-d8	(3)	9.931	100	861087	50.033
88) Toluene	(3)	10.010	92	2134807	101.166
90) 1,3-Dichloropropene (total)	(3)		100	2778189	207.217

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	1357431	103.643
91) Ethyl Methacrylate	(3)	10.308	69	1372978	105.217
92) 1,1,2-Trichloroethane	(3)	10.460	97	765532	102.463
93) Tetrachloroethene	(3)	10.545	166	933658	101.035
94) 1,3-Dichloropropane	(3)	10.618	76	1339481	103.297
96) 2-Hexanone	(3)	10.661	43	1874151	187.627
97) Dibromochloromethane	(3)	10.837	129	905427	105.604
99) 1,2-Dibromoethane	(3)	10.947	107	846446	103.462
100)*Chlorobenzene-d5	(3)	11.373	117	996040	50.000
102) Chlorobenzene	(3)	11.397	112	2404391	102.089
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	875426	103.144
104) Ethylbenzene	(3)	11.482	91	4139783	101.423
106) m+p-Xylene	(3)	11.592	106	3283487	204.744
108) Xylene (Total)	(3)		106	4909663	307.844
107) o-Xylene	(3)	11.920	106	1626176	103.100
109) Styrene	(3)	11.938	104	2745510	103.639
110) Bromoform	(3)	12.096	173	688243	106.327
111) Isopropylbenzene	(3)	12.218	105	4262236	102.317
112) Cyclohexanone	(1)	12.297	55	596928	1335.703
114)$4-Bromofluorobenzene	(3)	12.364	95	511888	49.878
114)$4-Bromofluorobenzene	(3)	12.370	174	407556	49.569
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	1215567	101.183
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	1086804	262.991
115) Bromobenzene	(4)	12.486	156	1039816	102.938
117) 1,2,3-Trichloropropane	(4)	12.510	110	388444	102.073
119) n-Propylbenzene	(4)	12.547	91	5002648	102.151
120) 2-Chlorotoluene	(4)	12.626	126	1039981	103.001
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	3708233	103.342
121) 4-Chlorotoluene	(4)	12.717	126	1079774	103.190
124) tert-Butylbenzene	(4)	12.924	134	832423M	104.685
125) Pentachloroethane	(4)	12.960	167	670316	105.280
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	3839680	103.098
127) sec-Butylbenzene	(4)	13.088	105	4837222	103.779
129) 1,3-Dichlorobenzene	(4)	13.192	146	2015433	102.585
130) p-Isopropyltoluene	(4)	13.198	119	4228792	104.258
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	546174	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	2028787	101.827
134) 1,2,3-Trimethylbenzene	(4)	13.277	105	3693364	102.178

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

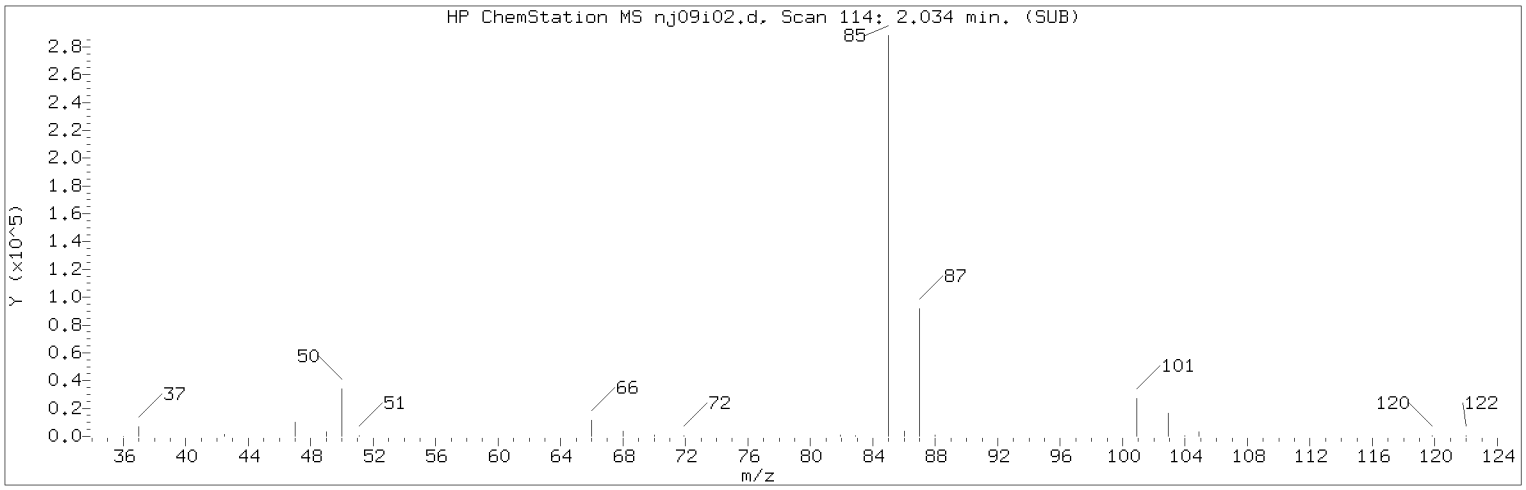
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

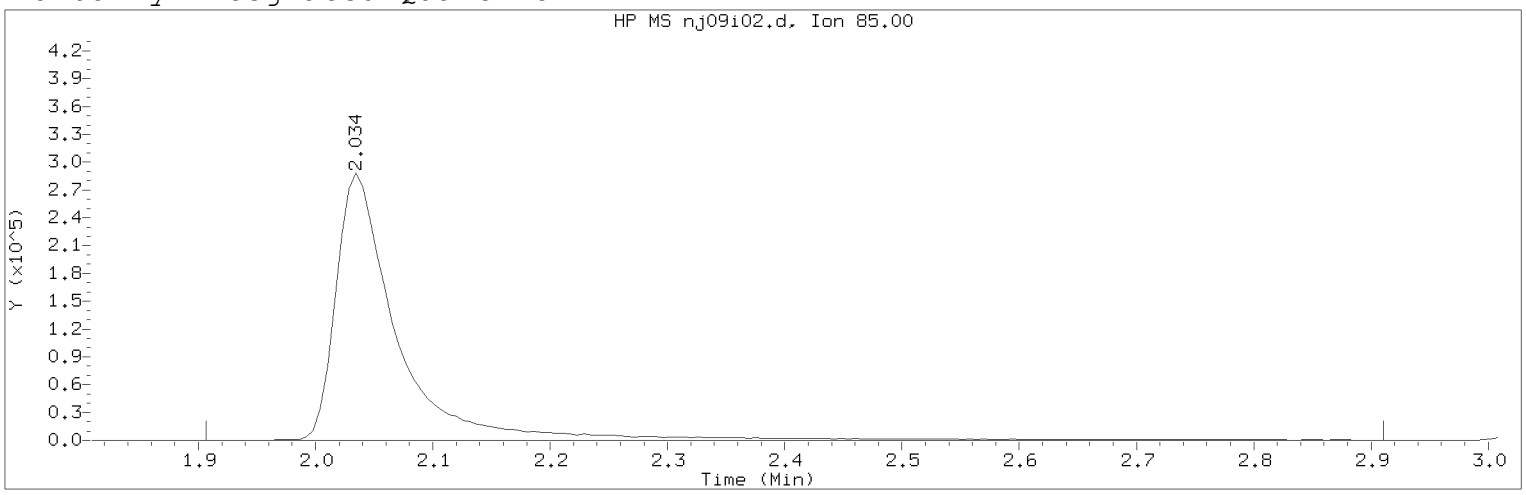
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.338	91	2802781	105.553
141) Diethylbenzene (total)	(4)		100	7301811	310.113
136) 1,3-Diethylbenzene	(4)	13.398	119	2518192	103.714
137) 1,4-Diethylbenzene	(4)	13.471	119	2676243	103.806
139) n-Butylbenzene	(4)	13.490	92	2195996	104.956
138) 1,2-Dichlorobenzene	(4)	13.526	146	1886768	101.292
140) 1,2-Diethylbenzene	(4)	13.544	119	2107376	102.594
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	332843	102.516
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	1554051	104.670
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	1354118	104.599
147) Hexachlorobutadiene	(4)	14.700	225	619194	105.736
148) Naphthalene	(4)	14.804	128	4184771	103.097
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	1236265	104.030
150) 2-Methylnaphthalene	(4)	15.613	142	2446500	104.346

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

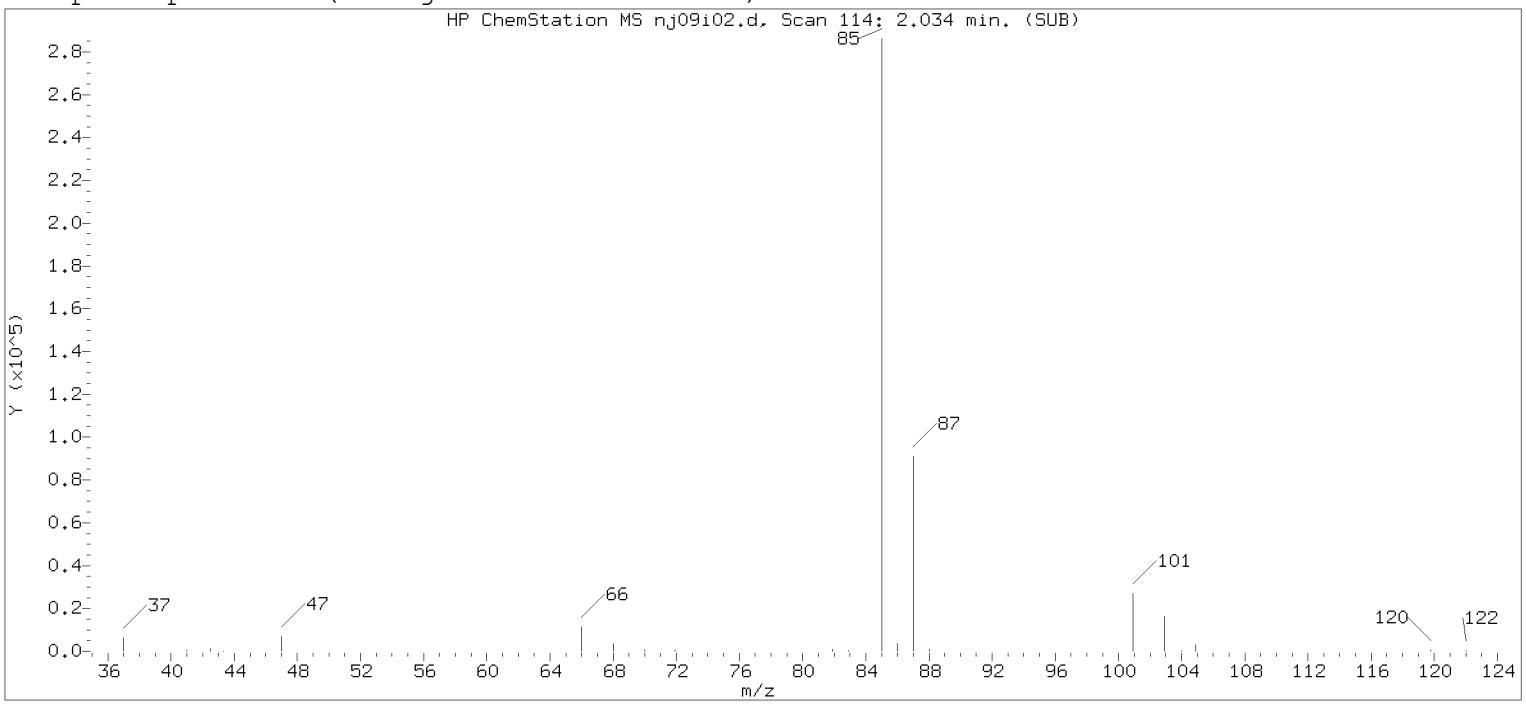
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 1065649M
On-Column Amount (ng) : 104.2612
Integration start scan : 92 Integration stop scan: 257
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

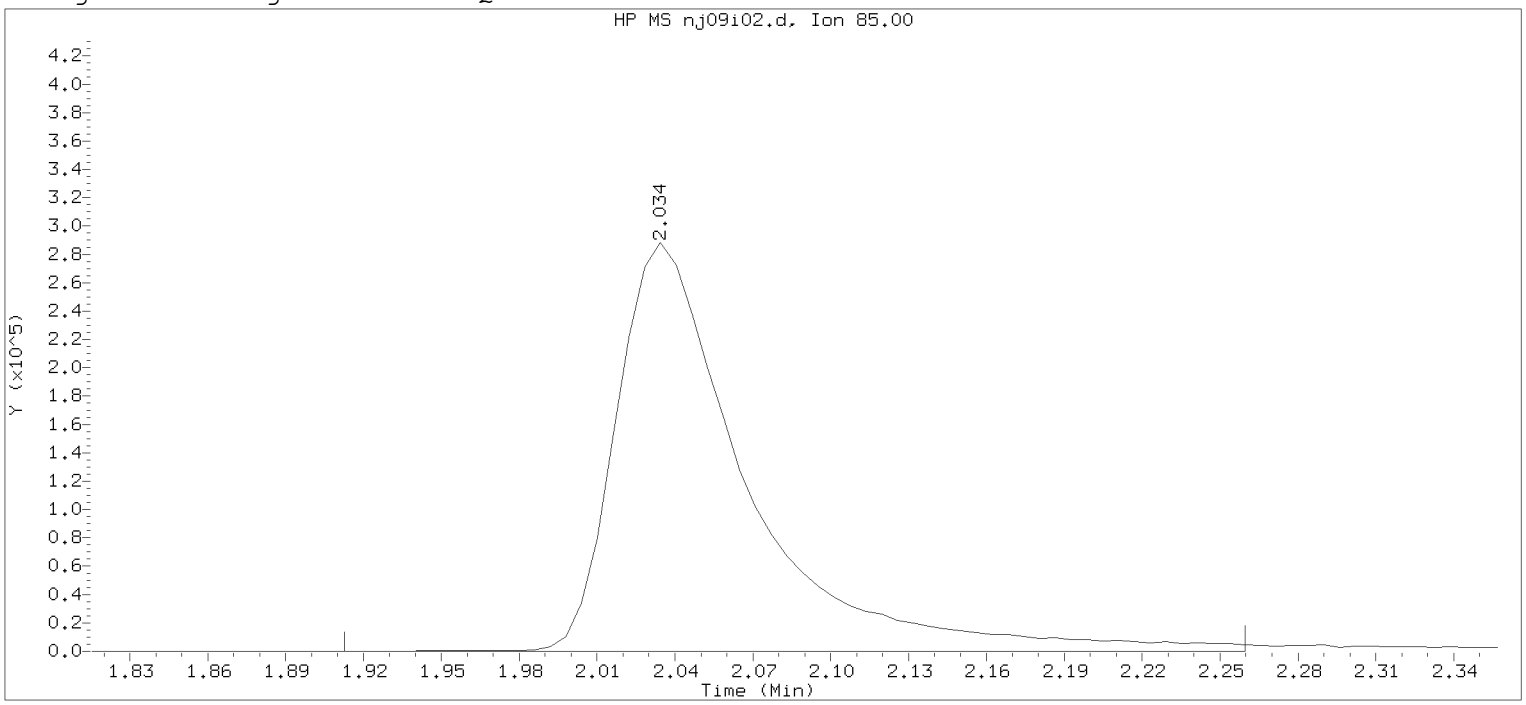
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

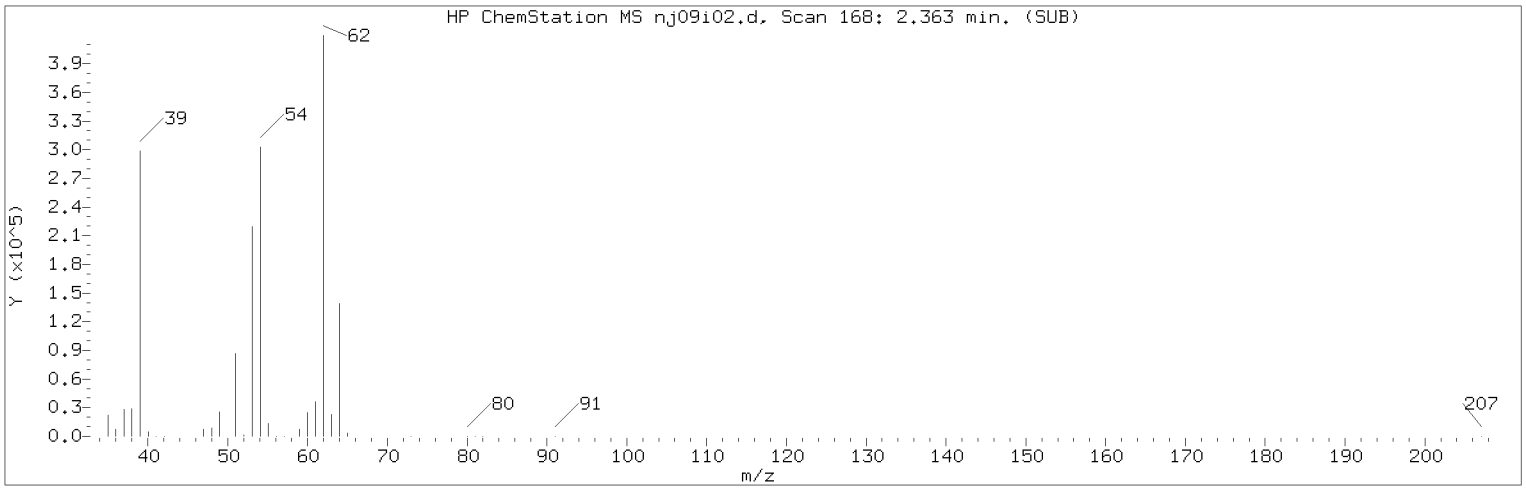
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

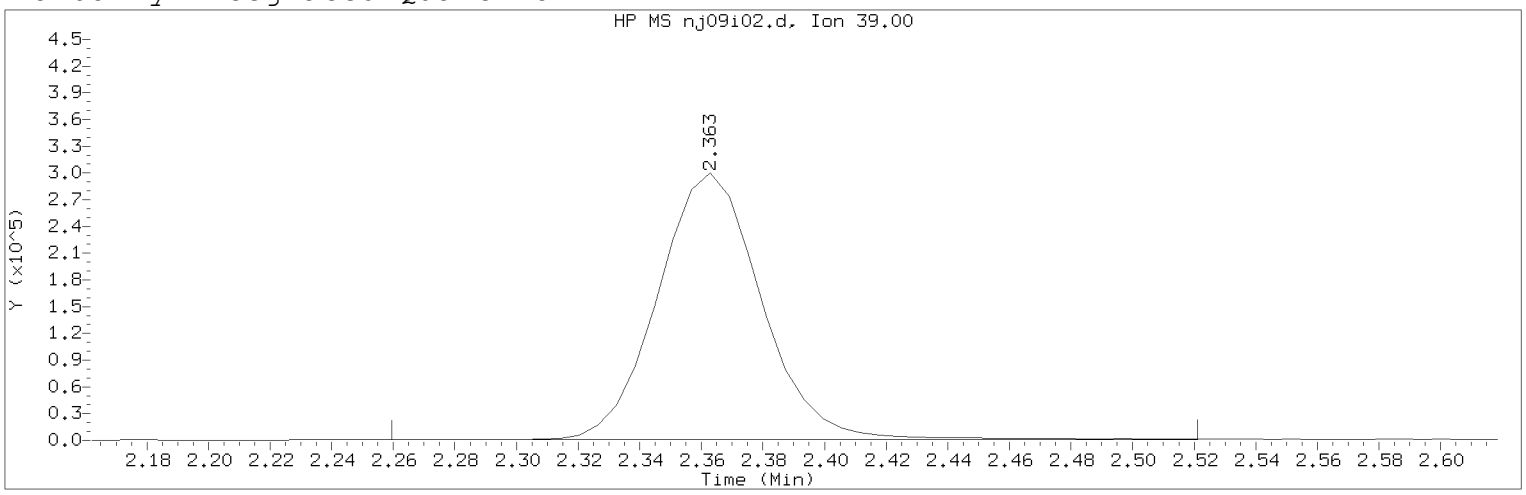
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 1012941
On-column Amount (ng) : 102.8315
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

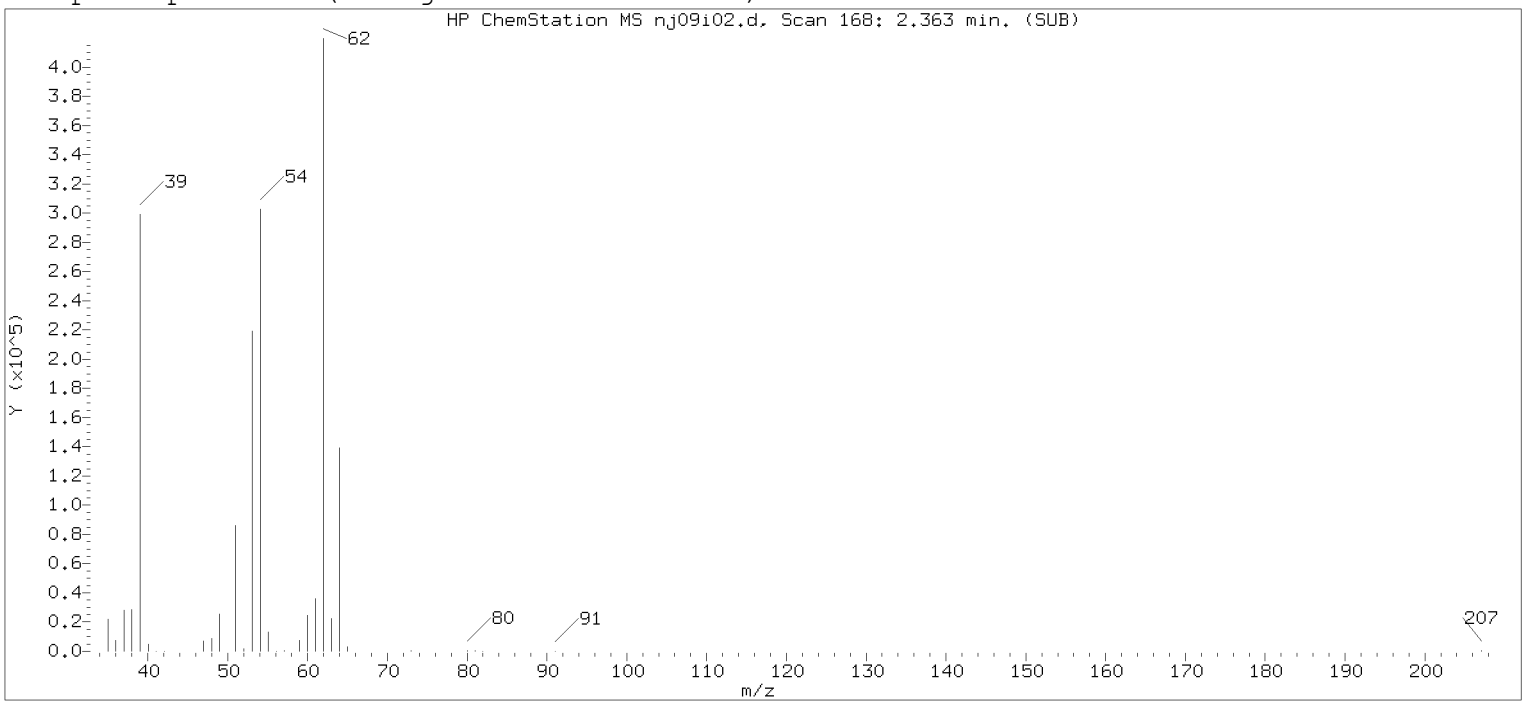
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 705862M
On-Column Amount (ng) : 92.3678
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 370 Y at integration end: 370

Reason for manual integration: improper integration

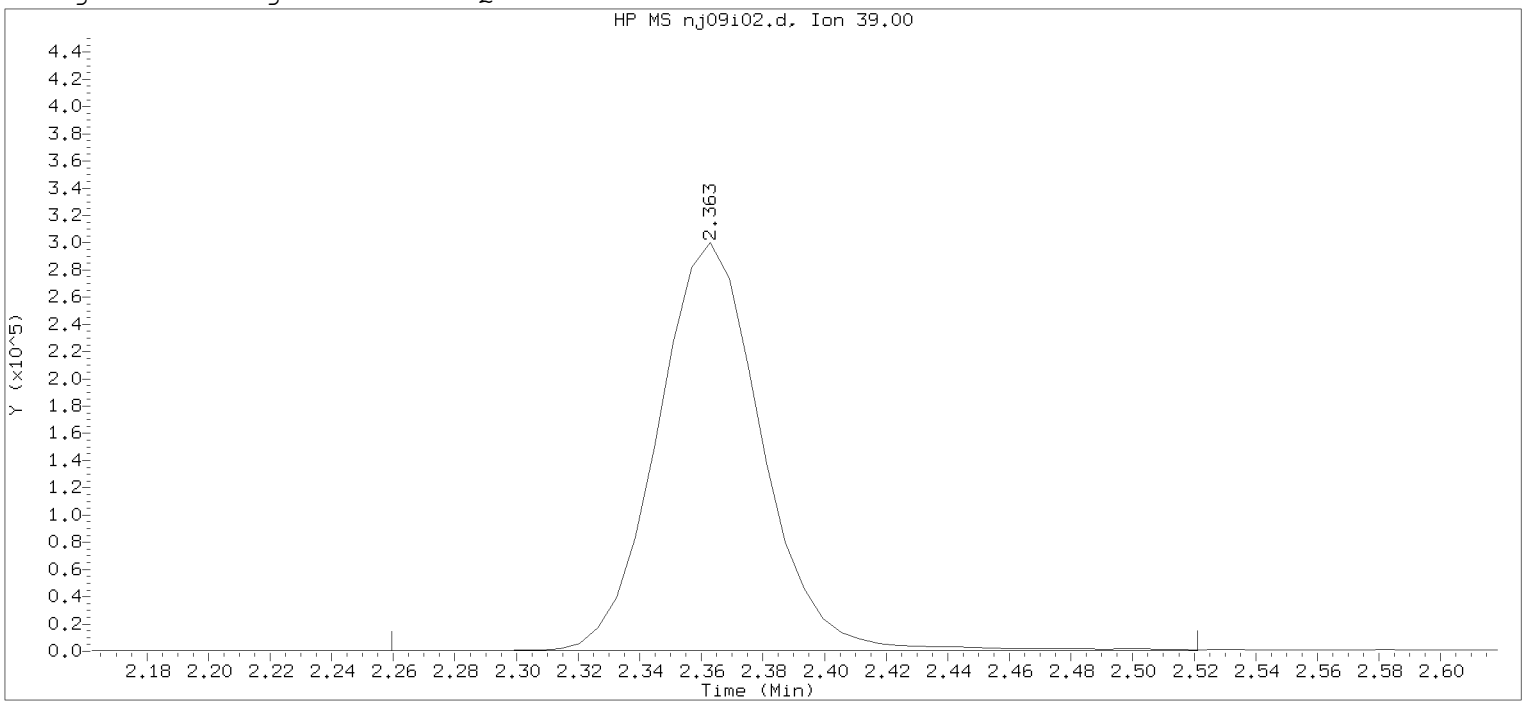
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

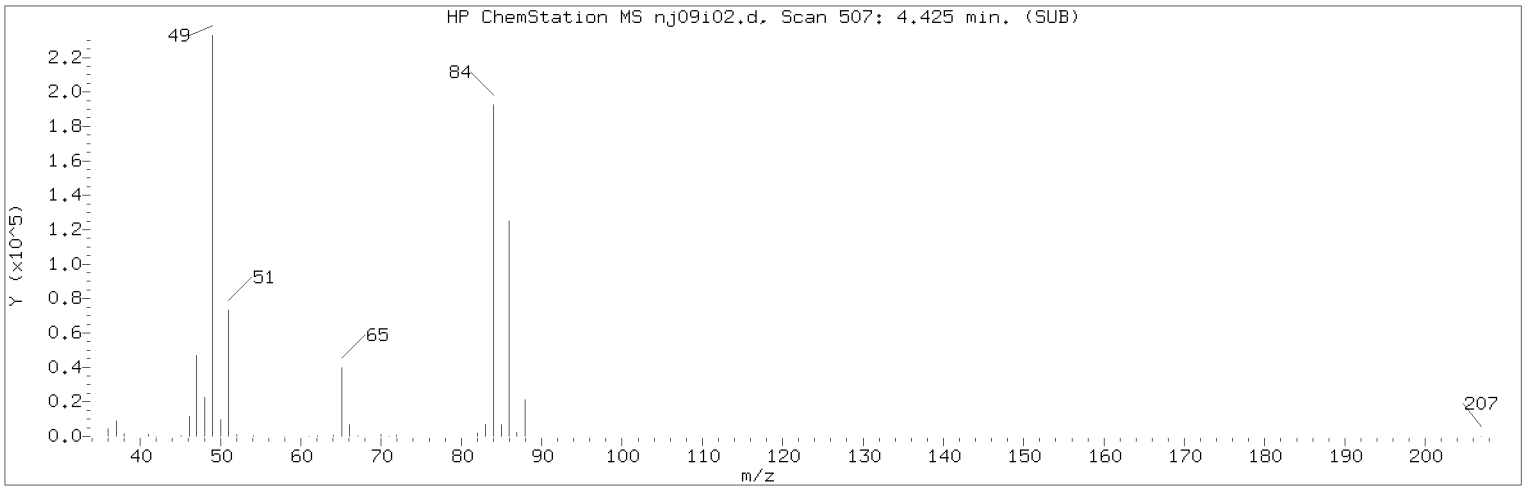
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

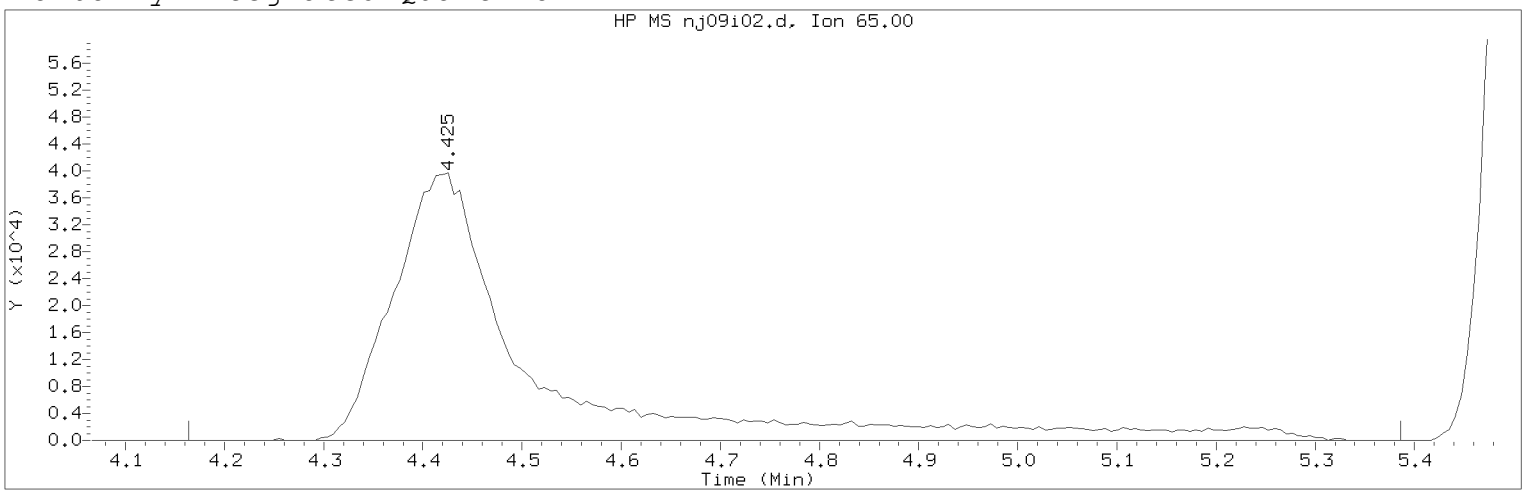
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 703523
On-column Amount (ng) : 93.1168
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 376 Y at integration end: 645

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

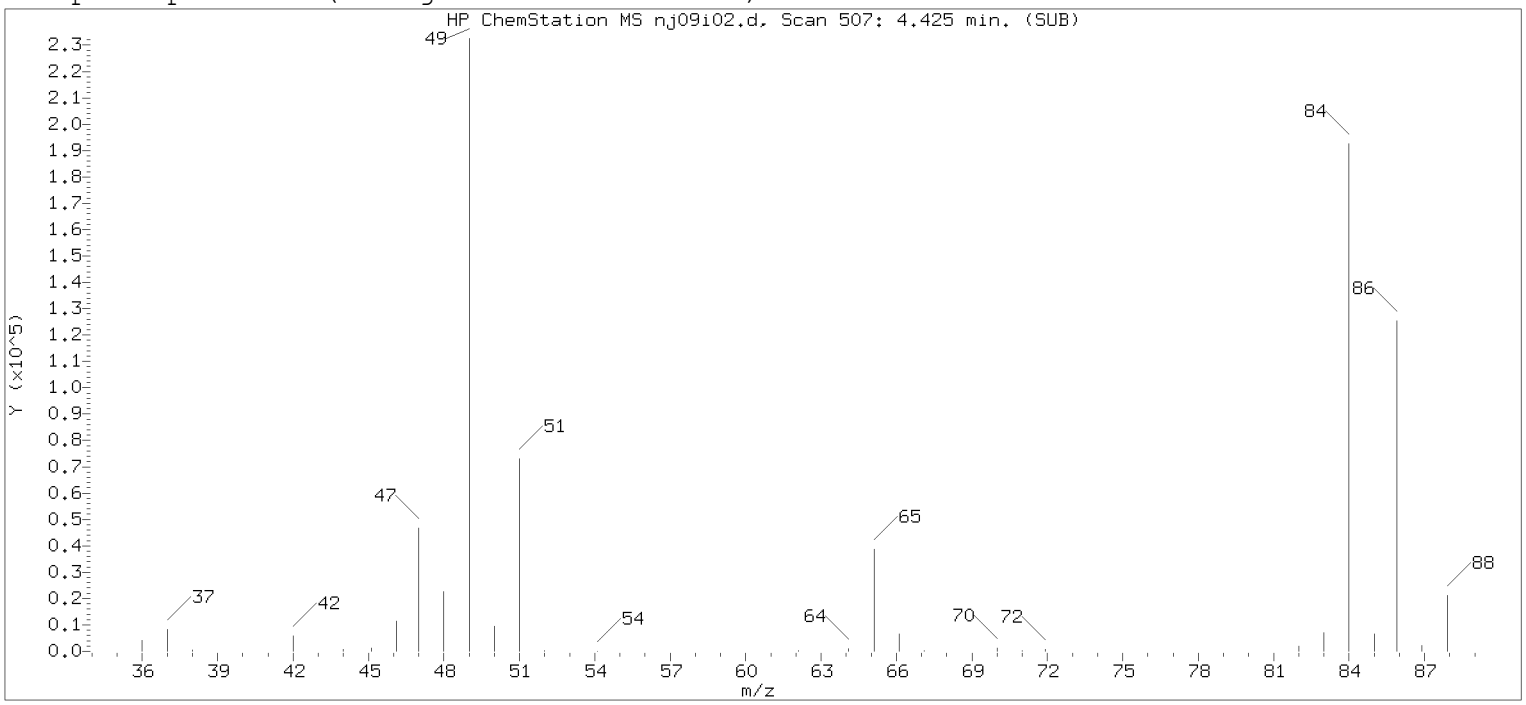
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 383443M
On-Column Amount (ng) : 250.0000
Integration start scan : 463 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

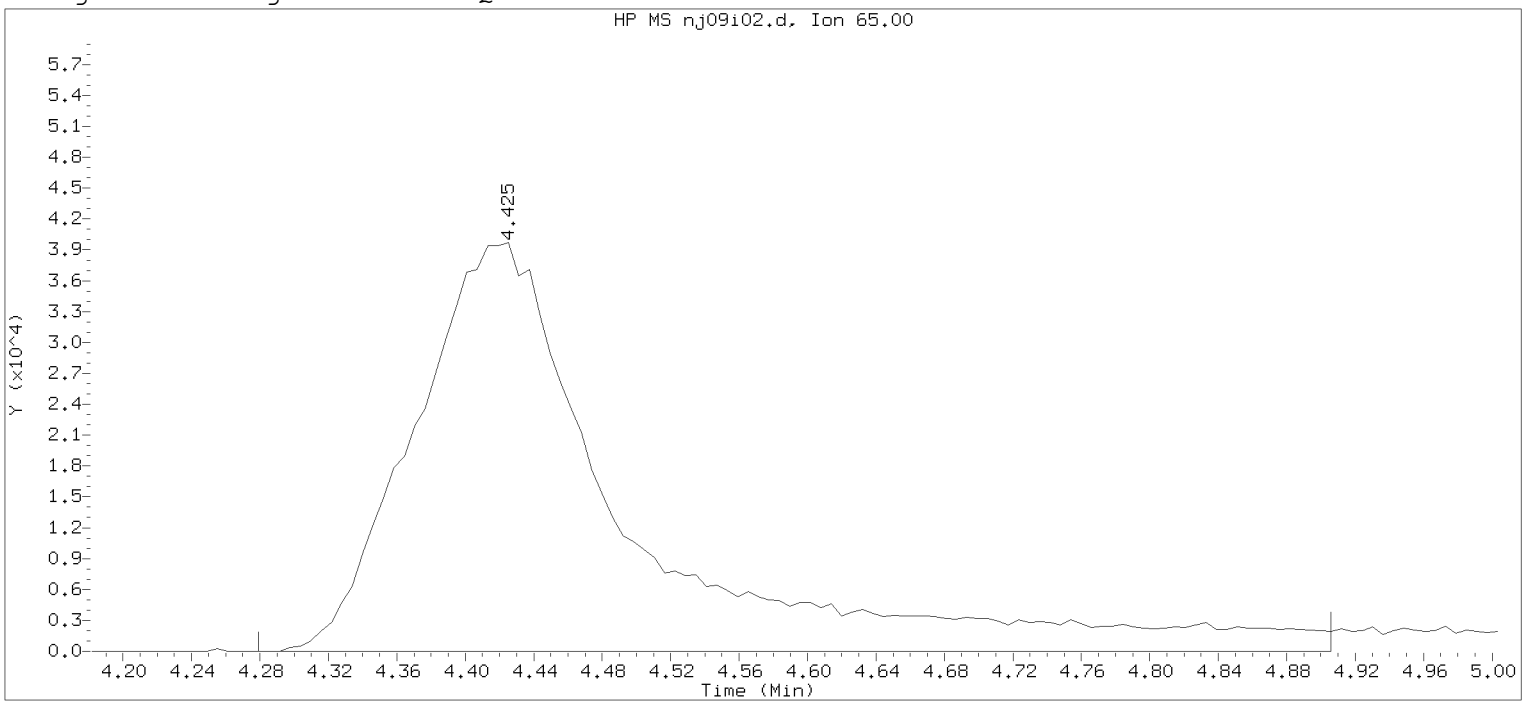
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

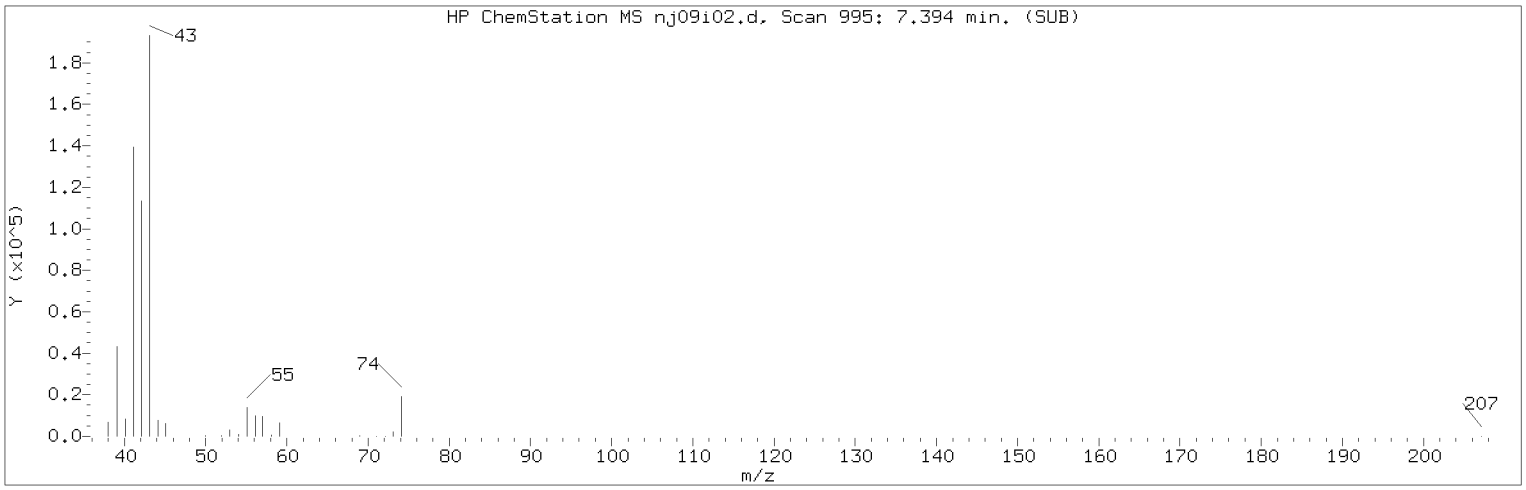
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

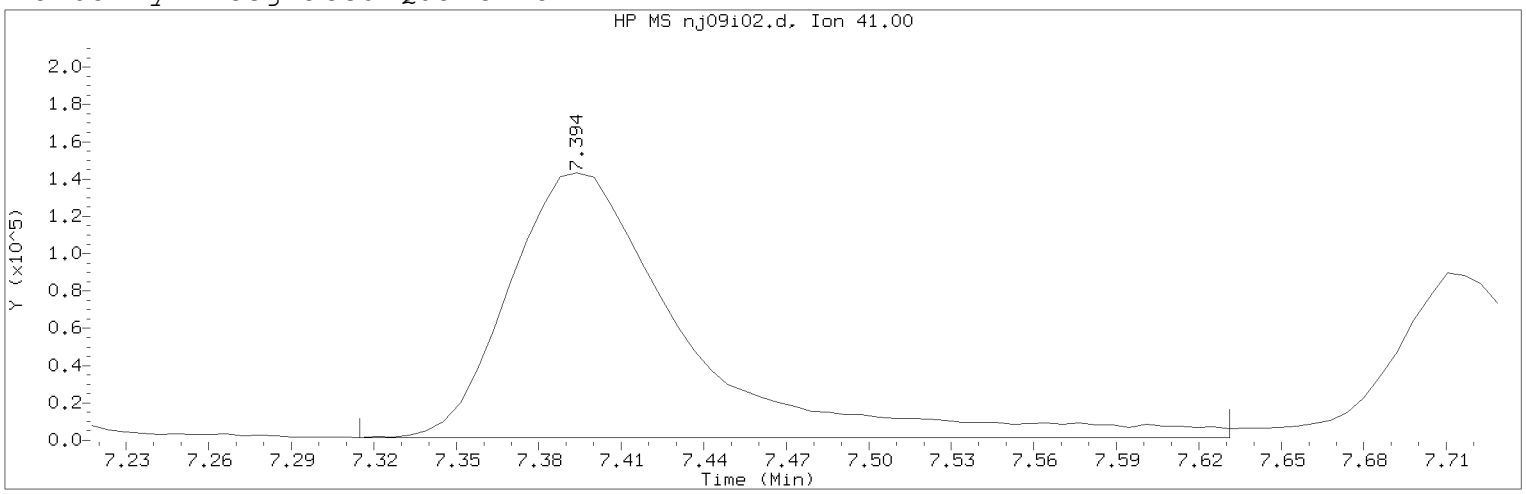
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area : 343722
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

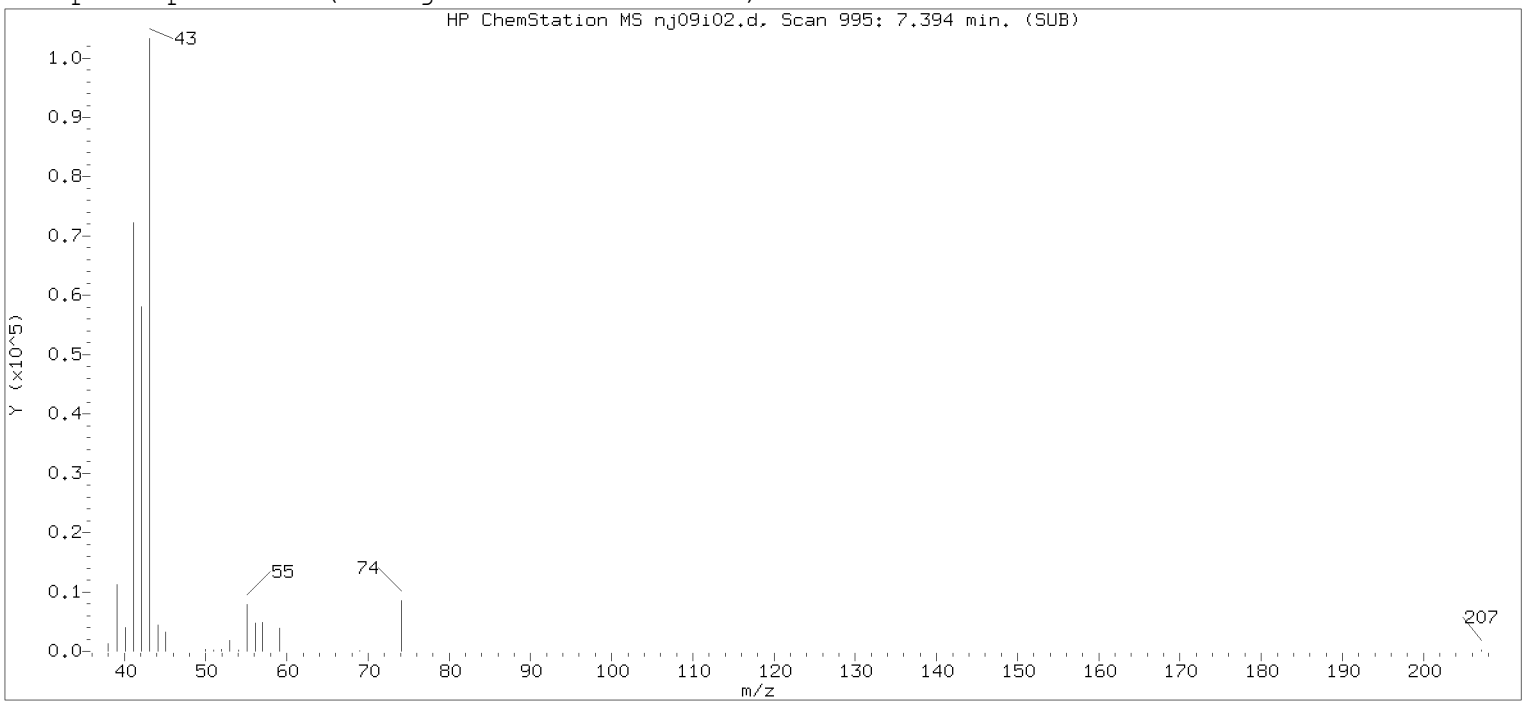
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area (flag) : 631953M
On-Column Amount (ng) : 1234.0938
Integration start scan : 981 Integration stop scan: 1033
Y at integration start : 1492 Y at integration end: 1492

Reason for manual integration: improper integration

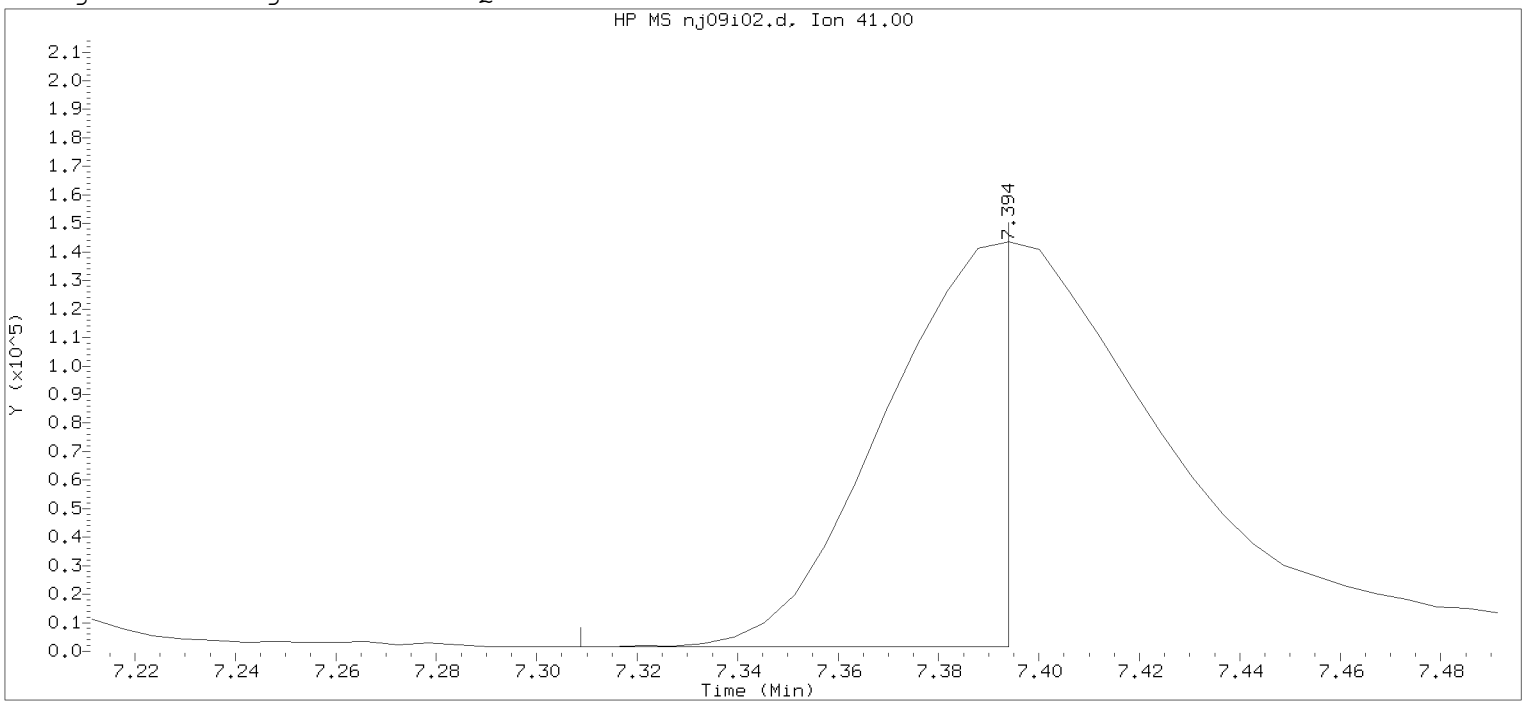
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

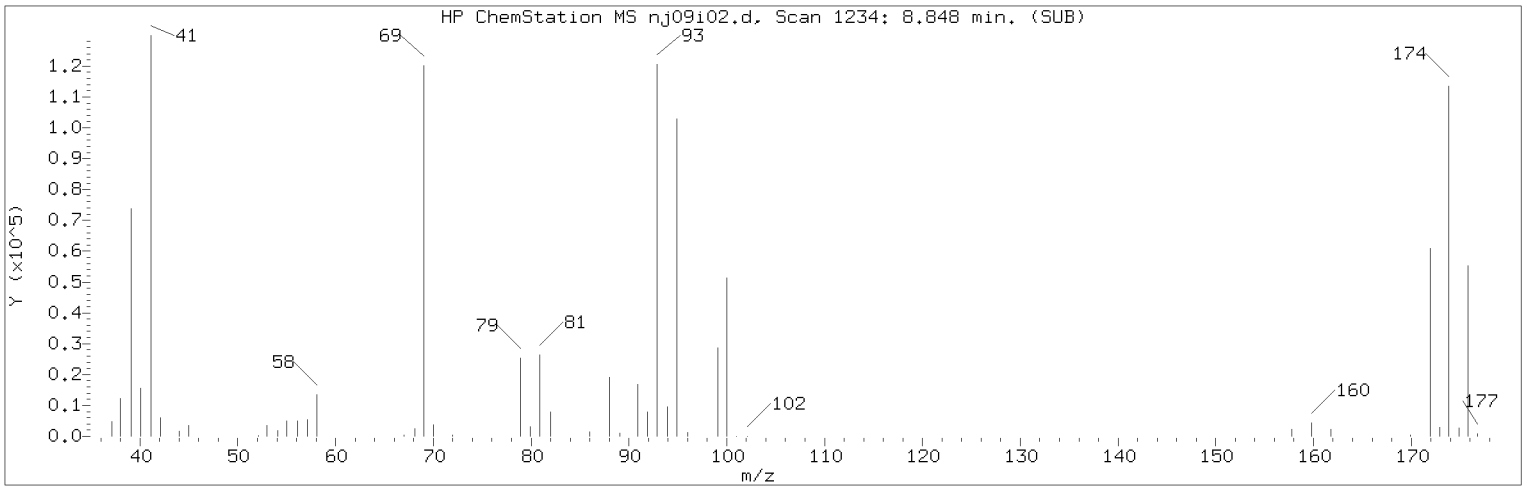
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

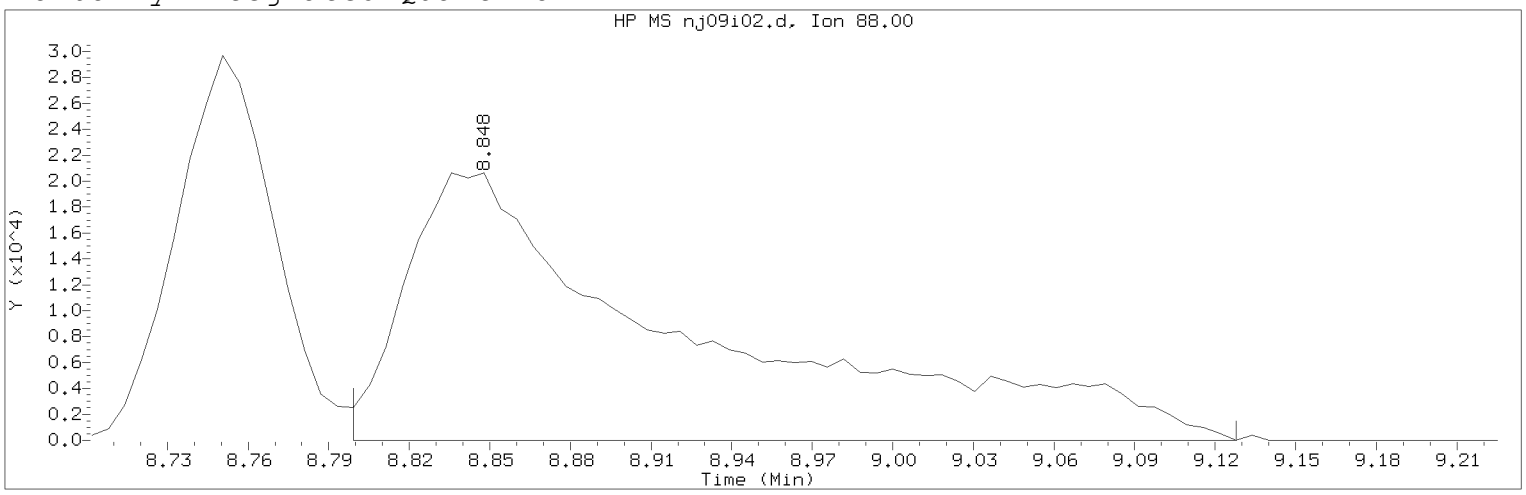
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area : 237047
On-column Amount (ng) : 786.5514
Integration start scan : 980 Integration stop scan: 994
Y at integration start : 1563 Y at integration end: 1563

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

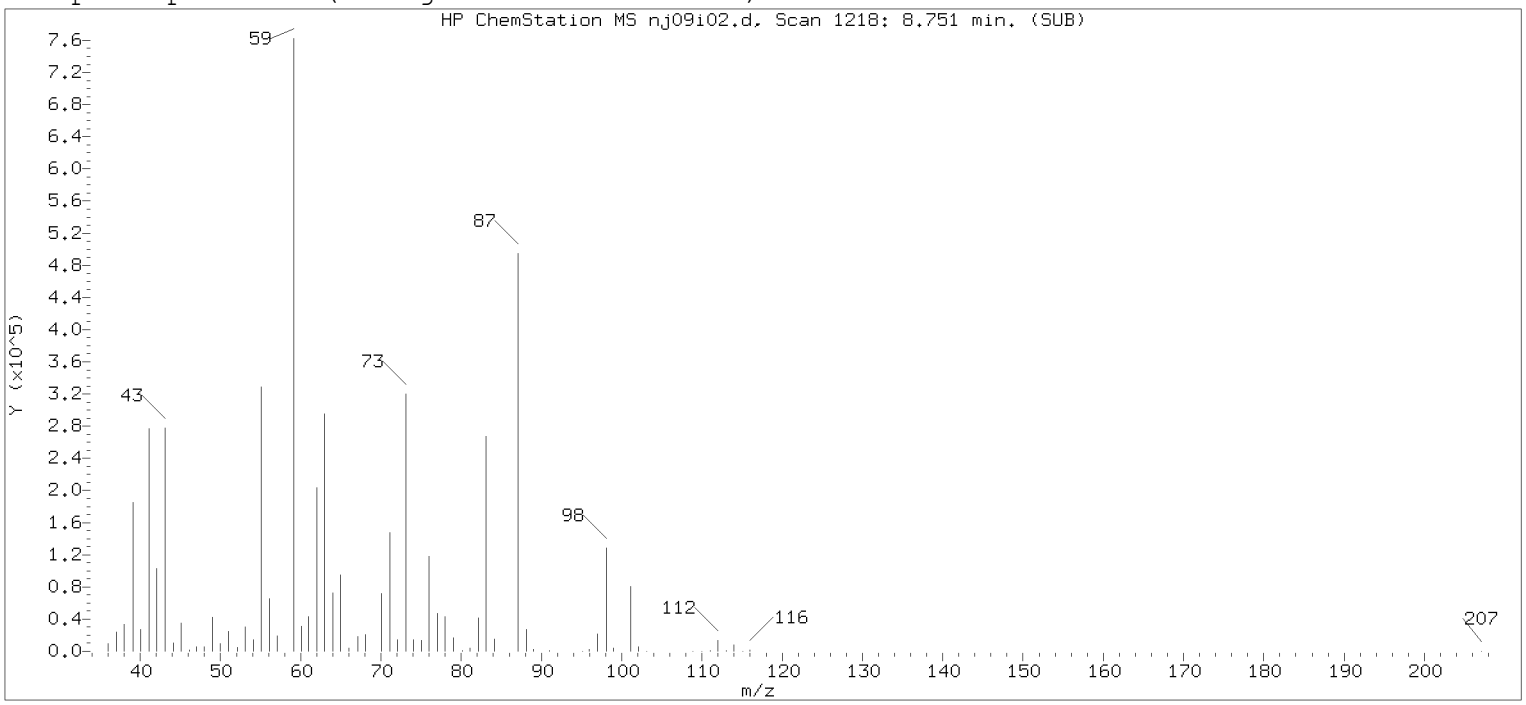
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.848
Quant Ion : 88.00
Area (flag) : 151647M
On-Column Amount (ng) : 1360.8473
Integration start scan : 1225 Integration stop scan: 1279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

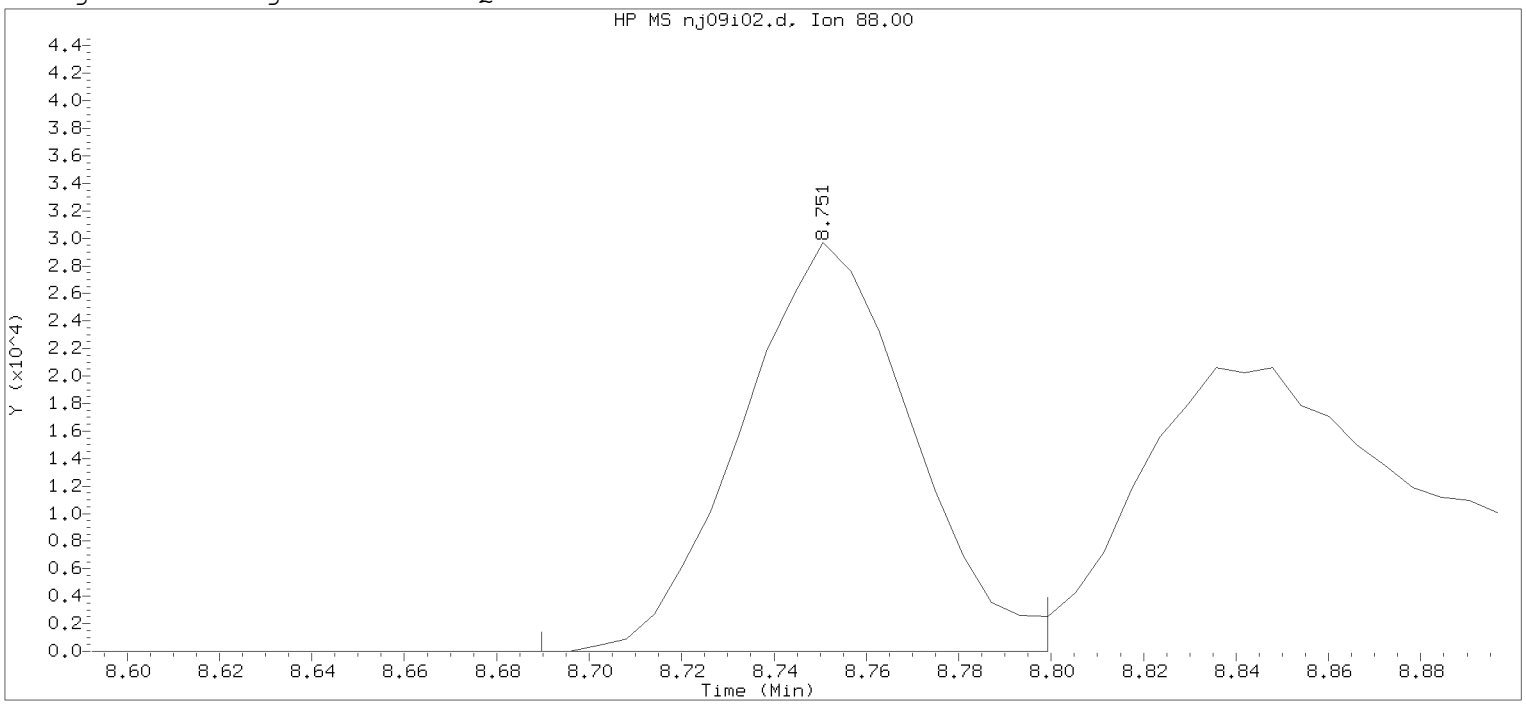
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

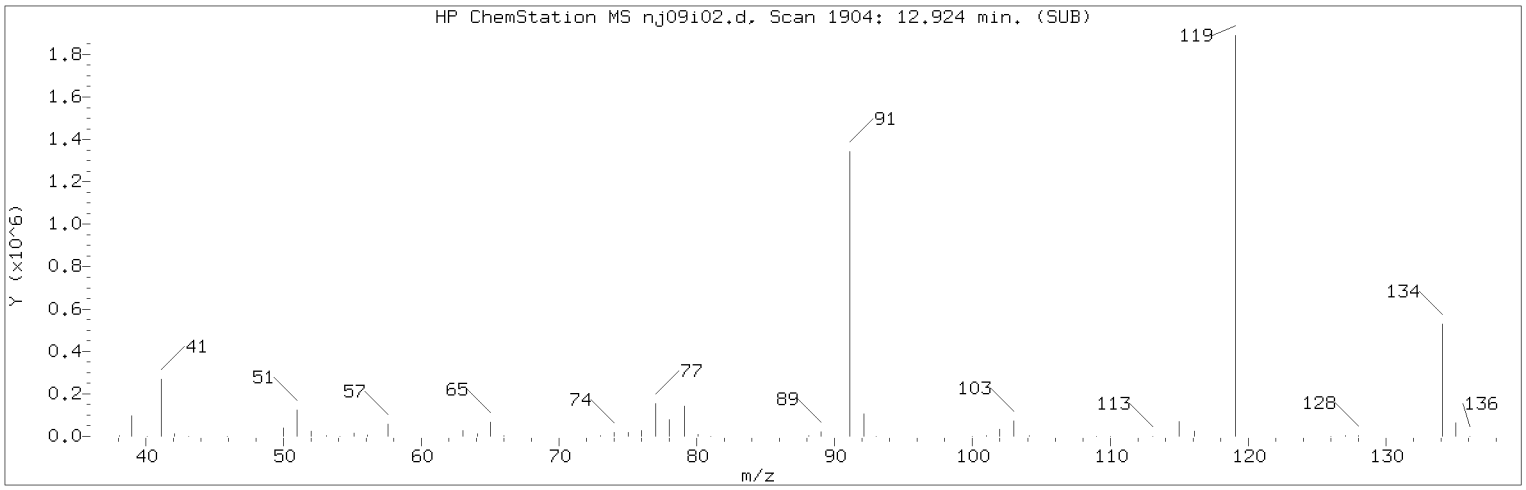
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

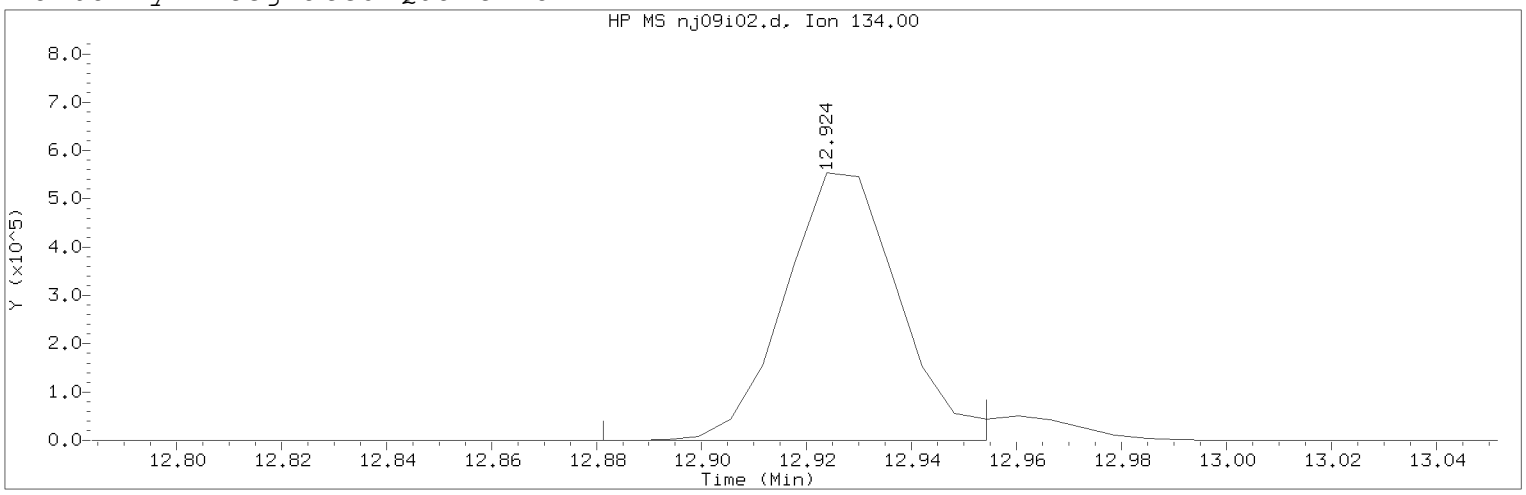
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 75794
On-column Amount (ng) : 1015.5177
Integration start scan : 1207 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: JCW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

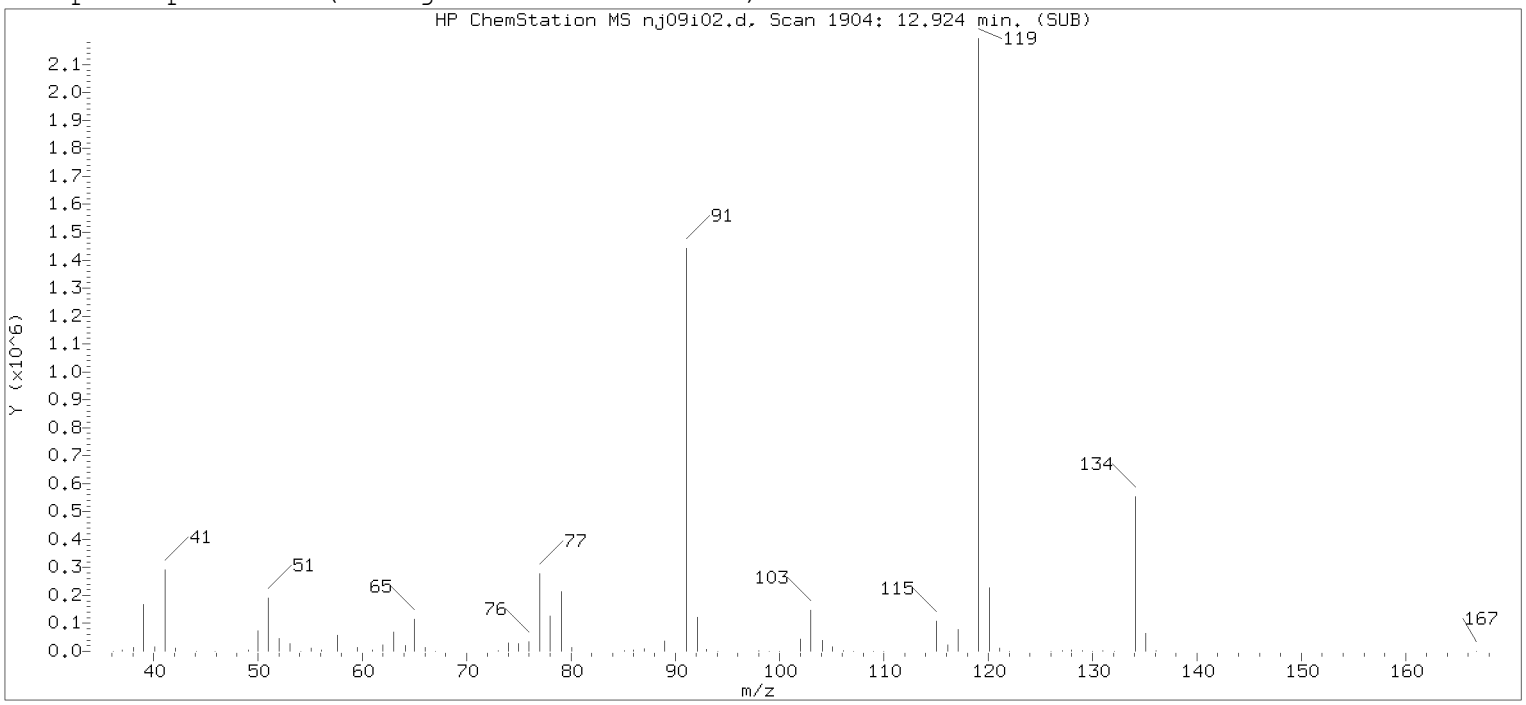
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 832423M
On-Column Amount (ng) : 104.6846
Integration start scan : 1896 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

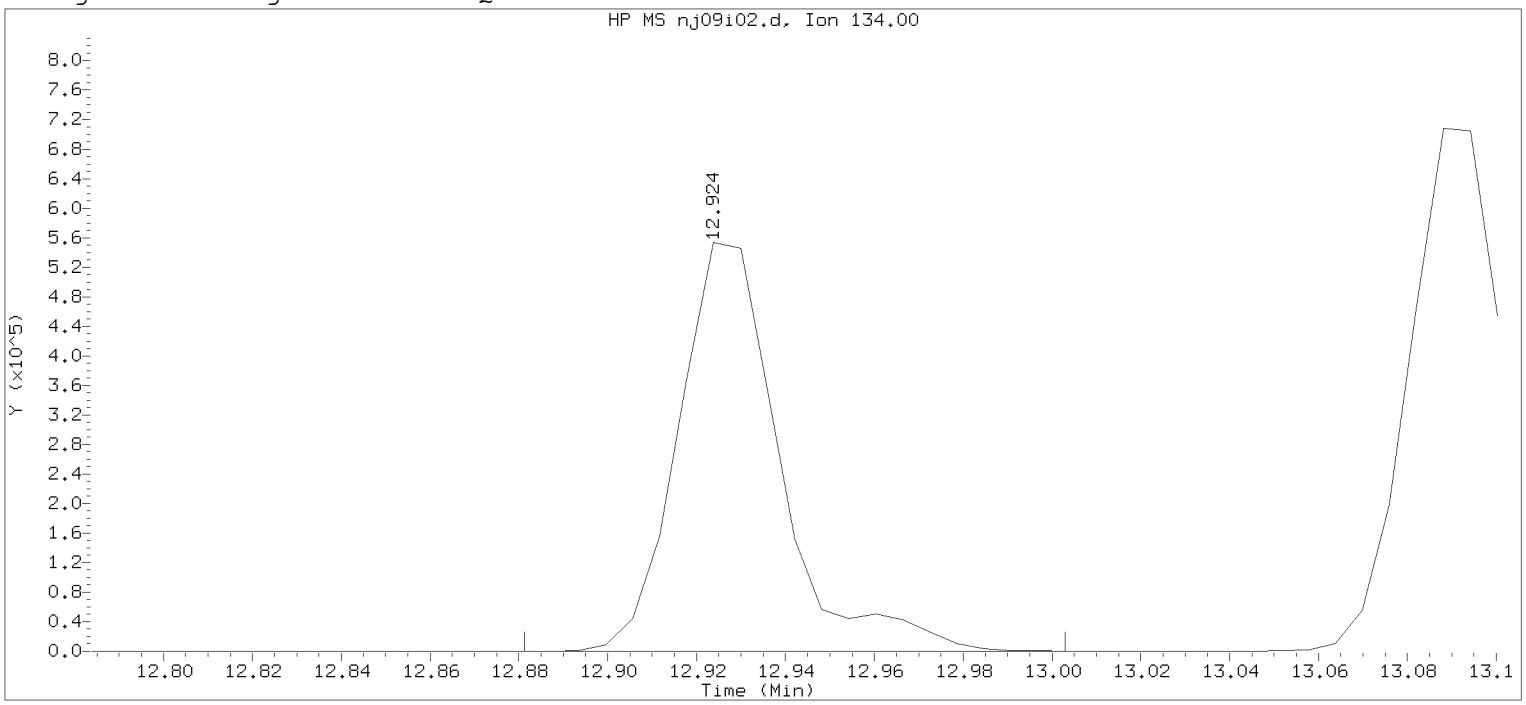
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



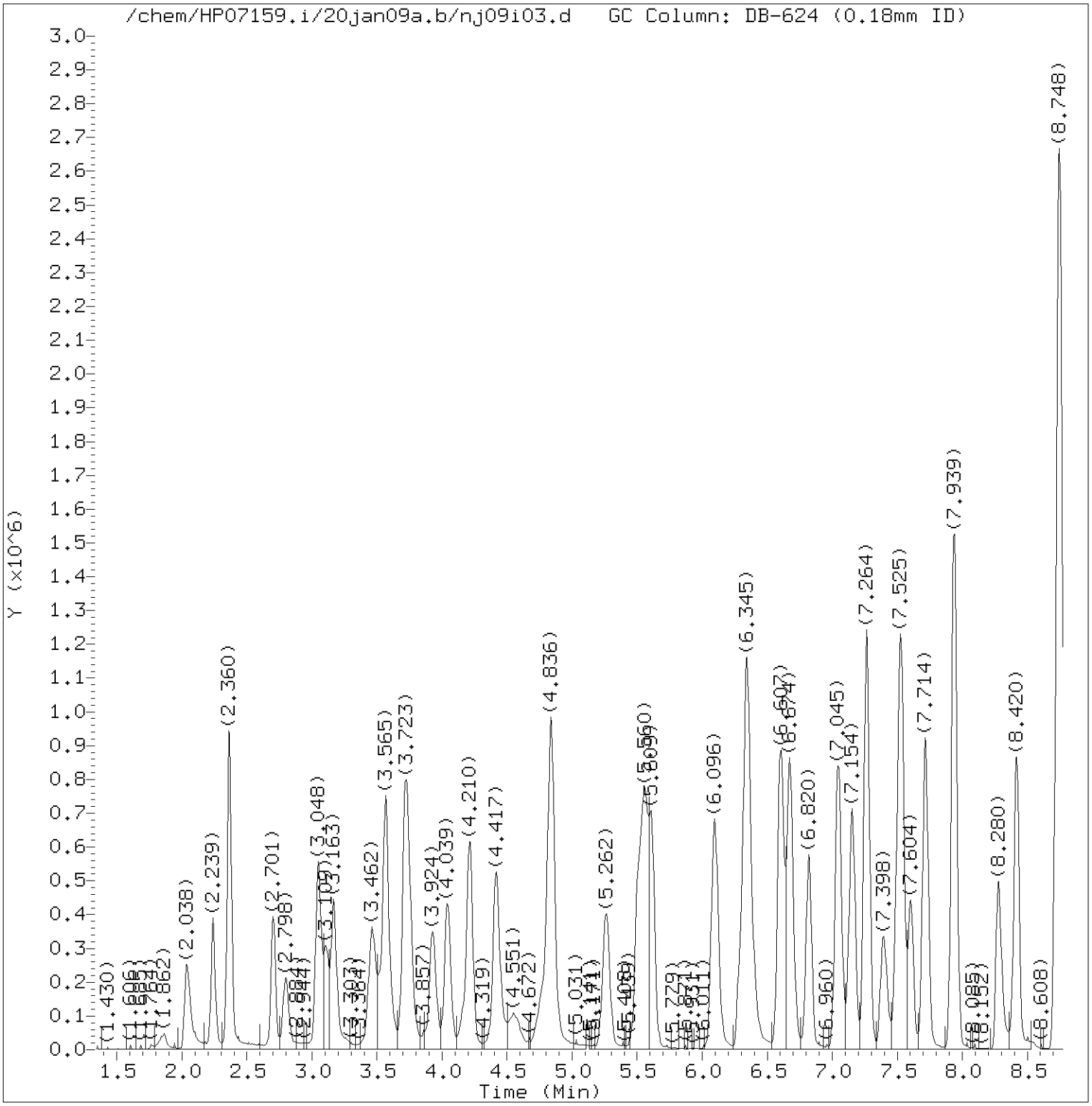
Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 881807
On-column Amount (ng) : 107.2006
Integration start scan : 1896 Integration stop scan: 1916
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

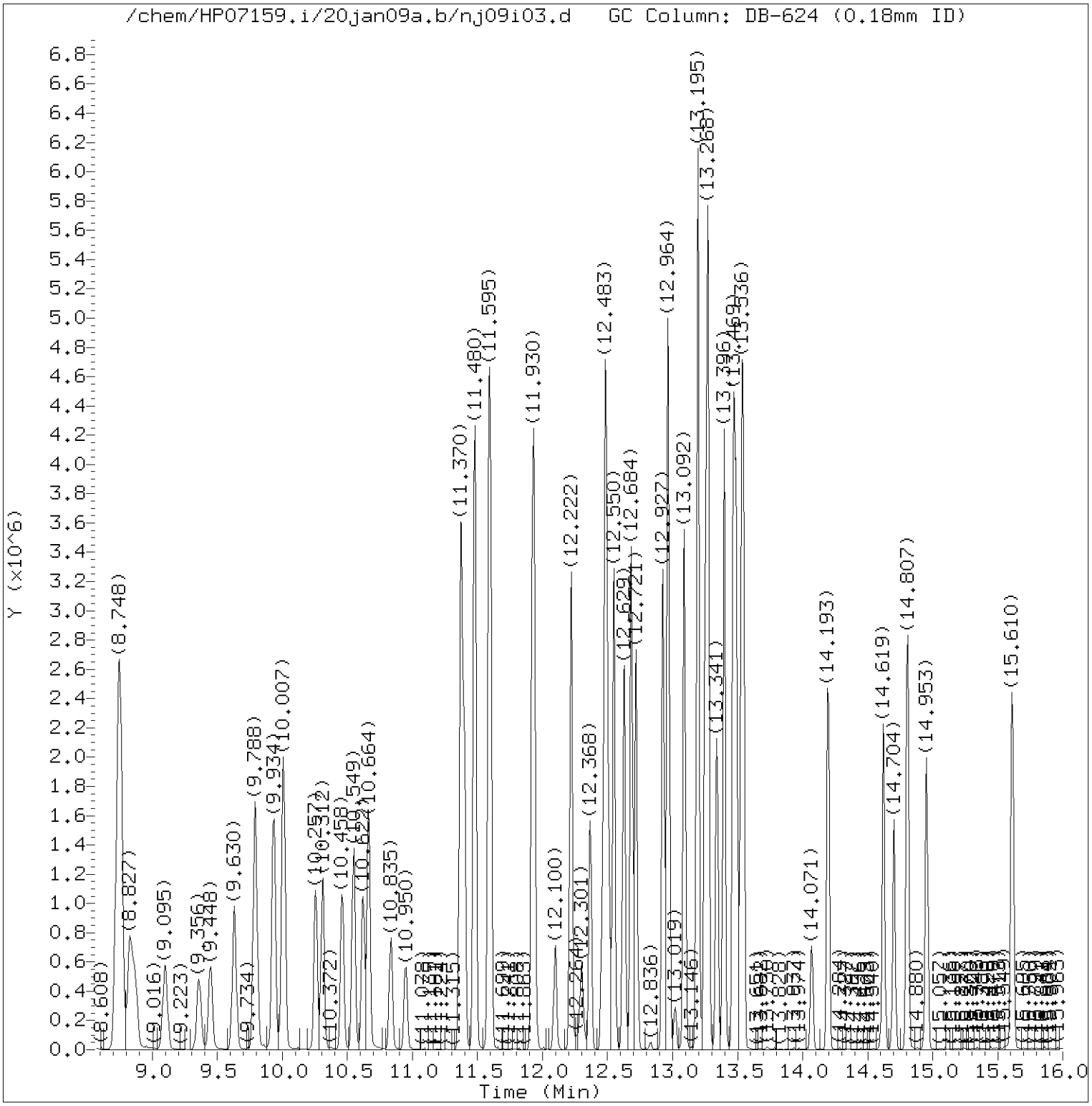
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.038	85	527144M	51.804
4) Chloromethane	(2)	2.239	50	529447	48.559
6) Vinyl Chloride	(2)	2.360	62	530741	50.022
5) 1,3-Butadiene	(2)	2.367	39	355149M	46.681
8) Bromomethane	(2)	2.701	94	355397	48.853
9) Chloroethane	(2)	2.798	64	304981	49.111
10) Dichlorofluoromethane	(2)	3.048	67	688803	48.433
12) Trichlorofluoromethane	(2)	3.109	101	584978	50.166
11) n-Pentane	(2)	3.163	43	434271	38.011
13) Ethanol	(1)	3.261	45	111715	1194.607
15) Freon 123a	(2)	3.455	67	418005	48.931
16) Acrolein	(1)	3.565	56	1328208	506.935
17) 1,1-Dichloroethene	(2)	3.717	96	332691	48.955
17) 1,1-Dichloroethene	(2)	3.717	63	173113	48.544
19) Freon 113	(2)	3.735	101	283064	44.893
18) Acetone	(1)	3.741	58	112741	102.161
21) 2-Propanol	(1)	3.918	45	179669M	246.501
22) Methyl Iodide	(2)	3.924	142	629218	49.604
23) Carbon Disulfide	(2)	4.039	76	1079092	49.655
27) Methyl Acetate	(2)	4.185	43	392865	47.057
25) Allyl Chloride	(2)	4.216	41	578827	48.246
28) Methylene Chloride	(2)	4.411	84	380651	47.160
29)*t-Butyl alcohol-d10	(1)	4.423	65	386370M	250.000
30) t-Butyl alcohol	(1)	4.551	59	374193	259.777
31) Acrylonitrile	(2)	4.757	53	228245	50.620
33) Methyl Tertiary Butyl Ether	(2)	4.824	73	1079796	48.896
32) trans-1,2-Dichloroethene	(2)	4.843	96	377116	48.608
34) n-Hexane	(2)	5.268	57	399483	37.300
36) 1,1-Dichloroethane	(2)	5.506	63	702069	49.606
38) di-Isopropyl ether	(2)	5.560	45	1206454	49.485
39) 2-Chloro-1,3-butadiene	(2)	5.615	53	620497	49.668
40) Ethyl t-butyl ether	(2)	6.096	59	1153214	49.766
43) 1,2-Dichloroethene (Total)	(2)		96	807382	97.440
44) 2-Butanone	(2)	6.296	43	653401	103.636
42) cis-1,2-Dichloroethene	(2)	6.339	96	430266	48.832
45) 2,2-Dichloropropane	(2)	6.351	77	622560	49.824
47) Propionitrile	(1)	6.388	54	427612	254.173
48) Methacrylonitrile	(2)	6.601	67	577339	126.760

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	213003	51.127
50) Tetrahydrofuran	(1)	6.680	71	183689	105.167
51) Chloroform	(2)	6.820	83	677419	49.072
52)$Dibromofluoromethane	(2)	7.039	113	324858	50.073
52)$Dibromofluoromethane	(2)	7.039	111	329753	49.779
53) 1,1,1-Trichloroethane	(2)	7.051	97	622865	49.872
54) Cyclohexane	(2)	7.154	56	560506	43.632
54) Cyclohexane	(2)	7.154	84	494708	44.187
54) Cyclohexane	(2)	7.154	69	176892	43.810
55) 1,1-Dichloropropene	(2)	7.264	75	561348	49.691
56) Carbon Tetrachloride	(2)	7.264	117	535686	49.746
58) Isobutyl Alcohol	(1)	7.398	41	319042	618.313
57)$1,2-Dichloroethane-d4	(2)	7.501	102	82253	50.143
57)$1,2-Dichloroethane-d4	(2)	7.501	65	387310M	49.531
57)$1,2-Dichloroethane-d4	(2)	7.495	104	52729	50.521
60) Benzene	(2)	7.531	78	1593132	49.544
61) 1,2-Dichloroethane	(2)	7.604	62	554246	48.720
61) 1,2-Dichloroethane	(2)	7.610	98	50080	53.487
65) t-Amyl methyl ether	(2)	7.714	73	1155497	49.706
66)*Fluorobenzene	(2)	7.933	96	1307289	50.000
67) n-Heptane	(2)	7.939	43	422678	34.192
69) n-Butanol	(1)	8.280	56	558559	1256.665
71) Trichloroethene	(2)	8.414	95	415585	49.057
72) Methylcyclohexane	(2)	8.730	83	701355	50.364
72) Methylcyclohexane	(2)	8.730	98	334358	50.983
73) 1,2-Dichloropropane	(2)	8.754	63	414718	50.437
76) Methyl Methacrylate	(2)	8.827	69	385108	51.215
75) 1,4-Dioxane	(1)	8.839	88	70481M	627.690
74) Dibromomethane	(2)	8.864	93	260016	49.583
78) Bromodichloromethane	(2)	9.101	83	530456	49.549
79) 2-Nitropropane	(2)	9.356	41	406791	104.620
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	312088	47.982
81) cis-1,3-Dichloropropene	(2)	9.630	75	684759	50.142
82) 4-Methyl-2-pentanone	(2)	9.788	43	1383360	108.295
83)$Toluene-d8	(3)	9.934	98	1288871	50.147
83)$Toluene-d8	(3)	9.934	100	854716	50.195
88) Toluene	(3)	10.007	92	1036570	49.648
90) 1,3-Dichloropropene (total)	(3)		100	1341815	100.847

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.257	75	657056	50.705
91) Ethyl Methacrylate	(3)	10.312	69	661745	51.256
92) 1,1,2-Trichloroethane	(3)	10.458	97	375770	50.834
93) Tetrachloroethene	(3)	10.549	166	449859	49.203
94) 1,3-Dichloropropane	(3)	10.622	76	651612	50.789
96) 2-Hexanone	(3)	10.658	43	1092889	110.585
97) Dibromochloromethane	(3)	10.835	129	438059	51.640
99) 1,2-Dibromoethane	(3)	10.950	107	409383	50.575
100)*Chlorobenzene-d5	(3)	11.370	117	985480	50.000
102) Chlorobenzene	(3)	11.394	112	1162260	49.878
103) 1,1,1,2-Tetrachloroethane	(3)	11.480	131	422811	50.350
104) Ethylbenzene	(3)	11.480	91	1999441	49.511
106) m+p-Xylene	(3)	11.595	106	1580832	99.630
108) Xylene (Total)	(3)		106	2360020	149.560
107) o-Xylene	(3)	11.924	106	779188	49.930
109) Styrene	(3)	11.936	104	1324554	50.536
110) Bromoform	(3)	12.100	173	329436	51.440
111) Isopropylbenzene	(3)	12.222	105	2034021	49.351
112) Cyclohexanone	(1)	12.301	55	280570	623.055
114)$4-Bromofluorobenzene	(3)	12.368	95	507353	49.965
114)$4-Bromofluorobenzene	(3)	12.368	174	405865	49.892
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	592788	49.541
115) Bromobenzene	(4)	12.483	156	498425	49.540
118) trans-1,4-Dichloro-2-butene	(4)	12.489	53	523292	127.136
117) 1,2,3-Trichloropropane	(4)	12.514	110	188436	49.714
119) n-Propylbenzene	(4)	12.550	91	2370186	48.591
120) 2-Chlorotoluene	(4)	12.629	126	497529	49.473
122) 1,3,5-Trimethylbenzene	(4)	12.684	105	1743735	48.790
121) 4-Chlorotoluene	(4)	12.721	126	513936	49.312
124) tert-Butylbenzene	(4)	12.927	134	376089	47.486
125) Pentachloroethane	(4)	12.964	167	330304	52.085
126) 1,2,4-Trimethylbenzene	(4)	12.970	105	1821603	49.107
127) sec-Butylbenzene	(4)	13.092	105	2230146	48.037
129) 1,3-Dichlorobenzene	(4)	13.195	146	962585	49.191
130) p-Isopropyltoluene	(4)	13.195	119	1955496	48.404
131)*1,4-Dichlorobenzene-d4	(4)	13.250	152	543996	50.000
133) 1,4-Dichlorobenzene	(4)	13.268	146	976788	49.222
134) 1,2,3-Trimethylbenzene	(4)	13.274	105	1846821	51.298

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.341	91	1365843	51.644
141) Diethylbenzene (total)	(4)		100	3612705	154.035
136) 1,3-Diethylbenzene	(4)	13.396	119	1250049	51.690
137) 1,4-Diethylbenzene	(4)	13.469	119	1322364	51.497
139) n-Butylbenzene	(4)	13.487	92	993898	47.693
138) 1,2-Dichlorobenzene	(4)	13.524	146	919971	49.587
140) 1,2-Diethylbenzene	(4)	13.542	119	1040292	50.848
142) 1,2-Dibromo-3-chloropropane	(4)	14.071	75	162361	50.208
144) 1,3,5-Trichlorobenzene	(4)	14.199	180	715968	48.416
146) 1,2,4-Trichlorobenzene	(4)	14.625	180	640491	49.673
147) Hexachlorobutadiene	(4)	14.704	225	264291	45.312
148) Naphthalene	(4)	14.807	128	2061174	50.983
149) 1,2,3-Trichlorobenzene	(4)	14.953	180	588297	49.703
150) 2-Methylnaphthalene	(4)	15.610	142	1217198	52.123

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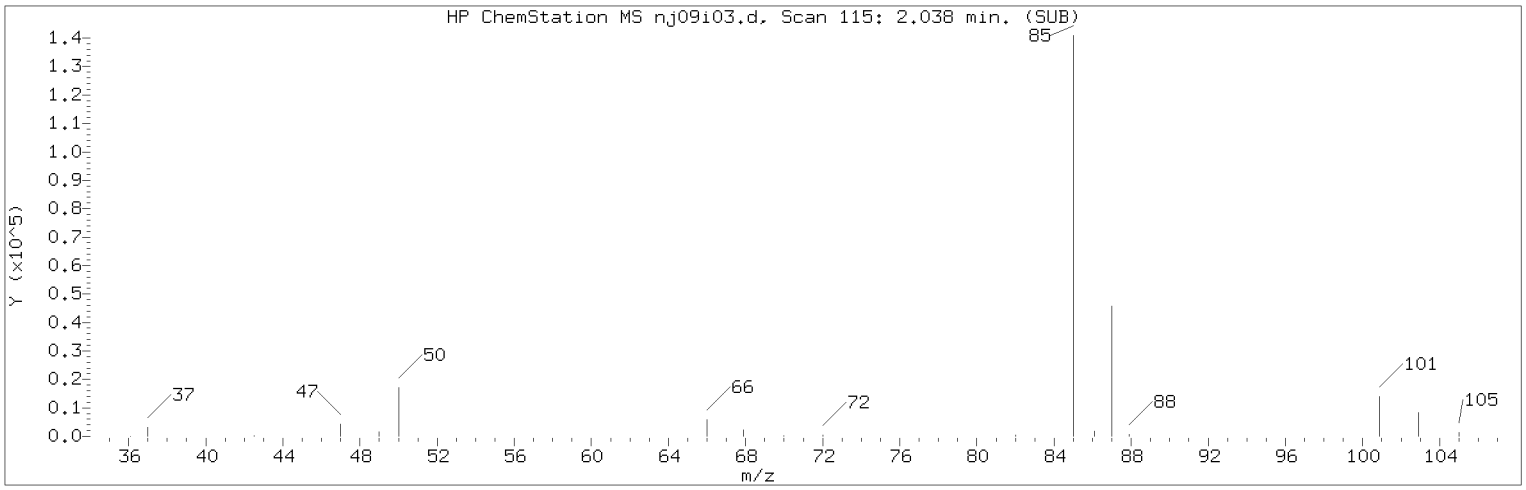
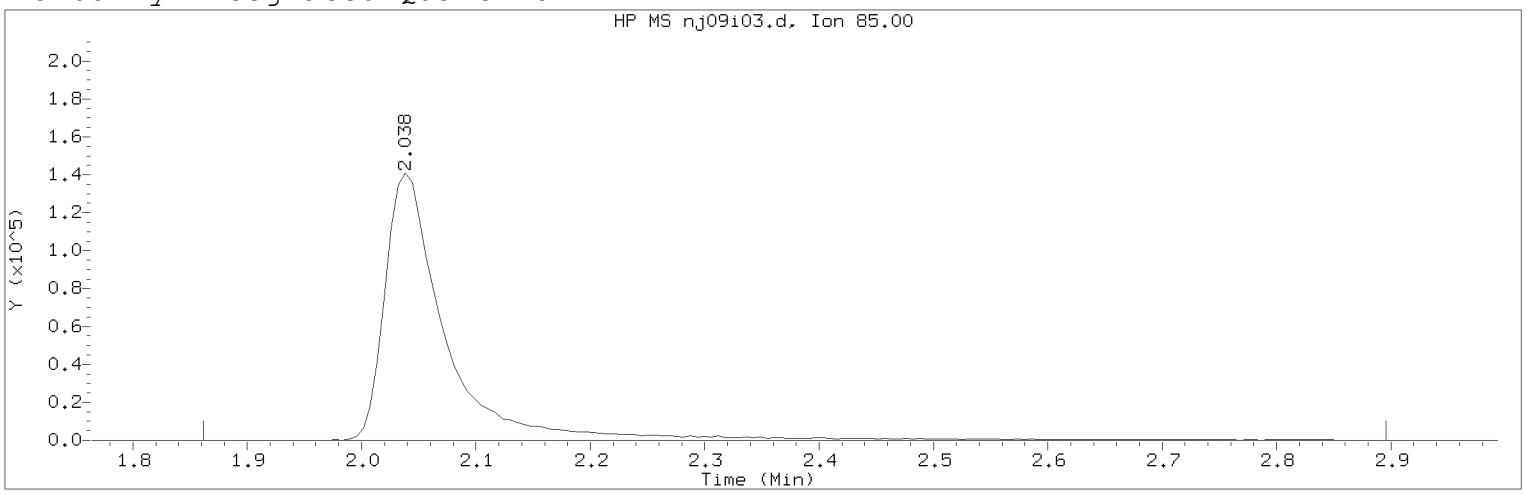
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

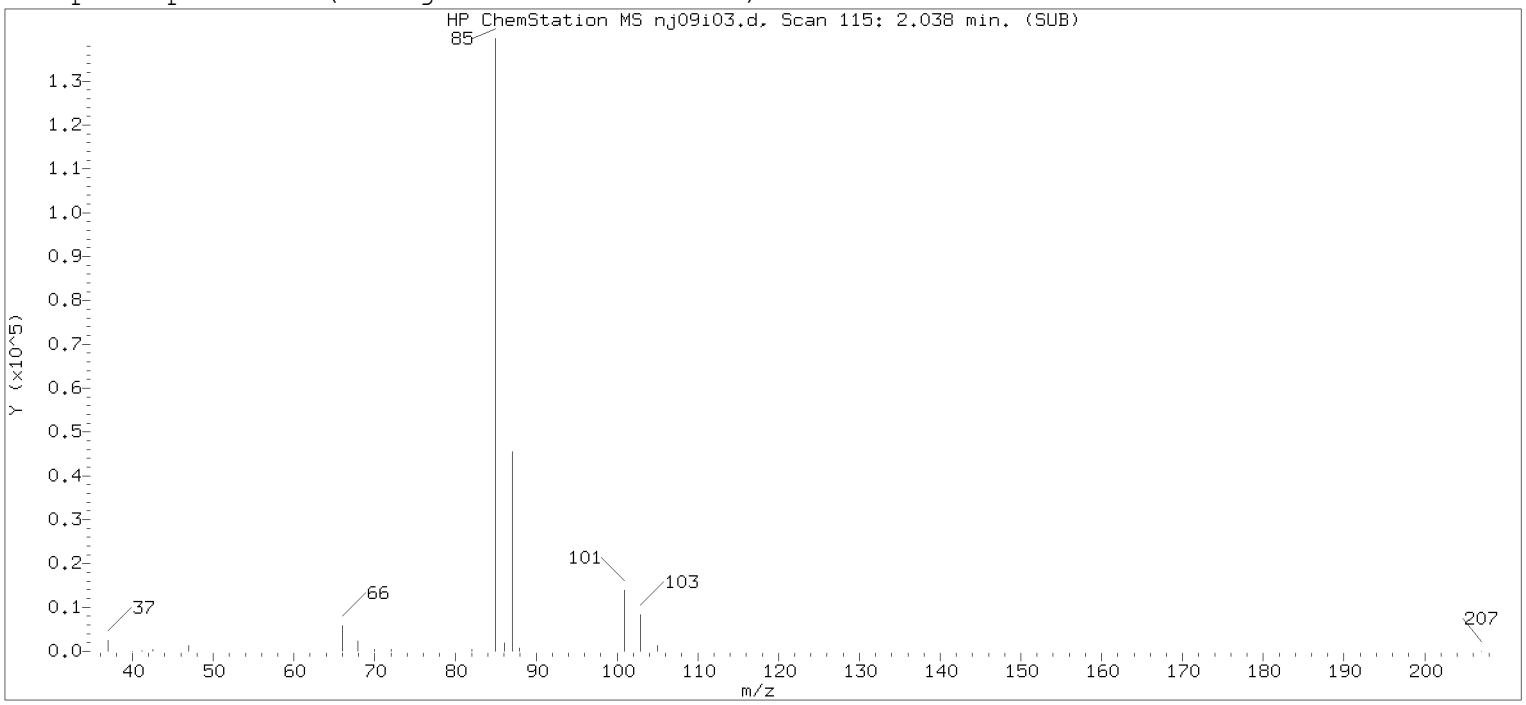
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area (flag) : 527144M
On-Column Amount (ng) : 51.8043
Integration start scan : 85 Integration stop scan: 255
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

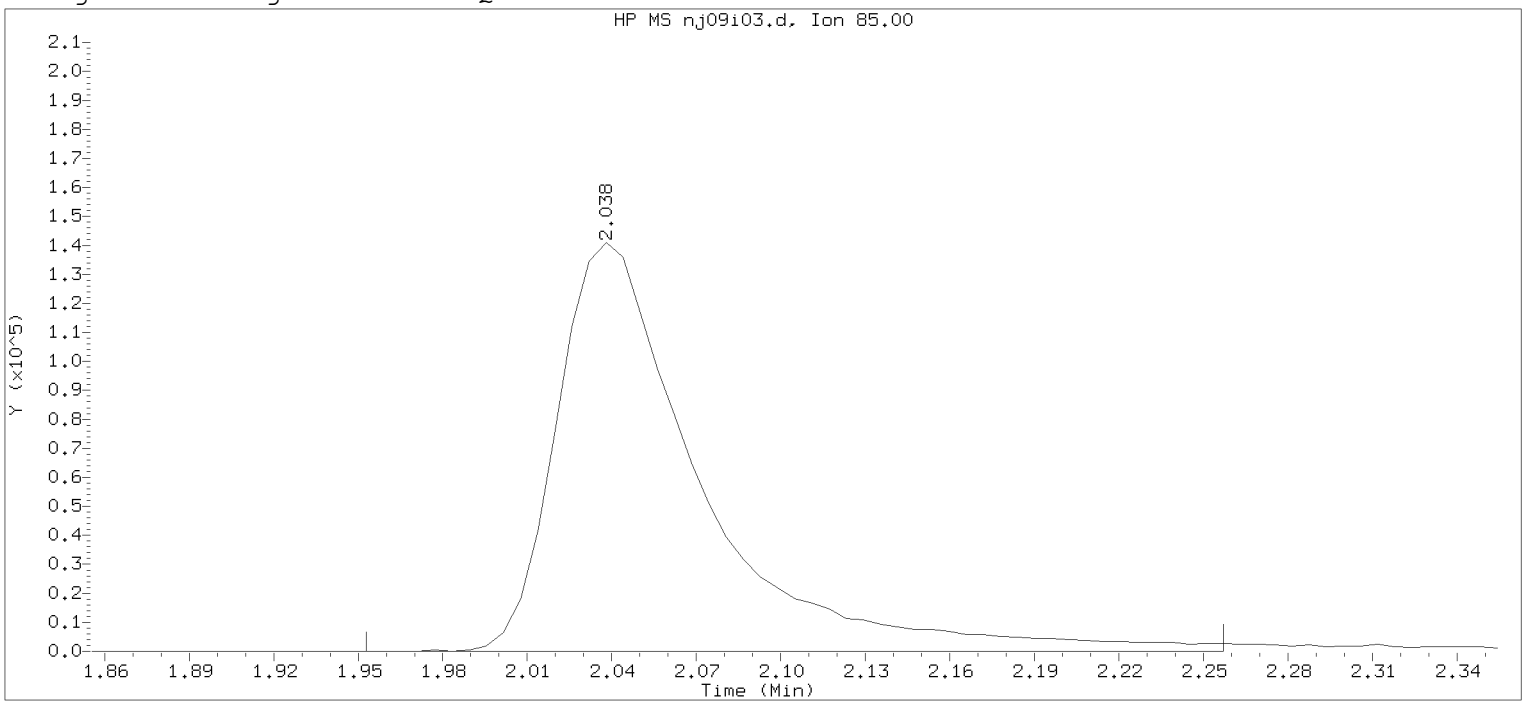
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area : 499221
On-column Amount (ng) : 50.9053
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

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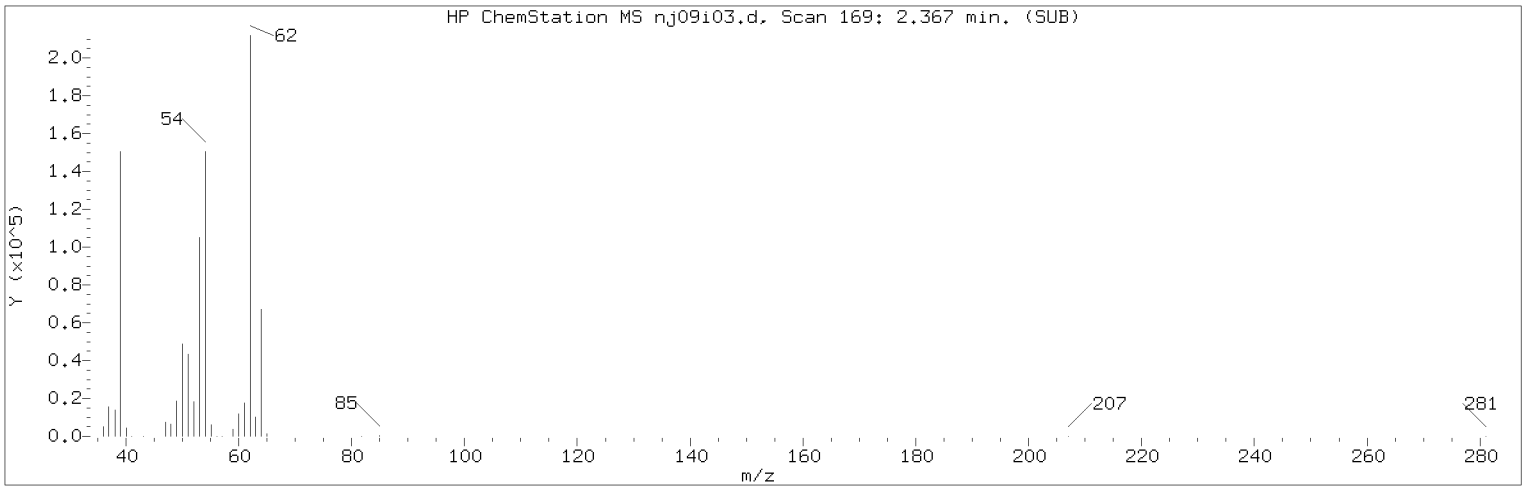
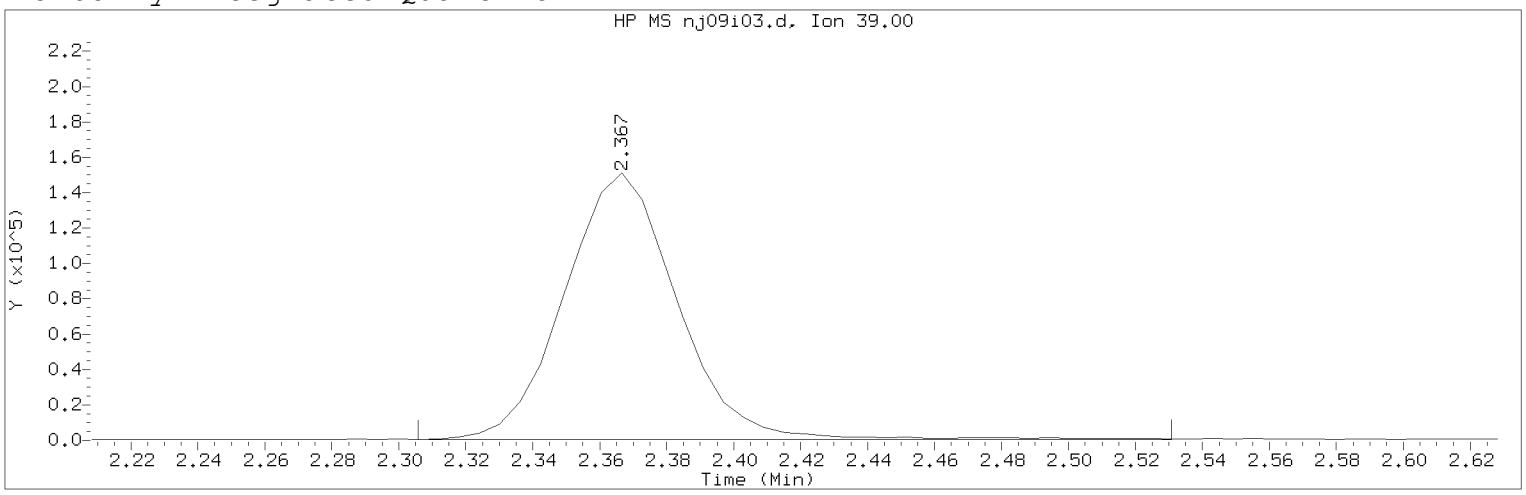
Target 3.5 esignature user ID: cbs01980

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

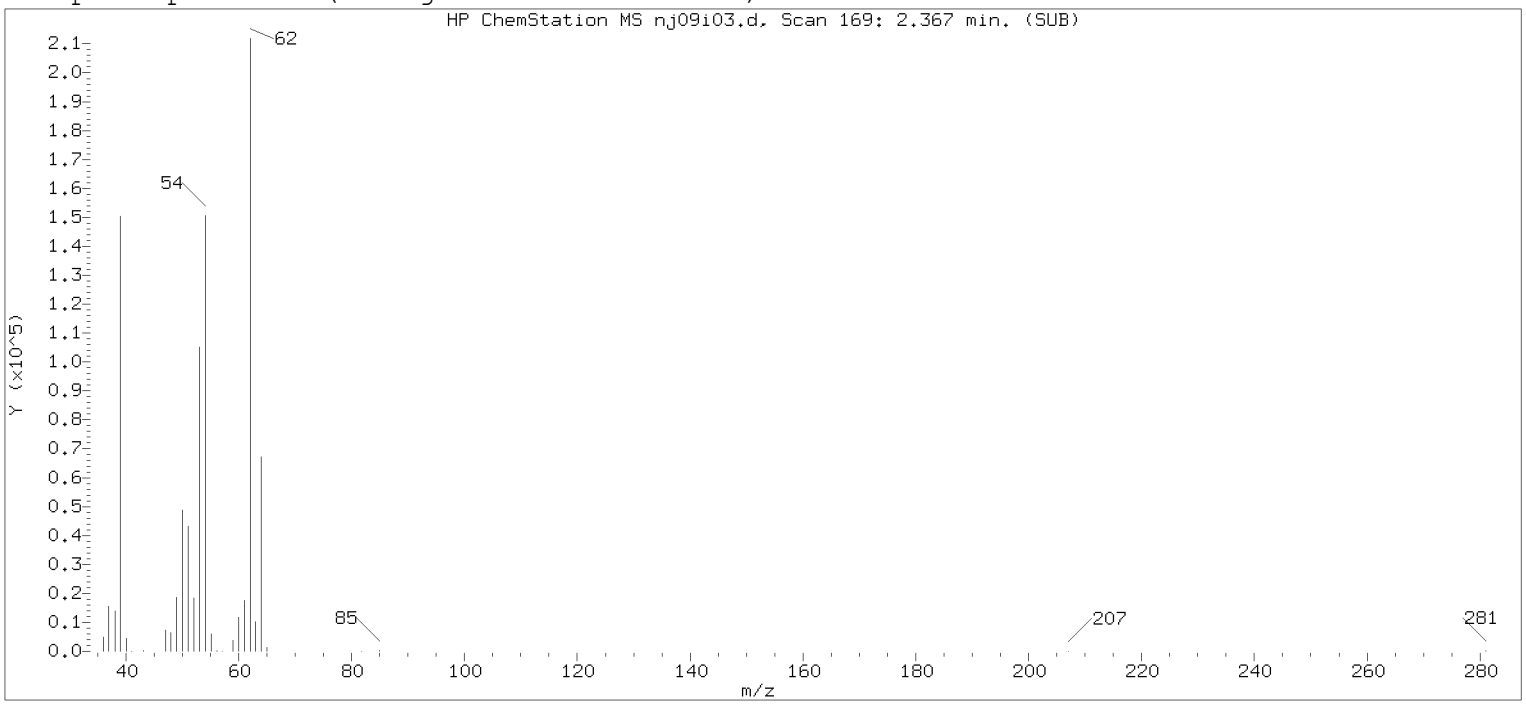
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area (flag) : 355149M
On-Column Amount (ng) : 46.6809
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 288 Y at integration end: 288

Reason for manual integration: improper integration

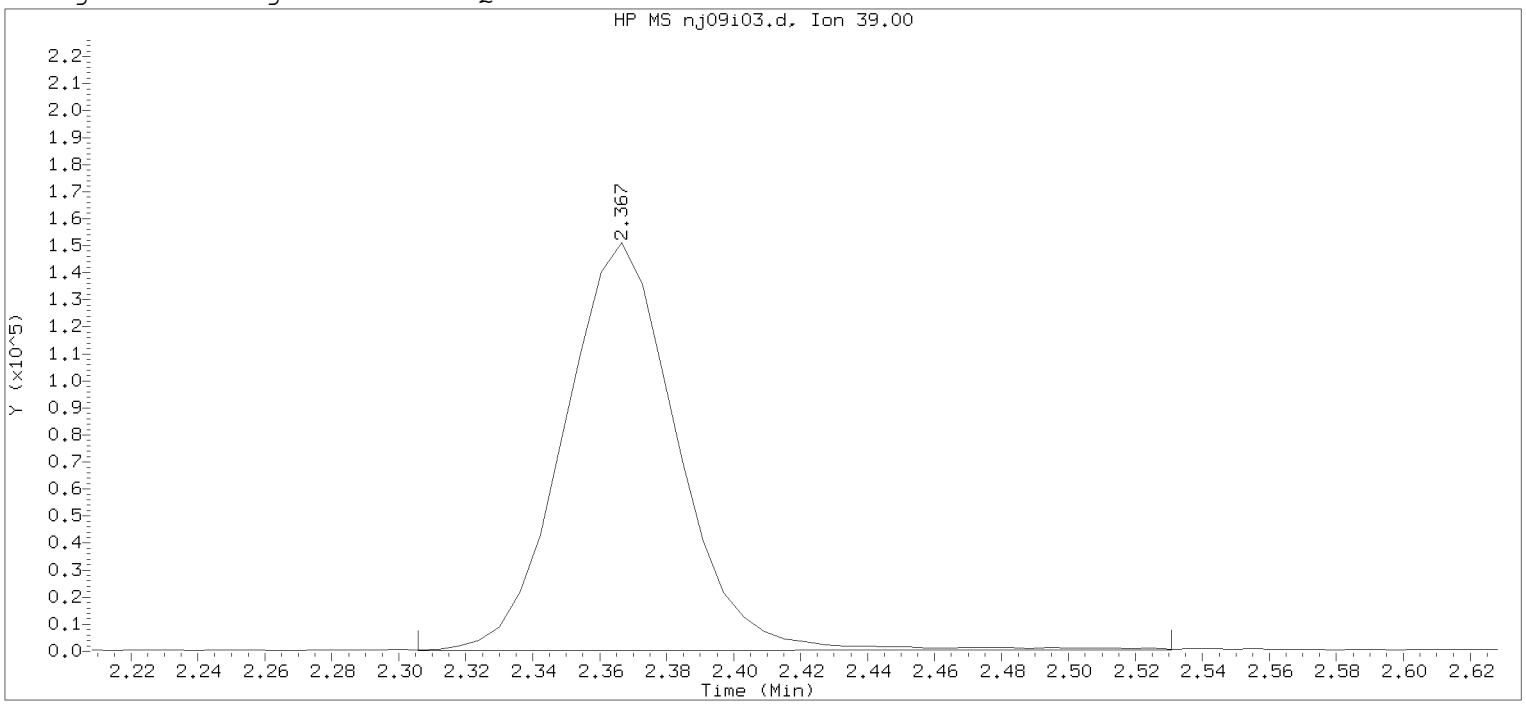
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area : 354416
On-column Amount (ng) : 47.0597
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 305 Y at integration end: 358

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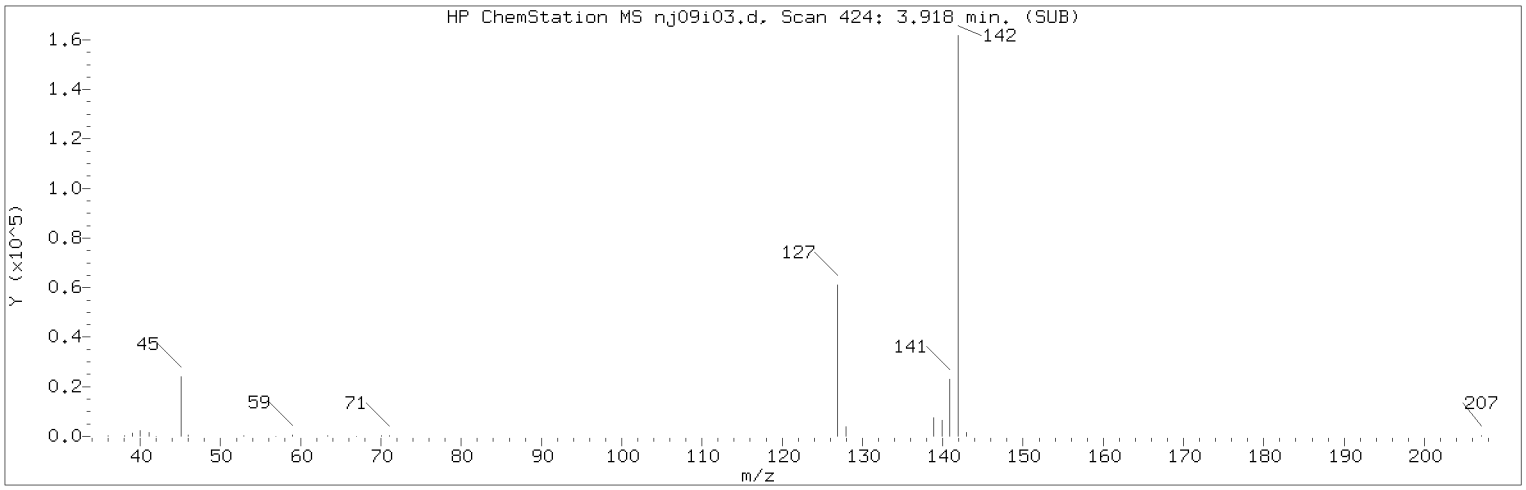
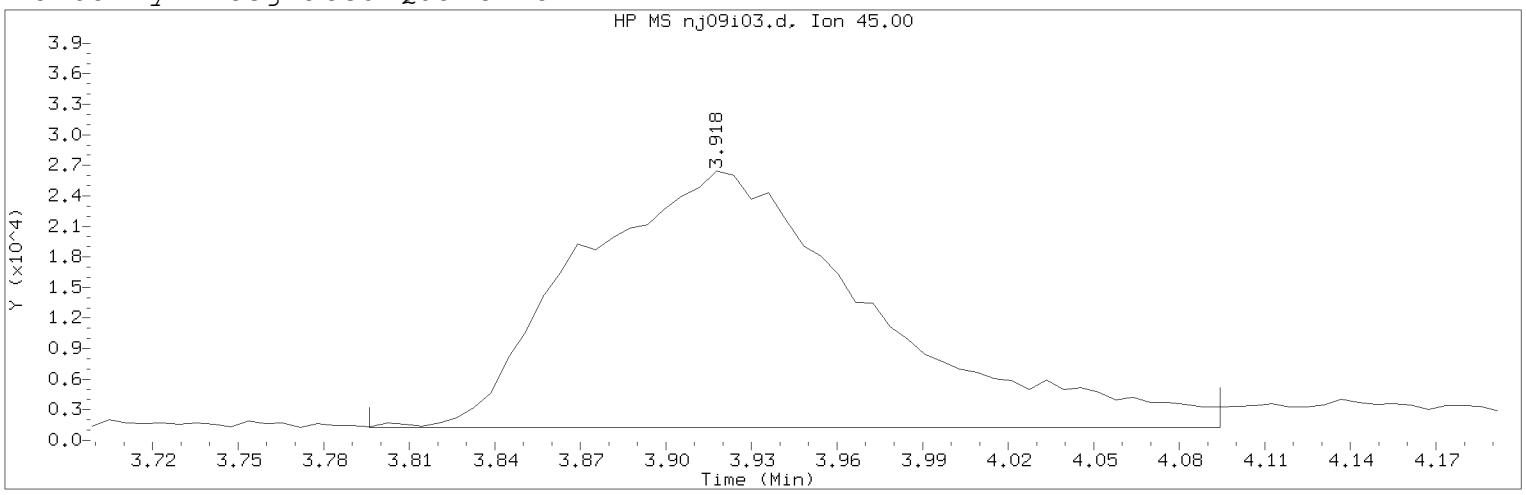
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

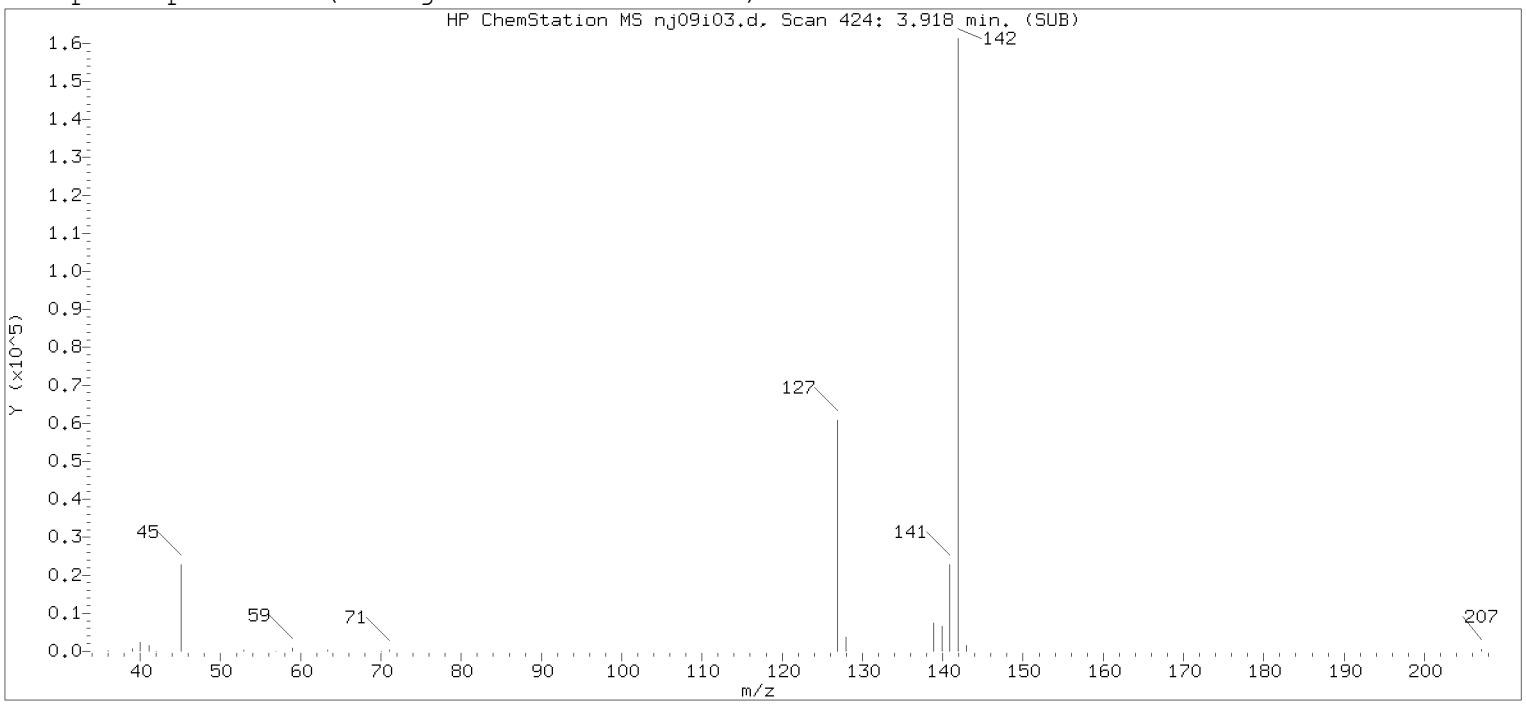
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area (flag) : 179669M
On-Column Amount (ng) : 246.5006
Integration start scan : 403 Integration stop scan: 452
Y at integration start : 1271 Y at integration end: 1271

Reason for manual integration: improper integration

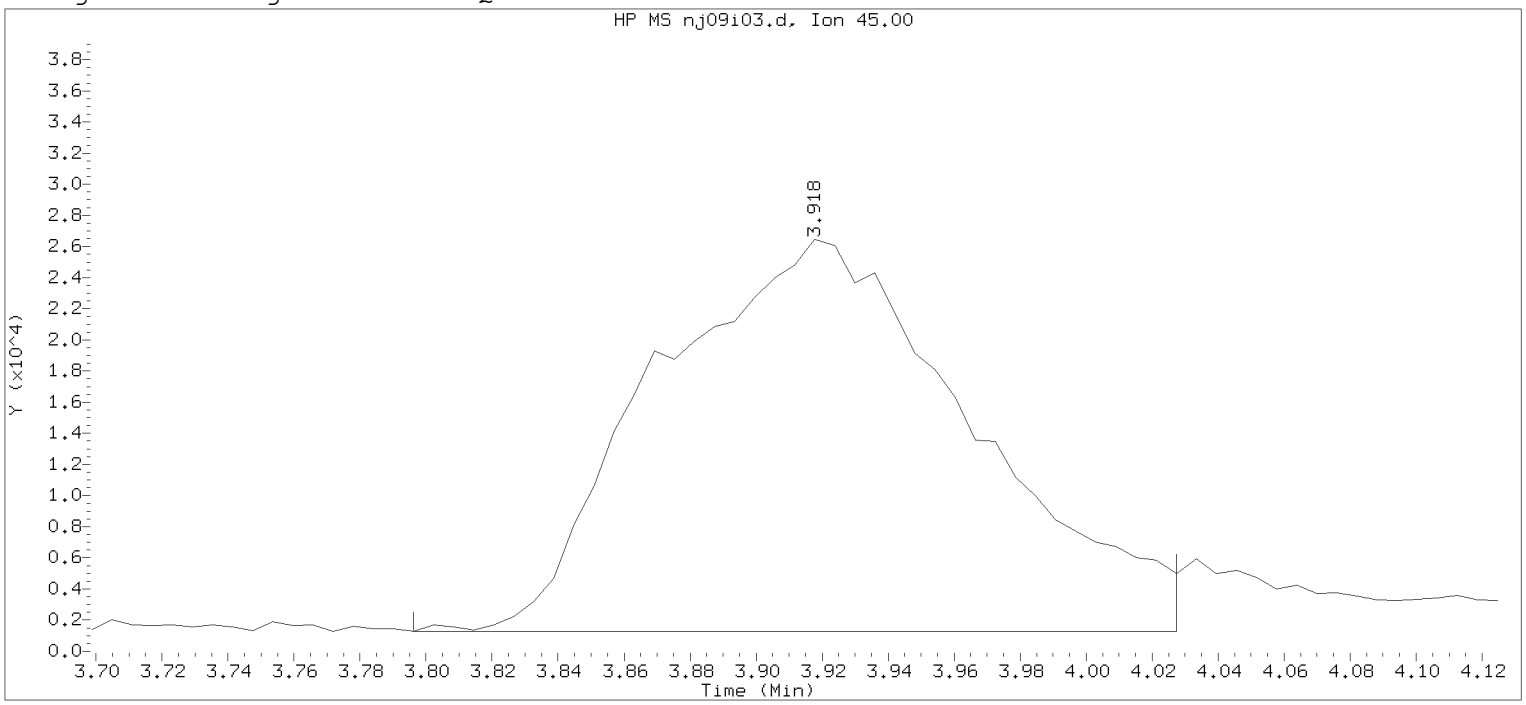
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

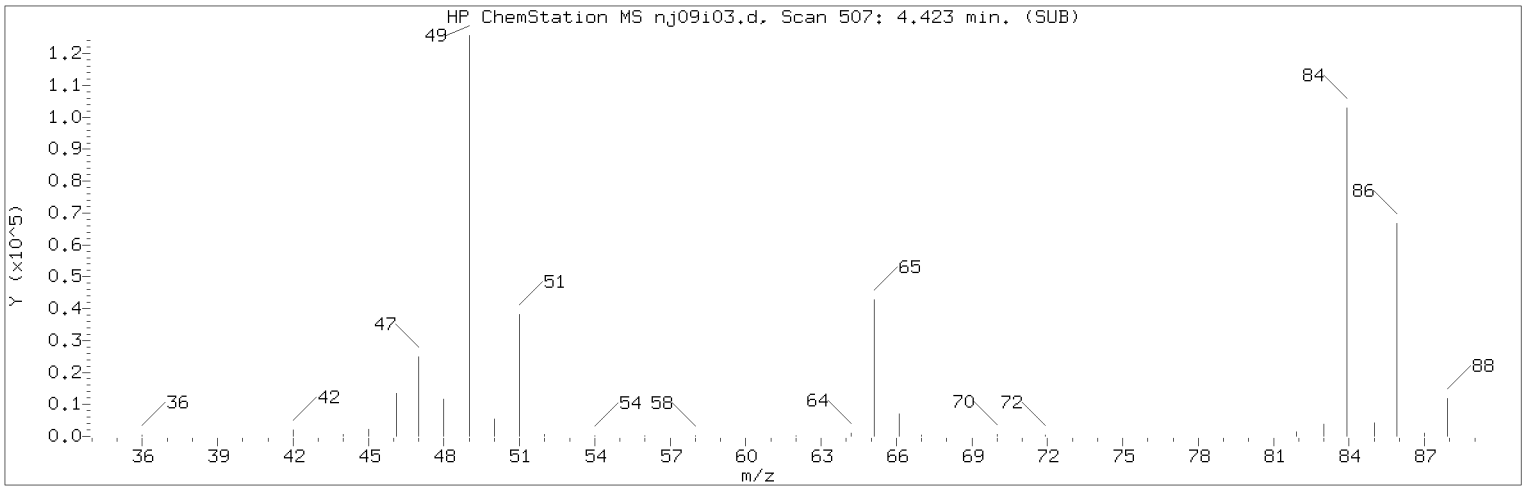
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

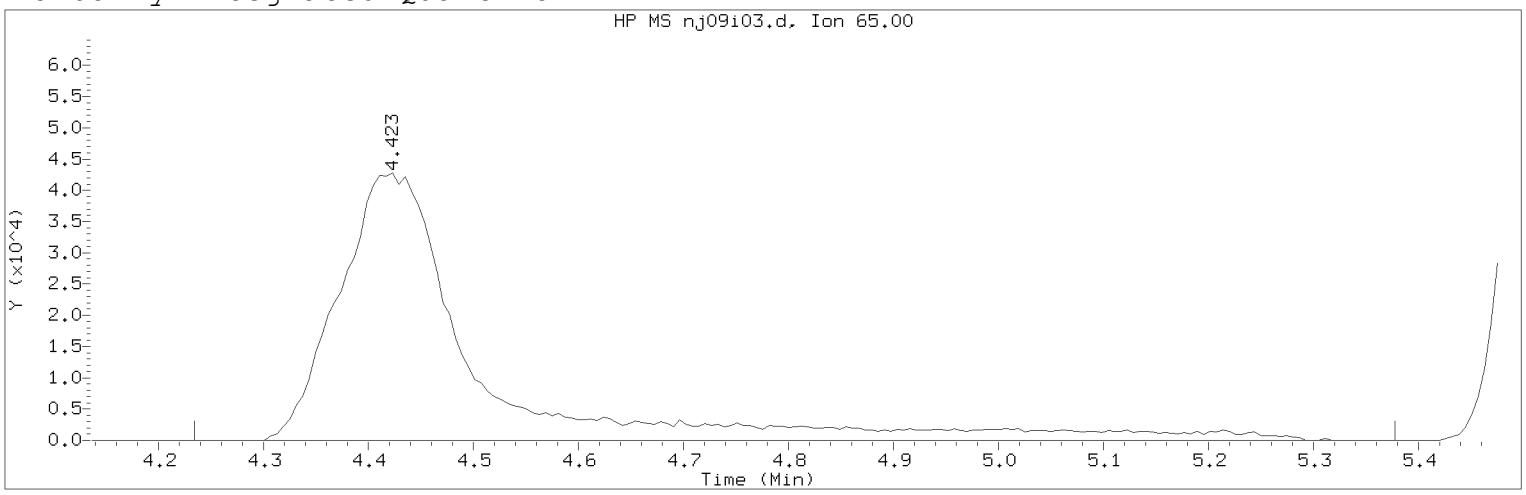
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area : 167056
On-column Amount (ng) : 245.3399
Integration start scan : 403 Integration stop scan: 441
Y at integration start : 1272 Y at integration end: 1272

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

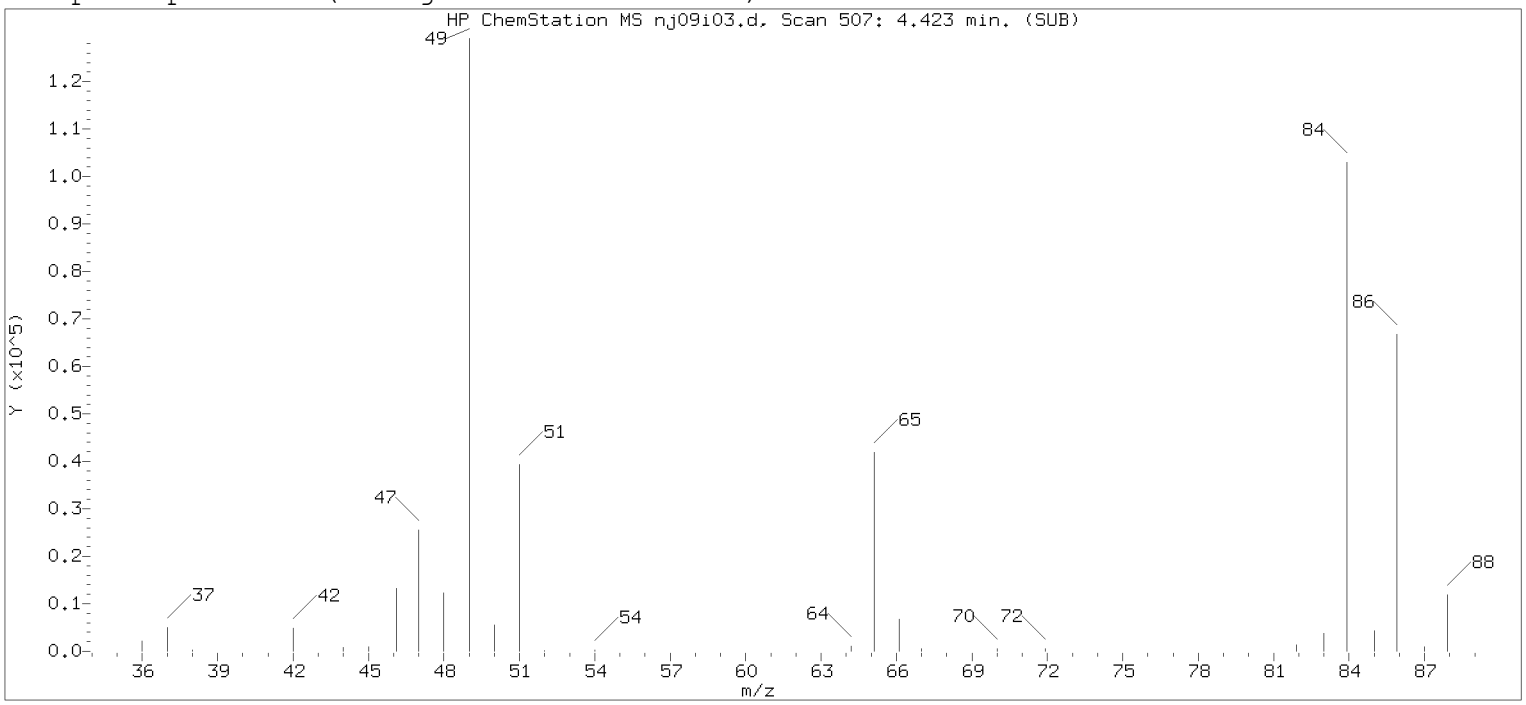
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area (flag) : 386370M
On-Column Amount (ng) : 250.0000
Integration start scan : 475 Integration stop scan: 663
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

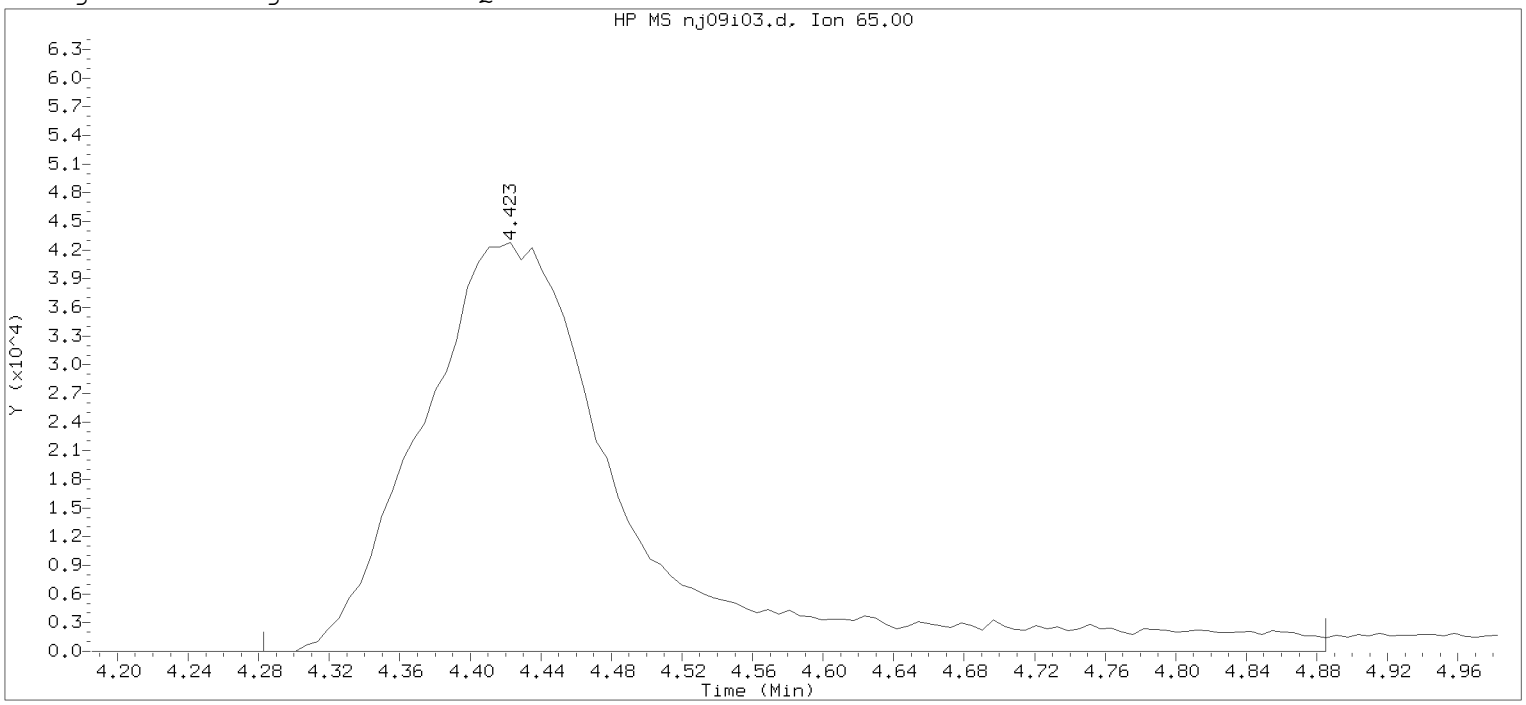
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

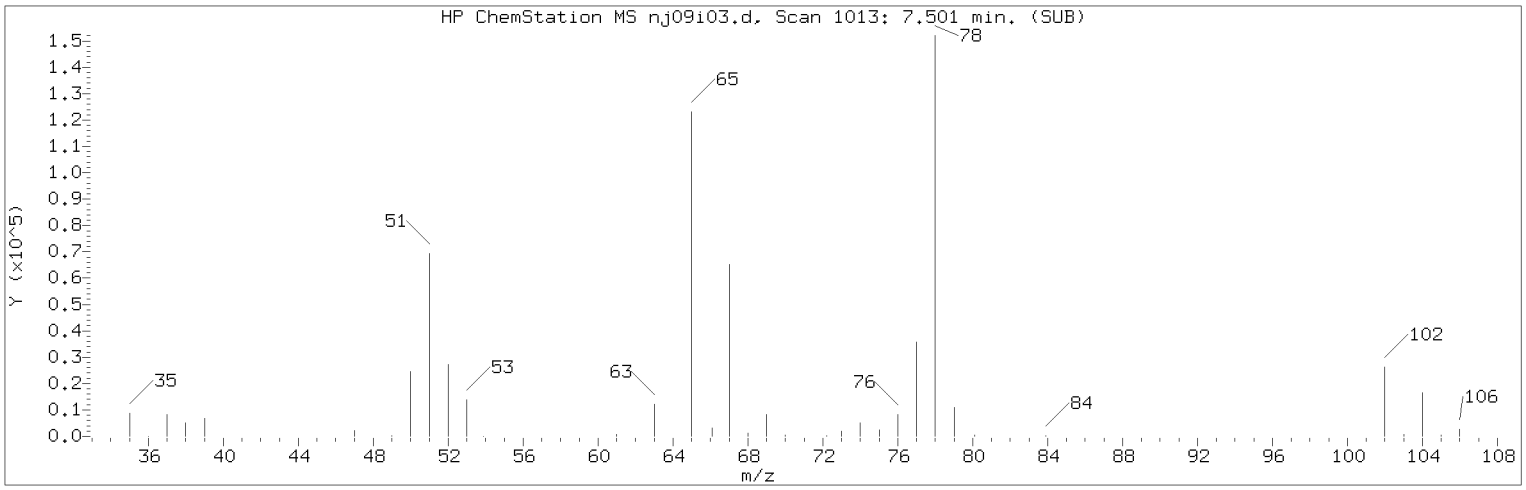
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

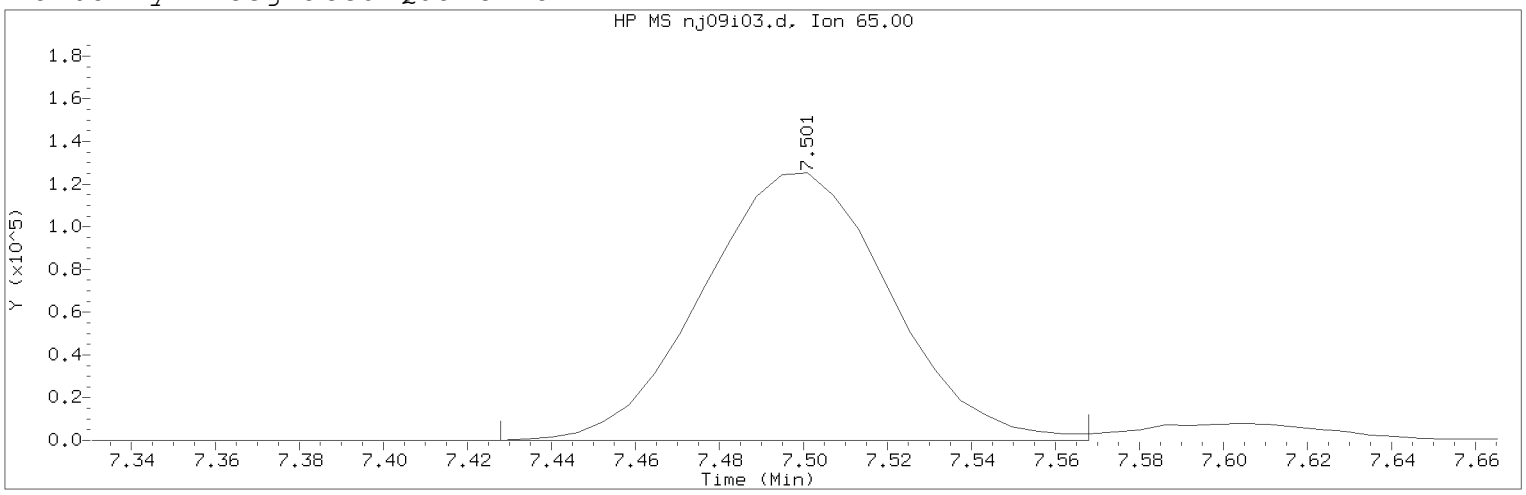
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area : 352606
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01945

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

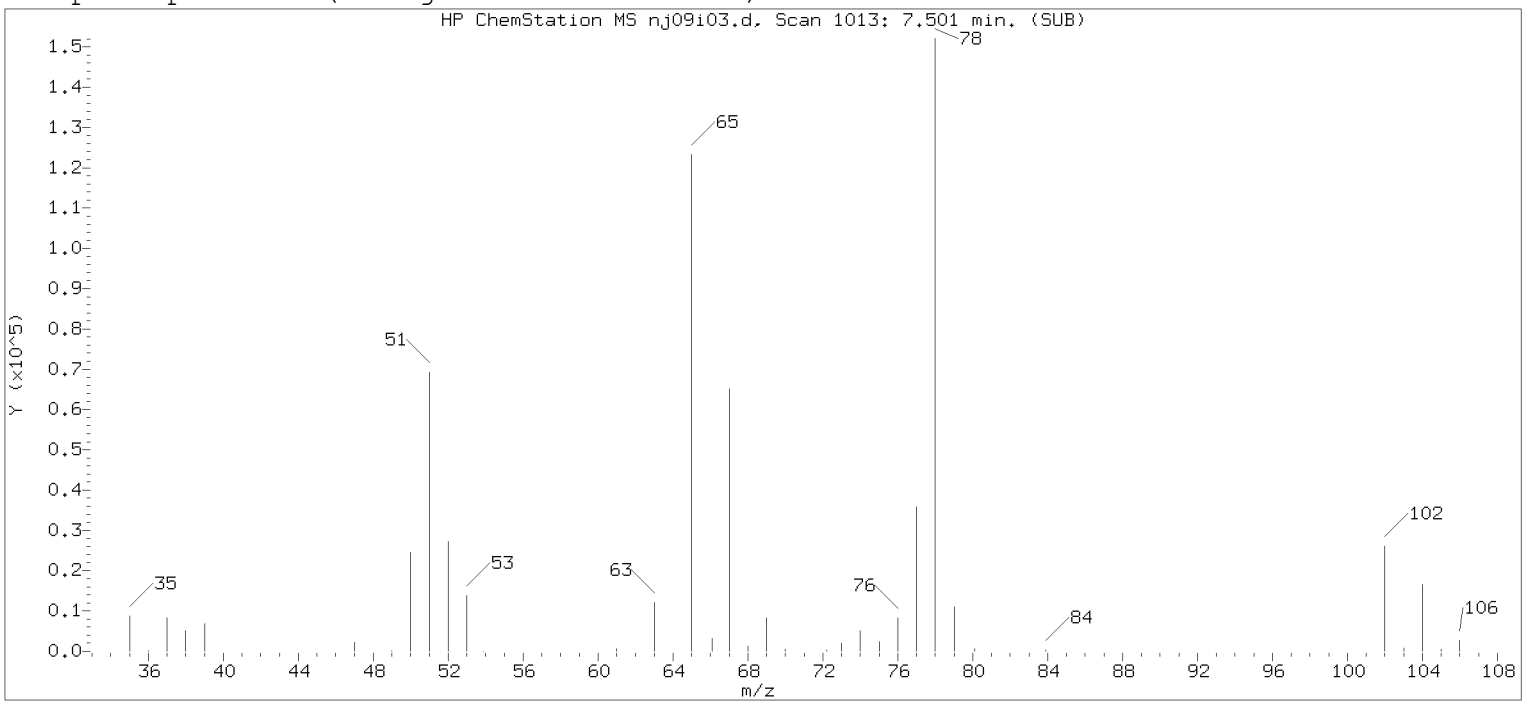
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area (flag) : 387310M
On-Column Amount (ng) : 49.5305
Integration start scan : 1000 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

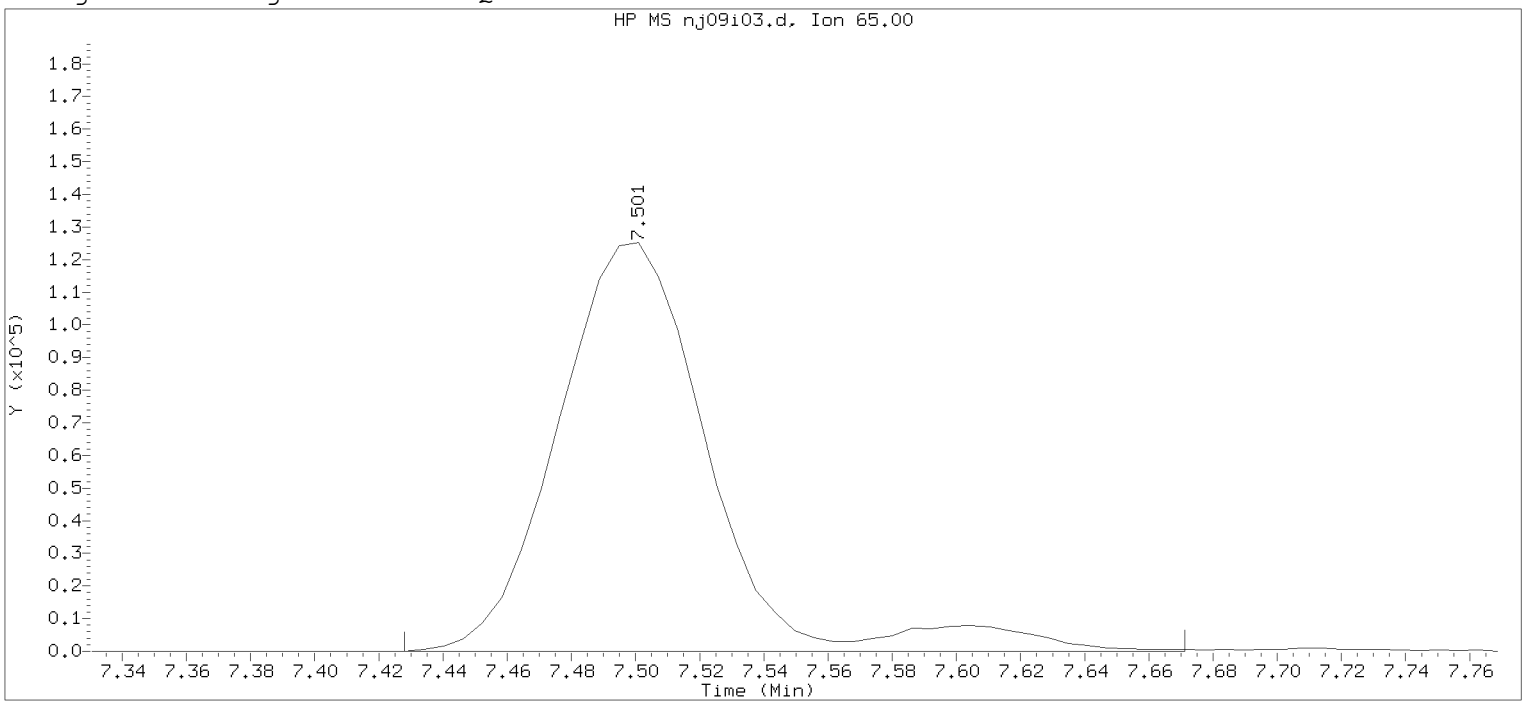
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

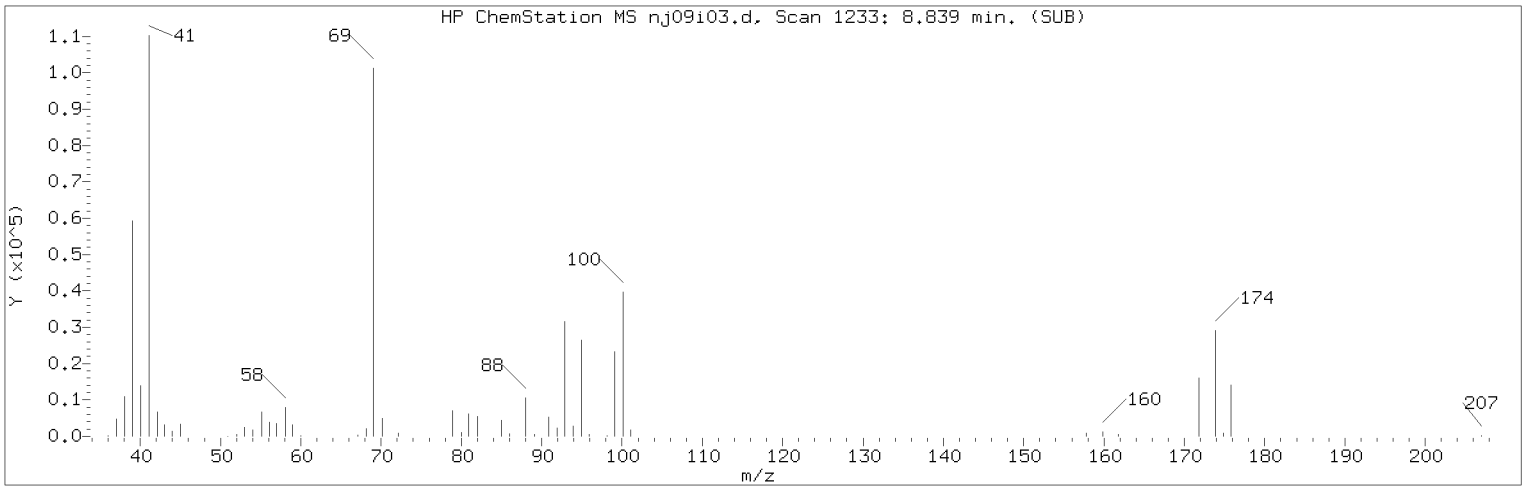
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

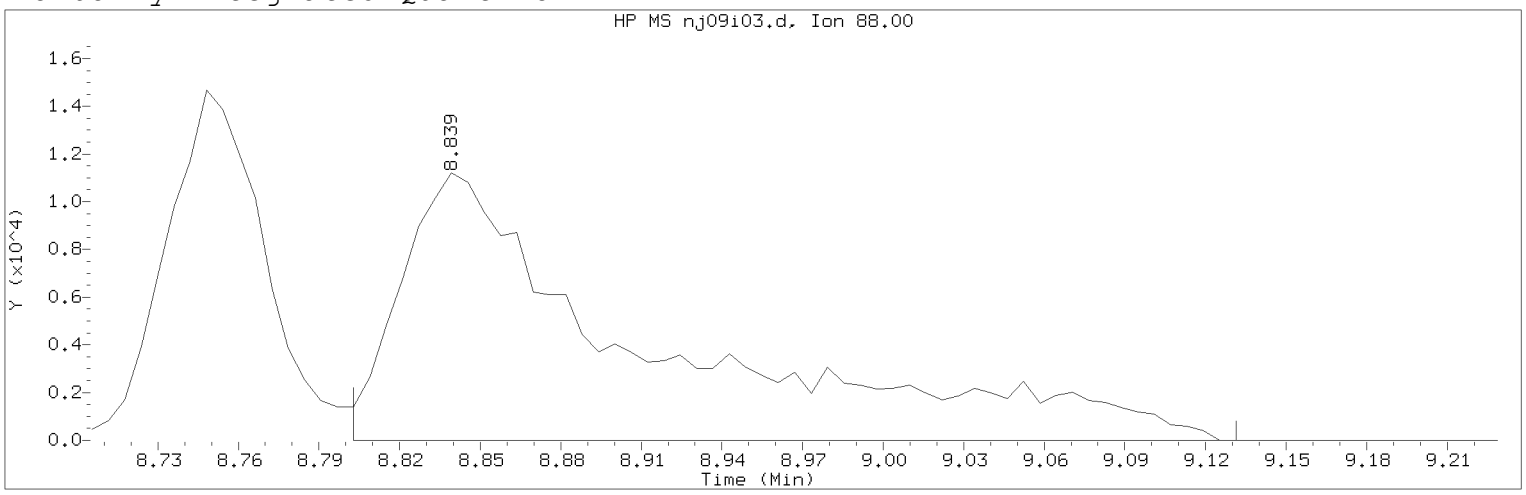
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area : 412235
On-column Amount (ng) : 52.2423
Integration start scan : 1000 Integration stop scan: 1040
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

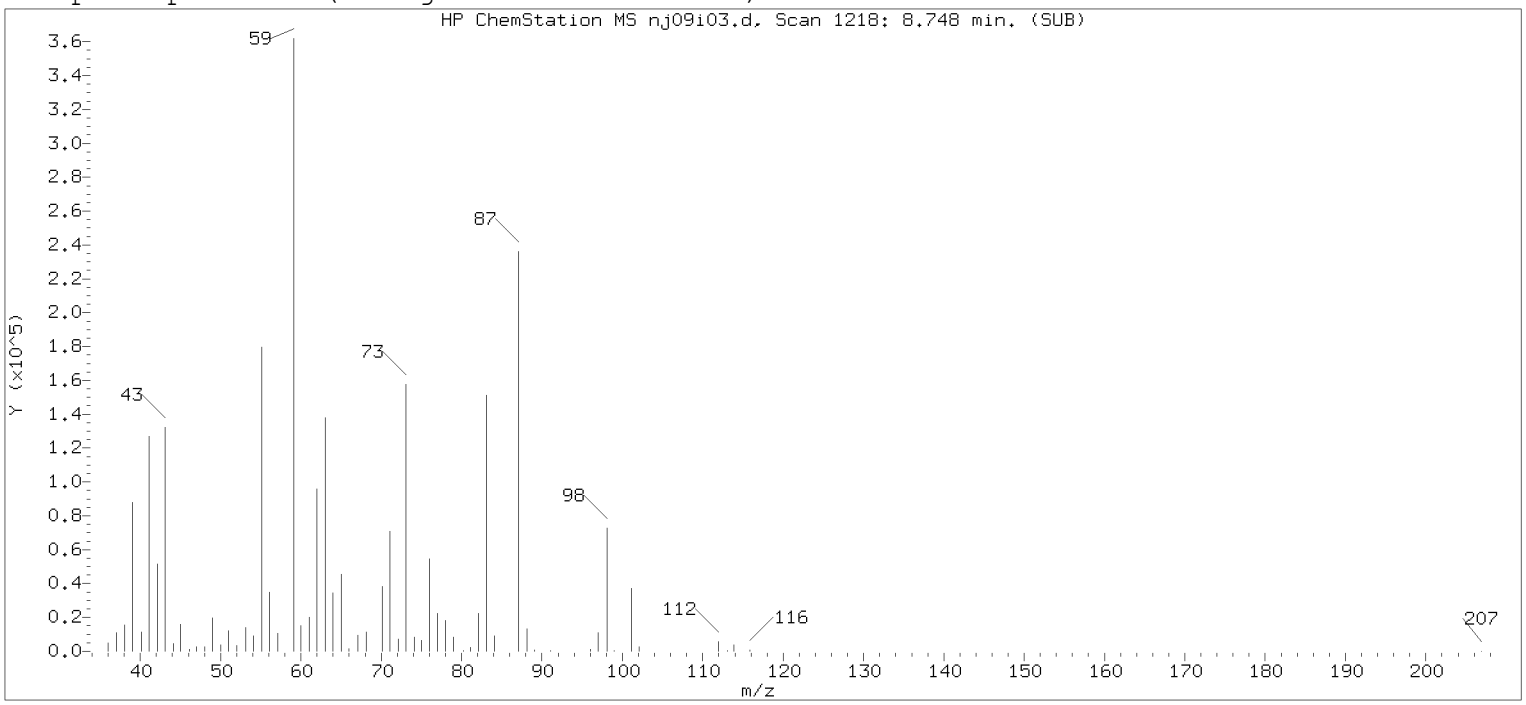
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.839
Quant Ion : 88.00
Area (flag) : 70481M
On-Column Amount (ng) : 627.6898
Integration start scan : 1226 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

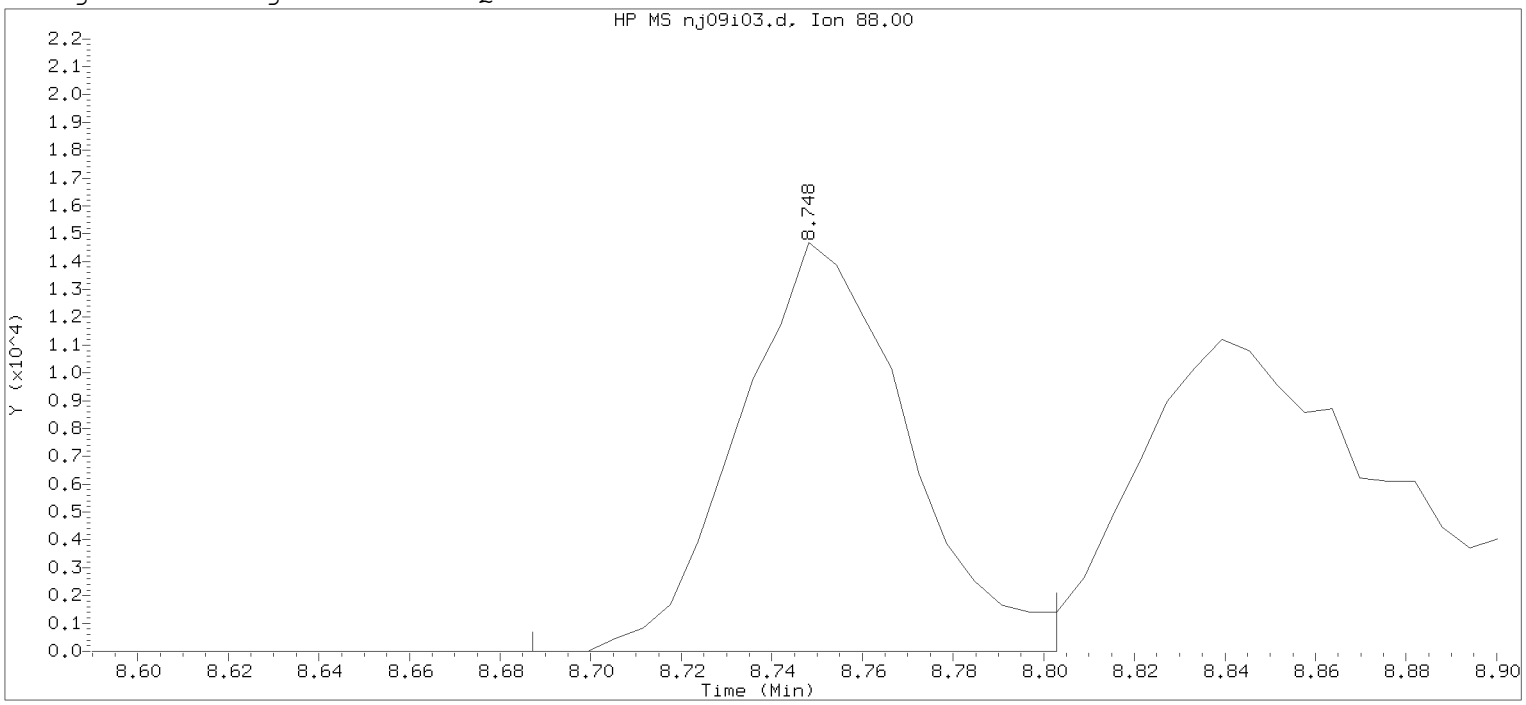
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



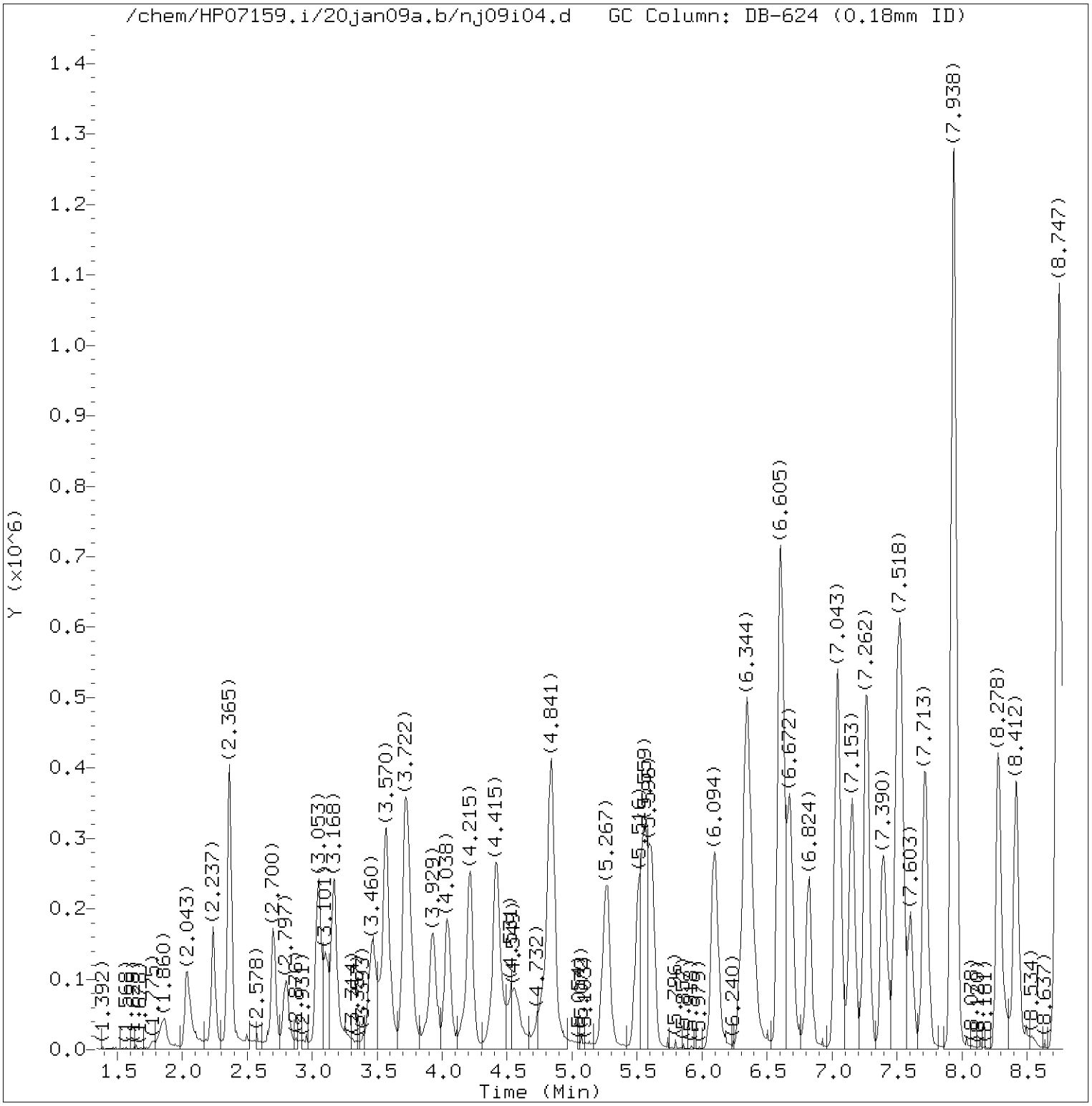
Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.748
Quant Ion : 88.00
Area : 37406
On-column Amount (ng) : 488.5599
Integration start scan : 1207 Integration stop scan: 1226
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01940



Total Ion Chromatogram (TIC)

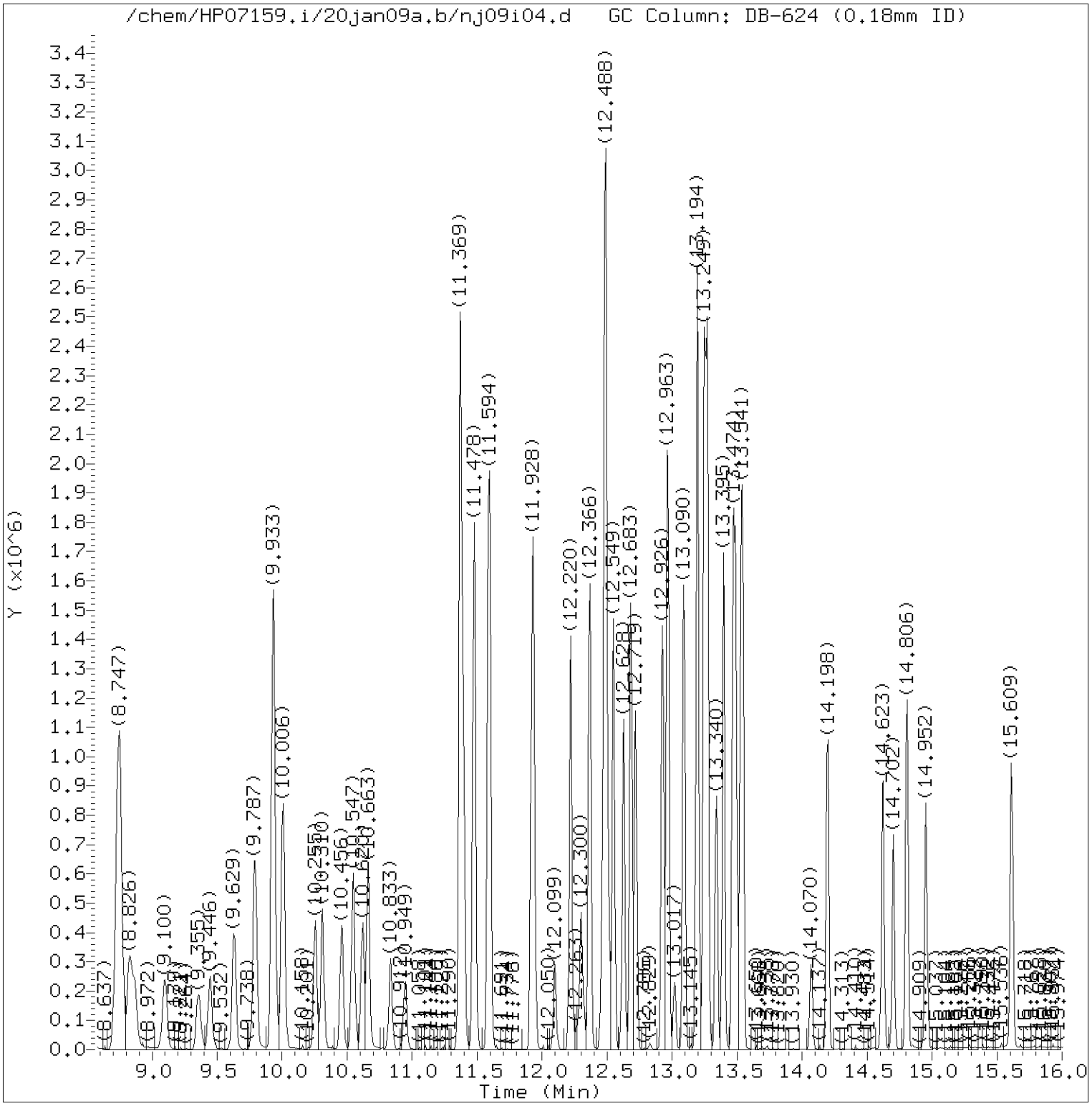
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	224850M	22.263
4) Chloromethane	(2)	2.237	50	223328	20.637
6) Vinyl Chloride	(2)	2.359	62	220994	20.985
5) 1,3-Butadiene	(2)	2.365	39	149726M	19.828
8) Bromomethane	(2)	2.700	94	149534	20.710
9) Chloroethane	(2)	2.797	64	129796	21.058
10) Dichlorofluoromethane	(2)	3.047	67	288984	20.473
12) Trichlorofluoromethane	(2)	3.107	101	247020	21.343
11) n-Pentane	(2)	3.168	43	235702	20.786
13) Ethanol	(1)	3.253	45	86067	923.403
15) Freon 123a	(2)	3.466	67	178466	21.048
16) Acrolein	(1)	3.570	56	551402	211.152
17) 1,1-Dichloroethene	(2)	3.716	96	140820	20.878
17) 1,1-Dichloroethene	(2)	3.716	63	74421	21.026
18) Acetone	(1)	3.746	58	47094	42.817
19) Freon 113	(2)	3.746	101	139717	22.326
21) 2-Propanol	(1)	3.916	45	146046M	201.037
22) Methyl Iodide	(2)	3.929	142	262725	20.868
23) Carbon Disulfide	(2)	4.038	76	451451	20.930
27) Methyl Acetate	(2)	4.184	43	159758	19.280
25) Allyl Chloride	(2)	4.215	41	234828	19.720
28) Methylene Chloride	(2)	4.415	84	158454	19.779
29)*t-Butyl alcohol-d10	(1)	4.415	65	385090M	250.000
30) t-Butyl alcohol	(1)	4.555	59	302977	211.035
31) Acrylonitrile	(2)	4.762	53	97069	21.690
33) Methyl Tertiary Butyl Ether	(2)	4.823	73	449496	20.508
32) trans-1,2-Dichloroethene	(2)	4.841	96	158576	20.593
34) n-Hexane	(2)	5.267	57	239576	22.538
36) 1,1-Dichloroethane	(2)	5.504	63	290827	20.704
38) di-Isopropyl ether	(2)	5.559	45	496346	20.512
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	258603	20.856
40) Ethyl t-butyl ether	(2)	6.094	59	477574	20.764
43) 1,2-Dichloroethene (Total)	(2)		96	341920	41.558
44) 2-Butanone	(2)	6.295	43	263939	42.179
42) cis-1,2-Dichloroethene	(2)	6.344	96	183344	20.965
45) 2,2-Dichloropropane	(2)	6.350	77	261086	21.052
47) Propionitrile	(1)	6.380	54	339134	202.252
48) Methacrylonitrile	(2)	6.605	67	463087	102.441

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	84627	20.466
50) Tetrahydrofuran	(1)	6.678	71	72434	41.608
51) Chloroform	(2)	6.824	83	278912	20.356
52)$Dibromofluoromethane	(2)	7.043	113	320361	49.752
52)$Dibromofluoromethane	(2)	7.037	111	328971	50.034
53) 1,1,1-Trichloroethane	(2)	7.049	97	260301	20.999
54) Cyclohexane	(2)	7.153	56	277919	21.797
54) Cyclohexane	(2)	7.153	84	241047	21.692
54) Cyclohexane	(2)	7.153	69	87601	21.859
56) Carbon Tetrachloride	(2)	7.262	117	225623	21.110
55) 1,1-Dichloropropene	(2)	7.268	75	229866	20.501
58) Isobutyl Alcohol	(1)	7.396	41	264667	514.638
57)$1,2-Dichloroethane-d4	(2)	7.500	102	83999	51.593
57)$1,2-Dichloroethane-d4	(2)	7.494	65	383745	48.998
57)$1,2-Dichloroethane-d4	(2)	7.494	104	51322	49.543
60) Benzene	(2)	7.530	78	652953	20.459
61) 1,2-Dichloroethane	(2)	7.603	62	226751	20.082
61) 1,2-Dichloroethane	(2)	7.603	98	20202	21.739
65) t-Amyl methyl ether	(2)	7.713	73	480348	20.819
66)*Fluorobenzene	(2)	7.932	96	1297518	50.000
67) n-Heptane	(2)	7.944	43	268761	21.905
69) n-Butanol	(1)	8.278	56	464747	1049.079
71) Trichloroethene	(2)	8.418	95	172382	20.502
72) Methylcyclohexane	(2)	8.729	83	288388	20.865
72) Methylcyclohexane	(2)	8.729	98	134403	20.648
73) 1,2-Dichloropropane	(2)	8.753	63	167468	20.520
76) Methyl Methacrylate	(2)	8.826	69	152600	20.447
75) 1,4-Dioxane	(1)	8.844	88	56238M	502.509
74) Dibromomethane	(2)	8.868	93	105118	20.196
78) Bromodichloromethane	(2)	9.100	83	217526	20.472
79) 2-Nitropropane	(2)	9.355	41	161437	41.832
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	138170	21.403
81) cis-1,3-Dichloropropene	(2)	9.629	75	276244	20.380
82) 4-Methyl-2-pentanone	(2)	9.787	43	542400	42.781
83)$Toluene-d8	(3)	9.933	98	1292625	50.269
83)$Toluene-d8	(3)	9.933	100	852988	50.069
88) Toluene	(3)	10.006	92	425285	20.360
90) 1,3-Dichloropropene (total)	(3)		100	540121	40.734

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	263877	20.354
91) Ethyl Methacrylate	(3)	10.310	69	265241	20.534
92) 1,1,2-Trichloroethane	(3)	10.456	97	151849	20.532
93) Tetrachloroethene	(3)	10.547	166	188956	20.657
94) 1,3-Dichloropropane	(3)	10.620	76	262220	20.428
96) 2-Hexanone	(3)	10.663	43	428260	43.313
97) Dibromochloromethane	(3)	10.833	129	174606	20.573
99) 1,2-Dibromoethane	(3)	10.949	107	166216	20.524
100)*Chlorobenzene-d5	(3)	11.369	117	985958	50.000
102) Chlorobenzene	(3)	11.399	112	478632	20.530
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	173372	20.636
104) Ethylbenzene	(3)	11.478	91	842267	20.846
106) m+p-Xylene	(3)	11.594	106	662286	41.720
108) Xylene (Total)	(3)		106	981676	62.176
107) o-Xylene	(3)	11.922	106	319390	20.457
109) Styrene	(3)	11.934	104	542524	20.689
110) Bromoform	(3)	12.099	173	132803	20.727
111) Isopropylbenzene	(3)	12.220	105	872257	21.153
112) Cyclohexanone	(1)	12.300	55	222730	496.255
114)$4-Bromofluorobenzene	(3)	12.366	95	509023	50.106
114)$4-Bromofluorobenzene	(3)	12.366	174	408759	50.224
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	251933	21.137
115) Bromobenzene	(4)	12.482	156	206372	20.592
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	425332	103.742
117) 1,2,3-Trichloropropane	(4)	12.512	110	75922	20.109
119) n-Propylbenzene	(4)	12.549	91	1033750	21.276
120) 2-Chlorotoluene	(4)	12.628	126	207715	20.736
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	751871	21.120
121) 4-Chlorotoluene	(4)	12.719	126	212503	20.469
124) tert-Butylbenzene	(4)	12.926	134	163997	20.788
125) Pentachloroethane	(4)	12.963	167	132462	20.970
126) 1,2,4-Trimethylbenzene	(4)	12.969	105	776872	21.025
127) sec-Butylbenzene	(4)	13.090	105	985593	21.313
129) 1,3-Dichlorobenzene	(4)	13.194	146	404786	20.767
130) p-Isopropyltoluene	(4)	13.194	119	856038	21.273
131)*1,4-Dichlorobenzene-d4	(4)	13.249	152	541869	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	408173	20.649
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	747580	20.846

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

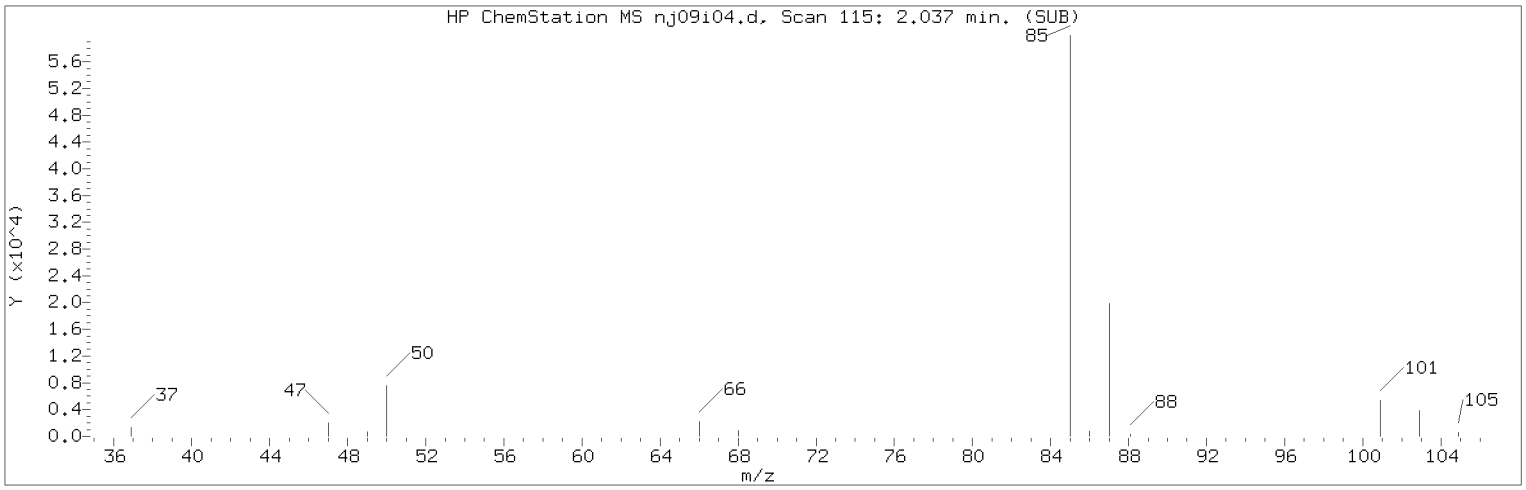
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

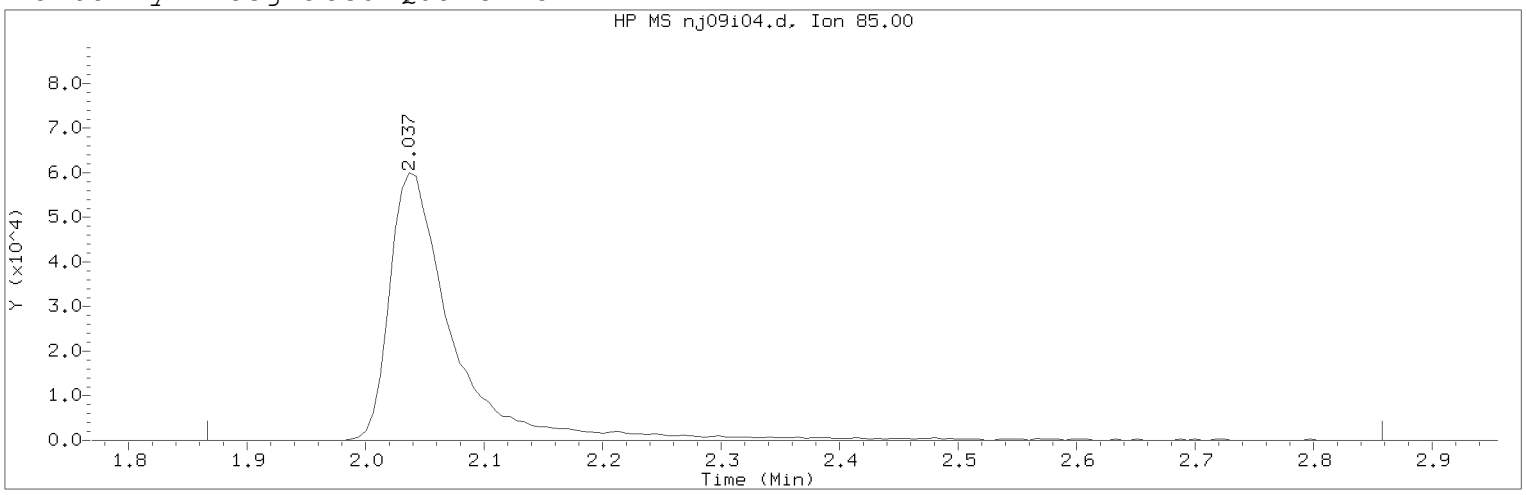
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.340	91	549732	20.867
141) Diethylbenzene (total)	(4)		100	1463210	62.614
136) 1,3-Diethylbenzene	(4)	13.395	119	504775	20.955
137) 1,4-Diethylbenzene	(4)	13.468	119	538479	21.052
139) n-Butylbenzene	(4)	13.486	92	436420	21.024
138) 1,2-Dichlorobenzene	(4)	13.528	146	380948	20.614
140) 1,2-Diethylbenzene	(4)	13.541	119	419956	20.607
142) 1,2-Dibromo-3-chloropropane	(4)	14.070	75	67351	20.909
144) 1,3,5-Trichlorobenzene	(4)	14.198	180	307173	20.853
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	268190	20.881
147) Hexachlorobutadiene	(4)	14.702	225	121909	20.983
148) Naphthalene	(4)	14.806	128	843851	20.954
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	244159	20.709
150) 2-Methylnaphthalene	(4)	15.609	142	481991	20.721

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

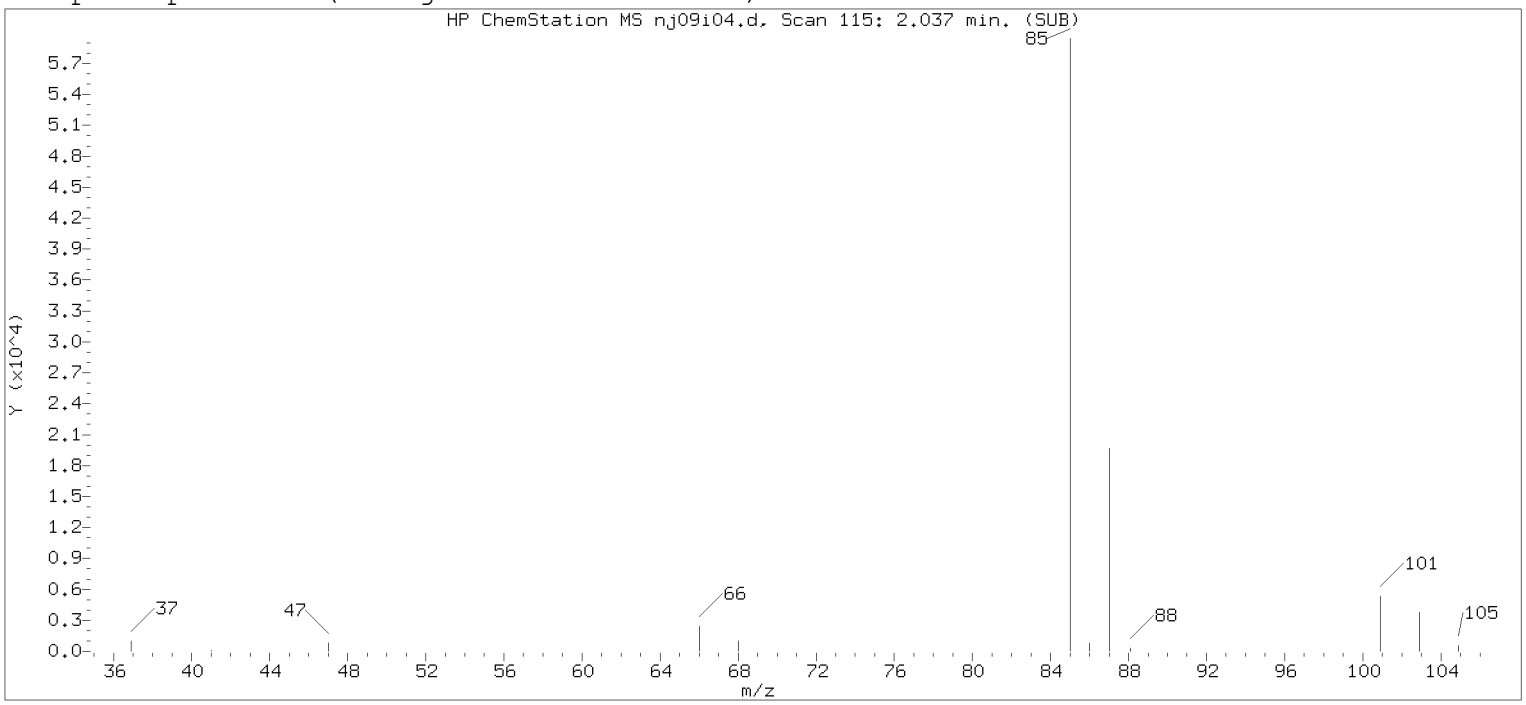
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area (flag) : 224850M
On-Column Amount (ng) : 22.2632
Integration start scan : 86 Integration stop scan: 249
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

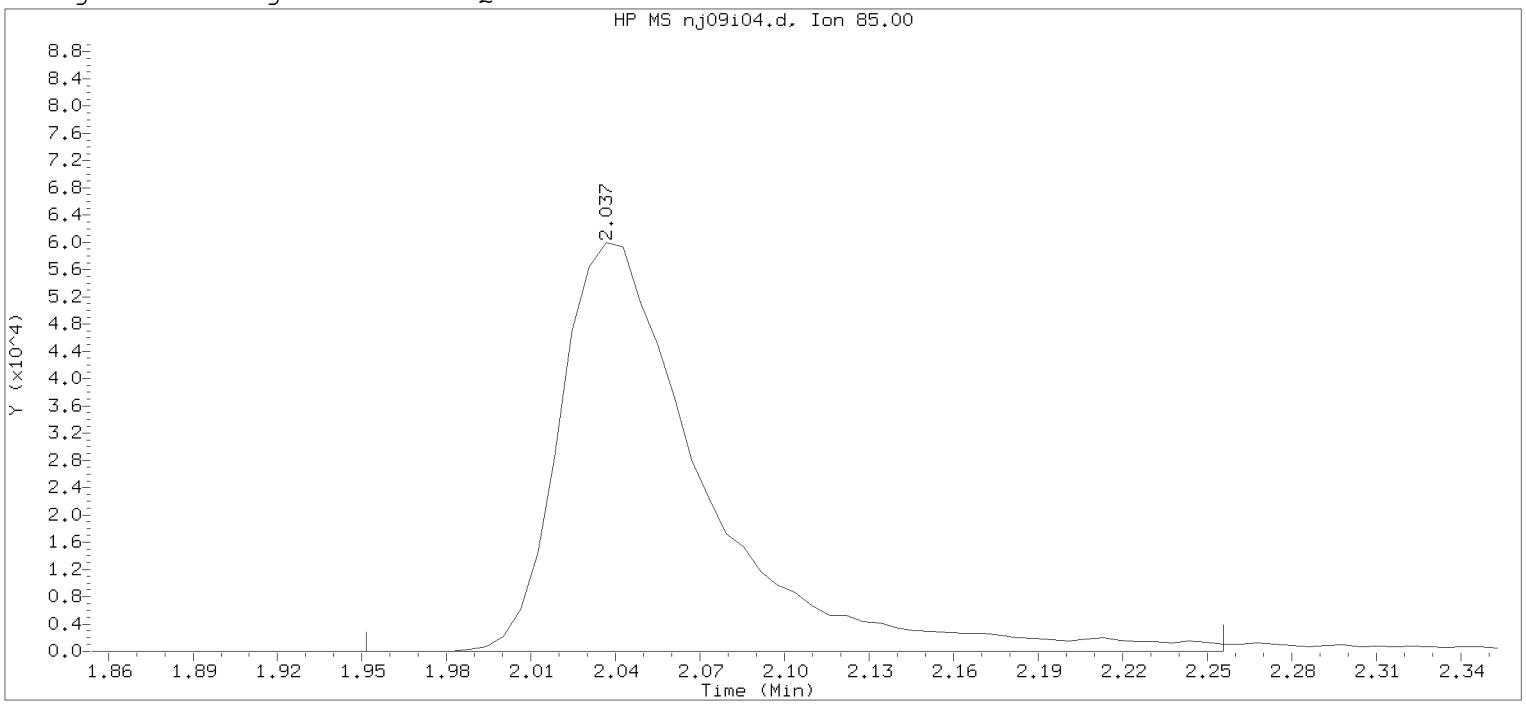
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

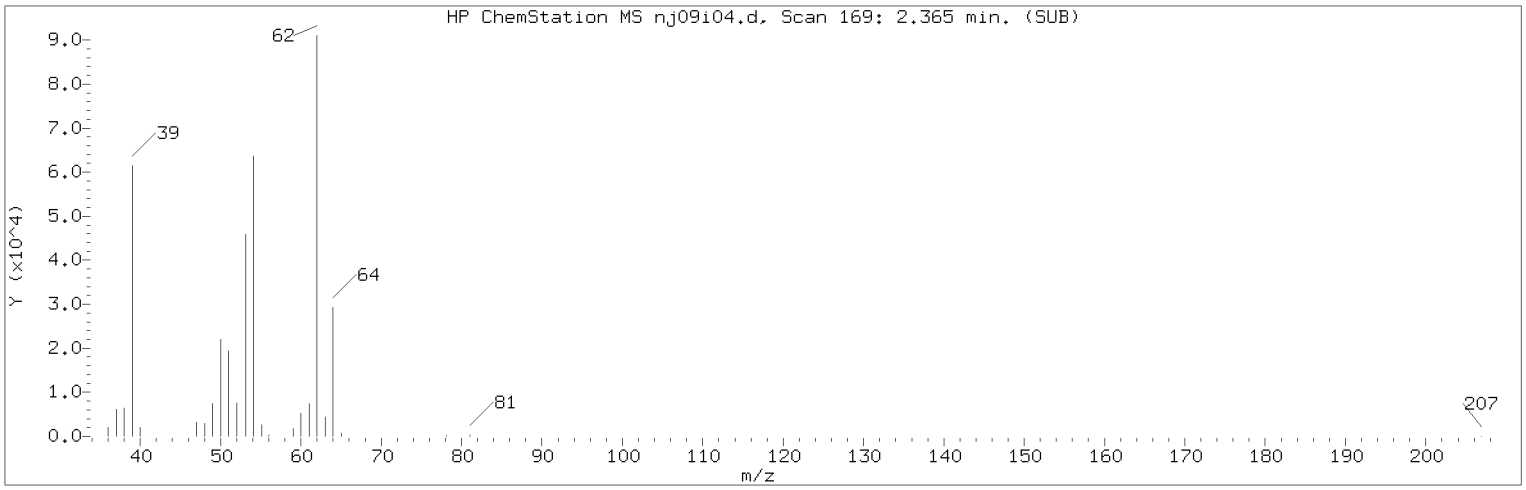
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

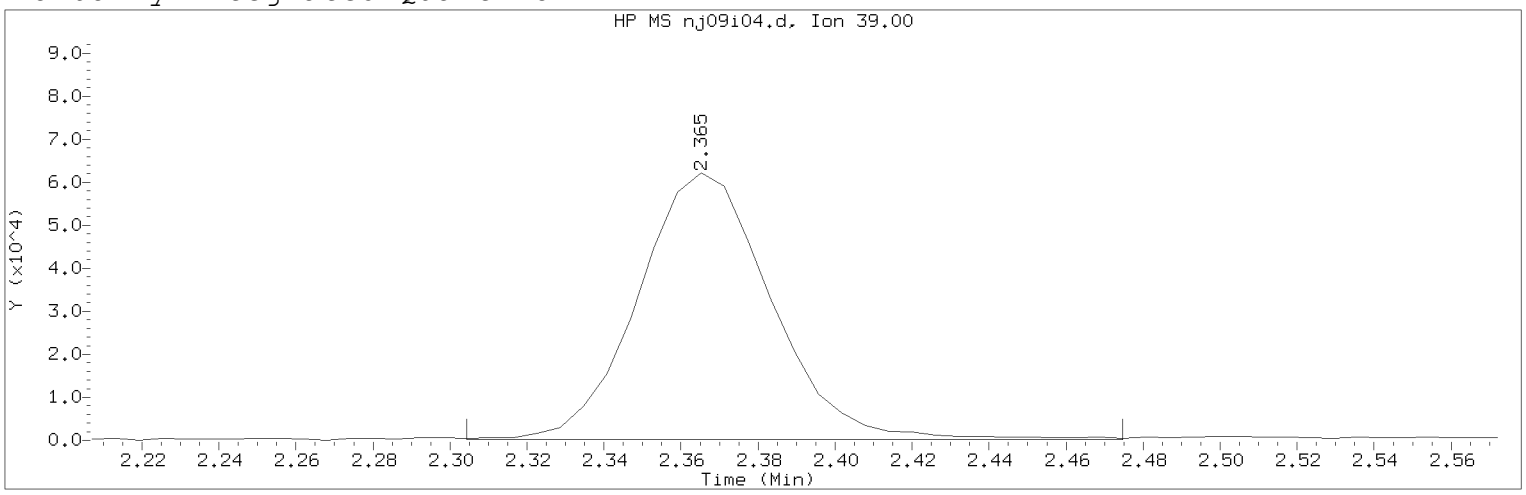
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area : 213925
On-column Amount (ng) : 21.9782
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

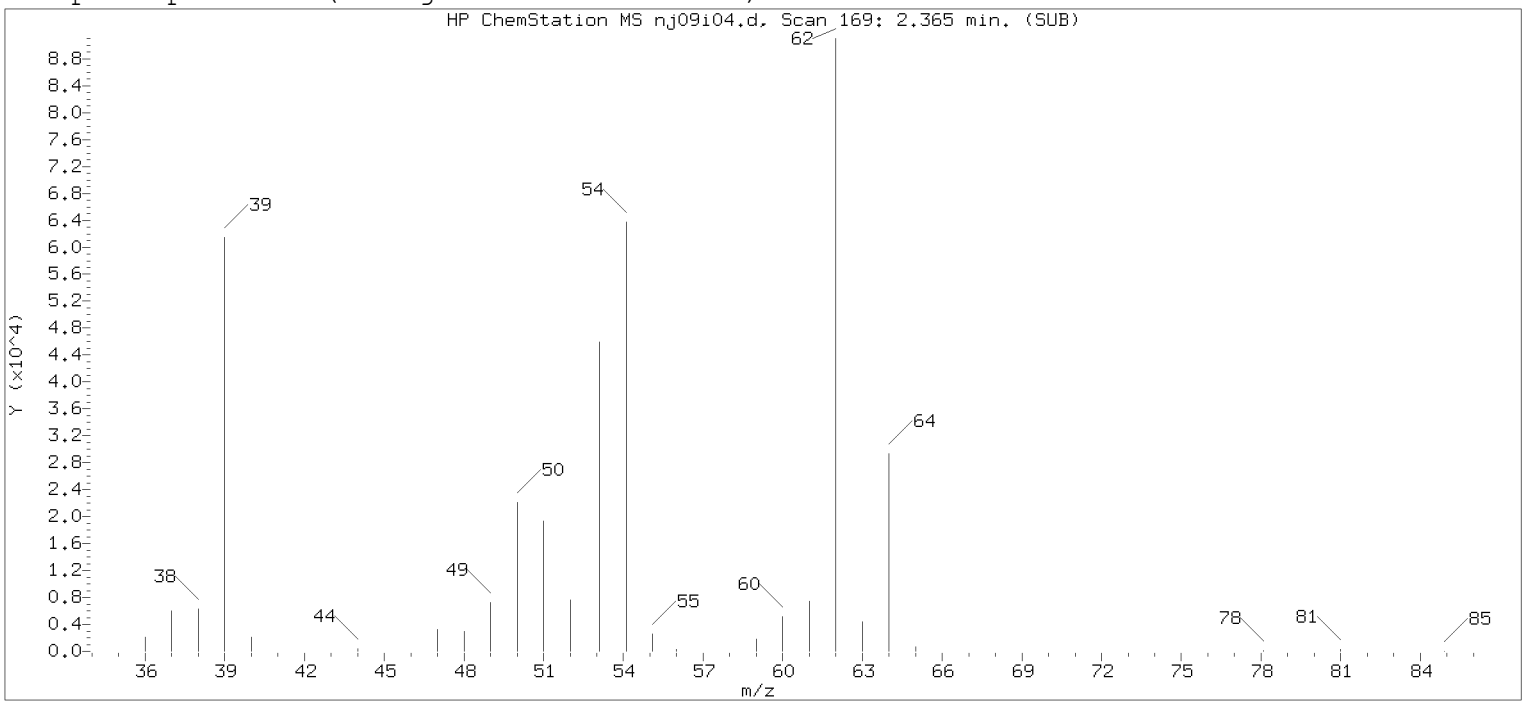
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 149726M
On-Column Amount (ng) : 19.8283
Integration start scan : 158 Integration stop scan: 186
Y at integration start : 105 Y at integration end: 105

Reason for manual integration: improper integration

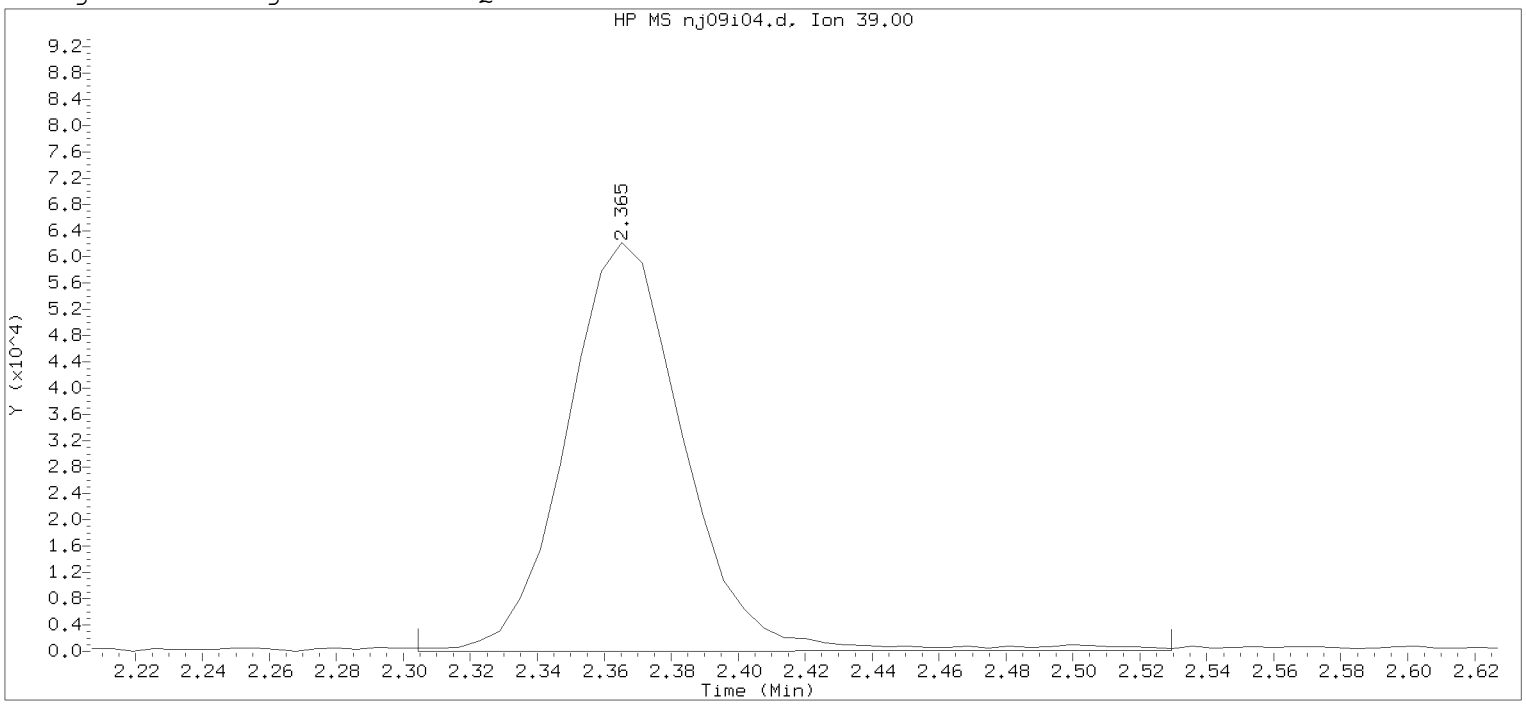
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

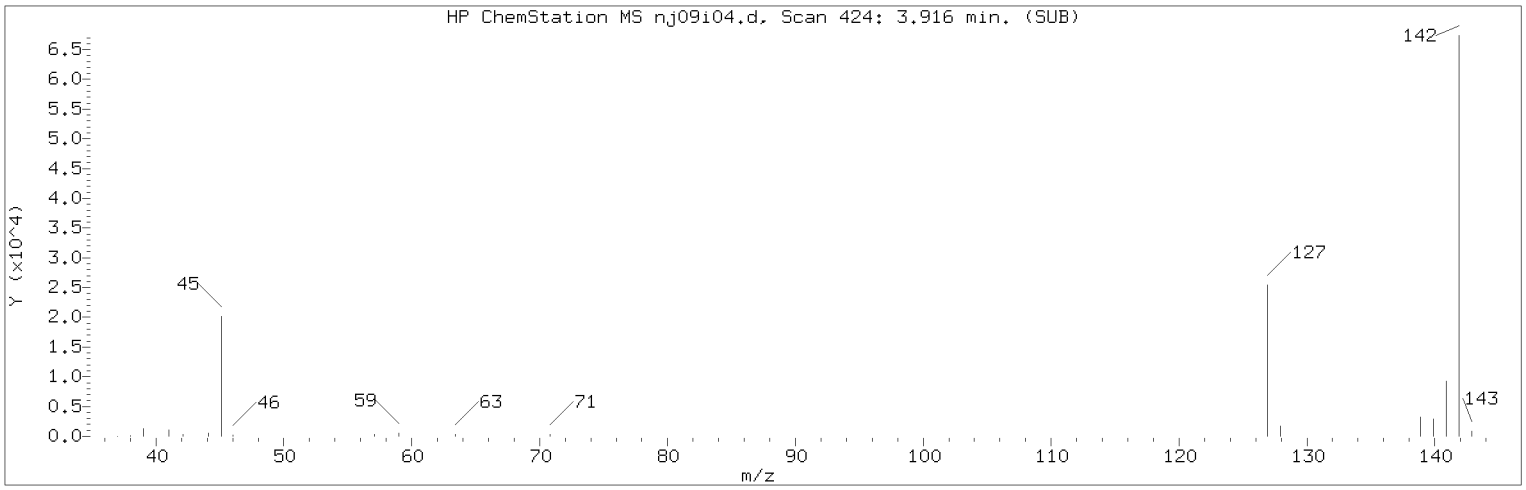
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

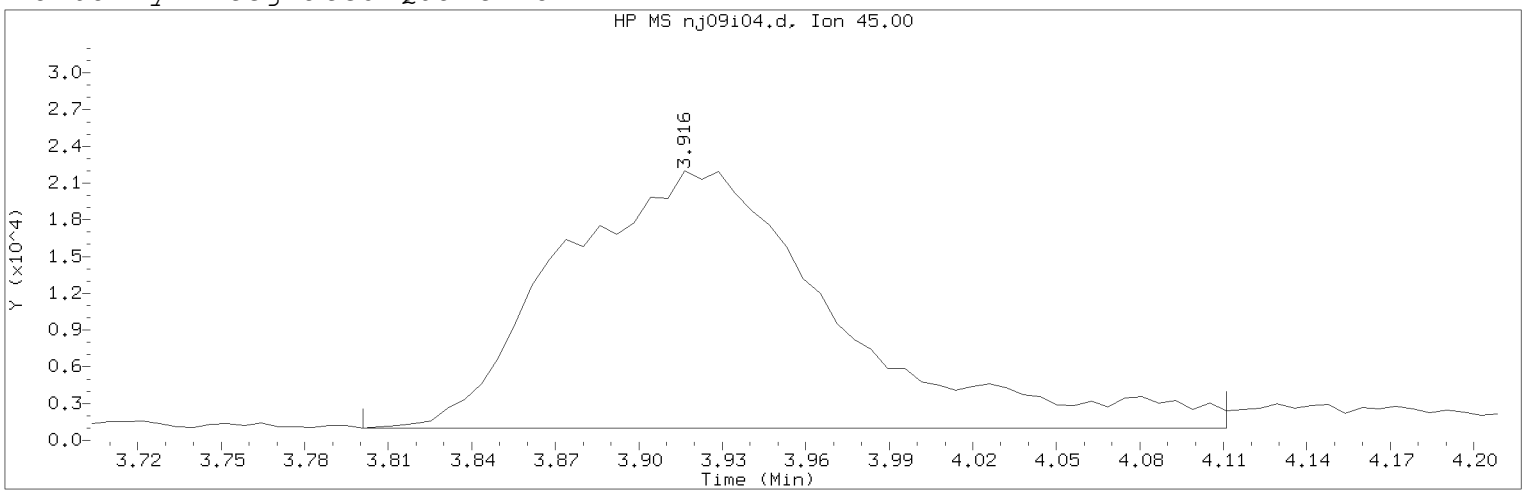
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 152078
On-column Amount (ng) : 20.2986
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 39 Y at integration end: 93

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

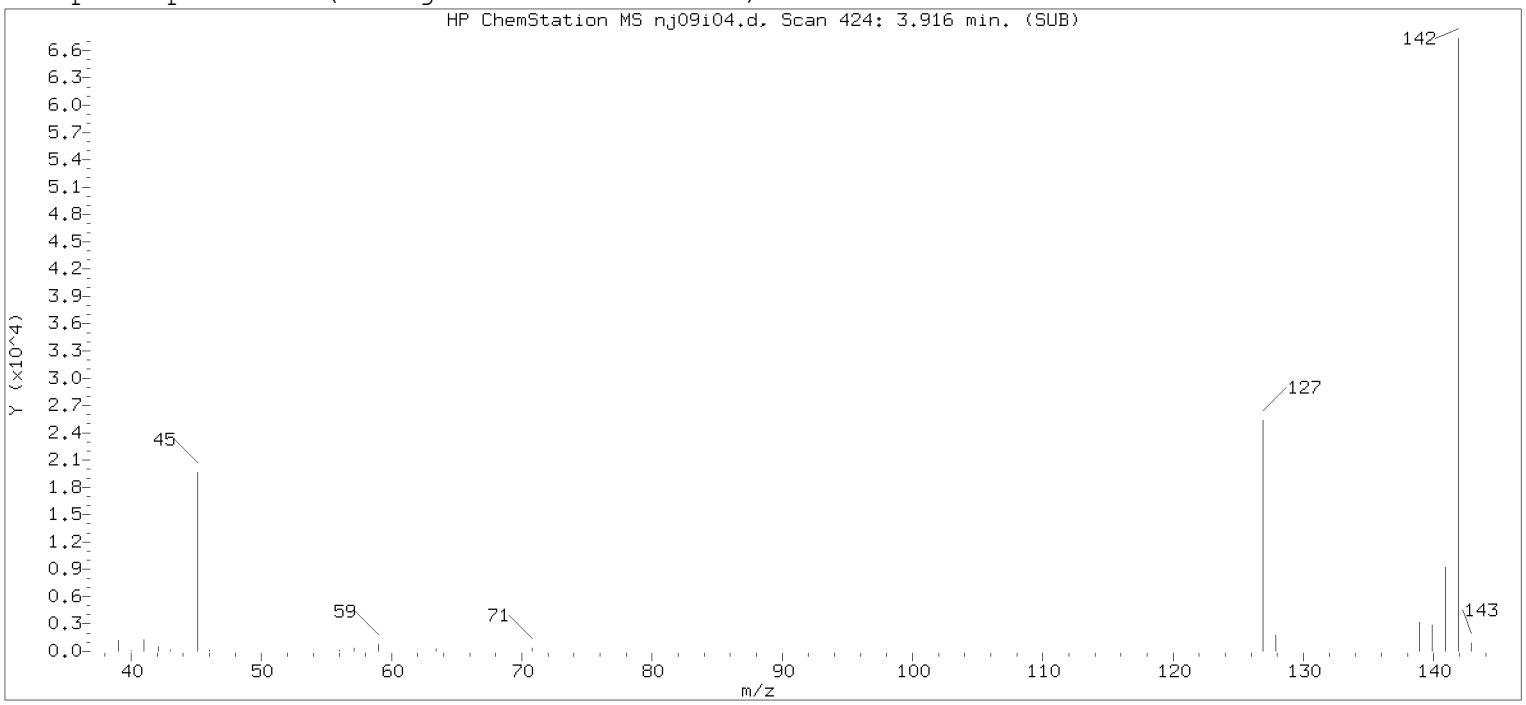
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 146046M
On-Column Amount (ng) : 201.0368
Integration start scan : 404 Integration stop scan: 455
Y at integration start : 979 Y at integration end: 979

Reason for manual integration: improper integration

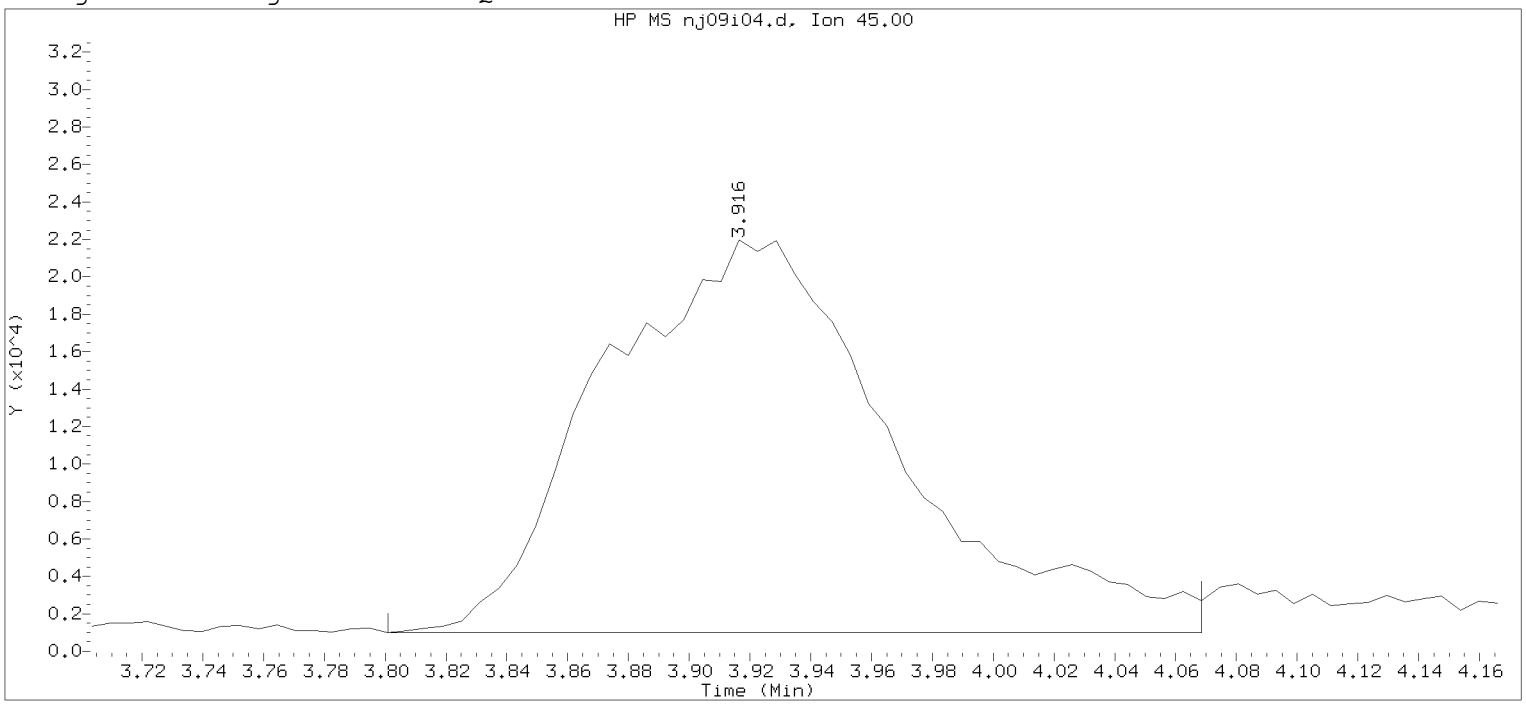
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

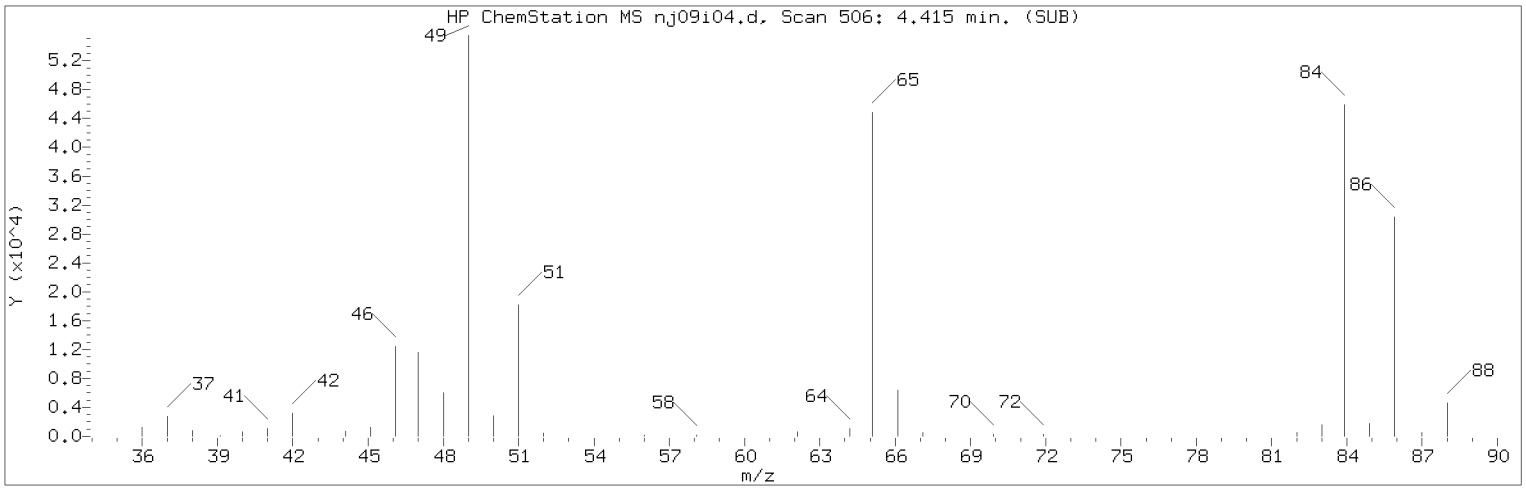
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

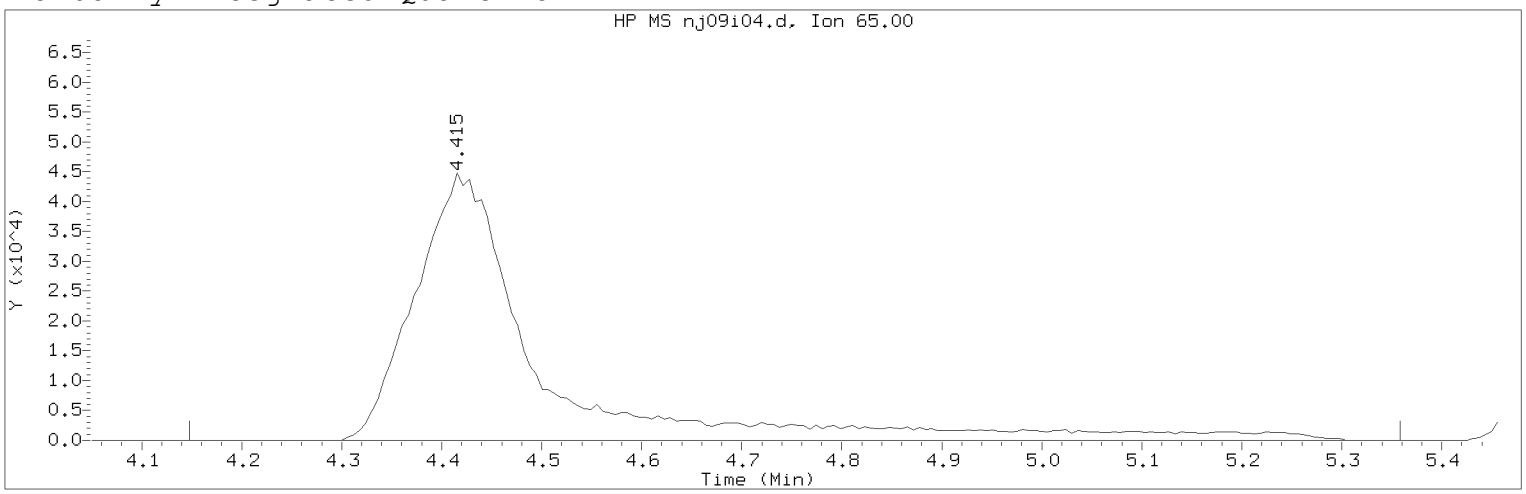
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 140440
On-column Amount (ng) : 206.0956
Integration start scan : 404 Integration stop scan: 448
Y at integration start : 980 Y at integration end: 980

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

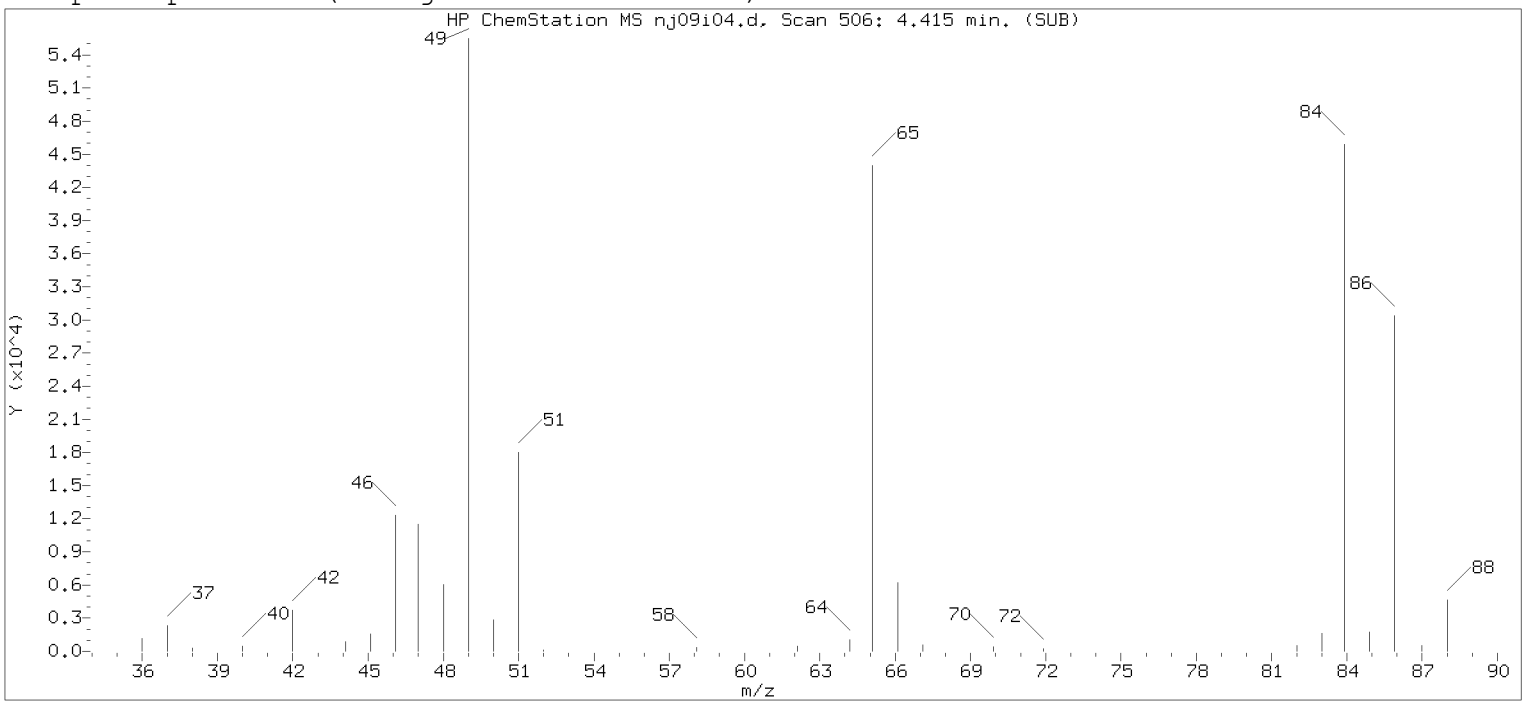
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area (flag) : 385090M
On-Column Amount (ng) : 250.0000
Integration start scan : 461 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

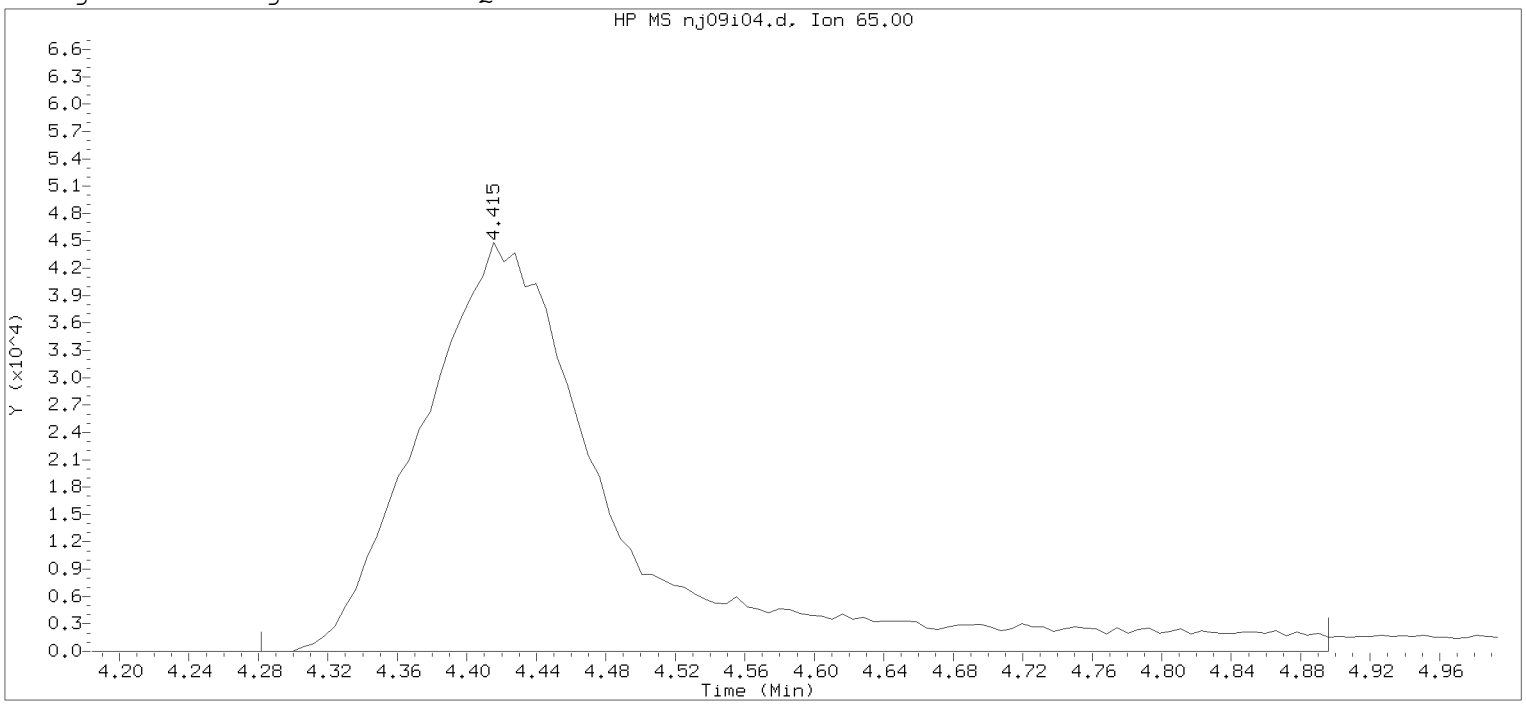
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

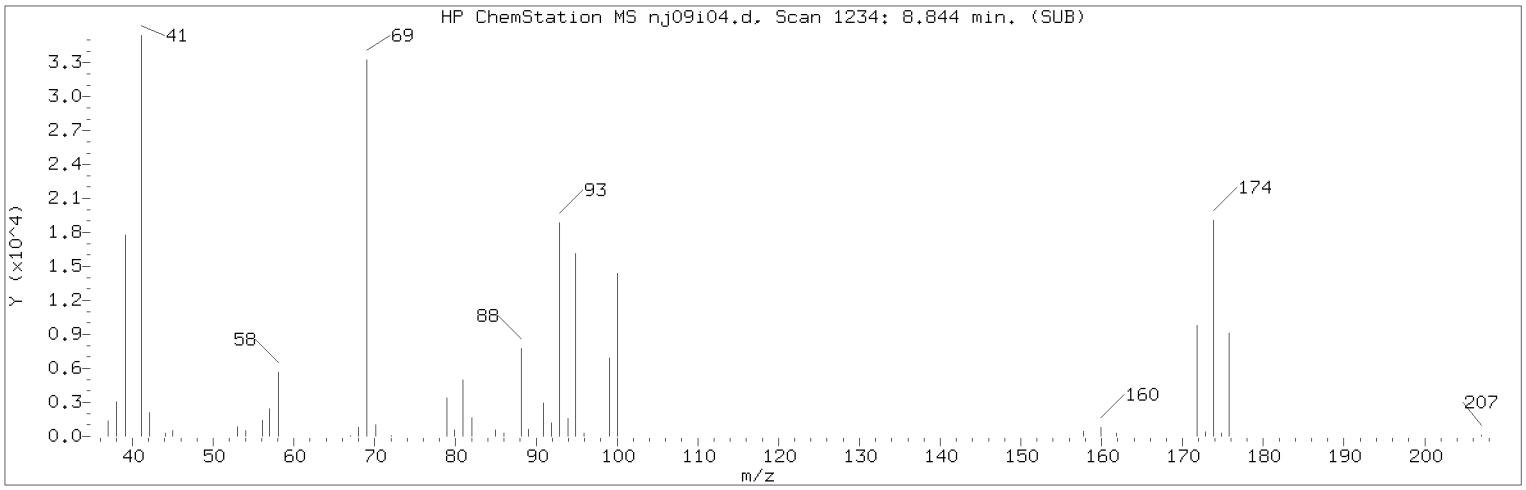
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

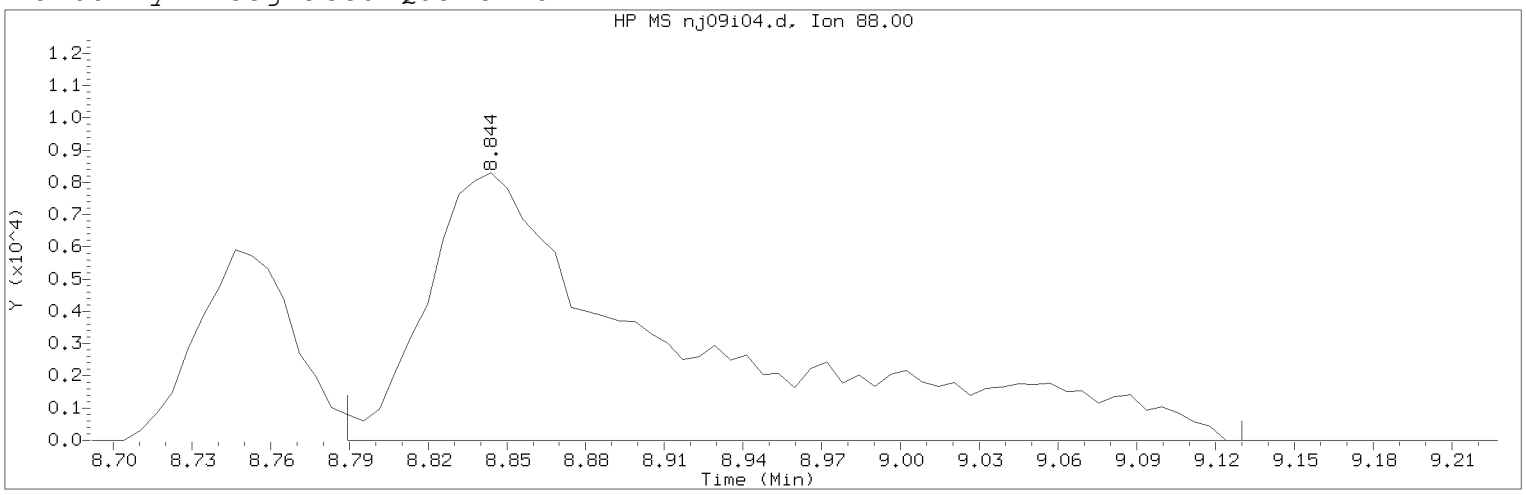
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area : 352873
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

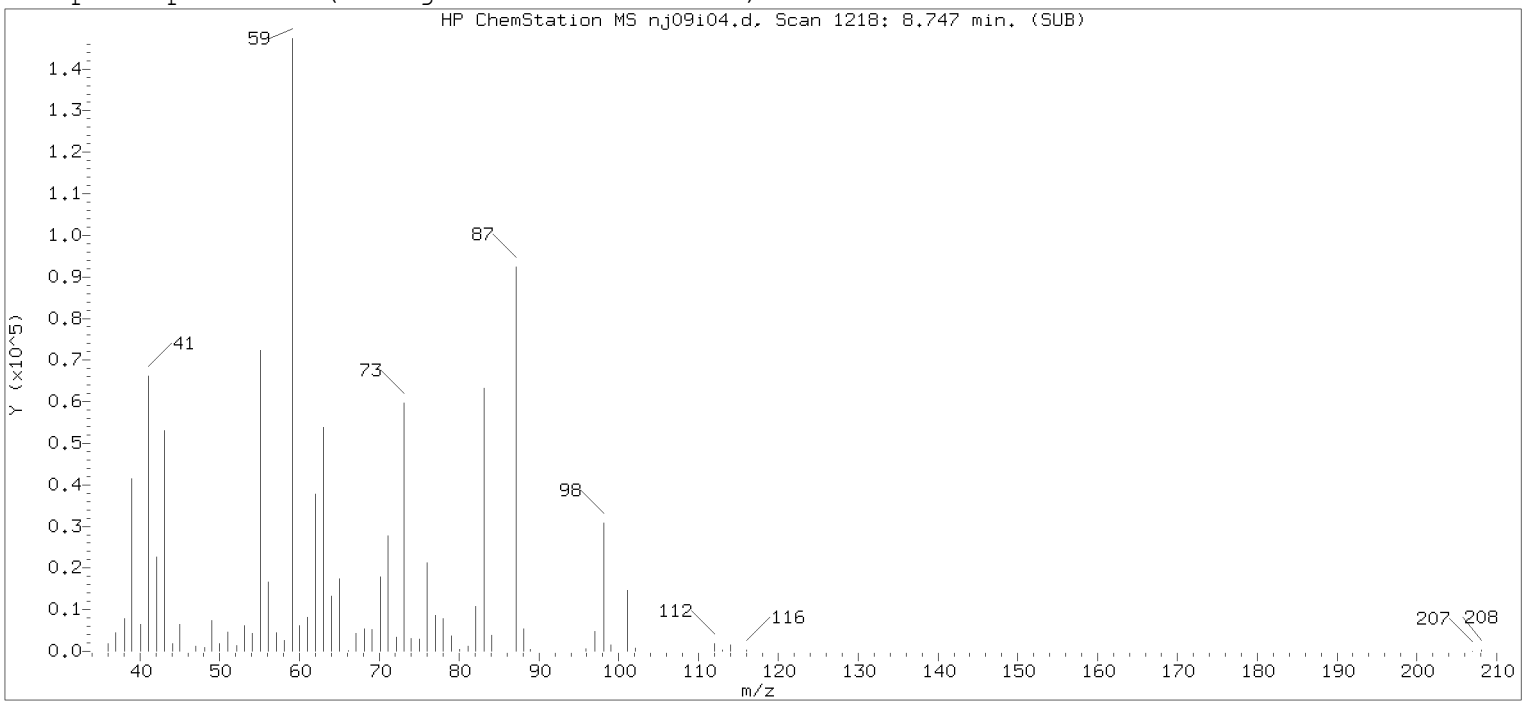
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 56238M
On-Column Amount (ng) : 502.5092
Integration start scan : 1224 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

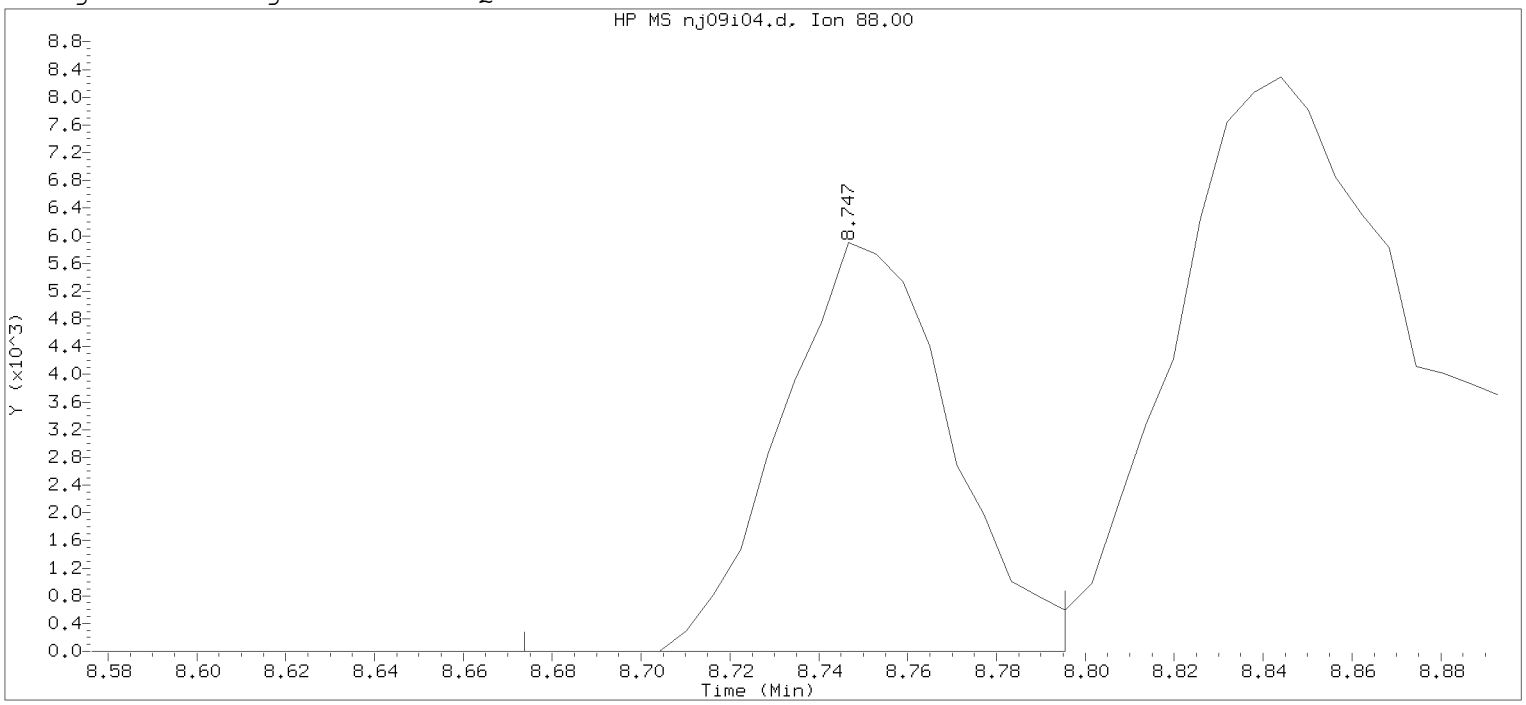
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



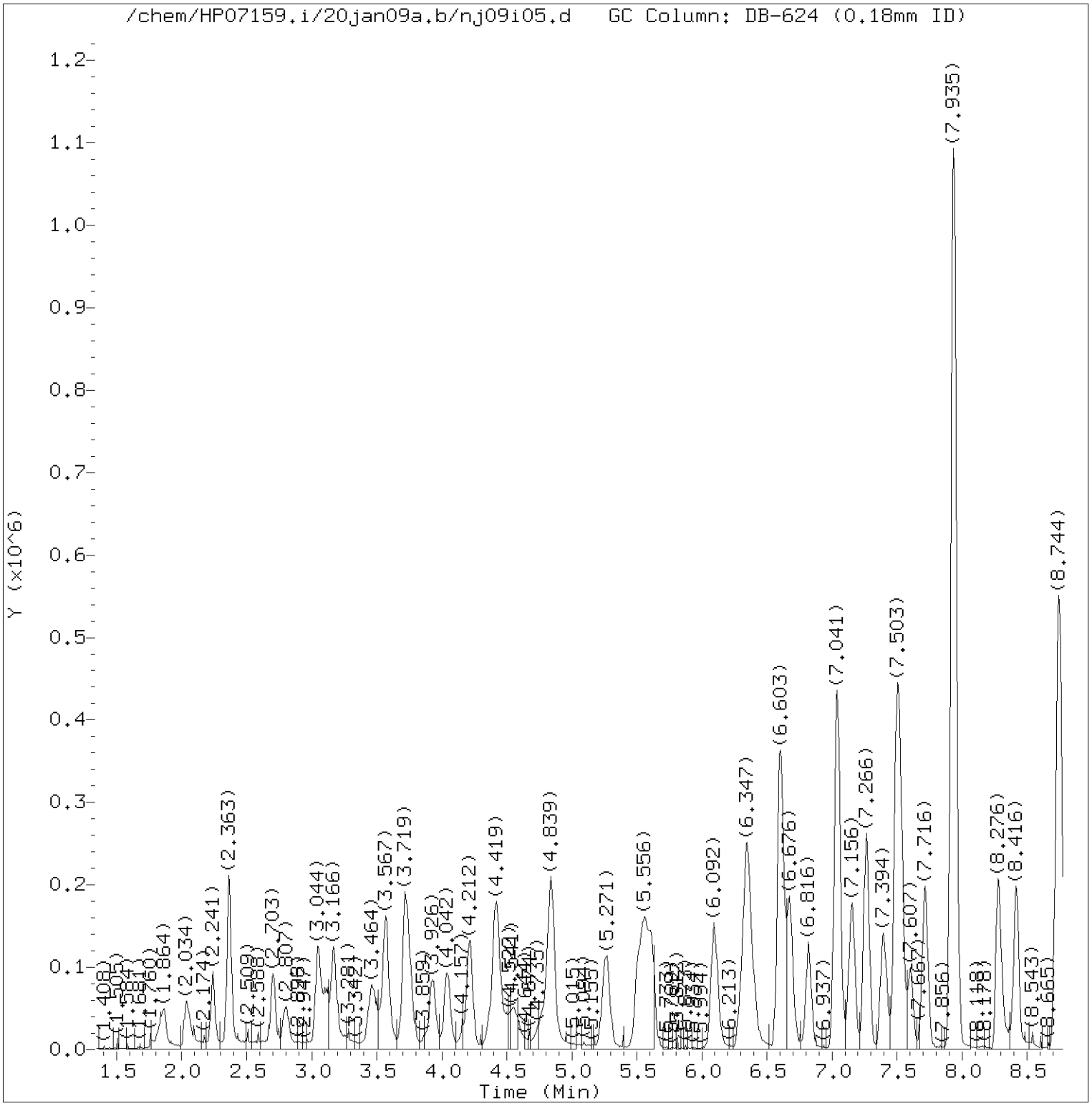
Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.747
Quant Ion : 88.00
Area : 15422
On-column Amount (ng) : 201.2803
Integration start scan : 1205 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

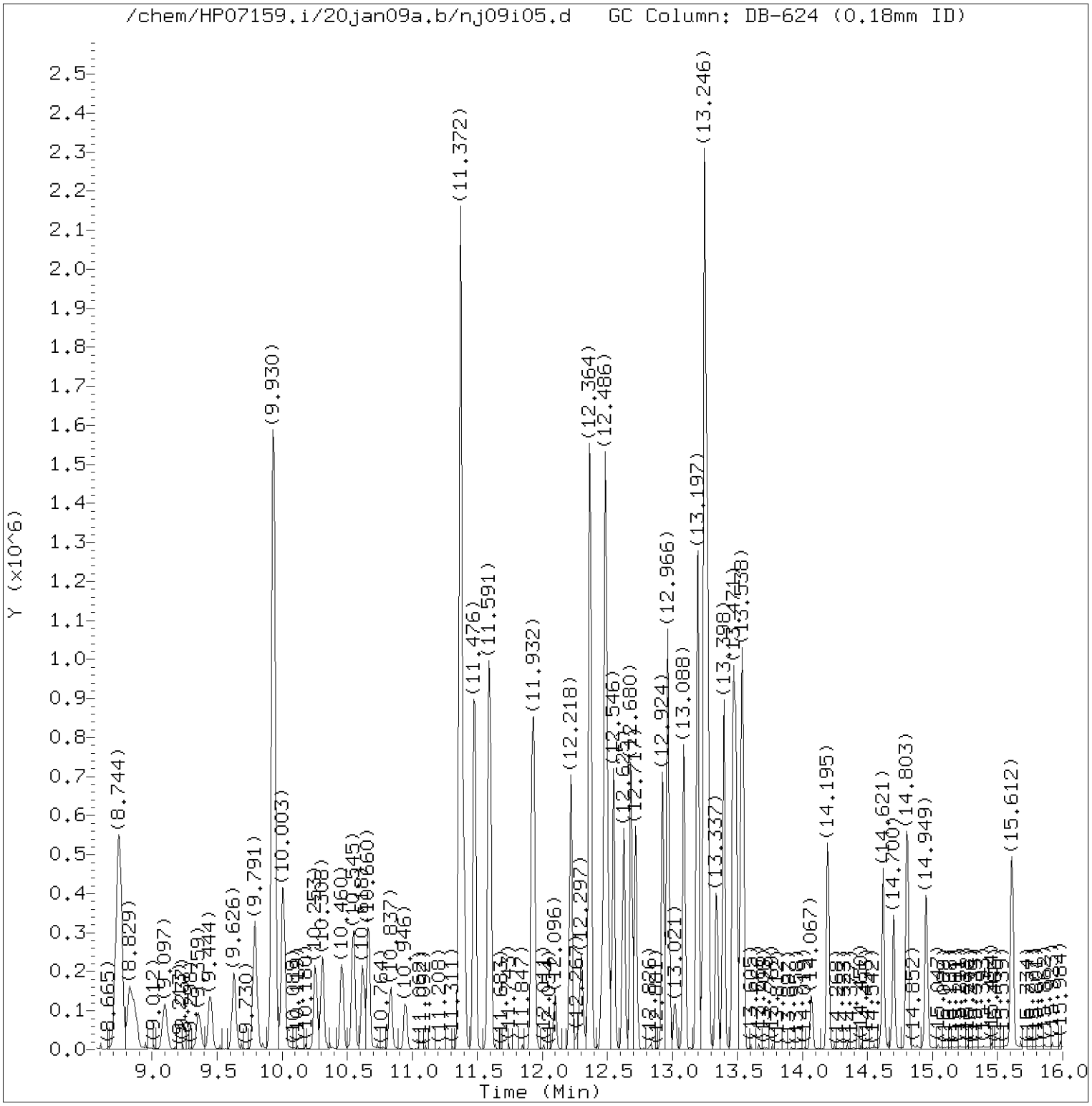
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	115327M	11.339
4) Chloromethane	(2)	2.241	50	115246	10.575
5) 1,3-Butadiene	(2)	2.363	39	77649M	10.211
6) Vinyl Chloride	(2)	2.363	62	115833	10.922
8) Bromomethane	(2)	2.703	94	77203	10.618
9) Chloroethane	(2)	2.795	64	65784	10.598
10) Dichlorofluoromethane	(2)	3.050	67	148619	10.455
12) Trichlorofluoromethane	(2)	3.111	101	126844	10.883
11) n-Pentane	(2)	3.172	43	120912	10.588
13) Ethanol	(1)	3.251	45	47197	503.794
15) Freon 123a	(2)	3.470	67	89552	10.488
16) Acrolein	(1)	3.567	56	276658	105.403
17) 1,1-Dichloroethene	(2)	3.719	96	71676	10.552
17) 1,1-Dichloroethene	(2)	3.713	63	37118	10.414
18) Acetone	(1)	3.737	58	23710	21.447
19) Freon 113	(2)	3.737	101	68658	10.894
21) 2-Propanol	(1)	3.926	45	75955M	104.022
22) Methyl Iodide	(2)	3.926	142	129746	10.234
23) Carbon Disulfide	(2)	4.042	76	227699	10.483
27) Methyl Acetate	(2)	4.182	43	83322	9.985
25) Allyl Chloride	(2)	4.212	41	126399	10.541
28) Methylene Chloride	(2)	4.413	84	79031	9.796
29)*t-Butyl alcohol-d10	(1)	4.425	65	387060M	250.000
30) t-Butyl alcohol	(1)	4.553	59	155810	107.975
31) Acrylonitrile	(2)	4.766	53	47287	10.492
33) Methyl Tertiary Butyl Ether	(2)	4.833	73	224435	10.168
32) trans-1,2-Dichloroethene	(2)	4.845	96	79395	10.239
34) n-Hexane	(2)	5.264	57	116867	10.917
36) 1,1-Dichloroethane	(2)	5.508	63	143829	10.168
38) di-Isopropyl ether	(2)	5.556	45	249110	10.223
39) 2-Chloro-1,3-butadiene	(2)	5.617	53	129960	10.408
40) Ethyl t-butyl ether	(2)	6.098	59	239578	10.344
43) 1,2-Dichloroethene (Total)	(2)		96	169213	20.437
44) 2-Butanone	(2)	6.293	43	131354	20.844
42) cis-1,2-Dichloroethene	(2)	6.341	96	89818	10.199
45) 2,2-Dichloropropane	(2)	6.353	77	129094	10.337
47) Propionitrile	(1)	6.384	54	171449	101.728
48) Methacrylonitrile	(2)	6.603	67	229879	50.497

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	42760	10.269
50) Tetrahydrofuran	(1)	6.676	71	35694	20.399
51) Chloroform	(2)	6.822	83	141277	10.239
52)$Dibromofluoromethane	(2)	7.035	113	324529	50.047
52)$Dibromofluoromethane	(2)	7.035	111	330287	49.884
53) 1,1,1-Trichloroethane	(2)	7.053	97	129813	10.399
54) Cyclohexane	(2)	7.156	56	141244	11.000
54) Cyclohexane	(2)	7.156	84	122617	10.957
54) Cyclohexane	(2)	7.156	69	43925	10.884
55) 1,1-Dichloropropene	(2)	7.260	75	117003	10.362
56) Carbon Tetrachloride	(2)	7.266	117	113651	10.559
58) Isobutyl Alcohol	(1)	7.394	41	126394	244.519
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81622	49.783
57)$1,2-Dichloroethane-d4	(2)	7.497	65	388294	49.232
57)$1,2-Dichloroethane-d4	(2)	7.497	104	52228	50.066
60) Benzene	(2)	7.527	78	327608	10.193
61) 1,2-Dichloroethane	(2)	7.601	62	112112	9.860
61) 1,2-Dichloroethane	(2)	7.607	98	10176	10.874
65) t-Amyl methyl ether	(2)	7.716	73	240828	10.365
66)*Fluorobenzene	(2)	7.935	96	1306648	50.000
67) n-Heptane	(2)	7.941	43	132953	10.760
69) n-Butanol	(1)	8.276	56	224191	503.494
71) Trichloroethene	(2)	8.416	95	86191	10.179
72) Methylcyclohexane	(2)	8.732	83	150829	10.836
72) Methylcyclohexane	(2)	8.732	98	70438	10.746
73) 1,2-Dichloropropane	(2)	8.750	63	82506	10.039
76) Methyl Methacrylate	(2)	8.823	69	76884	10.230
75) 1,4-Dioxane	(1)	8.842	88	28522M	253.558
74) Dibromomethane	(2)	8.860	93	51805	9.884
78) Bromodichloromethane	(2)	9.103	83	107443	10.041
79) 2-Nitropropane	(2)	9.359	41	78418	20.178
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	74712	11.492
81) cis-1,3-Dichloropropene	(2)	9.632	75	136278	9.984
82) 4-Methyl-2-pentanone	(2)	9.791	43	266895	20.904
83)$Toluene-d8	(3)	9.930	98	1300330	50.264
83)$Toluene-d8	(3)	9.930	100	854504	49.857
88) Toluene	(3)	10.010	92	215392	10.249
90) 1,3-Dichloropropene (total)	(3)		100	266447	19.964

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	130169	9.980
91) Ethyl Methacrylate	(3)	10.308	69	130196	10.019
92) 1,1,2-Trichloroethane	(3)	10.460	97	75730	10.178
93) Tetrachloroethene	(3)	10.545	166	100234	10.892
94) 1,3-Dichloropropane	(3)	10.618	76	130614	10.114
96) 2-Hexanone	(3)	10.660	43	215593	21.673
97) Dibromochloromethane	(3)	10.831	129	87408	10.237
99) 1,2-Dibromoethane	(3)	10.946	107	82718	10.153
100)*Chlorobenzene-d5	(3)	11.372	117	991927	50.000
102) Chlorobenzene	(3)	11.397	112	242234	10.328
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	86037	10.179
104) Ethylbenzene	(3)	11.482	91	425382	10.465
106) m+p-Xylene	(3)	11.591	106	329331	20.621
108) Xylene (Total)	(3)		106	492496	31.008
107) o-Xylene	(3)	11.920	106	163165	10.388
109) Styrene	(3)	11.938	104	268175	10.165
110) Bromoform	(3)	12.102	173	64108	9.945
111) Isopropylbenzene	(3)	12.218	105	435995	10.510
112) Cyclohexanone	(1)	12.297	55	111384	246.907
114)$4-Bromofluorobenzene	(3)	12.364	95	513125	50.205
114)$4-Bromofluorobenzene	(3)	12.370	174	410943	50.188
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	117824	9.841
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	209105	50.774
115) Bromobenzene	(4)	12.486	156	103636	10.295
117) 1,2,3-Trichloropropane	(4)	12.510	110	38220	10.078
119) n-Propylbenzene	(4)	12.546	91	517262	10.598
120) 2-Chlorotoluene	(4)	12.625	126	103490	10.285
122) 1,3,5-Trimethylbenzene	(4)	12.680	105	373059	10.432
121) 4-Chlorotoluene	(4)	12.717	126	106321	10.196
124) tert-Butylbenzene	(4)	12.924	134	82434M	10.402
125) Pentachloroethane	(4)	12.960	167	68399	10.780
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	387746	10.447
127) sec-Butylbenzene	(4)	13.088	105	489826	10.545
129) 1,3-Dichlorobenzene	(4)	13.191	146	200849	10.258
130) p-Isopropyltoluene	(4)	13.197	119	427821	10.584
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	544310	50.000
133) 1,4-Dichlorobenzene	(4)	13.264	146	200867	10.116
134) 1,2,3-Trimethylbenzene	(4)	13.276	105	393098	10.912

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

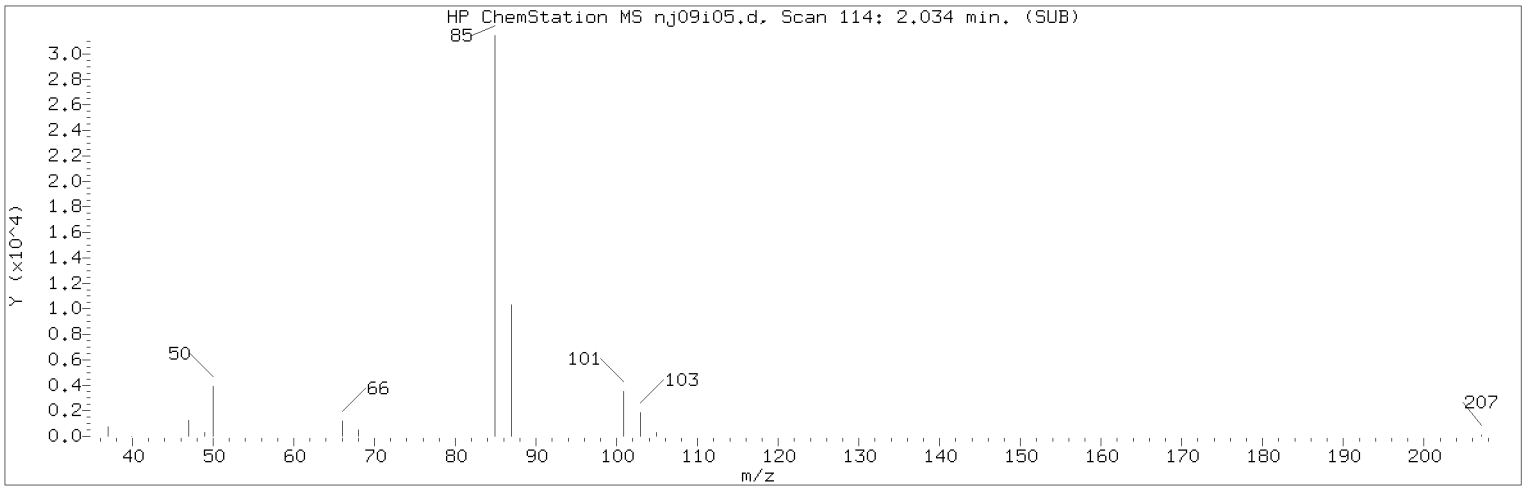
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

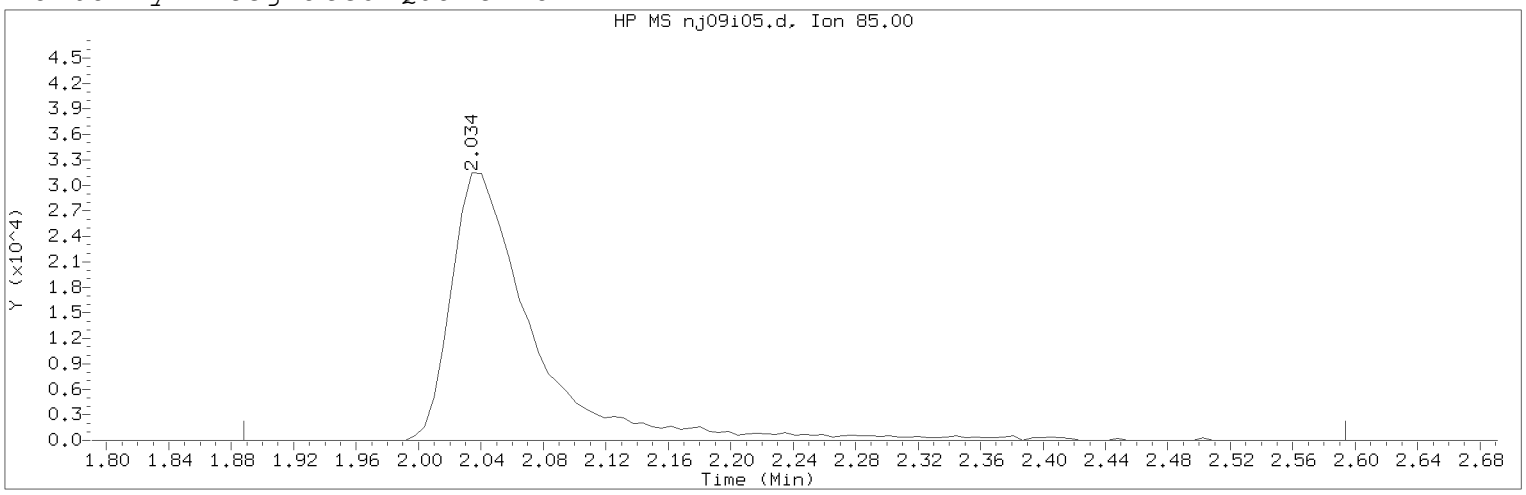
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.343	91	266077	10.055
141) Diethylbenzene (total)	(4)		100	767226	32.708
136) 1,3-Diethylbenzene	(4)	13.398	119	264233	10.920
137) 1,4-Diethylbenzene	(4)	13.471	119	280286	10.909
139) n-Butylbenzene	(4)	13.489	92	215902	10.354
138) 1,2-Dichlorobenzene	(4)	13.526	146	189793	10.224
140) 1,2-Diethylbenzene	(4)	13.544	119	222707	10.879
142) 1,2-Dibromo-3-chloropropane	(4)	14.067	75	32218	9.957
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	150782	10.190
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	128653	9.972
147) Hexachlorobutadiene	(4)	14.706	225	58502	10.024
148) Naphthalene	(4)	14.803	128	411801	10.180
149) 1,2,3-Trichlorobenzene	(4)	14.955	180	118648	10.018
150) 2-Methylnaphthalene	(4)	15.612	142	248971	10.655

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

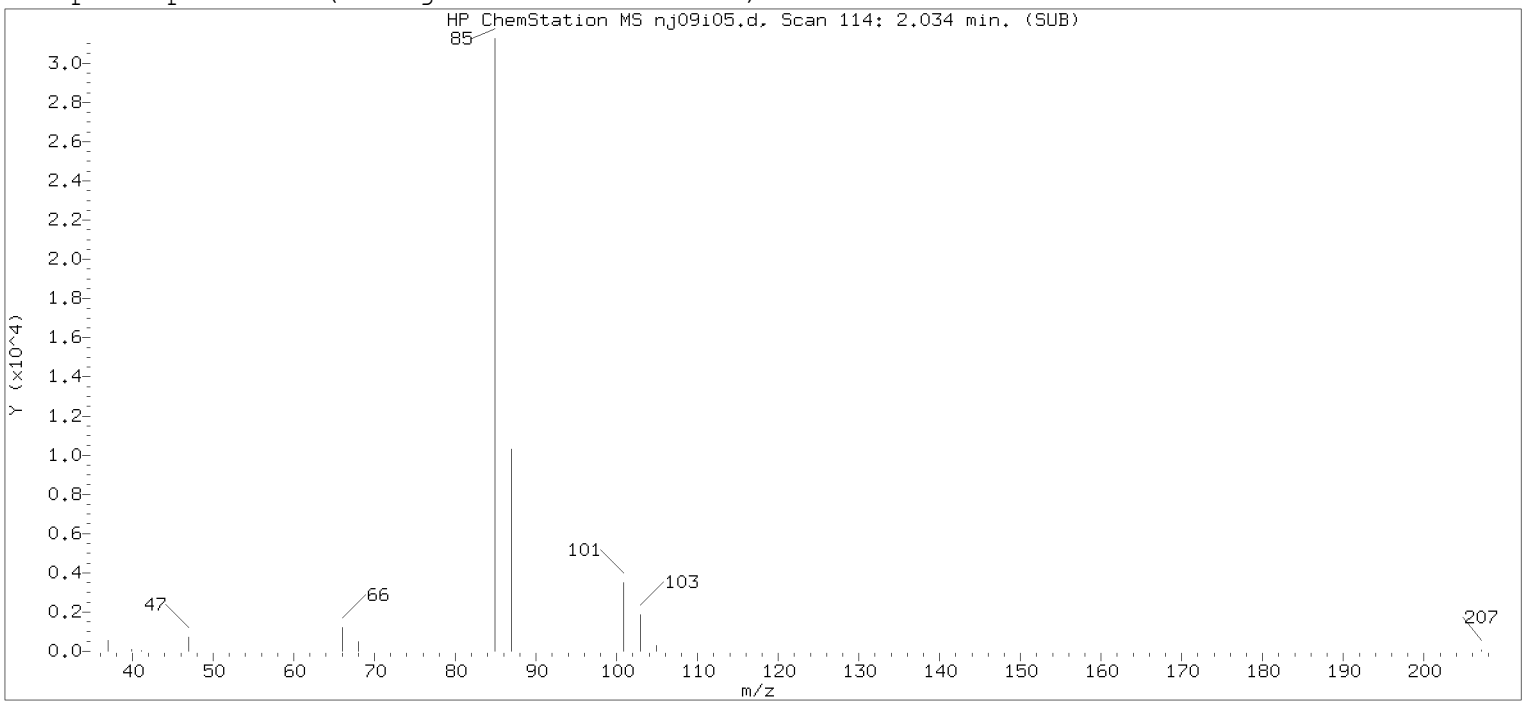
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 115327M
On-Column Amount (ng) : 11.3392
Integration start scan : 89 Integration stop scan: 205
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

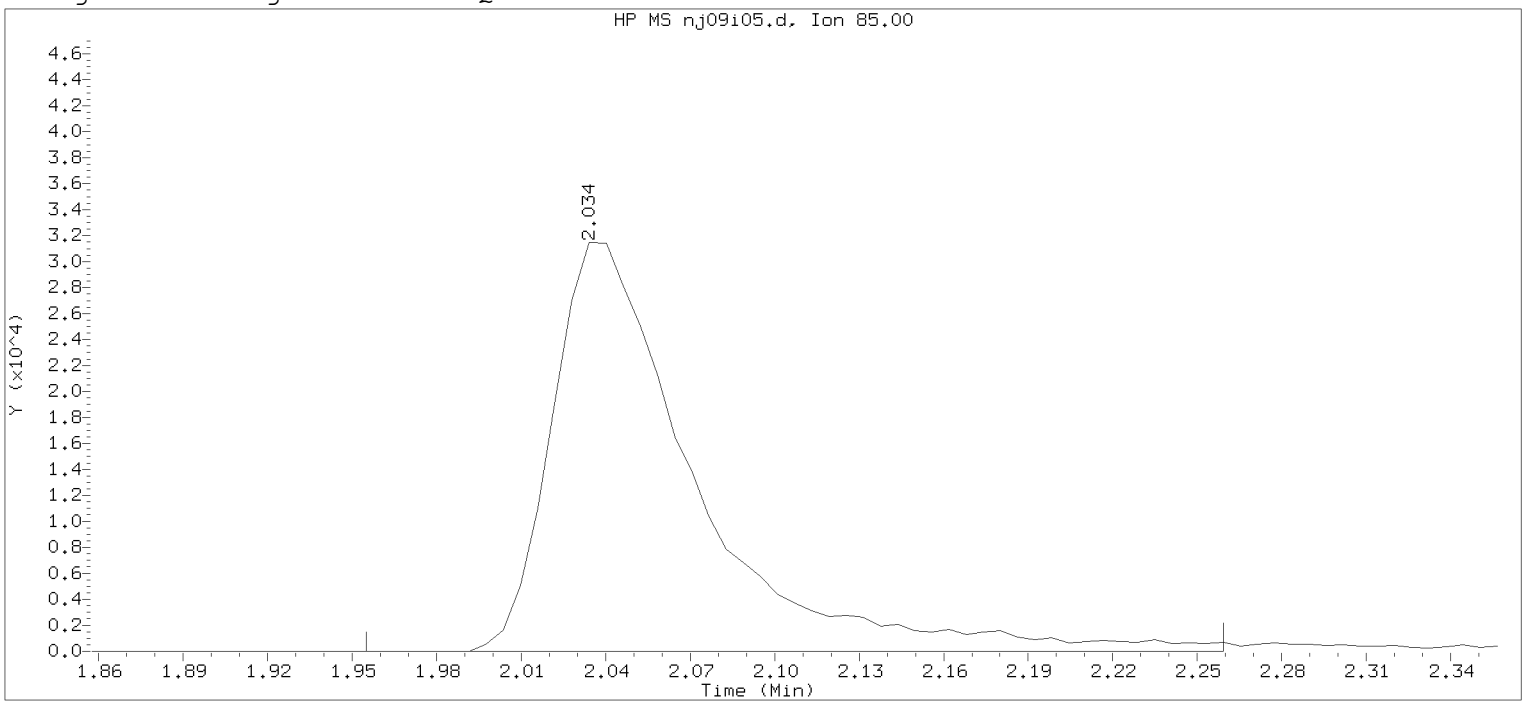
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

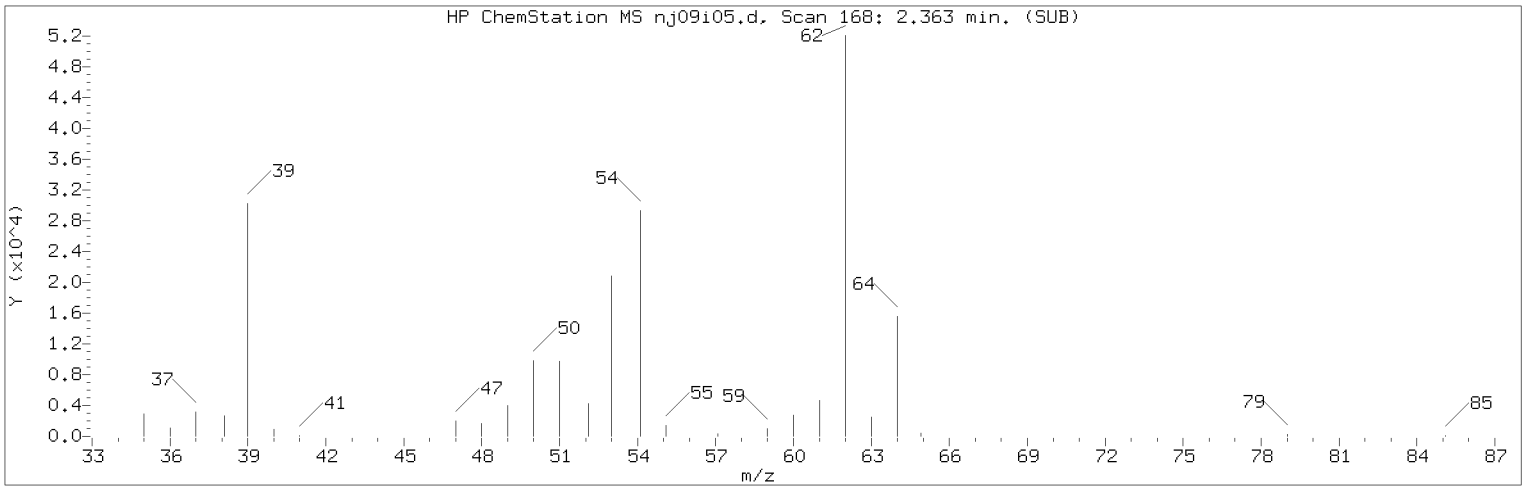
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

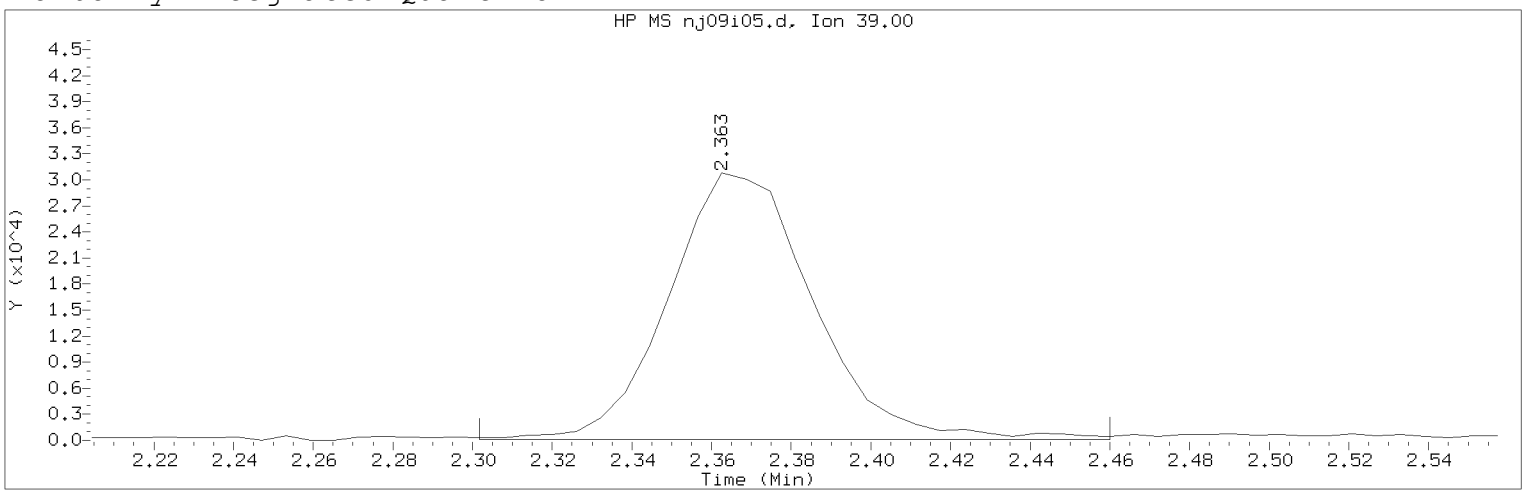
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 111353
On-column Amount (ng) : 11.3602
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

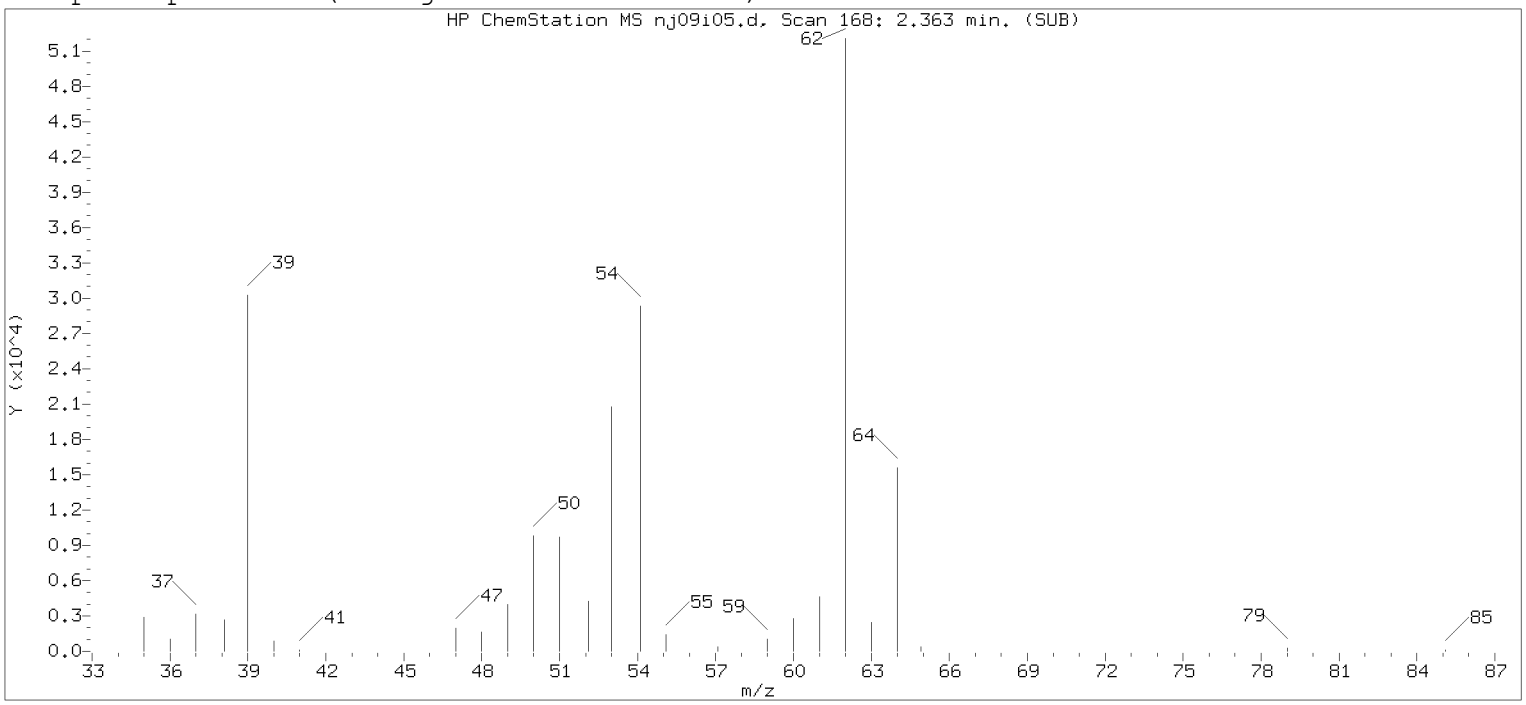
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 77649M
On-Column Amount (ng) : 10.2112
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 83 Y at integration end: 83

Reason for manual integration: improper integration

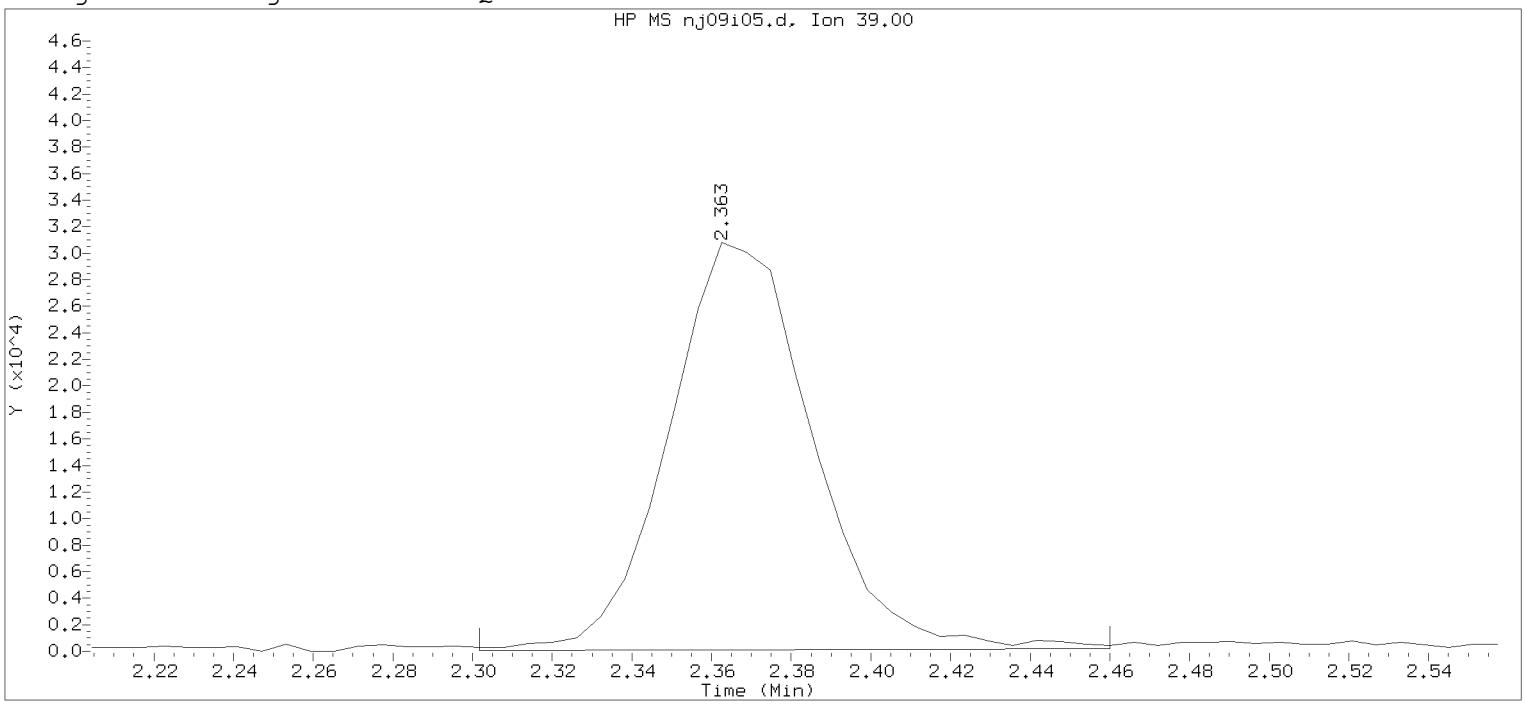
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

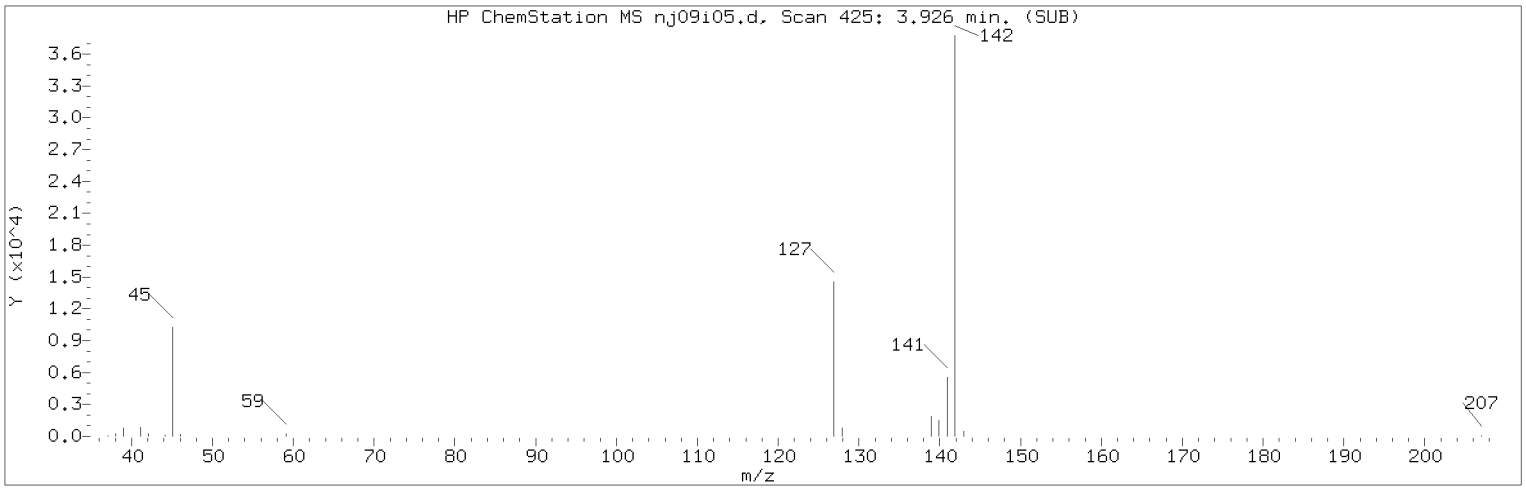
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

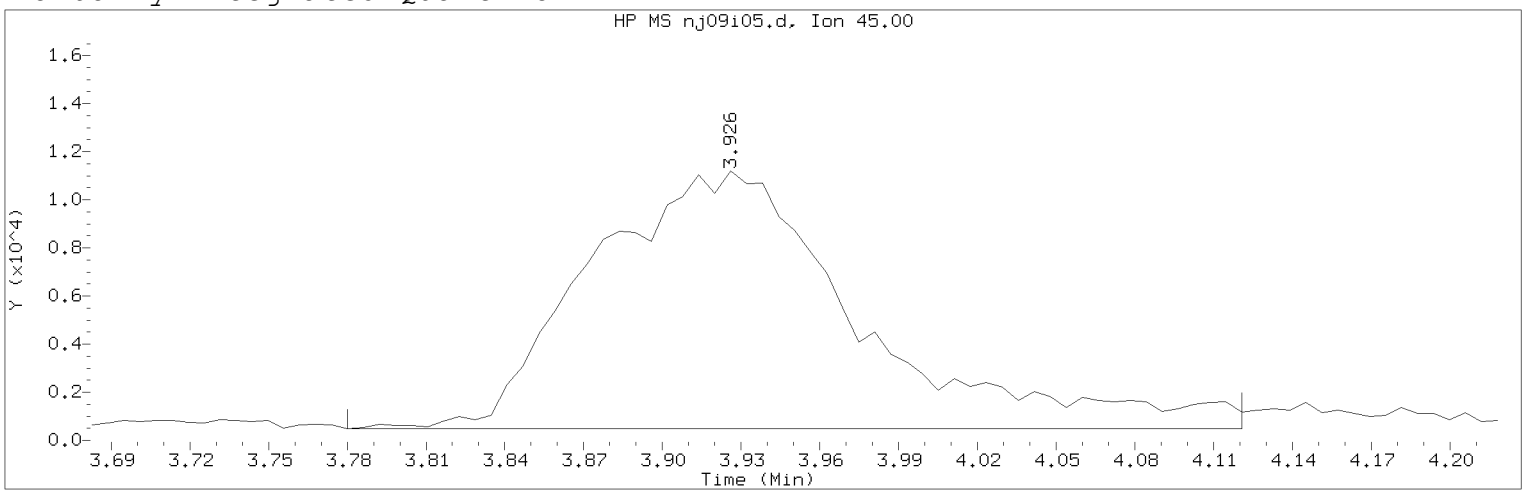
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 77180
On-column Amount (ng) : 10.2235
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 63 Y at integration end: 182

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

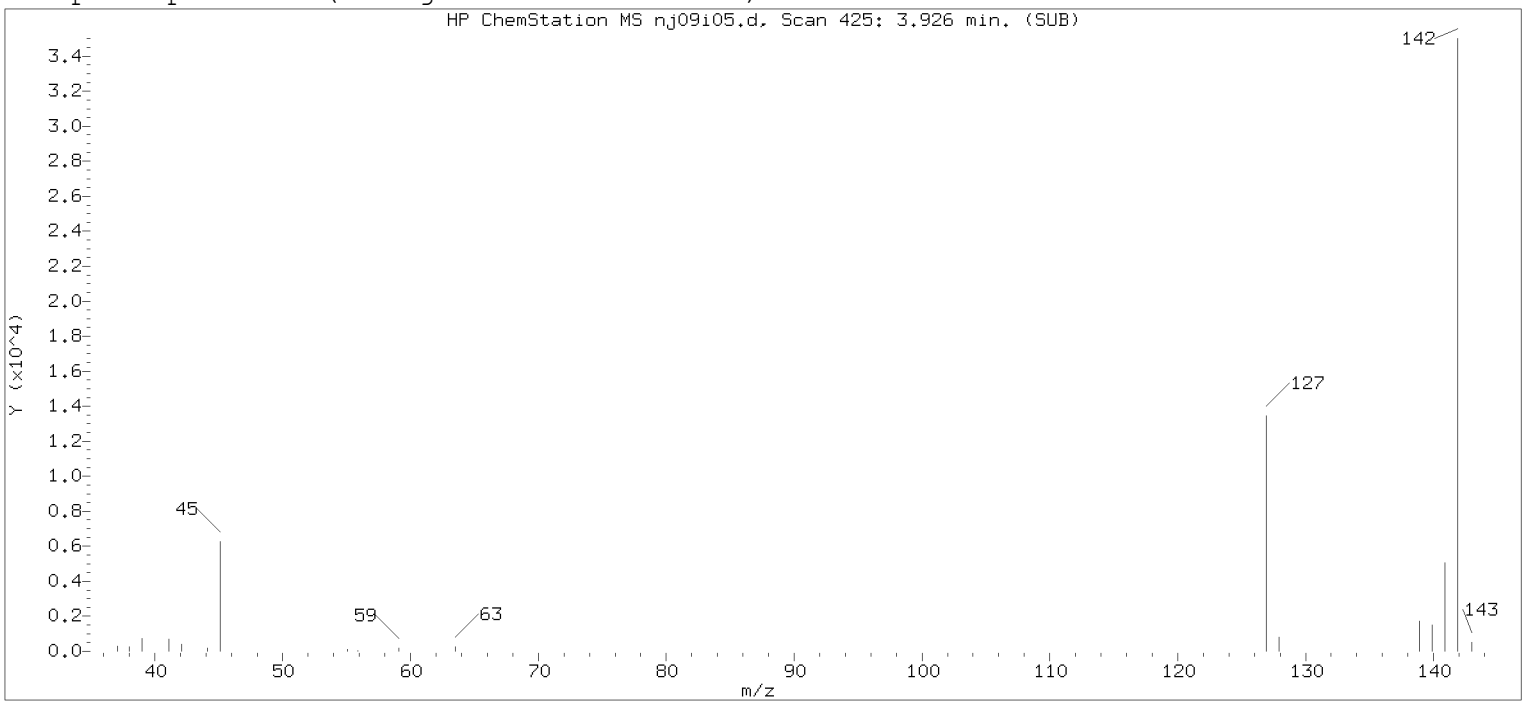
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area (flag) : 75955M
On-Column Amount (ng) : 104.0223
Integration start scan : 400 Integration stop scan: 456
Y at integration start : 481 Y at integration end: 481

Reason for manual integration: improper integration

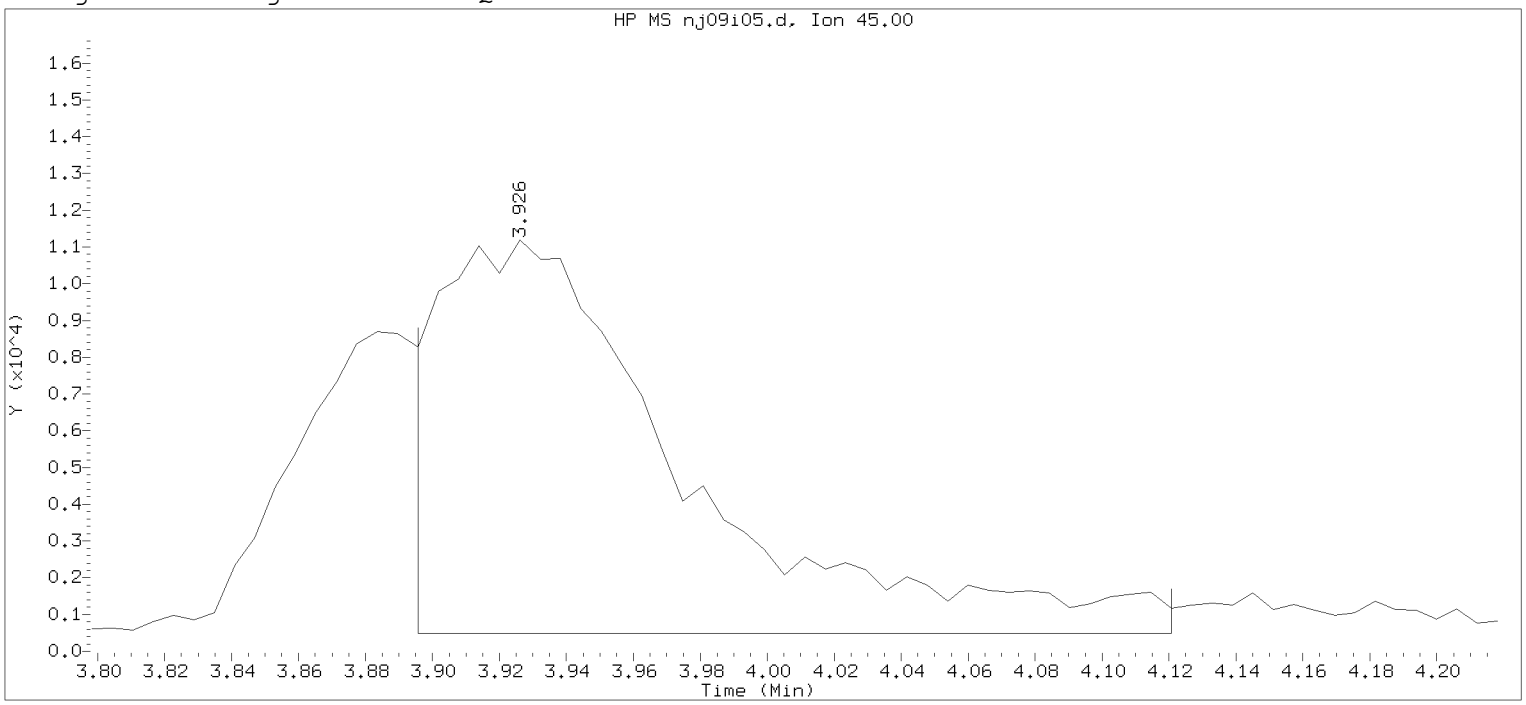
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

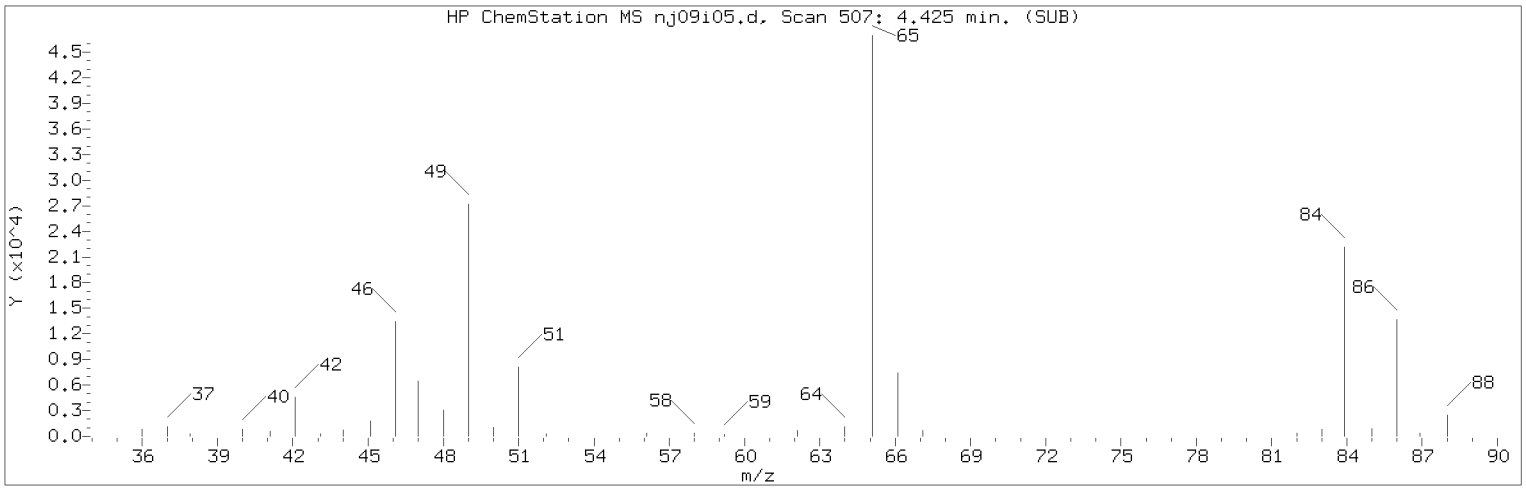
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

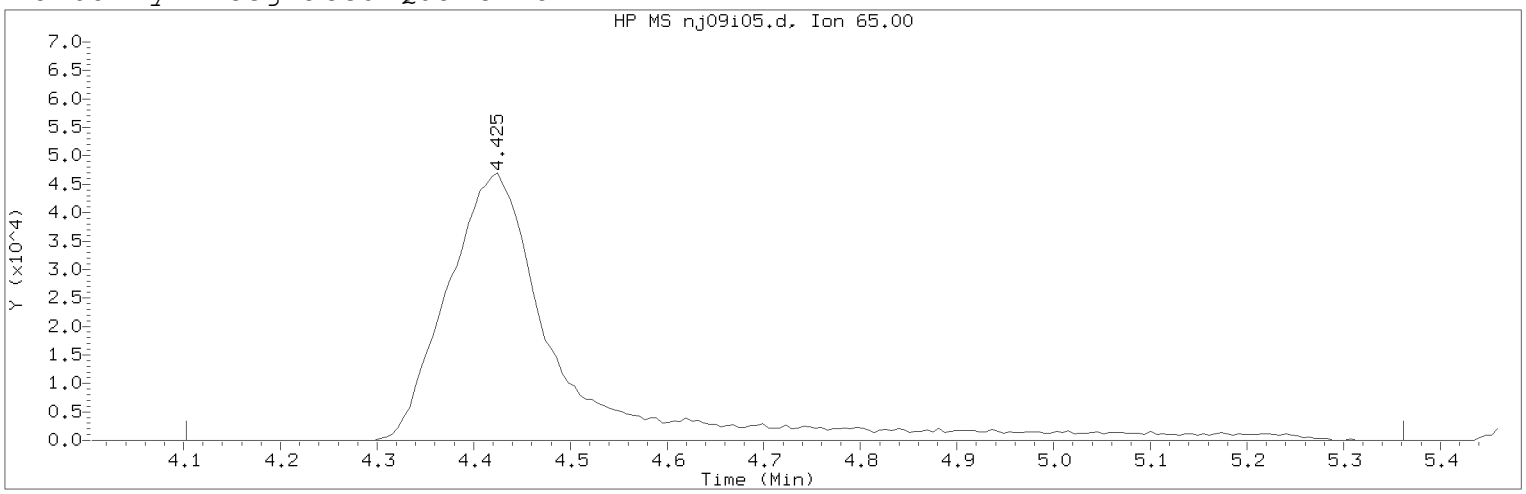
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area : 55091
On-column Amount (ng) : 81.2722
Integration start scan : 419 Integration stop scan: 456
Y at integration start : 483 Y at integration end: 483

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

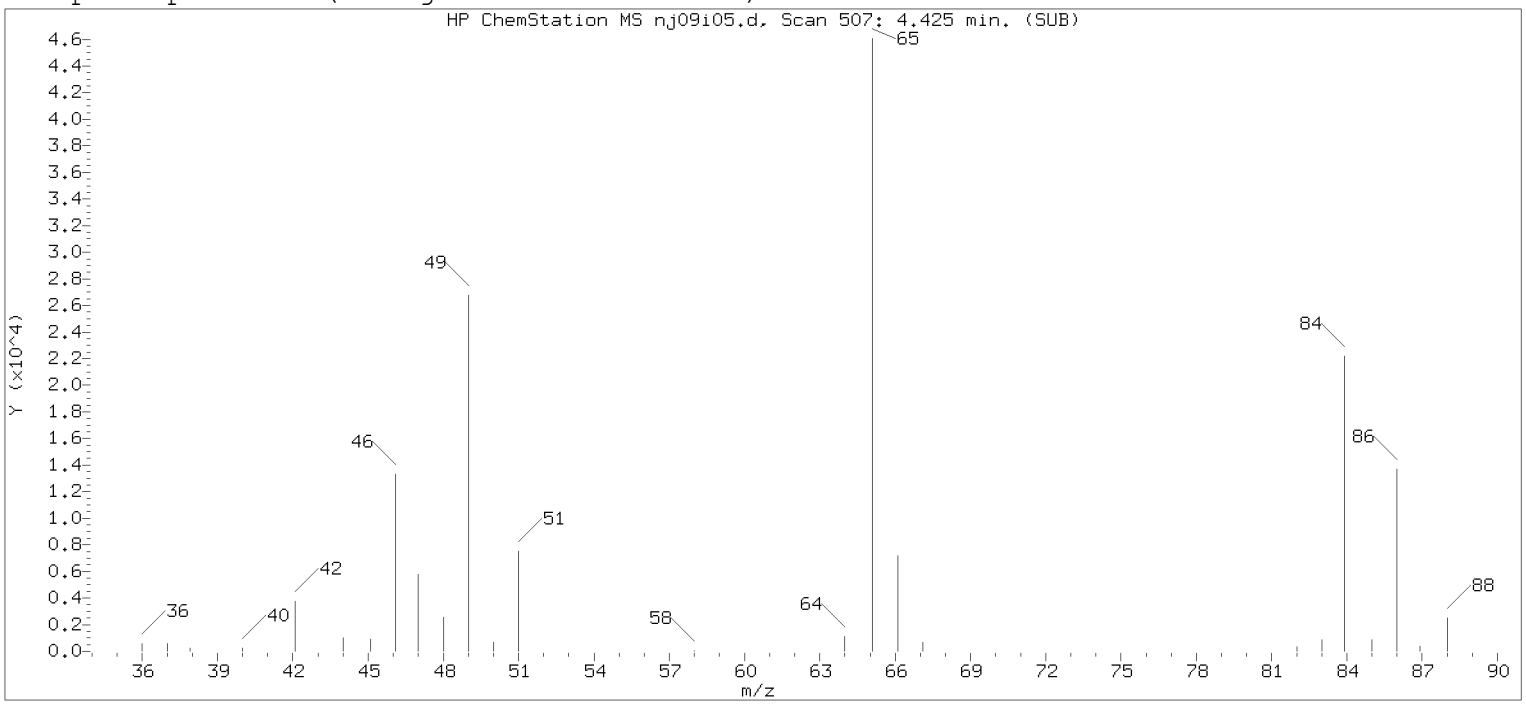
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 387060M
On-Column Amount (ng) : 250.0000
Integration start scan : 453 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

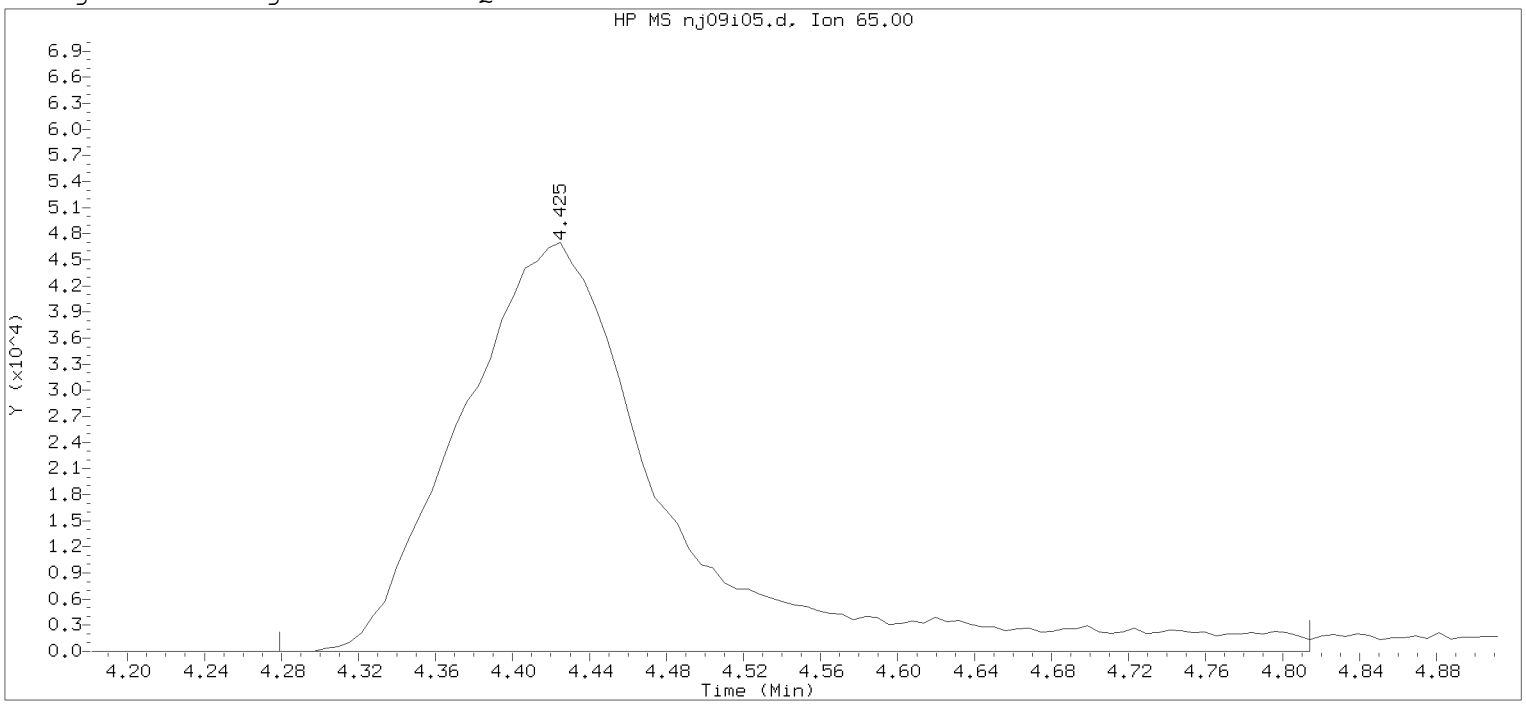
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

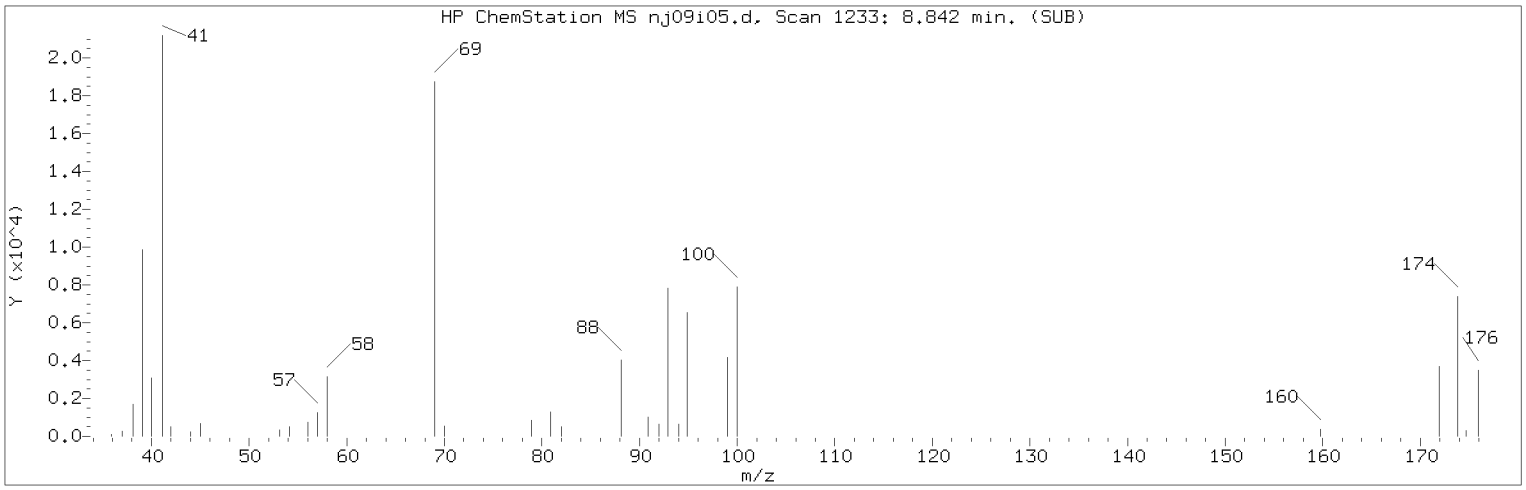
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

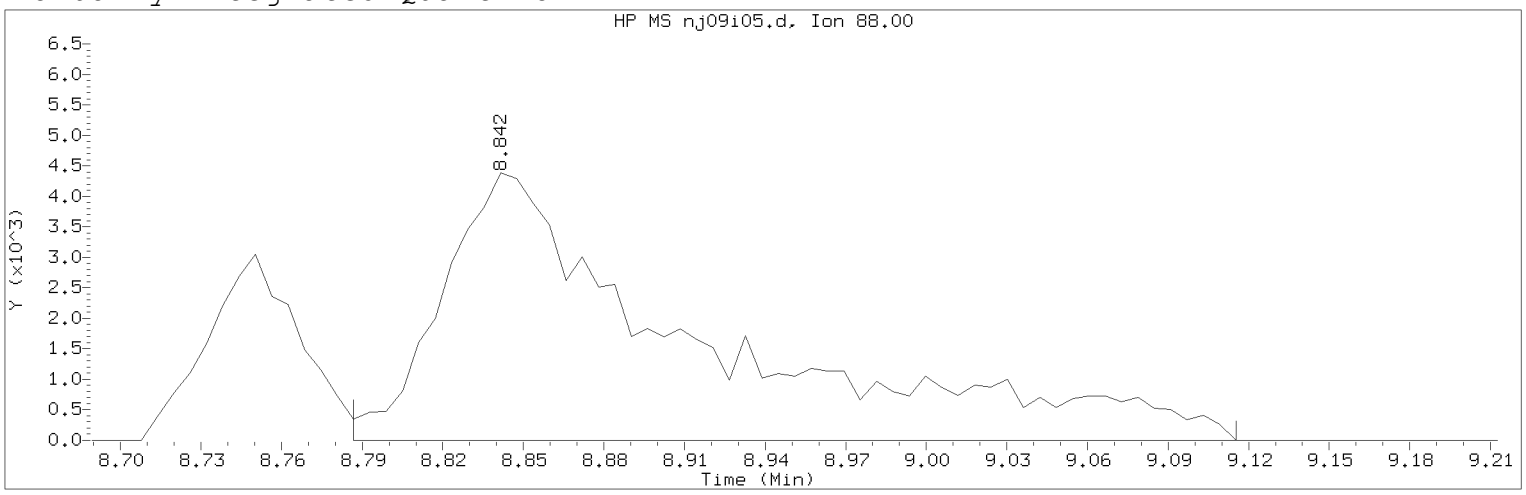
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area : 351025
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

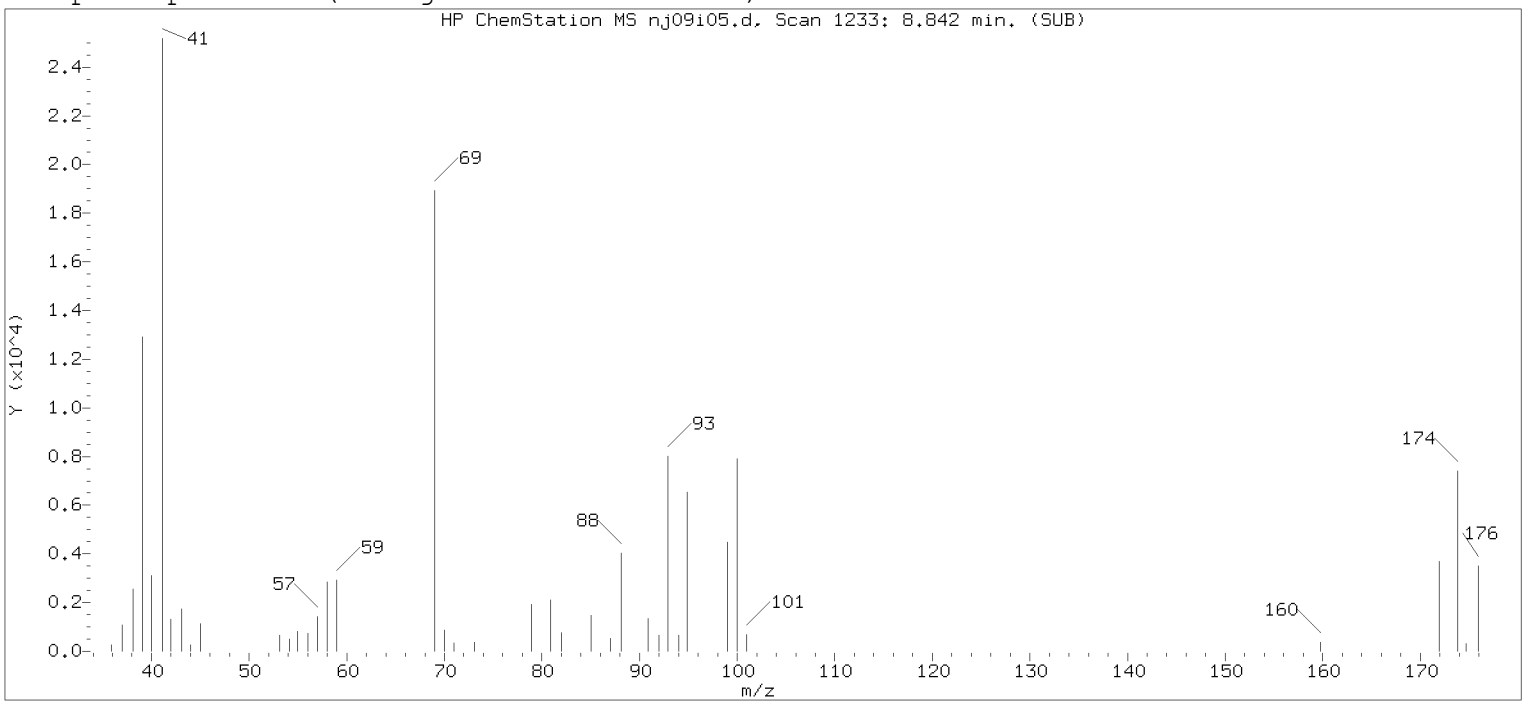
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 28522M
On-Column Amount (ng) : 253.5584
Integration start scan : 1223 Integration stop scan: 1277
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

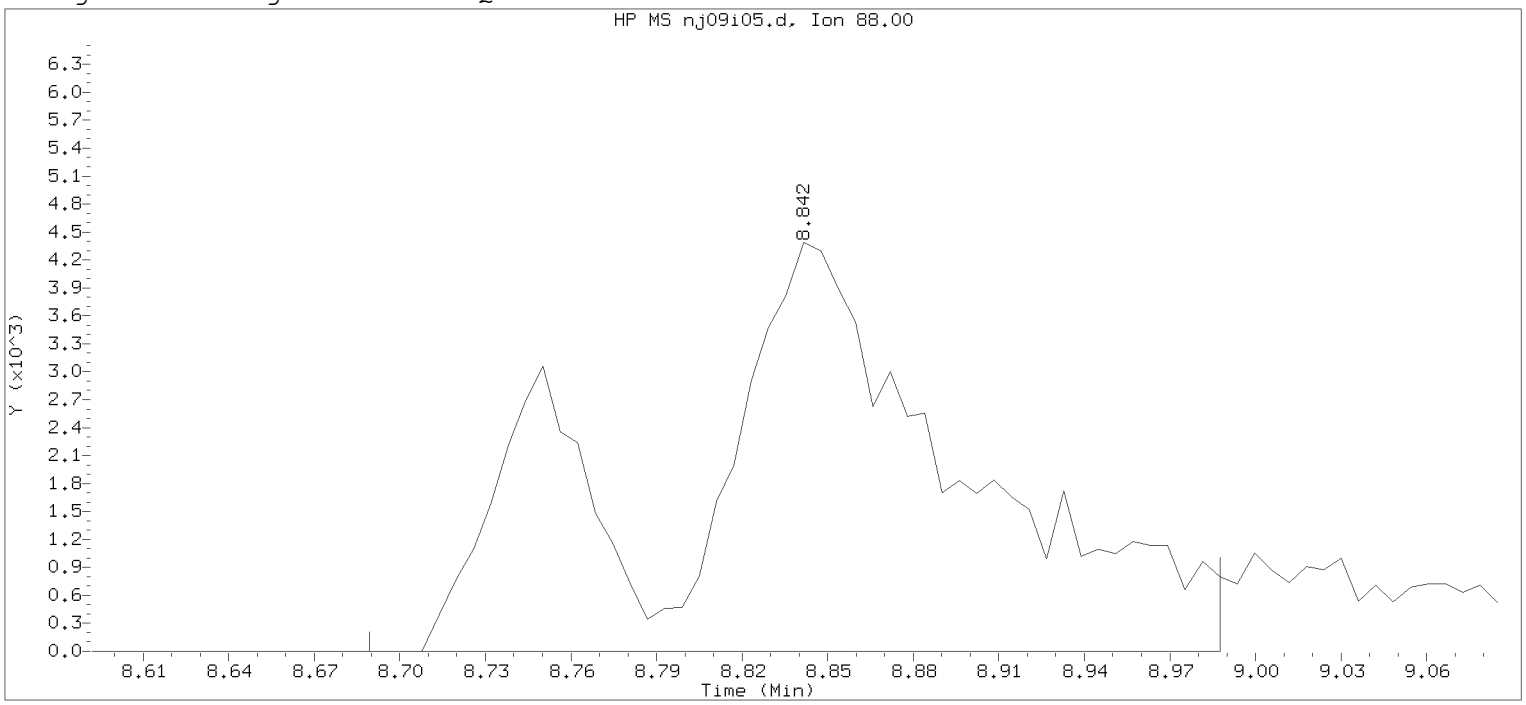
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

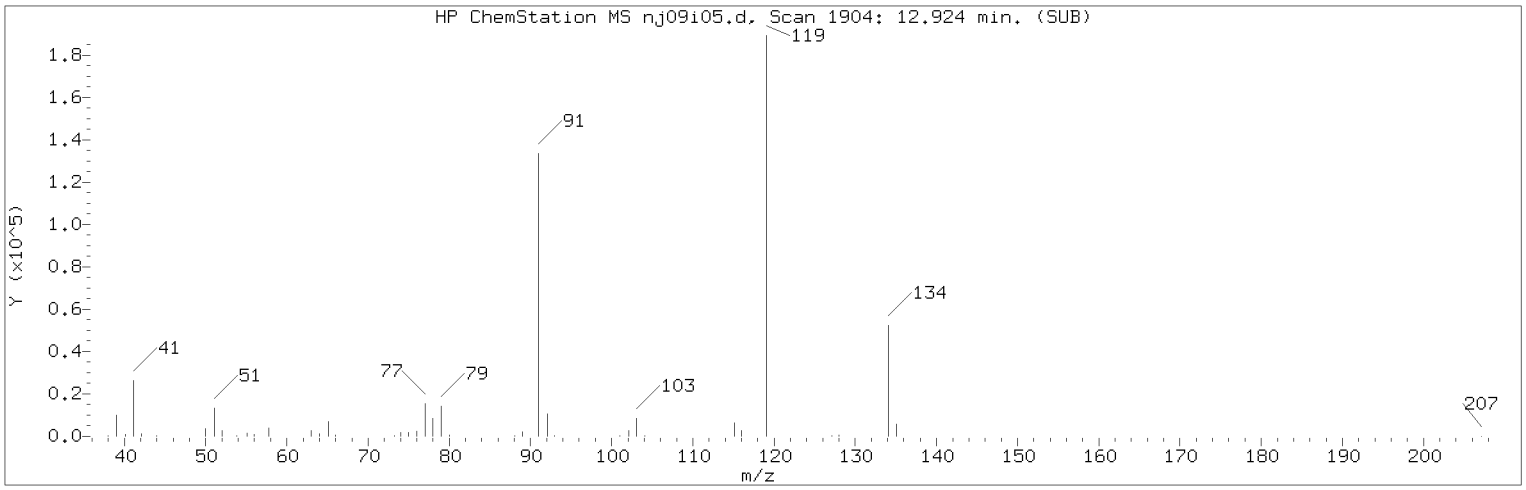
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

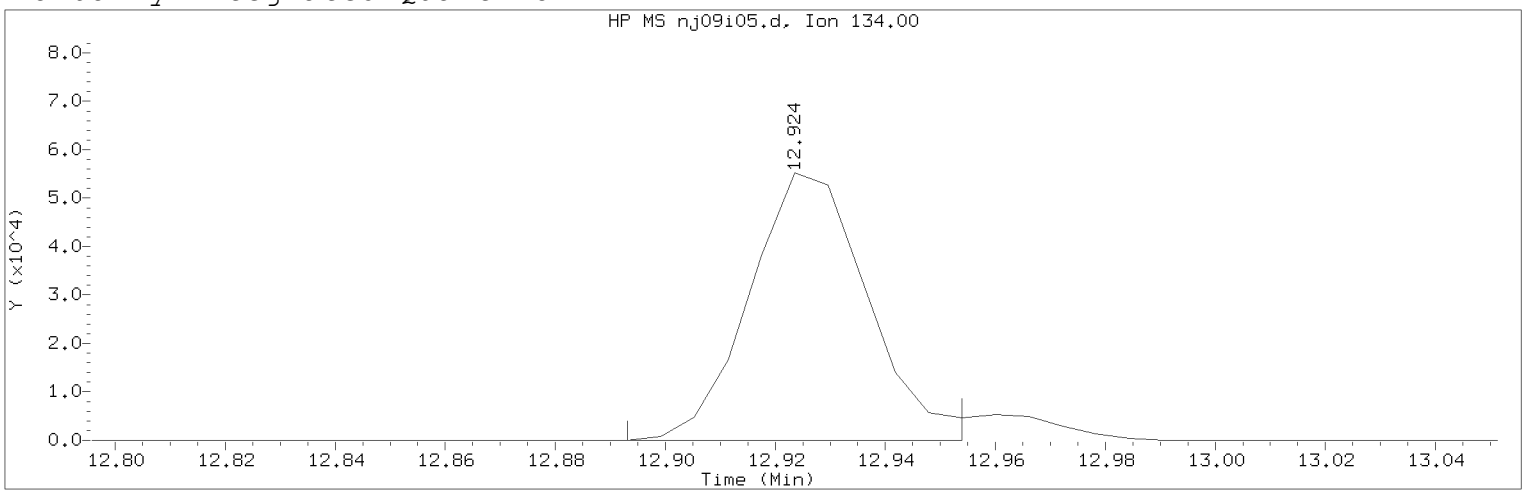
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area : 30682
On-column Amount (ng) : 402.5407
Integration start scan : 1207 Integration stop scan: 1256
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

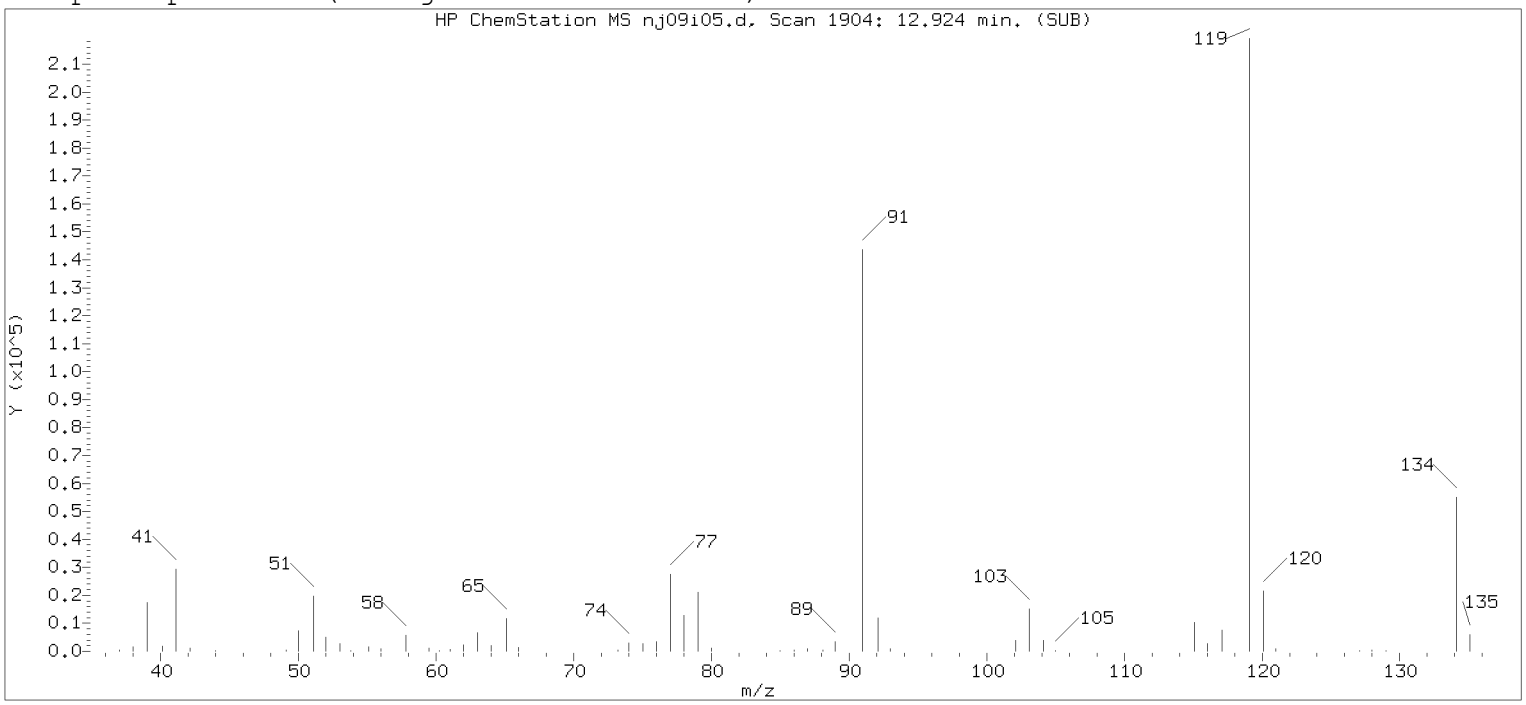
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 82434M
On-Column Amount (ng) : 10.4023
Integration start scan : 1898 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

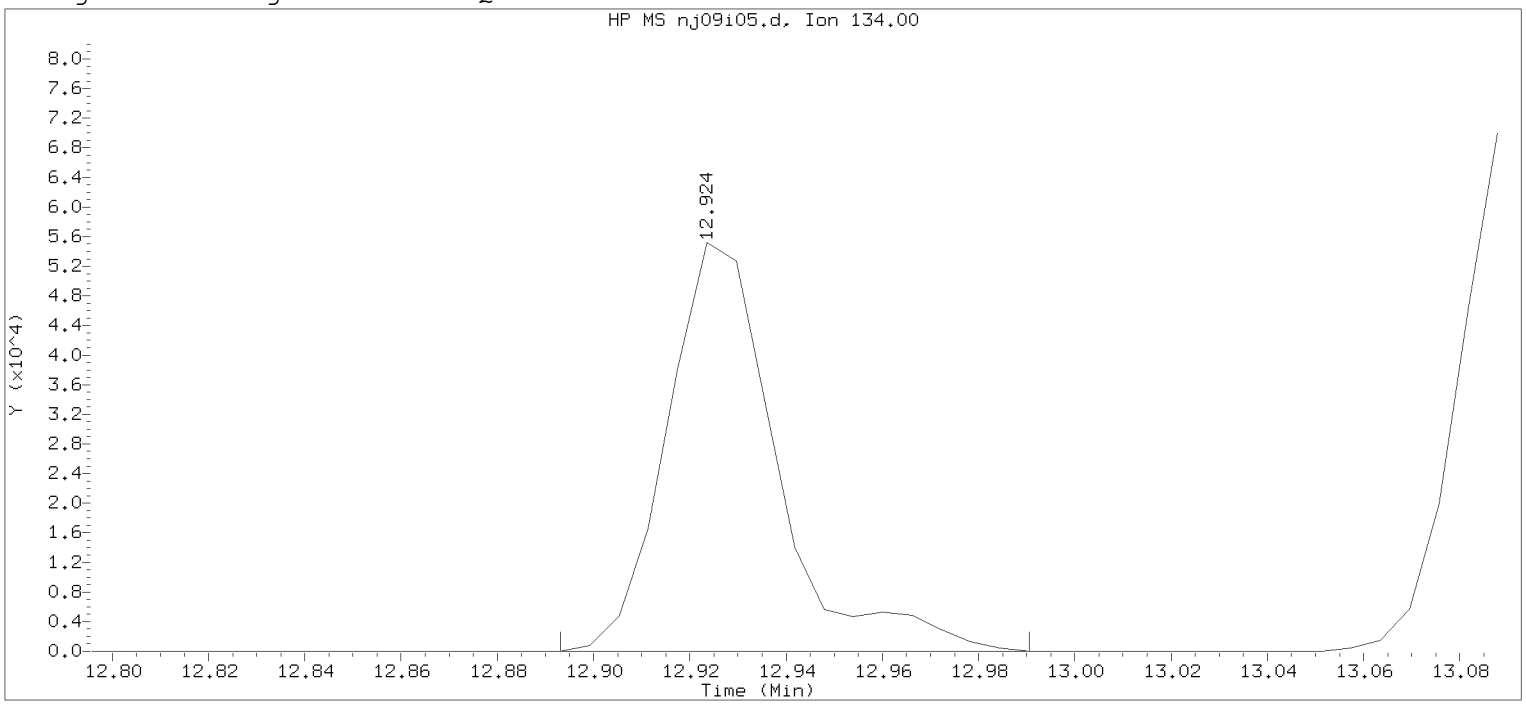
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



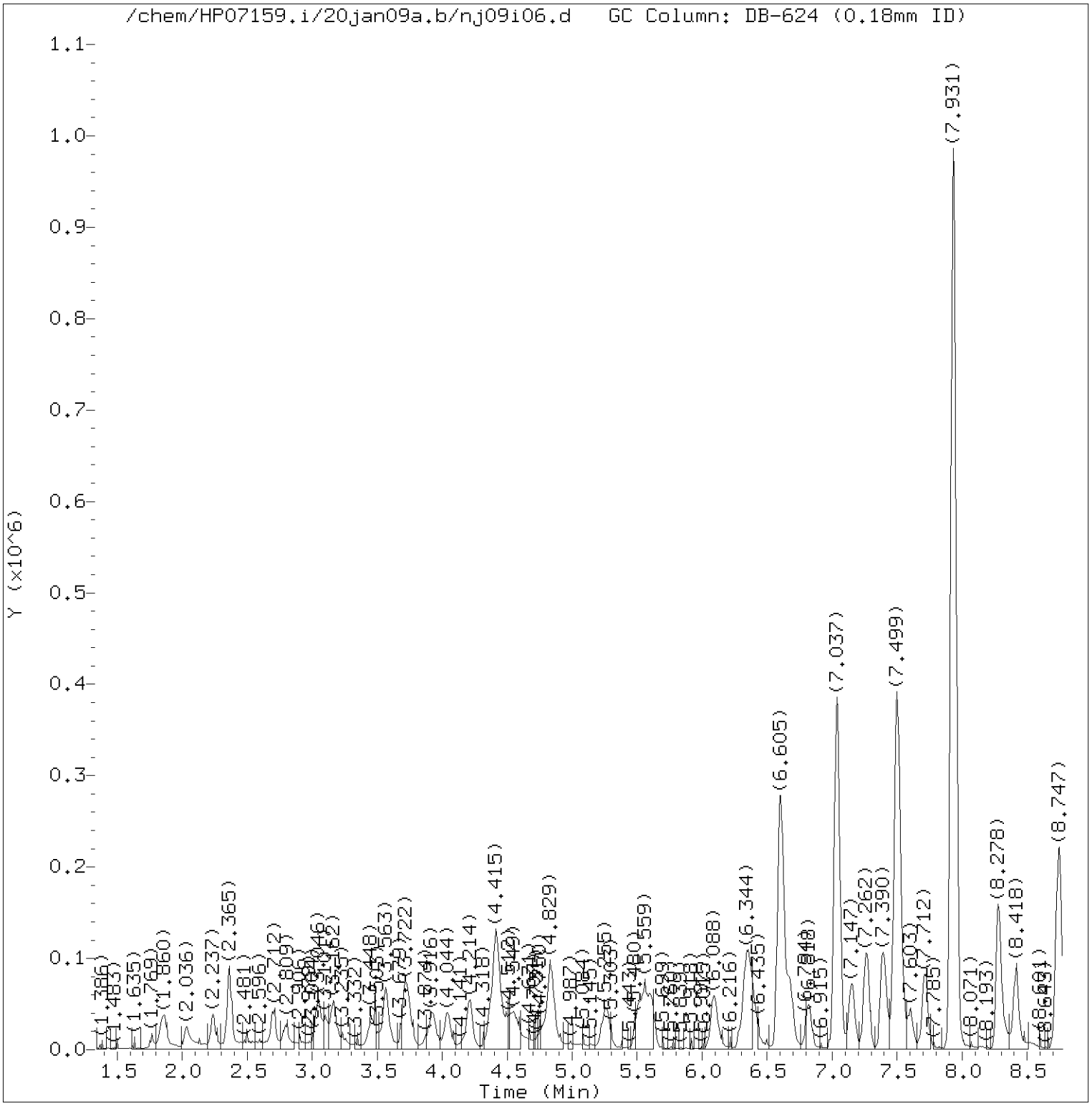
Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 87844
On-column Amount (ng) : 10.7157
Integration start scan : 1898 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492



Total Ion Chromatogram (TIC)

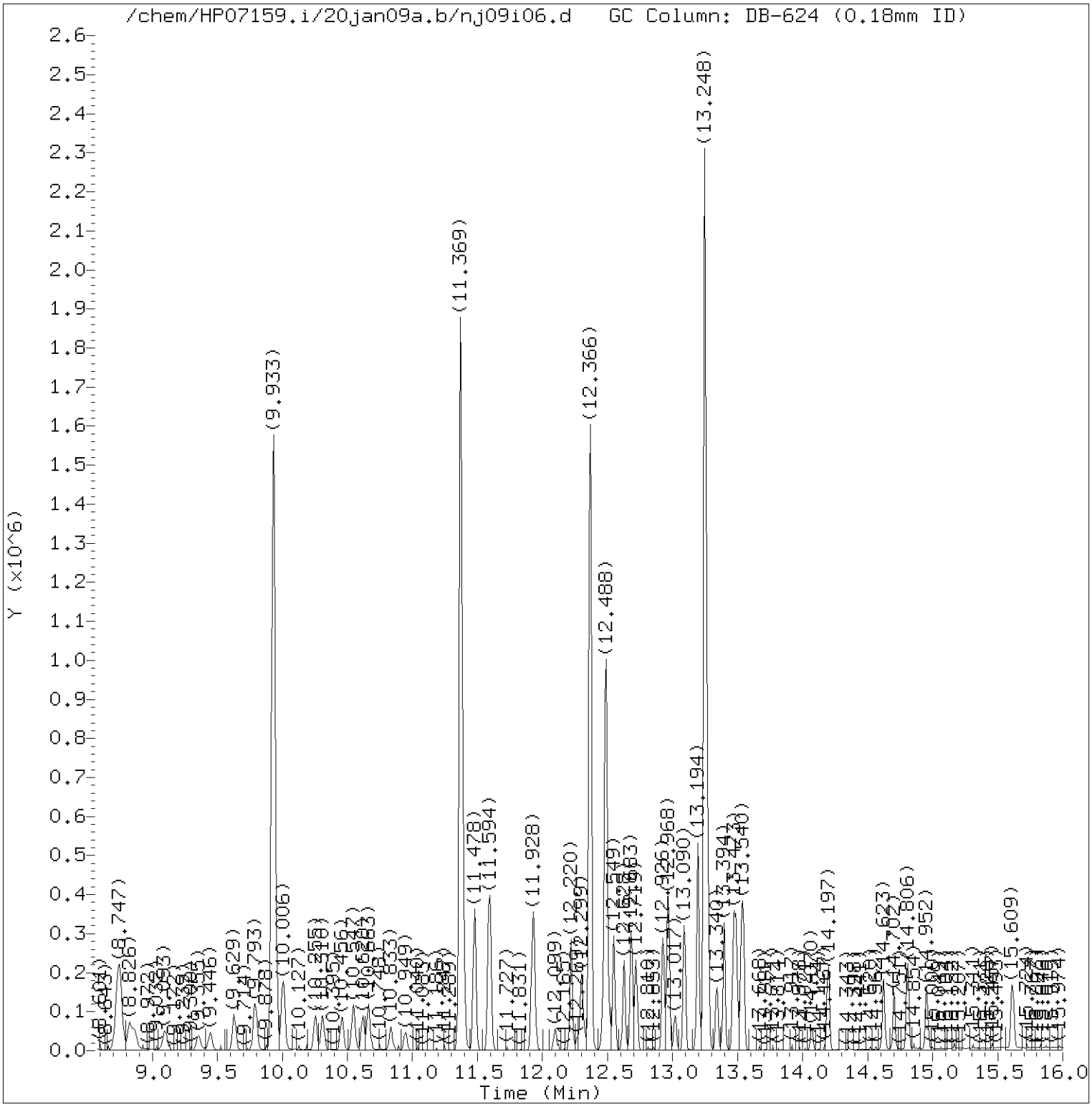
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.030	85	43809M	4.331
4) Chloromethane	(2)	2.237	50	45892	4.235
6) Vinyl Chloride	(2)	2.359	62	44787	4.247
5) 1,3-Butadiene	(2)	2.365	39	34191M	4.521
8) Bromomethane	(2)	2.693	94	31269	4.324
9) Chloroethane	(2)	2.797	64	25062	4.060
10) Dichlorofluoromethane	(2)	3.040	67	60489	4.279
12) Trichlorofluoromethane	(2)	3.107	101	50321	4.342
11) n-Pentane	(2)	3.162	43	49836	4.389
13) Ethanol	(1)	3.241	45	24623	259.087
15) Freon 123a	(2)	3.460	67	37564	4.424
16) Acrolein	(1)	3.570	56	106105	39.849
17) 1,1-Dichloroethene	(2)	3.709	96	28265	4.184
17) 1,1-Dichloroethene	(2)	3.716	63	15658	4.417
18) Acetone	(1)	3.740	58	8654	7.716
19) Freon 113	(2)	3.740	101	27719	4.423
21) 2-Propanol	(1)	3.916	45	54807M	73.990
22) Methyl Iodide	(2)	3.916	142	53417	4.237
23) Carbon Disulfide	(2)	4.038	76	91256	4.225
27) Methyl Acetate	(2)	4.184	43	31939	3.849
25) Allyl Chloride	(2)	4.214	41	50417	4.228
28) Methylene Chloride	(2)	4.415	84	33719	4.203
29)*t-Butyl alcohol-d10	(1)	4.421	65	392656M	250.000
30) t-Butyl alcohol	(1)	4.549	59	113038	77.218
31) Acrylonitrile	(2)	4.762	53	18999	4.239
33) Methyl Tertiary Butyl Ether	(2)	4.817	73	90436	4.120
32) trans-1,2-Dichloroethene	(2)	4.841	96	32038	4.155
34) n-Hexane	(2)	5.267	57	46495	4.368
36) 1,1-Dichloroethane	(2)	5.504	63	59192	4.208
38) di-Isopropyl ether	(2)	5.553	45	100280	4.138
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	53399	4.300
40) Ethyl t-butyl ether	(2)	6.088	59	95806	4.160
43) 1,2-Dichloroethene (Total)	(2)		96	68085	8.271
44) 2-Butanone	(2)	6.295	43	52528	8.382
42) cis-1,2-Dichloroethene	(2)	6.344	96	36047	4.116
45) 2,2-Dichloropropane	(2)	6.350	77	51884	4.178
47) Propionitrile	(1)	6.392	54	131823	77.101
48) Methacrylonitrile	(2)	6.605	67	177945	39.307

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	17066	4.121
50) Tetrahydrofuran	(1)	6.684	71	13826	7.789
51) Chloroform	(2)	6.824	83	55868	4.072
52)$Dibromofluoromethane	(2)	7.037	113	324919	50.387
52)$Dibromofluoromethane	(2)	7.037	111	335437	50.944
53) 1,1,1-Trichloroethane	(2)	7.055	97	52910	4.262
54) Cyclohexane	(2)	7.153	56	55837	4.373
54) Cyclohexane	(2)	7.153	84	47923	4.306
54) Cyclohexane	(2)	7.159	69	17047	4.248
55) 1,1-Dichloropropene	(2)	7.262	75	47504	4.231
56) Carbon Tetrachloride	(2)	7.262	117	45699	4.270
58) Isobutyl Alcohol	(1)	7.390	41	101971	194.459
57)$1,2-Dichloroethane-d4	(2)	7.493	102	81714	50.117
57)$1,2-Dichloroethane-d4	(2)	7.499	65	393432	50.162
57)$1,2-Dichloroethane-d4	(2)	7.493	104	52083	50.205
60) Benzene	(2)	7.524	78	132026	4.131
61) 1,2-Dichloroethane	(2)	7.597	62	45115	3.990
61) 1,2-Dichloroethane	(2)	7.603	98	4100	4.406
65) t-Amyl methyl ether	(2)	7.718	73	96106	4.159
66)*Fluorobenzene	(2)	7.931	96	1299393	50.000
67) n-Heptane	(2)	7.937	43	52911	4.306
69) n-Butanol	(1)	8.278	56	171282	379.187
71) Trichloroethene	(2)	8.418	95	34960	4.152
72) Methylcyclohexane	(2)	8.728	83	58507	4.227
72) Methylcyclohexane	(2)	8.722	98	28070	4.306
73) 1,2-Dichloropropane	(2)	8.753	63	33722	4.126
76) Methyl Methacrylate	(2)	8.820	69	29497M	3.947
75) 1,4-Dioxane	(1)	8.844	88	22465M	196.866
74) Dibromomethane	(2)	8.862	93	20606	3.953
78) Bromodichloromethane	(2)	9.099	83	43728	4.109
79) 2-Nitropropane	(2)	9.355	41	31152	8.061
80) 2-Chloroethyl Vinyl Ether	(2)	9.452	63	24665	3.815
81) cis-1,3-Dichloropropene	(2)	9.629	75	55174	4.065
82) 4-Methyl-2-pentanone	(2)	9.793	43	99136	7.808
83)$Toluene-d8	(3)	9.933	98	1293116	49.802
83)$Toluene-d8	(3)	9.933	100	855967	49.759
88) Toluene	(3)	10.006	92	86567	4.104
90) 1,3-Dichloropropene (total)	(3)		100	107405	8.055

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	52231	3.990
91) Ethyl Methacrylate	(3)	10.310	69	51374	3.939
92) 1,1,2-Trichloroethane	(3)	10.462	97	29986	4.015
93) Tetrachloroethene	(3)	10.547	166	38579	4.177
94) 1,3-Dichloropropane	(3)	10.620	76	52073	4.018
96) 2-Hexanone	(3)	10.663	43	79178	7.930
97) Dibromochloromethane	(3)	10.833	129	32595	3.803
99) 1,2-Dibromoethane	(3)	10.949	107	31486	3.850
100)*Chlorobenzene-d5	(3)	11.369	117	995569	50.000
102) Chlorobenzene	(3)	11.399	112	97238	4.131
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	34535	4.071
104) Ethylbenzene	(3)	11.478	91	168856	4.139
106) m+p-Xylene	(3)	11.594	106	130557	8.145
108) Xylene (Total)	(3)		106	194592	12.207
107) o-Xylene	(3)	11.922	106	64035	4.062
109) Styrene	(3)	11.934	104	107696	4.067
110) Bromoform	(3)	12.099	173	25735	3.978
111) Isopropylbenzene	(3)	12.220	105	172592	4.145
112) Cyclohexanone	(1)	12.299	55	89801	196.226
114)$4-Bromofluorobenzene	(3)	12.366	95	512275	49.939
114)$4-Bromofluorobenzene	(3)	12.366	174	412208	50.159
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	47714	3.984
115) Bromobenzene	(4)	12.482	156	40716	4.043
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	159223	38.649
117) 1,2,3-Trichloropropane	(4)	12.512	110	15546	4.098
119) n-Propylbenzene	(4)	12.549	91	208029	4.261
120) 2-Chlorotoluene	(4)	12.628	126	40915	4.065
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	148908	4.163
121) 4-Chlorotoluene	(4)	12.719	126	42819	4.105
124) tert-Butylbenzene	(4)	12.926	134	31578	3.983
125) Pentachloroethane	(4)	12.962	167	23333	3.676
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	152787	4.115
127) sec-Butylbenzene	(4)	13.090	105	196789	4.235
129) 1,3-Dichlorobenzene	(4)	13.194	146	79689	4.069
130) p-Isopropyltoluene	(4)	13.200	119	168415	4.165
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	544490	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	80115	4.033
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	143096	3.971

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

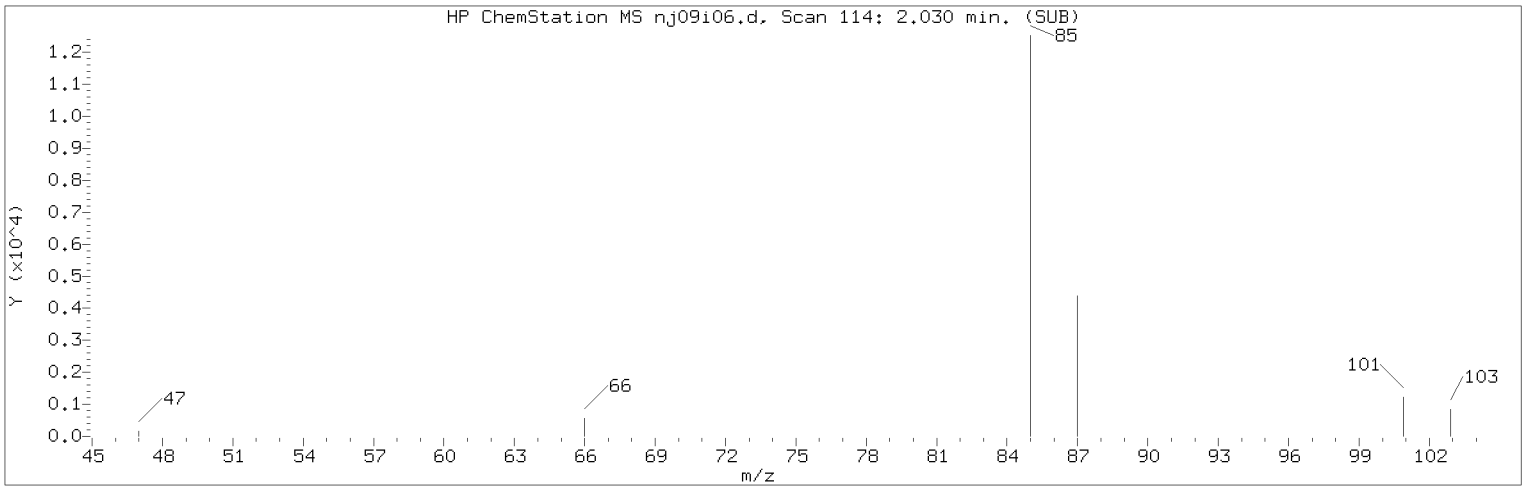
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

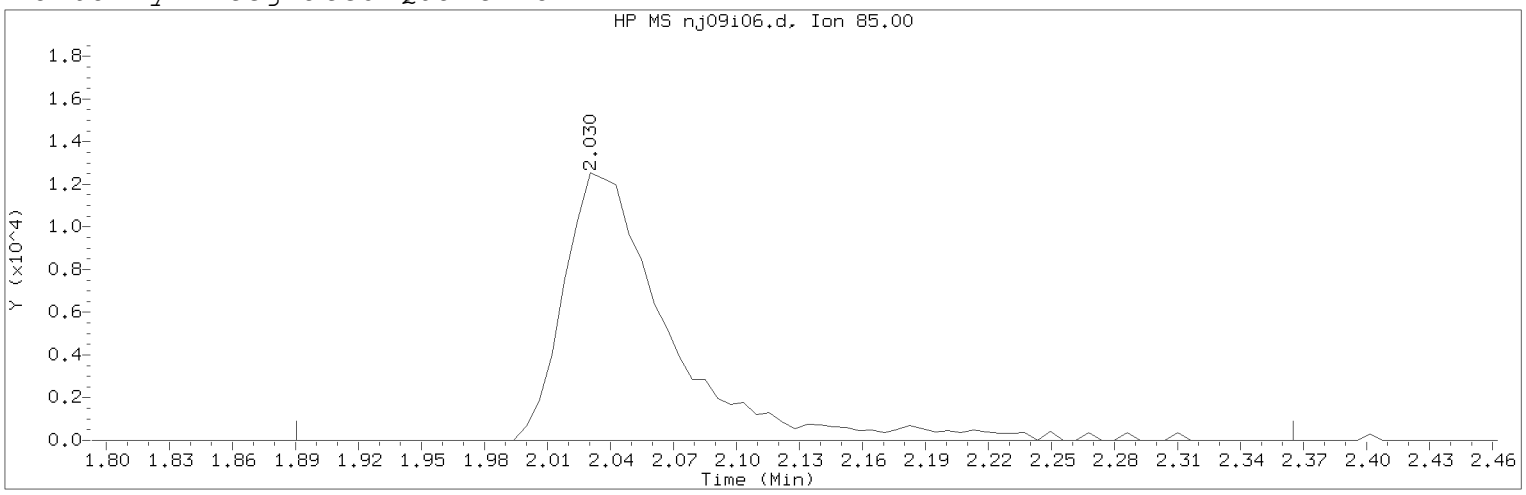
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.340	91	103769	3.920
141) Diethylbenzene (total)	(4)		100	282530	12.035
136) 1,3-Diethylbenzene	(4)	13.394	119	97314	4.020
137) 1,4-Diethylbenzene	(4)	13.467	119	103829	4.040
139) n-Butylbenzene	(4)	13.492	92	86969	4.169
138) 1,2-Dichlorobenzene	(4)	13.528	146	75304	4.055
140) 1,2-Diethylbenzene	(4)	13.540	119	81387	3.974
142) 1,2-Dibromo-3-chloropropane	(4)	14.070	75	12592	3.890
144) 1,3,5-Trichlorobenzene	(4)	14.197	180	59059	3.990
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	51588	3.997
147) Hexachlorobutadiene	(4)	14.702	225	23765	4.071
148) Naphthalene	(4)	14.806	128	162510	4.016
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	46505	3.925
150) 2-Methylnaphthalene	(4)	15.615	142	85753	3.669

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

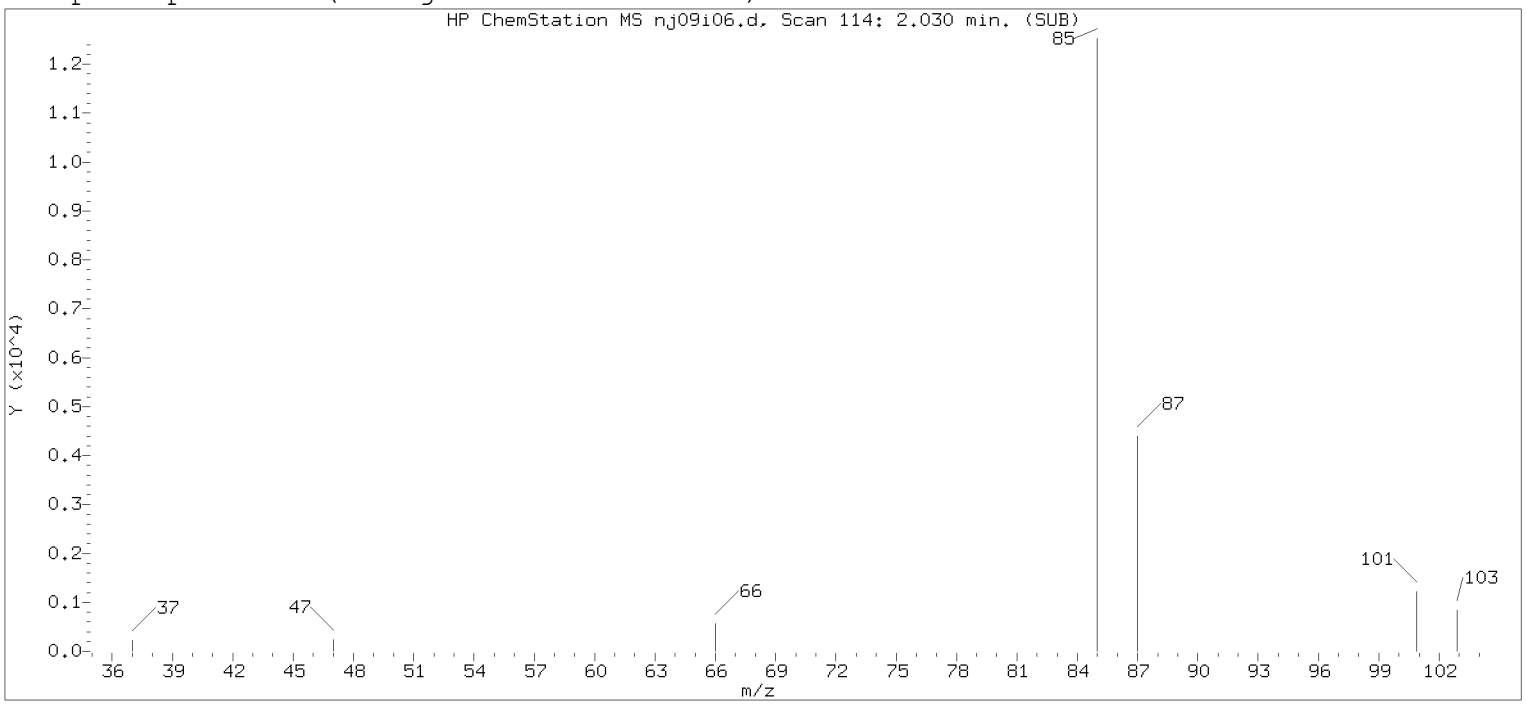
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area (flag) : 43809M
On-Column Amount (ng) : 4.3314
Integration start scan : 90 Integration stop scan: 168
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

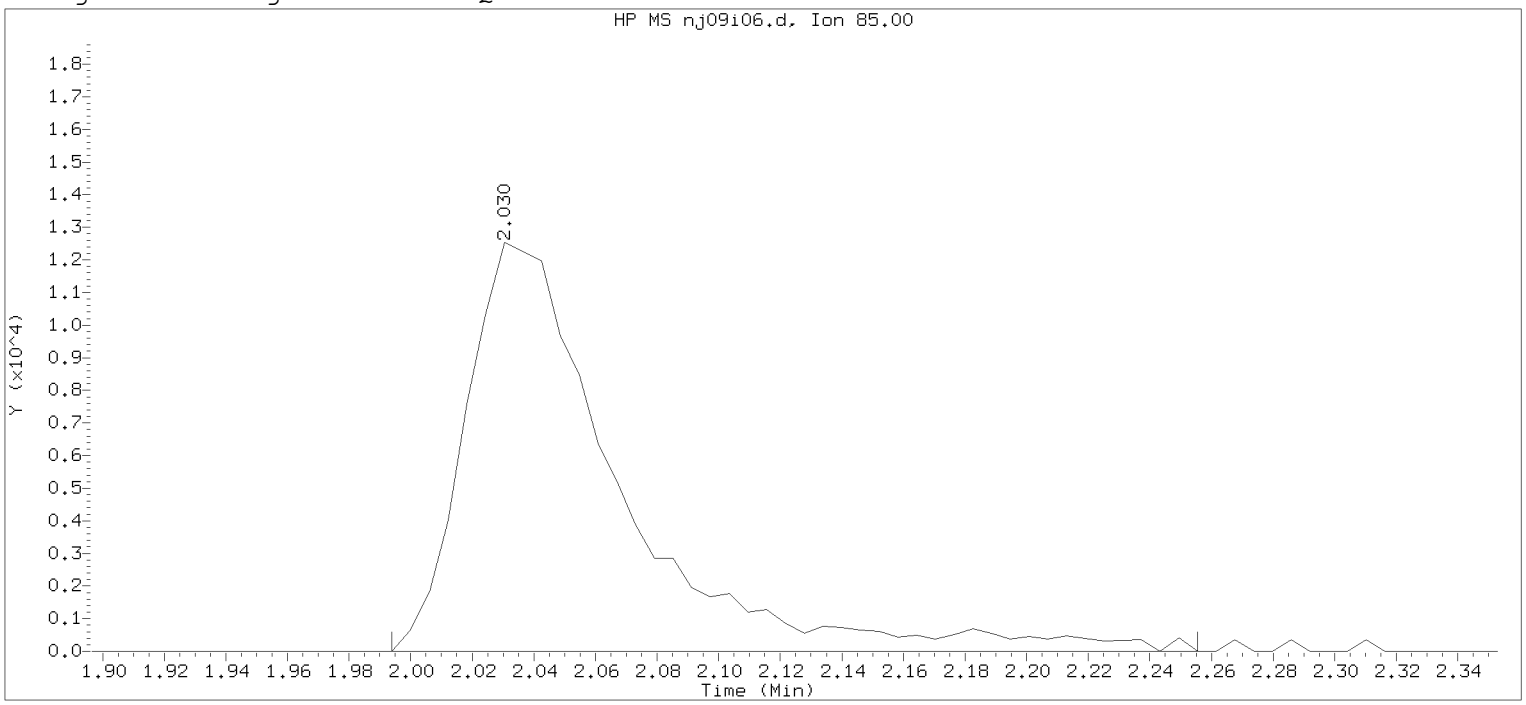
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

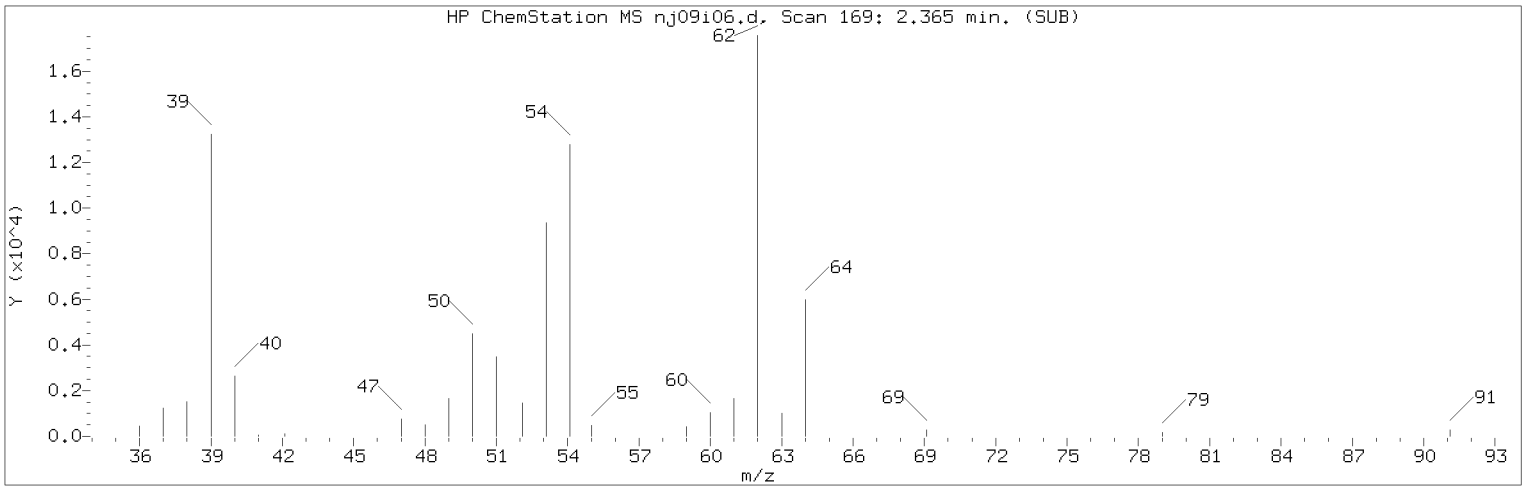
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

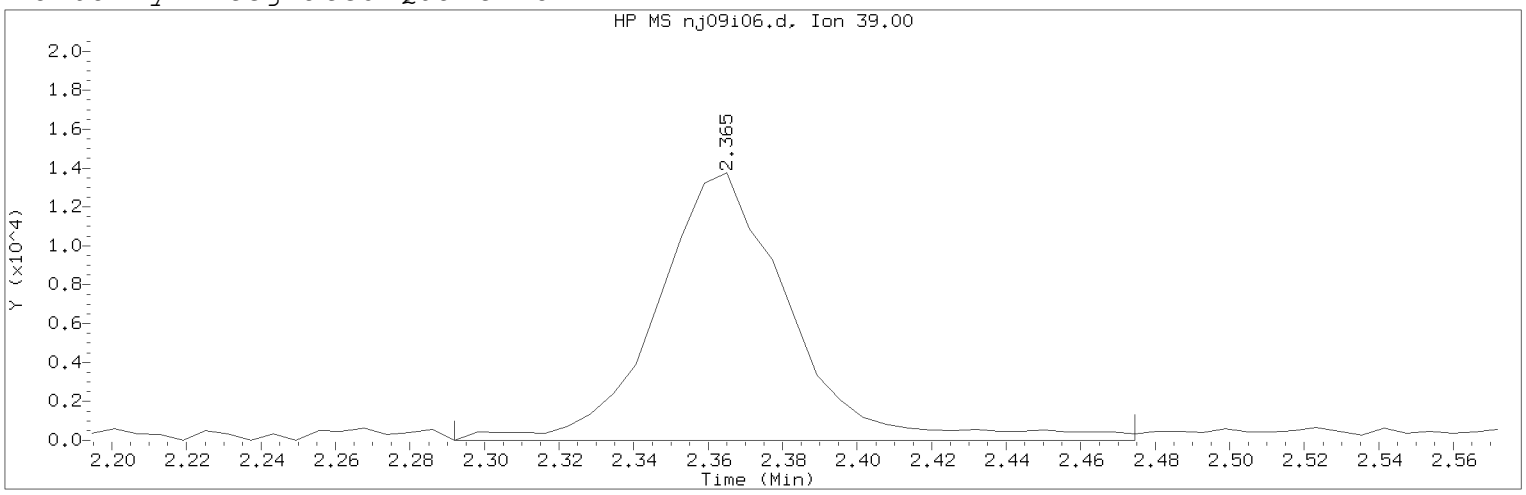
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area : 43422
On-column Amount (ng) : 4.4546
Integration start scan : 107 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

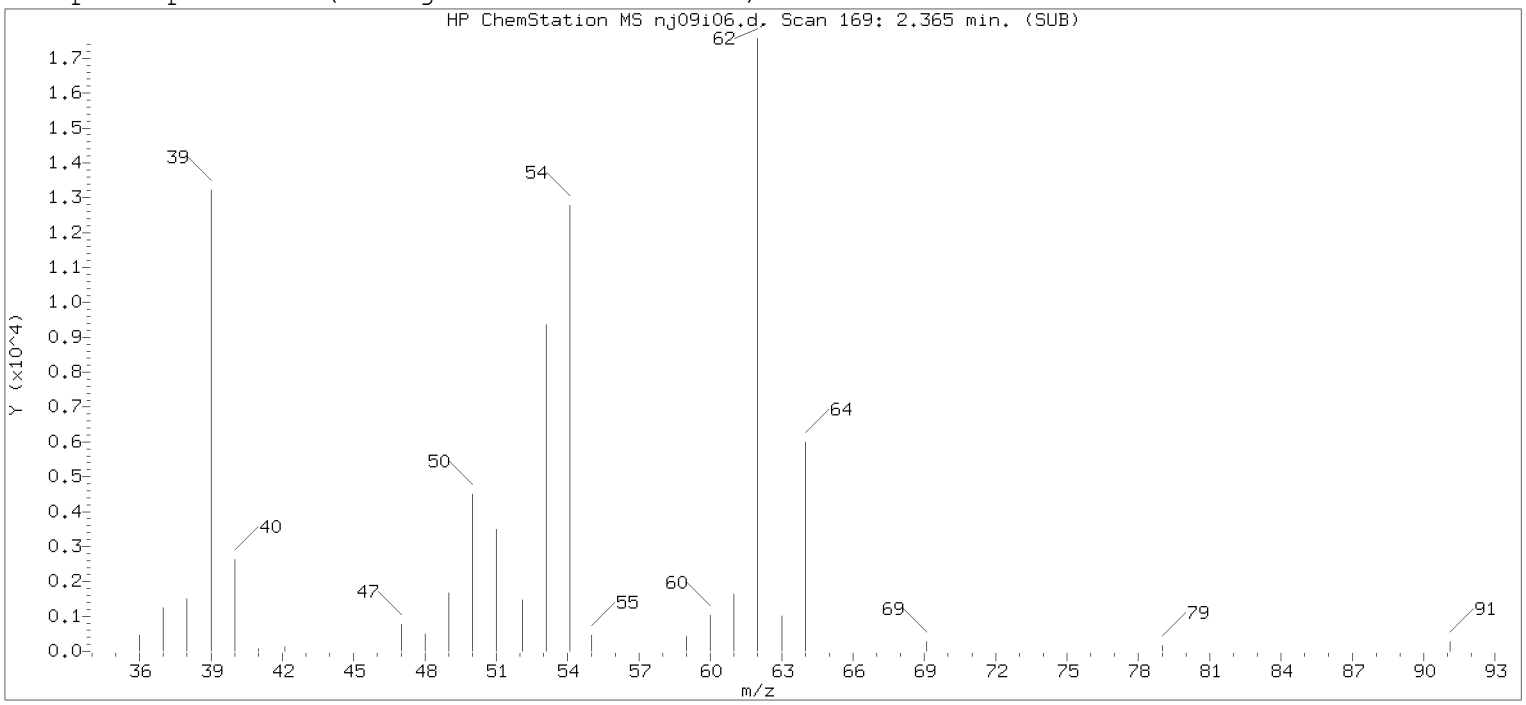
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 34191M
On-Column Amount (ng) : 4.5214
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

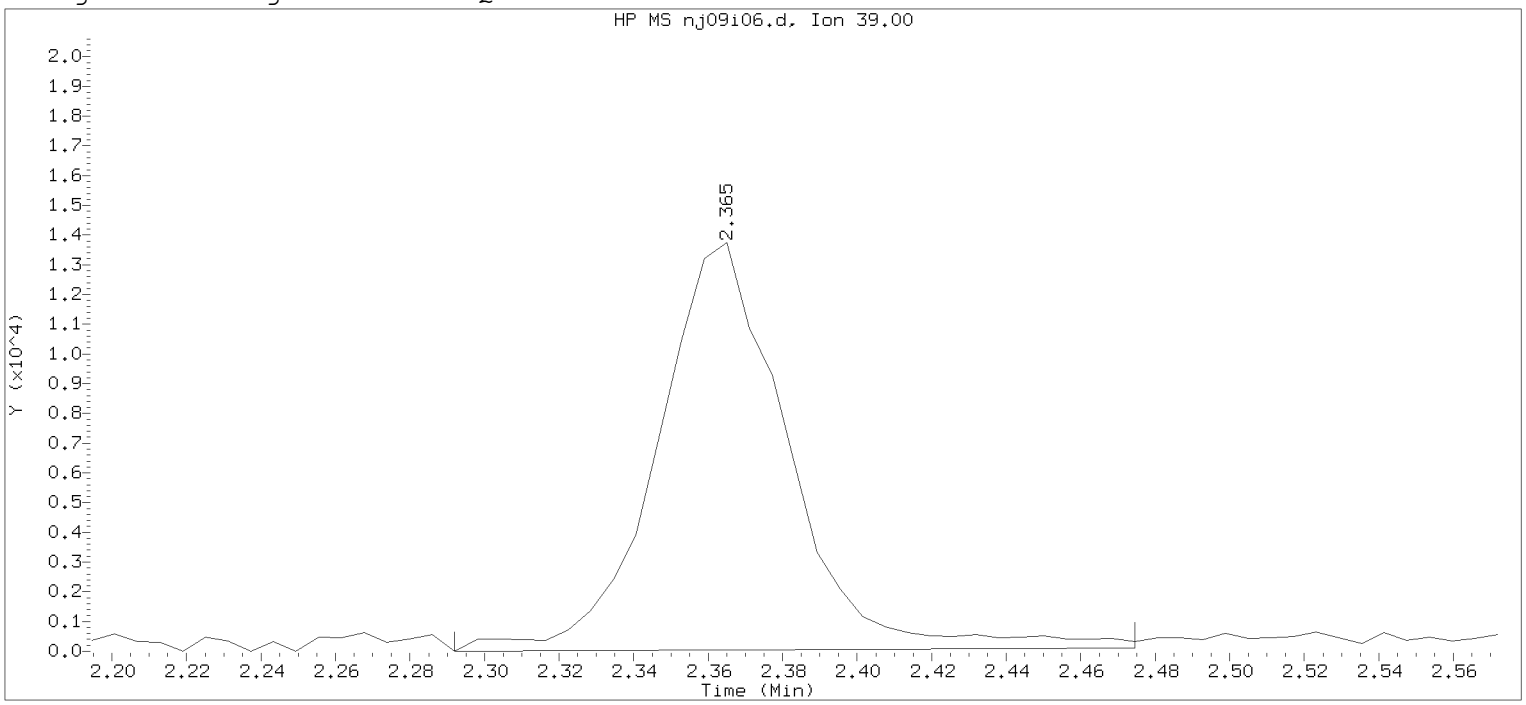
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

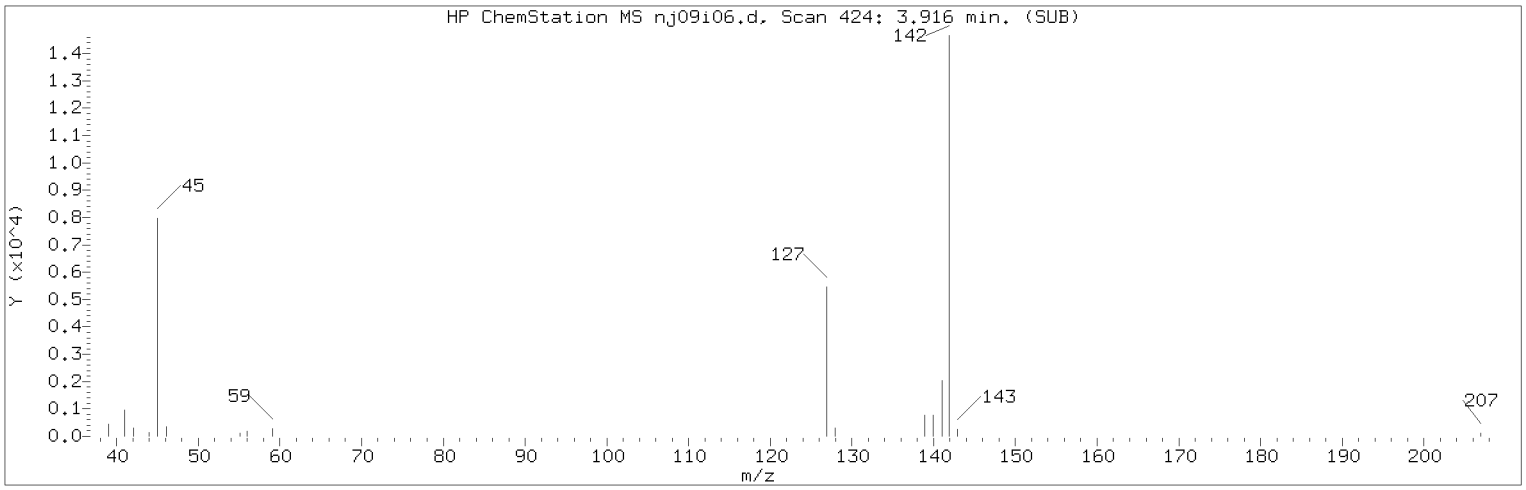
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

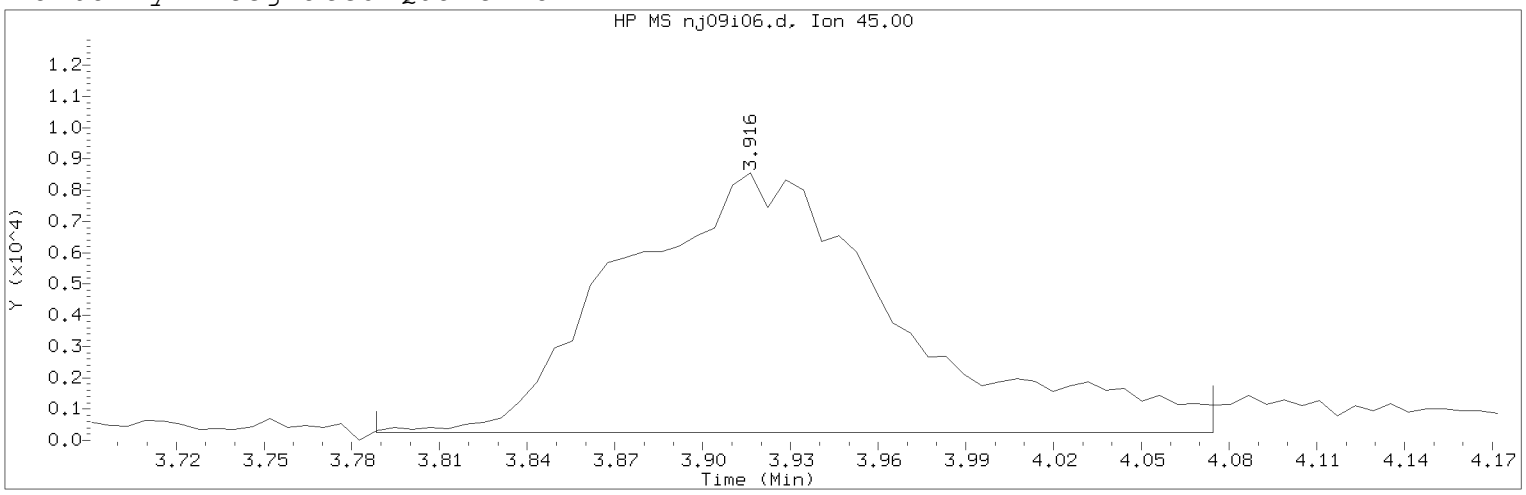
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 33497
On-column Amount (ng) : 4.4429
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 116

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

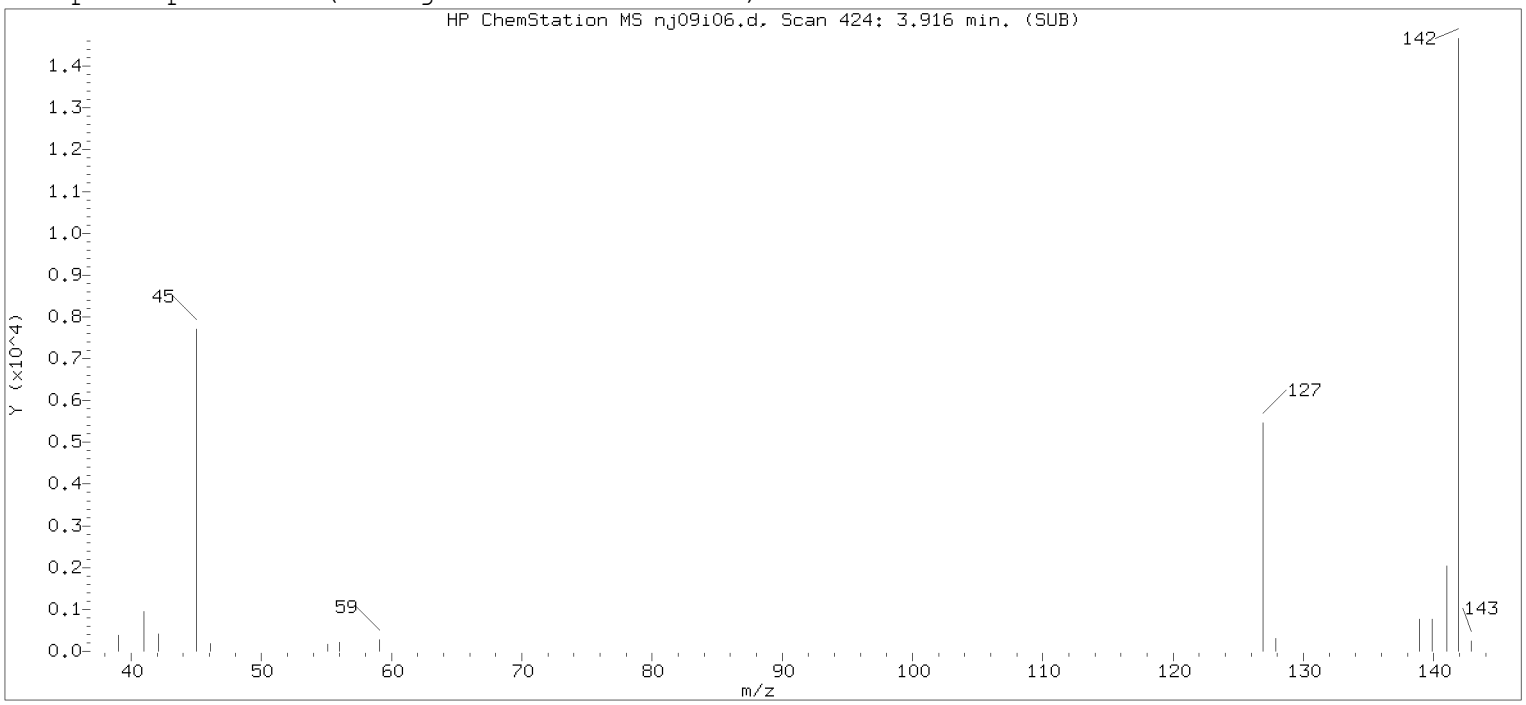
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 54807M
On-Column Amount (ng) : 73.9898
Integration start scan : 402 Integration stop scan: 449
Y at integration start : 245 Y at integration end: 245

Reason for manual integration: improper integration

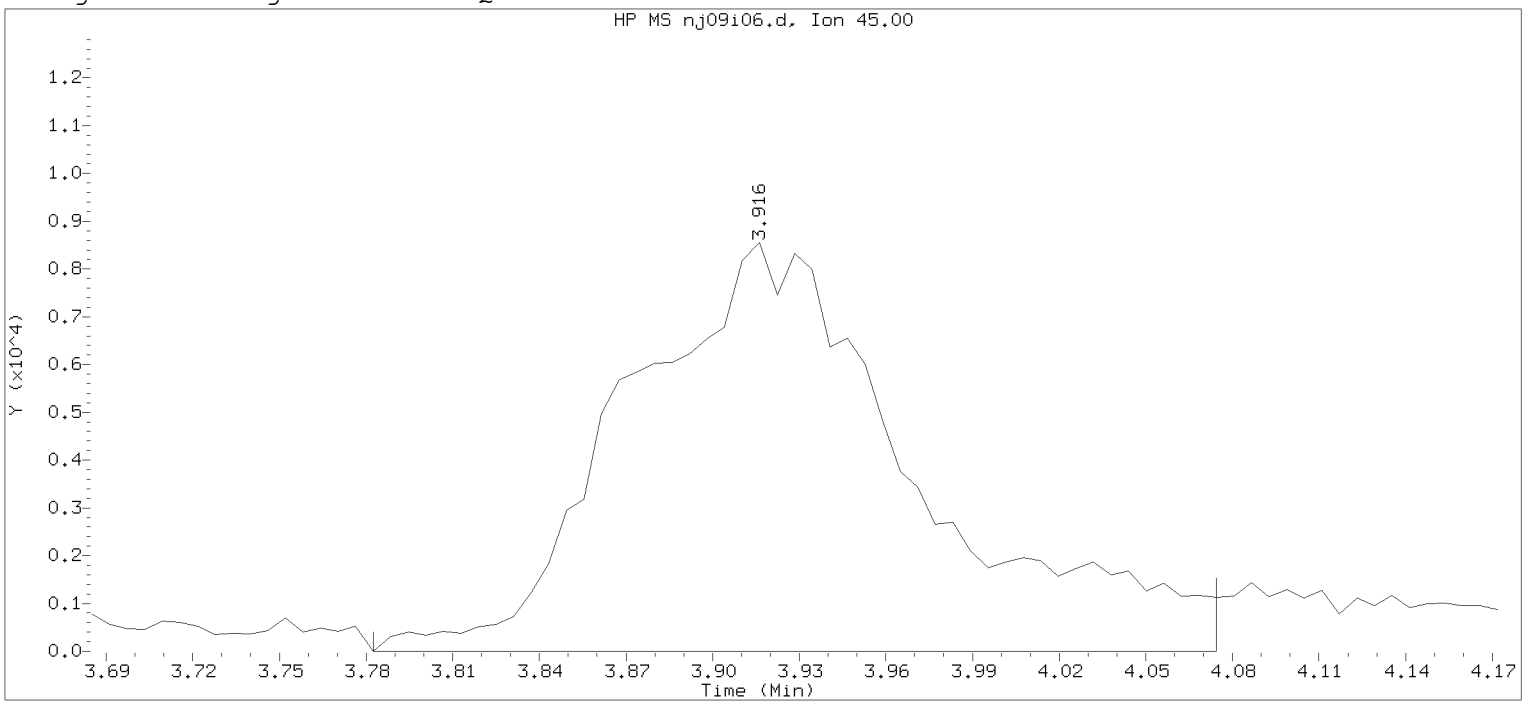
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

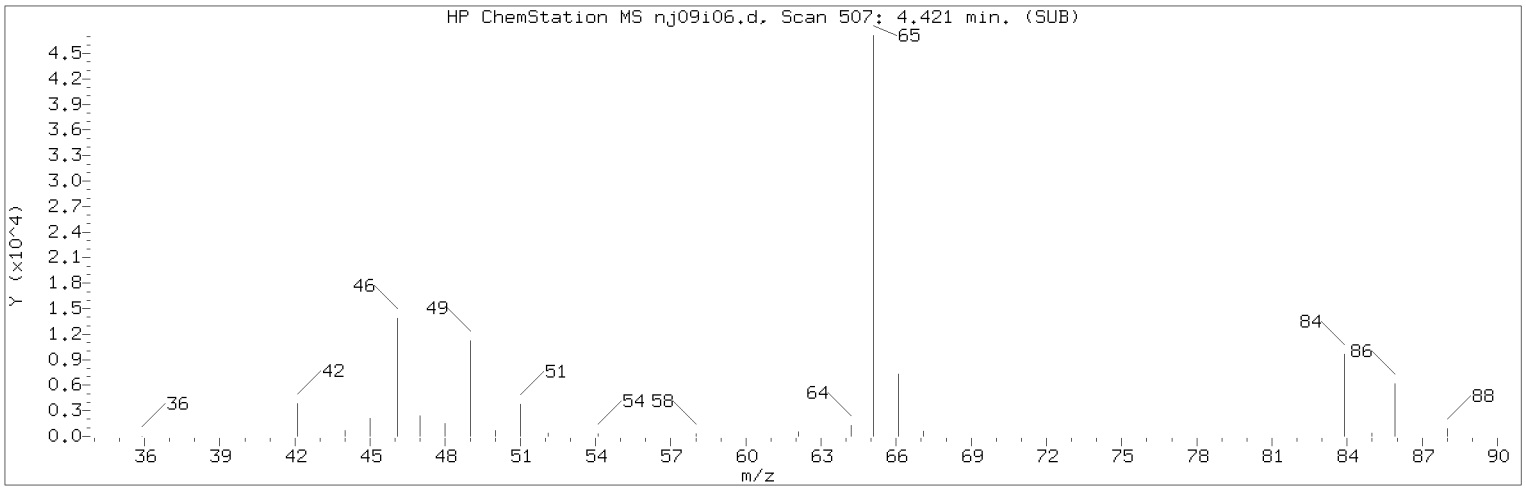
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

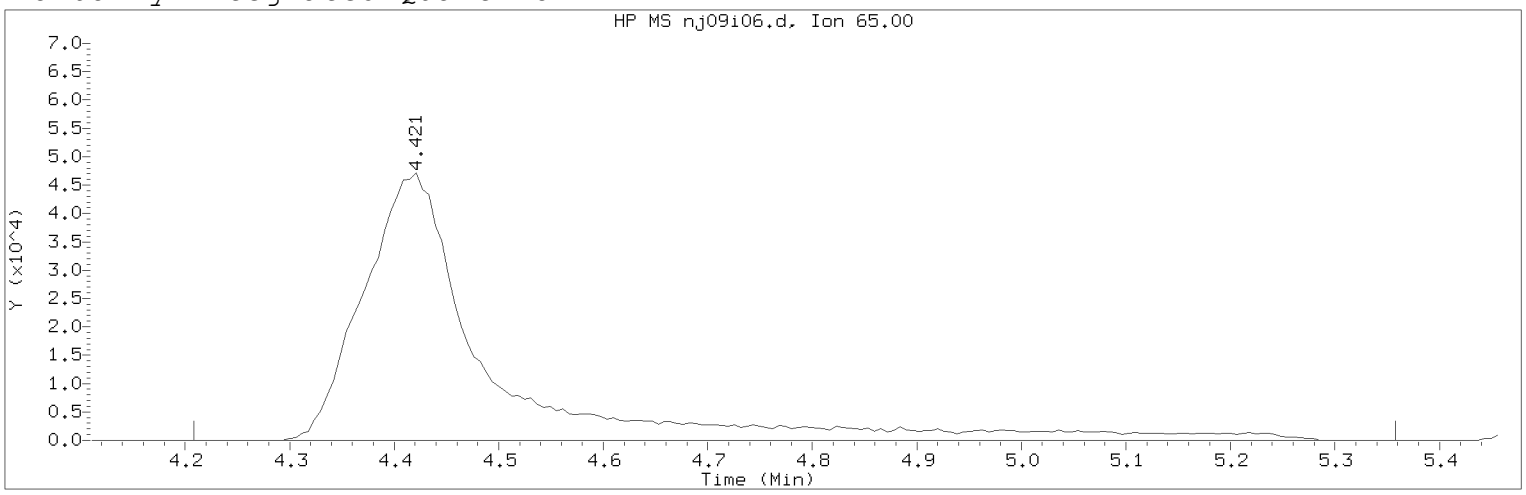
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 58894
On-column Amount (ng) : 84.9174
Integration start scan : 401 Integration stop scan: 449
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

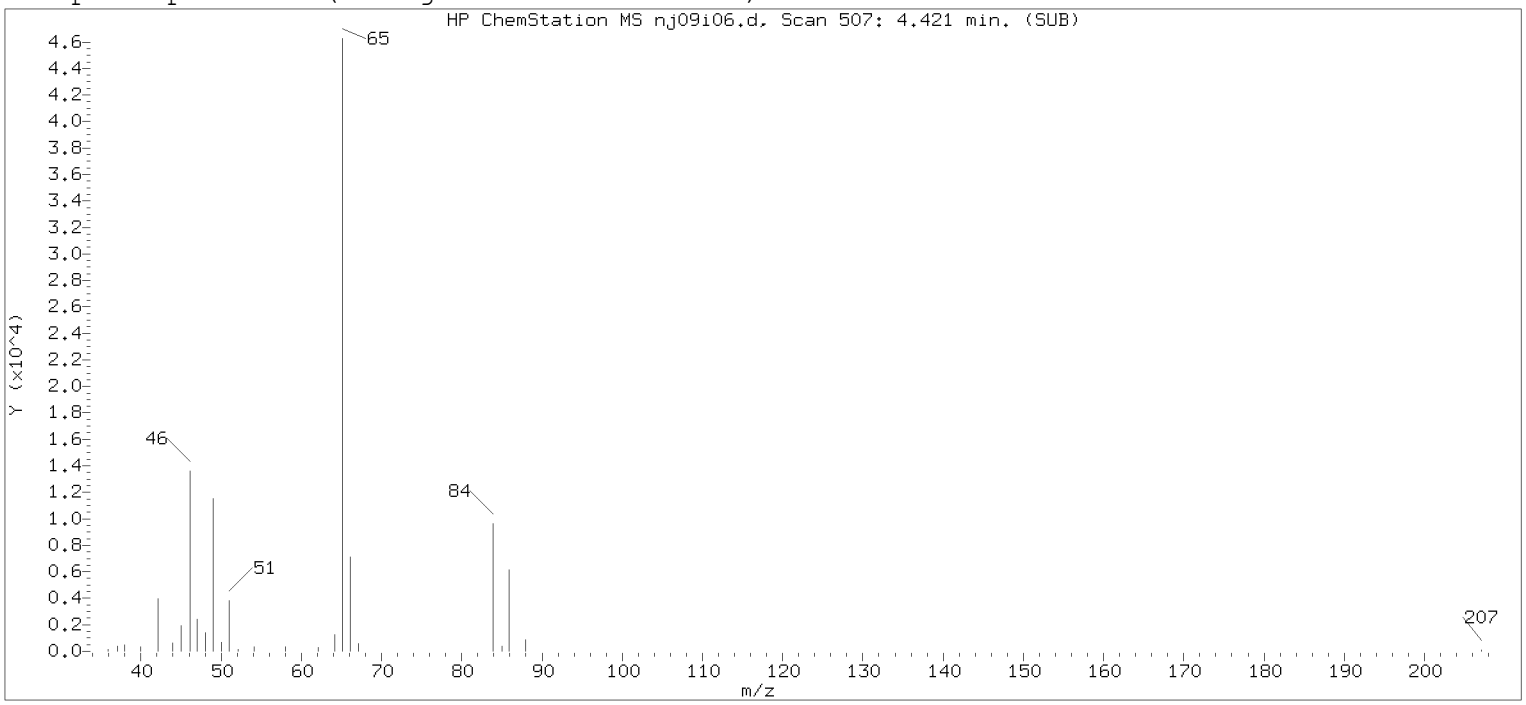
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area (flag) : 392656M
On-Column Amount (ng) : 250.0000
Integration start scan : 471 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

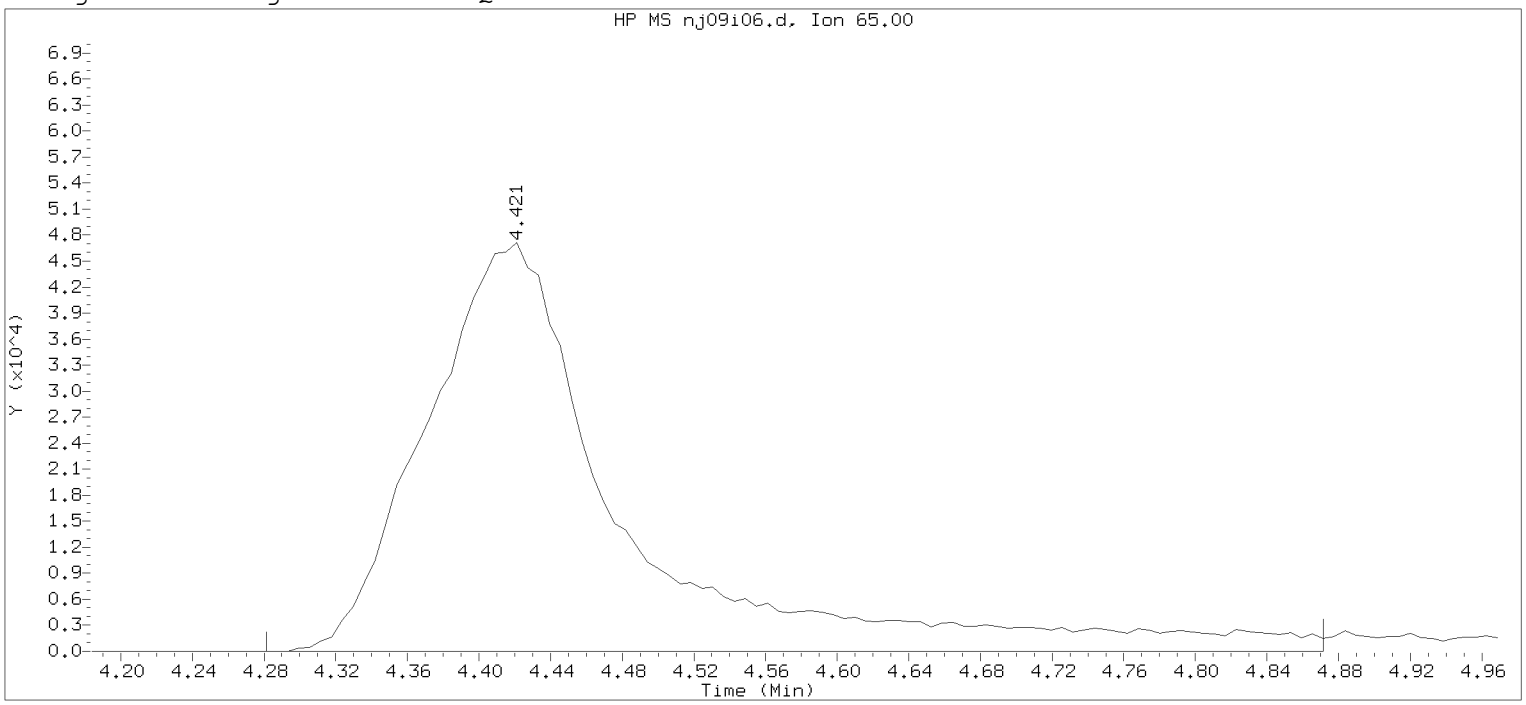
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

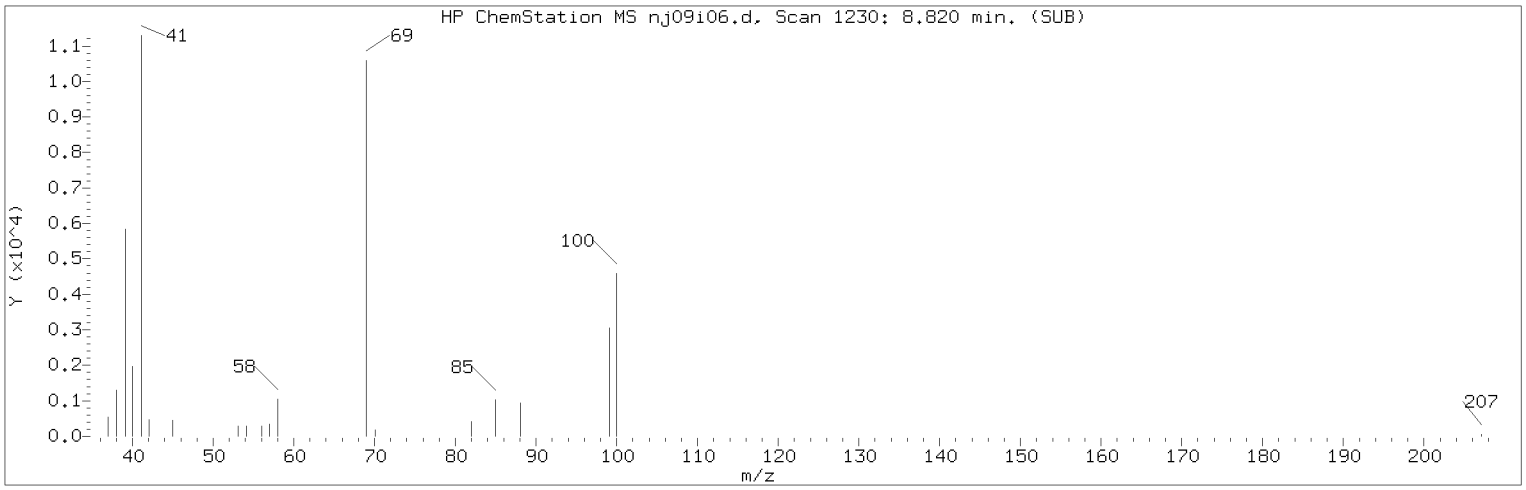
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

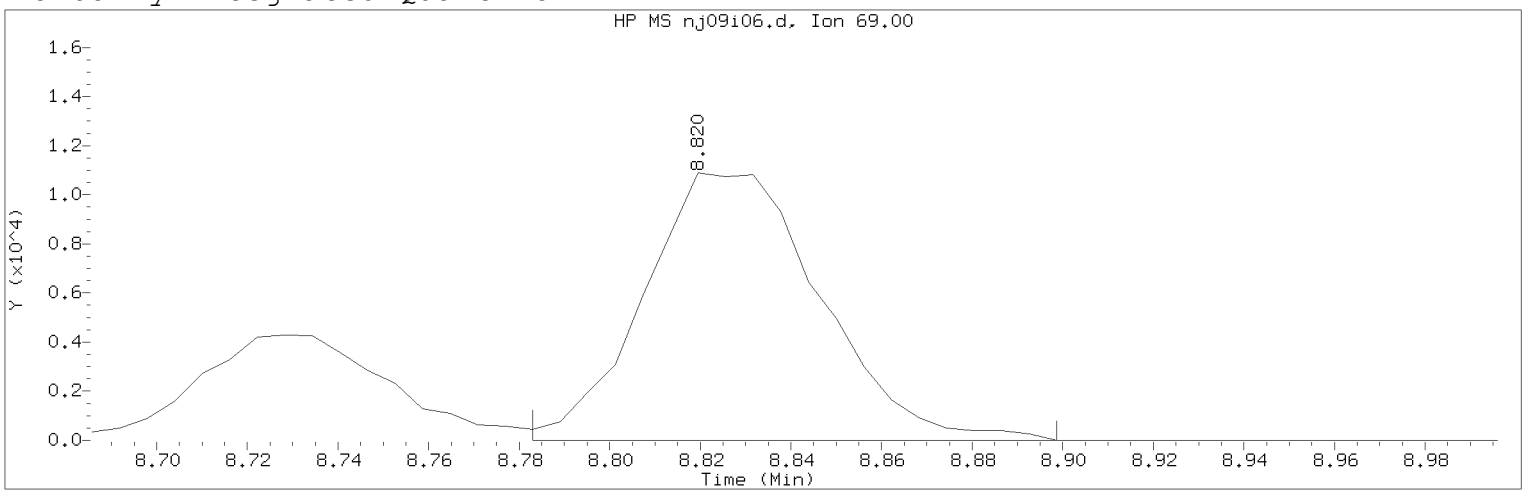
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area : 359148
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 580
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

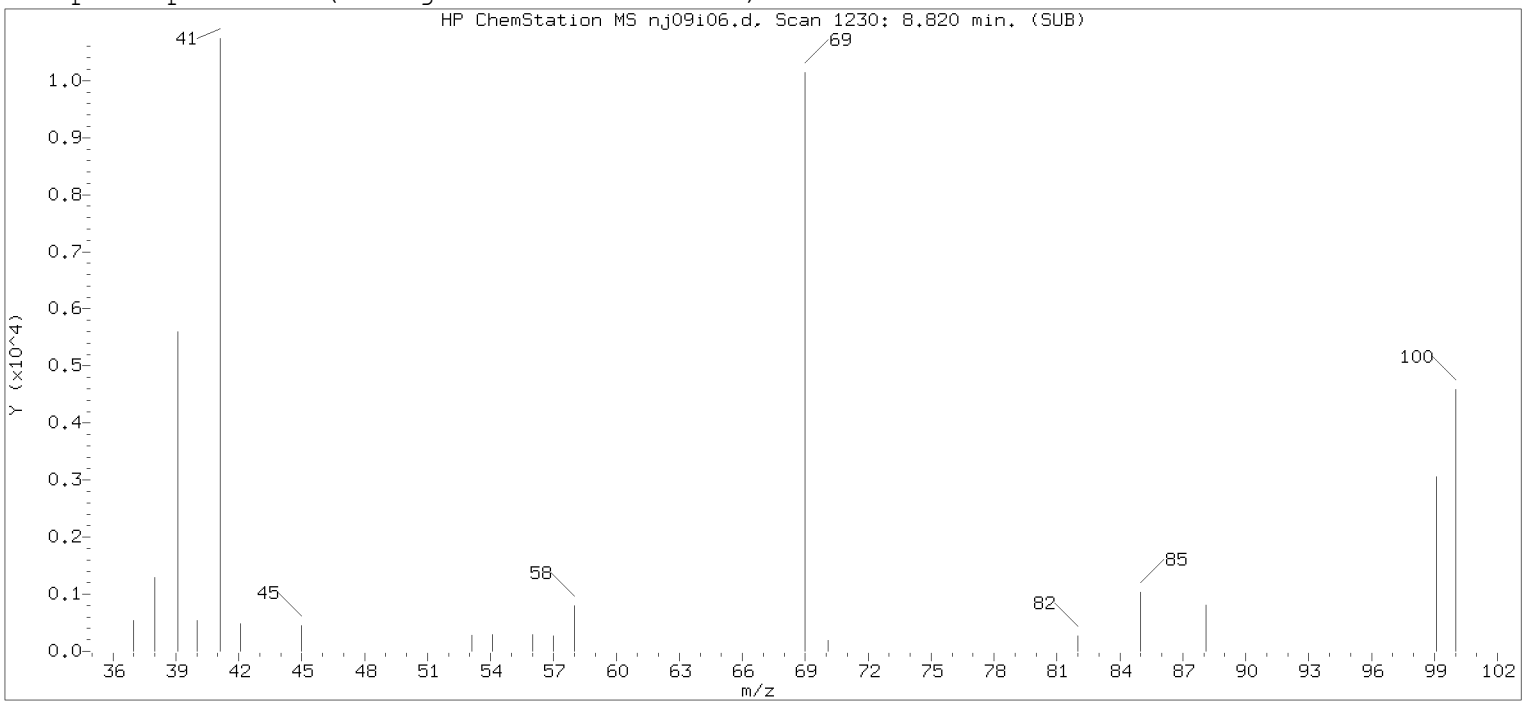
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area (flag) : 29497M
On-Column Amount (ng) : 3.9466
Integration start scan : 1223 Integration stop scan: 1242
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

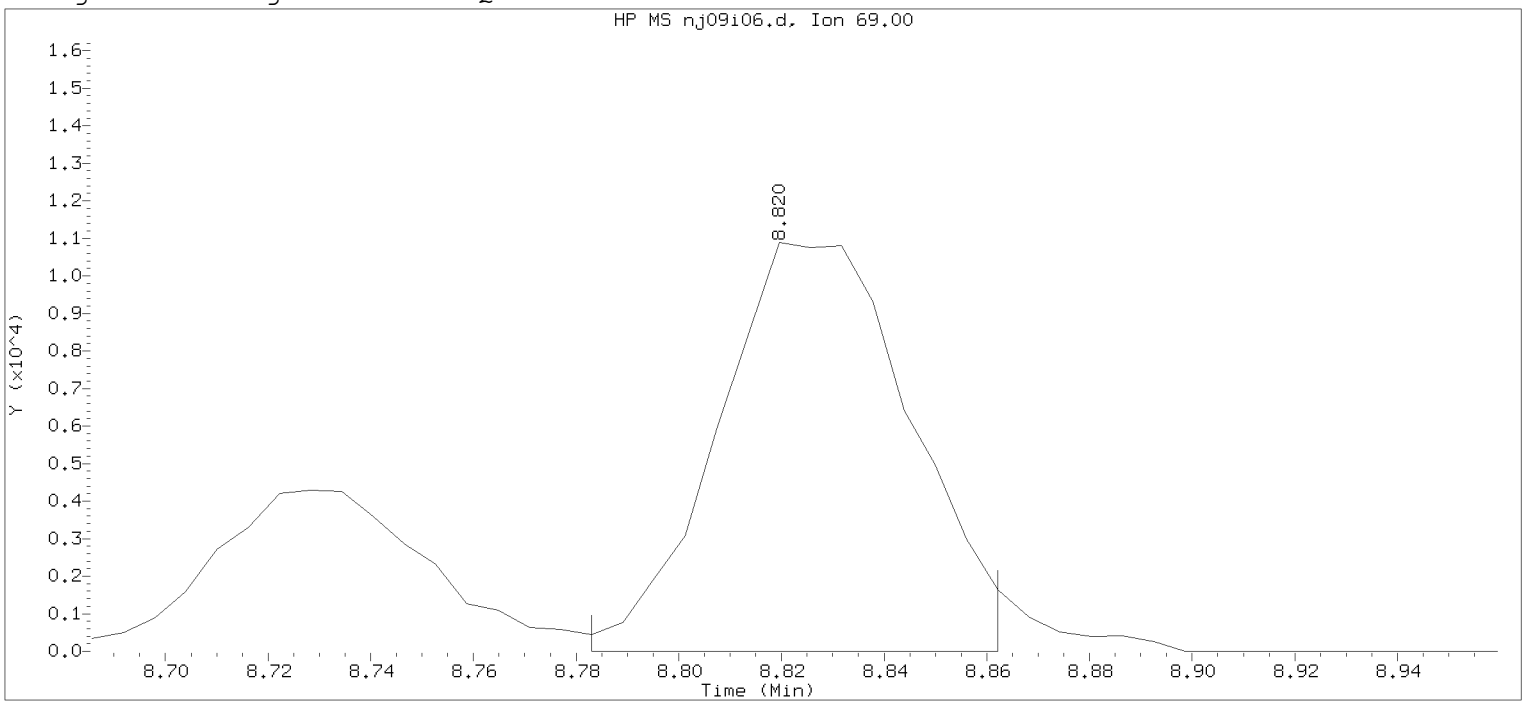
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

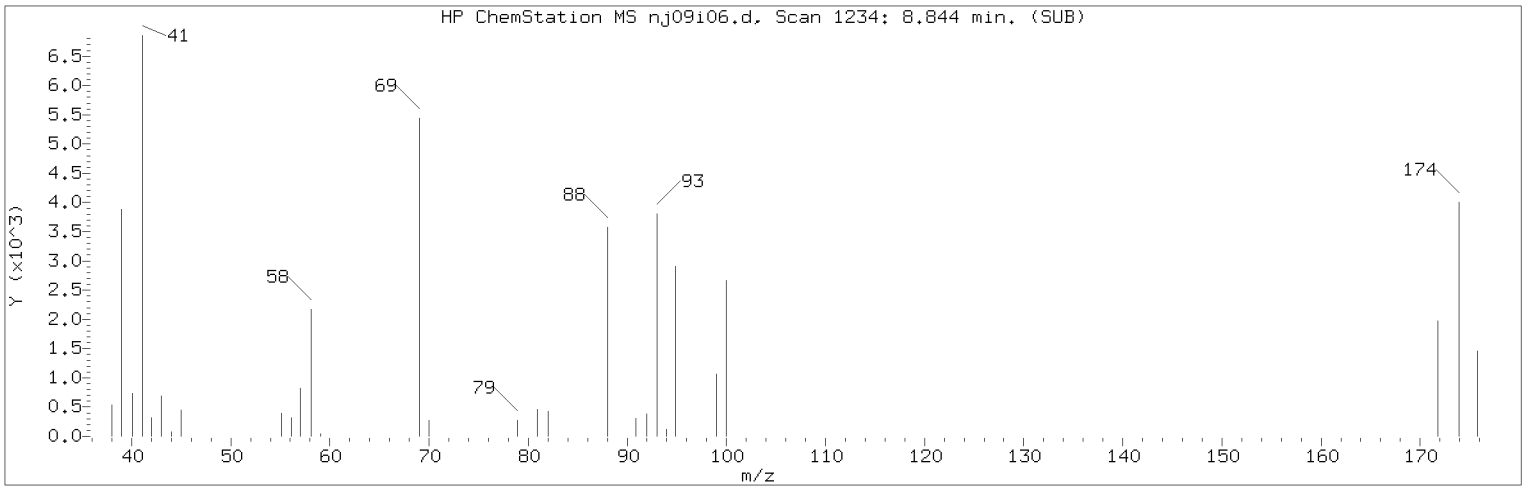
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

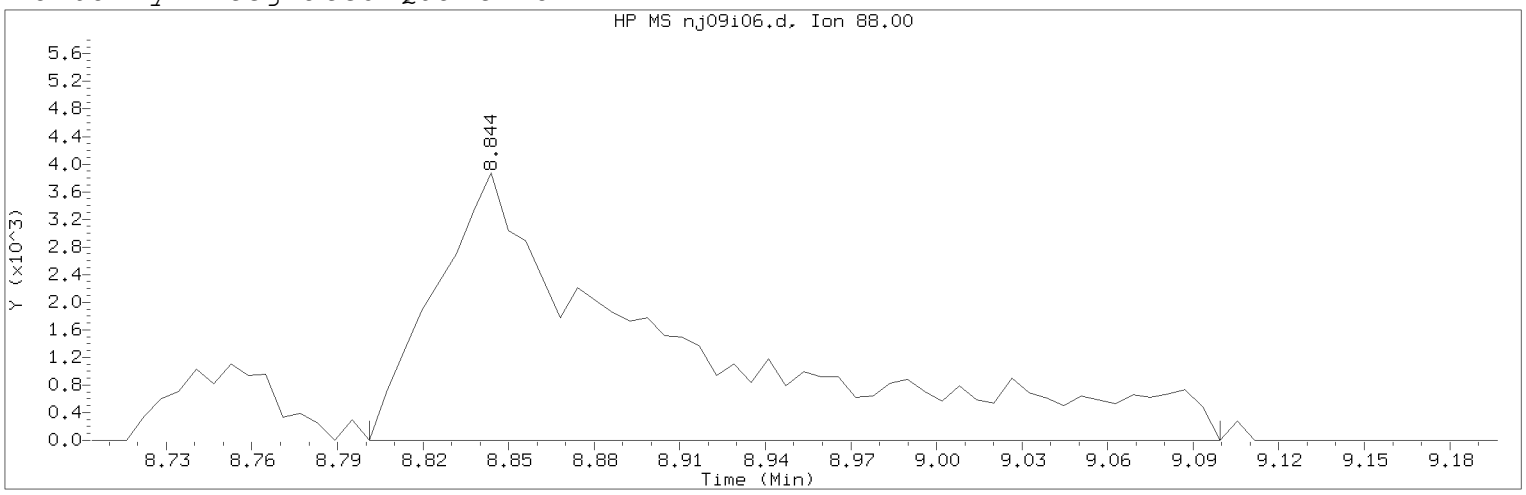
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area : 28216
On-column Amount (ng) : 3.7985
Integration start scan : 1223 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

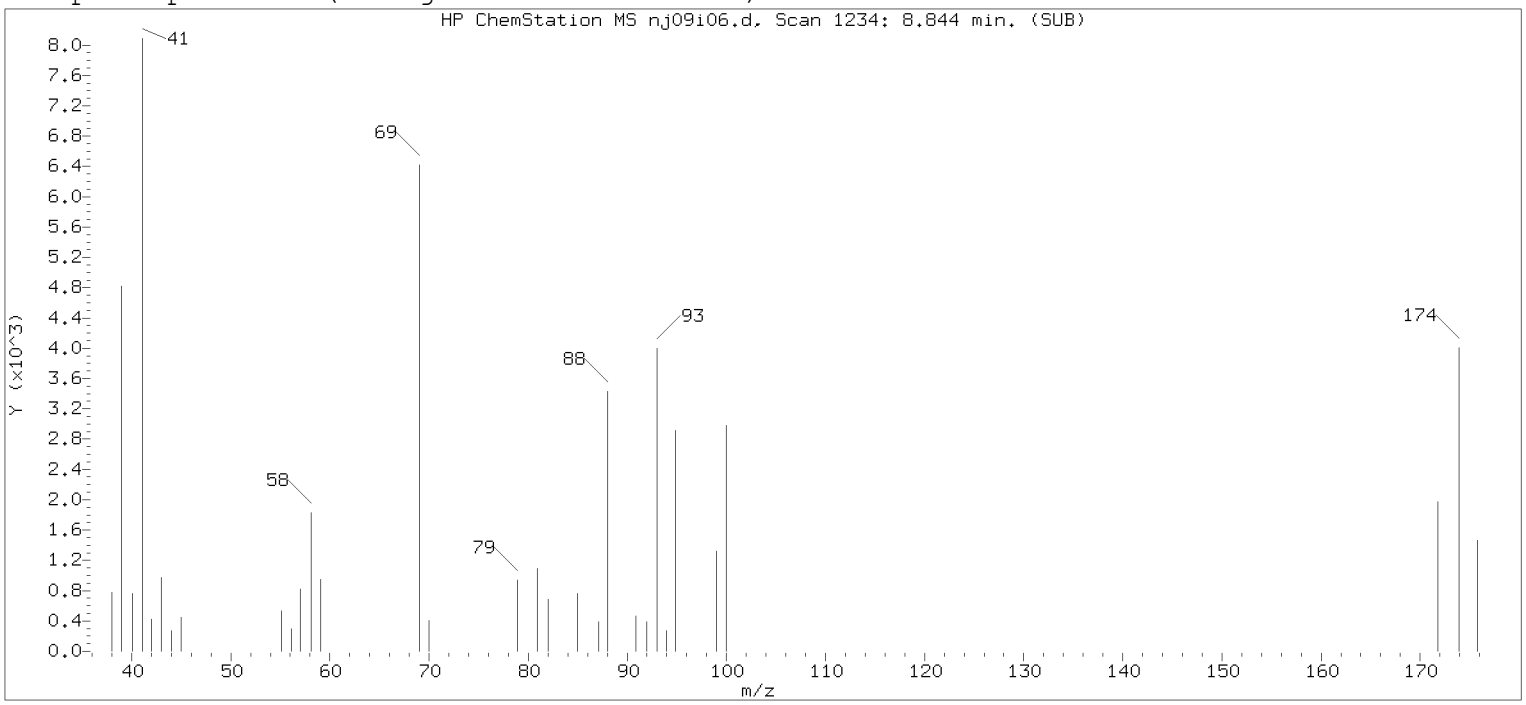
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 22465M
On-Column Amount (ng) : 196.8659
Integration start scan : 1226 Integration stop scan: 1275
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

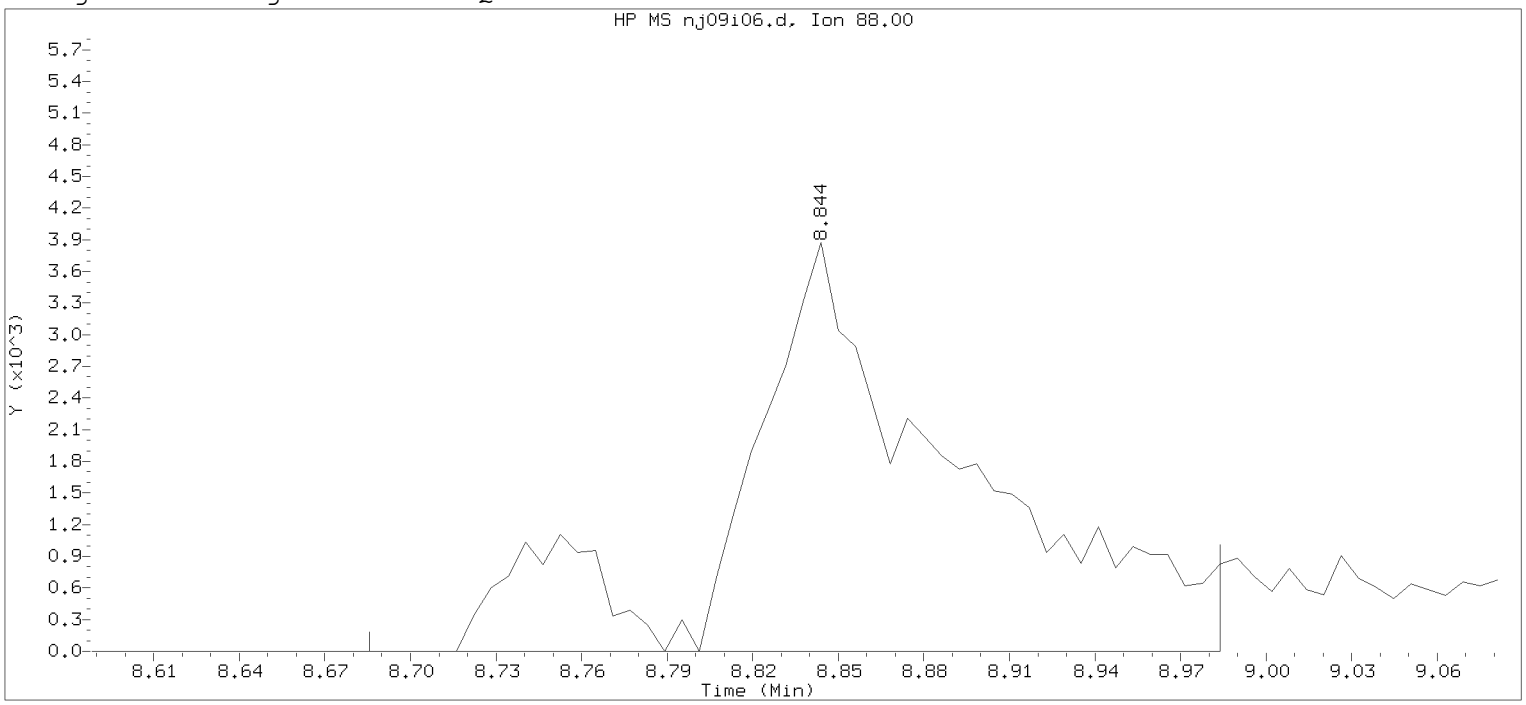
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



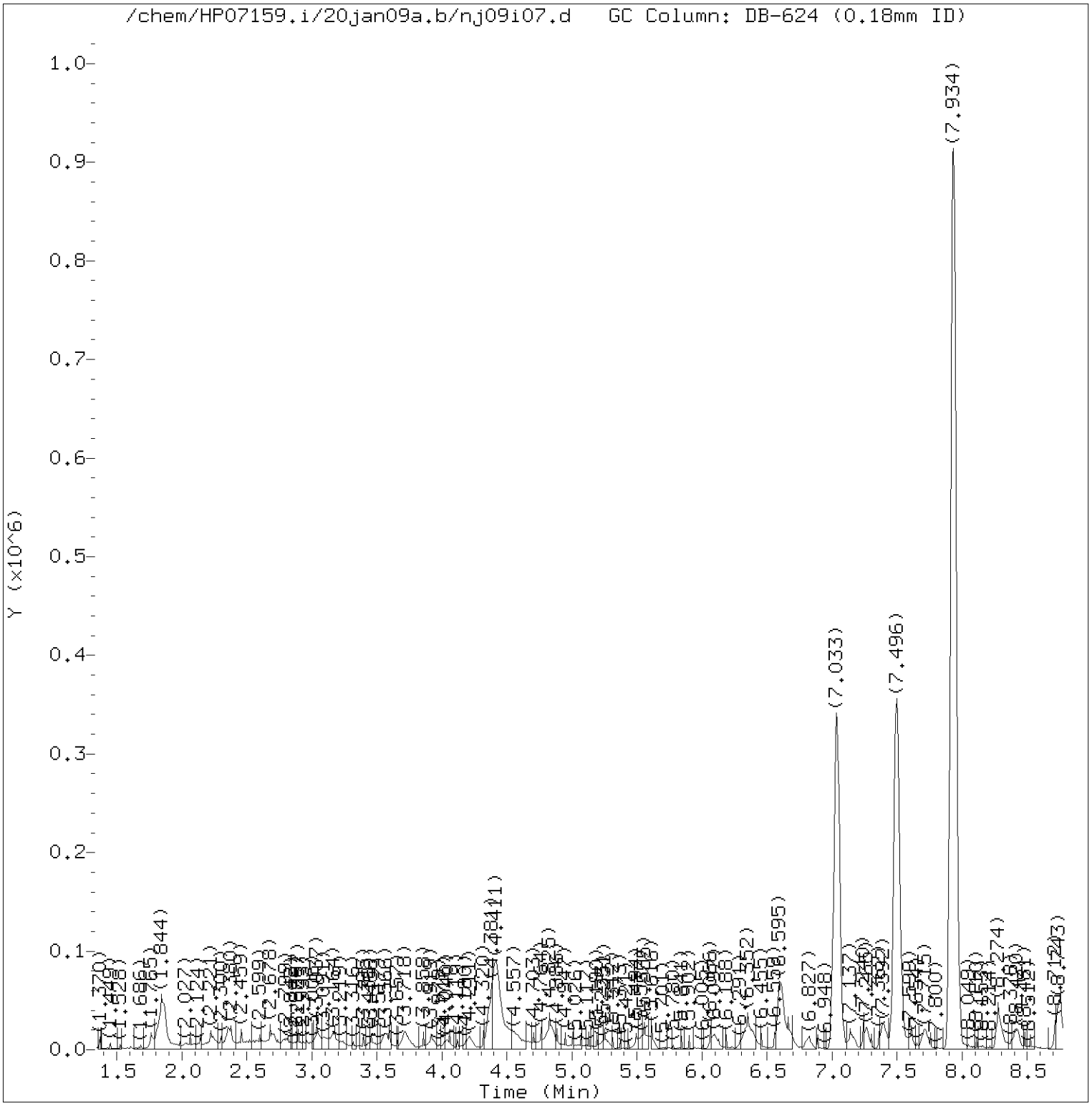
Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1234		
Retention Time (minutes)	: 8.844		
Quant Ion	: 88.00		
Area	: 20886		
On-column Amount (ng)	: 267.8227		
Integration start scan	: 1207	Integration stop scan:	1256
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

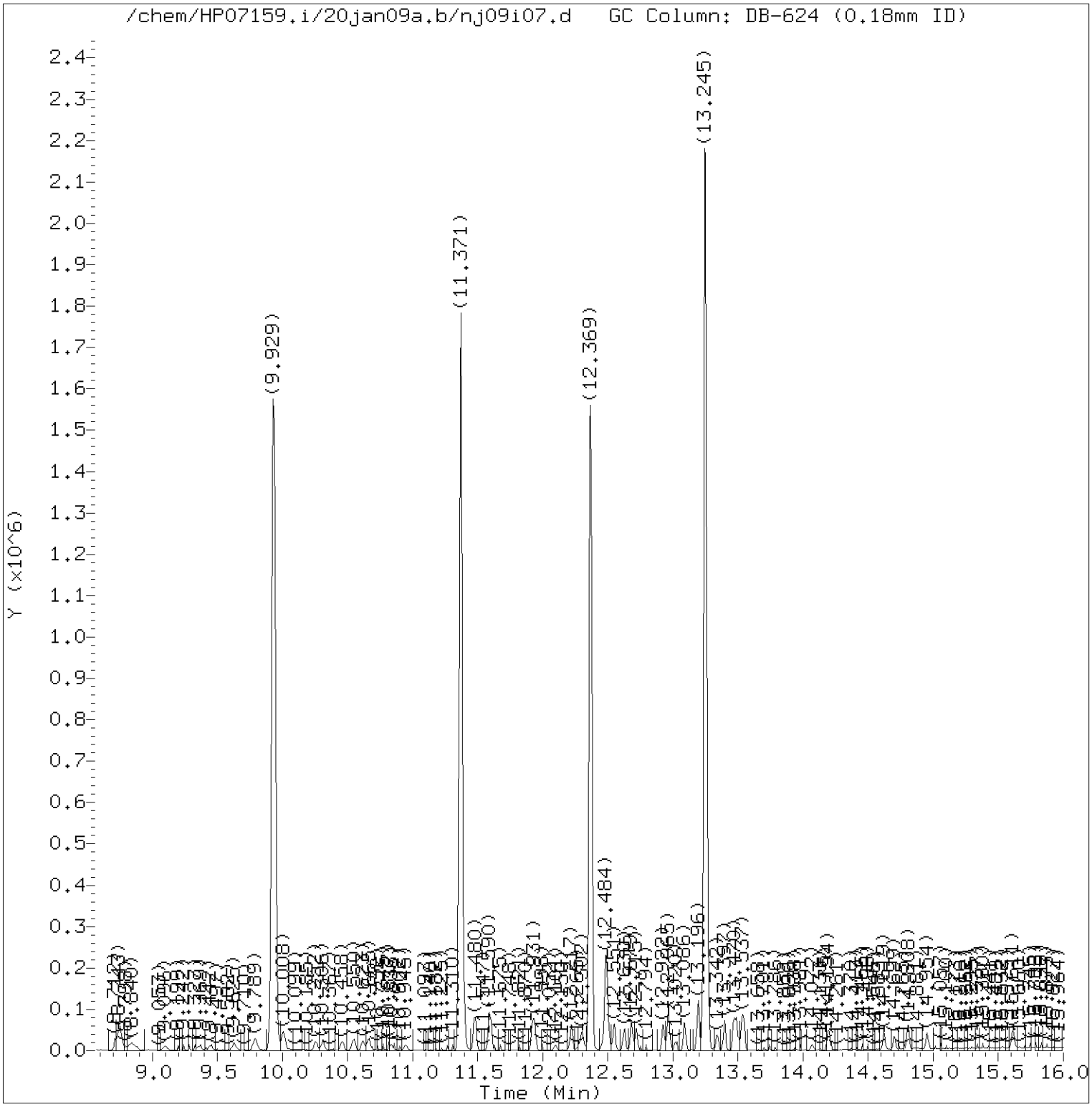
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.033	85	7080	0.697
4) Chloromethane	(2)	2.234	50	10227	0.940
5) 1,3-Butadiene	(2)	2.355	39	8581	1.130
6) Vinyl Chloride	(2)	2.355	62	9030	0.853
8) Bromomethane	(2)	2.696	94	6606	0.910
9) Chloroethane	(2)	2.799	64	5893	0.951
10) Dichlorofluoromethane	(2)	3.037	67	14066	0.991
12) Trichlorofluoromethane	(2)	3.103	101	10081	0.866
11) n-Pentane	(2)	3.164	43	13359	1.172
13) Ethanol	(1)	3.219	45	6949M	73.842
15) Freon 123a	(2)	3.456	67	7909	0.928
16) Acrolein	(1)	3.560	56	26079	9.891
17) 1,1-Dichloroethene	(2)	3.712	96	6429	0.948
17) 1,1-Dichloroethene	(2)	3.712	63	3192	0.897
18) Acetone	(1)	3.742	58	2220	1.999
19) Freon 113	(2)	3.742	101	4915	0.781
21) 2-Propanol	(1)	3.919	45	16282M	22.198
22) Methyl Iodide	(2)	3.919	142	11439	0.904
23) Carbon Disulfide	(2)	4.040	76	19180	0.885
27) Methyl Acetate	(2)	4.180	43	10612	1.274
25) Allyl Chloride	(2)	4.217	41	12231	1.022
28) Methylene Chloride	(2)	4.411	84	9132	1.134
29)*t-Butyl alcohol-d10	(1)	4.418	65	388809M	250.000
30) t-Butyl alcohol	(1)	4.539	59	27309	18.840
31) Acrylonitrile	(2)	4.776	53	4071	0.905
33) Methyl Tertiary Butyl Ether	(2)	4.825	73	23012	1.044
32) trans-1,2-Dichloroethene	(2)	4.843	96	7545	0.975
34) n-Hexane	(2)	5.251	57	9050	0.847
36) 1,1-Dichloroethane	(2)	5.500	63	12984	0.920
38) di-Isopropyl ether	(2)	5.555	45	23475	0.965
39) 2-Chloro-1,3-butadiene	(2)	5.610	53	10851	0.871
40) Ethyl t-butyl ether	(2)	6.097	59	22629	0.979
43) 1,2-Dichloroethene (Total)	(2)		96	15977	1.934
44) 2-Butanone	(2)	6.297	43	12375	1.967
42) cis-1,2-Dichloroethene	(2)	6.340	96	8432	0.959
45) 2,2-Dichloropropane	(2)	6.352	77	11384	0.913
47) Propionitrile	(1)	6.382	54	32122	18.974
48) Methacrylonitrile	(2)	6.595	67	43216	9.510

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	3676	0.884
50) Tetrahydrofuran	(1)	6.693	71	3414	1.942
51) Chloroform	(2)	6.814	83	13715	0.996
52)$Dibromofluoromethane	(2)	7.033	113	329817	50.953
52)$Dibromofluoromethane	(2)	7.033	111	331227	50.115
53) 1,1,1-Trichloroethane	(2)	7.052	97	10828	0.869
54) Cyclohexane	(2)	7.149	56	10673	0.833
54) Cyclohexane	(2)	7.149	84	9512	0.852
54) Cyclohexane	(2)	7.155	69	3371	0.837
55) 1,1-Dichloropropene	(2)	7.265	75	10211	0.906
56) Carbon Tetrachloride	(2)	7.271	117	9072	0.844
58) Isobutyl Alcohol	(1)	7.398	41	27656	53.262
57)$1,2-Dichloroethane-d4	(2)	7.496	102	81288	49.668
57)$1,2-Dichloroethane-d4	(2)	7.496	65	401526	51.001
57)$1,2-Dichloroethane-d4	(2)	7.496	104	52578	50.491
60) Benzene	(2)	7.526	78	30992	0.966
61) 1,2-Dichloroethane	(2)	7.605	62	12303	1.084
61) 1,2-Dichloroethane	(2)	7.605	98	417M	0.446
65) t-Amyl methyl ether	(2)	7.715	73	23699	1.022
66)*Fluorobenzene	(2)	7.934	96	1304310	50.000
67) n-Heptane	(2)	7.946	43	11162	0.905
69) n-Butanol	(1)	8.281	56	40421	90.370
71) Trichloroethene	(2)	8.420	95	8090	0.957
72) Methylcyclohexane	(2)	8.731	83	10567	0.761
72) Methylcyclohexane	(2)	8.731	98	4976	0.760
73) 1,2-Dichloropropane	(2)	8.749	63	7176	0.875
76) Methyl Methacrylate	(2)	8.828	69	6611	0.881
75) 1,4-Dioxane	(1)	8.852	88	4683M	41.444
74) Dibromomethane	(2)	8.865	93	5419	1.036
78) Bromodichloromethane	(2)	9.096	83	9904	0.927
79) 2-Nitropropane	(2)	9.363	41	8254	2.128
80) 2-Chloroethyl Vinyl Ether	(2)	9.442	63	5629	0.867
81) cis-1,3-Dichloropropene	(2)	9.631	75	12571	0.923
82) 4-Methyl-2-pentanone	(2)	9.789	43	24386	1.913
83)$Toluene-d8	(3)	9.929	98	1298705	49.707
83)$Toluene-d8	(3)	9.929	100	853824	49.327
88) Toluene	(3)	10.008	92	20393	0.961
90) 1,3-Dichloropropene (total)	(3)		100	24927	1.861

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.258	75	12356	0.938
91) Ethyl Methacrylate	(3)	10.312	69	11969	0.912
92) 1,1,2-Trichloroethane	(3)	10.458	97	7023	0.935
93) Tetrachloroethene	(3)	10.550	166	8114	0.873
94) 1,3-Dichloropropane	(3)	10.617	76	12132	0.930
96) 2-Hexanone	(3)	10.659	43	17593	1.751
97) Dibromochloromethane	(3)	10.836	129	7647	0.887
99) 1,2-Dibromoethane	(3)	10.945	107	7952	0.966
100)*Chlorobenzene-d5	(3)	11.371	117	1001788	50.000
102) Chlorobenzene	(3)	11.395	112	21881	0.924
103) 1,1,1,2-Tetrachloroethane	(3)	11.474	131	7576	0.887
104) Ethylbenzene	(3)	11.480	91	38351	0.934
106) m+p-Xylene	(3)	11.590	106	29710	1.842
108) Xylene (Total)	(3)		106	44203	2.756
107) o-Xylene	(3)	11.925	106	14493	0.914
109) Styrene	(3)	11.937	104	24121	0.905
110) Bromoform	(3)	12.101	173	5593	0.859
111) Isopropylbenzene	(3)	12.223	105	38603	0.921
112) Cyclohexanone	(1)	12.302	55	20857	46.026
114)$4-Bromofluorobenzene	(3)	12.369	95	513753	49.772
114)$4-Bromofluorobenzene	(3)	12.369	174	412085	49.832
116) 1,1,2,2-Tetrachloroethane	(4)	12.460	83	12292	1.011
115) Bromobenzene	(4)	12.484	156	9496	0.929
118) trans-1,4-Dichloro-2-butene	(4)	12.490	53	38092	9.108
117) 1,2,3-Trichloropropane	(4)	12.509	110	3772	0.979
119) n-Propylbenzene	(4)	12.551	91	46212	0.932
120) 2-Chlorotoluene	(4)	12.630	126	9359	0.916
122) 1,3,5-Trimethylbenzene	(4)	12.685	105	33133	0.912
121) 4-Chlorotoluene	(4)	12.721	126	9883	0.933
124) tert-Butylbenzene	(4)	12.928	134	7292M	0.906
125) Pentachloroethane	(4)	12.965	167	5495	0.853
126) 1,2,4-Trimethylbenzene	(4)	12.965	105	34869	0.925
127) sec-Butylbenzene	(4)	13.086	105	43107	0.914
129) 1,3-Dichlorobenzene	(4)	13.196	146	18821	0.947
130) p-Isopropyltoluene	(4)	13.196	119	36927	0.900
131)*1,4-Dichlorobenzene-d4	(4)	13.251	152	552754	50.000
133) 1,4-Dichlorobenzene	(4)	13.263	146	19957	0.990
134) 1,2,3-Trimethylbenzene	(4)	13.275	105	33299	0.910

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Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.342	91	24259	0.903
141) Diethylbenzene (total)	(4)		100	60994	2.569
136) 1,3-Diethylbenzene	(4)	13.397	119	20583	0.838
137) 1,4-Diethylbenzene	(4)	13.470	119	21778	0.835
139) n-Butylbenzene	(4)	13.488	92	18625	0.880
138) 1,2-Dichlorobenzene	(4)	13.524	146	18327	0.972
140) 1,2-Diethylbenzene	(4)	13.543	119	18633	0.896
142) 1,2-Dibromo-3-chloropropane	(4)	14.072	75	3183	0.969
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	14108	0.939
146) 1,2,4-Trichlorobenzene	(4)	14.619	180	12062	0.921
147) Hexachlorobutadiene	(4)	14.699	225	5527	0.933
148) Naphthalene	(4)	14.808	128	39298	0.957
149) 1,2,3-Trichlorobenzene	(4)	14.954	180	11286	0.938
150) 2-Methylnaphthalene	(4)	15.611	142	21346	0.900

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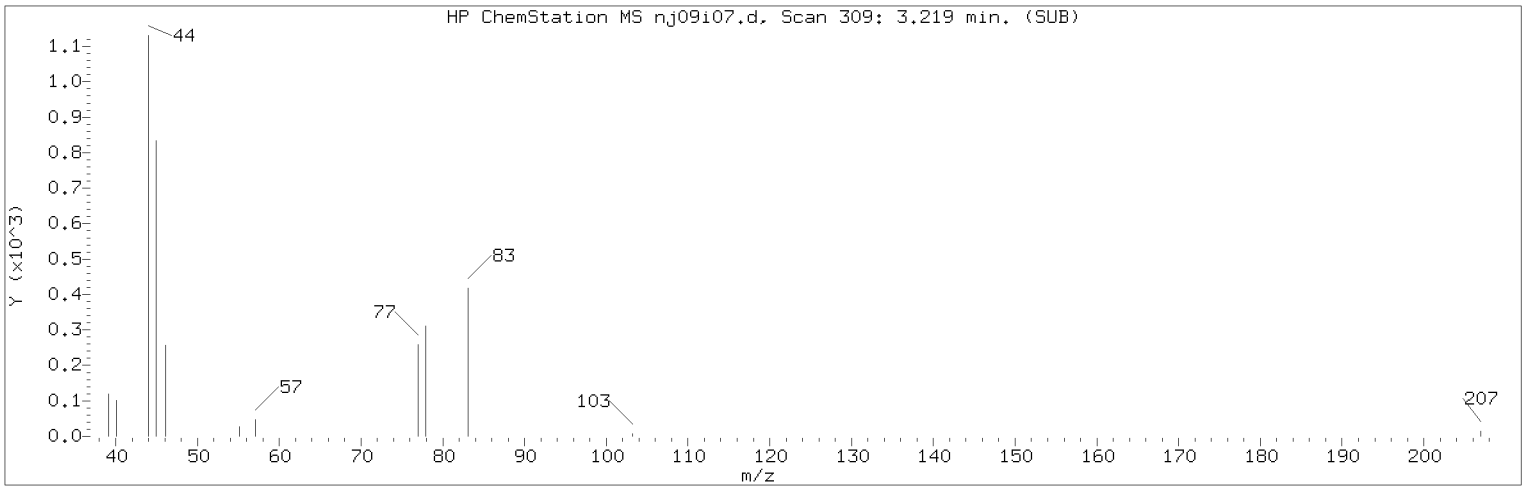
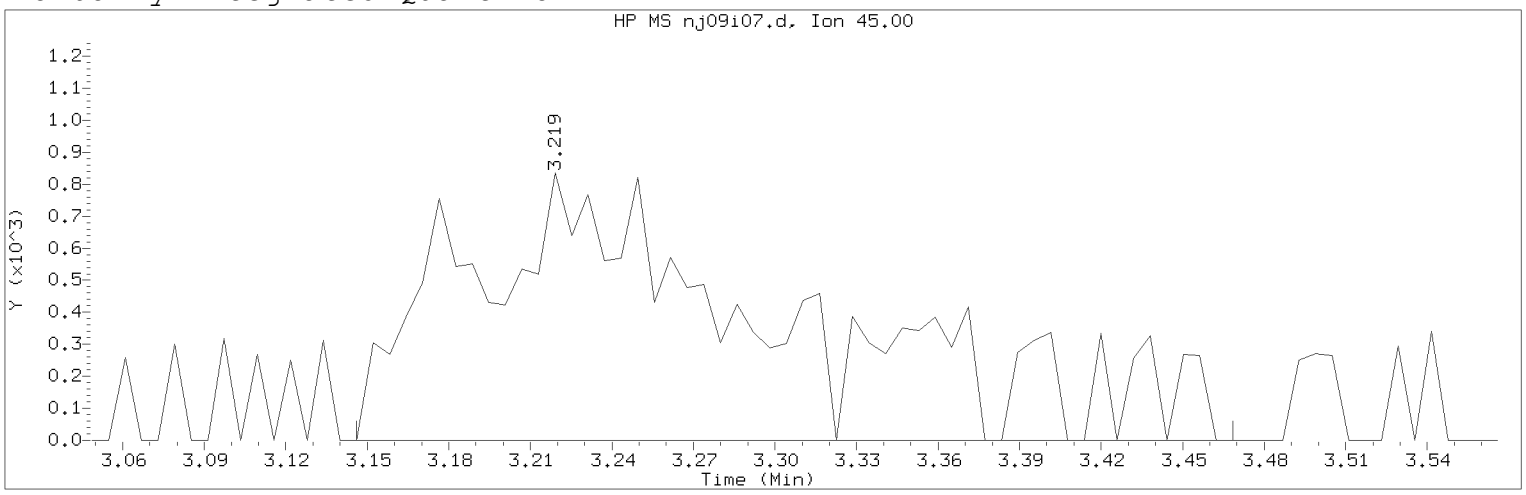
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

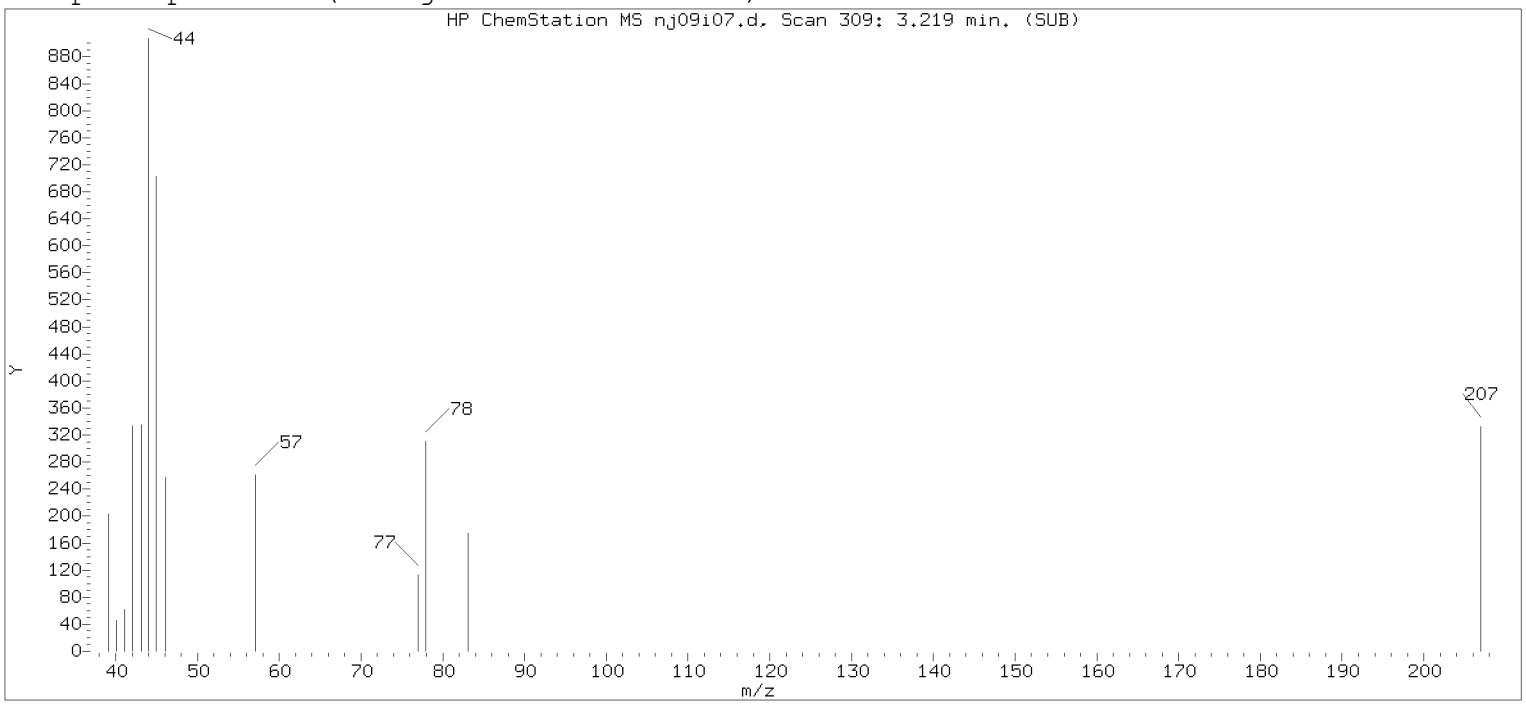
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area (flag) : 6949M
On-Column Amount (ng) : 73.8419
Integration start scan : 296 Integration stop scan: 349
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

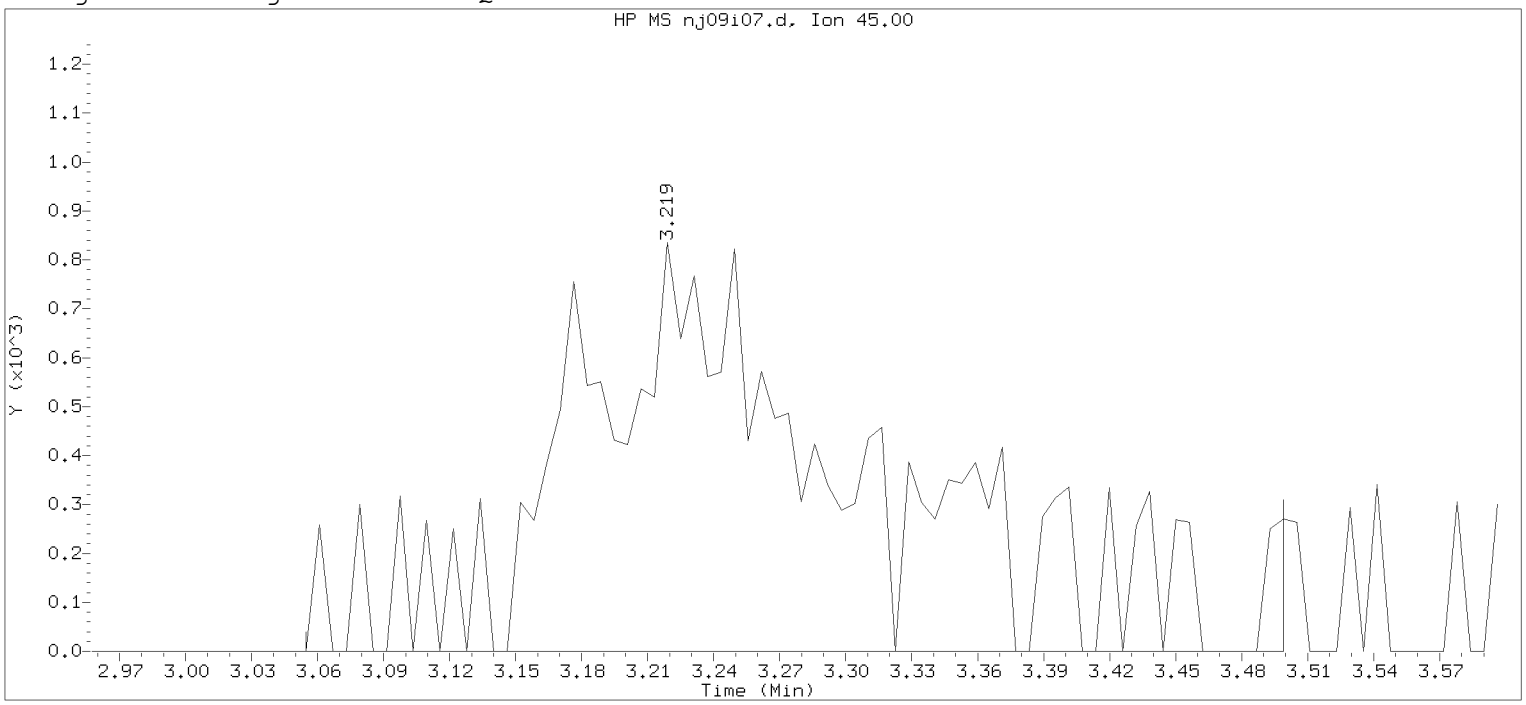
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

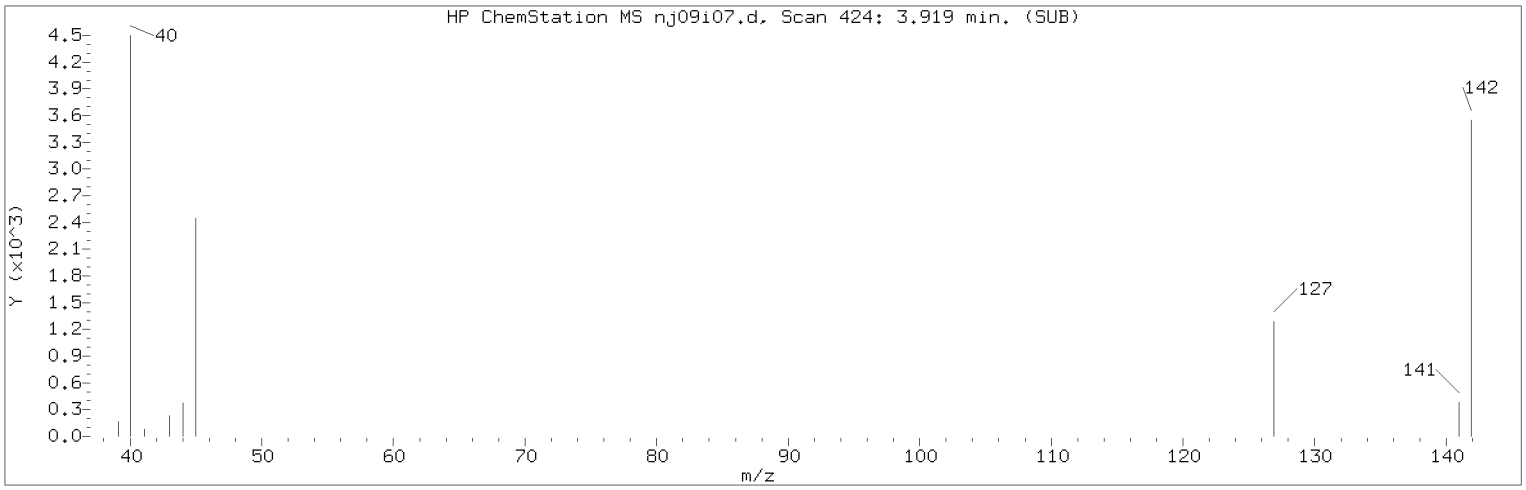
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

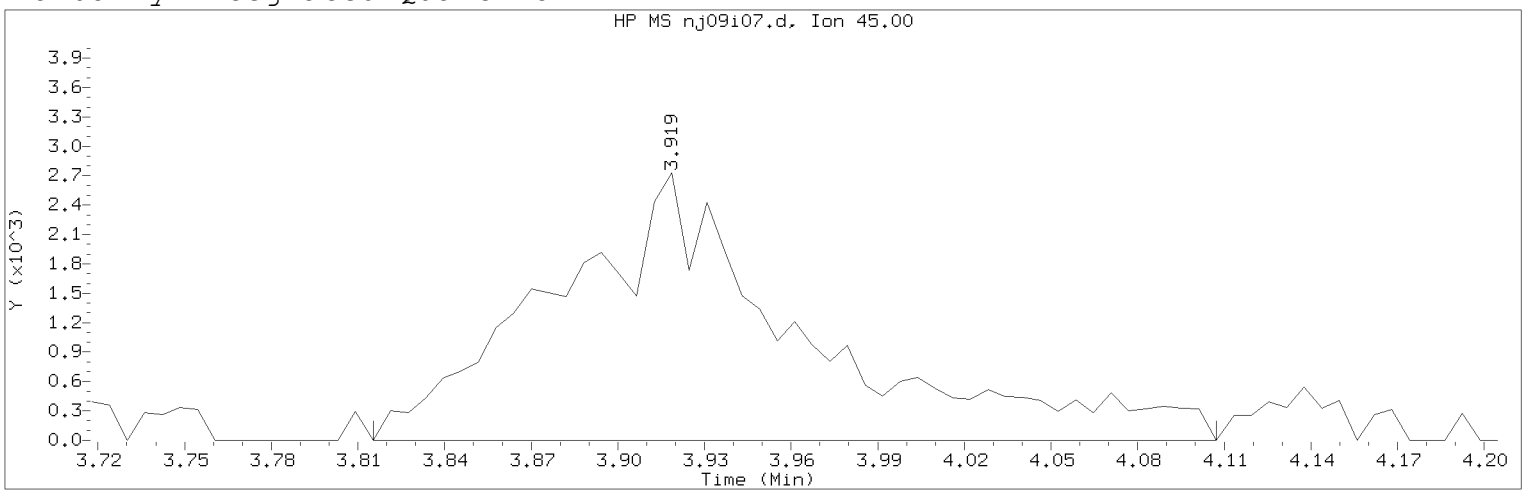
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area : 7713
On-column Amount (ng) : 86.1168
Integration start scan : 281 Integration stop scan: 354
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

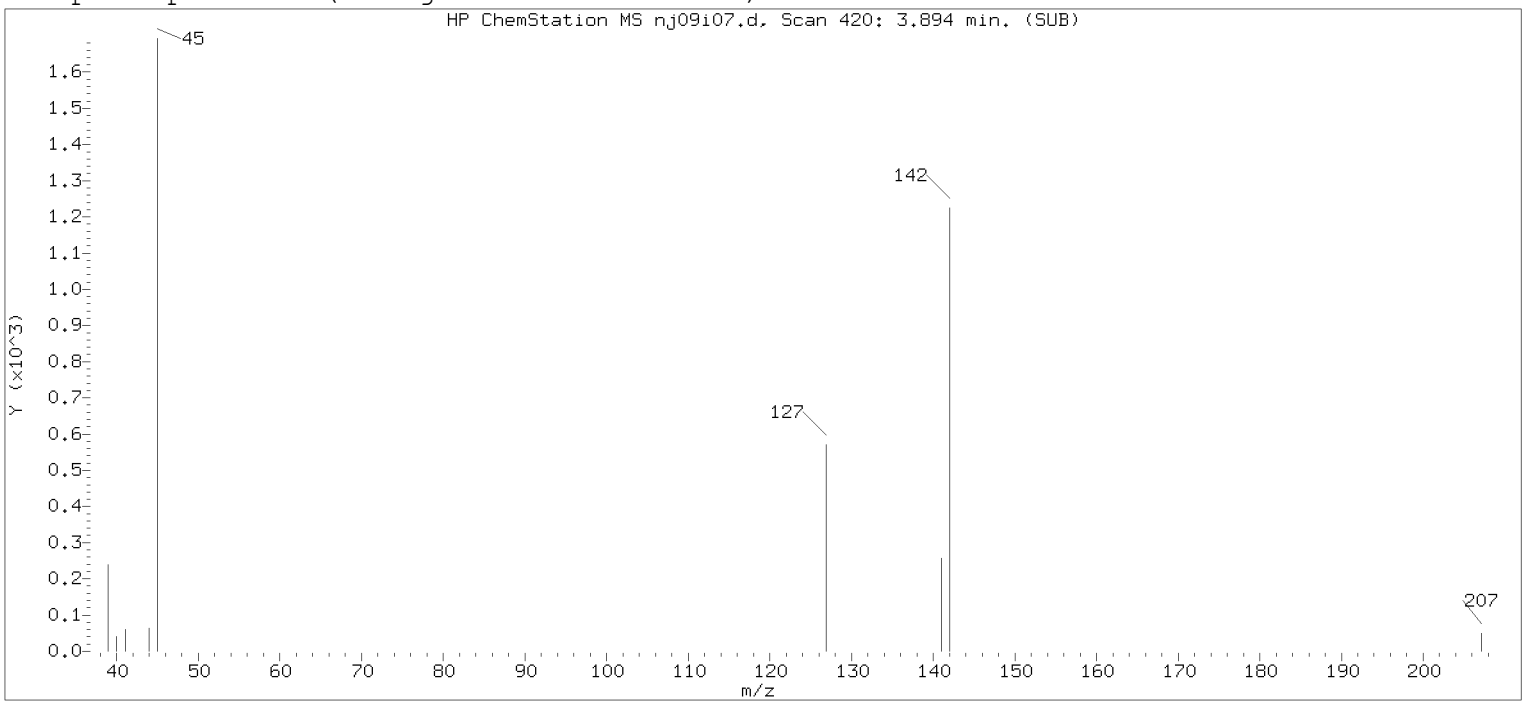
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.919
Quant Ion : 45.00
Area (flag) : 16282M
On-Column Amount (ng) : 22.1983
Integration start scan : 406 Integration stop scan: 454
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

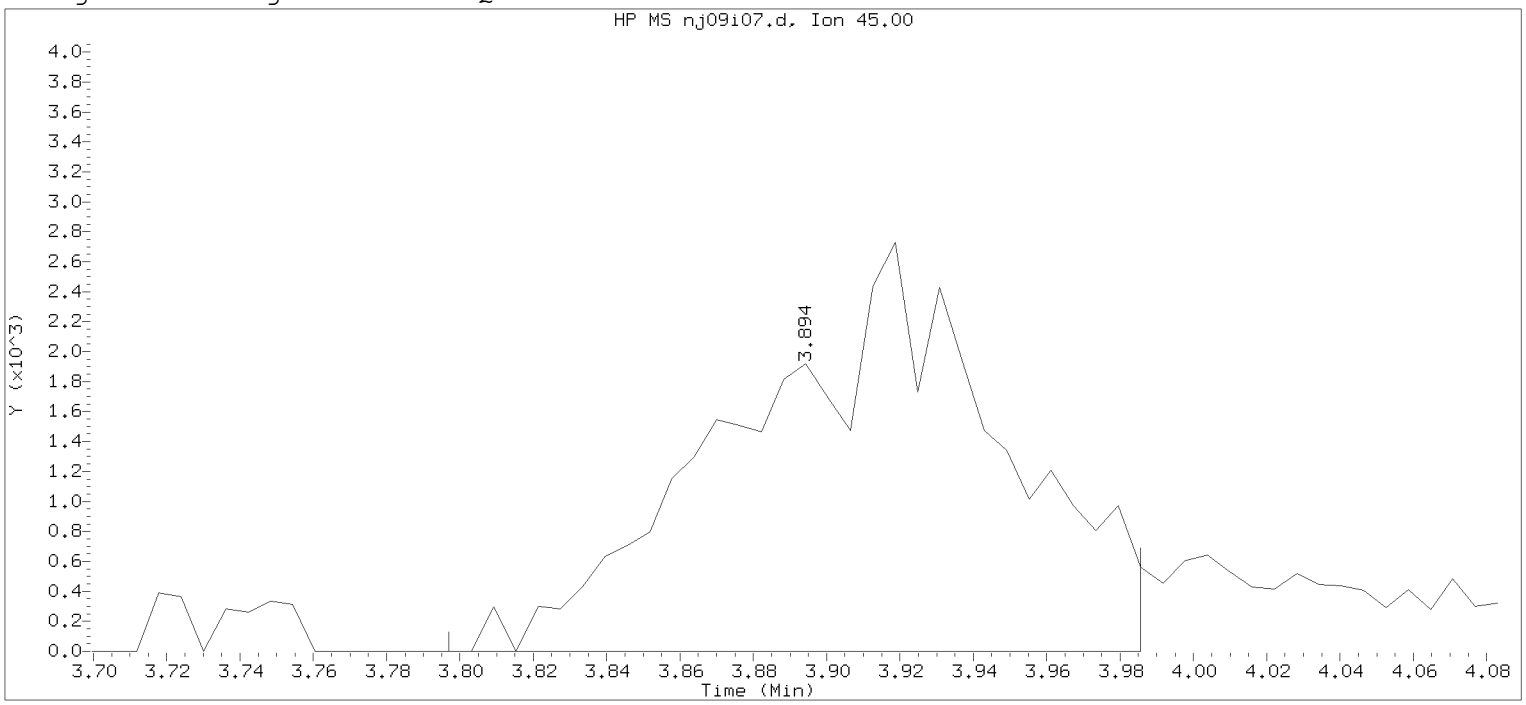
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 420
Retention Time (minutes): 3.894
Quant Ion : 45.00
Area : 13378
On-column Amount (ng) : 20.0282
Integration start scan : 403 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

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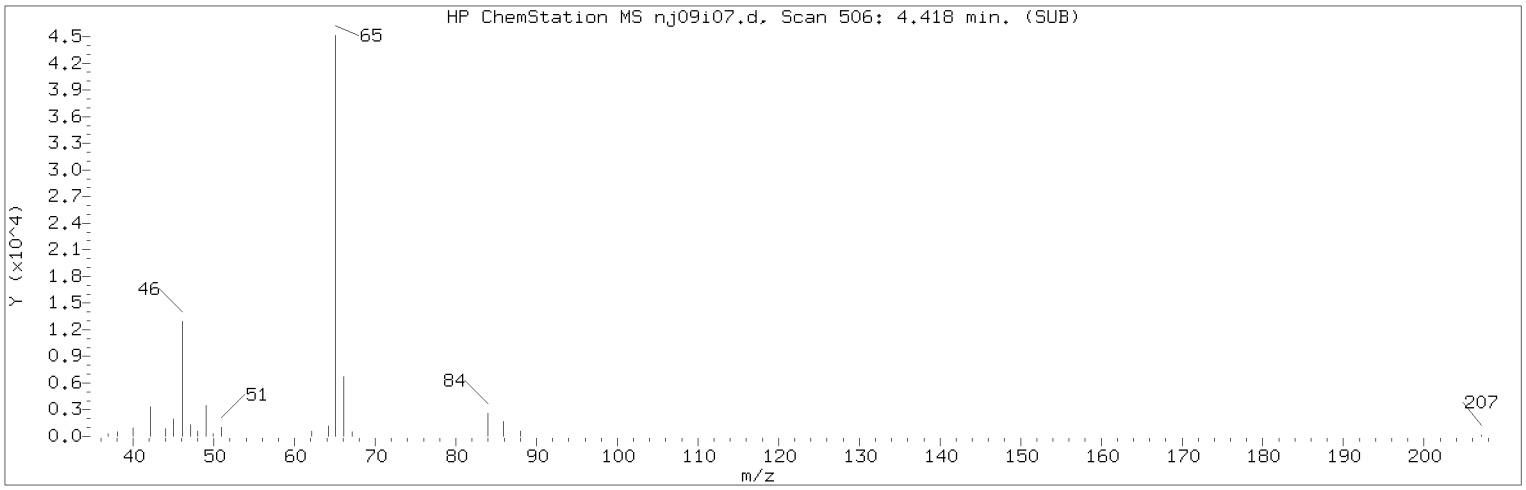
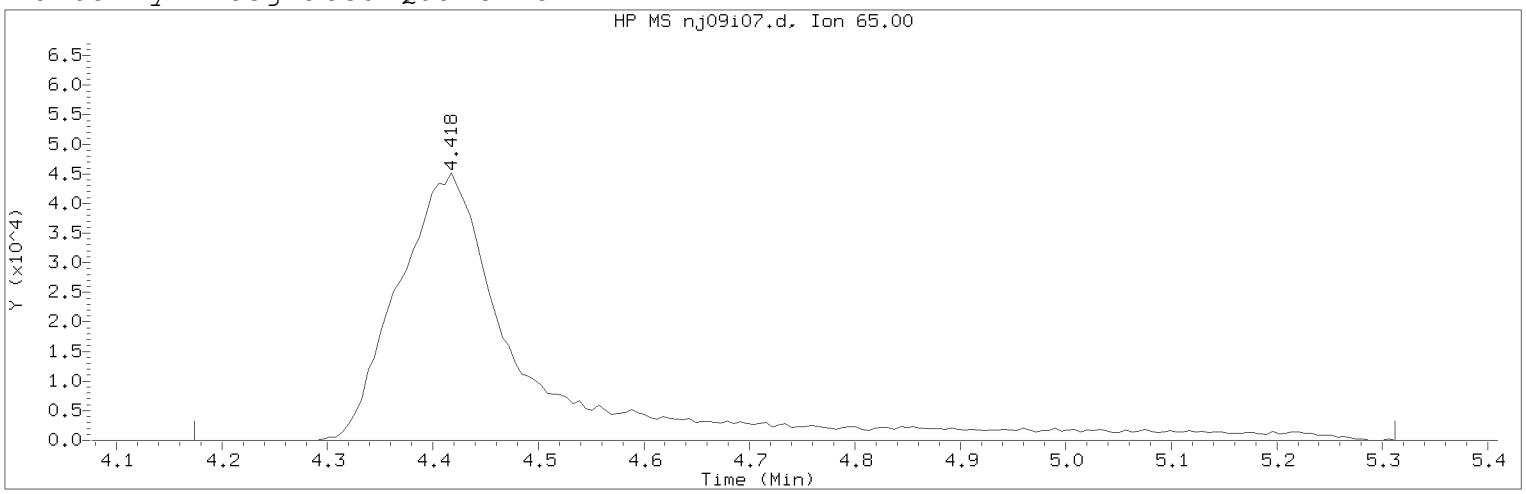
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

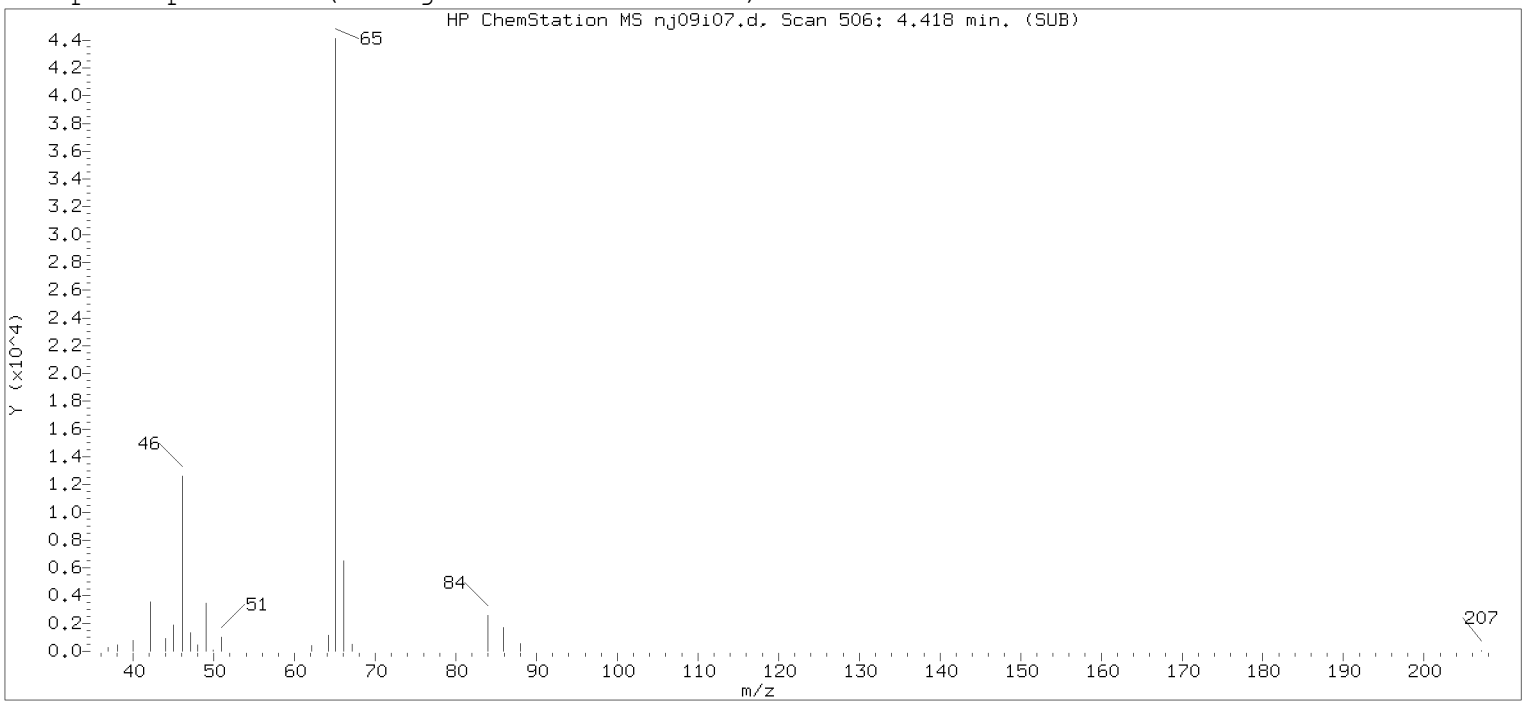
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area (flag) : 388809M
On-Column Amount (ng) : 250.0000
Integration start scan : 465 Integration stop scan: 652
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

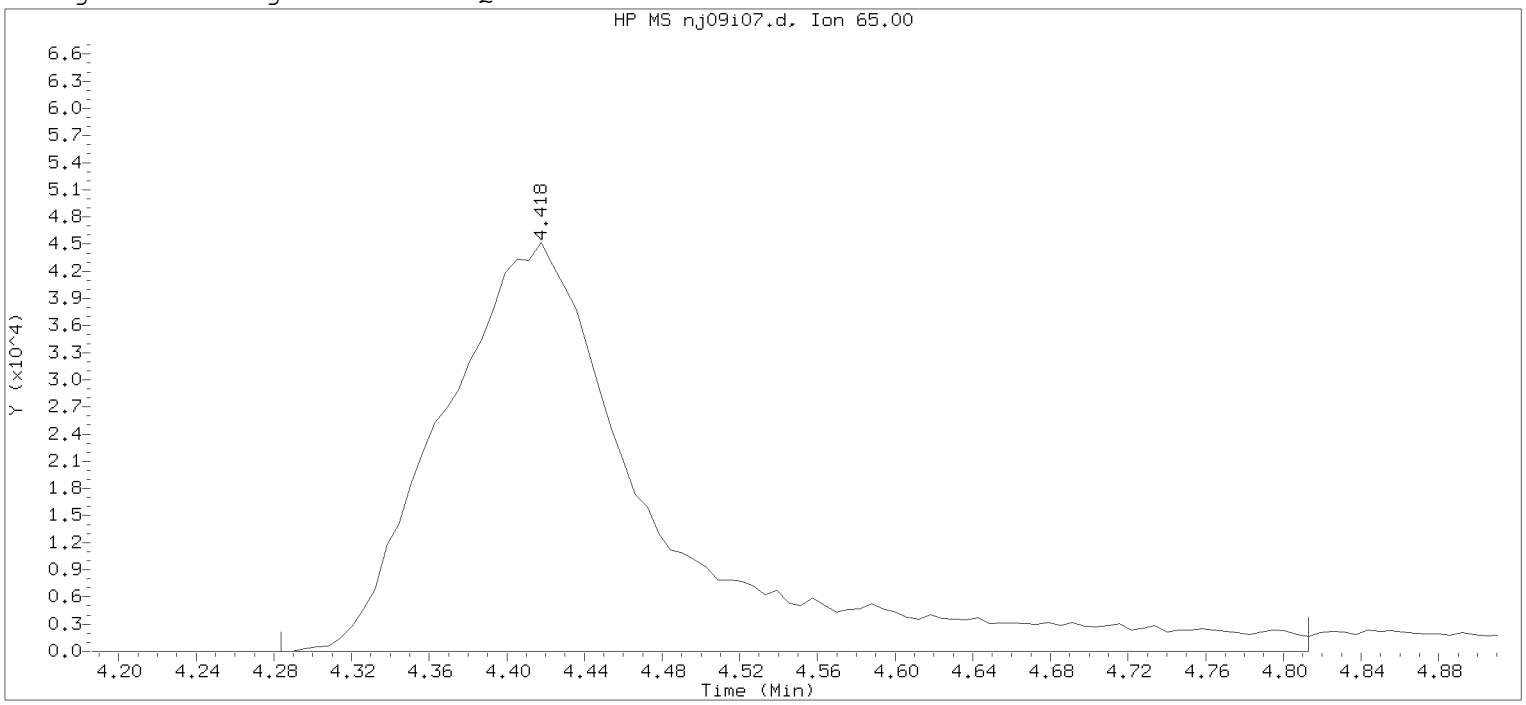
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

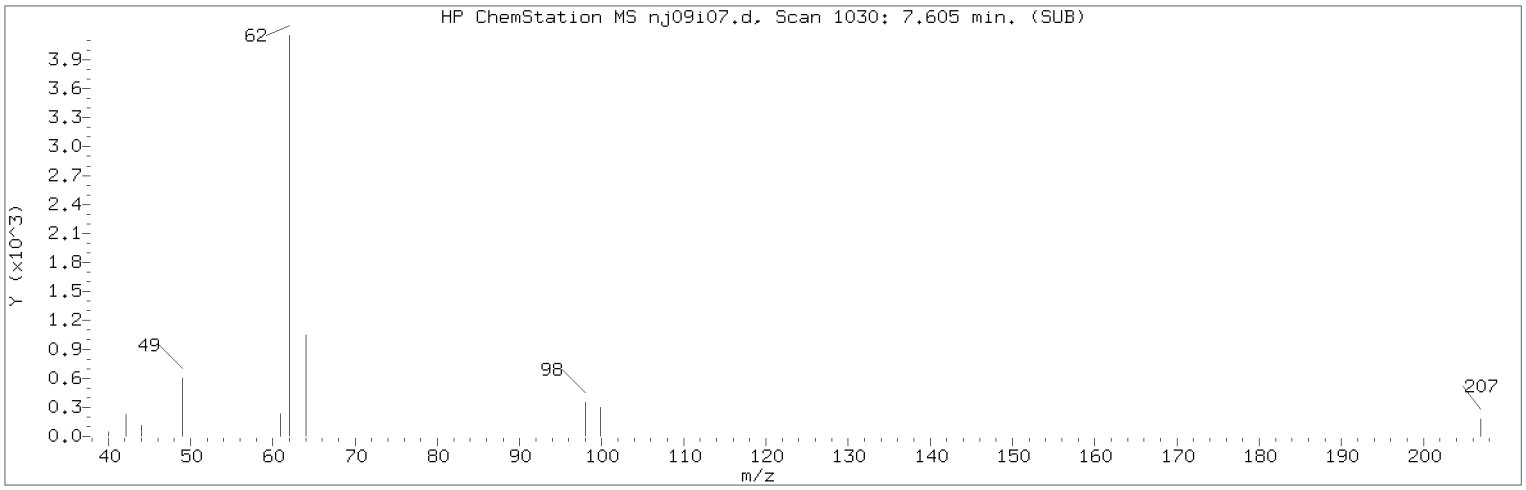
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

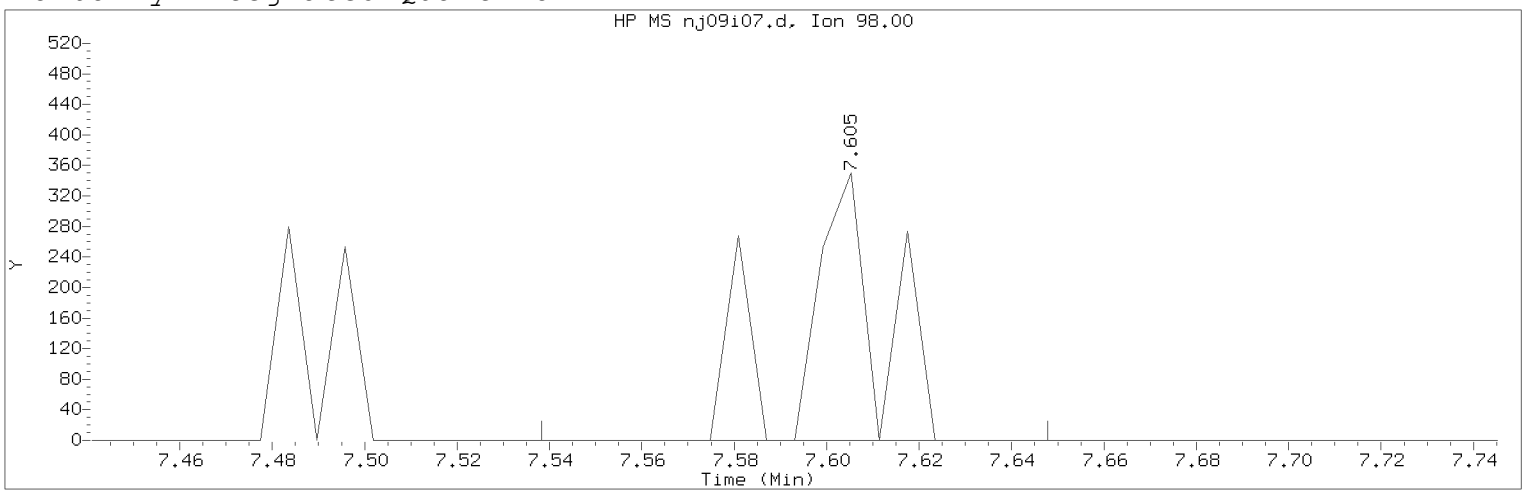
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area : 345911
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

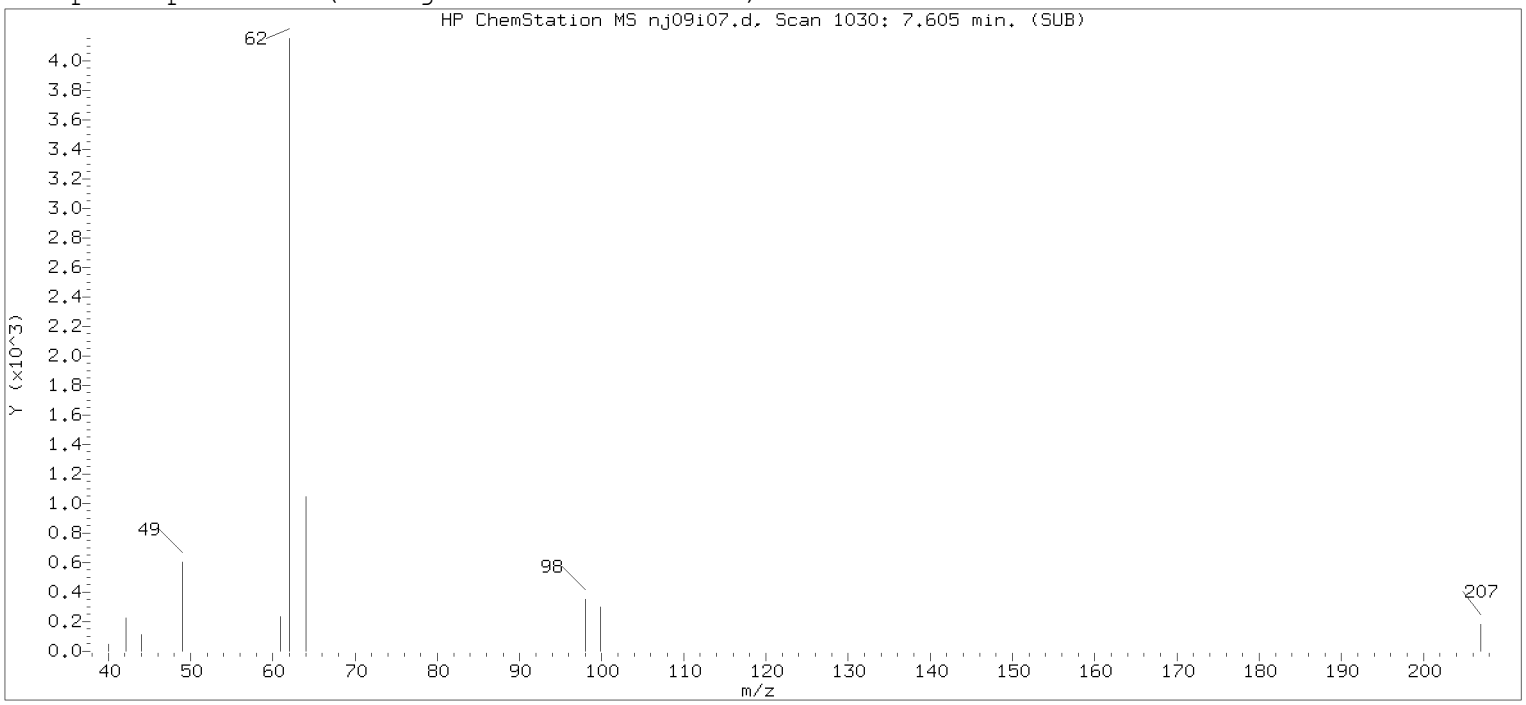
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1030
Retention Time (minutes): 7.605
Quant Ion : 98.00
Area (flag) : 417M
On-Column Amount (ng) : 0.4464
Integration start scan : 1018 Integration stop scan: 1036
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

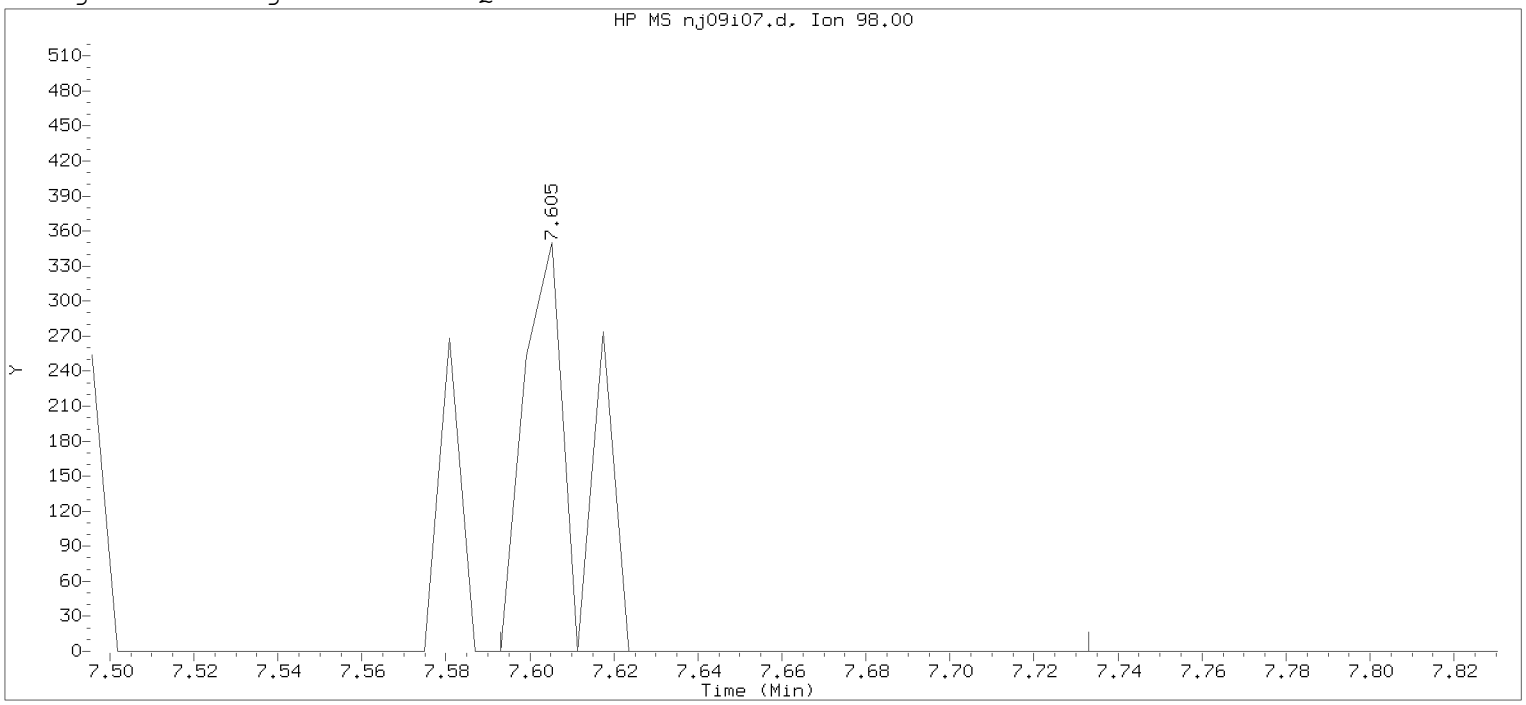
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

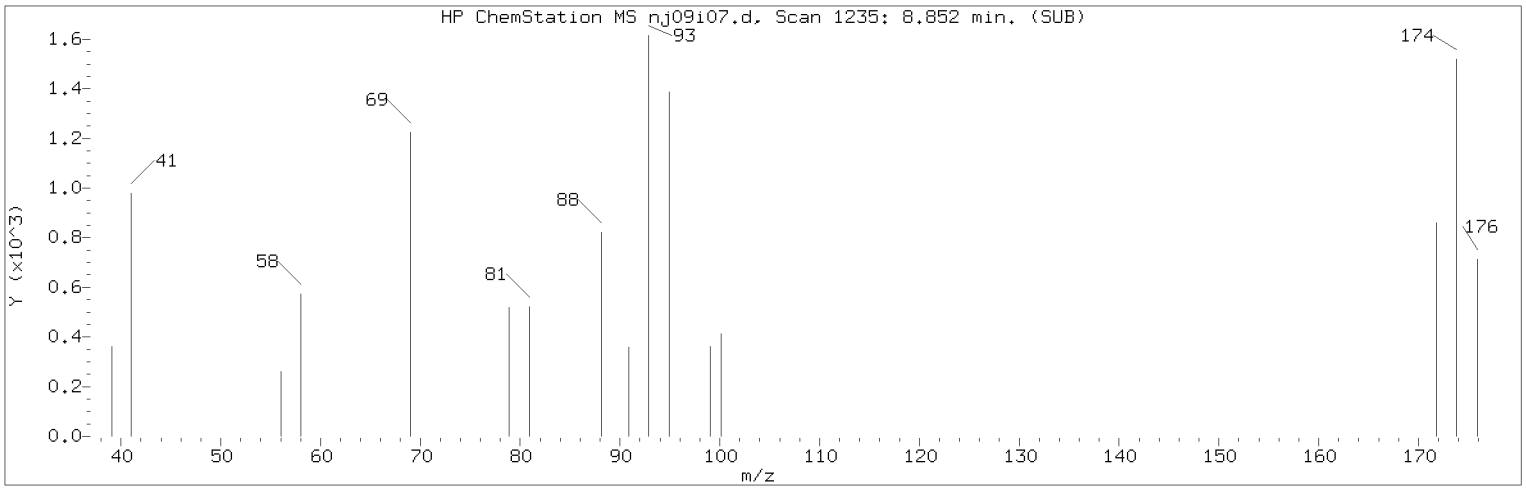
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

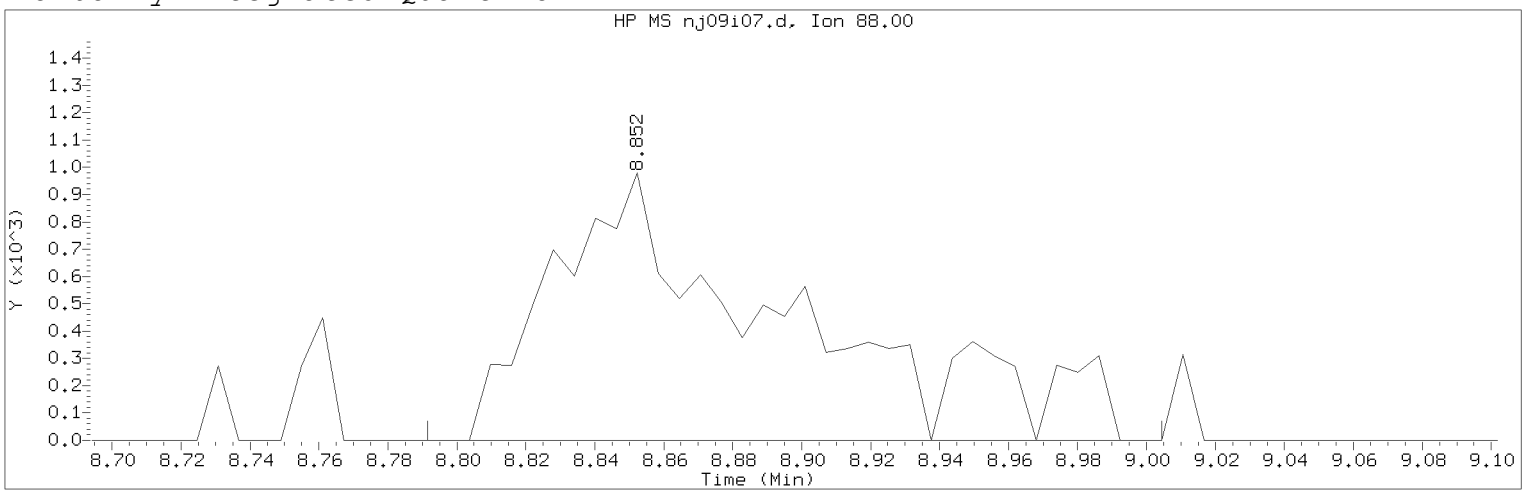
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1030
Retention Time (minutes): 7.605
Quant Ion : 98.00
Area : 320
On-column Amount (ng) : 0.3478
Integration start scan : 1027 Integration stop scan: 1050
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

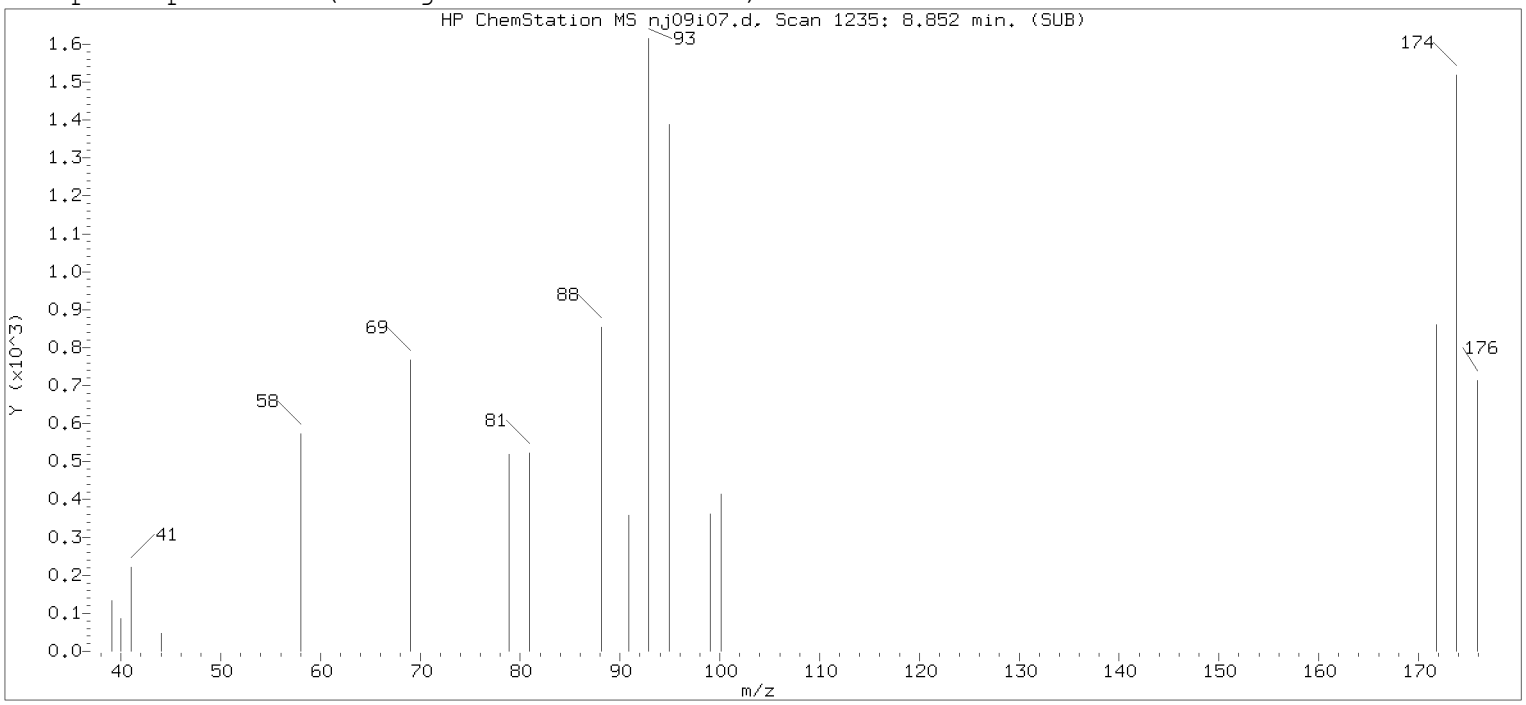
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area (flag) : 4683M
On-Column Amount (ng) : 41.4442
Integration start scan : 1224 Integration stop scan: 1259
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

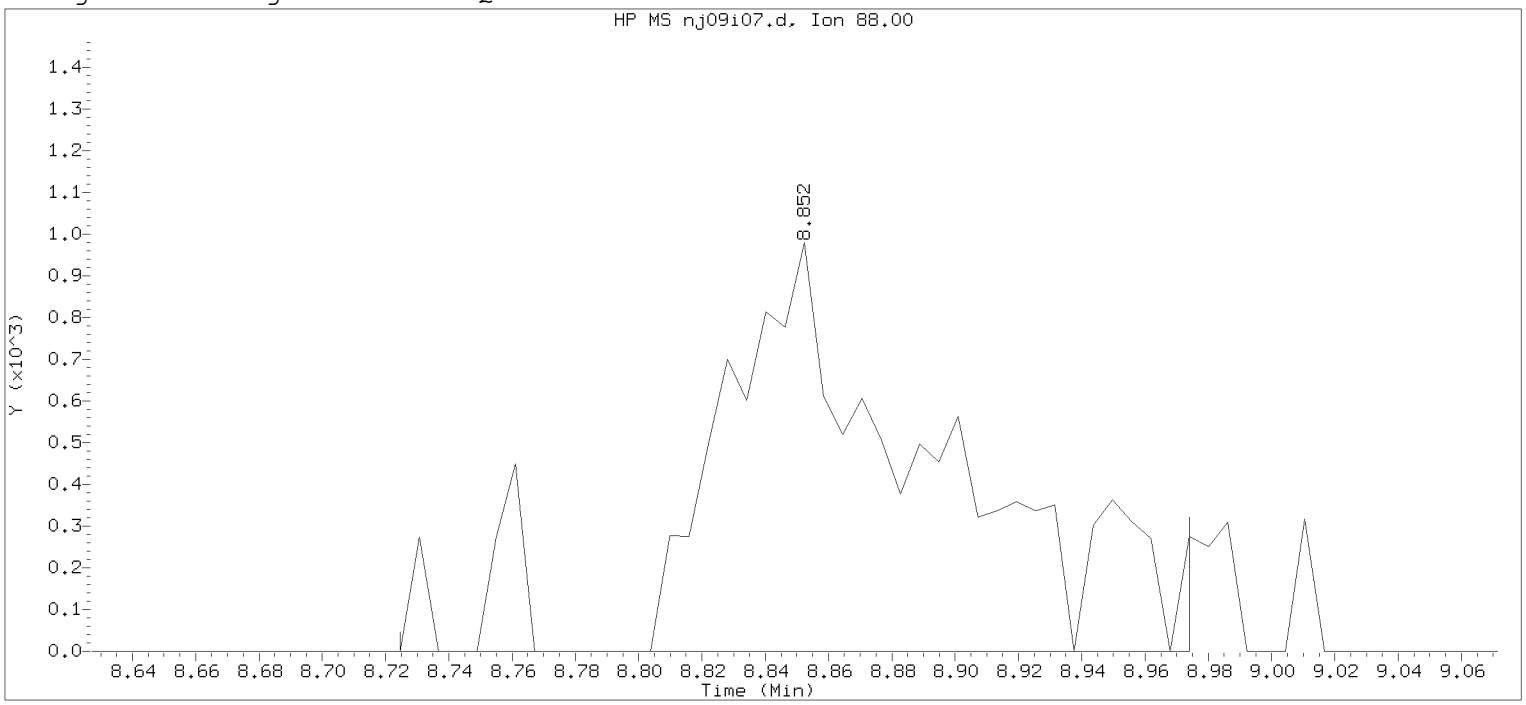
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

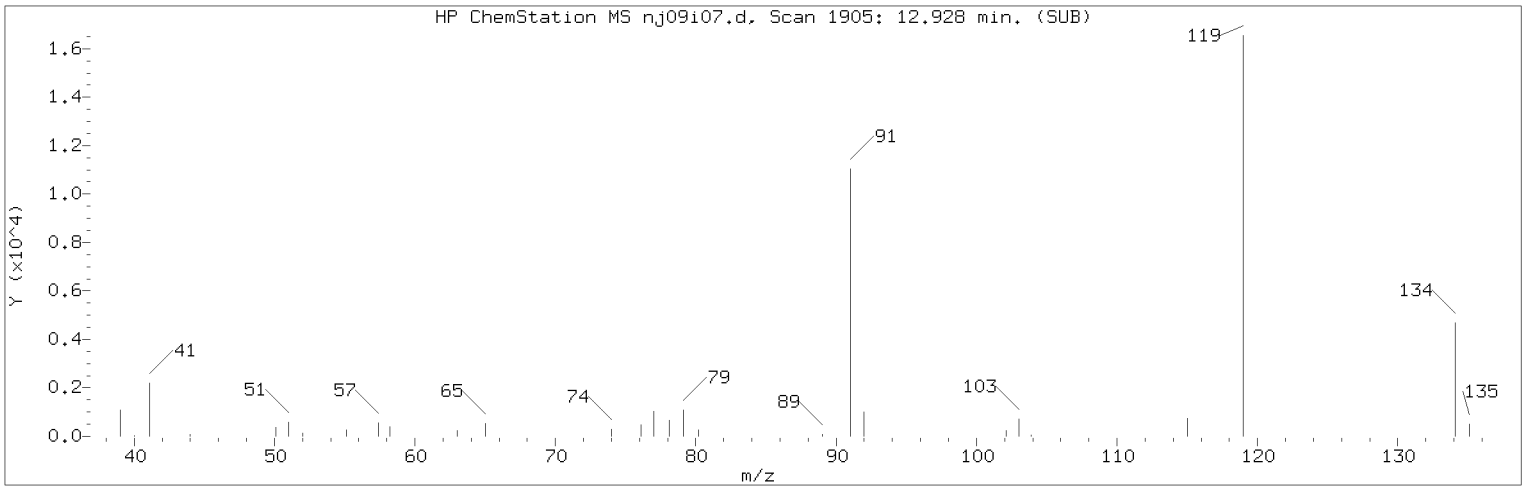
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

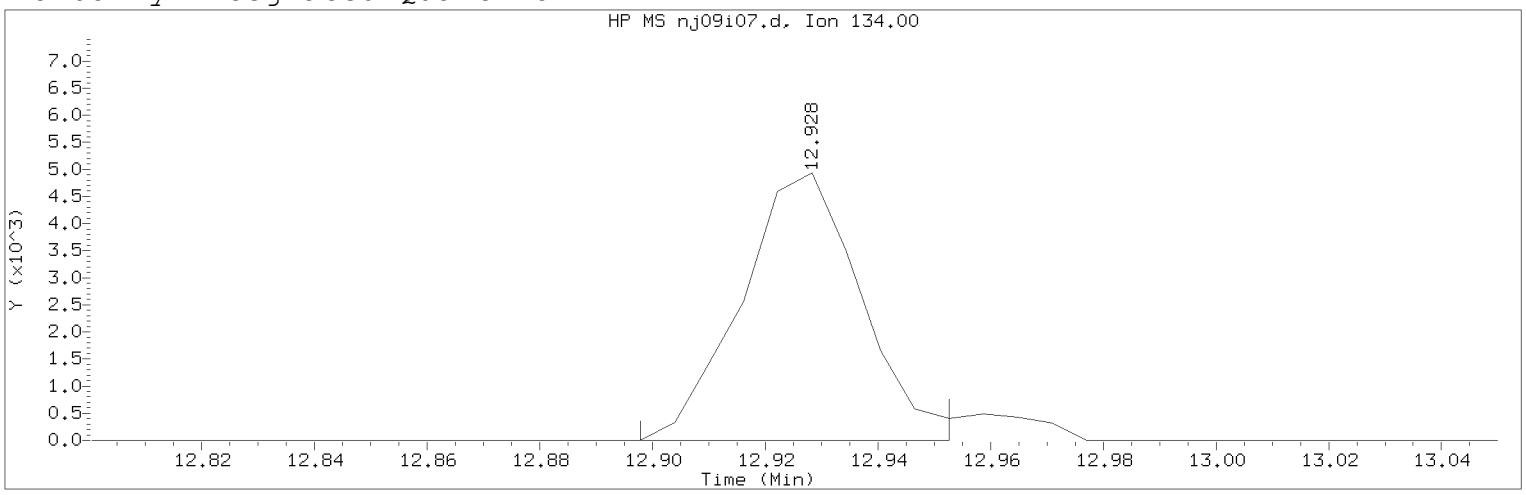
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area : 4792
On-column Amount (ng) : 63.8068
Integration start scan : 1213 Integration stop scan: 1254
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

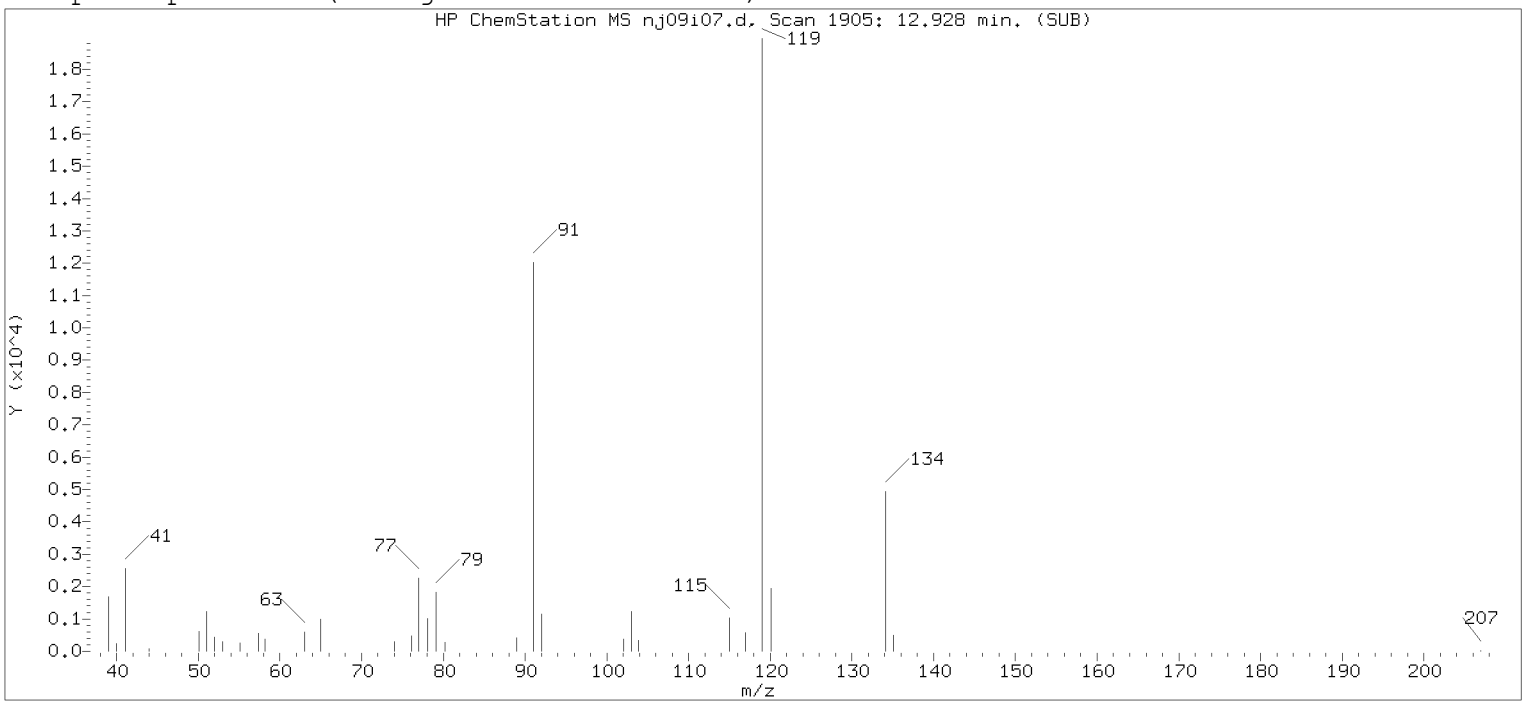
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area (flag) : 7292M
On-Column Amount (ng) : 0.9061
Integration start scan : 1899 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

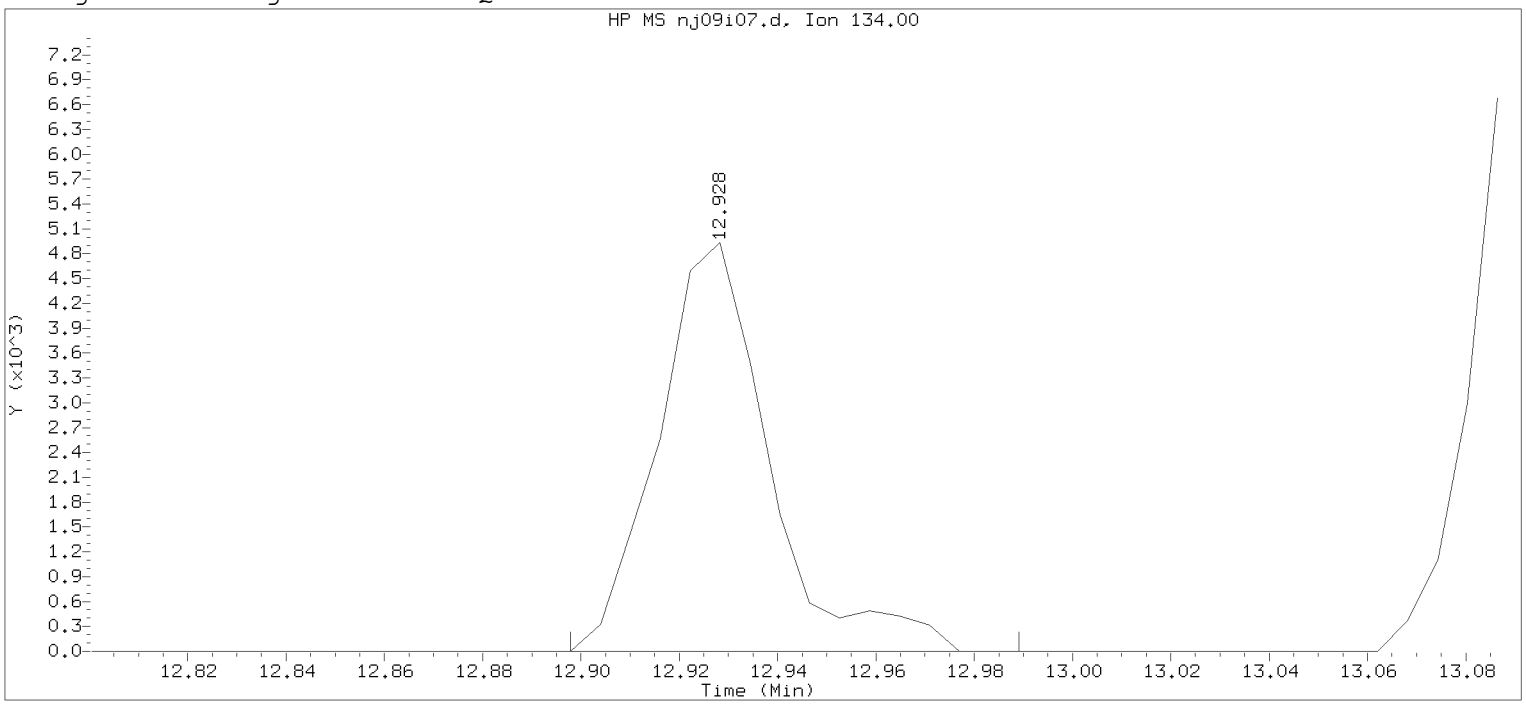
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



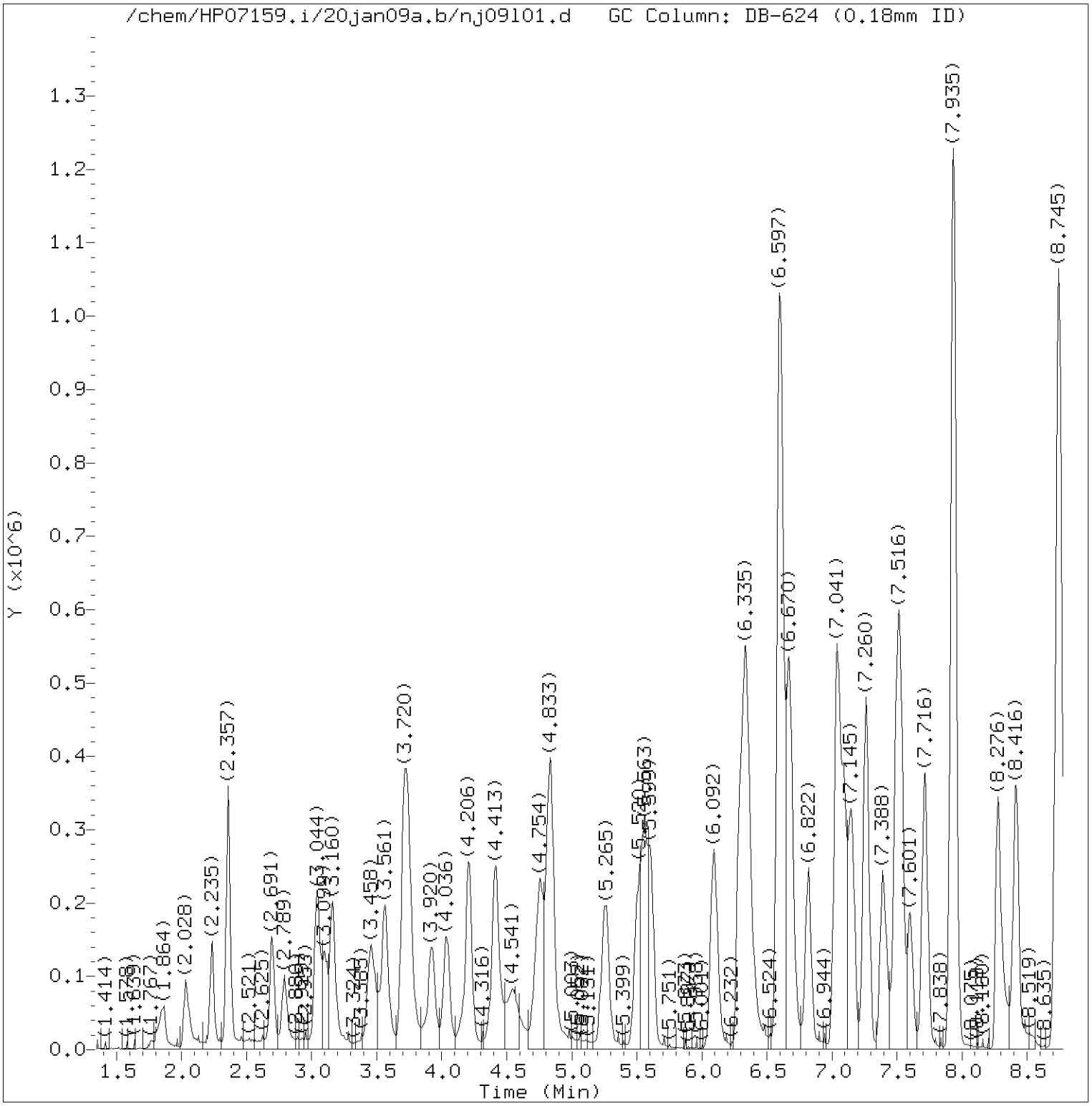
Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area : 7741
On-column Amount (ng) : 0.9299
Integration start scan : 1899 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

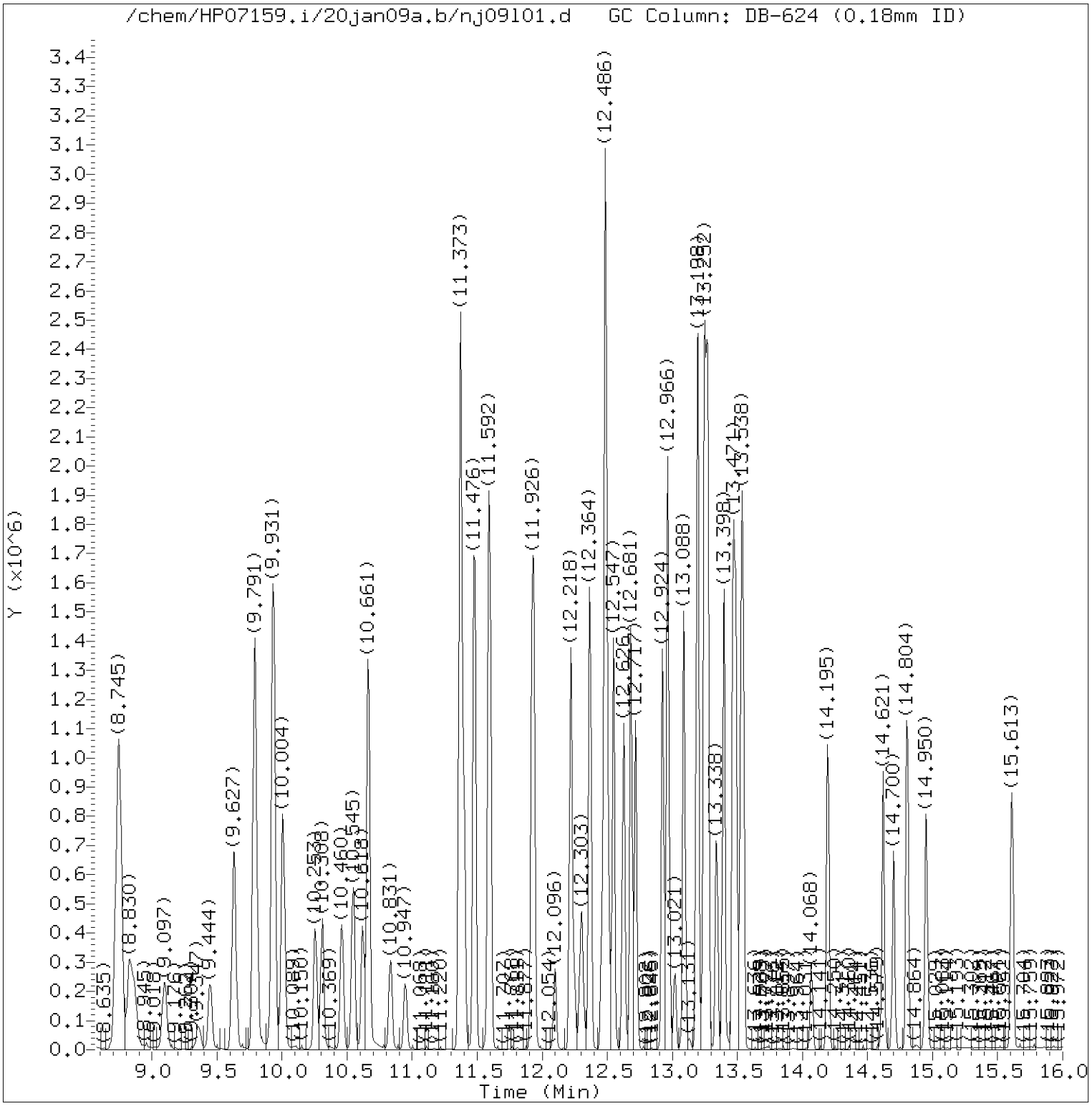
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	172887M	16.967
4) Chloromethane	(2)	2.235	50	184992	16.943
6) Vinyl Chloride	(2)	2.357	62	188033	17.698
5) 1,3-Butadiene	(2)	2.363	39	123154M	16.165
8) Bromomethane	(2)	2.691	94	132573	18.199
9) Chloroethane	(2)	2.789	64	113549	18.260
10) Dichlorofluoromethane	(2)	3.038	67	260659	18.303
12) Trichlorofluoromethane	(2)	3.099	101	233281	19.978
11) n-Pentane	(2)	3.160	43	191981	16.781
13) Ethanol	(1)	3.227	45	45809	484.983
15) Freon 123a	(2)	3.458	67	163827	19.151
16) Acrolein	(1)	3.561	56	341433	129.019
17) 1,1-Dichloroethene	(2)	3.707	96	121203	17.811
19) Freon 113	(2)	3.732	101	124454	19.711
18) Acetone	(1)	3.750	58	155756	139.737
22) Methyl Iodide	(2)	3.920	142	230118	18.116
21) 2-Propanol	(1)	3.926	45	87961	119.481
23) Carbon Disulfide	(2)	4.036	76	369879	16.997
27) Methyl Acetate	(2)	4.188	43	159905	19.127
25) Allyl Chloride	(2)	4.212	41	231154	19.240
28) Methylene Chloride	(2)	4.413	84	151683	18.767
29)*t-Butyl alcohol-d10	(1)	4.419	65	390248M	250.000
30) t-Butyl alcohol	(1)	4.553	59	282560	194.213
31) Acrylonitrile	(2)	4.754	53	399953	88.580
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	424064	19.177
32) trans-1,2-Dichloroethene	(2)	4.839	96	148725	19.144
34) n-Hexane	(2)	5.253	57	200972	18.739
36) 1,1-Dichloroethane	(2)	5.502	63	273982	19.332
38) di-Isopropyl ether	(2)	5.557	45	469654	19.237
39) 2-Chloro-1,3-butadiene	(2)	5.605	53	242564	19.389
40) Ethyl t-butyl ether	(2)	6.092	59	453185	19.530
43) 1,2-Dichloroethene (Total)	(2)		96	327646	39.422
44) 2-Butanone	(2)	6.293	43	838072	132.744
42) cis-1,2-Dichloroethene	(2)	6.329	96	178921	20.278
45) 2,2-Dichloropropane	(2)	6.348	77	245245	19.600
47) Propionitrile	(1)	6.378	54	249794	147.003
48) Methacrylonitrile	(2)	6.597	67	672805	147.518
49) Bromochloromethane	(2)	6.670	128	83465	20.007

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.676	71	161692	91.653
51) Chloroform	(2)	6.816	83	273654	19.796
52)$Dibromofluoromethane	(2)	7.035	113	327682	50.439
53) 1,1,1-Trichloroethane	(2)	7.047	97	242925	19.424
54) Cyclohexane	(2)	7.151	56	239373	18.608
55) 1,1-Dichloropropene	(2)	7.260	75	214656	18.976
56) Carbon Tetrachloride	(2)	7.260	117	208434	19.329
58) Isobutyl Alcohol	(1)	7.394	41	246899	473.743
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81217M	49.444
60) Benzene	(2)	7.528	78	616763	19.154
61) 1,2-Dichloroethane	(2)	7.601	62	223553	19.624
65) t-Amyl methyl ether	(2)	7.716	73	459749	19.750
66)*Fluorobenzene	(2)	7.929	96	1309085	50.000
67) n-Heptane	(2)	7.935	43	217579	17.577
69) n-Butanol	(1)	8.276	56	428313	954.058
71) Trichloroethene	(2)	8.410	95	161539	19.042
72) Methylcyclohexane	(2)	8.726	83	283782	20.350
73) 1,2-Dichloropropane	(2)	8.751	63	165995	20.160
76) Methyl Methacrylate	(2)	8.824	69	150988	20.052
75) 1,4-Dioxane	(1)	8.842	88	61853M	545.377
74) Dibromomethane	(2)	8.860	93	103521	19.714
78) Bromodichloromethane	(2)	9.097	83	210550	19.640
79) 2-Nitropropane	(2)	9.359	41	70302	18.056
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	123006	18.885
81) cis-1,3-Dichloropropene	(2)	9.627	75	270616	19.789
82) 4-Methyl-2-pentanone	(2)	9.791	43	1188234	92.892
83)$Toluene-d8	(3)	9.931	98	1310155	49.875
88) Toluene	(3)	10.004	92	411185	19.269
90) 1,3-Dichloropropene (total)	(3)		100	521418	38.726
89) trans-1,3-Dichloropropene	(3)	10.253	75	250802	18.937
91) Ethyl Methacrylate	(3)	10.308	69	247225	18.736
92) 1,1,2-Trichloroethane	(3)	10.460	97	151735	20.084
93) Tetrachloroethene	(3)	10.545	166	180295	19.294
94) 1,3-Dichloropropane	(3)	10.618	76	257089	19.606
96) 2-Hexanone	(3)	10.661	43	912359	90.325
97) Dibromochloromethane	(3)	10.831	129	174399	20.115
99) 1,2-Dibromoethane	(3)	10.947	107	161829	19.561
100)*Chlorobenzene-d5	(3)	11.373	117	1007216	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.397	112	469051	19.695
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	167194	19.481
104) Ethylbenzene	(3)	11.482	91	812040	19.674
106) m+p-Xylene	(3)	11.592	106	642426	39.614
108) Xylene (Total)	(3)		106	954122	59.157
107) o-Xylene	(3)	11.920	106	311696	19.542
109) Styrene	(3)	11.938	104	529744	19.775
110) Bromoform	(3)	12.096	173	128184	19.583
111) Isopropylbenzene	(3)	12.218	105	846257	20.089
112) Cyclohexanone	(1)	12.297	55	233984	514.439
114)$4-Bromofluorobenzene	(3)	12.364	95	516611	49.779
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	244630	20.176
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	422238	101.238
115) Bromobenzene	(4)	12.486	156	204667	20.076
117) 1,2,3-Trichloropropane	(4)	12.510	110	75948	19.774
119) n-Propylbenzene	(4)	12.547	91	1009049	20.415
120) 2-Chlorotoluene	(4)	12.626	126	202889	19.910
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	723706	19.983
121) 4-Chlorotoluene	(4)	12.717	126	206836	19.585
124) tert-Butylbenzene	(4)	12.924	134	159664M	19.895
125) Pentachloroethane	(4)	12.960	167	123390	19.202
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	739278	19.668
127) sec-Butylbenzene	(4)	13.088	105	944178	20.071
129) 1,3-Dichlorobenzene	(4)	13.192	146	394795	19.911
130) p-Isopropyltoluene	(4)	13.198	119	823611	20.119
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	551230	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	402308	20.007
134) 1,2,3-Trimethylbenzene	(4)	13.271	105	739639	20.275
135) Benzyl Chloride	(4)	13.338	91	480091	17.914
141) Diethylbenzene (total)	(4)		100	1405294	59.155
136) 1,3-Diethylbenzene	(4)	13.398	119	485360	19.807
137) 1,4-Diethylbenzene	(4)	13.471	119	512643	19.702
139) n-Butylbenzene	(4)	13.490	92	415139	19.659
138) 1,2-Dichlorobenzene	(4)	13.526	146	375889	19.995
140) 1,2-Diethylbenzene	(4)	13.544	119	407291	19.646
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	63970	19.522
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	300827	20.076
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	267533	20.476

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

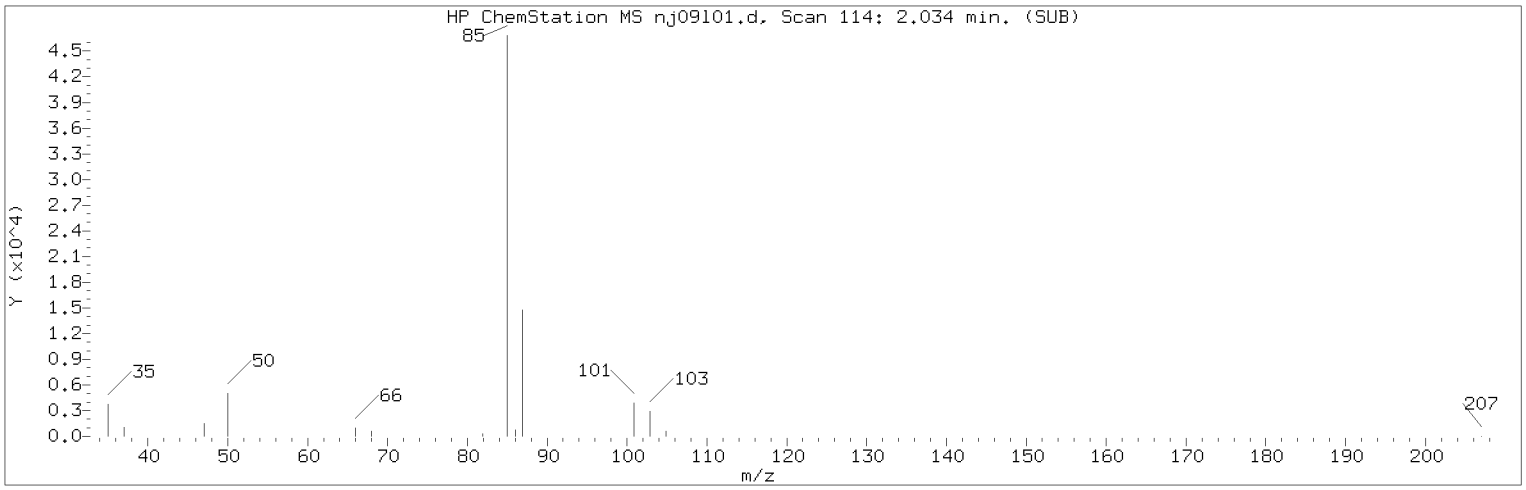
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

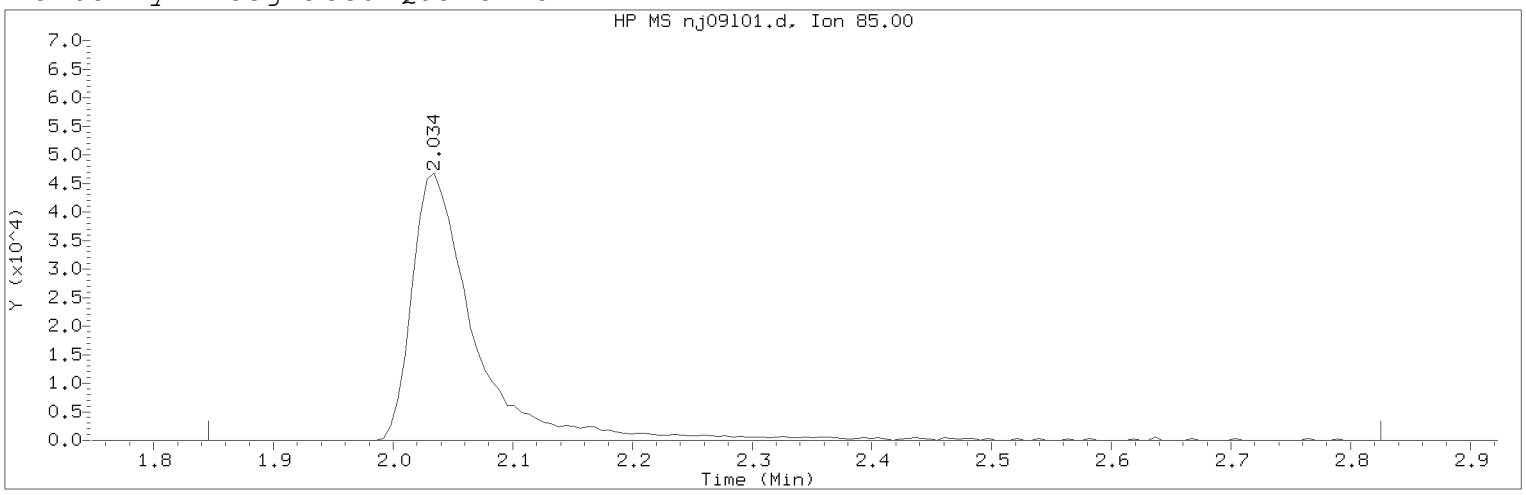
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.700	225	112216	18.987
148) Naphthalene	(4)	14.804	128	822043	20.066
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	243832	20.330
150) 2-Methylnaphthalene	(4)	15.613	142	445871	18.843

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

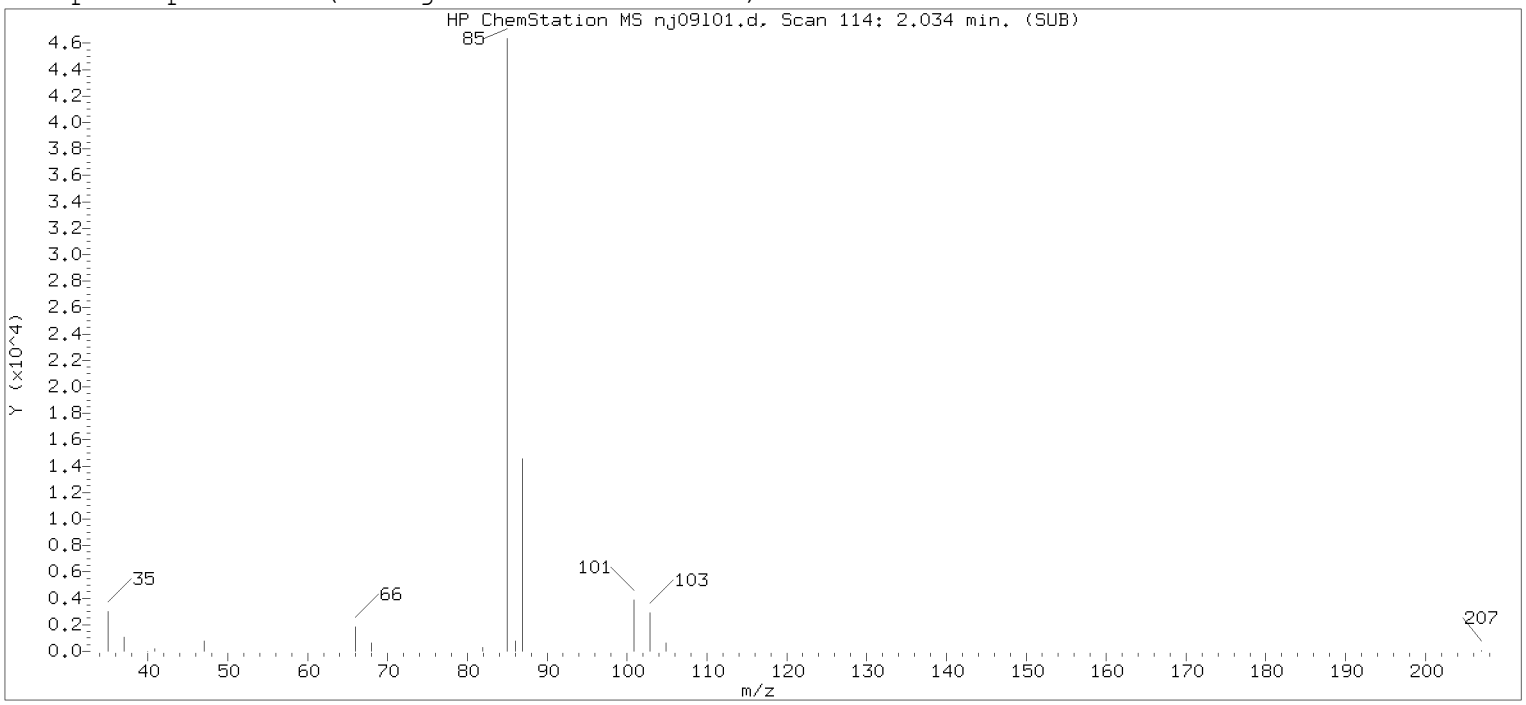
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 172887M
On-Column Amount (ng) : 16.9669
Integration start scan : 82 Integration stop scan: 243
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

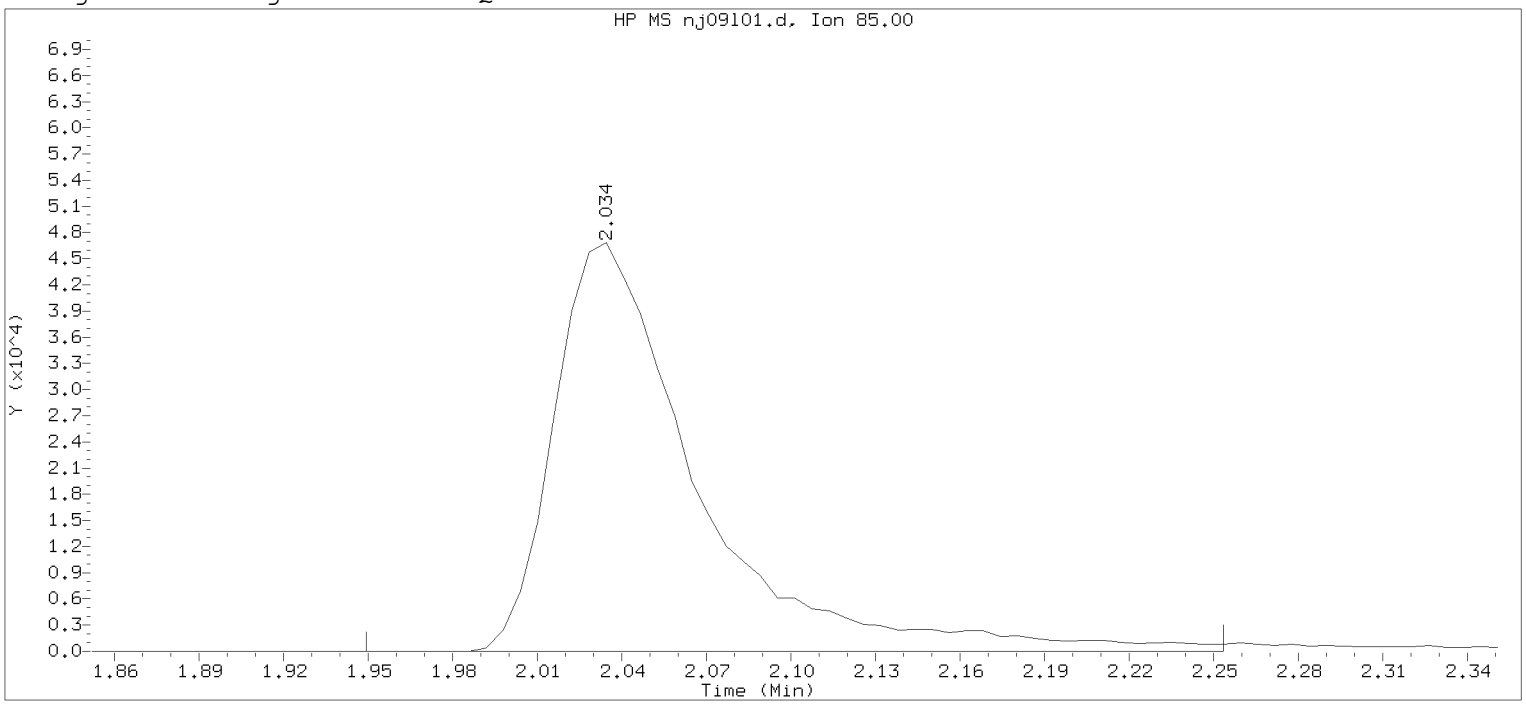
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

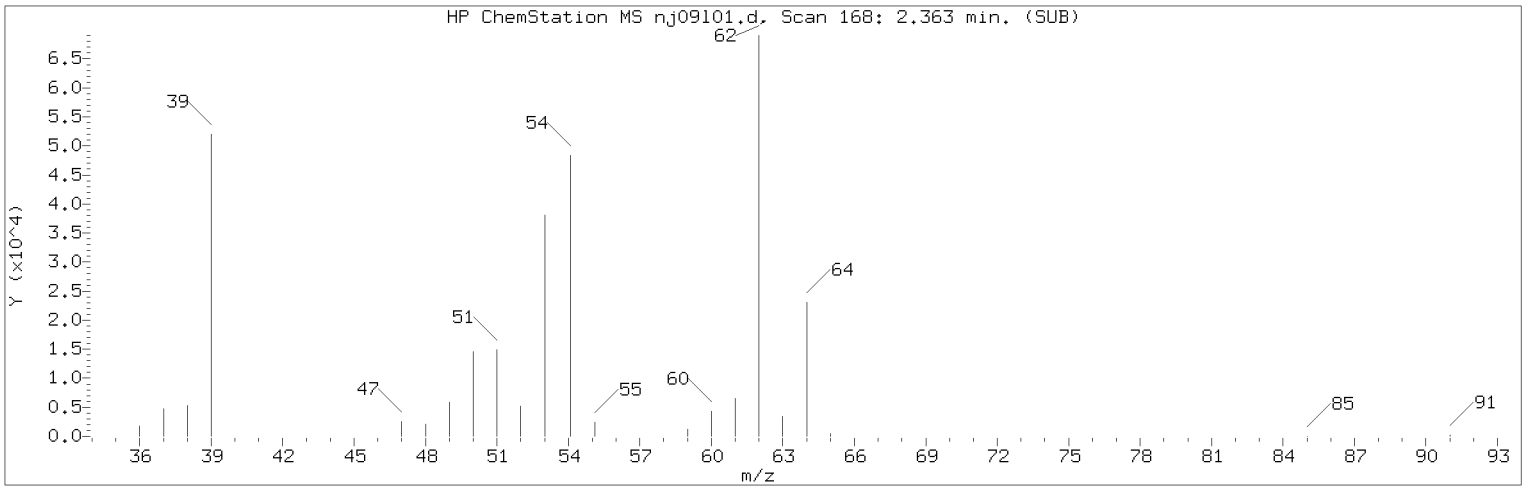
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

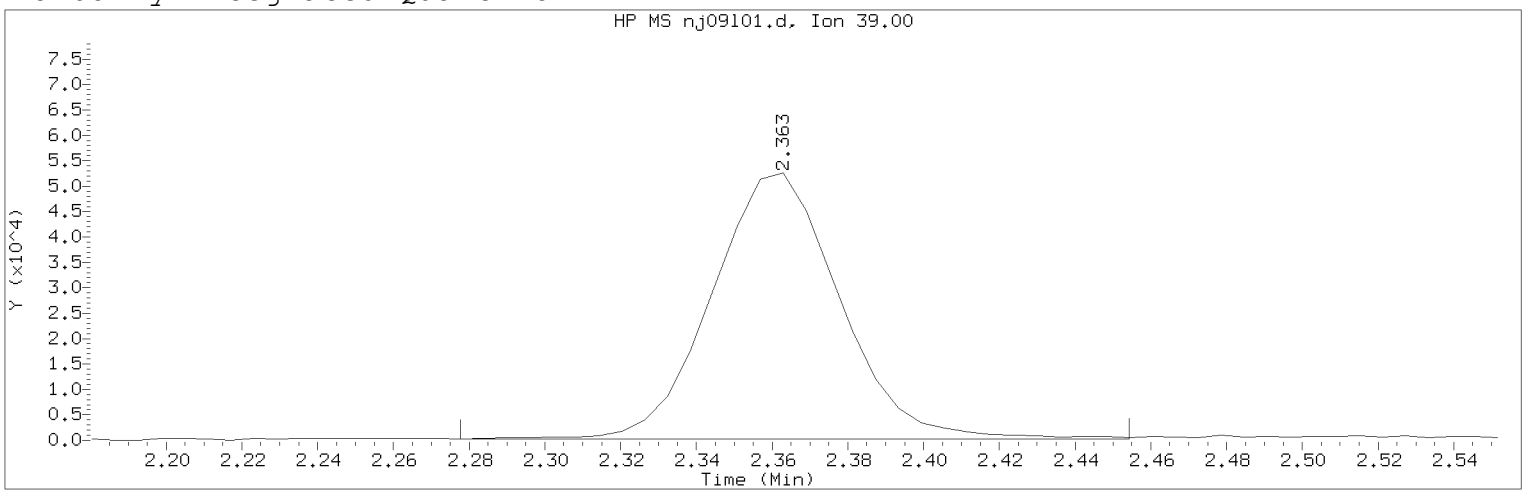
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 165219
On-column Amount (ng) : 16.2144
Integration start scan : 99 Integration stop scan: 149
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

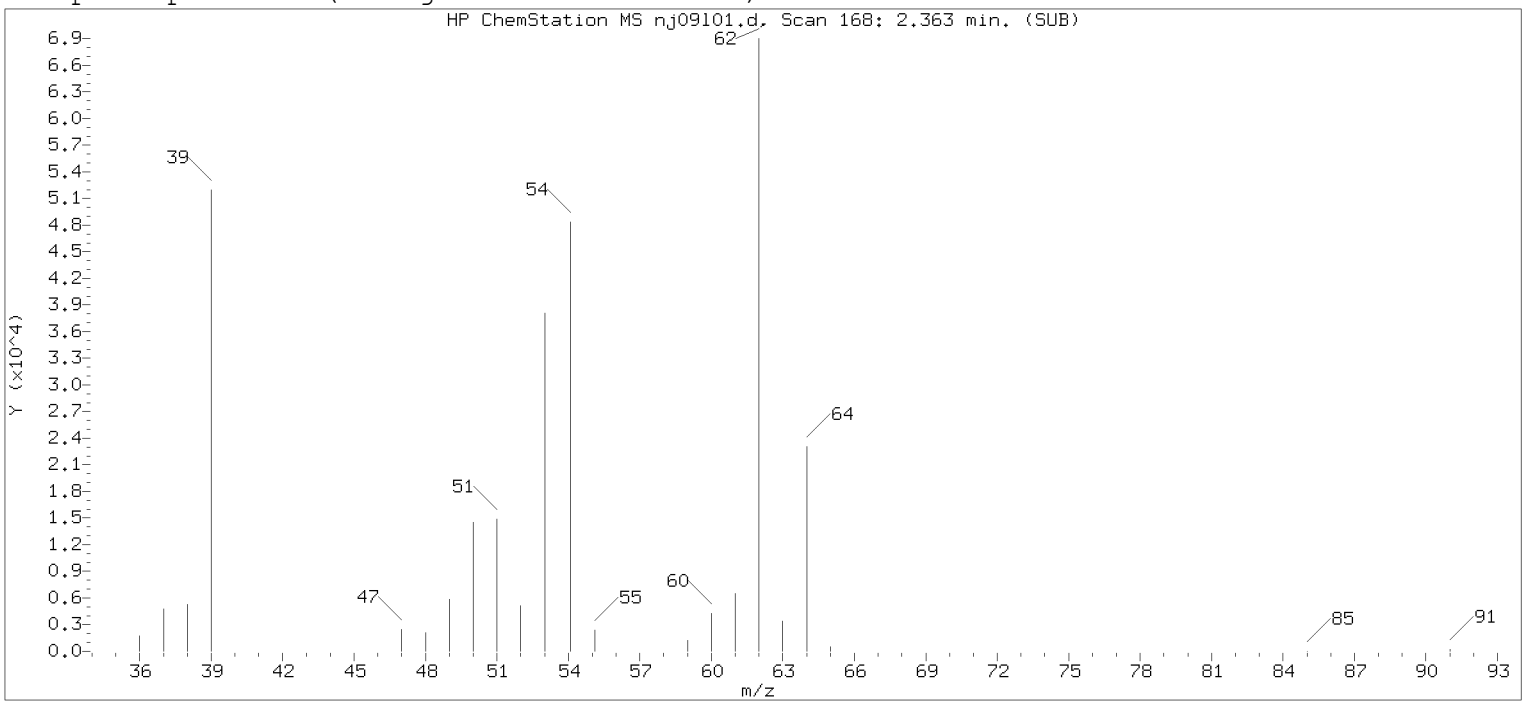
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 123154M
On-Column Amount (ng) : 16.1652
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 222 Y at integration end: 222

Reason for manual integration: improper integration

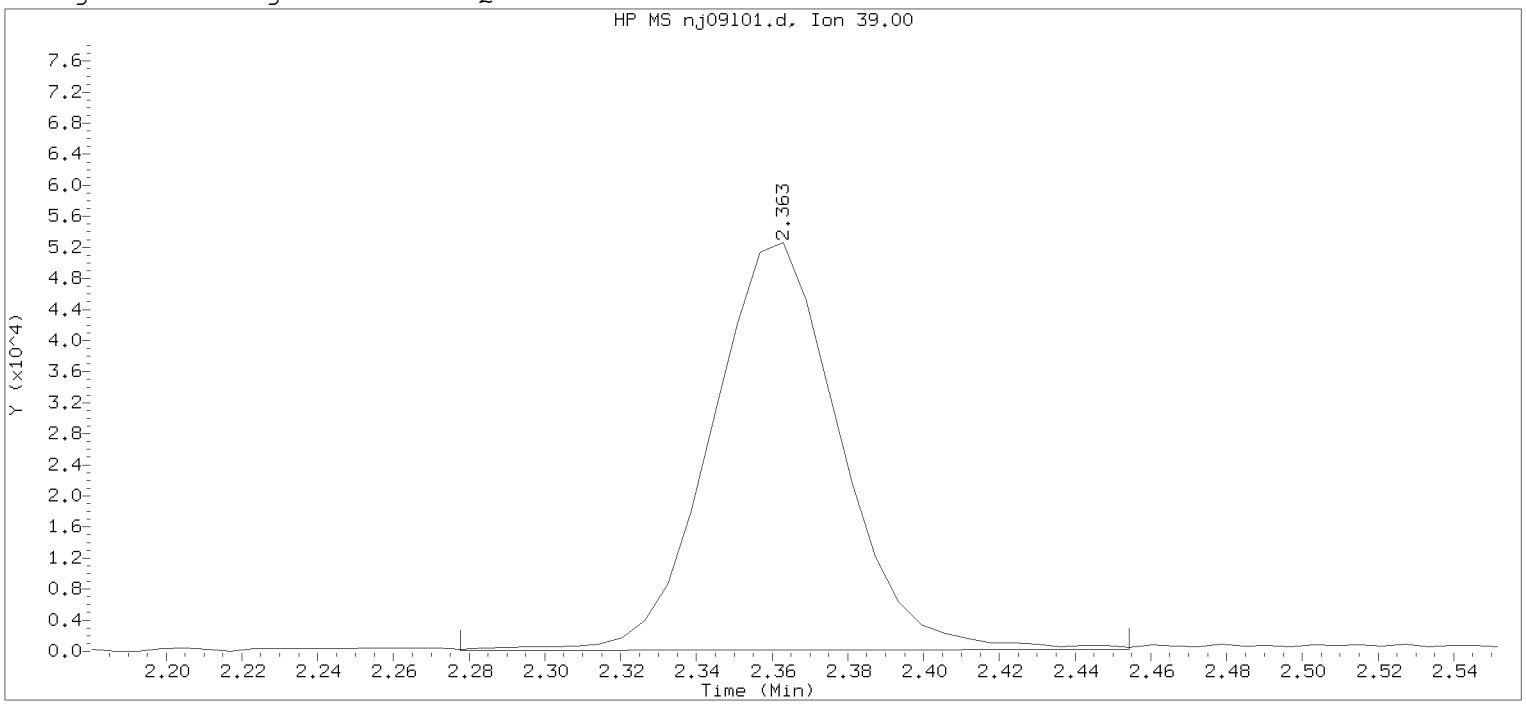
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

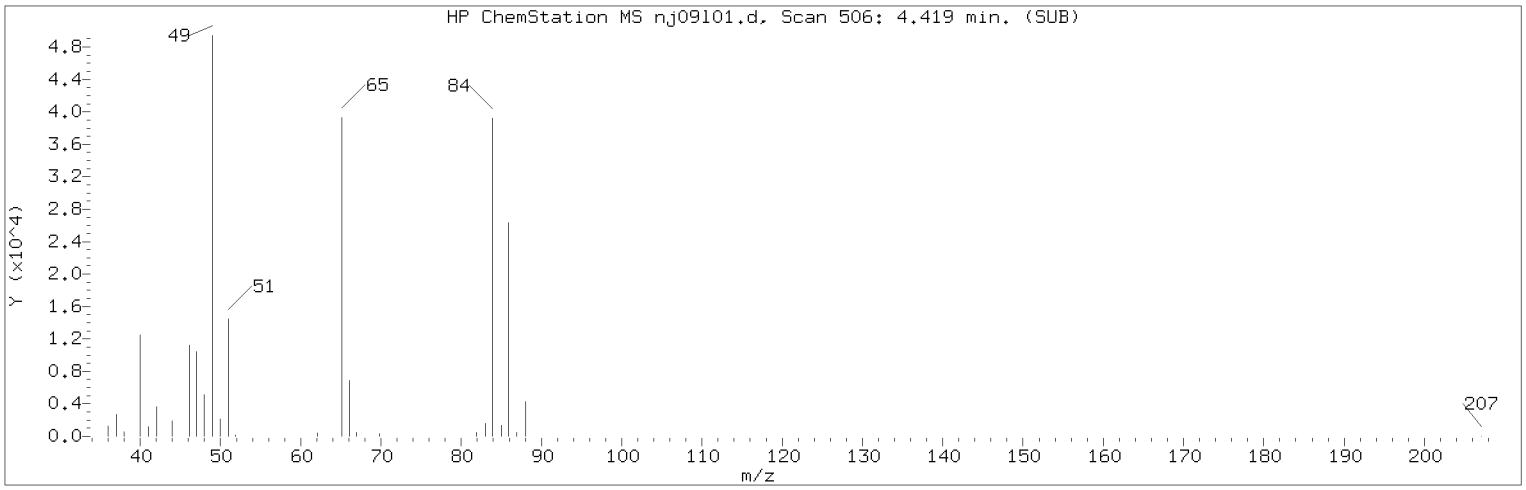
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

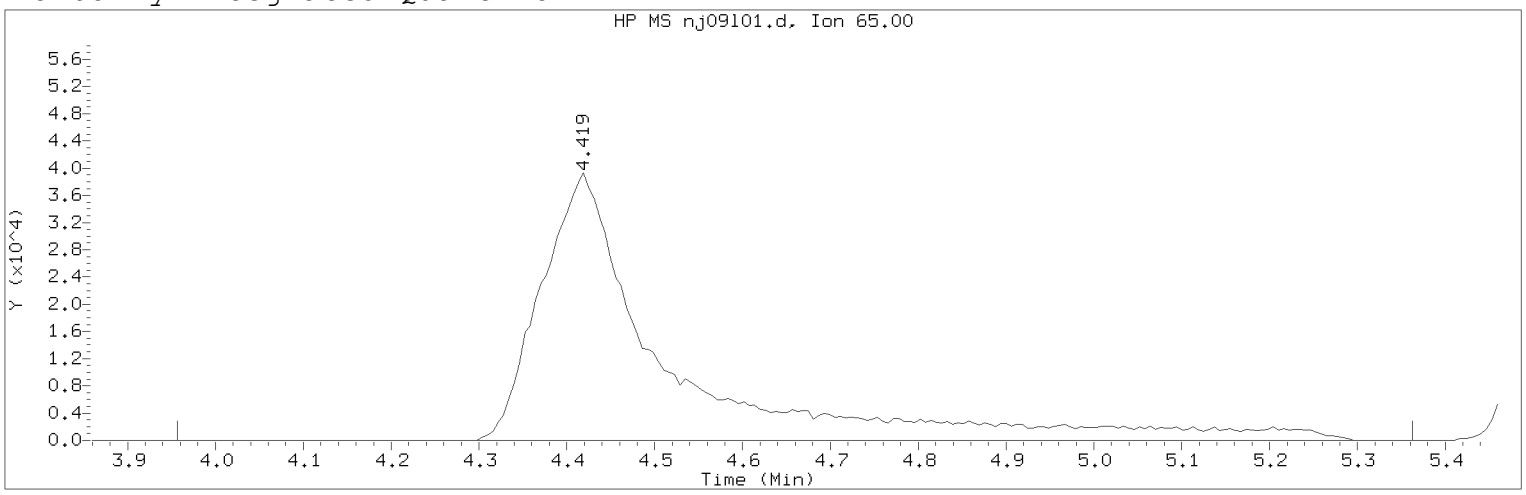
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 123778
On-column Amount (ng) : 16.2471
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 98 Y at integration end: 217

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

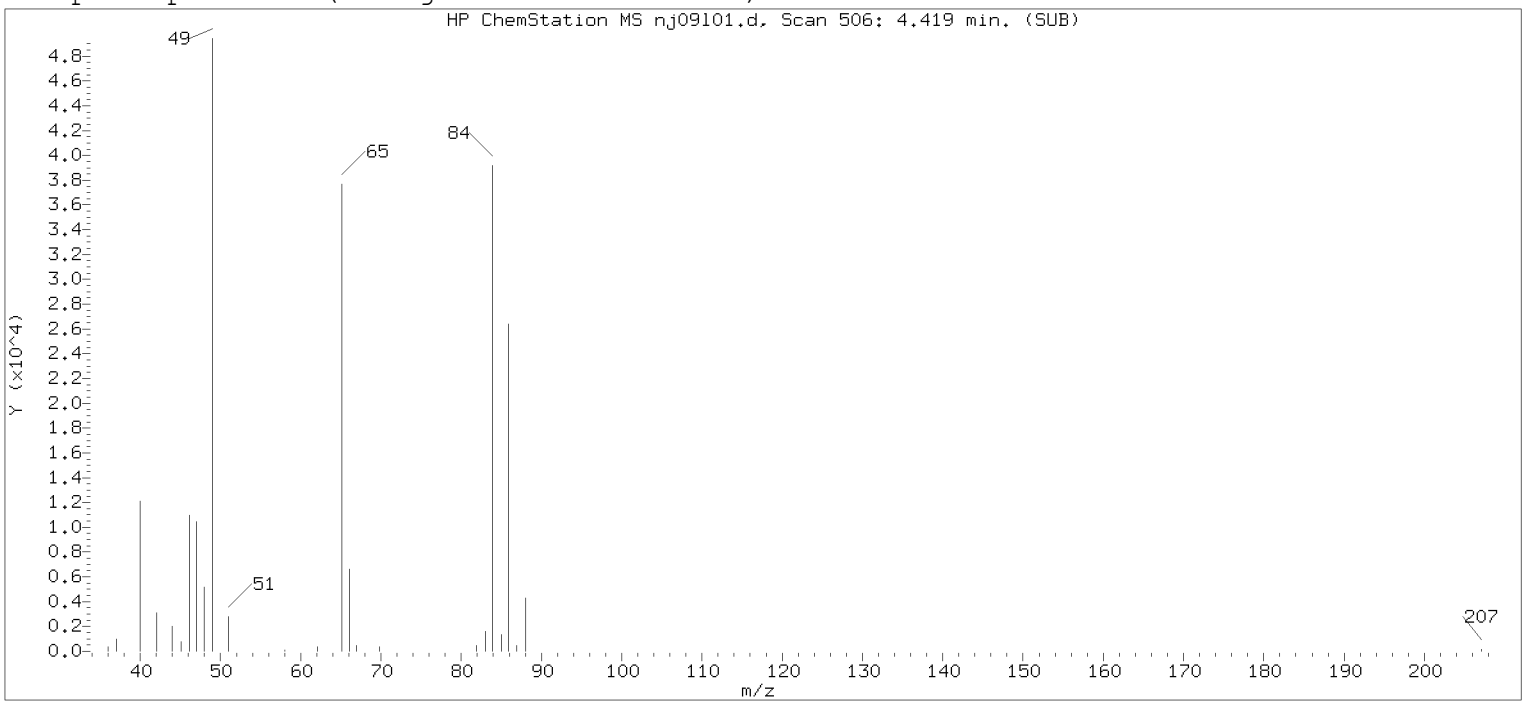
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area (flag) : 390248M
On-Column Amount (ng) : 250.0000
Integration start scan : 429 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

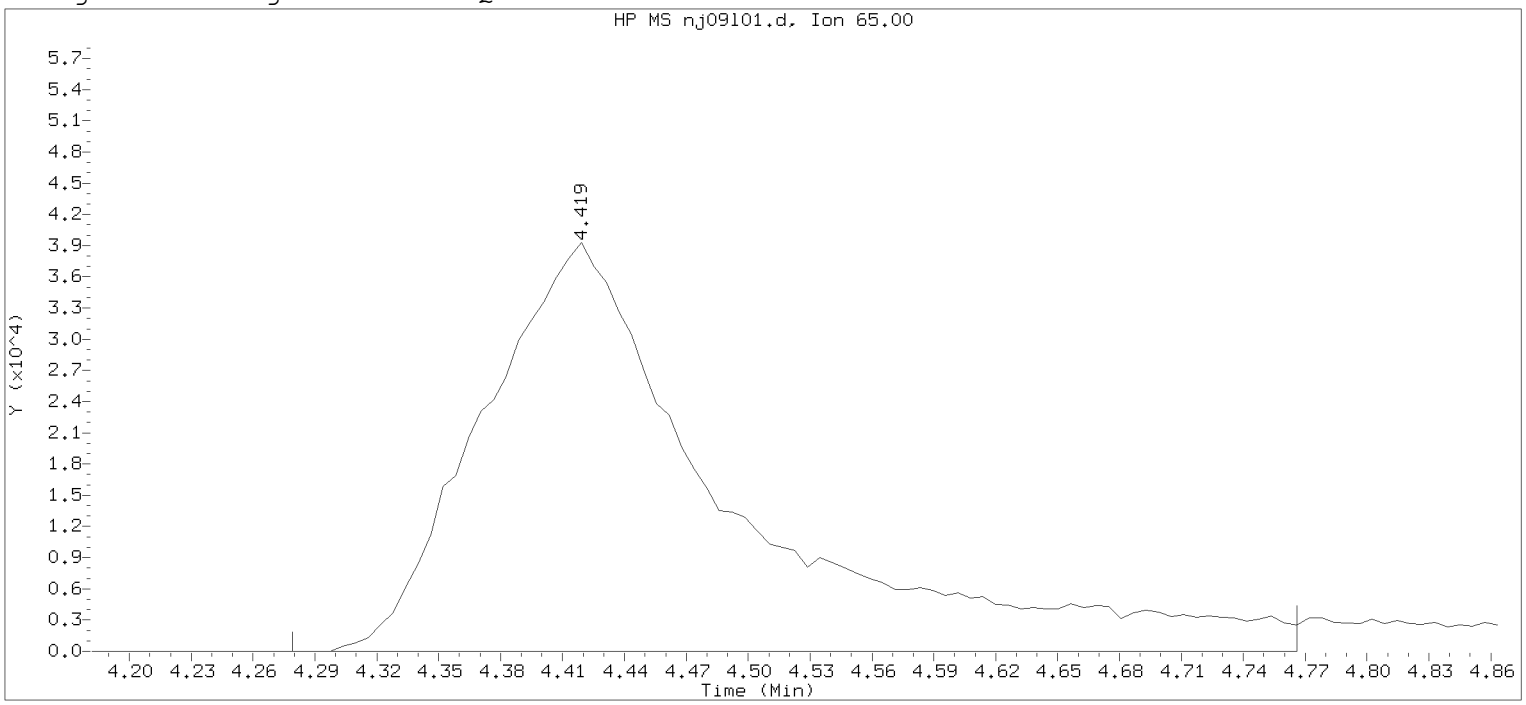
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

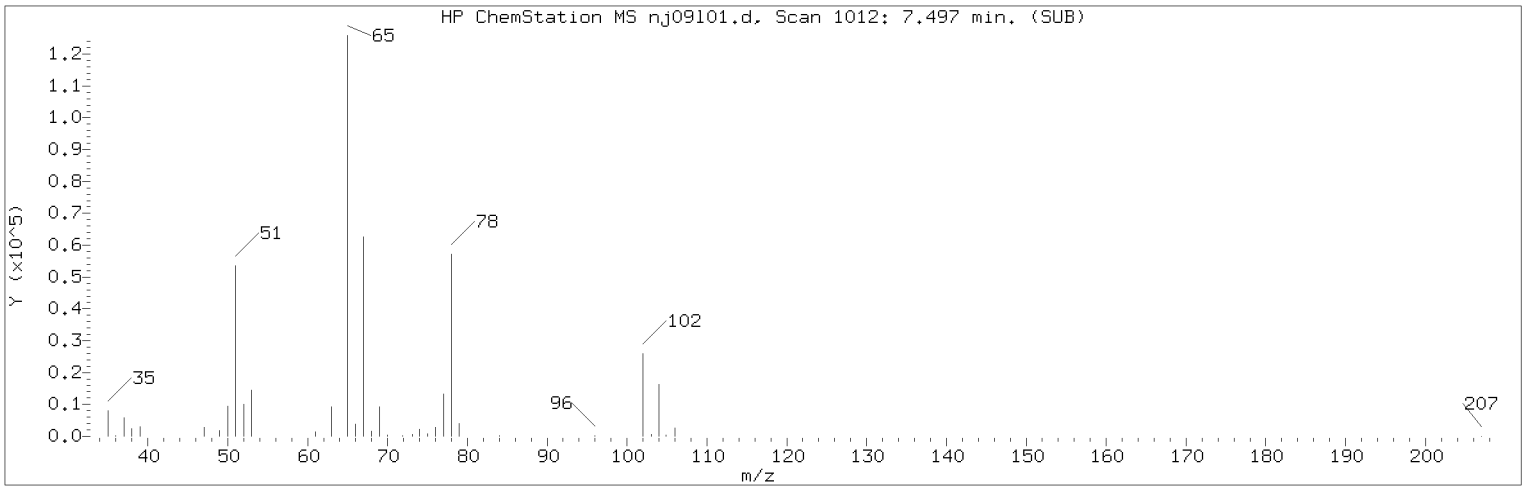
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

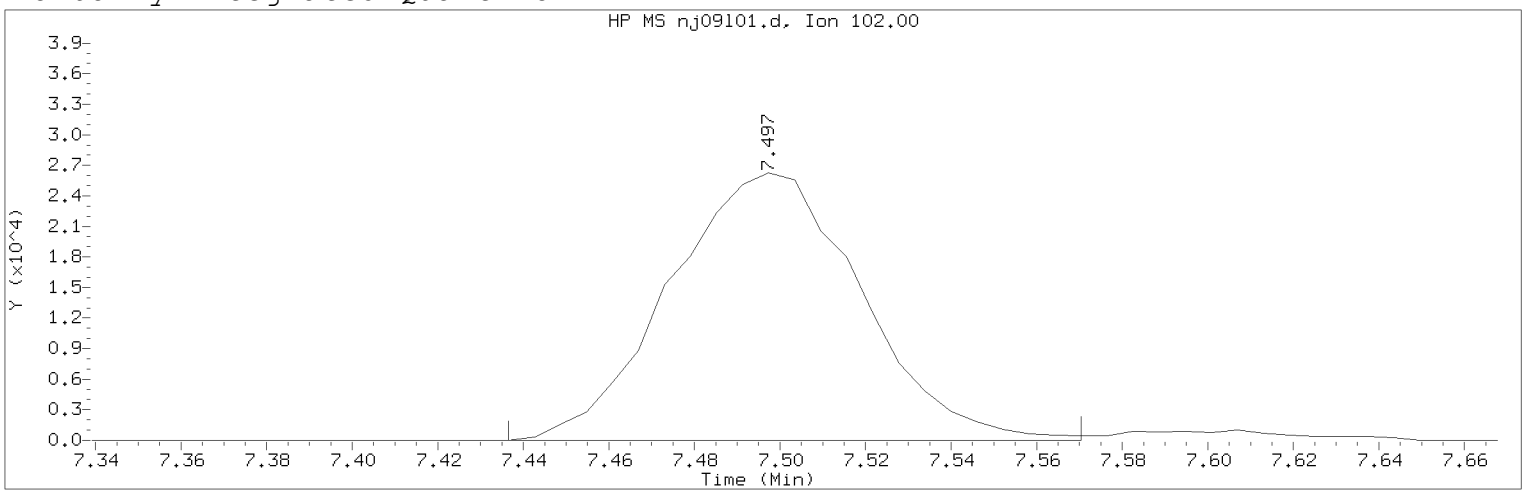
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area : 329830
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

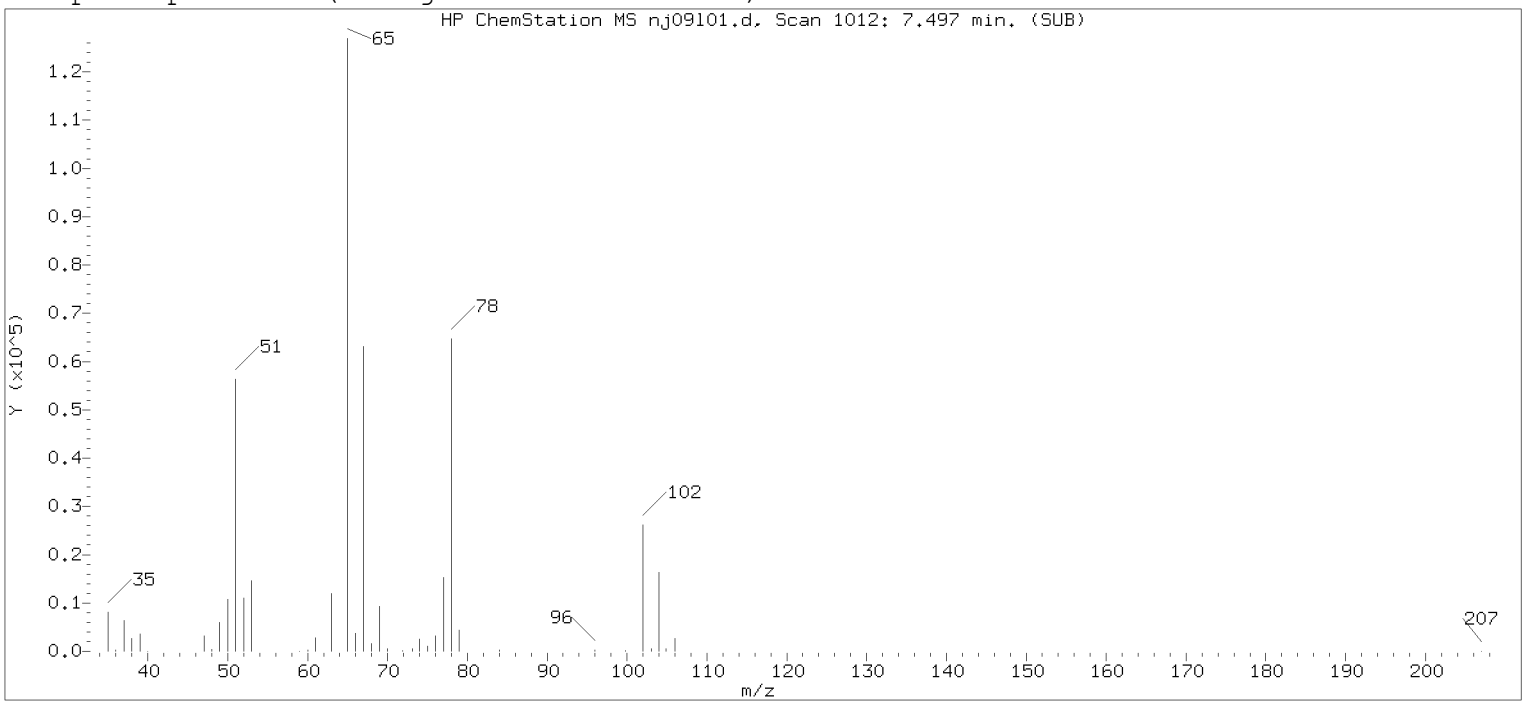
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area (flag) : 81217M
On-Column Amount (ng) : 49.4437
Integration start scan : 1001 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

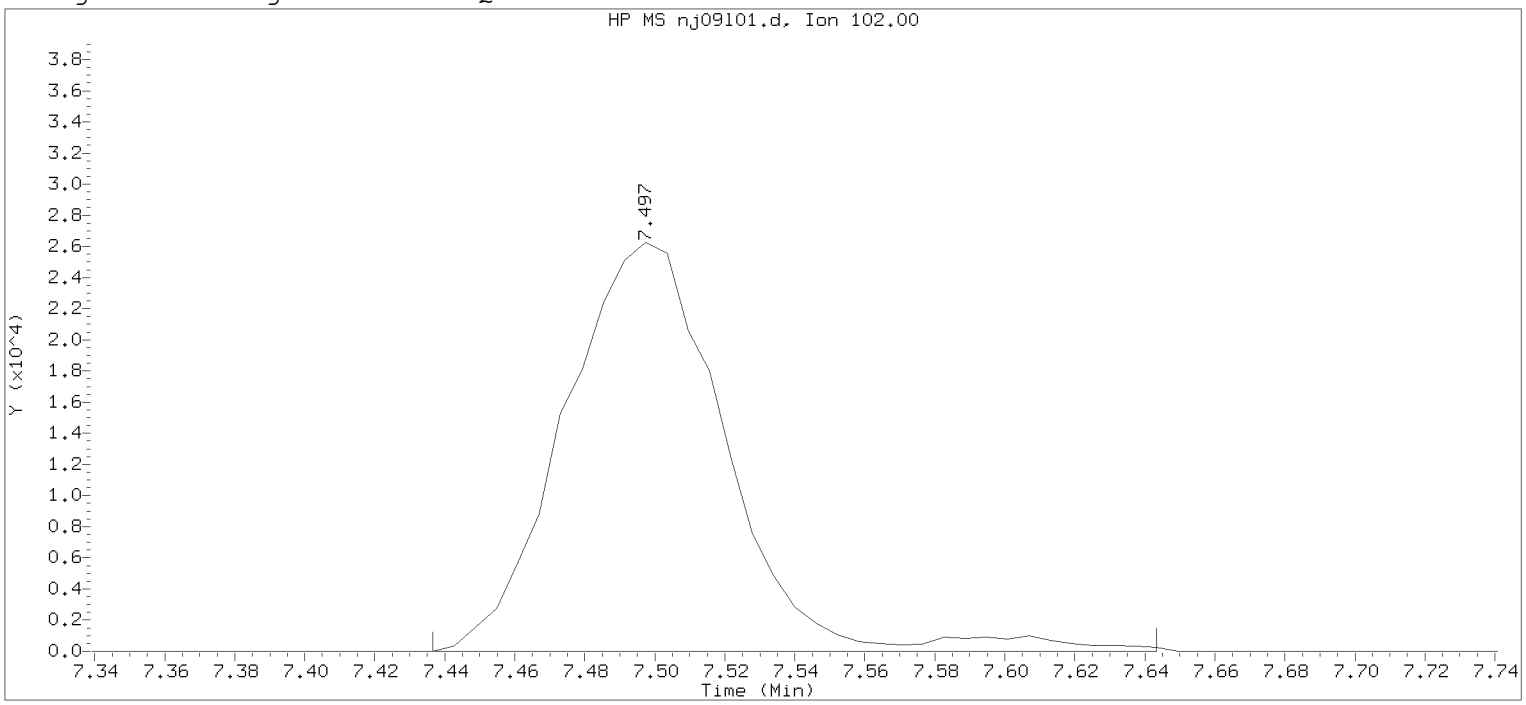
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

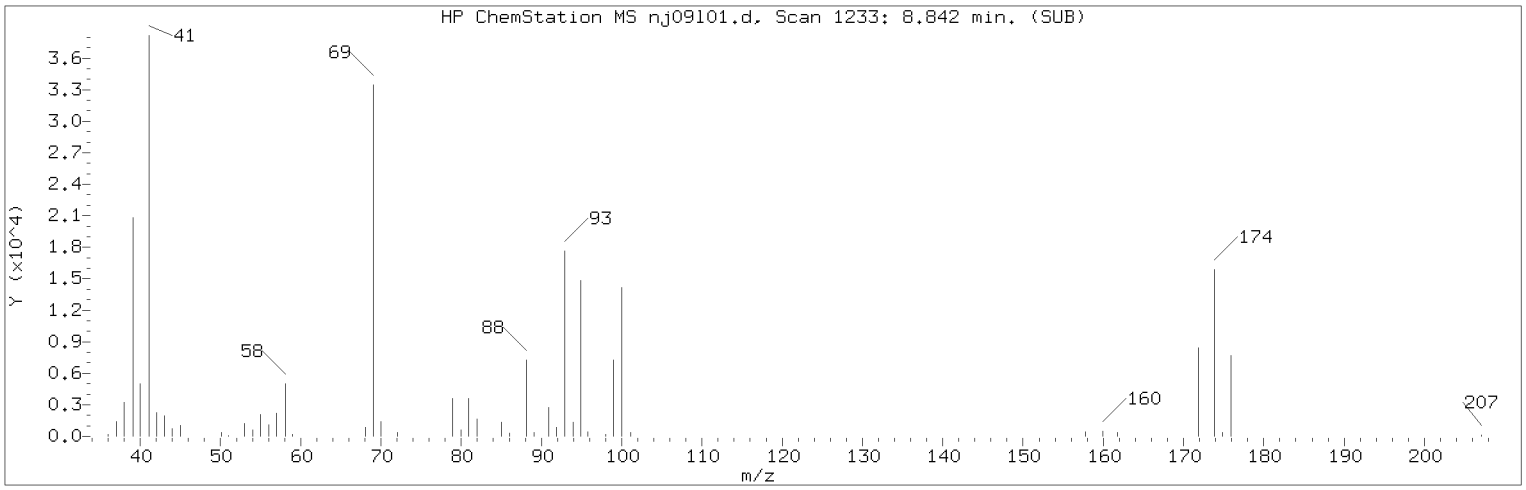
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

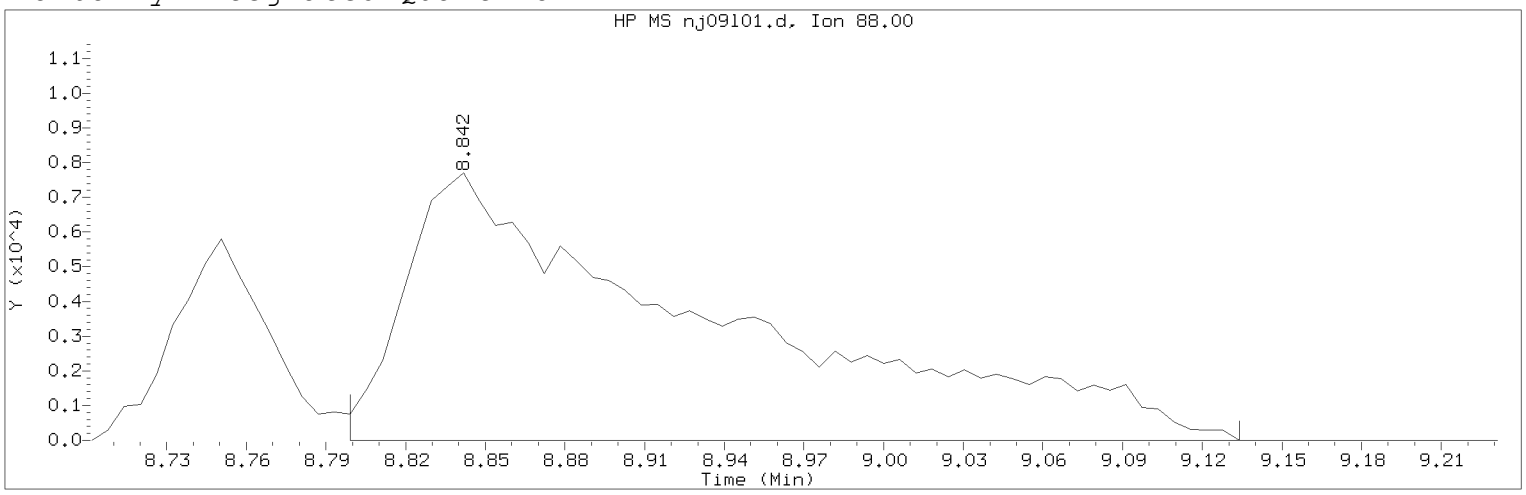
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area : 83865
On-column Amount (ng) : 51.0558
Integration start scan : 1001 Integration stop scan: 1035
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

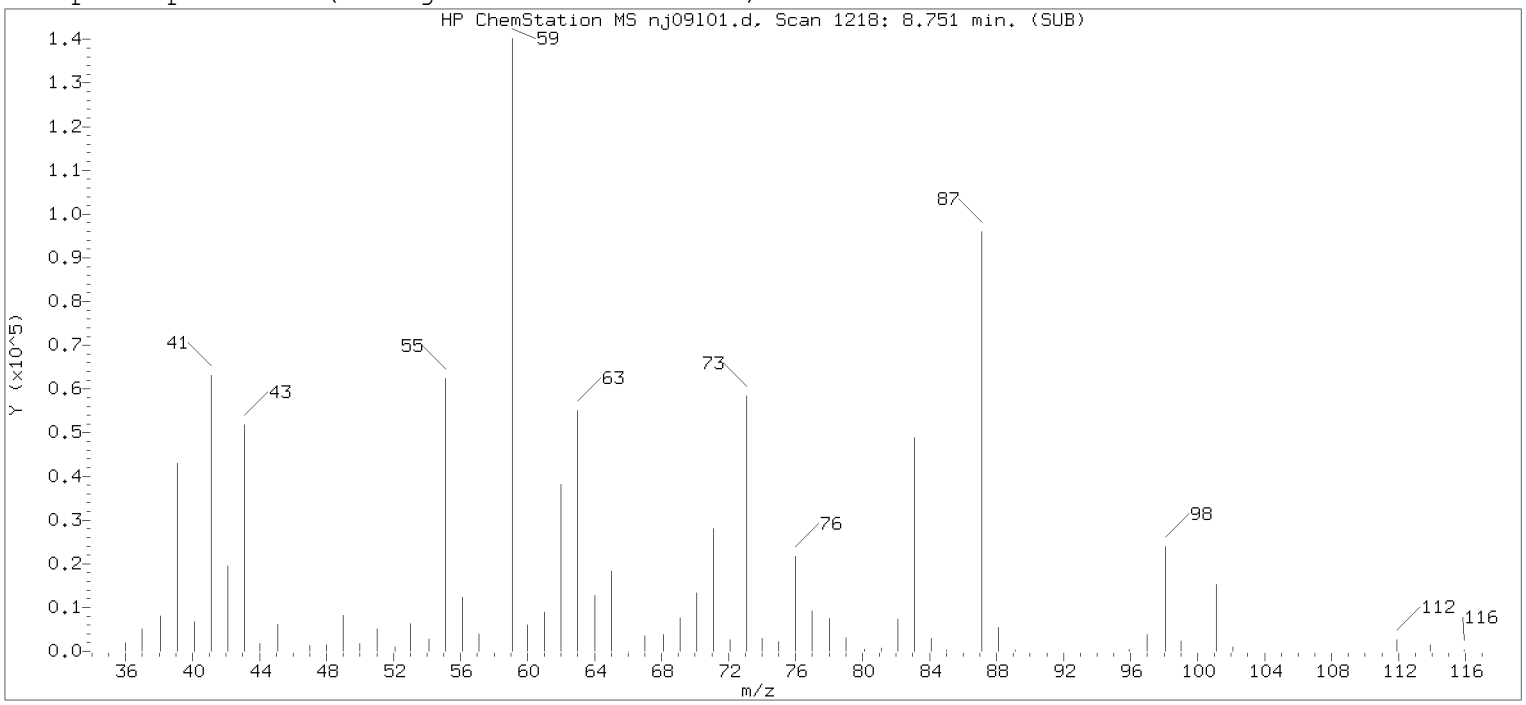
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 61853M
On-Column Amount (ng) : 545.3766
Integration start scan : 1225 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

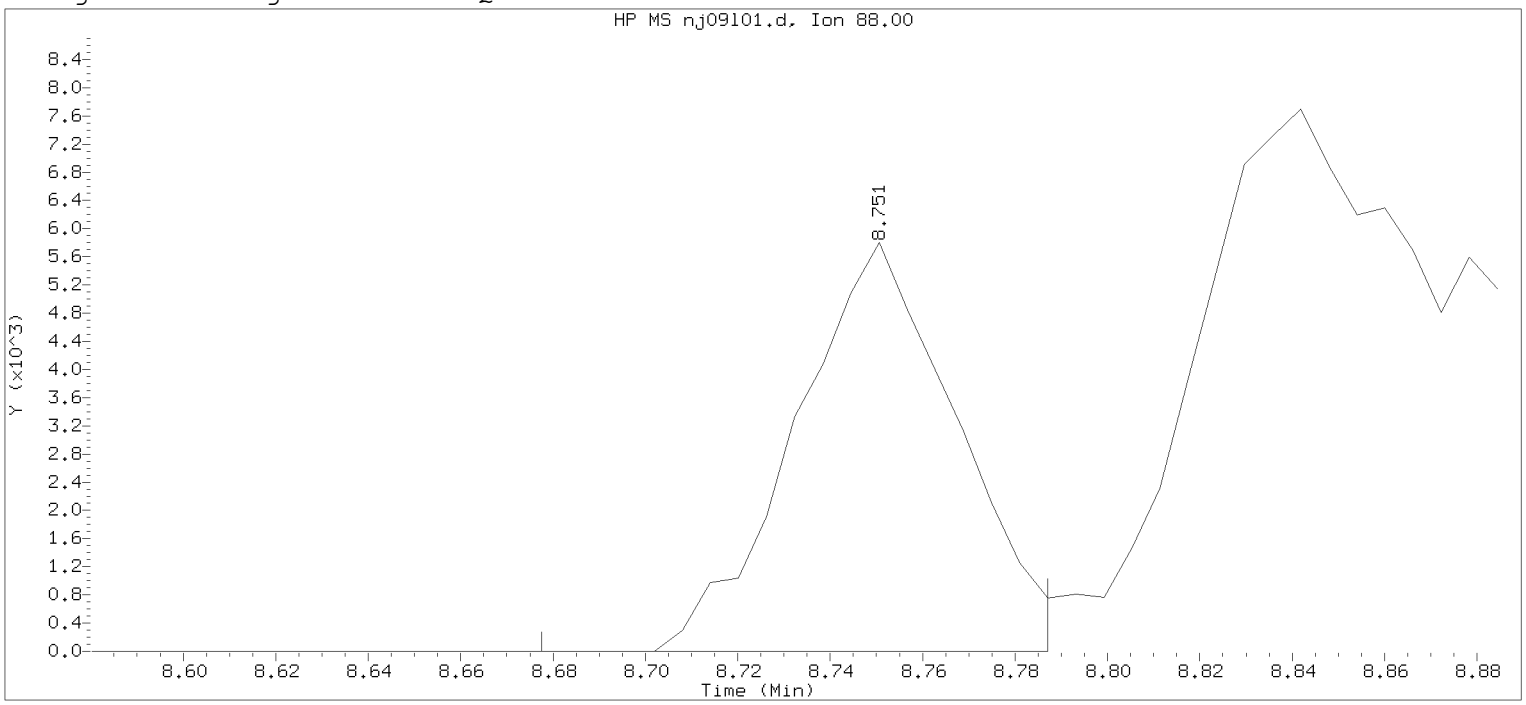
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

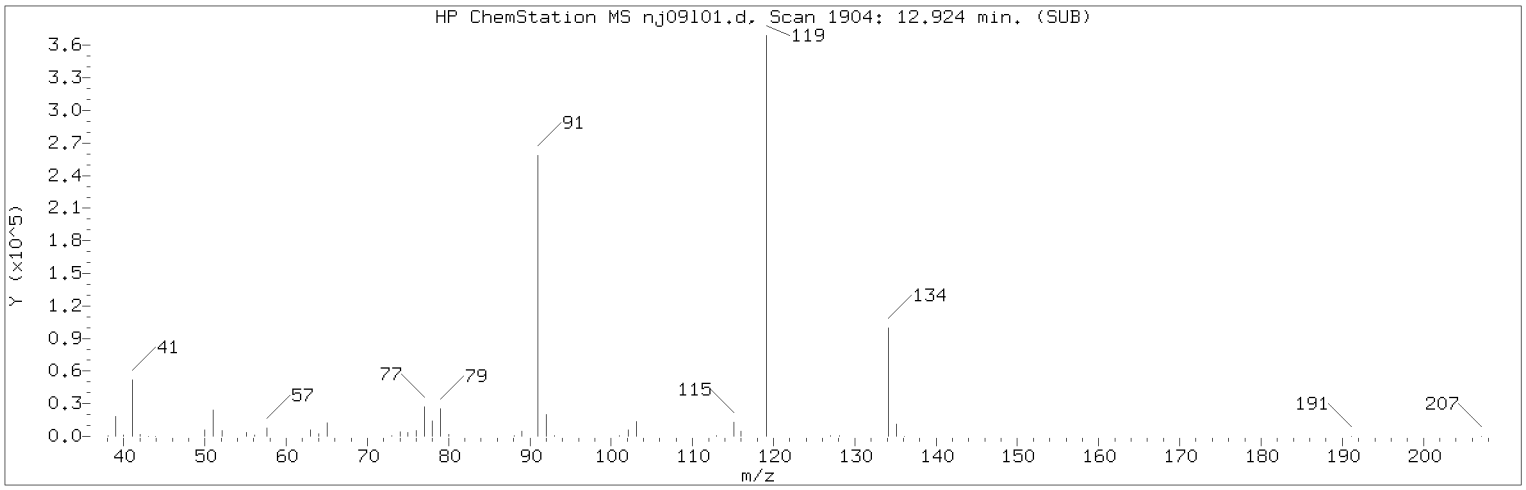
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

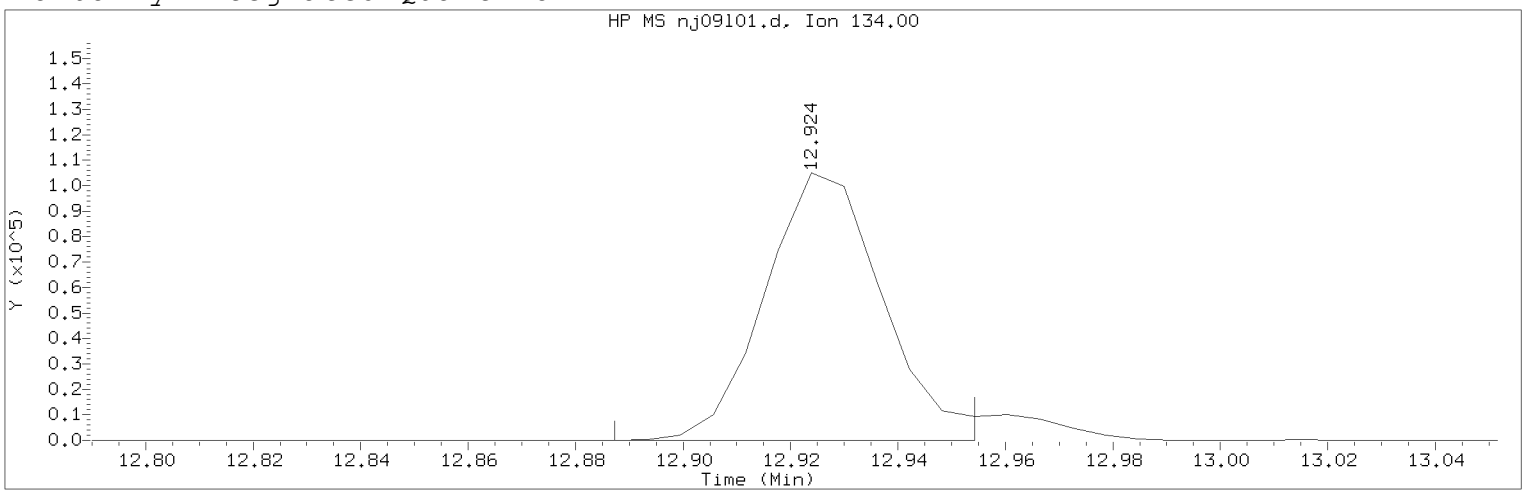
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 13966
On-column Amount (ng) : 145.7067
Integration start scan : 1205 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

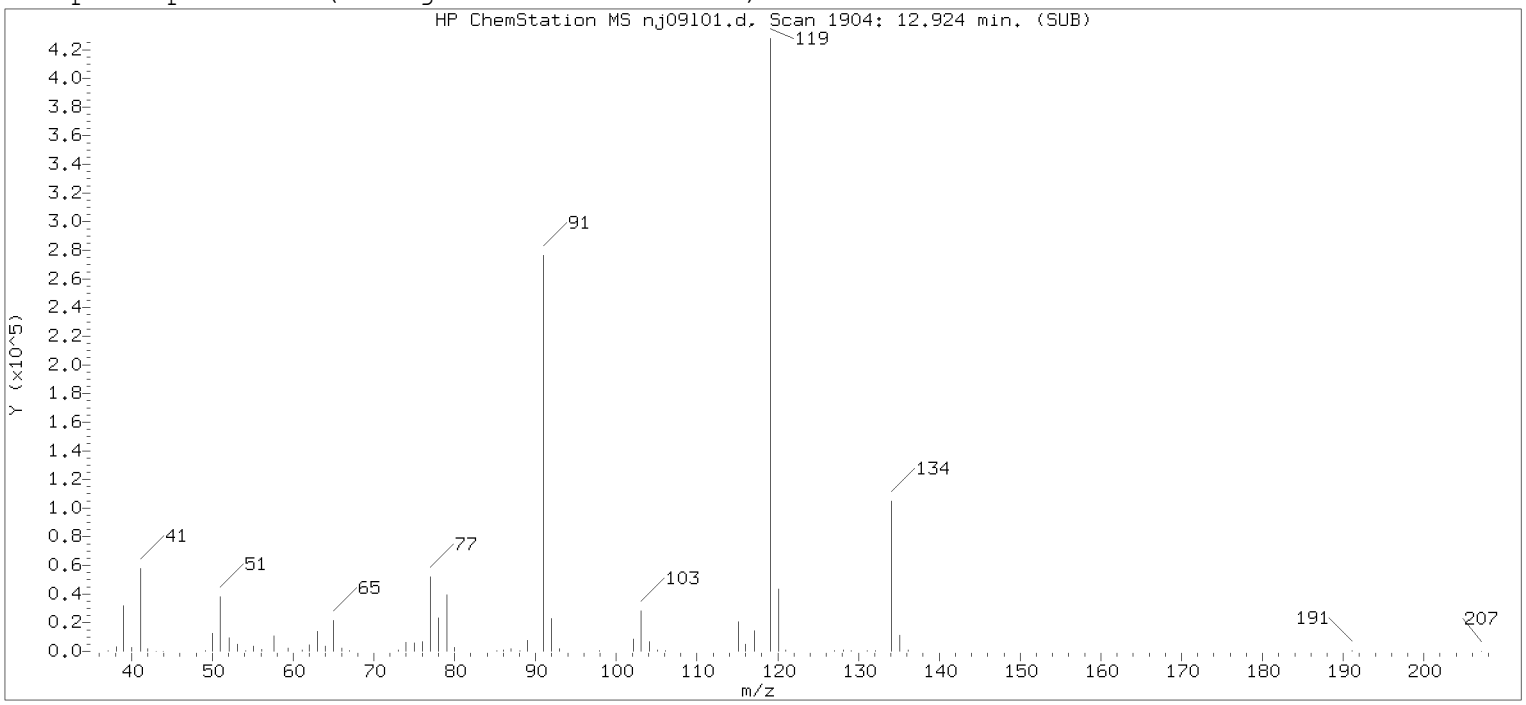
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 159664M
On-Column Amount (ng) : 19.8950
Integration start scan : 1897 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

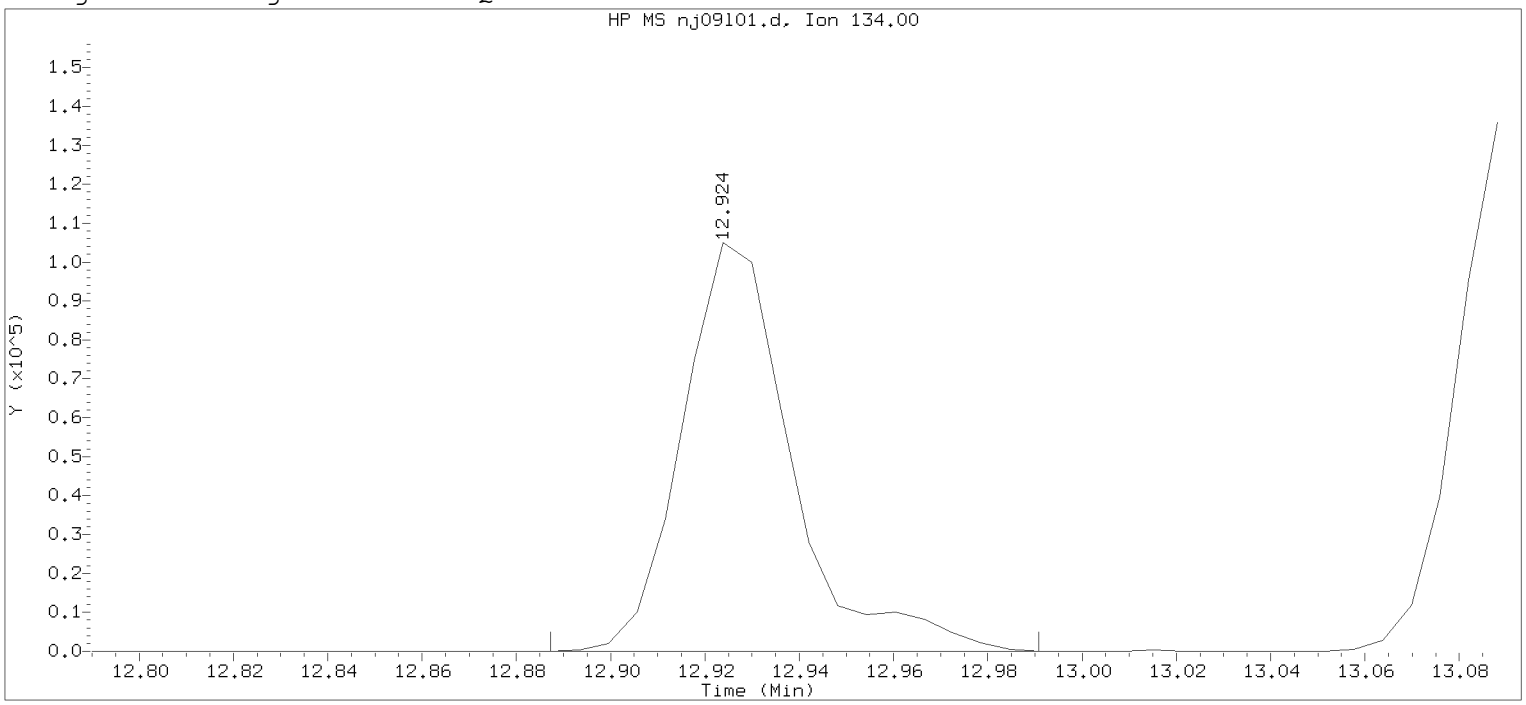
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 169051
On-column Amount (ng) : 21.0648
Integration start scan : 1897 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

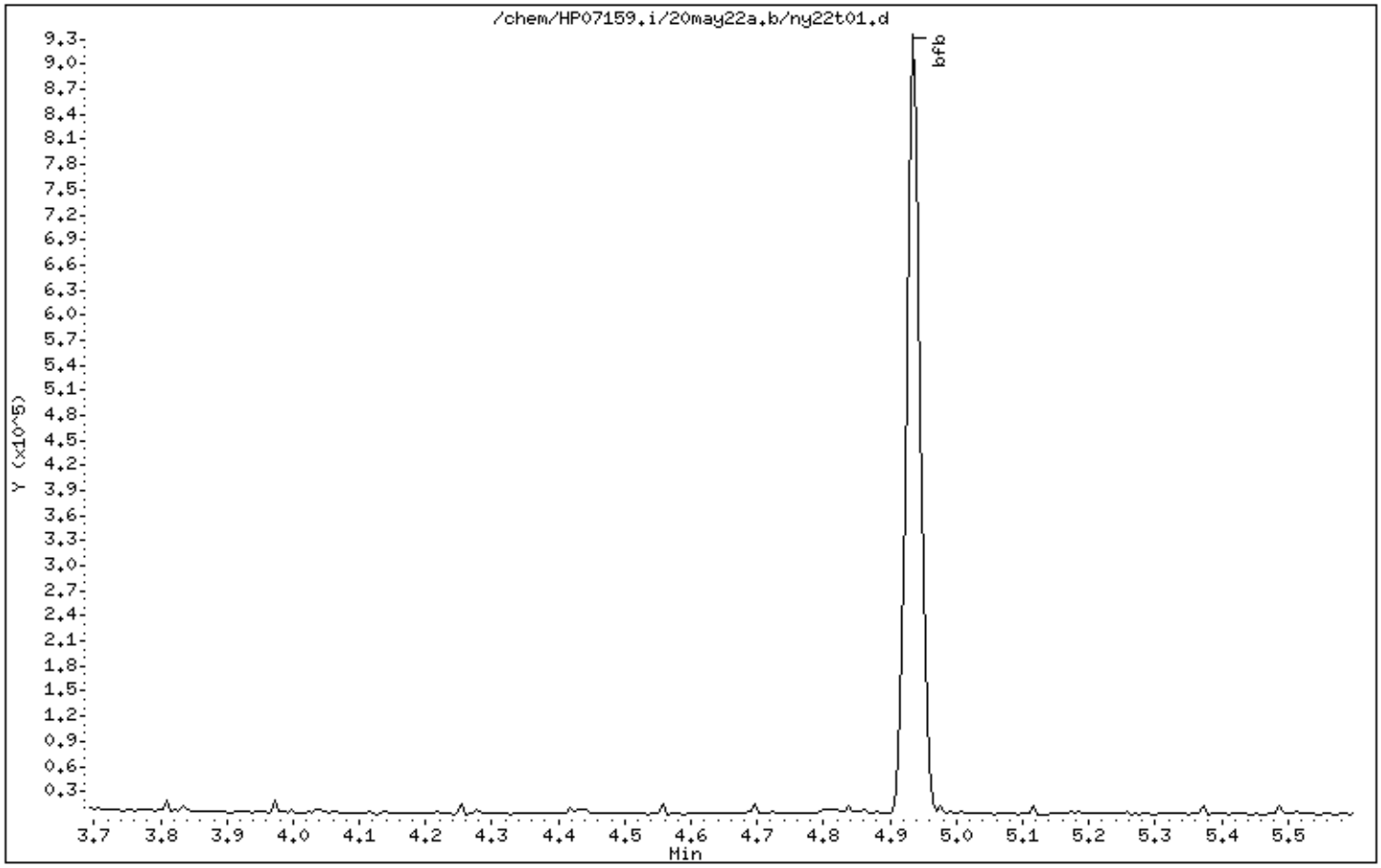
Instrument: HP07159.i

Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

Instrument: HP07159.i

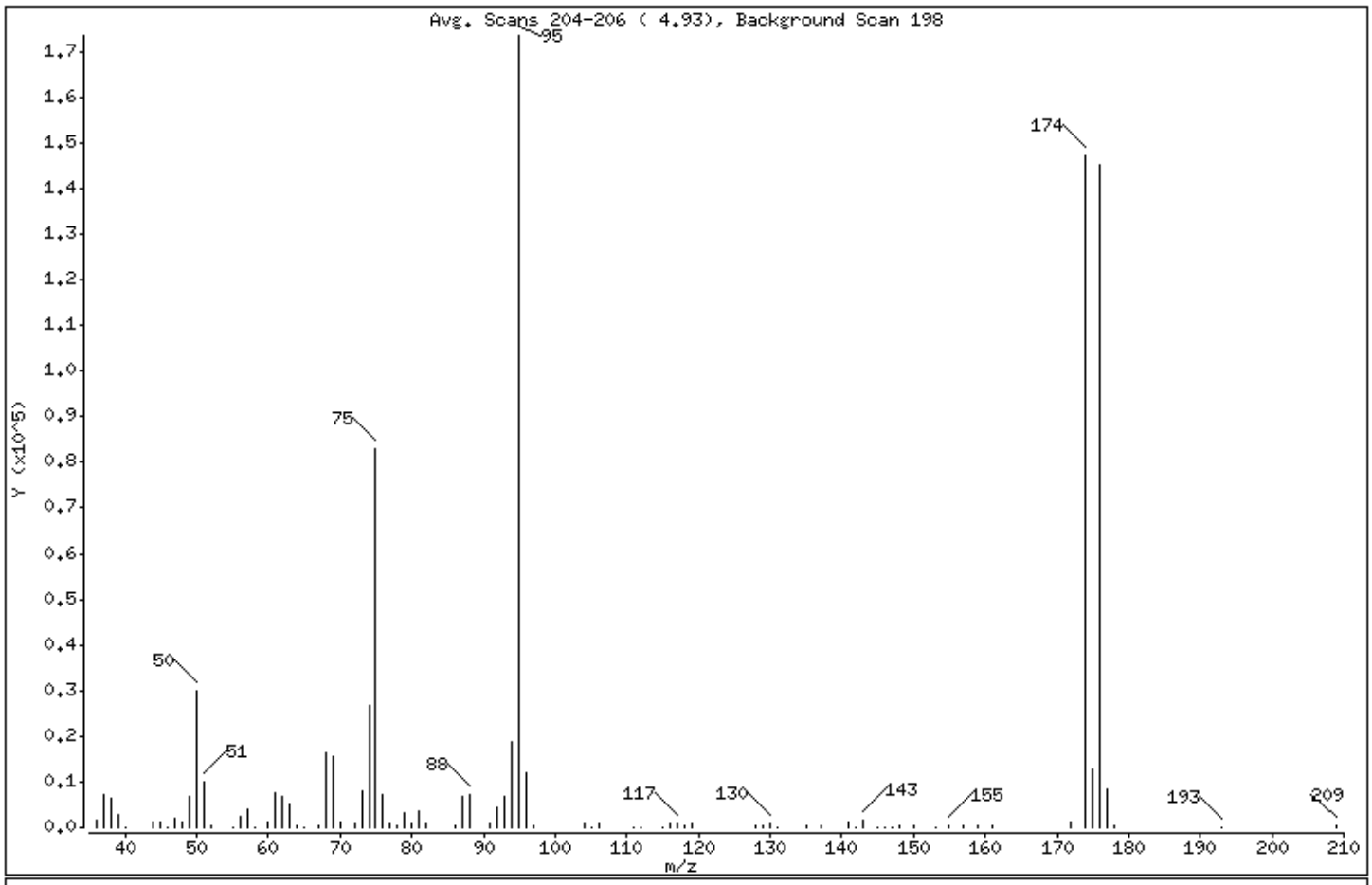
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.35
75	30.00 - 60.00% of mass 95	47.85
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	84.93
175	5.00 - 9.00% of mass 174	7.33 (8.63)
176	95.00 - 101.00% of mass 174	83.78 (98.65)
177	5.00 - 9.00% of mass 176	4.93 (5.88)

Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20 Instrument: HP07159.i

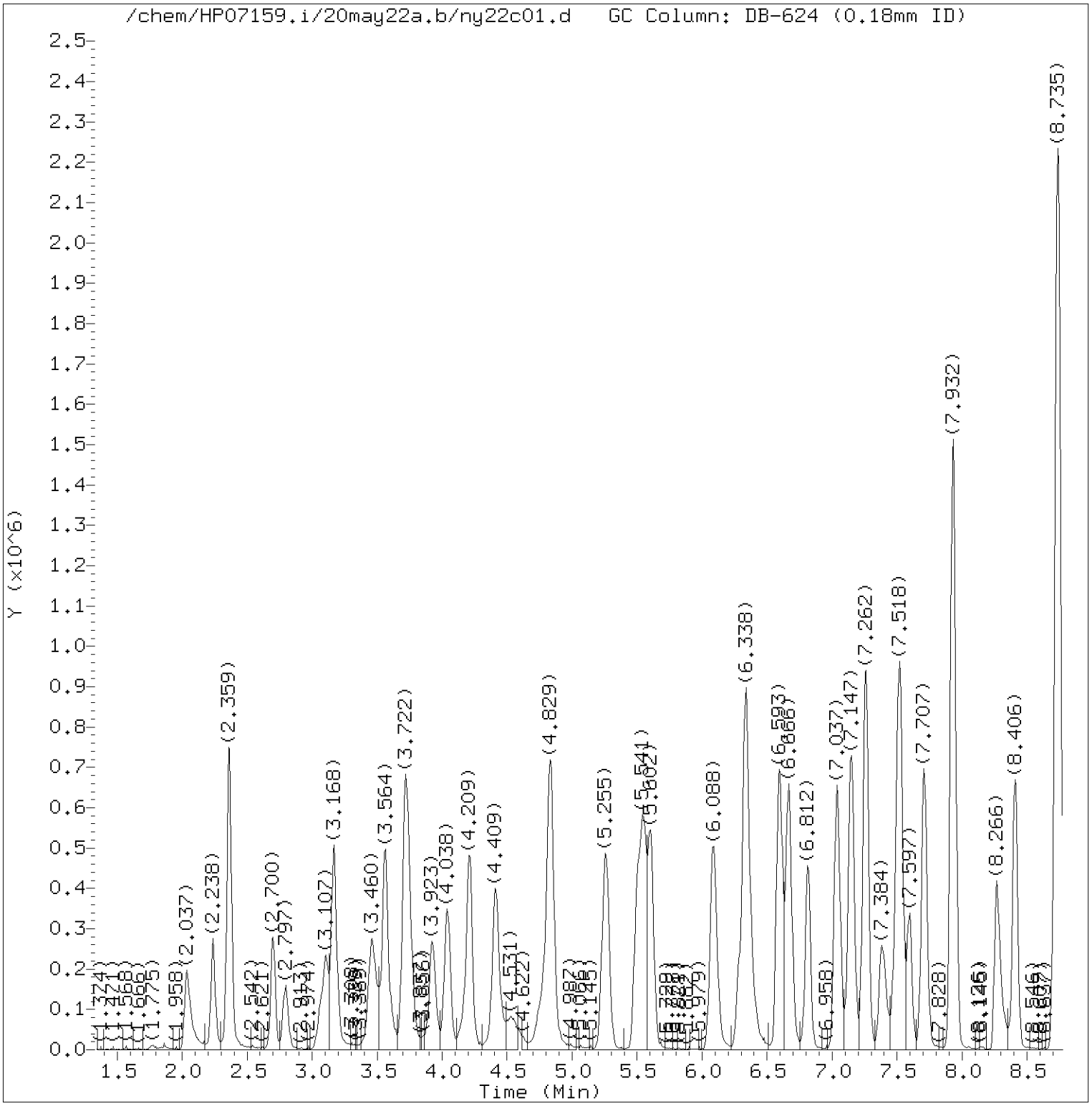
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ny22t01.d
Spectrum: Avg. Scans 204-206 (4.93), Background Scan 198
Location of Maximum: 95.00
Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1543	64.00	548	93.00	6925	142.00	184
37.00	7090	65.00	86	94.00	18800	143.00	1577
38.00	6266	67.00	260	95.00	173504	145.00	86
39.00	2619	68.00	16226	96.00	11859	146.00	92
40.00	30	69.00	15724	97.00	588	147.00	131
44.00	1071	70.00	1203	104.00	768	148.00	332
45.00	1375	72.00	893	105.00	104	150.00	231
46.00	117	73.00	7916	106.00	658	153.00	99
47.00	1804	74.00	26824	111.00	168	155.00	480
48.00	1013	75.00	83024	112.00	87	157.00	202
49.00	6831	76.00	7320	115.00	88	159.00	314
50.00	30096	77.00	772	116.00	627	161.00	283
51.00	9995	78.00	583	117.00	758	172.00	1179
52.00	449	79.00	3192	118.00	424	174.00	147328
55.00	96	80.00	838	119.00	639	175.00	12724
56.00	2212	81.00	3646	128.00	582	176.00	145344
57.00	4041	82.00	786	129.00	385	177.00	8548
58.00	105	86.00	212	130.00	748	178.00	383
60.00	1374	87.00	6732	131.00	102	193.00	146
61.00	7523	88.00	7218	135.00	406	209.00	272
62.00	6766	91.00	710	137.00	245		
63.00	5150	92.00	4242	141.00	1376		



Total Ion Chromatogram (TIC)

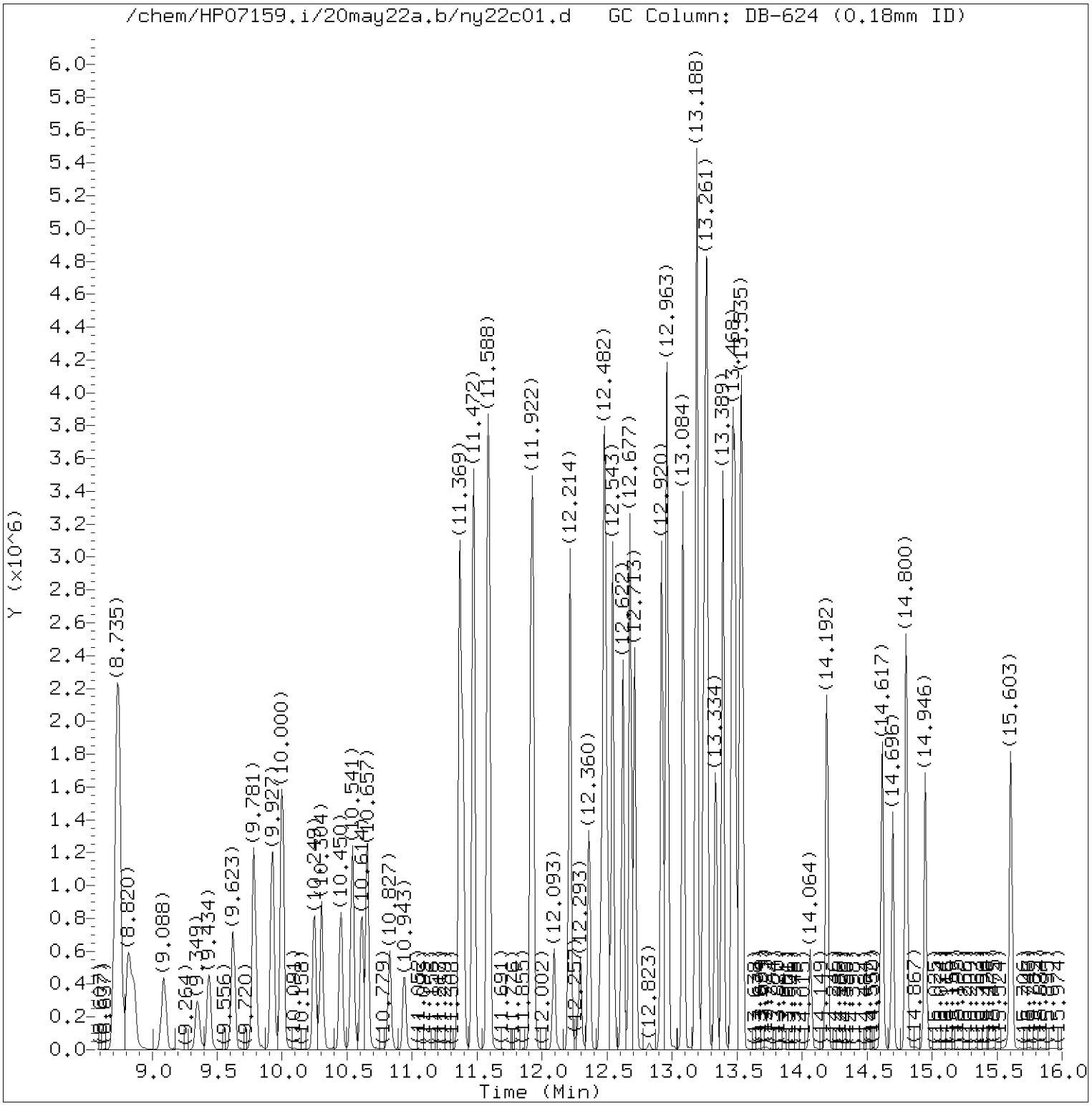
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	434571	52.874
4) Chloromethane	(2)	2.238	50	398216	45.217
6) Vinyl Chloride	(2)	2.359	62	403328	47.063
5) 1,3-Butadiene	(2)	2.365	39	335747	54.637
8) Bromomethane	(2)	2.700	94	271046	46.128
9) Chloroethane	(2)	2.797	64	236575	47.165
12) Trichlorofluoromethane	(2)	3.107	101	449484	47.723
11) n-Pentane	(2)	3.168	43	524257	56.811
13) Ethanol	(1)	3.235	45	93495	1367.953
15) Freon 123a	(2)	3.460	67	332121	48.132
16) Acrolein	(1)	3.564	56	852696	445.297
17) 1,1-Dichloroethene	(2)	3.716	96	265871	48.436
17) 1,1-Dichloroethene	(2)	3.716	63	137886	47.871
18) Acetone	(1)	3.740	58	79174	98.165
19) Freon 113	(2)	3.740	101	286096	56.176
21) 2-Propanol	(1)	3.910	45	133674	250.935
22) Methyl Iodide	(2)	3.923	142	494755	48.289
23) Carbon Disulfide	(2)	4.038	76	885500	50.447
27) Methyl Acetate	(2)	4.178	43	318153	47.180
25) Allyl Chloride	(2)	4.209	41	471820	48.689
28) Methylene Chloride	(2)	4.415	84	300336	46.068
29)*t-Butyl alcohol-d10	(1)	4.422	65	282380	250.000
30) t-Butyl alcohol	(1)	4.537	59	303717	288.498
31) Acrylonitrile	(2)	4.744	53	159751	43.864
33) Methyl Tertiary Butyl Ether	(2)	4.811	73	798907	44.789
32) trans-1,2-Dichloroethene	(2)	4.841	96	300509	47.955
34) n-Hexane	(2)	5.255	57	499883	57.786
36) 1,1-Dichloroethane	(2)	5.498	63	554022	48.465
38) di-Isopropyl ether	(2)	5.547	45	951491	48.318
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	489737	48.533
40) Ethyl t-butyl ether	(2)	6.082	59	846676	45.236
43) 1,2-Dichloroethene (Total)	(2)		96	640147	95.678
44) 2-Butanone	(2)	6.283	43	457600	89.858
42) cis-1,2-Dichloroethene	(2)	6.332	96	339638	47.723
45) 2,2-Dichloropropane	(2)	6.344	77	445708	44.162
47) Propionitrile	(1)	6.386	54	358625	291.669
48) Methacrylonitrile	(2)	6.593	67	460266	125.113
49) Bromochloromethane	(2)	6.666	128	175438	52.135

* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.666	71	122848	96.235
51) Chloroform	(2)	6.812	83	524902	47.075
52)$Dibromofluoromethane	(2)	7.031	113	248839	47.486
52)$Dibromofluoromethane	(2)	7.031	111	253672	47.410
53) 1,1,1-Trichloroethane	(2)	7.043	97	462153	45.814
54) Cyclohexane	(2)	7.147	56	580953	55.990
54) Cyclohexane	(2)	7.147	84	515352	56.989
54) Cyclohexane	(2)	7.141	69	177075	54.295
55) 1,1-Dichloropropene	(2)	7.256	75	439817	48.202
56) Carbon Tetrachloride	(2)	7.256	117	413711	47.565
58) Isobutyl Alcohol	(1)	7.384	41	271368M	719.597
57)$1,2-Dichloroethane-d4	(2)	7.494	102	63198	47.699
57)$1,2-Dichloroethane-d4	(2)	7.488	65	306730	48.564
57)$1,2-Dichloroethane-d4	(2)	7.494	104	40708	48.289
60) Benzene	(2)	7.524	78	1256540	48.379
61) 1,2-Dichloroethane	(2)	7.597	62	411135	44.744
61) 1,2-Dichloroethane	(2)	7.597	98	39414	52.116
65) t-Amyl methyl ether	(2)	7.707	73	872487	46.466
66)*Fluorobenzene	(2)	7.926	96	1055917	50.000
67) n-Heptane	(2)	7.932	43	542359	54.318
69) n-Butanol	(1)	8.266	56	469783	1446.163
71) Trichloroethene	(2)	8.406	95	319213	46.651
72) Methylcyclohexane	(2)	8.723	83	660730	58.742
72) Methylcyclohexane	(2)	8.723	98	312359	58.967
73) 1,2-Dichloropropane	(2)	8.747	63	331049	49.846
76) Methyl Methacrylate	(2)	8.820	69	301128	49.580
75) 1,4-Dioxane	(1)	8.826	88	53832M	655.980
74) Dibromomethane	(2)	8.856	93	198355	46.829
78) Bromodichloromethane	(2)	9.094	83	403915	46.711
79) 2-Nitropropane	(2)	9.349	41	244620	77.890
80) 2-Chloroethyl Vinyl Ether	(2)	9.434	63	250521	47.685
81) cis-1,3-Dichloropropene	(2)	9.623	75	524755	47.573
82) 4-Methyl-2-pentanone	(2)	9.781	43	1021300	98.985
83)$Toluene-d8	(3)	9.921	98	1010294	46.447
83)$Toluene-d8	(3)	9.927	100	671892	46.624
88) Toluene	(3)	10.000	92	830011	46.974
90) 1,3-Dichloropropene (total)	(3)		100	1024736	93.164
89) trans-1,3-Dichloropropene	(3)	10.249	75	499981	45.591

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.304	69	515718	47.199
92) 1,1,2-Trichloroethane	(3)	10.450	97	299402	47.859
93) Tetrachloroethene	(3)	10.541	166	417694	53.981
94) 1,3-Dichloropropane	(3)	10.614	76	520493	47.937
96) 2-Hexanone	(3)	10.651	43	835552	99.900
97) Dibromochloromethane	(3)	10.827	129	347197	48.362
99) 1,2-Dibromoethane	(3)	10.937	107	324470	47.365
100)*Chlorobenzene-d5	(3)	11.363	117	834018	50.000
102) Chlorobenzene	(3)	11.393	112	954031	48.377
103) 1,1,1,2-Tetrachloroethane	(3)	11.472	131	348604	49.052
104) Ethylbenzene	(3)	11.472	91	1657998	48.512
106) m+p-Xylene	(3)	11.588	106	1326529	98.786
108) Xylene (Total)	(3)		106	1982519	148.455
107) o-Xylene	(3)	11.916	106	655990	49.670
109) Styrene	(3)	11.928	104	1118128	50.407
110) Bromoform	(3)	12.093	173	288337	53.199
111) Isopropylbenzene	(3)	12.214	105	1883174	53.989
112) Cyclohexanone	(1)	12.293	55	234103	711.315
114)$4-Bromofluorobenzene	(3)	12.360	95	424039	49.344
114)$4-Bromofluorobenzene	(3)	12.360	174	358735	52.107
116) 1,1,2,2-Tetrachloroethane	(4)	12.458	83	560031	51.370
115) Bromobenzene	(4)	12.476	156	452278	49.340
118) trans-1,4-Dichloro-2-butene	(4)	12.482	53	395349	105.424
117) 1,2,3-Trichloropropane	(4)	12.506	110	169001	48.937
119) n-Propylbenzene	(4)	12.543	91	2218771	49.926
120) 2-Chlorotoluene	(4)	12.622	126	453383	49.483
122) 1,3,5-Trimethylbenzene	(4)	12.677	105	1600737	49.159
121) 4-Chlorotoluene	(4)	12.713	126	470658	49.566
124) tert-Butylbenzene	(4)	12.920	134	378216	52.414
125) Pentachloroethane	(4)	12.957	167	249242	43.138
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	1654680	48.960
127) sec-Butylbenzene	(4)	13.084	105	2149897	50.828
129) 1,3-Dichlorobenzene	(4)	13.188	146	872158	48.919
130) p-Isopropyltoluene	(4)	13.194	119	1844591	50.115
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495632	50.000
133) 1,4-Dichlorobenzene	(4)	13.261	146	890049	49.228
134) 1,2,3-Trimethylbenzene	(4)	13.267	105	1581484	48.214
135) Benzyl Chloride	(4)	13.334	91	1109815	46.058

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

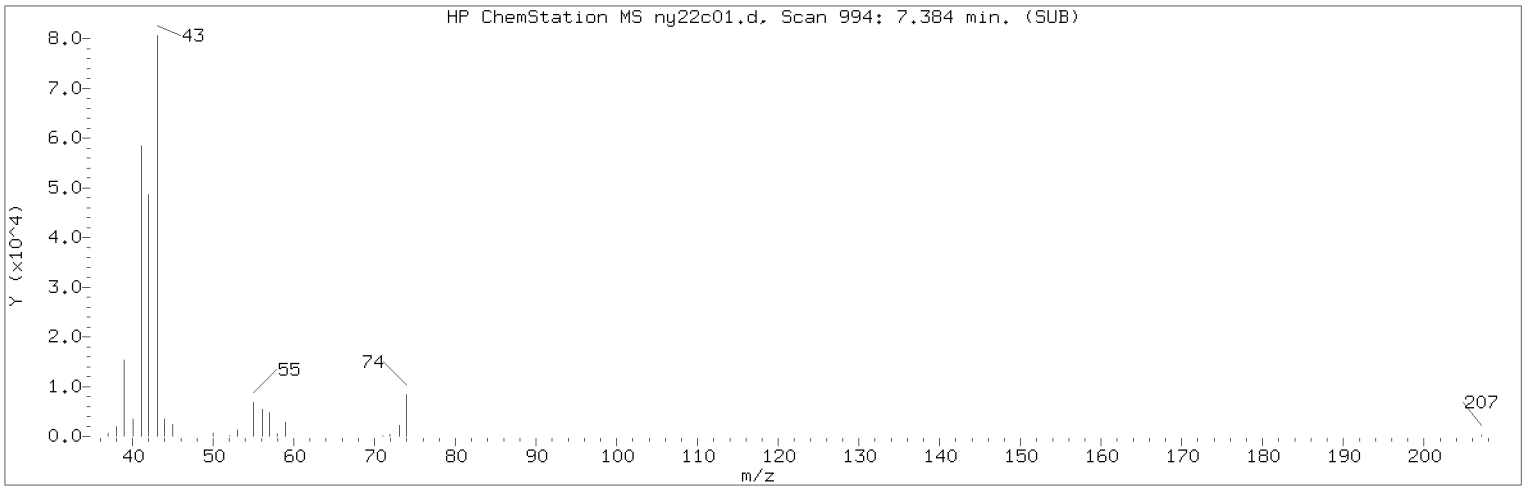
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

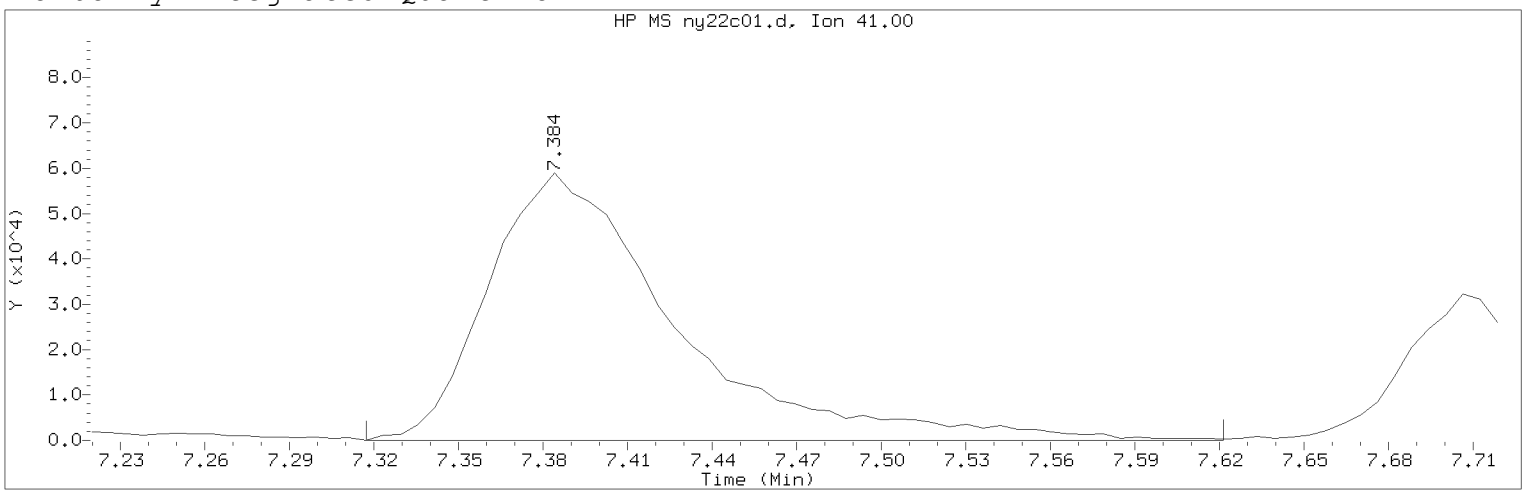
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
141) Diethylbenzene (total)	(4)		100	3153337	147.593
136) 1,3-Diethylbenzene	(4)	13.389	119	1095914	49.739
137) 1,4-Diethylbenzene	(4)	13.462	119	1148322	49.083
139) n-Butylbenzene	(4)	13.486	92	934158	49.200
138) 1,2-Dichlorobenzene	(4)	13.522	146	843595	49.907
140) 1,2-Diethylbenzene	(4)	13.535	119	909101	48.771
142) 1,2-Dibromo-3-chloropropane	(4)	14.064	75	133178	45.202
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	641689	47.627
146) 1,2,4-Trichlorobenzene	(4)	14.617	180	561234	47.774
147) Hexachlorobutadiene	(4)	14.696	225	248130	46.693
148) Naphthalene	(4)	14.800	128	1818373	49.366
149) 1,2,3-Trichlorobenzene	(4)	14.946	180	514512	47.711
150) 2-Methylnaphthalene	(4)	15.603	142	939072	44.137

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

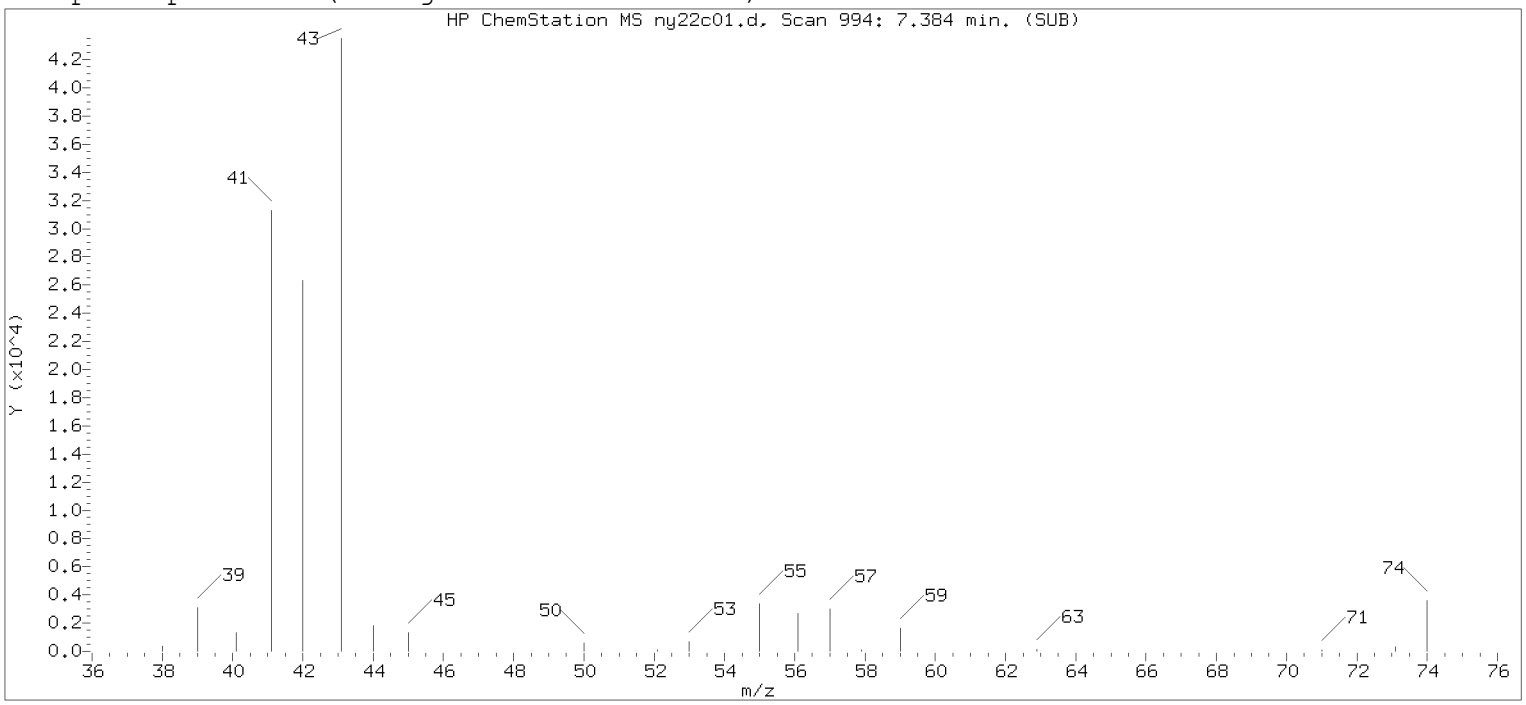
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area (flag) : 271368M
On-Column Amount (ng) : 719.5968
Integration start scan : 982 Integration stop scan: 1032
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

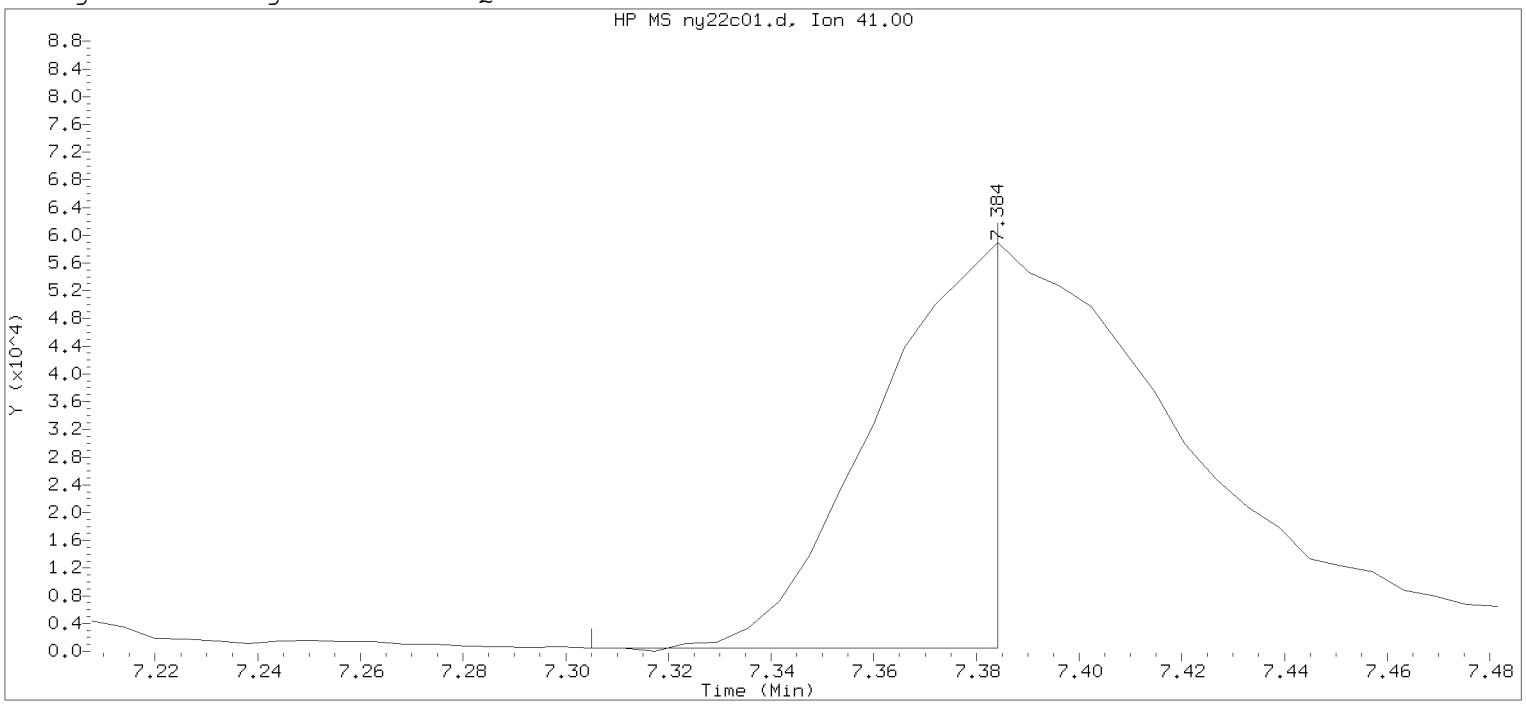
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

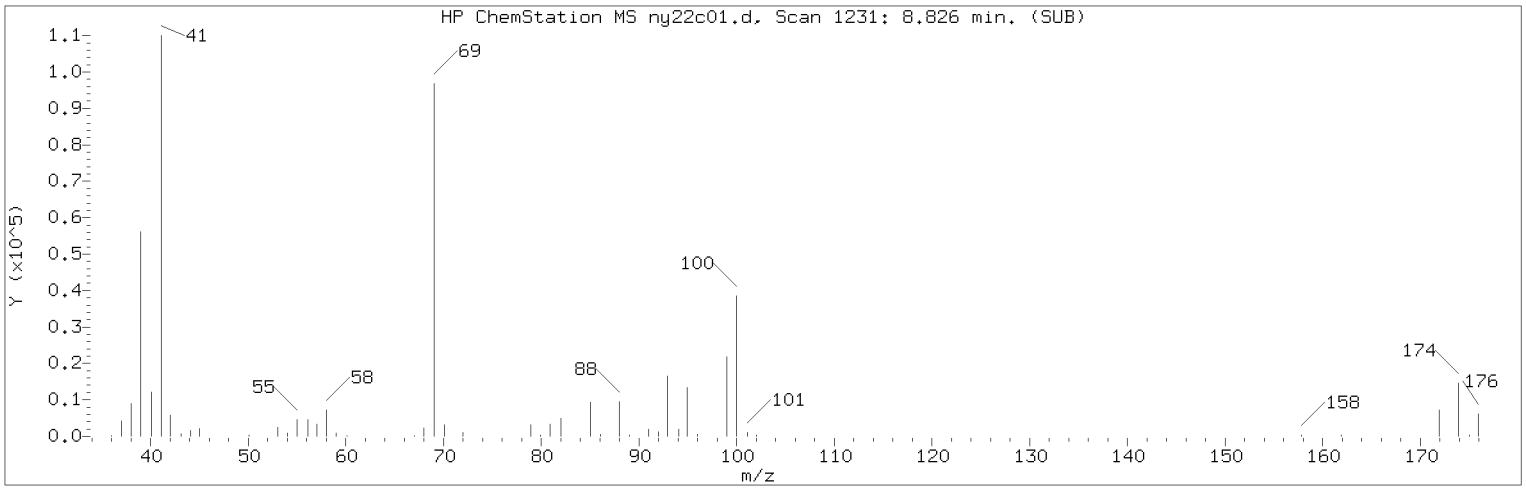
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

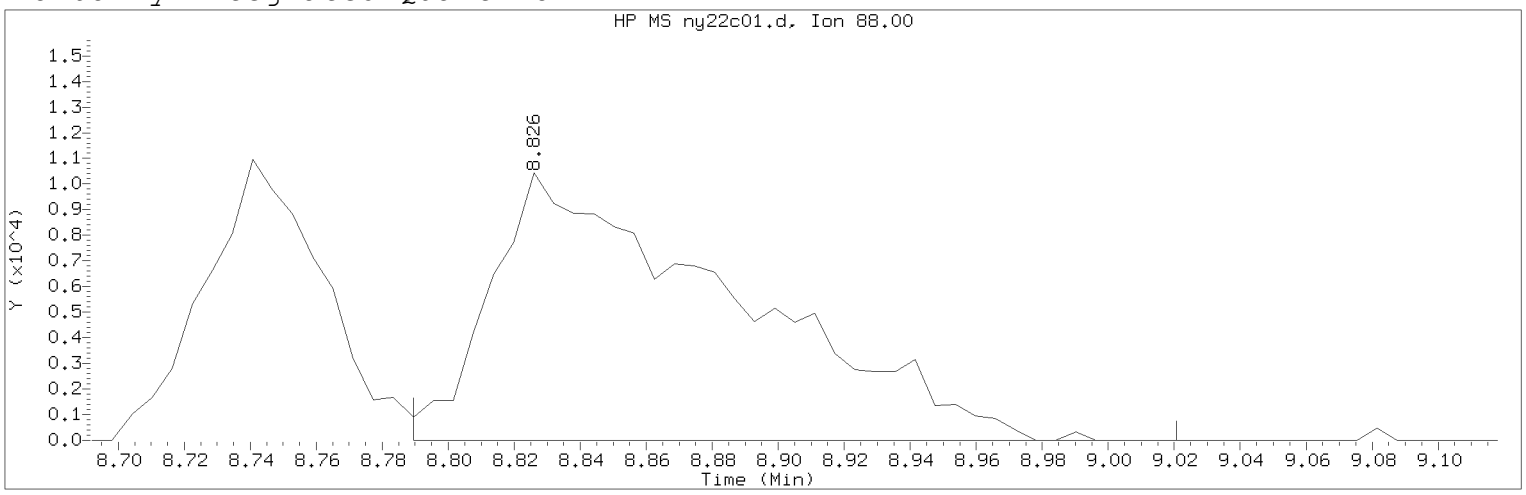
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area : 93143
On-column Amount (ng) : 246.9928
Integration start scan : 980 Integration stop scan: 993
Y at integration start : 481 Y at integration end: 481

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

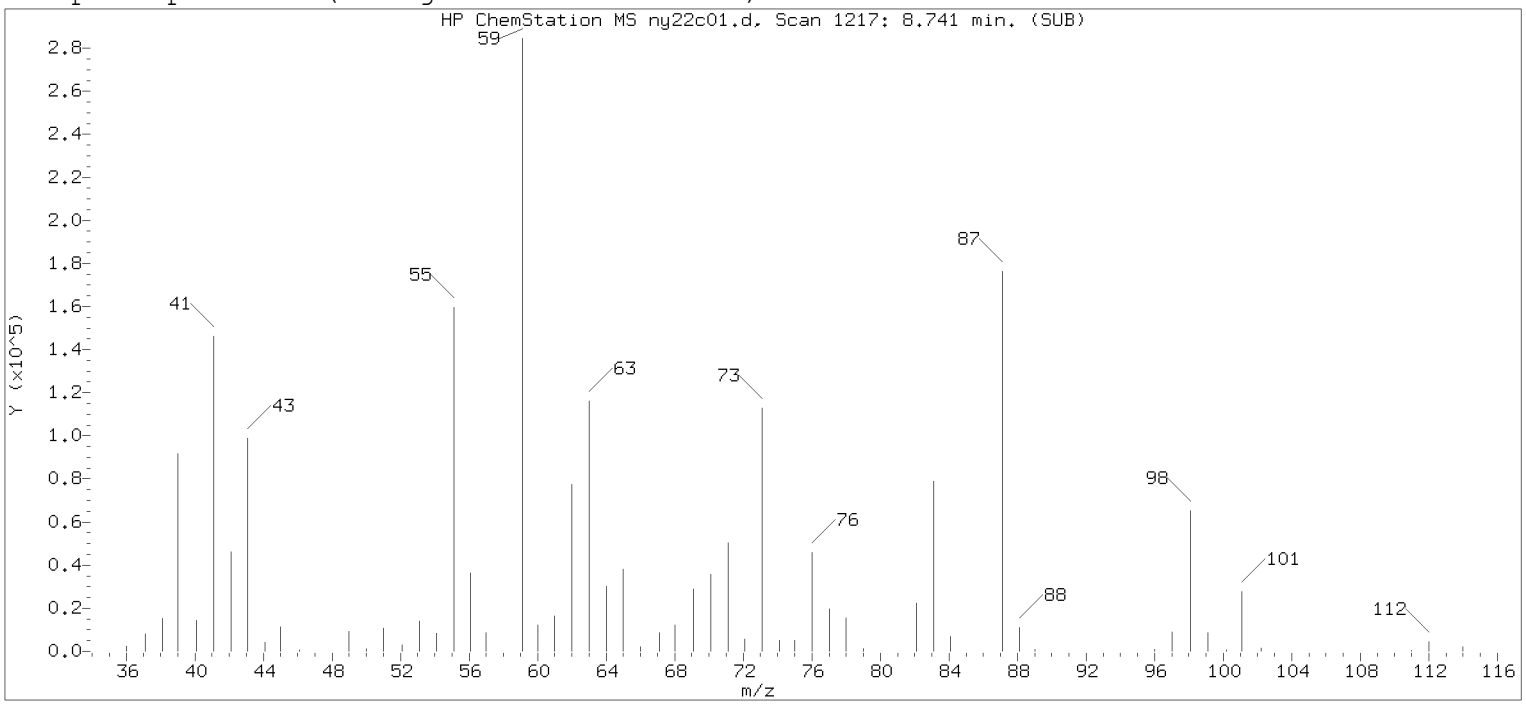
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.826
Quant Ion : 88.00
Area (flag) : 53832M
On-Column Amount (ng) : 655.9798
Integration start scan : 1224 Integration stop scan: 1262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

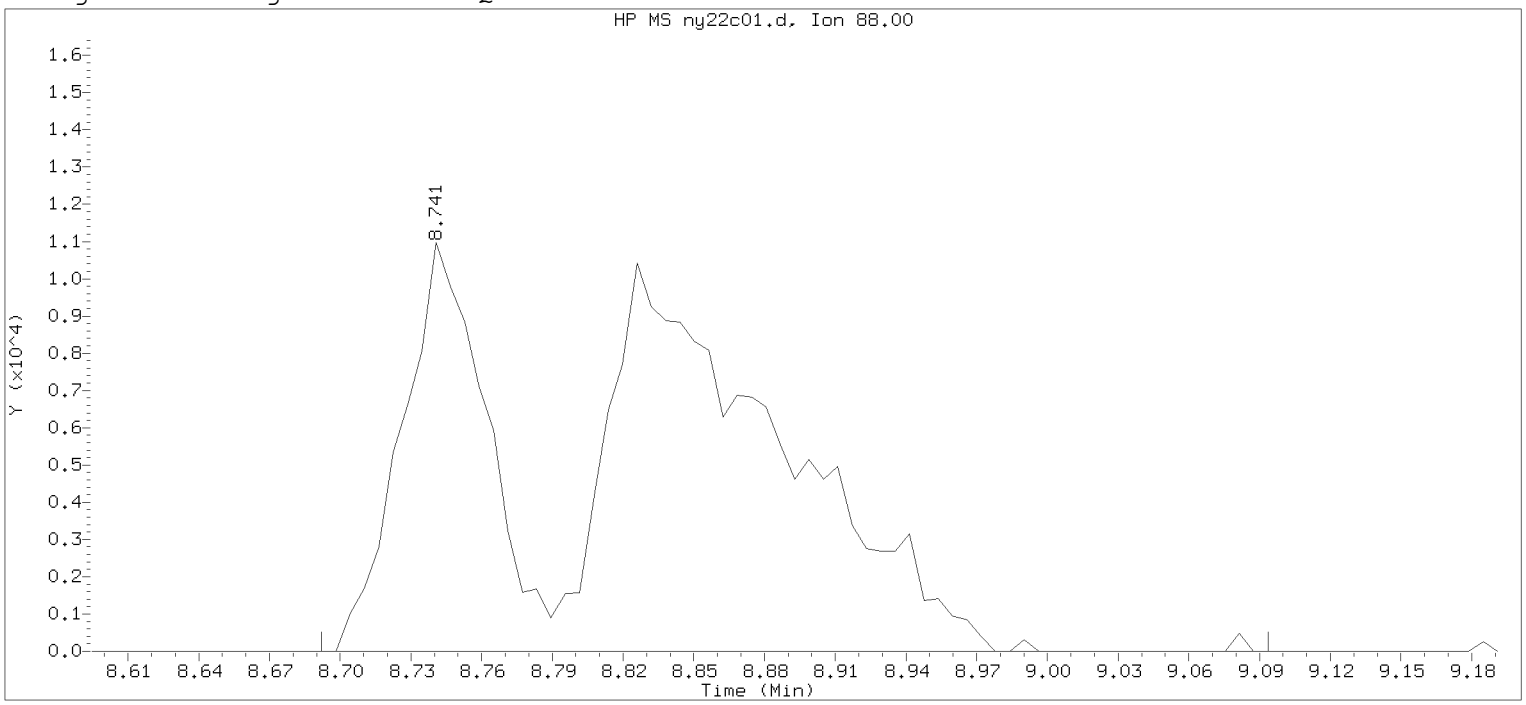
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.741
Quant Ion : 88.00
Area : 81261
On-column Amount (ng) : 990.2132
Integration start scan : 1208 Integration stop scan: 1274
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Raw QC Data

Volatiles by GC/MS

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.398(0.024)	503	65	321315 (14)	250.00	
66) Fluorobenzene	7.926(0.000)	1083	96	1158785 (10)	50.00	
100) Chlorobenzene-d5	11.363(0.000)	1648	117	862795 (3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243(0.000)	1957	152	450523 (-9)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026(0.001)	113	270155	46.978	94%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.482(0.002)	102	70945	48.792	98%		80 - 120
83) Toluene-d8	(3)	9.921(0.000)	98	1084248	48.184	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361(0.000)	95	394483	44.374	89%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
13) Ethanol	(1)			Not Detected					280	750
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)			Not Detected					0.4	2

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 109

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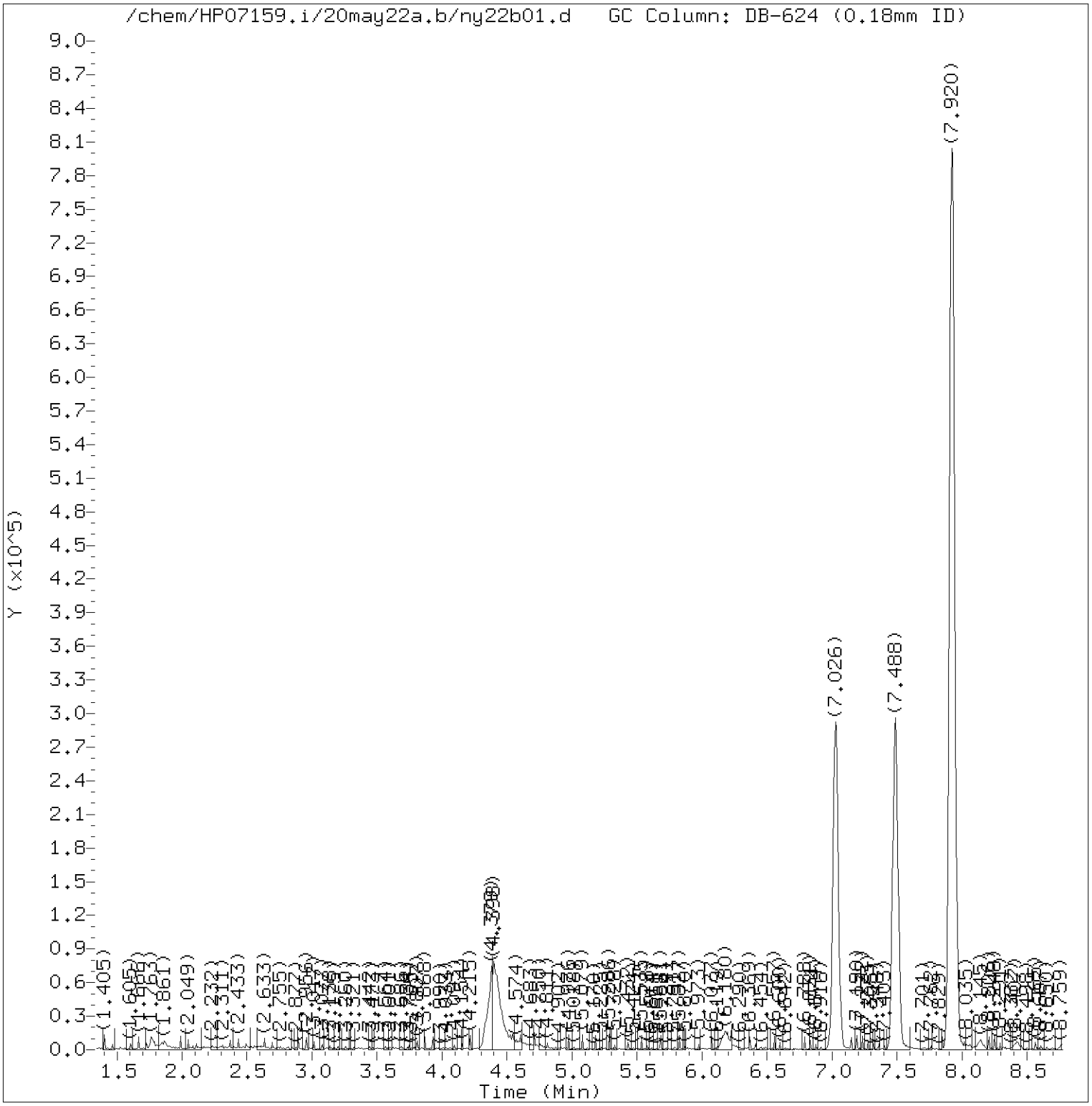
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

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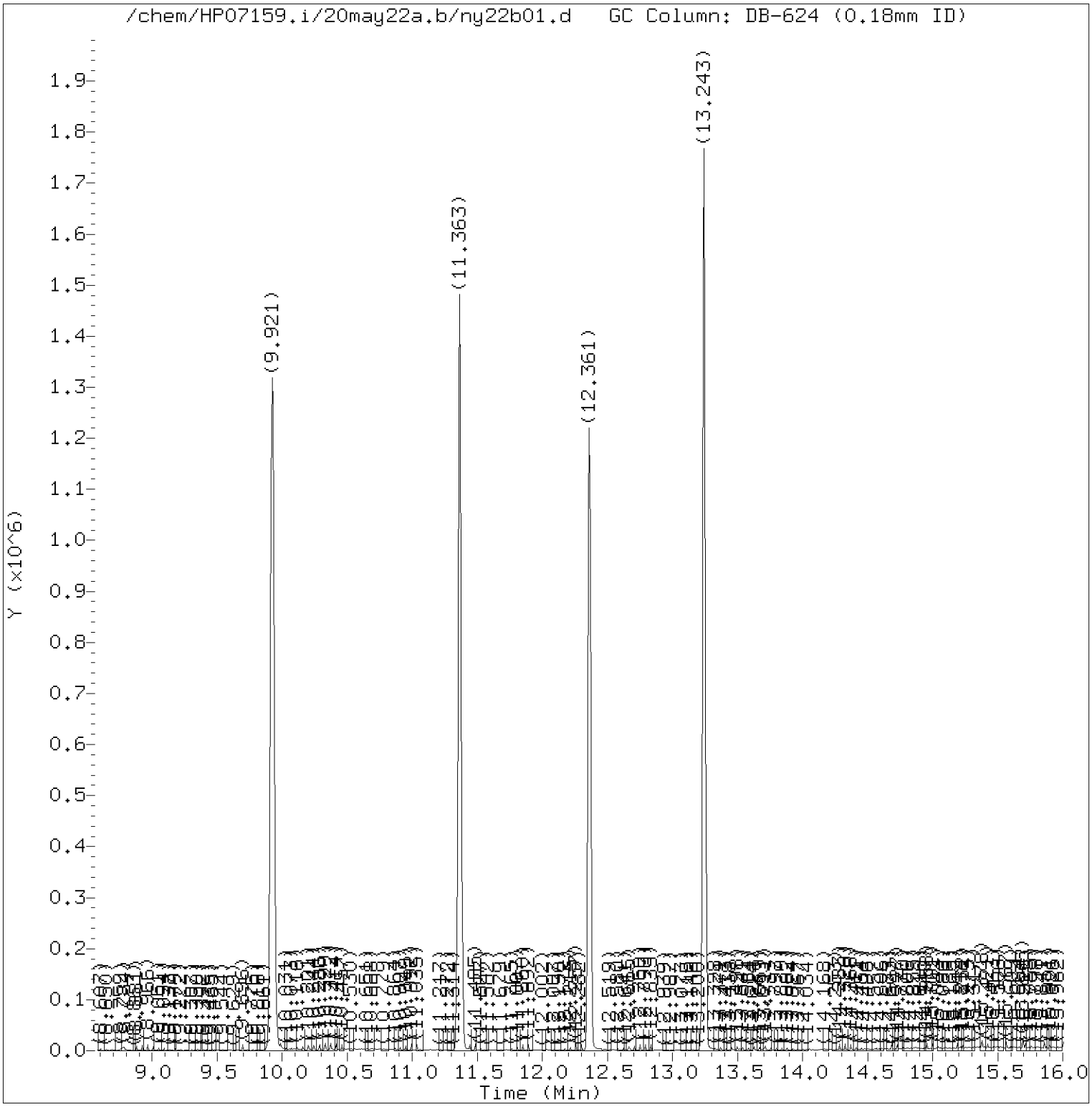
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

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Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.398	65	321315	250.000
52)$Dibromofluoromethane	(2)	7.026	113	270155	46.978
57)$1,2-Dichloroethane-d4	(2)	7.482	102	70945	48.792
66)*Fluorobenzene	(2)	7.926	96	1158785	50.000
83)$Toluene-d8	(3)	9.921	98	1084248	48.184
100)*Chlorobenzene-d5	(3)	11.363	117	862795	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	394483	44.374
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	450523	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	16	
106-99-0	1,3-Butadiene	21	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	21	
75-69-4	Trichlorofluoromethane	19	
64-17-5	Ethanol	1100	
354-23-4	Freon 123a	21	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	180	
76-13-1	Freon 113	22	
67-63-0	2-Propanol	180	
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	21	
107-05-1	Allyl Chloride	20	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	230	
107-13-1	Acrylonitrile	98	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	23	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	20	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	19	
156-59-2	cis-1,2-Dichloroethene	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	41	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	23	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	550	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	18	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	21	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	23	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	470	
80-62-6	Methyl Methacrylate	20	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	14	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	94	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	37	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	94	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	41	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	61	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	460	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-butene	85	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	18	
95-63-6	1,2,4-Trimethylbenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	20	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	18	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	16	

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.410	(0.011)	505	65	317361	(12)	250.00	
66) Fluorobenzene	7.920	(0.005)	1082	96	1191852	(13)	50.00	
100) Chlorobenzene-d5	11.364	(-0.001)	1648	117	899461	(8)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(-0.001)	1957	152	495502	(0)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026	(0.000)	113	281460	47.586	95%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488	(0.000)	102	72452	48.446	97%		80 - 120
83) Toluene-d8	(3)	9.922	(0.000)	98	1122813	47.864	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	415870	44.873	90%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.031	(0.000)	85	137854	14.860	14.86			0.2	1
4) Chloromethane	(2)	2.232	(0.000)	50	155510	15.644	15.64			0.2	1
5) 1,3-Butadiene	(2)	2.360	(0.000)	39	148004	21.338	21.34			1	3
6) Vinyl Chloride	(2)	2.360	(-0.000)	62	151466	15.658	15.66			0.2	1
8) Bromomethane	(2)	2.694	(0.000)	94	111567	16.821	16.82			0.3	1
9) Chloroethane	(2)	2.786	(0.001)	64	96747	17.088	17.09			0.2	1
11) n-Pentane	(2)	3.169	(-0.000)	43	215352	20.675	20.68			0.4	10
12) Trichlorofluoromethane	(2)	3.102	(0.000)	101	200087	18.821	18.82			0.2	1
13) Ethanol	(1)	3.248	(-0.004)	45	83105	1081.908	1081.91			280	750
15) Freon 123a	(2)	3.455	(0.000)	67	165169	21.207	21.21			0.4	5
16) Acrolein	(1)	3.564	(-0.002)	56	306228	142.292	142.29			2	100
17) 1,1-Dichloroethene	(2)	3.710	(0.000)	96	126976	20.494	20.49			0.2	1
18) Acetone	(1)	3.741	(-0.002)	58	165761	182.868	182.87			0.7	20
19) Freon 113	(2)	3.741	(-0.000)	101	125350	21.806	21.81			0.2	10
21) 2-Propanol	(1)	3.930	(-0.006)	45	109865M	183.508	183.51			18	100
22) Methyl Iodide	(2)	3.923	(-0.000)	142	218315	18.878	18.88			0.2	1
23) Carbon Disulfide	(2)	4.039	(-0.000)	76	408506	20.618	20.62			0.2	5
25) Allyl Chloride	(2)	4.215	(-0.001)	41	216707	19.812	19.81			0.3	5
27) Methyl Acetate	(2)	4.179	(-0.000)	43	157137	20.645	20.64			0.3	5
28) Methylene Chloride	(2)	4.410	(0.000)	84	146217	19.870	19.87			0.3	1
30) t-Butyl alcohol	(1)	4.550	(-0.005)	59	268158	226.644	226.64			12	50
31) Acrylonitrile	(2)	4.751	(-0.001)	53	402246	97.850	97.85			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.836	(0.000)	96	140174	19.818	19.82			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.818	(-0.001)	73	367860	18.271	18.27			0.2	1
34) n-Hexane	(2)	5.256	(-0.000)	57	225765	23.122	23.12			2	5
36) 1,1-Dichloroethane	(2)	5.499	(-0.000)	63	255700	19.817	19.82			0.2	1
38) di-Isopropyl ether	(2)	5.548	(-0.000)	45	448580	20.181	20.18			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.602	(-0.000)	53	218337	19.169	19.17			0.2	5
40) Ethyl t-butyl ether	(2)	6.083	(-0.000)	59	401369	18.998	19.00			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.326	(0.000)	96	167261	20.821	20.82			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	307435	40.639	40.64			0.4	2

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.284(-0.000)	43	832091	144.761	144.76			0.3	10
45) 2,2-Dichloropropane	(2)	6.338(0.000)	77	208268	18.282	18.28			0.3	1
47) Propionitrile	(1)	6.381(-0.002)	54	252719	182.881	182.88			14	100
48) Methacrylonitrile	(2)	6.594(-0.000)	67	638736	153.824	153.82			6	50
49) Bromochloromethane	(2)	6.661(0.000)	128	77115	20.303	20.30			0.2	5
50) Tetrahydrofuran	(1)	6.667(-0.004)	71	158159	110.240	110.24			0.7	10
51) Chloroform	(2)	6.819(-0.001)	83	240328	19.095	19.10			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.044(-0.000)	97	206149	18.105	18.10			0.3	1
54) Cyclohexane	(2)	7.142(0.000)	56	271787	23.206	23.21			1	5
55) 1,1-Dichloropropene	(2)	7.251(0.000)	75	200657	19.483	19.48			0.2	5
56) Carbon Tetrachloride	(2)	7.263(-0.001)	117	185180	18.862	18.86			0.2	1
58) Isobutyl Alcohol	(1)	7.379(-0.003)	41	233018	549.794	549.79			36	250
60) Benzene	(2)	7.519(0.000)	78	597984	20.398	20.40			0.2	1
61) 1,2-Dichloroethane	(2)	7.586(0.000)	62	189708	18.291	18.29			0.3	1
65) t-Amyl methyl ether	(2)	7.701(0.000)	73	408493	19.274	19.27			0.8	5
67) n-Heptane	(2)	7.932(-0.000)	43	232632	20.641	20.64			2	5
69) n-Butanol	(1)	8.267(-0.005)	56	397187	1087.916	1087.92			61	250
71) Trichloroethene	(2)	8.407(-0.000)	95	148059	19.170	19.17			0.2	1
72) Methylcyclohexane	(2)	8.723(-0.000)	83	297276	23.415	23.41			0.5	5
73) 1,2-Dichloropropane	(2)	8.742(-0.000)	63	158071	21.086	21.09			0.2	1
74) Dibromomethane	(2)	8.851(-0.000)	93	92151	19.274	19.27			0.2	1
75) 1,4-Dioxane	(1)	8.827(-0.005)	88	43004M	466.264	466.26			29	250
76) Methyl Methacrylate	(2)	8.814(-0.000)	69	136914	19.972	19.97			0.2	5
78) Bromodichloromethane	(2)	9.088(-0.000)	83	180714	18.515	18.52			0.2	1
79) 2-Nitropropane	(2)	9.350(-0.000)	41	49977	14.098	14.10			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.435(-0.000)	63	111279	18.765	18.77			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.624(-0.000)	75	234752	18.855	18.85			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.782(-0.000)	43	1098300	94.307	94.31			0.5	10
88) Toluene	(3)	10.001(-0.000)	92	374623	19.659	19.66			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.250(-0.000)	75	209310	17.697	17.70			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552	36.55			0.4	2
91) Ethyl Methacrylate	(3)	10.305(-0.000)	69	224462	19.048	19.05			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.451(-0.000)	97	133238	19.748	19.75			0.2	1
93) Tetrachloroethene	(3)	10.542(-0.000)	166	175080	20.980	20.98			0.2	1
94) 1,3-Dichloropropane	(3)	10.615(-0.000)	76	229773	19.622	19.62			0.2	1
96) 2-Hexanone	(3)	10.652(-0.000)	43	847590	93.966	93.97			0.3	10
97) Dibromochloromethane	(3)	10.828(-0.000)	129	152462	19.692	19.69			0.2	1
99) 1,2-Dibromoethane	(3)	10.938(-0.000)	107	143506	19.424	19.42			0.2	1
102) Chlorobenzene	(3)	11.388(0.000)	112	422510	19.866	19.87			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.473(0.000)	131	144878	18.903	18.90			0.2	1
104) Ethylbenzene	(3)	11.473(0.000)	91	738218	20.028	20.03			0.4	1
106) m+p-Xylene	(3)	11.588(0.000)	106	594767	41.069	41.07			1	5
107) o-Xylene	(3)	11.917(0.000)	106	282336	19.822	19.82			0.4	1
108) Xylene (Total)	(3)		106	877103	60.892	60.89			1	6
109) Styrene	(3)	11.929(0.000)	104	467434	19.540	19.54			0.2	5
110) Bromoform	(3)	12.094(0.000)	173	107919	18.463	18.46			1	4
111) Isopropylbenzene	(3)	12.215(0.000)	105	749520	19.925	19.92			0.2	5
112) Cyclohexanone	(1)	12.294(-0.007)	55	169473A	458.179	458.18			25	100
115) Bromobenzene	(4)	12.477(-0.000)	156	183160	19.987	19.99			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.458(-0.000)	83	217439	19.950	19.95			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.507(-0.000)	110	66385	19.228	19.23			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.483(-0.000)	53	316904	84.528	84.53			6	50
119) n-Propylbenzene	(4)	12.544(-0.000)	91	913193	20.554	20.55			0.2	5
120) 2-Chlorotoluene	(4)	12.623(-0.000)	126	180417	19.696	19.70			0.2	5

M = Compound was manually integrated. A = User selected an alternate peak.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)	12.714(-0.000)	126	185058	19.494	19.49			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.678(-0.000)	105	633599	19.463	19.46			0.3	5
124) tert-Butylbenzene	(4)	12.921(-0.000)	134	149844	20.771	20.77			0.3	5
125) Pentachloroethane	(4)	12.957(-0.000)	167	103983	18.002	18.00			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.963(-0.000)	105	642200	19.007	19.01			1	5
127) sec-Butylbenzene	(4)	13.085(-0.000)	105	854567	20.209	20.21			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.188(-0.000)	146	353633	19.841	19.84			0.2	5
130) p-Isopropyltoluene	(4)	13.188(0.000)	119	731454	19.878	19.88			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.262(0.000)	146	357709	19.790	19.79			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.268(0.000)	105	647148	19.734	19.73			0.3	5
135) Benzyl Chloride	(4)	13.334(0.000)	91	445261	18.483	18.48			1	5
136) 1,3-Diethylbenzene	(4)	13.389(0.000)	119	432008	19.612	19.61			0.2	5
137) 1,4-Diethylbenzene	(4)	13.462(0.000)	119	458422	19.600	19.60			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.523(0.000)	146	335418	19.849	19.85			0.2	5
139) n-Butylbenzene	(4)	13.480(0.000)	92	359089	18.917	18.92			0.2	5
140) 1,2-Diethylbenzene	(4)	13.535(0.000)	119	358963	19.263	19.26			0.2	5
141) Diethylbenzene (total)	(4)		100	1249393	58.474	58.47			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.064(0.000)	75	53173	18.052	18.05			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.192(0.000)	180	250436	18.593	18.59			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.618(0.000)	180	221942	18.897	18.90			0.3	5
147) Hexachlorobutadiene	(4)	14.697(0.000)	225	98180	18.480	18.48			2	5
148) Naphthalene	(4)	14.801(0.000)	128	702183	19.068	19.07			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.947(0.000)	180	203128	18.841	18.84			0.4	5
150) 2-Methylnaphthalene	(4)	15.604(0.000)	142	348476	16.383	16.38			2	4

Total number of targets = 109

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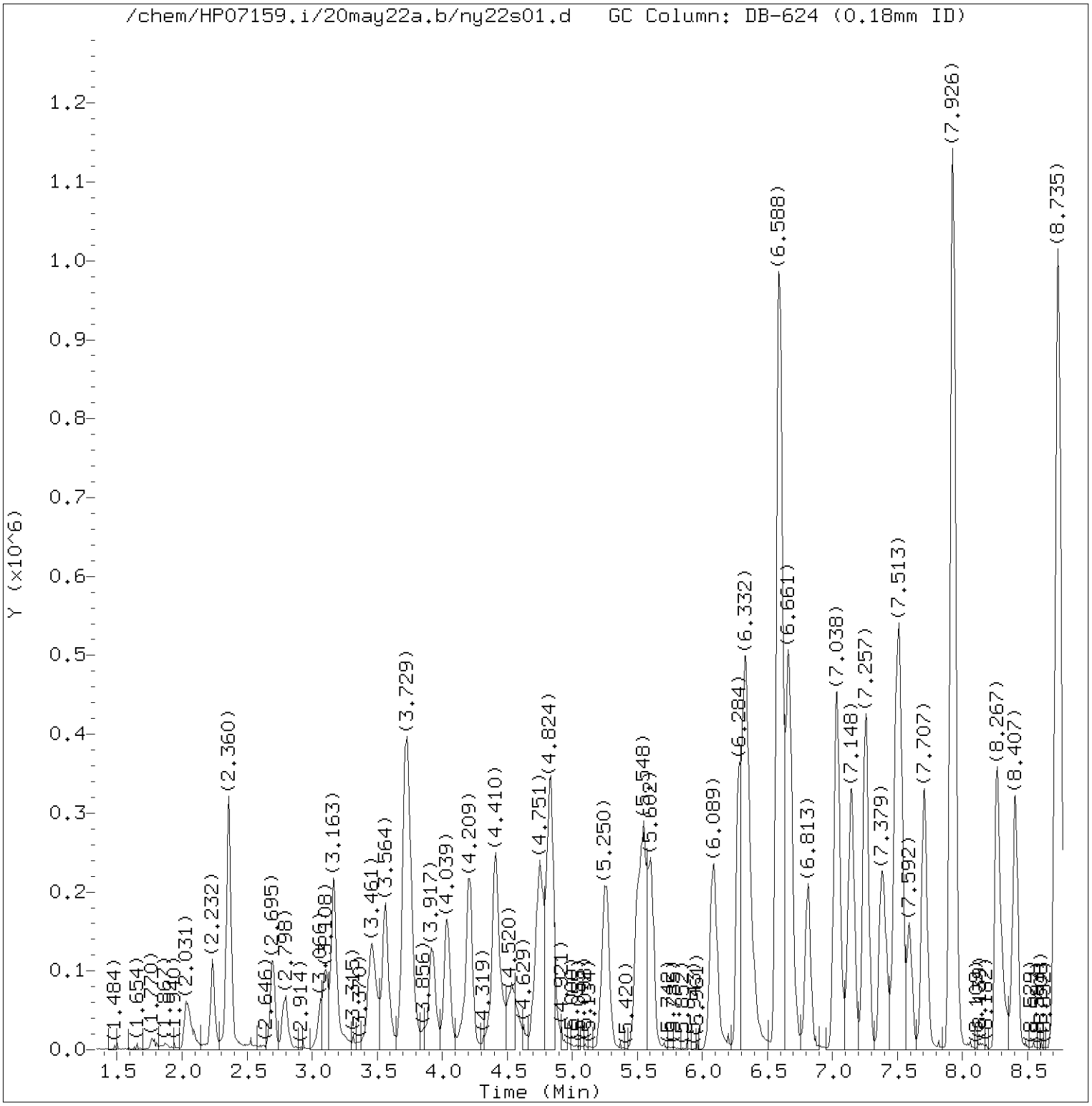
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

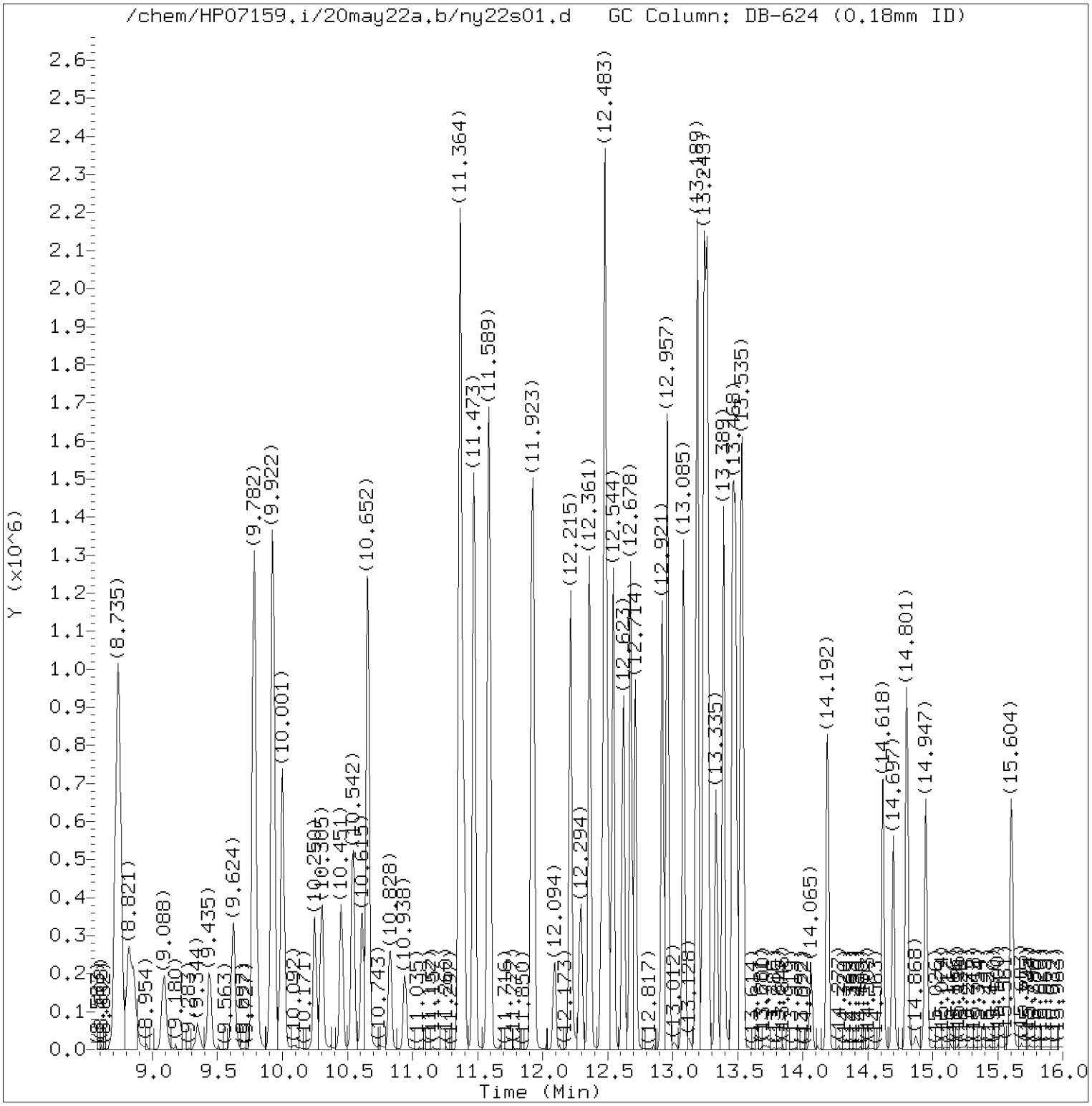
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.031	85	137854	14.860
4) Chloromethane	(2)	2.232	50	155510	15.644
5) 1,3-Butadiene	(2)	2.360	39	148004	21.338
6) Vinyl Chloride	(2)	2.360	62	151466	15.658
8) Bromomethane	(2)	2.695	94	111567	16.821
9) Chloroethane	(2)	2.786	64	96747	17.088
12) Trichlorofluoromethane	(2)	3.102	101	200087	18.821
11) n-Pentane	(2)	3.169	43	215352	20.675
13) Ethanol	(1)	3.248	45	83105	1081.908
15) Freon 123a	(2)	3.455	67	165169	21.207
16) Acrolein	(1)	3.564	56	306228	142.292
17) 1,1-Dichloroethene	(2)	3.711	96	126976	20.494
18) Acetone	(1)	3.741	58	165761	182.868
19) Freon 113	(2)	3.741	101	125350	21.806
22) Methyl Iodide	(2)	3.923	142	218315	18.878
21) 2-Propanol	(1)	3.930	45	109865M	183.508
23) Carbon Disulfide	(2)	4.039	76	408506	20.618
27) Methyl Acetate	(2)	4.179	43	157137	20.645
25) Allyl Chloride	(2)	4.215	41	216707	19.812
28) Methylene Chloride	(2)	4.410	84	146217	19.870
29)*t-Butyl alcohol-d10	(1)	4.410	65	317361	250.000
30) t-Butyl alcohol	(1)	4.550	59	268158	226.644
31) Acrylonitrile	(2)	4.751	53	402246	97.850
33) Methyl Tertiary Butyl Ether	(2)	4.818	73	367860	18.271
32) trans-1,2-Dichloroethene	(2)	4.836	96	140174	19.818
34) n-Hexane	(2)	5.256	57	225765	23.122
36) 1,1-Dichloroethane	(2)	5.499	63	255700	19.817
38) di-Isopropyl ether	(2)	5.548	45	448580	20.181
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	218337	19.169
40) Ethyl t-butyl ether	(2)	6.083	59	401369	18.998
43) 1,2-Dichloroethene (Total)	(2)		96	307435	40.639
44) 2-Butanone	(2)	6.284	43	832091	144.761
42) cis-1,2-Dichloroethene	(2)	6.326	96	167261	20.821
45) 2,2-Dichloropropane	(2)	6.339	77	208268	18.282
47) Propionitrile	(1)	6.381	54	252719	182.881
48) Methacrylonitrile	(2)	6.594	67	638736	153.824
49) Bromochloromethane	(2)	6.661	128	77115	20.303
50) Tetrahydrofuran	(1)	6.667	71	158159	110.240

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.819	83	240328	19.095
52)$Dibromofluoromethane	(2)	7.026	113	281460	47.586
53) 1,1,1-Trichloroethane	(2)	7.044	97	206149	18.105
54) Cyclohexane	(2)	7.142	56	271787	23.206
55) 1,1-Dichloropropene	(2)	7.251	75	200657	19.483
56) Carbon Tetrachloride	(2)	7.263	117	185180	18.862
58) Isobutyl Alcohol	(1)	7.379	41	233018	549.794
57)$1,2-Dichloroethane-d4	(2)	7.488	102	72452	48.446
60) Benzene	(2)	7.519	78	597984	20.398
61) 1,2-Dichloroethane	(2)	7.586	62	189708	18.291
65) t-Amyl methyl ether	(2)	7.701	73	408493	19.274
66)*Fluorobenzene	(2)	7.920	96	1191852	50.000
67) n-Heptane	(2)	7.932	43	232632	20.641
69) n-Butanol	(1)	8.267	56	397187	1087.916
71) Trichloroethene	(2)	8.407	95	148059	19.170
72) Methylcyclohexane	(2)	8.723	83	297276	23.415
73) 1,2-Dichloropropane	(2)	8.742	63	158071	21.086
76) Methyl Methacrylate	(2)	8.815	69	136914	19.972
75) 1,4-Dioxane	(1)	8.827	88	43004M	466.264
74) Dibromomethane	(2)	8.851	93	92151	19.274
78) Bromodichloromethane	(2)	9.088	83	180714	18.515
79) 2-Nitropropane	(2)	9.350	41	49977	14.098
80) 2-Chloroethyl Vinyl Ether	(2)	9.435	63	111279	18.765
81) cis-1,3-Dichloropropene	(2)	9.624	75	234752	18.855
82) 4-Methyl-2-pentanone	(2)	9.782	43	1098300	94.307
83)$Toluene-d8	(3)	9.922	98	1122813	47.864
88) Toluene	(3)	10.001	92	374623	19.659
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552
89) trans-1,3-Dichloropropene	(3)	10.250	75	209310	17.697
91) Ethyl Methacrylate	(3)	10.305	69	224462	19.048
92) 1,1,2-Trichloroethane	(3)	10.451	97	133238	19.748
93) Tetrachloroethene	(3)	10.542	166	175080	20.980
94) 1,3-Dichloropropane	(3)	10.615	76	229773	19.622
96) 2-Hexanone	(3)	10.652	43	847590	93.966
97) Dibromochloromethane	(3)	10.828	129	152462	19.692
99) 1,2-Dibromoethane	(3)	10.938	107	143506	19.424
100)*Chlorobenzene-d5	(3)	11.364	117	899461	50.000
102) Chlorobenzene	(3)	11.388	112	422510	19.866

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) 1,1,1,2-Tetrachloroethane	(3)	11.473	131	144878	18.903
104) Ethylbenzene	(3)	11.473	91	738218	20.028
106) m+p-Xylene	(3)	11.589	106	594767	41.069
108) Xylene (Total)	(3)		106	877103	60.892
107) o-Xylene	(3)	11.917	106	282336	19.822
109) Styrene	(3)	11.929	104	467434	19.540
110) Bromoform	(3)	12.094	173	107919	18.463
111) Isopropylbenzene	(3)	12.215	105	749520	19.925
112) Cyclohexanone	(1)	12.294	55	169473A	458.179
114)$4-Bromofluorobenzene	(3)	12.361	95	415870	44.873
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	217439	19.950
115) Bromobenzene	(4)	12.477	156	183160	19.987
118) trans-1,4-Dichloro-2-butene	(4)	12.483	53	316904	84.528
117) 1,2,3-Trichloropropane	(4)	12.507	110	66385	19.228
119) n-Propylbenzene	(4)	12.544	91	913193	20.554
120) 2-Chlorotoluene	(4)	12.623	126	180417	19.696
122) 1,3,5-Trimethylbenzene	(4)	12.678	105	633599	19.463
121) 4-Chlorotoluene	(4)	12.714	126	185058	19.494
124) tert-Butylbenzene	(4)	12.921	134	149844	20.771
125) Pentachloroethane	(4)	12.957	167	103983	18.002
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	642200	19.007
127) sec-Butylbenzene	(4)	13.085	105	854567	20.209
129) 1,3-Dichlorobenzene	(4)	13.189	146	353633	19.841
130) p-Isopropyltoluene	(4)	13.189	119	731454	19.878
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495502	50.000
133) 1,4-Dichlorobenzene	(4)	13.262	146	357709	19.790
134) 1,2,3-Trimethylbenzene	(4)	13.268	105	647148	19.734
135) Benzyl Chloride	(4)	13.335	91	445261	18.483
141) Diethylbenzene (total)	(4)		100	1249393	58.474
136) 1,3-Diethylbenzene	(4)	13.389	119	432008	19.612
137) 1,4-Diethylbenzene	(4)	13.462	119	458422	19.600
139) n-Butylbenzene	(4)	13.481	92	359089	18.917
138) 1,2-Dichlorobenzene	(4)	13.523	146	335418	19.849
140) 1,2-Diethylbenzene	(4)	13.535	119	358963	19.263
142) 1,2-Dibromo-3-chloropropane	(4)	14.065	75	53173	18.052
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	250436	18.593
146) 1,2,4-Trichlorobenzene	(4)	14.618	180	221942	18.897
147) Hexachlorobutadiene	(4)	14.697	225	98180	18.480

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Naphthalene	(4)	14.801	128	702183	19.068
149) 1,2,3-Trichlorobenzene	(4)	14.947	180	203128	18.841
150) 2-Methylnaphthalene	(4)	15.604	142	348476	16.383

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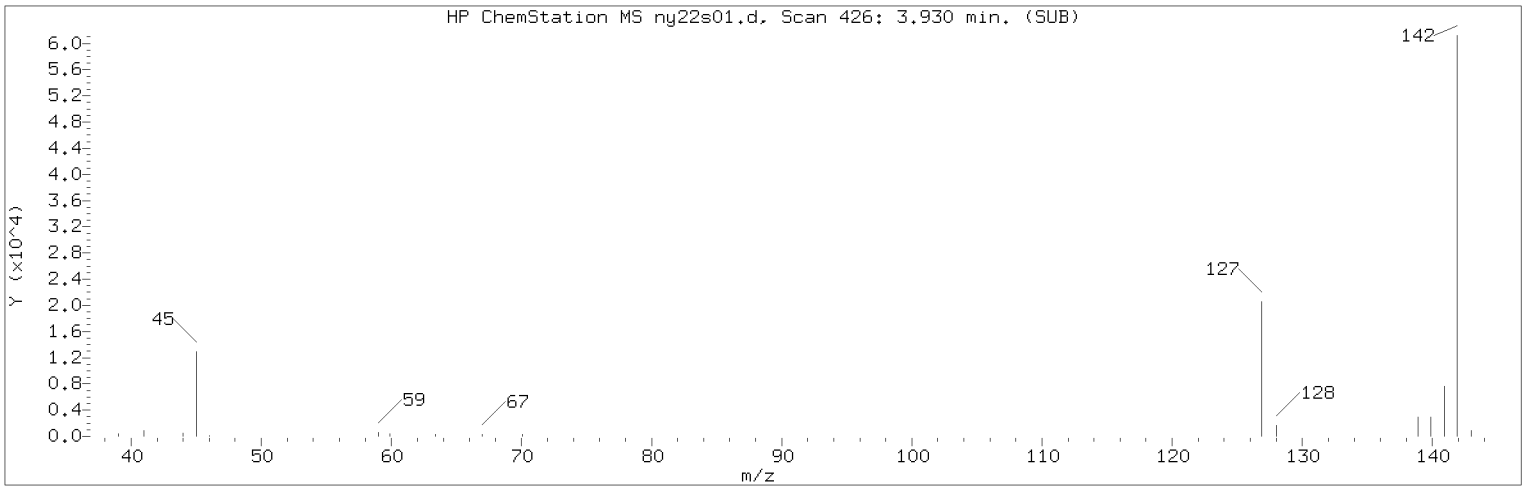
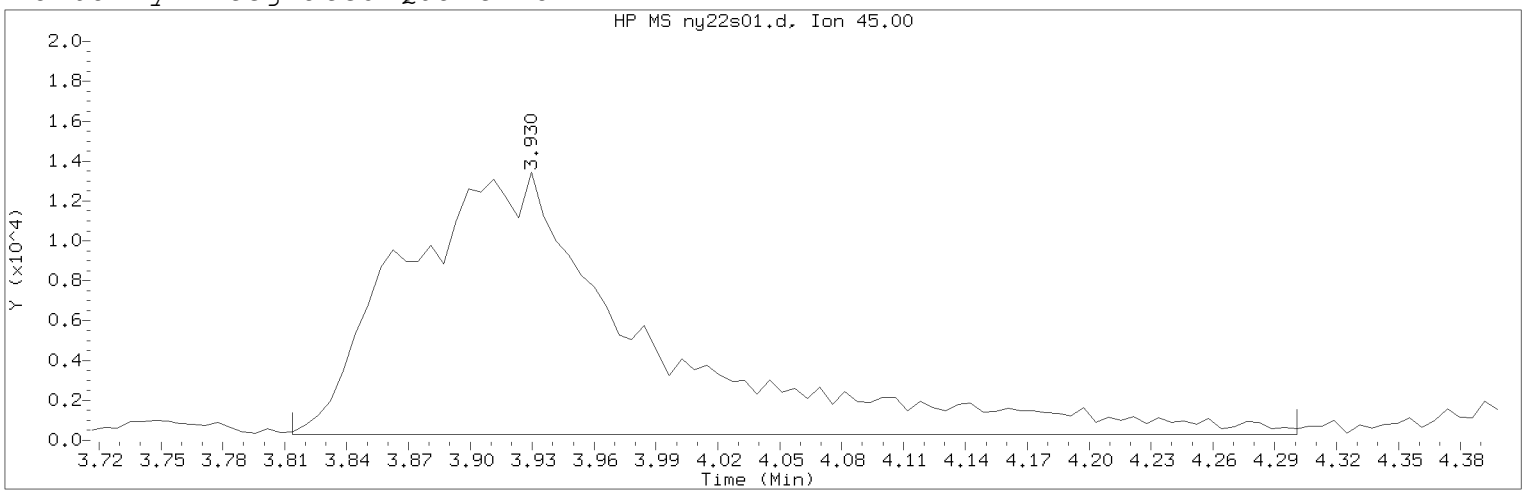
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

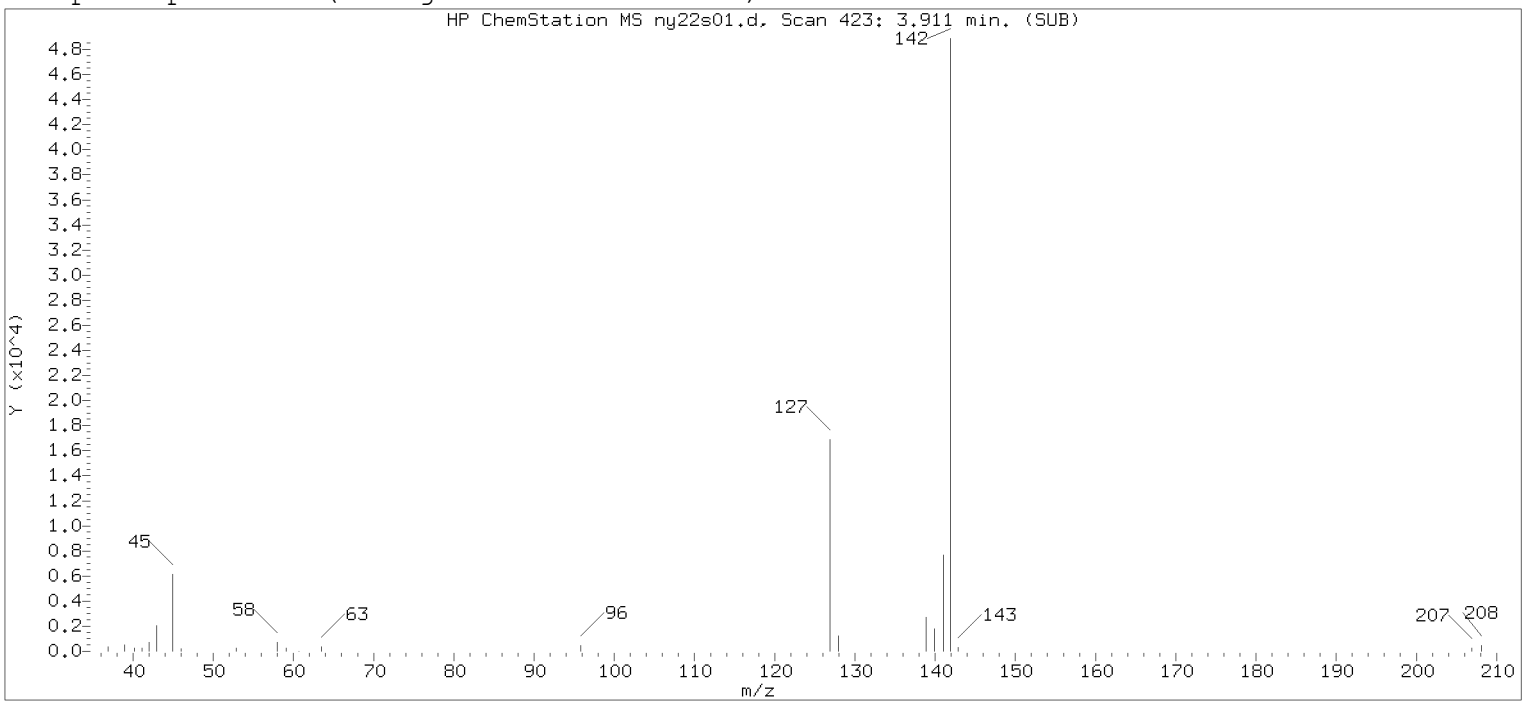
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 426
Retention Time (minutes): 3.930
Quant Ion : 45.00
Area (flag) : 109865M
On-Column Amount (ng) : 183.5076
Integration start scan : 406 Integration stop scan: 486
Y at integration start : 285 Y at integration end: 285

Reason for manual integration: improper integration

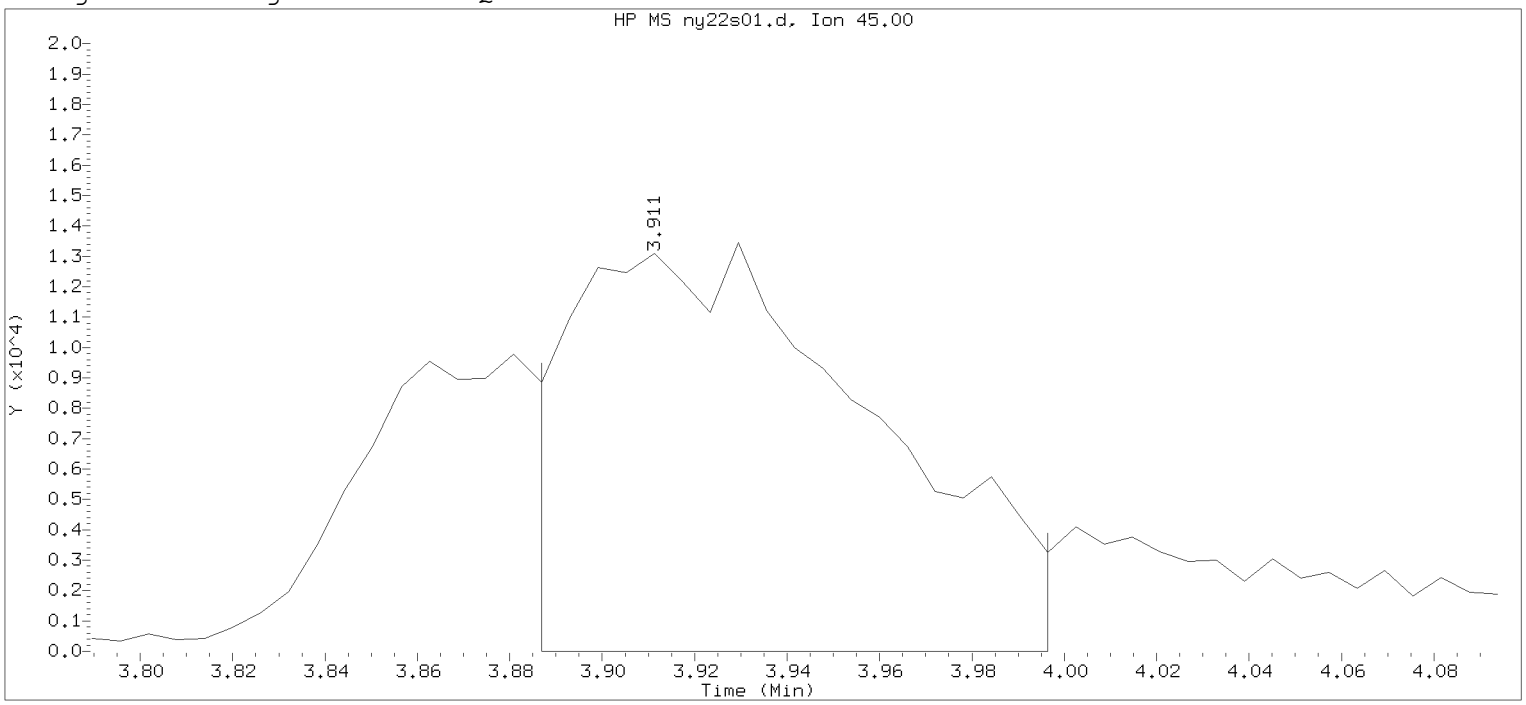
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

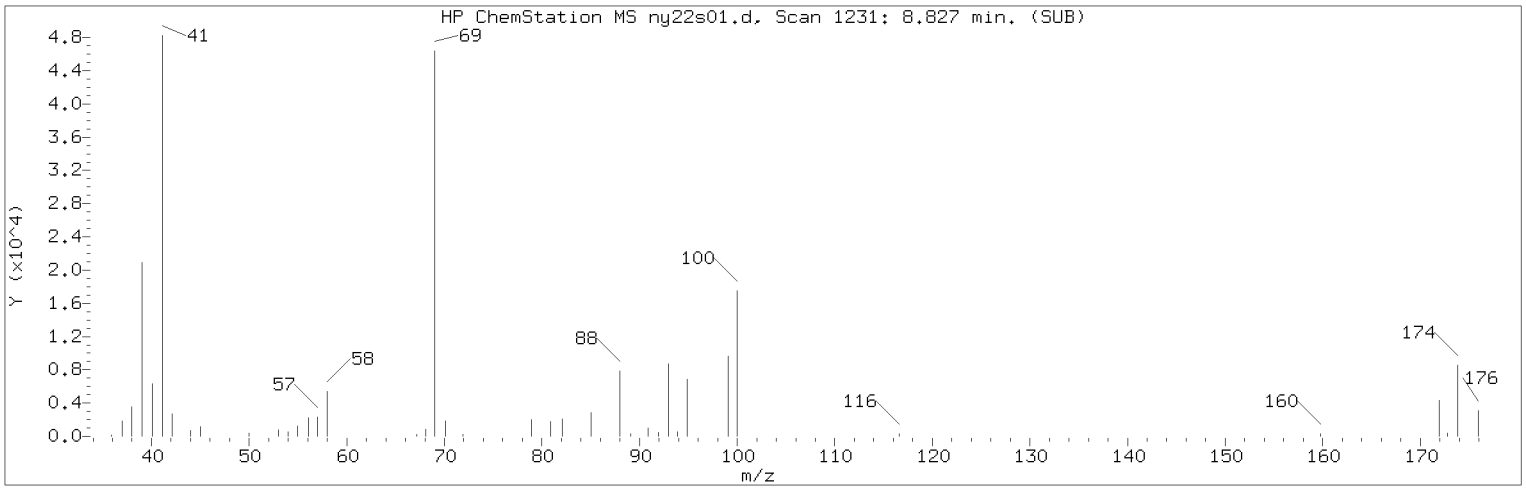
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

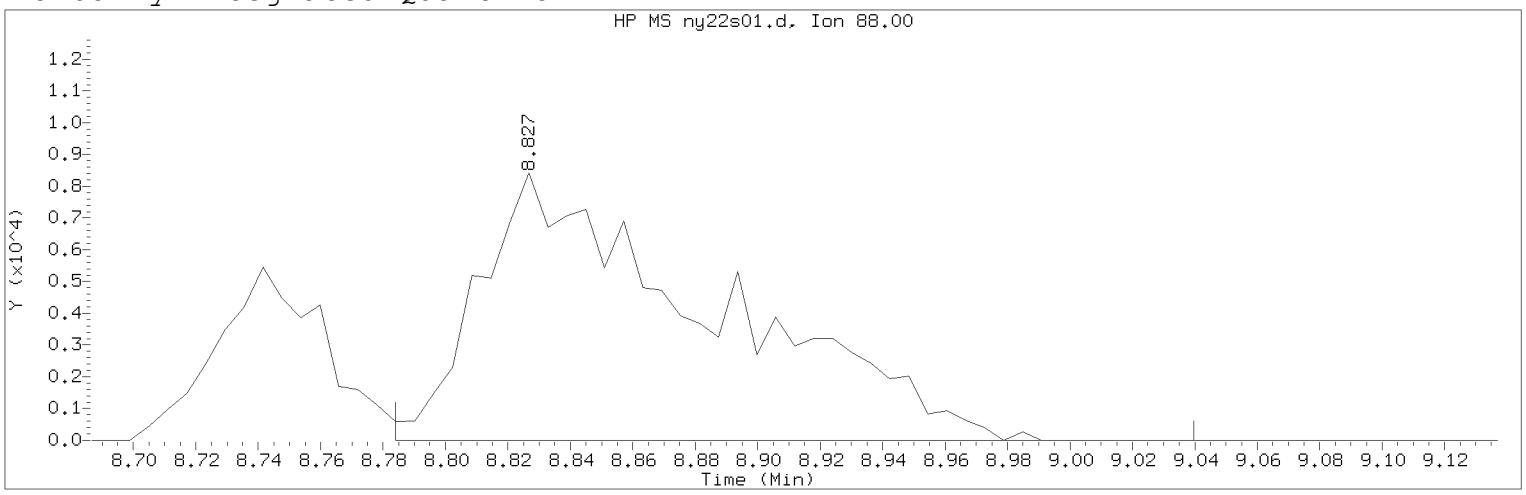
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 423
Retention Time (minutes): 3.911
Quant Ion : 45.00
Area : 60500
On-column Amount (ng) : 101.0542
Integration start scan : 418 Integration stop scan: 436
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

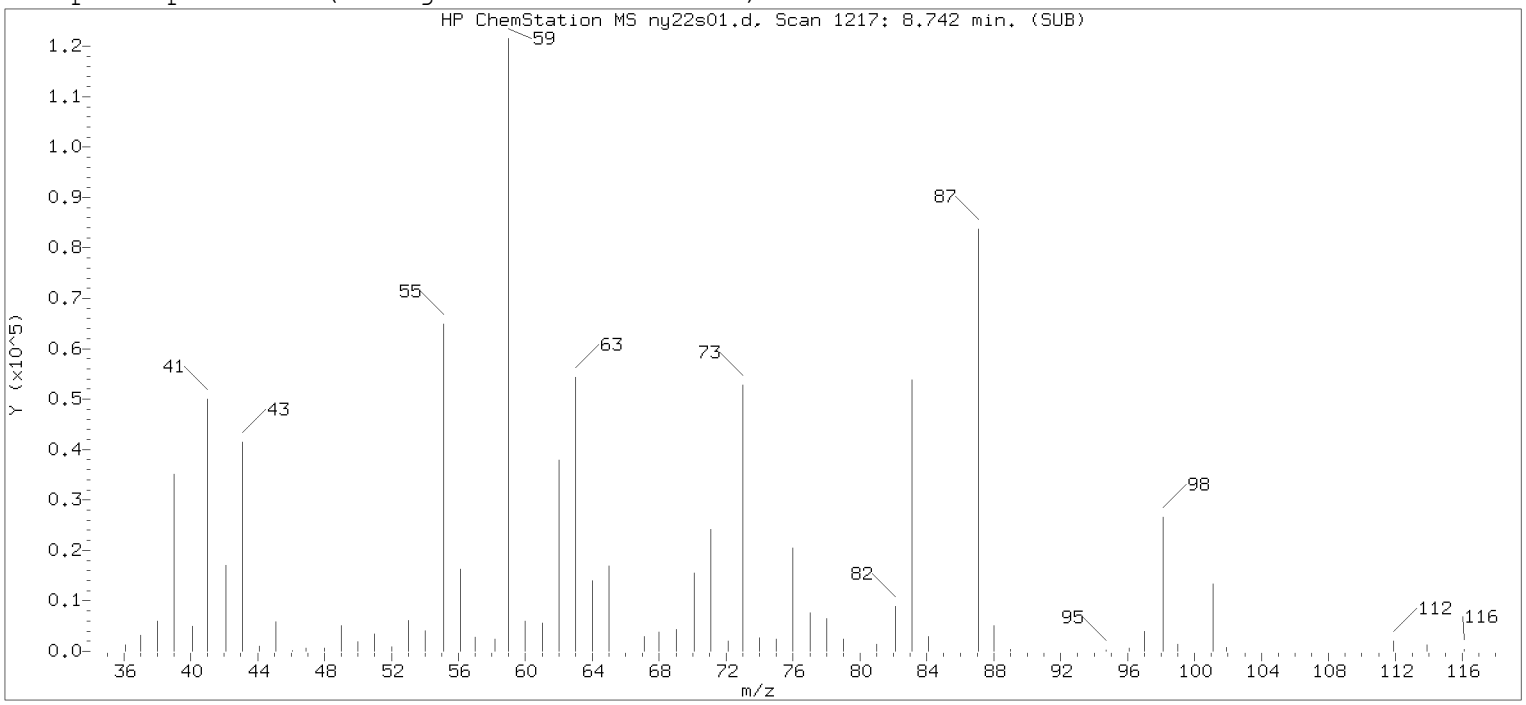
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.827
Quant Ion : 88.00
Area (flag) : 43004M
On-Column Amount (ng) : 466.2638
Integration start scan : 1223 Integration stop scan: 1265
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

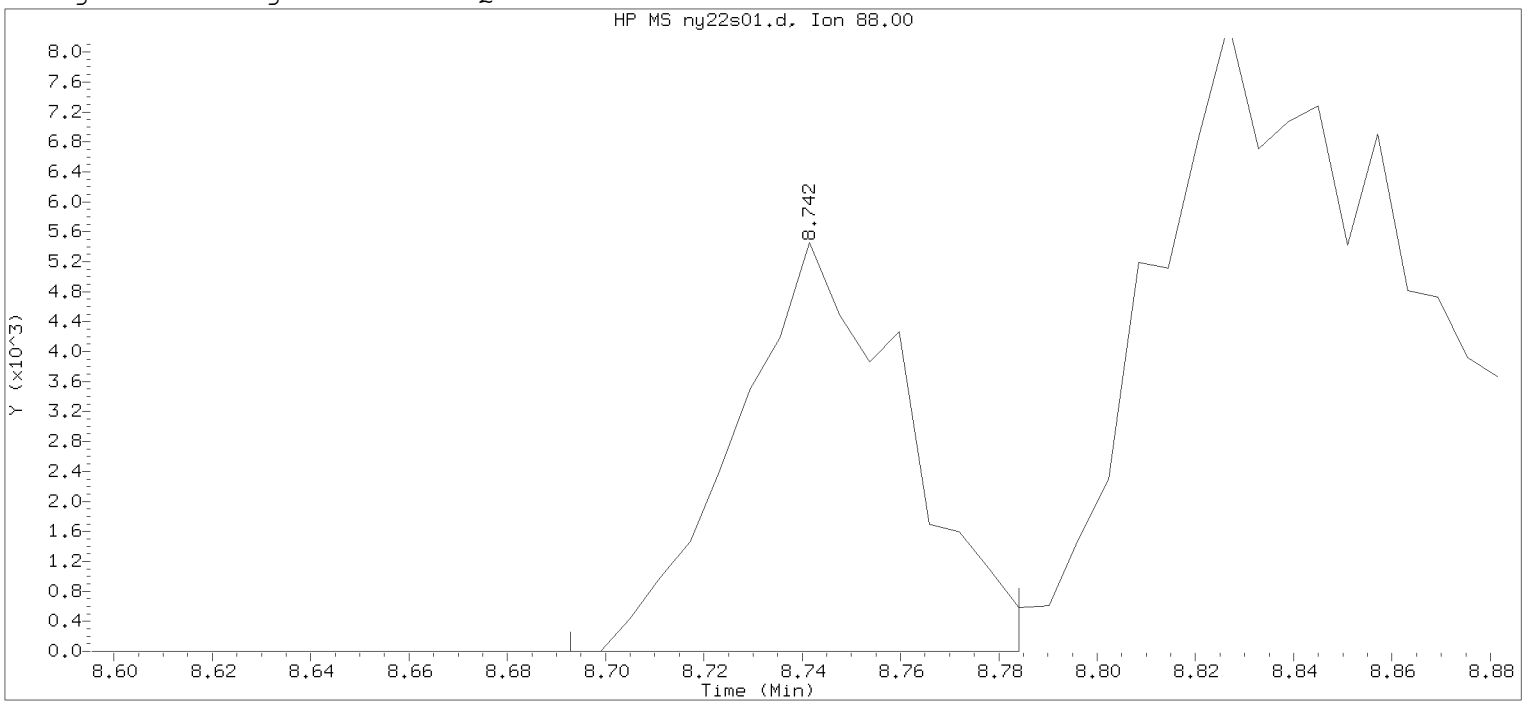
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

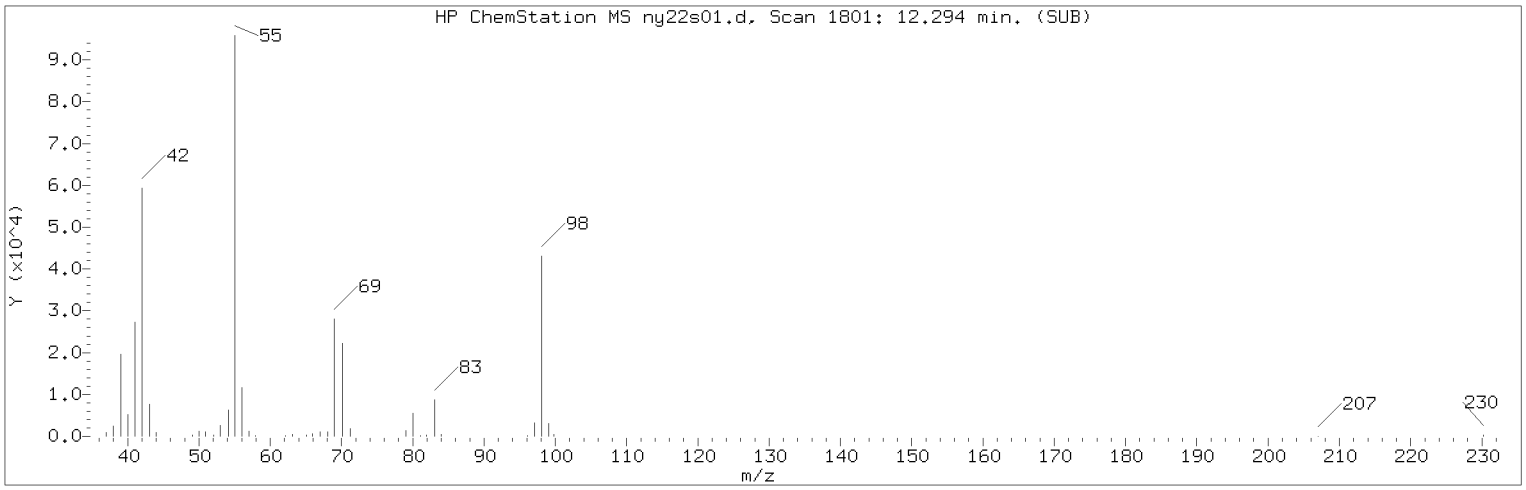
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

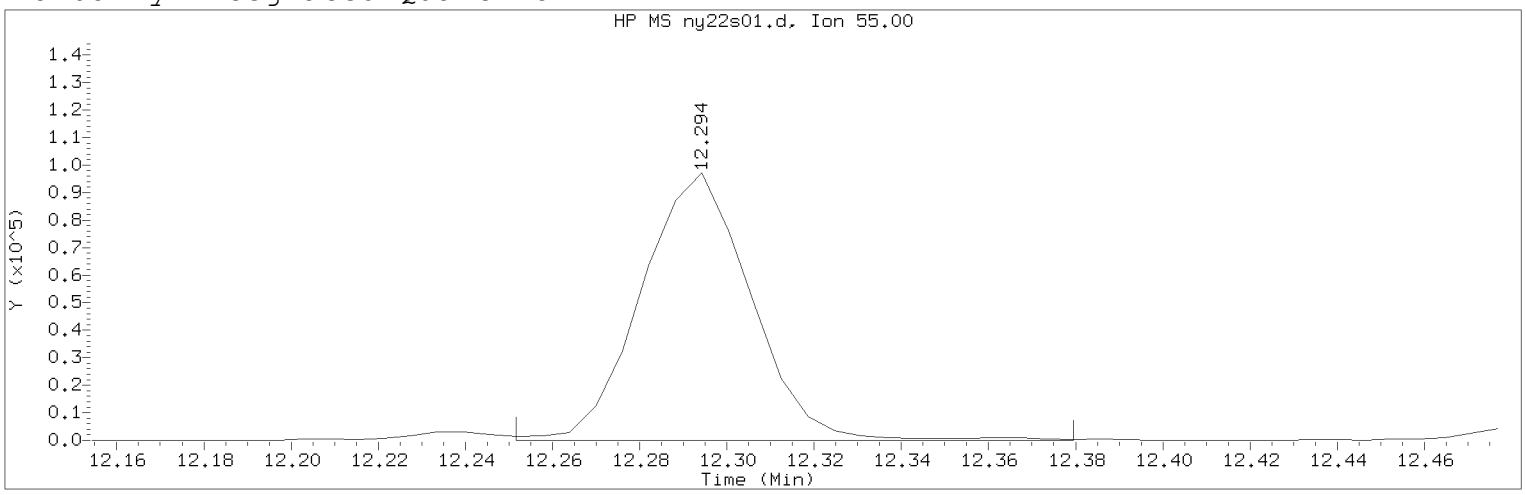
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.742
Quant Ion : 88.00
Area : 13053
On-column Amount (ng) : 141.5347
Integration start scan : 1208 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

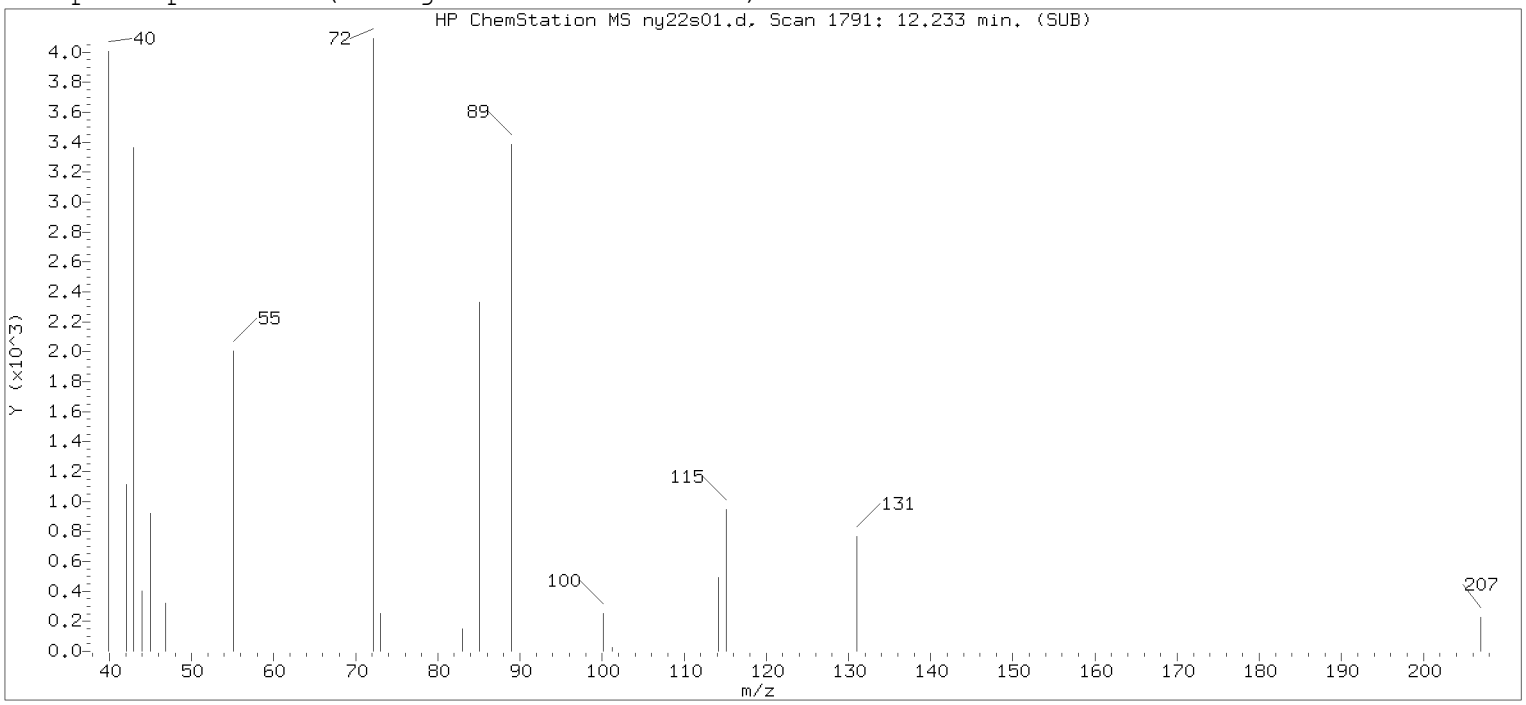
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1801
Retention Time (minutes): 12.294
Quant Ion : 55.00
Area (flag) : 169473A
On-Column Amount (ng) : 458.1795
Integration start scan : 1793 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

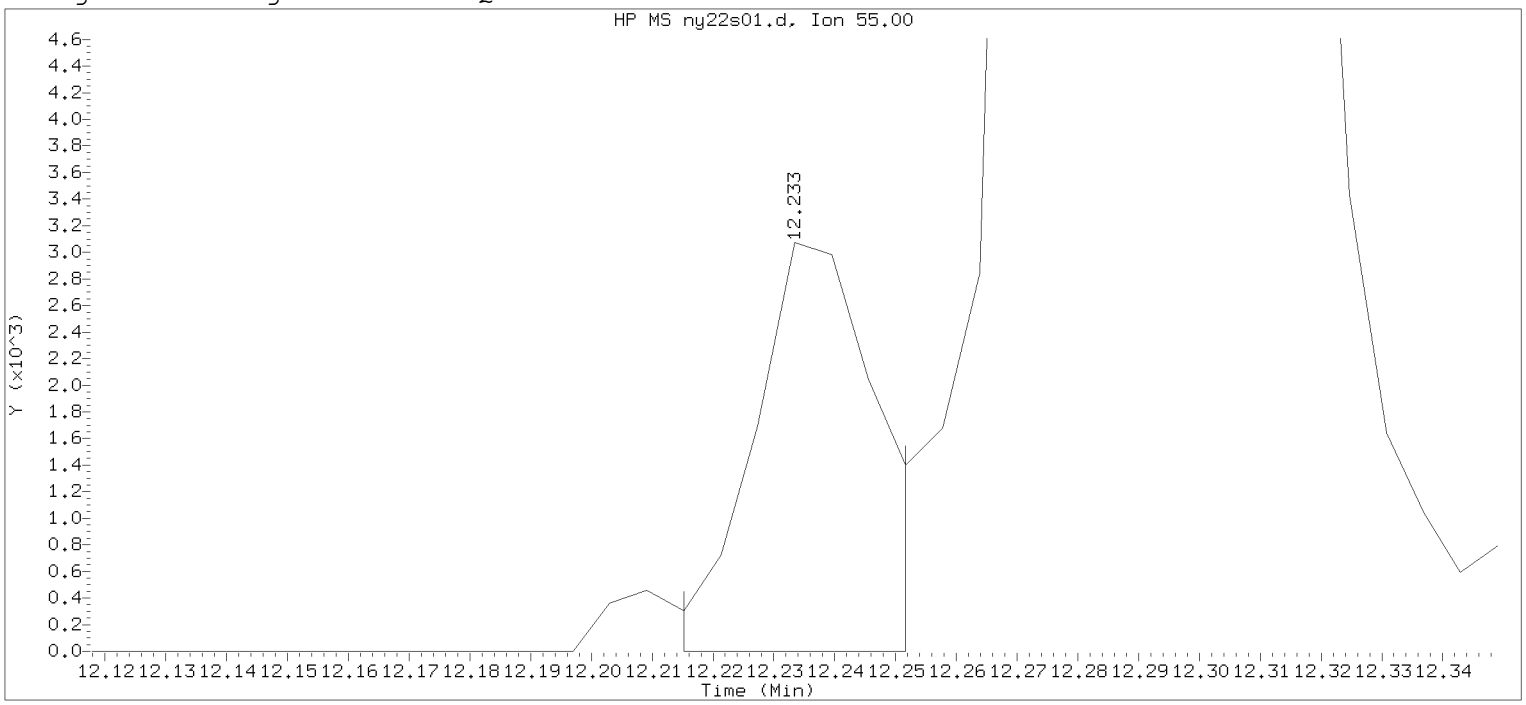
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1791
Retention Time (minutes): 12.233
Quant Ion : 55.00
Area : 4149
On-column Amount (ng) : 11.2184
Integration start scan : 1787 Integration stop scan: 1793
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0026

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Groundwater and Water Samples
Collected on 05/12/20-05/14/20

SDG# JCW57

GROUP	SAMPLE NUMBERS
2099836	1316339-1316348

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **06/11/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

2425 New Holland Pike, Lancaster, PA 17601 | 717-656-2300 | Fax: 717-656-2681 | www.LancasterLabs.com

Table of Contents for SDG# JCW57

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 29
   a. Case Narrative/Conformance Summary 30
   b. Quality Control and Calibration Summary Forms 35
   c. Sample Data 119
   d. Standards Data 189
   e. Raw QC Data 792

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Sample Reference List for SDG Number JCW57
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1316339	J15-UC02	05/12/2020 14:55	05/15/2020 11:04	J1501
1316340	J15-UC01	05/12/2020 15:48	05/15/2020 11:04	J1502
1316341	J17-UC01	05/12/2020 16:53	05/15/2020 11:04	J1503
1316342	J20-UC02	05/13/2020 09:53	05/15/2020 11:04	J1504
1316343	J20-UC01	05/13/2020 10:37	05/15/2020 11:04	J1505
1316344	J20-BR02	05/13/2020 11:57	05/15/2020 11:04	J1506
1316345	J20-BR01	05/13/2020 14:12	05/15/2020 11:04	J1507
1316346	J18-UC03	05/13/2020 16:59	05/15/2020 11:04	J1508
1316347	EBAWR051420	05/14/2020 16:45	05/15/2020 11:04	J1509
1316348	TB051220	05/12/2020 00:00	05/15/2020 11:04	J1510

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Sample pH Log

SDG: JCW57

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1316339	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316340	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 9:46:51PM	2002
1316341	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:47PM	2648
1316342	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316343	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316344	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316345	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316346	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/24/2020 11:48:40PM	30941
1316347	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 1:43:42PM	27445
1316348	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/22/2020 8:49:48PM	2648

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: May 28, 2020 08:28

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2099836
SDG: JCW57
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
J15-UC02 Grab Groundwater	05/12/2020 14:55	1316339
J15-UC01 Grab Groundwater	05/12/2020 15:48	1316340
J17-UC01 Grab Groundwater	05/12/2020 16:53	1316341
J20-UC02 Grab Groundwater	05/13/2020 09:53	1316342
J20-UC01 Grab Groundwater	05/13/2020 10:37	1316343
J20-BR02 Grab Groundwater	05/13/2020 11:57	1316344
J20-BR01 Grab Groundwater	05/13/2020 14:12	1316345
J18-UC03 Grab Groundwater	05/13/2020 16:59	1316346
EBAWR051420 Grab Water	05/14/2020 16:45	1316347
TB051220 Water	05/12/2020	1316348

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **J15-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 14:55
SDG#: JCW57-01

VHB
ELLE Sample #: GW 1316339
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 19:48	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 19:47	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J15-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 15:48
SDG#: JCW57-02

VHB
ELLE Sample #: GW 1316340
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	N201431AA	05/22/2020 20:10	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	N201431AA	05/22/2020 20:09	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J17-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020 16:53
SDG#: JCW57-03

VHB
ELLE Sample #: GW 1316341
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 15:56	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 15:55	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **J20-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 09:53
SDG#: JCW57-04

VHB
ELLE Sample #: GW 1316342
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.8 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.6 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	0.3 J	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.3 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 19:07	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 19:06	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J20-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 10:37
SDG#: JCW57-05

VHB
ELLE Sample #: GW 1316343
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.5 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.7 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 19:28	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 19:27	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J20-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 11:57
SDG#: JCW57-06

VHB
ELLE Sample #: GW 1316344
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.9 J	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 19:49	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 19:48	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J20-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 14:12
SDG#: JCW57-07

VHB
ELLE Sample #: GW 1316345
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 20:09	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 20:08	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **J18-UC03 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/13/2020 16:59
SDG#: JCW57-08

VHB
ELLE Sample #: GW 1316346
ELLE Group #: 2099836
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201441AA	05/23/2020 20:30	Kevin A Sposito	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201441AA	05/23/2020 20:29	Kevin A Sposito	1

*=This limit was used in the evaluation of the final result

Sample Description: **EBAWR051420 Grab Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/14/2020 16:45
SDG#: JCW57-09EB

VHB
ELLE Sample #: GW 1316347
ELLE Group #: 2099836
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201472AA	05/26/2020 22:34	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201472AA	05/26/2020 22:33	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **TB051220 Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/15/2020 11:04
Collection Date/Time: 05/12/2020
SDG#: JCW57-10TB

VHB
ELLE Sample #: GW 1316348
ELLE Group #: 2099836
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	Y201431AA	05/22/2020 11:11	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	Y201431AA	05/22/2020 11:10	Don V Viray	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 5201441AA	Sample number(s): 1316342-1316346		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: L201472AA	Sample number(s): 1316347		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: N201431AA	Sample number(s): 1316339-1316340		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: Y201431AA	Sample number(s): 1316341,1316348		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5201441AA	Sample number(s): 1316342-1316346								
Acetone	150	194.67			130		54-157		
Benzene	20	18.42			92		80-120		
2-Butanone	150	144.29			96		59-135		
Carbon Disulfide	20	15.71			79		65-128		
Chloroform	20	18.56			93		80-120		
1,2-Dichlorobenzene	20	19.7			99		80-120		
1,1-Dichloroethane	20	18.24			91		80-120		
1,2-Dichloroethane	20	18.84			94		73-124		
1,1-Dichloroethene	20	18.58			93		80-131		
cis-1,2-Dichloroethene	20	19.51			98		80-125		
trans-1,2-Dichloroethene	20	18.45			92		80-126		
1,4-Dioxane	500	645			129		63-146		
Ethylbenzene	20	19.49			97		80-120		
Freon 113	20	17.37			87		73-139		
Methylene Chloride	20	18.86			94		80-120		
Naphthalene	20	19.39			97		53-124		
Tetrachloroethene	20	19.97			100		80-120		
Toluene	20	18.85			94		80-120		
1,1,1-Trichloroethane	20	18.1			90		67-126		
Trichloroethene	20	18.51			93		80-120		
Vinyl Chloride	20	18.09			90		56-120		
Xylene (Total)	60	58.64			98		80-120		
Batch number: L201472AA	Sample number(s): 1316347								
Acetone	150	192.35			128		54-157		
Benzene	20	19.11			96		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Butanone	150	168.9			113		59-135		
Carbon Disulfide	20	19.33			97		65-128		
Chloroform	20	19.4			97		80-120		
1,2-Dichlorobenzene	20	20.62			103		80-120		
1,1-Dichloroethane	20	19.46			97		80-120		
1,2-Dichloroethane	20	19.33			97		73-124		
1,1-Dichloroethene	20	18.49			92		80-131		
cis-1,2-Dichloroethene	20	20.2			101		80-125		
trans-1,2-Dichloroethene	20	18.67			93		80-126		
1,4-Dioxane	500	507.28			101		63-146		
Ethylbenzene	20	19.87			99		80-120		
Freon 113	20	17.35			87		73-139		
Methylene Chloride	20	19.22			96		80-120		
Naphthalene	20	20.96			105		53-124		
Tetrachloroethene	20	19.44			97		80-120		
Toluene	20	19.6			98		80-120		
1,1,1-Trichloroethane	20	18.71			94		67-126		
Trichloroethene	20	18.76			94		80-120		
Vinyl Chloride	20	17.09			85		56-120		
Xylene (Total)	60	61.19			102		80-120		
Batch number: N201431AA	Sample number(s): 1316339-1316340								
Acetone	150	182.87			122		54-157		
Benzene	20	20.4			102		80-120		
2-Butanone	150	144.76			97		59-135		
Carbon Disulfide	20	20.62			103		65-128		
Chloroform	20	19.1			95		80-120		
1,2-Dichlorobenzene	20	19.85			99		80-120		
1,1-Dichloroethane	20	19.82			99		80-120		
1,2-Dichloroethane	20	18.29			91		73-124		
1,1-Dichloroethene	20	20.49			102		80-131		
cis-1,2-Dichloroethene	20	20.82			104		80-125		
trans-1,2-Dichloroethene	20	19.82			99		80-126		
1,4-Dioxane	500	466.27			93		63-146		
Ethylbenzene	20	20.03			100		80-120		
Freon 113	20	21.81			109		73-139		
Methylene Chloride	20	19.87			99		80-120		
Naphthalene	20	19.07			95		53-124		
Tetrachloroethene	20	20.98			105		80-120		
Toluene	20	19.66			98		80-120		
1,1,1-Trichloroethane	20	18.1			91		67-126		
Trichloroethene	20	19.17			96		80-120		
Vinyl Chloride	20	15.66			78		56-120		
Xylene (Total)	60	60.89			101		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: Y201431AA	Sample number(s): 1316341,1316348								
Acetone	150	139.23			93		54-157		
Benzene	20	19.27			96		80-120		
2-Butanone	150	145.9			97		59-135		
Carbon Disulfide	20	18.32			92		65-128		
Chloroform	20	19.84			99		80-120		
1,2-Dichlorobenzene	20	19.8			99		80-120		
1,1-Dichloroethane	20	19.36			97		80-120		
1,2-Dichloroethane	20	19.91			100		73-124		
1,1-Dichloroethene	20	18.01			90		80-131		
cis-1,2-Dichloroethene	20	20.14			101		80-125		
trans-1,2-Dichloroethene	20	19.07			95		80-126		
1,4-Dioxane	500	488.13			98		63-146		
Ethylbenzene	20	19.51			98		80-120		
Freon 113	20	17.33			87		73-139		
Methylene Chloride	20	20.12			101		80-120		
Naphthalene	20	19.2			96		53-124		
Tetrachloroethene	20	19.61			98		80-120		
Toluene	20	19.55			98		80-120		
1,1,1-Trichloroethane	20	19.4			97		67-126		
Trichloroethene	20	19.71			99		80-120		
Vinyl Chloride	20	19.32			97		56-120		
Xylene (Total)	60	59.68			99		80-120		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201441AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316342	99	103	99	95
1316343	99	103	99	95
1316344	99	104	99	95
1316345	99	103	99	95
1316346	100	104	99	94
Blank	97	102	99	95
LCS	98	102	101	99
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/28/2020 08:28

Group Number: 2099836

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: L201472AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316347	101	101	100	92
Blank	100	100	100	93
LCS	98	99	102	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: N201431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316339	96	96	97	90
1316340	96	101	95	88
Blank	94	98	96	89
LCS	95	97	96	90
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: Y201431AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1316341	103	105	97	94
1316348	99	103	97	94
Blank	99	102	97	94
LCS	98	101	98	96
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6056 Group # 209836 Sample # 1316339-48

COC #606395

Client Information

Client: VHB / The Johnson Company

Acct. #: 06556

Project Name/#: AD-New Windsor / 58300.00

PWSID #:

Project Manager: George Lester

P.O. #:

Sampler: Adam Rafay

Quote #:

State where samples were collected: NY

For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260 - VOCs	Remarks
J15-UC02	5/12/20	1455	X		3	X	X	
J15-UC01	5/12/20	1548	X		3	X	X	
J17-UC01	5/12/20	1653	X		3	X	X	
J20-UC02	5/13/20	953	X		3	X	X	
J20-UC01	5/13/20	1037	X		3	X	X	
J20-BR02	5/13/20	1157	X		3	X	X	
J20-BR01	5/13/20	1412	X		3	X	X	
J18-UC03	5/13/20	1659	X		3	X	X	
EBAWR051420	5/14/20	1645	X		3	X	X	EQUIP. BLANK
TB051220	—	—	—		2	X	X	TRIP BLANK

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/14/20	1700			
				5/15/20	1104

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 2.4 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 284647

Group Number(s): R2099836

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/15/2020
Number of Packages:	1	Number of Projects:	4
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	No	Total Trip Blank Qty:	2
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Cory Jeremiah

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	DT42-01	2.4	DT	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-5994
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW57

GC/MS Volatiles

Fraction: Volatiles by GC/MS

		Matrix			
Sample #	Client ID	Liquid	Solid	DF	Comments
1316339	J15-UC02	X		1	
1316340	J15-UC01	X		1	
1316341	J17-UC01	X		1	
1316342	J20-UC02	X		1	
1316343	J20-UC01	X		1	
1316344	J20-BR02	X		1	
1316345	J20-BR01	X		1	
1316346	J18-UC03	X		1	
1316347	EBAWR051420	X		1	Equipment Blank
1316348	TB051220	X		1	Trip Blank

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW57

GC/MS Volatiles

Fraction: Volatiles by GC/MS

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g / L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW57

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	5201441AA	VBLK567	05/23/2020 15:36
		LCS567	05/23/2020 14:54
		1316342	05/23/2020 19:07
		1316343	05/23/2020 19:28
		1316344	05/23/2020 19:49
		1316345	05/23/2020 20:09
		1316346	05/23/2020 20:30
VOCs- 5ml Water by 8260C/D	L201472AA	VBLKL95	05/26/2020 21:16
		LCSL95	05/26/2020 20:32
		1316347	05/26/2020 22:34
VOCs- 5ml Water by 8260C/D	N201431AA	VBLKN45	05/22/2020 12:06
		LCSN45	05/22/2020 11:22
		1316339	05/22/2020 19:48
		1316340	05/22/2020 20:10
VOCs- 5ml Water by 8260C/D	Y201431AA	VBLKY94	05/22/2020 10:48
		LCSY94	05/22/2020 10:04
		1316341	05/22/2020 15:56
		1316348	05/22/2020 11:11

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW57
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201441AA / VBLK567 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/23/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
Acetone	05/23/20	N.D.	ug/l	0.7	20
Freon 113	05/23/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/23/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/23/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/23/20	N.D.	ug/l	0.2	1
2-Butanone	05/23/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/23/20	N.D.	ug/l	0.2	1
Chloroform	05/23/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/23/20	N.D.	ug/l	0.3	1
Benzene	05/23/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/23/20	N.D.	ug/l	0.3	1
Trichloroethene	05/23/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/23/20	N.D.	ug/l	29	250
Toluene	05/23/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/23/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/23/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/23/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/23/20	N.D.	ug/l	0.2	5
Naphthalene	05/23/20	N.D.	ug/l	1	5

L201472AA / VBLKL95 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/26/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/26/20	N.D.	ug/l	0.2	1
Acetone	05/26/20	N.D.	ug/l	0.7	20
Freon 113	05/26/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/26/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/26/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/26/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/26/20	N.D.	ug/l	0.2	1
2-Butanone	05/26/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/26/20	N.D.	ug/l	0.2	1
Chloroform	05/26/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/26/20	N.D.	ug/l	0.3	1
Benzene	05/26/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/26/20	N.D.	ug/l	0.3	1
Trichloroethene	05/26/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/26/20	N.D.	ug/l	29	250
Toluene	05/26/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/26/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/26/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/26/20	N.D.	ug/l	1	6

Fraction: Volatiles by GC/MS

L201472AA / VBLKL95 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,2-Dichlorobenzene	05/26/20	N.D.	ug/l	0.2	5
Naphthalene	05/26/20	N.D.	ug/l	1	5

N201431AA / VBLKN45 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Acetone	05/22/20	N.D.	ug/l	0.7	20
Freon 113	05/22/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/22/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/22/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/22/20	N.D.	ug/l	0.2	1
2-Butanone	05/22/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Chloroform	05/22/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/22/20	N.D.	ug/l	0.3	1
Benzene	05/22/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/22/20	N.D.	ug/l	0.3	1
Trichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/22/20	N.D.	ug/l	29	250
Toluene	05/22/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/22/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/22/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/22/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/22/20	N.D.	ug/l	0.2	5
Naphthalene	05/22/20	N.D.	ug/l	1	5

Y201431AA / VBLKY94 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Acetone	05/22/20	N.D.	ug/l	0.7	20
Freon 113	05/22/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/22/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/22/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/22/20	N.D.	ug/l	0.2	1
2-Butanone	05/22/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/22/20	N.D.	ug/l	0.2	1
Chloroform	05/22/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/22/20	N.D.	ug/l	0.3	1
Benzene	05/22/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/22/20	N.D.	ug/l	0.3	1
Trichloroethene	05/22/20	N.D.	ug/l	0.2	1

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW57
Matrix: LIQUID

Fraction: Volatiles by GC/MS

Y201431AA / VBLKY94 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,4-Dioxane	05/22/20	N.D.	ug/l	29	250
Toluene	05/22/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/22/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/22/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/22/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/22/20	N.D.	ug/l	0.2	5
Naphthalene	05/22/20	N.D.	ug/l	1	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW57
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201441AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK567	102	80 - 120	95	80 - 120	97	80 - 120	99	80 - 120
LCS567	102	80 - 120	99	80 - 120	98	80 - 120	101	80 - 120
1316342	103	80 - 120	95	80 - 120	99	80 - 120	99	80 - 120
1316343	103	80 - 120	95	80 - 120	99	80 - 120	99	80 - 120
1316344	104	80 - 120	95	80 - 120	99	80 - 120	99	80 - 120
1316345	103	80 - 120	95	80 - 120	99	80 - 120	99	80 - 120
1316346	104	80 - 120	94	80 - 120	100	80 - 120	99	80 - 120

L201472AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKL95	100	80 - 120	93	80 - 120	100	80 - 120	100	80 - 120
LCSL95	99	80 - 120	99	80 - 120	98	80 - 120	102	80 - 120
1316347	101	80 - 120	92	80 - 120	101	80 - 120	100	80 - 120

N201431AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKN45	98	80 - 120	89	80 - 120	94	80 - 120	96	80 - 120
LCSN45	97	80 - 120	90	80 - 120	95	80 - 120	96	80 - 120
1316339	96	80 - 120	90	80 - 120	96	80 - 120	97	80 - 120
1316340	101	80 - 120	88	80 - 120	96	80 - 120	95	80 - 120

Y201431AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKY94	102	80 - 120	94	80 - 120	99	80 - 120	97	80 - 120
LCSY94	101	80 - 120	96	80 - 120	98	80 - 120	98	80 - 120
1316341	105	80 - 120	94	80 - 120	103	80 - 120	97	80 - 120
1316348	103	80 - 120	94	80 - 120	99	80 - 120	97	80 - 120

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW57
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS567	Batch: **5201441AA** (Sample number(s): 1316342-1316346)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	18.09	NA	90	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.58	NA	93	NA	80-131	NA	NA
Acetone	150	194.67	NA	130	NA	54-157	NA	NA
Freon 113	20	17.37	NA	87	NA	73-139	NA	NA
Carbon Disulfide	20	15.71	NA	79	NA	65-128	NA	NA
Methylene Chloride	20	18.86	NA	94	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	18.45	NA	92	NA	80-126	NA	NA
1,1-Dichloroethane	20	18.24	NA	91	NA	80-120	NA	NA
2-Butanone	150	144.29	NA	96	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	19.51	NA	98	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.1	NA	90	NA	67-126	NA	NA
Chloroform	20	18.56	NA	93	NA	80-120	NA	NA
1,2-Dichloroethane	20	18.84	NA	94	NA	73-124	NA	NA
Benzene	20	18.42	NA	92	NA	80-120	NA	NA
Trichloroethene	20	18.51	NA	93	NA	80-120	NA	NA
1,4-Dioxane	500	645	NA	129	NA	63-146	NA	NA
Toluene	20	18.85	NA	94	NA	80-120	NA	NA
Tetrachloroethene	20	19.97	NA	100	NA	80-120	NA	NA
Ethylbenzene	20	19.49	NA	97	NA	80-120	NA	NA
Xylene (Total)	60	58.64	NA	98	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.7	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.39	NA	97	NA	53-124	NA	NA

LCS: LCSL95	Batch: **L201472AA** (Sample number(s): 1316347)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	17.09	NA	85	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.49	NA	92	NA	80-131	NA	NA
Acetone	150	192.35	NA	128	NA	54-157	NA	NA
Freon 113	20	17.35	NA	87	NA	73-139	NA	NA
Carbon Disulfide	20	19.33	NA	97	NA	65-128	NA	NA
Methylene Chloride	20	19.22	NA	96	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	18.67	NA	93	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.46	NA	97	NA	80-120	NA	NA
2-Butanone	150	168.9	NA	113	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.2	NA	101	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.71	NA	94	NA	67-126	NA	NA
Chloroform	20	19.4	NA	97	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.33	NA	97	NA	73-124	NA	NA
Benzene	20	19.11	NA	96	NA	80-120	NA	NA
Trichloroethene	20	18.76	NA	94	NA	80-120	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSL95	Batch: **L201472AA** (Sample number(s): 1316347)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	500	507.28	NA	101	NA	63-146	NA	NA
Toluene	20	19.6	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	19.44	NA	97	NA	80-120	NA	NA
Ethylbenzene	20	19.87	NA	99	NA	80-120	NA	NA
Xylene (Total)	60	61.19	NA	102	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	20.62	NA	103	NA	80-120	NA	NA
Naphthalene	20	20.96	NA	105	NA	53-124	NA	NA

LCS: LCSN45	Batch: **N201431AA** (Sample number(s): 1316339-1316340)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	15.66	NA	78	NA	56-120	NA	NA
1,1-Dichloroethene	20	20.49	NA	102	NA	80-131	NA	NA
Acetone	150	182.87	NA	122	NA	54-157	NA	NA
Freon 113	20	21.81	NA	109	NA	73-139	NA	NA
Carbon Disulfide	20	20.62	NA	103	NA	65-128	NA	NA
Methylene Chloride	20	19.87	NA	99	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.82	NA	99	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.82	NA	99	NA	80-120	NA	NA
2-Butanone	150	144.76	NA	97	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.82	NA	104	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.1	NA	91	NA	67-126	NA	NA
Chloroform	20	19.1	NA	95	NA	80-120	NA	NA
1,2-Dichloroethane	20	18.29	NA	91	NA	73-124	NA	NA
Benzene	20	20.4	NA	102	NA	80-120	NA	NA
Trichloroethene	20	19.17	NA	96	NA	80-120	NA	NA
1,4-Dioxane	500	466.27	NA	93	NA	63-146	NA	NA
Toluene	20	19.66	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	20.98	NA	105	NA	80-120	NA	NA
Ethylbenzene	20	20.03	NA	100	NA	80-120	NA	NA
Xylene (Total)	60	60.89	NA	101	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.85	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.07	NA	95	NA	53-124	NA	NA

LCS: LCSY94	Batch: **Y201431AA** (Sample number(s): 1316341, 1316348)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	19.32	NA	97	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.01	NA	90	NA	80-131	NA	NA
Acetone	150	139.23	NA	93	NA	54-157	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSY94	Batch: **Y201431AA** (Sample number(s): 1316341, 1316348)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Freon 113	20	17.33	NA	87	NA	73-139	NA	NA
Carbon Disulfide	20	18.32	NA	92	NA	65-128	NA	NA
Methylene Chloride	20	20.12	NA	101	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.07	NA	95	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.36	NA	97	NA	80-120	NA	NA
2-Butanone	150	145.9	NA	97	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.14	NA	101	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.4	NA	97	NA	67-126	NA	NA
Chloroform	20	19.84	NA	99	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.91	NA	100	NA	73-124	NA	NA
Benzene	20	19.27	NA	96	NA	80-120	NA	NA
Trichloroethene	20	19.71	NA	99	NA	80-120	NA	NA
1,4-Dioxane	500	488.13	NA	98	NA	63-146	NA	NA
Toluene	20	19.55	NA	98	NA	80-120	NA	NA
Tetrachloroethene	20	19.61	NA	98	NA	80-120	NA	NA
Ethylbenzene	20	19.51	NA	98	NA	80-120	NA	NA
Xylene (Total)	60	59.68	NA	99	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.8	NA	99	NA	80-120	NA	NA
Naphthalene	20	19.2	NA	96	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: nj09t01.d BFB Injection Date: 01/09/20

Instrument ID: HP07159 BFB Injection Time: 06:57

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	18.24
75	30.0 - 60.0% of mass 95	48.22
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.40
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	77.86
175	5.0 - 9.0% of mass 174	6.18 (7.94)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.98 (96.30)1
177	5.0 - 9.0% of mass 176	5.08 (6.77)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	nj09i01.d	01/09/20	07:53
02	VSTD100	nj09i02.d	01/09/20	08:15
03	VSTD50	nj09i03.d	01/09/20	08:37
04	VSTD20	nj09i04.d	01/09/20	08:58
05	VSTD10	nj09i05.d	01/09/20	09:20
06	VSTD4	nj09i06.d	01/09/20	09:42
07	VSTD1	nj09i07.d	01/09/20	10:04
08	LCSNICV	nj09l01.d	01/09/20	10:26

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ny22c01.d	05/22/20	11:00
02	LCSN45	ny22s01.d	05/22/20	11:22
03	VBLKN45	ny22b01.d	05/22/20	12:06
04	1315379	ny22s02.d	05/22/20	12:28
05	1315372	ny22s03.d	05/22/20	12:50
06	1315373	ny22s04.d	05/22/20	13:12
07	1315374MS	ny22s05.d	05/22/20	13:34
08	1315375MSD	ny22s06.d	05/22/20	13:56
09	1315377	ny22s07.d	05/22/20	14:18
10	1315378	ny22s08.d	05/22/20	14:40
11	1315380	ny22s09.d	05/22/20	15:02
12	1315381	ny22s10.d	05/22/20	15:24
13	1316321	ny22s11.d	05/22/20	15:46
14	1316322	ny22s12.d	05/22/20	16:08
15	1316330	ny22s13.d	05/22/20	16:30
16	1316331	ny22s14.d	05/22/20	16:52
17	1316332	ny22s15.d	05/22/20	17:14
18	1316333	ny22s16.d	05/22/20	17:36
19	1316334	ny22s17.d	05/22/20	17:58
20	1316335	ny22s18.d	05/22/20	18:20
21	1316336	ny22s19.d	05/22/20	18:42
22	1316337	ny22s20.d	05/22/20	19:04

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ny22t01.d BFB Injection Date: 05/22/20

Instrument ID: HP07159 BFB Injection Time: 09:26

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.95
75	30.0 - 60.0% of mass 95	46.79
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	80.58
175	5.0 - 9.0% of mass 174	6.11 (7.58)1
176	Greater than 95.0%, but less than 101.0% of mass 174	78.95 (97.97)1
177	5.0 - 9.0% of mass 176	5.24 (6.64)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316338	ny22s21.d	05/22/20	19:26
24	1316339	ny22s22.d	05/22/20	19:48
25	1316340	ny22s23.d	05/22/20	20:10

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ya21t04.d BFB Injection Date: 04/21/20

Instrument ID: HP09355 BFB Injection Time: 21:21

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.26
75	30.0 - 60.0% of mass 95	44.59
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.91
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	81.64
175	5.0 - 9.0% of mass 174	6.02 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.63 (97.54)1
177	5.0 - 9.0% of mass 176	5.16 (6.48)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ya21i01.d	04/21/20	21:54
02	VSTD100	ya21i02.d	04/21/20	22:16
03	VSTD50	ya21i03.d	04/21/20	22:38
04	VSTD20	ya21i04.d	04/21/20	23:00
05	VSTD10	ya21i05.d	04/21/20	23:22
06	VSTD4	ya21i06.d	04/21/20	23:44
07	VSTD1	ya21i07.d	04/22/20	00:06
08	YLGICV	ya21v01.d	04/22/20	00:49

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: yy22t03.d BFB Injection Date: 05/22/20

Instrument ID: HP09355 BFB Injection Time: 09:08

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.94
75	30.0 - 60.0% of mass 95	45.49
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.17
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	76.63
175	5.0 - 9.0% of mass 174	5.65 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.13 (96.74)1
177	5.0 - 9.0% of mass 176	5.17 (6.97)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	yy22c01.d	05/22/20	09:42
02	LCSY94	yy22s01.d	05/22/20	10:04
03	VBLKY94	yy22b01.d	05/22/20	10:48
04	1316348	yy22s02.d	05/22/20	11:11
05	1316310	yy22s03.d	05/22/20	11:33
06	1316311MS	yy22s04.d	05/22/20	11:54
07	1316312MSD	yy22s05.d	05/22/20	12:16
08	1316313	yy22s06.d	05/22/20	13:00
09	1316314	yy22s07.d	05/22/20	13:22
10	1316315	yy22s08.d	05/22/20	13:44
11	1316316	yy22s09.d	05/22/20	14:06
12	1316317	yy22s10.d	05/22/20	14:28
13	1316318	yy22s11.d	05/22/20	14:50
14	1316319	yy22s12.d	05/22/20	15:12
15	1316320	yy22s13.d	05/22/20	15:34
16	1316341	yy22s14.d	05/22/20	15:56
17	1316387	yy22s15.d	05/22/20	16:18
18	1316388	yy22s16.d	05/22/20	16:40
19	1316389	yy22s17.d	05/22/20	17:02
20	1316390	yy22s18.d	05/22/20	17:24
21	1316391	yy22s19.d	05/22/20	17:46
22	1316392	yy22s20.d	05/22/20	18:08

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: yy22t03.d BFB Injection Date: 05/22/20

Instrument ID: HP09355 BFB Injection Time: 09:08

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.94
75	30.0 - 60.0% of mass 95	45.49
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.17
173	Less than 2.0% of mass 174	0.00 (0.00)1
174	Greater than 50.0% of mass 95	76.63
175	5.0 - 9.0% of mass 174	5.65 (7.37)1
176	Greater than 95.0%, but less than 101.0% of mass 174	74.13 (96.74)1
177	5.0 - 9.0% of mass 176	5.17 (6.97)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316393	yy22s21.d	05/22/20	18:30
24	1316394	yy22s22.d	05/22/20	18:52
25	1316395	yy22s23.d	05/22/20	19:14

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly04t02.d BFB Injection Date: 05/04/20

Instrument ID: HP09915 BFB Injection Time: 11:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.11
75	30.0 - 60.0% of mass 95	45.65
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.62 (0.72)1
174	Greater than 50.0% of mass 95	86.35
175	5.0 - 9.0% of mass 174	6.12 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.51 (96.71)1
177	5.0 - 9.0% of mass 176	5.61 (6.72)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ly04i01.d	05/04/20	12:18
02	VSTD100	ly04i02.d	05/04/20	12:40
03	VSTD50	ly04i03.d	05/04/20	13:02
04	VSTD20	ly04i04.d	05/04/20	13:24
05	VSTD10	ly04i05.d	05/04/20	13:46
06	VSTD4	ly04i06.d	05/04/20	14:08
07	VSTD1	ly04i07.d	05/04/20	14:30
08	ICVLLG	ly04v01.d	05/04/20	14:52

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly26t50.d BFB Injection Date: 05/26/20

Instrument ID: HP09915 BFB Injection Time: 19:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.72
75	30.0 - 60.0% of mass 95	46.19
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.04
173	Less than 2.0% of mass 174	0.51 (0.61)1
174	Greater than 50.0% of mass 95	84.97
175	5.0 - 9.0% of mass 174	5.98 (7.04)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.71 (97.34)1
177	5.0 - 9.0% of mass 176	5.56 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ly26c50.d	05/26/20	20:10
02	LCSL95	ly26l50.d	05/26/20	20:32
03	VBLKL95	ly26b50.d	05/26/20	21:16
04	1316195	ly26s51.d	05/26/20	21:50
05	1316396	ly26s52.d	05/26/20	22:12
06	1316347	ly26s53.d	05/26/20	22:34
07	1316228	ly26s54.d	05/26/20	22:56
08	1316188	ly26s55.d	05/26/20	23:18
09	1316189MS	ly26s56.d	05/26/20	23:40
10	1316190MSD	ly26s57.d	05/27/20	00:02
11	1316191	ly26s58.d	05/27/20	00:24
12	1316192	ly26s59.d	05/27/20	00:46
13	1316193	ly26s60.d	05/27/20	01:08
14	1316194	ly26s61.d	05/27/20	01:30
15	1316402	ly26s62.d	05/27/20	01:51
16	1316406	ly26s63.d	05/27/20	02:13
17	1316407	ly26s64.d	05/27/20	02:35
18	1316408	ly26s65.d	05/27/20	02:57
19	1316222	ly26s66.d	05/27/20	03:19
20	1316223	ly26s67.d	05/27/20	03:41
21	1316224	ly26s68.d	05/27/20	04:03
22	1316225	ly26s69.d	05/27/20	04:25

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly26t50.d BFB Injection Date: 05/26/20

Instrument ID: HP09915 BFB Injection Time: 19:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.72
75	30.0 - 60.0% of mass 95	46.19
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	7.04
173	Less than 2.0% of mass 174	0.51 (0.61)1
174	Greater than 50.0% of mass 95	84.97
175	5.0 - 9.0% of mass 174	5.98 (7.04)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.71 (97.34)1
177	5.0 - 9.0% of mass 176	5.56 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1316226	ly26s70.d	05/27/20	04:47
24	1316227	ly26s71.d	05/27/20	05:09

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5a21t01.d BFB Injection Date: 04/21/20

Instrument ID: HP26285 BFB Injection Time: 20:36

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.28
75	30.0 - 60.0% of mass 95	45.20
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.52 (0.67)1
174	Greater than 50.0% of mass 95	77.82
175	5.0 - 9.0% of mass 174	5.61 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.39 (96.88)1
177	5.0 - 9.0% of mass 176	4.85 (6.43)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	5a21i01.d	04/21/20	21:19
02	VSTD100	5a21i02.d	04/21/20	21:40
03	VSTD50	5a21i03.d	04/21/20	22:00
04	VSTD20	5a21i04.d	04/21/20	22:21
05	VSTD10	5a21i05.d	04/21/20	22:42
06	VSTD4	5a21i06.d	04/21/20	23:02
07	VSTD1	5a21i07.d	04/21/20	23:23
08	LG5ICV	5a21v01.d	04/22/20	00:05

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y23t01.d BFB Injection Date: 05/23/20

Instrument ID: HP26285 BFB Injection Time: 14:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.23
75	30.0 - 60.0% of mass 95	45.82
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.72
173	Less than 2.0% of mass 174	0.50 (0.67)1
174	Greater than 50.0% of mass 95	74.03
175	5.0 - 9.0% of mass 174	5.26 (7.11)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.43 (96.49)1
177	5.0 - 9.0% of mass 176	4.71 (6.59)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y23c01.d	05/23/20	14:34
02	LCS567	5y23s01.d	05/23/20	14:54
03	VBLK567	5y23b01.d	05/23/20	15:36
04	1316327	5y23s02.d	05/23/20	16:02
05	1316328MS	5y23s03.d	05/23/20	16:23
06	1316329MSD	5y23s04.d	05/23/20	16:43
07	1315727	5y23s05.d	05/23/20	17:04
08	1315728	5y23s06.d	05/23/20	17:25
09	1316323	5y23s07.d	05/23/20	17:45
10	1316324	5y23s08.d	05/23/20	18:06
11	1316325	5y23s09.d	05/23/20	18:26
12	1316326	5y23s10.d	05/23/20	18:47
13	1316342	5y23s11.d	05/23/20	19:07
14	1316343	5y23s12.d	05/23/20	19:28
15	1316344	5y23s13.d	05/23/20	19:49
16	1316345	5y23s14.d	05/23/20	20:09
17	1316346	5y23s15.d	05/23/20	20:30
18	1315721	5y23s16.d	05/23/20	20:51
19	1315722	5y23s17.d	05/23/20	21:33
20	1315722DL	5y23s22.d	05/23/20	21:54
21	1315724	5y23s18.d	05/23/20	22:14
22	1315724DL	5y23s23.d	05/23/20	22:35

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y23t01.d BFB Injection Date: 05/23/20

Instrument ID: HP26285 BFB Injection Time: 14:02

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.23
75	30.0 - 60.0% of mass 95	45.82
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.72
173	Less than 2.0% of mass 174	0.50 (0.67)1
174	Greater than 50.0% of mass 95	74.03
175	5.0 - 9.0% of mass 174	5.26 (7.11)1
176	Greater than 95.0%, but less than 101.0% of mass 174	71.43 (96.49)1
177	5.0 - 9.0% of mass 176	4.71 (6.59)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1315725	5y23s19.d	05/23/20	22:55
24	1315725DL	5y23s24.d	05/23/20	23:16
25	1315726	5y23s20.d	05/23/20	23:37
26	1315726DL	5y23s25.d	05/23/20	23:59
27	1315730	5y23s26.d	05/24/20	00:19
28	1315730DL	5y23s27.d	05/24/20	00:40

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.2714	0.4214	0.4413	0.4332	0.4032	0.4058	0.3479	0.3892	15	AVG	#
Chloromethane	#0.3920	0.4415	0.4410	0.4303	0.4050	0.4167	0.3926	0.4170	5	AVG	#
1,3-Butadiene	0.3289	0.3289	0.2971	0.2885	0.2717	0.2688	0.2530	0.2910	10	AVG	
Vinyl Chloride	#0.3462	0.4308	0.4432	0.4258	0.4060	0.4071	0.3815	0.4058	8	AVG	#
Bromomethane	#0.2532	0.3008	0.2954	0.2881	0.2719	0.2783	0.2599	0.2782	6	AVG	#
Chloroethane	#0.2259	0.2411	0.2517	0.2501	0.2333	0.2377	0.2228	0.2375	5	AVG	#
Dichlorofluoromethane	0.5392	0.5819	0.5687	0.5568	0.5269	0.5311	0.5030	0.5439	5	AVG	
n-Pentane	0.5121	0.4794	0.4627	0.4541	0.3322	0.4410	0.3772	0.4370	14	AVG	
Trichlorofluoromethane	#0.3864	0.4841	0.4854	0.4759	0.4475	0.4446	0.3980	0.4460	9	AVG	#
Ethanol	0.0715	0.0627	0.0610	0.0559	0.0578	0.0603	0.0544	0.0605	9	AVG	
Freon 123a	0.3032	0.3614	0.3427	0.3439	0.3197	0.3161	0.3002	0.3267	7	AVG	
Acrolein	1.6769	1.6889	1.7869	1.7898	1.7188	1.5925	1.6134	1.6953	5	AVG	
1,1-Dichloroethene	#0.2465	0.2719	0.2743	0.2713	0.2545	0.2549	0.2461	0.2599	5	AVG	#
1,1-Dichloroethene(2)	#0.1224	0.1506	0.1420	0.1434	0.1324	0.1343	0.1296	0.1364	7	AVG	#
Acetone	#0.7137	0.6887	0.7657	0.7643	0.7295	0.6722	0.6642	0.7140	6	AVG	#
Freon 113	#0.1884	0.2667	0.2627	0.2692	0.2165	0.2598	0.2248	0.2412	13	AVG	#
2-Propanol	0.5235	0.4362	0.4906	0.4741	0.4650	0.4777	0.4344	0.4716	7	AVG	
Methyl Iodide	0.4385	0.5139	0.4965	0.5062	0.4813	0.4913	0.4685	0.4852	5	AVG	
Carbon Disulfide	#0.7353	0.8779	0.8713	0.8698	0.8254	0.8310	0.8075	0.8312	6	AVG	#
Allyl Chloride	0.4689	0.4850	0.4837	0.4525	0.4428	0.4542	0.4251	0.4589	5	AVG	
Methyl Acetate	#0.4068	0.3072	0.3188	0.3078	0.3005	0.3019	0.2921	0.3193	12	AVG	#
Methylene Chloride	#0.3501	0.3244	0.3024	0.3053	0.2912	0.2999	0.2877	0.3087	7	AVG	#
t-Butyl alcohol	0.8780	0.8996	1.0064	0.9835	0.9685	0.9259	0.8625	0.9320	6	AVG	
Acrylonitrile	0.1561	0.1828	0.1809	0.1870	0.1746	0.1640	0.1618	0.1725	7	AVG	
trans-1,2-Dichloroethene	#0.2892	0.3082	0.3038	0.3055	0.2885	0.2971	0.2848	0.2967	3	AVG	#
Methyl Tertiary Butyl Ether	#0.8822	0.8700	0.8588	0.8661	0.8260	0.8374	0.7720	0.8446	4	AVG	#
n-Hexane	0.3469	0.4473	0.4472	0.4616	0.3056	0.4542	0.4046	0.4096	15	AVG	
1,1-Dichloroethane	#0.4977	0.5694	0.5504	0.5604	0.5370	0.5472	0.5270	0.5413	4	AVG	#
di-Isopropyl ether	0.8999	0.9647	0.9532	0.9563	0.9229	0.9437	0.8866	0.9325	3	AVG	
2-Chloro-1,3-butadiene	0.4160	0.5137	0.4973	0.4983	0.4746	0.4800	0.4649	0.4778	7	AVG	
Ethyl t-butyl ether	0.8675	0.9216	0.9168	0.9202	0.8821	0.8849	0.8110	0.8863	4	AVG	
cis-1,2-Dichloroethene	#0.3232	0.3468	0.3437	0.3533	0.3291	0.3386	0.3243	0.3370	3	AVG	#
2-Butanone	#0.2372	0.2527	0.2513	0.2543	0.2499	0.2218	0.2209	0.2411	6	AVG	#
2,2-Dichloropropane	0.4364	0.4991	0.4940	0.5030	0.4762	0.4780	0.4585	0.4779	5	AVG	
Propionitrile	1.0327	1.0491	1.1074	1.1008	1.1067	1.1119	1.1113	1.0886	3	AVG	
Methacrylonitrile	0.1657	0.1712	0.1759	0.1785	0.1767	0.1794	0.1721	0.1742	3	AVG	
Bromochloromethane	0.1409	0.1642	0.1636	0.1631	0.1629	0.1651	0.1556	0.1593	5	AVG	
Tetrahydrofuran	1.0976	1.1004	1.1527	1.1756	1.1886	1.0759	1.1204	1.1301	4	AVG	
Chloroform	#0.5258	0.5374	0.5406	0.5374	0.5182	0.5301	0.5064	0.5280	2	AVG	#
1,1,1-Trichloroethane	#0.4151	0.5090	0.4967	0.5015	0.4765	0.4794	0.4655	0.4777	7	AVG	#
Cyclohexane	#0.4091	0.5371	0.5405	0.5355	0.4288	0.5174	0.4709	0.4913	11	AVG	#
Cyclohexane(2)	#0.3646	0.4610	0.4692	0.4644	0.3784	0.4505	0.4092	0.4282	10	AVG	#
Cyclohexane(3)	#0.1292	0.1640	0.1681	0.1688	0.1353	0.1651	0.1505	0.1544	11	AVG	#
1,1-Dichloropropene	0.3914	0.4570	0.4477	0.4429	0.4294	0.4341	0.4219	0.4321	5	AVG	
Carbon Tetrachloride	#0.3478	0.4396	0.4349	0.4347	0.4098	0.4160	0.4003	0.4119	8	AVG	#
Isobutyl Alcohol	0.3557	0.3246	0.3265	0.3436	0.3303	0.3296	0.3267	0.3339	3	AVG	
Benzene	#1.1881	1.2701	1.2536	1.2581	1.2187	1.2373	1.1832	1.2299	3	AVG	#
1,2-Dichloroethane	#0.4716	0.4340	0.4290	0.4369	0.4240	0.4318	0.4184	0.4351	4	AVG	#
1,2-Dichloroethane(2)	#0.0160	0.0394	0.0389	0.0389	0.0383	0.0403	0.0387	0.0358	24	AVG	#<-
t-Amyl methyl ether	0.9085	0.9245	0.9215	0.9255	0.8839	0.8763	0.7836	0.8891	6	AVG	
n-Heptane	0.4279	0.5090	0.5088	0.5178	0.3233	0.5272	0.4956	0.4728	16	AVG	
n-Butanol	0.2599	0.2726	0.2896	0.3017	0.2891	0.3027	0.2975	0.2876	6	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3101	0.3363	0.3298	0.3321	0.3179	0.3252	0.3165	0.3240	3	AVG #
Methylcyclohexane	#0.4051	0.5628	0.5772	0.5557	0.5365	0.5752	0.5159	0.5326	11	AVG #
Methylcyclohexane(2)	#0.1908	0.2700	0.2695	0.2590	0.2558	0.2691	0.2417	0.2508	11	AVG #
1,2-Dichloropropane	#0.2751	0.3244	0.3157	0.3227	0.3172	0.3261	0.3202	0.3145	6	AVG #
Dibromomethane	0.2077	0.1982	0.1982	0.2025	0.1989	0.2019	0.1965	0.2006	2	AVG
1,4-Dioxane	0.0602	0.0715	0.0737	0.0730	0.0730	0.0791	0.0781	0.0727	8	AVG
Methyl Methacrylate	0.2534	0.2838	0.2942	0.2940	0.2946	0.3022	0.2909	0.2876	6	AVG
Bromodichloromethane	#0.3797	0.4207	0.4111	0.4191	0.4058	0.4210	0.4088	0.4094	4	AVG #
2-Nitropropane	0.1582	0.1498	0.1500	0.1555	0.1556	0.1363	0.1355	0.1487	6	AVG
2-Chloroethyl Vinyl Ether	0.2158	0.2373	0.2859	0.2662	0.2387	0.2562	0.2413	0.2488	9	AVG
cis-1,3-Dichloropropene	#0.4819	0.5308	0.5215	0.5323	0.5238	0.5410	0.5251	0.5223	4	AVG #
4-Methyl-2-pentanone	#0.4674	0.4768	0.5106	0.5225	0.5291	0.4614	0.4520	0.4886	6	AVG #
Toluene	#1.0178	1.0869	1.0857	1.0784	1.0518	1.0716	1.0228	1.0593	3	AVG #
trans-1,3-Dichloropropene	#0.6167	0.6558	0.6561	0.6691	0.6667	0.6814	0.6564	0.6575	3	AVG #
Ethyl Methacrylate	0.5974	0.6450	0.6563	0.6725	0.6715	0.6892	0.6534	0.6550	4	AVG
1,1,2-Trichloroethane	#0.3505	0.3765	0.3817	0.3850	0.3813	0.3843	0.3660	0.3750	3	AVG #
Tetrachloroethene	#0.4050	0.4844	0.5052	0.4791	0.4565	0.4687	0.4483	0.4639	7	AVG #
1,3-Dichloropropane	0.6055	0.6538	0.6584	0.6649	0.6612	0.6724	0.6404	0.6509	3	AVG
2-Hexanone	#0.4390	0.4971	0.5434	0.5429	0.5545	0.4704	0.4626	0.5014	9	AVG #
Dibromochloromethane	#0.3817	0.4093	0.4406	0.4427	0.4445	0.4545	0.4395	0.4304	6	AVG #
1,2-Dibromoethane	#0.3969	0.3953	0.4170	0.4215	0.4154	0.4249	0.4039	0.4107	3	AVG #
Chlorobenzene	#1.0921	1.2209	1.2210	1.2136	1.1794	1.2070	1.1420	1.1823	4	AVG #
1,1,1,2-Tetrachloroethane	0.3781	0.4336	0.4337	0.4396	0.4290	0.4395	0.4289	0.4261	5	AVG
Ethylbenzene	#1.9141	2.1201	2.1442	2.1357	2.0289	2.0781	1.9216	2.0489	5	AVG #
m+p-Xylene	#0.7414	0.8196	0.8300	0.8396	0.8021	0.8241	0.7784	0.8050	4	AVG #
o-Xylene	#0.7234	0.8040	0.8225	0.8098	0.7907	0.8163	0.7758	0.7918	4	AVG #
Styrene	#1.2039	1.3522	1.3518	1.3756	1.3441	1.3782	1.3030	1.3298	5	AVG #
Bromoform	#0.2792	0.3231	0.3231	0.3367	0.3343	0.3455	0.3326	0.3249	7	AVG #
Isopropylbenzene	#1.9267	2.1670	2.1977	2.2117	2.0640	2.1396	1.9312	2.0911	6	AVG #
Cyclohexanone	0.2682	0.2859	0.2878	0.2892	0.2905	0.3114	0.3067	0.2914	5	AVG
Bromobenzene	0.8590	0.9347	0.9520	0.9521	0.9162	0.9519	0.9072	0.9247	4	AVG
1,1,2,2-Tetrachloroethane	#1.1119	1.0954	1.0823	1.1623	1.0897	1.1128	1.0441	1.0998	3	AVG #
1,2,3-Trichloropropane	0.3412	0.3569	0.3511	0.3503	0.3464	0.3556	0.3372	0.3484	2	AVG
trans-1,4-Dichloro-2-butene	0.3446	0.3655	0.3842	0.3925	0.3848	0.3980	0.3787	0.3783	5	AVG
n-Propylbenzene	4.1802	4.7758	4.7515	4.7694	4.3570	4.5797	3.9696	4.4833	7	AVG
2-Chlorotoluene	0.8466	0.9393	0.9507	0.9583	0.9146	0.9521	0.9087	0.9243	4	AVG
4-Chlorotoluene	0.8940	0.9830	0.9767	0.9804	0.9447	0.9885	0.9382	0.9579	4	AVG
1,3,5-Trimethylbenzene	2.9971	3.4185	3.4269	3.4689	3.2054	3.3947	3.0831	3.2849	6	AVG
tert-Butylbenzene	0.6596	0.7249	0.7572	0.7566	0.6913	0.7620	0.7438	0.7279	5	AVG
Pentachloroethane	0.4971	0.5357	0.6283	0.6111	0.6072	0.6136	0.5871	0.5829	8	AVG
1,2,4-Trimethylbenzene	3.1541	3.5076	3.5618	3.5842	3.3486	3.5151	3.1947	3.4094	5	AVG
sec-Butylbenzene	3.8993	4.5177	4.4995	4.5472	4.0996	4.4283	3.8777	4.2670	7	AVG
1,3-Dichlorobenzene	#1.7025	1.8294	1.8450	1.8675	1.7695	1.8450	1.7309	1.7986	4	AVG #
p-Isopropyltoluene	3.3403	3.8663	3.9299	3.9495	3.5947	3.8713	3.4403	3.7132	7	AVG
1,4-Dichlorobenzene	#1.8052	1.8392	1.8452	1.8832	1.7956	1.8573	1.7420	1.8240	3	AVG #
1,2,3-Trimethylbenzene	3.0121	3.2851	3.6110	3.4491	3.3949	3.3811	3.0300	3.3090	7	AVG
Benzyl Chloride	2.1944	2.3823	2.4442	2.5363	2.5108	2.5658	2.3823	2.4309	5	AVG
1,3-Diethylbenzene	1.8619	2.2341	2.4272	2.3289	2.2979	2.3053	2.1041	2.2227	8	AVG
1,4-Diethylbenzene	1.9700	2.3836	2.5747	2.4844	2.4308	2.4500	2.2277	2.3602	9	AVG
1,2-Dichlorobenzene	#1.6578	1.7288	1.7434	1.7576	1.6911	1.7273	1.6306	1.7052	3	AVG #
n-Butylbenzene	1.6847	1.9966	1.9833	2.0135	1.8270	2.0103	1.8925	1.9154	6	AVG
1,2-Diethylbenzene	1.6855	1.8684	2.0458	1.9375	1.9123	1.9292	1.7843	1.8804	6	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date(s): 01/09/20 01/09/20

Heated Purge: (Y/N) Y Calibration Times: 07:53 10:04

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = nj09i07.d RRF 4 = nj09i06.d RRF 10= nj09i05.d
RRF 20= nj09i04.d RRF 50= nj09i03.d RRF100= nj09i02.d RRF300= nj09i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Dibromo-3-chloropropane#	0.2879	0.2891	0.2960	0.3107	0.2985	0.3047	0.2937	0.2972	3	AVG #
1,3,5-Trichlorobenzene	1.2762	1.3558	1.3851	1.4172	1.3161	1.4227	1.3413	1.3592	4	AVG
1,2,4-Trichlorobenzene #	1.0911	1.1843	1.1818	1.2373	1.1774	1.2396	1.1844	1.1851	4	AVG #
Hexachlorobutadiene	0.5000	0.5456	0.5374	0.5624	0.4858	0.5668	0.5546	0.5361	6	AVG
Naphthalene	3.5547	3.7308	3.7828	3.8932	3.7890	3.8310	3.4298	3.7159	4	AVG
1,2,3-Trichlorobenzene	1.0209	1.0676	1.0899	1.1265	1.0814	1.1317	1.0973	1.0879	3	AVG
2-Methylnaphthalene	1.9309	1.9687	2.2870	2.2237	2.2375	2.2397	2.1372	2.1464	7	AVG
Dibromofluoromethane	0.2529	0.2501	0.2484	0.2469	0.2485	0.2469	0.2433	0.2481	1	AVG
Dibromofluoromethane(2)	0.2539	0.2581	0.2528	0.2535	0.2522	0.2535	0.2494	0.2534	1	AVG
1,2-Dichloroethane-d4	0.0623	0.0629	0.0625	0.0647	0.0629	0.0625	0.0614	0.0627	2	AVG
1,2-Dichloroethane-d4(2)	0.3078	0.3028	0.2972	0.2958	0.2963	0.2974	0.2963	0.2991	2	AVG
1,2-Dichloroethane-d4(3)	0.0403	0.0401	0.0400	0.0396	0.0403	0.0405	0.0387	0.0399	2	AVG
Toluene-d8	1.2964	1.2989	1.3109	1.3110	1.3079	1.3022	1.3009	1.3040	0	AVG
Toluene-d8(2)	0.8523	0.8598	0.8615	0.8651	0.8673	0.8645	0.8771	0.8639	1	AVG
4-Bromofluorobenzene	0.5128	0.5146	0.5173	0.5163	0.5148	0.5139	0.5166	0.5152	0	AVG
4-Bromofluorobenzene(2)	0.4114	0.4140	0.4143	0.4146	0.4118	0.4092	0.4139	0.4127	0	AVG

Average %RSD 6

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i01.d	VSTD300
/chem/HP07159.i/20jan09a.b/nj09i02.d	VSTD100
/chem/HP07159.i/20jan09a.b/nj09i03.d	VSTD050
/chem/HP07159.i/20jan09a.b/nj09i04.d	VSTD020
/chem/HP07159.i/20jan09a.b/nj09i05.d	VSTD010
/chem/HP07159.i/20jan09a.b/nj09i06.d	VSTD004
/chem/HP07159.i/20jan09a.b/nj09i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	369636	383443	386370	385090	387060	392656	388809	384723	2	Yes
Fluorobenzene	1311659	1313106	1307289	1297518	1306648	1299393	1304310	1305703	0	Yes
Chlorobenzene-d5	997921	996040	985480	985958	991927	995569	1001788	993526	1	Yes
1,4-Dichlorobenzene-d4	555000	546174	543996	541869	544310	544490	552754	546942	1	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	nj09i01.d	nj09i02.d	nj09i03.d	nj09i04.d	nj09i05.d	nj09i06.d	nj09i07.d	Avg. RT
t-Butyl alcohol-d10	4.427	4.425	4.423	4.415	4.425	4.421	4.418	4.422
Fluorobenzene	7.937	7.935	7.933	7.932	7.935	7.931	7.934	7.934
Chlorobenzene-d5	11.375	11.373	11.370	11.369	11.372	11.369	11.371	11.371
1,4-Dichlorobenzene-d4	13.248	13.246	13.250	13.249	13.246	13.248	13.251	13.248

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 01/09/2020 at 12:11.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.3302	16.97	20	-15	#
# Chloromethane	0.4170	0.3533	16.94	20	-15	#
1,3-Butadiene	0.2910	0.2352	16.17	20	-19	
# Vinyl Chloride	0.4058	0.3591	17.70	20	-12	#
# Bromomethane	0.2782	0.2532	18.20	20	-9	#
# Chloroethane	0.2375	0.2168	18.26	20	-9	#
Dichlorofluoromethane	0.5439	0.4978	18.30	20	-8	
n-Pentane	0.4370	0.3666	16.78	20	-16	
# Trichlorofluoromethane	0.4460	0.4455	19.98	20	0	#
Ethanol	0.0605	0.0587	484.98	500	-3	
Freon 123a	0.3267	0.3129	19.15	20	-4	
Acrolein	1.6953	1.4582	129.02	150	-14	
# 1,1-Dichloroethene	0.2599	0.2315	17.81	20	-11	#
# Acetone	0.7140	0.6652	139.74	150	-7	#
# Freon 113	0.2412	0.2377	19.71	20	-1	#
2-Propanol	0.4716	0.3757	119.48	150	-20	
Methyl Iodide	0.4852	0.4395	18.12	20	-9	
# Carbon Disulfide	0.8312	0.7064	17.00	20	-15	#
Allyl Chloride	0.4589	0.4414	19.24	20	-4	
# Methyl Acetate	0.3193	0.3054	19.13	20	-4	#
# Methylene Chloride	0.3087	0.2897	18.77	20	-6	#
t-Butyl alcohol	0.9320	0.9051	194.21	200	-3	
Acrylonitrile	0.1725	0.1528	88.58	100	-11	
# trans-1,2-Dichloroethene	0.2967	0.2840	19.14	20	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.8098	19.18	20	-4	#
n-Hexane	0.4096	0.3838	18.74	20	-6	
# 1,1-Dichloroethane	0.5413	0.5232	19.33	20	-3	#
di-Isopropyl ether	0.9325	0.8969	19.24	20	-4	
2-Chloro-1,3-butadiene	0.4778	0.4632	19.39	20	-3	
Ethyl t-butyl ether	0.8863	0.8655	19.53	20	-2	
# cis-1,2-Dichloroethene	0.3370	0.3417	20.28	20	1	#
# 2-Butanone	0.2411	0.2134	132.74	150	-12	#
2,2-Dichloropropane	0.4779	0.4684	19.60	20	-2	
Propionitrile	1.0886	1.0668	147.00	150	-2	
Methacrylonitrile	0.1742	0.1713	147.52	150	-2	
Bromochloromethane	0.1593	0.1594	20.01	20	0	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1301	1.0358	91.65	100	-8	
#	Chloroform	0.5280	0.5226	19.80	20	-1	#
#	1,1,1-Trichloroethane	0.4777	0.4639	19.42	20	-3	#
#	Cyclohexane	0.4913	0.4571	18.61	20	-7	#
	1,1-Dichloropropene	0.4321	0.4099	18.98	20	-5	
#	Carbon Tetrachloride	0.4119	0.3981	19.33	20	-3	#
	Isobutyl Alcohol	0.3339	0.3163	473.74	500	-5	
#	Benzene	1.2299	1.1779	19.15	20	-4	#
#	1,2-Dichloroethane	0.4351	0.4269	19.62	20	-2	#
	t-Amyl methyl ether	0.8891	0.8780	19.75	20	-1	
	n-Heptane	0.4728	0.4155	17.58	20	-12	
	n-Butanol	0.2876	0.2744	954.06	1000	-5	
#	Trichloroethene	0.3240	0.3085	19.04	20	-5	#
#	Methylcyclohexane	0.5326	0.5419	20.35	20	2	#
#	1,2-Dichloropropane	0.3145	0.3170	20.16	20	1	#
	Dibromomethane	0.2006	0.1977	19.71	20	-1	
	1,4-Dioxane	0.0727	0.0792	545.38	500	9	
	Methyl Methacrylate	0.2876	0.2883	20.05	20	0	
#	Bromodichloromethane	0.4094	0.4021	19.64	20	-2	#
	2-Nitropropane	0.1487	0.1343	18.06	20	-10	
	2-Chloroethyl Vinyl Ether	0.2488	0.2349	18.89	20	-6	
#	cis-1,3-Dichloropropene	0.5223	0.5168	19.79	20	-1	#
#	4-Methyl-2-pentanone	0.4886	0.4538	92.89	100	-7	#
#	Toluene	1.0593	1.0206	19.27	20	-4	#
#	trans-1,3-Dichloropropene	0.6575	0.6225	18.94	20	-5	#
	Ethyl Methacrylate	0.6550	0.6136	18.74	20	-6	
#	1,1,2-Trichloroethane	0.3750	0.3766	20.08	20	0	#
#	Tetrachloroethene	0.4639	0.4475	19.29	20	-4	#
	1,3-Dichloropropane	0.6509	0.6381	19.61	20	-2	
#	2-Hexanone	0.5014	0.4529	90.33	100	-10	#
#	Dibromochloromethane	0.4304	0.4329	20.12	20	1	#
#	1,2-Dibromoethane	0.4107	0.4017	19.56	20	-2	#
#	Chlorobenzene	1.1823	1.1642	19.69	20	-2	#
	1,1,1,2-Tetrachloroethane	0.4261	0.4150	19.48	20	-3	
#	Ethylbenzene	2.0489	2.0156	19.67	20	-2	#
#	m+p-Xylene	0.8050	0.7973	39.61	40	-1	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 ICV Date: 01/09/20 Time: 10:26

Lab File ID: nj09l01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	o-Xylene	0.7918	0.7737	19.54	20	-2	#
#	Styrene	1.3298	1.3149	19.78	20	-1	#
#	Bromoform	0.3249	0.3182	19.58	20	-2	#
#	Isopropylbenzene	2.0911	2.1005	20.09	20	0	#
	Cyclohexanone	0.2914	0.2998	514.44	500	3	
	Bromobenzene	0.9247	0.9282	20.08	20	0	
#	1,1,2,2-Tetrachloroethane	1.0998	1.1095	20.18	20	1	#
	1,2,3-Trichloropropane	0.3484	0.3444	19.77	20	-1	
	trans-1,4-Dichloro-2-butene	0.3783	0.3830	101.24	100	1	
	n-Propylbenzene	4.4833	4.5764	20.42	20	2	
	2-Chlorotoluene	0.9243	0.9202	19.91	20	0	
	4-Chlorotoluene	0.9579	0.9381	19.59	20	-2	
	1,3,5-Trimethylbenzene	3.2849	3.2822	19.98	20	0	
	tert-Butylbenzene	0.7279	0.7241	19.89	20	-1	
	Pentachloroethane	0.5829	0.5596	19.20	20	-4	
	1,2,4-Trimethylbenzene	3.4094	3.3529	19.67	20	-2	
	sec-Butylbenzene	4.2670	4.2821	20.07	20	0	
#	1,3-Dichlorobenzene	1.7986	1.7905	19.91	20	0	#
	p-Isopropyltoluene	3.7132	3.7353	20.12	20	1	
#	1,4-Dichlorobenzene	1.8240	1.8246	20.01	20	0	#
	1,2,3-Trimethylbenzene	3.3090	3.3545	20.27	20	1	
	Benzyl Chloride	2.4309	2.1774	17.91	20	-10	
	1,3-Diethylbenzene	2.2227	2.2013	19.81	20	-1	
	1,4-Diethylbenzene	2.3602	2.3250	19.70	20	-1	
#	1,2-Dichlorobenzene	1.7052	1.7048	19.99	20	0	#
	n-Butylbenzene	1.9154	1.8828	19.66	20	-2	
	1,2-Diethylbenzene	1.8804	1.8472	19.65	20	-2	
#	1,2-Dibromo-3-chloropropane	0.2972	0.2901	19.52	20	-2	#
	1,3,5-Trichlorobenzene	1.3592	1.3643	20.08	20	0	
#	1,2,4-Trichlorobenzene	1.1851	1.2133	20.48	20	2	#
	Hexachlorobutadiene	0.5361	0.5089	18.99	20	-5	
	Naphthalene	3.7159	3.7282	20.07	20	0	
	1,2,3-Trichlorobenzene	1.0879	1.1059	20.33	20	2	
	2-Methylnaphthalene	2.1464	2.0222	18.84	20	-6	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.2587	0.3121	0.3463	0.3435	0.3554	0.3508	0.3206	0.3268	10	AVG #
Chloromethane	#0.2969	0.2960	0.3100	0.3078	0.3043	0.3190	0.2663	0.3000	6	AVG #
1,3-Butadiene	0.2298	0.2547	0.2409	0.2504	0.2424	0.2621	0.2239	0.2435	6	AVG
Vinyl Chloride	#0.2757	0.2989	0.3143	0.3086	0.3093	0.3201	0.2675	0.2992	7	AVG #
Bromomethane	#0.2079	0.2161	0.2166	0.2174	0.2148	0.2048	0.1700	0.2068	8	AVG #
Chloroethane	#0.1586	0.1736	0.1738	0.1756	0.1719	0.1653	0.1416	0.1657	7	AVG #
Dichlorofluoromethane	0.4238	0.4529	0.4690	0.4518	0.4438	0.4460	0.4001	0.4410	5	AVG
n-Pentane	0.4892	0.4036	0.3800	0.3928	0.3765	0.3913	0.3367	0.3957	12	AVG
Trichlorofluoromethane	#0.2990	0.3494	0.3523	0.3508	0.3564	0.3573	0.3341	0.3427	6	AVG #
Ethyl ether	0.2618	0.2758	0.2738	0.2584	0.2584	0.2916	0.2550	0.2678	5	AVG
Freon 123a	0.2873	0.3265	0.3153	0.3330	0.3181	0.3265	0.3043	0.3158	5	AVG
Acrolein	2.0635	2.0505	2.1830	2.0205	2.1812	2.0606	1.8264	2.0551	6	AVG
1,1-Dichloroethene	#0.3370	0.2906	0.2683	0.2700	0.2537	0.2606	0.2453	0.2751	11	AVG #
1,1-Dichloroethene(2)	#0.1053	0.1197	0.1227	0.1275	0.1238	0.1288	0.1206	0.1212	6	AVG #
Acetone	#0.8581	0.9970	1.0479	0.9713	0.9642	0.9714	0.8996	0.9585	7	AVG #
Freon 113	#0.2029	0.2434	0.2505	0.2650	0.2555	0.2658	0.2537	0.2481	9	AVG #
2-Propanol	0.7627	0.7148	0.6719	0.7275	0.7142	0.7168	0.6775	0.7122	4	AVG
Methyl Iodide	0.3829	0.4324	0.4423	0.4592	0.4400	0.4562	0.4366	0.4357	6	AVG
Carbon Disulfide	#0.8198	0.9000	0.8879	0.9316	0.8921	0.9248	0.8743	0.8901	4	AVG #
Allyl Chloride	0.4302	0.4501	0.4310	0.4399	0.4307	0.4531	0.4157	0.4358	3	AVG
Methyl Acetate	#0.4194	0.3796	0.3895	0.3870	0.3925	0.4086	0.3806	0.3939	4	AVG #
Methylene Chloride	#0.2753	0.2888	0.2978	0.3090	0.2959	0.3064	0.2895	0.2947	4	AVG #
t-Butyl alcohol	1.2735	1.2517	1.2351	1.2553	1.2549	1.2354	1.1857	1.2416	2	AVG
Acrylonitrile	0.1878	0.2157	0.2395	0.2145	0.2307	0.2295	0.2100	0.2182	8	AVG
trans-1,2-Dichloroethene	#0.3111	0.3104	0.3054	0.3089	0.2935	0.3008	0.2835	0.3019	3	AVG #
Methyl Tertiary Butyl Ether	#0.9617	0.8692	0.8624	0.8843	0.8450	0.8663	0.7966	0.8694	6	AVG #
n-Hexane	0.3668	0.4286	0.4395	0.4724	0.4577	0.4789	0.4456	0.4414	8	AVG
1,1-Dichloroethane	#0.4575	0.5064	0.5197	0.5396	0.5189	0.5392	0.5030	0.5120	5	AVG #
di-Isopropyl ether	0.8431	0.9170	0.9493	0.9971	0.9691	0.9986	0.9040	0.9397	6	AVG
2-Chloro-1,3-butadiene	0.3399	0.3924	0.4068	0.4375	0.4304	0.4591	0.4339	0.4143	9	AVG
Ethyl t-butyl ether	0.7859	0.8202	0.8547	0.8933	0.8607	0.8802	0.7937	0.8412	5	AVG
cis-1,2-Dichloroethene	#0.3493	0.3489	0.3392	0.3486	0.3327	0.3428	0.3221	0.3405	3	AVG #
2-Butanone	#0.2818	0.2843	0.3121	0.2853	0.3086	0.3097	0.2790	0.2944	5	AVG #
2,2-Dichloropropane	0.3378	0.3834	0.3882	0.4024	0.3924	0.4086	0.3870	0.3857	6	AVG
Propionitrile	1.4888	1.5063	1.4884	1.5285	1.4973	1.4582	1.3887	1.4794	3	AVG
Methacrylonitrile	0.2063	0.2159	0.2264	0.2298	0.2257	0.2325	0.2149	0.2217	4	AVG
Bromochloromethane	0.1447	0.1598	0.1588	0.1630	0.1575	0.1660	0.1568	0.1581	4	AVG
Tetrahydrofuran	1.2312	1.3089	1.4407	1.3486	1.4894	1.4204	1.3344	1.3677	6	AVG
Chloroform	#0.4469	0.4856	0.4938	0.5147	0.4948	0.5169	0.4883	0.4916	5	AVG #
1,1,1-Trichloroethane	#0.3771	0.4169	0.4173	0.4389	0.4250	0.4454	0.4293	0.4214	5	AVG #
Cyclohexane	#0.4411	0.5084	0.5248	0.5589	0.5460	0.5714	0.5324	0.5261	8	AVG #
Cyclohexane(2)	#0.3573	0.4217	0.4376	0.4668	0.4527	0.4769	0.4482	0.4373	9	AVG #
Cyclohexane(3)	#0.1246	0.1561	0.1598	0.1731	0.1690	0.1759	0.1662	0.1607	11	AVG #
1,1-Dichloropropene	0.3546	0.3988	0.4129	0.4309	0.4164	0.4366	0.4119	0.4089	7	AVG
Carbon Tetrachloride	#0.3004	0.3444	0.3510	0.3739	0.3645	0.3846	0.3745	0.3562	8	AVG #
Isobutyl Alcohol	0.4610	0.4482	0.4323	0.4483	0.4500	0.4513	0.4280	0.4456	3	AVG
Benzene	#1.1850	1.2491	1.2427	1.2949	1.2419	1.2894	1.1939	1.2424	3	AVG #
1,2-Dichloroethane	#0.4108	0.3983	0.3970	0.4018	0.3874	0.4053	0.3893	0.3986	2	AVG #
1,2-Dichloroethane(2)	#0.0261	0.0363	0.0379	0.0399	0.0390	0.0404	0.0390	0.0369	13	AVG #<-
t-Amyl methyl ether	0.8135	0.8449	0.8665	0.8912	0.8597	0.8800	0.7854	0.8487	4	AVG
n-Heptane	0.4523	0.4745	0.4763	0.5006	0.4874	0.5070	0.4719	0.4814	4	AVG
n-Butanol	0.3690	0.4041	0.4147	0.4393	0.4493	0.4482	0.4127	0.4196	7	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2703	0.3025	0.3072	0.3231	0.3109	0.3265	0.3142	0.3078	6	AVG #
Methylcyclohexane	#0.4637	0.5544	0.5509	0.5762	0.5595	0.5913	0.5328	0.5470	8	AVG #
Methylcyclohexane(2)	#0.2067	0.2405	0.2412	0.2520	0.2462	0.2622	0.2394	0.2412	7	AVG #
1,2-Dichloropropane	#0.2897	0.3127	0.3217	0.3352	0.3251	0.3386	0.3042	0.3182	5	AVG #
Dibromomethane	0.1771	0.1971	0.1999	0.2107	0.2047	0.2151	0.2080	0.2018	6	AVG
1,4-Dioxane	0.0856	0.0990	0.1010	0.1032	0.1032	0.1111	0.1030	0.1009	8	AVG
Methyl Methacrylate	0.2579	0.2812	0.3075	0.3345	0.3414	0.3575	0.3504	0.3186	12	AVG
Bromodichloromethane	#0.2931	0.3363	0.3557	0.3842	0.3787	0.4057	0.3962	0.3643	11	AVG #
2-Nitropropane	0.1135	0.1207	0.1367	0.1287	0.1426	0.1444	0.1349	0.1316	9	AVG
2-Chloroethyl Vinyl Ether	0.1965	0.2315	0.2490	0.2687	0.2723	0.2878	0.2733	0.2541	12	AVG
cis-1,3-Dichloropropene	#0.4167	0.4523	0.4921	0.5261	0.5247	0.5562	0.5291	0.4996	10	AVG #
4-Methyl-2-pentanone	#0.4408	0.5063	0.5918	0.5552	0.6008	0.6139	0.5312	0.5486	11	AVG #
Toluene	#0.9915	1.0344	1.0426	1.0989	1.0532	1.0996	1.0205	1.0487	4	AVG #
trans-1,3-Dichloropropene	#0.5241	0.5651	0.6107	0.6557	0.6591	0.7011	0.6655	0.6259	10	AVG #
Ethyl Methacrylate	0.4922	0.5697	0.6494	0.7264	0.7507	0.8011	0.7514	0.6773	17	AVG
1,1,2-Trichloroethane	#0.3822	0.3999	0.4081	0.4276	0.4167	0.4388	0.4146	0.4126	4	AVG #
Tetrachloroethene	#0.3921	0.4168	0.4246	0.4514	0.4227	0.4560	0.4320	0.4279	5	AVG #
1,3-Dichloropropane	0.6627	0.6819	0.6991	0.7277	0.7131	0.7429	0.6919	0.7028	4	AVG
2-Hexanone	#0.4670	0.5368	0.6378	0.5999	0.6517	0.6568	0.5610	0.5873	12	AVG #
Dibromochloromethane	#0.3291	0.3719	0.3934	0.4319	0.4334	0.4671	0.4613	0.4126	12	AVG #
1,2-Dibromoethane	#0.3836	0.4151	0.4383	0.4651	0.4604	0.4850	0.4669	0.4449	8	AVG #
1-Chlorohexane	0.5707	0.5541	0.5699	0.5965	0.5817	0.6134	0.5674	0.5791	3	AVG
Chlorobenzene	#1.1218	1.1903	1.1919	1.2427	1.1876	1.2319	1.1280	1.1849	4	AVG #
1,1,1,2-Tetrachloroethane	0.3245	0.3701	0.3790	0.4098	0.4002	0.4225	0.3939	0.3857	8	AVG
Ethylbenzene	#1.8373	1.9654	2.0274	2.1344	2.0509	2.1446	1.8443	2.0006	6	AVG #
m+p-Xylene	#0.7000	0.7729	0.8069	0.8476	0.8147	0.8480	0.7367	0.7895	7	AVG #
o-Xylene	#0.6927	0.7524	0.7894	0.8332	0.7990	0.8304	0.7375	0.7764	7	AVG #
Styrene	#0.9637	1.1437	1.2528	1.3675	1.3464	1.4231	1.2587	1.2508	12	AVG #
Bromoform	#0.2344	0.2517	0.2822	0.3147	0.3293	0.3568	0.3621	0.3045	16	AVG #
Isopropylbenzene	#1.6722	1.9074	2.0114	2.1232	2.0434	2.1267	1.8136	1.9568	9	AVG #
Cyclohexanone	0.3113	0.3698	0.3853	0.4004	0.4010	0.4503	0.3999	0.3883	11	AVG
Bromobenzene	0.8914	0.9313	0.9516	1.0024	0.9729	1.0155	0.9153	0.9543	5	AVG
1,1,2,2-Tetrachloroethane	#1.2607	1.3458	1.3379	1.4036	1.3782	1.4328	1.2991	1.3512	4	AVG #
1,2,3-Trichloropropane	0.4145	0.4083	0.4299	0.4422	0.4326	0.4534	0.4195	0.4286	4	AVG
trans-1,4-Dichloro-2-butene	0.3892	0.4218	0.4441	0.4572	0.4548	0.4695	0.4040	0.4344	7	AVG
n-Propylbenzene	4.0410	4.4872	4.5759	4.7986	4.6258	4.7615	3.8353	4.4465	8	AVG
2-Chlorotoluene	0.8041	0.8950	0.9341	0.9663	0.9338	0.9769	0.9018	0.9160	6	AVG
4-Chlorotoluene	0.8377	0.9554	0.9762	1.0170	0.9760	1.0285	0.9478	0.9627	7	AVG
1,3,5-Trimethylbenzene	2.7214	3.1267	3.3076	3.4580	3.3466	3.4916	3.0297	3.2116	9	AVG
tert-Butylbenzene	0.5825	0.6313	0.6648	0.7220	0.6975	0.7336	0.6701	0.6716	8	AVG
Pentachloroethane	0.4505	0.4863	0.5063	0.5183	0.5412	0.5671	0.5509	0.5172	8	AVG
1,2,4-Trimethylbenzene	2.8604	3.3013	3.4590	3.6568	3.5484	3.6866	3.1437	3.3795	9	AVG
sec-Butylbenzene	3.6708	4.1065	4.2394	4.4768	4.3204	4.4867	3.6694	4.1386	8	AVG
1,3-Dichlorobenzene	#1.7171	1.7853	1.8471	1.9214	1.8697	1.9490	1.7002	1.8271	5	AVG #
p-Isopropyltoluene	2.9353	3.4414	3.5633	3.8087	3.6973	3.8399	3.1845	3.4958	10	AVG
1,4-Dichlorobenzene	#1.7721	1.8626	1.9133	1.9816	1.9174	2.0017	1.7576	1.8866	5	AVG #
1,2,3-Trimethylbenzene	3.1494	3.3827	3.4122	3.4681	3.3411	3.5074	2.9898	3.3215	6	AVG
Benzyl Chloride	2.1921	2.4301	2.6388	2.9046	2.9432	3.1043	2.7896	2.7147	12	AVG
1,3-Diethylbenzene	1.8531	2.1585	2.1738	2.2390	2.1664	2.2886	2.0140	2.1276	7	AVG
1,4-Diethylbenzene	1.9085	2.2765	2.3182	2.3766	2.2812	2.4114	2.0801	2.2361	8	AVG
1,2-Dichlorobenzene	#1.6571	1.7568	1.7820	1.8584	1.7963	1.8797	1.6914	1.7745	5	AVG #
n-Butylbenzene	1.6552	1.9021	1.9023	1.9960	1.9338	2.0146	1.7592	1.8805	7	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date(s): 04/21/20 04/22/20

Heated Purge: (Y/N) Y Calibration Times: 21:54 00:06

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ya21i07.d RRF 4 = ya21i06.d RRF 10= ya21i05.d
RRF 20= ya21i04.d RRF 50= ya21i03.d RRF100= ya21i02.d RRF300= ya21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.6172	1.8381	1.8457	1.8772	1.7939	1.8998	1.6691	1.7916	6	AVG
1,2-Dibromo-3-chloropropane	#0.2908	0.2919	0.3172	0.3421	0.3444	0.3757	0.3668	0.3327	10	AVG #
1,3,5-Trichlorobenzene	1.2352	1.2791	1.3008	1.3661	1.3159	1.4128	1.3476	1.3225	4	AVG
1,2,4-Trichlorobenzene	#1.1632	1.1739	1.2277	1.2742	1.2447	1.3360	1.2704	1.2414	5	AVG #
Hexachlorobutadiene	0.5449	0.5441	0.5431	0.5726	0.5487	0.5912	0.5739	0.5598	3	AVG
Naphthalene	4.3161	4.3872	4.6155	4.8711	4.7251	4.9549	3.9167	4.5409	8	AVG
1,2,3-Trichlorobenzene	1.1713	1.1562	1.1871	1.2282	1.1905	1.2831	1.2044	1.2030	4	AVG
2-Methylnaphthalene	2.3925	2.3396	2.5509	2.6605	2.5142	2.8035	2.3027	2.5091	7	AVG
Dibromofluoromethane	0.2258	0.2262	0.2260	0.2281	0.2263	0.2273	0.2300	0.2271	1	AVG
Dibromofluoromethane(2)	0.2295	0.2310	0.2326	0.2319	0.2313	0.2326	0.2337	0.2318	1	AVG
1,2-Dichloroethane-d4	0.0599	0.0608	0.0606	0.0598	0.0602	0.0586	0.0592	0.0599	1	AVG
1,2-Dichloroethane-d4(2)	0.2700	0.2700	0.2665	0.2658	0.2674	0.2640	0.2663	0.2671	1	AVG
1,2-Dichloroethane-d4(3)	0.0382	0.0385	0.0382	0.0385	0.0382	0.0379	0.0377	0.0382	1	AVG
Toluene-d8	1.3160	1.3081	1.2997	1.3068	1.3024	1.3001	1.3063	1.3056	0	AVG
Toluene-d8(2)	0.8449	0.8351	0.8311	0.8378	0.8370	0.8376	0.8429	0.8381	1	AVG
4-Bromofluorobenzene	0.4967	0.4965	0.4932	0.4937	0.4939	0.4938	0.4953	0.4947	0	AVG
4-Bromofluorobenzene(2)	0.3831	0.3818	0.3784	0.3806	0.3803	0.3800	0.3832	0.3810	0	AVG

Average %RSD 6

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP09355.i/20apr21a.b/ya21i01.d	VSTD300
/chem2/HP09355.i/20apr21a.b/ya21i02.d	VSTD100
/chem2/HP09355.i/20apr21a.b/ya21i03.d	VSTD050
/chem2/HP09355.i/20apr21a.b/ya21i04.d	VSTD020
/chem2/HP09355.i/20apr21a.b/ya21i05.d	VSTD010
/chem2/HP09355.i/20apr21a.b/ya21i06.d	VSTD004
/chem2/HP09355.i/20apr21a.b/ya21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	ya21i01.d	ya21i02.d	ya21i03.d	ya21i04.d	ya21i05.d	ya21i06.d	ya21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	381281	388401	393548	390431	407507	386560	376556	389183	3	Yes
Fluorobenzene	1254678	1242825	1312885	1294339	1308564	1291427	1266407	1281589	2	Yes
Chlorobenzene-d5	940346	921611	977085	956851	969376	949078	923376	948246	2	Yes
1,4-Dichlorobenzene-d4	498086	487855	518745	512562	518818	507990	497288	505906	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ya21i01.d	ya21i02.d	ya21i03.d	ya21i04.d	ya21i05.d	ya21i06.d	ya21i07.d	Avg. RT
t-Butyl alcohol-d10	4.355	4.343	4.349	4.349	4.356	4.361	4.355	4.353
Fluorobenzene	7.865	7.866	7.866	7.866	7.866	7.865	7.866	7.866
Chlorobenzene-d5	11.303	11.303	11.303	11.303	11.303	11.303	11.303	11.303
1,4-Dichlorobenzene-d4	13.183	13.177	13.177	13.177	13.177	13.176	13.176	13.177

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/22/2020 at 08:06.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3268	0.3006	18.40	20	-8	#
# Chloromethane	0.3000	0.3274	21.83	20	9	#
1,3-Butadiene	0.2435	0.2880	23.66	20	18	
# Vinyl Chloride	0.2992	0.3238	21.65	20	8	#
# Bromomethane	0.2068	0.2322	22.45	20	12	#
# Chloroethane	0.1657	0.1812	21.87	20	9	#
Dichlorofluoromethane	0.4410	0.4738	21.49	20	7	
n-Pentane	0.3957	0.4139	20.92	20	5	
# Trichlorofluoromethane	0.3427	0.4114	24.01	20	20	#
Ethyl ether	0.2678	0.2585	19.30	20	-3	
Freon 123a	0.3158	0.3331	21.09	20	5	
Acrolein	2.0551	1.9324	141.05	150	-6	
# 1,1-Dichloroethene	0.2751	0.2720	19.77	20	-1	#
# Acetone	0.9585	0.9516	148.92	150	-1	#
# Freon 113	0.2481	0.2676	21.57	20	8	#
2-Propanol	0.7122	0.6716	141.46	150	-6	
Methyl Iodide	0.4357	0.4327	19.87	20	-1	
# Carbon Disulfide	0.8901	0.9011	20.25	20	1	#
Allyl Chloride	0.4358	0.4936	22.65	20	13	
# Methyl Acetate	0.3939	0.4234	21.50	20	7	#
# Methylene Chloride	0.2947	0.3071	20.84	20	4	#
t-Butyl alcohol	1.2416	1.2366	199.20	200	0	
Acrylonitrile	0.2182	0.2166	99.25	100	-1	
# trans-1,2-Dichloroethene	0.3019	0.3041	20.14	20	1	#
# Methyl Tertiary Butyl Ether	0.8694	0.8597	19.78	20	-1	#
n-Hexane	0.4414	0.4747	21.51	20	8	
# 1,1-Dichloroethane	0.5120	0.5232	20.43	20	2	#
di-Isopropyl ether	0.9397	0.9712	20.67	20	3	
2-Chloro-1,3-butadiene	0.4143	0.4243	20.48	20	2	
Ethyl t-butyl ether	0.8412	0.8581	20.40	20	2	
# cis-1,2-Dichloroethene	0.3405	0.3569	20.96	20	5	#
# 2-Butanone	0.2944	0.3015	153.63	150	2	#
2,2-Dichloropropane	0.3857	0.4009	20.79	20	4	
Propionitrile	1.4794	1.5442	156.56	150	4	
Methacrylonitrile	0.2217	0.2267	153.43	150	2	
Bromochloromethane	0.1581	0.1677	21.21	20	6	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.3677	1.4191	103.76	100	4	
#	Chloroform	0.4916	0.4966	20.21	20	1	#
#	1,1,1-Trichloroethane	0.4214	0.4214	20.00	20	0	#
#	Cyclohexane	0.5261	0.5387	20.48	20	2	#
	1,1-Dichloropropene	0.4089	0.4167	20.38	20	2	
#	Carbon Tetrachloride	0.3562	0.3610	20.27	20	1	#
	Isobutyl Alcohol	0.4456	0.4403	494.00	500	-1	
#	Benzene	1.2424	1.2352	19.88	20	-1	#
#	1,2-Dichloroethane	0.3986	0.3973	19.94	20	0	#
	t-Amyl methyl ether	0.8487	0.8597	20.26	20	1	
	n-Heptane	0.4814	0.4654	19.34	20	-3	
	n-Butanol	0.4196	0.4166	992.80	1000	-1	
#	Trichloroethene	0.3078	0.3050	19.82	20	-1	#
#	Methylcyclohexane	0.5470	0.5945	21.74	20	9	#
#	1,2-Dichloropropane	0.3182	0.3287	20.66	20	3	#
	Dibromomethane	0.2018	0.2045	20.27	20	1	
	1,4-Dioxane	0.1009	0.0999	495.29	500	-1	
	Methyl Methacrylate	0.3186	0.3362	21.10	20	6	
#	Bromodichloromethane	0.3643	0.3673	20.17	20	1	#
	2-Nitropropane	0.1316	0.1255	19.07	20	-5	
	2-Chloroethyl Vinyl Ether	0.2541	0.2575	20.26	20	1	
#	cis-1,3-Dichloropropene	0.4996	0.5026	20.12	20	1	#
#	4-Methyl-2-pentanone	0.5486	0.5714	104.15	100	4	#
#	Toluene	1.0487	1.0498	20.02	20	0	#
#	trans-1,3-Dichloropropene	0.6259	0.6163	19.69	20	-2	#
	Ethyl Methacrylate	0.6773	0.6485	19.15	20	-4	
#	1,1,2-Trichloroethane	0.4126	0.4238	20.55	20	3	#
#	Tetrachloroethene	0.4279	0.4243	19.83	20	-1	#
	1,3-Dichloropropane	0.7028	0.6965	19.82	20	-1	
#	2-Hexanone	0.5873	0.6219	105.90	100	6	#
#	Dibromochloromethane	0.4126	0.4199	20.35	20	2	#
#	1,2-Dibromoethane	0.4449	0.4466	20.08	20	0	#
	1-Chlorohexane	0.5791	0.5612	19.38	20	-3	
#	Chlorobenzene	1.1849	1.1930	20.14	20	1	#
	1,1,1,2-Tetrachloroethane	0.3857	0.3899	20.22	20	1	
#	Ethylbenzene	2.0006	2.0267	20.26	20	1	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 ICV Date: 04/22/20 Time: 00:49

Lab File ID: ya21v01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.7895	0.8115	41.11	40	3	#
# o-Xylene	0.7764	0.7888	20.32	20	2	#
# Styrene	1.2508	1.2922	20.66	20	3	#
# Bromoform	0.3045	0.2922	19.20	20	-4	#
# Isopropylbenzene	1.9568	2.0299	20.75	20	4	#
Cyclohexanone	0.3883	0.3701	476.60	500	-5	
Bromobenzene	0.9543	0.9433	19.77	20	-1	
# 1,1,2,2-Tetrachloroethane	1.3512	1.3462	19.93	20	0	#
1,2,3-Trichloropropane	0.4286	0.4254	19.85	20	-1	
trans-1,4-Dichloro-2-butene	0.4344	0.4534	104.38	100	4	
n-Propylbenzene	4.4465	4.5963	20.67	20	3	
2-Chlorotoluene	0.9160	0.9137	19.95	20	0	
4-Chlorotoluene	0.9627	0.9614	19.97	20	0	
1,3,5-Trimethylbenzene	3.2116	3.2730	20.38	20	2	
tert-Butylbenzene	0.6716	0.6539	19.47	20	-3	
Pentachloroethane	0.5172	0.5471	21.15	20	6	
1,2,4-Trimethylbenzene	3.3795	3.4015	20.13	20	1	
sec-Butylbenzene	4.1386	4.2418	20.50	20	2	
# 1,3-Dichlorobenzene	1.8271	1.8474	20.22	20	1	#
p-Isopropyltoluene	3.4958	3.5986	20.59	20	3	
# 1,4-Dichlorobenzene	1.8866	1.9156	20.31	20	2	#
1,2,3-Trimethylbenzene	3.3215	3.6350	21.89	20	9	
Benzyl Chloride	2.7147	2.4203	17.83	20	-11	
1,3-Diethylbenzene	2.1276	2.2561	21.21	20	6	
1,4-Diethylbenzene	2.2361	2.3758	21.25	20	6	
# 1,2-Dichlorobenzene	1.7745	1.7635	19.88	20	-1	#
n-Butylbenzene	1.8805	1.8589	19.77	20	-1	
1,2-Diethylbenzene	1.7916	1.8780	20.97	20	5	
# 1,2-Dibromo-3-chloropropane	0.3327	0.3223	19.37	20	-3	#
1,3,5-Trichlorobenzene	1.3225	1.2688	19.19	20	-4	
# 1,2,4-Trichlorobenzene	1.2414	1.1931	19.22	20	-4	#
Hexachlorobutadiene	0.5598	0.5205	18.60	20	-7	
Naphthalene	4.5409	4.4994	19.82	20	-1	
1,2,3-Trichlorobenzene	1.2030	1.1402	18.96	20	-5	
2-Methylnaphthalene	2.5091	2.3638	18.84	20	-6	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3072	0.3749	0.3447	0.3545	0.3366	0.3268	0.3554	0.3429	6	AVG #
Chloromethane	#0.3484	0.3928	0.3004	0.3118	0.2810	0.3014	0.3050	0.3201	12	AVG #
1,3-Butadiene	0.2177	0.2159	0.2035	0.1909	0.2017	0.1994	0.2084	0.2054	5	AVG
Vinyl Chloride	#0.3345	0.3722	0.2898	0.3057	0.2850	0.2851	0.2901	0.3089	11	AVG #
Bromomethane	#0.2618	0.2776	0.2081	0.2164	0.1931	0.1989	0.2031	0.2227	15	AVG #
Chloroethane	#0.2082	0.2129	0.1636	0.1659	0.1543	0.1485	0.1539	0.1725	15	AVG #
Dichlorofluoromethane	0.3912	0.4483	0.3730	0.3566	0.3471	0.3369	0.3514	0.3720	10	AVG
n-Pentane	0.2913	0.3255	0.3315	0.2814	0.3331	0.3148	0.3399	0.3168	7	AVG
Trichlorofluoromethane	#0.3223	0.3834	0.3290	0.3363	0.3305	0.3177	0.3426	0.3374	6	AVG #
Ethyl ether	0.2085	0.2298	0.2403	0.2495	0.2468	0.2508	0.2432	0.2384	6	AVG
Freon 123a	0.2397	0.2803	0.2761	0.2695	0.2834	0.2757	0.2886	0.2733	6	AVG
Acrolein	1.9675	1.9584	2.3526	2.1490	1.9219	2.0204	2.0271	2.0567	7	AVG
1,1-Dichloroethene	#0.2125	0.2244	0.2165	0.2075	0.2164	0.2106	0.2183	0.2152	3	AVG #
1,1-Dichloroethene(2)	#0.0844	0.1075	0.1050	0.1016	0.1063	0.1046	0.1078	0.1025	8	AVG #
Acetone	#1.1737	0.9368	0.9557	0.9252	0.8233	0.8652	0.8872	0.9381	12	AVG #
Freon 113	#0.1875	0.2308	0.2325	0.2037	0.2359	0.2271	0.2451	0.2232	9	AVG #
2-Propanol	0.6343	0.5939	0.5852	0.6111	0.5714	0.5851	0.6045	0.5979	3	AVG
Methyl Iodide	0.3705	0.4177	0.4125	0.4203	0.4260	0.4199	0.4356	0.4147	5	AVG
Carbon Disulfide	#0.6293	0.7190	0.7287	0.7248	0.7533	0.7429	0.7734	0.7245	6	AVG #
Allyl Chloride	0.3126	0.3330	0.3401	0.3598	0.3560	0.3714	0.3682	0.3487	6	AVG
Methyl Acetate	#0.2838	0.2818	0.2652	0.2744	0.2660	0.2745	0.2753	0.2744	3	AVG #
Methylene Chloride	#0.2407	0.2611	0.2575	0.2576	0.2599	0.2554	0.2595	0.2560	3	AVG #
t-Butyl alcohol	0.9840	1.0154	0.9988	1.0451	0.9821	1.0222	1.0175	1.0093	2	AVG
Acrylonitrile	0.1469	0.1480	0.1588	0.1591	0.1521	0.1474	0.1518	0.1520	3	AVG
trans-1,2-Dichloroethene	#0.2340	0.2526	0.2491	0.2486	0.2501	0.2467	0.2517	0.2475	3	AVG #
Methyl Tertiary Butyl Ether	#0.6899	0.7176	0.7259	0.7729	0.7641	0.7564	0.7387	0.7379	4	AVG #
n-Hexane	0.2488	0.2975	0.3616	0.3141	0.4006	0.3755	0.4285	0.3467	18	AVG
1,1-Dichloroethane	#0.3917	0.4392	0.4377	0.4425	0.4471	0.4408	0.4399	0.4342	4	AVG #
di-Isopropyl ether	0.6250	0.7167	0.7581	0.8043	0.8200	0.8181	0.8027	0.7635	9	AVG
2-Chloro-1,3-butadiene	0.2504	0.3270	0.3433	0.3538	0.3803	0.3769	0.3919	0.3462	14	AVG
Ethyl t-butyl ether	0.5831	0.6749	0.7049	0.7549	0.7669	0.7555	0.7257	0.7094	9	AVG
cis-1,2-Dichloroethene	#0.2571	0.2721	0.2797	0.2848	0.2857	0.2816	0.2821	0.2776	4	AVG #
2-Butanone	#0.1740	0.1778	0.1902	0.1929	0.1856	0.1830	0.1882	0.1845	4	AVG #
2,2-Dichloropropane	0.2884	0.3383	0.3276	0.3395	0.3534	0.3473	0.3544	0.3355	7	AVG
Propionitrile	1.2708	1.3533	1.3265	1.3974	1.3327	1.4224	1.4415	1.3635	4	AVG
Methacrylonitrile	0.1325	0.1512	0.1492	0.1614	0.1576	0.1581	0.1568	0.1524	6	AVG
Bromochloromethane	0.1268	0.1457	0.1435	0.1473	0.1449	0.1483	0.1461	0.1432	5	AVG
Tetrahydrofuran	1.0939	1.2175	1.2309	1.2069	1.1339	1.2158	1.2522	1.1930	5	AVG
Chloroform	#0.3949	0.4255	0.4186	0.4310	0.4353	0.4288	0.4350	0.4241	3	AVG #
1,1,1-Trichloroethane	#0.3205	0.3731	0.3563	0.3608	0.3789	0.3703	0.3873	0.3639	6	AVG #
Cyclohexane	#0.2724	0.3861	0.4199	0.3788	0.4671	0.4459	0.4812	0.4073	17	AVG #
Cyclohexane(2)	#0.2623	0.3387	0.3613	0.3246	0.3996	0.3831	0.4193	0.3555	15	AVG #
Cyclohexane(3)	#0.0911	0.1232	0.1295	0.1156	0.1414	0.1371	0.1483	0.1266	15	AVG #
1,1-Dichloropropene	0.2663	0.3431	0.3356	0.3313	0.3539	0.3450	0.3597	0.3336	9	AVG
Carbon Tetrachloride	#0.2381	0.3157	0.3037	0.2960	0.3275	0.3180	0.3351	0.3049	11	AVG #
Isobutyl Alcohol	0.3260	0.3424	0.3330	0.3489	0.3302	0.3507	0.3655	0.3424	4	AVG
Benzene	#0.9337	1.0554	1.0404	1.0552	1.0612	1.0432	1.0391	1.0326	4	AVG #
1,2-Dichloroethane	#0.3641	0.3511	0.3344	0.3464	0.3428	0.3380	0.3462	0.3461	3	AVG #
1,2-Dichloroethane(2)	#0.0281	0.0355	0.0337	0.0352	0.0346	0.0342	0.0349	0.0337	8	AVG #<-
t-Amyl methyl ether	0.6250	0.6922	0.7120	0.7698	0.7825	0.7707	0.7211	0.7247	8	AVG
n-Heptane	0.2919	0.2979	0.3961	0.3092	0.4230	0.3738	0.4314	0.3605	17	AVG
n-Butanol	0.2186	0.2666	0.2596	0.2947	0.2827	0.3159	0.3160	0.2792	12	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2314	0.2738	0.2568	0.2636	0.2685	0.2638	0.2713	0.2613	5	AVG #
Methylcyclohexane	#0.2885	0.3775	0.4342	0.4256	0.4691	0.4913	0.4880	0.4249	17	AVG #
Methylcyclohexane(2)	#0.1299	0.1713	0.1982	0.1902	0.2105	0.2220	0.2232	0.1922	17	AVG #
1,2-Dichloropropane	#0.2481	0.2664	0.2633	0.2760	0.2761	0.2709	0.2616	0.2661	4	AVG #
Dibromomethane	0.1562	0.1741	0.1704	0.1795	0.1796	0.1784	0.1799	0.1740	5	AVG
1,4-Dioxane	0.0712	0.0836	0.0835	0.0860	0.0869	0.0895	0.0867	0.0839	7	AVG
Methyl Methacrylate	0.1827	0.2123	0.2140	0.2362	0.2458	0.2529	0.2576	0.2288	12	AVG
Bromodichloromethane	#0.2641	0.2941	0.2982	0.3169	0.3295	0.3343	0.3465	0.3119	9	AVG #
2-Nitropropane	0.0743	0.0857	0.0951	0.0979	0.0980	0.0986	0.1052	0.0935	11	AVG
2-Chloroethyl Vinyl Ether	0.1183	0.1448	0.1627	0.1947	0.1994	0.2086	0.2116	0.1771	20	AVG
cis-1,3-Dichloropropene	#0.3089	0.3747	0.3951	0.4279	0.4420	0.4496	0.4555	0.4077	13	AVG #
4-Methyl-2-pentanone	#0.2810	0.3388	0.4261	0.4030	0.3910	0.3859	0.3899	0.3737	13	AVG #
Toluene	#0.7145	0.8626	0.8222	0.8465	0.8374	0.8251	0.8229	0.8187	6	AVG #
trans-1,3-Dichloropropene	#0.3772	0.4265	0.4447	0.4869	0.5027	0.5193	0.5309	0.4697	12	AVG #
Ethyl Methacrylate	0.3211	0.3977	0.4423	0.5102	0.5309	0.5517	0.5549	0.4727	19	AVG
1,1,2-Trichloroethane	#0.2982	0.3188	0.3085	0.3275	0.3213	0.3234	0.3261	0.3177	3	AVG #
Tetrachloroethene	#0.2723	0.3673	0.3559	0.3466	0.3684	0.3573	0.3745	0.3489	10	AVG #
1,3-Dichloropropane	0.4791	0.5230	0.5157	0.5502	0.5434	0.5534	0.5541	0.5313	5	AVG
2-Hexanone	#0.2485	0.3013	0.4213	0.3640	0.3525	0.3516	0.3639	0.3433	16	AVG #
Dibromochloromethane	#0.2440	0.3047	0.3124	0.3453	0.3551	0.3686	0.3831	0.3305	14	AVG #
1,2-Dibromoethane	#0.2855	0.3244	0.3336	0.3554	0.3560	0.3632	0.3719	0.3414	9	AVG #
1-Chlorohexane	0.3851	0.3832	0.4200	0.4024	0.4558	0.4290	0.4575	0.4190	7	AVG
Chlorobenzene	#0.8366	0.9889	0.9494	0.9763	0.9558	0.9470	0.9273	0.9402	5	AVG #
1,1,1,2-Tetrachloroethane	0.2628	0.3249	0.3142	0.3374	0.3359	0.3349	0.3210	0.3187	8	AVG
Ethylbenzene	#1.1980	1.5354	1.5535	1.5949	1.6192	1.5836	1.5237	1.5155	10	AVG #
m+p-Xylene	#0.4460	0.6043	0.6194	0.6385	0.6437	0.6277	0.5885	0.5954	12	AVG #
o-Xylene	#0.4117	0.5682	0.6009	0.6270	0.6275	0.6156	0.5799	0.5758	13	AVG #
Styrene	#0.6016	0.8862	0.9556	1.0324	1.0459	1.0431	0.9904	0.9365	17	AVG #
Bromoform	#0.1799	0.2110	0.2189	0.2495	0.2599	0.2759	0.2890	0.2406	16	AVG #
Isopropylbenzene	#0.9358	1.3619	1.5410	1.5672	1.6596	1.5754	1.5876	1.4612	17	AVG #
Cyclohexanone	0.2577	0.3055	0.3001	0.3389	0.3302	0.3416	0.3126	0.3124	9	AVG
Bromobenzene	0.6587	0.7746	0.7359	0.7664	0.7519	0.7500	0.6841	0.7317	6	AVG
1,1,2,2-Tetrachloroethane	#0.8524	0.9494	0.8835	0.9572	0.9208	0.9383	0.8790	0.9115	4	AVG #
1,2,3-Trichloropropane	0.2443	0.2882	0.2764	0.2890	0.2829	0.2899	0.2781	0.2784	6	AVG
trans-1,4-Dichloro-2-butene	0.2199	0.2612	0.2636	0.2848	0.2749	0.2847	0.2669	0.2652	8	AVG
n-Propylbenzene	2.4687	3.0300	3.3092	3.3293	3.4486	3.2920	3.2581	3.1622	10	AVG
2-Chlorotoluene	0.5357	0.6720	0.6927	0.7089	0.7183	0.7016	0.6998	0.6756	9	AVG
4-Chlorotoluene	0.5634	0.6918	0.7282	0.7444	0.7361	0.7276	0.7169	0.7012	9	AVG
1,3,5-Trimethylbenzene	1.5451	2.0898	2.4017	2.4957	2.5571	2.4536	2.4519	2.2850	16	AVG
tert-Butylbenzene	0.3304	0.4041	0.4839	0.4974	0.5371	0.5101	0.5247	0.4697	16	AVG
Pentachloroethane	0.3408	0.3819	0.4075	0.4439	0.4444	0.4739	0.4277	0.4171	11	AVG
1,2,4-Trimethylbenzene	1.5205	2.1963	2.5099	2.6437	2.6613	2.5628	2.4430	2.3625	17	AVG
sec-Butylbenzene	1.7497	2.4116	3.0315	2.9653	3.2861	3.0004	3.0298	2.7821	19	AVG
1,3-Dichlorobenzene	#1.1765	1.3970	1.4310	1.4819	1.4327	1.3931	1.2318	1.3634	8	AVG #
p-Isopropyltoluene	1.4601	2.0907	2.5969	2.6277	2.8513	2.5939	2.4662	2.3838	20	AVG
1,4-Dichlorobenzene	#1.2907	1.4922	1.4894	1.5270	1.4774	1.4358	1.3041	1.4309	7	AVG #
1,2,3-Trimethylbenzene	2.0761	2.3800	2.5083	2.6252	2.5574	2.6533	2.3826	2.4547	8	AVG
Benzyl Chloride	1.3247	1.7290	1.7424	2.0110	2.0302	2.1027	2.0613	1.8573	15	AVG
1,3-Diethylbenzene	1.1591	1.4712	1.5631	1.6678	1.6283	1.6909	1.5713	1.5359	12	AVG
1,4-Diethylbenzene	1.1634	1.5982	1.6598	1.7486	1.7167	1.7645	1.6027	1.6077	13	AVG
1,2-Dichlorobenzene	#1.2166	1.4364	1.4175	1.4718	1.4157	1.3811	1.2672	1.3723	7	AVG #
n-Butylbenzene	0.8915	1.0844	1.3461	1.2989	1.4058	1.2740	1.2726	1.2248	14	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

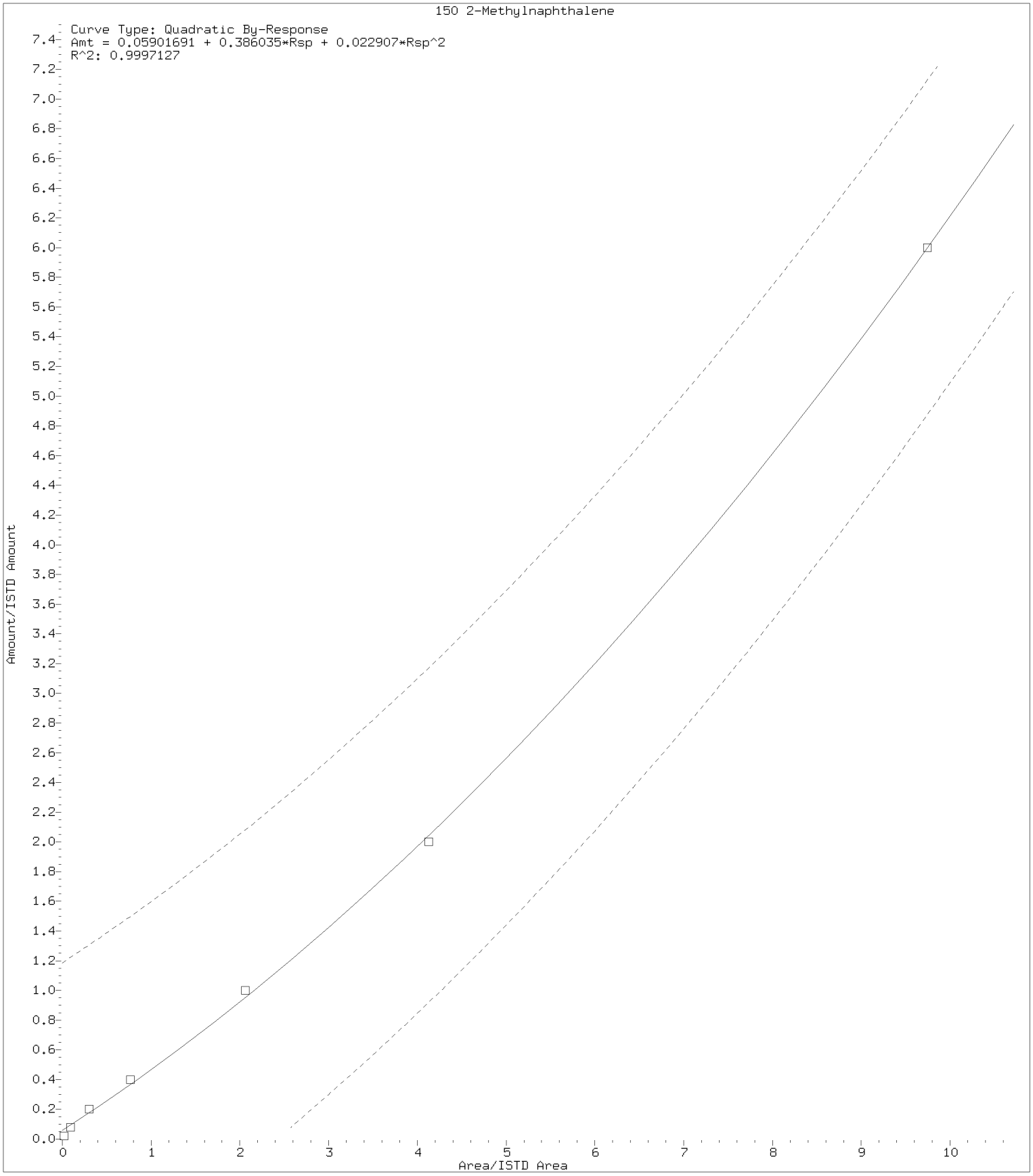
LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.0295	1.2919	1.3577	1.4248	1.3730	1.4224	1.2789	1.3112	10	AVG
1,2-Dibromo-3-chloropropane	#0.1650	0.1952	0.1877	0.2082	0.2117	0.2210	0.2234	0.2017	10	AVG #
1,3,5-Trichlorobenzene	0.9105	0.9328	1.0642	1.1130	1.1344	1.0562	1.0255	1.0338	8	AVG
1,2,4-Trichlorobenzene	#0.8186	0.8601	0.9774	1.0647	1.0739	1.0166	0.9515	0.9661	10	AVG #
Hexachlorobutadiene	0.4642	0.3762	0.4840	0.4490	0.4958	0.4333	0.4173	0.4457	9	AVG
Naphthalene	2.1271	2.7842	3.1577	3.6036	3.5783	3.5111	3.1283	3.1272	17	AVG
1,2,3-Trichlorobenzene	0.8188	0.9091	0.9941	1.0776	1.0567	0.9828	0.8808	0.9600	10	AVG
2-Methylnaphthalene	0.9957	1.1581	1.5261	1.9196	2.0622	2.0644	1.6238	1.6214	26	2NDDEG
Dibromofluoromethane	0.2505	0.2508	0.2465	0.2524	0.2528	0.2526	0.2576	0.2519	1	AVG
Dibromofluoromethane(2)	0.2560	0.2558	0.2540	0.2570	0.2584	0.2581	0.2631	0.2575	1	AVG
1,2-Dichloroethane-d4	0.0639	0.0649	0.0632	0.0643	0.0637	0.0634	0.0641	0.0639	1	AVG
1,2-Dichloroethane-d4(2)	0.2831	0.2821	0.2786	0.2841	0.2859	0.2832	0.2889	0.2837	1	AVG
1,2-Dichloroethane-d4(3)	0.0411	0.0407	0.0405	0.0403	0.0412	0.0403	0.0409	0.0407	1	AVG
Toluene-d8	1.2649	1.2749	1.2826	1.2779	1.2796	1.2921	1.3194	1.2845	1	AVG
Toluene-d8(2)	0.8203	0.8238	0.8322	0.8288	0.8303	0.8382	0.8615	0.8336	2	AVG
4-Bromofluorobenzene	0.4907	0.4958	0.4937	0.4907	0.4880	0.4920	0.5088	0.4942	1	AVG
4-Bromofluorobenzene(2)	0.4227	0.4258	0.4239	0.4223	0.4176	0.4192	0.4346	0.4237	1	AVG

Average %RSD 9

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Don V. Viray on 05/06/2020 at 08:01.
Target 3.5 esignature user ID: dvv10203

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i01.d	VSTD300
/chem/HP09915.i/20may04i.b/ly04i02.d	VSTD100
/chem/HP09915.i/20may04i.b/ly04i03.d	VSTD050
/chem/HP09915.i/20may04i.b/ly04i04.d	VSTD020
/chem/HP09915.i/20may04i.b/ly04i05.d	VSTD010
/chem/HP09915.i/20may04i.b/ly04i06.d	VSTD004
/chem/HP09915.i/20may04i.b/ly04i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	276925	272479	302938	286065	282164	285792	294363	285818	4	Yes
Fluorobenzene	1336369	1305159	1335958	1286965	1307193	1299562	1305845	1311007	1	Yes
Chlorobenzene-d5	1059501	1042614	1078517	1031952	1036265	1041559	1044326	1047819	2	Yes
1,4-Dichlorobenzene-d4	596140	579781	608929	580388	588728	598089	599351	593058	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. RT
t-Butyl alcohol-d10	4.493	4.490	4.487	4.500	4.480	4.490	4.487	4.489
Fluorobenzene	7.956	7.950	7.950	7.950	7.946	7.950	7.949	7.950
Chlorobenzene-d5	11.355	11.351	11.355	11.352	11.351	11.351	11.351	11.352
1,4-Dichlorobenzene-d4	13.220	13.216	13.216	13.216	13.216	13.216	13.216	13.217

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 05/04/2020 at 20:24.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.3214	18.75	20	-6	#
# Chloromethane	0.3201	0.3356	20.96	20	5	#
1,3-Butadiene	0.2054	0.2400	23.37	20	17	
# Vinyl Chloride	0.3089	0.3258	21.09	20	5	#
# Bromomethane	0.2227	0.2138	19.20	20	-4	#
# Chloroethane	0.1725	0.1685	19.54	20	-2	#
Dichlorofluoromethane	0.3720	0.3467	18.64	20	-7	
n-Pentane	0.3168	0.2920	18.44	20	-8	
# Trichlorofluoromethane	0.3374	0.3815	22.62	20	13	#
Ethyl ether	0.2384	0.2427	20.36	20	2	
Freon 123a	0.2733	0.2842	20.79	20	4	
Acrolein	2.0567	1.9145	139.63	150	-7	
# 1,1-Dichloroethene	0.2152	0.2238	20.81	20	4	#
# Acetone	0.9381	1.2084	193.20	150	29	#
# Freon 113	0.2232	0.2160	19.35	20	-3	#
2-Propanol	0.5979	0.5997	150.46	150	0	
Methyl Iodide	0.4147	0.4128	19.91	20	0	
# Carbon Disulfide	0.7245	0.7565	20.88	20	4	#
Allyl Chloride	0.3487	0.3386	19.42	20	-3	
# Methyl Acetate	0.2744	0.2632	19.19	20	-4	#
# Methylene Chloride	0.2560	0.2627	20.53	20	3	#
t-Butyl alcohol	1.0093	1.0232	202.75	200	1	
Acrylonitrile	0.1520	0.1437	94.53	100	-5	
# trans-1,2-Dichloroethene	0.2475	0.2522	20.38	20	2	#
# Methyl Tertiary Butyl Ether	0.7379	0.7082	19.19	20	-4	#
n-Hexane	0.3467	0.3630	20.94	20	5	
# 1,1-Dichloroethane	0.4342	0.4377	20.16	20	1	#
di-Isopropyl ether	0.7635	0.7617	19.95	20	0	
2-Chloro-1,3-butadiene	0.3462	0.3545	20.48	20	2	
Ethyl t-butyl ether	0.7094	0.7036	19.83	20	-1	
# cis-1,2-Dichloroethene	0.2776	0.2992	21.56	20	8	#
# 2-Butanone	0.1845	0.2032	165.20	150	10	#
2,2-Dichloropropane	0.3355	0.3414	20.35	20	2	
Propionitrile	1.3635	1.3708	150.80	150	1	
Methacrylonitrile	0.1524	0.1558	153.33	150	2	
Bromochloromethane	0.1432	0.1393	19.46	20	-3	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1930	1.1661	97.74	100	-2	
#	Chloroform	0.4241	0.4279	20.17	20	1	#
#	1,1,1-Trichloroethane	0.3639	0.3607	19.82	20	-1	#
#	Cyclohexane	0.4073	0.4374	21.47	20	7	#
	1,1-Dichloropropene	0.3336	0.3395	20.36	20	2	
#	Carbon Tetrachloride	0.3049	0.3112	20.41	20	2	#
	Isobutyl Alcohol	0.3424	0.3394	495.65	500	-1	
#	Benzene	1.0326	1.0345	20.04	20	0	#
#	1,2-Dichloroethane	0.3461	0.3416	19.74	20	-1	#
	t-Amyl methyl ether	0.7247	0.7311	20.18	20	1	
	n-Heptane	0.3605	0.3680	20.42	20	2	
	n-Butanol	0.2792	0.2785	997.61	1000	0	
#	Trichloroethene	0.2613	0.2612	19.99	20	0	#
#	Methylcyclohexane	0.4249	0.4329	20.38	20	2	#
#	1,2-Dichloropropane	0.2661	0.2707	20.35	20	2	#
	Dibromomethane	0.1740	0.1735	19.95	20	0	
	1,4-Dioxane	0.0839	0.0858	511.19	500	2	
	Methyl Methacrylate	0.2288	0.2242	19.60	20	-2	
#	Bromodichloromethane	0.3119	0.3091	19.82	20	-1	#
	2-Nitropropane	0.0935	0.0827	17.68	20	-12	
	2-Chloroethyl Vinyl Ether	0.1771	0.1812	20.46	20	2	
#	cis-1,3-Dichloropropene	0.4077	0.4095	20.09	20	0	#
#	4-Methyl-2-pentanone	0.3737	0.3719	99.52	100	0	#
#	Toluene	0.8187	0.8182	19.99	20	0	#
#	trans-1,3-Dichloropropene	0.4697	0.4640	19.75	20	-1	#
	Ethyl Methacrylate	0.4727	0.4884	20.67	20	3	
#	1,1,2-Trichloroethane	0.3177	0.3265	20.55	20	3	#
#	Tetrachloroethene	0.3489	0.3623	20.77	20	4	#
	1,3-Dichloropropane	0.5313	0.5263	19.81	20	-1	
#	2-Hexanone	0.3433	0.3688	107.42	100	7	#
#	Dibromochloromethane	0.3305	0.3353	20.29	20	1	#
#	1,2-Dibromoethane	0.3414	0.3377	19.78	20	-1	#
	1-Chlorohexane	0.4190	0.4185	19.98	20	0	
#	Chlorobenzene	0.9402	0.9522	20.25	20	1	#
	1,1,1,2-Tetrachloroethane	0.3187	0.3157	19.81	20	-1	
#	Ethylbenzene	1.5155	1.5683	20.70	20	3	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
	COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
#	m+p-Xylene	0.5954	0.6363	42.74	40	7	#
#	o-Xylene	0.5758	0.6111	21.22	20	6	#
#	Styrene	0.9365	1.0037	21.44	20	7	#
#	Bromoform	0.2406	0.2327	19.35	20	-3	#
#	Isopropylbenzene	1.4612	1.5847	21.69	20	8	#
	Cyclohexanone	0.3124	0.3038	486.31	500	-3	
	Bromobenzene	0.7317	0.7299	19.95	20	0	
#	1,1,2,2-Tetrachloroethane	0.9115	0.8947	19.63	20	-2	#
	1,2,3-Trichloropropane	0.2784	0.2733	19.63	20	-2	
	trans-1,4-Dichloro-2-butene	0.2652	0.2704	101.96	100	2	
	n-Propylbenzene	3.1622	3.3324	21.08	20	5	
	2-Chlorotoluene	0.6756	0.6871	20.34	20	2	
	4-Chlorotoluene	0.7012	0.7093	20.23	20	1	
	1,3,5-Trimethylbenzene	2.2850	2.4203	21.18	20	6	
	tert-Butylbenzene	0.4697	0.4987	21.23	20	6	
	Pentachloroethane	0.4171	0.4280	20.52	20	3	
	1,2,4-Trimethylbenzene	2.3625	2.4992	21.16	20	6	
	sec-Butylbenzene	2.7821	3.0192	21.70	20	9	
#	1,3-Dichlorobenzene	1.3634	1.4139	20.74	20	4	#
	p-Isopropyltoluene	2.3838	2.6505	22.24	20	11	
#	1,4-Dichlorobenzene	1.4309	1.4574	20.37	20	2	#
	1,2,3-Trimethylbenzene	2.4547	2.6124	21.28	20	6	
	Benzyl Chloride	1.8573	1.8061	19.45	20	-3	
	1,3-Diethylbenzene	1.5359	1.6082	20.94	20	5	
	1,4-Diethylbenzene	1.6077	1.6862	20.98	20	5	
#	1,2-Dichlorobenzene	1.3723	1.3876	20.22	20	1	#
	n-Butylbenzene	1.2248	1.2895	21.06	20	5	
	1,2-Diethylbenzene	1.3112	1.3708	20.91	20	5	
#	1,2-Dibromo-3-chloropropane	0.2017	0.1875	18.58	20	-7	#
	1,3,5-Trichlorobenzene	1.0338	1.0450	20.22	20	1	
#	1,2,4-Trichlorobenzene	0.9661	0.9908	20.51	20	3	#
	Hexachlorobutadiene	0.4457	0.4238	19.02	20	-5	
	Naphthalene	3.1272	3.2483	20.77	20	4	
	1,2,3-Trichlorobenzene	0.9600	0.9906	20.64	20	3	
	2-Methylnaphthalene	1.6214	1.6341	16.06	20	-20	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3250	0.4265	0.4232	0.4095	0.4323	0.4213	0.3967	0.4049	9	AVG #
Chloromethane	#0.3082	0.3704	0.3357	0.3196	0.3179	0.3164	0.2807	0.3212	8	AVG #
1,3-Butadiene	0.7671	0.6878	0.4049	0.3888	0.3035	0.3064	0.2670	0.4465	45	AVG
Vinyl Chloride	#0.2589	0.3027	0.2926	0.2862	0.2988	0.2915	0.2580	0.2841	6	AVG #
Bromomethane	#0.1819	0.2061	0.2013	0.1930	0.1997	0.1910	0.1622	0.1907	8	AVG #
Chloroethane	#0.1175	0.1445	0.1421	0.1380	0.1400	0.1397	0.1198	0.1345	8	AVG #
Dichlorofluoromethane	0.4299	0.4707	0.4598	0.4373	0.4435	0.4467	0.3805	0.4383	7	AVG
n-Pentane	0.3856	0.3626	0.3195	0.3100	0.3069	0.3142	0.2685	0.3239	12	AVG
Trichlorofluoromethane	#0.2945	0.3766	0.3675	0.3543	0.3695	0.3627	0.3104	0.3480	9	AVG #
Ethyl ether	0.2225	0.2597	0.2463	0.2366	0.2477	0.2533	0.2131	0.2399	7	AVG
Freon 123a	0.3357	0.3986	0.3711	0.3740	0.3618	0.3725	0.3287	0.3632	7	AVG
Acrolein	1.6475	1.6888	1.7109	1.5312	1.6360	1.6208	1.2455	1.5830	10	AVG
1,1-Dichloroethene	#0.2392	0.2870	0.2721	0.2744	0.2734	0.2812	0.2650	0.2703	6	AVG #
1,1-Dichloroethene(2)	#0.1060	0.1486	0.1379	0.1399	0.1395	0.1429	0.1337	0.1355	10	AVG #
Acetone	#0.6455	0.7888	0.8532	0.7662	0.8282	0.8438	0.7394	0.7807	9	AVG #
Freon 113	#0.2477	0.3139	0.3071	0.3153	0.3201	0.3291	0.3087	0.3060	9	AVG #
2-Propanol	0.6044	0.6226	0.6414	0.6403	0.6679	0.6685	0.6021	0.6353	4	AVG
Methyl Iodide	0.4576	0.5393	0.5160	0.5273	0.5199	0.5367	0.5118	0.5155	5	AVG
Carbon Disulfide	#0.8669	0.9807	0.9312	0.9538	0.9571	0.9982	0.9687	0.9510	4	AVG #
Allyl Chloride	0.4072	0.4819	0.4628	0.4509	0.4561	0.4712	0.4376	0.4525	5	AVG
Methyl Acetate	#0.4003	0.4289	0.3845	0.3806	0.3802	0.3897	0.3641	0.3898	5	AVG #
Methylene Chloride	#0.2762	0.3184	0.3048	0.3097	0.3068	0.3164	0.3008	0.3047	5	AVG #
t-Butyl alcohol	1.1173	1.1779	1.1695	1.2069	1.2245	1.2107	1.1360	1.1775	3	AVG
Acrylonitrile	0.1791	0.2084	0.2208	0.2009	0.2186	0.2159	0.1963	0.2057	7	AVG
trans-1,2-Dichloroethene	#0.2727	0.3192	0.3027	0.3102	0.3069	0.3129	0.2929	0.3025	5	AVG #
Methyl Tertiary Butyl Ether	#0.7410	0.8407	0.8123	0.8215	0.8126	0.8267	0.7460	0.8001	5	AVG #
n-Hexane	0.3797	0.4640	0.4451	0.4668	0.4628	0.4761	0.4453	0.4485	7	AVG
1,1-Dichloroethane	#0.4868	0.5677	0.5516	0.5604	0.5577	0.5707	0.5384	0.5476	5	AVG #
di-Isopropyl ether	0.9194	1.0171	0.9833	1.0016	0.9910	1.0151	0.9190	0.9781	4	AVG
2-Chloro-1,3-butadiene	0.3849	0.4781	0.4622	0.4769	0.4846	0.4988	0.4710	0.4652	8	AVG
Ethyl t-butyl ether	0.8271	0.9189	0.8794	0.8951	0.8763	0.8852	0.7961	0.8683	5	AVG
cis-1,2-Dichloroethene	#0.3076	0.3563	0.3454	0.3525	0.3469	0.3563	0.3301	0.3422	5	AVG #
2-Butanone	#0.3011	0.3009	0.3154	0.2879	0.3088	0.3054	0.2767	0.2994	4	AVG #
2,2-Dichloropropane	0.4139	0.4790	0.4571	0.4703	0.4707	0.4848	0.4586	0.4620	5	AVG
Propionitrile	1.1954	1.2956	1.2810	1.2795	1.2867	1.3607	1.2742	1.2819	4	AVG
Methacrylonitrile	0.1908	0.2081	0.2069	0.2084	0.2086	0.2150	0.1965	0.2049	4	AVG
Bromochloromethane	0.1419	0.1671	0.1601	0.1594	0.1560	0.1628	0.1497	0.1567	5	AVG
Tetrahydrofuran	1.0611	1.1764	1.2109	1.0939	1.2096	1.2535	1.1044	1.1586	6	AVG
Chloroform	#0.4885	0.5732	0.5473	0.5597	0.5579	0.5732	0.5450	0.5493	5	AVG #
1,1,1-Trichloroethane	#0.4198	0.5074	0.4874	0.5066	0.5068	0.5254	0.5080	0.4945	7	AVG #
Cyclohexane	#0.4921	0.5816	0.5699	0.5913	0.5947	0.6153	0.5866	0.5759	7	AVG #
Cyclohexane(2)	#0.4033	0.4847	0.4798	0.4846	0.4909	0.5071	0.4846	0.4764	7	AVG #
Cyclohexane(3)	#0.1431	0.1860	0.1783	0.1818	0.1857	0.1915	0.1841	0.1786	9	AVG #
1,1-Dichloropropene	0.3913	0.4688	0.4469	0.4558	0.4544	0.4717	0.4469	0.4480	6	AVG
Carbon Tetrachloride	#0.3546	0.4308	0.4193	0.4424	0.4508	0.4702	0.4521	0.4315	9	AVG #
Isobutyl Alcohol	0.3629	0.3875	0.3900	0.3957	0.4136	0.4118	0.3861	0.3925	4	AVG
Benzene	#1.2062	1.3955	1.3439	1.3671	1.3518	1.3834	1.2764	1.3320	5	AVG #
1,2-Dichloroethane	#0.4318	0.4233	0.3988	0.4055	0.4000	0.4145	0.3899	0.4091	4	AVG #
1,2-Dichloroethane(2)	#0.0203	0.0381	0.0357	0.0369	0.0367	0.0383	0.0362	0.0346	18	AVG #<-
t-Amyl methyl ether	0.8162	0.9187	0.8895	0.9005	0.8865	0.8848	0.7688	0.8664	6	AVG
n-Heptane	0.4147	0.4545	0.4202	0.4352	0.4366	0.4554	0.4163	0.4333	4	AVG
n-Butanol	0.2899	0.3287	0.3321	0.3439	0.3681	0.3593	0.3489	0.3387	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3148	0.3610	0.3482	0.3568	0.3543	0.3658	0.3459	0.3496	5	AVG #
Methylcyclohexane	#0.4850	0.5833	0.5508	0.5607	0.5606	0.5935	0.5549	0.5555	6	AVG #
Methylcyclohexane(2)	#0.2002	0.2512	0.2335	0.2360	0.2367	0.2524	0.2364	0.2352	7	AVG #
1,2-Dichloropropane	#0.2979	0.3424	0.3349	0.3433	0.3407	0.3503	0.3247	0.3334	5	AVG #
Dibromomethane	0.1841	0.2141	0.2088	0.2146	0.2151	0.2235	0.2095	0.2100	6	AVG
1,4-Dioxane	0.0563	0.0855	0.0866	0.0887	0.0879	0.0903	0.0928	0.0840	15	AVG
Methyl Methacrylate	0.2661	0.3033	0.3036	0.3174	0.3274	0.3429	0.3232	0.3120	8	AVG
Bromodichloromethane	#0.3346	0.3947	0.3946	0.4157	0.4242	0.4494	0.4367	0.4071	9	AVG #
2-Nitropropane	0.1216	0.1315	0.1444	0.1356	0.1535	0.1555	0.1450	0.1410	9	AVG
2-Chloroethyl Vinyl Ether	0.2203	0.2544	0.2513	0.2615	0.2688	0.2827	0.2674	0.2580	8	AVG
cis-1,3-Dichloropropene	#0.4197	0.4998	0.4976	0.5297	0.5421	0.5682	0.5444	0.5145	9	AVG #
4-Methyl-2-pentanone	#0.5069	0.5701	0.6119	0.5613	0.6248	0.6191	0.5461	0.5771	8	AVG #
Toluene	#0.9992	1.1475	1.1077	1.1178	1.1041	1.1109	0.9973	1.0835	6	AVG #
trans-1,3-Dichloropropene	#0.4674	0.5542	0.5670	0.6006	0.6195	0.6492	0.6115	0.5813	10	AVG #
Ethyl Methacrylate	0.5576	0.6389	0.6557	0.6810	0.7019	0.7241	0.6681	0.6610	8	AVG
1,1,2-Trichloroethane	#0.3543	0.3972	0.3886	0.3964	0.3956	0.4054	0.3741	0.3873	5	AVG #
Tetrachloroethene	#0.4109	0.4840	0.4786	0.4692	0.4630	0.4723	0.4388	0.4595	6	AVG #
1,3-Dichloropropane	0.5970	0.6581	0.6478	0.6532	0.6524	0.6703	0.6234	0.6431	4	AVG
2-Hexanone	#0.5011	0.5634	0.6203	0.5644	0.6306	0.6156	0.5343	0.5757	8	AVG #
Dibromochloromethane	#0.3212	0.3871	0.4003	0.4234	0.4392	0.4622	0.4358	0.4099	11	AVG #
1,2-Dibromoethane	#0.3768	0.4263	0.4302	0.4362	0.4418	0.4541	0.4237	0.4270	6	AVG #
1-Chlorohexane	0.6263	0.6562	0.6327	0.6409	0.6455	0.6521	0.5571	0.6301	5	AVG
Chlorobenzene	#1.1108	1.2413	1.1993	1.2163	1.2047	1.2245	1.0345	1.1759	6	AVG #
1,1,1,2-Tetrachloroethane	0.3424	0.4080	0.4082	0.4271	0.4339	0.4417	0.3785	0.4057	9	AVG
Ethylbenzene	#1.8868	2.1933	2.1574	2.2097	2.1969	2.2103	1.8107	2.0950	8	AVG #
m+p-Xylene	#0.7422	0.8509	0.8358	0.8499	0.8426	0.8385	0.6667	0.8038	9	AVG #
o-Xylene	#0.7151	0.8184	0.8078	0.8256	0.8250	0.8292	0.6861	0.7867	8	AVG #
Styrene	#1.0386	1.2698	1.2980	1.3570	1.3724	1.3858	1.1539	1.2679	10	AVG #
Bromoform	#0.2026	0.2648	0.2822	0.3055	0.3313	0.3509	0.3387	0.2966	17	AVG #
Isopropylbenzene	#1.8530	2.1682	2.1334	2.1676	2.1562	2.1677	1.8060	2.0646	8	AVG #
Cyclohexanone	0.3346	0.3785	0.3793	0.3871	0.3974	0.4159	0.4085	0.3859	7	AVG
Bromobenzene	0.8858	0.9950	0.9675	0.9859	0.9790	1.0004	0.8588	0.9532	6	AVG
1,1,2,2-Tetrachloroethane	#1.1337	1.3479	1.2939	1.3302	1.3550	1.3978	1.1960	1.2935	7	AVG #
1,2,3-Trichloropropane	0.3613	0.3946	0.3823	0.3915	0.3964	0.3965	0.3437	0.3809	5	AVG
trans-1,4-Dichloro-2-butene	0.1124	0.1725	0.1974	0.2289	0.2572	0.2866	0.2862	0.2202	29	1STDEG
n-Propylbenzene	4.1377	5.0093	4.8710	4.9942	4.9587	4.9680	3.8666	4.6865	10	AVG
2-Chlorotoluene	0.8693	0.9996	0.9755	0.9958	0.9816	1.0025	0.9001	0.9606	6	AVG
4-Chlorotoluene	0.8631	1.0032	0.9905	1.0103	1.0063	1.0201	0.8991	0.9704	6	AVG
1,3,5-Trimethylbenzene	2.8614	3.4243	3.3941	3.5011	3.4757	3.5301	2.8741	3.2944	9	AVG
tert-Butylbenzene	0.5925	0.6731	0.6511	0.6755	0.6863	0.6975	0.6072	0.6547	6	AVG
Pentachloroethane	0.4145	0.5395	0.5220	0.5646	0.5756	0.6025	0.5438	0.5375	11	AVG
1,2,4-Trimethylbenzene	2.9495	3.5118	3.4920	3.6093	3.5933	3.6435	2.9484	3.3925	9	AVG
sec-Butylbenzene	3.6416	4.3450	4.1870	4.3216	4.2930	4.3534	3.4501	4.0845	9	AVG
1,3-Dichlorobenzene	#1.6682	1.8837	1.8318	1.8444	1.8396	1.8724	1.6104	1.7929	6	AVG #
p-Isopropyltoluene	2.9264	3.5689	3.5105	3.6001	3.6197	3.6510	2.9665	3.4062	9	AVG
1,4-Dichlorobenzene	#1.7510	1.9001	1.8617	1.8814	1.8653	1.8798	1.5978	1.8196	6	AVG #
1,2,3-Trimethylbenzene	2.9599	3.5124	3.3584	3.3686	3.3577	3.4363	2.8016	3.2564	8	AVG
Benzyl Chloride	1.7319	2.2549	2.4434	2.6619	2.7965	2.8961	2.5863	2.4816	16	AVG
1,3-Diethylbenzene	1.6804	2.1026	2.0355	2.0417	2.0306	2.1028	1.7829	1.9681	8	AVG
1,4-Diethylbenzene	1.7348	2.2168	2.1064	2.1157	2.1084	2.1731	1.7942	2.0356	9	AVG
1,2-Dichlorobenzene	#1.6224	1.7896	1.7522	1.7851	1.7633	1.7935	1.5494	1.7222	6	AVG #
n-Butylbenzene	1.5438	1.7996	1.7385	1.7993	1.7969	1.8465	1.5022	1.7181	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

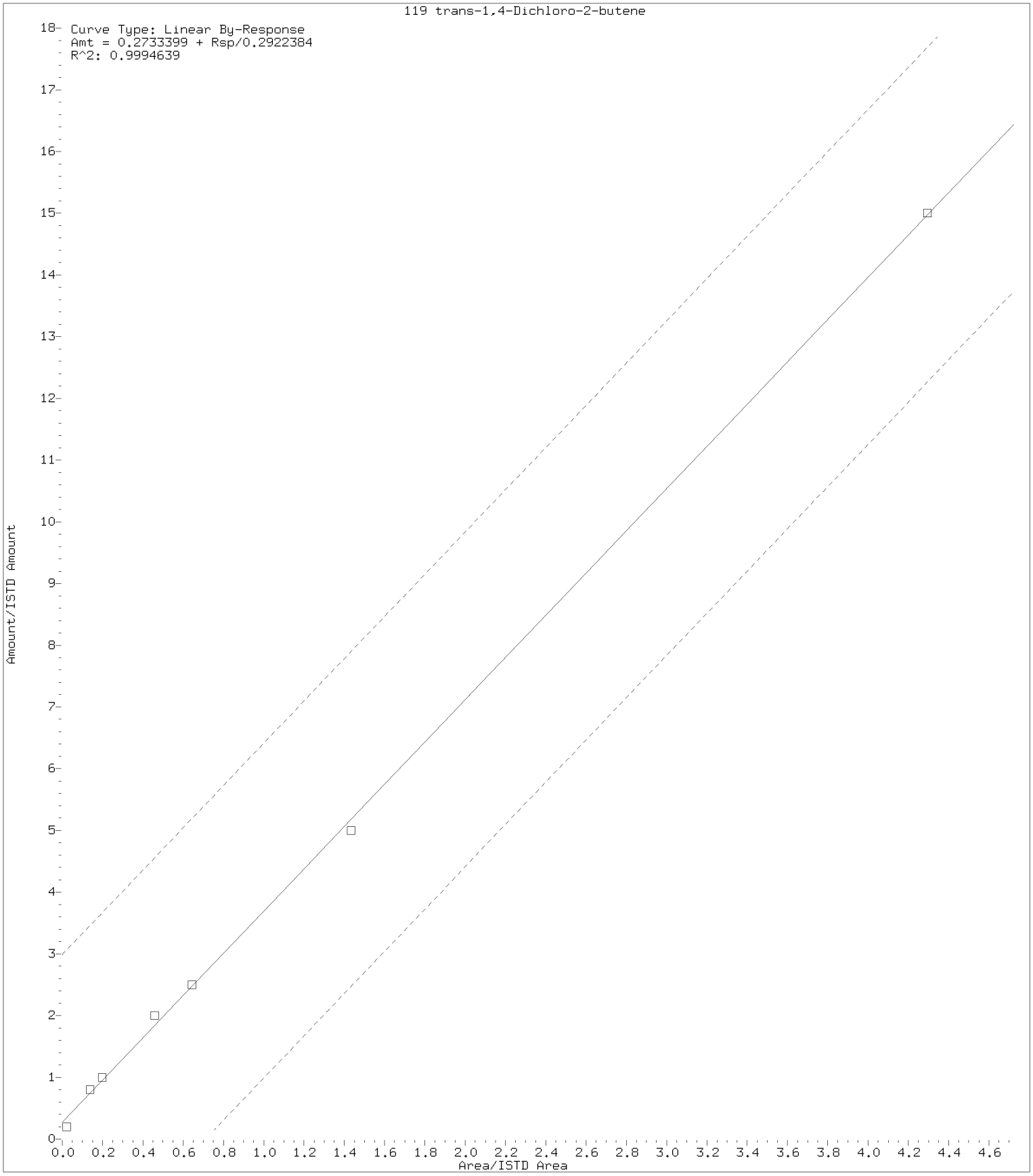
Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.4953	1.7921	1.7091	1.7222	1.6962	1.7516	1.4848	1.6645	7	AVG
1,2-Dibromo-3-chloropropane	#0.2592	0.3074	0.3150	0.3362	0.3563	0.3626	0.3492	0.3266	11	AVG #
1,3,5-Trichlorobenzene	1.0599	1.1510	1.1311	1.1715	1.1685	1.2021	1.0786	1.1375	5	AVG
1,2,4-Trichlorobenzene	#0.9677	1.0946	1.0697	1.0907	1.1027	1.1358	1.0195	1.0687	5	AVG #
Hexachlorobutadiene	0.3727	0.4147	0.4034	0.4211	0.4201	0.4361	0.4089	0.4110	5	AVG
Naphthalene	3.8142	4.3363	4.3353	4.4846	4.5265	4.5548	3.5723	4.2320	9	AVG
1,2,3-Trichlorobenzene	0.9804	1.0849	1.0540	1.0824	1.0902	1.1186	0.9921	1.0575	5	AVG
2-Methylnaphthalene	1.7785	2.1215	2.2024	2.3299	2.3869	2.4989	2.0727	2.1987	11	AVG
Dibromofluoromethane	0.2469	0.2479	0.2481	0.2493	0.2492	0.2505	0.2513	0.2490	1	AVG
Dibromofluoromethane(2)	0.2540	0.2552	0.2541	0.2543	0.2544	0.2560	0.2569	0.2550	0	AVG
1,2-Dichloroethane-d4	0.0557	0.0560	0.0558	0.0557	0.0559	0.0557	0.0550	0.0557	1	AVG
1,2-Dichloroethane-d4(2)	0.2726	0.2732	0.2713	0.2715	0.2725	0.2728	0.2723	0.2723	0	AVG
1,2-Dichloroethane-d4(3)	0.0358	0.0359	0.0355	0.0360	0.0357	0.0359	0.0349	0.0357	1	AVG
Toluene-d8	1.2511	1.2382	1.2417	1.2273	1.2232	1.2188	1.2010	1.2288	1	AVG
Toluene-d8(2)	0.8221	0.8125	0.8162	0.8056	0.8064	0.8044	0.7964	0.8091	1	AVG
4-Bromofluorobenzene	0.5144	0.5106	0.5128	0.5125	0.5201	0.5209	0.5328	0.5177	1	AVG
4-Bromofluorobenzene(2)	0.4030	0.4031	0.4002	0.3999	0.4030	0.4027	0.4153	0.4039	1	AVG

Average %RSD 7

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.



Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:37.
Target 3.5 esignature user ID: clm27445

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i01.d	VSTD300
/chem2/HP26285.i/20apr21a.b/5a21i02.d	VSTD100
/chem2/HP26285.i/20apr21a.b/5a21i03.d	VSTD050
/chem2/HP26285.i/20apr21a.b/5a21i04.d	VSTD020
/chem2/HP26285.i/20apr21a.b/5a21i05.d	VSTD010
/chem2/HP26285.i/20apr21a.b/5a21i06.d	VSTD004
/chem2/HP26285.i/20apr21a.b/5a21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	363110	347877	370304	374444	368547	345244	361518	361578	3	Yes
Fluorobenzene	1056605	1036304	1062743	1075151	1065691	1010545	1067423	1053495	2	Yes
Chlorobenzene-d5	869195	831366	842446	845669	825598	782414	814804	830213	3	Yes
1,4-Dichlorobenzene-d4	462526	432195	435155	434870	424651	399968	420878	430035	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. RT
t-Butyl alcohol-d10	3.490	3.472	3.478	3.484	3.478	3.490	3.484	3.482
Fluorobenzene	6.928	6.928	6.934	6.929	6.928	6.928	6.928	6.929
Chlorobenzene-d5	10.684	10.684	10.684	10.684	10.684	10.678	10.678	10.682
1,4-Dichlorobenzene-d4	12.671	12.671	12.671	12.671	12.671	12.671	12.671	12.671

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/23/2020 at 07:23.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.3713	18.34	20	-8	#
# Chloromethane	0.3212	0.3445	21.45	20	7	#
1,3-Butadiene	0.4465	0.4229	18.94	20	-5	
# Vinyl Chloride	0.2841	0.3123	21.98	20	10	#
# Bromomethane	0.1907	0.1598	16.75	20	-16	#
# Chloroethane	0.1345	0.1449	21.55	20	8	#
Dichlorofluoromethane	0.4383	0.4574	20.87	20	4	
n-Pentane	0.3239	0.3319	20.49	20	2	
# Trichlorofluoromethane	0.3480	0.4090	23.51	20	18	#
Ethyl ether	0.2399	0.2386	19.89	20	-1	
Freon 123a	0.3632	0.3784	20.84	20	4	
Acrolein	1.5830	1.4407	136.52	150	-9	
# 1,1-Dichloroethene	0.2703	0.2871	21.24	20	6	#
# Acetone	0.7807	0.8193	157.42	150	5	#
# Freon 113	0.3060	0.3265	21.34	20	7	#
2-Propanol	0.6353	0.6615	156.18	150	4	
Methyl Iodide	0.5155	0.5107	19.81	20	-1	
# Carbon Disulfide	0.9510	0.9385	19.74	20	-1	#
Allyl Chloride	0.4525	0.5034	22.25	20	11	
# Methyl Acetate	0.3898	0.4209	21.60	20	8	#
# Methylene Chloride	0.3047	0.3159	20.73	20	4	#
t-Butyl alcohol	1.1775	1.2466	211.73	200	6	
Acrylonitrile	0.2057	0.1993	96.88	100	-3	
# trans-1,2-Dichloroethene	0.3025	0.3064	20.26	20	1	#
# Methyl Tertiary Butyl Ether	0.8001	0.8076	20.19	20	1	#
n-Hexane	0.4485	0.4757	21.21	20	6	
# 1,1-Dichloroethane	0.5476	0.5553	20.28	20	1	#
di-Isopropyl ether	0.9781	0.9871	20.18	20	1	
2-Chloro-1,3-butadiene	0.4652	0.4709	20.25	20	1	
Ethyl t-butyl ether	0.8683	0.8738	20.13	20	1	
# cis-1,2-Dichloroethene	0.3422	0.3657	21.38	20	7	#
# 2-Butanone	0.2994	0.2977	149.12	150	-1	#
2,2-Dichloropropane	0.4620	0.4617	19.98	20	0	
Propionitrile	1.2819	1.2758	149.29	150	0	
Methacrylonitrile	0.2049	0.2061	150.90	150	1	
Bromochloromethane	0.1567	0.1675	21.38	20	7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.1347	97.94	100	-2	
# Chloroform	0.5493	0.5516	20.09	20	0	#
# 1,1,1-Trichloroethane	0.4945	0.4942	19.99	20	0	#
# Cyclohexane	0.5759	0.5737	19.92	20	0	#
1,1-Dichloropropene	0.4480	0.4474	19.98	20	0	
# Carbon Tetrachloride	0.4315	0.4376	20.28	20	1	#
Isobutyl Alcohol	0.3925	0.3866	492.46	500	-2	
# Benzene	1.3320	1.3247	19.89	20	-1	#
# 1,2-Dichloroethane	0.4091	0.3995	19.53	20	-2	#
t-Amyl methyl ether	0.8664	0.8773	20.25	20	1	
n-Heptane	0.4333	0.4133	19.08	20	-5	
n-Butanol	0.3387	0.3329	982.85	1000	-2	
# Trichloroethene	0.3496	0.3489	19.96	20	0	#
# Methylcyclohexane	0.5555	0.5947	21.41	20	7	#
# 1,2-Dichloropropane	0.3334	0.3403	20.41	20	2	#
Dibromomethane	0.2100	0.2116	20.16	20	1	
1,4-Dioxane	0.0840	0.0874	520.44	500	4	
Methyl Methacrylate	0.3120	0.3249	20.83	20	4	
# Bromodichloromethane	0.4071	0.4063	19.96	20	0	#
2-Nitropropane	0.1410	0.1305	18.51	20	-7	
2-Chloroethyl Vinyl Ether	0.2580	0.2595	20.11	20	1	
# cis-1,3-Dichloropropene	0.5145	0.5055	19.65	20	-2	#
# 4-Methyl-2-pentanone	0.5771	0.5701	98.77	100	-1	#
# Toluene	1.0835	1.1093	20.48	20	2	#
# trans-1,3-Dichloropropene	0.5813	0.5787	19.91	20	0	#
Ethyl Methacrylate	0.6610	0.6319	19.12	20	-4	
# 1,1,2-Trichloroethane	0.3873	0.4031	20.81	20	4	#
# Tetrachloroethene	0.4595	0.4869	21.19	20	6	#
1,3-Dichloropropane	0.6431	0.6389	19.87	20	-1	
# 2-Hexanone	0.5757	0.5977	103.83	100	4	#
# Dibromochloromethane	0.4099	0.4280	20.88	20	4	#
# 1,2-Dibromoethane	0.4270	0.4344	20.35	20	2	#
1-Chlorohexane	0.6301	0.6259	19.87	20	-1	
# Chlorobenzene	1.1759	1.2141	20.65	20	3	#
1,1,1,2-Tetrachloroethane	0.4057	0.4181	20.61	20	3	
# Ethylbenzene	2.0950	2.1694	20.71	20	4	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.8038	0.8477	42.18	40	5	#
# o-Xylene	0.7867	0.8195	20.83	20	4	#
# Styrene	1.2679	1.3376	21.10	20	5	#
# Bromoform	0.2966	0.2946	19.87	20	-1	#
# Isopropylbenzene	2.0646	2.1743	21.06	20	5	#
Cyclohexanone	0.3859	0.3679	476.66	500	-5	
Bromobenzene	0.9532	0.9905	20.78	20	4	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3483	20.85	20	4	#
1,2,3-Trichloropropane	0.3809	0.3947	20.73	20	4	
trans-1,4-Dichloro-2-butene	0.2202	0.2397	95.68	100	-4	
n-Propylbenzene	4.6865	4.9784	21.25	20	6	
2-Chlorotoluene	0.9606	0.9849	20.51	20	3	
4-Chlorotoluene	0.9704	1.0028	20.67	20	3	
1,3,5-Trimethylbenzene	3.2944	3.4482	20.93	20	5	
tert-Butylbenzene	0.6547	0.6841	20.90	20	4	
Pentachloroethane	0.5375	0.5838	21.72	20	9	
1,2,4-Trimethylbenzene	3.3925	3.5071	20.68	20	3	
sec-Butylbenzene	4.0845	4.2601	20.86	20	4	
# 1,3-Dichlorobenzene	1.7929	1.8468	20.60	20	3	#
p-Isopropyltoluene	3.4062	3.5759	21.00	20	5	
# 1,4-Dichlorobenzene	1.8196	1.8946	20.82	20	4	#
1,2,3-Trimethylbenzene	3.2564	3.6816	22.61	20	13	
Benzyl Chloride	2.4816	2.2494	18.13	20	-9	
1,3-Diethylbenzene	1.9681	2.1587	21.94	20	10	
1,4-Diethylbenzene	2.0356	2.2309	21.92	20	10	
# 1,2-Dichlorobenzene	1.7222	1.7928	20.82	20	4	#
n-Butylbenzene	1.7181	1.7634	20.53	20	3	
1,2-Diethylbenzene	1.6645	1.8071	21.71	20	9	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3324	20.36	20	2	#
1,3,5-Trichlorobenzene	1.1375	1.1537	20.28	20	1	
# 1,2,4-Trichlorobenzene	1.0687	1.0982	20.55	20	3	#
Hexachlorobutadiene	0.4110	0.4030	19.61	20	-2	
Naphthalene	4.2320	4.3798	20.70	20	3	
1,2,3-Trichlorobenzene	1.0575	1.0700	20.24	20	1	
2-Methylnaphthalene	2.1987	2.3281	21.18	20	6	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP07159.i/20jan09a.b/nj09i07.d
/chem/HP07159.i/20jan09a.b/nj09i06.d
/chem/HP07159.i/20jan09a.b/nj09i05.d
/chem/HP07159.i/20jan09a.b/nj09i04.d
/chem/HP07159.i/20jan09a.b/nj09i03.d
/chem/HP07159.i/20jan09a.b/nj09i02.d
/chem/HP07159.i/20jan09a.b/nj09i01.d

File /chem/HP07159.i/20jan09a.b/nj09i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP07159.i/20may22a.b/ny22c01.d

RT Summary

Internal Standard Name	File ID: ny22c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.422	4.423	Yes
Fluorobenzene	7.926	7.933	Yes
Chlorobenzene-d5	11.363	11.370	Yes
1,4-Dichlorobenzene-d4	13.243	13.250	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ny22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	282380	386370	193185	772740	Yes
Fluorobenzene	1055917	1307289	653644	2614578	Yes
Chlorobenzene-d5	834018	985480	492740	1970960	Yes
1,4-Dichlorobenzene-d4	495632	543996	271998	1087992	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/22/2020 at 11:39

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3892	0.4116	52.87	50	6	#
# Chloromethane	0.4170	0.3771	45.22	50	-10	#
1,3-Butadiene	0.2910	0.3180	54.64	50	9	
# Vinyl Chloride	0.4058	0.3820	47.06	50	-6	#
# Bromomethane	0.2782	0.2567	46.13	50	-8	#
# Chloroethane	0.2375	0.2240	47.16	50	-6	#
n-Pentane	0.4370	0.4965	56.81	50	14	
# Trichlorofluoromethane	0.4460	0.4257	47.72	50	-5	#
Ethanol	0.0605	0.0662	1367.95	1250	9	
Freon 123a	0.3267	0.3145	48.13	50	-4	
Acrolein	1.6953	1.5098	445.30	500	-11	
# 1,1-Dichloroethene	0.2599	0.2518	48.44	50	-3	#
# 1,1-Dichloroethene(2)	0.1364	0.1306	47.87	50	-4	#
# Acetone	0.7140	0.7010	98.17	100	-2	#
# Freon 113	0.2412	0.2709	56.18	50	12	#
2-Propanol	0.4716	0.4734	250.93	250	0	
Methyl Iodide	0.4852	0.4686	48.29	50	-3	
# Carbon Disulfide	0.8312	0.8386	50.45	50	1	#
Allyl Chloride	0.4589	0.4468	48.69	50	-3	
# Methyl Acetate	0.3193	0.3013	47.18	50	-6	#
# Methylene Chloride	0.3087	0.2844	46.07	50	-8	#
t-Butyl alcohol	0.9320	1.0756	288.50	250	15	
Acrylonitrile	0.1725	0.1513	43.86	50	-12	
# trans-1,2-Dichloroethene	0.2967	0.2846	47.95	50	-4	#
# Methyl Tertiary Butyl Ether	0.8446	0.7566	44.79	50	-10	#
n-Hexane	0.4096	0.4734	57.79	50	16	
# 1,1-Dichloroethane	0.5413	0.5247	48.46	50	-3	#
di-Isopropyl ether	0.9325	0.9011	48.32	50	-3	
2-Chloro-1,3-butadiene	0.4778	0.4638	48.53	50	-3	
Ethyl t-butyl ether	0.8863	0.8018	45.24	50	-10	
# cis-1,2-Dichloroethene	0.3370	0.3217	47.72	50	-5	#
# 2-Butanone	0.2411	0.2167	89.86	100	-10	#
2,2-Dichloropropane	0.4779	0.4221	44.16	50	-12	
Propionitrile	1.0886	1.2700	291.67	250	17	
Methacrylonitrile	0.1742	0.1744	125.11	125	0	
Bromochloromethane	0.1593	0.1661	52.14	50	4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1301	1.0876	96.24	100	-4	
# Chloroform	0.5280	0.4971	47.08	50	-6	#
# 1,1,1-Trichloroethane	0.4777	0.4377	45.81	50	-8	#
# Cyclohexane	0.4913	0.5502	55.99	50	12	#
# Cyclohexane(2)	0.4282	0.4881	56.99	50	14	#
# Cyclohexane(3)	0.1544	0.1677	54.30	50	9	#
1,1-Dichloropropene	0.4321	0.4165	48.20	50	-4	
# Carbon Tetrachloride	0.4119	0.3918	47.56	50	-5	#
Isobutyl Alcohol	0.3339	0.3844	719.60	625	15	
# Benzene	1.2299	1.1900	48.38	50	-3	#
# 1,2-Dichloroethane	0.4351	0.3894	44.74	50	-11	#
# 1,2-Dichloroethane(2)	0.0358	0.0373	52.12	50	4	#<-
t-Amyl methyl ether	0.8891	0.8263	46.47	50	-7	
n-Heptane	0.4728	0.5136	54.32	50	9	
n-Butanol	0.2876	0.3327	1446.16	1250	16	
# Trichloroethene	0.3240	0.3023	46.65	50	-7	#
# Methylcyclohexane	0.5326	0.6257	58.74	50	17	#
# Methylcyclohexane(2)	0.2508	0.2958	58.97	50	18	#
# 1,2-Dichloropropane	0.3145	0.3135	49.85	50	0	#
Dibromomethane	0.2006	0.1879	46.83	50	-6	
1,4-Dioxane	0.0727	0.0763	655.98	625	5	
Methyl Methacrylate	0.2876	0.2852	49.58	50	-1	
# Bromodichloromethane	0.4094	0.3825	46.71	50	-7	#
2-Nitropropane	0.1487	0.1158	77.89	100	-22	<-
2-Chloroethyl Vinyl Ether	0.2488	0.2373	47.69	50	-5	
# cis-1,3-Dichloropropene	0.5223	0.4970	47.57	50	-5	#
# 4-Methyl-2-pentanone	0.4886	0.4836	98.98	100	-1	#
# Toluene	1.0593	0.9952	46.97	50	-6	#
# trans-1,3-Dichloropropene	0.6575	0.5995	45.59	50	-9	#
Ethyl Methacrylate	0.6550	0.6184	47.20	50	-6	
# 1,1,2-Trichloroethane	0.3750	0.3590	47.86	50	-4	#
# Tetrachloroethene	0.4639	0.5008	53.98	50	8	#
1,3-Dichloropropane	0.6509	0.6241	47.94	50	-4	
# 2-Hexanone	0.5014	0.5009	99.90	100	0	#
# Dibromochloromethane	0.4304	0.4163	48.36	50	-3	#
# 1,2-Dibromoethane	0.4107	0.3890	47.36	50	-5	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chlorobenzene	1.1823	1.1439	48.38	50	-3	#
1,1,1,2-Tetrachloroethane	0.4261	0.4180	49.05	50	-2	
# Ethylbenzene	2.0489	1.9880	48.51	50	-3	#
# m+p-Xylene	0.8050	0.7953	98.79	100	-1	#
# o-Xylene	0.7918	0.7865	49.67	50	-1	#
# Styrene	1.3298	1.3407	50.41	50	1	#
# Bromoform	0.3249	0.3457	53.20	50	6	#
# Isopropylbenzene	2.0911	2.2580	53.99	50	8	#
Cyclohexanone	0.2914	0.3316	711.31	625	14	
Bromobenzene	0.9247	0.9125	49.34	50	-1	
# 1,1,2,2-Tetrachloroethane	1.0998	1.1299	51.37	50	3	#
1,2,3-Trichloropropane	0.3484	0.3410	48.94	50	-2	
trans-1,4-Dichloro-2-butene	0.3783	0.3191	105.42	125	-16	
n-Propylbenzene	4.4833	4.4767	49.93	50	0	
2-Chlorotoluene	0.9243	0.9148	49.48	50	-1	
4-Chlorotoluene	0.9579	0.9496	49.57	50	-1	
1,3,5-Trimethylbenzene	3.2849	3.2297	49.16	50	-2	
tert-Butylbenzene	0.7279	0.7631	52.41	50	5	
Pentachloroethane	0.5829	0.5029	43.14	50	-14	
1,2,4-Trimethylbenzene	3.4094	3.3385	48.96	50	-2	
sec-Butylbenzene	4.2670	4.3377	50.83	50	2	
# 1,3-Dichlorobenzene	1.7986	1.7597	48.92	50	-2	#
p-Isopropyltoluene	3.7132	3.7217	50.11	50	0	
# 1,4-Dichlorobenzene	1.8240	1.7958	49.23	50	-2	#
1,2,3-Trimethylbenzene	3.3090	3.1908	48.21	50	-4	
Benzyl Chloride	2.4309	2.2392	46.06	50	-8	
1,3-Diethylbenzene	2.2227	2.2111	49.74	50	-1	
1,4-Diethylbenzene	2.3602	2.3169	49.08	50	-2	
# 1,2-Dichlorobenzene	1.7052	1.7021	49.91	50	0	#
n-Butylbenzene	1.9154	1.8848	49.20	50	-2	
1,2-Diethylbenzene	1.8804	1.8342	48.77	50	-2	
# 1,2-Dibromo-3-chloropropane	0.2972	0.2687	45.20	50	-10	#
1,3,5-Trichlorobenzene	1.3592	1.2947	47.63	50	-5	
# 1,2,4-Trichlorobenzene	1.1851	1.1324	47.77	50	-4	#
Hexachlorobutadiene	0.5361	0.5006	46.69	50	-7	
Naphthalene	3.7159	3.6688	49.37	50	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP07159 Calibration Date: 05/22/20 Time: 11:00

Lab File ID: ny22c01.d Init. Calib. Date(s): 01/09/20 01/09/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2,3-Trichlorobenzene	1.0879	1.0381	47.71	50	-5
2-Methylnaphthalene	2.1464	1.8947	44.14	50	-12
Dibromofluoromethane	0.2481	0.2357	47.49	50	-5
Dibromofluoromethane(2)	0.2534	0.2402	47.41	50	-5
1,2-Dichloroethane-d4	0.0627	0.0599	47.70	50	-5
1,2-Dichloroethane-d4(2)	0.2991	0.2905	48.56	50	-3
1,2-Dichloroethane-d4(3)	0.0399	0.0386	48.29	50	-3
Toluene-d8	1.3040	1.2114	46.45	50	-7
Toluene-d8(2)	0.8639	0.8056	46.62	50	-7
4-Bromofluorobenzene	0.5152	0.5084	49.34	50	-1
4-Bromofluorobenzene(2)	0.4127	0.4301	52.11	50	4

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP09355.i/20apr21a.b/ya21i07.d
/chem2/HP09355.i/20apr21a.b/ya21i06.d
/chem2/HP09355.i/20apr21a.b/ya21i05.d
/chem2/HP09355.i/20apr21a.b/ya21i04.d
/chem2/HP09355.i/20apr21a.b/ya21i03.d
/chem2/HP09355.i/20apr21a.b/ya21i02.d
/chem2/HP09355.i/20apr21a.b/ya21i01.d

File /chem2/HP09355.i/20apr21a.b/ya21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP09355.i/20may22a.b/yy22c01.d

RT Summary

Internal Standard Name	File ID: yy22c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.361	4.349	Yes
Fluorobenzene	7.866	7.866	Yes
Chlorobenzene-d5	11.303	11.303	Yes
1,4-Dichlorobenzene-d4	13.177	13.177	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: yy22c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	458603	393548	196774	787096	Yes
Fluorobenzene	1403660	1312885	656442	2625770	Yes
Chlorobenzene-d5	1061412	977085	488542	1954170	Yes
1,4-Dichlorobenzene-d4	571512	518745	259372	1037490	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/22/2020 at 10:21

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3268	0.3586	54.88	50	10	#
# Chloromethane	0.3000	0.3043	50.72	50	1	#
1,3-Butadiene	0.2435	0.2301	47.26	50	-5	
# Vinyl Chloride	0.2992	0.3127	52.25	50	5	#
# Bromomethane	0.2068	0.2257	54.58	50	9	#
# Chloroethane	0.1657	0.1749	52.75	50	5	#
n-Pentane	0.3957	0.3352	42.35	50	-15	
# Trichlorofluoromethane	0.3427	0.3593	52.42	50	5	#
Ethyl ether	0.2678	0.2494	46.55	50	-7	
Freon 123a	0.3158	0.2947	46.66	50	-7	
Acrolein	2.0551	1.7888	435.21	500	-13	
# 1,1-Dichloroethene	0.2751	0.2504	45.50	50	-9	#
# 1,1-Dichloroethene(2)	0.1212	0.1200	49.51	50	-1	#
# Acetone	0.9585	0.9354	97.59	100	-2	#
# Freon 113	0.2481	0.2356	47.47	50	-5	#
2-Propanol	0.7122	0.6670	234.13	250	-6	
Methyl Iodide	0.4357	0.4346	49.88	50	0	
# Carbon Disulfide	0.8901	0.8213	46.14	50	-8	#
Allyl Chloride	0.4358	0.4085	46.86	50	-6	
# Methyl Acetate	0.3939	0.3786	48.06	50	-4	#
# Methylene Chloride	0.2947	0.2895	49.13	50	-2	#
t-Butyl alcohol	1.2416	1.2158	244.80	250	-2	
Acrylonitrile	0.2182	0.2084	47.74	50	-5	
# trans-1,2-Dichloroethene	0.3019	0.2891	47.87	50	-4	#
# Methyl Tertiary Butyl Ether	0.8694	0.8269	47.56	50	-5	#
n-Hexane	0.4414	0.4075	46.17	50	-8	
# 1,1-Dichloroethane	0.5120	0.4862	47.48	50	-5	#
di-Isopropyl ether	0.9397	0.8494	45.20	50	-10	
2-Chloro-1,3-butadiene	0.4143	0.4088	49.33	50	-1	
Ethyl t-butyl ether	0.8412	0.8066	47.94	50	-4	
# cis-1,2-Dichloroethene	0.3405	0.3241	47.59	50	-5	#
# 2-Butanone	0.2944	0.2732	92.81	100	-7	#
2,2-Dichloropropane	0.3857	0.3825	49.59	50	-1	
Propionitrile	1.4794	1.3841	233.89	250	-6	
Methacrylonitrile	0.2217	0.2167	122.20	125	-2	
Bromochloromethane	0.1581	0.1631	51.58	50	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
	COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
	Tetrahydrofuran	1.3677	1.2665	92.61	100	-7	
#	Chloroform	0.4916	0.4746	48.27	50	-3	#
#	1,1,1-Trichloroethane	0.4214	0.4095	48.59	50	-3	#
#	Cyclohexane	0.5261	0.4662	44.30	50	-11	#
#	Cyclohexane(2)	0.4373	0.4096	46.83	50	-6	#
#	Cyclohexane(3)	0.1607	0.1498	46.62	50	-7	#
	1,1-Dichloropropene	0.4089	0.3932	48.08	50	-4	
#	Carbon Tetrachloride	0.3562	0.3472	48.73	50	-3	#
	Isobutyl Alcohol	0.4456	0.3912	548.64	625	-12	
#	Benzene	1.2424	1.1849	47.69	50	-5	#
#	1,2-Dichloroethane	0.3986	0.3857	48.39	50	-3	#
#	1,2-Dichloroethane(2)	0.0369	0.0385	52.11	50	4	#<-
	t-Amyl methyl ether	0.8487	0.8488	50.00	50	0	
	n-Heptane	0.4814	0.4321	44.88	50	-10	
	n-Butanol	0.4196	0.3685	1097.61	1250	-12	
#	Trichloroethene	0.3078	0.3015	48.98	50	-2	#
#	Methylcyclohexane	0.5470	0.5179	47.34	50	-5	#
#	Methylcyclohexane(2)	0.2412	0.2347	48.66	50	-3	#
#	1,2-Dichloropropane	0.3182	0.3003	47.18	50	-6	#
	Dibromomethane	0.2018	0.1985	49.19	50	-2	
	1,4-Dioxane	0.1009	0.1026	636.04	625	2	
	Methyl Methacrylate	0.3186	0.3275	51.39	50	3	
#	Bromodichloromethane	0.3643	0.3655	50.18	50	0	#
	2-Nitropropane	0.1316	0.1324	100.58	100	1	
	2-Chloroethyl Vinyl Ether	0.2541	0.2545	50.08	50	0	
#	cis-1,3-Dichloropropene	0.4996	0.4886	48.90	50	-2	#
#	4-Methyl-2-pentanone	0.5486	0.5084	92.68	100	-7	#
#	Toluene	1.0487	1.0142	48.35	50	-3	#
#	trans-1,3-Dichloropropene	0.6259	0.6241	49.86	50	0	#
	Ethyl Methacrylate	0.6773	0.6871	50.72	50	1	
#	1,1,2-Trichloroethane	0.4126	0.4065	49.27	50	-1	#
#	Tetrachloroethene	0.4279	0.4196	49.03	50	-2	#
	1,3-Dichloropropane	0.7028	0.6661	47.39	50	-5	
#	2-Hexanone	0.5873	0.5428	92.42	100	-8	#
#	Dibromochloromethane	0.4126	0.4147	50.26	50	1	#
#	1,2-Dibromoethane	0.4449	0.4411	49.57	50	-1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.5791	0.5493	47.43	50	-5	
#	Chlorobenzene	1.1849	1.1485	48.46	50	-3	#
	1,1,1,2-Tetrachloroethane	0.3857	0.3815	49.46	50	-1	
#	Ethylbenzene	2.0006	1.9434	48.57	50	-3	#
#	m+p-Xylene	0.7895	0.7850	99.42	100	-1	#
#	o-Xylene	0.7764	0.7580	48.82	50	-2	#
#	Styrene	1.2508	1.2845	51.35	50	3	#
#	Bromoform	0.3045	0.3194	52.46	50	5	#
#	Isopropylbenzene	1.9568	1.9297	49.31	50	-1	#
	Cyclohexanone	0.3883	0.3307	532.23	625	-15	
	Bromobenzene	0.9543	0.9382	49.15	50	-2	
#	1,1,2,2-Tetrachloroethane	1.3512	1.2542	46.41	50	-7	#
	1,2,3-Trichloropropane	0.4286	0.4090	47.71	50	-5	
	trans-1,4-Dichloro-2-butene	0.4344	0.3914	112.62	125	-10	
	n-Propylbenzene	4.4465	4.2902	48.24	50	-4	
	2-Chlorotoluene	0.9160	0.8863	48.38	50	-3	
	4-Chlorotoluene	0.9627	0.9280	48.20	50	-4	
	1,3,5-Trimethylbenzene	3.2116	3.0998	48.26	50	-3	
	tert-Butylbenzene	0.6716	0.6451	48.02	50	-4	
	Pentachloroethane	0.5172	0.5214	50.40	50	1	
	1,2,4-Trimethylbenzene	3.3795	3.2732	48.43	50	-3	
	sec-Butylbenzene	4.1386	4.0101	48.45	50	-3	
#	1,3-Dichlorobenzene	1.8271	1.7846	48.84	50	-2	#
	p-Isopropyltoluene	3.4958	3.4458	49.28	50	-1	
#	1,4-Dichlorobenzene	1.8866	1.8245	48.36	50	-3	#
	1,2,3-Trimethylbenzene	3.3215	3.1673	47.68	50	-5	
	Benzyl Chloride	2.7147	2.7971	51.52	50	3	
	1,3-Diethylbenzene	2.1276	2.0346	47.81	50	-4	
	1,4-Diethylbenzene	2.2361	2.1460	47.99	50	-4	
#	1,2-Dichlorobenzene	1.7745	1.7096	48.17	50	-4	#
	n-Butylbenzene	1.8805	1.7636	46.89	50	-6	
	1,2-Diethylbenzene	1.7916	1.6927	47.24	50	-6	
#	1,2-Dibromo-3-chloropropane	0.3327	0.3220	48.39	50	-3	#
	1,3,5-Trichlorobenzene	1.3225	1.2598	47.63	50	-5	
#	1,2,4-Trichlorobenzene	1.2414	1.1642	46.89	50	-6	#
	Hexachlorobutadiene	0.5598	0.5046	45.07	50	-10	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09355 Calibration Date: 05/22/20 Time: 09:42

Lab File ID: yy22c01.d Init. Calib. Date(s): 04/21/20 04/22/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.5409	4.3737	48.16	50	-4
1,2,3-Trichlorobenzene	1.2030	1.1014	45.78	50	-8
2-Methylnaphthalene	2.5091	2.1460	42.76	50	-14
Dibromofluoromethane	0.2271	0.2253	49.61	50	-1
Dibromofluoromethane(2)	0.2318	0.2301	49.63	50	-1
1,2-Dichloroethane-d4	0.0599	0.0614	51.22	50	2
1,2-Dichloroethane-d4(2)	0.2671	0.2687	50.30	50	1
1,2-Dichloroethane-d4(3)	0.0382	0.0387	50.75	50	2
Toluene-d8	1.3056	1.2710	48.67	50	-3
Toluene-d8(2)	0.8381	0.8151	48.63	50	-3
4-Bromofluorobenzene	0.4947	0.4743	47.94	50	-4
4-Bromofluorobenzene(2)	0.3810	0.3894	51.10	50	2

Average %Drift 4

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i07.d
/chem/HP09915.i/20may04i.b/ly04i06.d
/chem/HP09915.i/20may04i.b/ly04i05.d
/chem/HP09915.i/20may04i.b/ly04i04.d
/chem/HP09915.i/20may04i.b/ly04i03.d
/chem/HP09915.i/20may04i.b/ly04i02.d
/chem/HP09915.i/20may04i.b/ly04i01.d

File /chem/HP09915.i/20may04i.b/ly04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP09915.i/20may26b.b/ly26c50.d

RT Summary

Internal Standard Name	File ID: ly26c50.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.487	4.487	Yes
Fluorobenzene	7.946	7.950	Yes
Chlorobenzene-d5	11.351	11.355	Yes
1,4-Dichlorobenzene-d4	13.216	13.216	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ly26c50.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	330091	302938	151469	605876	Yes
Fluorobenzene	1718368	1335958	667979	2671916	Yes
Chlorobenzene-d5	1324165	1078517	539258	2157034	Yes
1,4-Dichlorobenzene-d4	721813	608929	304464	1217858	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/26/2020 at 20:32

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/26/20 Time: 20:10

Lab File ID: ly26c50.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.3141	45.80	50	-8	#
# Chloromethane	0.3201	0.3458	54.00	50	8	#
1,3-Butadiene	0.2054	0.2416	58.82	50	18	
# Vinyl Chloride	0.3089	0.3235	52.35	50	5	#
# Bromomethane	0.2227	0.2284	51.28	50	3	#
# Chloroethane	0.1725	0.1842	53.39	50	7	#
n-Pentane	0.3168	0.3831	60.46	50	21	<-
# Trichlorofluoromethane	0.3374	0.3384	50.15	50	0	#
Ethyl ether	0.2384	0.2034	42.66	50	-15	
Freon 123a	0.2733	0.2531	46.30	50	-7	
Acrolein	2.0567	2.4294	590.60	500	18	
# 1,1-Dichloroethene	0.2152	0.1927	44.78	50	-10	#
# 1,1-Dichloroethene(2)	0.1025	0.0989	48.25	50	-4	#<-
# Acetone	0.9381	0.9989	106.48	100	6	#
# Freon 113	0.2232	0.2010	45.01	50	-10	#
2-Propanol	0.5979	0.6159	257.53	250	3	
Methyl Iodide	0.4147	0.3738	45.07	50	-10	
# Carbon Disulfide	0.7245	0.6764	46.68	50	-7	#
Allyl Chloride	0.3487	0.3401	48.76	50	-2	
# Methyl Acetate	0.2744	0.2706	49.30	50	-1	#
# Methylene Chloride	0.2560	0.2370	46.29	50	-7	#
t-Butyl alcohol	1.0093	1.0154	251.51	250	1	
Acrylonitrile	0.1520	0.1578	51.91	50	4	
# trans-1,2-Dichloroethene	0.2475	0.2245	45.35	50	-9	#
# Methyl Tertiary Butyl Ether	0.7379	0.6664	45.15	50	-10	#
n-Hexane	0.3467	0.3215	46.38	50	-7	
# 1,1-Dichloroethane	0.4342	0.4093	47.14	50	-6	#
di-Isopropyl ether	0.7635	0.7549	49.43	50	-1	
2-Chloro-1,3-butadiene	0.3462	0.3375	48.73	50	-3	
Ethyl t-butyl ether	0.7094	0.6579	46.37	50	-7	
# cis-1,2-Dichloroethene	0.2776	0.2566	46.22	50	-8	#
# 2-Butanone	0.1845	0.1974	106.98	100	7	#
2,2-Dichloropropane	0.3355	0.3115	46.42	50	-7	
Propionitrile	1.3635	1.5335	281.16	250	12	
Methacrylonitrile	0.1524	0.1524	125.01	125	0	
Bromochloromethane	0.1432	0.1391	48.57	50	-3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/26/20 Time: 20:10

Lab File ID: ly26c50.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1930	1.3913	116.62	100	17	
# Chloroform	0.4241	0.3942	46.47	50	-7	#
# 1,1,1-Trichloroethane	0.3639	0.3356	46.12	50	-8	#
# Cyclohexane	0.4073	0.3930	48.24	50	-4	#
# Cyclohexane(2)	0.3555	0.3299	46.40	50	-7	#
# Cyclohexane(3)	0.1266	0.1167	46.11	50	-8	#
1,1-Dichloropropene	0.3336	0.3145	47.15	50	-6	
# Carbon Tetrachloride	0.3049	0.2919	47.87	50	-4	#
Isobutyl Alcohol	0.3424	0.3889	709.96	625	14	
# Benzene	1.0326	0.9608	46.52	50	-7	#
# 1,2-Dichloroethane	0.3461	0.3265	47.16	50	-6	#
# 1,2-Dichloroethane(2)	0.0337	0.0310	45.93	50	-8	#<-
t-Amyl methyl ether	0.7247	0.6773	46.73	50	-7	
n-Heptane	0.3605	0.3418	47.41	50	-5	
n-Butanol	0.2792	0.3087	1382.10	1250	11	
# Trichloroethene	0.2613	0.2391	45.76	50	-8	#
# Methylcyclohexane	0.4249	0.4071	47.91	50	-4	#
# Methylcyclohexane(2)	0.1922	0.1831	47.65	50	-5	#
# 1,2-Dichloropropane	0.2661	0.2666	50.11	50	0	#
Dibromomethane	0.1740	0.1726	49.60	50	-1	
1,4-Dioxane	0.0839	0.0932	694.40	625	11	
Methyl Methacrylate	0.2288	0.2335	51.04	50	2	
# Bromodichloromethane	0.3119	0.3042	48.76	50	-2	#
2-Nitropropane	0.0935	0.1040	111.25	100	11	
2-Chloroethyl Vinyl Ether	0.1771	0.1928	54.42	50	9	
# cis-1,3-Dichloropropene	0.4077	0.4032	49.45	50	-1	#
# 4-Methyl-2-pentanone	0.3737	0.4264	114.11	100	14	#
# Toluene	0.8187	0.7927	48.41	50	-3	#
# trans-1,3-Dichloropropene	0.4697	0.4941	52.60	50	5	#
Ethyl Methacrylate	0.4727	0.5207	55.08	50	10	
# 1,1,2-Trichloroethane	0.3177	0.3161	49.74	50	-1	#
# Tetrachloroethene	0.3489	0.3286	47.08	50	-6	#
1,3-Dichloropropane	0.5313	0.5373	50.57	50	1	
# 2-Hexanone	0.3433	0.4048	117.90	100	18	#
# Dibromochloromethane	0.3305	0.3380	51.14	50	2	#
# 1,2-Dibromoethane	0.3414	0.3399	49.78	50	0	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/26/20 Time: 20:10

Lab File ID: ly26c50.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.4190	0.4123	49.20	50	-2	
#	Chlorobenzene	0.9402	0.9185	48.85	50	-2	#
	1,1,1,2-Tetrachloroethane	0.3187	0.3239	50.81	50	2	
#	Ethylbenzene	1.5155	1.5249	50.31	50	1	#
#	m+p-Xylene	0.5954	0.6101	102.45	100	2	#
#	o-Xylene	0.5758	0.5930	51.49	50	3	#
#	Styrene	0.9365	0.9980	53.28	50	7	#
#	Bromoform	0.2406	0.2514	52.26	50	5	#
#	Isopropylbenzene	1.4612	1.5039	51.46	50	3	#
	Cyclohexanone	0.3124	0.3348	669.89	625	7	
	Bromobenzene	0.7317	0.7395	50.53	50	1	
#	1,1,2,2-Tetrachloroethane	0.9115	0.9713	53.28	50	7	#
	1,2,3-Trichloropropane	0.2784	0.2916	52.38	50	5	
	trans-1,4-Dichloro-2-butene	0.2652	0.2891	136.30	125	9	
	n-Propylbenzene	3.1622	3.3043	52.25	50	4	
	2-Chlorotoluene	0.6756	0.6902	51.08	50	2	
	4-Chlorotoluene	0.7012	0.7270	51.84	50	4	
	1,3,5-Trimethylbenzene	2.2850	2.4185	52.92	50	6	
	tert-Butylbenzene	0.4697	0.5078	54.06	50	8	
	Pentachloroethane	0.4171	0.4506	54.01	50	8	
	1,2,4-Trimethylbenzene	2.3625	2.5547	54.07	50	8	
	sec-Butylbenzene	2.7821	2.9859	53.66	50	7	
#	1,3-Dichlorobenzene	1.3634	1.4023	51.42	50	3	#
	p-Isopropyltoluene	2.3838	2.6250	55.06	50	10	
#	1,4-Dichlorobenzene	1.4309	1.4458	50.52	50	1	#
	1,2,3-Trimethylbenzene	2.4547	2.5800	52.55	50	5	
	Benzyl Chloride	1.8573	1.9687	53.00	50	6	
	1,3-Diethylbenzene	1.5359	1.6029	52.18	50	4	
	1,4-Diethylbenzene	1.6077	1.6714	51.98	50	4	
#	1,2-Dichlorobenzene	1.3723	1.3892	50.61	50	1	#
	n-Butylbenzene	1.2248	1.2976	52.97	50	6	
	1,2-Diethylbenzene	1.3112	1.3777	52.54	50	5	
#	1,2-Dibromo-3-chloropropane	0.2017	0.2102	52.10	50	4	#
	1,3,5-Trichlorobenzene	1.0338	1.0130	48.99	50	-2	
#	1,2,4-Trichlorobenzene	0.9661	0.9438	48.85	50	-2	#
	Hexachlorobutadiene	0.4457	0.3761	42.19	50	-16	

Compounds with required minimum RRF.

All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/26/20 Time: 20:10

Lab File ID: ly26c50.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	3.1272	3.3645	53.79	50	8
1,2,3-Trichlorobenzene	0.9600	0.9409	49.01	50	-2
2-Methylnaphthalene	1.6214	1.7502	40.24	50	-20
Dibromofluoromethane	0.2519	0.2464	48.92	50	-2
Dibromofluoromethane(2)	0.2575	0.2544	49.41	50	-1
1,2-Dichloroethane-d4	0.0639	0.0615	48.13	50	-4
1,2-Dichloroethane-d4(2)	0.2837	0.2898	51.07	50	2
1,2-Dichloroethane-d4(3)	0.0407	0.0394	48.39	50	-3
Toluene-d8	1.2845	1.3011	50.65	50	1
Toluene-d8(2)	0.8336	0.8439	50.62	50	1
4-Bromofluorobenzene	0.4942	0.4798	48.54	50	-3
4-Bromofluorobenzene(2)	0.4237	0.4035	47.61	50	-5

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may23a.b/5y23c01.d

RT Summary

Internal Standard Name	File ID: 5y23c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.502	3.478	Yes
Fluorobenzene	6.916	6.934	Yes
Chlorobenzene-d5	10.671	10.684	Yes
1,4-Dichlorobenzene-d4	12.665	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y23c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	299566	370304	185152	740608	Yes
Fluorobenzene	996784	1062743	531372	2125486	Yes
Chlorobenzene-d5	776530	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	414707	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/23/2020 at 15:10

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4760	58.78	50	18	#
# Chloromethane	0.3212	0.3225	50.20	50	0	#
1,3-Butadiene	0.4465	0.2895	32.42	50	-35	<-
# Vinyl Chloride	0.2841	0.3160	55.62	50	11	#
# Bromomethane	0.1907	0.2207	57.86	50	16	#
# Chloroethane	0.1345	0.1501	55.79	50	12	#
n-Pentane	0.3239	0.2988	46.13	50	-8	
# Trichlorofluoromethane	0.3480	0.3970	57.05	50	14	#
Ethyl ether	0.2399	0.1919	40.00	50	-20	
Freon 123a	0.3632	0.3365	46.33	50	-7	
Acrolein	1.5830	1.7107	540.35	500	8	
# 1,1-Dichloroethene	0.2703	0.2564	47.42	50	-5	#
# 1,1-Dichloroethene(2)	0.1355	0.1332	49.17	50	-2	#
# Acetone	0.7807	0.9309	119.24	100	19	#
# Freon 113	0.3060	0.2957	48.31	50	-3	#
2-Propanol	0.6353	0.5182	203.92	250	-18	
Methyl Iodide	0.5155	0.4897	47.49	50	-5	
# Carbon Disulfide	0.9510	0.8102	42.60	50	-15	#
Allyl Chloride	0.4525	0.4259	47.06	50	-6	
# Methyl Acetate	0.3898	0.3775	48.42	50	-3	#
# Methylene Chloride	0.3047	0.2872	47.12	50	-6	#
t-Butyl alcohol	1.1775	1.0453	221.93	250	-11	
Acrylonitrile	0.2057	0.2078	50.51	50	1	
# trans-1,2-Dichloroethene	0.3025	0.2831	46.79	50	-6	#
# Methyl Tertiary Butyl Ether	0.8001	0.7737	48.35	50	-3	#
n-Hexane	0.4485	0.4024	44.86	50	-10	
# 1,1-Dichloroethane	0.5476	0.5068	46.27	50	-7	#
di-Isopropyl ether	0.9781	0.8888	45.44	50	-9	
2-Chloro-1,3-butadiene	0.4652	0.4365	46.91	50	-6	
Ethyl t-butyl ether	0.8683	0.7902	45.50	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3228	47.17	50	-6	#
# 2-Butanone	0.2994	0.2962	98.91	100	-1	#
2,2-Dichloropropane	0.4620	0.4124	44.63	50	-11	
Propionitrile	1.2819	1.4151	275.98	250	10	
Methacrylonitrile	0.2049	0.1952	119.08	125	-5	
Bromochloromethane	0.1567	0.1556	49.65	50	-1	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.3505	116.57	100	17	
# Chloroform	0.5493	0.5218	47.50	50	-5	#
# 1,1,1-Trichloroethane	0.4945	0.4725	47.77	50	-4	#
# Cyclohexane	0.5759	0.5257	45.63	50	-9	#
# Cyclohexane(2)	0.4764	0.4416	46.35	50	-7	#
# Cyclohexane(3)	0.1786	0.1639	45.87	50	-8	#
1,1-Dichloropropene	0.4480	0.4169	46.53	50	-7	
# Carbon Tetrachloride	0.4315	0.4092	47.42	50	-5	#
Isobutyl Alcohol	0.3925	0.4084	650.28	625	4	
# Benzene	1.3320	1.2455	46.75	50	-6	#
# 1,2-Dichloroethane	0.4091	0.3892	47.56	50	-5	#
# 1,2-Dichloroethane(2)	0.0346	0.0352	50.80	50	2	#<-
t-Amyl methyl ether	0.8664	0.8000	46.16	50	-8	
n-Heptane	0.4333	0.3824	44.13	50	-12	
n-Butanol	0.3387	0.3621	1336.57	1250	7	
# Trichloroethene	0.3496	0.3313	47.39	50	-5	#
# Methylcyclohexane	0.5555	0.5401	48.61	50	-3	#
# Methylcyclohexane(2)	0.2352	0.2278	48.44	50	-3	#
# 1,2-Dichloropropane	0.3334	0.3166	47.47	50	-5	#
Dibromomethane	0.2100	0.2032	48.38	50	-3	
1,4-Dioxane	0.0840	0.1028	764.67	625	22	<-
Methyl Methacrylate	0.3120	0.3018	48.37	50	-3	
# Bromodichloromethane	0.4071	0.3872	47.56	50	-5	#
2-Nitropropane	0.1410	0.1460	103.53	100	4	
2-Chloroethyl Vinyl Ether	0.2580	0.2506	48.56	50	-3	
# cis-1,3-Dichloropropene	0.5145	0.4939	48.00	50	-4	#
# 4-Methyl-2-pentanone	0.5771	0.6002	103.99	100	4	#
# Toluene	1.0835	1.0401	48.00	50	-4	#
# trans-1,3-Dichloropropene	0.5813	0.5907	50.81	50	2	#
Ethyl Methacrylate	0.6610	0.6483	49.04	50	-2	
# 1,1,2-Trichloroethane	0.3873	0.3909	50.45	50	1	#
# Tetrachloroethene	0.4595	0.4585	49.88	50	0	#
1,3-Dichloropropane	0.6431	0.6336	49.25	50	-1	
# 2-Hexanone	0.5757	0.6264	108.82	100	9	#
# Dibromochloromethane	0.4099	0.4111	50.15	50	0	#
# 1,2-Dibromoethane	0.4270	0.4301	50.37	50	1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.6301	0.6014	47.72	50	-5	
#	Chlorobenzene	1.1759	1.1733	49.89	50	0	#
	1,1,1,2-Tetrachloroethane	0.4057	0.4176	51.47	50	3	
#	Ethylbenzene	2.0950	2.1131	50.43	50	1	#
#	m+p-Xylene	0.8038	0.8099	100.76	100	1	#
#	o-Xylene	0.7867	0.7977	50.70	50	1	#
#	Styrene	1.2679	1.3056	51.49	50	3	#
#	Bromoform	0.2966	0.3045	51.34	50	3	#
#	Isopropylbenzene	2.0646	2.0939	50.71	50	1	#
	Cyclohexanone	0.3859	0.3851	623.75	625	0	
	Bromobenzene	0.9532	0.9482	49.74	50	-1	
#	1,1,2,2-Tetrachloroethane	1.2935	1.3099	50.63	50	1	#
	1,2,3-Trichloropropane	0.3809	0.3814	50.07	50	0	
	trans-1,4-Dichloro-2-butene	0.2202	0.2879	136.79	125	9	
	n-Propylbenzene	4.6865	4.6295	49.39	50	-1	
	2-Chlorotoluene	0.9606	0.9331	48.57	50	-3	
	4-Chlorotoluene	0.9704	0.9563	49.27	50	-1	
	1,3,5-Trimethylbenzene	3.2944	3.2710	49.64	50	-1	
	tert-Butylbenzene	0.6547	0.6497	49.62	50	-1	
	Pentachloroethane	0.5375	0.5452	50.71	50	1	
	1,2,4-Trimethylbenzene	3.3925	3.4254	50.48	50	1	
	sec-Butylbenzene	4.0845	4.0591	49.69	50	-1	
#	1,3-Dichlorobenzene	1.7929	1.7796	49.63	50	-1	#
	p-Isopropyltoluene	3.4062	3.4233	50.25	50	1	
#	1,4-Dichlorobenzene	1.8196	1.8040	49.57	50	-1	#
	1,2,3-Trimethylbenzene	3.2564	3.2472	49.86	50	0	
	Benzyl Chloride	2.4816	2.3857	48.07	50	-4	
	1,3-Diethylbenzene	1.9681	1.9692	50.03	50	0	
	1,4-Diethylbenzene	2.0356	2.0475	50.29	50	1	
#	1,2-Dichlorobenzene	1.7222	1.7046	49.49	50	-1	#
	n-Butylbenzene	1.7181	1.6788	48.86	50	-2	
	1,2-Diethylbenzene	1.6645	1.6455	49.43	50	-1	
#	1,2-Dibromo-3-chloropropane	0.3266	0.3285	50.30	50	1	#
	1,3,5-Trichlorobenzene	1.1375	1.1315	49.73	50	-1	
#	1,2,4-Trichlorobenzene	1.0687	1.0626	49.71	50	-1	#
	Hexachlorobutadiene	0.4110	0.3967	48.26	50	-3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/23/20 Time: 14:34

Lab File ID: 5y23c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.2320	4.3456	51.34	50	3
1,2,3-Trichlorobenzene	1.0575	1.0509	49.69	50	-1
2-Methylnaphthalene	2.1987	2.2203	50.49	50	1
Dibromofluoromethane	0.2490	0.2459	49.38	50	-1
Dibromofluoromethane(2)	0.2550	0.2523	49.47	50	-1
1,2-Dichloroethane-d4	0.0557	0.0558	50.05	50	0
1,2-Dichloroethane-d4(2)	0.2723	0.2765	50.77	50	2
1,2-Dichloroethane-d4(3)	0.0357	0.0359	50.29	50	1
Toluene-d8	1.2288	1.2351	50.26	50	1
Toluene-d8(2)	0.8091	0.8080	49.94	50	0
4-Bromofluorobenzene	0.5177	0.5125	49.49	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4111	50.89	50	2

Average %Drift 5

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
01 LCSN45	317361	4.410	1191852	7.920	899461	11.363	495502	13.243
02 VBLKN45	321315	4.398	1158785	7.926	862795	11.363	450523	13.243
03 1315379	287541	4.398	1164969	7.920	874028	11.364	475046	13.244
04 1315372	280489	4.391	1162205	7.920	866965	11.363	469380	13.242
05 1315373	252012	4.415	1157165	7.925	862462	11.362	468536	13.242
06 1315374MS	276555	4.392	1205813	7.926	833512	11.364	495280	13.243
07 1315375MSD	280373	4.400	1198065	7.923	900749	11.366	495899	13.240
08 1315377	332803	4.391	1157175	7.920	885341	11.363	431316	13.243
09 1315378	334202	4.394	1170211	7.923	878018	11.366	476596	13.240
10 1315380	248107	4.404	1144895	7.926	869803	11.363	473519	13.243
11 1315381	331975	4.412	1141438	7.922	873259	11.366	475238	13.245
12 1316321	282793	4.398	1051527	7.920	887863	11.363	479575	13.243
13 1316322	336881	4.406	1162369	7.923	880487	11.366	474544	13.246
14 1316330	328621	4.404	1172750	7.920	873558	11.363	474944	13.243
15 1316331	292921	4.397	1151341	7.926	872417	11.363	474131	13.242
16 1316332	305023	4.400	1157387	7.917	884326	11.366	474359	13.240
17 1316333	287917	4.397	1157179	7.925	882870	11.363	473115	13.242
18 1316334	281897	4.405	1015455	7.922	851710	11.365	461758	13.245
19 1316335	318185	4.400	1147854	7.923	866383	11.366	465372	13.240
20 1316336	297920	4.406	1142108	7.922	865324	11.365	465342	13.239
21 1316337	316397	4.404	1006412	7.920	766546	11.364	462477	13.243
22 1316338	286008	4.392	1131155	7.920	866546	11.363	463740	13.243

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ny22c01.d Date Analyzed: 05/22/20

Instrument ID: HP07159 Time Analyzed: 11:00

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	282380	4.422	1055917	7.926	834018	11.363	495632	13.242
UPPER LIMIT	564760	4.922	2111834	8.426	1668036	11.863	991264	13.742
LOWER LIMIT	141190	3.922	527958	7.426	417009	10.863	247816	12.742
LAB SAMPLE ID								
23 1316339	286583	4.405	1018373	7.922	850921	11.365	466286	13.245
24 1316340	317946	4.401	1137043	7.924	866213	11.367	462851	13.240

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): yy22c01.d Date Analyzed: 05/22/20

Instrument ID: HP09355 Time Analyzed: 09:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	458603	4.361	1403660	7.866	1061412	11.303	571512	13.176
UPPER LIMIT	917206	4.861	2807320	8.366	2122824	11.803	1143024	13.676
LOWER LIMIT	229302	3.861	701830	7.366	530706	10.803	285756	12.676
LAB SAMPLE ID								
01 LCSY94	467977	4.374	1390983	7.866	1043777	11.303	560618	13.176
02 VBLKY94	432906	4.355	1346258	7.866	1001973	11.303	526202	13.176
03 1316348	428605	4.361	1316294	7.859	982060	11.303	524225	13.176
04 1316310	439309	4.367	1300910	7.866	967099	11.303	511828	13.176
05 1316311MS	442955	4.367	1314892	7.866	983591	11.297	530314	13.176
06 1316312MSD	465698	4.362	1346251	7.860	1008567	11.297	542894	13.177
07 1316313	446232	4.362	1292202	7.866	961035	11.303	512068	13.177
08 1316314	411760	4.356	1261648	7.866	938210	11.303	497837	13.177
09 1316315	402345	4.361	1238985	7.859	924455	11.297	488160	13.176
10 1316316	397430	4.361	1222001	7.859	913631	11.303	486900	13.176
11 1316317	400520	4.349	1205351	7.859	899030	11.297	475911	13.176
12 1316318	385025	4.362	1190068	7.866	884819	11.303	470452	13.177
13 1316319	395492	4.349	1182959	7.859	884905	11.297	468905	13.176
14 1316320	372775	4.355	1166407	7.860	870161	11.297	458621	13.177
15 1316341	380472	4.361	1158800	7.866	855942	11.297	457077	13.176
16 1316387	364225	4.362	1144572	7.866	849038	11.303	449887	13.177
17 1316388	375526	4.368	1131301	7.866	840506	11.303	447367	13.176
18 1316389	360813	4.361	1121327	7.865	836552	11.303	438457	13.176
19 1316390	360432	4.361	1108605	7.859	830055	11.303	437489	13.176
20 1316391	349302	4.368	1096630	7.860	817460	11.303	430541	13.177
21 1316392	352988	4.355	1074164	7.860	804292	11.303	422127	13.177
22 1316393	349617	4.374	1066815	7.866	798179	11.303	420134	13.176

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): yy22c01.d Date Analyzed: 05/22/20

Instrument ID: HP09355 Time Analyzed: 09:42

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	458603	4.361	1403660	7.866	1061412	11.303	571512	13.176
UPPER LIMIT	917206	4.861	2807320	8.366	2122824	11.803	1143024	13.676
LOWER LIMIT	229302	3.861	701830	7.366	530706	10.803	285756	12.676
LAB SAMPLE ID								
23 1316394	340423	4.355	1056711	7.866	796628	11.303	412211	13.177
24 1316395	417471	4.362	1034486	7.866	766104	11.303	401106	13.177

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly26c50.d Date Analyzed: 05/26/20

Instrument ID: HP09915 Time Analyzed: 20:10

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	330091	4.486	1718368	7.946	1324165	11.351	721813	13.216
UPPER LIMIT	660182	4.986	3436736	8.446	2648330	11.851	1443626	13.716
LOWER LIMIT	165046	3.986	859184	7.446	662082	10.851	360906	12.716
LAB SAMPLE ID								
01 LCSL95	348222	4.503	1680858	7.950	1280313	11.351	706240	13.216
02 VBLKL95	334743	4.506	1649904	7.950	1233892	11.351	657146	13.216
03 1316195	335072	4.496	1642884	7.950	1243050	11.351	671080	13.216
04 1316396	316533	4.493	1578440	7.950	1189627	11.351	640593	13.216
05 1316347	296151	4.484	1541425	7.946	1148730	11.351	608364	13.216
06 1316228	287565	4.496	1498208	7.953	1117006	11.351	585678	13.216
07 1316188	311611	4.500	1542219	7.950	1159320	11.351	604771	13.216
08 1316189MS	333319	4.493	1625589	7.950	1240697	11.351	697783	13.216
09 1316190MSD	345807	4.500	1616353	7.950	1230000	11.351	670922	13.216
10 1316191	344855	4.487	1640956	7.946	1229378	11.351	662532	13.216
11 1316192	399437	4.490	1661472	7.946	1271125	11.351	686763	13.216
12 1316193	337115	4.493	1631851	7.950	1222774	11.351	647354	13.216
13 1316194	322905	4.499	1599376	7.953	1217162	11.351	656067	13.216
14 1316402	314841	4.496	1582329	7.949	1195525	11.351	636249	13.216
15 1316406	306439	4.490	1558934	7.946	1166452	11.351	622930	13.216
16 1316407	308840	4.496	1558905	7.946	1169750	11.351	621474	13.216
17 1316408	300909	4.503	1510077	7.953	1129249	11.351	607640	13.216
18 1316222	298988	4.500	1518455	7.953	1142613	11.351	623438	13.216
19 1316223	297693	4.487	1523308	7.946	1137412	11.351	602539	13.216
20 1316224	297680	4.487	1500604	7.946	1141160	11.351	599572	13.216
21 1316225	241752	4.506	1471816	7.950	1144262	11.351	649870	13.216
22 1316226	279481	4.490	1548849	7.950	1174398	11.351	619972	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly26c50.d Date Analyzed: 05/26/20

Instrument ID: HP09915 Time Analyzed: 20:10

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	330091	4.486	1718368	7.946	1324165	11.351	721813	13.216
UPPER LIMIT	660182	4.986	3436736	8.446	2648330	11.851	1443626	13.716
LOWER LIMIT	165046	3.986	859184	7.446	662082	10.851	360906	12.716
LAB SAMPLE ID								
23 1316227	284373	4.483	1591418	7.949	1180636	11.351	622538	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y23c01.d Date Analyzed: 05/23/20

Instrument ID: HP26285 Time Analyzed: 14:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	299566	3.502	996784	6.916	776530	10.671	414707	12.665
UPPER LIMIT	599132	4.002	1993568	7.416	1553060	11.171	829414	13.165
LOWER LIMIT	149783	3.002	498392	6.416	388265	10.171	207354	12.165
LAB SAMPLE ID								
01 LCS567	283549	3.478	997523	6.922	773893	10.672	408577	12.665
02 VBLK567	276314	3.484	975534	6.916	753626	10.672	392354	12.665
03 1316327	314157	3.466	983233	6.904	759348	10.666	396301	12.665
04 1316328MS	276064	3.478	955197	6.922	745550	10.671	394000	12.665
05 1316329MSD	290430	3.484	964164	6.922	750256	10.672	397892	12.665
06 1315727	315349	3.478	995471	6.916	780864	10.665	406949	12.665
07 1315728	330398	3.484	1007970	6.916	775410	10.665	404889	12.665
08 1316323	281576	3.484	934998	6.922	723559	10.665	377575	12.659
09 1316324	271339	3.490	915861	6.916	708554	10.665	370524	12.659
10 1316325	272109	3.508	919256	6.922	715475	10.665	373347	12.659
11 1316326	281526	3.490	908408	6.916	704836	10.665	368895	12.659
12 1316342	264847	3.502	907277	6.922	702743	10.666	369970	12.659
13 1316343	265340	3.496	912109	6.922	708472	10.665	370837	12.659
14 1316344	264316	3.502	909038	6.916	705454	10.666	372344	12.659
15 1316345	265954	3.490	917899	6.916	713968	10.665	377045	12.659
16 1316346	255258	3.484	887334	6.916	690775	10.665	366329	12.659
17 1315721	278841	3.460	925627	6.910	744624	10.666	386165	12.659
18 1315722	300893	3.502	907613	6.916	715245	10.659	373644	12.653
19 1315722DL	284844	3.484	904955	6.910	699702	10.659	364469	12.653
20 1315724	279624	3.478	911276	6.910	714087	10.659	375925	12.653
21 1315724DL	264831	3.484	920300	6.910	707121	10.659	378845	12.653
22 1315725	279831	3.478	945541	6.910	745875	10.659	389156	12.653

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y23c01.d Date Analyzed: 05/23/20

Instrument ID: HP26285 Time Analyzed: 14:34

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	299566	3.502	996784	6.916	776530	10.671	414707	12.665
UPPER LIMIT	599132	4.002	1993568	7.416	1553060	11.171	829414	13.165
LOWER LIMIT	149783	3.002	498392	6.416	388265	10.171	207354	12.165
LAB SAMPLE ID								
23 1315725DL	288328	3.490	962093	6.904	751974	10.659	393017	12.653
24 1315726	340016	3.508	961729	6.904	764616	10.660	397123	12.653
25 1315726DL	296256	3.465	979850	6.904	763341	10.653	401972	12.653
26 1315730	338499	3.496	972538	6.904	775024	10.659	402230	12.653
27 1315730DL	292691	3.490	958202	6.910	744328	10.653	391737	12.647

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J1501

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316339

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s22.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

J1501 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316339

Data file: /chem/HP07159.i/20may22a.b/ny22s22.d Injection date and time: **22-MAY-2020 19:48**
Data file Sample Info. Line: J1501;1316339;1;0;;JCW57;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.405	(0.016)	504	65	286583	(1)	250.00	
66) Fluorobenzene	7.922	(0.004)	1082	96	1018373	(-4)	50.00	
100) Chlorobenzene-d5	11.365	(-0.002)	1648	117	850921	(2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.245	(-0.002)	1957	152	466286	(-6)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.021	(0.001)	113	243085	48.099	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.484	(0.001)	102	61028	47.759	96%		80 - 120
83) Toluene-d8	(3)	9.923	(0.000)	98	1071677	48.290	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.363	(0.000)	95	392368	44.752	90%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44. Target 3.5 esignature user ID: sej02002

Data file: /chem/HP07159.i/20may22a.b/ny22s22.d Injection date and time: **22-MAY-2020 19:48**
Data file Sample Info. Line: J1501;1316339;1;0;;JCW57;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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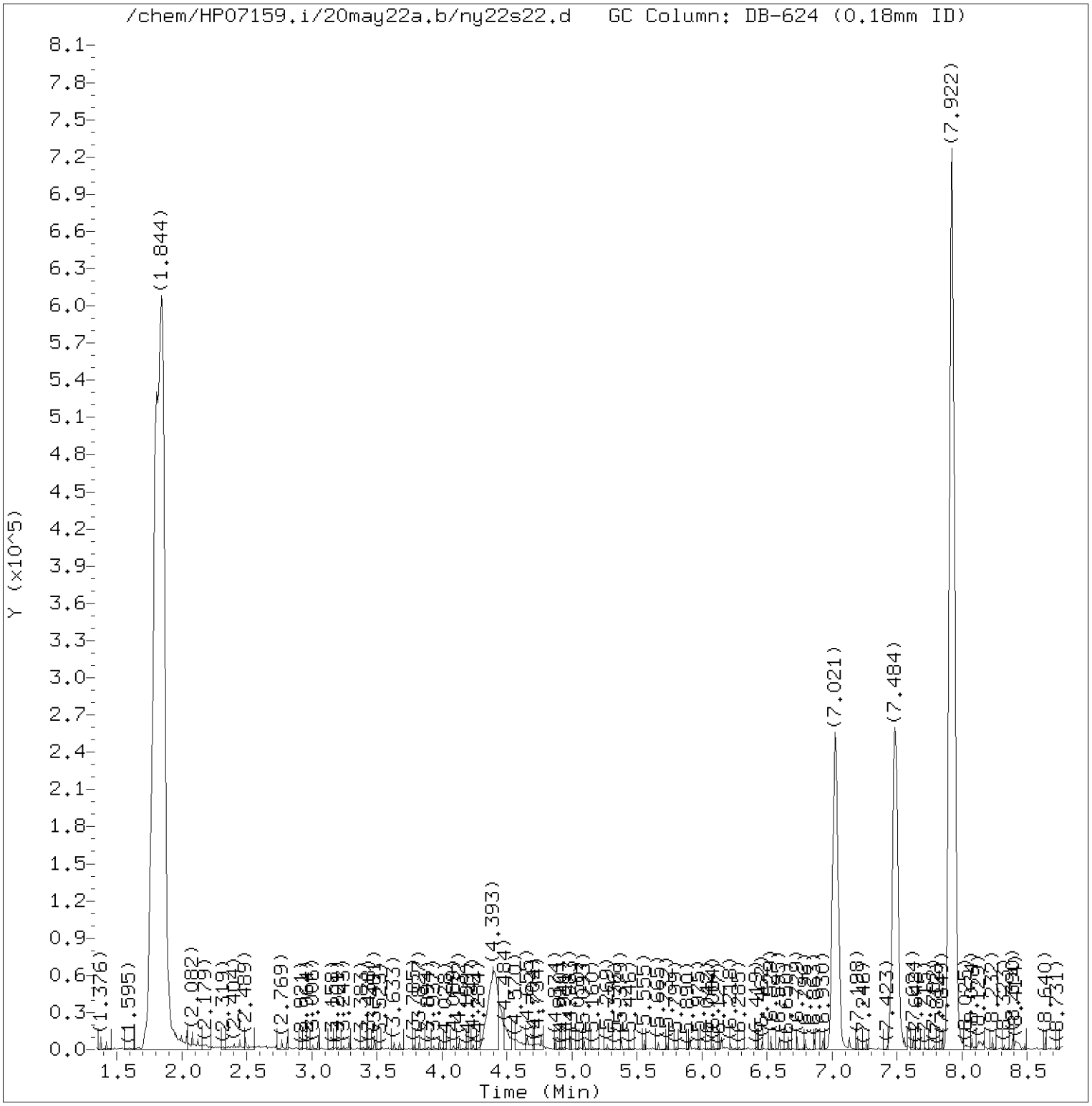
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

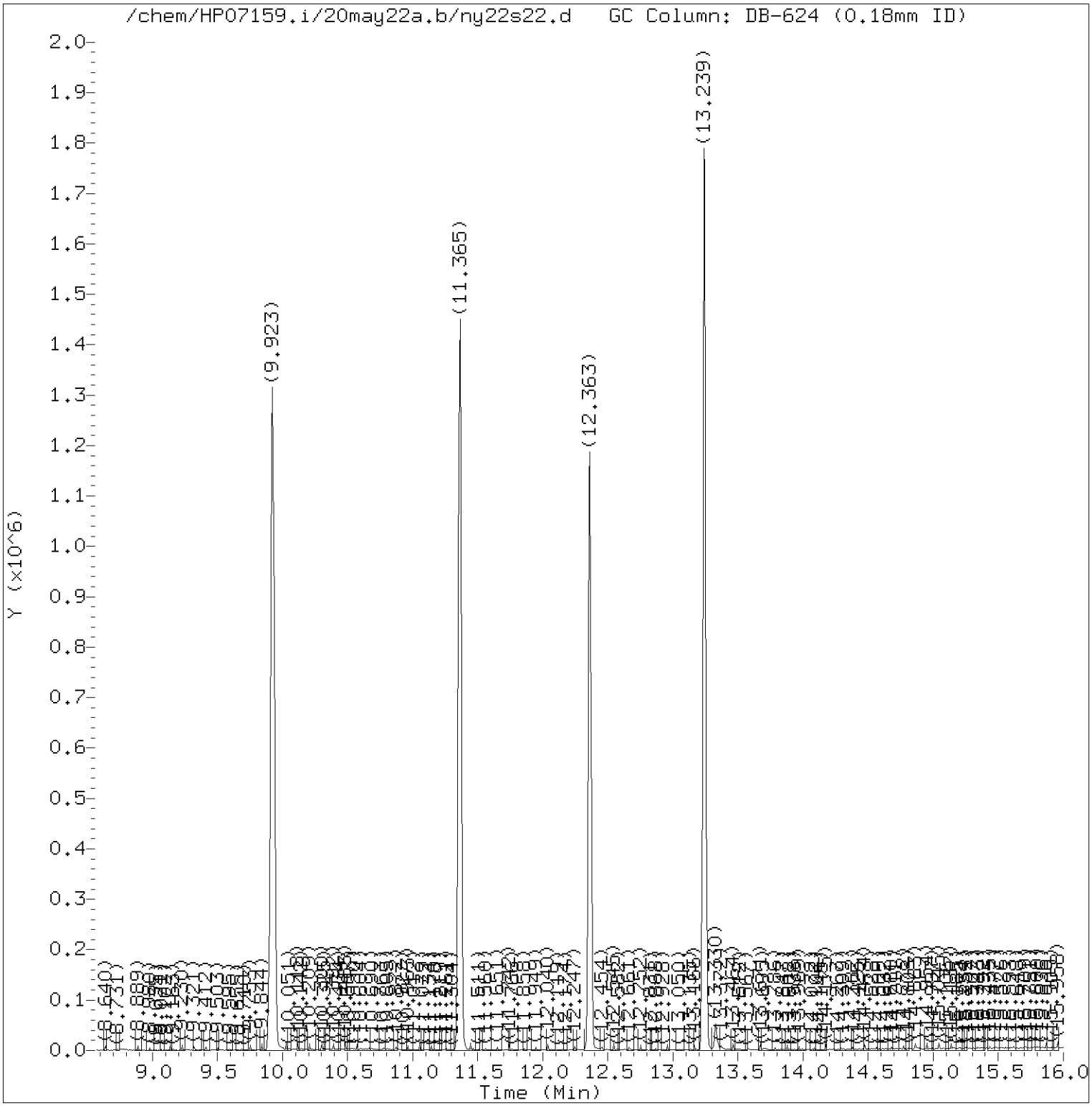
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s22.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:48 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1501 Lab Sample ID: 1316339

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s22.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:48 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1501 Lab Sample ID: 1316339

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s22.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 19:48 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1501 Lab Sample ID: 1316339

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.405	65	286583	250.000
52)$Dibromofluoromethane	(2)	7.021	113	243085	48.099
57)$1,2-Dichloroethane-d4	(2)	7.484	102	61028	47.759
66)*Fluorobenzene	(2)	7.922	96	1018373	50.000
83)$Toluene-d8	(3)	9.923	98	1071677	48.290
100)*Chlorobenzene-d5	(3)	11.365	117	850921	50.000
114)$4-Bromofluorobenzene	(3)	12.363	95	392368	44.752
131)*1,4-Dichlorobenzene-d4	(4)	13.245	152	466286	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1502

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316340

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s23.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1502 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316340

Data file: /chem/HP07159.i/20may22a.b/ny22s23.d Injection date and time: **22-MAY-2020 20:10**
Data file Sample Info. Line: J1502;1316340;1;0;;JCW57;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.401	(0.020)	503	65	317946	(13)	250.00	
66) Fluorobenzene	7.924	(0.002)	1082	96	1137043	(8)	50.00	
100) Chlorobenzene-d5	11.367	(-0.004)	1648	117	866213	(4)	50.00	
131) 1,4-Dichlorobenzene-d4	13.241	(0.002)	1956	152	462851	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.029	(0.000)	113	269797	47.813	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.492	(0.000)	102	72010	50.472	101%		80 - 120
83) Toluene-d8	(3)	9.925	(0.000)	98	1075997	47.629	95%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.358	(0.001)	95	394392	44.189	88%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44. Target 3.5 esignature user ID: sej02002

Data file: /chem/HP07159.i/20may22a.b/ny22s23.d Injection date and time: **22-MAY-2020 20:10**
Data file Sample Info. Line: J1502;1316340;1;0;;JCW57;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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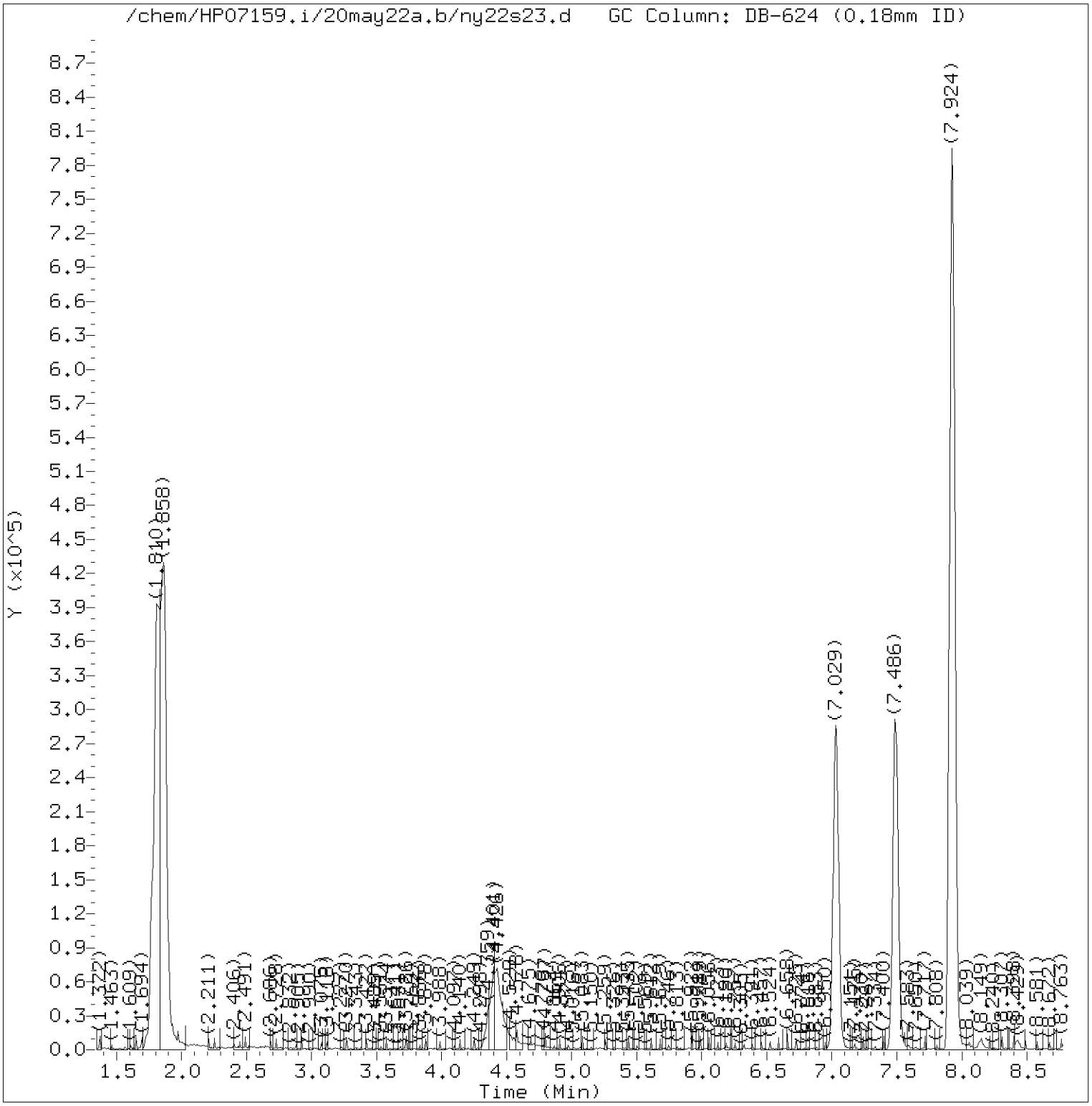
Total number of targets = 24

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:44. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:32. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

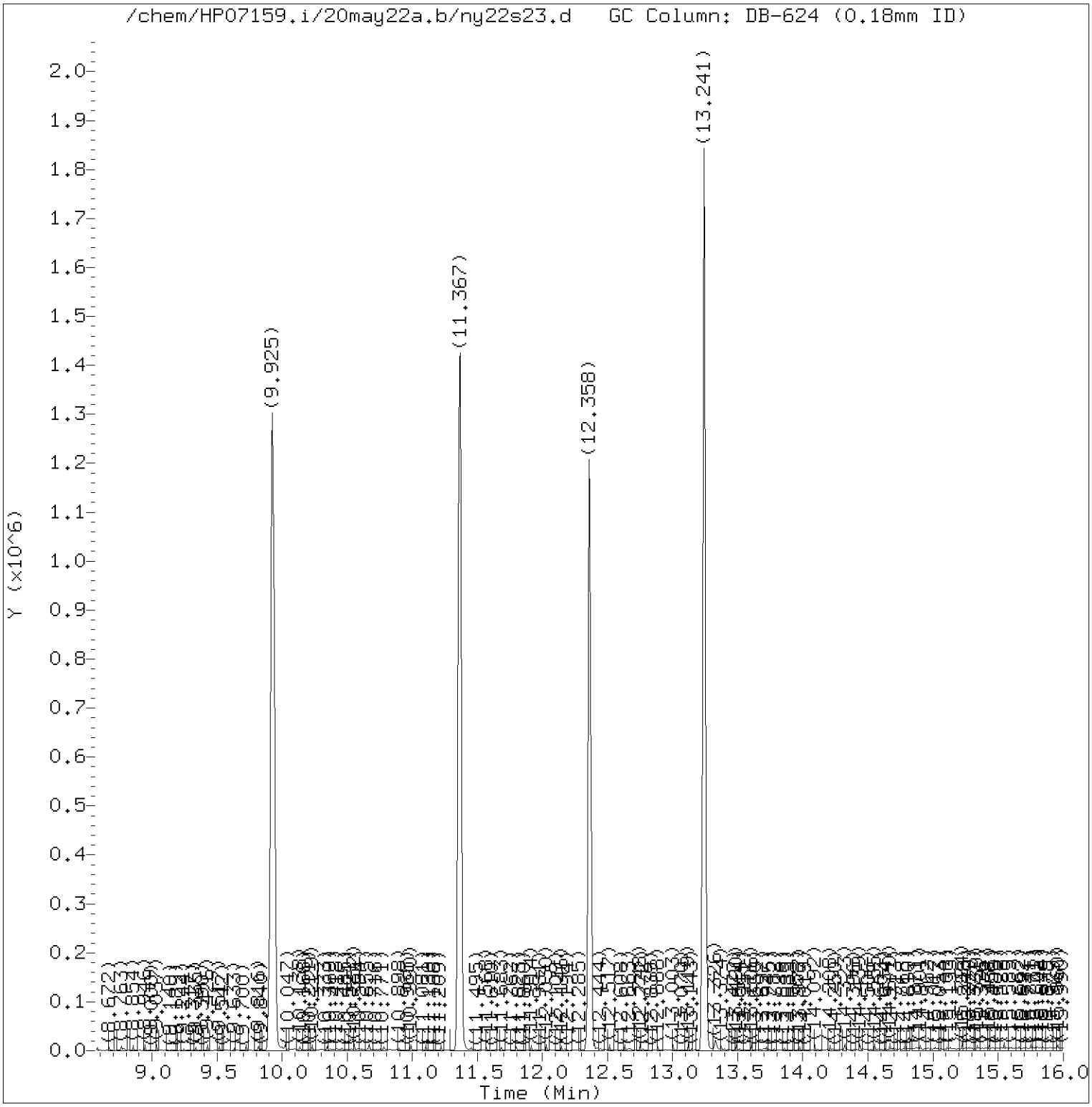
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s23.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 20:10 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1502 Lab Sample ID: 1316340

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s23.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 20:10 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1502 Lab Sample ID: 1316340

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s23.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 20:10 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 20:36 Automation

Sample Name: J1502 Lab Sample ID: 1316340

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.401	65	317946	250.000
52)$Dibromofluoromethane	(2)	7.029	113	269797	47.813
57)$1,2-Dichloroethane-d4	(2)	7.492	102	72010	50.472
66)*Fluorobenzene	(2)	7.924	96	1137043	50.000
83)$Toluene-d8	(3)	9.925	98	1075997	47.629
100)*Chlorobenzene-d5	(3)	11.367	117	866213	50.000
114)$4-Bromofluorobenzene	(3)	12.358	95	394392	44.189
131)*1,4-Dichlorobenzene-d4	(4)	13.241	152	462851	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:44.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1503

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316341

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s14.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1503 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316341

Data file: /chem2/HP09355.i/20may22a.b/yy22s14.d Injection date and time: **22-MAY-2020 15:56**
Data file Sample Info. Line: J1503;1316341;1;0;;JCW57;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 16:13 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.361	(0.000)	457	65	380472	(-17)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1158800	(-17)	50.00	
100) Chlorobenzene-d5	11.297	(0.006)	1597	117	855942	(-19)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	457077	(-20)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(0.000)	113	270795	51.450	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	73005	52.597	105%		80 - 120
83) Toluene-d8	(3)	9.855	(0.000)	98	1088706	48.710	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(-0.001)	95	398481	47.053	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22s14.d Injection date and time: **22-MAY-2020 15:56**
Data file Sample Info. Line: J1503;1316341;1;0;;JCW57;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 16:13 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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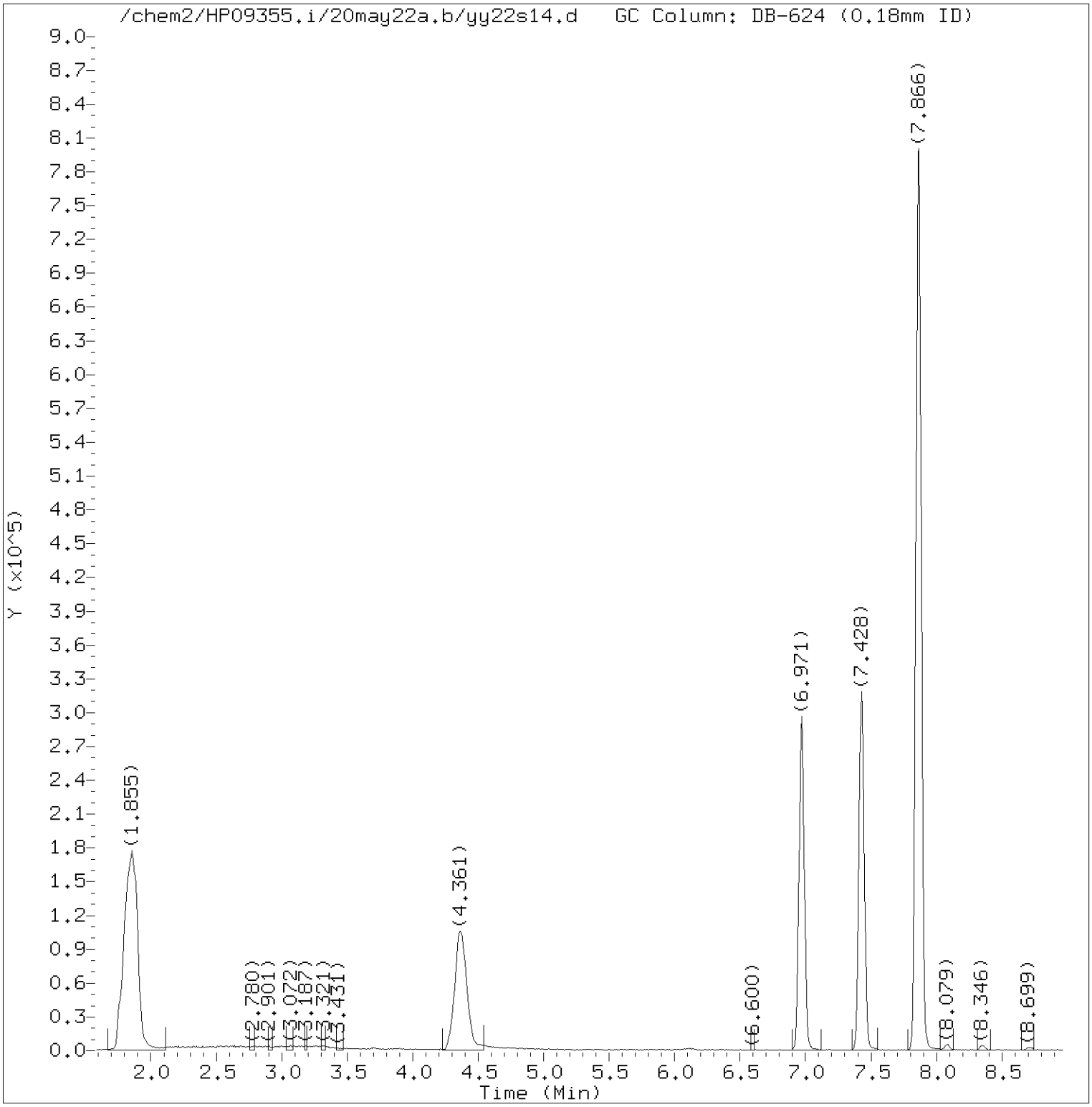
Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/22/2020 at 16:18. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

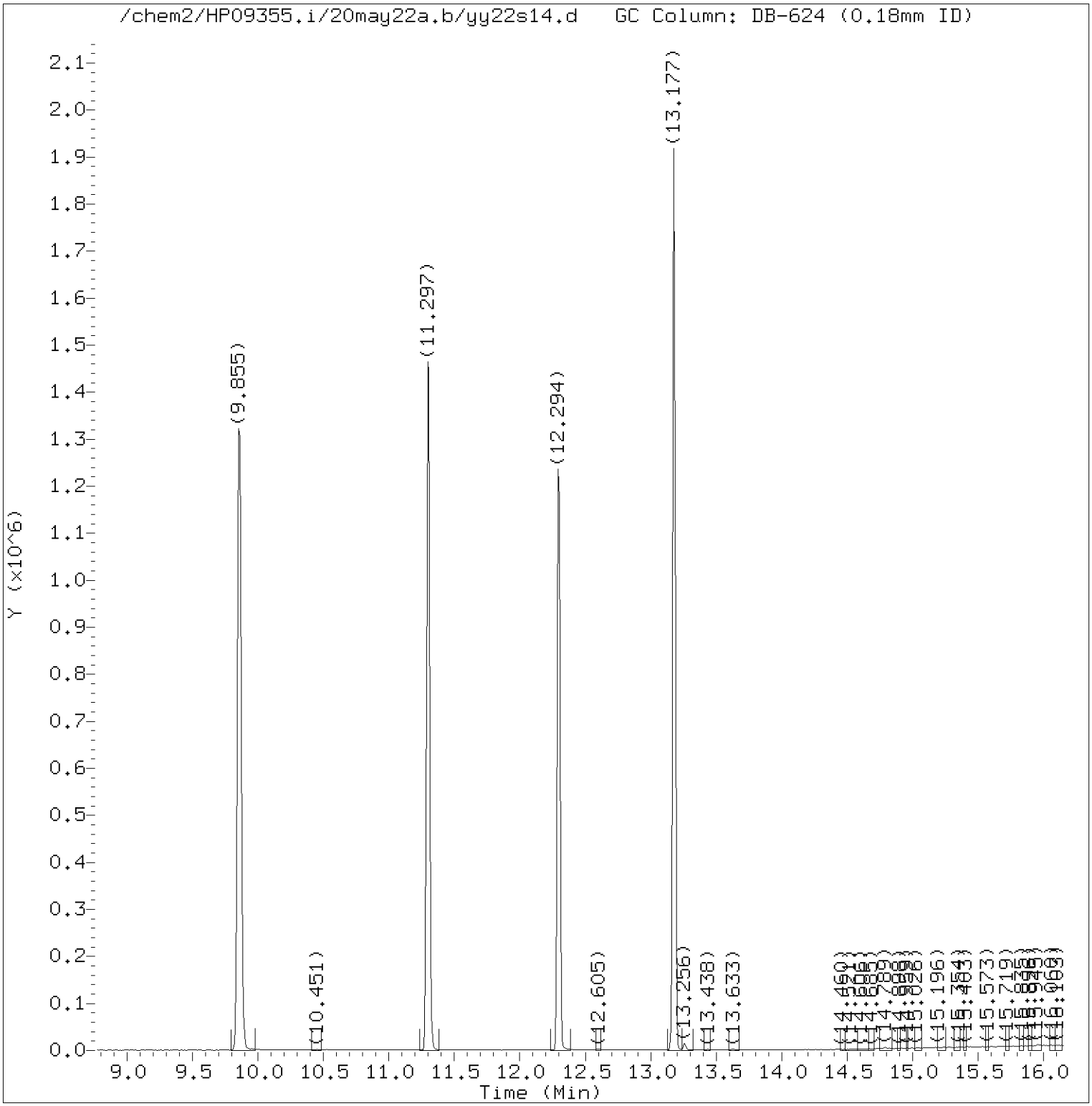
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s14.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:56 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 16:13 Automation

Sample Name: J1503 Lab Sample ID: 1316341

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s14.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:56 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 16:13 Automation

Sample Name: J1503 Lab Sample ID: 1316341

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s14.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 15:56 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 16:13 Automation

Sample Name: J1503 Lab Sample ID: 1316341

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.361	65	380472	250.000
52)$Dibromofluoromethane	(2)	6.971	113	270795	51.450
57)$1,2-Dichloroethane-d4	(2)	7.428	102	73005	52.597
66)*Fluorobenzene	(2)	7.866	96	1158800	50.000
83)$Toluene-d8	(3)	9.855	98	1088706	48.710
100)*Chlorobenzene-d5	(3)	11.297	117	855942	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	398481	47.053
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	457077	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/22/2020 at 16:18.
Target 3.5 esignature user ID: kas02648

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1504

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316342

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s11.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	0.3	J
75-34-3	1,1-Dichloroethane	0.8	J
156-59-2	cis-1,2-Dichloroethene	0.6	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.3	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1504 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316342

Data file: /chem2/HP26285.i/20may23a.b/5y23s11.d Injection date and time: **23-MAY-2020 19:07**
Data file Sample Info. Line: J1504;1316342;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.502	(0.000)	347	65	264847	(-12)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	907277	(-9)	50.00	
101) Chlorobenzene-d5	10.666	(0.006)	1522	117	702743	(-10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	369970	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.008	(-0.001)	113	224133	49.598	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	52182	51.631	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	855537	49.538	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	345410	47.468	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)	3.795	(-0.002)	96	1375	0.251	0.25		J	0.2	1
36) 1,1-Dichloroethane	(2)	4.404	(-0.001)	63	7549	0.760	0.76		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.270	(-0.000)	96	3424	0.552	0.55		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.416	(0.000)	95	2094	0.330	0.33		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may23a.b/5y23s11.d Injection date and time: **23-MAY-2020 19:07**
Data file Sample Info. Line: J1504;1316342;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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Total number of targets = 24

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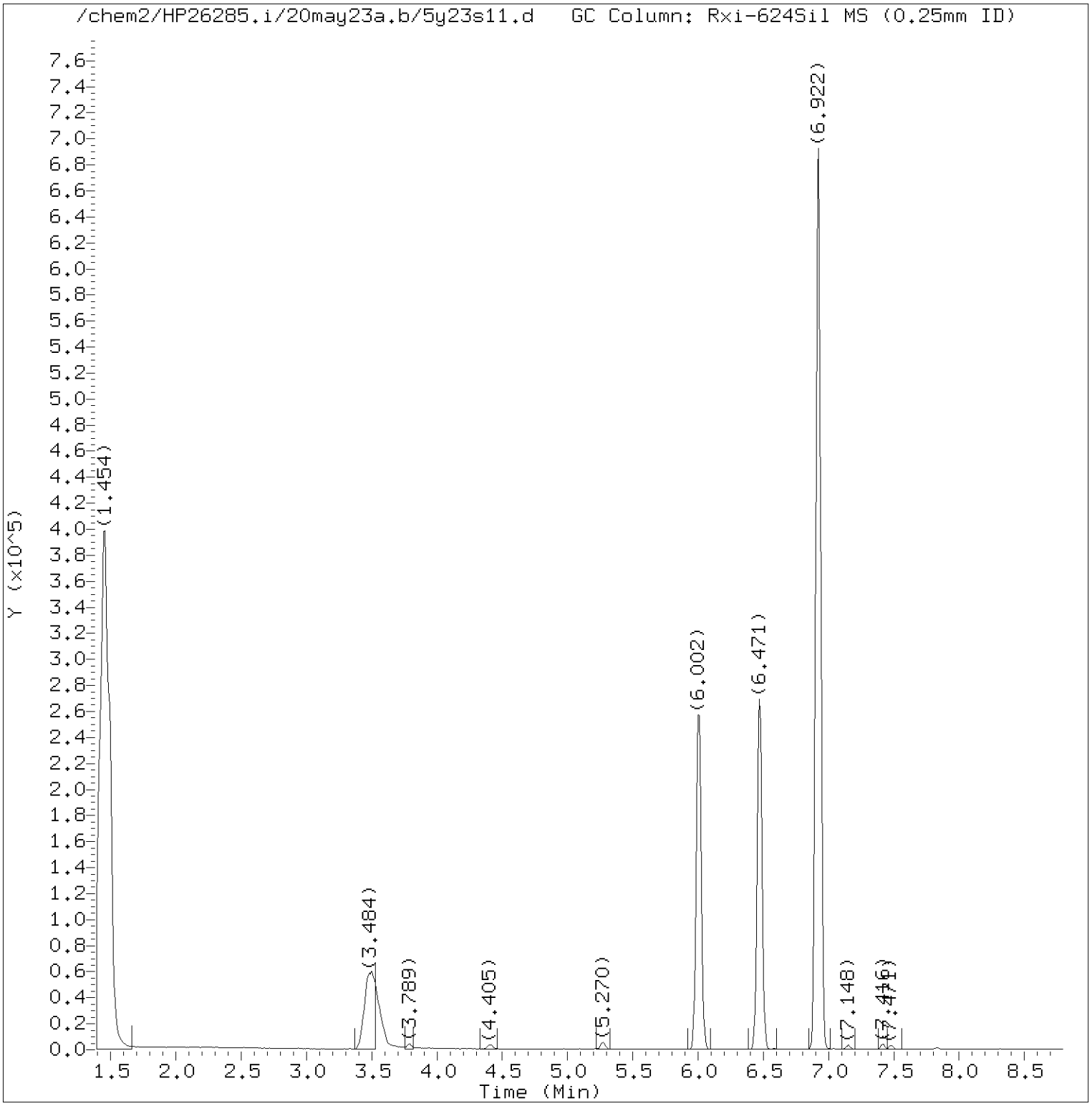
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

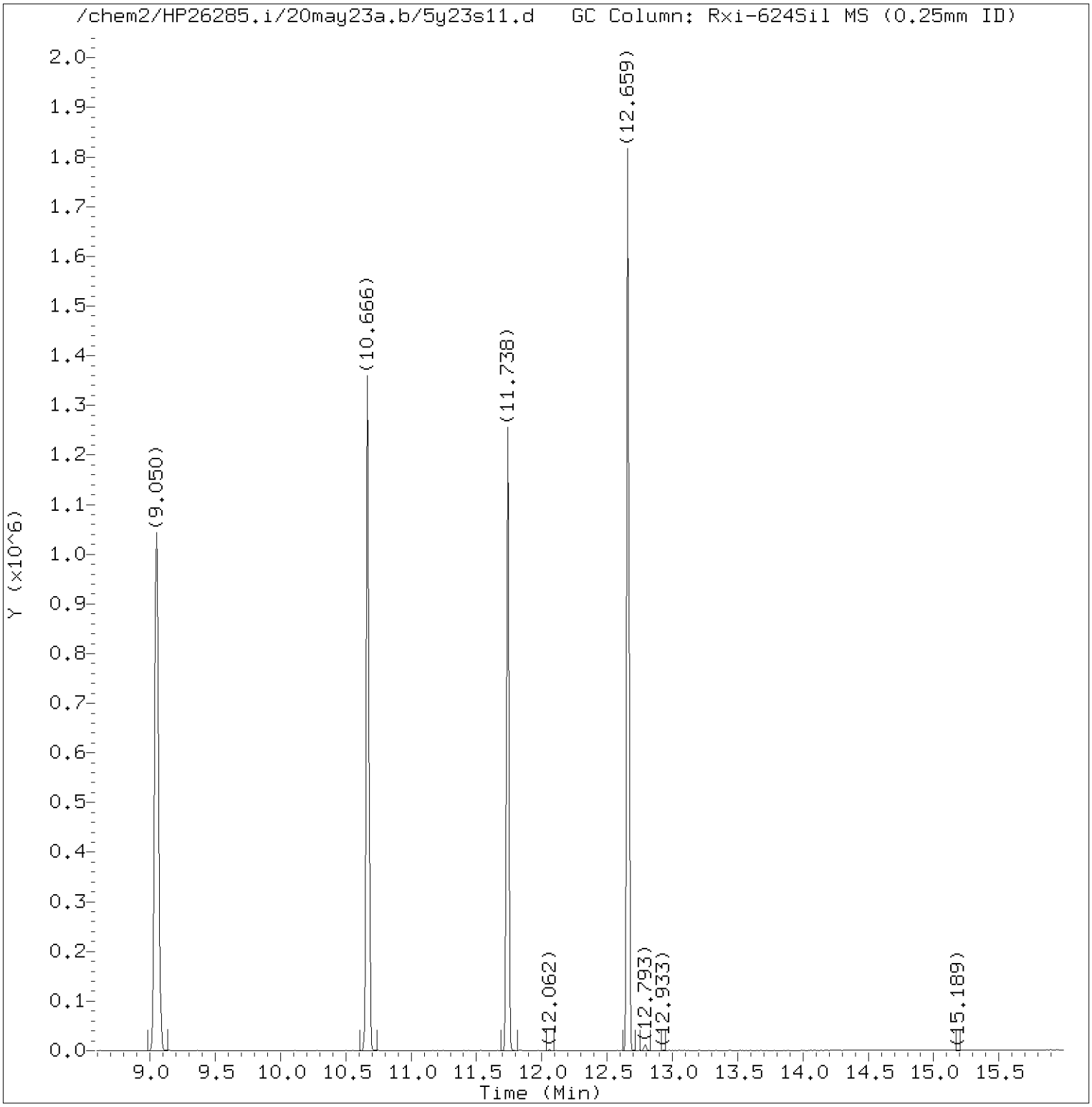
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.502	65	264847	250.000
32) trans-1,2-Dichloroethene	(2)	3.795	96	1375	0.251
36) 1,1-Dichloroethane	(2)	4.405	63	7549	0.760
42) cis-1,2-Dichloroethene	(2)	5.270	96	3424	0.552
52)$Dibromofluoromethane	(2)	6.008	113	224133	49.598
57)$1,2-Dichloroethane-d4	(2)	6.471	102	52182	51.631
66)*Fluorobenzene	(2)	6.922	96	907277	50.000
71) Trichloroethene	(2)	7.416	95	2094	0.330
84)$Toluene-d8	(3)	9.050	98	855537	49.538
101)*Chlorobenzene-d5	(3)	10.666	117	702743	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	345410	47.468
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	369970	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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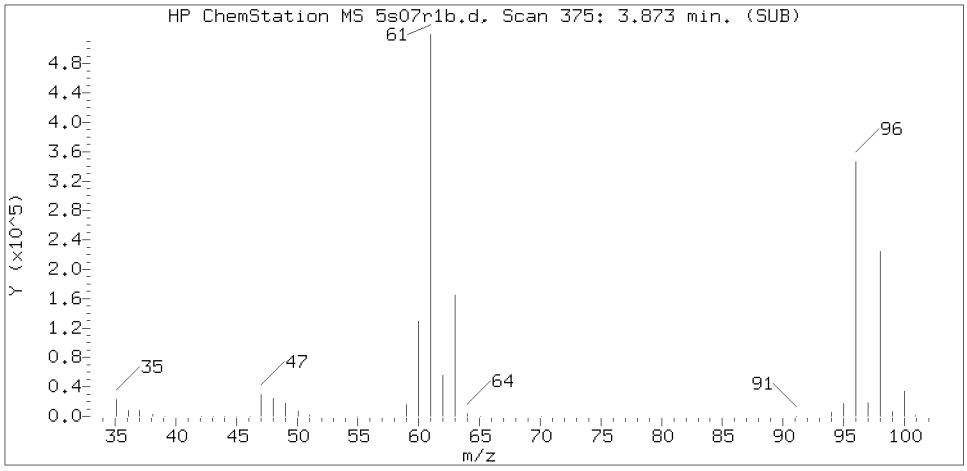
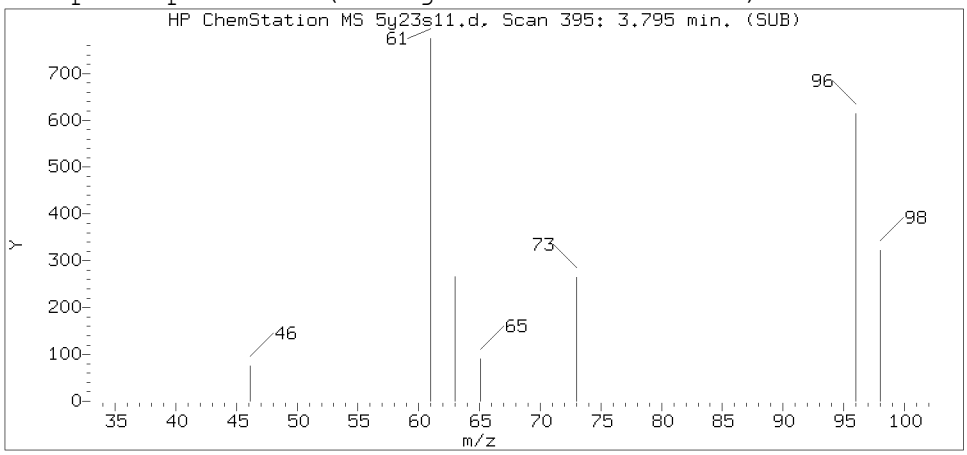
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

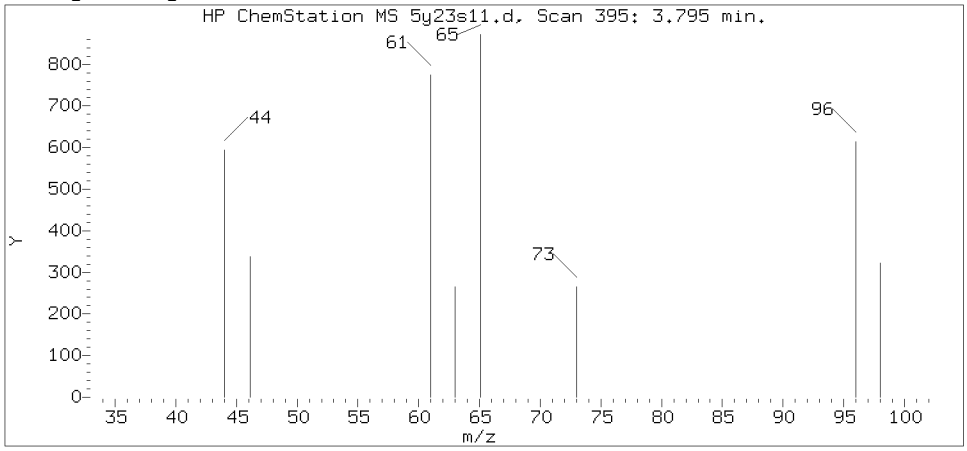
Reference Standard Spectrum for trans-1,2-Dichloroethene

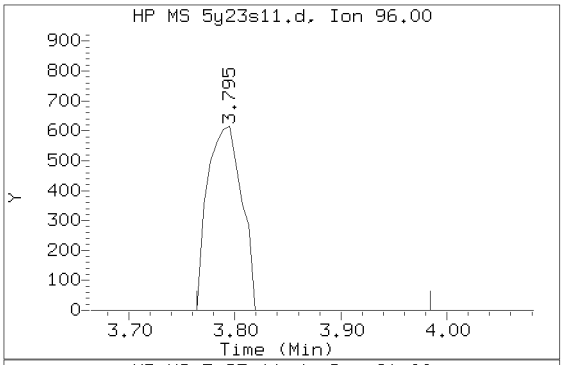


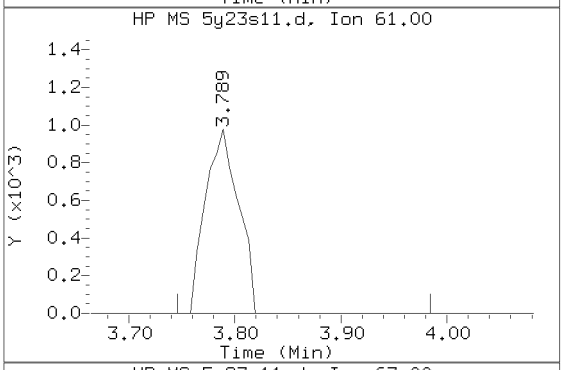
Sample Spectrum (Background Subtracted)

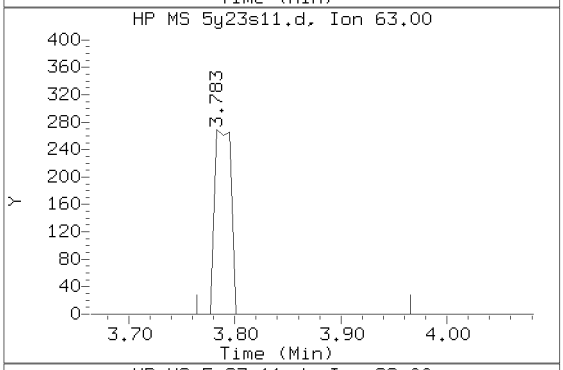


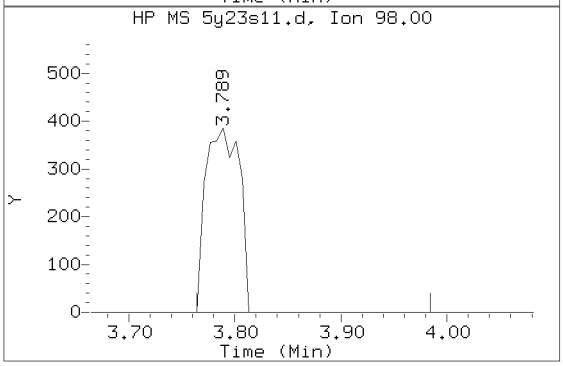
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

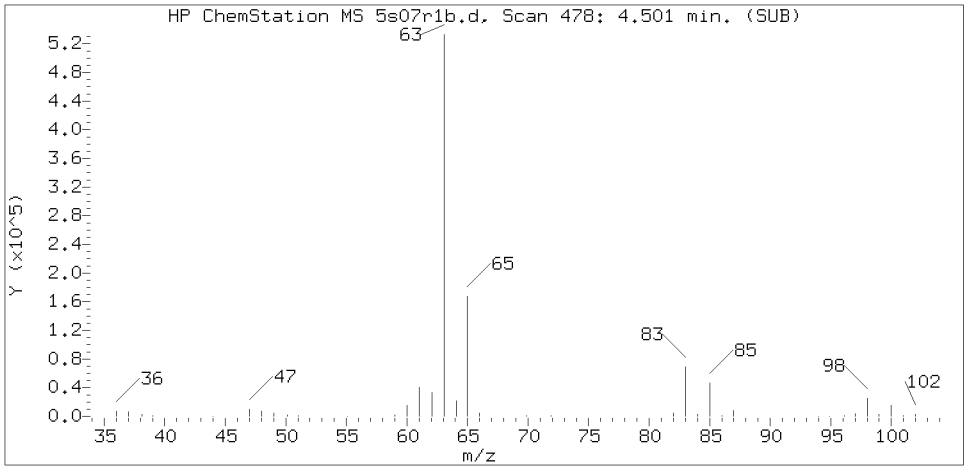
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

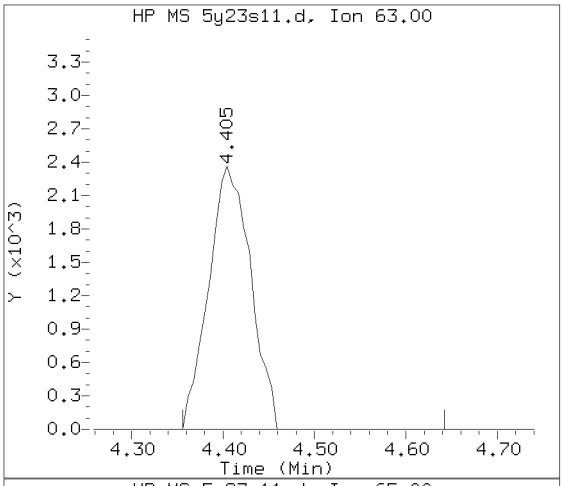
Sample Name: J1504 Lab Sample ID: 1316342

Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 395
Retention Time (minutes): 3.795
Relative Retention Time :-0.00217
Quant Ion : 96.00
Area (flag) : 1375
On-Column Amount (ng) : 0.2506

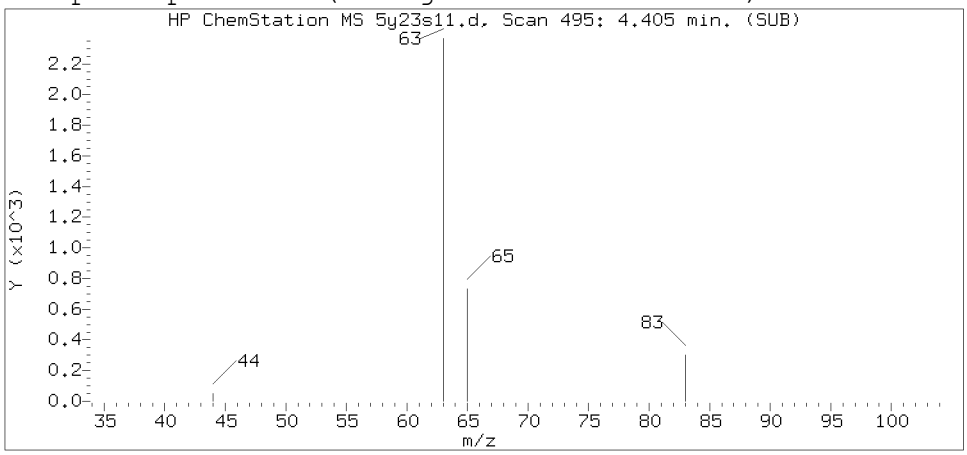
Digitally signed by Laura J. Green on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

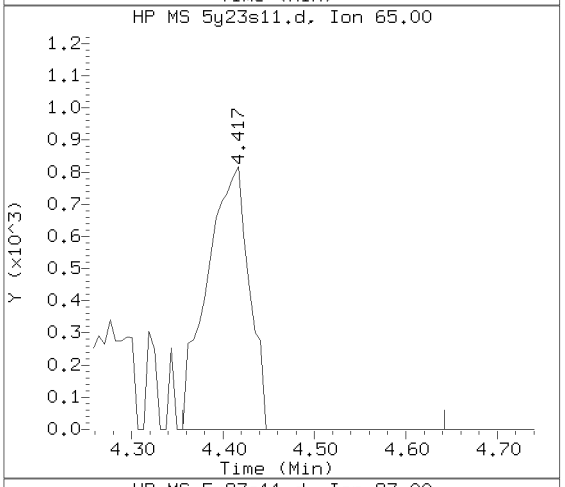
Reference Standard Spectrum for 1,1-Dichloroethane



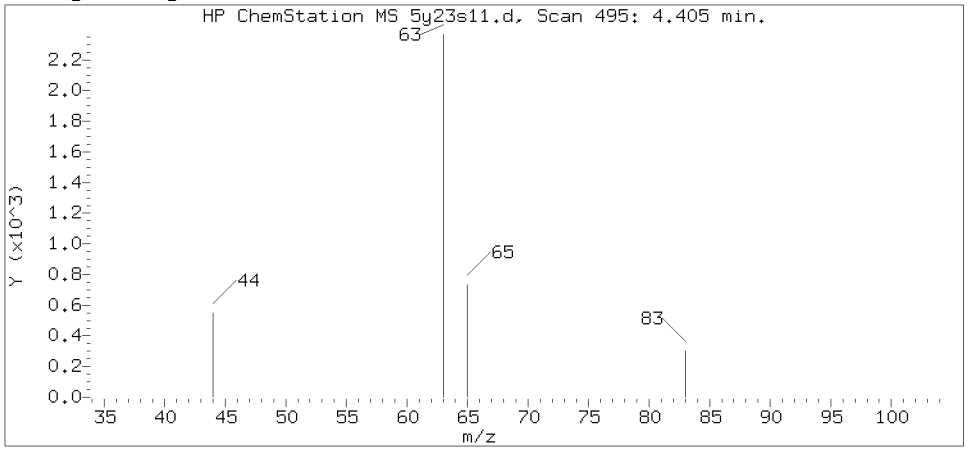


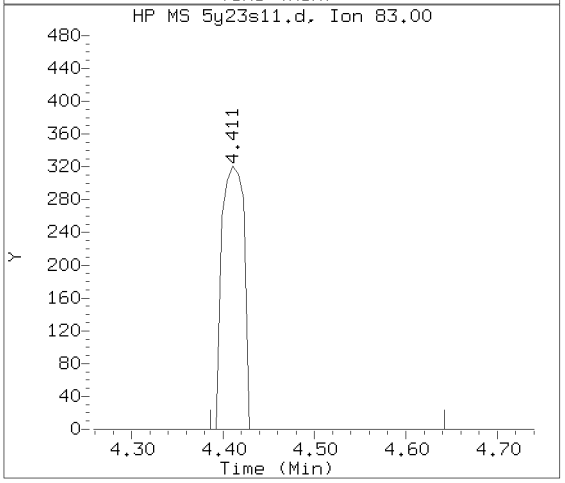
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

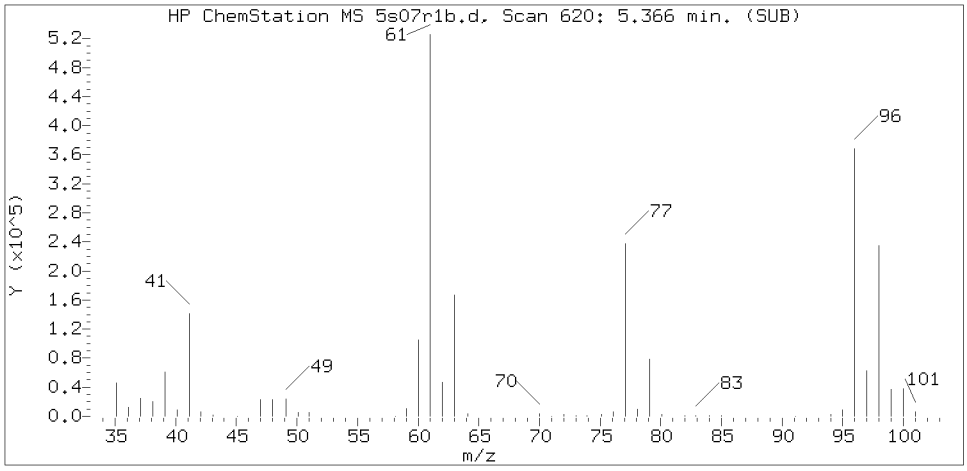
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

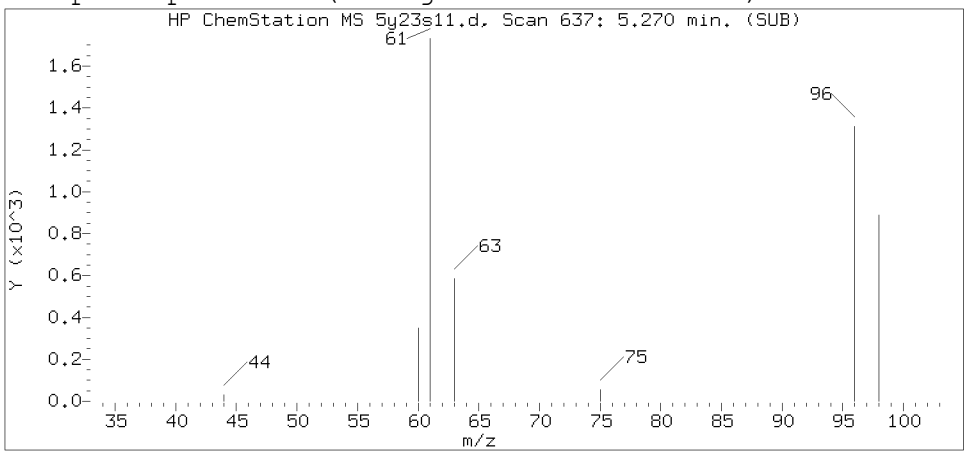
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 495
Retention Time (minutes): 4.405
Relative Retention Time :-0.00121
Quant Ion : 63.00
Area (flag) : 7549
On-Column Amount (ng) : 0.7598

Digitally signed by Laura J. Green on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

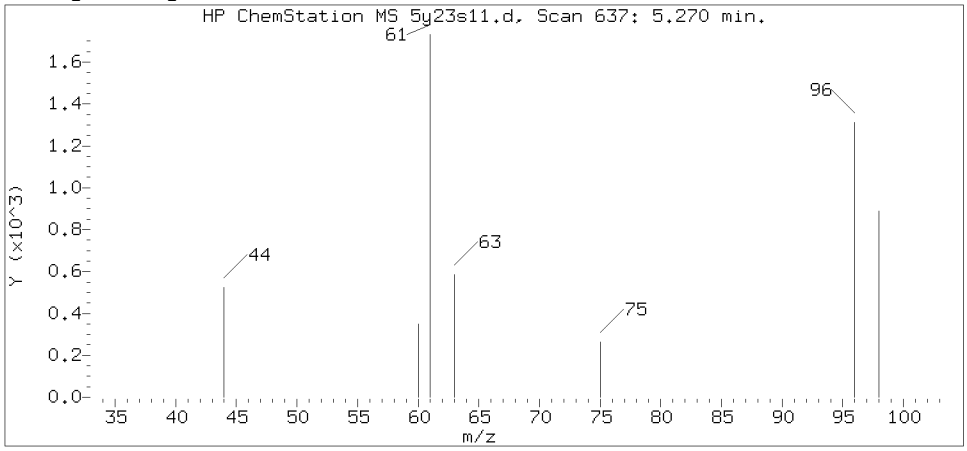
Reference Standard Spectrum for cis-1,2-Dichloroethene

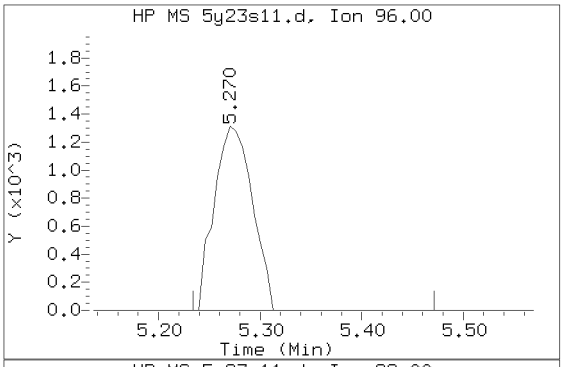


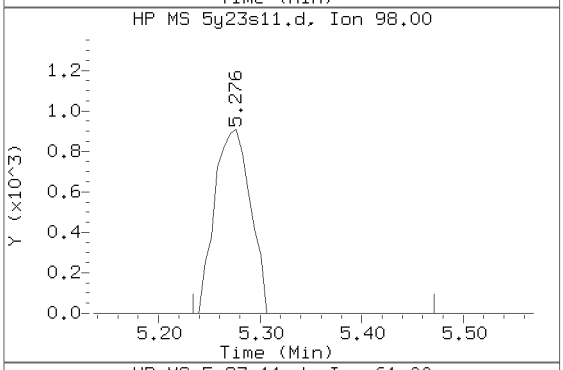
Sample Spectrum (Background Subtracted)

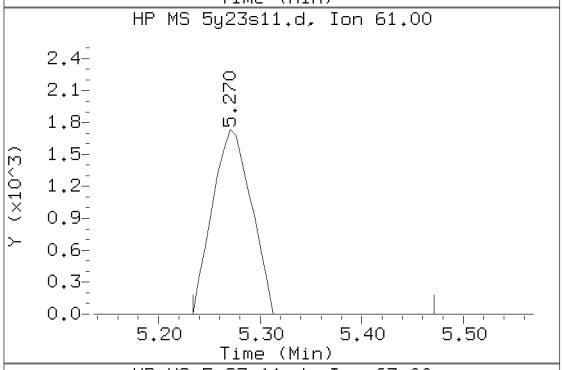


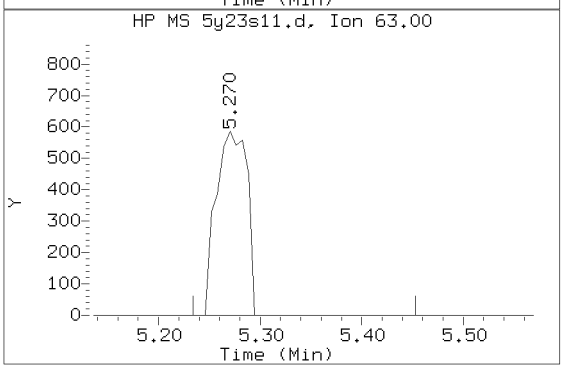
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 637
Retention Time (minutes): 5.270
Relative Retention Time :-0.00022
Quant Ion : 96.00
Area (flag) : 3424
On-Column Amount (ng) : 0.5516

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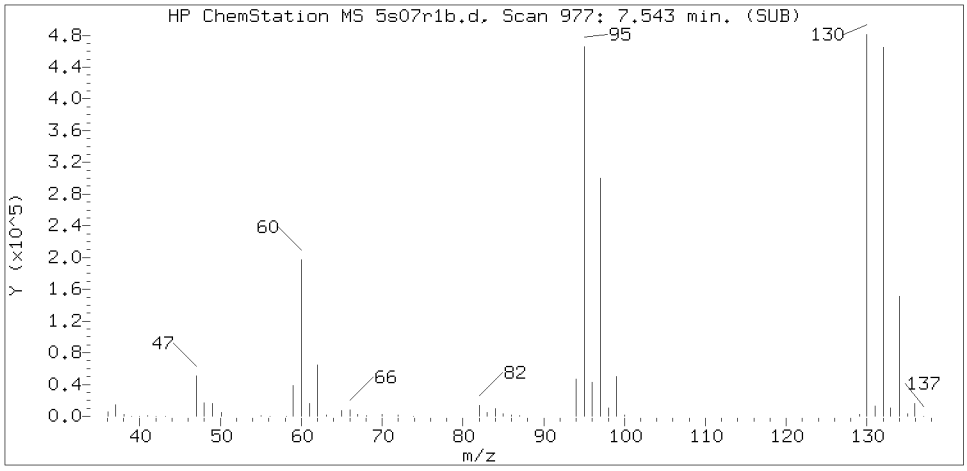
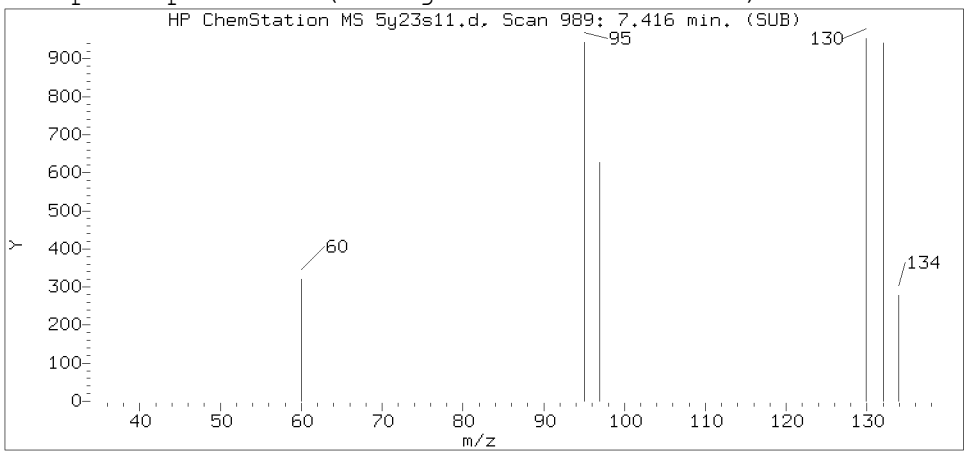
Target 3.5 esignature user ID: ljg30941

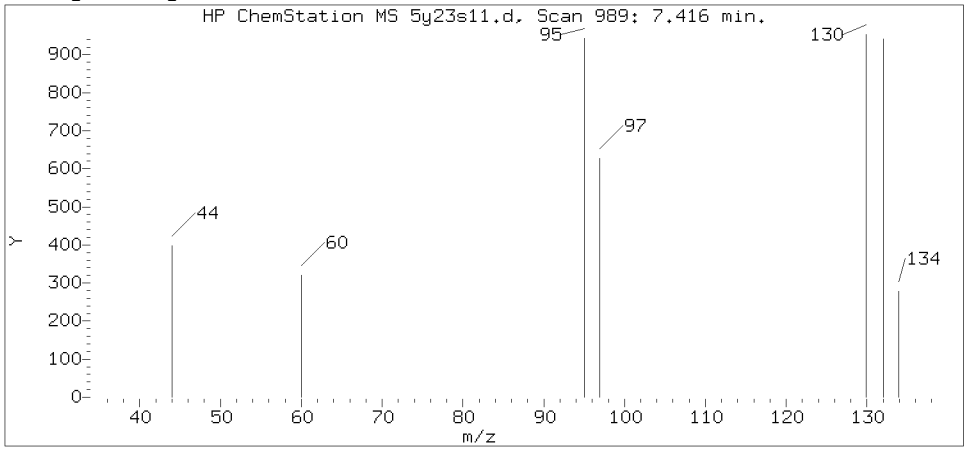
Reference Standard Spectrum for Trichloroethene

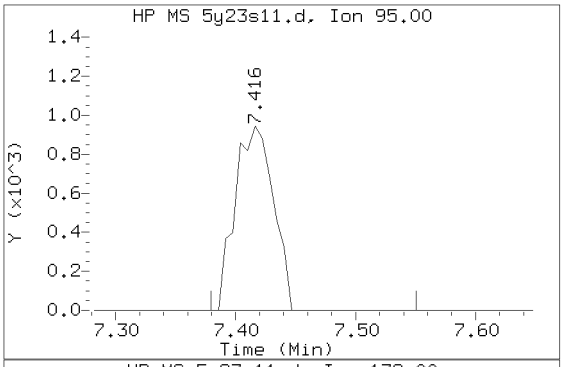


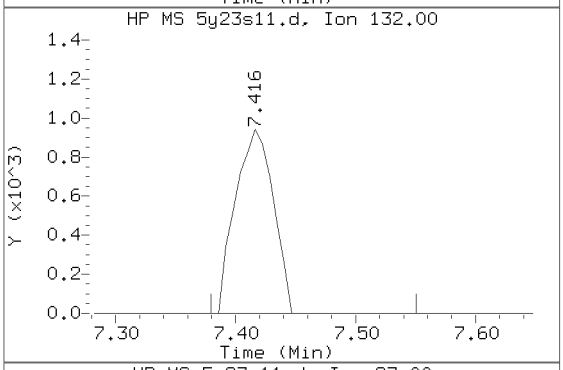
Sample Spectrum (Background Subtracted)

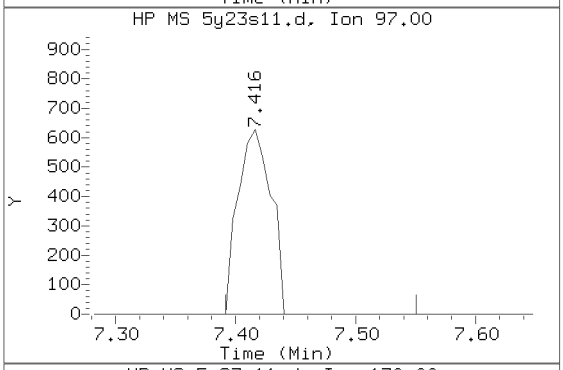


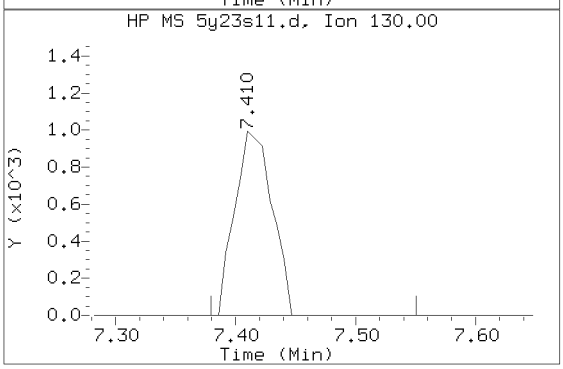
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s11.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:07 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:26 chemist

Sample Name: J1504 Lab Sample ID: 1316342

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 989
Retention Time (minutes)	: 7.416
Relative Retention Time	: 0.00006
Quant Ion	: 95.00
Area (flag)	: 2094
On-Column Amount (ng)	: 0.3301

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1505

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316343

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s12.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	0.5	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.7	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1505 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316343

Data file: /chem2/HP26285.i/20may23a.b/5y23s12.d Injection date and time: **23-MAY-2020 19:28**
Data file Sample Info. Line: J1505;1316343;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.496	(0.006)	346	65	265340	(-11)	250.00	
66) Fluorobenzene	6.922	(-0.006)	908	96	912109	(-8)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	708472	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	370837	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(0.000)	113	225788	49.700	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(0.000)	102	52236	51.410	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	862845	49.557	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	348305	47.479	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.404	(-0.001)	63	4065	0.407	0.41		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.276	(-0.001)	96	3026	0.485	0.48		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.416	(0.000)	95	4445	0.697	0.70		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

J1505 Lancaster Laboratories 1316343
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s12.d Injection date and time: **23-MAY-2020 19:28**
Data file Sample Info. Line: J1505;1316343;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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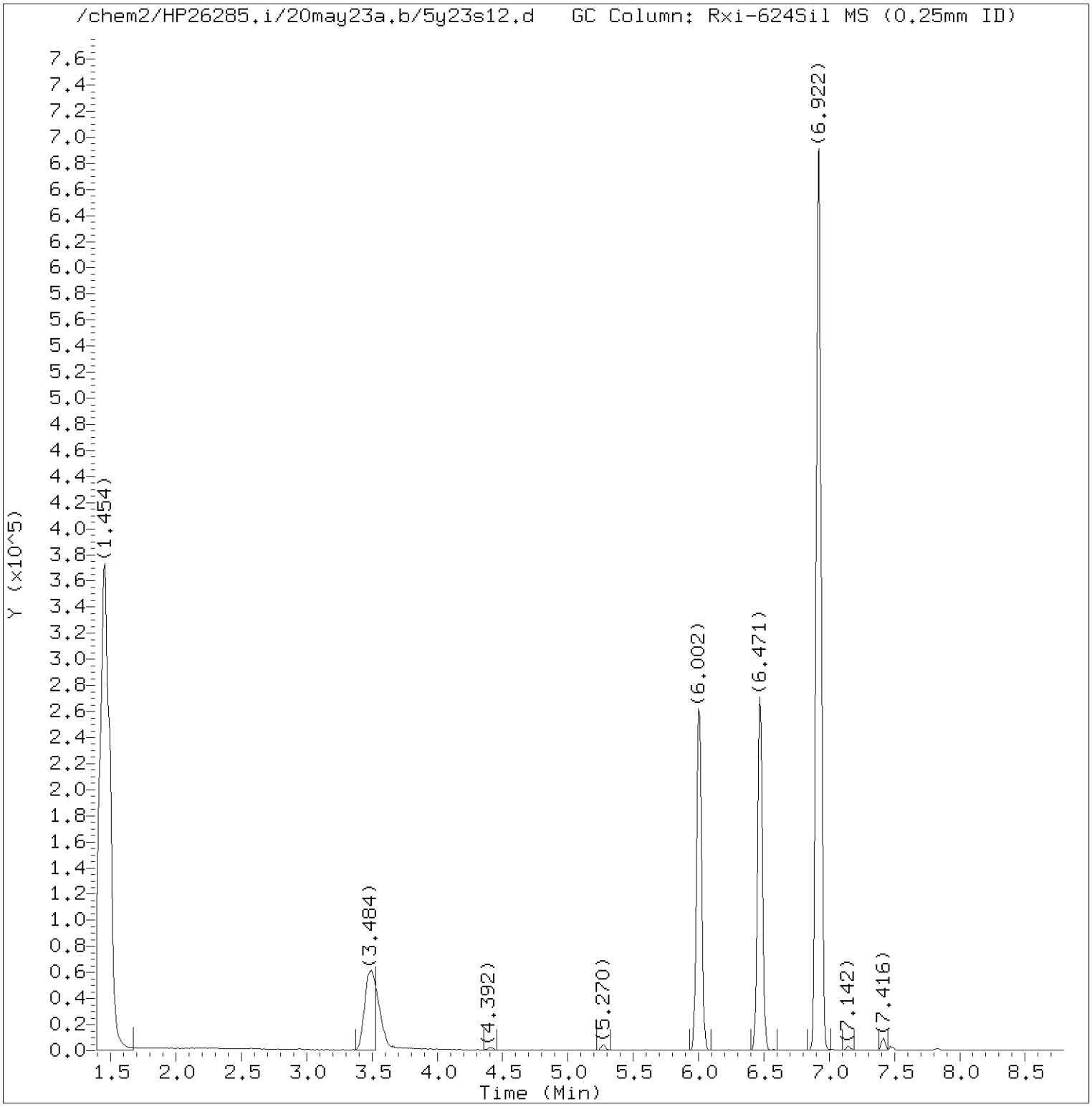
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

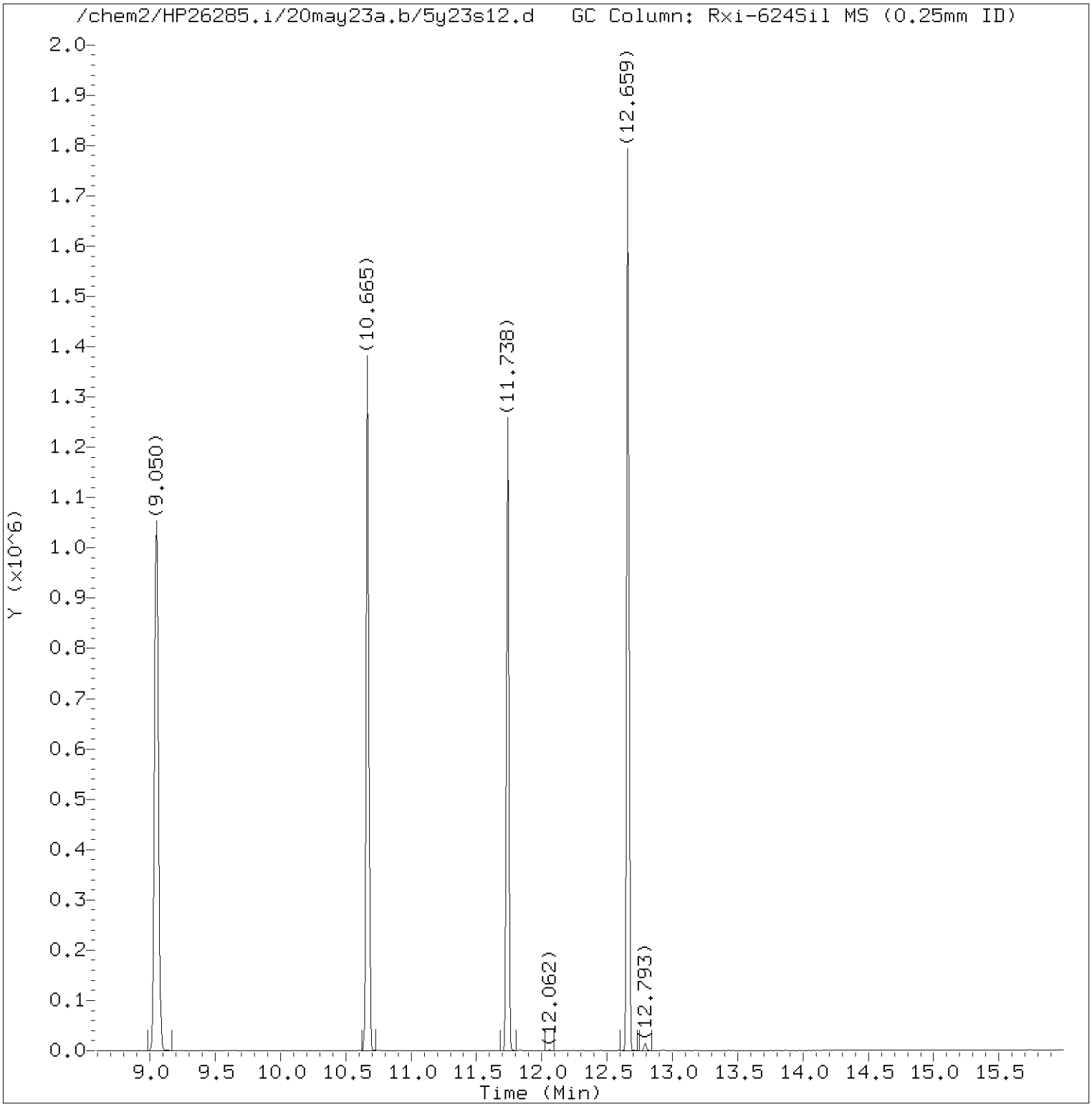
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Sample Name: J1505 Lab Sample ID: 1316343

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Sample Name: J1505 Lab Sample ID: 1316343

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Sample Name: J1505 Lab Sample ID: 1316343

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.496	65	265340	250.000
36) 1,1-Dichloroethane	(2)	4.404	63	4065	0.407
42) cis-1,2-Dichloroethene	(2)	5.276	96	3026	0.485
52)$Dibromofluoromethane	(2)	6.002	113	225788	49.700
57)$1,2-Dichloroethane-d4	(2)	6.471	102	52236	51.410
66)*Fluorobenzene	(2)	6.922	96	912109	50.000
71) Trichloroethene	(2)	7.416	95	4445	0.697
84)$Toluene-d8	(3)	9.050	98	862845	49.557
101)*Chlorobenzene-d5	(3)	10.665	117	708472	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	348305	47.479
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	370837	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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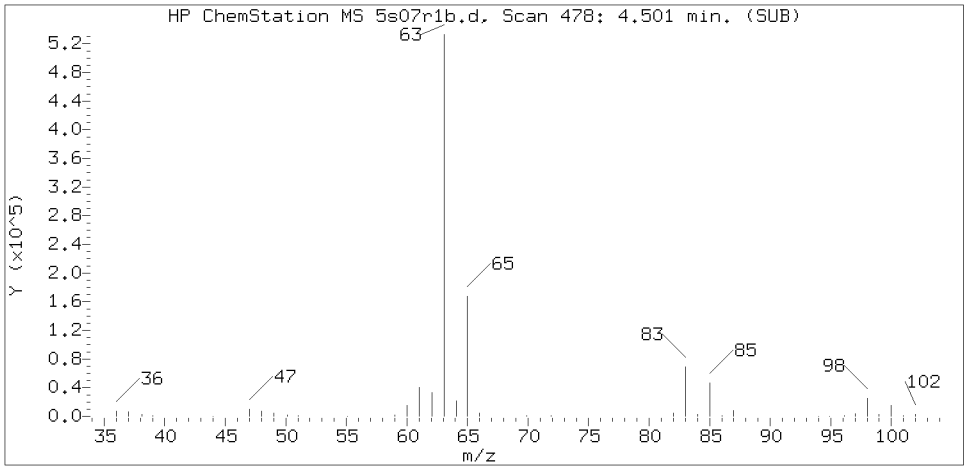
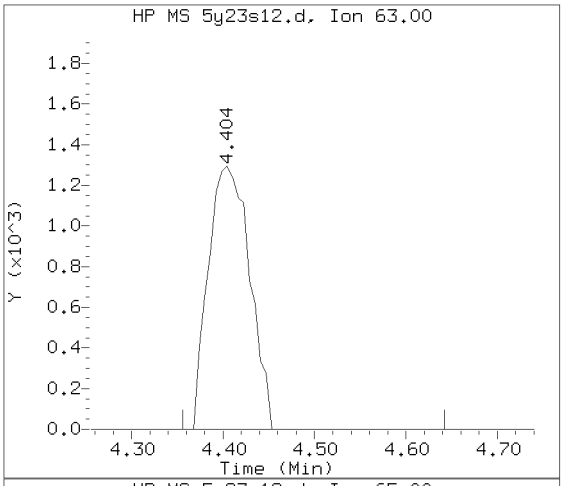
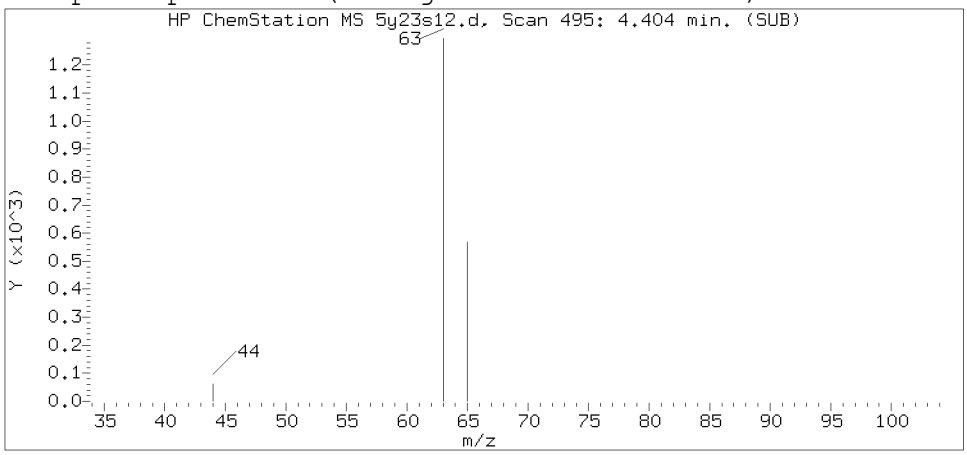
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

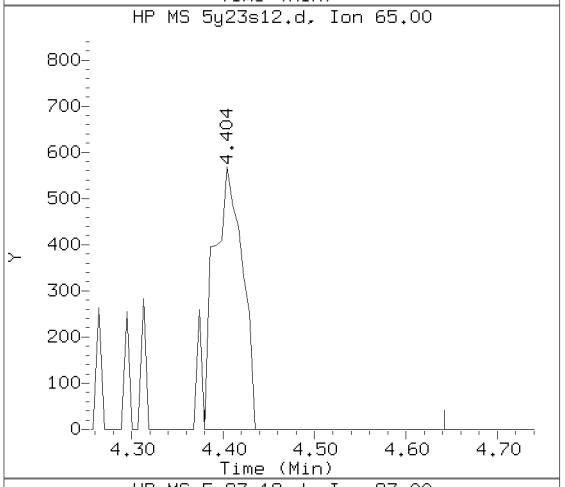
Reference Standard Spectrum for 1,1-Dichloroethane



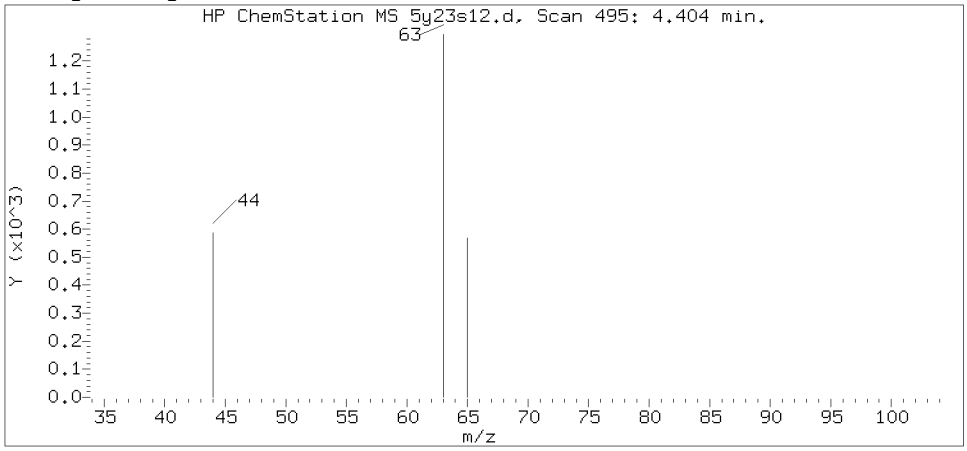


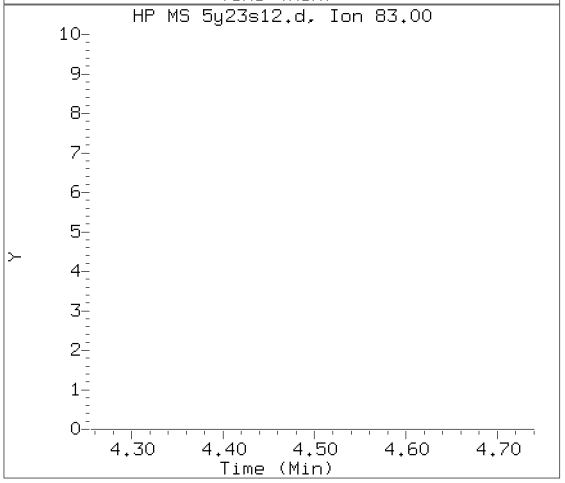
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

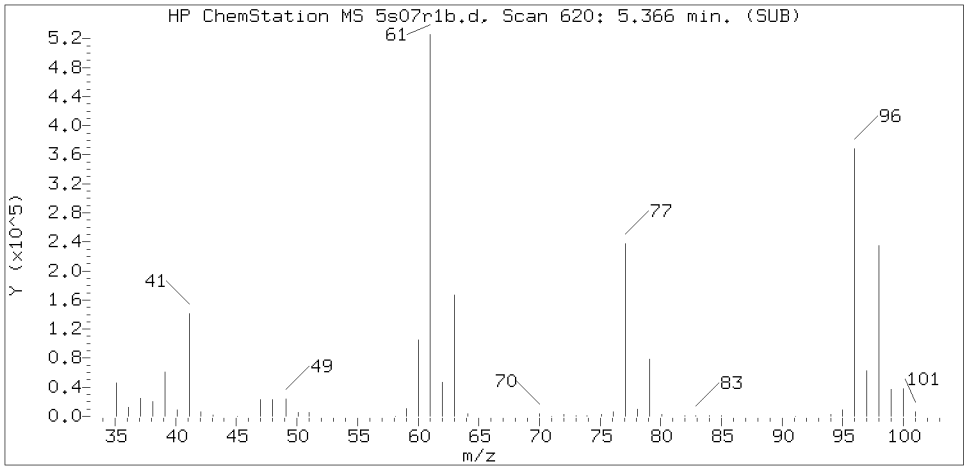
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

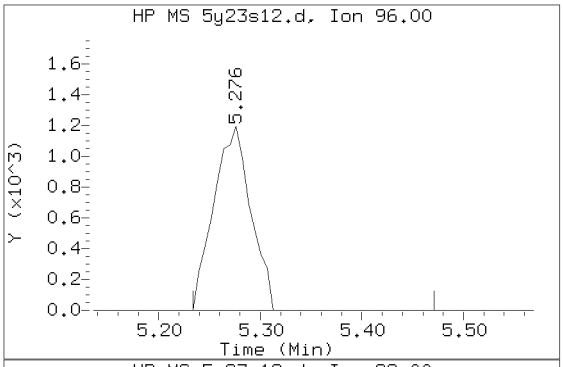
Sample Name: J1505 Lab Sample ID: 1316343

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 495
Retention Time (minutes): 4.404
Relative Retention Time :-0.00121
Quant Ion : 63.00
Area (flag) : 4065
On-Column Amount (ng) : 0.4070

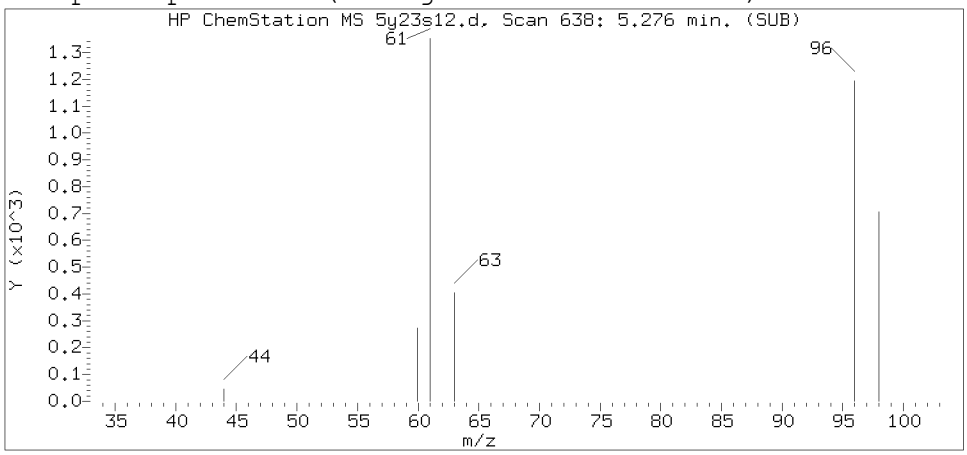
Digitally signed by Laura J. Green on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

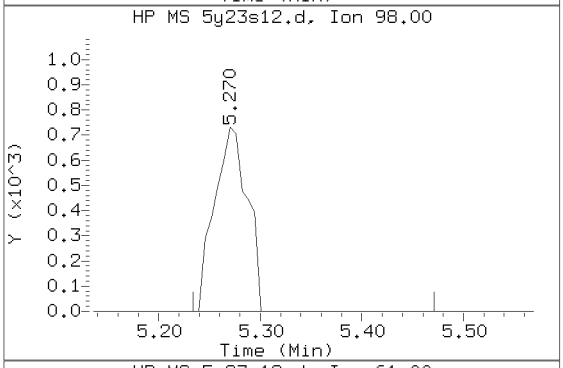
Reference Standard Spectrum for cis-1,2-Dichloroethene

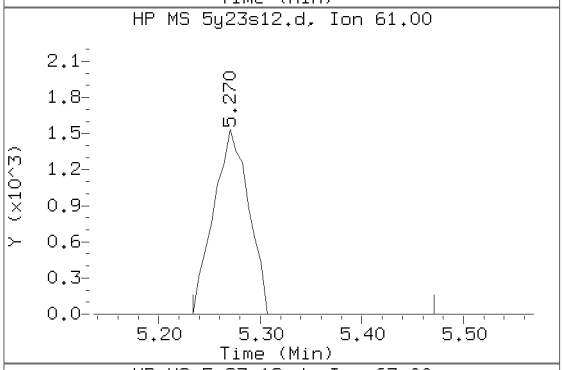




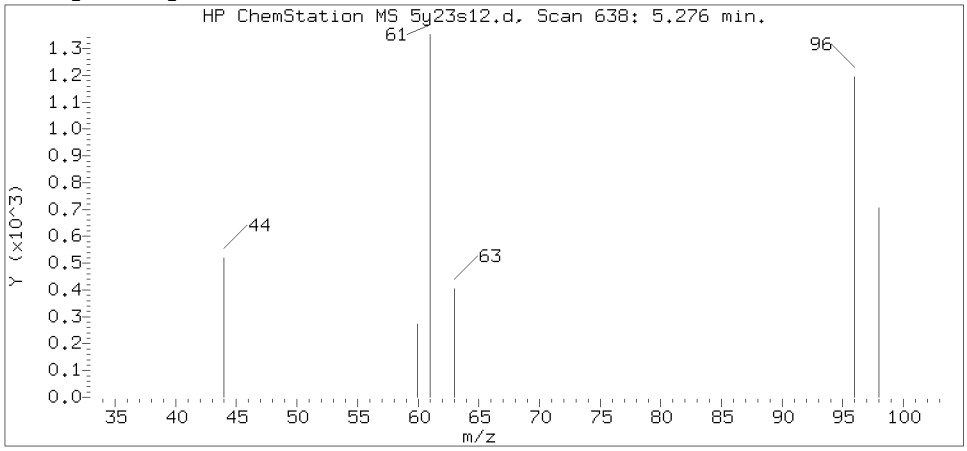
Sample Spectrum (Background Subtracted)

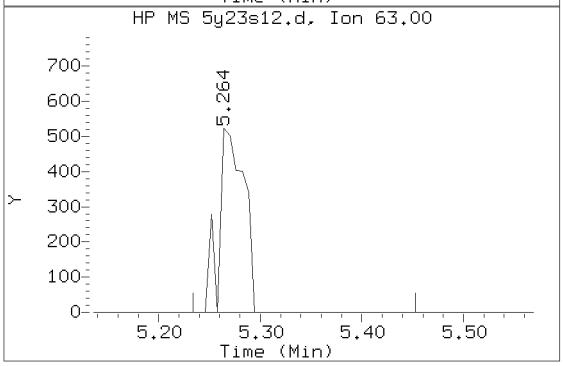






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Sample Name: J1505 Lab Sample ID: 1316343

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 638
Retention Time (minutes): 5.276
Relative Retention Time :-0.00109
Quant Ion : 96.00
Area (flag) : 3026
On-Column Amount (ng) : 0.4849

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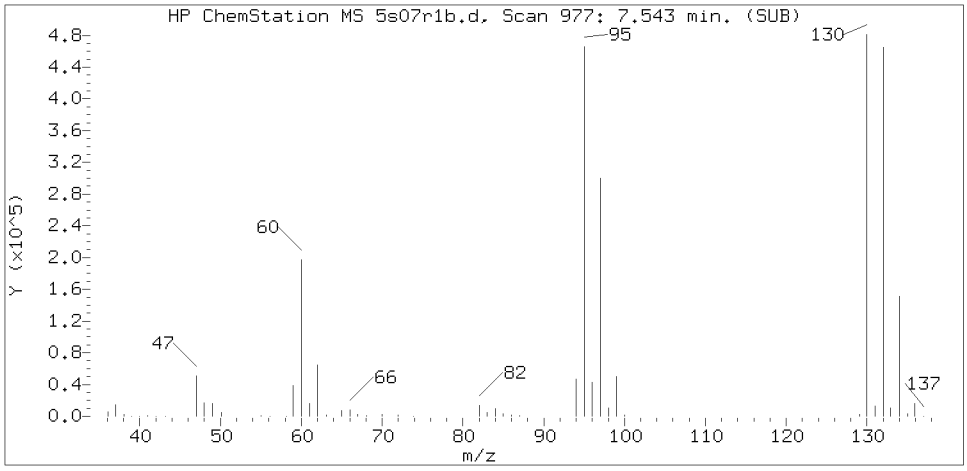
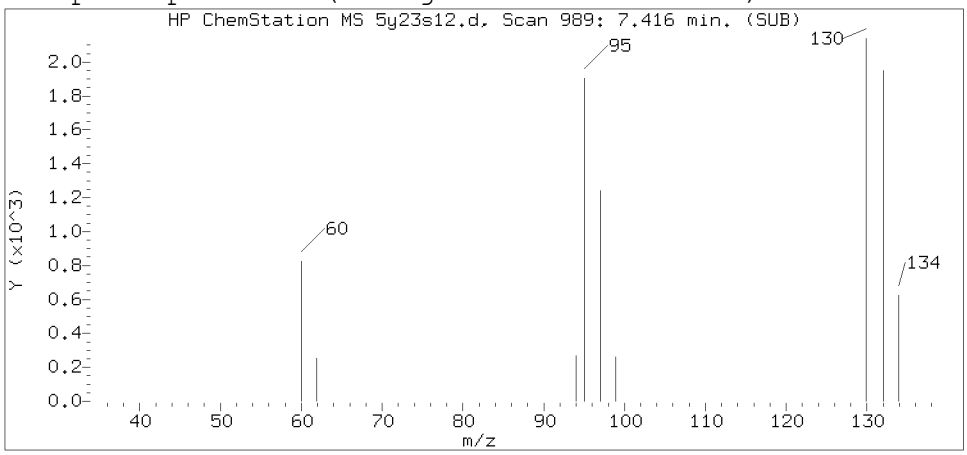
Target 3.5 esignature user ID: ljg30941

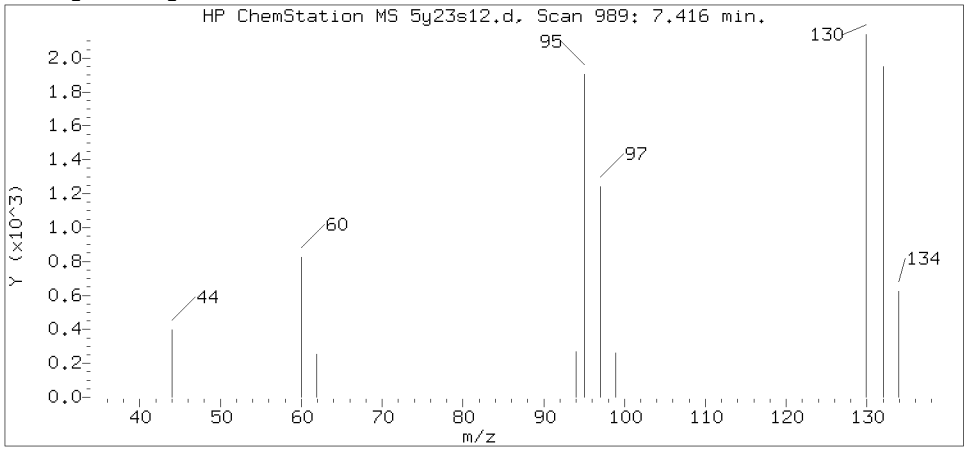
Reference Standard Spectrum for Trichloroethene

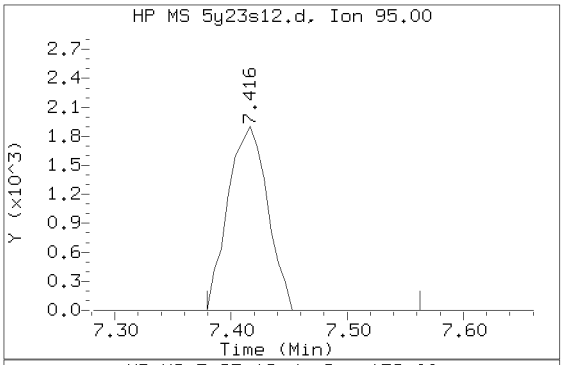


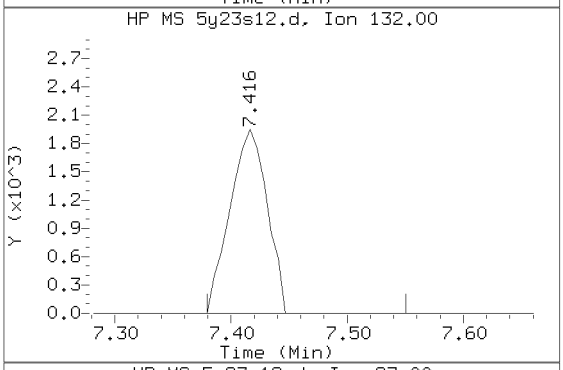
Sample Spectrum (Background Subtracted)

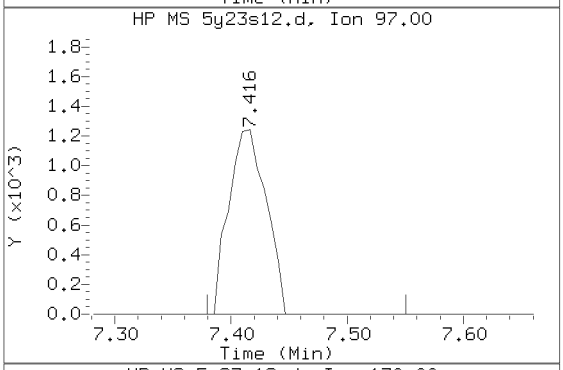


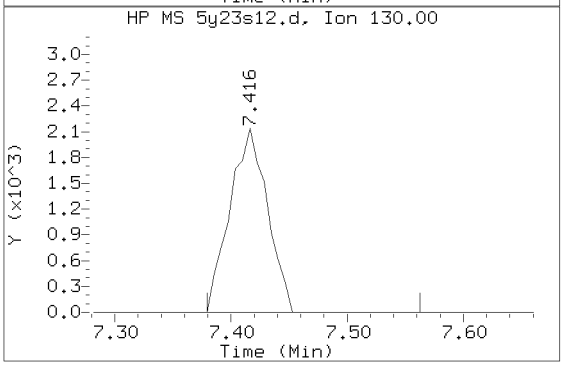
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may23a.b/5y23s12.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:28 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 19:47 chemist

Sample Name: J1505 Lab Sample ID: 1316343

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 989
Retention Time (minutes)	: 7.416
Relative Retention Time	: 0.00006
Quant Ion	: 95.00
Area (flag)	: 4445
On-Column Amount (ng)	: 0.6972

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J1506

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316344

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s13.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.9	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1506 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316344

Data file: /chem2/HP26285.i/20may23a.b/5y23s13.d Injection date and time: **23-MAY-2020 19:49**
Data file Sample Info. Line: J1506;1316344;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.502	(0.000)	347	65	264316	(-12)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	909038	(-9)	50.00	
101) Chlorobenzene-d5	10.666	(0.006)	1522	117	705454	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	372344	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	224629	49.612	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(-0.001)	102	52710	52.052	104%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	856084	49.379	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	346186	47.392	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	6.002	(-0.000)	97	8250	0.918	0.92		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may23a.b/5y23s13.d Injection date and time: **23-MAY-2020 19:49**
Data file Sample Info. Line: J1506;1316344;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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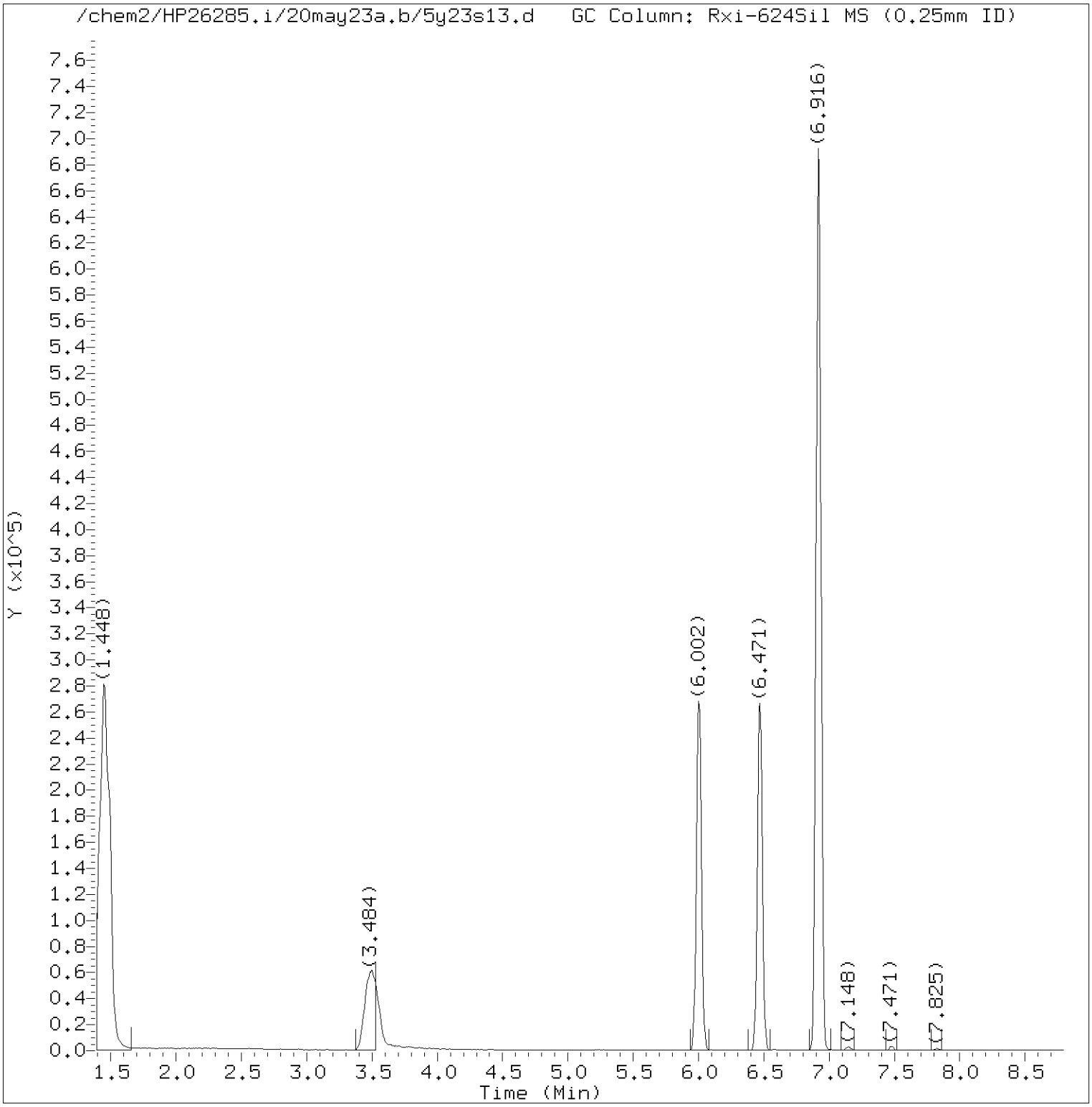
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

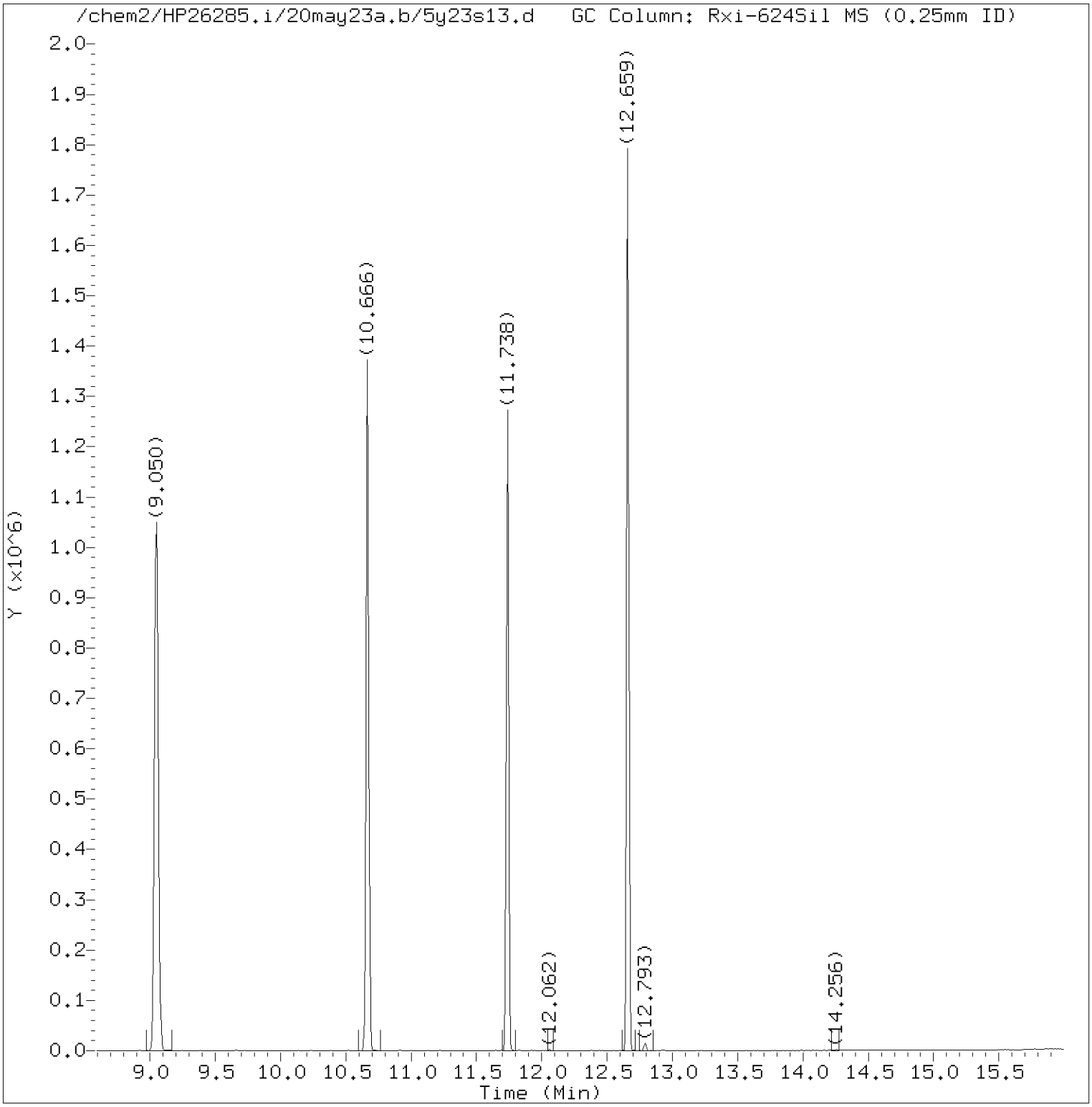
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s13.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:49 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Sample Name: J1506 Lab Sample ID: 1316344

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s13.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:49 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Sample Name: J1506 Lab Sample ID: 1316344

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s13.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:49 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Sample Name: J1506 Lab Sample ID: 1316344

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.502	65	264316	250.000
53) 1,1,1-Trichloroethane	(2)	6.002	97	8250	0.918
52)$Dibromofluoromethane	(2)	6.002	113	224629	49.612
57)$1,2-Dichloroethane-d4	(2)	6.471	102	52710	52.052
66)*Fluorobenzene	(2)	6.916	96	909038	50.000
84)$Toluene-d8	(3)	9.050	98	856084	49.379
101)*Chlorobenzene-d5	(3)	10.666	117	705454	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	346186	47.392
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	372344	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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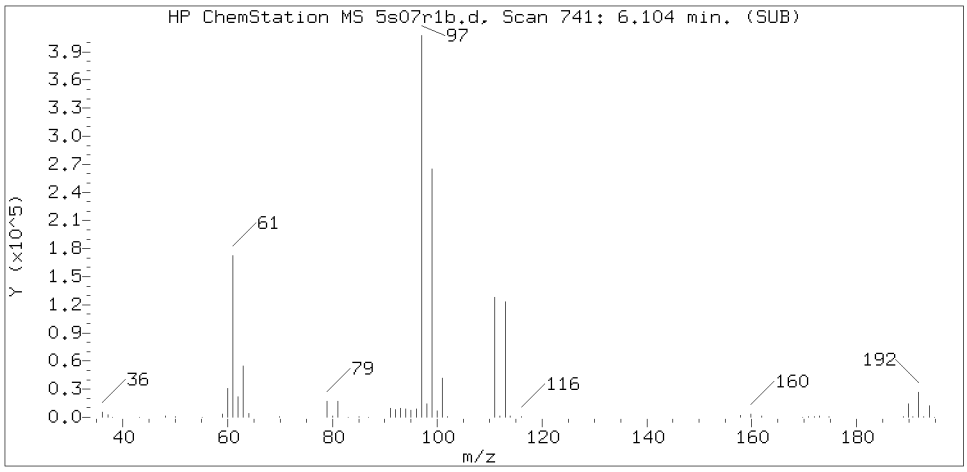
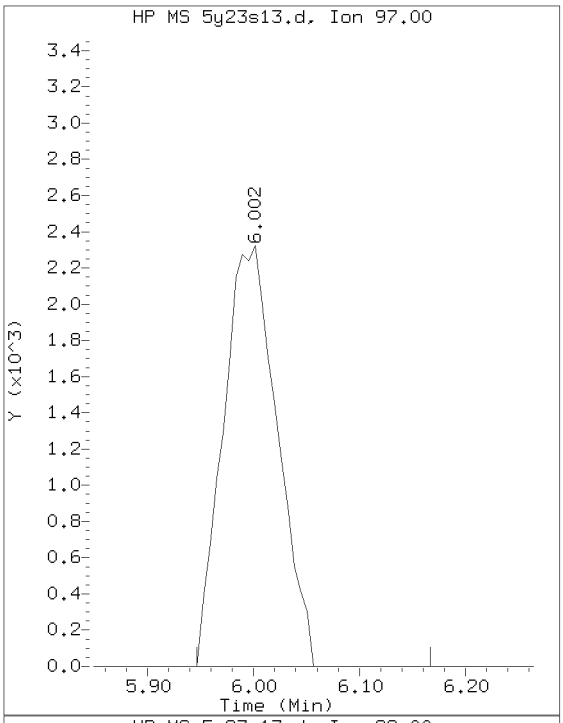
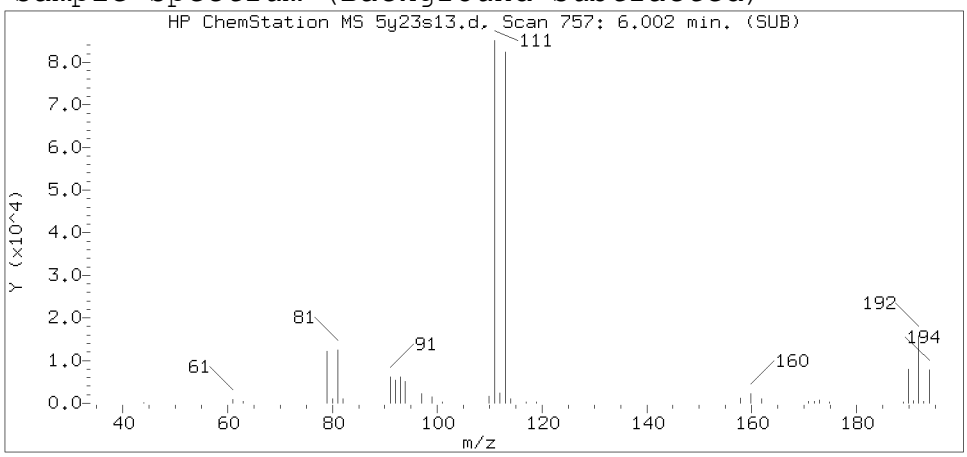
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

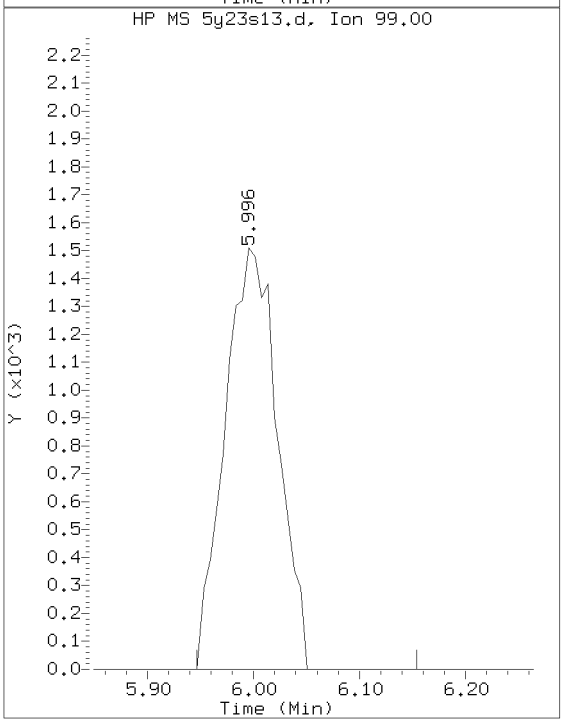
Reference Standard Spectrum for 1,1,1-Trichloroethane



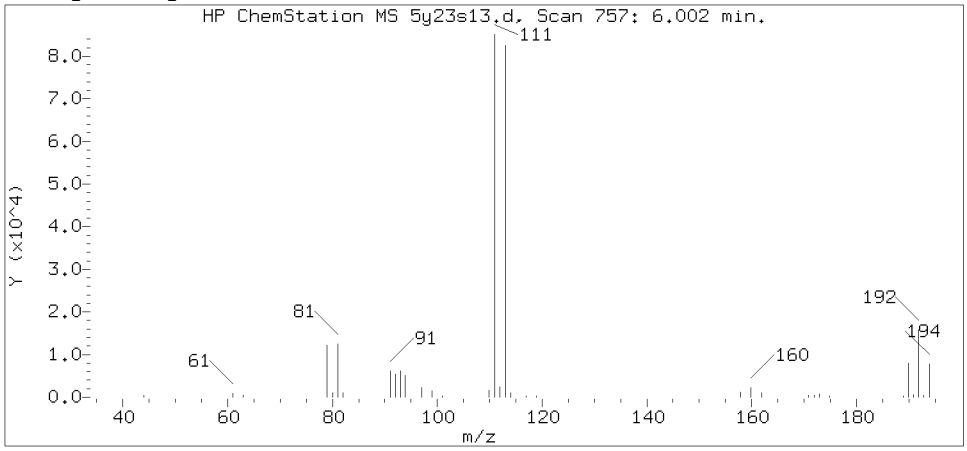


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may23a.b/5y23s13.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 19:49 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:06 chemist

Sample Name: J1506 Lab Sample ID: 1316344

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 757
Retention Time (minutes): 6.002
Relative Retention Time :-0.00088
Quant Ion : 97.00
Area (flag) : 8250
On-Column Amount (ng) : 0.9176

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1507

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316345

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s14.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1507 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316345

Data file: /chem2/HP26285.i/20may23a.b/5y23s14.d Injection date and time: **23-MAY-2020 20:09**
Data file Sample Info. Line: J1507;1316345;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.490	(0.012)	345	65	265954	(-11)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	917899	(-8)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	713968	(-8)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	377045	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	226834	49.615	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.465	(0.000)	102	52721	51.560	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	867885	49.463	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	350080	47.353	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

J1507 Lancaster Laboratories 1316345
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s14.d Injection date and time: **23-MAY-2020 20:09**
Data file Sample Info. Line: J1507;1316345;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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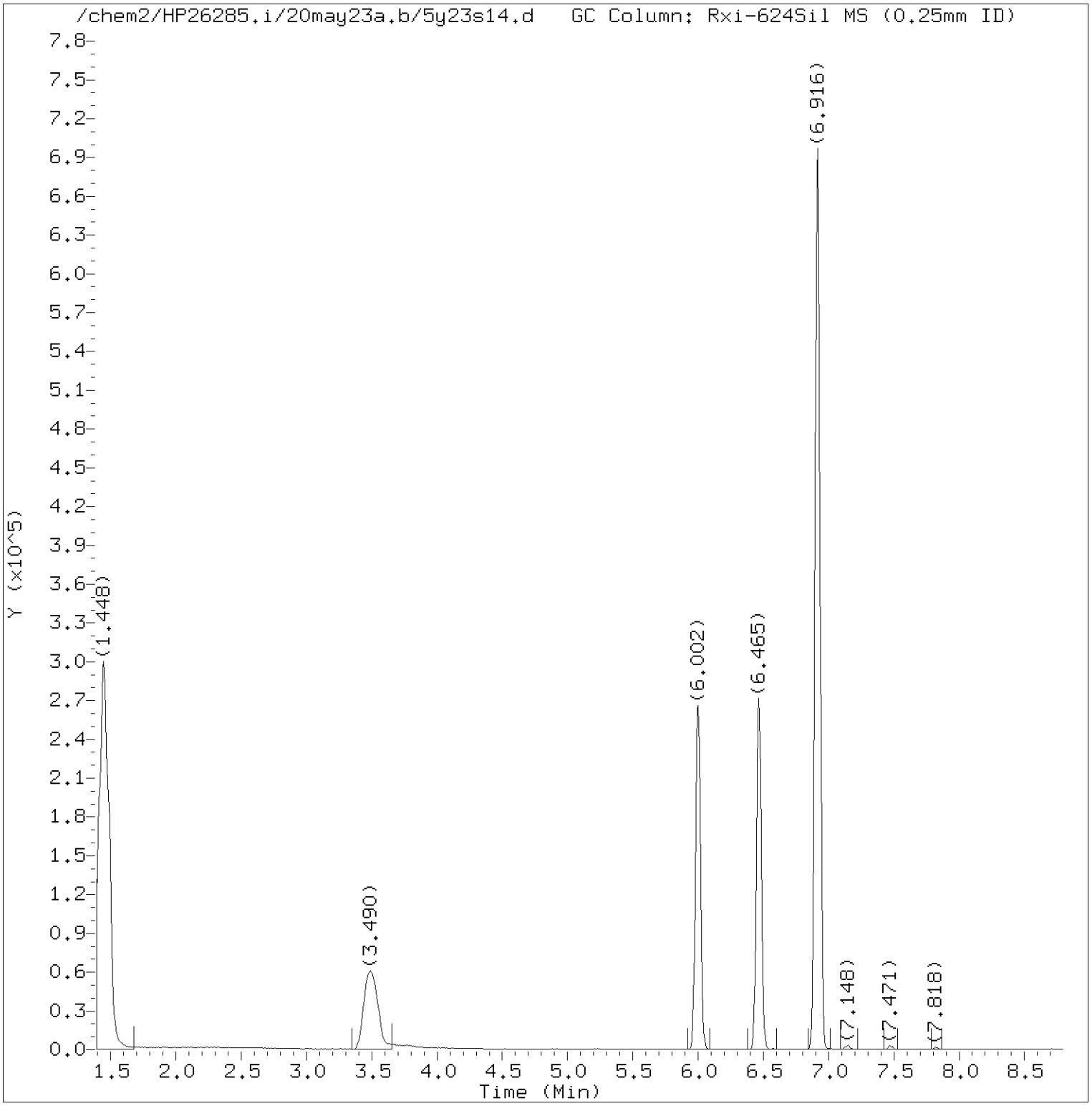
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

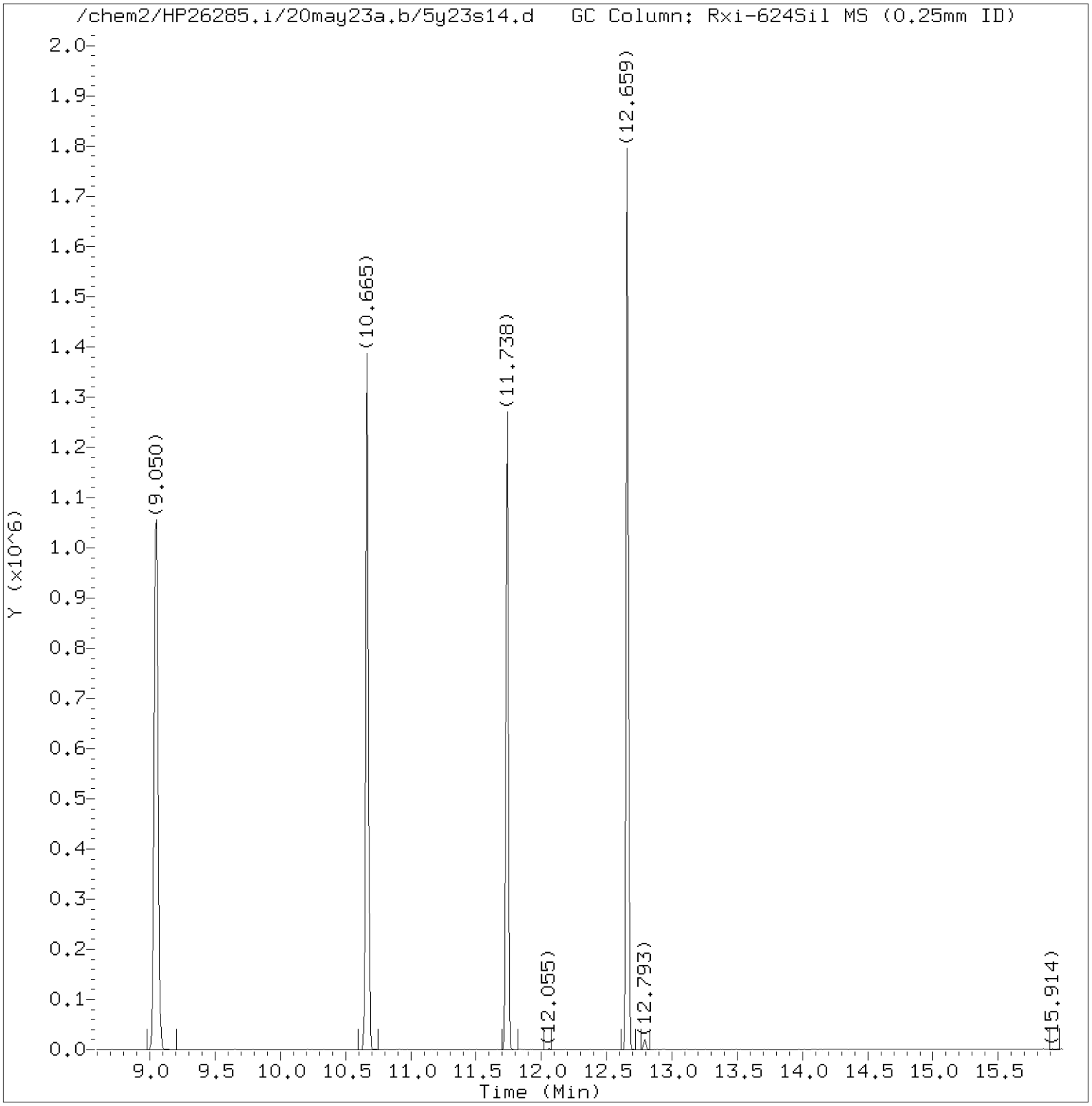
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s14.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:09 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:27 chemist

Sample Name: J1507 Lab Sample ID: 1316345

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s14.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:09 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:27 chemist

Sample Name: J1507 Lab Sample ID: 1316345

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s14.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:09 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:27 chemist

Sample Name: J1507 Lab Sample ID: 1316345

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.490	65	265954	250.000
52)$Dibromofluoromethane	(2)	6.002	113	226834	49.615
57)$1,2-Dichloroethane-d4	(2)	6.465	102	52721	51.560
66)*Fluorobenzene	(2)	6.916	96	917899	50.000
84)$Toluene-d8	(3)	9.050	98	867885	49.463
101)*Chlorobenzene-d5	(3)	10.665	117	713968	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	350080	47.353
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	377045	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
J1508

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316346

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s15.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1508 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316346

Data file: /chem2/HP26285.i/20may23a.b/5y23s15.d Injection date and time: **23-MAY-2020 20:30**
Data file Sample Info. Line: J1508;1316346;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.484	(0.018)	344	65	255258	(-15)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	887334	(-11)	50.00	
101) Chlorobenzene-d5	10.665	(0.006)	1522	117	690775	(-11)	50.00	
132) 1,4-Dichlorobenzene-d4	12.659	(0.006)	1849	152	366329	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	221587	50.137	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.465	(0.000)	102	51355	51.954	104%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	837713	49.346	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.738	(0.000)	95	337049	47.122	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.996	(-0.000)	97	30679	3.496	3.50			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

J1508 Lancaster Laboratories 1316346
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s15.d Injection date and time: **23-MAY-2020 20:30**
Data file Sample Info. Line: J1508;1316346;1;0;;JCW57;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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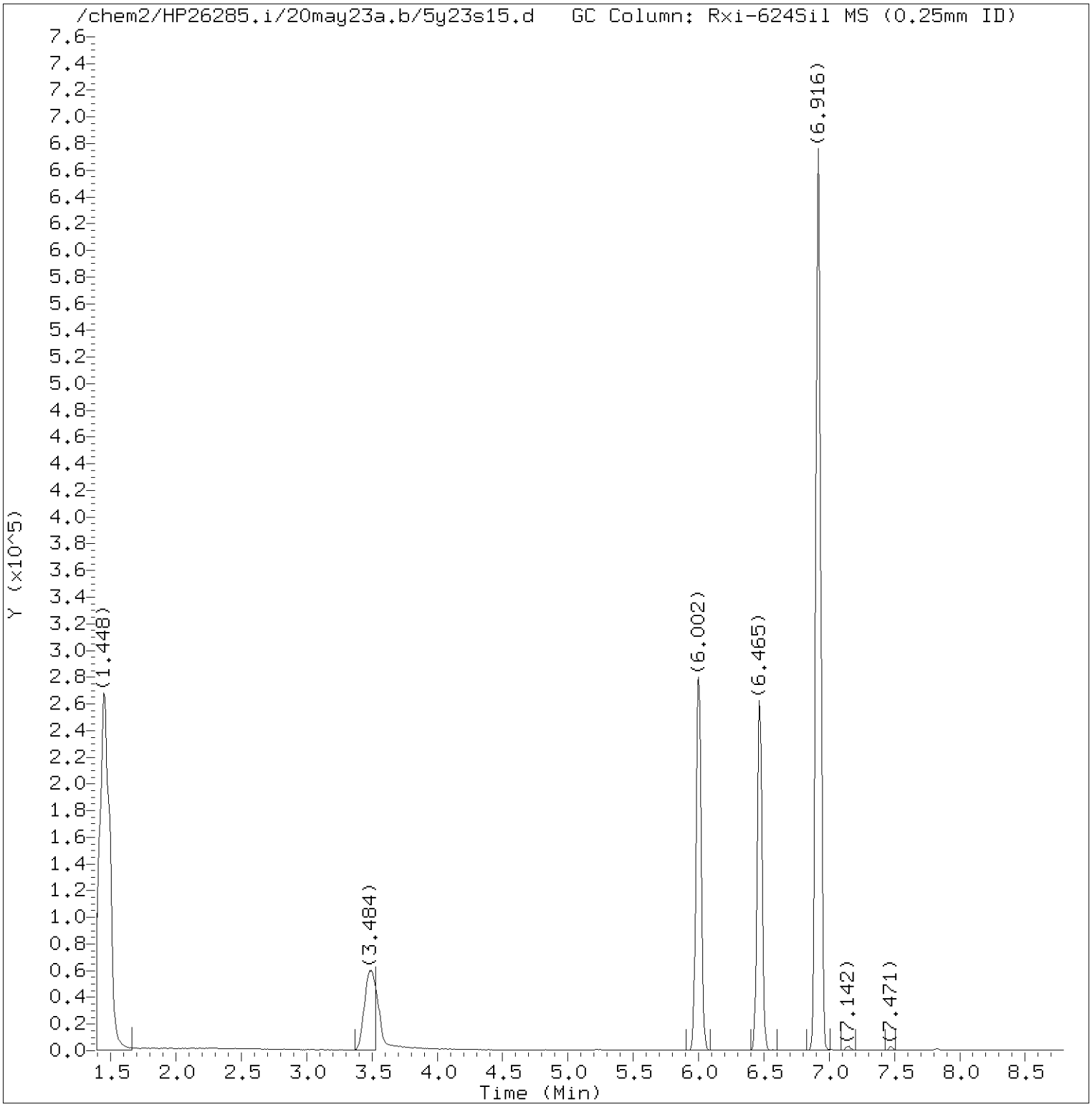
Total number of targets = 24

Digitally signed by Laura J. Green on 05/24/2020 at 23:36. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 12:10. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

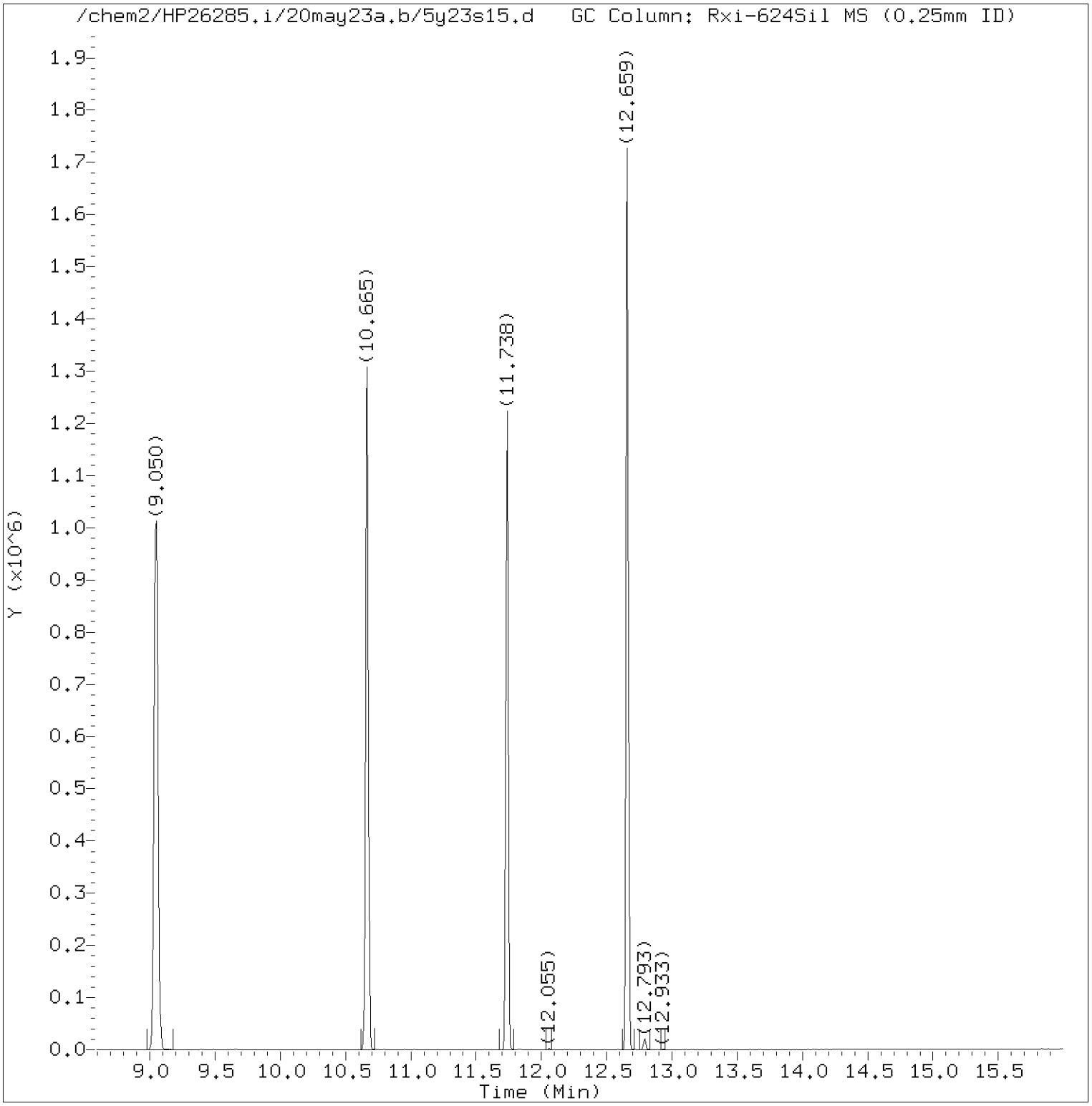
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s15.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:30 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Sample Name: J1508 Lab Sample ID: 1316346

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s15.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:30 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Sample Name: J1508 Lab Sample ID: 1316346

Digitally signed by Laura J. Green
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s15.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:30 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Sample Name: J1508 Lab Sample ID: 1316346

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.484	65	255258	250.000
53) 1,1,1-Trichloroethane	(2)	5.996	97	30679	3.496
52)$Dibromofluoromethane	(2)	6.002	113	221587	50.137
57)$1,2-Dichloroethane-d4	(2)	6.465	102	51355	51.954
66)*Fluorobenzene	(2)	6.916	96	887334	50.000
84)$Toluene-d8	(3)	9.050	98	837713	49.346
101)*Chlorobenzene-d5	(3)	10.665	117	690775	50.000
115)$4-Bromofluorobenzene	(3)	11.738	95	337049	47.122
132)*1,4-Dichlorobenzene-d4	(4)	12.659	152	366329	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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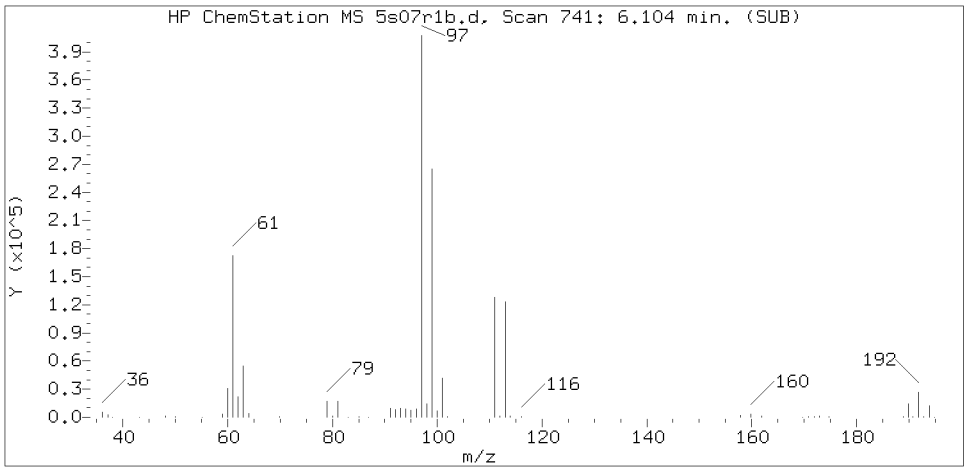
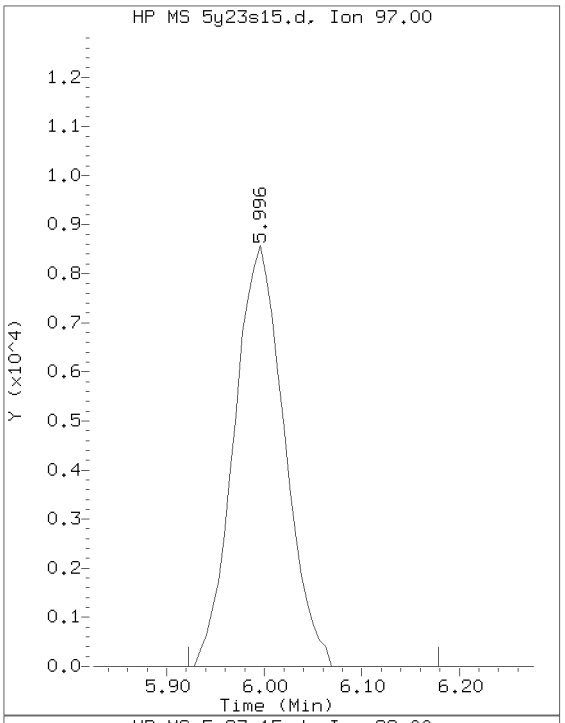
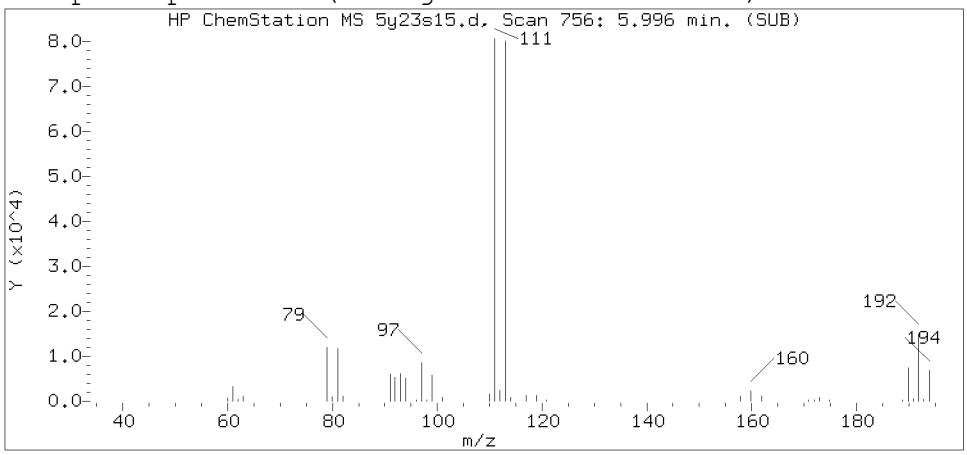
on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

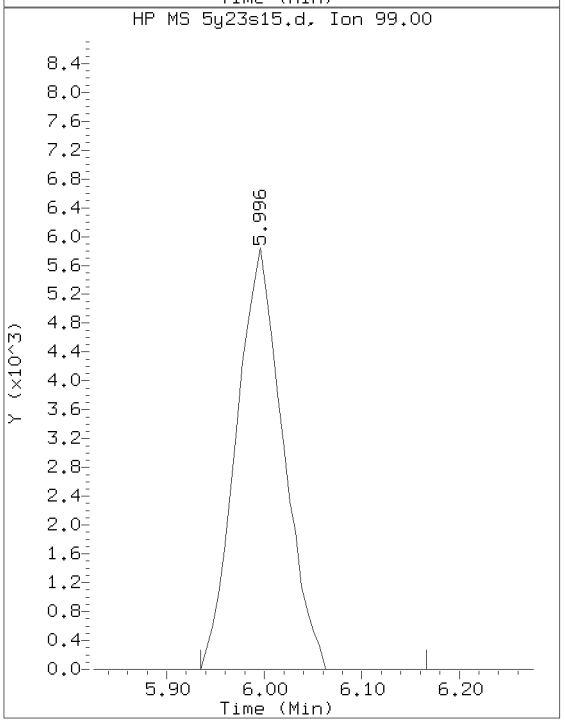
Reference Standard Spectrum for 1,1,1-Trichloroethane



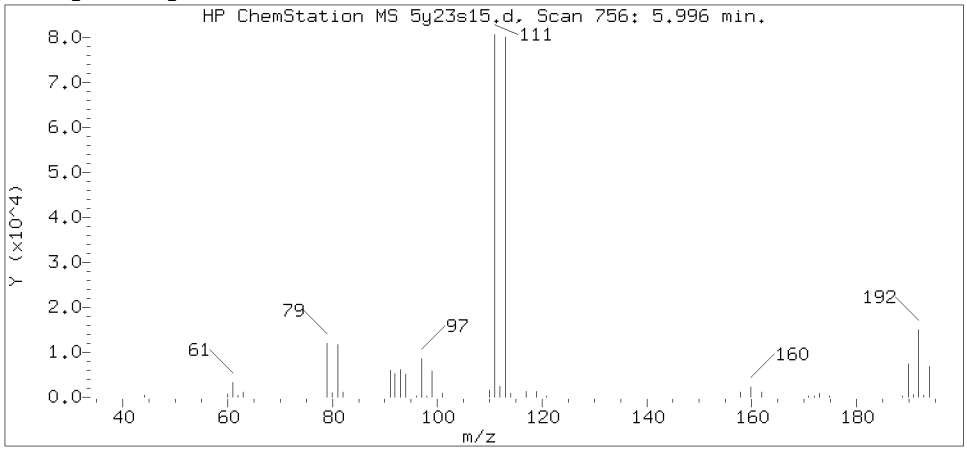


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may23a.b/5y23s15.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 20:30 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 20:49 chemist

Sample Name: J1508 Lab Sample ID: 1316346

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 756
Retention Time (minutes): 5.996
Relative Retention Time :-0.00000
Quant Ion : 97.00
Area (flag) : 30679
On-Column Amount (ng) : 3.4958

Digitally signed by Laura J. Green on 05/24/2020 at 23:36.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J1509

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316347

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may26b.b/ly26s53.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/26/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1509 Lancaster Laboratories 1316347
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may26b.b/ly26s53.d Injection date and time: **26-MAY-2020 22:34**
Data file Sample Info. Line: J1509;1316347;1;0;;JCW57;;;ly26b50; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 22:52 Automation

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 26-MAY-2020 20:28
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.484	(0.003)	933	65	296151	(-10)	250.00	
66) Fluorobenzene	7.946	(0.000)	2010	96	1541425	(-10)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1148730	(-13)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	608364	(-16)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.000)	113	390931	50.342	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.516	(0.001)	102	99270	50.380	101%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1480720	50.176	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.339	(0.000)	95	522703	46.034	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Kevin A. Sposito on 05/27/2020 at 12:45. Target 3.5 esignature user ID: kas02648

J1509 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1316347

Data file: /chem/HP09915.i/20may26b.b/ly26s53.d Injection date and time: **26-MAY-2020 22:34**
Data file Sample Info. Line: J1509;1316347;1;0;;JCW57;;;ly26b50; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 22:52 Automation

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 26-MAY-2020 20:28
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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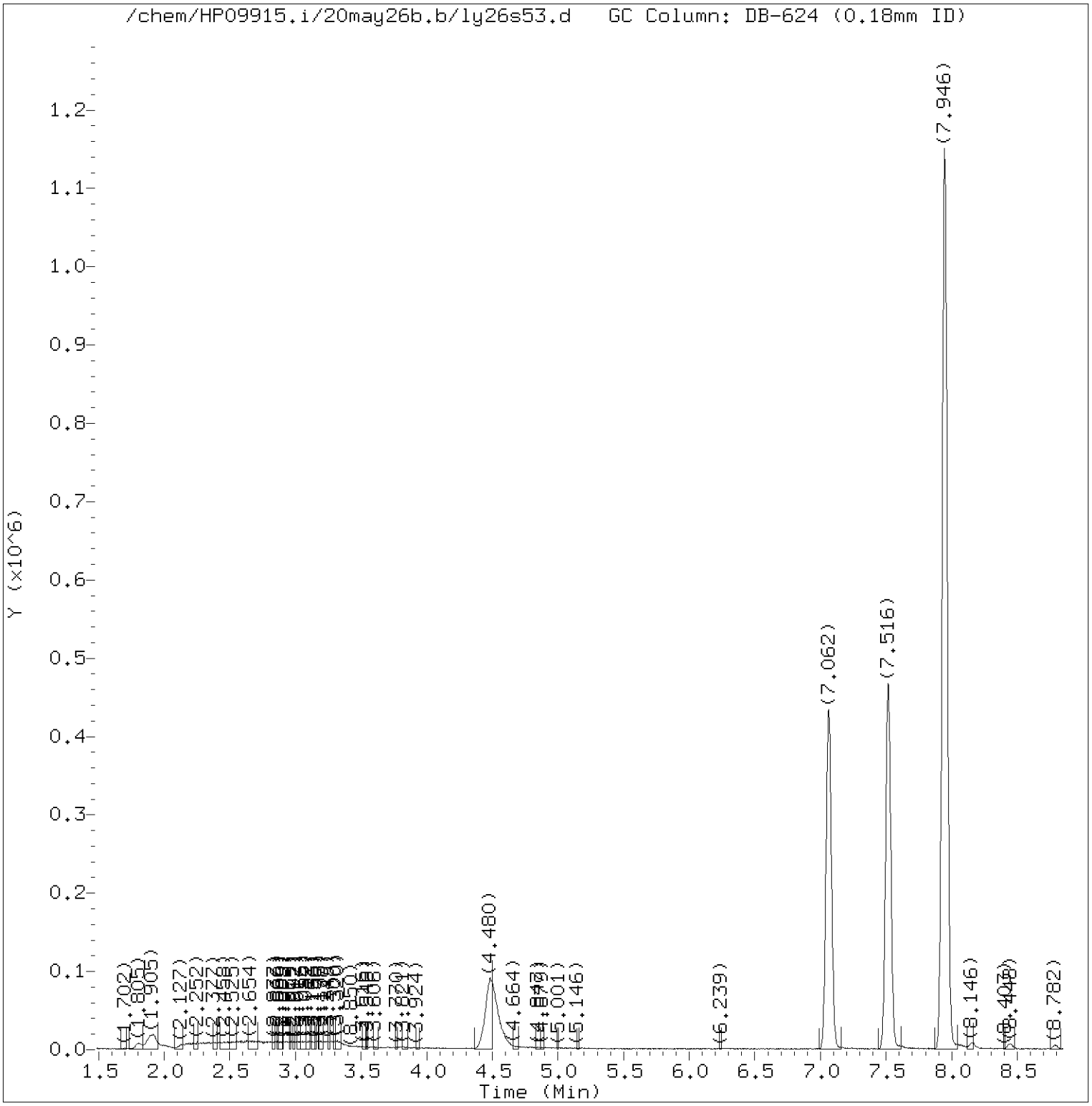
Total number of targets = 24

Digitally signed by Kevin A. Sposito on 05/27/2020 at 12:45. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:20. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

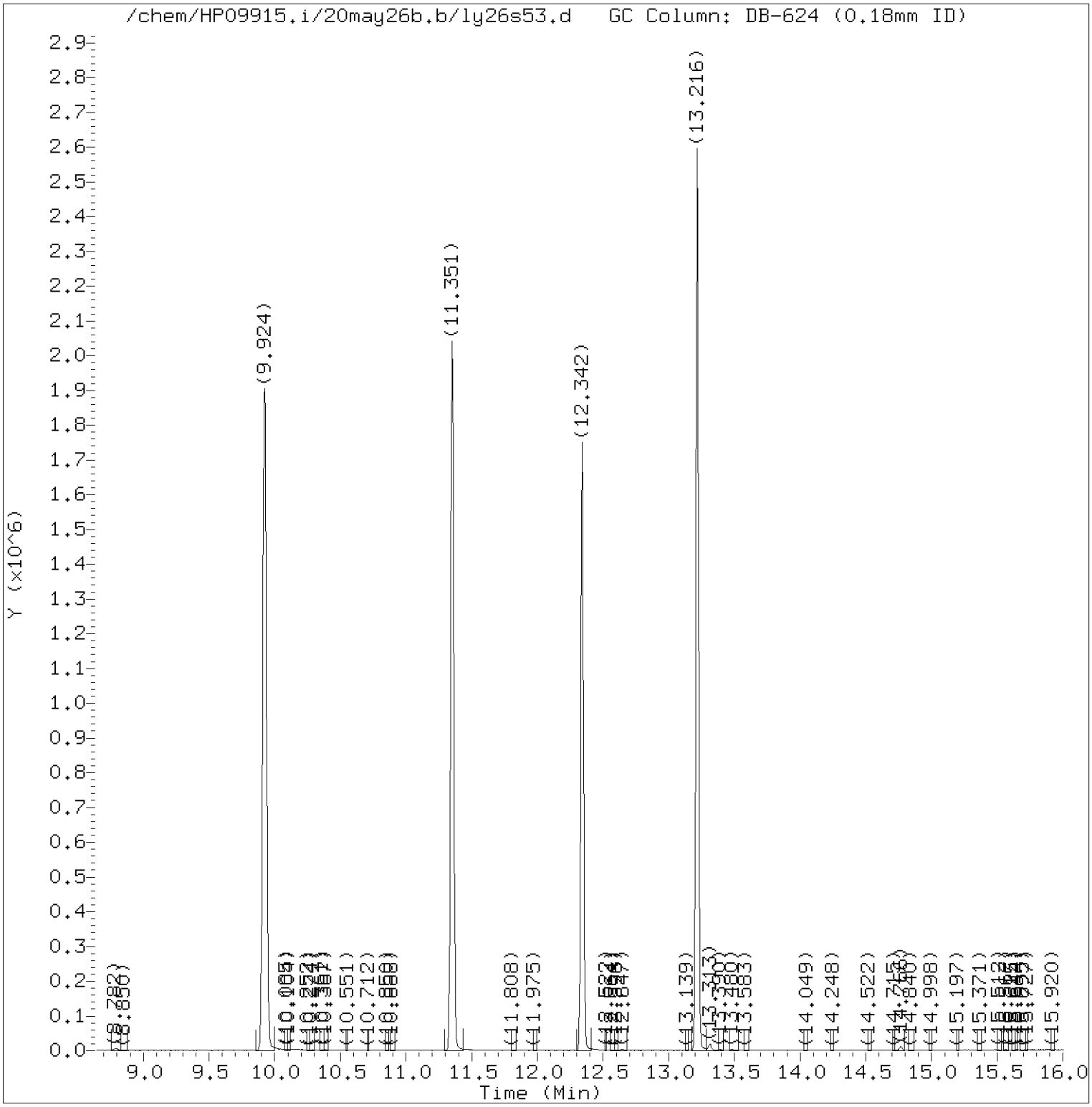
Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26s53.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 22:34 Analyst ID: ljg30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 22:52 Automation

Sample Name: J1509 Lab Sample ID: 1316347

Digitally signed by Kevin A. Sposito
on 05/27/2020 at 12:45.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26s53.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 22:34 Analyst ID: ljg30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 22:52 Automation

Sample Name: J1509 Lab Sample ID: 1316347

Digitally signed by Kevin A. Sposito
on 05/27/2020 at 12:45.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26s53.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 22:34 Analyst ID: ljg30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 22:52 Automation

Sample Name: J1509 Lab Sample ID: 1316347

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.484	65	296151	250.000
52)$Dibromofluoromethane	(2)	7.062	113	390931	50.342
57)$1,2-Dichloroethane-d4	(2)	7.516	102	99270	50.380
66)*Fluorobenzene	(2)	7.946	96	1541425	50.000
83)$Toluene-d8	(3)	9.924	98	1480720	50.176
100)*Chlorobenzene-d5	(3)	11.351	117	1148730	50.000
114)$4-Bromofluorobenzene	(3)	12.339	95	522703	46.034
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	608364	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/27/2020 at 12:45.
Target 3.5 esignature user ID: kas02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

J1510

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1316348

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s02.d

Level: (low/med) LOW Date Received: 05/15/20

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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J1510 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1316348

Data file: /chem2/HP09355.i/20may22a.b/yy22s02.d Injection date and time: **22-MAY-2020 11:11**
Data file Sample Info. Line: J1510;1316348;1;0;;JCW57;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:28 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.361	(0.000)	457	65	428605	(-7)	250.00	
66) Fluorobenzene	7.859	(0.006)	1032	96	1316294	(-6)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	982060	(-7)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	524225	(-8)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(-0.001)	113	297395	49.743	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(-0.001)	102	81374	51.612	103%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1245962	48.586	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(0.000)	95	458827	47.221	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Data file: /chem2/HP09355.i/20may22a.b/yy22s02.d Injection date and time: **22-MAY-2020 11:11**
Data file Sample Info. Line: J1510;1316348;1;0;;JCW57;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:28 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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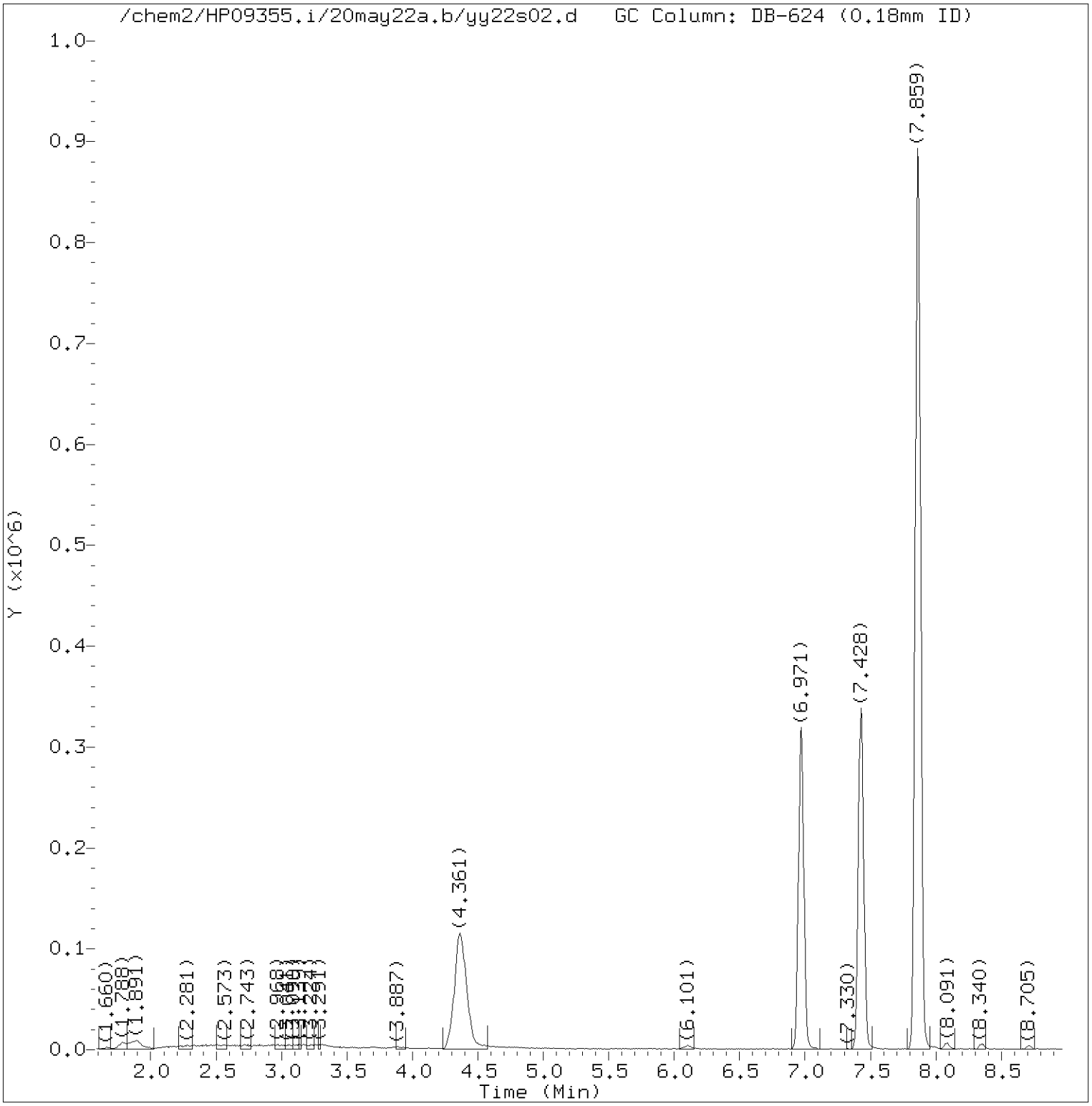
Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 13:49. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

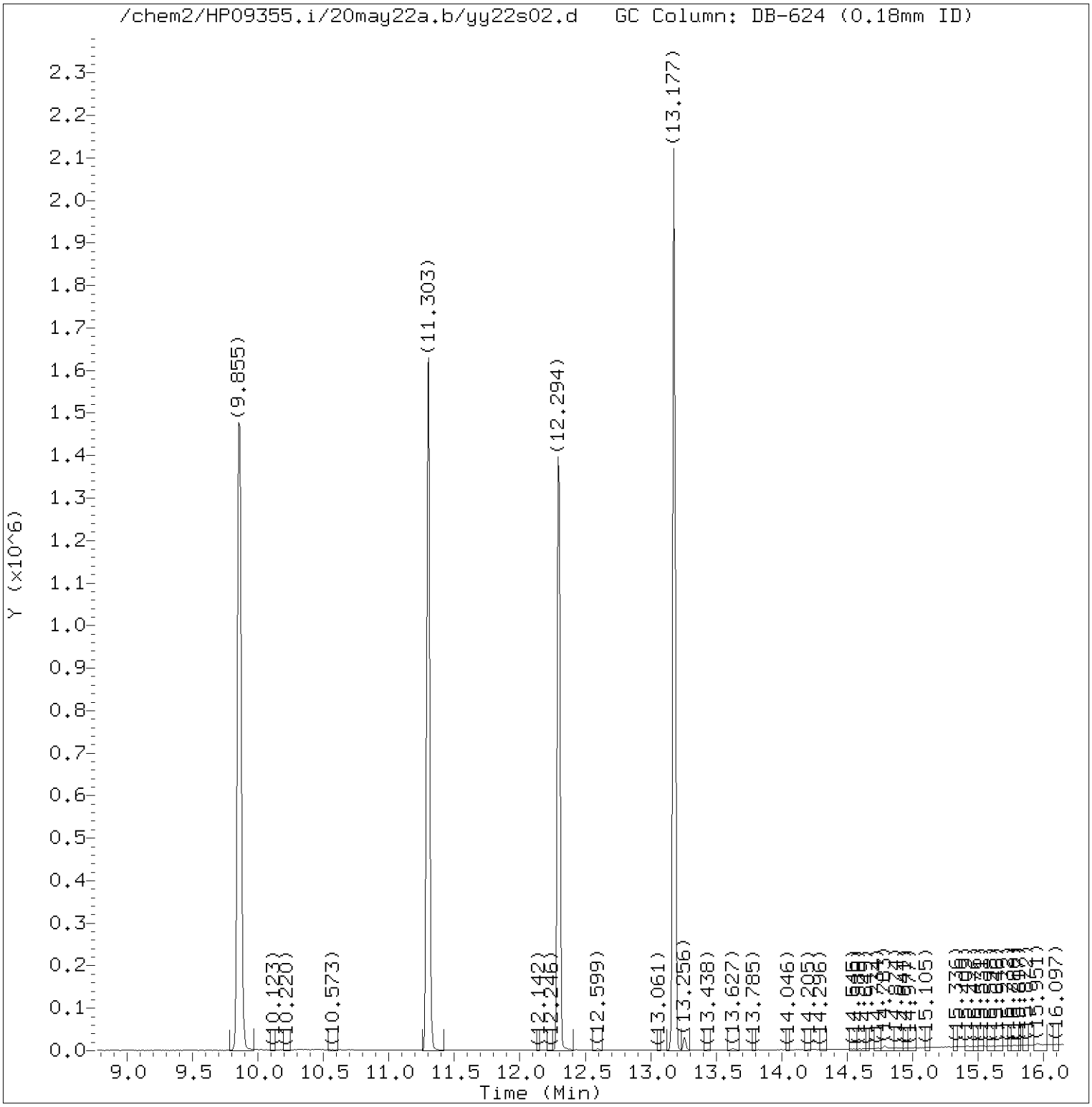
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s02.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:11 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:28 Automation

Sample Name: J1510 Lab Sample ID: 1316348

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s02.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:11 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:28 Automation

Sample Name: J1510 Lab Sample ID: 1316348

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s02.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 11:11 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:28 Automation

Sample Name: J1510 Lab Sample ID: 1316348

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.361	65	428605	250.000
52)$Dibromofluoromethane	(2)	6.971	113	297395	49.743
57)$1,2-Dichloroethane-d4	(2)	7.428	102	81374	51.612
66)*Fluorobenzene	(2)	7.859	96	1316294	50.000
83)$Toluene-d8	(3)	9.855	98	1245962	48.586
100)*Chlorobenzene-d5	(3)	11.303	117	982060	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	458827	47.221
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	524225	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 13:49.
Target 3.5 esignature user ID: dvv10203

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - O:\20jan09a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
amd00492	nj09t01.D	50NGBFB	01/09/2020	06:57		
amd00492	NJ09I01.D	VSTD300	01/09/2020	07:53		
amd00492	NJ09I02.D	VSTD100	01/09/2020	08:15		
amd00492	NJ09I03.D	VSTD050	01/09/2020	08:37		
amd00492	NJ09I04.D	VSTD020	01/09/2020	08:58		
amd00492	NJ09I05.D	VSTD010	01/09/2020	09:20		
amd00492	NJ09I06.D	VSTD004	01/09/2020	09:42		
amd00492	NJ09I07.D	VSTD001	01/09/2020	10:04		
amd00492	NJ09l01.D	ICVNLG	01/09/2020	10:26		
amd00492	NJ09B01.D	VBLKN00	01/09/2020	11:10		
amd00492	NJ09M01.D	MDLN01	01/09/2020	11:32		
amd00492	NJ09M02.D	MDLN02	01/09/2020	11:54		
amd00492	NJ09M03.D	MDLN03	01/09/2020	12:16		
amd00492	NJ09X01.D	BLANK	01/09/2020	07:09		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - C:\MSDCHEM\1\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	YA21T01.D	50NGBFB	04/21/2020	20:37		
KAS02648	YA21T02.D	50NGBFB	04/21/2020	20:52		
KAS02648	YA21T03.D	50NGBFB	04/21/2020	21:04		
KAS02648	YA21T04.D	50NGBFB	04/21/2020	21:21		
KAS02648	YA21X01.D	CBLK	04/21/2020	21:31		
KAS02648	YA21I01.D	VSTD300	04/21/2020	21:54		
KAS02648	YA21I02.D	VSTD100	04/21/2020	22:16		
KAS02648	YA21I03.D	VSTD050	04/21/2020	22:38		
KAS02648	YA21I04.D	VSTD020	04/21/2020	23:00		
KAS02648	YA21I05.D	VSTD010	04/21/2020	23:22		
KAS02648	YA21I06.D	VSTD004	04/21/2020	23:44		
KAS02648	YA21I07.D	VSTD001	04/22/2020	00:06		
KAS02648	YA21X02.D	CBLK	04/22/2020	00:28		
KAS02648	YA21V01.D	YLGICV	04/22/2020	00:49		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may04I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	LY04T02.D	50NGBFB	05/04/2020	11:11		
lcp00895	LY04X01.D	CLNBLK	05/04/2020	11:56		
lcp00895	LY04I01.D	VSTD300	05/04/2020	12:18		
lcp00895	LY04I02.D	VSTD100	05/04/2020	12:40		
lcp00895	LY04I03.D	VSTD050	05/04/2020	13:02		
lcp00895	LY04I04.D	VSTD020	05/04/2020	13:24		
lcp00895	LY04I05.D	VSTD010	05/04/2020	13:46		
lcp00895	LY04I06.D	VSTD004	05/04/2020	14:08		
lcp00895	LY04I07.D	VSTD001	05/04/2020	14:30		
lcp00895	LY04V01.D	ICVLLG	05/04/2020	14:52		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5A21T01.D	50 ng BFB	04/21/2020	20:36		
KAS02648	5A21X01.D	BLK	04/21/2020	20:59		
KAS02648	5A21I01.D	VSTD300	04/21/2020	21:19		
KAS02648	5A21I02.D	VSTD100	04/21/2020	21:40		
KAS02648	5A21I03.D	VSTD050	04/21/2020	22:00		
KAS02648	5A21I04.D	VSTD020	04/21/2020	22:21		
KAS02648	5A21I05.D	VSTD010	04/21/2020	22:42		
KAS02648	5A21I06.D	VSTD004	04/21/2020	23:02		
KAS02648	5A21I07.D	VSTD001	04/21/2020	23:23		
KAS02648	5A21X02.D	BLK	04/21/2020	23:44		
KAS02648	5A21V01.D	LG5ICV	04/22/2020	00:05		

Lancaster Laboratories
Volatiles
Runlog for Hewlett Packard GC/MS System HP07159 **HP #11**

Data Directory Path is - D:\DATAHP11\20MAY22A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
lcp00895	NY22T01.D	50NGBFB	05/22/2020	09:26		
LCP00895	NY22X00.D	CBLKN	05/22/2020	10:38	N201431AA	
LCP00895	NY22C01.D	VSTD050	05/22/2020	11:00	N201431AA	
LCP00895	NY22B01.D	VBLKN45	05/22/2020	12:06	N201431AA	
LCP00895	NY22S02.D	1315379	05/22/2020	12:28	N201431AA	
LCP00895	NY22S03.D	1315372	05/22/2020	12:50	N201431AA	
LCP00895	NY22S04.D	1315373	05/22/2020	13:12	N201431AA	
LCP00895	NY22S05.D	1315374MS	05/22/2020	13:34	N201431AA	
LCP00895	NY22S06.D	1315375MSD	05/22/2020	13:56	N201431AA	
LCP00895	NY22S07.D	1315377	05/22/2020	14:18	N201431AA	
LCP00895	NY22S08.D	1315378	05/22/2020	14:40	N201431AA	
LCP00895	NY22S09.D	1315380	05/22/2020	15:02	N201431AA	
LCP00895	NY22S10.D	1315381	05/22/2020	15:24	N201431AA	
LCP00895	NY22S11.D	1316321	05/22/2020	15:46	N201431AA	
LCP00895	NY22S12.D	1316322	05/22/2020	16:08	N201431AA	
LCP00895	NY22S13.D	1316330	05/22/2020	16:30	N201431AA	
LCP00895	NY22S14.D	1316331	05/22/2020	16:52	N201431AA	
LCP00895	NY22S15.D	1316332	05/22/2020	17:14	N201431AA	
LCP00895	NY22S16.D	1316333	05/22/2020	17:36	N201431AA	
LCP00895	NY22S17.D	1316334	05/22/2020	17:58	N201431AA	
LCP00895	NY22S18.D	1316335	05/22/2020	18:20	N201431AA	
LCP00895	NY22S19.D	1316336	05/22/2020	18:42	N201431AA	
LCP00895	NY22S20.D	1316337	05/22/2020	19:04	N201431AA	
LCP00895	NY22S21.D	1316338	05/22/2020	19:26	N201431AA	
LCP00895	NY22S22.D	1316339	05/22/2020	19:48	N201431AA	
LCP00895	NY22S23.D	1316340	05/22/2020	20:10	N201431AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09355 **HP #20**

Data Directory Path is - C:\MSDCHEM\1\DATA\20MAY22A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
dvv10203	YY22T01.D	50NGBFB	05/22/2020	08:33		
dvv10203	YY22T02.D	50NGBFB	05/22/2020	08:47		
dvv10203	YY22T03.D	50NGBFB	05/22/2020	09:08		
DVV10203	YY22X01.D	BLK	05/22/2020	09:20	Y201431AA	
DVV10203	YY22C01.D	VSTD050	05/22/2020	09:42	Y201431AA	
DVV10203	YY22S01.D	LCSY94	05/22/2020	10:04	Y201431AA	
DVV10203	YY22R01.D	RLVY94	05/22/2020	10:26	Y201431AA	
DVV10203	YY22B01.D	VBLKY94	05/22/2020	10:48	Y201431AA	
DVV10203	YY22S02.D	1316348	05/22/2020	11:11	Y201431AA	
DVV10203	YY22S03.D	1316310	05/22/2020	11:33	Y201431AA	
DVV10203	YY22S04.D	1316311MS	05/22/2020	11:54	Y201431AA	
DVV10203	YY22S05.D	1316312MSD	05/22/2020	12:16	Y201431AA	
DVV10203	YY22X02.D	BLK	05/22/2020	12:38	Y201431AA	
DVV10203	YY22S06.D	1316313	05/22/2020	13:00	Y201431AA	
DVV10203	YY22S07.D	1316314	05/22/2020	13:22	Y201431AA	
DVV10203	YY22S08.D	1316315	05/22/2020	13:44	Y201431AA	
DVV10203	YY22S09.D	1316316	05/22/2020	14:06	Y201431AA	
DVV10203	YY22S10.D	1316317	05/22/2020	14:28	Y201431AA	
DVV10203	YY22S11.D	1316318	05/22/2020	14:50	Y201431AA	
DVV10203	YY22S12.D	1316319	05/22/2020	15:12	Y201431AA	
DVV10203	YY22S13.D	1316320	05/22/2020	15:34	Y201431AA	
DVV10203	YY22S14.D	1316341	05/22/2020	15:56	Y201431AA	
DVV10203	YY22S15.D	1316387	05/22/2020	16:18	Y201431AA	
DVV10203	YY22S16.D	1316388	05/22/2020	16:40	Y201431AA	
DVV10203	YY22S17.D	1316389	05/22/2020	17:02	Y201431AA	
DVV10203	YY22S18.D	1316390	05/22/2020	17:24	Y201431AA	
DVV10203	YY22S19.D	1316391	05/22/2020	17:46	Y201431AA	
DVV10203	YY22S20.D	1316392	05/22/2020	18:08	Y201431AA	
DVV10203	YY22S21.D	1316393	05/22/2020	18:30	Y201431AA	
DVV10203	YY22S22.D	1316394	05/22/2020	18:52	Y201431AA	
DVV10203	YY22S23.D	1316395	05/22/2020	19:14	Y201431AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may26b\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
ljg30941	LY26T50.D	50NGBFB	05/26/2020	19:34		
LJG30941	LY26X50.D	BLK	05/26/2020	19:48	L201472AA	
LJG30941	LY26C50.D	VSTD050	05/26/2020	20:10	L201472AA	
LJG30941	LY26L50.D	LCSL95	05/26/2020	20:32	L201472AA	
LJG30941	LY26R50.D	RLVL95	05/26/2020	20:54	L201472AA	
LJG30941	LY26B50.D	VBLKL95	05/26/2020	21:16	L201472AA	
ljg30941	LY26S51.D	1316195	05/26/2020	21:50	L201472AA	
ljg30941	LY26S52.D	1316396	05/26/2020	22:12	L201472AA	
ljg30941	LY26S53.D	1316347	05/26/2020	22:34	L201472AA	
ljg30941	LY26S54.D	1316228	05/26/2020	22:56	L201472AA	
ljg30941	LY26S55.D	1316188	05/26/2020	23:18	L201472AA	
ljg30941	LY26S56.D	1316189MS	05/26/2020	23:40	L201472AA	
ljg30941	LY26S57.D	1316190MSD	05/27/2020	00:02	L201472AA	
ljg30941	LY26S58.D	1316191	05/27/2020	00:24	L201472AA	
ljg30941	LY26S59.D	1316192	05/27/2020	00:46	L201472AA	
ljg30941	LY26S60.D	1316193	05/27/2020	01:08	L201472AA	
ljg30941	LY26S61.D	1316194	05/27/2020	01:30	L201472AA	
ljg30941	LY26S62.D	1316402	05/27/2020	01:51	L201472AA	
ljg30941	LY26S63.D	1316406	05/27/2020	02:13	L201472AA	
ljg30941	LY26S64.D	1316407	05/27/2020	02:35	L201472AA	
ljg30941	LY26S65.D	1316408	05/27/2020	02:57	L201472AA	
ljg30941	LY26S66.D	1316222	05/27/2020	03:19	L201472AA	
ljg30941	LY26S67.D	1316223	05/27/2020	03:41	L201472AA	
ljg30941	LY26S68.D	1316224	05/27/2020	04:03	L201472AA	
ljg30941	LY26S69.D	1316225	05/27/2020	04:25	L201472AA	
ljg30941	LY26S70.D	1316226	05/27/2020	04:47	L201472AA	
ljg30941	LY26S71.D	1316227	05/27/2020	05:09	L201472AA	
ljg30941	LY26S72.D	1316409	05/27/2020	05:31	L201472AA	2

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20may23a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5Y23T01.D	50NGBFB	05/23/2020	14:02	5201441AA	
KAS02648	5Y23X01.D	BLANK	05/23/2020	14:13	5201441AA	
KAS02648	5Y23C01.D	VSTD050	05/23/2020	14:34	5201441AA	
KAS02648	5Y23S01.D	LCS567	05/23/2020	14:54	5201441AA	
KAS02648	5Y23X02.D	BLANK	05/23/2020	15:15	5201441AA	
KAS02648	5Y23B01.D	VBLK567	05/23/2020	15:36	5201441AA	
KAS02648	5Y23S02.D	1316327	05/23/2020	16:02	5201441AA	
KAS02648	5Y23S03.D	1316328MS	05/23/2020	16:23	5201441AA	
KAS02648	5Y23S04.D	1316329MSD	05/23/2020	16:43	5201441AA	
KAS02648	5Y23S05.D	1315727	05/23/2020	17:04	5201441AA	
KAS02648	5Y23S06.D	1315728	05/23/2020	17:25	5201441AA	
KAS02648	5Y23S07.D	1316323	05/23/2020	17:45	5201441AA	
KAS02648	5Y23S08.D	1316324	05/23/2020	18:06	5201441AA	
KAS02648	5Y23S09.D	1316325	05/23/2020	18:26	5201441AA	
KAS02648	5Y23S10.D	1316326	05/23/2020	18:47	5201441AA	
KAS02648	5Y23S11.D	1316342	05/23/2020	19:07	5201441AA	
KAS02648	5Y23S12.D	1316343	05/23/2020	19:28	5201441AA	
KAS02648	5Y23S13.D	1316344	05/23/2020	19:49	5201441AA	
KAS02648	5Y23S14.D	1316345	05/23/2020	20:09	5201441AA	
KAS02648	5Y23S15.D	1316346	05/23/2020	20:30	5201441AA	
KAS02648	5Y23S16.D	1315721	05/23/2020	20:51	5201441AA	
KAS02648	5Y23S21.D	1315721DL	05/23/2020	21:12	5201441AA	10
KAS02648	5Y23S17.D	1315722	05/23/2020	21:33	5201441AA	2
KAS02648	5Y23S22.D	1315722DL	05/23/2020	21:54	5201441AA	20
KAS02648	5Y23S18.D	1315724	05/23/2020	22:14	5201441AA	5
KAS02648	5Y23S23.D	1315724DL	05/23/2020	22:35	5201441AA	50
KAS02648	5Y23S19.D	1315725	05/23/2020	22:55	5201441AA	5
KAS02648	5Y23S24.D	1315725DL	05/23/2020	23:16	5201441AA	50
KAS02648	5Y23S20.D	1315726	05/23/2020	23:37	5201441AA	
KAS02648	5Y23S25.D	1315726DL	05/23/2020	23:59	5201441AA	10
KAS02648	5Y23S26.D	1315730	05/24/2020	00:19	5201441AA	5
KAS02648	5Y23S27.D	1315730DL	05/24/2020	00:40	5201441AA	50

Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

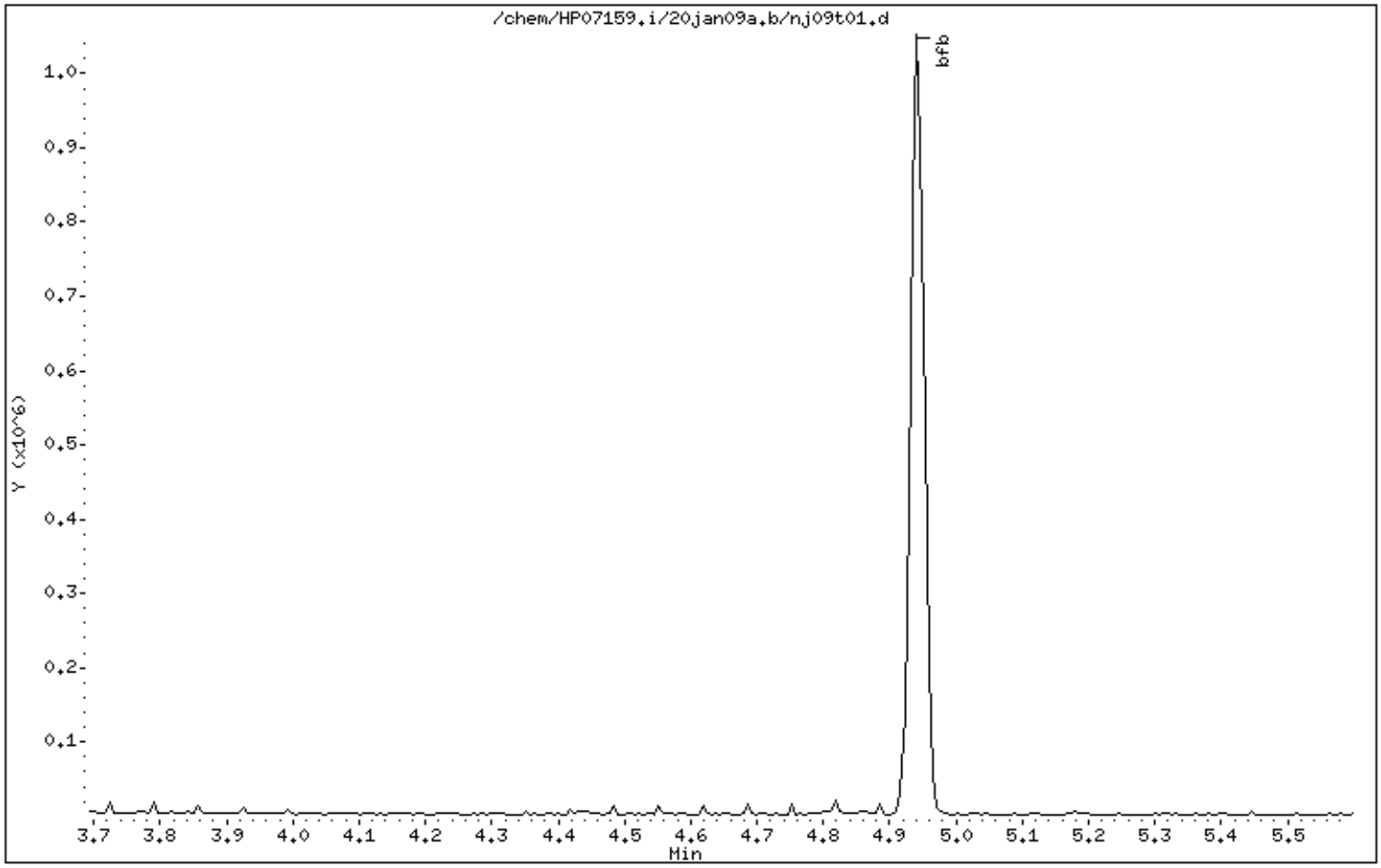
Instrument: HP07159.i

Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20jan09a.b/nj09t01.d

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19

Instrument: HP07159.i

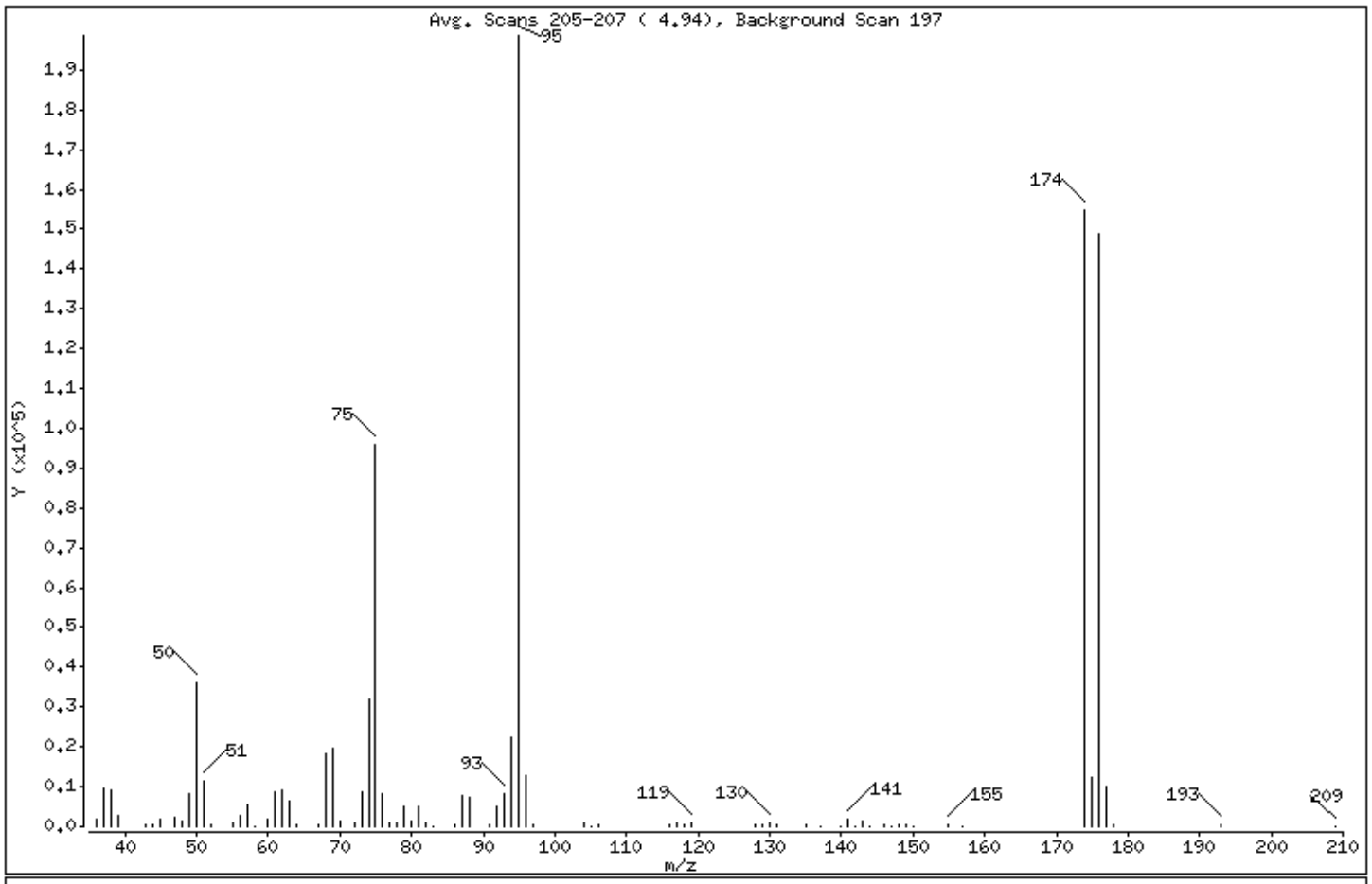
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	18.24
75	30.00 - 60.00% of mass 95	48.22
96	5.00 - 9.00% of mass 95	6.40
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	77.86
175	5.00 - 9.00% of mass 174	6.18 (7.94)
176	95.00 - 101.00% of mass 174	74.98 (96.30)
177	5.00 - 9.00% of mass 176	5.08 (6.77)

Date : 09-JAN-2020 06:57

Client ID: BFB AUG02-19 Instrument: HP07159.i

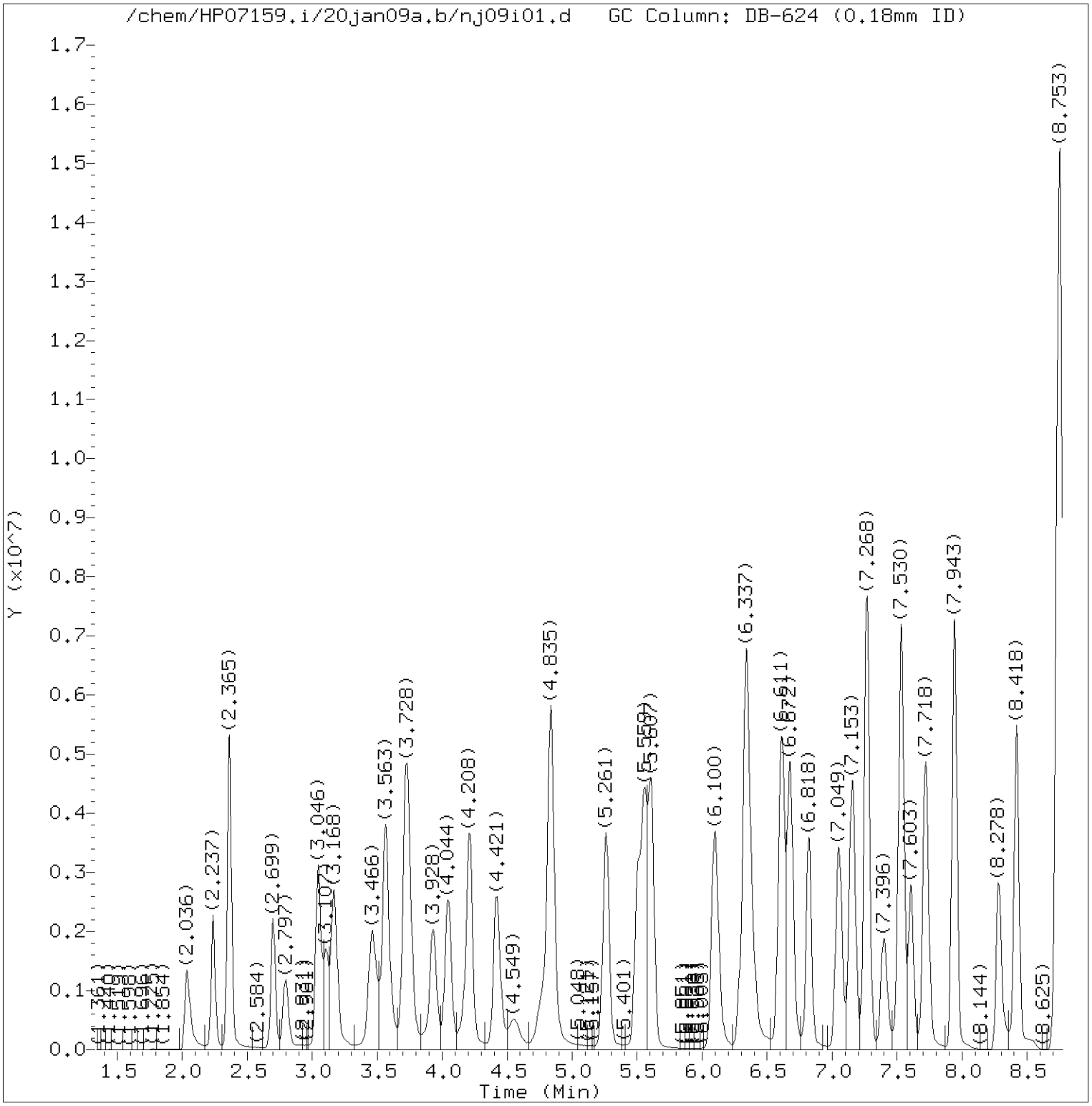
Sample Info: BFB AUG02-19;50NGBFB;1;3;;

Operator: amd00492

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: nj09t01.d
Spectrum: Avg. Scans 205-207 (4.94), Background Scan 197
Location of Maximum: 95.00
Number of points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1953	64.00	666	92.00	5080	142.00	95
37.00	9560	67.00	678	93.00	8056	143.00	1498
38.00	8918	68.00	18480	94.00	22344	144.00	84
39.00	2843	69.00	19424	95.00	198592	146.00	319
43.00	350	70.00	1523	96.00	12706	147.00	87
44.00	450	72.00	1082	97.00	496	148.00	442
45.00	1655	73.00	8728	104.00	818	149.00	281
47.00	2085	74.00	31872	105.00	90	150.00	214
48.00	1312	75.00	95760	106.00	678	155.00	337
49.00	8082	76.00	8401	116.00	637	157.00	132
50.00	36224	77.00	1091	117.00	1059	174.00	154624
51.00	11259	78.00	888	118.00	628	175.00	12278
52.00	532	79.00	4897	119.00	1082	176.00	148864
55.00	740	80.00	1500	128.00	639	177.00	10081
56.00	2915	81.00	4870	129.00	262	178.00	324
57.00	5531	82.00	1040	130.00	700	193.00	349
58.00	90	83.00	86	131.00	393	209.00	93
60.00	1942	86.00	292	135.00	352		
61.00	8880	87.00	7728	137.00	222		
62.00	9156	88.00	7312	140.00	196		
63.00	6262	91.00	680	141.00	1693		



Total Ion Chromatogram (TIC)

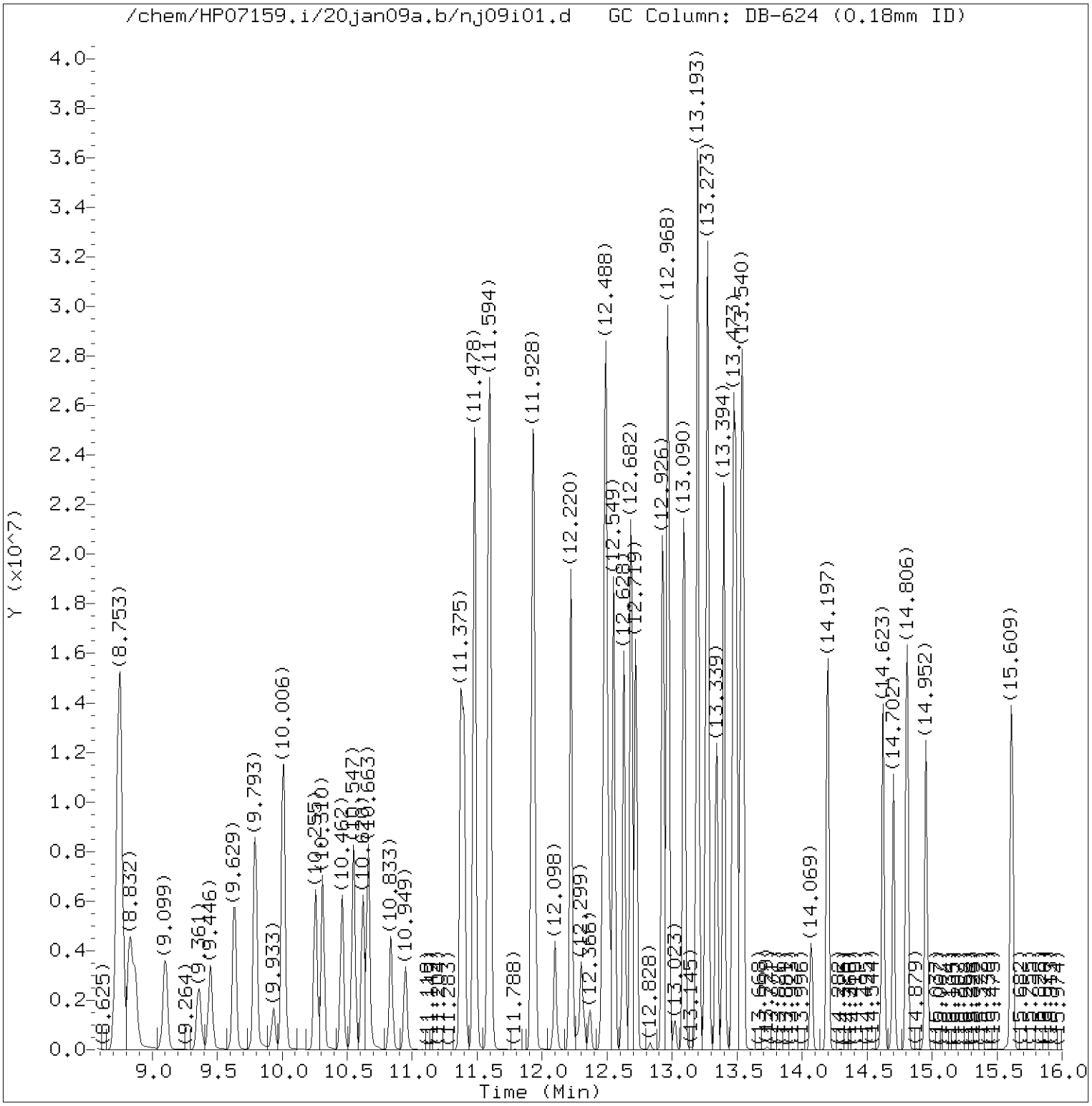
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.036	85	2738246M	268.201
4) Chloromethane	(2)	2.237	50	3089997	282.457
6) Vinyl Chloride	(2)	2.359	62	3002390	282.029
5) 1,3-Butadiene	(2)	2.365	39	1990849M	260.806
8) Bromomethane	(2)	2.699	94	2045532	280.243
9) Chloroethane	(2)	2.797	64	1753734	281.462
10) Dichlorofluoromethane	(2)	3.046	67	3958703	277.427
12) Trichlorofluoromethane	(2)	3.107	101	3132174	267.714
11) n-Pentane	(2)	3.168	43	2968834	258.991
13) Ethanol	(1)	3.247	45	603558	6746.236
15) Freon 123a	(2)	3.460	67	2362460	275.623
16) Acrolein	(1)	3.563	56	7156452	2855.044
17) 1,1-Dichloroethene	(2)	3.722	96	1936948	284.072
17) 1,1-Dichloroethene	(2)	3.715	63	1019849	285.033
18) Acetone	(1)	3.740	58	589186	558.067
19) Freon 113	(2)	3.740	101	1769286	279.670
21) 2-Propanol	(1)	3.916	45	963309	1381.464
22) Methyl Iodide	(2)	3.928	142	3686681	289.671
23) Carbon Disulfide	(2)	4.044	76	6354733	291.445
27) Methyl Acetate	(2)	4.184	43	2298966	274.450
25) Allyl Chloride	(2)	4.214	41	3345372	277.910
28) Methylene Chloride	(2)	4.421	84	2264482	279.619
29)*t-Butyl alcohol-d10	(1)	4.427	65	369636M	250.000
30) t-Butyl alcohol	(1)	4.549	59	1912785	1388.033
31) Acrylonitrile	(2)	4.756	53	1273489	281.492
33) Methyl Tertiary Butyl Ether	(2)	4.829	73	6075255	274.189
32) trans-1,2-Dichloroethene	(2)	4.841	96	2241389	287.940
34) n-Hexane	(2)	5.261	57	3184011	296.303
36) 1,1-Dichloroethane	(2)	5.504	63	4147607	292.081
38) di-Isopropyl ether	(2)	5.559	45	6977493	285.241
39) 2-Chloro-1,3-butadiene	(2)	5.607	53	3658718	291.885
40) Ethyl t-butyl ether	(2)	6.100	59	6382601	274.517
43) 1,2-Dichloroethene (Total)	(2)		96	4793474	576.617
44) 2-Butanone	(2)	6.301	43	3476315	549.542
42) cis-1,2-Dichloroethene	(2)	6.337	96	2552085	288.677
45) 2,2-Dichloropropane	(2)	6.356	77	3608394	287.823
47) Propionitrile	(1)	6.392	54	2464615	1531.294
48) Methacrylonitrile	(2)	6.611	67	3385627	740.870

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	1224500	292.939
50) Tetrahydrofuran	(1)	6.684	71	993933	594.816
51) Chloroform	(2)	6.818	83	3985674	287.757
52)$Dibromofluoromethane	(2)	7.037	113	319180	49.034
52)$Dibromofluoromethane	(2)	7.037	111	327131	49.218
53) 1,1,1-Trichloroethane	(2)	7.055	97	3663654	292.369
54) Cyclohexane	(2)	7.159	56	3705806	287.516
54) Cyclohexane	(2)	7.153	84	3220654	286.708
54) Cyclohexane	(2)	7.159	69	1184347	292.344
55) 1,1-Dichloropropene	(2)	7.268	75	3320490	292.956
56) Carbon Tetrachloride	(2)	7.268	117	3150399	291.582
58) Isobutyl Alcohol	(1)	7.396	41	1811417	3669.512
57)$1,2-Dichloroethane-d4	(2)	7.505	102	80508	48.916
57)$1,2-Dichloroethane-d4	(2)	7.499	65	388669	49.092
57)$1,2-Dichloroethane-d4	(2)	7.505	104	50708	48.423
60) Benzene	(2)	7.530	78	9312058	288.626
61) 1,2-Dichloroethane	(2)	7.603	62	3292851	288.491
61) 1,2-Dichloroethane	(2)	7.609	98	304801	324.451
65) t-Amyl methyl ether	(2)	7.718	73	6167179	264.407
66)*Fluorobenzene	(2)	7.937	96	1311659	50.000
67) n-Heptane	(2)	7.943	43	3900362	314.466
69) n-Butanol	(1)	8.278	56	3298825	7757.808
71) Trichloroethene	(2)	8.418	95	2491166	293.087
72) Methylcyclohexane	(2)	8.734	83	4060354	290.602
72) Methylcyclohexane	(2)	8.734	98	1902493	289.125
73) 1,2-Dichloropropane	(2)	8.759	63	2519735	305.420
76) Methyl Methacrylate	(2)	8.826	69	2289707	303.491
75) 1,4-Dioxane	(1)	8.838	88	432869M	4029.569
74) Dibromomethane	(2)	8.868	93	1546073	293.841
78) Bromodichloromethane	(2)	9.099	83	3217314	299.525
79) 2-Nitropropane	(2)	9.361	41	2132246	546.554
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	1898732	290.945
81) cis-1,3-Dichloropropene	(2)	9.635	75	4132146	301.569
82) 4-Methyl-2-pentanone	(2)	9.793	43	7115176	555.148
83)$Toluene-d8	(3)	9.933	98	1298243	49.882
83)$Toluene-d8	(3)	9.933	100	875240	50.760
88) Toluene	(3)	10.012	92	6123859	289.655
90) 1,3-Dichloropropene (total)	(3)		100	8062158	601.069

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	3930012	299.500
91) Ethyl Methacrylate	(3)	10.310	69	3912057	299.232
92) 1,1,2-Trichloroethane	(3)	10.462	97	2191289	292.742
93) Tetrachloroethene	(3)	10.547	166	2684174	289.918
94) 1,3-Dichloropropane	(3)	10.620	76	3834320	295.134
96) 2-Hexanone	(3)	10.663	43	5540032	553.584
97) Dibromochloromethane	(3)	10.833	129	2631468	306.341
99) 1,2-Dibromoethane	(3)	10.949	107	2418151	295.016
100)*Chlorobenzene-d5	(3)	11.375	117	997921	50.000
102) Chlorobenzene	(3)	11.399	112	6837485	289.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	2567918	301.987
104) Ethylbenzene	(3)	11.484	91	11505554	281.351
106) m+p-Xylene	(3)	11.594	106	9321027	580.123
108) Xylene (Total)	(3)		106	13965856	874.052
107) o-Xylene	(3)	11.922	106	4644829	293.929
109) Styrene	(3)	11.940	104	7801626	293.944
110) Bromoform	(3)	12.098	173	1991378	307.069
111) Isopropylbenzene	(3)	12.220	105	11563233	277.059
112) Cyclohexanone	(1)	12.299	55	1700768	3947.839
114)$4-Bromofluorobenzene	(3)	12.366	95	515503	50.135
114)$4-Bromofluorobenzene	(3)	12.366	174	412996	50.136
116) 1,1,2,2-Tetrachloroethane	(4)	12.463	83	3476859	284.810
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	3152731	750.782
115) Bromobenzene	(4)	12.488	156	3020963	294.309
117) 1,2,3-Trichloropropane	(4)	12.512	110	1122982	290.397
119) n-Propylbenzene	(4)	12.549	91	13218612	265.623
120) 2-Chlorotoluene	(4)	12.628	126	3026075	294.941
122) 1,3,5-Trimethylbenzene	(4)	12.682	105	10266701	281.566
121) 4-Chlorotoluene	(4)	12.719	126	3124276	293.828
124) tert-Butylbenzene	(4)	12.926	134	2476958M	306.546
125) Pentachloroethane	(4)	12.962	167	1955079	302.182
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	10638442	281.107
127) sec-Butylbenzene	(4)	13.090	105	12912890	272.630
129) 1,3-Dichlorobenzene	(4)	13.193	146	5763977	288.719
130) p-Isopropyltoluene	(4)	13.200	119	11456230	277.953
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	555000	50.000
133) 1,4-Dichlorobenzene	(4)	13.266	146	5801015	286.528
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	10089970	274.704

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on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.339	91	7933164	294.011
141) Diethylbenzene (total)	(4)		100	20366768	851.816
136) 1,3-Diethylbenzene	(4)	13.400	119	7006552	283.981
137) 1,4-Diethylbenzene	(4)	13.473	119	7418367	283.166
139) n-Butylbenzene	(4)	13.492	92	6302004	296.409
138) 1,2-Dichlorobenzene	(4)	13.528	146	5429890	286.871
140) 1,2-Diethylbenzene	(4)	13.546	119	5941849	284.669
142) 1,2-Dibromo-3-chloropropane	(4)	14.069	75	978104	296.467
144) 1,3,5-Trichlorobenzene	(4)	14.197	180	4466448	296.046
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	3943896	299.803
147) Hexachlorobutadiene	(4)	14.702	225	1846864	310.363
148) Naphthalene	(4)	14.806	128	11421392	276.905
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	3653958	302.586
150) 2-Methylnaphthalene	(4)	15.609	142	7116852	298.715

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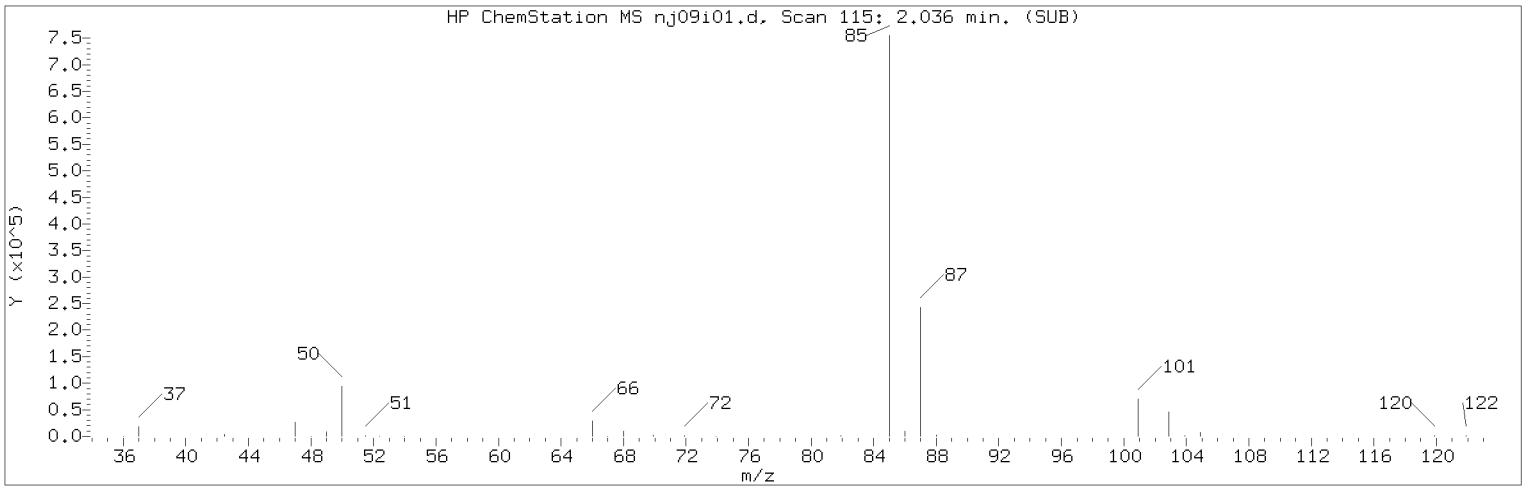
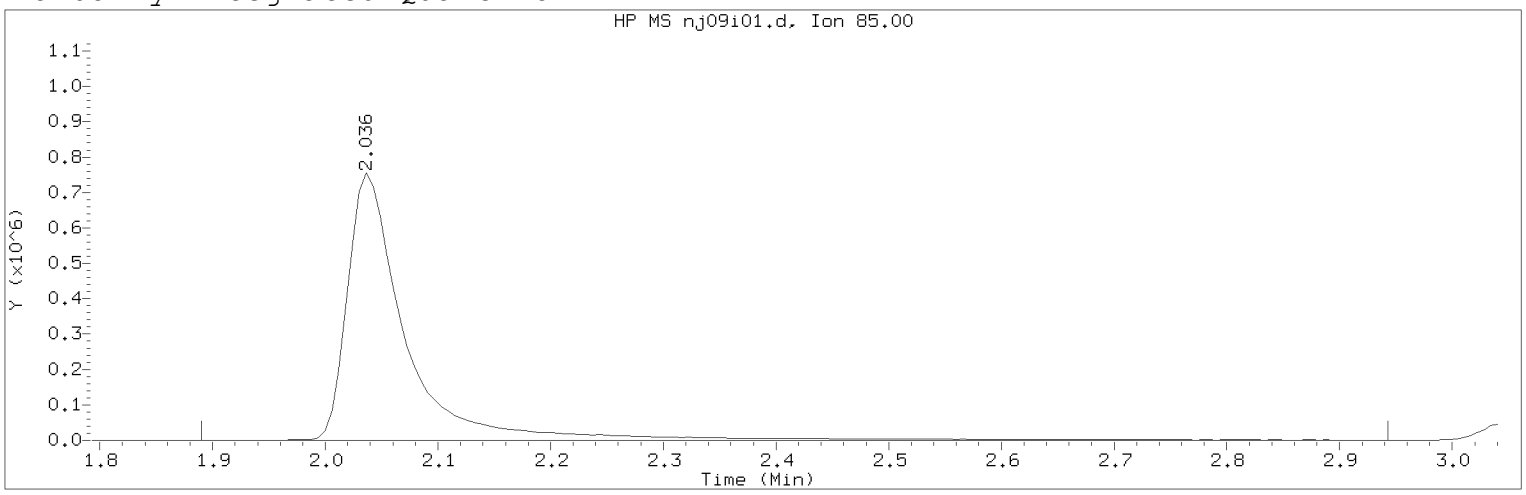
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

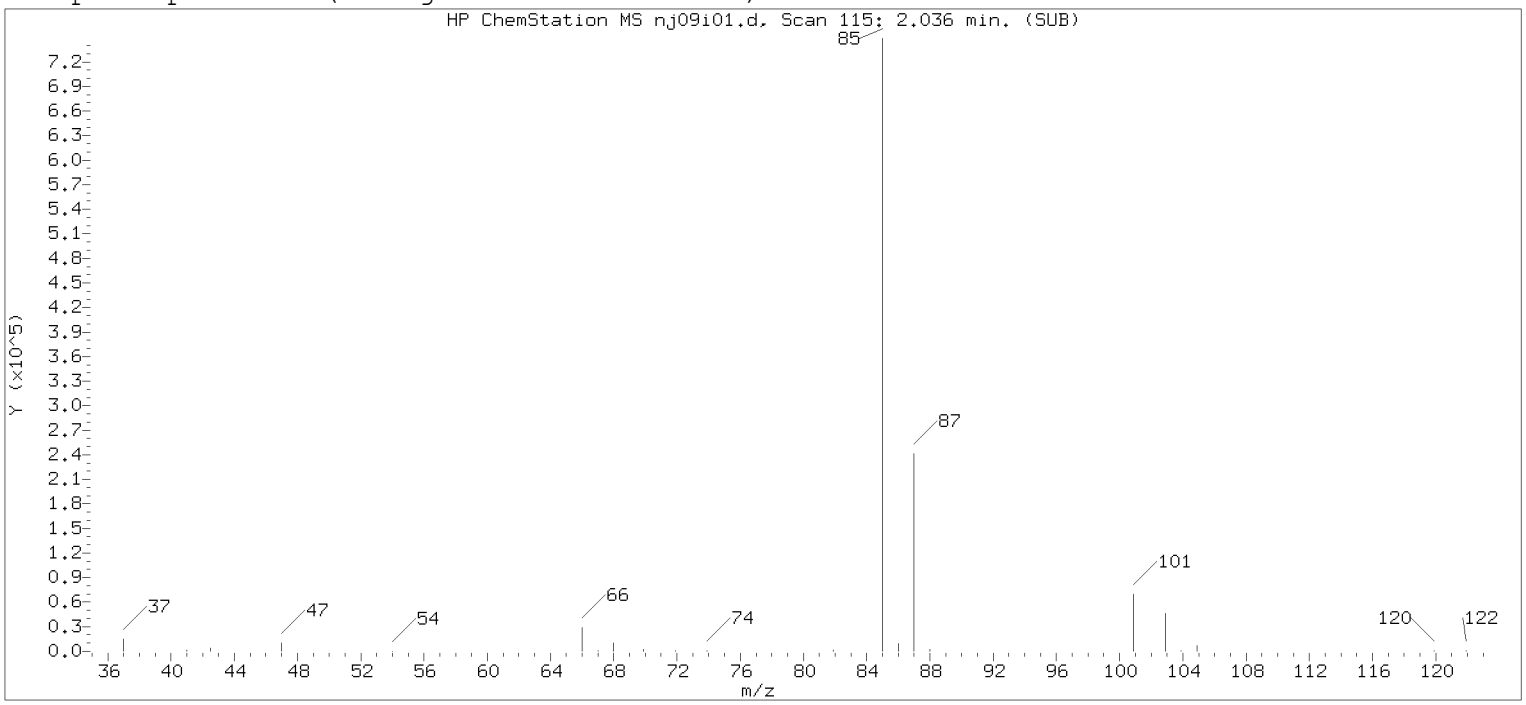
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area (flag) : 2738246M
On-Column Amount (ng) : 268.2007
Integration start scan : 90 Integration stop scan: 263
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

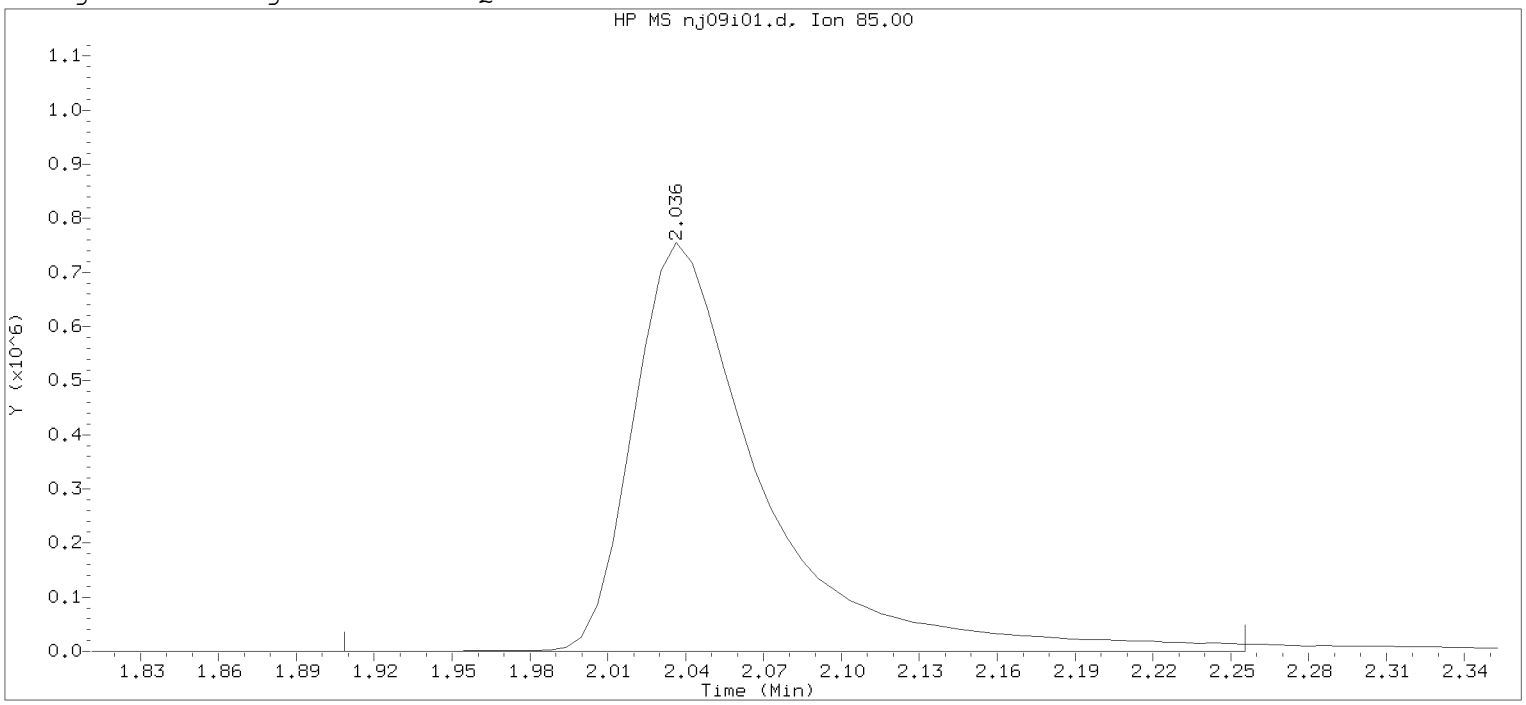
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

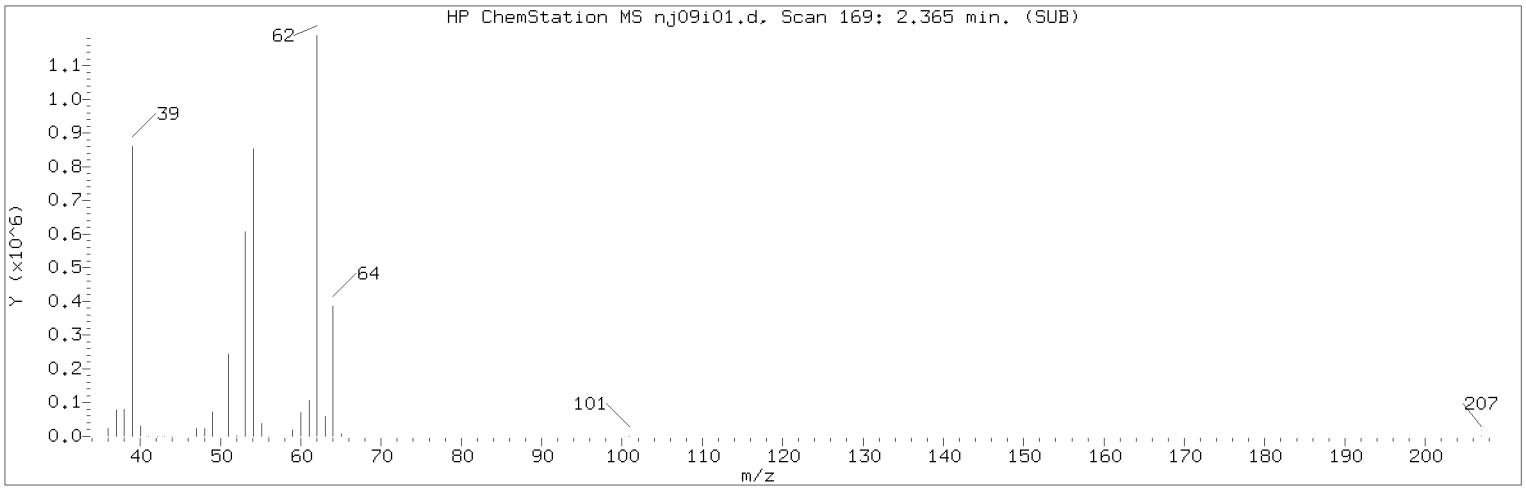
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

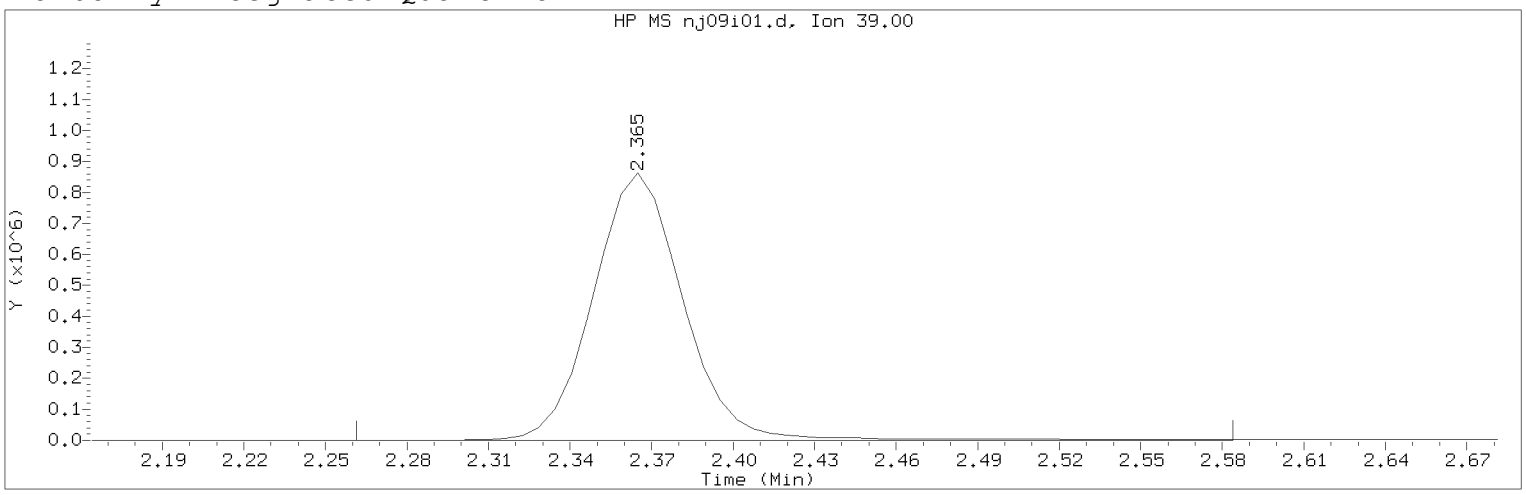
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.036
Quant Ion : 85.00
Area : 2601810
On-column Amount (ng) : 264.4213
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

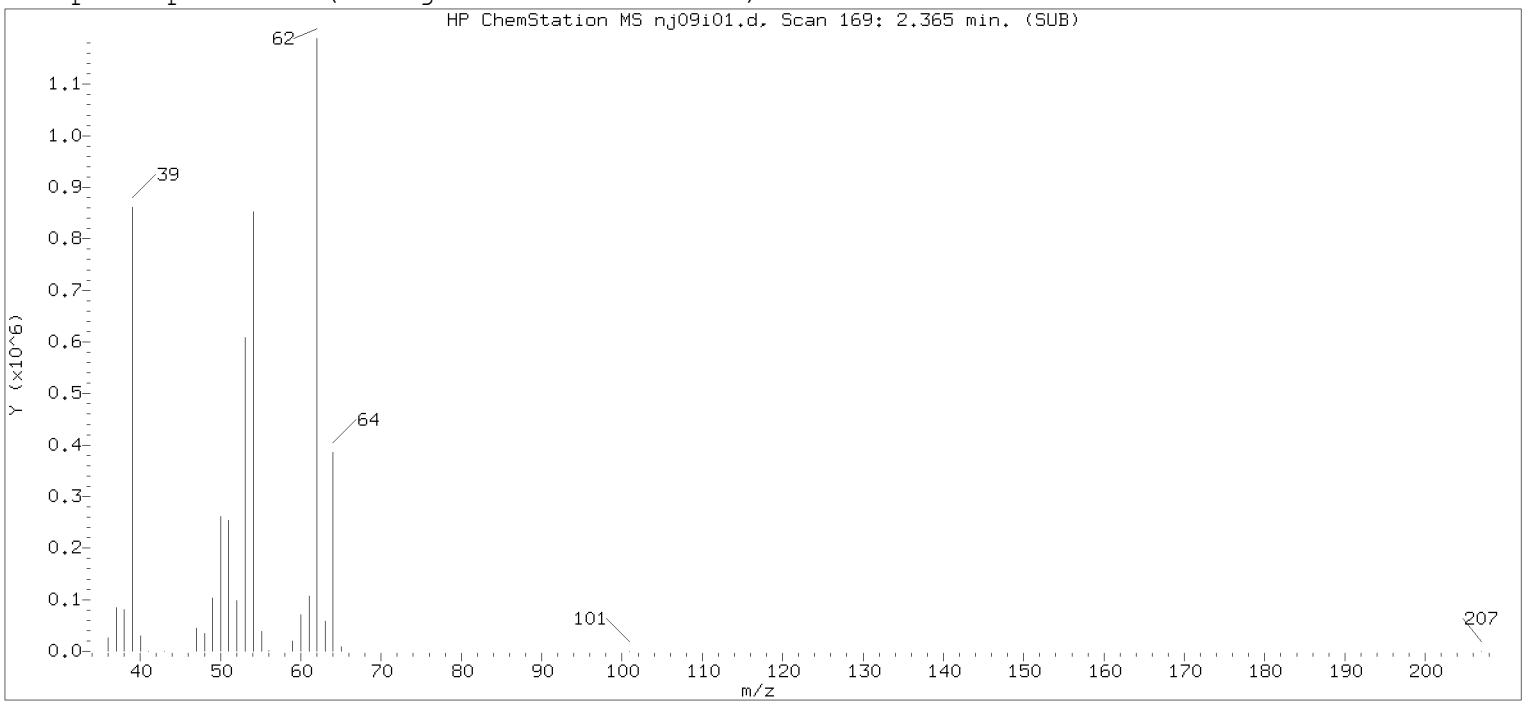
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 1990849M
On-Column Amount (ng) : 260.8062
Integration start scan : 151 Integration stop scan: 204
Y at integration start : 230 Y at integration end: 230

Reason for manual integration: improper integration

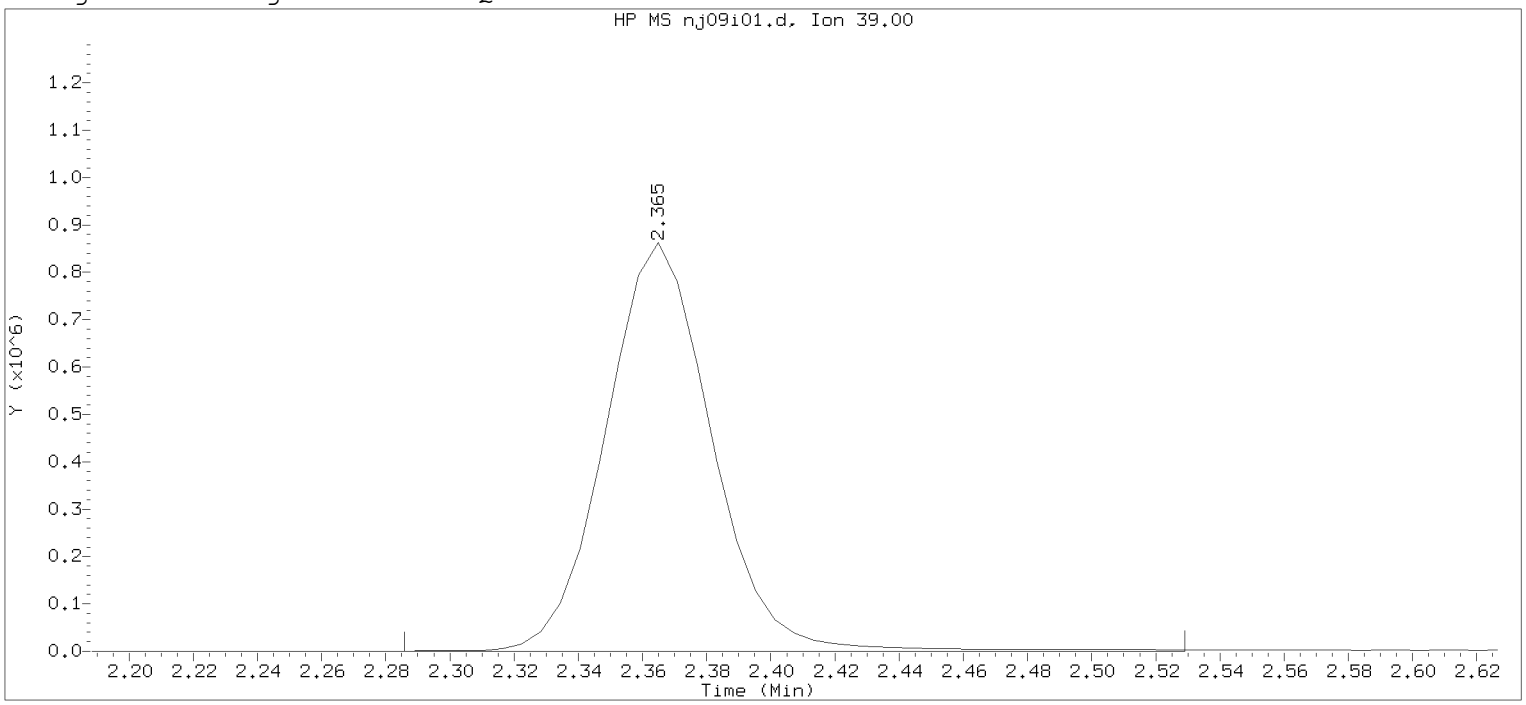
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 1979580
On-column Amount (ng) : 262.5678
Integration start scan : 155 Integration stop scan: 195
Y at integration start : 295 Y at integration end: 662

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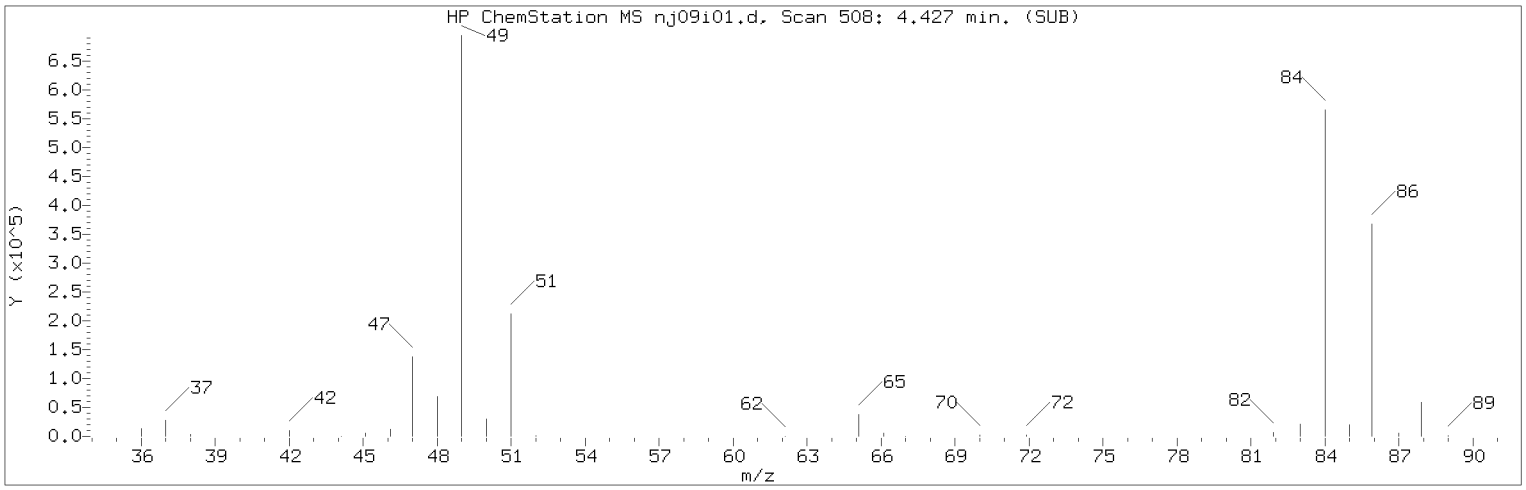
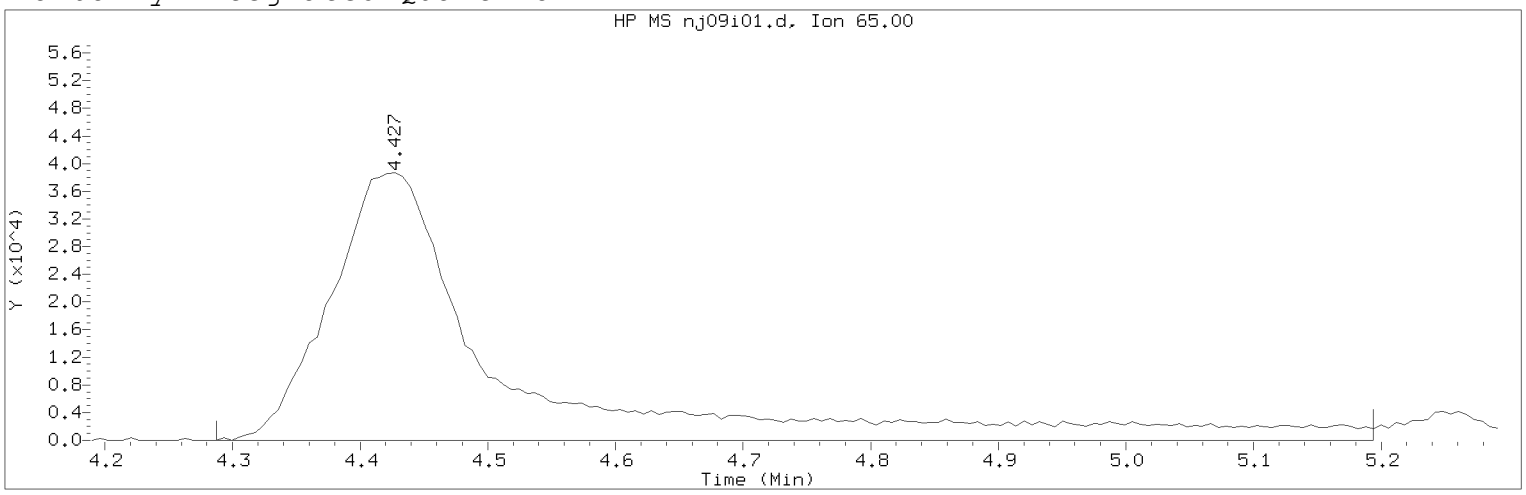
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

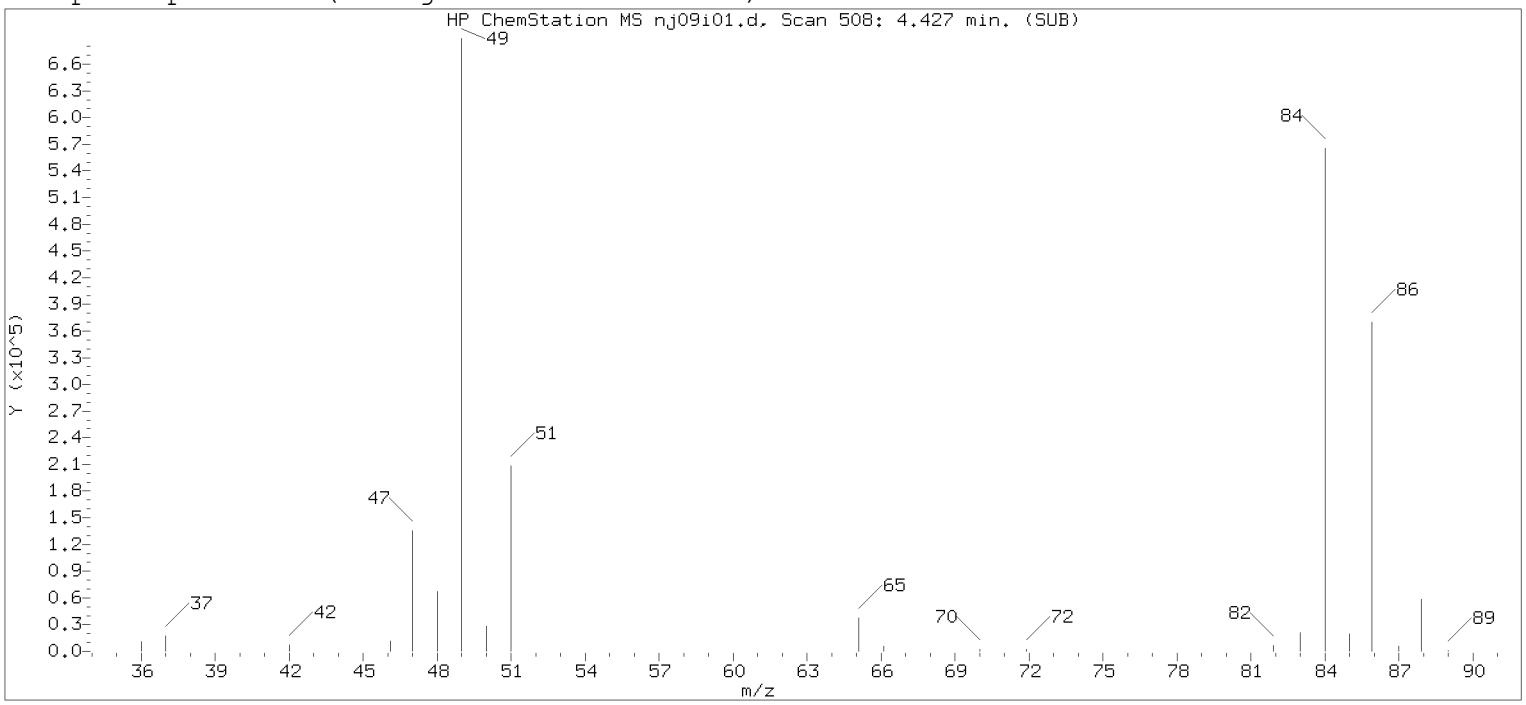
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area (flag) : 369636M
On-Column Amount (ng) : 250.0000
Integration start scan : 484 Integration stop scan: 633
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

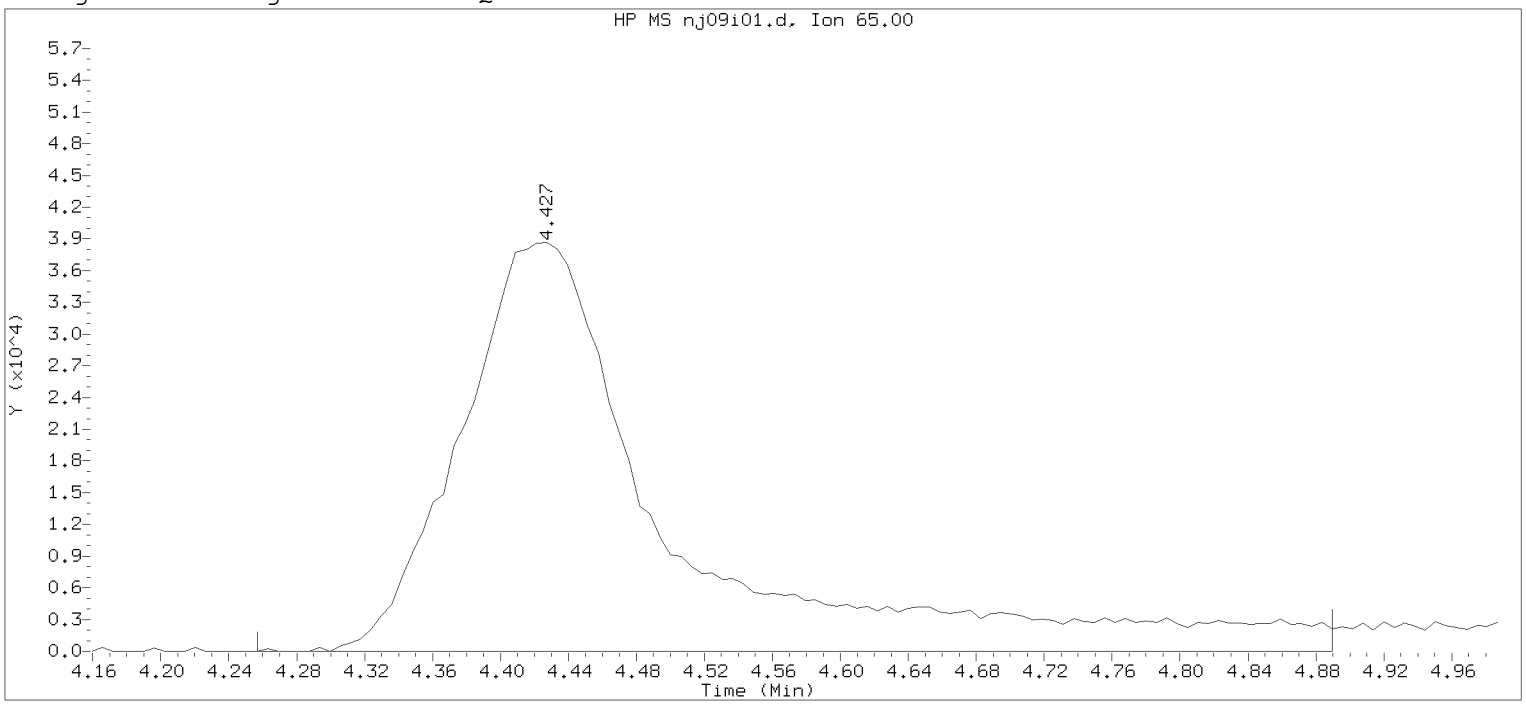
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

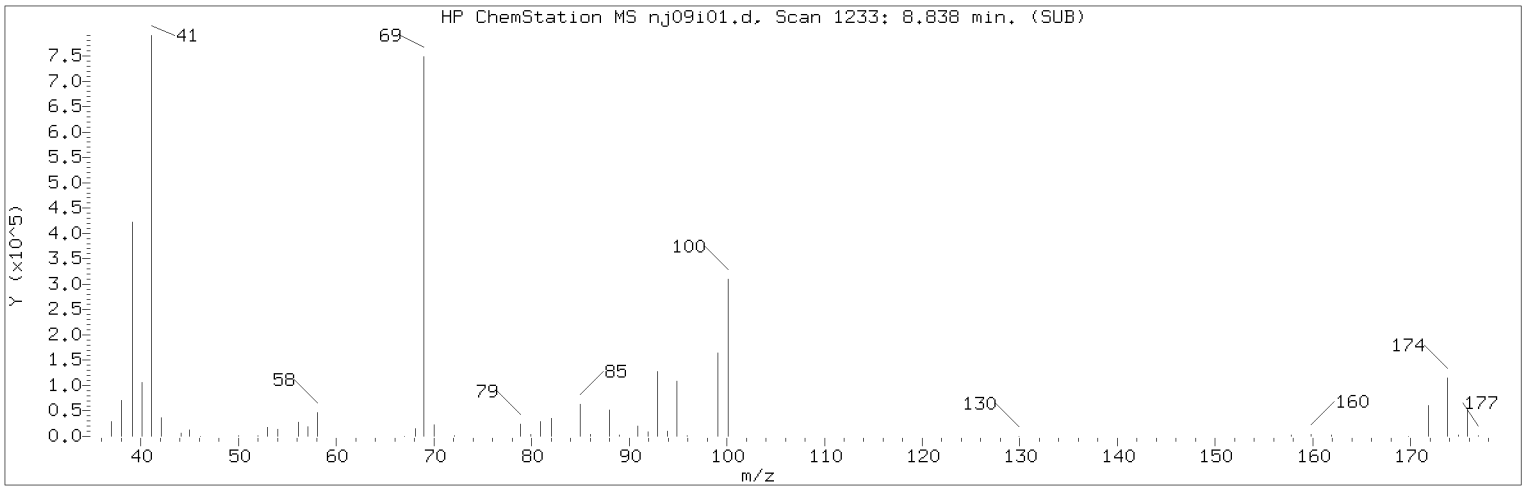
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

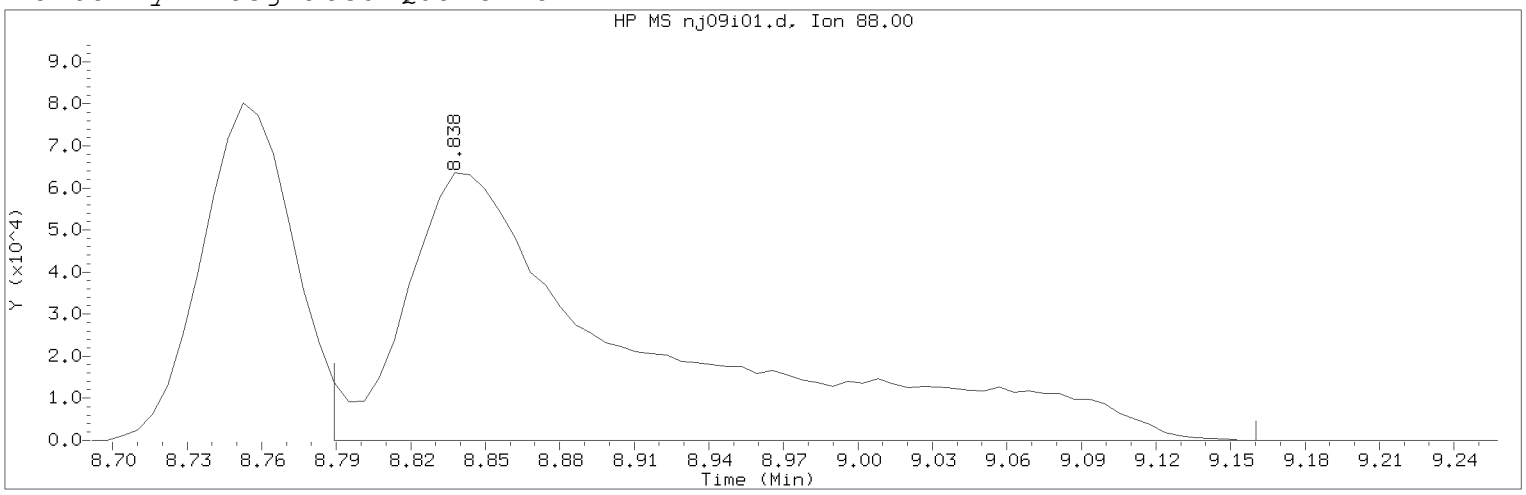
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 508
Retention Time (minutes): 4.427
Quant Ion : 65.00
Area : 329635
On-column Amount (ng) : 250.0000
Integration start scan : 479 Integration stop scan: 583
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

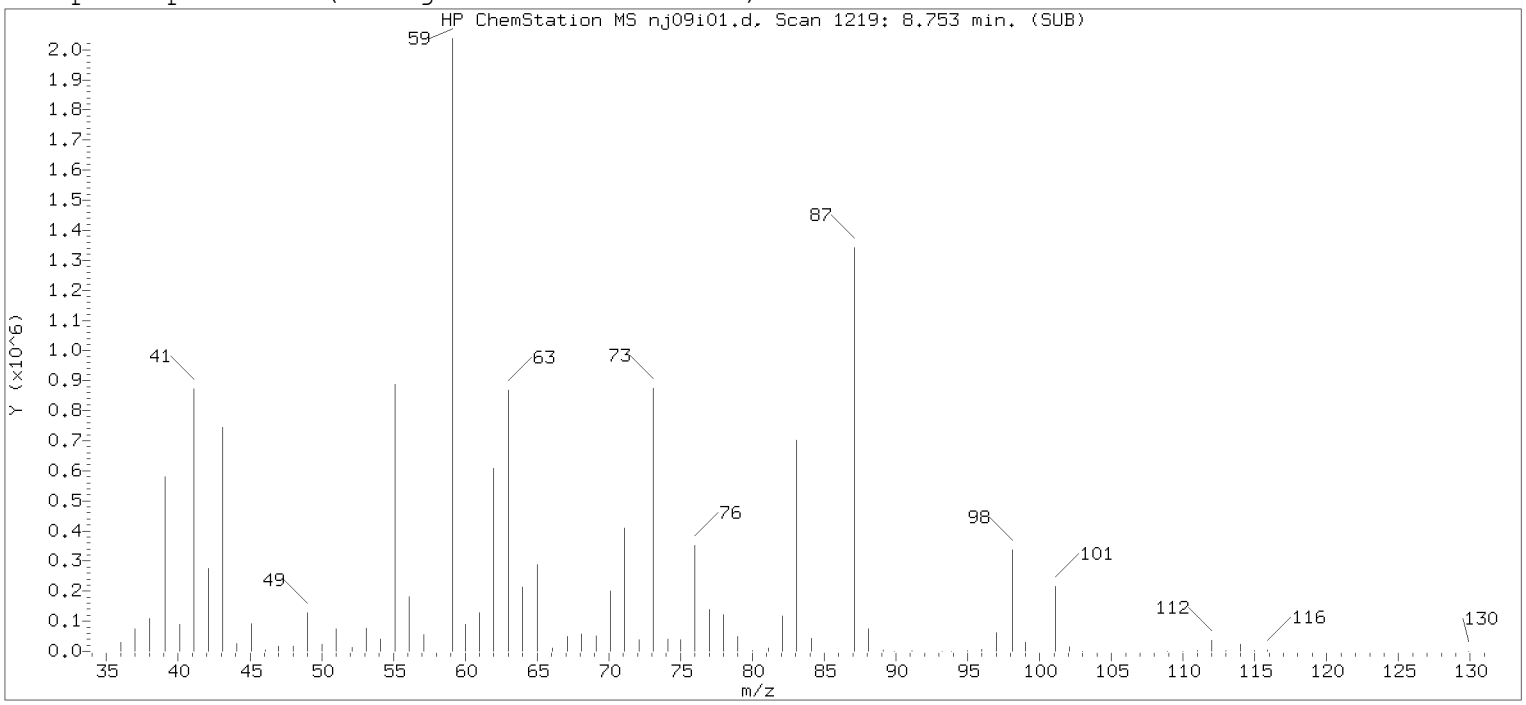
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.838
Quant Ion : 88.00
Area (flag) : 432869M
On-Column Amount (ng) : 4029.5691
Integration start scan : 1224 Integration stop scan: 1285
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

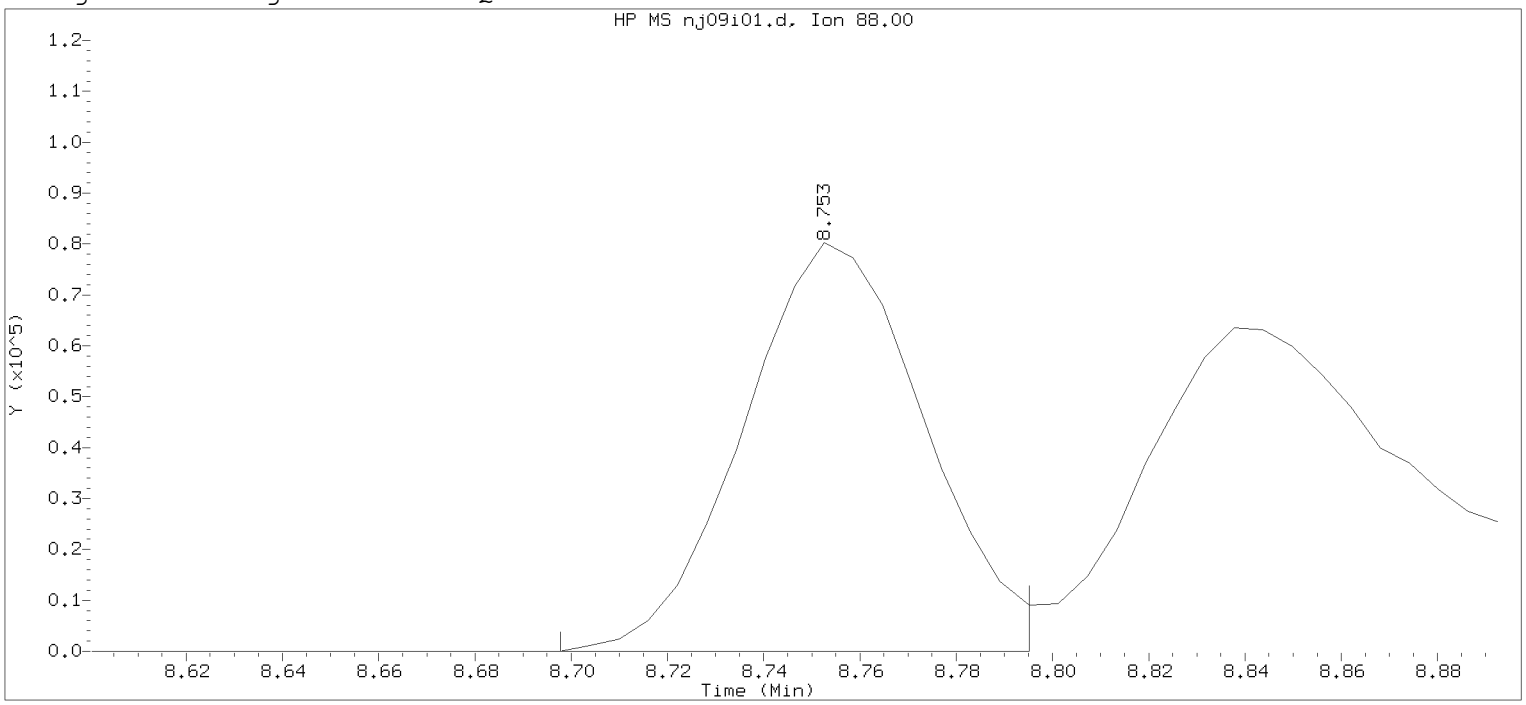
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1219		
Retention Time (minutes)	: 8.753		
Quant Ion	: 88.00		
Area	: 208880		
On-column Amount (ng)	: 2918.2242		
Integration start scan	: 1209	Integration stop scan:	1225
Y at integration start	: 0	Y at integration end:	0

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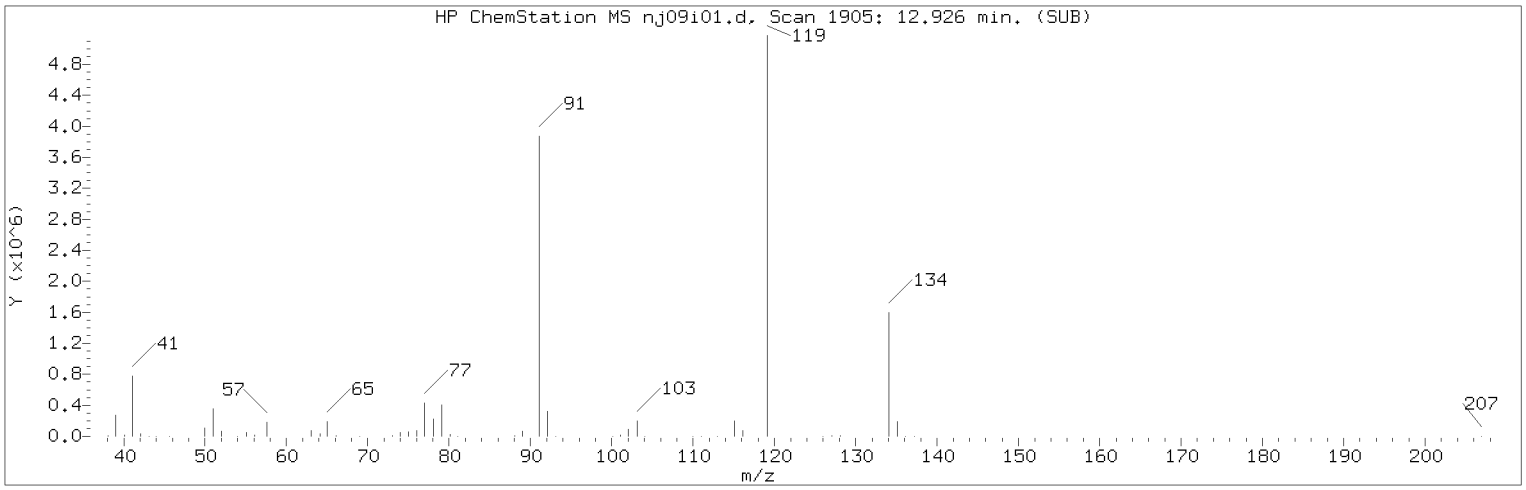
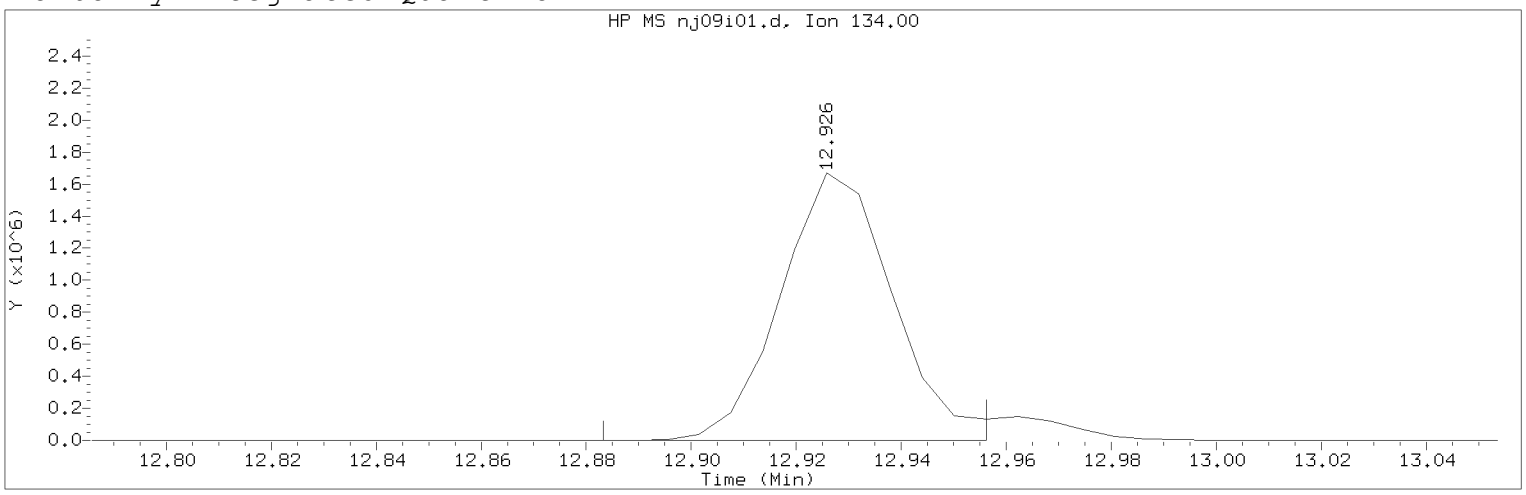
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:58
Date, time and analyst ID of latest file update: 09-Jan-2020 11:58 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

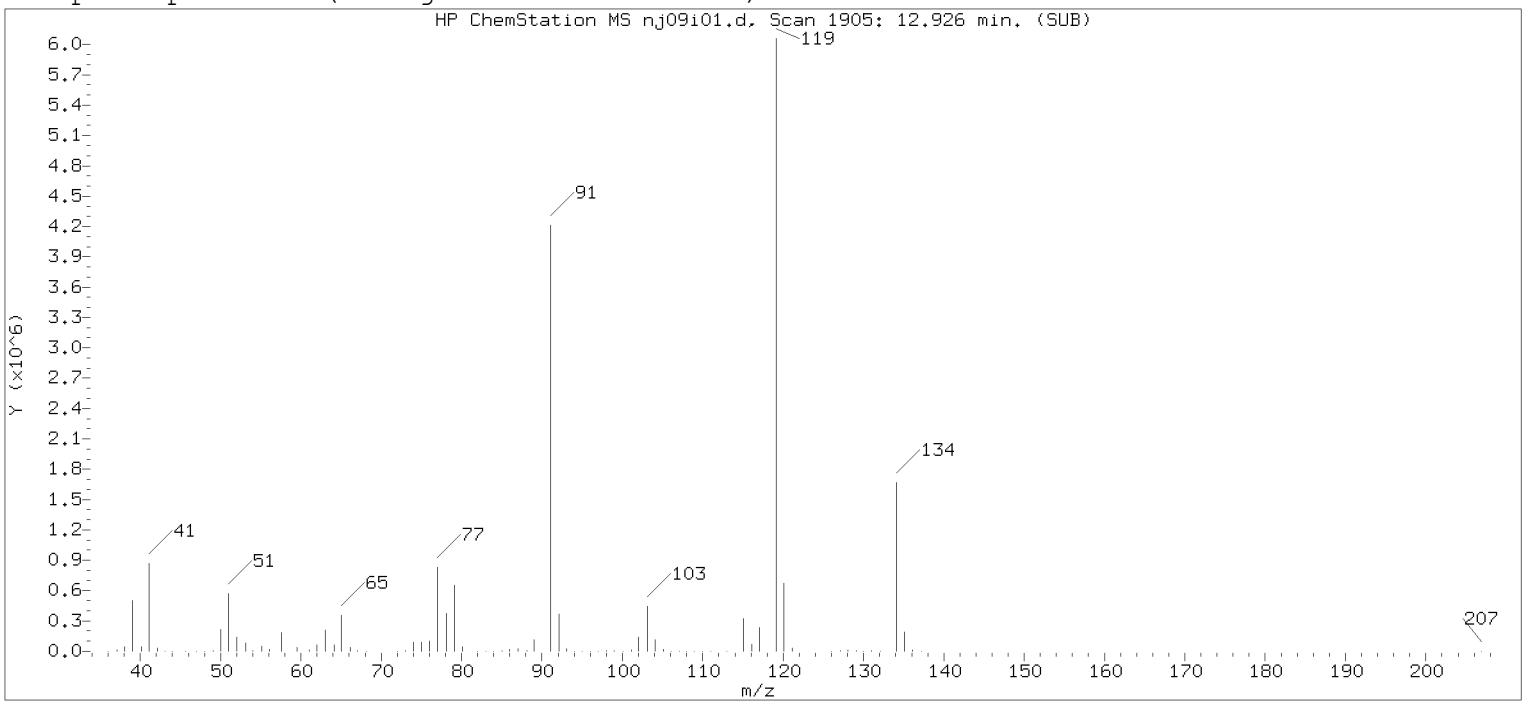
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area (flag) : 2476958M
On-Column Amount (ng) : 306.5457
Integration start scan : 1897 Integration stop scan: 1909
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

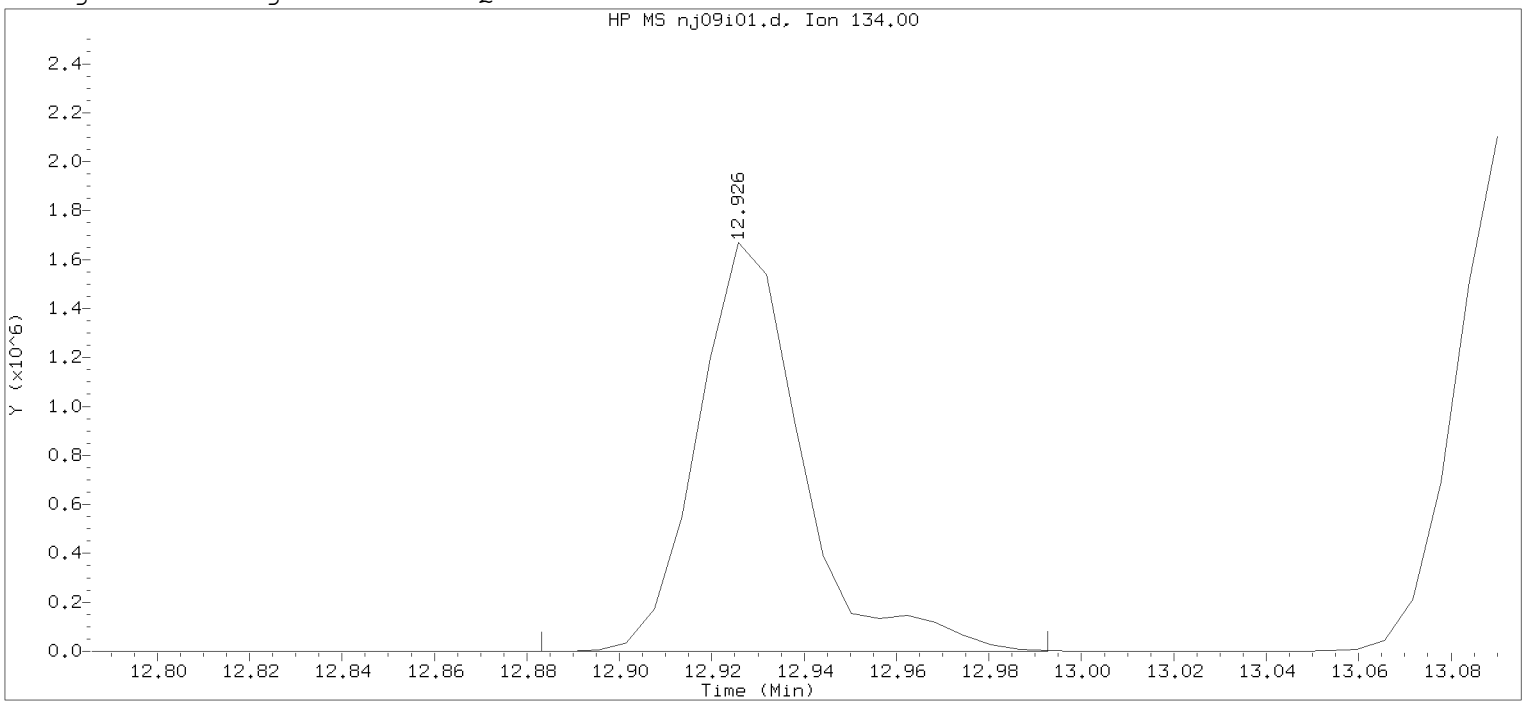
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



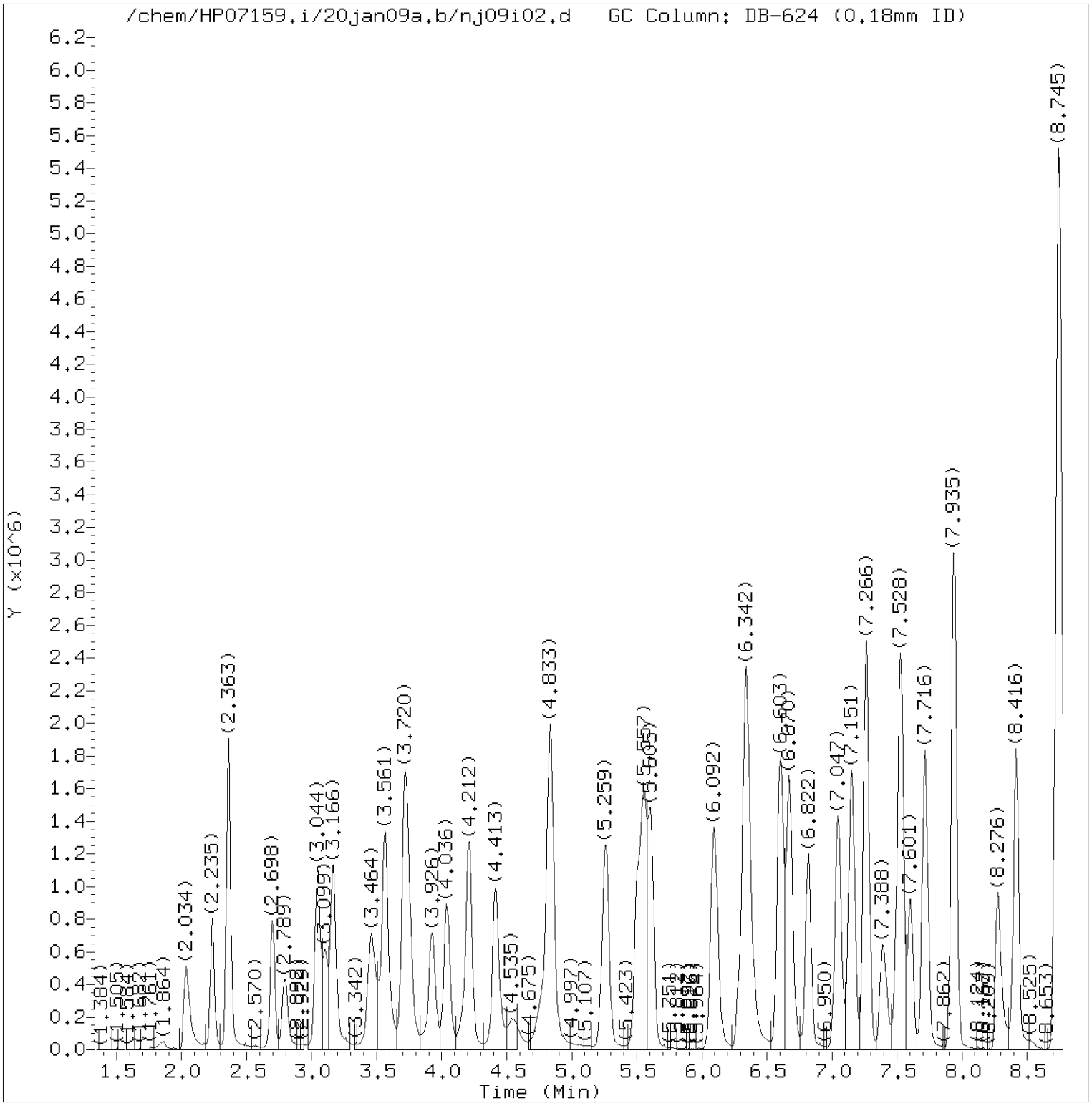
Data File: /chem/HP07159.i/20jan09a.b/nj09i01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 07:53 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:16
Date, time and analyst ID of latest file update: 09-Jan-2020 11:16 amd00492

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.926
Quant Ion : 134.00
Area : 2610442
On-column Amount (ng) : 312.3028
Integration start scan : 1897 Integration stop scan: 1915
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

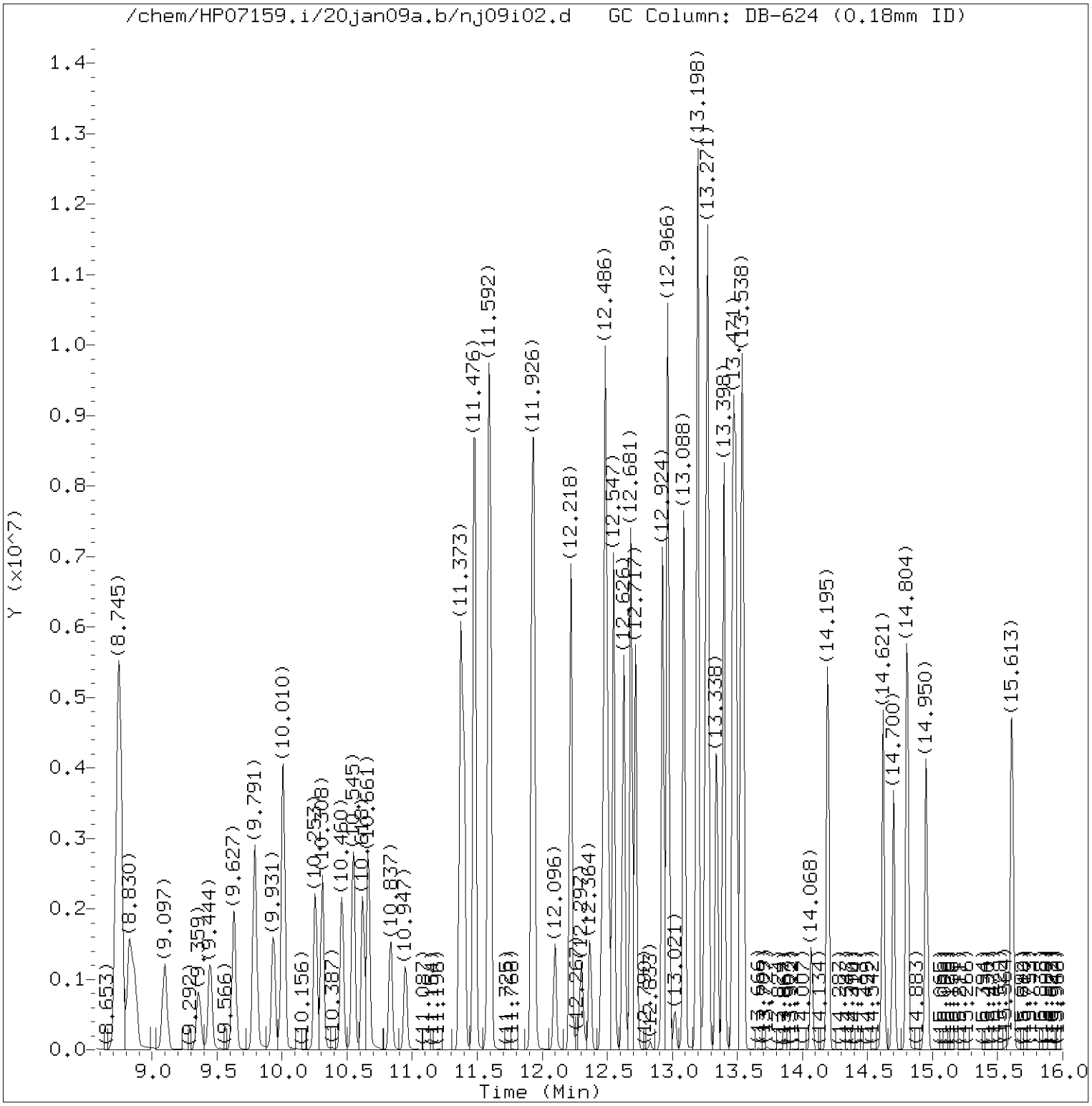
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	1065649M	104.261
4) Chloromethane	(2)	2.235	50	1094278	99.918
6) Vinyl Chloride	(2)	2.357	62	1069201	100.325
5) 1,3-Butadiene	(2)	2.363	39	705862M	92.368
8) Bromomethane	(2)	2.698	94	730957	100.032
9) Chloroethane	(2)	2.795	64	624167	100.064
10) Dichlorofluoromethane	(2)	3.044	67	1394718	97.635
12) Trichlorofluoromethane	(2)	3.105	101	1167619	99.689
11) n-Pentane	(2)	3.166	43	1158175	100.924
13) Ethanol	(1)	3.239	45	231093	2490.020
15) Freon 123a	(2)	3.458	67	830241	96.756
16) Acrolein	(1)	3.561	56	2442482	939.333
17) 1,1-Dichloroethene	(2)	3.713	96	669338	98.057
17) 1,1-Dichloroethene	(2)	3.713	63	352749	98.480
19) Freon 113	(2)	3.732	101	682211	107.718
18) Acetone	(1)	3.738	58	206215	188.290
21) 2-Propanol	(1)	3.914	45	366318	506.414
22) Methyl Iodide	(2)	3.926	142	1290126	101.256
23) Carbon Disulfide	(2)	4.036	76	2182426	99.981
27) Methyl Acetate	(2)	4.182	43	792737	94.532
25) Allyl Chloride	(2)	4.212	41	1192901	98.989
28) Methylene Chloride	(2)	4.413	84	787597	97.145
29)*t-Butyl alcohol-d10	(1)	4.425	65	383443M	250.000
30) t-Butyl alcohol	(1)	4.547	59	710037	496.693
31) Acrylonitrile	(2)	4.754	53	430634	95.083
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	2199223	99.146
32) trans-1,2-Dichloroethene	(2)	4.839	96	780157	100.112
34) n-Hexane	(2)	5.259	57	1192872	110.886
36) 1,1-Dichloroethane	(2)	5.502	63	1437072	101.089
38) di-Isopropyl ether	(2)	5.557	45	2478314	101.202
39) 2-Chloro-1,3-butadiene	(2)	5.612	53	1260534	100.452
40) Ethyl t-butyl ether	(2)	6.092	59	2323818	99.838
43) 1,2-Dichloroethene (Total)	(2)		96	1669505	200.599
44) 2-Butanone	(2)	6.293	43	1164793	183.930
42) cis-1,2-Dichloroethene	(2)	6.335	96	889348	100.487
45) 2,2-Dichloropropane	(2)	6.354	77	1255398	100.026
47) Propionitrile	(1)	6.378	54	852719	510.727
48) Methacrylonitrile	(2)	6.603	67	1178085	257.514

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	433584	103.613
50) Tetrahydrofuran	(1)	6.682	71	330036	190.397
51) Chloroform	(2)	6.816	83	1392137	100.398
52)$Dibromofluoromethane	(2)	7.041	113	324228	49.754
52)$Dibromofluoromethane	(2)	7.041	111	332864	50.026
53) 1,1,1-Trichloroethane	(2)	7.053	97	1258983	100.359
54) Cyclohexane	(2)	7.151	56	1358801	105.307
54) Cyclohexane	(2)	7.151	84	1183085	105.204
54) Cyclohexane	(2)	7.151	69	433665	106.928
55) 1,1-Dichloropropene	(2)	7.266	75	1140054	100.472
56) Carbon Tetrachloride	(2)	7.266	117	1092426	100.997
58) Isobutyl Alcohol	(1)	7.394	41	631953M	1234.094
57)$1,2-Dichloroethane-d4	(2)	7.497	102	82020	49.780
57)$1,2-Dichloroethane-d4	(2)	7.497	65	390530	49.272
57)$1,2-Dichloroethane-d4	(2)	7.497	104	53204	50.750
60) Benzene	(2)	7.528	78	3249542	100.608
61) 1,2-Dichloroethane	(2)	7.601	62	1133993	99.241
61) 1,2-Dichloroethane	(2)	7.607	98	105964	112.671
65) t-Amyl methyl ether	(2)	7.716	73	2301266	98.554
66)*Fluorobenzene	(2)	7.935	96	1313106	50.000
67) n-Heptane	(2)	7.941	43	1384590	111.509
69) n-Butanol	(1)	8.276	56	1160735	2631.396
71) Trichloroethene	(2)	8.416	95	854107	100.375
72) Methylcyclohexane	(2)	8.732	83	1510509	107.989
72) Methylcyclohexane	(2)	8.732	98	706582	107.262
73) 1,2-Dichloropropane	(2)	8.757	63	856520	103.706
76) Methyl Methacrylate	(2)	8.824	69	793736	105.090
75) 1,4-Dioxane	(1)	8.848	88	151647M	1360.847
74) Dibromomethane	(2)	8.866	93	530251	100.667
78) Bromodichloromethane	(2)	9.097	83	1105753	102.830
79) 2-Nitropropane	(2)	9.359	41	716120	183.359
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	672942	103.002
81) cis-1,3-Dichloropropene	(2)	9.627	75	1420758	103.574
82) 4-Methyl-2-pentanone	(2)	9.791	43	2423521	188.882
83)$Toluene-d8	(3)	9.931	98	1297051	49.930
83)$Toluene-d8	(3)	9.931	100	861087	50.033
88) Toluene	(3)	10.010	92	2134807	101.166
90) 1,3-Dichloropropene (total)	(3)		100	2778189	207.217

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	1357431	103.643
91) Ethyl Methacrylate	(3)	10.308	69	1372978	105.217
92) 1,1,2-Trichloroethane	(3)	10.460	97	765532	102.463
93) Tetrachloroethene	(3)	10.545	166	933658	101.035
94) 1,3-Dichloropropane	(3)	10.618	76	1339481	103.297
96) 2-Hexanone	(3)	10.661	43	1874151	187.627
97) Dibromochloromethane	(3)	10.837	129	905427	105.604
99) 1,2-Dibromoethane	(3)	10.947	107	846446	103.462
100)*Chlorobenzene-d5	(3)	11.373	117	996040	50.000
102) Chlorobenzene	(3)	11.397	112	2404391	102.089
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	875426	103.144
104) Ethylbenzene	(3)	11.482	91	4139783	101.423
106) m+p-Xylene	(3)	11.592	106	3283487	204.744
108) Xylene (Total)	(3)		106	4909663	307.844
107) o-Xylene	(3)	11.920	106	1626176	103.100
109) Styrene	(3)	11.938	104	2745510	103.639
110) Bromoform	(3)	12.096	173	688243	106.327
111) Isopropylbenzene	(3)	12.218	105	4262236	102.317
112) Cyclohexanone	(1)	12.297	55	596928	1335.703
114)$4-Bromofluorobenzene	(3)	12.364	95	511888	49.878
114)$4-Bromofluorobenzene	(3)	12.370	174	407556	49.569
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	1215567	101.183
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	1086804	262.991
115) Bromobenzene	(4)	12.486	156	1039816	102.938
117) 1,2,3-Trichloropropane	(4)	12.510	110	388444	102.073
119) n-Propylbenzene	(4)	12.547	91	5002648	102.151
120) 2-Chlorotoluene	(4)	12.626	126	1039981	103.001
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	3708233	103.342
121) 4-Chlorotoluene	(4)	12.717	126	1079774	103.190
124) tert-Butylbenzene	(4)	12.924	134	832423M	104.685
125) Pentachloroethane	(4)	12.960	167	670316	105.280
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	3839680	103.098
127) sec-Butylbenzene	(4)	13.088	105	4837222	103.779
129) 1,3-Dichlorobenzene	(4)	13.192	146	2015433	102.585
130) p-Isopropyltoluene	(4)	13.198	119	4228792	104.258
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	546174	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	2028787	101.827
134) 1,2,3-Trimethylbenzene	(4)	13.277	105	3693364	102.178

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

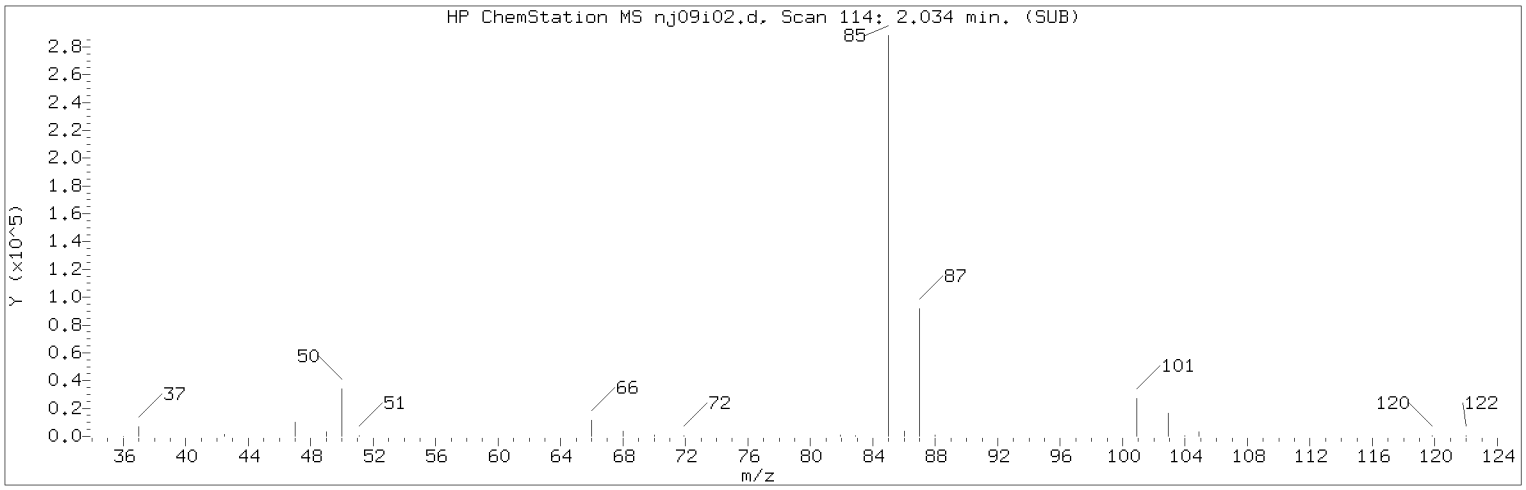
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

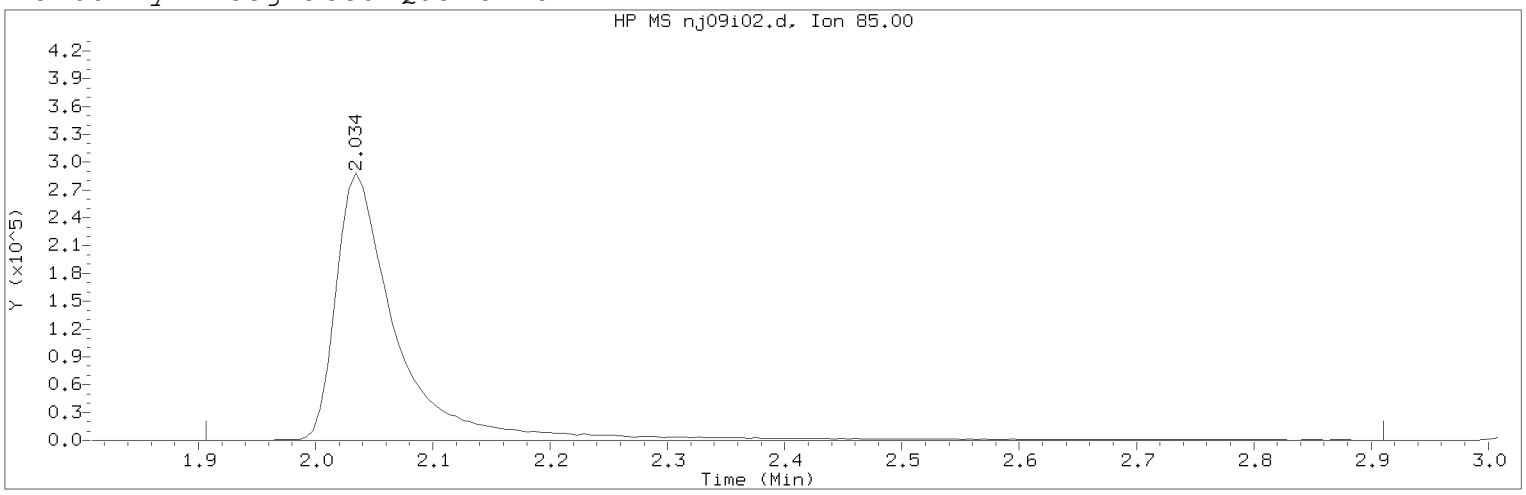
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.338	91	2802781	105.553
141) Diethylbenzene (total)	(4)		100	7301811	310.113
136) 1,3-Diethylbenzene	(4)	13.398	119	2518192	103.714
137) 1,4-Diethylbenzene	(4)	13.471	119	2676243	103.806
139) n-Butylbenzene	(4)	13.490	92	2195996	104.956
138) 1,2-Dichlorobenzene	(4)	13.526	146	1886768	101.292
140) 1,2-Diethylbenzene	(4)	13.544	119	2107376	102.594
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	332843	102.516
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	1554051	104.670
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	1354118	104.599
147) Hexachlorobutadiene	(4)	14.700	225	619194	105.736
148) Naphthalene	(4)	14.804	128	4184771	103.097
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	1236265	104.030
150) 2-Methylnaphthalene	(4)	15.613	142	2446500	104.346

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

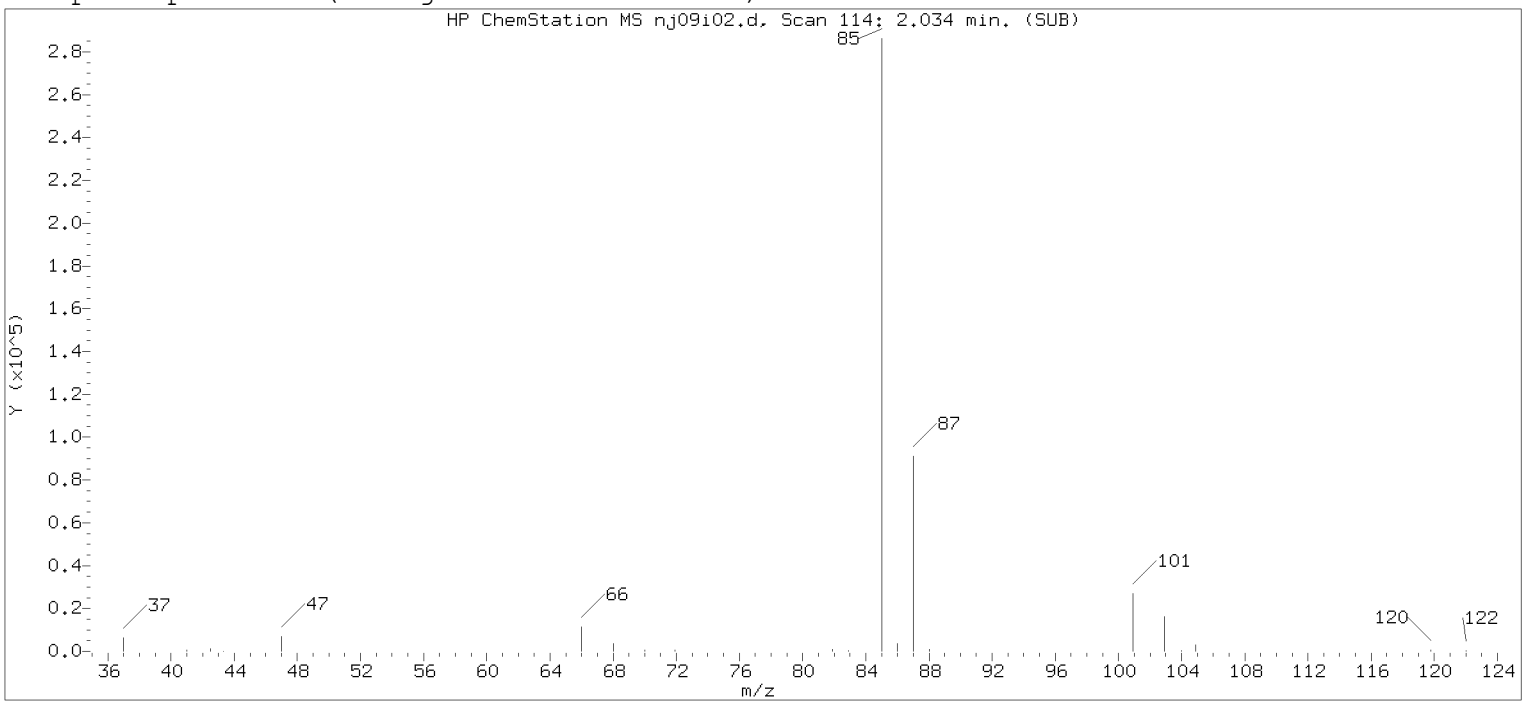
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 1065649M
On-Column Amount (ng) : 104.2612
Integration start scan : 92 Integration stop scan: 257
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

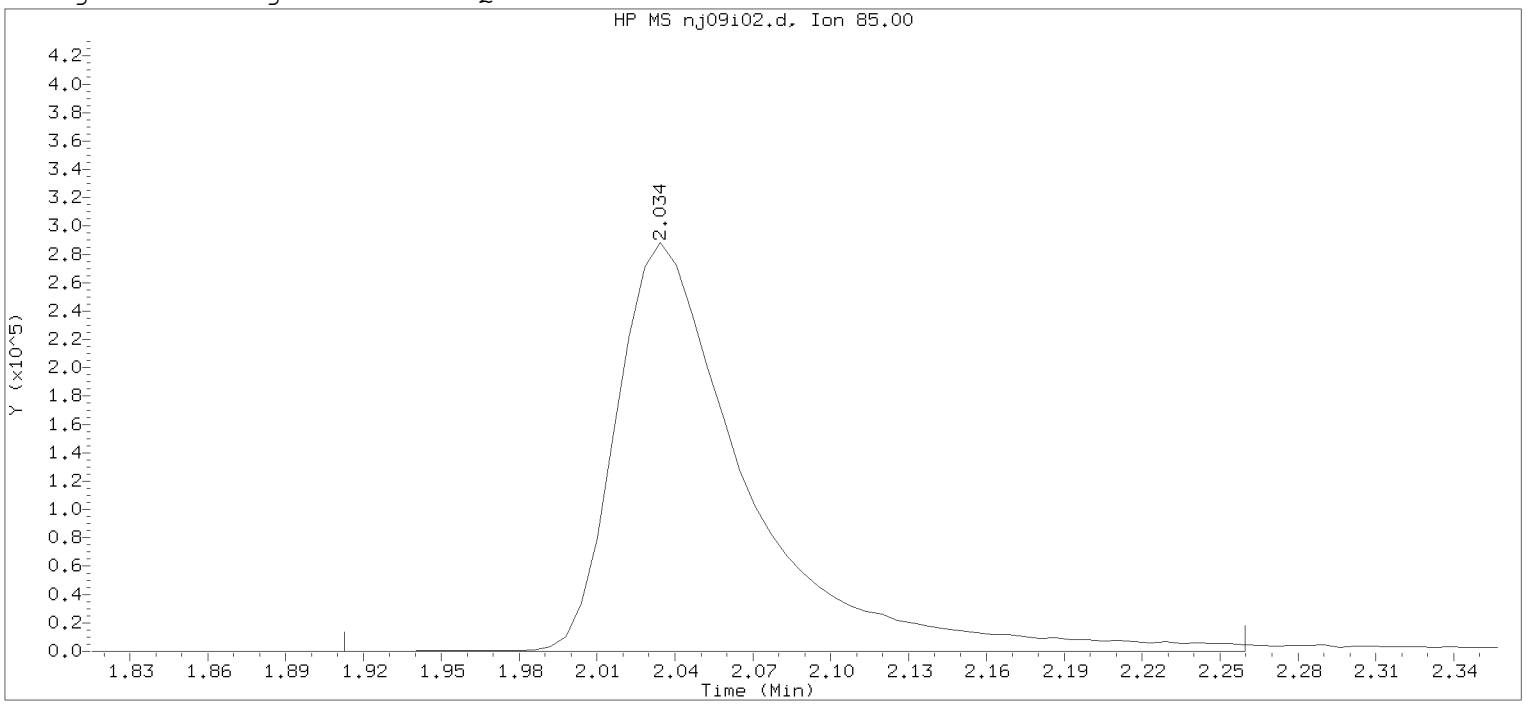
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

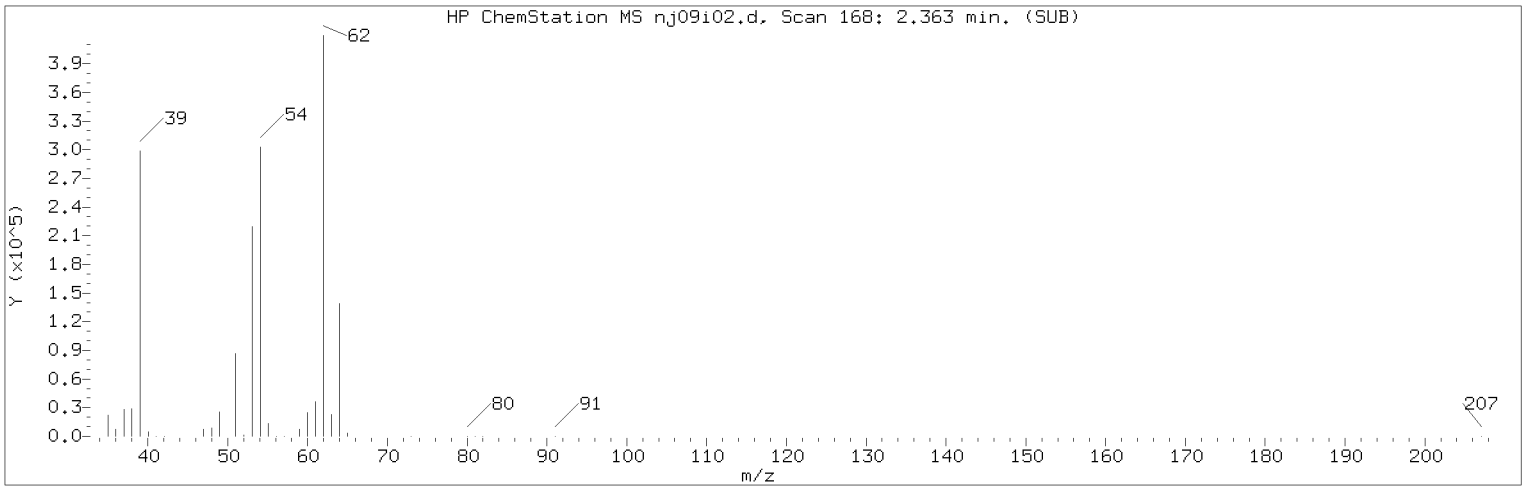
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

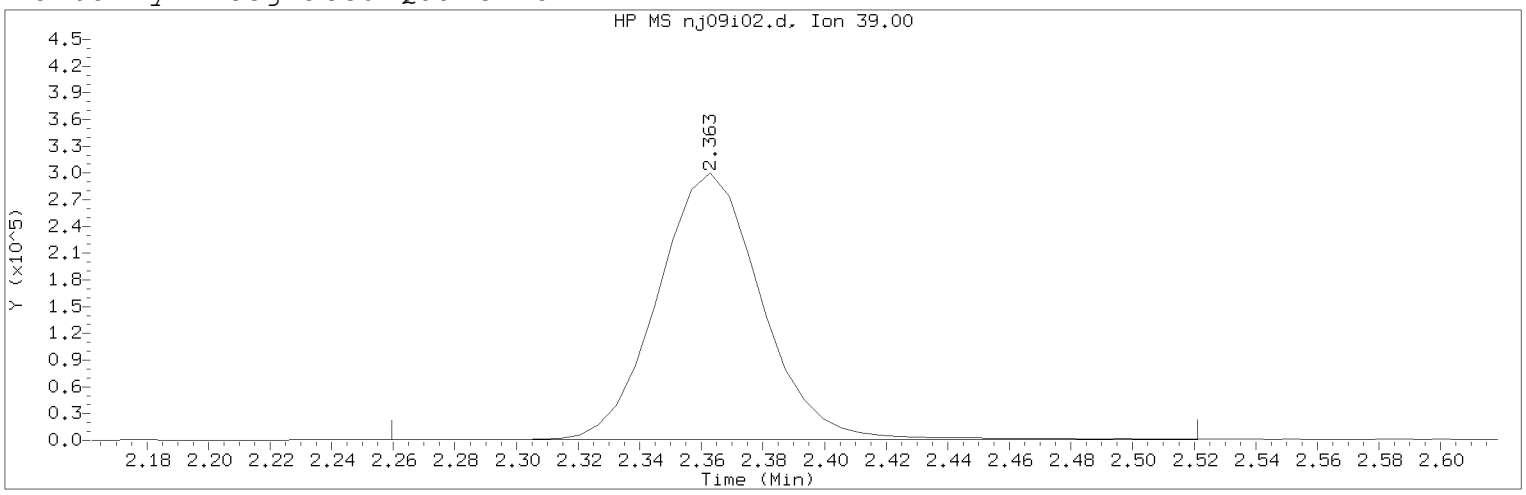
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 1012941
On-column Amount (ng) : 102.8315
Integration start scan : 93 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

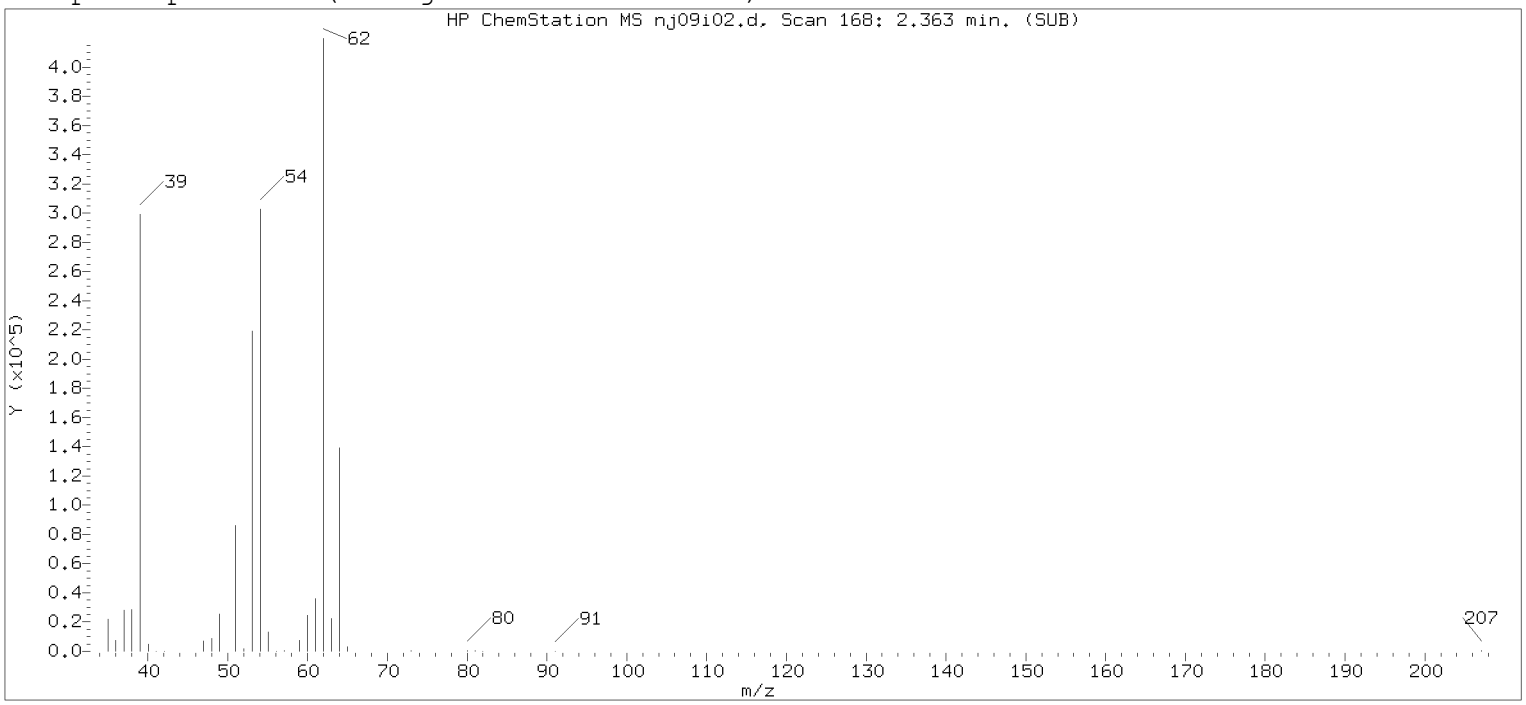
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 705862M
On-Column Amount (ng) : 92.3678
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 370 Y at integration end: 370

Reason for manual integration: improper integration

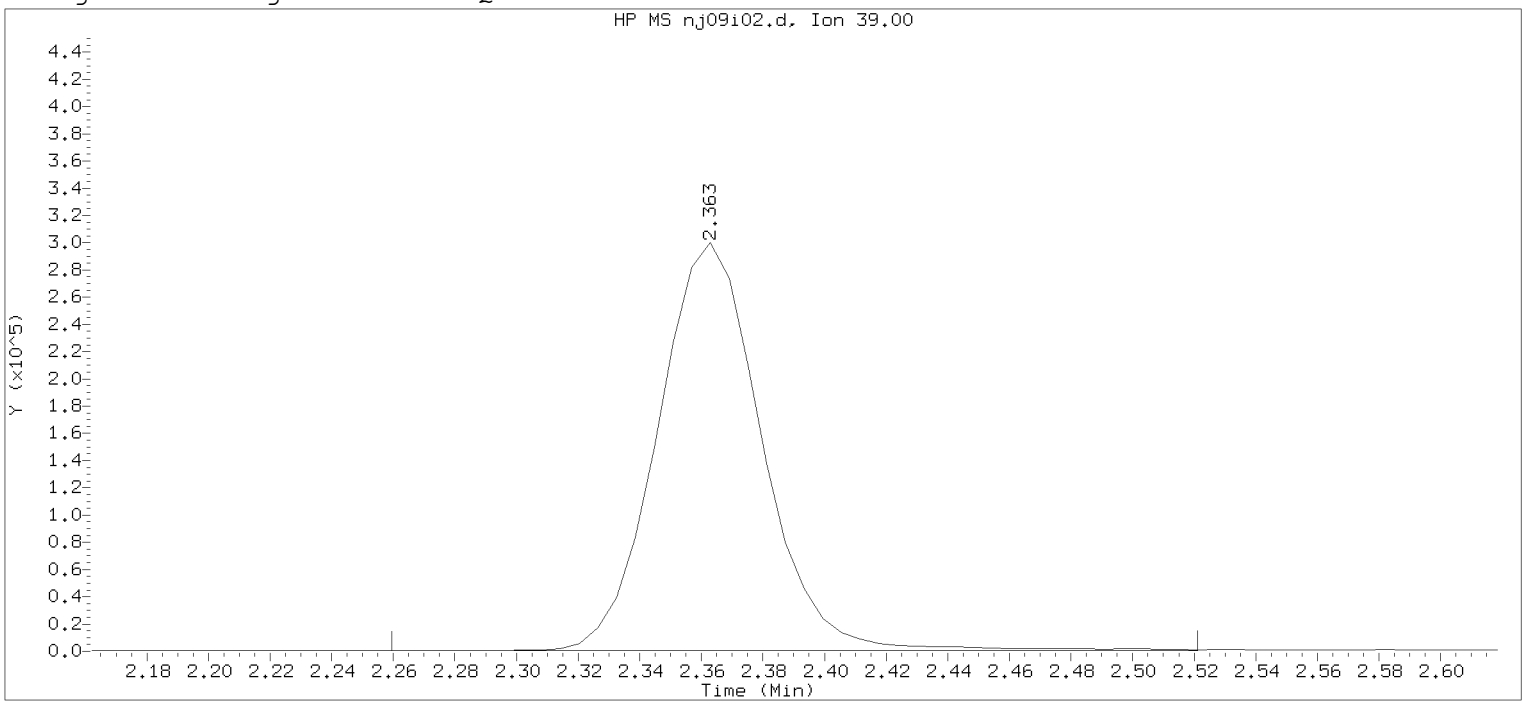
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

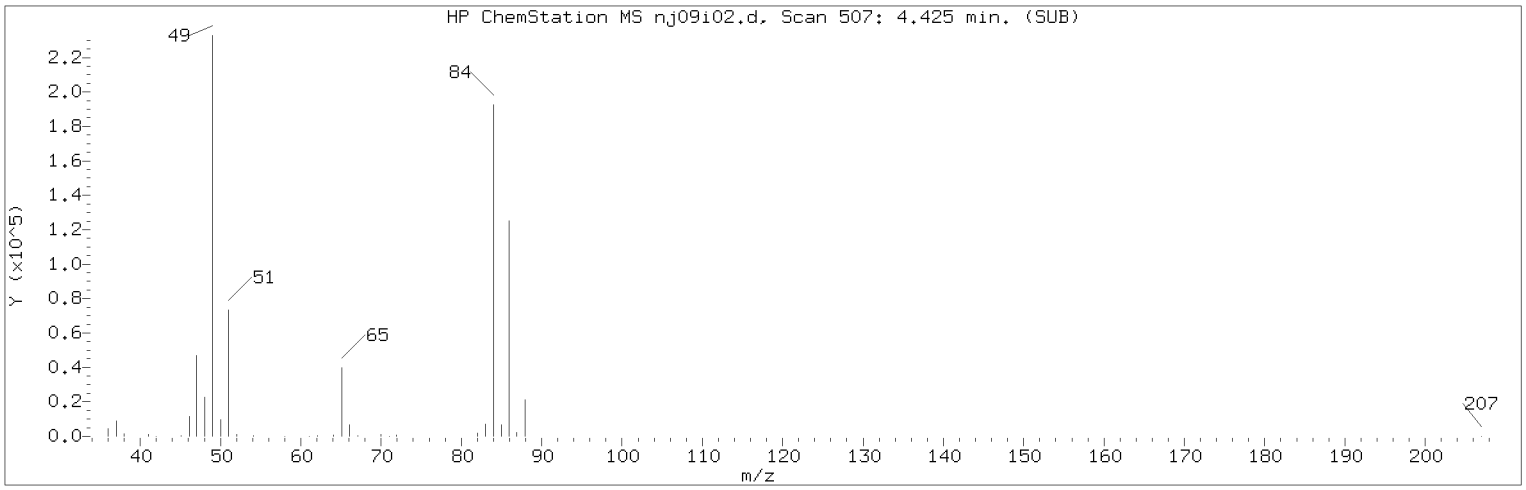
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

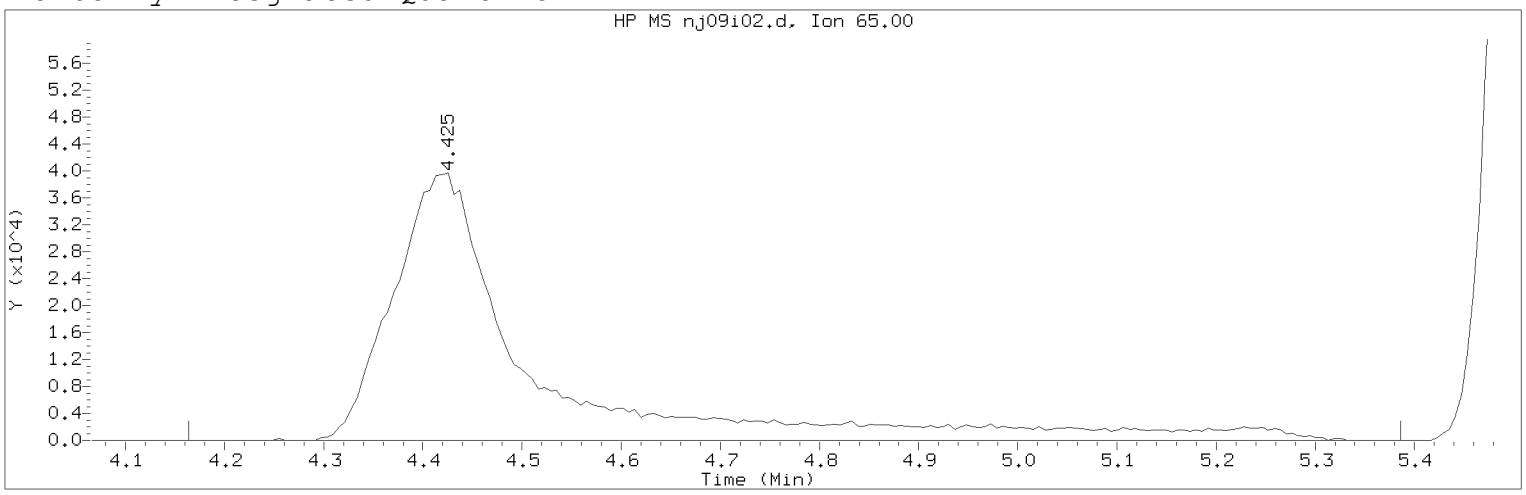
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 703523
On-column Amount (ng) : 93.1168
Integration start scan : 150 Integration stop scan: 193
Y at integration start : 376 Y at integration end: 645

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

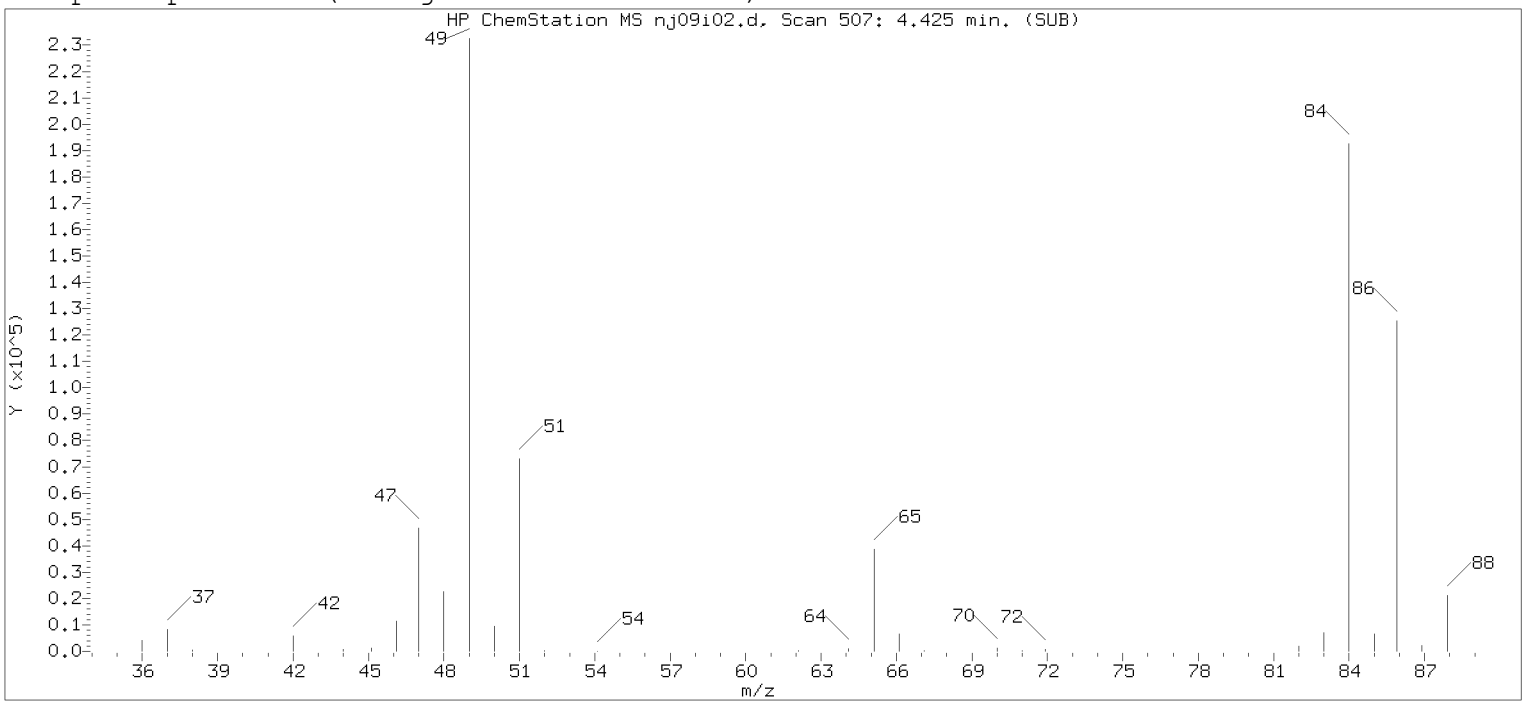
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 383443M
On-Column Amount (ng) : 250.0000
Integration start scan : 463 Integration stop scan: 664
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

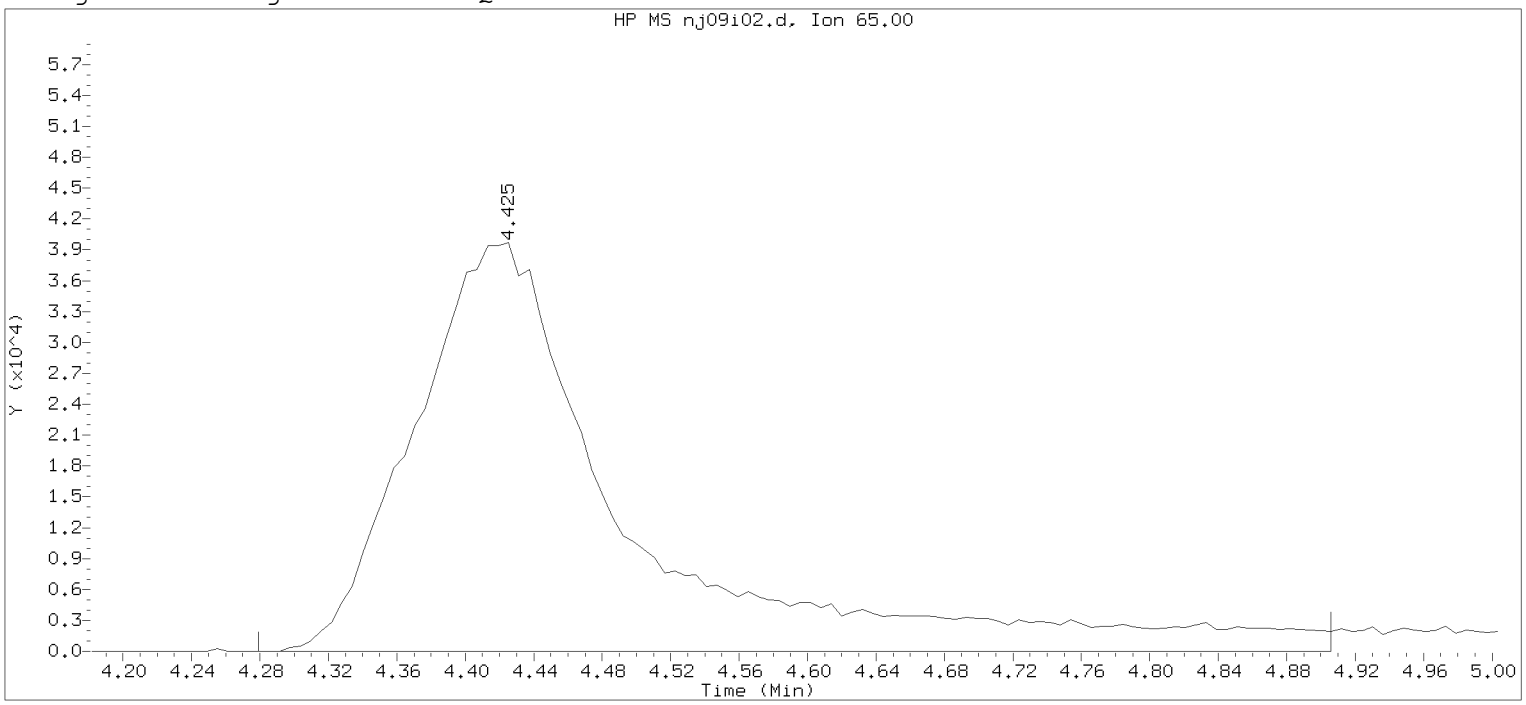
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

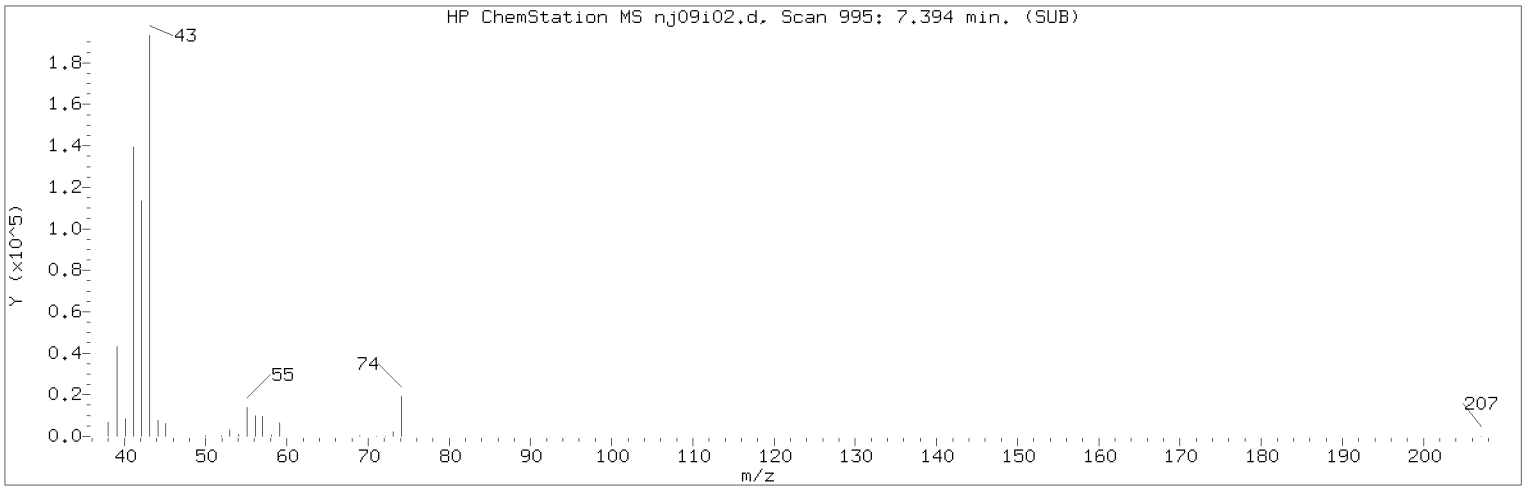
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

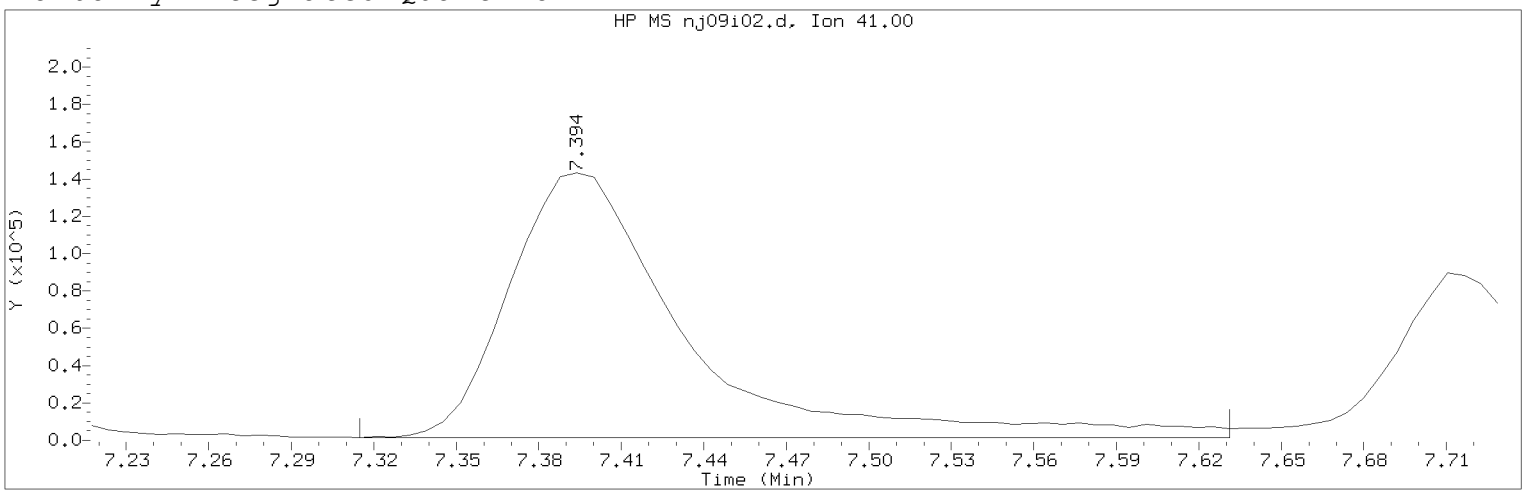
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area : 343722
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

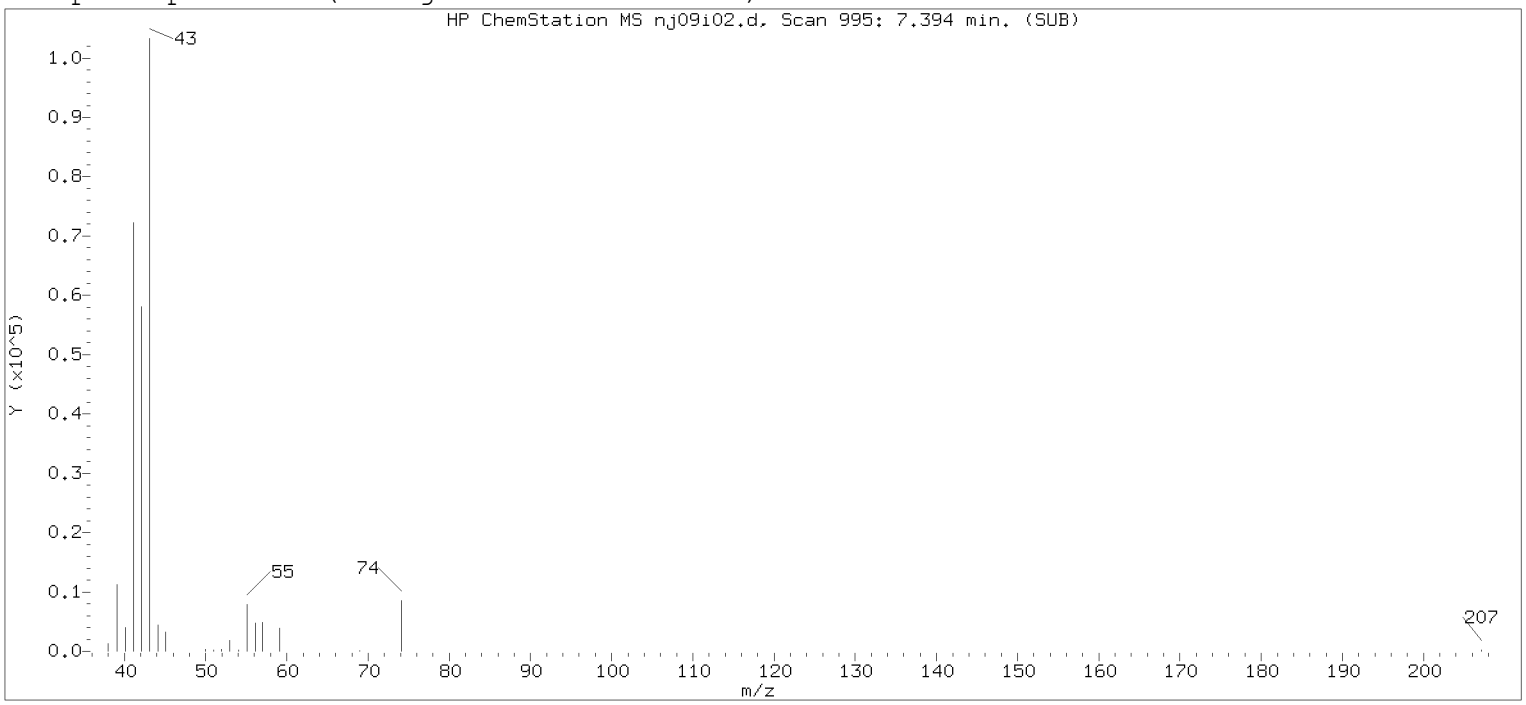
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area (flag) : 631953M
On-Column Amount (ng) : 1234.0938
Integration start scan : 981 Integration stop scan: 1033
Y at integration start : 1492 Y at integration end: 1492

Reason for manual integration: improper integration

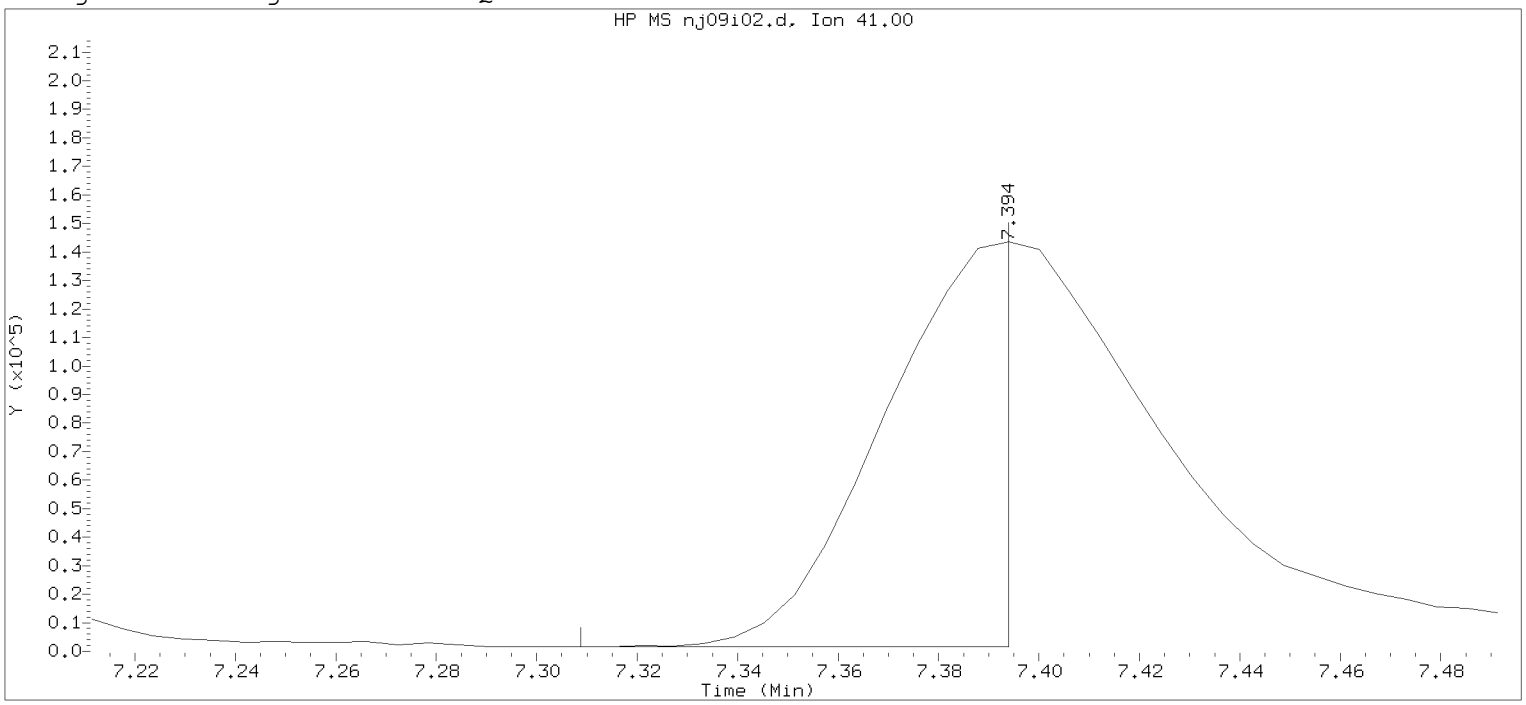
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

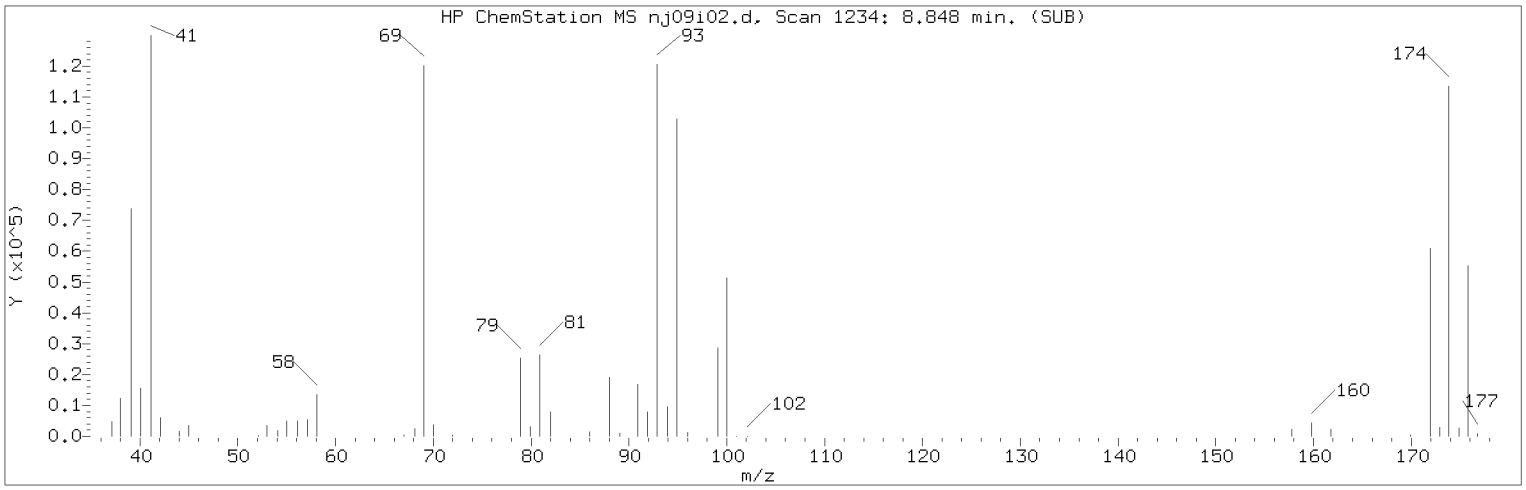
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

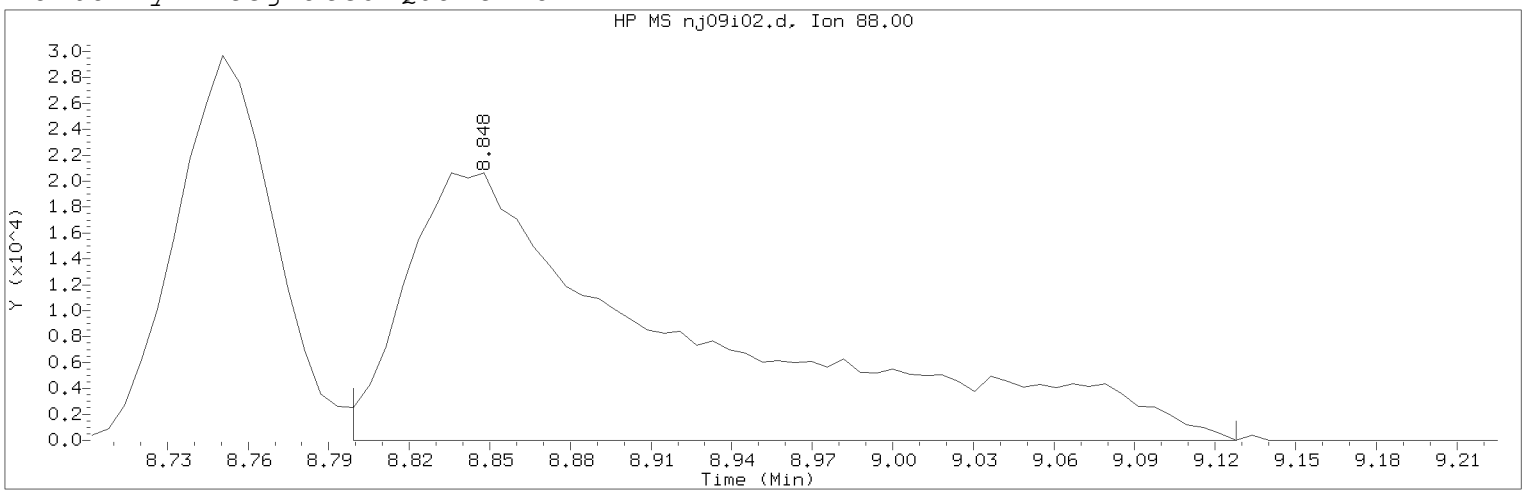
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 995
Retention Time (minutes): 7.394
Quant Ion : 41.00
Area : 237047
On-column Amount (ng) : 786.5514
Integration start scan : 980 Integration stop scan: 994
Y at integration start : 1563 Y at integration end: 1563

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

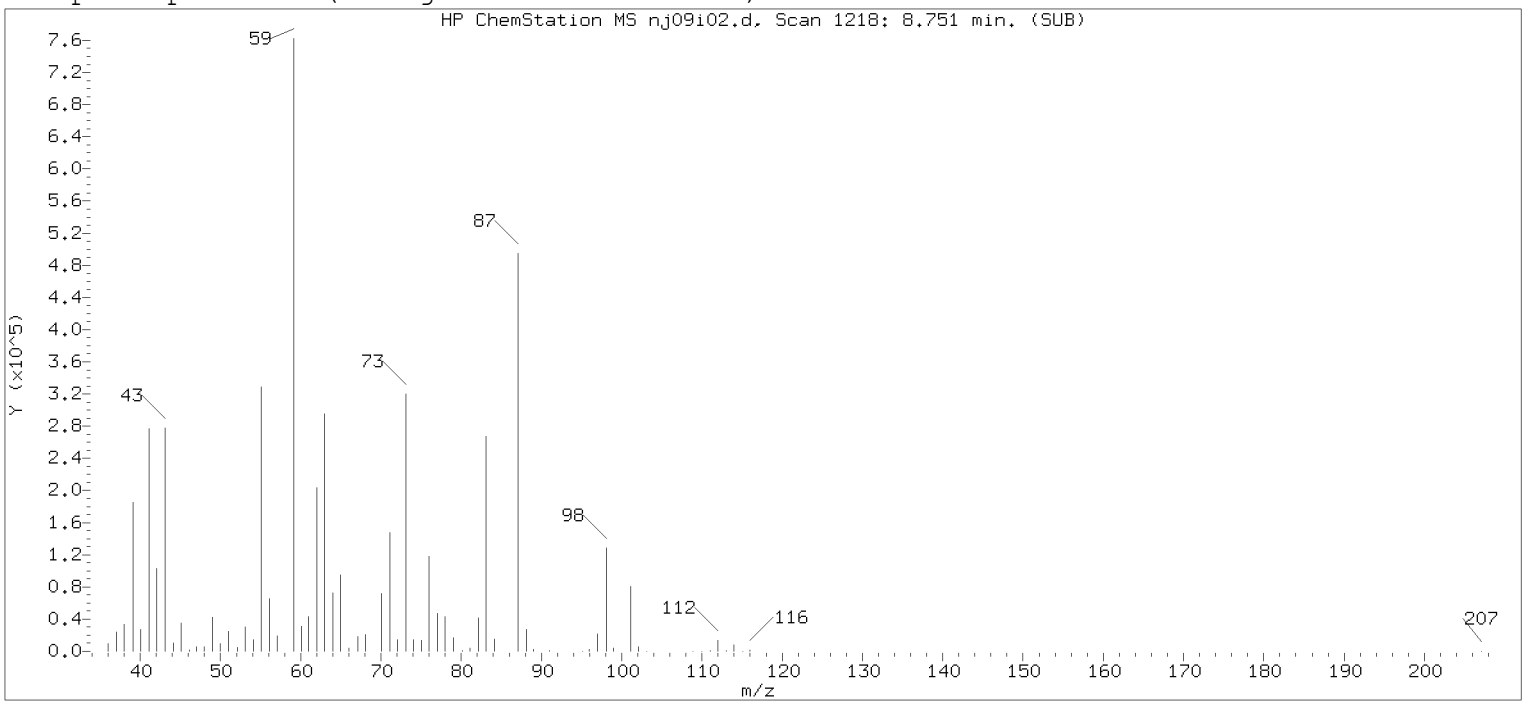
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.848
Quant Ion : 88.00
Area (flag) : 151647M
On-Column Amount (ng) : 1360.8473
Integration start scan : 1225 Integration stop scan: 1279
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

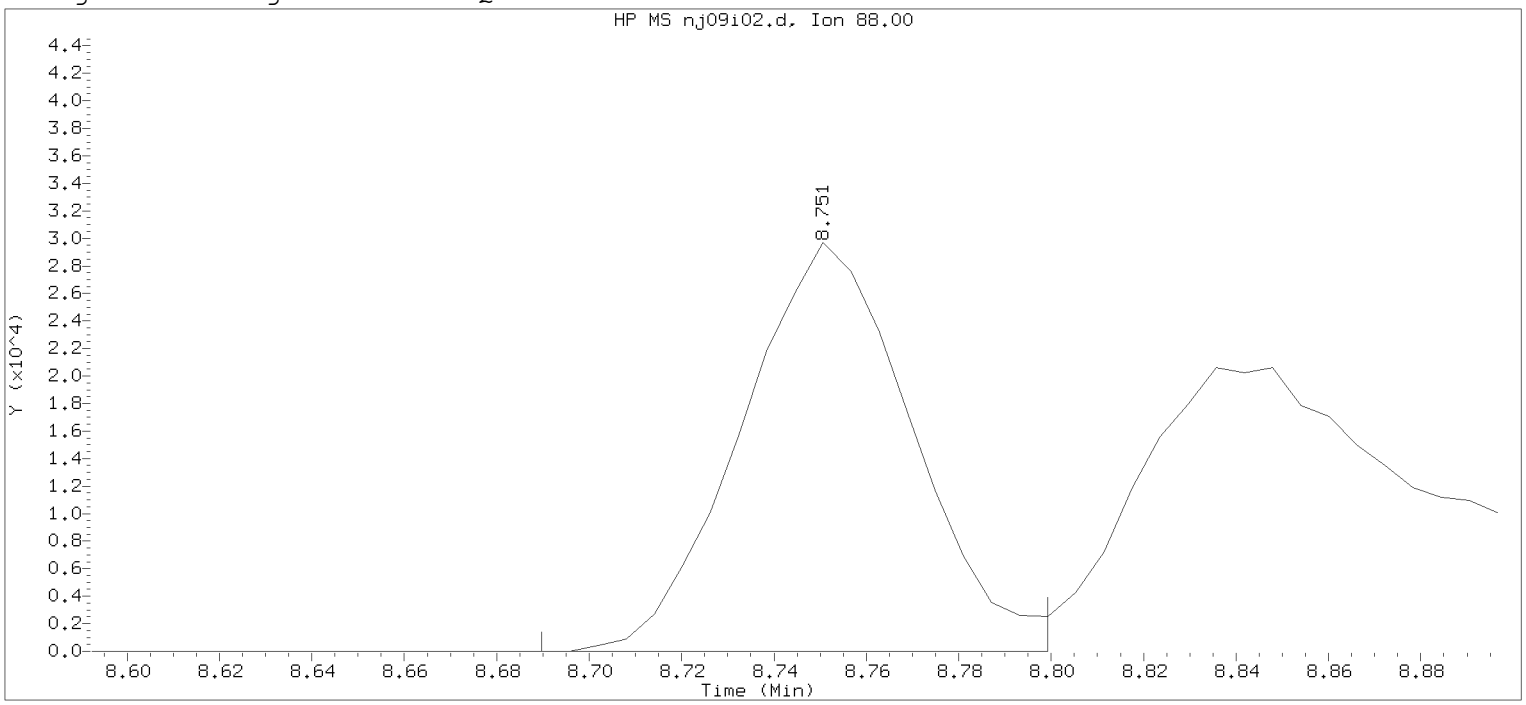
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

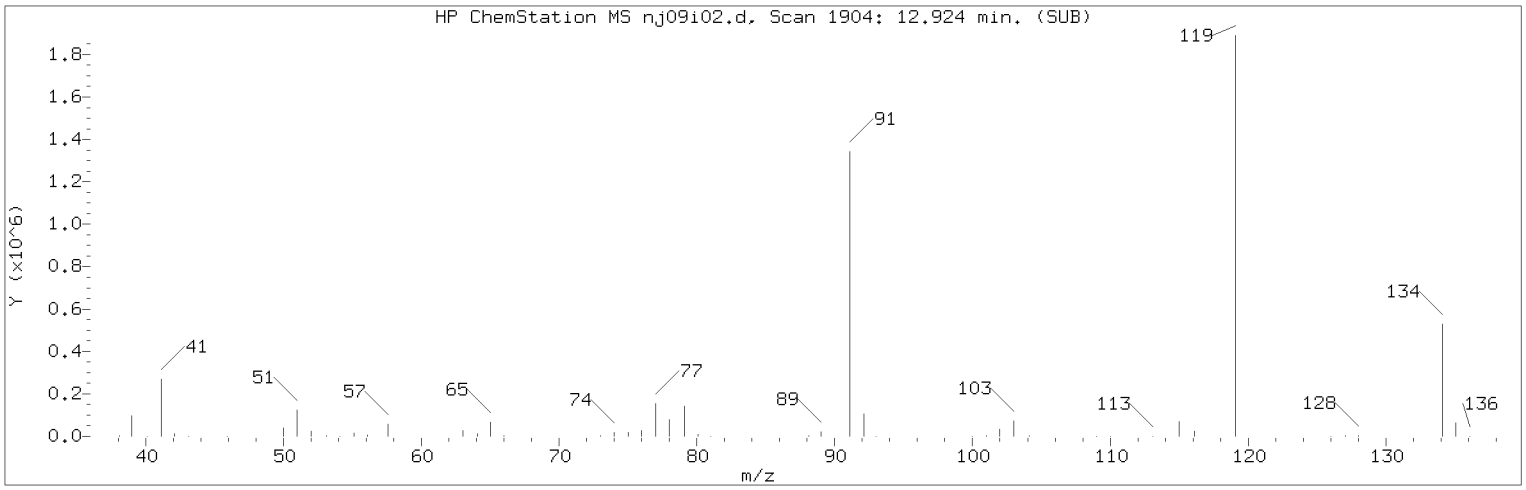
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

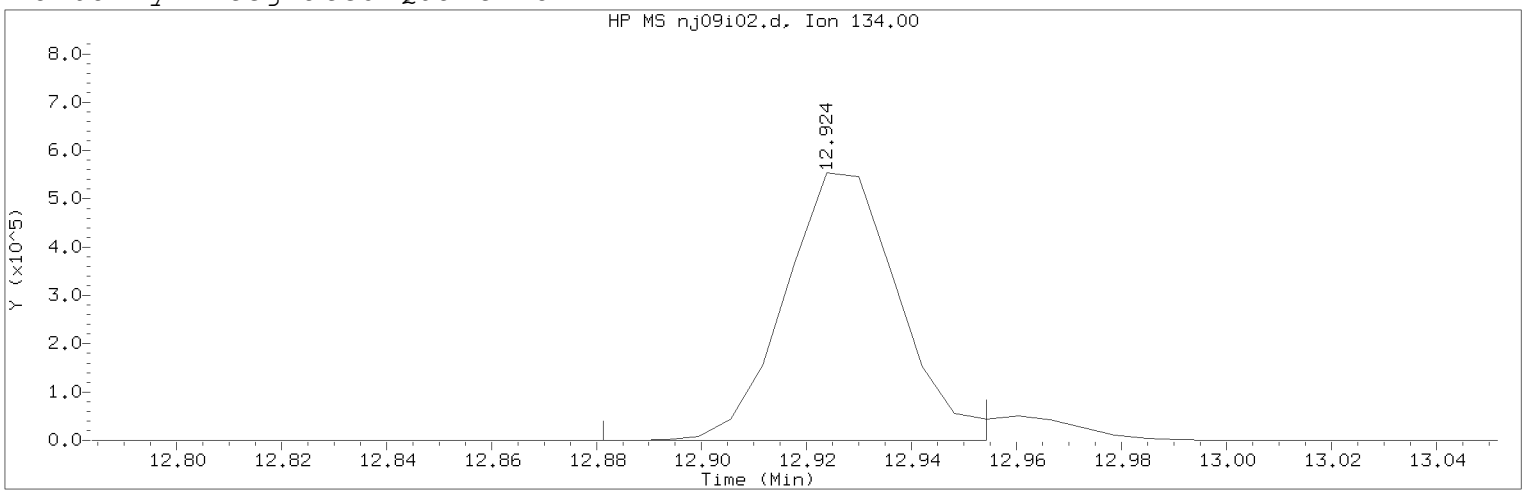
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 75794
On-column Amount (ng) : 1015.5177
Integration start scan : 1207 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00432

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

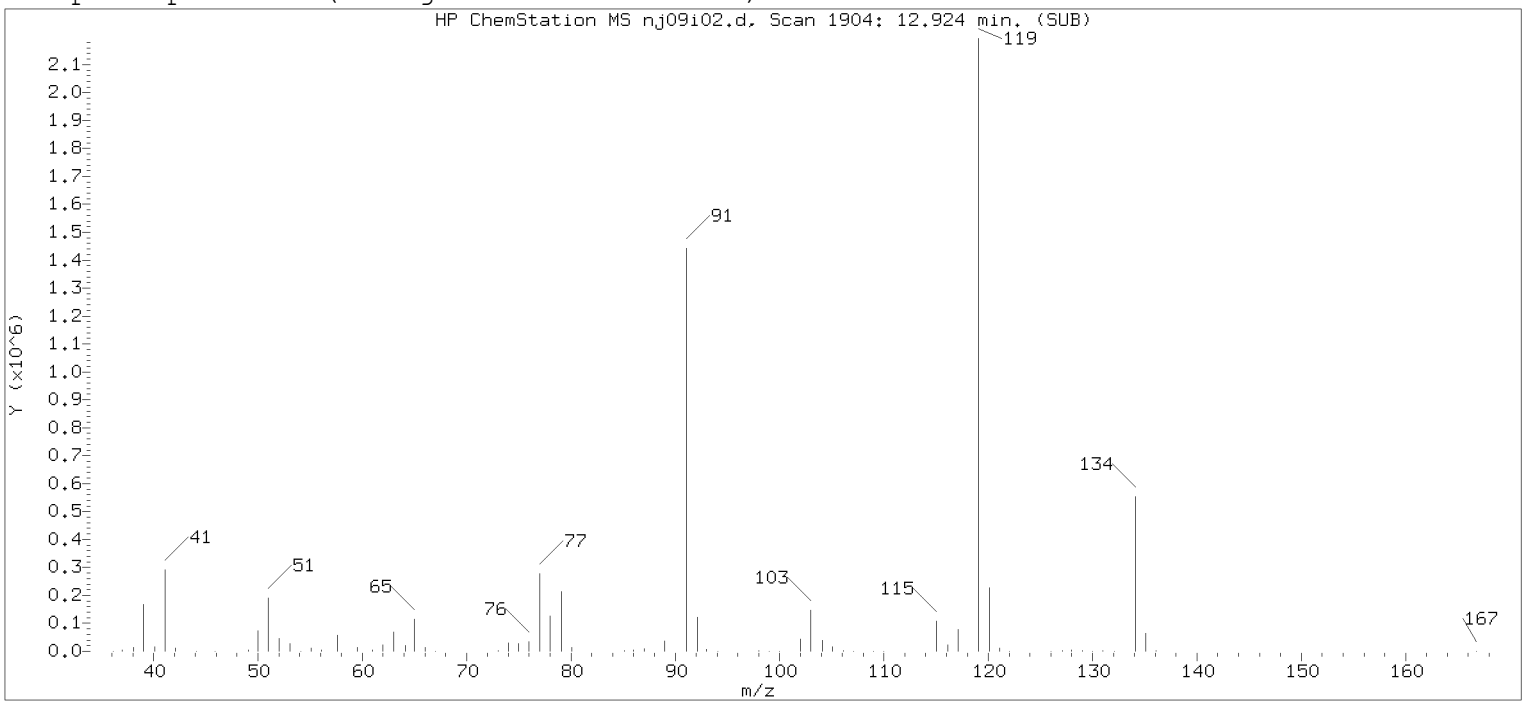
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 832423M
On-Column Amount (ng) : 104.6846
Integration start scan : 1896 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

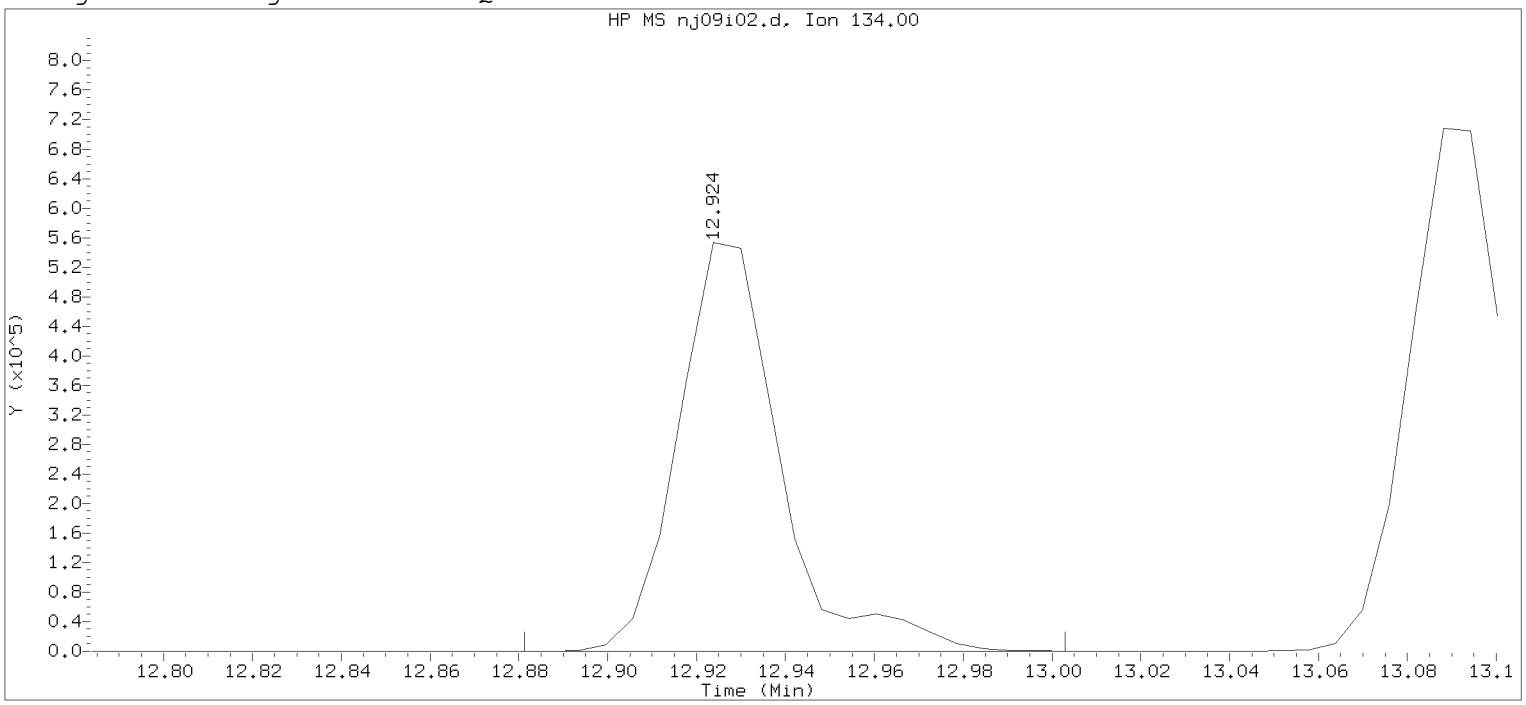
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:04.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



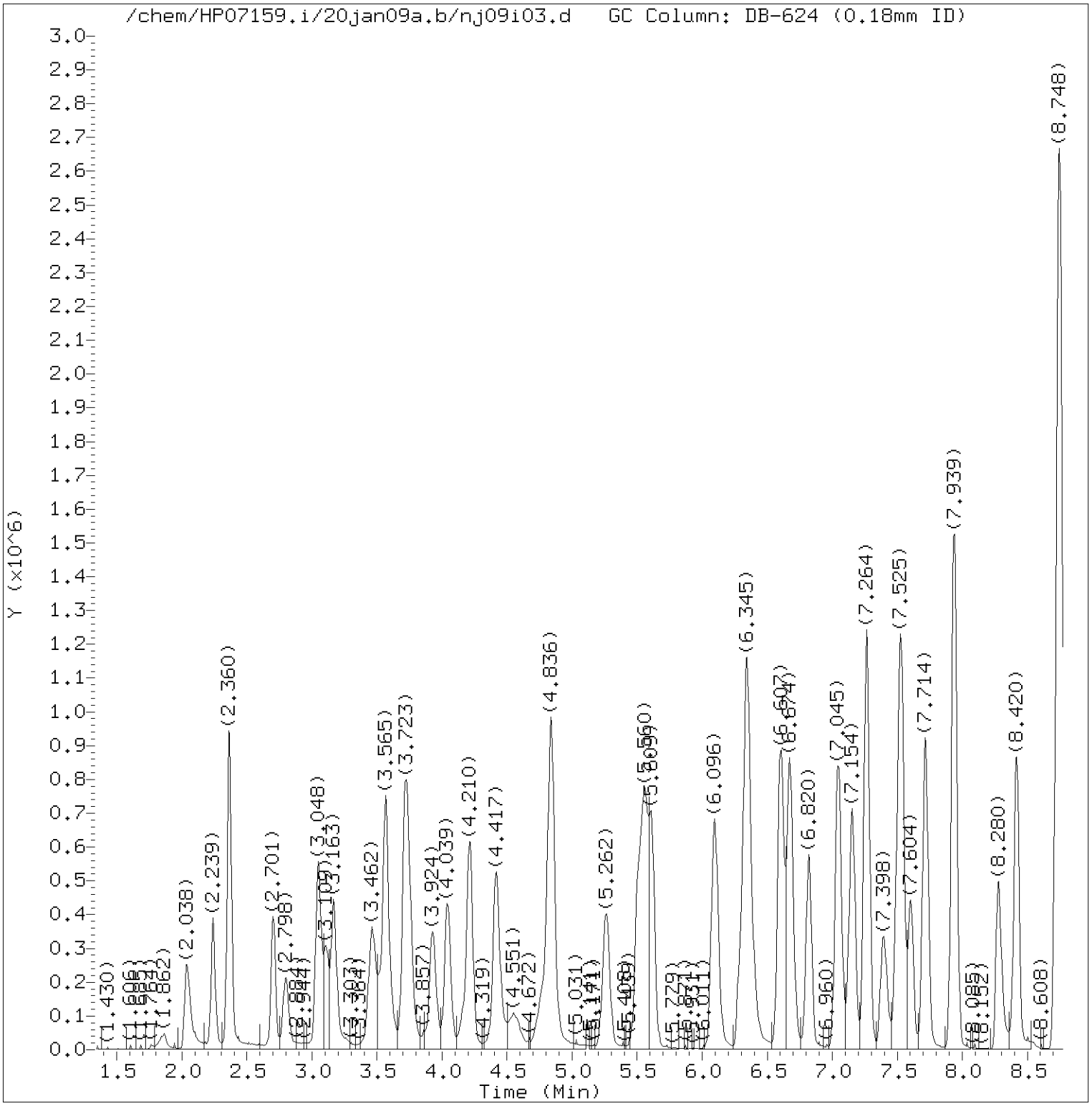
Data File: /chem/HP07159.i/20jan09a.b/nj09i02.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:15 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 881807
On-column Amount (ng) : 107.2006
Integration start scan : 1896 Integration stop scan: 1916
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:04.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

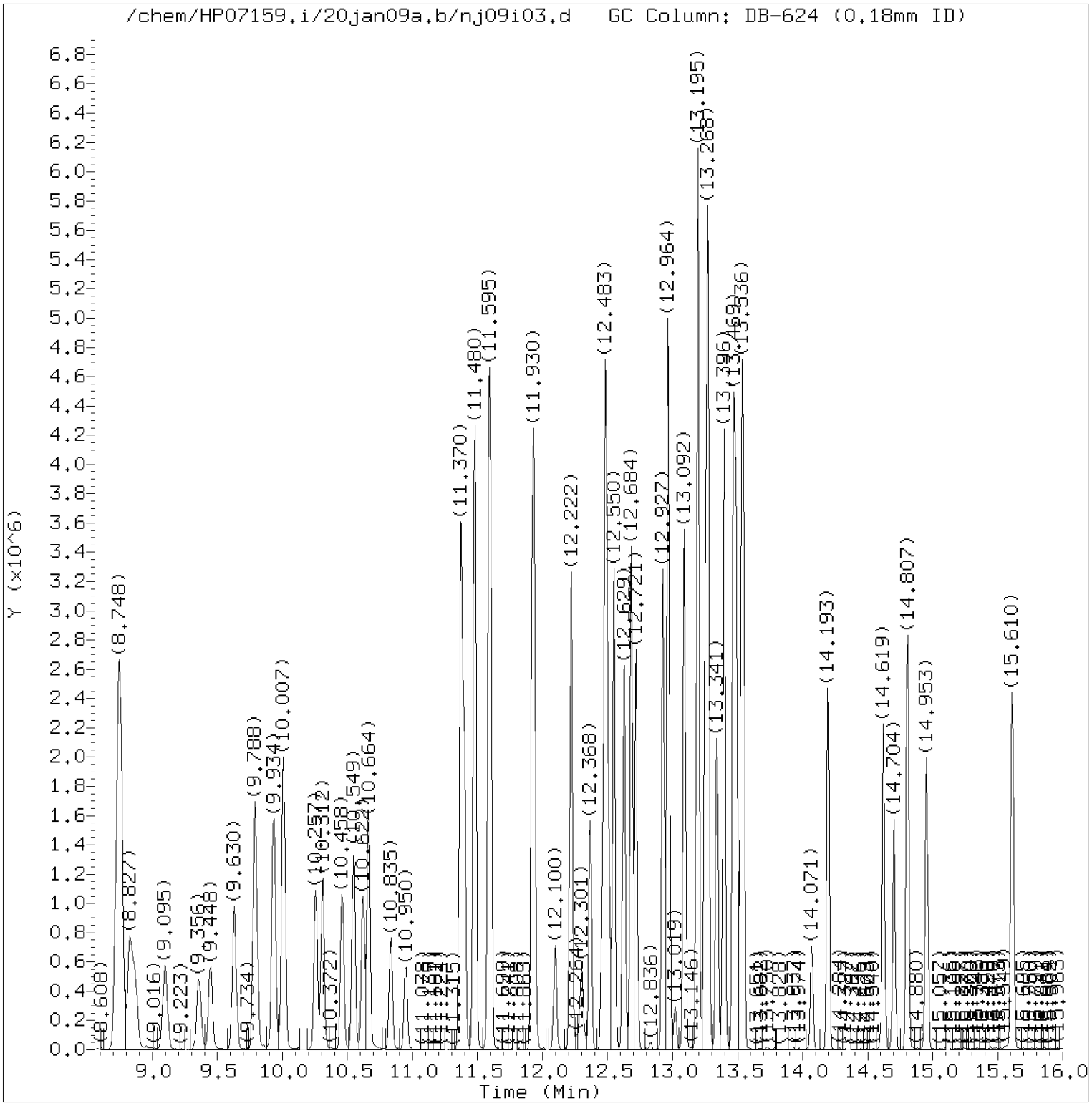
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.038	85	527144M	51.804
4) Chloromethane	(2)	2.239	50	529447	48.559
6) Vinyl Chloride	(2)	2.360	62	530741	50.022
5) 1,3-Butadiene	(2)	2.367	39	355149M	46.681
8) Bromomethane	(2)	2.701	94	355397	48.853
9) Chloroethane	(2)	2.798	64	304981	49.111
10) Dichlorofluoromethane	(2)	3.048	67	688803	48.433
12) Trichlorofluoromethane	(2)	3.109	101	584978	50.166
11) n-Pentane	(2)	3.163	43	434271	38.011
13) Ethanol	(1)	3.261	45	111715	1194.607
15) Freon 123a	(2)	3.455	67	418005	48.931
16) Acrolein	(1)	3.565	56	1328208	506.935
17) 1,1-Dichloroethene	(2)	3.717	96	332691	48.955
17) 1,1-Dichloroethene	(2)	3.717	63	173113	48.544
19) Freon 113	(2)	3.735	101	283064	44.893
18) Acetone	(1)	3.741	58	112741	102.161
21) 2-Propanol	(1)	3.918	45	179669M	246.501
22) Methyl Iodide	(2)	3.924	142	629218	49.604
23) Carbon Disulfide	(2)	4.039	76	1079092	49.655
27) Methyl Acetate	(2)	4.185	43	392865	47.057
25) Allyl Chloride	(2)	4.216	41	578827	48.246
28) Methylene Chloride	(2)	4.411	84	380651	47.160
29)*t-Butyl alcohol-d10	(1)	4.423	65	386370M	250.000
30) t-Butyl alcohol	(1)	4.551	59	374193	259.777
31) Acrylonitrile	(2)	4.757	53	228245	50.620
33) Methyl Tertiary Butyl Ether	(2)	4.824	73	1079796	48.896
32) trans-1,2-Dichloroethene	(2)	4.843	96	377116	48.608
34) n-Hexane	(2)	5.268	57	399483	37.300
36) 1,1-Dichloroethane	(2)	5.506	63	702069	49.606
38) di-Isopropyl ether	(2)	5.560	45	1206454	49.485
39) 2-Chloro-1,3-butadiene	(2)	5.615	53	620497	49.668
40) Ethyl t-butyl ether	(2)	6.096	59	1153214	49.766
43) 1,2-Dichloroethene (Total)	(2)		96	807382	97.440
44) 2-Butanone	(2)	6.296	43	653401	103.636
42) cis-1,2-Dichloroethene	(2)	6.339	96	430266	48.832
45) 2,2-Dichloropropane	(2)	6.351	77	622560	49.824
47) Propionitrile	(1)	6.388	54	427612	254.173
48) Methacrylonitrile	(2)	6.601	67	577339	126.760

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	213003	51.127
50) Tetrahydrofuran	(1)	6.680	71	183689	105.167
51) Chloroform	(2)	6.820	83	677419	49.072
52)$Dibromofluoromethane	(2)	7.039	113	324858	50.073
52)$Dibromofluoromethane	(2)	7.039	111	329753	49.779
53) 1,1,1-Trichloroethane	(2)	7.051	97	622865	49.872
54) Cyclohexane	(2)	7.154	56	560506	43.632
54) Cyclohexane	(2)	7.154	84	494708	44.187
54) Cyclohexane	(2)	7.154	69	176892	43.810
55) 1,1-Dichloropropene	(2)	7.264	75	561348	49.691
56) Carbon Tetrachloride	(2)	7.264	117	535686	49.746
58) Isobutyl Alcohol	(1)	7.398	41	319042	618.313
57)$1,2-Dichloroethane-d4	(2)	7.501	102	82253	50.143
57)$1,2-Dichloroethane-d4	(2)	7.501	65	387310M	49.531
57)$1,2-Dichloroethane-d4	(2)	7.495	104	52729	50.521
60) Benzene	(2)	7.531	78	1593132	49.544
61) 1,2-Dichloroethane	(2)	7.604	62	554246	48.720
61) 1,2-Dichloroethane	(2)	7.610	98	50080	53.487
65) t-Amyl methyl ether	(2)	7.714	73	1155497	49.706
66)*Fluorobenzene	(2)	7.933	96	1307289	50.000
67) n-Heptane	(2)	7.939	43	422678	34.192
69) n-Butanol	(1)	8.280	56	558559	1256.665
71) Trichloroethene	(2)	8.414	95	415585	49.057
72) Methylcyclohexane	(2)	8.730	83	701355	50.364
72) Methylcyclohexane	(2)	8.730	98	334358	50.983
73) 1,2-Dichloropropane	(2)	8.754	63	414718	50.437
76) Methyl Methacrylate	(2)	8.827	69	385108	51.215
75) 1,4-Dioxane	(1)	8.839	88	70481M	627.690
74) Dibromomethane	(2)	8.864	93	260016	49.583
78) Bromodichloromethane	(2)	9.101	83	530456	49.549
79) 2-Nitropropane	(2)	9.356	41	406791	104.620
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	312088	47.982
81) cis-1,3-Dichloropropene	(2)	9.630	75	684759	50.142
82) 4-Methyl-2-pentanone	(2)	9.788	43	1383360	108.295
83)$Toluene-d8	(3)	9.934	98	1288871	50.147
83)$Toluene-d8	(3)	9.934	100	854716	50.195
88) Toluene	(3)	10.007	92	1036570	49.648
90) 1,3-Dichloropropene (total)	(3)		100	1341815	100.847

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.257	75	657056	50.705
91) Ethyl Methacrylate	(3)	10.312	69	661745	51.256
92) 1,1,2-Trichloroethane	(3)	10.458	97	375770	50.834
93) Tetrachloroethene	(3)	10.549	166	449859	49.203
94) 1,3-Dichloropropane	(3)	10.622	76	651612	50.789
96) 2-Hexanone	(3)	10.658	43	1092889	110.585
97) Dibromochloromethane	(3)	10.835	129	438059	51.640
99) 1,2-Dibromoethane	(3)	10.950	107	409383	50.575
100)*Chlorobenzene-d5	(3)	11.370	117	985480	50.000
102) Chlorobenzene	(3)	11.394	112	1162260	49.878
103) 1,1,1,2-Tetrachloroethane	(3)	11.480	131	422811	50.350
104) Ethylbenzene	(3)	11.480	91	1999441	49.511
106) m+p-Xylene	(3)	11.595	106	1580832	99.630
108) Xylene (Total)	(3)		106	2360020	149.560
107) o-Xylene	(3)	11.924	106	779188	49.930
109) Styrene	(3)	11.936	104	1324554	50.536
110) Bromoform	(3)	12.100	173	329436	51.440
111) Isopropylbenzene	(3)	12.222	105	2034021	49.351
112) Cyclohexanone	(1)	12.301	55	280570	623.055
114)$4-Bromofluorobenzene	(3)	12.368	95	507353	49.965
114)$4-Bromofluorobenzene	(3)	12.368	174	405865	49.892
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	592788	49.541
115) Bromobenzene	(4)	12.483	156	498425	49.540
118) trans-1,4-Dichloro-2-butene	(4)	12.489	53	523292	127.136
117) 1,2,3-Trichloropropane	(4)	12.514	110	188436	49.714
119) n-Propylbenzene	(4)	12.550	91	2370186	48.591
120) 2-Chlorotoluene	(4)	12.629	126	497529	49.473
122) 1,3,5-Trimethylbenzene	(4)	12.684	105	1743735	48.790
121) 4-Chlorotoluene	(4)	12.721	126	513936	49.312
124) tert-Butylbenzene	(4)	12.927	134	376089	47.486
125) Pentachloroethane	(4)	12.964	167	330304	52.085
126) 1,2,4-Trimethylbenzene	(4)	12.970	105	1821603	49.107
127) sec-Butylbenzene	(4)	13.092	105	2230146	48.037
129) 1,3-Dichlorobenzene	(4)	13.195	146	962585	49.191
130) p-Isopropyltoluene	(4)	13.195	119	1955496	48.404
131)*1,4-Dichlorobenzene-d4	(4)	13.250	152	543996	50.000
133) 1,4-Dichlorobenzene	(4)	13.268	146	976788	49.222
134) 1,2,3-Trimethylbenzene	(4)	13.274	105	1846821	51.298

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.341	91	1365843	51.644
141) Diethylbenzene (total)	(4)		100	3612705	154.035
136) 1,3-Diethylbenzene	(4)	13.396	119	1250049	51.690
137) 1,4-Diethylbenzene	(4)	13.469	119	1322364	51.497
139) n-Butylbenzene	(4)	13.487	92	993898	47.693
138) 1,2-Dichlorobenzene	(4)	13.524	146	919971	49.587
140) 1,2-Diethylbenzene	(4)	13.542	119	1040292	50.848
142) 1,2-Dibromo-3-chloropropane	(4)	14.071	75	162361	50.208
144) 1,3,5-Trichlorobenzene	(4)	14.199	180	715968	48.416
146) 1,2,4-Trichlorobenzene	(4)	14.625	180	640491	49.673
147) Hexachlorobutadiene	(4)	14.704	225	264291	45.312
148) Naphthalene	(4)	14.807	128	2061174	50.983
149) 1,2,3-Trichlorobenzene	(4)	14.953	180	588297	49.703
150) 2-Methylnaphthalene	(4)	15.610	142	1217198	52.123

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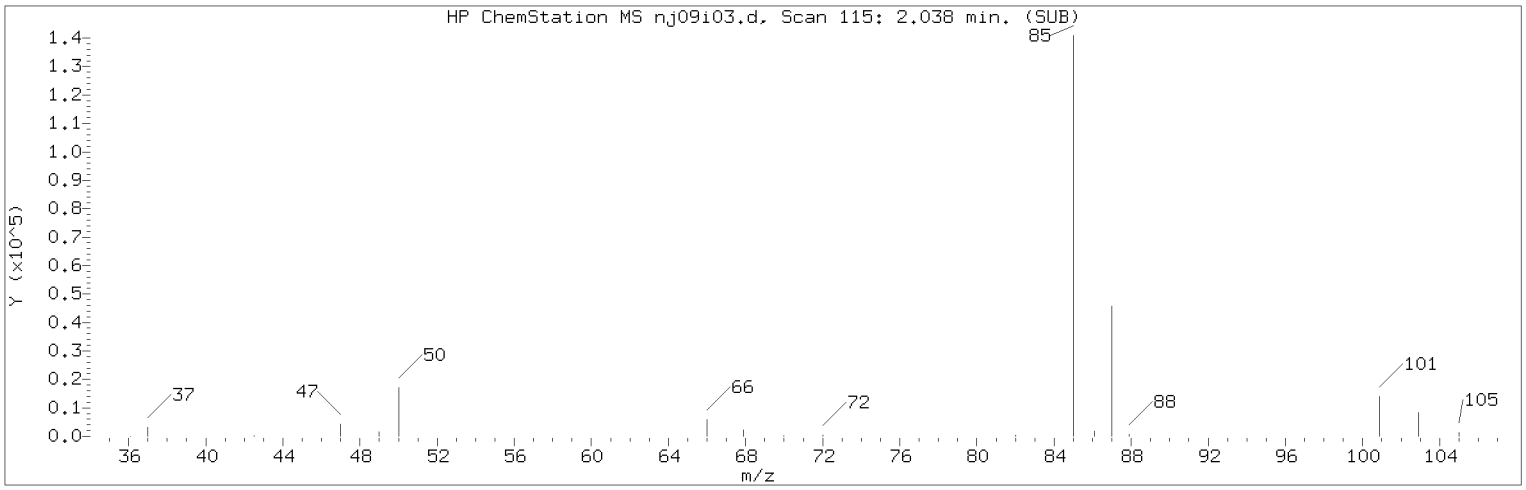
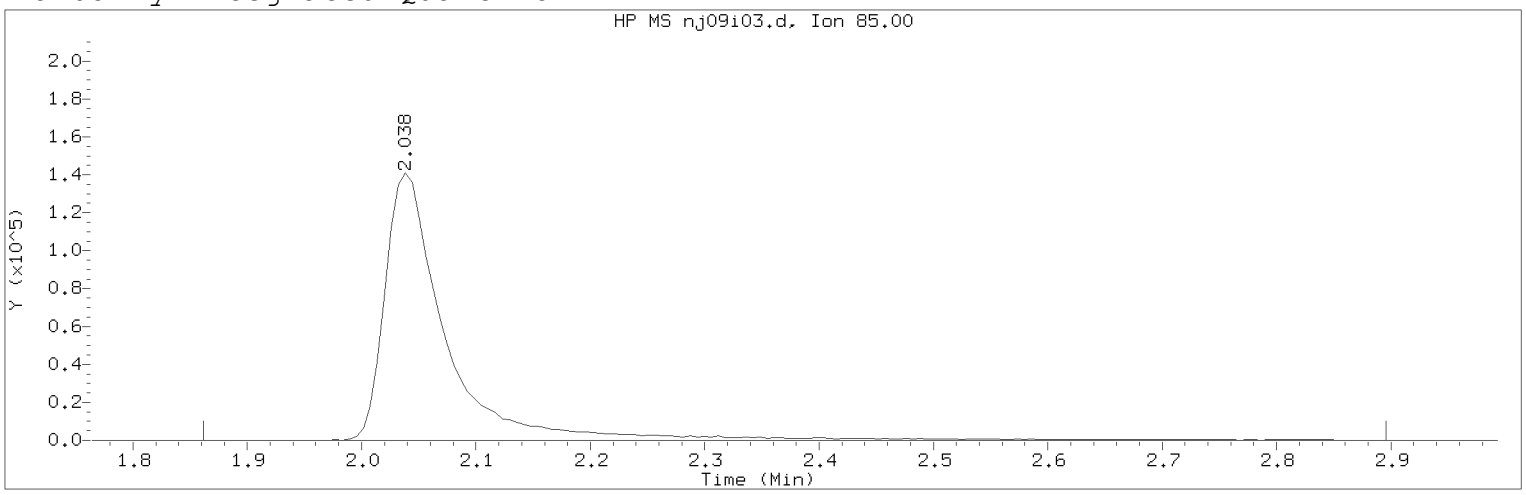
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

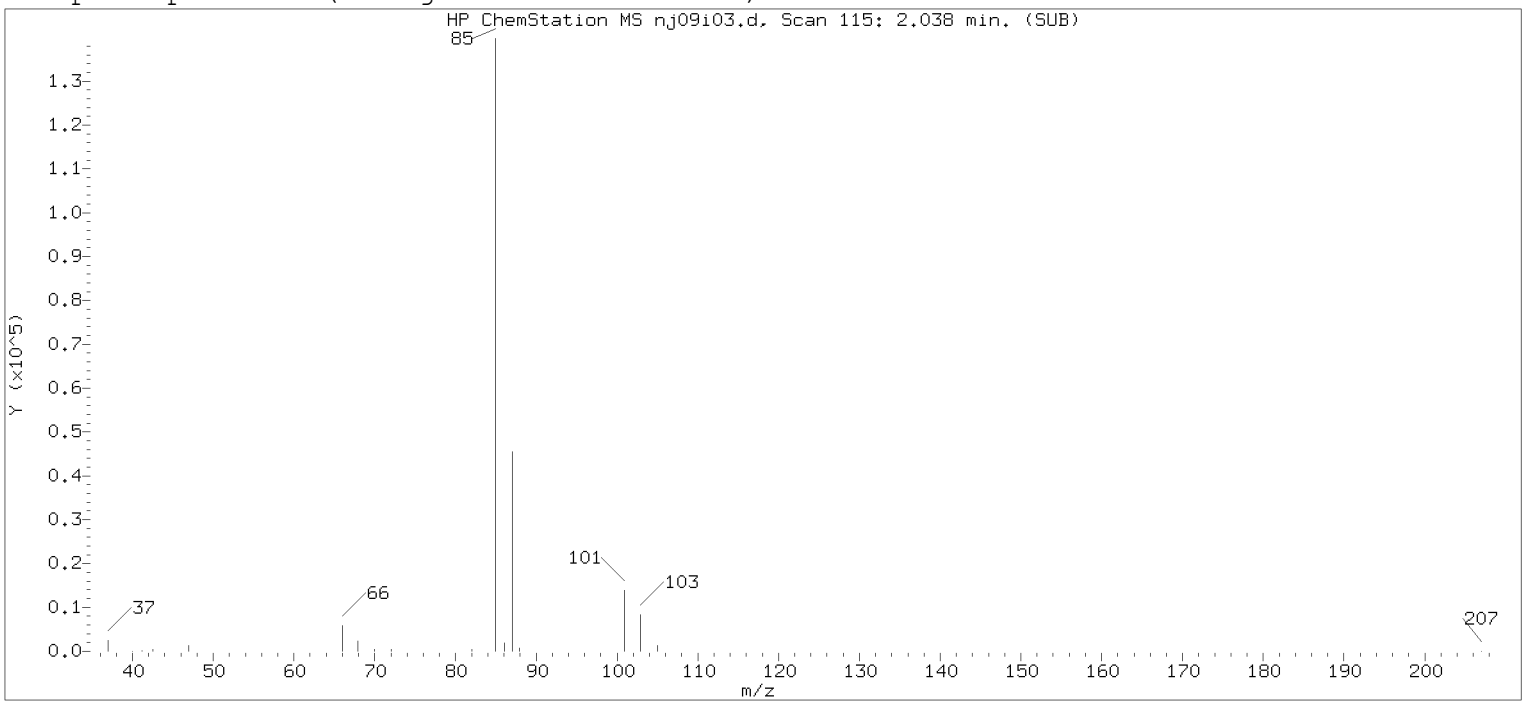
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area (flag) : 527144M
On-Column Amount (ng) : 51.8043
Integration start scan : 85 Integration stop scan: 255
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

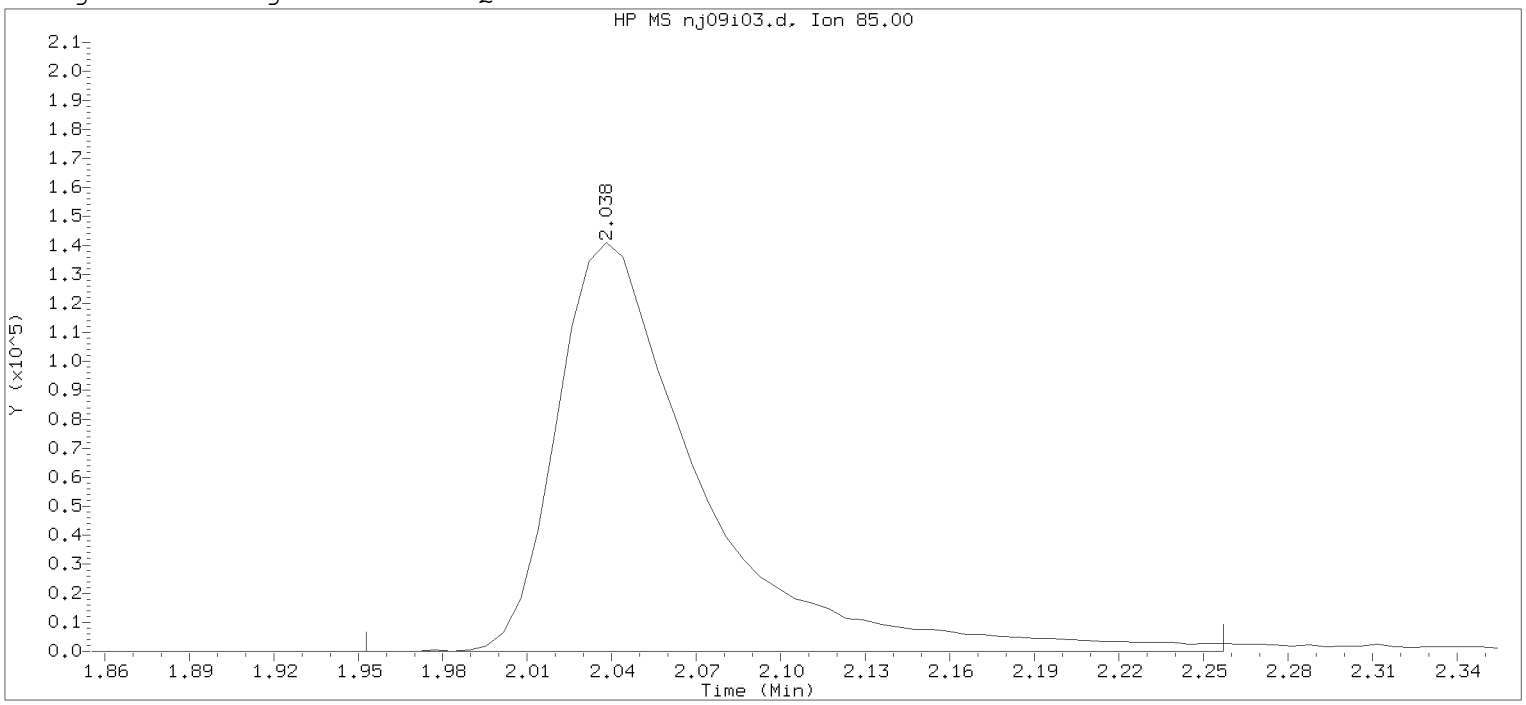
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

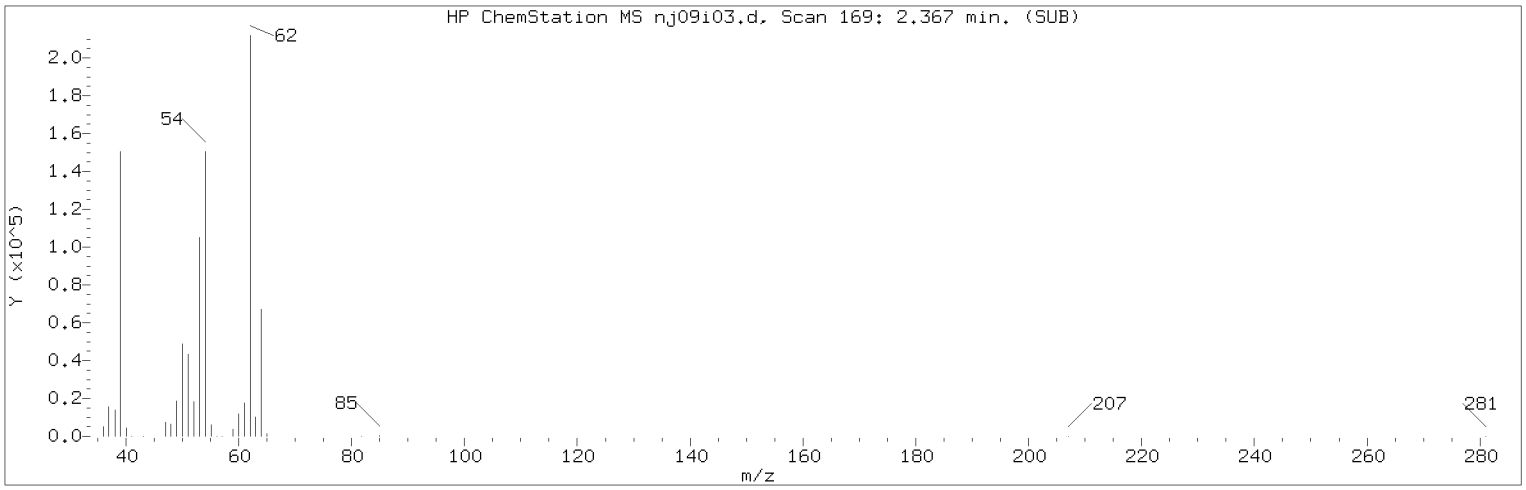
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

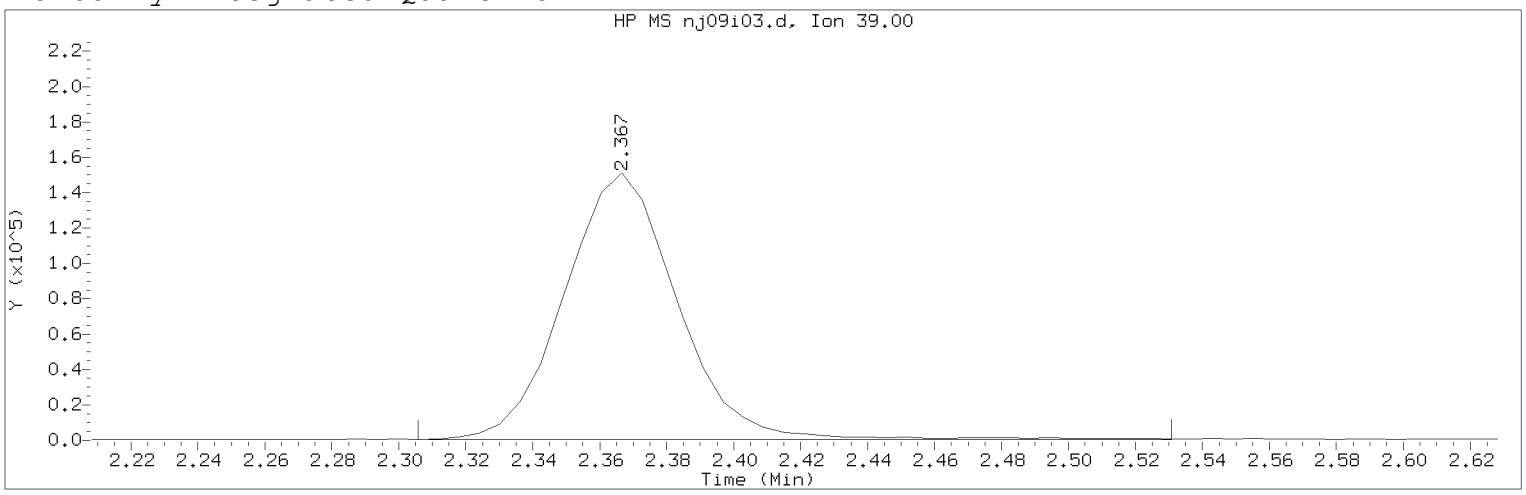
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area : 499221
On-column Amount (ng) : 50.9053
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

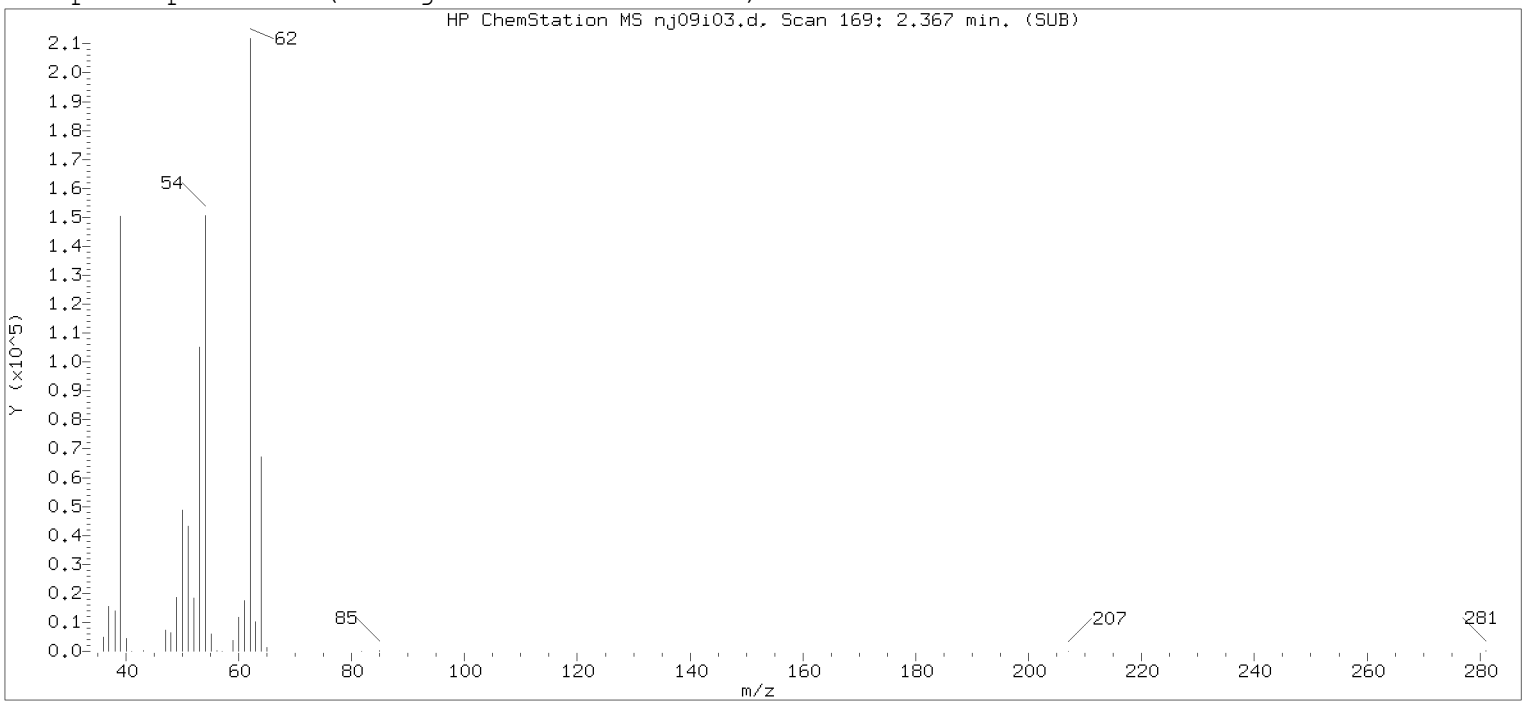
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area (flag) : 355149M
On-Column Amount (ng) : 46.6809
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 288 Y at integration end: 288

Reason for manual integration: improper integration

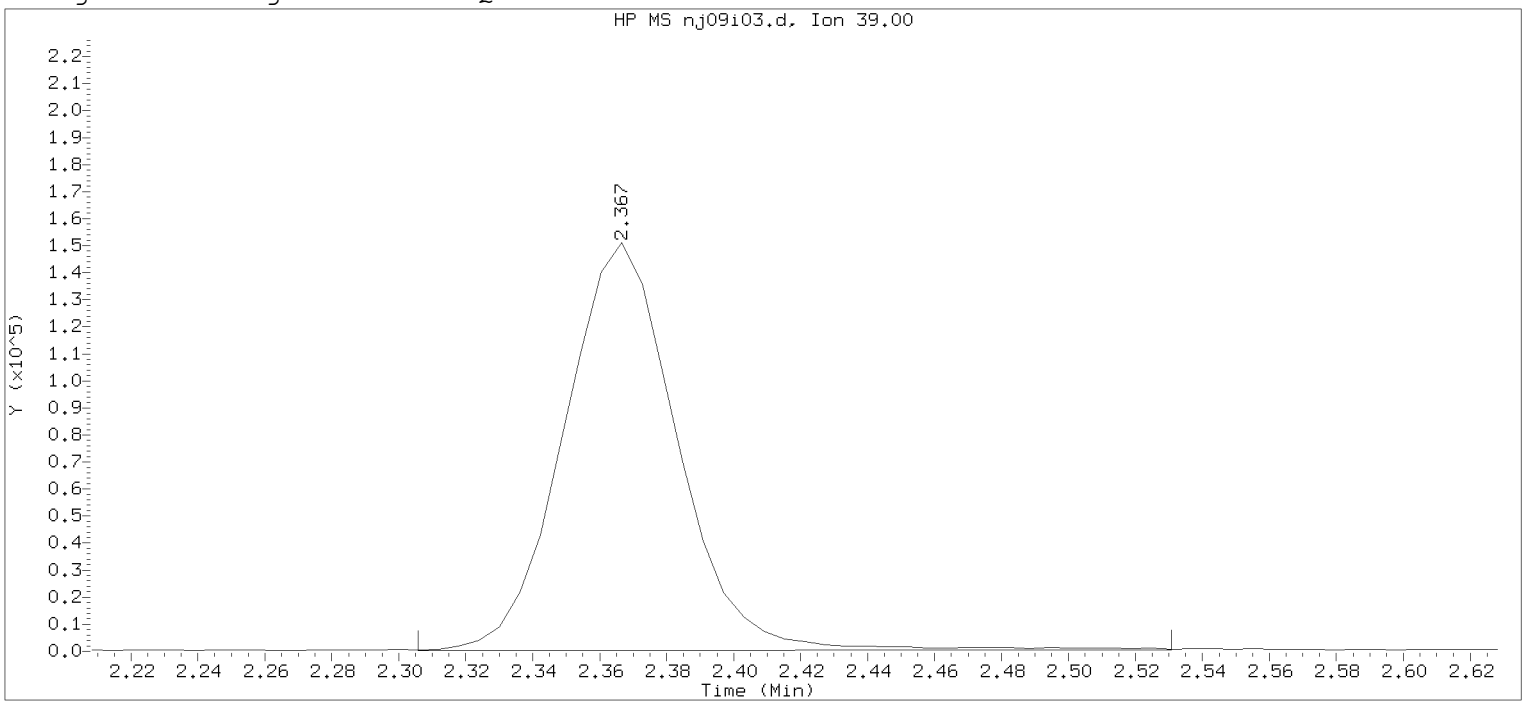
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

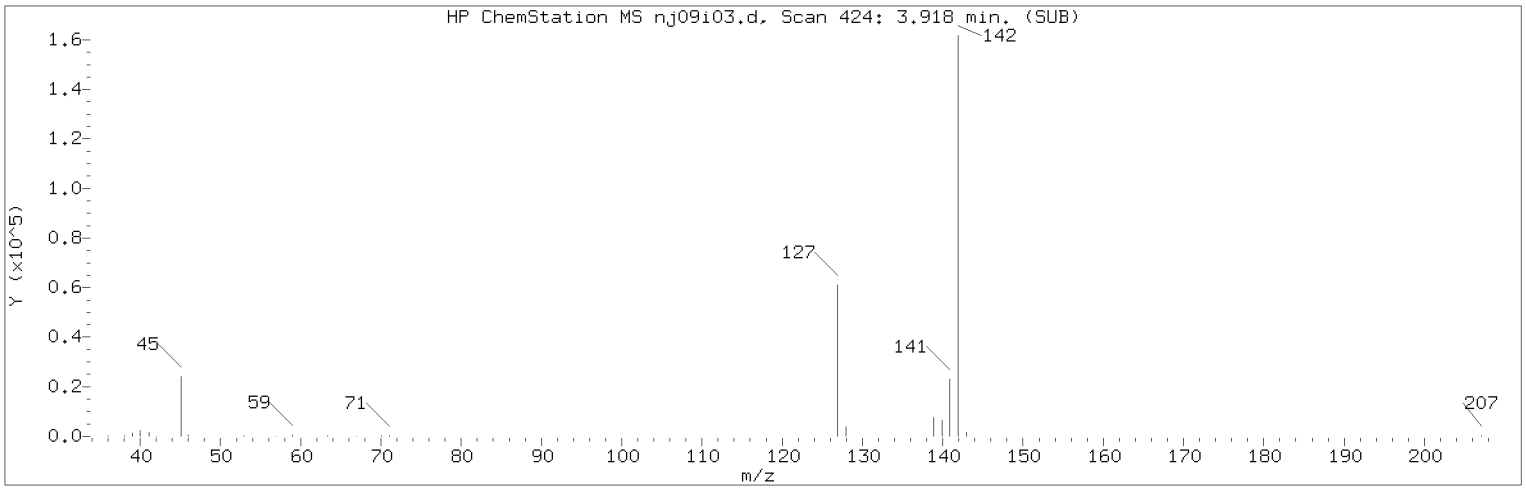
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

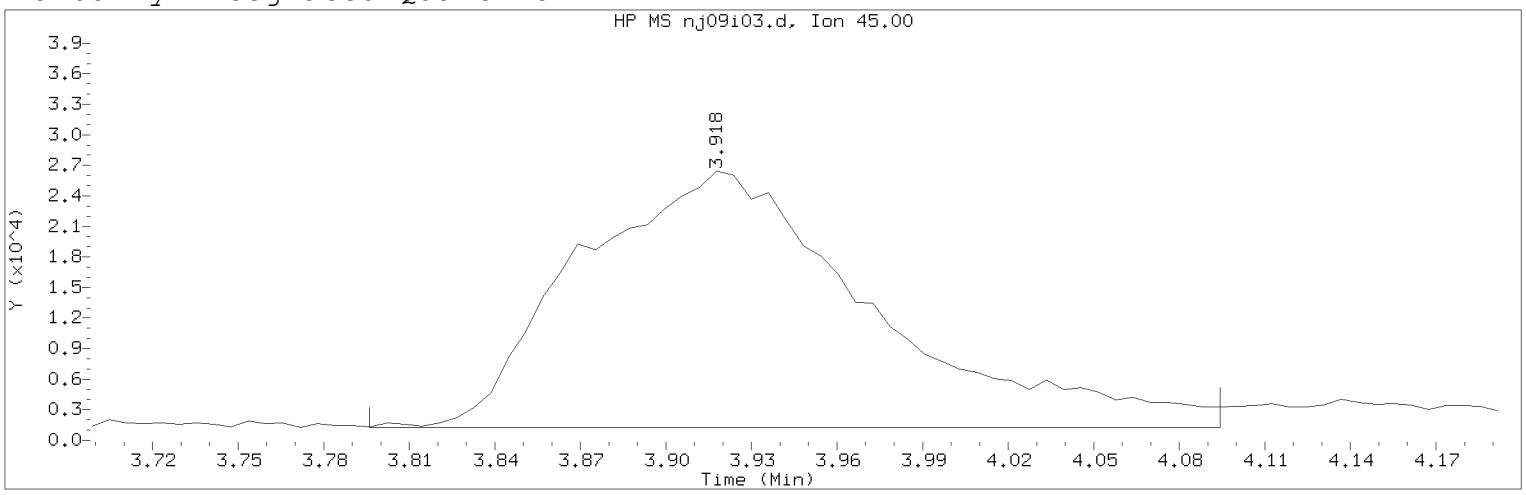
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.367
Quant Ion : 39.00
Area : 354416
On-column Amount (ng) : 47.0597
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 305 Y at integration end: 358

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

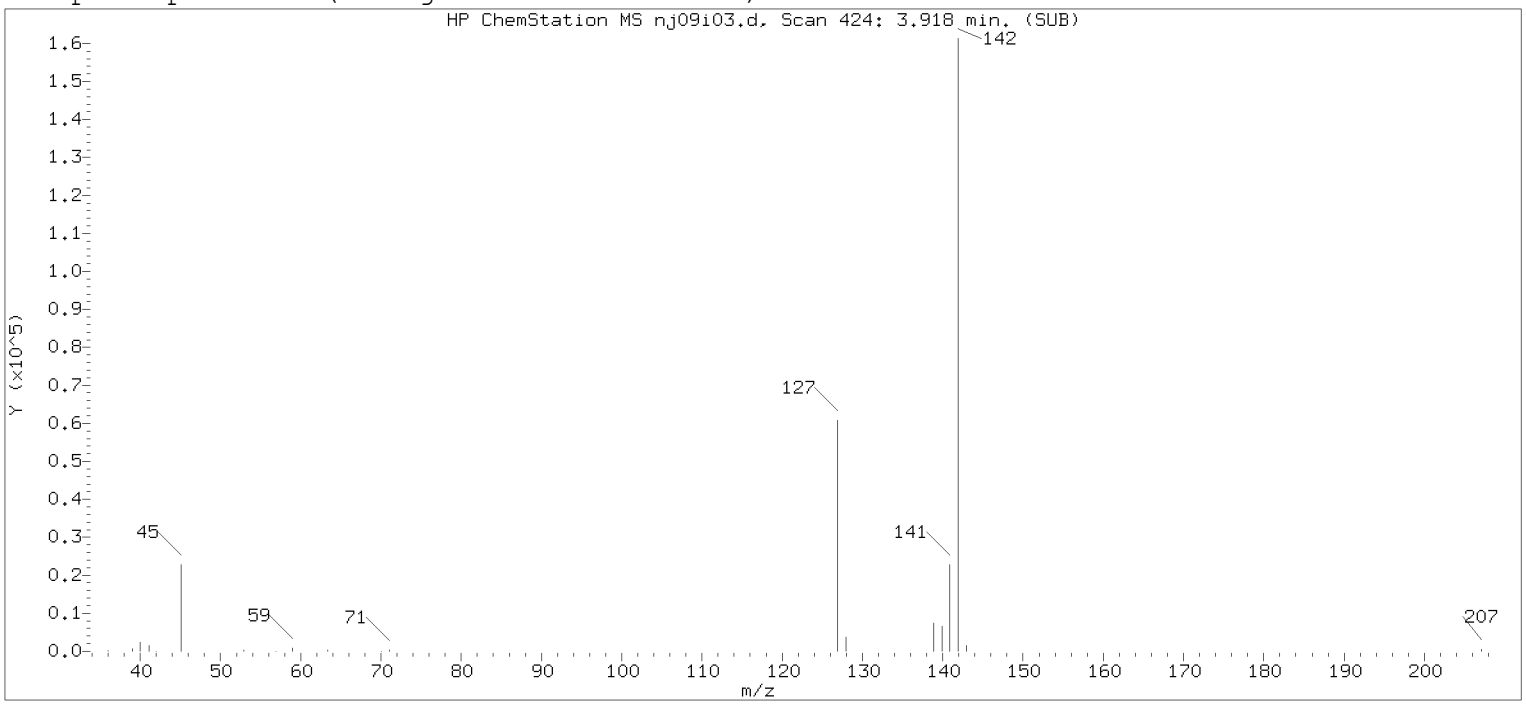
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area (flag) : 179669M
On-Column Amount (ng) : 246.5006
Integration start scan : 403 Integration stop scan: 452
Y at integration start : 1271 Y at integration end: 1271

Reason for manual integration: improper integration

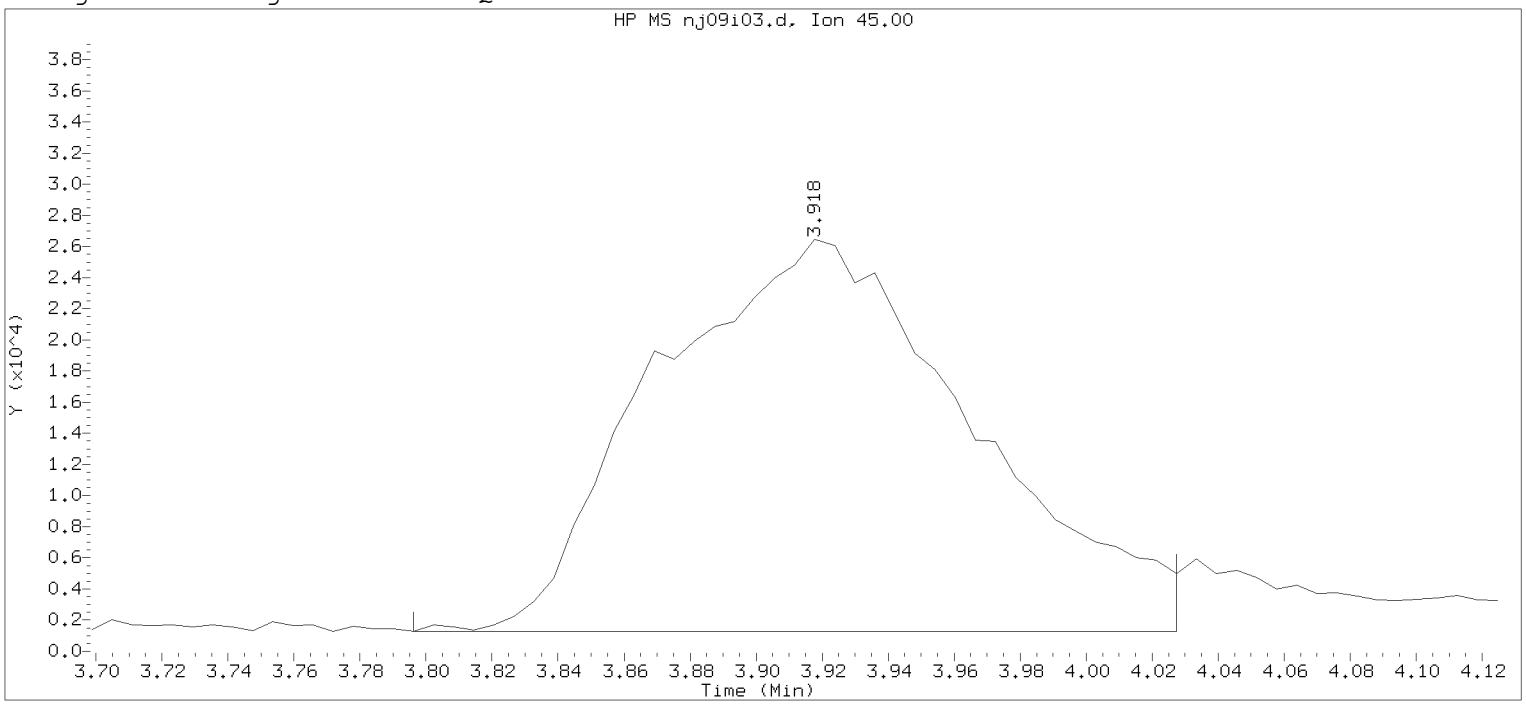
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

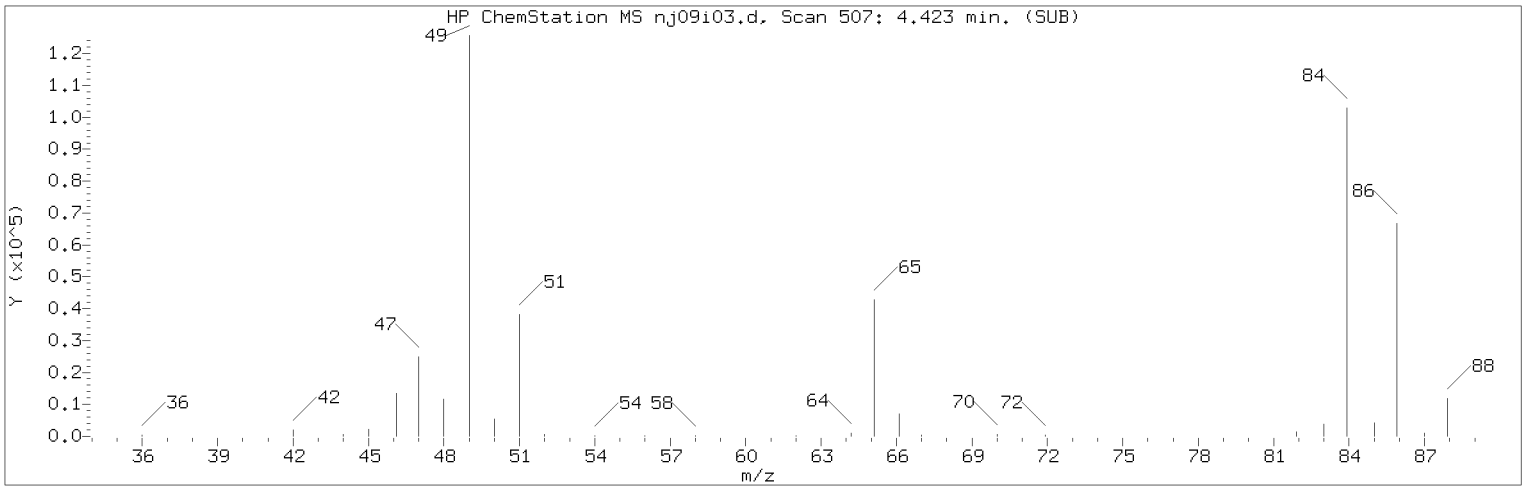
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

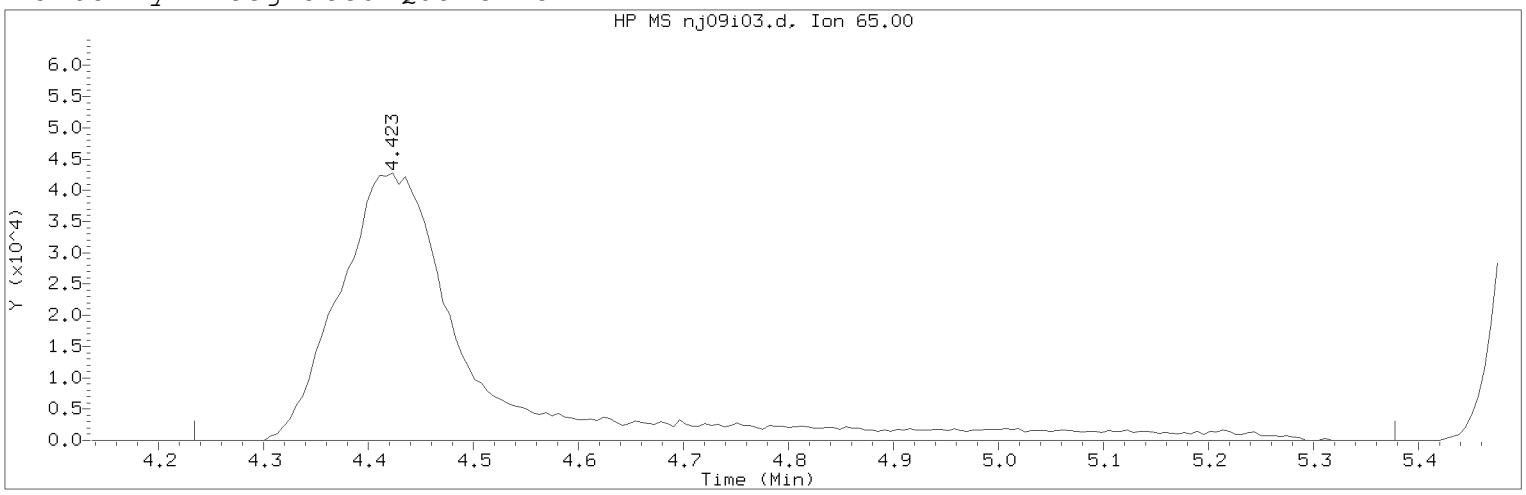
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.918
Quant Ion : 45.00
Area : 167056
On-column Amount (ng) : 245.3399
Integration start scan : 403 Integration stop scan: 441
Y at integration start : 1272 Y at integration end: 1272

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

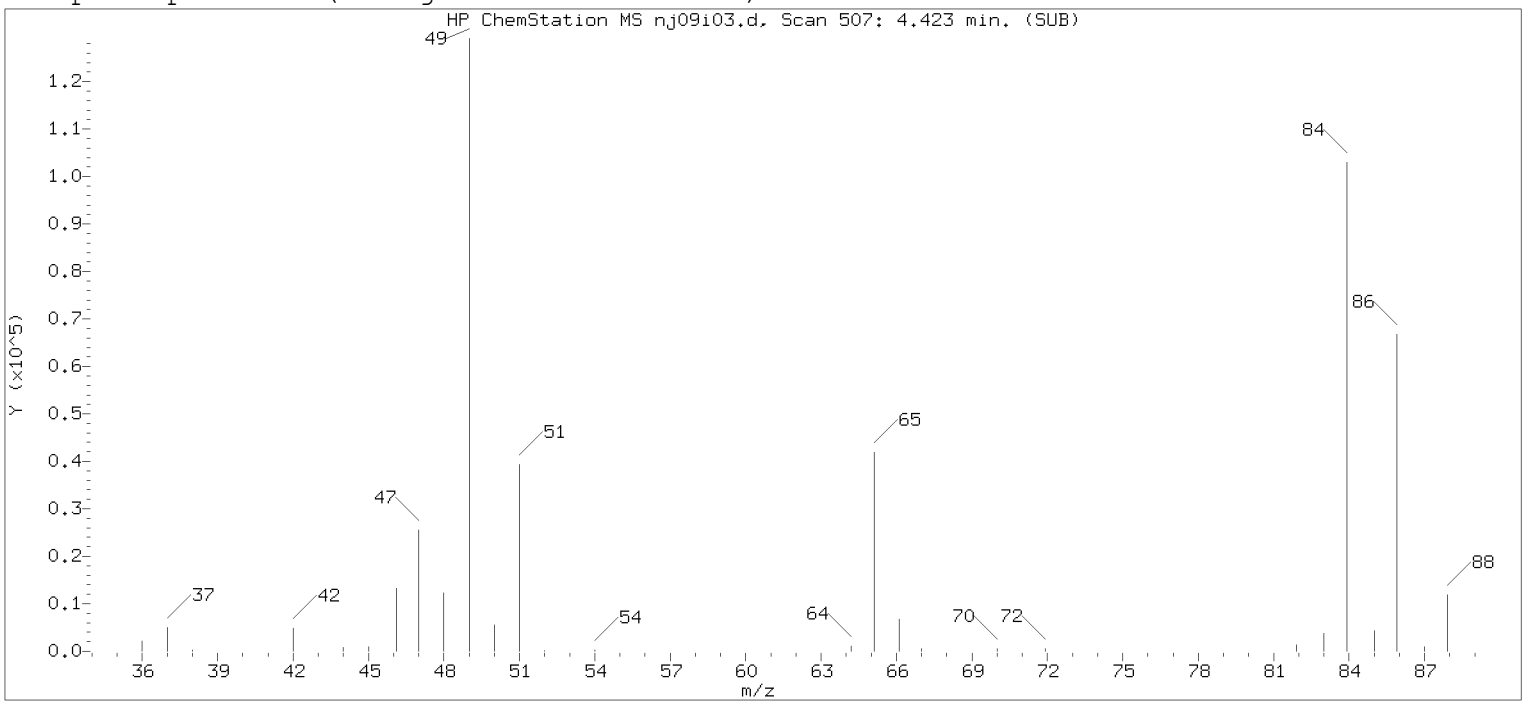
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area (flag) : 386370M
On-Column Amount (ng) : 250.0000
Integration start scan : 475 Integration stop scan: 663
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

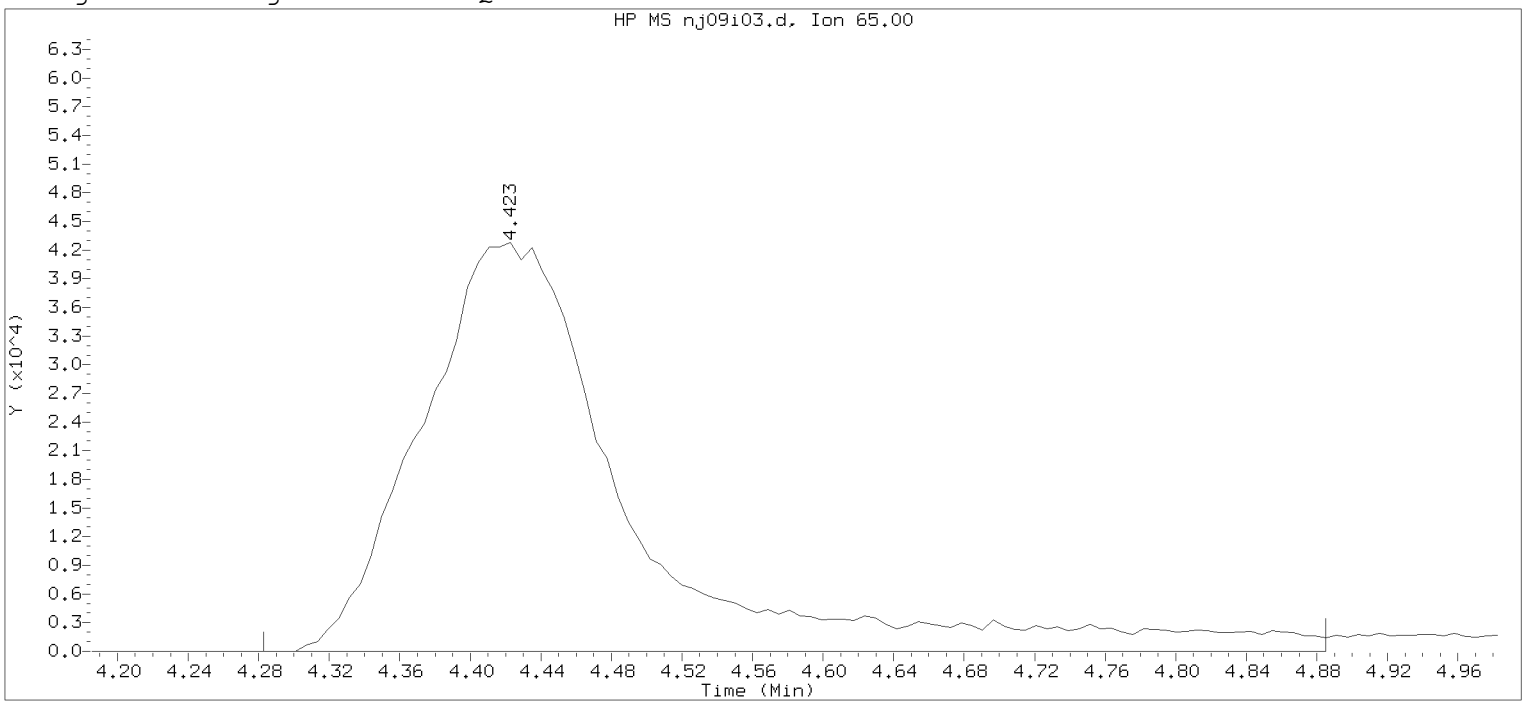
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

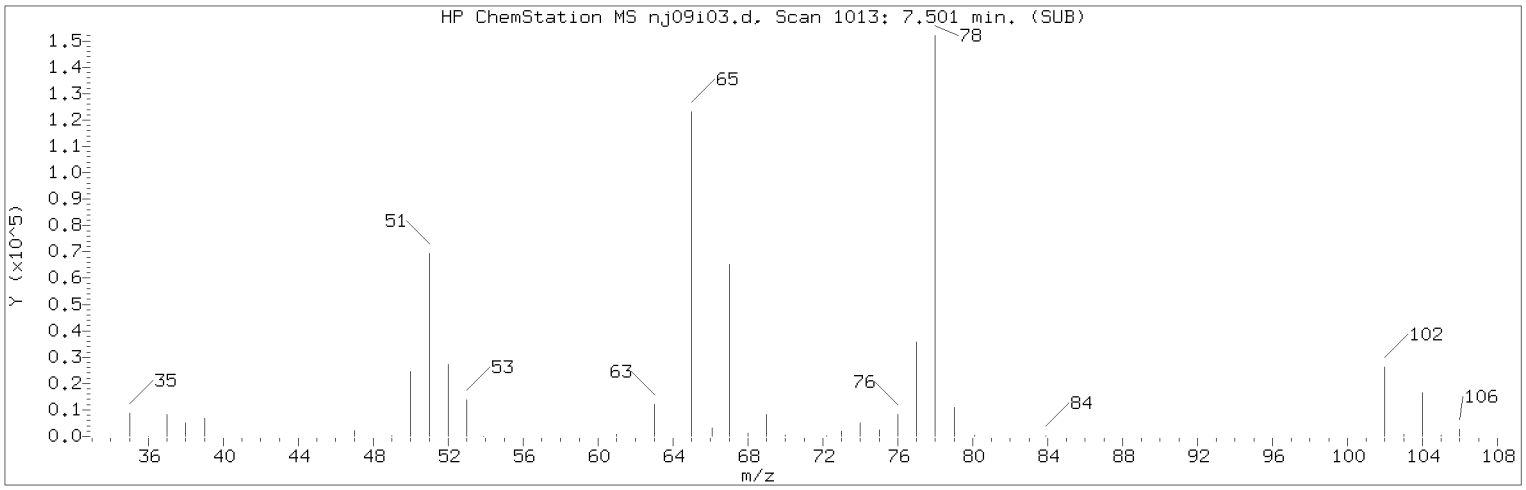
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

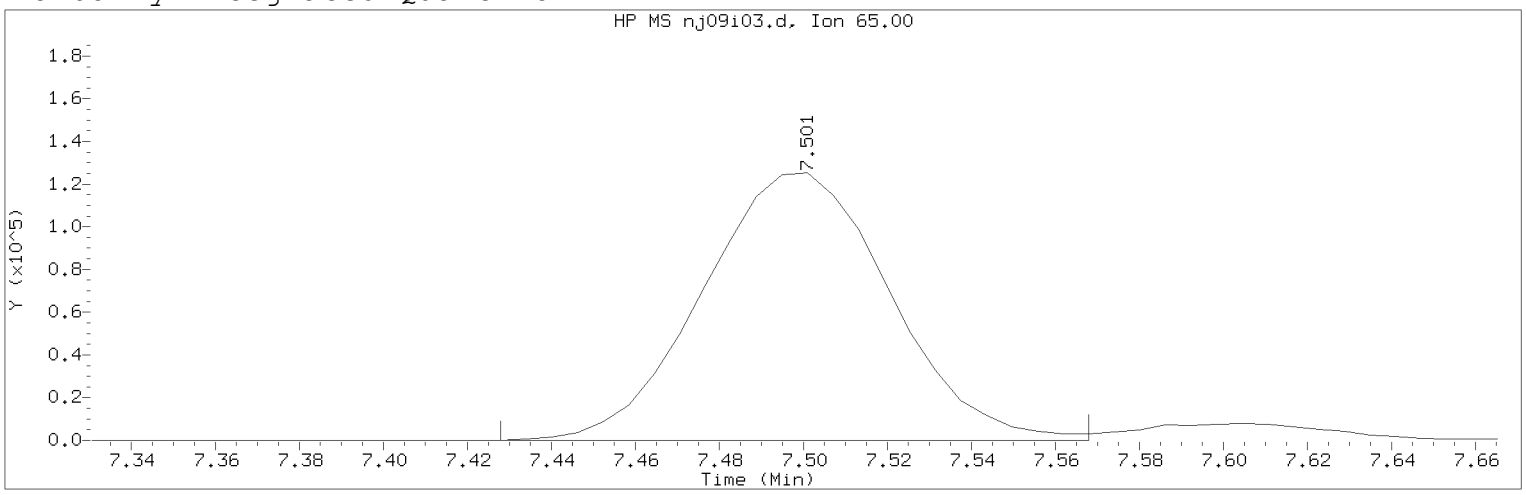
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.423
Quant Ion : 65.00
Area : 352606
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 582
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

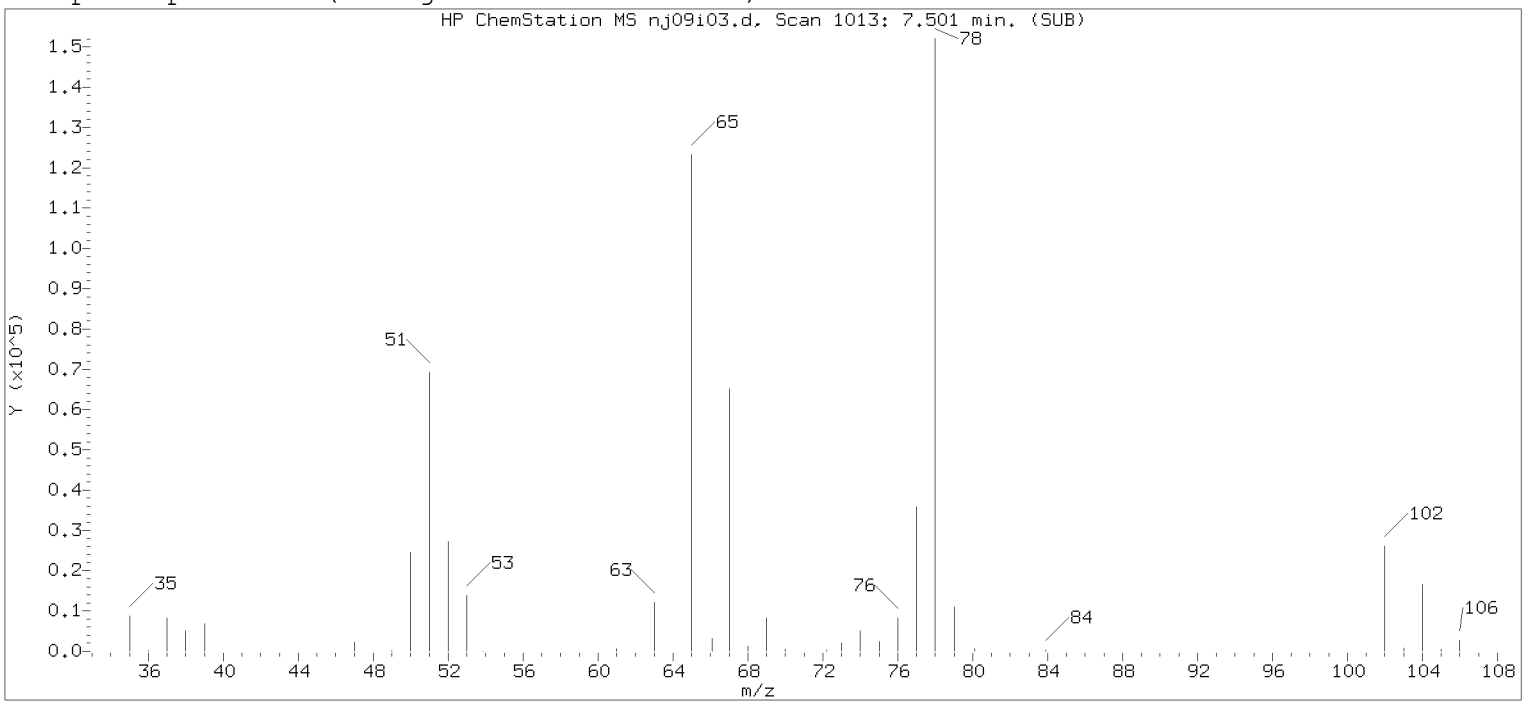
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area (flag) : 387310M
On-Column Amount (ng) : 49.5305
Integration start scan : 1000 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

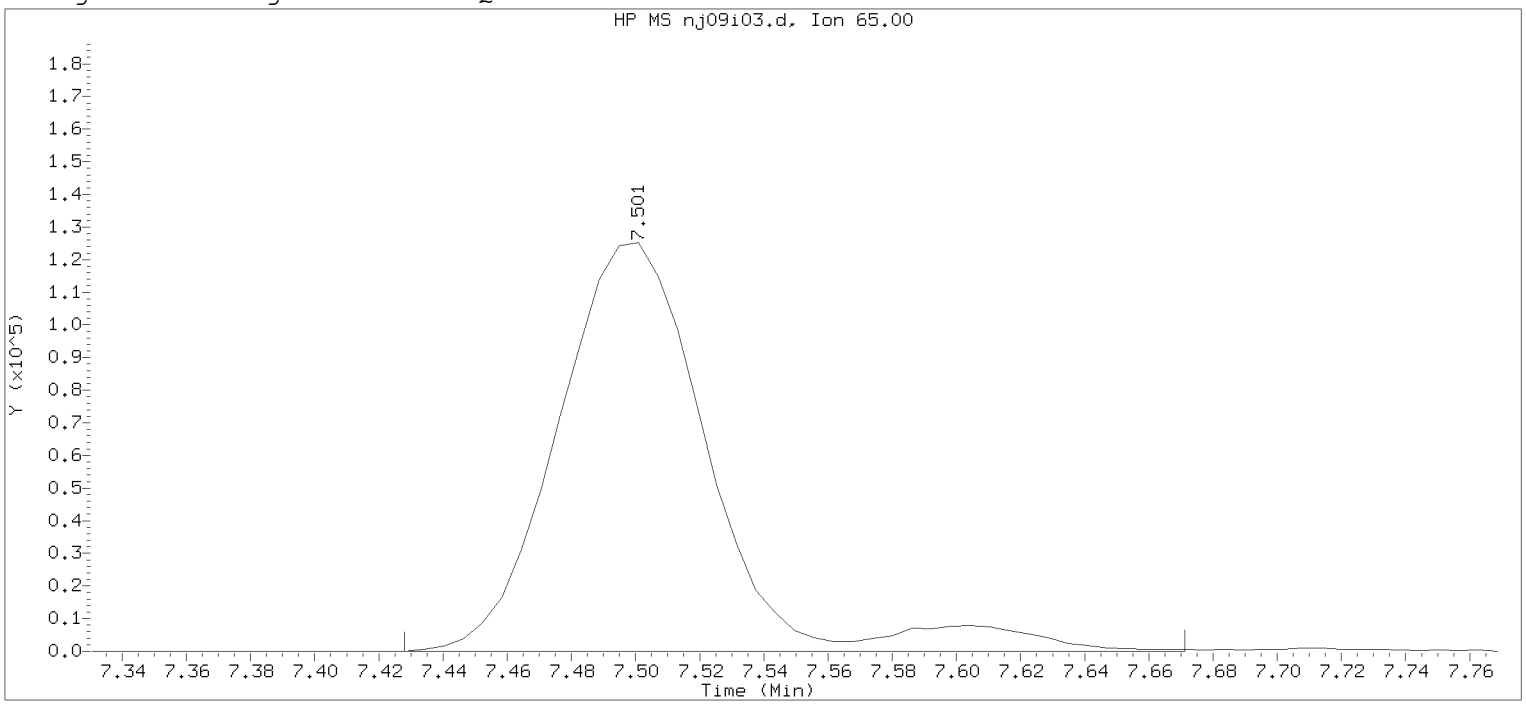
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

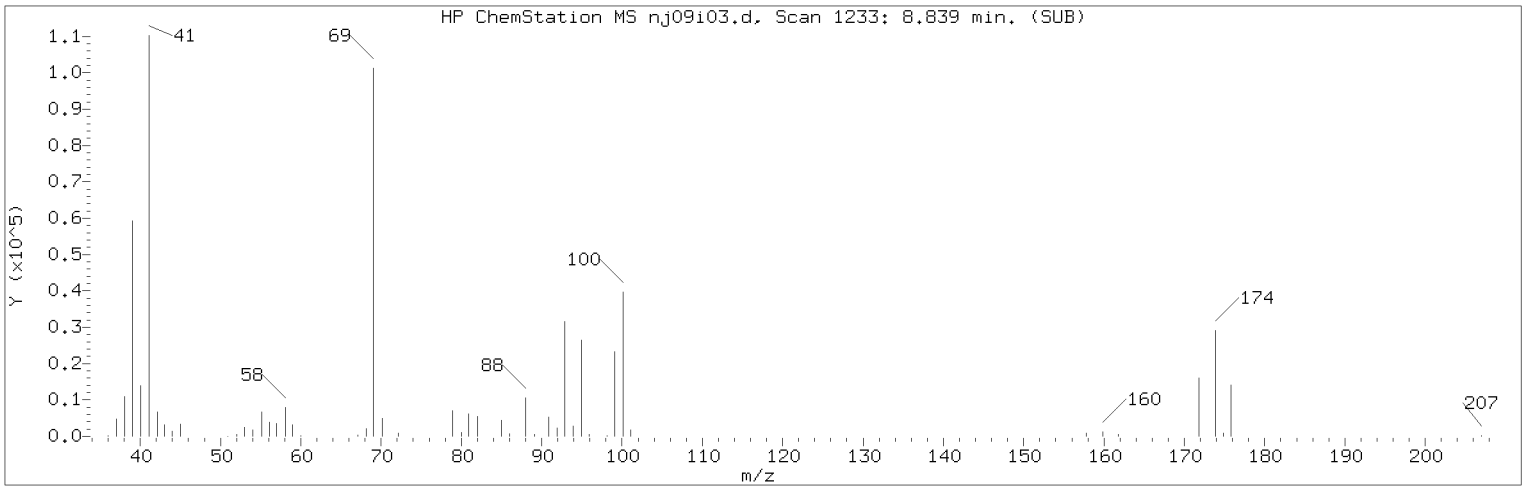
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

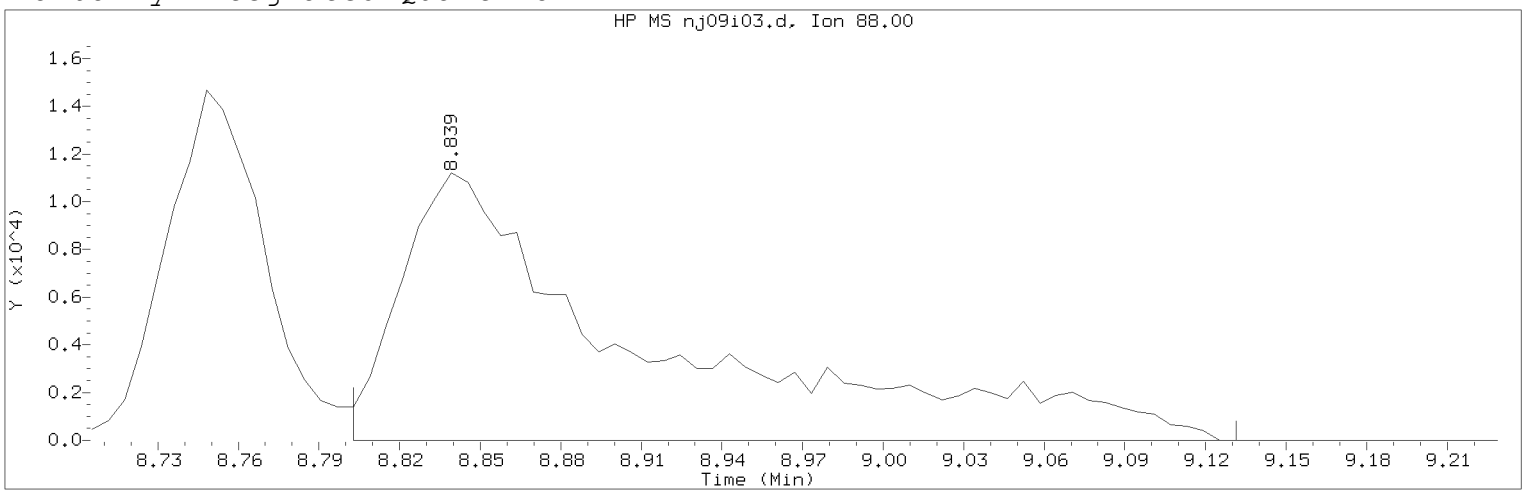
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1013
Retention Time (minutes): 7.501
Quant Ion : 65.00
Area : 412235
On-column Amount (ng) : 52.2423
Integration start scan : 1000 Integration stop scan: 1040
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01957

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 13:47
Date, time and analyst ID of latest file update: 09-Jan-2020 13:47 kek01027

Sample Name: VSTD050 Lab Sample ID: VSTD050

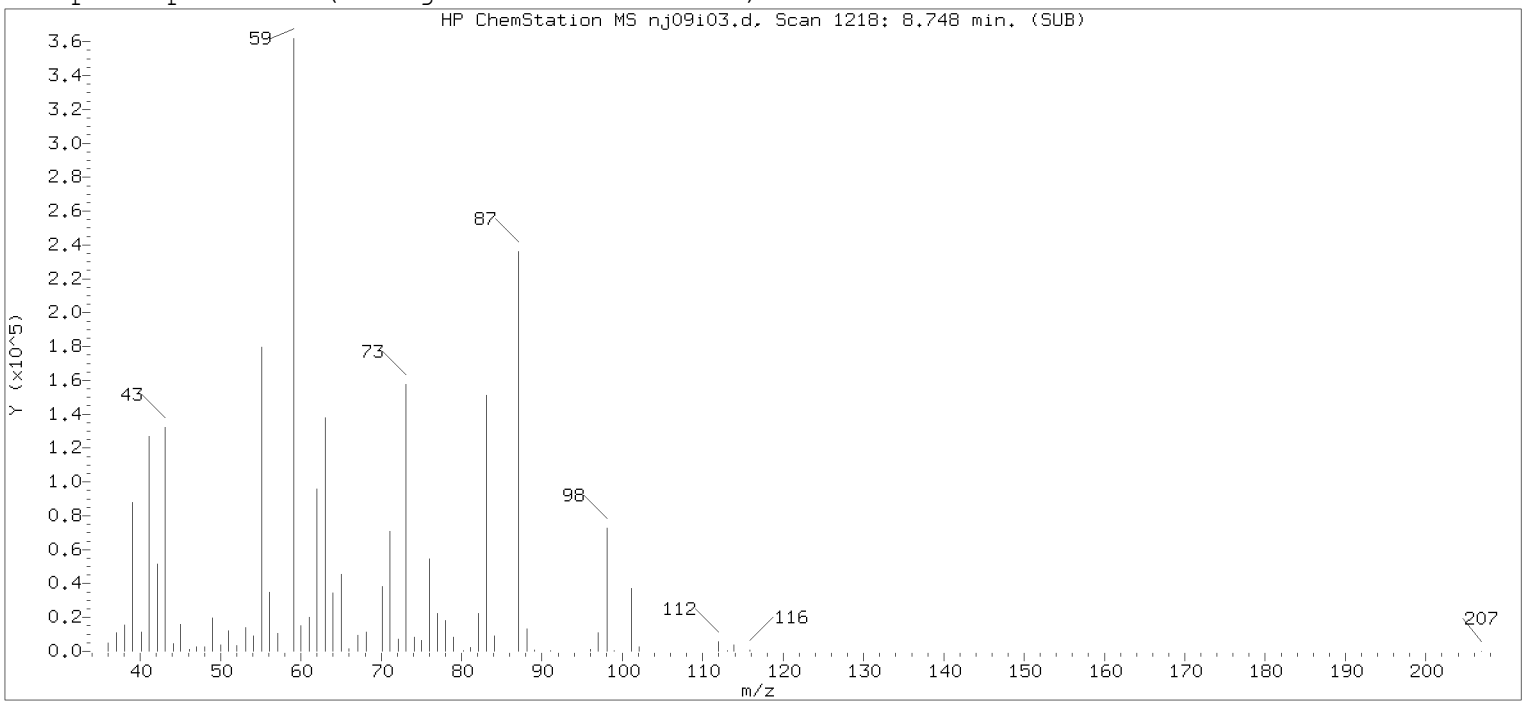
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.839
Quant Ion : 88.00
Area (flag) : 70481M
On-Column Amount (ng) : 627.6898
Integration start scan : 1226 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

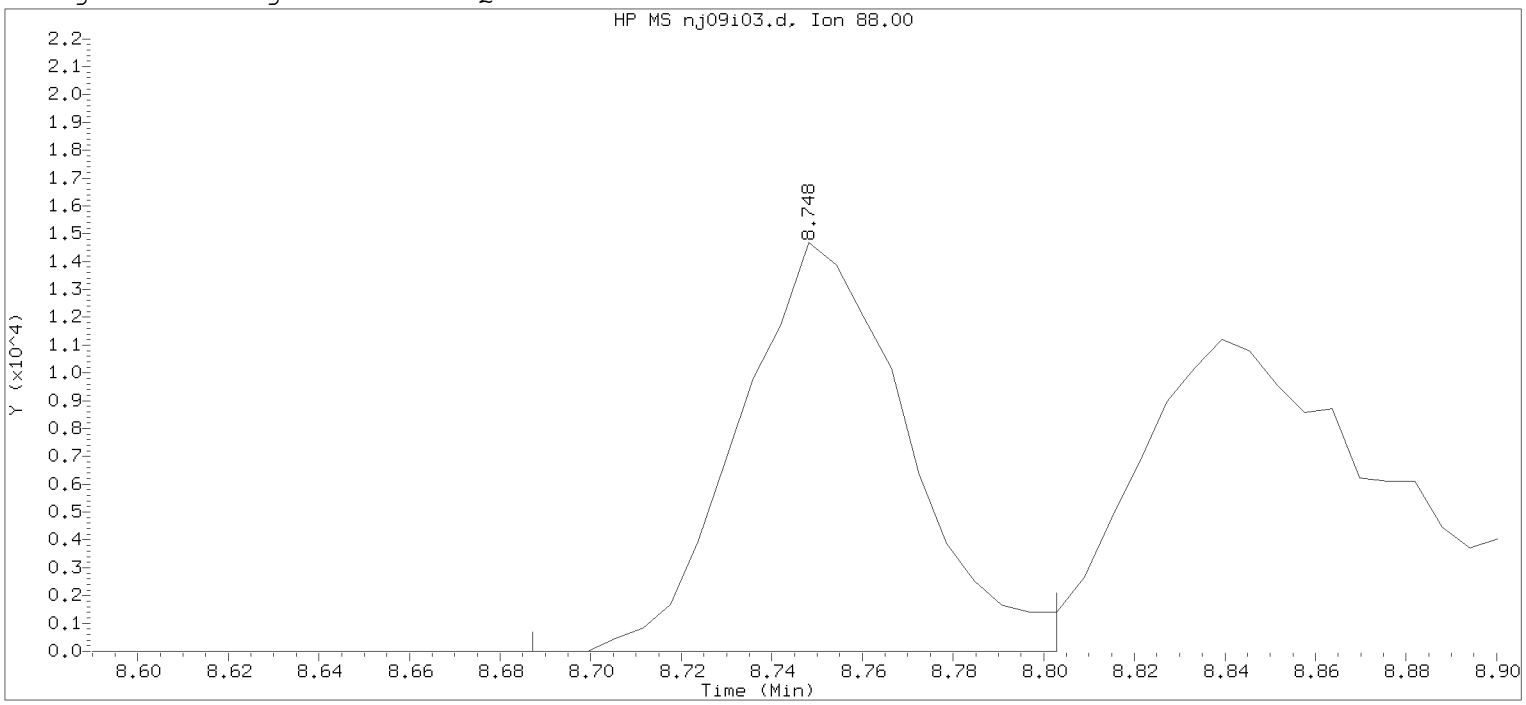
Analyst responsible for change: Digitally signed by Chelsea B. Stong
on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01947

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:30.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



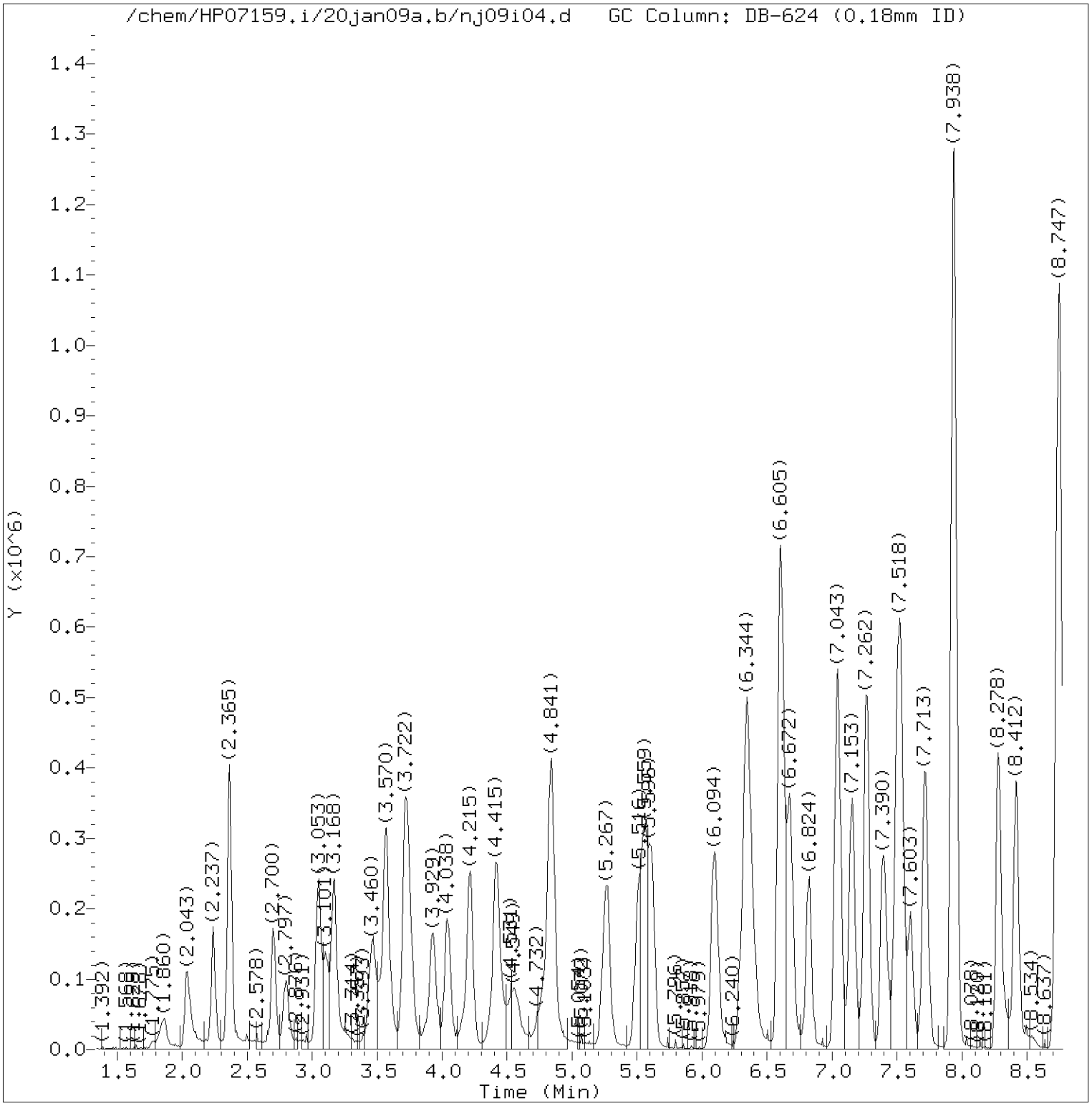
Data File: /chem/HP07159.i/20jan09a.b/nj09i03.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:37 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.748
Quant Ion : 88.00
Area : 37406
On-column Amount (ng) : 488.5599
Integration start scan : 1207 Integration stop scan: 1226
Y at integration start : 0 Y at integration end: 0

Digitally signed by Chelsea B. Stong on 01/09/2020 at 14:15.
Target 3.5 esignature user ID: cbs01957



Total Ion Chromatogram (TIC)

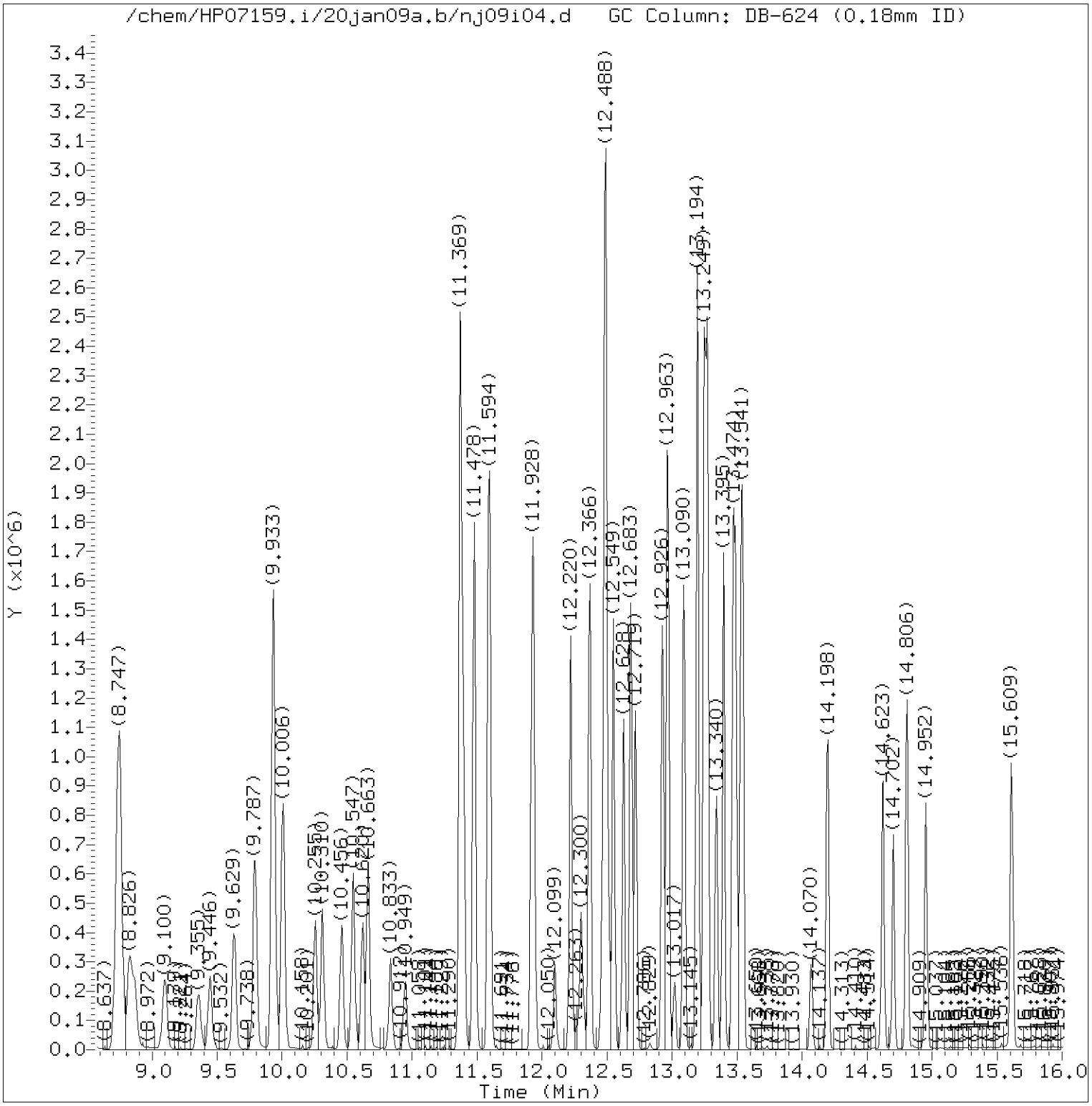
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

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Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	224850M	22.263
4) Chloromethane	(2)	2.237	50	223328	20.637
6) Vinyl Chloride	(2)	2.359	62	220994	20.985
5) 1,3-Butadiene	(2)	2.365	39	149726M	19.828
8) Bromomethane	(2)	2.700	94	149534	20.710
9) Chloroethane	(2)	2.797	64	129796	21.058
10) Dichlorofluoromethane	(2)	3.047	67	288984	20.473
12) Trichlorofluoromethane	(2)	3.107	101	247020	21.343
11) n-Pentane	(2)	3.168	43	235702	20.786
13) Ethanol	(1)	3.253	45	86067	923.403
15) Freon 123a	(2)	3.466	67	178466	21.048
16) Acrolein	(1)	3.570	56	551402	211.152
17) 1,1-Dichloroethene	(2)	3.716	96	140820	20.878
17) 1,1-Dichloroethene	(2)	3.716	63	74421	21.026
18) Acetone	(1)	3.746	58	47094	42.817
19) Freon 113	(2)	3.746	101	139717	22.326
21) 2-Propanol	(1)	3.916	45	146046M	201.037
22) Methyl Iodide	(2)	3.929	142	262725	20.868
23) Carbon Disulfide	(2)	4.038	76	451451	20.930
27) Methyl Acetate	(2)	4.184	43	159758	19.280
25) Allyl Chloride	(2)	4.215	41	234828	19.720
28) Methylene Chloride	(2)	4.415	84	158454	19.779
29)*t-Butyl alcohol-d10	(1)	4.415	65	385090M	250.000
30) t-Butyl alcohol	(1)	4.555	59	302977	211.035
31) Acrylonitrile	(2)	4.762	53	97069	21.690
33) Methyl Tertiary Butyl Ether	(2)	4.823	73	449496	20.508
32) trans-1,2-Dichloroethene	(2)	4.841	96	158576	20.593
34) n-Hexane	(2)	5.267	57	239576	22.538
36) 1,1-Dichloroethane	(2)	5.504	63	290827	20.704
38) di-Isopropyl ether	(2)	5.559	45	496346	20.512
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	258603	20.856
40) Ethyl t-butyl ether	(2)	6.094	59	477574	20.764
43) 1,2-Dichloroethene (Total)	(2)		96	341920	41.558
44) 2-Butanone	(2)	6.295	43	263939	42.179
42) cis-1,2-Dichloroethene	(2)	6.344	96	183344	20.965
45) 2,2-Dichloropropane	(2)	6.350	77	261086	21.052
47) Propionitrile	(1)	6.380	54	339134	202.252
48) Methacrylonitrile	(2)	6.605	67	463087	102.441

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	84627	20.466
50) Tetrahydrofuran	(1)	6.678	71	72434	41.608
51) Chloroform	(2)	6.824	83	278912	20.356
52)$Dibromofluoromethane	(2)	7.043	113	320361	49.752
52)$Dibromofluoromethane	(2)	7.037	111	328971	50.034
53) 1,1,1-Trichloroethane	(2)	7.049	97	260301	20.999
54) Cyclohexane	(2)	7.153	56	277919	21.797
54) Cyclohexane	(2)	7.153	84	241047	21.692
54) Cyclohexane	(2)	7.153	69	87601	21.859
56) Carbon Tetrachloride	(2)	7.262	117	225623	21.110
55) 1,1-Dichloropropene	(2)	7.268	75	229866	20.501
58) Isobutyl Alcohol	(1)	7.396	41	264667	514.638
57)$1,2-Dichloroethane-d4	(2)	7.500	102	83999	51.593
57)$1,2-Dichloroethane-d4	(2)	7.494	65	383745	48.998
57)$1,2-Dichloroethane-d4	(2)	7.494	104	51322	49.543
60) Benzene	(2)	7.530	78	652953	20.459
61) 1,2-Dichloroethane	(2)	7.603	62	226751	20.082
61) 1,2-Dichloroethane	(2)	7.603	98	20202	21.739
65) t-Amyl methyl ether	(2)	7.713	73	480348	20.819
66)*Fluorobenzene	(2)	7.932	96	1297518	50.000
67) n-Heptane	(2)	7.944	43	268761	21.905
69) n-Butanol	(1)	8.278	56	464747	1049.079
71) Trichloroethene	(2)	8.418	95	172382	20.502
72) Methylcyclohexane	(2)	8.729	83	288388	20.865
72) Methylcyclohexane	(2)	8.729	98	134403	20.648
73) 1,2-Dichloropropane	(2)	8.753	63	167468	20.520
76) Methyl Methacrylate	(2)	8.826	69	152600	20.447
75) 1,4-Dioxane	(1)	8.844	88	56238M	502.509
74) Dibromomethane	(2)	8.868	93	105118	20.196
78) Bromodichloromethane	(2)	9.100	83	217526	20.472
79) 2-Nitropropane	(2)	9.355	41	161437	41.832
80) 2-Chloroethyl Vinyl Ether	(2)	9.446	63	138170	21.403
81) cis-1,3-Dichloropropene	(2)	9.629	75	276244	20.380
82) 4-Methyl-2-pentanone	(2)	9.787	43	542400	42.781
83)$Toluene-d8	(3)	9.933	98	1292625	50.269
83)$Toluene-d8	(3)	9.933	100	852988	50.069
88) Toluene	(3)	10.006	92	425285	20.360
90) 1,3-Dichloropropene (total)	(3)		100	540121	40.734

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$ = Compound is a surrogate standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	263877	20.354
91) Ethyl Methacrylate	(3)	10.310	69	265241	20.534
92) 1,1,2-Trichloroethane	(3)	10.456	97	151849	20.532
93) Tetrachloroethene	(3)	10.547	166	188956	20.657
94) 1,3-Dichloropropane	(3)	10.620	76	262220	20.428
96) 2-Hexanone	(3)	10.663	43	428260	43.313
97) Dibromochloromethane	(3)	10.833	129	174606	20.573
99) 1,2-Dibromoethane	(3)	10.949	107	166216	20.524
100)*Chlorobenzene-d5	(3)	11.369	117	985958	50.000
102) Chlorobenzene	(3)	11.399	112	478632	20.530
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	173372	20.636
104) Ethylbenzene	(3)	11.478	91	842267	20.846
106) m+p-Xylene	(3)	11.594	106	662286	41.720
108) Xylene (Total)	(3)		106	981676	62.176
107) o-Xylene	(3)	11.922	106	319390	20.457
109) Styrene	(3)	11.934	104	542524	20.689
110) Bromoform	(3)	12.099	173	132803	20.727
111) Isopropylbenzene	(3)	12.220	105	872257	21.153
112) Cyclohexanone	(1)	12.300	55	222730	496.255
114)$4-Bromofluorobenzene	(3)	12.366	95	509023	50.106
114)$4-Bromofluorobenzene	(3)	12.366	174	408759	50.224
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	251933	21.137
115) Bromobenzene	(4)	12.482	156	206372	20.592
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	425332	103.742
117) 1,2,3-Trichloropropane	(4)	12.512	110	75922	20.109
119) n-Propylbenzene	(4)	12.549	91	1033750	21.276
120) 2-Chlorotoluene	(4)	12.628	126	207715	20.736
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	751871	21.120
121) 4-Chlorotoluene	(4)	12.719	126	212503	20.469
124) tert-Butylbenzene	(4)	12.926	134	163997	20.788
125) Pentachloroethane	(4)	12.963	167	132462	20.970
126) 1,2,4-Trimethylbenzene	(4)	12.969	105	776872	21.025
127) sec-Butylbenzene	(4)	13.090	105	985593	21.313
129) 1,3-Dichlorobenzene	(4)	13.194	146	404786	20.767
130) p-Isopropyltoluene	(4)	13.194	119	856038	21.273
131)*1,4-Dichlorobenzene-d4	(4)	13.249	152	541869	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	408173	20.649
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	747580	20.846

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

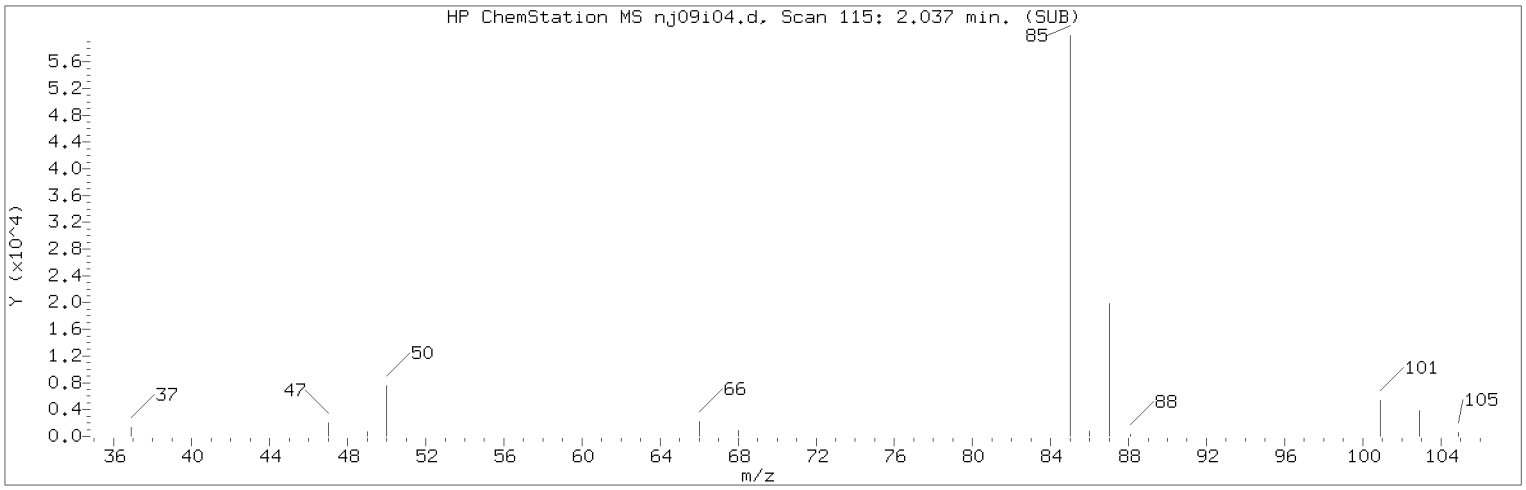
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

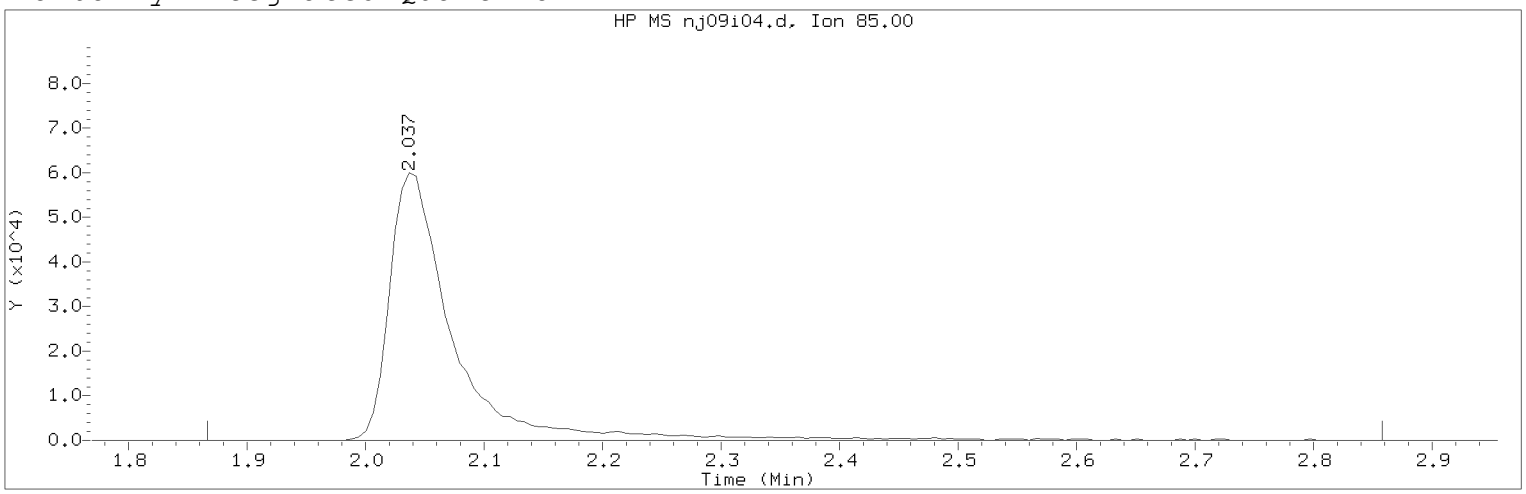
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.340	91	549732	20.867
141) Diethylbenzene (total)	(4)		100	1463210	62.614
136) 1,3-Diethylbenzene	(4)	13.395	119	504775	20.955
137) 1,4-Diethylbenzene	(4)	13.468	119	538479	21.052
139) n-Butylbenzene	(4)	13.486	92	436420	21.024
138) 1,2-Dichlorobenzene	(4)	13.528	146	380948	20.614
140) 1,2-Diethylbenzene	(4)	13.541	119	419956	20.607
142) 1,2-Dibromo-3-chloropropane	(4)	14.070	75	67351	20.909
144) 1,3,5-Trichlorobenzene	(4)	14.198	180	307173	20.853
146) 1,2,4-Trichlorobenzene	(4)	14.623	180	268190	20.881
147) Hexachlorobutadiene	(4)	14.702	225	121909	20.983
148) Naphthalene	(4)	14.806	128	843851	20.954
149) 1,2,3-Trichlorobenzene	(4)	14.952	180	244159	20.709
150) 2-Methylnaphthalene	(4)	15.609	142	481991	20.721

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

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Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

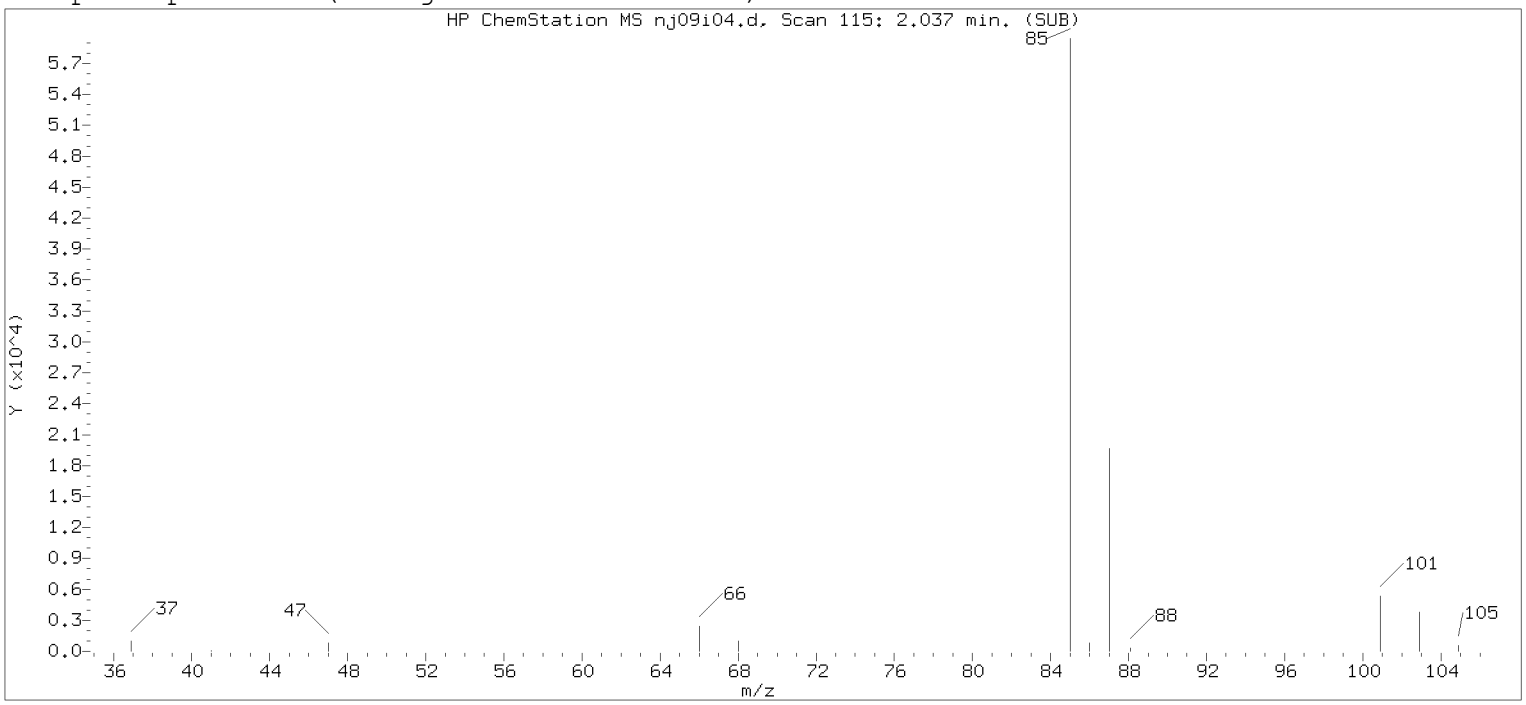
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area (flag) : 224850M
On-Column Amount (ng) : 22.2632
Integration start scan : 86 Integration stop scan: 249
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

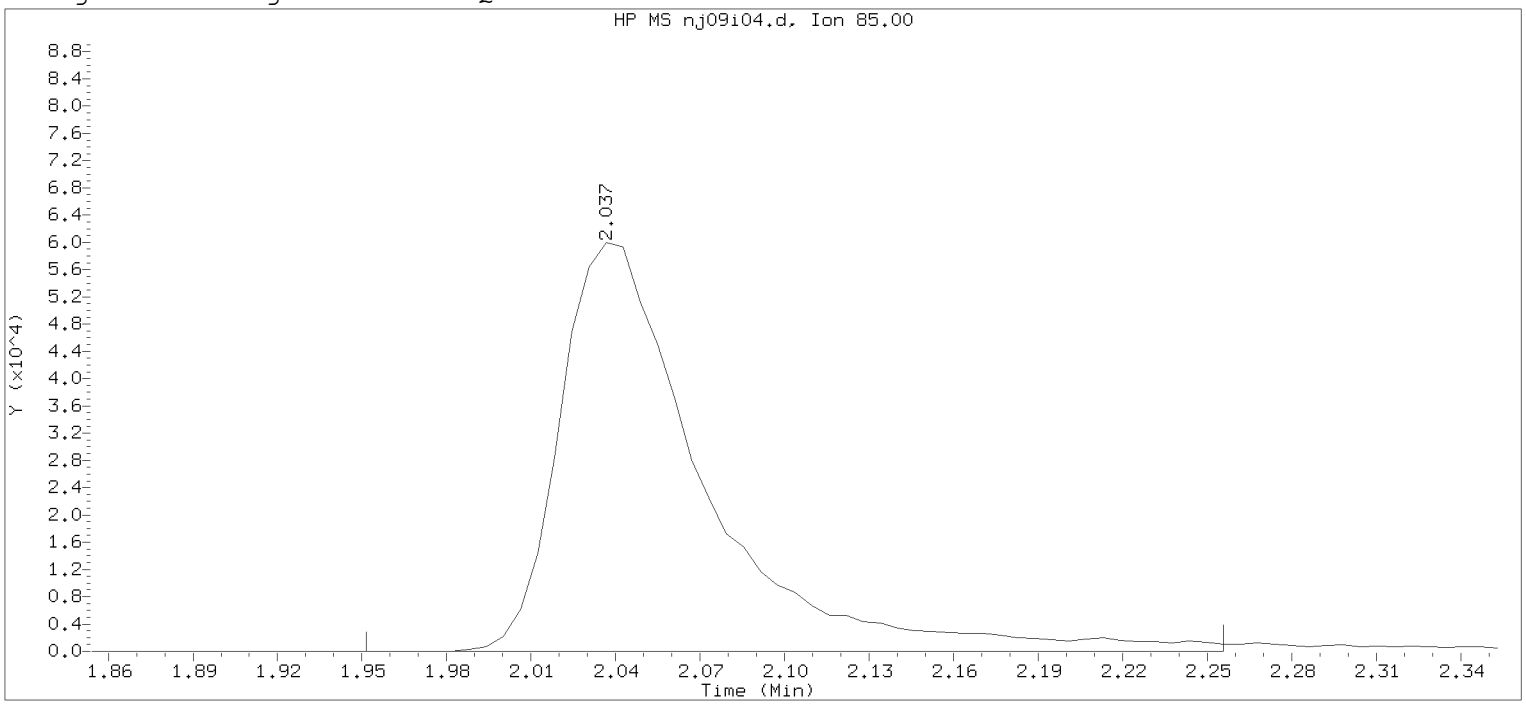
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

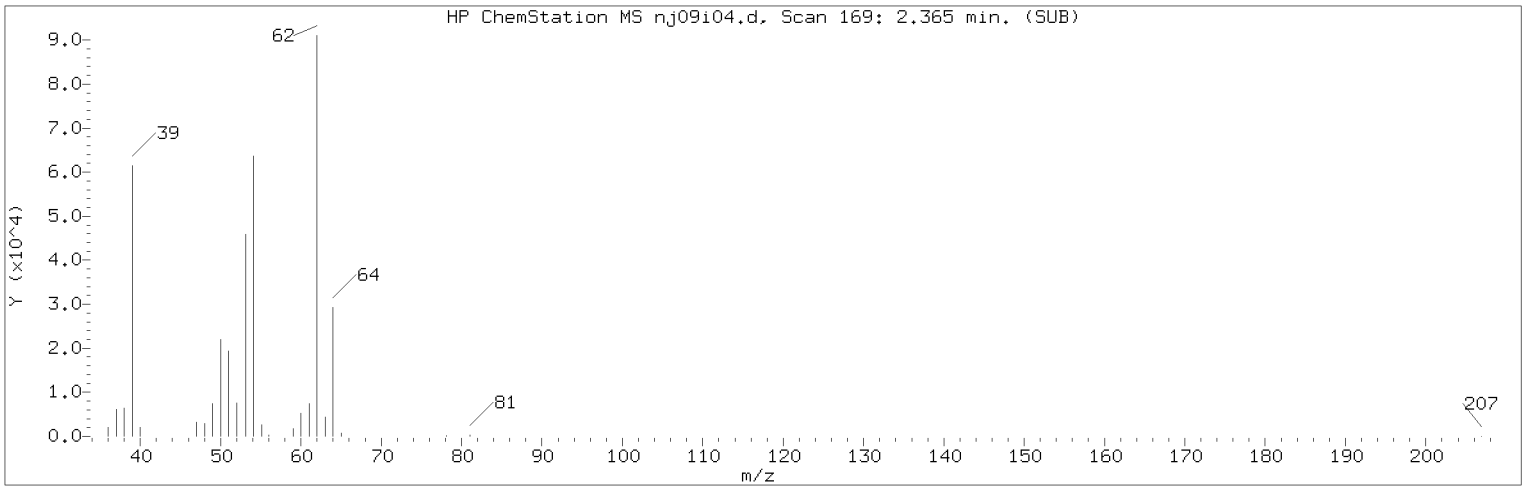
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

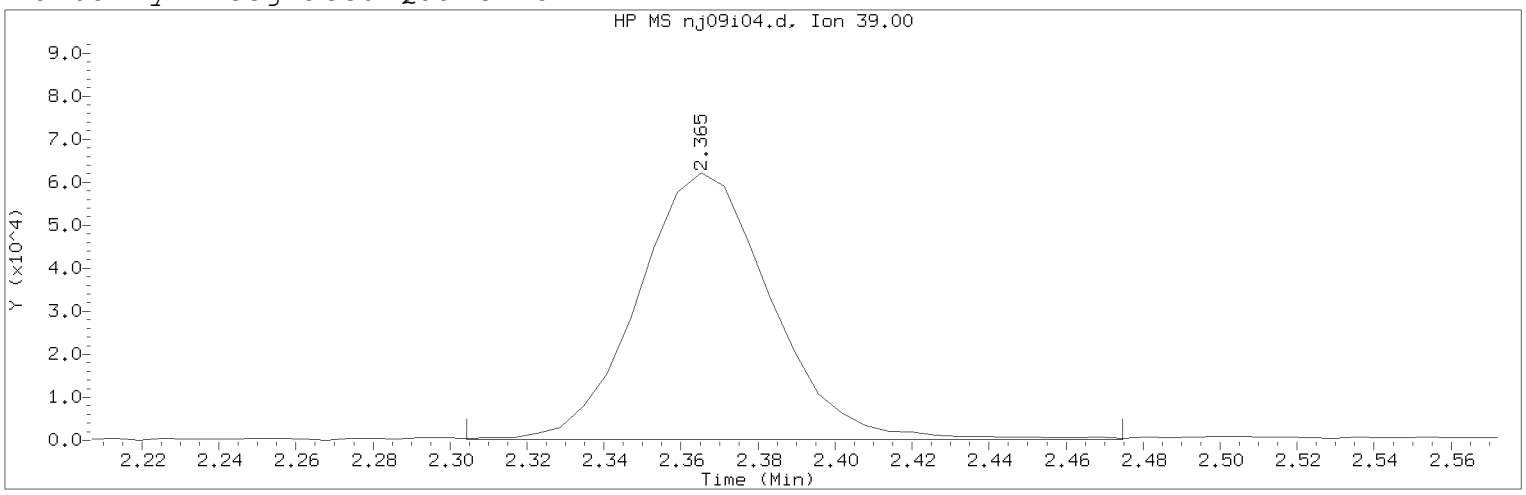
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 115
Retention Time (minutes): 2.037
Quant Ion : 85.00
Area : 213925
On-column Amount (ng) : 21.9782
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

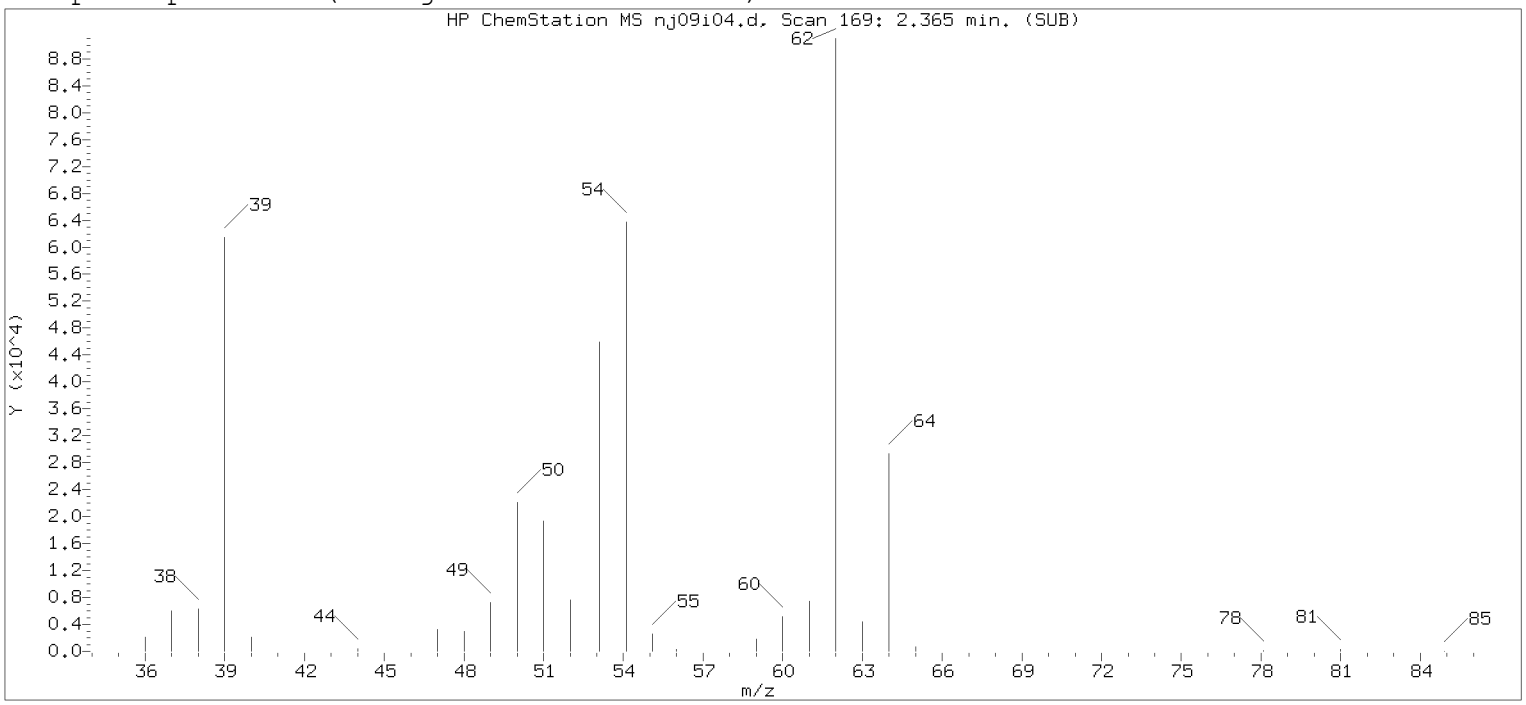
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 149726M
On-Column Amount (ng) : 19.8283
Integration start scan : 158 Integration stop scan: 186
Y at integration start : 105 Y at integration end: 105

Reason for manual integration: improper integration

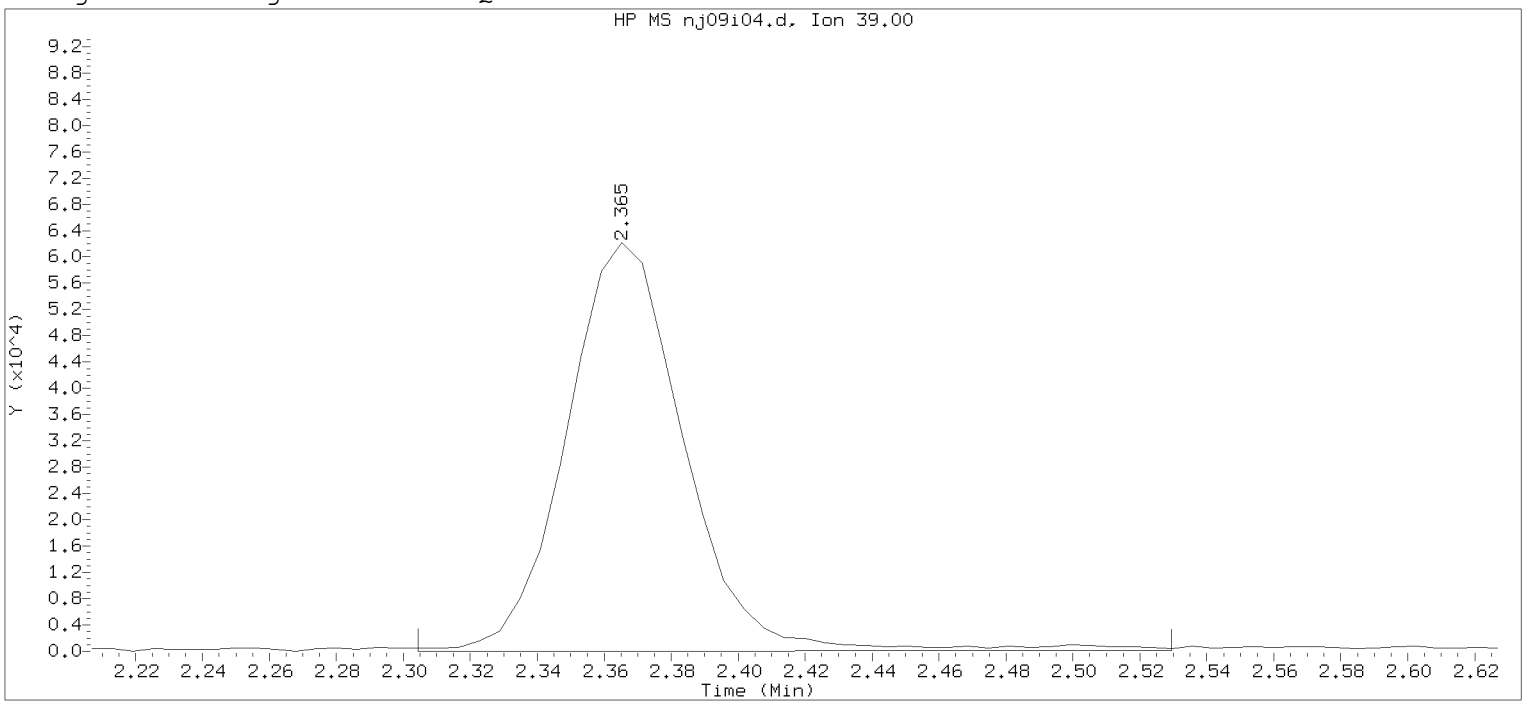
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

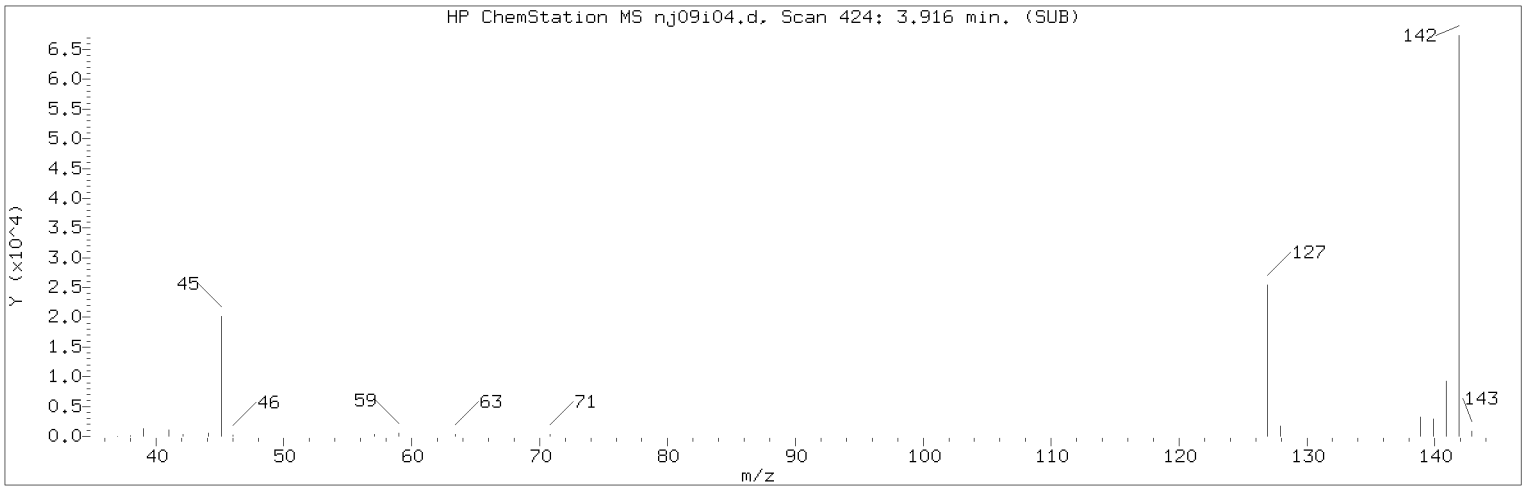
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

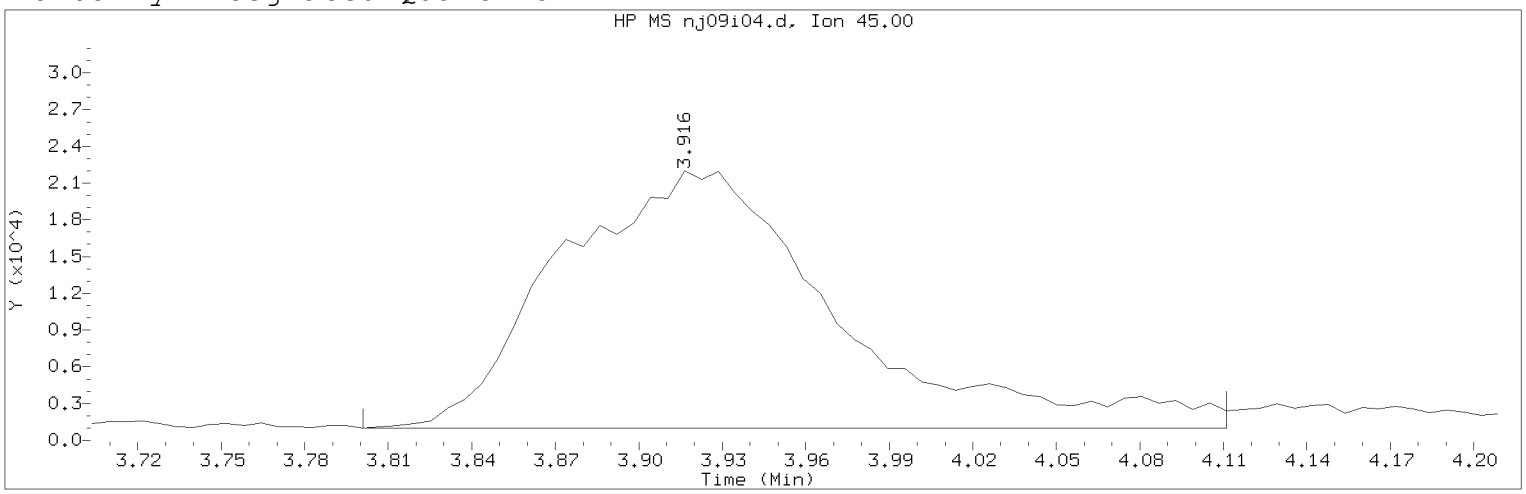
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 152078
On-column Amount (ng) : 20.2986
Integration start scan : 158 Integration stop scan: 195
Y at integration start : 39 Y at integration end: 93

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

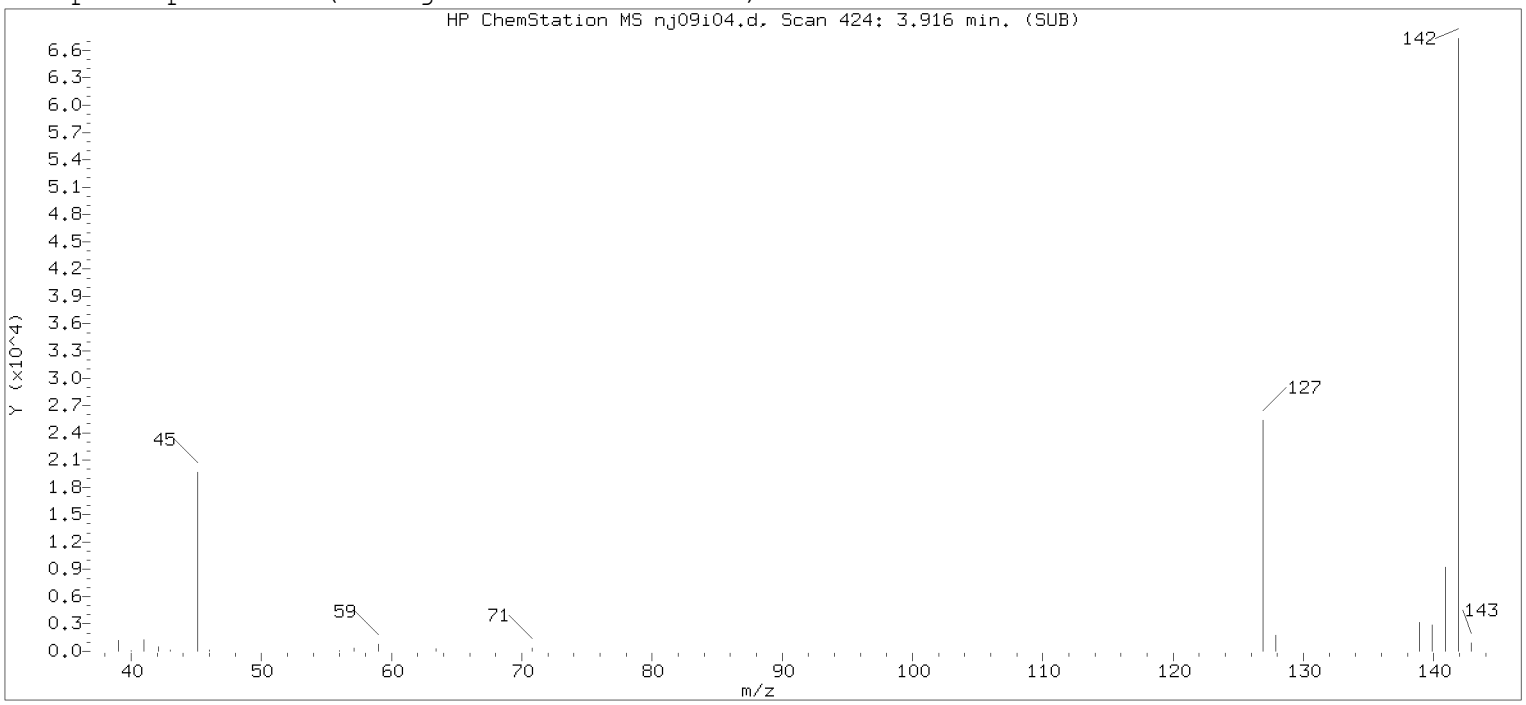
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 146046M
On-Column Amount (ng) : 201.0368
Integration start scan : 404 Integration stop scan: 455
Y at integration start : 979 Y at integration end: 979

Reason for manual integration: improper integration

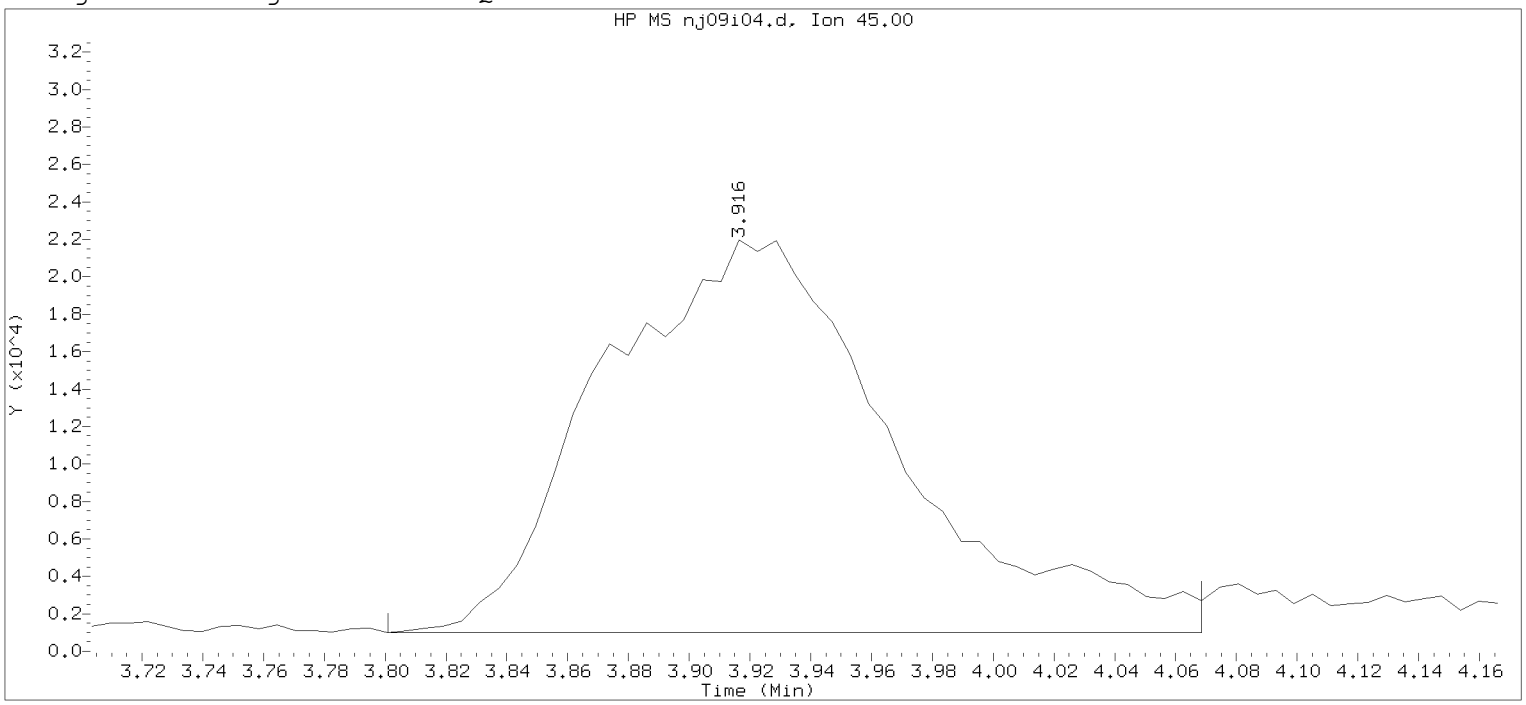
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

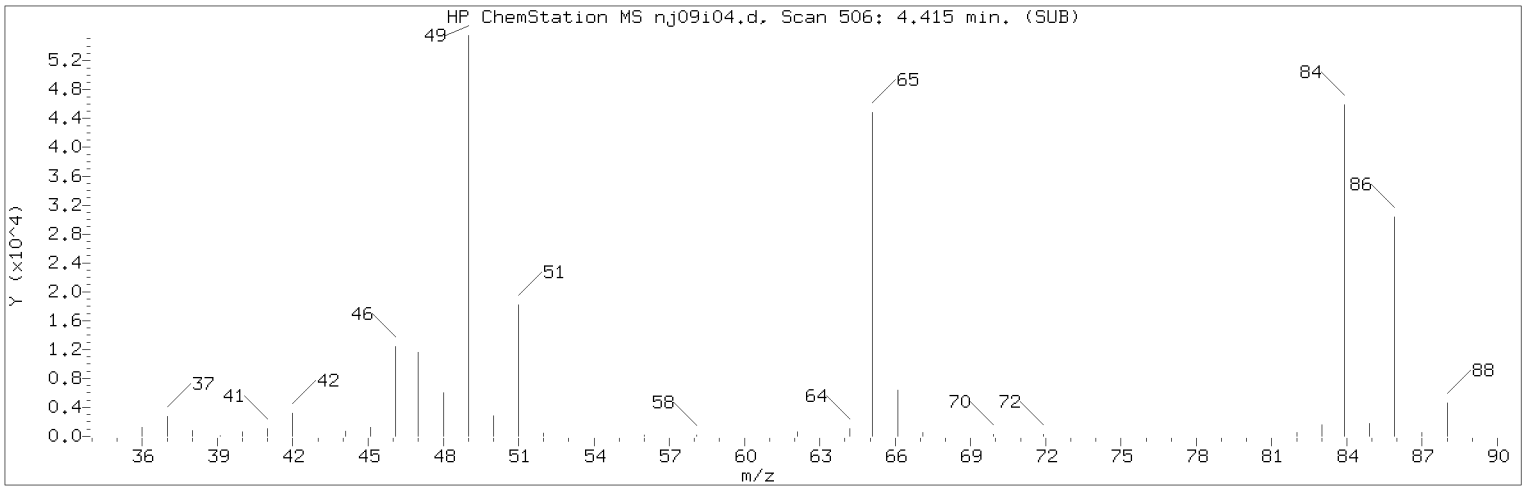
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

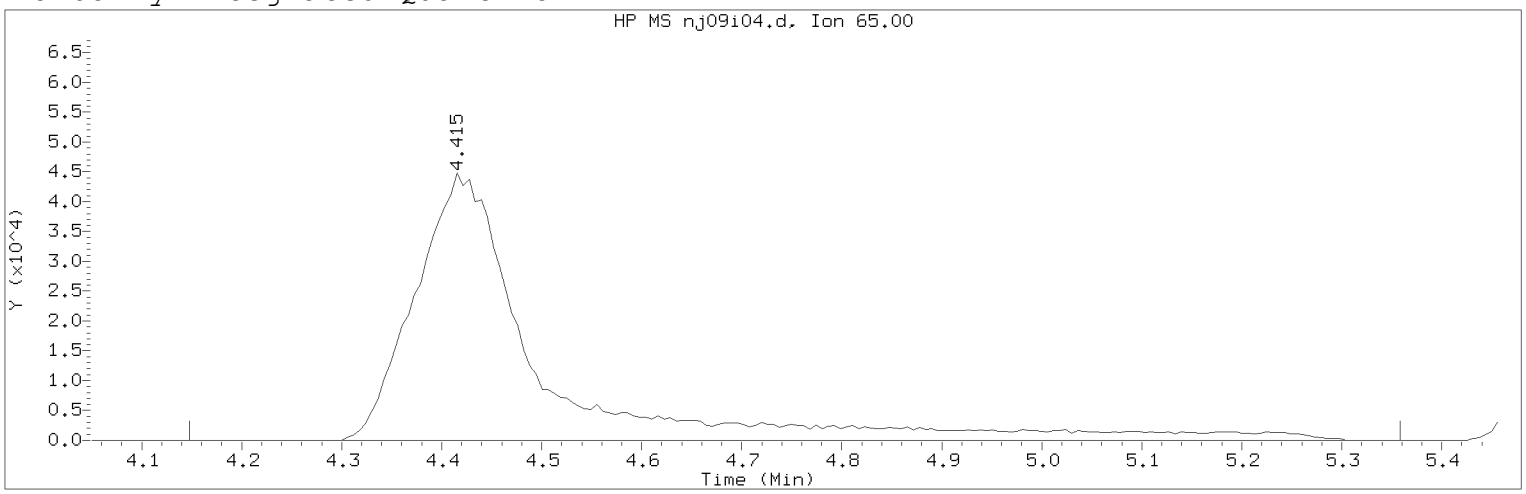
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 140440
On-column Amount (ng) : 206.0956
Integration start scan : 404 Integration stop scan: 448
Y at integration start : 980 Y at integration end: 980

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

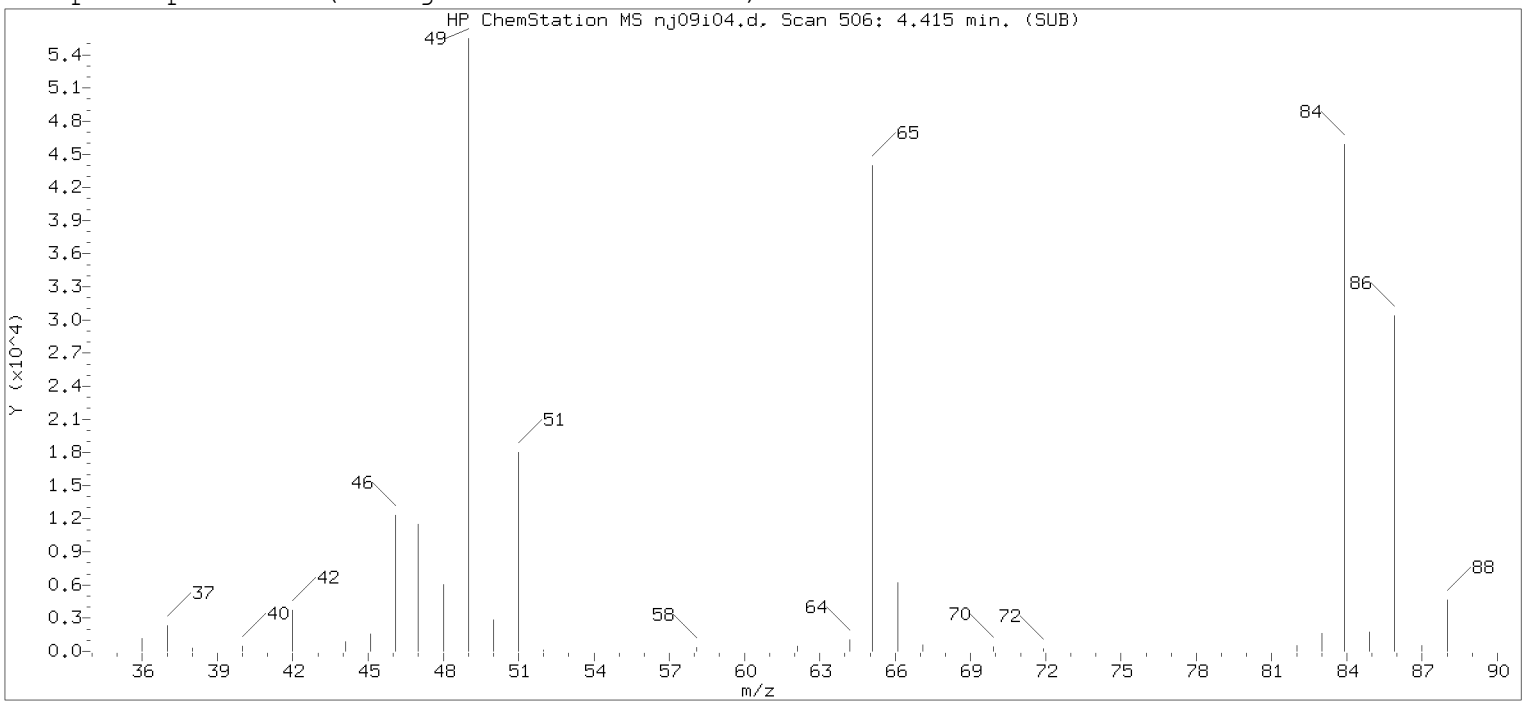
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area (flag) : 385090M
On-Column Amount (ng) : 250.0000
Integration start scan : 461 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

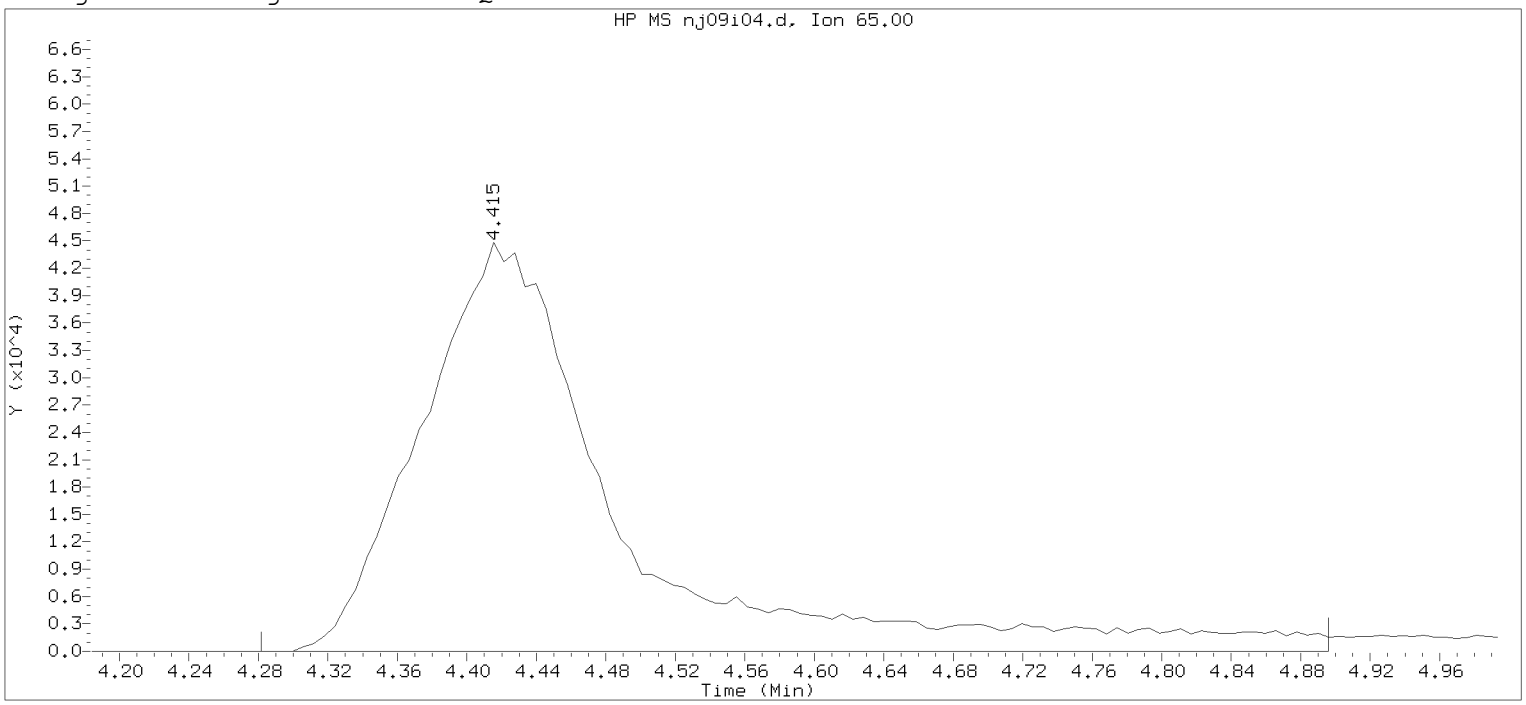
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

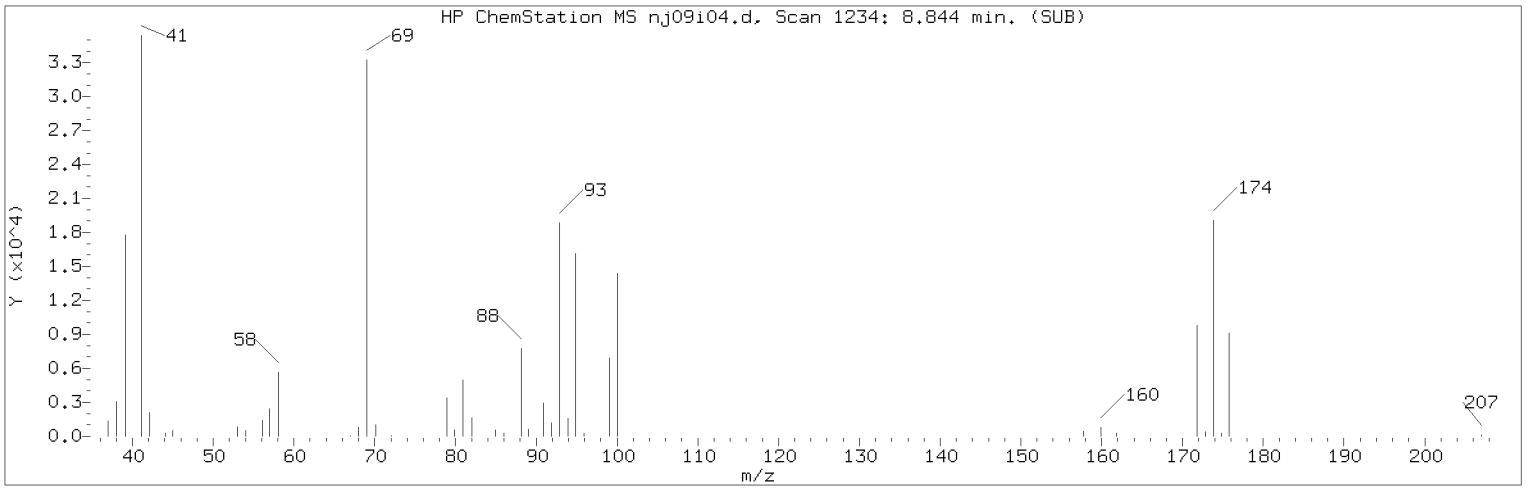
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

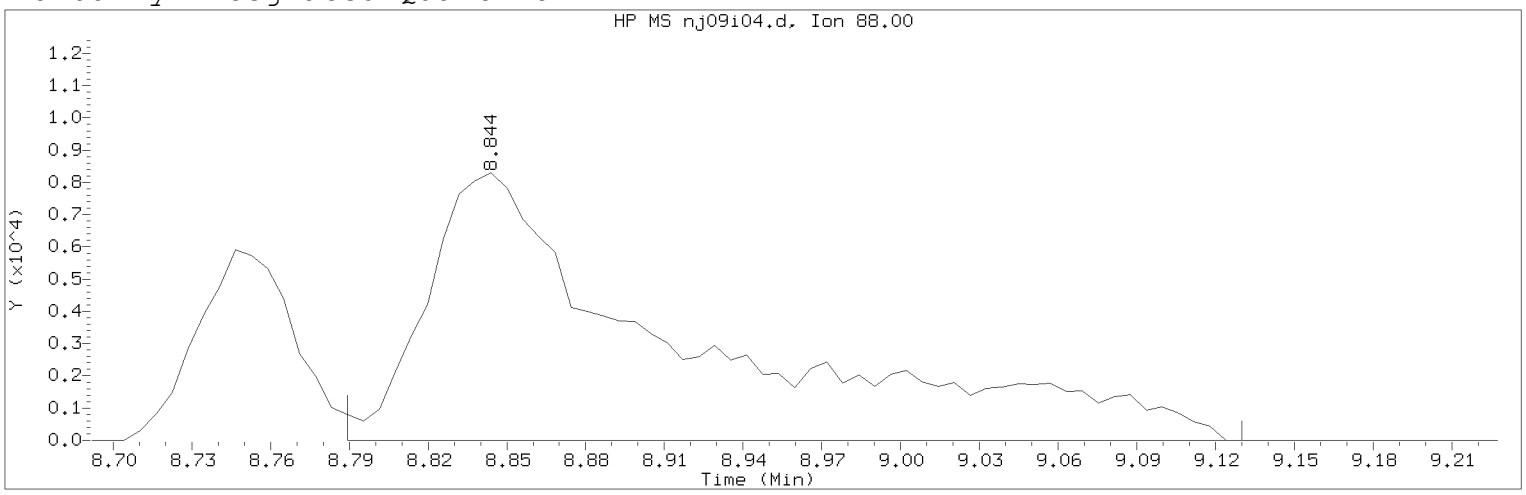
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.415
Quant Ion : 65.00
Area : 352873
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 584
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

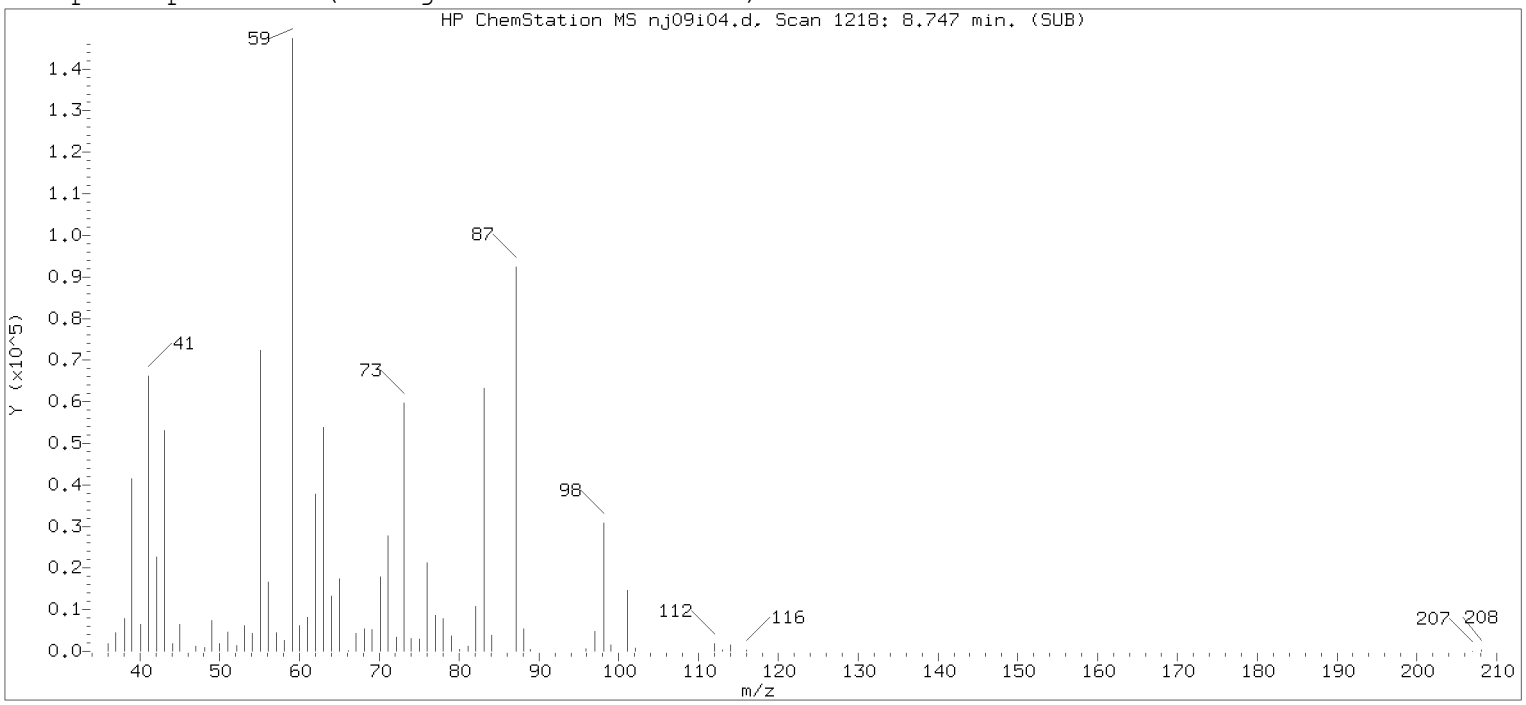
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 56238M
On-Column Amount (ng) : 502.5092
Integration start scan : 1224 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

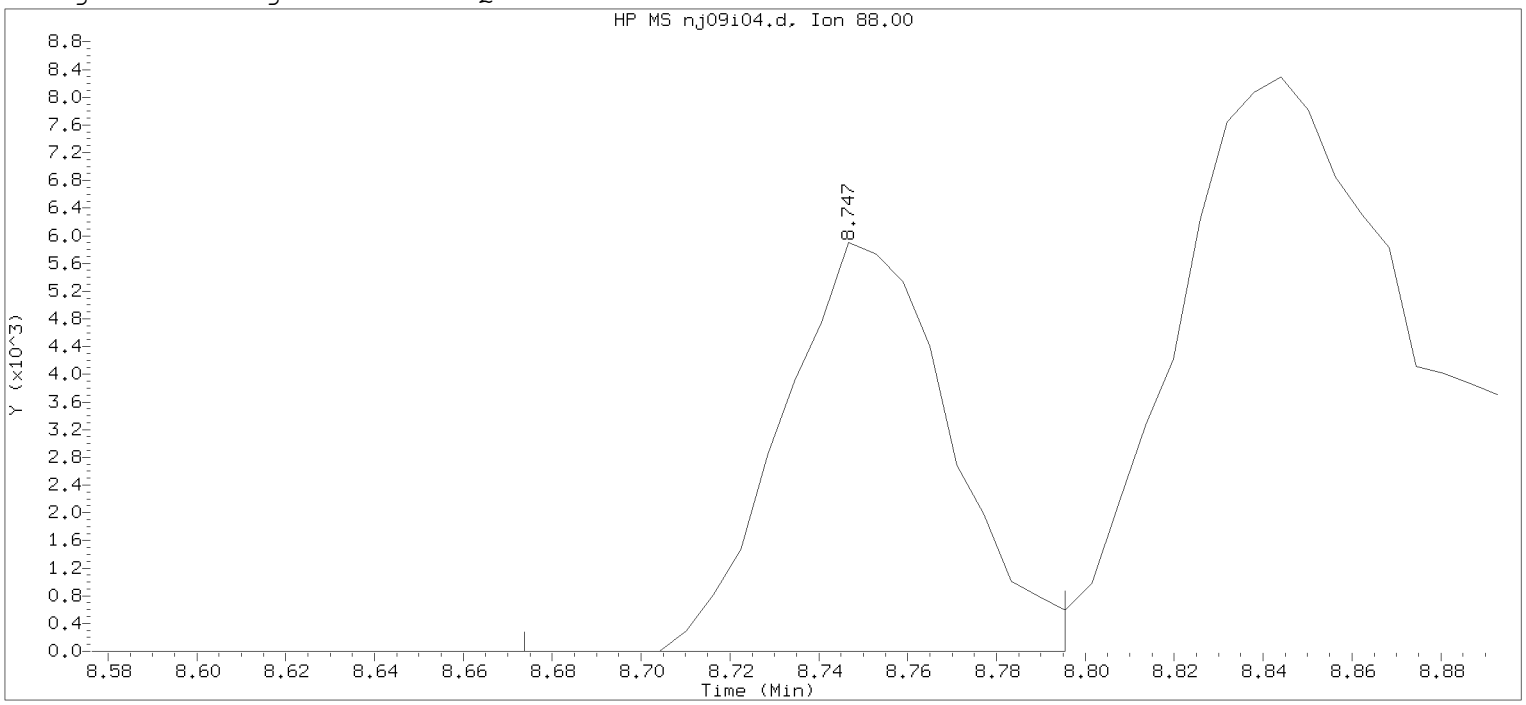
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



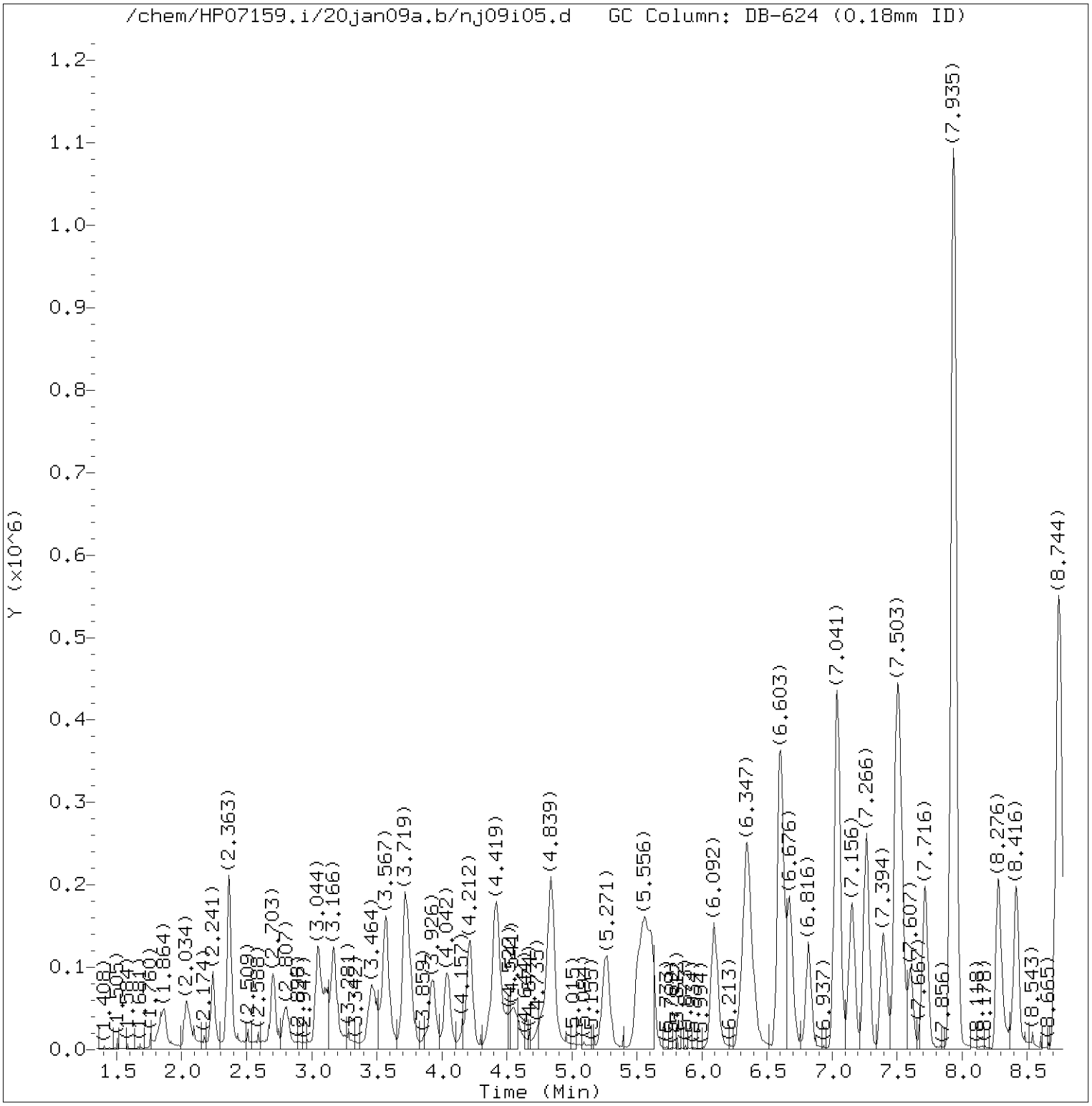
Data File: /chem/HP07159.i/20jan09a.b/nj09i04.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 08:58 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.747
Quant Ion : 88.00
Area : 15422
On-column Amount (ng) : 201.2803
Integration start scan : 1205 Integration stop scan: 1225
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

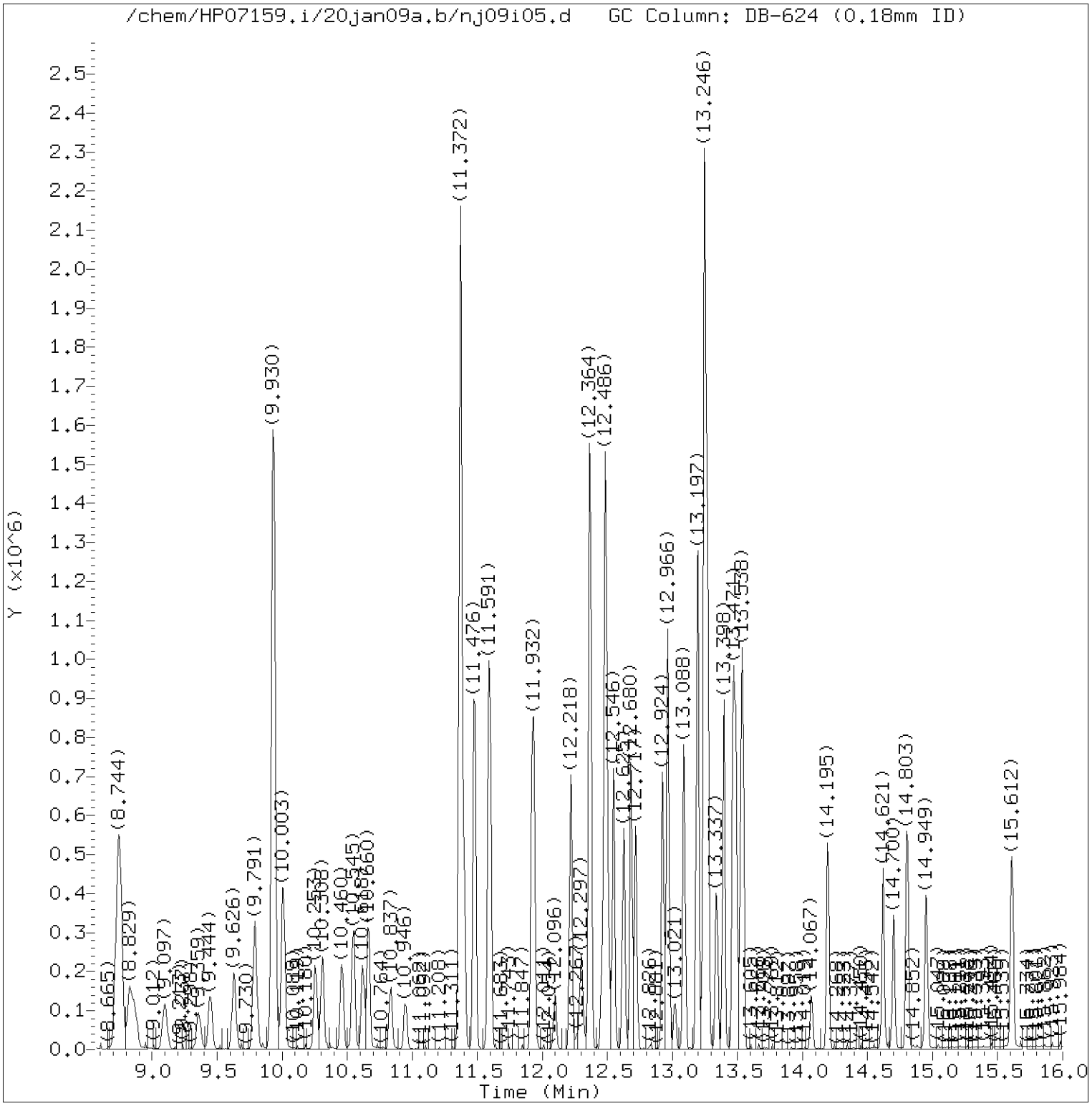
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	115327M	11.339
4) Chloromethane	(2)	2.241	50	115246	10.575
5) 1,3-Butadiene	(2)	2.363	39	77649M	10.211
6) Vinyl Chloride	(2)	2.363	62	115833	10.922
8) Bromomethane	(2)	2.703	94	77203	10.618
9) Chloroethane	(2)	2.795	64	65784	10.598
10) Dichlorofluoromethane	(2)	3.050	67	148619	10.455
12) Trichlorofluoromethane	(2)	3.111	101	126844	10.883
11) n-Pentane	(2)	3.172	43	120912	10.588
13) Ethanol	(1)	3.251	45	47197	503.794
15) Freon 123a	(2)	3.470	67	89552	10.488
16) Acrolein	(1)	3.567	56	276658	105.403
17) 1,1-Dichloroethene	(2)	3.719	96	71676	10.552
17) 1,1-Dichloroethene	(2)	3.713	63	37118	10.414
18) Acetone	(1)	3.737	58	23710	21.447
19) Freon 113	(2)	3.737	101	68658	10.894
21) 2-Propanol	(1)	3.926	45	75955M	104.022
22) Methyl Iodide	(2)	3.926	142	129746	10.234
23) Carbon Disulfide	(2)	4.042	76	227699	10.483
27) Methyl Acetate	(2)	4.182	43	83322	9.985
25) Allyl Chloride	(2)	4.212	41	126399	10.541
28) Methylene Chloride	(2)	4.413	84	79031	9.796
29)*t-Butyl alcohol-d10	(1)	4.425	65	387060M	250.000
30) t-Butyl alcohol	(1)	4.553	59	155810	107.975
31) Acrylonitrile	(2)	4.766	53	47287	10.492
33) Methyl Tertiary Butyl Ether	(2)	4.833	73	224435	10.168
32) trans-1,2-Dichloroethene	(2)	4.845	96	79395	10.239
34) n-Hexane	(2)	5.264	57	116867	10.917
36) 1,1-Dichloroethane	(2)	5.508	63	143829	10.168
38) di-Isopropyl ether	(2)	5.556	45	249110	10.223
39) 2-Chloro-1,3-butadiene	(2)	5.617	53	129960	10.408
40) Ethyl t-butyl ether	(2)	6.098	59	239578	10.344
43) 1,2-Dichloroethene (Total)	(2)		96	169213	20.437
44) 2-Butanone	(2)	6.293	43	131354	20.844
42) cis-1,2-Dichloroethene	(2)	6.341	96	89818	10.199
45) 2,2-Dichloropropane	(2)	6.353	77	129094	10.337
47) Propionitrile	(1)	6.384	54	171449	101.728
48) Methacrylonitrile	(2)	6.603	67	229879	50.497

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.676	128	42760	10.269
50) Tetrahydrofuran	(1)	6.676	71	35694	20.399
51) Chloroform	(2)	6.822	83	141277	10.239
52)$Dibromofluoromethane	(2)	7.035	113	324529	50.047
52)$Dibromofluoromethane	(2)	7.035	111	330287	49.884
53) 1,1,1-Trichloroethane	(2)	7.053	97	129813	10.399
54) Cyclohexane	(2)	7.156	56	141244	11.000
54) Cyclohexane	(2)	7.156	84	122617	10.957
54) Cyclohexane	(2)	7.156	69	43925	10.884
55) 1,1-Dichloropropene	(2)	7.260	75	117003	10.362
56) Carbon Tetrachloride	(2)	7.266	117	113651	10.559
58) Isobutyl Alcohol	(1)	7.394	41	126394	244.519
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81622	49.783
57)$1,2-Dichloroethane-d4	(2)	7.497	65	388294	49.232
57)$1,2-Dichloroethane-d4	(2)	7.497	104	52228	50.066
60) Benzene	(2)	7.527	78	327608	10.193
61) 1,2-Dichloroethane	(2)	7.601	62	112112	9.860
61) 1,2-Dichloroethane	(2)	7.607	98	10176	10.874
65) t-Amyl methyl ether	(2)	7.716	73	240828	10.365
66)*Fluorobenzene	(2)	7.935	96	1306648	50.000
67) n-Heptane	(2)	7.941	43	132953	10.760
69) n-Butanol	(1)	8.276	56	224191	503.494
71) Trichloroethene	(2)	8.416	95	86191	10.179
72) Methylcyclohexane	(2)	8.732	83	150829	10.836
72) Methylcyclohexane	(2)	8.732	98	70438	10.746
73) 1,2-Dichloropropane	(2)	8.750	63	82506	10.039
76) Methyl Methacrylate	(2)	8.823	69	76884	10.230
75) 1,4-Dioxane	(1)	8.842	88	28522M	253.558
74) Dibromomethane	(2)	8.860	93	51805	9.884
78) Bromodichloromethane	(2)	9.103	83	107443	10.041
79) 2-Nitropropane	(2)	9.359	41	78418	20.178
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	74712	11.492
81) cis-1,3-Dichloropropene	(2)	9.632	75	136278	9.984
82) 4-Methyl-2-pentanone	(2)	9.791	43	266895	20.904
83)$Toluene-d8	(3)	9.930	98	1300330	50.264
83)$Toluene-d8	(3)	9.930	100	854504	49.857
88) Toluene	(3)	10.010	92	215392	10.249
90) 1,3-Dichloropropene (total)	(3)		100	266447	19.964

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.253	75	130169	9.980
91) Ethyl Methacrylate	(3)	10.308	69	130196	10.019
92) 1,1,2-Trichloroethane	(3)	10.460	97	75730	10.178
93) Tetrachloroethene	(3)	10.545	166	100234	10.892
94) 1,3-Dichloropropane	(3)	10.618	76	130614	10.114
96) 2-Hexanone	(3)	10.660	43	215593	21.673
97) Dibromochloromethane	(3)	10.831	129	87408	10.237
99) 1,2-Dibromoethane	(3)	10.946	107	82718	10.153
100)*Chlorobenzene-d5	(3)	11.372	117	991927	50.000
102) Chlorobenzene	(3)	11.397	112	242234	10.328
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	86037	10.179
104) Ethylbenzene	(3)	11.482	91	425382	10.465
106) m+p-Xylene	(3)	11.591	106	329331	20.621
108) Xylene (Total)	(3)		106	492496	31.008
107) o-Xylene	(3)	11.920	106	163165	10.388
109) Styrene	(3)	11.938	104	268175	10.165
110) Bromoform	(3)	12.102	173	64108	9.945
111) Isopropylbenzene	(3)	12.218	105	435995	10.510
112) Cyclohexanone	(1)	12.297	55	111384	246.907
114)$4-Bromofluorobenzene	(3)	12.364	95	513125	50.205
114)$4-Bromofluorobenzene	(3)	12.370	174	410943	50.188
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	117824	9.841
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	209105	50.774
115) Bromobenzene	(4)	12.486	156	103636	10.295
117) 1,2,3-Trichloropropane	(4)	12.510	110	38220	10.078
119) n-Propylbenzene	(4)	12.546	91	517262	10.598
120) 2-Chlorotoluene	(4)	12.625	126	103490	10.285
122) 1,3,5-Trimethylbenzene	(4)	12.680	105	373059	10.432
121) 4-Chlorotoluene	(4)	12.717	126	106321	10.196
124) tert-Butylbenzene	(4)	12.924	134	82434M	10.402
125) Pentachloroethane	(4)	12.960	167	68399	10.780
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	387746	10.447
127) sec-Butylbenzene	(4)	13.088	105	489826	10.545
129) 1,3-Dichlorobenzene	(4)	13.191	146	200849	10.258
130) p-Isopropyltoluene	(4)	13.197	119	427821	10.584
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	544310	50.000
133) 1,4-Dichlorobenzene	(4)	13.264	146	200867	10.116
134) 1,2,3-Trimethylbenzene	(4)	13.276	105	393098	10.912

M = Compound was manually integrated.
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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

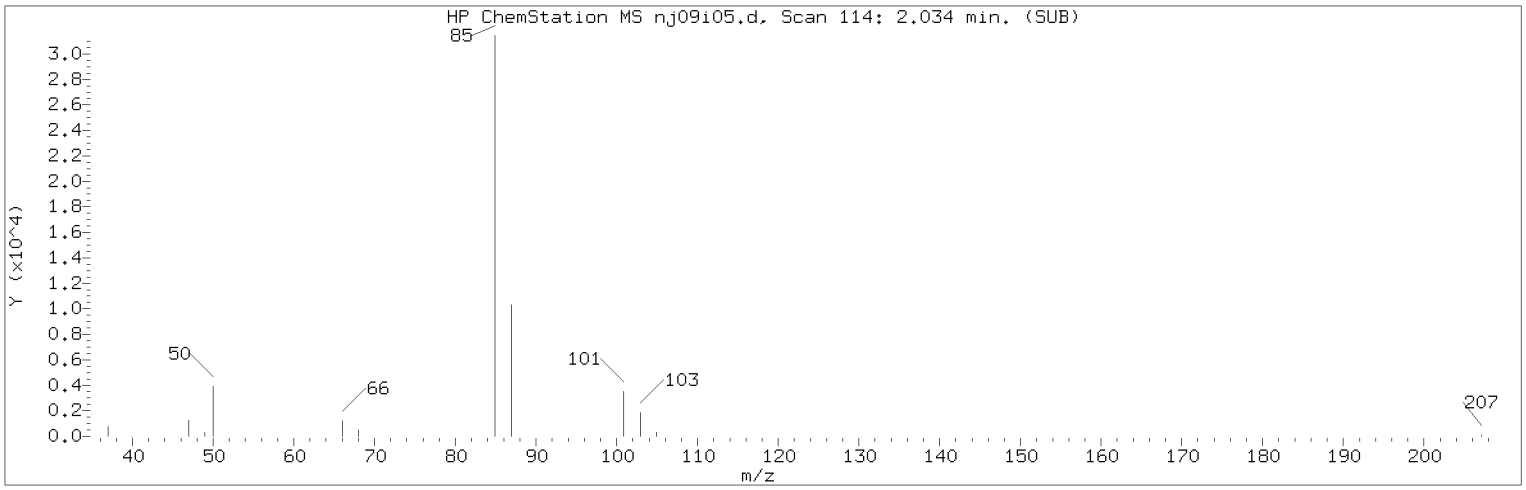
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

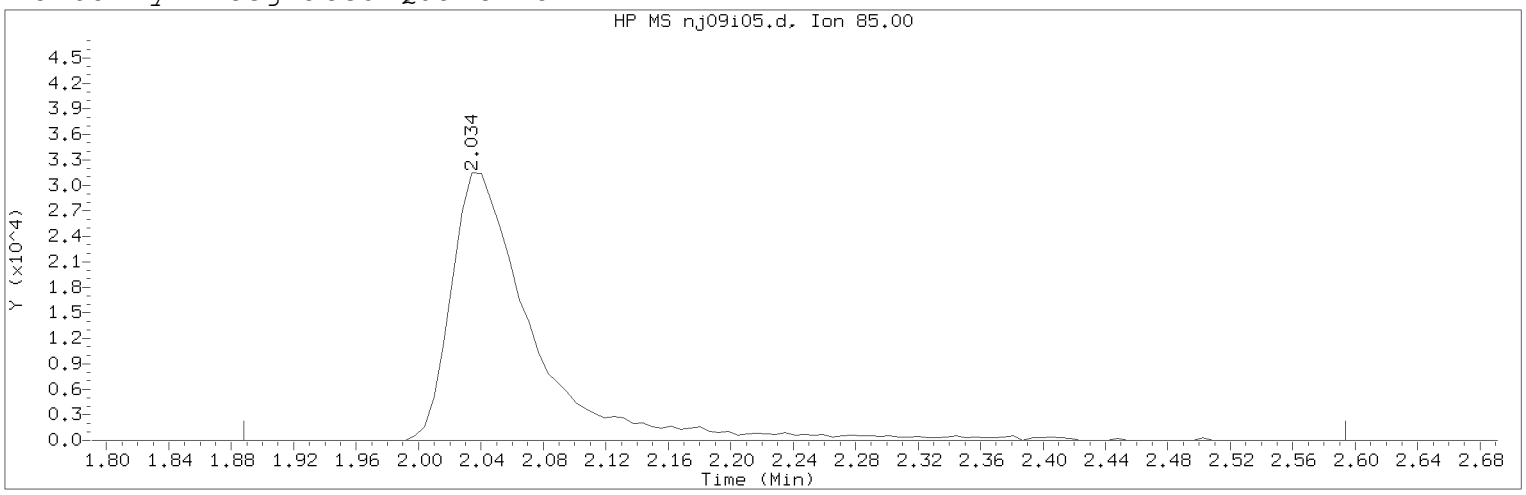
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.343	91	266077	10.055
141) Diethylbenzene (total)	(4)		100	767226	32.708
136) 1,3-Diethylbenzene	(4)	13.398	119	264233	10.920
137) 1,4-Diethylbenzene	(4)	13.471	119	280286	10.909
139) n-Butylbenzene	(4)	13.489	92	215902	10.354
138) 1,2-Dichlorobenzene	(4)	13.526	146	189793	10.224
140) 1,2-Diethylbenzene	(4)	13.544	119	222707	10.879
142) 1,2-Dibromo-3-chloropropane	(4)	14.067	75	32218	9.957
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	150782	10.190
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	128653	9.972
147) Hexachlorobutadiene	(4)	14.706	225	58502	10.024
148) Naphthalene	(4)	14.803	128	411801	10.180
149) 1,2,3-Trichlorobenzene	(4)	14.955	180	118648	10.018
150) 2-Methylnaphthalene	(4)	15.612	142	248971	10.655

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

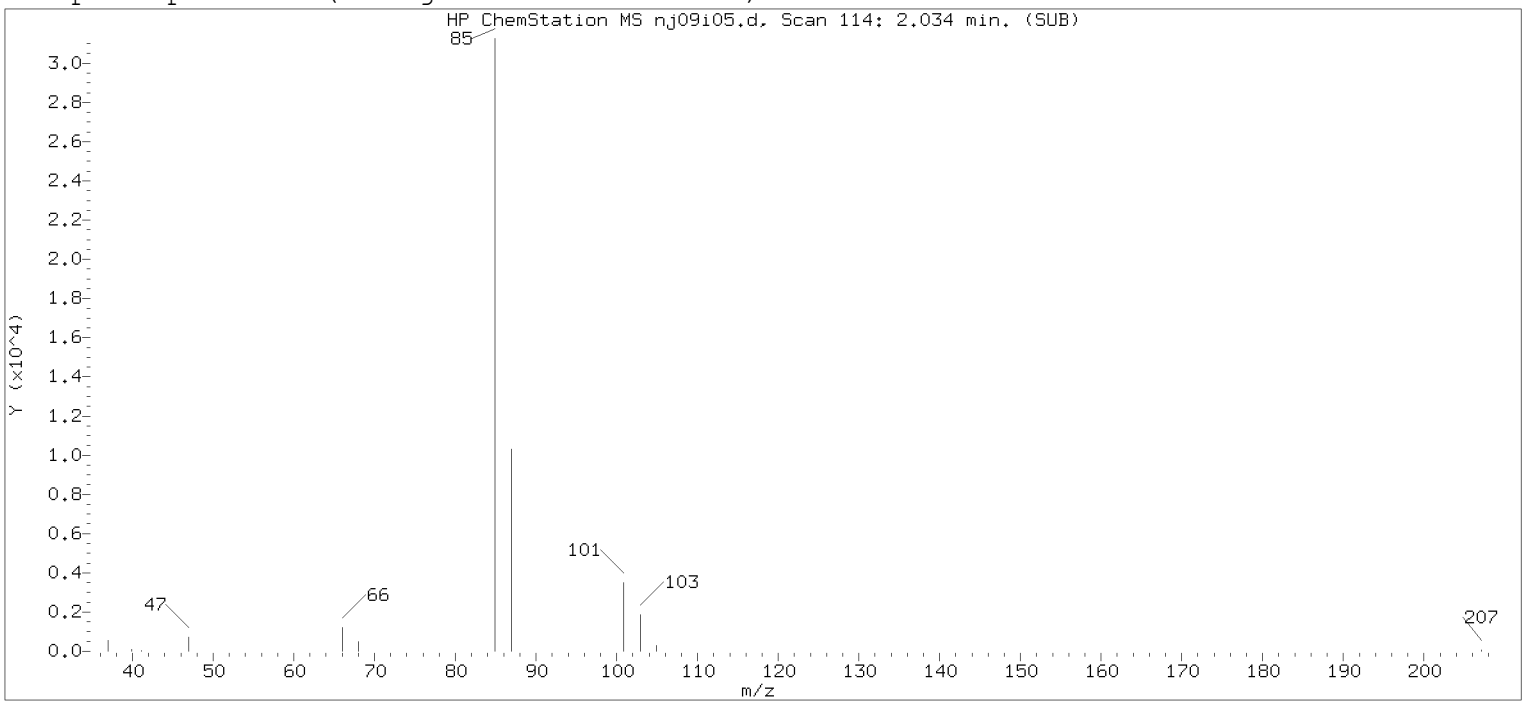
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 115327M
On-Column Amount (ng) : 11.3392
Integration start scan : 89 Integration stop scan: 205
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

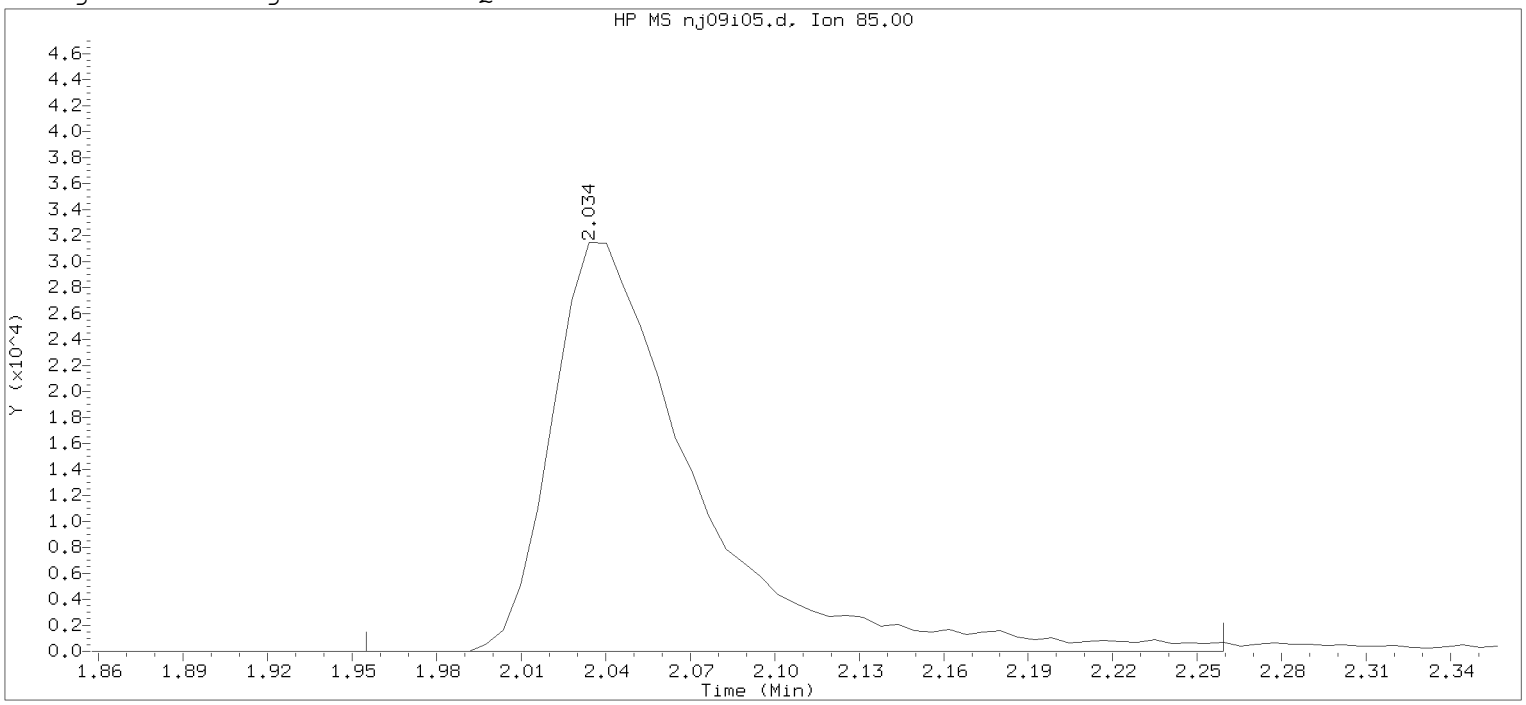
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

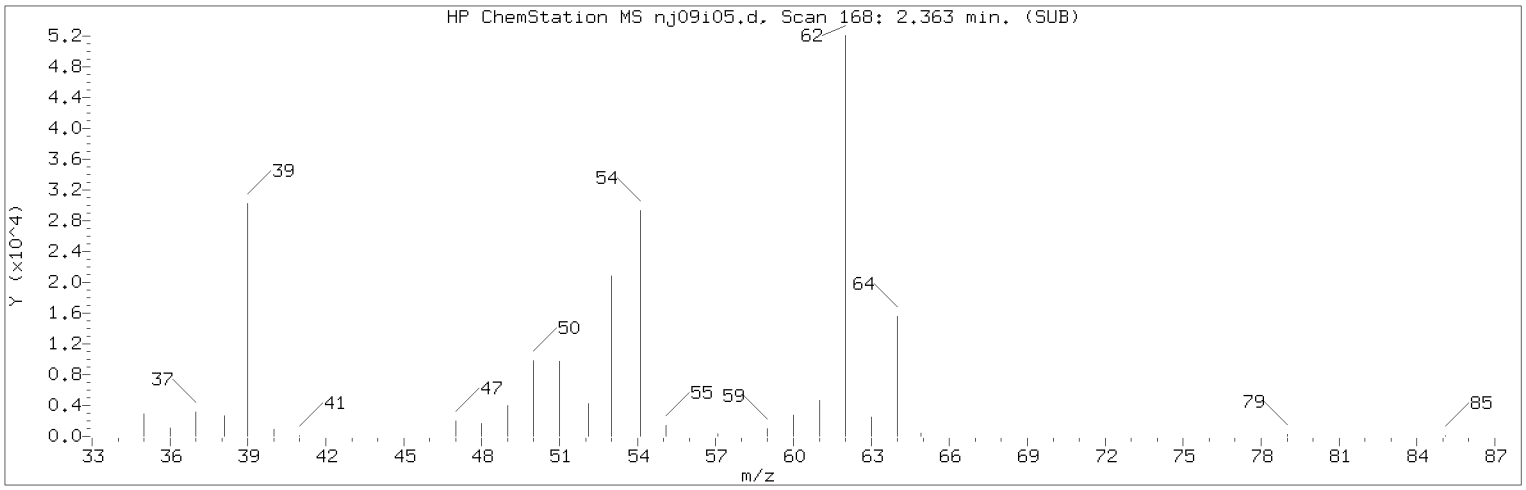
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

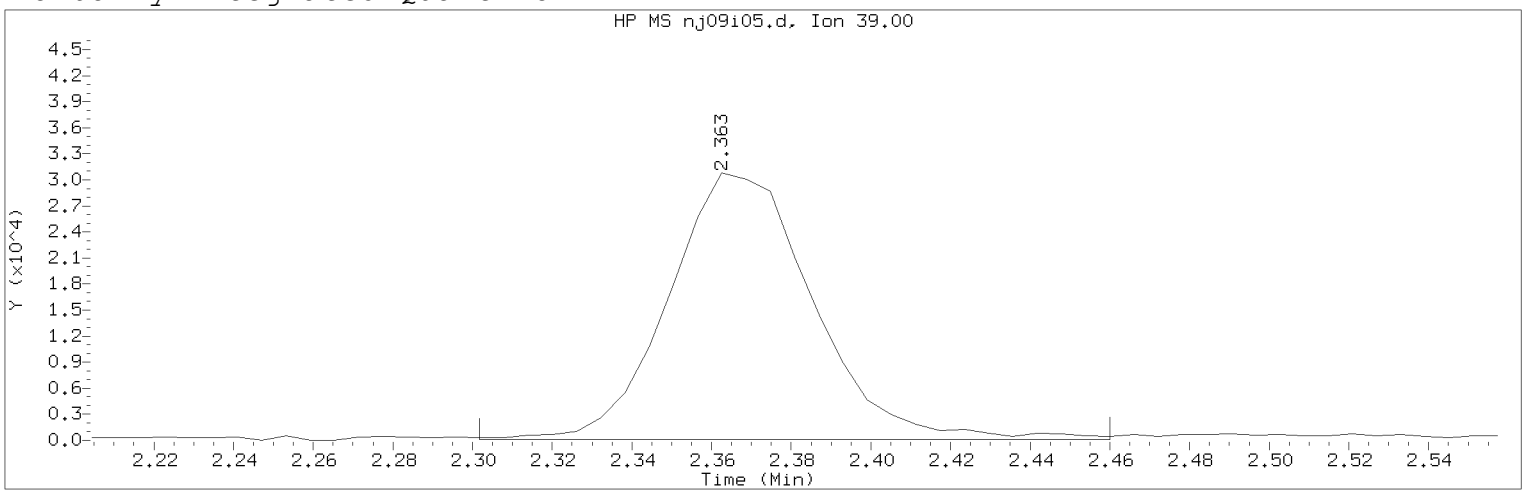
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 111353
On-column Amount (ng) : 11.3602
Integration start scan : 100 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

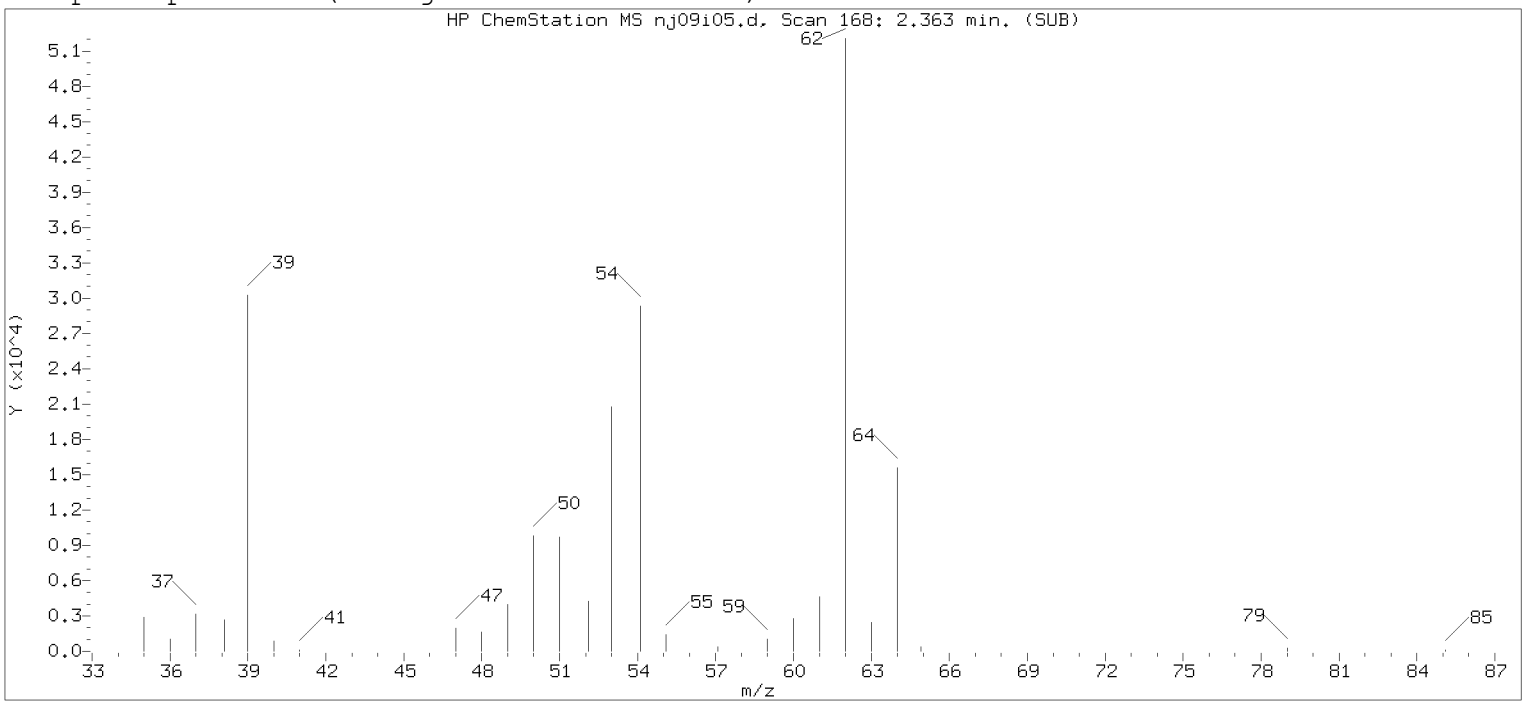
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 77649M
On-Column Amount (ng) : 10.2112
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 83 Y at integration end: 83

Reason for manual integration: improper integration

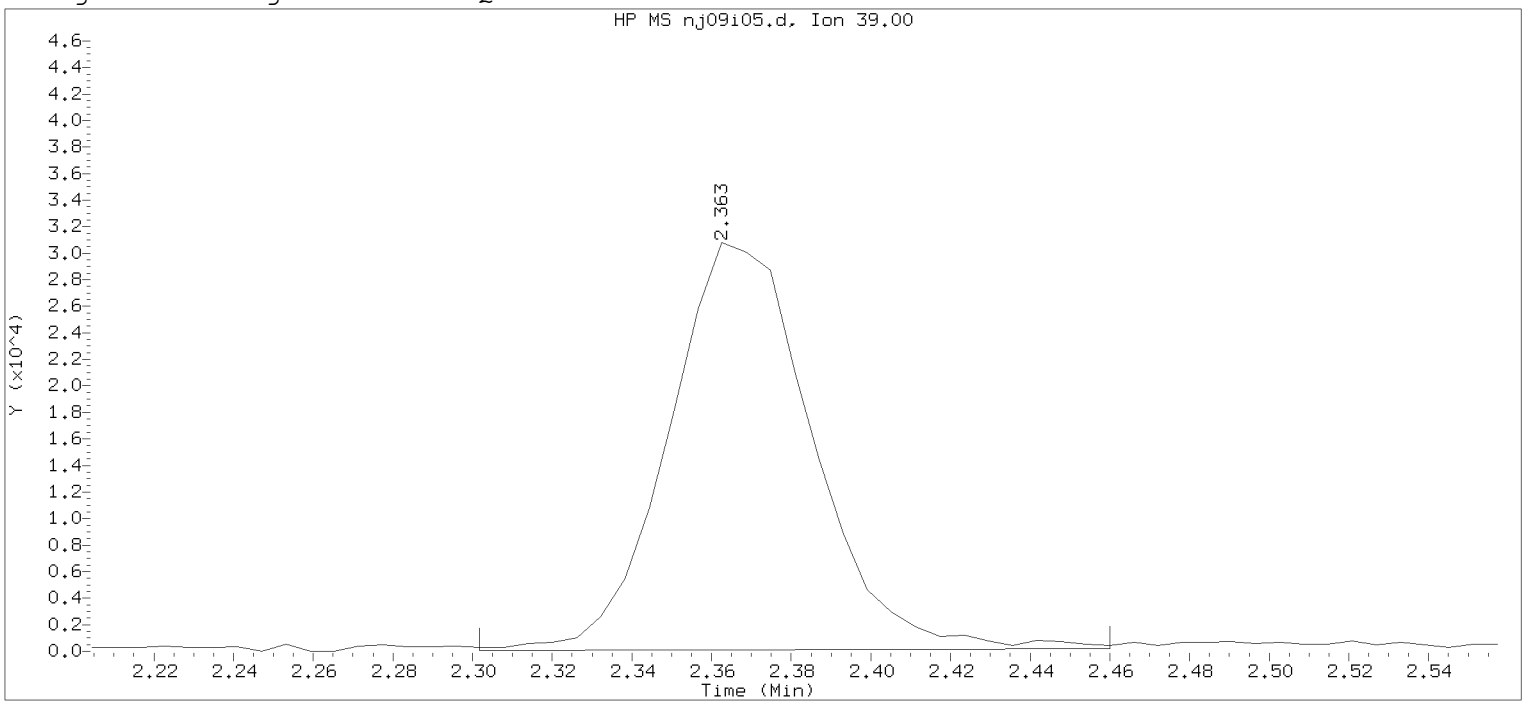
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

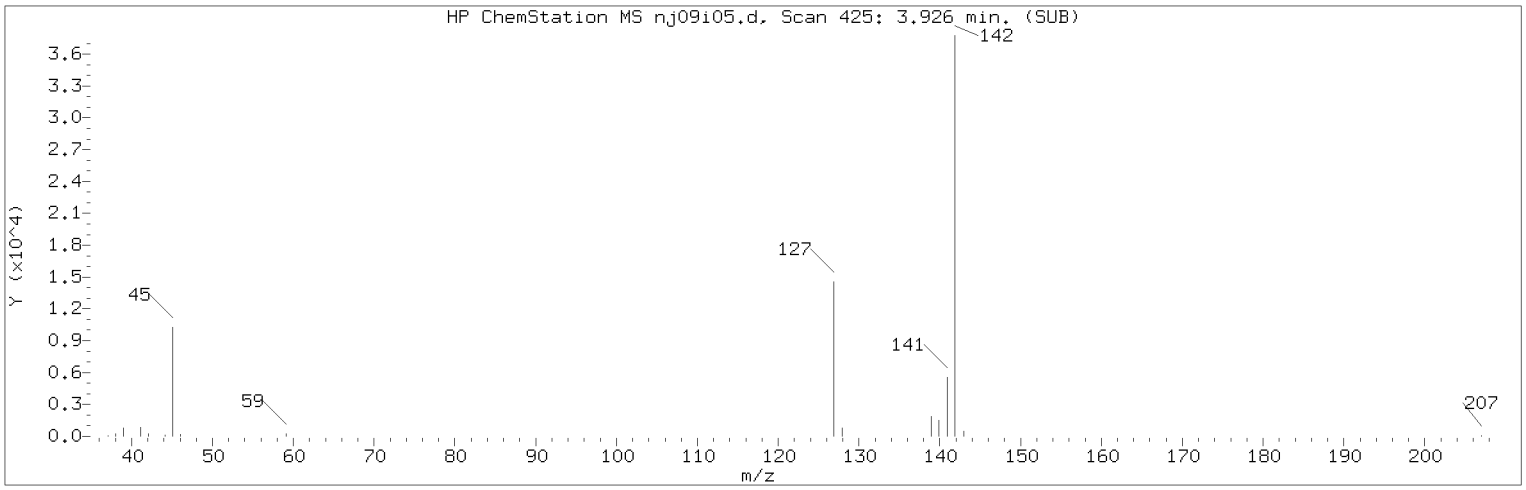
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

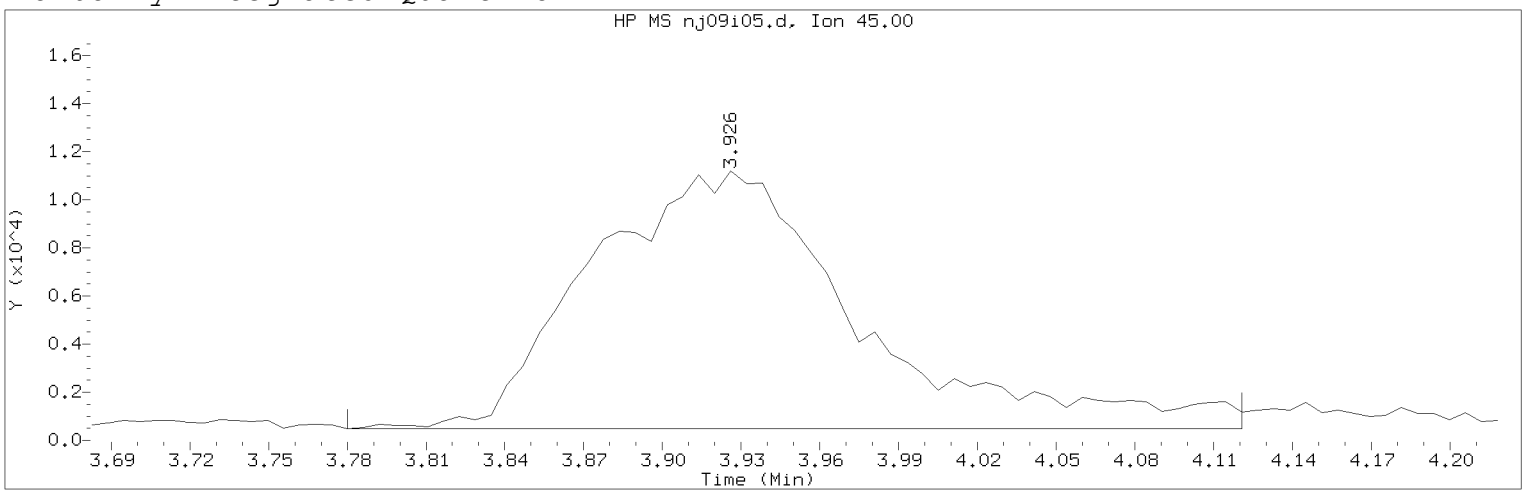
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 77180
On-column Amount (ng) : 10.2235
Integration start scan : 157 Integration stop scan: 183
Y at integration start : 63 Y at integration end: 182

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

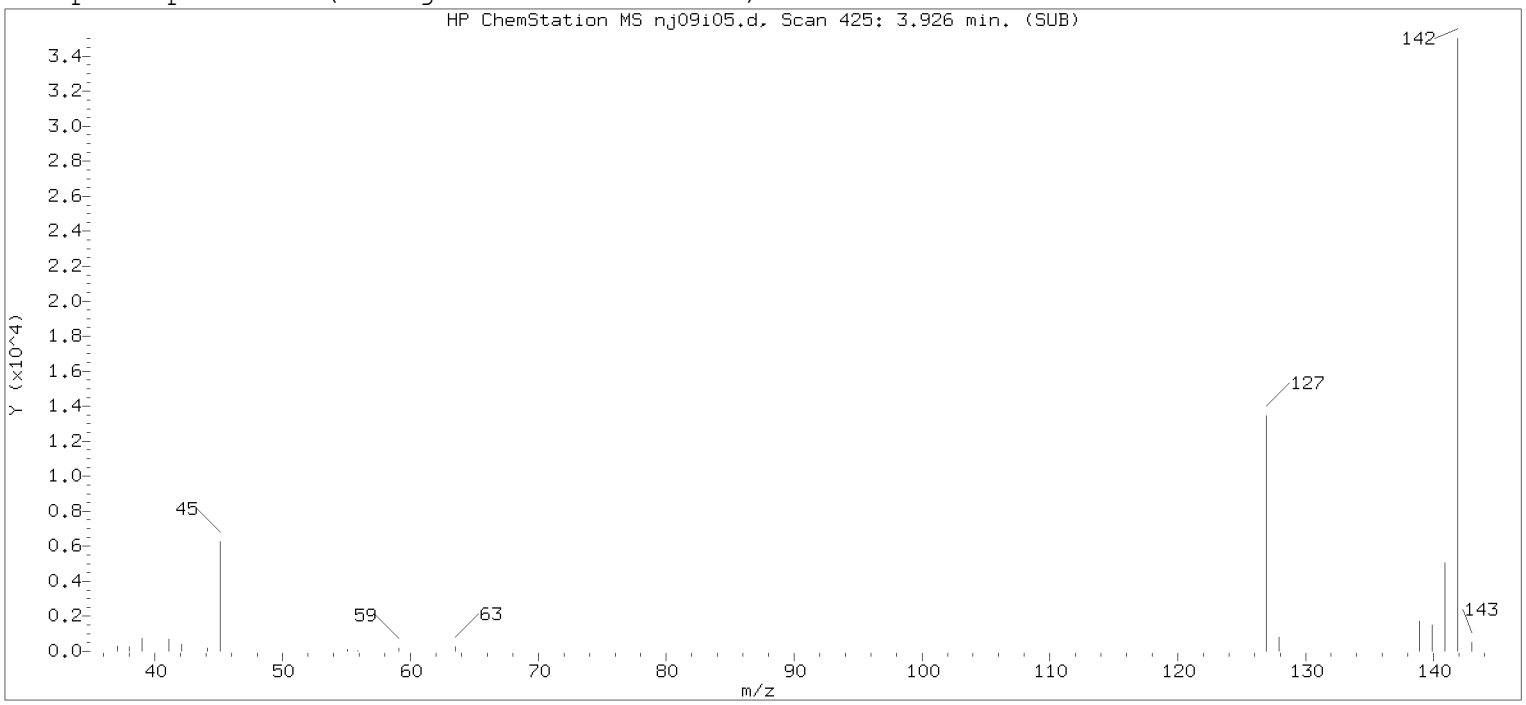
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area (flag) : 75955M
On-Column Amount (ng) : 104.0223
Integration start scan : 400 Integration stop scan: 456
Y at integration start : 481 Y at integration end: 481

Reason for manual integration: improper integration

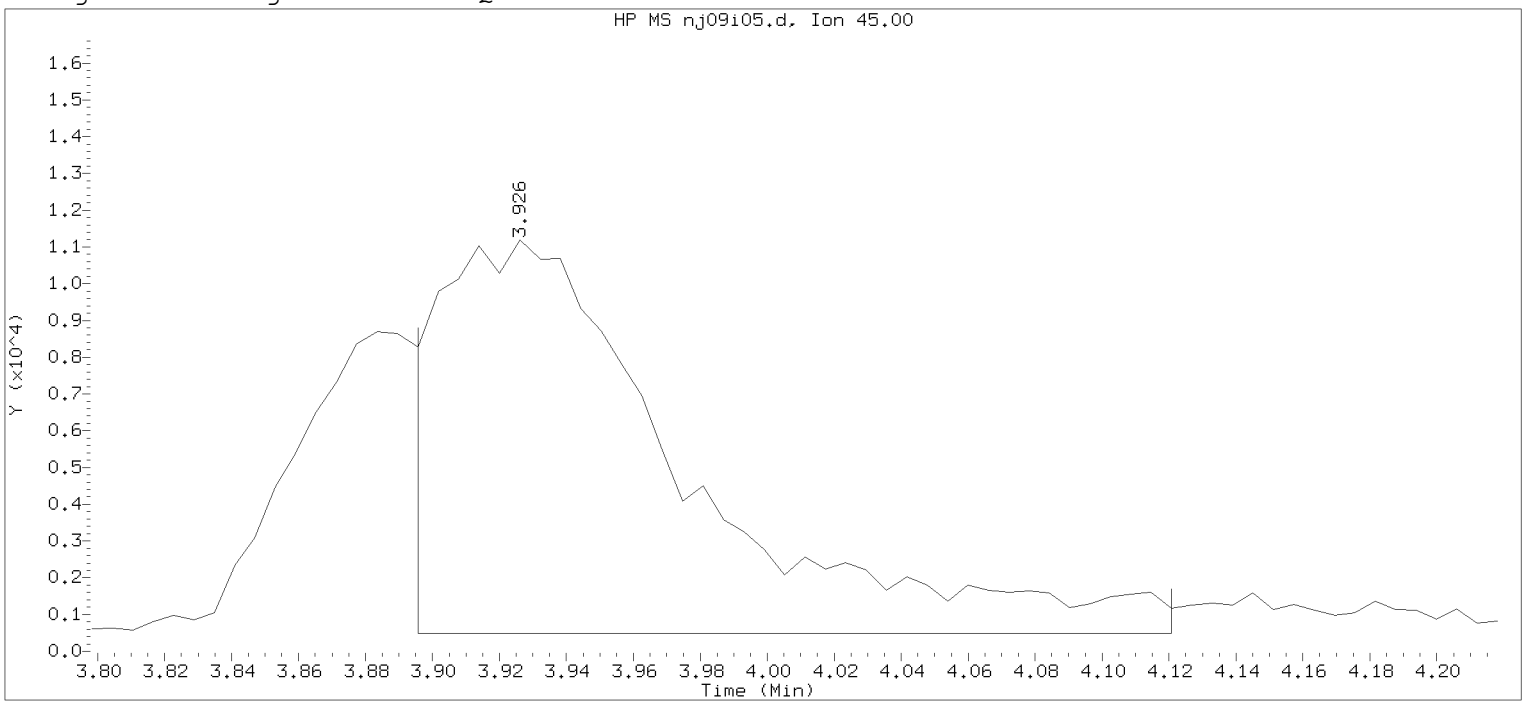
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

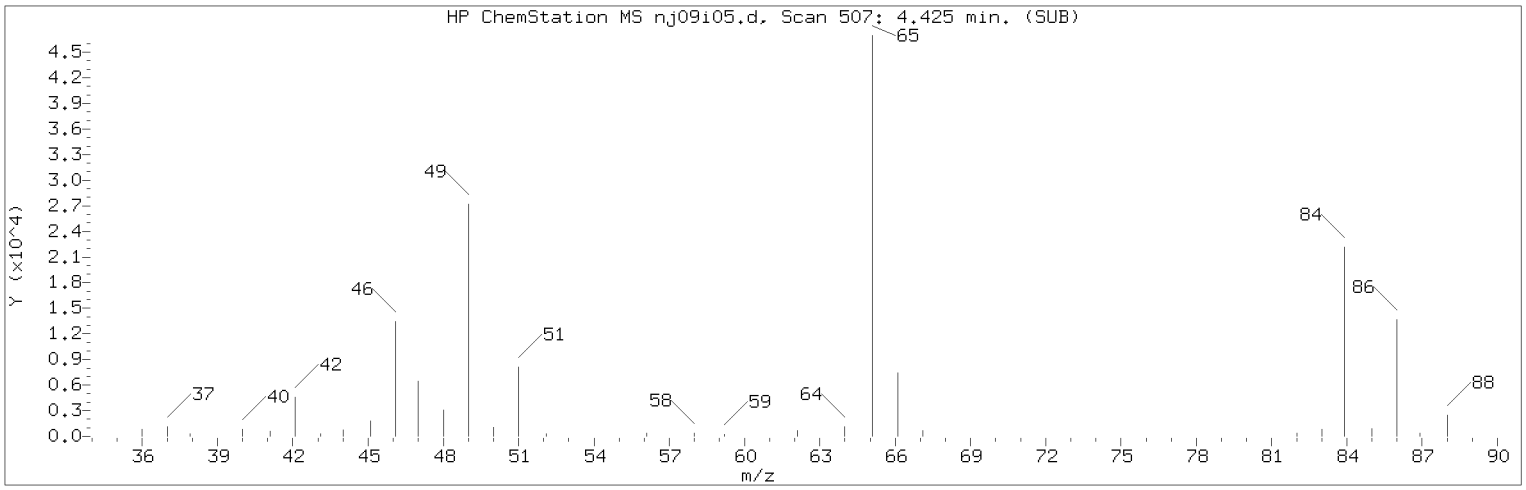
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

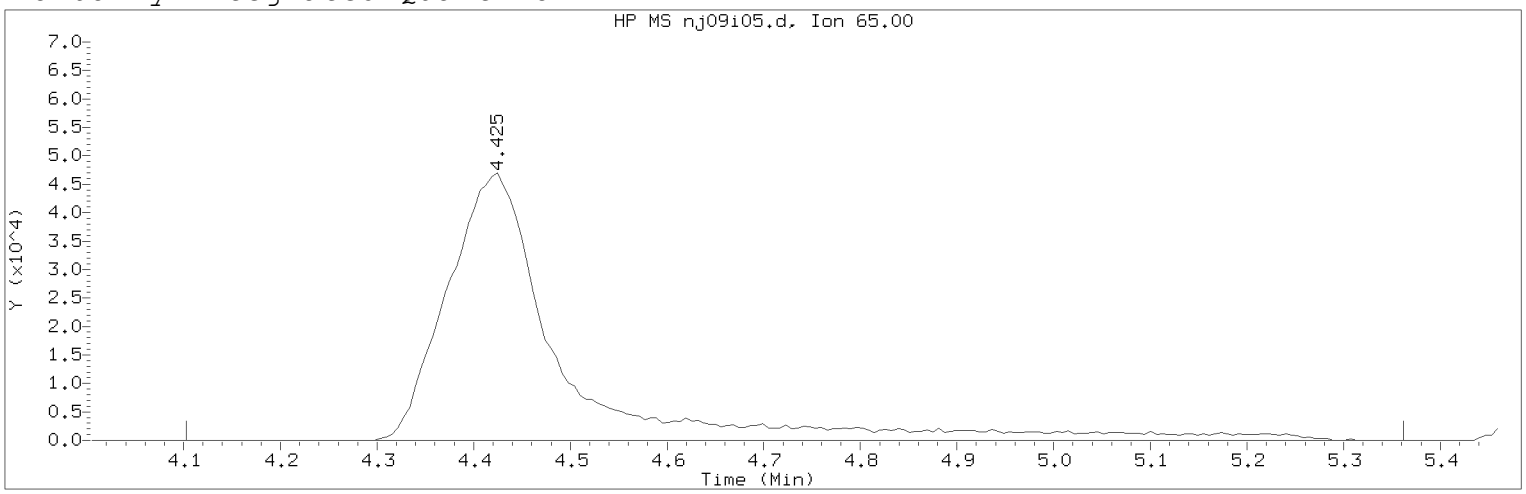
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 425
Retention Time (minutes): 3.926
Quant Ion : 45.00
Area : 55091
On-column Amount (ng) : 81.2722
Integration start scan : 419 Integration stop scan: 456
Y at integration start : 483 Y at integration end: 483

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

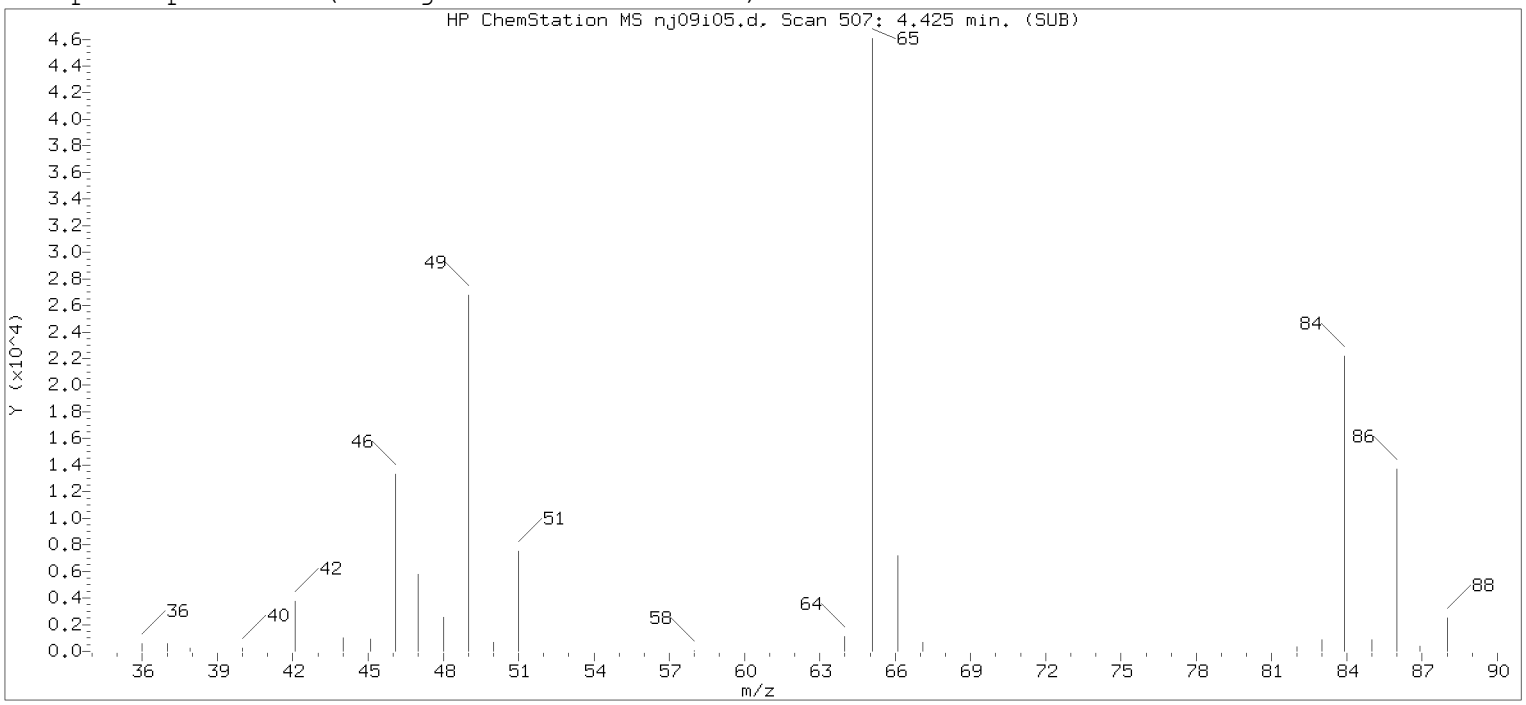
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area (flag) : 387060M
On-Column Amount (ng) : 250.0000
Integration start scan : 453 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

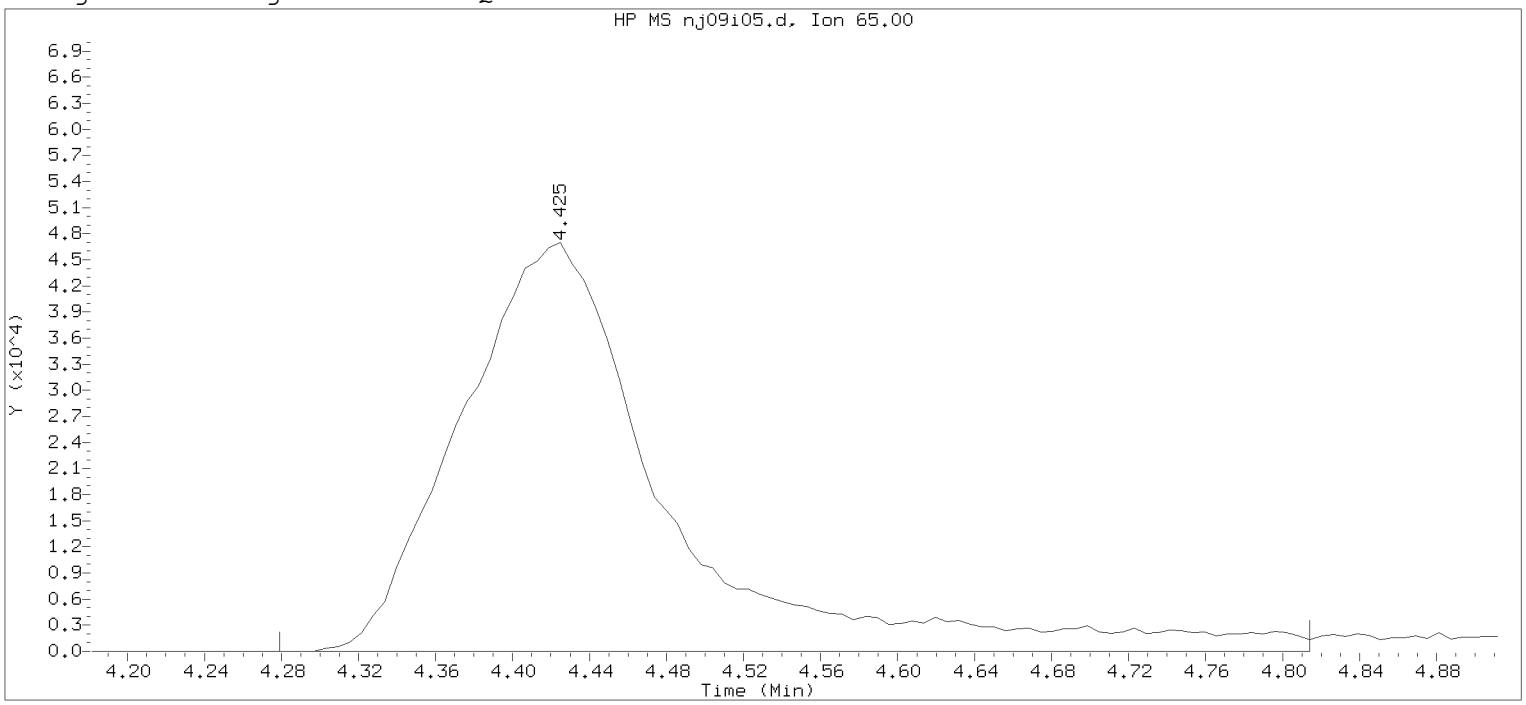
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

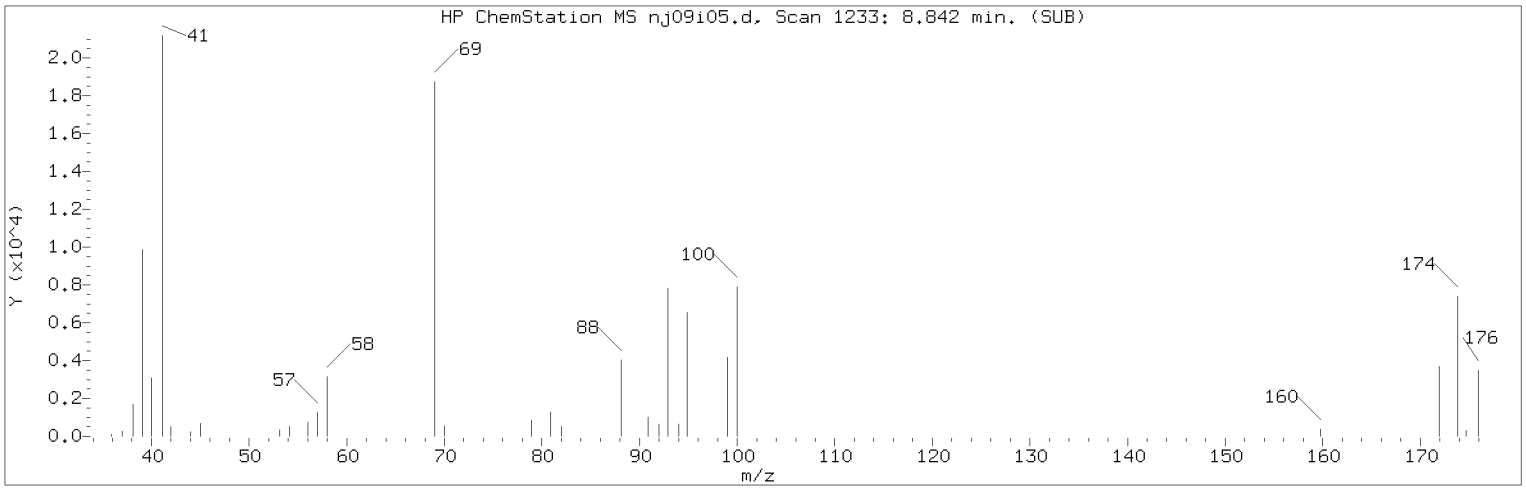
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

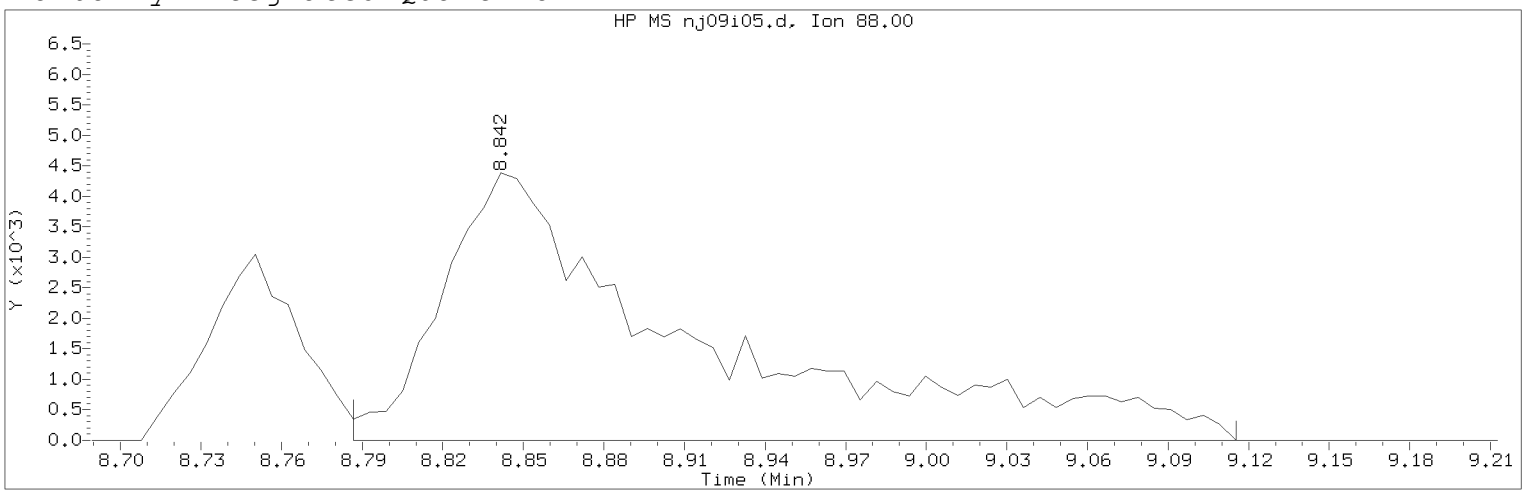
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.425
Quant Ion : 65.00
Area : 351025
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

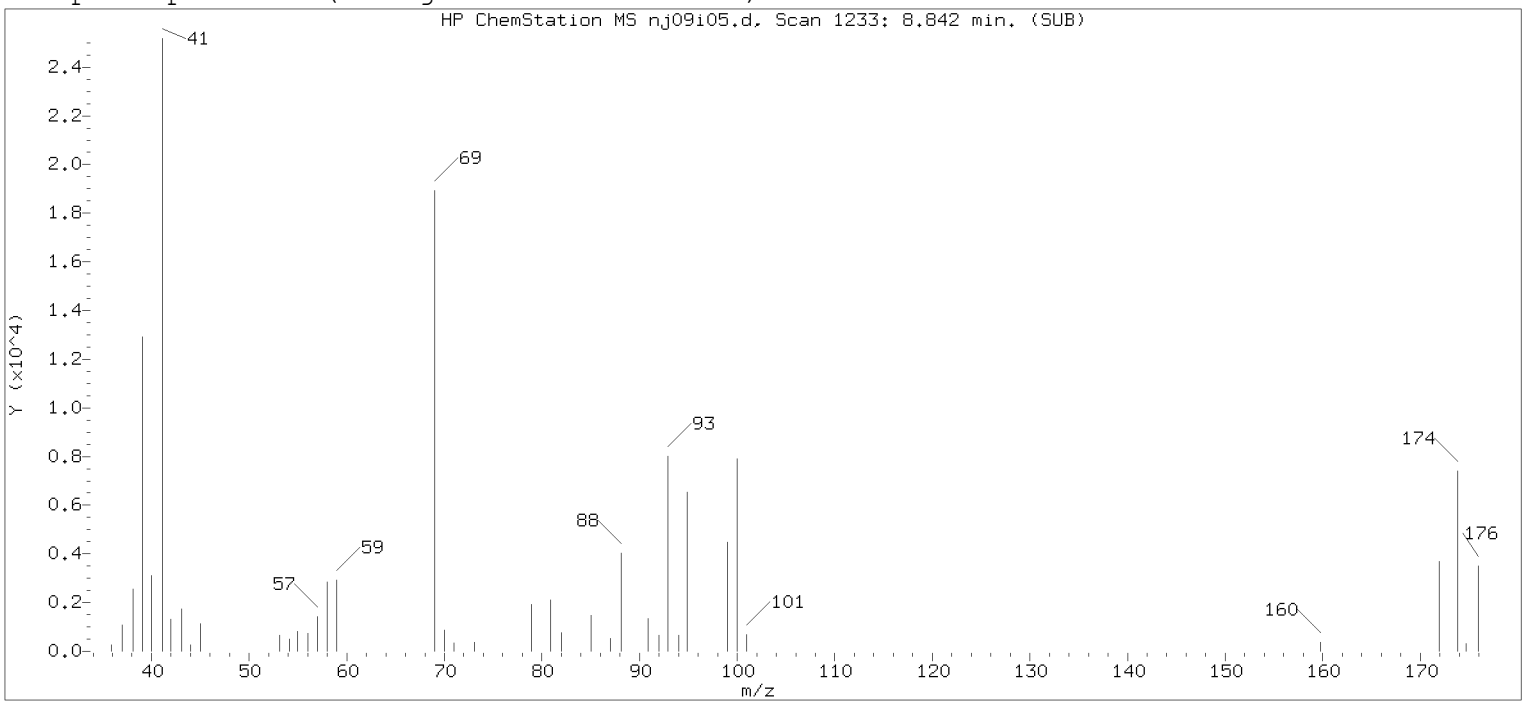
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 28522M
On-Column Amount (ng) : 253.5584
Integration start scan : 1223 Integration stop scan: 1277
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

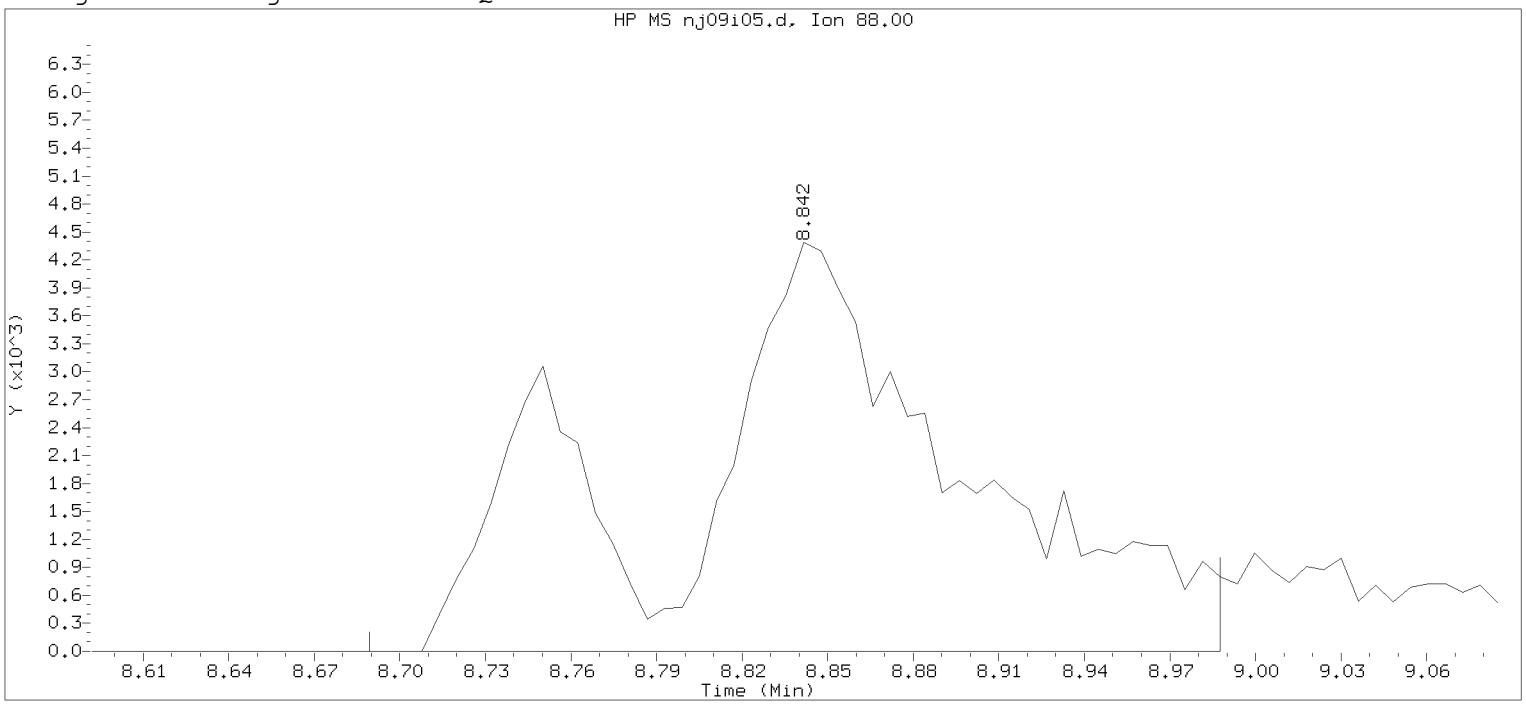
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

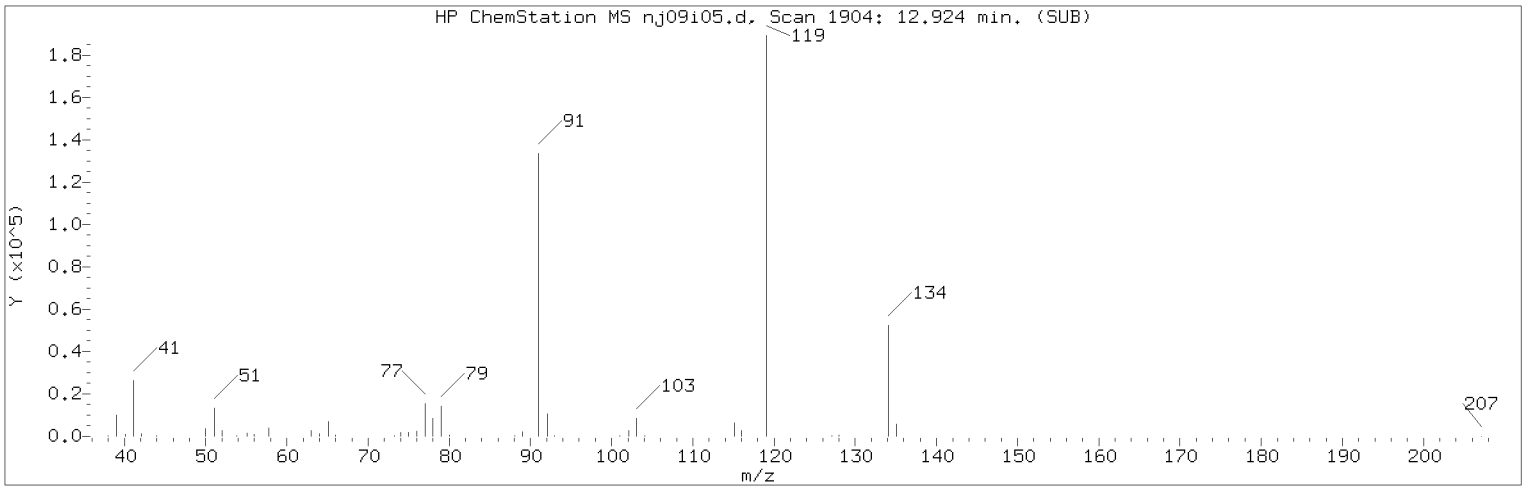
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

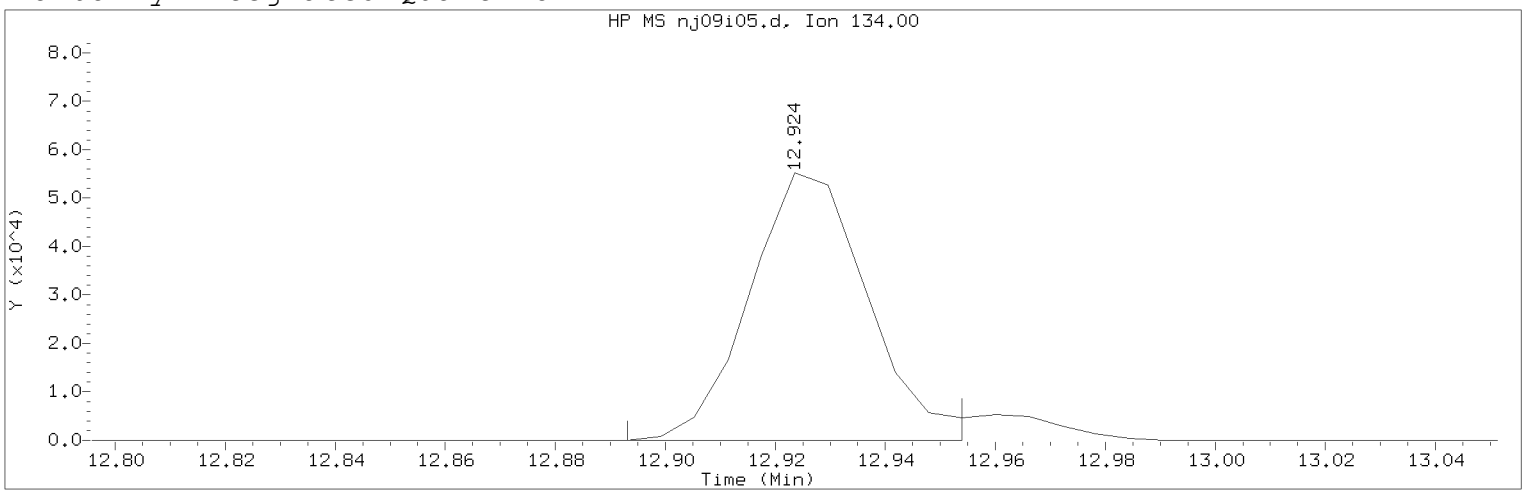
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area : 30682
On-column Amount (ng) : 402.5407
Integration start scan : 1207 Integration stop scan: 1256
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

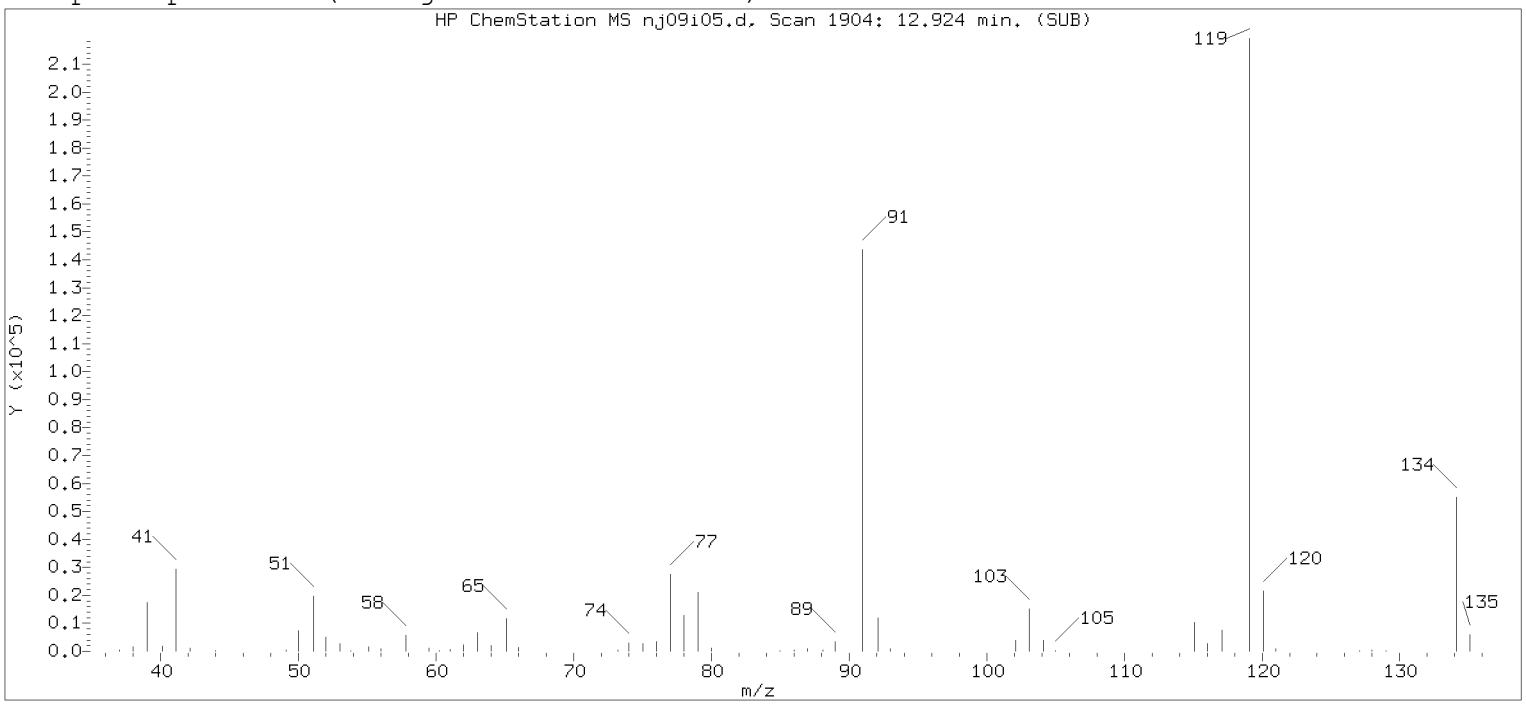
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 82434M
On-Column Amount (ng) : 10.4023
Integration start scan : 1898 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

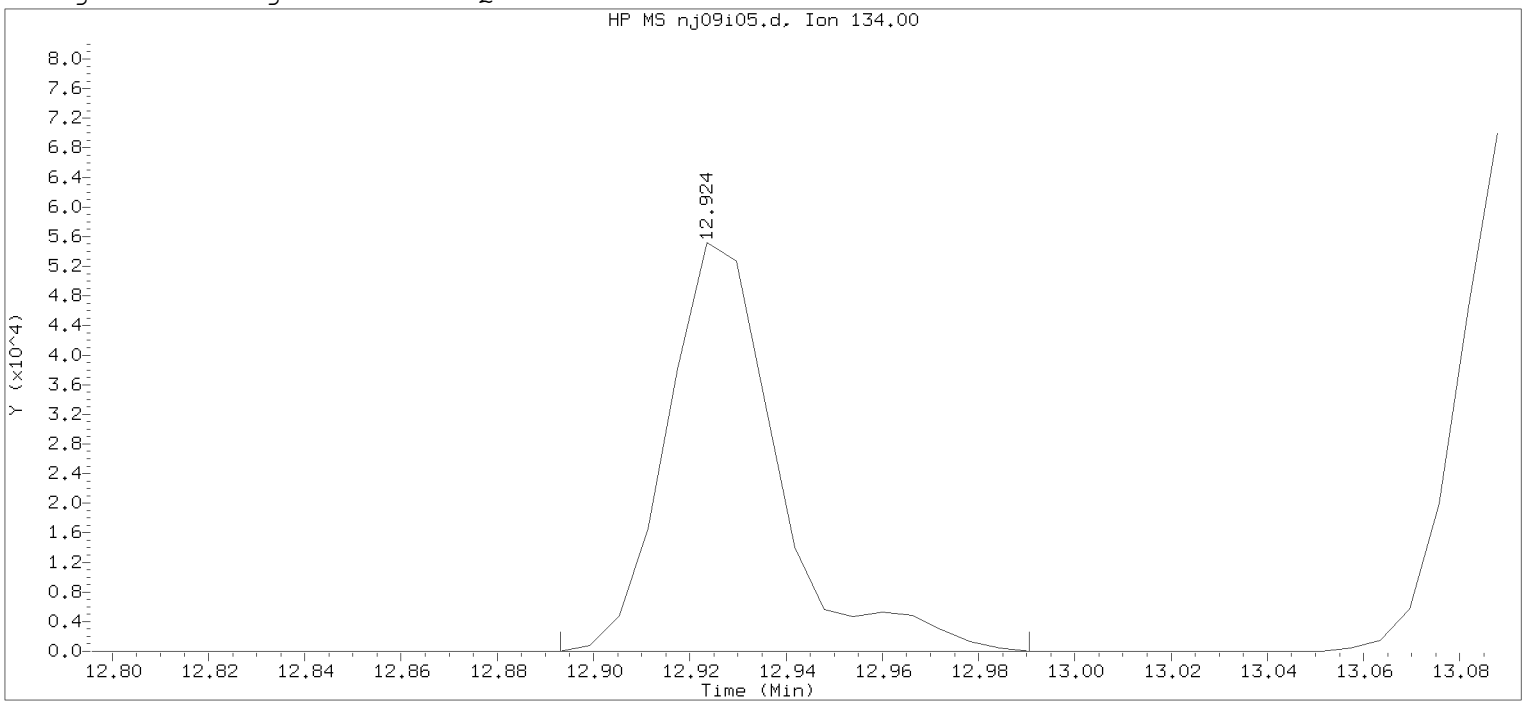
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



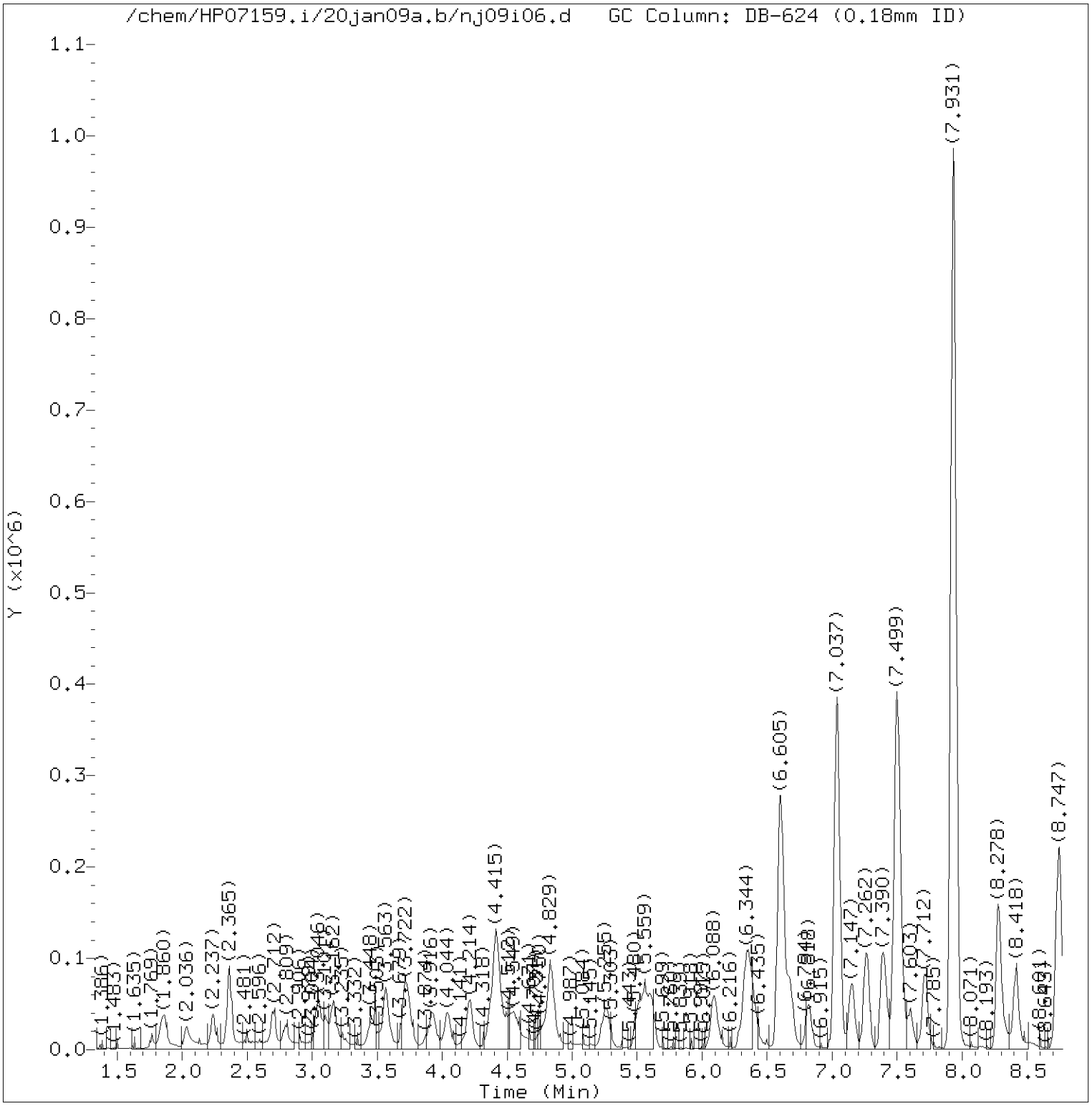
Data File: /chem/HP07159.i/20jan09a.b/nj09i05.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:20 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 87844
On-column Amount (ng) : 10.7157
Integration start scan : 1898 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492



Total Ion Chromatogram (TIC)

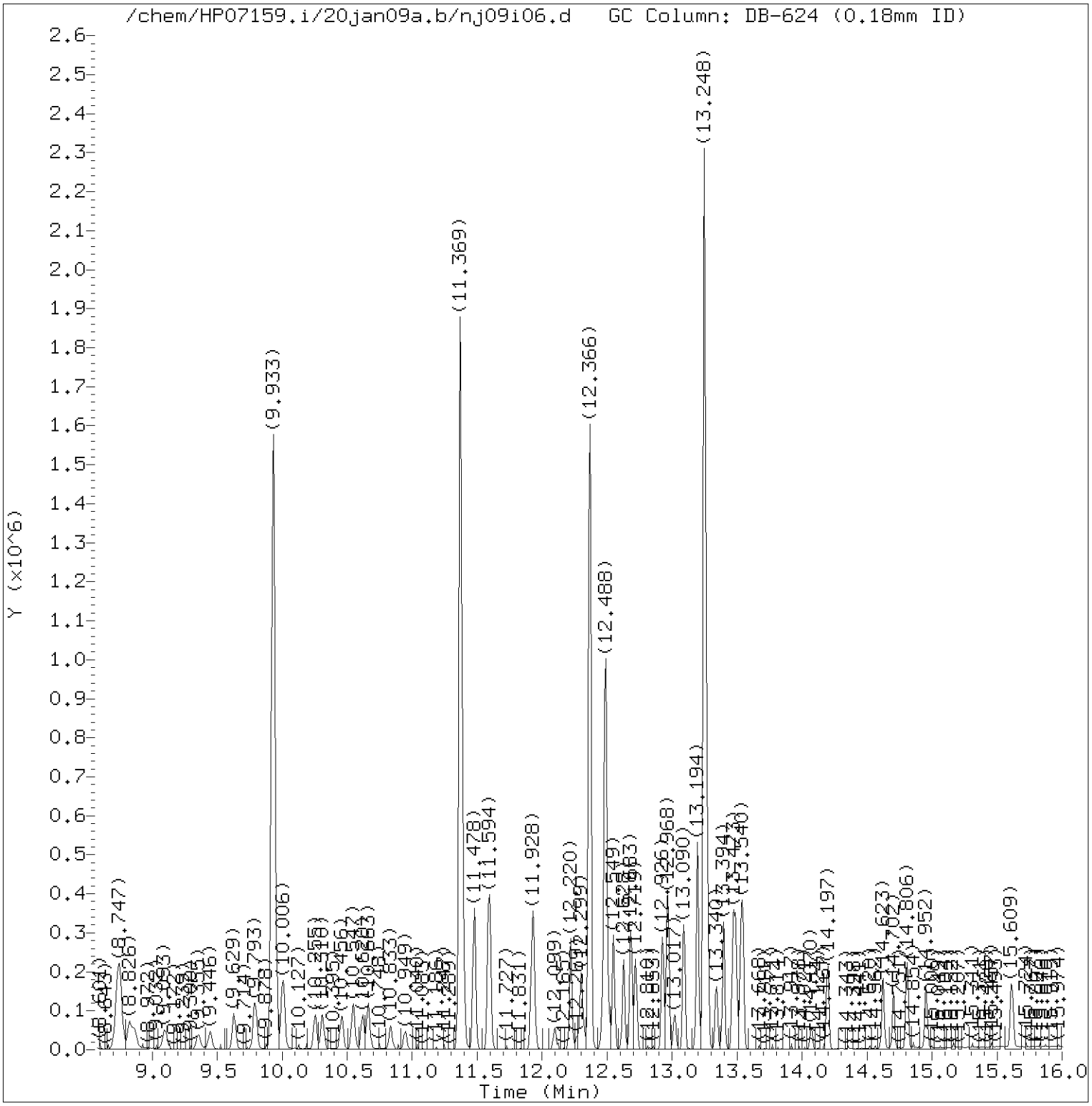
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.030	85	43809M	4.331
4) Chloromethane	(2)	2.237	50	45892	4.235
6) Vinyl Chloride	(2)	2.359	62	44787	4.247
5) 1,3-Butadiene	(2)	2.365	39	34191M	4.521
8) Bromomethane	(2)	2.693	94	31269	4.324
9) Chloroethane	(2)	2.797	64	25062	4.060
10) Dichlorofluoromethane	(2)	3.040	67	60489	4.279
12) Trichlorofluoromethane	(2)	3.107	101	50321	4.342
11) n-Pentane	(2)	3.162	43	49836	4.389
13) Ethanol	(1)	3.241	45	24623	259.087
15) Freon 123a	(2)	3.460	67	37564	4.424
16) Acrolein	(1)	3.570	56	106105	39.849
17) 1,1-Dichloroethene	(2)	3.709	96	28265	4.184
17) 1,1-Dichloroethene	(2)	3.716	63	15658	4.417
18) Acetone	(1)	3.740	58	8654	7.716
19) Freon 113	(2)	3.740	101	27719	4.423
21) 2-Propanol	(1)	3.916	45	54807M	73.990
22) Methyl Iodide	(2)	3.916	142	53417	4.237
23) Carbon Disulfide	(2)	4.038	76	91256	4.225
27) Methyl Acetate	(2)	4.184	43	31939	3.849
25) Allyl Chloride	(2)	4.214	41	50417	4.228
28) Methylene Chloride	(2)	4.415	84	33719	4.203
29)*t-Butyl alcohol-d10	(1)	4.421	65	392656M	250.000
30) t-Butyl alcohol	(1)	4.549	59	113038	77.218
31) Acrylonitrile	(2)	4.762	53	18999	4.239
33) Methyl Tertiary Butyl Ether	(2)	4.817	73	90436	4.120
32) trans-1,2-Dichloroethene	(2)	4.841	96	32038	4.155
34) n-Hexane	(2)	5.267	57	46495	4.368
36) 1,1-Dichloroethane	(2)	5.504	63	59192	4.208
38) di-Isopropyl ether	(2)	5.553	45	100280	4.138
39) 2-Chloro-1,3-butadiene	(2)	5.614	53	53399	4.300
40) Ethyl t-butyl ether	(2)	6.088	59	95806	4.160
43) 1,2-Dichloroethene (Total)	(2)		96	68085	8.271
44) 2-Butanone	(2)	6.295	43	52528	8.382
42) cis-1,2-Dichloroethene	(2)	6.344	96	36047	4.116
45) 2,2-Dichloropropane	(2)	6.350	77	51884	4.178
47) Propionitrile	(1)	6.392	54	131823	77.101
48) Methacrylonitrile	(2)	6.605	67	177945	39.307

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.672	128	17066	4.121
50) Tetrahydrofuran	(1)	6.684	71	13826	7.789
51) Chloroform	(2)	6.824	83	55868	4.072
52)$Dibromofluoromethane	(2)	7.037	113	324919	50.387
52)$Dibromofluoromethane	(2)	7.037	111	335437	50.944
53) 1,1,1-Trichloroethane	(2)	7.055	97	52910	4.262
54) Cyclohexane	(2)	7.153	56	55837	4.373
54) Cyclohexane	(2)	7.153	84	47923	4.306
54) Cyclohexane	(2)	7.159	69	17047	4.248
55) 1,1-Dichloropropene	(2)	7.262	75	47504	4.231
56) Carbon Tetrachloride	(2)	7.262	117	45699	4.270
58) Isobutyl Alcohol	(1)	7.390	41	101971	194.459
57)$1,2-Dichloroethane-d4	(2)	7.493	102	81714	50.117
57)$1,2-Dichloroethane-d4	(2)	7.499	65	393432	50.162
57)$1,2-Dichloroethane-d4	(2)	7.493	104	52083	50.205
60) Benzene	(2)	7.524	78	132026	4.131
61) 1,2-Dichloroethane	(2)	7.597	62	45115	3.990
61) 1,2-Dichloroethane	(2)	7.603	98	4100	4.406
65) t-Amyl methyl ether	(2)	7.718	73	96106	4.159
66)*Fluorobenzene	(2)	7.931	96	1299393	50.000
67) n-Heptane	(2)	7.937	43	52911	4.306
69) n-Butanol	(1)	8.278	56	171282	379.187
71) Trichloroethene	(2)	8.418	95	34960	4.152
72) Methylcyclohexane	(2)	8.728	83	58507	4.227
72) Methylcyclohexane	(2)	8.722	98	28070	4.306
73) 1,2-Dichloropropane	(2)	8.753	63	33722	4.126
76) Methyl Methacrylate	(2)	8.820	69	29497M	3.947
75) 1,4-Dioxane	(1)	8.844	88	22465M	196.866
74) Dibromomethane	(2)	8.862	93	20606	3.953
78) Bromodichloromethane	(2)	9.099	83	43728	4.109
79) 2-Nitropropane	(2)	9.355	41	31152	8.061
80) 2-Chloroethyl Vinyl Ether	(2)	9.452	63	24665	3.815
81) cis-1,3-Dichloropropene	(2)	9.629	75	55174	4.065
82) 4-Methyl-2-pentanone	(2)	9.793	43	99136	7.808
83)$Toluene-d8	(3)	9.933	98	1293116	49.802
83)$Toluene-d8	(3)	9.933	100	855967	49.759
88) Toluene	(3)	10.006	92	86567	4.104
90) 1,3-Dichloropropene (total)	(3)		100	107405	8.055

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.255	75	52231	3.990
91) Ethyl Methacrylate	(3)	10.310	69	51374	3.939
92) 1,1,2-Trichloroethane	(3)	10.462	97	29986	4.015
93) Tetrachloroethene	(3)	10.547	166	38579	4.177
94) 1,3-Dichloropropane	(3)	10.620	76	52073	4.018
96) 2-Hexanone	(3)	10.663	43	79178	7.930
97) Dibromochloromethane	(3)	10.833	129	32595	3.803
99) 1,2-Dibromoethane	(3)	10.949	107	31486	3.850
100)*Chlorobenzene-d5	(3)	11.369	117	995569	50.000
102) Chlorobenzene	(3)	11.399	112	97238	4.131
103) 1,1,1,2-Tetrachloroethane	(3)	11.478	131	34535	4.071
104) Ethylbenzene	(3)	11.478	91	168856	4.139
106) m+p-Xylene	(3)	11.594	106	130557	8.145
108) Xylene (Total)	(3)		106	194592	12.207
107) o-Xylene	(3)	11.922	106	64035	4.062
109) Styrene	(3)	11.934	104	107696	4.067
110) Bromoform	(3)	12.099	173	25735	3.978
111) Isopropylbenzene	(3)	12.220	105	172592	4.145
112) Cyclohexanone	(1)	12.299	55	89801	196.226
114)$4-Bromofluorobenzene	(3)	12.366	95	512275	49.939
114)$4-Bromofluorobenzene	(3)	12.366	174	412208	50.159
116) 1,1,2,2-Tetrachloroethane	(4)	12.464	83	47714	3.984
115) Bromobenzene	(4)	12.482	156	40716	4.043
118) trans-1,4-Dichloro-2-butene	(4)	12.488	53	159223	38.649
117) 1,2,3-Trichloropropane	(4)	12.512	110	15546	4.098
119) n-Propylbenzene	(4)	12.549	91	208029	4.261
120) 2-Chlorotoluene	(4)	12.628	126	40915	4.065
122) 1,3,5-Trimethylbenzene	(4)	12.683	105	148908	4.163
121) 4-Chlorotoluene	(4)	12.719	126	42819	4.105
124) tert-Butylbenzene	(4)	12.926	134	31578	3.983
125) Pentachloroethane	(4)	12.962	167	23333	3.676
126) 1,2,4-Trimethylbenzene	(4)	12.968	105	152787	4.115
127) sec-Butylbenzene	(4)	13.090	105	196789	4.235
129) 1,3-Dichlorobenzene	(4)	13.194	146	79689	4.069
130) p-Isopropyltoluene	(4)	13.200	119	168415	4.165
131)*1,4-Dichlorobenzene-d4	(4)	13.248	152	544490	50.000
133) 1,4-Dichlorobenzene	(4)	13.267	146	80115	4.033
134) 1,2,3-Trimethylbenzene	(4)	13.273	105	143096	3.971

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

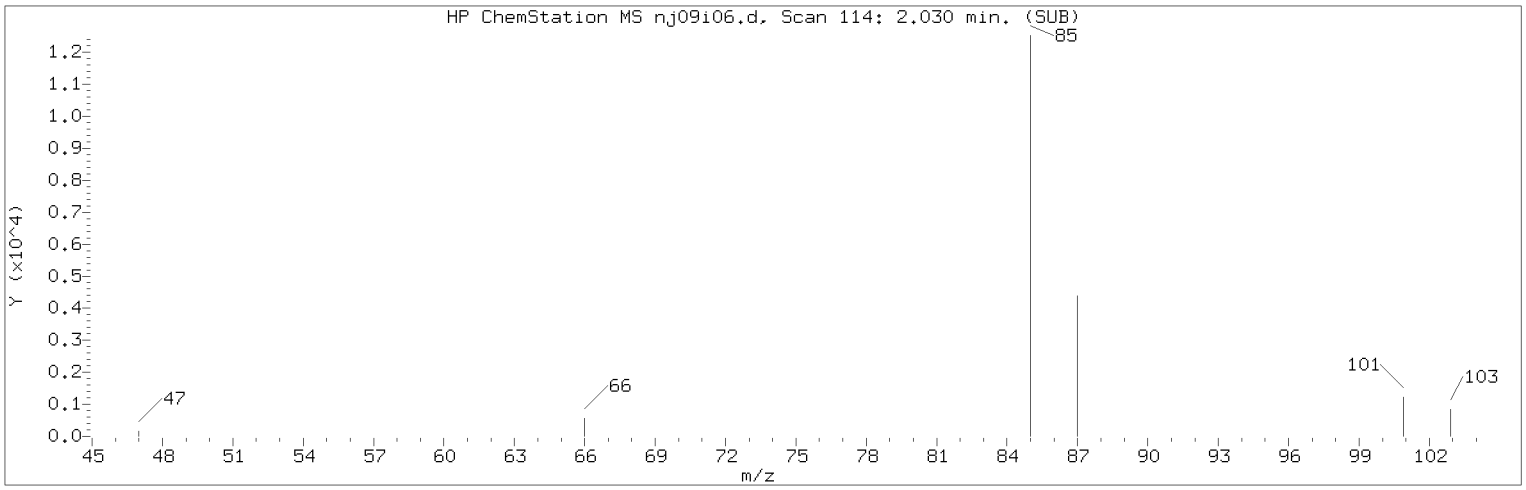
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

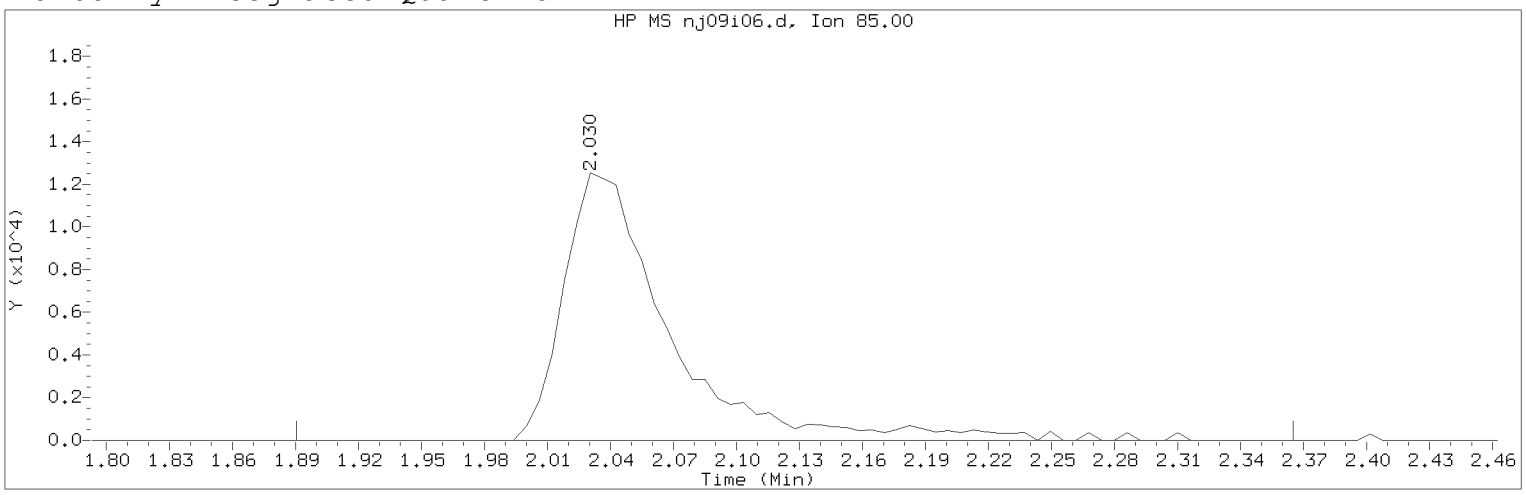
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	Benzyl Chloride	(4)	13.340	91	103769	3.920
141)	Diethylbenzene (total)	(4)		100	282530	12.035
136)	1,3-Diethylbenzene	(4)	13.394	119	97314	4.020
137)	1,4-Diethylbenzene	(4)	13.467	119	103829	4.040
139)	n-Butylbenzene	(4)	13.492	92	86969	4.169
138)	1,2-Dichlorobenzene	(4)	13.528	146	75304	4.055
140)	1,2-Diethylbenzene	(4)	13.540	119	81387	3.974
142)	1,2-Dibromo-3-chloropropane	(4)	14.070	75	12592	3.890
144)	1,3,5-Trichlorobenzene	(4)	14.197	180	59059	3.990
146)	1,2,4-Trichlorobenzene	(4)	14.623	180	51588	3.997
147)	Hexachlorobutadiene	(4)	14.702	225	23765	4.071
148)	Naphthalene	(4)	14.806	128	162510	4.016
149)	1,2,3-Trichlorobenzene	(4)	14.952	180	46505	3.925
150)	2-Methylnaphthalene	(4)	15.615	142	85753	3.669

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

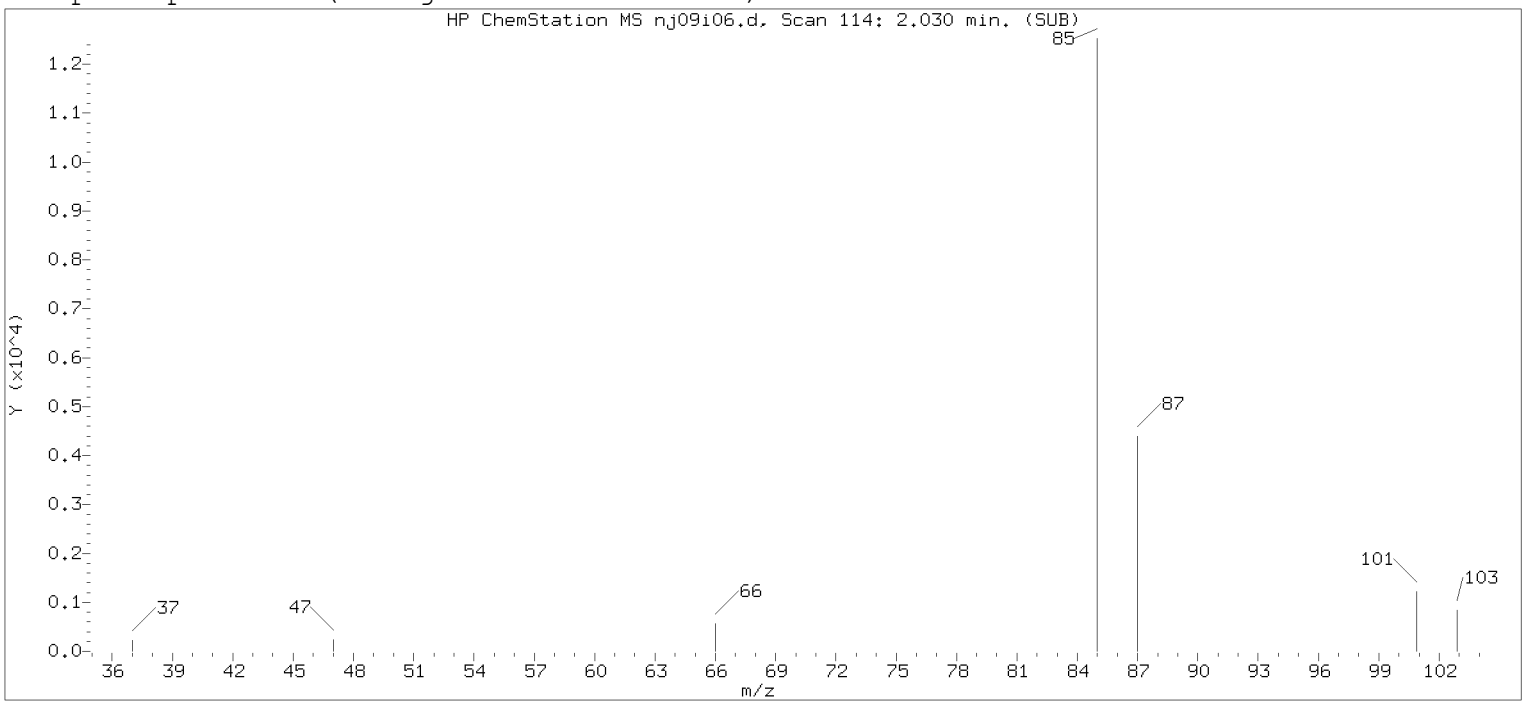
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area (flag) : 43809M
On-Column Amount (ng) : 4.3314
Integration start scan : 90 Integration stop scan: 168
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

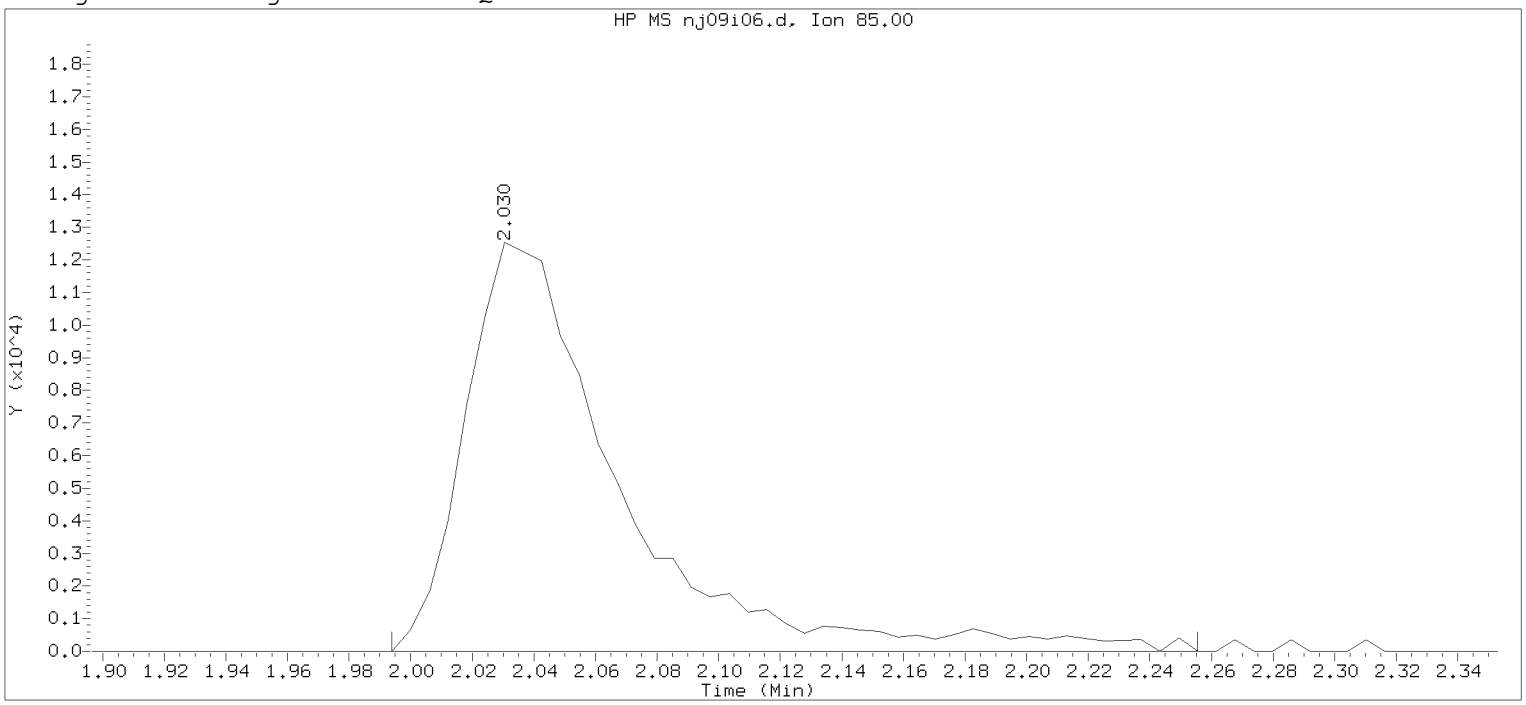
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

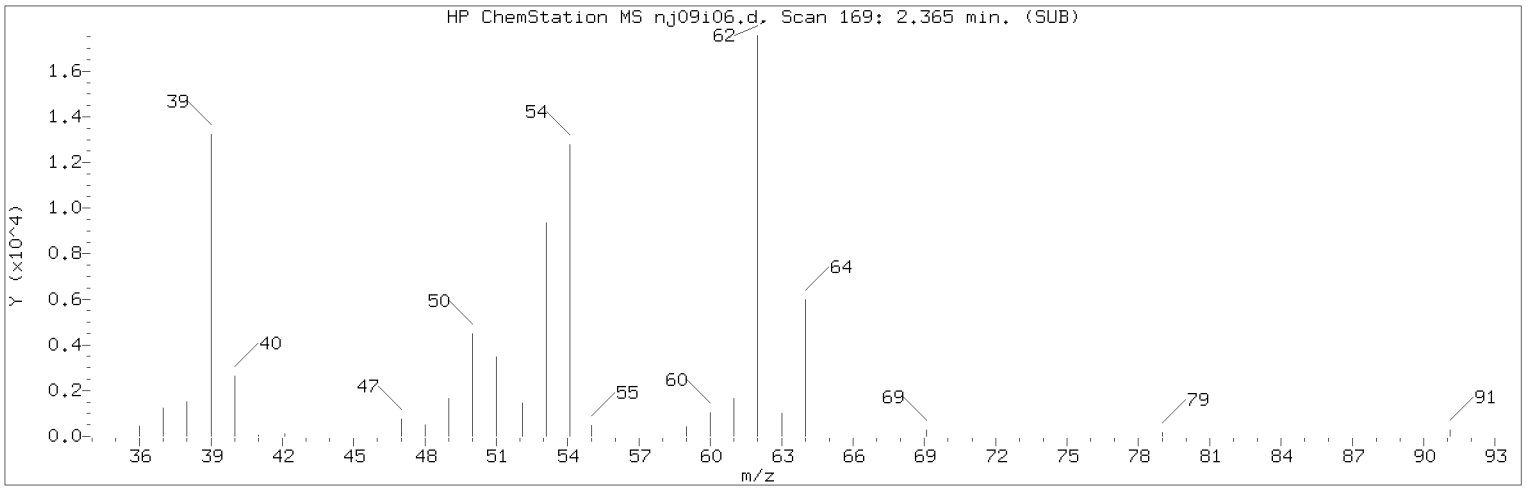
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

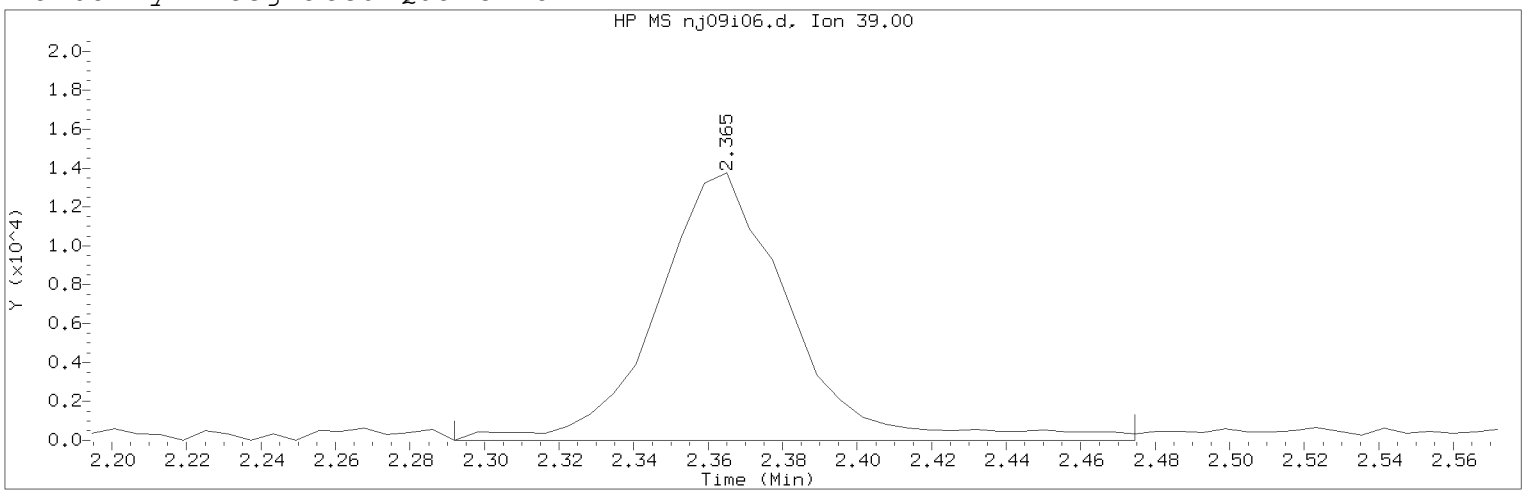
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.030
Quant Ion : 85.00
Area : 43422
On-column Amount (ng) : 4.4546
Integration start scan : 107 Integration stop scan: 150
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

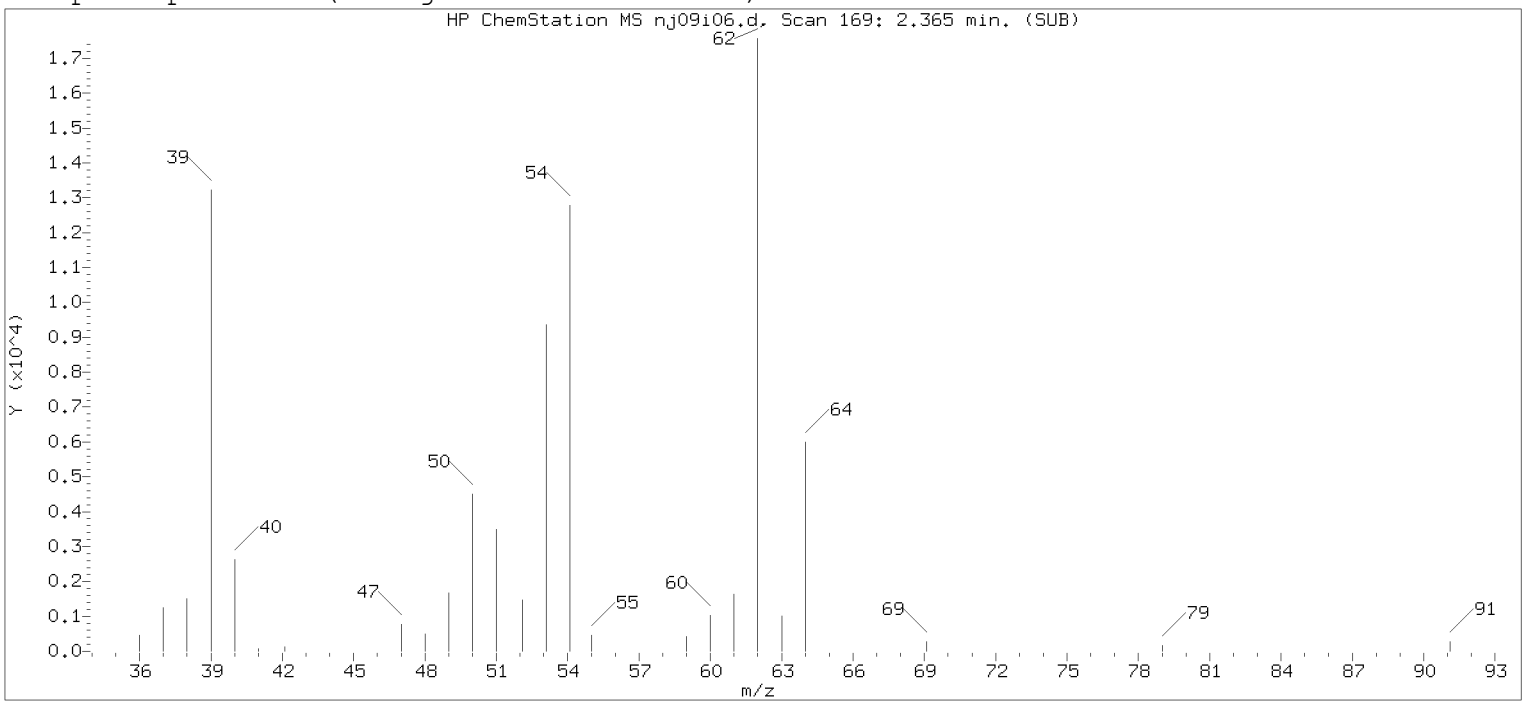
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area (flag) : 34191M
On-Column Amount (ng) : 4.5214
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

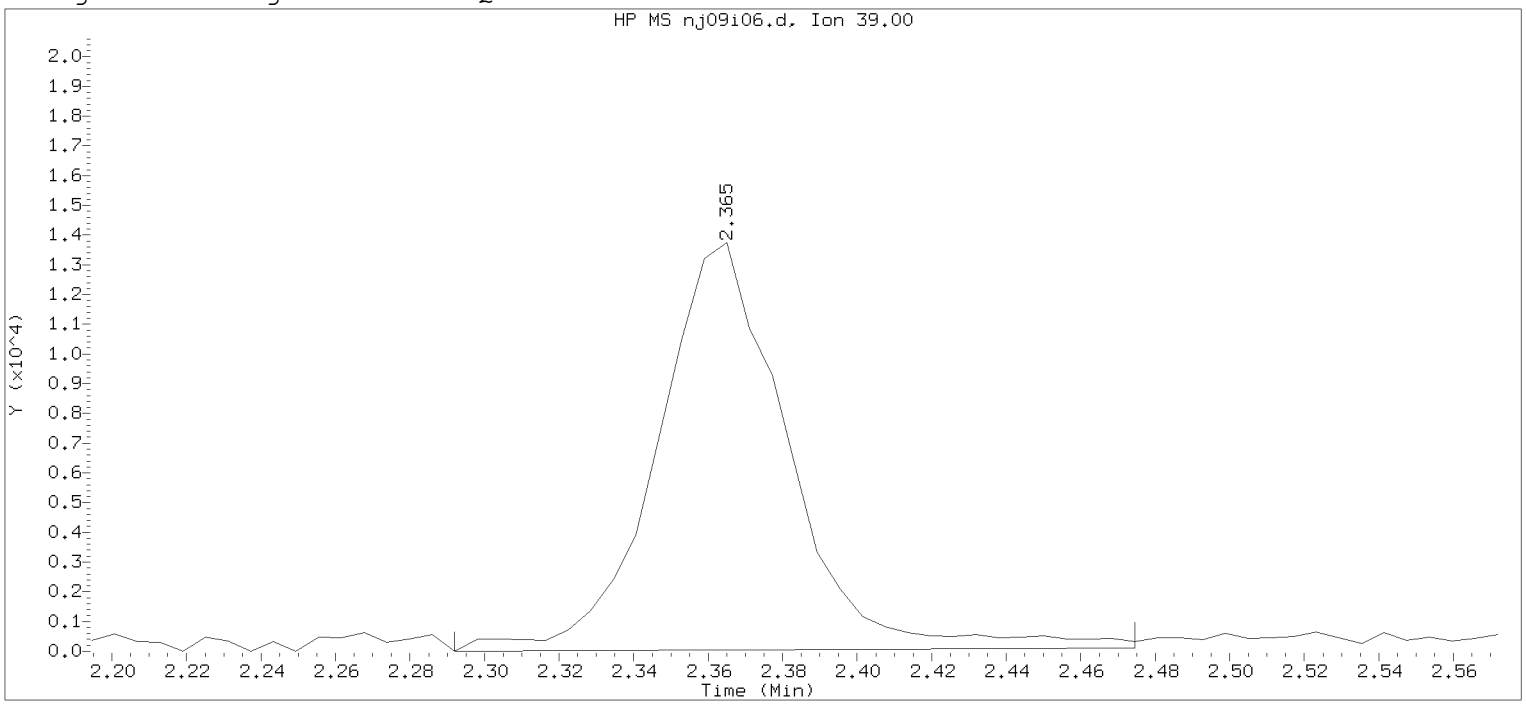
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

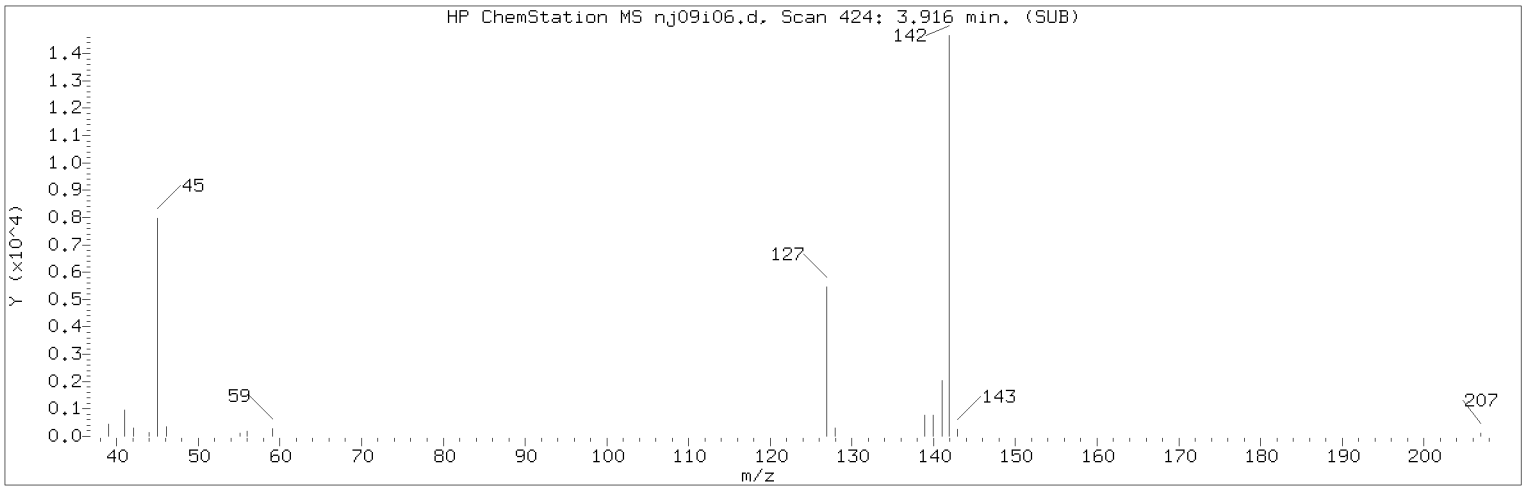
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

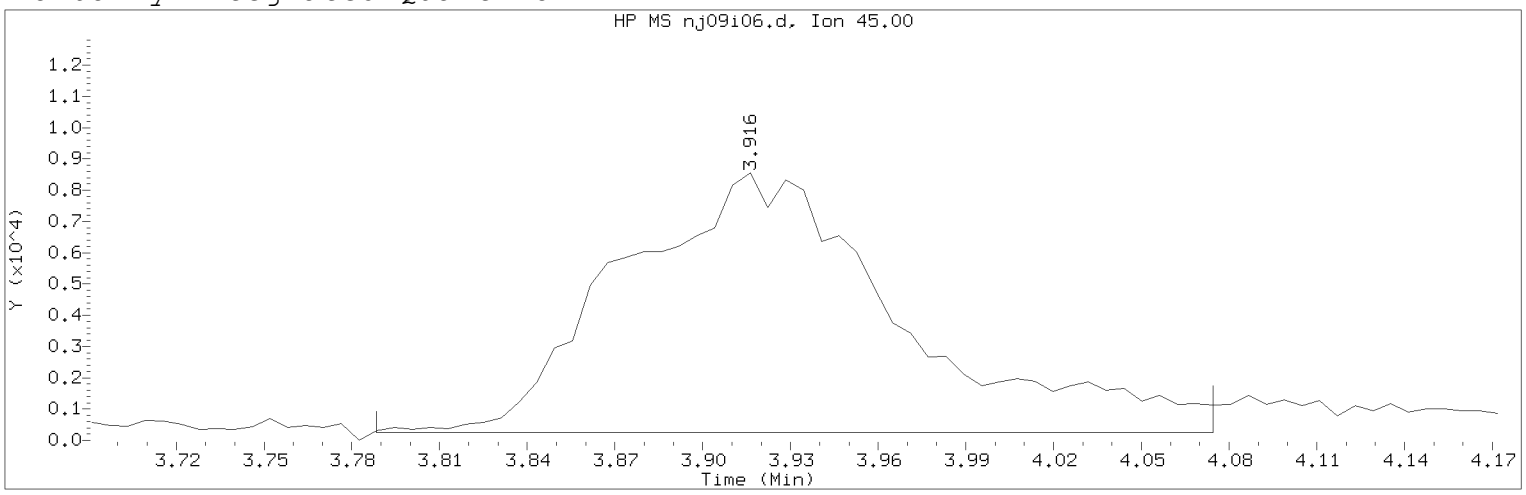
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 169
Retention Time (minutes): 2.365
Quant Ion : 39.00
Area : 33497
On-column Amount (ng) : 4.4429
Integration start scan : 156 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 116

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

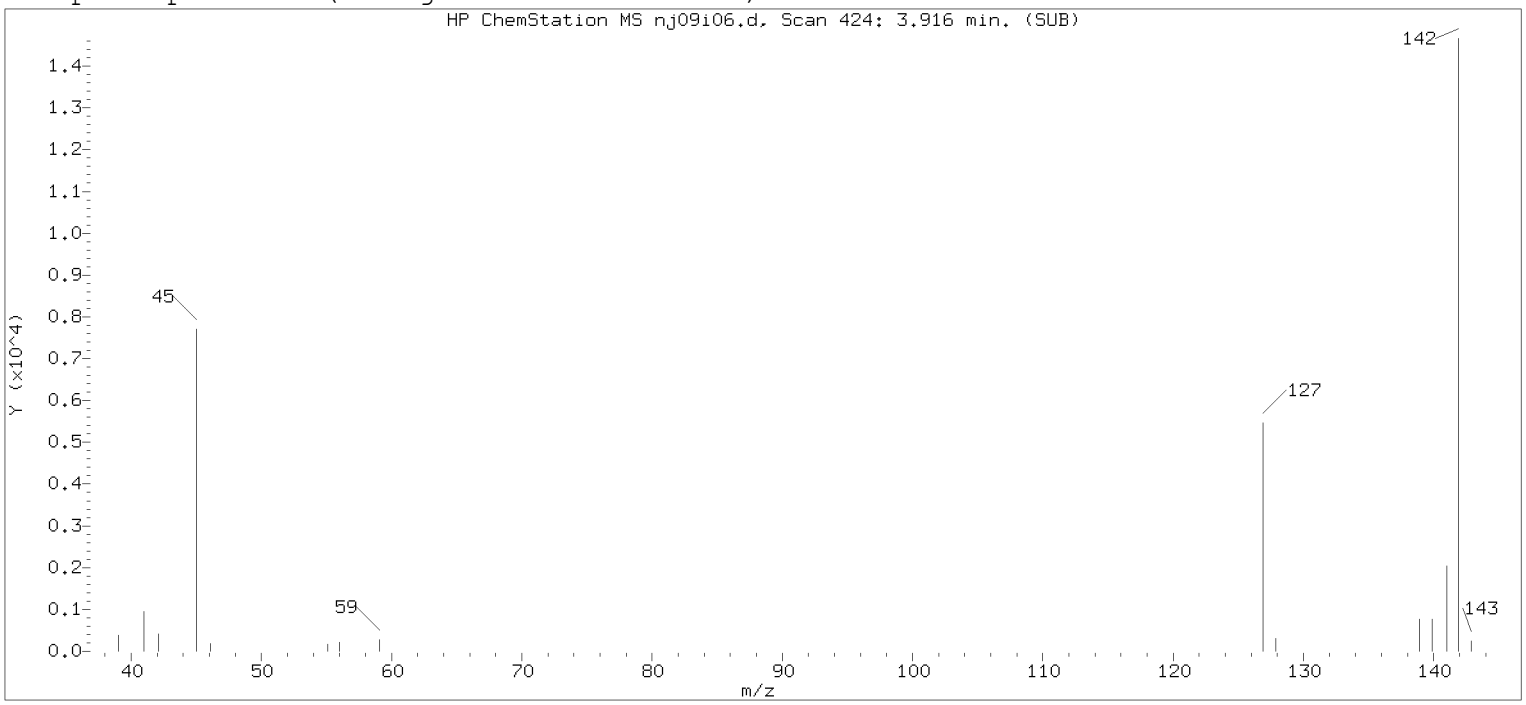
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area (flag) : 54807M
On-Column Amount (ng) : 73.9898
Integration start scan : 402 Integration stop scan: 449
Y at integration start : 245 Y at integration end: 245

Reason for manual integration: improper integration

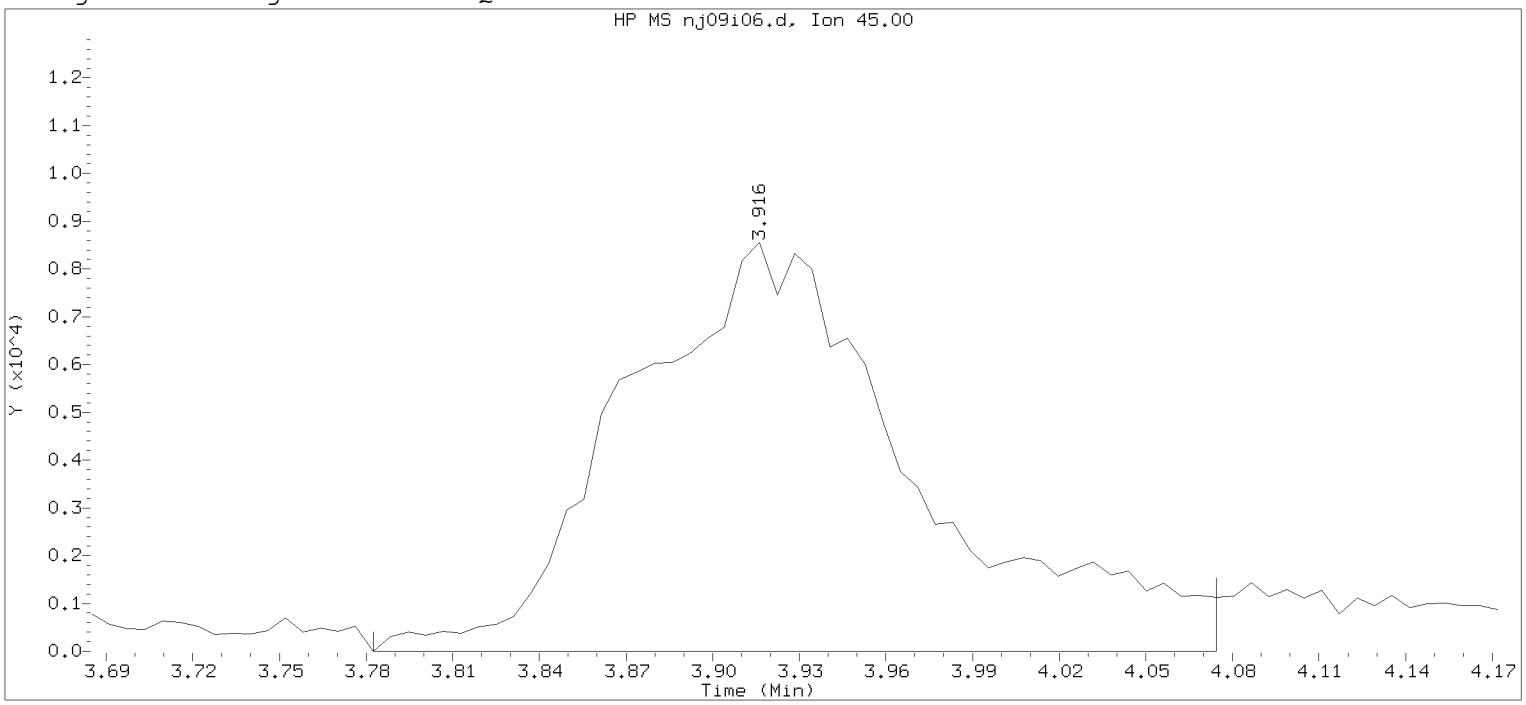
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

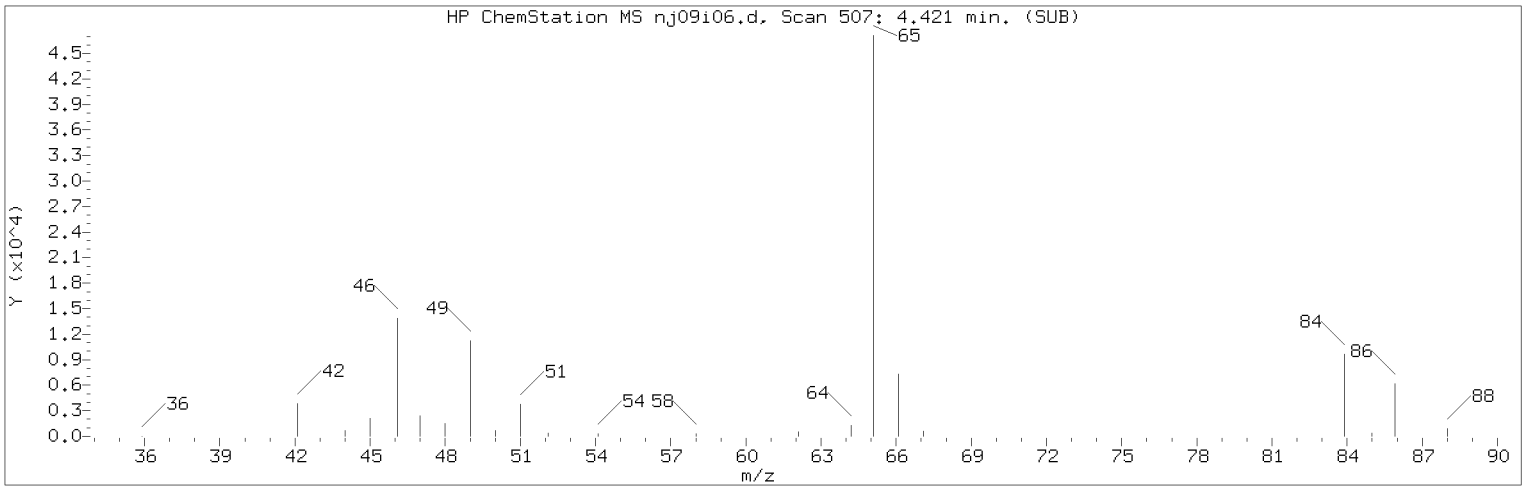
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

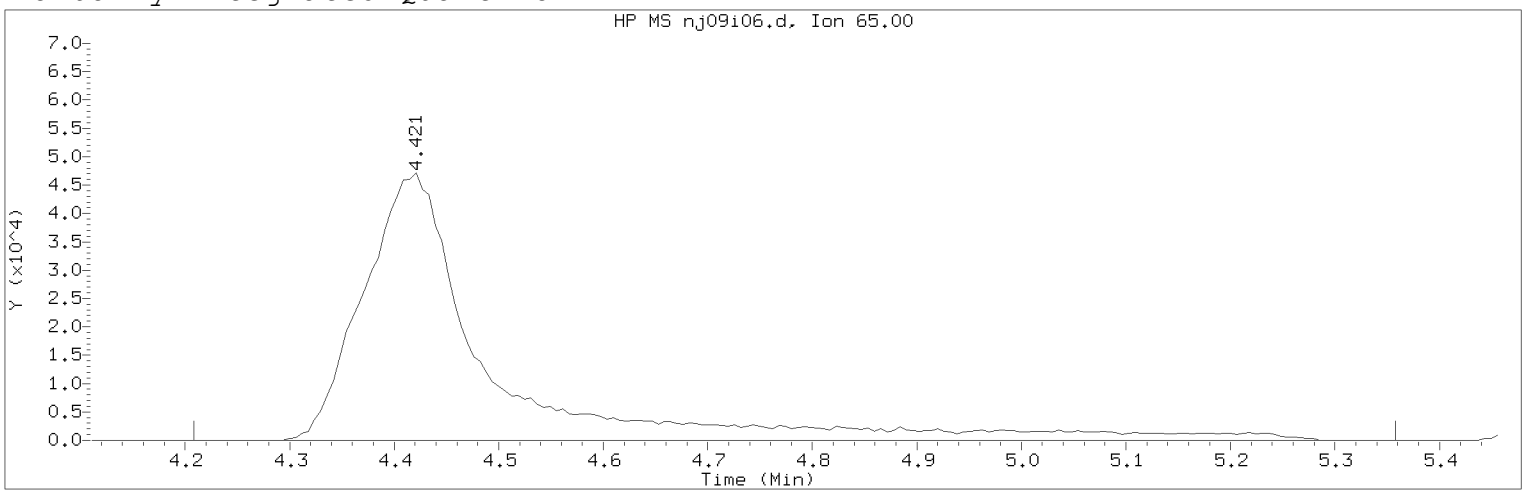
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.916
Quant Ion : 45.00
Area : 58894
On-column Amount (ng) : 84.9174
Integration start scan : 401 Integration stop scan: 449
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

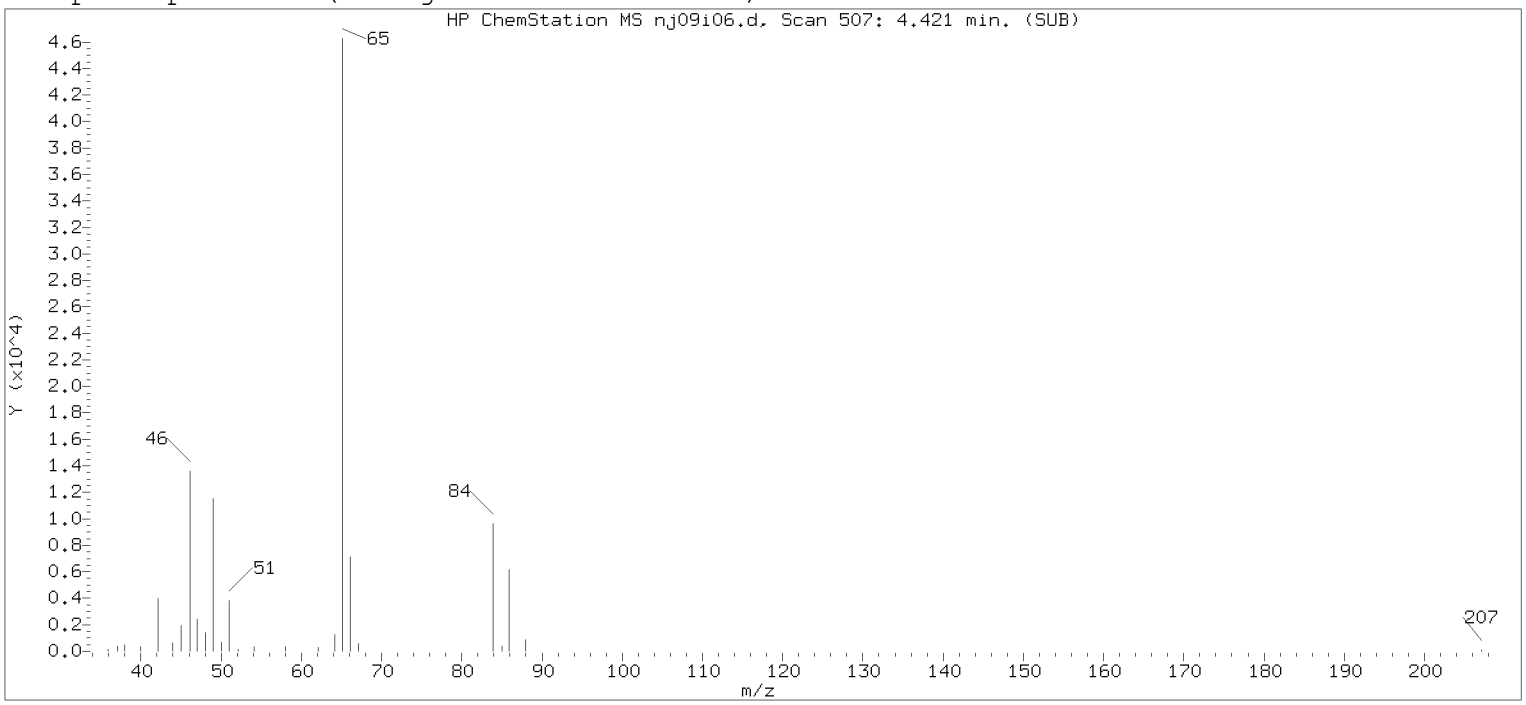
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area (flag) : 392656M
On-Column Amount (ng) : 250.0000
Integration start scan : 471 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

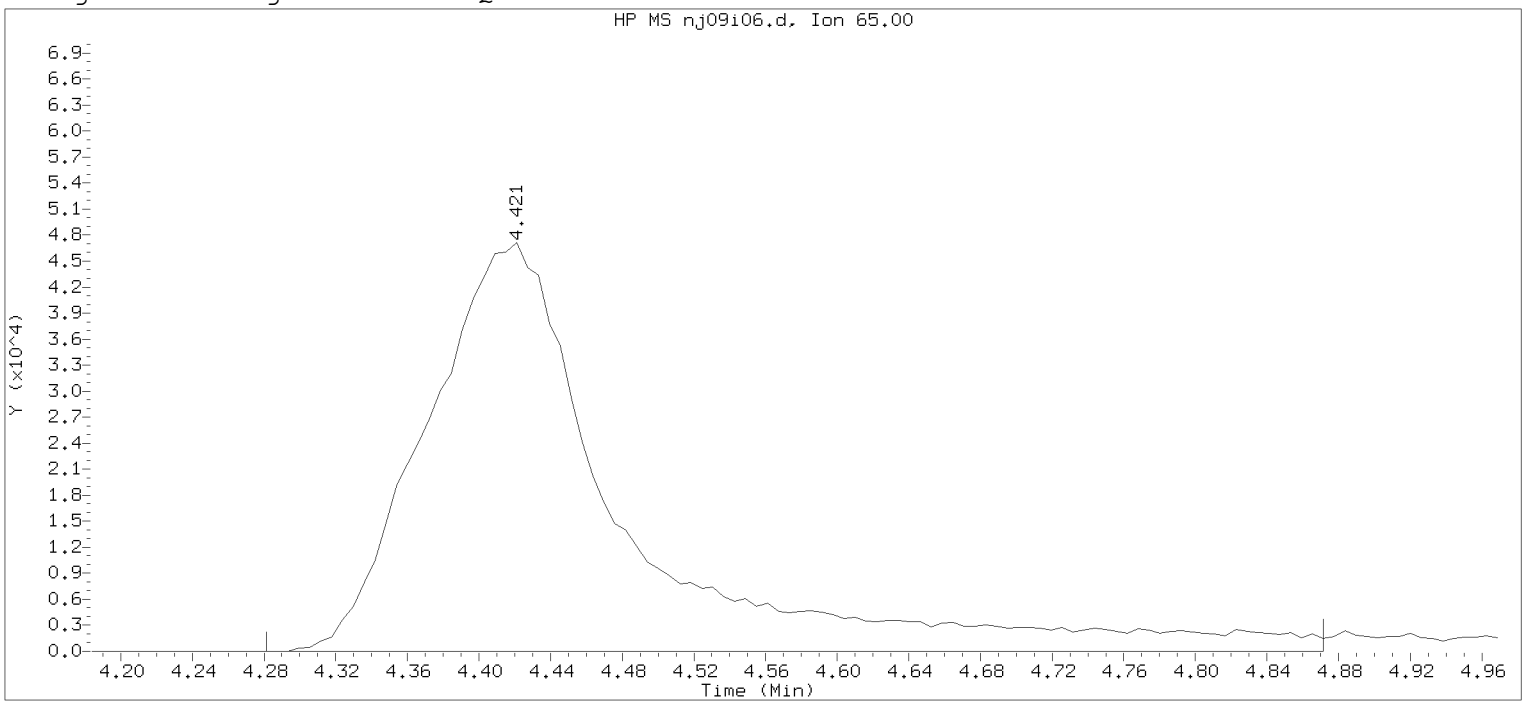
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

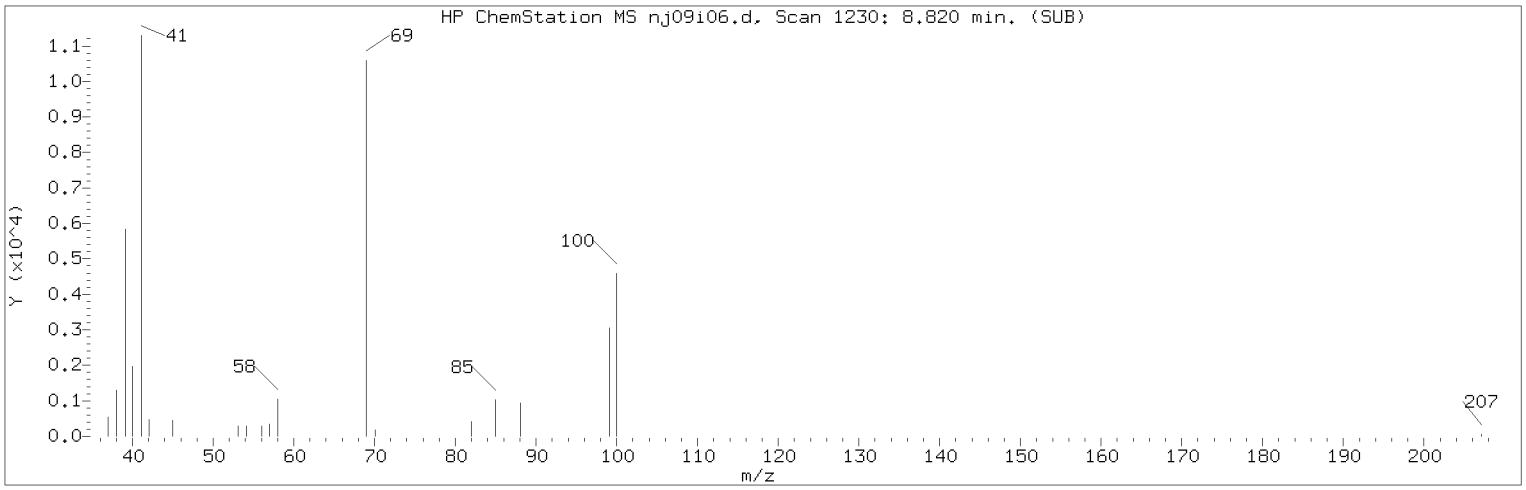
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

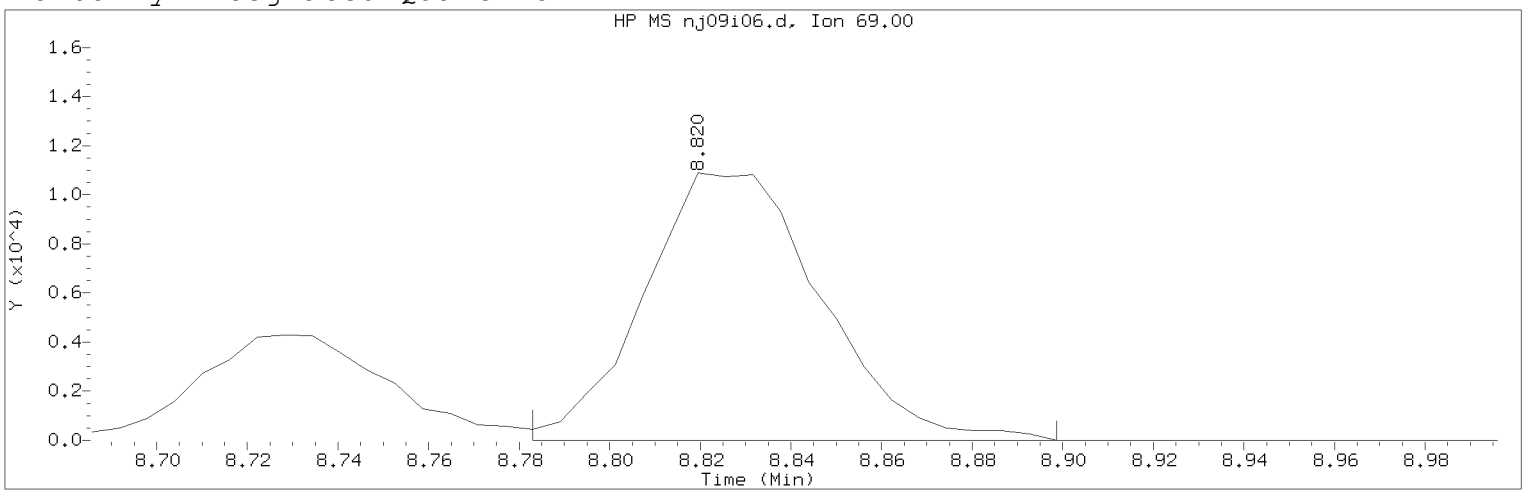
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 507
Retention Time (minutes): 4.421
Quant Ion : 65.00
Area : 359148
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 580
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

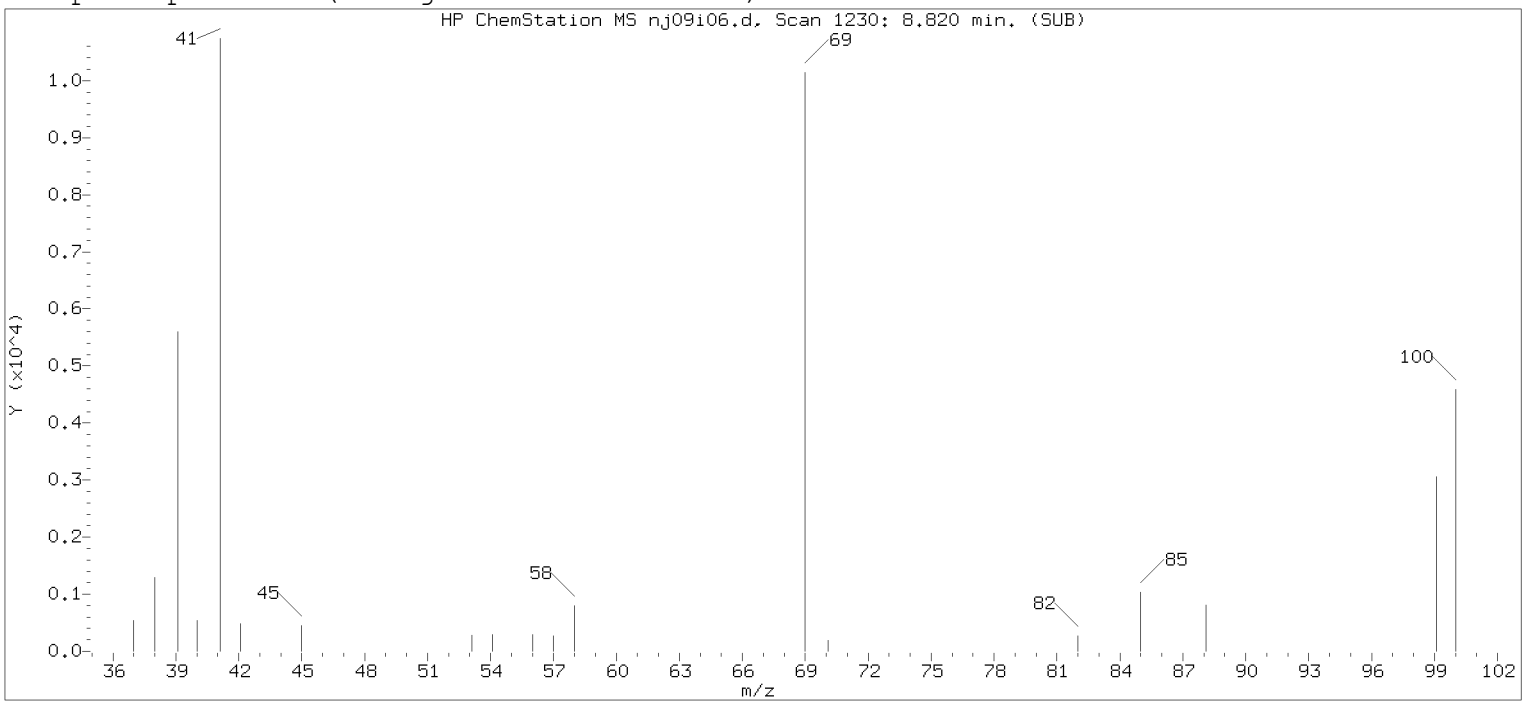
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area (flag) : 29497M
On-Column Amount (ng) : 3.9466
Integration start scan : 1223 Integration stop scan: 1242
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

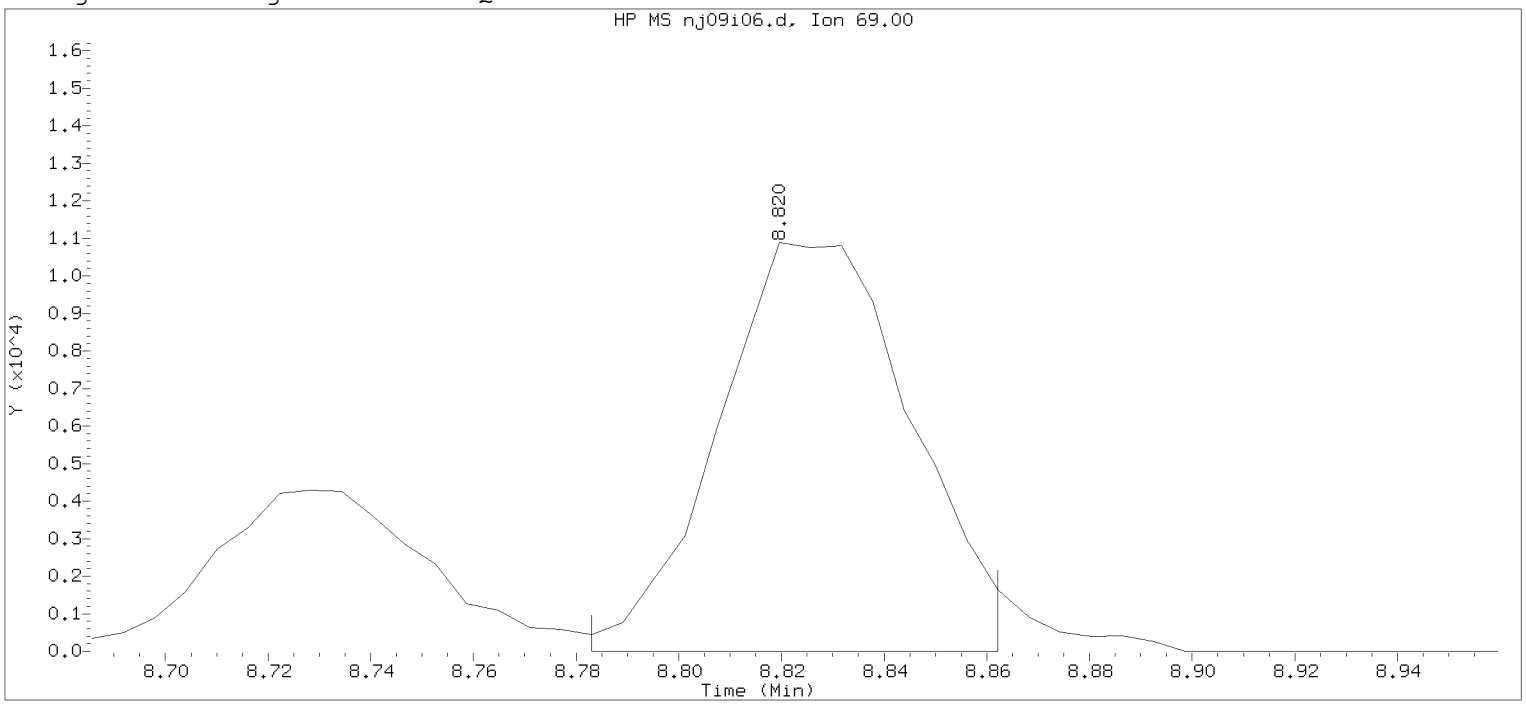
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

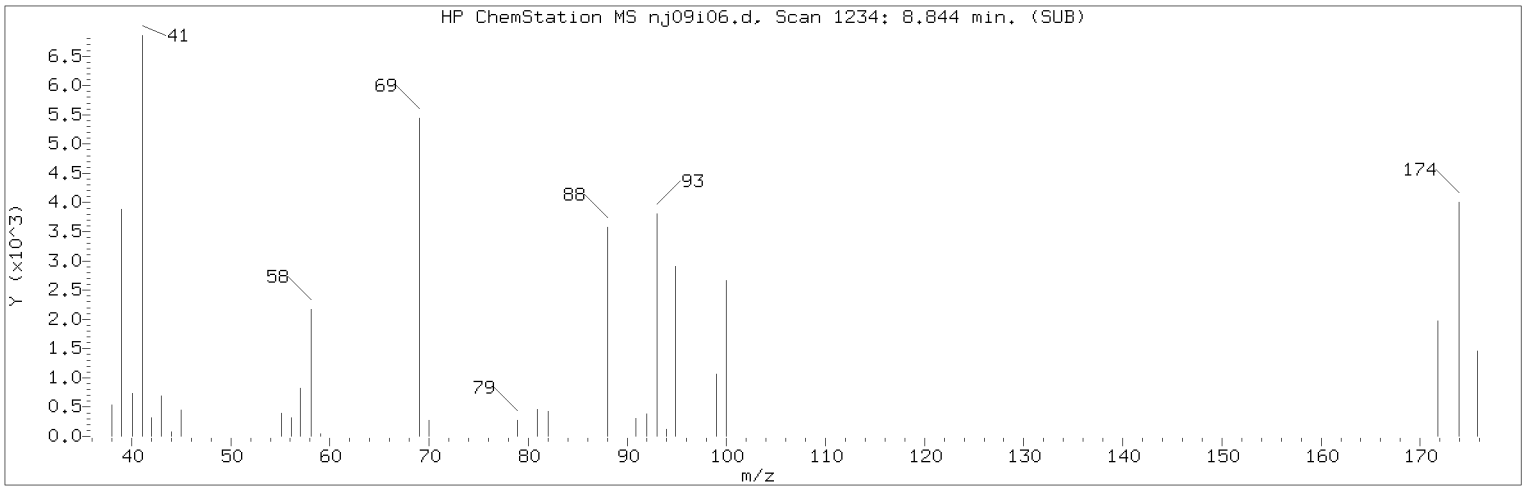
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

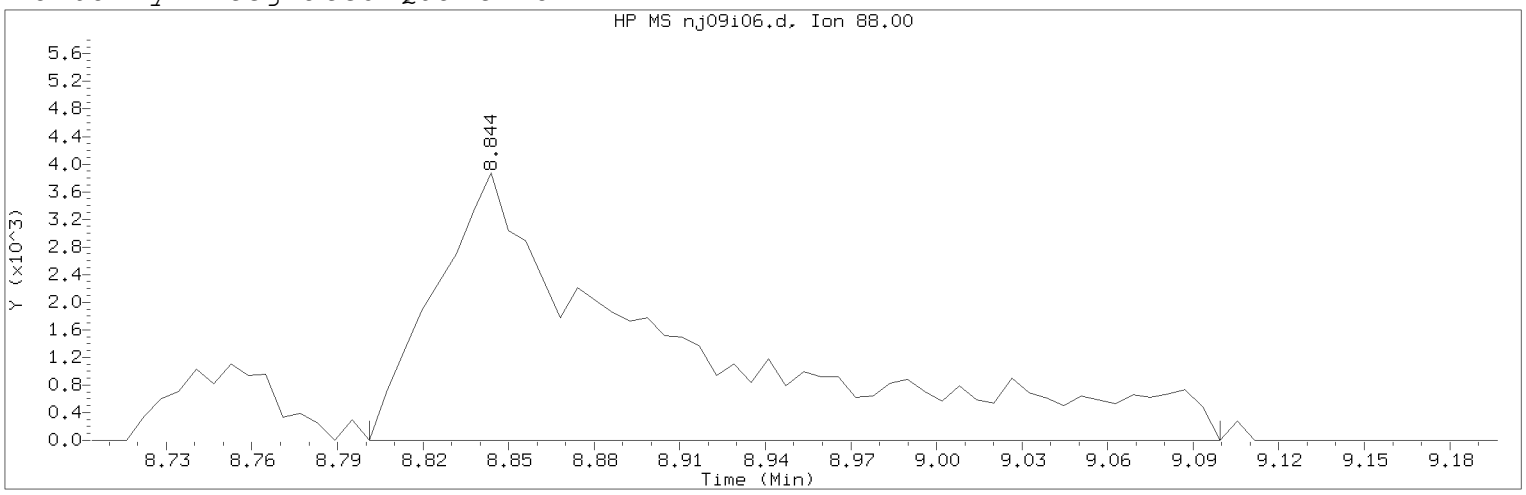
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 1230
Retention Time (minutes): 8.820
Quant Ion : 69.00
Area : 28216
On-column Amount (ng) : 3.7985
Integration start scan : 1223 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

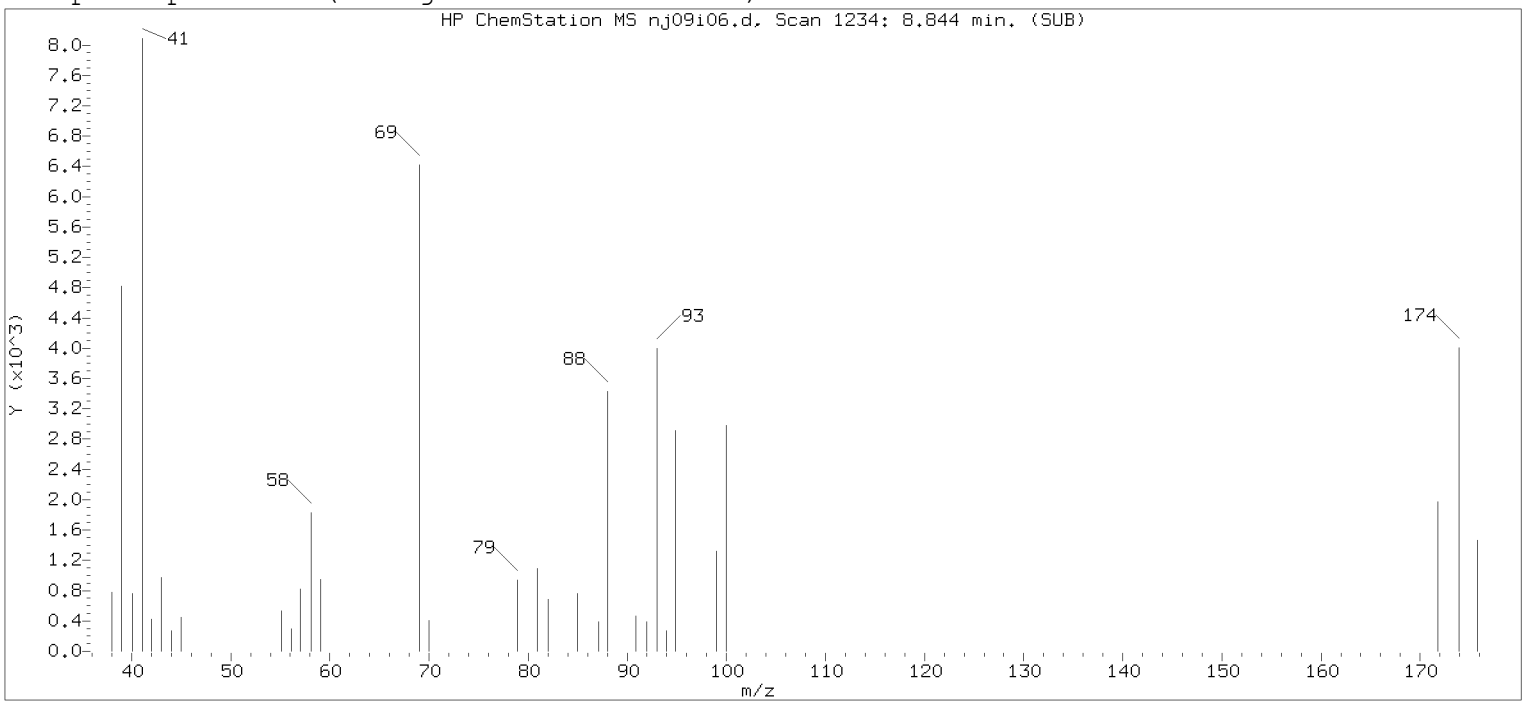
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area (flag) : 22465M
On-Column Amount (ng) : 196.8659
Integration start scan : 1226 Integration stop scan: 1275
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

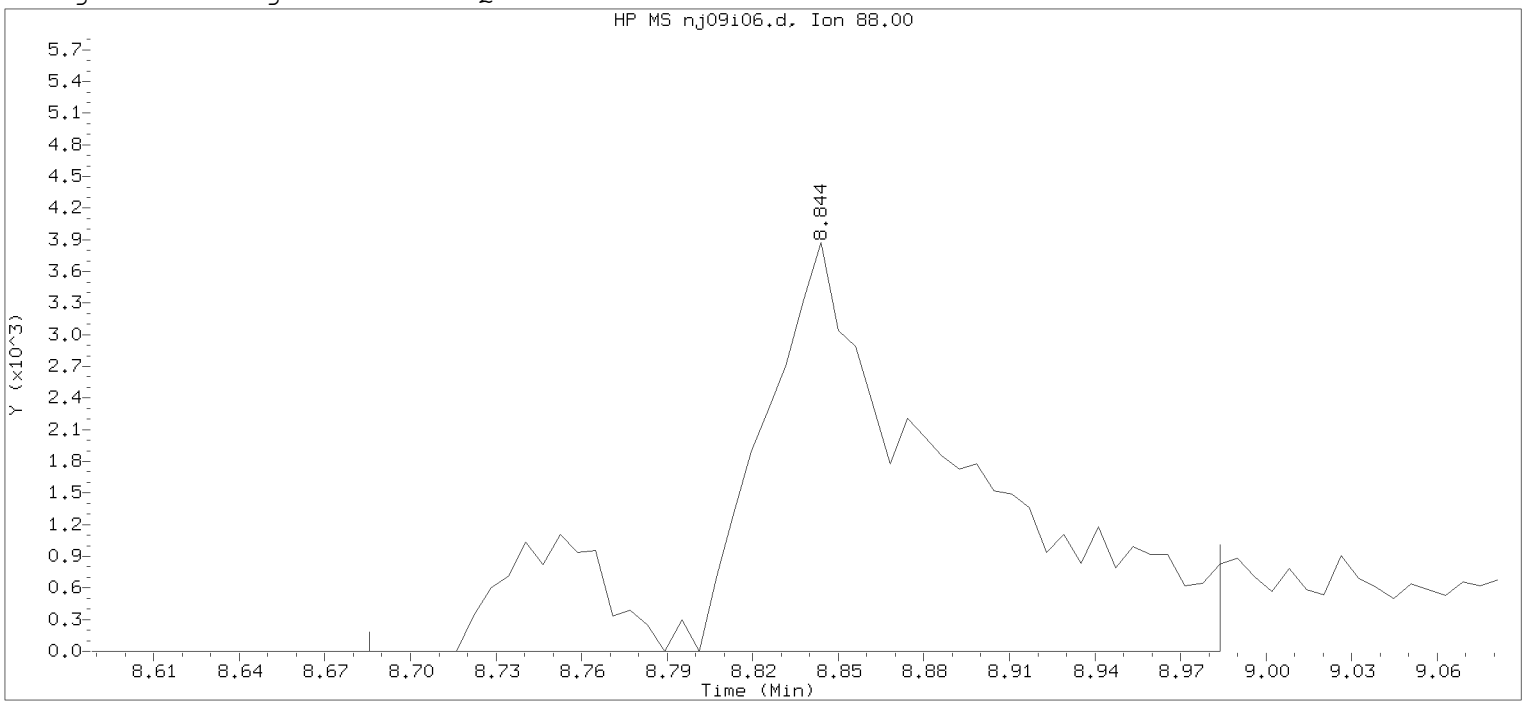
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



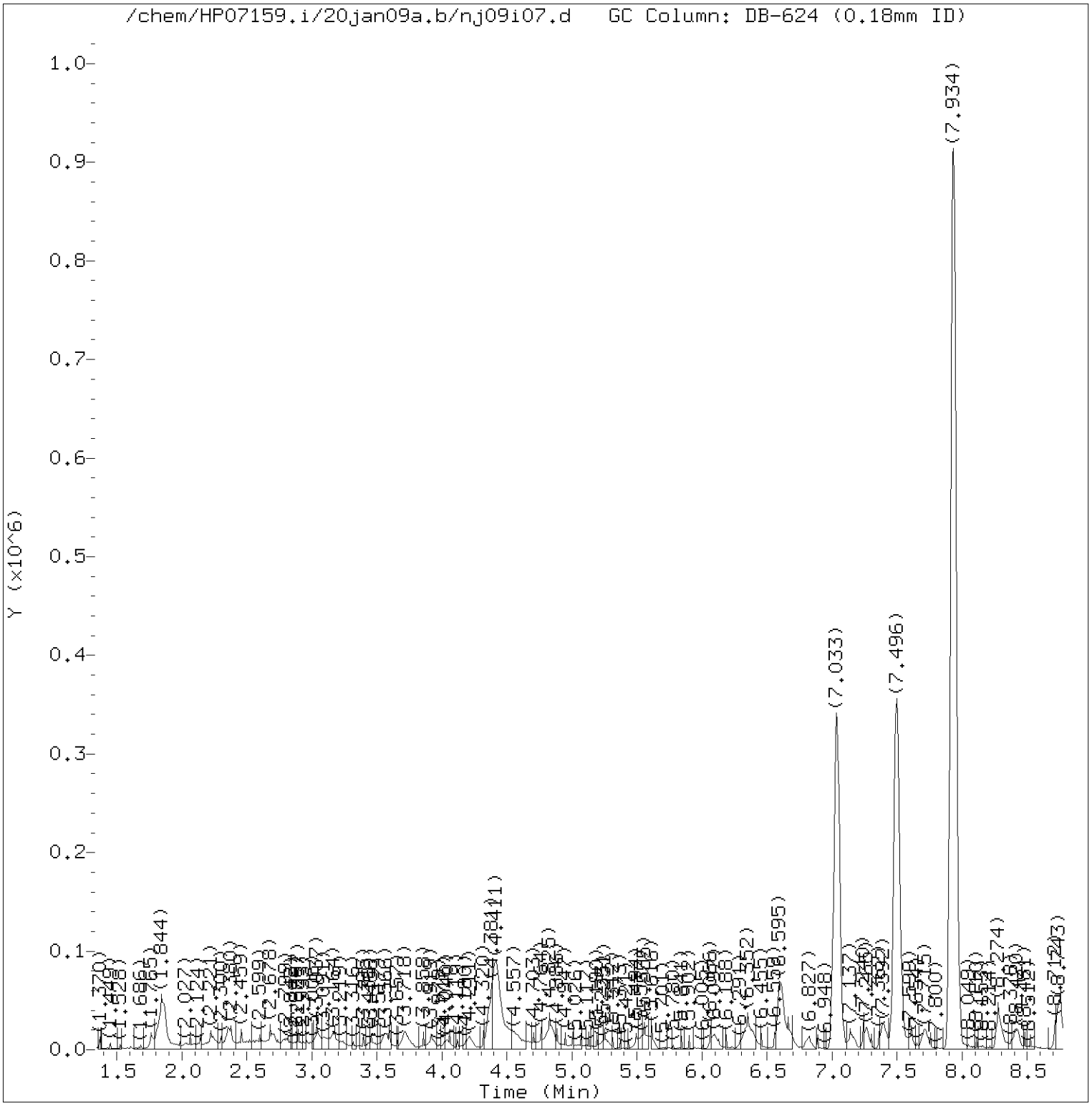
Data File: /chem/HP07159.i/20jan09a.b/nj09i06.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 09:42 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1234
Retention Time (minutes): 8.844
Quant Ion : 88.00
Area : 20886
On-column Amount (ng) : 267.8227
Integration start scan : 1207 Integration stop scan: 1256
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492



Total Ion Chromatogram (TIC)

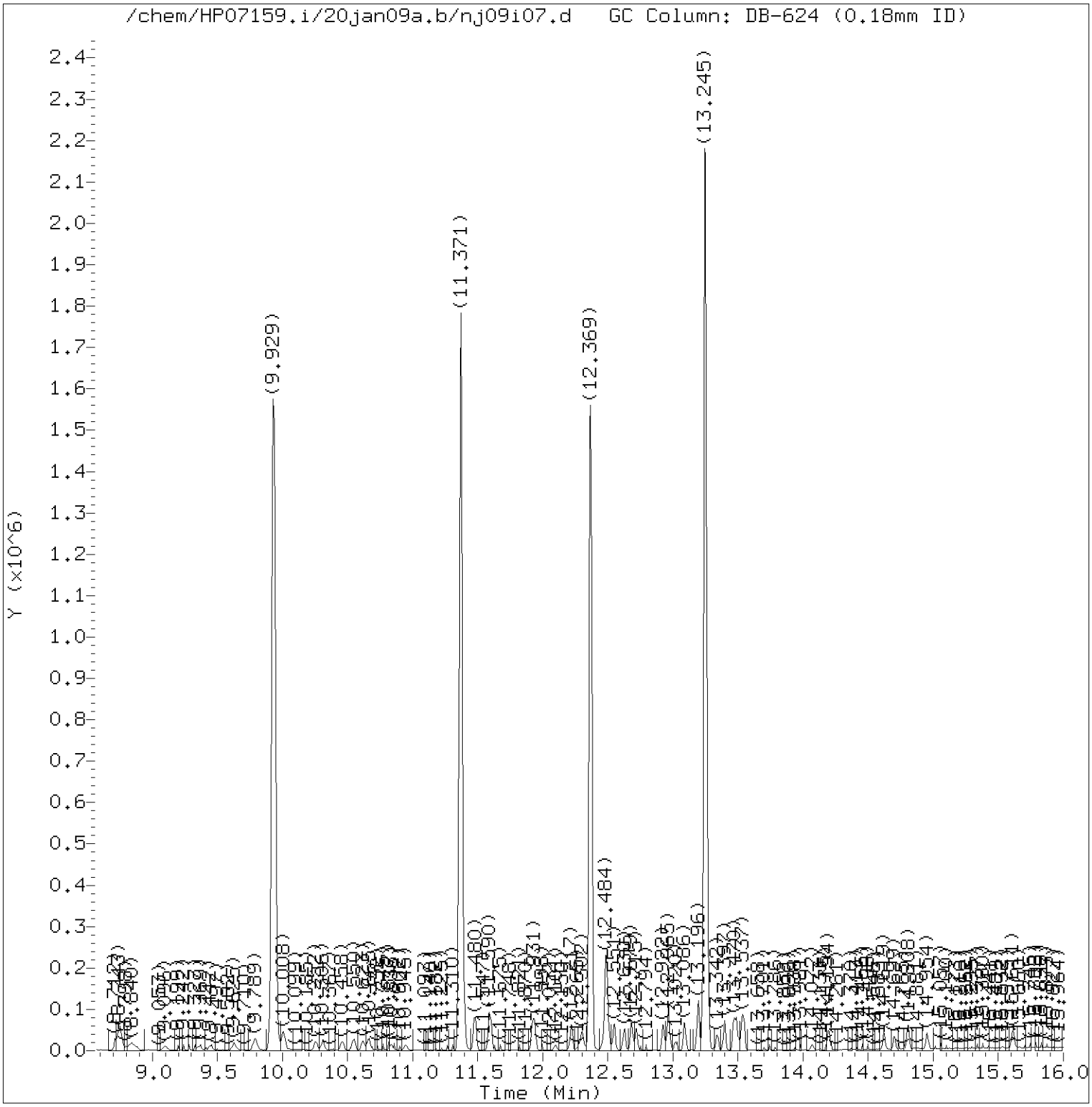
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.033	85	7080	0.697
4) Chloromethane	(2)	2.234	50	10227	0.940
5) 1,3-Butadiene	(2)	2.355	39	8581	1.130
6) Vinyl Chloride	(2)	2.355	62	9030	0.853
8) Bromomethane	(2)	2.696	94	6606	0.910
9) Chloroethane	(2)	2.799	64	5893	0.951
10) Dichlorofluoromethane	(2)	3.037	67	14066	0.991
12) Trichlorofluoromethane	(2)	3.103	101	10081	0.866
11) n-Pentane	(2)	3.164	43	13359	1.172
13) Ethanol	(1)	3.219	45	6949M	73.842
15) Freon 123a	(2)	3.456	67	7909	0.928
16) Acrolein	(1)	3.560	56	26079	9.891
17) 1,1-Dichloroethene	(2)	3.712	96	6429	0.948
17) 1,1-Dichloroethene	(2)	3.712	63	3192	0.897
18) Acetone	(1)	3.742	58	2220	1.999
19) Freon 113	(2)	3.742	101	4915	0.781
21) 2-Propanol	(1)	3.919	45	16282M	22.198
22) Methyl Iodide	(2)	3.919	142	11439	0.904
23) Carbon Disulfide	(2)	4.040	76	19180	0.885
27) Methyl Acetate	(2)	4.180	43	10612	1.274
25) Allyl Chloride	(2)	4.217	41	12231	1.022
28) Methylene Chloride	(2)	4.411	84	9132	1.134
29)*t-Butyl alcohol-d10	(1)	4.418	65	388809M	250.000
30) t-Butyl alcohol	(1)	4.539	59	27309	18.840
31) Acrylonitrile	(2)	4.776	53	4071	0.905
33) Methyl Tertiary Butyl Ether	(2)	4.825	73	23012	1.044
32) trans-1,2-Dichloroethene	(2)	4.843	96	7545	0.975
34) n-Hexane	(2)	5.251	57	9050	0.847
36) 1,1-Dichloroethane	(2)	5.500	63	12984	0.920
38) di-Isopropyl ether	(2)	5.555	45	23475	0.965
39) 2-Chloro-1,3-butadiene	(2)	5.610	53	10851	0.871
40) Ethyl t-butyl ether	(2)	6.097	59	22629	0.979
43) 1,2-Dichloroethene (Total)	(2)		96	15977	1.934
44) 2-Butanone	(2)	6.297	43	12375	1.967
42) cis-1,2-Dichloroethene	(2)	6.340	96	8432	0.959
45) 2,2-Dichloropropane	(2)	6.352	77	11384	0.913
47) Propionitrile	(1)	6.382	54	32122	18.974
48) Methacrylonitrile	(2)	6.595	67	43216	9.510

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.674	128	3676	0.884
50) Tetrahydrofuran	(1)	6.693	71	3414	1.942
51) Chloroform	(2)	6.814	83	13715	0.996
52)$Dibromofluoromethane	(2)	7.033	113	329817	50.953
52)$Dibromofluoromethane	(2)	7.033	111	331227	50.115
53) 1,1,1-Trichloroethane	(2)	7.052	97	10828	0.869
54) Cyclohexane	(2)	7.149	56	10673	0.833
54) Cyclohexane	(2)	7.149	84	9512	0.852
54) Cyclohexane	(2)	7.155	69	3371	0.837
55) 1,1-Dichloropropene	(2)	7.265	75	10211	0.906
56) Carbon Tetrachloride	(2)	7.271	117	9072	0.844
58) Isobutyl Alcohol	(1)	7.398	41	27656	53.262
57)$1,2-Dichloroethane-d4	(2)	7.496	102	81288	49.668
57)$1,2-Dichloroethane-d4	(2)	7.496	65	401526	51.001
57)$1,2-Dichloroethane-d4	(2)	7.496	104	52578	50.491
60) Benzene	(2)	7.526	78	30992	0.966
61) 1,2-Dichloroethane	(2)	7.605	62	12303	1.084
61) 1,2-Dichloroethane	(2)	7.605	98	417M	0.446
65) t-Amyl methyl ether	(2)	7.715	73	23699	1.022
66)*Fluorobenzene	(2)	7.934	96	1304310	50.000
67) n-Heptane	(2)	7.946	43	11162	0.905
69) n-Butanol	(1)	8.281	56	40421	90.370
71) Trichloroethene	(2)	8.420	95	8090	0.957
72) Methylcyclohexane	(2)	8.731	83	10567	0.761
72) Methylcyclohexane	(2)	8.731	98	4976	0.760
73) 1,2-Dichloropropane	(2)	8.749	63	7176	0.875
76) Methyl Methacrylate	(2)	8.828	69	6611	0.881
75) 1,4-Dioxane	(1)	8.852	88	4683M	41.444
74) Dibromomethane	(2)	8.865	93	5419	1.036
78) Bromodichloromethane	(2)	9.096	83	9904	0.927
79) 2-Nitropropane	(2)	9.363	41	8254	2.128
80) 2-Chloroethyl Vinyl Ether	(2)	9.442	63	5629	0.867
81) cis-1,3-Dichloropropene	(2)	9.631	75	12571	0.923
82) 4-Methyl-2-pentanone	(2)	9.789	43	24386	1.913
83)$Toluene-d8	(3)	9.929	98	1298705	49.707
83)$Toluene-d8	(3)	9.929	100	853824	49.327
88) Toluene	(3)	10.008	92	20393	0.961
90) 1,3-Dichloropropene (total)	(3)		100	24927	1.861

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.258	75	12356	0.938
91) Ethyl Methacrylate	(3)	10.312	69	11969	0.912
92) 1,1,2-Trichloroethane	(3)	10.458	97	7023	0.935
93) Tetrachloroethene	(3)	10.550	166	8114	0.873
94) 1,3-Dichloropropane	(3)	10.617	76	12132	0.930
96) 2-Hexanone	(3)	10.659	43	17593	1.751
97) Dibromochloromethane	(3)	10.836	129	7647	0.887
99) 1,2-Dibromoethane	(3)	10.945	107	7952	0.966
100)*Chlorobenzene-d5	(3)	11.371	117	1001788	50.000
102) Chlorobenzene	(3)	11.395	112	21881	0.924
103) 1,1,1,2-Tetrachloroethane	(3)	11.474	131	7576	0.887
104) Ethylbenzene	(3)	11.480	91	38351	0.934
106) m+p-Xylene	(3)	11.590	106	29710	1.842
108) Xylene (Total)	(3)		106	44203	2.756
107) o-Xylene	(3)	11.925	106	14493	0.914
109) Styrene	(3)	11.937	104	24121	0.905
110) Bromoform	(3)	12.101	173	5593	0.859
111) Isopropylbenzene	(3)	12.223	105	38603	0.921
112) Cyclohexanone	(1)	12.302	55	20857	46.026
114)$4-Bromofluorobenzene	(3)	12.369	95	513753	49.772
114)$4-Bromofluorobenzene	(3)	12.369	174	412085	49.832
116) 1,1,2,2-Tetrachloroethane	(4)	12.460	83	12292	1.011
115) Bromobenzene	(4)	12.484	156	9496	0.929
118) trans-1,4-Dichloro-2-butene	(4)	12.490	53	38092	9.108
117) 1,2,3-Trichloropropane	(4)	12.509	110	3772	0.979
119) n-Propylbenzene	(4)	12.551	91	46212	0.932
120) 2-Chlorotoluene	(4)	12.630	126	9359	0.916
122) 1,3,5-Trimethylbenzene	(4)	12.685	105	33133	0.912
121) 4-Chlorotoluene	(4)	12.721	126	9883	0.933
124) tert-Butylbenzene	(4)	12.928	134	7292M	0.906
125) Pentachloroethane	(4)	12.965	167	5495	0.853
126) 1,2,4-Trimethylbenzene	(4)	12.965	105	34869	0.925
127) sec-Butylbenzene	(4)	13.086	105	43107	0.914
129) 1,3-Dichlorobenzene	(4)	13.196	146	18821	0.947
130) p-Isopropyltoluene	(4)	13.196	119	36927	0.900
131)*1,4-Dichlorobenzene-d4	(4)	13.251	152	552754	50.000
133) 1,4-Dichlorobenzene	(4)	13.263	146	19957	0.990
134) 1,2,3-Trimethylbenzene	(4)	13.275	105	33299	0.910

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.342	91	24259	0.903
141) Diethylbenzene (total)	(4)		100	60994	2.569
136) 1,3-Diethylbenzene	(4)	13.397	119	20583	0.838
137) 1,4-Diethylbenzene	(4)	13.470	119	21778	0.835
139) n-Butylbenzene	(4)	13.488	92	18625	0.880
138) 1,2-Dichlorobenzene	(4)	13.524	146	18327	0.972
140) 1,2-Diethylbenzene	(4)	13.543	119	18633	0.896
142) 1,2-Dibromo-3-chloropropane	(4)	14.072	75	3183	0.969
144) 1,3,5-Trichlorobenzene	(4)	14.194	180	14108	0.939
146) 1,2,4-Trichlorobenzene	(4)	14.619	180	12062	0.921
147) Hexachlorobutadiene	(4)	14.699	225	5527	0.933
148) Naphthalene	(4)	14.808	128	39298	0.957
149) 1,2,3-Trichlorobenzene	(4)	14.954	180	11286	0.938
150) 2-Methylnaphthalene	(4)	15.611	142	21346	0.900

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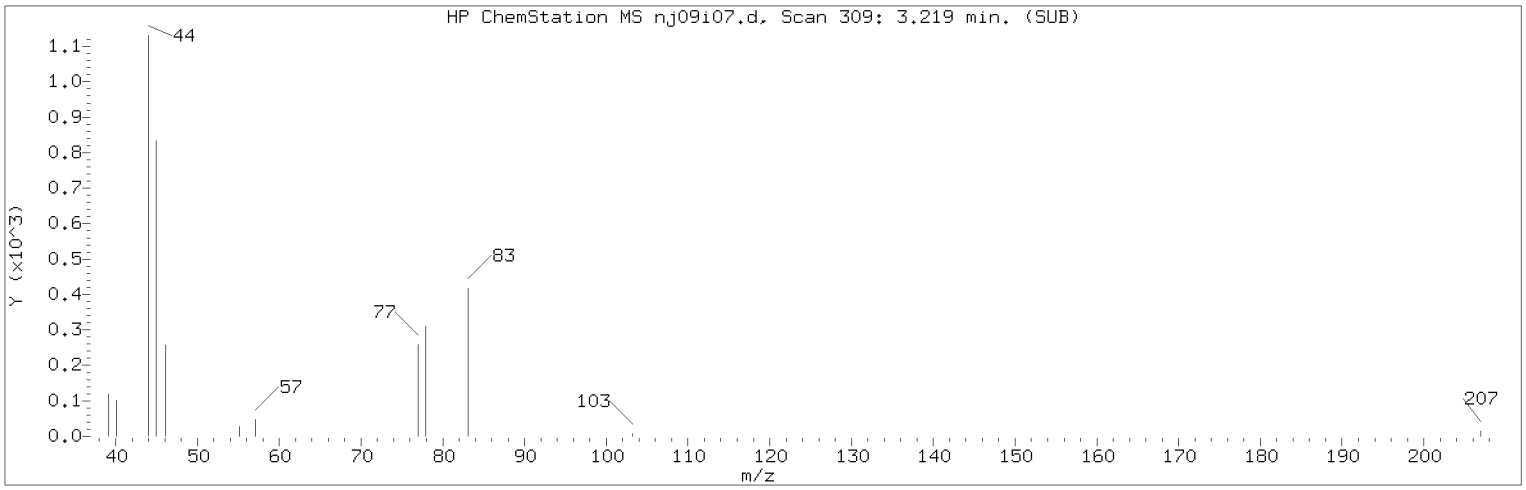
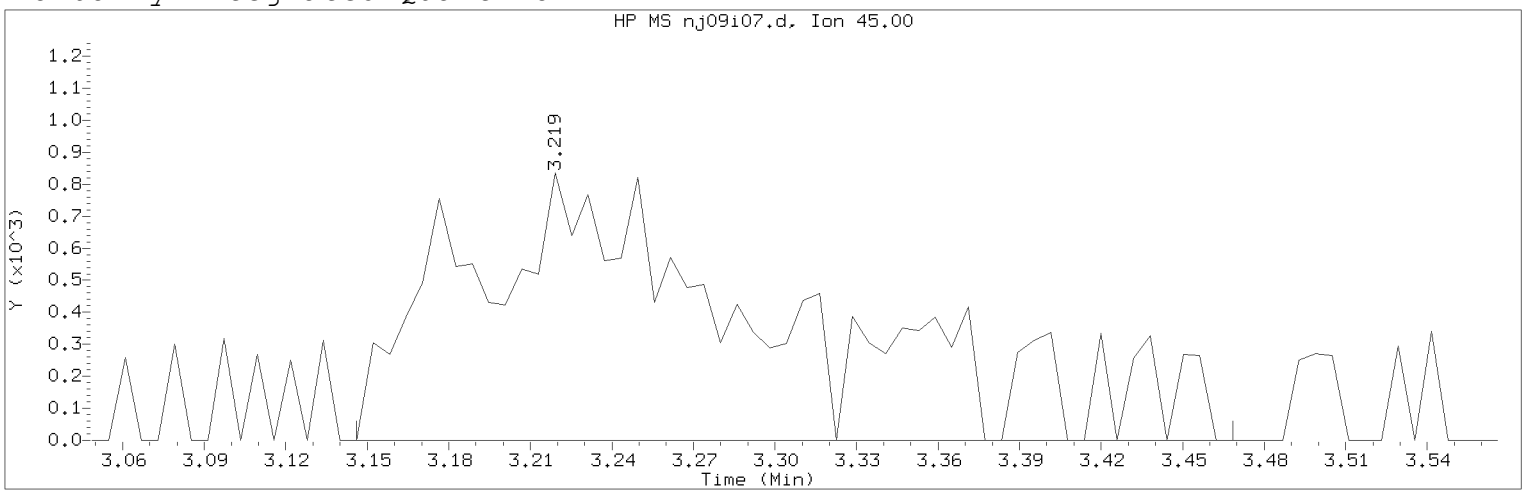
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

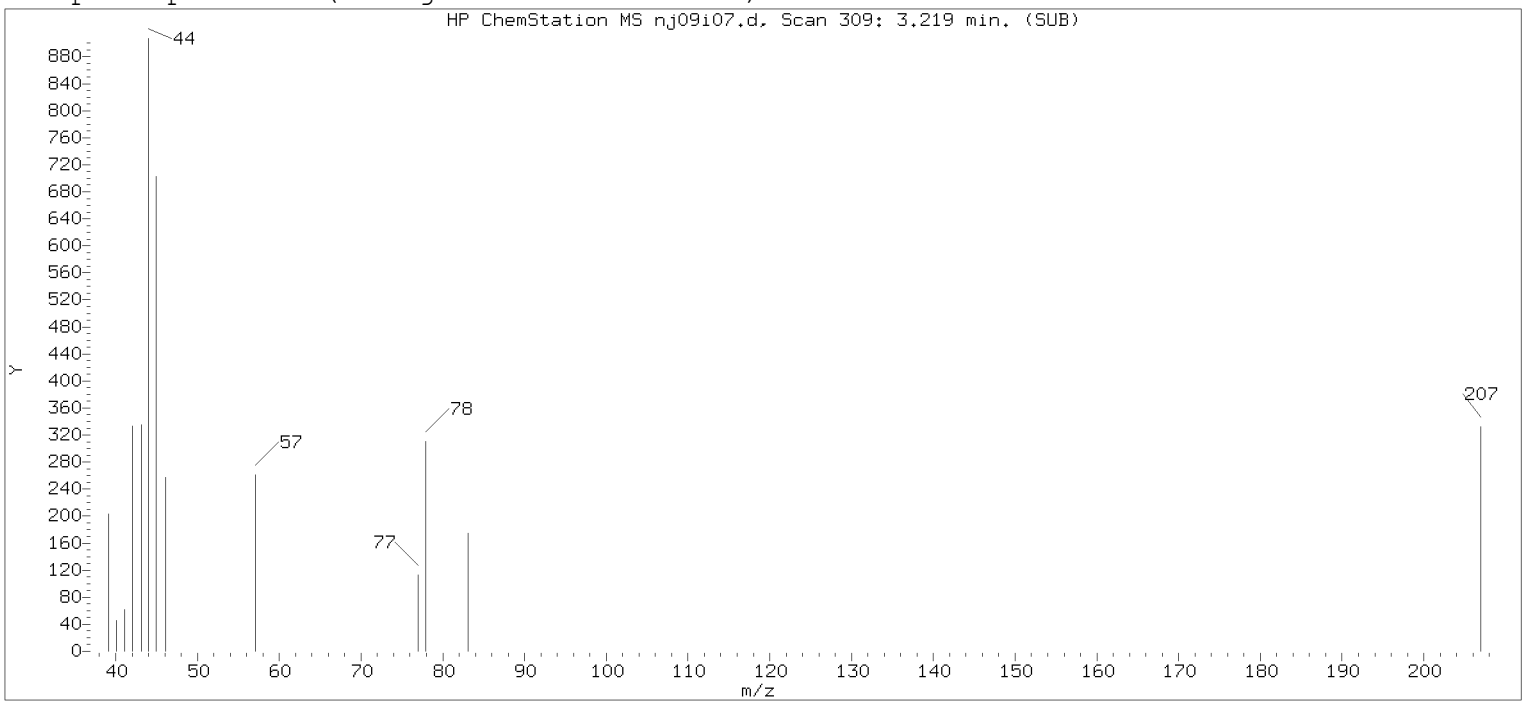
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area (flag) : 6949M
On-Column Amount (ng) : 73.8419
Integration start scan : 296 Integration stop scan: 349
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

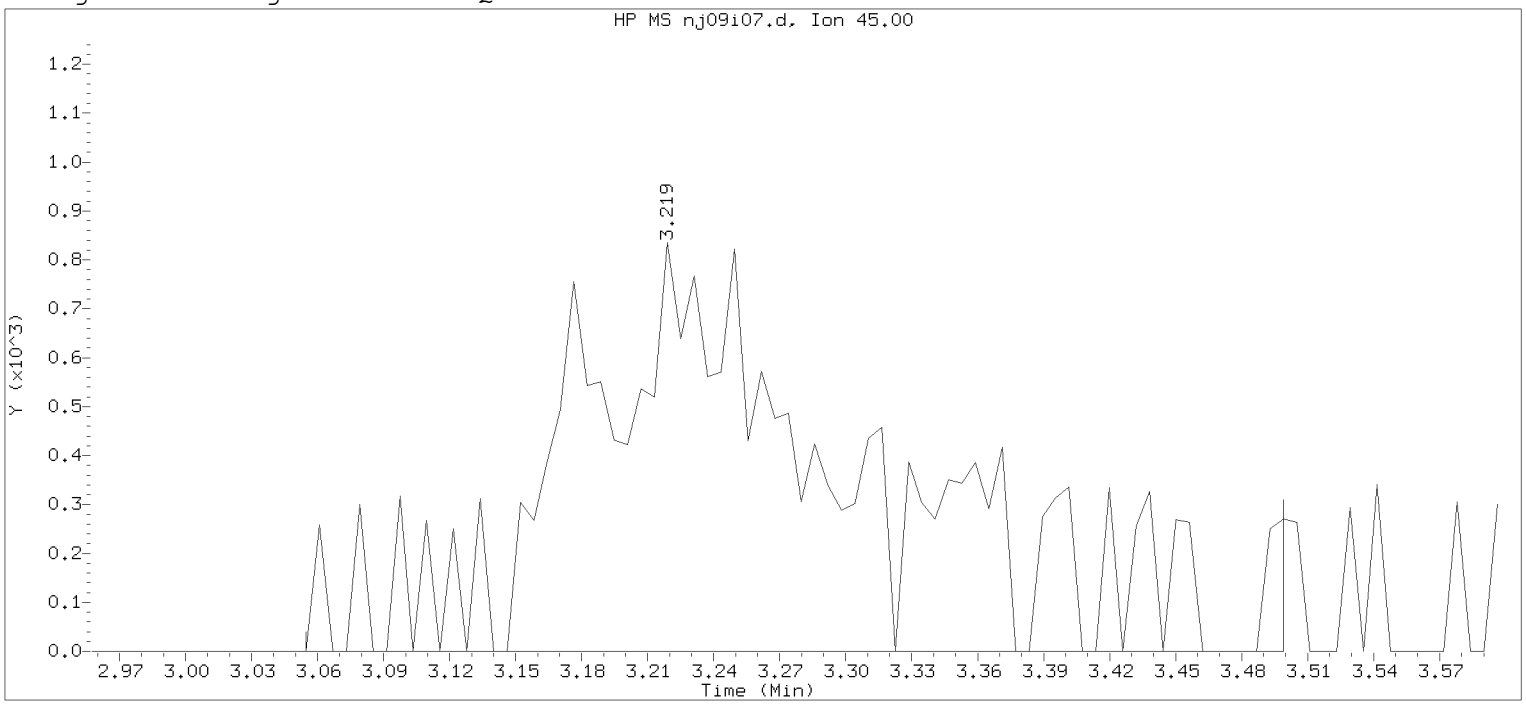
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

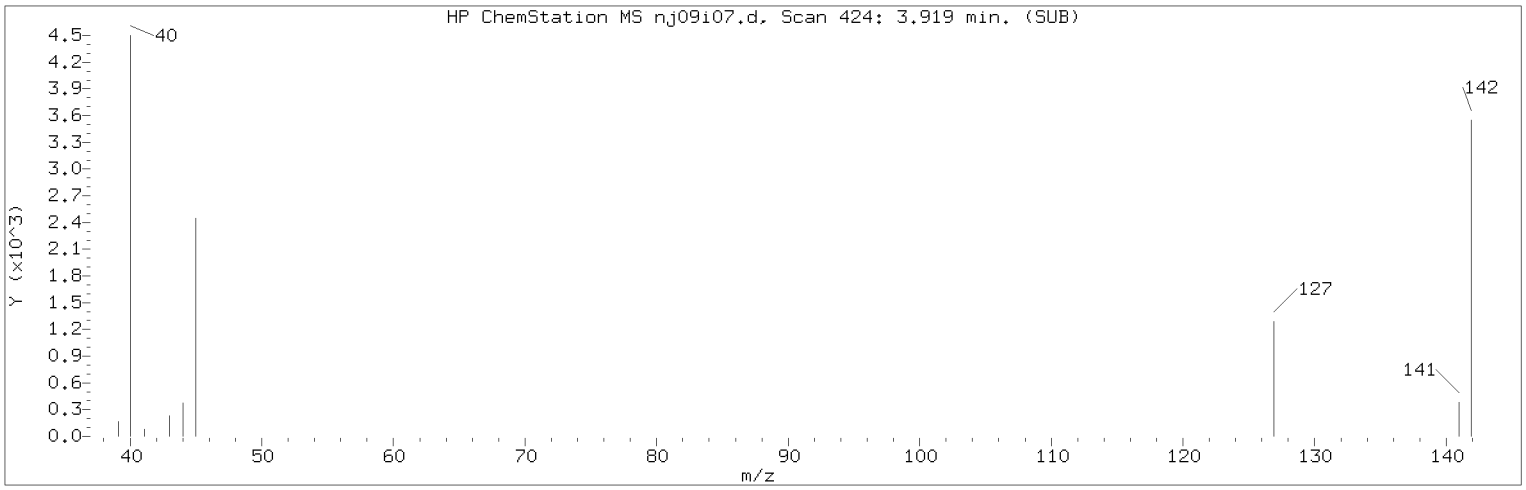
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

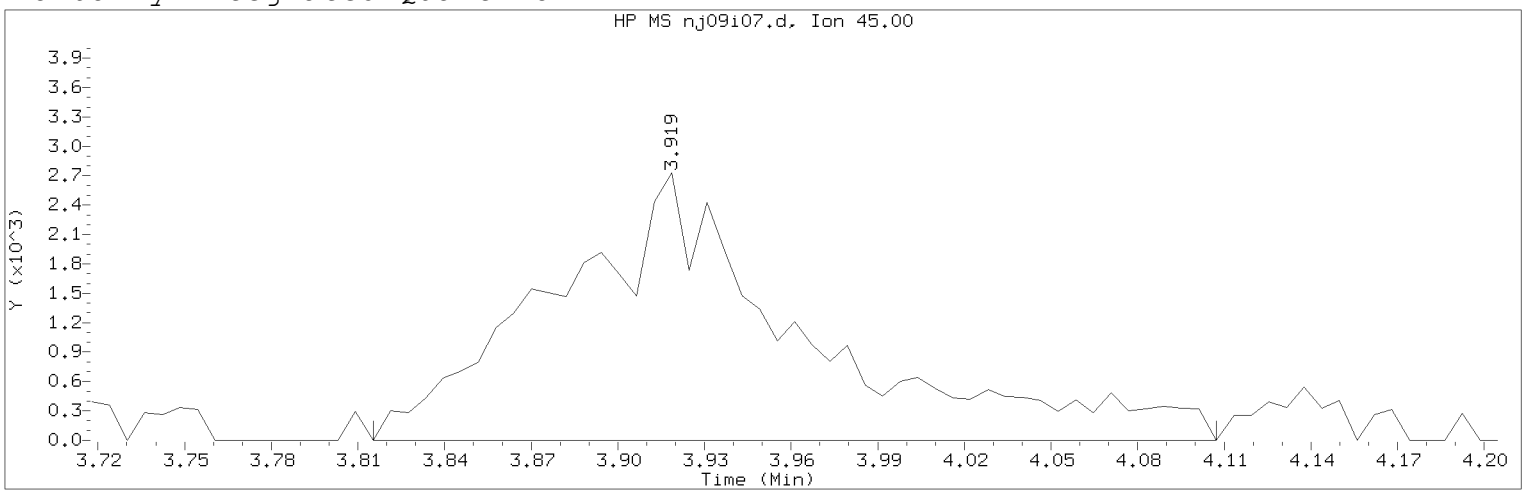
Compound Number : 13
Compound Name : Ethanol
Scan Number : 309
Retention Time (minutes): 3.219
Quant Ion : 45.00
Area : 7713
On-column Amount (ng) : 86.1168
Integration start scan : 281 Integration stop scan: 354
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: AMD00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

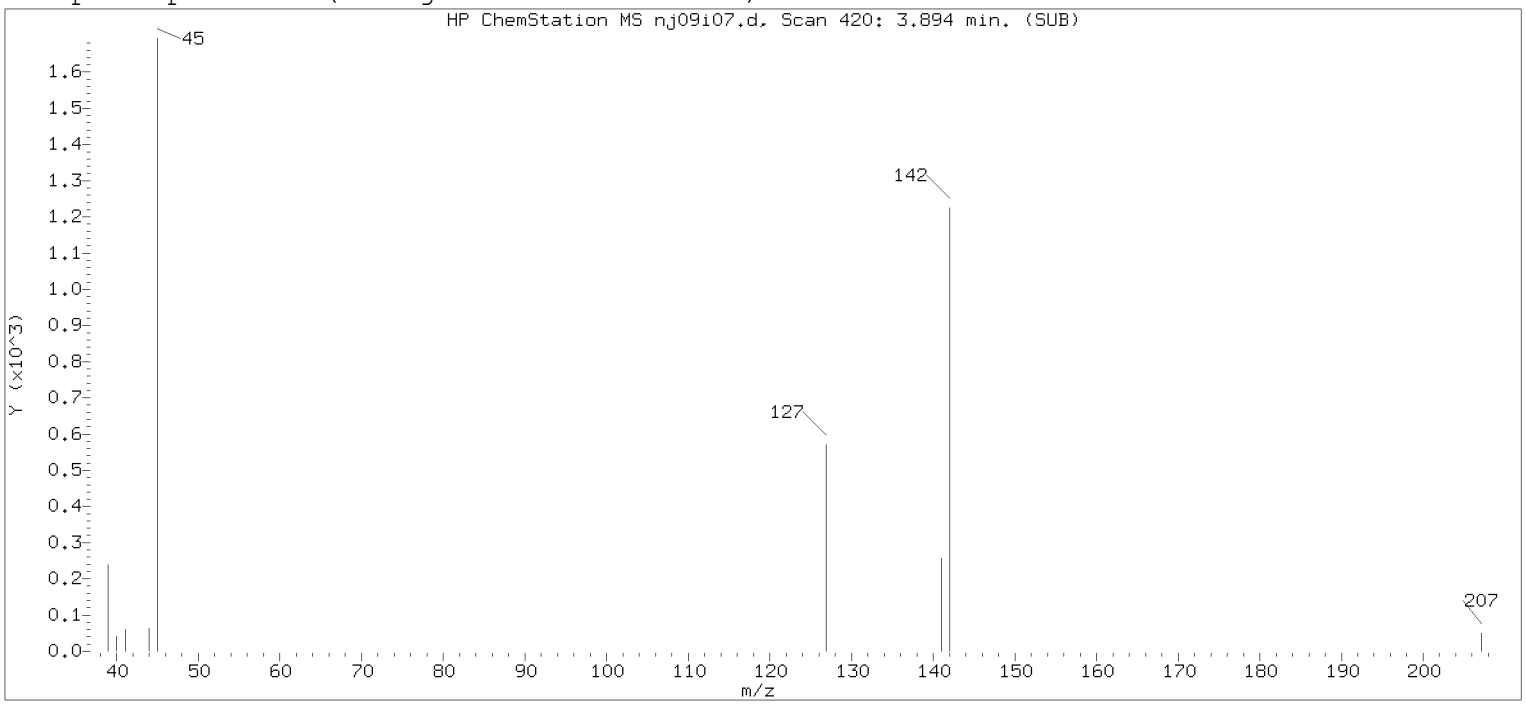
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 424
Retention Time (minutes): 3.919
Quant Ion : 45.00
Area (flag) : 16282M
On-Column Amount (ng) : 22.1983
Integration start scan : 406 Integration stop scan: 454
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

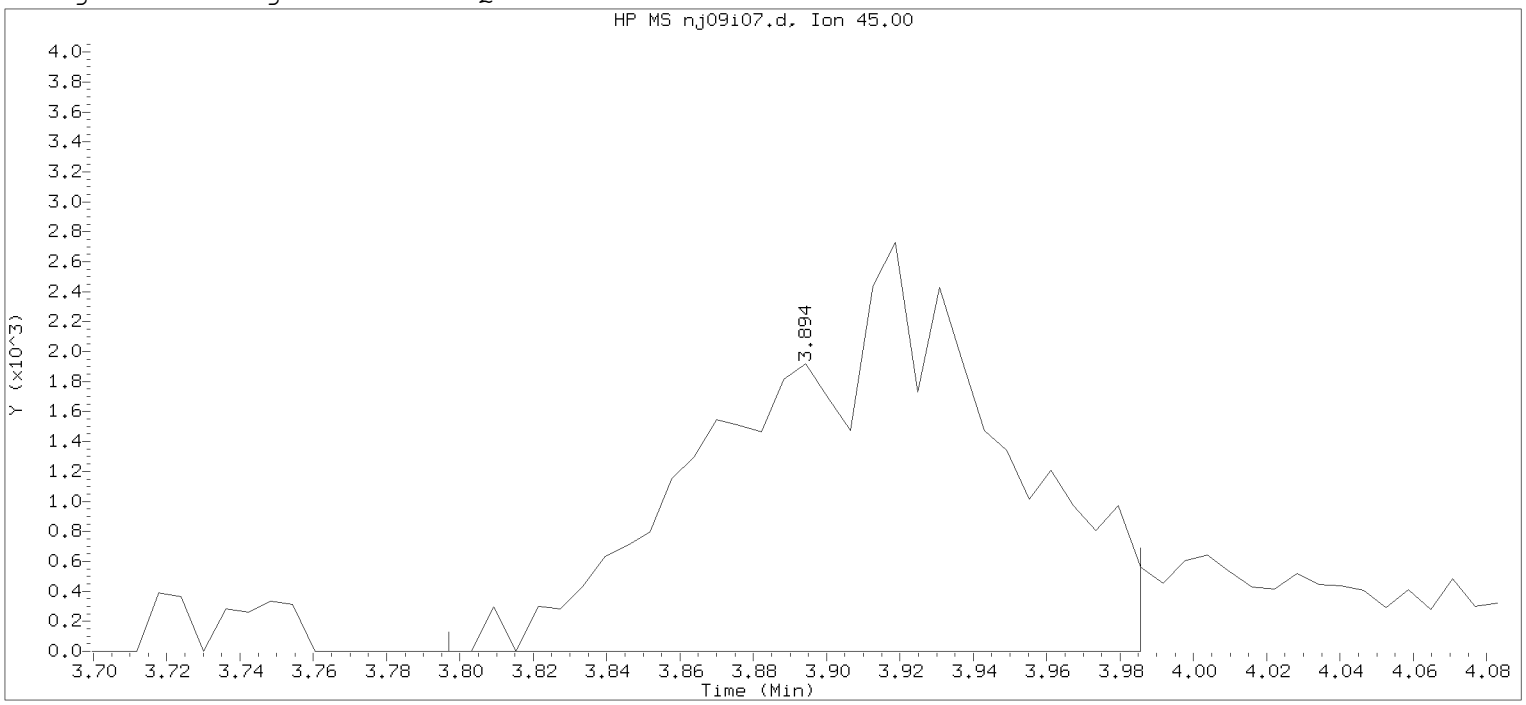
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

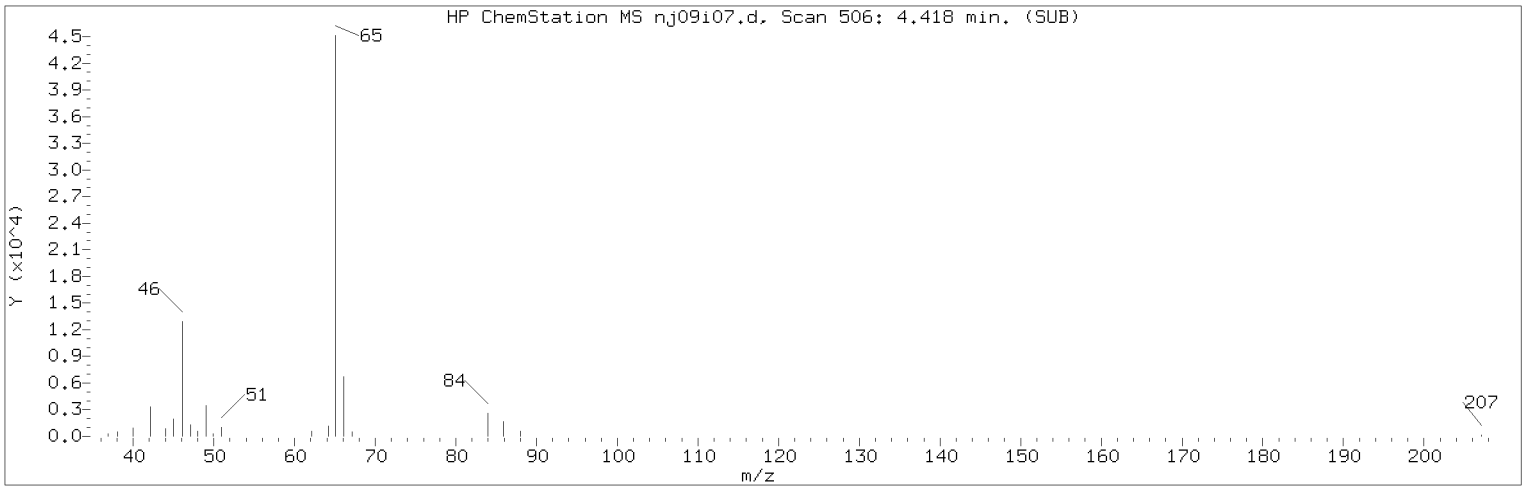
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

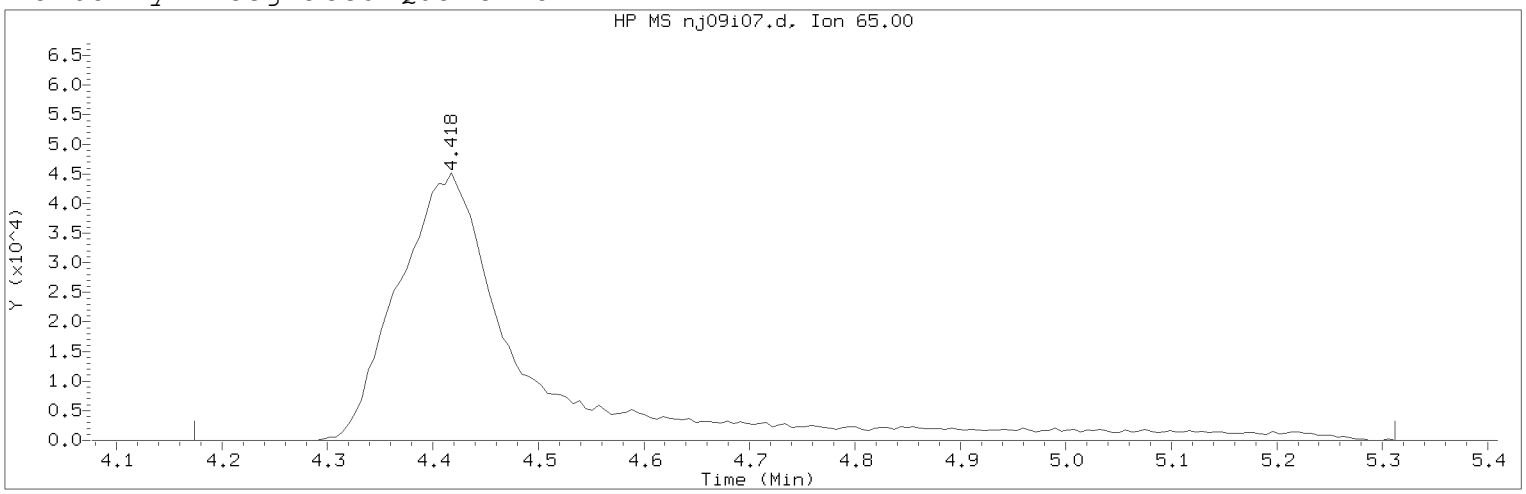
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 420
Retention Time (minutes): 3.894
Quant Ion : 45.00
Area : 13378
On-column Amount (ng) : 20.0282
Integration start scan : 403 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: CW amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

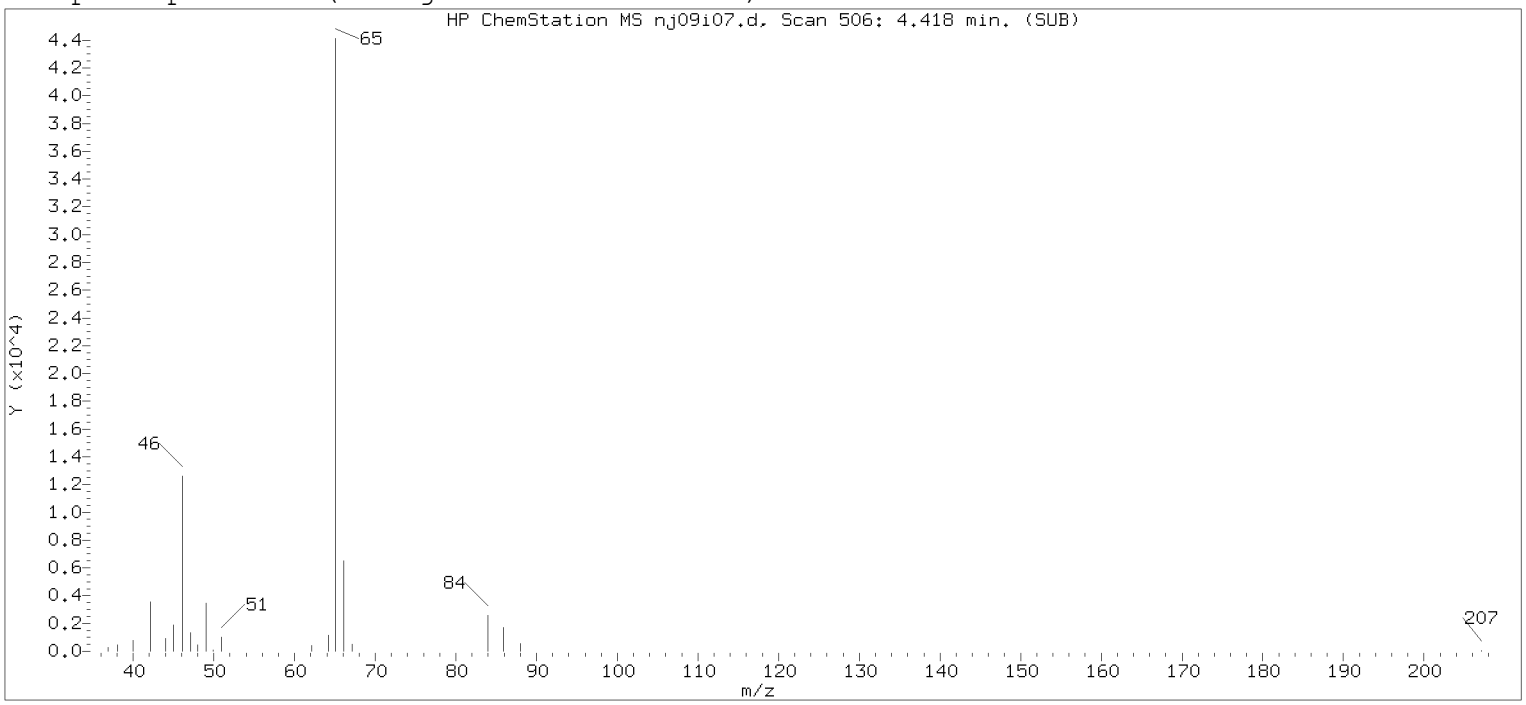
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area (flag) : 388809M
On-Column Amount (ng) : 250.0000
Integration start scan : 465 Integration stop scan: 652
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

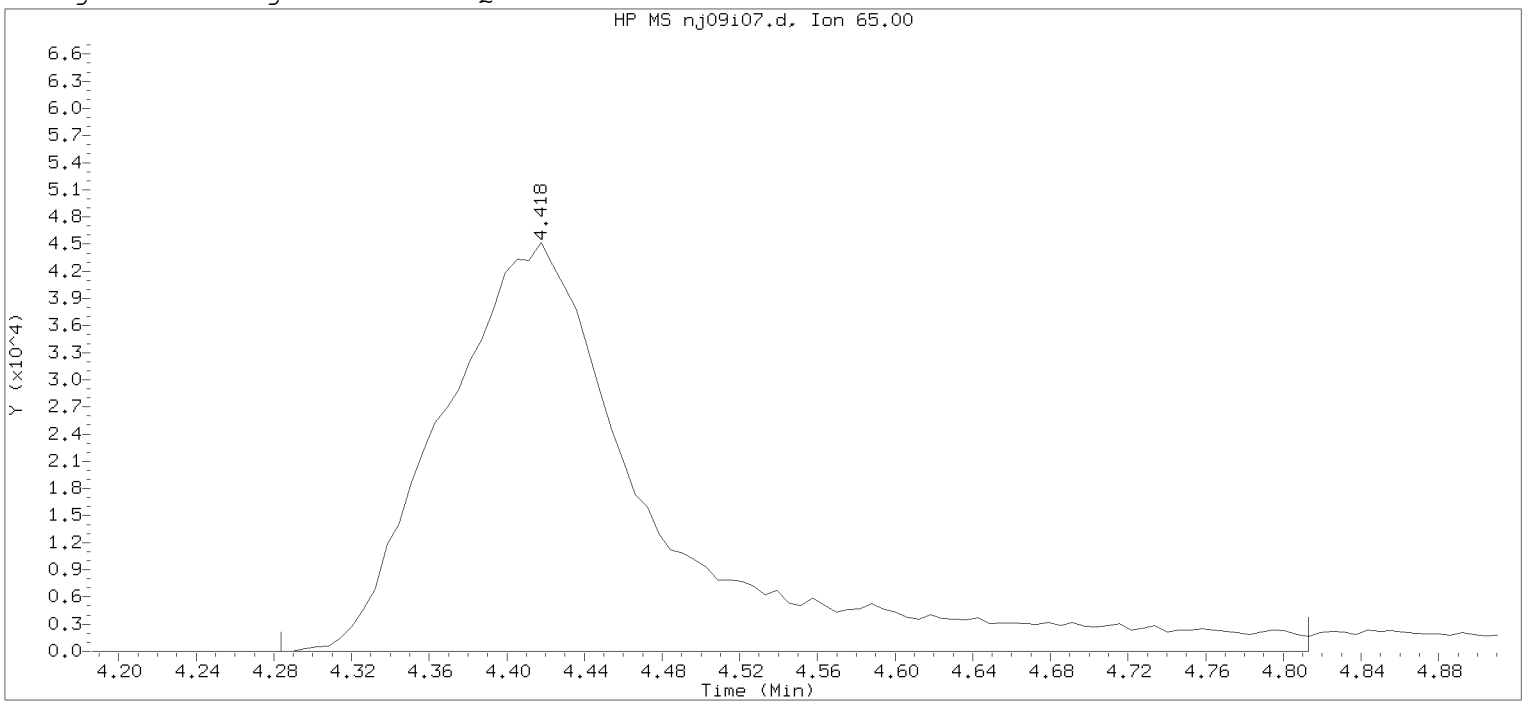
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

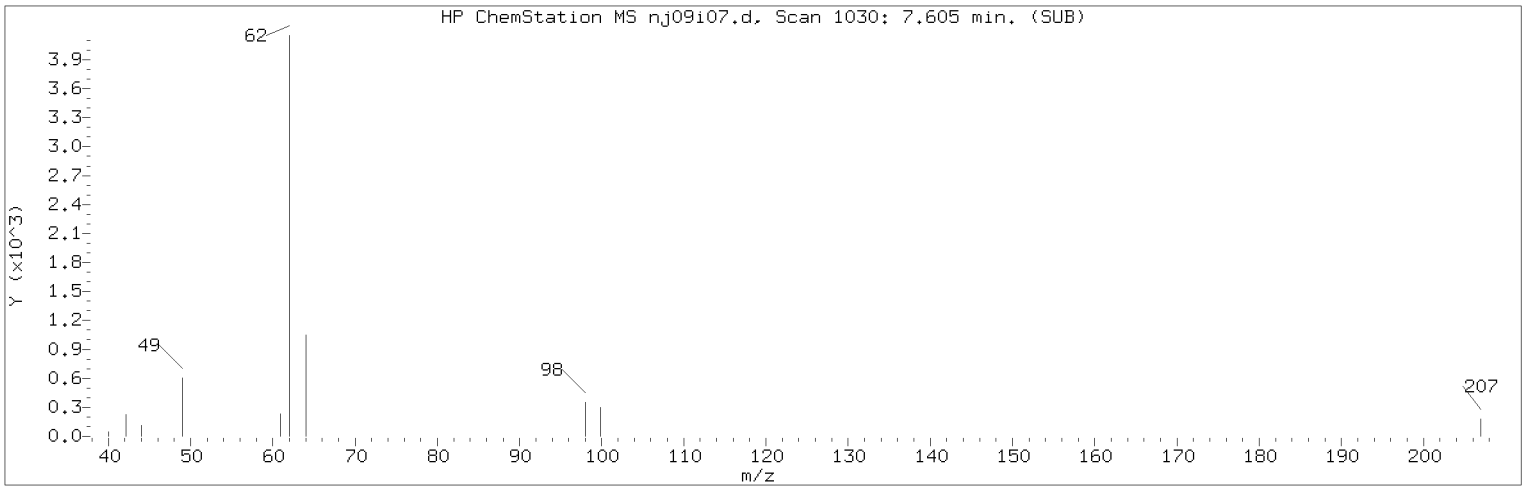
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

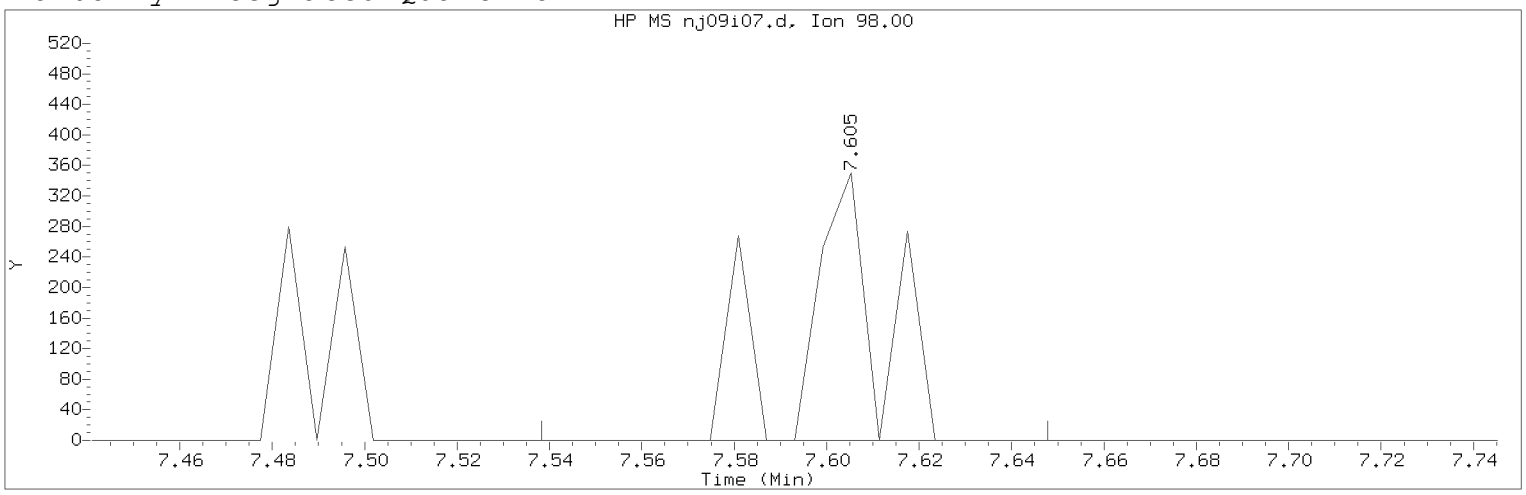
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.418
Quant Ion : 65.00
Area : 345911
On-column Amount (ng) : 250.0000
Integration start scan : 483 Integration stop scan: 570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

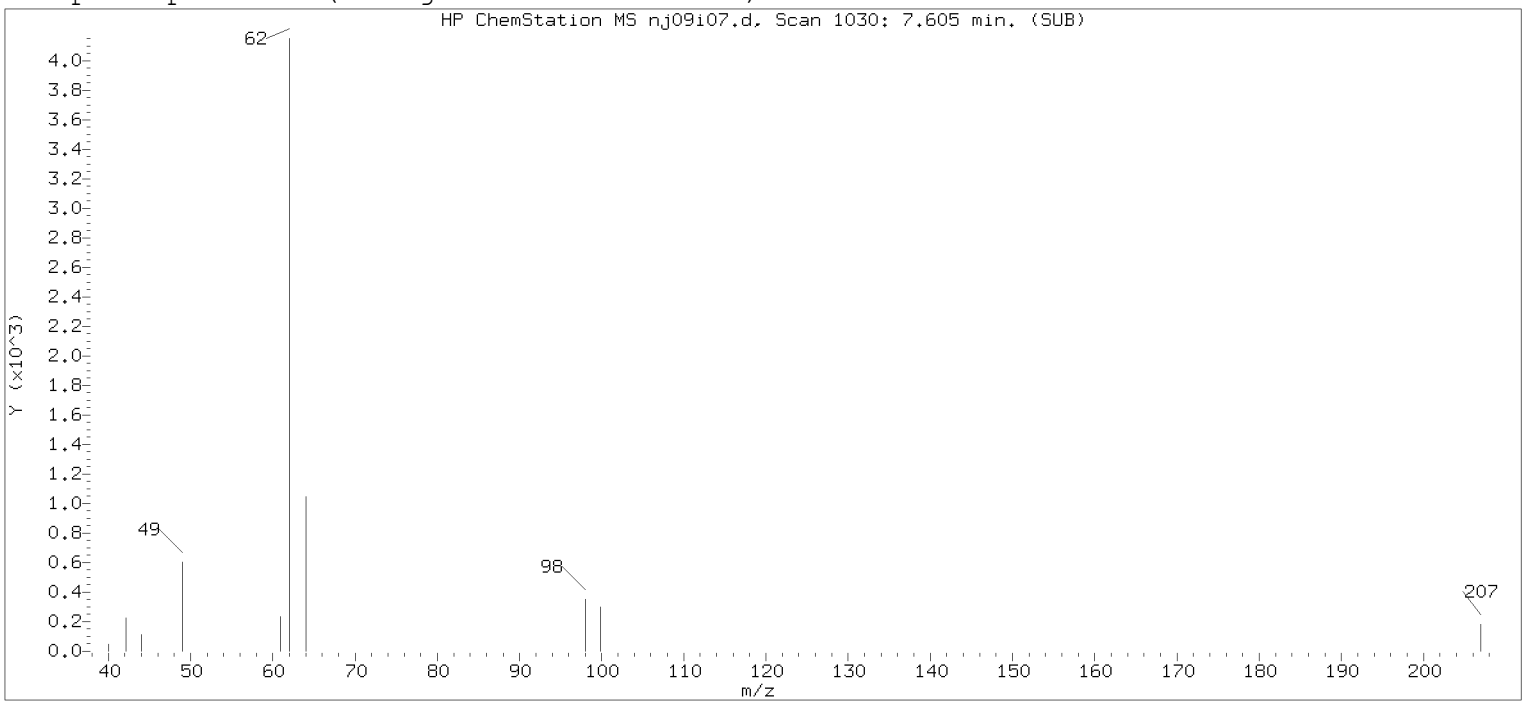
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1030
Retention Time (minutes): 7.605
Quant Ion : 98.00
Area (flag) : 417M
On-Column Amount (ng) : 0.4464
Integration start scan : 1018 Integration stop scan: 1036
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

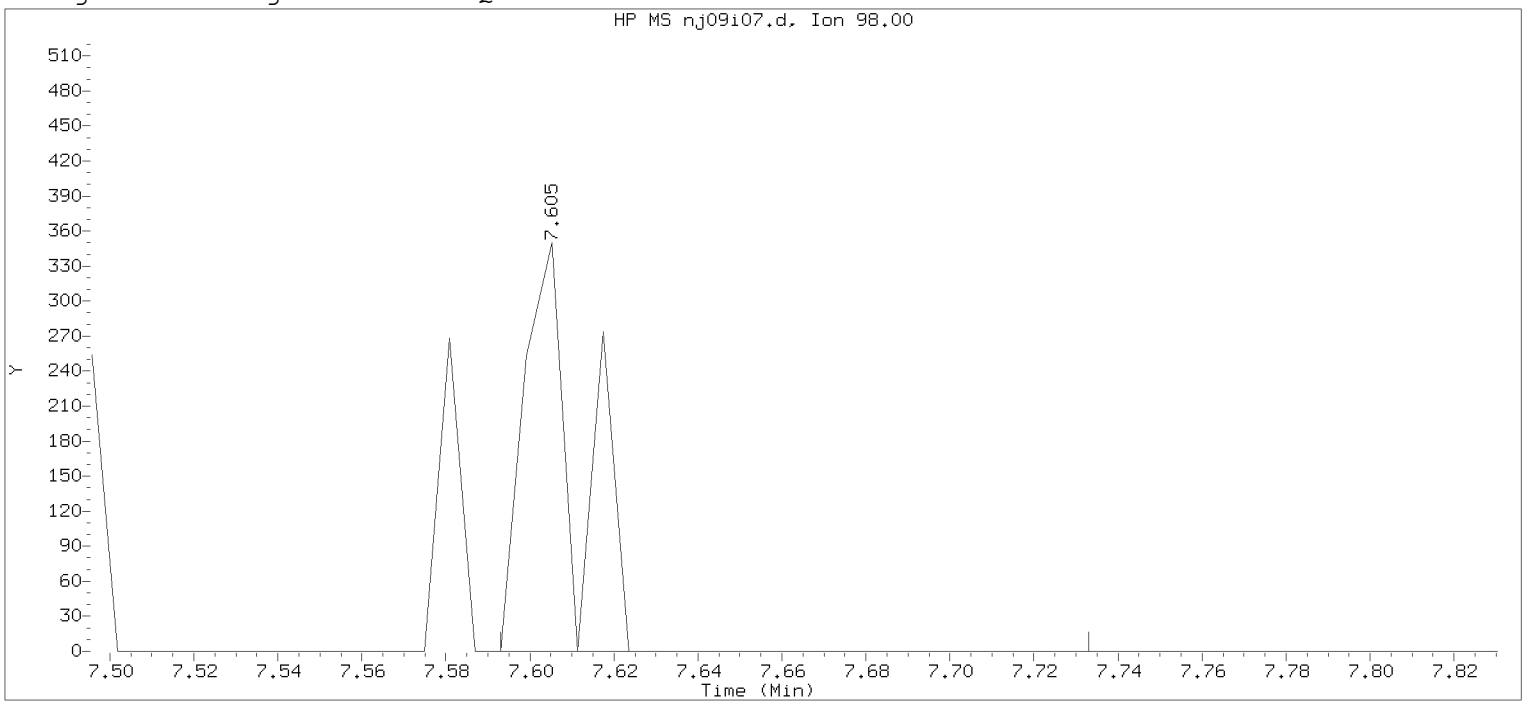
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

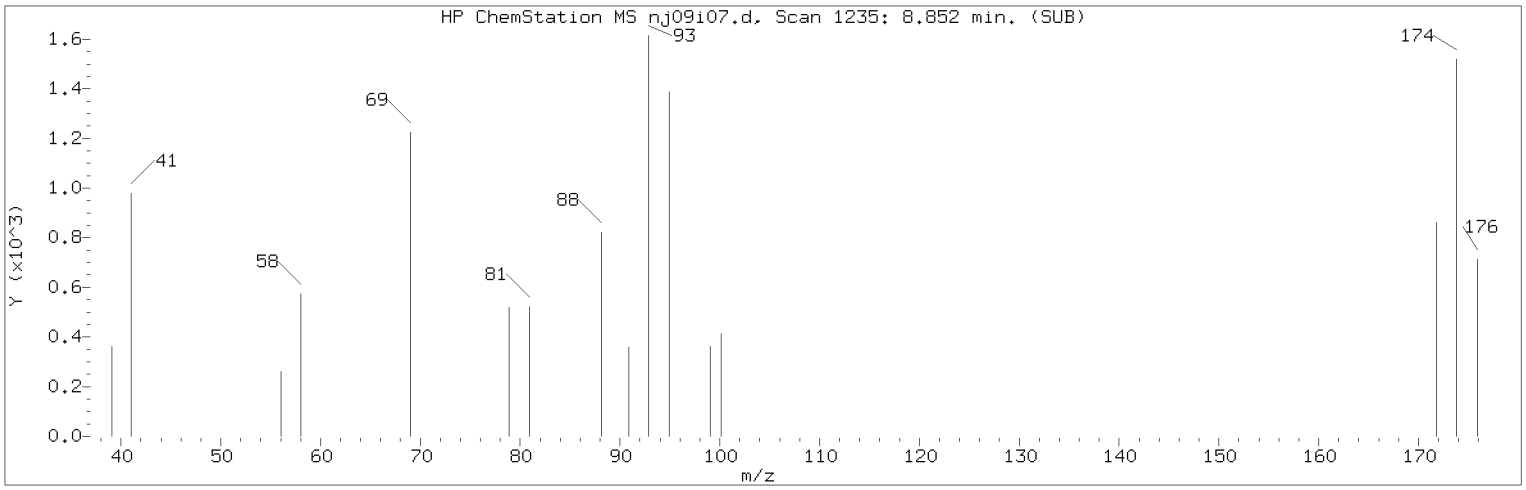
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

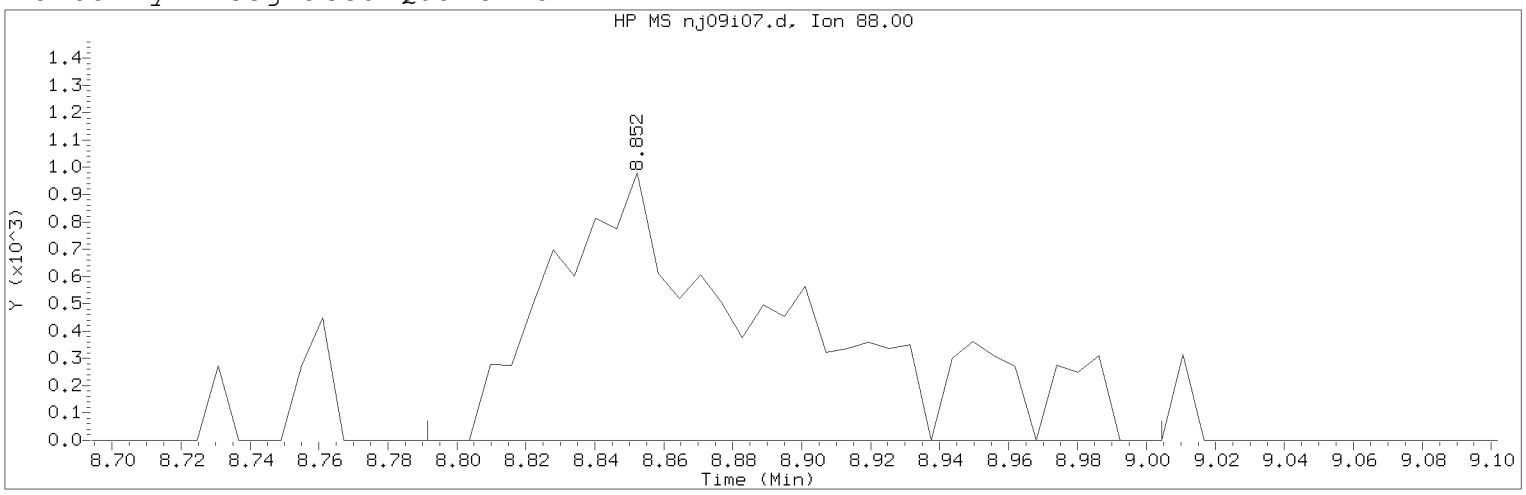
Compound Number	: 61		
Compound Name	: 1,2-Dichloroethane		
Scan Number	: 1030		
Retention Time (minutes)	: 7.605		
Quant Ion	: 98.00		
Area	: 320		
On-column Amount (ng)	: 0.3478		
Integration start scan	: 1027	Integration stop scan:	1050
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

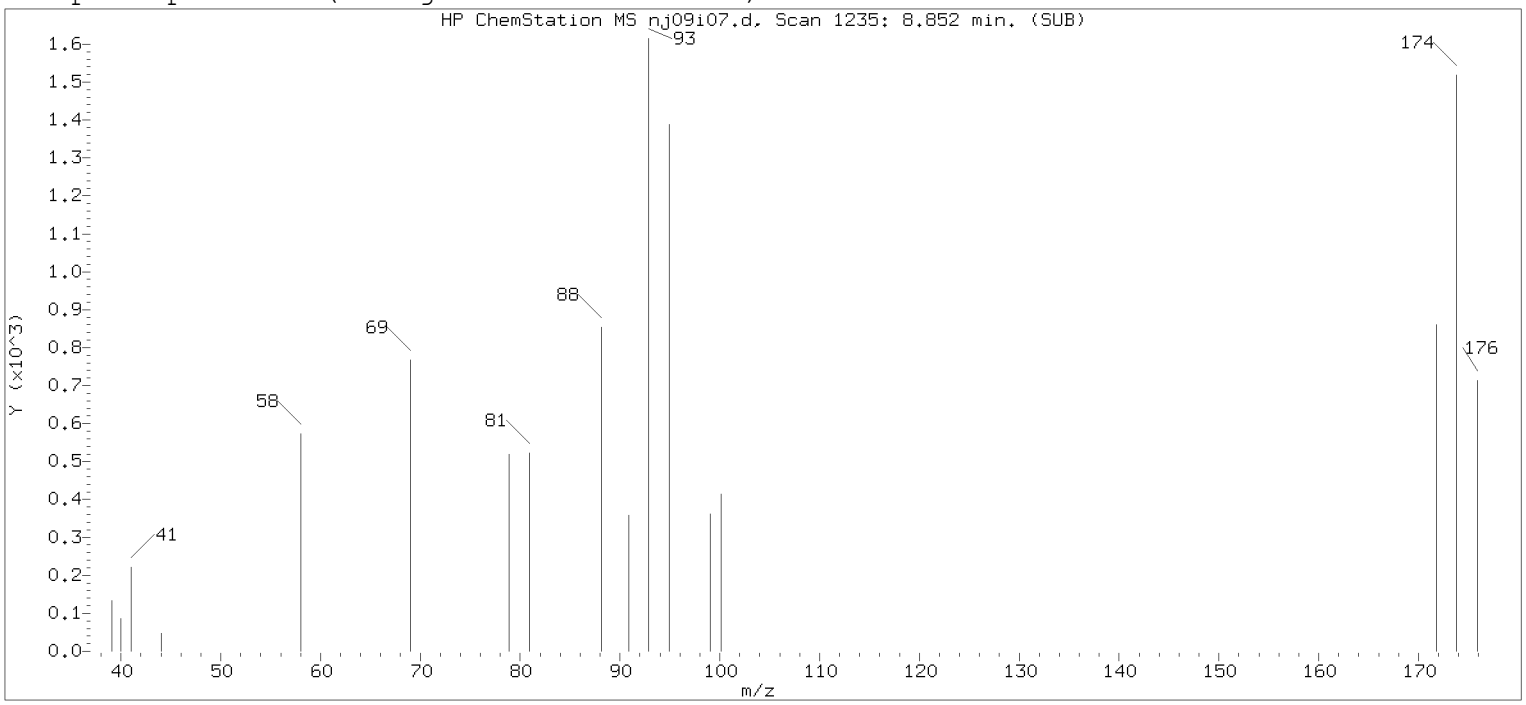
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area (flag) : 4683M
On-Column Amount (ng) : 41.4442
Integration start scan : 1224 Integration stop scan: 1259
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

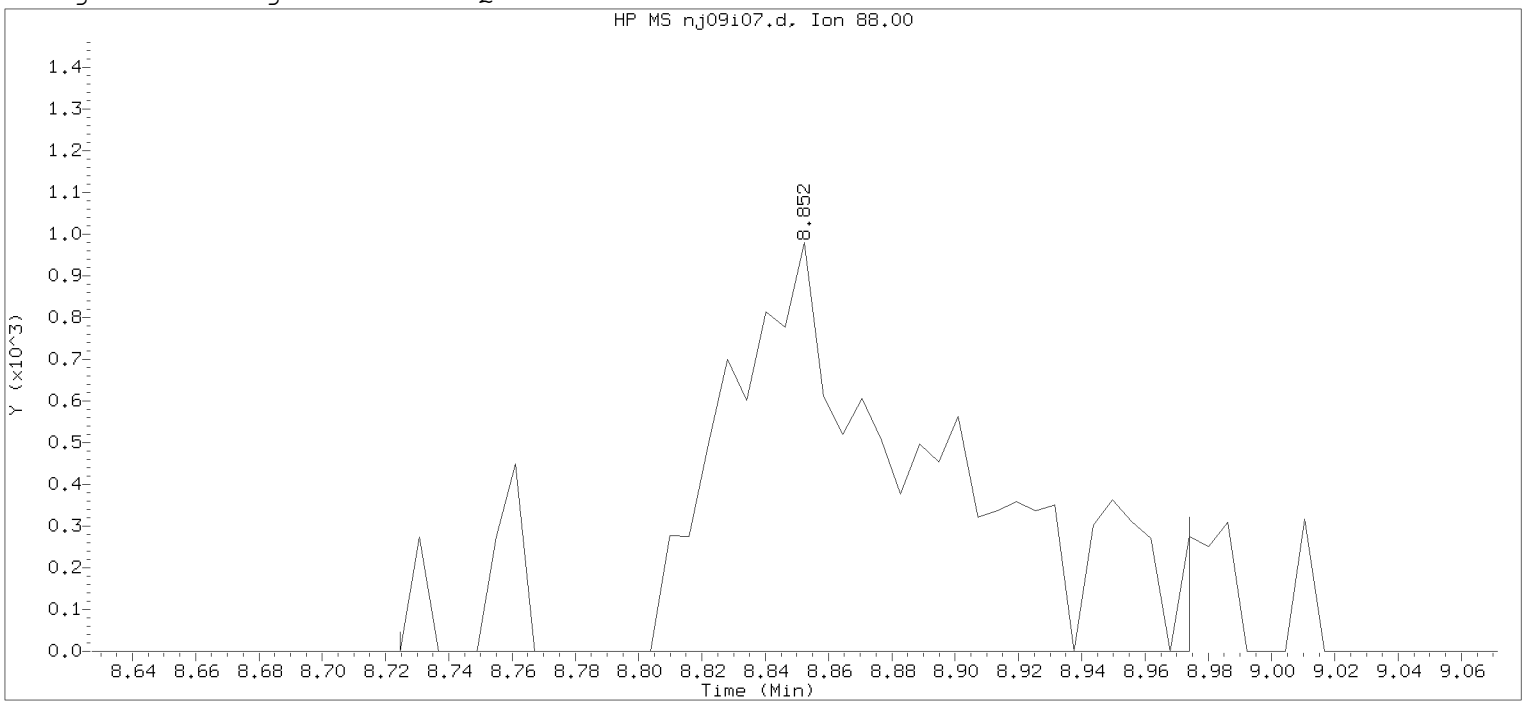
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

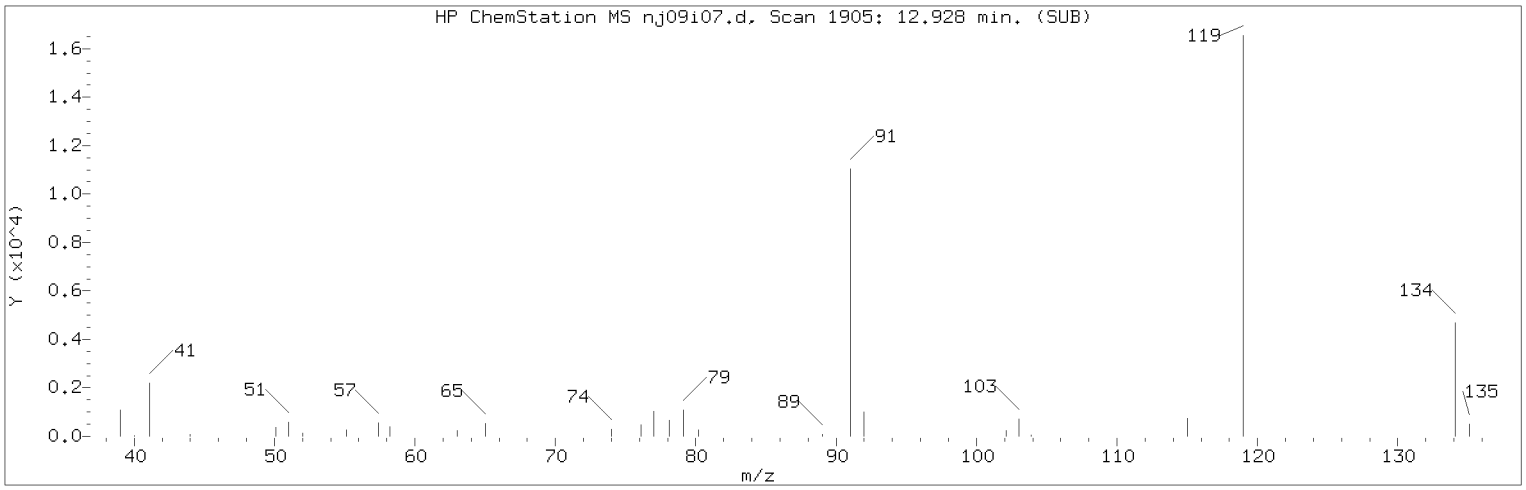
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

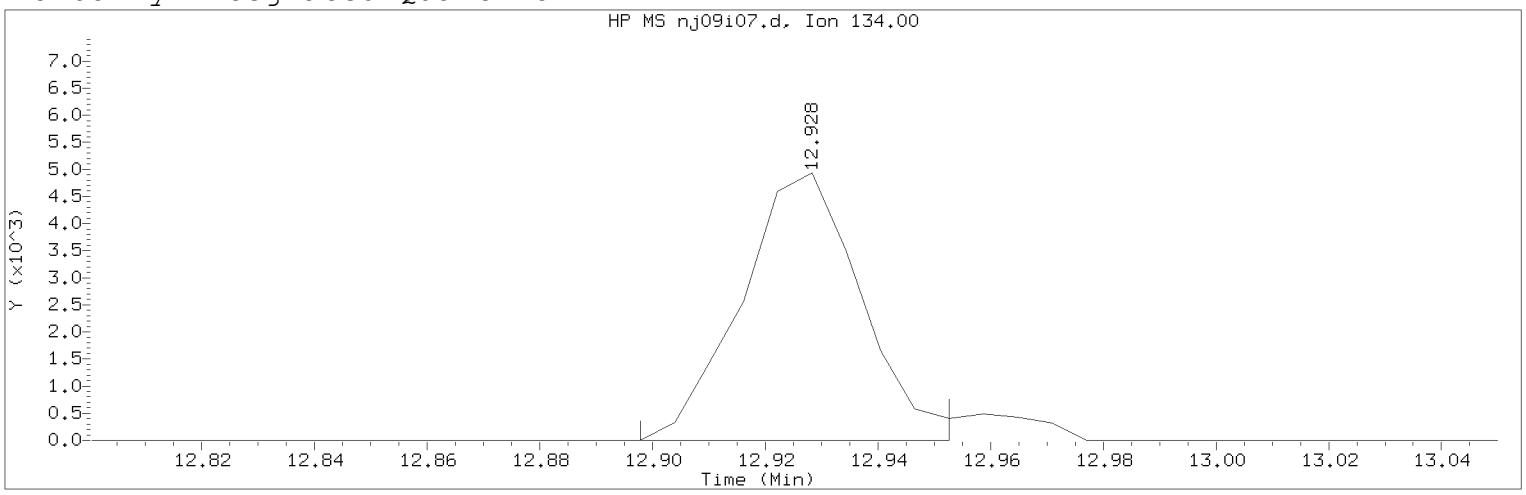
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1235
Retention Time (minutes): 8.852
Quant Ion : 88.00
Area : 4792
On-column Amount (ng) : 63.8068
Integration start scan : 1213 Integration stop scan: 1254
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

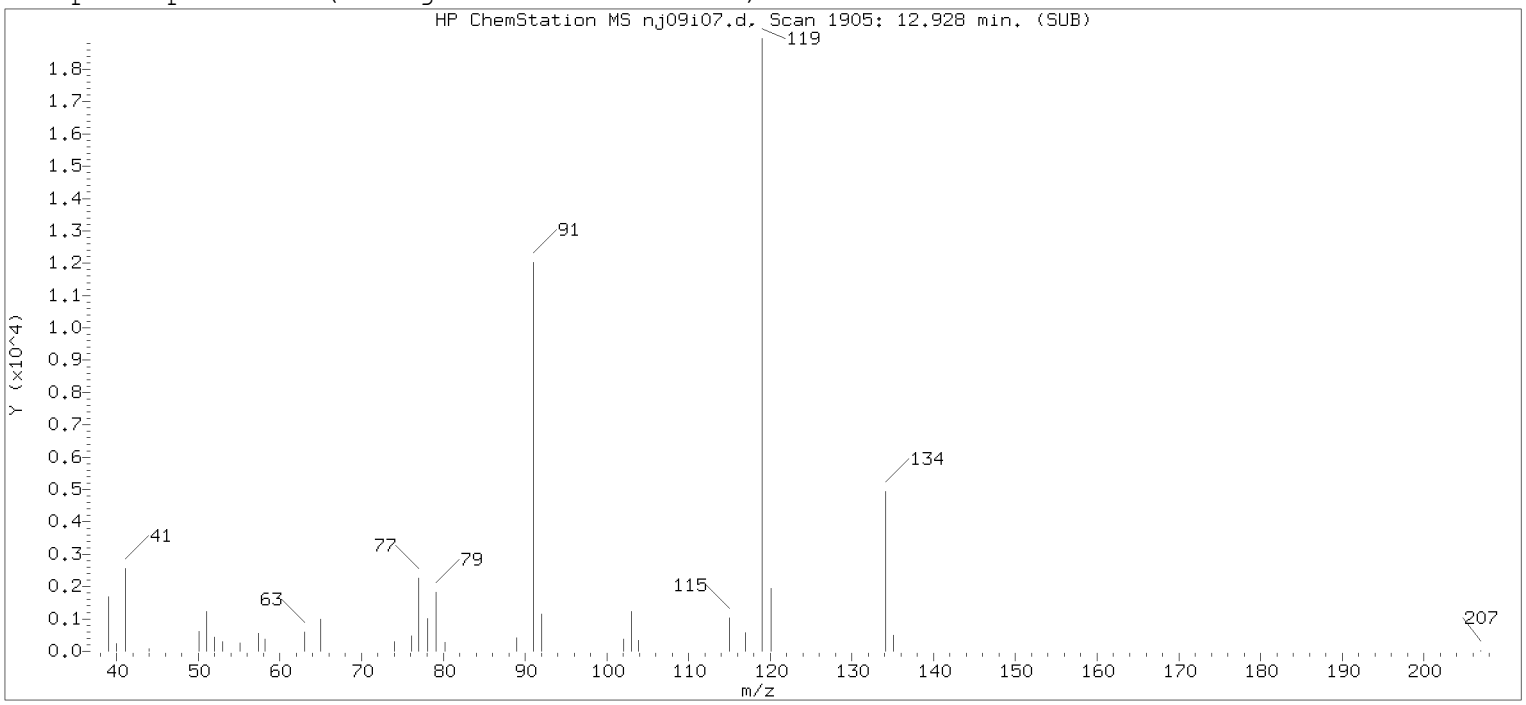
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area (flag) : 7292M
On-Column Amount (ng) : 0.9061
Integration start scan : 1899 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

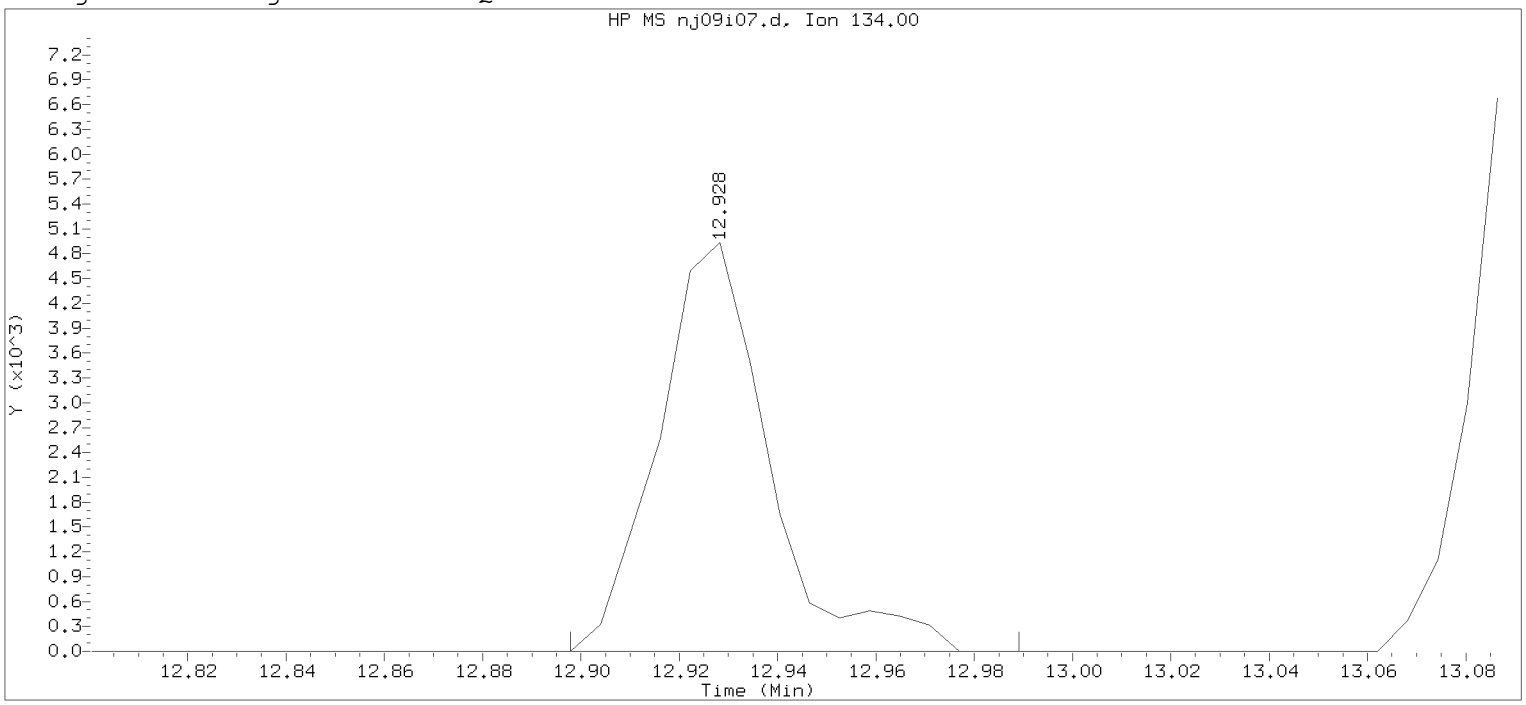
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:10.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



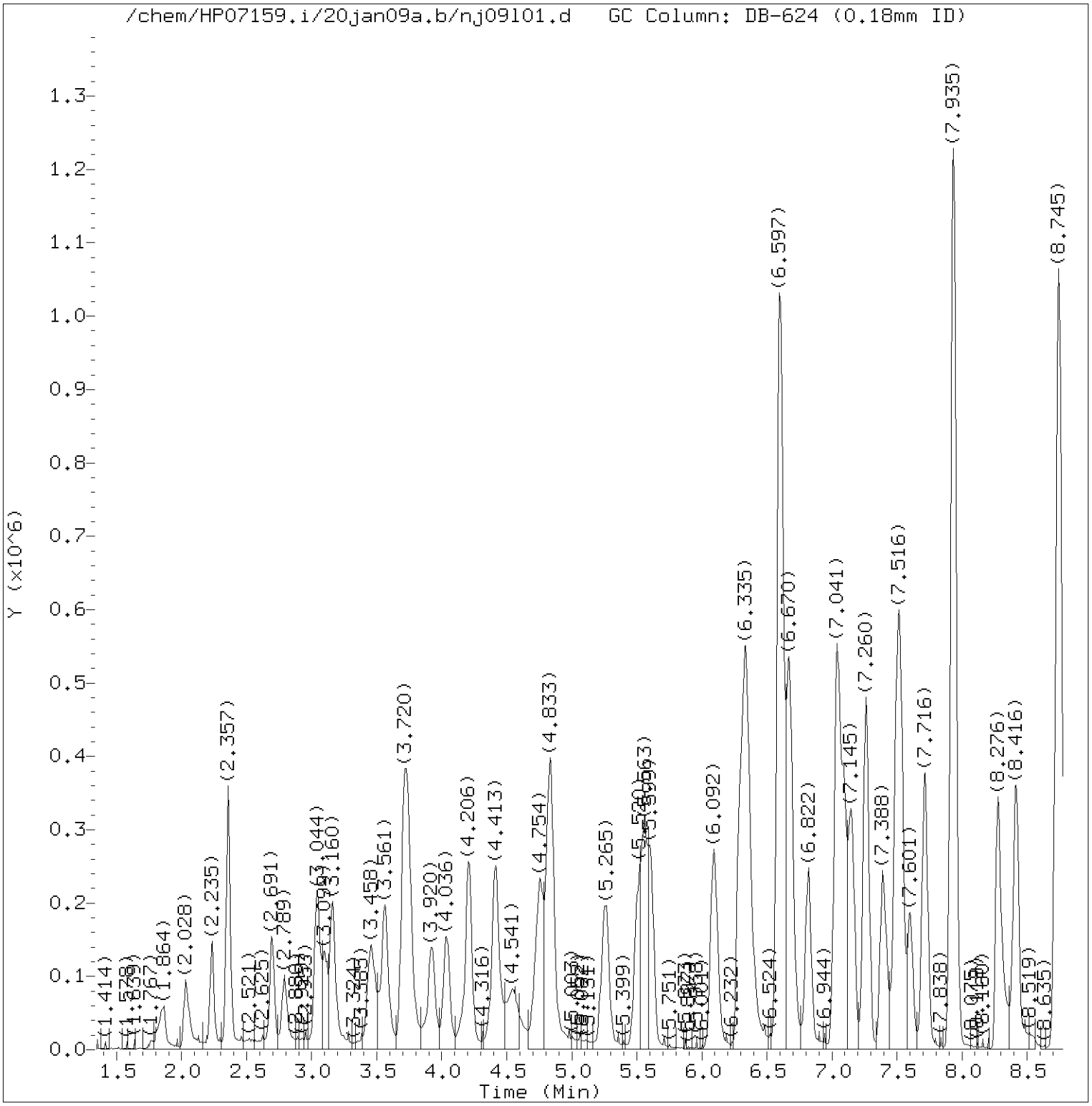
Data File: /chem/HP07159.i/20jan09a.b/nj09i07.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:04 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:20
Date, time and analyst ID of latest file update: 09-Jan-2020 11:20 amd00492

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1905
Retention Time (minutes): 12.928
Quant Ion : 134.00
Area : 7741
On-column Amount (ng) : 0.9299
Integration start scan : 1899 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492



Total Ion Chromatogram (TIC)

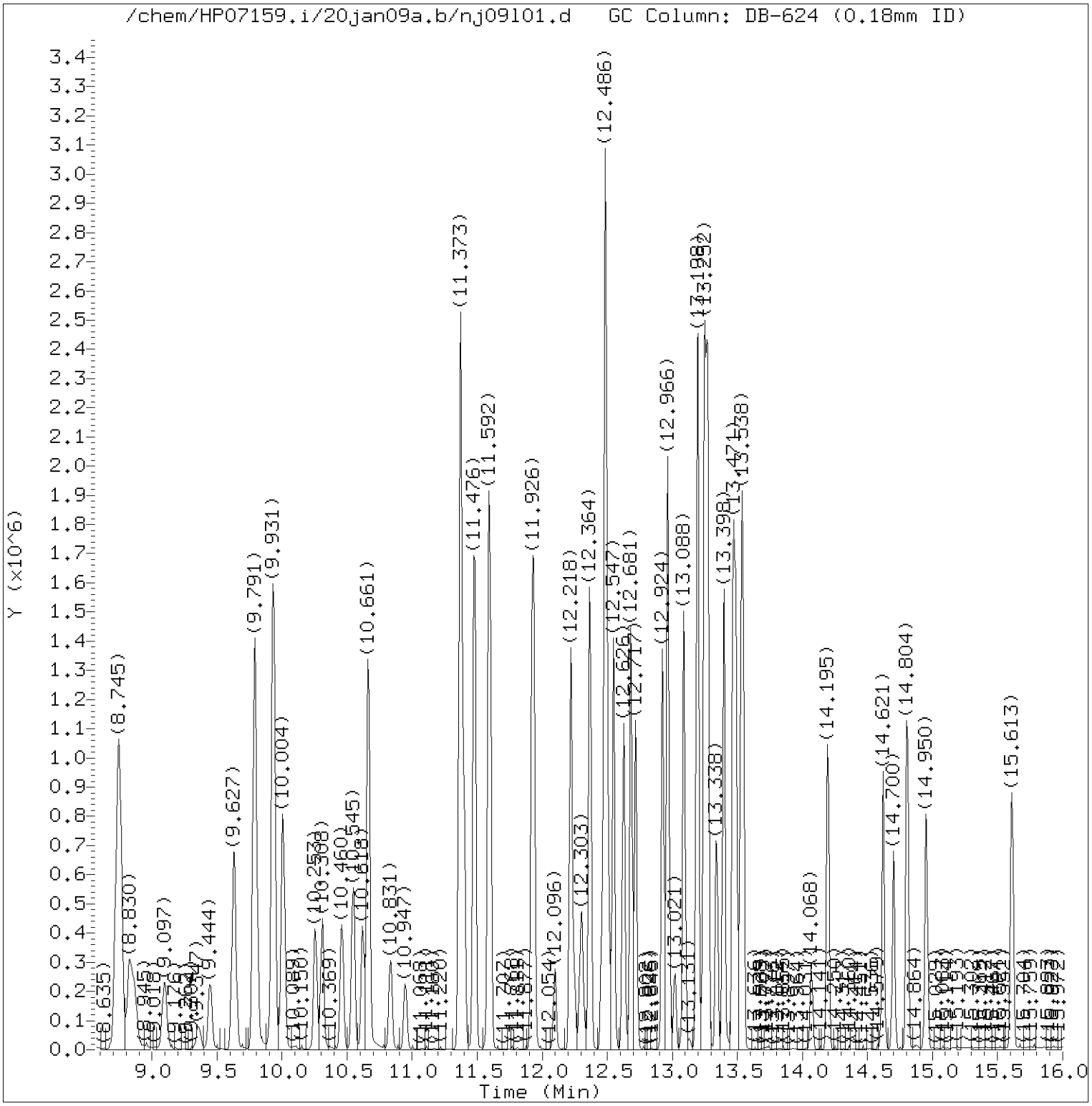
Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

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Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.034	85	172887M	16.967
4) Chloromethane	(2)	2.235	50	184992	16.943
6) Vinyl Chloride	(2)	2.357	62	188033	17.698
5) 1,3-Butadiene	(2)	2.363	39	123154M	16.165
8) Bromomethane	(2)	2.691	94	132573	18.199
9) Chloroethane	(2)	2.789	64	113549	18.260
10) Dichlorofluoromethane	(2)	3.038	67	260659	18.303
12) Trichlorofluoromethane	(2)	3.099	101	233281	19.978
11) n-Pentane	(2)	3.160	43	191981	16.781
13) Ethanol	(1)	3.227	45	45809	484.983
15) Freon 123a	(2)	3.458	67	163827	19.151
16) Acrolein	(1)	3.561	56	341433	129.019
17) 1,1-Dichloroethene	(2)	3.707	96	121203	17.811
19) Freon 113	(2)	3.732	101	124454	19.711
18) Acetone	(1)	3.750	58	155756	139.737
22) Methyl Iodide	(2)	3.920	142	230118	18.116
21) 2-Propanol	(1)	3.926	45	87961	119.481
23) Carbon Disulfide	(2)	4.036	76	369879	16.997
27) Methyl Acetate	(2)	4.188	43	159905	19.127
25) Allyl Chloride	(2)	4.212	41	231154	19.240
28) Methylene Chloride	(2)	4.413	84	151683	18.767
29)*t-Butyl alcohol-d10	(1)	4.419	65	390248M	250.000
30) t-Butyl alcohol	(1)	4.553	59	282560	194.213
31) Acrylonitrile	(2)	4.754	53	399953	88.580
33) Methyl Tertiary Butyl Ether	(2)	4.821	73	424064	19.177
32) trans-1,2-Dichloroethene	(2)	4.839	96	148725	19.144
34) n-Hexane	(2)	5.253	57	200972	18.739
36) 1,1-Dichloroethane	(2)	5.502	63	273982	19.332
38) di-Isopropyl ether	(2)	5.557	45	469654	19.237
39) 2-Chloro-1,3-butadiene	(2)	5.605	53	242564	19.389
40) Ethyl t-butyl ether	(2)	6.092	59	453185	19.530
43) 1,2-Dichloroethene (Total)	(2)		96	327646	39.422
44) 2-Butanone	(2)	6.293	43	838072	132.744
42) cis-1,2-Dichloroethene	(2)	6.329	96	178921	20.278
45) 2,2-Dichloropropane	(2)	6.348	77	245245	19.600
47) Propionitrile	(1)	6.378	54	249794	147.003
48) Methacrylonitrile	(2)	6.597	67	672805	147.518
49) Bromochloromethane	(2)	6.670	128	83465	20.007

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.676	71	161692	91.653
51) Chloroform	(2)	6.816	83	273654	19.796
52)$Dibromofluoromethane	(2)	7.035	113	327682	50.439
53) 1,1,1-Trichloroethane	(2)	7.047	97	242925	19.424
54) Cyclohexane	(2)	7.151	56	239373	18.608
55) 1,1-Dichloropropene	(2)	7.260	75	214656	18.976
56) Carbon Tetrachloride	(2)	7.260	117	208434	19.329
58) Isobutyl Alcohol	(1)	7.394	41	246899	473.743
57)$1,2-Dichloroethane-d4	(2)	7.497	102	81217M	49.444
60) Benzene	(2)	7.528	78	616763	19.154
61) 1,2-Dichloroethane	(2)	7.601	62	223553	19.624
65) t-Amyl methyl ether	(2)	7.716	73	459749	19.750
66)*Fluorobenzene	(2)	7.929	96	1309085	50.000
67) n-Heptane	(2)	7.935	43	217579	17.577
69) n-Butanol	(1)	8.276	56	428313	954.058
71) Trichloroethene	(2)	8.410	95	161539	19.042
72) Methylcyclohexane	(2)	8.726	83	283782	20.350
73) 1,2-Dichloropropane	(2)	8.751	63	165995	20.160
76) Methyl Methacrylate	(2)	8.824	69	150988	20.052
75) 1,4-Dioxane	(1)	8.842	88	61853M	545.377
74) Dibromomethane	(2)	8.860	93	103521	19.714
78) Bromodichloromethane	(2)	9.097	83	210550	19.640
79) 2-Nitropropane	(2)	9.359	41	70302	18.056
80) 2-Chloroethyl Vinyl Ether	(2)	9.444	63	123006	18.885
81) cis-1,3-Dichloropropene	(2)	9.627	75	270616	19.789
82) 4-Methyl-2-pentanone	(2)	9.791	43	1188234	92.892
83)$Toluene-d8	(3)	9.931	98	1310155	49.875
88) Toluene	(3)	10.004	92	411185	19.269
90) 1,3-Dichloropropene (total)	(3)		100	521418	38.726
89) trans-1,3-Dichloropropene	(3)	10.253	75	250802	18.937
91) Ethyl Methacrylate	(3)	10.308	69	247225	18.736
92) 1,1,2-Trichloroethane	(3)	10.460	97	151735	20.084
93) Tetrachloroethene	(3)	10.545	166	180295	19.294
94) 1,3-Dichloropropane	(3)	10.618	76	257089	19.606
96) 2-Hexanone	(3)	10.661	43	912359	90.325
97) Dibromochloromethane	(3)	10.831	129	174399	20.115
99) 1,2-Dibromoethane	(3)	10.947	107	161829	19.561
100)*Chlorobenzene-d5	(3)	11.373	117	1007216	50.000

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Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.397	112	469051	19.695
103) 1,1,1,2-Tetrachloroethane	(3)	11.476	131	167194	19.481
104) Ethylbenzene	(3)	11.482	91	812040	19.674
106) m+p-Xylene	(3)	11.592	106	642426	39.614
108) Xylene (Total)	(3)		106	954122	59.157
107) o-Xylene	(3)	11.920	106	311696	19.542
109) Styrene	(3)	11.938	104	529744	19.775
110) Bromoform	(3)	12.096	173	128184	19.583
111) Isopropylbenzene	(3)	12.218	105	846257	20.089
112) Cyclohexanone	(1)	12.297	55	233984	514.439
114)$4-Bromofluorobenzene	(3)	12.364	95	516611	49.779
116) 1,1,2,2-Tetrachloroethane	(4)	12.461	83	244630	20.176
118) trans-1,4-Dichloro-2-butene	(4)	12.486	53	422238	101.238
115) Bromobenzene	(4)	12.486	156	204667	20.076
117) 1,2,3-Trichloropropane	(4)	12.510	110	75948	19.774
119) n-Propylbenzene	(4)	12.547	91	1009049	20.415
120) 2-Chlorotoluene	(4)	12.626	126	202889	19.910
122) 1,3,5-Trimethylbenzene	(4)	12.681	105	723706	19.983
121) 4-Chlorotoluene	(4)	12.717	126	206836	19.585
124) tert-Butylbenzene	(4)	12.924	134	159664M	19.895
125) Pentachloroethane	(4)	12.960	167	123390	19.202
126) 1,2,4-Trimethylbenzene	(4)	12.966	105	739278	19.668
127) sec-Butylbenzene	(4)	13.088	105	944178	20.071
129) 1,3-Dichlorobenzene	(4)	13.192	146	394795	19.911
130) p-Isopropyltoluene	(4)	13.198	119	823611	20.119
131)*1,4-Dichlorobenzene-d4	(4)	13.246	152	551230	50.000
133) 1,4-Dichlorobenzene	(4)	13.265	146	402308	20.007
134) 1,2,3-Trimethylbenzene	(4)	13.271	105	739639	20.275
135) Benzyl Chloride	(4)	13.338	91	480091	17.914
141) Diethylbenzene (total)	(4)		100	1405294	59.155
136) 1,3-Diethylbenzene	(4)	13.398	119	485360	19.807
137) 1,4-Diethylbenzene	(4)	13.471	119	512643	19.702
139) n-Butylbenzene	(4)	13.490	92	415139	19.659
138) 1,2-Dichlorobenzene	(4)	13.526	146	375889	19.995
140) 1,2-Diethylbenzene	(4)	13.544	119	407291	19.646
142) 1,2-Dibromo-3-chloropropane	(4)	14.068	75	63970	19.522
144) 1,3,5-Trichlorobenzene	(4)	14.195	180	300827	20.076
146) 1,2,4-Trichlorobenzene	(4)	14.621	180	267533	20.476

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on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

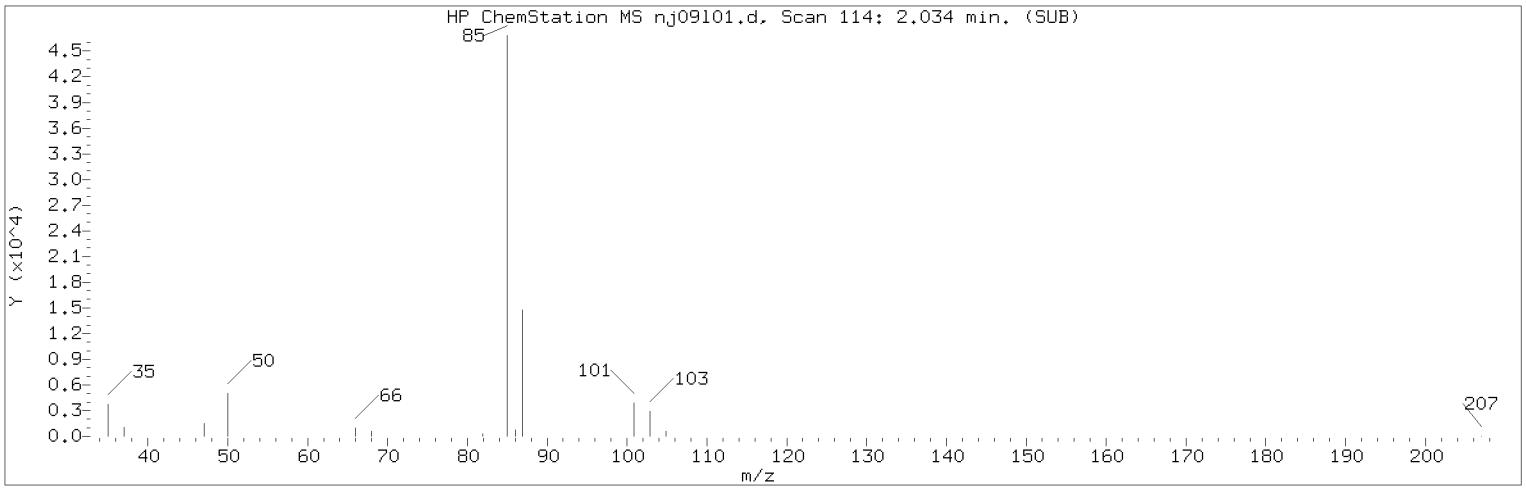
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

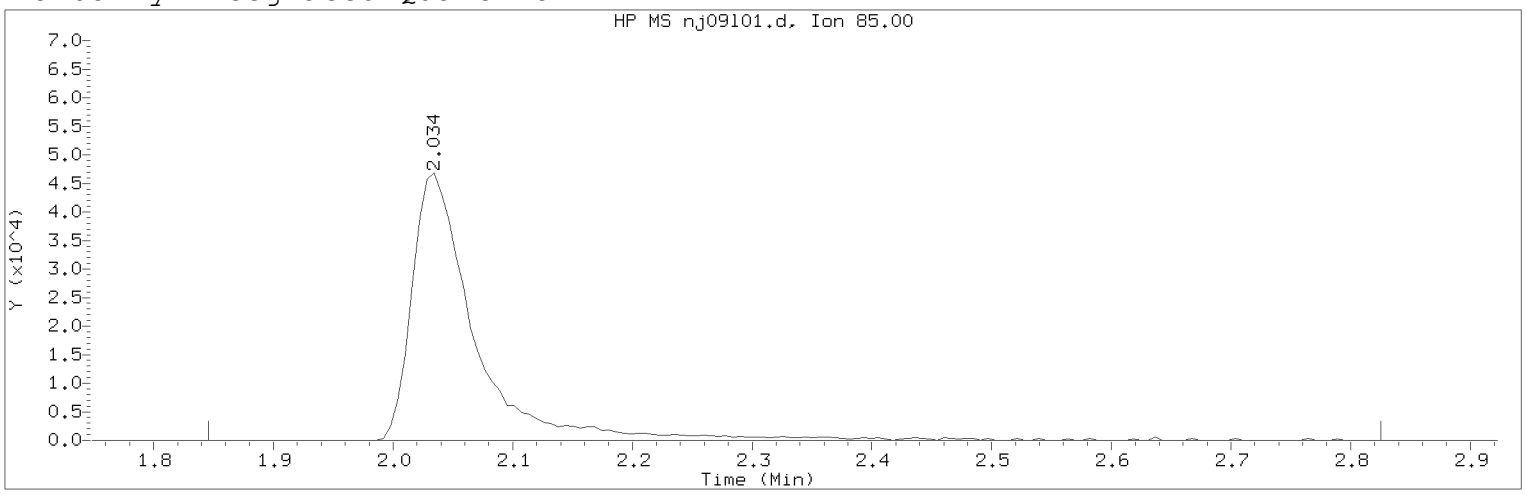
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.700	225	112216	18.987
148) Naphthalene	(4)	14.804	128	822043	20.066
149) 1,2,3-Trichlorobenzene	(4)	14.950	180	243832	20.330
150) 2-Methylnaphthalene	(4)	15.613	142	445871	18.843

Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

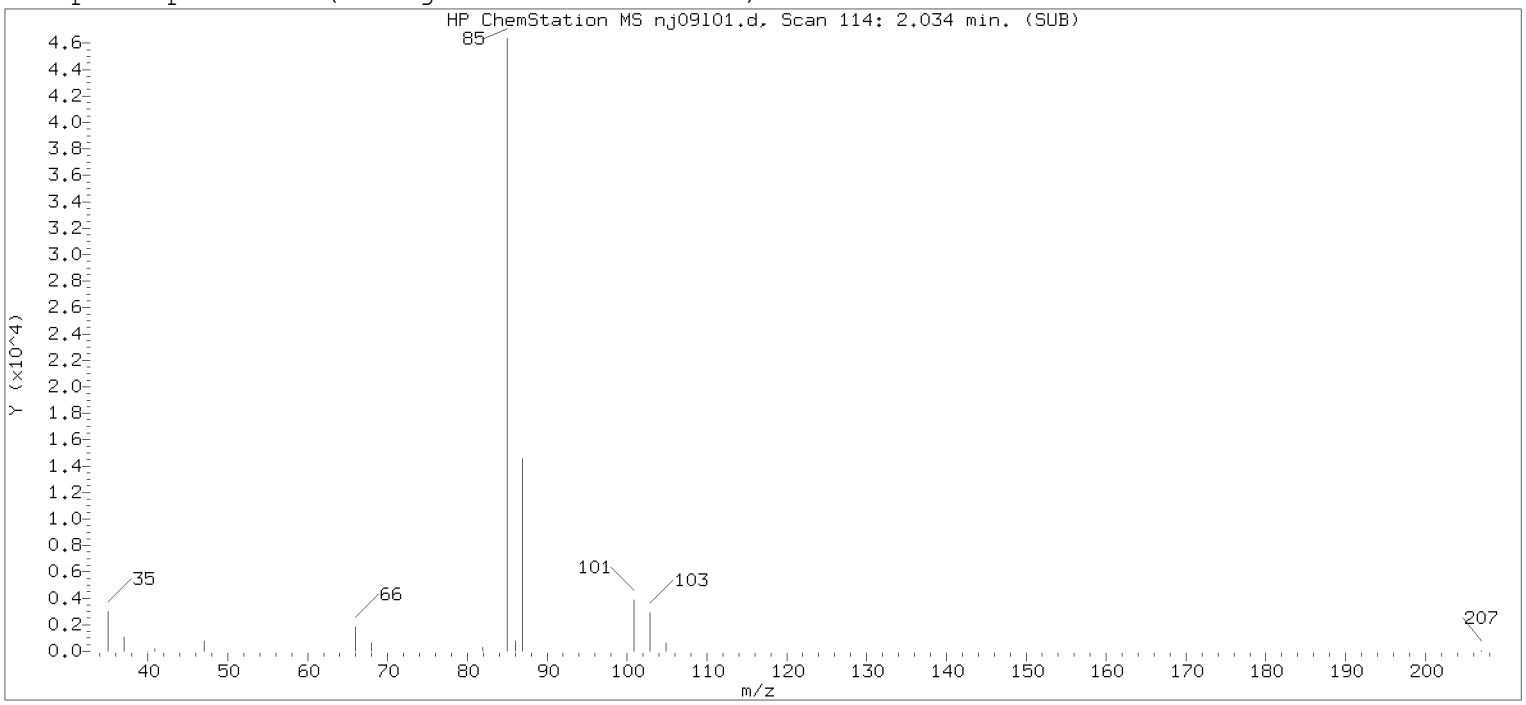
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area (flag) : 172887M
On-Column Amount (ng) : 16.9669
Integration start scan : 82 Integration stop scan: 243
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

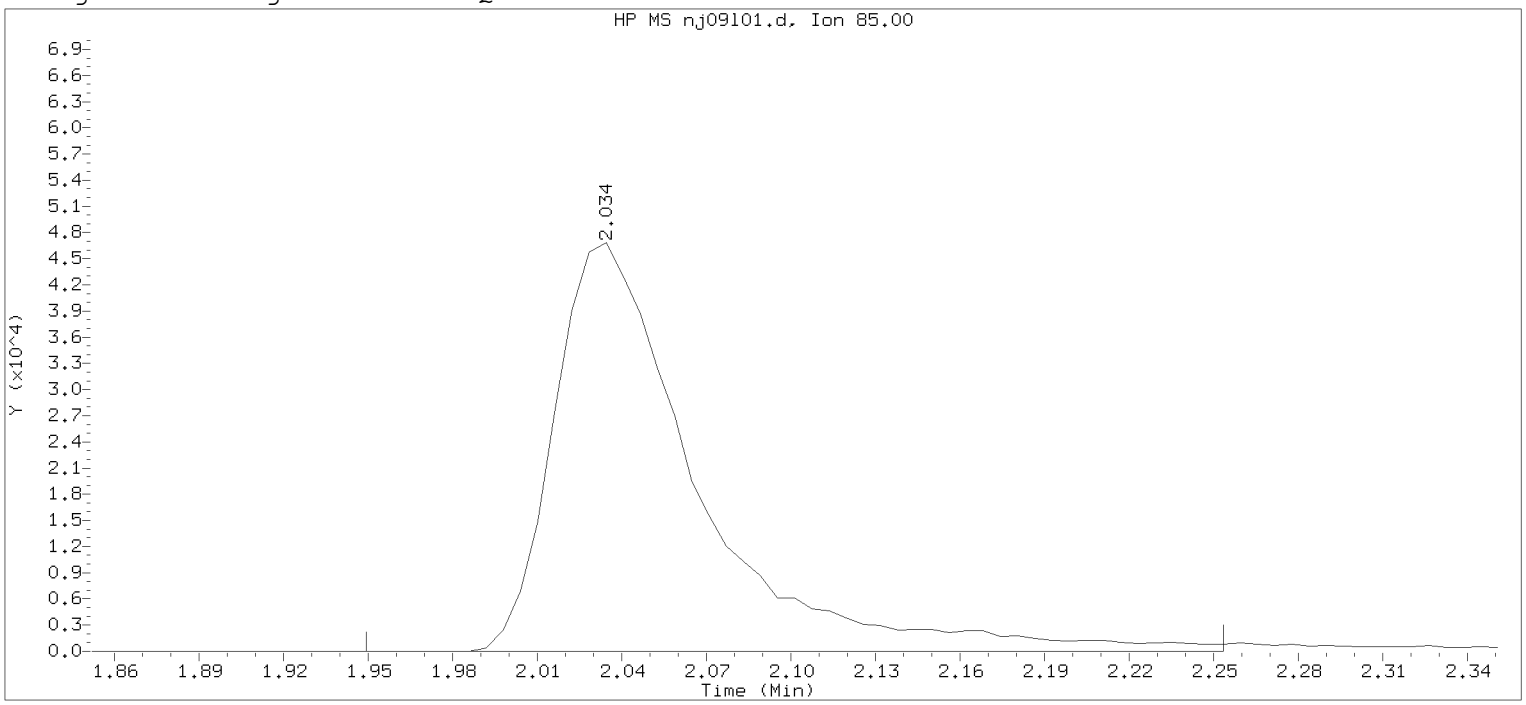
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

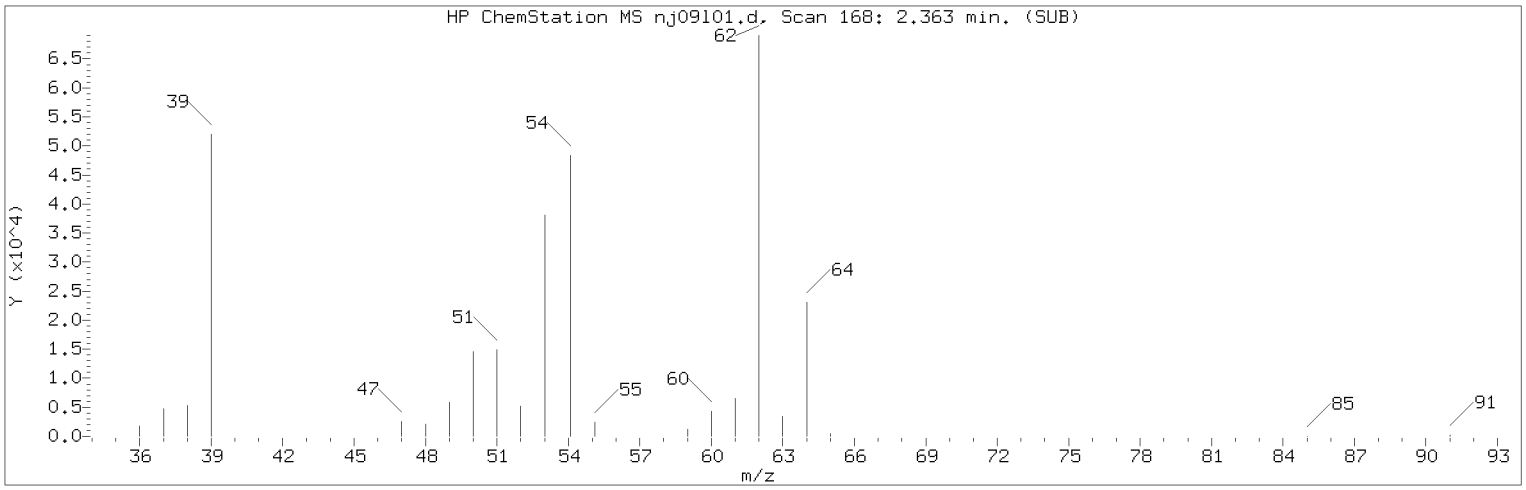
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

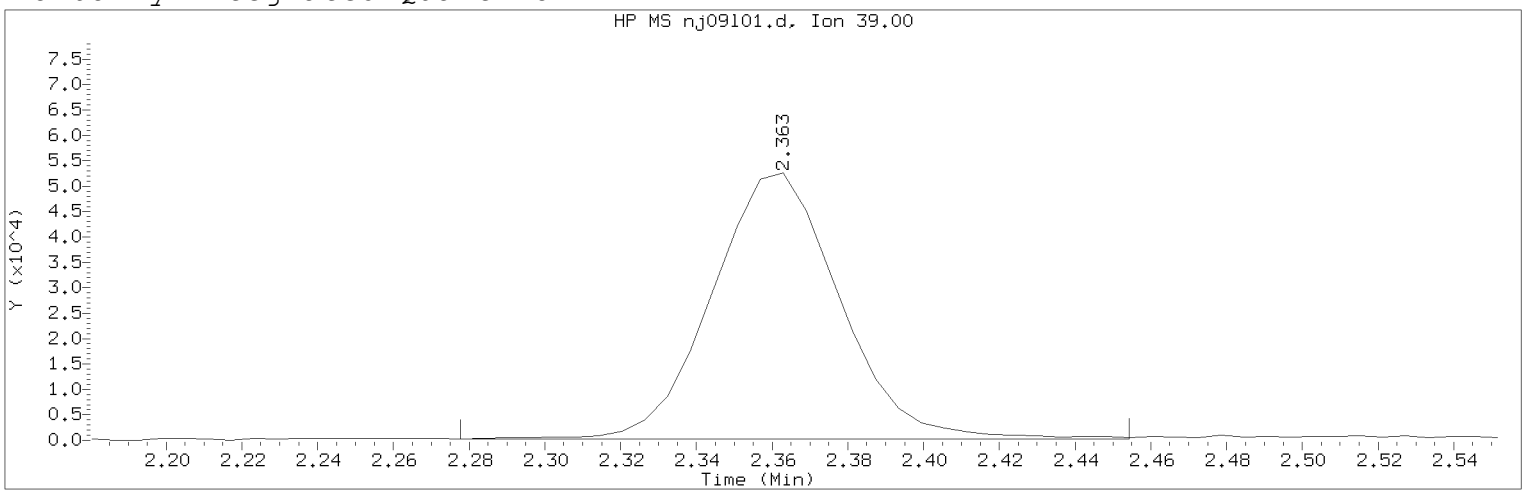
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 114
Retention Time (minutes): 2.034
Quant Ion : 85.00
Area : 165219
On-column Amount (ng) : 16.2144
Integration start scan : 99 Integration stop scan: 149
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

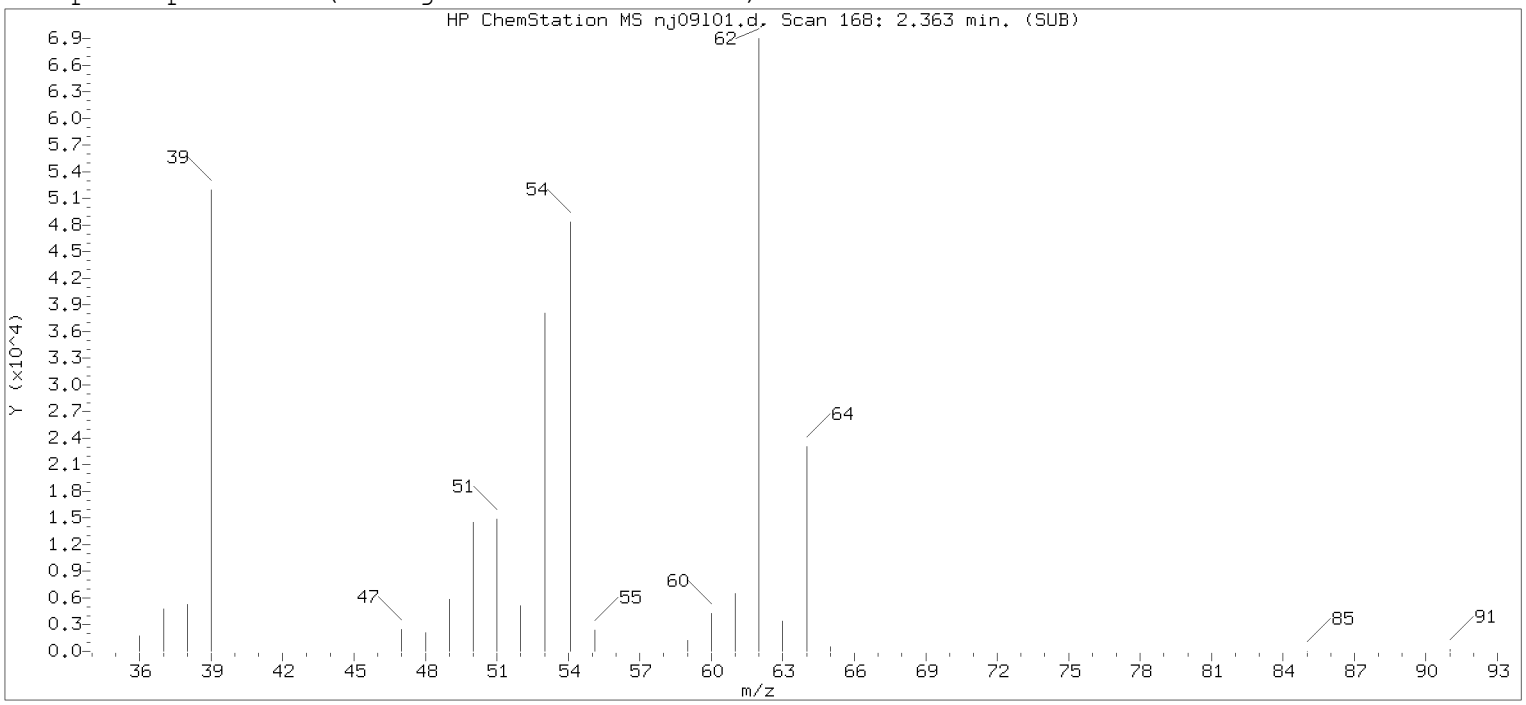
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area (flag) : 123154M
On-Column Amount (ng) : 16.1652
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 222 Y at integration end: 222

Reason for manual integration: improper integration

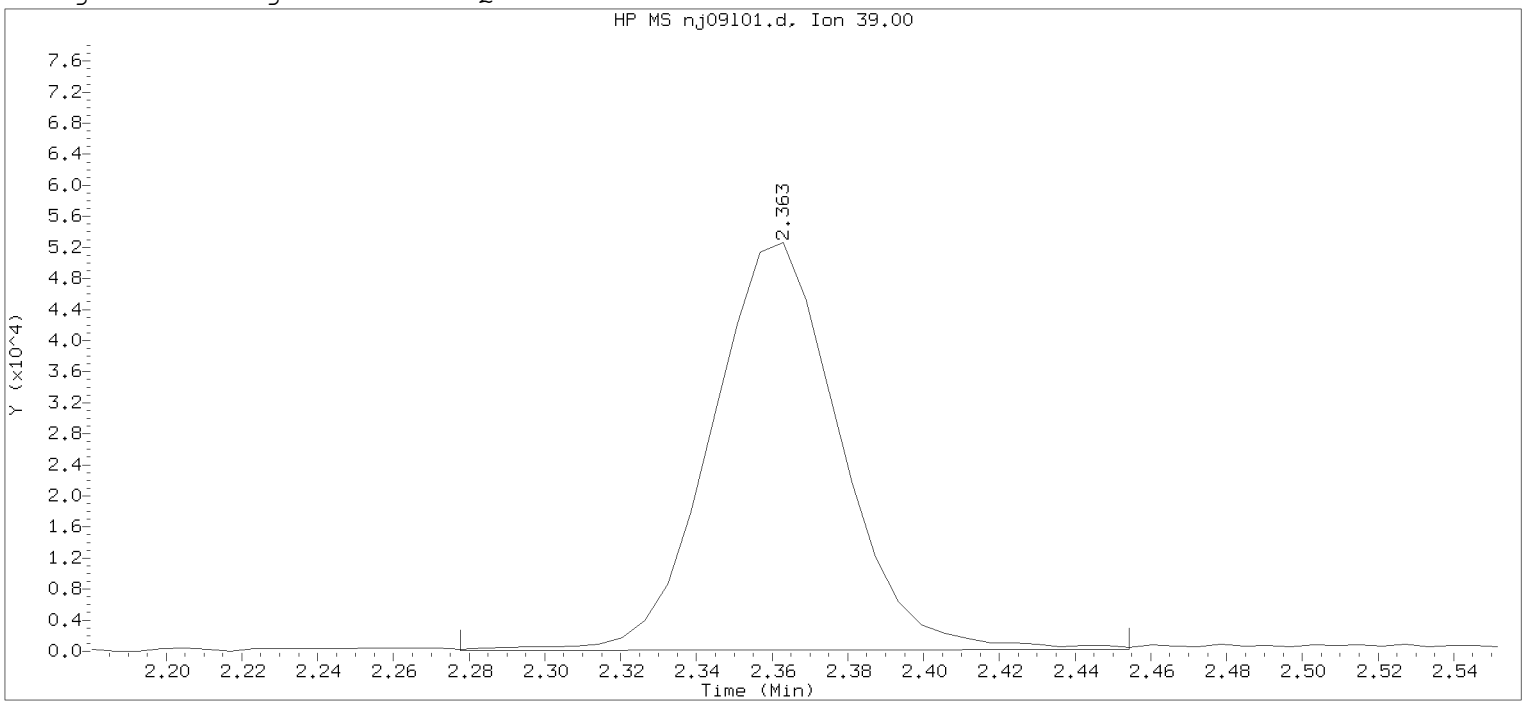
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

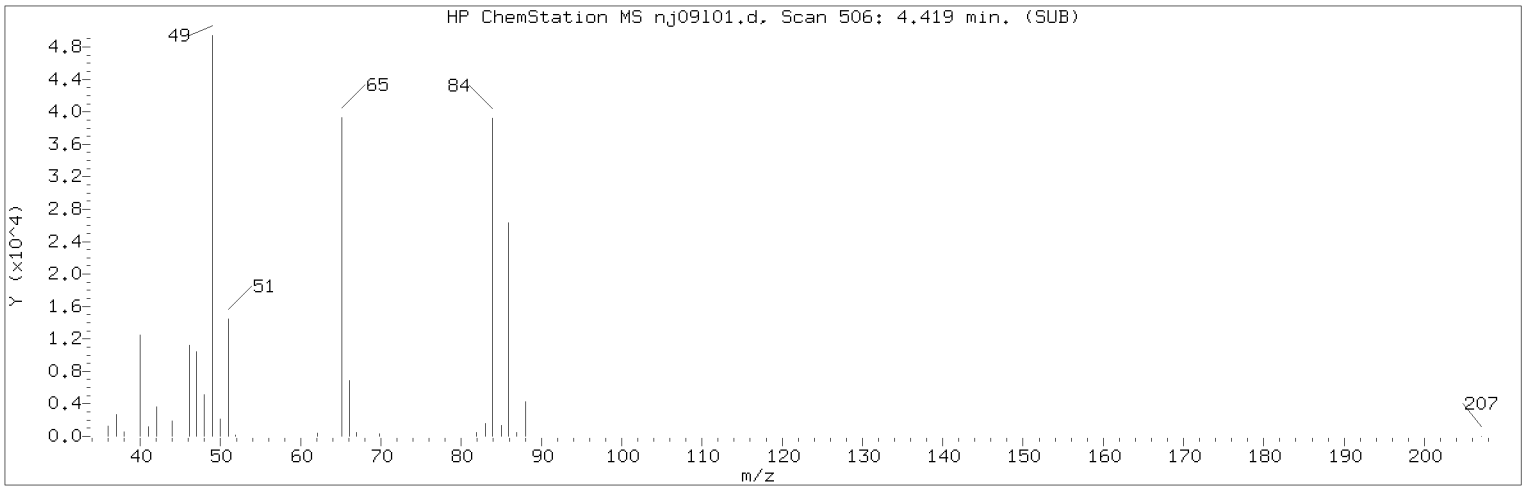
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

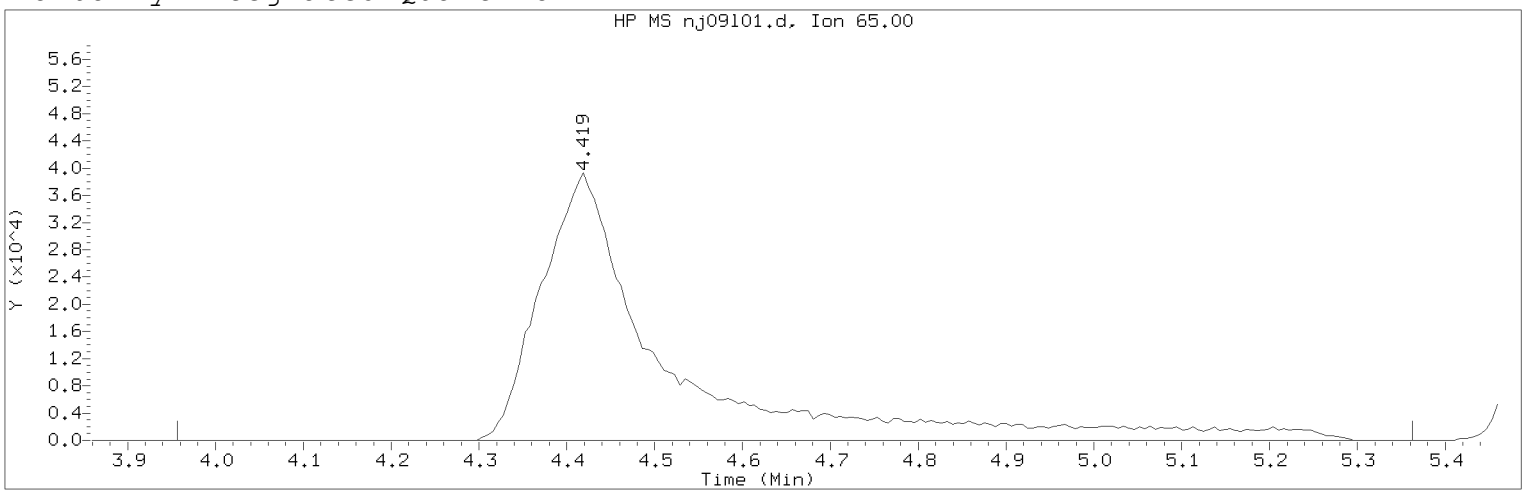
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 168
Retention Time (minutes): 2.363
Quant Ion : 39.00
Area : 123778
On-column Amount (ng) : 16.2471
Integration start scan : 153 Integration stop scan: 182
Y at integration start : 98 Y at integration end: 217

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

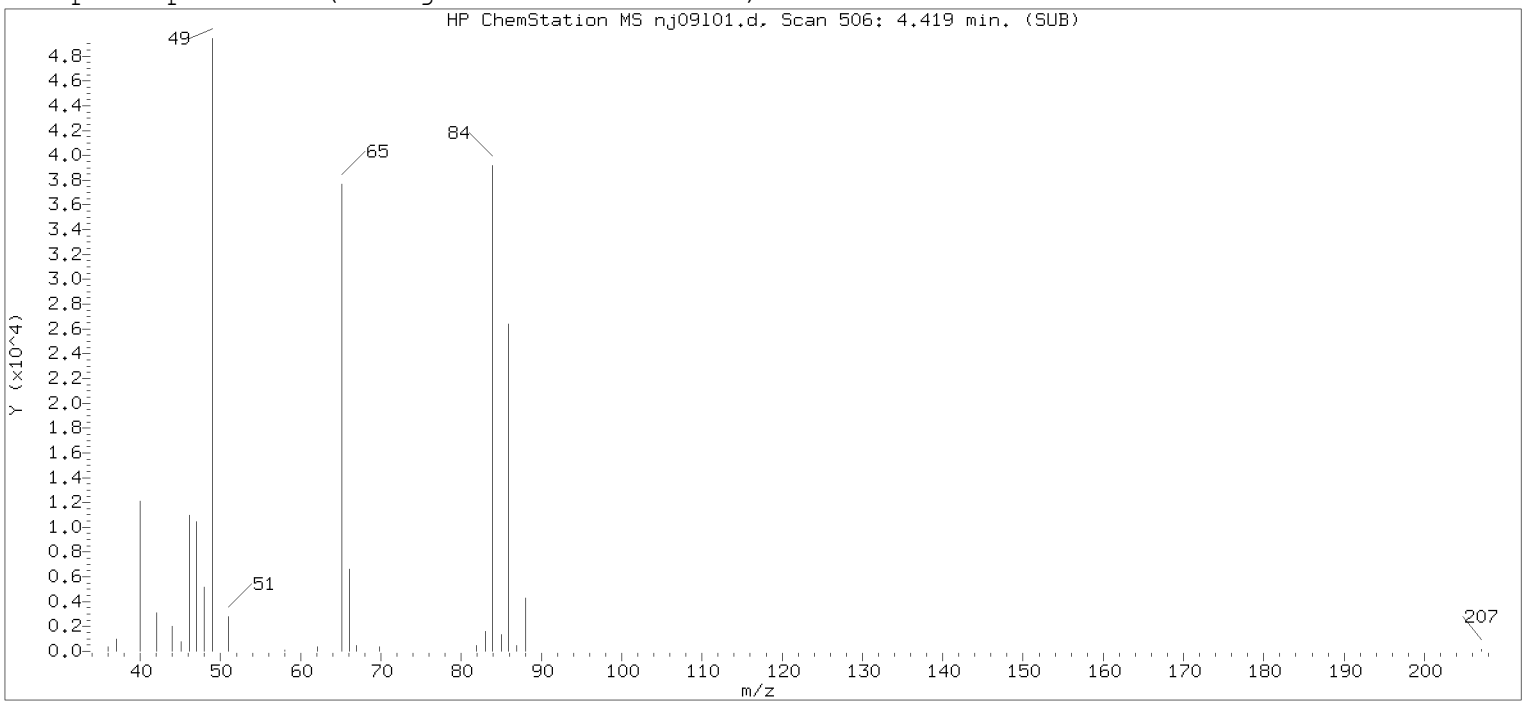
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area (flag) : 390248M
On-Column Amount (ng) : 250.0000
Integration start scan : 429 Integration stop scan: 660
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

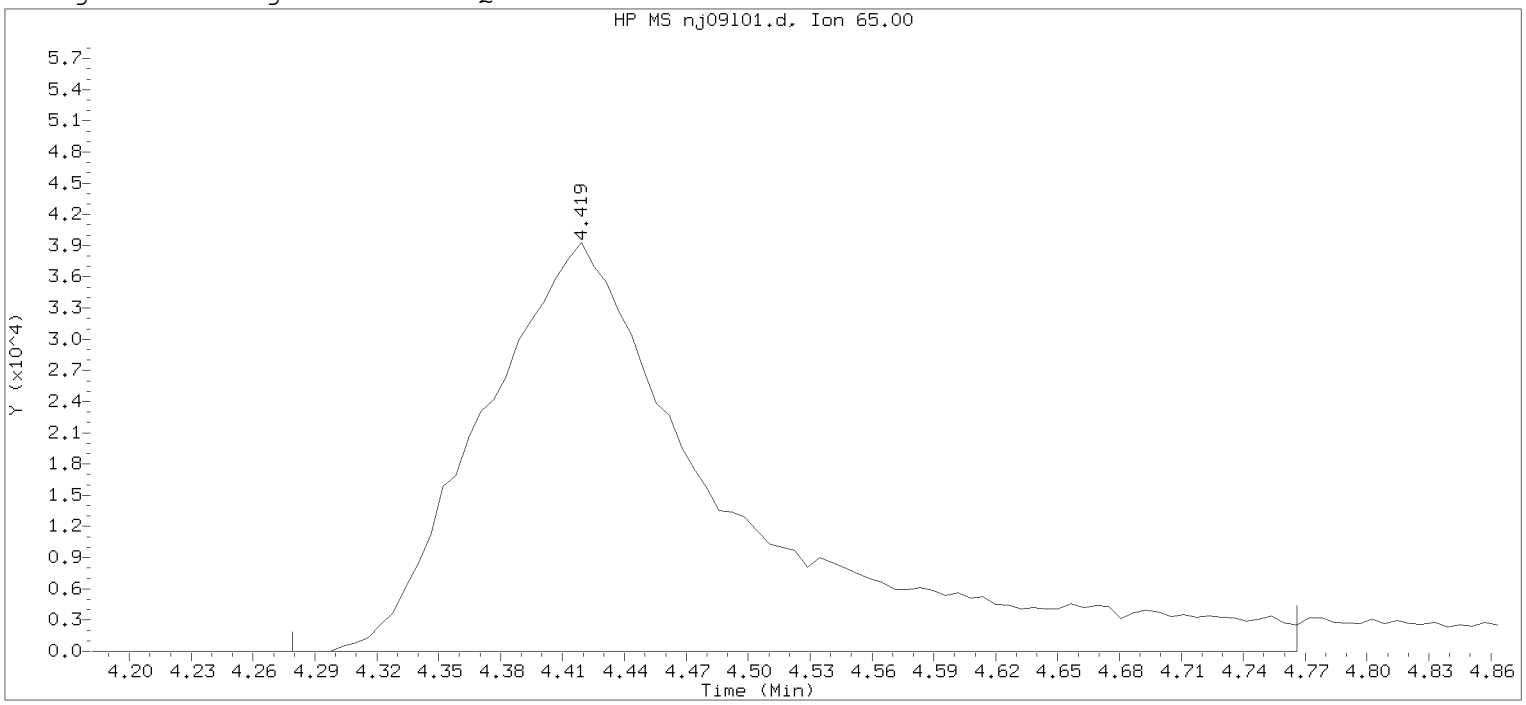
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

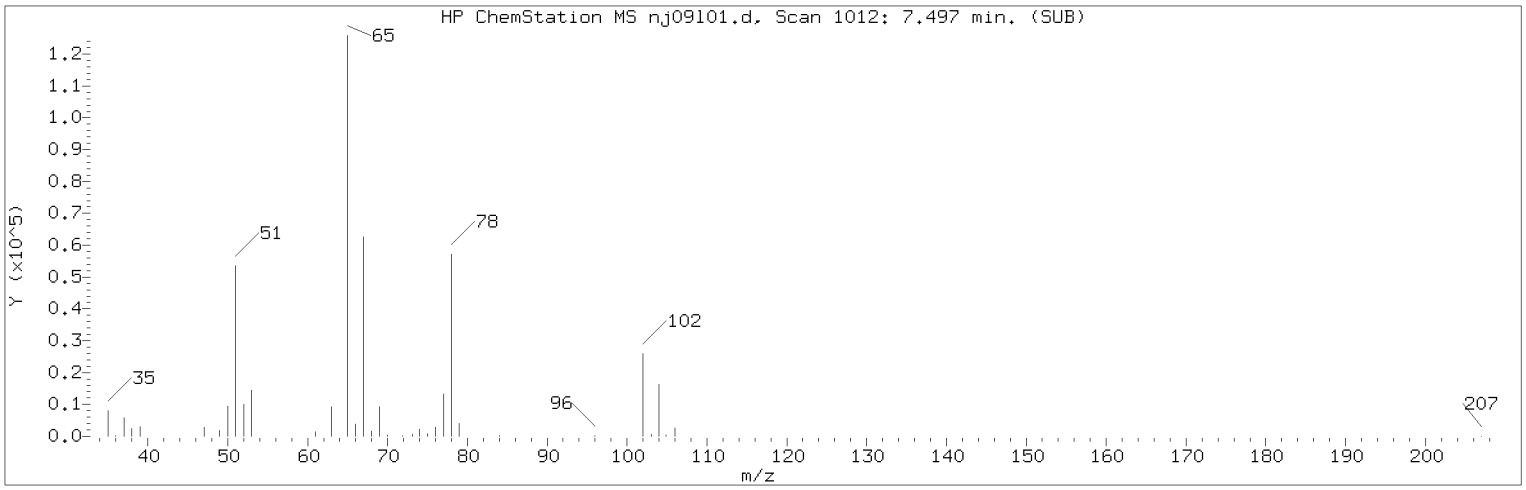
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

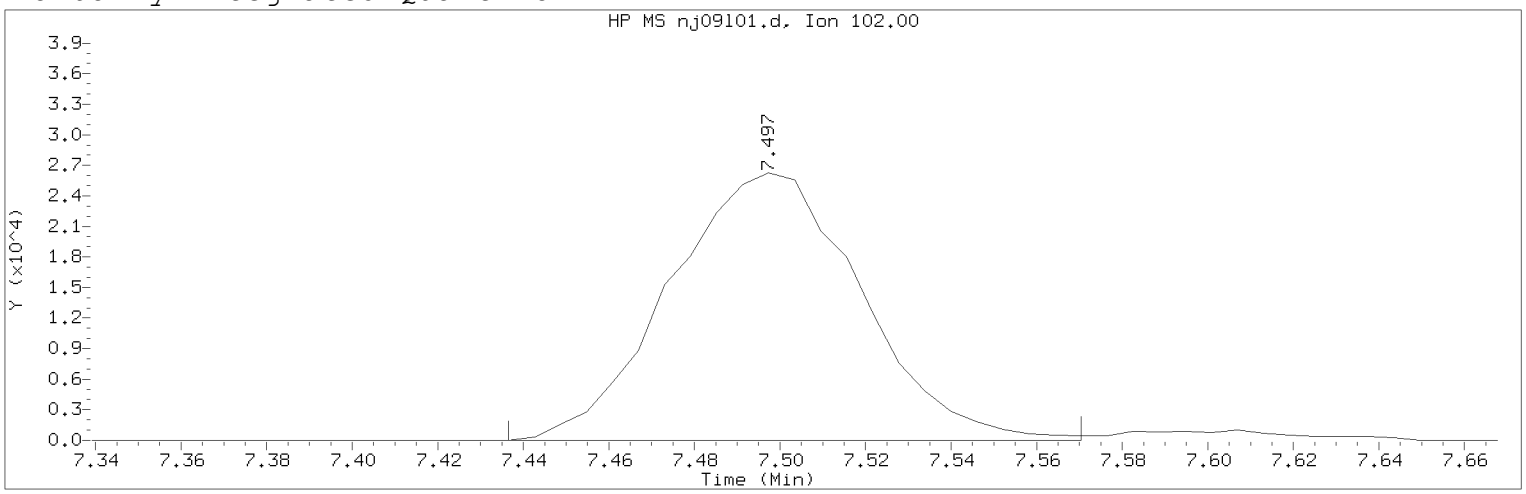
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 506
Retention Time (minutes): 4.419
Quant Ion : 65.00
Area : 329830
On-column Amount (ng) : 250.0000
Integration start scan : 482 Integration stop scan: 562
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user name: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

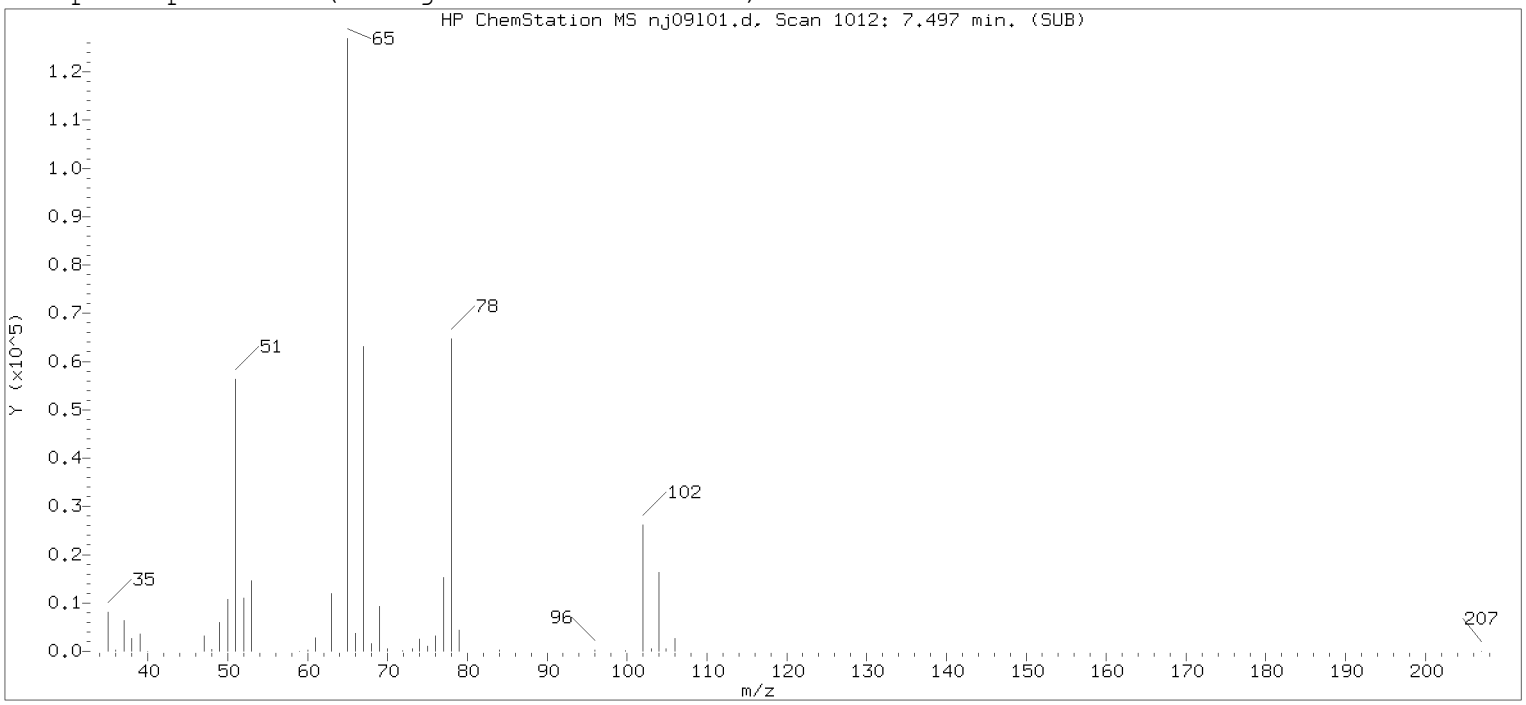
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area (flag) : 81217M
On-Column Amount (ng) : 49.4437
Integration start scan : 1001 Integration stop scan: 1023
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

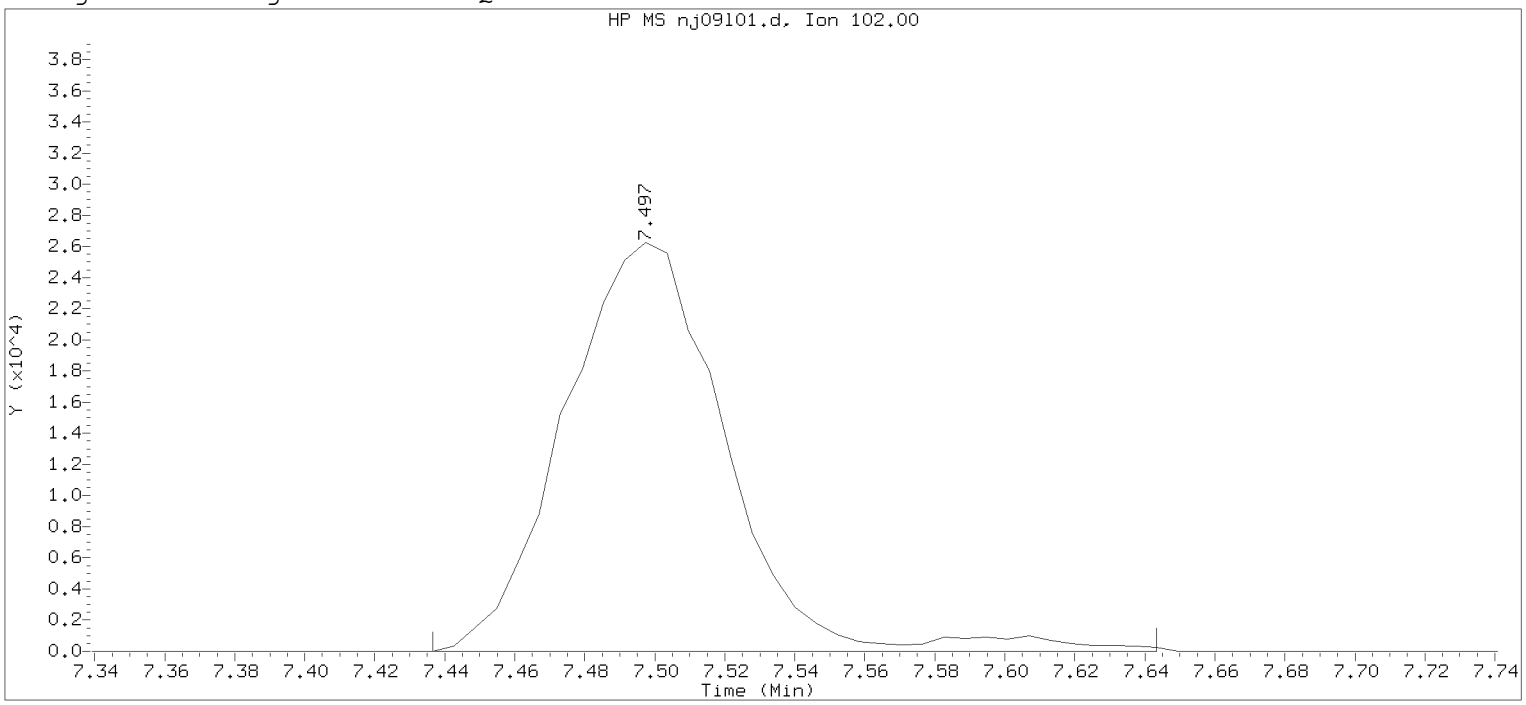
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

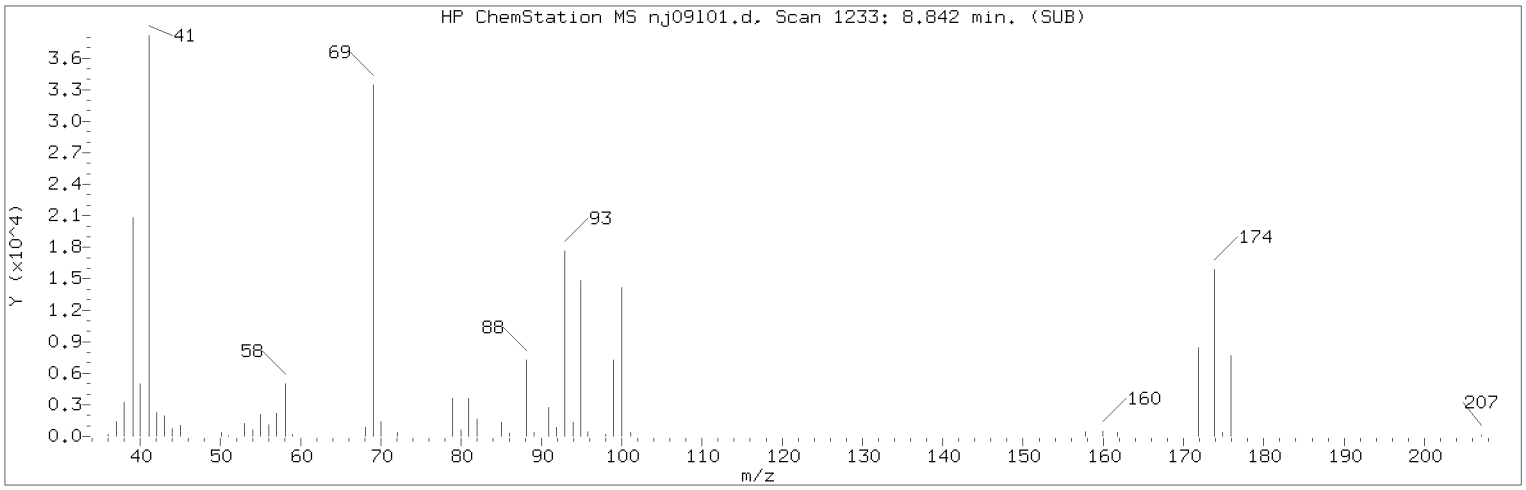
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

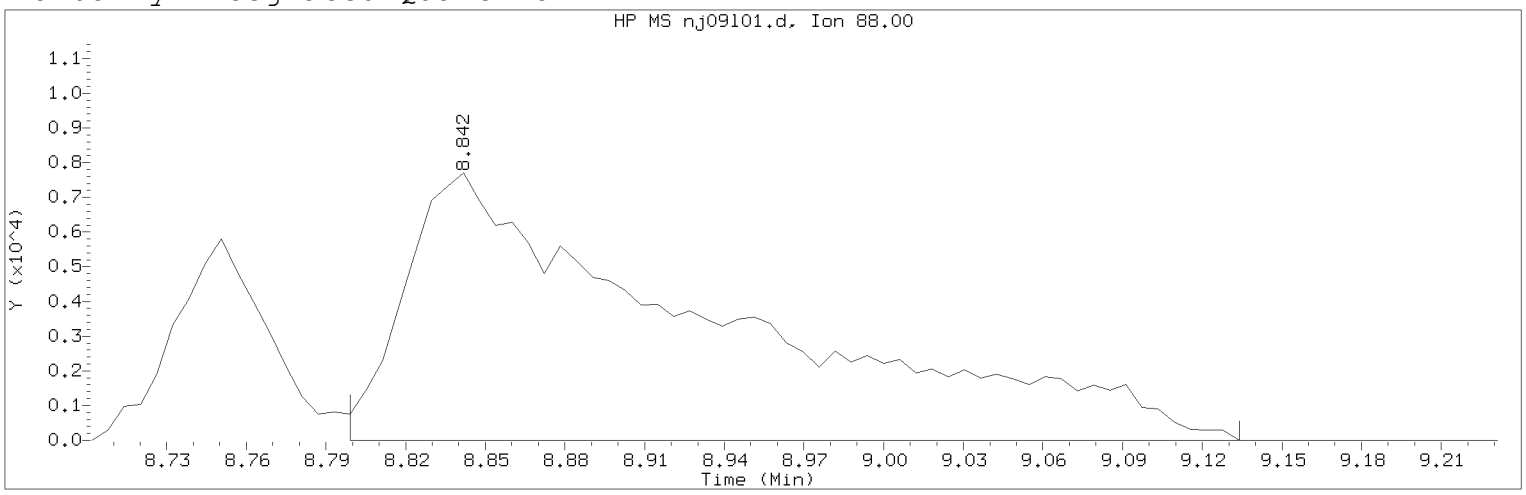
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 1012
Retention Time (minutes): 7.497
Quant Ion : 102.00
Area : 83865
On-column Amount (ng) : 51.0558
Integration start scan : 1001 Integration stop scan: 1035
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

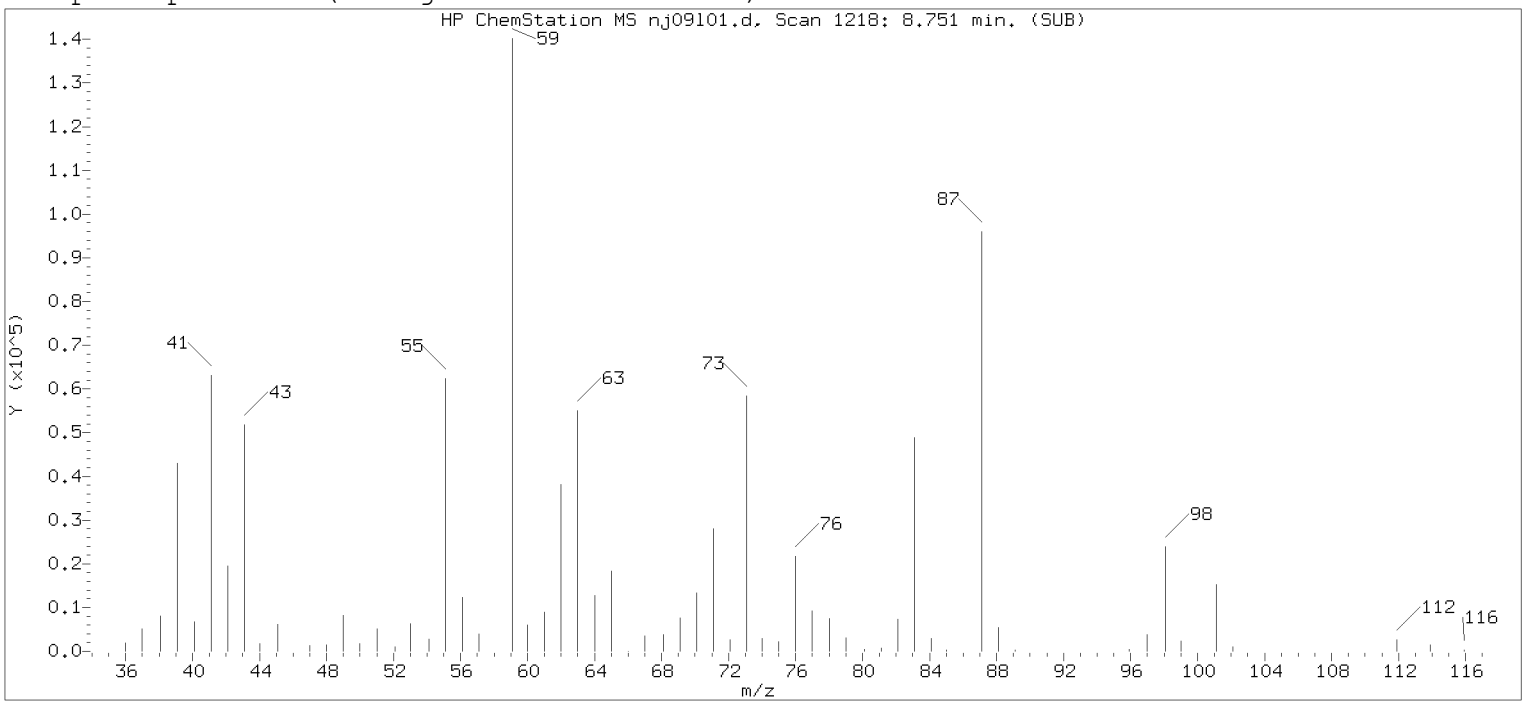
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1233
Retention Time (minutes): 8.842
Quant Ion : 88.00
Area (flag) : 61853M
On-Column Amount (ng) : 545.3766
Integration start scan : 1225 Integration stop scan: 1280
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

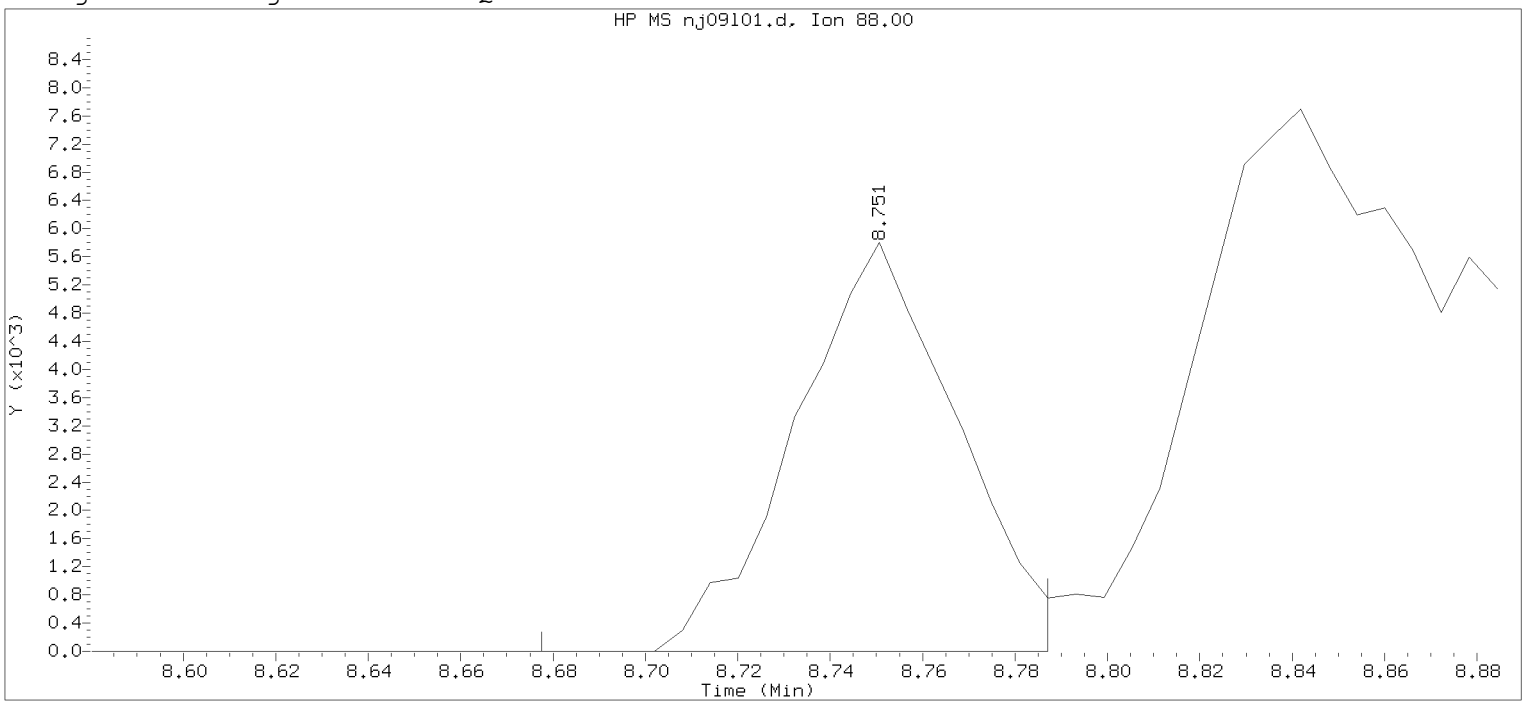
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

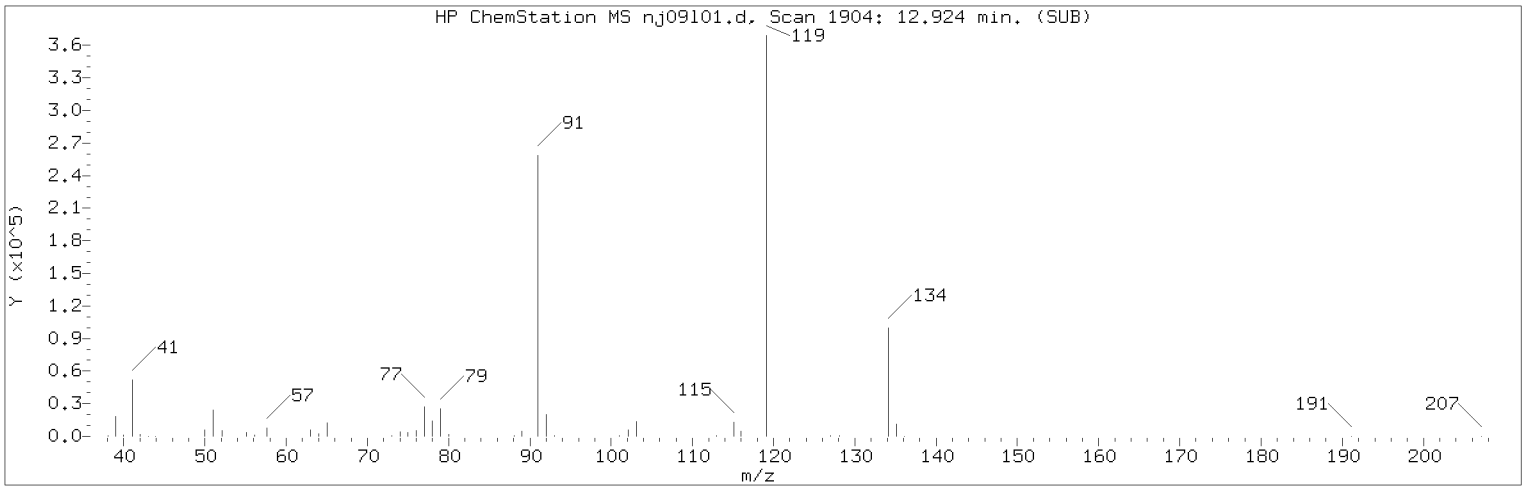
Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

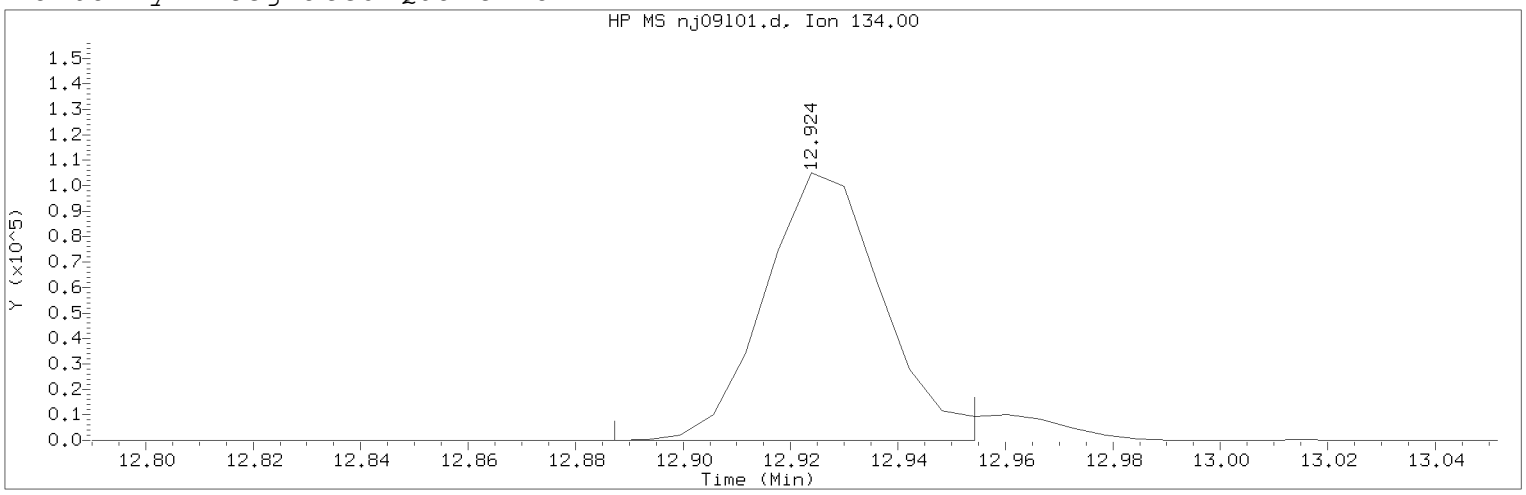
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1218
Retention Time (minutes): 8.751
Quant Ion : 88.00
Area : 13966
On-column Amount (ng) : 145.7067
Integration start scan : 1205 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09101.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:59
Date, time and analyst ID of latest file update: 09-Jan-2020 11:59 amd00492

Sample Name: LCSNICV Lab Sample ID: LCSNICV

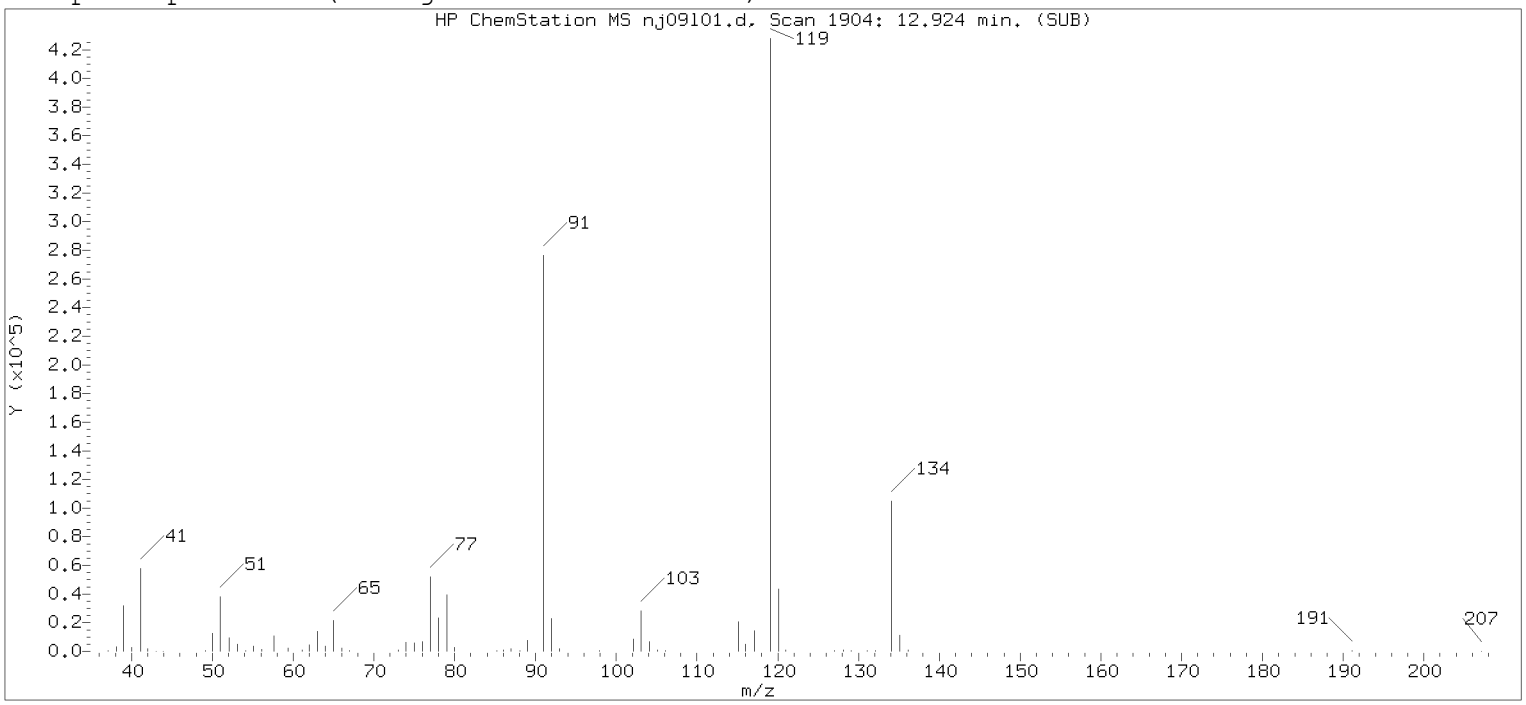
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area (flag) : 159664M
On-Column Amount (ng) : 19.8950
Integration start scan : 1897 Integration stop scan: 1908
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

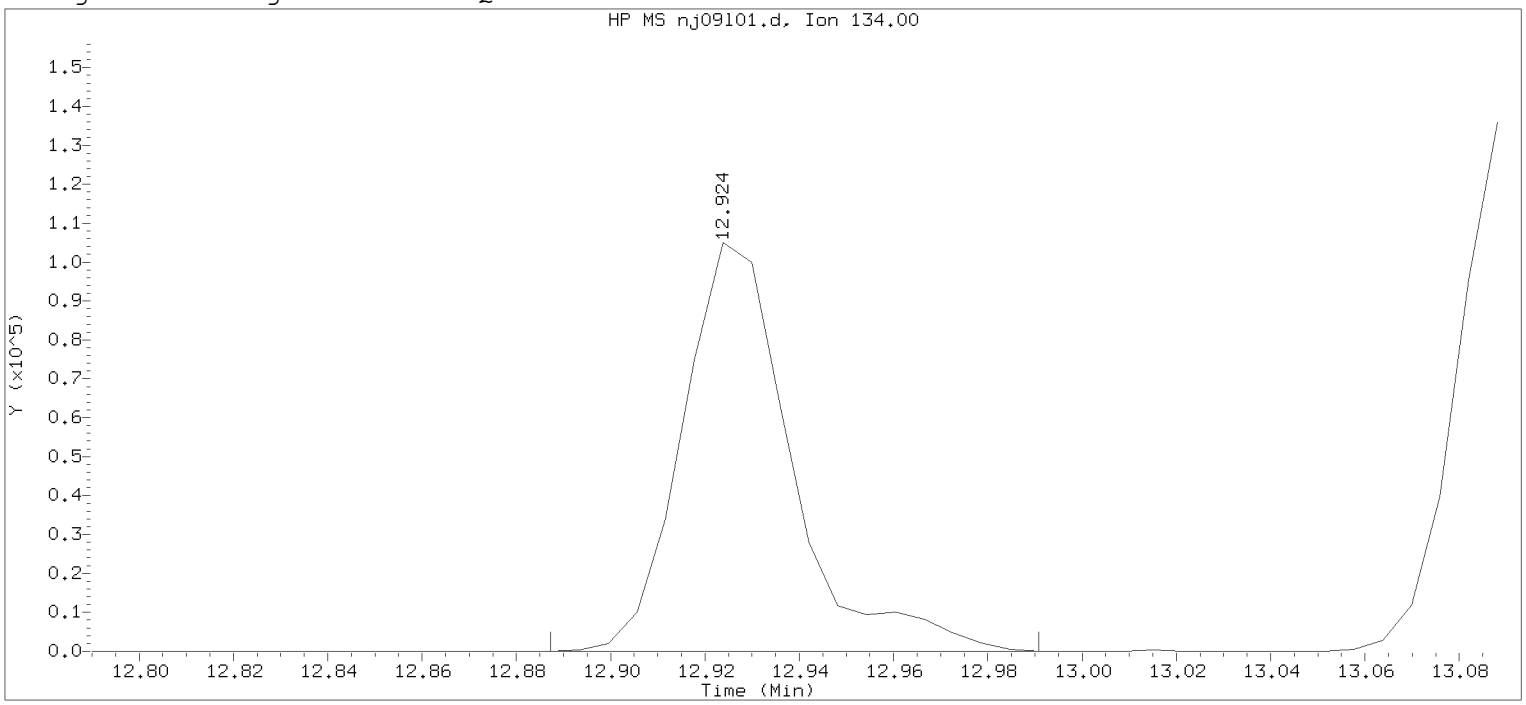
Analyst responsible for change: Digitally signed by Anita M. Dale
on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Secondary review performed and digitally signed by Kelly E. Keller on 01/09/2020 at 14:26.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20jan09a.b/nj09l01.d Instrument ID: HP07159.i
Injection date and time: 09-JAN-2020 10:26 Analyst ID: amd00492

Method used: /chem/HP07159.i/20jan09a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 09-JAN-2020 11:50
Date, time and analyst ID of latest file update: 09-Jan-2020 11:51 Automation

Sample Name: LCSNICV Lab Sample ID: LCSNICV

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1904
Retention Time (minutes): 12.924
Quant Ion : 134.00
Area : 169051
On-column Amount (ng) : 21.0648
Integration start scan : 1897 Integration stop scan: 1914
Y at integration start : 0 Y at integration end: 0

Digitally signed by Anita M. Dale on 01/09/2020 at 12:05.
Target 3.5 esignature user ID: amd00492

Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

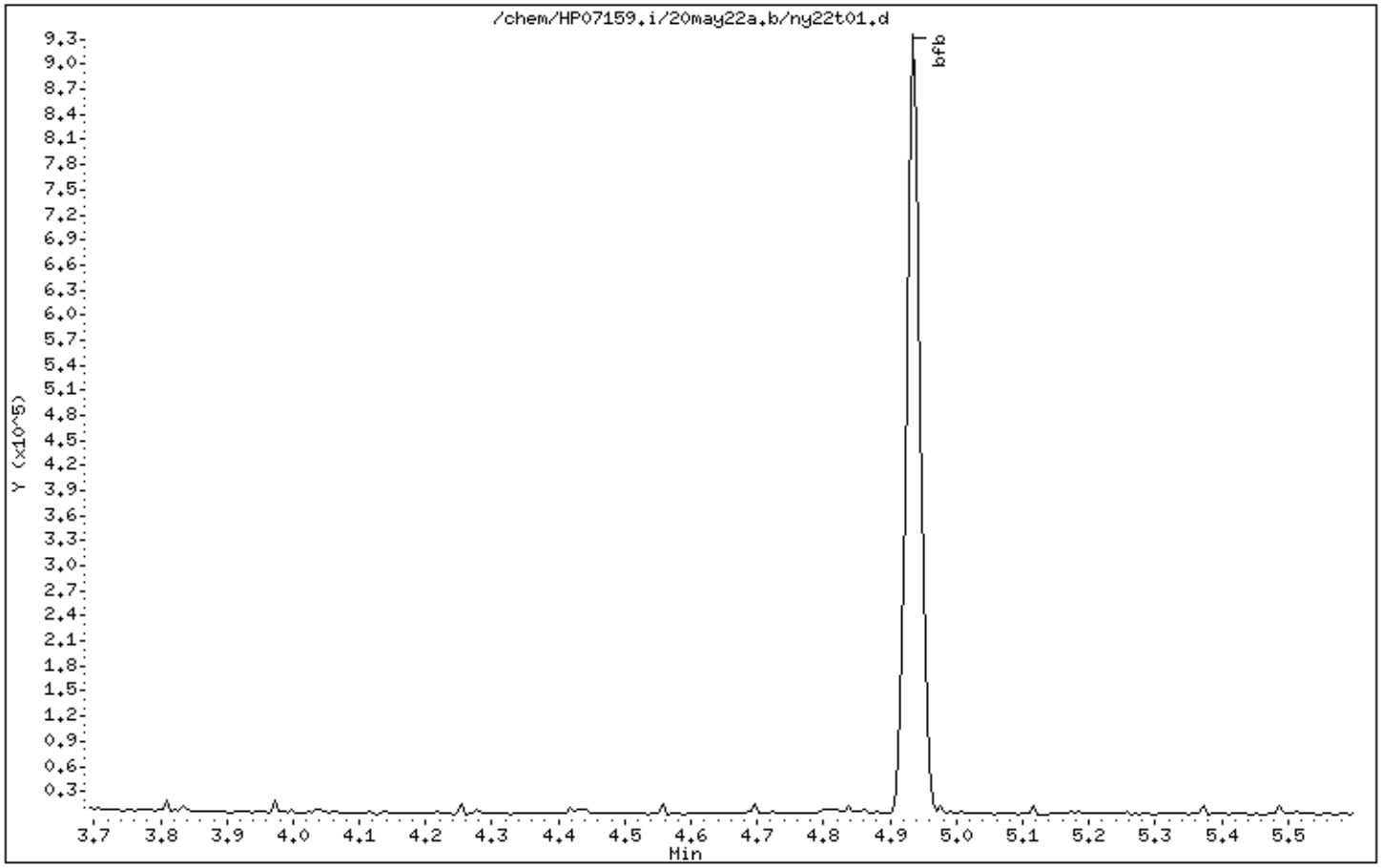
Instrument: HP07159.i

Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP07159.i/20may22a.b/ny22t01.d

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20

Instrument: HP07159.i

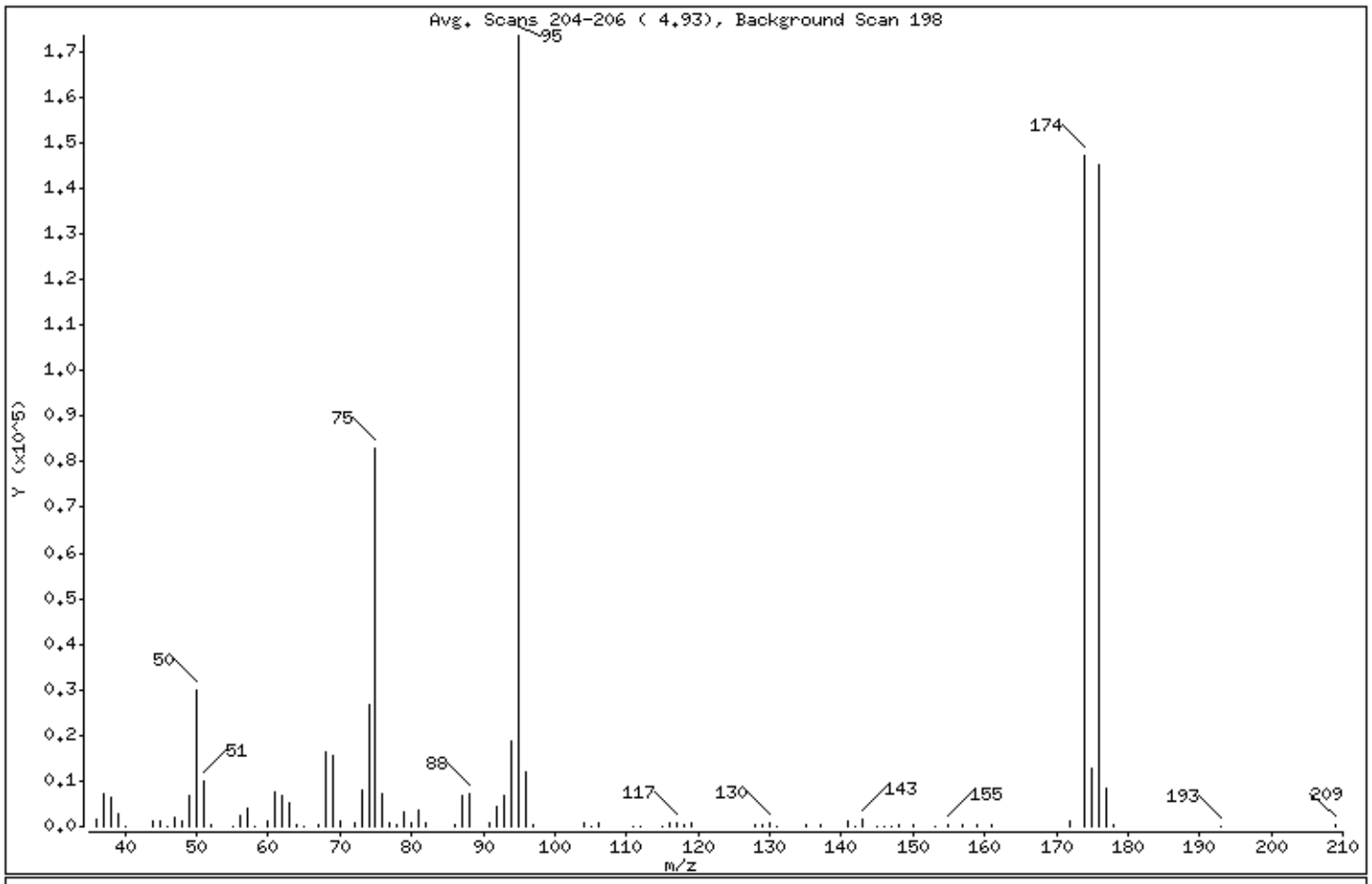
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.35
75	30.00 - 60.00% of mass 95	47.85
96	5.00 - 9.00% of mass 95	6.83
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	84.93
175	5.00 - 9.00% of mass 174	7.33 (8.63)
176	95.00 - 101.00% of mass 174	83.78 (98.65)
177	5.00 - 9.00% of mass 176	4.93 (5.88)

Date : 22-MAY-2020 09:26

Client ID: BFB JAN28-20 Instrument: HP07159.i

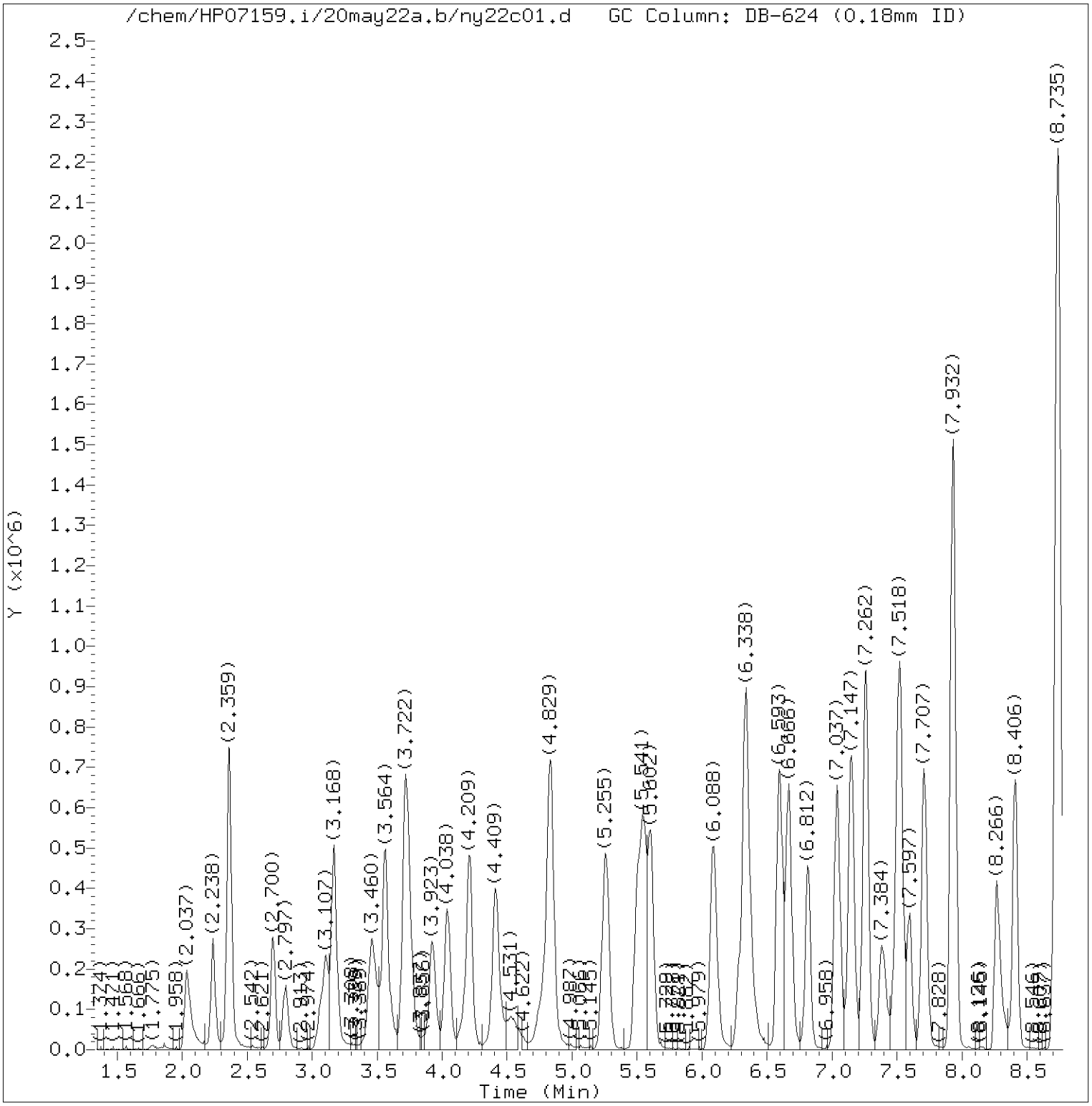
Sample Info: BFB JAN28-20;50NGBFB;1;3;;

Operator: lcp00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ny22t01.d
Spectrum: Avg. Scans 204-206 (4.93), Background Scan 198
Location of Maximum: 95.00
Number of points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1543	64.00	548	93.00	6925	142.00	184
37.00	7090	65.00	86	94.00	18800	143.00	1577
38.00	6266	67.00	260	95.00	173504	145.00	86
39.00	2619	68.00	16226	96.00	11859	146.00	92
40.00	30	69.00	15724	97.00	588	147.00	131
44.00	1071	70.00	1203	104.00	768	148.00	332
45.00	1375	72.00	893	105.00	104	150.00	231
46.00	117	73.00	7916	106.00	658	153.00	99
47.00	1804	74.00	26824	111.00	168	155.00	480
48.00	1013	75.00	83024	112.00	87	157.00	202
49.00	6831	76.00	7320	115.00	88	159.00	314
50.00	30096	77.00	772	116.00	627	161.00	283
51.00	9995	78.00	583	117.00	758	172.00	1179
52.00	449	79.00	3192	118.00	424	174.00	147328
55.00	96	80.00	838	119.00	639	175.00	12724
56.00	2212	81.00	3646	128.00	582	176.00	145344
57.00	4041	82.00	786	129.00	385	177.00	8548
58.00	105	86.00	212	130.00	748	178.00	383
60.00	1374	87.00	6732	131.00	102	193.00	146
61.00	7523	88.00	7218	135.00	406	209.00	272
62.00	6766	91.00	710	137.00	245		
63.00	5150	92.00	4242	141.00	1376		



Total Ion Chromatogram (TIC)

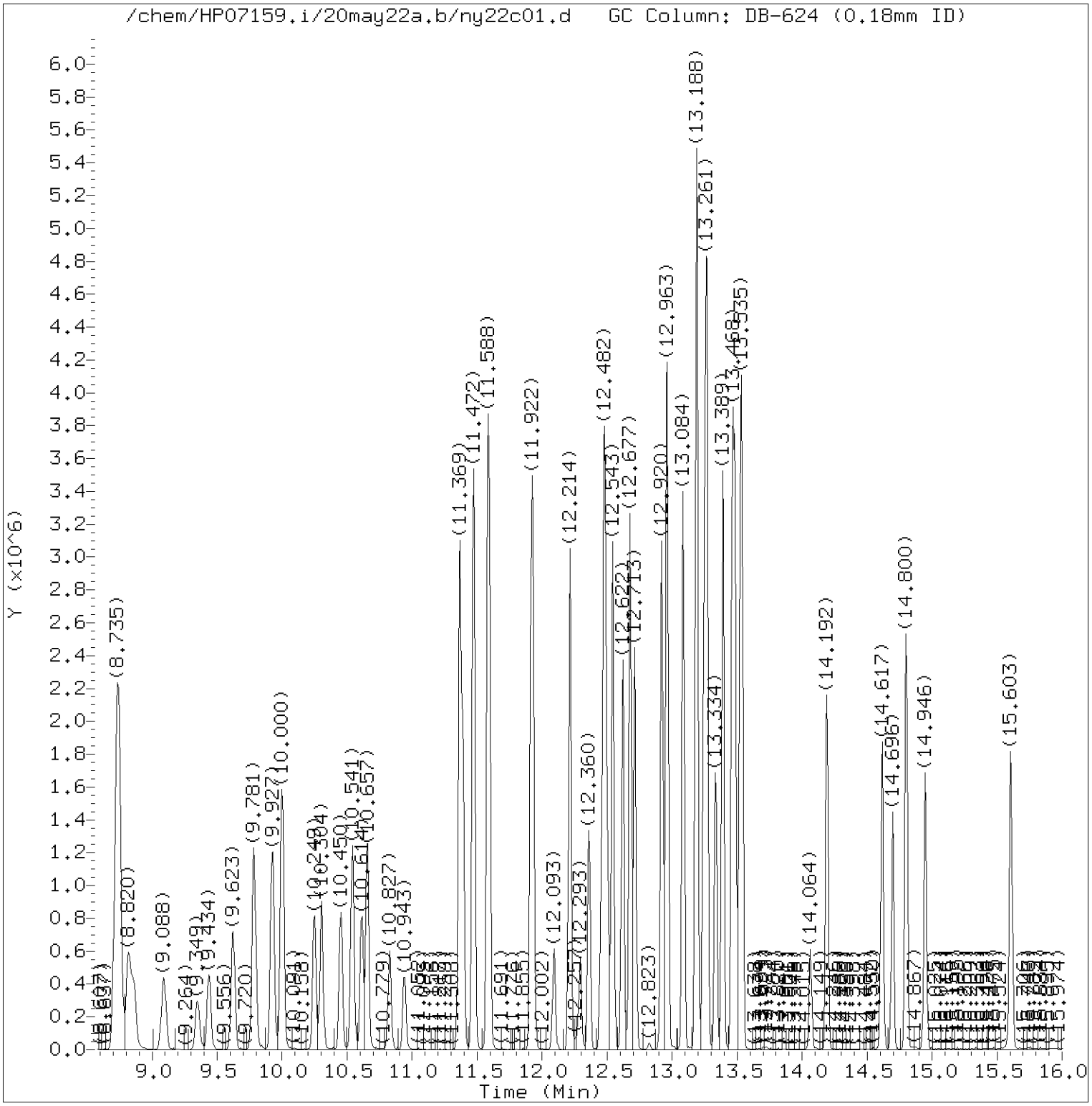
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.037	85	434571	52.874
4) Chloromethane	(2)	2.238	50	398216	45.217
6) Vinyl Chloride	(2)	2.359	62	403328	47.063
5) 1,3-Butadiene	(2)	2.365	39	335747	54.637
8) Bromomethane	(2)	2.700	94	271046	46.128
9) Chloroethane	(2)	2.797	64	236575	47.165
12) Trichlorofluoromethane	(2)	3.107	101	449484	47.723
11) n-Pentane	(2)	3.168	43	524257	56.811
13) Ethanol	(1)	3.235	45	93495	1367.953
15) Freon 123a	(2)	3.460	67	332121	48.132
16) Acrolein	(1)	3.564	56	852696	445.297
17) 1,1-Dichloroethene	(2)	3.716	96	265871	48.436
17) 1,1-Dichloroethene	(2)	3.716	63	137886	47.871
18) Acetone	(1)	3.740	58	79174	98.165
19) Freon 113	(2)	3.740	101	286096	56.176
21) 2-Propanol	(1)	3.910	45	133674	250.935
22) Methyl Iodide	(2)	3.923	142	494755	48.289
23) Carbon Disulfide	(2)	4.038	76	885500	50.447
27) Methyl Acetate	(2)	4.178	43	318153	47.180
25) Allyl Chloride	(2)	4.209	41	471820	48.689
28) Methylene Chloride	(2)	4.415	84	300336	46.068
29)*t-Butyl alcohol-d10	(1)	4.422	65	282380	250.000
30) t-Butyl alcohol	(1)	4.537	59	303717	288.498
31) Acrylonitrile	(2)	4.744	53	159751	43.864
33) Methyl Tertiary Butyl Ether	(2)	4.811	73	798907	44.789
32) trans-1,2-Dichloroethene	(2)	4.841	96	300509	47.955
34) n-Hexane	(2)	5.255	57	499883	57.786
36) 1,1-Dichloroethane	(2)	5.498	63	554022	48.465
38) di-Isopropyl ether	(2)	5.547	45	951491	48.318
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	489737	48.533
40) Ethyl t-butyl ether	(2)	6.082	59	846676	45.236
43) 1,2-Dichloroethene (Total)	(2)		96	640147	95.678
44) 2-Butanone	(2)	6.283	43	457600	89.858
42) cis-1,2-Dichloroethene	(2)	6.332	96	339638	47.723
45) 2,2-Dichloropropane	(2)	6.344	77	445708	44.162
47) Propionitrile	(1)	6.386	54	358625	291.669
48) Methacrylonitrile	(2)	6.593	67	460266	125.113
49) Bromochloromethane	(2)	6.666	128	175438	52.135

* = Compound is an internal standard.

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on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.666	71	122848	96.235
51) Chloroform	(2)	6.812	83	524902	47.075
52)$Dibromofluoromethane	(2)	7.031	113	248839	47.486
52)$Dibromofluoromethane	(2)	7.031	111	253672	47.410
53) 1,1,1-Trichloroethane	(2)	7.043	97	462153	45.814
54) Cyclohexane	(2)	7.147	56	580953	55.990
54) Cyclohexane	(2)	7.147	84	515352	56.989
54) Cyclohexane	(2)	7.141	69	177075	54.295
55) 1,1-Dichloropropene	(2)	7.256	75	439817	48.202
56) Carbon Tetrachloride	(2)	7.256	117	413711	47.565
58) Isobutyl Alcohol	(1)	7.384	41	271368M	719.597
57)$1,2-Dichloroethane-d4	(2)	7.494	102	63198	47.699
57)$1,2-Dichloroethane-d4	(2)	7.488	65	306730	48.564
57)$1,2-Dichloroethane-d4	(2)	7.494	104	40708	48.289
60) Benzene	(2)	7.524	78	1256540	48.379
61) 1,2-Dichloroethane	(2)	7.597	62	411135	44.744
61) 1,2-Dichloroethane	(2)	7.597	98	39414	52.116
65) t-Amyl methyl ether	(2)	7.707	73	872487	46.466
66)*Fluorobenzene	(2)	7.926	96	1055917	50.000
67) n-Heptane	(2)	7.932	43	542359	54.318
69) n-Butanol	(1)	8.266	56	469783	1446.163
71) Trichloroethene	(2)	8.406	95	319213	46.651
72) Methylcyclohexane	(2)	8.723	83	660730	58.742
72) Methylcyclohexane	(2)	8.723	98	312359	58.967
73) 1,2-Dichloropropane	(2)	8.747	63	331049	49.846
76) Methyl Methacrylate	(2)	8.820	69	301128	49.580
75) 1,4-Dioxane	(1)	8.826	88	53832M	655.980
74) Dibromomethane	(2)	8.856	93	198355	46.829
78) Bromodichloromethane	(2)	9.094	83	403915	46.711
79) 2-Nitropropane	(2)	9.349	41	244620	77.890
80) 2-Chloroethyl Vinyl Ether	(2)	9.434	63	250521	47.685
81) cis-1,3-Dichloropropene	(2)	9.623	75	524755	47.573
82) 4-Methyl-2-pentanone	(2)	9.781	43	1021300	98.985
83)$Toluene-d8	(3)	9.921	98	1010294	46.447
83)$Toluene-d8	(3)	9.927	100	671892	46.624
88) Toluene	(3)	10.000	92	830011	46.974
90) 1,3-Dichloropropene (total)	(3)		100	1024736	93.164
89) trans-1,3-Dichloropropene	(3)	10.249	75	499981	45.591

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.304	69	515718	47.199
92) 1,1,2-Trichloroethane	(3)	10.450	97	299402	47.859
93) Tetrachloroethene	(3)	10.541	166	417694	53.981
94) 1,3-Dichloropropane	(3)	10.614	76	520493	47.937
96) 2-Hexanone	(3)	10.651	43	835552	99.900
97) Dibromochloromethane	(3)	10.827	129	347197	48.362
99) 1,2-Dibromoethane	(3)	10.937	107	324470	47.365
100)*Chlorobenzene-d5	(3)	11.363	117	834018	50.000
102) Chlorobenzene	(3)	11.393	112	954031	48.377
103) 1,1,1,2-Tetrachloroethane	(3)	11.472	131	348604	49.052
104) Ethylbenzene	(3)	11.472	91	1657998	48.512
106) m+p-Xylene	(3)	11.588	106	1326529	98.786
108) Xylene (Total)	(3)		106	1982519	148.455
107) o-Xylene	(3)	11.916	106	655990	49.670
109) Styrene	(3)	11.928	104	1118128	50.407
110) Bromoform	(3)	12.093	173	288337	53.199
111) Isopropylbenzene	(3)	12.214	105	1883174	53.989
112) Cyclohexanone	(1)	12.293	55	234103	711.315
114)$4-Bromofluorobenzene	(3)	12.360	95	424039	49.344
114)$4-Bromofluorobenzene	(3)	12.360	174	358735	52.107
116) 1,1,2,2-Tetrachloroethane	(4)	12.458	83	560031	51.370
115) Bromobenzene	(4)	12.476	156	452278	49.340
118) trans-1,4-Dichloro-2-butene	(4)	12.482	53	395349	105.424
117) 1,2,3-Trichloropropane	(4)	12.506	110	169001	48.937
119) n-Propylbenzene	(4)	12.543	91	2218771	49.926
120) 2-Chlorotoluene	(4)	12.622	126	453383	49.483
122) 1,3,5-Trimethylbenzene	(4)	12.677	105	1600737	49.159
121) 4-Chlorotoluene	(4)	12.713	126	470658	49.566
124) tert-Butylbenzene	(4)	12.920	134	378216	52.414
125) Pentachloroethane	(4)	12.957	167	249242	43.138
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	1654680	48.960
127) sec-Butylbenzene	(4)	13.084	105	2149897	50.828
129) 1,3-Dichlorobenzene	(4)	13.188	146	872158	48.919
130) p-Isopropyltoluene	(4)	13.194	119	1844591	50.115
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495632	50.000
133) 1,4-Dichlorobenzene	(4)	13.261	146	890049	49.228
134) 1,2,3-Trimethylbenzene	(4)	13.267	105	1581484	48.214
135) Benzyl Chloride	(4)	13.334	91	1109815	46.058

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
141) Diethylbenzene (total)	(4)		100	3153337	147.593
136) 1,3-Diethylbenzene	(4)	13.389	119	1095914	49.739
137) 1,4-Diethylbenzene	(4)	13.462	119	1148322	49.083
139) n-Butylbenzene	(4)	13.486	92	934158	49.200
138) 1,2-Dichlorobenzene	(4)	13.522	146	843595	49.907
140) 1,2-Diethylbenzene	(4)	13.535	119	909101	48.771
142) 1,2-Dibromo-3-chloropropane	(4)	14.064	75	133178	45.202
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	641689	47.627
146) 1,2,4-Trichlorobenzene	(4)	14.617	180	561234	47.774
147) Hexachlorobutadiene	(4)	14.696	225	248130	46.693
148) Naphthalene	(4)	14.800	128	1818373	49.366
149) 1,2,3-Trichlorobenzene	(4)	14.946	180	514512	47.711
150) 2-Methylnaphthalene	(4)	15.603	142	939072	44.137

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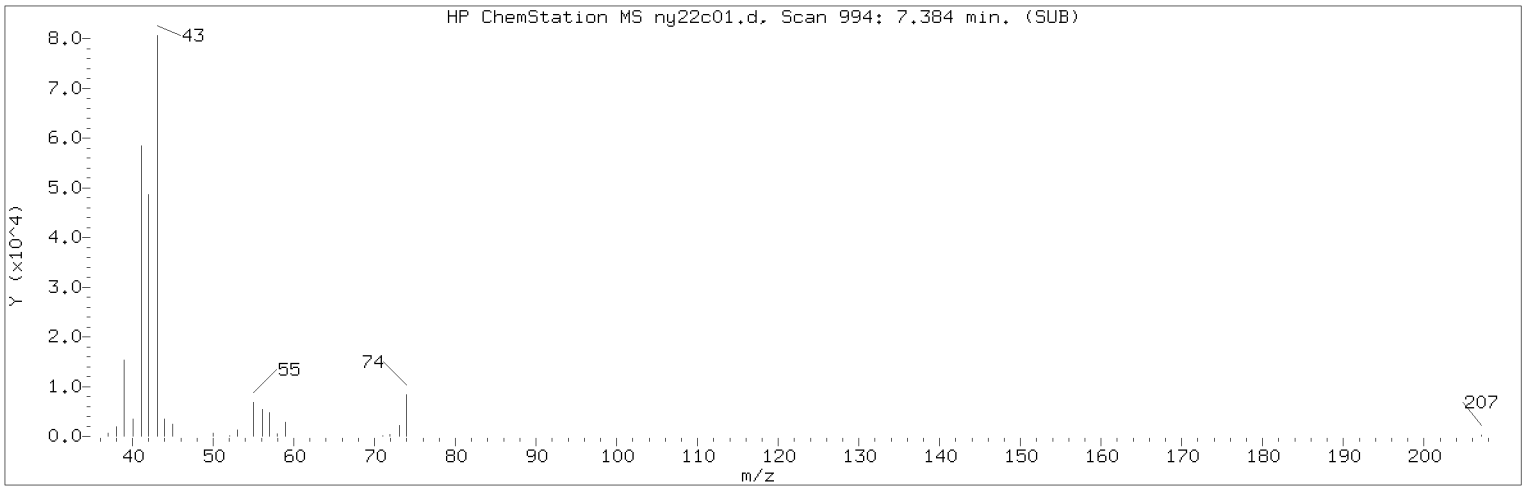
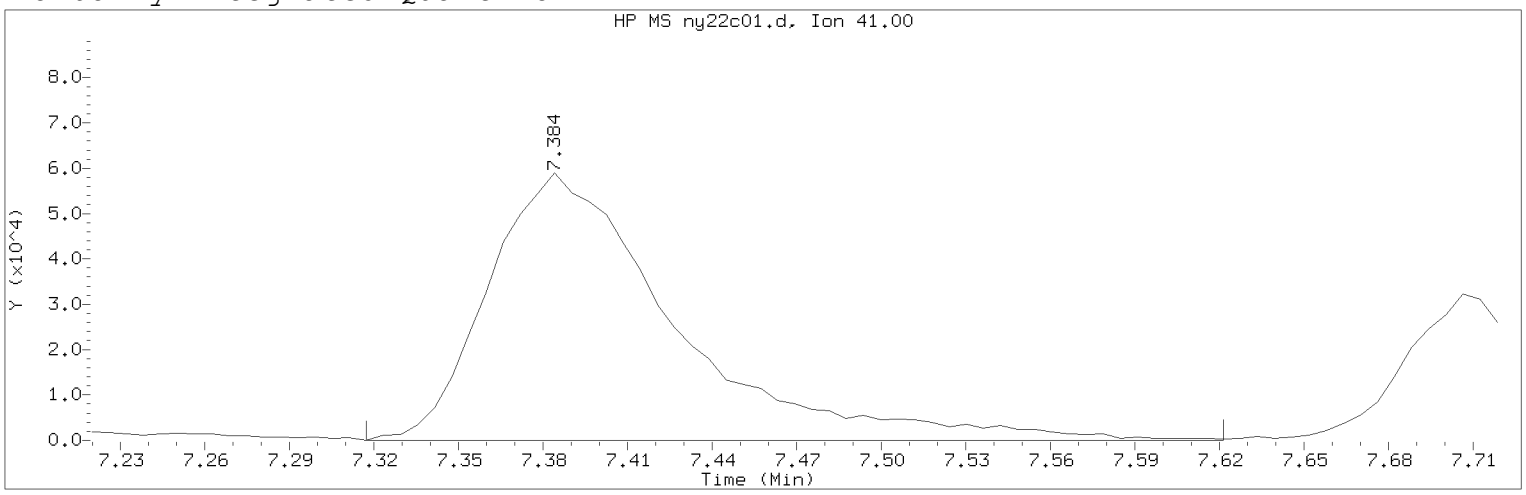
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

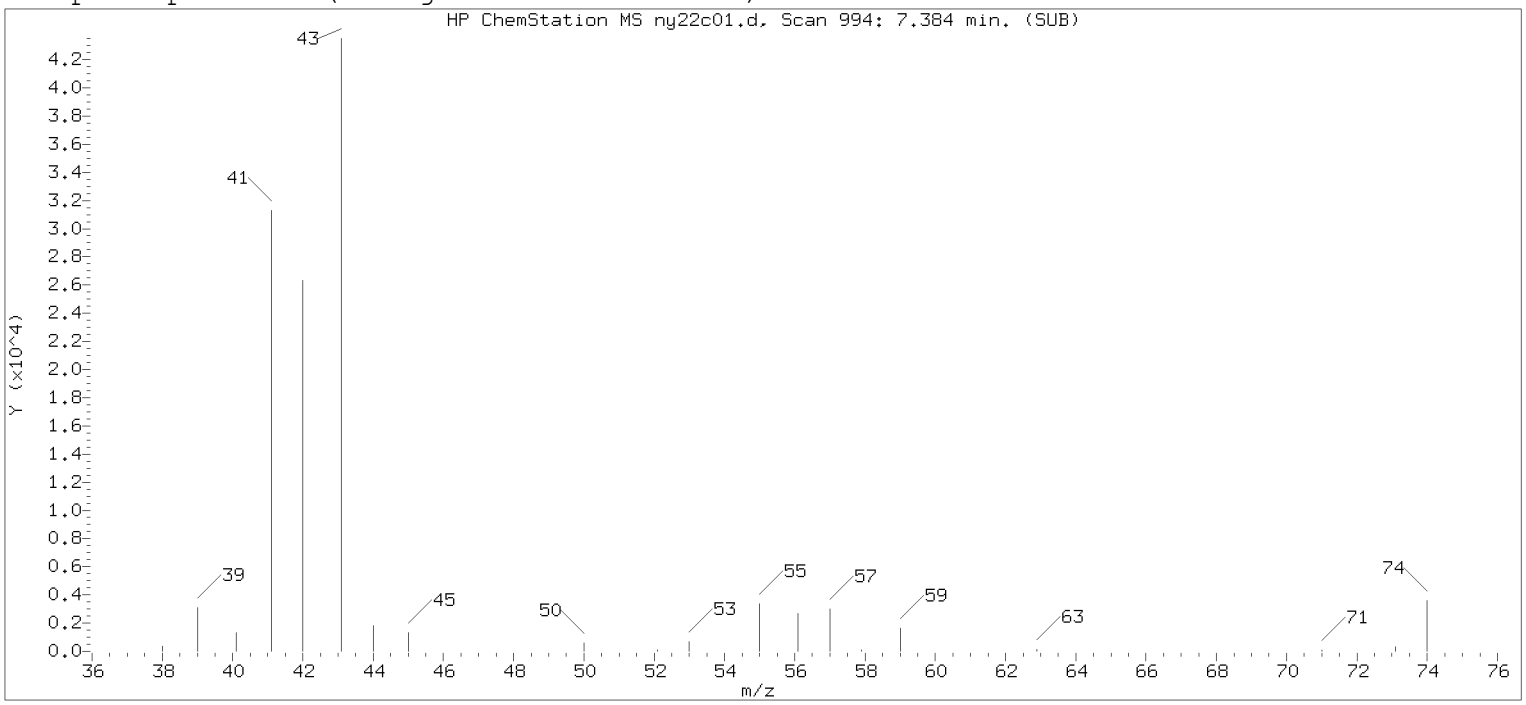
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area (flag) : 271368M
On-Column Amount (ng) : 719.5968
Integration start scan : 982 Integration stop scan: 1032
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

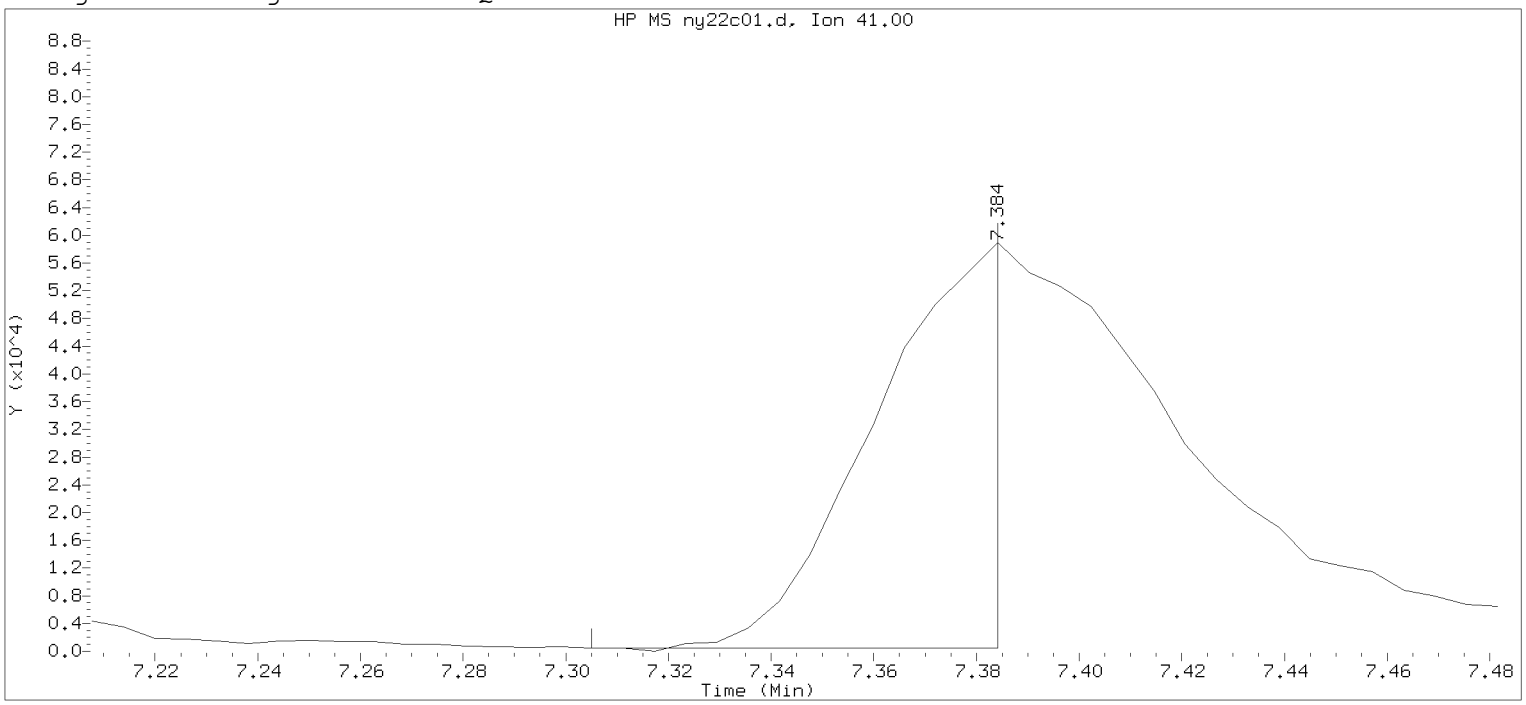
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

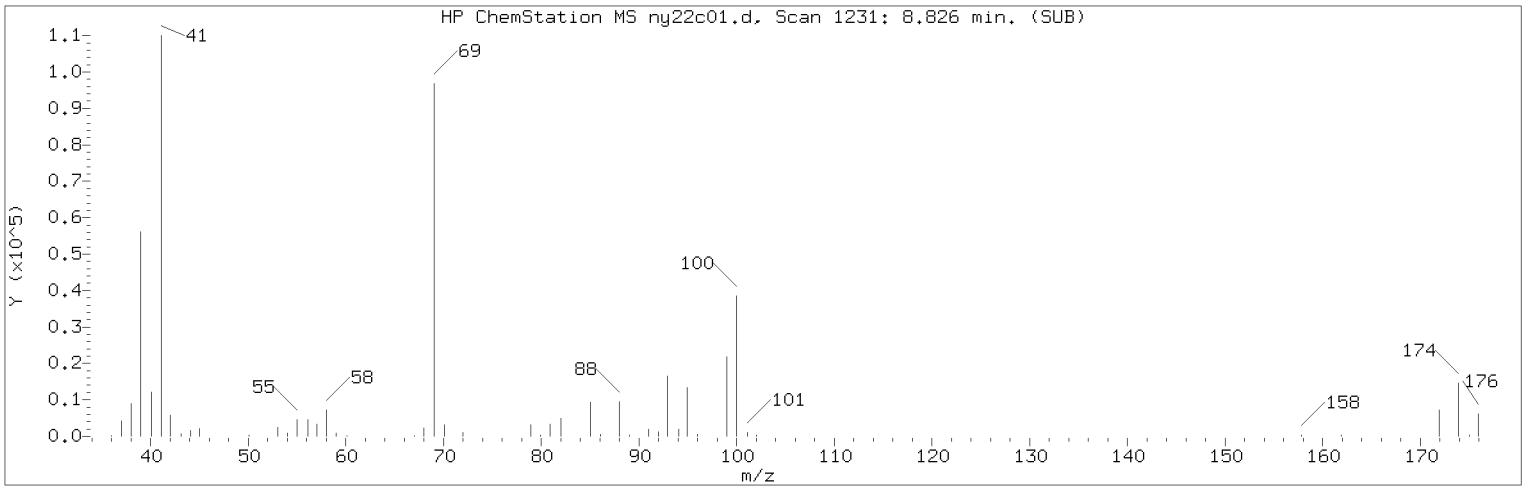
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

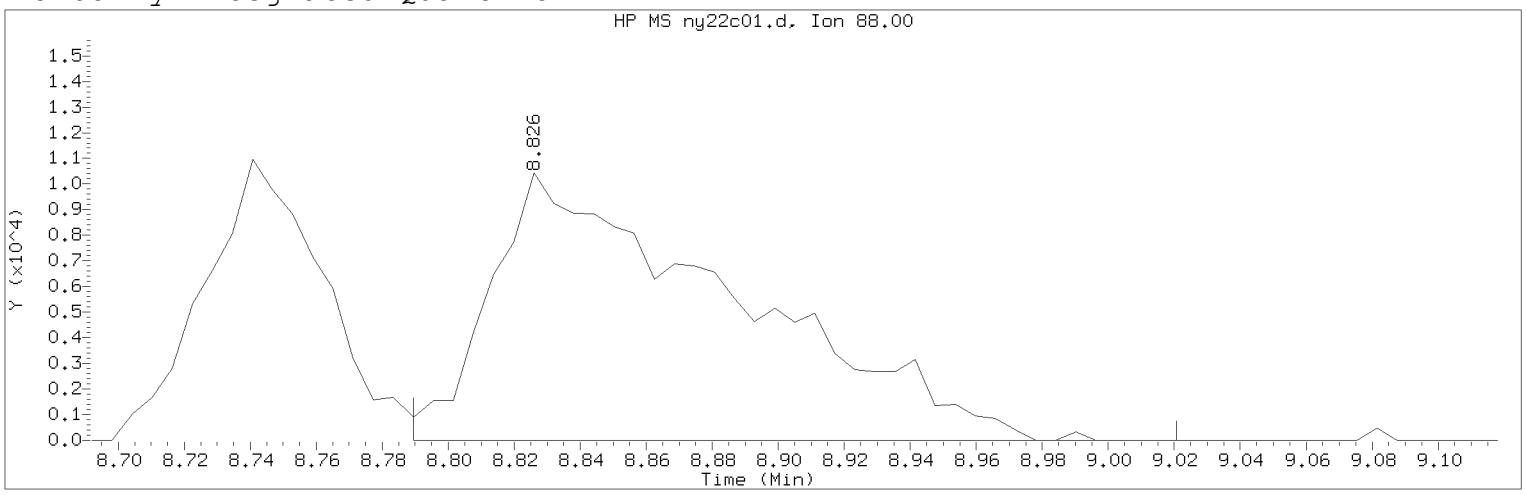
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 994
Retention Time (minutes): 7.384
Quant Ion : 41.00
Area : 93143
On-column Amount (ng) : 246.9928
Integration start scan : 980 Integration stop scan: 993
Y at integration start : 481 Y at integration end: 481

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:37 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

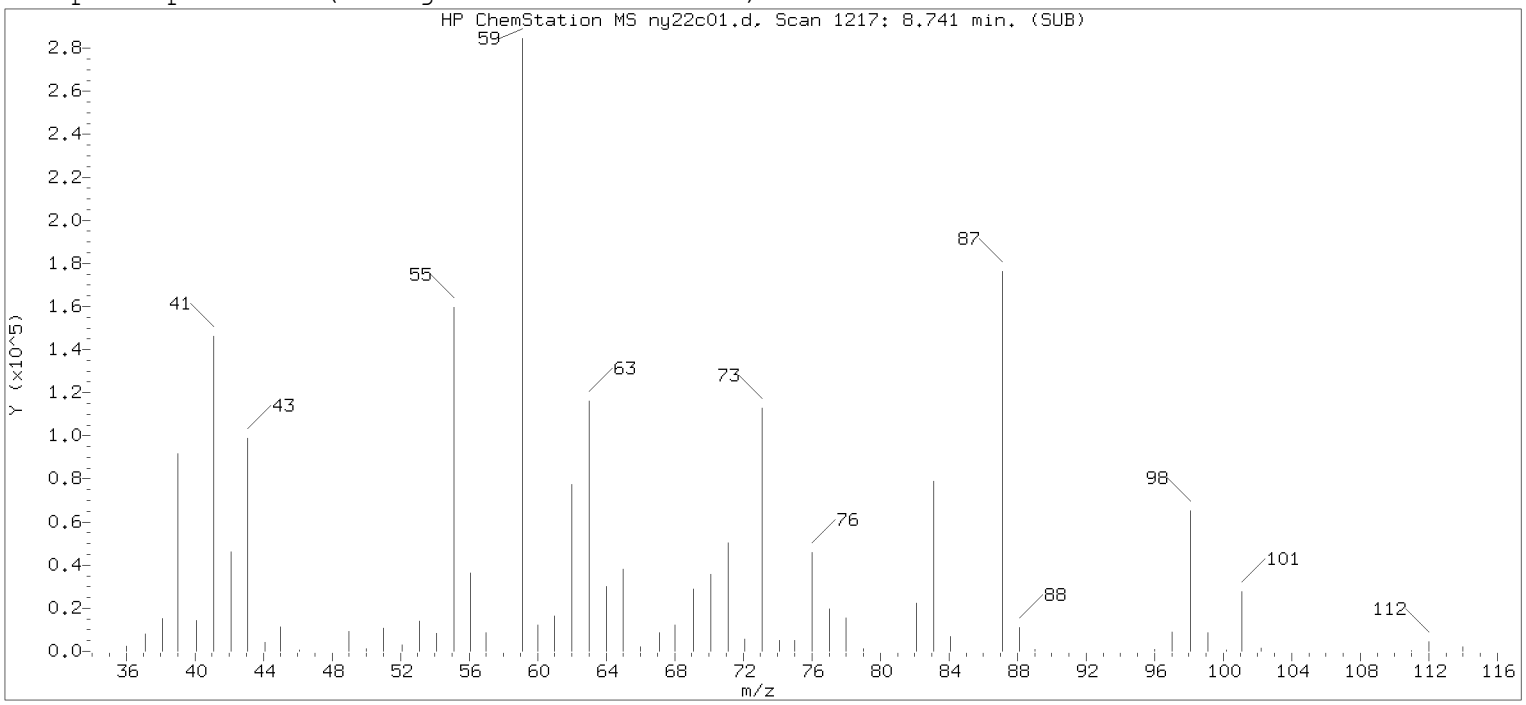
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.826
Quant Ion : 88.00
Area (flag) : 53832M
On-Column Amount (ng) : 655.9798
Integration start scan : 1224 Integration stop scan: 1262
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

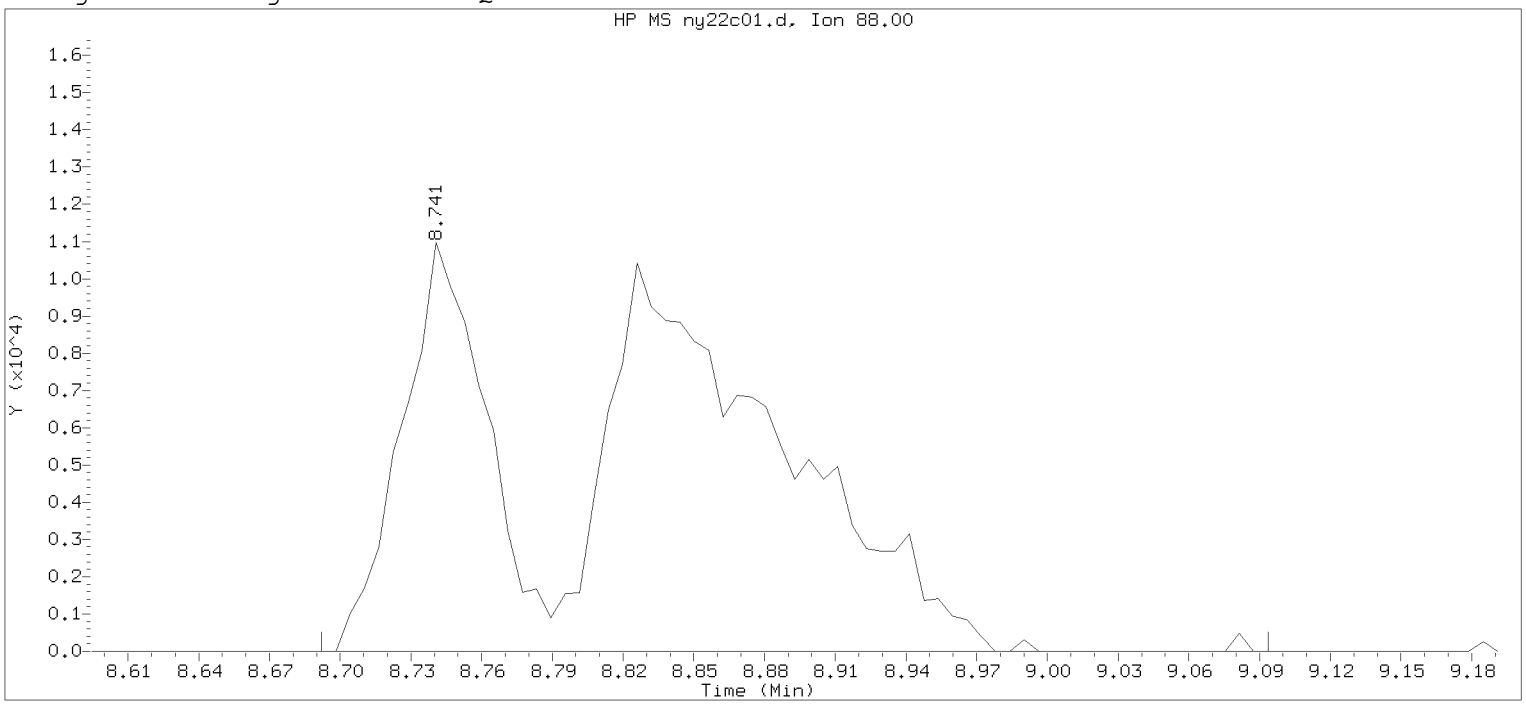
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/22/2020 at 11:37.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22c01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:00 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:32
Date, time and analyst ID of latest file update: 22-May-2020 11:32 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.741
Quant Ion : 88.00
Area : 81261
On-column Amount (ng) : 990.2132
Integration start scan : 1208 Integration stop scan: 1274
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/22/2020 at 11:37.
Target 3.5 esignature user: LCP00895

Data File: /chem2/HP09355.i/20apr21a.b/ya21t04.d

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20

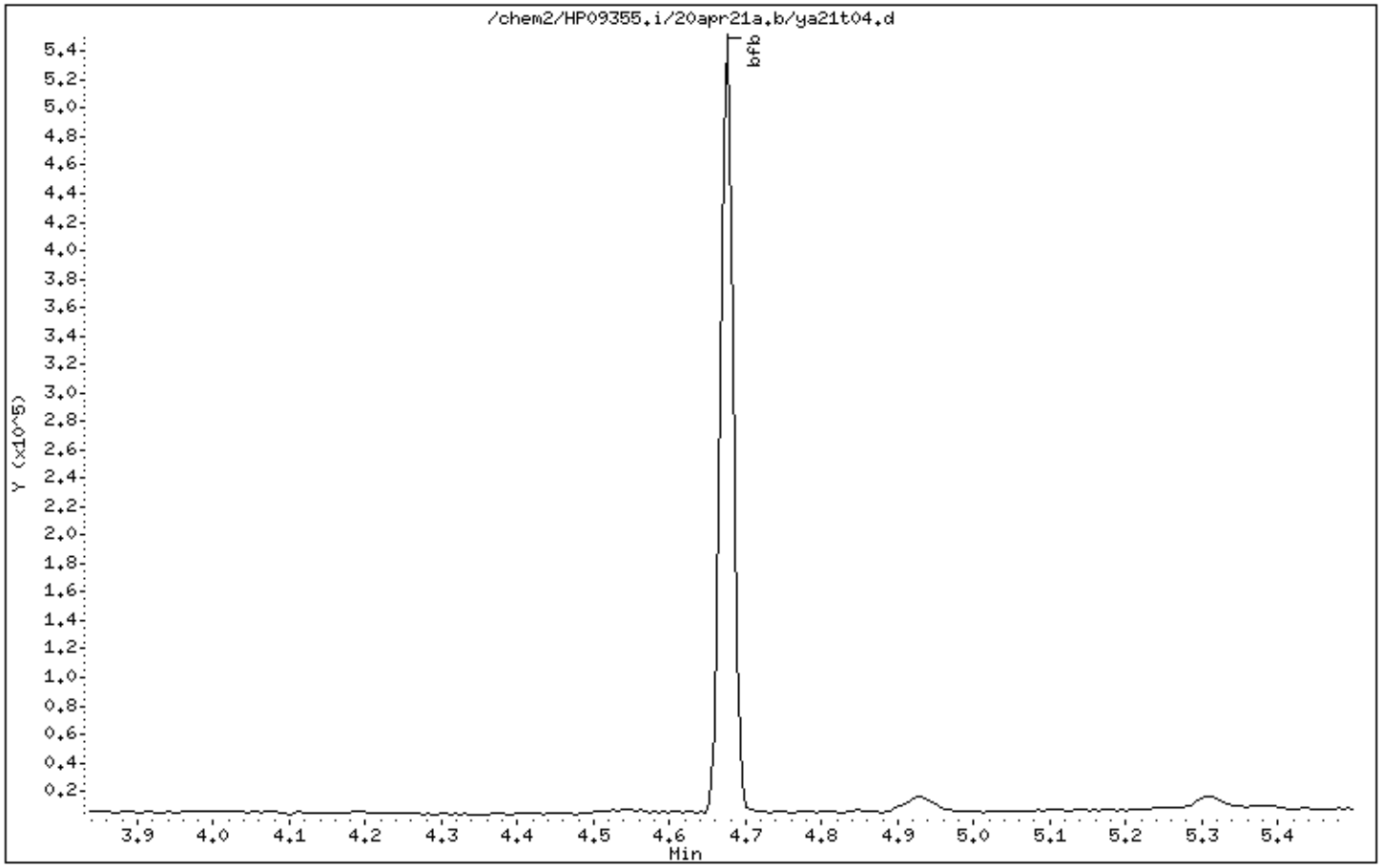
Instrument: HP09355.i

Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP09355.i/20apr21a.b/ya21t04.d

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20

Instrument: HP09355.i

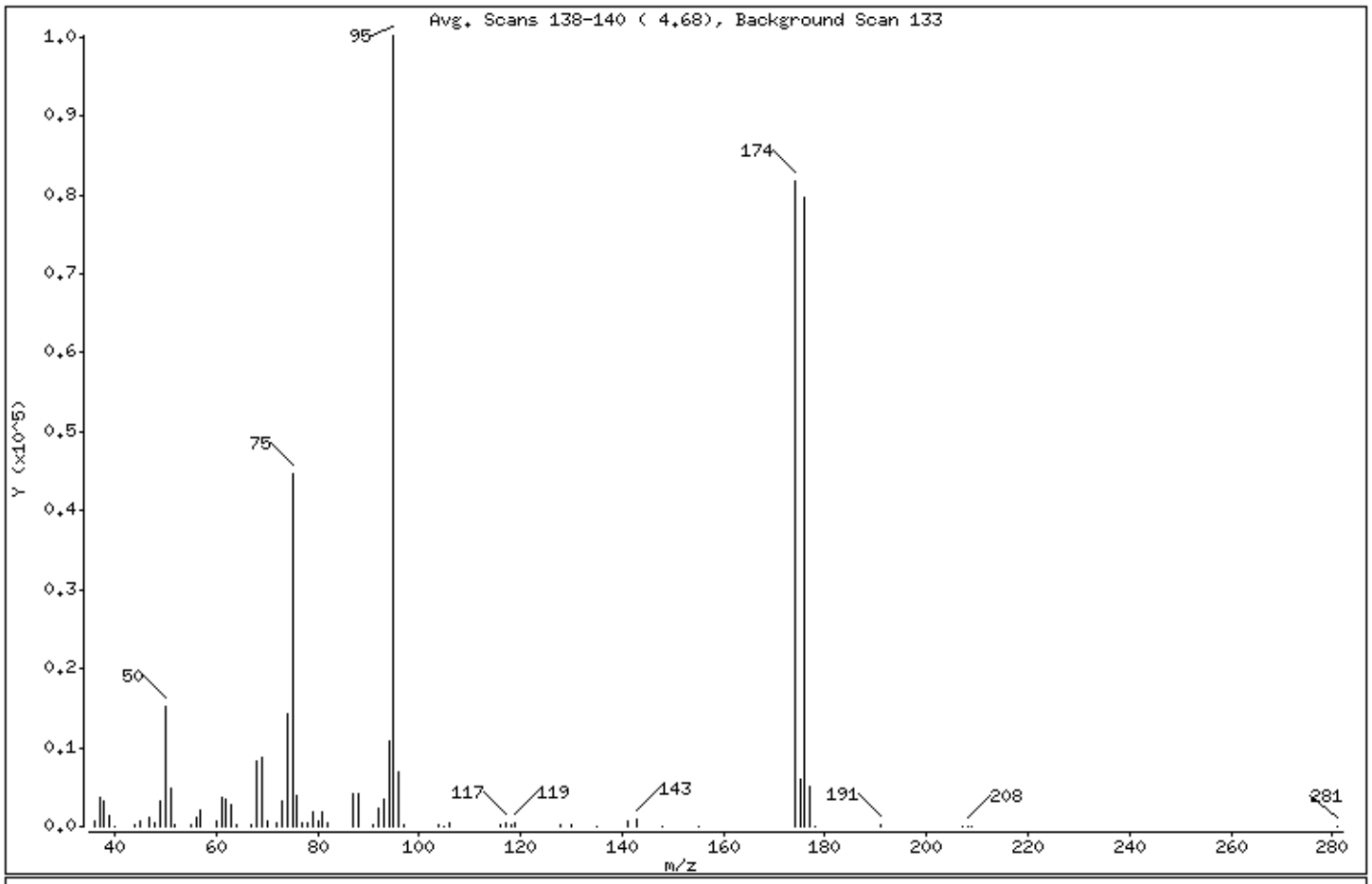
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.26
75	30.00 - 60.00% of mass 95	44.59
96	5.00 - 9.00% of mass 95	6.91
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	81.64
175	5.00 - 9.00% of mass 174	6.02 (7.37)
176	95.00 - 101.00% of mass 174	79.63 (97.54)
177	5.00 - 9.00% of mass 176	5.16 (6.48)

Date : 21-APR-2020 21:21

Client ID: BFBJAN28-20 Instrument: HP09355.i

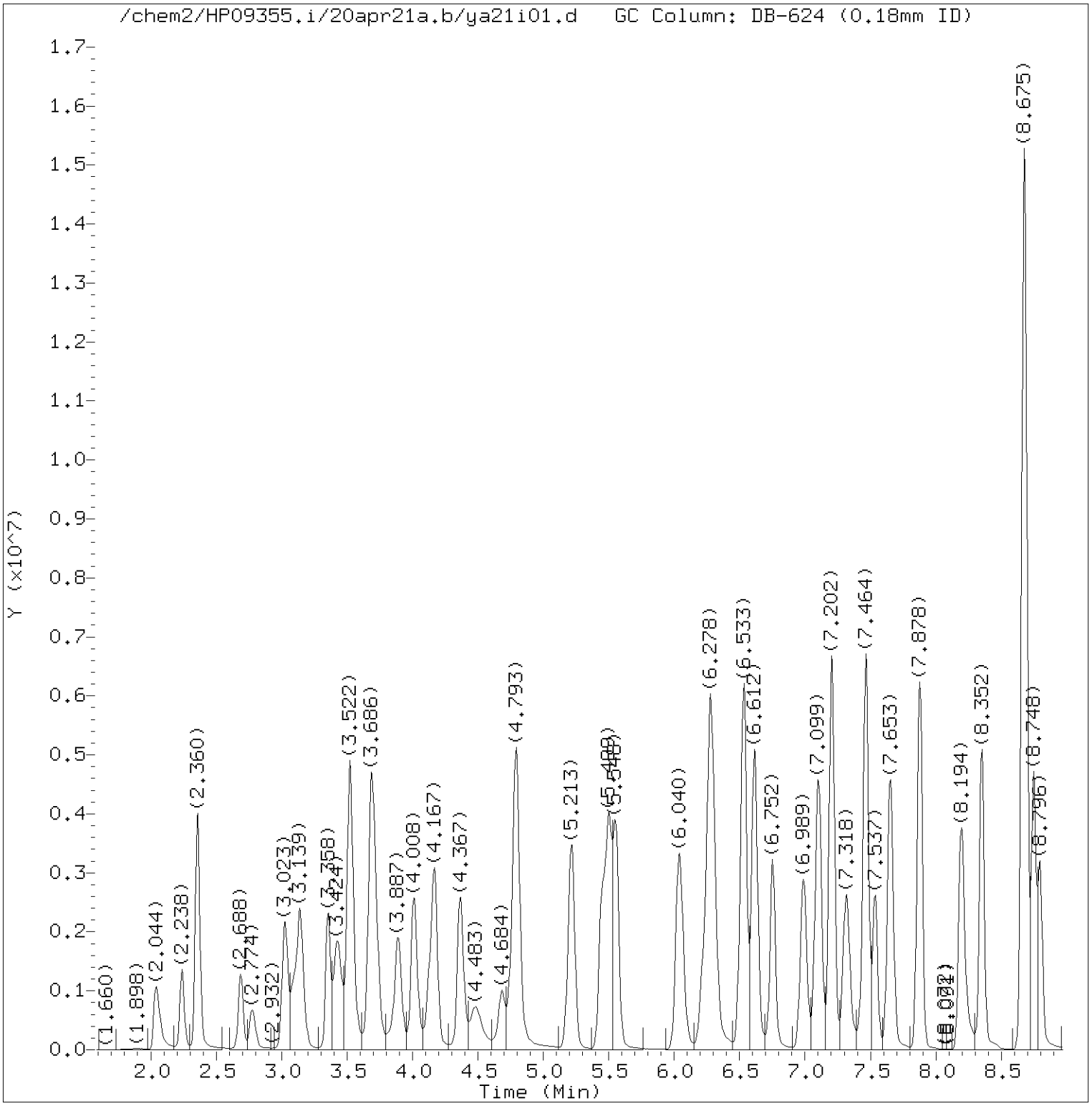
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ya21t04.d
Spectrum: Avg. Scans 138-140 (4.68), Background Scan 133
Location of Maximum: 95.00
Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	589	62.00	3458	87.00	4141	135.00	94
37.00	3683	63.00	2777	88.00	4114	141.00	735
38.00	3218	64.00	233	91.00	325	143.00	828
39.00	1387	67.00	198	92.00	2260	148.00	106
40.00	101	68.00	8256	93.00	3556	155.00	88
44.00	280	69.00	8840	94.00	10710	174.00	81760
45.00	755	70.00	777	95.00	100152	175.00	6025
47.00	1208	72.00	479	96.00	6923	176.00	79752
48.00	501	73.00	3336	97.00	216	177.00	5168
49.00	3145	74.00	14290	104.00	220	178.00	86
50.00	15286	75.00	44656	105.00	90	191.00	123
51.00	4945	76.00	4017	106.00	365	207.00	19
52.00	179	77.00	553	116.00	304	208.00	50
55.00	178	78.00	388	117.00	497	209.00	2
56.00	1115	79.00	1734	118.00	244	281.00	104
57.00	2042	80.00	591	119.00	503		
60.00	733	81.00	1932	128.00	339		
61.00	3775	82.00	481	130.00	288		



Total Ion Chromatogram (TIC)

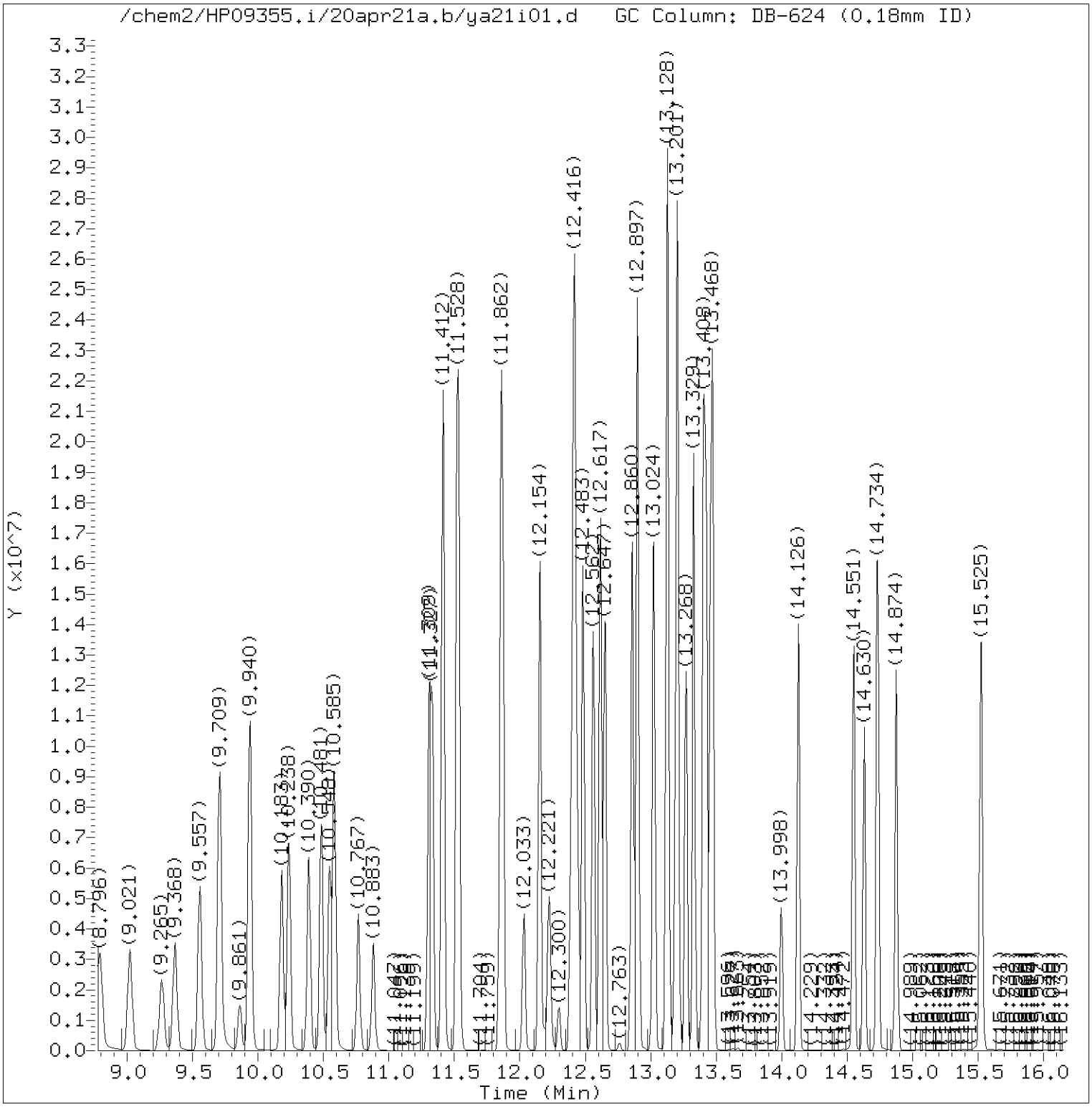
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	2413655M	300.000
4) Chloromethane	(2)	2.238	50	2004732	300.000
5) 1,3-Butadiene	(2)	2.360	39	1685693	300.000
6) Vinyl Chloride	(2)	2.360	62	2013749	300.000
8) Bromomethane	(2)	2.688	94	1279984	300.000
9) Chloroethane	(2)	2.780	64	1065953	300.000
10) Dichlorofluoromethane	(2)	3.023	67	3011703	300.000
12) Trichlorofluoromethane	(2)	3.096	101	2514998	300.000
11) n-Pentane	(2)	3.145	43	2534906	300.000
14) Ethyl ether	(2)	3.351	59	1919688	300.000
15) Freon 123a	(2)	3.431	67	2290667	300.000
16) Acrolein	(1)	3.522	56	8356255	3000.000
17) 1,1-Dichloroethene	(2)	3.680	96	1846867	300.000
17) 1,1-Dichloroethene	(2)	3.680	63	907726	300.000
18) Acetone	(1)	3.692	58	823191	600.000
19) Freon 113	(2)	3.710	101	1909580	300.000
21) 2-Propanol	(1)	3.862	45	1549802	1500.000
22) Methyl Iodide	(2)	3.893	142	3286967	300.000
23) Carbon Disulfide	(2)	4.008	76	6582028	300.000
27) Methyl Acetate	(2)	4.130	43	2865310	300.000
25) Allyl Chloride	(2)	4.167	41	3129336	300.000
29)*t-Butyl alcohol-d10	(1)	4.355	65	381281M	250.000
28) Methylene Chloride	(2)	4.367	84	2179291	300.000
30) t-Butyl alcohol	(1)	4.483	59	2712417	1500.000
31) Acrylonitrile	(2)	4.684	53	1581102	300.000
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	5996926	300.000
32) trans-1,2-Dichloroethene	(2)	4.793	96	2133943	300.000
34) n-Hexane	(2)	5.219	57	3354175	300.000
36) 1,1-Dichloroethane	(2)	5.444	63	3786796	300.000
38) di-Isopropyl ether	(2)	5.499	45	6805444	300.000
39) 2-Chloro-1,3-butadiene	(2)	5.554	53	3266131	300.000
40) Ethyl t-butyl ether	(2)	6.040	59	5974879	300.000
43) 1,2-Dichloroethene (Total)	(2)		96	4558567	600.000
44) 2-Butanone	(2)	6.229	43	4200266	600.000
42) cis-1,2-Dichloroethene	(2)	6.272	96	2424624	300.000
45) 2,2-Dichloropropane	(2)	6.290	77	2913006	300.000
47) Propionitrile	(1)	6.308	54	3176928M	1500.000
48) Methacrylonitrile	(2)	6.533	67	4044708	750.000

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	1180705	300.000
50) Tetrahydrofuran	(1)	6.624	71	1221112	600.000
51) Chloroform	(2)	6.752	83	3676311	300.000
52)$Dibromofluoromethane	(2)	6.971	113	288524	50.000
52)$Dibromofluoromethane	(2)	6.971	111	293225	50.000
53) 1,1,1-Trichloroethane	(2)	6.989	97	3231676	300.000
54) Cyclohexane	(2)	7.099	56	4007858	300.000
54) Cyclohexane	(2)	7.105	84	3373756	300.000
54) Cyclohexane	(2)	7.105	69	1251240	300.000
55) 1,1-Dichloropropene	(2)	7.202	75	3100914	300.000
56) Carbon Tetrachloride	(2)	7.208	117	2819295	300.000
58) Isobutyl Alcohol	(1)	7.318	41	2448069	3750.000
57)$1,2-Dichloroethane-d4	(2)	7.434	102	74244	50.000
57)$1,2-Dichloroethane-d4	(2)	7.434	65	334115	50.000
57)$1,2-Dichloroethane-d4	(2)	7.434	104	47320	50.000
60) Benzene	(2)	7.464	78	8987853	300.000
61) 1,2-Dichloroethane	(2)	7.537	62	2930873	300.000
61) 1,2-Dichloroethane	(2)	7.537	98	293469	300.000
65) t-Amyl methyl ether	(2)	7.653	73	5912386	300.000
66)*Fluorobenzene	(2)	7.865	96	1254678	50.000
67) n-Heptane	(2)	7.878	43	3552600	300.000
69) n-Butanol	(1)	8.194	56	4720547M	7500.000
71) Trichloroethene	(2)	8.352	95	2365386	300.000
72) Methylcyclohexane	(2)	8.669	83	4011266	300.000
72) Methylcyclohexane	(2)	8.669	98	1801966	300.000
73) 1,2-Dichloropropane	(2)	8.681	63	2290141	300.000
76) Methyl Methacrylate	(2)	8.748	69	2637826	300.000
75) 1,4-Dioxane	(1)	8.760	88	588988M	3750.000
74) Dibromomethane	(2)	8.796	93	1565518	300.000
78) Bromodichloromethane	(2)	9.021	83	2982601	300.000
79) 2-Nitropropane	(2)	9.265	41	2031678	600.000
80) 2-Chloroethyl Vinyl Ether	(2)	9.368	63	2057220	300.000
81) cis-1,3-Dichloropropene	(2)	9.557	75	3983408	300.000
82) 4-Methyl-2-pentanone	(2)	9.709	43	7997993	600.000
83)$Toluene-d8	(3)	9.861	98	1228388	50.000
83)$Toluene-d8	(3)	9.861	100	792618	50.000
88) Toluene	(3)	9.940	92	5757892	300.000
90) 1,3-Dichloropropene (total)	(3)		100	7738484	600.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.183	75	3755076	300.000
91) Ethyl Methacrylate	(3)	10.238	69	4239202	300.000
92) 1,1,2-Trichloroethane	(3)	10.390	97	2339063	300.000
93) Tetrachloroethene	(3)	10.488	166	2437592	300.000
94) 1,3-Dichloropropane	(3)	10.548	76	3903563	300.000
96) 2-Hexanone	(3)	10.585	43	6330738	600.000
97) Dibromochloromethane	(3)	10.767	129	2602680	300.000
99) 1,2-Dibromoethane	(3)	10.883	107	2634207	300.000
100)*Chlorobenzene-d5	(3)	11.303	117	940346	50.000
101) 1-Chlorohexane	(3)	11.309	91	3201456	300.000
102) Chlorobenzene	(3)	11.333	112	6364106	300.000
103) 1,1,1,2-Tetrachloroethane	(3)	11.412	131	2222421	300.000
104) Ethylbenzene	(3)	11.412	91	10405703	300.000
106) m+p-Xylene	(3)	11.528	106	8312534	600.000
108) Xylene (Total)	(3)		106	12473493	900.000
107) o-Xylene	(3)	11.856	106	4160959	300.000
109) Styrene	(3)	11.868	104	7101709	300.000
110) Bromoform	(3)	12.033	173	2043068	300.000
111) Isopropylbenzene	(3)	12.154	105	10232494	300.000
112) Cyclohexanone	(1)	12.221	55	2286856	3750.000
114)$4-Bromofluorobenzene	(3)	12.300	95	465729	50.000
114)$4-Bromofluorobenzene	(3)	12.300	174	360314	50.000
116) 1,1,2,2-Tetrachloroethane	(4)	12.392	83	3882427	300.000
118) trans-1,4-Dichloro-2-butene	(4)	12.416	53	3018157	750.000
115) Bromobenzene	(4)	12.416	156	2735446	300.000
117) 1,2,3-Trichloropropane	(4)	12.440	110	1253671	300.000
119) n-Propylbenzene	(4)	12.483	91	11461870	300.000
120) 2-Chlorotoluene	(4)	12.562	126	2695047	300.000
122) 1,3,5-Trimethylbenzene	(4)	12.617	105	9054231	300.000
121) 4-Chlorotoluene	(4)	12.653	126	2832594	300.000
124) tert-Butylbenzene	(4)	12.860	134	2002497M	300.000
125) Pentachloroethane	(4)	12.897	167	1646477	300.000
126) 1,2,4-Trimethylbenzene	(4)	12.903	105	9394928	300.000
127) sec-Butylbenzene	(4)	13.024	105	10966145	300.000
129) 1,3-Dichlorobenzene	(4)	13.122	146	5080942	300.000
130) p-Isopropyltoluene	(4)	13.128	119	9517000	300.000
131)*1,4-Dichlorobenzene-d4	(4)	13.183	152	498086	50.000
133) 1,4-Dichlorobenzene	(4)	13.201	146	5252495	300.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

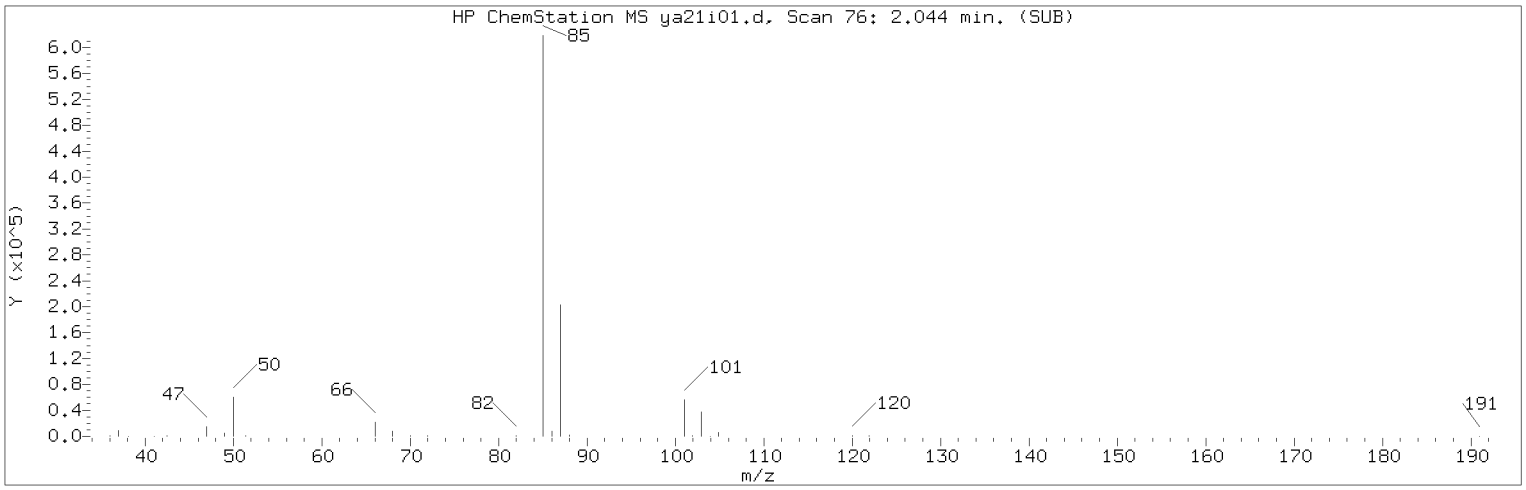
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

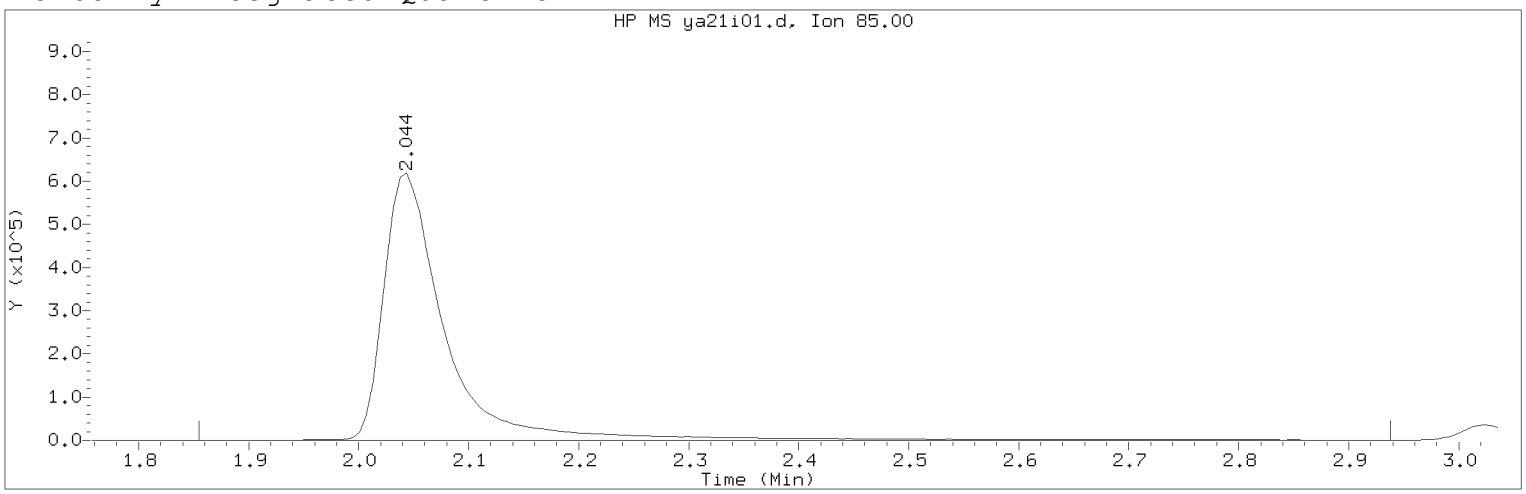
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.207	105	8935182	300.000
135) Benzyl Chloride	(4)	13.268	91	8336682	300.000
136) 1,3-Diethylbenzene	(4)	13.329	119	6018826	300.000
141) Diethylbenzene (total)	(4)		100	17223447	900.000
137) 1,4-Diethylbenzene	(4)	13.402	119	6216498	300.000
139) n-Butylbenzene	(4)	13.420	92	5257466	300.000
138) 1,2-Dichlorobenzene	(4)	13.456	146	5054775	300.000
140) 1,2-Diethylbenzene	(4)	13.475	119	4988123	300.000
142) 1,2-Dibromo-3-chloropropane	(4)	13.998	75	1096295	300.000
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	4027387	300.000
146) 1,2,4-Trichlorobenzene	(4)	14.551	180	3796477	300.000
147) Hexachlorobutadiene	(4)	14.630	225	1715103	300.000
148) Naphthalene	(4)	14.734	128	11705201	300.000
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	3599223	300.000
150) 2-Methylnaphthalene	(4)	15.525	142	6881775	300.000

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

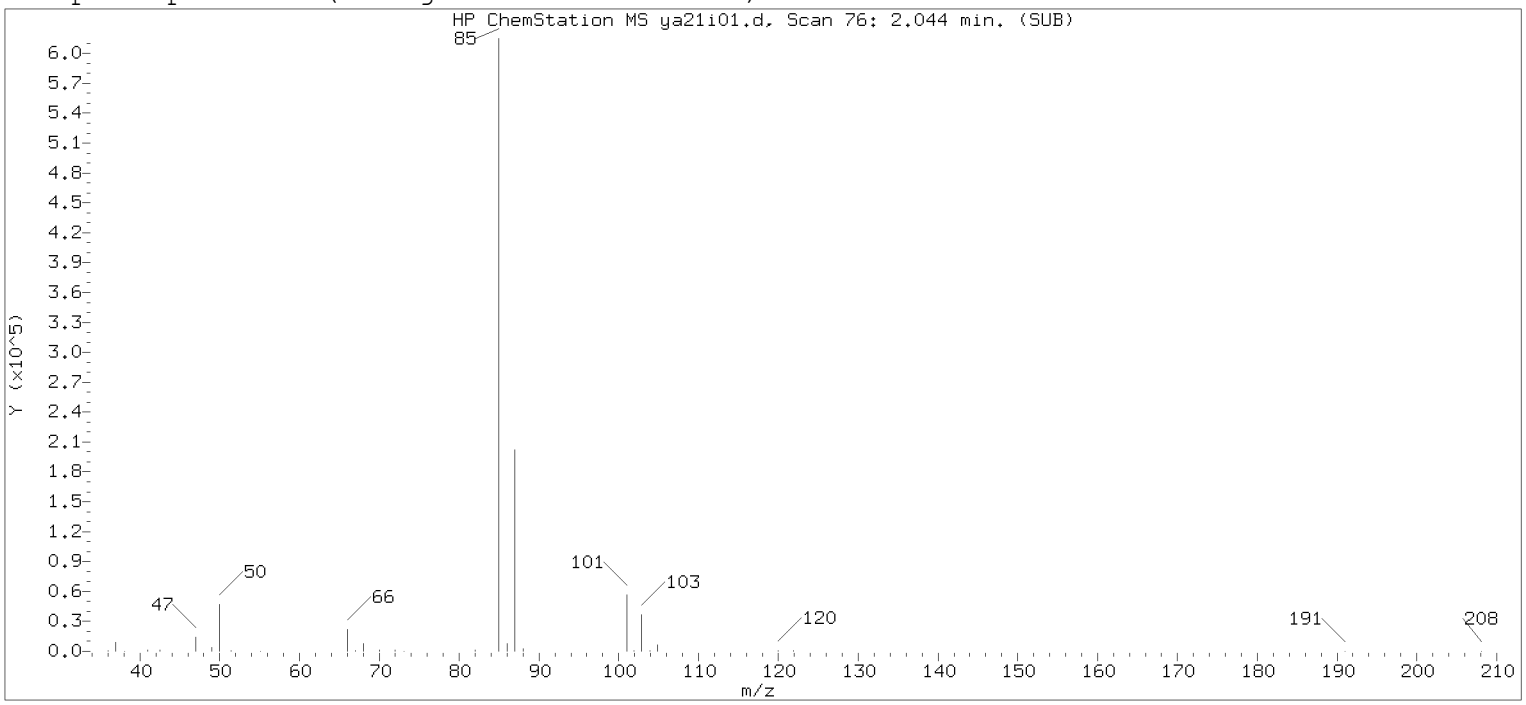
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 2413655M
On-Column Amount (ng) : 300.0000
Integration start scan : 44 Integration stop scan: 222
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

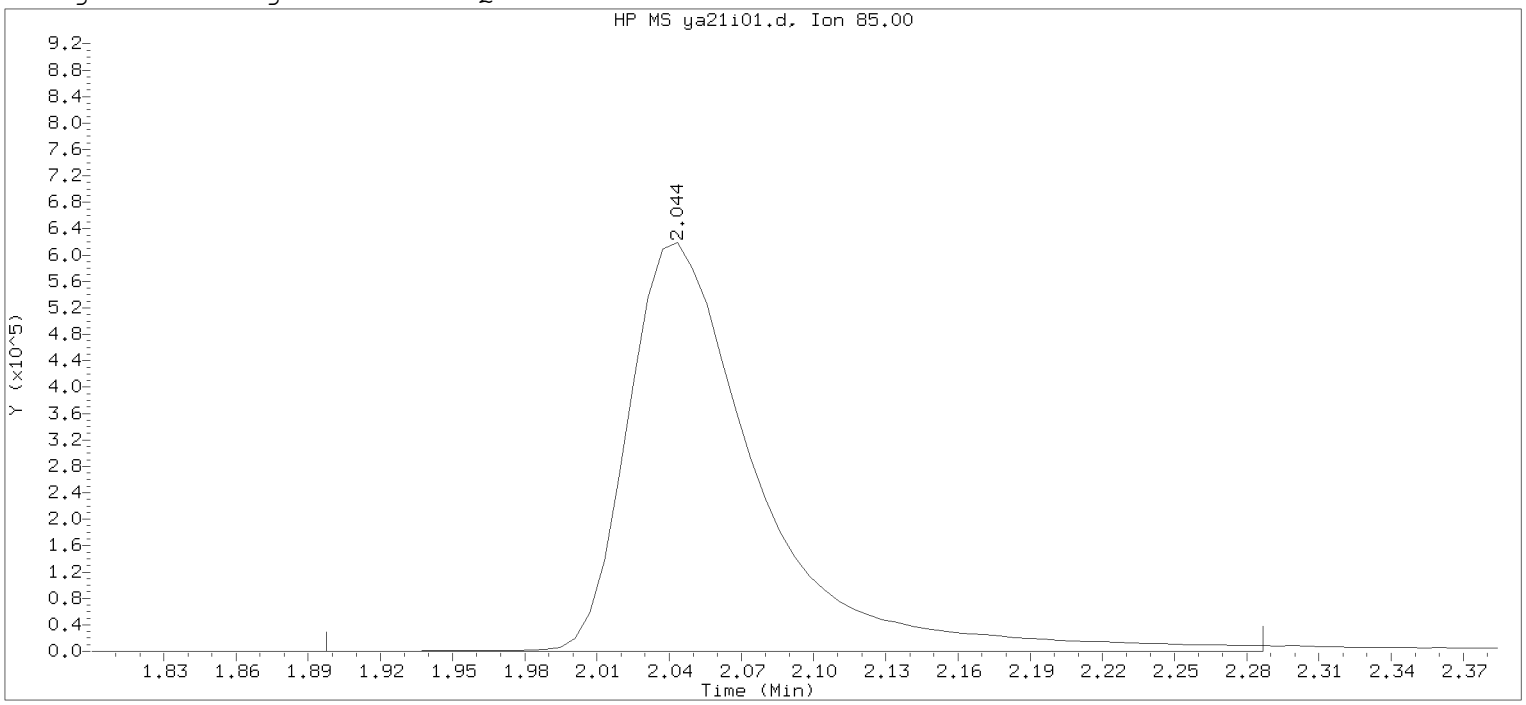
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

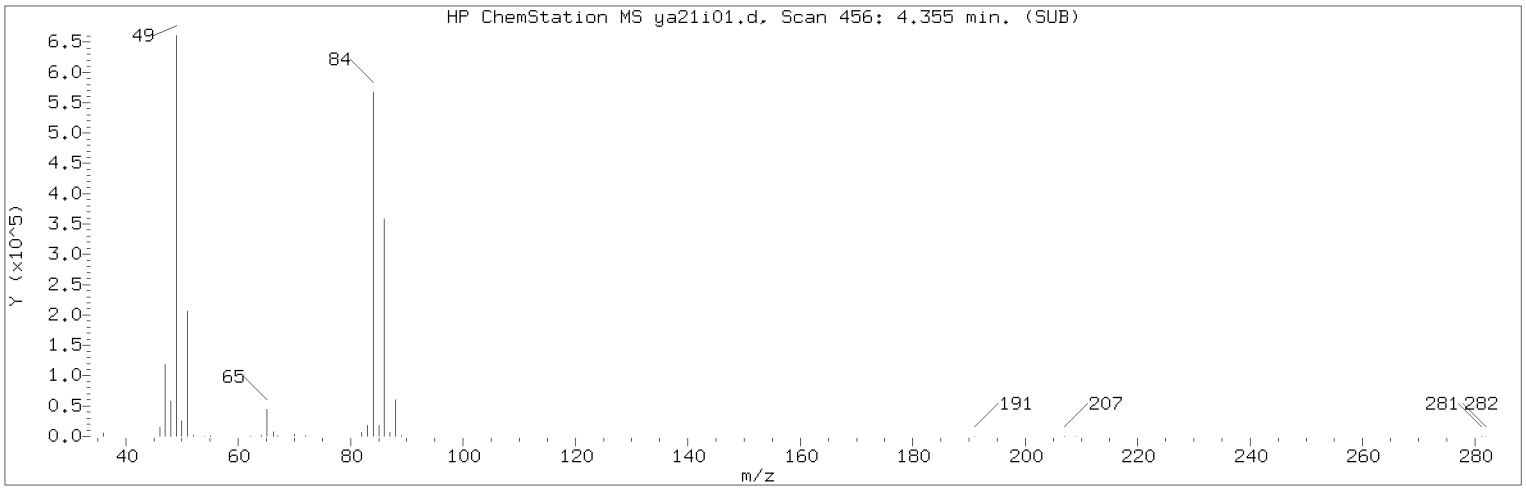
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

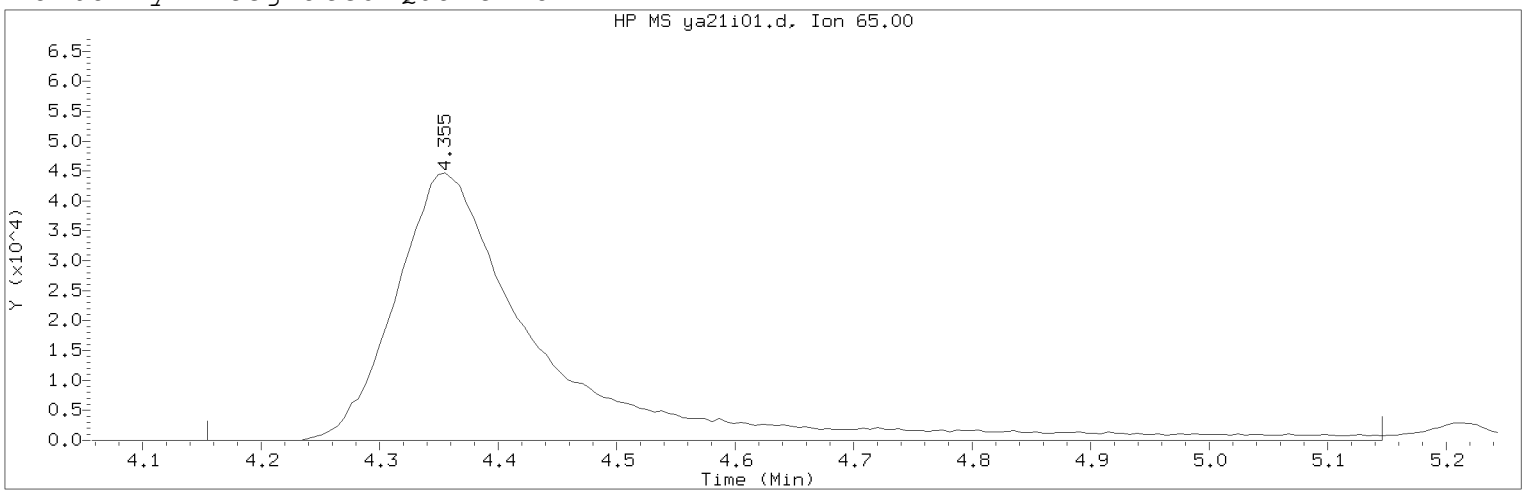
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 2322463
On-column Amount (ng) : 287.7507
Integration start scan : 51 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

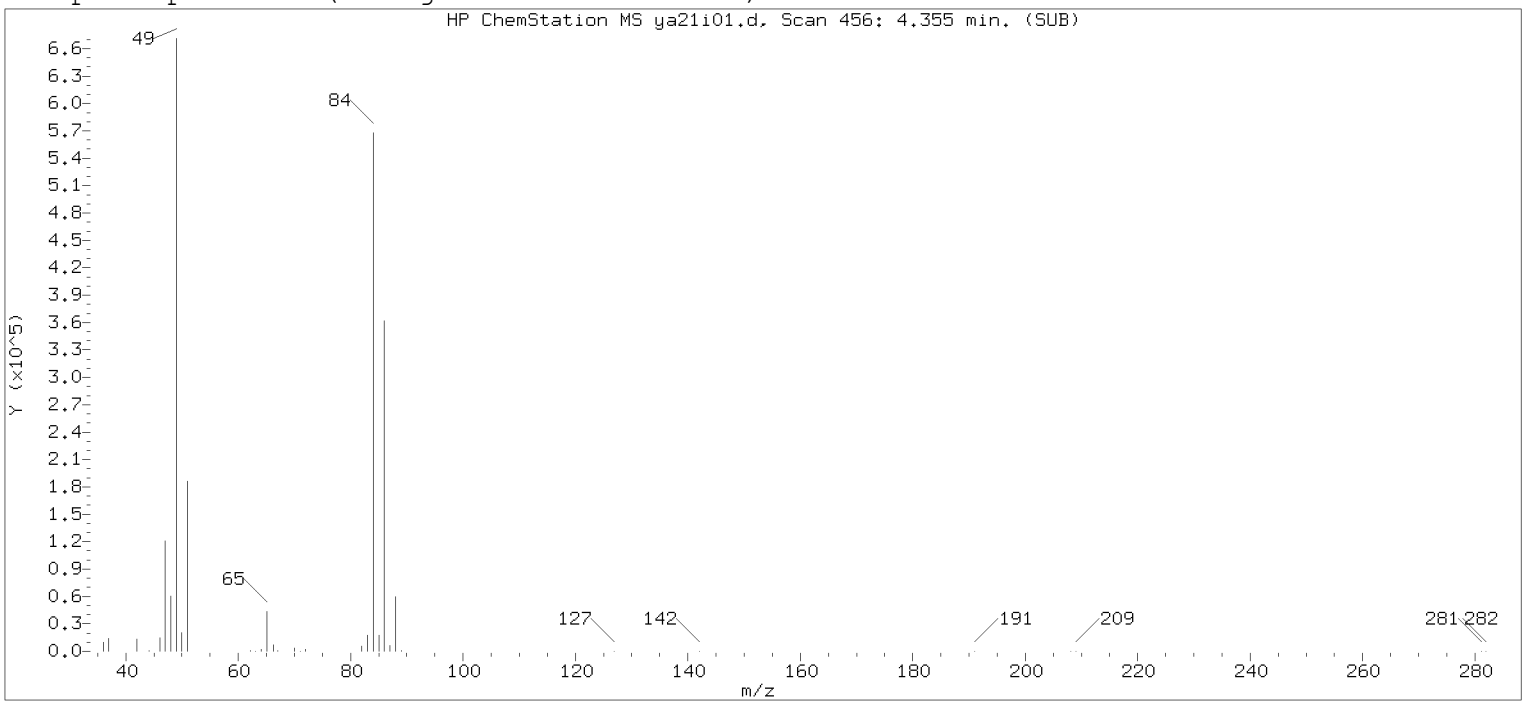
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area (flag) : 381281M
On-Column Amount (ng) : 250.0000
Integration start scan : 422 Integration stop scan: 585
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

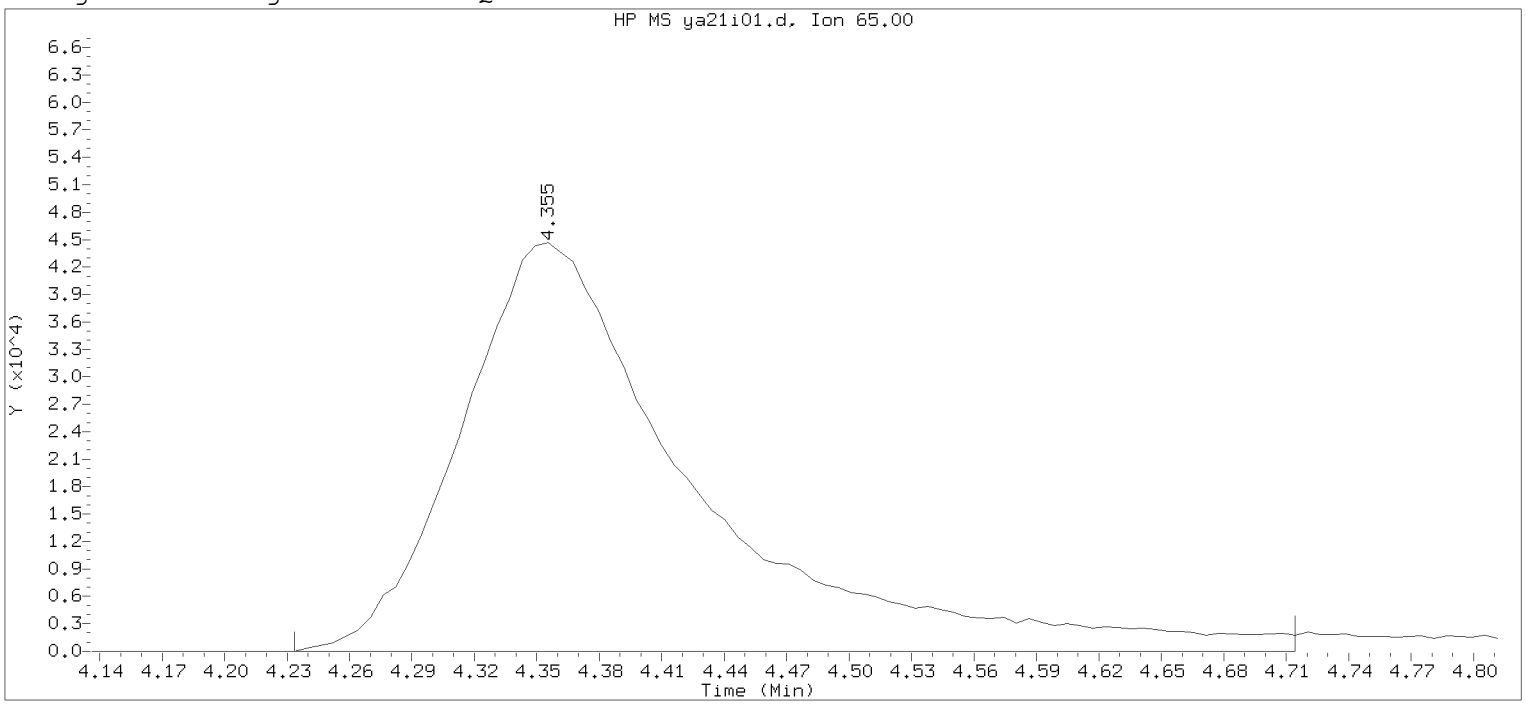
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

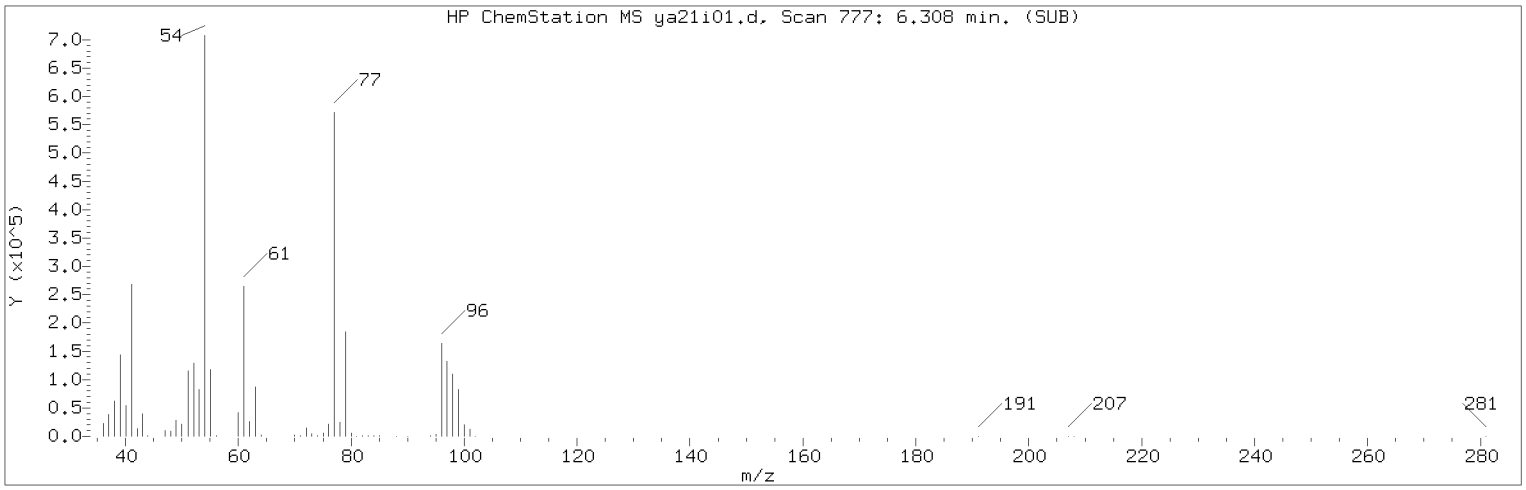
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

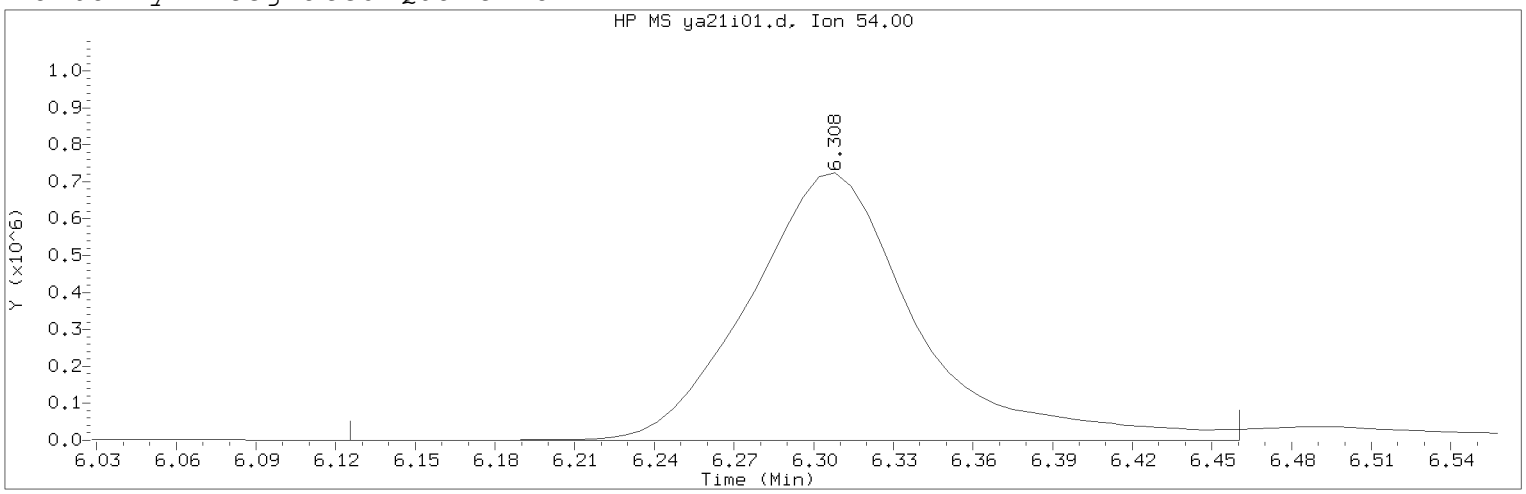
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area : 350149
On-column Amount (ng) : 250.0000
Integration start scan : 435 Integration stop scan: 514
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

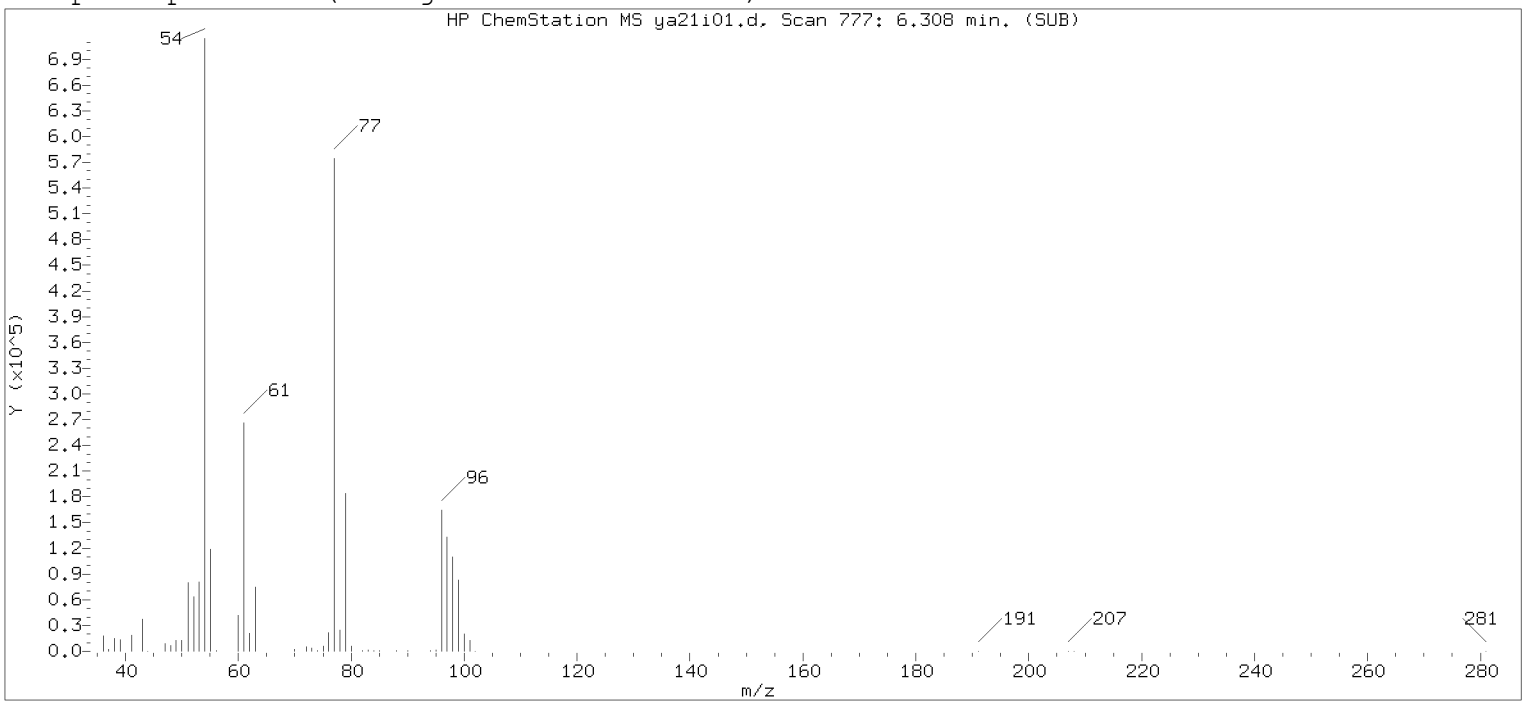
Compound Number : 47
Compound Name : Propionitrile
Scan Number : 777
Retention Time (minutes): 6.308
Quant Ion : 54.00
Area (flag) : 3176928M
On-Column Amount (ng) : 1500.0000
Integration start scan : 746 Integration stop scan: 801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

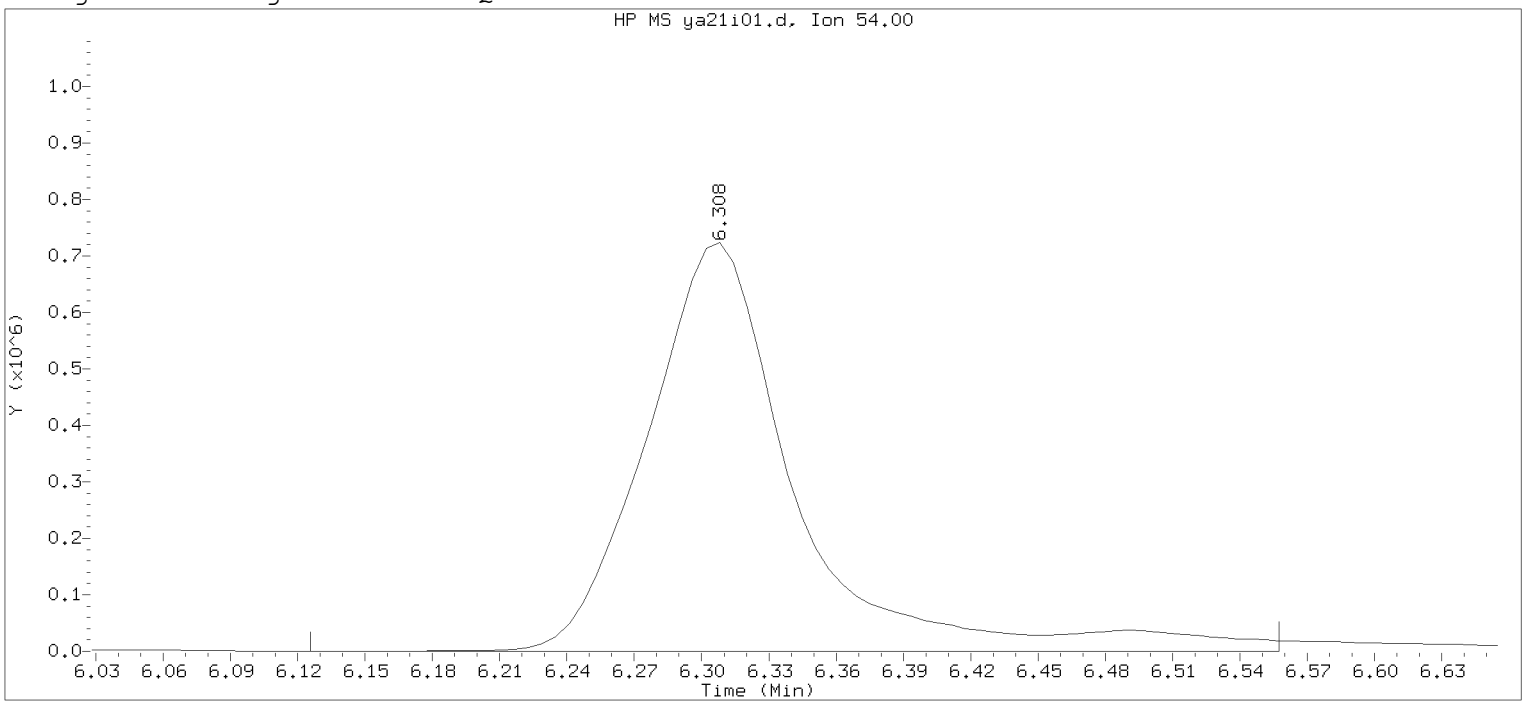
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

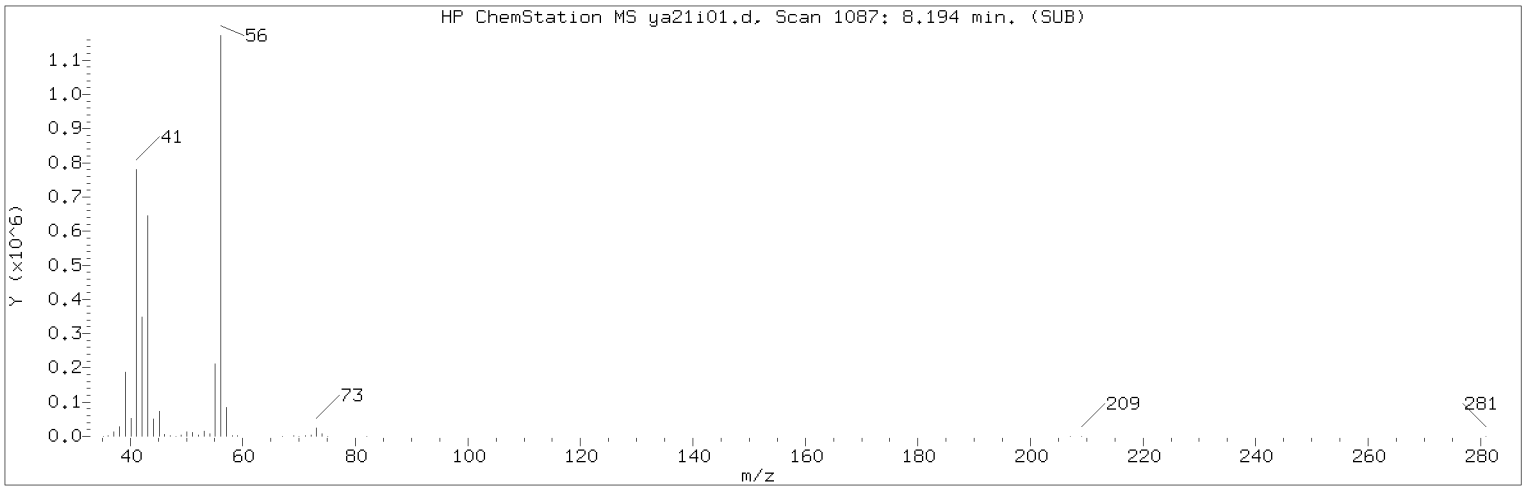
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

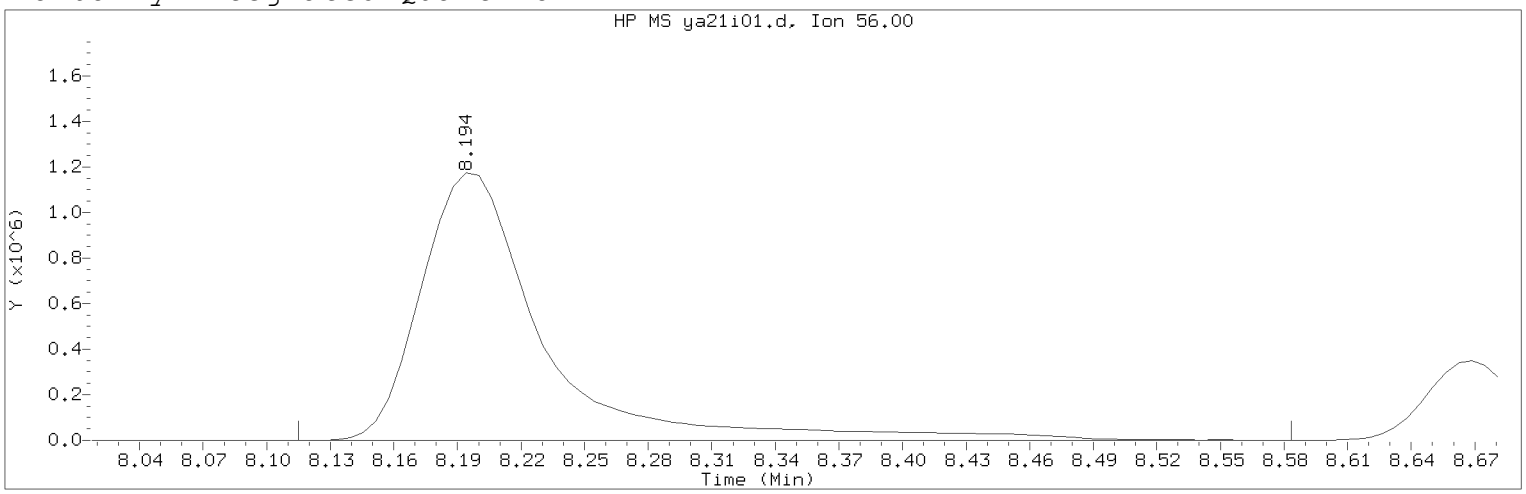
Compound Number : 47
Compound Name : Propionitrile
Scan Number : 777
Retention Time (minutes): 6.308
Quant Ion : 54.00
Area : 3342807
On-column Amount (ng) : 1554.0321
Integration start scan : 746 Integration stop scan: 817
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

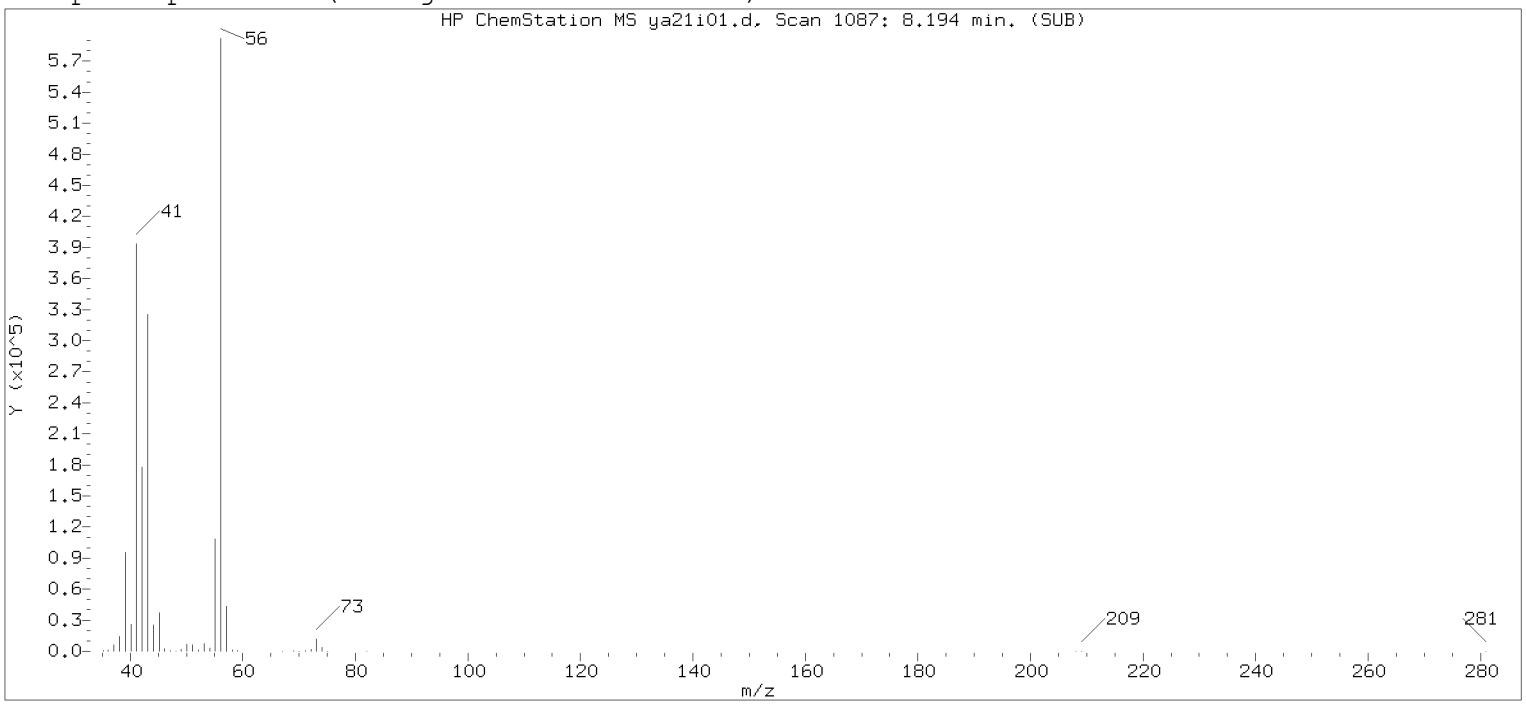
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1087
Retention Time (minutes): 8.194
Quant Ion : 56.00
Area (flag) : 4720547M
On-Column Amount (ng) : 7500.0000
Integration start scan : 1073 Integration stop scan: 1150
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

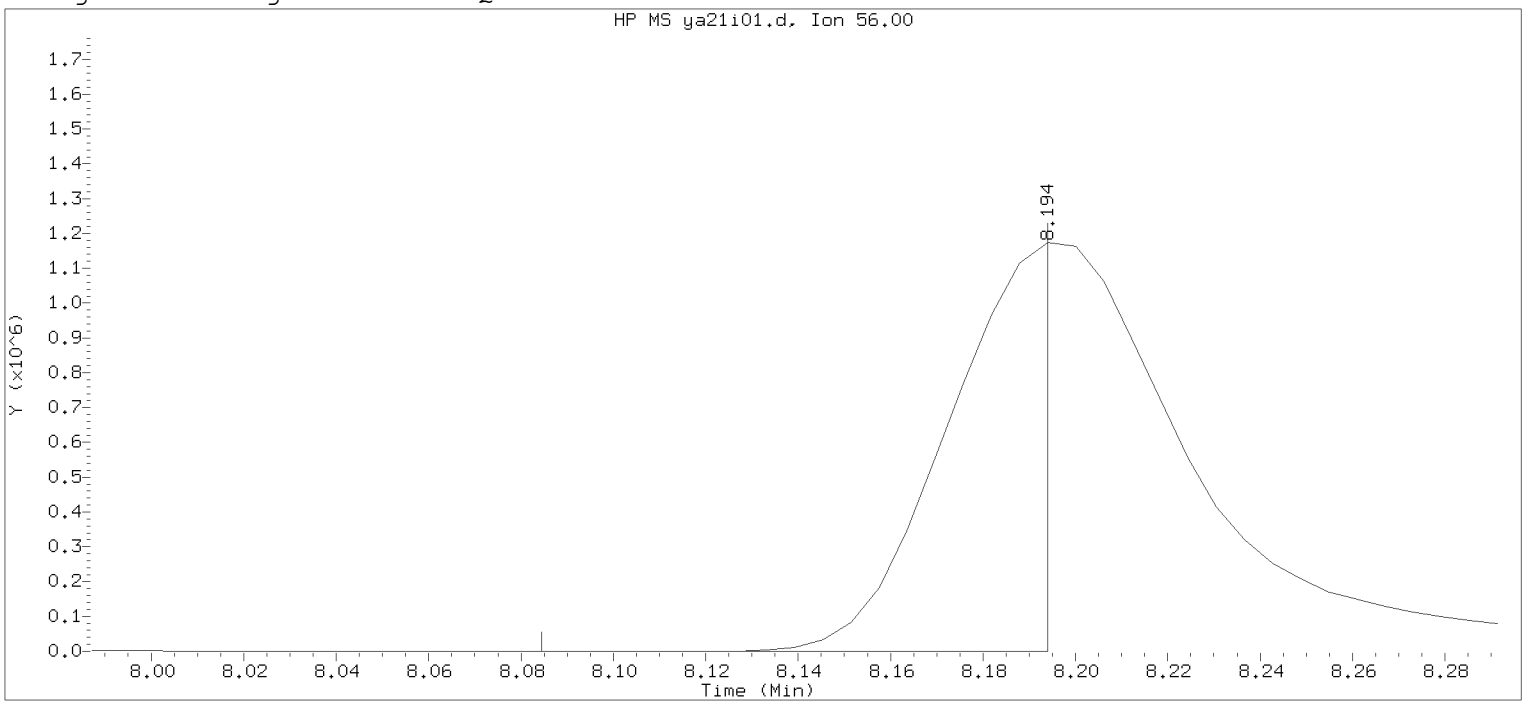
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

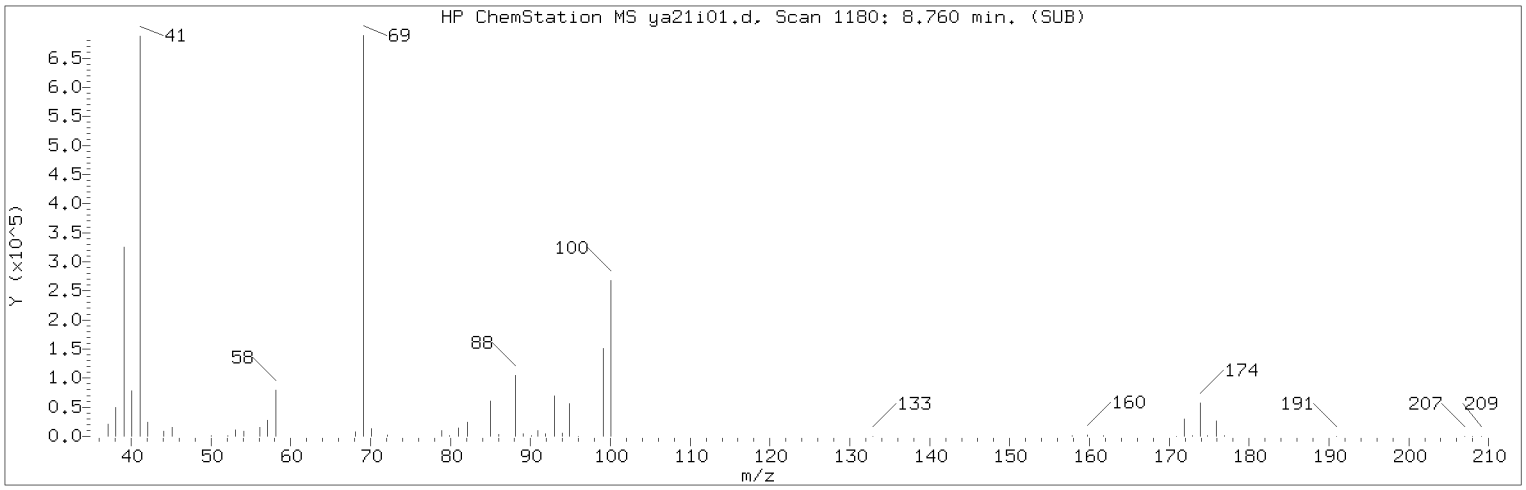
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

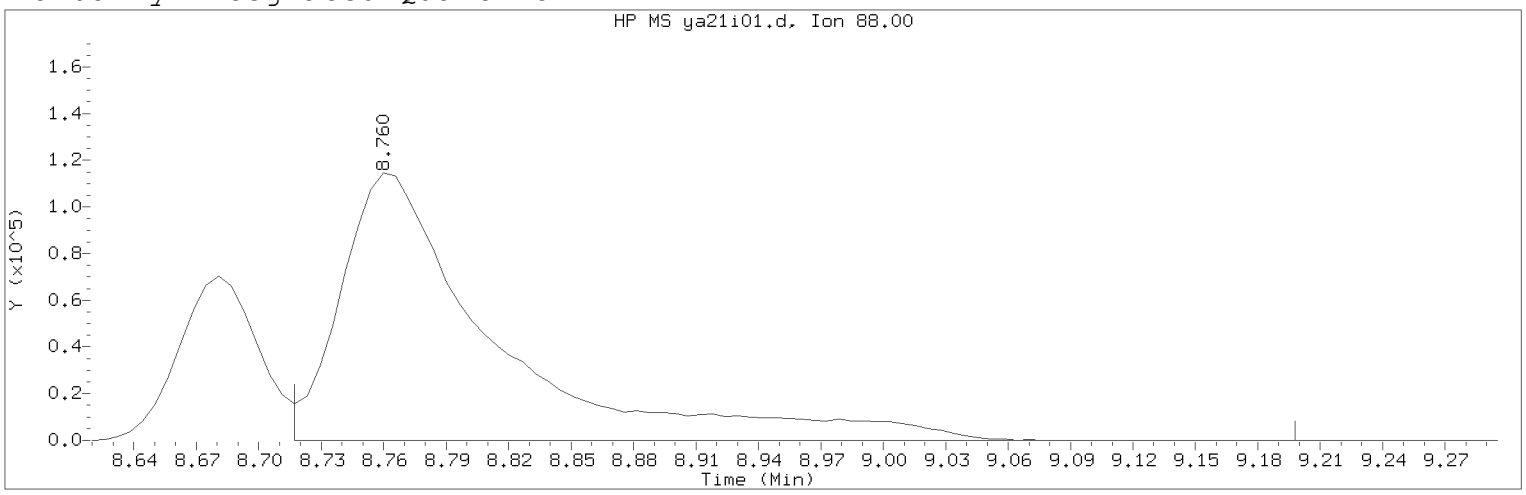
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1087
Retention Time (minutes): 8.194
Quant Ion : 56.00
Area : 1696220
On-column Amount (ng) : 3106.6950
Integration start scan : 1068 Integration stop scan: 1086
Y at integration start : 369 Y at integration end: 369

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

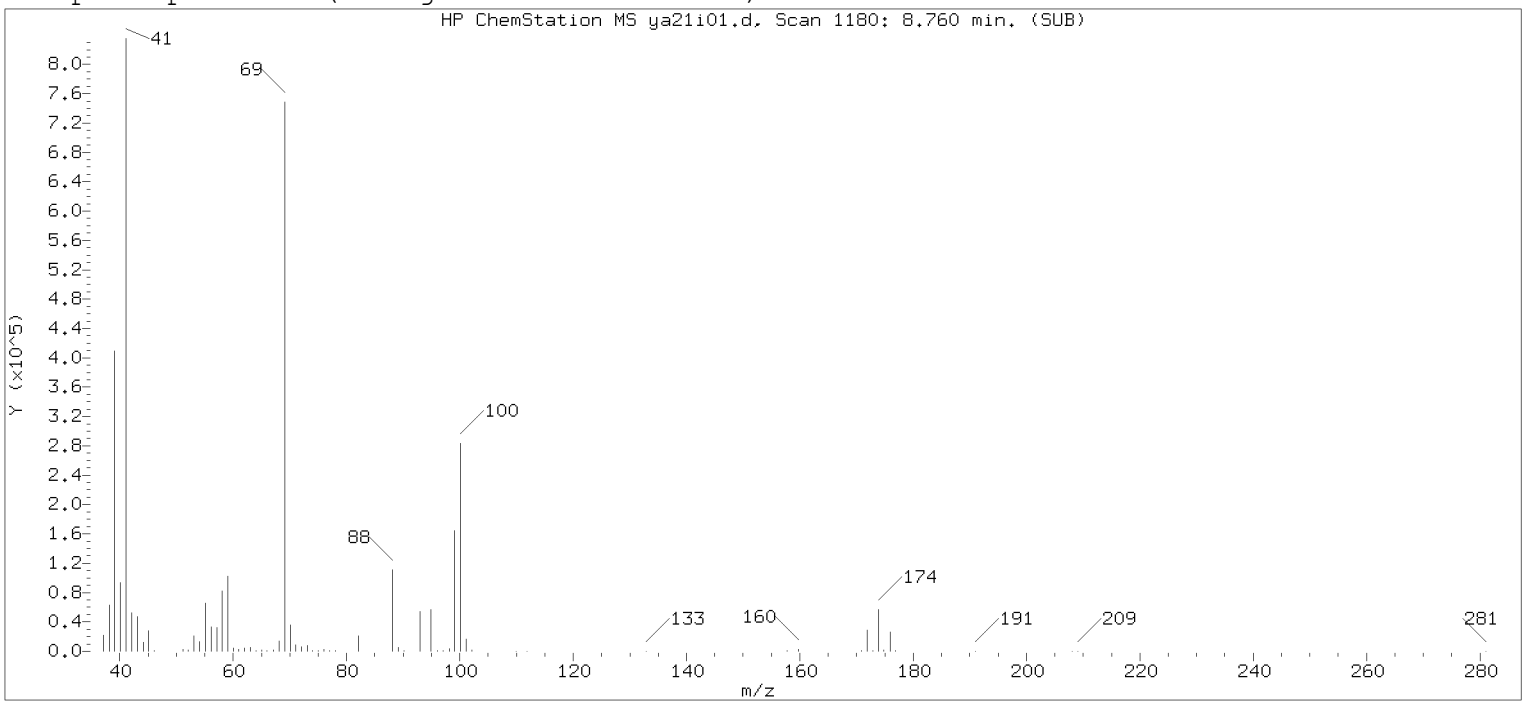
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 588988M
On-Column Amount (ng) : 3750.0000
Integration start scan : 1172 Integration stop scan: 1251
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

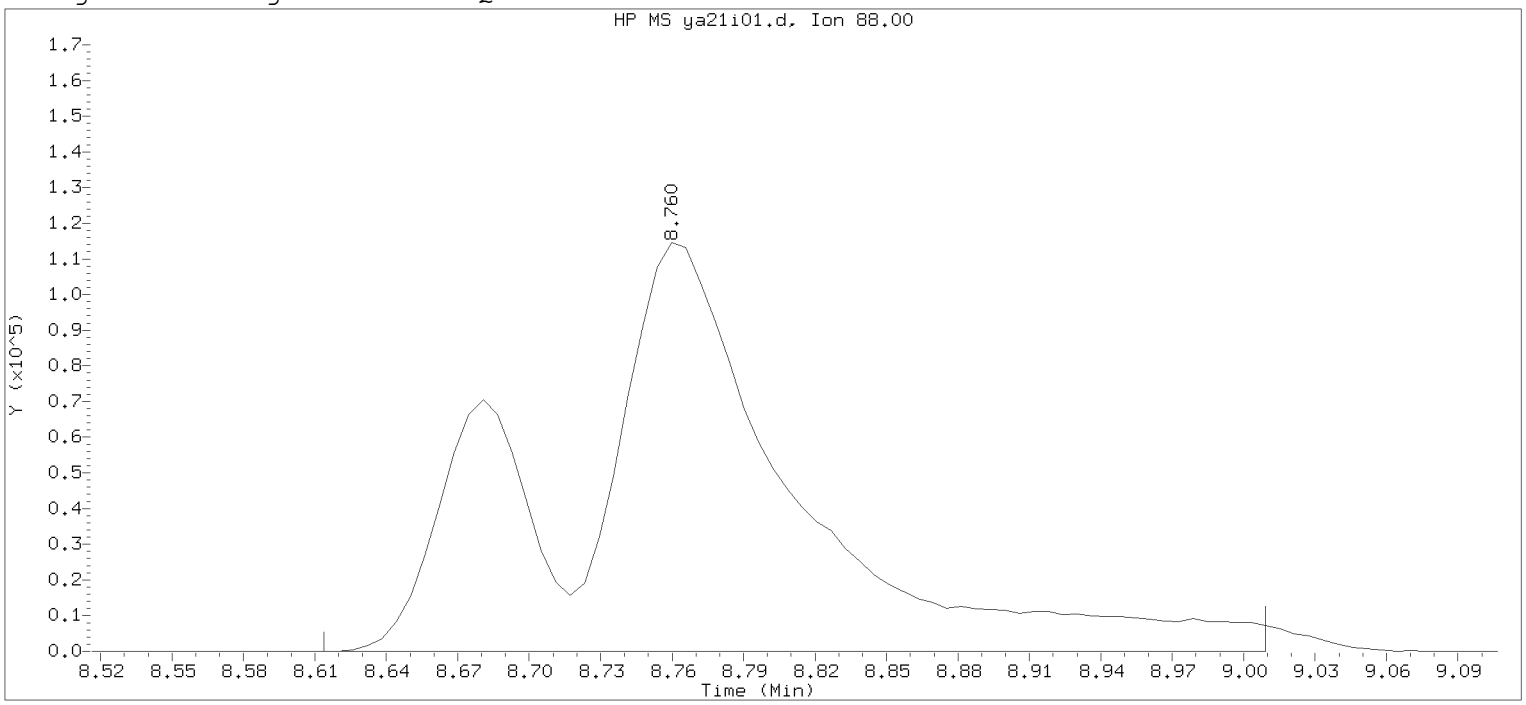
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

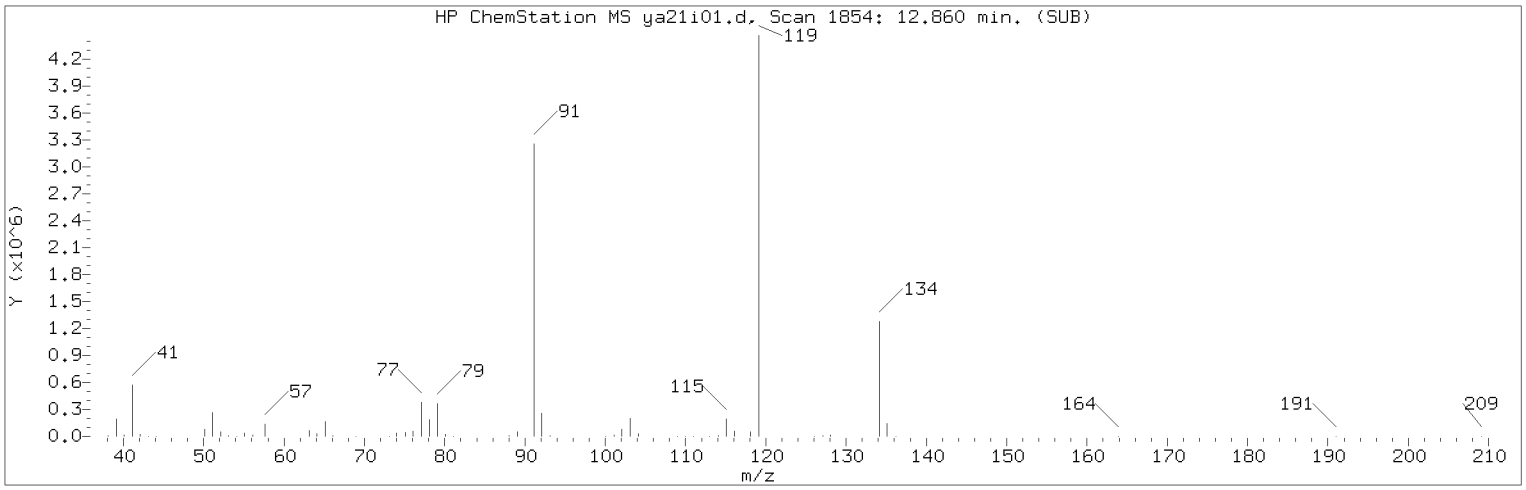
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

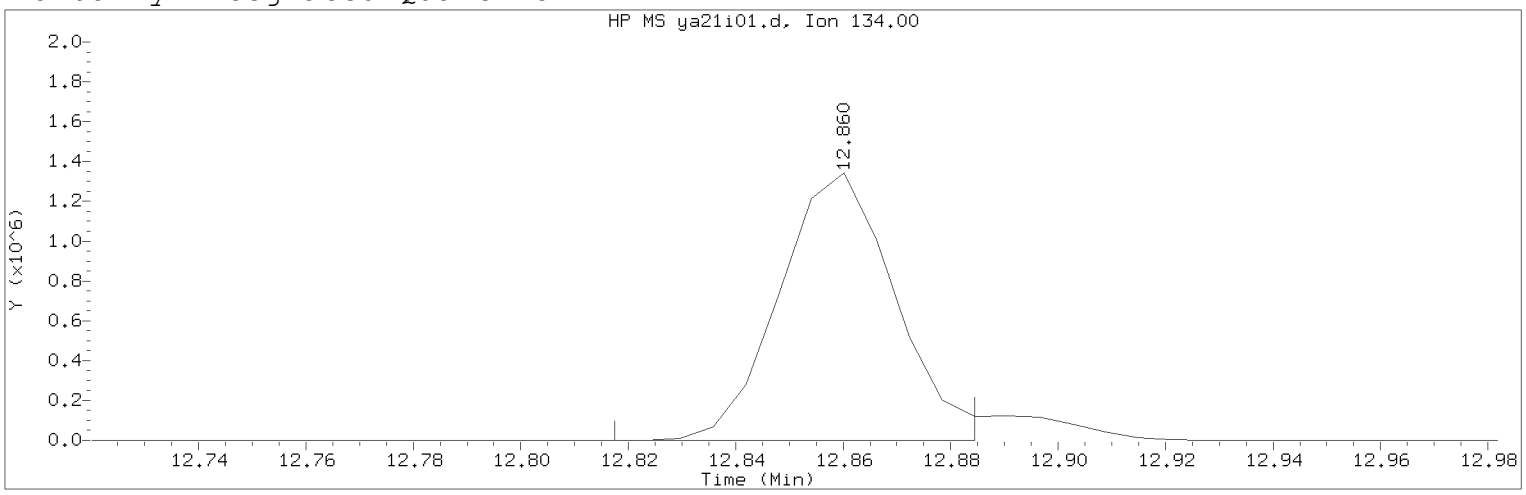
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area : 762298
On-column Amount (ng) : 4561.5709
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

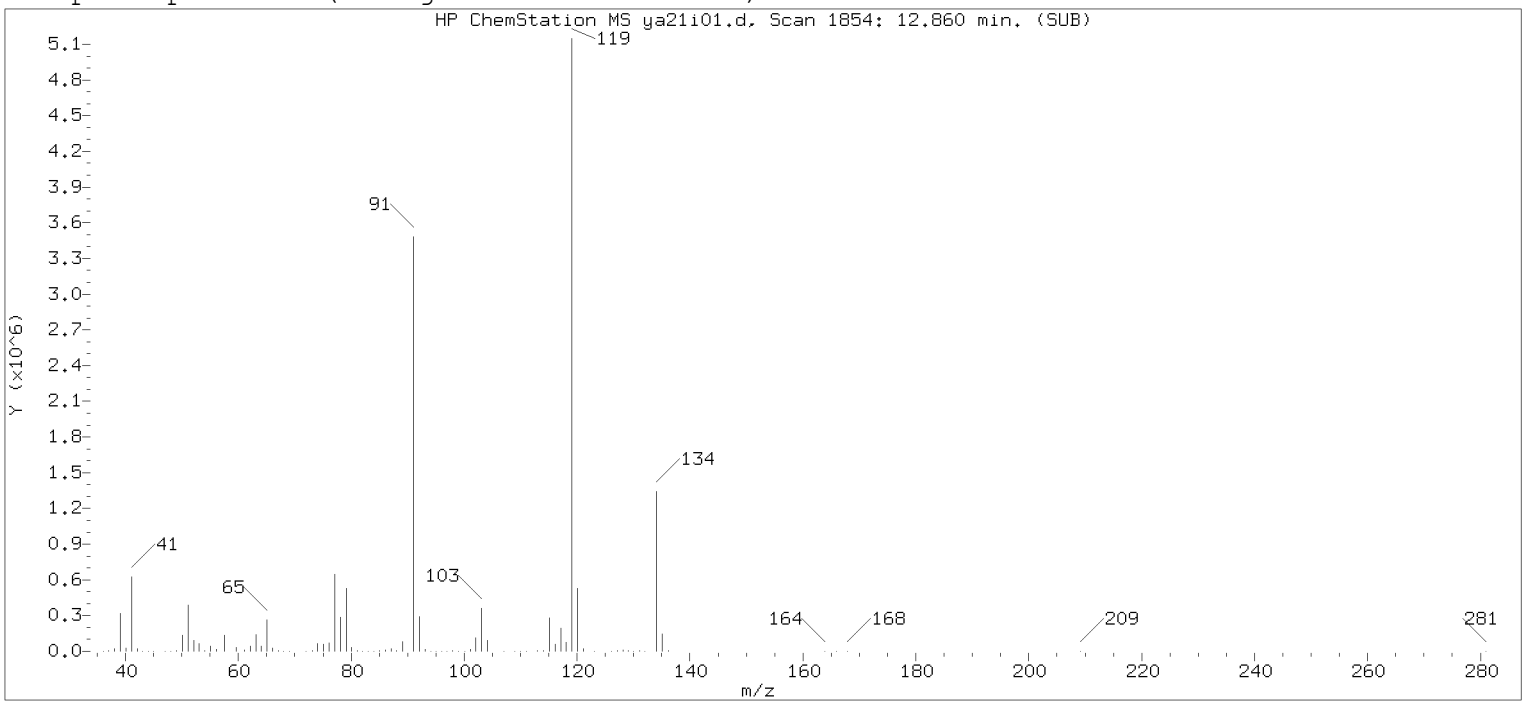
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1854
Retention Time (minutes): 12.860
Quant Ion : 134.00
Area (flag) : 2002497M
On-Column Amount (ng) : 300.0000
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

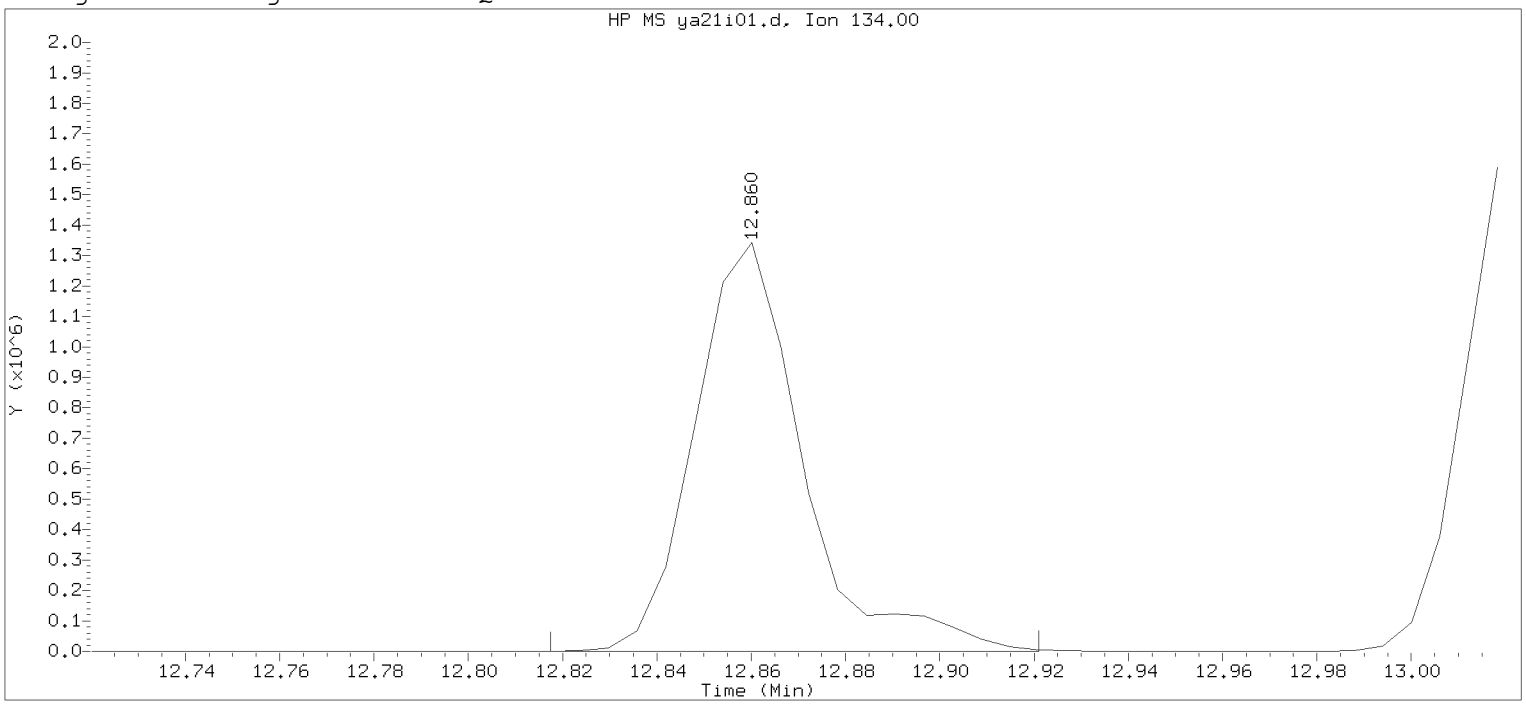
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



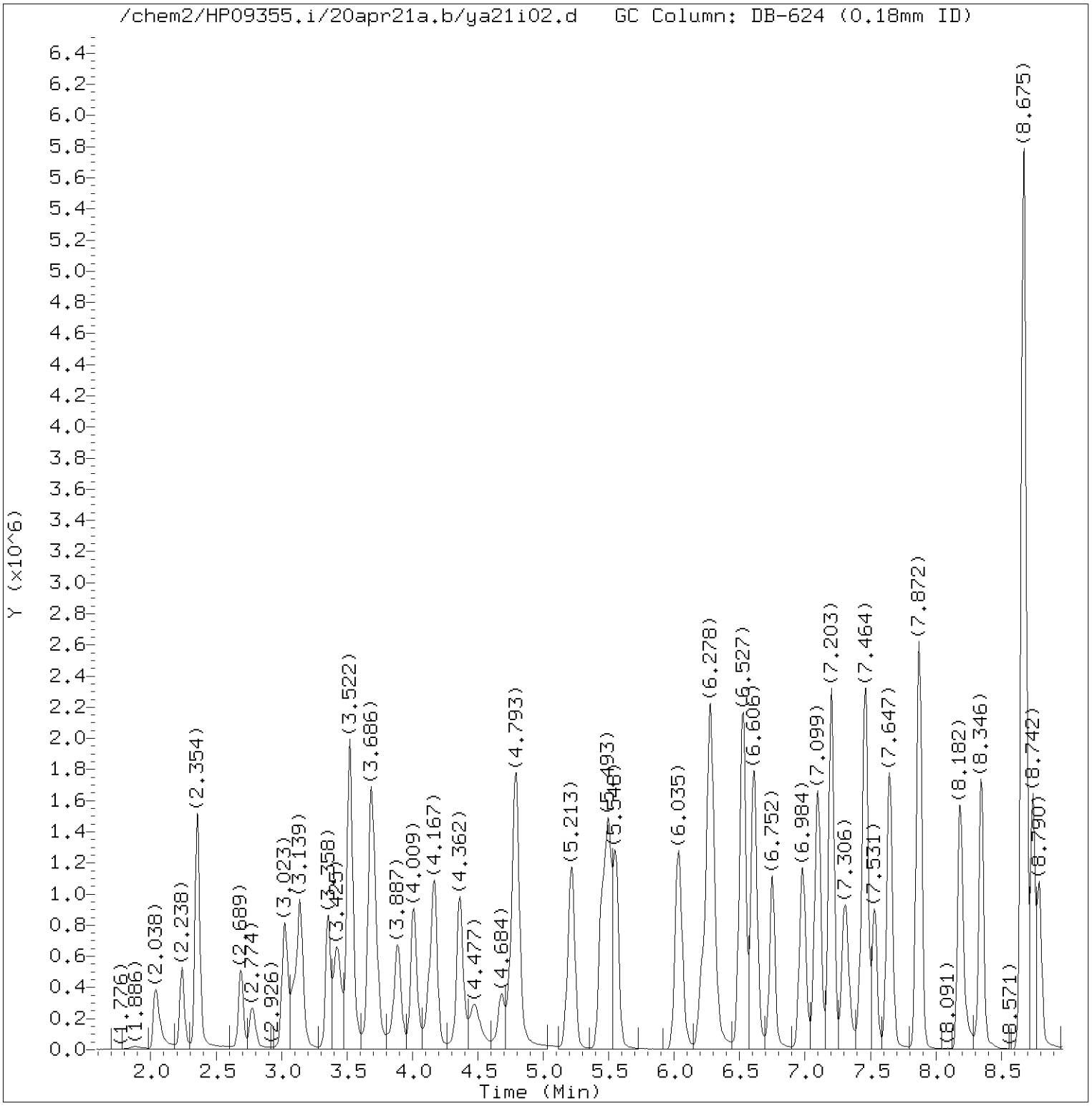
Data File: /chem2/HP09355.i/20apr21a.b/ya21i01.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 21:54 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1854
Retention Time (minutes): 12.860
Quant Ion : 134.00
Area : 2139549
On-column Amount (ng) : 308.2635
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

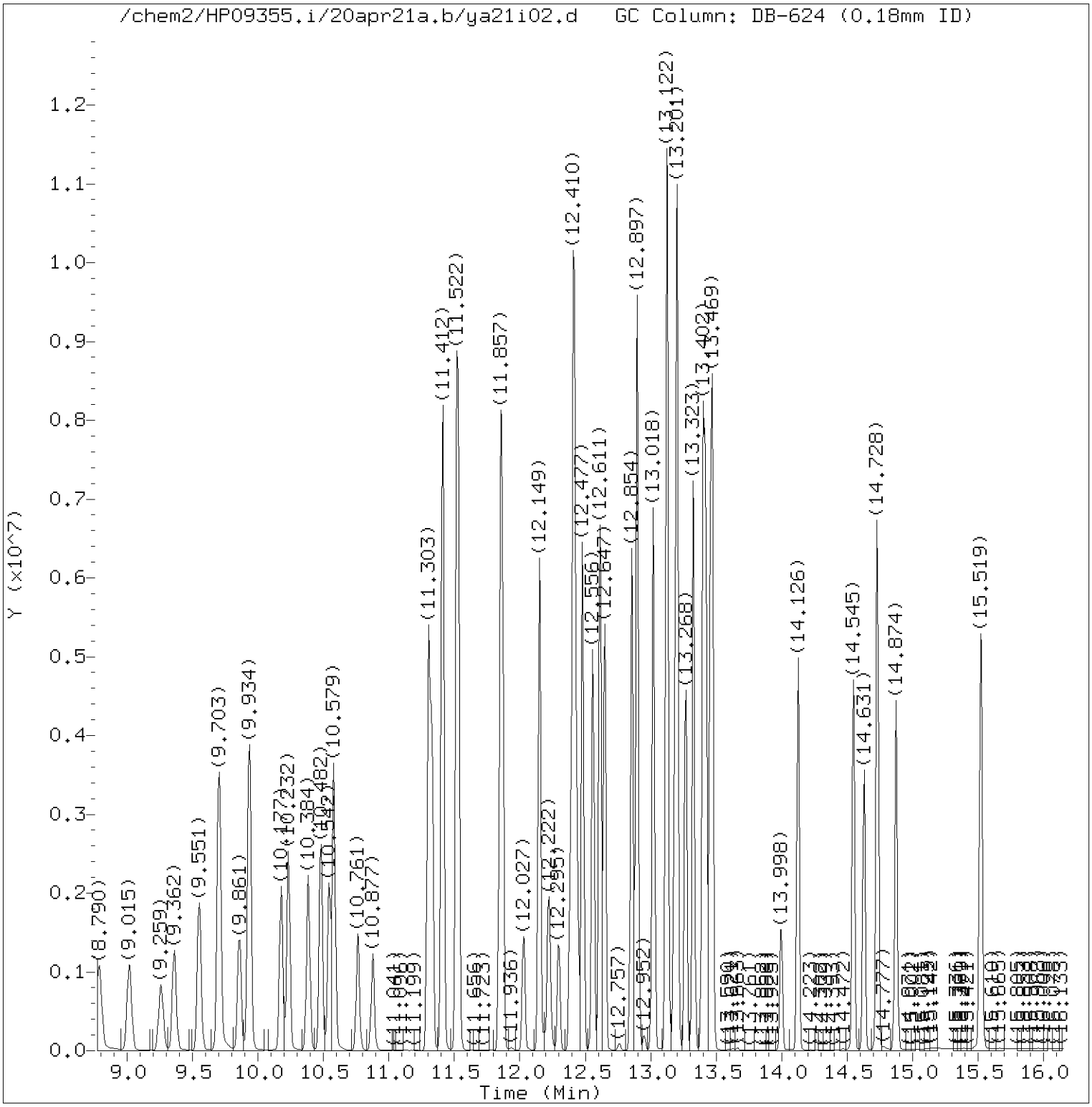
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.038	85	871843M	104.488
4) Chloromethane	(2)	2.238	50	792851	108.999
5) 1,3-Butadiene	(2)	2.354	39	651500	107.856
6) Vinyl Chloride	(2)	2.360	62	795553	108.945
8) Bromomethane	(2)	2.689	94	509105	109.281
9) Chloroethane	(2)	2.774	64	410801	107.714
10) Dichlorofluoromethane	(2)	3.023	67	1108569	105.428
12) Trichlorofluoromethane	(2)	3.096	101	888187	103.362
11) n-Pentane	(2)	3.139	43	972698	107.499
14) Ethyl ether	(2)	3.358	59	724767	106.692
15) Freon 123a	(2)	3.425	67	811507	103.518
16) Acrolein	(1)	3.522	56	3201292	1060.254
17) 1,1-Dichloroethene	(2)	3.680	96	647724	103.015
17) 1,1-Dichloroethene	(2)	3.680	63	320038	103.279
18) Acetone	(1)	3.686	58	301848	207.681
19) Freon 113	(2)	3.711	101	660719	102.339
21) 2-Propanol	(1)	3.857	45	556804	514.107
22) Methyl Iodide	(2)	3.887	142	1134031	102.196
23) Carbon Disulfide	(2)	4.009	76	2298651	102.803
27) Methyl Acetate	(2)	4.130	43	1015609	103.544
25) Allyl Chloride	(2)	4.167	41	1126229	104.305
29)*t-Butyl alcohol-d10	(1)	4.343	65	388401M	250.000
28) Methylene Chloride	(2)	4.362	84	761550	102.835
30) t-Butyl alcohol	(1)	4.477	59	959628	510.264
31) Acrylonitrile	(2)	4.678	53	570450	104.430
33) Methyl Tertiary Butyl Ether	(2)	4.775	73	2153361	104.192
32) trans-1,2-Dichloroethene	(2)	4.793	96	747582	102.960
34) n-Hexane	(2)	5.219	57	1190364	103.606
36) 1,1-Dichloroethane	(2)	5.444	63	1340313	103.473
38) di-Isopropyl ether	(2)	5.493	45	2482114	104.970
39) 2-Chloro-1,3-butadiene	(2)	5.554	53	1141123	102.825
40) Ethyl t-butyl ether	(2)	6.035	59	2187972	105.171
43) 1,2-Dichloroethene (Total)	(2)		96	1599617	206.074
44) 2-Butanone	(2)	6.223	43	1539611	210.439
42) cis-1,2-Dichloroethene	(2)	6.272	96	852035	103.114
45) 2,2-Dichloropropane	(2)	6.284	77	1015649	102.722
47) Propionitrile	(1)	6.302	54	1132718	512.202
48) Methacrylonitrile	(2)	6.527	67	1444658	259.816

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.606	128	412555	102.830
50) Tetrahydrofuran	(1)	6.619	71	441359	206.243
51) Chloroform	(2)	6.752	83	1284937	102.844
52)$Dibromofluoromethane	(2)	6.965	113	282528	49.712
52)$Dibromofluoromethane	(2)	6.965	111	289048	49.879
53) 1,1,1-Trichloroethane	(2)	6.984	97	1107000	101.838
54) Cyclohexane	(2)	7.099	56	1420379	103.537
54) Cyclohexane	(2)	7.099	84	1185508	103.111
54) Cyclohexane	(2)	7.099	69	437286	102.839
55) 1,1-Dichloropropene	(2)	7.203	75	1085319	102.913
56) Carbon Tetrachloride	(2)	7.203	117	955901	101.326
58) Isobutyl Alcohol	(1)	7.306	41	876388	1283.033
57)$1,2-Dichloroethane-d4	(2)	7.428	102	72869	49.770
57)$1,2-Dichloroethane-d4	(2)	7.428	65	328108	49.784
57)$1,2-Dichloroethane-d4	(2)	7.428	104	47057	50.098
60) Benzene	(2)	7.464	78	3205085	103.847
61) 1,2-Dichloroethane	(2)	7.531	62	1007394M	102.008
61) 1,2-Dichloroethane	(2)	7.537	98	100477	101.813
65) t-Amyl methyl ether	(2)	7.647	73	2187346	105.681
66)*Fluorobenzene	(2)	7.866	96	1242825	50.000
67) n-Heptane	(2)	7.878	43	1260112	103.580
69) n-Butanol	(1)	8.188	56	1740853M	2603.143
71) Trichloroethene	(2)	8.346	95	811585	101.920
72) Methylcyclohexane	(2)	8.663	83	1469758	105.200
72) Methylcyclohexane	(2)	8.663	98	651769	104.555
73) 1,2-Dichloropropane	(2)	8.675	63	841648	105.350
76) Methyl Methacrylate	(2)	8.742	69	888565	101.000
75) 1,4-Dioxane	(1)	8.754	88	215840M	1297.628
74) Dibromomethane	(2)	8.790	93	534603	101.683
78) Bromodichloromethane	(2)	9.015	83	1008362	101.182
79) 2-Nitropropane	(2)	9.259	41	718100	206.807
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	715293	102.584
81) cis-1,3-Dichloropropene	(2)	9.551	75	1382534	102.494
82) 4-Methyl-2-pentanone	(2)	9.703	43	3051806	214.440
83)$Toluene-d8	(3)	9.861	98	1198143	49.880
83)$Toluene-d8	(3)	9.855	100	771906	49.841
88) Toluene	(3)	9.934	92	2026786	103.729
90) 1,3-Dichloropropene (total)	(3)		100	2674789	205.094

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$ = Compound is a surrogate standard.

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on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	1292255	102.600
91) Ethyl Methacrylate	(3)	10.232	69	1476629	103.205
92) 1,1,2-Trichloroethane	(3)	10.384	97	808898	102.844
93) Tetrachloroethene	(3)	10.482	166	840598	102.704
94) 1,3-Dichloropropane	(3)	10.542	76	1369356	103.558
96) 2-Hexanone	(3)	10.579	43	2421348	215.732
97) Dibromochloromethane	(3)	10.761	129	861019	100.628
99) 1,2-Dibromoethane	(3)	10.877	107	893937	101.902
100)*Chlorobenzene-d5	(3)	11.303	117	921611	50.000
101) 1-Chlorohexane	(3)	11.303	91	1130660	103.895
102) Chlorobenzene	(3)	11.327	112	2270648	104.404
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	778695	103.499
104) Ethylbenzene	(3)	11.412	91	3953011	107.529
106) m+p-Xylene	(3)	11.522	106	3125964	214.048
108) Xylene (Total)	(3)		106	4656566	319.974
107) o-Xylene	(3)	11.850	106	1530602	105.926
109) Styrene	(3)	11.869	104	2623011	106.129
110) Bromoform	(3)	12.033	173	657653	99.260
111) Isopropylbenzene	(3)	12.149	105	3919914	107.945
112) Cyclohexanone	(1)	12.222	55	874577	1324.236
114)$4-Bromofluorobenzene	(3)	12.295	95	455061	49.924
114)$4-Bromofluorobenzene	(3)	12.301	174	350168	49.789
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	1397998	104.893
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	1145228	268.755
115) Bromobenzene	(4)	12.416	156	990855	105.190
117) 1,2,3-Trichloropropane	(4)	12.434	110	442369	103.882
119) n-Propylbenzene	(4)	12.477	91	4645891	110.774
120) 2-Chlorotoluene	(4)	12.556	126	953157	103.997
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	3406748	107.083
121) 4-Chlorotoluene	(4)	12.647	126	1003554	104.084
124) tert-Butylbenzene	(4)	12.854	134	715748M	104.524
125) Pentachloroethane	(4)	12.891	167	553279	101.442
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	3597055	107.949
127) sec-Butylbenzene	(4)	13.018	105	4377698	110.020
129) 1,3-Dichlorobenzene	(4)	13.122	146	1901645	106.819
130) p-Isopropyltoluene	(4)	13.128	119	3746632	109.330
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	487855	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	1953039	106.493

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Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	3422248	107.966
135) Benzyl Chloride	(4)	13.268	91	3028890	105.340
136) 1,3-Diethylbenzene	(4)	13.323	119	2232962	106.381
141) Diethylbenzene (total)	(4)		100	6439398	320.220
137) 1,4-Diethylbenzene	(4)	13.402	119	2352828	107.375
139) n-Butylbenzene	(4)	13.420	92	1965625	106.766
138) 1,2-Dichlorobenzene	(4)	13.456	146	1834061	105.273
140) 1,2-Diethylbenzene	(4)	13.469	119	1853608	106.463
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	366569	101.193
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	1378529	102.363
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	1303550	102.519
147) Hexachlorobutadiene	(4)	14.631	225	576888	101.489
148) Naphthalene	(4)	14.728	128	4834509	111.702
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	1251933	103.166
150) 2-Methylnaphthalene	(4)	15.519	142	2735396	109.807

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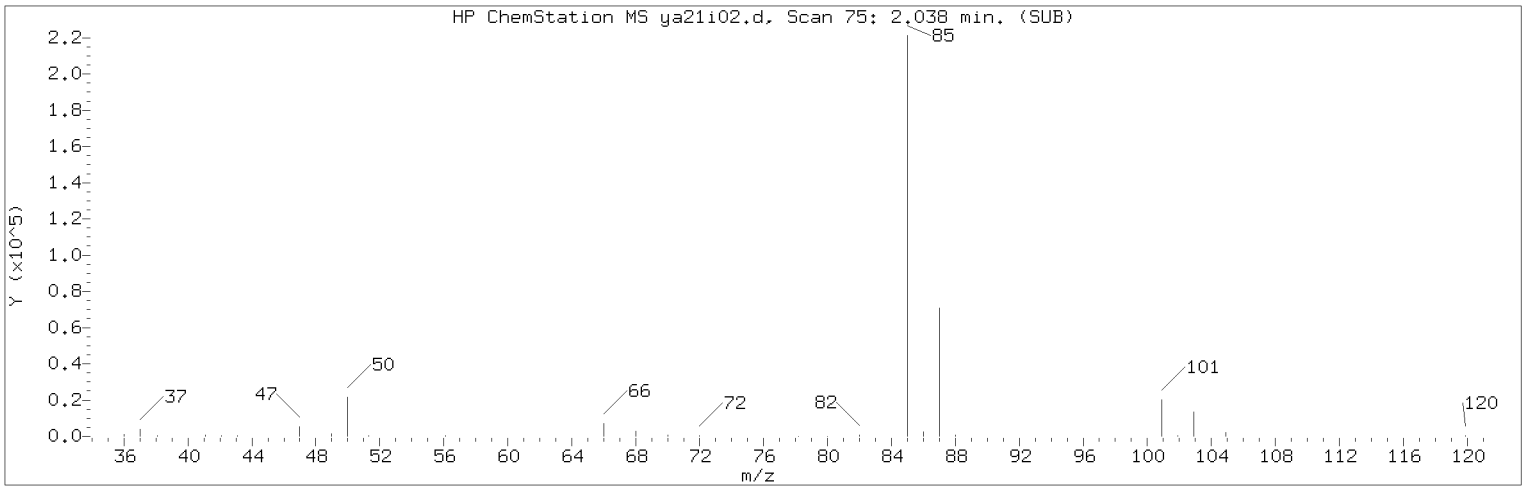
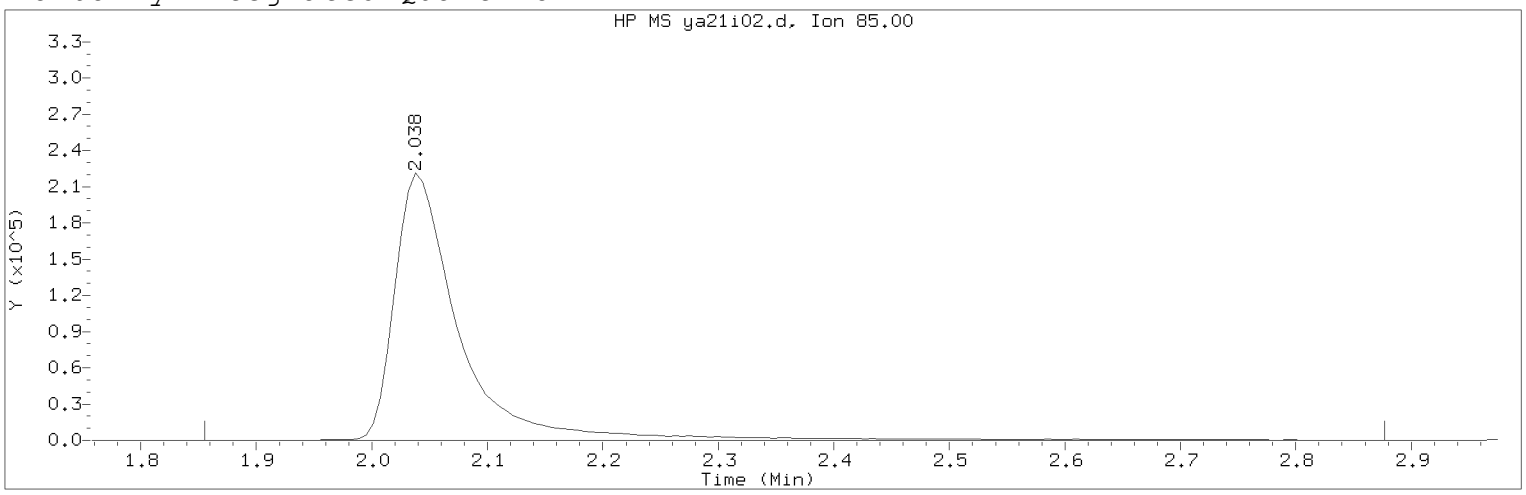
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

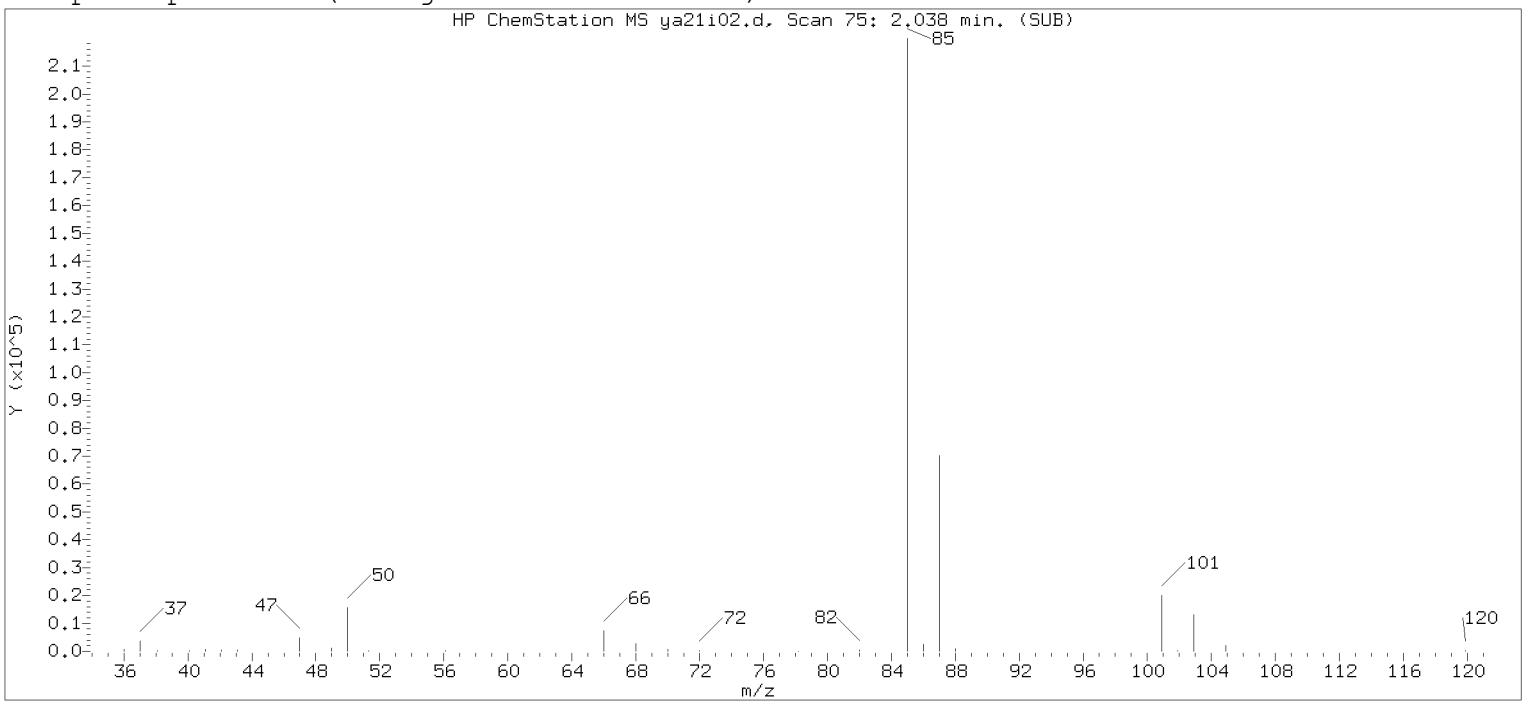
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 75
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area (flag) : 871843M
On-Column Amount (ng) : 104.4878
Integration start scan : 44 Integration stop scan: 212
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

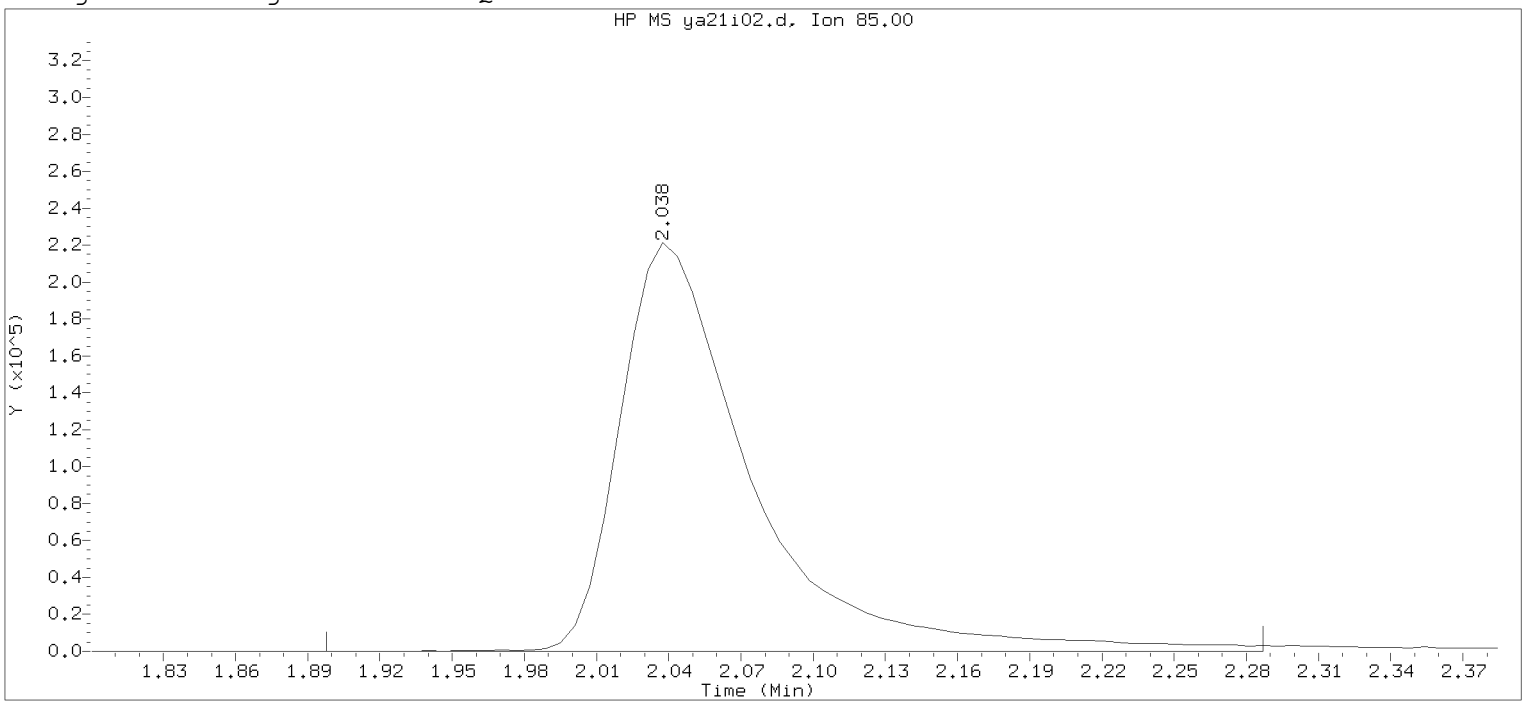
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

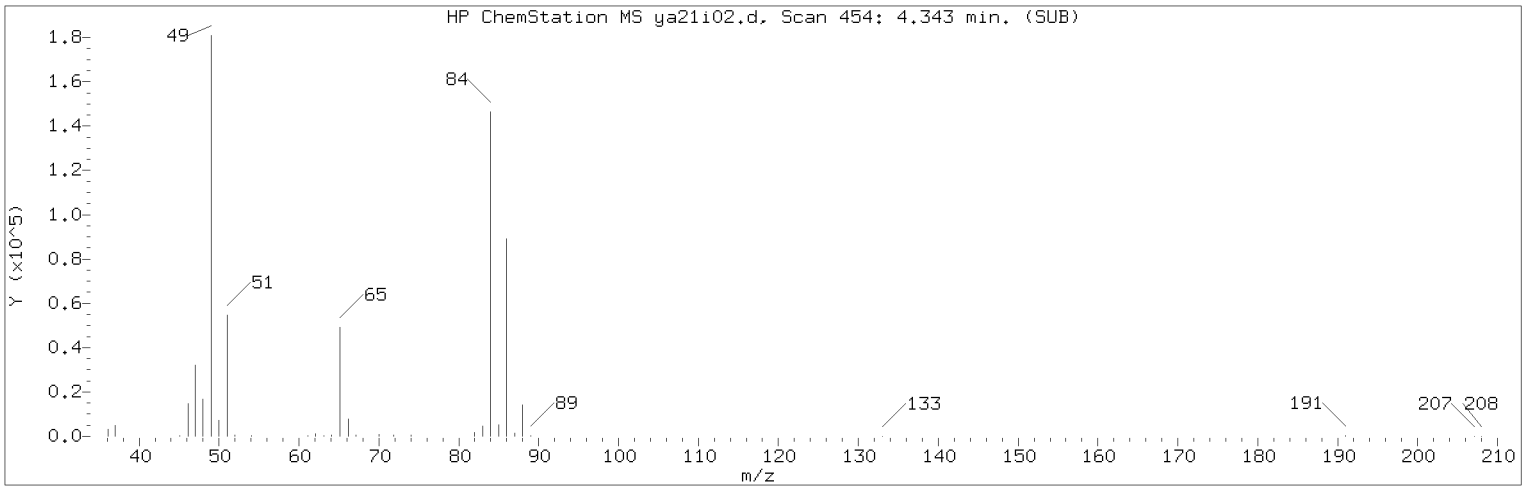
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

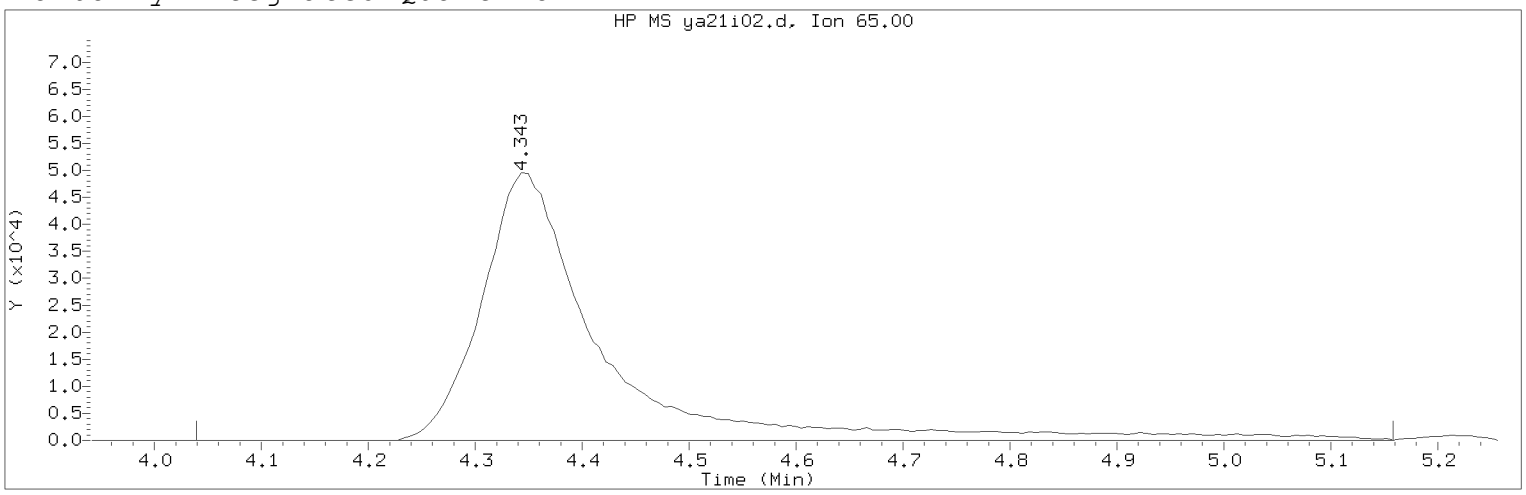
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 75
Retention Time (minutes): 2.038
Quant Ion : 85.00
Area : 839923
On-column Amount (ng) : 105.0581
Integration start scan : 51 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

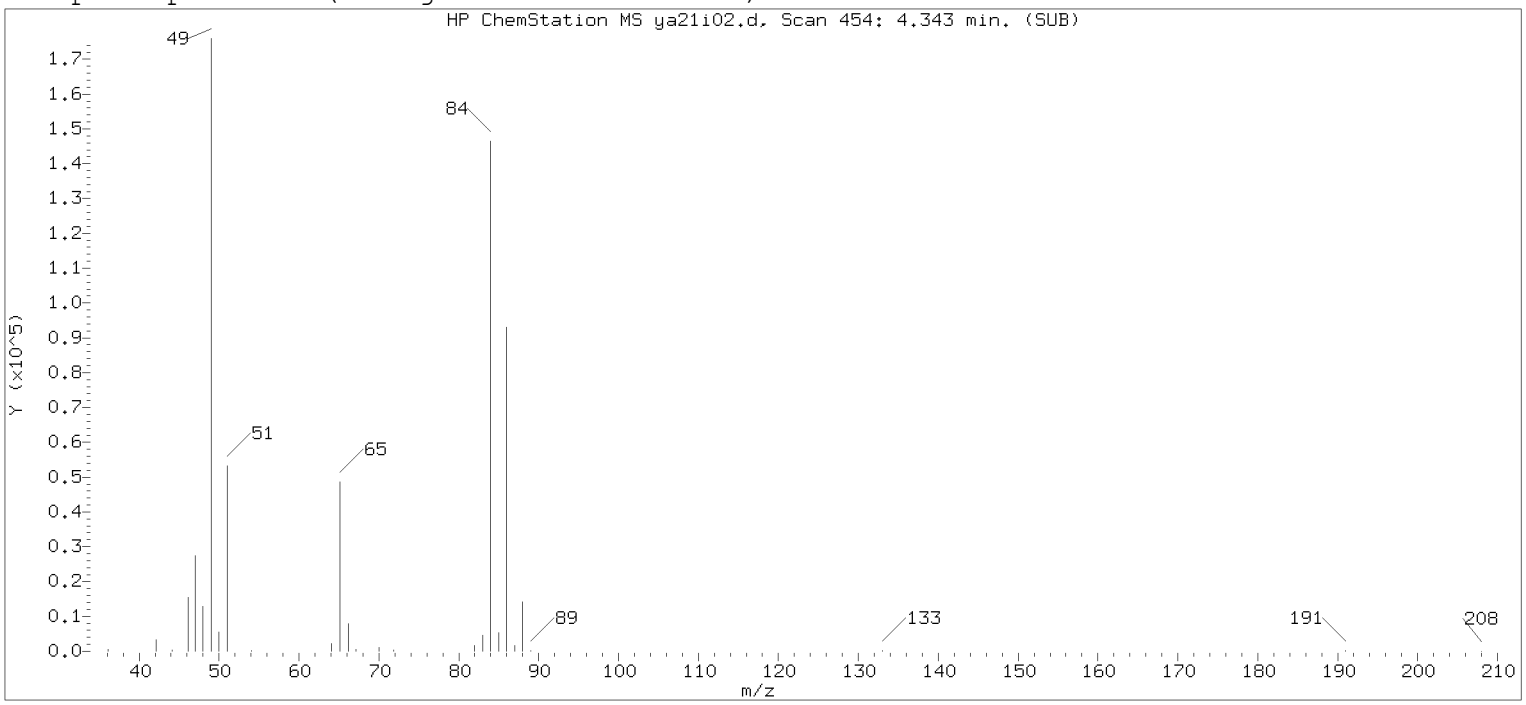
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 454
Retention Time (minutes): 4.343
Quant Ion : 65.00
Area (flag) : 388401M
On-Column Amount (ng) : 250.0000
Integration start scan : 403 Integration stop scan: 587
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

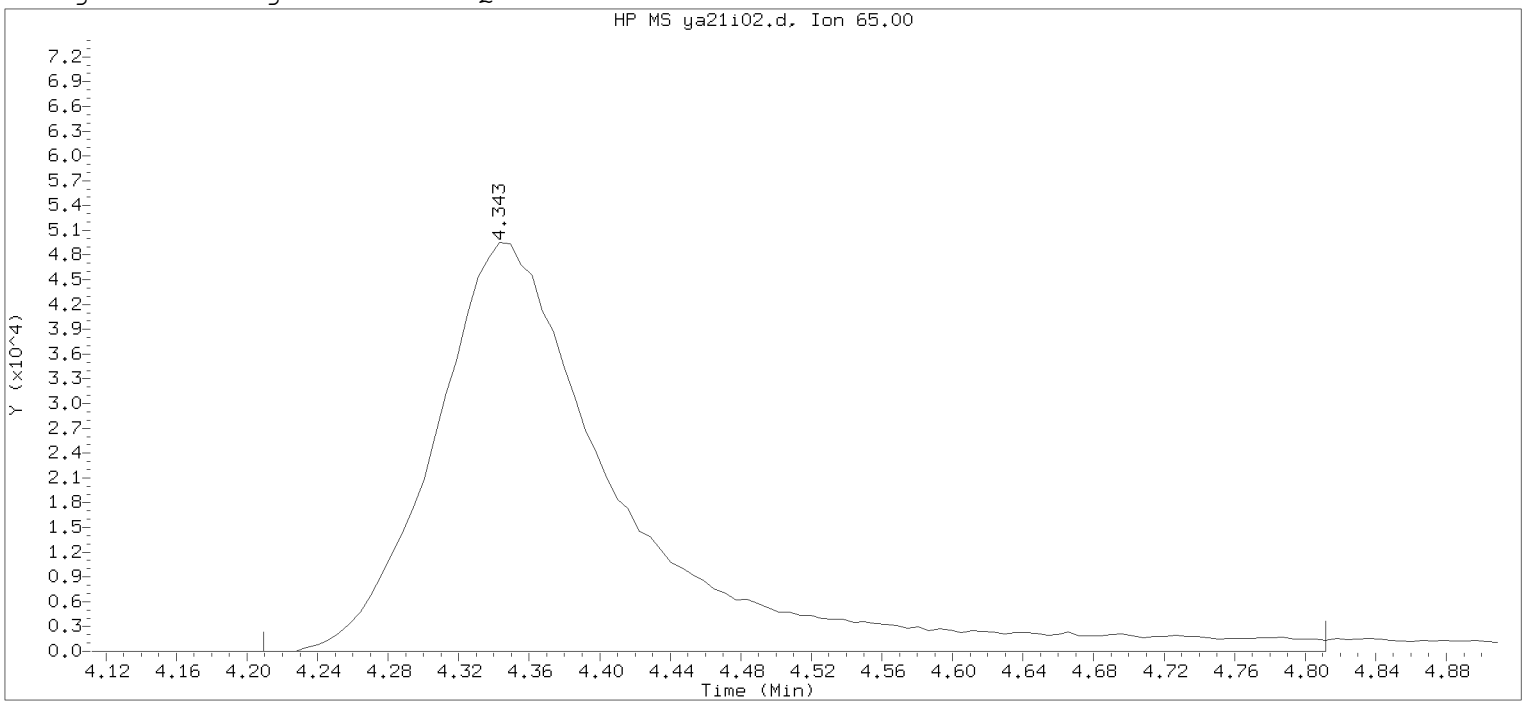
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

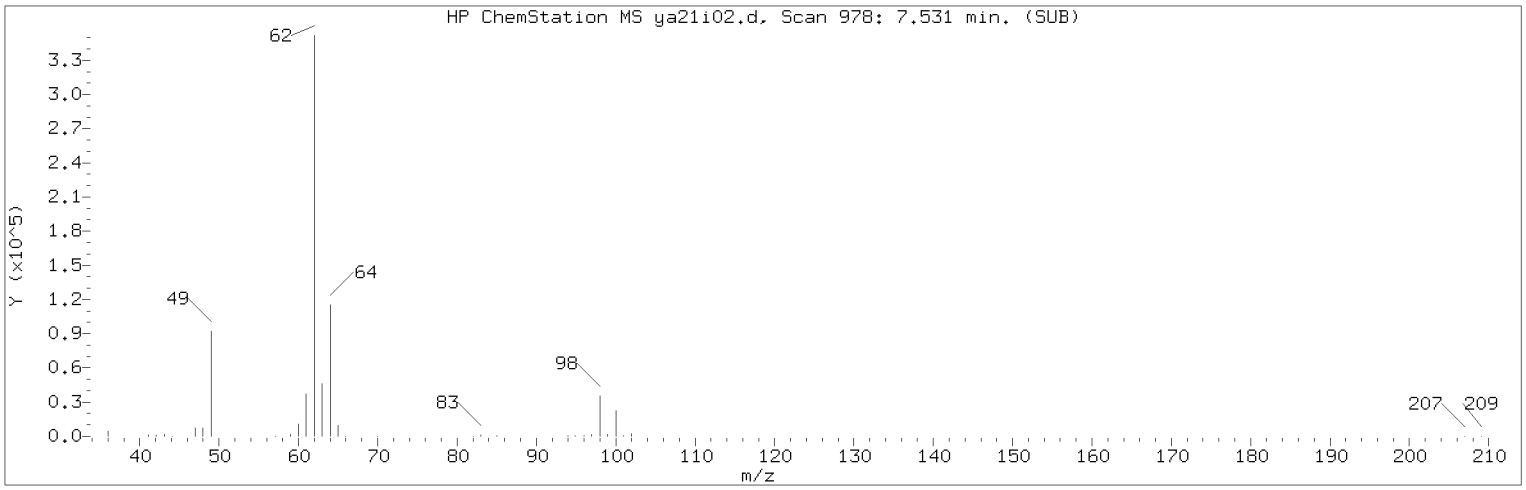
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

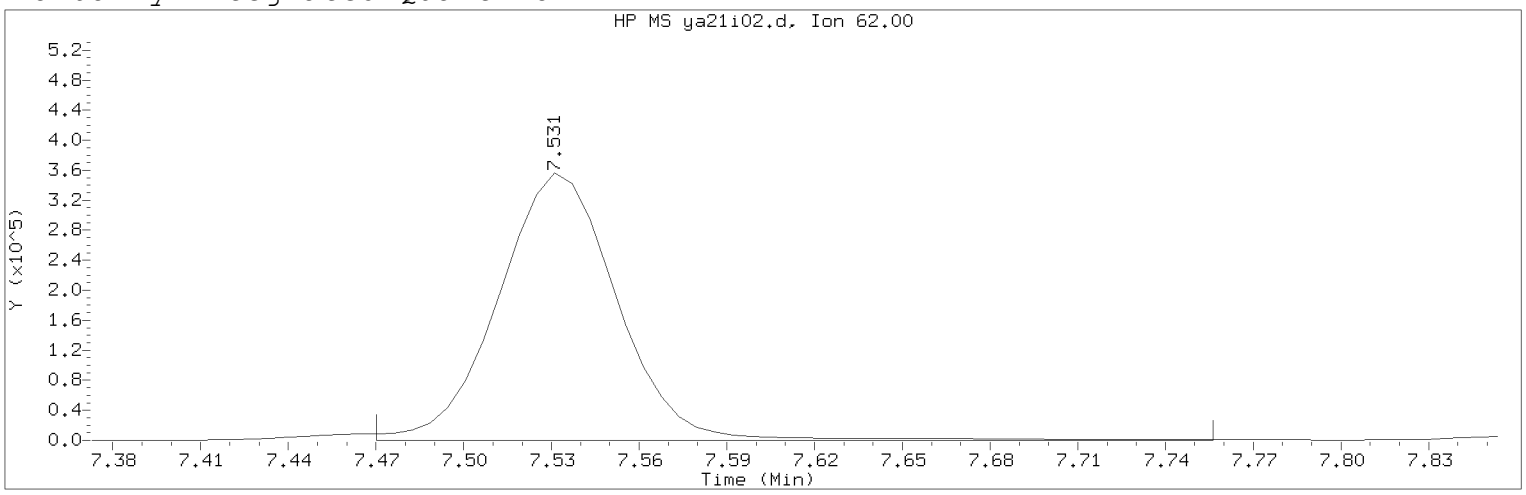
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 454
Retention Time (minutes): 4.343
Quant Ion : 65.00
Area : 367456
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 530
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

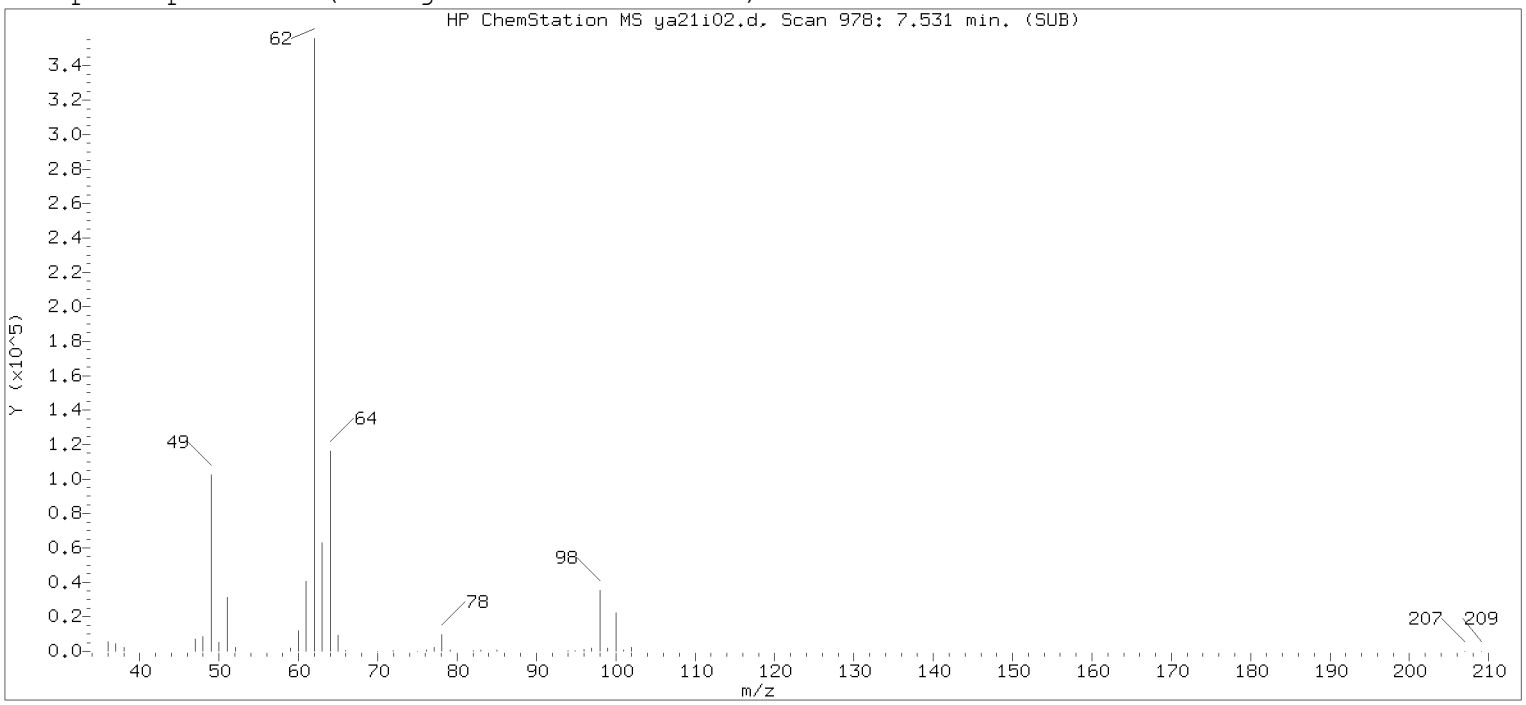
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 1007394M
On-Column Amount (ng) : 102.0083
Integration start scan : 967 Integration stop scan: 1014
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

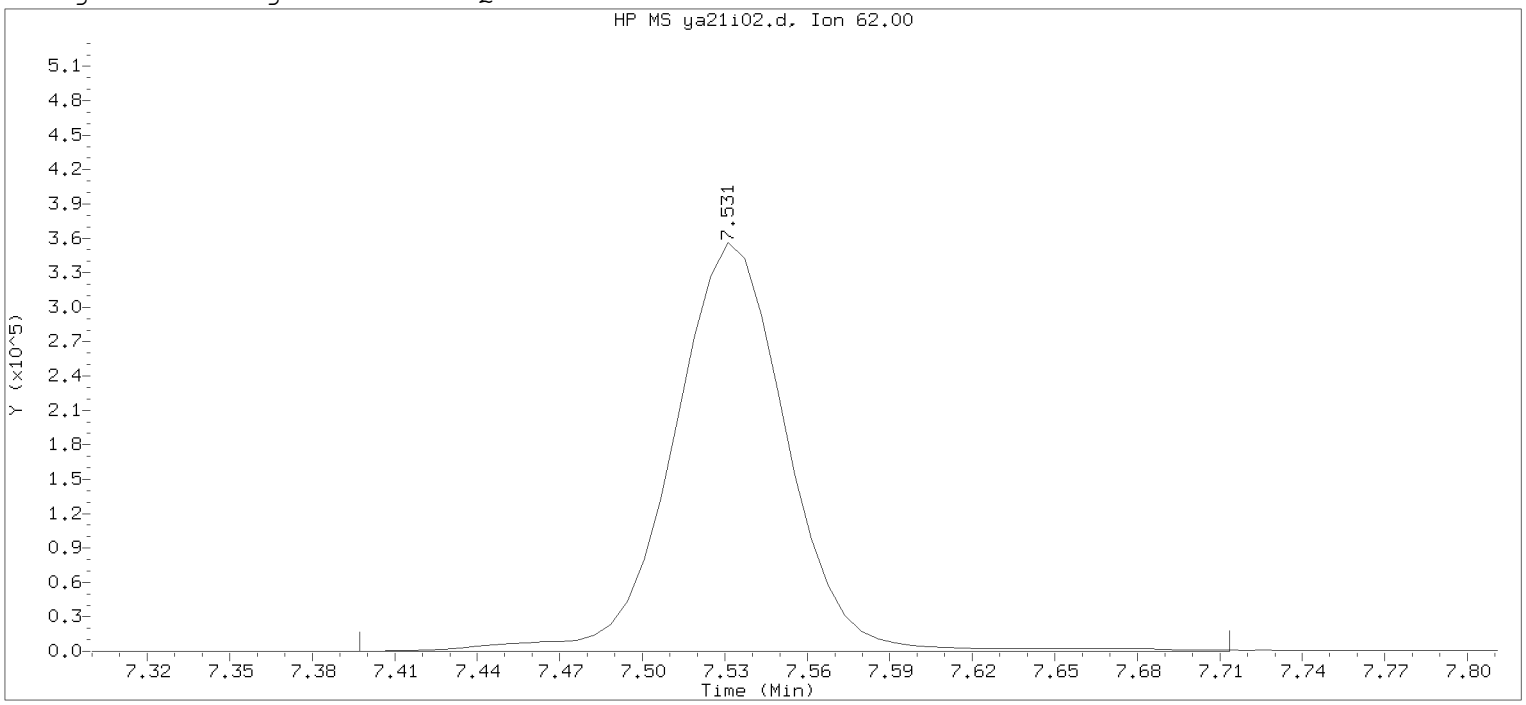
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

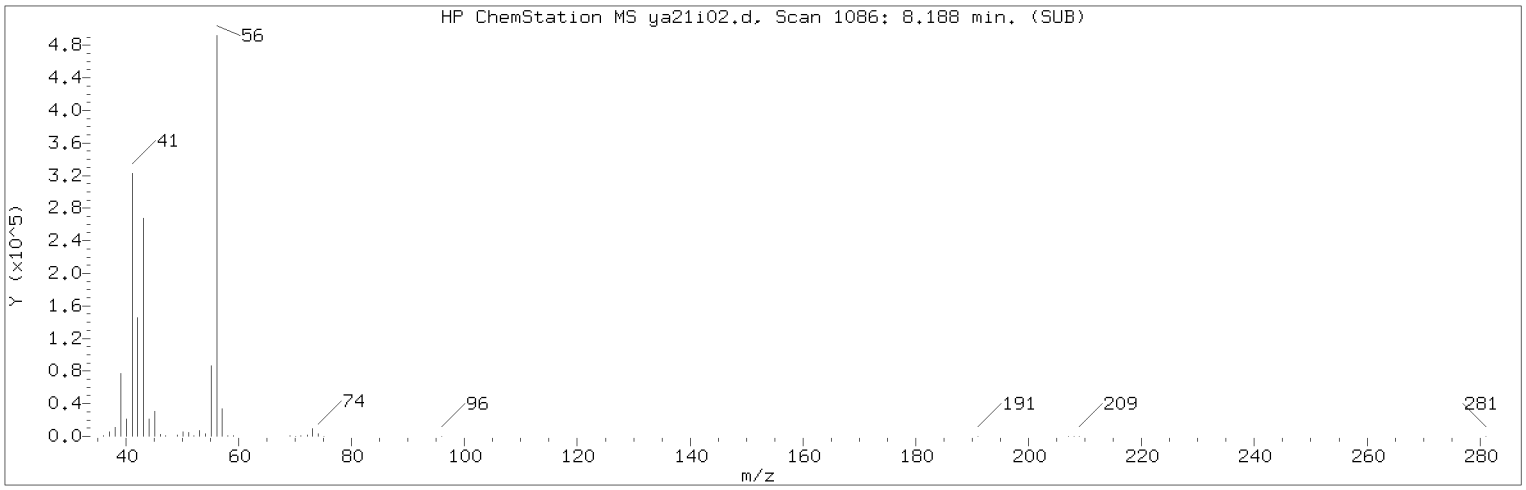
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

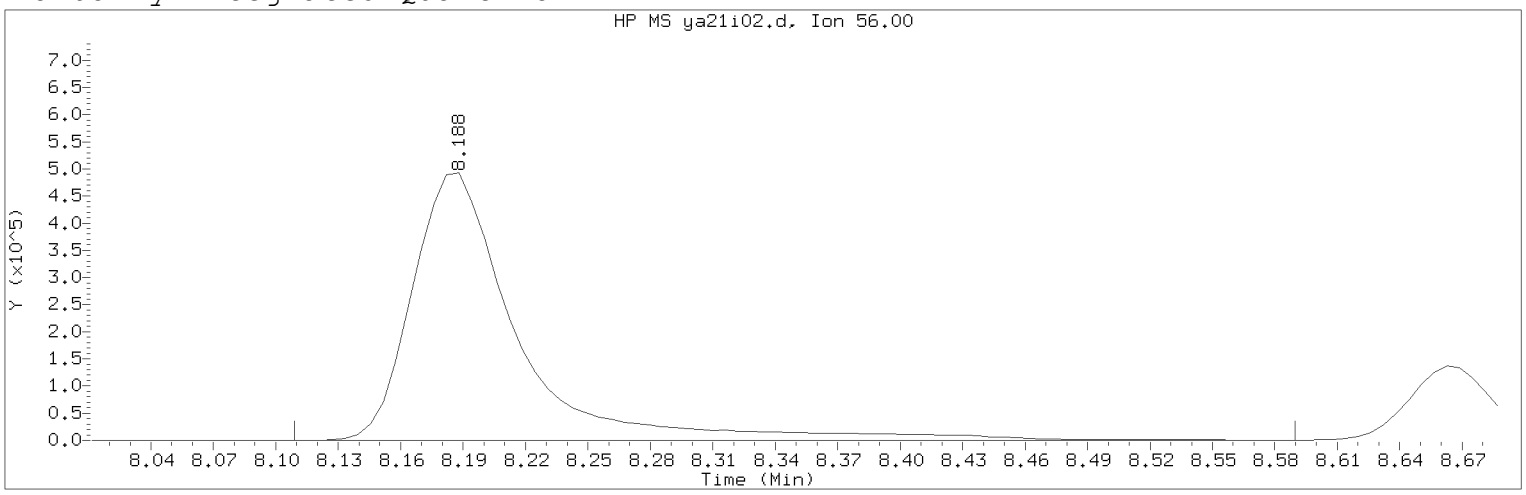
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 1019690
On-column Amount (ng) : 102.5688
Integration start scan : 955 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

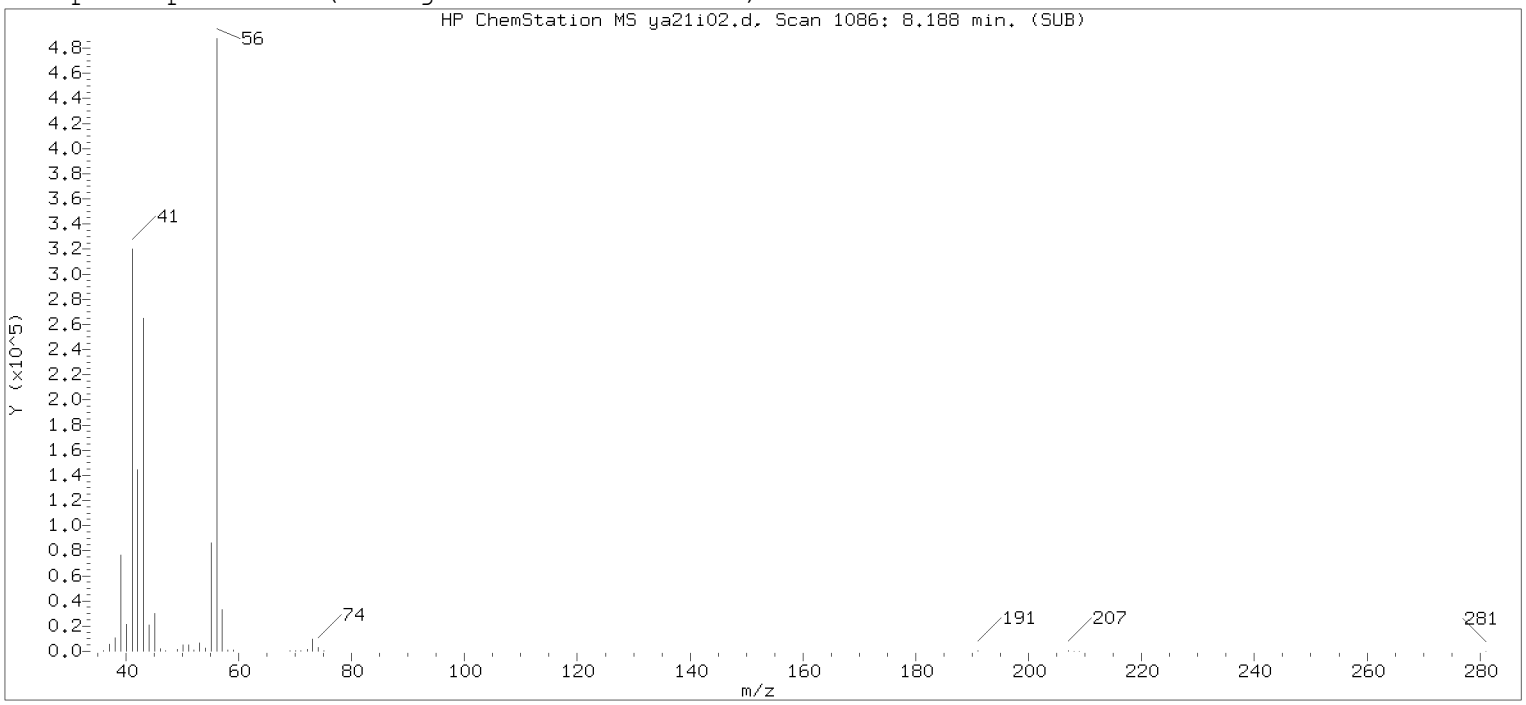
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1086
Retention Time (minutes): 8.188
Quant Ion : 56.00
Area (flag) : 1740853M
On-Column Amount (ng) : 2603.1429
Integration start scan : 1072 Integration stop scan: 1151
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

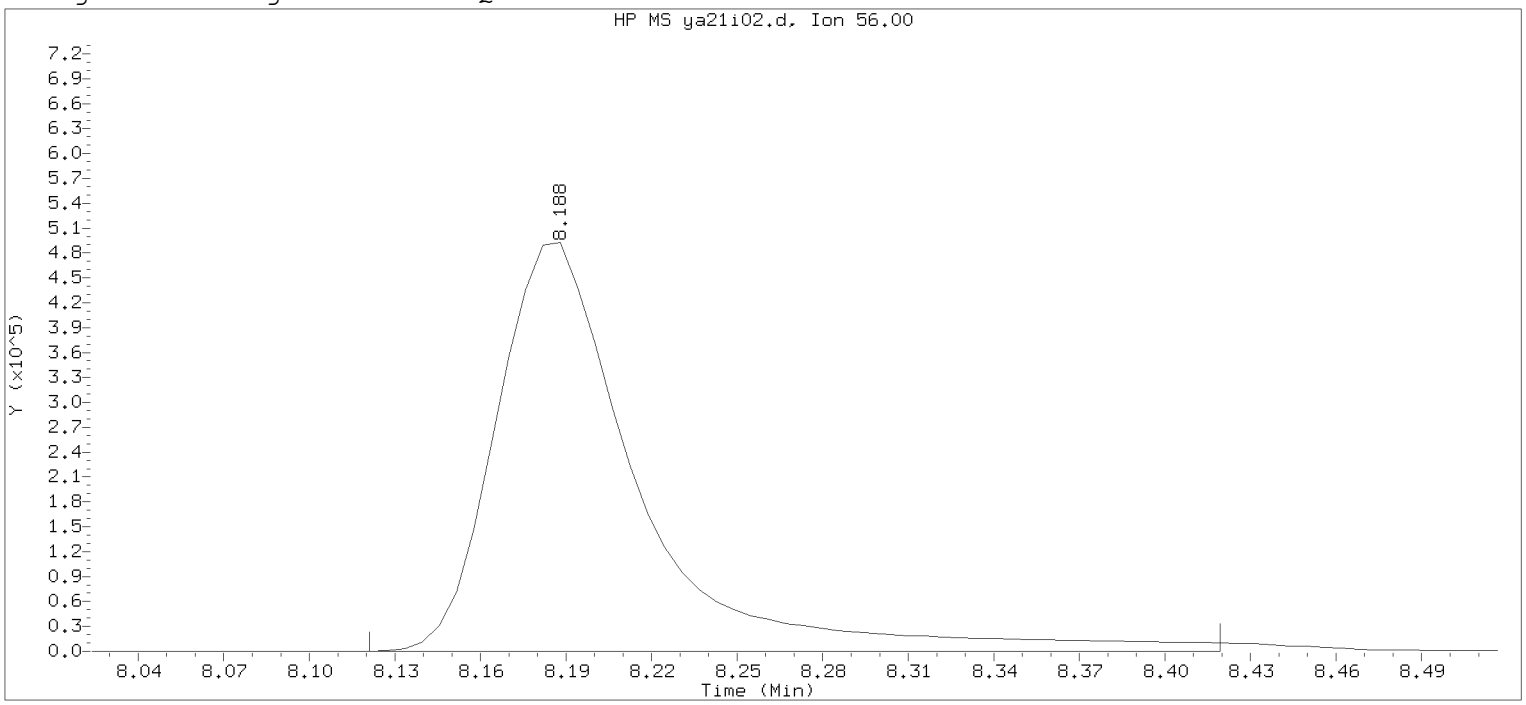
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1086
Retention Time (minutes): 8.188
Quant Ion : 56.00
Area : 1714670
On-column Amount (ng) : 2993.6531
Integration start scan : 1074 Integration stop scan: 1123
Y at integration start : 0 Y at integration end: 0

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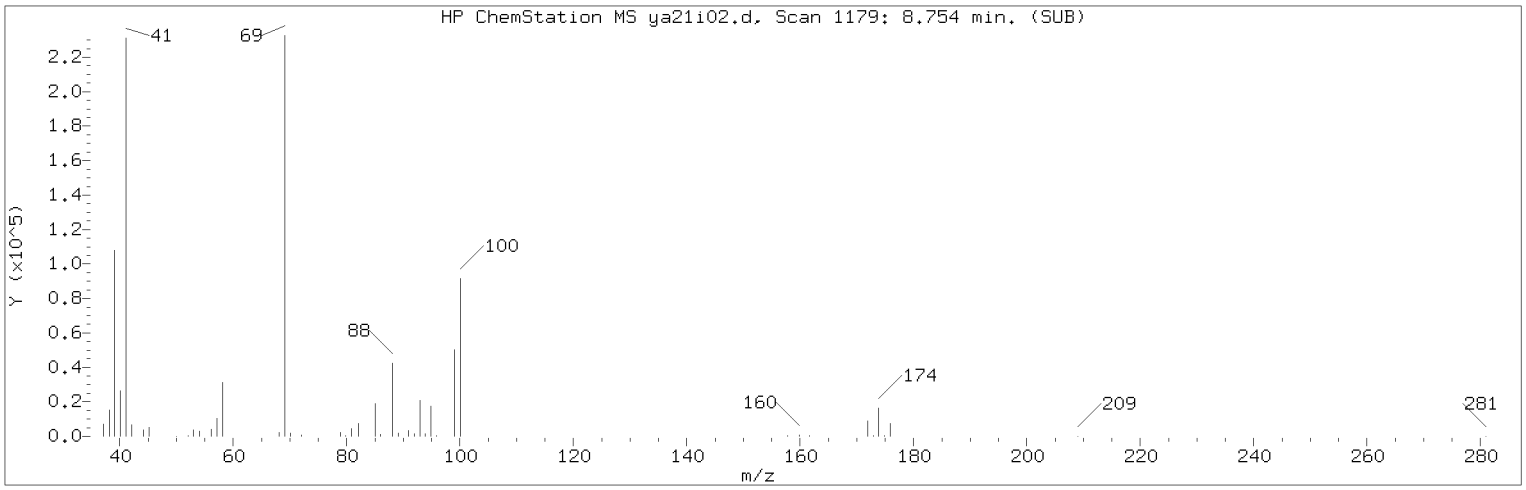
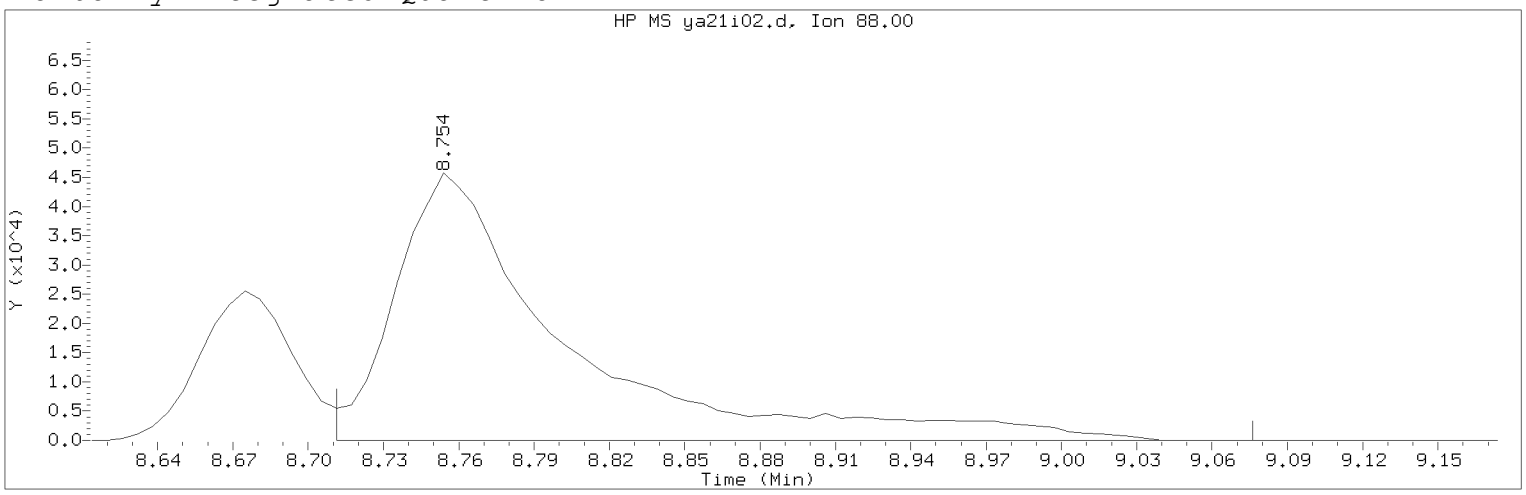
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

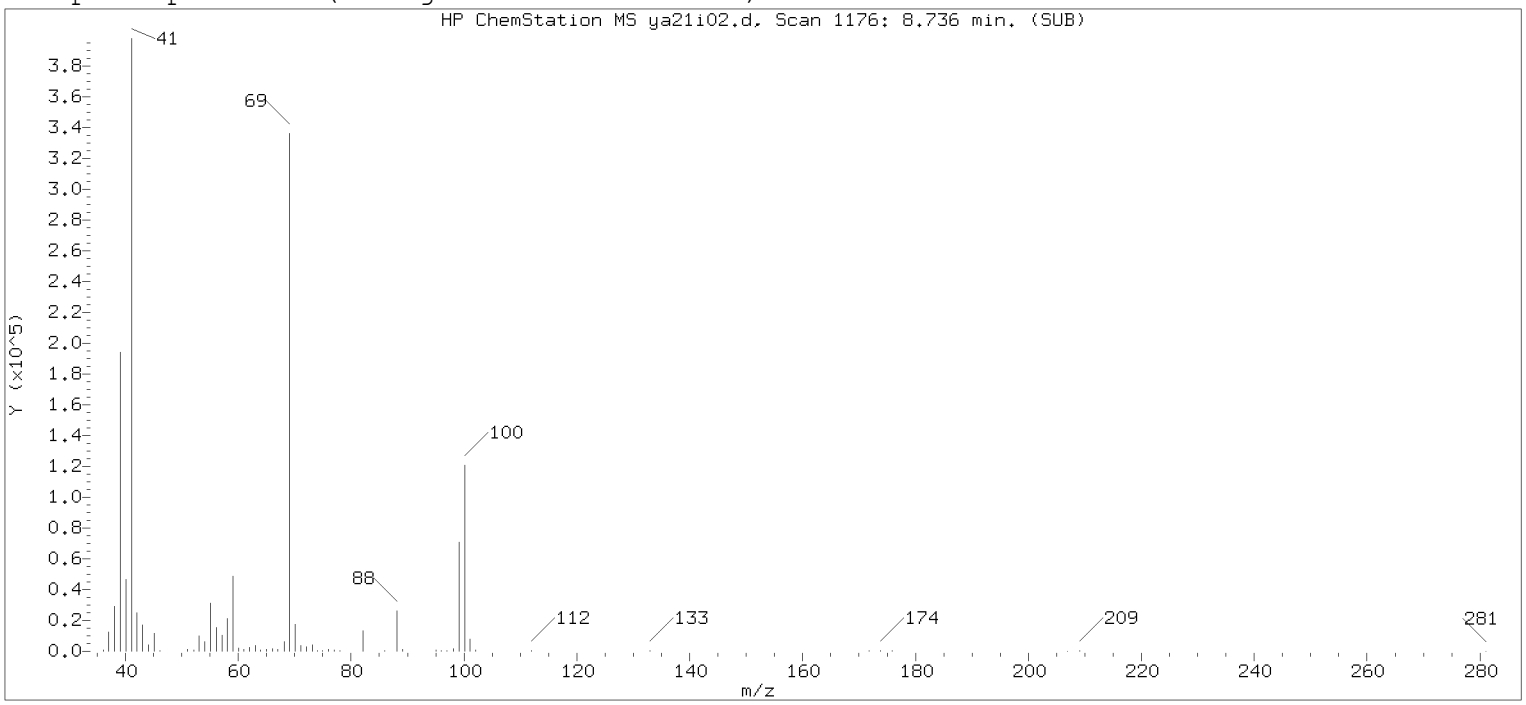
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 215840M
On-Column Amount (ng) : 1297.6283
Integration start scan : 1171 Integration stop scan: 1231
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

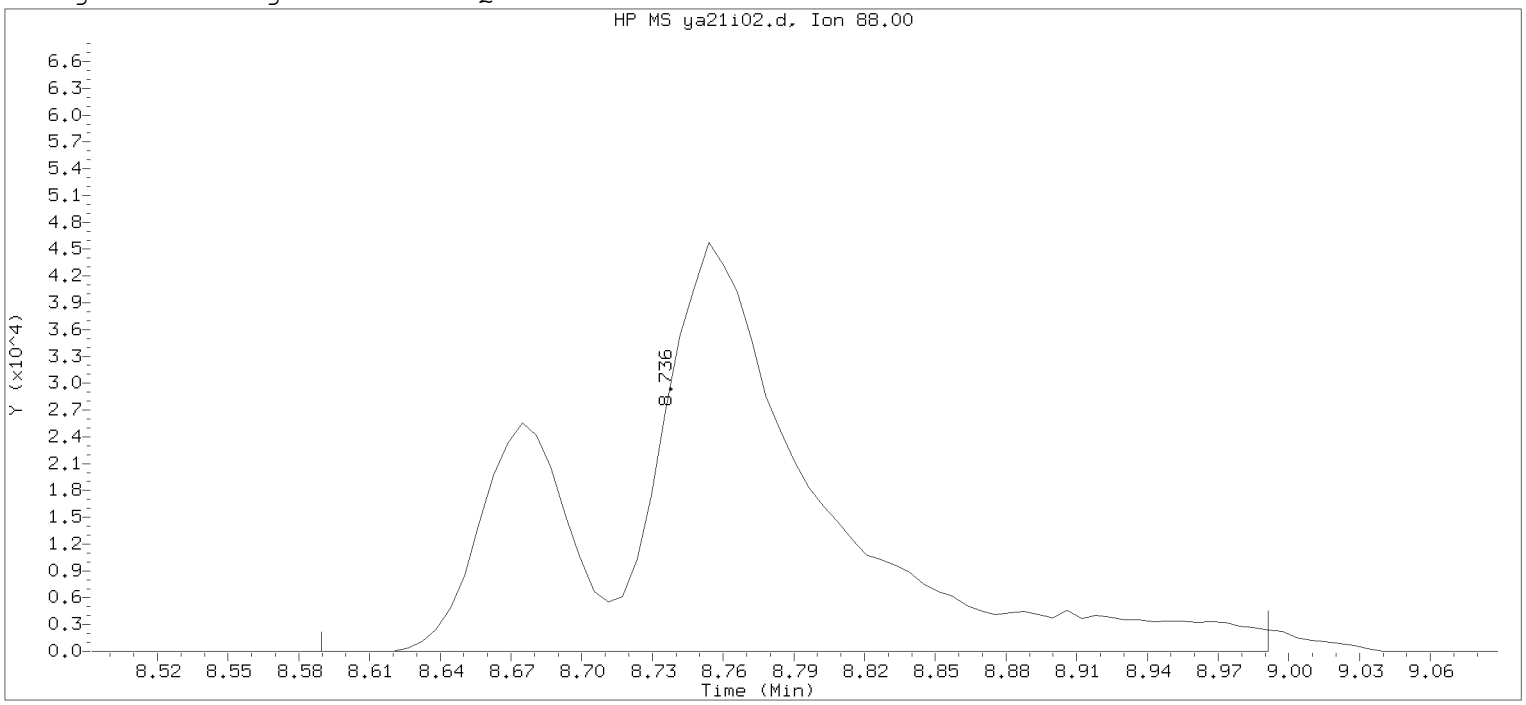
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:16 Analyst ID: KAS02648

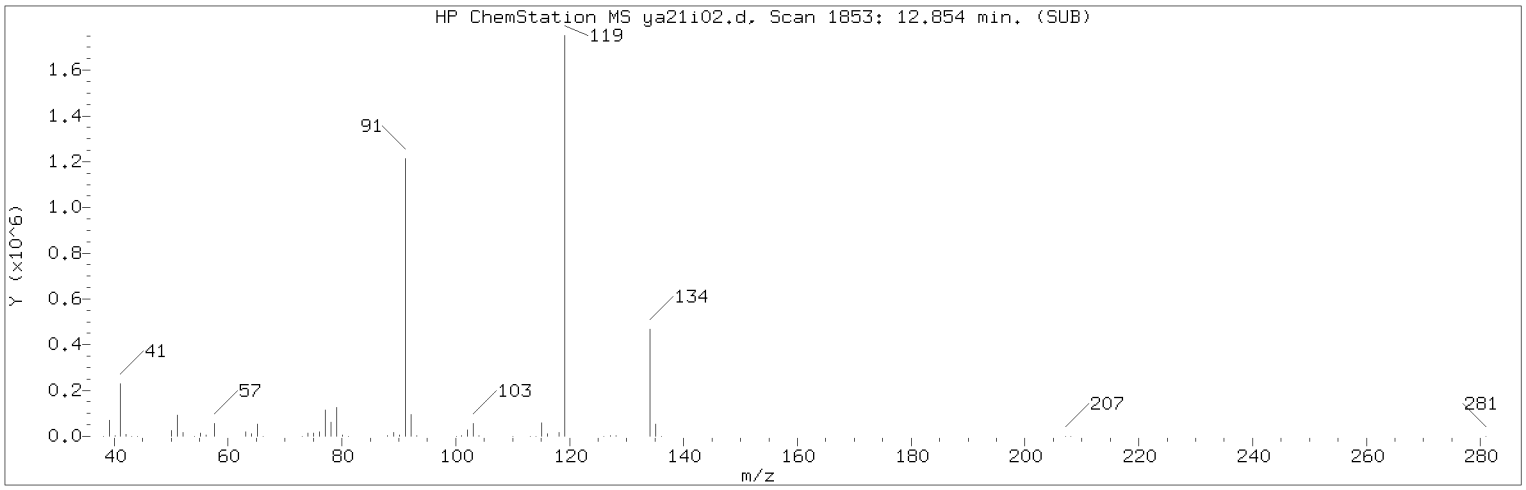
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

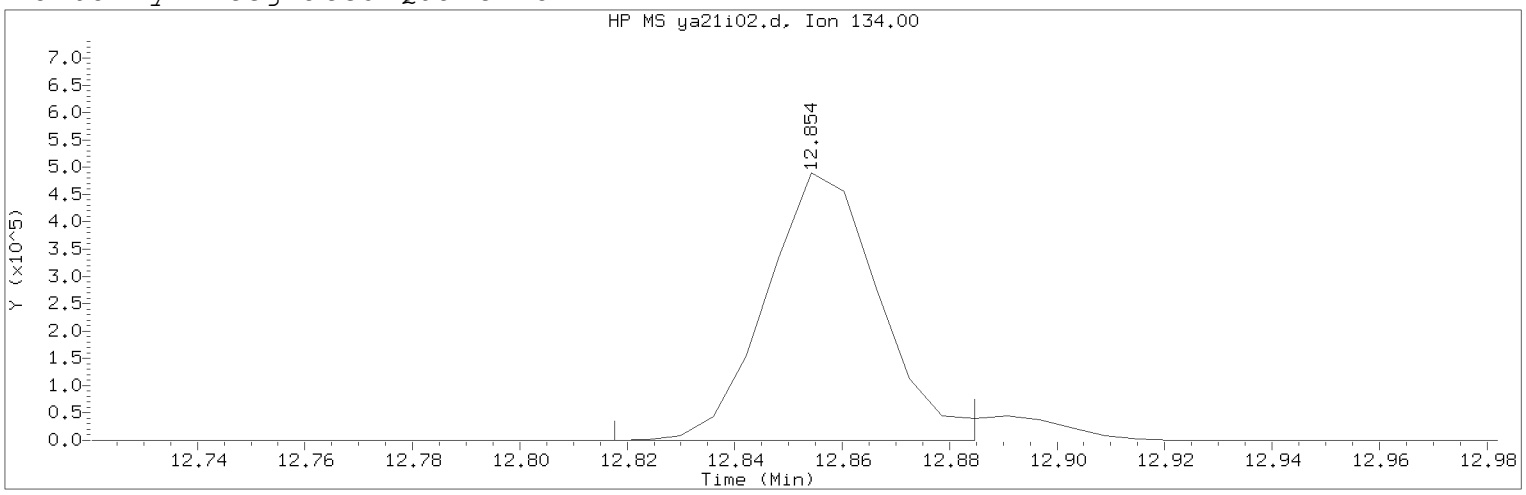
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1176
Retention Time (minutes): 8.736
Quant Ion : 88.00
Area : 277357
On-column Amount (ng) : 1582.3920
Integration start scan : 1151 Integration stop scan: 1217
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
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Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

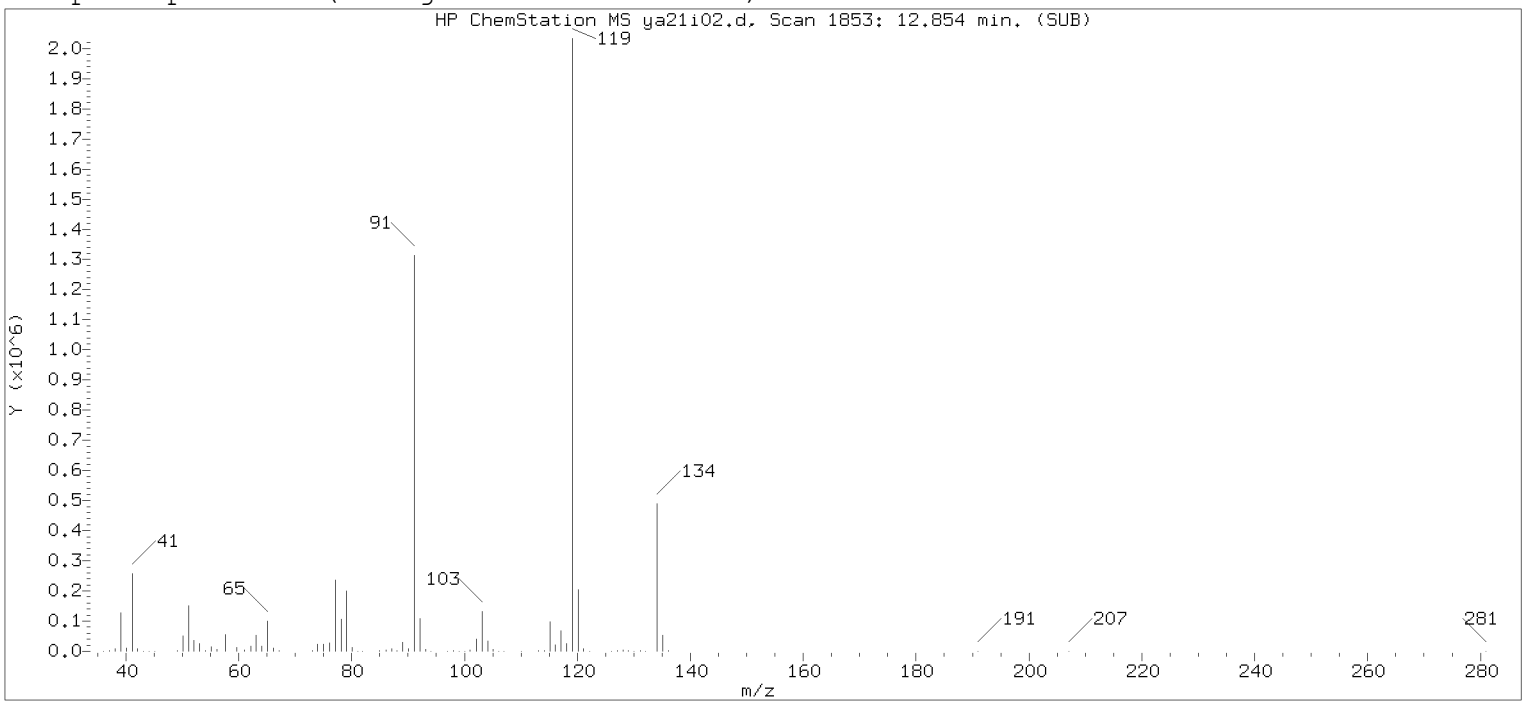
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 715748M
On-Column Amount (ng) : 104.5241
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

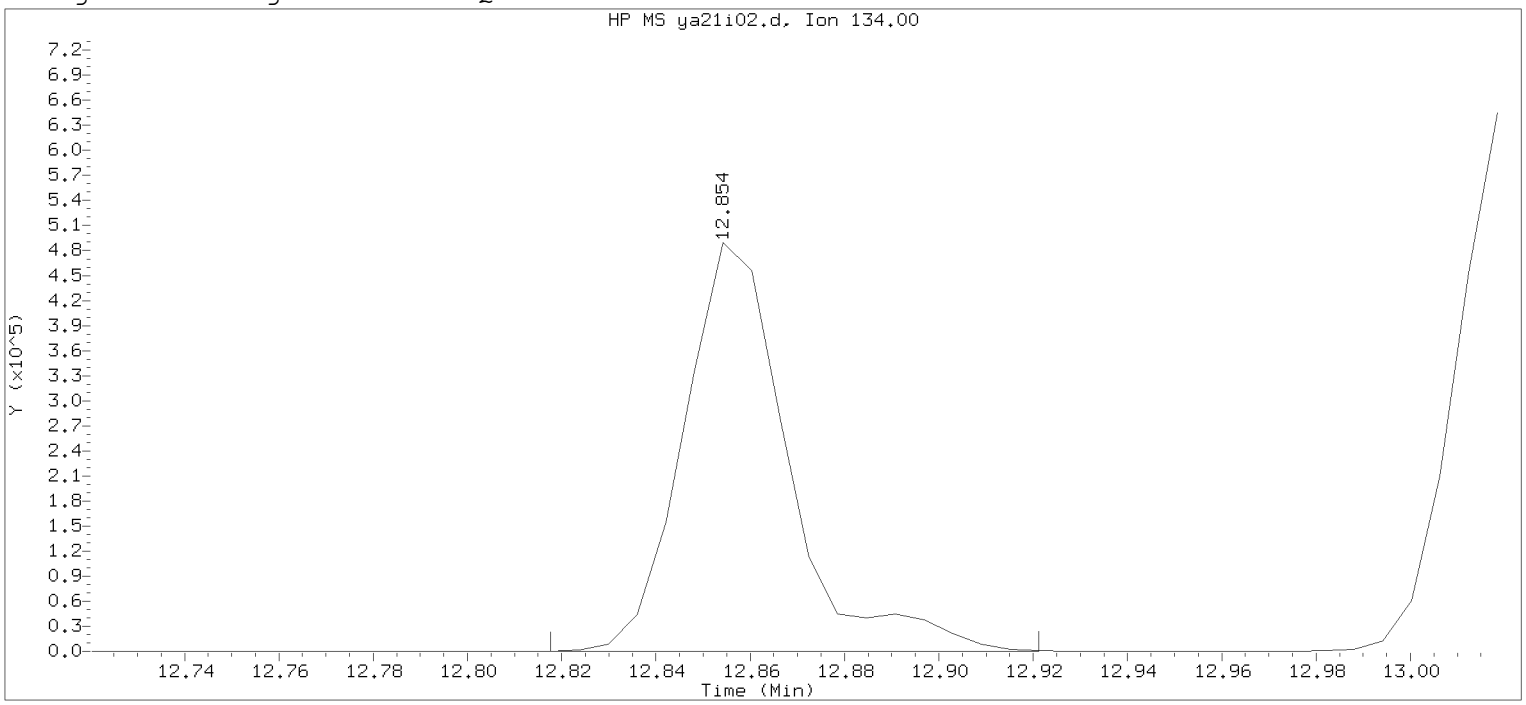
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i02.d Instrument ID: HP09355.i
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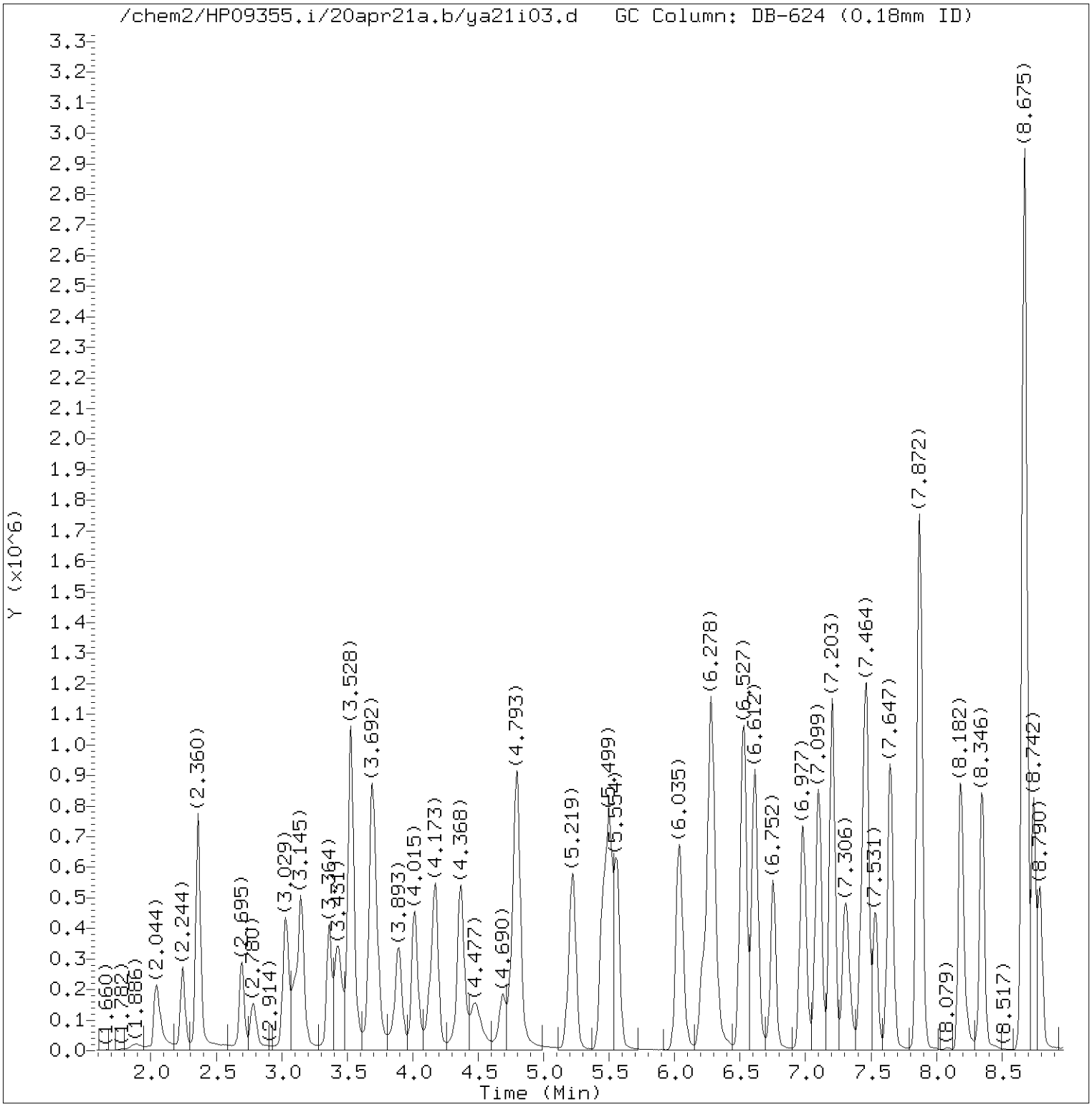
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 757828
On-column Amount (ng) : 111.4766
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

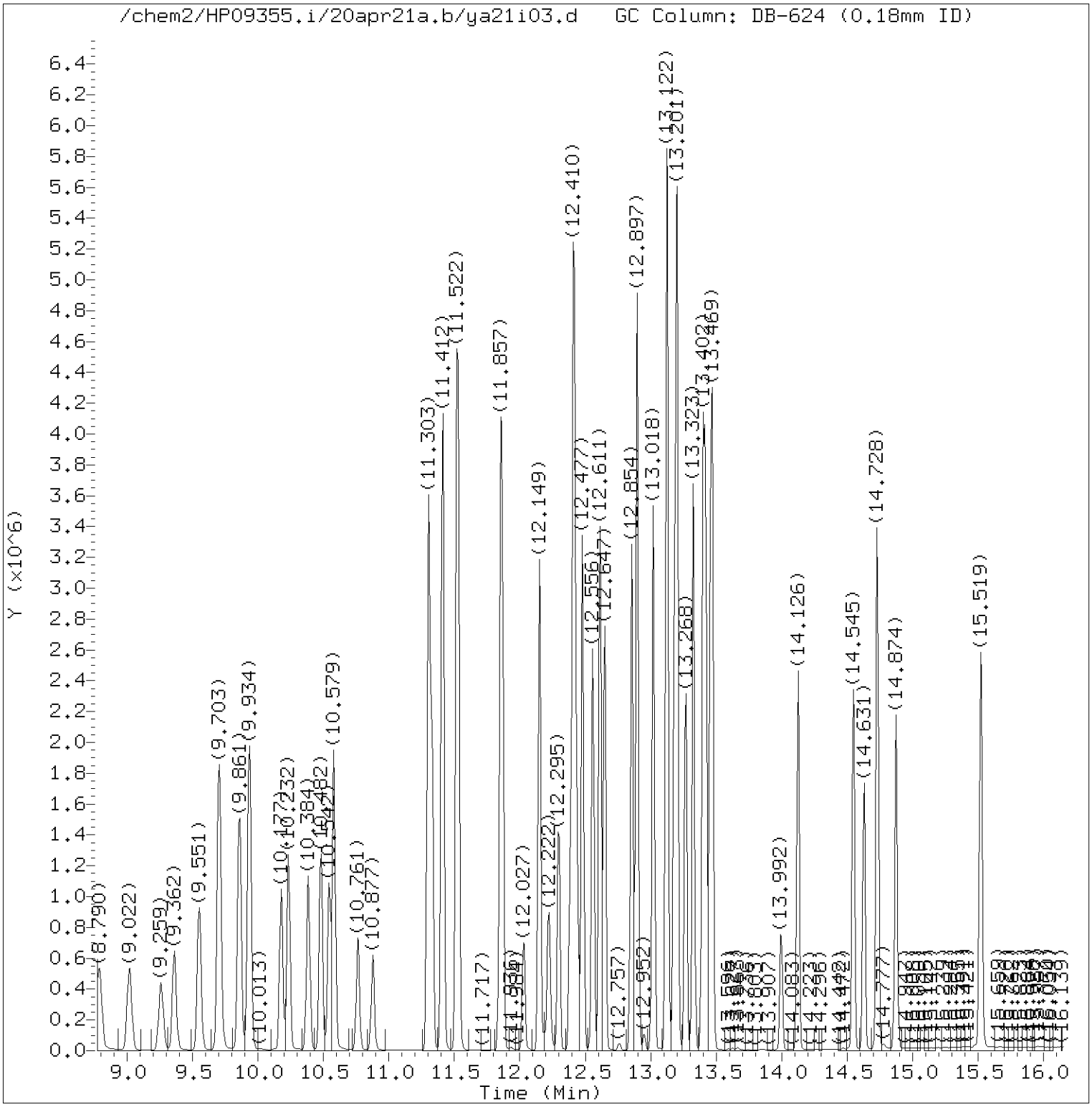
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	466628M	51.922
4) Chloromethane	(2)	2.244	50	399546	51.314
5) 1,3-Butadiene	(2)	2.360	39	318216	49.913
6) Vinyl Chloride	(2)	2.360	62	406092	51.732
8) Bromomethane	(2)	2.695	94	282069	54.651
9) Chloroethane	(2)	2.780	64	225621	53.847
10) Dichlorofluoromethane	(2)	3.029	67	582697	51.613
12) Trichlorofluoromethane	(2)	3.096	101	467956	51.024
11) n-Pentane	(2)	3.145	43	494364	51.134
14) Ethyl ether	(2)	3.358	59	339295	48.154
15) Freon 123a	(2)	3.425	67	417632M	50.287
16) Acrolein	(1)	3.528	56	1716818	539.180
17) 1,1-Dichloroethene	(2)	3.686	96	333145	50.104
17) 1,1-Dichloroethene	(2)	3.686	63	162549	49.771
18) Acetone	(1)	3.692	58	151777	102.020
19) Freon 113	(2)	3.717	101	335492	49.458
21) 2-Propanol	(1)	3.863	45	281067	254.047
22) Methyl Iodide	(2)	3.893	142	577682	49.518
23) Carbon Disulfide	(2)	4.015	76	1171245	49.724
27) Methyl Acetate	(2)	4.136	43	515289	49.821
25) Allyl Chloride	(2)	4.173	41	565511	49.719
29)*t-Butyl alcohol-d10	(1)	4.349	65	393548M	250.000
28) Methylene Chloride	(2)	4.368	84	388424	49.767
30) t-Butyl alcohol	(1)	4.477	59	493860	256.037
31) Acrylonitrile	(2)	4.684	53	302921	51.636
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	1109339	50.538
32) trans-1,2-Dichloroethene	(2)	4.800	96	385332	50.158
34) n-Hexane	(2)	5.219	57	600865	49.670
36) 1,1-Dichloroethane	(2)	5.450	63	681251	49.857
38) di-Isopropyl ether	(2)	5.499	45	1272310	50.620
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	565084	48.787
40) Ethyl t-butyl ether	(2)	6.035	59	1129947	50.935
43) 1,2-Dichloroethene (Total)	(2)		96	822068	100.181
44) 2-Butanone	(2)	6.223	43	810214	103.171
42) cis-1,2-Dichloroethene	(2)	6.272	96	436736	50.022
45) 2,2-Dichloropropane	(2)	6.290	77	515194	49.548
47) Propionitrile	(1)	6.302	54	589246	258.497
48) Methacrylonitrile	(2)	6.527	67	740934	125.760

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	206804	49.190
50) Tetrahydrofuran	(1)	6.619	71	234464	105.277
51) Chloroform	(2)	6.752	83	649643	49.478
52)$Dibromofluoromethane	(2)	6.971	113	297135	49.661
52)$Dibromofluoromethane	(2)	6.971	111	303724	49.742
53) 1,1,1-Trichloroethane	(2)	6.990	97	557921	49.049
54) Cyclohexane	(2)	7.099	56	716898	49.645
54) Cyclohexane	(2)	7.099	84	594334	49.285
54) Cyclohexane	(2)	7.099	69	221829	49.588
55) 1,1-Dichloropropene	(2)	7.203	75	546645	49.375
56) Carbon Tetrachloride	(2)	7.209	117	478515	48.660
58) Isobutyl Alcohol	(1)	7.306	41	442780	634.758
57)$1,2-Dichloroethane-d4	(2)	7.434	102	79098	50.755
57)$1,2-Dichloroethane-d4	(2)	7.428	65	351091	50.285
57)$1,2-Dichloroethane-d4	(2)	7.428	104	50177	50.378
60) Benzene	(2)	7.464	78	1630471	50.006
61) 1,2-Dichloroethane	(2)	7.531	62	508558M	49.159
61) 1,2-Dichloroethane	(2)	7.537	98	51240	49.430
65) t-Amyl methyl ether	(2)	7.647	73	1128707	51.070
66)*Fluorobenzene	(2)	7.866	96	1312885	50.000
67) n-Heptane	(2)	7.878	43	639949	49.864
69) n-Butanol	(1)	8.188	56	884015	1285.879
71) Trichloroethene	(2)	8.346	95	408172	49.006
72) Methylcyclohexane	(2)	8.663	83	734617	49.850
72) Methylcyclohexane	(2)	8.669	98	323297	49.393
73) 1,2-Dichloropropane	(2)	8.675	63	426799	50.380
76) Methyl Methacrylate	(2)	8.742	69	448184	48.802
75) 1,4-Dioxane	(1)	8.760	88	101511M	609.682
74) Dibromomethane	(2)	8.790	93	268701	48.908
78) Bromodichloromethane	(2)	9.022	83	497131	48.113
79) 2-Nitropropane	(2)	9.259	41	374405	101.372
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	357453	49.009
81) cis-1,3-Dichloropropene	(2)	9.551	75	688869	48.884
82) 4-Methyl-2-pentanone	(2)	9.703	43	1577481	103.233
83)$Toluene-d8	(3)	9.861	98	1272568	49.980
83)$Toluene-d8	(3)	9.861	100	817862	49.873
88) Toluene	(3)	9.934	92	1029074	49.784
90) 1,3-Dichloropropene (total)	(3)		100	1332895	97.690

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	644026	48.806
91) Ethyl Methacrylate	(3)	10.232	69	733523	48.892
92) 1,1,2-Trichloroethane	(3)	10.384	97	407120	49.209
93) Tetrachloroethene	(3)	10.482	166	412985	48.369
94) 1,3-Dichloropropane	(3)	10.542	76	696785	49.801
96) 2-Hexanone	(3)	10.579	43	1273441	104.571
97) Dibromochloromethane	(3)	10.761	129	423492	47.739
99) 1,2-Dibromoethane	(3)	10.877	107	449818	48.898
100)*Chlorobenzene-d5	(3)	11.303	117	977085	50.000
101) 1-Chlorohexane	(3)	11.303	91	568383	49.506
102) Chlorobenzene	(3)	11.327	112	1160386	50.216
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	390995	49.341
104) Ethylbenzene	(3)	11.412	91	2003894	50.934
106) m+p-Xylene	(3)	11.522	106	1592130	101.869
108) Xylene (Total)	(3)		106	2372813	152.505
107) o-Xylene	(3)	11.850	106	780683	50.636
109) Styrene	(3)	11.869	104	1315562	50.137
110) Bromoform	(3)	12.033	173	321736	47.121
111) Isopropylbenzene	(3)	12.149	105	1996583	51.225
112) Cyclohexanone	(1)	12.222	55	394544	600.935
114)$4-Bromofluorobenzene	(3)	12.295	95	482587	49.958
114)$4-Bromofluorobenzene	(3)	12.301	174	371585	49.890
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	714936	50.298
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	589860	128.408
115) Bromobenzene	(4)	12.416	156	504690	50.258
117) 1,2,3-Trichloropropane	(4)	12.434	110	224416	49.707
119) n-Propylbenzene	(4)	12.477	91	2399593	52.476
120) 2-Chlorotoluene	(4)	12.556	126	484404	49.803
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	1736011	50.871
121) 4-Chlorotoluene	(4)	12.647	126	506318	49.589
124) tert-Butylbenzene	(4)	12.854	134	361829M	49.795
125) Pentachloroethane	(4)	12.891	167	280749	48.928
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	1840733	51.284
127) sec-Butylbenzene	(4)	13.018	105	2241183	51.942
129) 1,3-Dichlorobenzene	(4)	13.122	146	969878	50.817
130) p-Isopropyltoluene	(4)	13.128	119	1917934	51.726
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	518745	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	994629	50.665

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on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

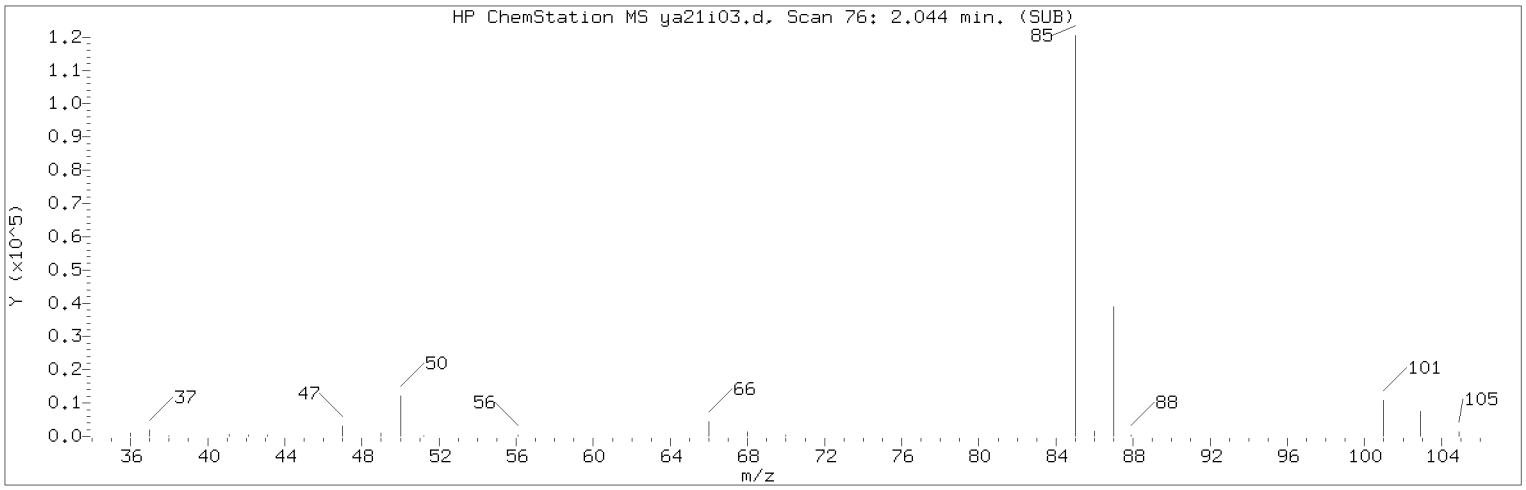
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

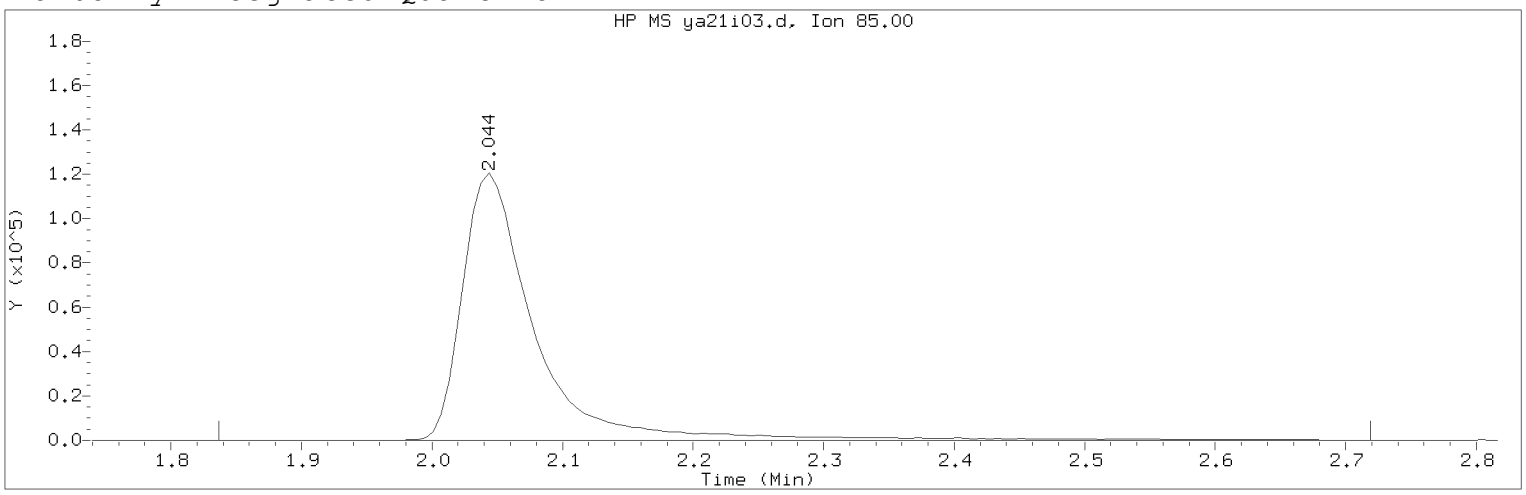
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	1733177	50.940
135) Benzyl Chloride	(4)	13.268	91	1526765	49.958
136) 1,3-Diethylbenzene	(4)	13.323	119	1123827	50.234
141) Diethylbenzene (total)	(4)		100	3237770	150.934
137) 1,4-Diethylbenzene	(4)	13.402	119	1183377	50.524
139) n-Butylbenzene	(4)	13.420	92	1003158	50.822
138) 1,2-Dichlorobenzene	(4)	13.456	146	931814	50.200
140) 1,2-Diethylbenzene	(4)	13.469	119	930566	50.176
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	178649	47.527
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	682630	48.422
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	645687	48.482
147) Hexachlorobutadiene	(4)	14.631	225	284644	48.025
148) Naphthalene	(4)	14.728	128	2451121	52.128
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	617578	48.553
150) 2-Methylnaphthalene	(4)	15.519	142	1304244	49.490

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

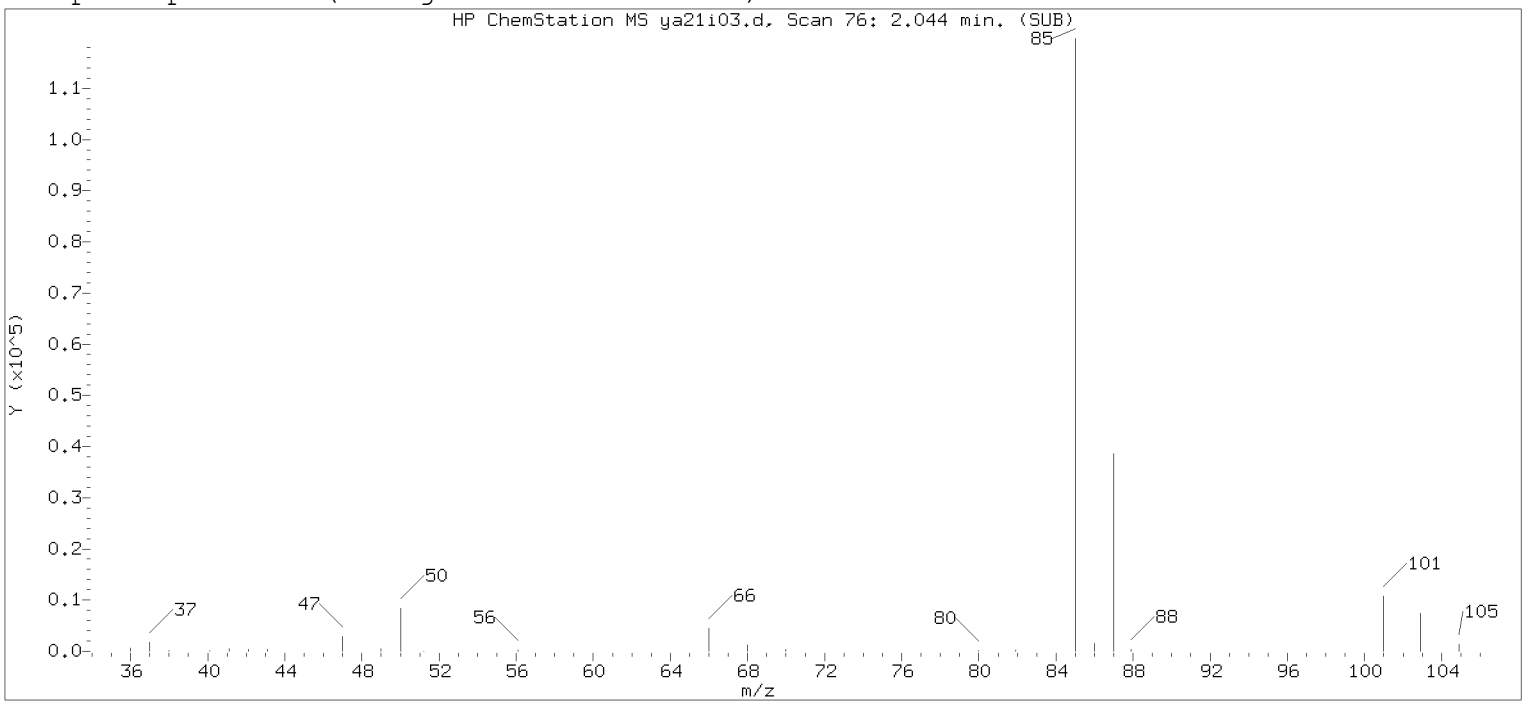
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 466628M
On-Column Amount (ng) : 51.9221
Integration start scan : 41 Integration stop scan: 186
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

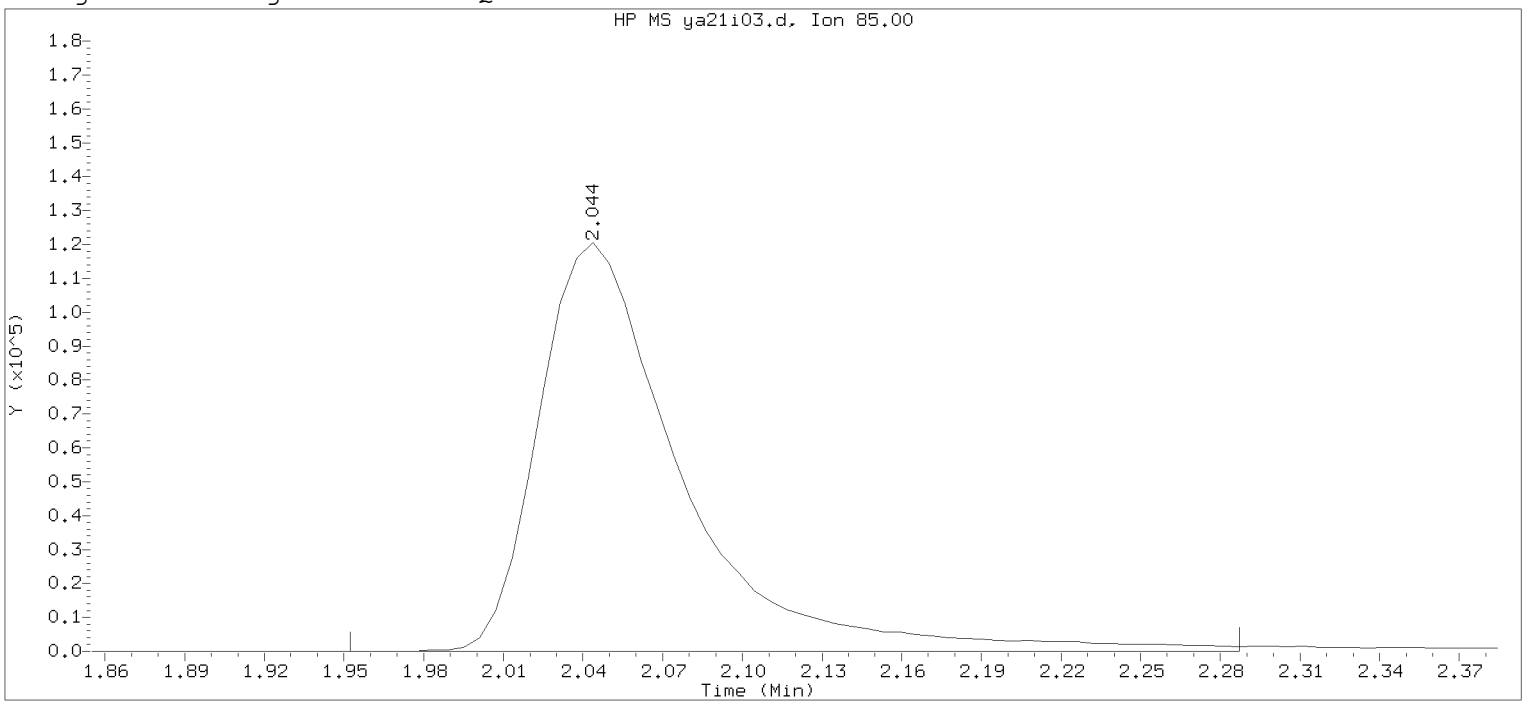
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

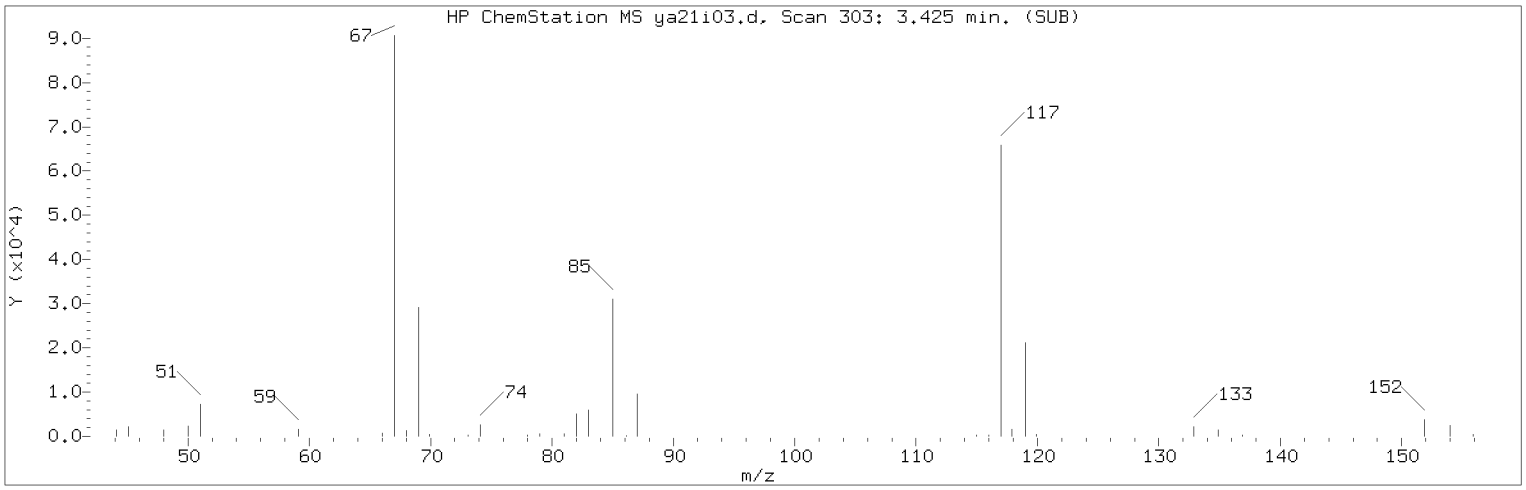
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

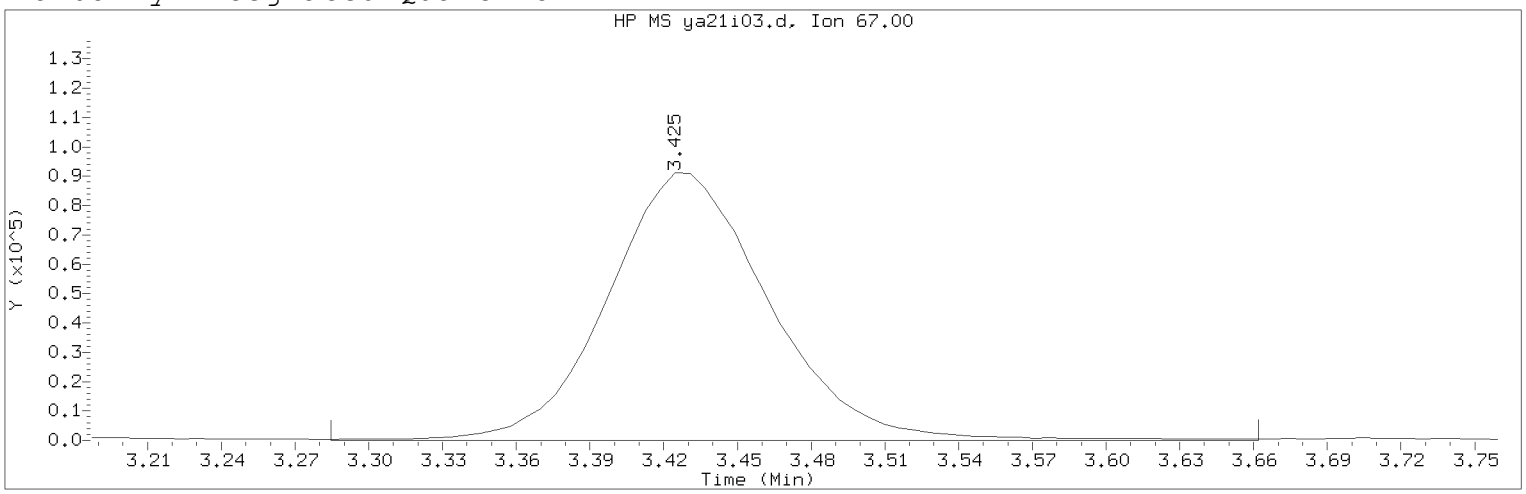
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 450797
On-column Amount (ng) : 45.9246
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

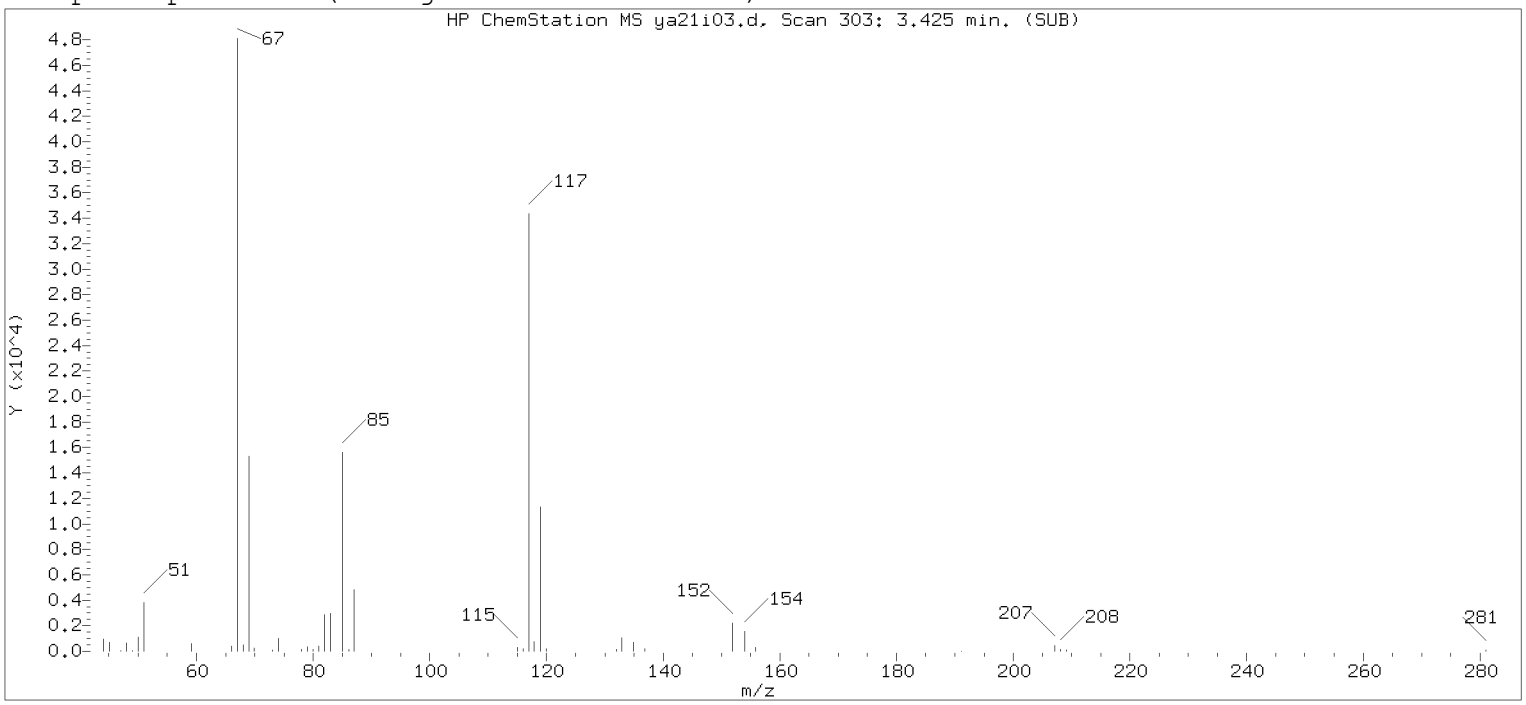
Compound Number : 15
Compound Name : Freon 123a
Scan Number : 303
Retention Time (minutes): 3.425
Quant Ion : 67.00
Area (flag) : 417632M
On-Column Amount (ng) : 50.2869
Integration start scan : 279 Integration stop scan: 341
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

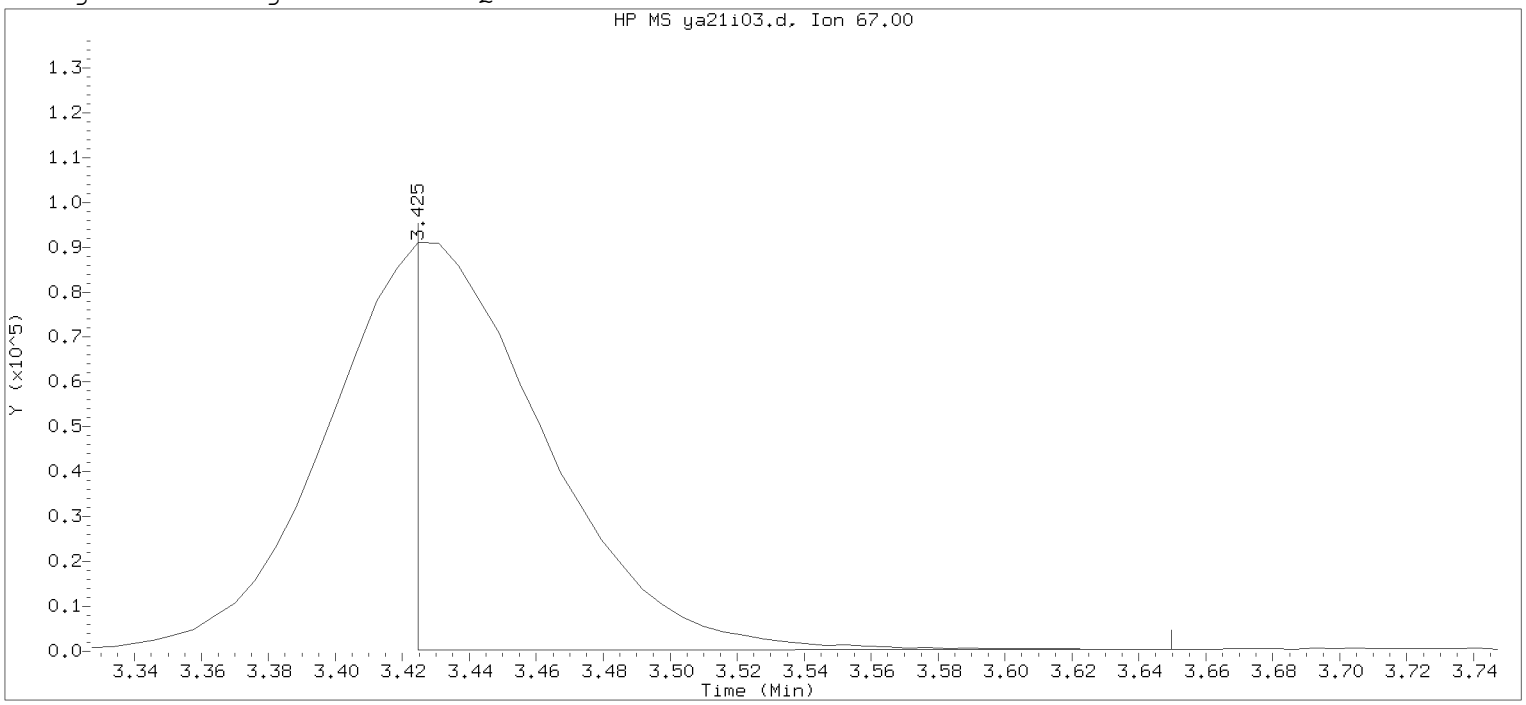
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

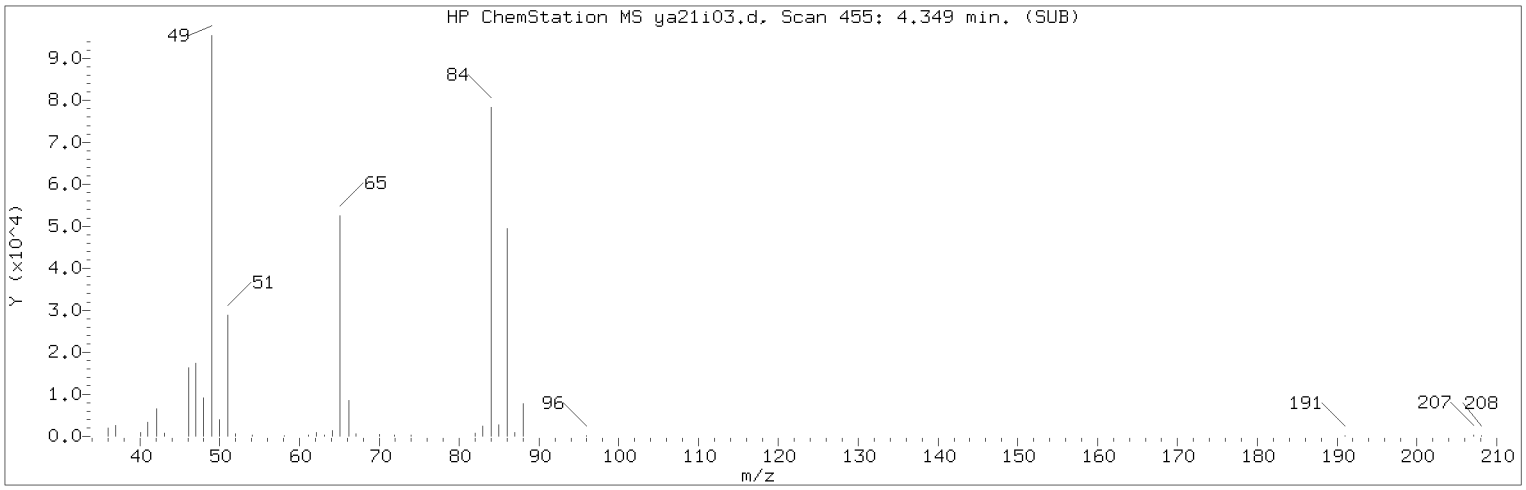
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

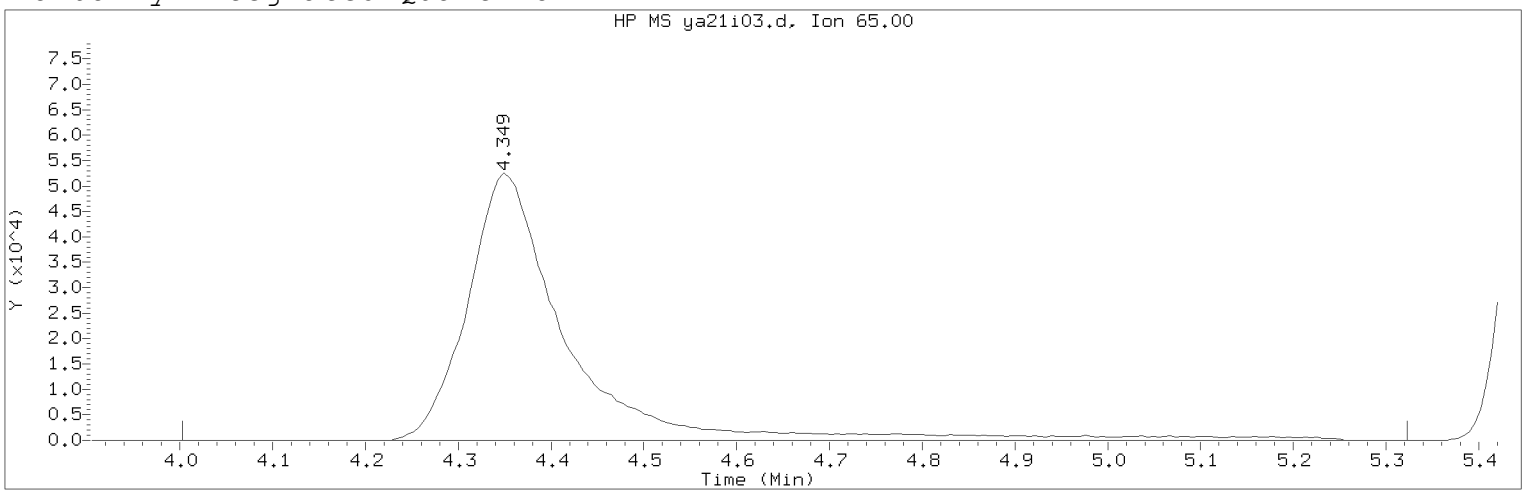
Compound Number : 15
Compound Name : Freon 123a
Scan Number : 303
Retention Time (minutes): 3.425
Quant Ion : 67.00
Area : 236932
On-column Amount (ng) : 32.6616
Integration start scan : 302 Integration stop scan: 339
Y at integration start : 312 Y at integration end: 400

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe 04/22/2020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

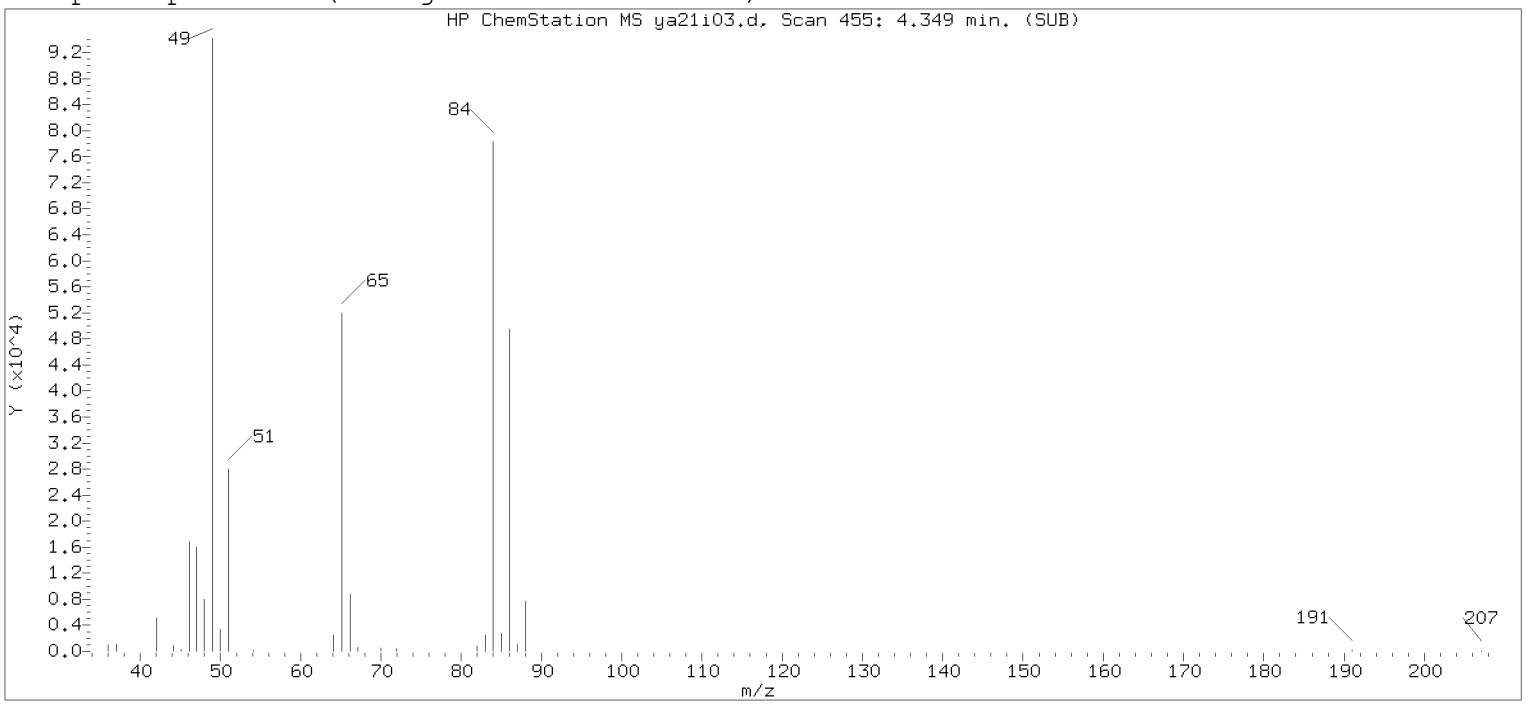
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area (flag) : 393548M
On-Column Amount (ng) : 250.0000
Integration start scan : 397 Integration stop scan: 614
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

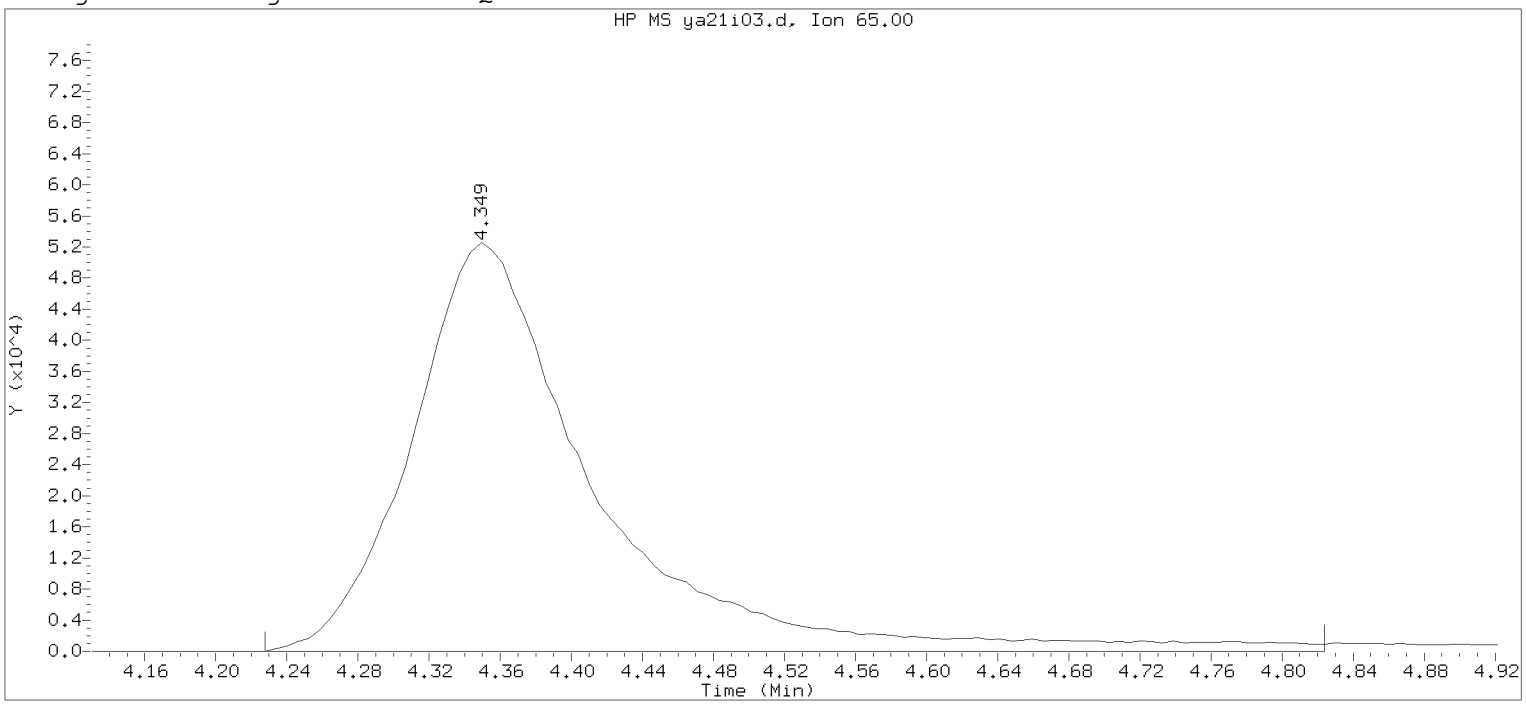
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

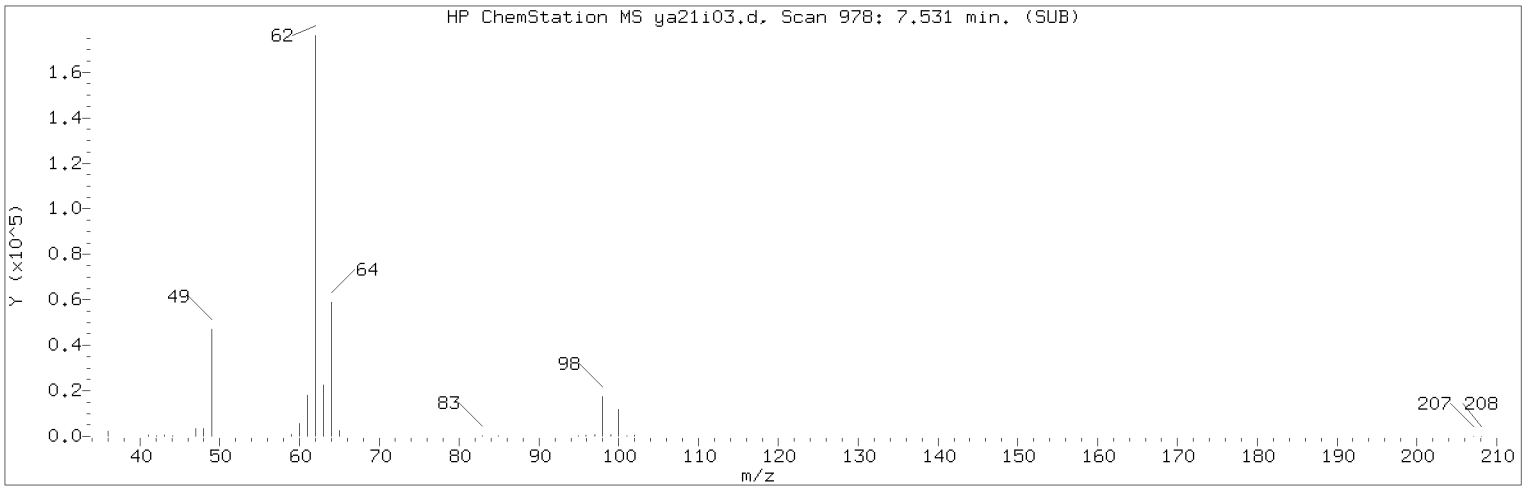
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

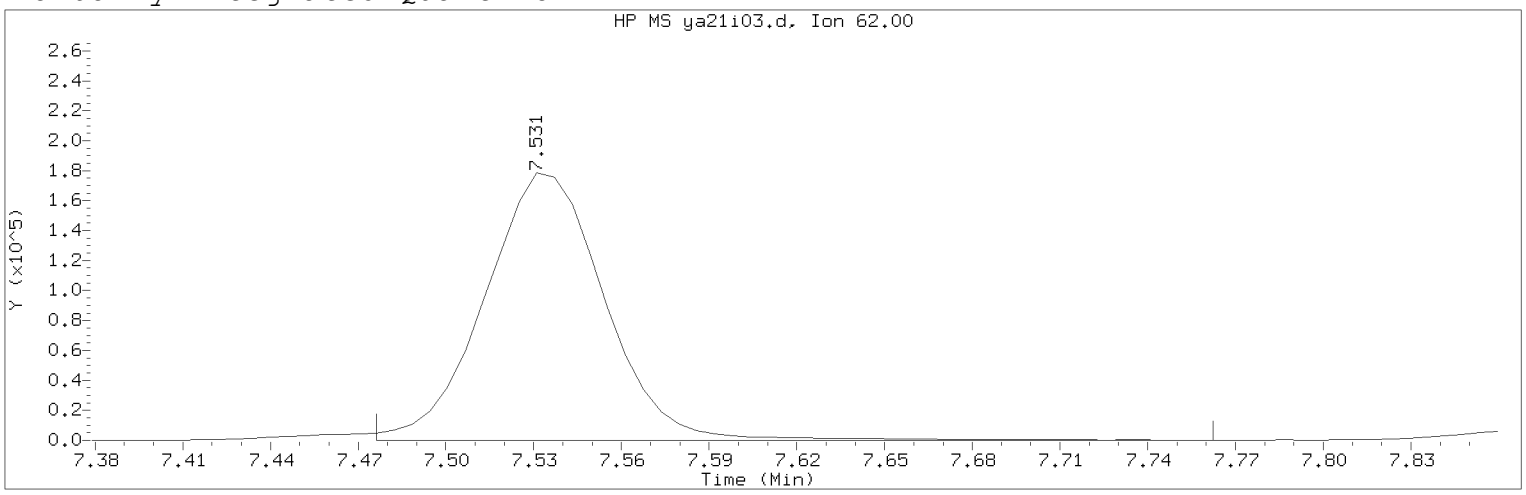
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area : 374900
On-column Amount (ng) : 250.0000
Integration start scan : 434 Integration stop scan: 532
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

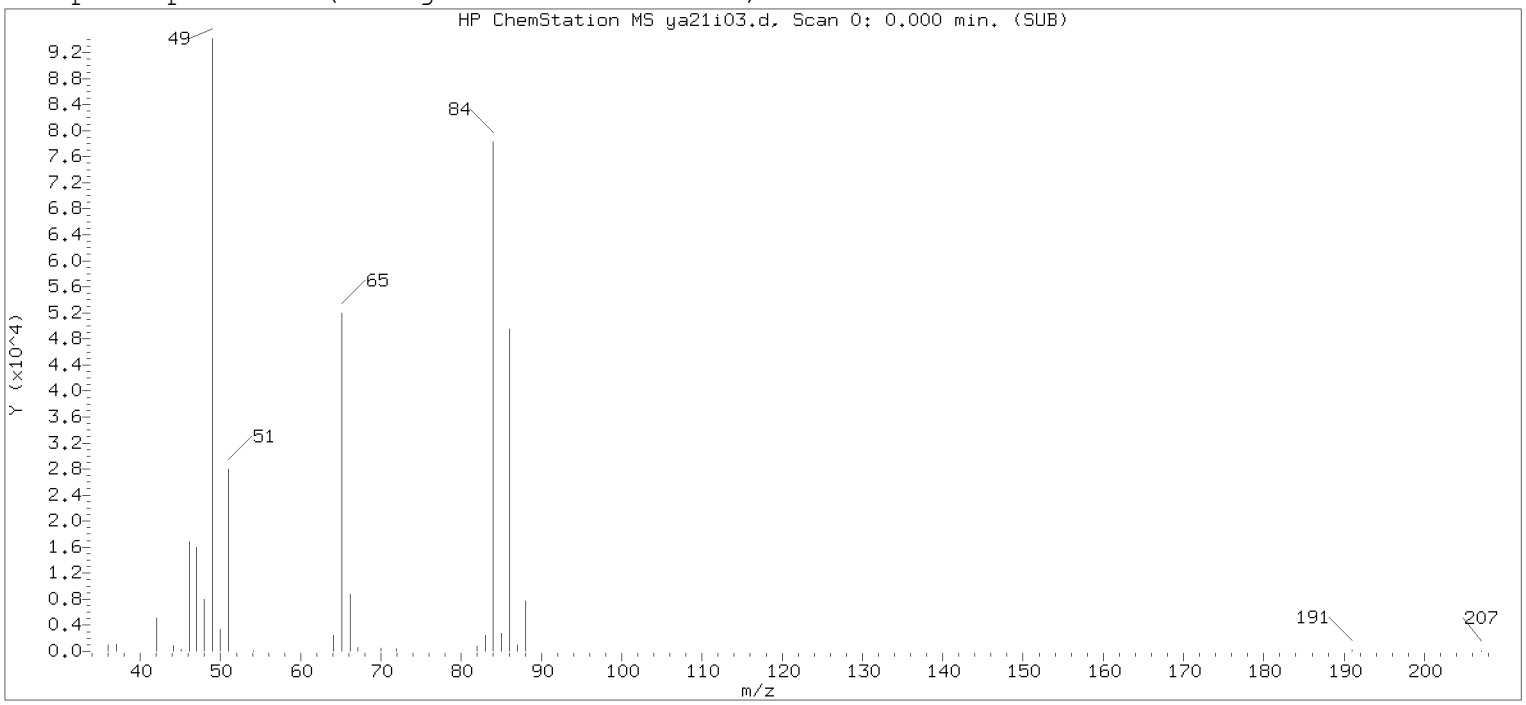
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 508558M
On-Column Amount (ng) : 49.1585
Integration start scan : 968 Integration stop scan: 1015
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

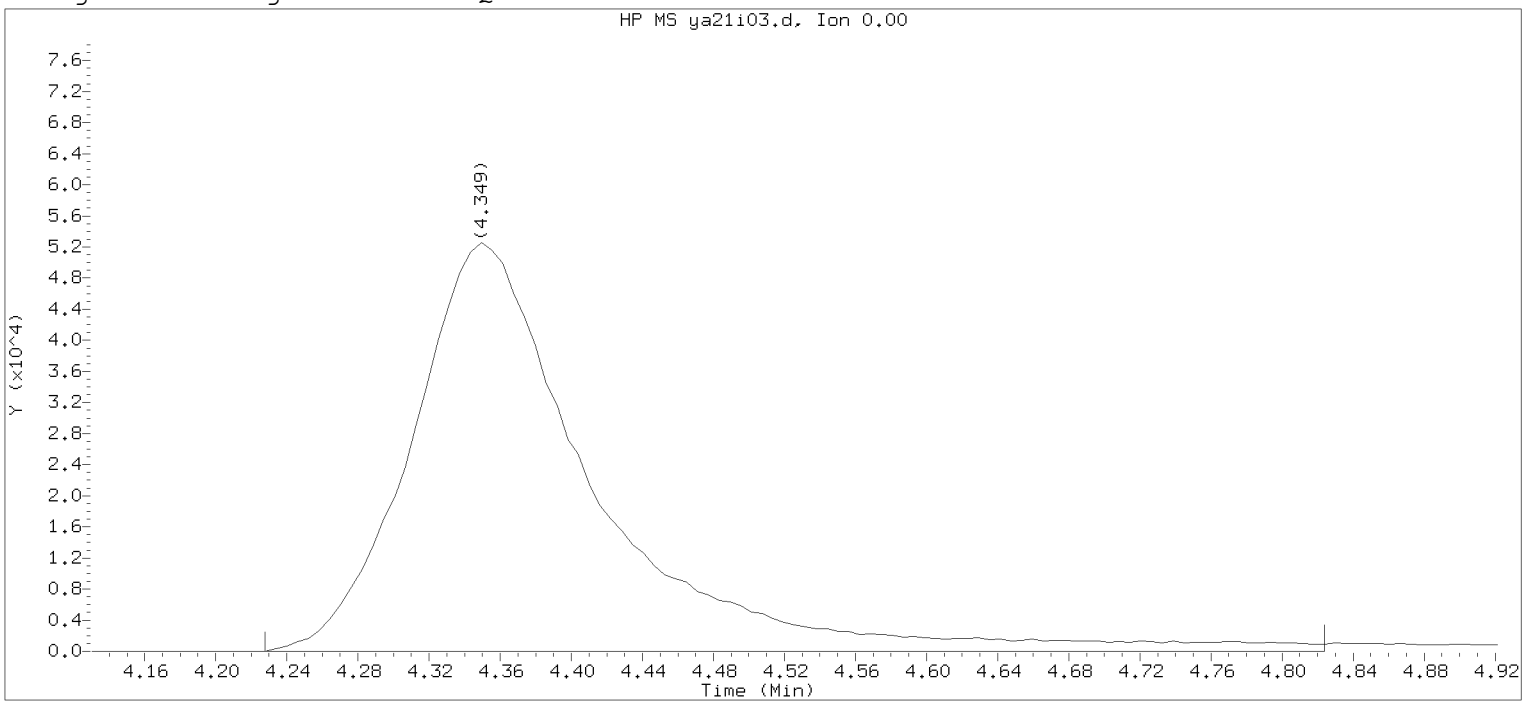
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

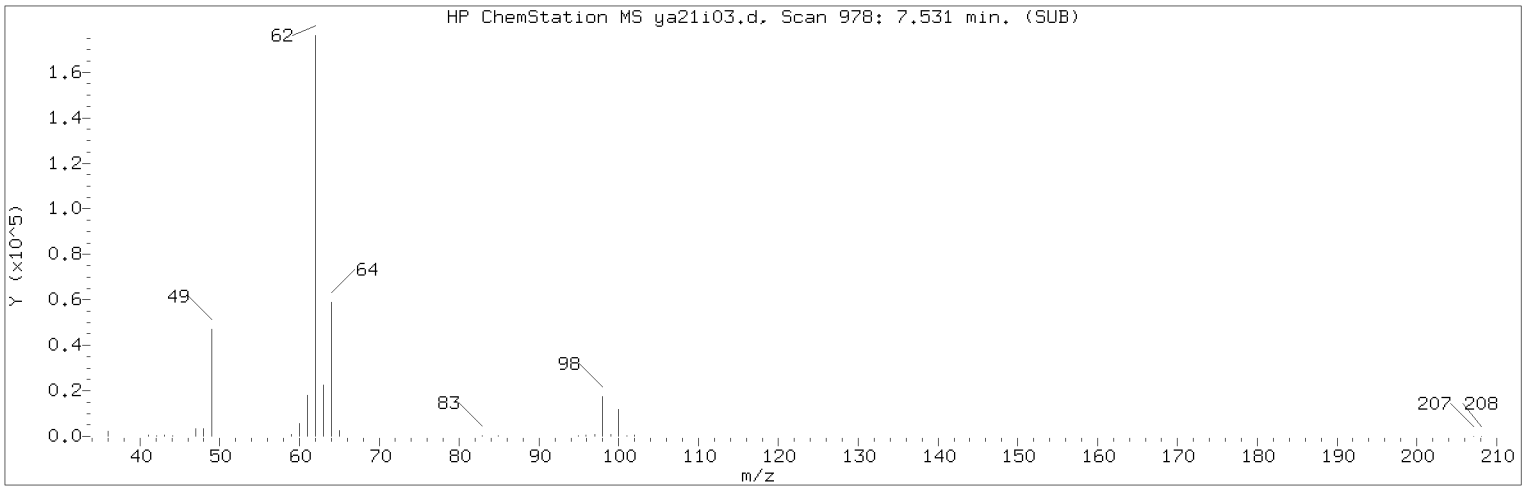
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

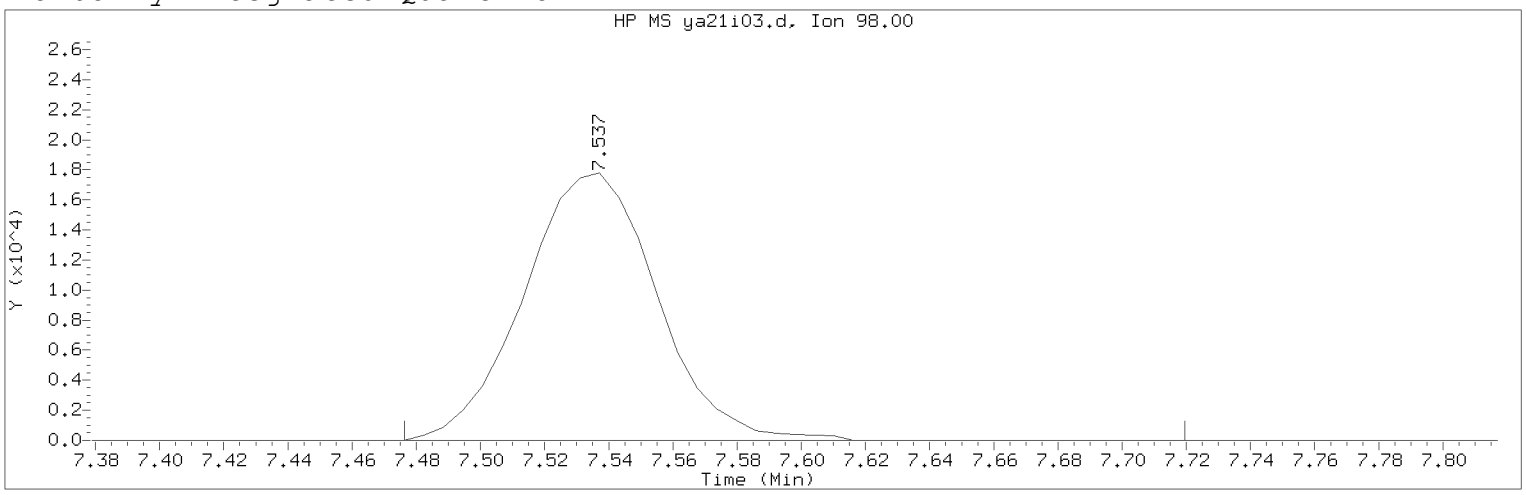
Compound Number : 0
Compound Name : t-Butyl alcohol-d10
Scan Number : 0
Retention Time (minutes): 0.000
Quant Ion : 0.00
Area : 0
On-column Amount (ng) : 0.0000
Integration start scan : 0 Integration stop scan: 0
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

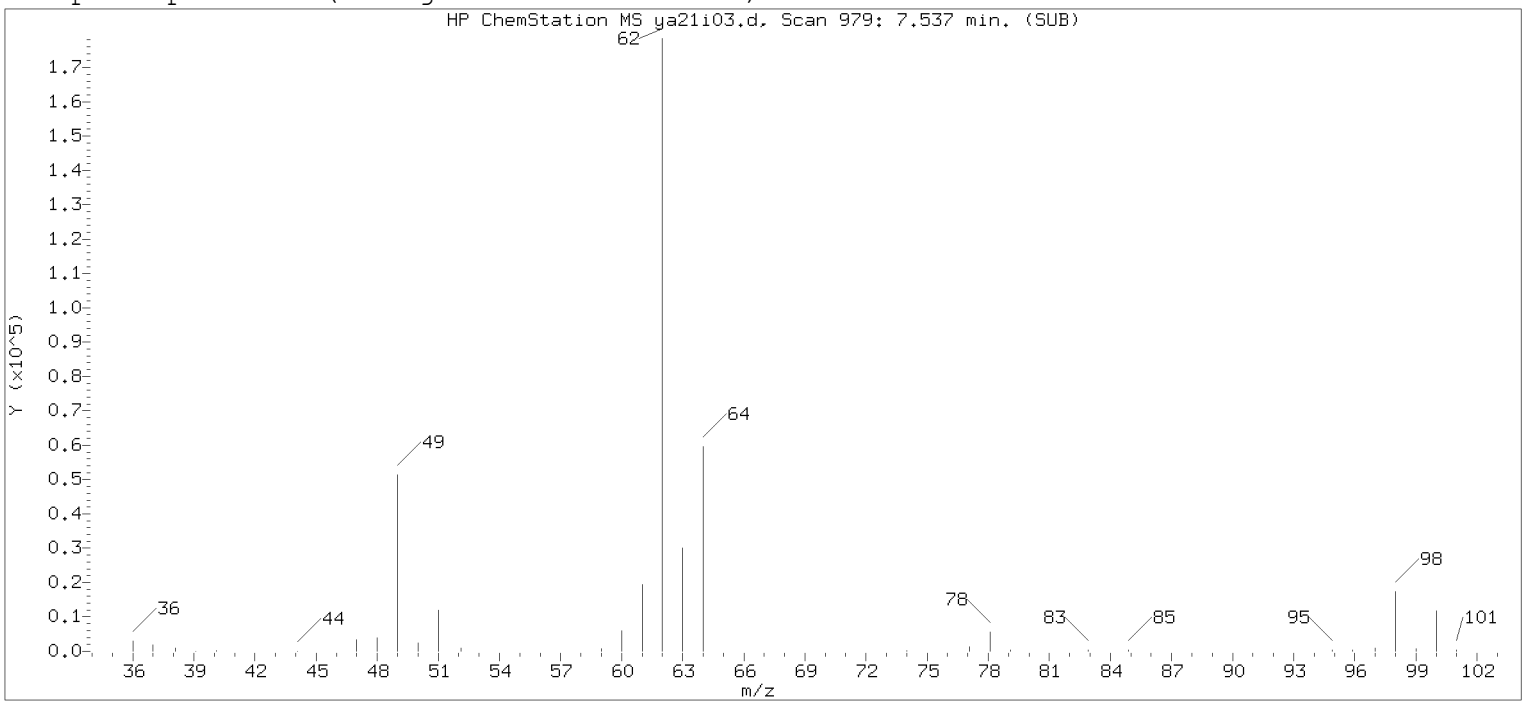
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 979
Retention Time (minutes): 7.537
Quant Ion : 98.00
Area (flag) : 51240M
On-Column Amount (ng) : 49.4305
Integration start scan : 968 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

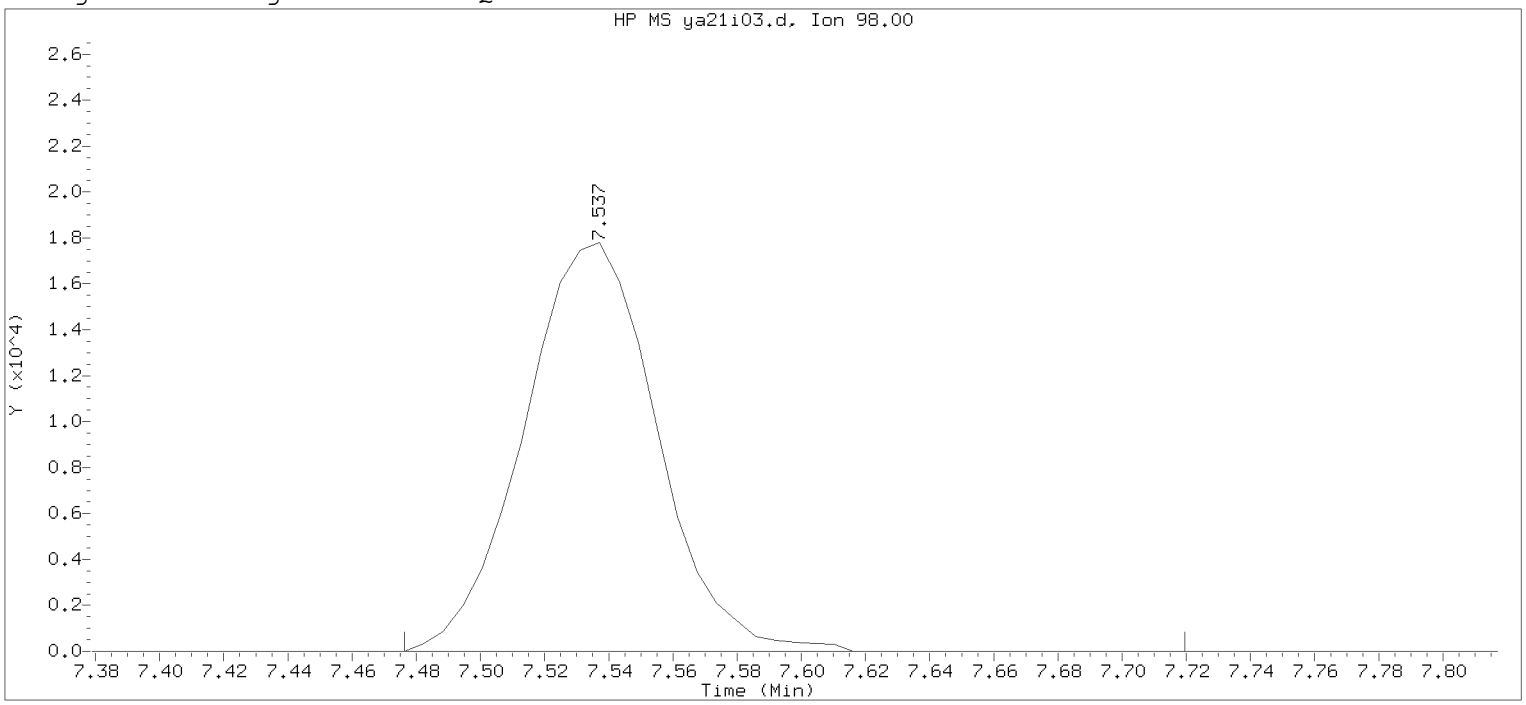
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

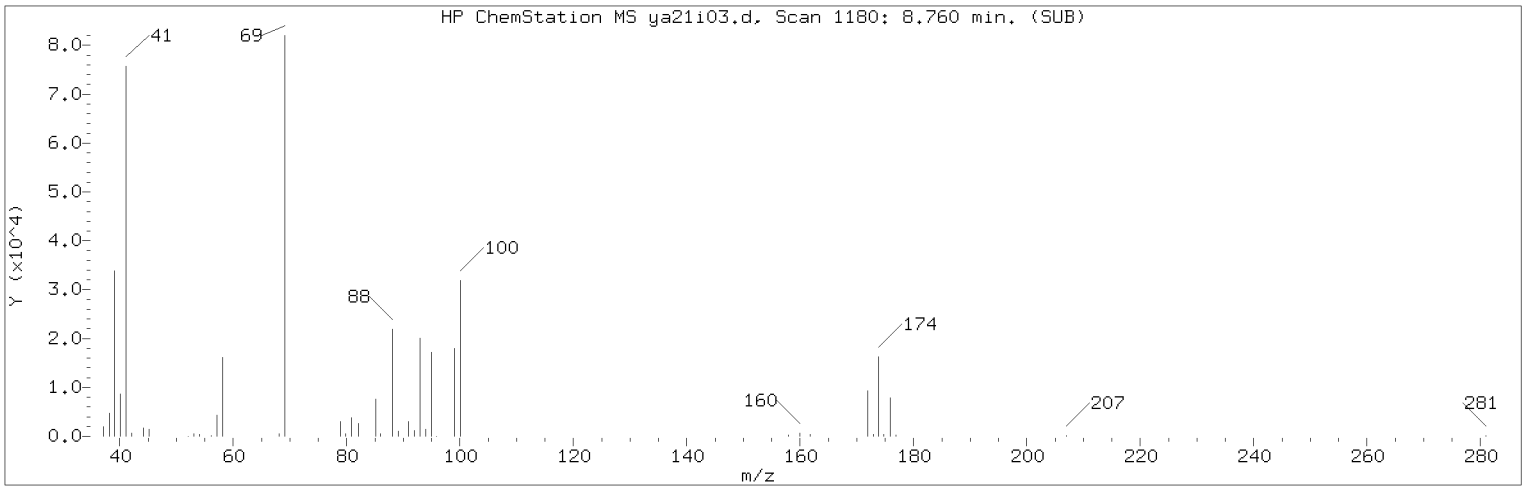
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

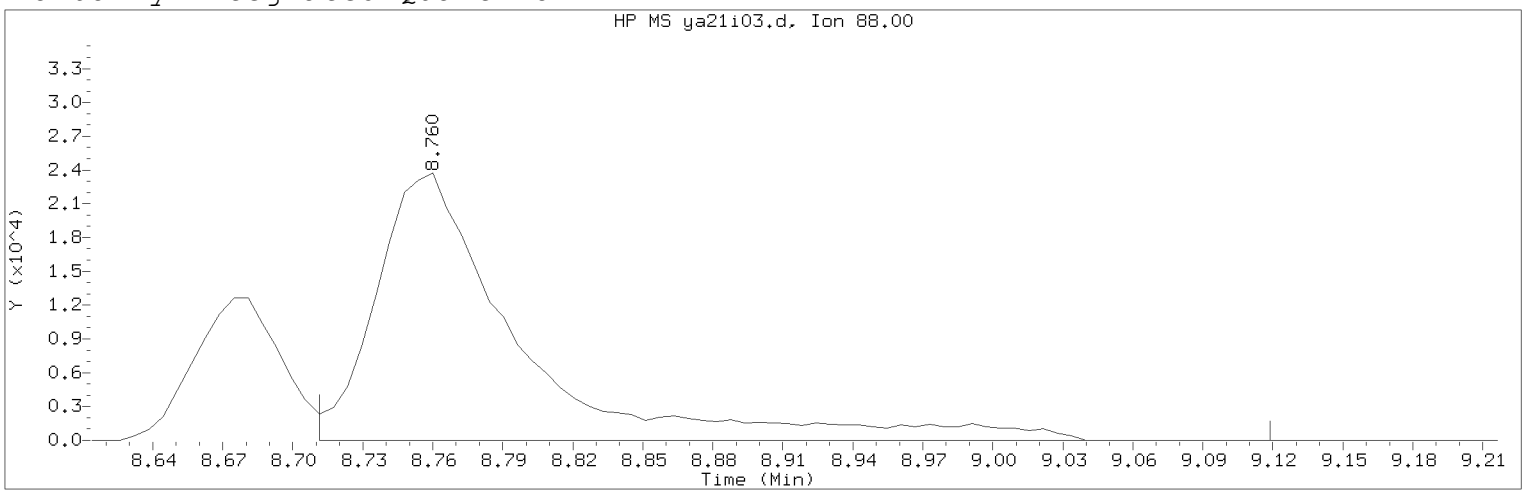
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 979
Retention Time (minutes): 7.537
Quant Ion : 98.00
Area : 51240
On-column Amount (ng) : 56.3939
Integration start scan : 968 Integration stop scan: 1008
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

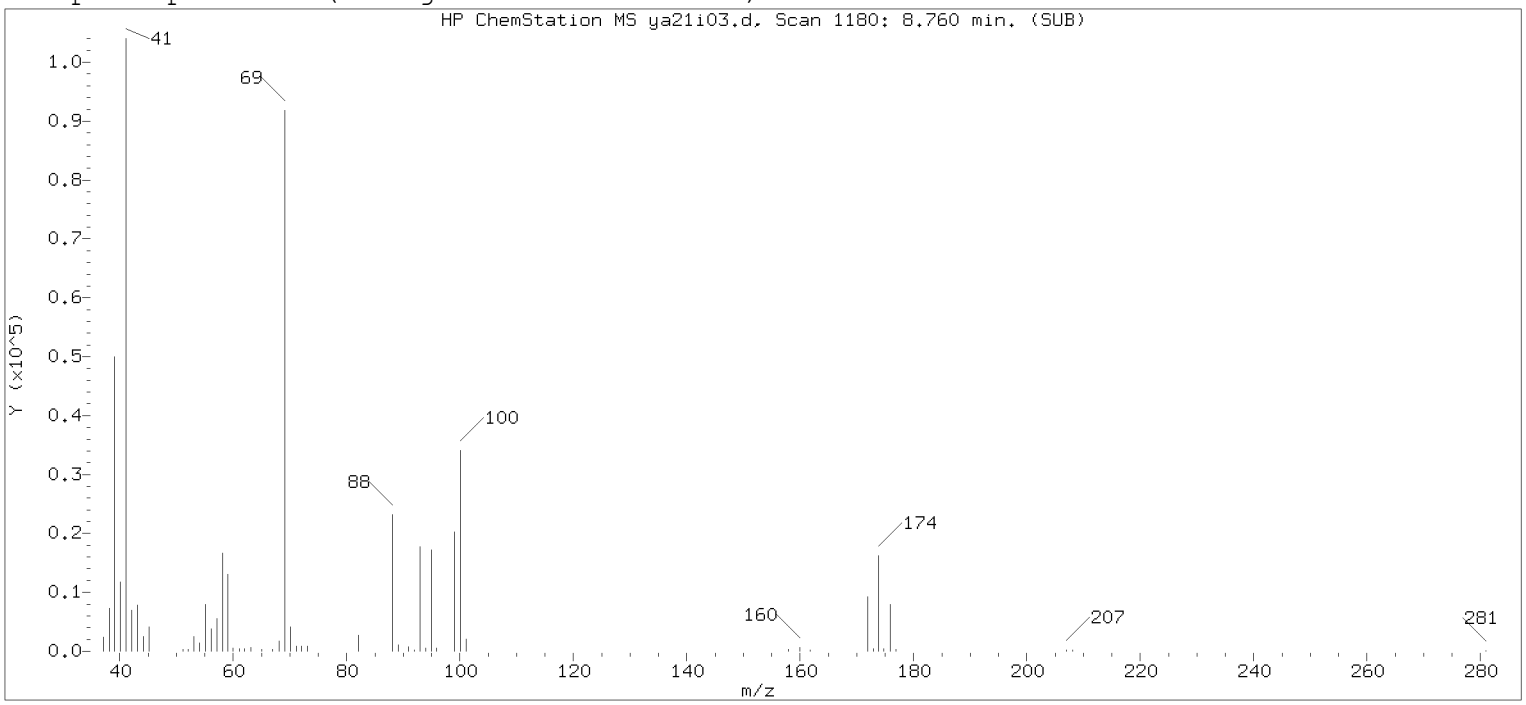
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 101511M
On-Column Amount (ng) : 609.6824
Integration start scan : 1171 Integration stop scan: 1238
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

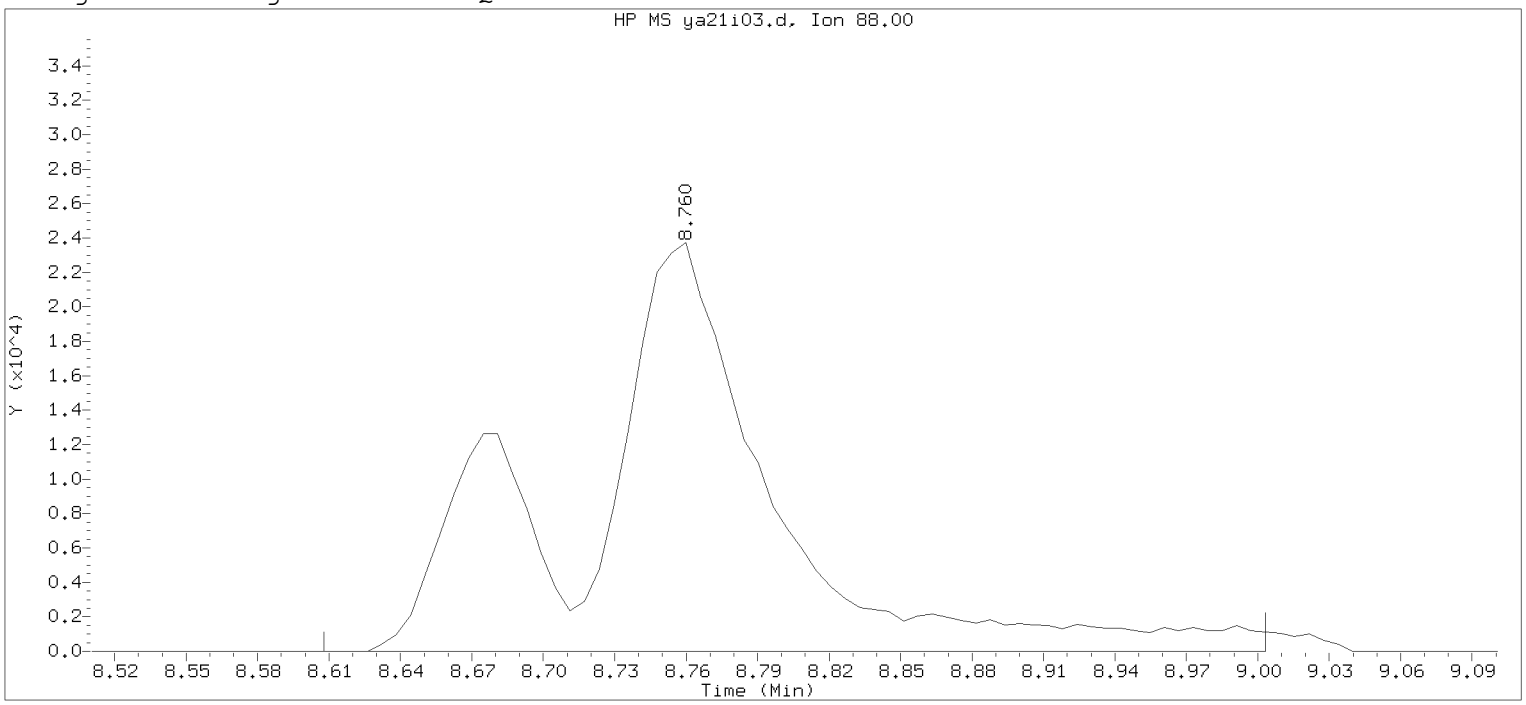
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

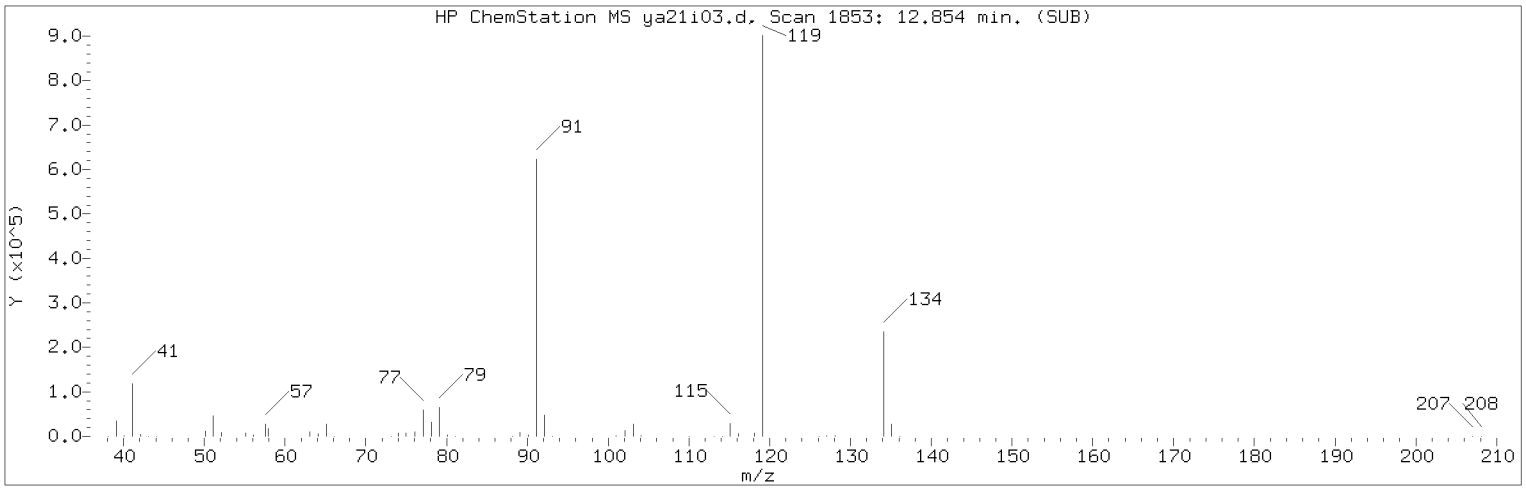
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

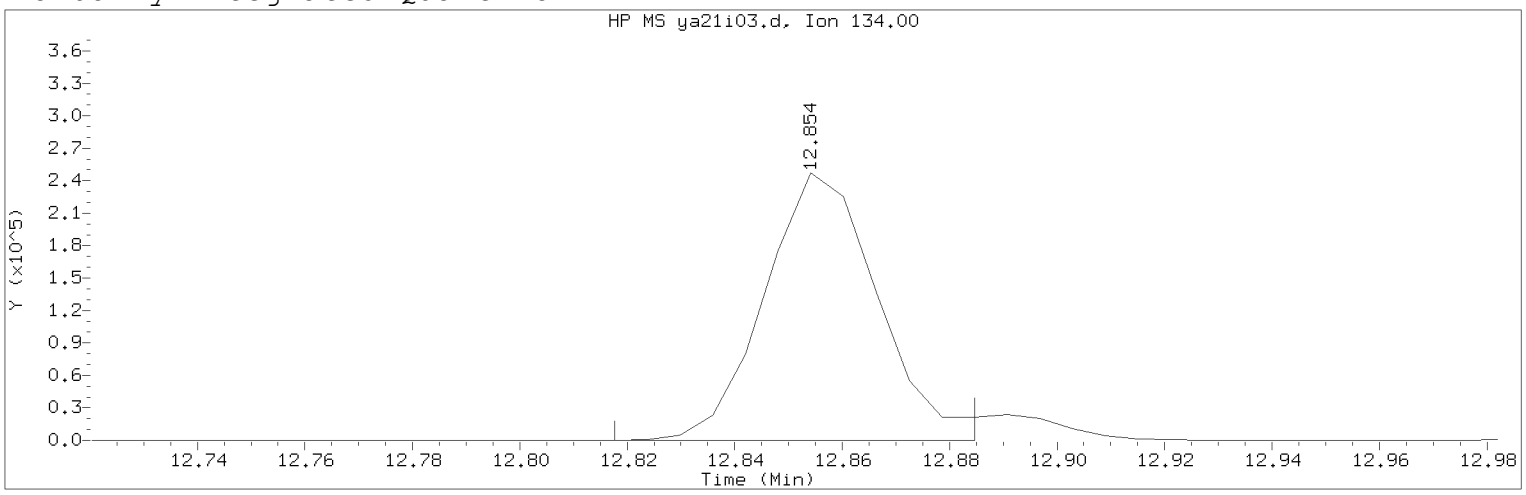
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1180		
Retention Time (minutes)	: 8.760		
Quant Ion	: 88.00		
Area	: 132134		
On-column Amount (ng)	: 791.0711		
Integration start scan	: 1154	Integration stop scan:	1219
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD050 Lab Sample ID: VSTD050

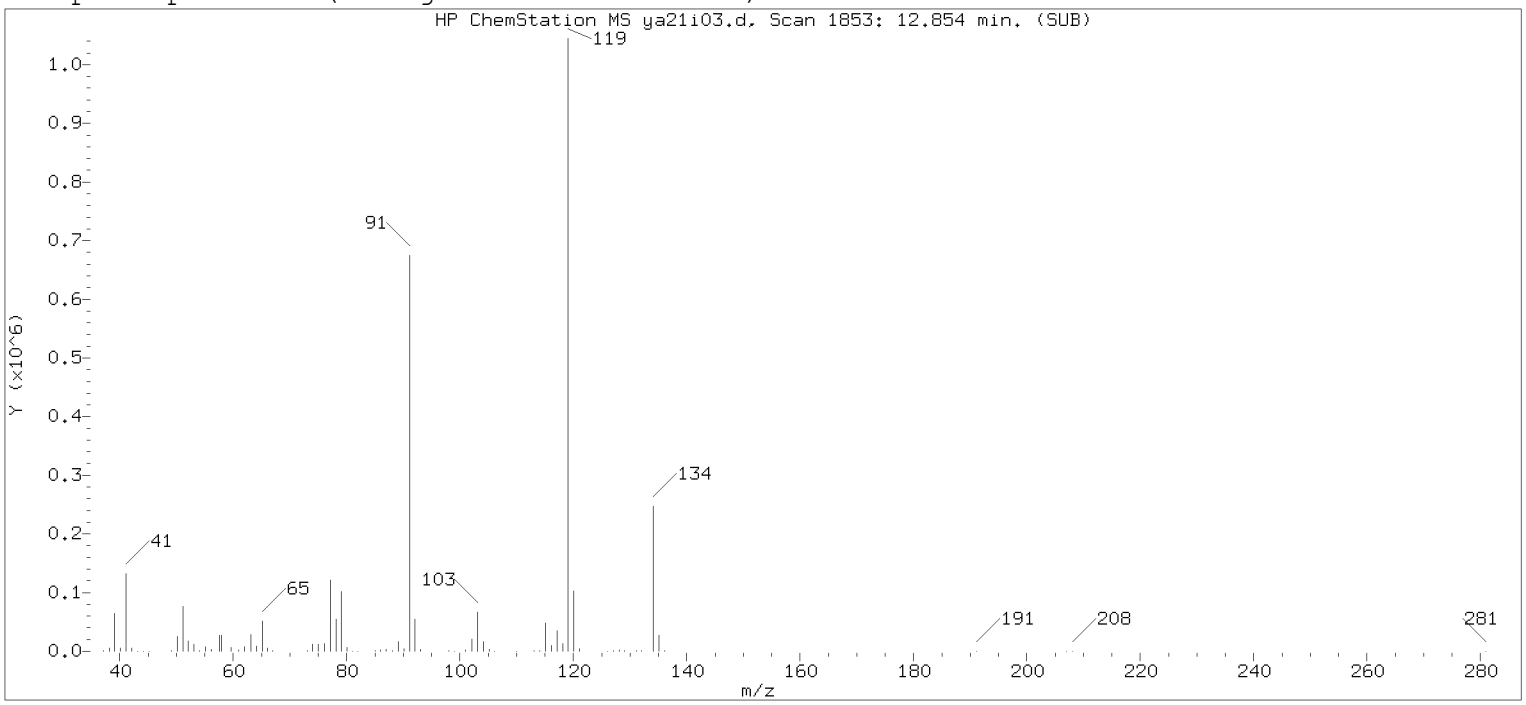
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 361829M
On-Column Amount (ng) : 49.7950
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

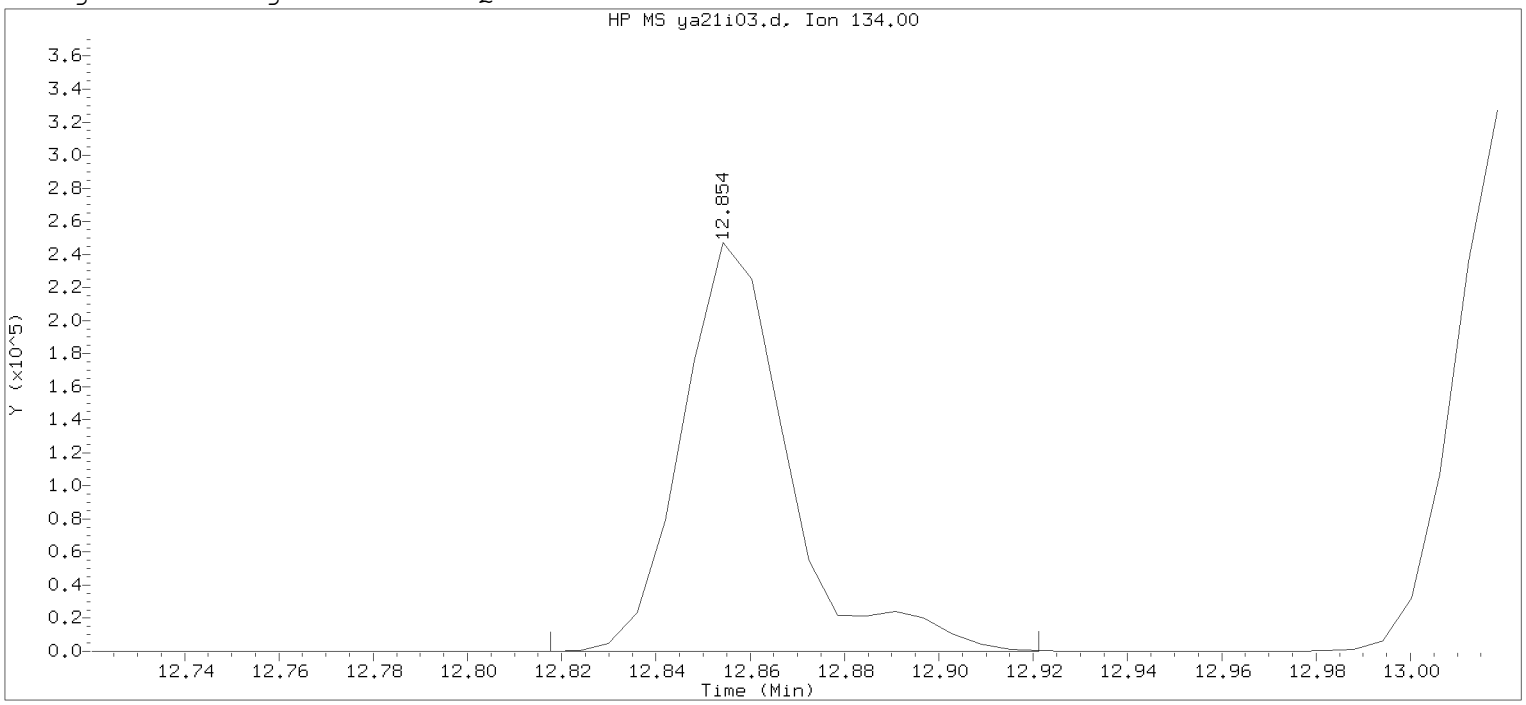
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:06.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



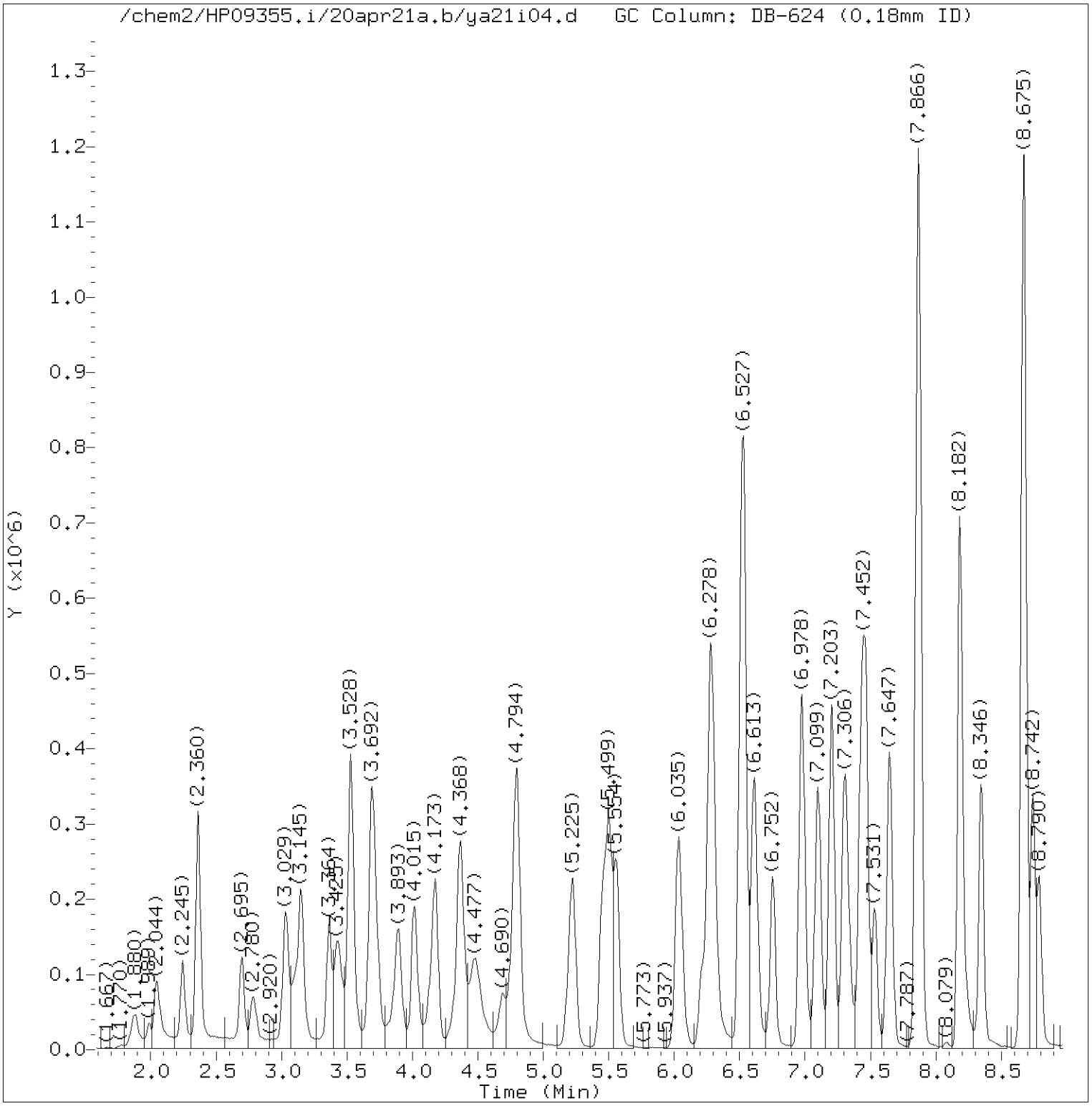
Data File: /chem2/HP09355.i/20apr21a.b/ya21i03.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 22:38 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:55
Date, time and analyst ID of latest file update: 21-Apr-2020 22:55 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 383826
On-column Amount (ng) : 58.5800
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:06.
Target 3.5 esignature user: JKHowe



Total Ion Chromatogram (TIC)

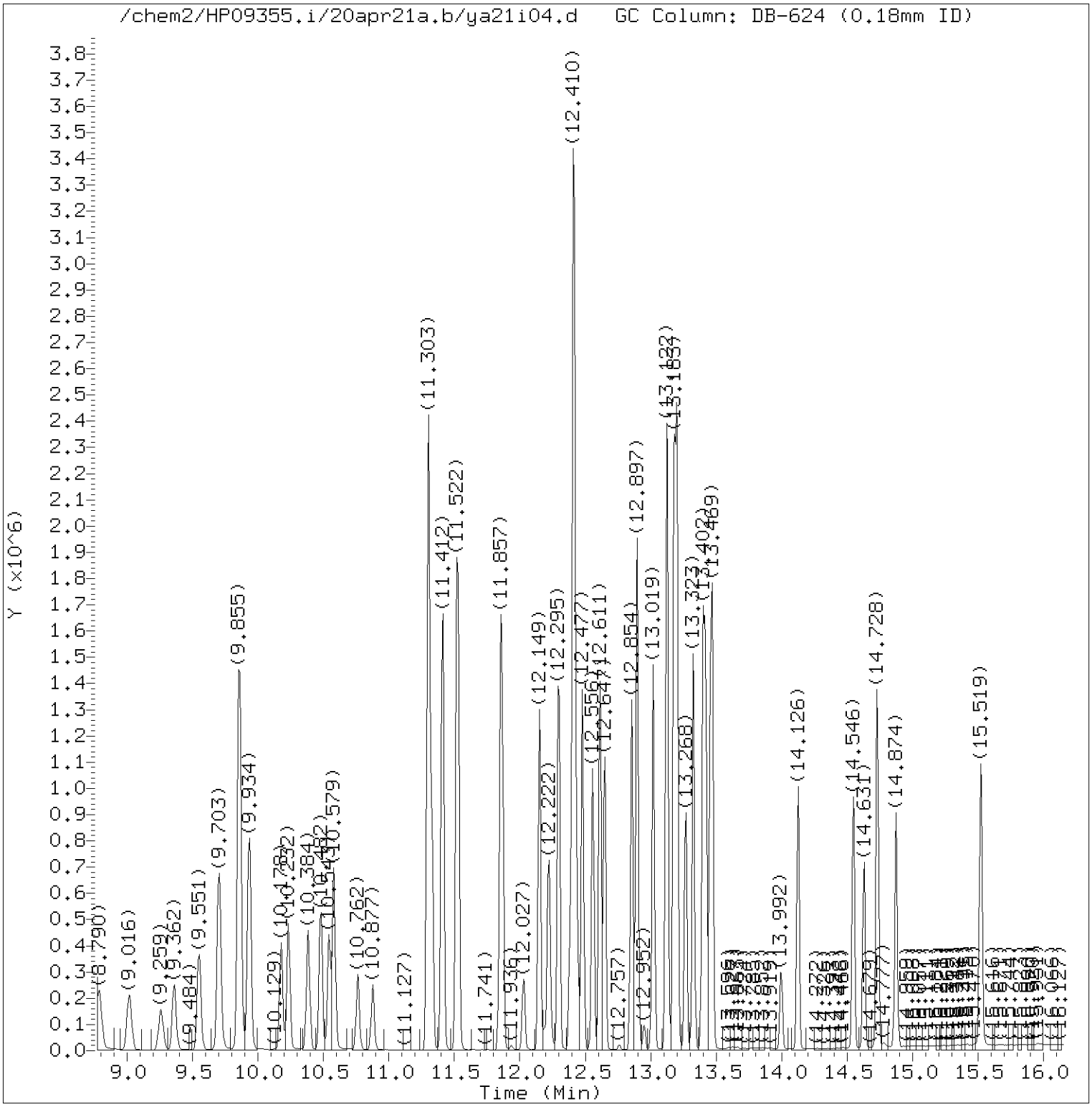
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	177843M	20.054
4) Chloromethane	(2)	2.245	50	159360	20.565
5) 1,3-Butadiene	(2)	2.360	39	129650	20.467
6) Vinyl Chloride	(2)	2.360	62	159759	20.479
8) Bromomethane	(2)	2.695	94	112541	21.547
9) Chloroethane	(2)	2.786	64	90891	21.466
10) Dichlorofluoromethane	(2)	3.029	67	233912	20.752
12) Trichlorofluoromethane	(2)	3.102	101	181598	20.063
11) n-Pentane	(2)	3.145	43	203379	20.987
14) Ethyl ether	(2)	3.364	59	133803	19.441
15) Freon 123a	(2)	3.425	67	172389	20.781
16) Acrolein	(1)	3.528	56	631087	199.835
17) 1,1-Dichloroethene	(2)	3.686	96	139792	20.978
17) 1,1-Dichloroethene	(2)	3.686	63	66032	20.379
18) Acetone	(1)	3.698	58	60675	40.827
19) Freon 113	(2)	3.711	101	137225	20.387
21) 2-Propanol	(1)	3.863	45	227243	205.232
22) Methyl Iodide	(2)	3.893	142	237728	20.498
23) Carbon Disulfide	(2)	4.015	76	482307	20.571
27) Methyl Acetate	(2)	4.136	43	200344	19.735
25) Allyl Chloride	(2)	4.179	41	227767	20.233
29)*t-Butyl alcohol-d10	(1)	4.349	65	390431M	250.000
28) Methylene Chloride	(2)	4.368	84	159958	20.585
30) t-Butyl alcohol	(1)	4.483	59	392097	203.654
31) Acrylonitrile	(2)	4.690	53	111073	19.398
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	457818	20.854
32) trans-1,2-Dichloroethene	(2)	4.800	96	159905	20.823
34) n-Hexane	(2)	5.225	57	244589	20.379
36) 1,1-Dichloroethane	(2)	5.451	63	279345	20.548
38) di-Isopropyl ether	(2)	5.499	45	516228	20.618
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	226522	19.878
40) Ethyl t-butyl ether	(2)	6.035	59	462514	20.849
43) 1,2-Dichloroethene (Total)	(2)		96	340381	41.540
44) 2-Butanone	(2)	6.217	43	295441	38.604
42) cis-1,2-Dichloroethene	(2)	6.272	96	180476	20.717
45) 2,2-Dichloropropane	(2)	6.290	77	208336	20.242
47) Propionitrile	(1)	6.296	54	477405	208.215
48) Methacrylonitrile	(2)	6.527	67	594994	101.816

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.613	128	84378	20.267
50) Tetrahydrofuran	(1)	6.619	71	84246	38.580
51) Chloroform	(2)	6.752	83	266485	20.437
52)$Dibromofluoromethane	(2)	6.971	113	295200	50.033
52)$Dibromofluoromethane	(2)	6.971	111	300144	49.895
53) 1,1,1-Trichloroethane	(2)	6.990	97	227228	20.196
54) Cyclohexane	(2)	7.099	56	289388	20.244
54) Cyclohexane	(2)	7.099	84	241656	20.244
54) Cyclohexane	(2)	7.099	69	89633	20.242
55) 1,1-Dichloropropene	(2)	7.203	75	223089	20.327
56) Carbon Tetrachloride	(2)	7.209	117	193561	19.974
58) Isobutyl Alcohol	(1)	7.306	41	350085	504.397
57)$1,2-Dichloroethane-d4	(2)	7.428	102	77362	50.264
57)$1,2-Dichloroethane-d4	(2)	7.428	65	344013	49.983
57)$1,2-Dichloroethane-d4	(2)	7.428	104	49816	50.547
60) Benzene	(2)	7.464	78	670392	20.635
61) 1,2-Dichloroethane	(2)	7.531	62	208042M	20.297
61) 1,2-Dichloroethane	(2)	7.531	98	20635	20.143
65) t-Amyl methyl ether	(2)	7.647	73	461415	20.870
66)*Fluorobenzene	(2)	7.866	96	1294339	50.000
67) n-Heptane	(2)	7.878	43	259184	20.361
69) n-Butanol	(1)	8.182	56	686043M	1004.402
71) Trichloroethene	(2)	8.346	95	167297	20.279
72) Methylcyclohexane	(2)	8.663	83	298309	20.397
72) Methylcyclohexane	(2)	8.663	98	130446	20.161
73) 1,2-Dichloropropane	(2)	8.675	63	173564	20.580
76) Methyl Methacrylate	(2)	8.742	69	173167	19.337
75) 1,4-Dioxane	(1)	8.754	88	80550M	490.681
74) Dibromomethane	(2)	8.790	93	109077	20.104
78) Bromodichloromethane	(2)	9.022	83	198928	19.644
79) 2-Nitropropane	(2)	9.259	41	133277	37.396
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	139110	19.506
81) cis-1,3-Dichloropropene	(2)	9.551	75	272374	19.702
82) 4-Methyl-2-pentanone	(2)	9.703	43	574855	38.603
83)$Toluene-d8	(3)	9.855	98	1250386	50.111
83)$Toluene-d8	(3)	9.855	100	801679	49.940
88) Toluene	(3)	9.934	92	420596	20.578
90) 1,3-Dichloropropene (total)	(3)		100	523351	39.266

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.178	75	250977	19.563
91) Ethyl Methacrylate	(3)	10.232	69	278031	19.182
92) 1,1,2-Trichloroethane	(3)	10.384	97	163662	20.150
93) Tetrachloroethene	(3)	10.482	166	172771	20.493
94) 1,3-Dichloropropane	(3)	10.543	76	278527	20.245
96) 2-Hexanone	(3)	10.579	43	459180	38.867
97) Dibromochloromethane	(3)	10.762	129	165318	19.264
99) 1,2-Dibromoethane	(3)	10.877	107	178000	19.818
100)*Chlorobenzene-d5	(3)	11.303	117	956851	50.000
101) 1-Chlorohexane	(3)	11.303	91	228289	20.227
102) Chlorobenzene	(3)	11.327	112	475624	20.754
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	156857	20.159
104) Ethylbenzene	(3)	11.412	91	816914	20.889
106) m+p-Xylene	(3)	11.522	106	648803	41.766
108) Xylene (Total)	(3)		106	967684	62.595
107) o-Xylene	(3)	11.850	106	318881	20.829
109) Styrene	(3)	11.869	104	523406	20.276
110) Bromoform	(3)	12.033	173	120443	18.472
111) Isopropylbenzene	(3)	12.149	105	812641	20.952
112) Cyclohexanone	(1)	12.222	55	312656	484.858
114)$4-Bromofluorobenzene	(3)	12.295	95	472367	49.951
114)$4-Bromofluorobenzene	(3)	12.301	174	364207	49.950
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	287764M	20.365
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	468705	102.428
115) Bromobenzene	(4)	12.416	156	205519	20.530
117) 1,2,3-Trichloropropane	(4)	12.434	110	90667	20.242
119) n-Propylbenzene	(4)	12.477	91	983842	21.302
120) 2-Chlorotoluene	(4)	12.556	126	198114	20.457
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	708977	20.760
121) 4-Chlorotoluene	(4)	12.647	126	208513	20.497
124) tert-Butylbenzene	(4)	12.854	134	148019M	20.459
125) Pentachloroethane	(4)	12.891	167	106261	19.042
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	749726	20.843
127) sec-Butylbenzene	(4)	13.019	105	917863	21.125
129) 1,3-Dichlorobenzene	(4)	13.122	146	393932	20.660
130) p-Isopropyltoluene	(4)	13.128	119	780887	20.970
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	512562	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	406267	20.700

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

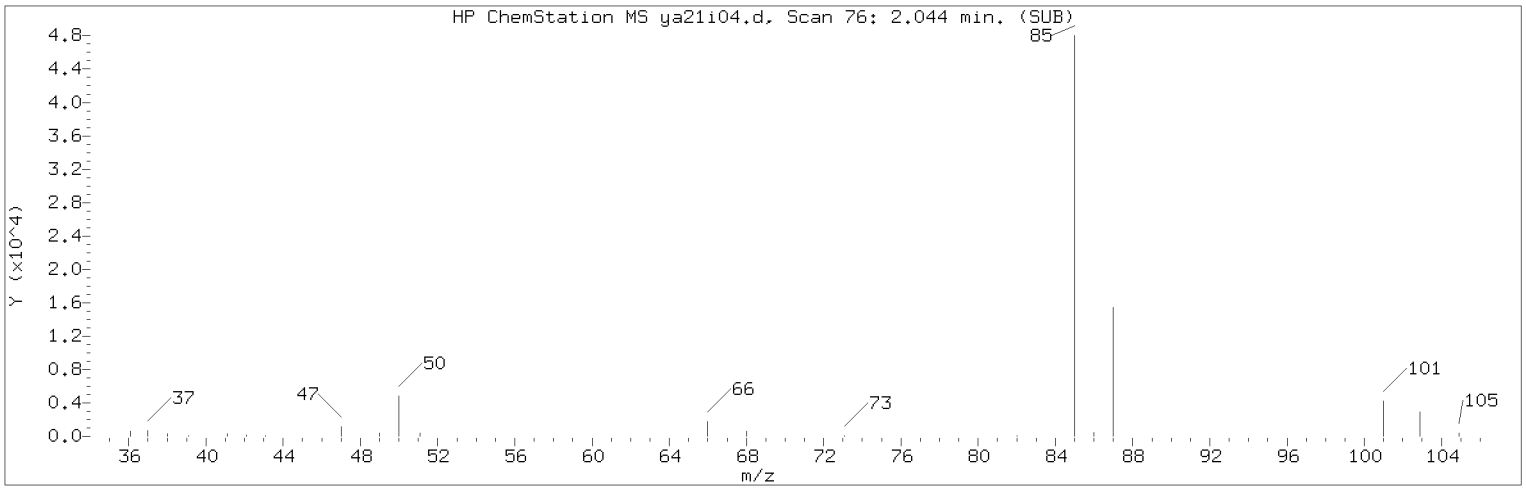
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

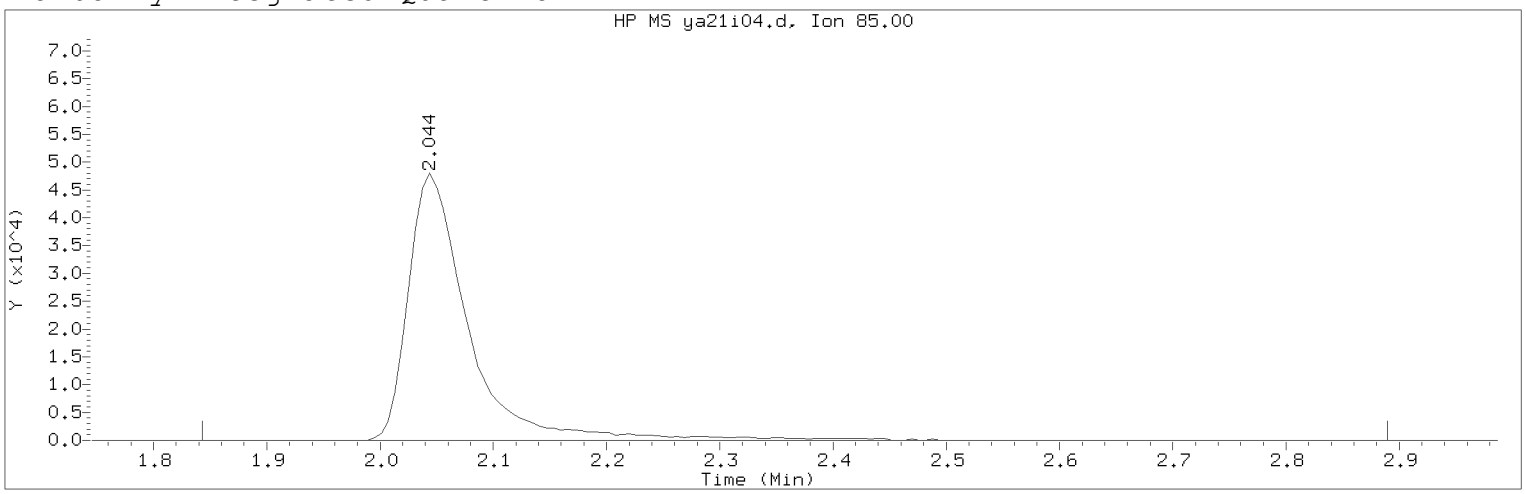
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.201	105	711049	20.851
135)	Benzyl Chloride	(4)	13.268	91	595505	19.790
136)	1,3-Diethylbenzene	(4)	13.323	119	459056	20.570
141)	Diethylbenzene (total)	(4)		100	1331210	62.094
137)	1,4-Diethylbenzene	(4)	13.396	119	487272	20.781
139)	n-Butylbenzene	(4)	13.420	92	409236	20.728
138)	1,2-Dichlorobenzene	(4)	13.457	146	381018	20.575
140)	1,2-Diethylbenzene	(4)	13.469	119	384882	20.743
142)	1,2-Dibromo-3-chloropropane	(4)	13.992	75	70135	19.151
144)	1,3,5-Trichlorobenzene	(4)	14.126	180	280075	20.080
146)	1,2,4-Trichlorobenzene	(4)	14.546	180	261249	19.889
147)	Hexachlorobutadiene	(4)	14.631	225	117390	20.034
148)	Naphthalene	(4)	14.728	128	998695	21.101
149)	1,2,3-Trichlorobenzene	(4)	14.874	180	251813	20.027
150)	2-Methylnaphthalene	(4)	15.519	142	545468	20.702

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

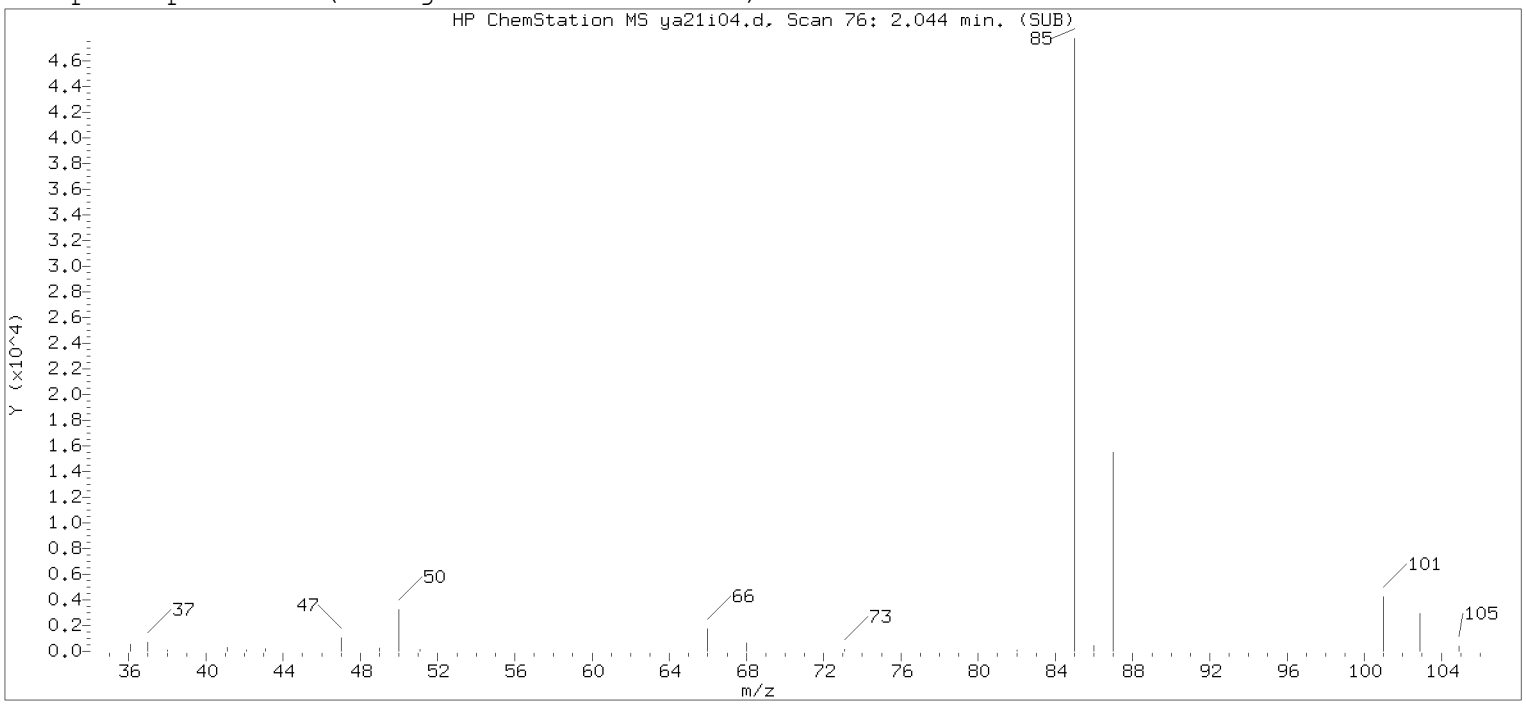
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 177843M
On-Column Amount (ng) : 20.0542
Integration start scan : 42 Integration stop scan: 214
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

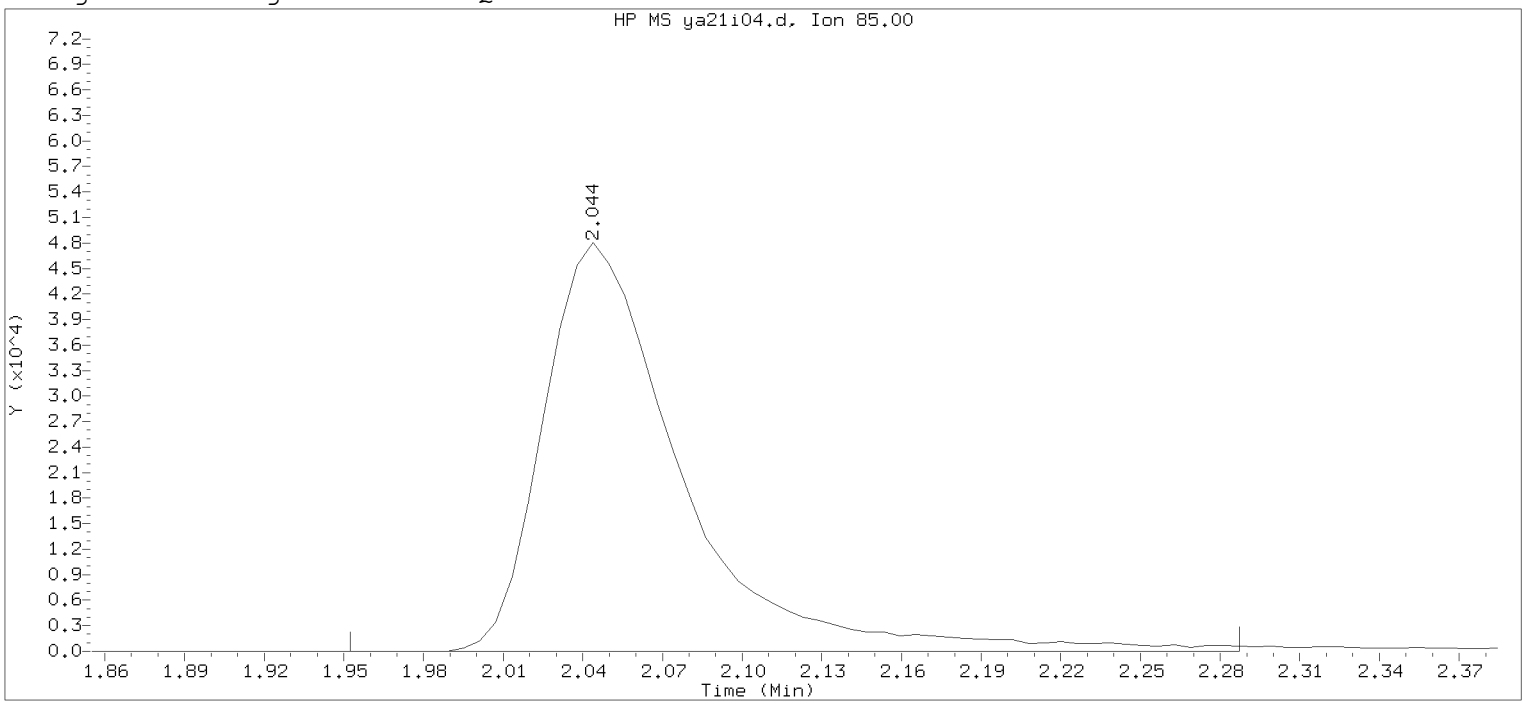
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

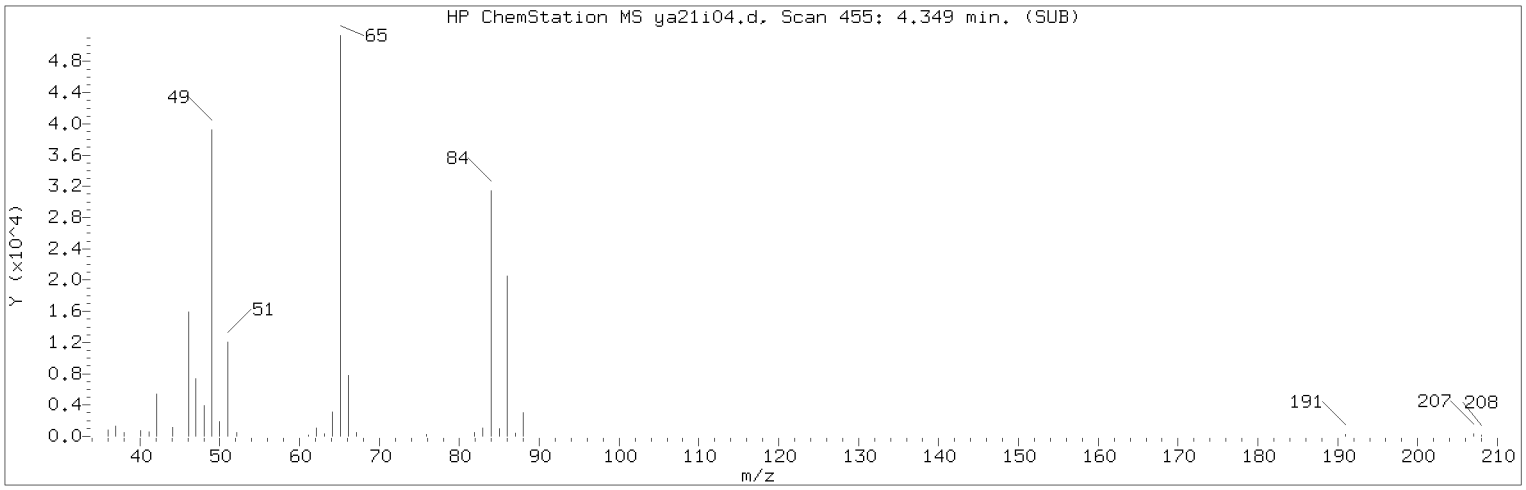
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

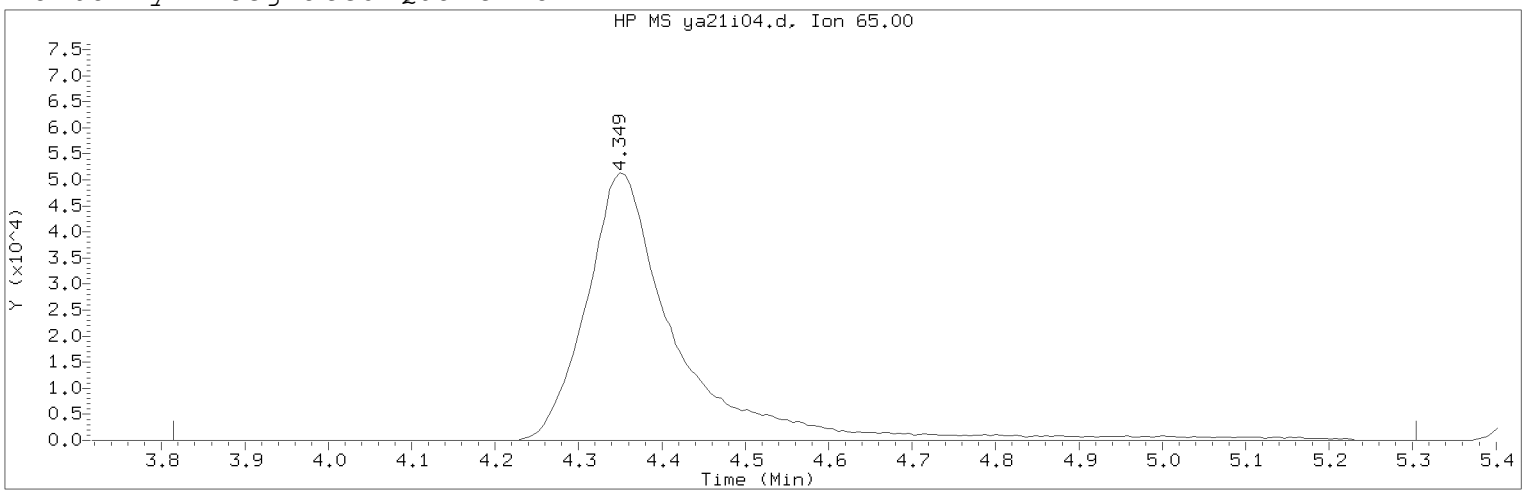
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 173825
On-column Amount (ng) : 20.8768
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

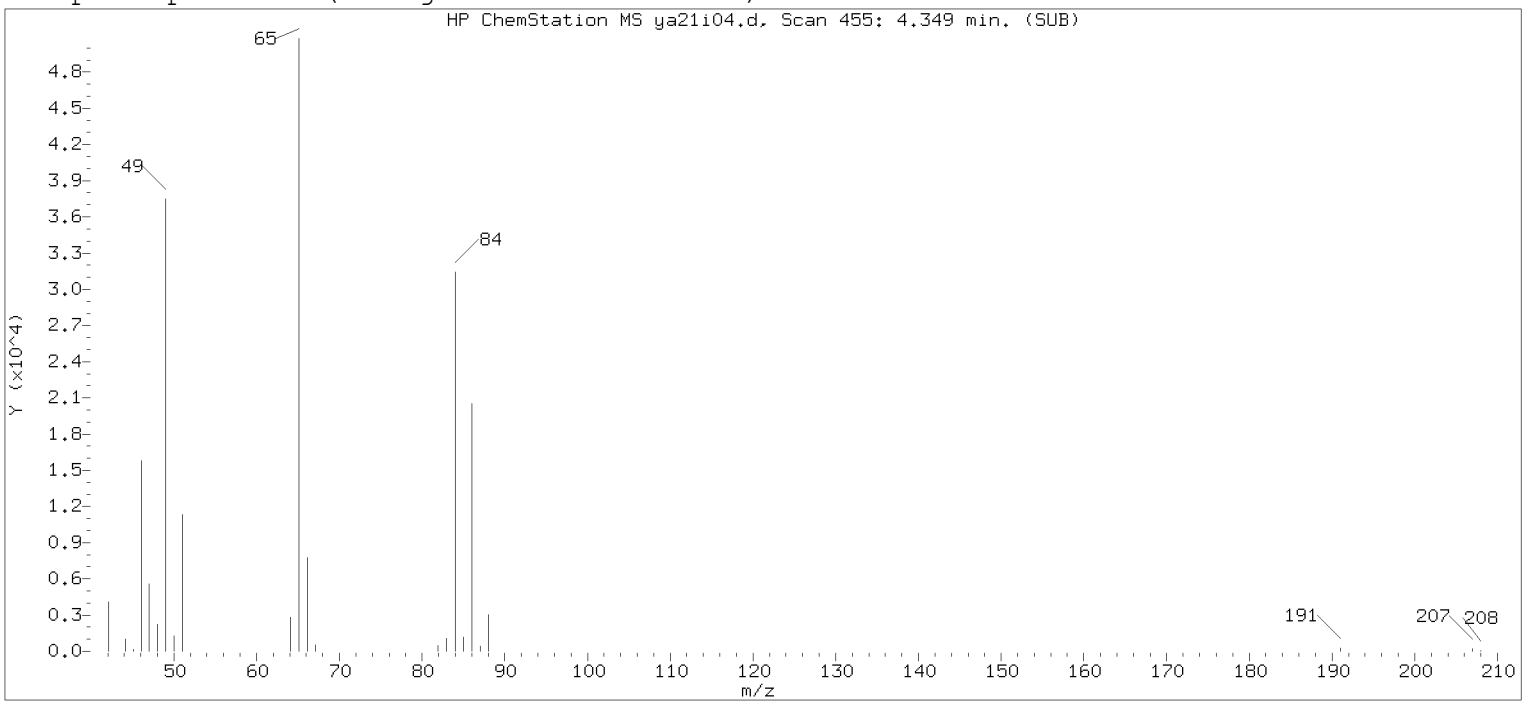
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area (flag) : 390431M
On-Column Amount (ng) : 250.0000
Integration start scan : 366 Integration stop scan: 611
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

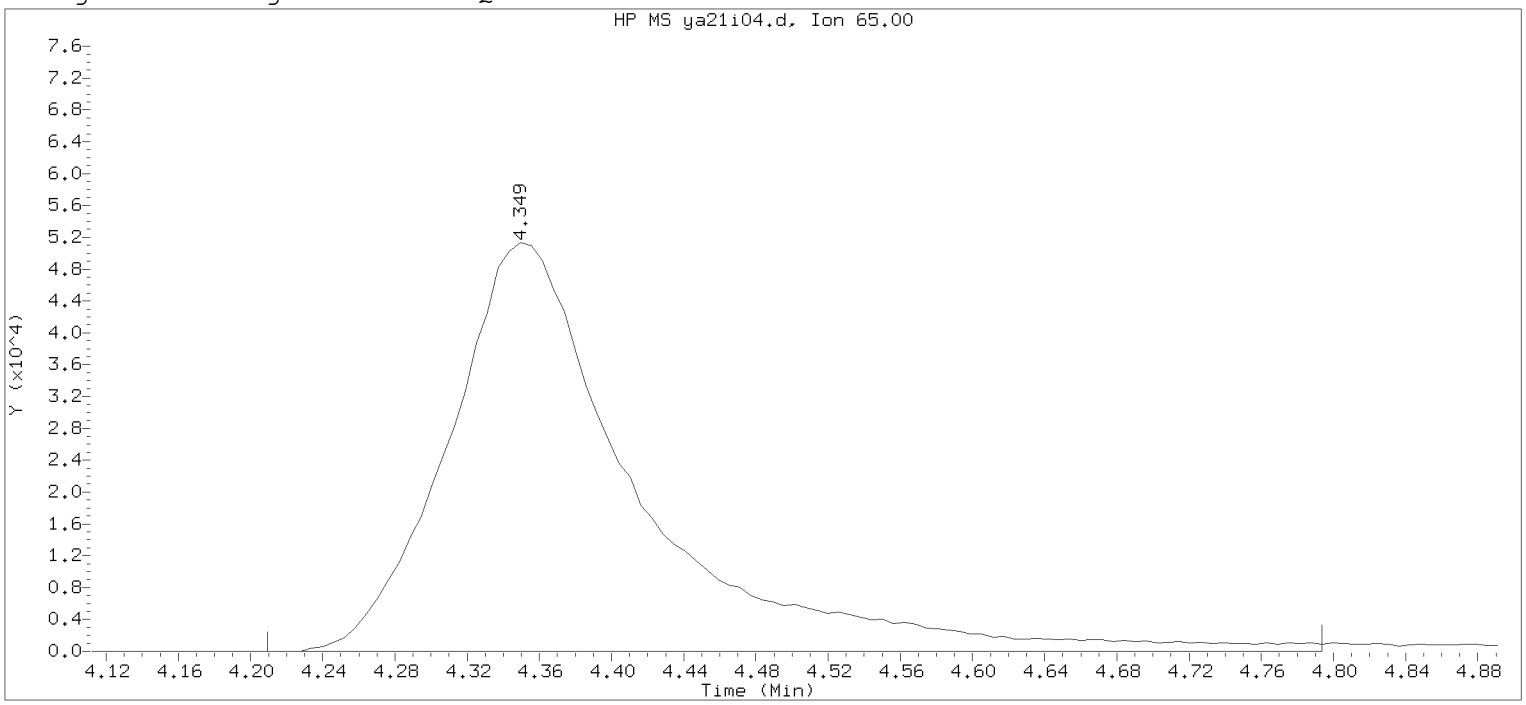
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

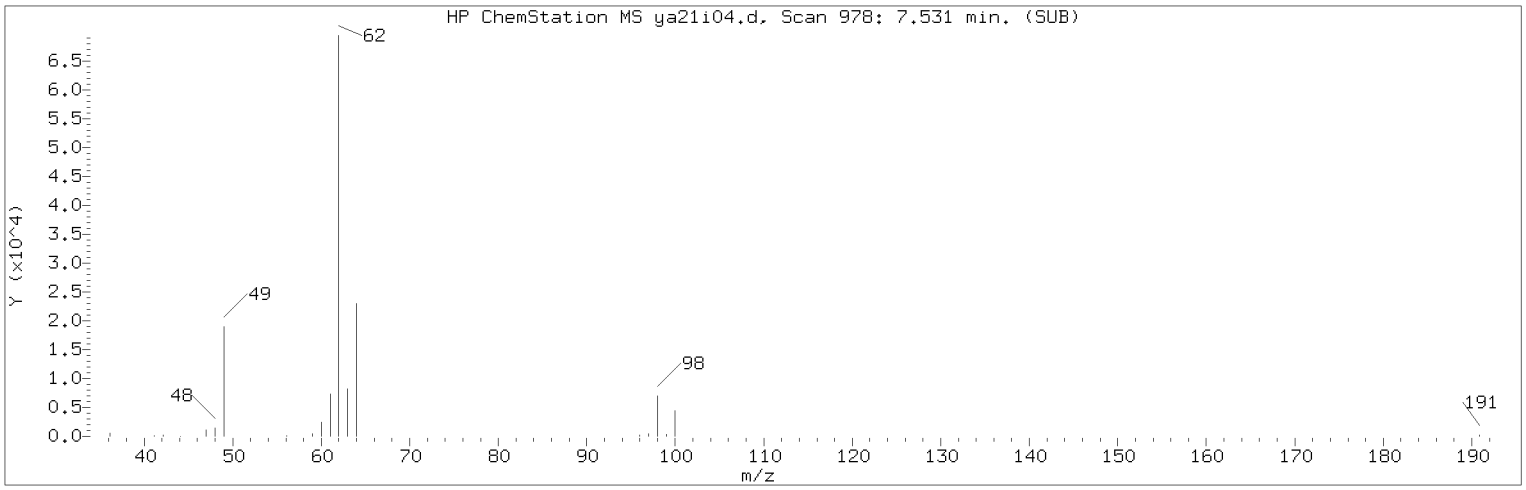
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

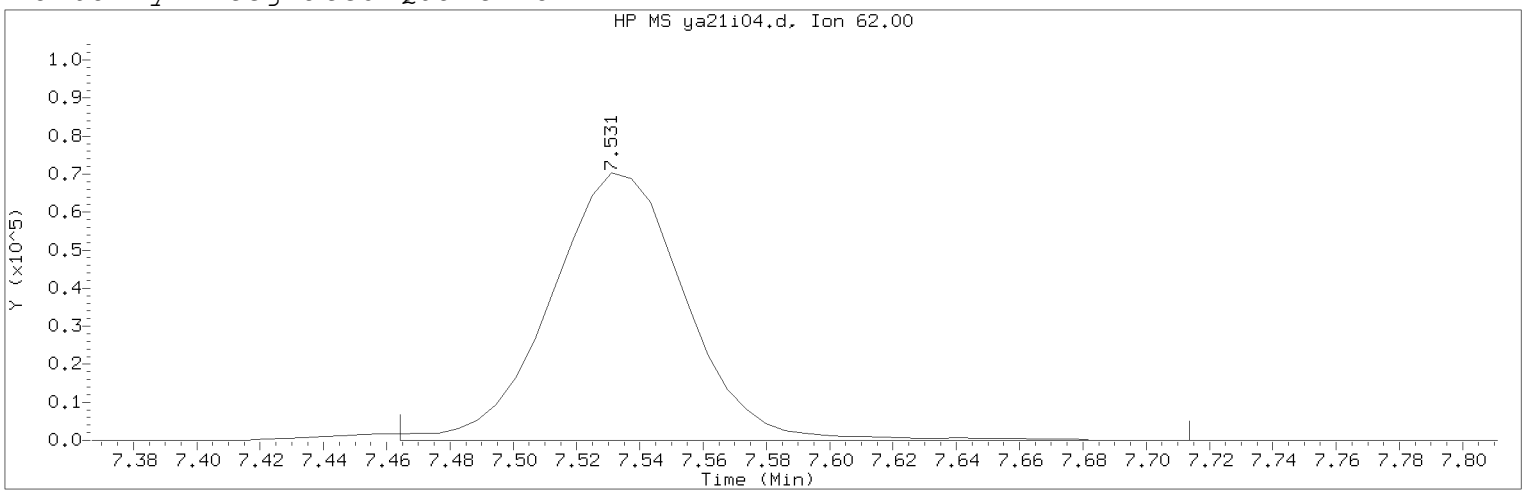
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 455
Retention Time (minutes): 4.349
Quant Ion : 65.00
Area : 373785
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 527
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

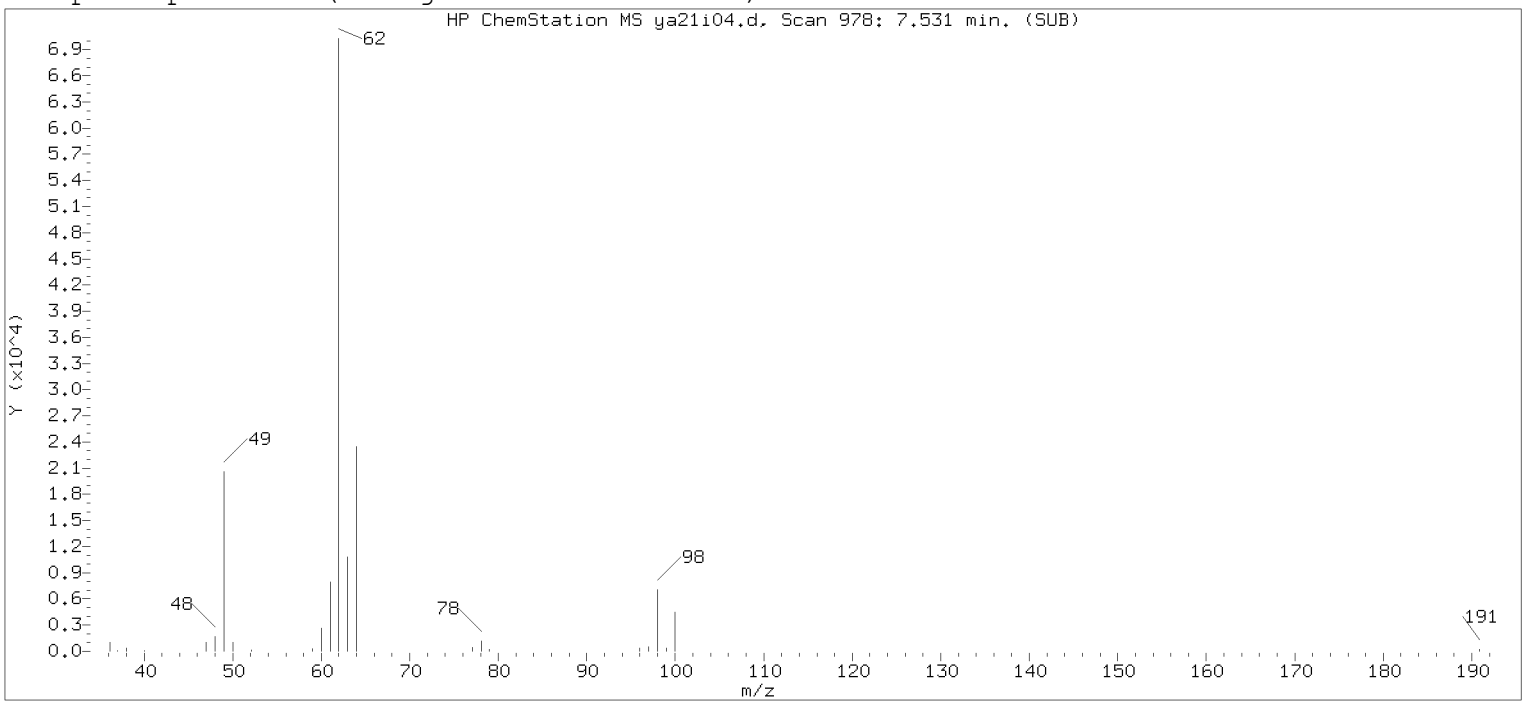
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 208042M
On-Column Amount (ng) : 20.2970
Integration start scan : 966 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

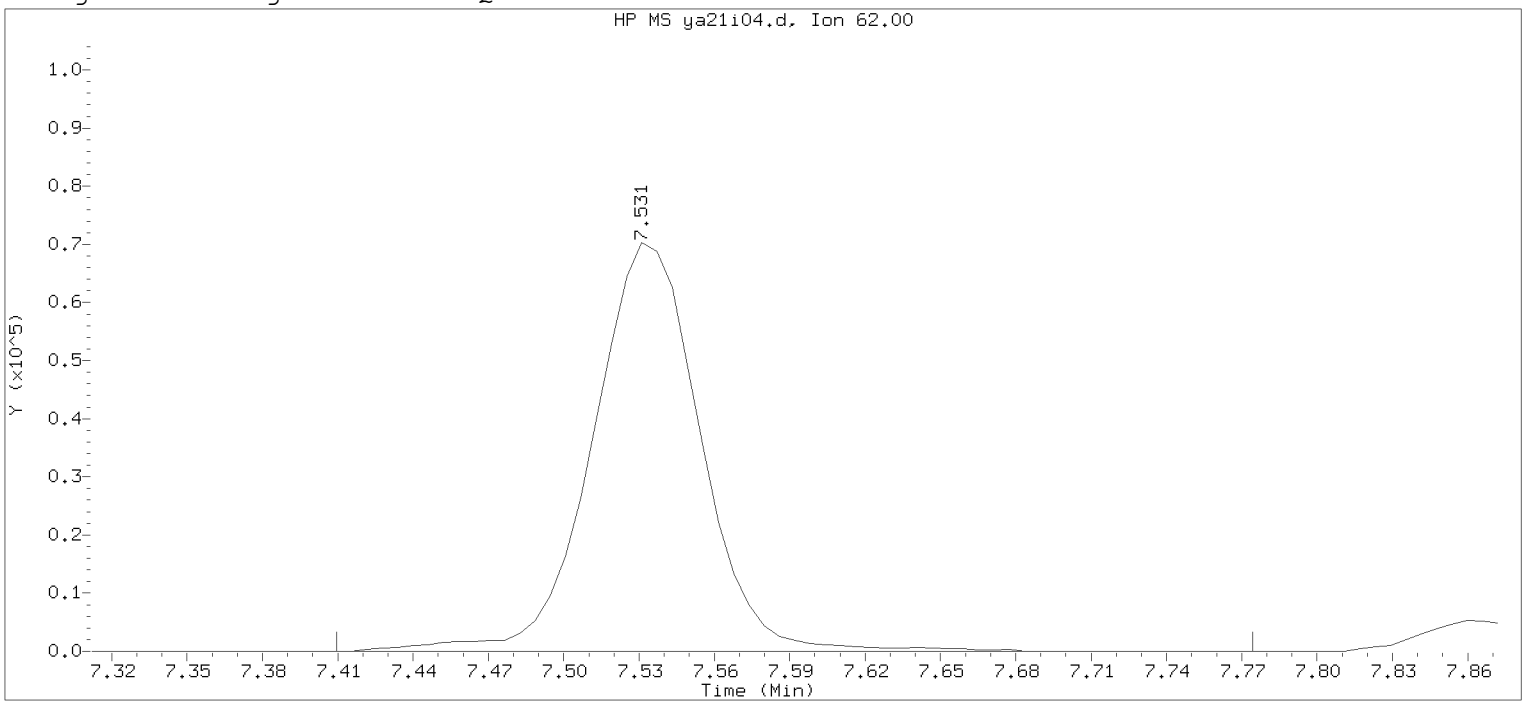
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

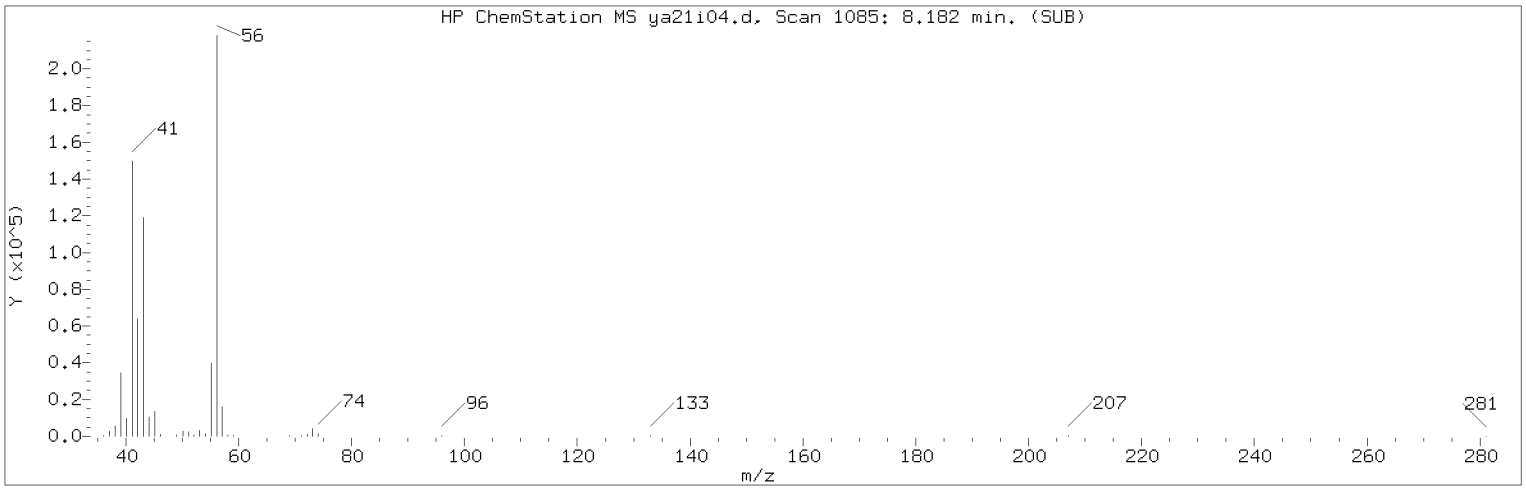
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

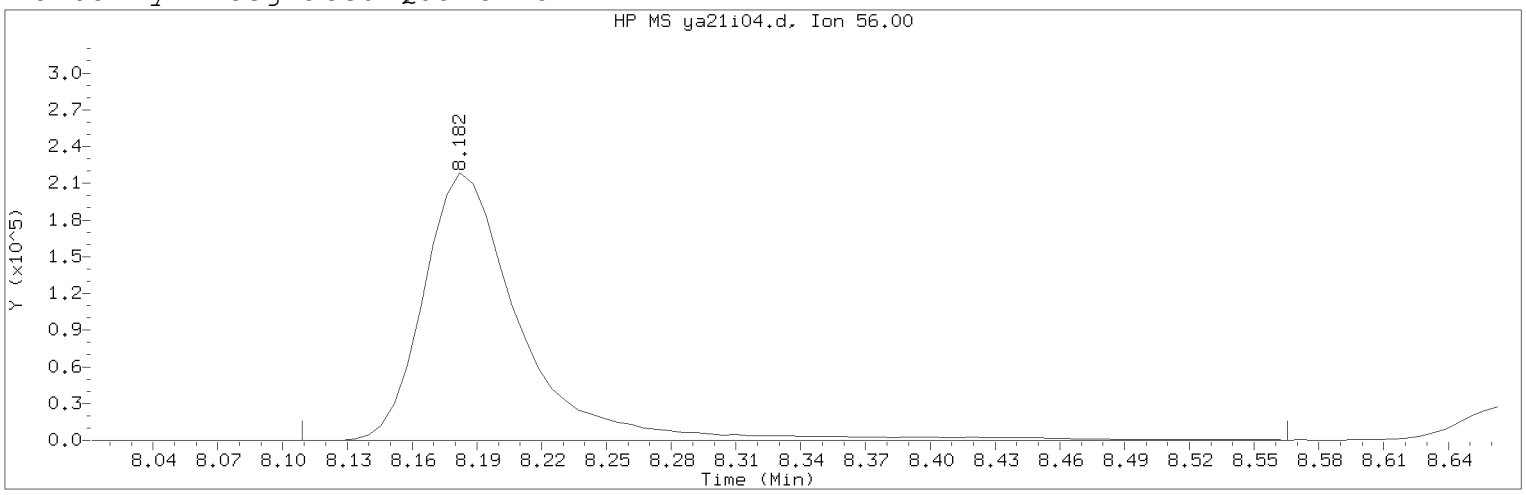
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 210519
On-column Amount (ng) : 20.3330
Integration start scan : 957 Integration stop scan: 1017
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

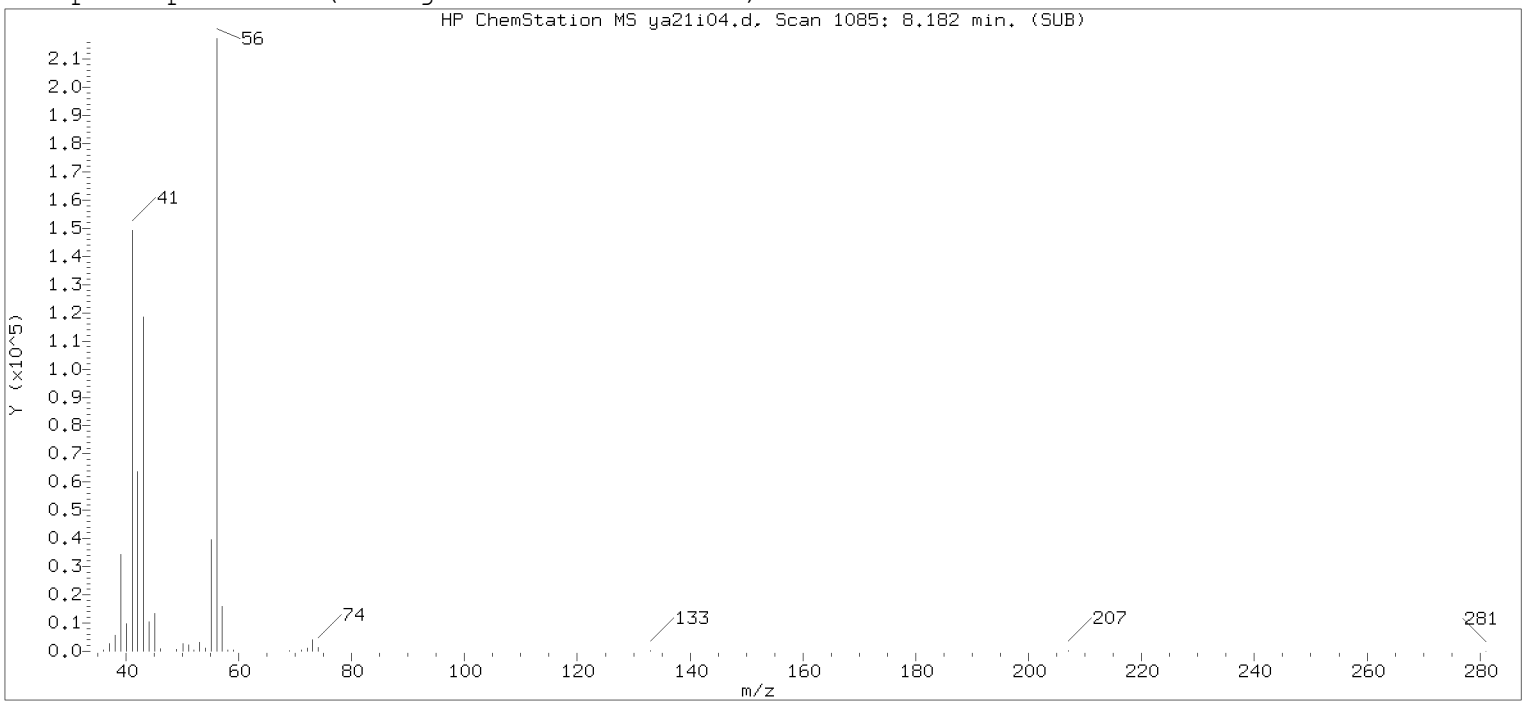
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area (flag) : 686043M
On-Column Amount (ng) : 1004.4020
Integration start scan : 1072 Integration stop scan: 1147
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

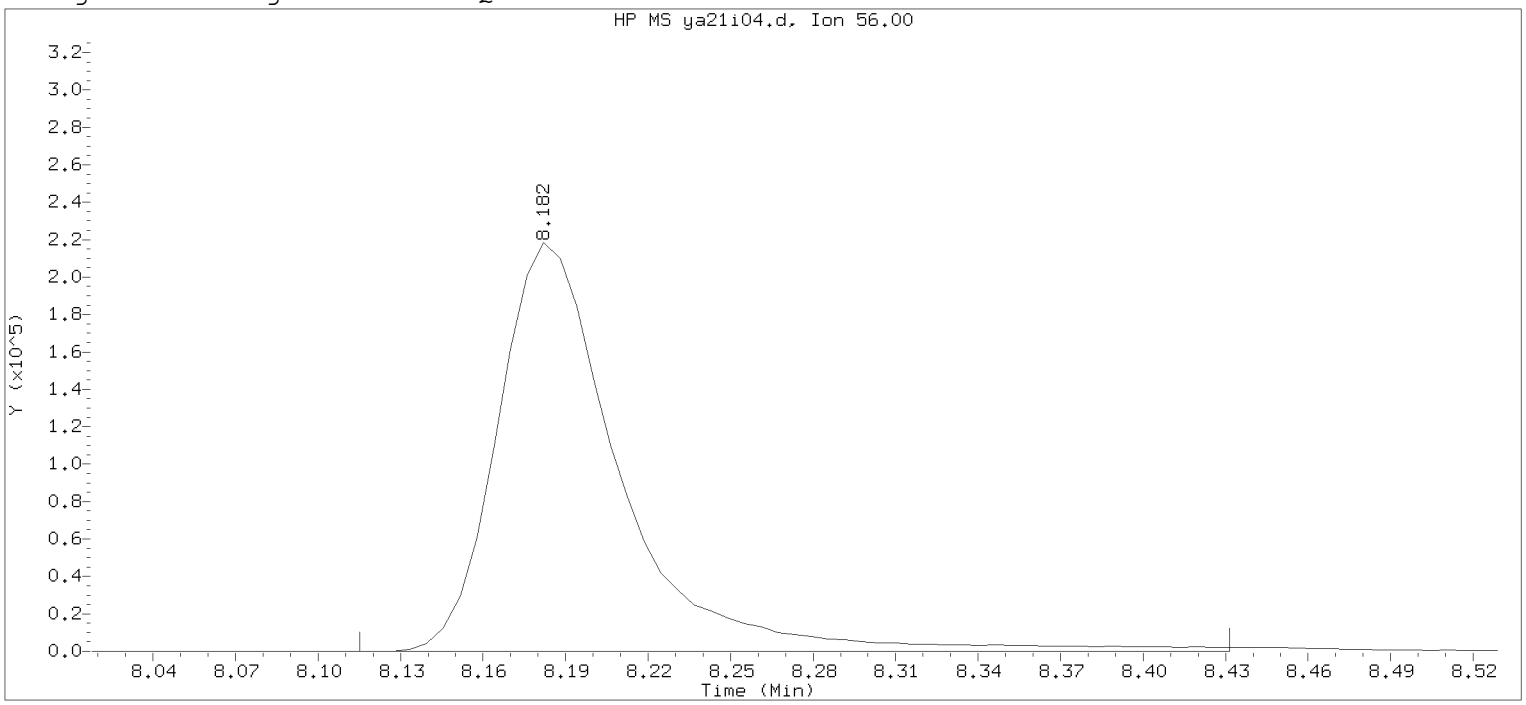
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

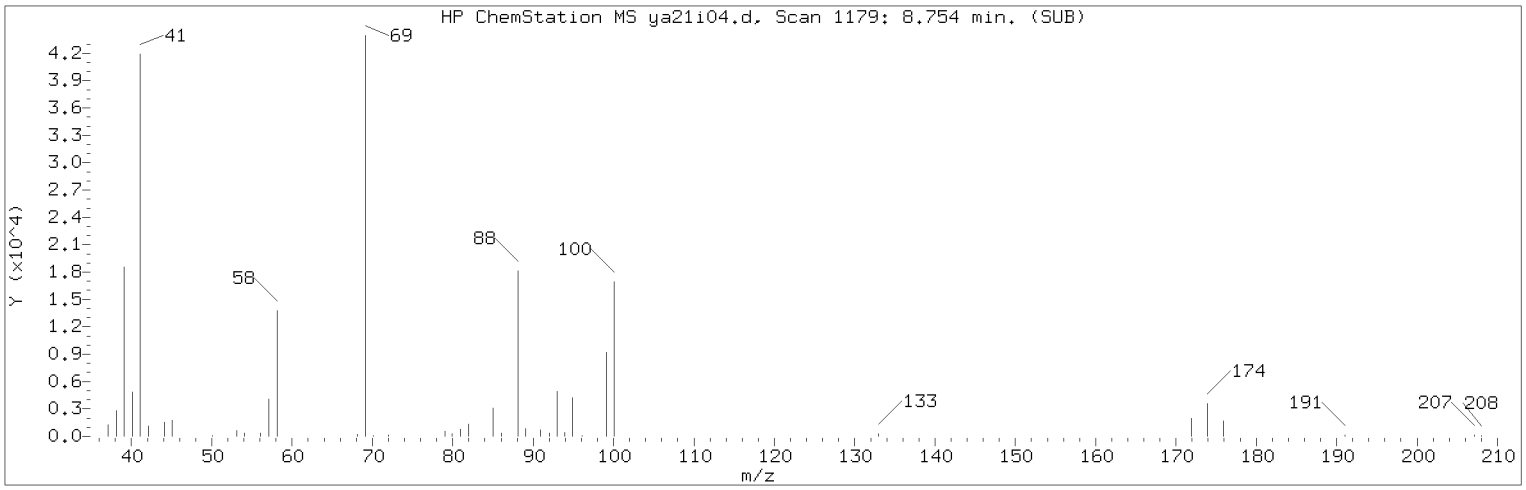
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

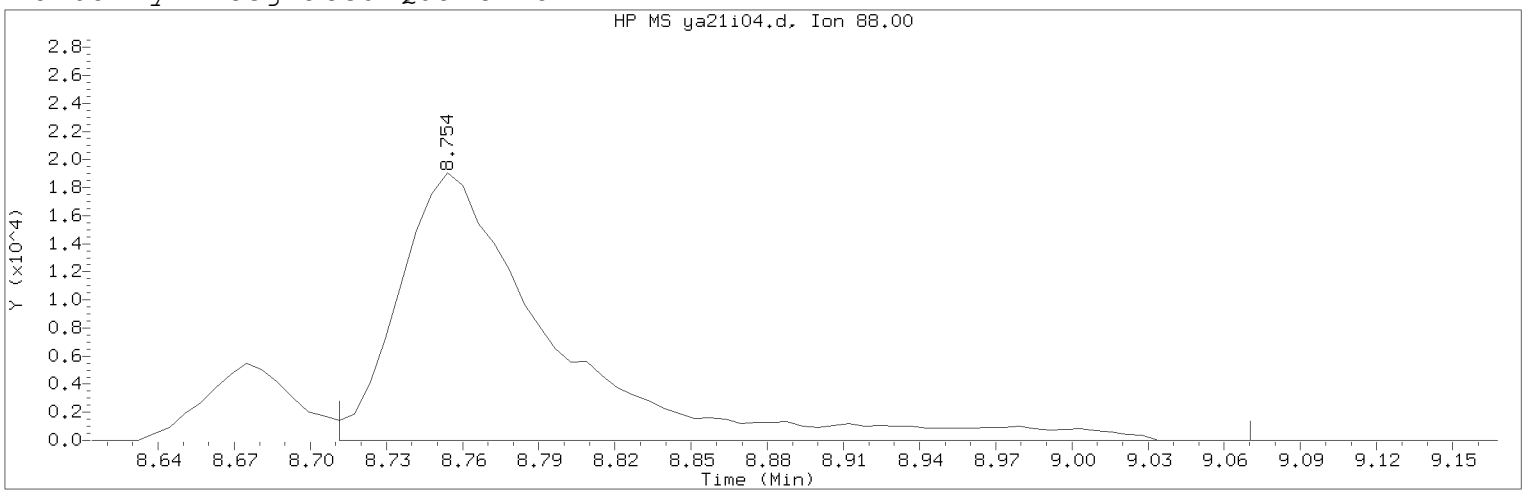
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area : 678859
On-column Amount (ng) : 1165.1548
Integration start scan : 1073 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

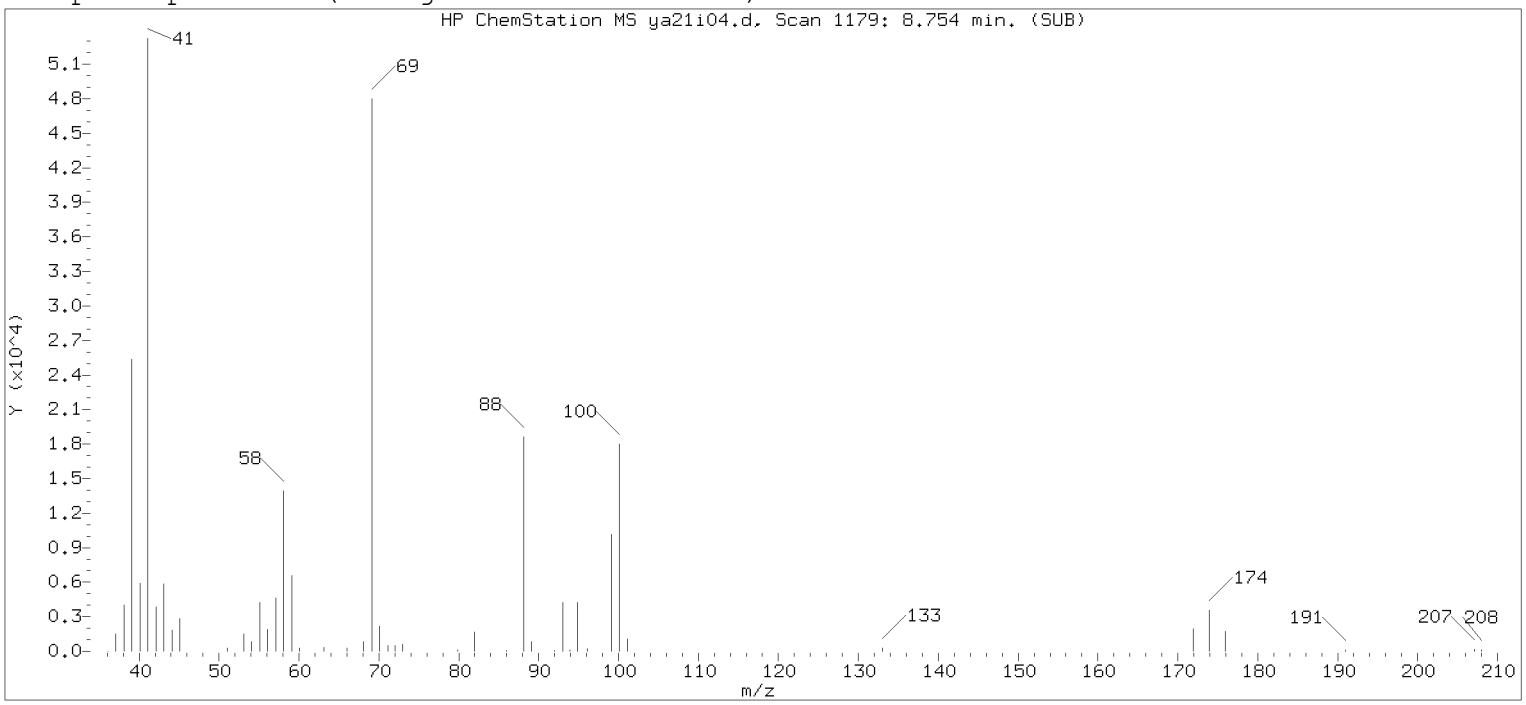
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 80550M
On-Column Amount (ng) : 490.6810
Integration start scan : 1171 Integration stop scan: 1230
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

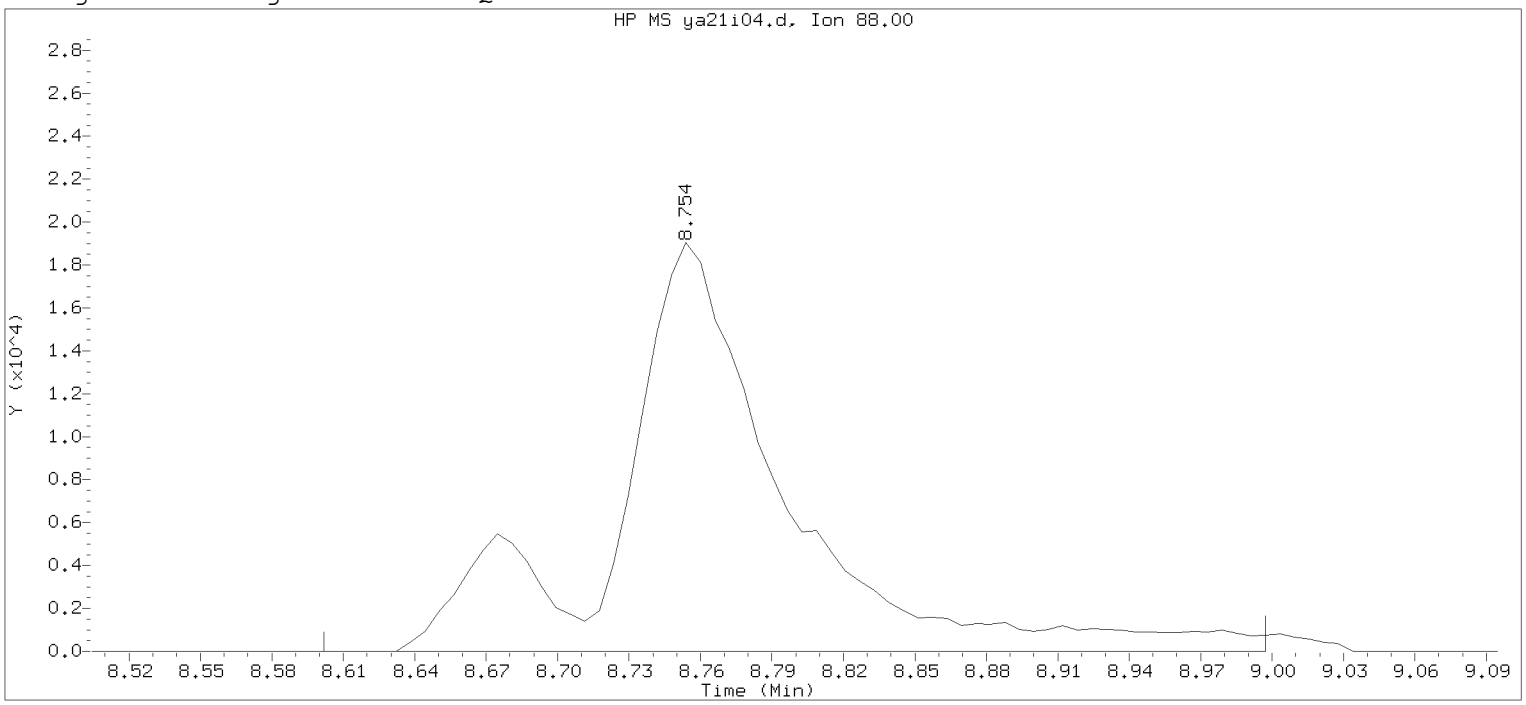
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

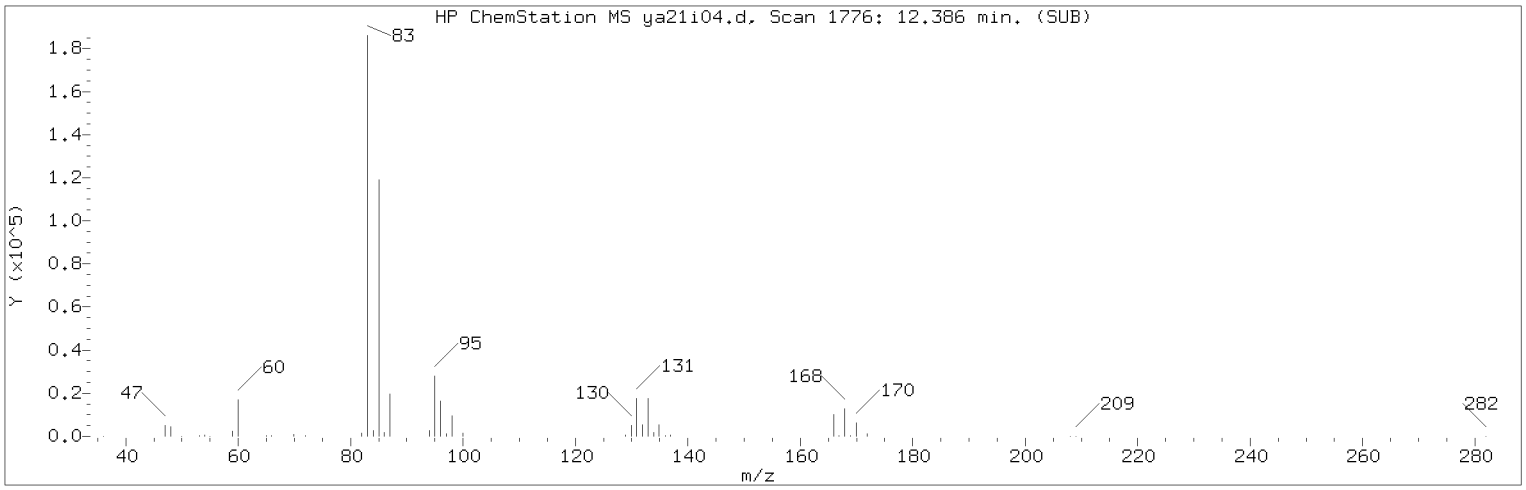
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

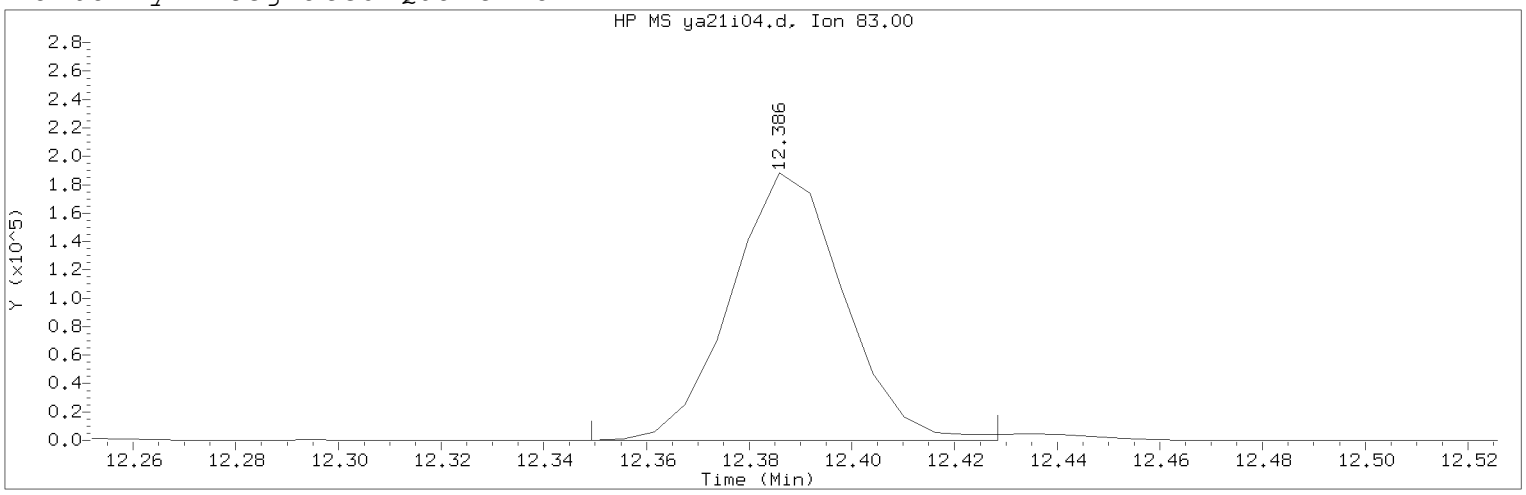
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1179		
Retention Time (minutes)	: 8.754		
Quant Ion	: 88.00		
Area	: 92470		
On-column Amount (ng)	: 518.6336		
Integration start scan	: 1153	Integration stop scan:	1218
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKW57 jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

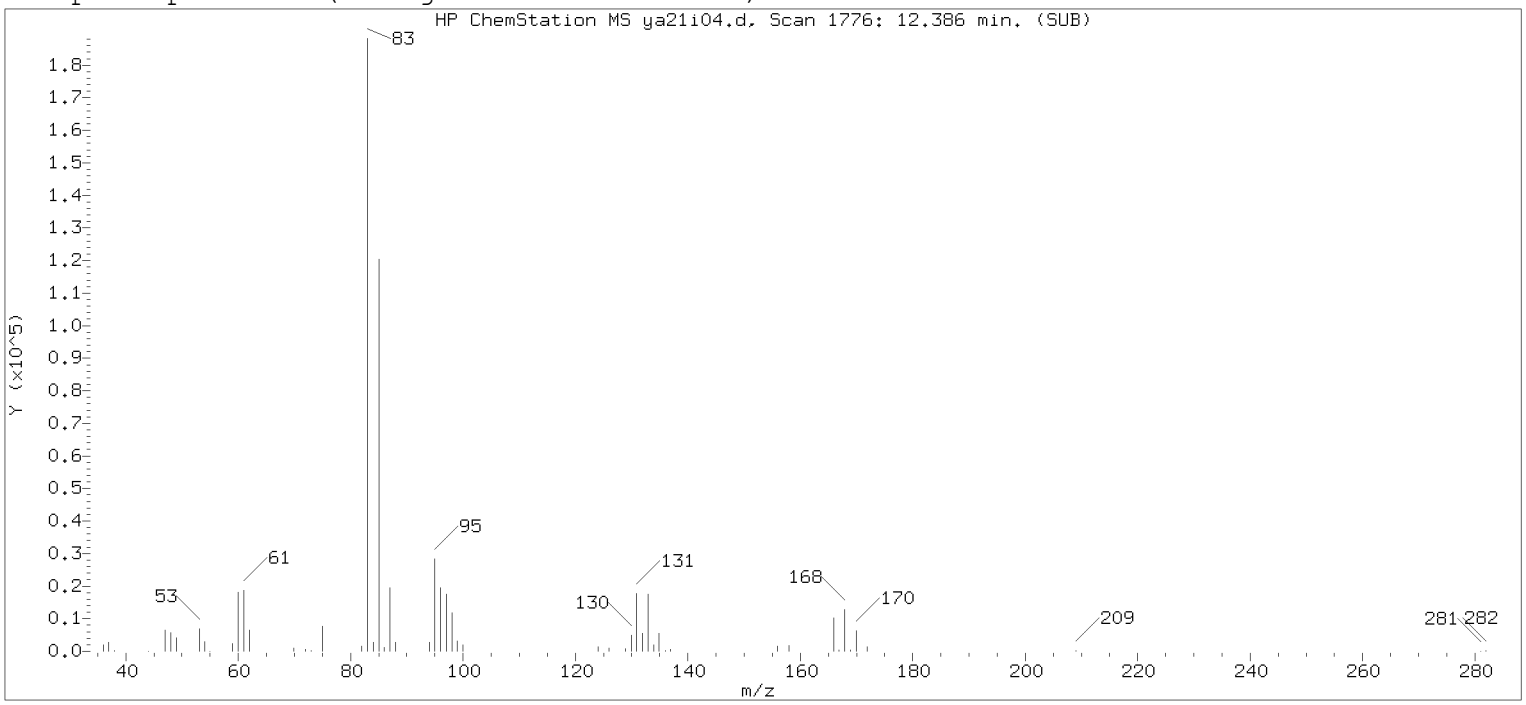
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area (flag) : 287764M
On-Column Amount (ng) : 20.3647
Integration start scan : 1769 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

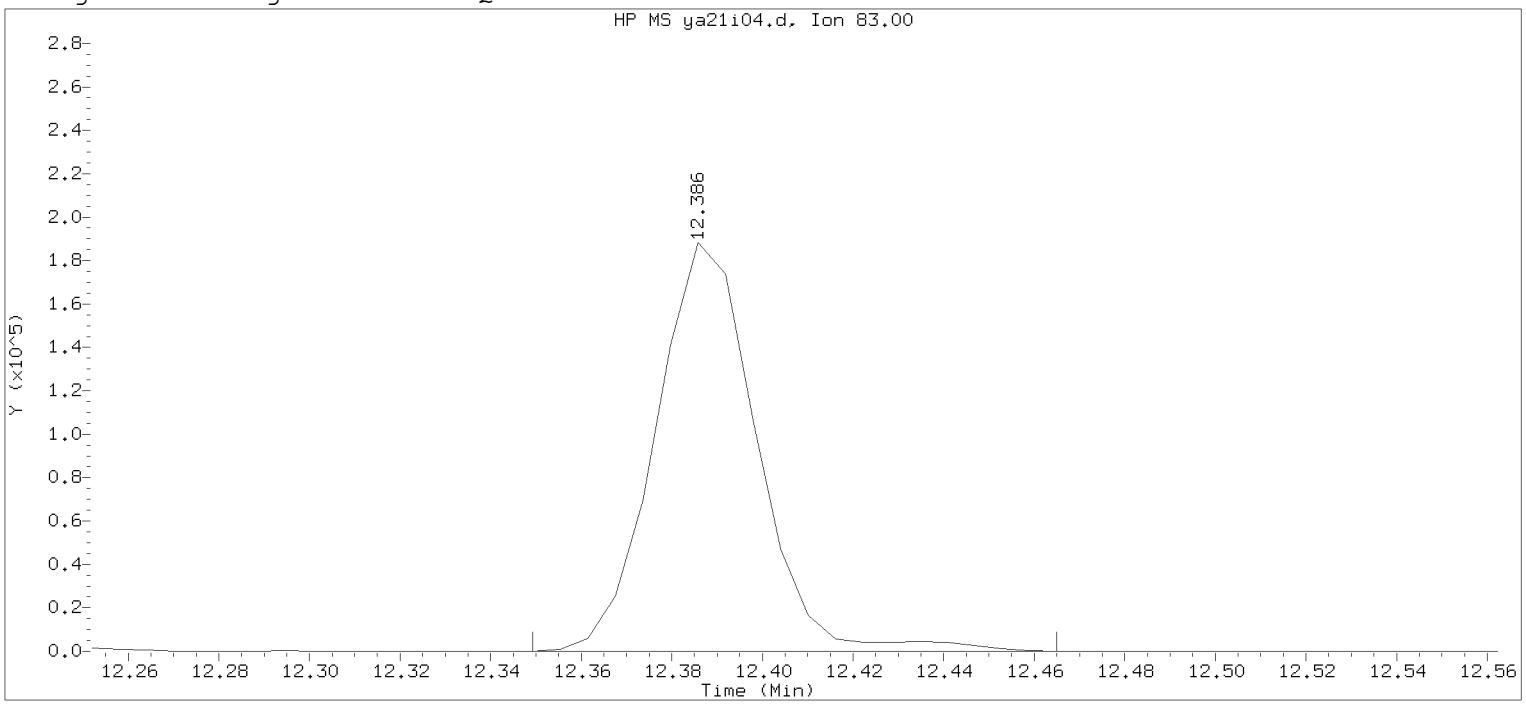
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

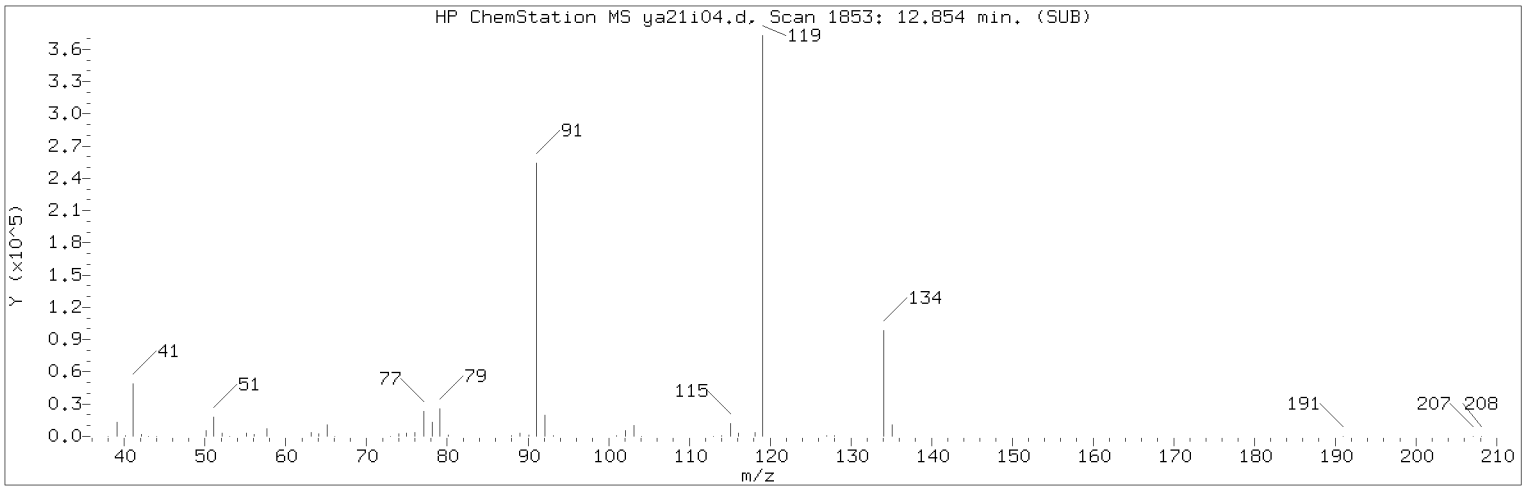
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

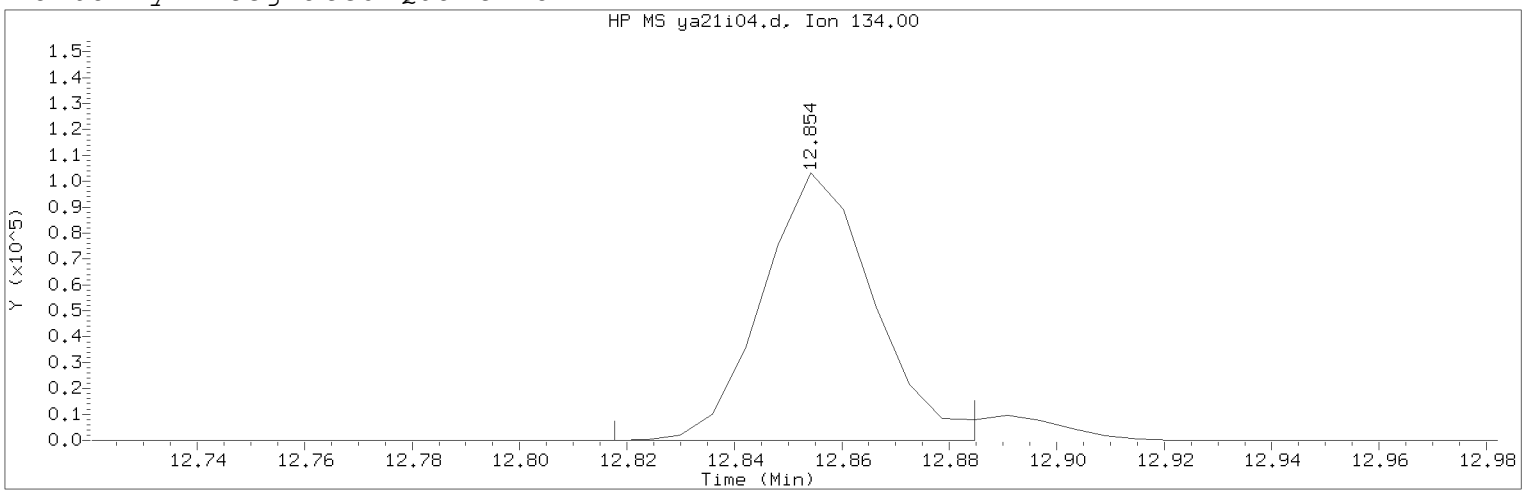
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area : 292432
On-column Amount (ng) : 21.0112
Integration start scan : 1769 Integration stop scan: 1788
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:04 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

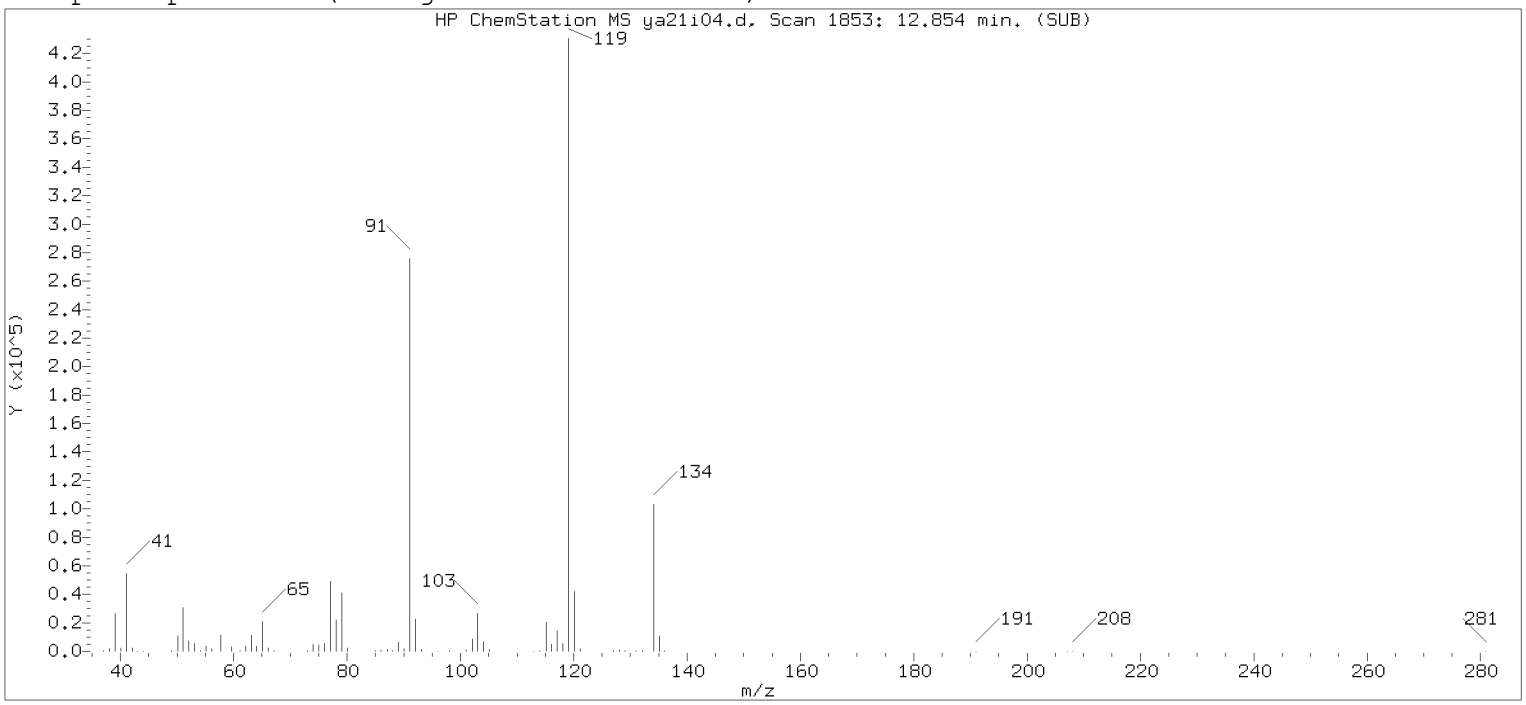
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 148019M
On-Column Amount (ng) : 20.4586
Integration start scan : 1846 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

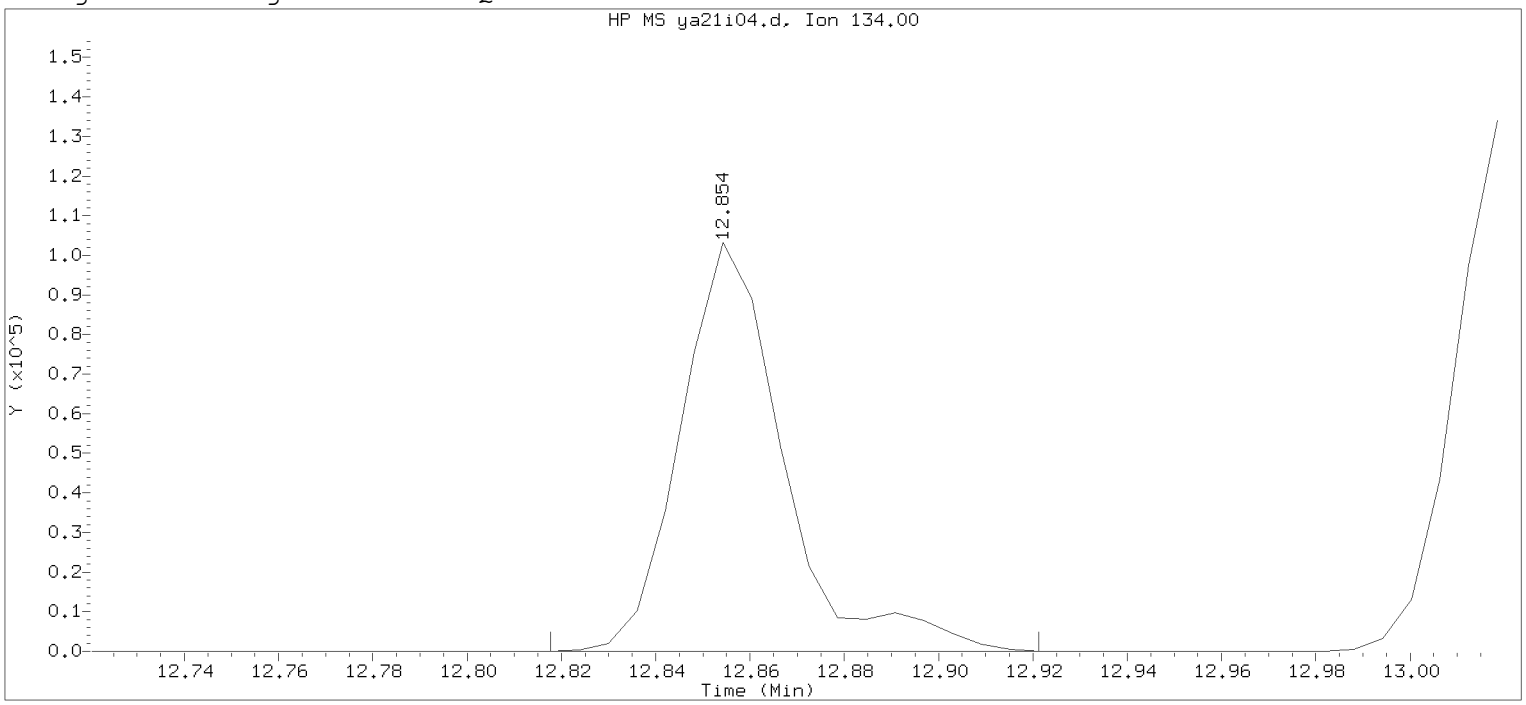
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



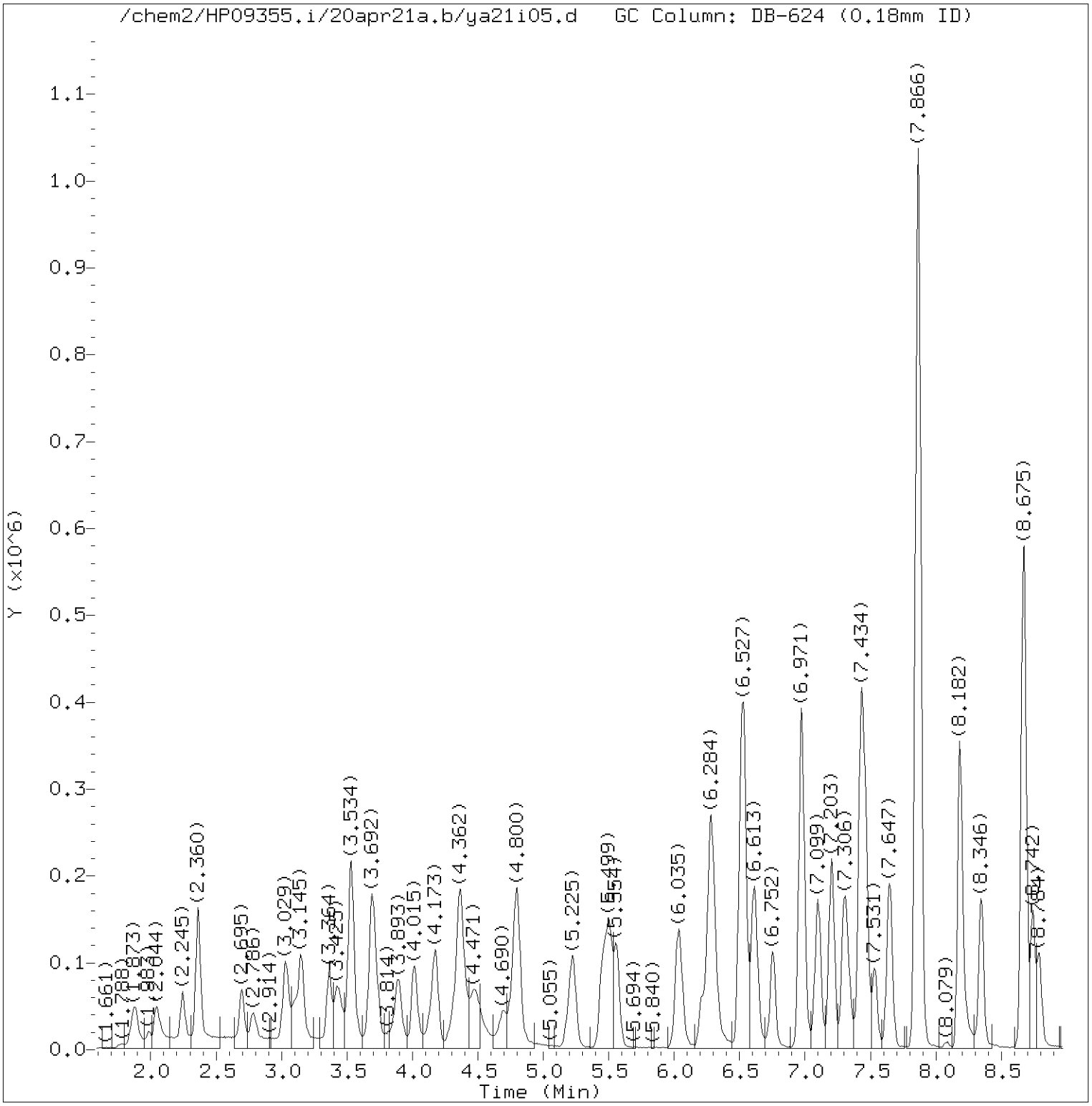
Data File: /chem2/HP09355.i/20apr21a.b/ya21i04.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:00 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 156893
On-column Amount (ng) : 21.9666
Integration start scan : 1846 Integration stop scan: 1863
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

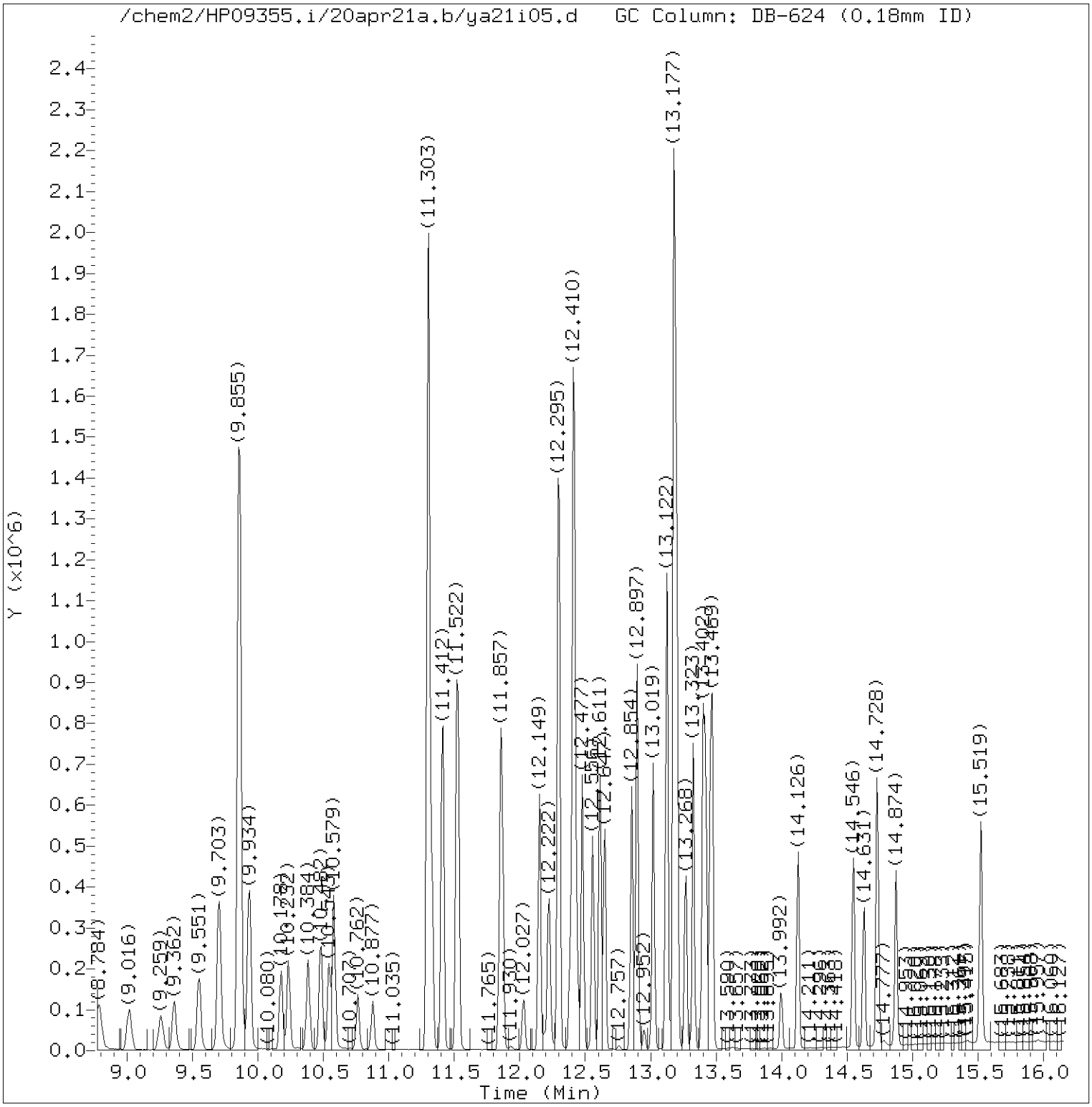
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	90631M	10.087
4) Chloromethane	(2)	2.245	50	81136	10.283
5) 1,3-Butadiene	(2)	2.360	39	63059	9.877
6) Vinyl Chloride	(2)	2.360	62	82257	10.341
8) Bromomethane	(2)	2.695	94	56696	10.581
9) Chloroethane	(2)	2.786	64	45494	10.496
10) Dichlorofluoromethane	(2)	3.029	67	122740	10.607
12) Trichlorofluoromethane	(2)	3.096	101	92189	10.059
11) n-Pentane	(2)	3.151	43	99451	10.120
14) Ethyl ether	(2)	3.364	59	71656	10.237
15) Freon 123a	(2)	3.425	67	82519	9.871
16) Acrolein	(1)	3.534	56	355841	106.265
17) 1,1-Dichloroethene	(2)	3.686	96	70229	10.337
17) 1,1-Dichloroethene	(2)	3.686	63	32114	9.842
18) Acetone	(1)	3.699	58	34162	21.587
19) Freon 113	(2)	3.711	101	65554	9.704
21) 2-Propanol	(1)	3.863	45	109516	95.766
22) Methyl Iodide	(2)	3.893	142	115763	9.898
23) Carbon Disulfide	(2)	4.015	76	232374	9.842
27) Methyl Acetate	(2)	4.143	43	101944	9.946
25) Allyl Chloride	(2)	4.179	41	112801	9.929
29)*t-Butyl alcohol-d10	(1)	4.356	65	407507M	250.000
28) Methylene Chloride	(2)	4.368	84	77950	9.938
30) t-Butyl alcohol	(1)	4.483	59	201321	100.147
31) Acrylonitrile	(2)	4.696	53	62684	10.652
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	225697	10.135
32) trans-1,2-Dichloroethene	(2)	4.800	96	79939	10.236
34) n-Hexane	(2)	5.219	57	115016	9.579
36) 1,1-Dichloroethane	(2)	5.451	63	136009	9.916
38) di-Isopropyl ether	(2)	5.499	45	248445	9.851
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	106477	9.384
40) Ethyl t-butyl ether	(2)	6.035	59	223683	9.979
43) 1,2-Dichloroethene (Total)	(2)		96	168725	20.301
44) 2-Butanone	(2)	6.217	43	163387	20.884
42) cis-1,2-Dichloroethene	(2)	6.272	96	88786	10.065
45) 2,2-Dichloropropane	(2)	6.284	77	101584	9.809
47) Propionitrile	(1)	6.302	54	242620	101.102
48) Methacrylonitrile	(2)	6.527	67	296300	50.122

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.613	128	41567	9.900
50) Tetrahydrofuran	(1)	6.625	71	46968	20.483
51) Chloroform	(2)	6.752	83	129227	9.842
52)$Dibromofluoromethane	(2)	6.971	113	295797	49.671
52)$Dibromofluoromethane	(2)	6.971	111	304399	50.042
53) 1,1,1-Trichloroethane	(2)	6.990	97	109210	9.678
54) Cyclohexane	(2)	7.099	56	137345	9.599
54) Cyclohexane	(2)	7.099	84	114513	9.587
54) Cyclohexane	(2)	7.099	69	41824	9.467
55) 1,1-Dichloropropene	(2)	7.203	75	108059	9.790
56) Carbon Tetrachloride	(2)	7.209	117	91863	9.495
58) Isobutyl Alcohol	(1)	7.306	41	176160	244.508
57)$1,2-Dichloroethane-d4	(2)	7.428	102	79352	50.794
57)$1,2-Dichloroethane-d4	(2)	7.428	65	348757	50.097
57)$1,2-Dichloroethane-d4	(2)	7.428	104	49984	50.133
60) Benzene	(2)	7.464	78	325223	9.921
61) 1,2-Dichloroethane	(2)	7.531	62	103902	10.021
61) 1,2-Dichloroethane	(2)	7.531	98	9926	9.665
65) t-Amyl methyl ether	(2)	7.647	73	226764	10.116
66)*Fluorobenzene	(2)	7.866	96	1308564	50.000
67) n-Heptane	(2)	7.872	43	124652	9.747
69) n-Butanol	(1)	8.182	56	337962M	479.030
71) Trichloroethene	(2)	8.346	95	80408	9.711
72) Methylcyclohexane	(2)	8.663	83	144186	9.800
72) Methylcyclohexane	(2)	8.669	98	63120	9.717
73) 1,2-Dichloropropane	(2)	8.675	63	84197	9.900
76) Methyl Methacrylate	(2)	8.736	69	80481	9.091
75) 1,4-Dioxane	(1)	8.754	88	41144M	242.043
74) Dibromomethane	(2)	8.790	93	52316	9.626
78) Bromodichloromethane	(2)	9.016	83	93086	9.260
79) 2-Nitropropane	(2)	9.259	41	71530	19.882
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	65168M	9.216
81) cis-1,3-Dichloropropene	(2)	9.551	75	128793	9.362
82) 4-Methyl-2-pentanone	(2)	9.703	43	309755	20.457
83)$Toluene-d8	(3)	9.855	98	1259927	49.872
83)$Toluene-d8	(3)	9.855	100	805614	49.629
88) Toluene	(3)	9.934	92	202138	9.809
90) 1,3-Dichloropropene (total)	(3)		100	247197	18.637

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on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.178	75	118404	9.275
91) Ethyl Methacrylate	(3)	10.232	69	125893	8.825
92) 1,1,2-Trichloroethane	(3)	10.384	97	79117M	9.690
93) Tetrachloroethene	(3)	10.482	166	82317	9.708
94) 1,3-Dichloropropane	(3)	10.543	76	135535	9.778
96) 2-Hexanone	(3)	10.579	43	247307	20.527
97) Dibromochloromethane	(3)	10.762	129	76264	8.993
99) 1,2-Dibromoethane	(3)	10.877	107	84971	9.464
100)*Chlorobenzene-d5	(3)	11.303	117	969376	50.000
101) 1-Chlorohexane	(3)	11.303	91	110492	9.729
102) Chlorobenzene	(3)	11.327	112	231085	9.962
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	73479	9.450
104) Ethylbenzene	(3)	11.412	91	393063	9.937
106) m+p-Xylene	(3)	11.522	106	312867	19.904
108) Xylene (Total)	(3)		106	465904	29.797
107) o-Xylene	(3)	11.851	106	153037	9.893
109) Styrene	(3)	11.869	104	242879	9.421
110) Bromoform	(3)	12.027	173	54717	8.578
111) Isopropylbenzene	(3)	12.149	105	389961	9.939
112) Cyclohexanone	(1)	12.222	55	157017	236.454
114)$4-Bromofluorobenzene	(3)	12.295	95	478079	49.921
114)$4-Bromofluorobenzene	(3)	12.301	174	366786	49.722
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	138826M	9.763
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	230393	49.793
115) Bromobenzene	(4)	12.416	156	98744	9.795
117) 1,2,3-Trichloropropane	(4)	12.435	110	44611	9.871
119) n-Propylbenzene	(4)	12.477	91	474810	10.125
120) 2-Chlorotoluene	(4)	12.556	126	96923	9.910
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	343212	9.943
121) 4-Chlorotoluene	(4)	12.647	126	101299	9.870
124) tert-Butylbenzene	(4)	12.854	134	68980	9.530
125) Pentachloroethane	(4)	12.891	167	52540	9.433
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	358919	9.886
127) sec-Butylbenzene	(4)	13.019	105	439894	10.002
129) 1,3-Dichlorobenzene	(4)	13.122	146	191662	9.944
130) p-Isopropyltoluene	(4)	13.128	119	369737	9.847
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	518818	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	198526	9.995

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on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.201	105	354059	10.205
135)	Benzyl Chloride	(4)	13.268	91	273815	9.175
136)	1,3-Diethylbenzene	(4)	13.323	119	225558	9.988
141)	Diethylbenzene (total)	(4)		100	657615	30.253
137)	1,4-Diethylbenzene	(4)	13.396	119	240544	10.108
139)	n-Butylbenzene	(4)	13.420	92	197390	9.902
138)	1,2-Dichlorobenzene	(4)	13.457	146	184911	9.892
140)	1,2-Diethylbenzene	(4)	13.469	119	191513	10.157
142)	1,2-Dibromo-3-chloropropane	(4)	13.992	75	32913	9.082
144)	1,3,5-Trichlorobenzene	(4)	14.126	180	134976	9.645
146)	1,2,4-Trichlorobenzene	(4)	14.546	180	127390	9.662
147)	Hexachlorobutadiene	(4)	14.631	225	56351	9.597
148)	Naphthalene	(4)	14.728	128	478924	9.998
149)	1,2,3-Trichlorobenzene	(4)	14.874	180	123175	9.741
150)	2-Methylnaphthalene	(4)	15.519	142	264693	9.940

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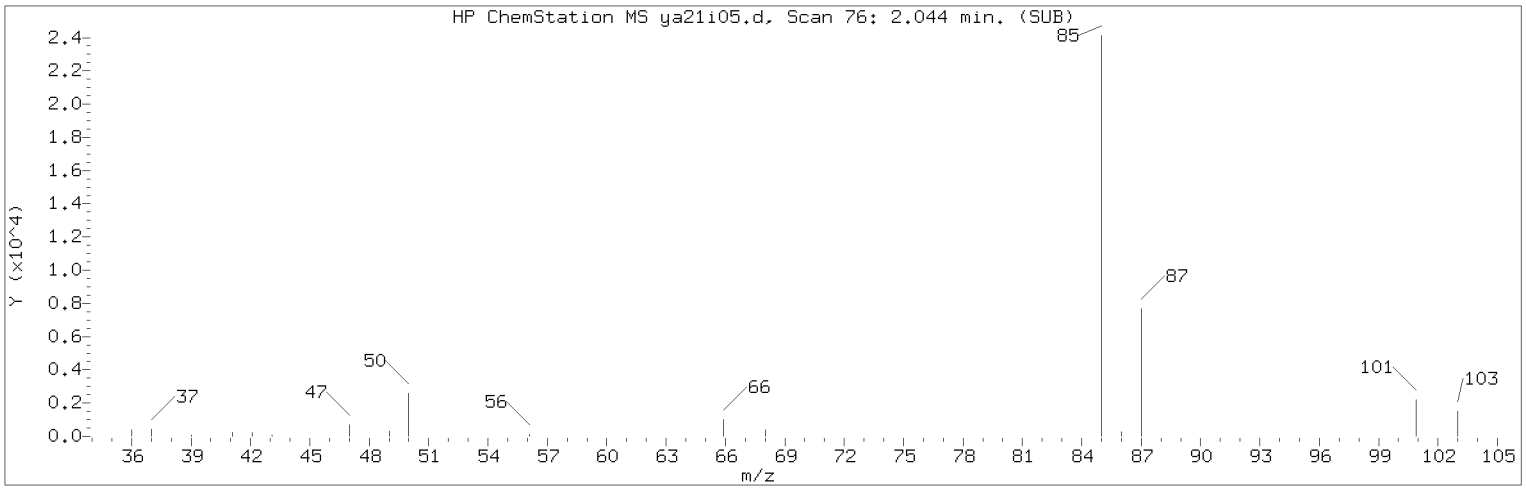
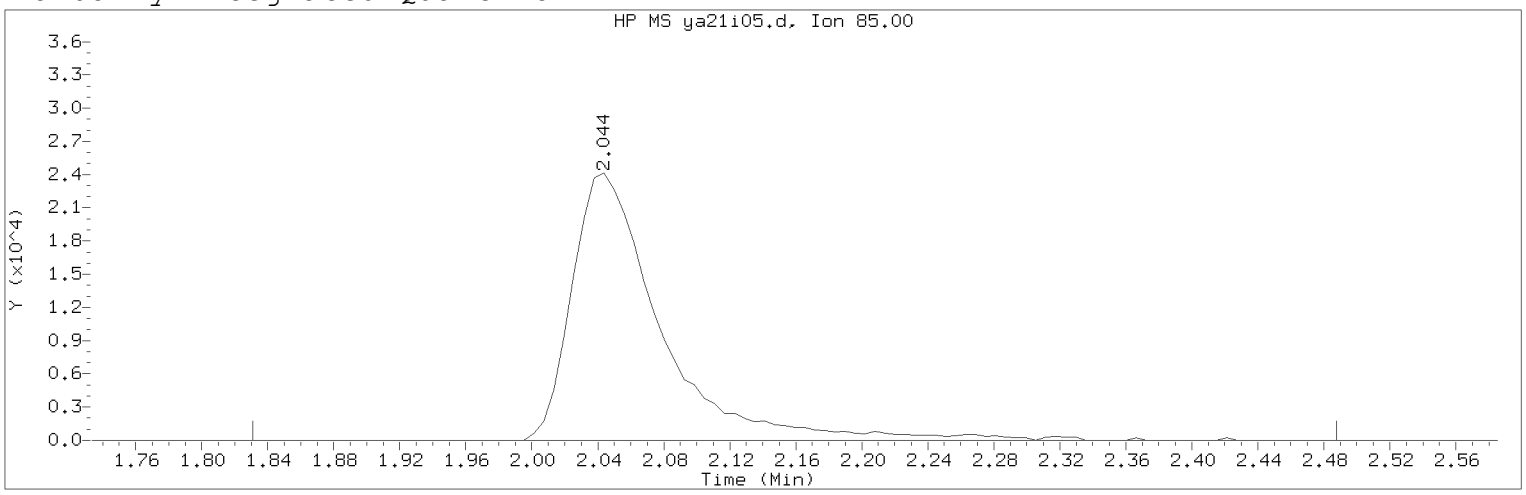
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

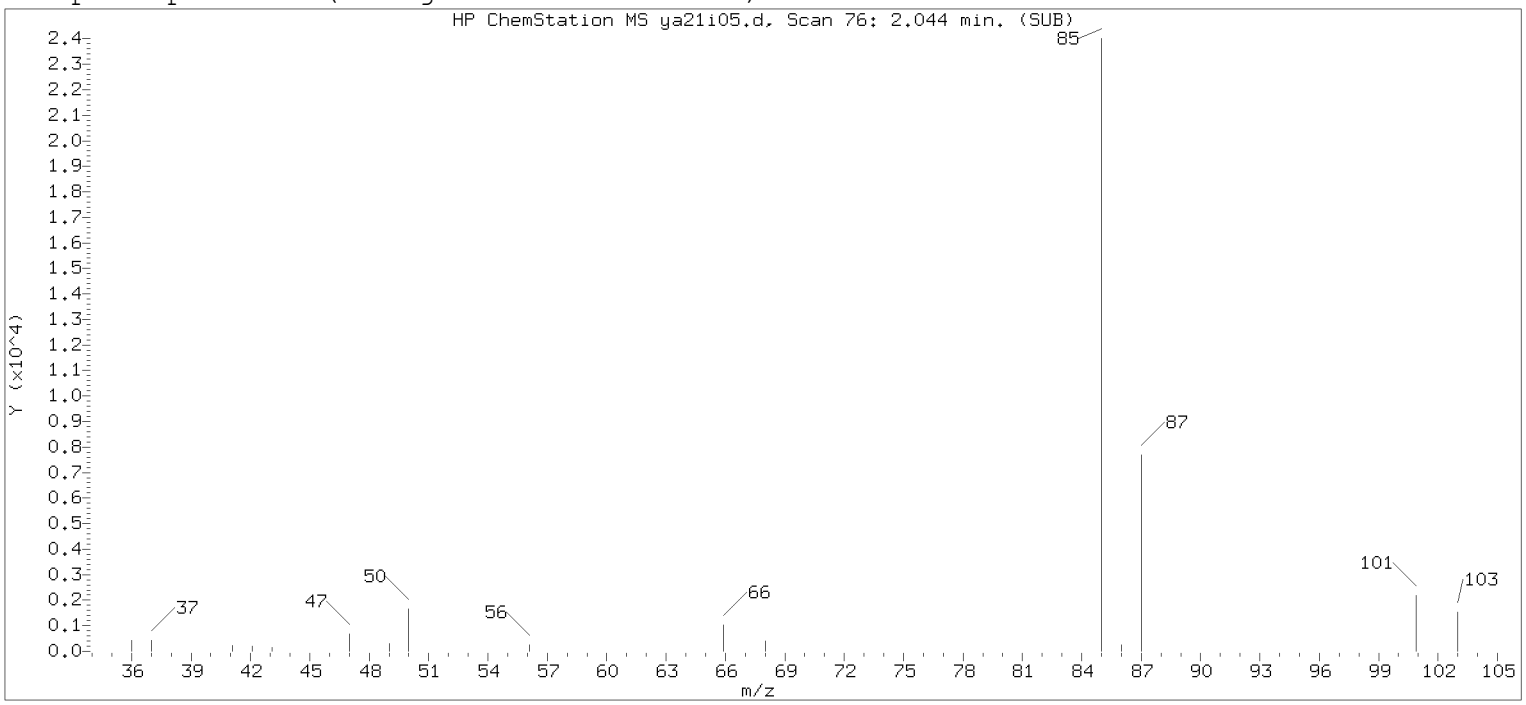
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 90631M
On-Column Amount (ng) : 10.0868
Integration start scan : 40 Integration stop scan: 148
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

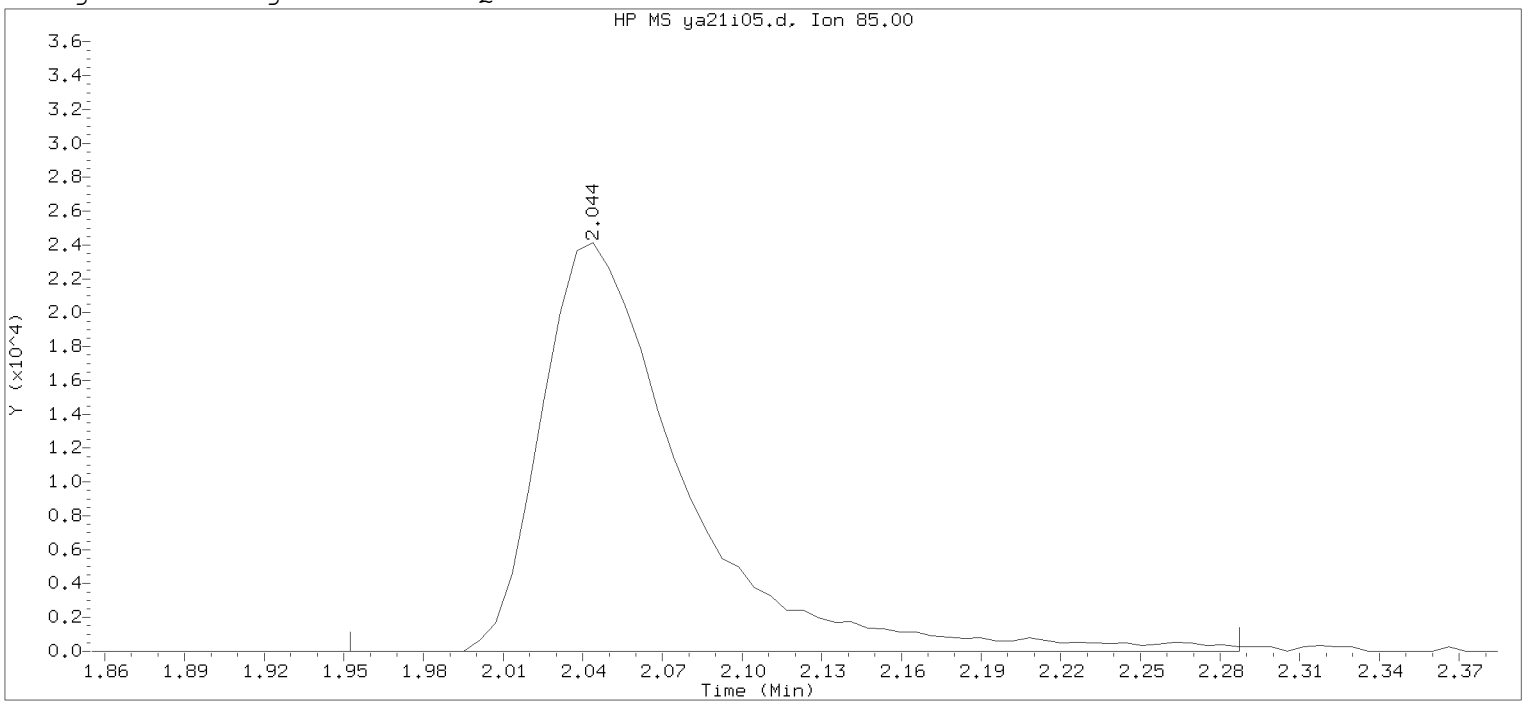
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

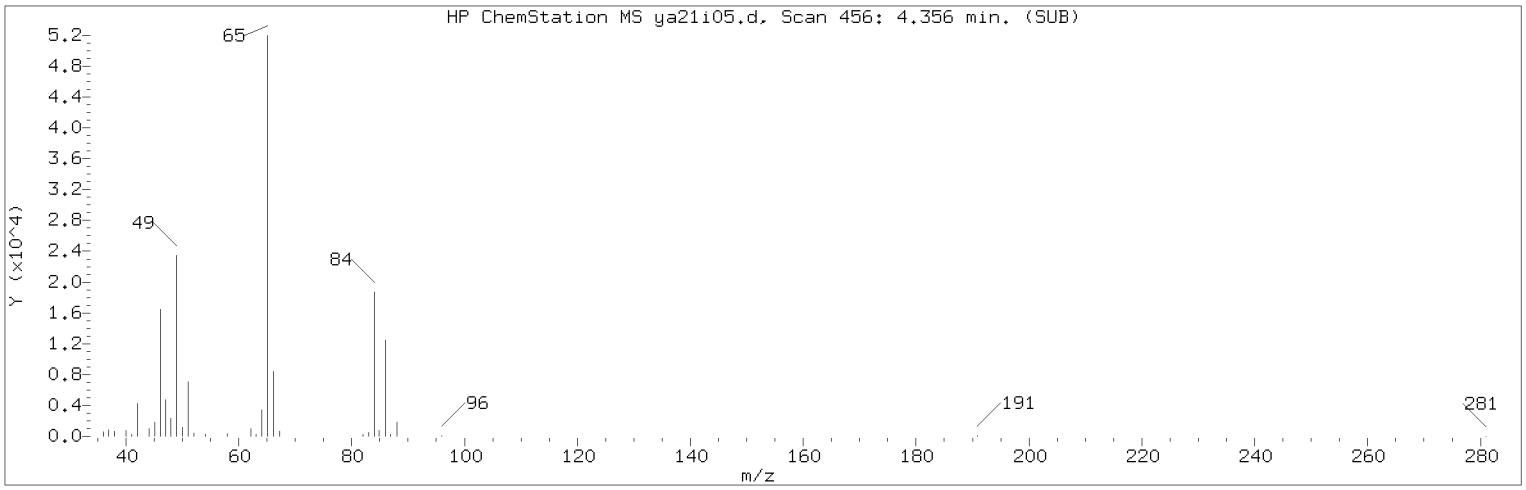
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

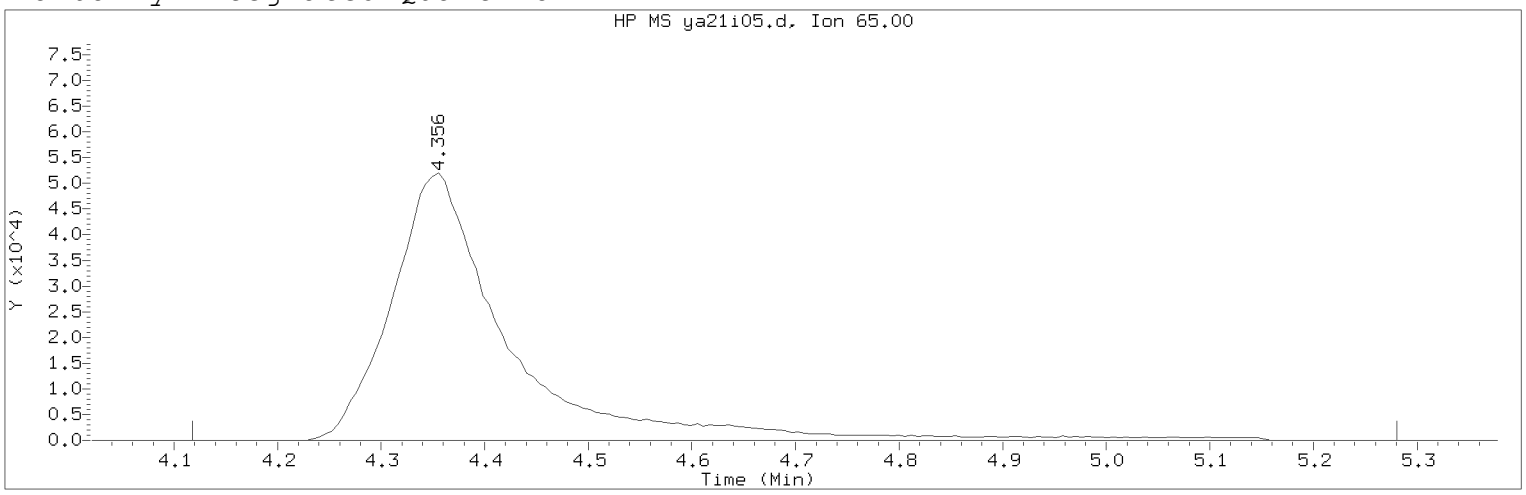
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 89786
On-column Amount (ng) : 10.6664
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

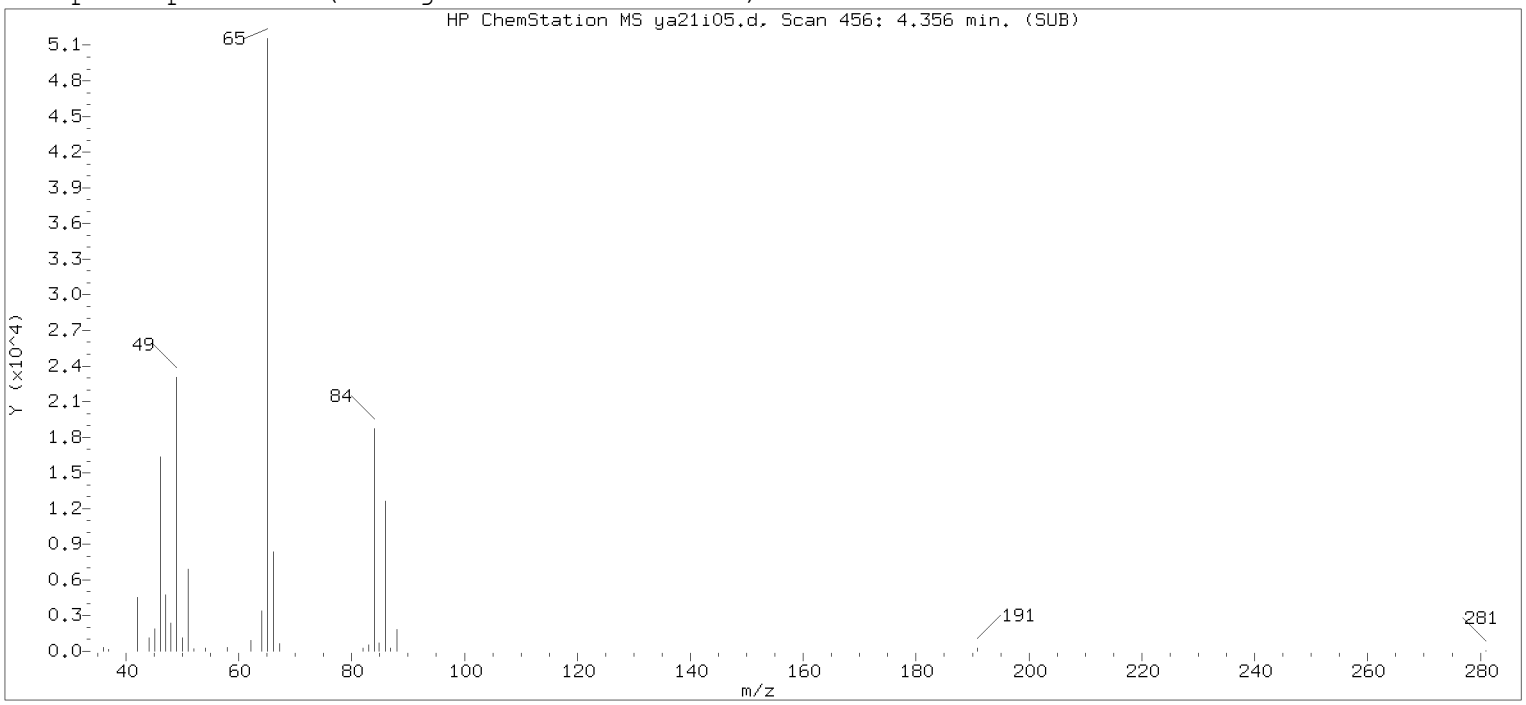
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.356
Quant Ion : 65.00
Area (flag) : 407507M
On-Column Amount (ng) : 250.0000
Integration start scan : 416 Integration stop scan: 607
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

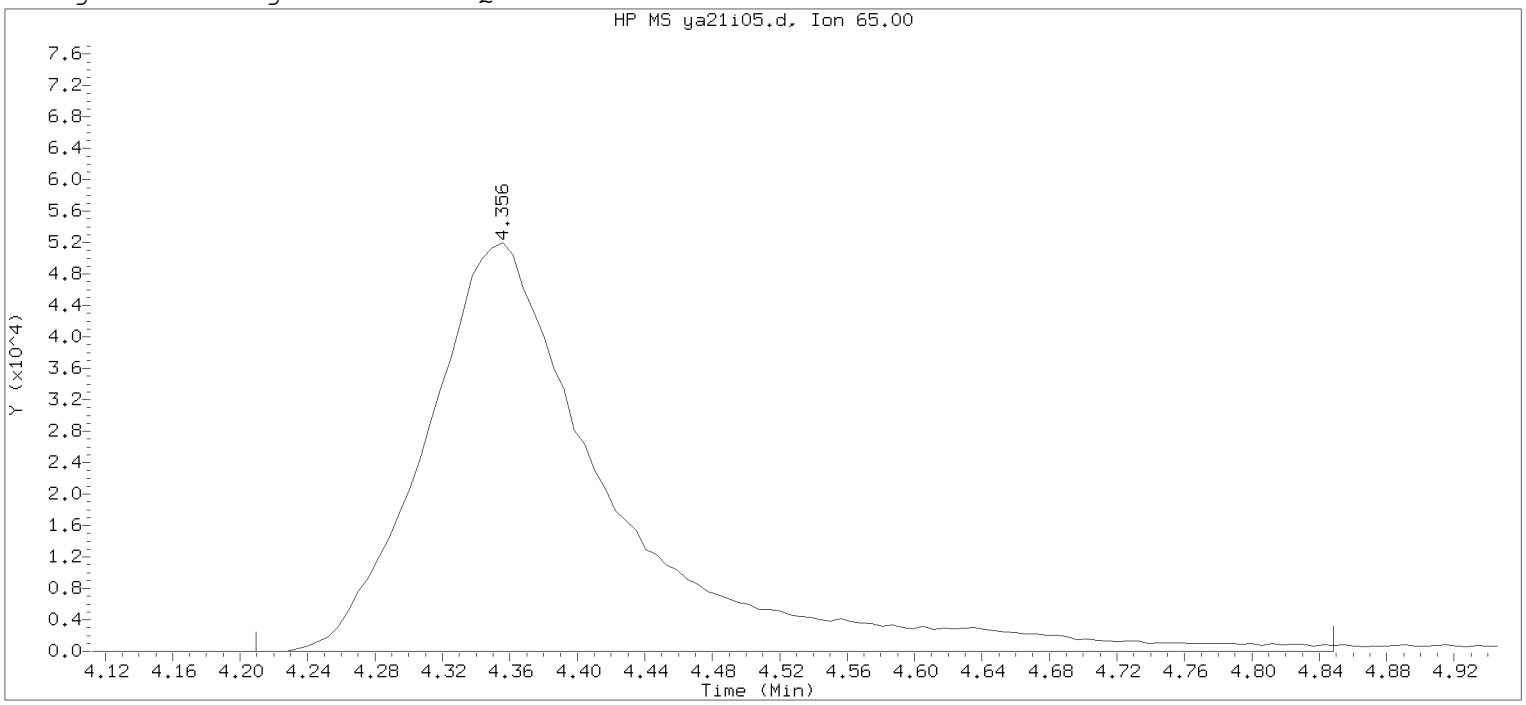
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

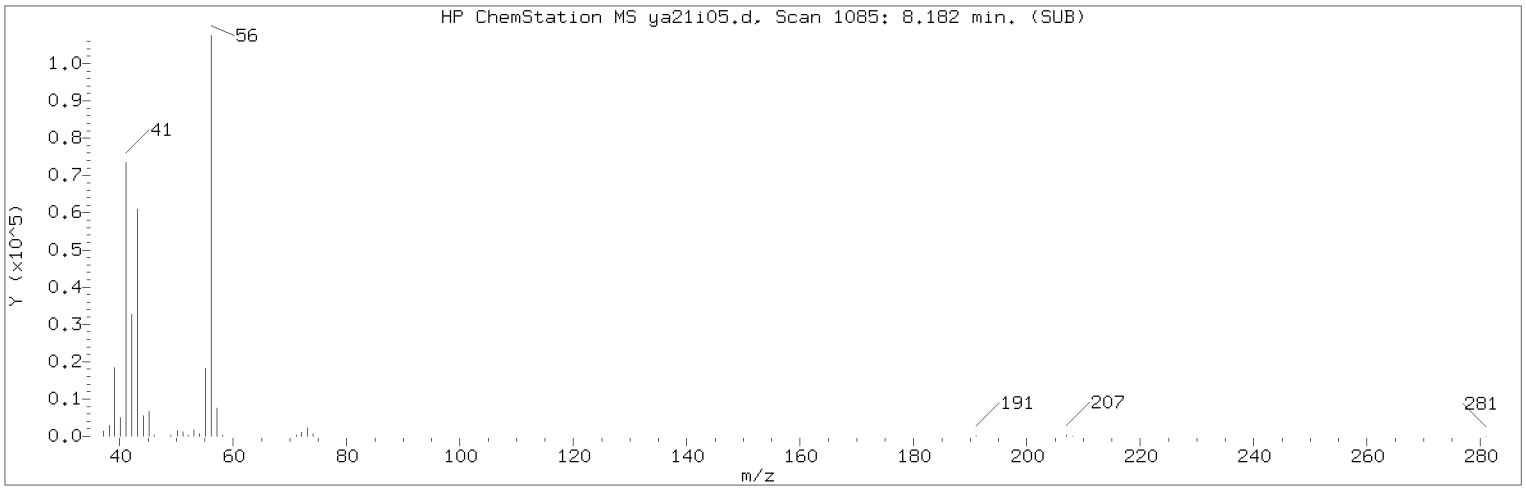
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

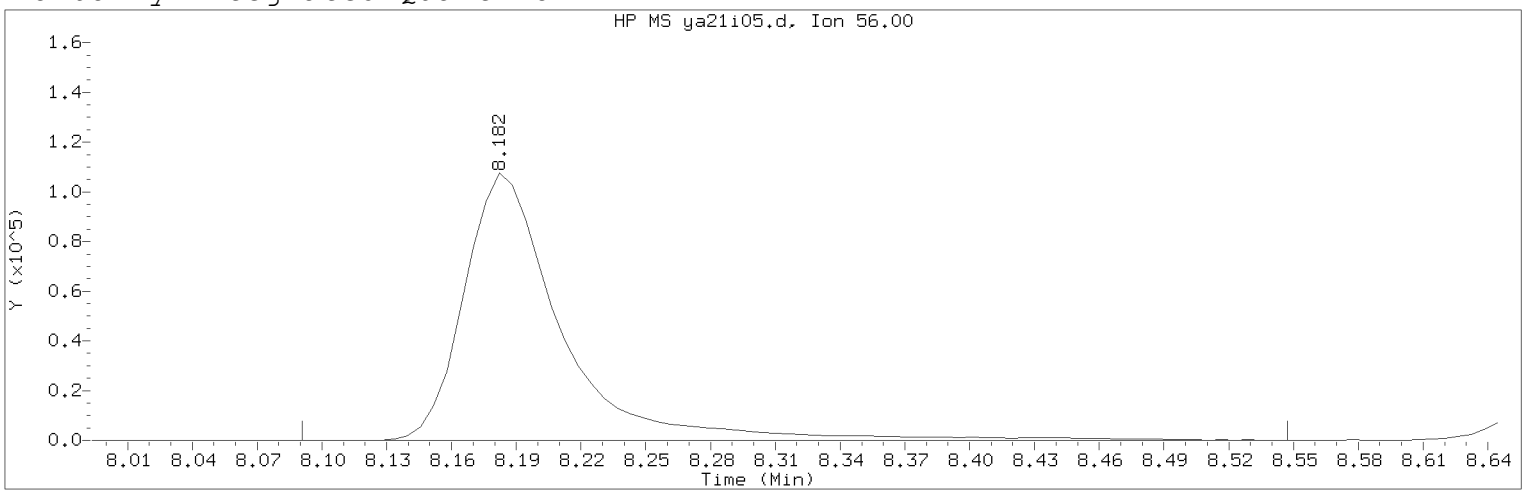
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.356
Quant Ion : 65.00
Area : 396599
On-column Amount (ng) : 250.0000
Integration start scan : 431 Integration stop scan: 536
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

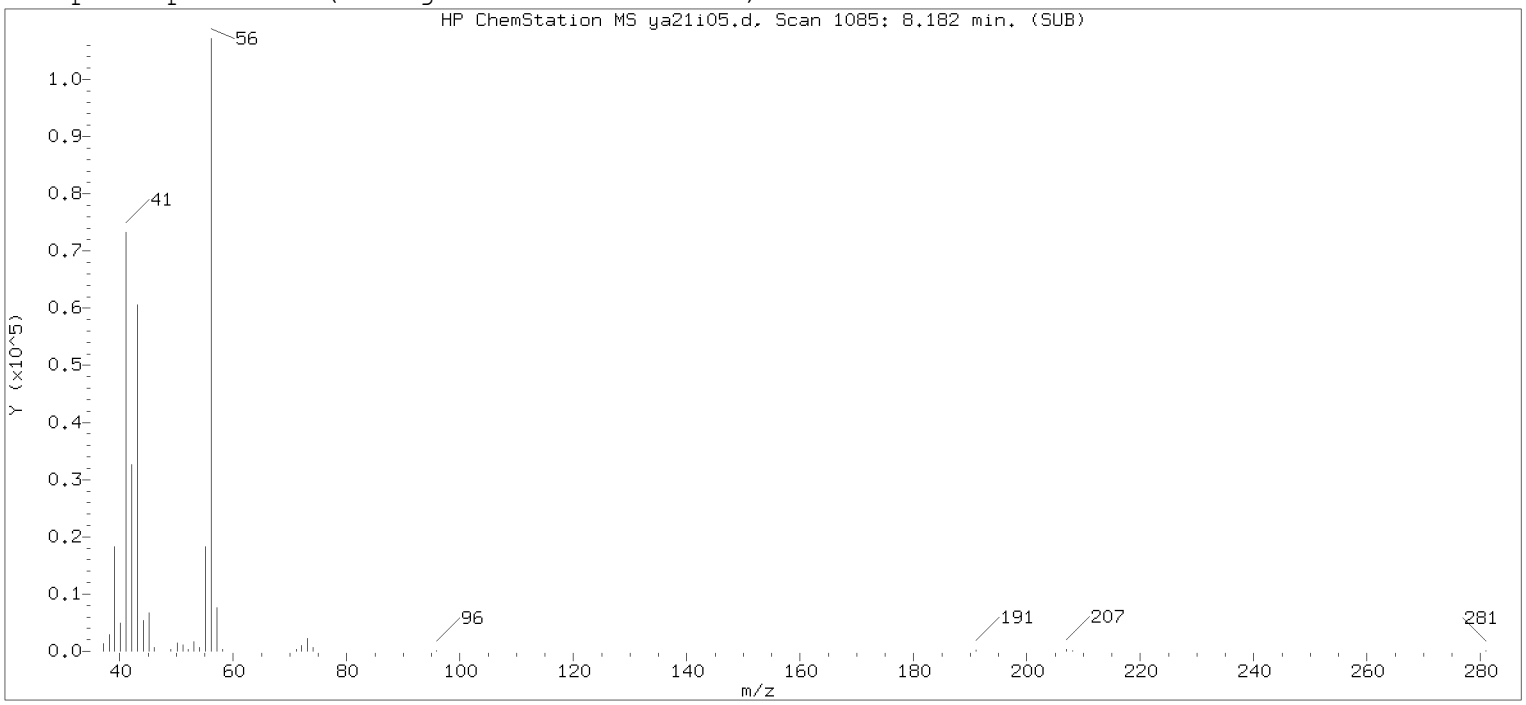
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area (flag) : 337962M
On-Column Amount (ng) : 479.0304
Integration start scan : 1069 Integration stop scan: 1144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

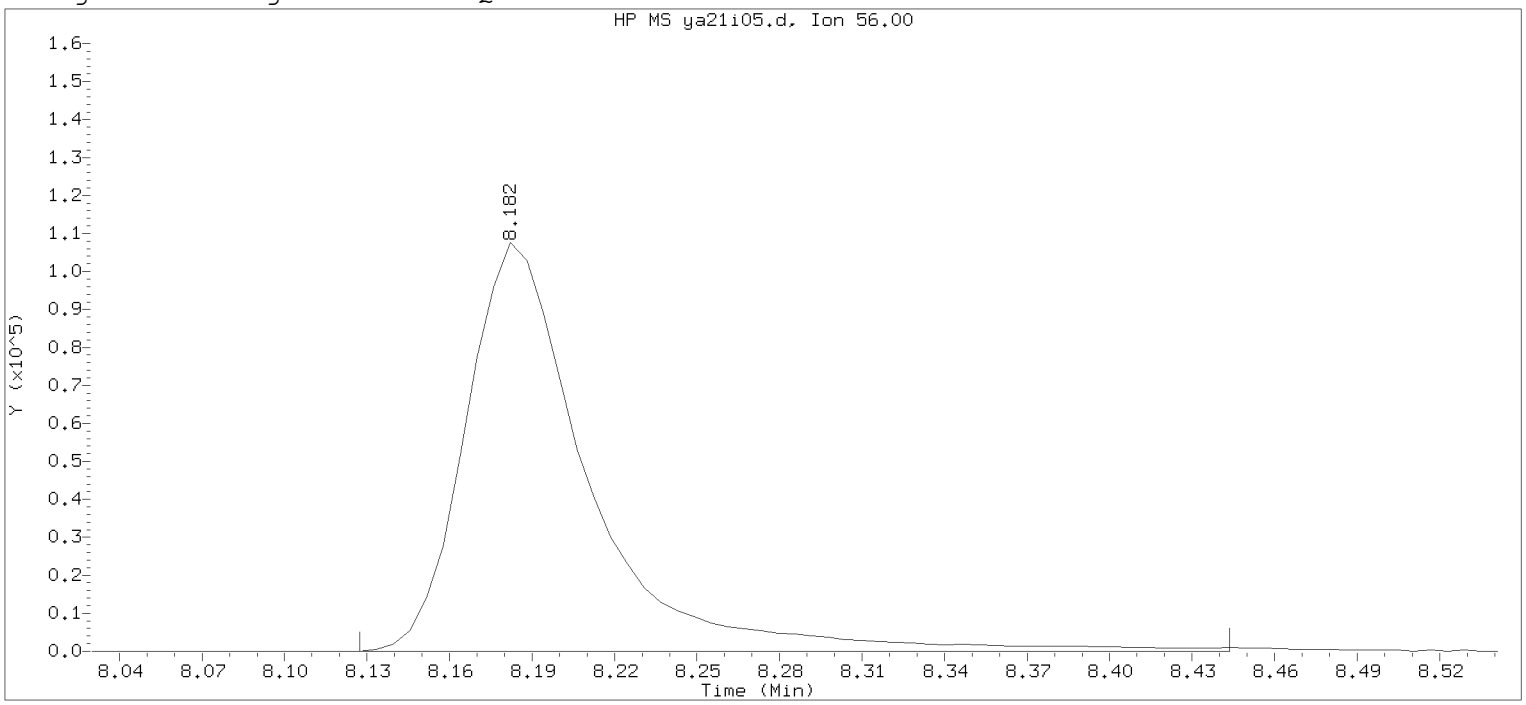
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

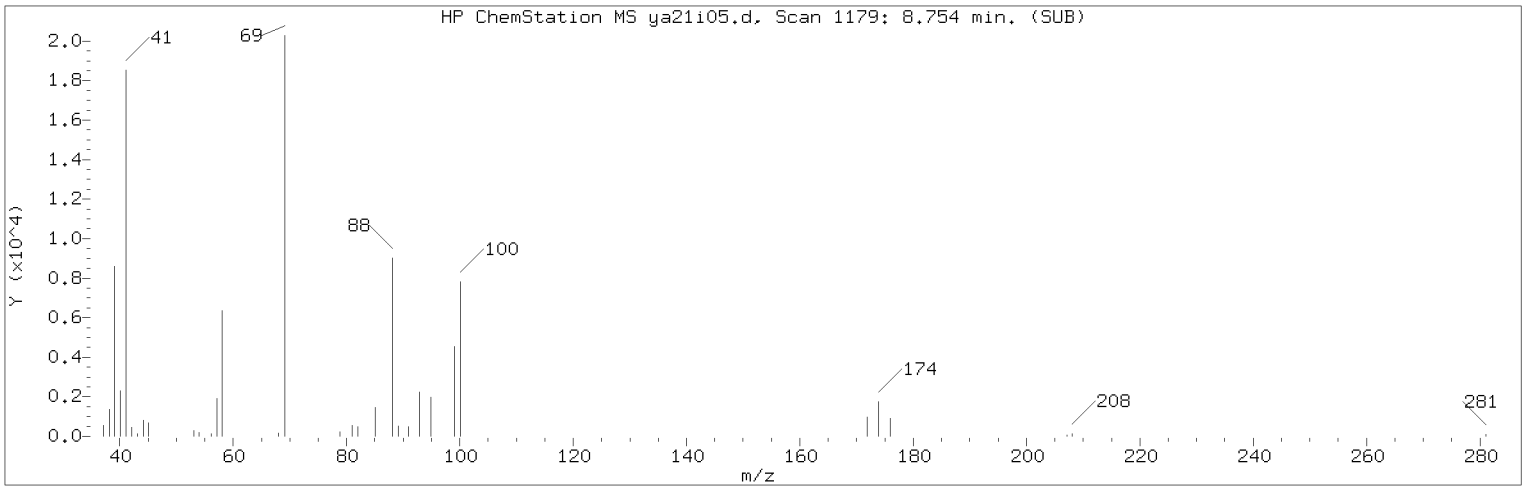
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

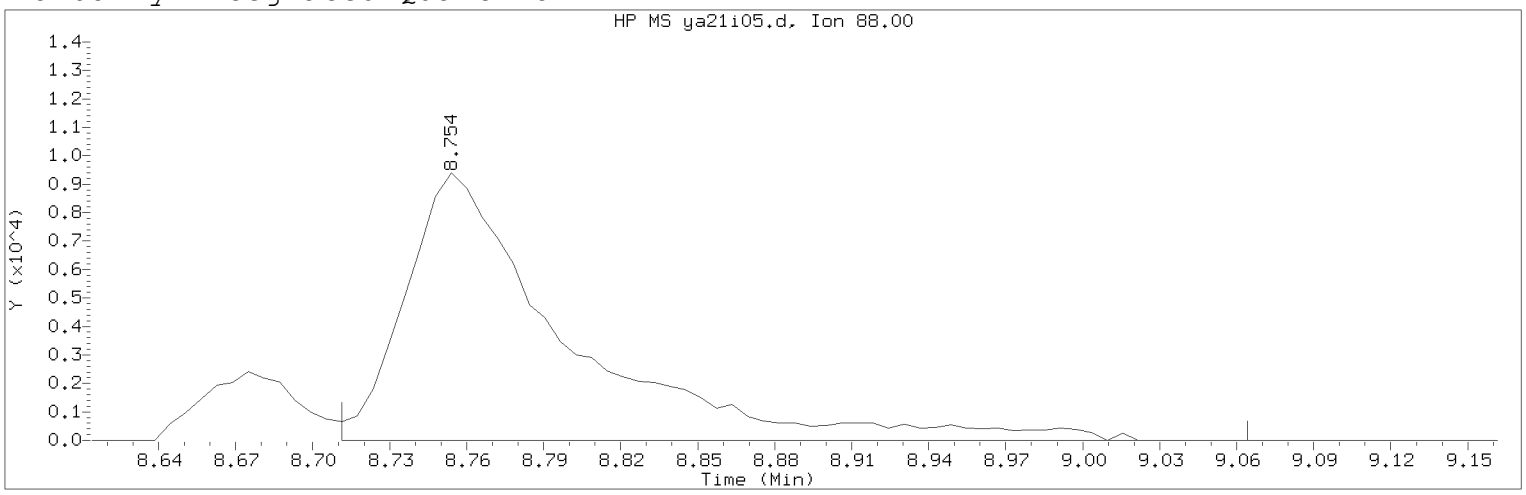
Compound Number : 69
Compound Name : n-Butanol
Scan Number : 1085
Retention Time (minutes): 8.182
Quant Ion : 56.00
Area : 335737
On-column Amount (ng) : 543.0931
Integration start scan : 1075 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

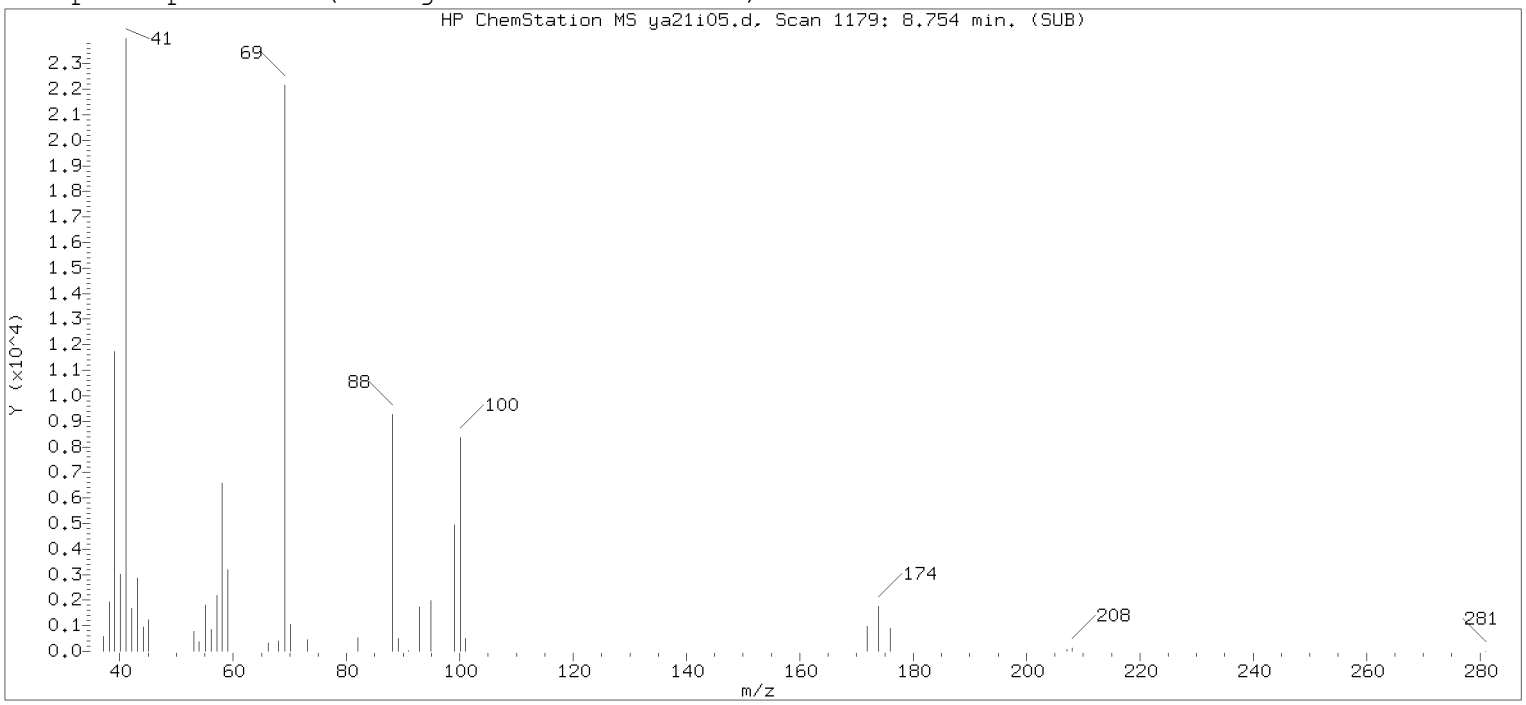
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 41144M
On-Column Amount (ng) : 242.0425
Integration start scan : 1171 Integration stop scan: 1229
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

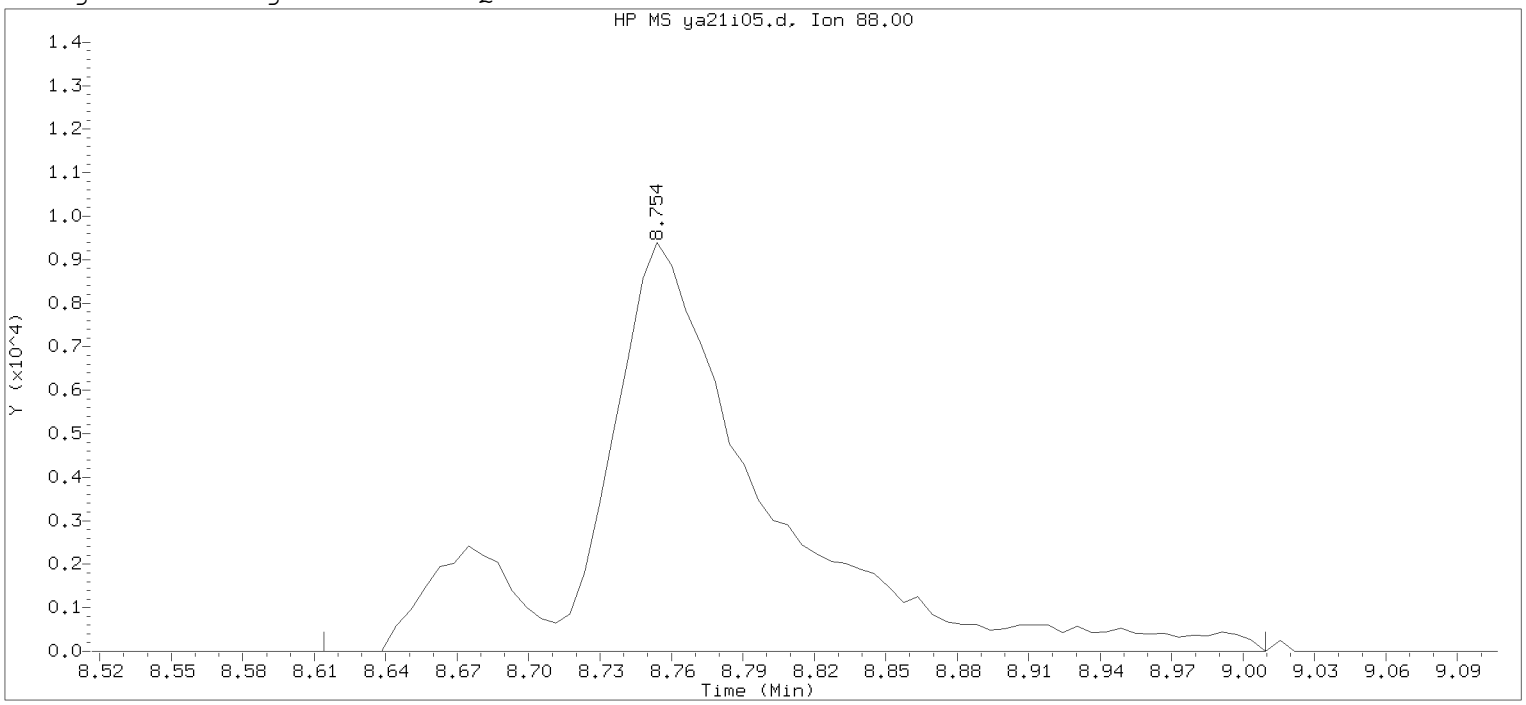
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

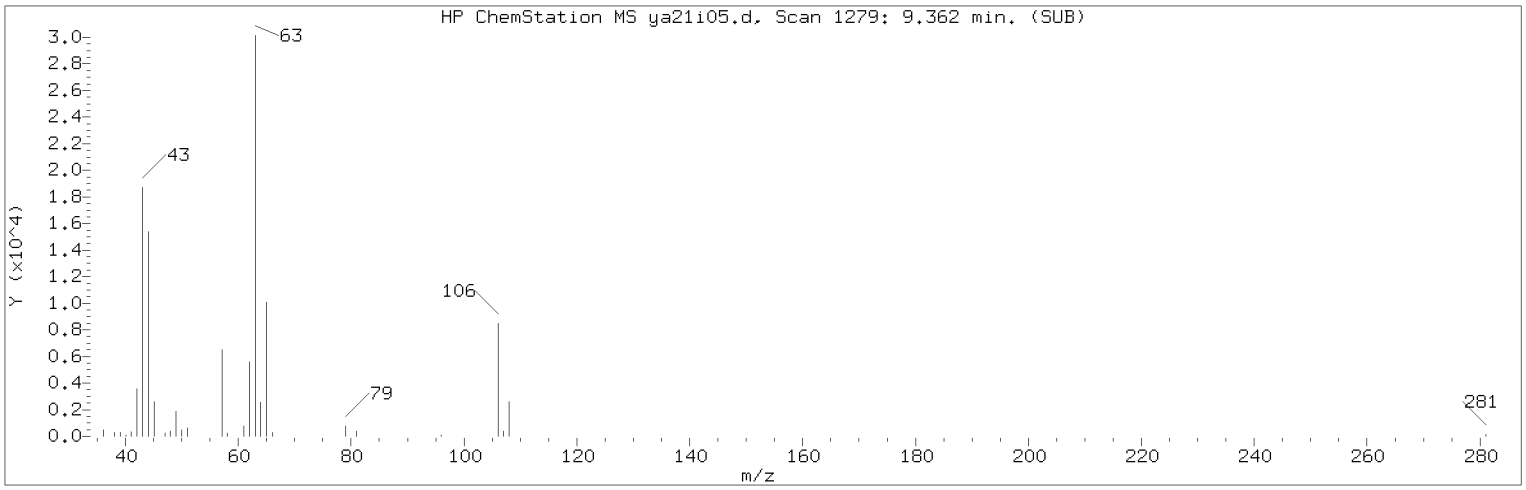
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

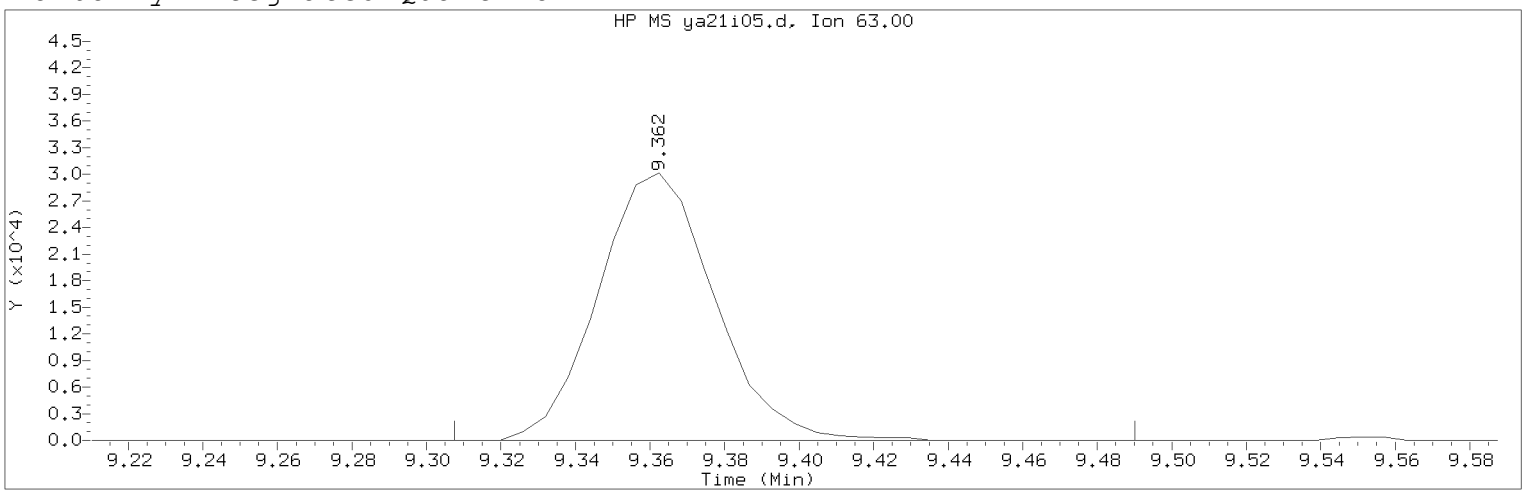
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 47173
On-column Amount (ng) : 249.3585
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKHowe0446

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

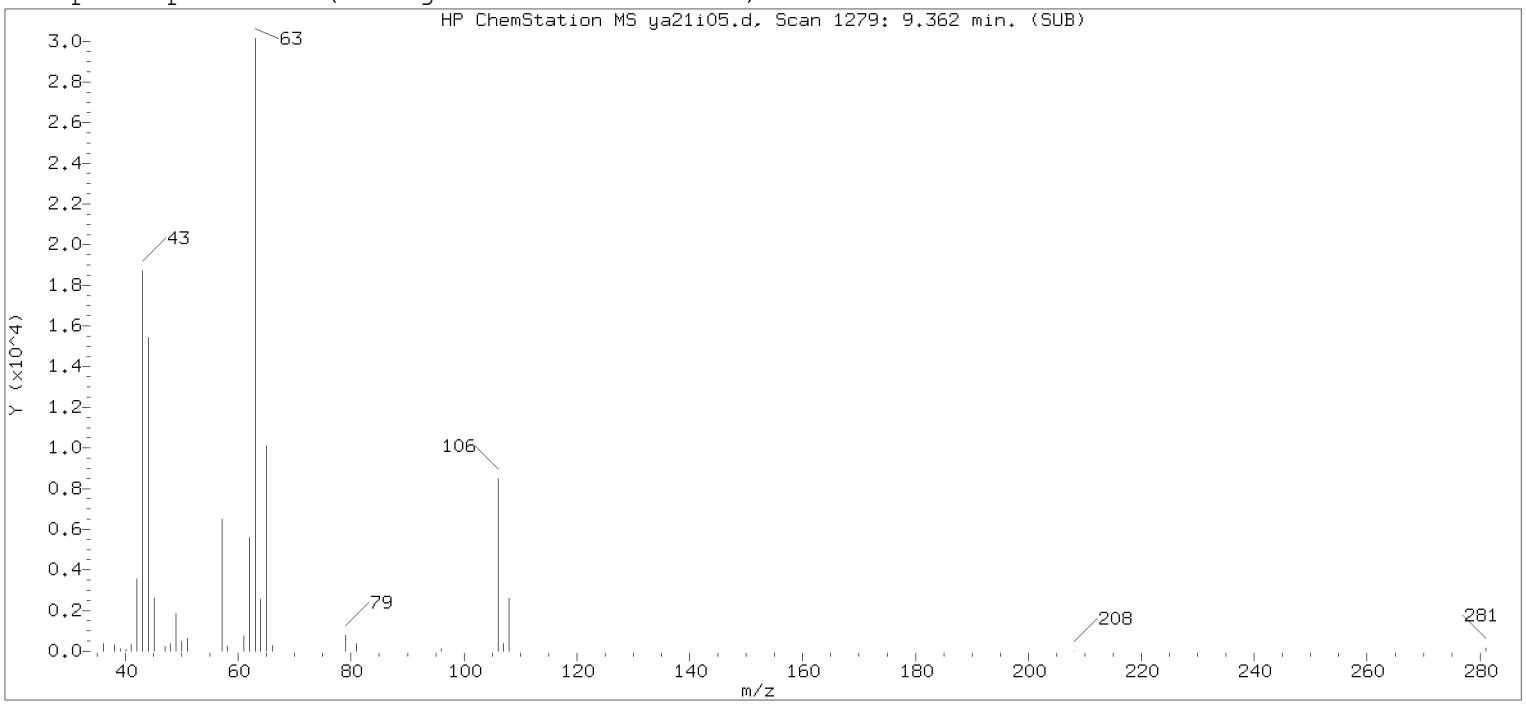
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1279
Retention Time (minutes): 9.362
Quant Ion : 63.00
Area (flag) : 65168M
On-Column Amount (ng) : 9.2156
Integration start scan : 1269 Integration stop scan: 1299
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

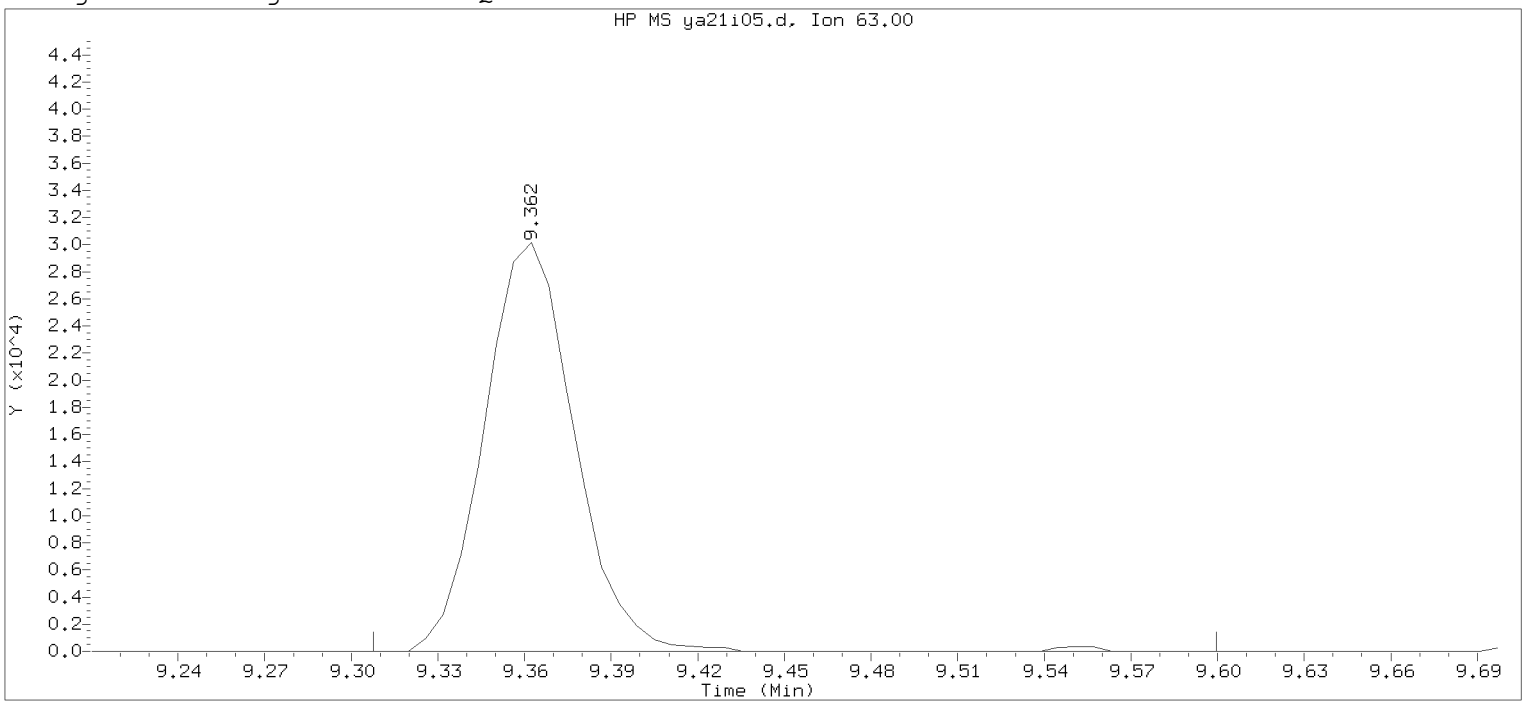
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

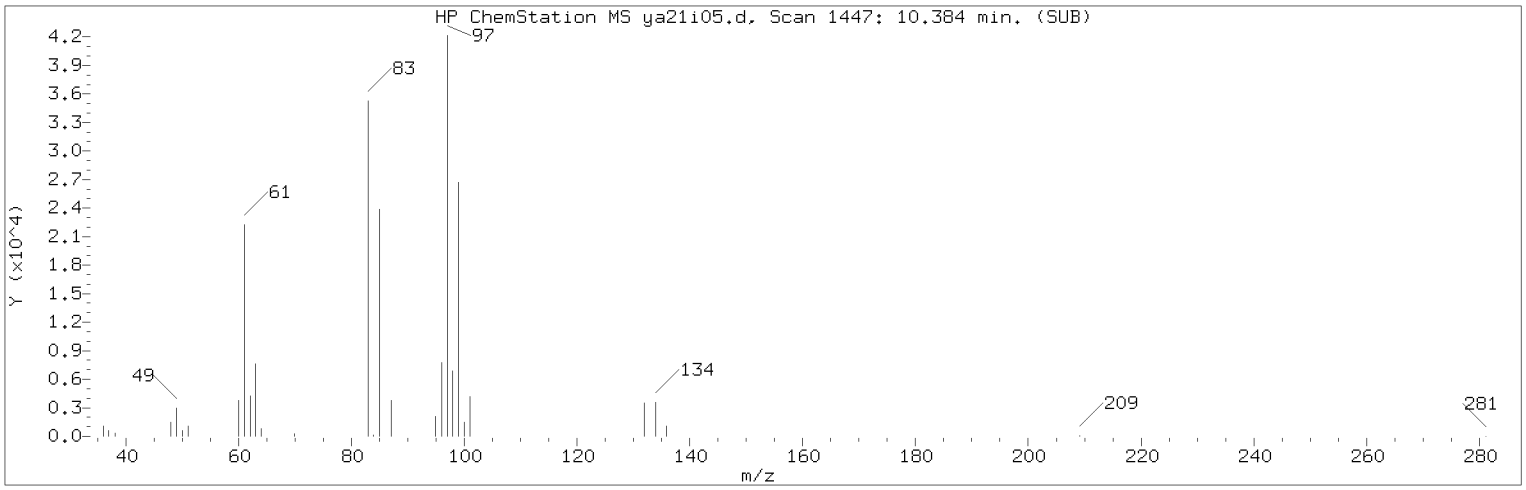
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

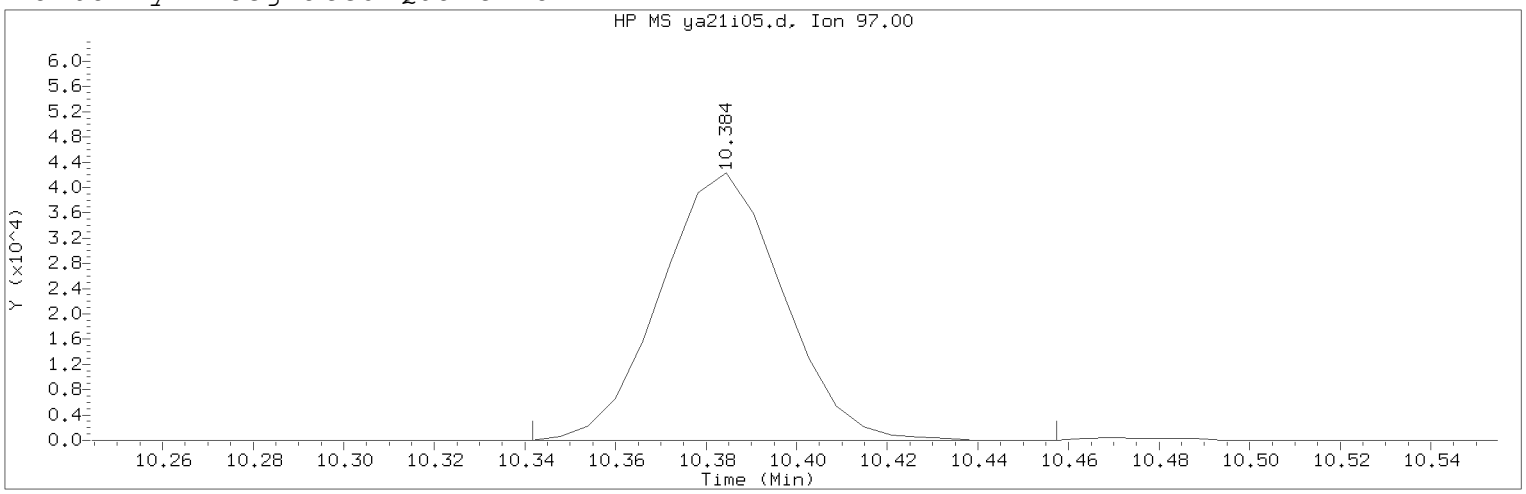
Compound Number : 80
Compound Name : 2-Chloroethyl Vinyl Ether
Scan Number : 1279
Retention Time (minutes): 9.362
Quant Ion : 63.00
Area : 65528
On-column Amount (ng) : 9.8446
Integration start scan : 1269 Integration stop scan: 1317
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

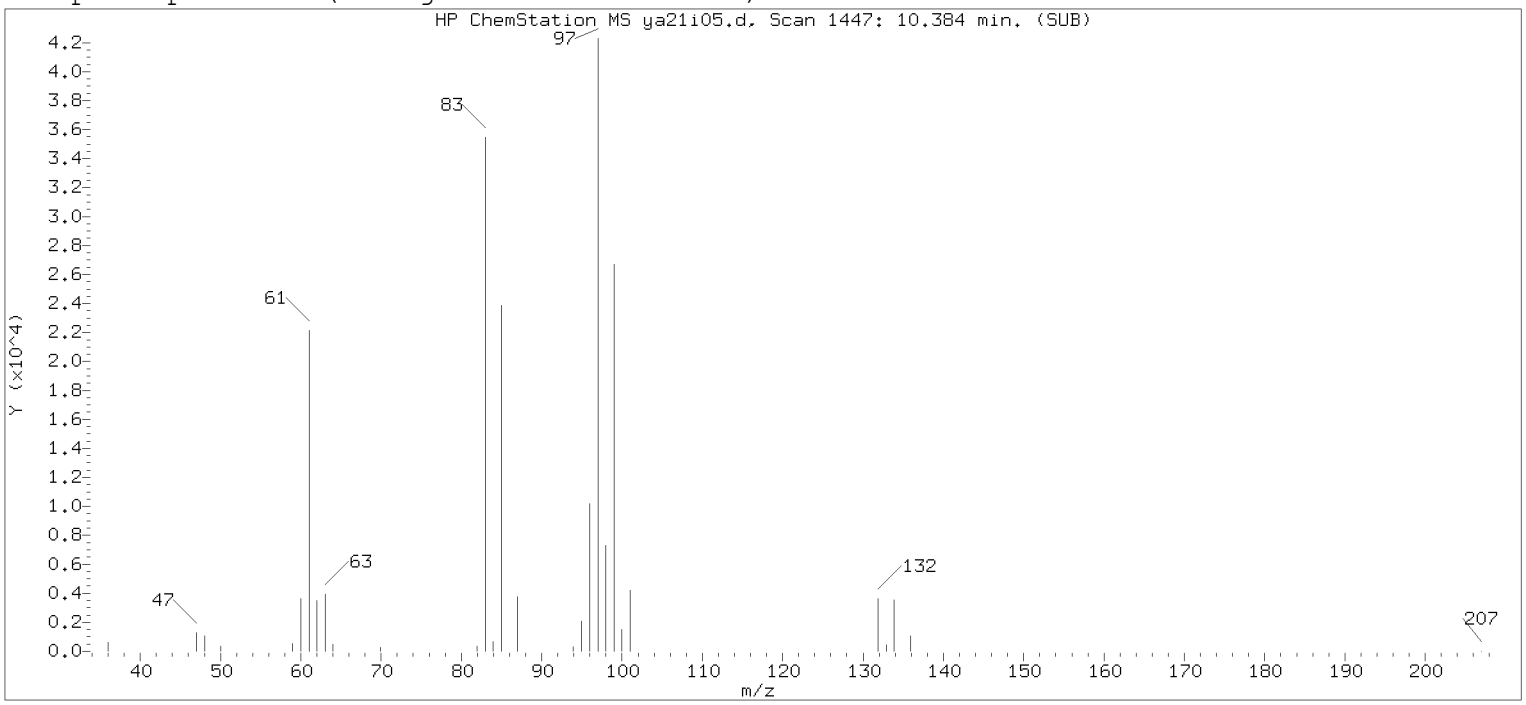
Compound Number : 92
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1447
Retention Time (minutes): 10.384
Quant Ion : 97.00
Area (flag) : 79117M
On-Column Amount (ng) : 9.6896
Integration start scan : 1439 Integration stop scan: 1458
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

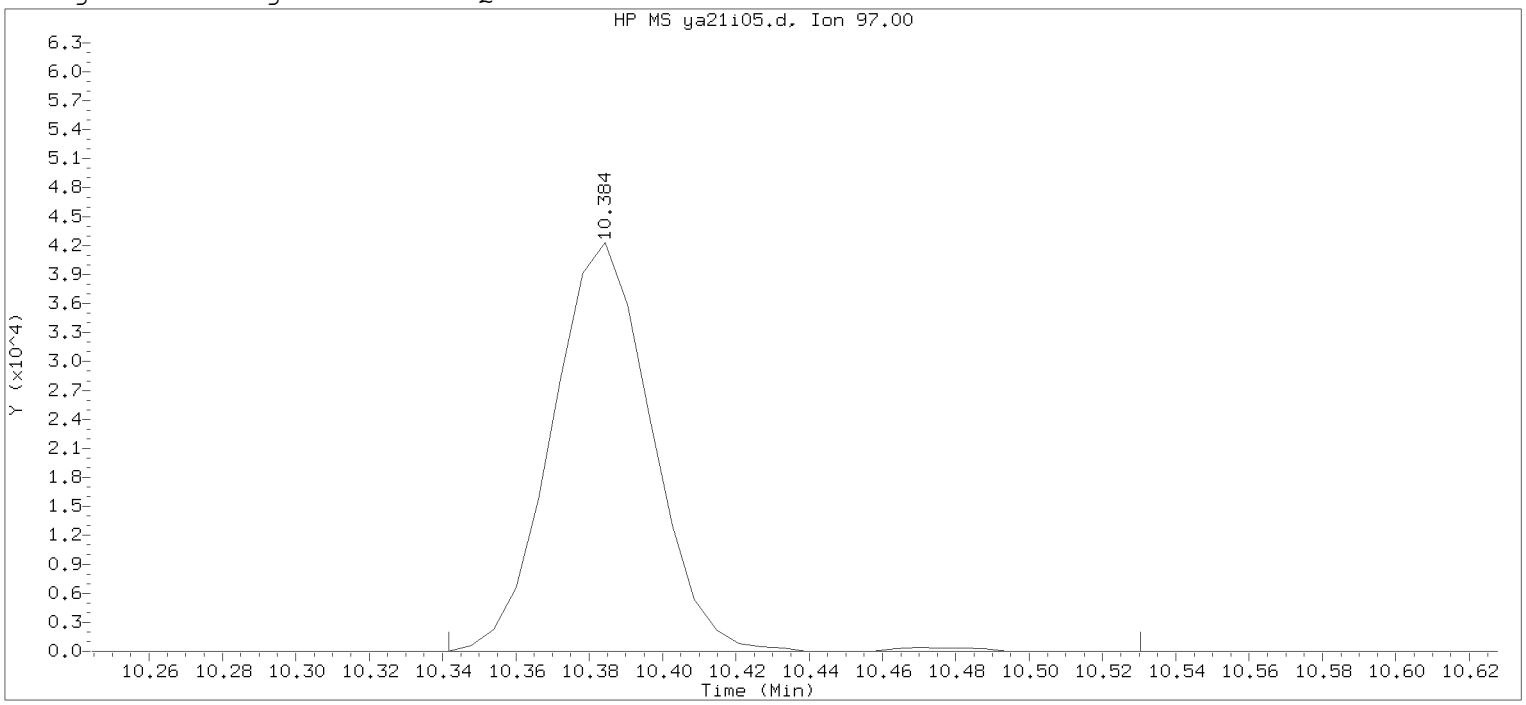
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

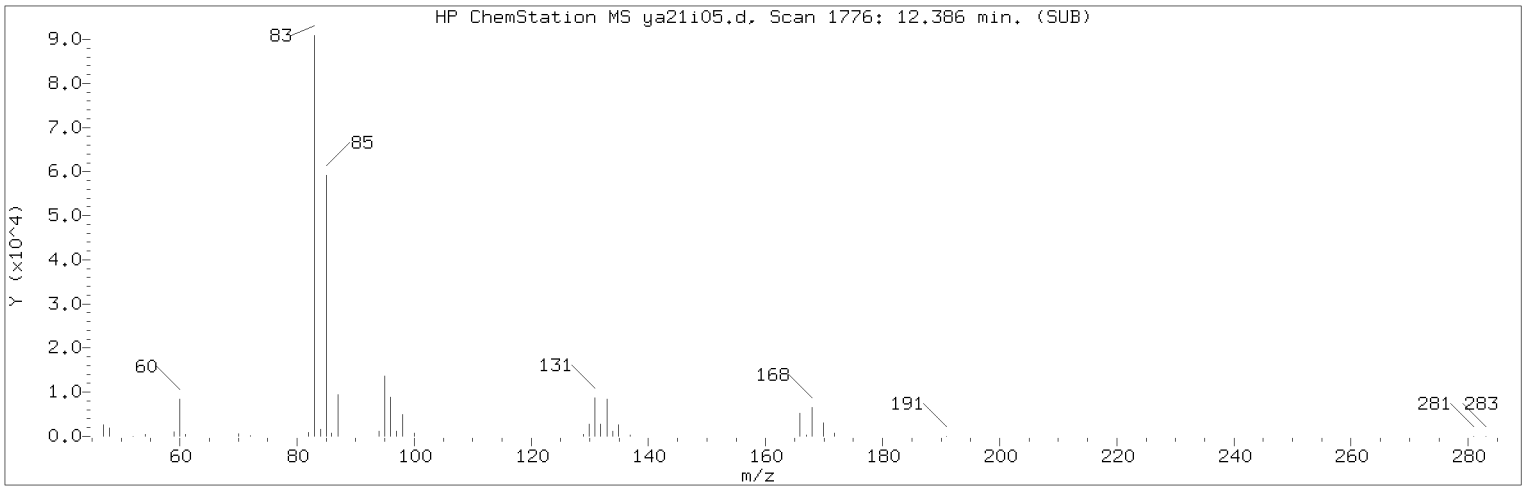
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

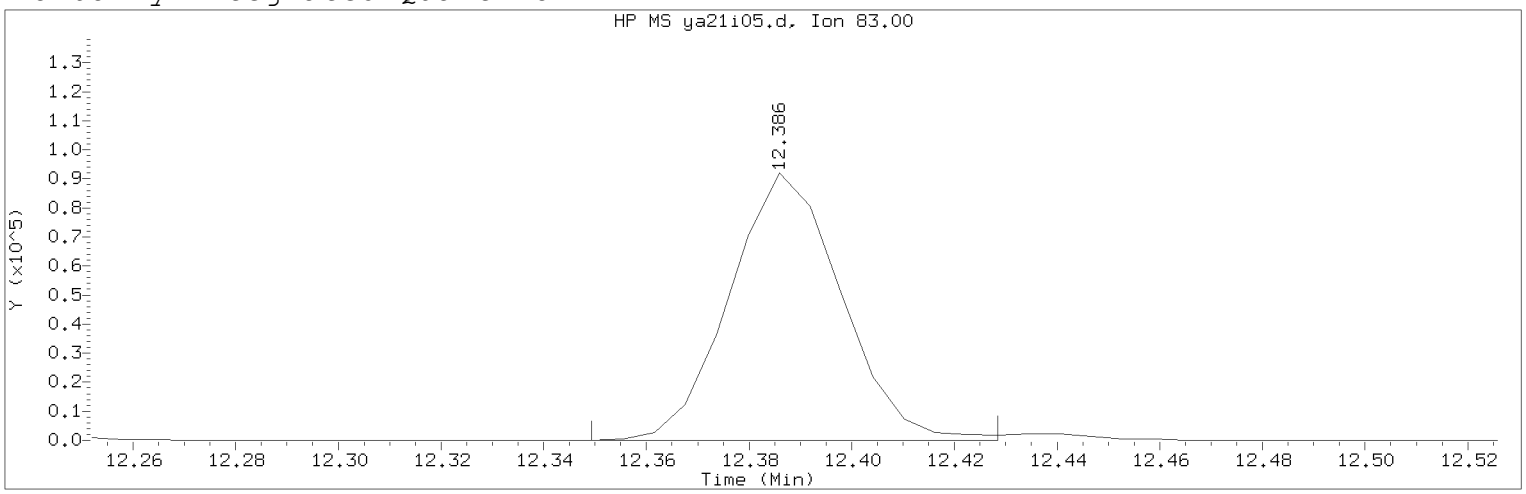
Compound Number : 92
Compound Name : 1,1,2-Trichloroethane
Scan Number : 1447
Retention Time (minutes): 10.384
Quant Ion : 97.00
Area : 79715
On-column Amount (ng) : 9.9555
Integration start scan : 1439 Integration stop scan: 1470
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:04
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

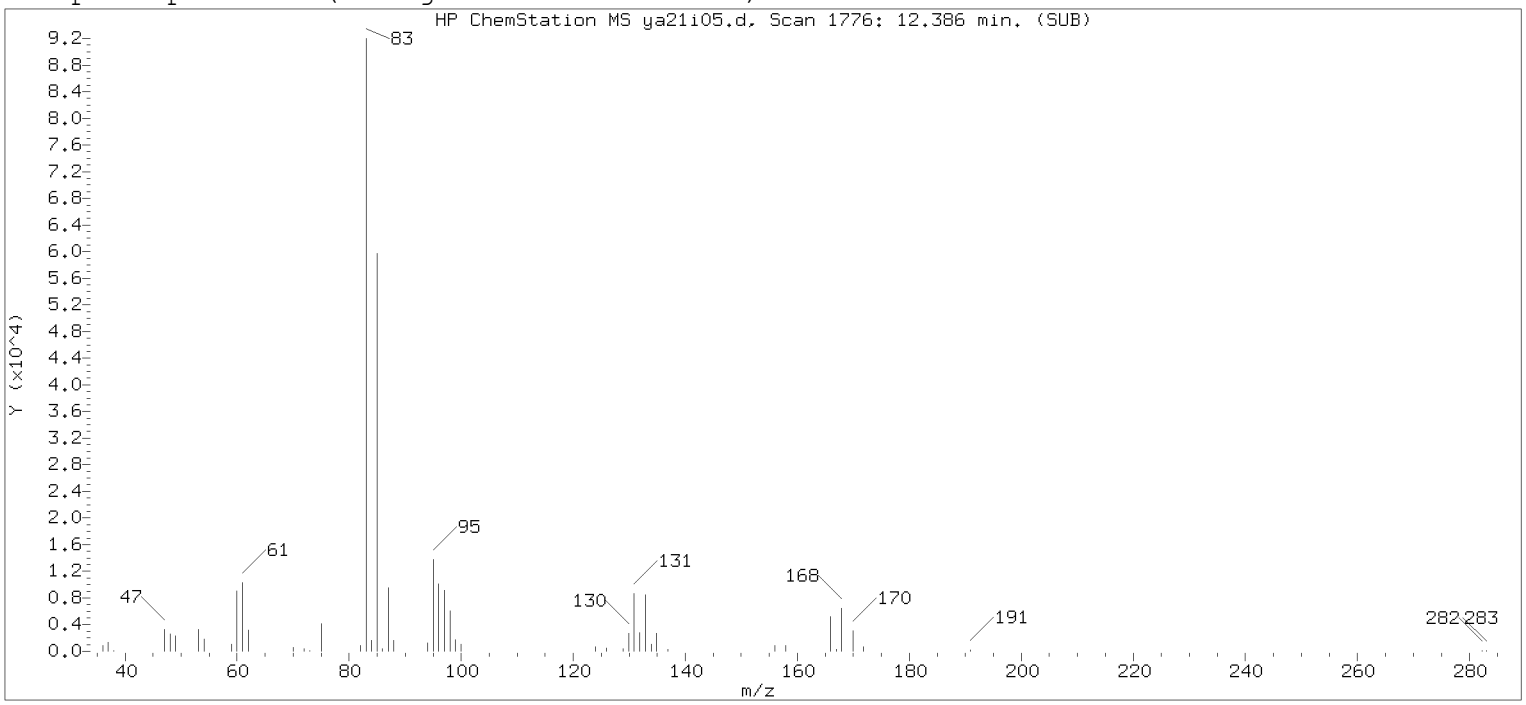
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area (flag) : 138826M
On-Column Amount (ng) : 9.7635
Integration start scan : 1769 Integration stop scan: 1782
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

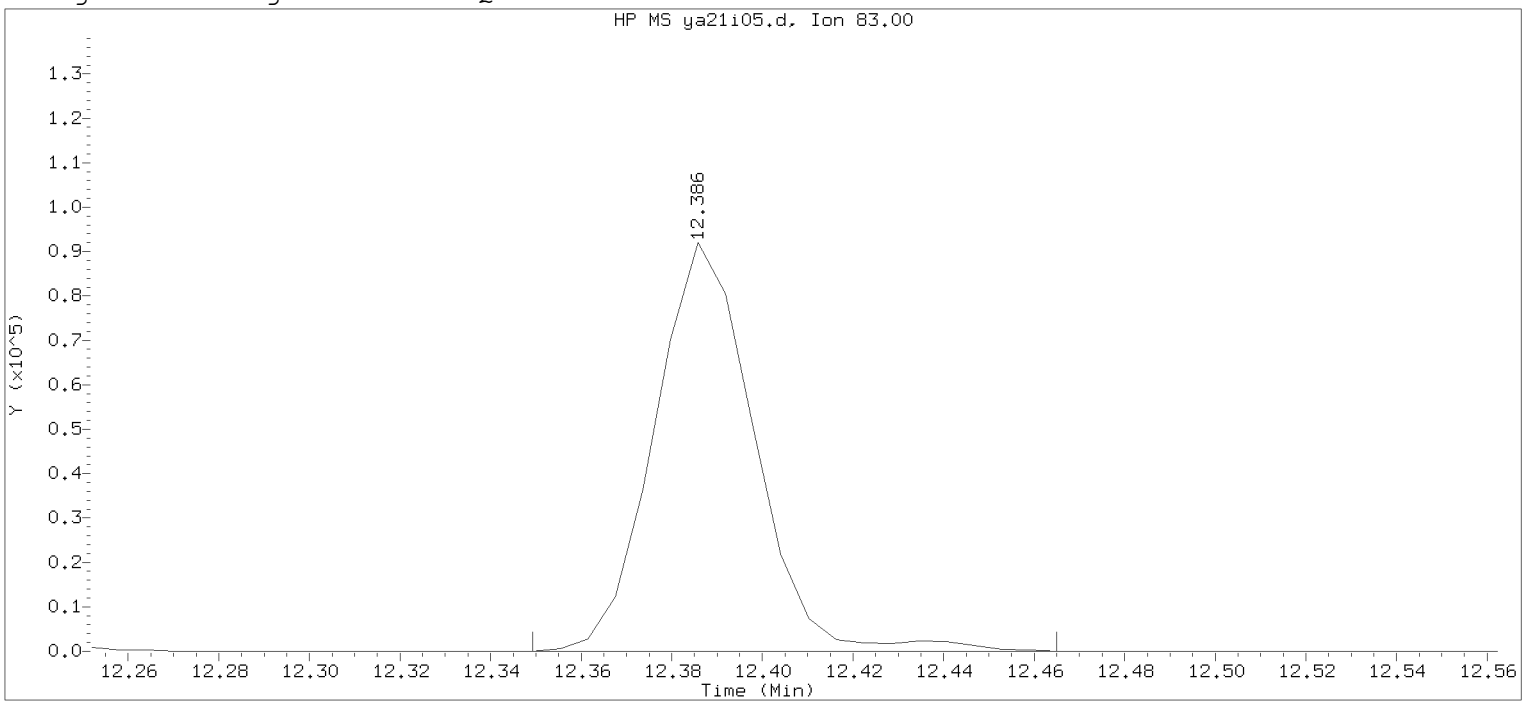
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



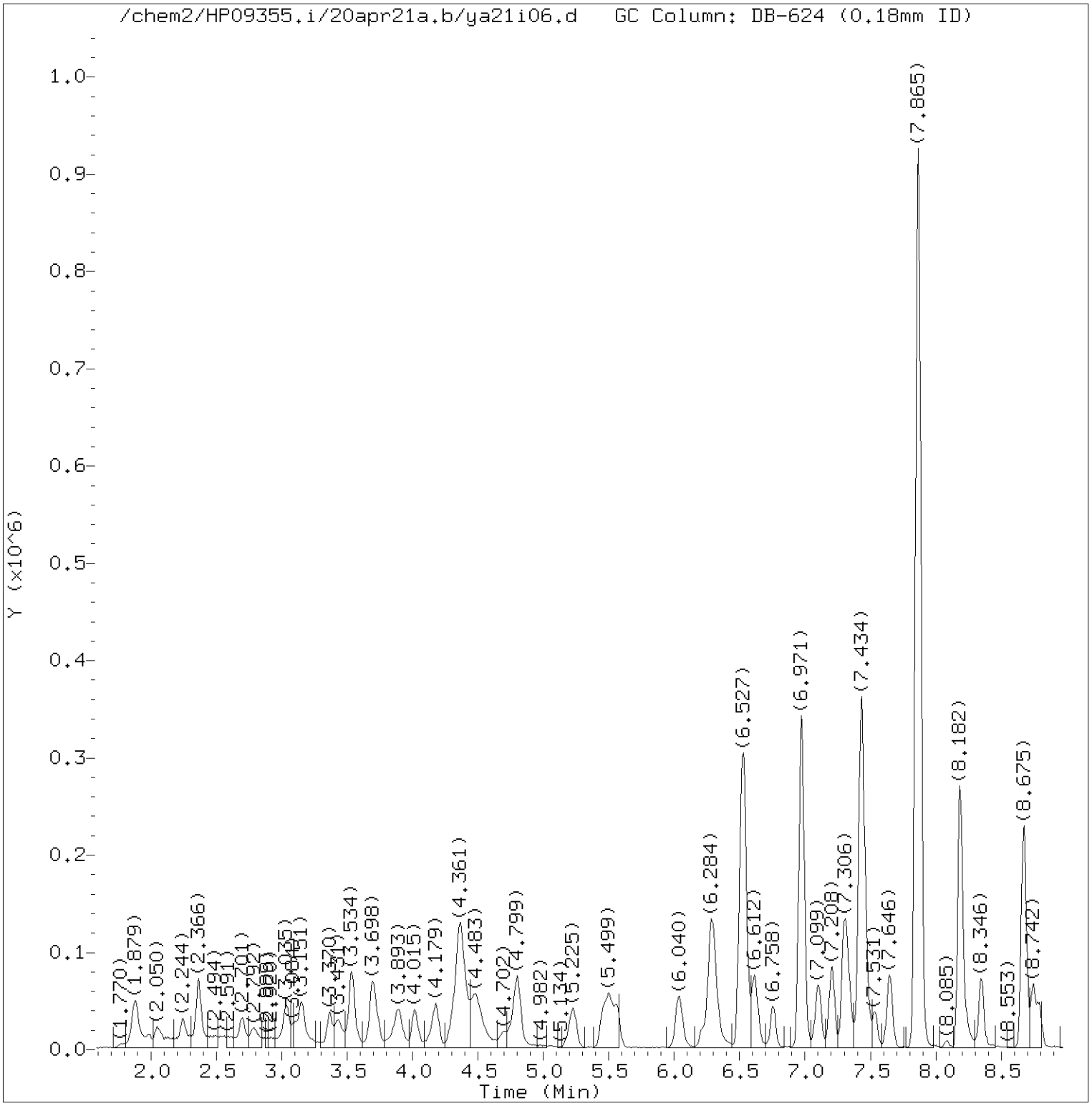
Data File: /chem2/HP09355.i/20apr21a.b/ya21i05.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:22 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 1776
Retention Time (minutes): 12.386
Quant Ion : 83.00
Area : 141197
On-column Amount (ng) : 10.0227
Integration start scan : 1769 Integration stop scan: 1788
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

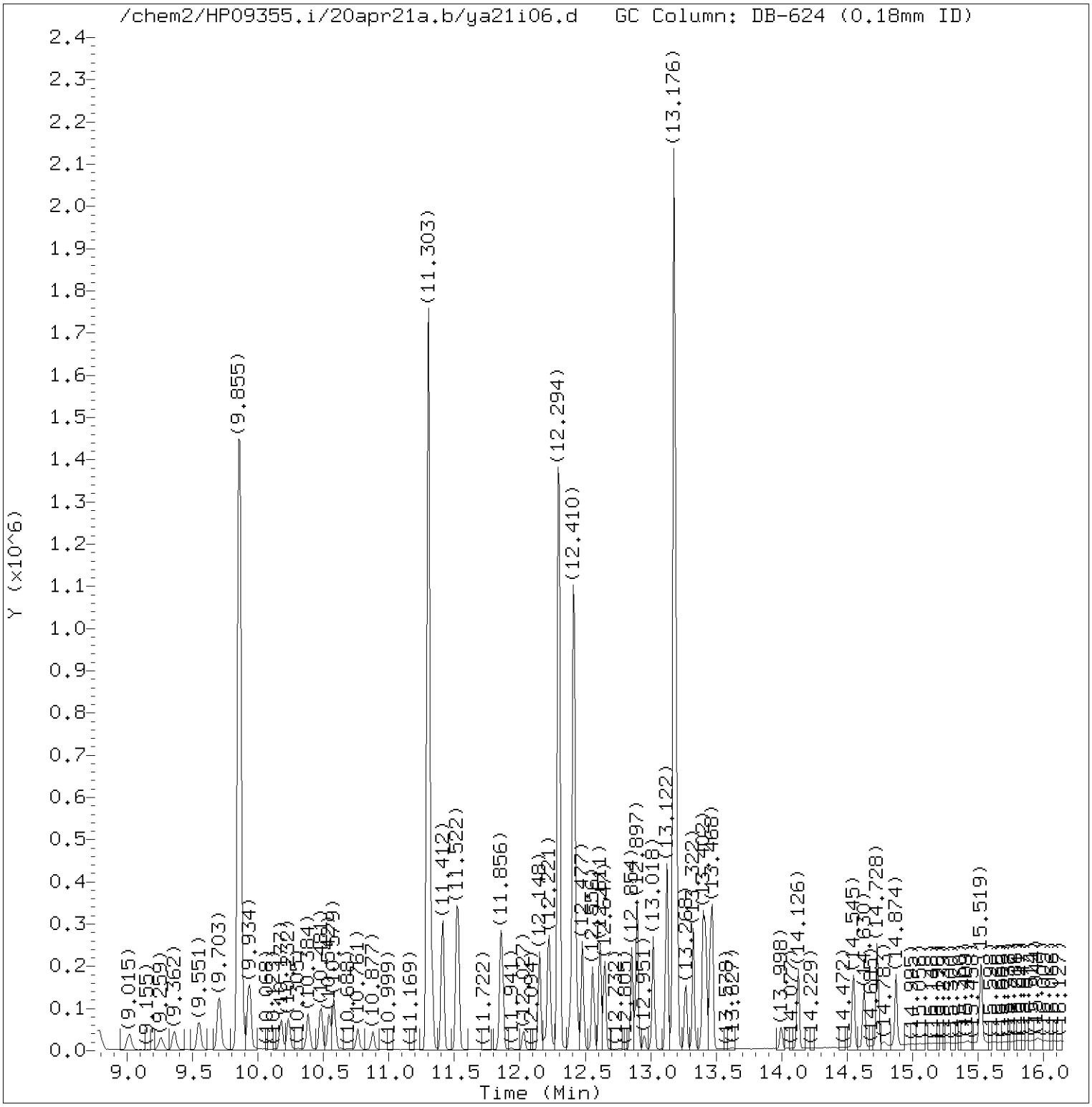
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.050	85	32245	3.692
4) Chloromethane	(2)	2.250	50	30583	3.939
5) 1,3-Butadiene	(2)	2.366	39	26315	4.146
6) Vinyl Chloride	(2)	2.366	62	30882	3.945
8) Bromomethane	(2)	2.701	94	22322	4.183
9) Chloroethane	(2)	2.792	64	17931	4.158
10) Dichlorofluoromethane	(2)	3.029	67	46791	4.081
12) Trichlorofluoromethane	(2)	3.102	101	36093	3.992
11) n-Pentane	(2)	3.151	43	41702	4.247
14) Ethyl ether	(2)	3.364	59	28499	4.104
15) Freon 123a	(2)	3.431	67	33734	4.074
16) Acrolein	(1)	3.534	56	126824	39.938
17) 1,1-Dichloroethene	(2)	3.686	96	30025	4.390
17) 1,1-Dichloroethene	(2)	3.686	63	12363	3.865
18) Acetone	(1)	3.704	58	12333	8.179
19) Freon 113	(2)	3.716	101	25147	3.808
21) 2-Propanol	(1)	3.875	45	88415	81.250
22) Methyl Iodide	(2)	3.899	142	44678	3.892
23) Carbon Disulfide	(2)	4.021	76	92979	3.992
27) Methyl Acetate	(2)	4.148	43	39220	3.897
25) Allyl Chloride	(2)	4.179	41	46502	4.122
29)*t-Butyl alcohol-d10	(1)	4.361	65	386560	250.000
28) Methylene Chloride	(2)	4.374	84	29840	3.878
30) t-Butyl alcohol	(1)	4.489	59	154831	80.993
31) Acrylonitrile	(2)	4.702	53	22280	3.863
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	89798	4.071
32) trans-1,2-Dichloroethene	(2)	4.805	96	32071	4.133
34) n-Hexane	(2)	5.225	57	44284	3.778
36) 1,1-Dichloroethane	(2)	5.456	63	52317	3.887
38) di-Isopropyl ether	(2)	5.499	45	94735	3.837
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	40542	3.679
40) Ethyl t-butyl ether	(2)	6.034	59	84740	3.858
43) 1,2-Dichloroethene (Total)	(2)		96	68117	8.250
44) 2-Butanone	(2)	6.223	43	58737	7.670
42) cis-1,2-Dichloroethene	(2)	6.284	96	36046	4.116
45) 2,2-Dichloropropane	(2)	6.290	77	39611	3.896
47) Propionitrile	(1)	6.302	54	186330	81.538
48) Methacrylonitrile	(2)	6.527	67	223106	38.523

* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.612	128	16505	3.986
50) Tetrahydrofuran	(1)	6.624	71	16191	7.531
51) Chloroform	(2)	6.758	83	50172	3.893
52)$Dibromofluoromethane	(2)	6.971	113	292092	49.749
52)$Dibromofluoromethane	(2)	6.971	111	298369	49.751
53) 1,1,1-Trichloroethane	(2)	6.983	97	43076	3.890
54) Cyclohexane	(2)	7.099	56	52524	3.764
54) Cyclohexane	(2)	7.105	84	43569	3.743
54) Cyclohexane	(2)	7.093	69	16128	3.746
55) 1,1-Dichloropropene	(2)	7.202	75	41204	3.817
56) Carbon Tetrachloride	(2)	7.208	117	35581	3.769
58) Isobutyl Alcohol	(1)	7.306	41	138619	202.351
57)$1,2-Dichloroethane-d4	(2)	7.434	102	78583	50.805
57)$1,2-Dichloroethane-d4	(2)	7.427	65	348643	50.619
57)$1,2-Dichloroethane-d4	(2)	7.434	104	49661	50.391
60) Benzene	(2)	7.464	78	129050	3.991
61) 1,2-Dichloroethane	(2)	7.537	62	41151	4.018
61) 1,2-Dichloroethane	(2)	7.531	98	3747	3.744
65) t-Amyl methyl ether	(2)	7.646	73	87291	3.955
66)*Fluorobenzene	(2)	7.865	96	1291427	50.000
67) n-Heptane	(2)	7.878	43	49020	3.903
69) n-Butanol	(1)	8.182	56	249919	377.613
71) Trichloroethene	(2)	8.346	95	31254	3.853
72) Methylcyclohexane	(2)	8.662	83	57273	3.954
72) Methylcyclohexane	(2)	8.669	98	24845	3.896
73) 1,2-Dichloropropane	(2)	8.675	63	32309	3.874
76) Methyl Methacrylate	(2)	8.742	69	29051	3.421
75) 1,4-Dioxane	(1)	8.754	88	30623M	191.522
74) Dibromomethane	(2)	8.790	93	20359	3.828
78) Bromodichloromethane	(2)	9.015	83	34740	3.576
79) 2-Nitropropane	(2)	9.259	41	24931M	7.168
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	23915	3.511
81) cis-1,3-Dichloropropene	(2)	9.551	75	46728	3.524
82) 4-Methyl-2-pentanone	(2)	9.703	43	104618	7.150
83)$Toluene-d8	(3)	9.861	98	1241534	50.163
83)$Toluene-d8	(3)	9.861	100	792578	49.892
88) Toluene	(3)	9.934	92	78537	3.910
90) 1,3-Dichloropropene (total)	(3)		100	89634	7.040

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	42906	3.516
91) Ethyl Methacrylate	(3)	10.232	69	43254	3.218
92) 1,1,2-Trichloroethane	(3)	10.384	97	30366	3.831
93) Tetrachloroethene	(3)	10.481	166	31645	3.842
94) 1,3-Dichloropropane	(3)	10.542	76	51773	3.845
96) 2-Hexanone	(3)	10.579	43	81518	7.071
97) Dibromochloromethane	(3)	10.761	129	28237	3.488
99) 1,2-Dibromoethane	(3)	10.877	107	31520	3.649
100)*Chlorobenzene-d5	(3)	11.303	117	949078	50.000
101) 1-Chlorohexane	(3)	11.303	91	42074	3.818
102) Chlorobenzene	(3)	11.327	112	90372	3.983
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	28097	3.739
104) Ethylbenzene	(3)	11.412	91	149223	3.877
106) m+p-Xylene	(3)	11.522	106	117370	7.686
108) Xylene (Total)	(3)		106	174496	11.495
107) o-Xylene	(3)	11.850	106	57126	3.808
109) Styrene	(3)	11.868	104	86838	3.523
110) Bromoform	(3)	12.027	173	19113	3.185
111) Isopropylbenzene	(3)	12.148	105	144819	3.807
112) Cyclohexanone	(1)	12.221	55	114366	184.392
114)$4-Bromofluorobenzene	(3)	12.294	95	471205M	50.213
114)$4-Bromofluorobenzene	(3)	12.300	174	362330	50.141
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	54693	3.940
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	171417	38.181
115) Bromobenzene	(4)	12.416	156	37846	3.861
117) 1,2,3-Trichloropropane	(4)	12.434	110	16593	3.789
119) n-Propylbenzene	(4)	12.477	91	182355	3.976
120) 2-Chlorotoluene	(4)	12.556	126	36373	3.830
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	127067	3.798
121) 4-Chlorotoluene	(4)	12.647	126	38826	3.886
124) tert-Butylbenzene	(4)	12.854	134	25655	3.678
125) Pentachloroethane	(4)	12.891	167	19764	3.682
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	134162	3.810
127) sec-Butylbenzene	(4)	13.018	105	166885	3.896
129) 1,3-Dichlorobenzene	(4)	13.122	146	72555	3.870
130) p-Isopropyltoluene	(4)	13.128	119	139857	3.835
131)*1,4-Dichlorobenzene-d4	(4)	13.176	152	507990	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	75696	3.910

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	137472	4.039
135) Benzyl Chloride	(4)	13.268	91	98757	3.469
136) 1,3-Diethylbenzene	(4)	13.322	119	87721	3.973
141) Diethylbenzene (total)	(4)		100	254934	11.986
137) 1,4-Diethylbenzene	(4)	13.402	119	92516	3.975
139) n-Butylbenzene	(4)	13.420	92	77298	3.967
138) 1,2-Dichlorobenzene	(4)	13.456	146	71394	3.917
140) 1,2-Diethylbenzene	(4)	13.468	119	74697	4.038
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	11861	3.437
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	51983	3.827
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	47706	3.743
147) Hexachlorobutadiene	(4)	14.630	225	22112	3.871
148) Naphthalene	(4)	14.728	128	178292	3.833
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	46987	3.828
150) 2-Methylnaphthalene	(4)	15.525	142	95080	3.701

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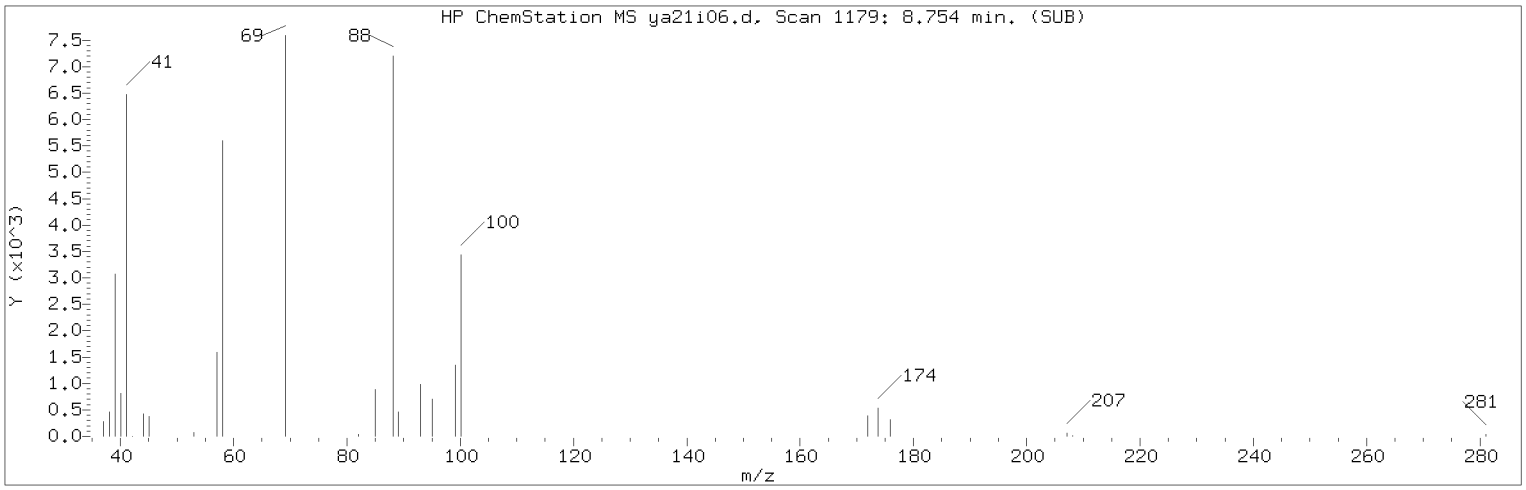
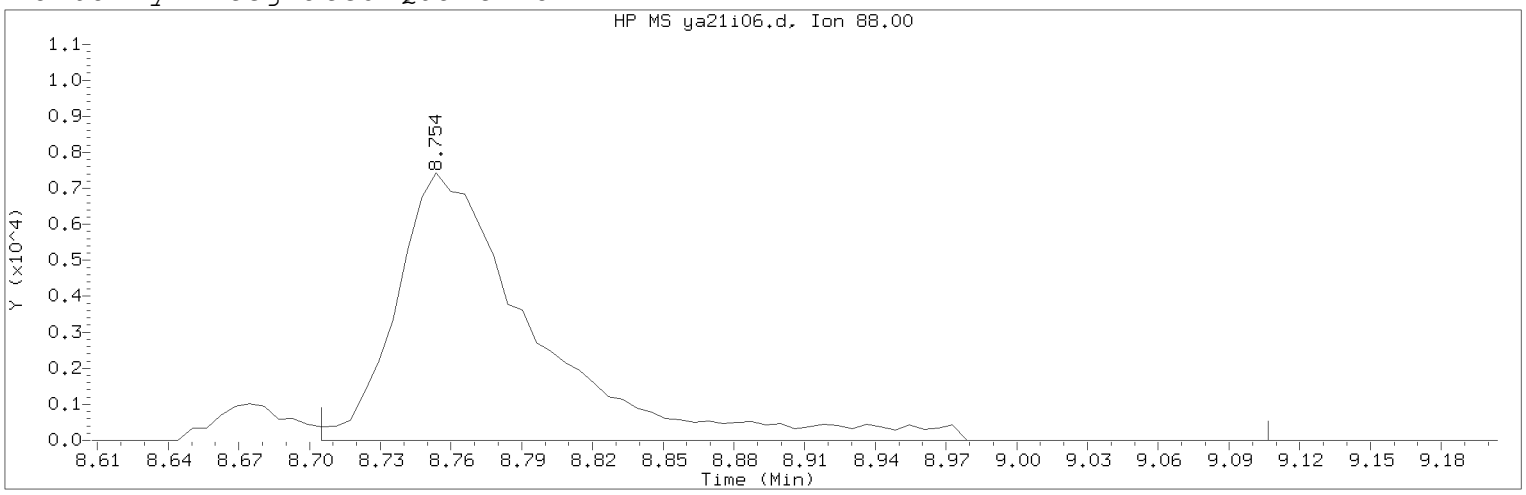
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

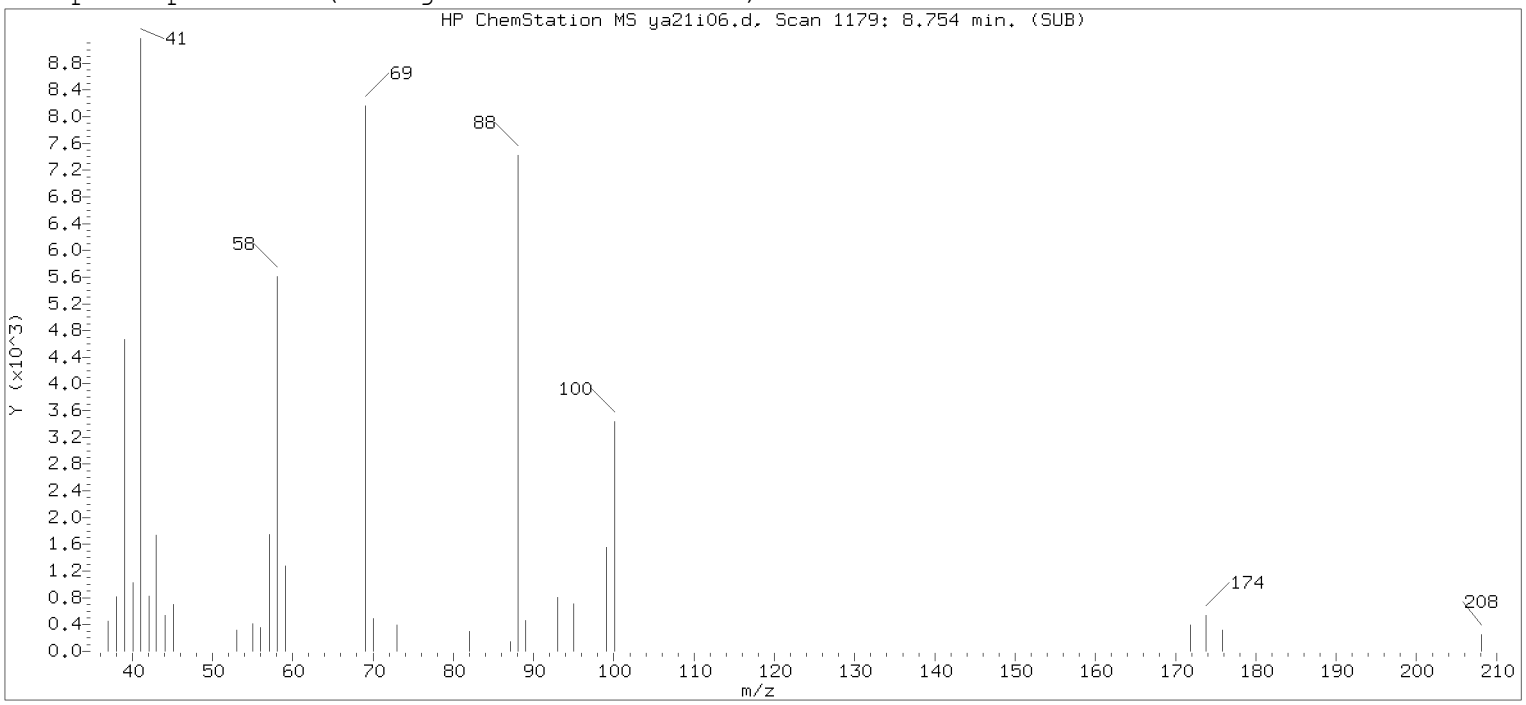
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 30623M
On-Column Amount (ng) : 191.5216
Integration start scan : 1170 Integration stop scan: 1236
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

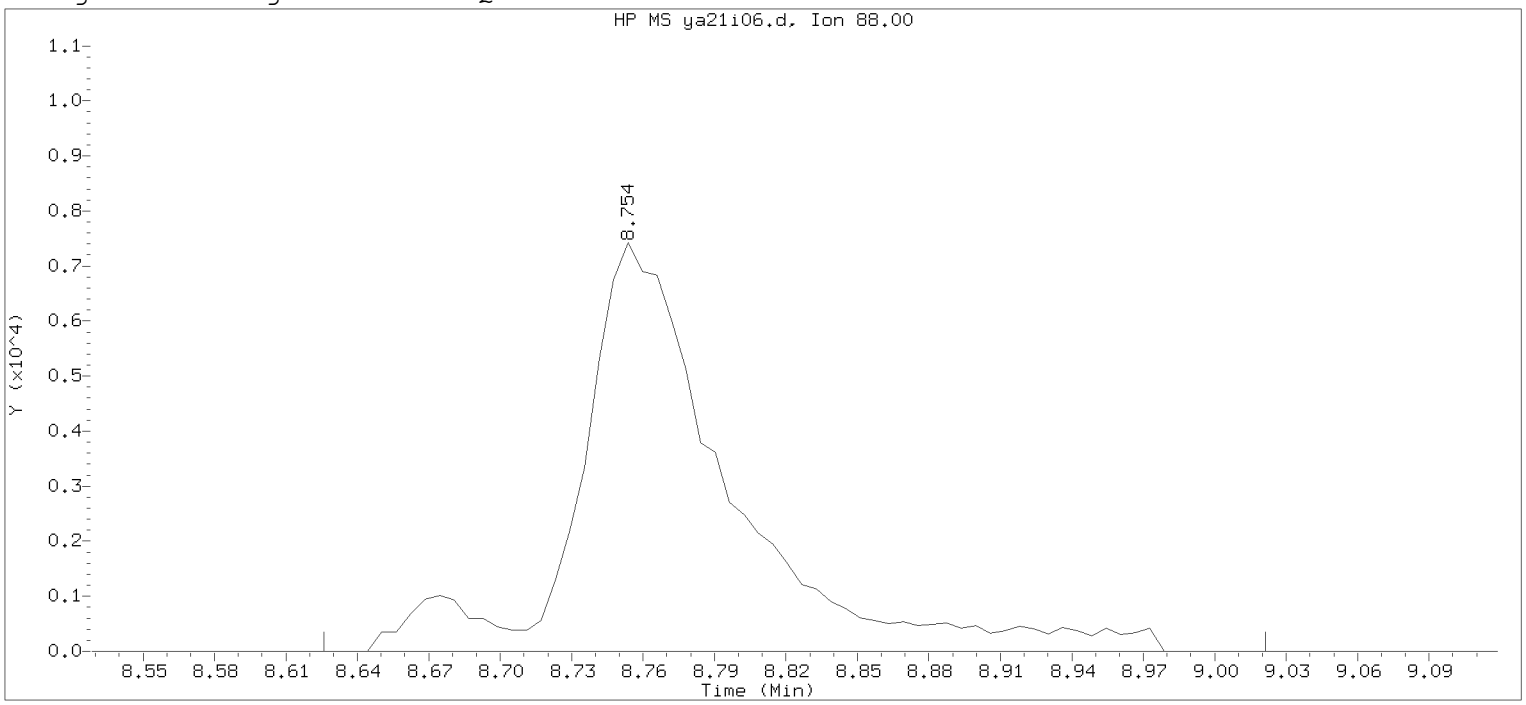
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

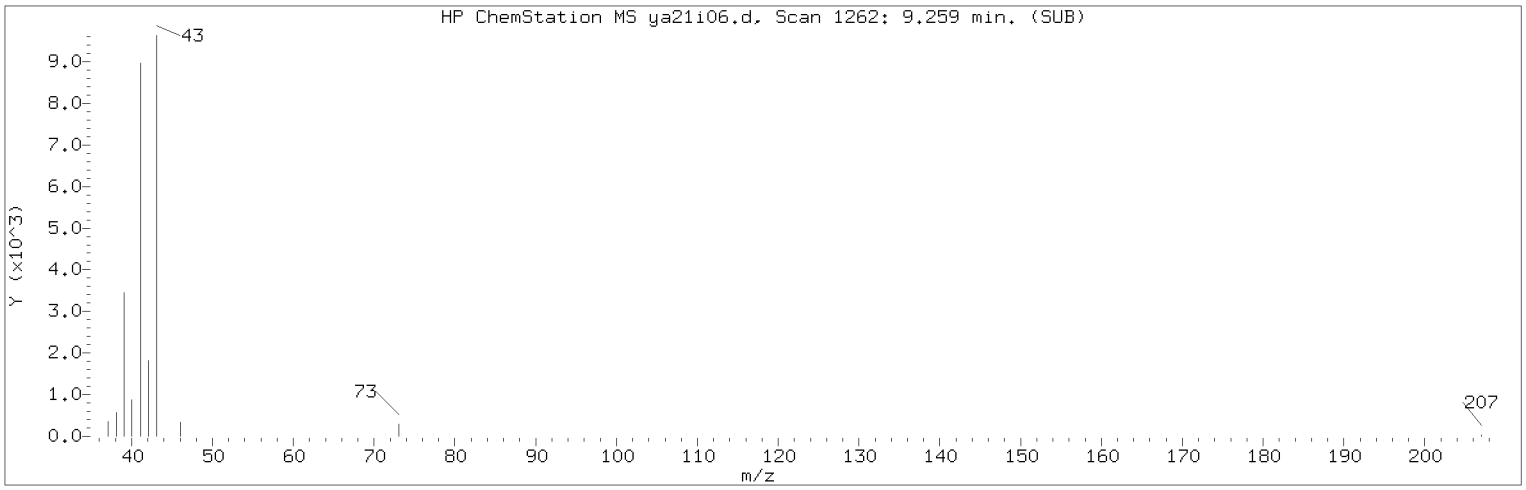
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

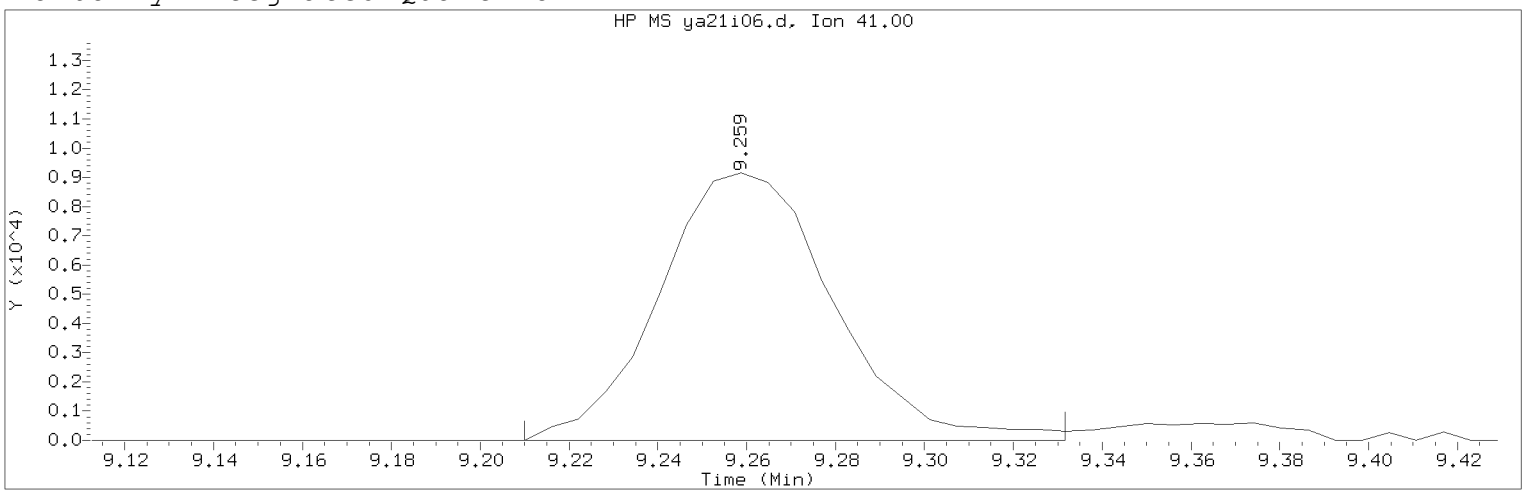
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 32777
On-column Amount (ng) : 177.7605
Integration start scan : 1157 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

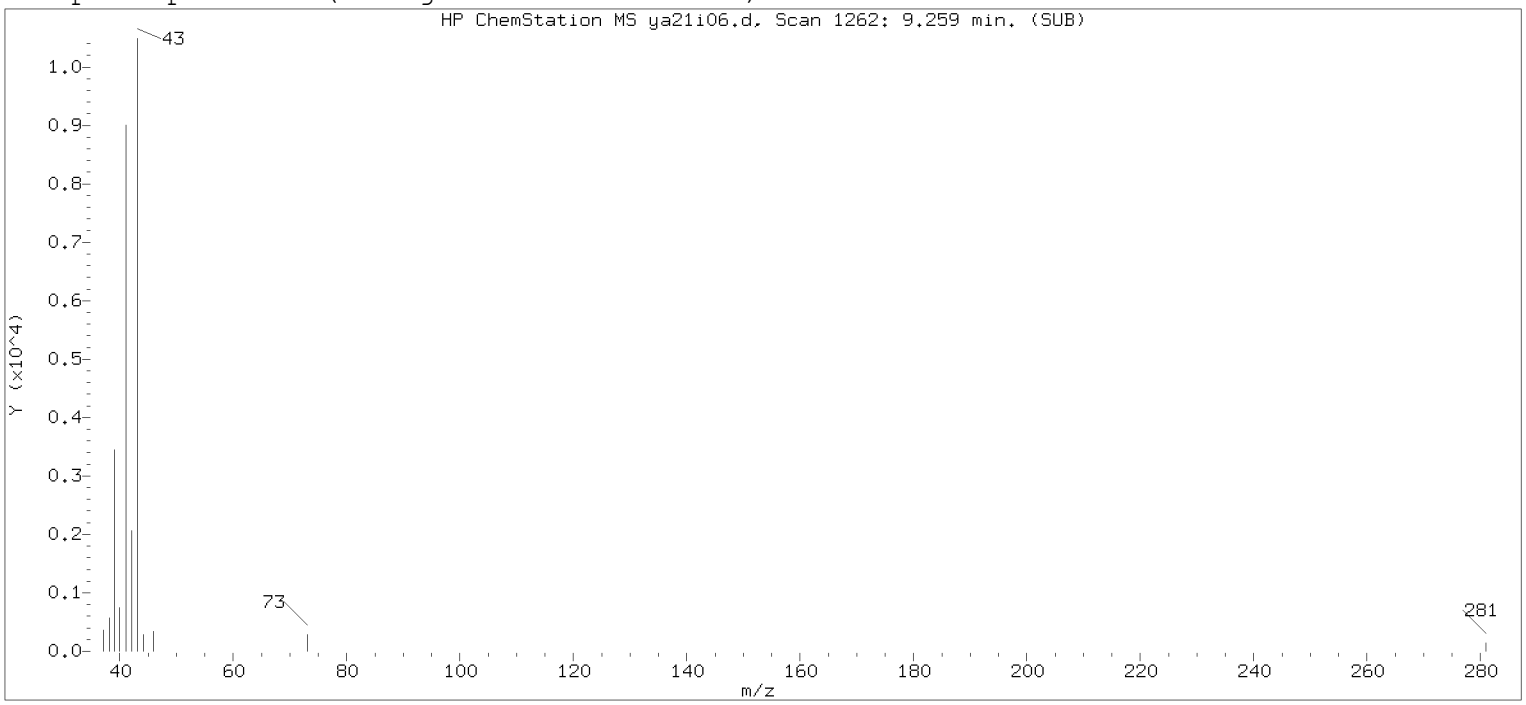
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1262
Retention Time (minutes): 9.259
Quant Ion : 41.00
Area (flag) : 24931M
On-Column Amount (ng) : 7.1677
Integration start scan : 1253 Integration stop scan: 1273
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

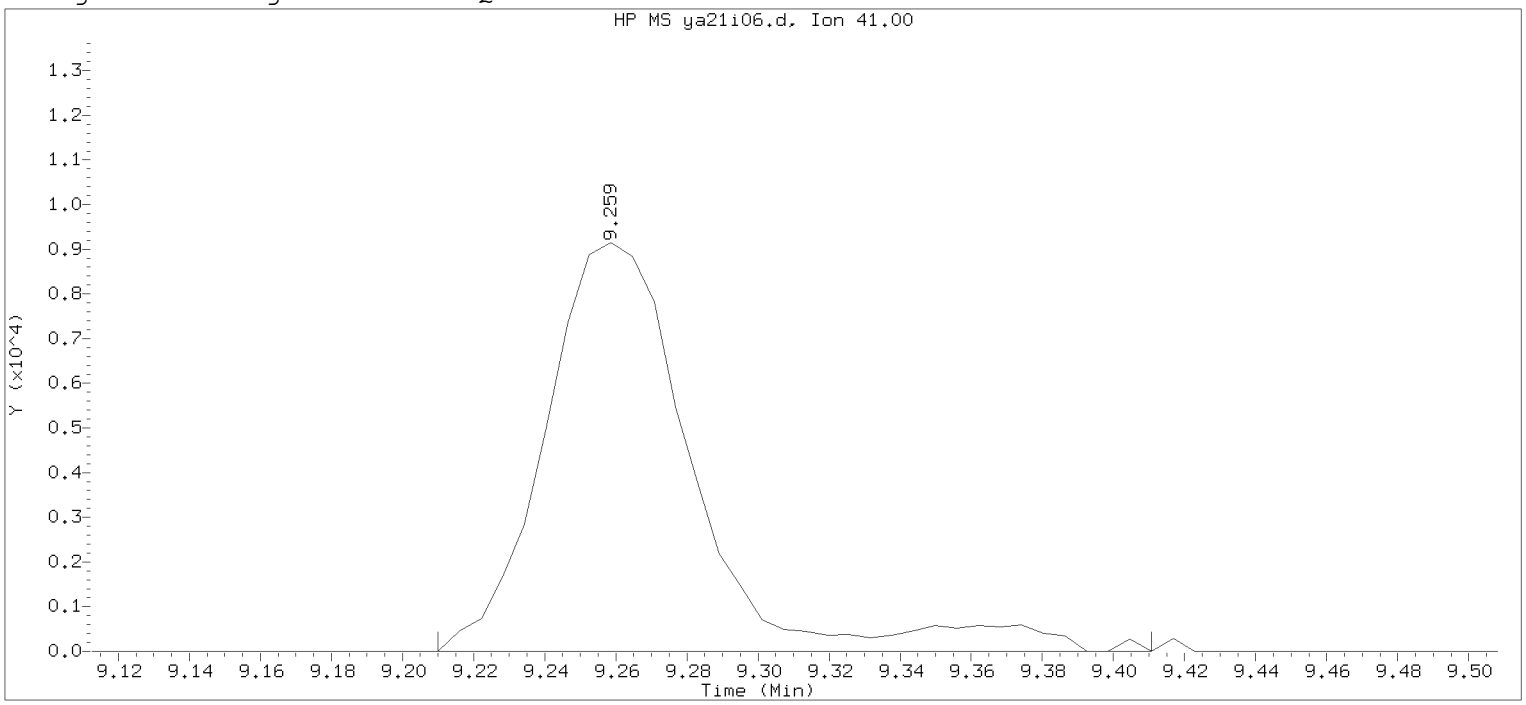
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

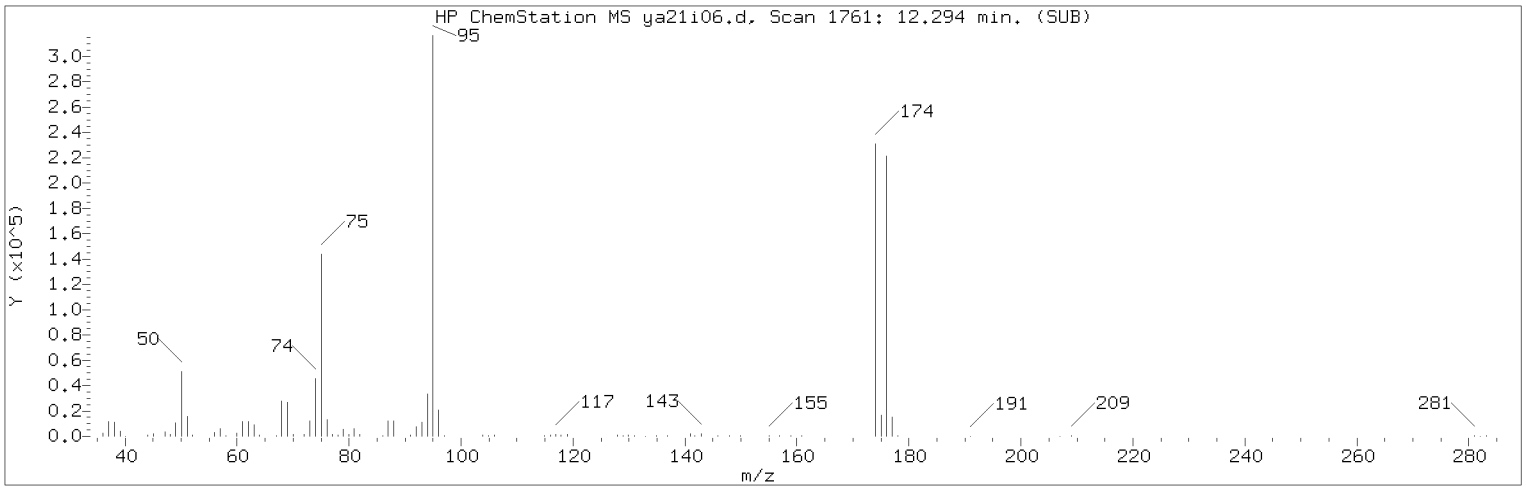
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

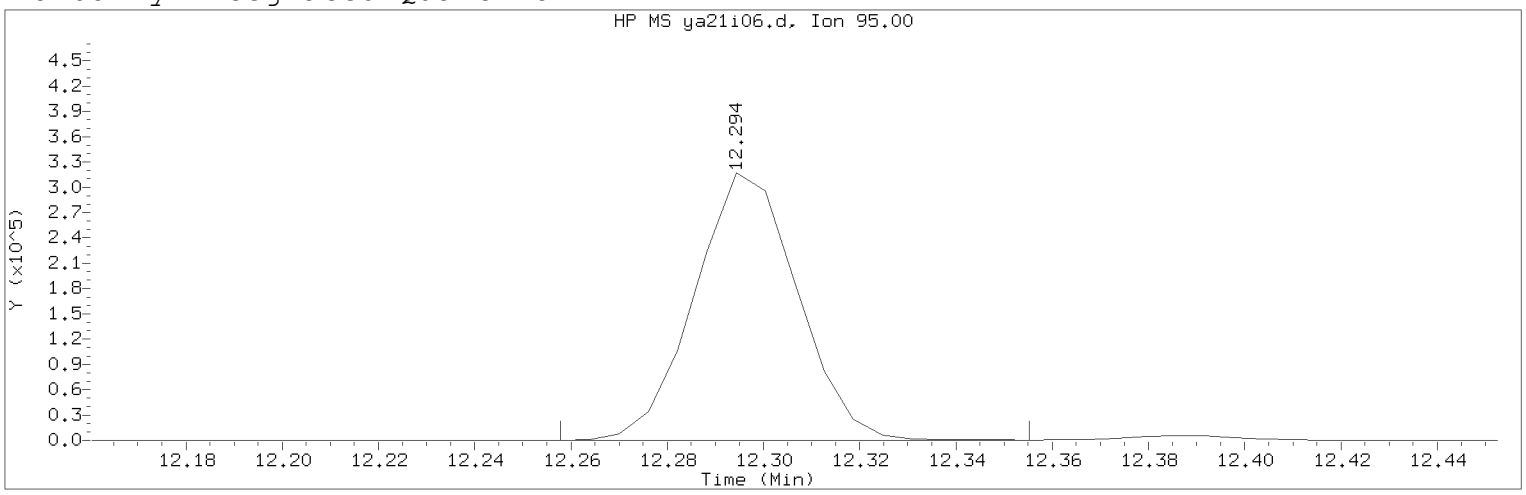
Compound Number : 79
Compound Name : 2-Nitropropane
Scan Number : 1262
Retention Time (minutes): 9.259
Quant Ion : 41.00
Area : 26626
On-column Amount (ng) : 7.7622
Integration start scan : 1253 Integration stop scan: 1286
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

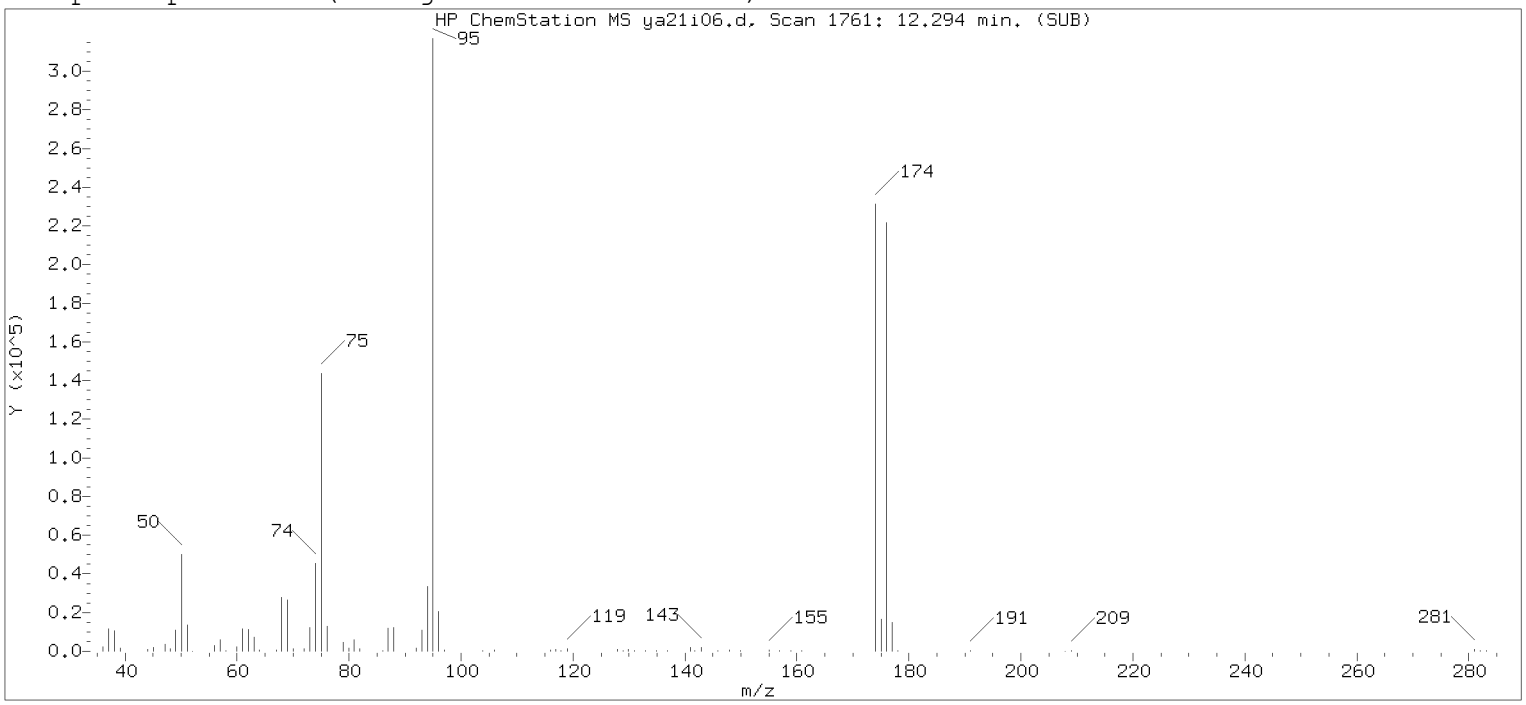
Compound Number : 114
Compound Name : 4-Bromofluorobenzene
Scan Number : 1761
Retention Time (minutes): 12.294
Quant Ion : 95.00
Area (flag) : 471205M
On-Column Amount (ng) : 50.2130
Integration start scan : 1754 Integration stop scan: 1770
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

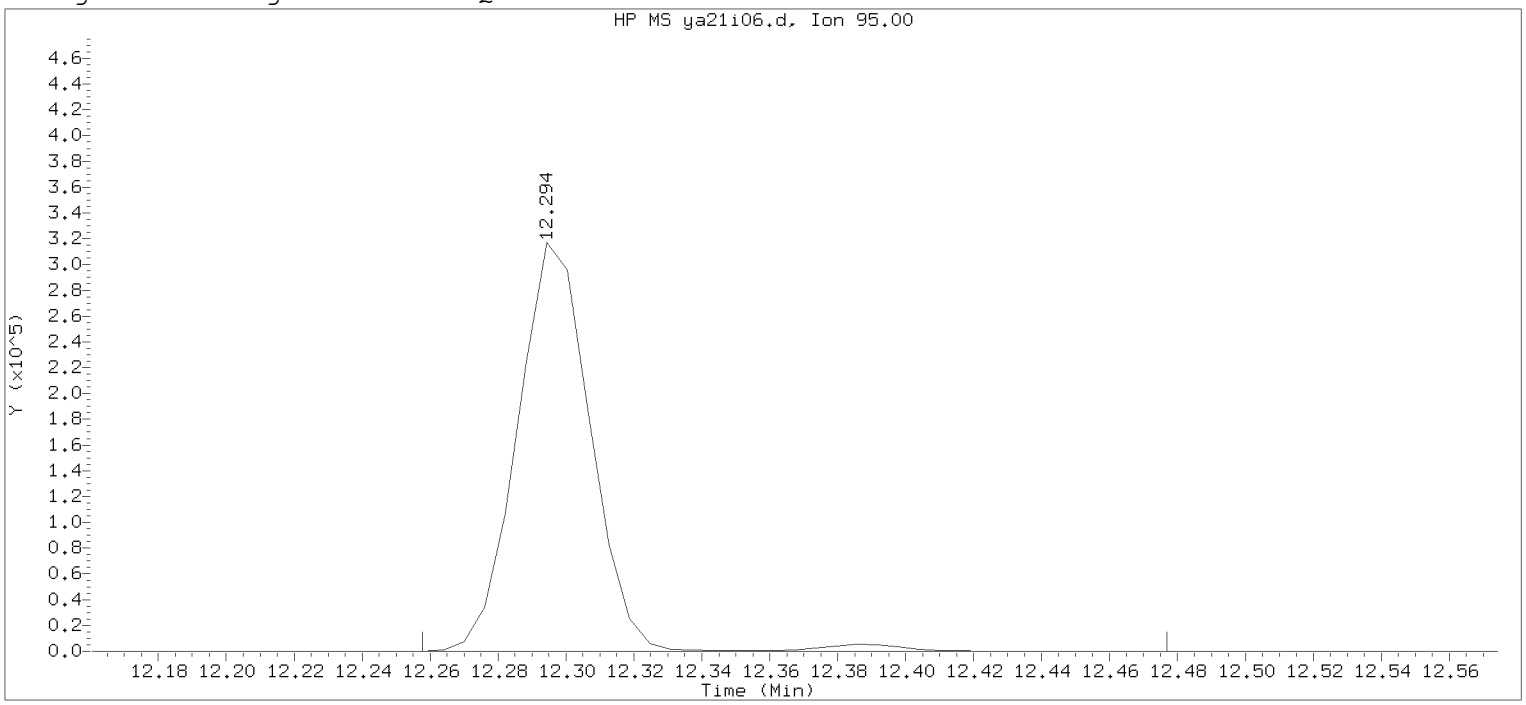
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



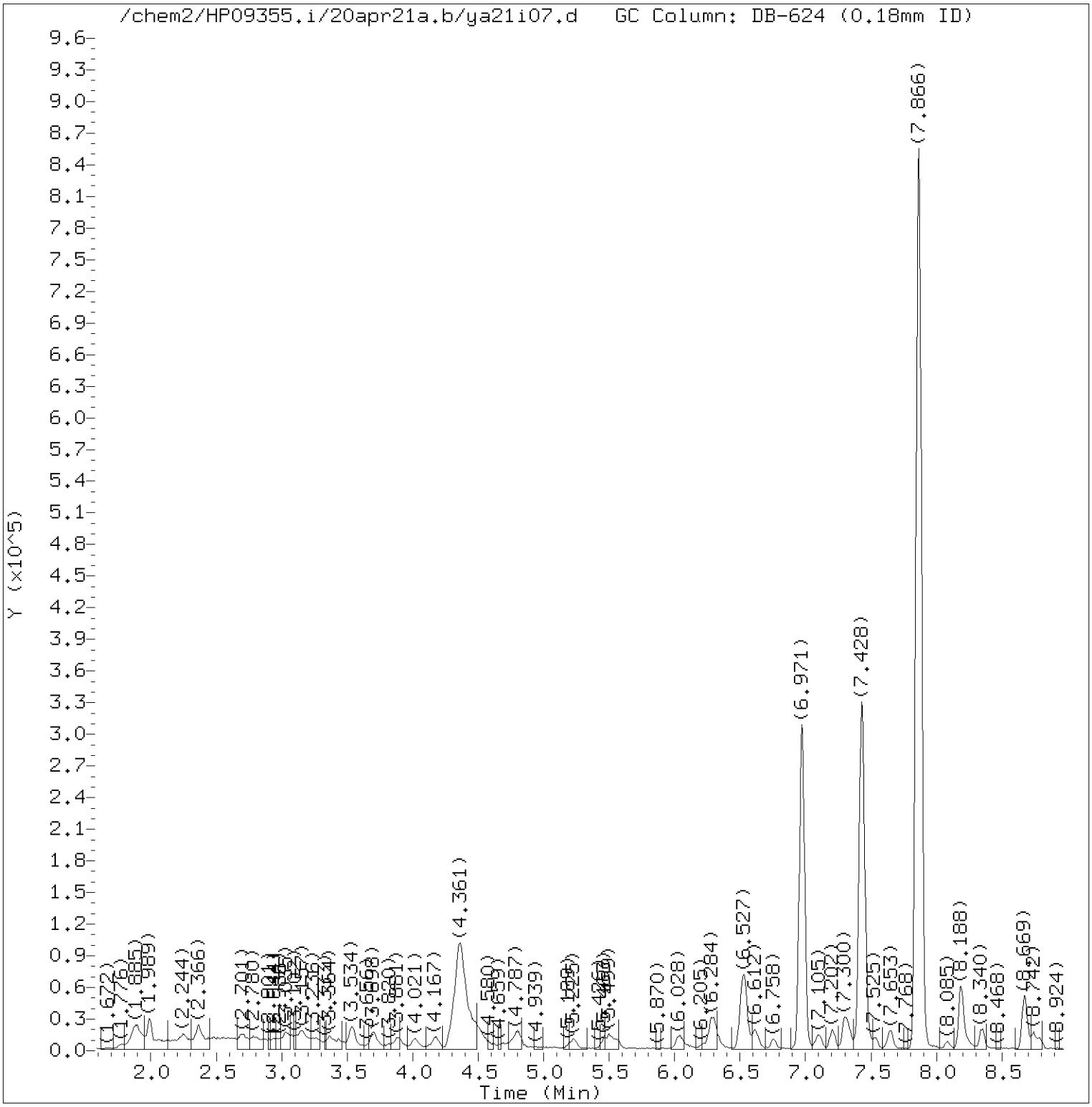
Data File: /chem2/HP09355.i/20apr21a.b/ya21i06.d Instrument ID: HP09355.i
Injection date and time: 21-APR-2020 23:44 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 114
Compound Name : 4-Bromofluorobenzene
Scan Number : 1761
Retention Time (minutes): 12.294
Quant Ion : 95.00
Area : 479783
On-column Amount (ng) : 50.9605
Integration start scan : 1754 Integration stop scan: 1790
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

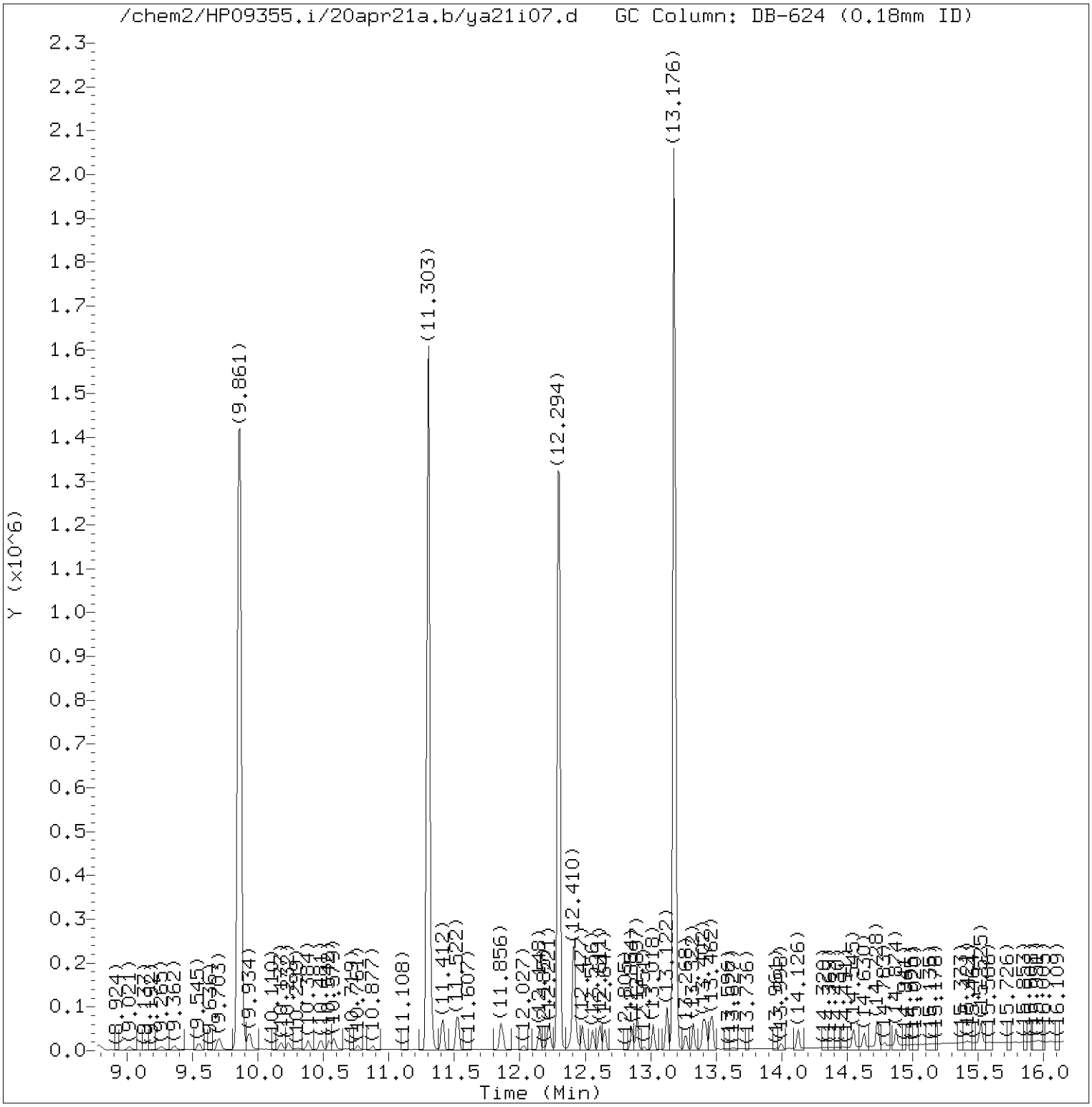
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	6553	0.792
4) Chloromethane	(2)	2.244	50	7519	0.989
5) 1,3-Butadiene	(2)	2.366	39	5821	0.944
6) Vinyl Chloride	(2)	2.366	62	6984	0.922
8) Bromomethane	(2)	2.707	94	5266	1.005
9) Chloroethane	(2)	2.792	64	4017	0.957
10) Dichlorofluoromethane	(2)	3.029	67	10735	0.961
12) Trichlorofluoromethane	(2)	3.102	101	7574	0.872
11) n-Pentane	(2)	3.151	43	12391	1.236
14) Ethyl ether	(2)	3.376	59	6630	0.977
15) Freon 123a	(2)	3.443	67	7276	0.910
16) Acrolein	(1)	3.540	56	31081	10.041
17) 1,1-Dichloroethene	(2)	3.692	96	8536	1.225
17) 1,1-Dichloroethene	(2)	3.680	63	2667	0.869
18) Acetone	(1)	3.698	58	2585	1.791
19) Freon 113	(2)	3.717	101	5140	0.818
21) 2-Propanol	(1)	3.881	45	22976	21.419
22) Methyl Iodide	(2)	3.899	142	9697	0.879
23) Carbon Disulfide	(2)	4.021	76	20765	0.921
27) Methyl Acetate	(2)	4.142	43	10622	1.065
25) Allyl Chloride	(2)	4.185	41	10897	0.987
29)*t-Butyl alcohol-d10	(1)	4.355	65	376556	250.000
28) Methylene Chloride	(2)	4.367	84	6974	0.934
30) t-Butyl alcohol	(1)	4.495	59	38363	20.513
31) Acrylonitrile	(2)	4.702	53	4756	0.860
33) Methyl Tertiary Butyl Ether	(2)	4.775	73	24359	1.106
32) trans-1,2-Dichloroethene	(2)	4.812	96	7879	1.030
34) n-Hexane	(2)	5.219	57	9291	0.831
36) 1,1-Dichloroethane	(2)	5.450	63	11588	0.894
38) di-Isopropyl ether	(2)	5.499	45	21354	0.897
39) 2-Chloro-1,3-butadiene	(2)	5.572	53	8609	0.820
40) Ethyl t-butyl ether	(2)	6.047	59	19905	0.934
43) 1,2-Dichloroethene (Total)	(2)		96	16725	2.056
44) 2-Butanone	(2)	6.229	43	14276	1.915
42) cis-1,2-Dichloroethene	(2)	6.278	96	8846	1.026
45) 2,2-Dichloropropane	(2)	6.296	77	8555	0.876
47) Propionitrile	(1)	6.302	54	44848	20.126
48) Methacrylonitrile	(2)	6.527	67	52263	9.309

* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.618	128	3666	0.916
50) Tetrahydrofuran	(1)	6.624	71	3709	1.800
51) Chloroform	(2)	6.752	83	11320	0.909
52)$Dibromofluoromethane	(2)	6.971	113	285945	49.712
52)$Dibromofluoromethane	(2)	6.971	111	290589	49.494
53) 1,1,1-Trichloroethane	(2)	6.989	97	9550	0.895
54) Cyclohexane	(2)	7.105	56	11171	0.838
54) Cyclohexane	(2)	7.093	84	9049	0.817
54) Cyclohexane	(2)	7.105	69	3155	0.775
55) 1,1-Dichloropropene	(2)	7.202	75	8981	0.867
56) Carbon Tetrachloride	(2)	7.215	117	7609	0.843
58) Isobutyl Alcohol	(1)	7.306	41	34721	51.731
57)$1,2-Dichloroethane-d4	(2)	7.428	102	75882	50.024
57)$1,2-Dichloroethane-d4	(2)	7.428	65	341980	50.541
57)$1,2-Dichloroethane-d4	(2)	7.428	104	48355	50.030
60) Benzene	(2)	7.470	78	30014	0.954
61) 1,2-Dichloroethane	(2)	7.537	62	10406	1.031
61) 1,2-Dichloroethane	(2)	7.537	98	661	0.706
65) t-Amyl methyl ether	(2)	7.653	73	20605	0.959
66)*Fluorobenzene	(2)	7.866	96	1266407	50.000
67) n-Heptane	(2)	7.878	43	11455	0.939
69) n-Butanol	(1)	8.182	56	55586	87.950
71) Trichloroethene	(2)	8.352	95	6846	0.878
72) Methylcyclohexane	(2)	8.669	83	11744	0.848
72) Methylcyclohexane	(2)	8.675	98	5235	0.857
73) 1,2-Dichloropropane	(2)	8.675	63	7338	0.911
76) Methyl Methacrylate	(2)	8.742	69	6532	0.809
75) 1,4-Dioxane	(1)	8.766	88	6446M	42.430
74) Dibromomethane	(2)	8.790	93	4485	0.878
78) Bromodichloromethane	(2)	9.015	83	7424	0.805
79) 2-Nitropropane	(2)	9.265	41	5748	1.724
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	4977	0.773
81) cis-1,3-Dichloropropene	(2)	9.551	75	10553	0.834
82) 4-Methyl-2-pentanone	(2)	9.703	43	22331	1.607
83)$Toluene-d8	(3)	9.861	98	1215192	50.398
83)$Toluene-d8	(3)	9.861	100	780139	50.407
88) Toluene	(3)	9.934	92	18311	0.945
90) 1,3-Dichloropropene (total)	(3)		100	20231	1.671

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.177	75	9678	0.837
91) Ethyl Methacrylate	(3)	10.232	69	9090	0.727
92) 1,1,2-Trichloroethane	(3)	10.384	97	7059	0.926
93) Tetrachloroethene	(3)	10.481	166	7241	0.916
94) 1,3-Dichloropropane	(3)	10.542	76	12238	0.943
96) 2-Hexanone	(3)	10.579	43	17247	1.590
97) Dibromochloromethane	(3)	10.761	129	6078	0.798
99) 1,2-Dibromoethane	(3)	10.877	107	7085	0.862
100)*Chlorobenzene-d5	(3)	11.303	117	923376	50.000
101) 1-Chlorohexane	(3)	11.303	91	10540	0.986
102) Chlorobenzene	(3)	11.327	112	20716	0.947
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	5992	0.841
104) Ethylbenzene	(3)	11.412	91	33931	0.918
106) m+p-Xylene	(3)	11.522	106	25855	1.773
108) Xylene (Total)	(3)		106	38648	2.666
107) o-Xylene	(3)	11.850	106	12793	0.892
109) Styrene	(3)	11.869	104	17797	0.770
110) Bromoform	(3)	12.027	173	4328	0.770
111) Isopropylbenzene	(3)	12.148	105	30881	0.855
112) Cyclohexanone	(1)	12.221	55	23441M	40.081
114)$4-Bromofluorobenzene	(3)	12.294	95	458604	50.197
114)$4-Bromofluorobenzene	(3)	12.300	174	353771	50.273
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	12539	0.933
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	38710	8.960
115) Bromobenzene	(4)	12.416	156	8866	0.934
117) 1,2,3-Trichloropropane	(4)	12.440	110	4123	0.967
119) n-Propylbenzene	(4)	12.477	91	40191	0.909
120) 2-Chlorotoluene	(4)	12.556	126	7997	0.878
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	27066	0.847
121) 4-Chlorotoluene	(4)	12.653	126	8332	0.870
124) tert-Butylbenzene	(4)	12.854	134	5793M	0.867
125) Pentachloroethane	(4)	12.891	167	4481	0.871
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	28449	0.846
127) sec-Butylbenzene	(4)	13.018	105	36509	0.887
129) 1,3-Dichlorobenzene	(4)	13.122	146	17078	0.940
130) p-Isopropyltoluene	(4)	13.128	119	29194	0.840
131)*1,4-Dichlorobenzene-d4	(4)	13.176	152	497288	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	17625	0.939

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	31323	0.948
135) Benzyl Chloride	(4)	13.268	91	21802	0.808
136) 1,3-Diethylbenzene	(4)	13.322	119	18430	0.871
141) Diethylbenzene (total)	(4)		100	53495	2.627
137) 1,4-Diethylbenzene	(4)	13.402	119	18981	0.853
139) n-Butylbenzene	(4)	13.420	92	16462	0.880
138) 1,2-Dichlorobenzene	(4)	13.456	146	16481	0.934
140) 1,2-Diethylbenzene	(4)	13.469	119	16084	0.903
142) 1,2-Dibromo-3-chloropropane	(4)	13.998	75	2892	0.874
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	12285	0.934
146) 1,2,4-Trichlorobenzene	(4)	14.551	180	11569	0.937
147) Hexachlorobutadiene	(4)	14.630	225	5419	0.973
148) Naphthalene	(4)	14.728	128	42927	0.950
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	11649	0.974
150) 2-Methylnaphthalene	(4)	15.525	142	23795	0.954

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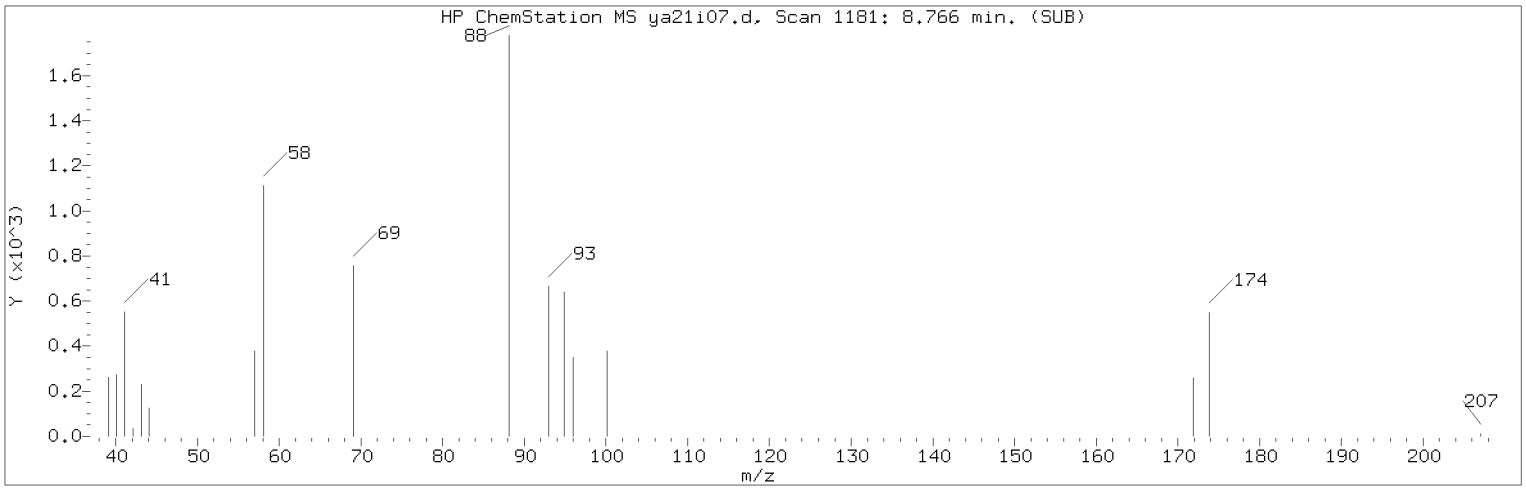
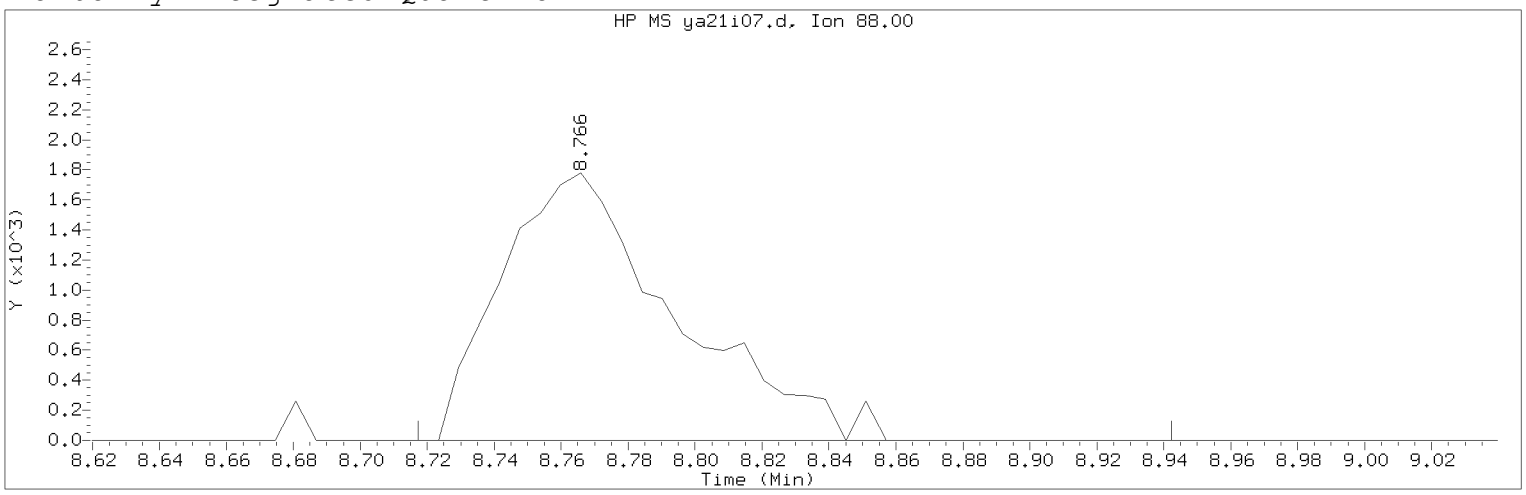
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

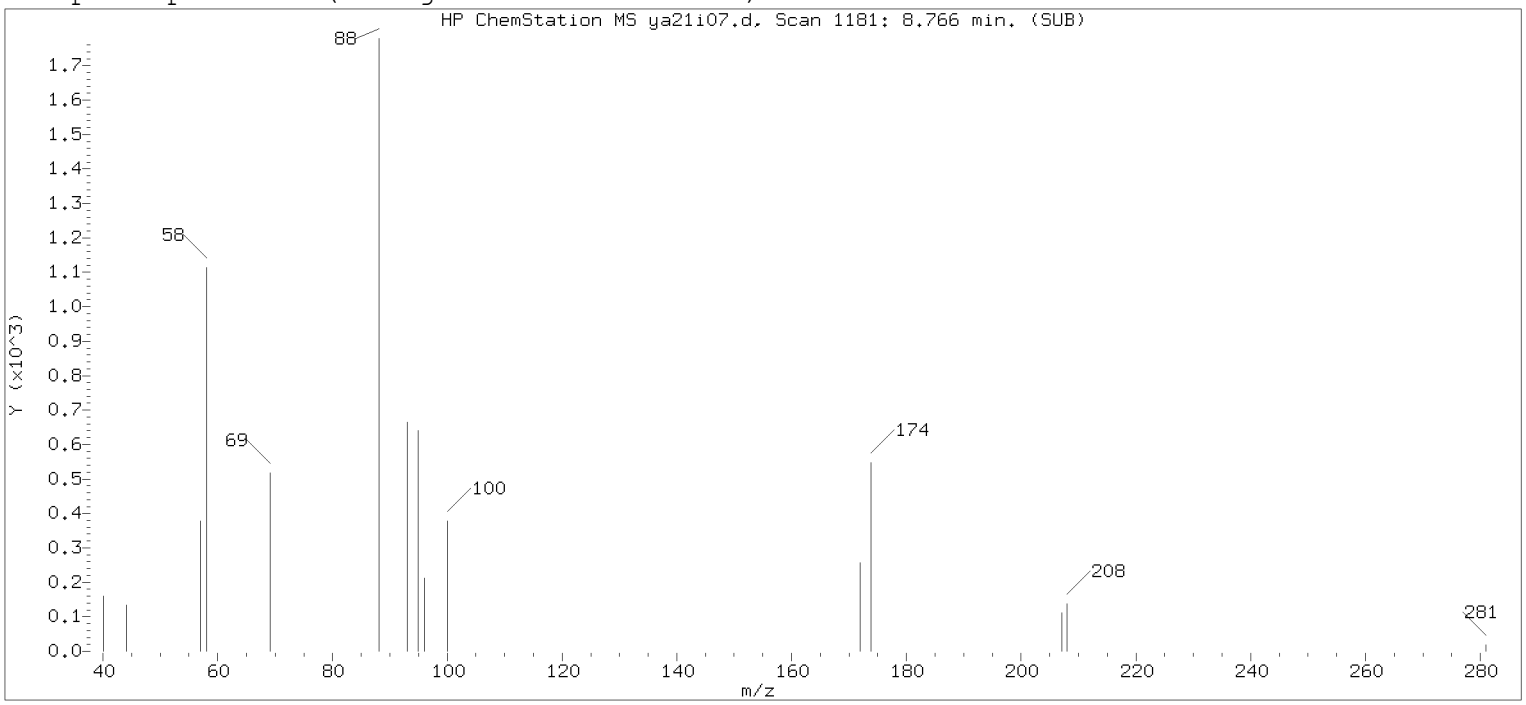
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1181
Retention Time (minutes): 8.766
Quant Ion : 88.00
Area (flag) : 6446M
On-Column Amount (ng) : 42.4298
Integration start scan : 1172 Integration stop scan: 1209
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

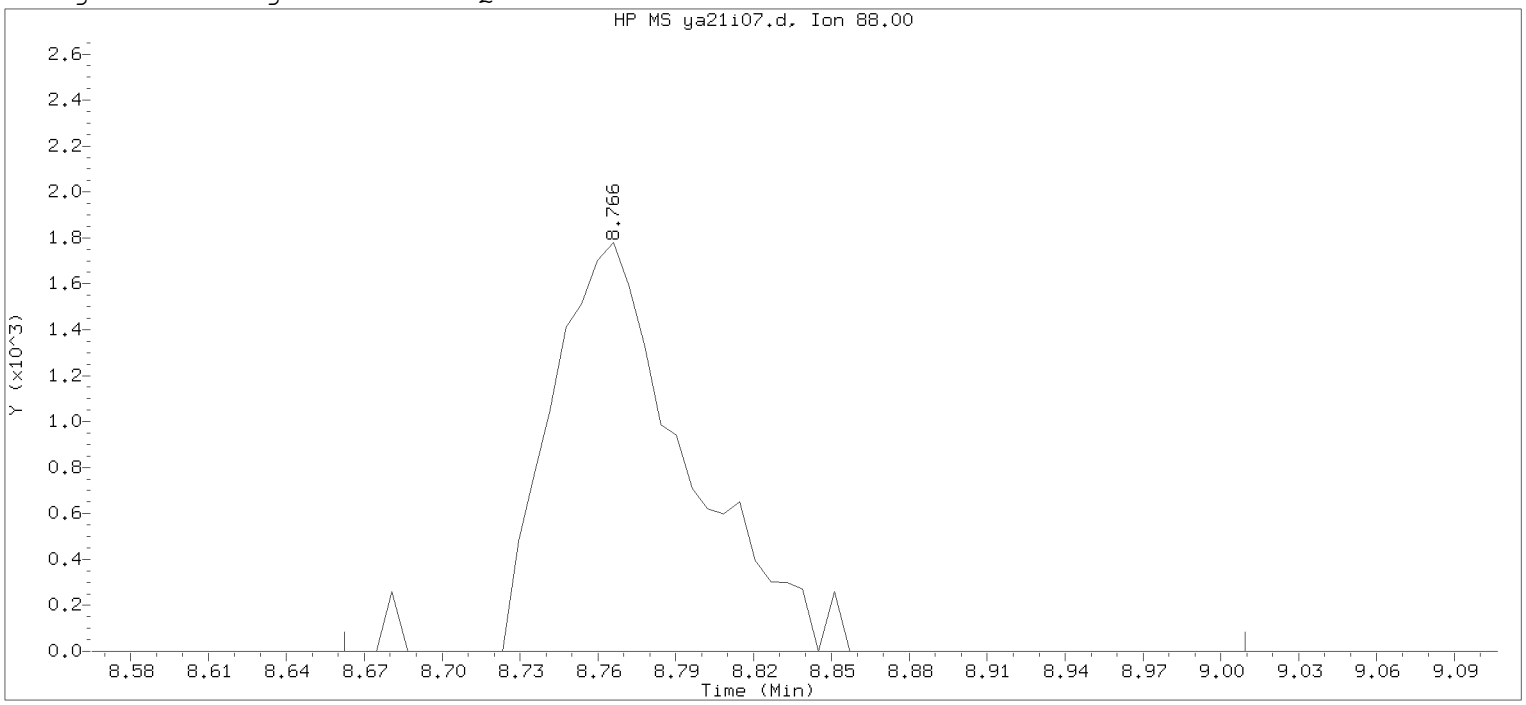
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

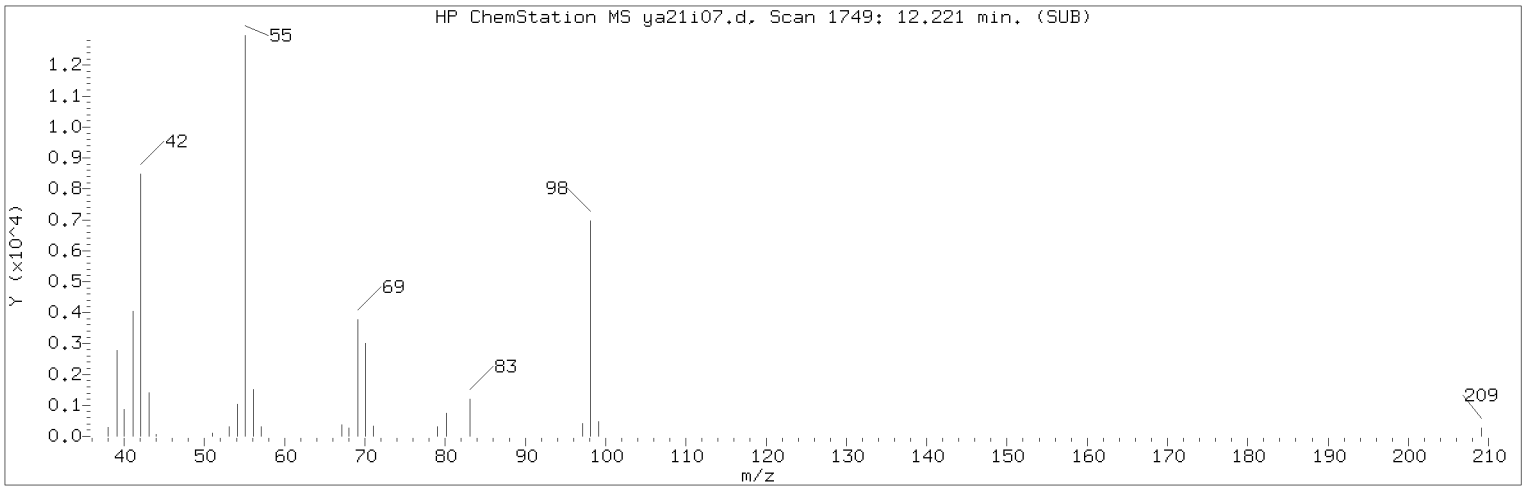
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

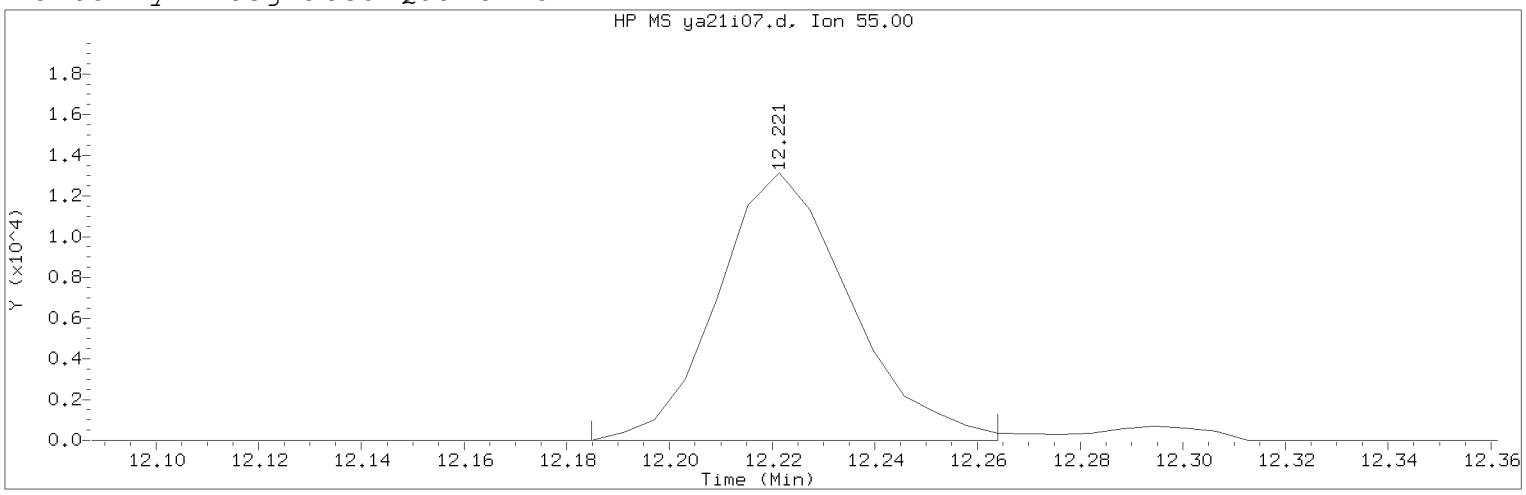
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1181
Retention Time (minutes): 8.766
Quant Ion : 88.00
Area : 6541
On-column Amount (ng) : 36.4181
Integration start scan : 1163 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

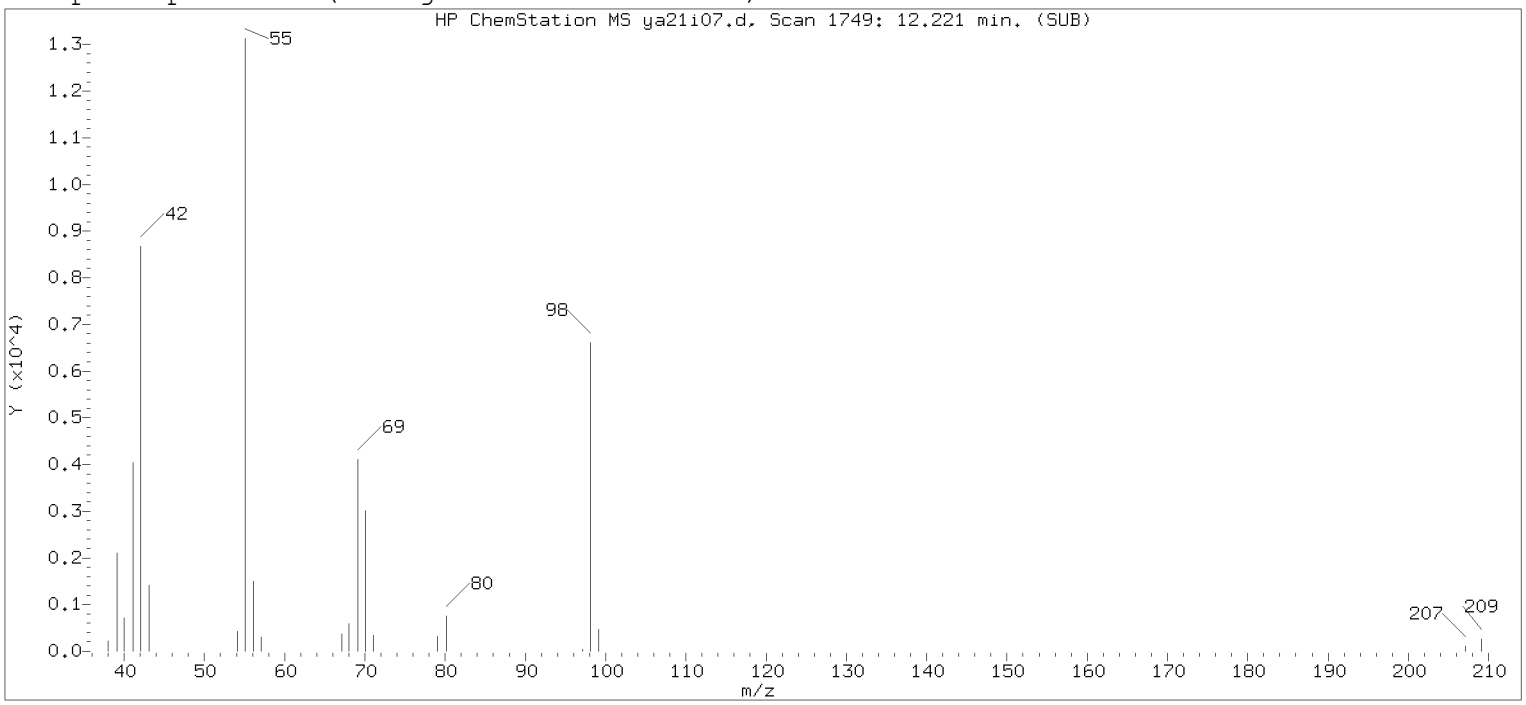
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1749
Retention Time (minutes): 12.221
Quant Ion : 55.00
Area (flag) : 23441M
On-Column Amount (ng) : 40.0807
Integration start scan : 1742 Integration stop scan: 1755
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

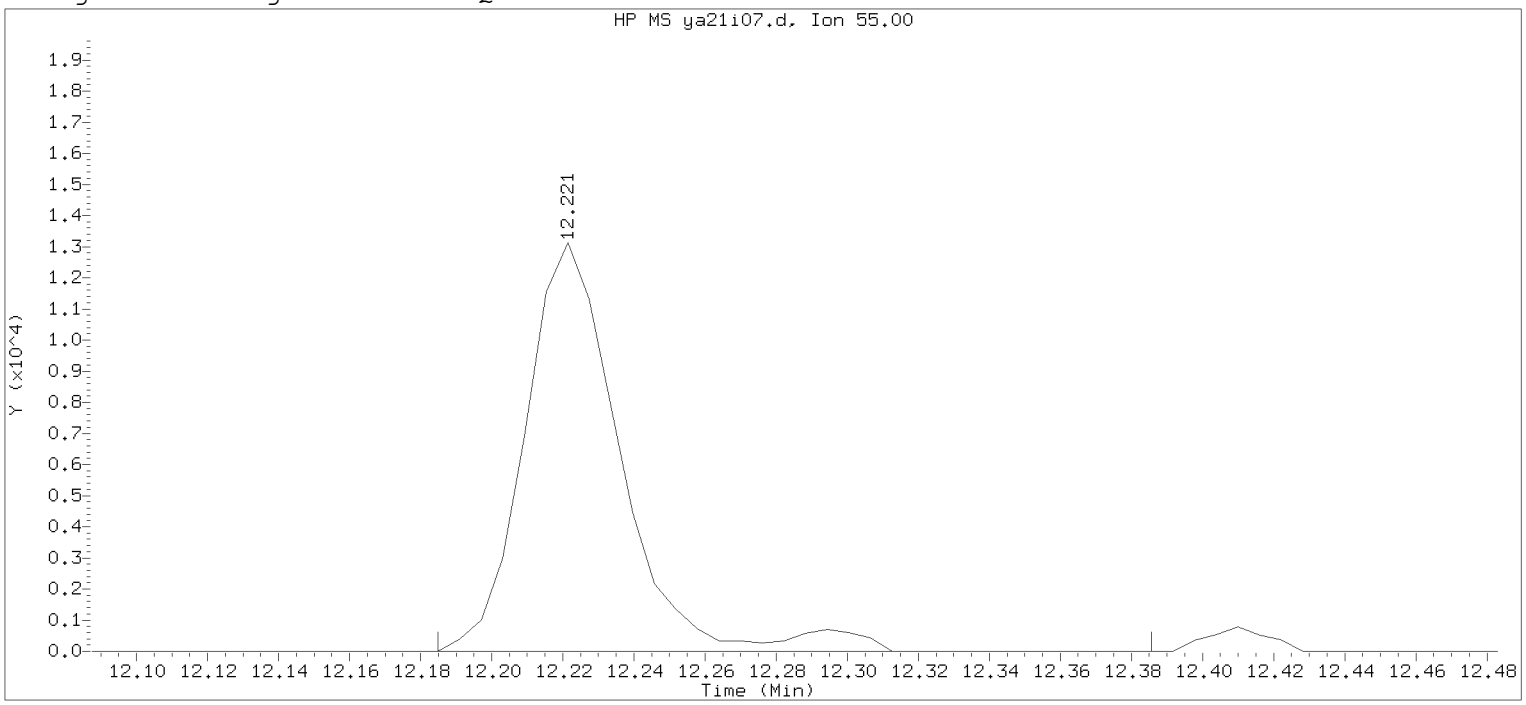
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

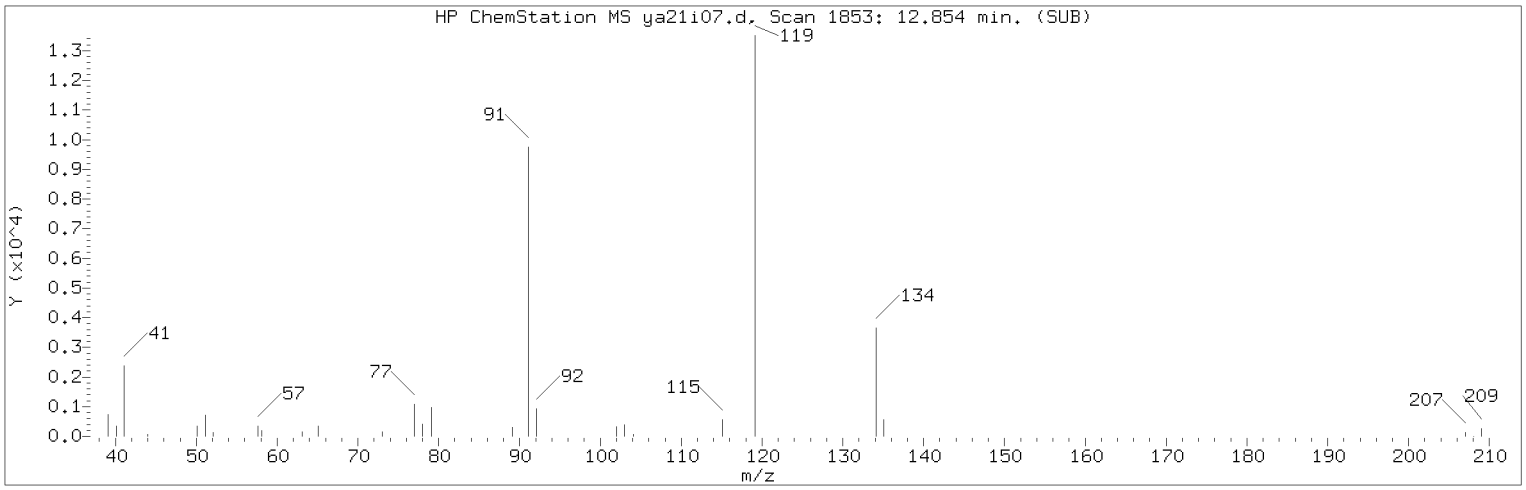
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

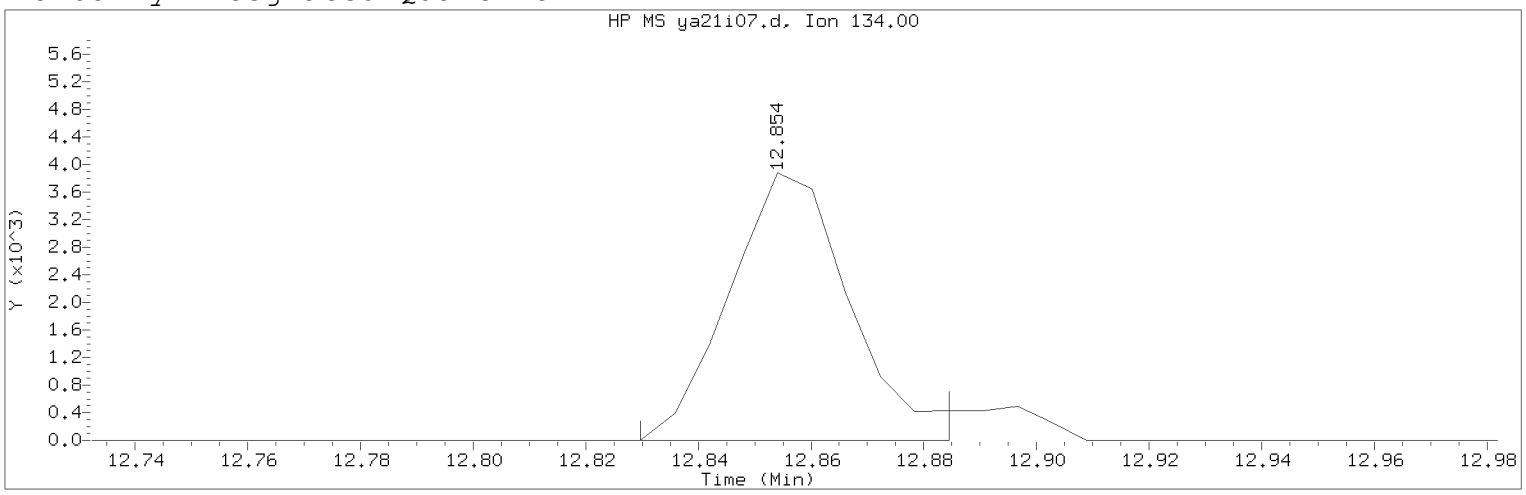
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1749
Retention Time (minutes): 12.221
Quant Ion : 55.00
Area : 24630
On-column Amount (ng) : 40.5410
Integration start scan : 1742 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:05
Date, time and analyst ID of latest file update: 22-Apr-2020 08:05 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

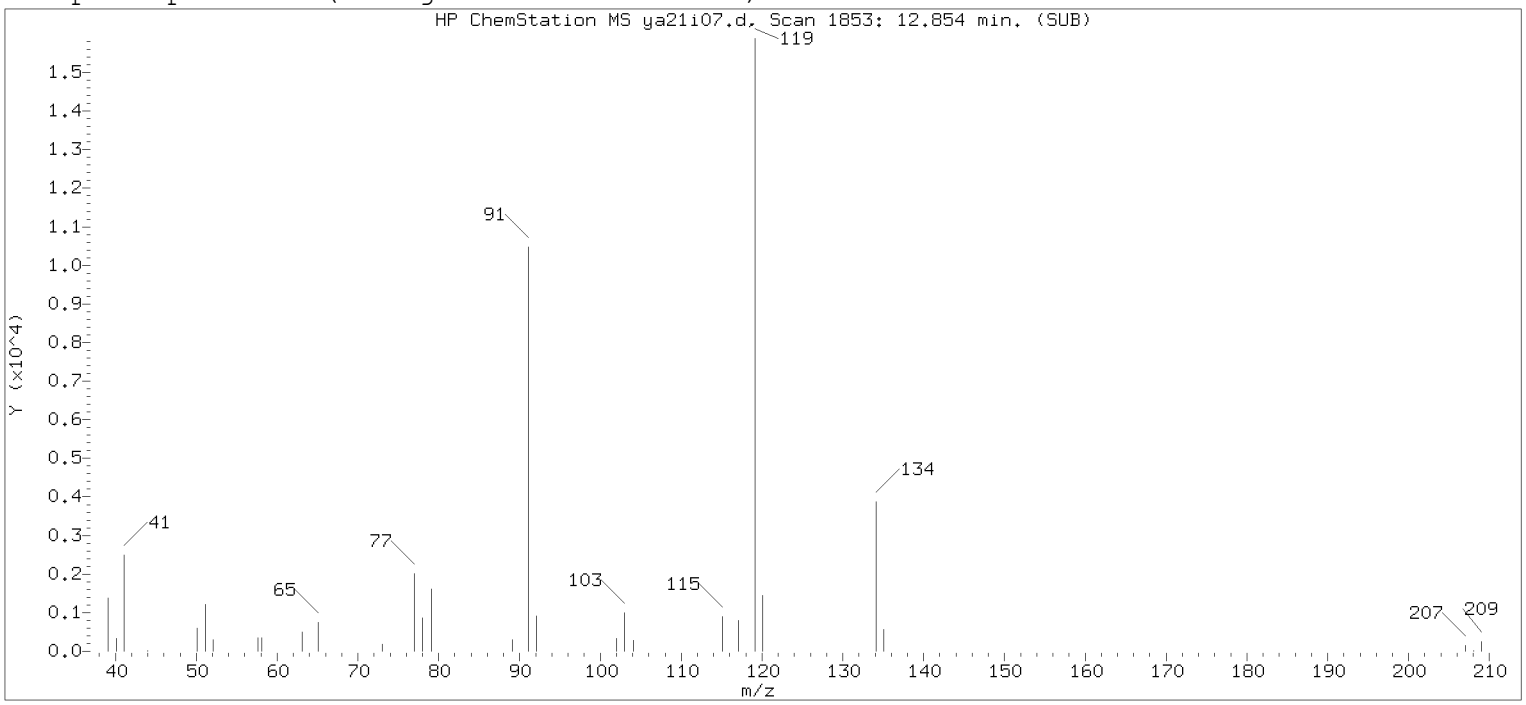
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area (flag) : 5793M
On-Column Amount (ng) : 0.8672
Integration start scan : 1848 Integration stop scan: 1857
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

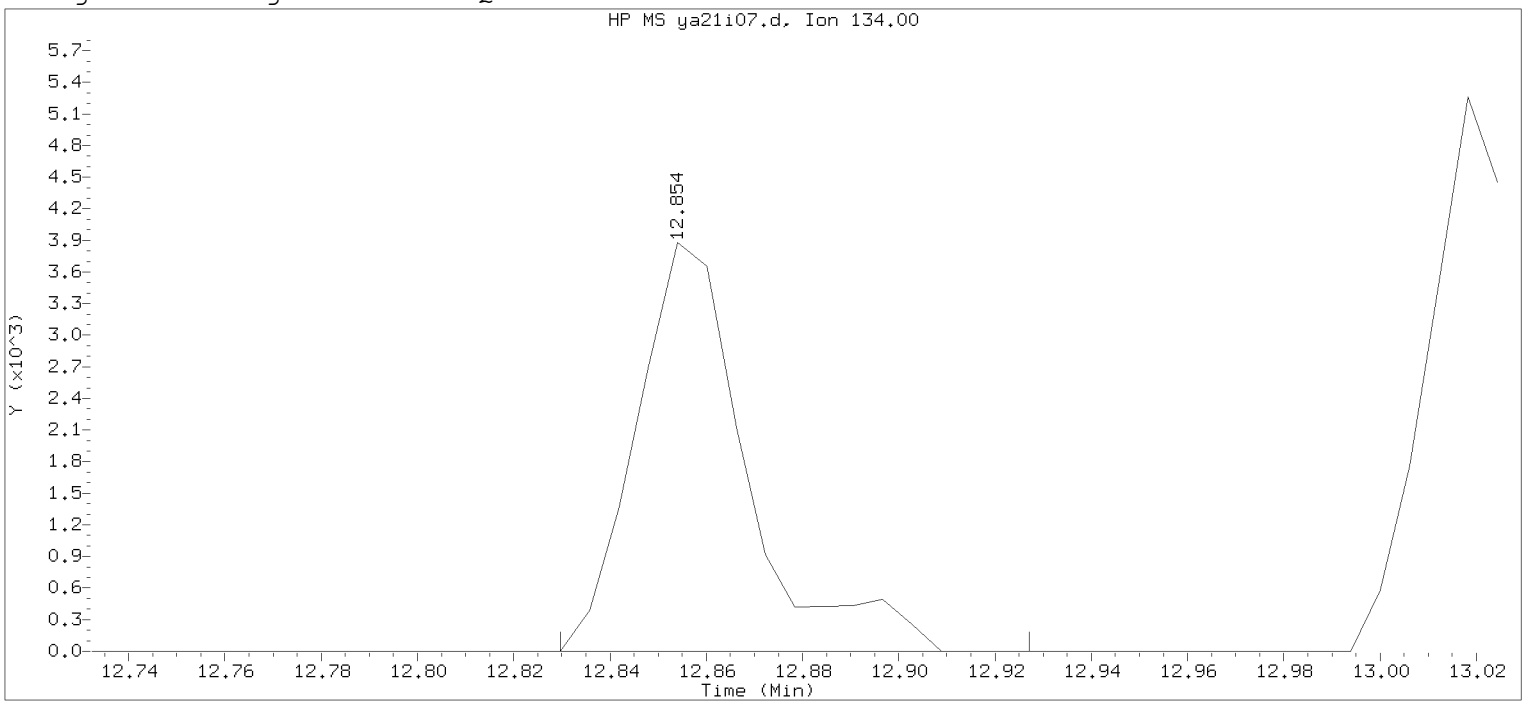
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:07.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



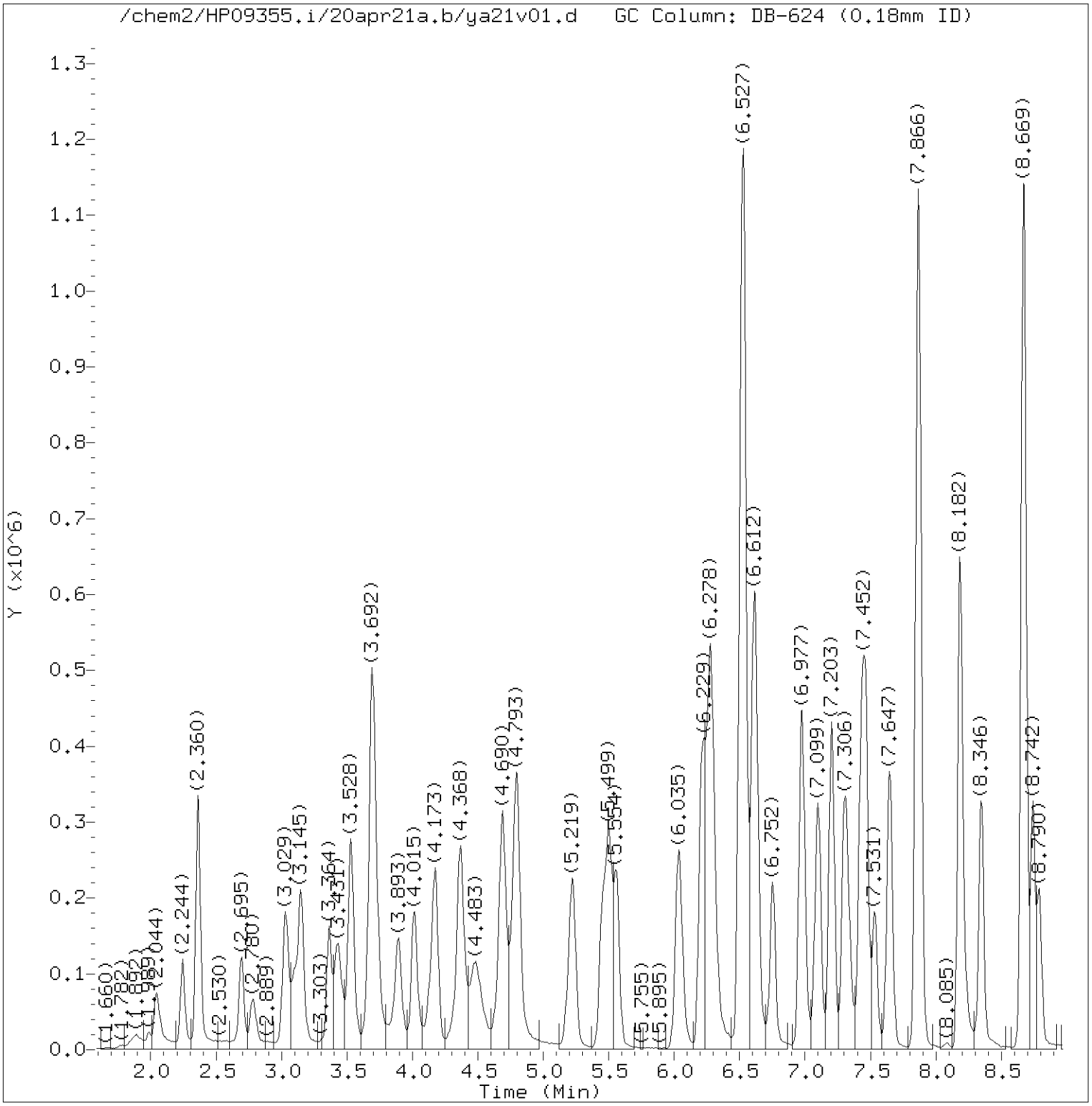
Data File: /chem2/HP09355.i/20apr21a.b/ya21i07.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:06 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 07:50
Date, time and analyst ID of latest file update: 22-Apr-2020 07:50 jkh09052

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 1853
Retention Time (minutes): 12.854
Quant Ion : 134.00
Area : 6223
On-column Amount (ng) : 0.8981
Integration start scan : 1848 Integration stop scan: 1864
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:07.
Target 3.5 esignature user: JKH09052



Total Ion Chromatogram (TIC)

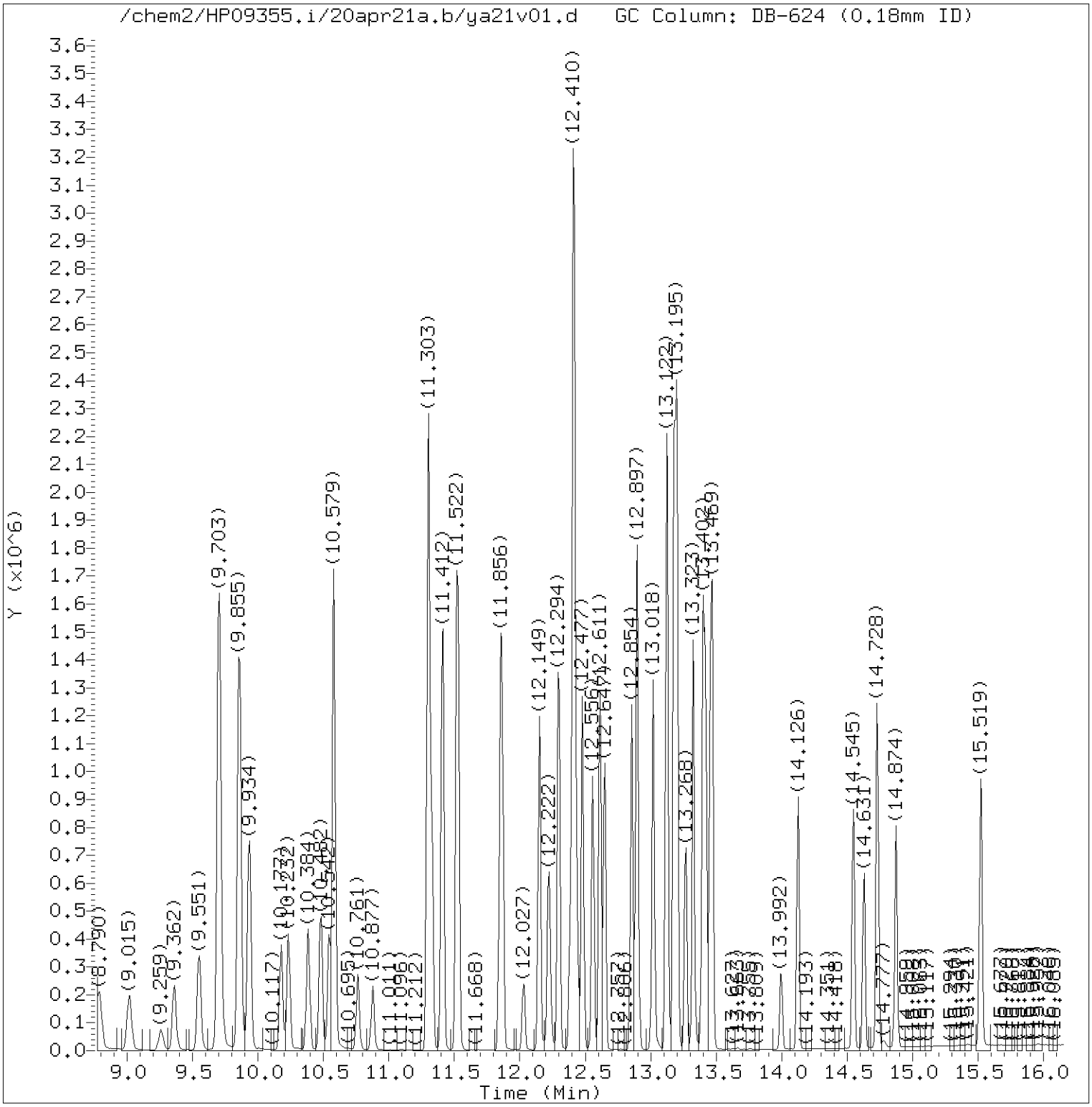
Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.044	85	149080M	18.399
4) Chloromethane	(2)	2.244	50	162370	21.825
5) 1,3-Butadiene	(2)	2.360	39	142841	23.661
6) Vinyl Chloride	(2)	2.360	62	160586	21.646
8) Bromomethane	(2)	2.695	94	115129	22.452
9) Chloroethane	(2)	2.780	64	89864	21.866
10) Dichlorofluoromethane	(2)	3.029	67	234965	21.485
12) Trichlorofluoromethane	(2)	3.096	101	204026	24.007
11) n-Pentane	(2)	3.145	43	205253	20.917
14) Ethyl ether	(2)	3.364	59	128200	19.304
15) Freon 123a	(2)	3.431	67	165198	21.094
16) Acrolein	(1)	3.528	56	438546	141.048
17) 1,1-Dichloroethene	(2)	3.686	96	134864	19.772
18) Acetone	(1)	3.698	58	215959	148.923
19) Freon 113	(2)	3.717	101	132723	21.573
21) 2-Propanol	(1)	3.863	45	152418	141.458
22) Methyl Iodide	(2)	3.893	142	214601	19.866
23) Carbon Disulfide	(2)	4.015	76	446858	20.248
27) Methyl Acetate	(2)	4.143	43	209950	21.497
25) Allyl Chloride	(2)	4.179	41	244761	22.650
29)*t-Butyl alcohol-d10	(1)	4.355	65	378230M	250.000
28) Methylene Chloride	(2)	4.368	84	152279	20.842
30) t-Butyl alcohol	(1)	4.483	59	374189	199.195
31) Acrylonitrile	(2)	4.684	53	537112	99.254
33) Methyl Tertiary Butyl Ether	(2)	4.781	73	426306	19.777
32) trans-1,2-Dichloroethene	(2)	4.800	96	150787	20.141
34) n-Hexane	(2)	5.219	57	235388	21.510
36) 1,1-Dichloroethane	(2)	5.450	63	259435	20.434
38) di-Isopropyl ether	(2)	5.499	45	481634	20.670
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	210428	20.485
40) Ethyl t-butyl ether	(2)	6.035	59	425551	20.402
43) 1,2-Dichloroethene (Total)	(2)		96	327762	41.103
44) 2-Butanone	(2)	6.217	43	1121422	153.627
42) cis-1,2-Dichloroethene	(2)	6.272	96	176975	20.962
45) 2,2-Dichloropropane	(2)	6.290	77	198818	20.791
47) Propionitrile	(1)	6.302	54	350429	156.561
48) Methacrylonitrile	(2)	6.527	67	843295	153.427
49) Bromochloromethane	(2)	6.612	128	83158	21.214

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.625	71	214695	103.758
51) Chloroform	(2)	6.752	83	246284	20.205
52)$Dibromofluoromethane	(2)	6.971	113	281756	50.037
53) 1,1,1-Trichloroethane	(2)	6.990	97	208967M	20.000
54) Cyclohexane	(2)	7.099	56	267142	20.477
55) 1,1-Dichloropropene	(2)	7.203	75	206662	20.385
56) Carbon Tetrachloride	(2)	7.209	117	179007	20.269
58) Isobutyl Alcohol	(1)	7.306	41	333041	494.000
57)$1,2-Dichloroethane-d4	(2)	7.428	102	74349	50.067
60) Benzene	(2)	7.464	78	612544	19.884
61) 1,2-Dichloroethane	(2)	7.531	62	197009M	19.935
65) t-Amyl methyl ether	(2)	7.647	73	426325	20.258
66)*Fluorobenzene	(2)	7.866	96	1239758	50.000
67) n-Heptane	(2)	7.878	43	230810	19.336
69) n-Butanol	(1)	8.182	56	630260	992.803
71) Trichloroethene	(2)	8.346	95	151265	19.818
72) Methylcyclohexane	(2)	8.669	83	294820	21.738
73) 1,2-Dichloropropane	(2)	8.675	63	163028	20.664
76) Methyl Methacrylate	(2)	8.742	69	166698	21.101
75) 1,4-Dioxane	(1)	8.754	88	75580M	495.294
74) Dibromomethane	(2)	8.790	93	101431	20.274
78) Bromodichloromethane	(2)	9.022	83	182169	20.170
79) 2-Nitropropane	(2)	9.259	41	62245	19.070
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	127673	20.261
81) cis-1,3-Dichloropropene	(2)	9.551	75	249218	20.118
82) 4-Methyl-2-pentanone	(2)	9.703	43	1416686	104.155
83)$Toluene-d8	(3)	9.855	98	1197204	49.952
88) Toluene	(3)	9.934	92	385407	20.021
90) 1,3-Dichloropropene (total)	(3)		100	475482	39.811
89) trans-1,3-Dichloropropene	(3)	10.177	75	226264	19.693
91) Ethyl Methacrylate	(3)	10.232	69	238080	19.150
92) 1,1,2-Trichloroethane	(3)	10.384	97	155604	20.546
93) Tetrachloroethene	(3)	10.482	166	155761	19.828
94) 1,3-Dichloropropane	(3)	10.542	76	255702	19.822
96) 2-Hexanone	(3)	10.579	43	1141598	105.895
97) Dibromochloromethane	(3)	10.761	129	154158	20.354
99) 1,2-Dibromoethane	(3)	10.877	107	163958	20.076
100)*Chlorobenzene-d5	(3)	11.303	117	917833	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.303	91	206050	19.383
102) Chlorobenzene	(3)	11.327	112	437995	20.137
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	143136	20.217
104) Ethylbenzene	(3)	11.412	91	744074	20.261
106) m+p-Xylene	(3)	11.522	106	595843	41.112
108) Xylene (Total)	(3)		106	885430	61.432
107) o-Xylene	(3)	11.850	106	289587	20.320
109) Styrene	(3)	11.869	104	474392	20.661
110) Bromoform	(3)	12.033	173	107277	19.195
111) Isopropylbenzene	(3)	12.149	105	745243	20.747
112) Cyclohexanone	(1)	12.222	55	279979	476.603
114)$4-Bromofluorobenzene	(3)	12.294	95	451532	49.722
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	265645	19.927
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	447346	104.383
115) Bromobenzene	(4)	12.416	156	186139	19.769
117) 1,2,3-Trichloropropane	(4)	12.434	110	83942	19.849
119) n-Propylbenzene	(4)	12.477	91	906973	20.674
120) 2-Chlorotoluene	(4)	12.556	126	180296	19.950
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	645836	20.382
121) 4-Chlorotoluene	(4)	12.647	126	189718	19.974
124) tert-Butylbenzene	(4)	12.854	134	129030	19.471
125) Pentachloroethane	(4)	12.891	167	107951	21.153
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	671207	20.131
127) sec-Butylbenzene	(4)	13.018	105	837007	20.499
129) 1,3-Dichlorobenzene	(4)	13.122	146	364544	20.222
130) p-Isopropyltoluene	(4)	13.128	119	710095	20.588
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	493313	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	377997	20.308
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	717285	21.888
135) Benzyl Chloride	(4)	13.268	91	477577	17.831
136) 1,3-Diethylbenzene	(4)	13.323	119	445190	21.208
141) Diethylbenzene (total)	(4)		100	1284576	63.423
137) 1,4-Diethylbenzene	(4)	13.396	119	468805	21.250
139) n-Butylbenzene	(4)	13.420	92	366800	19.770
138) 1,2-Dichlorobenzene	(4)	13.456	146	347977	19.875
140) 1,2-Diethylbenzene	(4)	13.469	119	370581	20.965
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	63594	19.374
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	250367	19.188

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	235433	19.222
147) Hexachlorobutadiene	(4)	14.631	225	102714	18.598
148) Naphthalene	(4)	14.728	128	887839	19.817
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	224984	18.956
150) 2-Methylnaphthalene	(4)	15.519	142	466442	18.842

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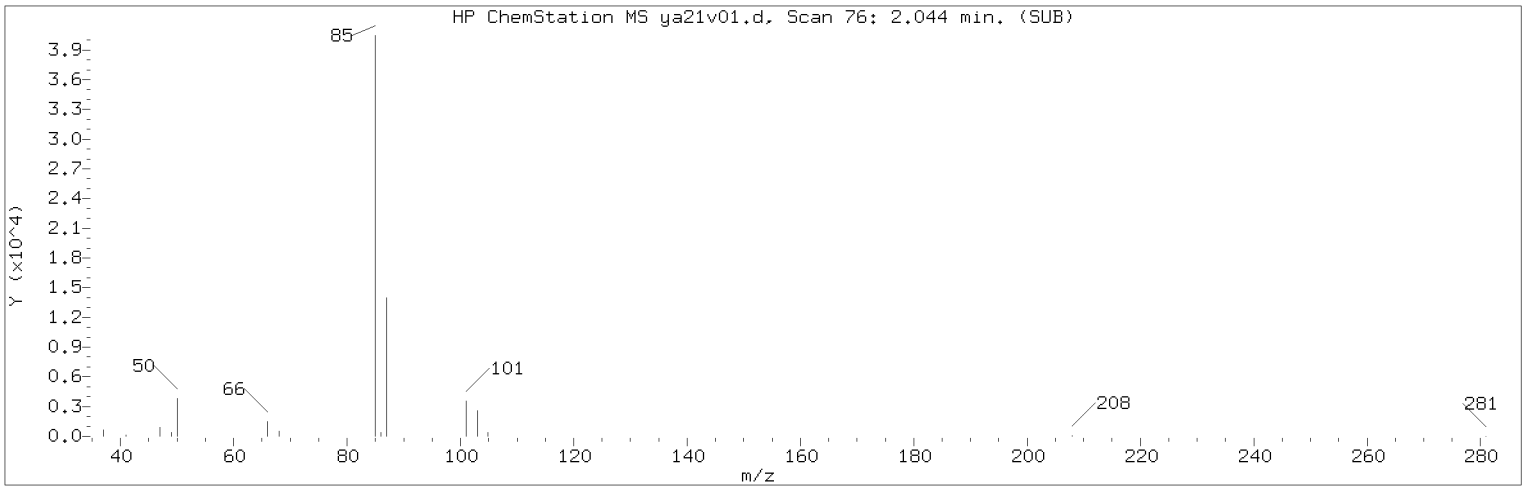
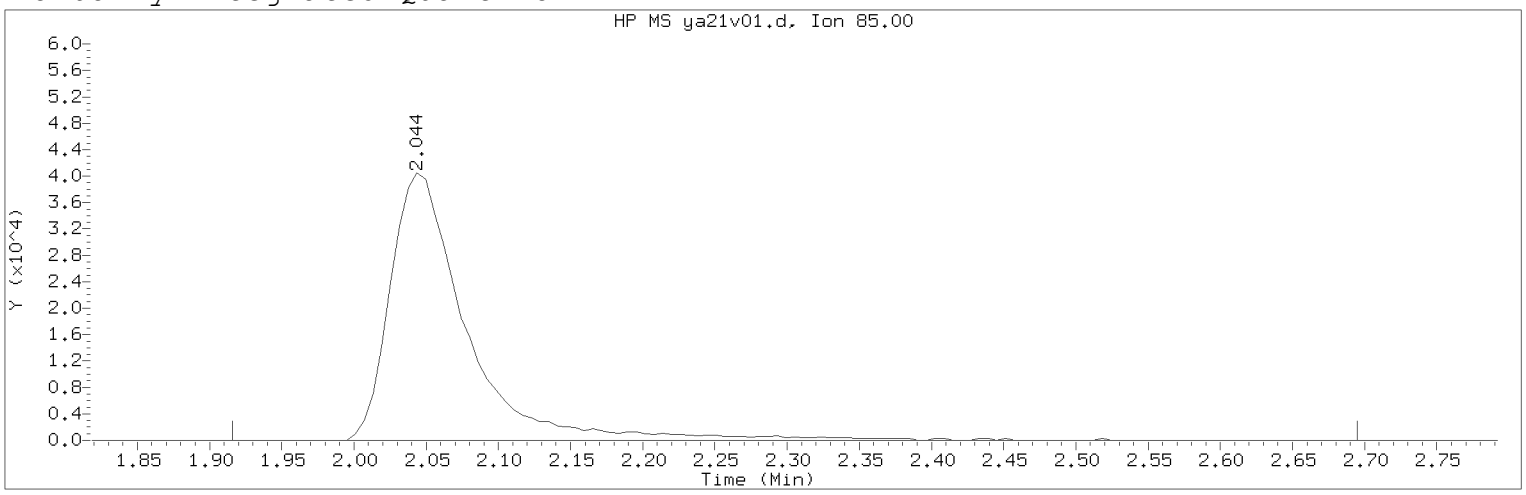
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

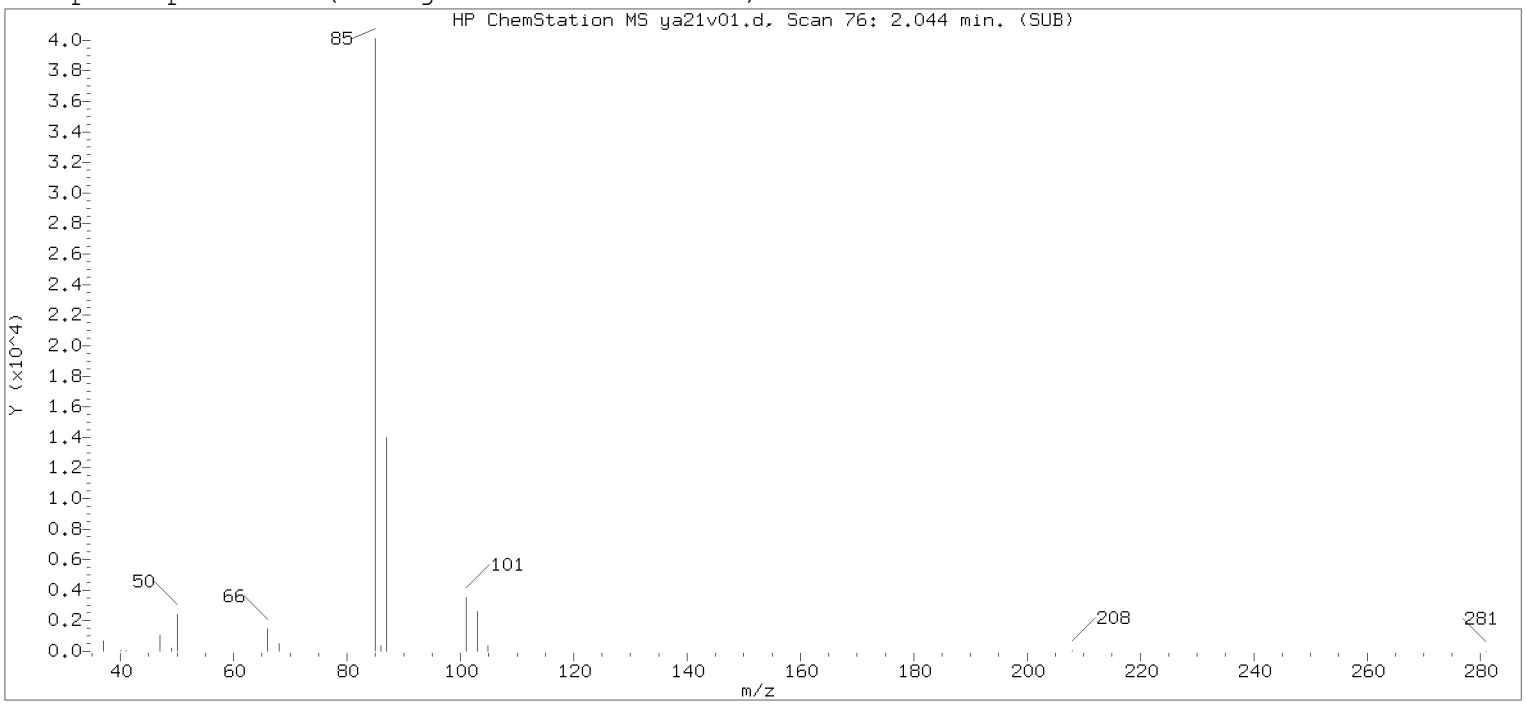
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area (flag) : 149080M
On-Column Amount (ng) : 18.3994
Integration start scan : 54 Integration stop scan: 182
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

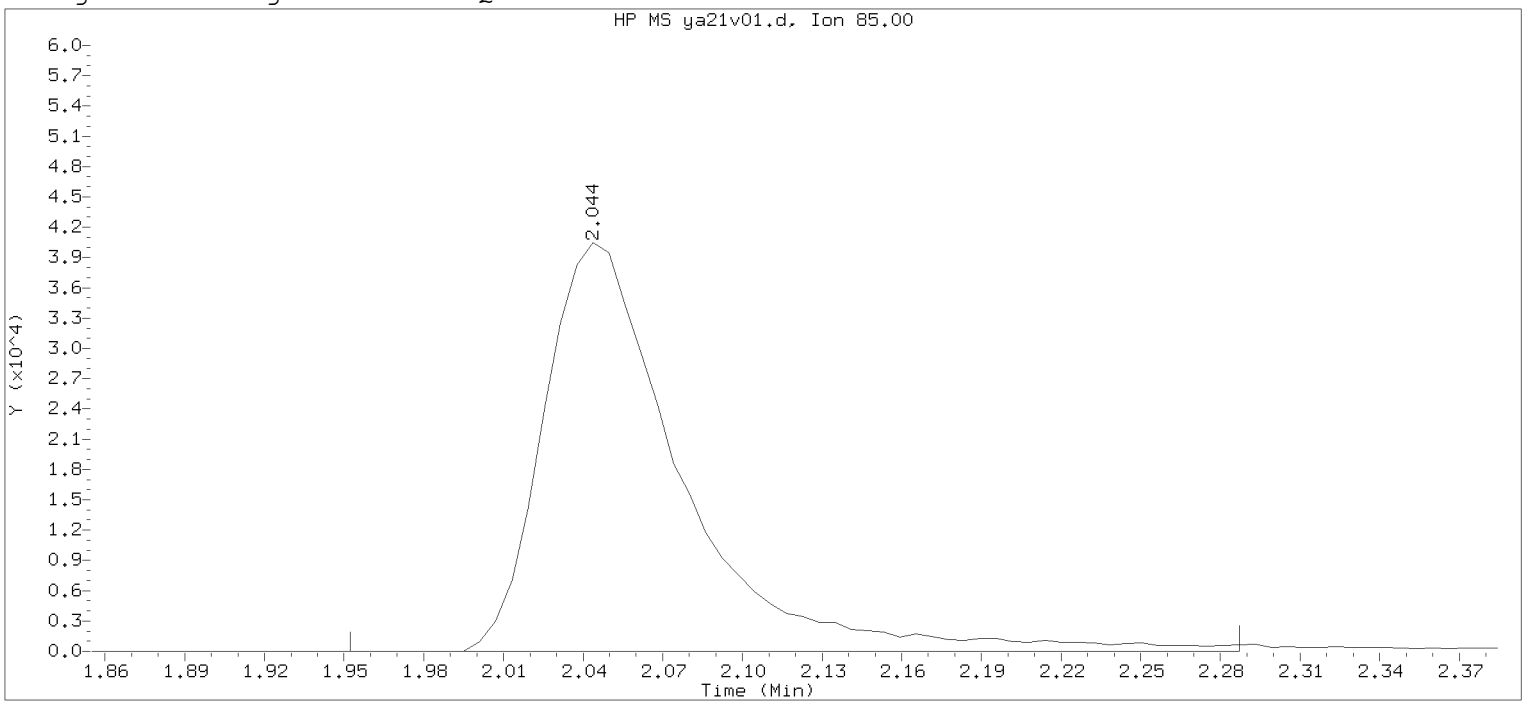
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

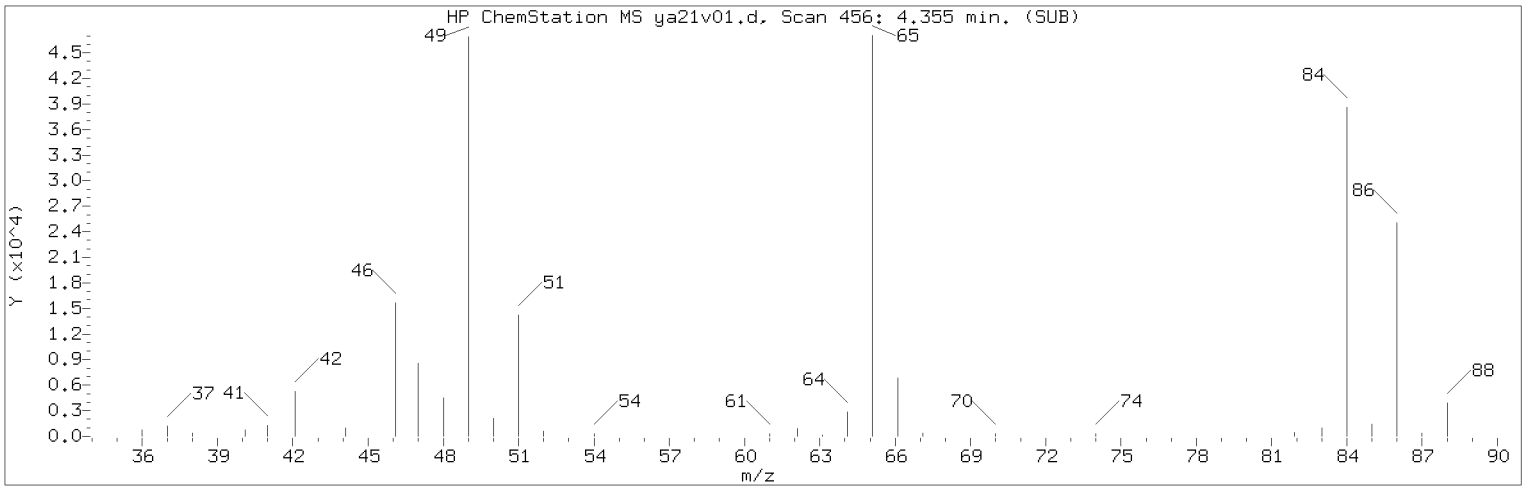
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

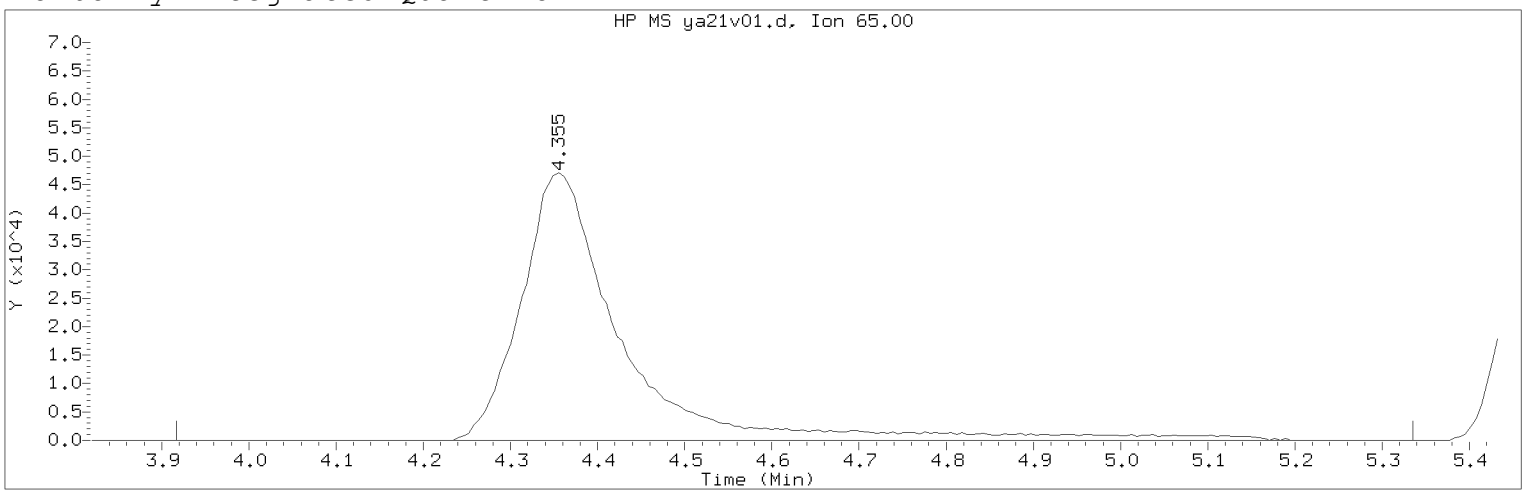
Compound Number : 3
Compound Name : Dichlorodifluoromethane
Scan Number : 76
Retention Time (minutes): 2.044
Quant Ion : 85.00
Area : 146189
On-column Amount (ng) : 18.0427
Integration start scan : 60 Integration stop scan: 115
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

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Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

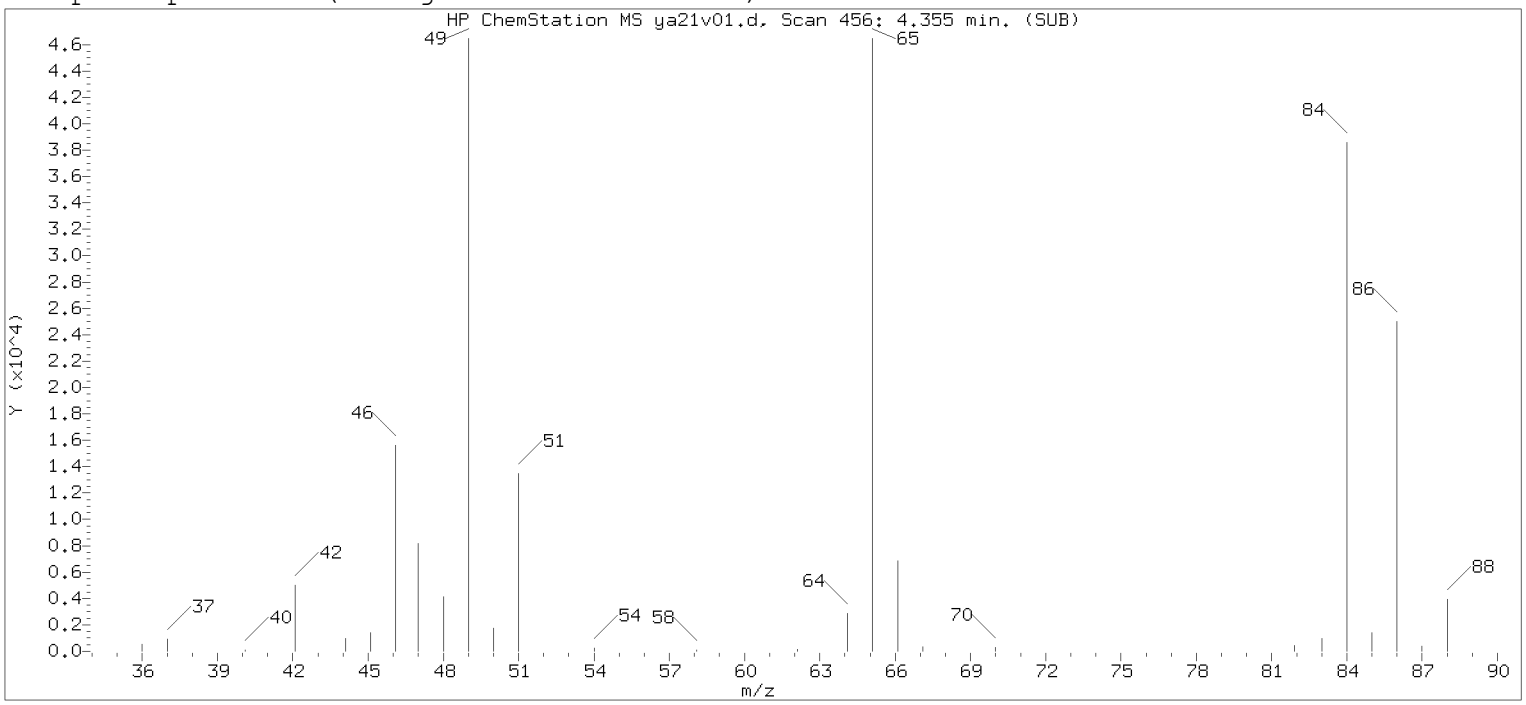
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area (flag) : 378230M
On-Column Amount (ng) : 250.0000
Integration start scan : 383 Integration stop scan: 616
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

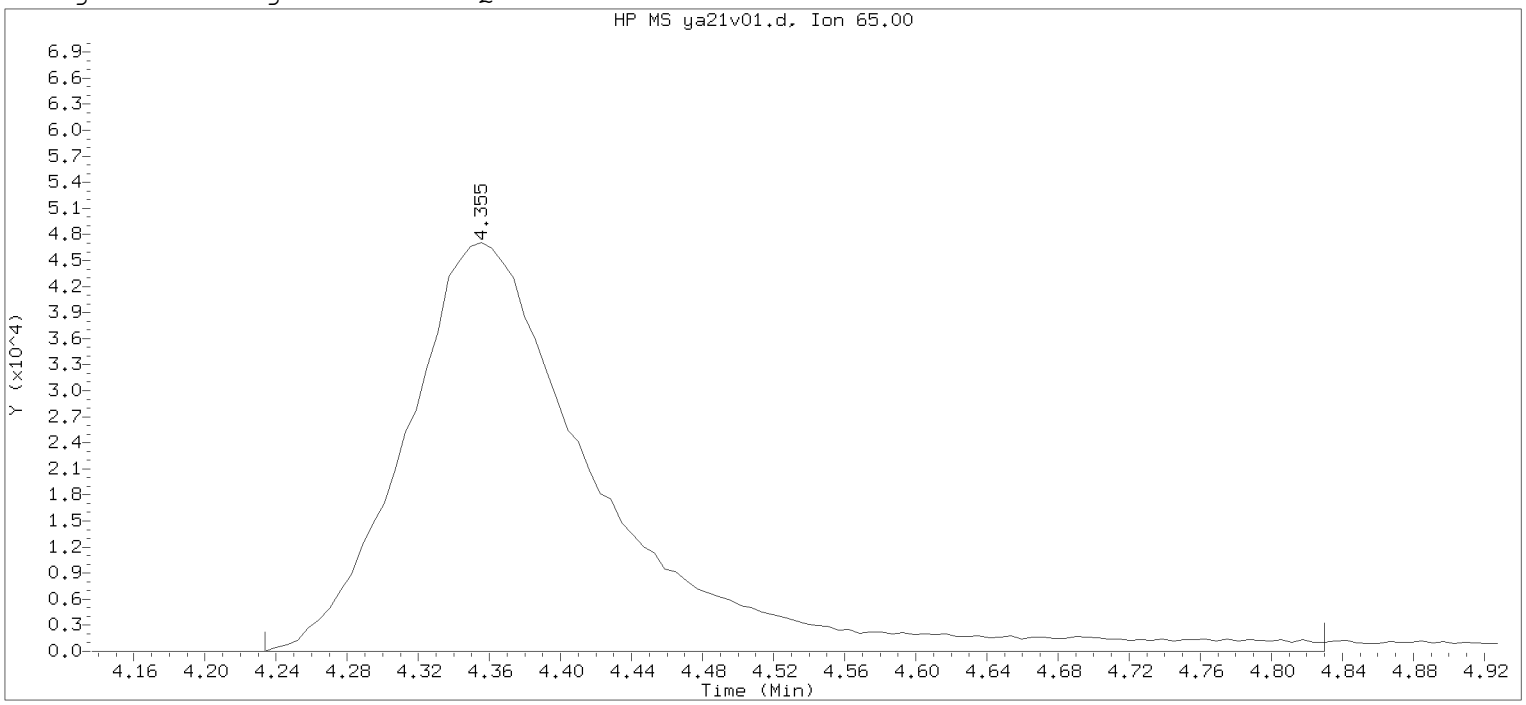
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

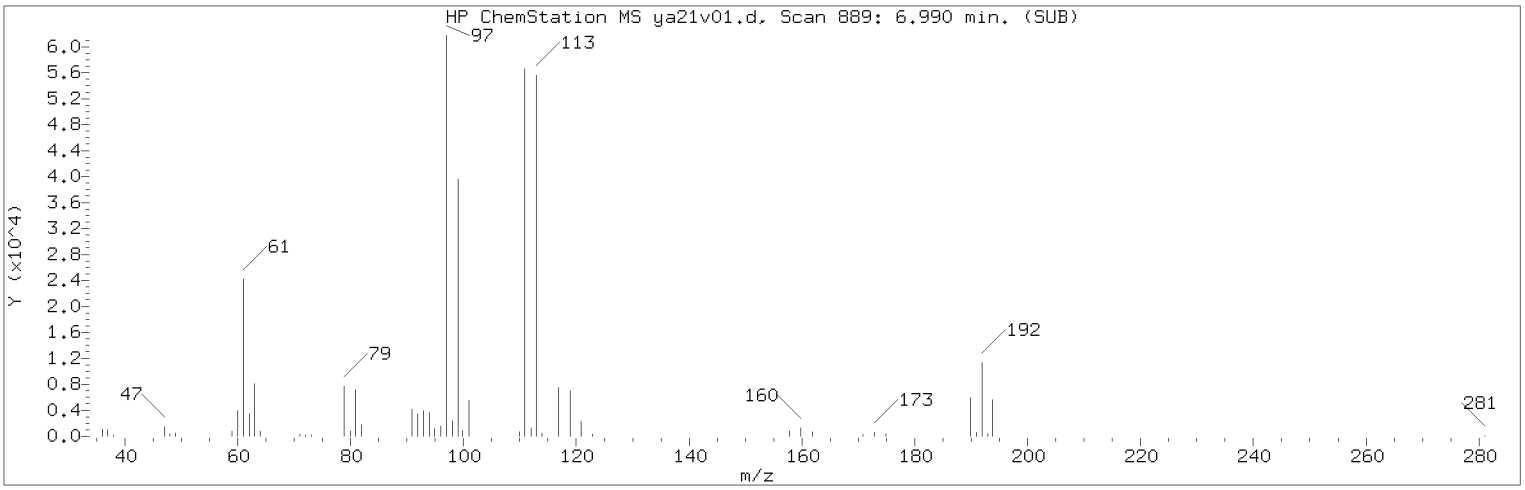
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

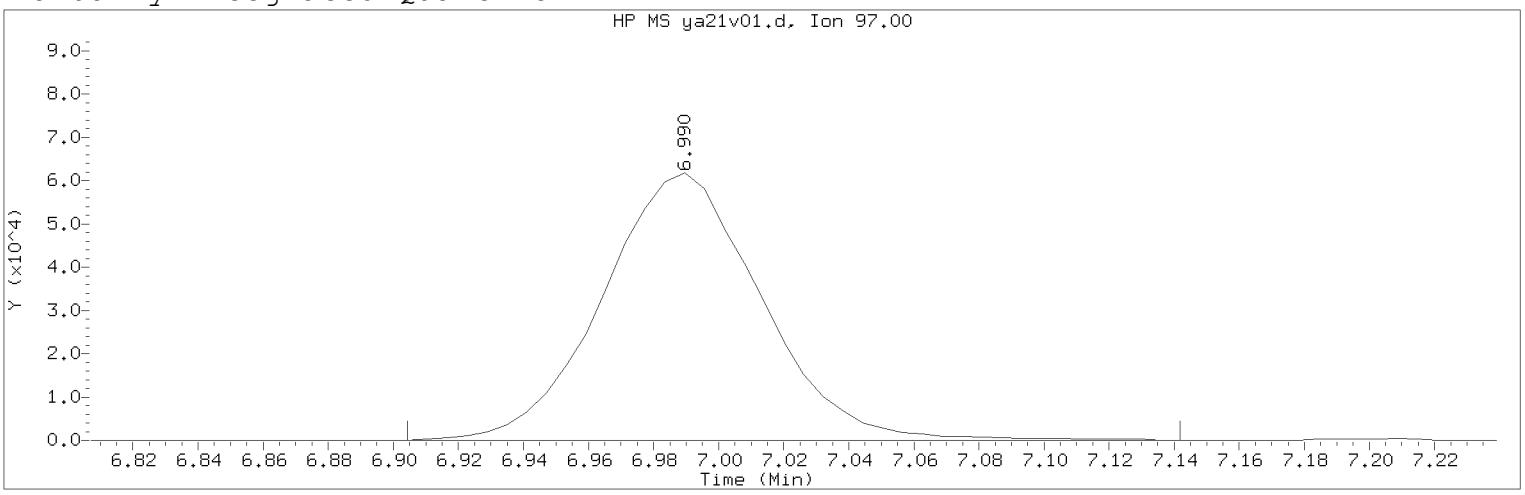
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 456
Retention Time (minutes): 4.355
Quant Ion : 65.00
Area : 360290
On-column Amount (ng) : 250.0000
Integration start scan : 435 Integration stop scan: 533
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

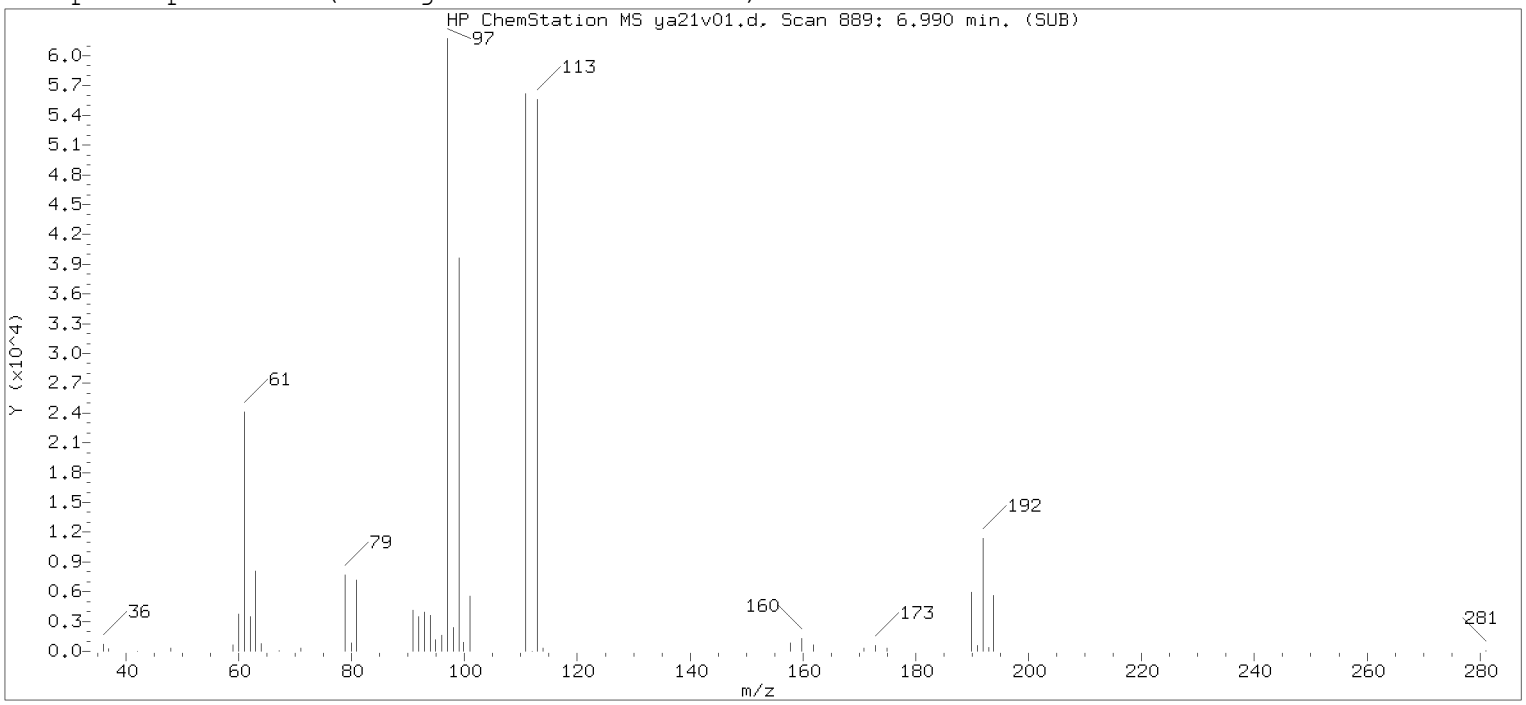
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Quant Ion : 97.00
Area (flag) : 208967M
On-Column Amount (ng) : 19.9996
Integration start scan : 874 Integration stop scan: 913
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

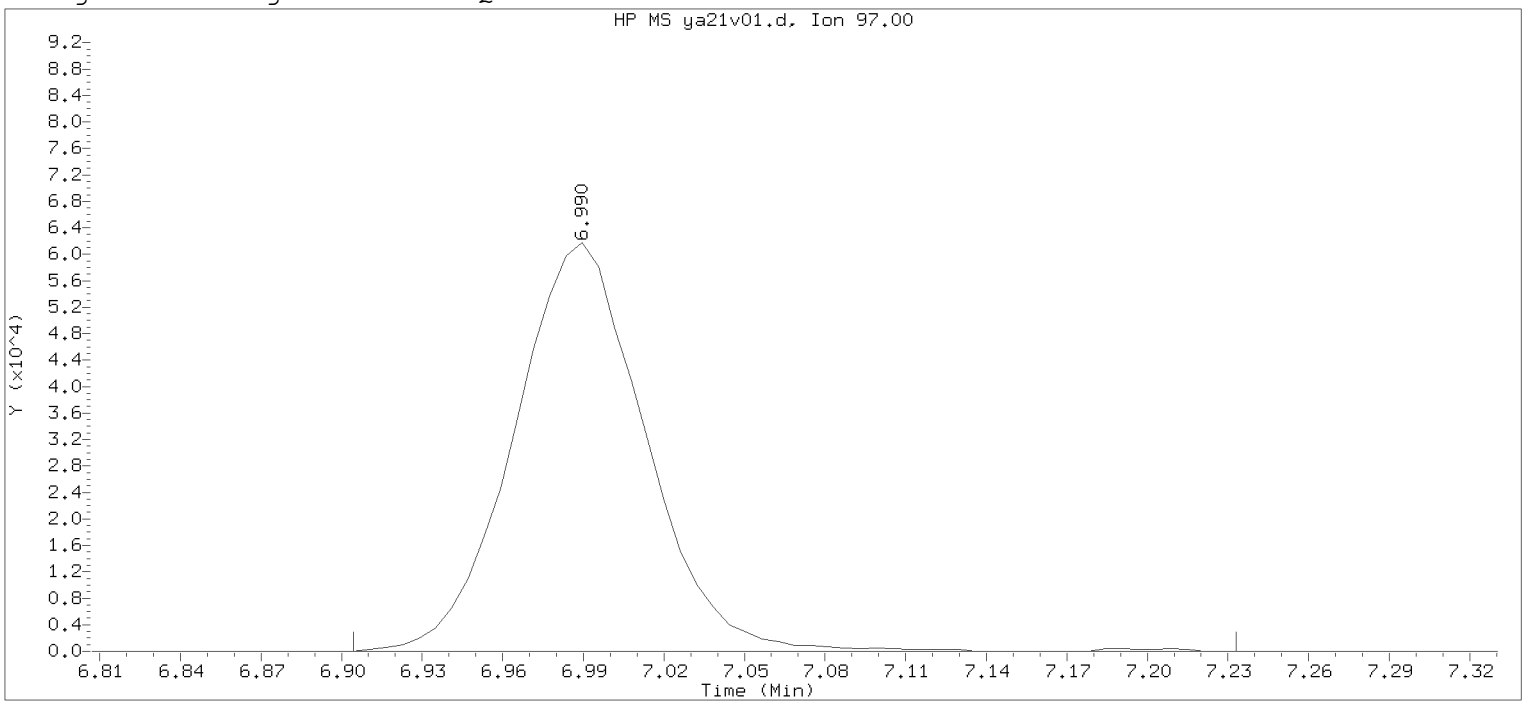
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

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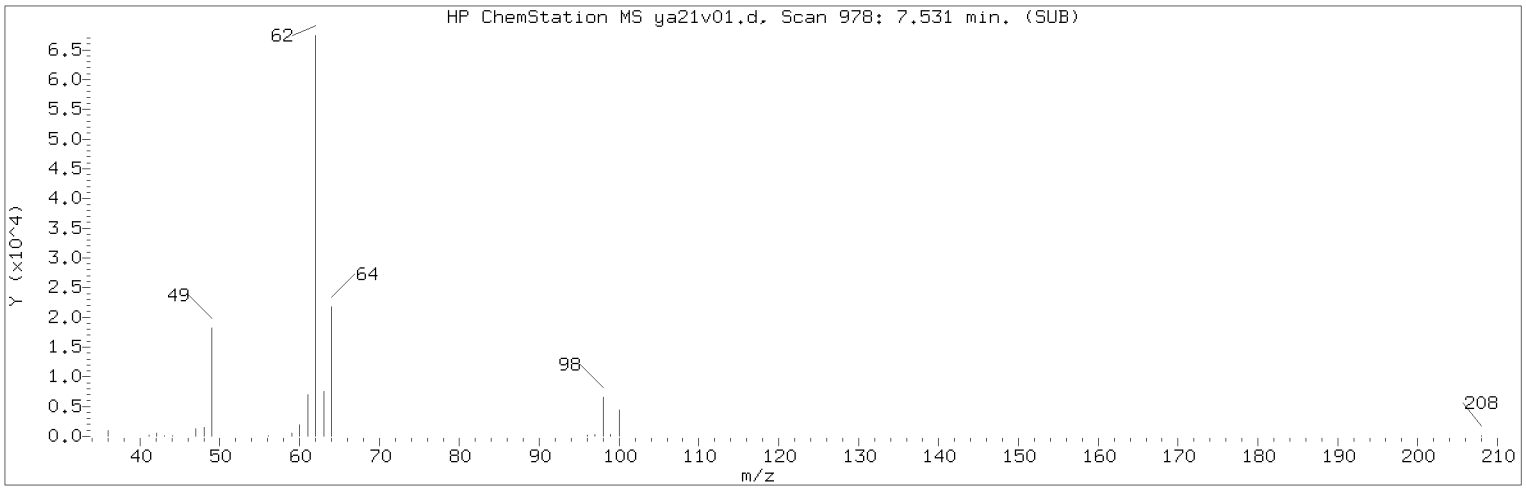
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

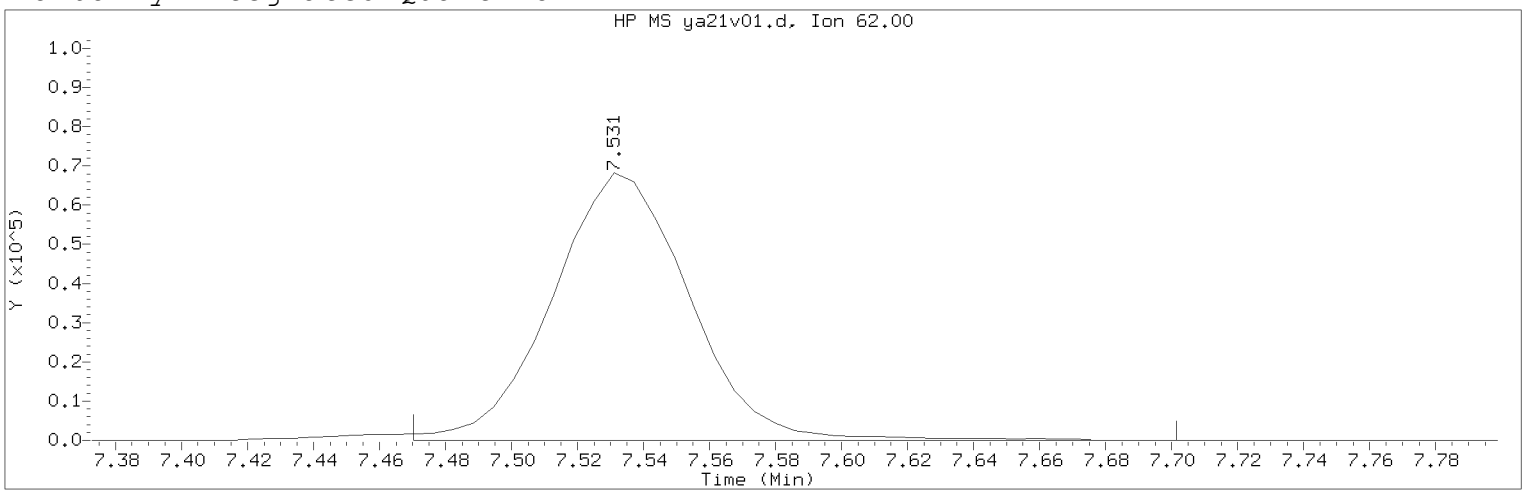
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 889
Retention Time (minutes): 6.990
Quant Ion : 97.00
Area : 209725
On-column Amount (ng) : 20.0722
Integration start scan : 874 Integration stop scan: 928
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

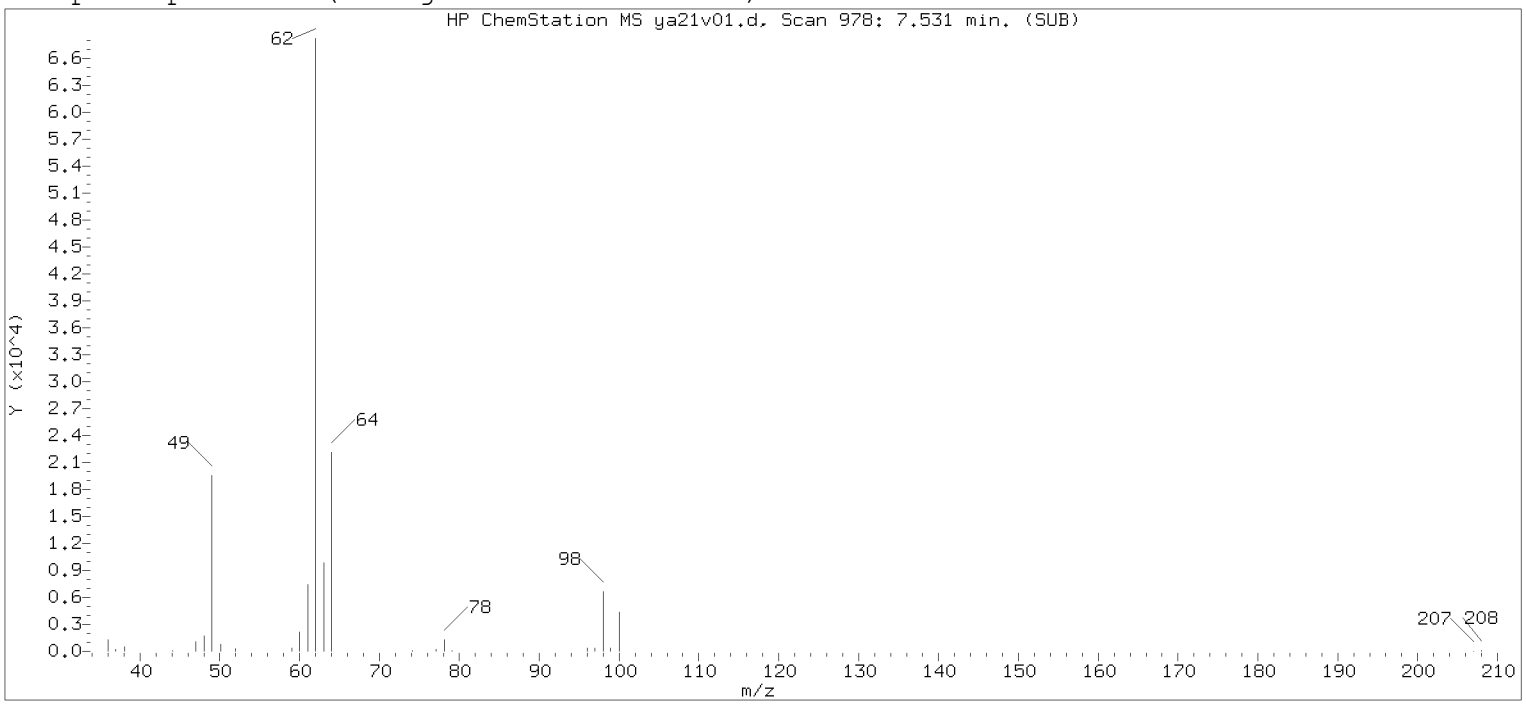
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area (flag) : 197009M
On-Column Amount (ng) : 19.9352
Integration start scan : 967 Integration stop scan: 1005
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

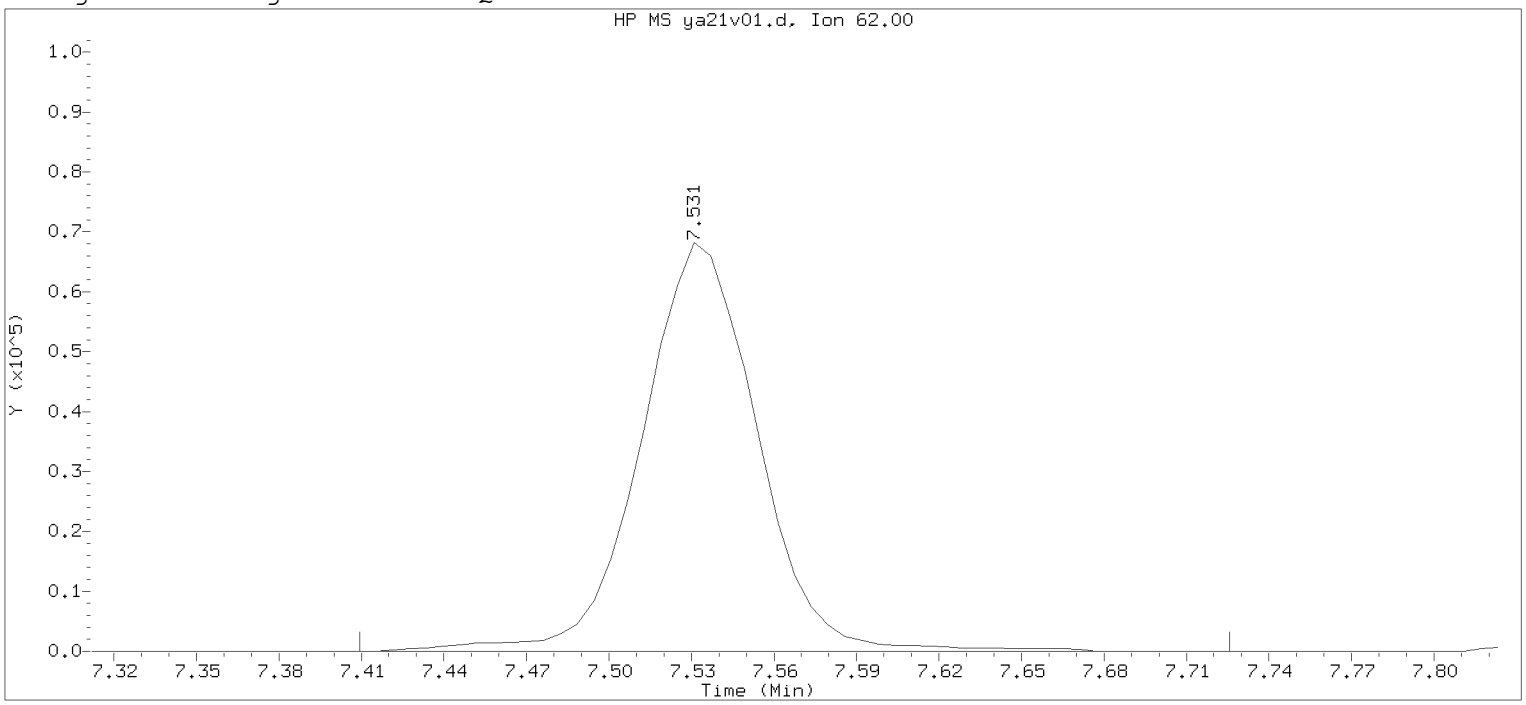
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

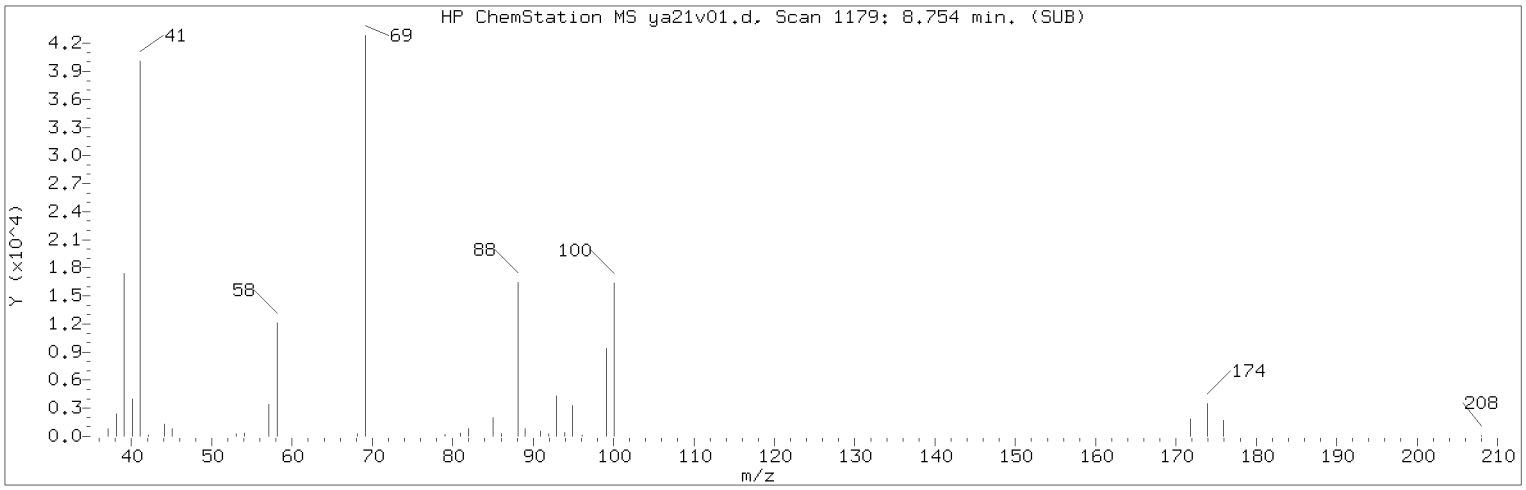
Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

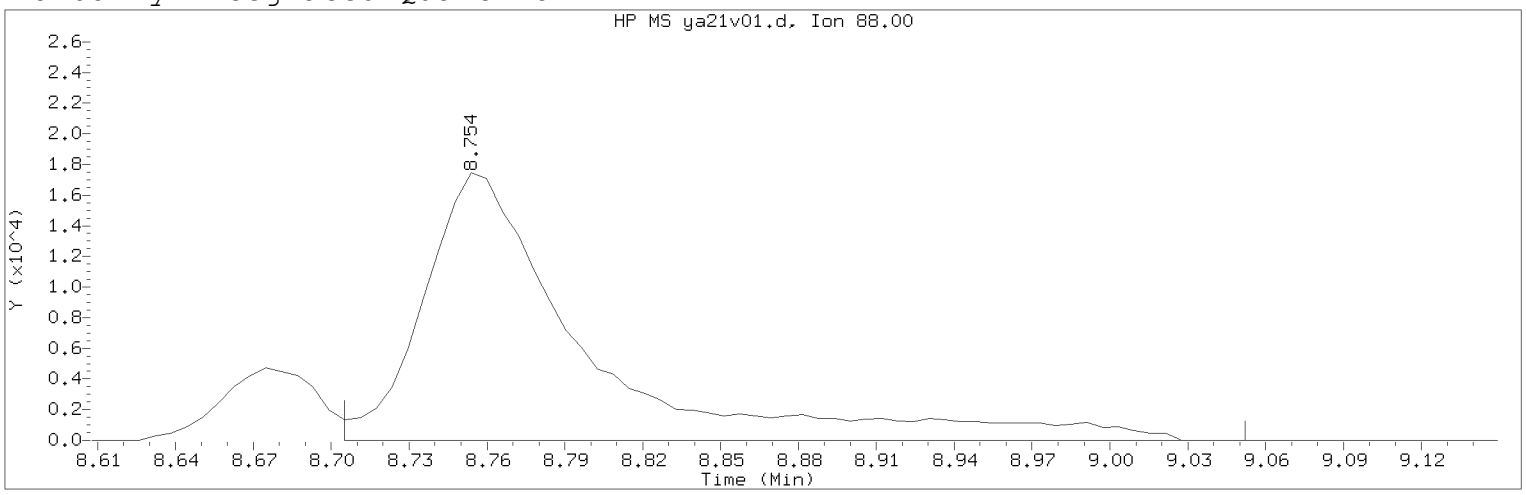
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 978
Retention Time (minutes): 7.531
Quant Ion : 62.00
Area : 199698
On-column Amount (ng) : 20.2072
Integration start scan : 957 Integration stop scan: 1009
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:09 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

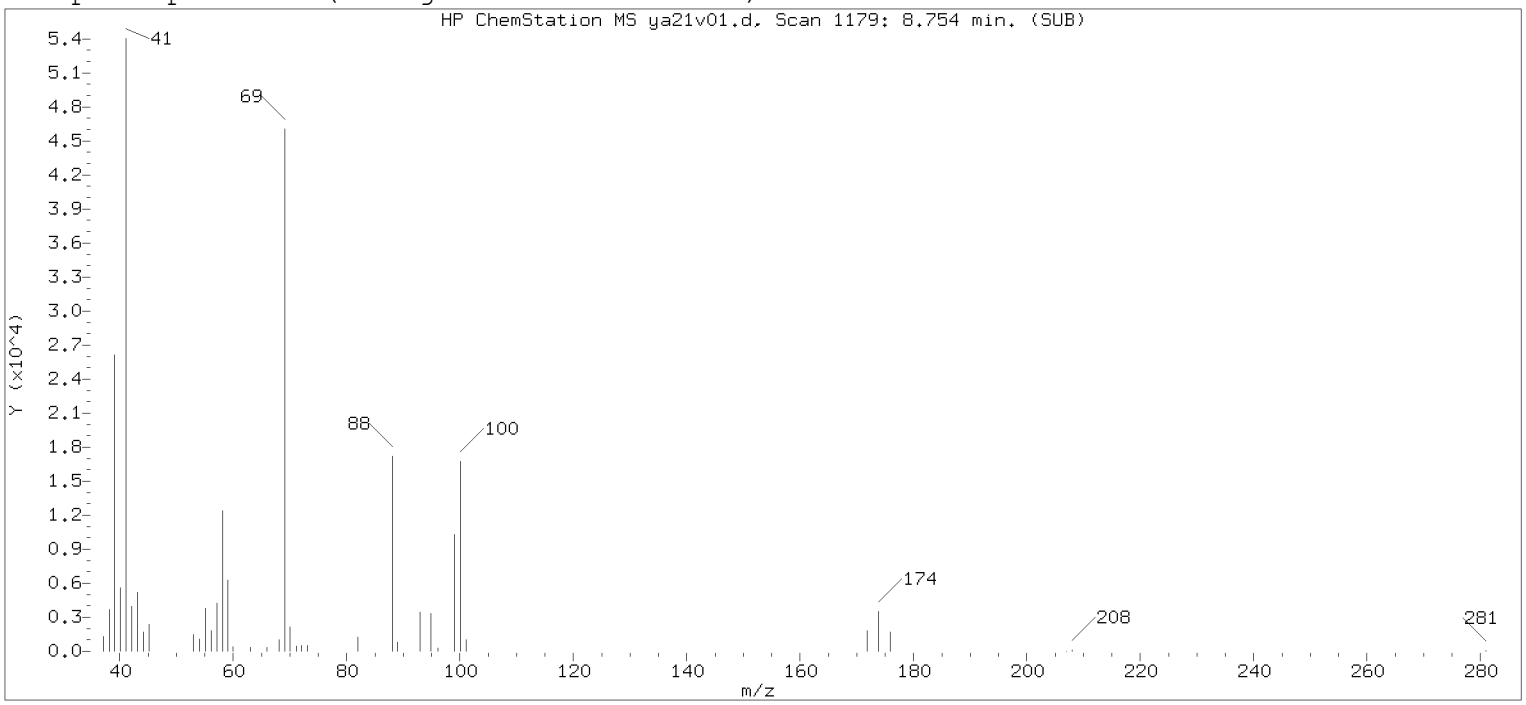
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 75580M
On-Column Amount (ng) : 495.2938
Integration start scan : 1170 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

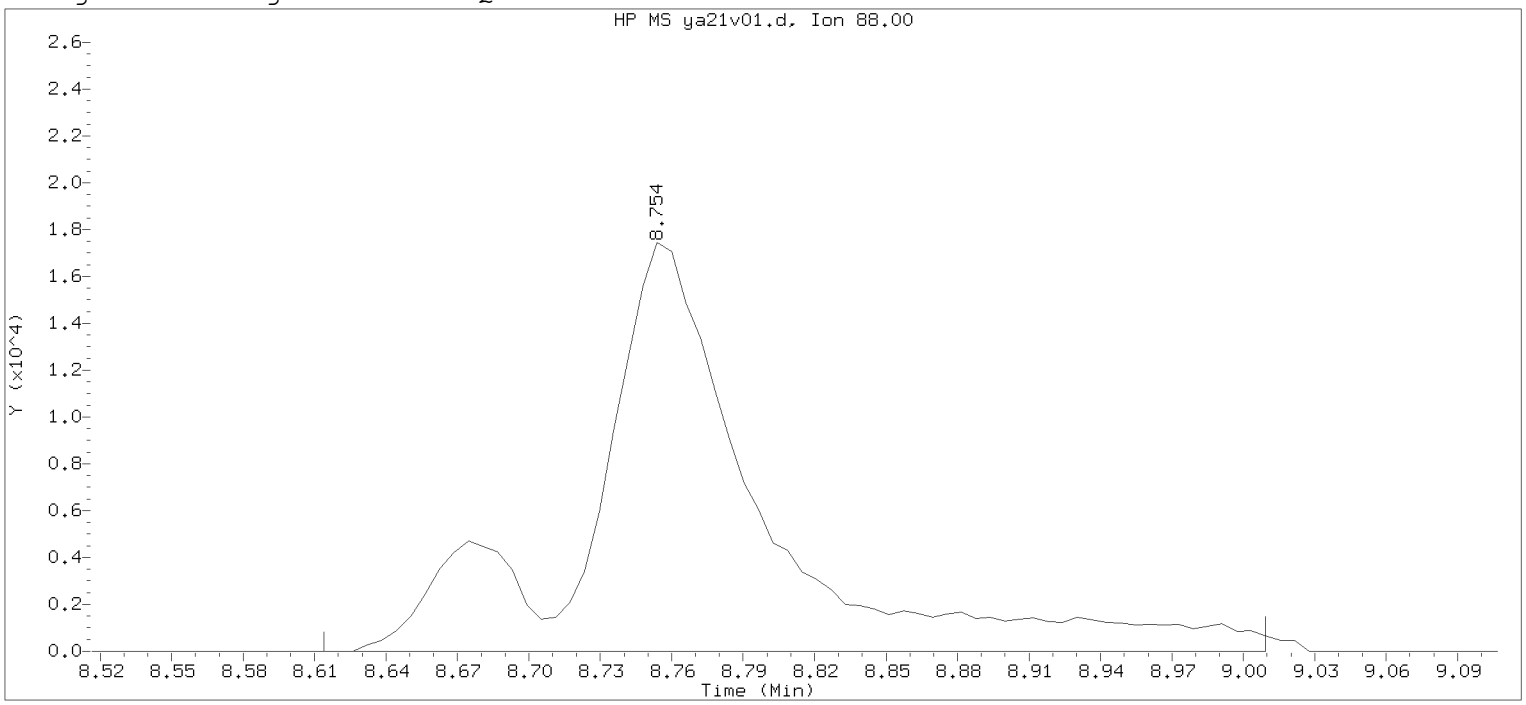
Analyst responsible for change: Digitally signed by Jennifer K. Howe
on 04/22/2020 at 08:10.
Target 3.5 esignature user ID: jkh09052

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/23/2020 at 10:51.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20apr21a.b/ya21v01.d Instrument ID: HP09355.i
Injection date and time: 22-APR-2020 00:49 Analyst ID: KAS02648

Method used: /chem2/HP09355.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-APR-2020 08:06
Date, time and analyst ID of latest file update: 22-Apr-2020 08:06 jkh09052

Sample Name: YLGICV Lab Sample ID: YLGICV

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 86862
On-column Amount (ng) : 597.5710
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Jennifer K. Howe on 04/22/2020 at 08:10.
Target 3.5 esignature user: JKH09052

Data File: /chem2/HP09355.i/20may22a.b/yy22t03.d

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20

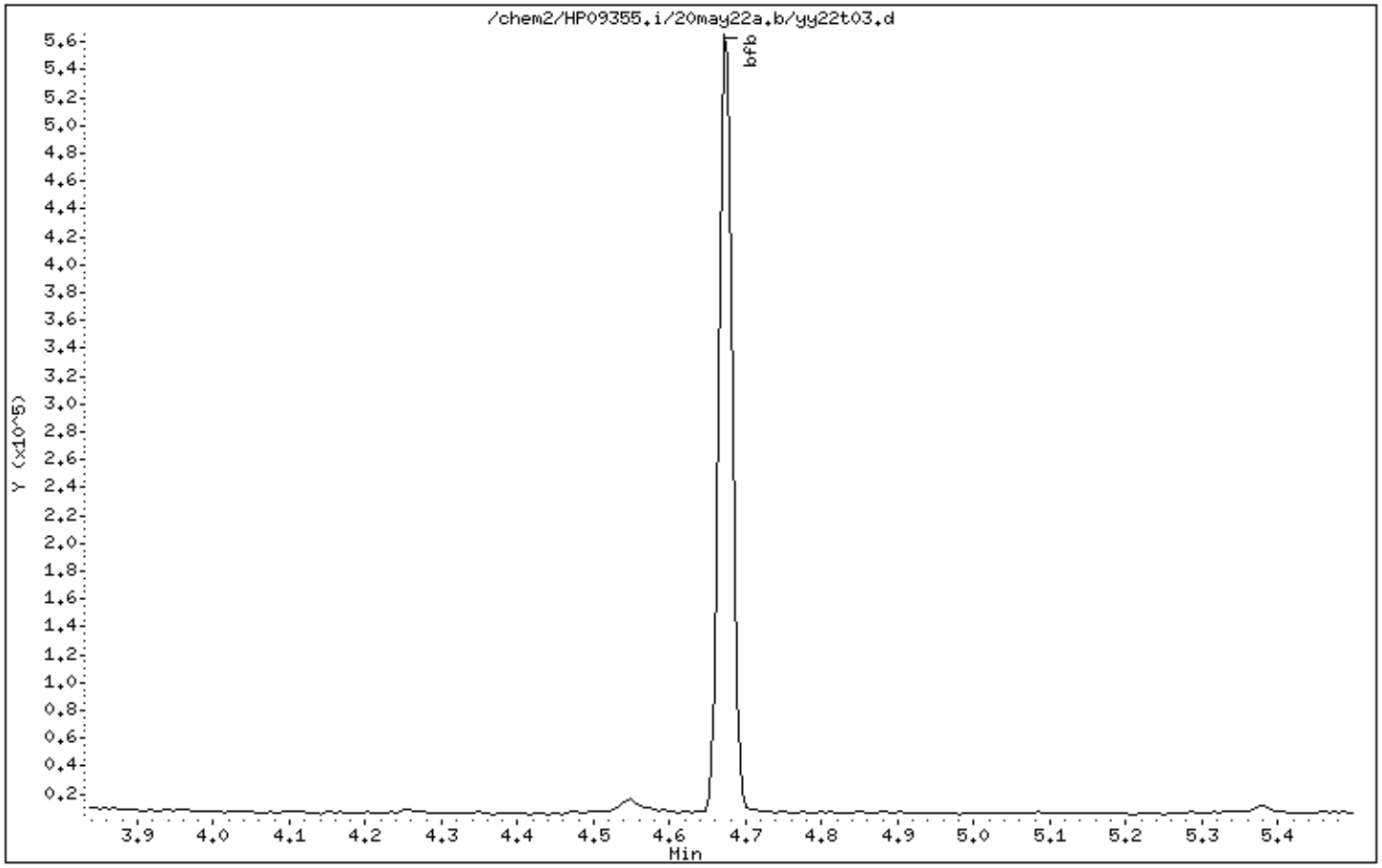
Instrument: HP09355.i

Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP09355.i/20may22a.b/yy22t03.d

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20

Instrument: HP09355.i

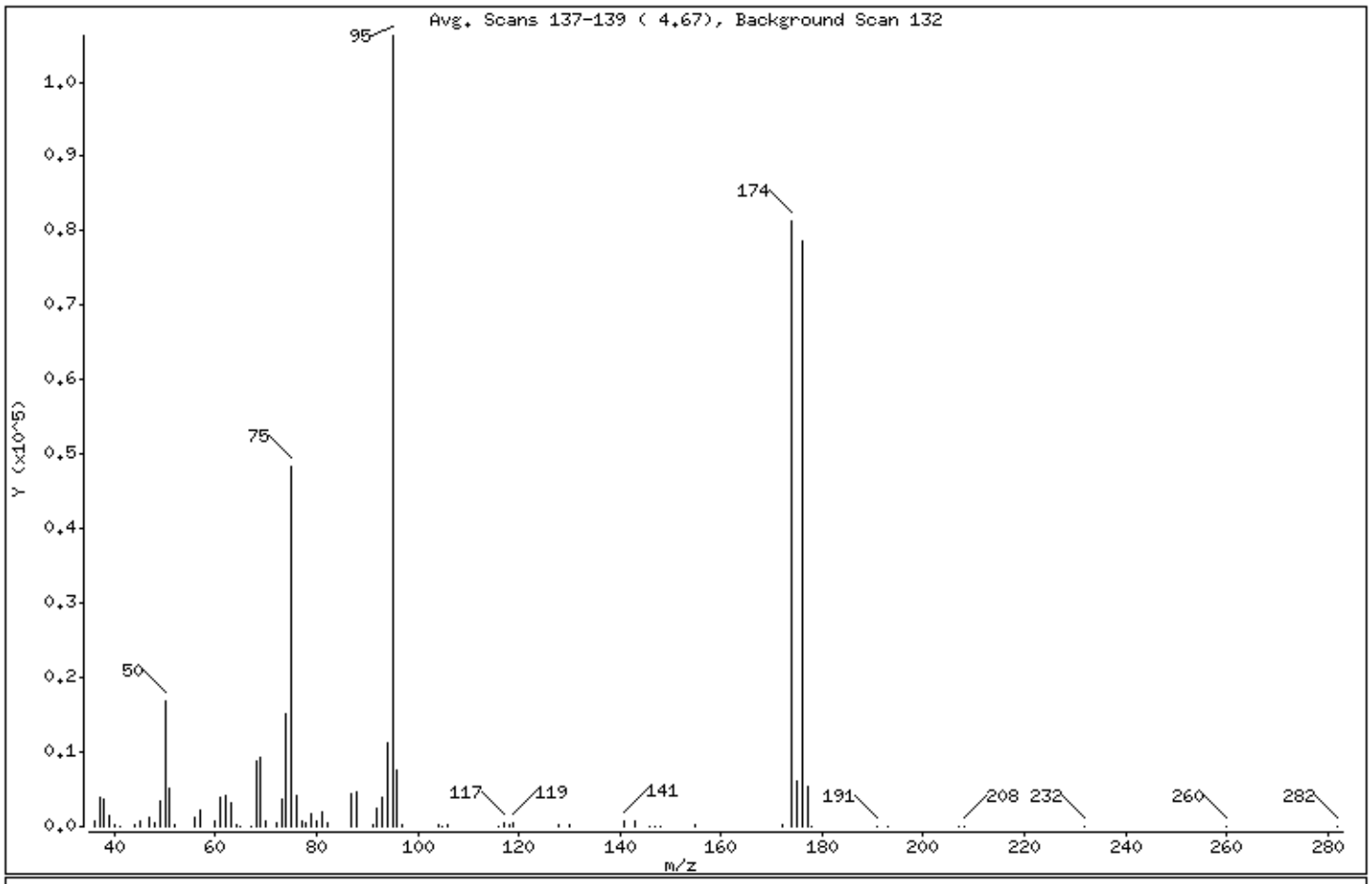
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.94
75	30.00 - 60.00% of mass 95	45.49
96	5.00 - 9.00% of mass 95	7.17
173	Less than 2.00% of mass 174	0.00 (0.00)
174	50.00 - 100.00% of mass 95	76.63
175	5.00 - 9.00% of mass 174	5.65 (7.37)
176	95.00 - 101.00% of mass 174	74.13 (96.74)
177	5.00 - 9.00% of mass 176	5.17 (6.97)

Date : 22-MAY-2020 09:08

Client ID: BFBJAN28-20 Instrument: HP09355.i

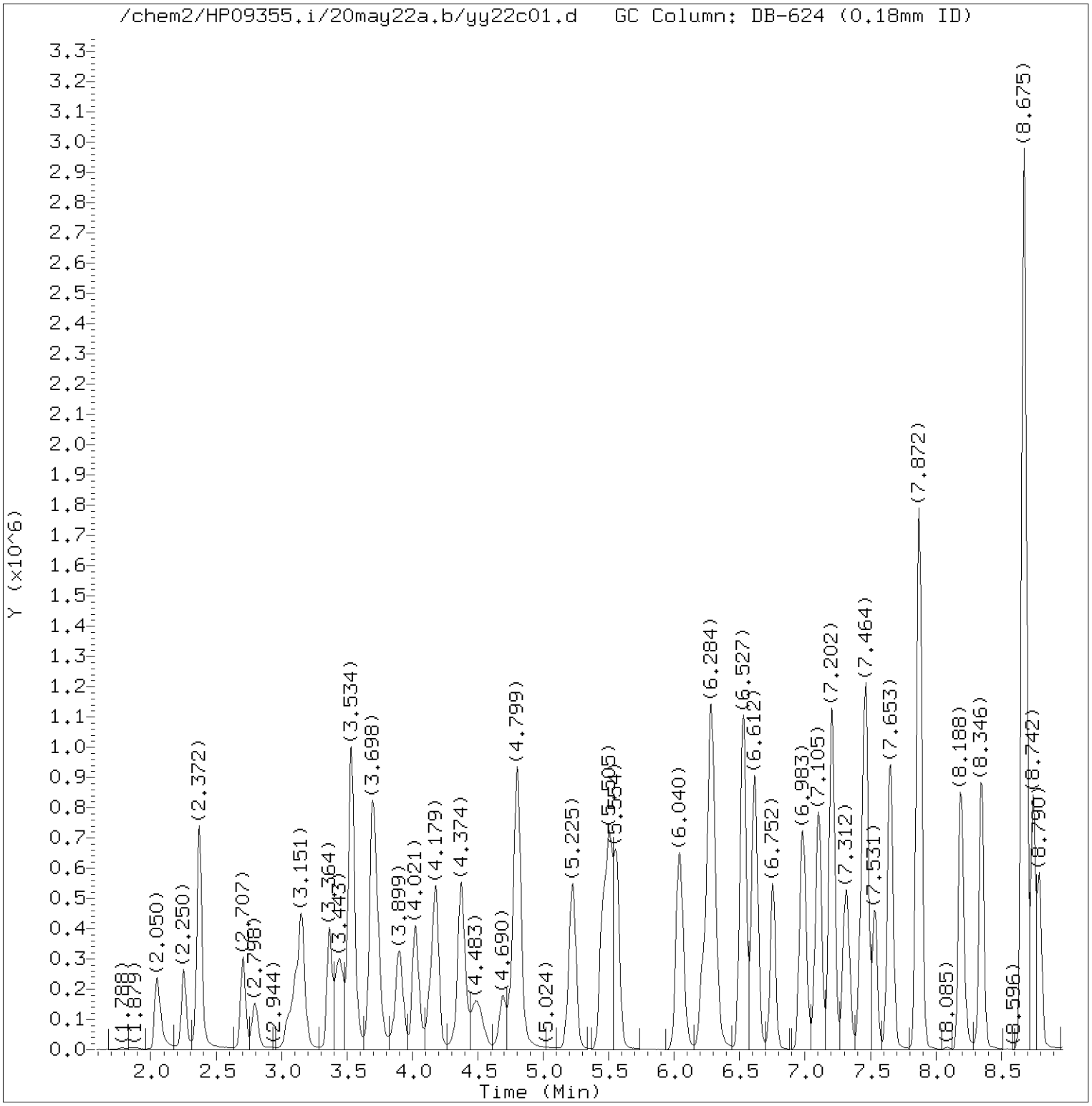
Sample Info: BFBJAN28-20;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: yy22t03.d
Spectrum: Avg. Scans 137-139 (4.67), Background Scan 132
Location of Maximum: 95.00
Number of points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	754	63.00	3085	88.00	4571	146.00	104
37.00	3854	64.00	334	91.00	257	147.00	91
38.00	3595	65.00	114	92.00	2431	148.00	85
39.00	1485	67.00	93	93.00	3906	155.00	180
40.00	201	68.00	8809	94.00	11298	172.00	236
41.00	86	69.00	9323	95.00	106232	174.00	81400
44.00	196	70.00	708	96.00	7621	175.00	6000
45.00	830	72.00	495	97.00	188	176.00	78744
47.00	1226	73.00	3680	104.00	263	177.00	5488
48.00	537	74.00	15230	105.00	90	178.00	101
49.00	3371	75.00	48328	106.00	297	191.00	91
50.00	16928	76.00	4211	116.00	98	193.00	84
51.00	5134	77.00	626	117.00	515	207.00	13
52.00	250	78.00	385	118.00	202	208.00	39
56.00	1203	79.00	1786	119.00	552	232.00	110
57.00	2142	80.00	744	128.00	254	260.00	77
60.00	816	81.00	1971	130.00	252	282.00	89
61.00	4011	82.00	518	141.00	740		
62.00	4053	87.00	4473	143.00	710		



Total Ion Chromatogram (TIC)

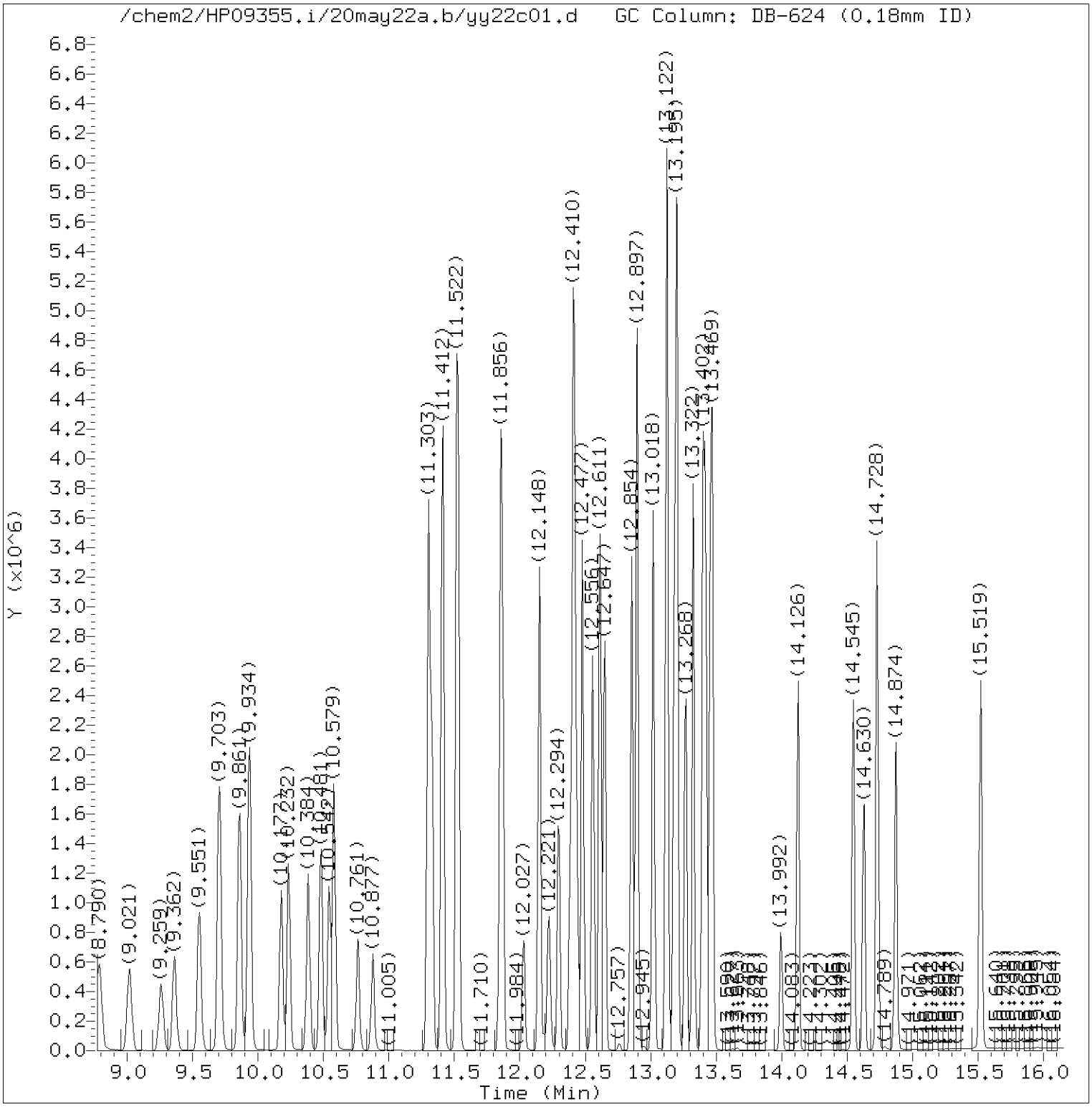
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.050	85	503423	54.877
4) Chloromethane	(2)	2.250	50	427198	50.717
5) 1,3-Butadiene	(2)	2.372	39	323036	47.262
6) Vinyl Chloride	(2)	2.372	62	438906	52.254
8) Bromomethane	(2)	2.707	94	316855	54.575
9) Chloroethane	(2)	2.798	64	245439	52.747
12) Trichlorofluoromethane	(2)	3.108	101	504395	52.421
11) n-Pentane	(2)	3.151	43	470517	42.350
14) Ethyl ether	(2)	3.364	59	350031	46.552
15) Freon 123a	(2)	3.443	67	413719	46.659
16) Acrolein	(1)	3.534	56	1640687	435.208
17) 1,1-Dichloroethene	(2)	3.692	96	351419	45.504
17) 1,1-Dichloroethene	(2)	3.692	63	168441	49.508
18) Acetone	(1)	3.698	58	171584	97.586
19) Freon 113	(2)	3.729	101	330646	47.468
21) 2-Propanol	(1)	3.875	45	305879	234.131
22) Methyl Iodide	(2)	3.905	142	610077	49.881
23) Carbon Disulfide	(2)	4.021	76	1152828	46.137
27) Methyl Acetate	(2)	4.142	43	531422M	48.060
25) Allyl Chloride	(2)	4.179	41	573388	46.864
29)*t-Butyl alcohol-d10	(1)	4.361	65	458603M	250.000
28) Methylene Chloride	(2)	4.374	84	406425	49.130
30) t-Butyl alcohol	(1)	4.495	59	557580	244.802
31) Acrylonitrile	(2)	4.690	53	292480	47.737
33) Methyl Tertiary Butyl Ether	(2)	4.787	73	1160625	47.556
32) trans-1,2-Dichloroethene	(2)	4.806	96	405791	47.874
34) n-Hexane	(2)	5.225	57	572041	46.169
36) 1,1-Dichloroethane	(2)	5.450	63	682507	47.480
38) di-Isopropyl ether	(2)	5.505	45	1192321	45.196
39) 2-Chloro-1,3-butadiene	(2)	5.560	53	573765	49.333
40) Ethyl t-butyl ether	(2)	6.040	59	1132243	47.943
43) 1,2-Dichloroethene (Total)	(2)		96	860688	95.463
44) 2-Butanone	(2)	6.229	43	767085	92.814
42) cis-1,2-Dichloroethene	(2)	6.272	96	454897	47.589
45) 2,2-Dichloropropane	(2)	6.296	77	536946	49.593
47) Propionitrile	(1)	6.302	54	634744	233.885
48) Methacrylonitrile	(2)	6.527	67	760445	122.198
49) Bromochloromethane	(2)	6.612	128	228907	51.578

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.624	71	232336	92.605
51) Chloroform	(2)	6.752	83	666195	48.273
52)$Dibromofluoromethane	(2)	6.971	113	316259	49.606
52)$Dibromofluoromethane	(2)	6.971	111	322957	49.629
53) 1,1,1-Trichloroethane	(2)	6.989	97	574859	48.594
54) Cyclohexane	(2)	7.105	56	654332	44.299
54) Cyclohexane	(2)	7.105	84	574893	46.829
54) Cyclohexane	(2)	7.105	69	210280	46.619
55) 1,1-Dichloropropene	(2)	7.202	75	551862	48.078
56) Carbon Tetrachloride	(2)	7.208	117	487291	48.734
58) Isobutyl Alcohol	(1)	7.318	41	448473	548.638
57)$1,2-Dichloroethane-d4	(2)	7.428	102	86119	51.221
57)$1,2-Dichloroethane-d4	(2)	7.428	65	377206	50.296
57)$1,2-Dichloroethane-d4	(2)	7.434	104	54371	50.754
60) Benzene	(2)	7.464	78	1663256	47.687
61) 1,2-Dichloroethane	(2)	7.531	62	541425	48.389
61) 1,2-Dichloroethane	(2)	7.537	98	54038	52.108
65) t-Amyl methyl ether	(2)	7.653	73	1191427	50.003
66)*Fluorobenzene	(2)	7.866	96	1403660	50.000
67) n-Heptane	(2)	7.878	43	606590	44.883
69) n-Butanol	(1)	8.194	56	844864	1097.615
71) Trichloroethene	(2)	8.346	95	423230	48.975
72) Methylcyclohexane	(2)	8.669	83	726974	47.343
72) Methylcyclohexane	(2)	8.669	98	329463	48.664
73) 1,2-Dichloropropane	(2)	8.675	63	421450	47.182
76) Methyl Methacrylate	(2)	8.742	69	459645	51.388
75) 1,4-Dioxane	(1)	8.760	88	117681M	636.037
74) Dibromomethane	(2)	8.790	93	278612	49.186
78) Bromodichloromethane	(2)	9.015	83	513093	50.176
79) 2-Nitropropane	(2)	9.259	41	371680	100.576
80) 2-Chloroethyl Vinyl Ether	(2)	9.362	63	357267	50.076
81) cis-1,3-Dichloropropene	(2)	9.551	75	685794	48.897
82) 4-Methyl-2-pentanone	(2)	9.703	43	1427324	92.684
83)$Toluene-d8	(3)	9.861	98	1349025	48.672
83)$Toluene-d8	(3)	9.861	100	865185	48.632
88) Toluene	(3)	9.934	92	1076451	48.355
90) 1,3-Dichloropropene (total)	(3)		100	1348267	98.756
89) trans-1,3-Dichloropropene	(3)	10.177	75	662473	49.859

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.232	69	729279	50.725
92) 1,1,2-Trichloroethane	(3)	10.384	97	431494	49.268
93) Tetrachloroethene	(3)	10.481	166	445405	49.029
94) 1,3-Dichloropropane	(3)	10.542	76	706955	47.389
96) 2-Hexanone	(3)	10.579	43	1152192	92.420
97) Dibromochloromethane	(3)	10.761	129	440183	50.257
99) 1,2-Dibromoethane	(3)	10.877	107	468140	49.567
100)*Chlorobenzene-d5	(3)	11.303	117	1061412	50.000
101) 1-Chlorohexane	(3)	11.303	91	583084	47.430
102) Chlorobenzene	(3)	11.327	112	1219003	48.464
103) 1,1,1,2-Tetrachloroethane	(3)	11.406	131	404944	49.458
104) Ethylbenzene	(3)	11.412	91	2062718	48.569
106) m+p-Xylene	(3)	11.522	106	1666326	99.420
108) Xylene (Total)	(3)		106	2470835	148.236
107) o-Xylene	(3)	11.850	106	804509	48.815
109) Styrene	(3)	11.869	104	1363382	51.346
110) Bromoform	(3)	12.027	173	339030	52.457
111) Isopropylbenzene	(3)	12.148	105	2048259	49.308
112) Cyclohexanone	(1)	12.221	55	379095	532.231
114)$4-Bromofluorobenzene	(3)	12.294	95	503409	47.936
114)$4-Bromofluorobenzene	(3)	12.300	174	413336	51.099
116) 1,1,2,2-Tetrachloroethane	(4)	12.386	83	716771	46.411
118) trans-1,4-Dichloro-2-butene	(4)	12.410	53	559173	112.624
115) Bromobenzene	(4)	12.416	156	536188	49.153
117) 1,2,3-Trichloropropane	(4)	12.434	110	233749	47.709
119) n-Propylbenzene	(4)	12.477	91	2451882	48.242
120) 2-Chlorotoluene	(4)	12.556	126	506540	48.380
122) 1,3,5-Trimethylbenzene	(4)	12.611	105	1771588	48.259
121) 4-Chlorotoluene	(4)	12.647	126	530355	48.198
124) tert-Butylbenzene	(4)	12.854	134	368692	48.024
125) Pentachloroethane	(4)	12.891	167	297980	50.401
126) 1,2,4-Trimethylbenzene	(4)	12.897	105	1870650	48.427
127) sec-Butylbenzene	(4)	13.018	105	2291838	48.448
129) 1,3-Dichlorobenzene	(4)	13.122	146	1019929	48.837
130) p-Isopropyltoluene	(4)	13.128	119	1969295	49.285
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	571512	50.000
133) 1,4-Dichlorobenzene	(4)	13.195	146	1042748	48.356
134) 1,2,3-Trimethylbenzene	(4)	13.201	105	1810134	47.678

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

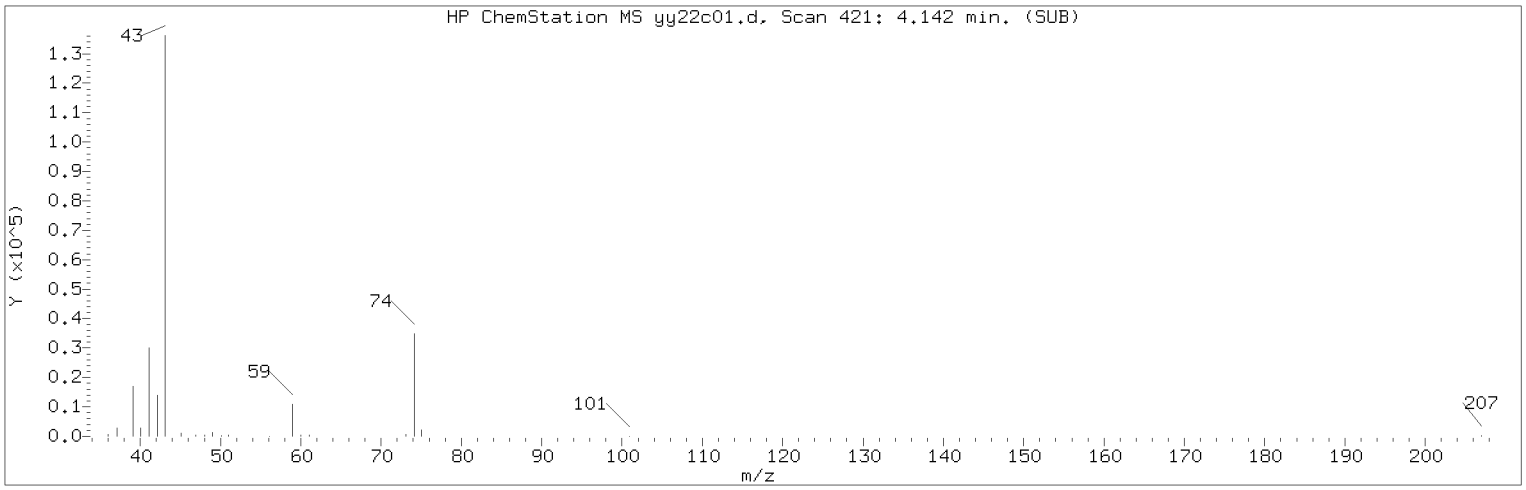
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

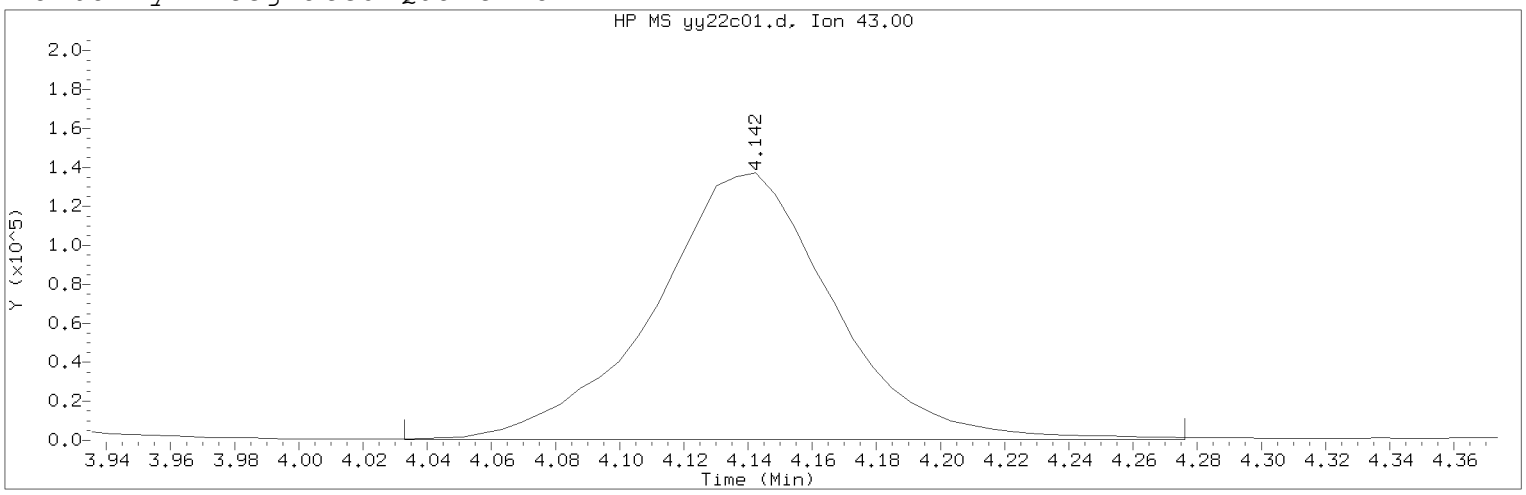
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.268	91	1598553	51.518
136) 1,3-Diethylbenzene	(4)	13.322	119	1162815	47.815
141) Diethylbenzene (total)	(4)		100	3356692	143.042
137) 1,4-Diethylbenzene	(4)	13.396	119	1226465	47.986
139) n-Butylbenzene	(4)	13.420	92	1007906	46.892
138) 1,2-Dichlorobenzene	(4)	13.450	146	977049	48.170
140) 1,2-Diethylbenzene	(4)	13.469	119	967412	47.242
142) 1,2-Dibromo-3-chloropropane	(4)	13.992	75	184016	48.391
144) 1,3,5-Trichlorobenzene	(4)	14.126	180	719995	47.629
146) 1,2,4-Trichlorobenzene	(4)	14.545	180	665367	46.890
147) Hexachlorobutadiene	(4)	14.630	225	288357	45.067
148) Naphthalene	(4)	14.728	128	2499613	48.158
149) 1,2,3-Trichlorobenzene	(4)	14.874	180	629454	45.778
150) 2-Methylnaphthalene	(4)	15.519	142	1226437	42.763

Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

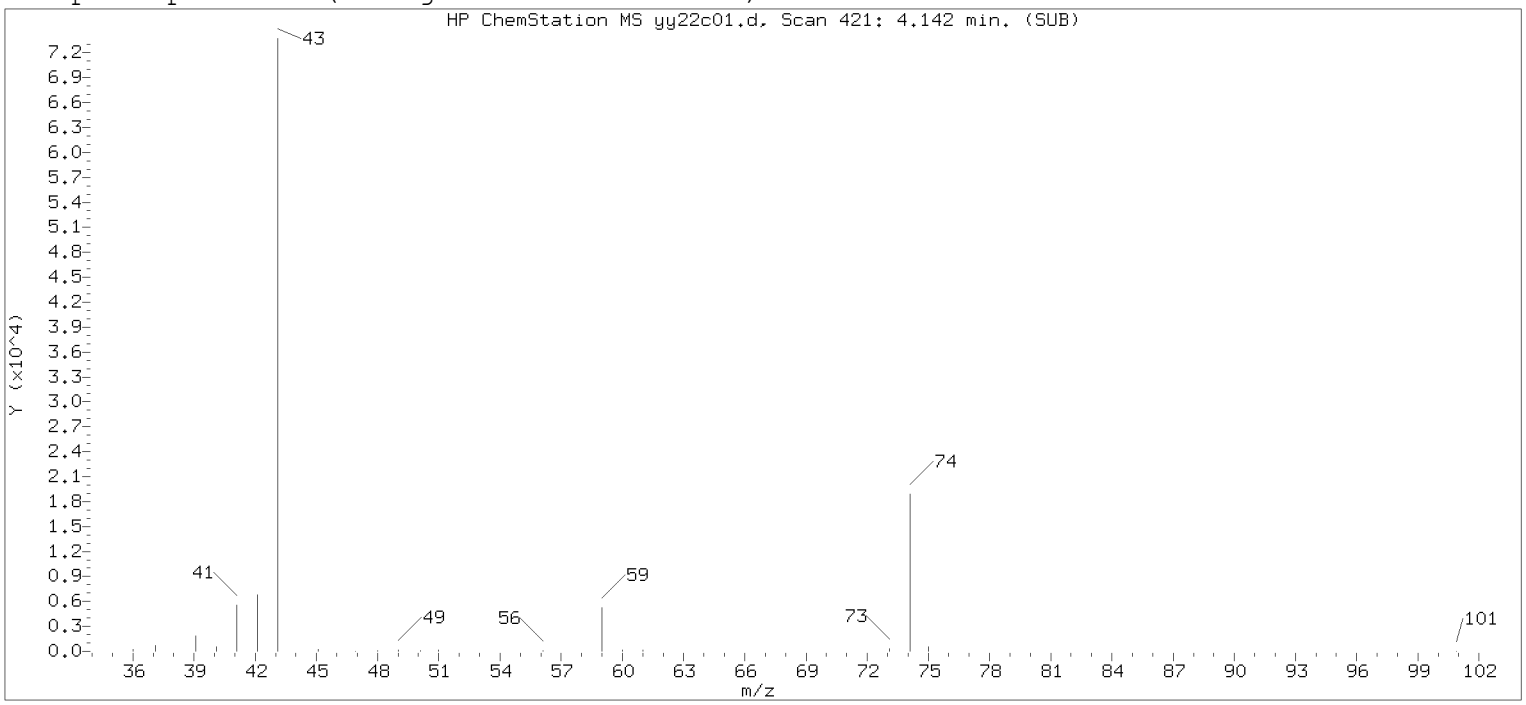
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 421
Retention Time (minutes): 4.142
Quant Ion : 43.00
Area (flag) : 531422M
On-Column Amount (ng) : 48.0598
Integration start scan : 402 Integration stop scan: 442
Y at integration start : 489 Y at integration end: 489

Reason for manual integration: improper integration

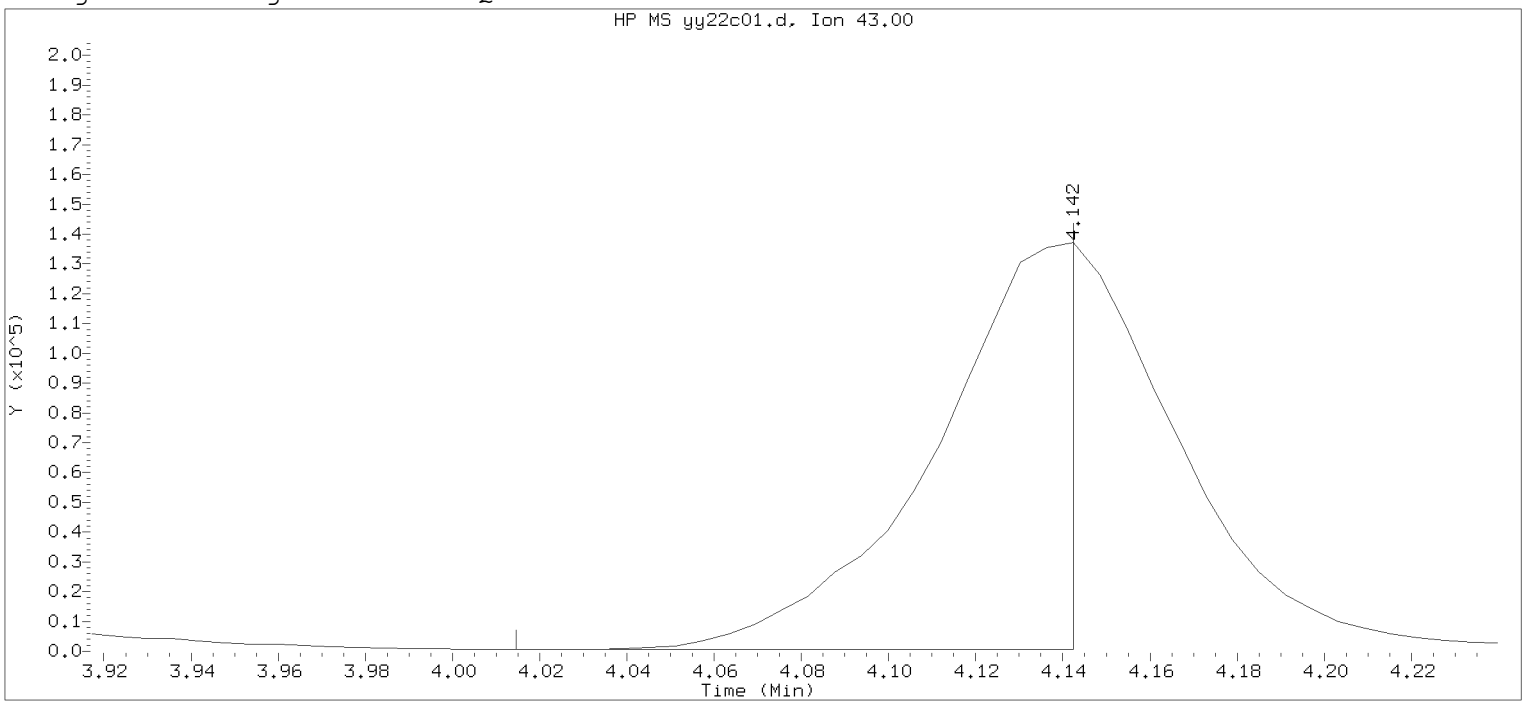
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

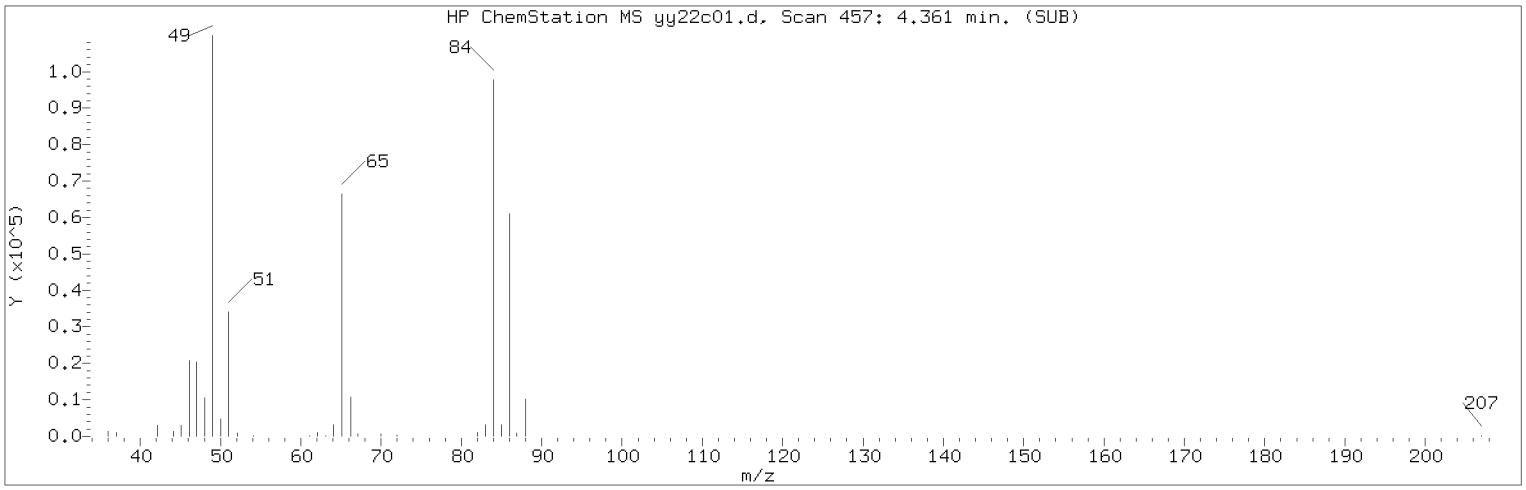
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

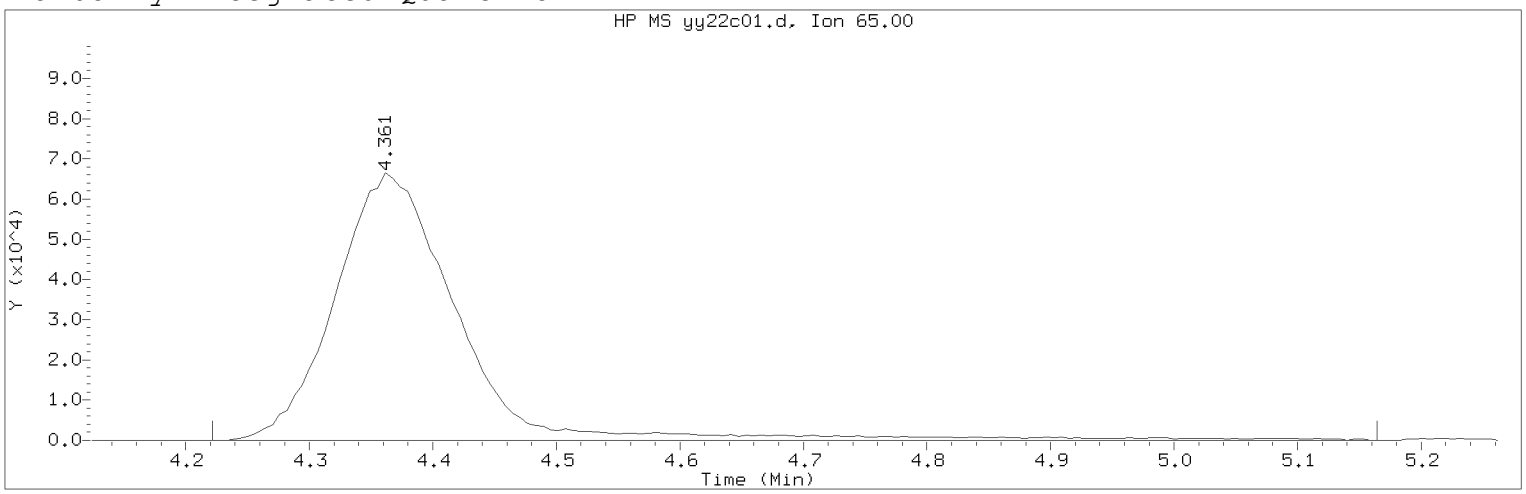
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 421
Retention Time (minutes): 4.142
Quant Ion : 43.00
Area : 293223
On-column Amount (ng) : 26.5180
Integration start scan : 399 Integration stop scan: 420
Y at integration start : 585 Y at integration end: 585

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

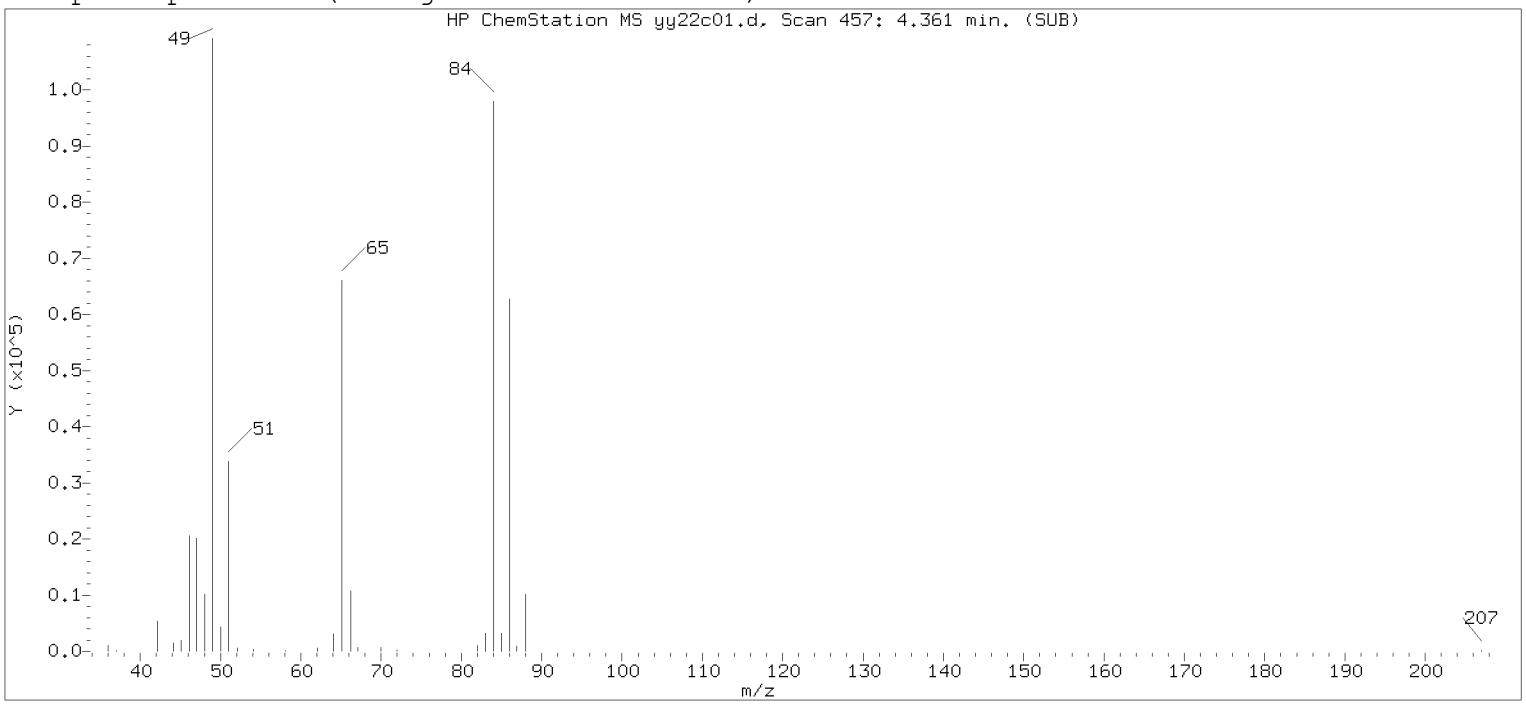
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.361
Quant Ion : 65.00
Area (flag) : 458603M
On-Column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 588
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

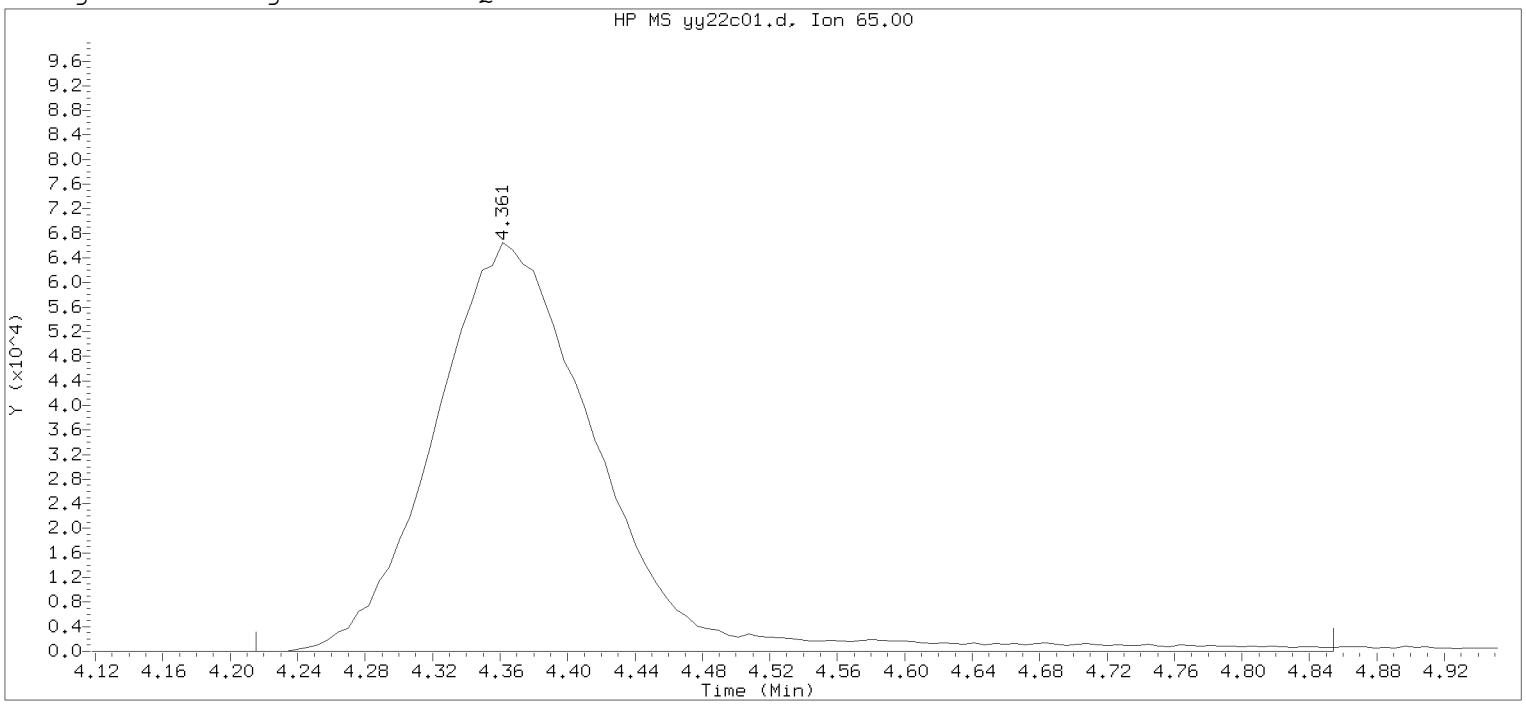
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

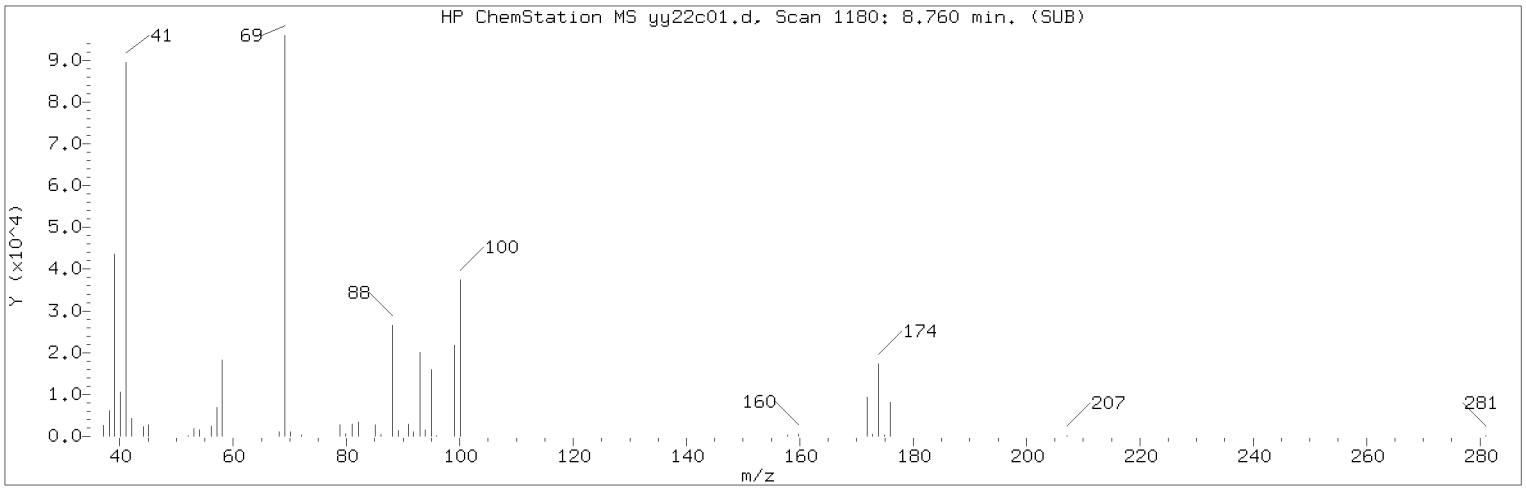
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

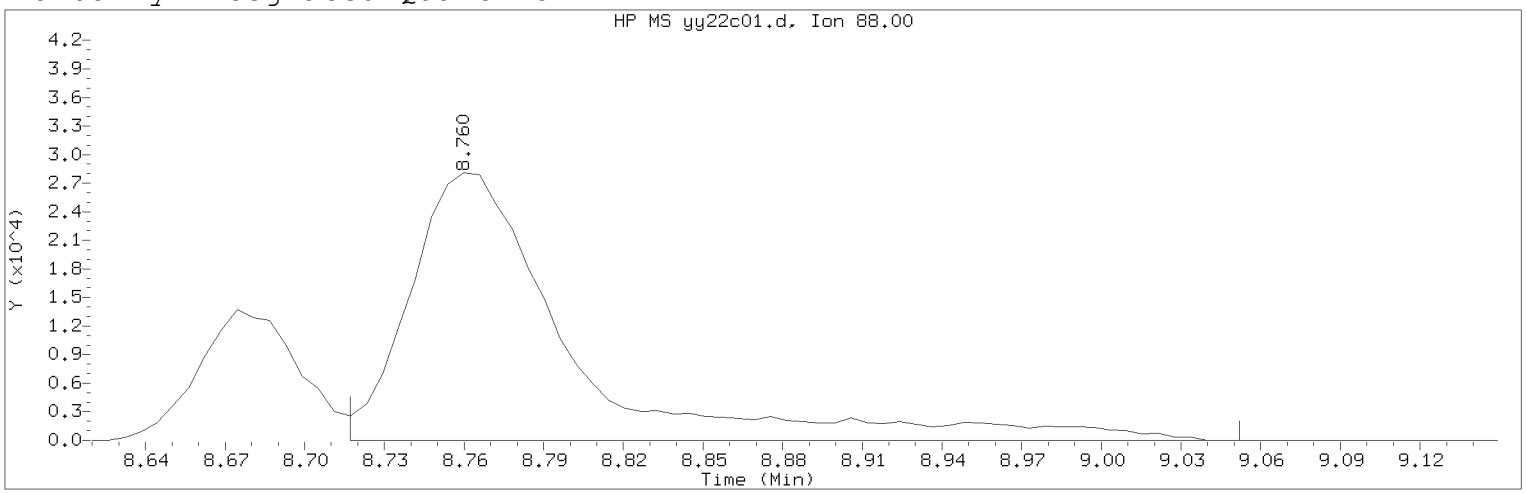
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 457
Retention Time (minutes): 4.361
Quant Ion : 65.00
Area : 449771
On-column Amount (ng) : 250.0000
Integration start scan : 432 Integration stop scan: 537
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:20 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

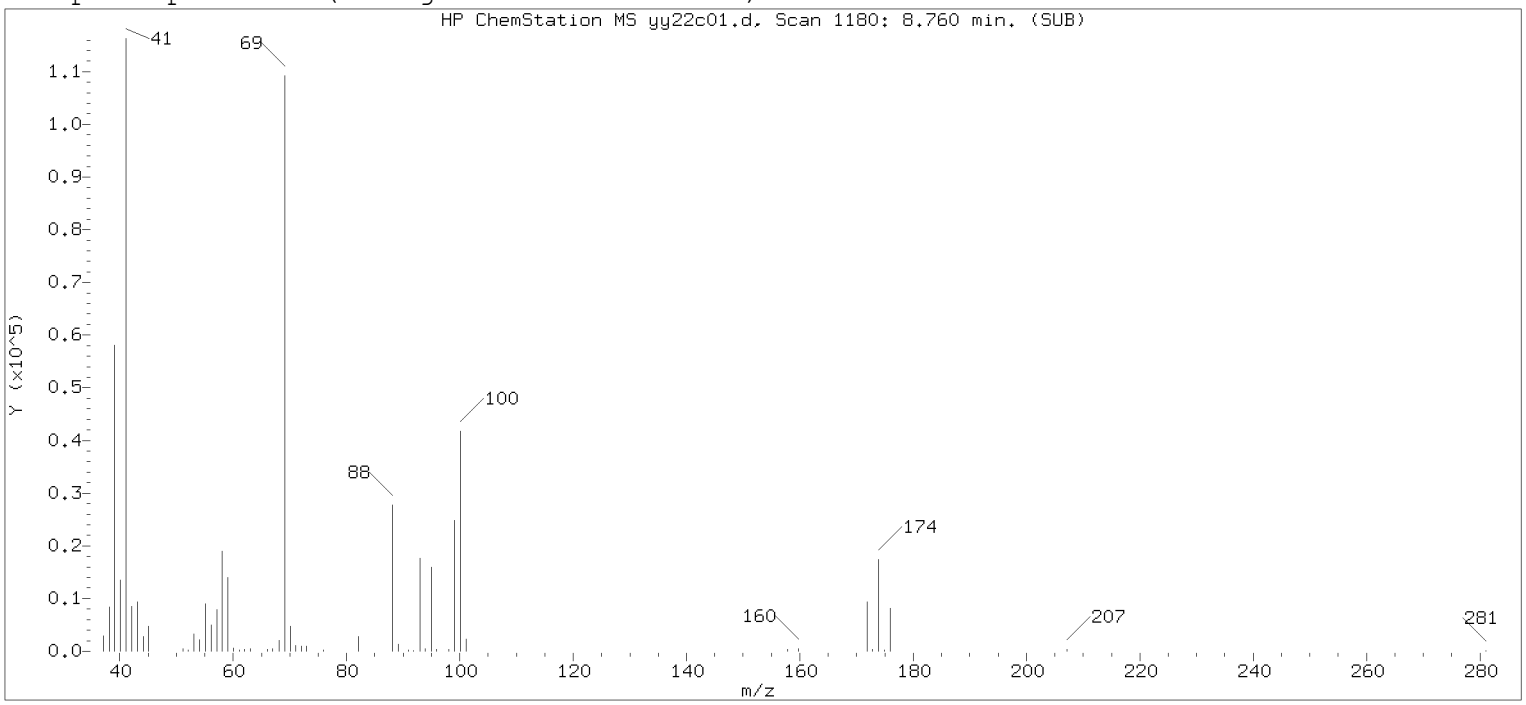
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area (flag) : 117681M
On-Column Amount (ng) : 636.0366
Integration start scan : 1172 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

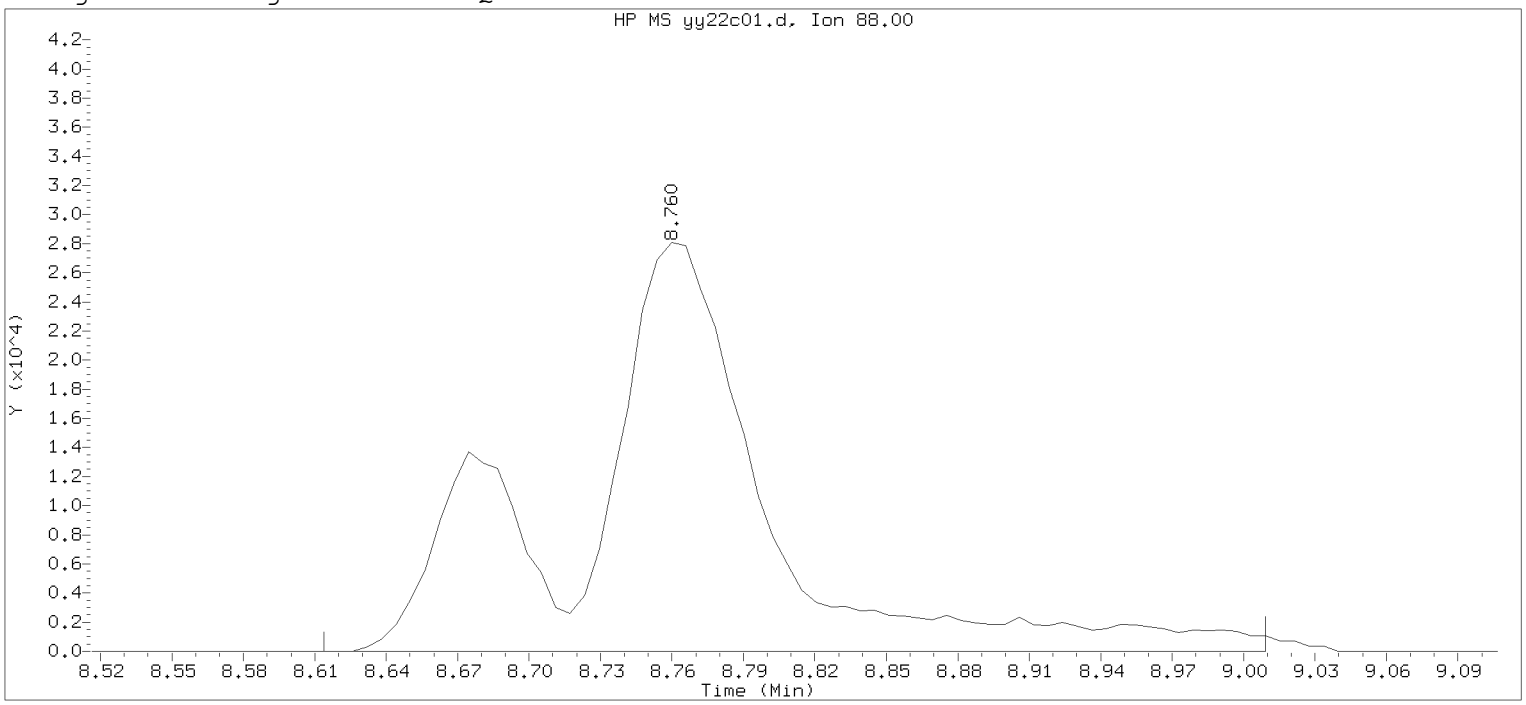
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:42.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22c01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 09:42 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:00 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1180
Retention Time (minutes): 8.760
Quant Ion : 88.00
Area : 152121
On-column Amount (ng) : 838.3159
Integration start scan : 1155 Integration stop scan: 1220
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 10:21.
Target 3.5 esignature user ID: dviray0207

Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

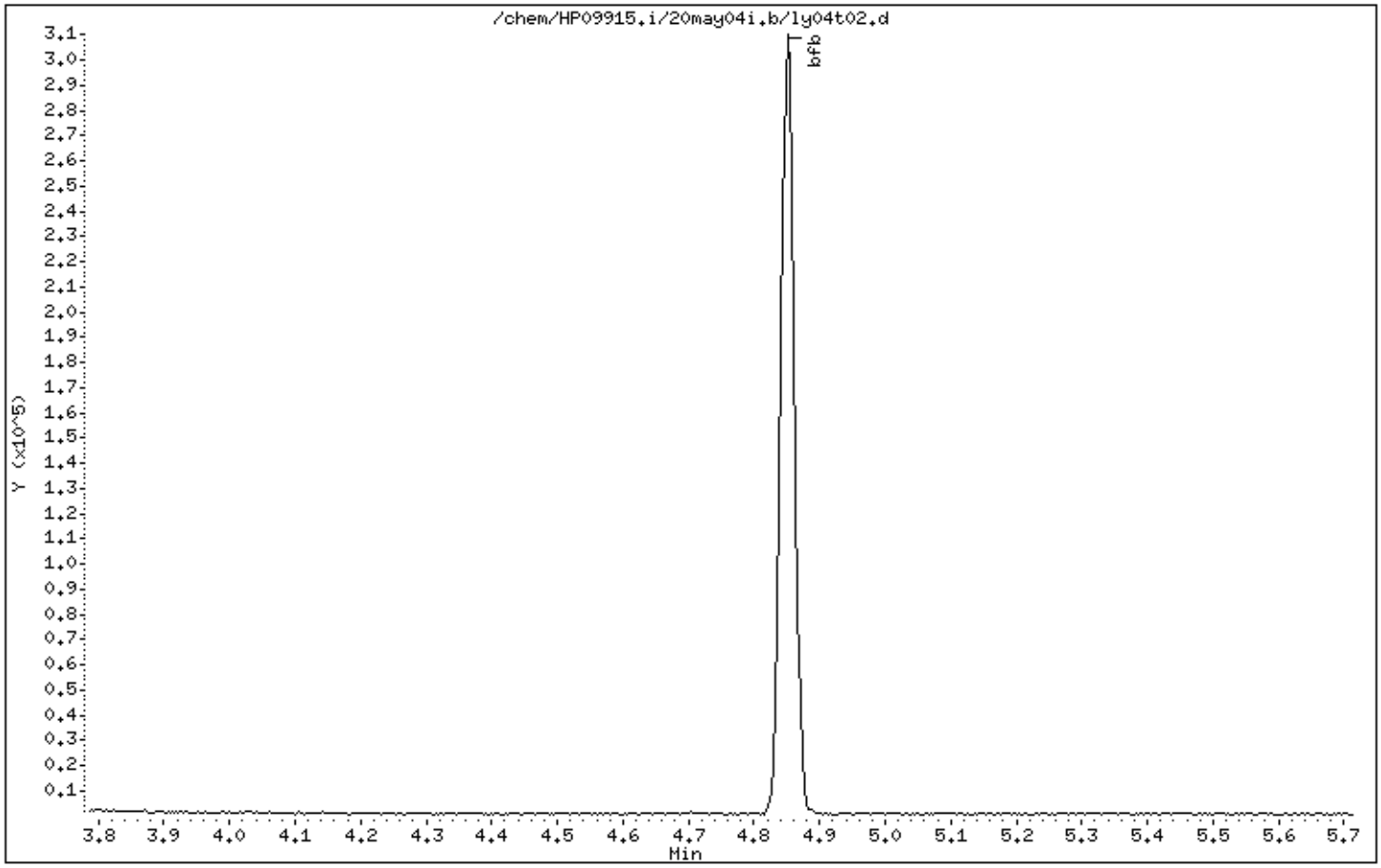
Instrument: HP09915.i

Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

Instrument: HP09915.i

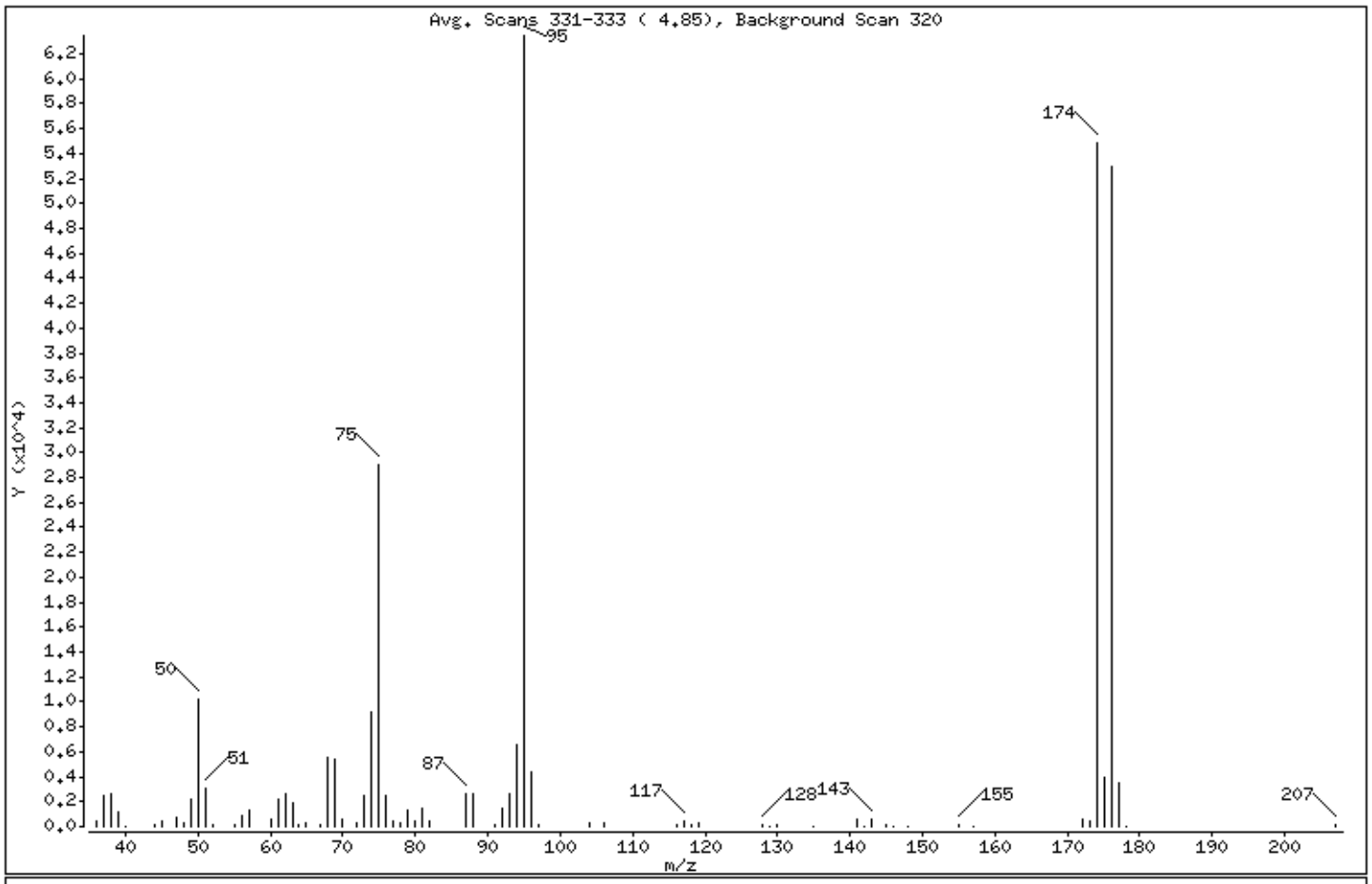
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.11
75	30.00 - 60.00% of mass 95	45.65
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.62 (0.72)
174	50.00 - 100.00% of mass 95	86.35
175	5.00 - 9.00% of mass 174	6.12 (7.09)
176	95.00 - 101.00% of mass 174	83.51 (96.71)
177	5.00 - 9.00% of mass 176	5.61 (6.72)

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020 Instrument: HP09915.i

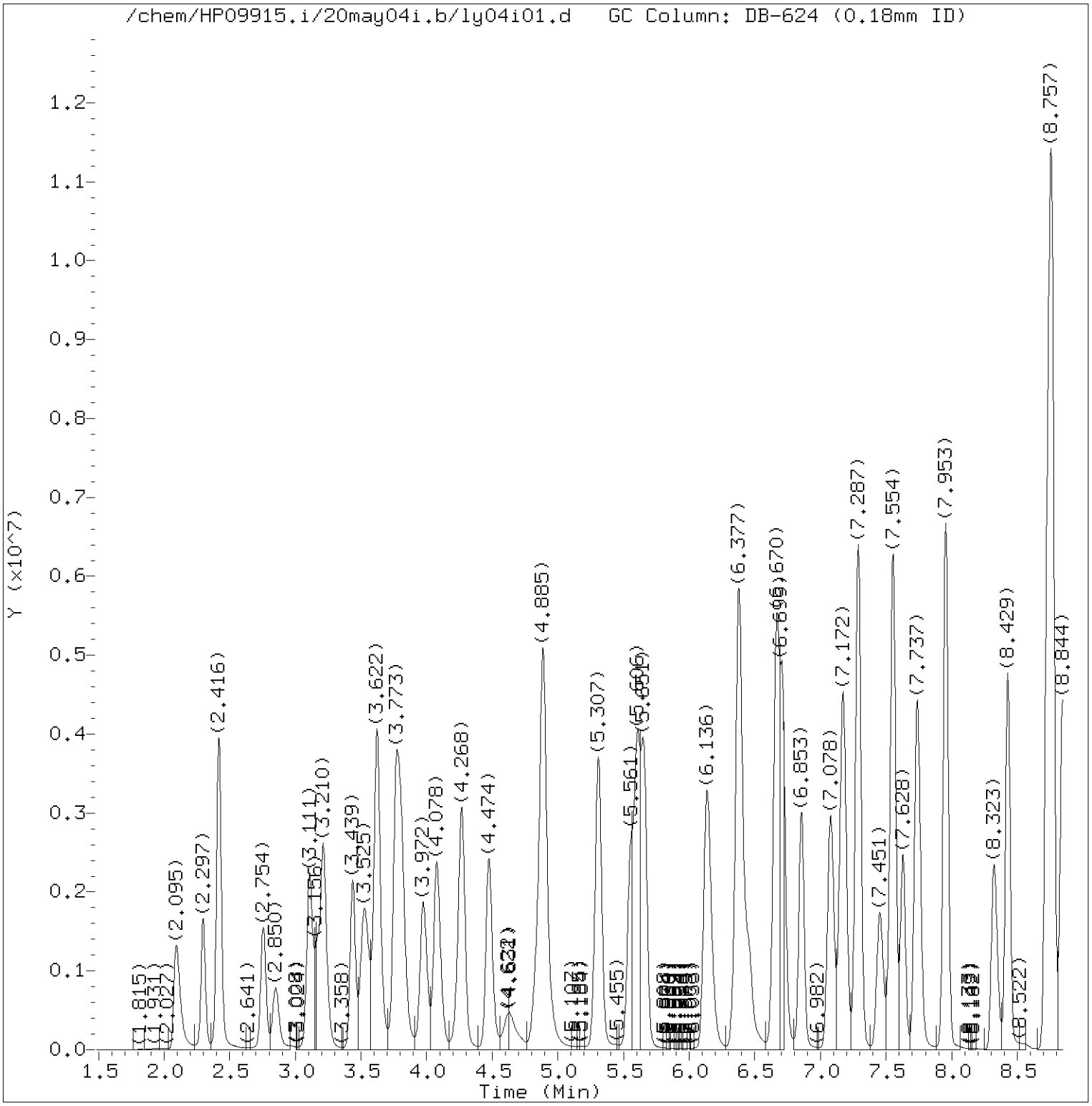
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly04t02.d
Spectrum: Avg. Scans 331-333 (4.85), Background Scan 320
Location of Maximum: 95.00
Number of points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	476	63.00	1957	88.00	2668	142.00	52
37.00	2534	64.00	142	91.00	204	143.00	605
38.00	2595	65.00	303	92.00	1519	145.00	111
39.00	1106	67.00	129	93.00	2560	146.00	66
40.00	24	68.00	5558	94.00	6611	148.00	64
44.00	212	69.00	5470	95.00	63464	155.00	179
45.00	424	70.00	517	96.00	4356	157.00	66
47.00	782	72.00	336	97.00	161	172.00	534
48.00	340	73.00	2550	104.00	267	173.00	394
49.00	2157	74.00	9180	106.00	245	174.00	54800
50.00	10227	75.00	28968	116.00	144	175.00	3885
51.00	3113	76.00	2532	117.00	442	176.00	53000
52.00	116	77.00	409	118.00	140	177.00	3561
55.00	141	78.00	281	119.00	290	178.00	53
56.00	824	79.00	1307	128.00	211	207.00	80
57.00	1289	80.00	480	129.00	61		
60.00	558	81.00	1409	130.00	177		
61.00	2232	82.00	376	135.00	50		
62.00	2640	87.00	2697	141.00	604		



Total Ion Chromatogram (TIC)

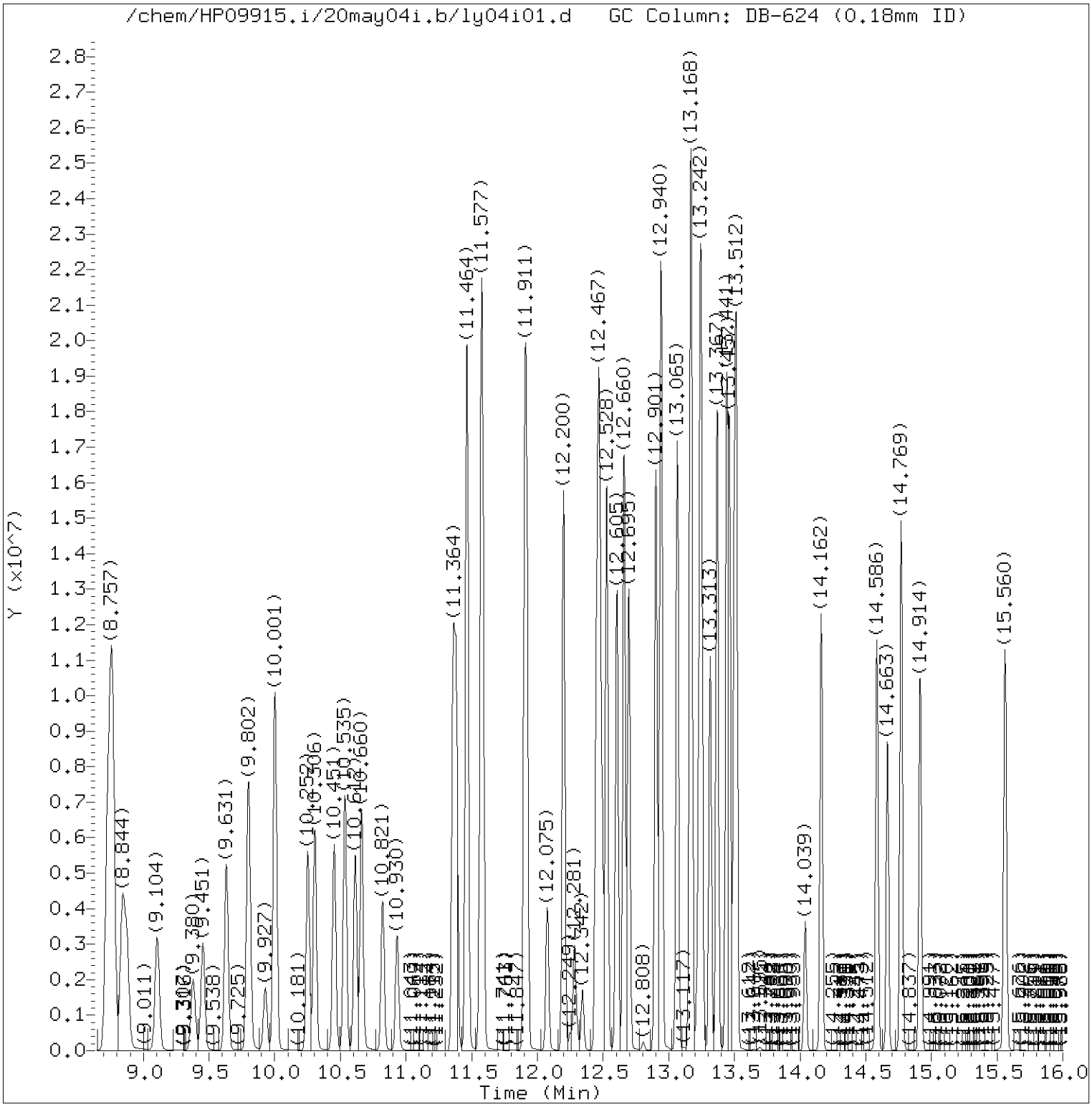
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	2849449	310.933
4) Chloromethane	(2)	2.297	50	2445659	285.835
5) 1,3-Butadiene	(2)	2.416	39	1671151	304.456
6) Vinyl Chloride	(2)	2.419	62	2326215	281.733
8) Bromomethane	(2)	2.757	94	1628456	273.549
9) Chloroethane	(2)	2.847	64	1234318	267.749
10) Dichlorofluoromethane	(2)	3.107	67	2817375	283.327
12) Trichlorofluoromethane	(2)	3.165	101	2746924	304.613
11) n-Pentane	(2)	3.213	43	2725741	321.927
14) Ethyl ether	(2)	3.439	59	1949746	305.988
15) Freon 123a	(2)	3.525	67	2314368	316.788
16) Acrolein	(1)	3.622	56	6736298	2956.857
17) 1,1-Dichloroethene	(2)	3.763	96	1750450	304.377
17) 1,1-Dichloroethene	(2)	3.763	63	864563	315.653
19) Freon 113	(2)	3.799	101	1965220M	329.366
18) Acetone	(1)	3.808	58	589621	567.388
22) Methyl Iodide	(2)	3.972	142	3492933	315.159
21) 2-Propanol	(1)	3.998	45	1004357	1516.417
23) Carbon Disulfide	(2)	4.078	76	6201547	320.266
27) Methyl Acetate	(2)	4.242	43	2207320	300.940
25) Allyl Chloride	(2)	4.271	41	2951991M	316.747
28) Methylene Chloride	(2)	4.474	84	2081076	304.203
29)*t-Butyl alcohol-d10	(1)	4.493	65	276925	250.000
30) t-Butyl alcohol	(1)	4.631	59	1690701	1512.274
31) Acrylonitrile	(2)	4.831	53	1217218	299.575
33) Methyl Tertiary Butyl Ether	(2)	4.885	73	5922996	300.305
32) trans-1,2-Dichloroethene	(2)	4.889	96	2018303	305.069
34) n-Hexane	(2)	5.307	57	3435497	370.798
36) 1,1-Dichloroethane	(2)	5.551	63	3527467	303.995
38) di-Isopropyl ether	(2)	5.606	45	6436416	315.389
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	3142519	339.593
40) Ethyl t-butyl ether	(2)	6.136	59	5819054	306.888
43) 1,2-Dichloroethene (Total)	(2)		96	4280297	609.947
44) 2-Butanone	(2)	6.358	43	3017645	611.860
42) cis-1,2-Dichloroethene	(2)	6.377	96	2261994	304.878
45) 2,2-Dichloropropane	(2)	6.393	77	2841421	316.832
47) Propionitrile	(1)	6.458	54	2395140	1585.804
48) Methacrylonitrile	(2)	6.667	67	3143939	771.811

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	1171429	306.006
50) Tetrahydrofuran	(1)	6.718	71	832254	629.784
51) Chloroform	(2)	6.853	83	3487929	307.674
52)$Dibromofluoromethane	(2)	7.069	113	344246	51.133
52)$Dibromofluoromethane	(2)	7.065	111	351617	51.092
53) 1,1,1-Trichloroethane	(2)	7.078	97	3105225	319.282
54) Cyclohexane	(2)	7.172	56	3858125	354.379
54) Cyclohexane	(2)	7.172	84	3361998	353.780
54) Cyclohexane	(2)	7.175	69	1189358	351.544
56) Carbon Tetrachloride	(2)	7.284	117	2686794	329.725
55) 1,1-Dichloropropene	(2)	7.291	75	2884427	323.528
58) Isobutyl Alcohol	(1)	7.451	41	1518165	4002.966
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85616	50.117
57)$1,2-Dichloroethane-d4	(2)	7.522	65	386104	50.918
57)$1,2-Dichloroethane-d4	(2)	7.528	104	54697	50.282
60) Benzene	(2)	7.554	78	8331618	301.883
61) 1,2-Dichloroethane	(2)	7.628	62	2775900	300.052
61) 1,2-Dichloroethane	(2)	7.628	98	279550	310.087
65) t-Amyl methyl ether	(2)	7.737	73	5782061	298.496
67) n-Heptane	(2)	7.953	43	3459353	359.052
66)*Fluorobenzene	(2)	7.956	96	1336369	50.000
69) n-Butanol	(1)	8.323	56	2625257	8489.394
71) Trichloroethene	(2)	8.429	95	2175307	311.470
72) Methylcyclohexane	(2)	8.728	83	3912993	344.571
72) Methylcyclohexane	(2)	8.728	98	1789837	348.458
73) 1,2-Dichloropropane	(2)	8.763	63	2097702	294.997
76) Methyl Methacrylate	(2)	8.840	69	2065513	337.817
75) 1,4-Dioxane	(1)	8.847	88	360140M	3874.180
74) Dibromomethane	(2)	8.872	93	1442276	310.134
78) Bromodichloromethane	(2)	9.104	83	2778142	333.221
79) 2-Nitropropane	(2)	9.380	41	1686406	674.629
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	1696782	358.355
81) cis-1,3-Dichloropropene	(2)	9.631	75	3652268	335.198
82) 4-Methyl-2-pentanone	(2)	9.798	43	6253254	626.102
83)$Toluene-d8	(3)	9.927	98	1397873	51.358
83)$Toluene-d8	(3)	9.927	100	912756	51.674
88) Toluene	(3)	10.001	92	5231241	301.533
90) 1,3-Dichloropropene (total)	(3)		100	7027137	674.241

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.252	75	3374869	339.043
91) Ethyl Methacrylate	(3)	10.306	69	3527262	352.166
92) 1,1,2-Trichloroethane	(3)	10.454	97	2073298	307.981
93) Tetrachloroethene	(3)	10.535	166	2380389	321.959
94) 1,3-Dichloropropane	(3)	10.615	76	3522161	312.866
96) 2-Hexanone	(3)	10.660	43	4626222	635.941
97) Dibromochloromethane	(3)	10.821	129	2435189	347.755
99) 1,2-Dibromoethane	(3)	10.930	107	2364461	326.815
100)*Chlorobenzene-d5	(3)	11.355	117	1059501	50.000
101) 1-Chlorohexane	(3)	11.358	91	2908408	327.586
102) Chlorobenzene	(3)	11.380	112	5895135	295.899
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	2040552	302.127
104) Ethylbenzene	(3)	11.464	91	9686310	301.633
106) m+p-Xylene	(3)	11.577	106	7482333	593.004
108) Xylene (Total)	(3)		106	11168702	895.120
107) o-Xylene	(3)	11.901	106	3686369	302.116
109) Styrene	(3)	11.917	104	6296133	317.282
110) Bromoform	(3)	12.075	173	1837073	360.361
111) Isopropylbenzene	(3)	12.200	105	10092328	325.945
112) Cyclohexanone	(1)	12.281	55	1298373A	3752.287
114)$4-Bromofluorobenzene	(3)	12.342	95	539077	51.474
114)$4-Bromofluorobenzene	(3)	12.345	174	460451	51.282
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	3144189	289.308
115) Bromobenzene	(4)	12.461	156	2447059	280.512
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	2386999	755.035
117) 1,2,3-Trichloropropane	(4)	12.493	110	994731	299.689
119) n-Propylbenzene	(4)	12.528	91	11653592	309.091
120) 2-Chlorotoluene	(4)	12.605	126	2503021	310.746
122) 1,3,5-Trimethylbenzene	(4)	12.660	105	8770052	321.916
121) 4-Chlorotoluene	(4)	12.695	126	2564262	306.721
124) tert-Butylbenzene	(4)	12.901	134	1876803M	335.139
125) Pentachloroethane	(4)	12.933	167	1529691	307.565
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	8738342	310.227
127) sec-Butylbenzene	(4)	13.065	105	10837099	326.714
129) 1,3-Dichlorobenzene	(4)	13.162	146	4405889	271.032
130) p-Isopropyltoluene	(4)	13.171	119	8821149	310.365
131)*1,4-Dichlorobenzene-d4	(4)	13.220	152	596140	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	4664438	273.400

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.248	105	8522094	291.186
135)	Benzyl Chloride	(4)	13.313	91	7372827	332.941
136)	1,3-Diethylbenzene	(4)	13.367	119	5620297	306.903
141)	Diethylbenzene (total)	(4)		100	15927292	898.580
137)	1,4-Diethylbenzene	(4)	13.441	119	5732746	299.071
139)	n-Butylbenzene	(4)	13.461	92	4551903	311.717
138)	1,2-Dichlorobenzene	(4)	13.496	146	4532401	277.010
140)	1,2-Diethylbenzene	(4)	13.515	119	4574249	292.606
142)	1,2-Dibromo-3-chloropropane	(4)	14.039	75	799123	332.209
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	3668043	297.595
146)	1,2,4-Trichlorobenzene	(4)	14.586	180	3403261	295.460
147)	Hexachlorobutadiene	(4)	14.666	225	1492448	280.870
148)	Naphthalene	(4)	14.769	128	11189563	300.110
149)	1,2,3-Trichlorobenzene	(4)	14.914	180	3150450	275.252
150)	2-Methylnaphthalene	(4)	15.560	142	5808143	299.728

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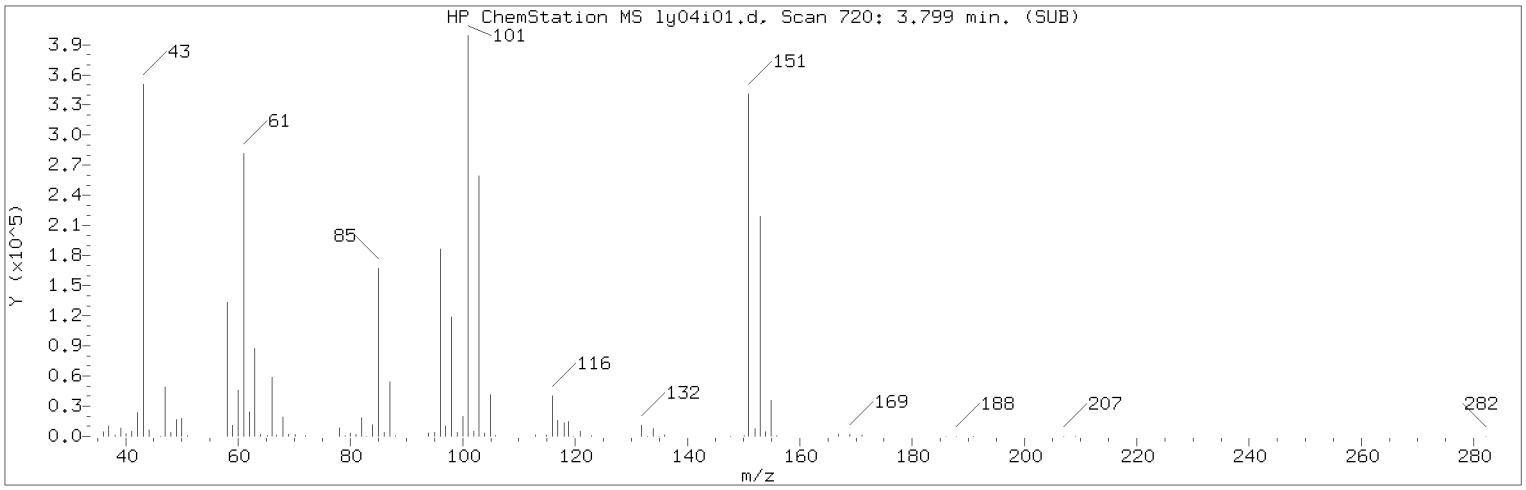
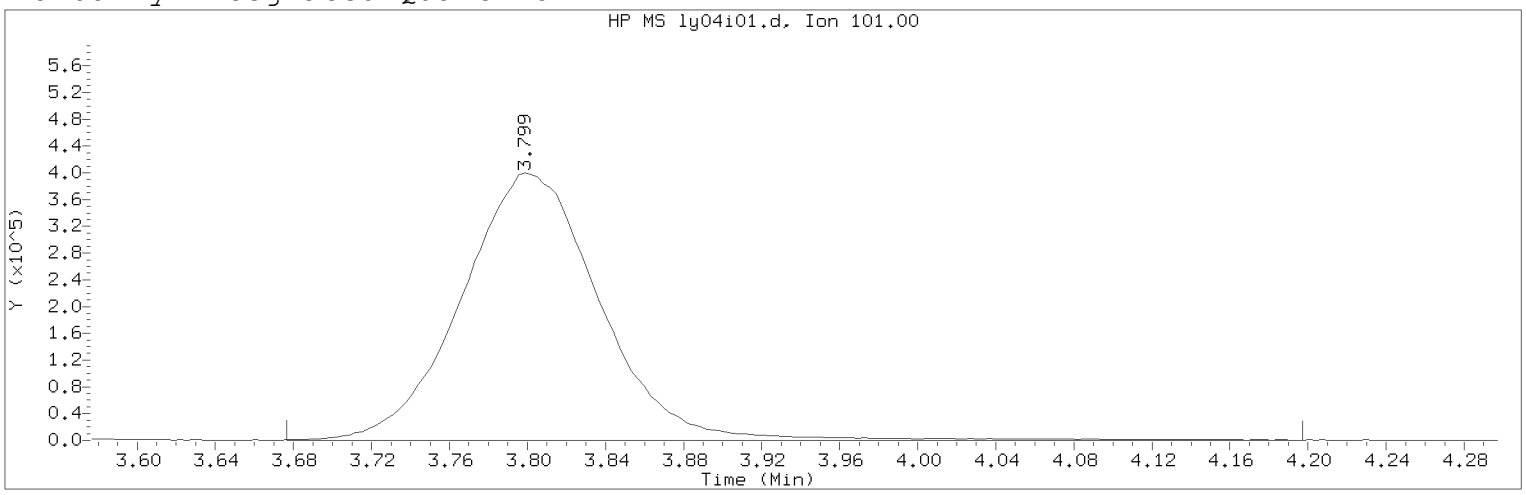
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

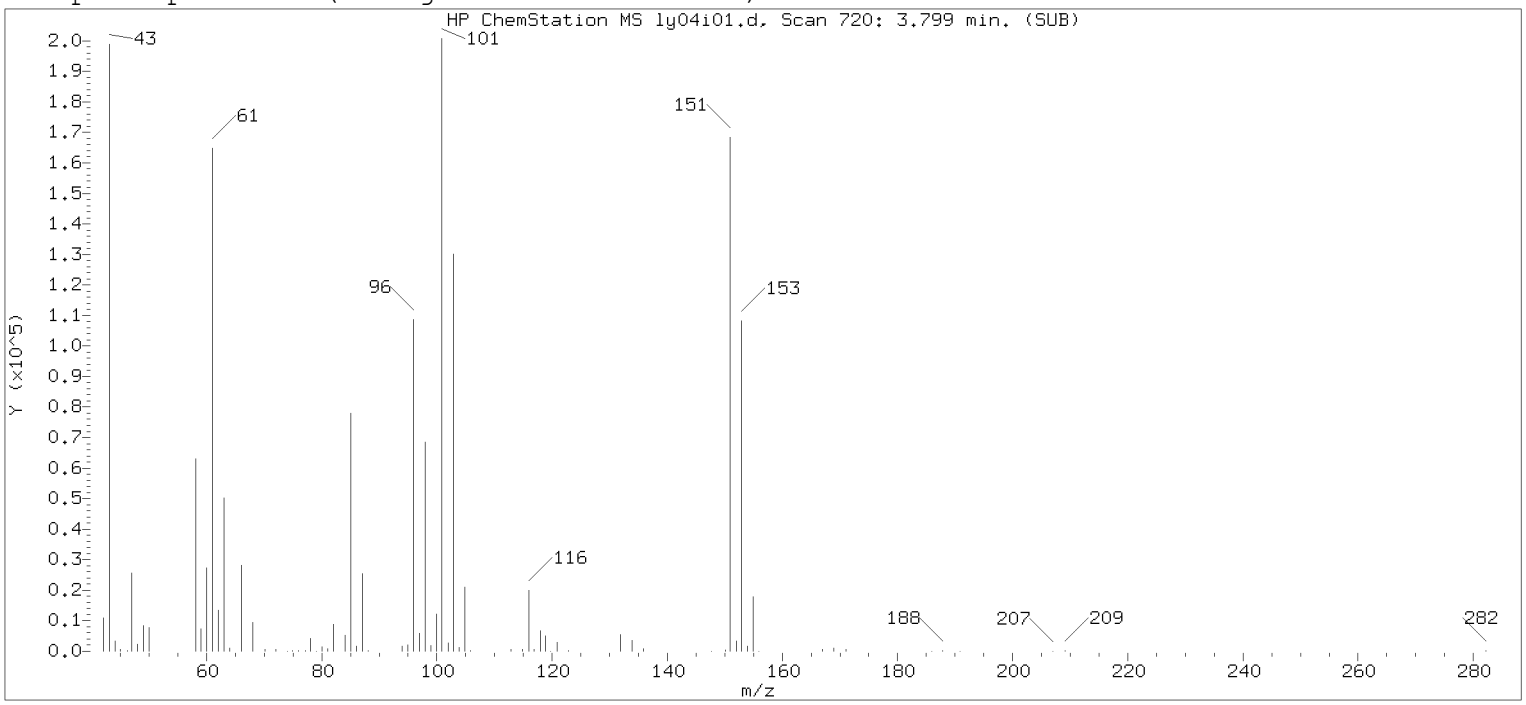
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area (flag) : 1965220M
On-Column Amount (ng) : 329.3664
Integration start scan : 681 Integration stop scan: 843
Y at integration start : 276 Y at integration end: 276

Reason for manual integration: improper integration

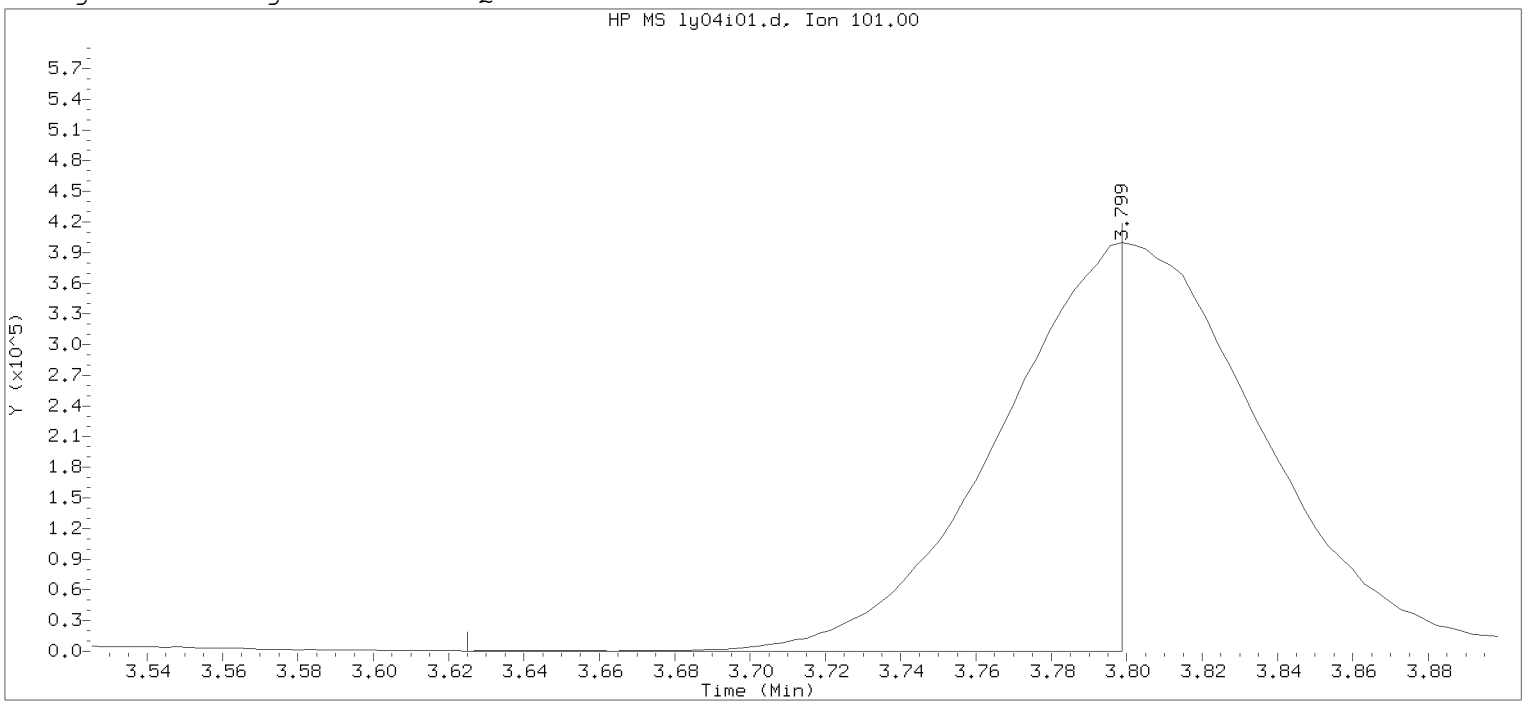
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

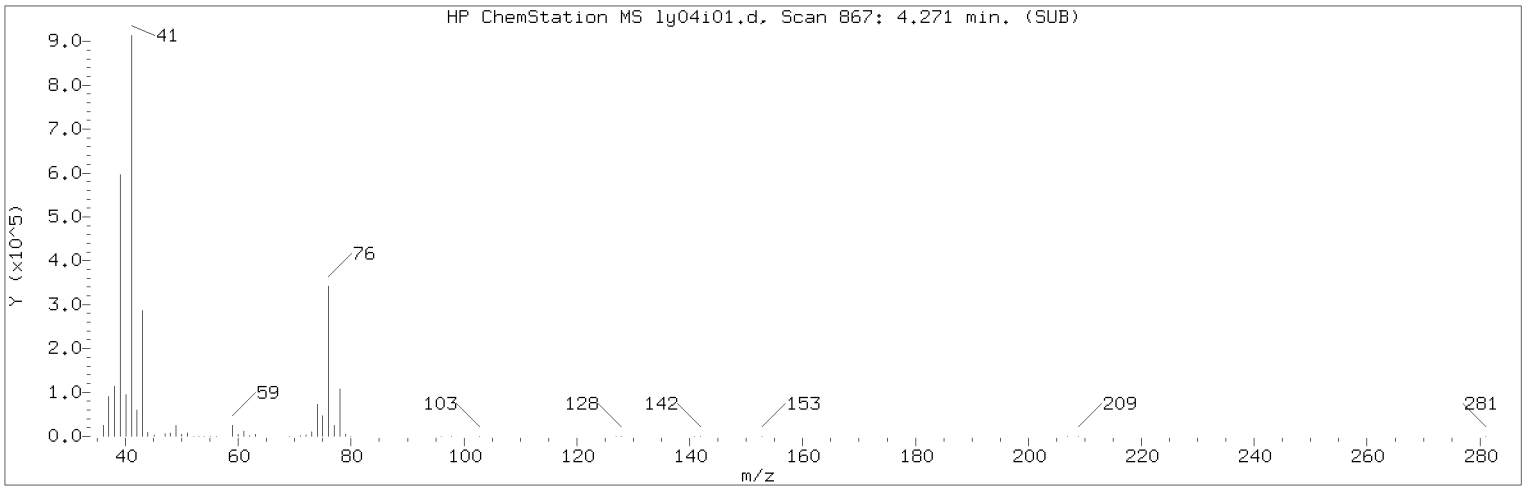
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

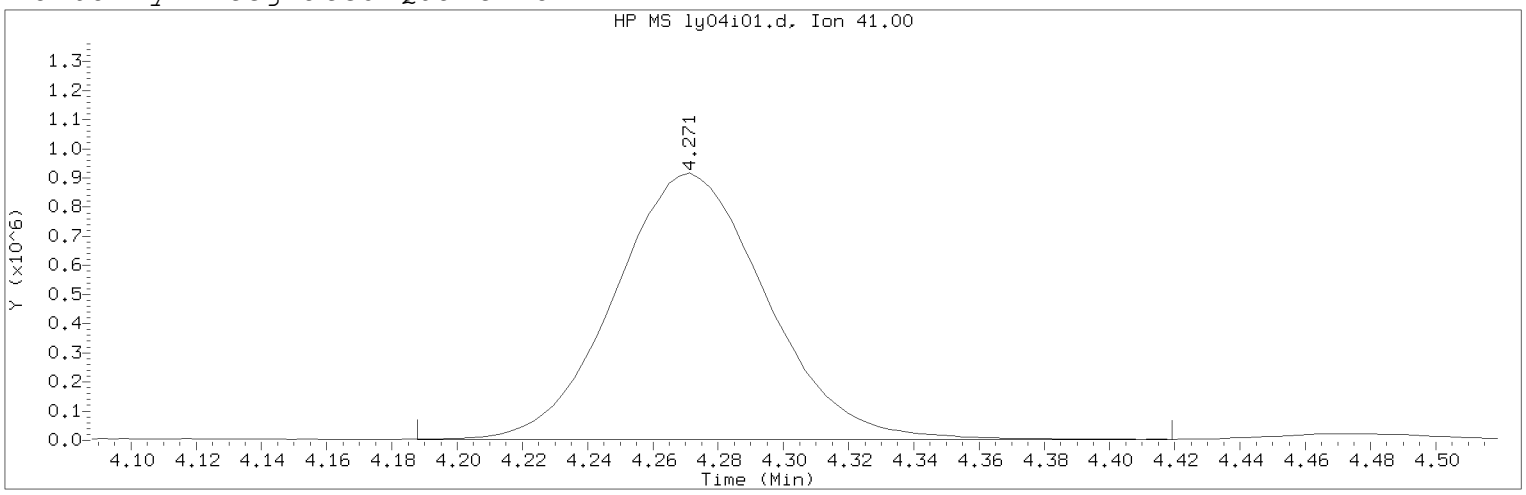
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area : 893647
On-column Amount (ng) : 300.0000
Integration start scan : 665 Integration stop scan: 719
Y at integration start : 308 Y at integration end: 308

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

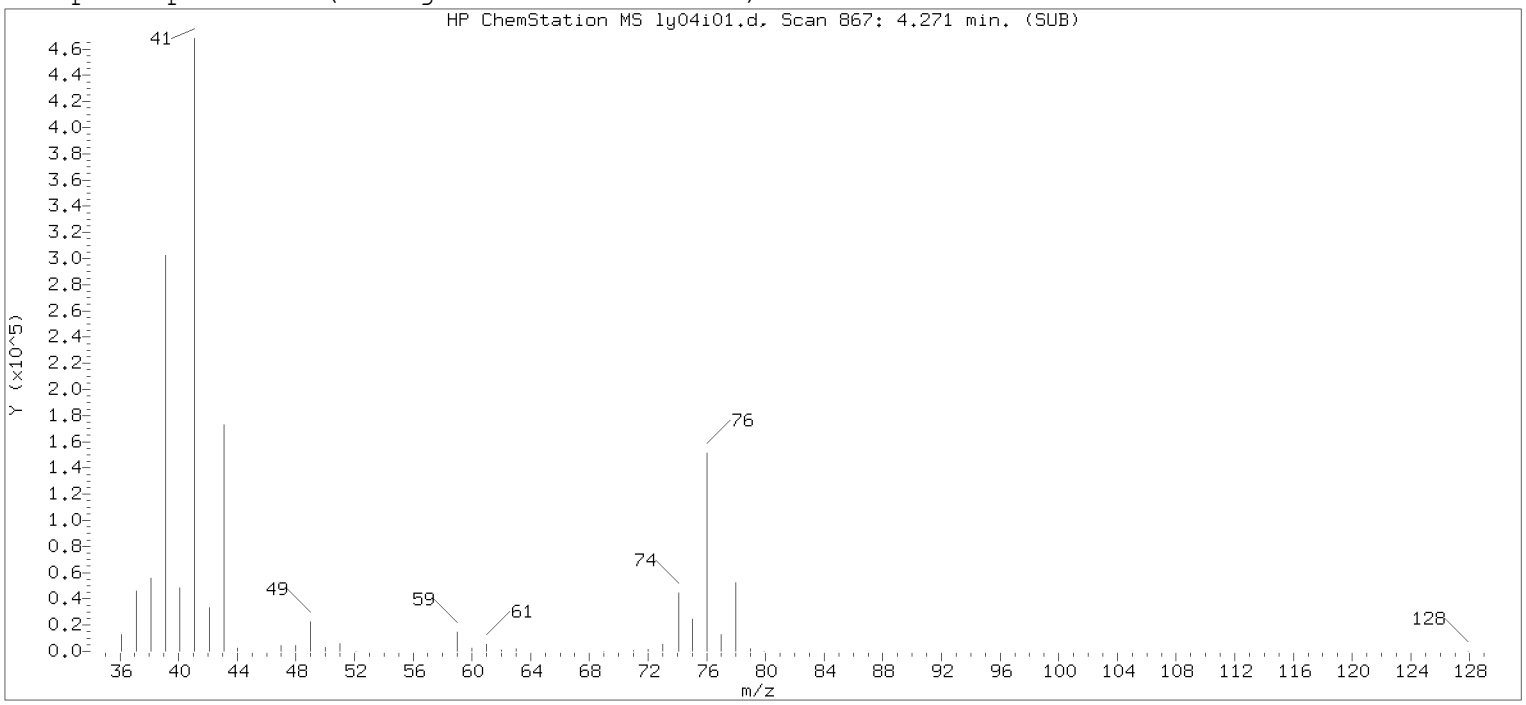
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area (flag) : 2951991M
On-Column Amount (ng) : 316.7471
Integration start scan : 840 Integration stop scan: 912
Y at integration start : 2551 Y at integration end: 2551

Reason for manual integration: improper integration

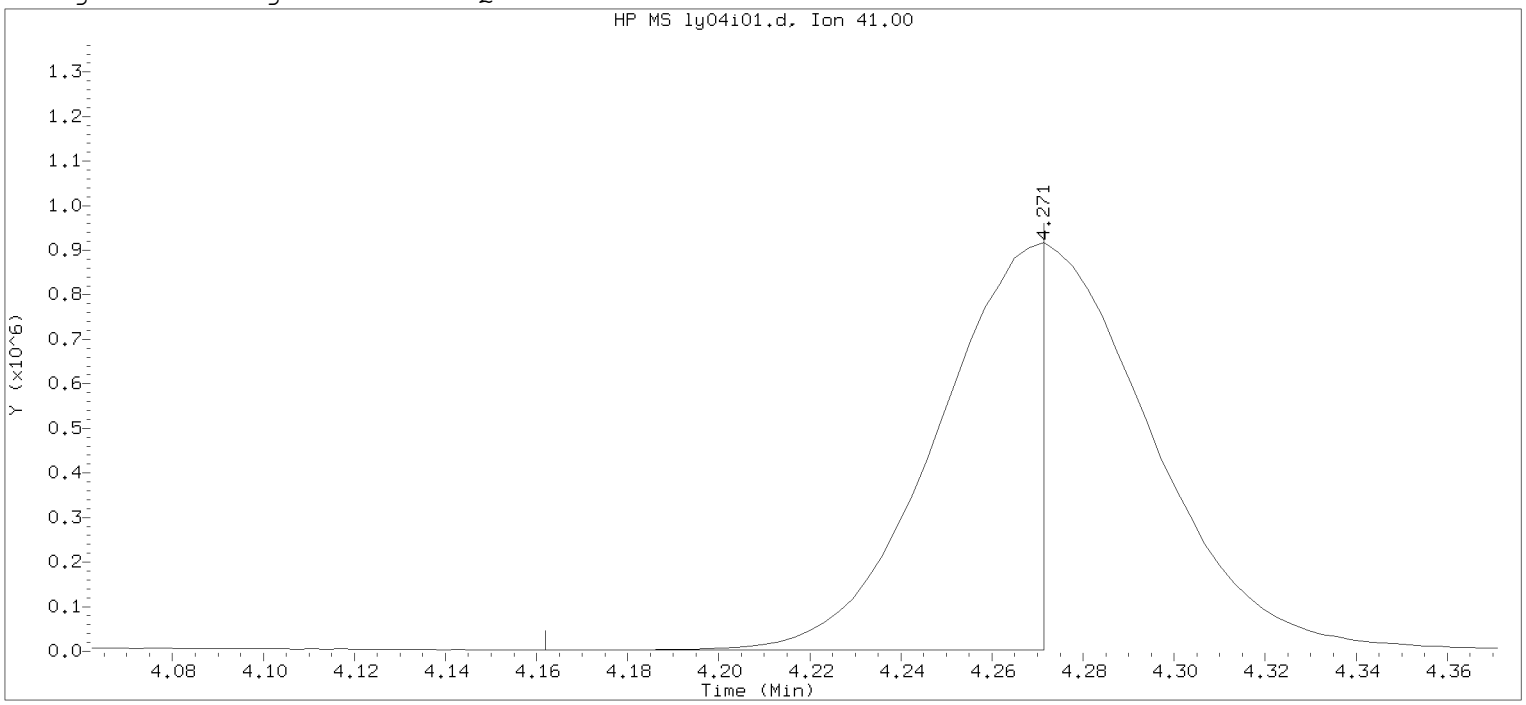
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area : 1439953
On-column Amount (ng) : 300.0000
Integration start scan : 832 Integration stop scan: 866
Y at integration start : 2601 Y at integration end: 2601

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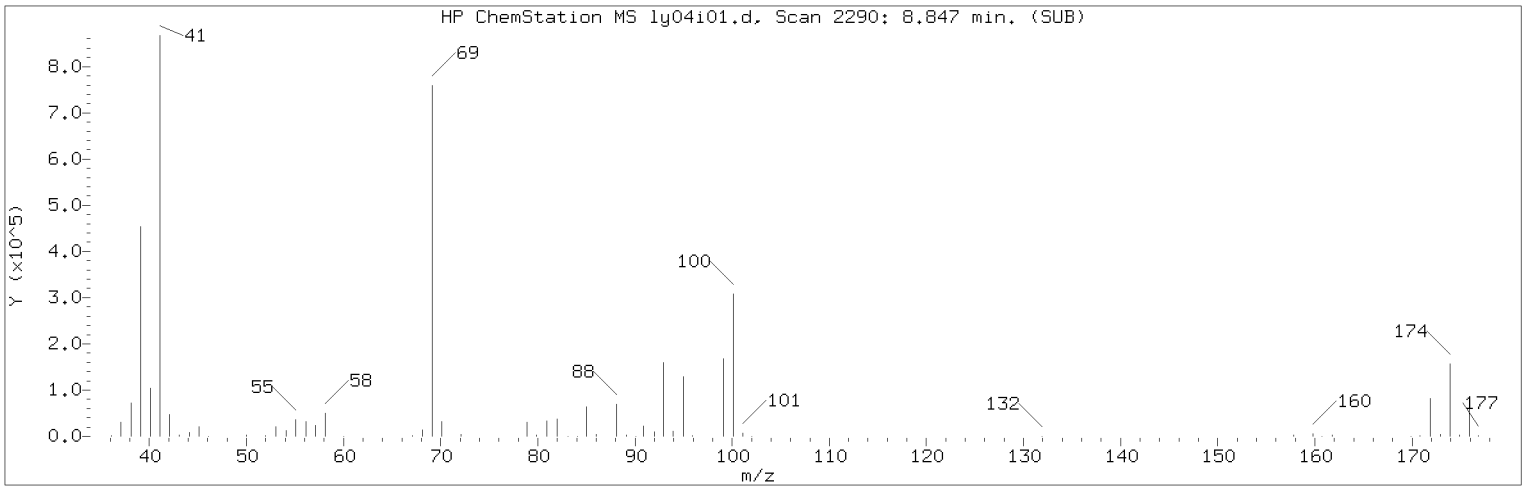
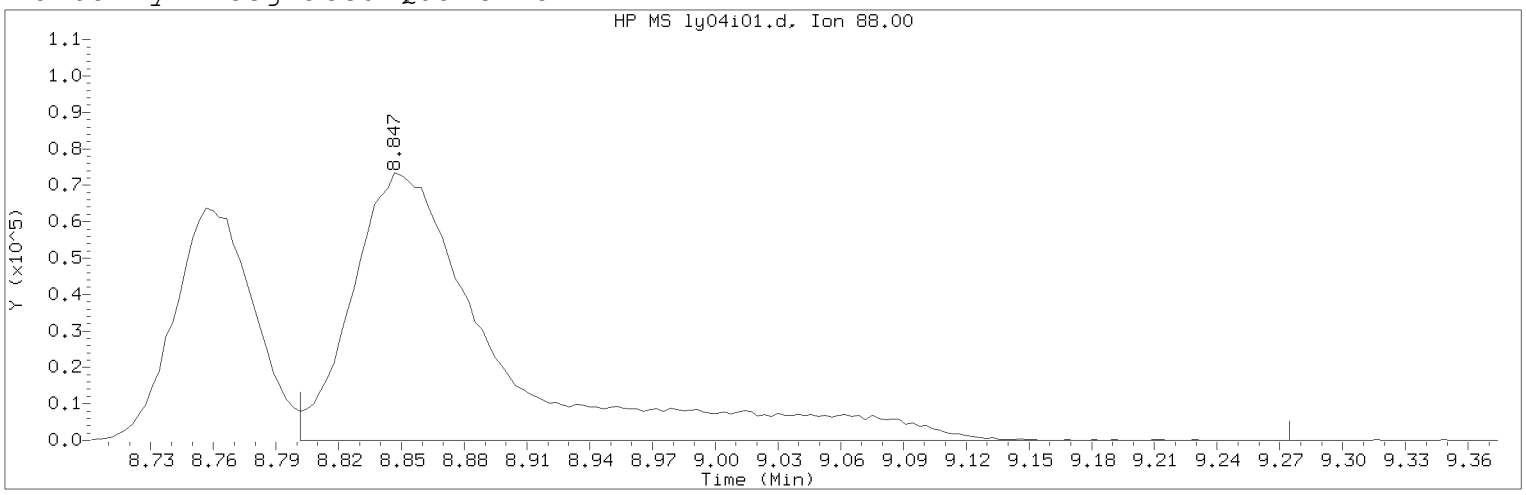
Target 3.5 esignature user: JCW57 Page 522

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

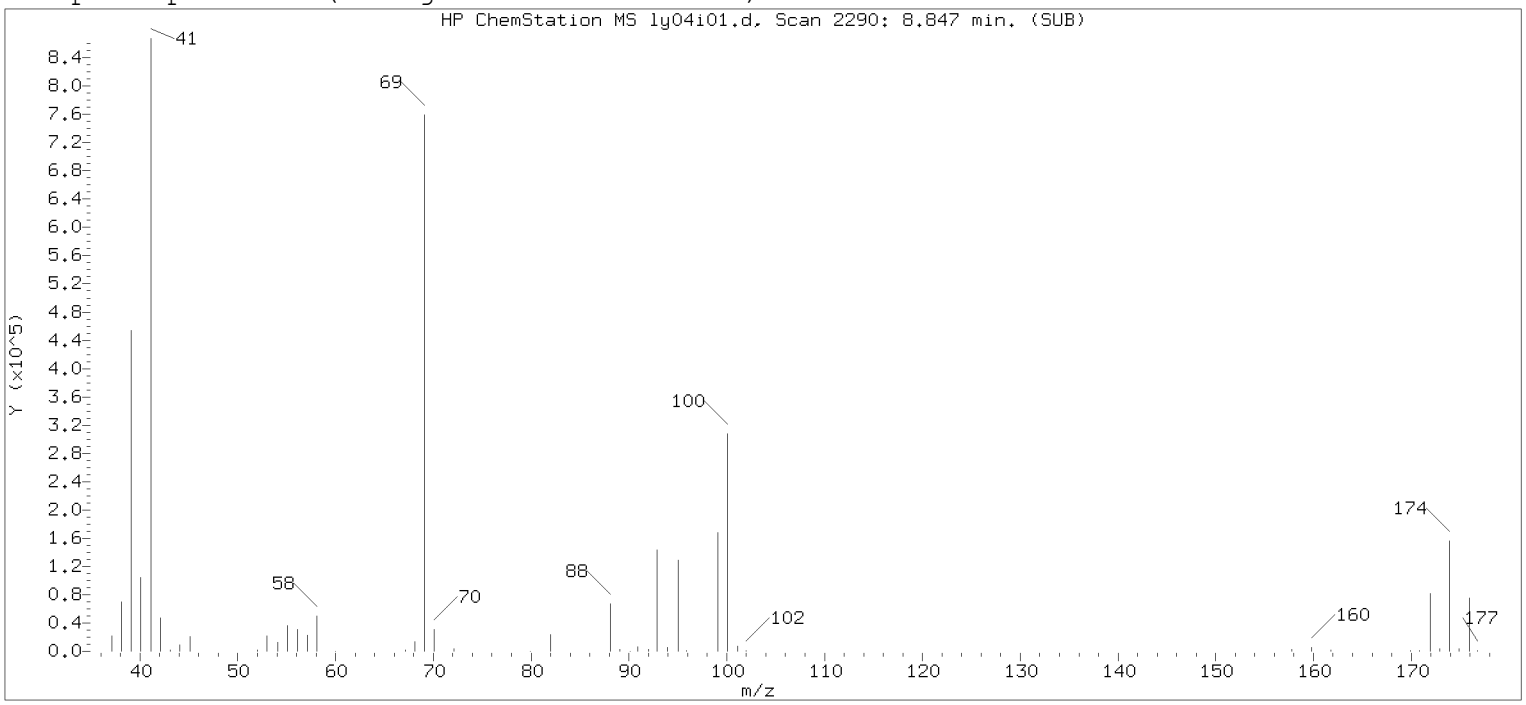
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 360140M
On-Column Amount (ng) : 3874.1804
Integration start scan : 2275 Integration stop scan: 2422
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

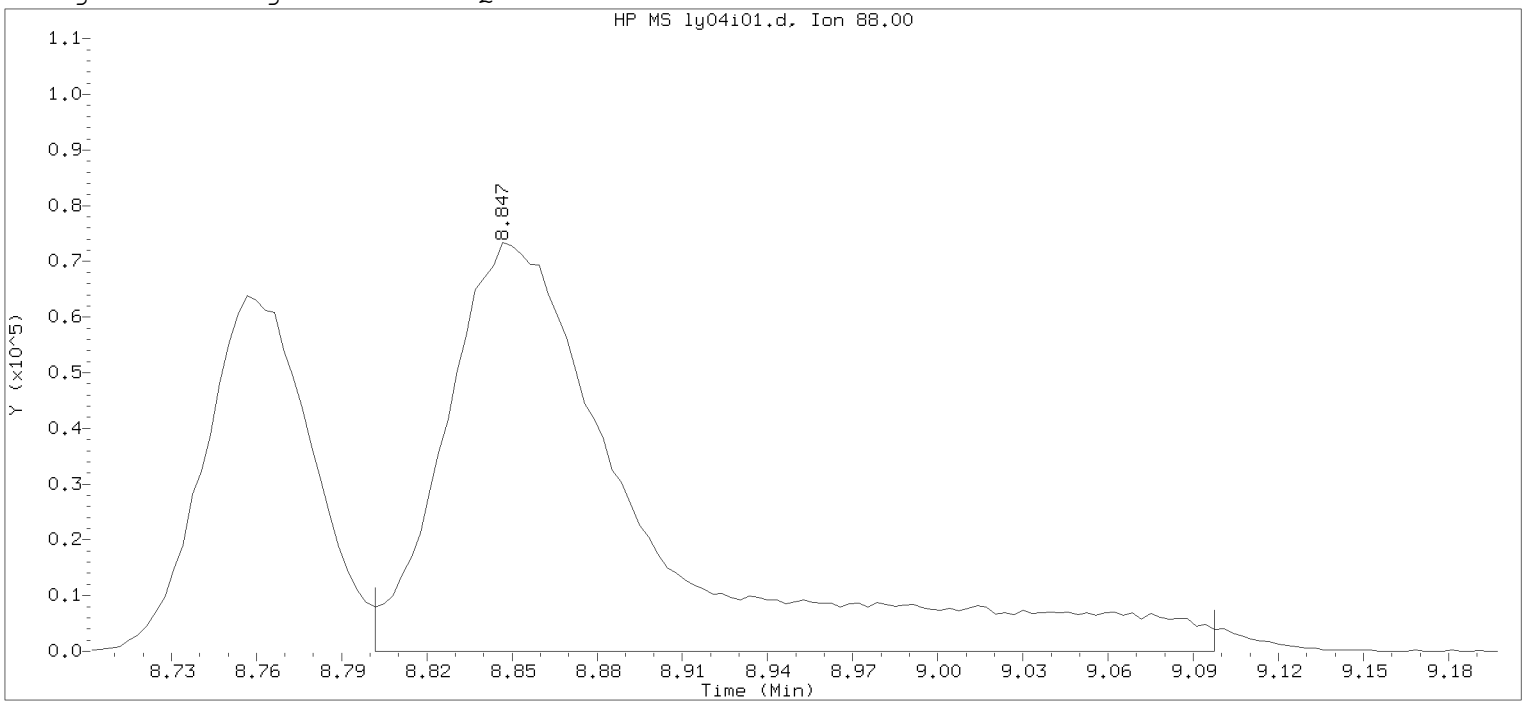
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

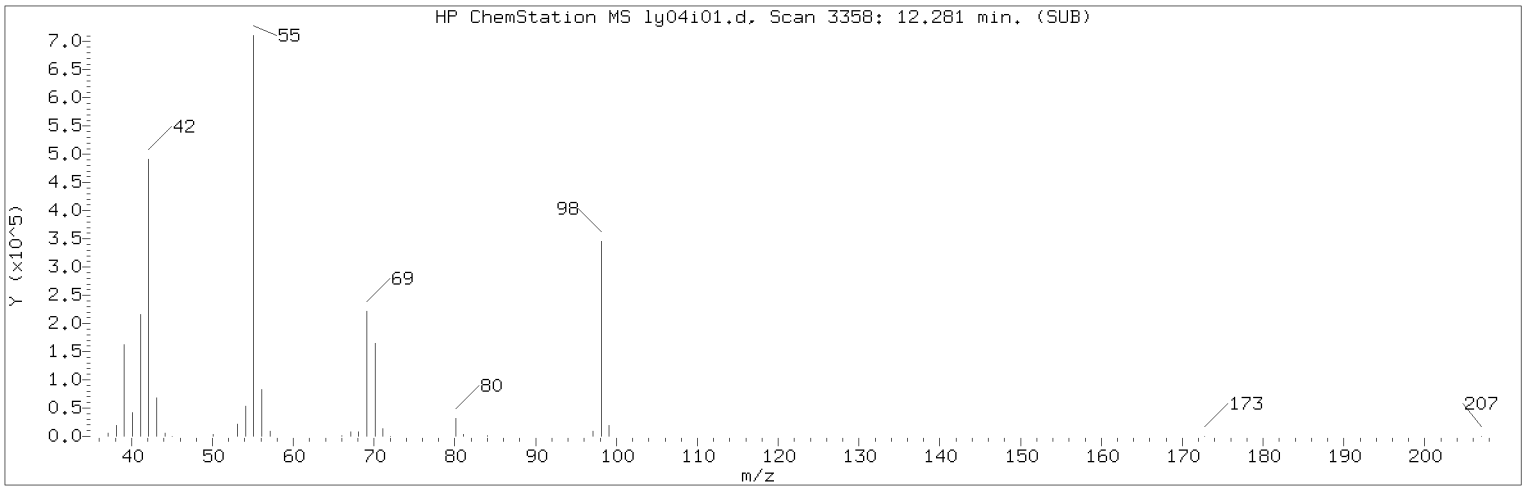
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

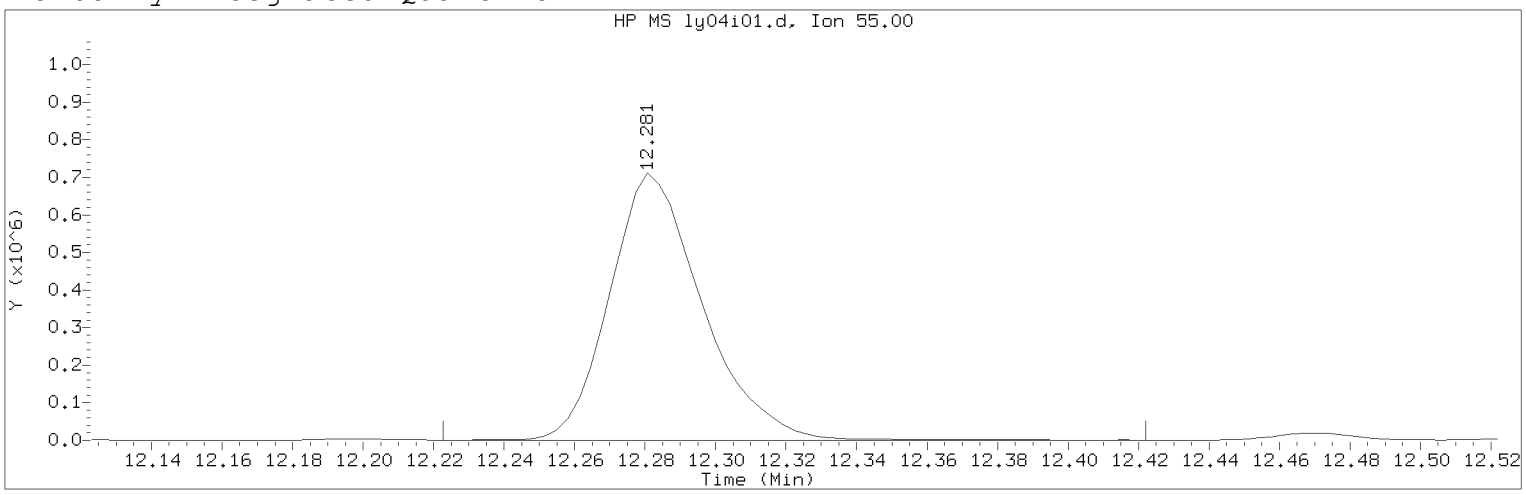
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 354631
On-column Amount (ng) : 3750.0000
Integration start scan : 2275 Integration stop scan: 2367
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

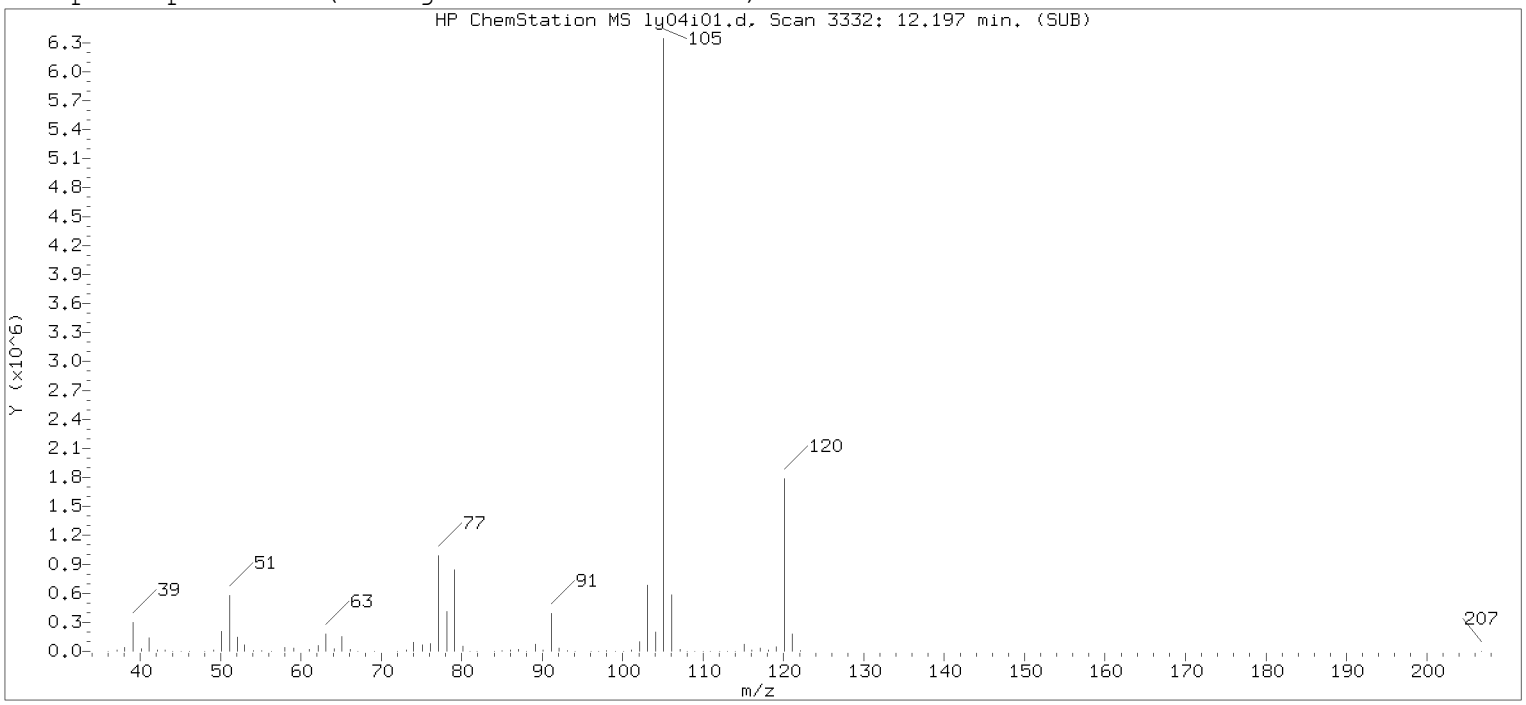
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 1298373A
On-Column Amount (ng) : 3752.2869
Integration start scan : 3339 Integration stop scan: 3401
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

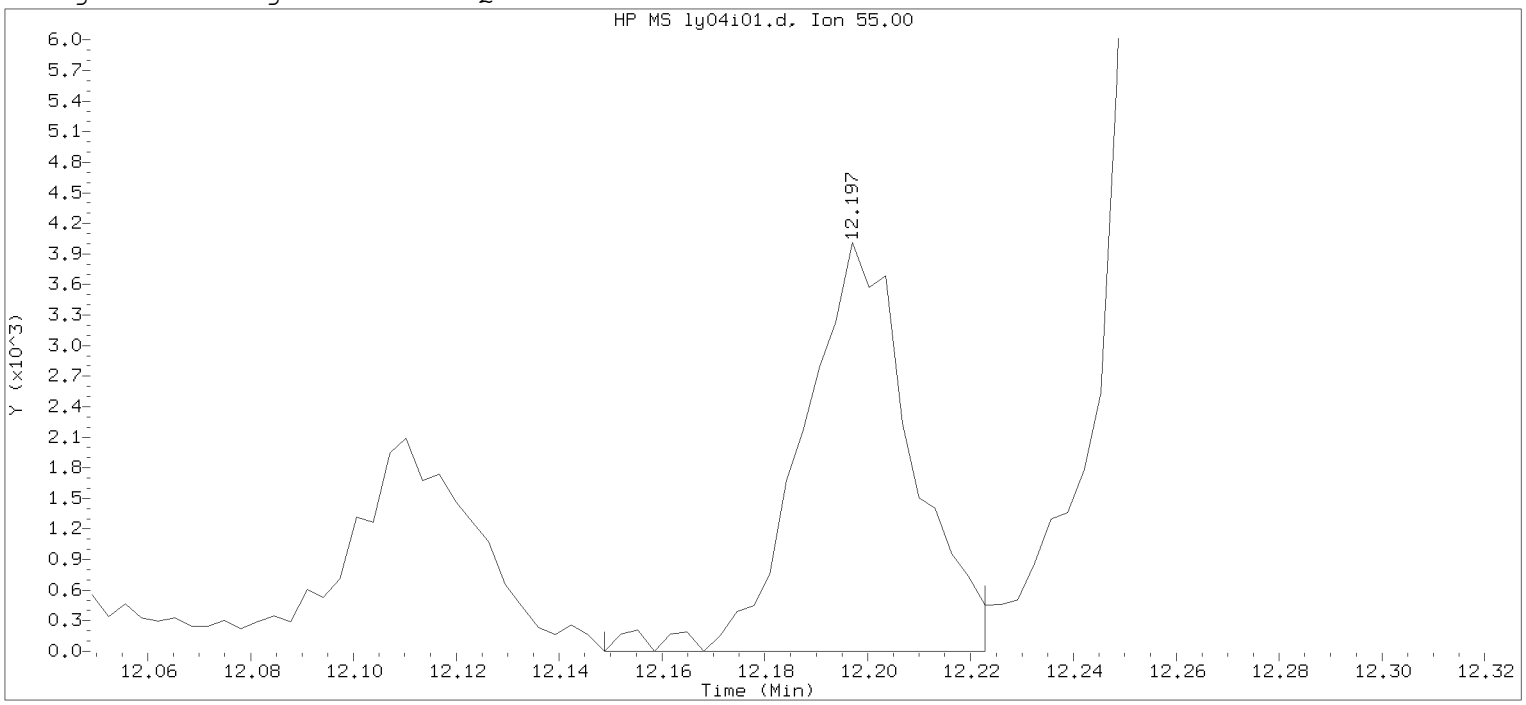
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

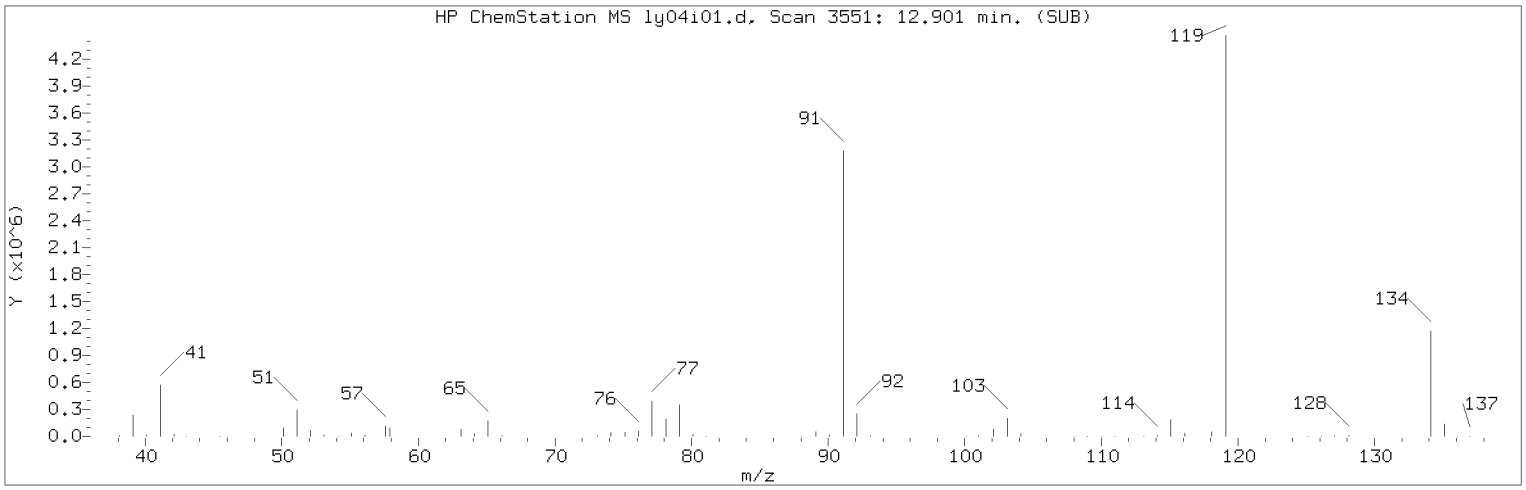
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

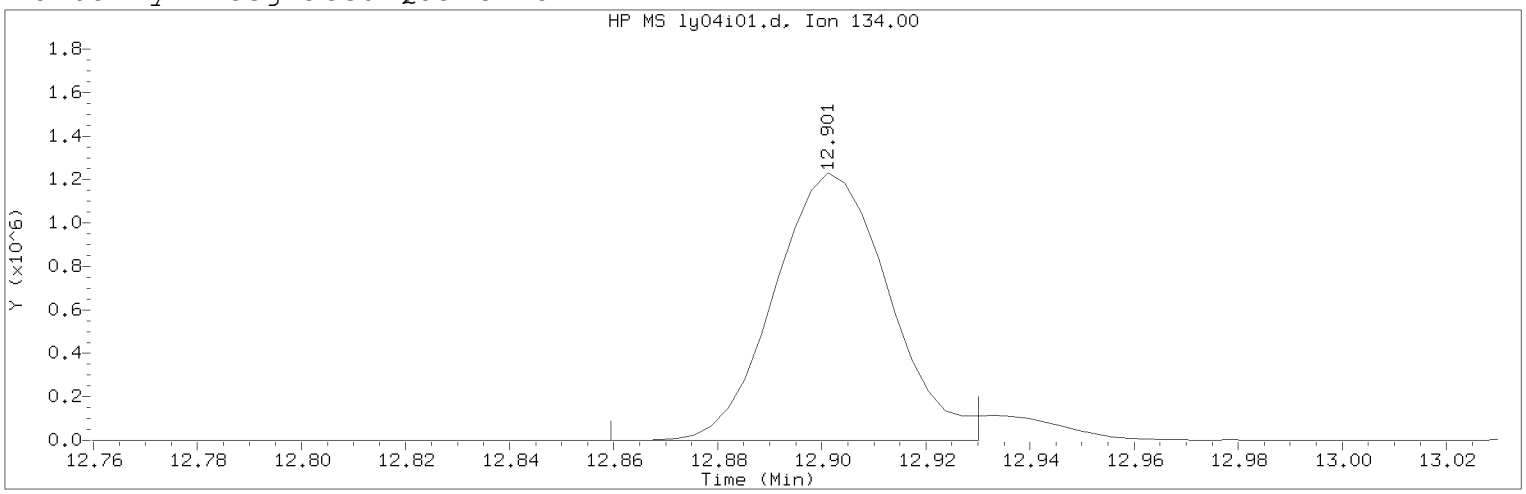
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3332
Retention Time (minutes): 12.197
Quant Ion : 55.00
Area : 5922
On-column Amount (ng) : 3750.0000
Integration start scan : 3316 Integration stop scan: 3339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

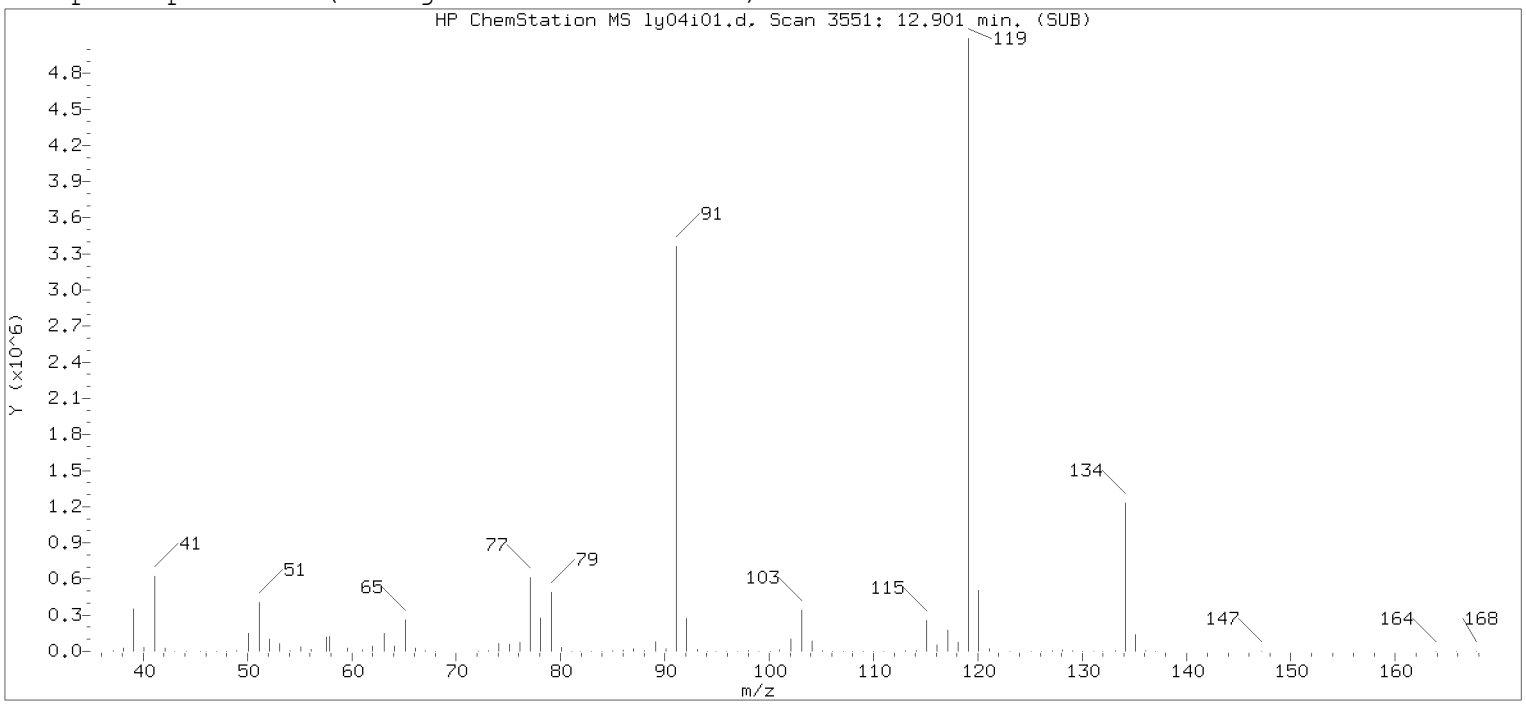
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 1876803M
On-Column Amount (ng) : 335.1392
Integration start scan : 3537 Integration stop scan: 3559
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

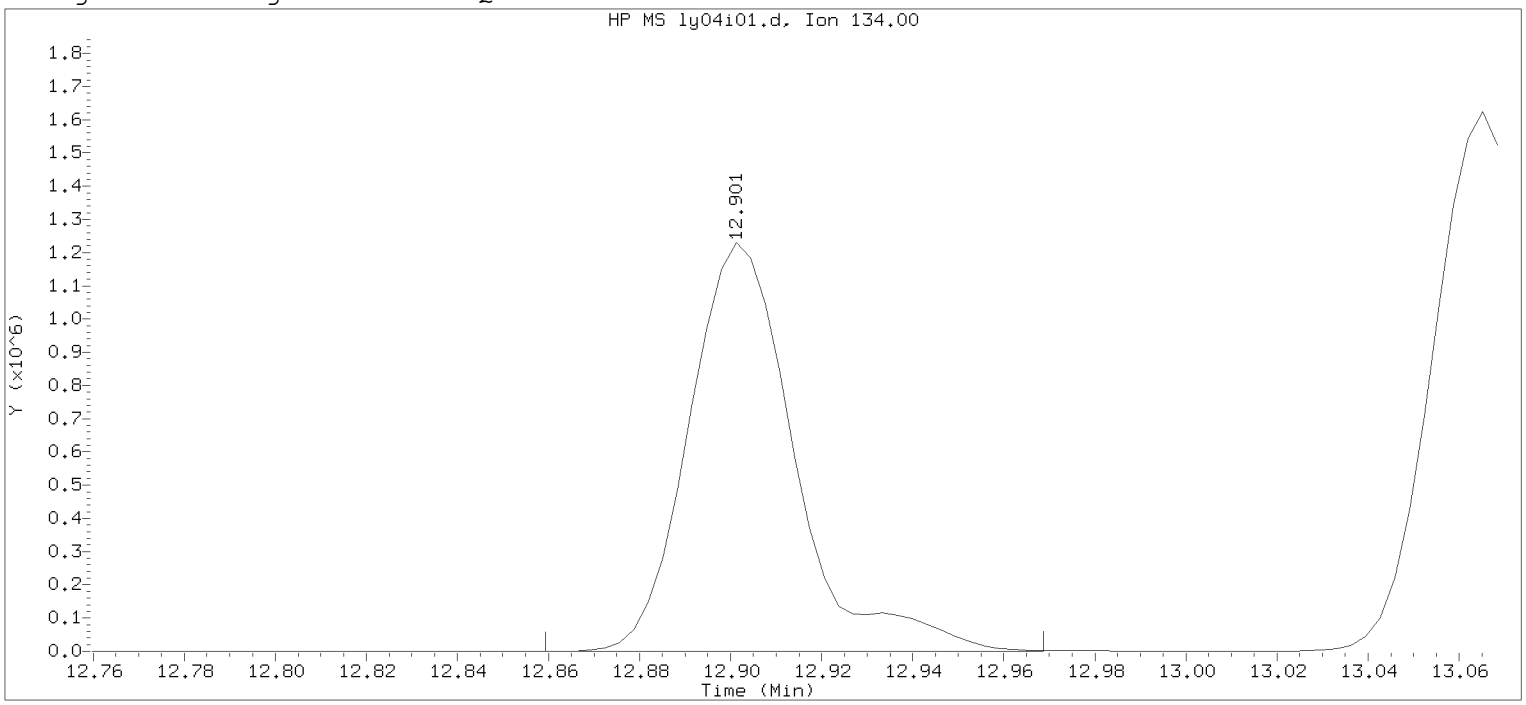
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



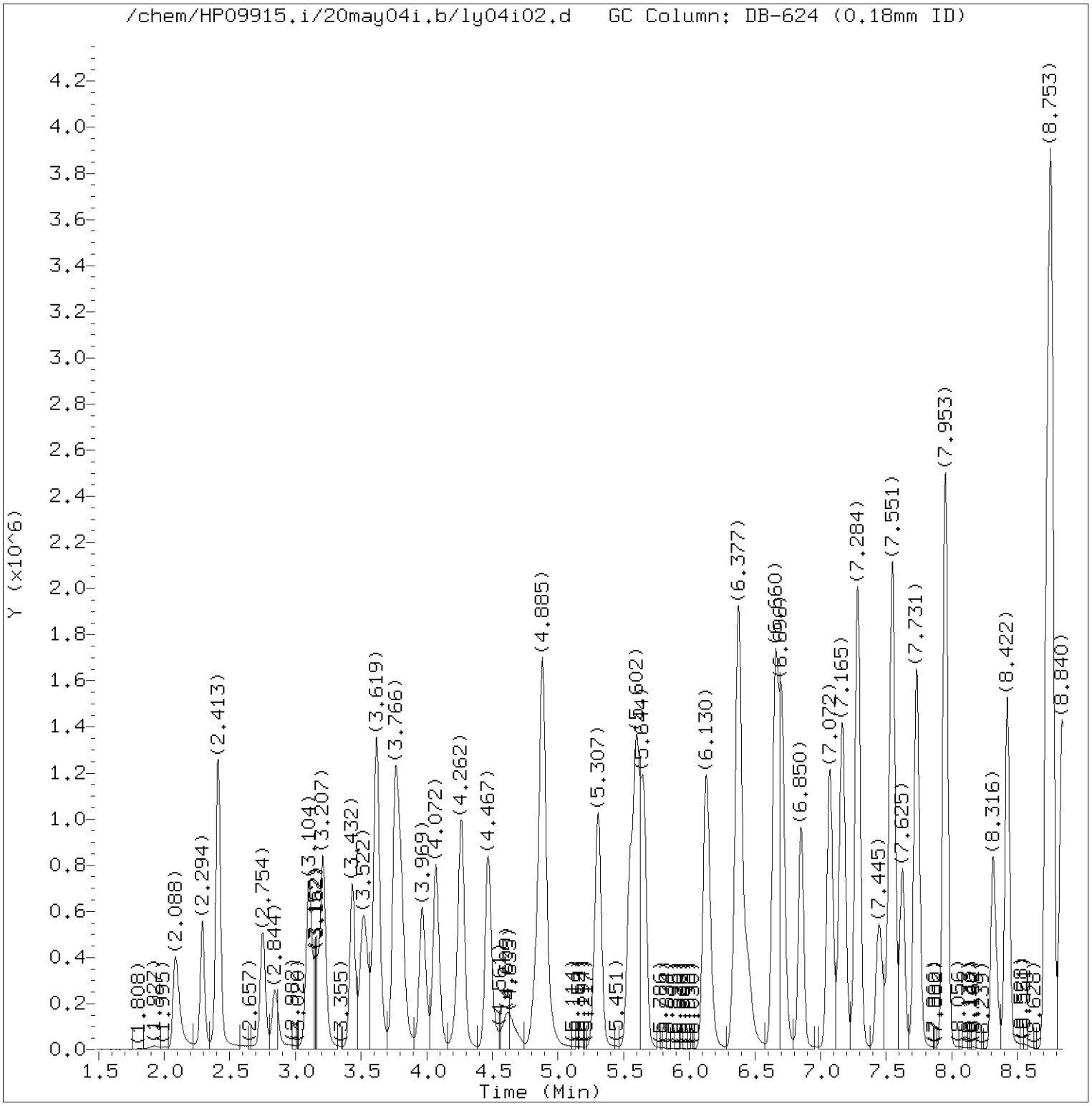
Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 1987823
On-column Amount (ng) : 300.0000
Integration start scan : 3537 Integration stop scan: 3571
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0026



Total Ion Chromatogram (TIC)

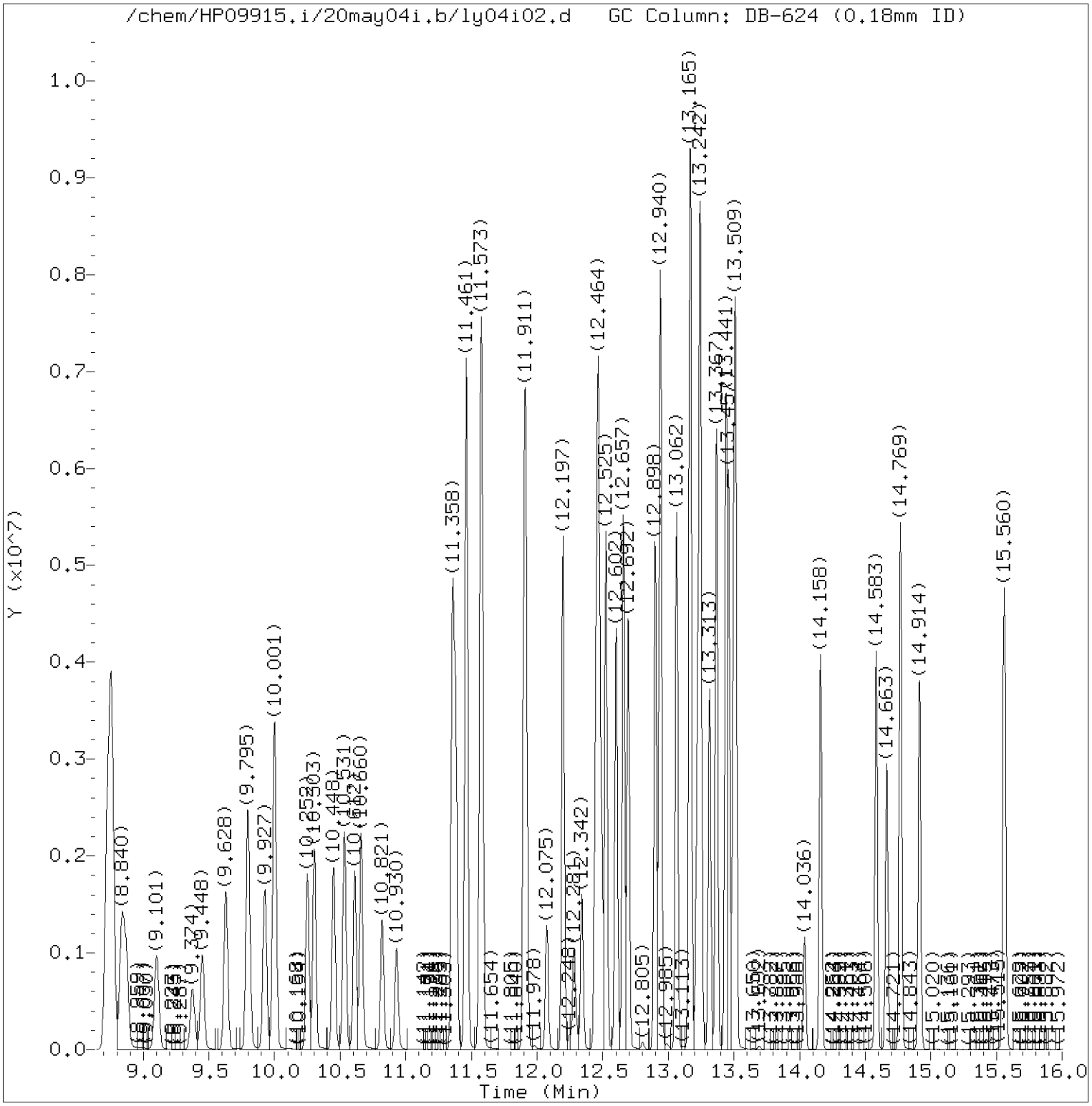
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	853077	95.314
4) Chloromethane	(2)	2.291	50	786838	94.160
5) 1,3-Butadiene	(2)	2.410	39	520508	97.096
6) Vinyl Chloride	(2)	2.413	62	744105	92.275
8) Bromomethane	(2)	2.754	94	519305	89.319
9) Chloroethane	(2)	2.844	64	387582	86.085
10) Dichlorofluoromethane	(2)	3.101	67	879288	90.539
12) Trichlorofluoromethane	(2)	3.162	101	829326	94.165
11) n-Pentane	(2)	3.210	43	821828	99.384
14) Ethyl ether	(2)	3.432	59	654590	105.186
15) Freon 123a	(2)	3.522	67	719785	100.879
16) Acrolein	(1)	3.619	56	2202055	982.350
17) 1,1-Dichloroethene	(2)	3.760	96	549714	97.873
17) 1,1-Dichloroethene	(2)	3.760	63	273099	102.093
19) Freon 113	(2)	3.795	101	592843	101.735
18) Acetone	(1)	3.802	58	188610	184.460
22) Methyl Iodide	(2)	3.969	142	1096160	101.269
21) 2-Propanol	(1)	3.985	45	318831	489.238
23) Carbon Disulfide	(2)	4.072	76	1939244	102.543
27) Methyl Acetate	(2)	4.239	43	716612	100.037
25) Allyl Chloride	(2)	4.268	41	969396	106.503
28) Methylene Chloride	(2)	4.471	84	666610	99.772
29)*t-Butyl alcohol-d10	(1)	4.490	65	272479	250.000
30) t-Butyl alcohol	(1)	4.622	59	557035	506.379
31) Acrylonitrile	(2)	4.827	53	384725	96.951
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	1974492	102.504
32) trans-1,2-Dichloroethene	(2)	4.885	96	643936	99.659
34) n-Hexane	(2)	5.307	57	980157	108.319
36) 1,1-Dichloroethane	(2)	5.548	63	1150743	101.542
38) di-Isopropyl ether	(2)	5.599	45	2135393	107.138
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	983912	108.868
40) Ethyl t-butyl ether	(2)	6.130	59	1972223	106.499
43) 1,2-Dichloroethene (Total)	(2)		96	1379003	201.103
44) 2-Butanone	(2)	6.348	43	955566	198.384
42) cis-1,2-Dichloroethene	(2)	6.377	96	735067	101.444
45) 2,2-Dichloropropane	(2)	6.384	77	906496	103.496
47) Propionitrile	(1)	6.448	54	775173	521.611
48) Methacrylonitrile	(2)	6.657	67	1032016	259.410

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	387109	103.541
50) Tetrahydrofuran	(1)	6.715	71	265025	203.822
51) Chloroform	(2)	6.850	83	1119265	101.093
52)$Dibromofluoromethane	(2)	7.069	113	329675	50.139
52)$Dibromofluoromethane	(2)	7.069	111	336828	50.113
53) 1,1,1-Trichloroethane	(2)	7.075	97	966703	101.774
54) Cyclohexane	(2)	7.165	56	1163895	109.463
54) Cyclohexane	(2)	7.168	84	1000103	107.756
54) Cyclohexane	(2)	7.165	69	357764	108.275
56) Carbon Tetrachloride	(2)	7.278	117	830197	104.318
55) 1,1-Dichloropropene	(2)	7.287	75	900576	103.427
58) Isobutyl Alcohol	(1)	7.445	41	477848	1280.506
57)$1,2-Dichloroethane-d4	(2)	7.522	102	82703	49.570
57)$1,2-Dichloroethane-d4	(2)	7.522	65	369652	49.914
57)$1,2-Dichloroethane-d4	(2)	7.519	104	52535	49.449
60) Benzene	(2)	7.551	78	2723134	101.028
61) 1,2-Dichloroethane	(2)	7.625	62	882324	97.653
61) 1,2-Dichloroethane	(2)	7.625	98	89171	101.277
65) t-Amyl methyl ether	(2)	7.731	73	2011782	106.341
66)*Fluorobenzene	(2)	7.950	96	1305159	50.000
67) n-Heptane	(2)	7.956	43	975825	103.704
69) n-Butanol	(1)	8.316	56	860676	2828.614
71) Trichloroethene	(2)	8.425	95	688560	100.949
72) Methylcyclohexane	(2)	8.728	83	1282390	115.625
72) Methylcyclohexane	(2)	8.728	98	579444	115.508
73) 1,2-Dichloropropane	(2)	8.760	63	707167	101.826
76) Methyl Methacrylate	(2)	8.837	69	660132	110.547
75) 1,4-Dioxane	(1)	8.843	88	121991M	1333.722
74) Dibromomethane	(2)	8.869	93	465649	102.523
78) Bromodichloromethane	(2)	9.101	83	872696	107.177
79) 2-Nitropropane	(2)	9.374	41	514618	210.790
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	544528	117.753
81) cis-1,3-Dichloropropene	(2)	9.628	75	1173507	110.278
82) 4-Methyl-2-pentanone	(2)	9.795	43	2014827M	206.557
83)$Toluene-d8	(3)	9.927	98	1347192	50.298
83)$Toluene-d8	(3)	9.927	100	873877	50.274
88) Toluene	(3)	10.001	92	1720446	100.774
90) 1,3-Dichloropropene (total)	(3)		100	2256338	220.822

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	1082831	110.544
91) Ethyl Methacrylate	(3)	10.303	69	1150351	116.713
92) 1,1,2-Trichloroethane	(3)	10.448	97	674393	101.801
93) Tetrachloroethene	(3)	10.531	166	745147	102.417
94) 1,3-Dichloropropane	(3)	10.612	76	1153873	104.156
96) 2-Hexanone	(3)	10.660	43	1466416	204.845
97) Dibromochloromethane	(3)	10.821	129	768603	111.537
99) 1,2-Dibromoethane	(3)	10.930	107	757251	106.362
100)*Chlorobenzene-d5	(3)	11.351	117	1042614	50.000
101) 1-Chlorohexane	(3)	11.358	91	894543	102.388
102) Chlorobenzene	(3)	11.380	112	1974796	100.728
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	698262	105.060
104) Ethylbenzene	(3)	11.461	91	3302145	104.495
106) m+p-Xylene	(3)	11.573	106	2617893	210.839
108) Xylene (Total)	(3)		106	3901521	317.742
107) o-Xylene	(3)	11.901	106	1283628	106.904
109) Styrene	(3)	11.917	104	2175134	111.387
110) Bromoform	(3)	12.075	173	575326	114.684
111) Isopropylbenzene	(3)	12.197	105	3285092	107.815
112) Cyclohexanone	(1)	12.281	55	465460A	1367.124
114)$4-Bromofluorobenzene	(3)	12.342	95	512925	49.770
114)$4-Bromofluorobenzene	(3)	12.342	174	437104	49.470
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	1088037	102.939
115) Bromobenzene	(4)	12.461	156	869682	102.507
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	825411	268.454
117) 1,2,3-Trichloropropane	(4)	12.490	110	336139	104.128
119) n-Propylbenzene	(4)	12.525	91	3817261	104.103
120) 2-Chlorotoluene	(4)	12.602	126	813495	103.844
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	2845054	107.378
121) 4-Chlorotoluene	(4)	12.692	126	843646	103.759
124) tert-Butylbenzene	(4)	12.898	134	591495M	108.603
125) Pentachloroethane	(4)	12.933	167	549570	113.616
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	2971690	108.477
127) sec-Butylbenzene	(4)	13.062	105	3479126	107.847
129) 1,3-Dichlorobenzene	(4)	13.162	146	1615369	102.175
130) p-Isopropyltoluene	(4)	13.168	119	3007783	108.812
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	579781	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	1664879	100.338

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

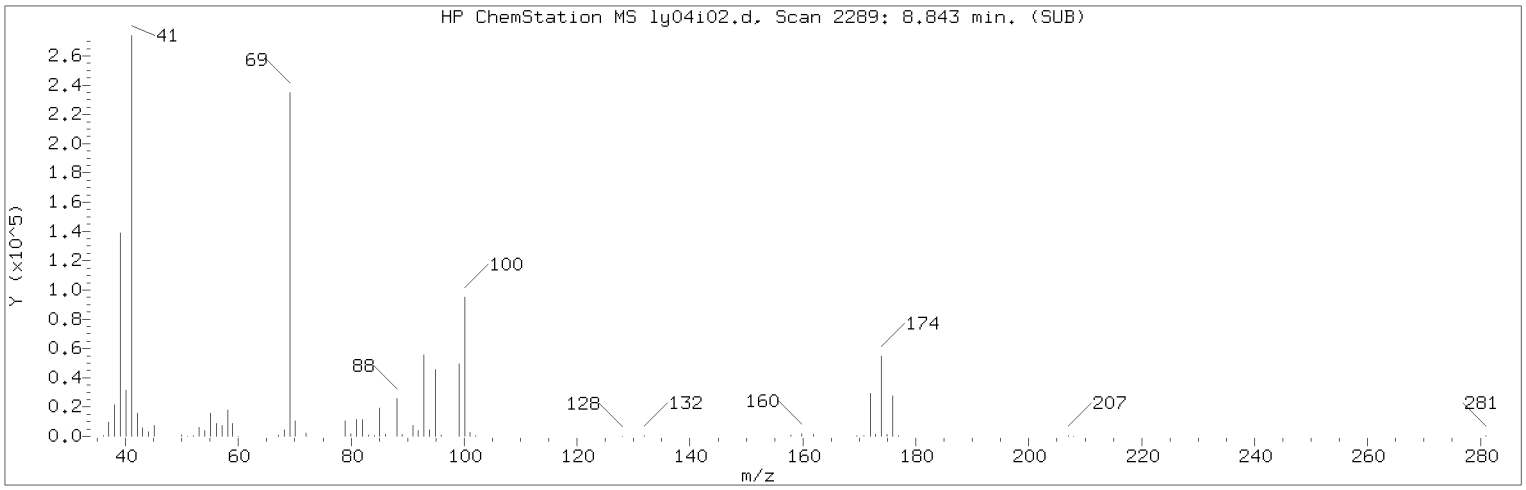
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

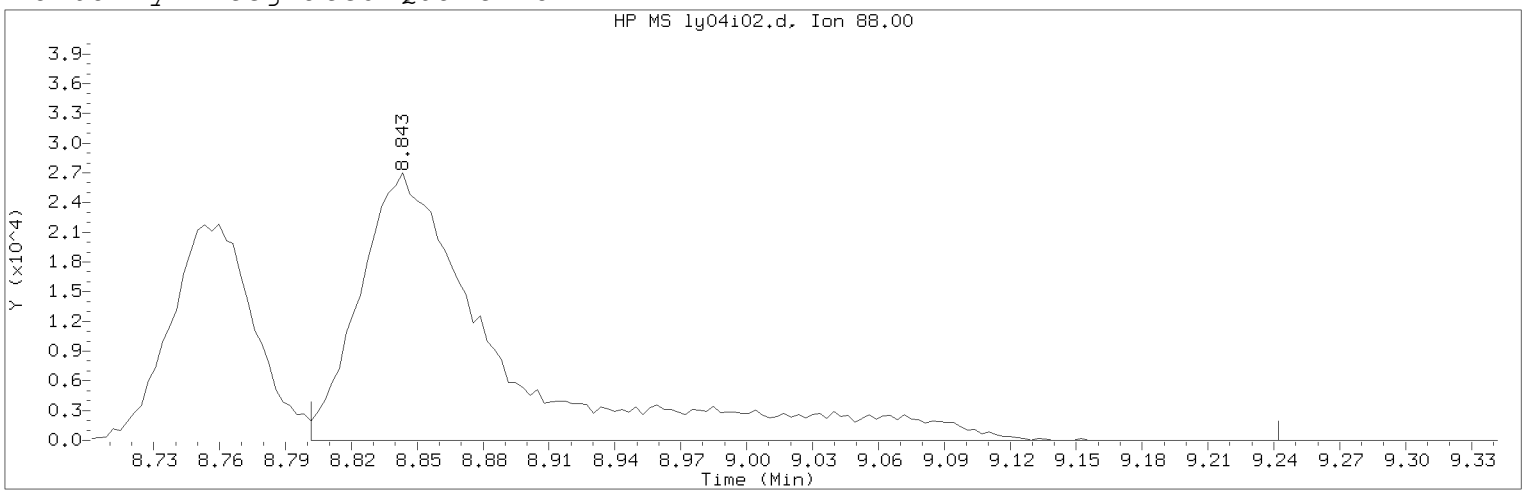
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	3076651	108.090
135) Benzyl Chloride	(4)	13.313	91	2438204	113.211
136) 1,3-Diethylbenzene	(4)	13.367	119	1960676	110.086
141) Diethylbenzene (total)	(4)		100	5656125	328.324
137) 1,4-Diethylbenzene	(4)	13.438	119	2046082	109.754
139) n-Butylbenzene	(4)	13.457	92	1477265	104.018
138) 1,2-Dichlorobenzene	(4)	13.496	146	1601420	100.637
140) 1,2-Diethylbenzene	(4)	13.512	119	1649367	108.484
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	256247	109.532
144) 1,3,5-Trichlorobenzene	(4)	14.162	180	1224679	102.164
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	1178758	105.224
147) Hexachlorobutadiene	(4)	14.663	225	502383	97.213
148) Naphthalene	(4)	14.769	128	4071339	112.277
149) 1,2,3-Trichlorobenzene	(4)	14.914	180	1139574	102.373
150) 2-Methylnaphthalene	(4)	15.560	142	2393759	102.167

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

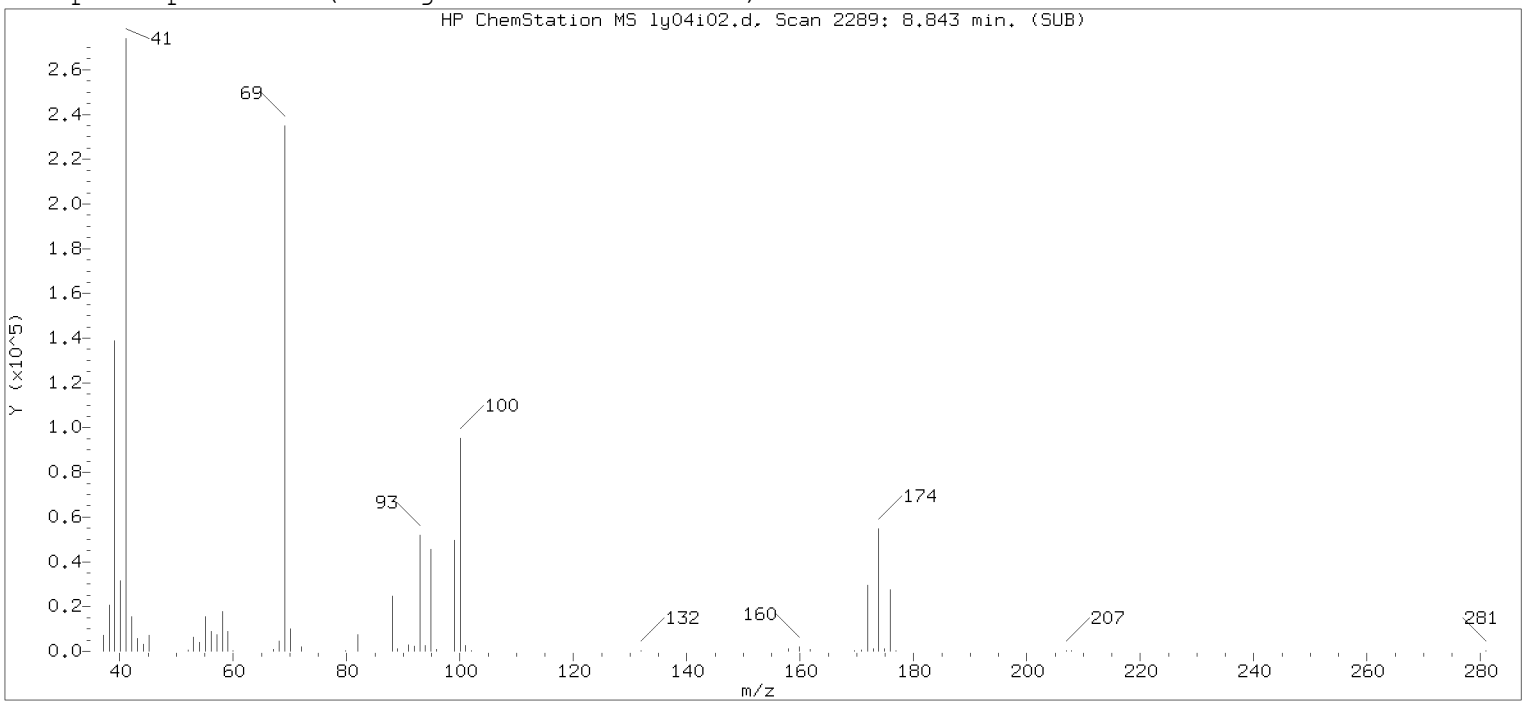
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area (flag) : 121991M
On-Column Amount (ng) : 1333.7223
Integration start scan : 2275 Integration stop scan: 2412
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

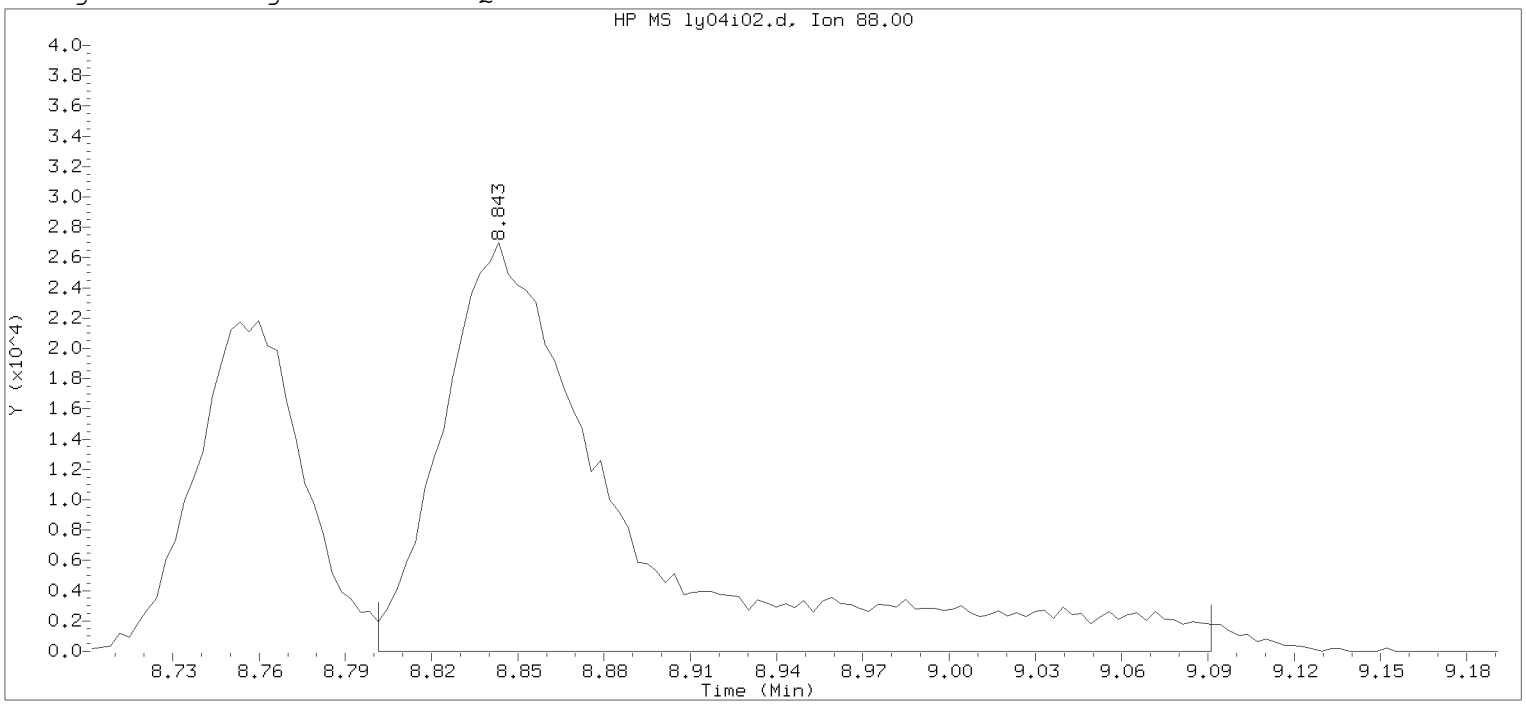
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

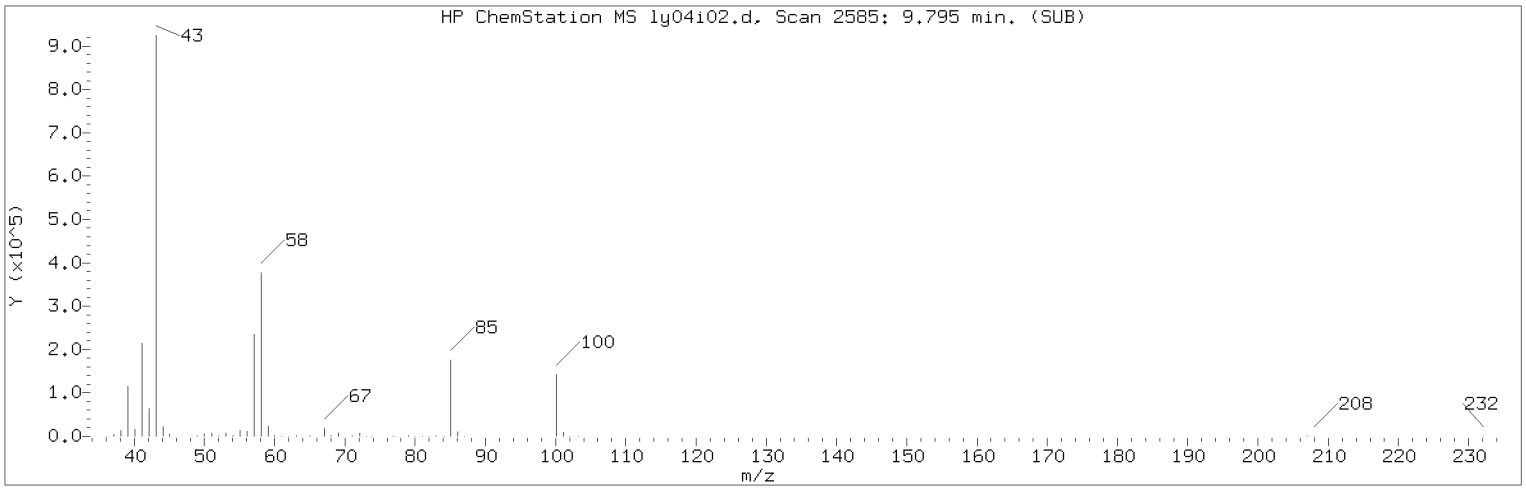
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

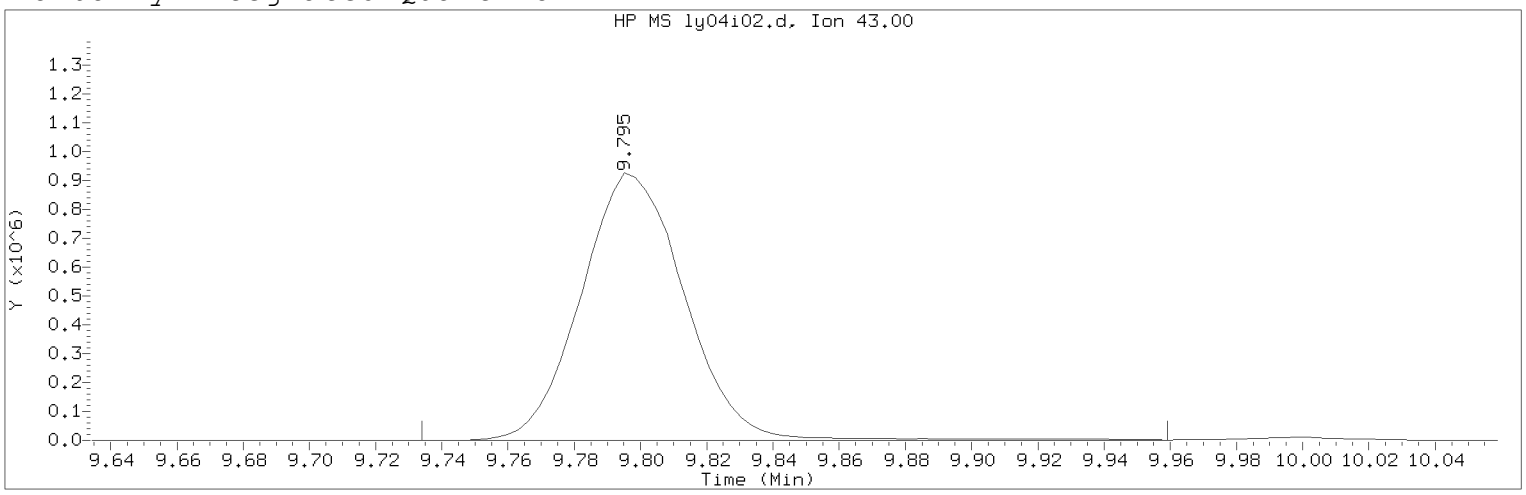
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area : 119871
On-column Amount (ng) : 1268.8357
Integration start scan : 2275 Integration stop scan: 2365
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user: JCW57 Page 534 of 881

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

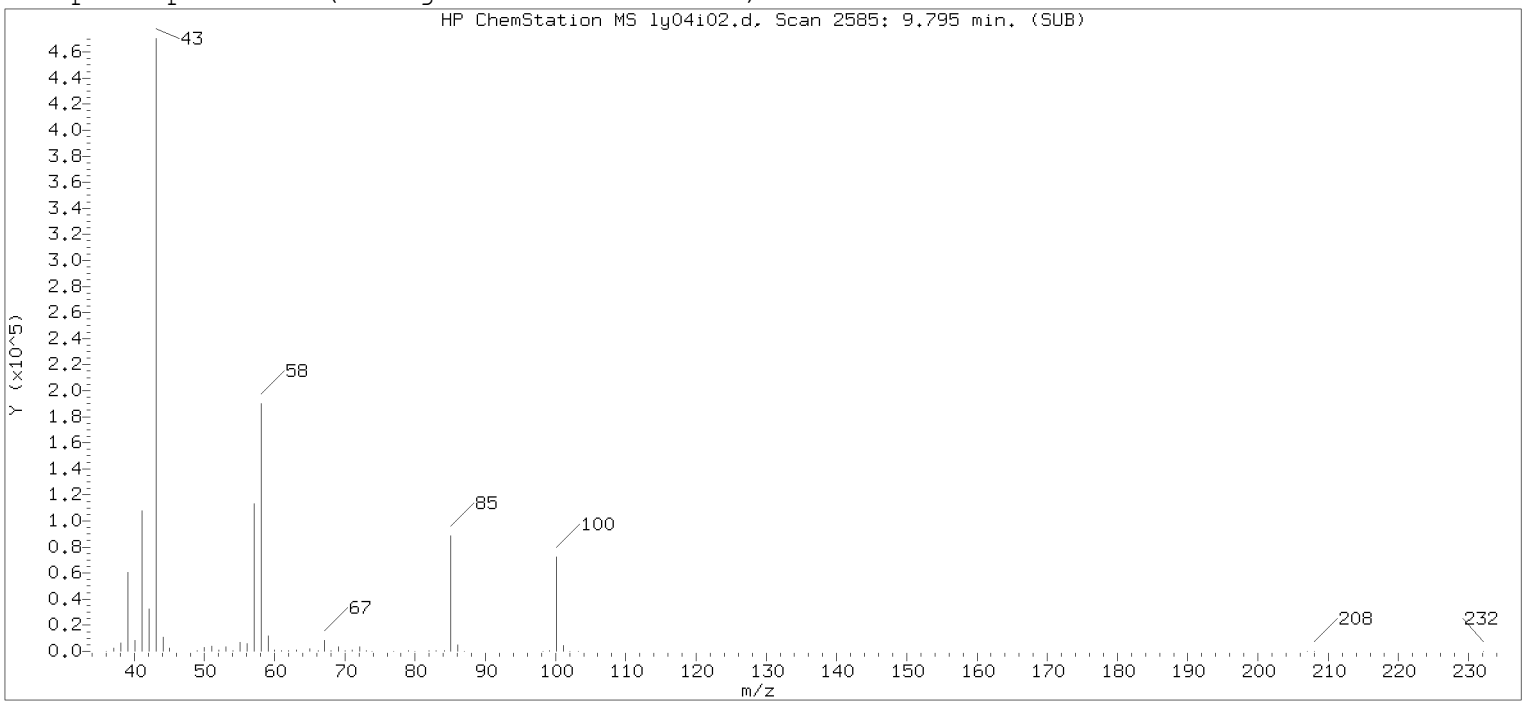
Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area (flag) : 2014827M
On-Column Amount (ng) : 206.5570
Integration start scan : 2565 Integration stop scan: 2635
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

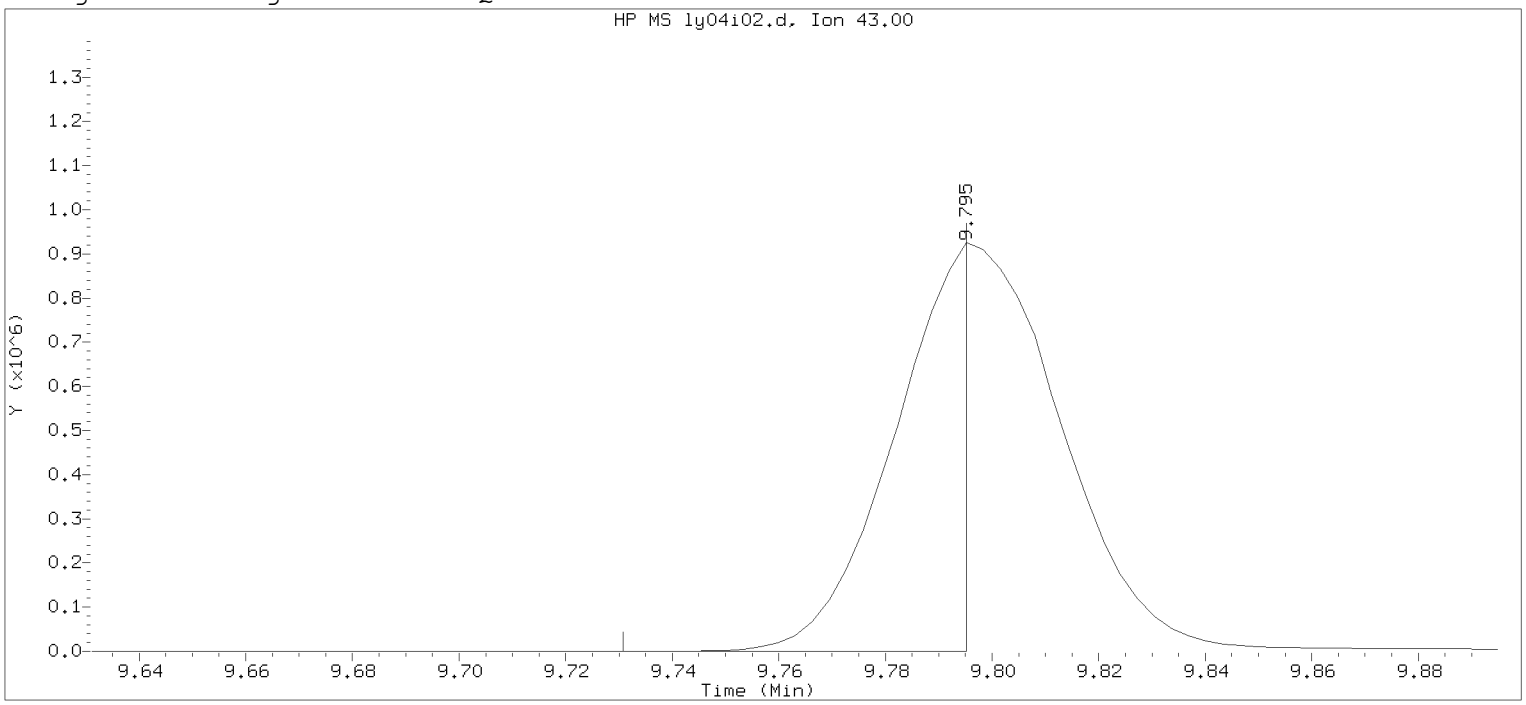
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

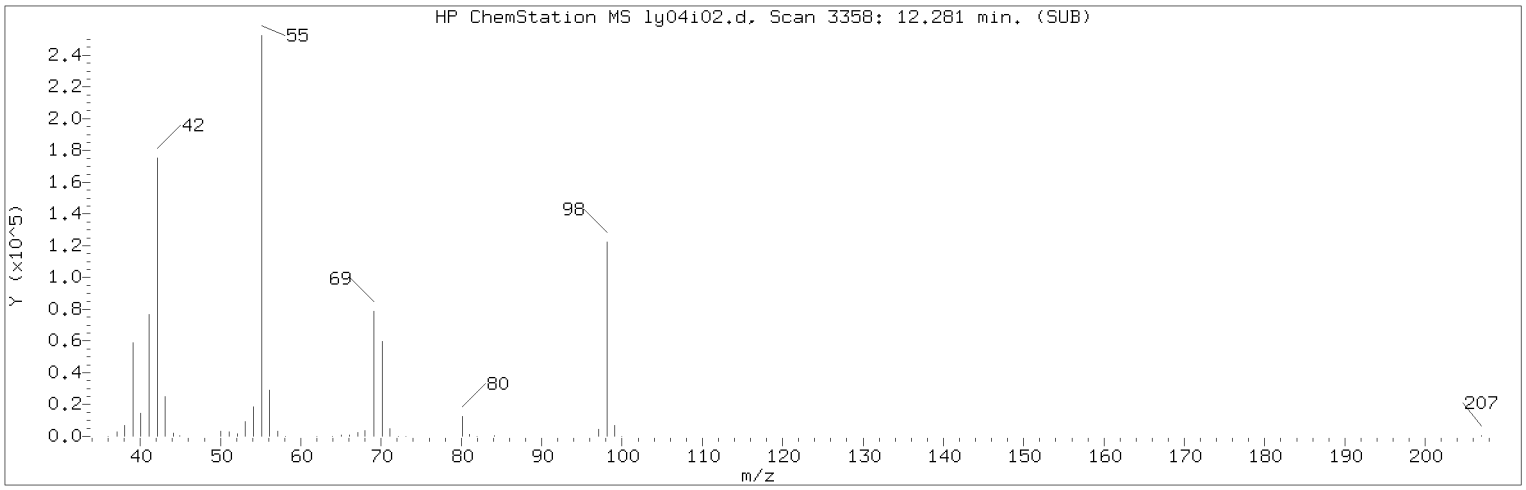
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

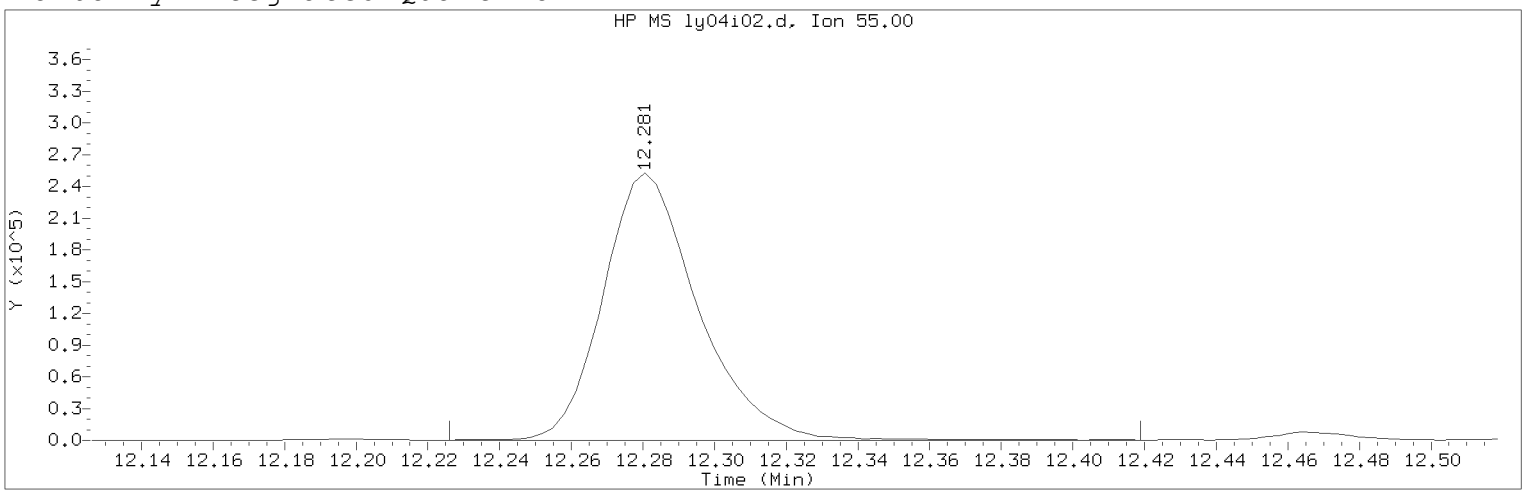
Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area : 841283
On-column Amount (ng) : 116.9659
Integration start scan : 2564 Integration stop scan: 2584
Y at integration start : 188 Y at integration end: 188

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0036

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

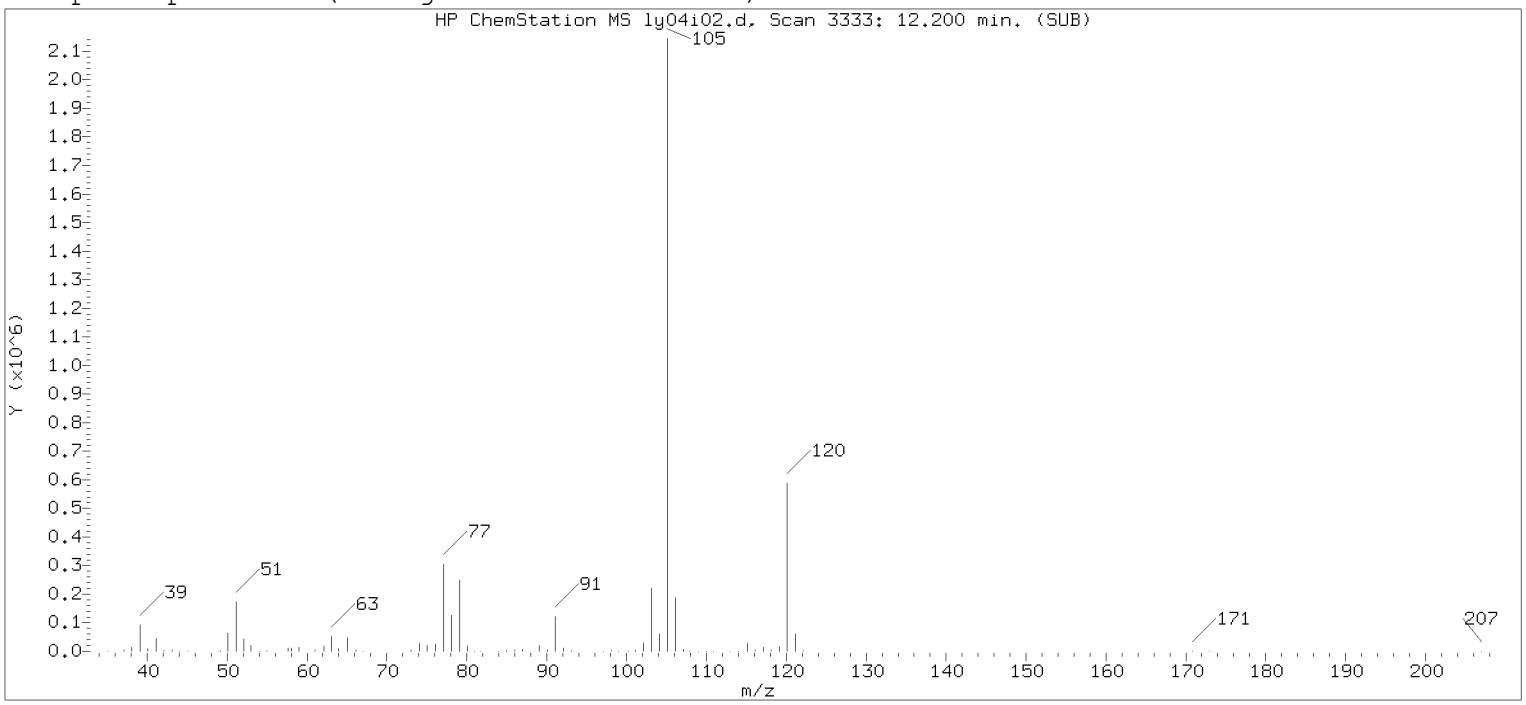
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 465460A
On-Column Amount (ng) : 1367.1245
Integration start scan : 3340 Integration stop scan: 3400
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

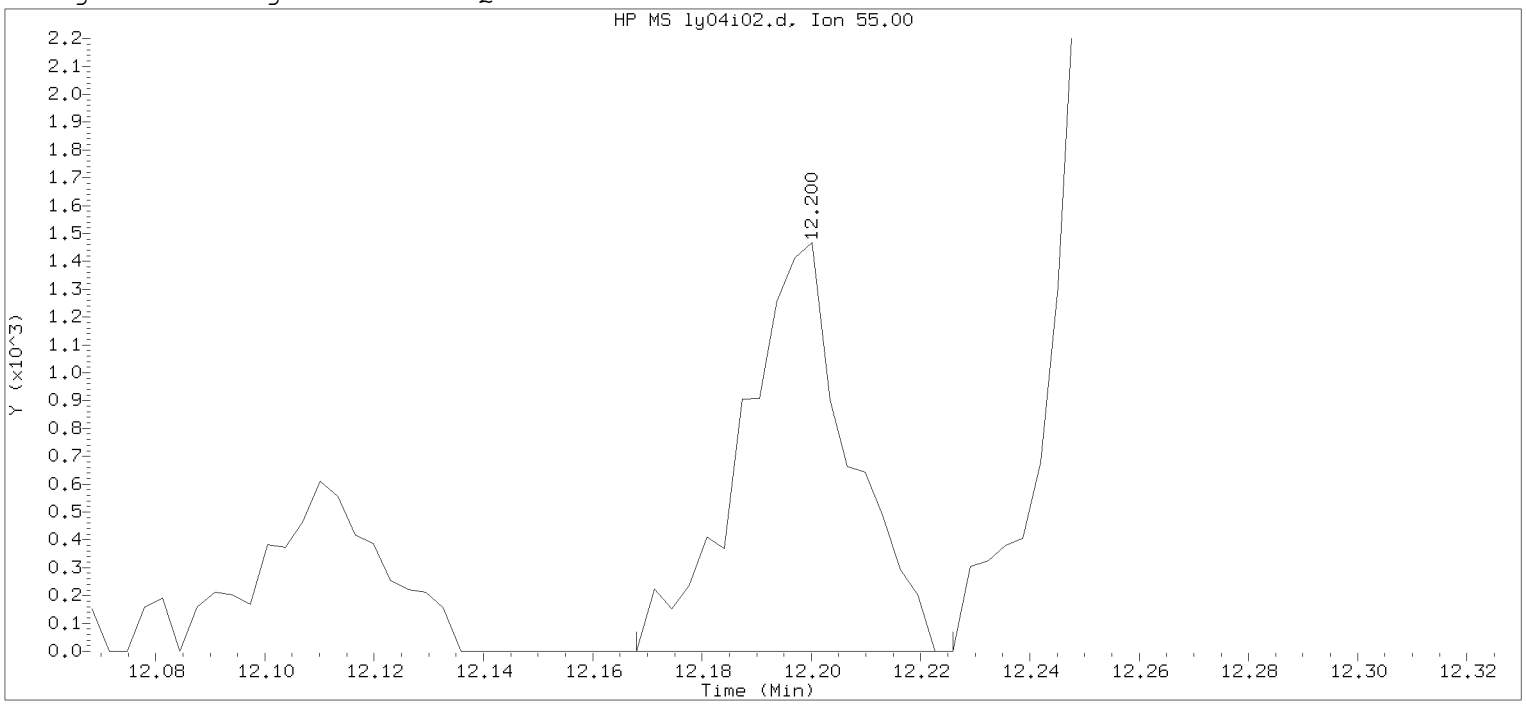
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

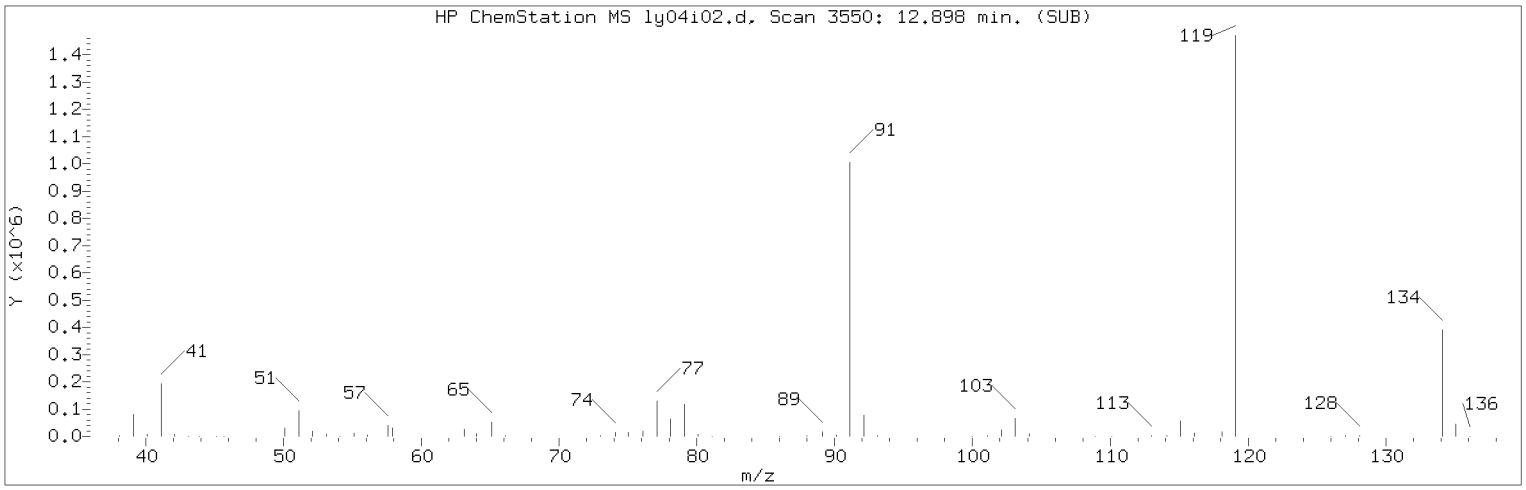
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

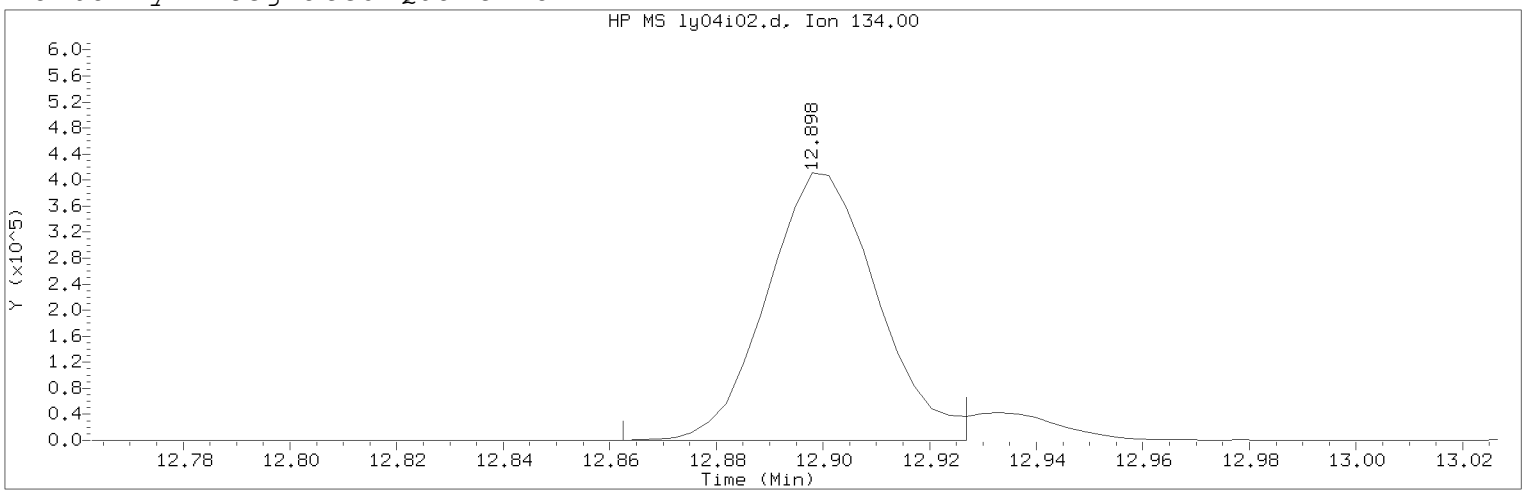
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3333
Retention Time (minutes): 12.200
Quant Ion : 55.00
Area : 2031
On-column Amount (ng) : 1278.2054
Integration start scan : 3322 Integration stop scan: 3340
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0032

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

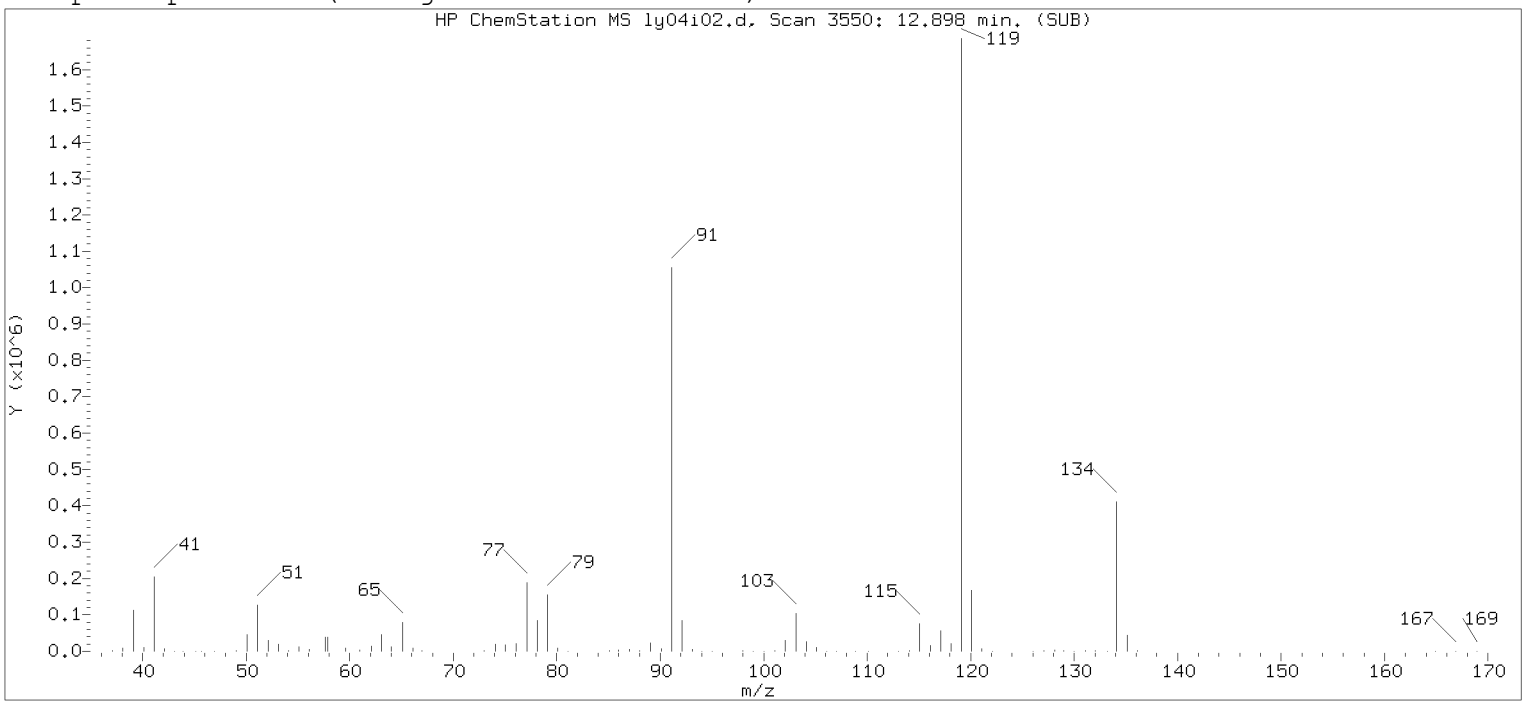
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 591495M
On-Column Amount (ng) : 108.6030
Integration start scan : 3538 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

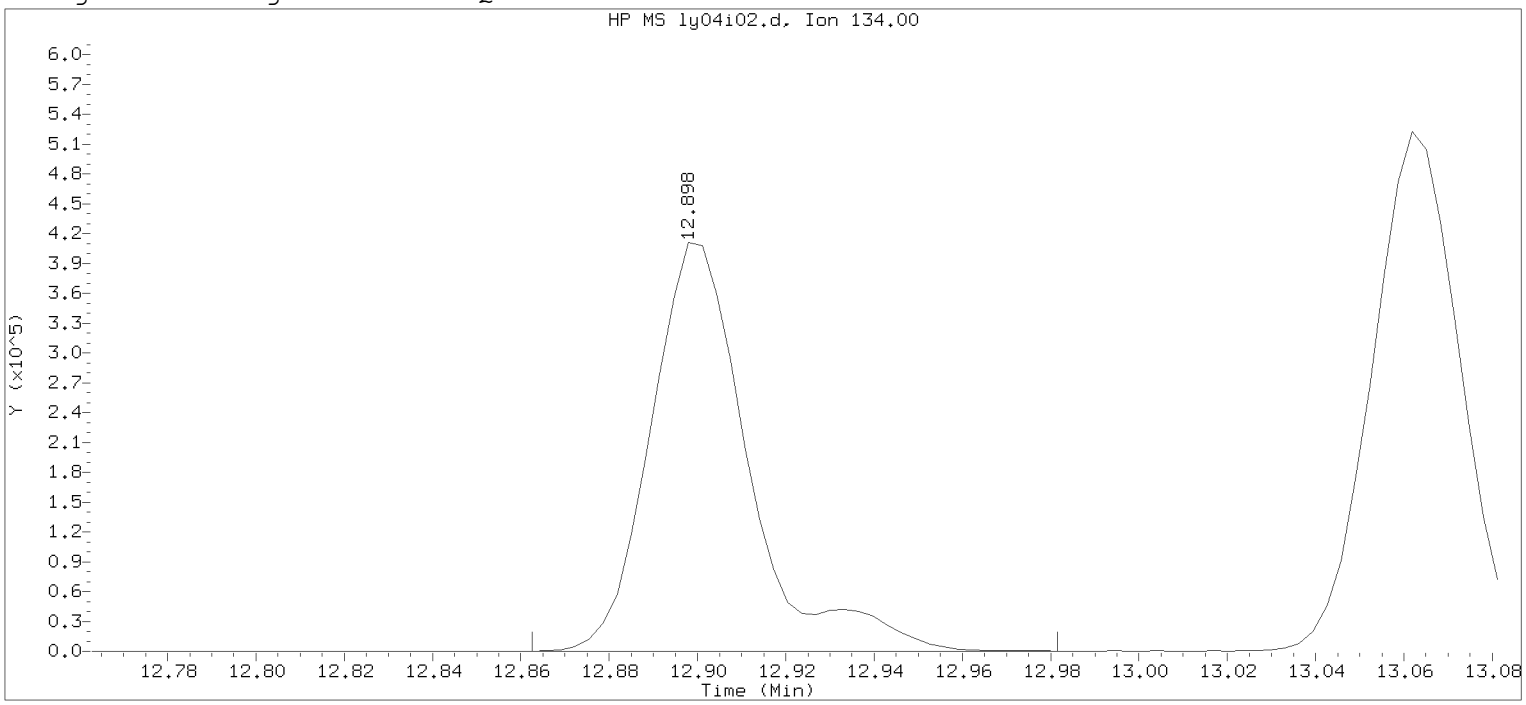
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



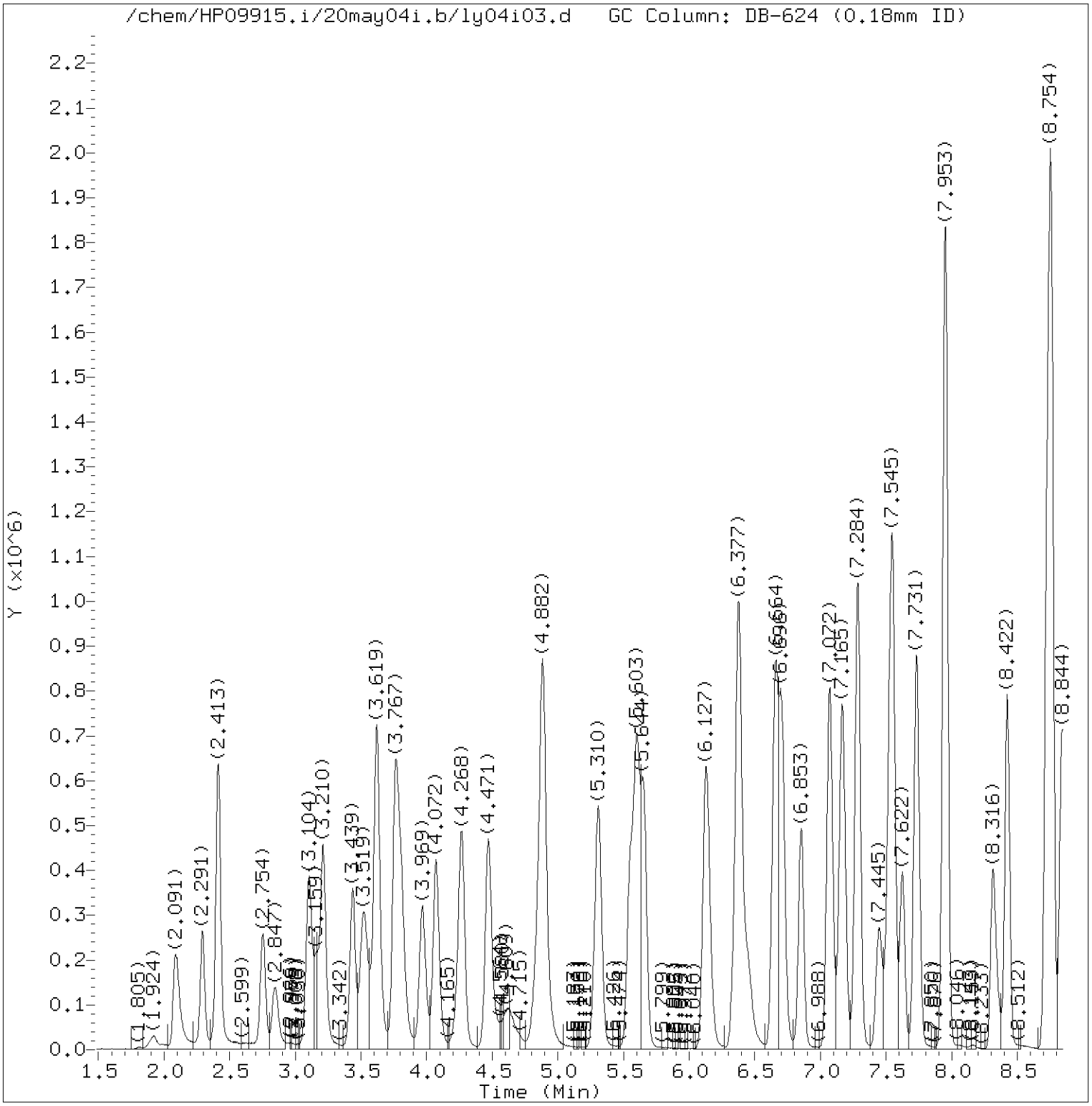
Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 636568
On-column Amount (ng) : 99.3867
Integration start scan : 3538 Integration stop scan: 3575
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0042



Total Ion Chromatogram (TIC)

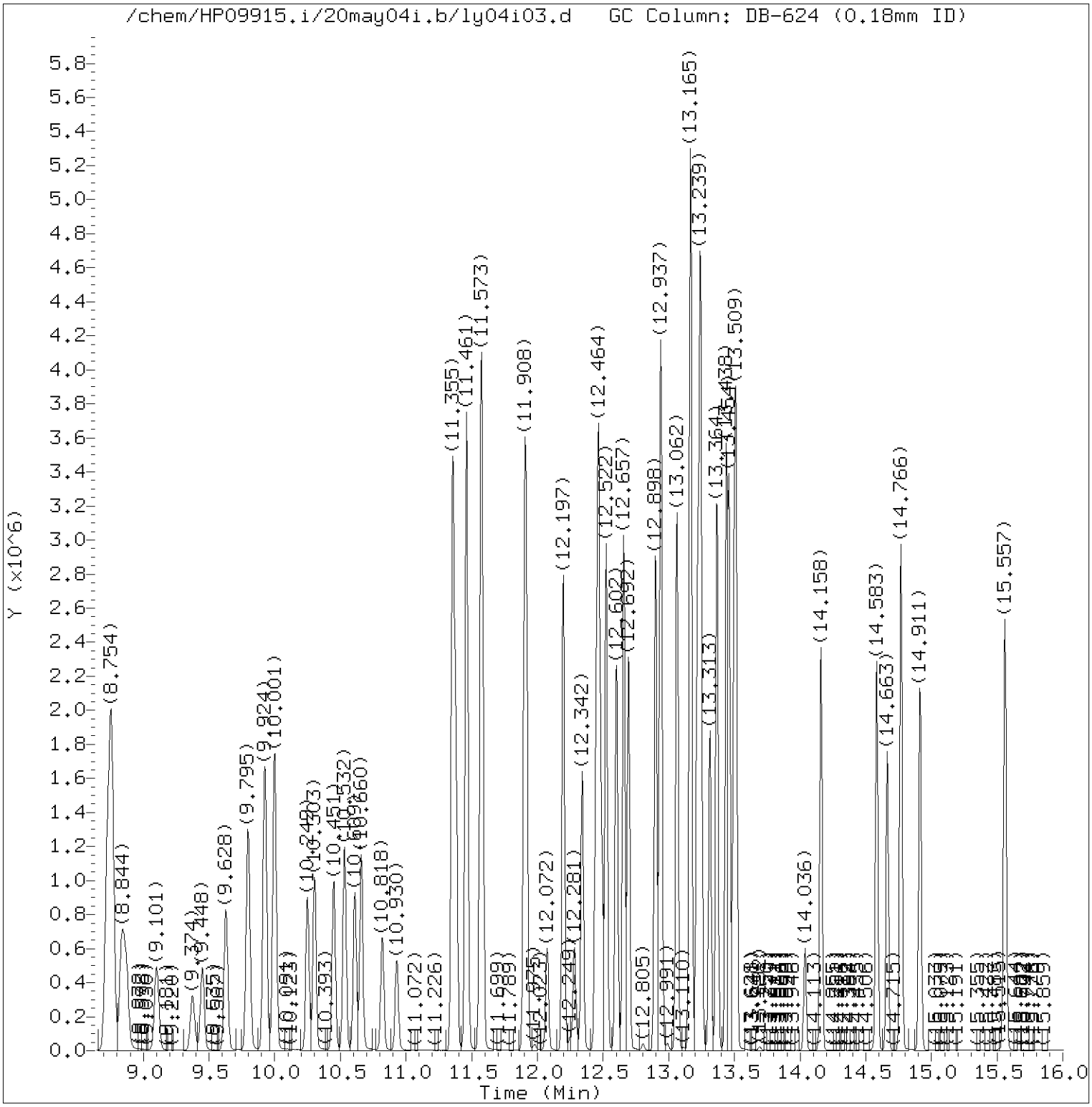
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	449709	49.088
4) Chloromethane	(2)	2.291	50	375424	43.891
5) 1,3-Butadiene	(2)	2.413	39	269470	49.108
6) Vinyl Chloride	(2)	2.416	62	380784	46.132
8) Bromomethane	(2)	2.754	94	257980	43.349
9) Chloroethane	(2)	2.847	64	206201	44.743
10) Dichlorofluoromethane	(2)	3.104	67	463748	46.651
12) Trichlorofluoromethane	(2)	3.159	101	441482	48.972
11) n-Pentane	(2)	3.214	43	444974	52.570
14) Ethyl ether	(2)	3.439	59	329703	51.759
15) Freon 123a	(2)	3.525	67	378614	51.840
16) Acrolein	(1)	3.622	56	1164434	467.232
17) 1,1-Dichloroethene	(2)	3.760	96	289094	50.285
17) 1,1-Dichloroethene	(2)	3.760	63	142043	51.876
19) Freon 113	(2)	3.796	101	315184	52.840
18) Acetone	(1)	3.799	58	99761	87.756
22) Methyl Iodide	(2)	3.966	142	569177	51.371
21) 2-Propanol	(1)	3.988	45	173097	238.907
23) Carbon Disulfide	(2)	4.072	76	1006416	51.990
27) Methyl Acetate	(2)	4.239	43	355334	48.460
25) Allyl Chloride	(2)	4.271	41	475545	51.041
28) Methylene Chloride	(2)	4.471	84	347199	50.768
29)*t-Butyl alcohol-d10	(1)	4.487	65	302938	250.000
30) t-Butyl alcohol	(1)	4.625	59	297512	243.263
31) Acrylonitrile	(2)	4.831	53	203235	50.035
33) Methyl Tertiary Butyl Ether	(2)	4.873	73	1020841	51.774
32) trans-1,2-Dichloroethene	(2)	4.889	96	334114	50.517
34) n-Hexane	(2)	5.307	57	535246	57.788
36) 1,1-Dichloroethane	(2)	5.548	63	597370	51.497
38) di-Isopropyl ether	(2)	5.603	45	1095502	53.697
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	508071	54.921
40) Ethyl t-butyl ether	(2)	6.127	59	1024536	54.049
43) 1,2-Dichloroethene (Total)	(2)		96	715832	101.982
44) 2-Butanone	(2)	6.358	43	495815	100.563
42) cis-1,2-Dichloroethene	(2)	6.374	96	381718	51.465
45) 2,2-Dichloropropane	(2)	6.387	77	472103	52.658
47) Propionitrile	(1)	6.448	54	403723	244.349
48) Methacrylonitrile	(2)	6.657	67	526393	129.265

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	193620	50.594
50) Tetrahydrofuran	(1)	6.718	71	137401	95.046
51) Chloroform	(2)	6.853	83	581531	51.313
52)$Dibromofluoromethane	(2)	7.065	113	337742	50.182
52)$Dibromofluoromethane	(2)	7.065	111	345243	50.181
53) 1,1,1-Trichloroethane	(2)	7.078	97	506155	52.059
54) Cyclohexane	(2)	7.168	56	624004	57.334
54) Cyclohexane	(2)	7.165	84	533866	56.195
54) Cyclohexane	(2)	7.165	69	188877	55.844
56) Carbon Tetrachloride	(2)	7.281	117	437519	53.709
55) 1,1-Dichloropropene	(2)	7.287	75	472822	53.050
58) Isobutyl Alcohol	(1)	7.451	41	250108	602.836
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85148	49.859
57)$1,2-Dichloroethane-d4	(2)	7.522	65	382006	50.393
57)$1,2-Dichloroethane-d4	(2)	7.519	104	54993	50.569
60) Benzene	(2)	7.551	78	1417699	51.384
61) 1,2-Dichloroethane	(2)	7.625	62	457945	49.515
61) 1,2-Dichloroethane	(2)	7.625	98	46267	51.337
65) t-Amyl methyl ether	(2)	7.731	73	1045355	53.982
66)*Fluorobenzene	(2)	7.950	96	1335958	50.000
67) n-Heptane	(2)	7.956	43	565094	58.670
69) n-Butanol	(1)	8.316	56	428273	1266.001
71) Trichloroethene	(2)	8.422	95	358732	51.381
72) Methylcyclohexane	(2)	8.725	83	626729	55.206
72) Methylcyclohexane	(2)	8.728	98	281181	54.759
73) 1,2-Dichloropropane	(2)	8.760	63	368890	51.892
76) Methyl Methacrylate	(2)	8.837	69	328320	53.714
75) 1,4-Dioxane	(1)	8.847	88	65798M	647.038
74) Dibromomethane	(2)	8.869	93	239968	51.616
78) Bromodichloromethane	(2)	9.098	83	440131	52.807
79) 2-Nitropropane	(2)	9.374	41	261718	104.730
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	266380	56.276
81) cis-1,3-Dichloropropene	(2)	9.628	75	590475	54.209
82) 4-Methyl-2-pentanone	(2)	9.795	43	1044729	104.635
83)$Toluene-d8	(3)	9.924	98	1380023	49.808
83)$Toluene-d8	(3)	9.924	100	895486	49.802
88) Toluene	(3)	10.001	92	903135	51.140
90) 1,3-Dichloropropene (total)	(3)		100	1132692	107.721

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	542217	53.511
91) Ethyl Methacrylate	(3)	10.303	69	572533	56.155
92) 1,1,2-Trichloroethane	(3)	10.451	97	346501	50.564
93) Tetrachloroethene	(3)	10.532	166	397309	52.791
94) 1,3-Dichloropropane	(3)	10.609	76	586078	51.142
96) 2-Hexanone	(3)	10.660	43	760412	102.687
97) Dibromochloromethane	(3)	10.818	129	383013	53.731
99) 1,2-Dibromoethane	(3)	10.930	107	383959	52.135
100)*Chlorobenzene-d5	(3)	11.355	117	1078517	50.000
101) 1-Chlorohexane	(3)	11.358	91	491546	54.389
102) Chlorobenzene	(3)	11.377	112	1030814	50.828
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	362258	52.691
104) Ethylbenzene	(3)	11.461	91	1746331	53.422
106) m+p-Xylene	(3)	11.573	106	1388438	108.099
108) Xylene (Total)	(3)		106	2065199	162.585
107) o-Xylene	(3)	11.901	106	676761	54.486
109) Styrene	(3)	11.917	104	1128029	55.843
110) Bromoform	(3)	12.075	173	280294	54.013
111) Isopropylbenzene	(3)	12.197	105	1789947	56.789
112) Cyclohexanone	(1)	12.281	55	250083A	660.677
114)$4-Bromofluorobenzene	(3)	12.342	95	526272	49.365
114)$4-Bromofluorobenzene	(3)	12.342	174	450419	49.280
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	560714M	50.510
115) Bromobenzene	(4)	12.461	156	457863	51.384
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	418508	129.599
117) 1,2,3-Trichloropropane	(4)	12.490	110	172280	50.814
119) n-Propylbenzene	(4)	12.522	91	2099925	54.527
120) 2-Chlorotoluene	(4)	12.602	126	437402	53.162
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1557090	55.955
121) 4-Chlorotoluene	(4)	12.692	126	448224	52.488
124) tert-Butylbenzene	(4)	12.898	134	327078M	57.179
125) Pentachloroethane	(4)	12.933	167	270606	53.266
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1620529	56.323
127) sec-Butylbenzene	(4)	13.062	105	2000977	59.058
129) 1,3-Dichlorobenzene	(4)	13.162	146	872418	52.540
130) p-Isopropyltoluene	(4)	13.168	119	1736247	59.805
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	608929	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	899651	51.624

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

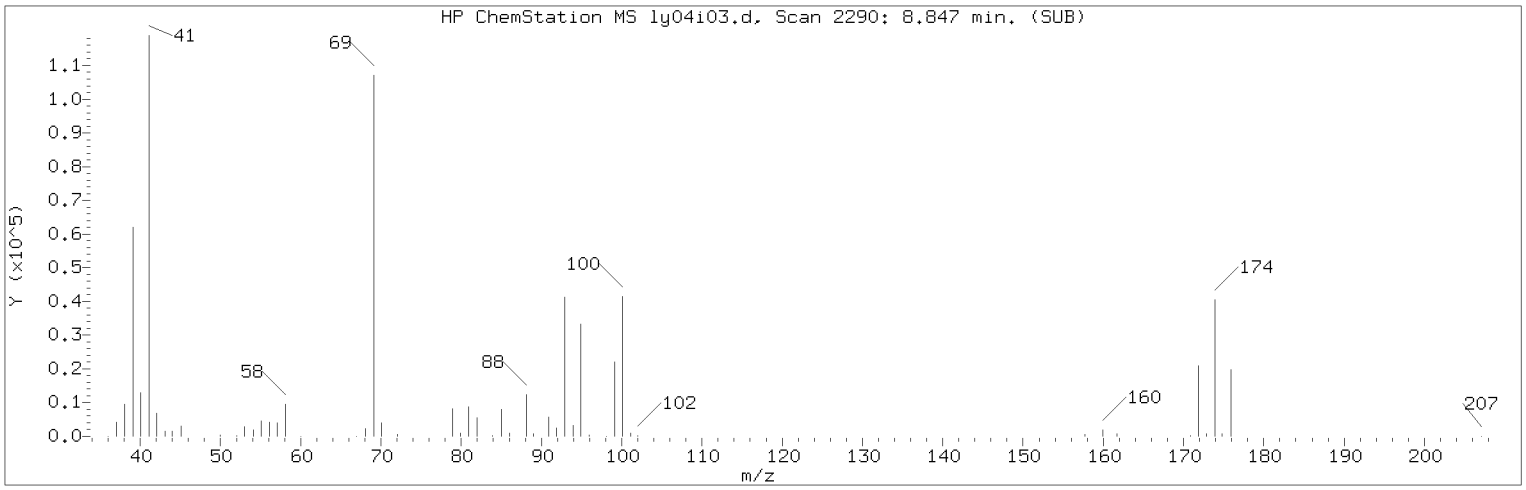
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

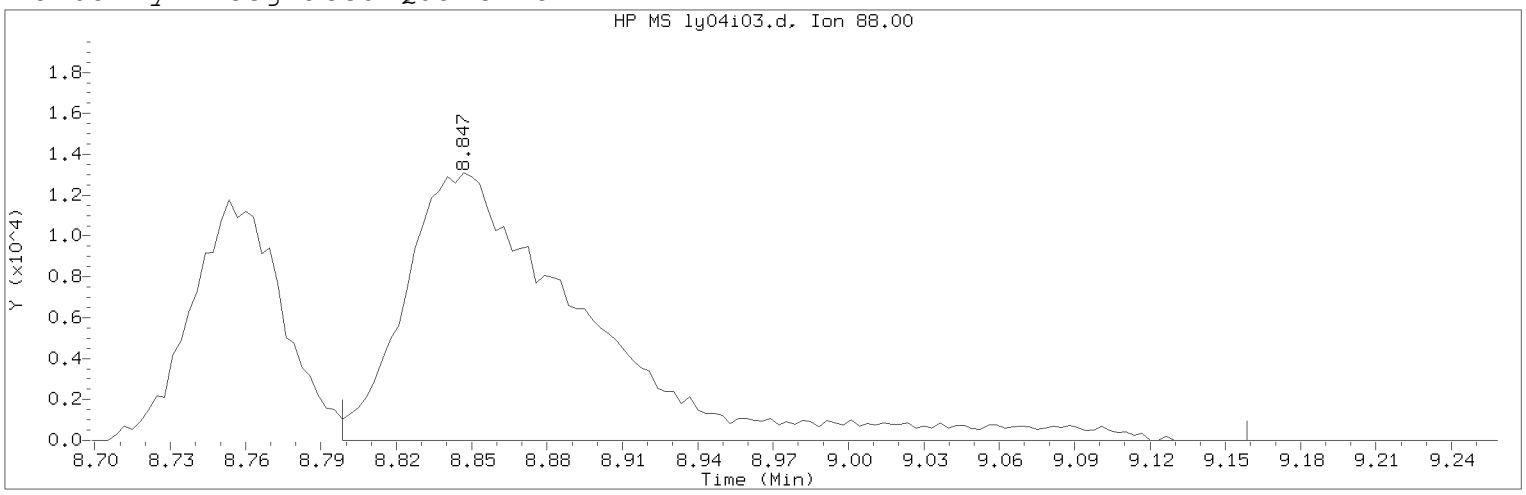
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	1557265	52.092
135)	Benzyl Chloride	(4)	13.313	91	1236236	54.653
136)	1,3-Diethylbenzene	(4)	13.367	119	991545	53.007
141)	Diethylbenzene (total)	(4)		100	2872948	158.754
137)	1,4-Diethylbenzene	(4)	13.438	119	1045337	53.389
139)	n-Butylbenzene	(4)	13.458	92	856054	57.392
138)	1,2-Dichlorobenzene	(4)	13.496	146	862079	51.582
140)	1,2-Diethylbenzene	(4)	13.512	119	836066	52.358
142)	1,2-Dibromo-3-chloropropane	(4)	14.036	75	128904	52.462
144)	1,3,5-Trichlorobenzene	(4)	14.158	180	690748	54.865
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	653918	55.579
147)	Hexachlorobutadiene	(4)	14.663	225	301933	55.629
148)	Naphthalene	(4)	14.766	128	2178912	57.212
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	643443	55.036
150)	2-Methylnaphthalene	(4)	15.560	142	1255729	47.626

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

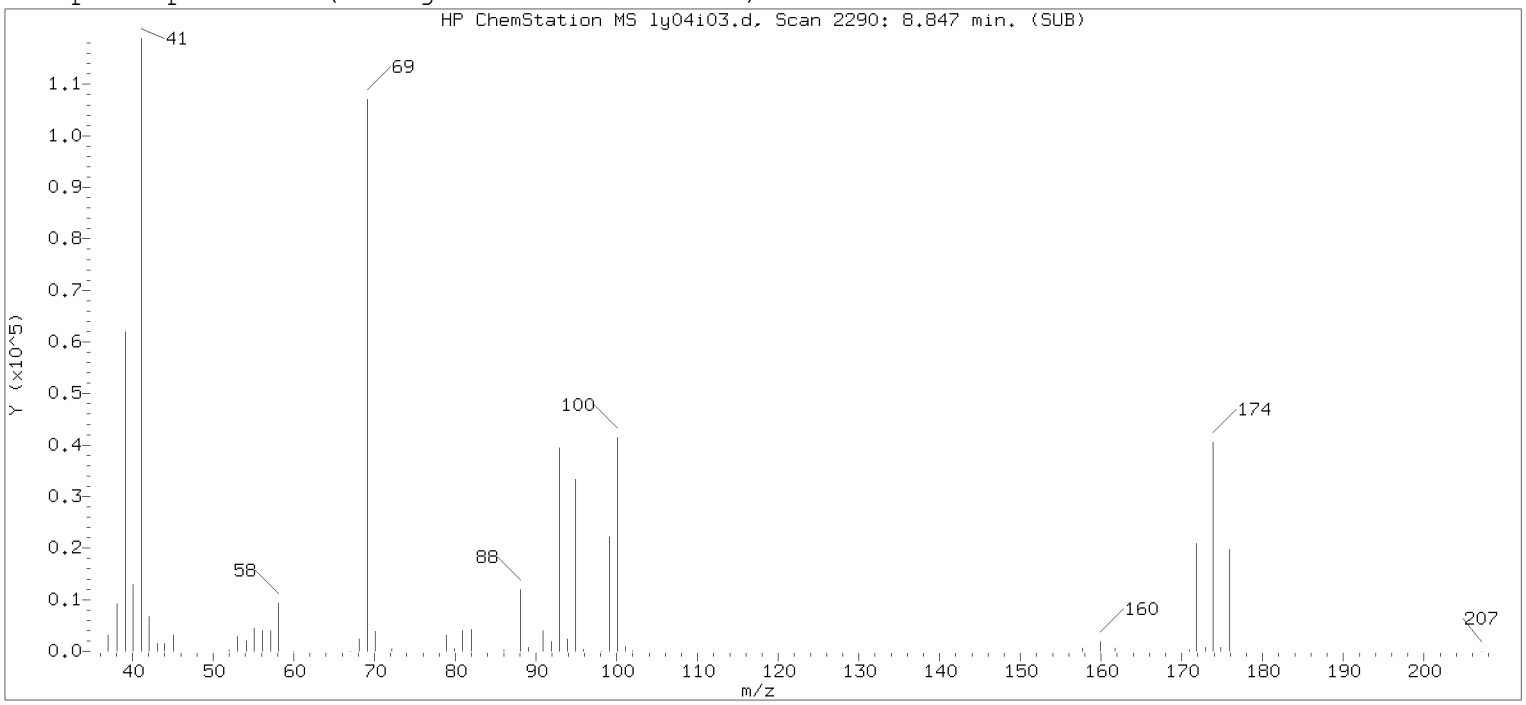
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 65798M
On-Column Amount (ng) : 647.0377
Integration start scan : 2274 Integration stop scan: 2386
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

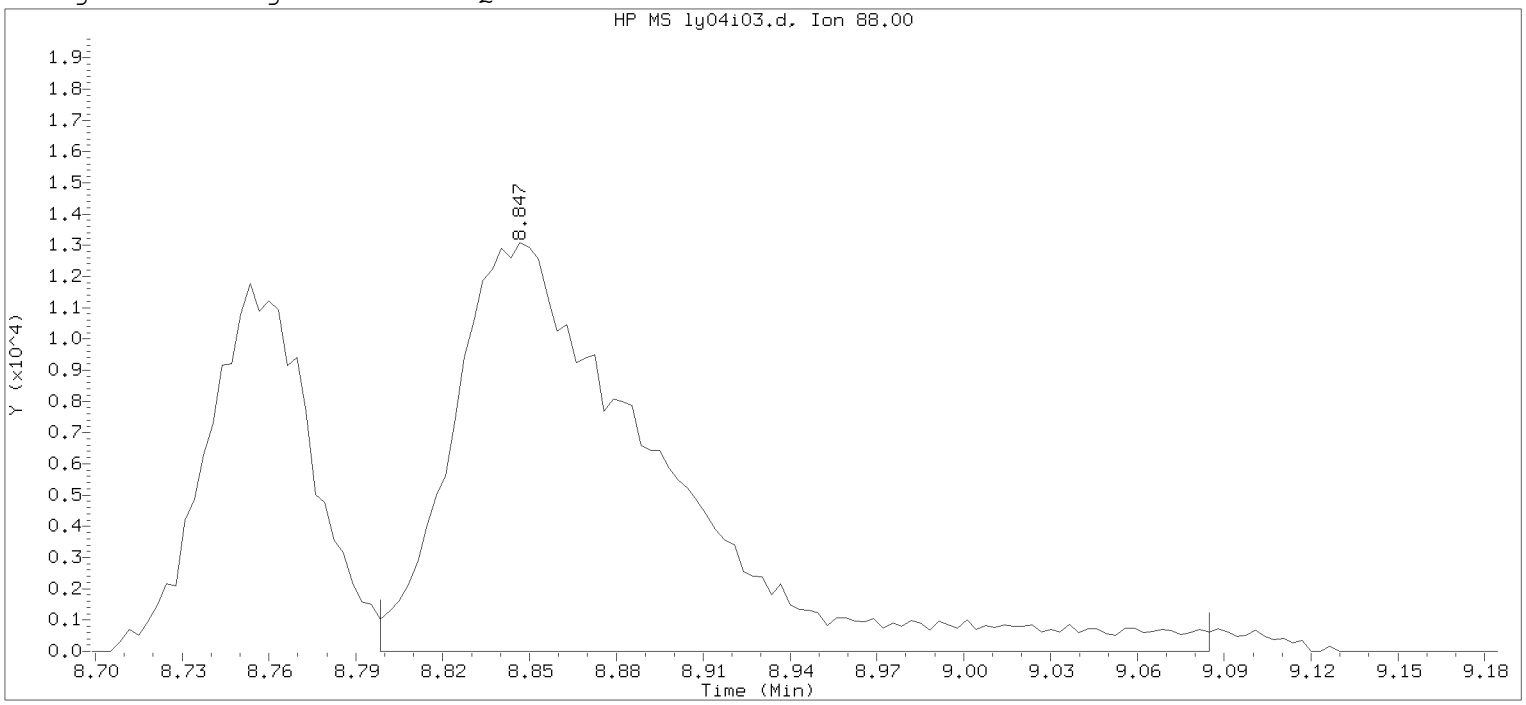
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 64664
On-column Amount (ng) : 618.7368
Integration start scan : 2274 Integration stop scan: 2363
Y at integration start : 0 Y at integration end: 0

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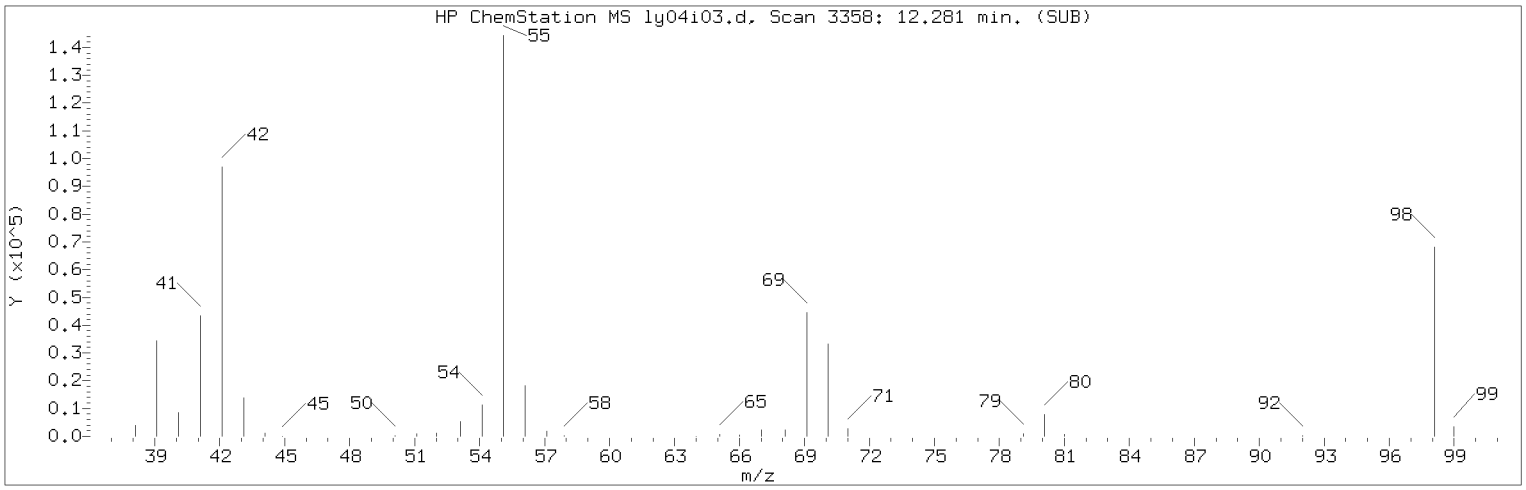
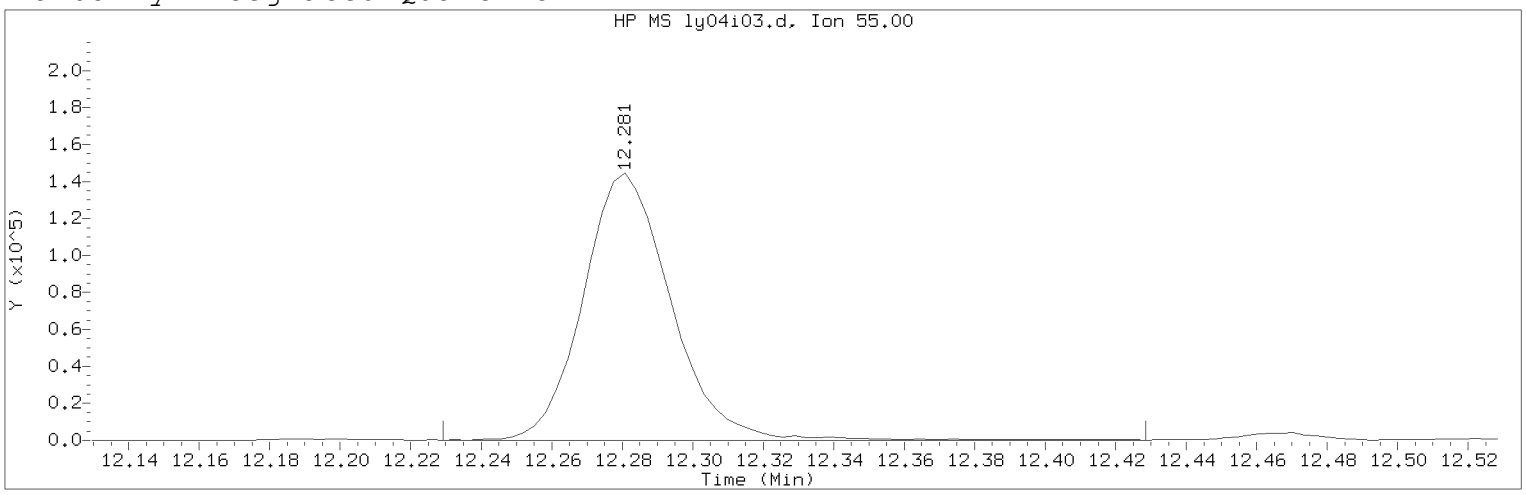
Target 3.5 esignature user: JCW57 Page: 548

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

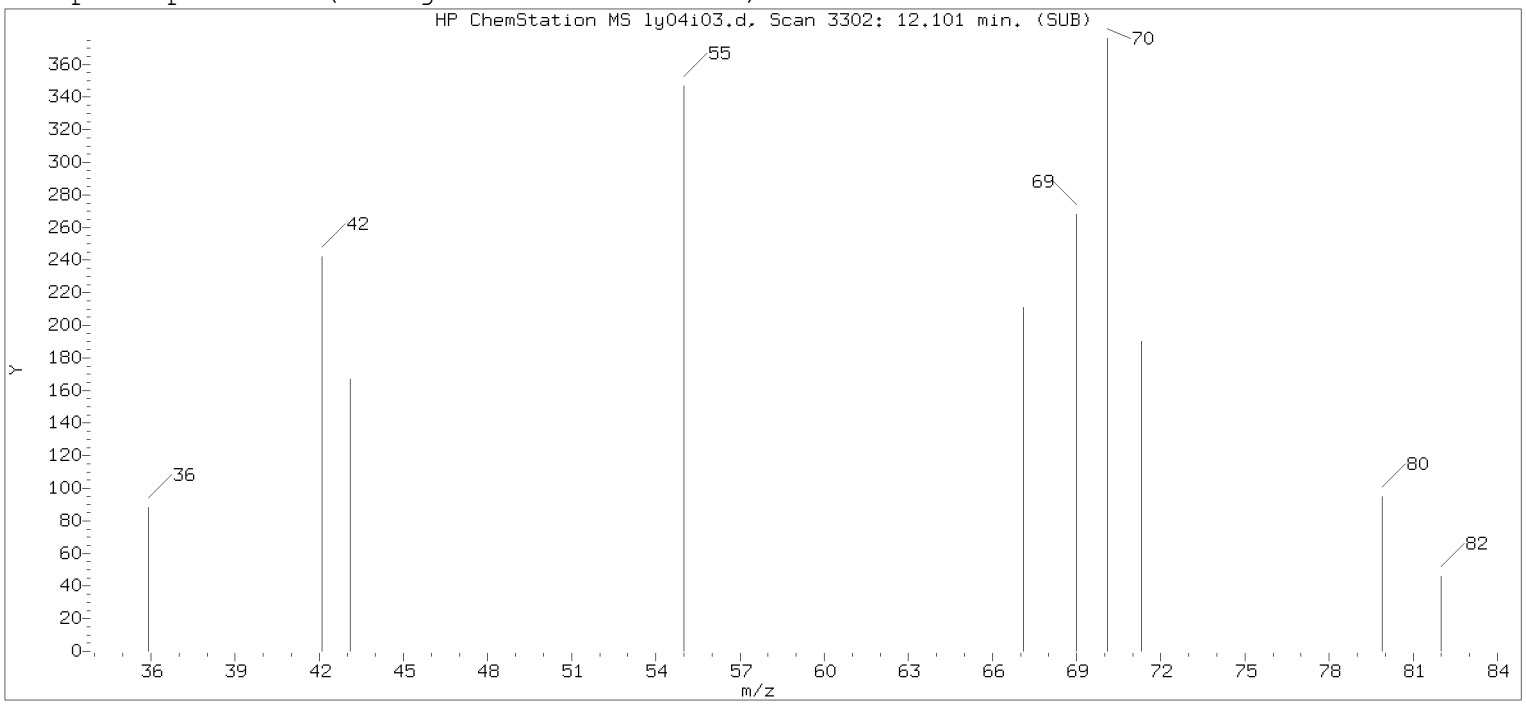
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 250083A
On-Column Amount (ng) : 660.6769
Integration start scan : 3341 Integration stop scan: 3403
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

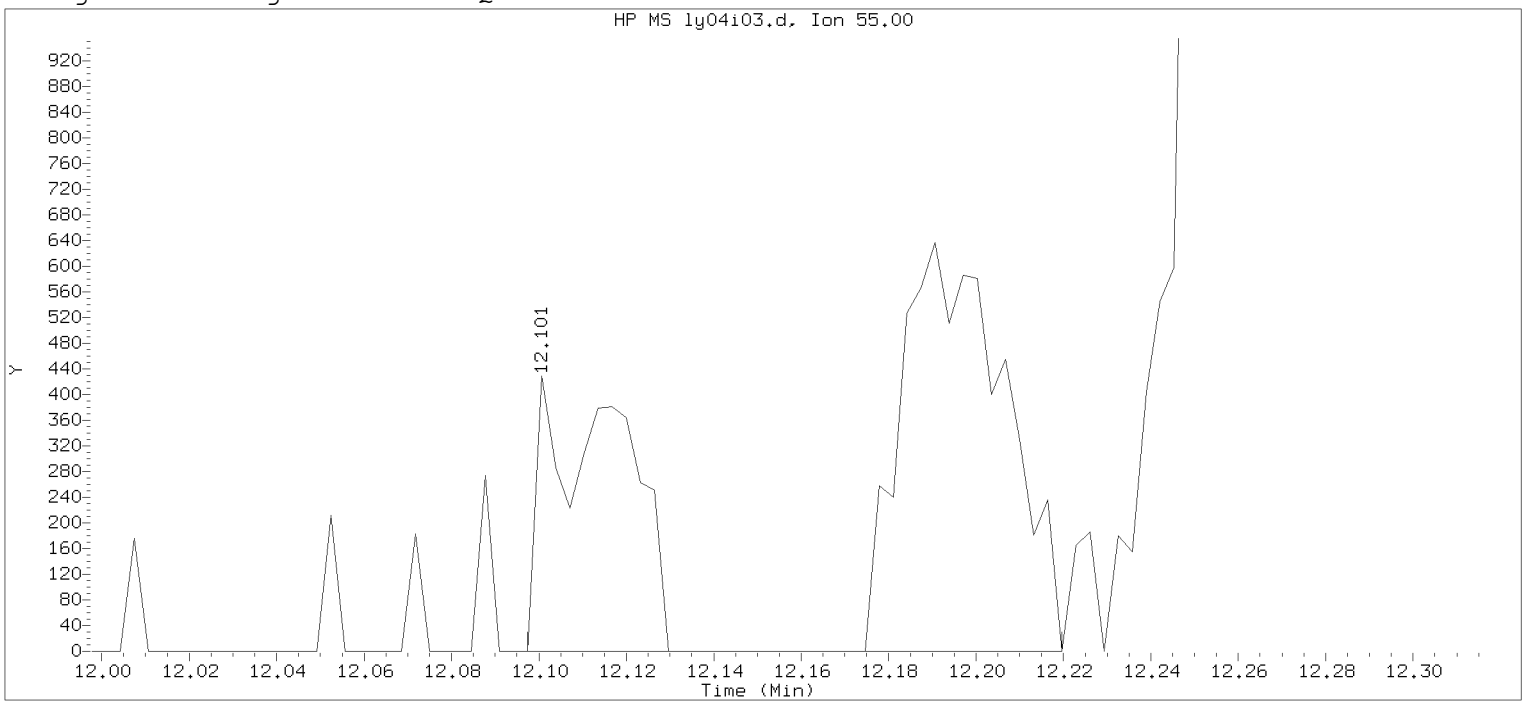
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3302
Retention Time (minutes): 12.101
Quant Ion : 55.00
Area : 1618
On-column Amount (ng) : 793.0477
Integration start scan : 3300 Integration stop scan: 3338
Y at integration start : 0 Y at integration end: 0

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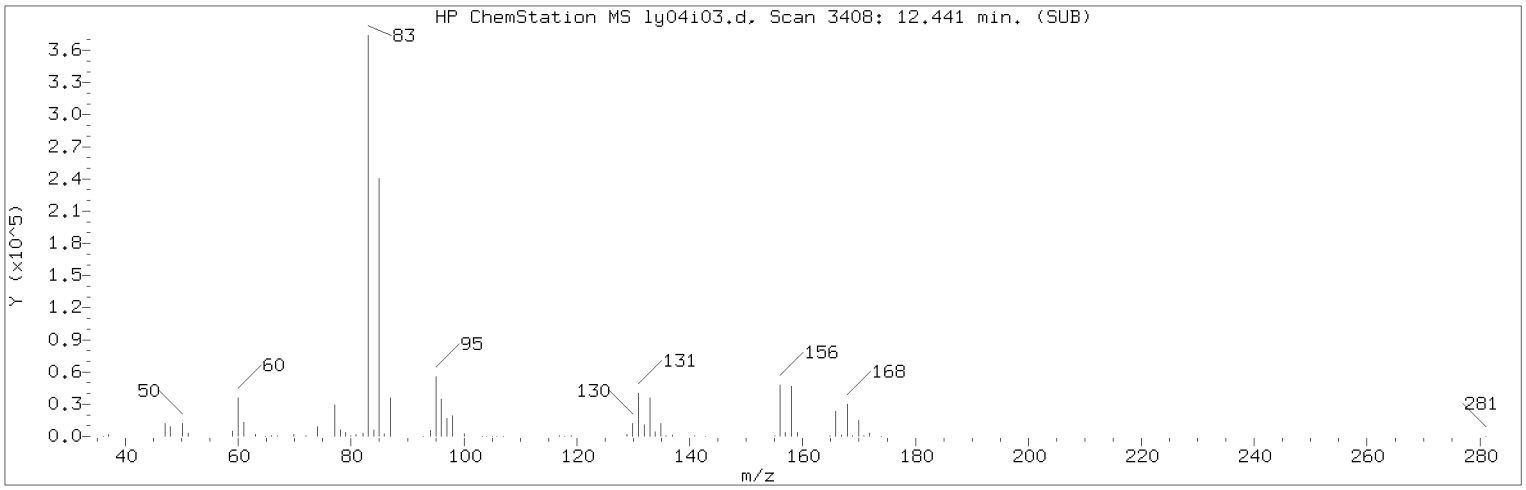
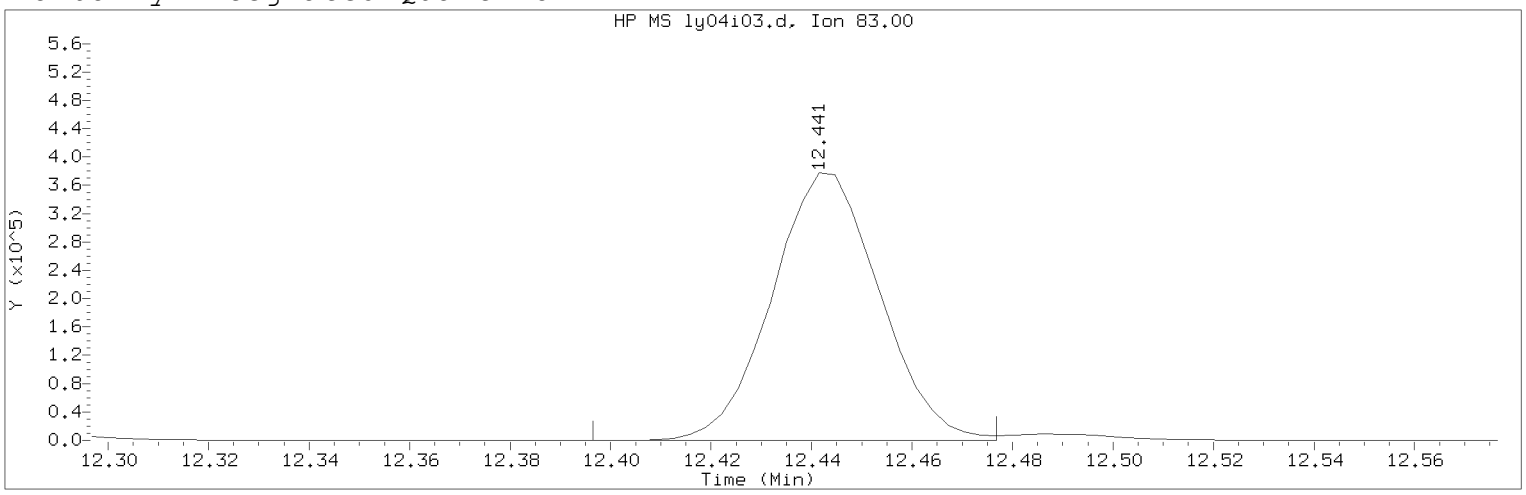
Target 3.5 esignature user ID: sejo0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

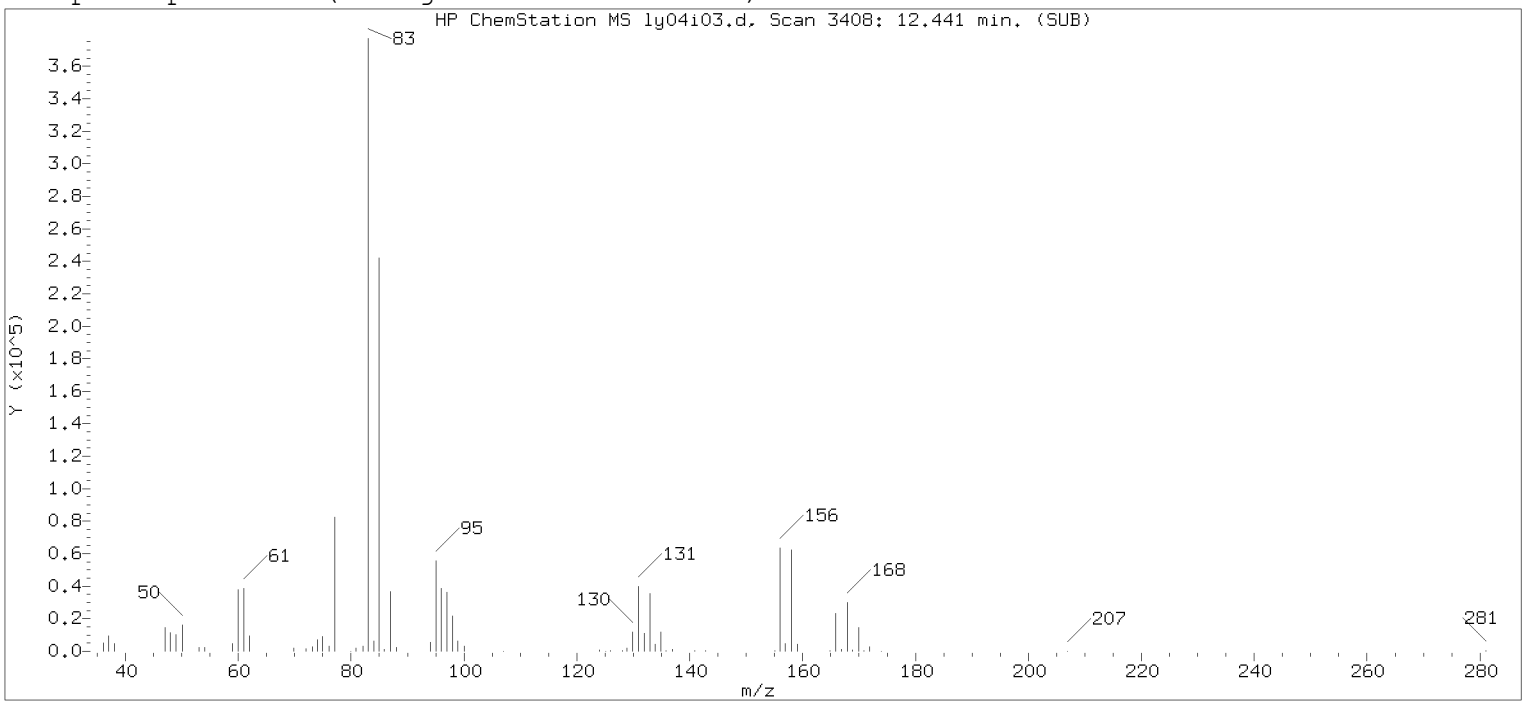
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 560714M
On-Column Amount (ng) : 50.5096
Integration start scan : 3393 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

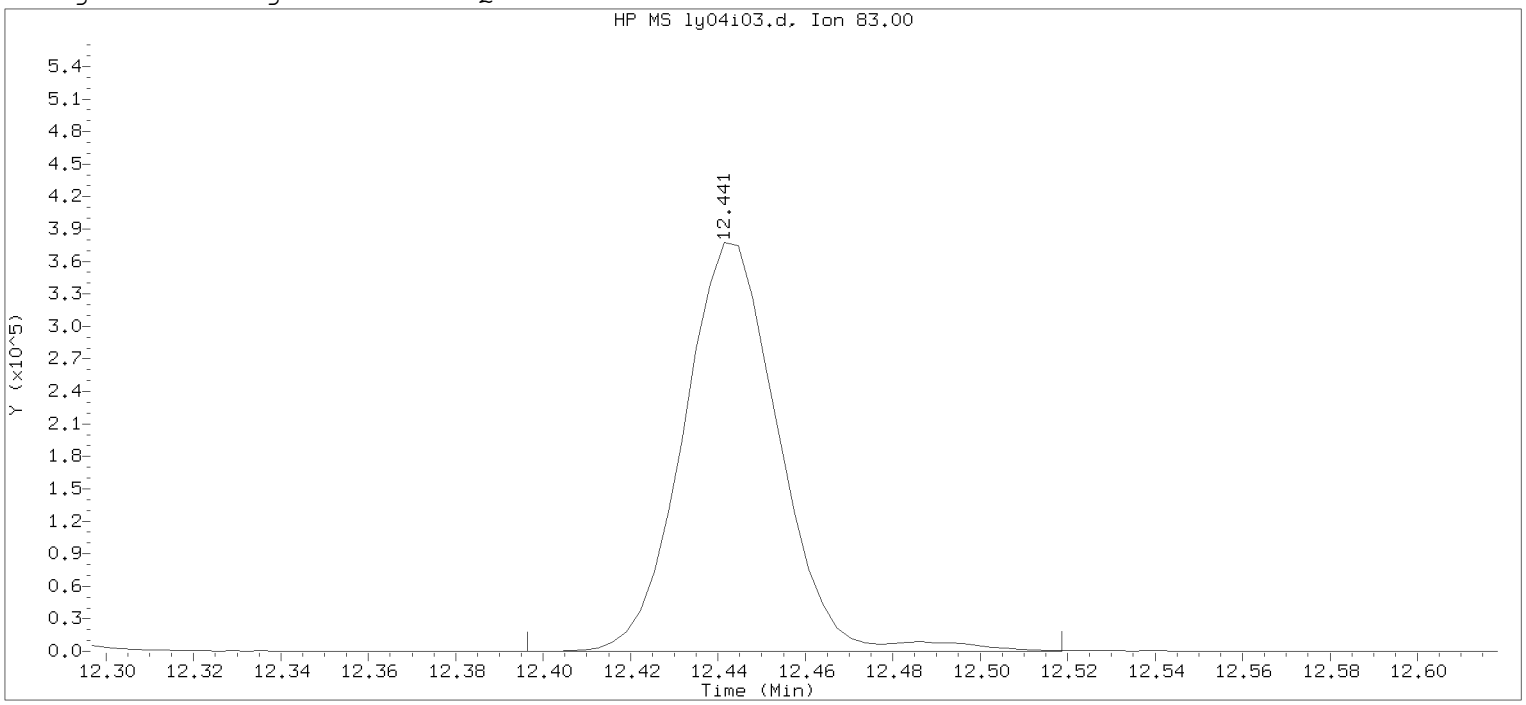
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 572715
On-column Amount (ng) : 51.1549
Integration start scan : 3393 Integration stop scan: 3431
Y at integration start : 0 Y at integration end: 0

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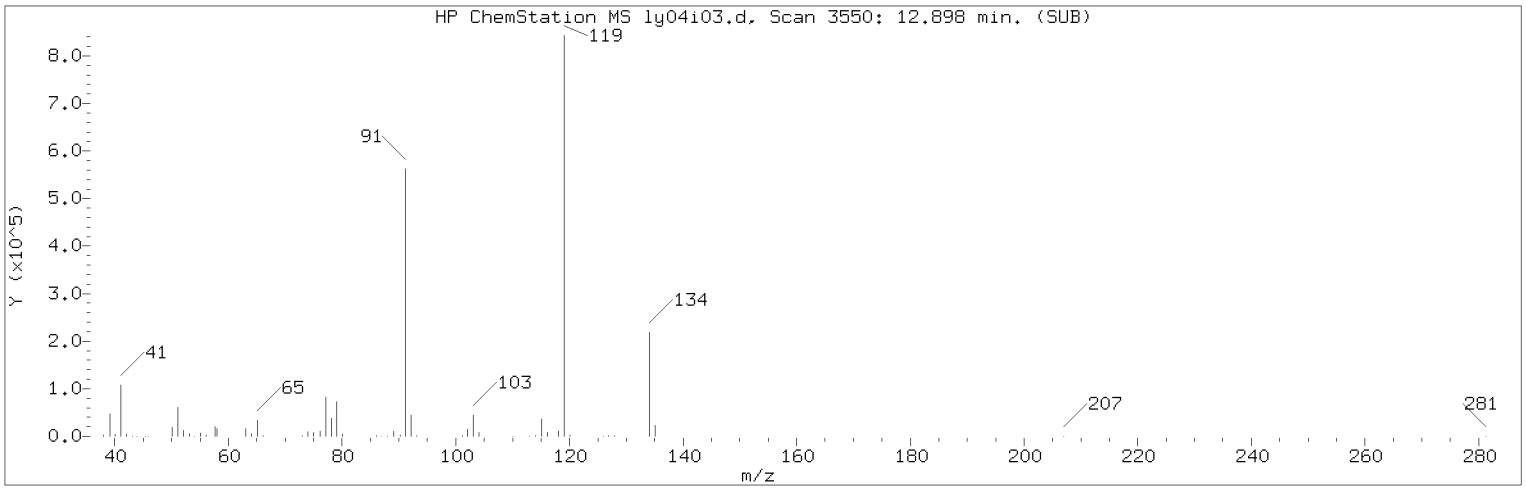
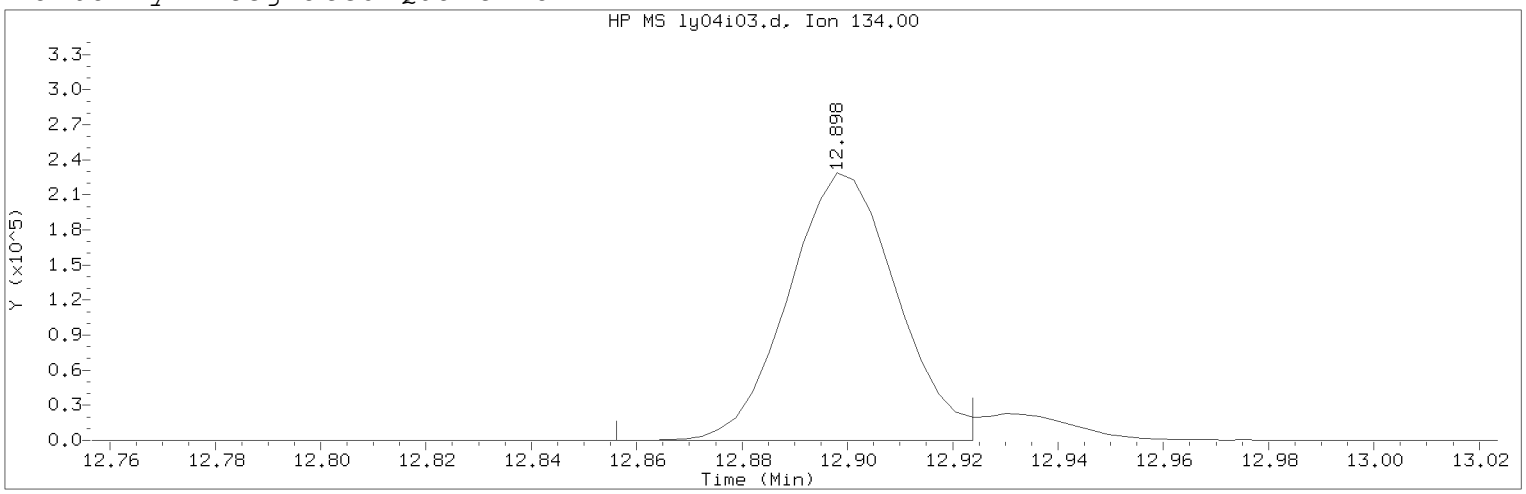
Target 3.5 esignature user: JCW57 Page: 552

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

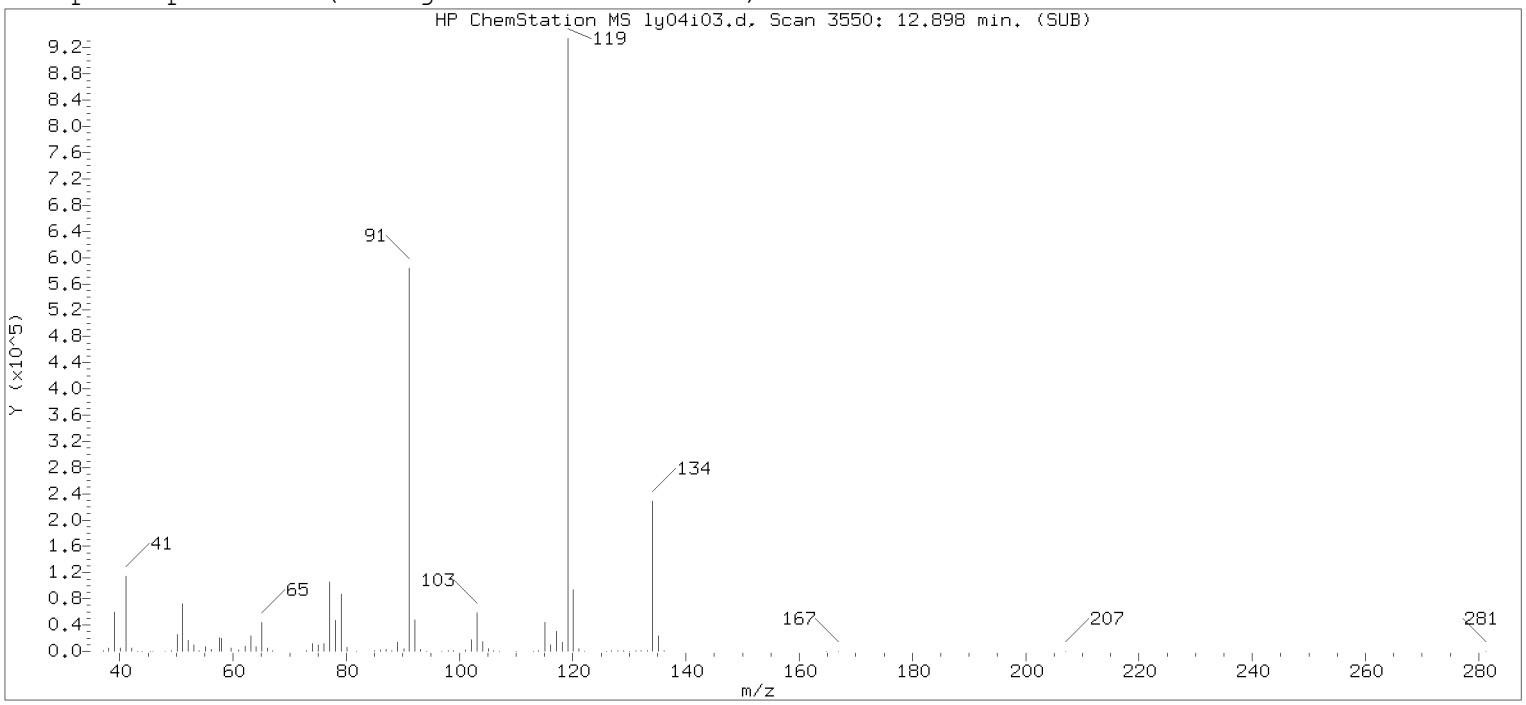
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 327078M
On-Column Amount (ng) : 57.1794
Integration start scan : 3536 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

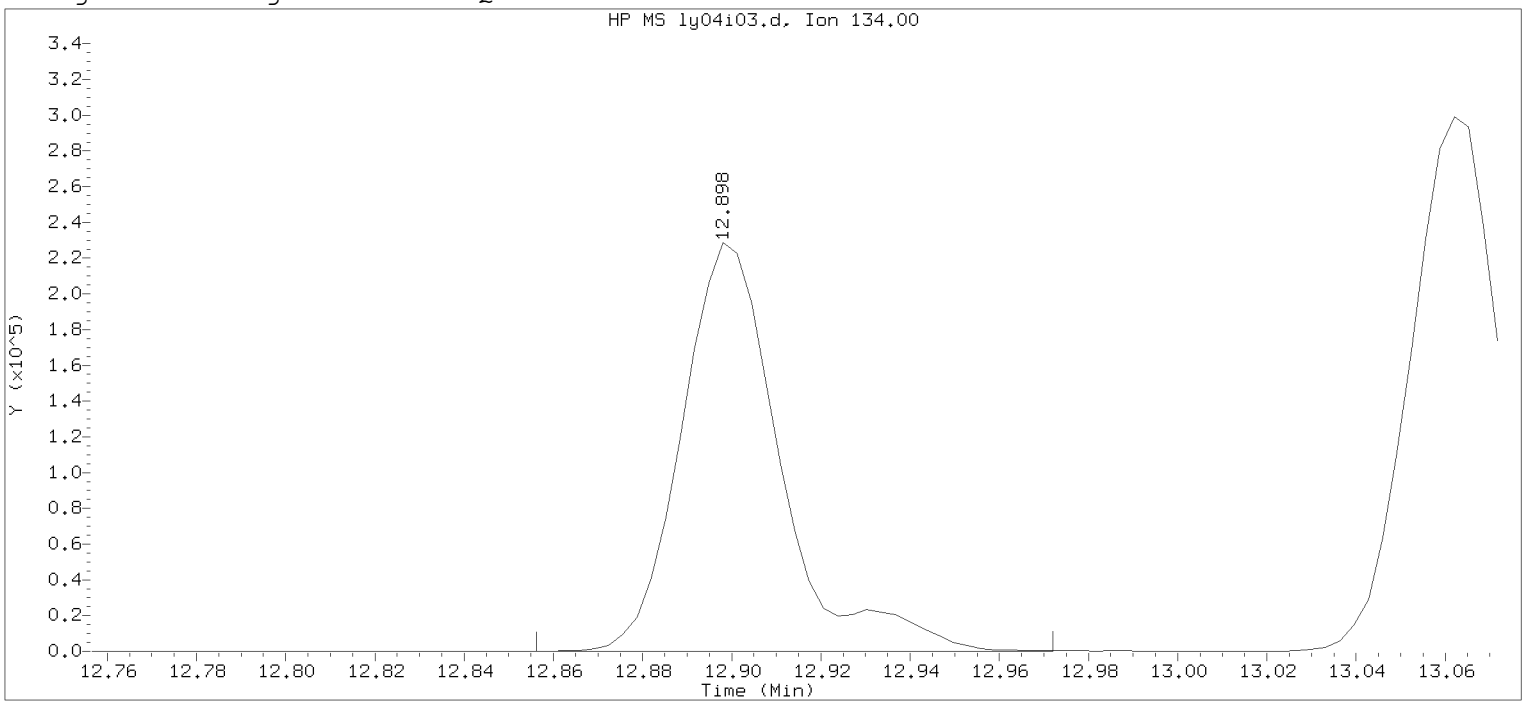
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 353406
On-column Amount (ng) : 51.6624
Integration start scan : 3536 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

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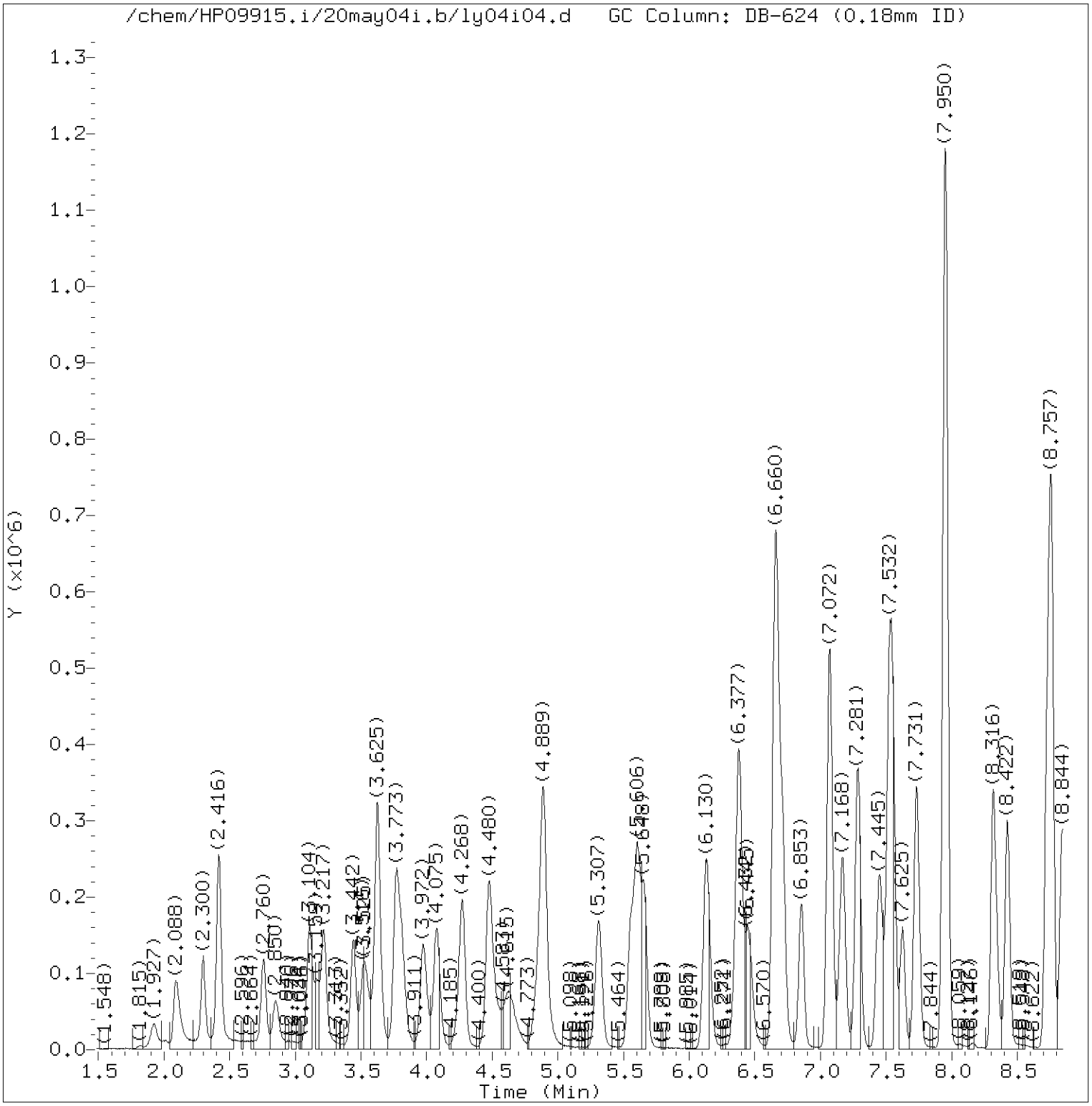
Target 3.5 esignature user: JCW57 Page: 554



Total Ion Chromatogram (TIC)

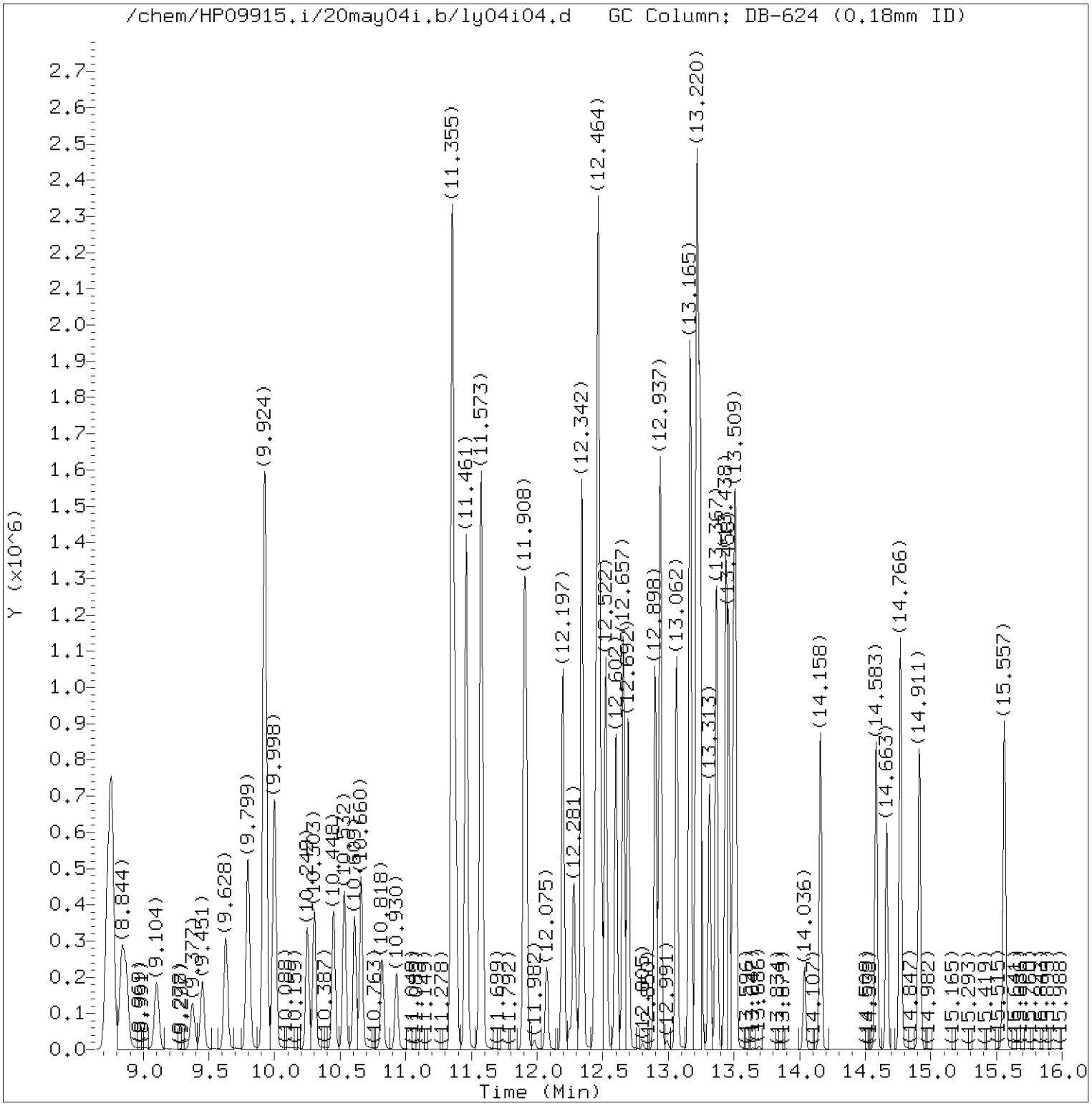
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.098	85	182493	20.678
4) Chloromethane	(2)	2.297	50	160528	19.482
5) 1,3-Butadiene	(2)	2.413	39	98295	18.595
6) Vinyl Chloride	(2)	2.416	62	157383	19.793
8) Bromomethane	(2)	2.760	94	111396	19.431
9) Chloroethane	(2)	2.847	64	85384	19.233
10) Dichlorofluoromethane	(2)	3.104	67	183563	19.169
12) Trichlorofluoromethane	(2)	3.169	101	173142	19.937
11) n-Pentane	(2)	3.217	43	144840	17.763
14) Ethyl ether	(2)	3.445	59	128448	20.932
15) Freon 123a	(2)	3.525	67	138710	19.715
16) Acrolein	(1)	3.625	56	491814	208.981
17) 1,1-Dichloroethene	(2)	3.763	96	106805	19.285
17) 1,1-Dichloroethene	(2)	3.763	63	52324	19.837
19) Freon 113	(2)	3.792	101	104838	18.245
18) Acetone	(1)	3.808	58	42345	39.446
22) Methyl Iodide	(2)	3.972	142	216364	20.271
21) 2-Propanol	(1)	3.992	45	139861	204.421
23) Carbon Disulfide	(2)	4.075	76	373129	20.009
27) Methyl Acetate	(2)	4.246	43	141236	19.995
25) Allyl Chloride	(2)	4.275	41	185201	20.635
28) Methylene Chloride	(2)	4.477	84	132592	20.126
29)*t-Butyl alcohol-d10	(1)	4.500	65	286065	250.000
30) t-Butyl alcohol	(1)	4.625	59	239168	207.092
31) Acrylonitrile	(2)	4.841	53	81905	20.932
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	397874	20.947
32) trans-1,2-Dichloroethene	(2)	4.889	96	127981	20.087
34) n-Hexane	(2)	5.310	57	161671	18.119
36) 1,1-Dichloroethane	(2)	5.554	63	227789	20.384
38) di-Isopropyl ether	(2)	5.603	45	414045	21.067
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	182122	20.436
40) Ethyl t-butyl ether	(2)	6.130	59	388621	21.282
43) 1,2-Dichloroethene (Total)	(2)		96	274584	40.605
44) 2-Butanone	(2)	6.358	43	198595	41.813
42) cis-1,2-Dichloroethene	(2)	6.374	96	146603	20.518
45) 2,2-Dichloropropane	(2)	6.394	77	174795	20.239
47) Propionitrile	(1)	6.451	54	319787	204.964
48) Methacrylonitrile	(2)	6.660	67	415491	105.915

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	75830	20.569
50) Tetrahydrofuran	(1)	6.709	71	55239	40.465
51) Chloroform	(2)	6.853	83	221887	20.324
52)$Dibromofluoromethane	(2)	7.069	113	324872	50.107
52)$Dibromofluoromethane	(2)	7.069	111	330761	49.906
53) 1,1,1-Trichloroethane	(2)	7.072	97	185712	19.828
54) Cyclohexane	(2)	7.168	56	195002	18.599
54) Cyclohexane	(2)	7.165	84	167123	18.261
54) Cyclohexane	(2)	7.168	69	59506	18.264
56) Carbon Tetrachloride	(2)	7.284	117	152394	19.420
55) 1,1-Dichloropropene	(2)	7.287	75	170572	19.866
58) Isobutyl Alcohol	(1)	7.451	41	199593	509.455
57)$1,2-Dichloroethane-d4	(2)	7.519	102	82752	50.300
57)$1,2-Dichloroethane-d4	(2)	7.519	65	365637	50.070
57)$1,2-Dichloroethane-d4	(2)	7.522	104	51858	49.502
60) Benzene	(2)	7.551	78	543226	20.439
61) 1,2-Dichloroethane	(2)	7.625	62	178307	20.013
61) 1,2-Dichloroethane	(2)	7.625	98	18135	20.888
65) t-Amyl methyl ether	(2)	7.734	73	396286	21.243
67) n-Heptane	(2)	7.950	43	159155	17.153
66)*Fluorobenzene	(2)	7.950	96	1286965	50.000
69) n-Butanol	(1)	8.319	56	337255	1055.749
71) Trichloroethene	(2)	8.422	95	135676	20.172
72) Methylcyclohexane	(2)	8.728	83	219111	20.035
72) Methylcyclohexane	(2)	8.731	98	97903	19.792
73) 1,2-Dichloropropane	(2)	8.763	63	142062	20.745
76) Methyl Methacrylate	(2)	8.834	69	121569	20.646
75) 1,4-Dioxane	(1)	8.847	88	49216	512.522
74) Dibromomethane	(2)	8.869	93	92385	20.628
78) Bromodichloromethane	(2)	9.104	83	163155	20.321
79) 2-Nitropropane	(2)	9.377	41	100789	41.867
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	100249	21.985
81) cis-1,3-Dichloropropene	(2)	9.628	75	220292	20.994
82) 4-Methyl-2-pentanone	(2)	9.799	43	414870	43.133
83)$Toluene-d8	(3)	9.924	98	1318781	49.746
83)$Toluene-d8	(3)	9.924	100	855298	49.713
88) Toluene	(3)	10.001	92	349405	20.678
90) 1,3-Dichloropropene (total)	(3)		100	421273	41.724

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	200981	20.730
91) Ethyl Methacrylate	(3)	10.303	69	210606	21.589
92) 1,1,2-Trichloroethane	(3)	10.448	97	135197	20.619
93) Tetrachloroethene	(3)	10.532	166	143073	19.868
94) 1,3-Dichloropropane	(3)	10.609	76	227131	20.714
96) 2-Hexanone	(3)	10.660	43	300504	42.411
97) Dibromochloromethane	(3)	10.818	129	142549	20.900
99) 1,2-Dibromoethane	(3)	10.930	107	146696	20.818
100)*Chlorobenzene-d5	(3)	11.352	117	1031952	50.000
101) 1-Chlorohexane	(3)	11.358	91	166099	19.208
102) Chlorobenzene	(3)	11.377	112	402991	20.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	139268	21.171
104) Ethylbenzene	(3)	11.461	91	658352	21.048
106) m+p-Xylene	(3)	11.573	106	527120	42.892
108) Xylene (Total)	(3)		106	785933	64.669
107) o-Xylene	(3)	11.901	106	258813	21.777
109) Styrene	(3)	11.917	104	426156	22.049
110) Bromoform	(3)	12.072	173	102983	20.740
111) Isopropylbenzene	(3)	12.197	105	646899	21.450
112) Cyclohexanone	(1)	12.281	55	193908A	542.487
114)$4-Bromofluorobenzene	(3)	12.342	95	506416	49.646
114)$4-Bromofluorobenzene	(3)	12.342	174	435782	49.830
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	222212M	21.001
115) Bromobenzene	(4)	12.461	156	177922	20.949
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	330551	107.395
117) 1,2,3-Trichloropropane	(4)	12.490	110	67089	20.761
119) n-Propylbenzene	(4)	12.522	91	772909	21.056
120) 2-Chlorotoluene	(4)	12.602	126	164580	20.987
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	579385	21.844
121) 4-Chlorotoluene	(4)	12.692	126	172819	21.233
124) tert-Butylbenzene	(4)	12.898	134	115481M	21.181
125) Pentachloroethane	(4)	12.933	167	103044	21.281
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	613752	22.381
127) sec-Butylbenzene	(4)	13.062	105	688409	21.317
129) 1,3-Dichlorobenzene	(4)	13.162	146	344035	21.738
130) p-Isopropyltoluene	(4)	13.168	119	610035	22.046
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	580388	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	354497	21.342

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	609451	21.389
135) Benzyl Chloride	(4)	13.313	91	466875	21.655
136) 1,3-Diethylbenzene	(4)	13.367	119	387190	21.717
141) Diethylbenzene (total)	(4)		100	1123913	65.203
137) 1,4-Diethylbenzene	(4)	13.438	119	405953	21.753
139) n-Butylbenzene	(4)	13.458	92	301552	21.211
138) 1,2-Dichlorobenzene	(4)	13.496	146	341680	21.449
140) 1,2-Diethylbenzene	(4)	13.512	119	330770	21.733
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	48343	20.642
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	258381	21.532
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	247167	22.041
147) Hexachlorobutadiene	(4)	14.663	225	104234	20.149
148) Naphthalene	(4)	14.769	128	836600	23.047
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	250166	22.450
150) 2-Methylnaphthalene	(4)	15.560	142	445635	18.446

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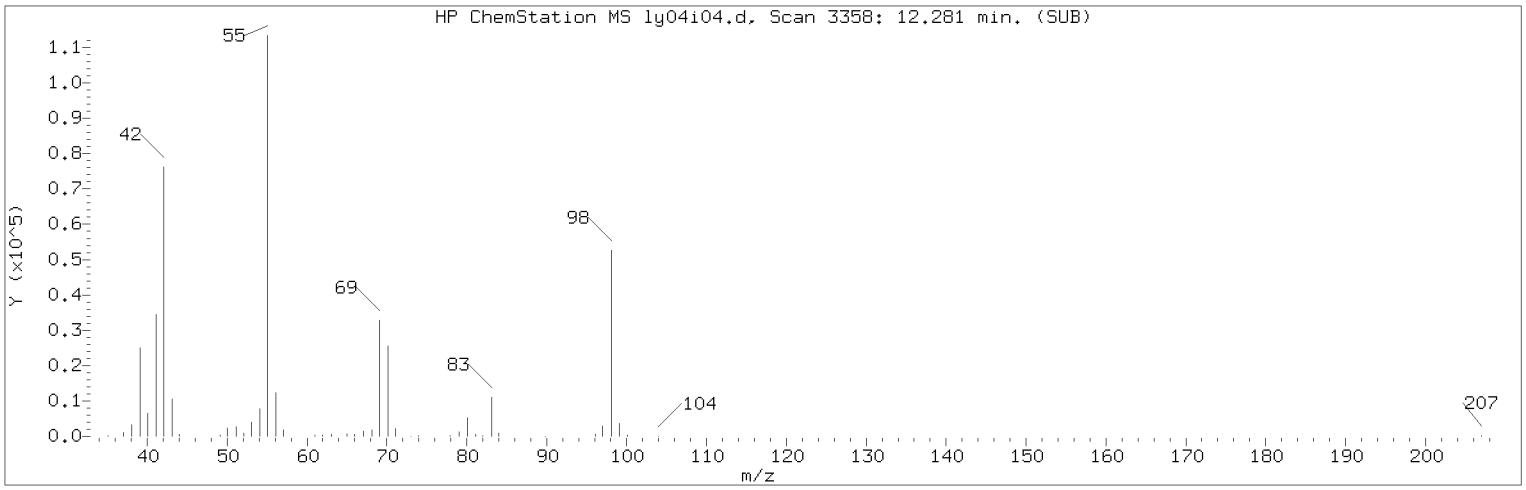
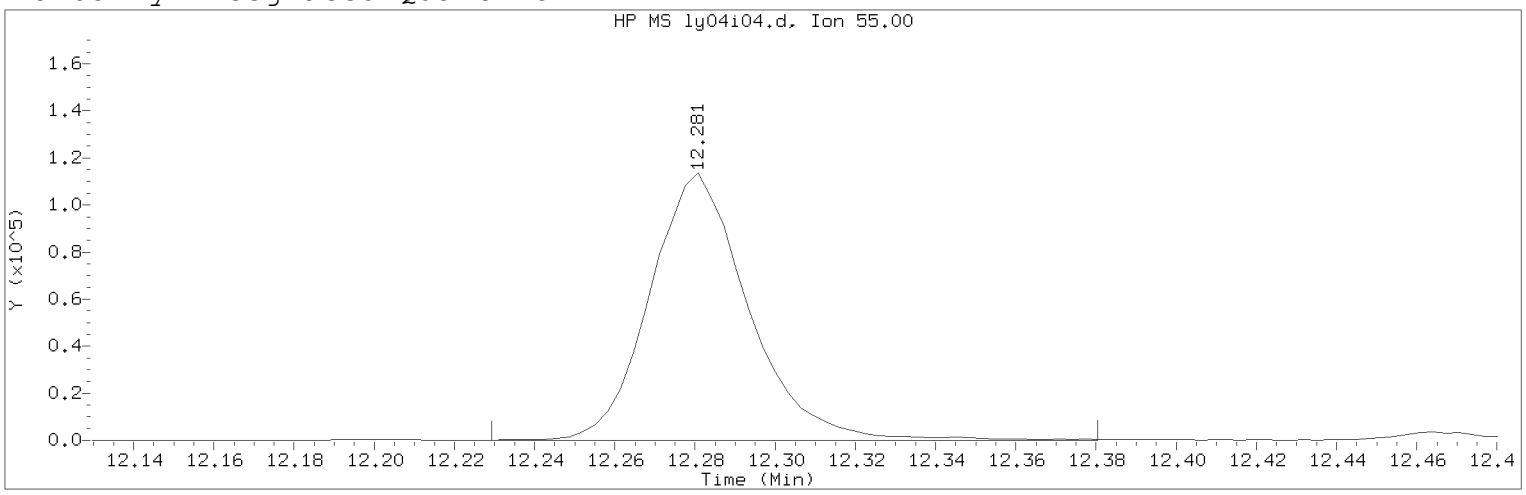
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

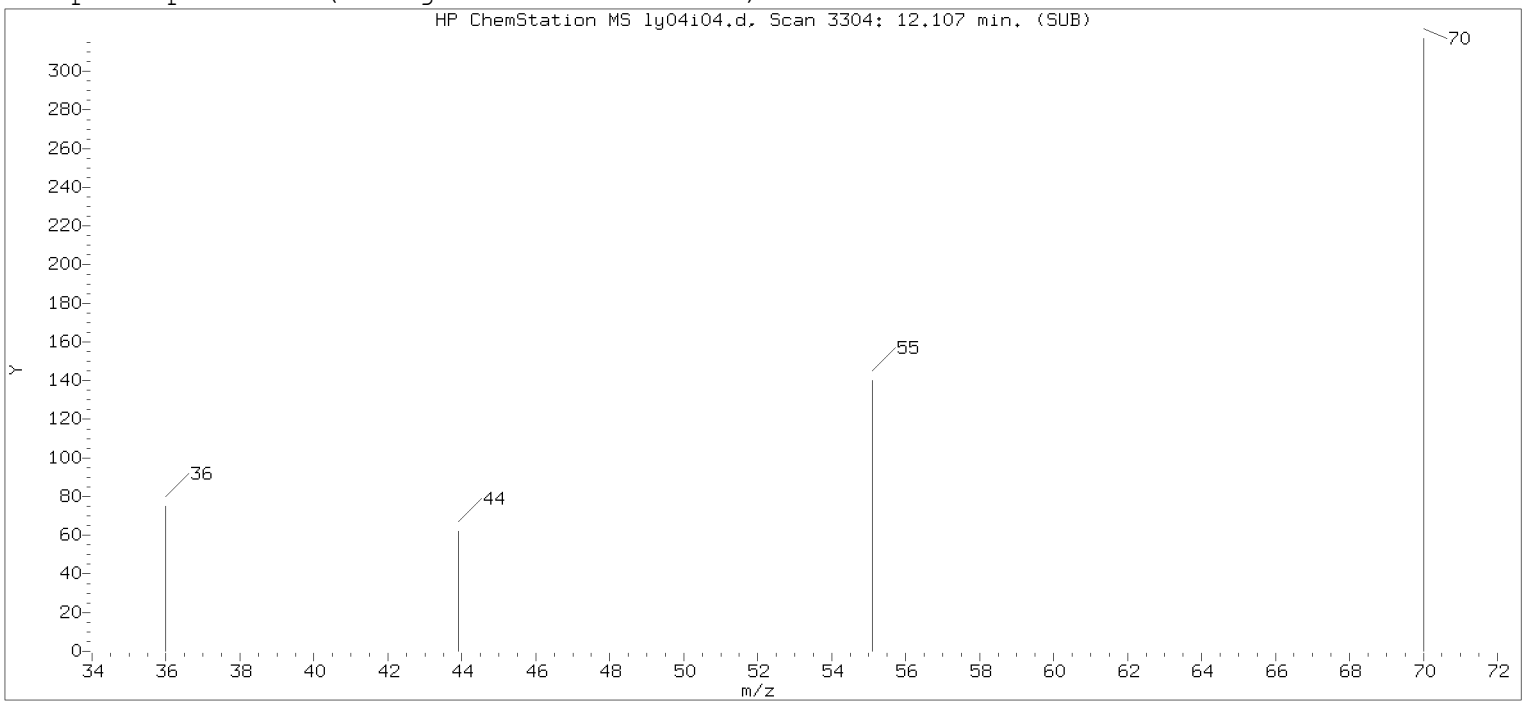
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 193908A
On-Column Amount (ng) : 542.4875
Integration start scan : 3341 Integration stop scan: 3388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

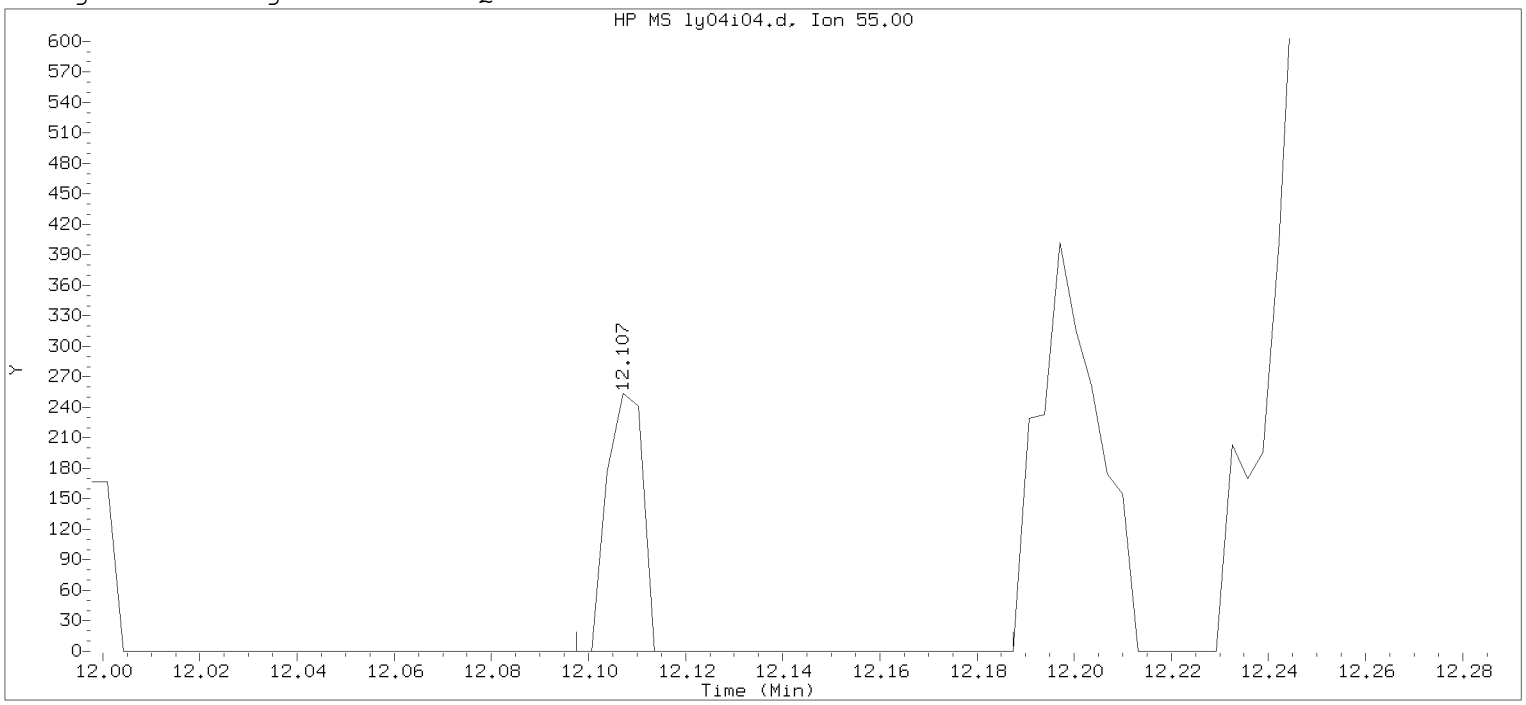
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

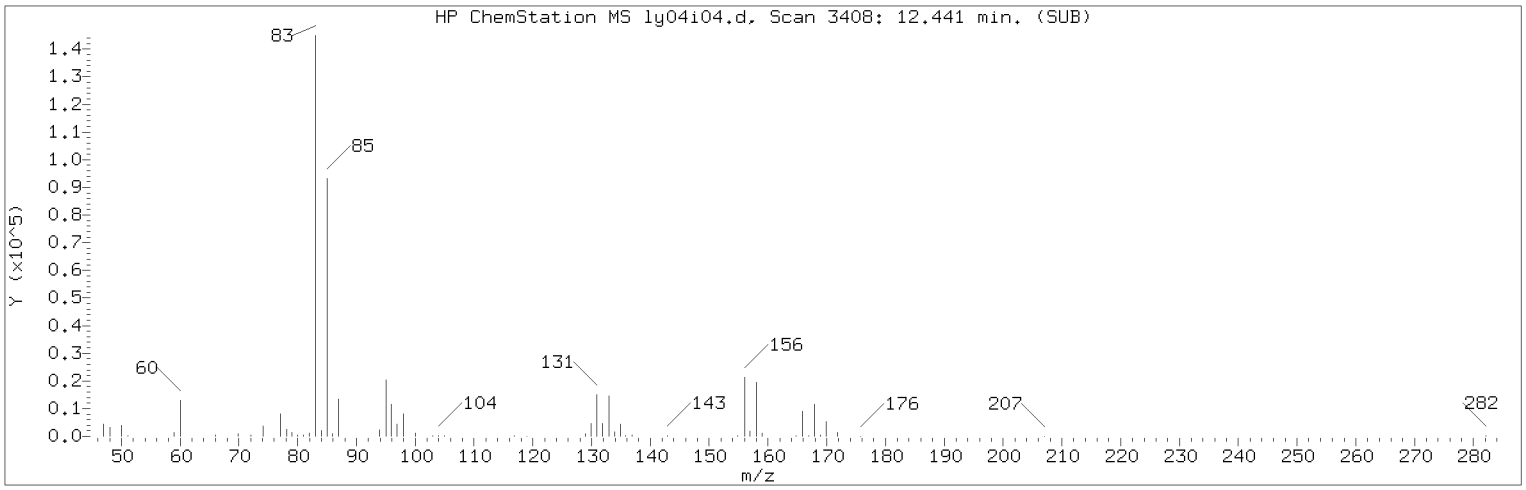
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

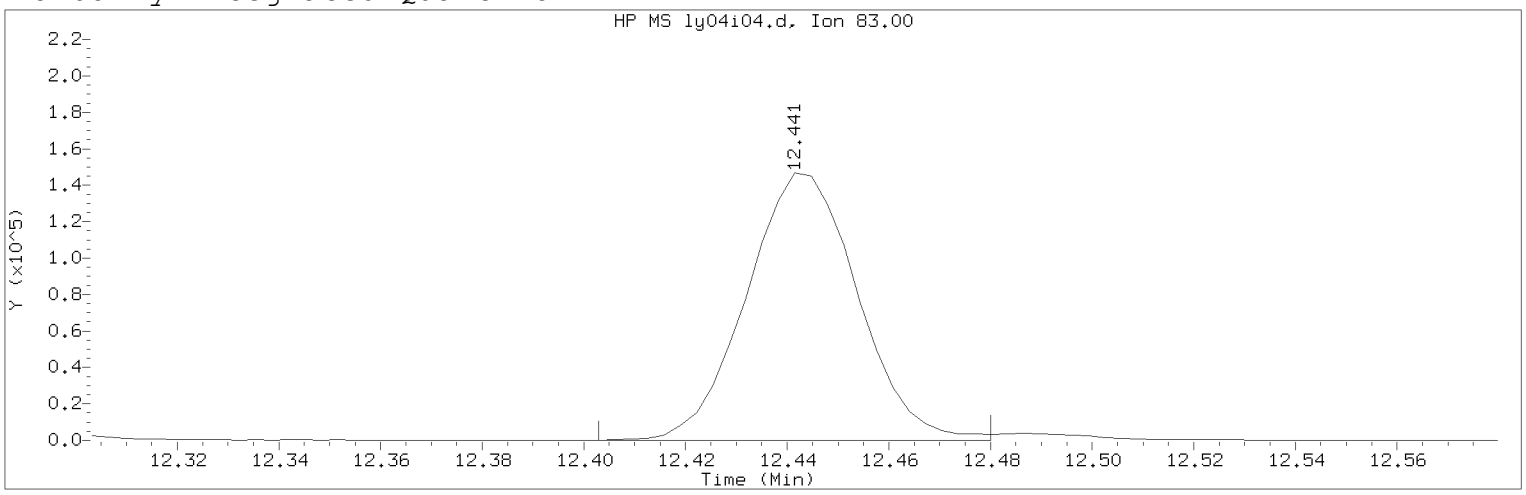
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3304
Retention Time (minutes): 12.107
Quant Ion : 55.00
Area : 129
On-column Amount (ng) : 85.7174
Integration start scan : 3300 Integration stop scan: 3328
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0062

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

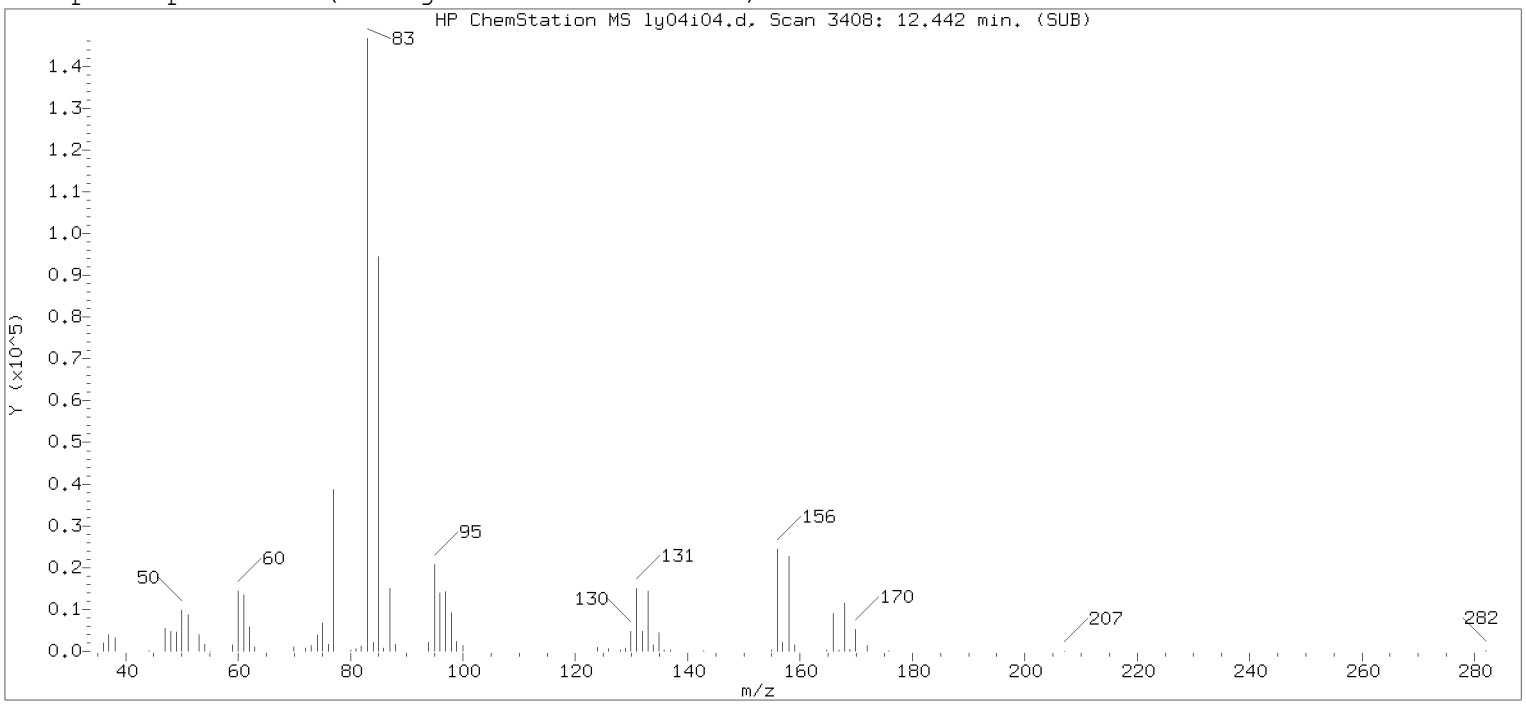
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 222212M
On-Column Amount (ng) : 21.0014
Integration start scan : 3395 Integration stop scan: 3419
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

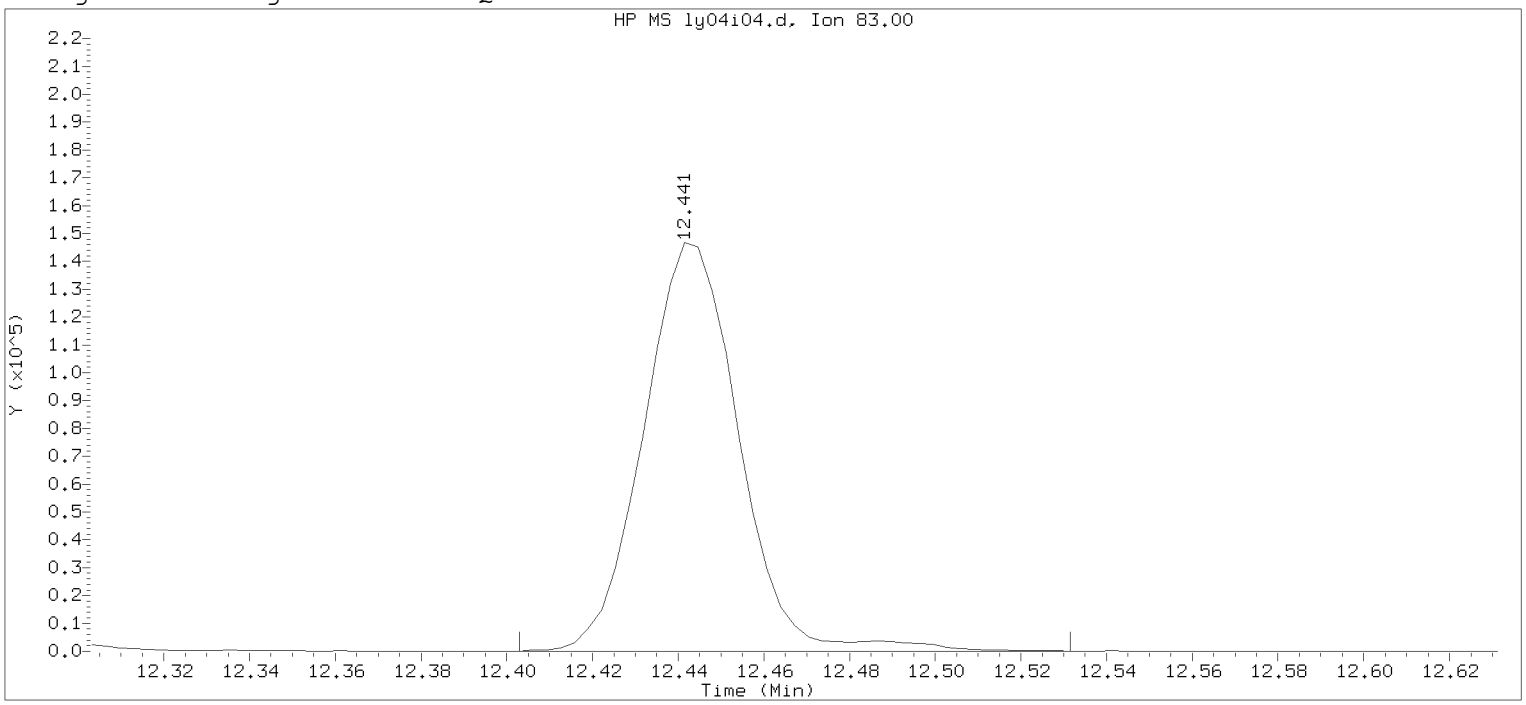
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 226818
On-column Amount (ng) : 20.9272
Integration start scan : 3395 Integration stop scan: 3435
Y at integration start : 0 Y at integration end: 0

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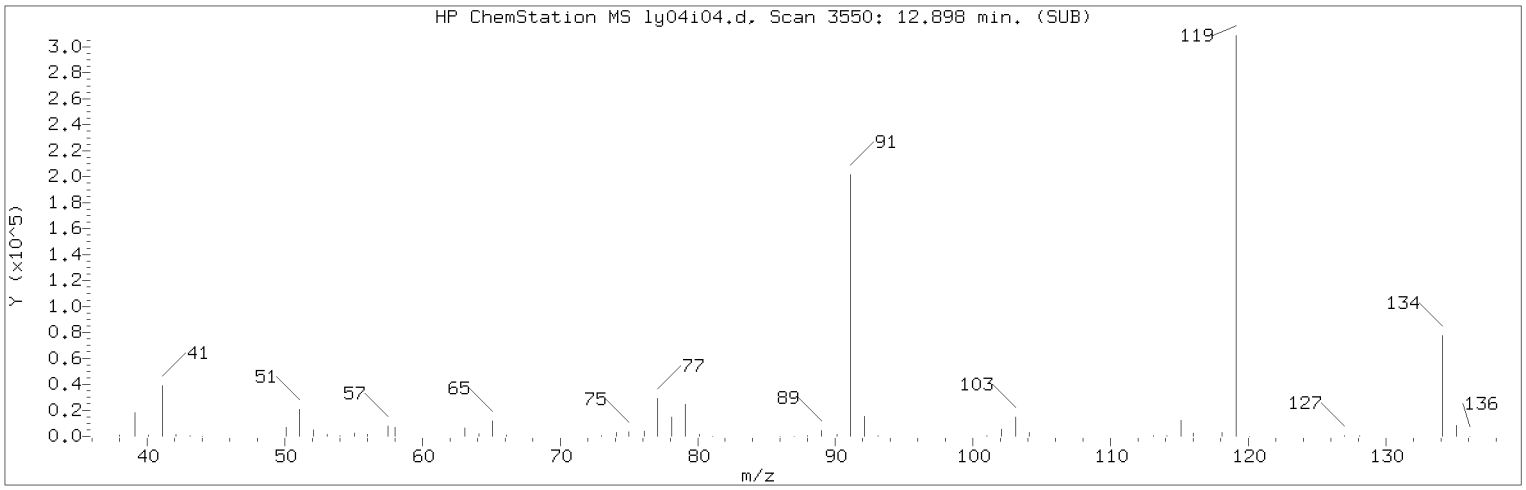
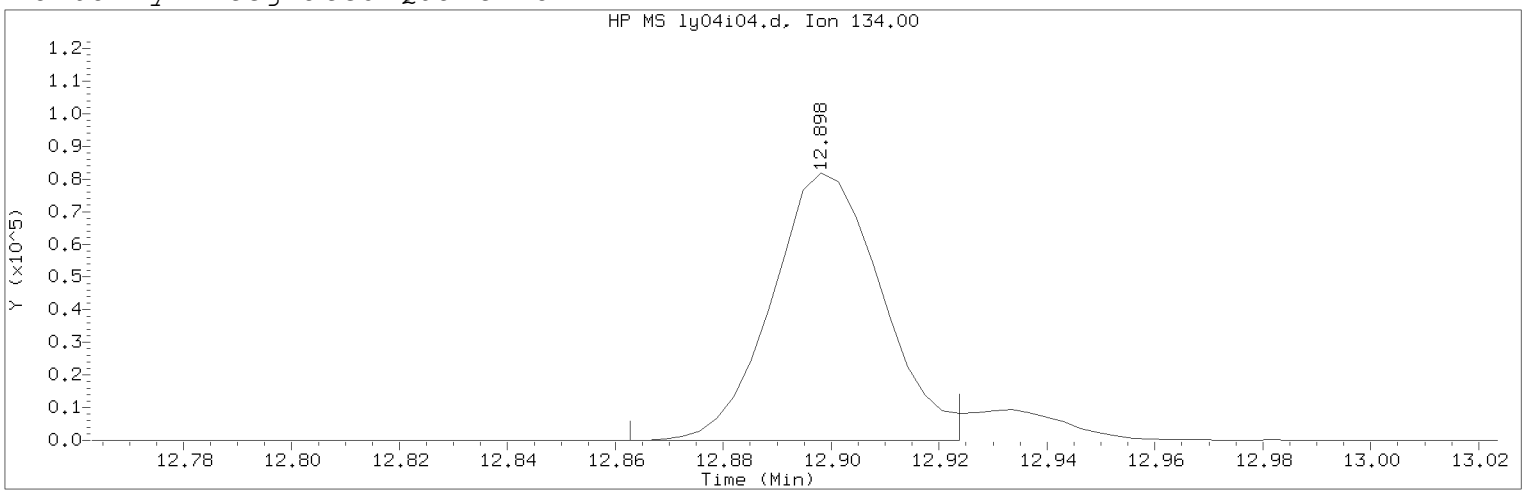
Target 3.5 esignature user: JCW57 Page 564 of 881

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

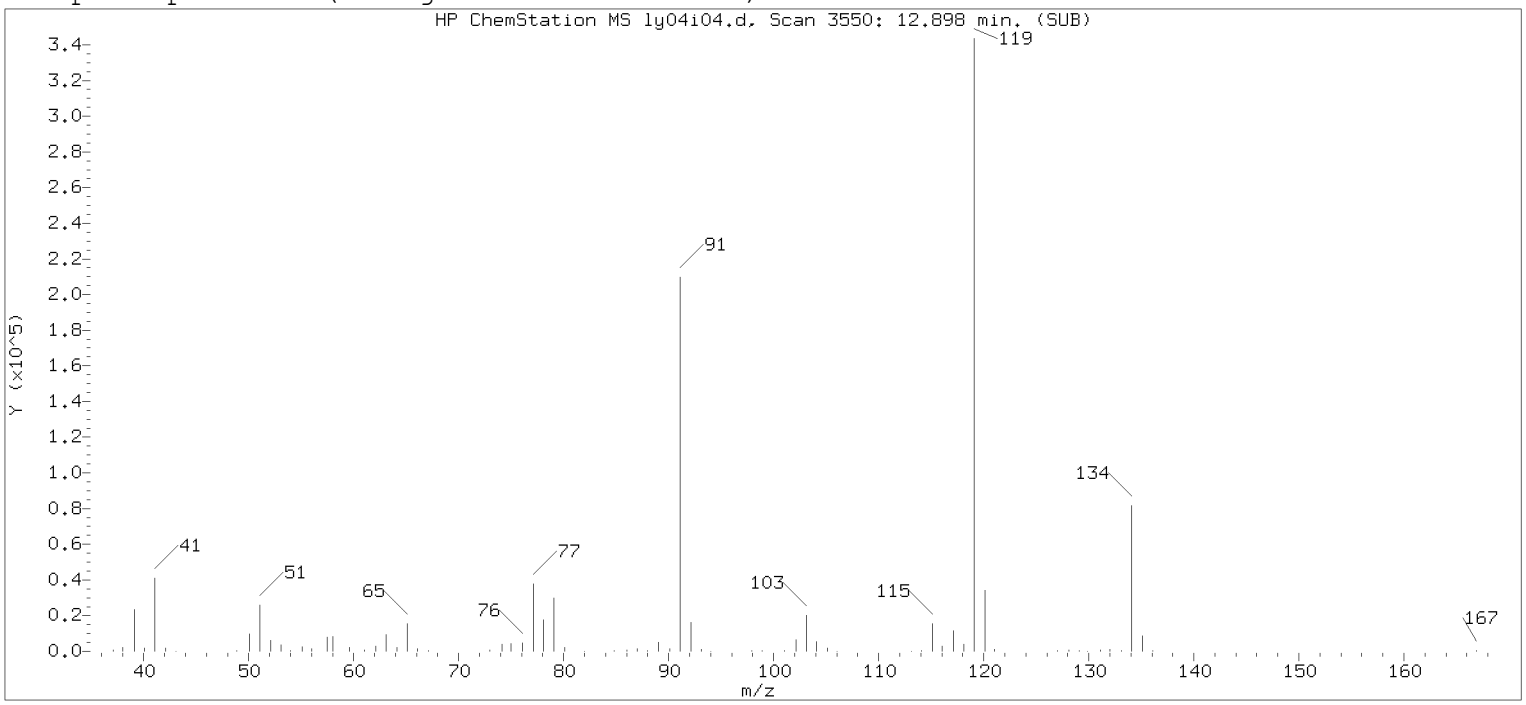
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 115481M
On-Column Amount (ng) : 21.1810
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

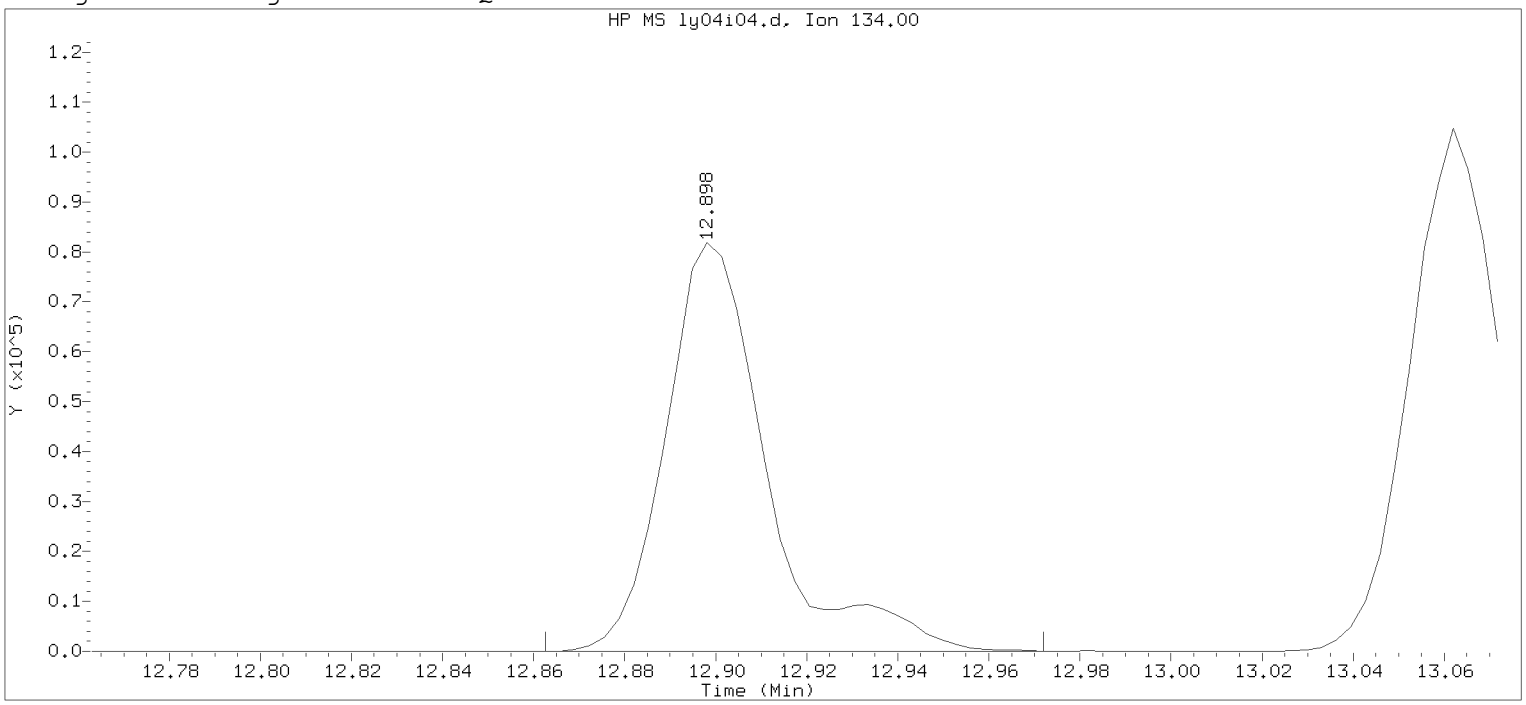
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 126488
On-column Amount (ng) : 19.5466
Integration start scan : 3538 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

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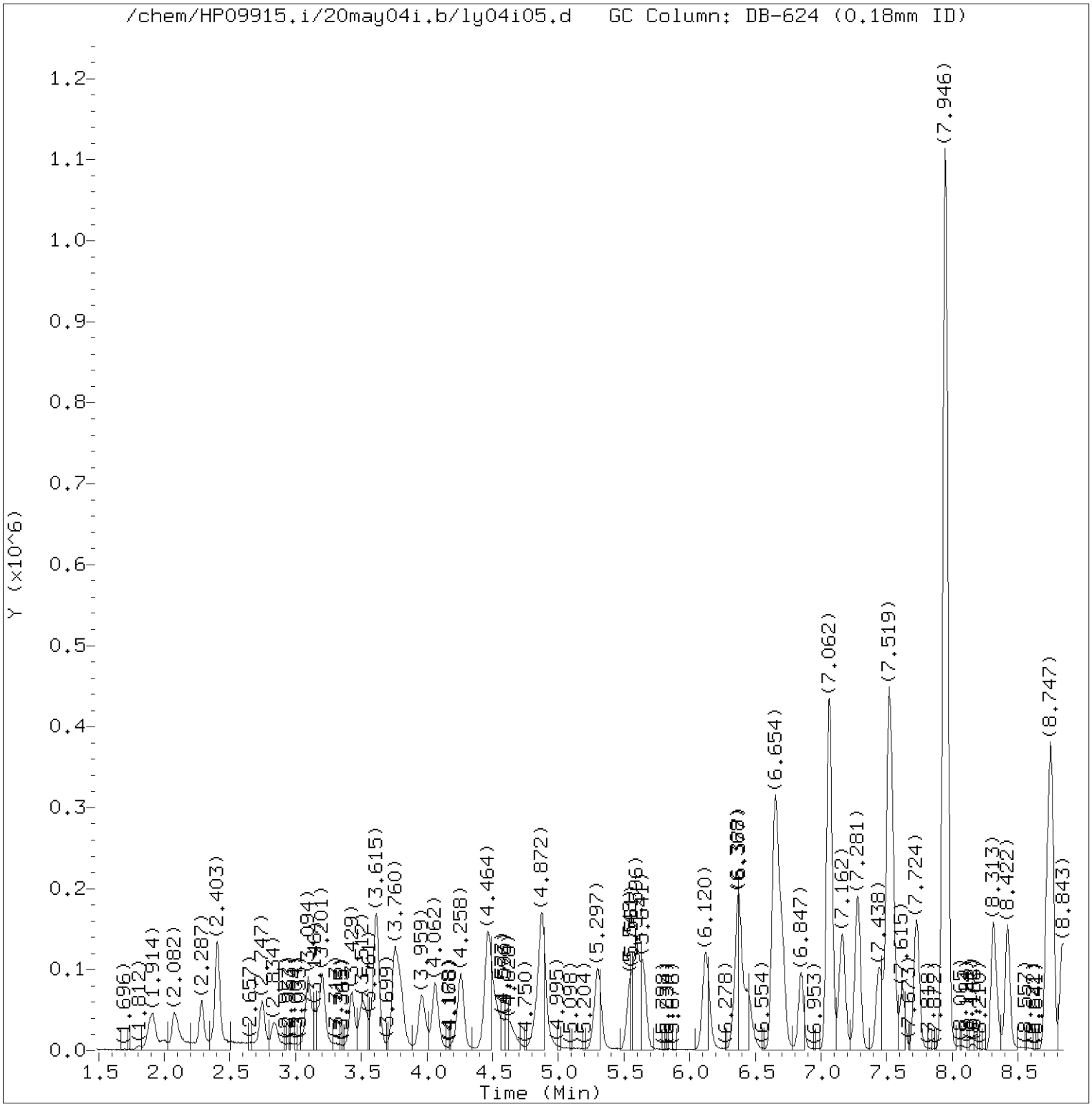
Target 3.5 esignature user: JCW57 Page 566 of 881



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

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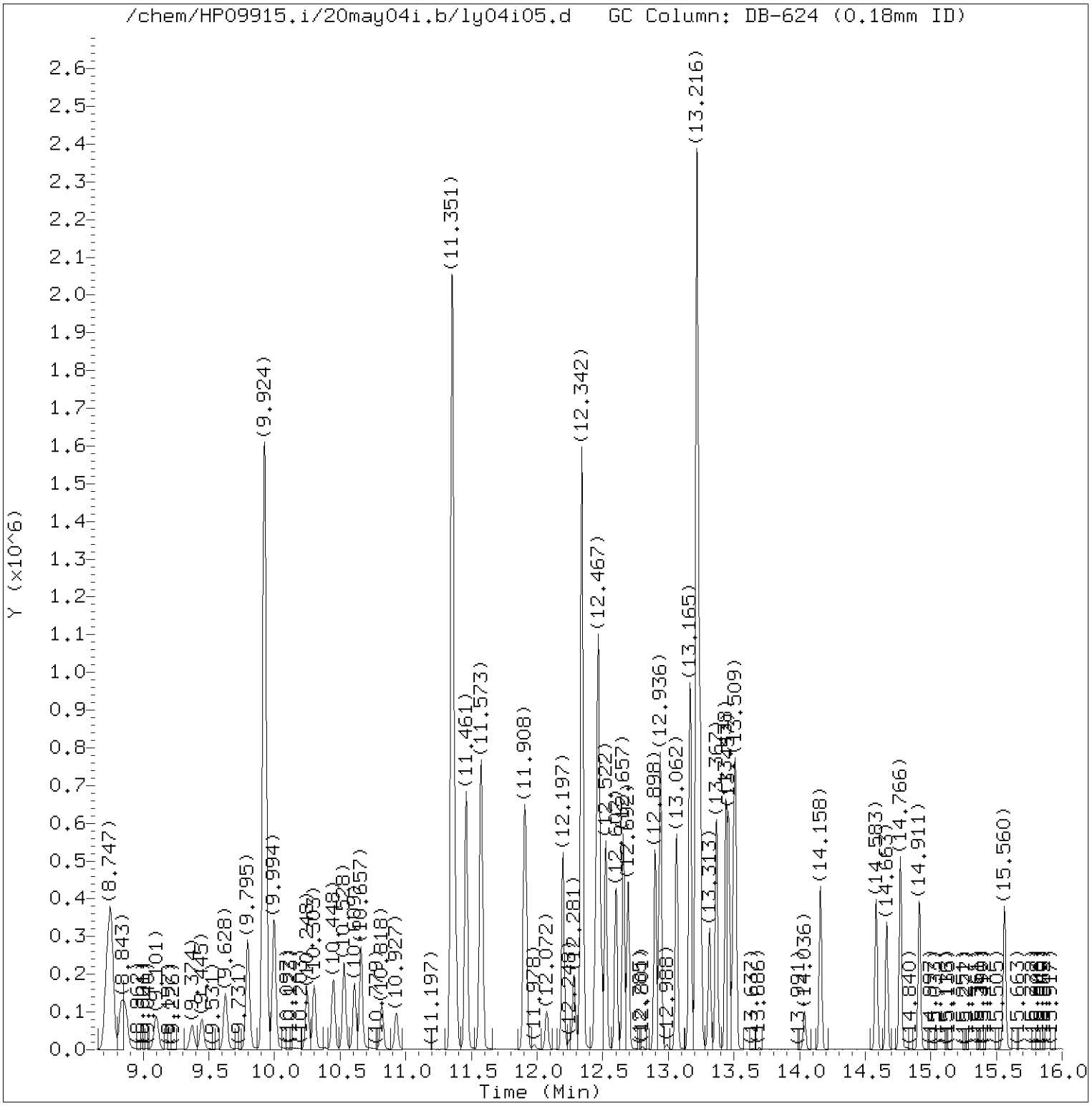
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.082	85	90118	10.053
4) Chloromethane	(2)	2.284	50	78549	9.385
5) 1,3-Butadiene	(2)	2.403	39	53204	9.909
6) Vinyl Chloride	(2)	2.406	62	75776	9.382
8) Bromomethane	(2)	2.747	94	54416	9.345
9) Chloroethane	(2)	2.844	64	42783	9.488
10) Dichlorofluoromethane	(2)	3.094	67	97511	10.025
12) Trichlorofluoromethane	(2)	3.149	101	86007	9.750
11) n-Pentane	(2)	3.201	43	86657	10.463
14) Ethyl ether	(2)	3.426	59	62820	10.079
15) Freon 123a	(2)	3.512	67	72194	10.102
16) Acrolein	(1)	3.615	56	265523	114.386
17) 1,1-Dichloroethene	(2)	3.750	96	56607	10.063
17) 1,1-Dichloroethene	(2)	3.757	63	27453	10.247
19) Freon 113	(2)	3.779	101	60789	10.415
18) Acetone	(1)	3.795	58	21573	20.374
22) Methyl Iodide	(2)	3.956	142	107855	9.949
21) 2-Propanol	(1)	3.979	45	66051	97.875
23) Carbon Disulfide	(2)	4.062	76	190505	10.058
27) Methyl Acetate	(2)	4.236	43	69346	9.665
25) Allyl Chloride	(2)	4.258	41	88910	9.753
28) Methylene Chloride	(2)	4.461	84	67332	10.062
29)*t-Butyl alcohol-d10	(1)	4.480	65	282164	250.000
30) t-Butyl alcohol	(1)	4.615	59	112728	98.959
31) Acrylonitrile	(2)	4.821	53	41519	10.447
33) Methyl Tertiary Butyl Ether	(2)	4.866	73	189790	9.837
32) trans-1,2-Dichloroethene	(2)	4.882	96	65119	10.062
34) n-Hexane	(2)	5.297	57	94542	10.432
36) 1,1-Dichloroethane	(2)	5.541	63	114433	10.082
38) di-Isopropyl ether	(2)	5.599	45	198191	9.928
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	89746	9.915
40) Ethyl t-butyl ether	(2)	6.126	59	184298	9.937
43) 1,2-Dichloroethene (Total)	(2)		96	138243	20.138
44) 2-Butanone	(2)	6.345	43	99442	20.613
42) cis-1,2-Dichloroethene	(2)	6.371	96	73124	10.076
45) 2,2-Dichloropropane	(2)	6.377	77	85647	9.763
47) Propionitrile	(1)	6.448	54	149718	97.287
48) Methacrylonitrile	(2)	6.654	67	195000	48.939

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.696	128	37514	10.018
50) Tetrahydrofuran	(1)	6.708	71	27785	20.635
51) Chloroform	(2)	6.850	83	109436	9.869
52)$Dibromofluoromethane	(2)	7.062	113	322240	48.932
52)$Dibromofluoromethane	(2)	7.059	111	332011	49.320
53) 1,1,1-Trichloroethane	(2)	7.069	97	93153	9.792
54) Cyclohexane	(2)	7.162	56	109782	10.309
54) Cyclohexane	(2)	7.162	84	94445	10.160
54) Cyclohexane	(2)	7.155	69	33849	10.228
56) Carbon Tetrachloride	(2)	7.278	117	79395	9.961
55) 1,1-Dichloropropene	(2)	7.284	75	87744	10.061
58) Isobutyl Alcohol	(1)	7.448	41	93954	243.130
57)$1,2-Dichloroethane-d4	(2)	7.512	102	82568	49.412
57)$1,2-Dichloroethane-d4	(2)	7.519	65	364177	49.098
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52909	49.724
60) Benzene	(2)	7.544	78	272006	10.076
61) 1,2-Dichloroethane	(2)	7.622	62	87436	9.662
61) 1,2-Dichloroethane	(2)	7.618	98	8802	9.981
65) t-Amyl methyl ether	(2)	7.724	73	186147	9.824
67) n-Heptane	(2)	7.946	43	103553	10.988
66)*Fluorobenzene	(2)	7.946	96	1307193	50.000
69) n-Butanol	(1)	8.313	56	146517	465.001
71) Trichloroethene	(2)	8.419	95	67138	9.828
72) Methylcyclohexane	(2)	8.724	83	113527	10.220
72) Methylcyclohexane	(2)	8.724	98	51823	10.314
73) 1,2-Dichloropropane	(2)	8.750	63	68836	9.896
76) Methyl Methacrylate	(2)	8.831	69	55947	9.354
75) 1,4-Dioxane	(1)	8.850	88	23550M	248.634
74) Dibromomethane	(2)	8.863	93	44545	9.792
78) Bromodichloromethane	(2)	9.101	83	77969	9.561
79) 2-Nitropropane	(2)	9.371	41	49747	20.345
80) 2-Chloroethyl Vinyl Ether	(2)	9.445	63	42539	9.185
81) cis-1,3-Dichloropropene	(2)	9.628	75	103288	9.691
82) 4-Methyl-2-pentanone	(2)	9.795	43	222795	22.805
83)$Toluene-d8	(3)	9.924	98	1329104	49.926
83)$Toluene-d8	(3)	9.924	100	862386	49.917
88) Toluene	(3)	9.994	92	170397	10.042
90) 1,3-Dichloropropene (total)	(3)		100	195460	19.158

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	92172	9.467
91) Ethyl Methacrylate	(3)	10.300	69	91658	9.356
92) 1,1,2-Trichloroethane	(3)	10.451	97	63938	9.711
93) Tetrachloroethene	(3)	10.528	166	73770	10.201
94) 1,3-Dichloropropane	(3)	10.612	76	106883	9.707
96) 2-Hexanone	(3)	10.657	43	174630	24.544
97) Dibromochloromethane	(3)	10.818	129	64751	9.454
99) 1,2-Dibromoethane	(3)	10.930	107	69131	9.770
100)*Chlorobenzene-d5	(3)	11.351	117	1036265	50.000
101) 1-Chlorohexane	(3)	11.355	91	87039	10.023
102) Chlorobenzene	(3)	11.377	112	196773	10.098
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	65125	9.859
104) Ethylbenzene	(3)	11.461	91	321971	10.251
106) m+p-Xylene	(3)	11.573	106	256765	20.806
108) Xylene (Total)	(3)		106	381311	31.242
107) o-Xylene	(3)	11.901	106	124546	10.436
109) Styrene	(3)	11.914	104	198052	10.204
110) Bromoform	(3)	12.072	173	45366	9.099
111) Isopropylbenzene	(3)	12.197	105	319386	10.546
112) Cyclohexanone	(1)	12.281	55	84690	240.209
114)$4-Bromofluorobenzene	(3)	12.342	95	511563	49.942
114)$4-Bromofluorobenzene	(3)	12.342	174	439236	50.016
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	104030	9.693
115) Bromobenzene	(4)	12.457	156	86654	10.058
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	155211	49.713
117) 1,2,3-Trichloropropane	(4)	12.490	110	32547	9.929
119) n-Propylbenzene	(4)	12.522	91	389641	10.465
120) 2-Chlorotoluene	(4)	12.602	126	81568	10.254
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	282787	10.511
121) 4-Chlorotoluene	(4)	12.695	126	85740	10.385
124) tert-Butylbenzene	(4)	12.901	134	56977	10.302
125) Pentachloroethane	(4)	12.933	167	47983	9.769
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	295531	10.624
127) sec-Butylbenzene	(4)	13.062	105	356950	10.897
129) 1,3-Dichlorobenzene	(4)	13.162	146	168498	10.496
130) p-Isopropyltoluene	(4)	13.168	119	305773	10.894
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	588728	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	175369	10.408

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$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	295346	10.219
135) Benzyl Chloride	(4)	13.313	91	205157	9.381
136) 1,3-Diethylbenzene	(4)	13.367	119	184043	10.176
141) Diethylbenzene (total)	(4)		100	539339	30.855
137) 1,4-Diethylbenzene	(4)	13.438	119	195436	10.324
139) n-Butylbenzene	(4)	13.457	92	158495	10.990
138) 1,2-Dichlorobenzene	(4)	13.499	146	166903	10.329
140) 1,2-Diethylbenzene	(4)	13.512	119	159860	10.355
142) 1,2-Dibromo-3-chloropropane	(4)	14.039	75	22103	9.304
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	125310	10.295
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	115079	10.117
147) Hexachlorobutadiene	(4)	14.663	225	56989	10.860
148) Naphthalene	(4)	14.769	128	371810	10.098
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	117053	10.356
150) 2-Methylnaphthalene	(4)	15.560	142	179694	8.949

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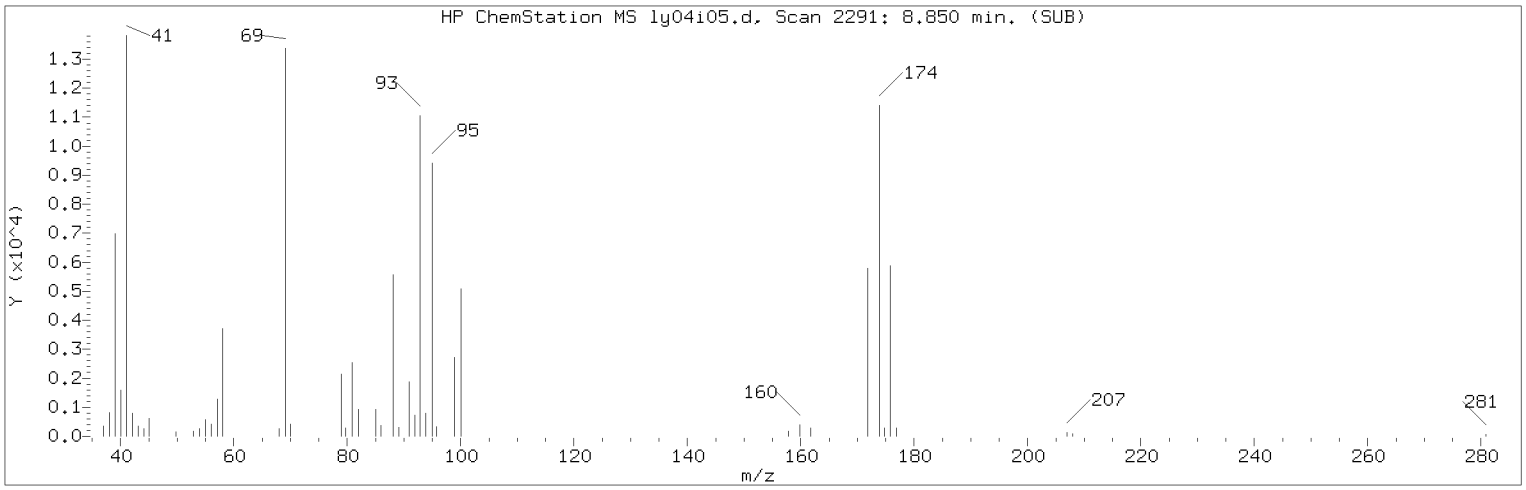
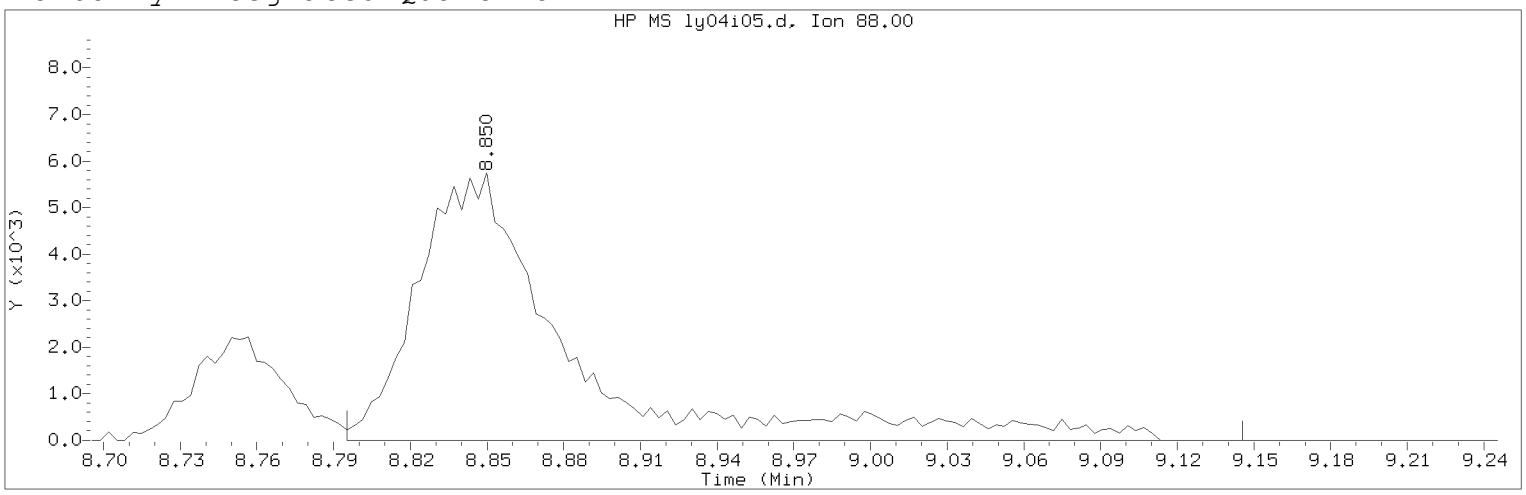
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

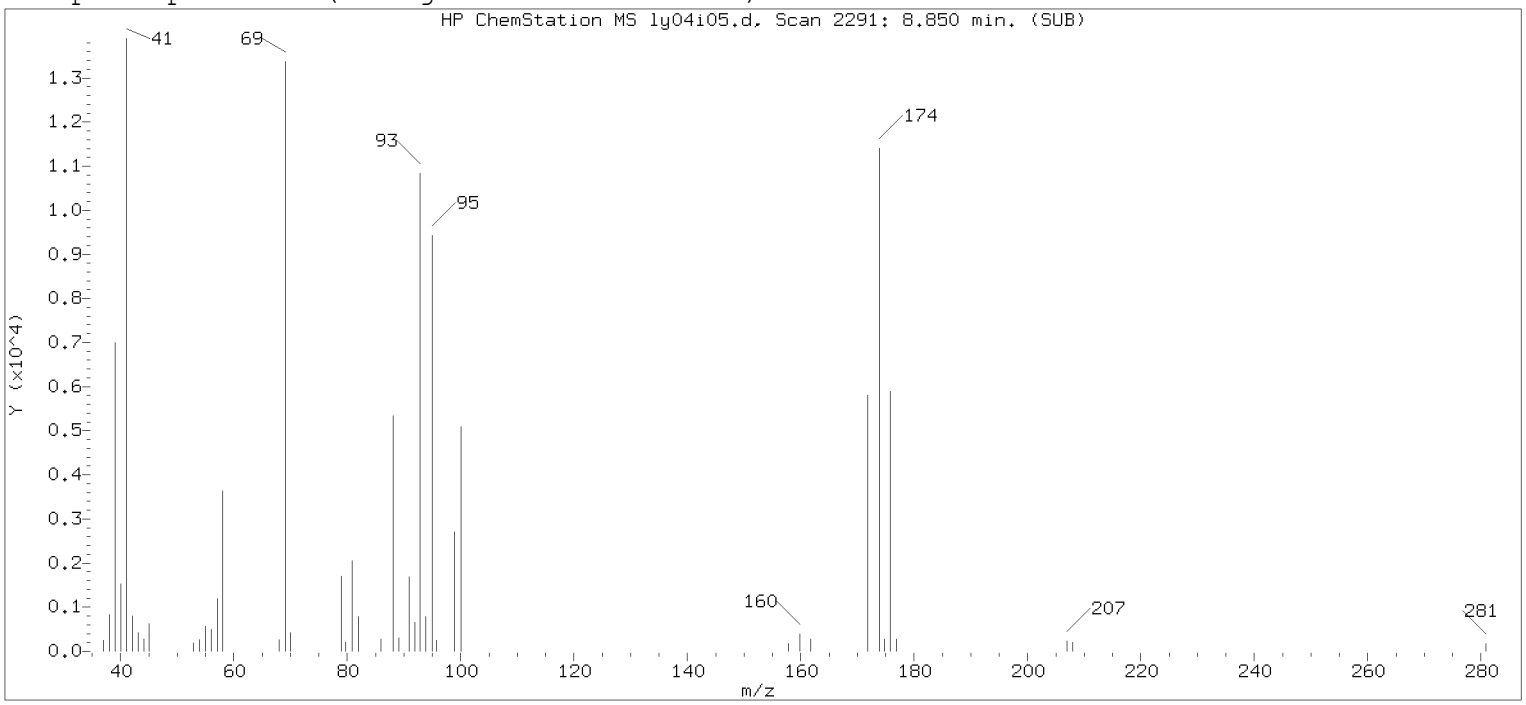
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area (flag) : 23550M
On-Column Amount (ng) : 248.6337
Integration start scan : 2273 Integration stop scan: 2382
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

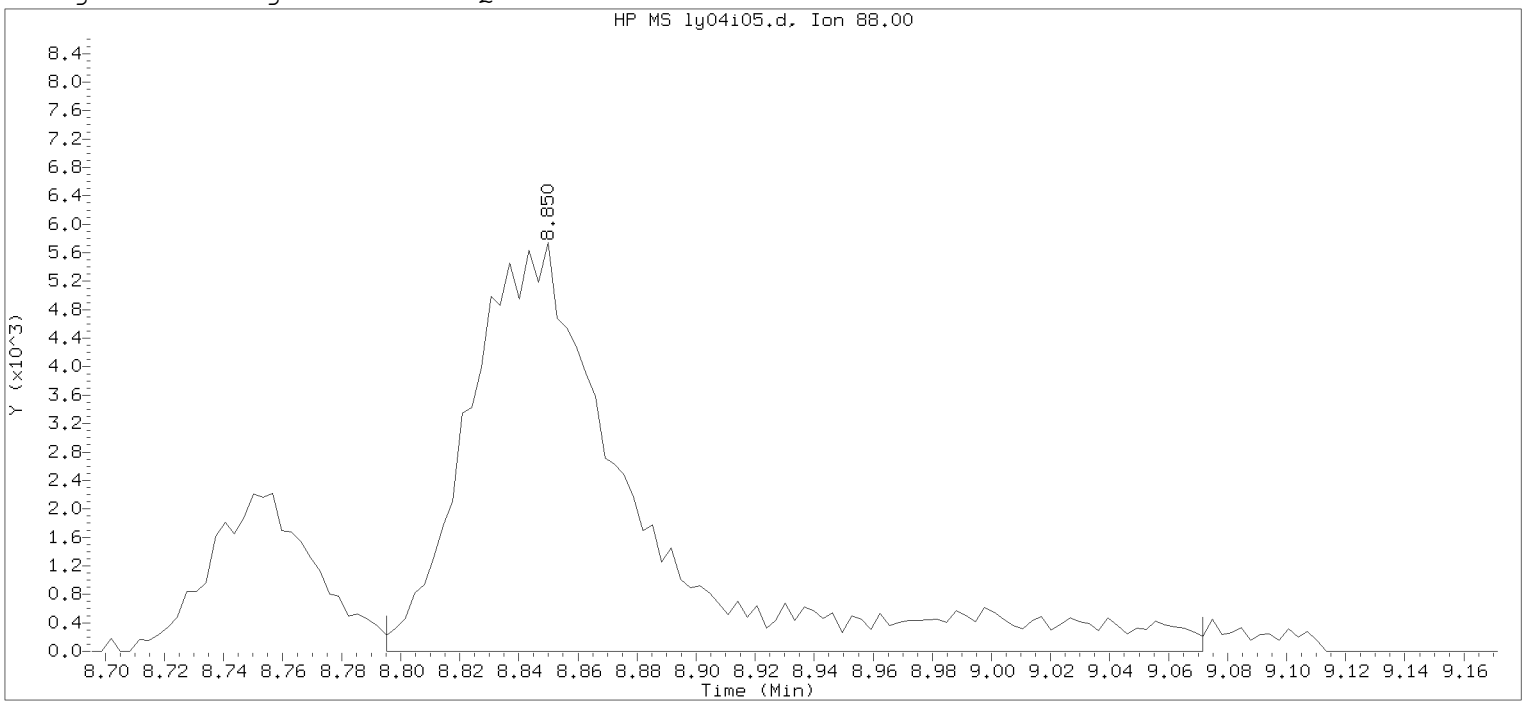
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



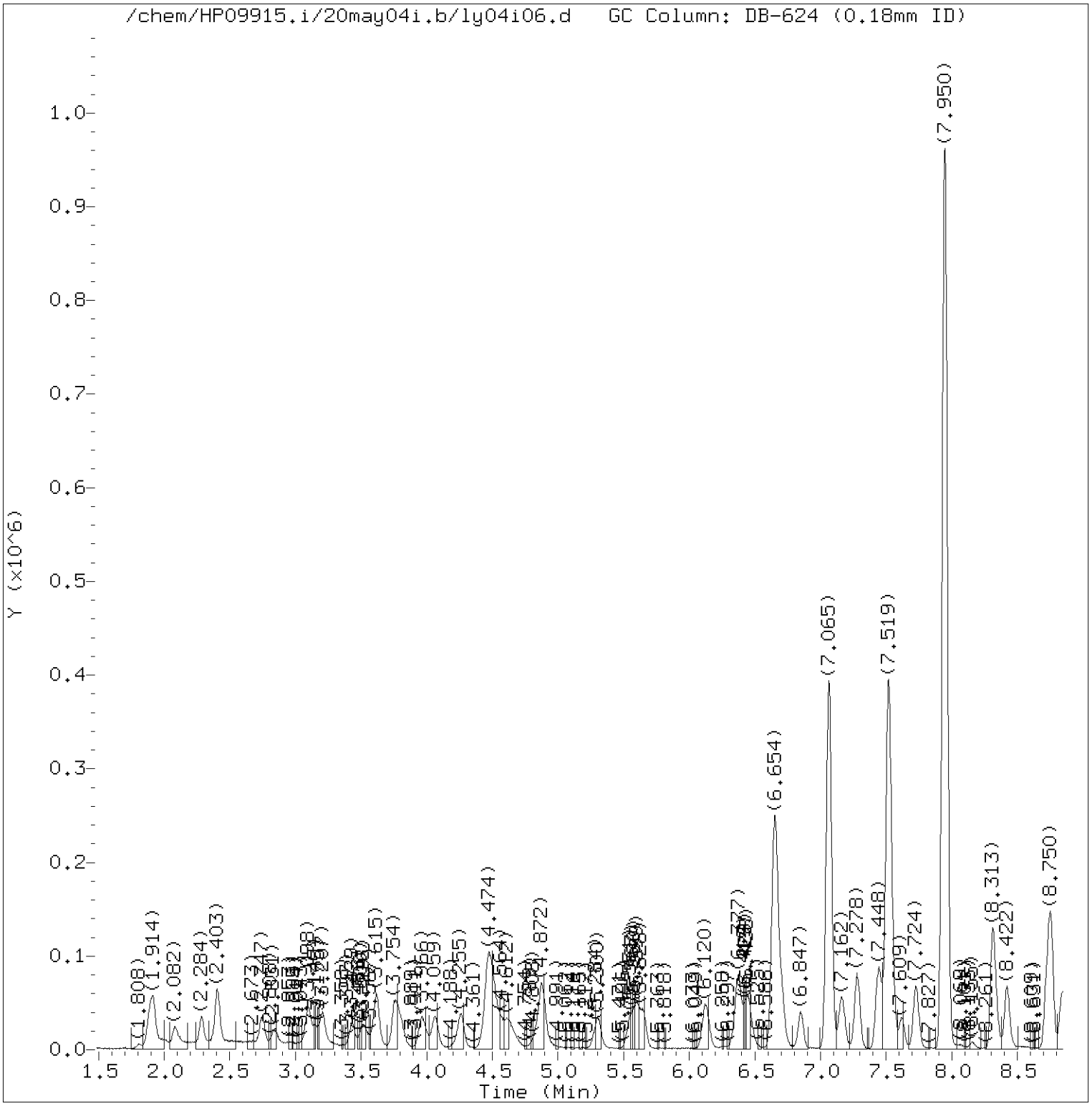
Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:04
Date, time and analyst ID of latest file update: 04-May-2020 14:04 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area : 22923
On-column Amount (ng) : 235.9161
Integration start scan : 2273 Integration stop scan: 2359
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0072



Total Ion Chromatogram (TIC)

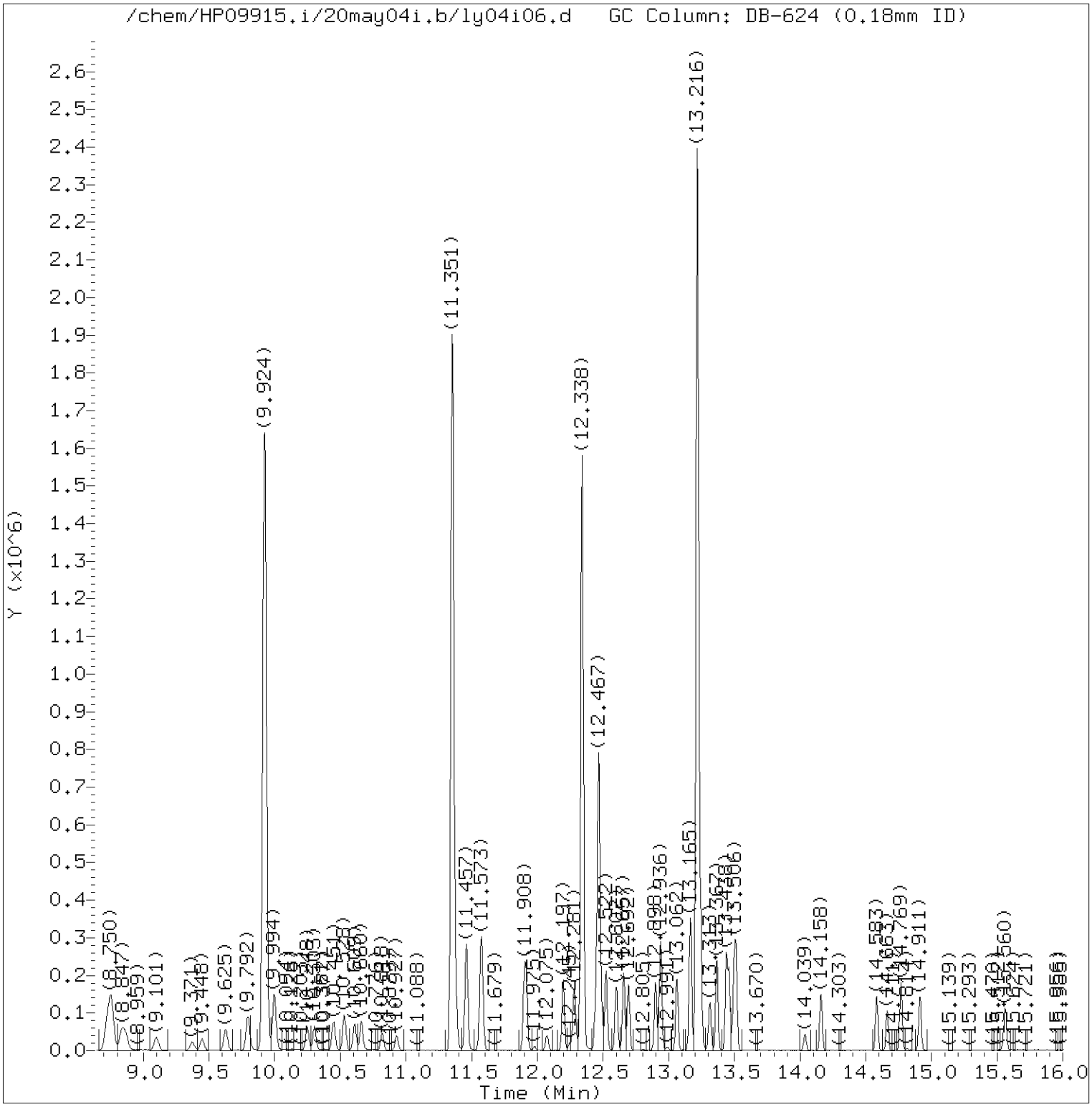
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	38980	4.374
4) Chloromethane	(2)	2.281	50	40837	4.908
5) 1,3-Butadiene	(2)	2.403	39	22445M	4.205
6) Vinyl Chloride	(2)	2.410	62	38694	4.819
8) Bromomethane	(2)	2.747	94	28864	4.986
9) Chloroethane	(2)	2.850	64	22132M	4.937
10) Dichlorofluoromethane	(2)	3.098	67	46604	4.819
12) Trichlorofluoromethane	(2)	3.149	101	39863	4.546
11) n-Pentane	(2)	3.207	43	33845	4.111
14) Ethyl ether	(2)	3.435	59	23890	3.855
15) Freon 123a	(2)	3.522	67	29140	4.102
16) Acrolein	(1)	3.615	56	89549	38.087
17) 1,1-Dichloroethene	(2)	3.754	96	23333	4.172
17) 1,1-Dichloroethene	(2)	3.754	63	11176	4.196
19) Freon 113	(2)	3.789	101	24000	4.136
18) Acetone	(1)	3.808	58	8567M	7.988
22) Methyl Iodide	(2)	3.959	142	43429	4.029
21) 2-Propanol	(1)	3.982	45	54311	79.457
23) Carbon Disulfide	(2)	4.065	76	74748	3.970
27) Methyl Acetate	(2)	4.239	43	29297	4.107
25) Allyl Chloride	(2)	4.262	41	34618	3.820
28) Methylene Chloride	(2)	4.458	84	27141	4.080
29)*t-Butyl alcohol-d10	(1)	4.490	65	285792	250.000
30) t-Butyl alcohol	(1)	4.622	59	92858	80.481
31) Acrylonitrile	(2)	4.821	53	15387	3.894
33) Methyl Tertiary Butyl Ether	(2)	4.872	73	74603	3.890
32) trans-1,2-Dichloroethene	(2)	4.879	96	26257	4.081
34) n-Hexane	(2)	5.307	57	30933	3.433
36) 1,1-Dichloroethane	(2)	5.545	63	45665	4.047
38) di-Isopropyl ether	(2)	5.599	45	74509	3.754
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	33993	3.777
40) Ethyl t-butyl ether	(2)	6.130	59	70167	3.805
43) 1,2-Dichloroethene (Total)	(2)		96	54548	8.002
44) 2-Butanone	(2)	6.348	43	36969	7.708
42) cis-1,2-Dichloroethene	(2)	6.371	96	28291	3.921
45) 2,2-Dichloropropane	(2)	6.380	77	35169M	4.033
47) Propionitrile	(1)	6.445	54	123766	79.402
48) Methacrylonitrile	(2)	6.647	67	157154	39.673

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* = Compound is an internal standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	15148	4.069
50) Tetrahydrofuran	(1)	6.702	71	11134	8.164
51) Chloroform	(2)	6.847	83	44235	4.013
52)$Dibromofluoromethane	(2)	7.065	113	325931	49.783
52)$Dibromofluoromethane	(2)	7.065	111	332442	49.674
53) 1,1,1-Trichloroethane	(2)	7.069	97	38791	4.101
54) Cyclohexane	(2)	7.159	56	40137	3.791
54) Cyclohexane	(2)	7.162	84	35210	3.810
54) Cyclohexane	(2)	7.159	69	12808	3.893
56) Carbon Tetrachloride	(2)	7.278	117	32820	4.142
55) 1,1-Dichloropropene	(2)	7.287	75	35669	4.114
58) Isobutyl Alcohol	(1)	7.448	41	78273	199.980
57)$1,2-Dichloroethane-d4	(2)	7.515	102	84287	50.737
57)$1,2-Dichloroethane-d4	(2)	7.519	65	366597	49.715
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52842	49.952
60) Benzene	(2)	7.544	78	109723	4.088
61) 1,2-Dichloroethane	(2)	7.622	62	36503	4.057
61) 1,2-Dichloroethane	(2)	7.618	98	3686	4.204
65) t-Amyl methyl ether	(2)	7.731	73	71962	3.820
67) n-Heptane	(2)	7.946	43	30974	3.306
66)*Fluorobenzene	(2)	7.950	96	1299562	50.000
69) n-Butanol	(1)	8.313	56	121908	381.987
71) Trichloroethene	(2)	8.422	95	28461	4.191
72) Methylcyclohexane	(2)	8.718	83	39242	3.553
72) Methylcyclohexane	(2)	8.718	98	17809	3.565
73) 1,2-Dichloropropane	(2)	8.750	63	27695	4.005
76) Methyl Methacrylate	(2)	8.837	69	22069	3.712
75) 1,4-Dioxane	(1)	8.840	88	19114M	199.238
74) Dibromomethane	(2)	8.869	93	18097	4.002
78) Bromodichloromethane	(2)	9.101	83	30571	3.771
79) 2-Nitropropane	(2)	9.374	41	17814	7.328
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	15049	3.268
81) cis-1,3-Dichloropropene	(2)	9.628	75	38959	3.677
82) 4-Methyl-2-pentanone	(2)	9.798	43	70454	7.254
83)$Toluene-d8	(3)	9.924	98	1327920	49.628
83)$Toluene-d8	(3)	9.924	100	858083	49.415
88) Toluene	(3)	9.994	92	71873	4.214
90) 1,3-Dichloropropene (total)	(3)		100	74497	7.309

M = Compound was manually integrated.
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Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	35538	3.632
91) Ethyl Methacrylate	(3)	10.303	69	33141	3.366
92) 1,1,2-Trichloroethane	(3)	10.451	97	26564	4.014
93) Tetrachloroethene	(3)	10.531	166	30607	4.211
94) 1,3-Dichloropropane	(3)	10.609	76	43581	3.938
96) 2-Hexanone	(3)	10.660	43	50212	7.021
97) Dibromochloromethane	(3)	10.821	129	25387	3.688
99) 1,2-Dibromoethane	(3)	10.927	107	27031	3.801
100)*Chlorobenzene-d5	(3)	11.351	117	1041559	50.000
101) 1-Chlorohexane	(3)	11.355	91	31930	3.658
102) Chlorobenzene	(3)	11.377	112	82399	4.207
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	27074	4.078
104) Ethylbenzene	(3)	11.461	91	127933	4.052
106) m+p-Xylene	(3)	11.570	106	100704	8.119
108) Xylene (Total)	(3)		106	148049	12.066
107) o-Xylene	(3)	11.901	106	47345	3.947
109) Styrene	(3)	11.917	104	73846	3.785
110) Bromoform	(3)	12.075	173	17579	3.508
111) Isopropylbenzene	(3)	12.197	105	113477	3.728
112) Cyclohexanone	(1)	12.281	55	69843	195.583
114)$4-Bromofluorobenzene	(3)	12.342	95	516427	50.161
114)$4-Bromofluorobenzene	(3)	12.342	174	443503	50.246
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	45427	4.166
115) Bromobenzene	(4)	12.457	156	37061	4.235
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	124994	39.408
117) 1,2,3-Trichloropropane	(4)	12.486	110	13788	4.140
119) n-Propylbenzene	(4)	12.522	91	144976	3.833
120) 2-Chlorotoluene	(4)	12.602	126	32155	3.979
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	99992	3.658
121) 4-Chlorotoluene	(4)	12.692	126	33101	3.946
124) tert-Butylbenzene	(4)	12.901	134	19337M	3.442
125) Pentachloroethane	(4)	12.930	167	18271	3.662
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	105087	3.719
127) sec-Butylbenzene	(4)	13.062	105	115390	3.467
129) 1,3-Dichlorobenzene	(4)	13.162	146	66842	4.098
130) p-Isopropyltoluene	(4)	13.165	119	100033	3.508
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	598089	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	71398	4.171

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	113876	3.878
135)	Benzyl Chloride	(4)	13.313	91	82729	3.724
136)	1,3-Diethylbenzene	(4)	13.367	119	70395	3.831
141)	Diethylbenzene (total)	(4)		100	208679	11.749
137)	1,4-Diethylbenzene	(4)	13.438	119	76469	3.976
139)	n-Butylbenzene	(4)	13.457	92	51886	3.542
138)	1,2-Dichlorobenzene	(4)	13.496	146	68727	4.187
140)	1,2-Diethylbenzene	(4)	13.512	119	61815	3.941
142)	1,2-Dibromo-3-chloropropane	(4)	14.033	75	9341	3.871
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	44631	3.609
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	41152	3.561
147)	Hexachlorobutadiene	(4)	14.663	225	18000	3.376
148)	Naphthalene	(4)	14.766	128	133216	3.561
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	43500	3.788
150)	2-Methylnaphthalene	(4)	15.560	142	55411	4.749

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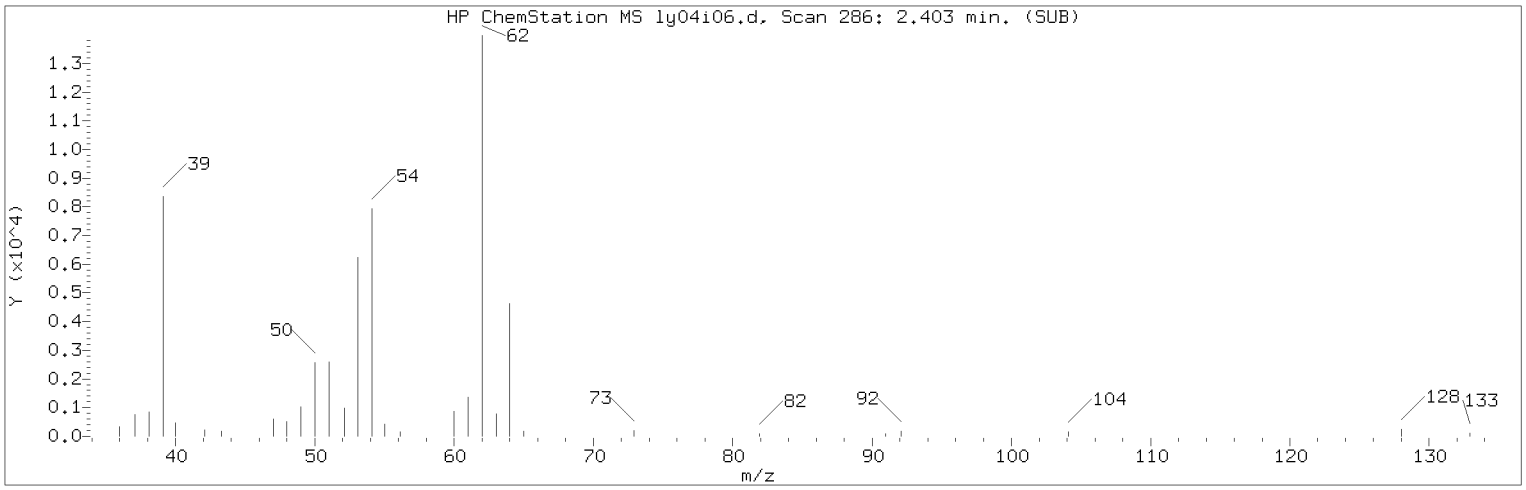
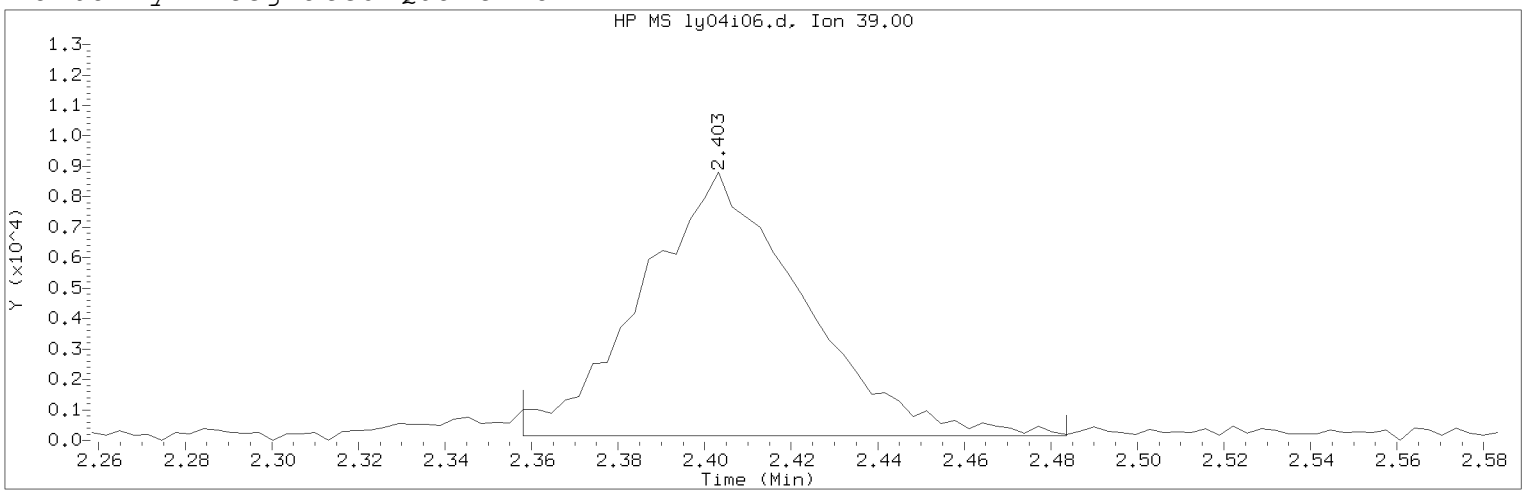
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

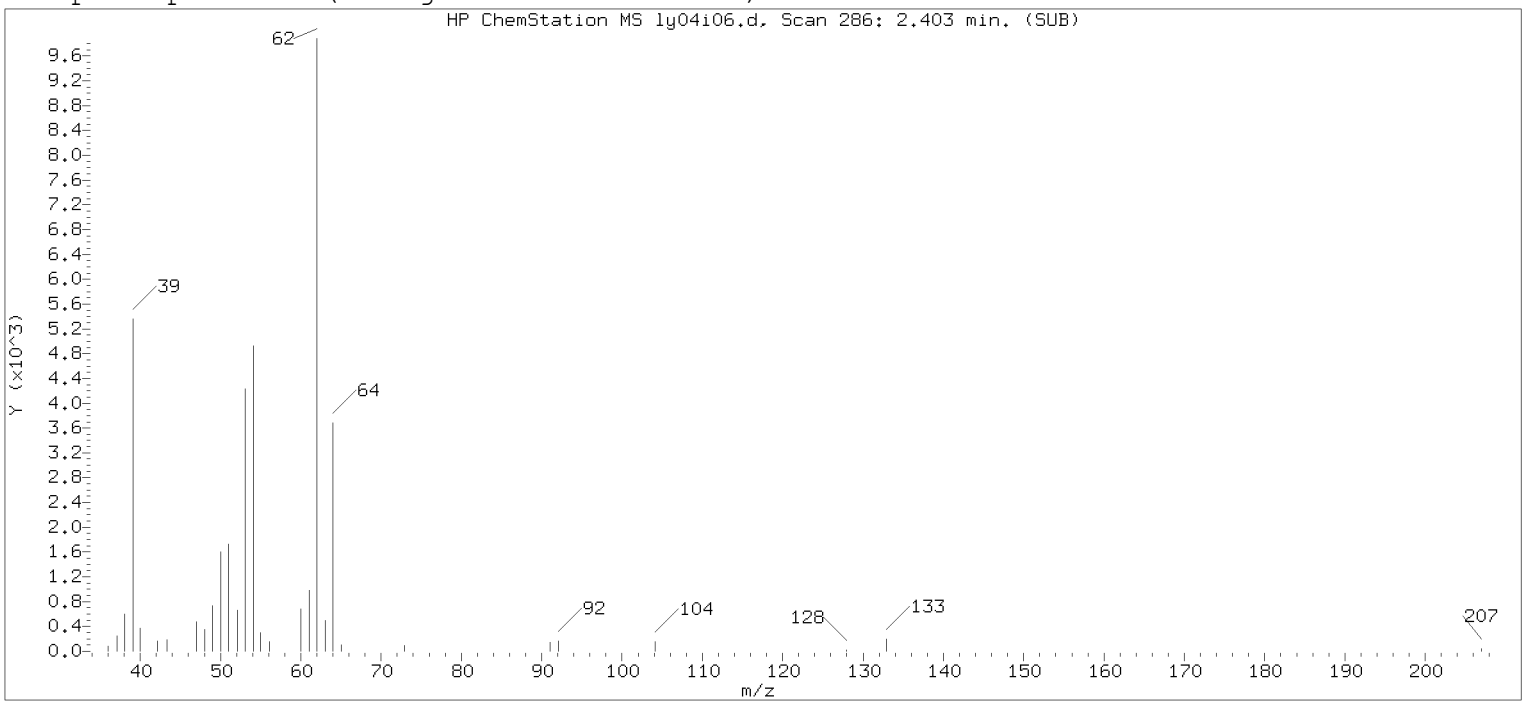
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area (flag) : 22445M
On-Column Amount (ng) : 4.2049
Integration start scan : 271 Integration stop scan: 310
Y at integration start : 140 Y at integration end: 140

Reason for manual integration: improper integration

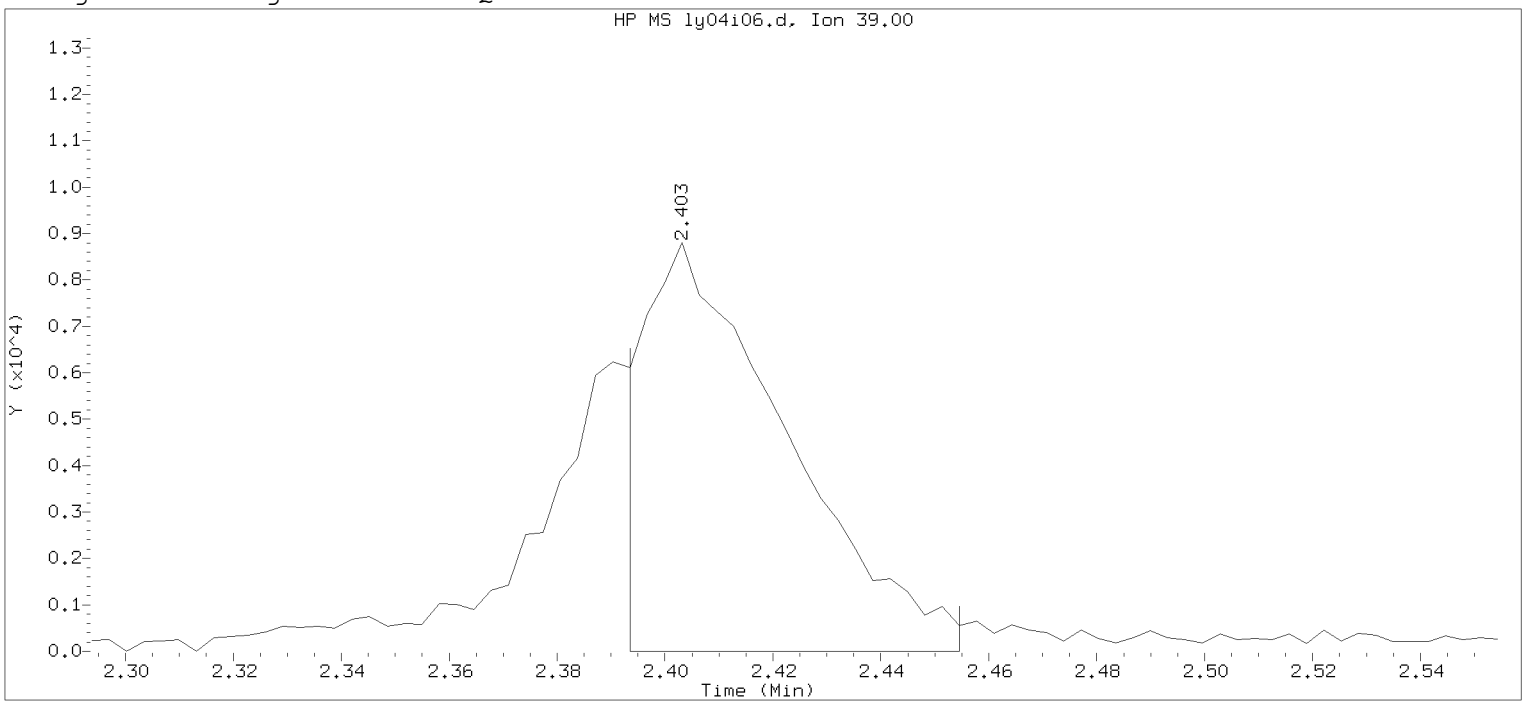
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

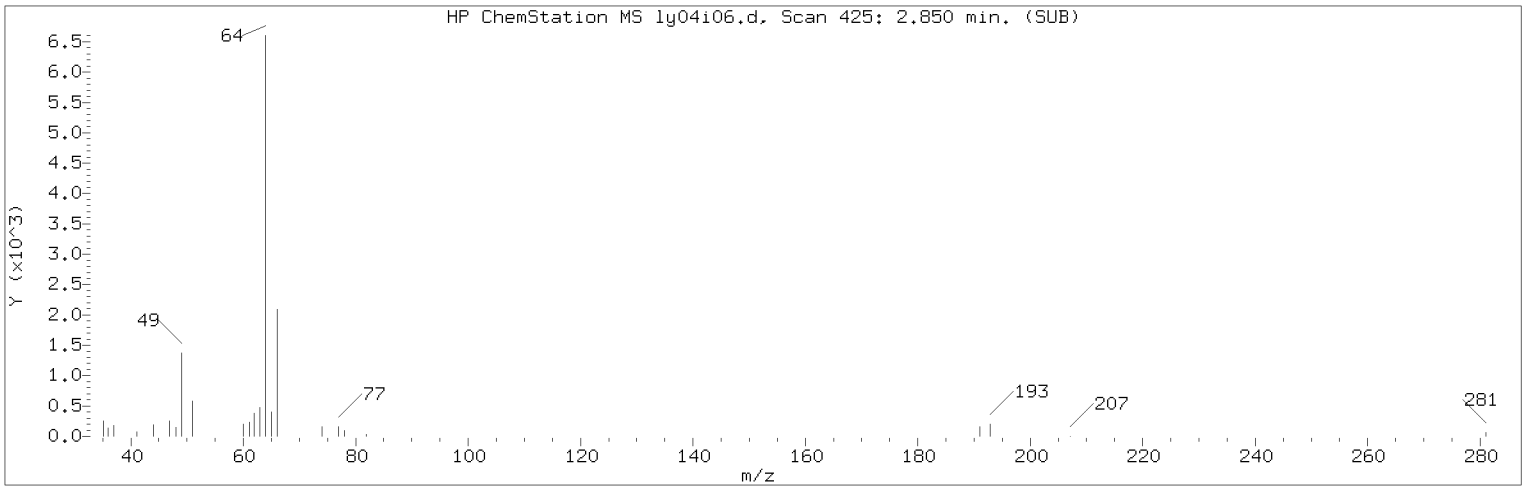
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

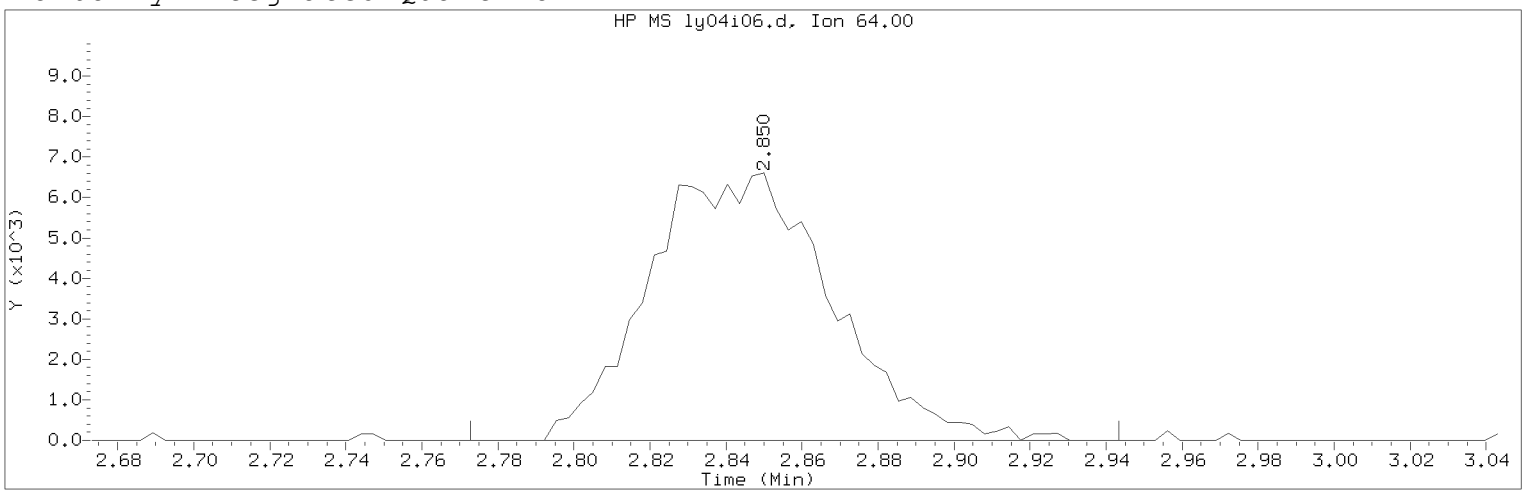
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area : 16243
On-column Amount (ng) : 3.2238
Integration start scan : 282 Integration stop scan: 301
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

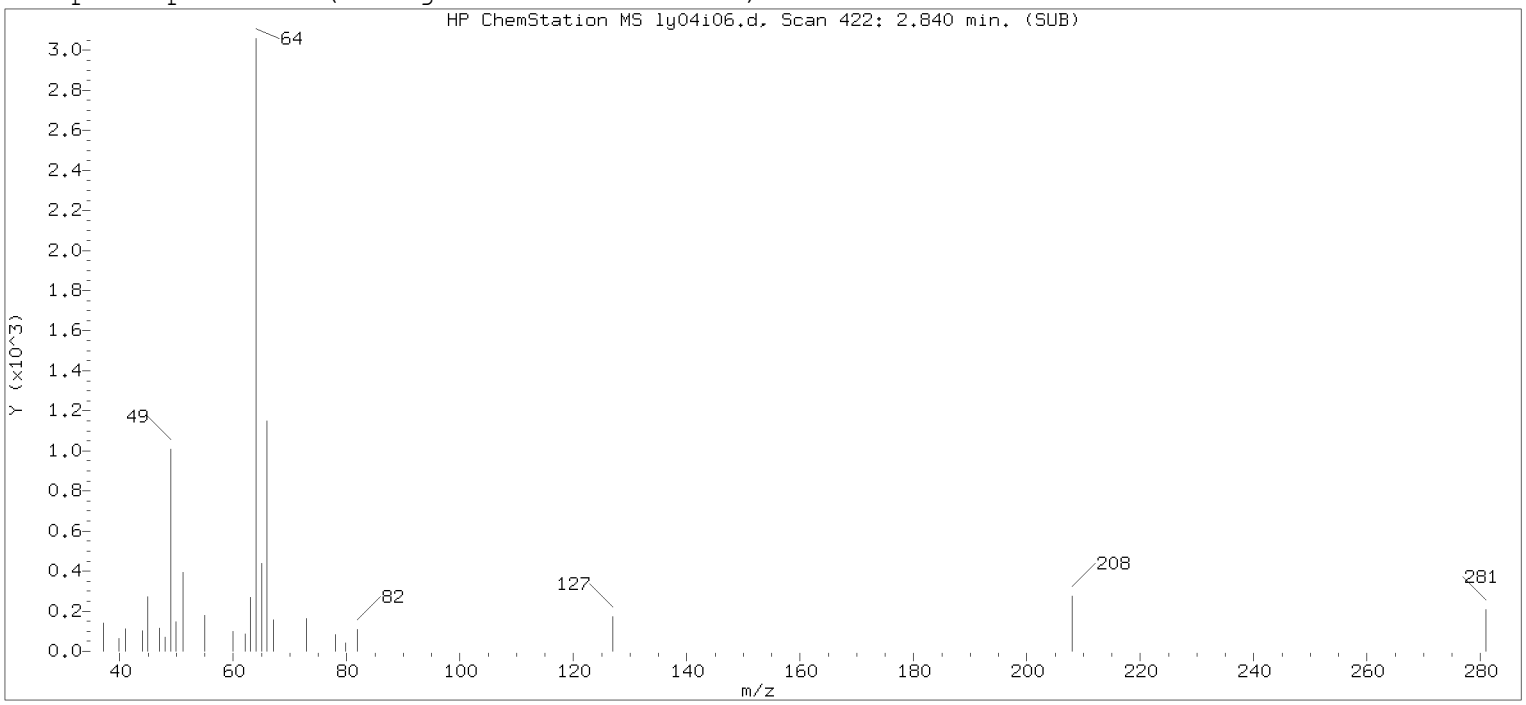
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 425
Retention Time (minutes): 2.850
Quant Ion : 64.00
Area (flag) : 22132M
On-Column Amount (ng) : 4.9369
Integration start scan : 400 Integration stop scan: 453
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

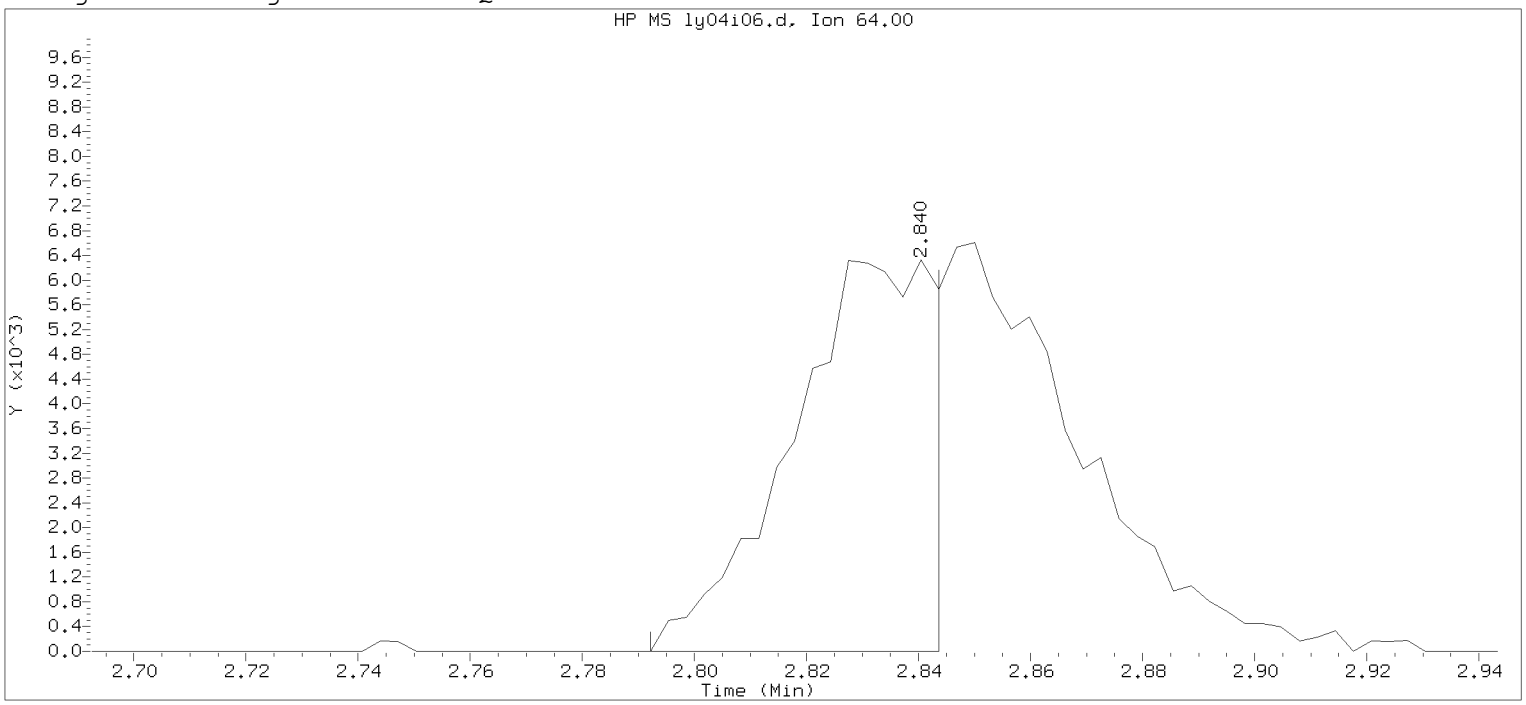
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 10831
On-column Amount (ng) : 2.8757
Integration start scan : 406 Integration stop scan: 422
Y at integration start : 0 Y at integration end: 0

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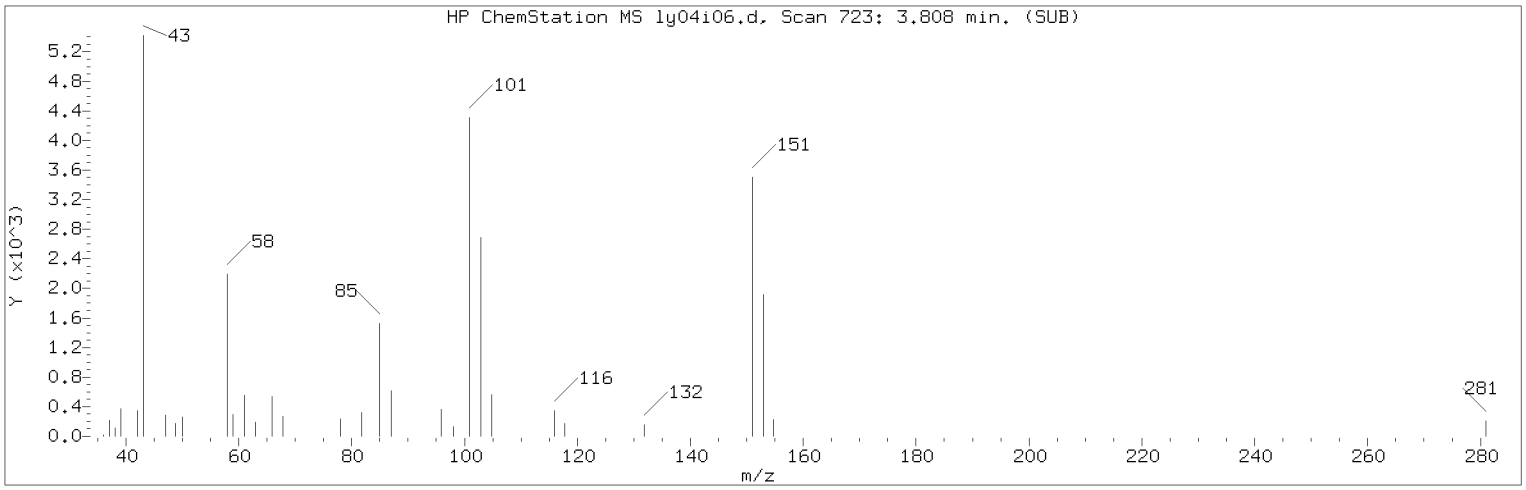
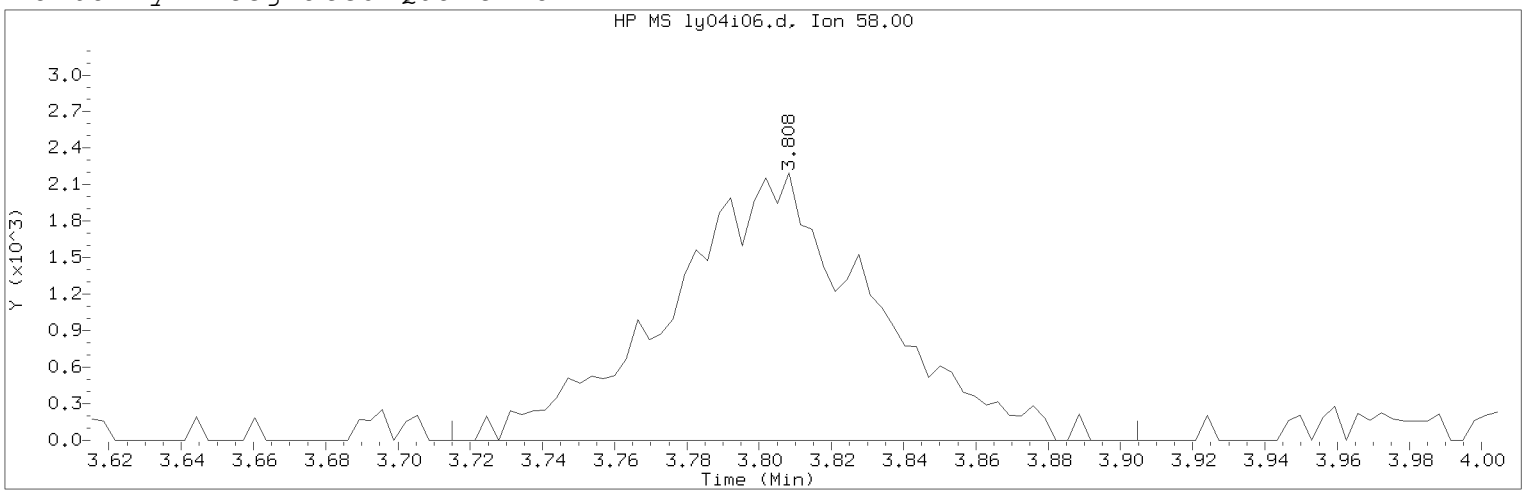
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

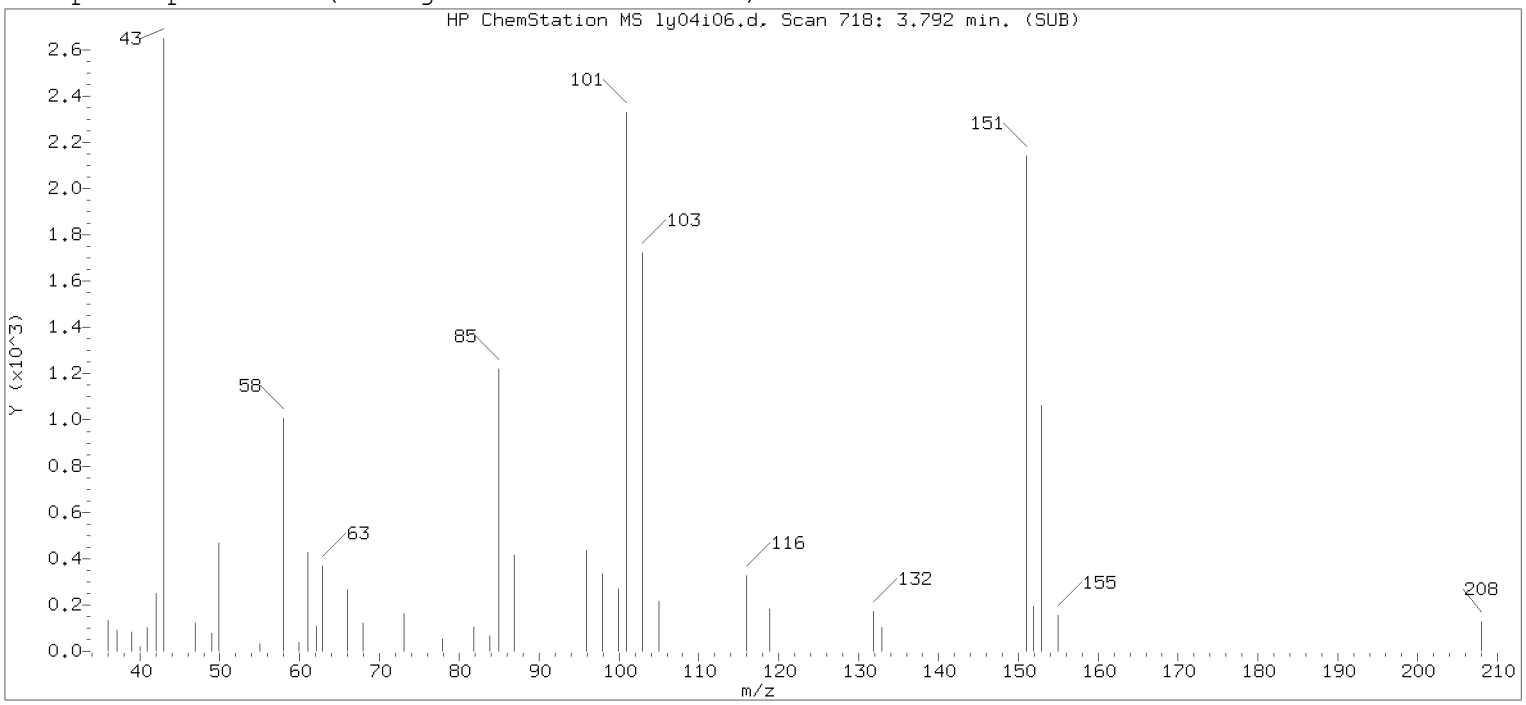
Compound Number : 18
Compound Name : Acetone
Scan Number : 723
Retention Time (minutes): 3.808
Quant Ion : 58.00
Area (flag) : 8567M
On-Column Amount (ng) : 7.9882
Integration start scan : 693 Integration stop scan: 752
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

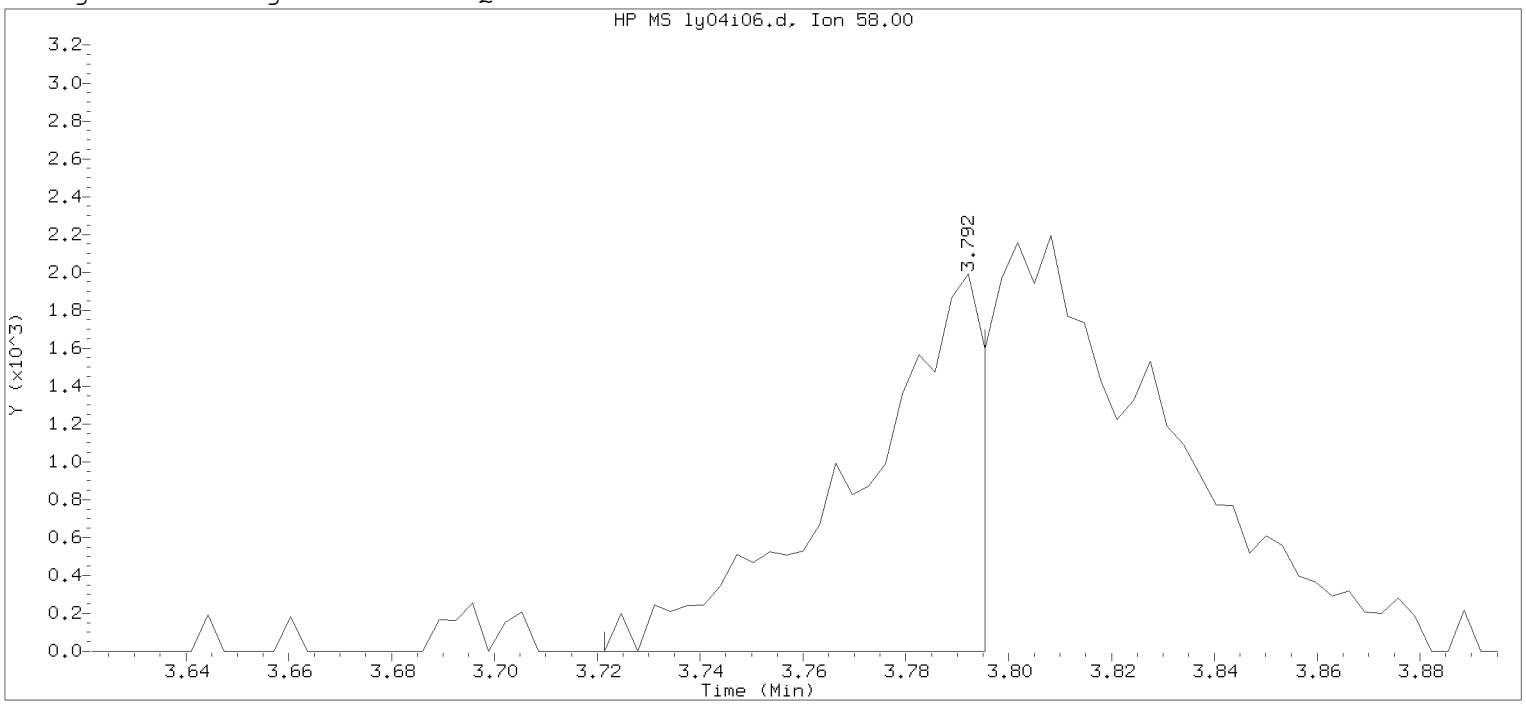
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 18
Compound Name : Acetone
Scan Number : 718
Retention Time (minutes): 3.792
Quant Ion : 58.00
Area : 3364
On-column Amount (ng) : 3.7739
Integration start scan : 695 Integration stop scan: 718
Y at integration start : 0 Y at integration end: 0

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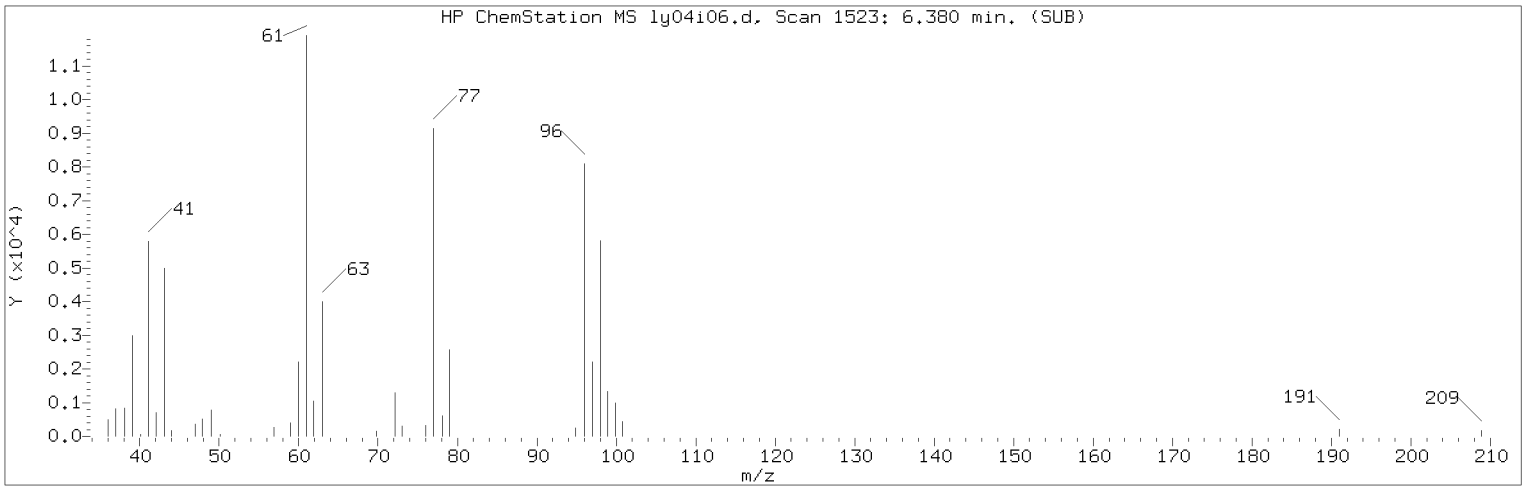
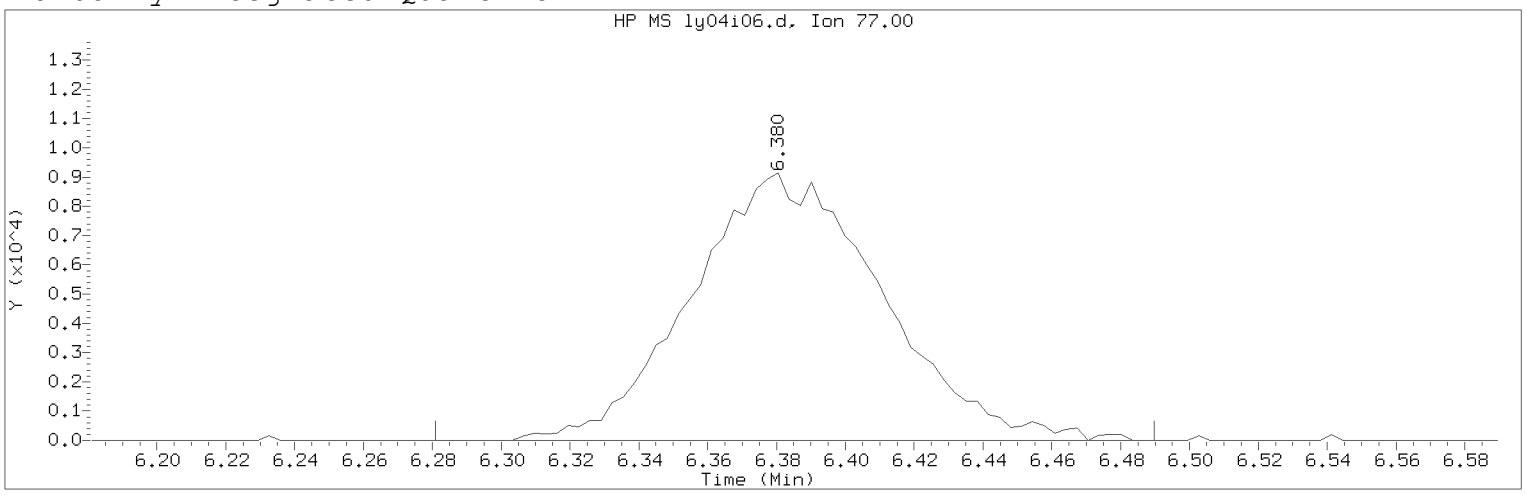
Target 3.5 esignature user ID: sejo0086

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

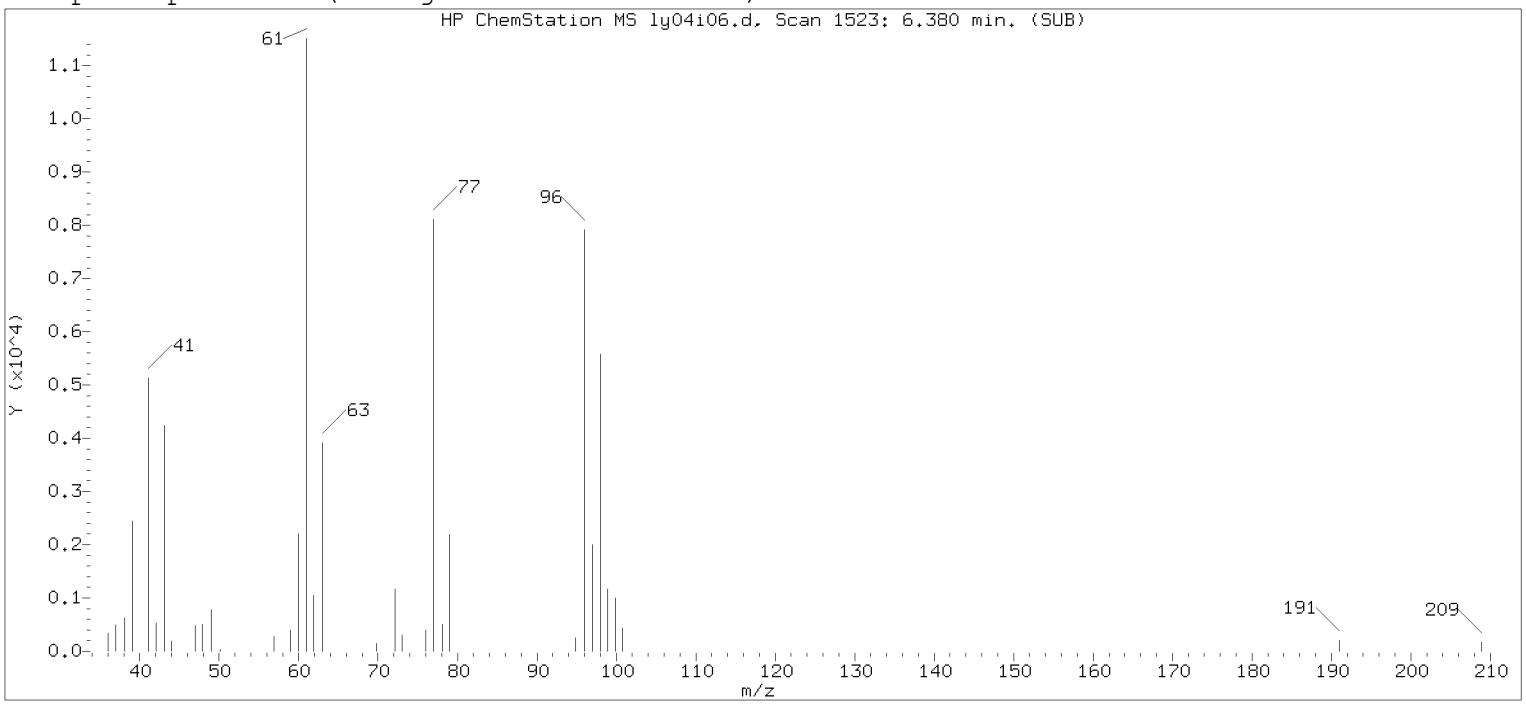
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area (flag) : 35169M
On-Column Amount (ng) : 4.0326
Integration start scan : 1491 Integration stop scan: 1556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

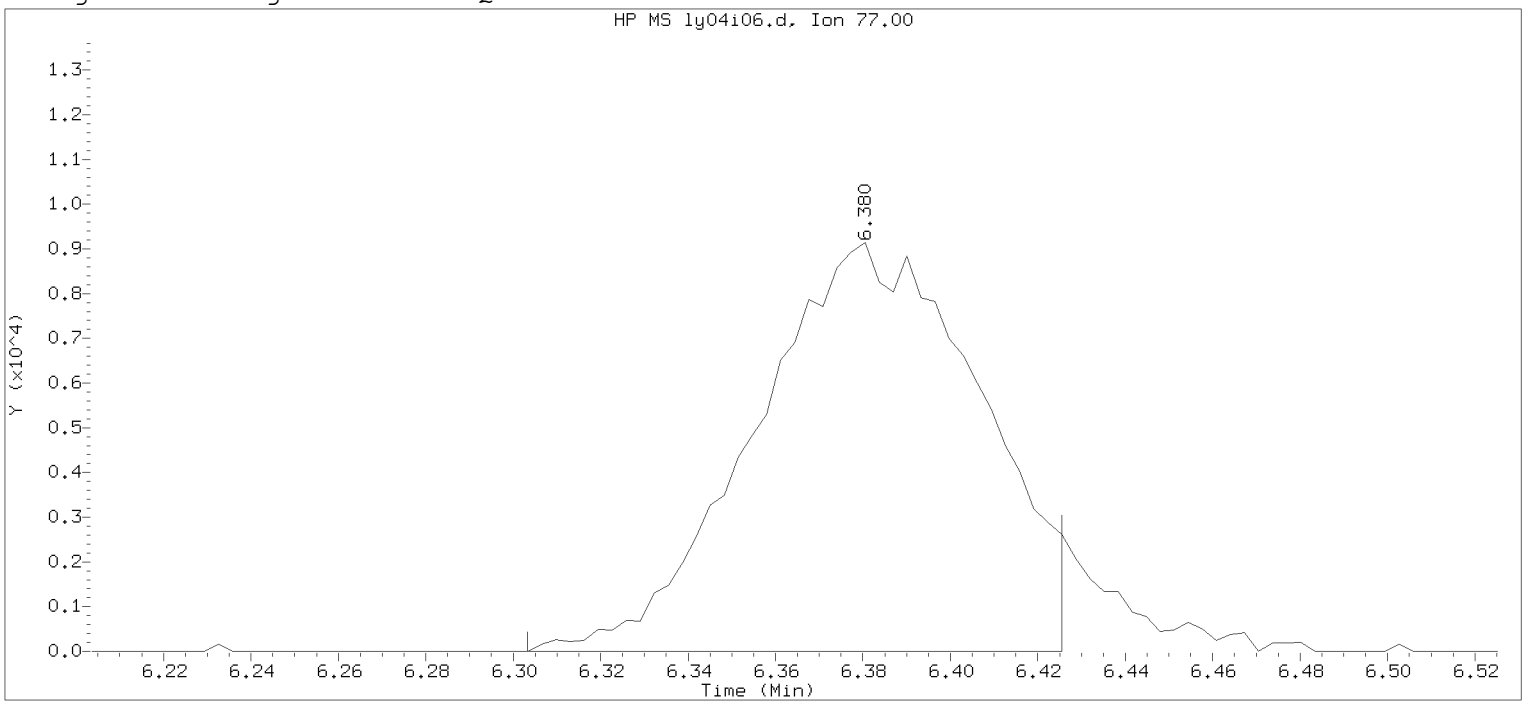
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

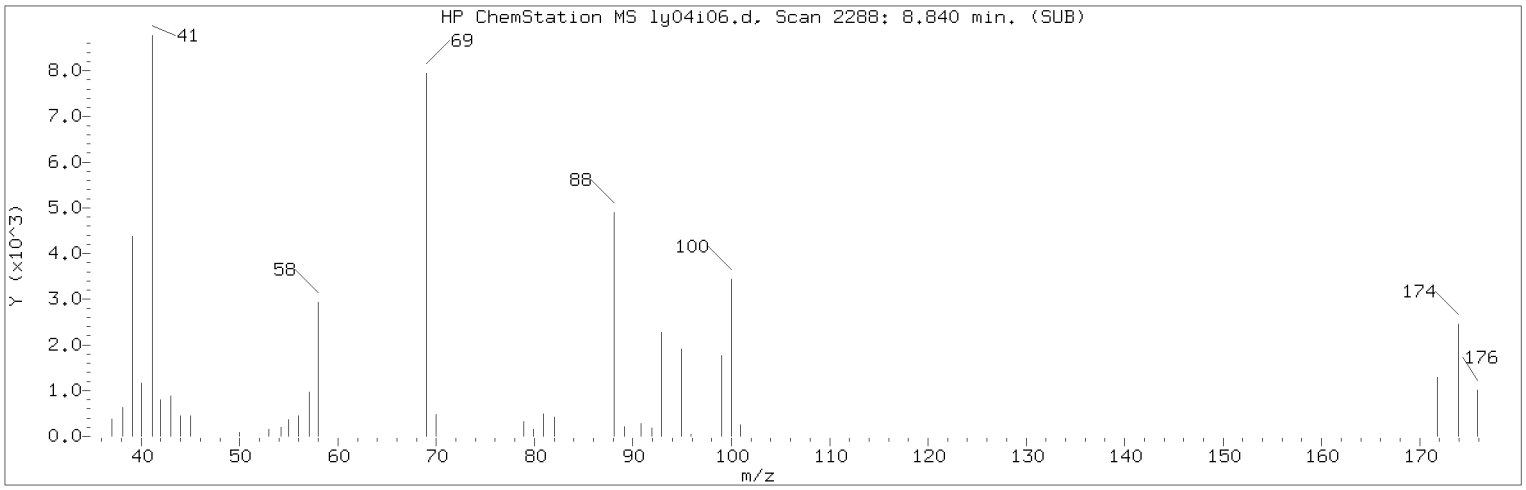
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

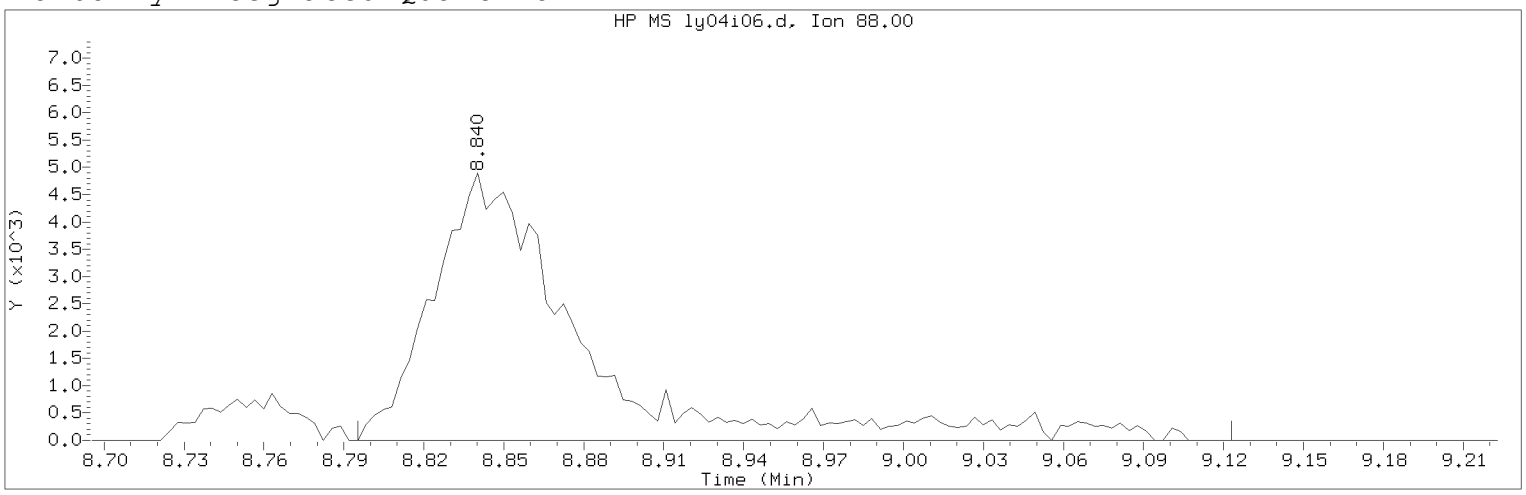
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area : 32659
On-column Amount (ng) : 3.7028
Integration start scan : 1498 Integration stop scan: 1536
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

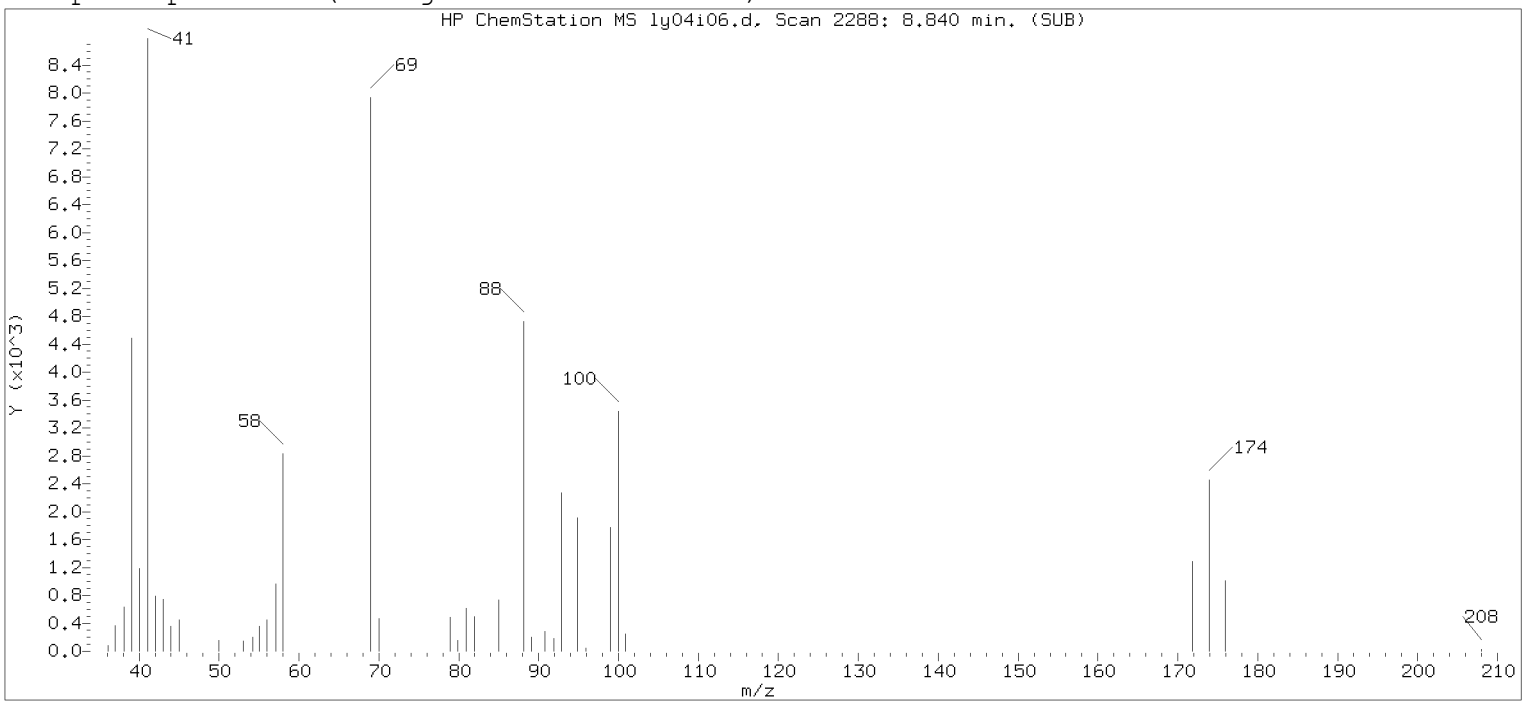
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 19114M
On-Column Amount (ng) : 199.2380
Integration start scan : 2273 Integration stop scan: 2375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

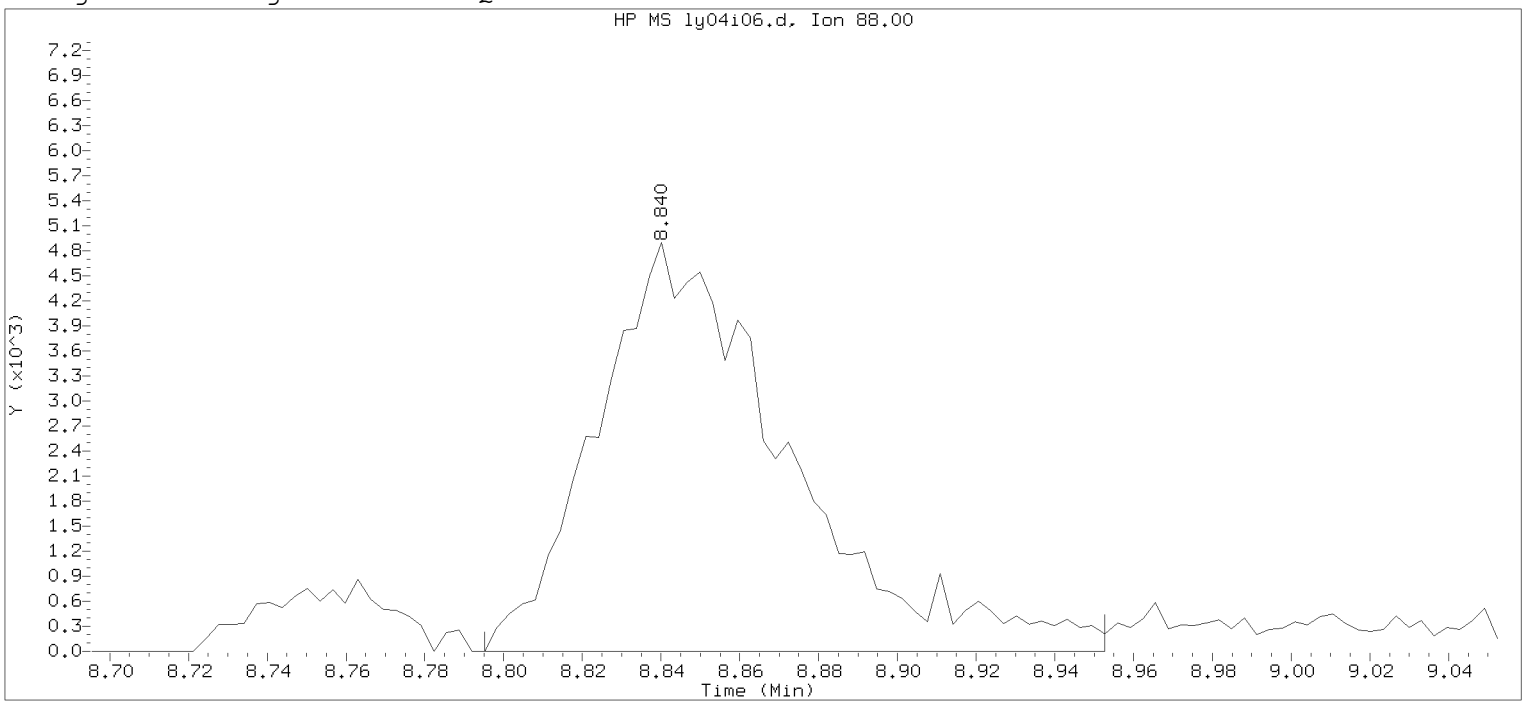
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

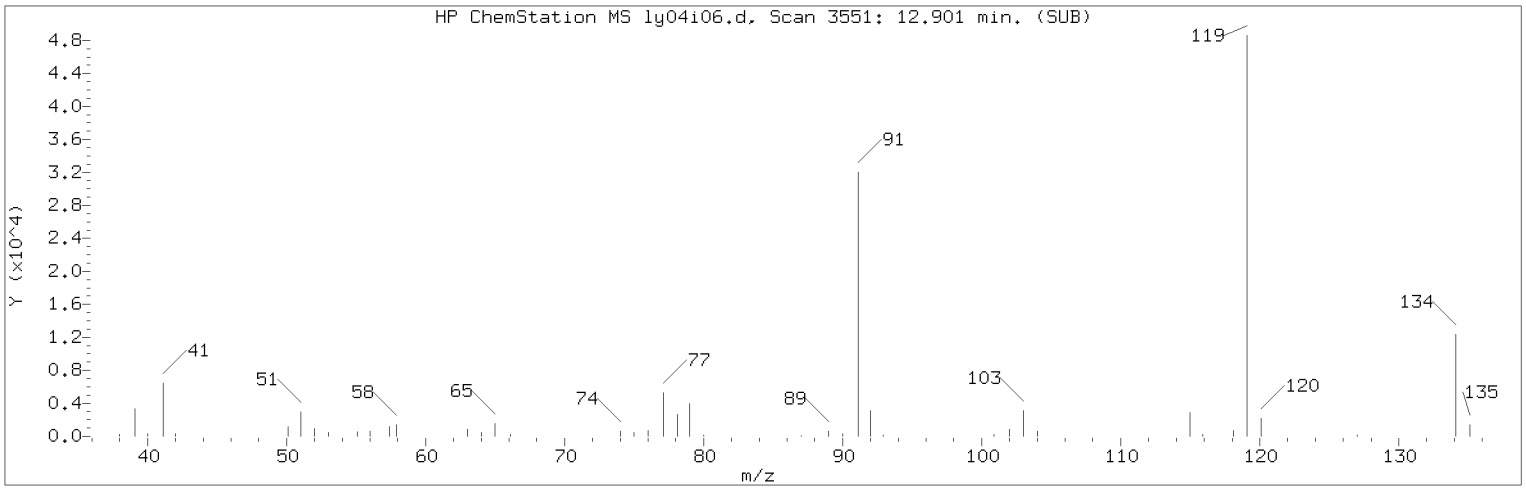
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

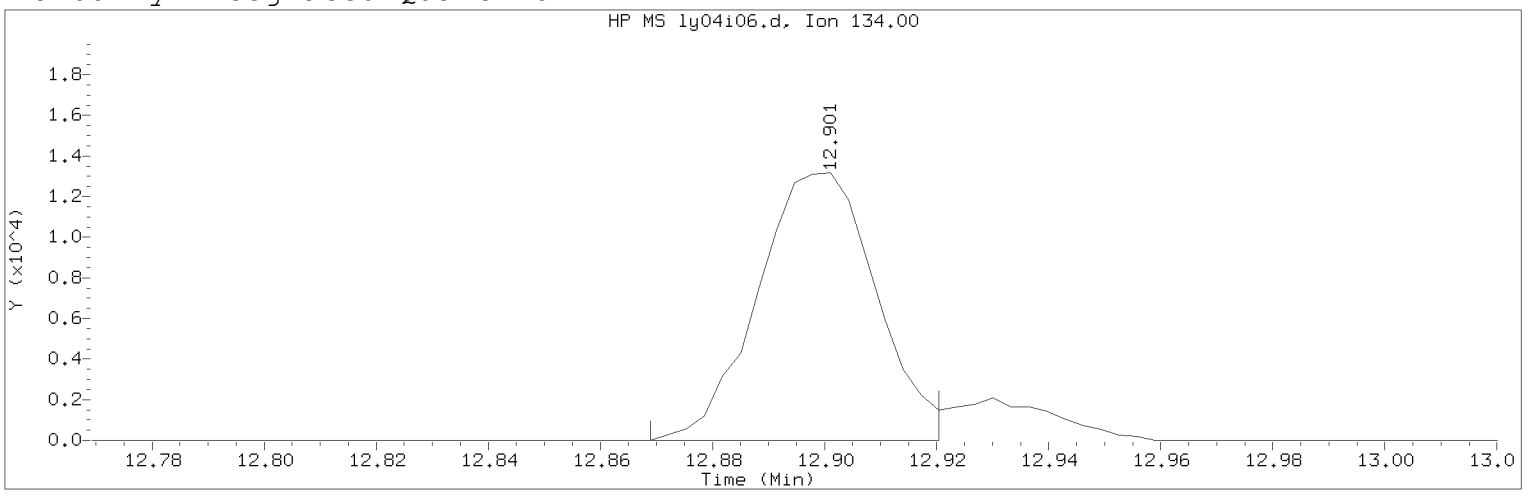
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area : 16526
On-column Amount (ng) : 173.4864
Integration start scan : 2273 Integration stop scan: 2322
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0092

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

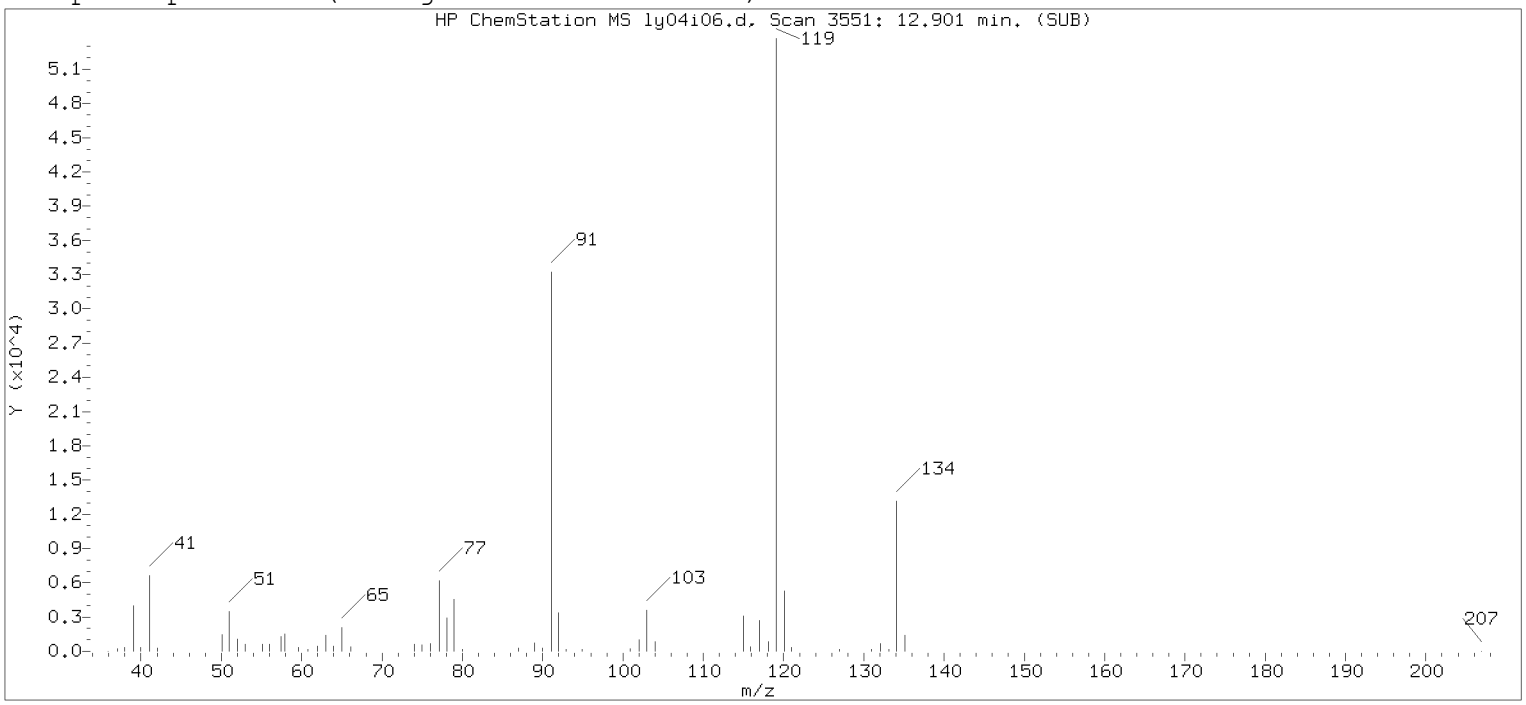
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 19337M
On-Column Amount (ng) : 3.4417
Integration start scan : 3540 Integration stop scan: 3556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

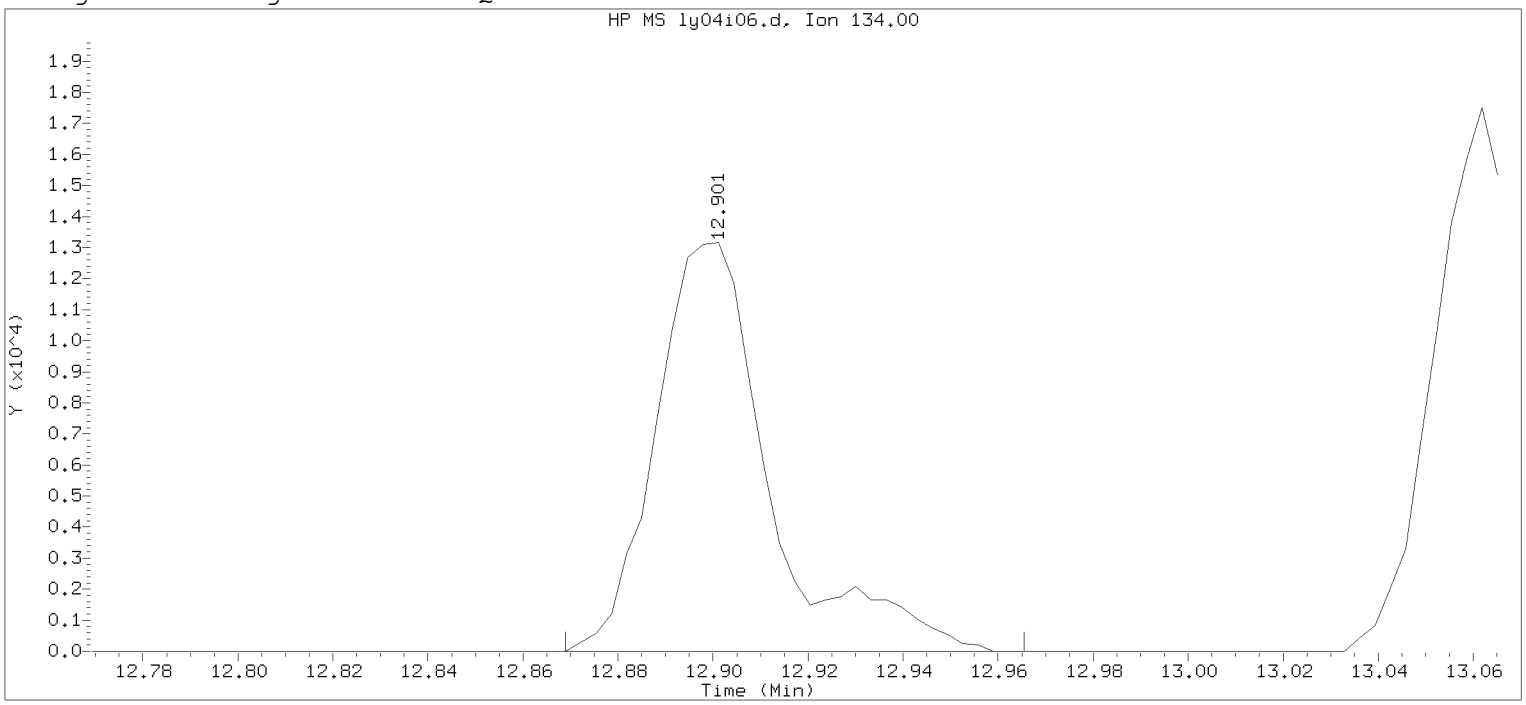
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 21846
On-column Amount (ng) : 3.6346
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

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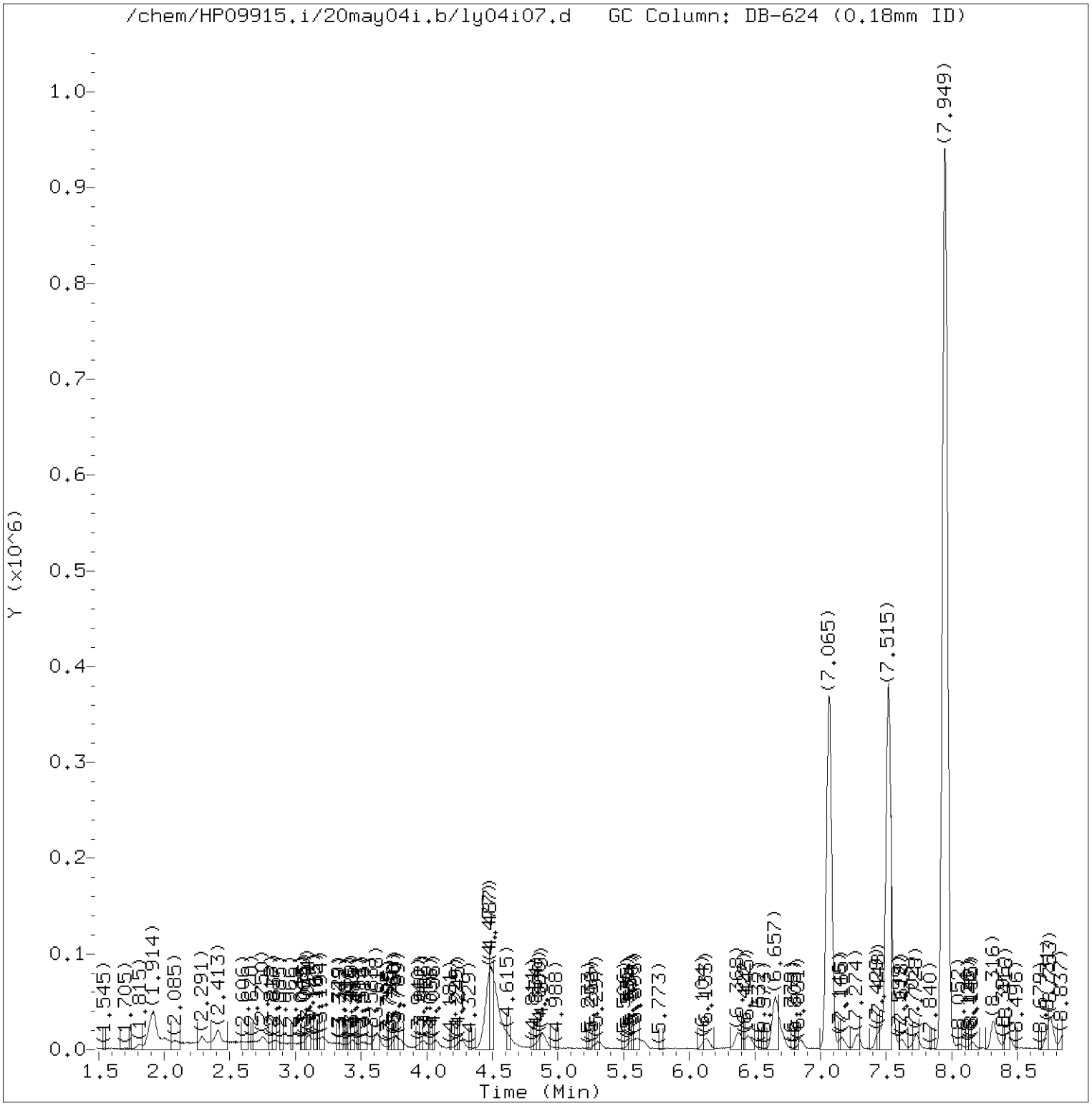
Target 3.5 esignature user: JCW57 Page: 592



Total Ion Chromatogram (TIC)

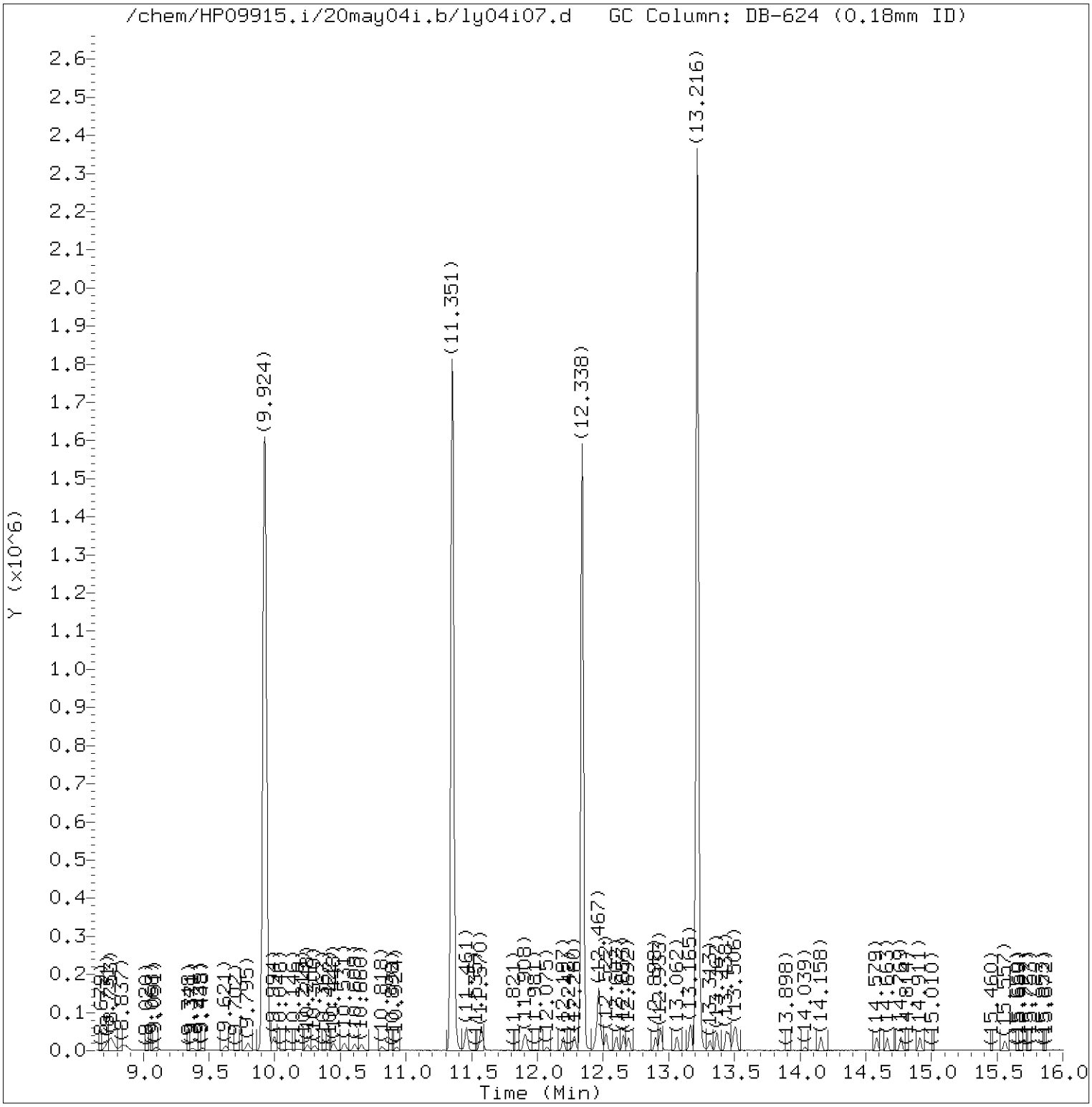
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.085	85	8023	0.896
4) Chloromethane	(2)	2.291	50	9098	1.088
5) 1,3-Butadiene	(2)	2.406	39	5686M	1.060
6) Vinyl Chloride	(2)	2.416	62	8737	1.083
8) Bromomethane	(2)	2.747	94	6838	1.176
9) Chloroethane	(2)	2.840	64	5438M	1.207
10) Dichlorofluoromethane	(2)	3.094	67	10216	1.051
12) Trichlorofluoromethane	(2)	3.168	101	8417	0.955
11) n-Pentane	(2)	3.210	43	7608M	0.920
14) Ethyl ether	(2)	3.432	59	5446	0.875
15) Freon 123a	(2)	3.516	67	6261	0.877
16) Acrolein	(1)	3.615	56	23166	9.566
17) 1,1-Dichloroethene	(2)	3.757	96	5549	0.987
17) 1,1-Dichloroethene	(2)	3.770	63	2205	0.824
19) Freon 113	(2)	3.799	101	4898	0.840
18) Acetone	(1)	3.821	58	2764M	2.502
22) Methyl Iodide	(2)	3.969	142	9677	0.894
21) 2-Propanol	(1)	3.985	45	14938M	21.218
23) Carbon Disulfide	(2)	4.062	76	16435M	0.869
27) Methyl Acetate	(2)	4.252	43	7412M	1.034
25) Allyl Chloride	(2)	4.271	41	8163	0.896
28) Methylene Chloride	(2)	4.471	84	6287	0.940
29)*t-Butyl alcohol-d10	(1)	4.487	65	294363	250.000
30) t-Butyl alcohol	(1)	4.615	59	23172	19.499
31) Acrylonitrile	(2)	4.834	53	3837	0.966
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	18019	0.935
32) trans-1,2-Dichloroethene	(2)	4.888	96	6111M	0.945
34) n-Hexane	(2)	5.310	57	6497M	0.718
36) 1,1-Dichloroethane	(2)	5.548	63	10230	0.902
38) di-Isopropyl ether	(2)	5.596	45	16324	0.819
39) 2-Chloro-1,3-butadiene	(2)	5.663	53	6540	0.723
40) Ethyl t-butyl ether	(2)	6.130	59	15230	0.822
43) 1,2-Dichloroethene (Total)	(2)		96	12826	1.871
44) 2-Butanone	(2)	6.358	43	9091	1.886
42) cis-1,2-Dichloroethene	(2)	6.377	96	6715	0.926
45) 2,2-Dichloropropane	(2)	6.390	77	7531M	0.859
47) Propionitrile	(1)	6.448	54	29925	18.639
48) Methacrylonitrile	(2)	6.657	67	34606	8.694

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.692	128	3311	0.885
50) Tetrahydrofuran	(1)	6.718	71	2576	1.834
51) Chloroform	(2)	6.856	83	10313	0.931
52)$Dibromofluoromethane	(2)	7.065	113	327107	49.723
52)$Dibromofluoromethane	(2)	7.065	111	334312	49.713
53) 1,1,1-Trichloroethane	(2)	7.075	97	8371	0.881
54) Cyclohexane	(2)	7.165	56	7115	0.669
54) Cyclohexane	(2)	7.165	84	6850	0.738
54) Cyclohexane	(2)	7.165	69	2378	0.719
56) Carbon Tetrachloride	(2)	7.281	117	6219	0.781
55) 1,1-Dichloropropene	(2)	7.287	75	6955M	0.798
58) Isobutyl Alcohol	(1)	7.448	41	19195	47.613
57)$1,2-Dichloroethane-d4	(2)	7.515	102	83472	50.005
57)$1,2-Dichloroethane-d4	(2)	7.519	65	369677	49.891
57)$1,2-Dichloroethane-d4	(2)	7.522	104	53704	50.523
60) Benzene	(2)	7.548	78	24385	0.904
61) 1,2-Dichloroethane	(2)	7.618	62	9508M	1.052
61) 1,2-Dichloroethane	(2)	7.615	98	734	0.833
65) t-Amyl methyl ether	(2)	7.734	73	16322	0.862
67) n-Heptane	(2)	7.946	43	7624	0.810
66)*Fluorobenzene	(2)	7.949	96	1305845	50.000
69) n-Butanol	(1)	8.313	56	25742	78.312
71) Trichloroethene	(2)	8.425	95	6044	0.886
72) Methylcyclohexane	(2)	8.731	83	7534	0.679
72) Methylcyclohexane	(2)	8.731	98	3392	0.676
73) 1,2-Dichloropropane	(2)	8.757	63	6479	0.932
76) Methyl Methacrylate	(2)	8.840	69	4771M	0.799
75) 1,4-Dioxane	(1)	8.850	88	4194	42.444
74) Dibromomethane	(2)	8.869	93	4079M	0.898
78) Bromodichloromethane	(2)	9.107	83	6897	0.847
79) 2-Nitropropane	(2)	9.374	41	3881	1.589
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	3089	0.668
81) cis-1,3-Dichloropropene	(2)	9.631	75	8067	0.758
82) 4-Methyl-2-pentanone	(2)	9.795	43	14679	1.504
83)$Toluene-d8	(3)	9.924	98	1320930	49.236
83)$Toluene-d8	(3)	9.924	100	856712	49.205
88) Toluene	(3)	9.991	92	14924	0.873
90) 1,3-Dichloropropene (total)	(3)		100	15946	1.561

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	7879	0.803
91) Ethyl Methacrylate	(3)	10.306	69	6707	0.679
92) 1,1,2-Trichloroethane	(3)	10.448	97	6228	0.939
93) Tetrachloroethene	(3)	10.531	166	5688	0.781
94) 1,3-Dichloropropane	(3)	10.609	76	10007	0.902
96) 2-Hexanone	(3)	10.657	43	10381	1.448
97) Dibromochloromethane	(3)	10.818	129	5097	0.738
99) 1,2-Dibromoethane	(3)	10.924	107	5964	0.836
100)*Chlorobenzene-d5	(3)	11.351	117	1044326	50.000
101) 1-Chlorohexane	(3)	11.354	91	8043	0.919
102) Chlorobenzene	(3)	11.377	112	17474	0.890
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	5490	0.825
104) Ethylbenzene	(3)	11.461	91	25022	0.791
106) m+p-Xylene	(3)	11.573	106	18632	1.498
108) Xylene (Total)	(3)		106	27231	2.213
107) o-Xylene	(3)	11.898	106	8599	0.715
109) Styrene	(3)	11.917	104	12566	0.642
110) Bromoform	(3)	12.075	173	3758	0.748
111) Isopropylbenzene	(3)	12.197	105	19546	0.640
112) Cyclohexanone	(1)	12.280	55	15170M	41.244
114)$4-Bromofluorobenzene	(3)	12.338	95	512453	49.643
114)$4-Bromofluorobenzene	(3)	12.342	174	441400	49.875
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	10218	0.935
115) Bromobenzene	(4)	12.457	156	7896	0.900
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	26358	8.293
117) 1,2,3-Trichloropropane	(4)	12.493	110	2928	0.877
119) n-Propylbenzene	(4)	12.525	91	29592	0.781
120) 2-Chlorotoluene	(4)	12.599	126	6422	0.793
122) 1,3,5-Trimethylbenzene	(4)	12.653	105	18521	0.676
121) 4-Chlorotoluene	(4)	12.692	126	6754	0.804
124) tert-Butylbenzene	(4)	12.901	134	3961M	0.704
125) Pentachloroethane	(4)	12.933	167	4085	0.817
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	18226	0.644
127) sec-Butylbenzene	(4)	13.062	105	20974	0.629
130) p-Isopropyltoluene	(4)	13.165	119	17502	0.612
129) 1,3-Dichlorobenzene	(4)	13.165	146	14103	0.863
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	599351	50.000
133) 1,4-Dichlorobenzene	(4)	13.235	146	15472	0.902

M = Compound was manually integrated.
* = Compound is an internal standard.
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Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

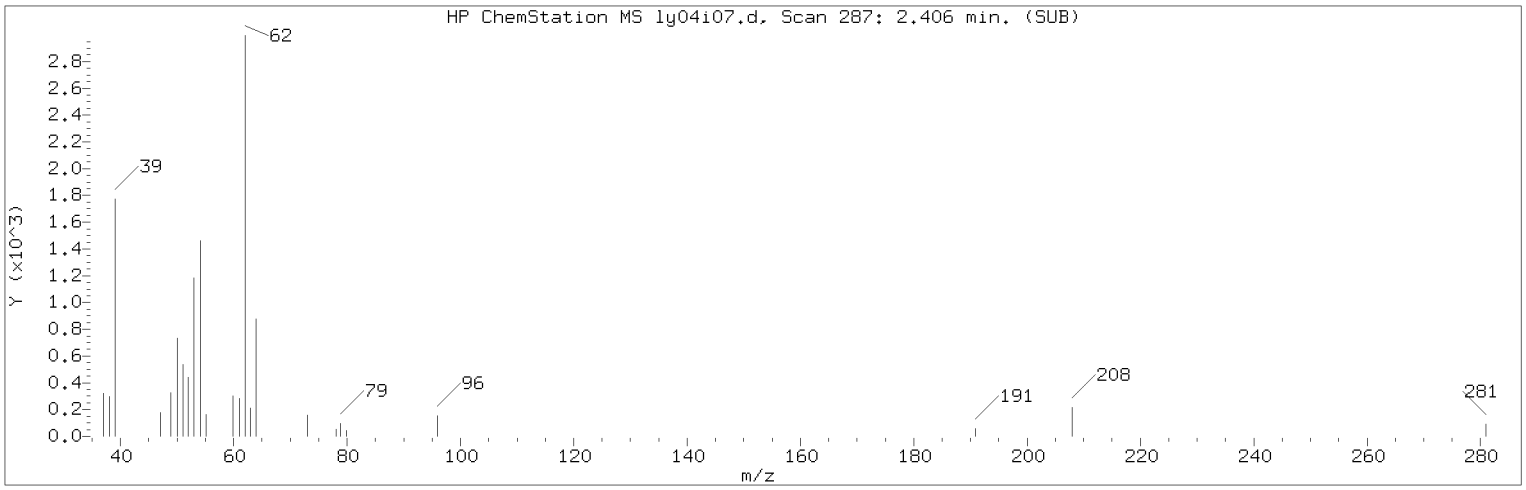
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	24886	0.846
135) Benzyl Chloride	(4)	13.313	91	15879	0.713
136) 1,3-Diethylbenzene	(4)	13.364	119	13894	0.755
141) Diethylbenzene (total)	(4)		100	40181	2.263
137) 1,4-Diethylbenzene	(4)	13.435	119	13946	0.724
139) n-Butylbenzene	(4)	13.457	92	10687	0.728
138) 1,2-Dichlorobenzene	(4)	13.493	146	14584	0.887
140) 1,2-Diethylbenzene	(4)	13.512	119	12341	0.785
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	1978	0.818
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	10914	0.881
146) 1,2,4-Trichlorobenzene	(4)	14.579	180	9813	0.847
147) Hexachlorobutadiene	(4)	14.660	225	5564	1.042
148) Naphthalene	(4)	14.766	128	25497	0.680
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	9815	0.853
150) 2-Methylnaphthalene	(4)	15.557	142	11936M	3.336

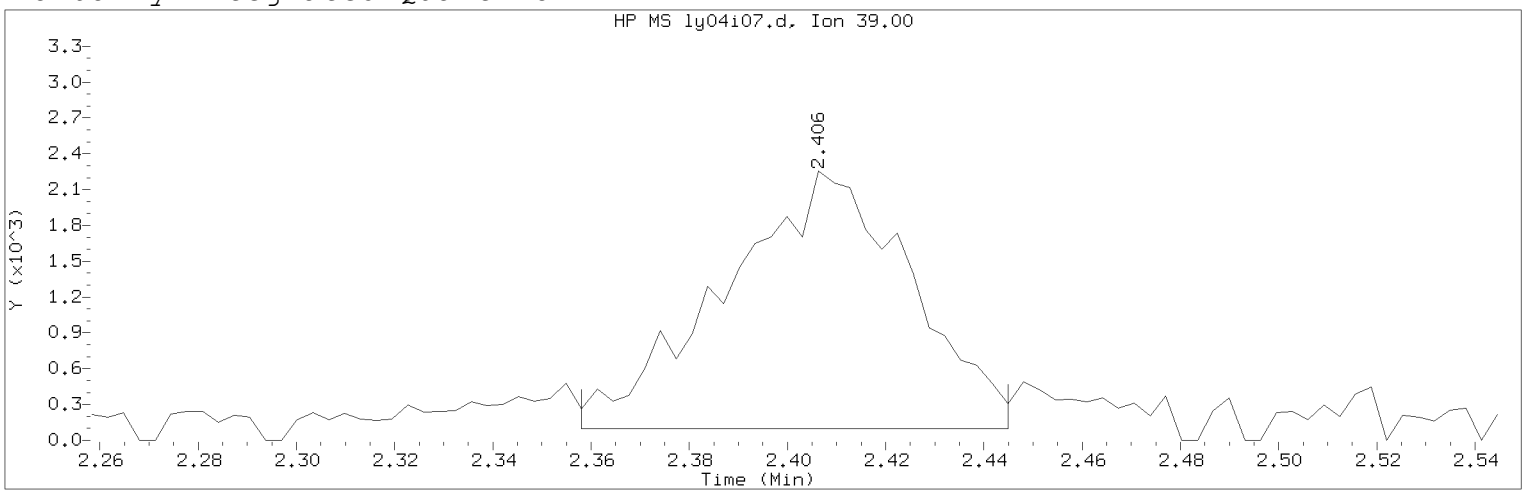
M = Compound was manually integrated.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

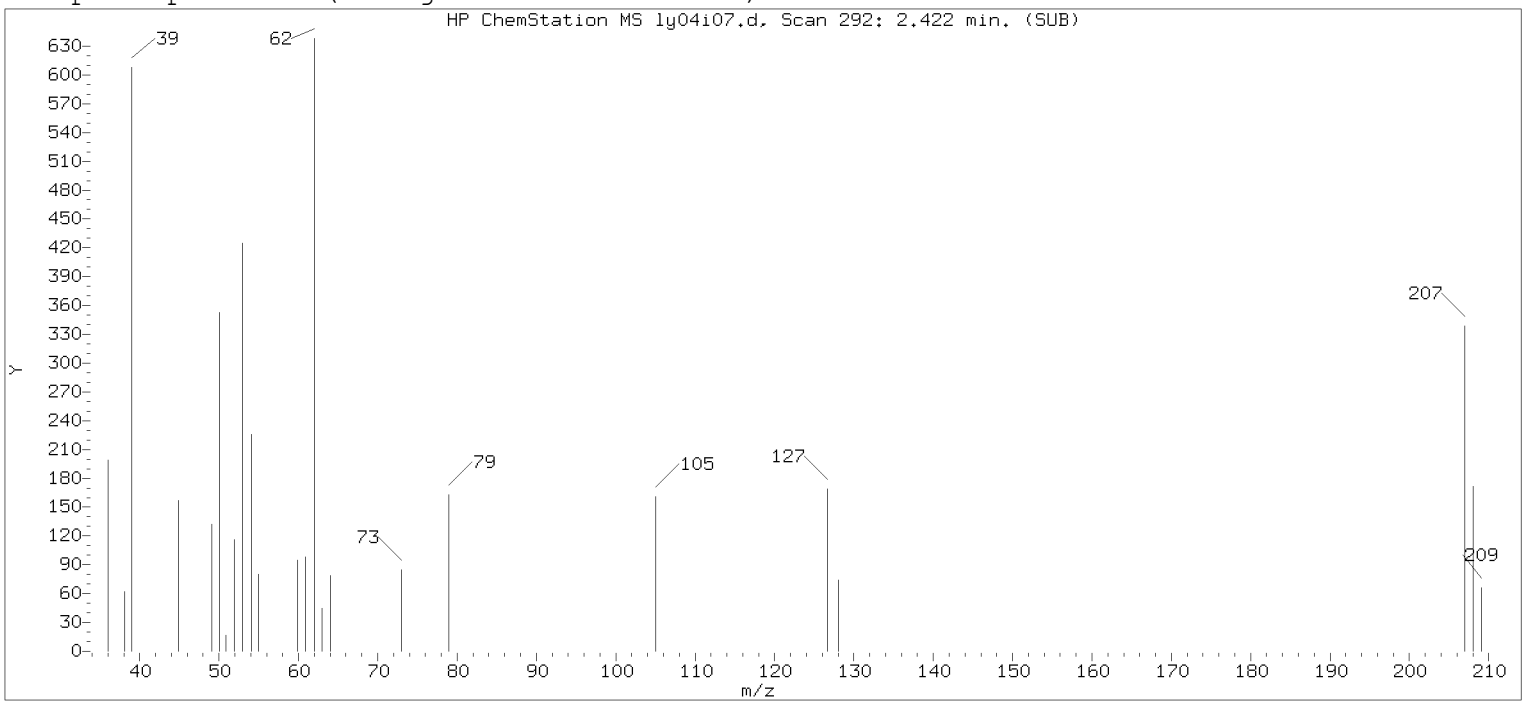
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 287
Retention Time (minutes): 2.406
Quant Ion : 39.00
Area (flag) : 5686M
On-Column Amount (ng) : 1.0601
Integration start scan : 271 Integration stop scan: 298
Y at integration start : 98 Y at integration end: 98

Reason for manual integration: improper integration

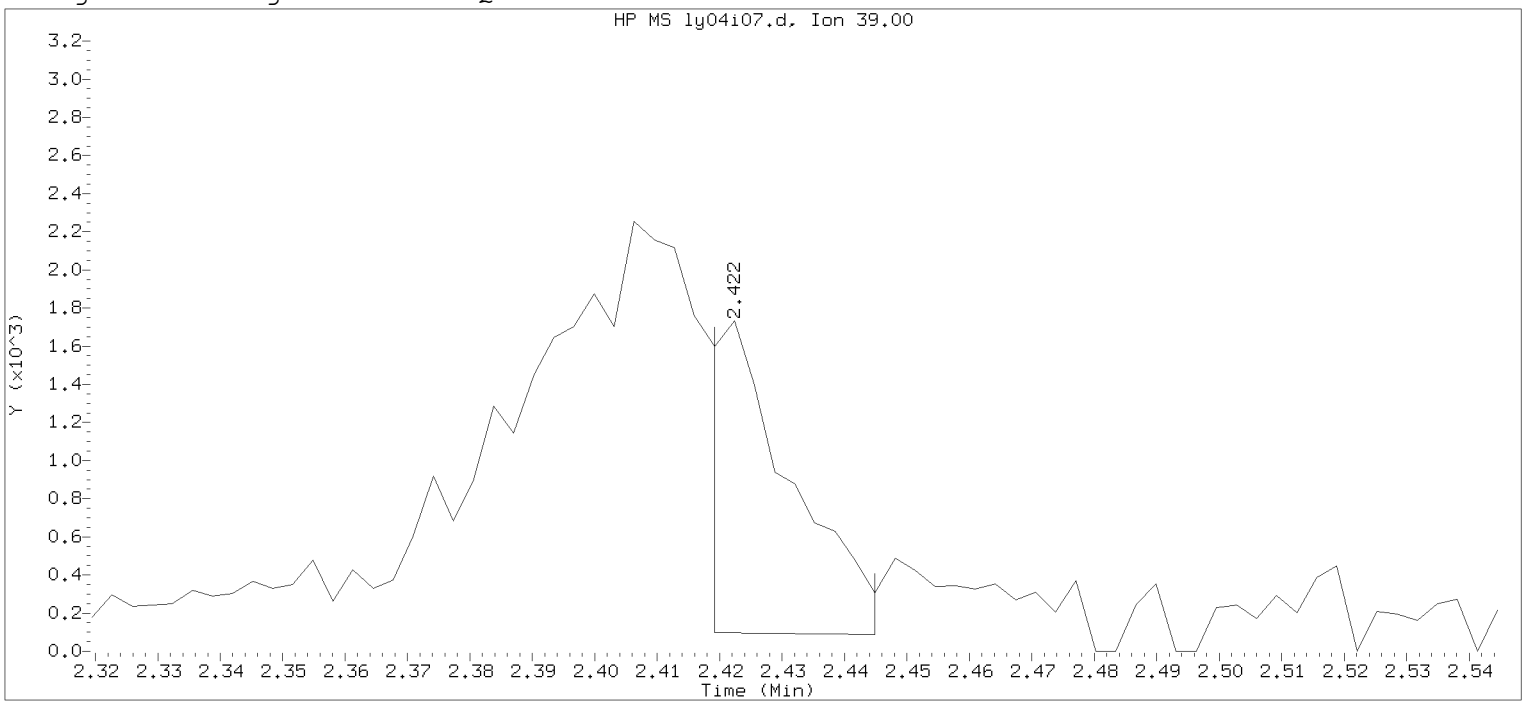
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

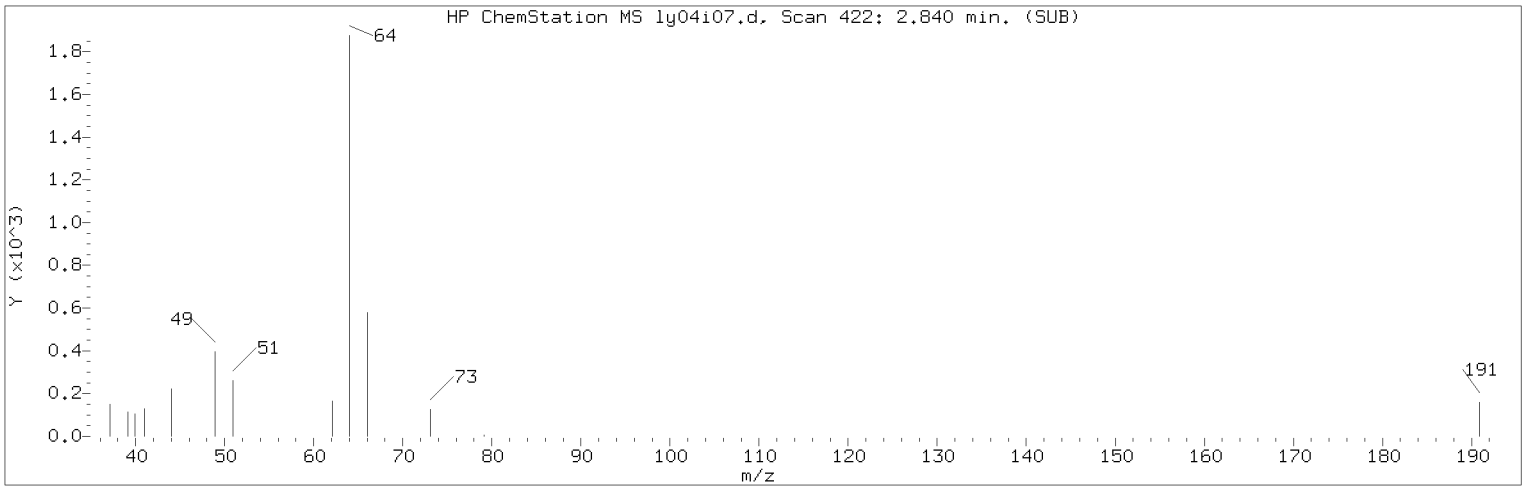
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

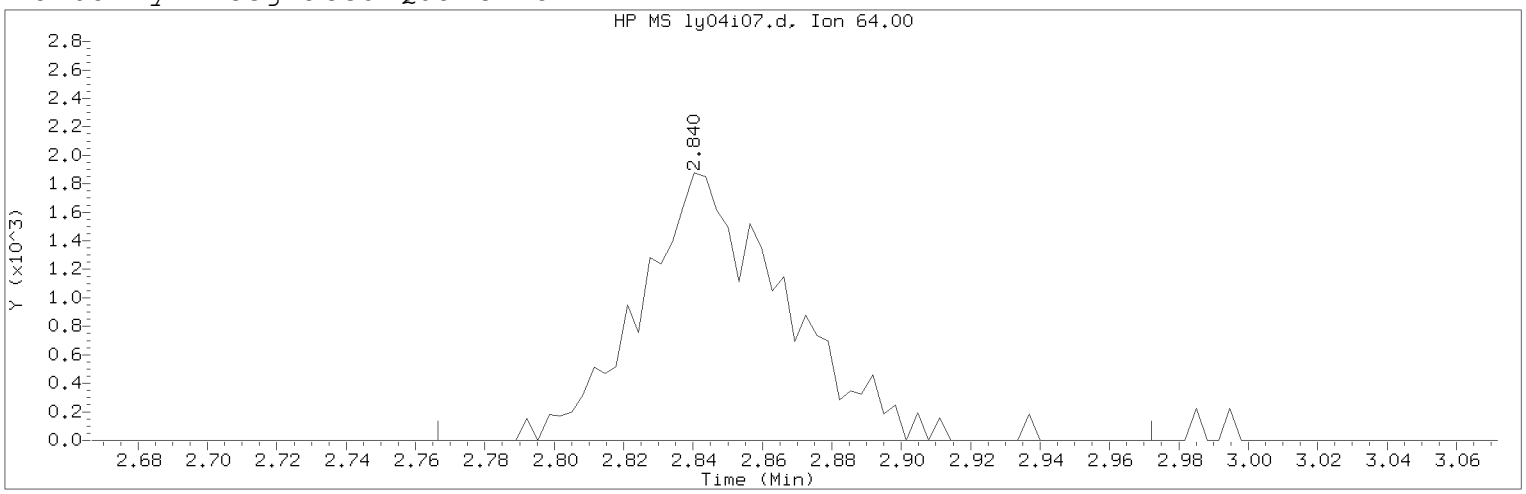
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 292
Retention Time (minutes): 2.422
Quant Ion : 39.00
Area : 1340
On-column Amount (ng) : 0.3017
Integration start scan : 290 Integration stop scan: 298
Y at integration start : 97 Y at integration end: 86

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

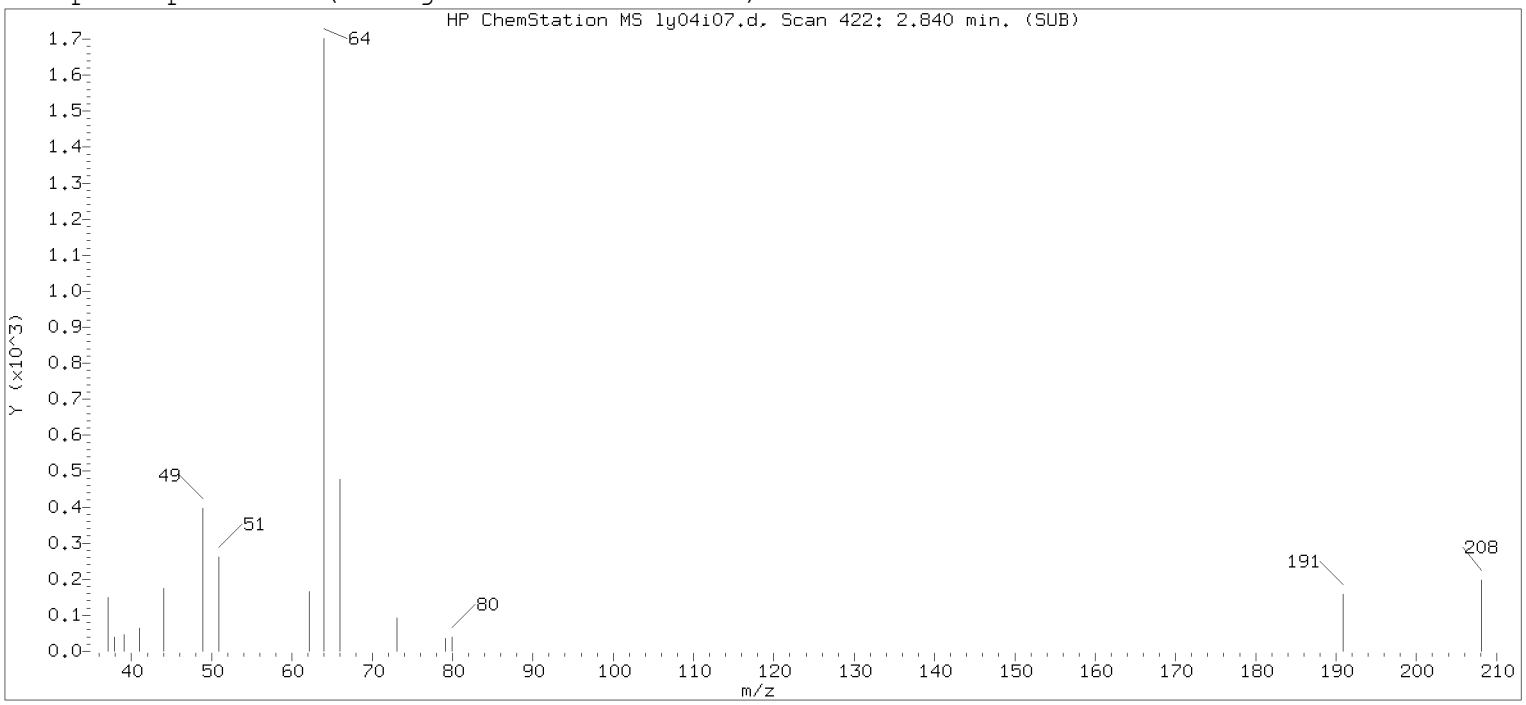
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area (flag) : 5438M
On-Column Amount (ng) : 1.2072
Integration start scan : 398 Integration stop scan: 462
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

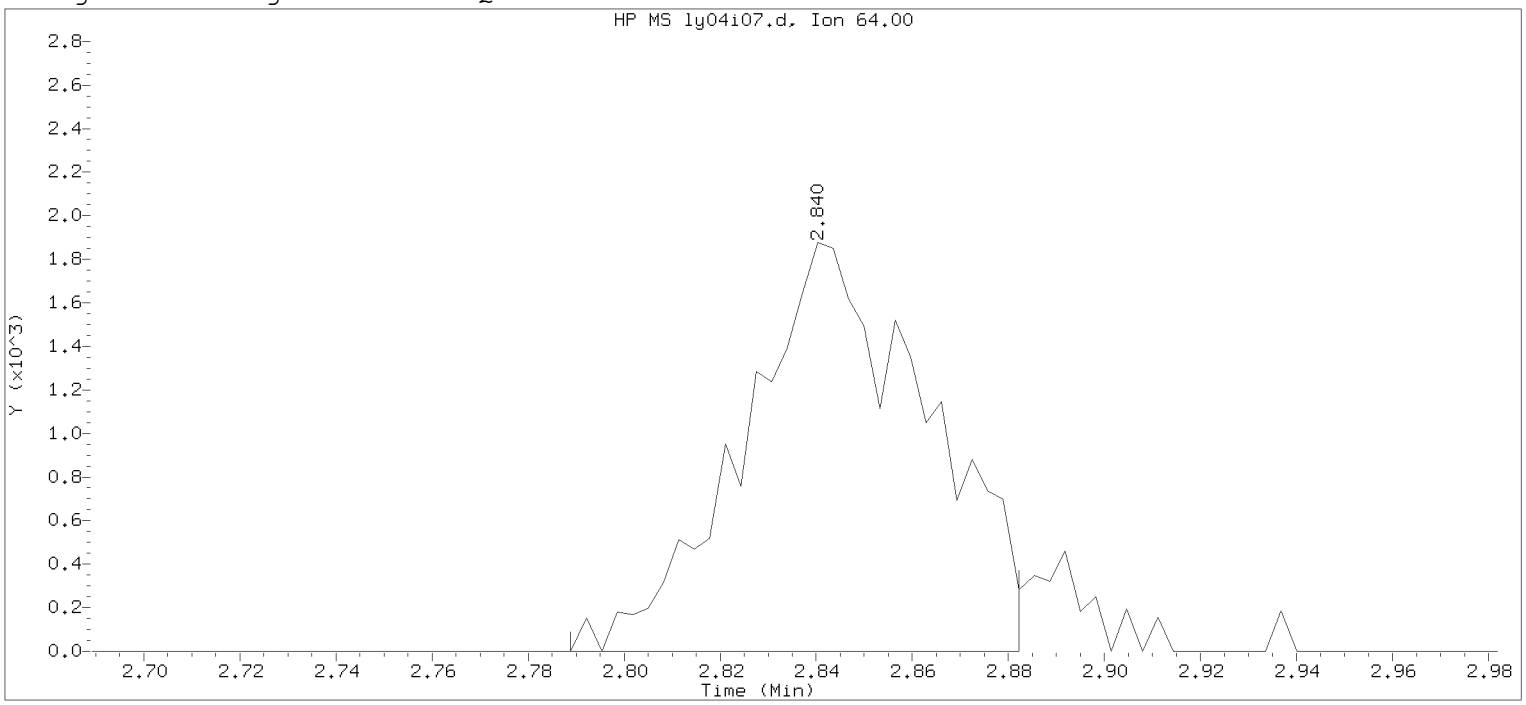
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

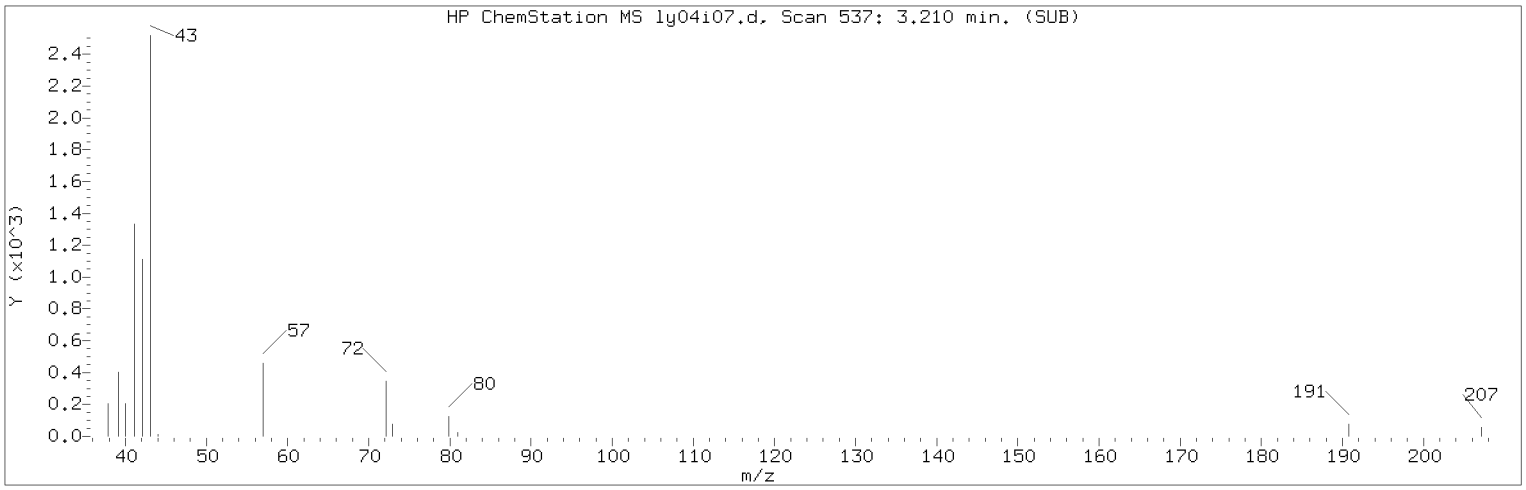
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

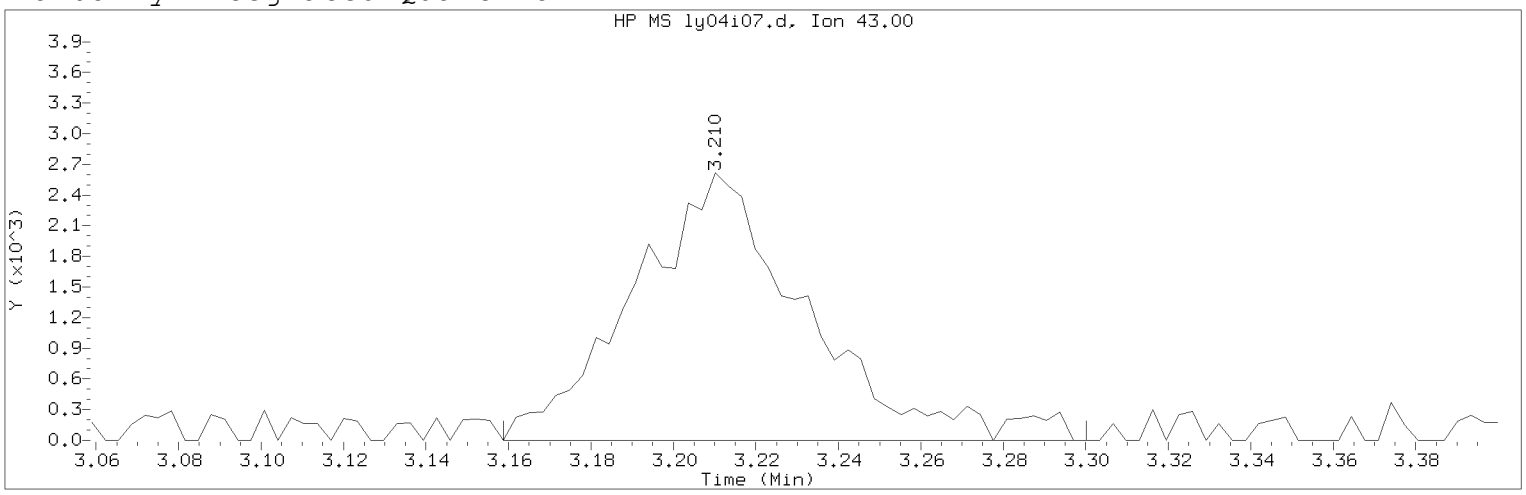
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 5005
On-column Amount (ng) : 1.2551
Integration start scan : 405 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

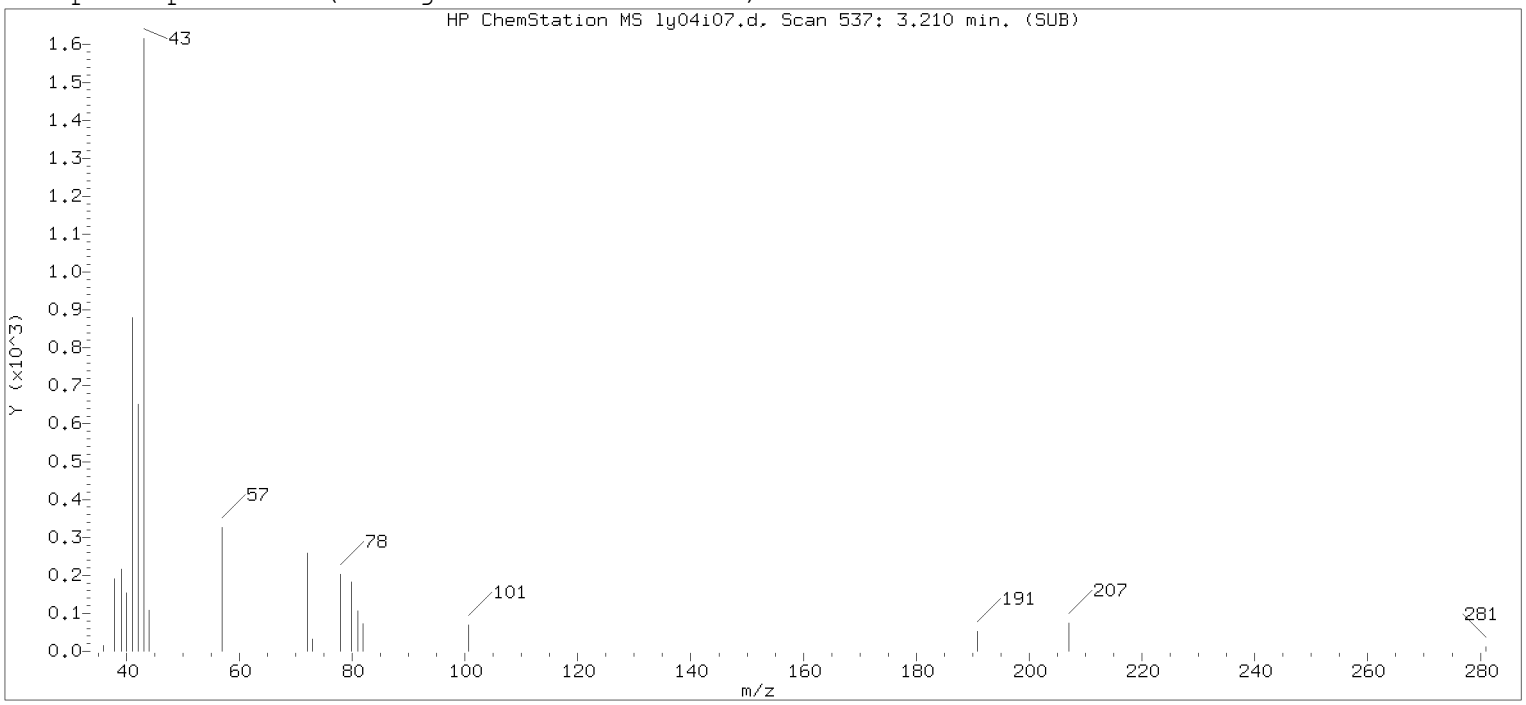
Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area (flag) : 7608M
On-Column Amount (ng) : 0.9196
Integration start scan : 520 Integration stop scan: 564
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

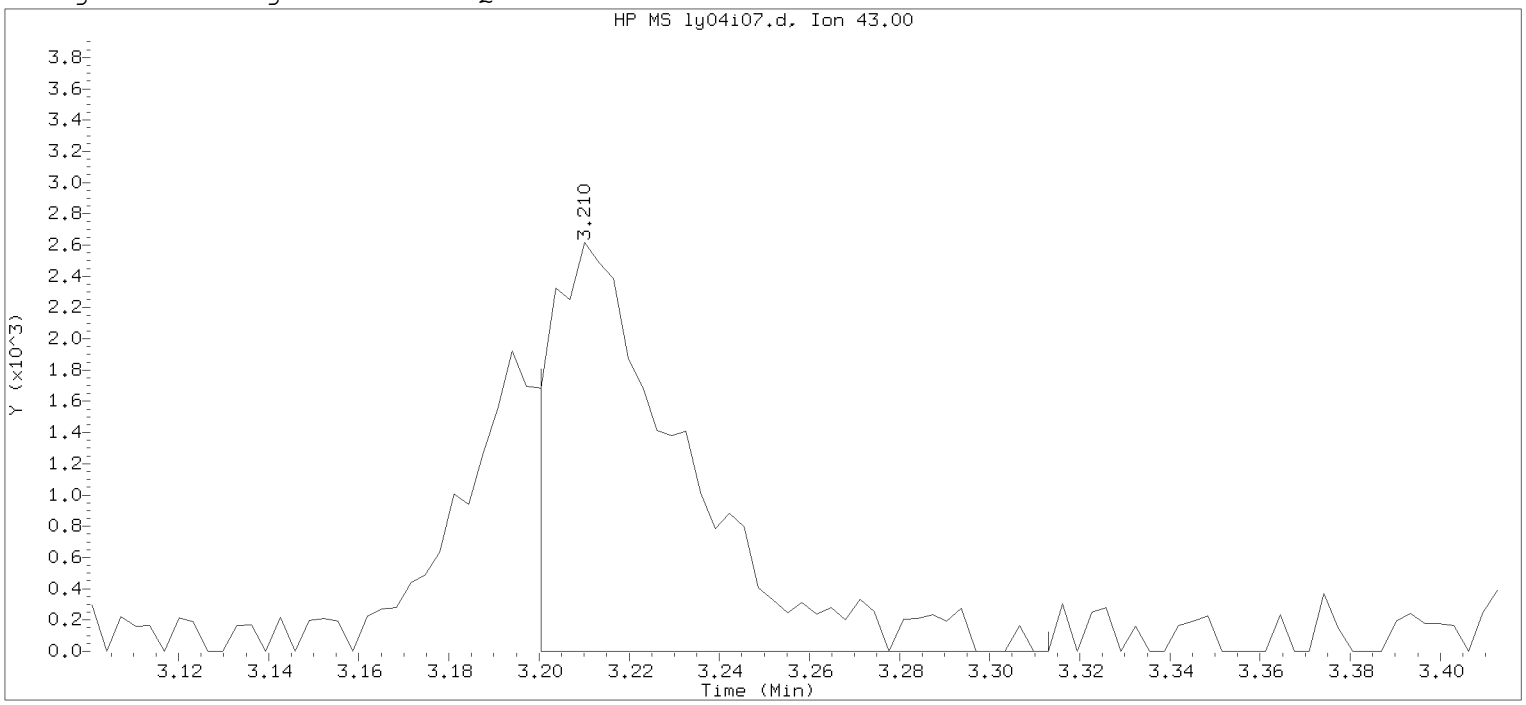
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

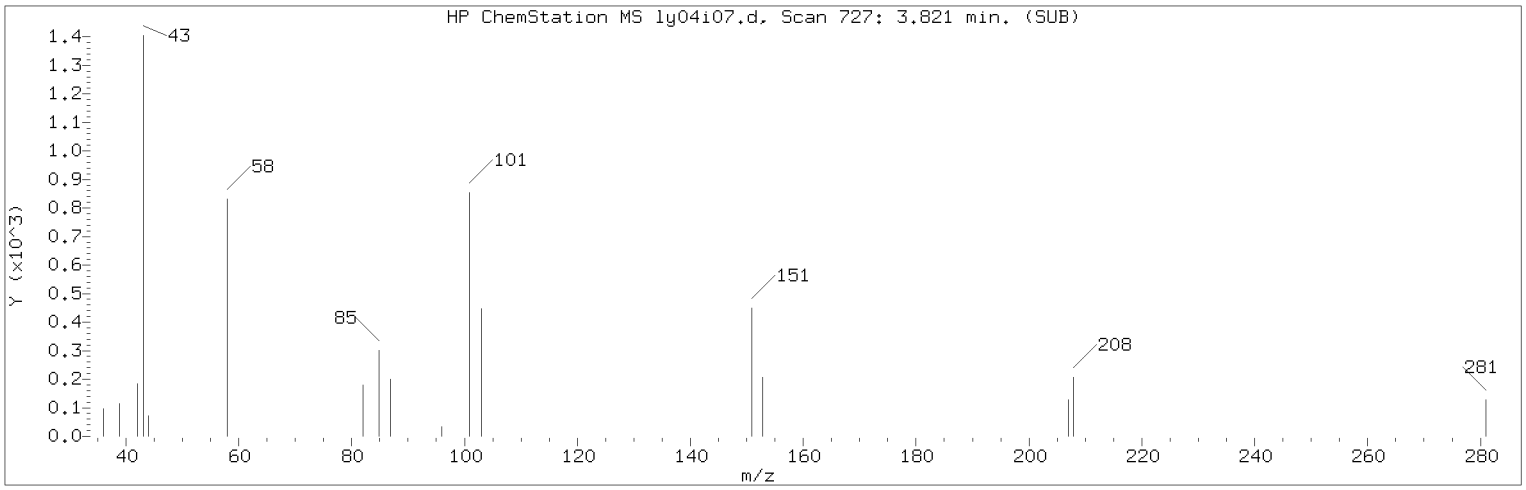
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

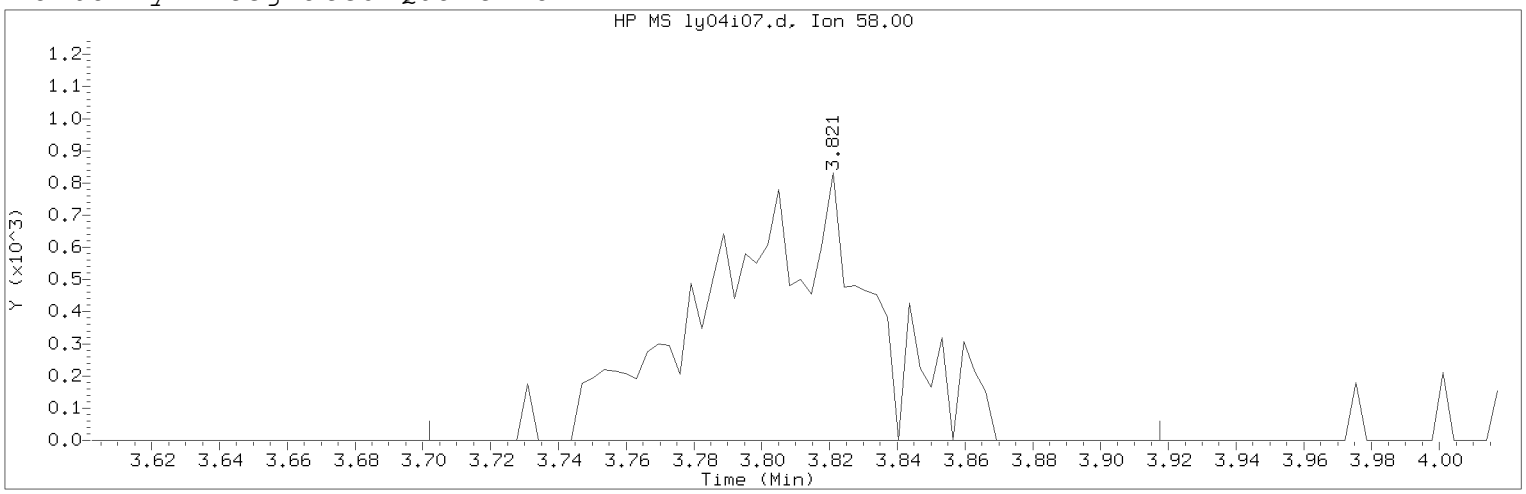
Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area : 5408
On-column Amount (ng) : 0.6709
Integration start scan : 533 Integration stop scan: 568
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

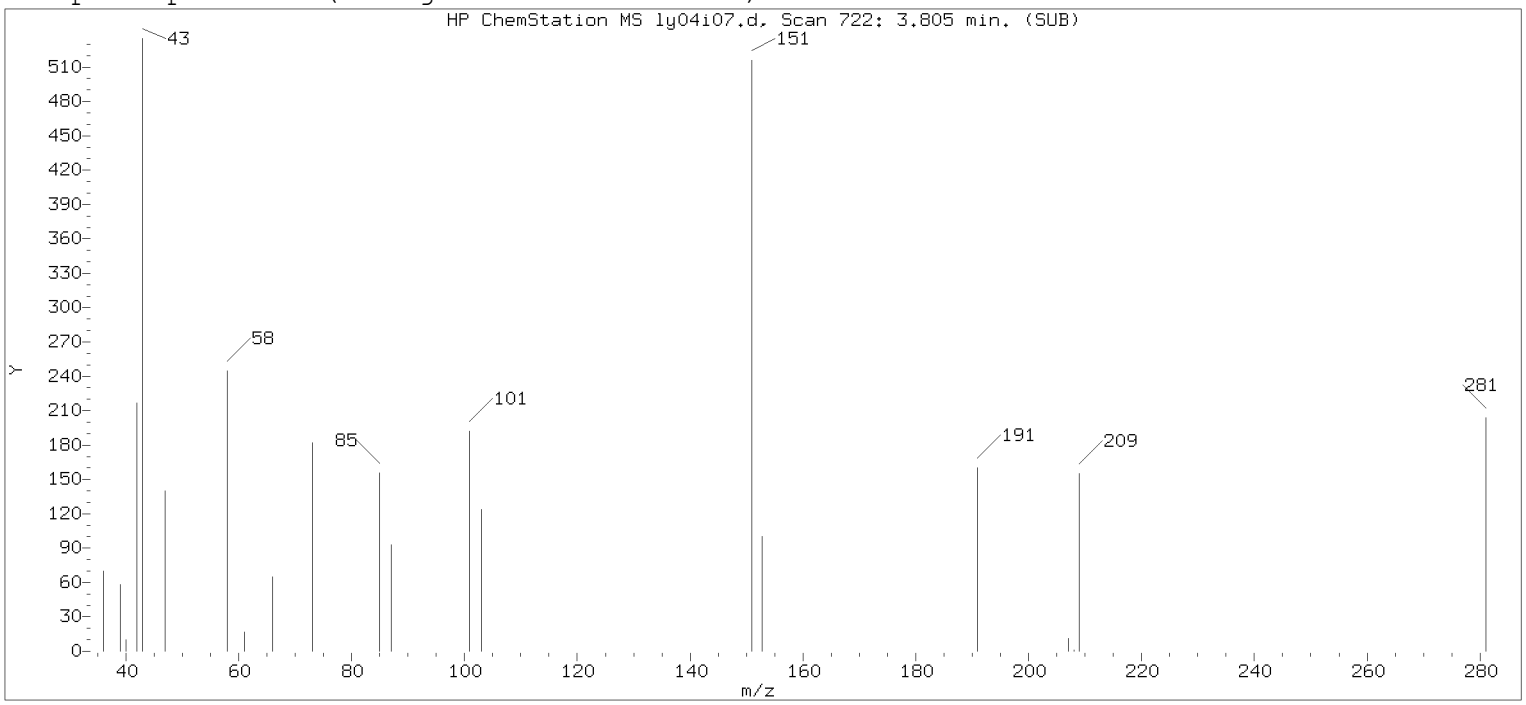
Compound Number : 18
Compound Name : Acetone
Scan Number : 727
Retention Time (minutes): 3.821
Quant Ion : 58.00
Area (flag) : 2764M
On-Column Amount (ng) : 2.5022
Integration start scan : 689 Integration stop scan: 756
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

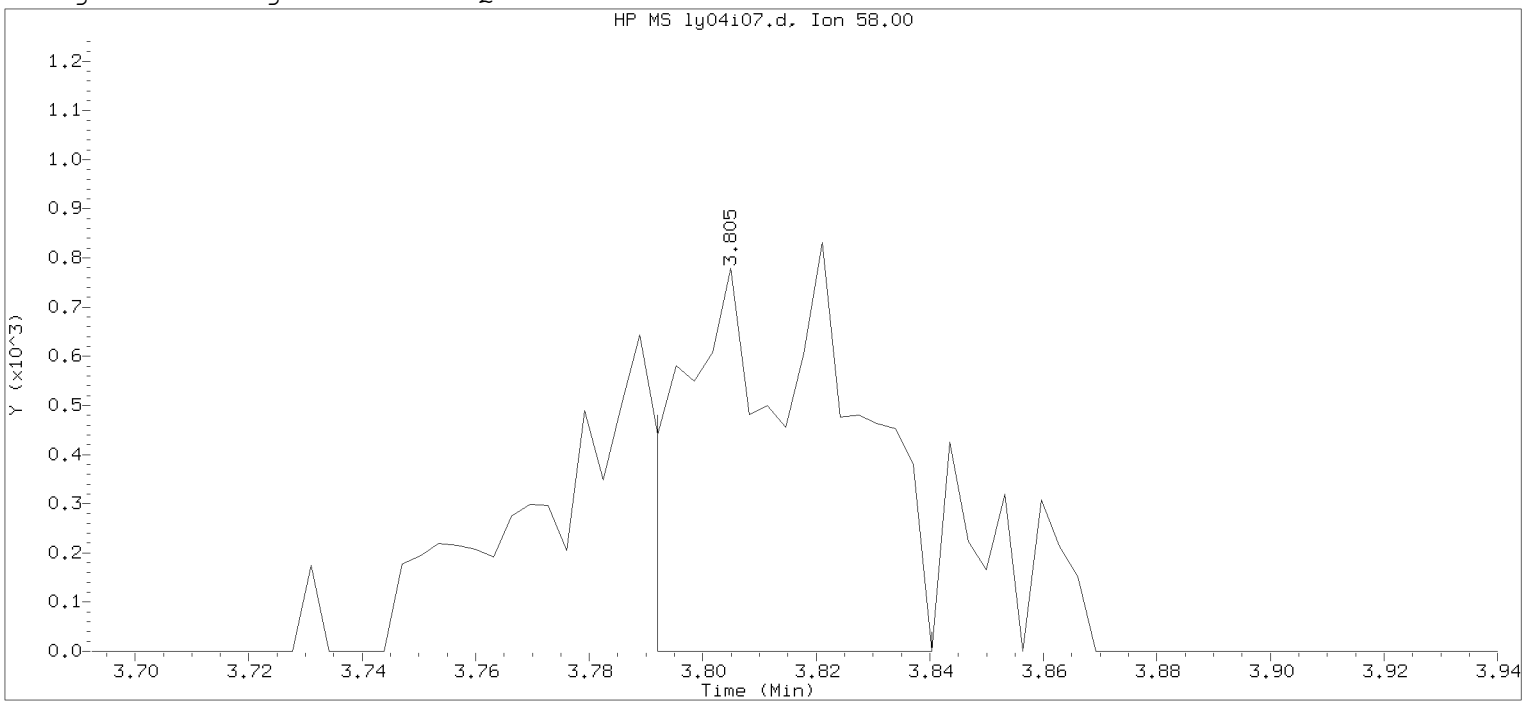
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

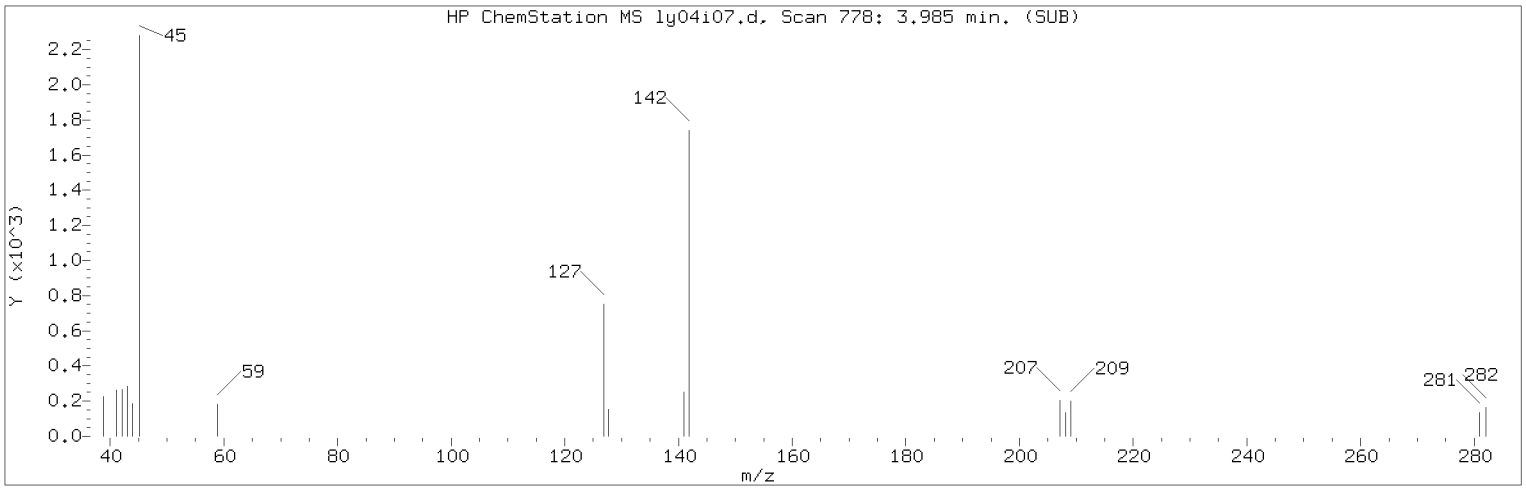
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

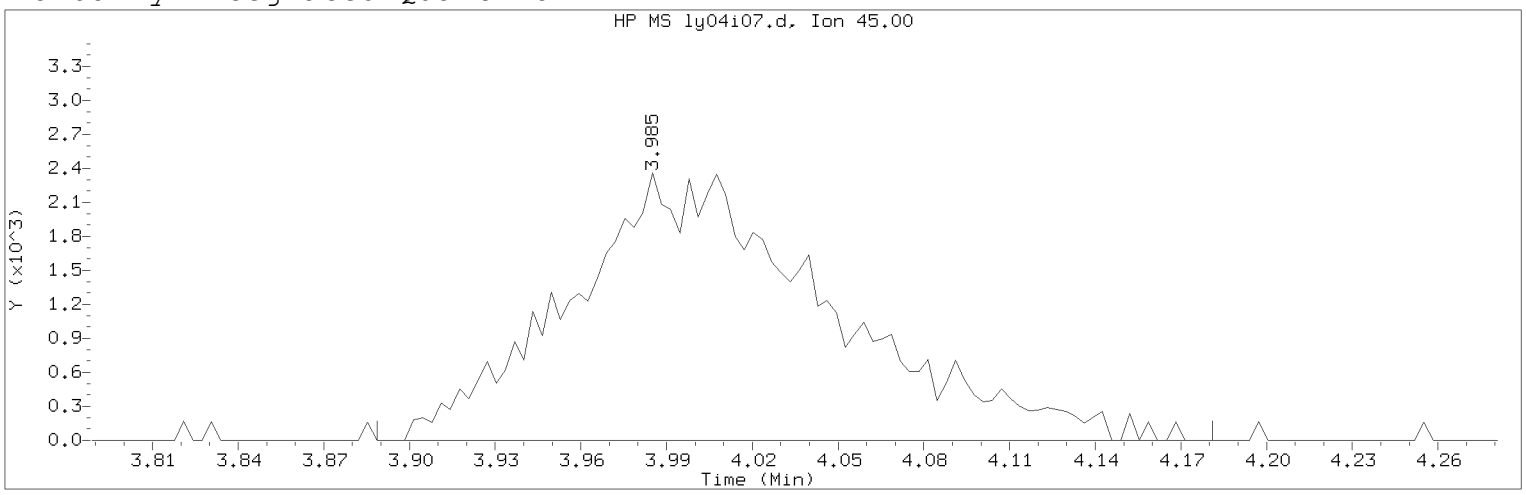
Compound Number : 18
Compound Name : Acetone
Scan Number : 722
Retention Time (minutes): 3.805
Quant Ion : 58.00
Area : 1517
On-column Amount (ng) : 1.7017
Integration start scan : 717 Integration stop scan: 732
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0006

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

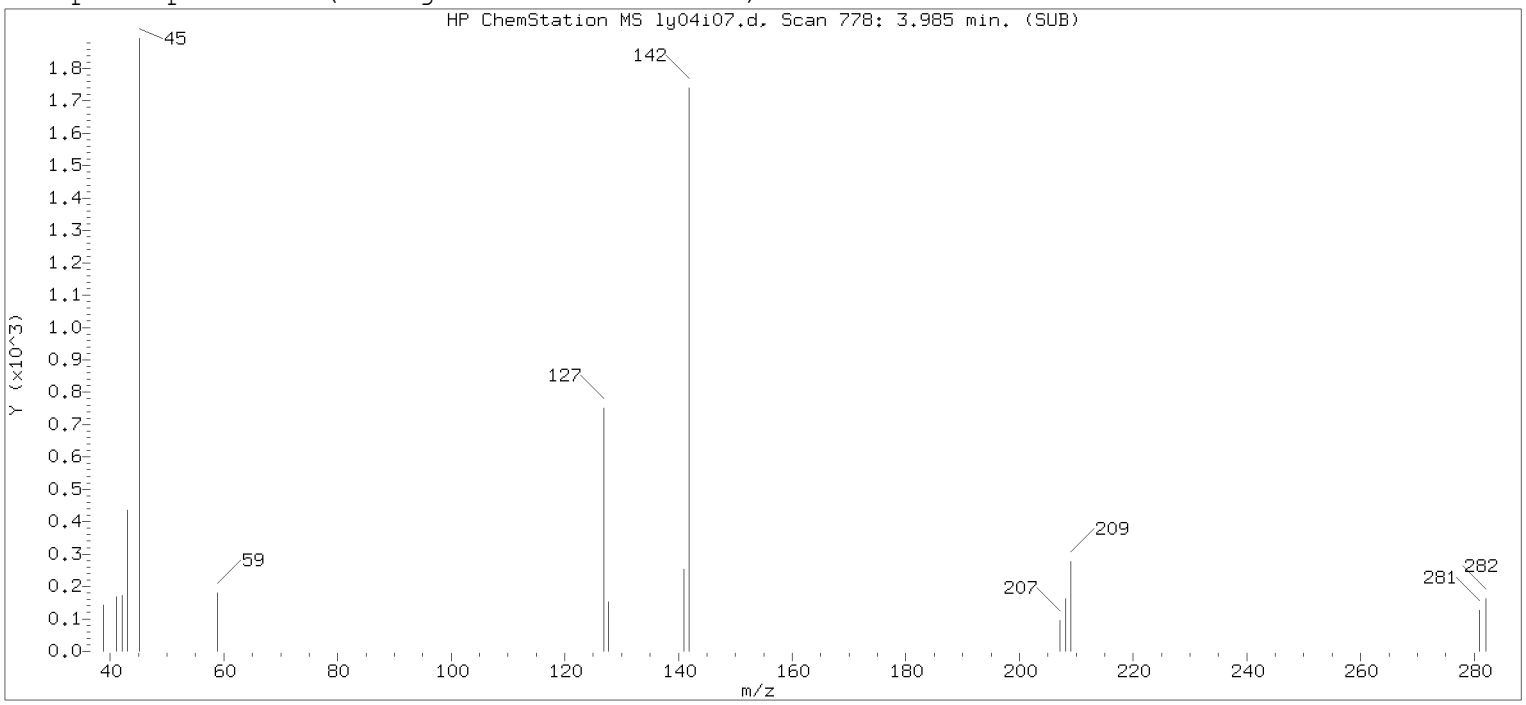
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area (flag) : 14938M
On-Column Amount (ng) : 21.2179
Integration start scan : 747 Integration stop scan: 838
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

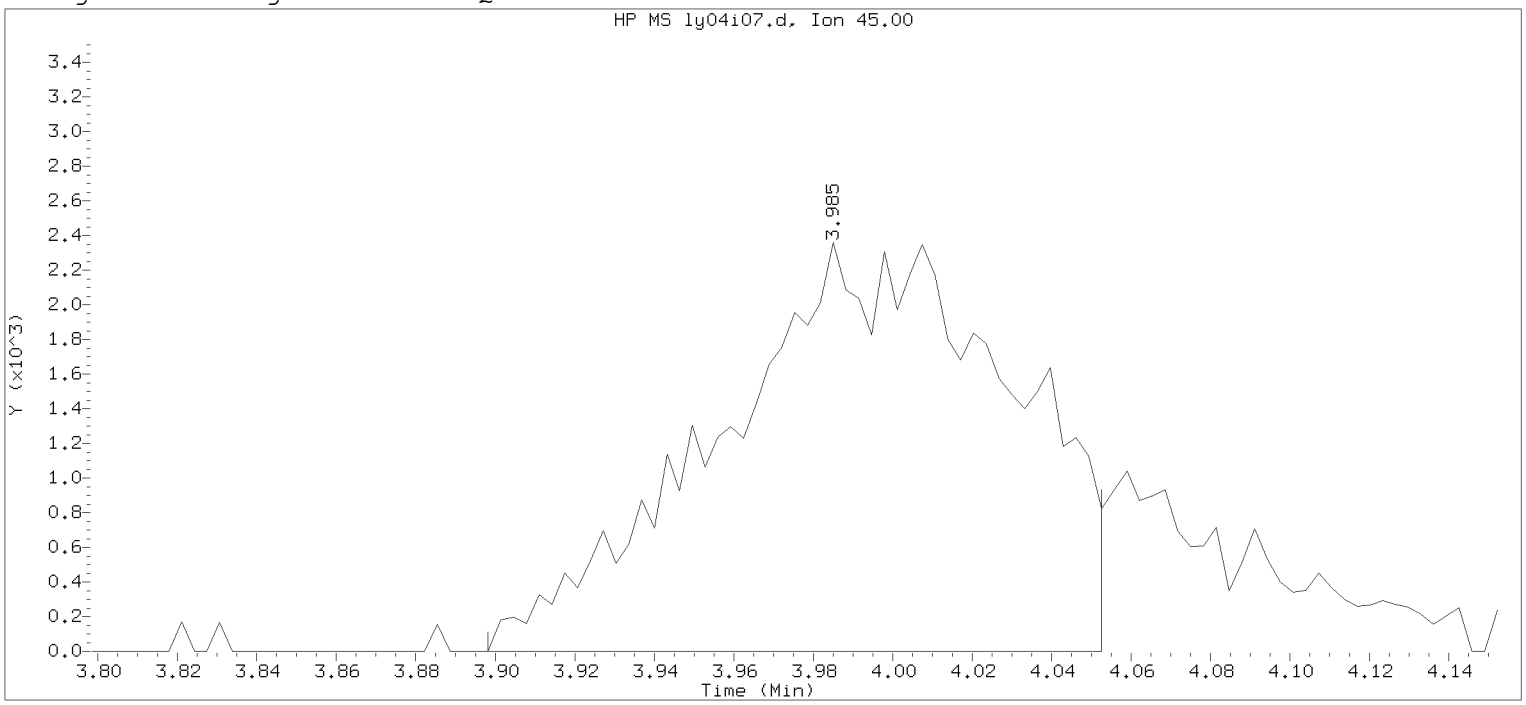
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

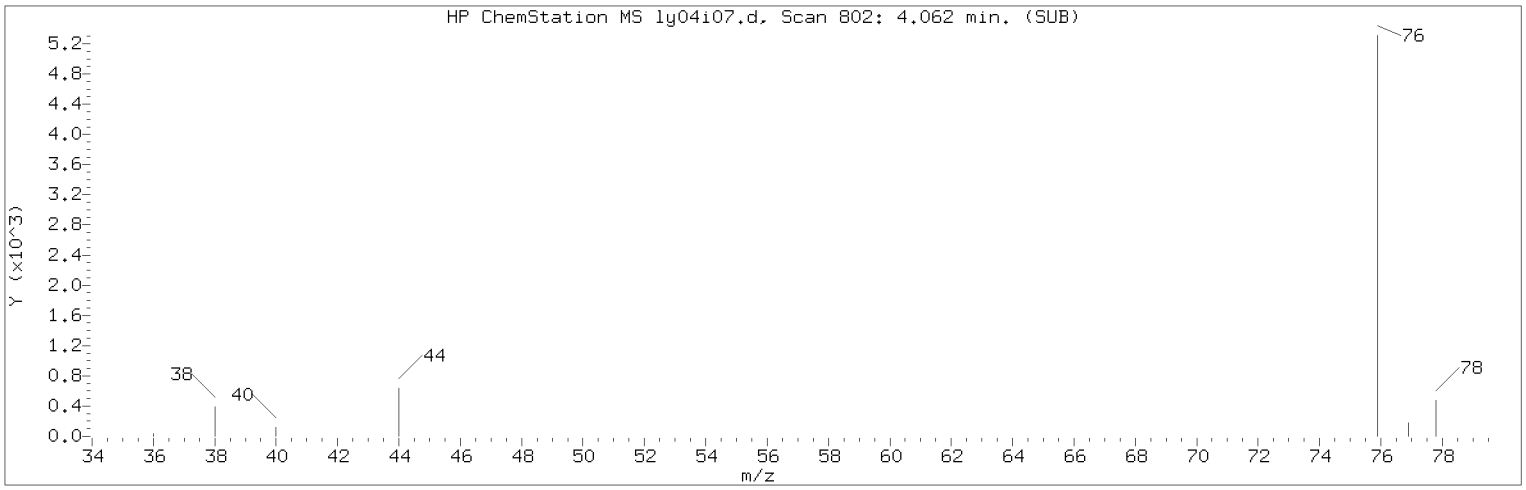
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

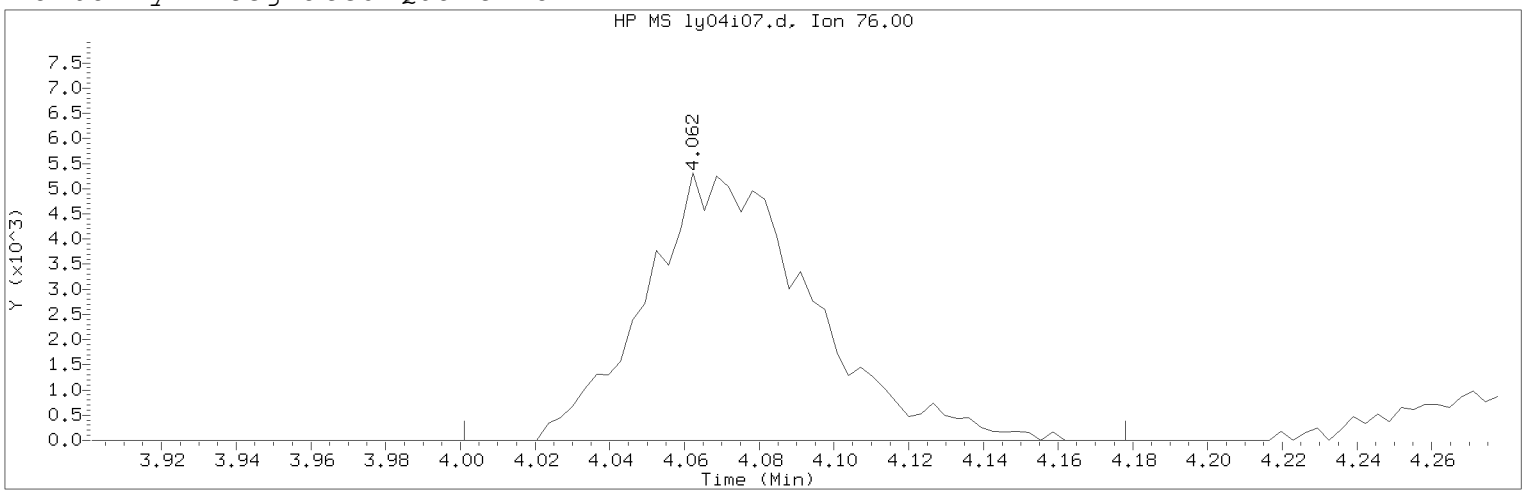
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area : 12094
On-column Amount (ng) : 17.8452
Integration start scan : 750 Integration stop scan: 798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

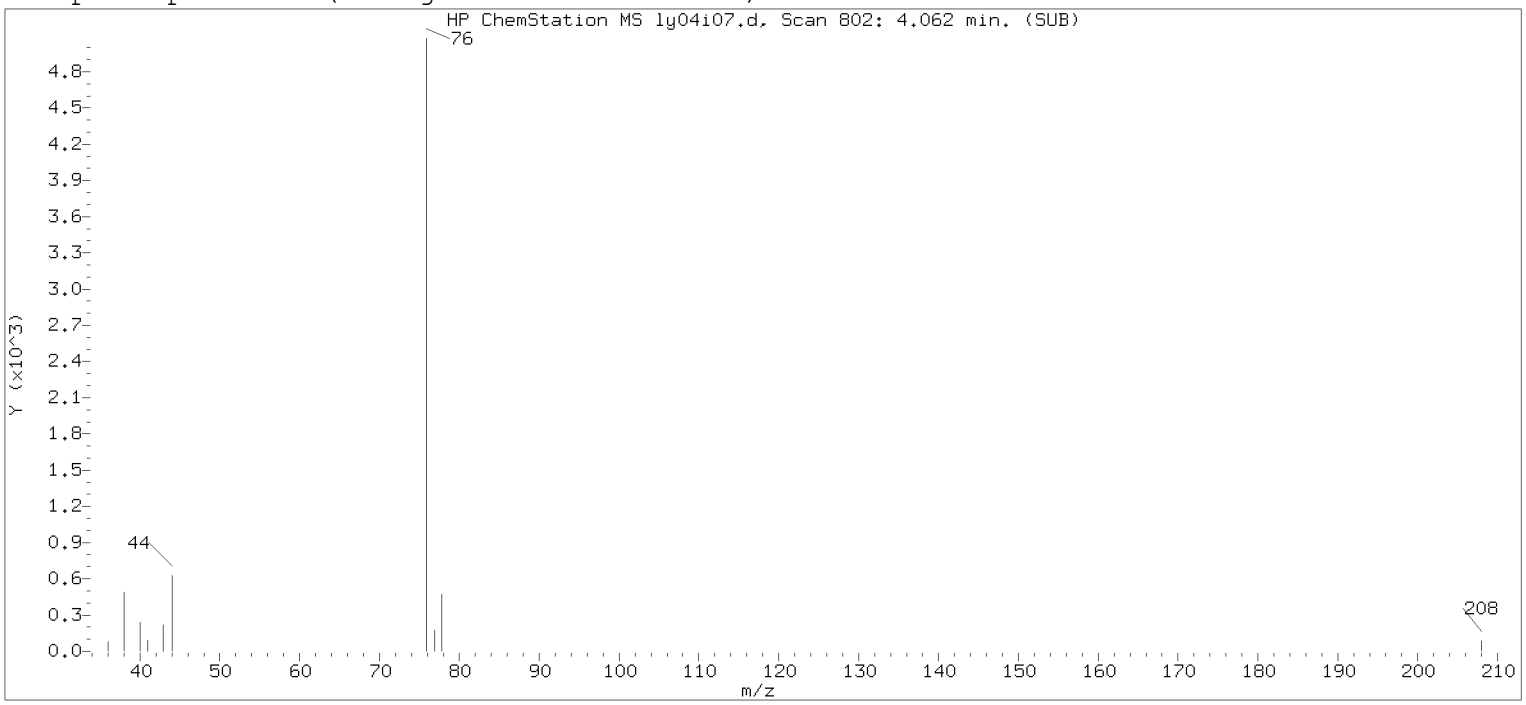
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area (flag) : 16435M
On-Column Amount (ng) : 0.8686
Integration start scan : 782 Integration stop scan: 837
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

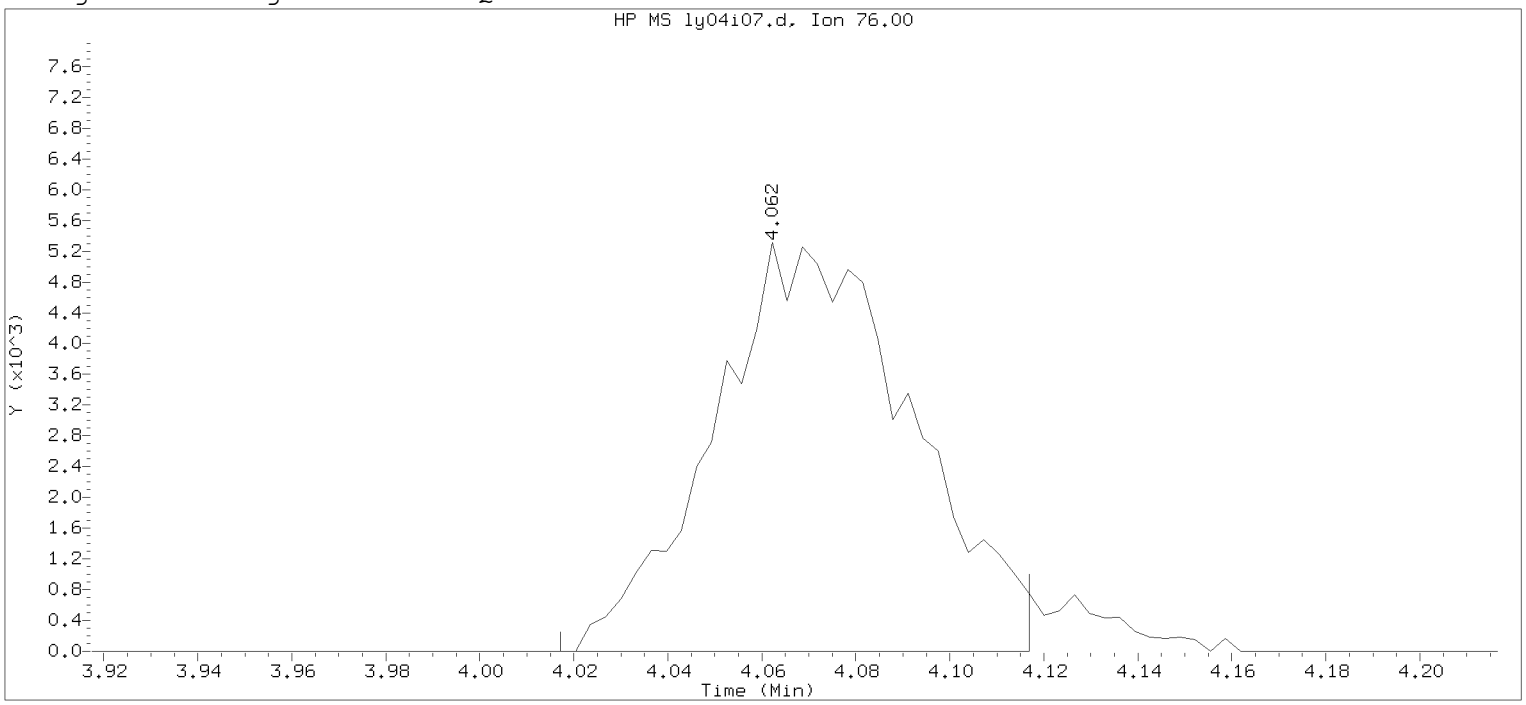
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

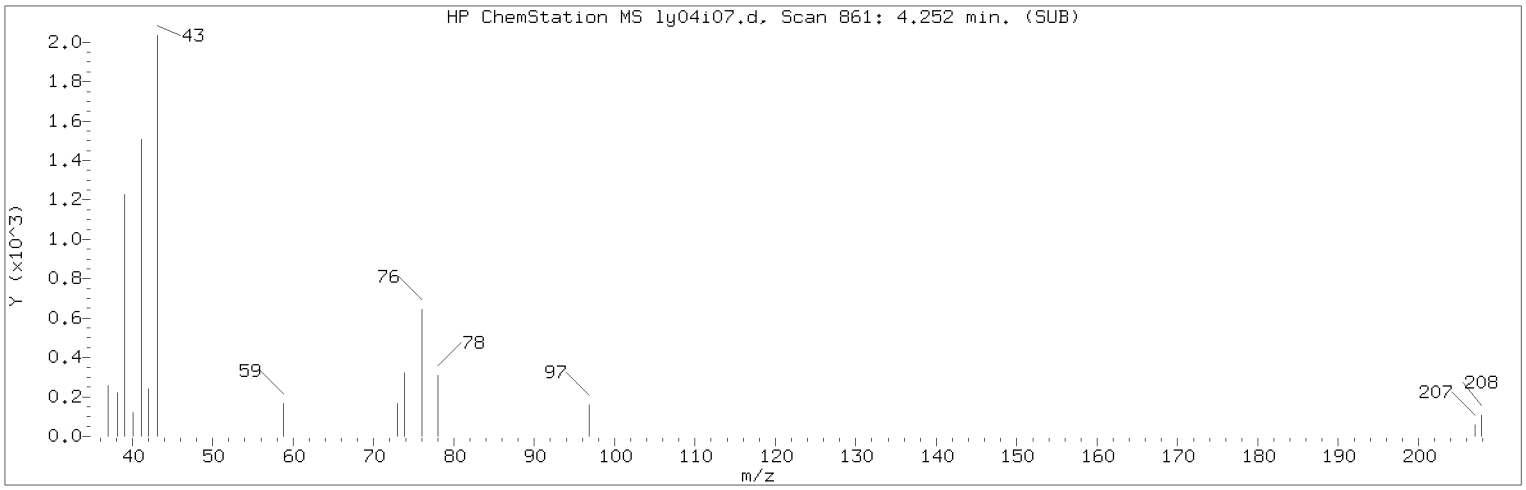
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

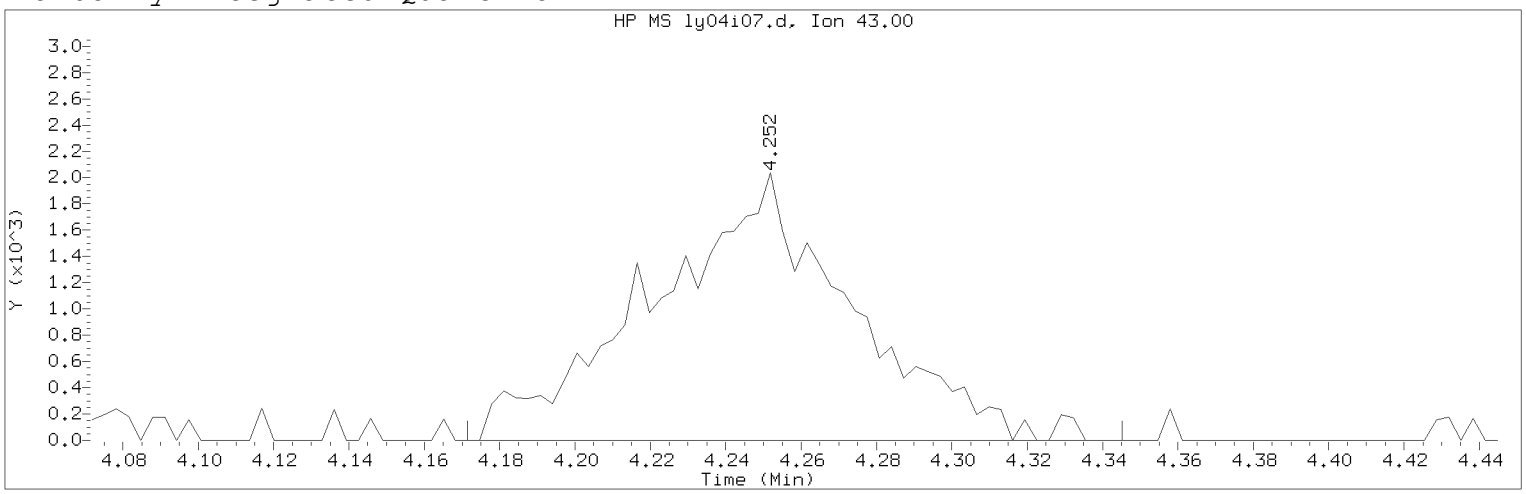
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area : 15554
On-column Amount (ng) : 0.8286
Integration start scan : 787 Integration stop scan: 818
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

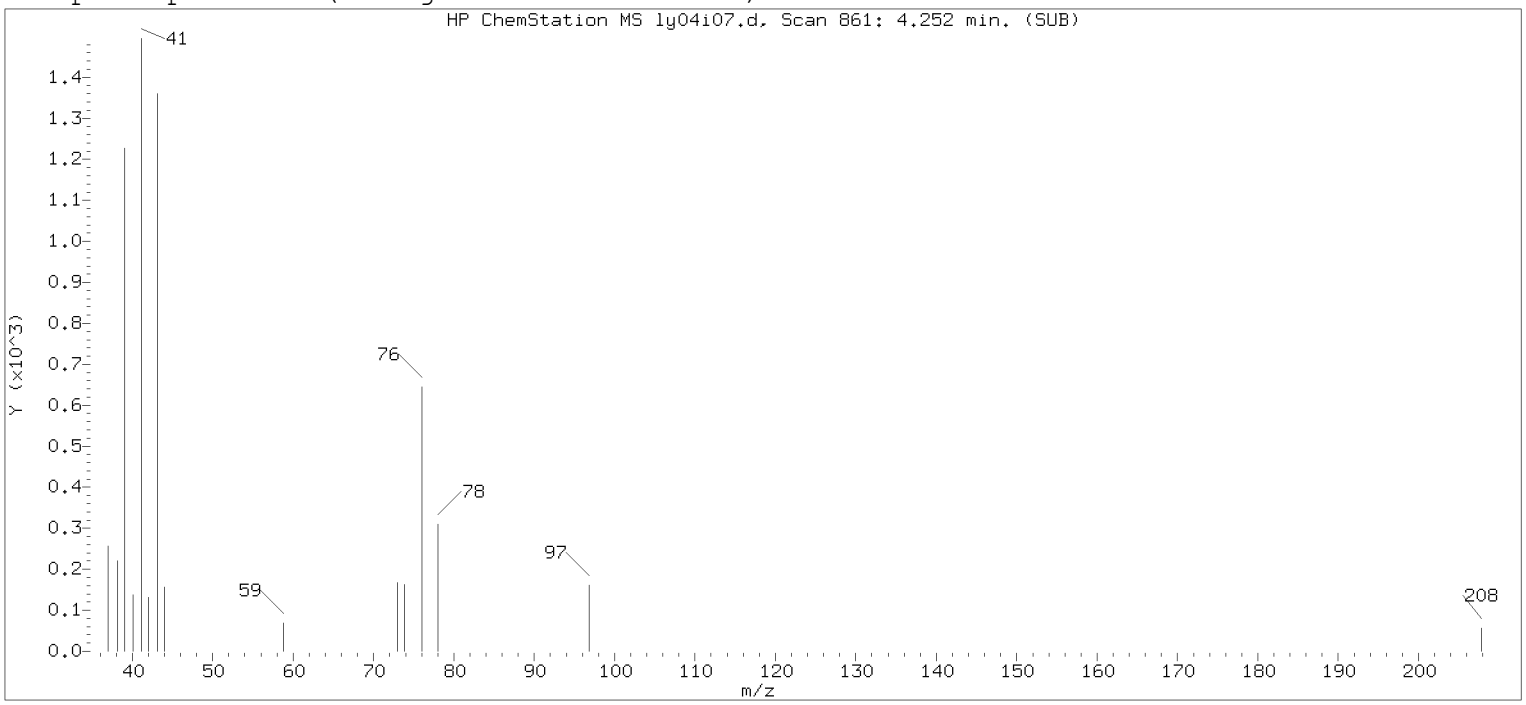
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area (flag) : 7412M
On-Column Amount (ng) : 1.0342
Integration start scan : 835 Integration stop scan: 889
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

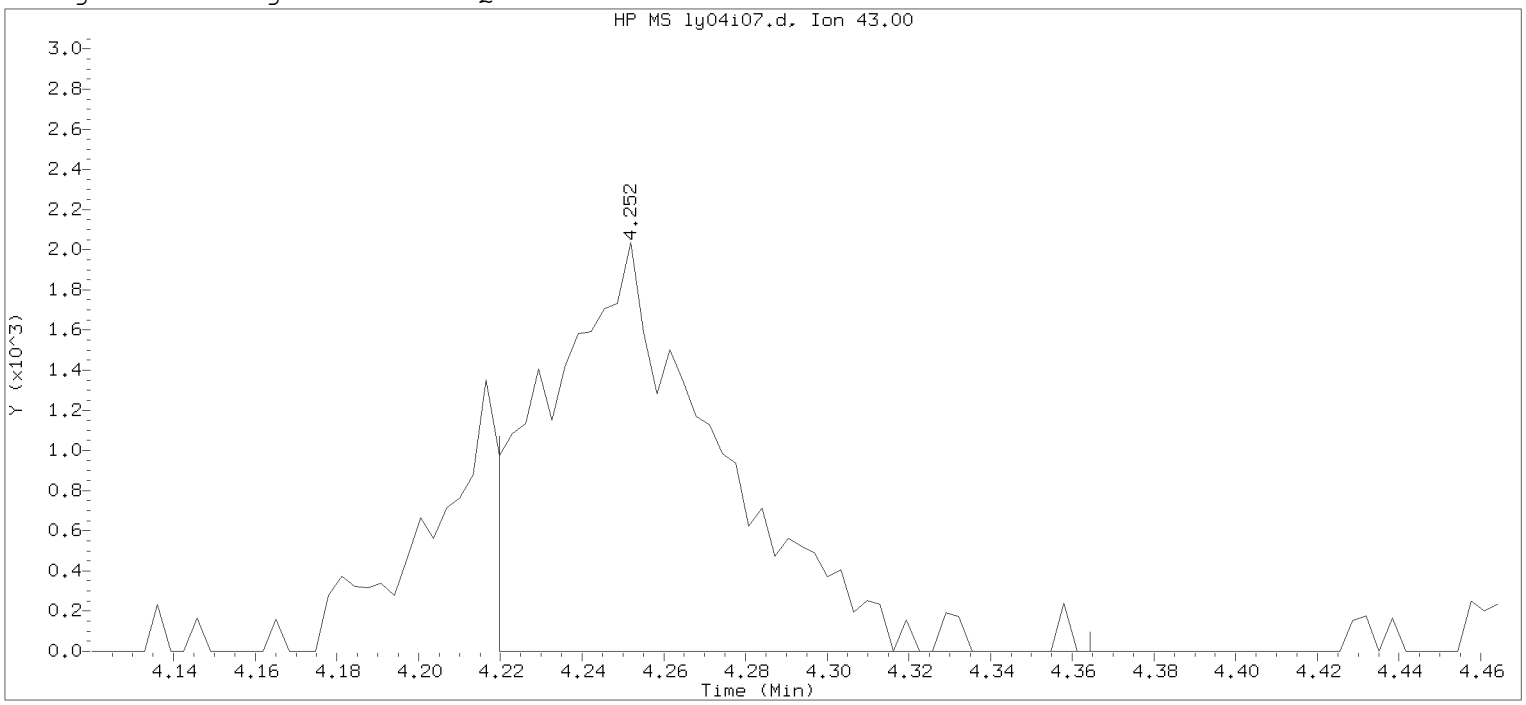
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

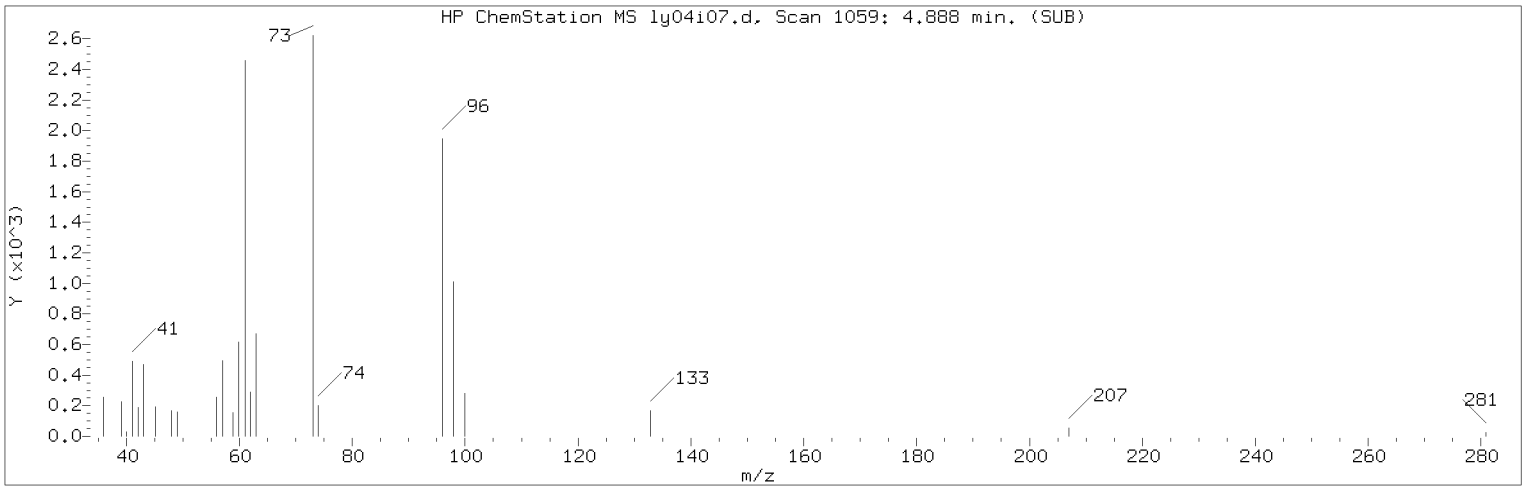
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

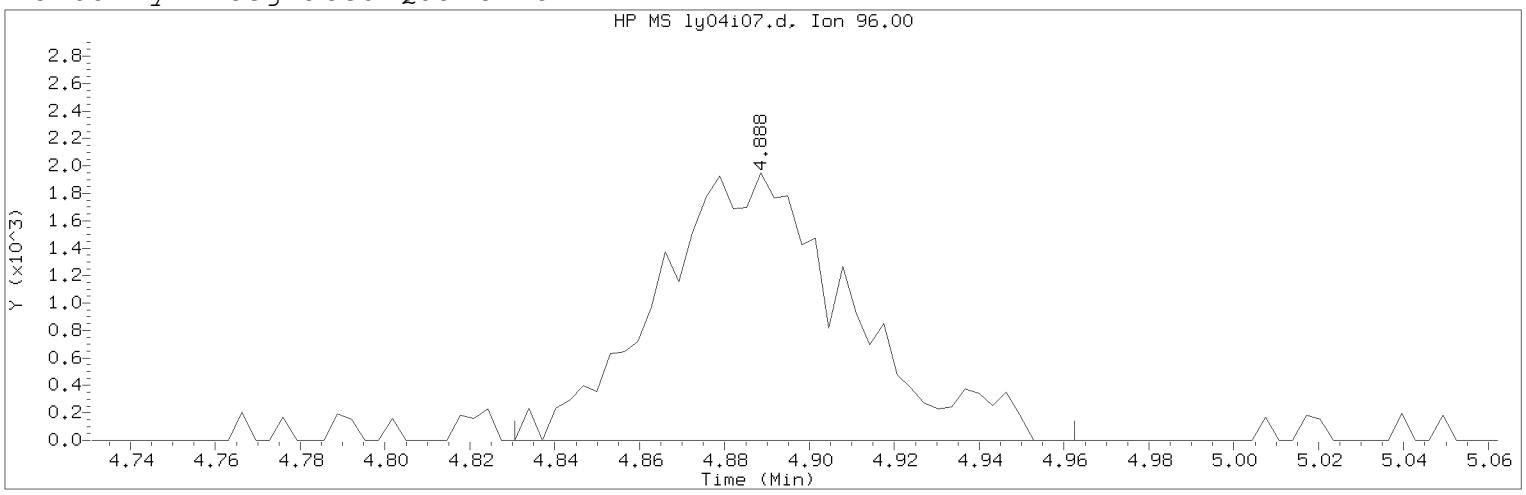
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area : 5953
On-column Amount (ng) : 0.8598
Integration start scan : 850 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

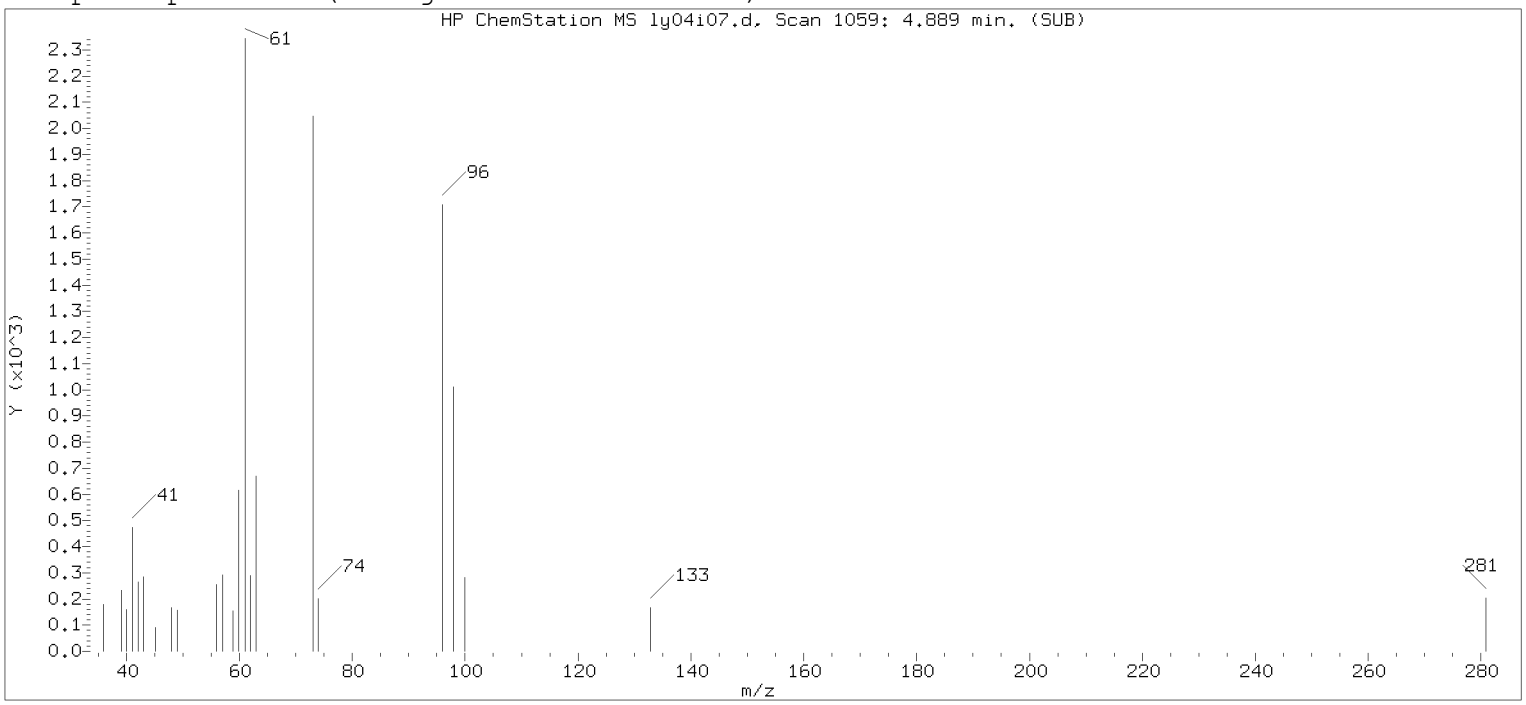
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area (flag) : 6111M
On-Column Amount (ng) : 0.9453
Integration start scan : 1040 Integration stop scan: 1081
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

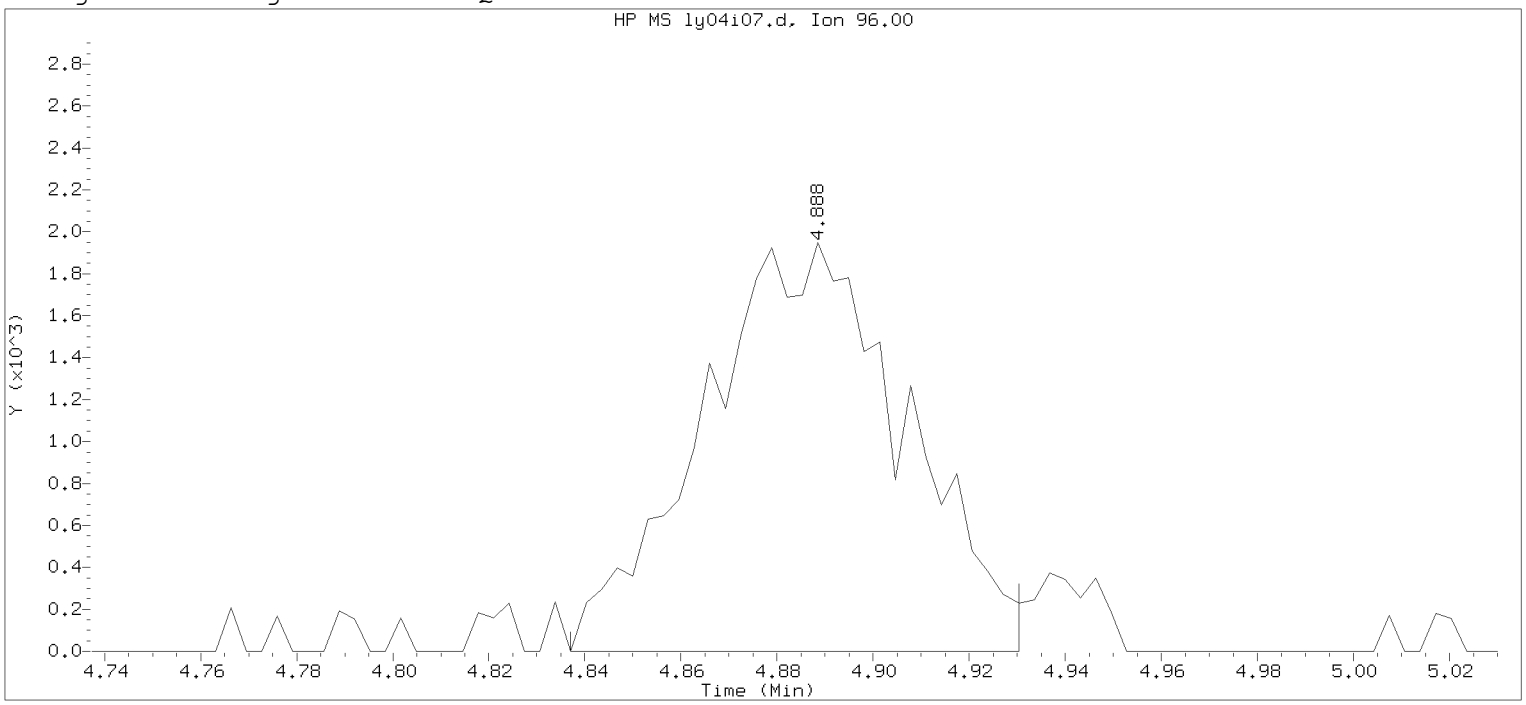
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

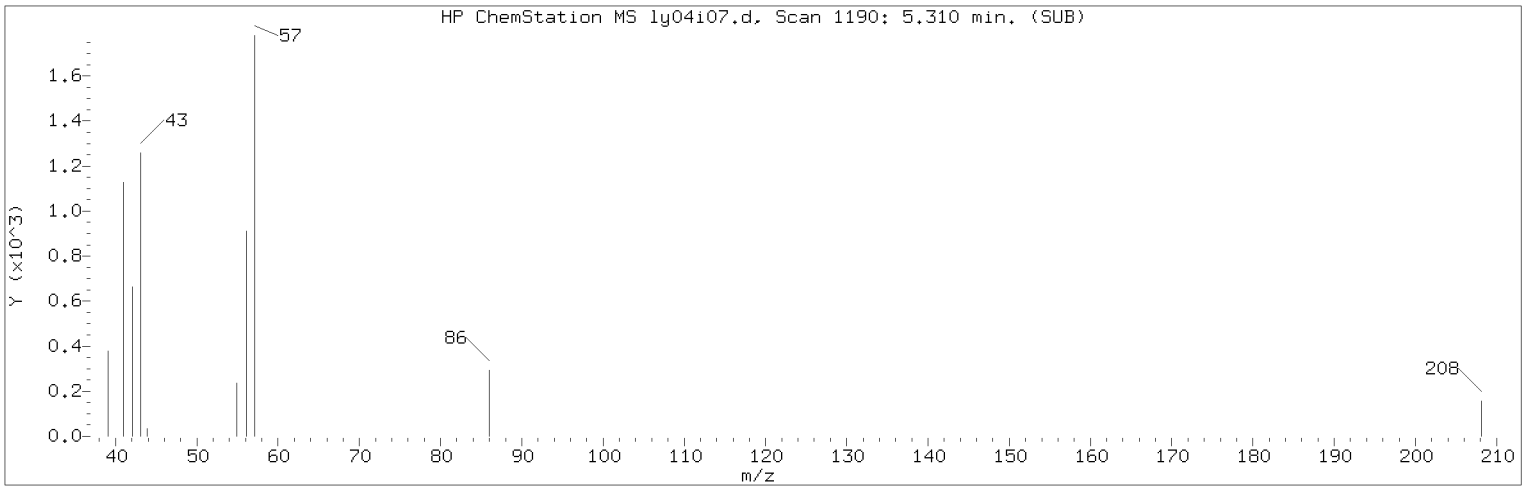
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

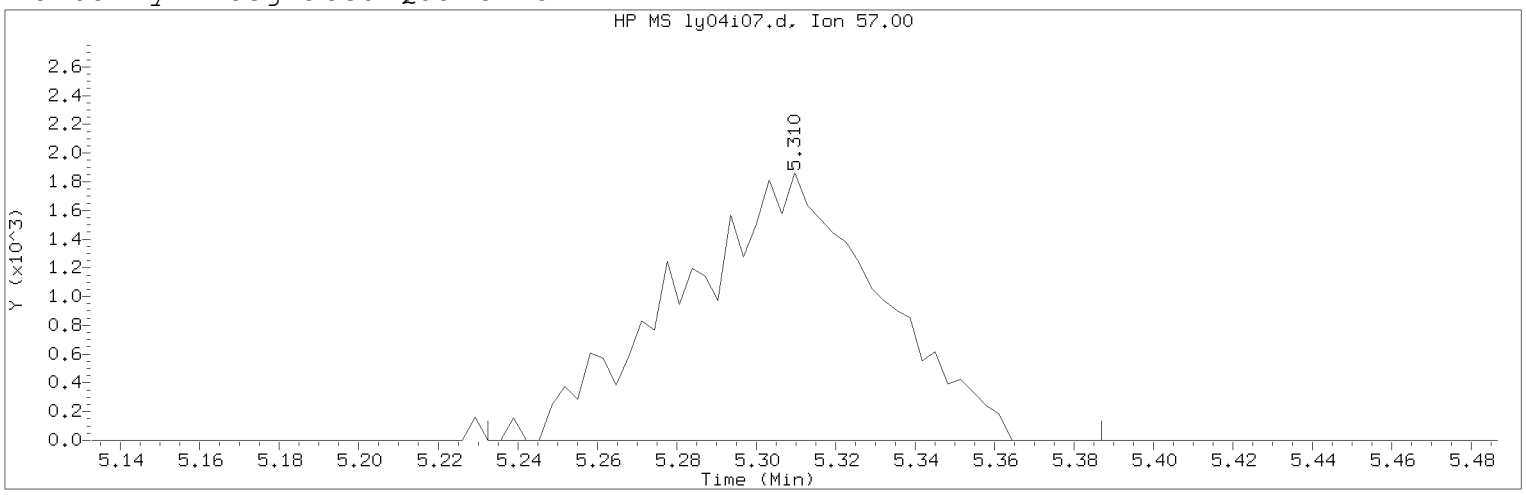
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area : 5705
On-column Amount (ng) : 0.8926
Integration start scan : 1042 Integration stop scan: 1071
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

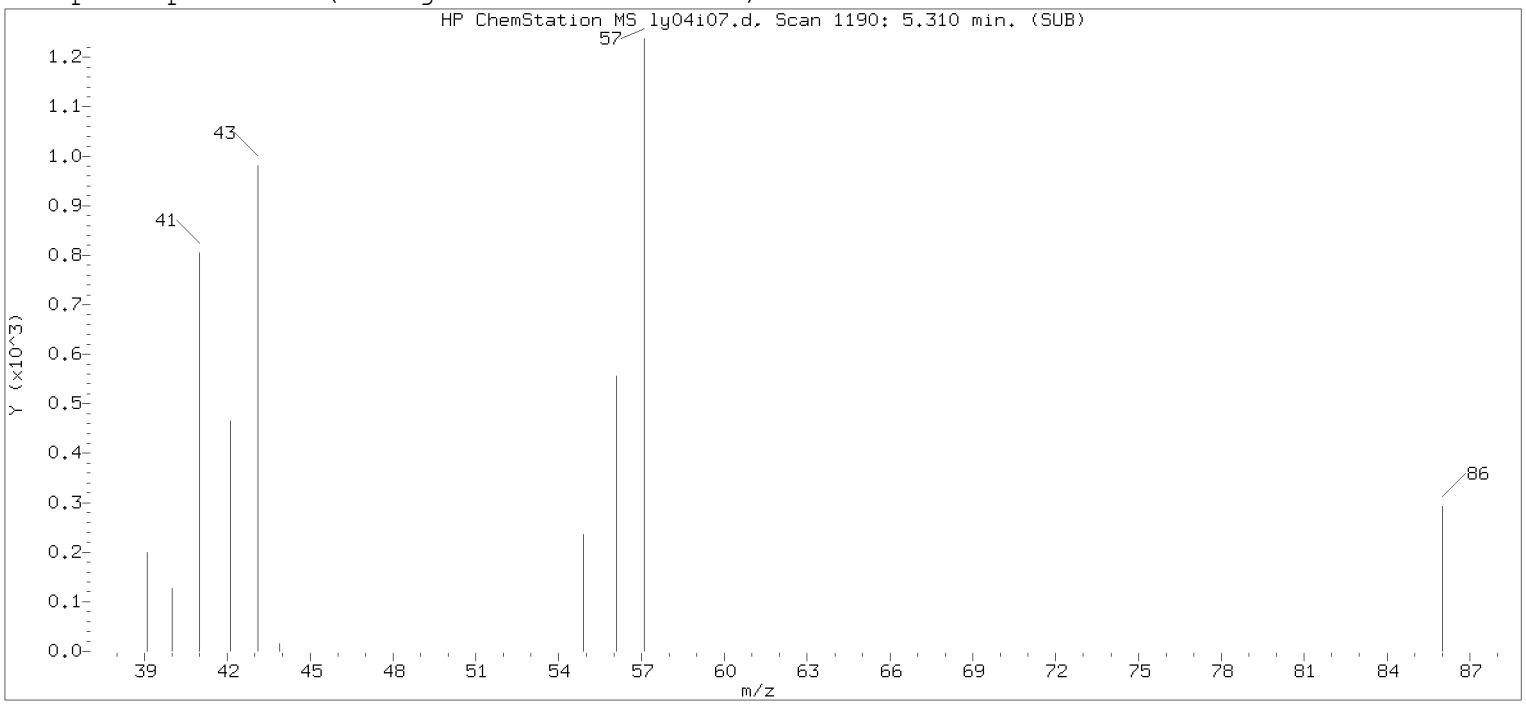
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area (flag) : 6497M
On-Column Amount (ng) : 0.7176
Integration start scan : 1165 Integration stop scan: 1213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

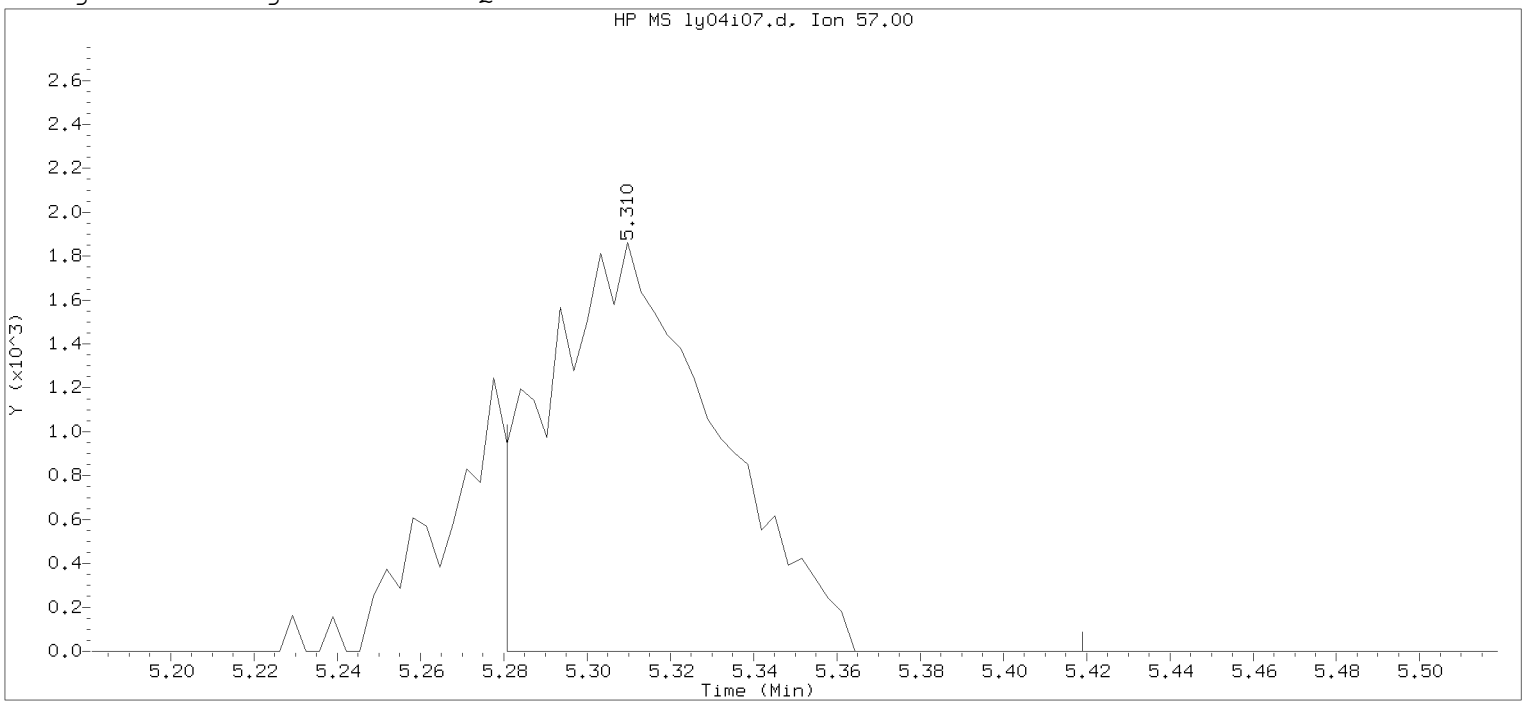
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

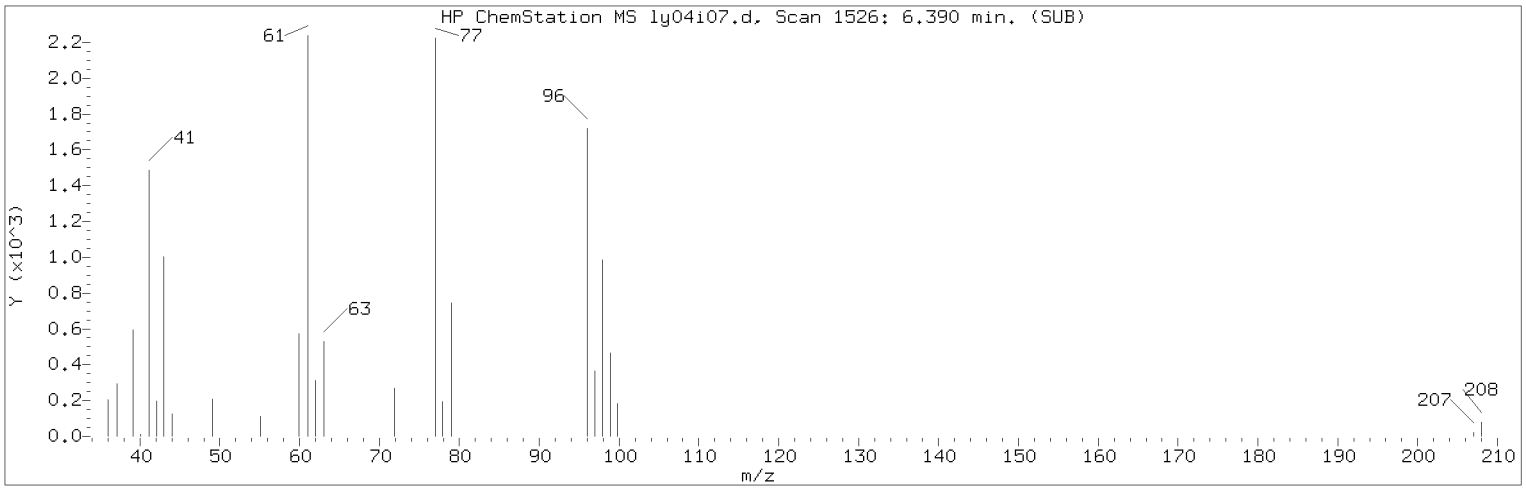
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

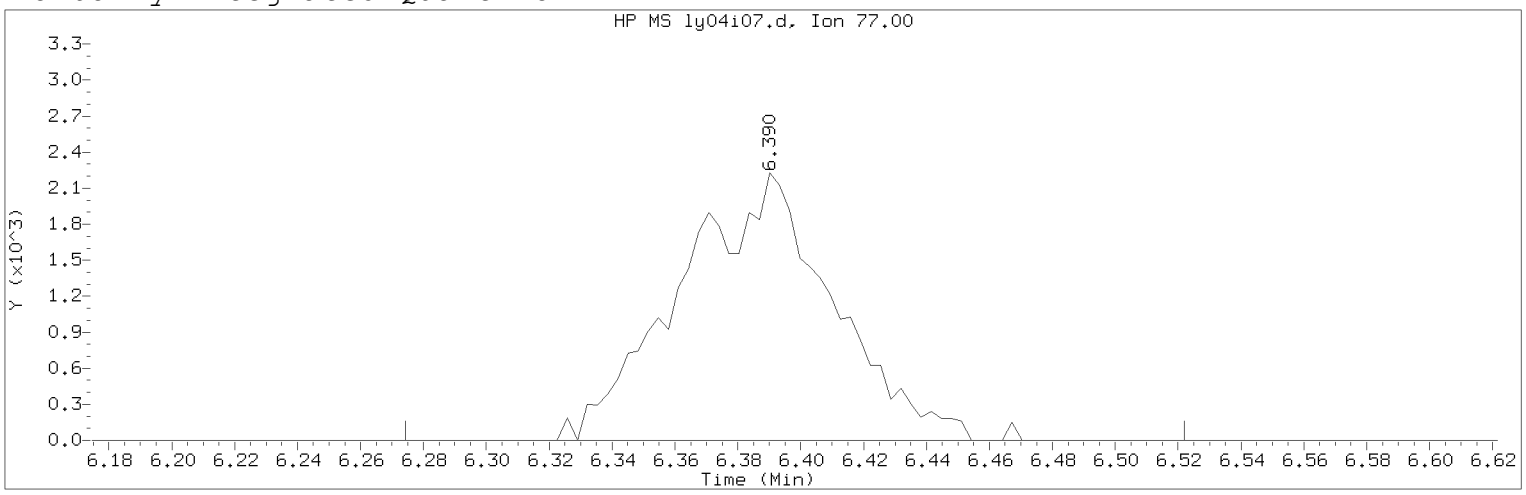
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area : 5237
On-column Amount (ng) : 0.5829
Integration start scan : 1180 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0016

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

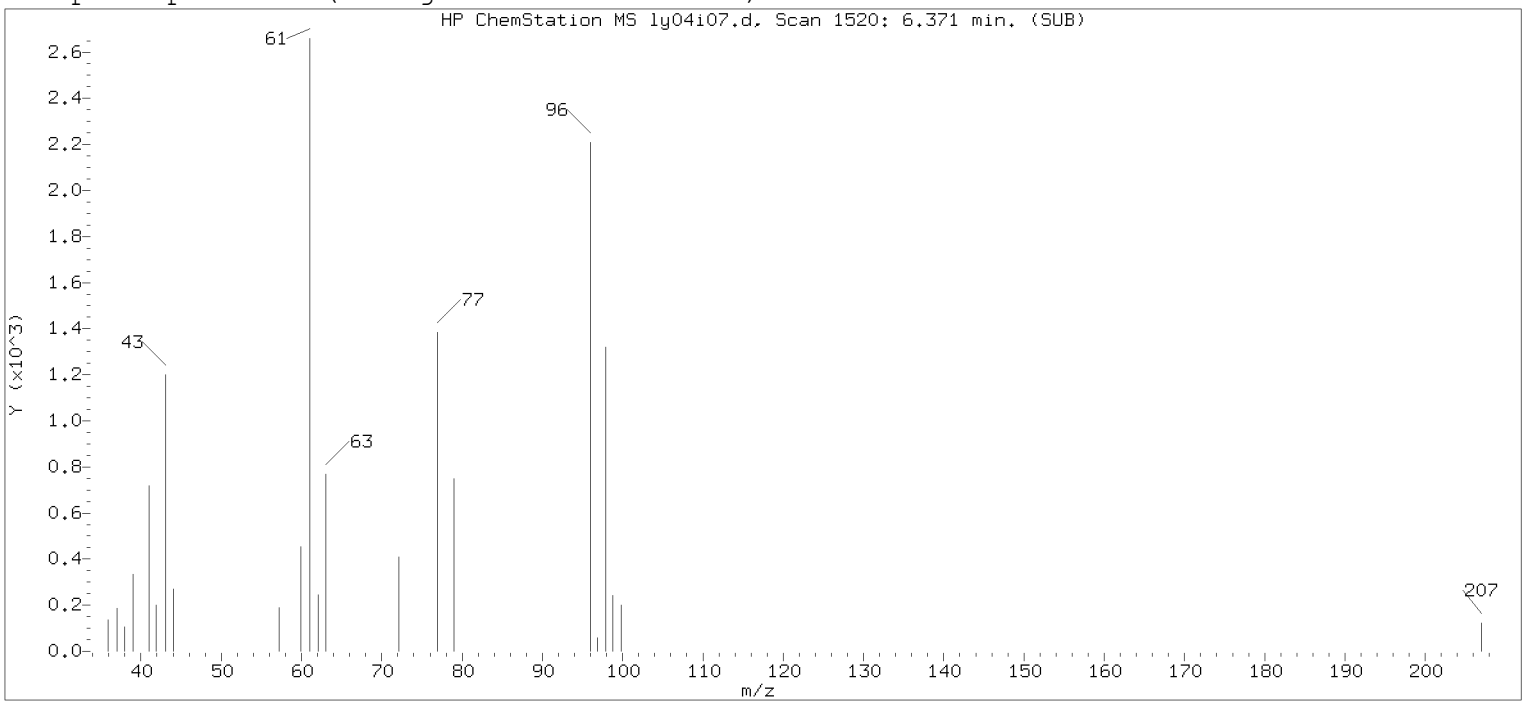
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1526
Retention Time (minutes): 6.390
Quant Ion : 77.00
Area (flag) : 7531M
On-Column Amount (ng) : 0.8594
Integration start scan : 1489 Integration stop scan: 1566
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

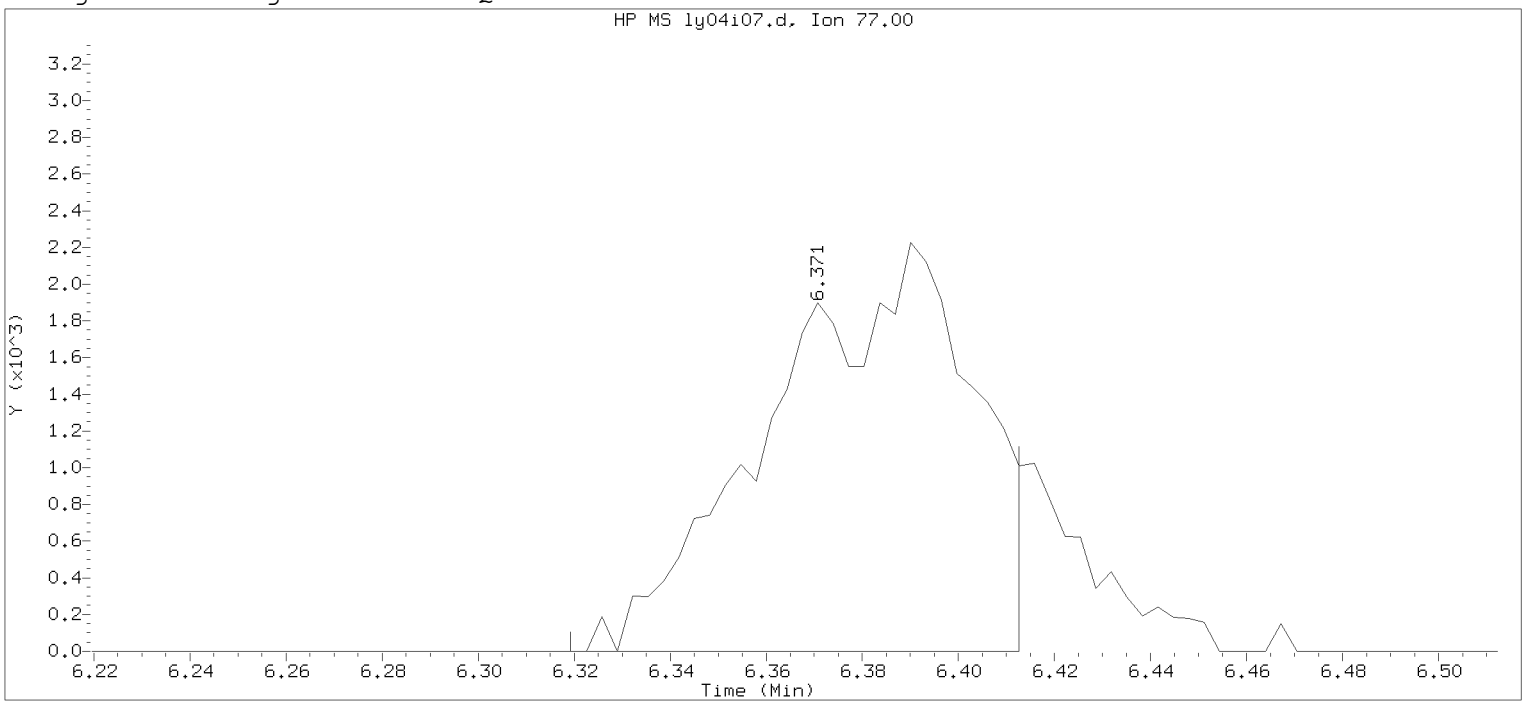
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

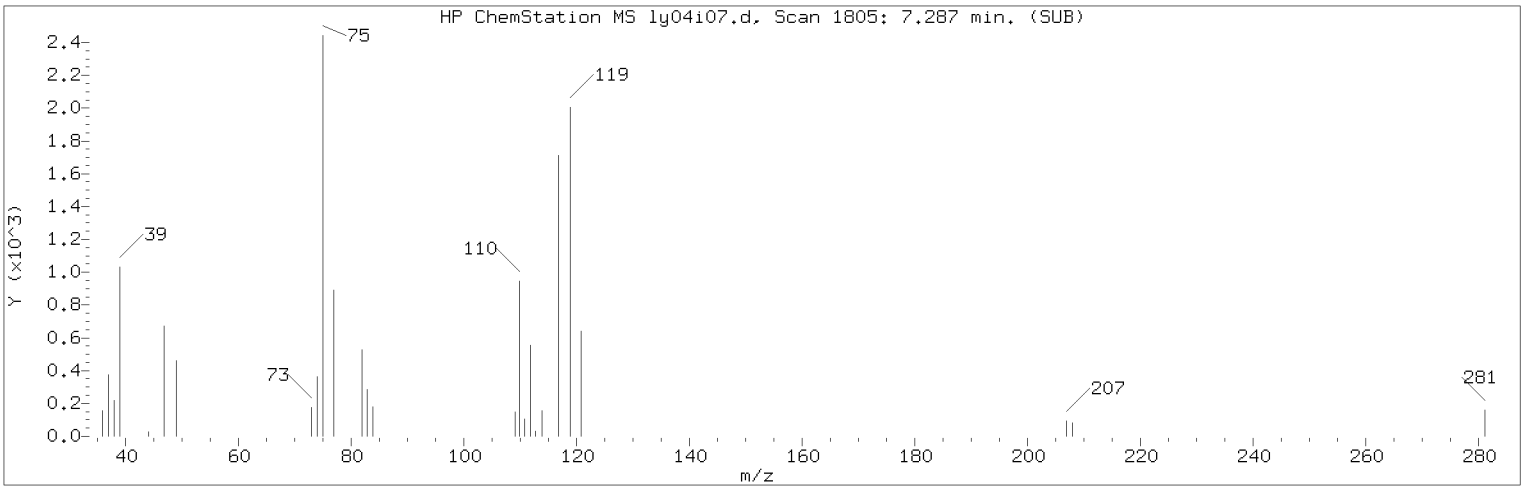
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

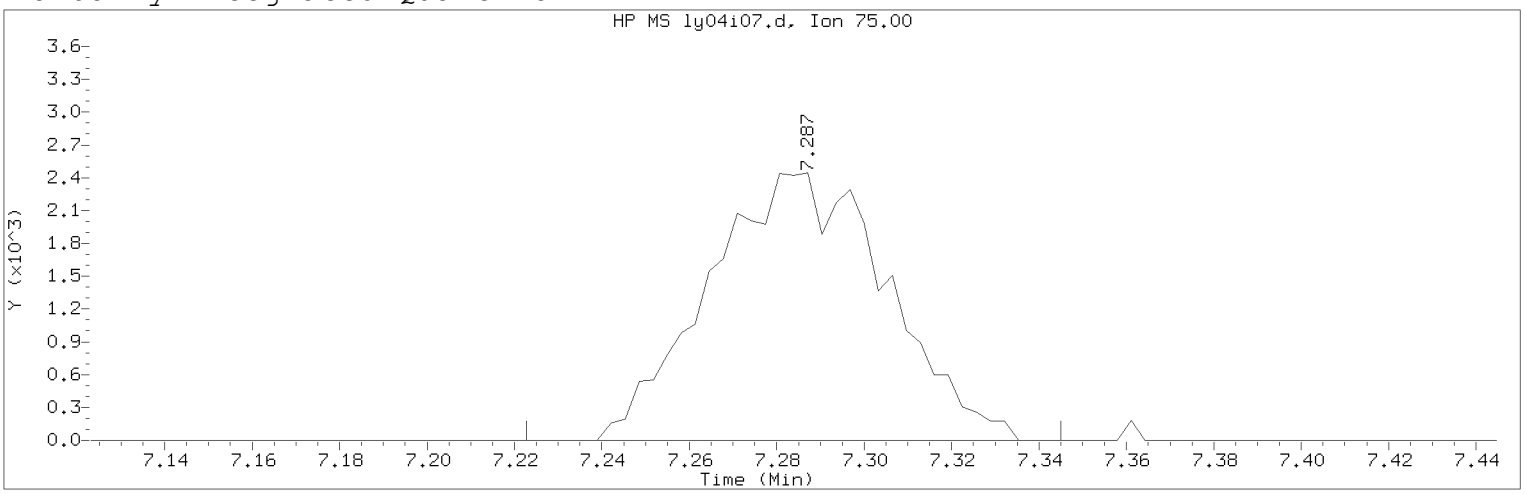
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1520
Retention Time (minutes): 6.371
Quant Ion : 77.00
Area : 6414
On-column Amount (ng) : 0.7586
Integration start scan : 1503 Integration stop scan: 1532
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

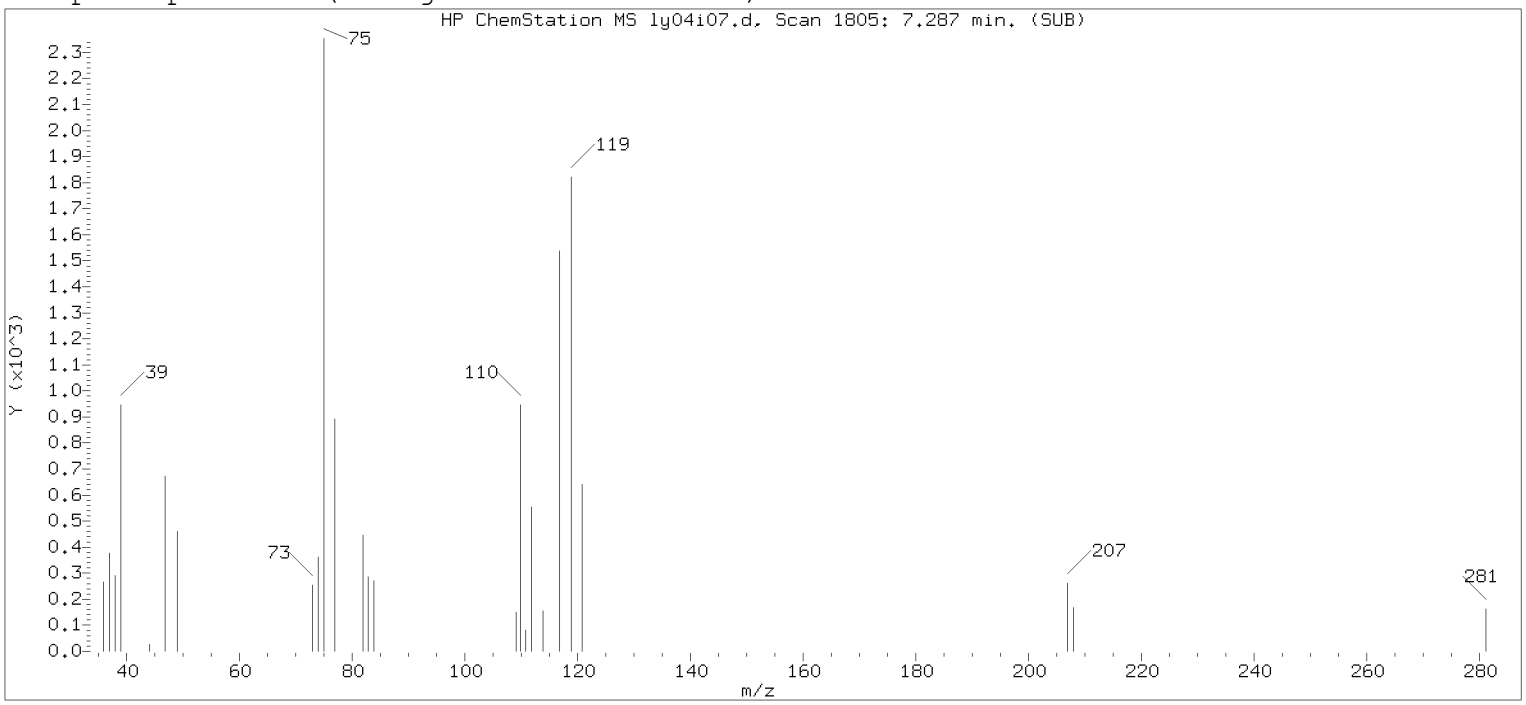
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area (flag) : 6955M
On-Column Amount (ng) : 0.7983
Integration start scan : 1784 Integration stop scan: 1822
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

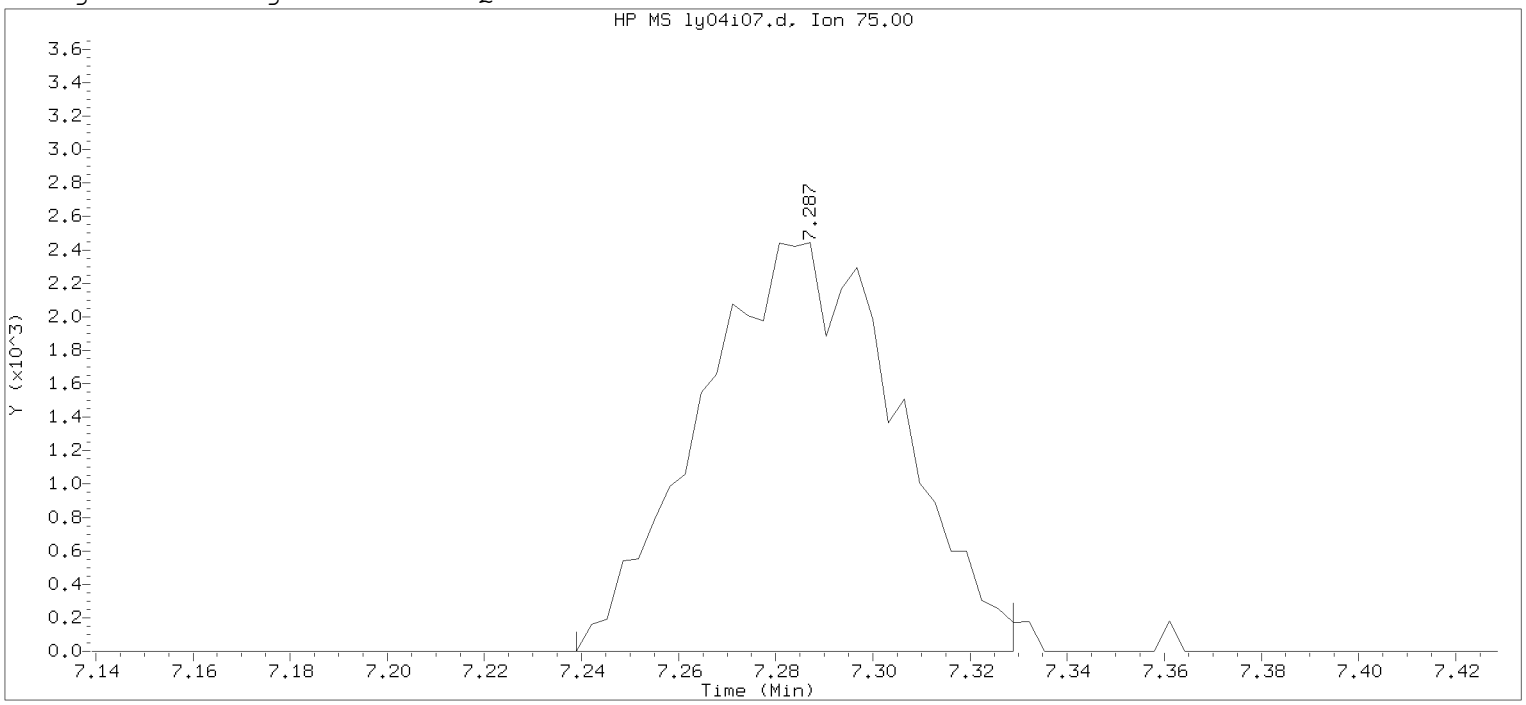
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

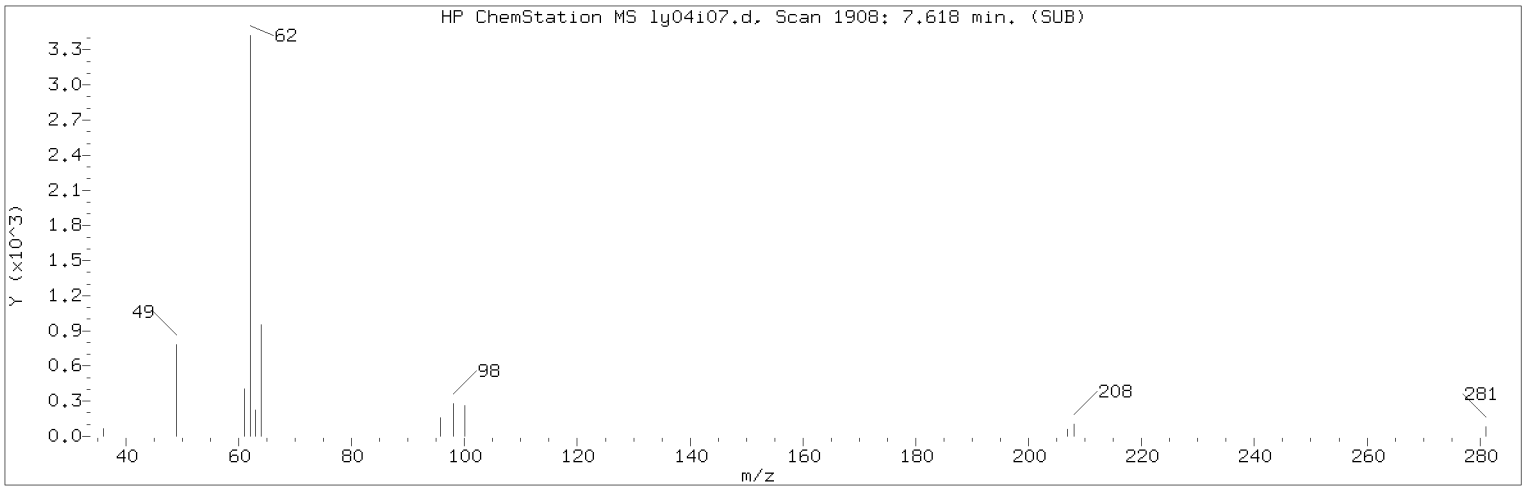
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

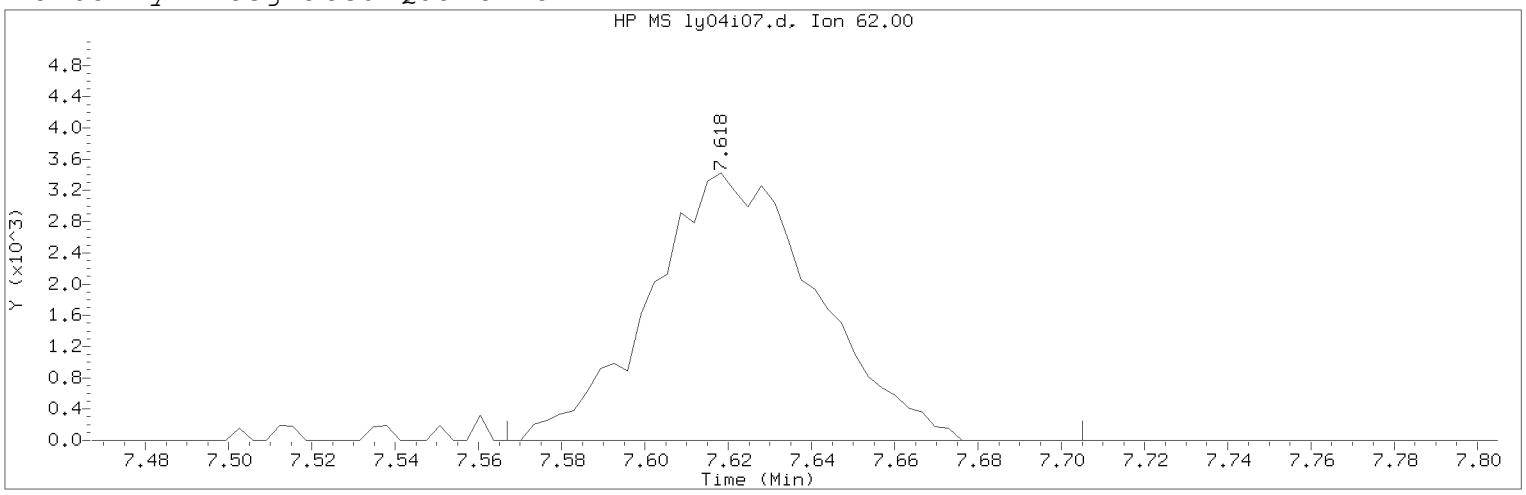
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area : 6904
On-column Amount (ng) : 0.7924
Integration start scan : 1789 Integration stop scan: 1817
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

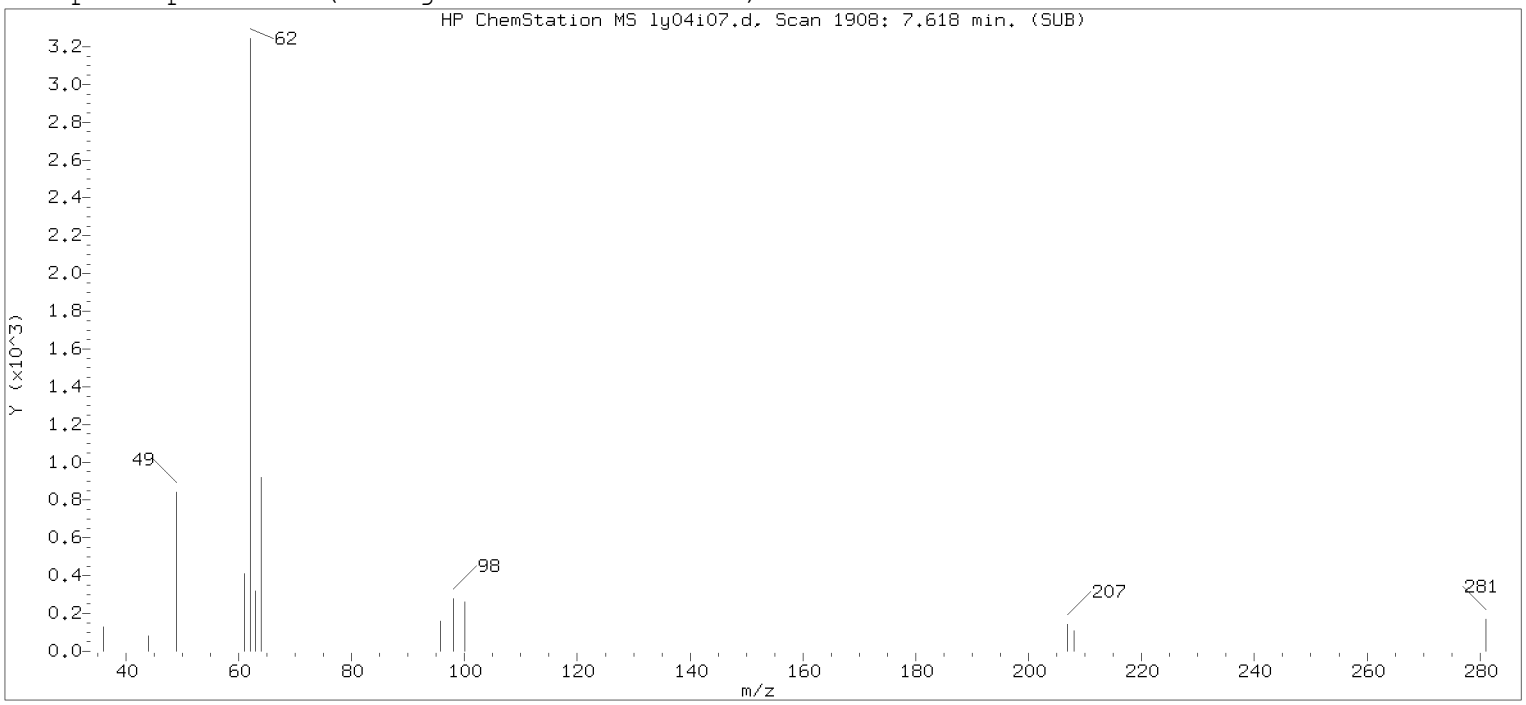
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area (flag) : 9508M
On-Column Amount (ng) : 1.0518
Integration start scan : 1891 Integration stop scan: 1934
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

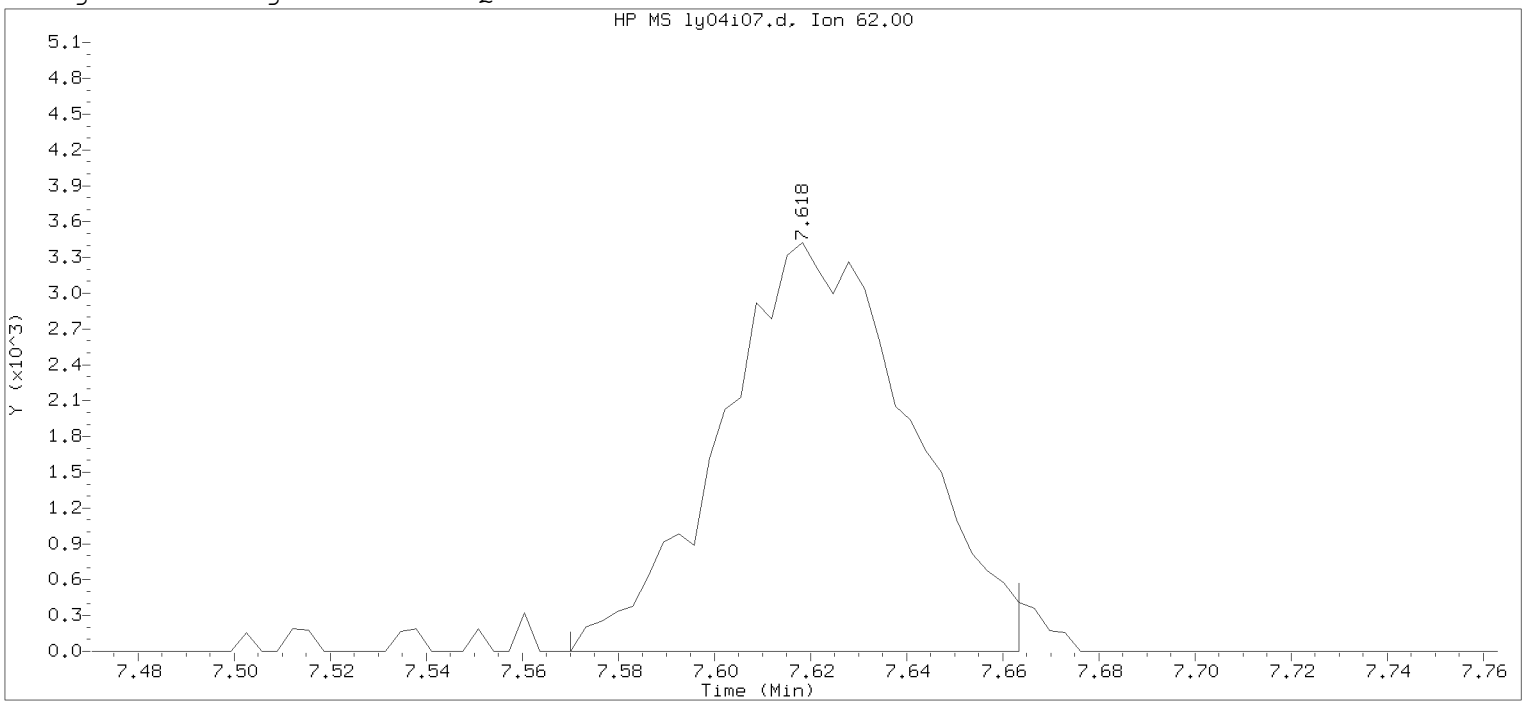
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

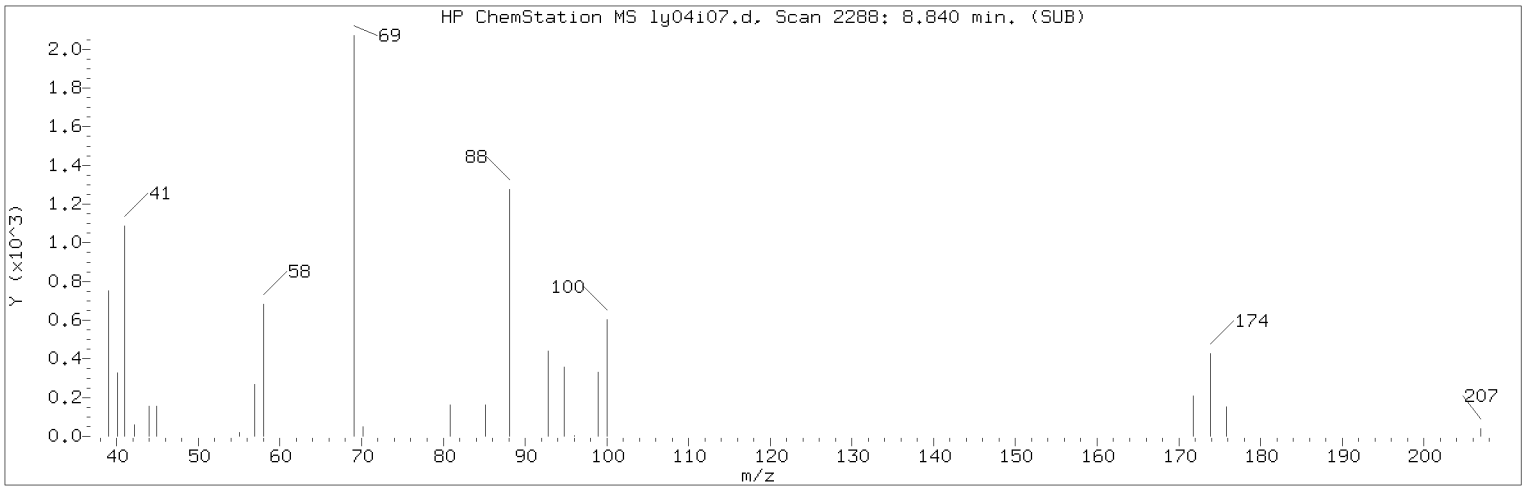
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

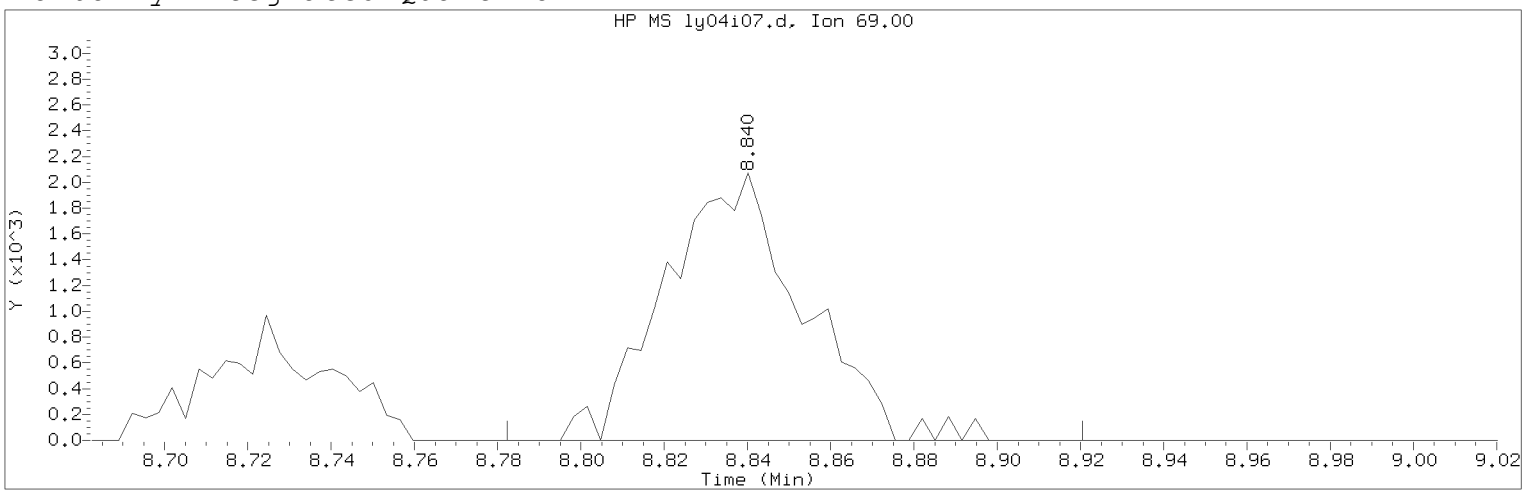
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area : 9335
On-column Amount (ng) : 1.0361
Integration start scan : 1892 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

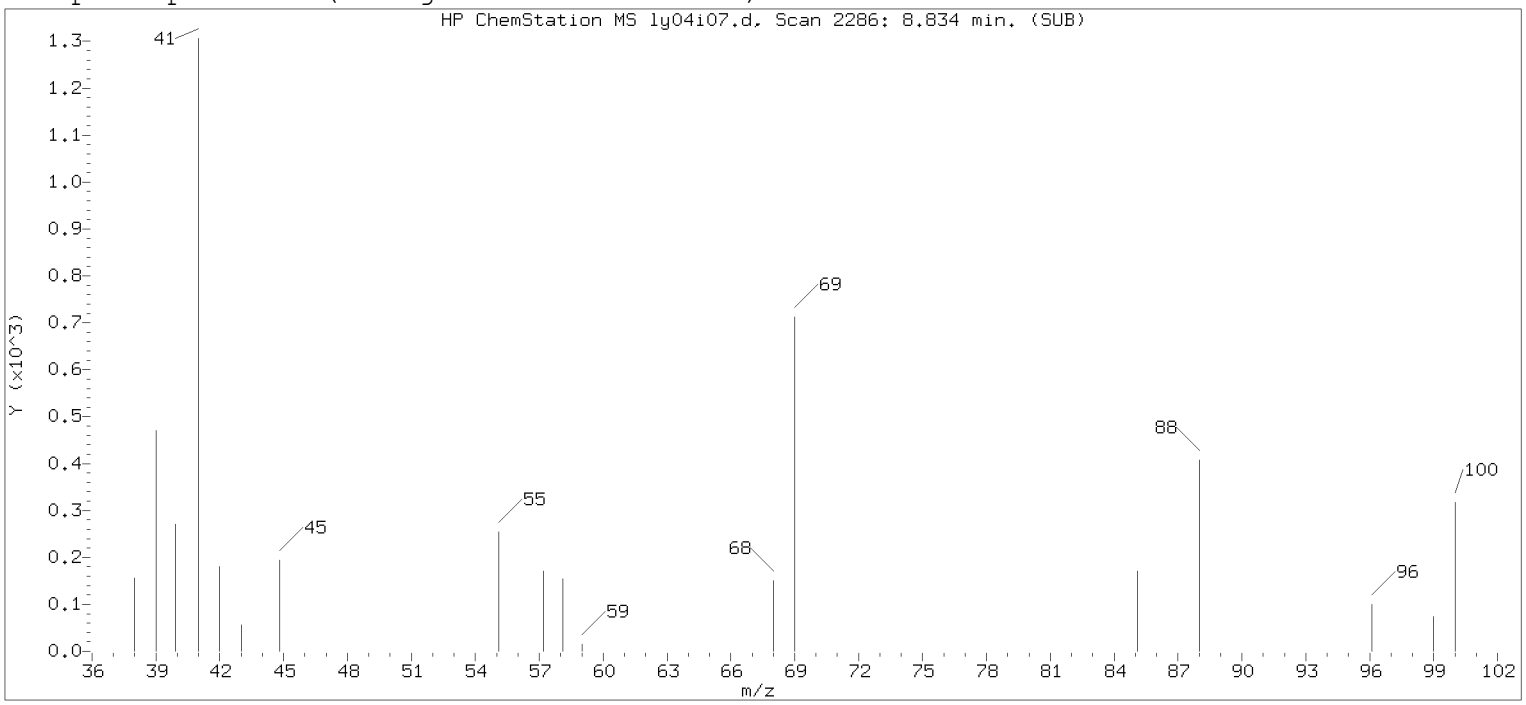
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 69.00
Area (flag) : 4771M
On-Column Amount (ng) : 0.7985
Integration start scan : 2269 Integration stop scan: 2312
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

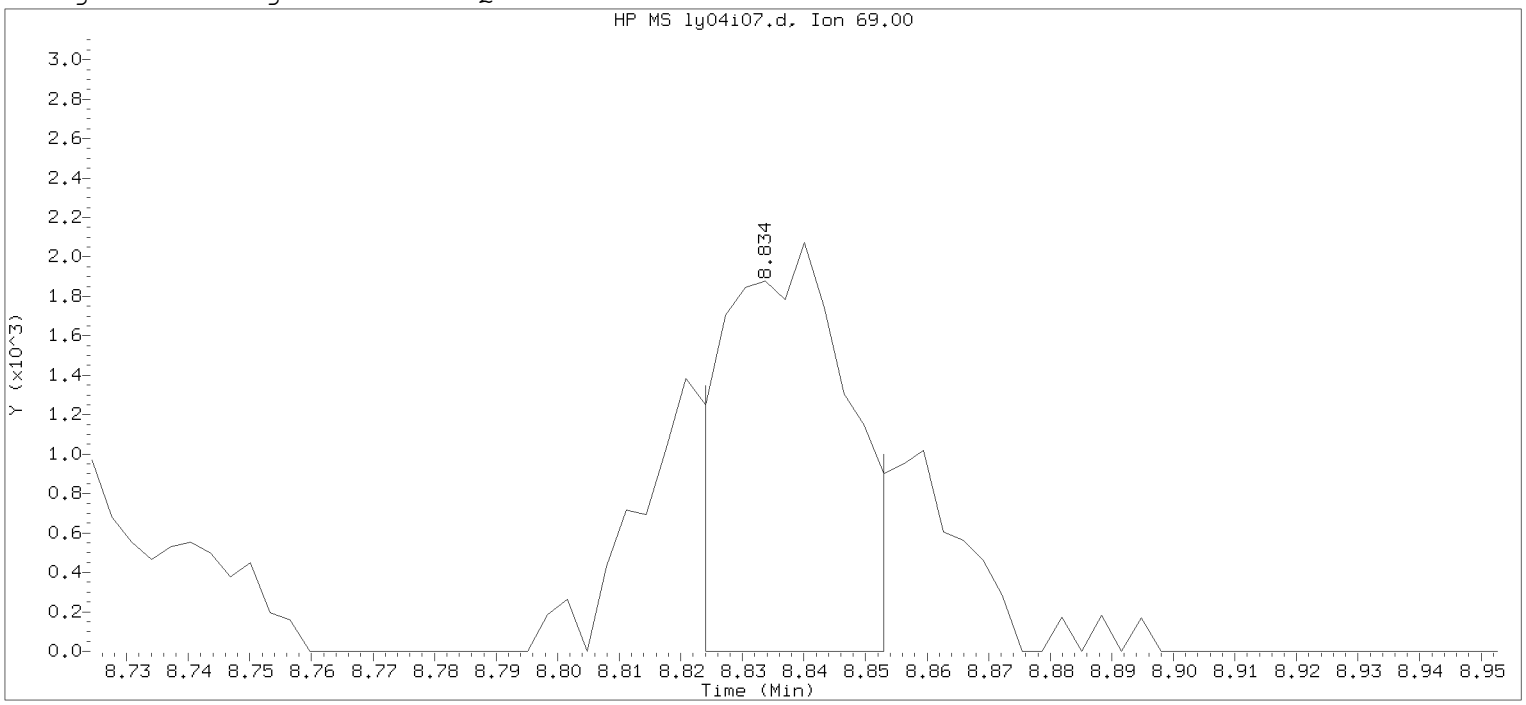
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

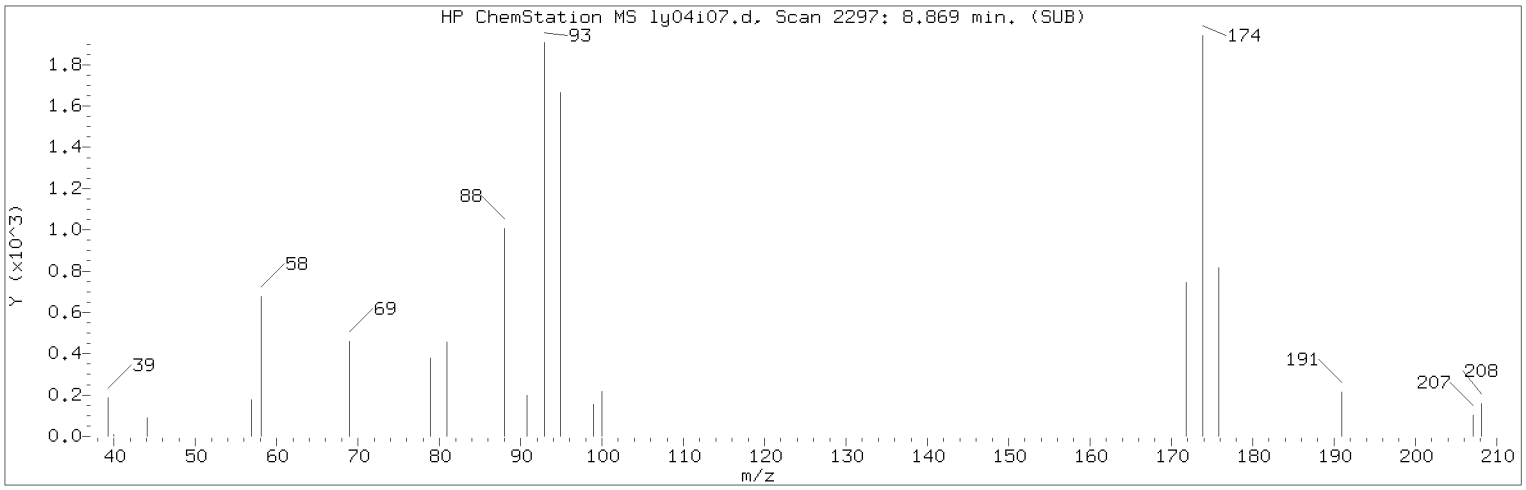
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

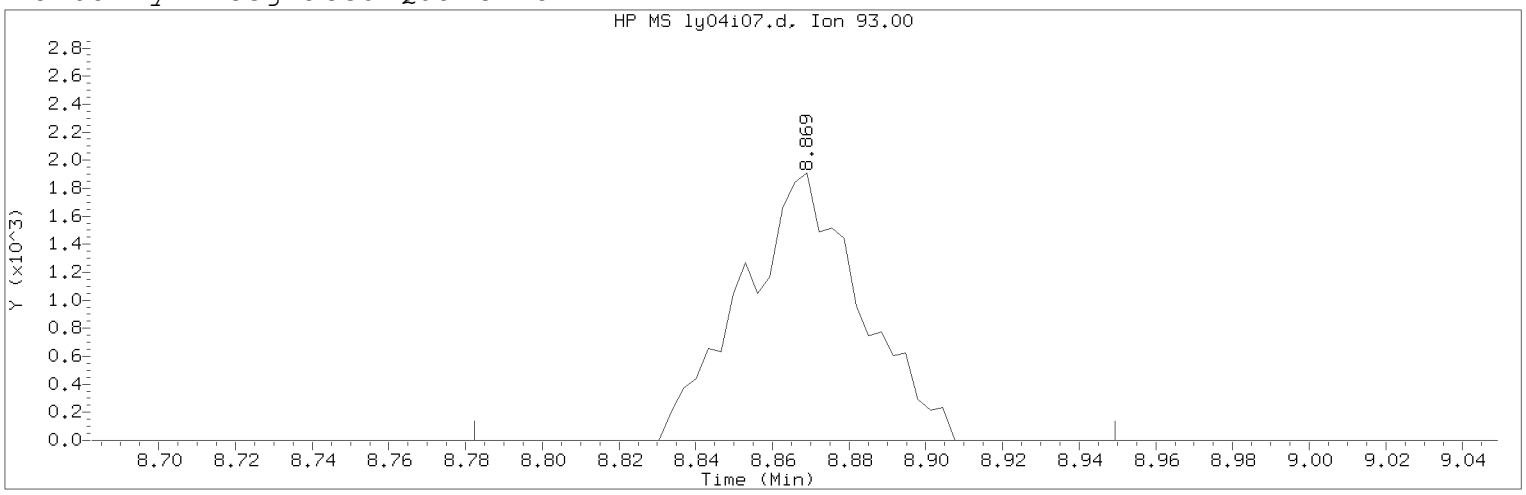
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2286
Retention Time (minutes): 8.834
Quant Ion : 69.00
Area : 2808
On-column Amount (ng) : 0.5001
Integration start scan : 2282 Integration stop scan: 2291
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

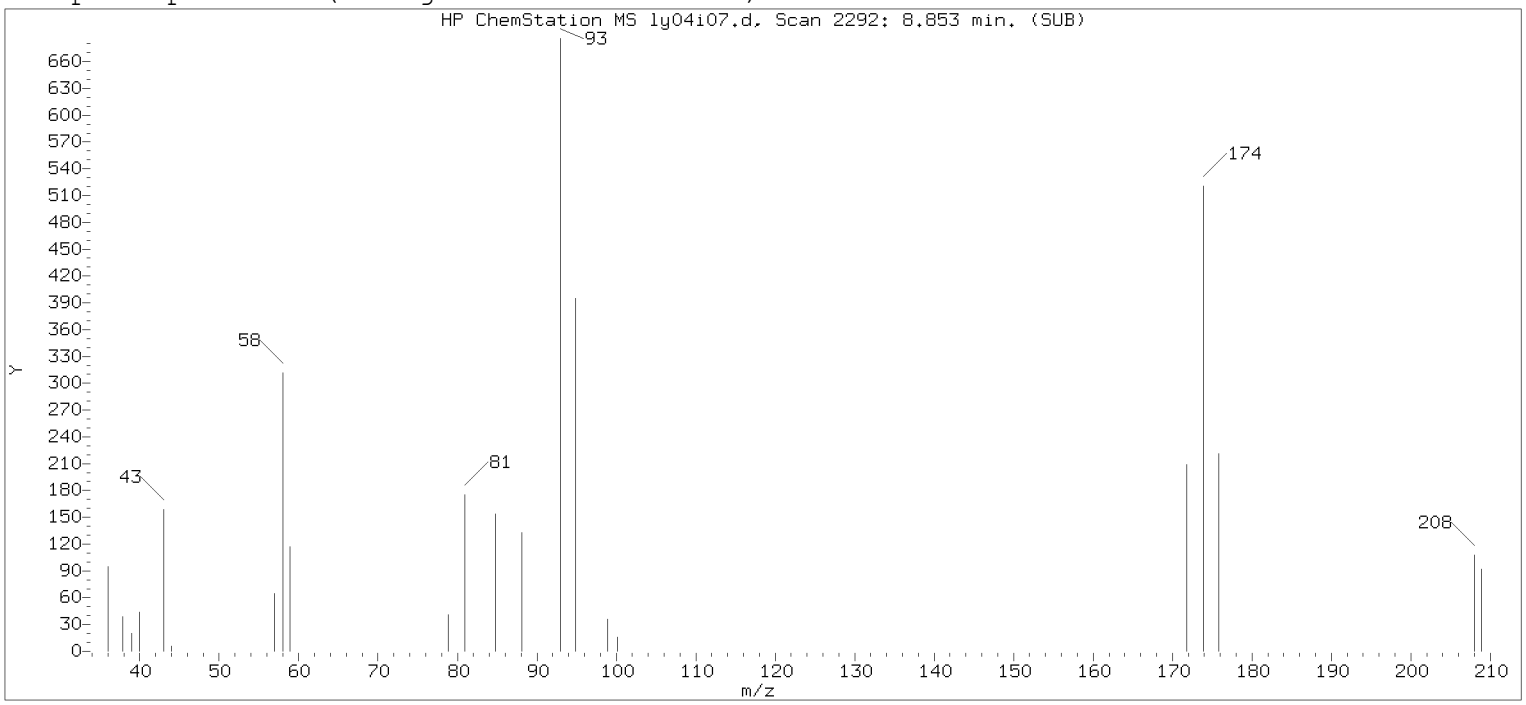
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2297
Retention Time (minutes): 8.869
Quant Ion : 93.00
Area (flag) : 4079M
On-Column Amount (ng) : 0.8976
Integration start scan : 2269 Integration stop scan: 2321
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

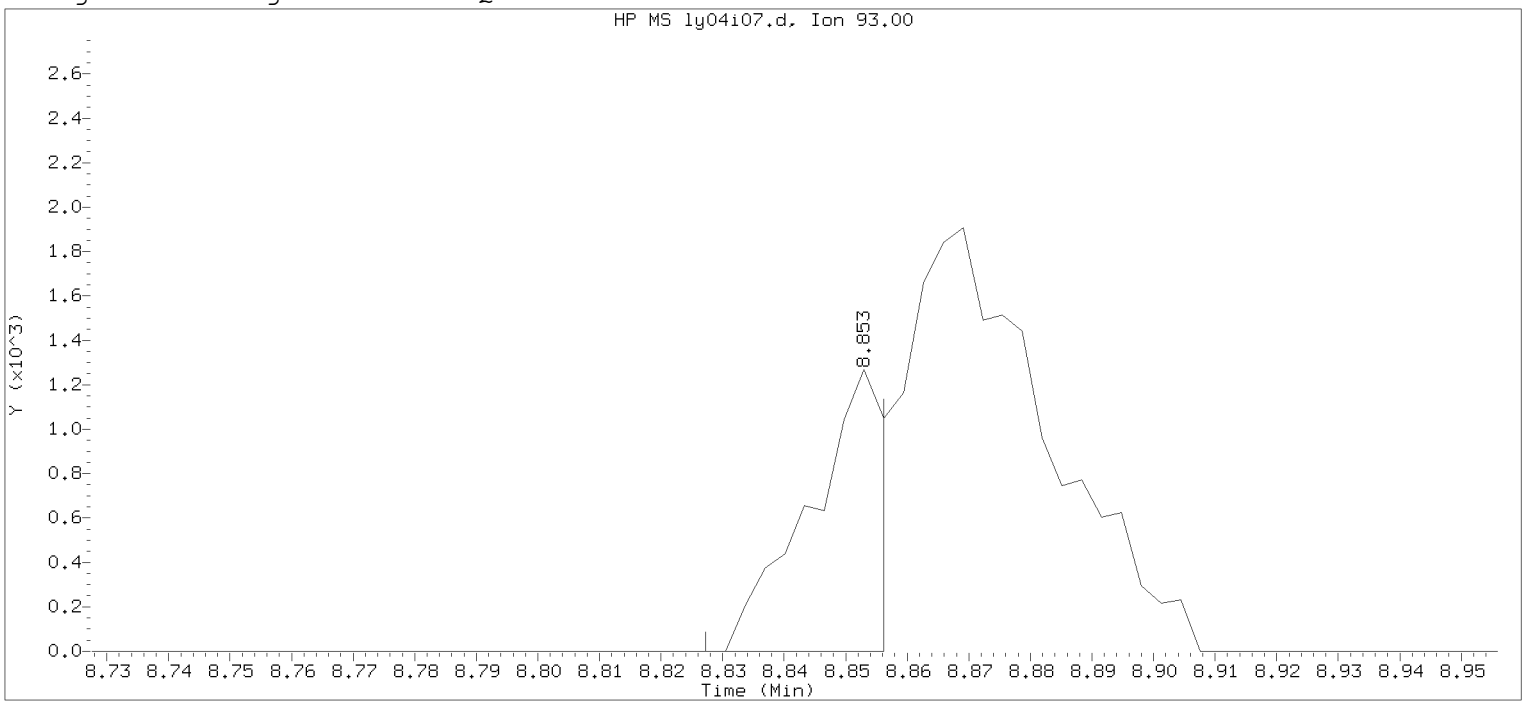
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

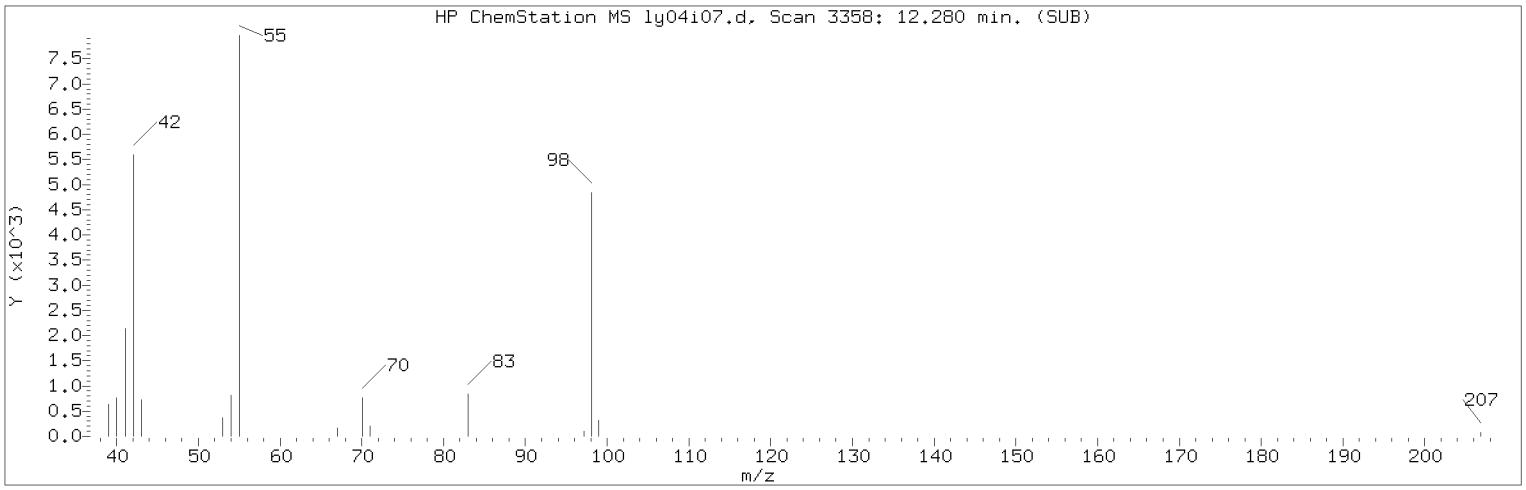
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

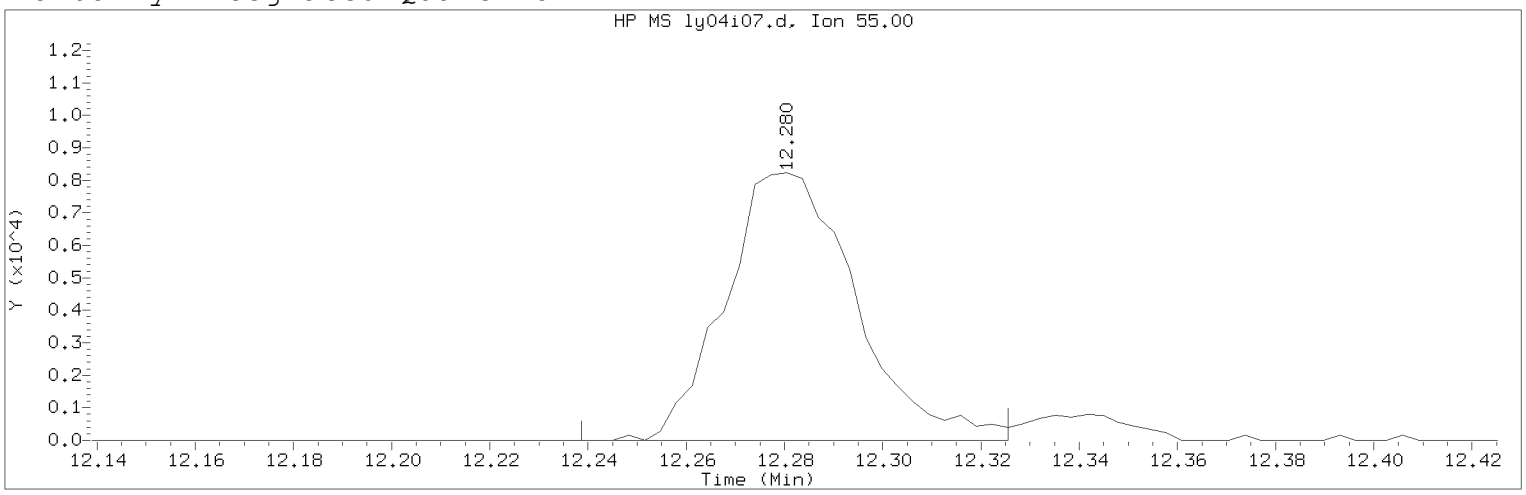
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2292
Retention Time (minutes): 8.853
Quant Ion : 93.00
Area : 993
On-column Amount (ng) : 0.2481
Integration start scan : 2283 Integration stop scan: 2292
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0026

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

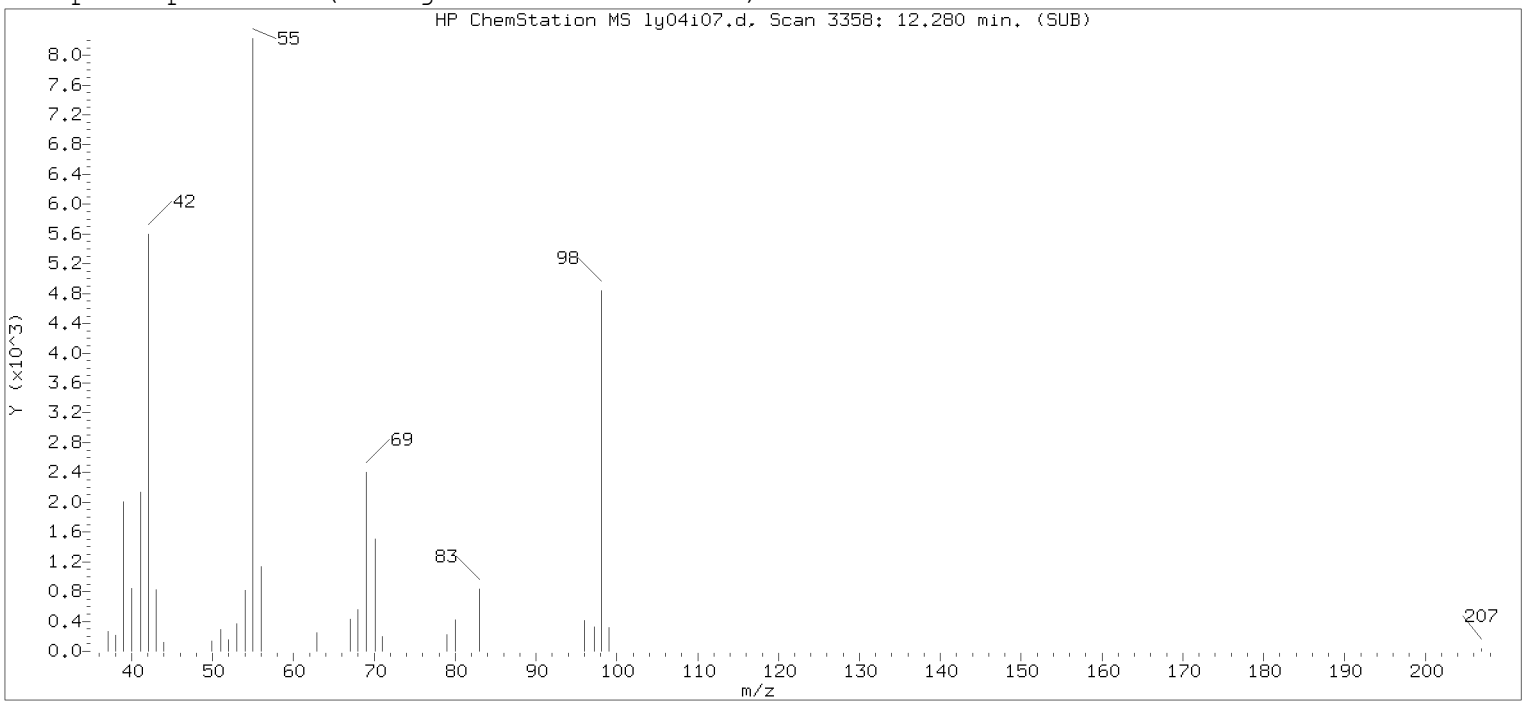
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area (flag) : 15170M
On-Column Amount (ng) : 41.2440
Integration start scan : 3344 Integration stop scan: 3371
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

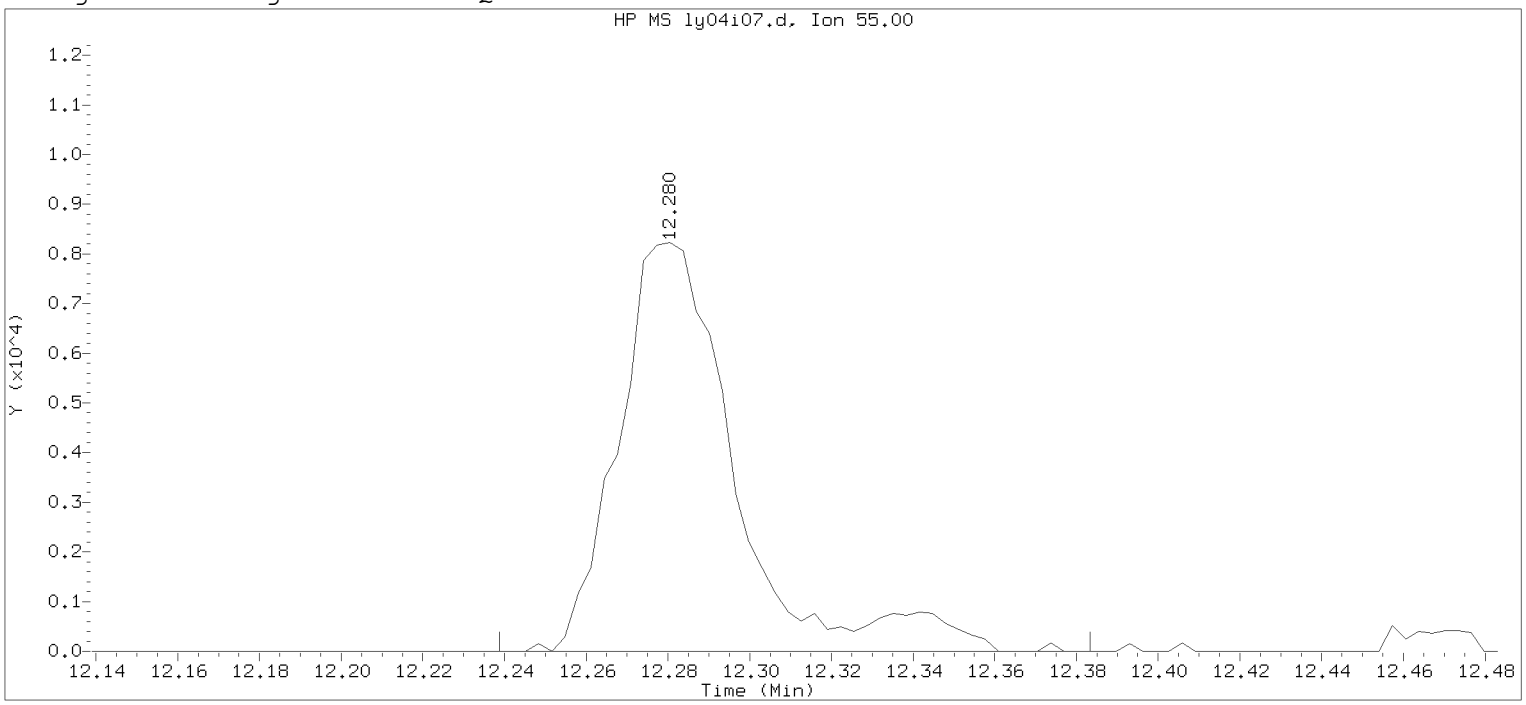
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

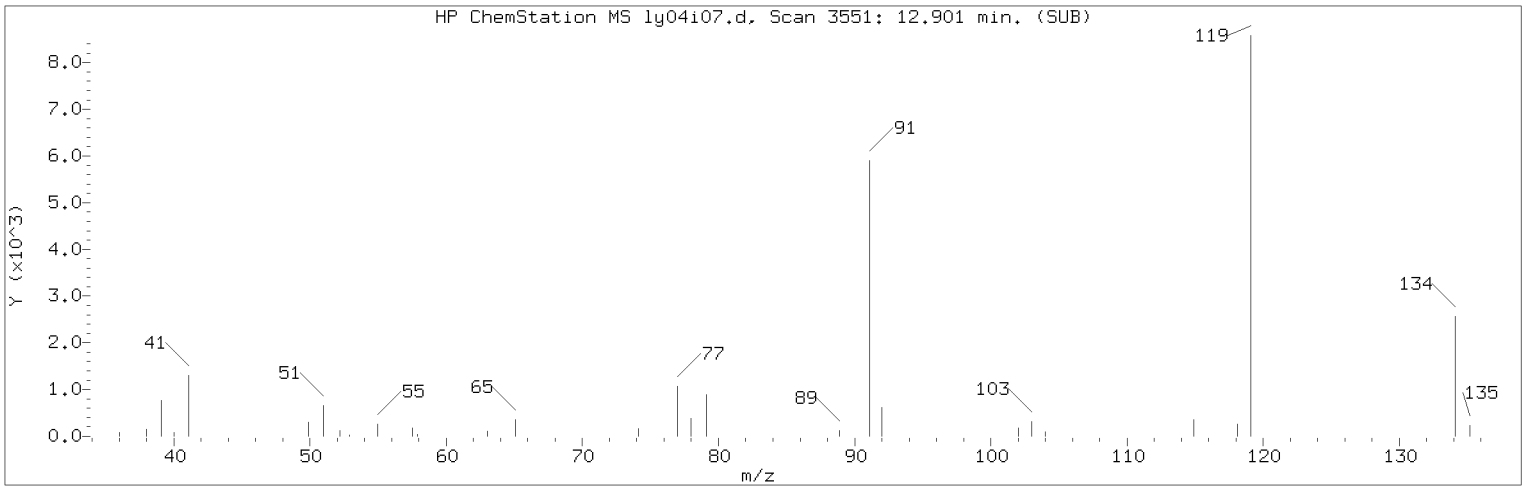
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

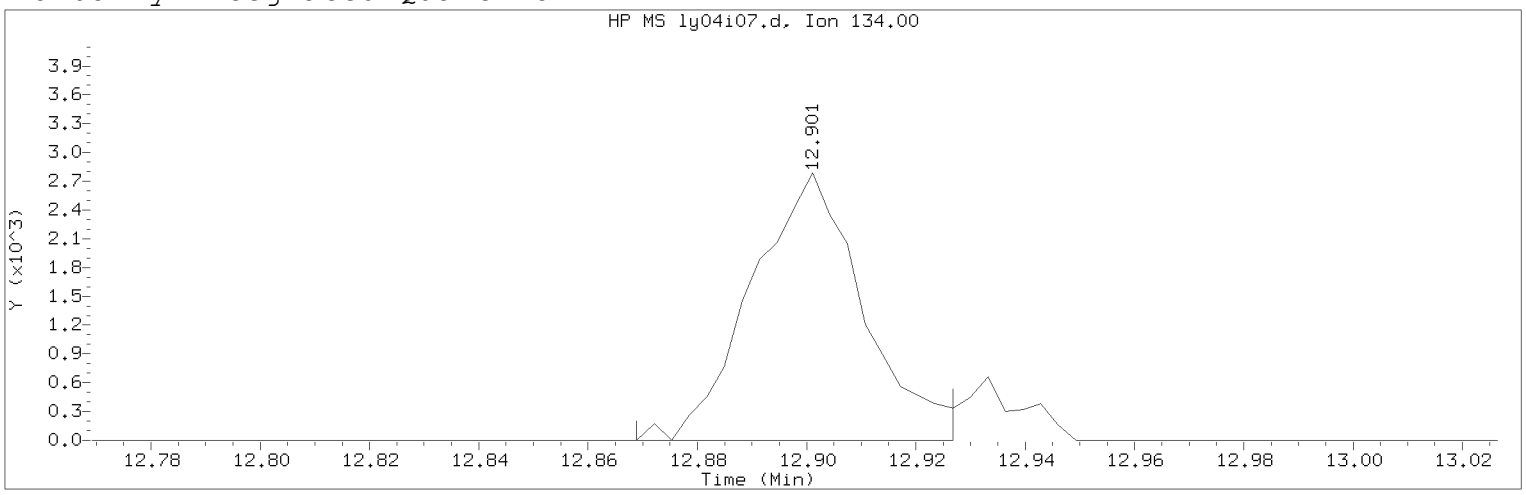
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area : 16320
On-column Amount (ng) : 44.5393
Integration start scan : 3344 Integration stop scan: 3389
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

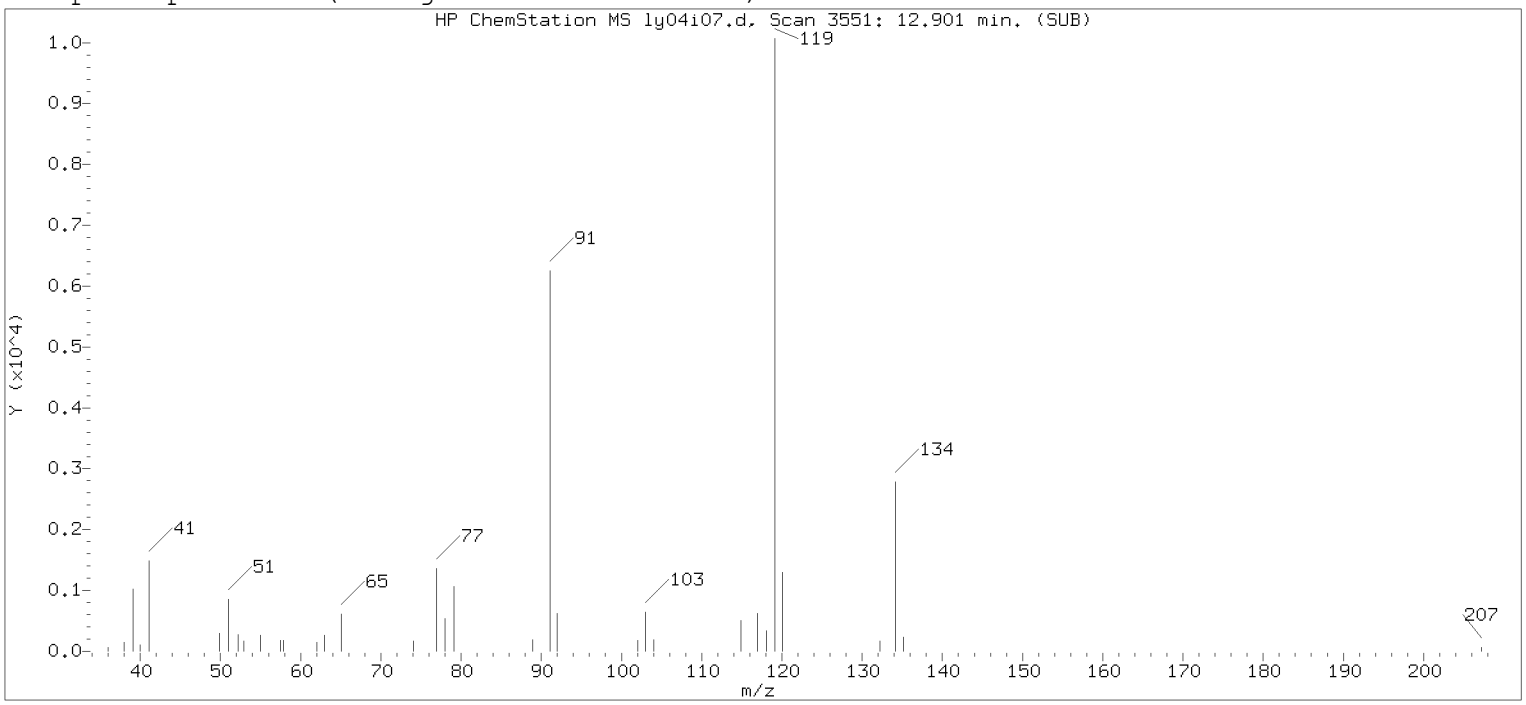
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 3961M
On-Column Amount (ng) : 0.7035
Integration start scan : 3540 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

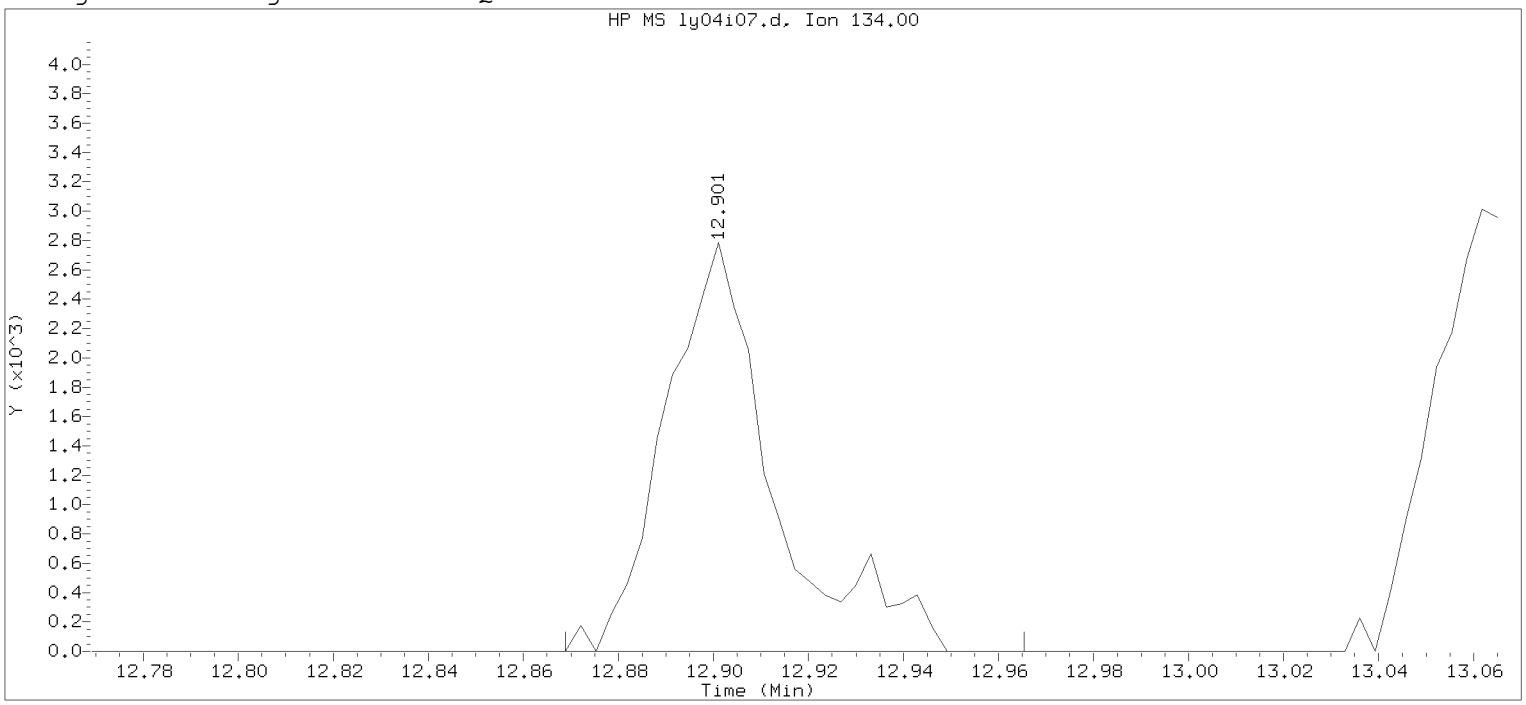
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

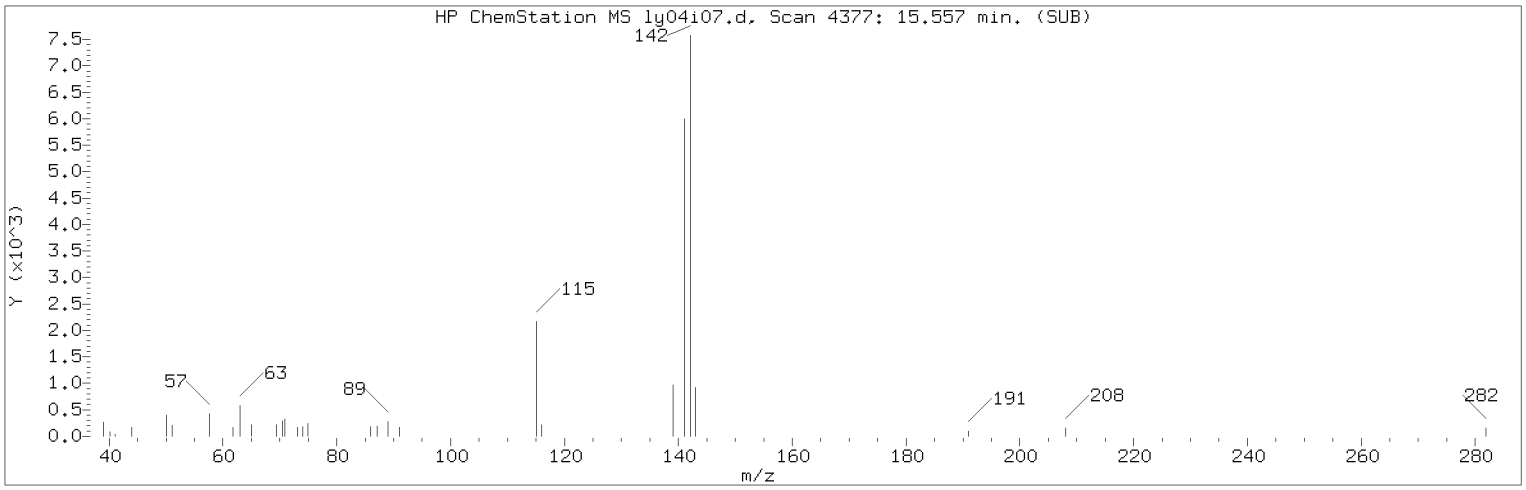
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

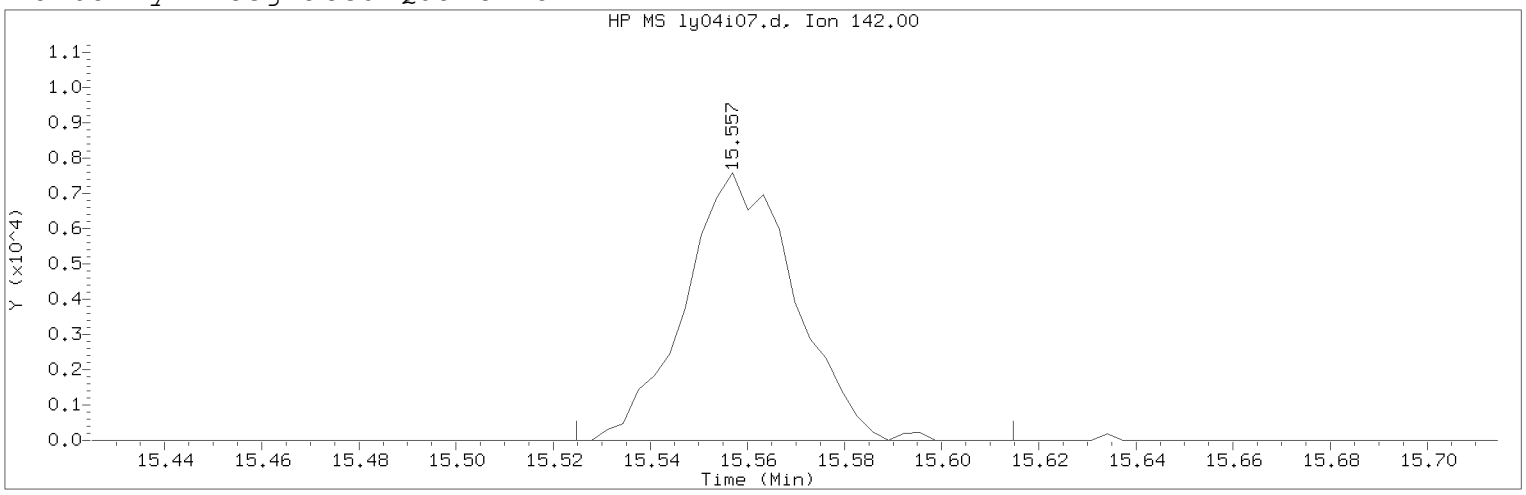
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 4401
On-column Amount (ng) : 0.7650
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0032

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

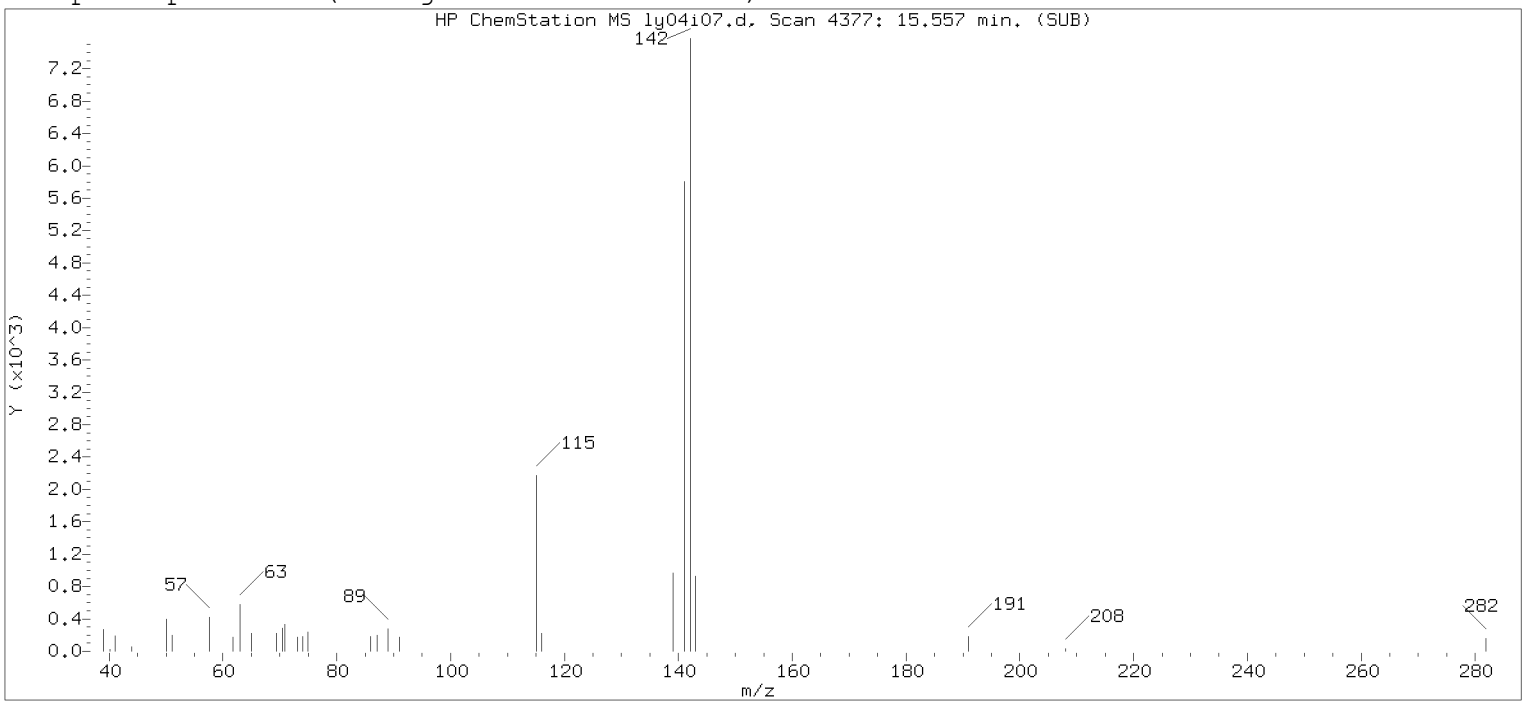
Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area (flag) : 11936M
On-Column Amount (ng) : 3.3357
Integration start scan : 4366 Integration stop scan: 4394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

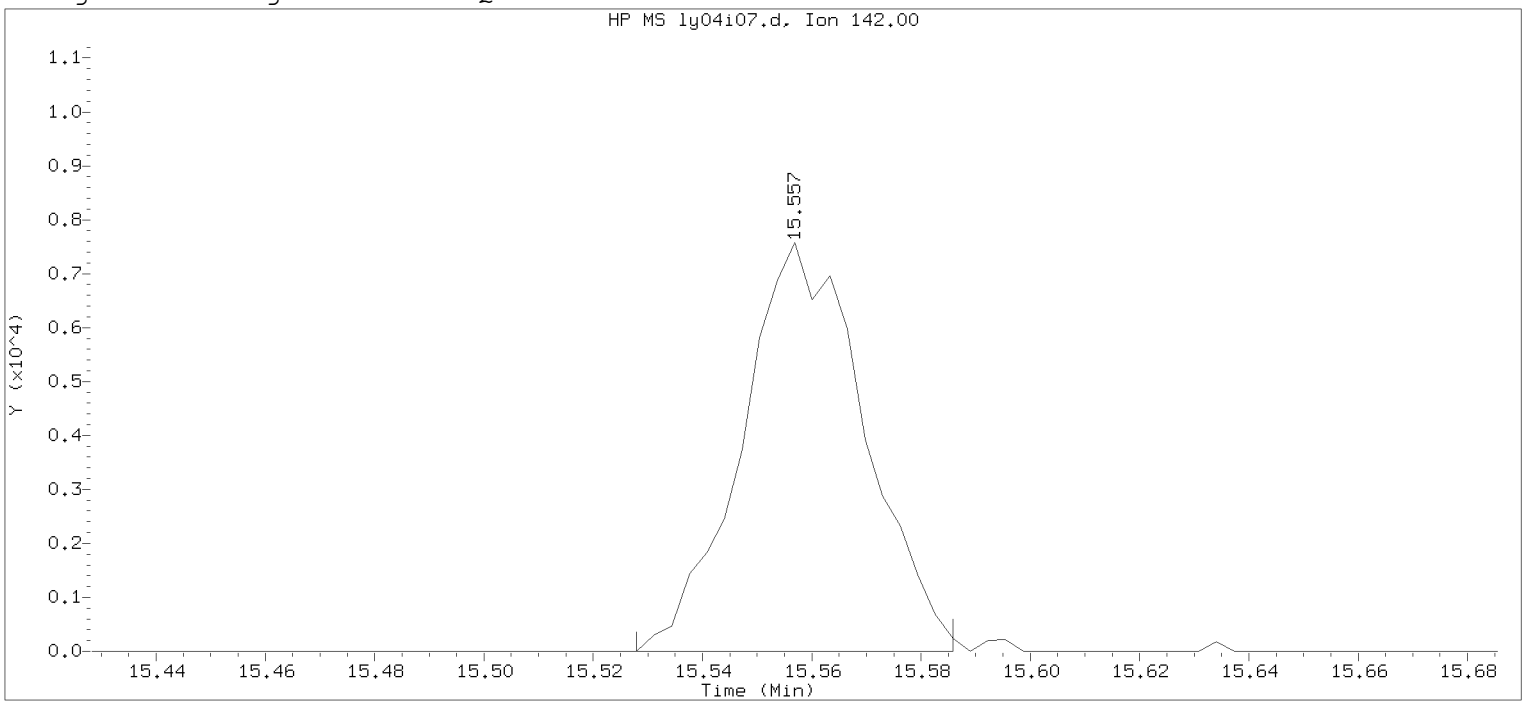
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



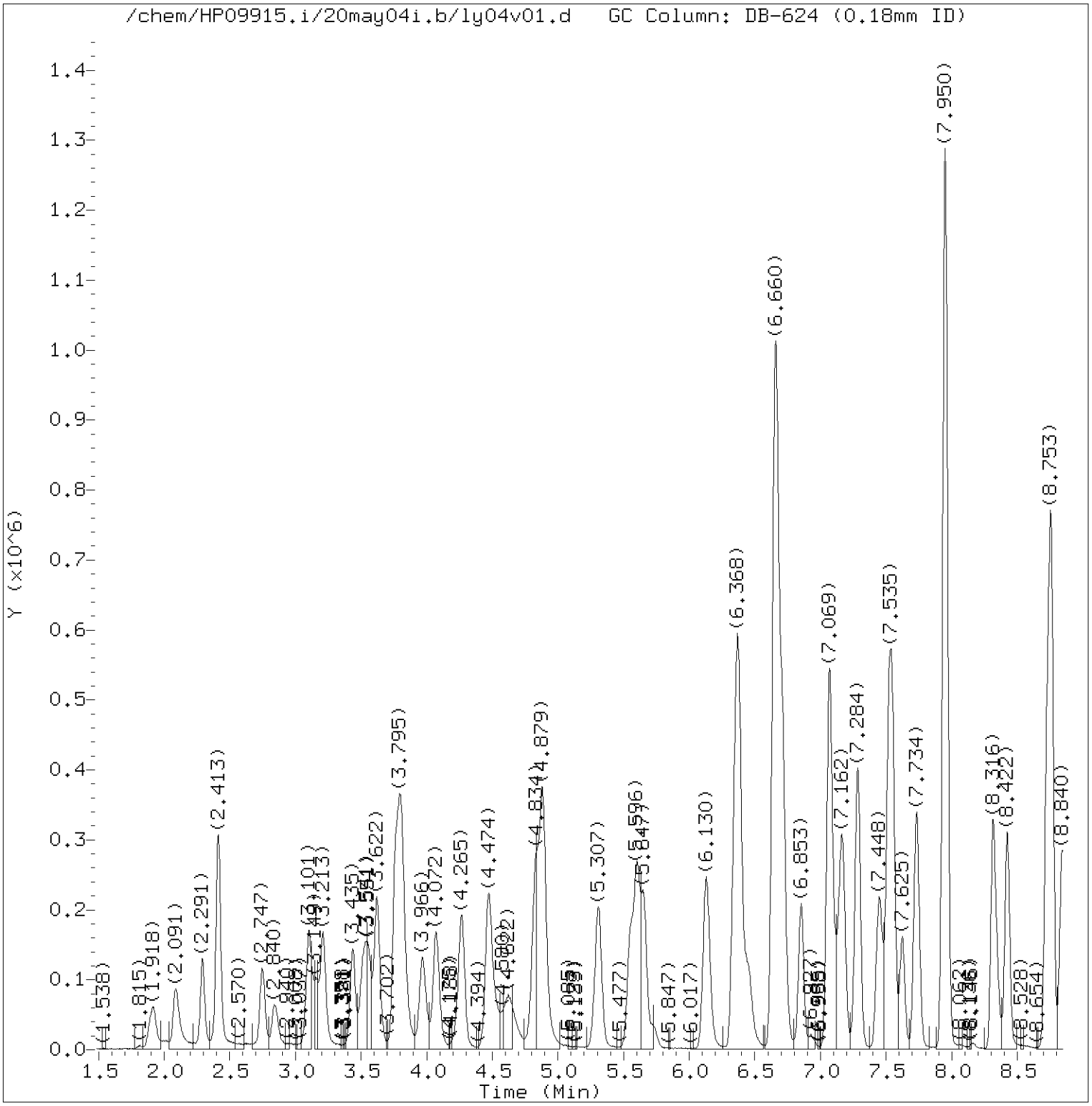
Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area : 11832
On-column Amount (ng) : 0.6286
Integration start scan : 4367 Integration stop scan: 4385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user: JCW57 Page 632 of 881



Total Ion Chromatogram (TIC)

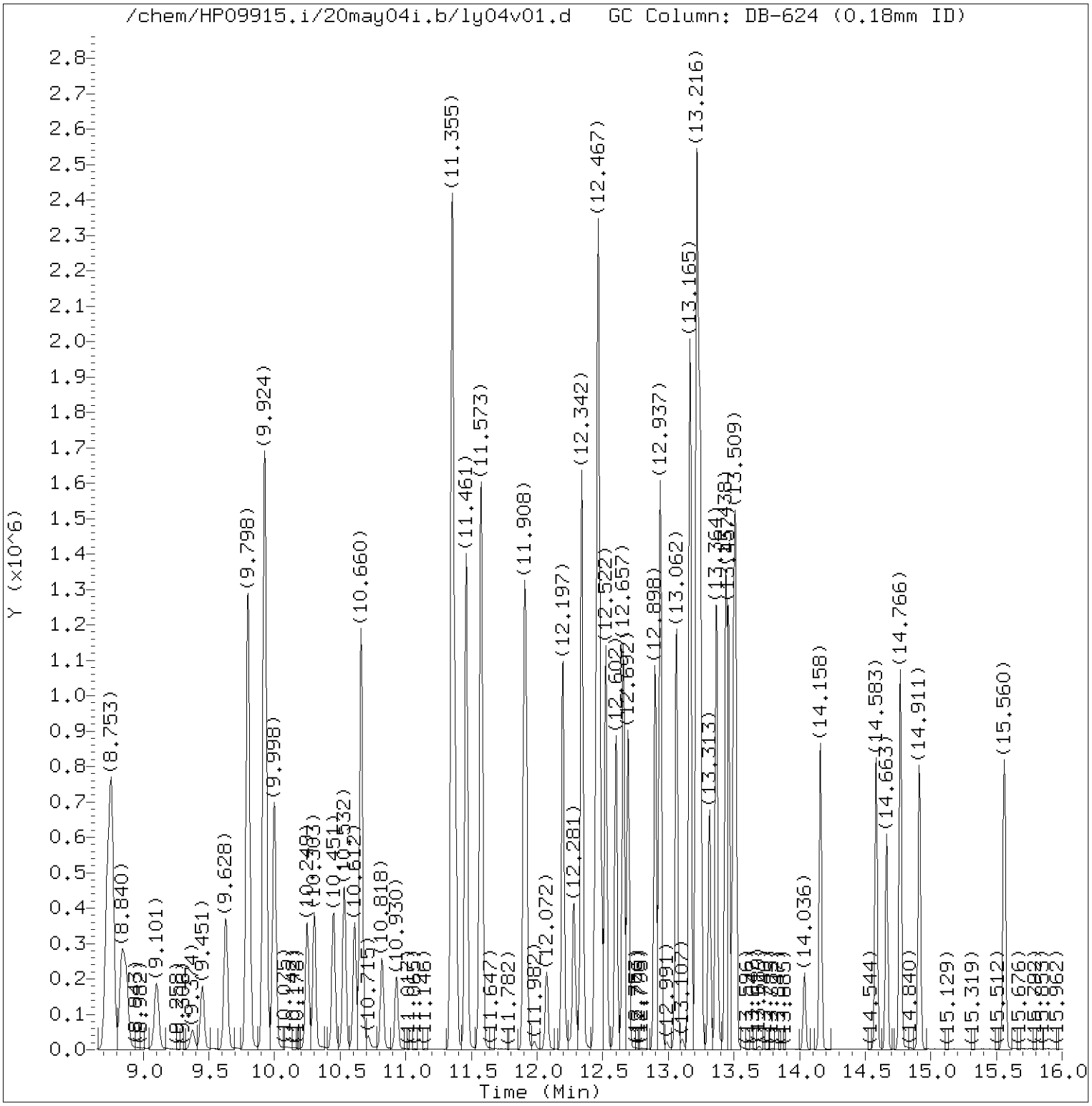
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	170822	18.748
4) Chloromethane	(2)	2.294	50	178347	20.965
5) 1,3-Butadiene	(2)	2.410	39	127548M	23.372
6) Vinyl Chloride	(2)	2.413	62	173135	21.090
8) Bromomethane	(2)	2.747	94	113651	19.202
9) Chloroethane	(2)	2.837	64	89576	19.543
10) Dichlorofluoromethane	(2)	3.101	67	184252	18.636
12) Trichlorofluoromethane	(2)	3.156	101	202771	22.616
11) n-Pentane	(2)	3.213	43	155213	18.438
14) Ethyl ether	(2)	3.435	59	129003	20.363
15) Freon 123a	(2)	3.525	67	151026	20.792
16) Acrolein	(1)	3.622	56	329175	139.630
17) 1,1-Dichloroethene	(2)	3.760	96	118964	20.806
19) Freon 113	(2)	3.792	101	114815	19.354
18) Acetone	(1)	3.802	58	207762	193.204
22) Methyl Iodide	(2)	3.966	142	219377	19.908
21) 2-Propanol	(1)	3.985	45	103119	150.457
23) Carbon Disulfide	(2)	4.072	76	402072	20.884
27) Methyl Acetate	(2)	4.242	43	139909	19.185
25) Allyl Chloride	(2)	4.268	41	179935	19.419
28) Methylene Chloride	(2)	4.467	84	139636	20.530
29)*t-Butyl alcohol-d10	(1)	4.493	65	286563	250.000
30) t-Butyl alcohol	(1)	4.622	59	234564	202.753
31) Acrylonitrile	(2)	4.824	53	381896	94.534
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	376365	19.193
32) trans-1,2-Dichloroethene	(2)	4.889	96	134049	20.379
34) n-Hexane	(2)	5.310	57	192921	20.943
36) 1,1-Dichloroethane	(2)	5.548	63	232641	20.165
38) di-Isopropyl ether	(2)	5.602	45	404847	19.953
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	188423	20.480
40) Ethyl t-butyl ether	(2)	6.130	59	373926	19.834
43) 1,2-Dichloroethene (Total)	(2)		96	293072	41.937
44) 2-Butanone	(2)	6.352	43	810086	165.204
42) cis-1,2-Dichloroethene	(2)	6.377	96	159023	21.558
45) 2,2-Dichloropropane	(2)	6.387	77	181449	20.350
47) Propionitrile	(1)	6.448	54	235686	150.798
48) Methacrylonitrile	(2)	6.657	67	620974	153.326
49) Bromochloromethane	(2)	6.705	128	74060	19.458

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.712	71	133663	97.744
51) Chloroform	(2)	6.853	83	227394	20.175
52)$Dibromofluoromethane	(2)	7.069	113	330544	49.382
53) 1,1,1-Trichloroethane	(2)	7.072	97	191699	19.825
54) Cyclohexane	(2)	7.168	56	232443	21.474
56) Carbon Tetrachloride	(2)	7.281	117	165383	20.413
55) 1,1-Dichloropropene	(2)	7.284	75	180448	20.357
58) Isobutyl Alcohol	(1)	7.454	41	194524	495.653
57)$1,2-Dichloroethane-d4	(2)	7.519	102	84686	49.860
60) Benzene	(2)	7.551	78	549814	20.037
61) 1,2-Dichloroethane	(2)	7.625	62	181543	19.737
65) t-Amyl methyl ether	(2)	7.734	73	388580	20.176
66)*Fluorobenzene	(2)	7.950	96	1328679	50.000
67) n-Heptane	(2)	7.956	43	195566	20.416
69) n-Butanol	(1)	8.313	56	319239	997.615
71) Trichloroethene	(2)	8.422	95	138805	19.990
72) Methylcyclohexane	(2)	8.721	83	230091	20.379
73) 1,2-Dichloropropane	(2)	8.757	63	143846	20.346
76) Methyl Methacrylate	(2)	8.834	69	119148	19.600
75) 1,4-Dioxane	(1)	8.840	88	49173M	511.194
74) Dibromomethane	(2)	8.866	93	92229	19.947
78) Bromodichloromethane	(2)	9.104	83	164272	19.817
79) 2-Nitropropane	(2)	9.374	41	43949	17.683
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	96311	20.458
81) cis-1,3-Dichloropropene	(2)	9.628	75	217653	20.091
82) 4-Methyl-2-pentanone	(2)	9.795	43	988209	99.516
83)$Toluene-d8	(3)	9.924	98	1360447	49.949
88) Toluene	(3)	9.998	92	346986	19.987
90) 1,3-Dichloropropene (total)	(3)		100	414410	39.844
89) trans-1,3-Dichloropropene	(3)	10.249	75	196757	19.753
91) Ethyl Methacrylate	(3)	10.303	69	207140	20.667
92) 1,1,2-Trichloroethane	(3)	10.451	97	138453	20.553
93) Tetrachloroethene	(3)	10.528	166	153665	20.770
94) 1,3-Dichloropropane	(3)	10.609	76	223187	19.812
96) 2-Hexanone	(3)	10.660	43	781980	107.421
97) Dibromochloromethane	(3)	10.818	129	142177	20.290
99) 1,2-Dibromoethane	(3)	10.930	107	143222	19.783
100)*Chlorobenzene-d5	(3)	11.351	117	1060223	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.358	91	177481	19.977
102) Chlorobenzene	(3)	11.380	112	403802	20.255
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	133891	19.811
104) Ethylbenzene	(3)	11.461	91	665092	20.697
106) m+p-Xylene	(3)	11.573	106	539656	42.741
108) Xylene (Total)	(3)		106	798814	63.966
107) o-Xylene	(3)	11.901	106	259158	21.225
109) Styrene	(3)	11.917	104	425651	21.435
110) Bromoform	(3)	12.072	173	98703	19.348
111) Isopropylbenzene	(3)	12.197	105	672074	21.691
112) Cyclohexanone	(1)	12.277	55	174130	486.309
114)$4-Bromofluorobenzene	(3)	12.342	95	522085	49.817
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	216158M	19.631
115) Bromobenzene	(4)	12.461	156	176337	19.952
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	326570	101.958
117) 1,2,3-Trichloropropane	(4)	12.490	110	66018	19.632
119) n-Propylbenzene	(4)	12.522	91	805085	21.076
120) 2-Chlorotoluene	(4)	12.602	126	165995	20.341
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	584710	21.184
121) 4-Chlorotoluene	(4)	12.692	126	171352	20.230
124) tert-Butylbenzene	(4)	12.898	134	120476M	21.234
125) Pentachloroethane	(4)	12.933	167	103397	20.520
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	603784	21.157
127) sec-Butylbenzene	(4)	13.062	105	729406	21.705
129) 1,3-Dichlorobenzene	(4)	13.162	146	341577	20.740
130) p-Isopropyltoluene	(4)	13.165	119	640341	22.238
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	603976	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	352089	20.370
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	631126	21.285
135) Benzyl Chloride	(4)	13.313	91	436330	19.448
136) 1,3-Diethylbenzene	(4)	13.367	119	388528	20.941
141) Diethylbenzene (total)	(4)		100	1127079	62.827
137) 1,4-Diethylbenzene	(4)	13.438	119	407378	20.977
139) n-Butylbenzene	(4)	13.457	92	311525	21.057
138) 1,2-Dichlorobenzene	(4)	13.496	146	335221	20.222
140) 1,2-Diethylbenzene	(4)	13.512	119	331173	20.910
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	45288	18.583
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	252472	20.218

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

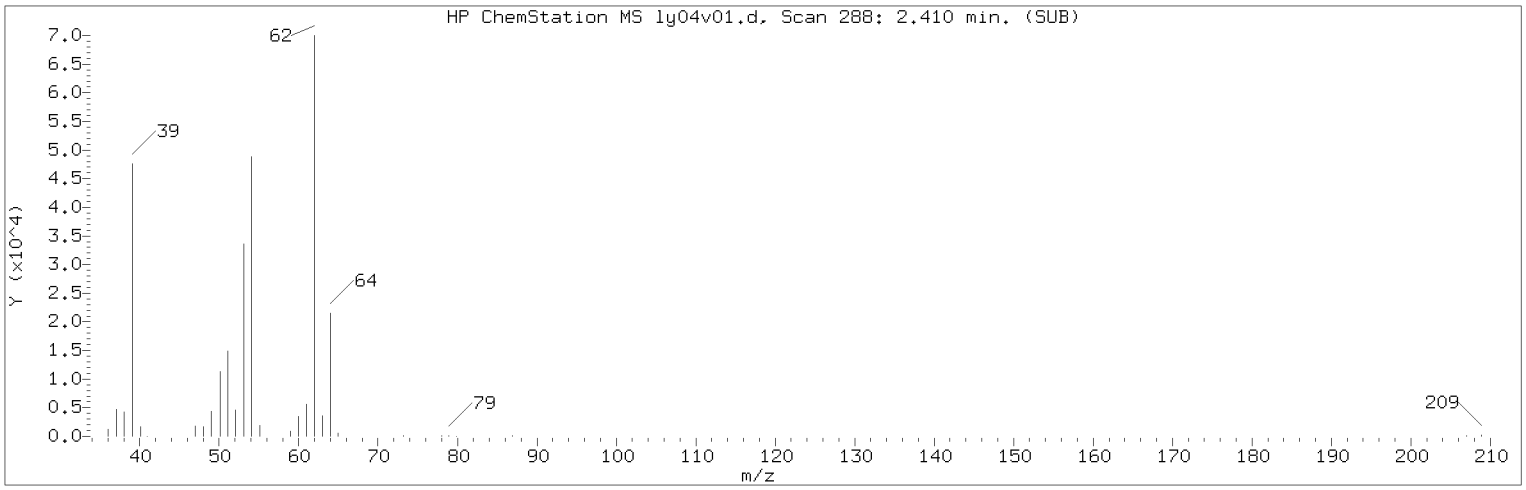
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

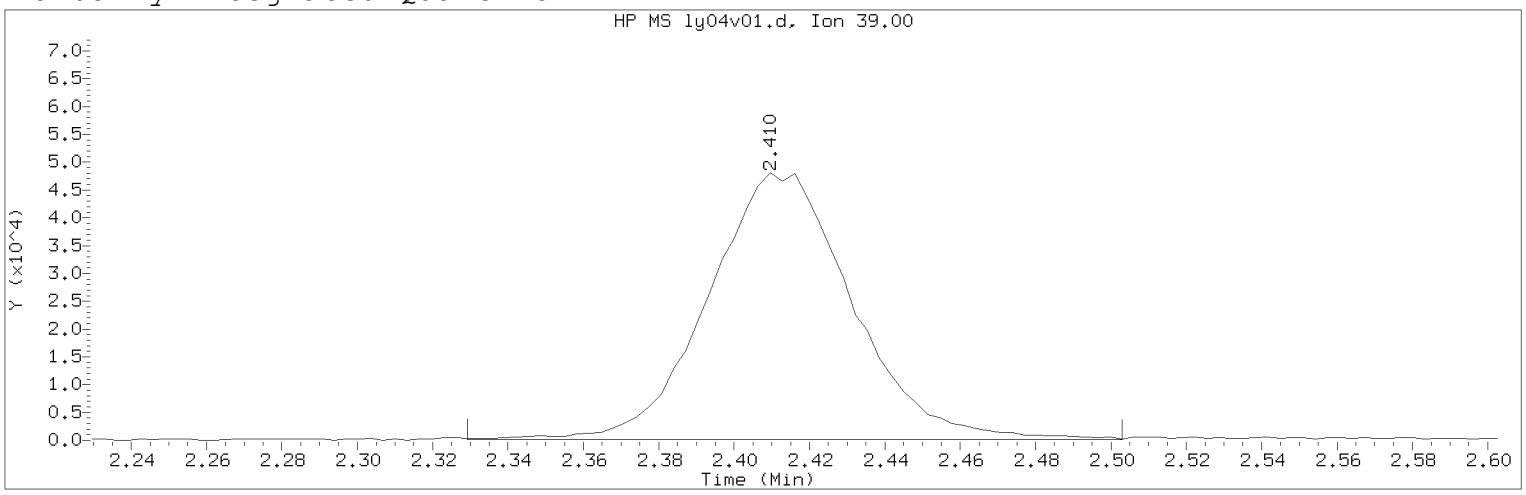
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	239361	20.511
147) Hexachlorobutadiene	(4)	14.663	225	102388	19.019
148) Naphthalene	(4)	14.766	128	784765	20.775
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	239315	20.637
150) 2-Methylnaphthalene	(4)	15.560	142	394789	16.057

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

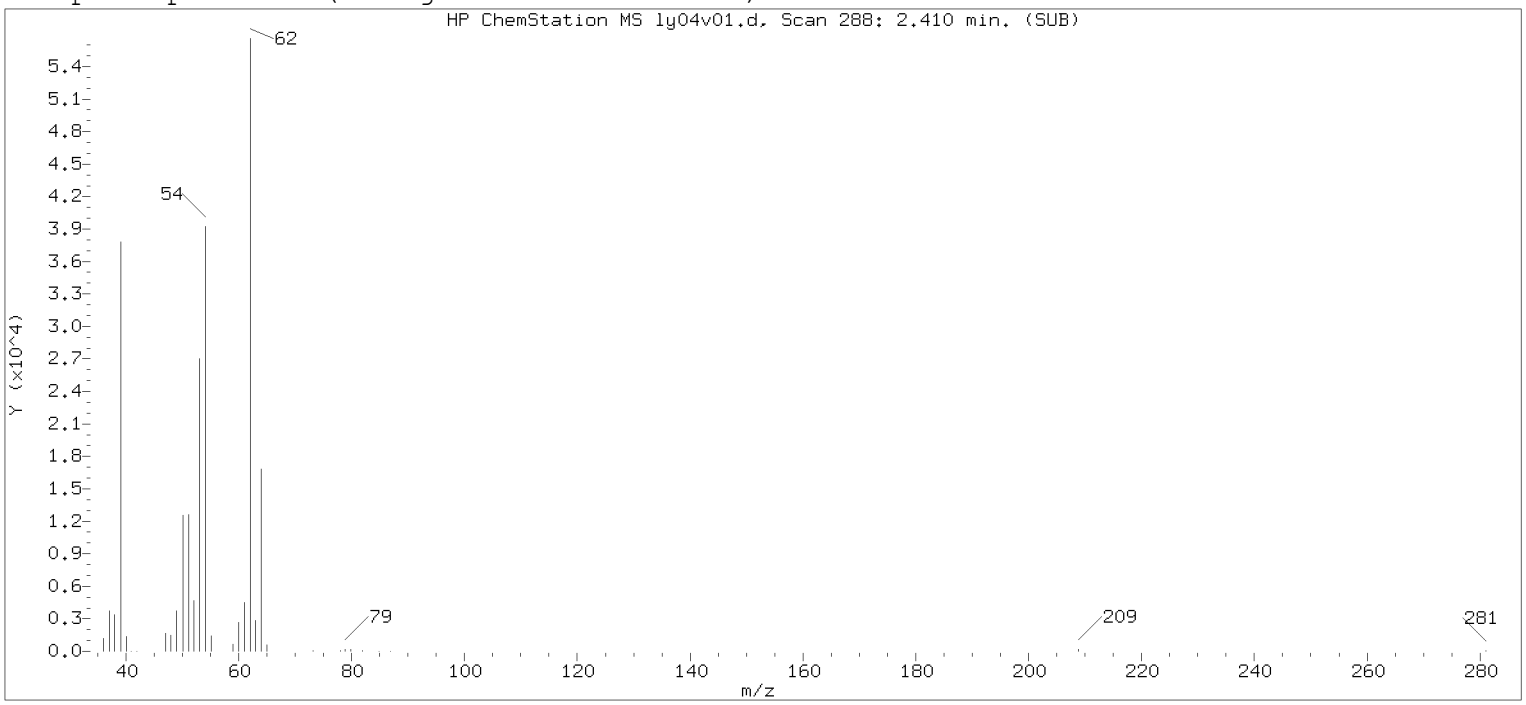
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area (flag) : 127548M
On-Column Amount (ng) : 23.3717
Integration start scan : 262 Integration stop scan: 316
Y at integration start : 100 Y at integration end: 100

Reason for manual integration: improper integration

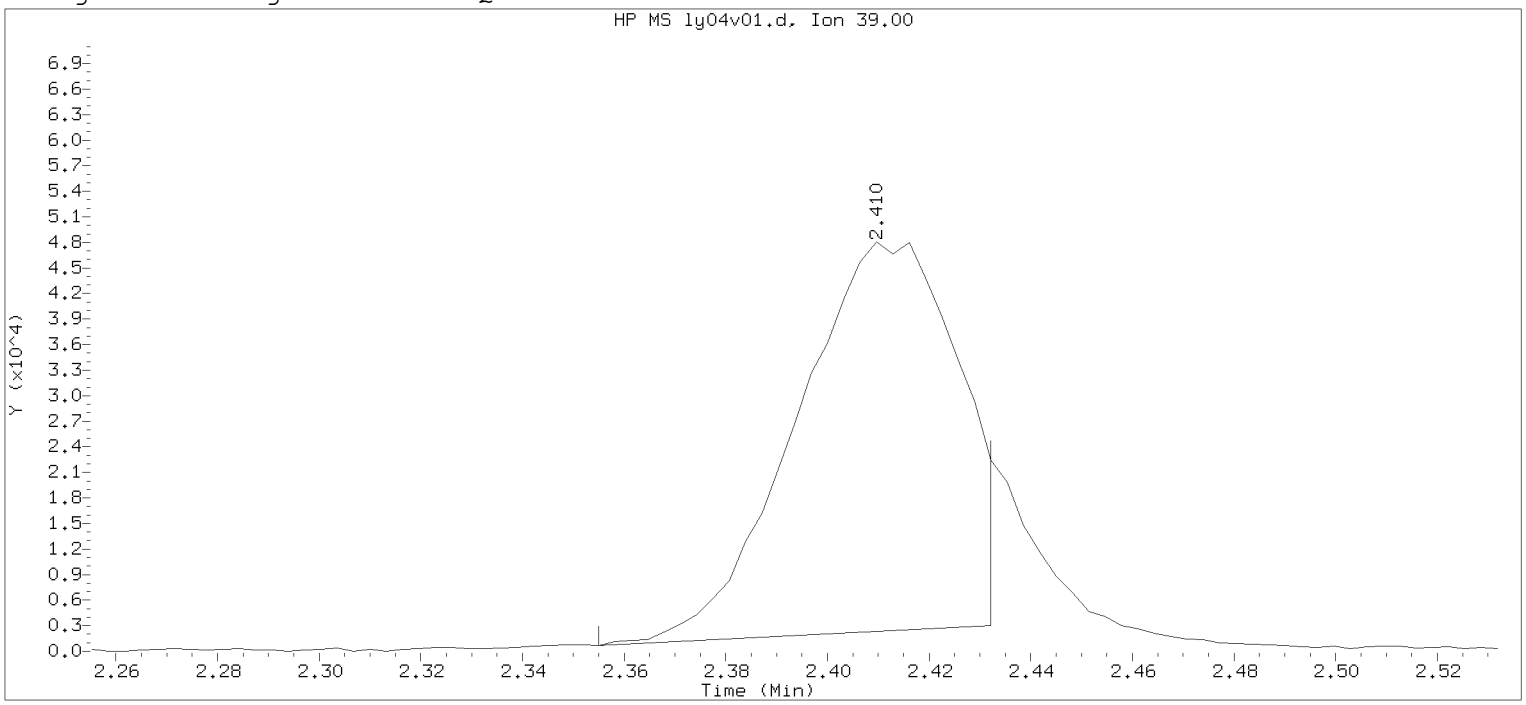
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

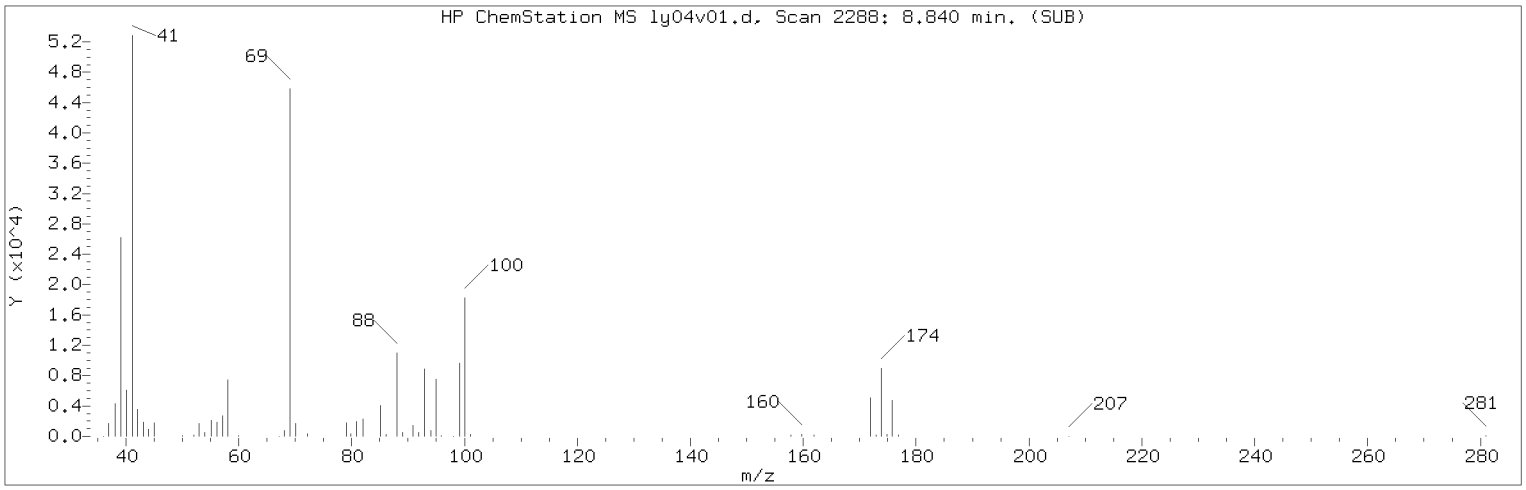
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

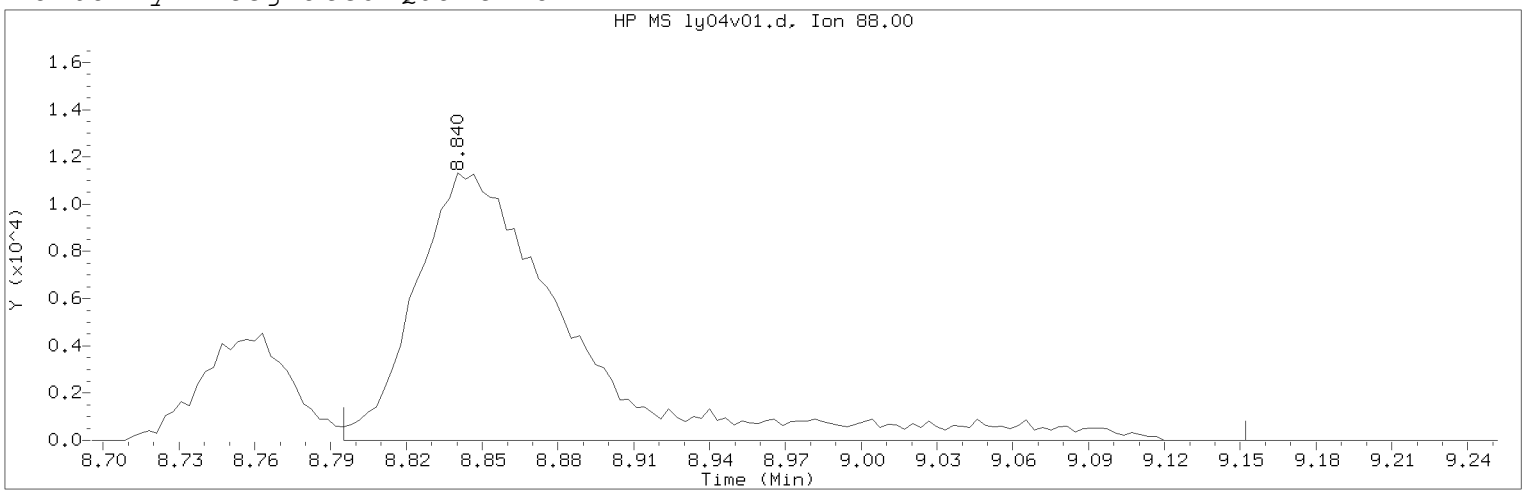
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area : 99799
On-column Amount (ng) : 22.0790
Integration start scan : 270 Integration stop scan: 294
Y at integration start : 715 Y at integration end: 3016

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dviray1023

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

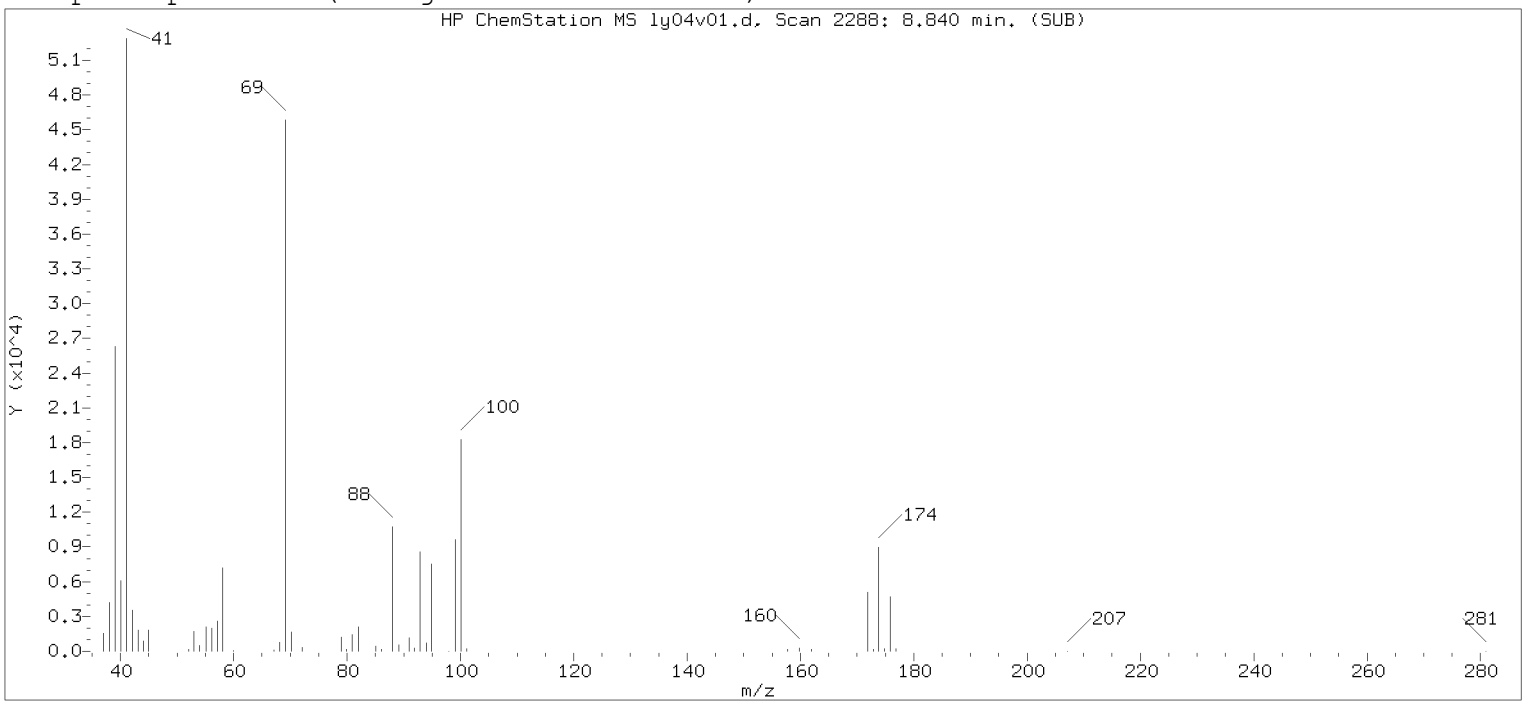
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 49173M
On-Column Amount (ng) : 511.1942
Integration start scan : 2273 Integration stop scan: 2384
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

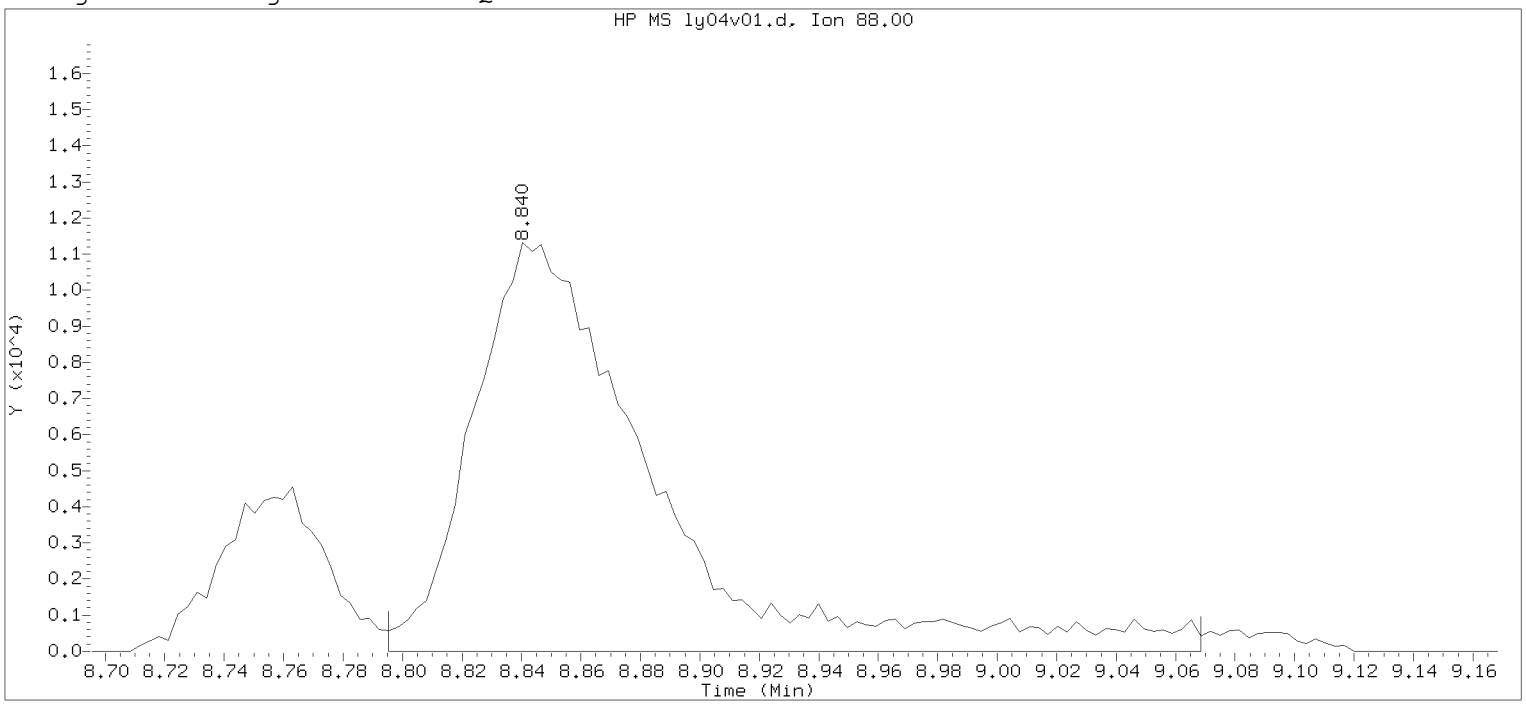
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

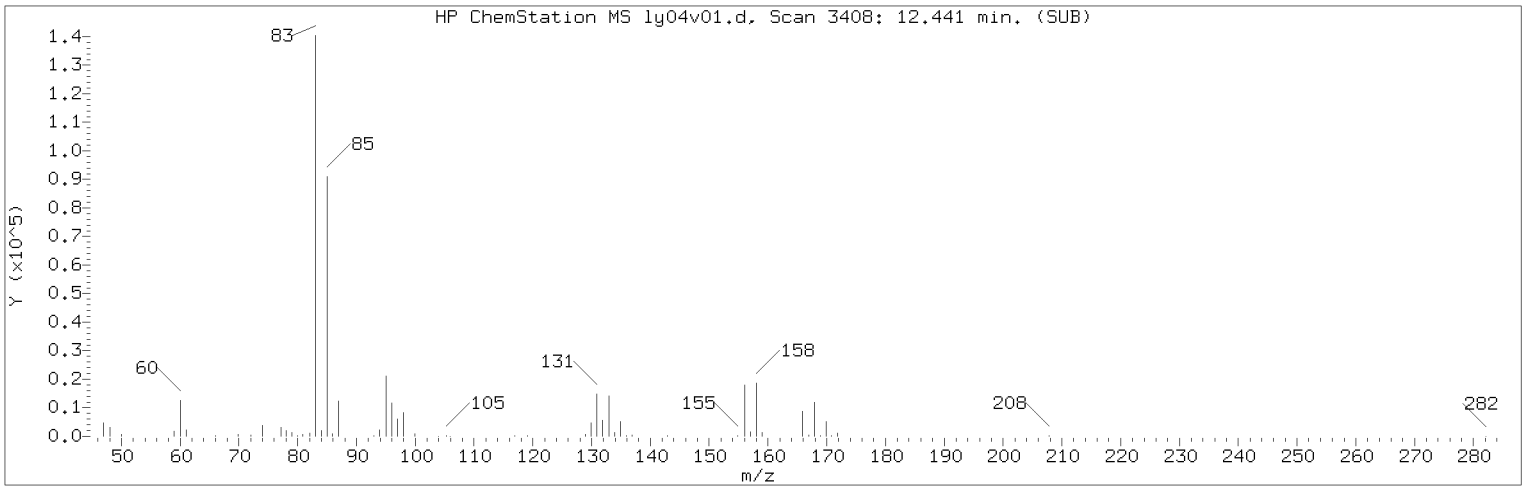
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

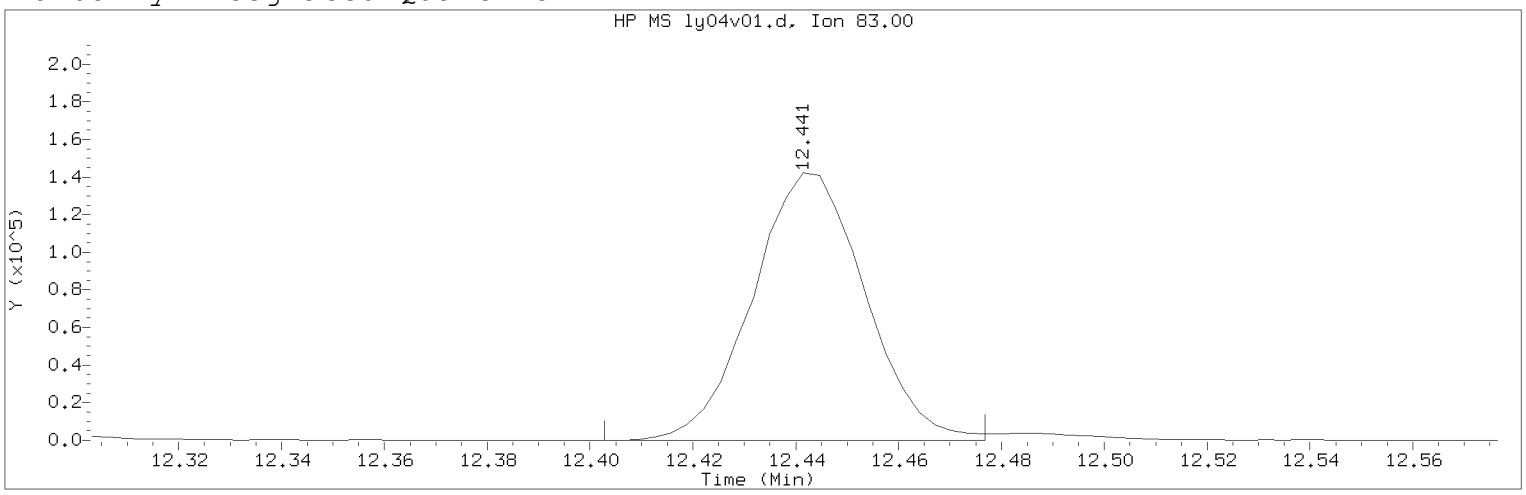
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 2288		
Retention Time (minutes)	: 8.840		
Quant Ion	: 88.00		
Area	: 47936		
On-column Amount (ng)	: 514.2935		
Integration start scan	: 2273	Integration stop scan:	2358
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dviray0242

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

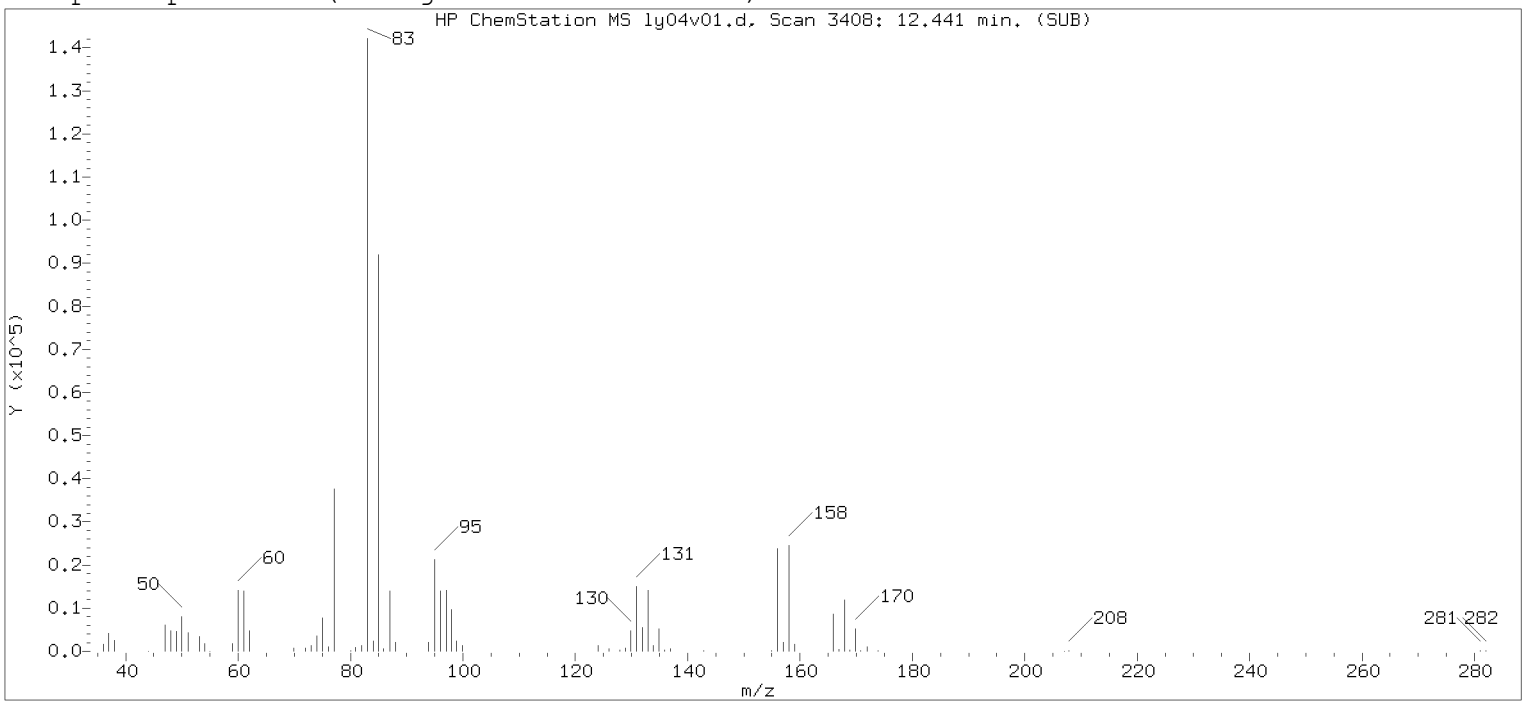
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 216158M
On-Column Amount (ng) : 19.6314
Integration start scan : 3395 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

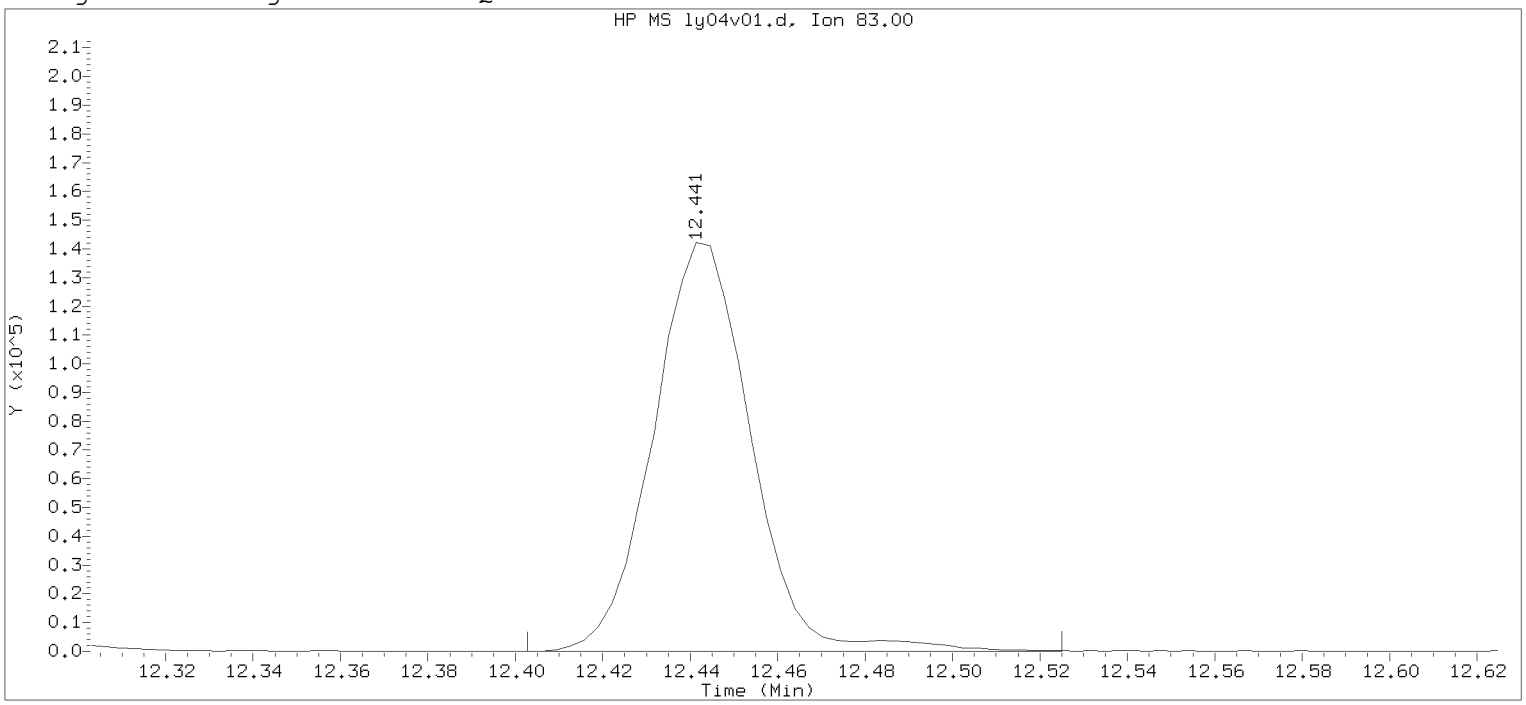
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

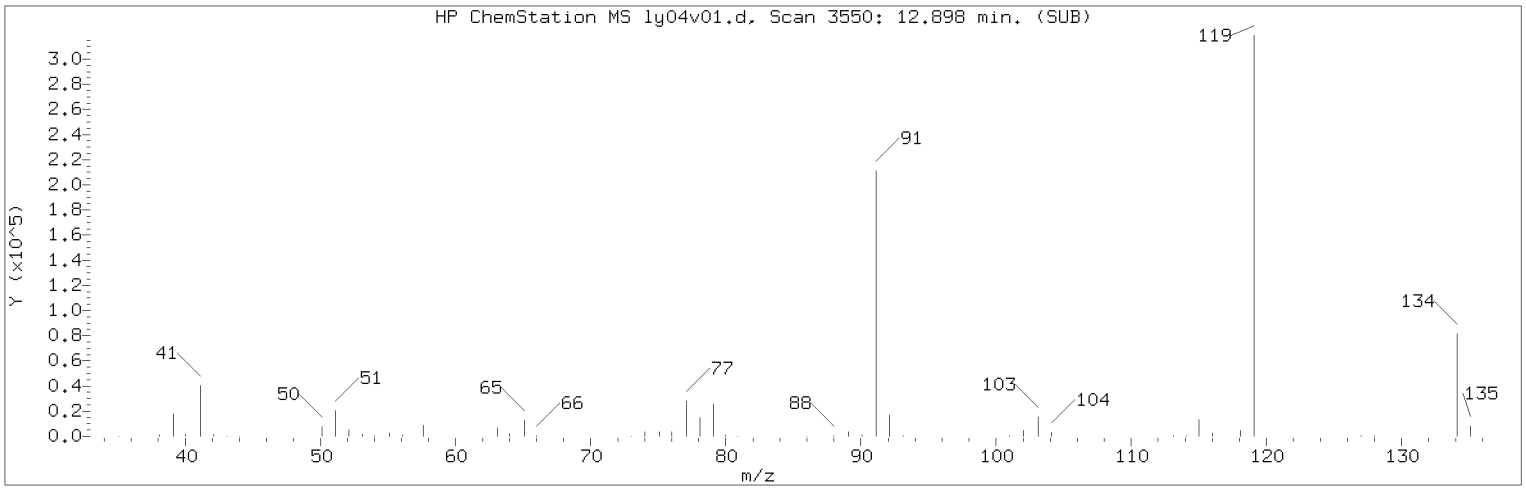
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

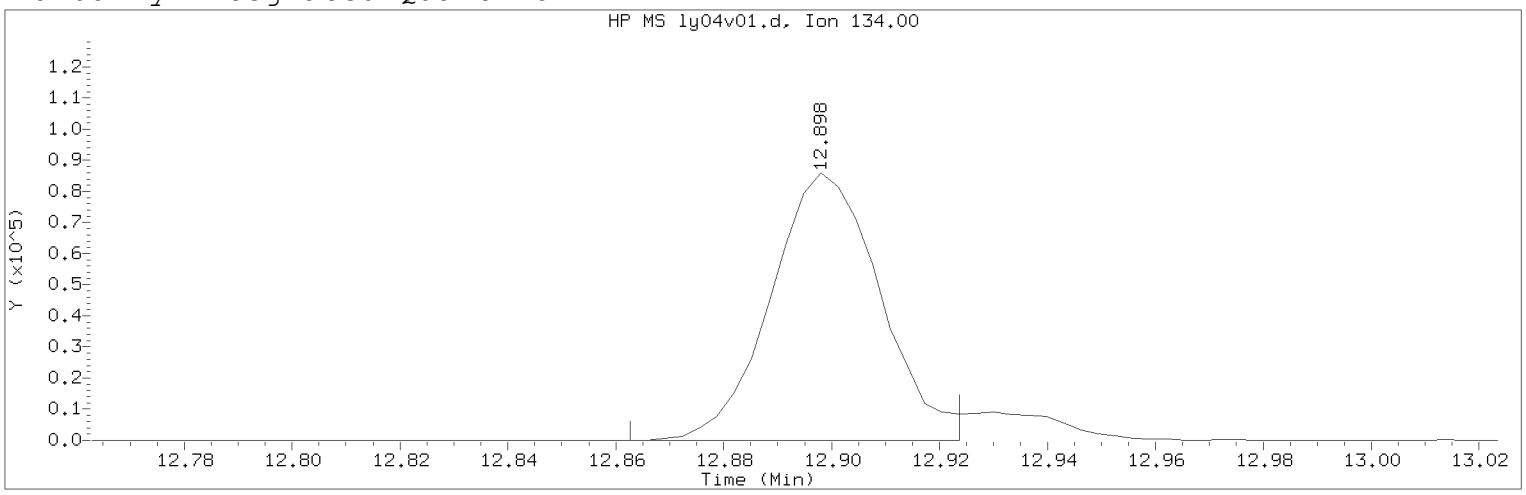
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 221202
On-column Amount (ng) : 20.1851
Integration start scan : 3395 Integration stop scan: 3433
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dviray1204

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

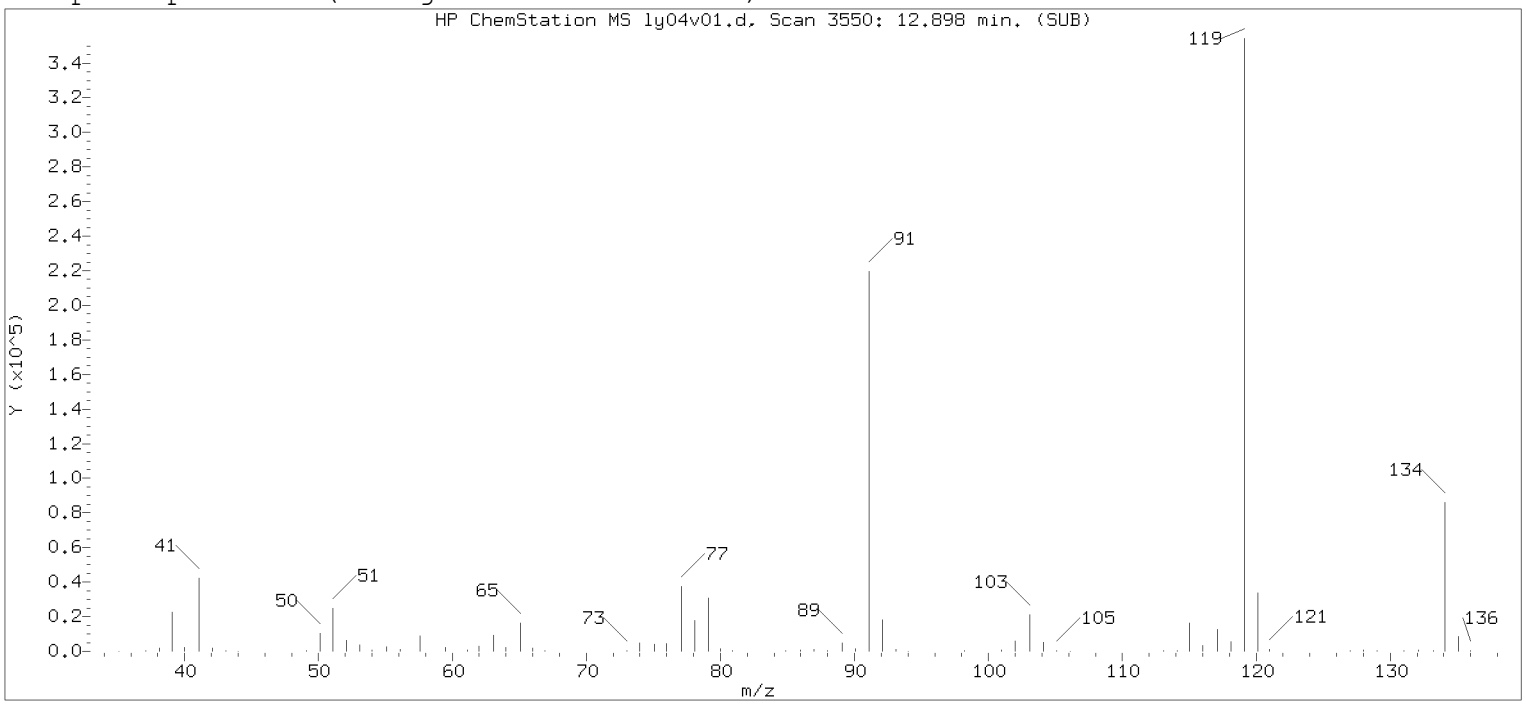
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 120476M
On-Column Amount (ng) : 21.2342
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

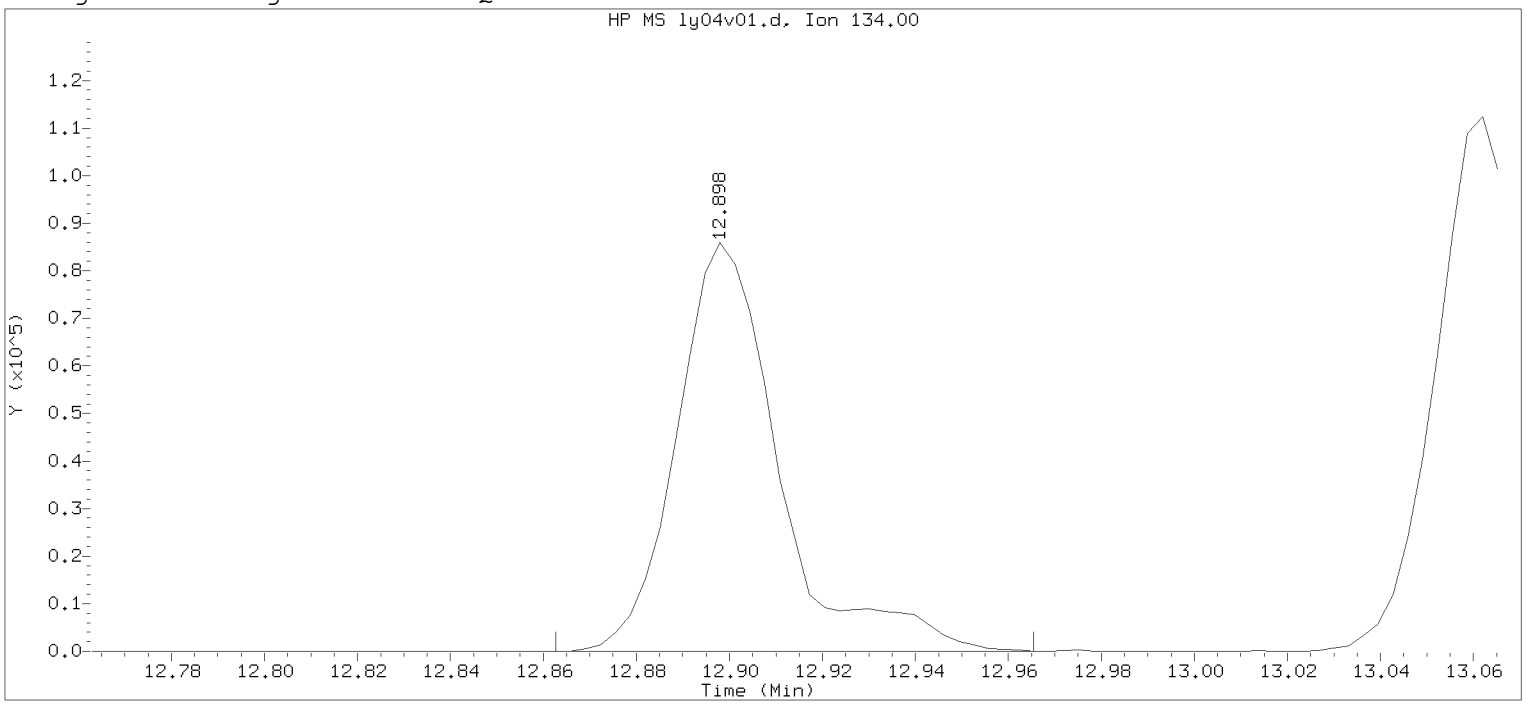
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 131138
On-column Amount (ng) : 22.6204
Integration start scan : 3538 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dviray0246

Data File: /chem/HP09915.i/20may26b.b/ly26t50.d

Date : 26-MAY-2020 19:34

Client ID: JAN28-2020

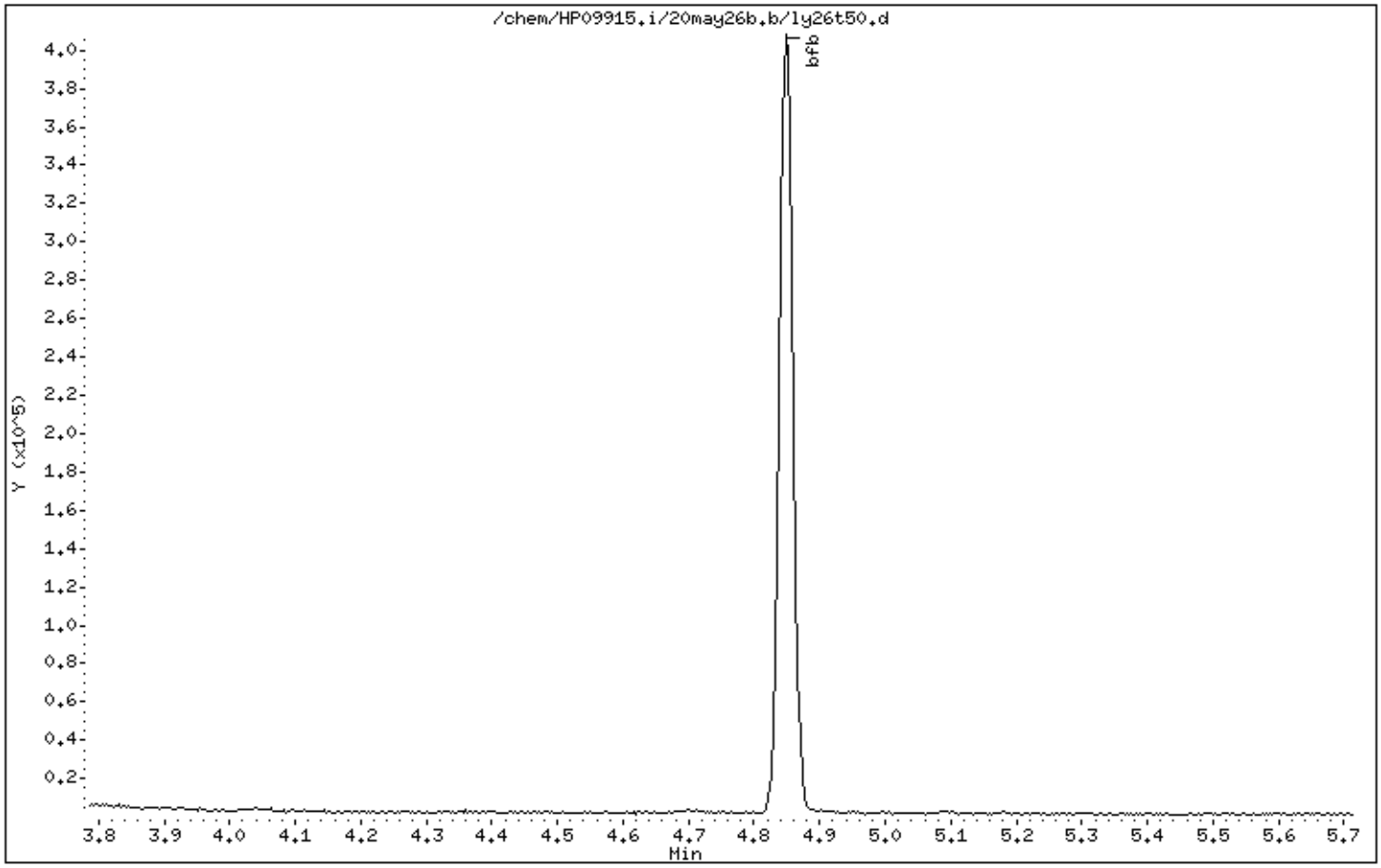
Instrument: HP09915.i

Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: ljg30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may26b.b/ly26t50.d

Date : 26-MAY-2020 19:34

Client ID: JAN28-2020

Instrument: HP09915.i

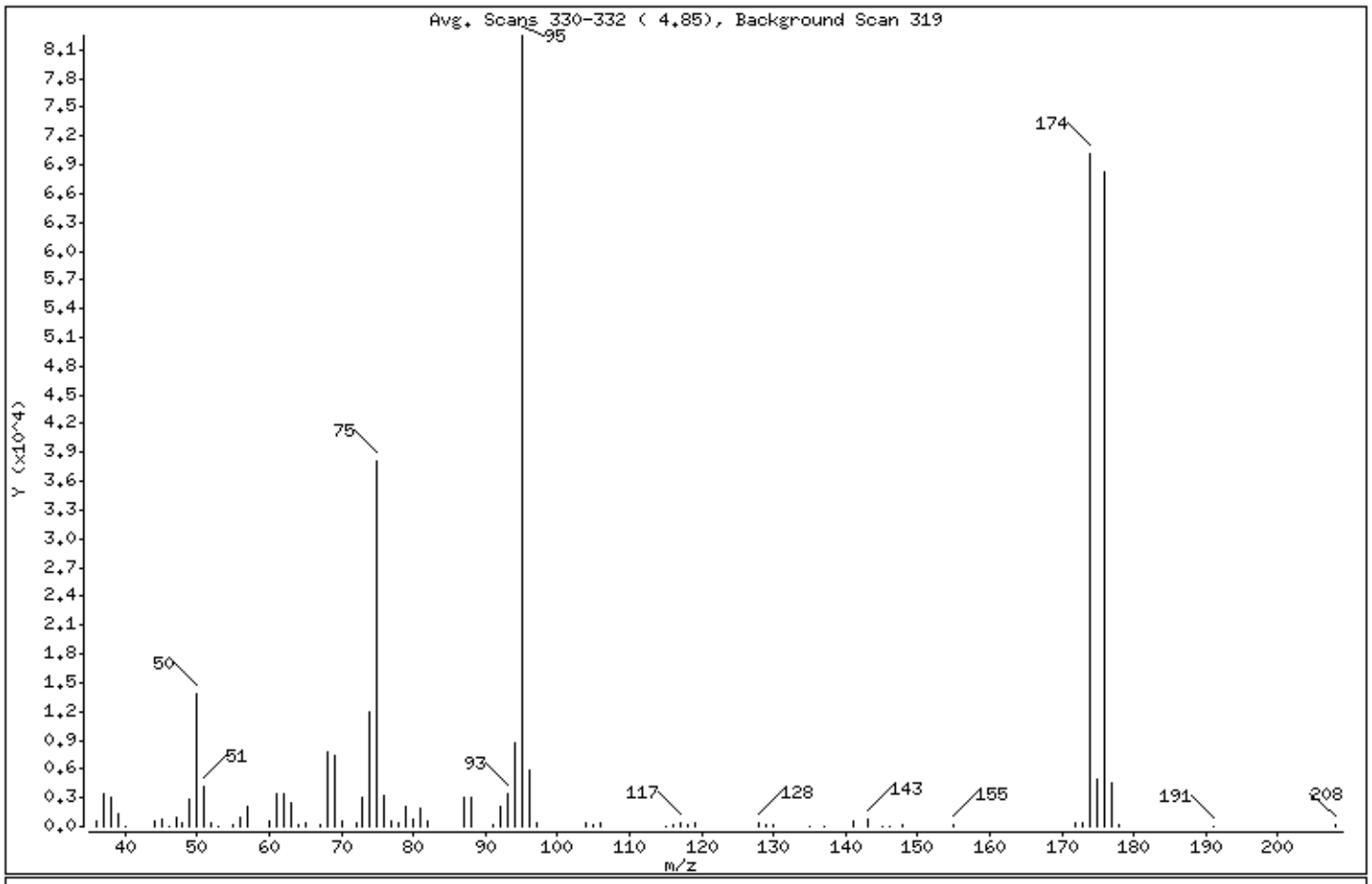
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: ljg30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.72
75	30.00 - 60.00% of mass 95	46.19
96	5.00 - 9.00% of mass 95	7.04
173	Less than 2.00% of mass 174	0.51 (0.61)
174	50.00 - 100.00% of mass 95	84.97
175	5.00 - 9.00% of mass 174	5.98 (7.04)
176	95.00 - 101.00% of mass 174	82.71 (97.34)
177	5.00 - 9.00% of mass 176	5.56 (6.73)

Date : 26-MAY-2020 19:34

Client ID: JAN28-2020 Instrument: HP09915.i

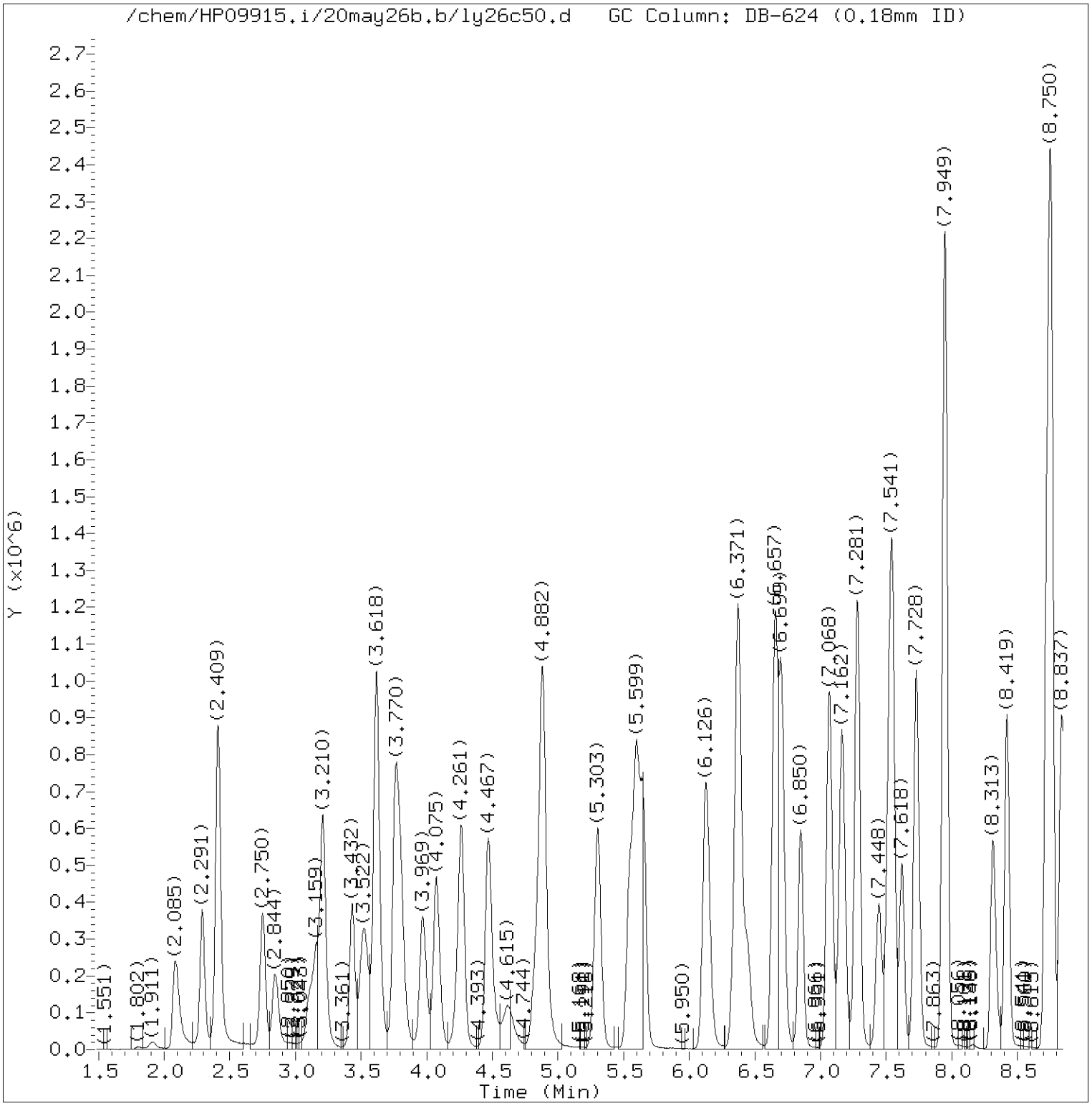
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: ljg30941

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly26t50.d
Spectrum: Avg. Scans 330-332 (4.85), Background Scan 319
Location of Maximum: 95.00
Number of points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	659	62.00	3369	88.00	3102	137.00	61
37.00	3434	63.00	2463	91.00	209	141.00	578
38.00	3103	64.00	279	92.00	2011	143.00	767
39.00	1325	65.00	326	93.00	3502	145.00	61
40.00	51	67.00	240	94.00	8714	146.00	58
44.00	508	68.00	7842	95.00	82472	148.00	229
45.00	711	69.00	7357	96.00	5804	155.00	126
46.00	67	70.00	584	97.00	312	172.00	461
47.00	909	72.00	463	104.00	288	173.00	424
48.00	393	73.00	3086	105.00	219	174.00	70080
49.00	2927	74.00	12005	106.00	365	175.00	4933
50.00	13787	75.00	38088	115.00	51	176.00	68208
51.00	4180	76.00	3259	116.00	275	177.00	4588
52.00	301	77.00	509	117.00	442	178.00	125
53.00	53	78.00	308	118.00	271	191.00	57
55.00	188	79.00	2016	119.00	394	208.00	205
56.00	1007	80.00	731	128.00	292		
57.00	2050	81.00	1880	129.00	130		
60.00	583	82.00	495	130.00	281		
61.00	3466	87.00	3051	135.00	76		



Total Ion Chromatogram (TIC)

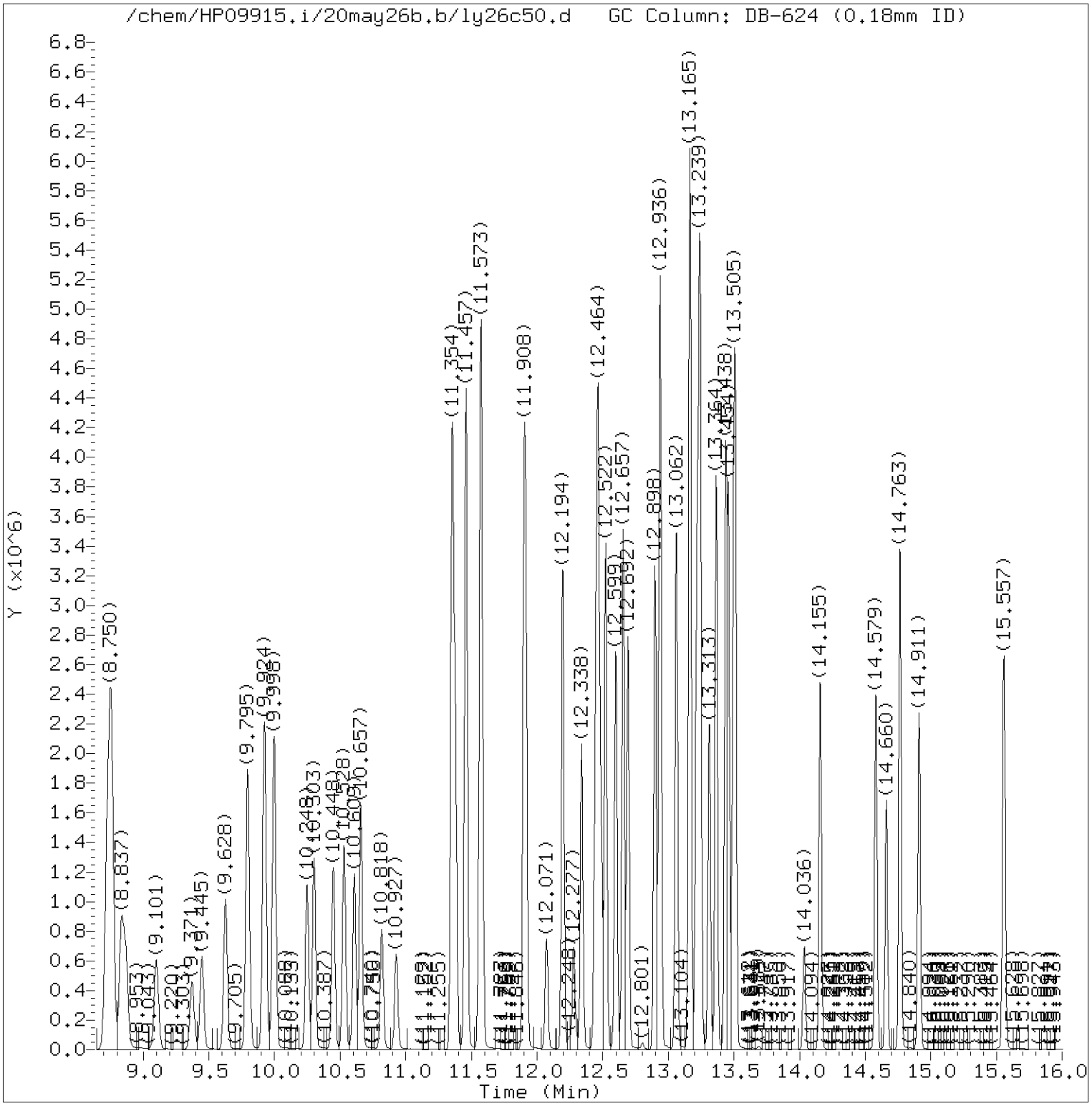
Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.085	85	539726	45.803
4) Chloromethane	(2)	2.291	50	594136	54.003
5) 1,3-Butadiene	(2)	2.406	39	415116M	58.815
6) Vinyl Chloride	(2)	2.409	62	555851	52.355
8) Bromomethane	(2)	2.750	94	392513	51.277
9) Chloroethane	(2)	2.847	64	316467	53.387
12) Trichlorofluoromethane	(2)	3.159	101	581520	50.151
11) n-Pentane	(2)	3.210	43	658239	60.460
14) Ethyl ether	(2)	3.432	59	349540	42.661
15) Freon 123a	(2)	3.525	67	434989	46.305
16) Acrolein	(1)	3.618	56	1603819	590.599
17) 1,1-Dichloroethene	(2)	3.763	96	331143	44.780
17) 1,1-Dichloroethene	(2)	3.757	63	169926	48.248
19) Freon 113	(2)	3.792	101	345318	45.009
18) Acetone	(1)	3.799	58	131894	106.478
22) Methyl Iodide	(2)	3.969	142	642286	45.069
21) 2-Propanol	(1)	3.979	45	203311	257.525
23) Carbon Disulfide	(2)	4.075	76	1162246	46.679
27) Methyl Acetate	(2)	4.236	43	464979	49.301
25) Allyl Chloride	(2)	4.268	41	584333	48.761
28) Methylene Chloride	(2)	4.467	84	407175	46.288
29)*t-Butyl alcohol-d10	(1)	4.487	65	330091	250.000
30) t-Butyl alcohol	(1)	4.615	59	335165	251.507
31) Acrylonitrile	(2)	4.824	53	271199	51.908
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	1145037	45.149
32) trans-1,2-Dichloroethene	(2)	4.885	96	385789	45.349
34) n-Hexane	(2)	5.303	57	552521	46.377
36) 1,1-Dichloroethane	(2)	5.544	63	703371	47.141
38) di-Isopropyl ether	(2)	5.599	45	1297141	49.431
39) 2-Chloro-1,3-butadiene	(2)	5.647	53	579865	48.732
40) Ethyl t-butyl ether	(2)	6.133	59	1130513	46.367
43) 1,2-Dichloroethene (Total)	(2)		96	826779	91.574
44) 2-Butanone	(2)	6.348	43	678466	106.985
42) cis-1,2-Dichloroethene	(2)	6.371	96	440990	46.225
45) 2,2-Dichloropropane	(2)	6.384	77	535330	46.422
47) Propionitrile	(1)	6.445	54	506187	281.163
48) Methacrylonitrile	(2)	6.650	67	654772	125.008
49) Bromochloromethane	(2)	6.699	128	239092	48.572

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.708	71	183698	116.619
51) Chloroform	(2)	6.850	83	677357	46.468
52)$Dibromofluoromethane	(2)	7.059	113	423470	48.917
52)$Dibromofluoromethane	(2)	7.062	111	437198	49.405
53) 1,1,1-Trichloroethane	(2)	7.068	97	576752	46.119
54) Cyclohexane	(2)	7.162	56	675378	48.245
54) Cyclohexane	(2)	7.168	84	566964	46.398
54) Cyclohexane	(2)	7.168	69	200574	46.105
56) Carbon Tetrachloride	(2)	7.277	117	501597	47.872
55) 1,1-Dichloropropene	(2)	7.281	75	540489	47.146
58) Isobutyl Alcohol	(1)	7.445	41	320955	709.963
57)$1,2-Dichloroethane-d4	(2)	7.522	102	105714	48.126
57)$1,2-Dichloroethane-d4	(2)	7.519	65	497978	51.073
57)$1,2-Dichloroethane-d4	(2)	7.515	104	67690	48.393
60) Benzene	(2)	7.548	78	1651035	46.524
61) 1,2-Dichloroethane	(2)	7.618	62	560988	47.158
61) 1,2-Dichloroethane	(2)	7.622	98	53242	45.929
65) t-Amyl methyl ether	(2)	7.728	73	1163882	46.728
66)*Fluorobenzene	(2)	7.946	96	1718368	50.000
67) n-Heptane	(2)	7.949	43	587332	47.409
69) n-Butanol	(1)	8.316	56	509457	1382.104
71) Trichloroethene	(2)	8.422	95	410920	45.758
72) Methylcyclohexane	(2)	8.724	83	699596	47.910
72) Methylcyclohexane	(2)	8.724	98	314714	47.650
73) 1,2-Dichloropropane	(2)	8.753	63	458151	50.106
76) Methyl Methacrylate	(2)	8.830	69	401274	51.039
75) 1,4-Dioxane	(1)	8.847	88	76944	694.403
74) Dibromomethane	(2)	8.869	93	296608	49.601
78) Bromodichloromethane	(2)	9.101	83	522681	48.756
79) 2-Nitropropane	(2)	9.371	41	357577	111.246
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	331355	54.424
81) cis-1,3-Dichloropropene	(2)	9.628	75	692781	49.448
82) 4-Methyl-2-pentanone	(2)	9.795	43	1465400	114.105
83)$Toluene-d8	(3)	9.924	98	1722899	50.648
83)$Toluene-d8	(3)	9.924	100	1117525	50.621
88) Toluene	(3)	9.998	92	1049703	48.412
90) 1,3-Dichloropropene (total)	(3)		100	1347101	102.043
89) trans-1,3-Dichloropropene	(3)	10.248	75	654320	52.595

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.303	69	689470	55.079
92) 1,1,2-Trichloroethane	(3)	10.448	97	418516	49.743
93) Tetrachloroethene	(3)	10.531	166	435060	47.083
94) 1,3-Dichloropropane	(3)	10.609	76	711504	50.569
96) 2-Hexanone	(3)	10.657	43	1071966	117.905
97) Dibromochloromethane	(3)	10.818	129	447603	51.144
99) 1,2-Dibromoethane	(3)	10.927	107	450120	49.780
100)*Chlorobenzene-d5	(3)	11.351	117	1324165	50.000
101) 1-Chlorohexane	(3)	11.354	91	545935	49.201
102) Chlorobenzene	(3)	11.377	112	1216230	48.846
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	428931	50.815
104) Ethylbenzene	(3)	11.461	91	2019171	50.310
106) m+p-Xylene	(3)	11.573	106	1615665	102.455
108) Xylene (Total)	(3)		106	2400935	153.948
107) o-Xylene	(3)	11.898	106	785270	51.494
109) Styrene	(3)	11.914	104	1321472	53.283
110) Bromoform	(3)	12.071	173	332945	52.257
111) Isopropylbenzene	(3)	12.197	105	1991401	51.460
112) Cyclohexanone	(1)	12.277	55	276299	669.891
114)$4-Bromofluorobenzene	(3)	12.338	95	635348	48.541
114)$4-Bromofluorobenzene	(3)	12.338	174	534247	47.609
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	701097	53.279
115) Bromobenzene	(4)	12.457	156	533778	50.535
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	521728	136.296
117) 1,2,3-Trichloropropane	(4)	12.486	110	210494	52.376
119) n-Propylbenzene	(4)	12.522	91	2385078	52.246
120) 2-Chlorotoluene	(4)	12.599	126	498219	51.084
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1745709	52.922
121) 4-Chlorotoluene	(4)	12.692	126	524782	51.842
124) tert-Butylbenzene	(4)	12.898	134	366527M	54.055
125) Pentachloroethane	(4)	12.933	167	325249	54.010
126) 1,2,4-Trimethylbenzene	(4)	12.936	105	1844019	54.068
127) sec-Butylbenzene	(4)	13.062	105	2155240	53.663
129) 1,3-Dichlorobenzene	(4)	13.161	146	1012184	51.425
130) p-Isopropyltoluene	(4)	13.165	119	1894791	55.060
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	721813	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	1043604	50.519
134) 1,2,3-Trimethylbenzene	(4)	13.242	105	1862267	52.552

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.313	91	1421058	52.999
136) 1,3-Diethylbenzene	(4)	13.364	119	1156991	52.179
141) Diethylbenzene (total)	(4)		100	3357931	156.700
137) 1,4-Diethylbenzene	(4)	13.438	119	1206467	51.982
139) n-Butylbenzene	(4)	13.457	92	936639	52.974
138) 1,2-Dichlorobenzene	(4)	13.496	146	1002722	50.614
140) 1,2-Diethylbenzene	(4)	13.512	119	994473	52.539
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	151742	52.099
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	731167	48.993
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	681254	48.847
147) Hexachlorobutadiene	(4)	14.660	225	271471	42.194
148) Naphthalene	(4)	14.763	128	2428557	53.795
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	679184	49.008
150) 2-Methylnaphthalene	(4)	15.557	142	1263311	40.241

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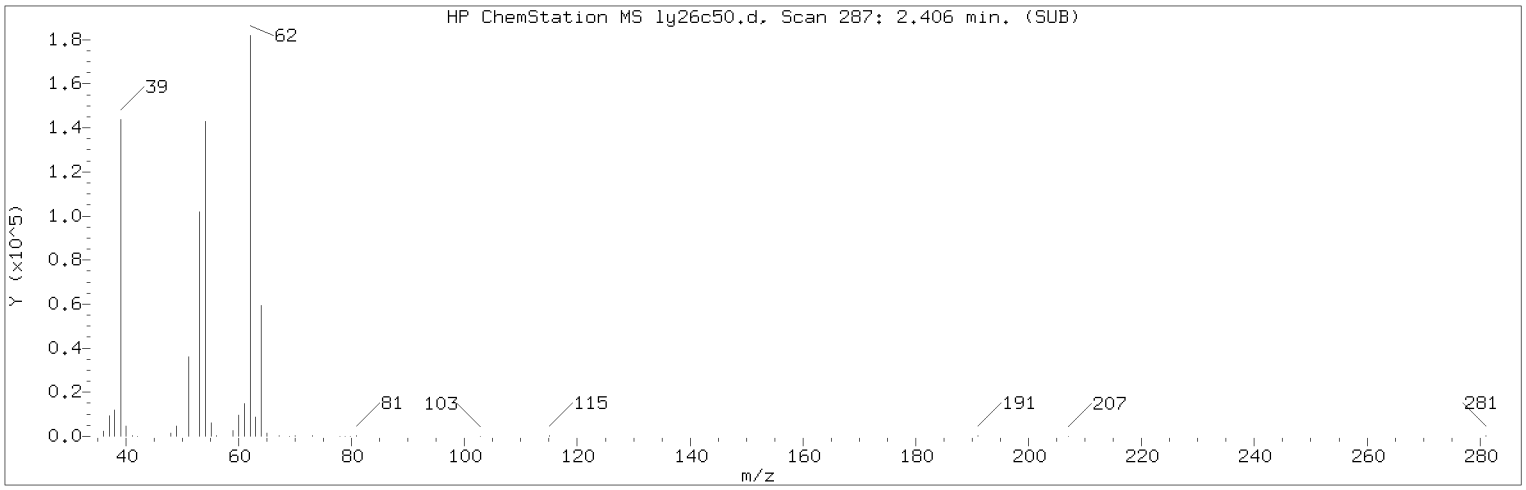
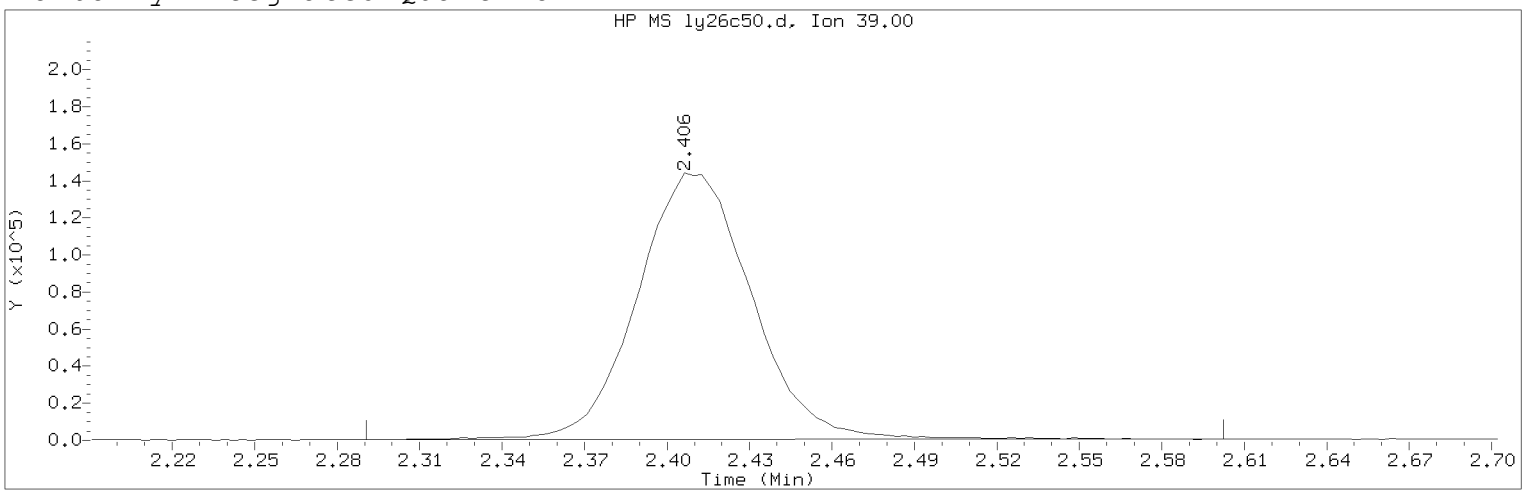
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

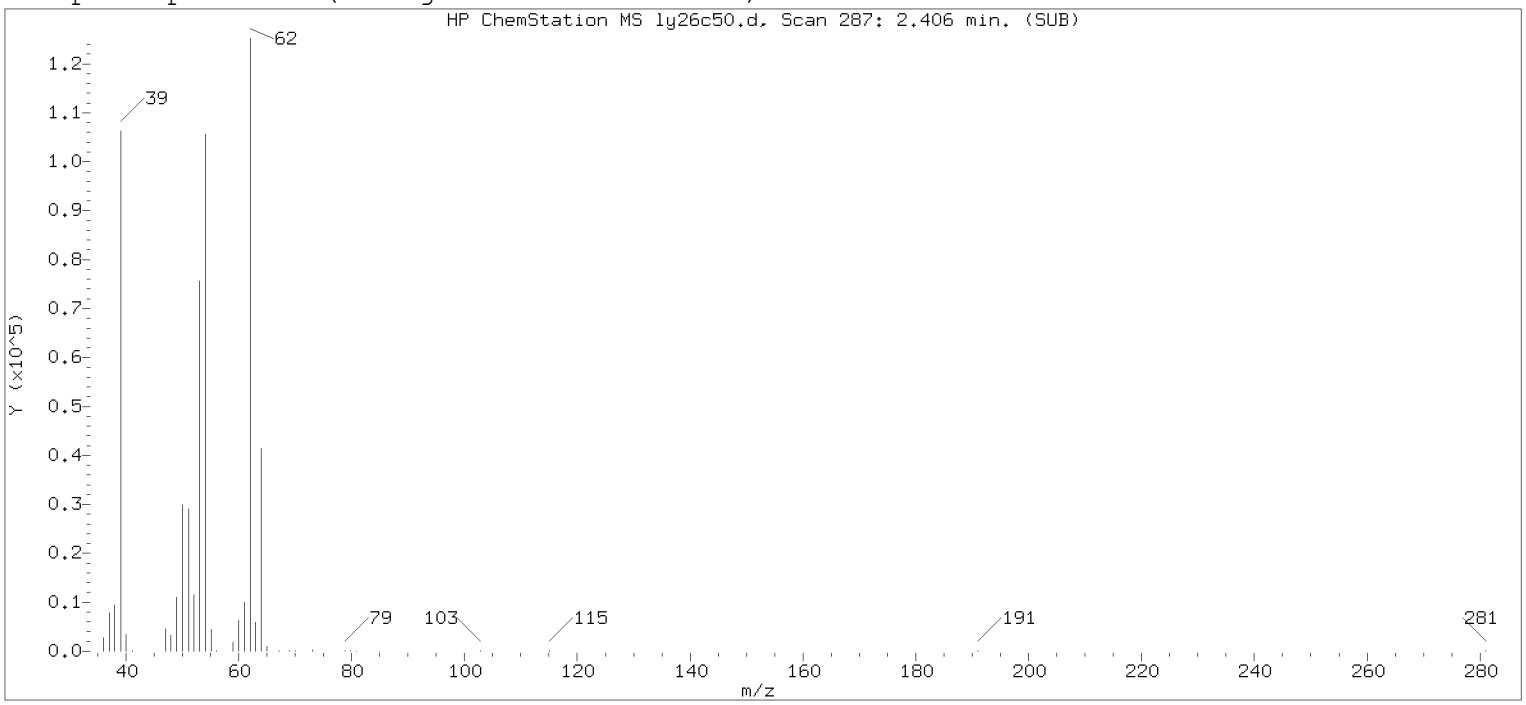
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 287
Retention Time (minutes): 2.406
Quant Ion : 39.00
Area (flag) : 415116M
On-Column Amount (ng) : 58.8153
Integration start scan : 250 Integration stop scan: 347
Y at integration start : 478 Y at integration end: 637

Reason for manual integration: improper integration

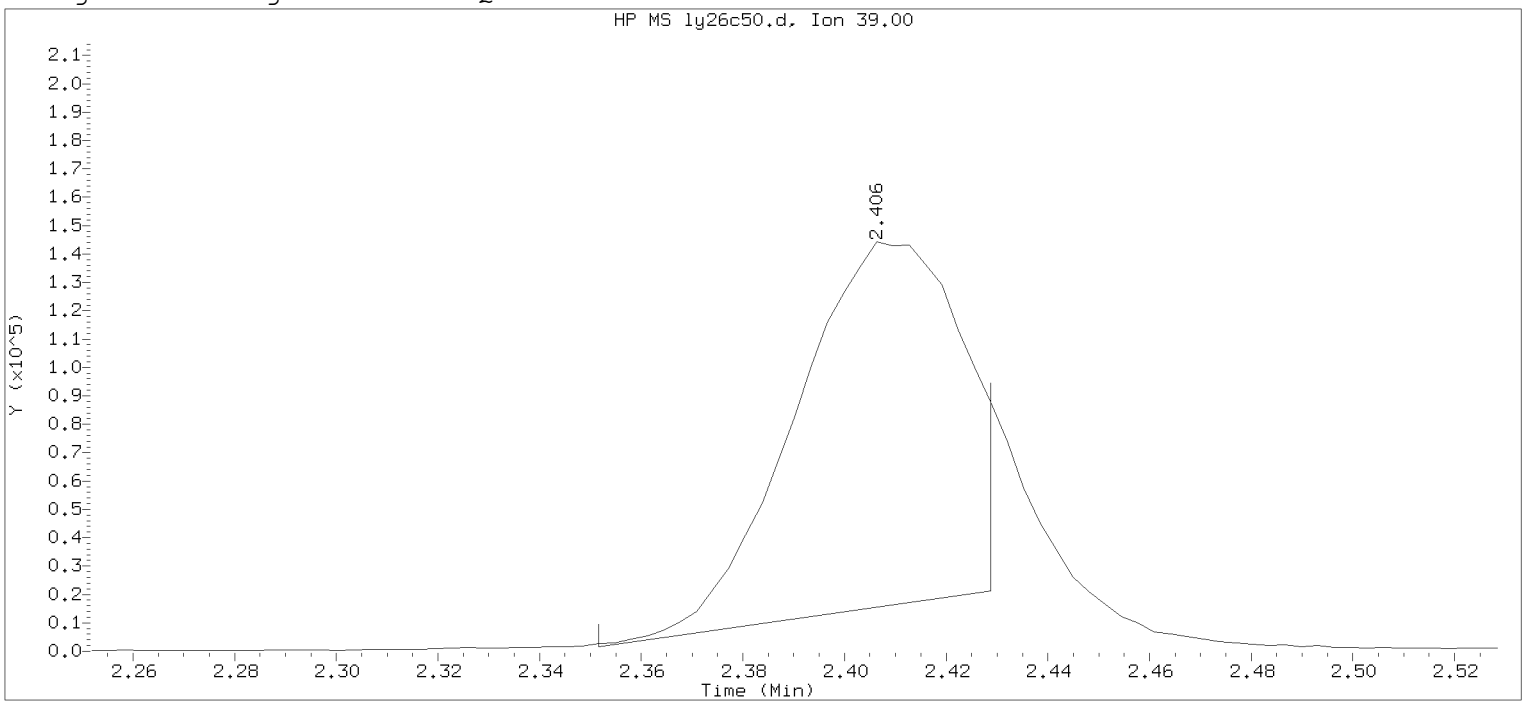
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:19.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

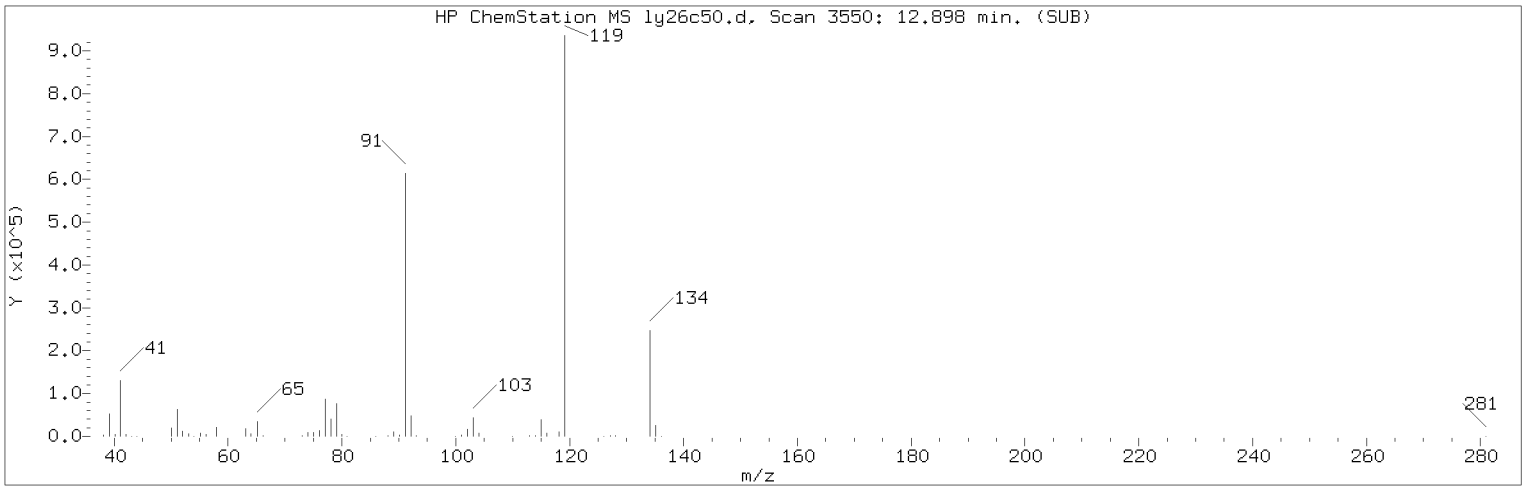
Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:28 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

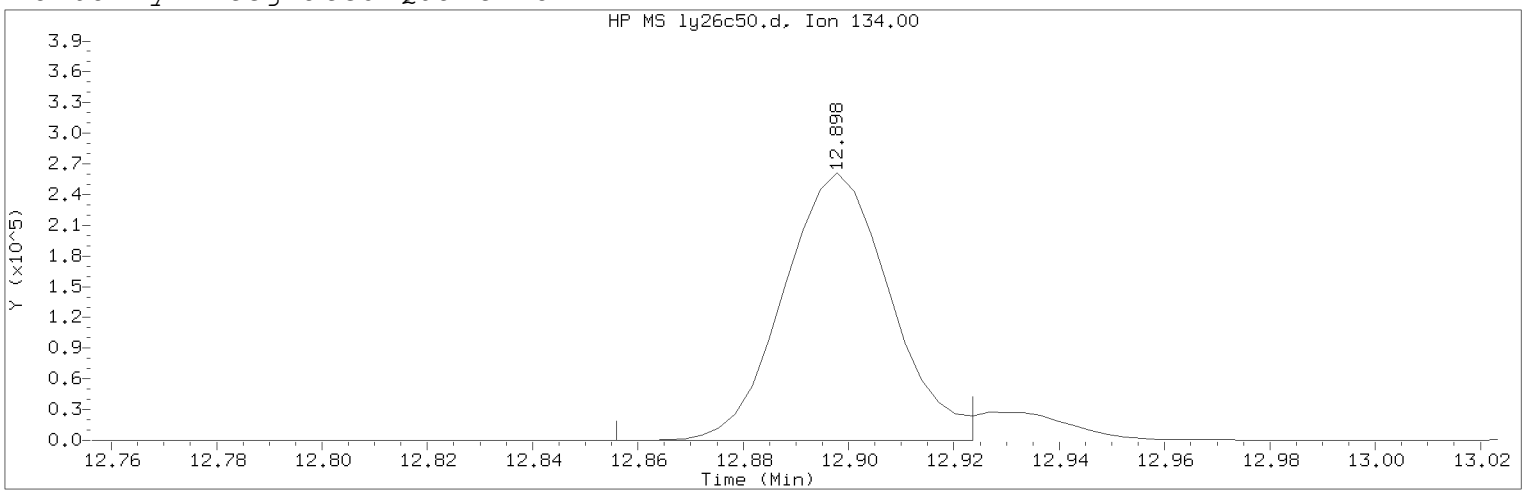
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 287
Retention Time (minutes): 2.406
Quant Ion : 39.00
Area : 288751
On-column Amount (ng) : 40.9113
Integration start scan : 269 Integration stop scan: 293
Y at integration start : 1678 Y at integration end: 21264

Digitally signed by Laura J. Green on 05/26/2020 at 20:32.
Target 3.5 esignature user: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:32 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

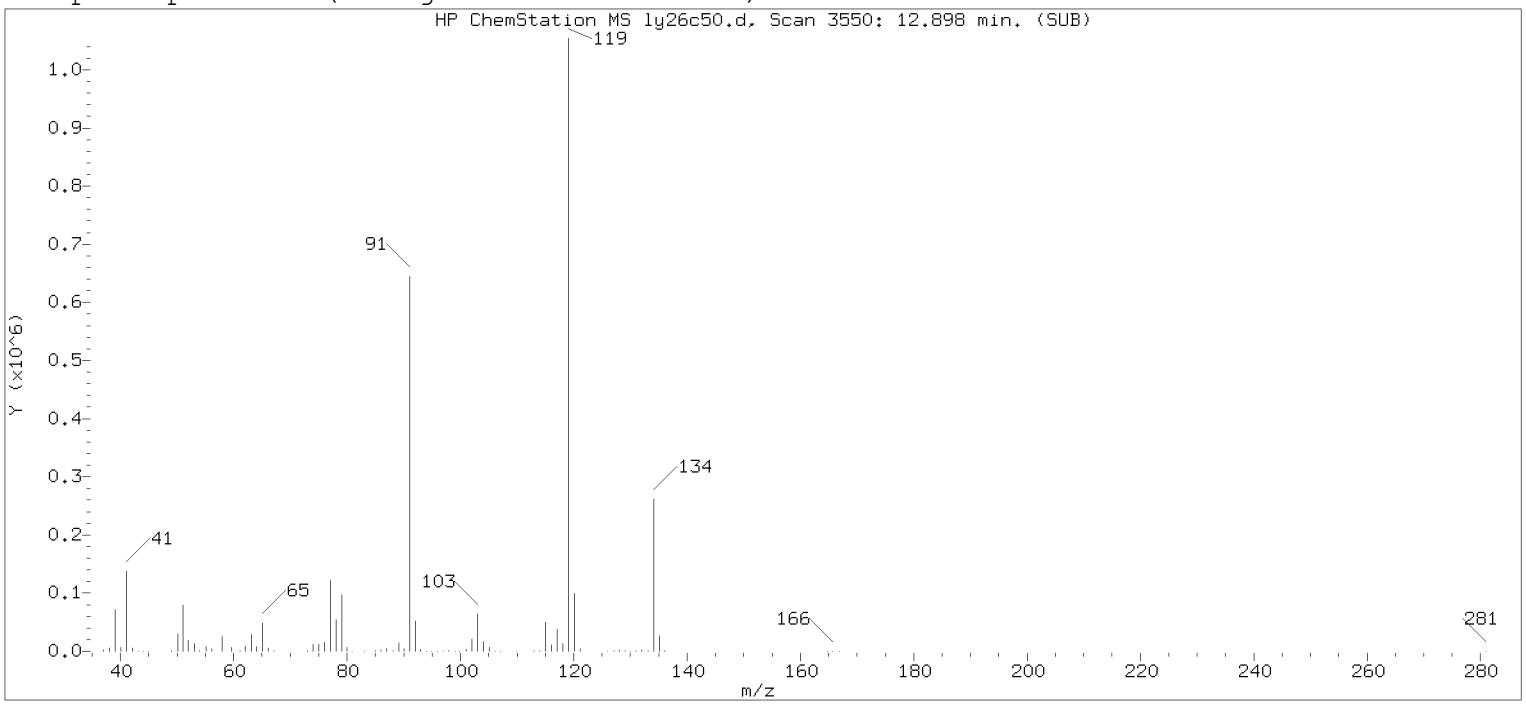
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 366527M
On-Column Amount (ng) : 54.0551
Integration start scan : 3536 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

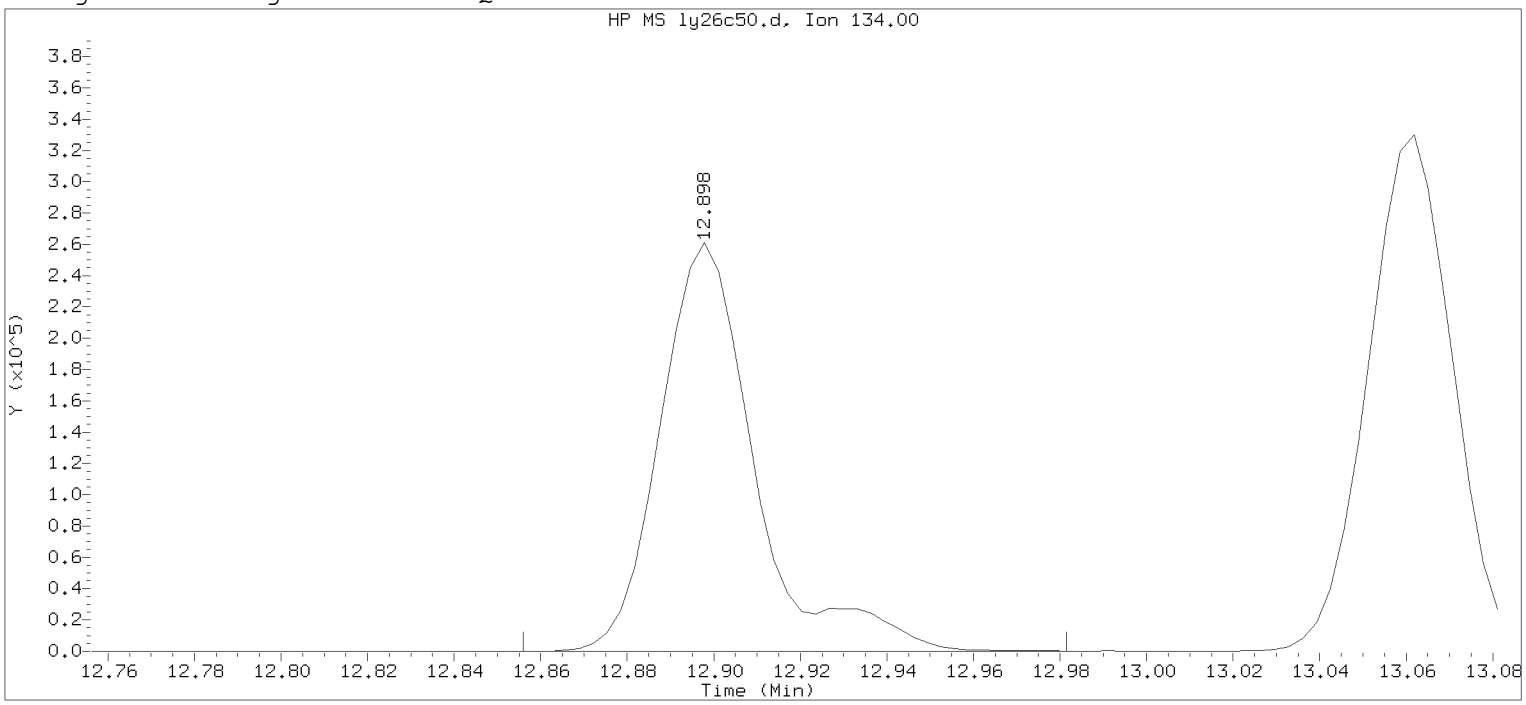
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:19.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26c50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:10 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:28 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 397678
On-column Amount (ng) : 58.6491
Integration start scan : 3536 Integration stop scan: 3575
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/26/2020 at 20:32.
Target 3.5 esignature user ID: LJG30941

Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

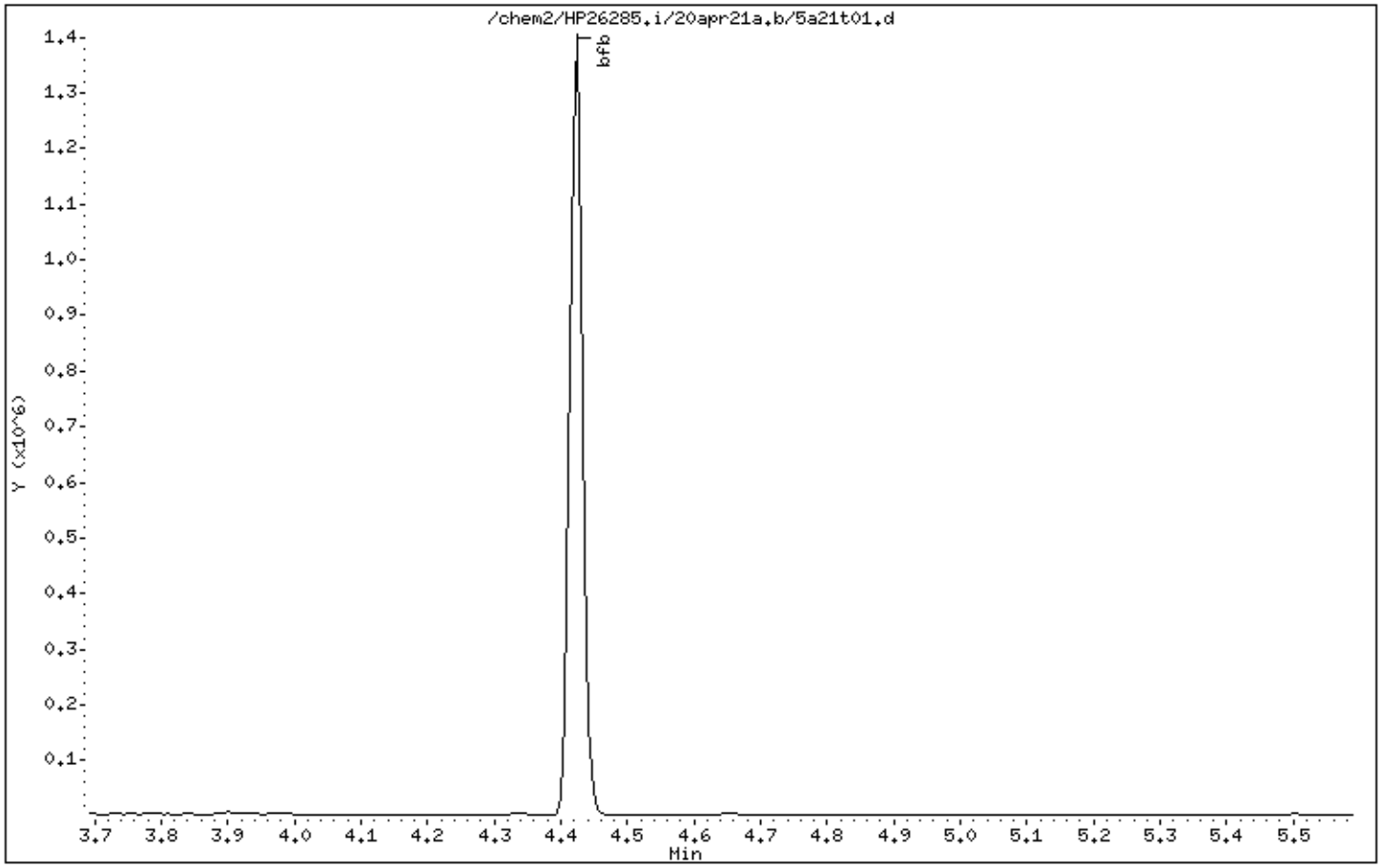
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

Instrument: HP26285.i

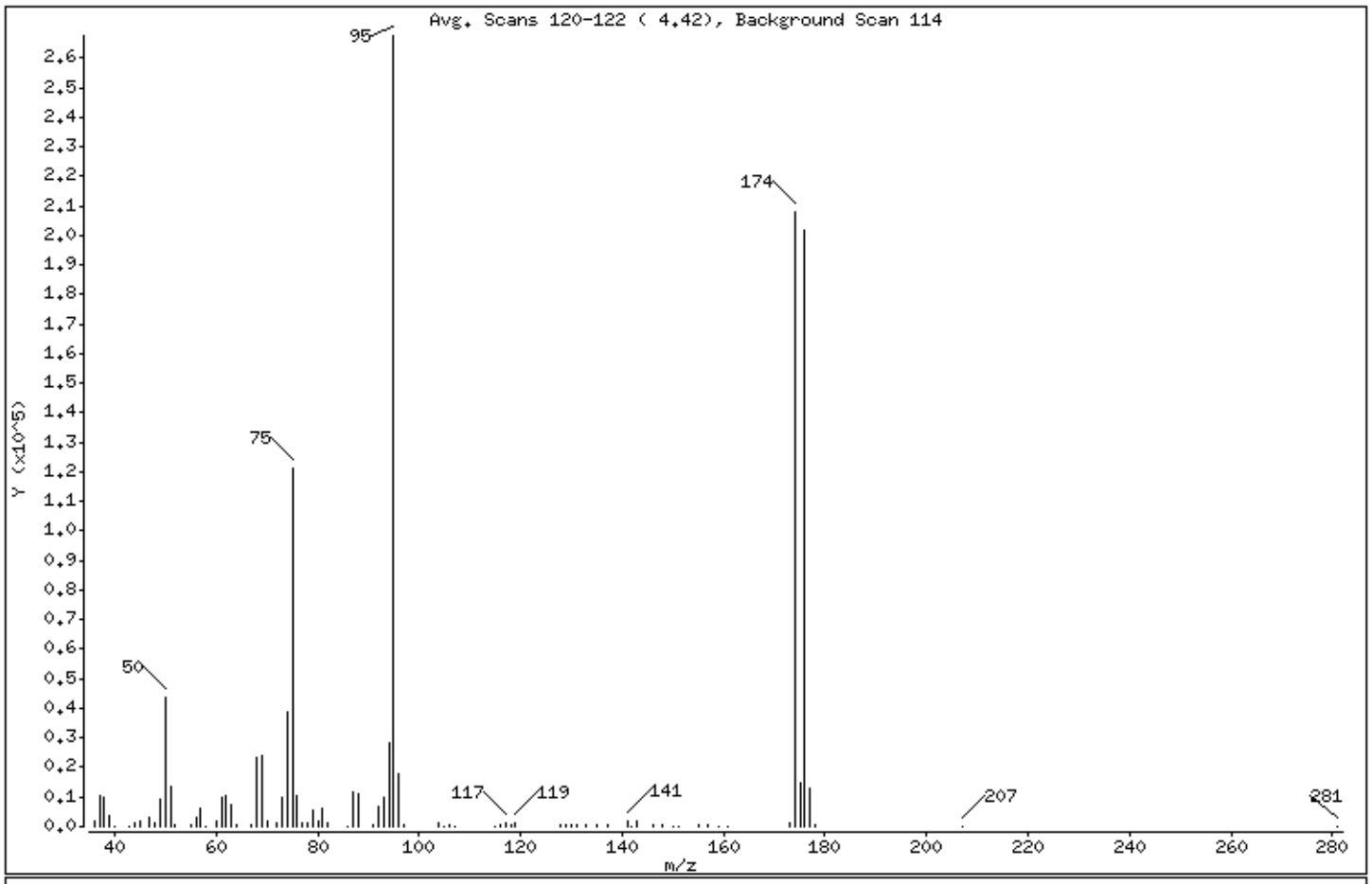
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.28
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	0.52 (0.67)
174	50.00 - 100.00% of mass 95	77.82
175	5.00 - 9.00% of mass 174	5.61 (7.21)
176	95.00 - 101.00% of mass 174	75.39 (96.88)
177	5.00 - 9.00% of mass 176	4.85 (6.43)

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20 Instrument: HP26285.i

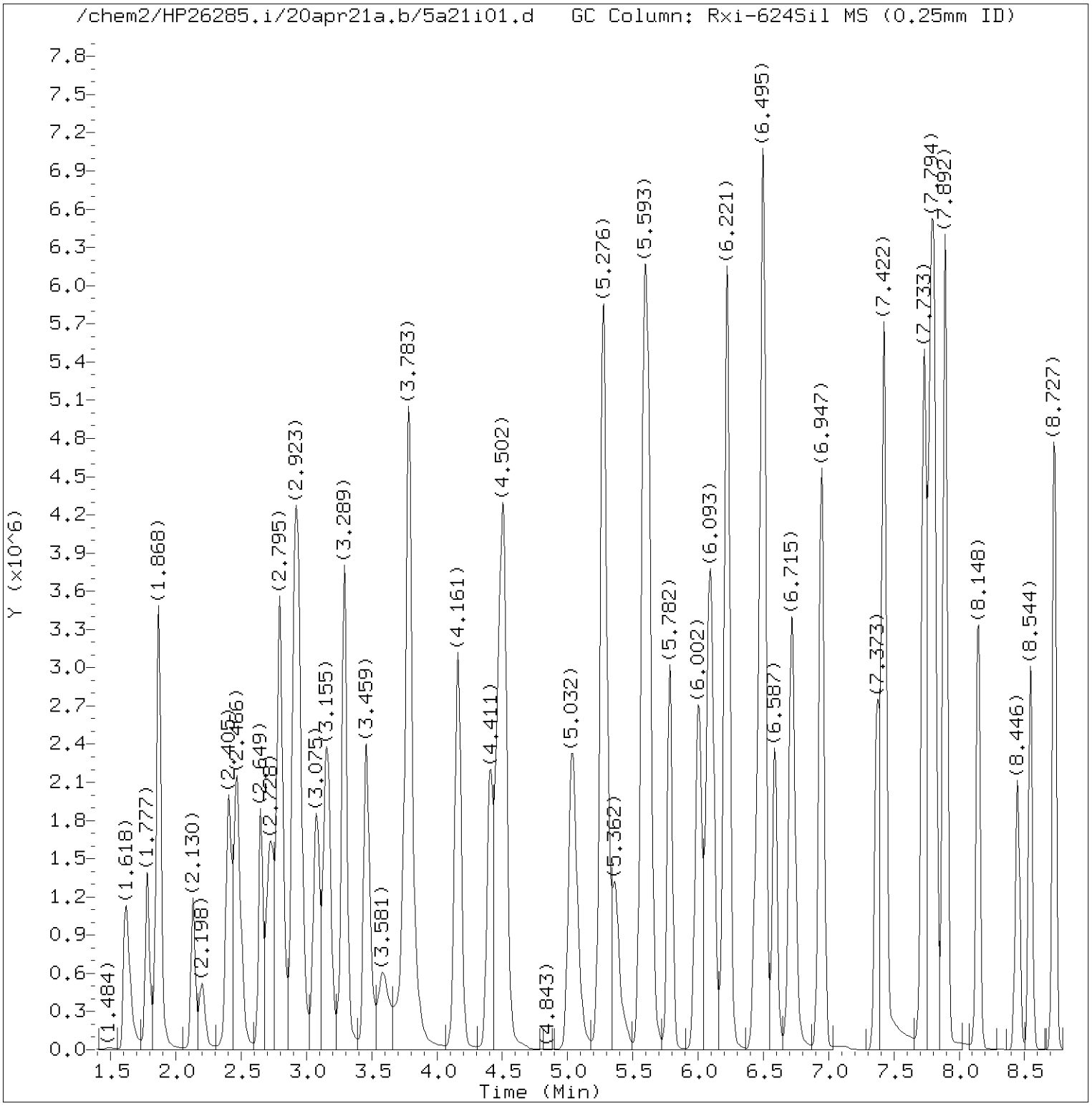
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5a21t01.d
Spectrum: Avg. Scans 120-122 (4.42), Background Scan 114
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1859	63.00	7563	92.00	6626	137.00	416
37.00	10659	64.00	691	93.00	9904	141.00	2114
38.00	9637	67.00	643	94.00	28296	142.00	170
39.00	3822	68.00	23688	95.00	267648	143.00	1976
40.00	46	69.00	23744	96.00	17848	146.00	317
43.00	89	70.00	1883	97.00	561	148.00	581
44.00	1347	72.00	1214	104.00	985	150.00	114
45.00	2117	73.00	10018	105.00	287	151.00	104
47.00	3360	74.00	38552	106.00	920	155.00	650
48.00	1250	75.00	120968	107.00	94	157.00	358
49.00	9060	76.00	10309	115.00	188	159.00	114
50.00	43568	77.00	1497	116.00	721	161.00	189
51.00	13630	78.00	1072	117.00	1379	173.00	1394
52.00	611	79.00	5472	118.00	834	174.00	208256
55.00	676	80.00	1787	119.00	1226	175.00	15026
56.00	3306	81.00	5890	128.00	862	176.00	201728
57.00	5865	82.00	1362	129.00	418	177.00	12981
58.00	201	86.00	188	130.00	914	178.00	386
60.00	1989	87.00	11389	131.00	328	207.00	75
61.00	10148	88.00	11066	133.00	345	281.00	206
62.00	10316	91.00	818	135.00	469		



Total Ion Chromatogram (TIC)

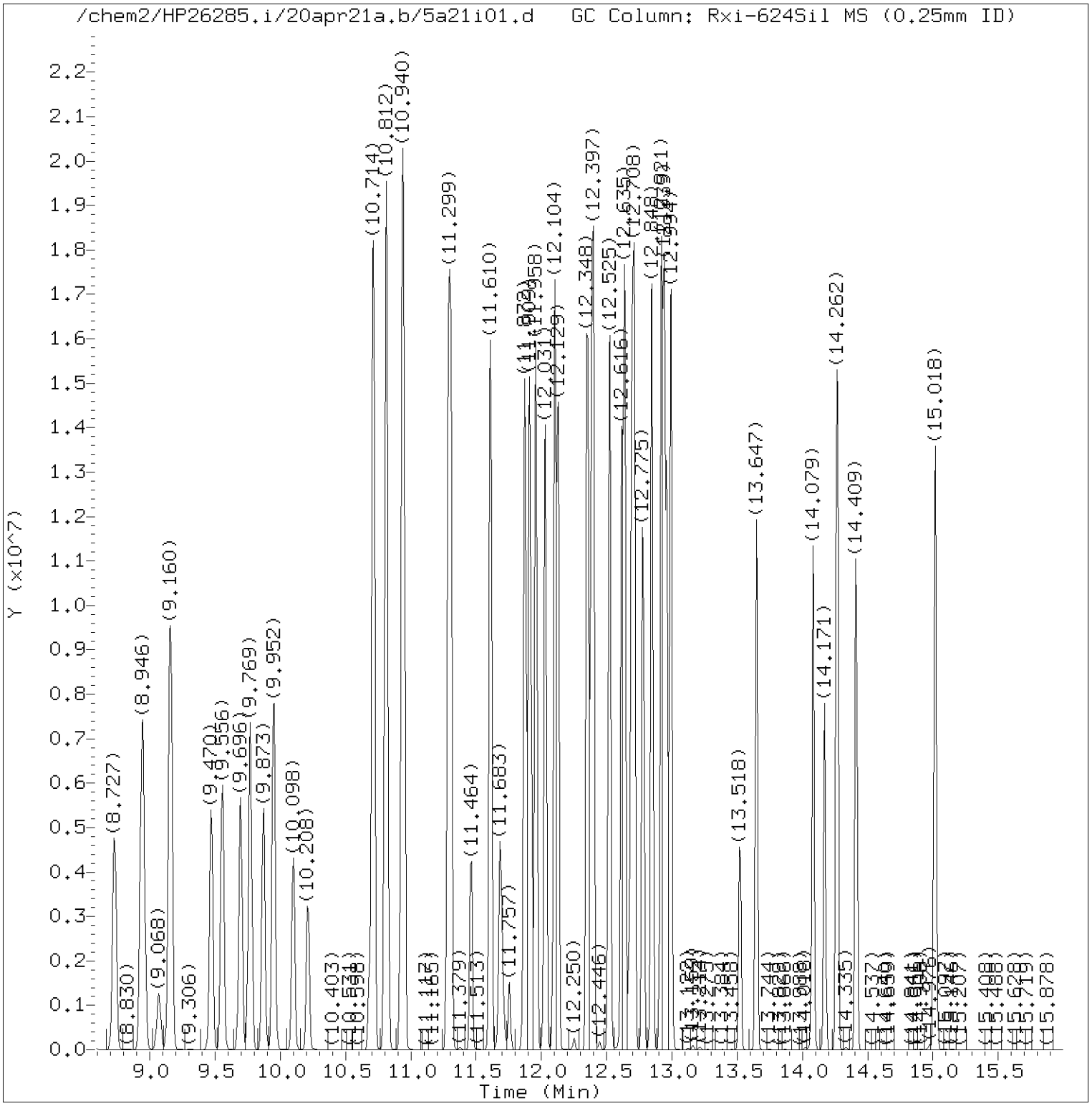
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	2514781	293.886
4) Chloromethane	(2)	1.777	50	1779525	260.361
5) 1,3-Butadiene	(2)	1.862	39	1692569	179.387
6) Vinyl Chloride	(2)	1.868	62	1635639	272.442
8) Bromomethane	(2)	2.130	94	1028216	255.090
9) Chloroethane	(2)	2.198	64	759321	267.130
10) Dichlorofluoromethane	(2)	2.405	67	2412071	260.399
12) Trichlorofluoromethane	(2)	2.441	101	1968139	267.668
11) n-Pentane	(2)	2.472	43	1702407	248.729
14) Ethyl ether	(2)	2.649	59	1350690	266.456
15) Freon 123a	(2)	2.722	67	2083785	271.498
16) Acrolein	(1)	2.795	56	5427011	2360.411
17) 1,1-Dichloroethene	(2)	2.905	96	1680210	294.103
17) 1,1-Dichloroethene	(2)	2.905	63	847789	296.090
19) Freon 113	(2)	2.935	101	1957046	302.645
18) Acetone	(1)	2.941	58	644334	568.222
22) Methyl Iodide	(2)	3.075	142	3244772	297.857
21) 2-Propanol	(1)	3.088	45	1311806	1421.652
23) Carbon Disulfide	(2)	3.155	76	6141301	305.602
27) Methyl Acetate	(2)	3.277	43	2308362	280.248
25) Allyl Chloride	(2)	3.295	41	2774449	290.117
28) Methylene Chloride	(2)	3.459	84	1906798	296.101
29)*t-Butyl alcohol-d10	(1)	3.490	65	363110M	250.000
30) t-Butyl alcohol	(1)	3.581	59	2474869M	1447.019
31) Acrylonitrile	(2)	3.740	53	1244590	286.266
32) trans-1,2-Dichloroethene	(2)	3.783	96	1856699	290.450
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	4729659	279.720
34) n-Hexane	(2)	4.161	57	2823354	297.858
36) 1,1-Dichloroethane	(2)	4.404	63	3413350	294.965
38) di-Isopropyl ether	(2)	4.471	45	5826089	281.879
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	2986113	303.744
40) Ethyl t-butyl ether	(2)	5.032	59	5047239	275.067
42) cis-1,2-Dichloroethene	(2)	5.270	96	2092441	289.396
44) 2-Butanone	(2)	5.270	43	3508151	554.406
45) 2,2-Dichloropropane	(2)	5.288	77	2907210	297.741
47) Propionitrile	(1)	5.368	54	2776028	1491.001
48) Methacrylonitrile	(2)	5.587	67	3113931	719.149
49) Bromochloromethane	(2)	5.618	128	949029	286.579

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	962421	571.941
51) Chloroform	(2)	5.782	83	3454950	297.665
53) 1,1,1-Trichloroethane	(2)	6.002	97	3220555	308.180
52)$Dibromofluoromethane	(2)	6.008	113	265501	50.449
52)$Dibromofluoromethane	(2)	6.008	111	271428	50.372
54) Cyclohexane	(2)	6.093	56	3718949	305.559
54) Cyclohexane	(2)	6.093	84	3072191	305.152
54) Cyclohexane	(2)	6.093	69	1167415	309.242
43) 1,2-Dichloroethene (Total)	(2)		96	3949140	579.846
56) Carbon Tetrachloride	(2)	6.215	117	2866099	314.348
55) 1,1-Dichloropropene	(2)	6.227	75	2833013	299.261
58) Isobutyl Alcohol	(1)	6.459	41	2102817	3688.520
57)$1,2-Dichloroethane-d4	(2)	6.477	102	58127	49.384
57)$1,2-Dichloroethane-d4	(2)	6.477	65	287760	50.004
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36918	48.985
60) Benzene	(2)	6.502	78	8091915	287.471
61) 1,2-Dichloroethane	(2)	6.587	62	2471700	285.891
61) 1,2-Dichloroethane	(2)	6.587	98	229468	313.856
65) t-Amyl methyl ether	(2)	6.715	73	4873975	266.199
66)*Fluorobenzene	(2)	6.928	96	1056605	50.000
67) n-Heptane	(2)	6.947	43	2638875	288.213
69) n-Butanol	(1)	7.373	56	3800976	7726.750
71) Trichloroethene	(2)	7.428	95	2193082	296.890
73) Methylcyclohexane	(2)	7.733	83	3517963	299.657
73) Methylcyclohexane	(2)	7.733	98	1498995	301.607
74) 1,2-Dichloropropane	(2)	7.776	63	2058190	292.092
76) 1,4-Dioxane	(1)	7.879	88	505646M	4143.915
75) Dibromomethane	(2)	7.885	93	1328443	299.400
77) Methyl Methacrylate	(2)	7.898	69	2048784	310.762
79) Bromodichloromethane	(2)	8.148	83	2768802	321.810
80) 2-Nitropropane	(2)	8.446	41	1838471	616.936
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	1695315	310.886
82) cis-1,3-Dichloropropene	(2)	8.727	75	3451312	317.433
83) 4-Methyl-2-pentanone	(2)	8.946	43	6923514	567.670
84)$Toluene-d8	(3)	9.068	98	1043925	48.871
84)$Toluene-d8	(3)	9.068	100	692193	49.214
89) Toluene	(3)	9.160	92	5200843	276.121
90) trans-1,3-Dichloropropene	(3)	9.470	75	3189196	315.576

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$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	3484392	303.213
93) 1,1,2-Trichloroethane	(3)	9.696	97	1950775	289.700
94) Tetrachloroethene	(3)	9.769	166	2288562	286.479
95) 1,3-Dichloropropane	(3)	9.873	76	3251231	290.792
97) 2-Hexanone	(3)	9.946	43	5572720	556.867
91) 1,3-Dichloropropene (total)	(3)		100	6640508	633.008
98) Dibromochloromethane	(3)	10.098	129	2272719	318.957
100) 1,2-Dibromoethane	(3)	10.208	107	2209467	297.643
101)*Chlorobenzene-d5	(3)	10.684	117	869195	50.000
103) Chlorobenzene	(3)	10.714	112	5394866	263.916
102) 1-Chlorohexane	(3)	10.714	91	2905458	265.245
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	1973861	279.894
105) Ethylbenzene	(3)	10.812	91	9442911	259.282
107) m+p-Xylene	(3)	10.940	106	6954208	497.686
108) o-Xylene	(3)	11.287	106	3578067	261.618
110) Styrene	(3)	11.306	104	6017910	273.026
111) Bromoform	(3)	11.464	173	1766291	342.616
112) Isopropylbenzene	(3)	11.610	105	9418520	262.423
113) Cyclohexanone	(1)	11.683	55	2225130	3970.108
115)$4-Bromofluorobenzene	(3)	11.757	95	463125	51.457
115)$4-Bromofluorobenzene	(3)	11.757	174	360966	51.412
109) Xylene (Total)	(3)		106	10532275	759.304
116) Bromobenzene	(4)	11.872	156	2383355	270.294
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	3318957	277.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	1985915	748.278
118) 1,2,3-Trichloropropane	(4)	11.921	110	953780	270.703
120) n-Propylbenzene	(4)	11.958	91	10730524	247.518
121) 2-Chlorotoluene	(4)	12.031	126	2497956	281.107
123) 1,3,5-Trimethylbenzene	(4)	12.104	105	7976165	261.729
122) 4-Chlorotoluene	(4)	12.129	126	2495146	277.968
125) tert-Butylbenzene	(4)	12.354	134	1685066M	278.218
126) Pentachloroethane	(4)	12.378	167	1509123	303.509
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	8182264	260.724
128) sec-Butylbenzene	(4)	12.525	105	9574539	253.403
130) 1,3-Dichlorobenzene	(4)	12.616	146	4469009	269.455
131) p-Isopropyltoluene	(4)	12.641	119	8232580	261.279
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	462526	50.000
134) 1,4-Dichlorobenzene	(4)	12.695	146	4434033	263.430

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

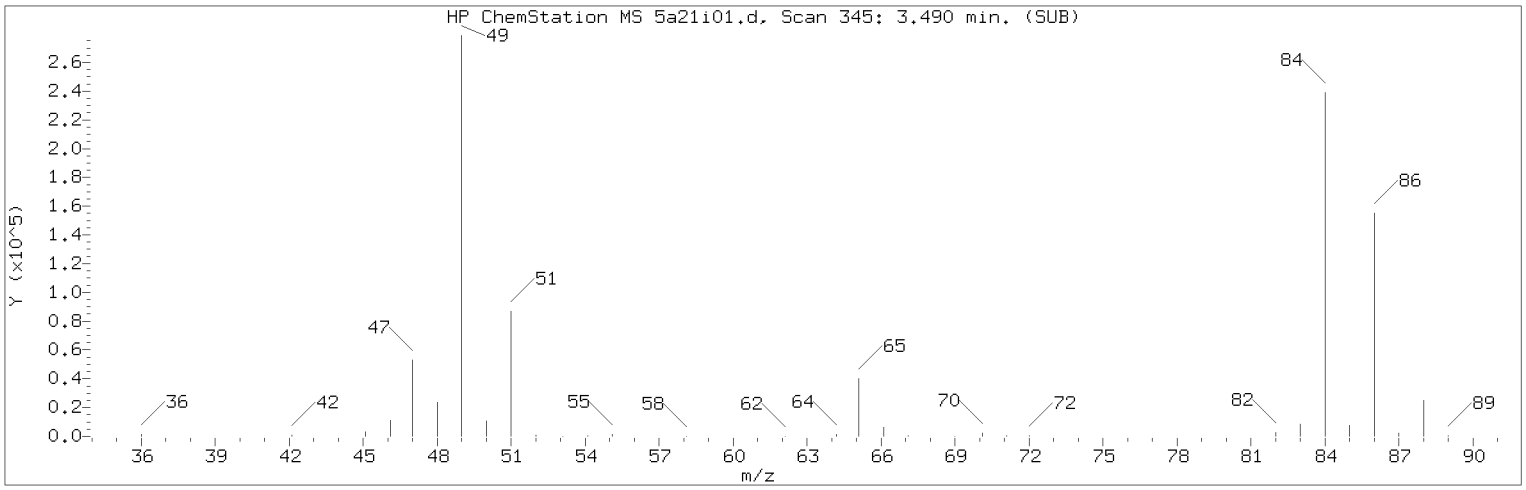
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

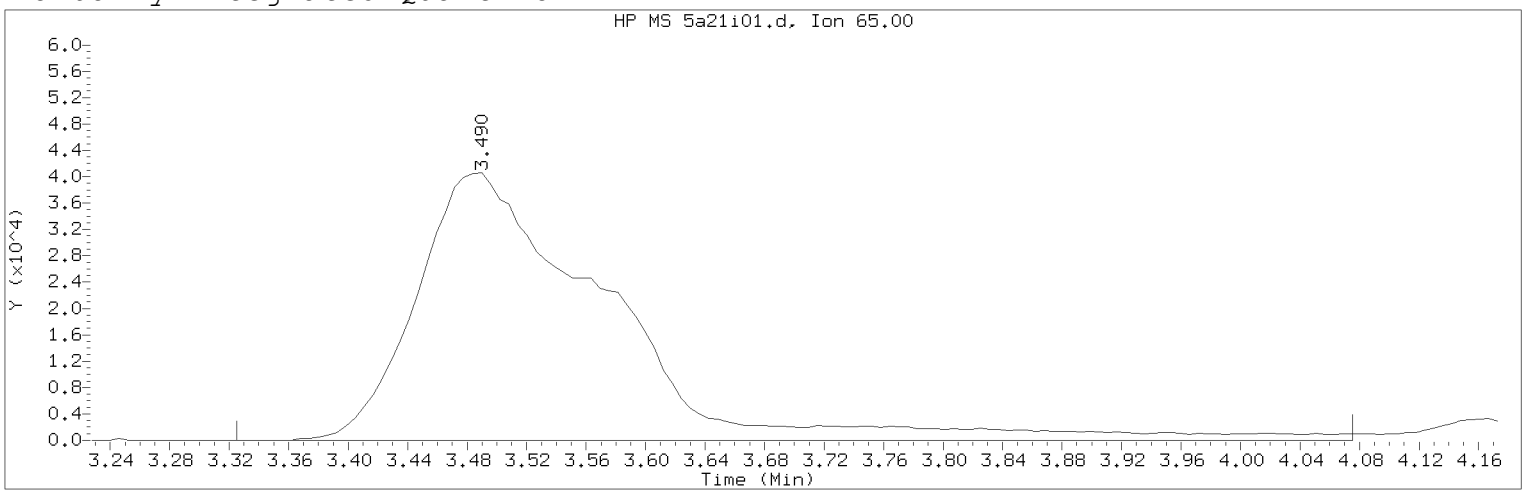
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	7774791	258.098
136)	Benzyl Chloride	(4)	12.775	91	7177348	312.660
137)	1,3-Diethylbenzene	(4)	12.848	119	4947733	271.768
138)	1,4-Diethylbenzene	(4)	12.921	119	4979240	264.422
140)	n-Butylbenzene	(4)	12.939	92	4168841	262.298
139)	1,2-Dichlorobenzene	(4)	12.964	146	4299940	269.902
141)	1,2-Diethylbenzene	(4)	12.994	119	4120446	267.611
142)	Diethylbenzene (total)	(4)		100	14047419	803.801
143)	1,2-Dibromo-3-chloropropane	(4)	13.518	75	969124	320.802
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	2993247	284.456
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	2829365	286.205
148)	Hexachlorobutadiene	(4)	14.171	225	1134842	298.493
149)	Naphthalene	(4)	14.268	128	9913701	253.236
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	2753131	281.432
151)	2-Methylnaphthalene	(4)	15.018	142	5752055	282.809

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

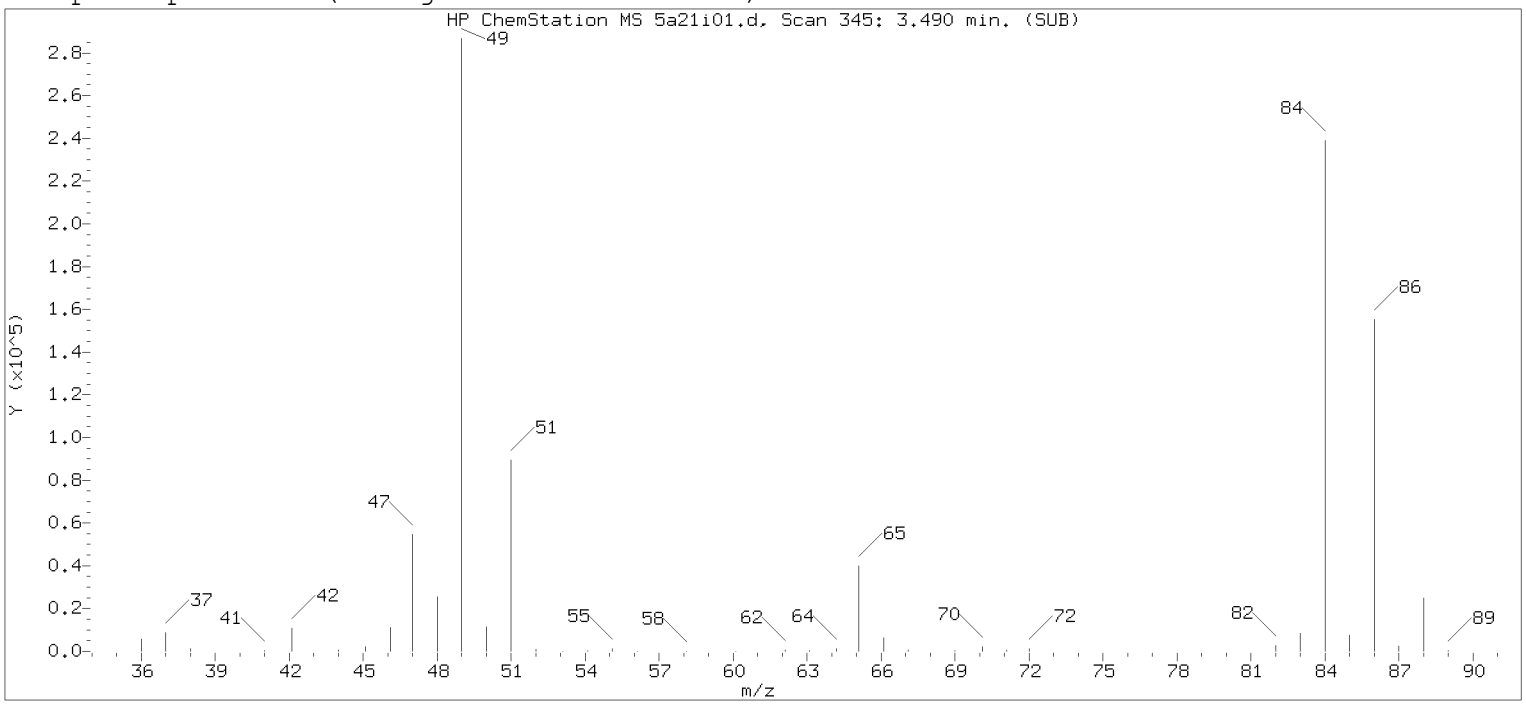
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 363110M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 440
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

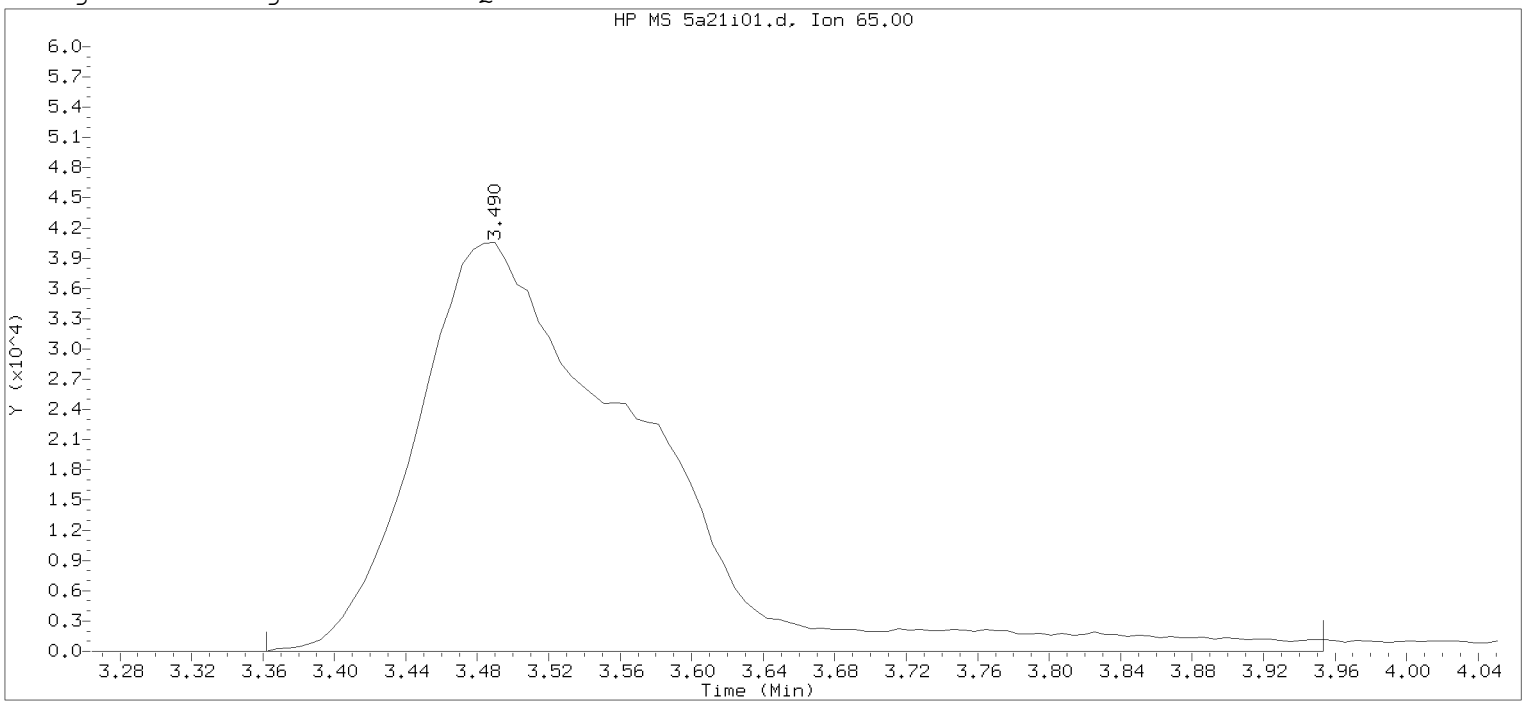
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

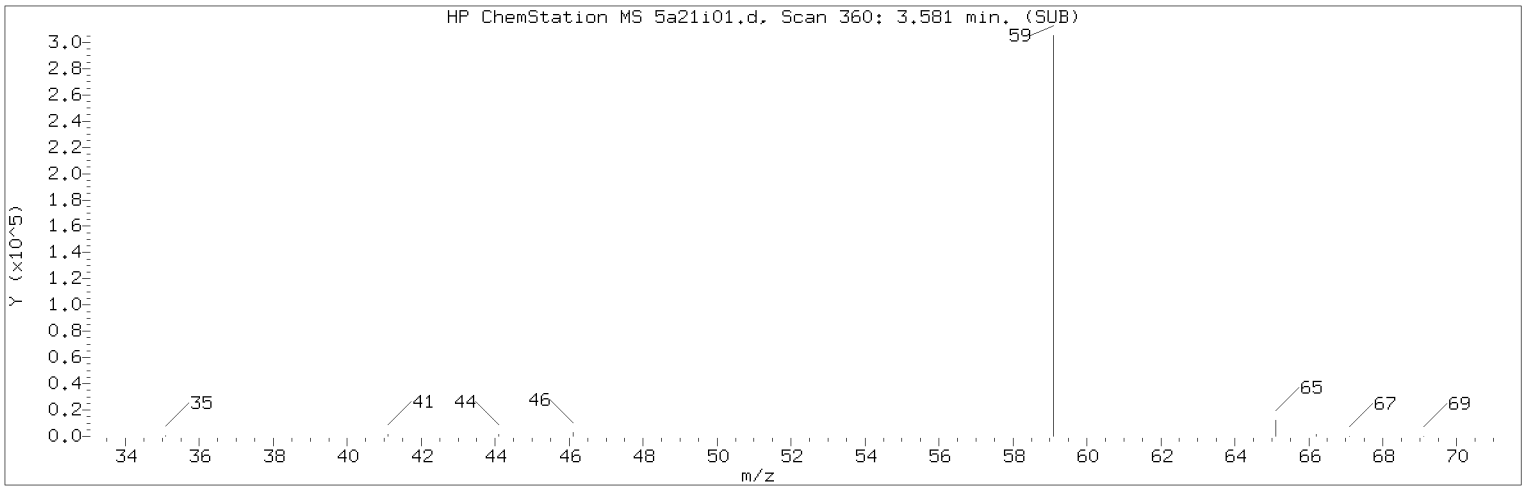
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

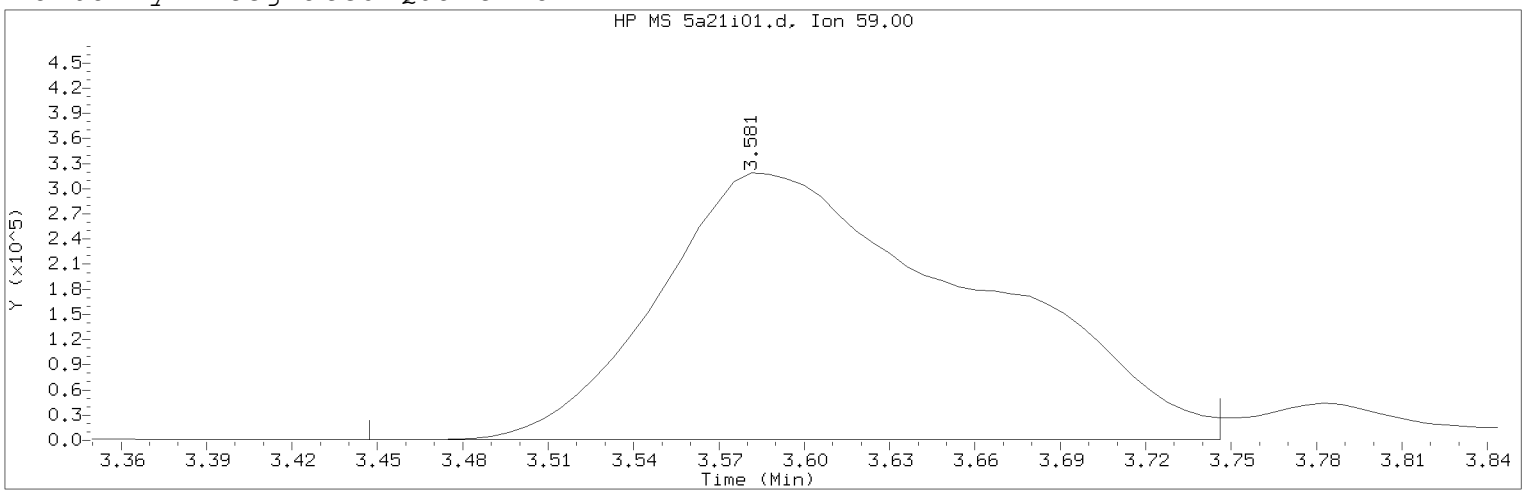
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 355812
On-column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

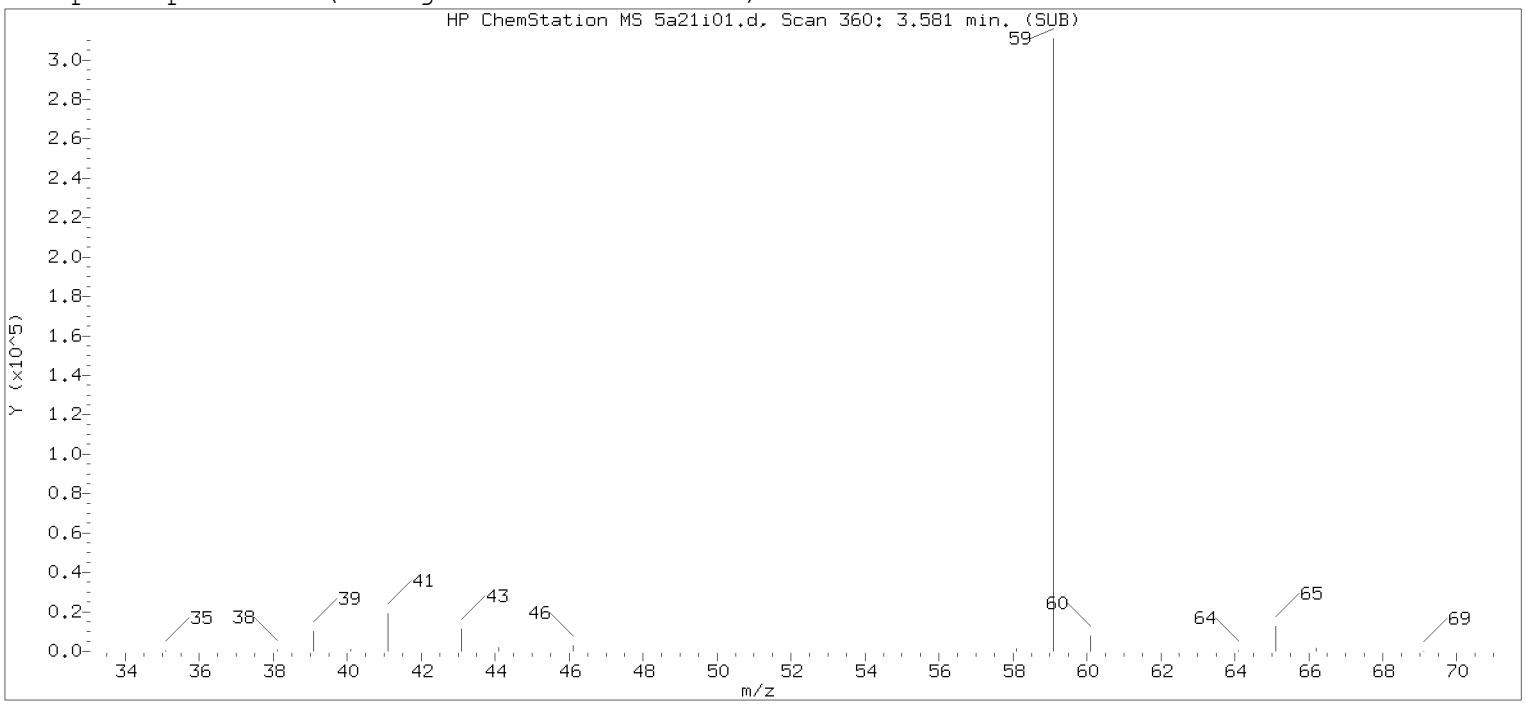
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area (flag) : 2474869M
On-Column Amount (ng) : 1447.0190
Integration start scan : 337 Integration stop scan: 386
Y at integration start : 427 Y at integration end: 427

Reason for manual integration: improper integration

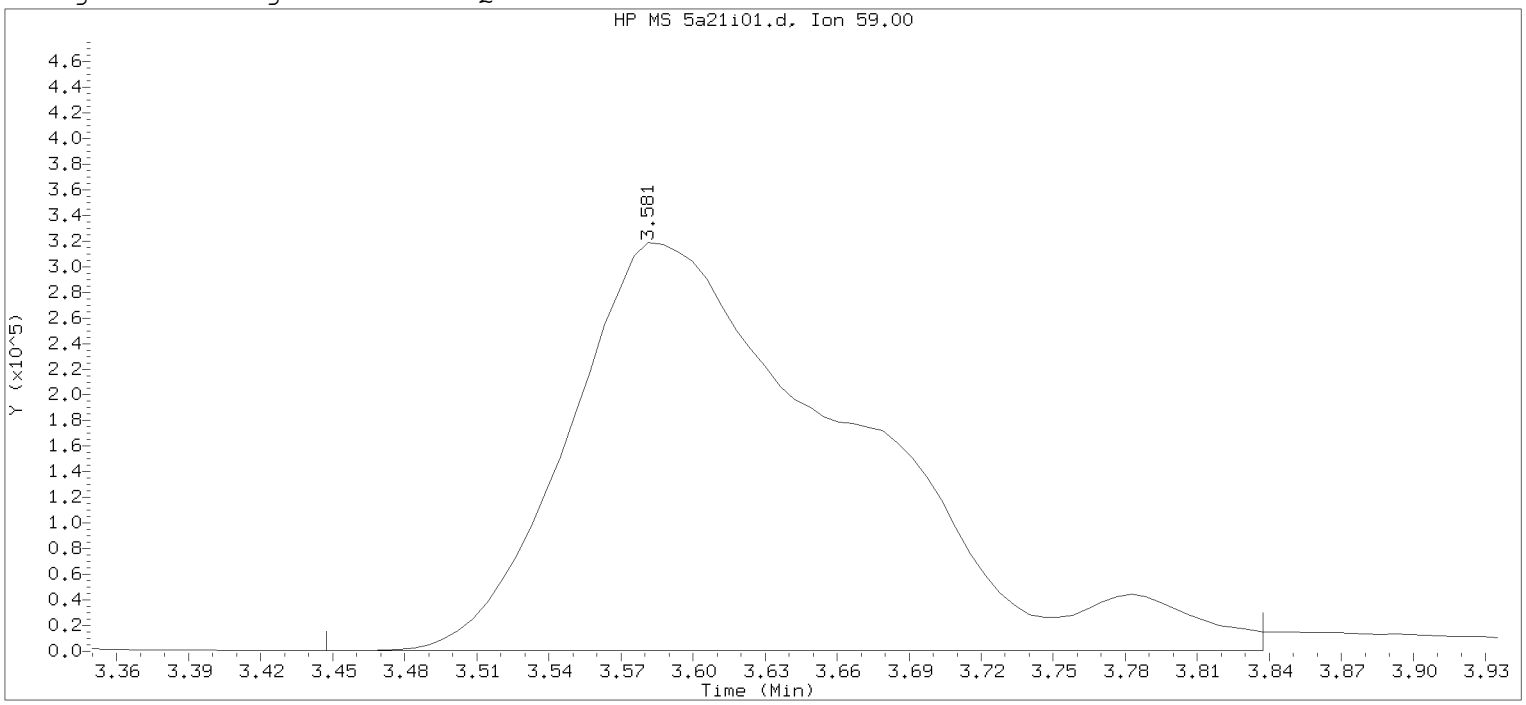
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

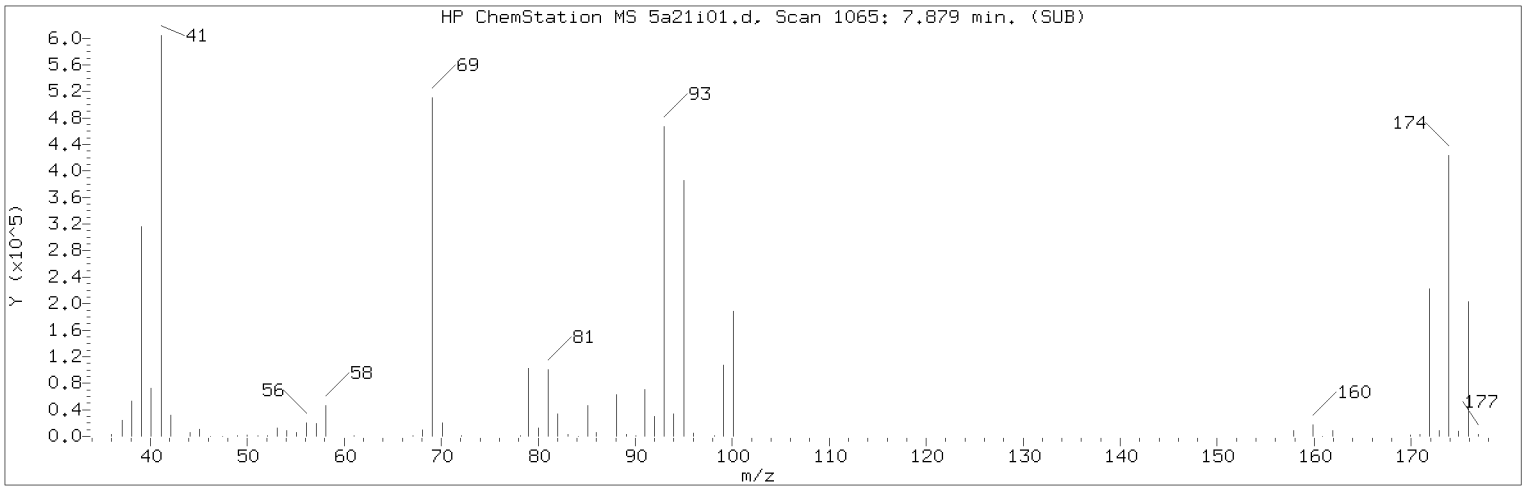
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

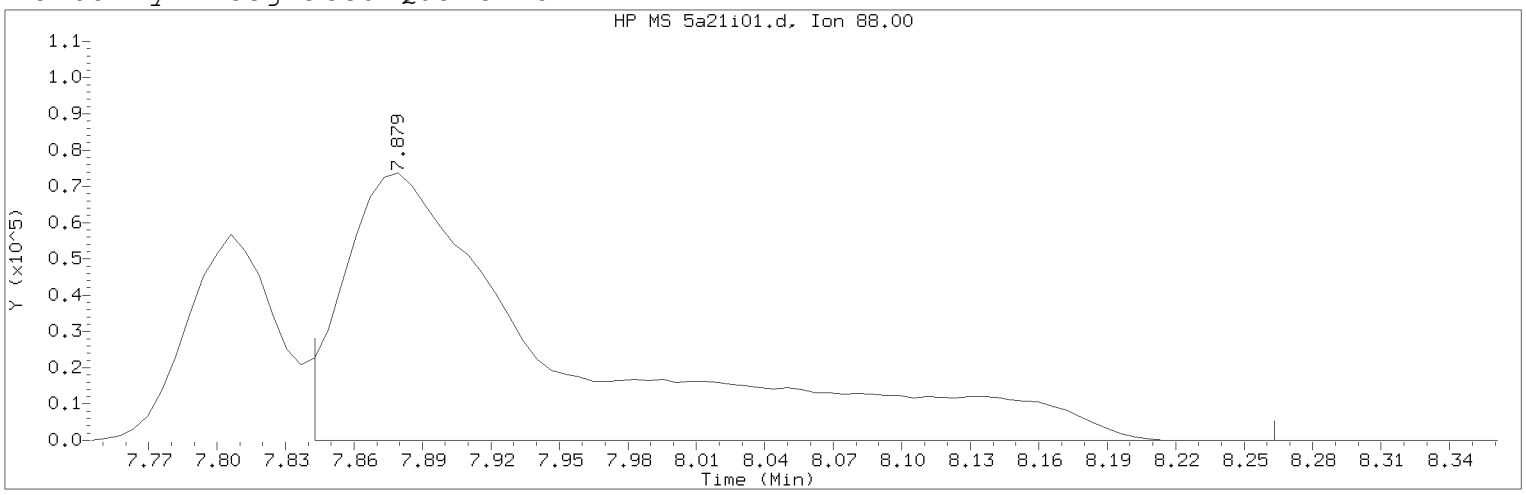
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area : 2634322
On-column Amount (ng) : 1505.7364
Integration start scan : 337 Integration stop scan: 401
Y at integration start : 427 Y at integration end: 427

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

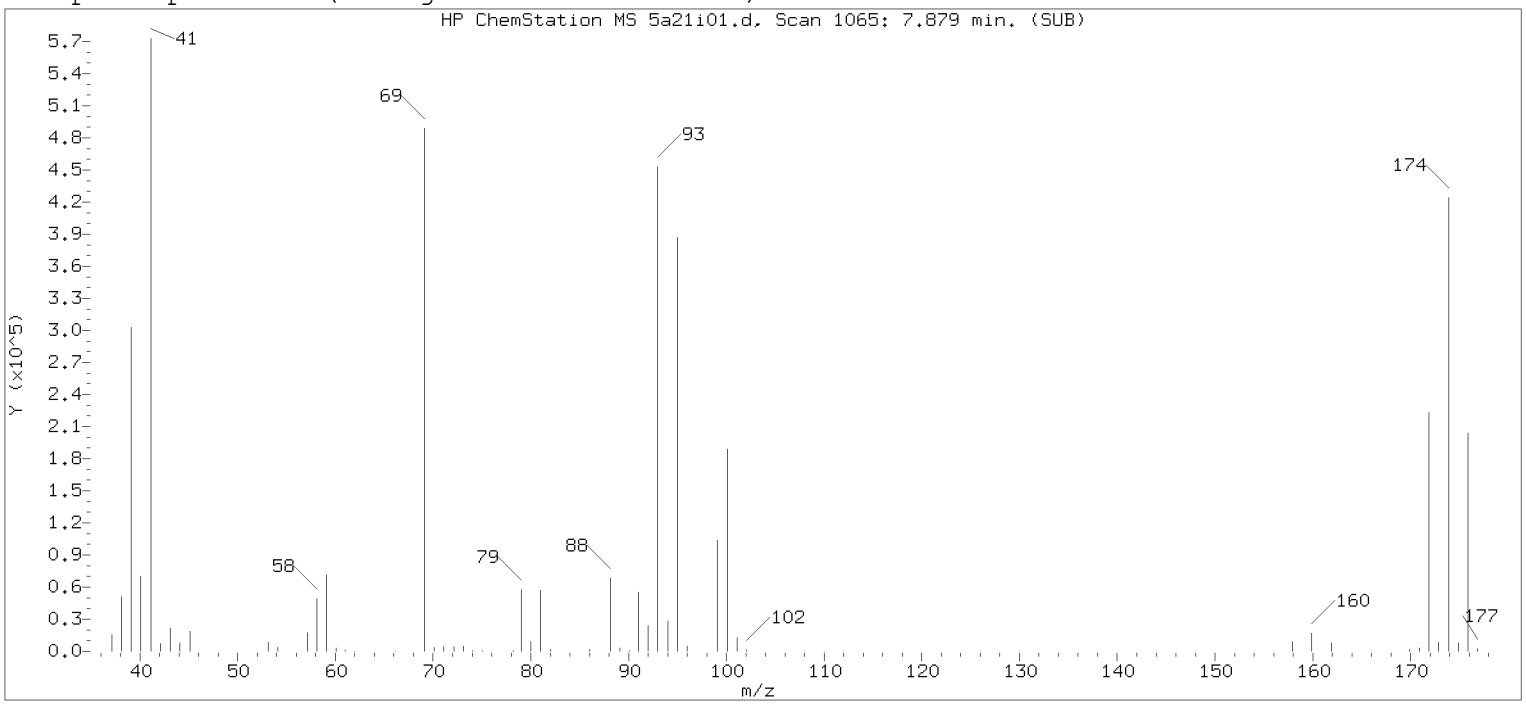
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 505646M
On-Column Amount (ng) : 4143.9152
Integration start scan : 1058 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

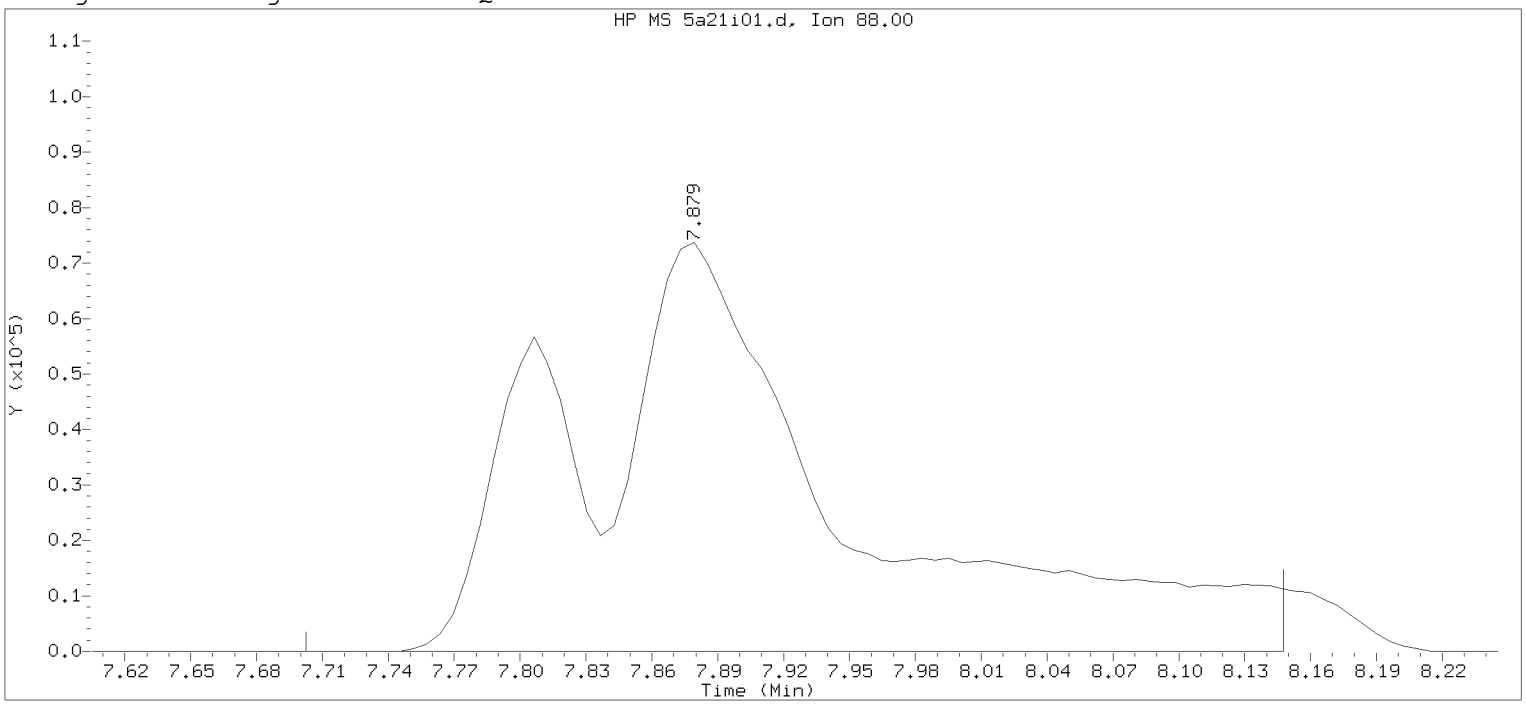
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

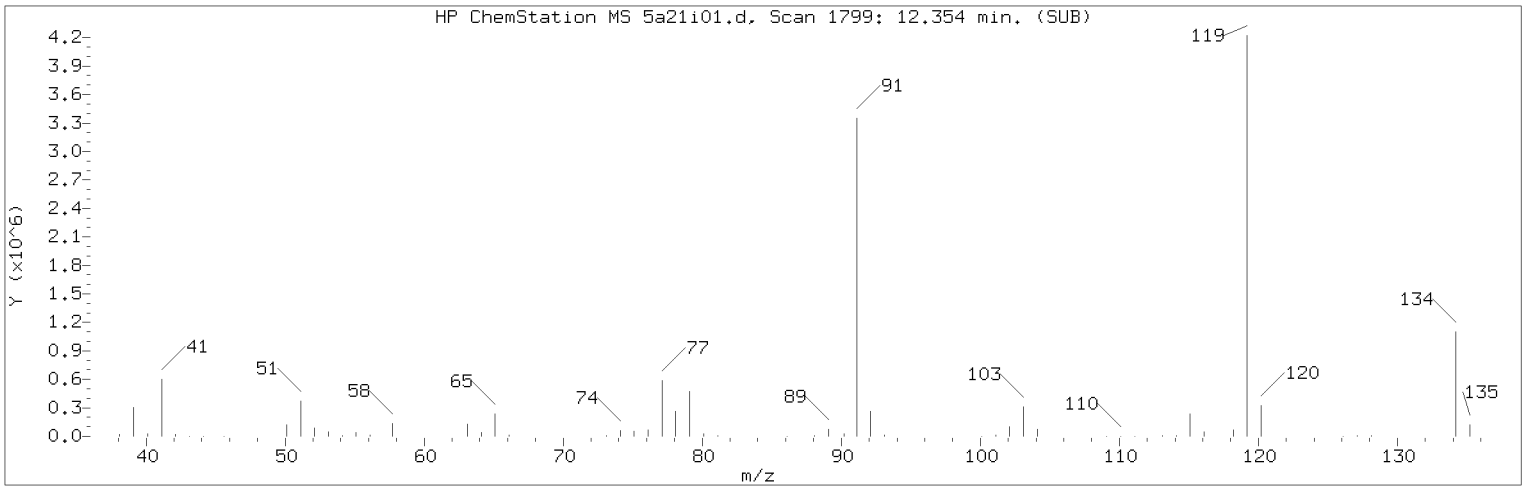
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

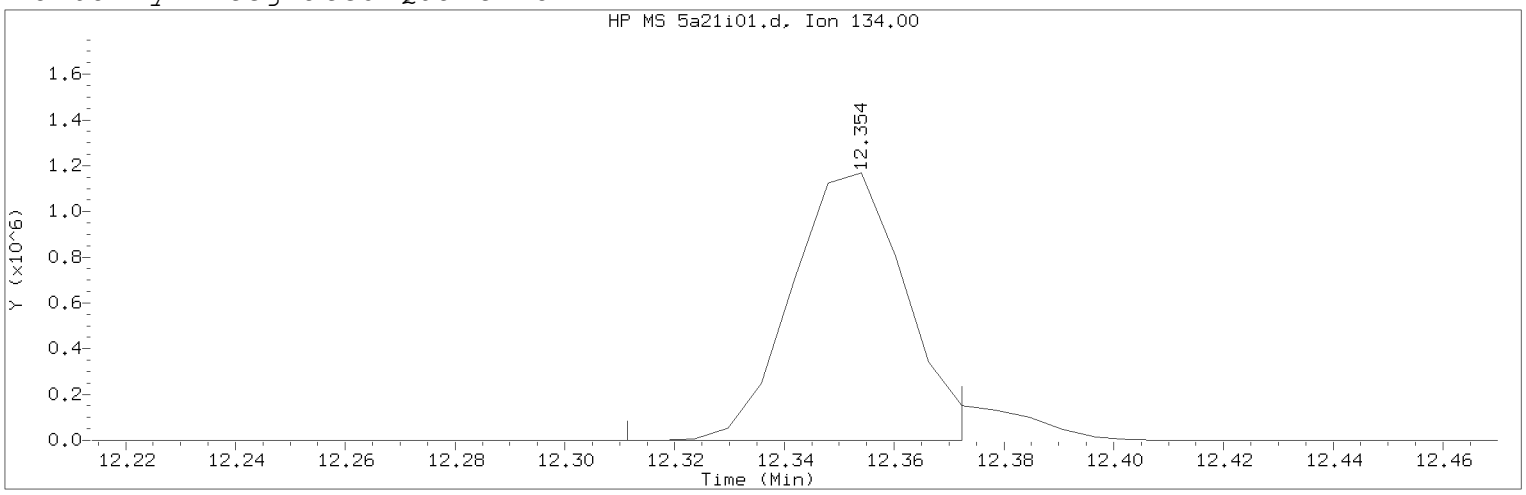
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area : 634455
On-column Amount (ng) : 4311.6616
Integration start scan : 1035 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

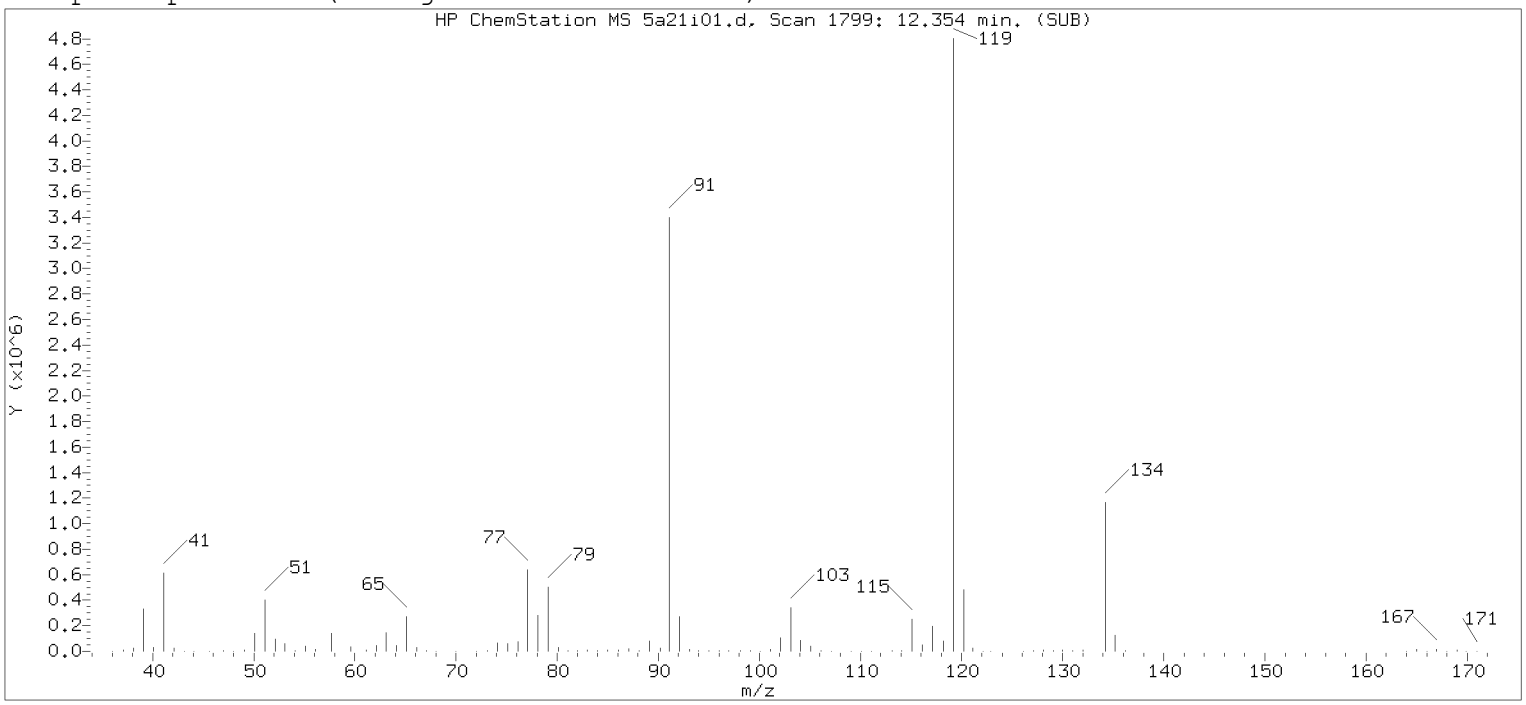
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area (flag) : 1685066M
On-Column Amount (ng) : 278.2183
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

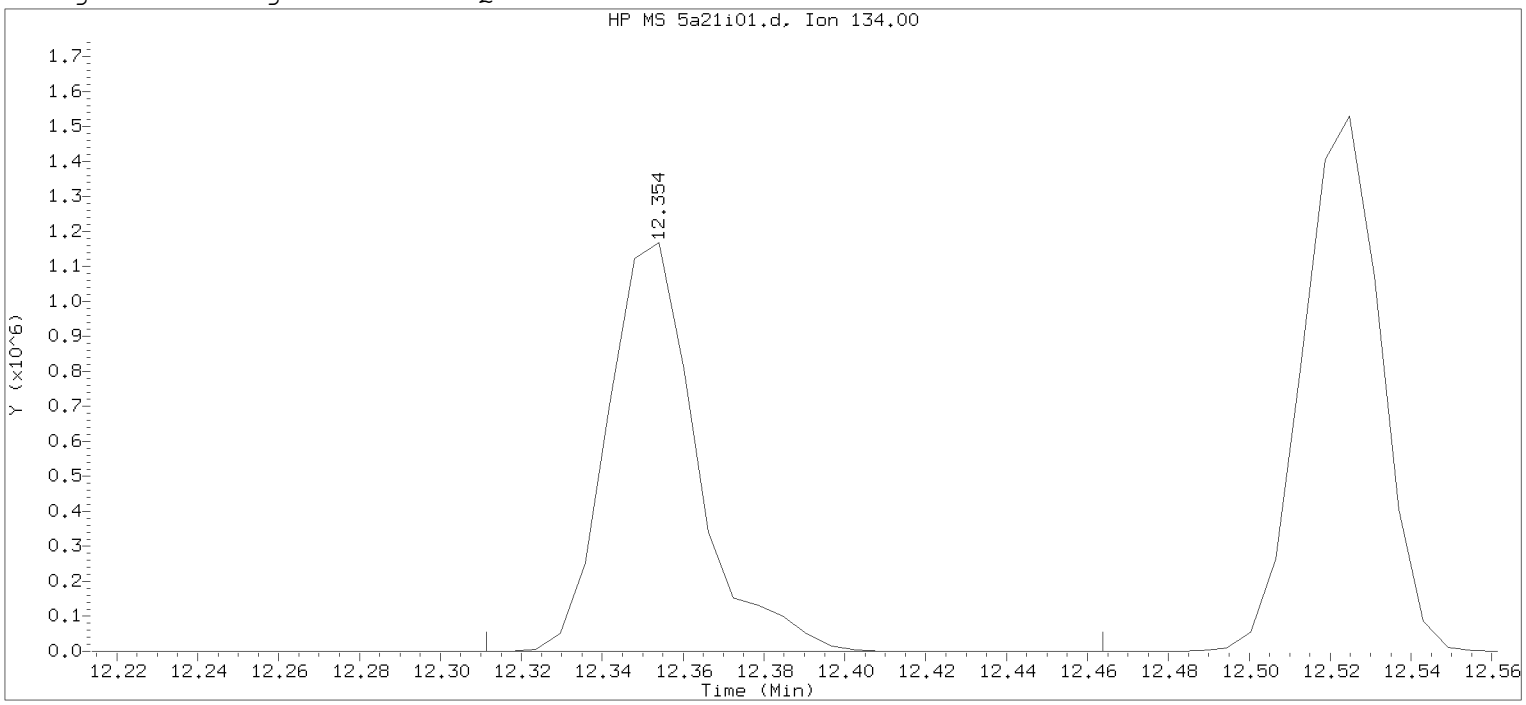
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



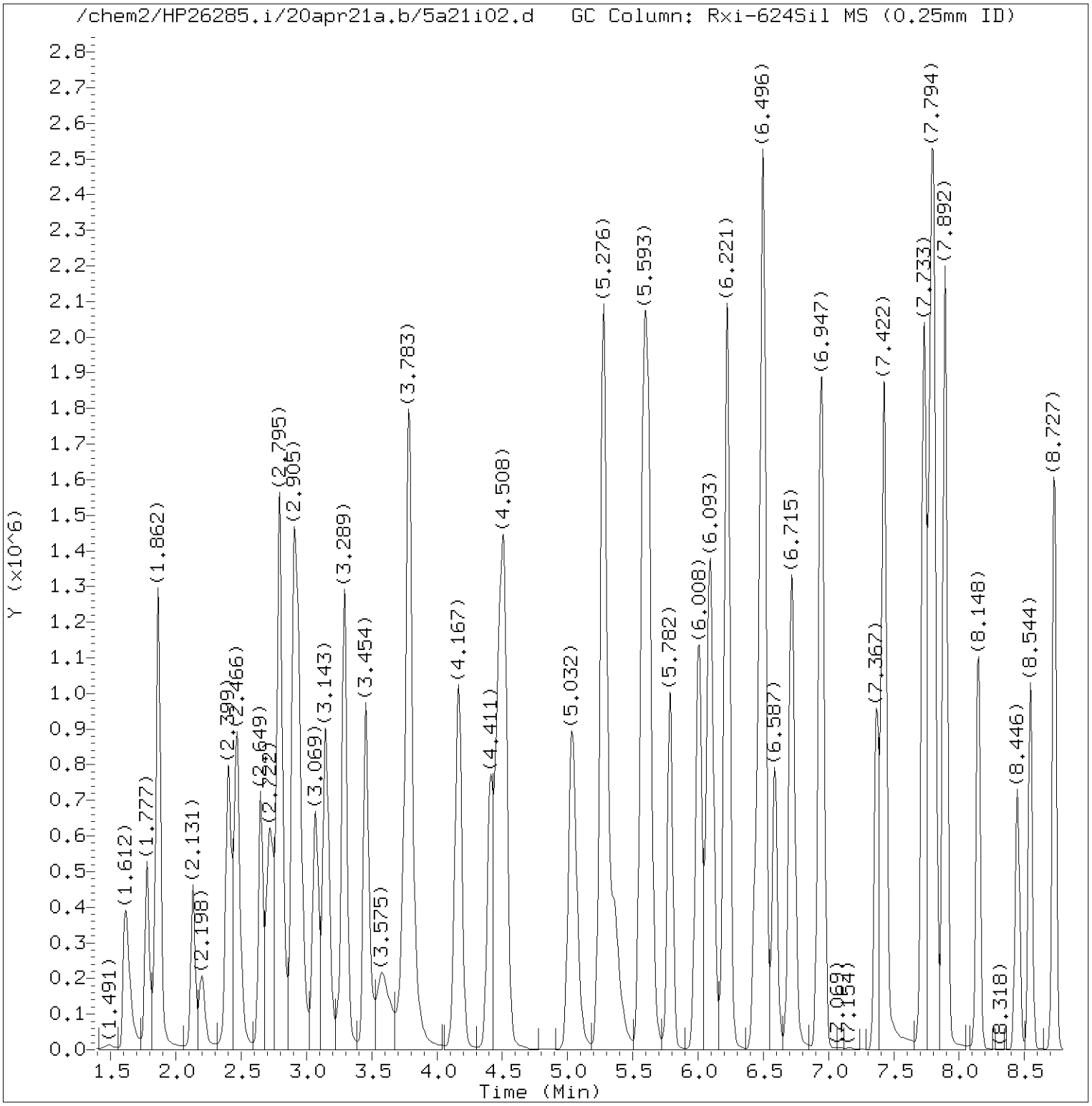
Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area : 1795576
On-column Amount (ng) : 291.1602
Integration start scan : 1791 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: clm27445



Total Ion Chromatogram (TIC)

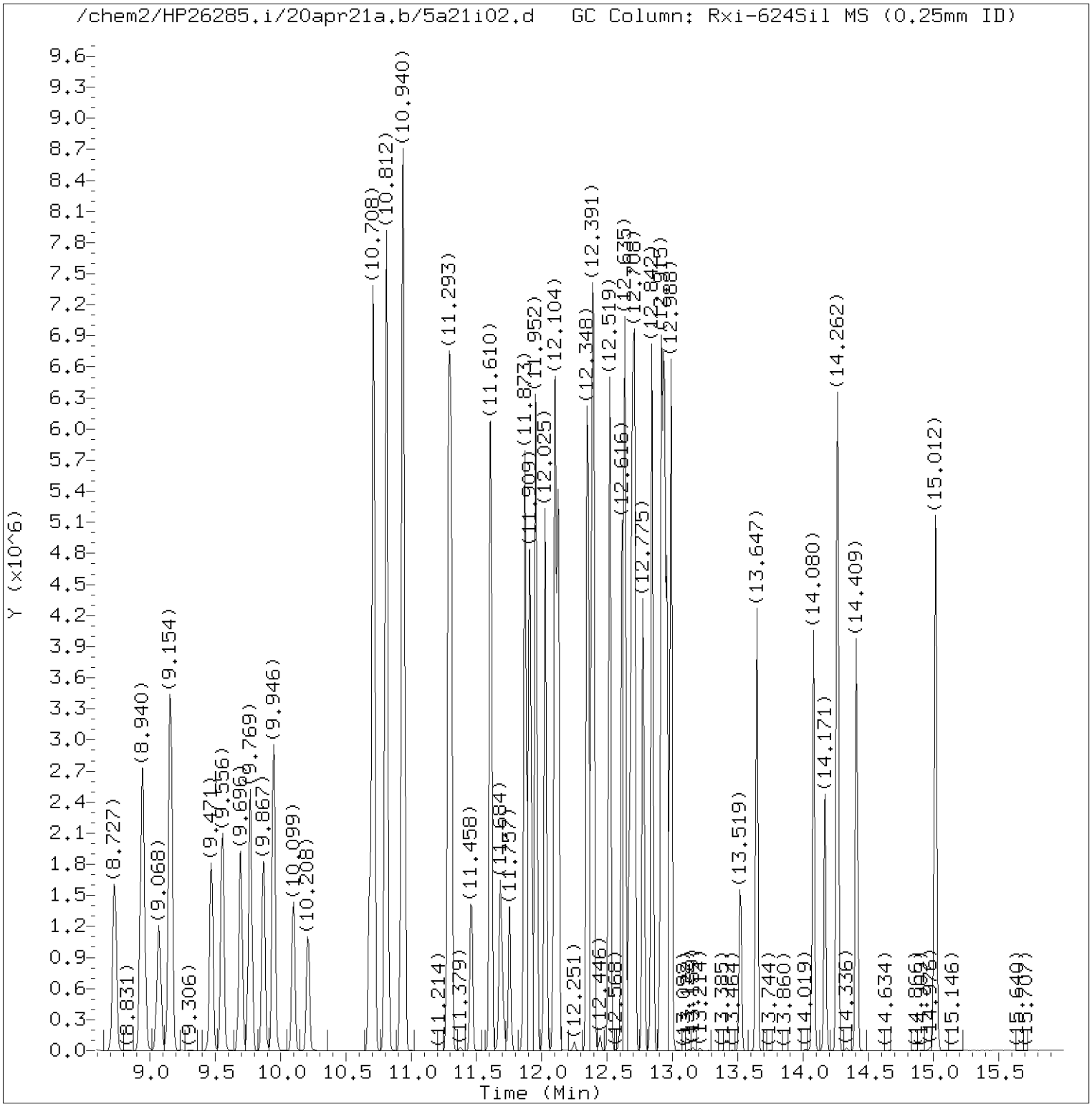
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	873226	104.047
4) Chloromethane	(2)	1.777	50	655841	97.836
5) 1,3-Butadiene	(2)	1.862	39	634972	68.616
6) Vinyl Chloride	(2)	1.868	62	604184	102.608
8) Bromomethane	(2)	2.131	94	395793	100.116
9) Chloroethane	(2)	2.198	64	289634	103.890
10) Dichlorofluoromethane	(2)	2.399	67	925922	101.918
12) Trichlorofluoromethane	(2)	2.442	101	751734	104.239
11) n-Pentane	(2)	2.472	43	651119	96.995
14) Ethyl ether	(2)	2.649	59	525058	105.609
15) Freon 123a	(2)	2.716	67	771972	102.551
16) Acrolein	(1)	2.795	56	2255420	1023.922
17) 1,1-Dichloroethene	(2)	2.899	96	582916	104.032
17) 1,1-Dichloroethene	(2)	2.899	63	296111	105.443
19) Freon 113	(2)	2.929	101	682149	107.557
18) Acetone	(1)	2.935	58	234830	216.159
22) Methyl Iodide	(2)	3.069	142	1112268	104.102
21) 2-Propanol	(1)	3.082	45	465082	526.097
23) Carbon Disulfide	(2)	3.143	76	2068953	104.972
27) Methyl Acetate	(2)	3.277	43	807702	99.981
25) Allyl Chloride	(2)	3.295	41	976677	104.129
28) Methylene Chloride	(2)	3.454	84	655842	103.839
29)*t-Butyl alcohol-d10	(1)	3.472	65	347877M	250.000
30) t-Butyl alcohol	(1)	3.588	59	842379	514.093
31) Acrylonitrile	(2)	3.740	53	447540	104.954
32) trans-1,2-Dichloroethene	(2)	3.783	96	648552	103.443
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	1713425	103.320
34) n-Hexane	(2)	4.167	57	986803	106.145
36) 1,1-Dichloroethane	(2)	4.405	63	1182811	104.215
38) di-Isopropyl ether	(2)	4.472	45	2103879	103.784
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	1033766	107.213
40) Ethyl t-butyl ether	(2)	5.032	59	1834635	101.944
44) 2-Butanone	(2)	5.264	43	1265905	203.974
42) cis-1,2-Dichloroethene	(2)	5.276	96	738513	104.141
45) 2,2-Dichloropropane	(2)	5.282	77	1004742	104.916
47) Propionitrile	(1)	5.362	54	946715	530.745
48) Methacrylonitrile	(2)	5.581	67	1113996	262.312
49) Bromochloromethane	(2)	5.618	128	337485	103.907

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	348863	216.398
51) Chloroform	(2)	5.782	83	1188040	104.362
53) 1,1,1-Trichloroethane	(2)	6.002	97	1089021	106.252
52)$Dibromofluoromethane	(2)	6.008	113	259630	50.300
52)$Dibromofluoromethane	(2)	6.008	111	265266	50.193
54) Cyclohexane	(2)	6.093	56	1275315	106.836
54) Cyclohexane	(2)	6.093	84	1050963	106.434
54) Cyclohexane	(2)	6.093	69	396926	107.203
43) 1,2-Dichloroethene (Total)	(2)		96	1387065	207.584
56) Carbon Tetrachloride	(2)	6.215	117	974553	108.981
55) 1,1-Dichloropropene	(2)	6.227	75	977668	105.297
58) Isobutyl Alcohol	(1)	6.453	41	716282	1311.436
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57676	49.961
57)$1,2-Dichloroethane-d4	(2)	6.477	65	282752	50.096
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37247	50.390
60) Benzene	(2)	6.502	78	2867187	103.854
61) 1,2-Dichloroethane	(2)	6.587	62	859134	101.319
61) 1,2-Dichloroethane	(2)	6.587	98	79345	110.650
65) t-Amyl methyl ether	(2)	6.715	73	1833906	102.124
66)*Fluorobenzene	(2)	6.928	96	1036304	50.000
67) n-Heptane	(2)	6.953	43	943779	105.097
69) n-Butanol	(1)	7.367	56	1249826	2651.941
71) Trichloroethene	(2)	7.428	95	758145	104.645
73) Methylcyclohexane	(2)	7.727	83	1230133	106.834
73) Methylcyclohexane	(2)	7.733	98	523046	107.302
74) 1,2-Dichloropropane	(2)	7.776	63	725959	105.044
76) 1,4-Dioxane	(1)	7.873	88	157068M	1343.583
75) Dibromomethane	(2)	7.892	93	463304	106.463
77) Methyl Methacrylate	(2)	7.898	69	710702	109.912
79) Bromodichloromethane	(2)	8.148	83	931524	110.389
80) 2-Nitropropane	(2)	8.446	41	644513	220.516
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	585861	109.539
82) cis-1,3-Dichloropropene	(2)	8.727	75	1177656	110.436
83) 4-Methyl-2-pentanone	(2)	8.940	43	2566204	214.529
84)$Toluene-d8	(3)	9.068	98	1013239	49.593
84)$Toluene-d8	(3)	9.068	100	668715	49.709
89) Toluene	(3)	9.154	92	1847083	102.527
90) trans-1,3-Dichloropropene	(3)	9.471	75	1079462	111.675

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	1204012	109.541
93) 1,1,2-Trichloroethane	(3)	9.696	97	674136	104.668
94) Tetrachloroethene	(3)	9.769	166	785305	102.776
95) 1,3-Dichloropropane	(3)	9.867	76	1114528	104.220
97) 2-Hexanone	(3)	9.946	43	2047052	213.864
91) 1,3-Dichloropropene (total)	(3)		100	2257118	222.111
98) Dibromochloromethane	(3)	10.099	129	768472	112.756
100) 1,2-Dibromoethane	(3)	10.208	107	755002	106.336
101)*Chlorobenzene-d5	(3)	10.684	117	831366	50.000
102) 1-Chlorohexane	(3)	10.708	91	1084300	103.492
103) Chlorobenzene	(3)	10.714	112	2035939	104.130
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	734441	108.883
105) Ethylbenzene	(3)	10.812	91	3675216	105.505
107) m+p-Xylene	(3)	10.940	106	2788515	208.644
108) o-Xylene	(3)	11.287	106	1378774	105.399
110) Styrene	(3)	11.306	104	2304191	109.295
111) Bromoform	(3)	11.464	173	583396	118.313
112) Isopropylbenzene	(3)	11.610	105	3604265	104.993
113) Cyclohexanone	(1)	11.684	55	723334	1347.095
115)$4-Bromofluorobenzene	(3)	11.751	95	433090	50.309
115)$4-Bromofluorobenzene	(3)	11.757	174	334791	49.854
109) Xylene (Total)	(3)		106	4167289	314.043
116) Bromobenzene	(4)	11.867	156	864771	104.955
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	1208260	108.065
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	619236	258.804
118) 1,2,3-Trichloropropane	(4)	11.915	110	342708	104.094
120) n-Propylbenzene	(4)	11.952	91	4294298	106.007
121) 2-Chlorotoluene	(4)	12.025	126	866539	104.359
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	3051340	107.153
122) 4-Chlorotoluene	(4)	12.129	126	881743	105.123
125) tert-Butylbenzene	(4)	12.348	134	602948M	106.538
126) Pentachloroethane	(4)	12.379	167	520795	112.091
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	3149431	107.398
128) sec-Butylbenzene	(4)	12.519	105	3763052	106.584
130) 1,3-Dichlorobenzene	(4)	12.616	146	1618478	104.433
131) p-Isopropyltoluene	(4)	12.635	119	3155925	107.189
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	432195	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	1624875	103.310

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

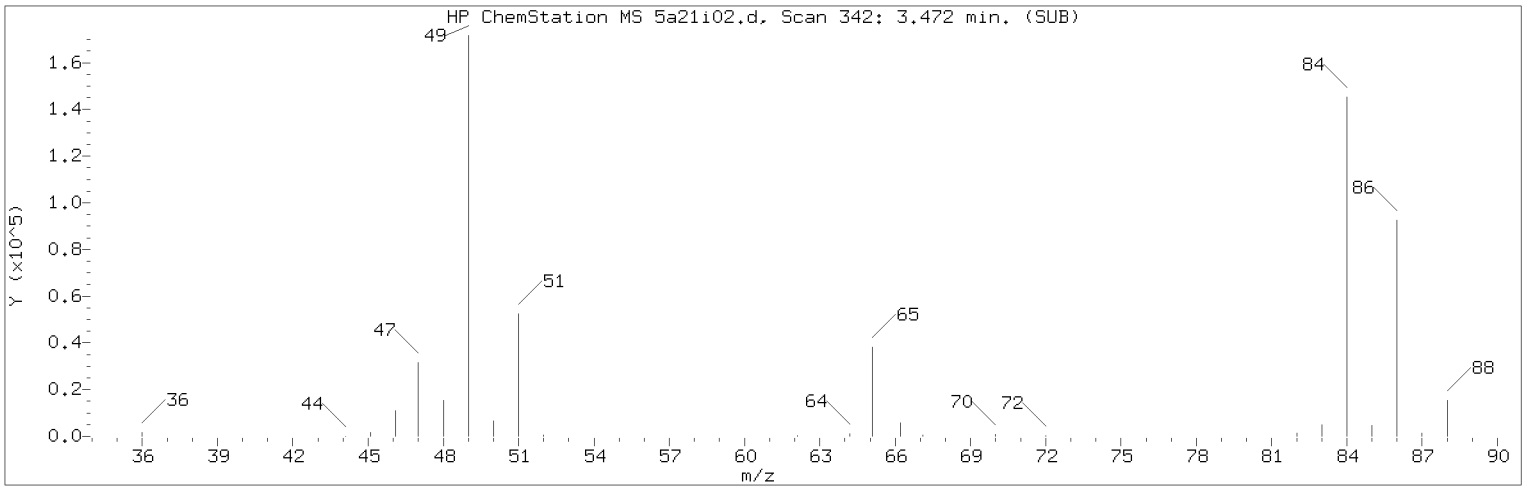
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

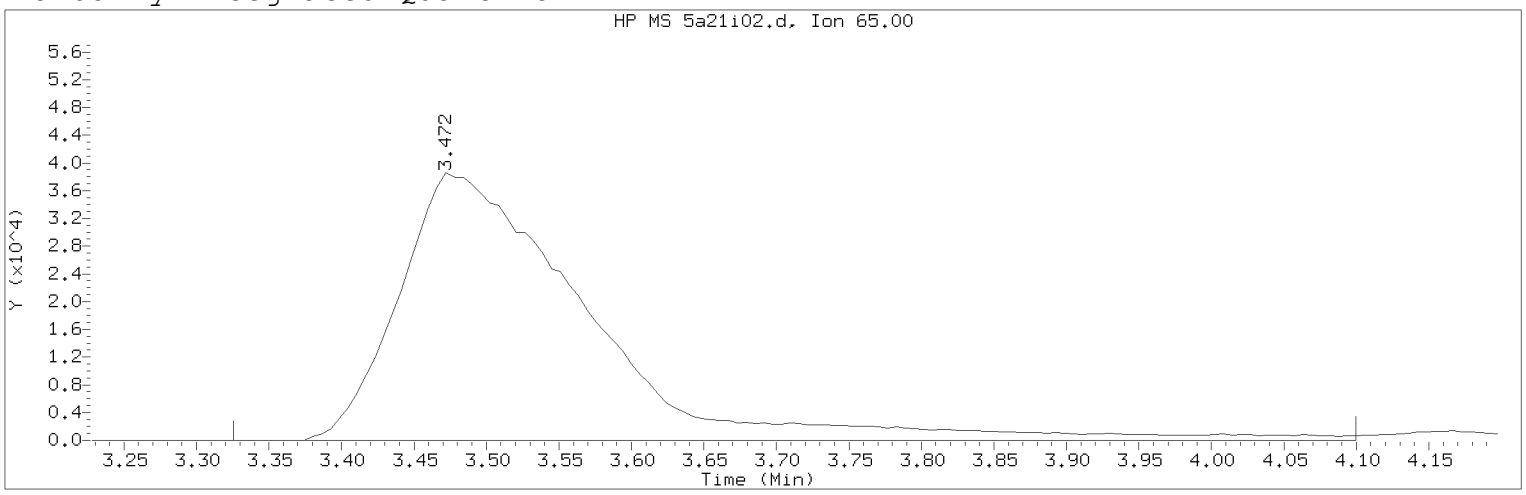
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	2970272	105.523
136) Benzyl Chloride	(4)	12.775	91	2503346	116.704
137) 1,3-Diethylbenzene	(4)	12.842	119	1817627	106.845
138) 1,4-Diethylbenzene	(4)	12.915	119	1878412	106.754
140) n-Butylbenzene	(4)	12.933	92	1596134	107.475
139) 1,2-Dichlorobenzene	(4)	12.958	146	1550292	104.139
141) 1,2-Diethylbenzene	(4)	12.988	119	1514030	105.233
142) Diethylbenzene (total)	(4)		100	5210069	318.831
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	313410	111.027
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	1039095	105.678
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	981755	106.279
148) Hexachlorobutadiene	(4)	14.171	225	376946	106.105
149) Naphthalene	(4)	14.262	128	3937085	107.627
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	966916	105.777
151) 2-Methylnaphthalene	(4)	15.012	142	2160027	113.654

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

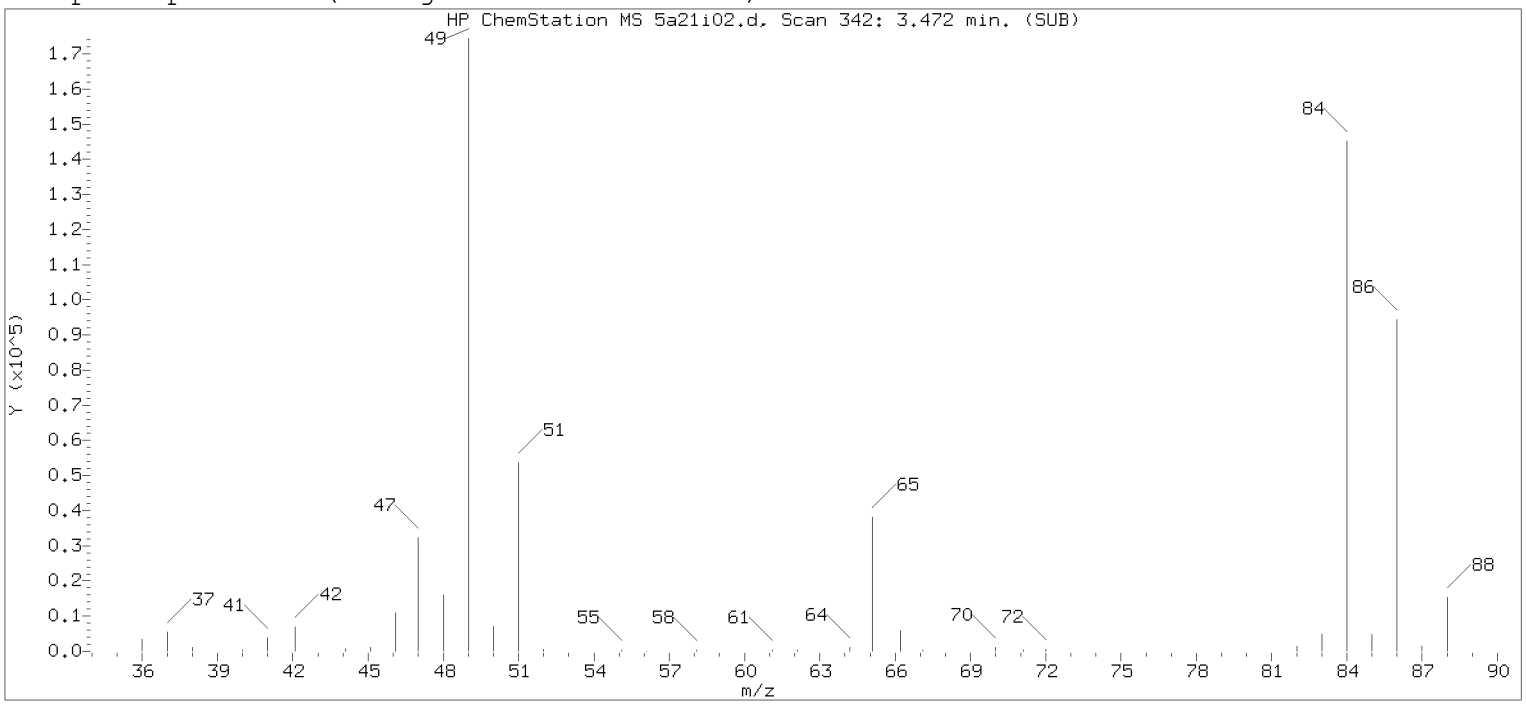
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area (flag) : 347877M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 444
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

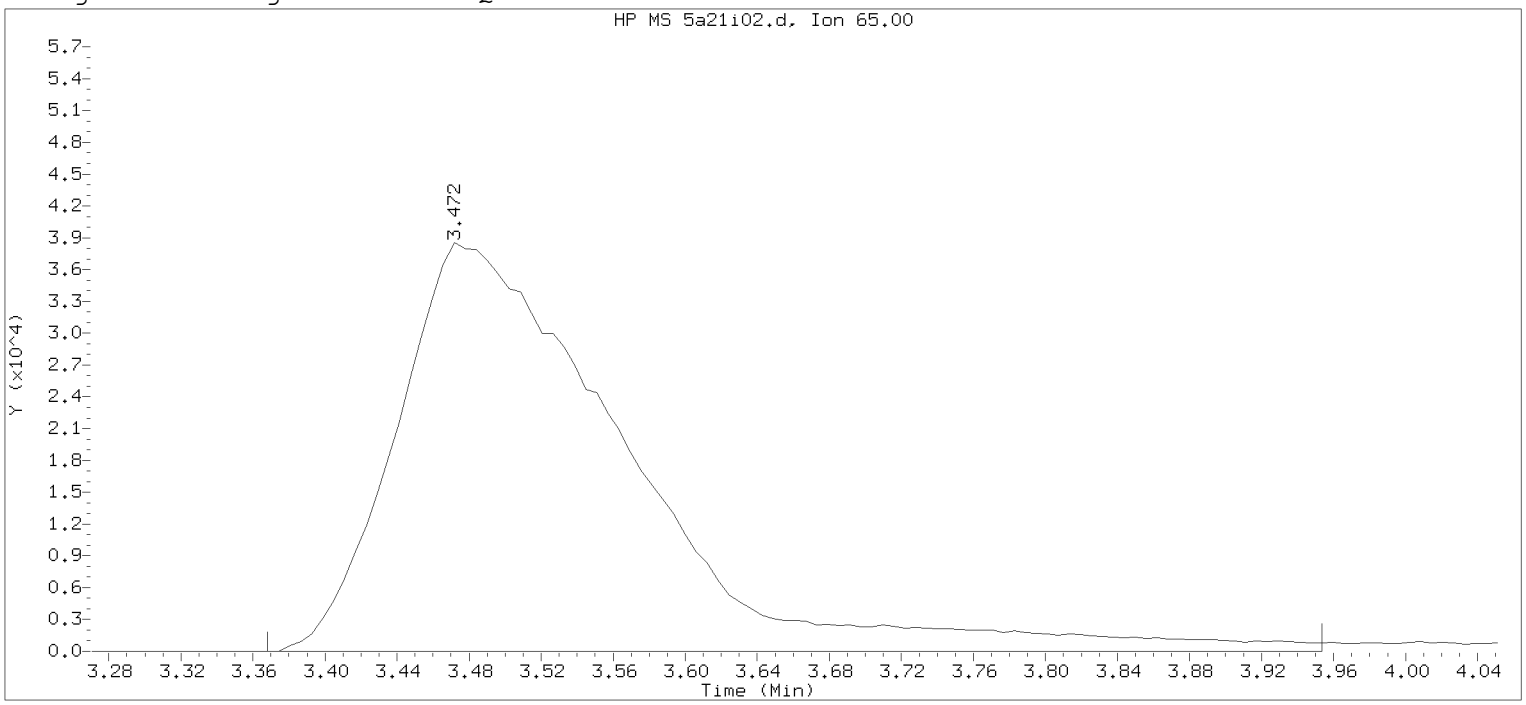
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

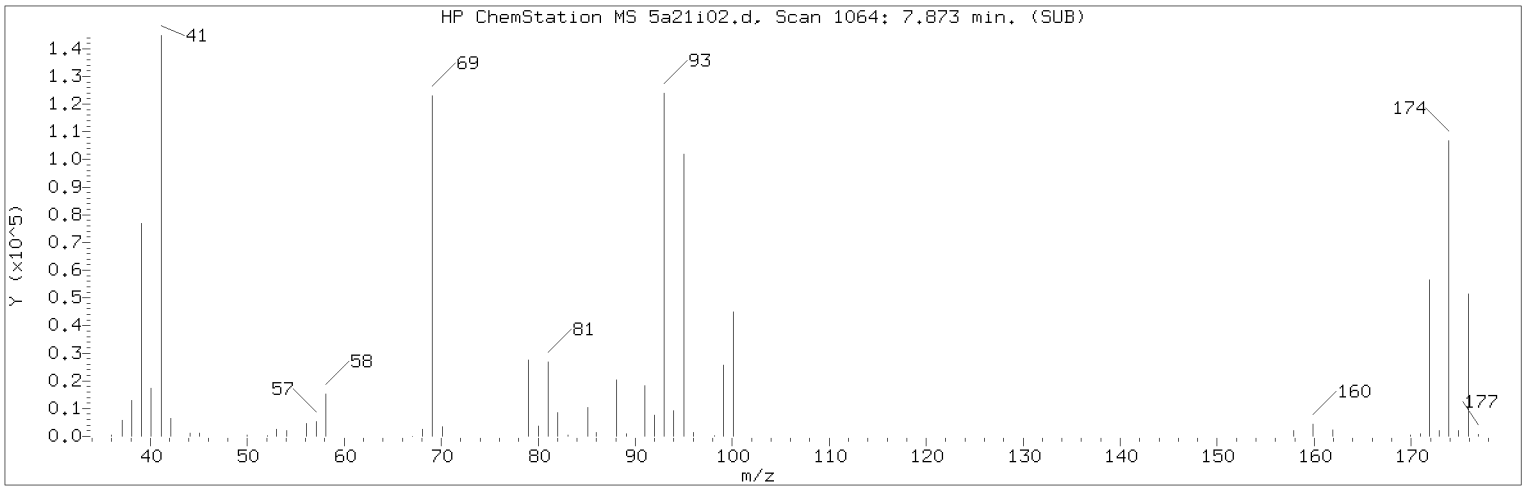
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

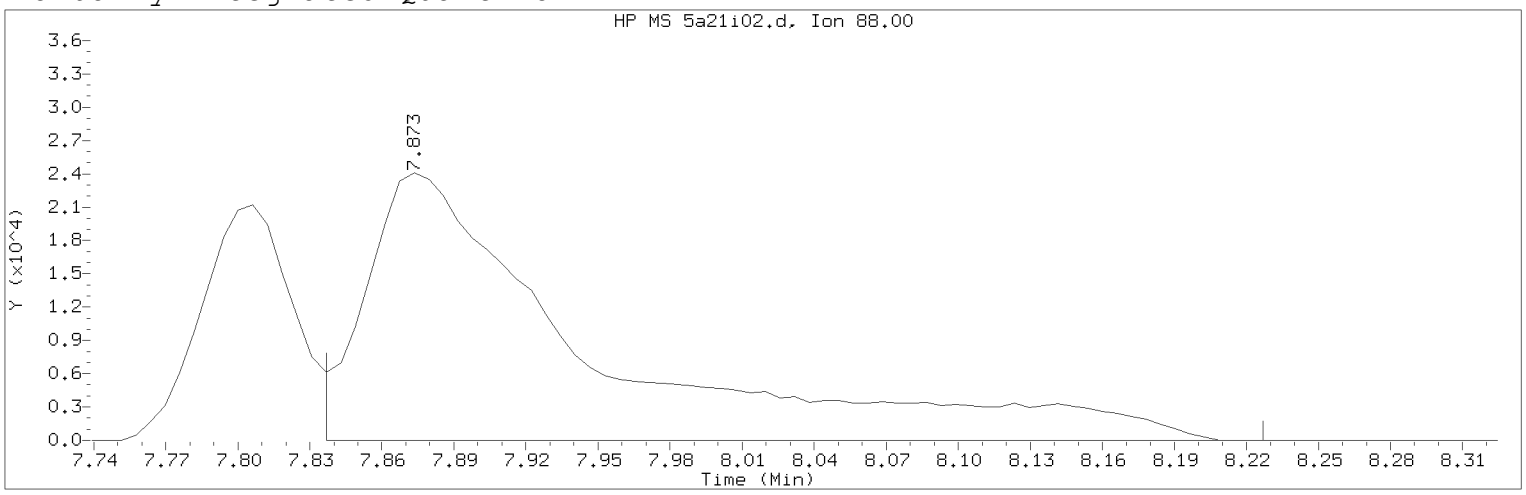
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area : 341170
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

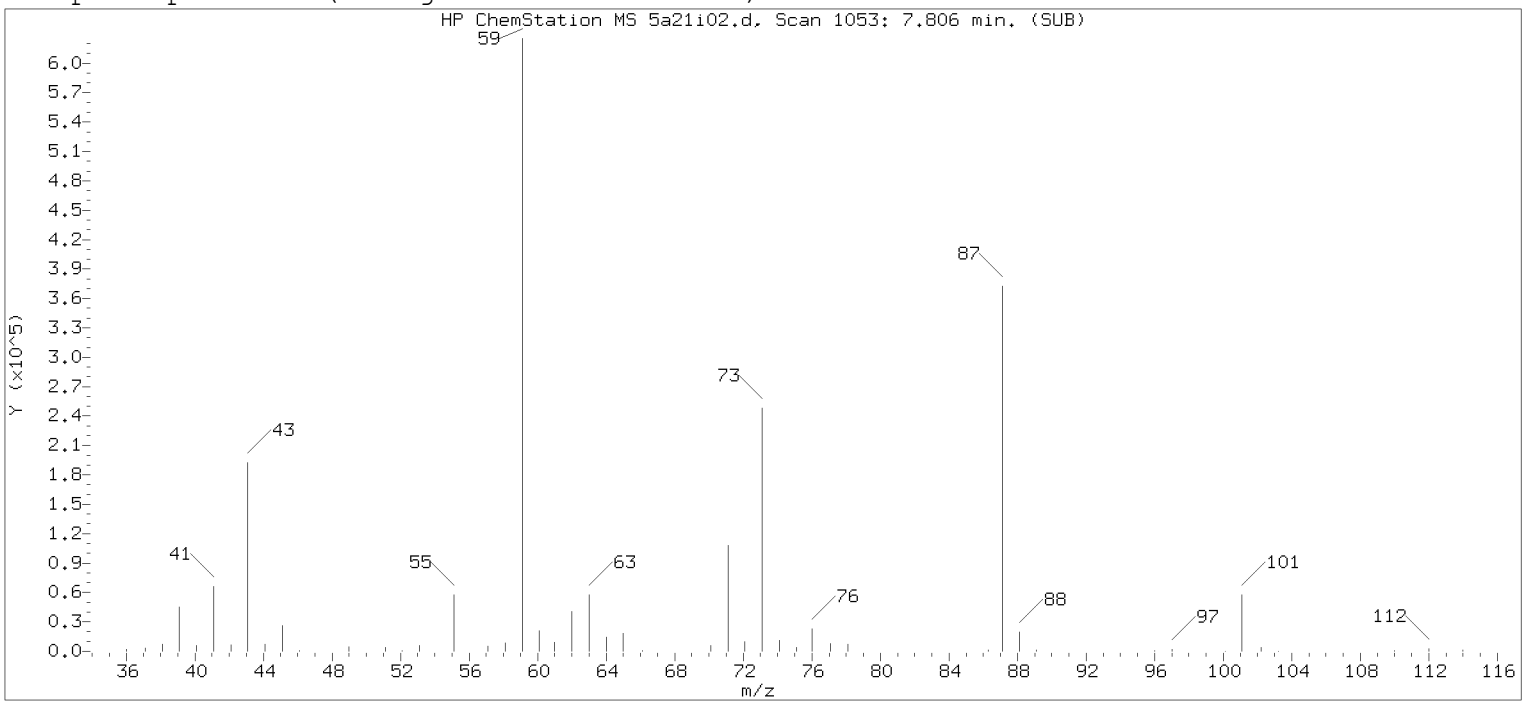
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 157068M
On-Column Amount (ng) : 1343.5830
Integration start scan : 1057 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

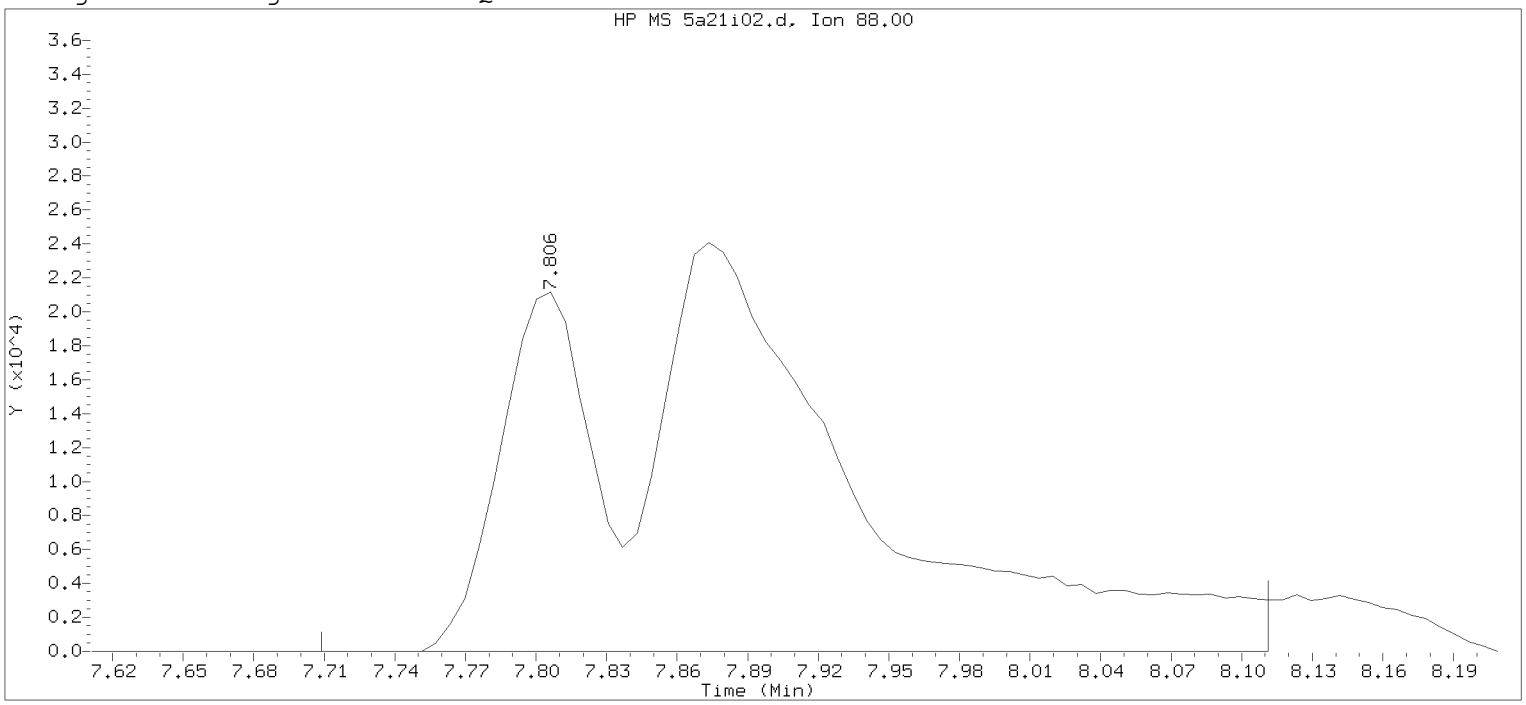
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

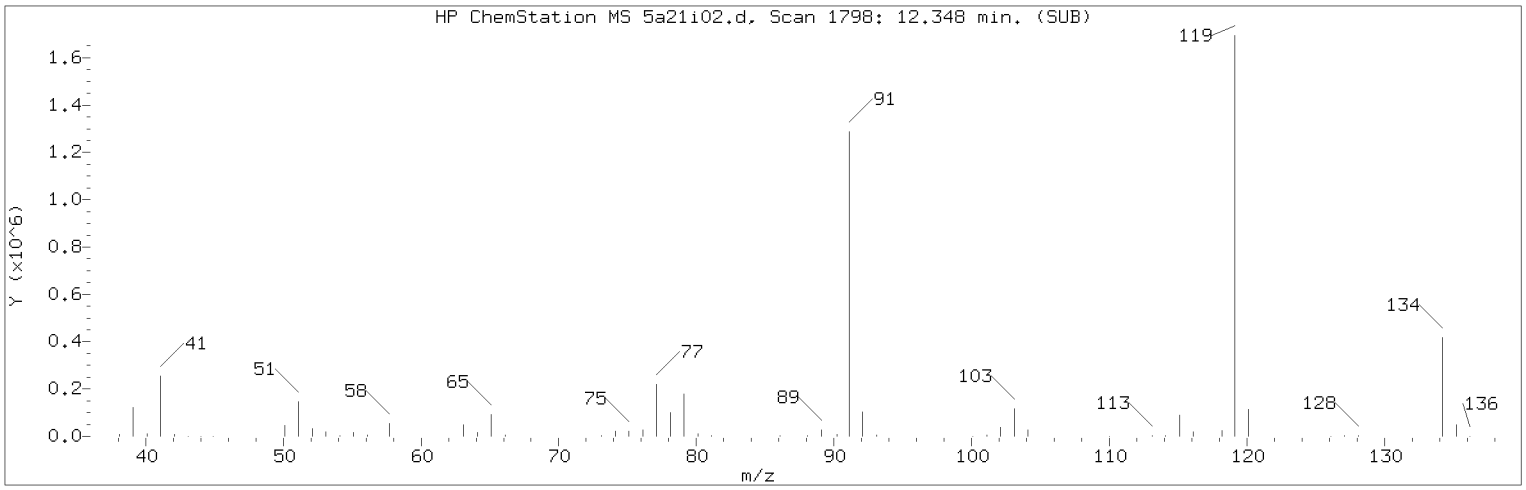
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

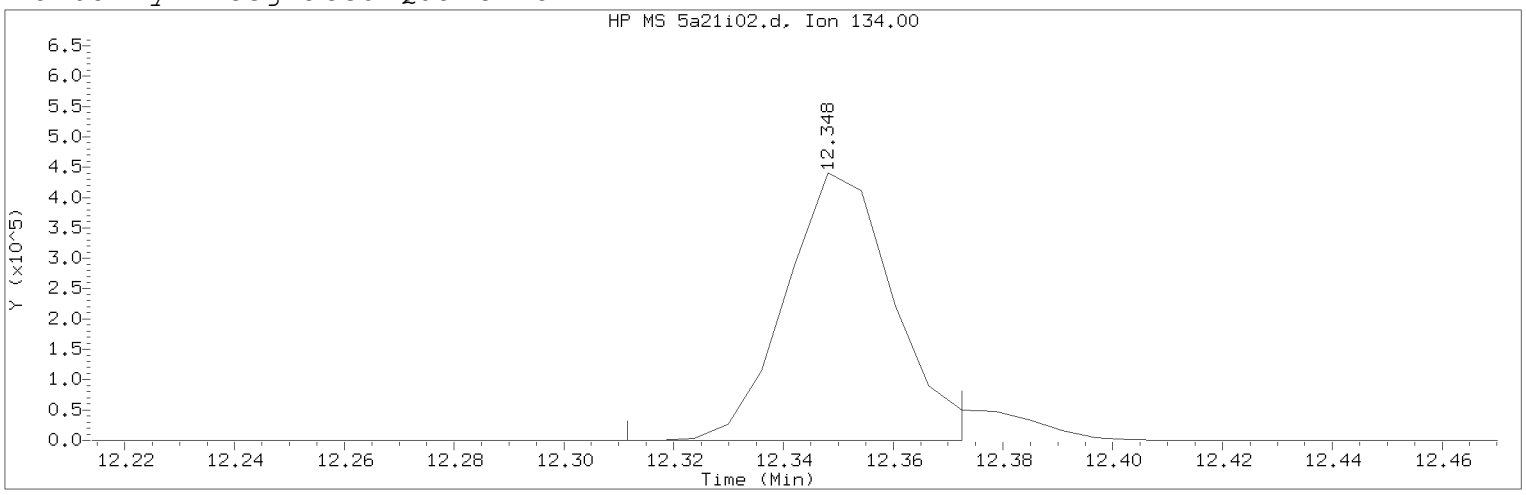
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1053
Retention Time (minutes): 7.806
Quant Ion : 88.00
Area : 198541
On-column Amount (ng) : 1350.5622
Integration start scan : 1036 Integration stop scan: 1102
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

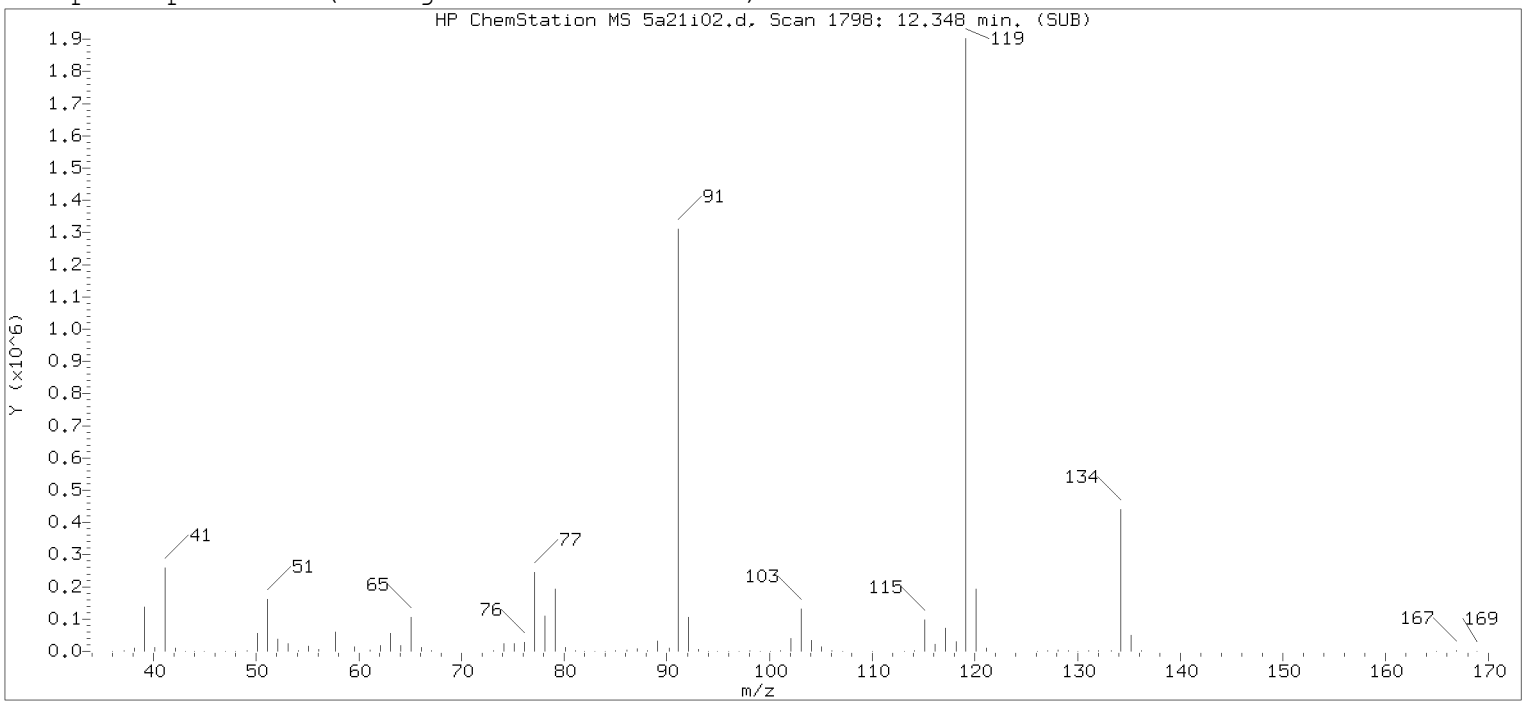
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 602948M
On-Column Amount (ng) : 106.5381
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

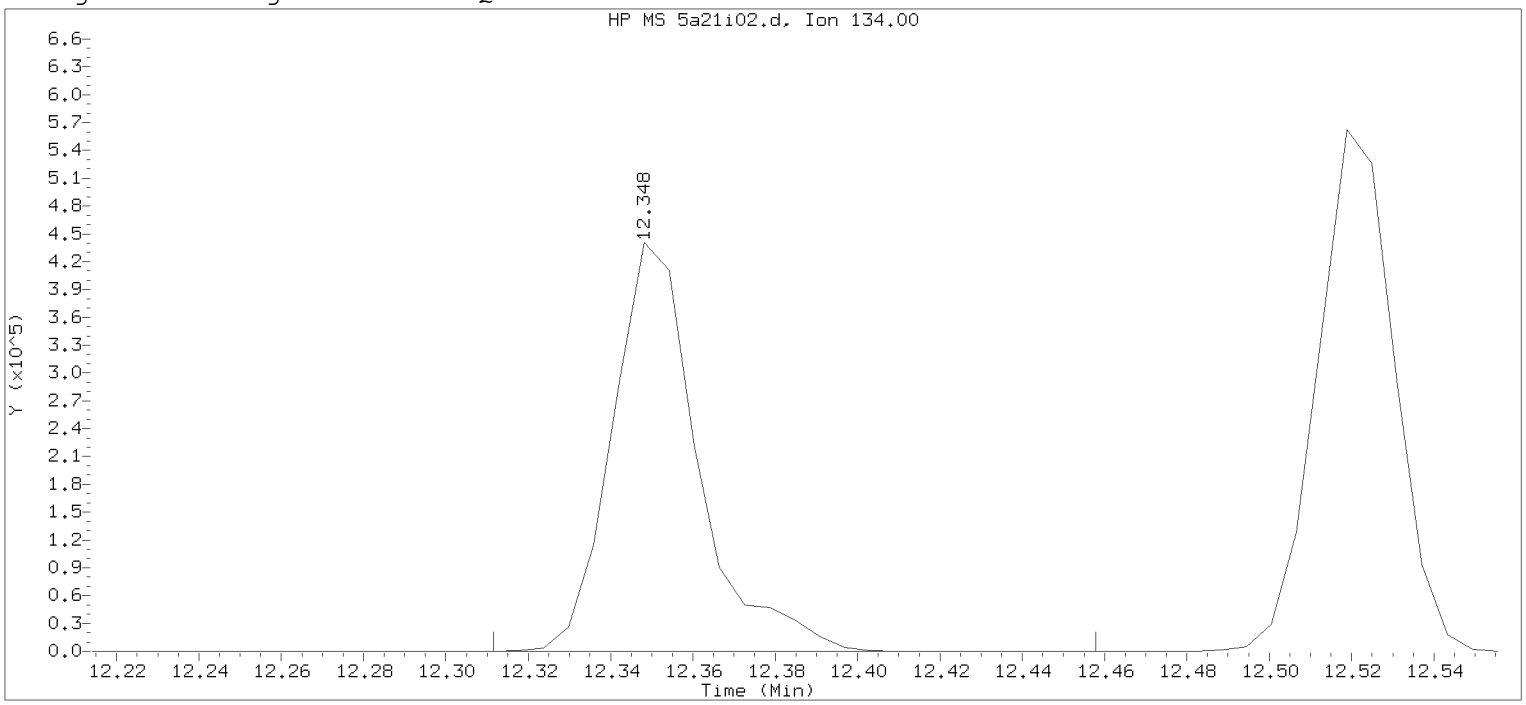
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



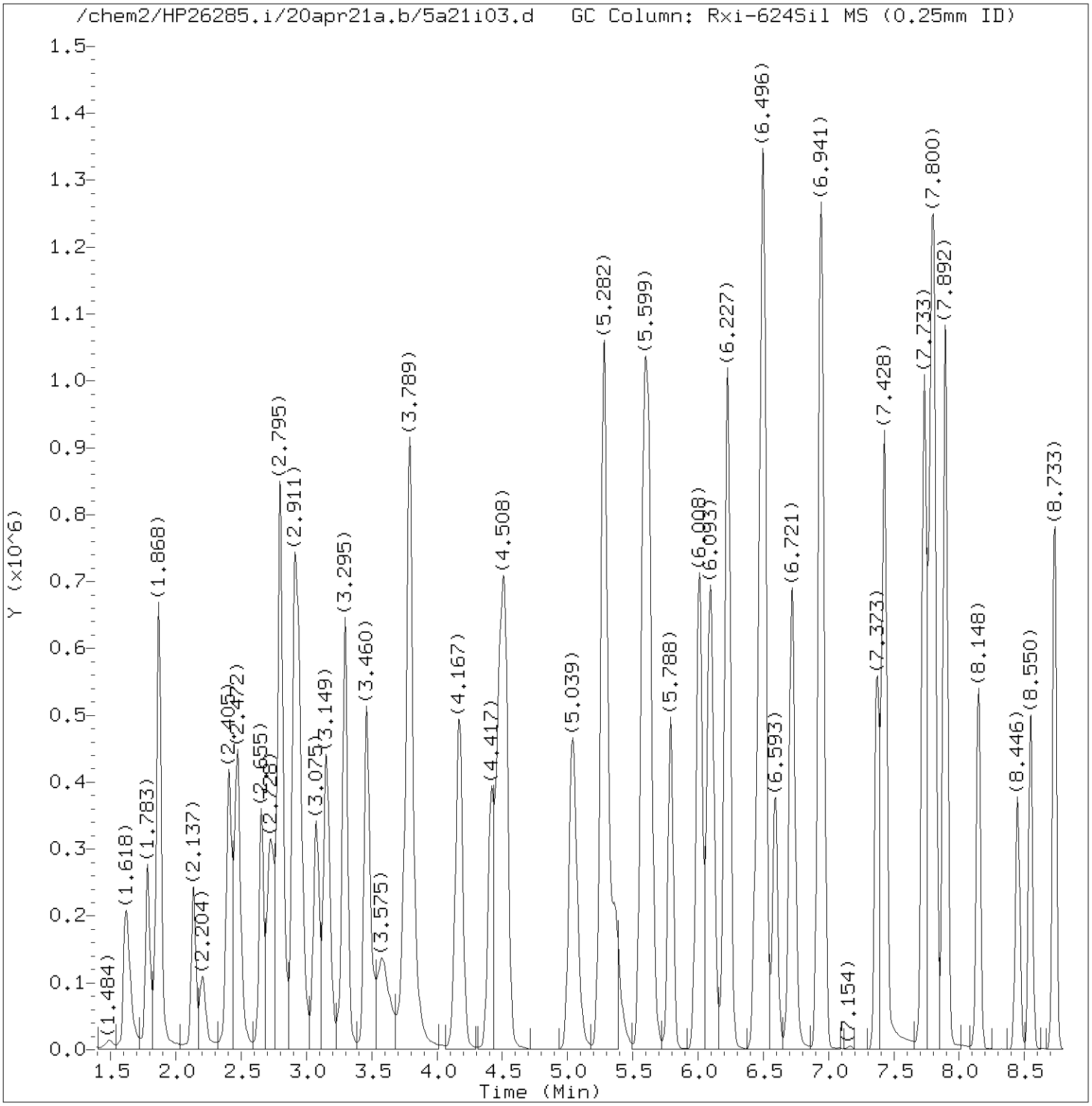
Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 640336
On-column Amount (ng) : 107.1483
Integration start scan : 1791 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

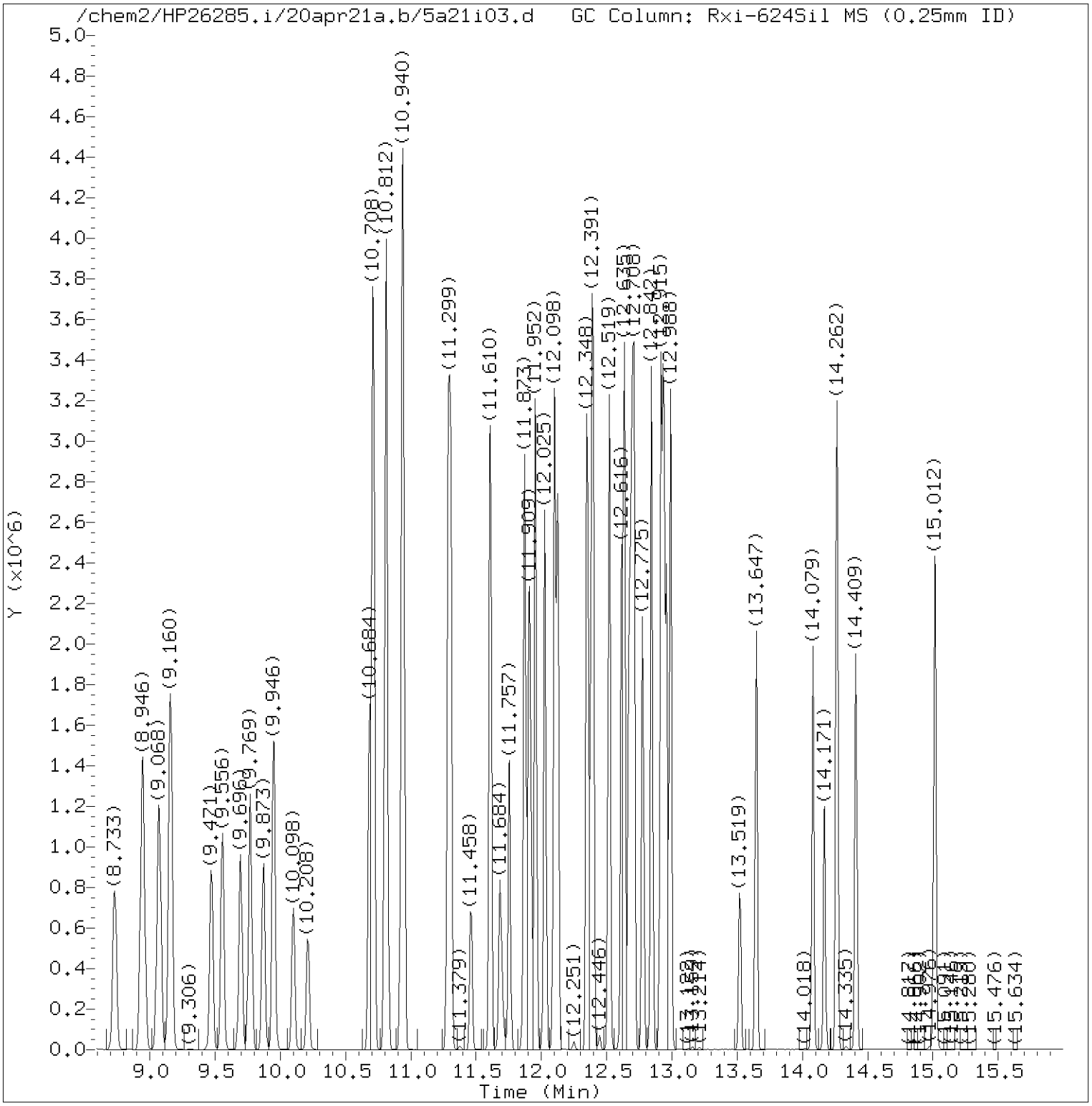
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	459427	53.380
4) Chloromethane	(2)	1.777	50	337795	49.137
5) 1,3-Butadiene	(2)	1.868	39	322506	33.983
6) Vinyl Chloride	(2)	1.874	62	317567	52.590
8) Bromomethane	(2)	2.137	94	212217	52.345
9) Chloroethane	(2)	2.204	64	148764	52.033
10) Dichlorofluoromethane	(2)	2.405	67	471274	50.583
12) Trichlorofluoromethane	(2)	2.448	101	392697	53.099
11) n-Pentane	(2)	2.478	43	326134	47.374
14) Ethyl ether	(2)	2.655	59	263214	51.625
15) Freon 123a	(2)	2.728	67	384551	49.814
16) Acrolein	(1)	2.801	56	1211648	516.753
17) 1,1-Dichloroethene	(2)	2.905	96	290561	50.566
17) 1,1-Dichloroethene	(2)	2.905	63	148228	51.470
18) Acetone	(1)	2.941	58	122675	106.082
19) Freon 113	(2)	2.941	101	340156	52.299
22) Methyl Iodide	(2)	3.075	142	552548	50.429
21) 2-Propanol	(1)	3.088	45	247311	262.813
23) Carbon Disulfide	(2)	3.149	76	1017161	50.323
27) Methyl Acetate	(2)	3.283	43	404064	48.772
25) Allyl Chloride	(2)	3.301	41	484707	50.392
28) Methylene Chloride	(2)	3.460	84	326045	50.338
29)*t-Butyl alcohol-d10	(1)	3.478	65	370304M	250.000
30) t-Butyl alcohol	(1)	3.588	59	453454	259.977
31) Acrylonitrile	(2)	3.746	53	232307	53.124
32) trans-1,2-Dichloroethene	(2)	3.789	96	326138	50.724
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	863622	50.781
34) n-Hexane	(2)	4.173	57	491875	51.592
36) 1,1-Dichloroethane	(2)	4.411	63	592688	50.921
38) di-Isopropyl ether	(2)	4.478	45	1053201	50.662
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	515013	52.084
40) Ethyl t-butyl ether	(2)	5.039	59	931255	50.459
44) 2-Butanone	(2)	5.270	43	656308	103.120
42) cis-1,2-Dichloroethene	(2)	5.282	96	368640	50.690
45) 2,2-Dichloropropane	(2)	5.288	77	500185	50.930
47) Propionitrile	(1)	5.368	54	476475	250.942
48) Methacrylonitrile	(2)	5.587	67	554277	127.268
49) Bromochloromethane	(2)	5.624	128	165738	49.759

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	179161	104.402
51) Chloroform	(2)	5.788	83	592887	50.786
53) 1,1,1-Trichloroethane	(2)	6.008	97	538643	51.246
52)$Dibromofluoromethane	(2)	6.014	113	264881	50.040
52)$Dibromofluoromethane	(2)	6.014	111	270386	49.889
54) Cyclohexane	(2)	6.093	56	632036	51.630
54) Cyclohexane	(2)	6.093	84	521687	51.518
54) Cyclohexane	(2)	6.093	69	197405	51.990
43) 1,2-Dichloroethene (Total)	(2)		96	694778	101.415
56) Carbon Tetrachloride	(2)	6.215	117	479110	52.244
55) 1,1-Dichloropropene	(2)	6.233	75	482899	50.716
58) Isobutyl Alcohol	(1)	6.453	41	382857	658.517
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59422	50.193
57)$1,2-Dichloroethane-d4	(2)	6.483	65	289602	50.033
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37924	50.029
60) Benzene	(2)	6.502	78	1436583	50.741
61) 1,2-Dichloroethane	(2)	6.593	62	425067	48.882
61) 1,2-Dichloroethane	(2)	6.593	98	38969	52.992
65) t-Amyl methyl ether	(2)	6.721	73	942139	51.159
66)*Fluorobenzene	(2)	6.934	96	1062743	50.000
67) n-Heptane	(2)	6.953	43	463995	50.384
69) n-Butanol	(1)	7.373	56	681476	1358.414
71) Trichloroethene	(2)	7.428	95	376563	50.683
73) Methylcyclohexane	(2)	7.733	83	595748	50.452
73) Methylcyclohexane	(2)	7.733	98	251504	50.312
74) 1,2-Dichloropropane	(2)	7.776	63	362077	51.088
76) 1,4-Dioxane	(1)	7.879	88	81378M	653.960
75) Dibromomethane	(2)	7.892	93	228623	51.229
77) Methyl Methacrylate	(2)	7.898	69	347950	52.473
79) Bromodichloromethane	(2)	8.148	83	450848	52.098
80) 2-Nitropropane	(2)	8.446	41	326295	108.862
81) 2-Chloroethyl Vinyl Ether	(2)	8.550	63	285666	52.083
82) cis-1,3-Dichloropropene	(2)	8.733	75	576071	52.678
83) 4-Methyl-2-pentanone	(2)	8.946	43	1327912	108.249
84)$Toluene-d8	(3)	9.068	98	1030482	49.773
84)$Toluene-d8	(3)	9.068	100	679337	49.834
89) Toluene	(3)	9.160	92	930169	50.952
90) trans-1,3-Dichloropropene	(3)	9.471	75	521871	53.280

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	591279	53.087
93) 1,1,2-Trichloroethane	(3)	9.696	97	333288	51.066
94) Tetrachloroethene	(3)	9.769	166	390028	50.373
95) 1,3-Dichloropropane	(3)	9.873	76	549584	50.716
97) 2-Hexanone	(3)	9.946	43	1062422	109.536
91) 1,3-Dichloropropene (total)	(3)		100	1097942	105.957
98) Dibromochloromethane	(3)	10.098	129	370040	53.581
100) 1,2-Dibromoethane	(3)	10.208	107	372185	51.730
101)*Chlorobenzene-d5	(3)	10.684	117	842446	50.000
102) 1-Chlorohexane	(3)	10.708	91	543784	51.219
103) Chlorobenzene	(3)	10.714	112	1014909	51.226
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	365528	53.478
105) Ethylbenzene	(3)	10.812	91	1850788	52.432
107) m+p-Xylene	(3)	10.940	106	1419617	104.822
108) o-Xylene	(3)	11.287	106	695047	52.433
110) Styrene	(3)	11.306	104	1156203	54.121
111) Bromoform	(3)	11.458	173	279092	55.856
112) Isopropylbenzene	(3)	11.610	105	1816493	52.219
113) Cyclohexanone	(1)	11.684	55	367855	643.581
115)$4-Bromofluorobenzene	(3)	11.751	95	438187	50.232
115)$4-Bromofluorobenzene	(3)	11.757	174	339512	49.892
109) Xylene (Total)	(3)		106	2114664	157.256
116) Bromobenzene	(4)	11.866	156	426024	51.354
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	589637	52.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	279818	123.685
118) 1,2,3-Trichloropropane	(4)	11.915	110	172477	52.032
120) n-Propylbenzene	(4)	11.952	91	2157784	52.904
121) 2-Chlorotoluene	(4)	12.025	126	427135	51.091
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	1512463	52.751
122) 4-Chlorotoluene	(4)	12.123	126	437883	51.850
125) tert-Butylbenzene	(4)	12.348	134	298649M	52.411
126) Pentachloroethane	(4)	12.379	167	250481	53.544
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	1563641	52.959
128) sec-Butylbenzene	(4)	12.519	105	1868106	52.552
130) 1,3-Dichlorobenzene	(4)	12.616	146	800517	51.302
131) p-Isopropyltoluene	(4)	12.635	119	1575115	53.134
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	435155	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	811678	51.256

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

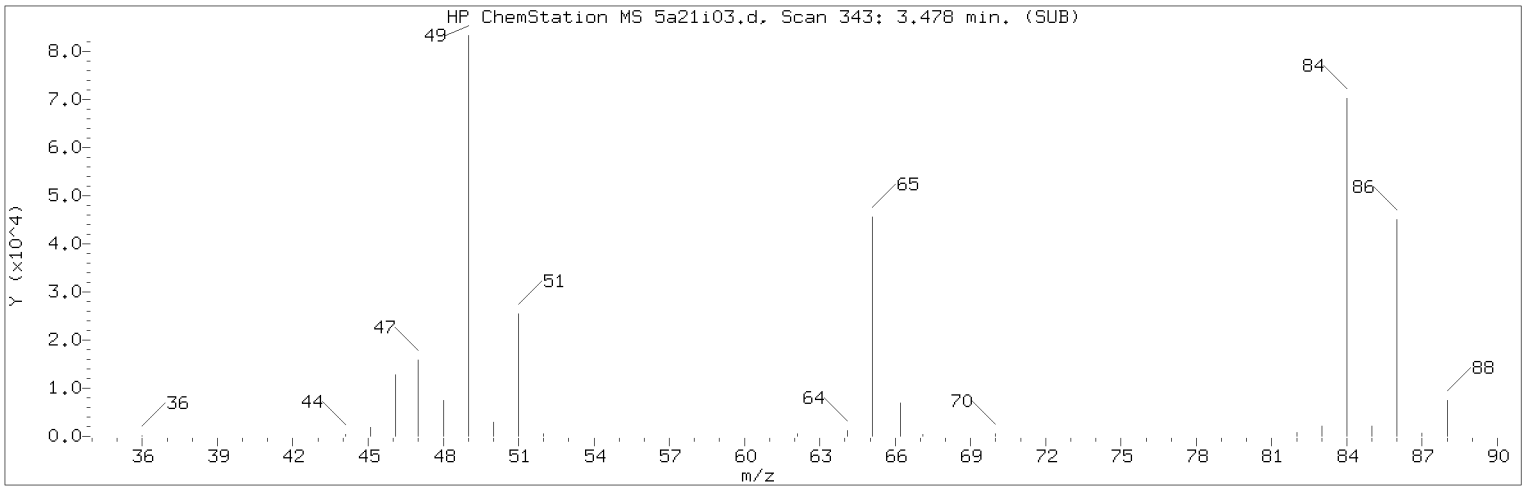
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

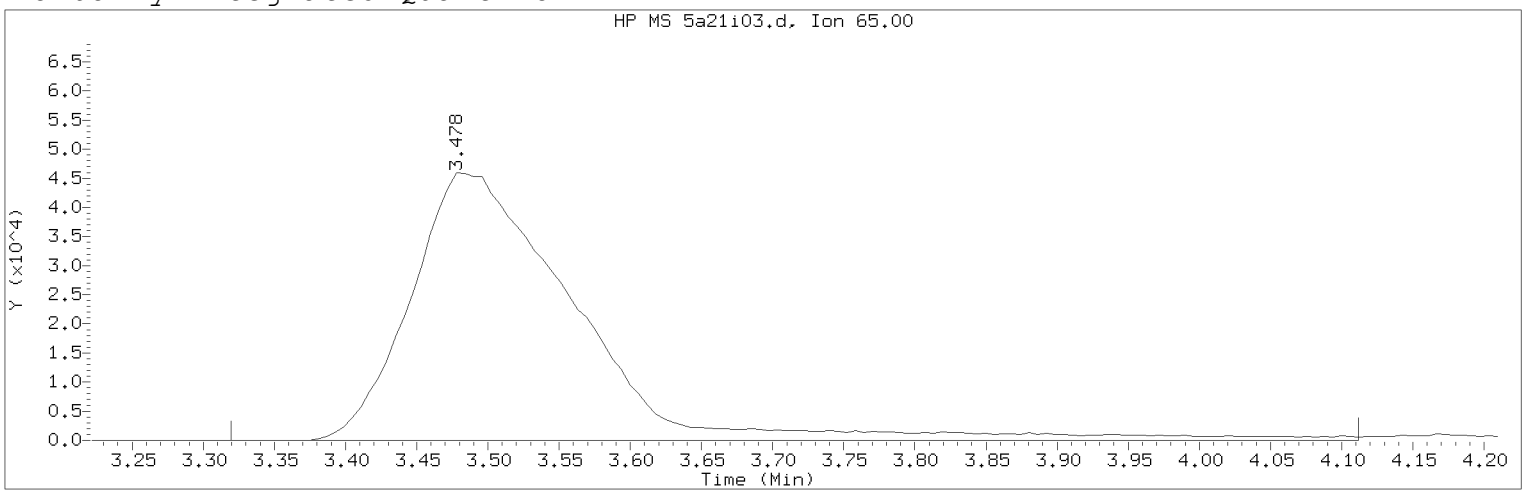
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	1461119	51.555
136) Benzyl Chloride	(4)	12.775	91	1216929	56.346
137) 1,3-Diethylbenzene	(4)	12.842	119	883628	51.589
138) 1,4-Diethylbenzene	(4)	12.915	119	917465	51.787
140) n-Butylbenzene	(4)	12.933	92	781919	52.292
139) 1,2-Dichlorobenzene	(4)	12.958	146	767329	51.194
141) 1,2-Diethylbenzene	(4)	12.988	119	738126	50.954
142) Diethylbenzene (total)	(4)		100	2539219	154.330
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	155063	54.558
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	508462	51.360
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	479860	51.593
148) Hexachlorobutadiene	(4)	14.171	225	182815	51.110
149) Naphthalene	(4)	14.262	128	1969712	53.479
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	474408	51.546
151) 2-Methylnaphthalene	(4)	15.018	142	1038673	54.280

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

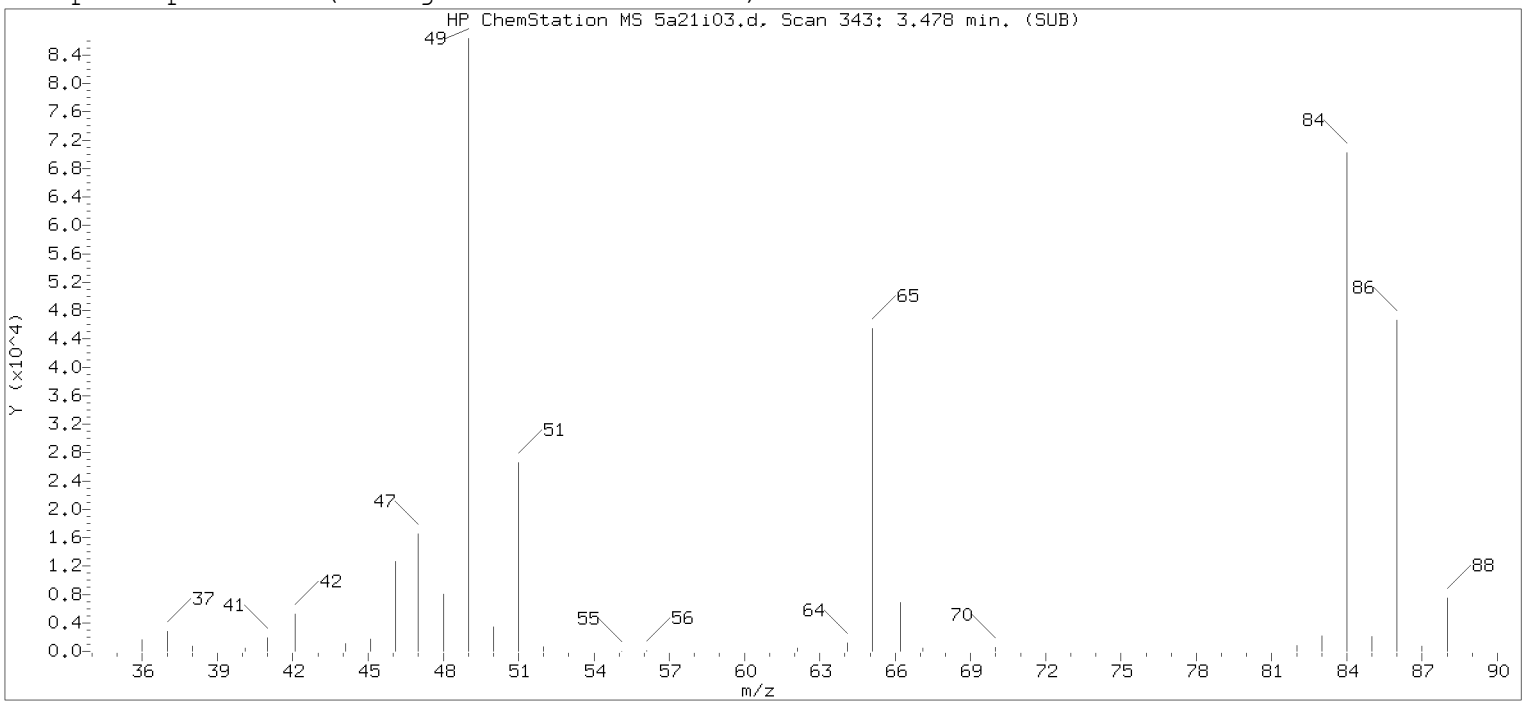
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 370304M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 446
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

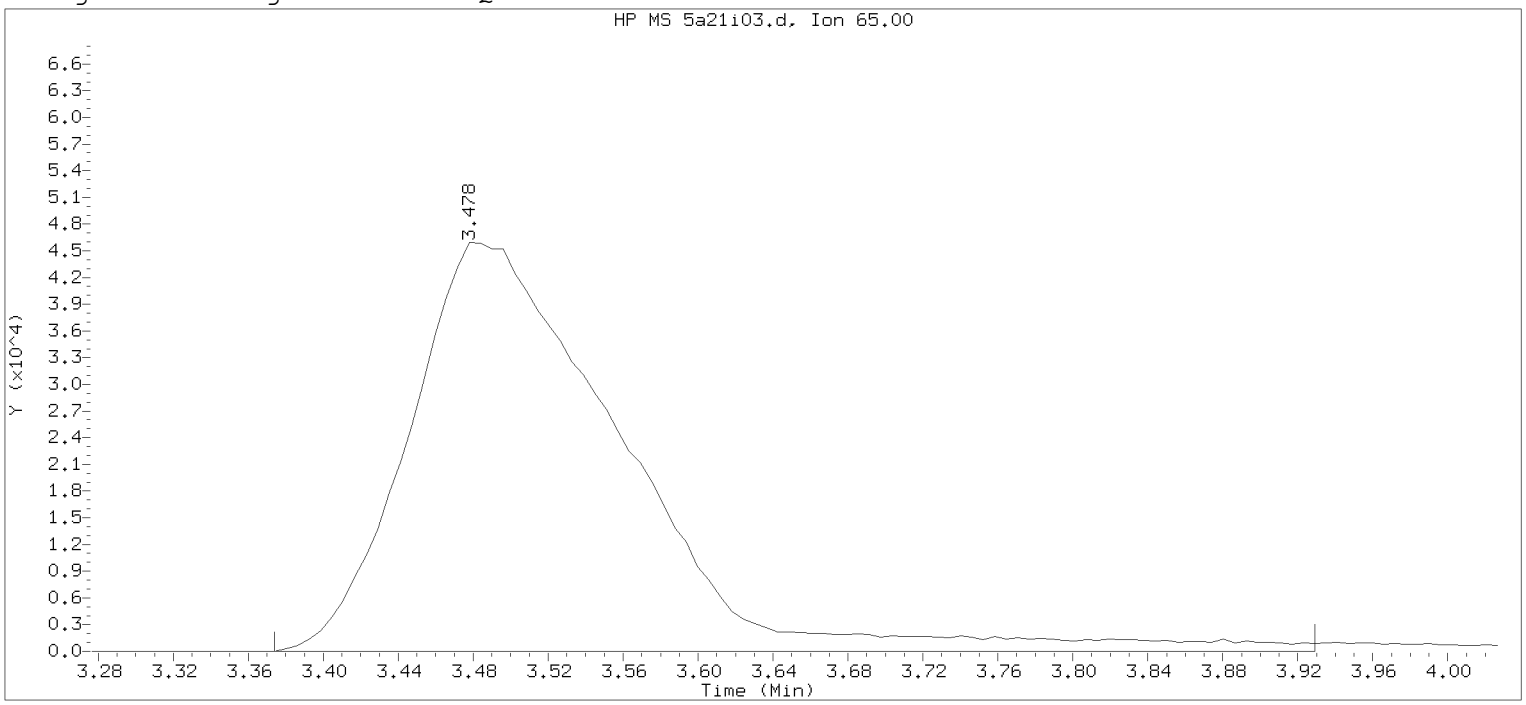
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

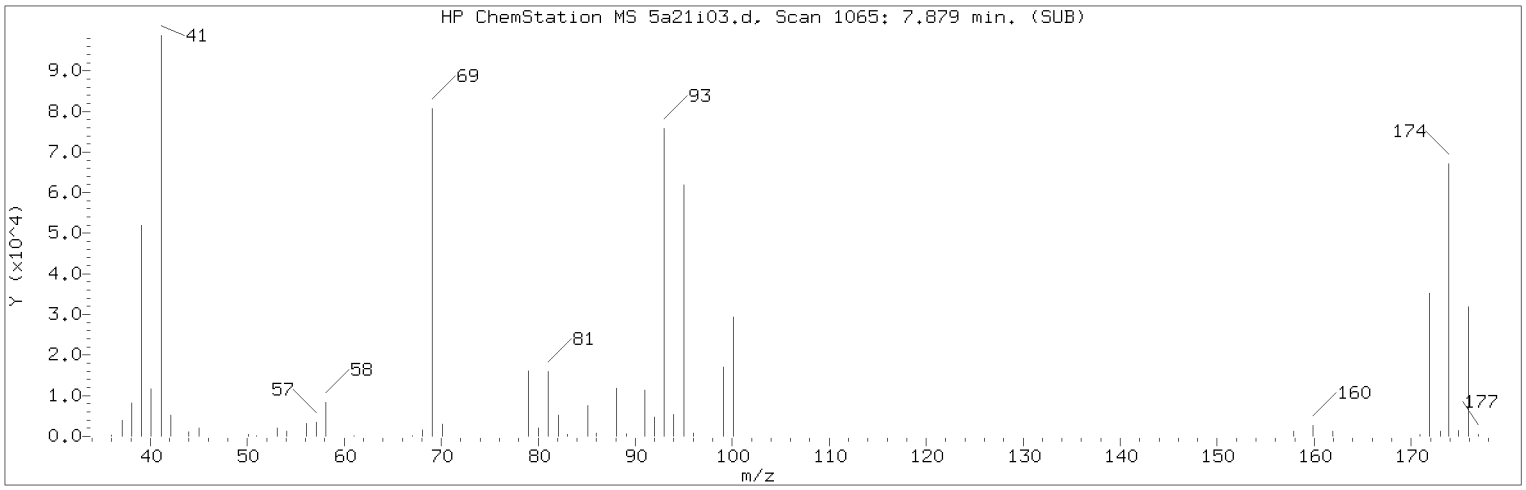
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

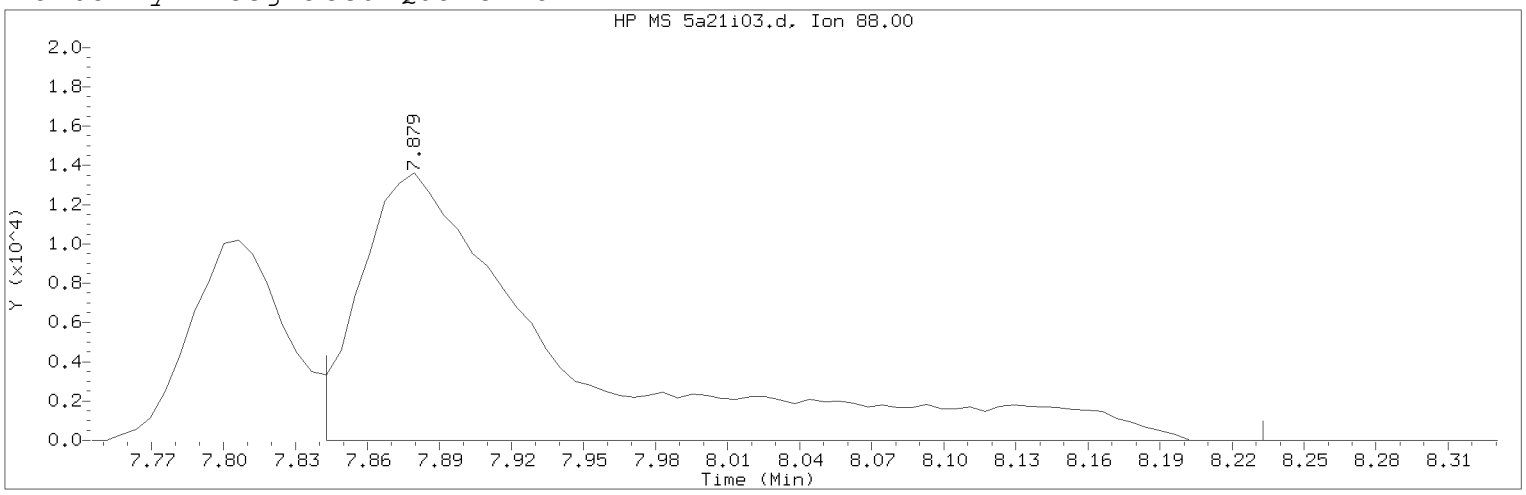
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 362266
On-column Amount (ng) : 250.0000
Integration start scan : 325 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

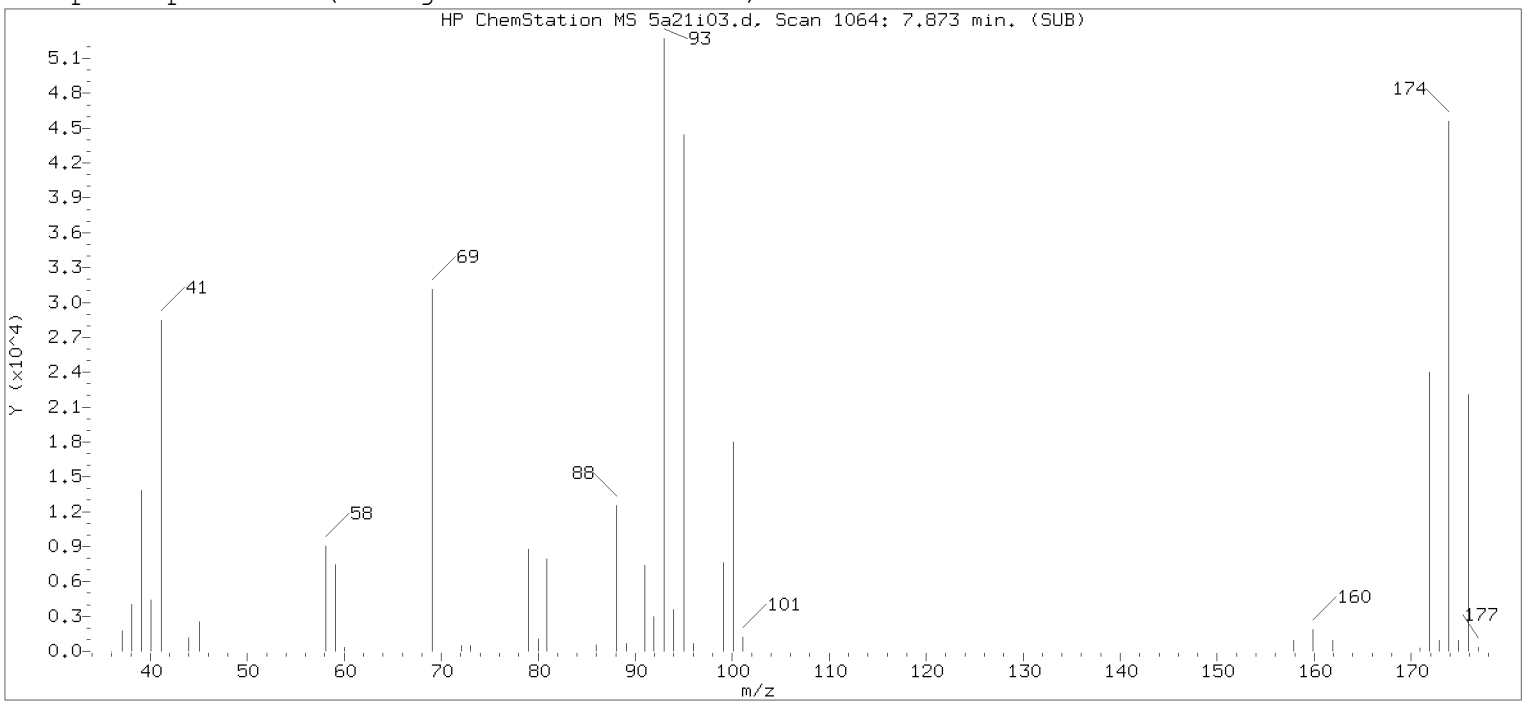
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 81378M
On-Column Amount (ng) : 653.9599
Integration start scan : 1058 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

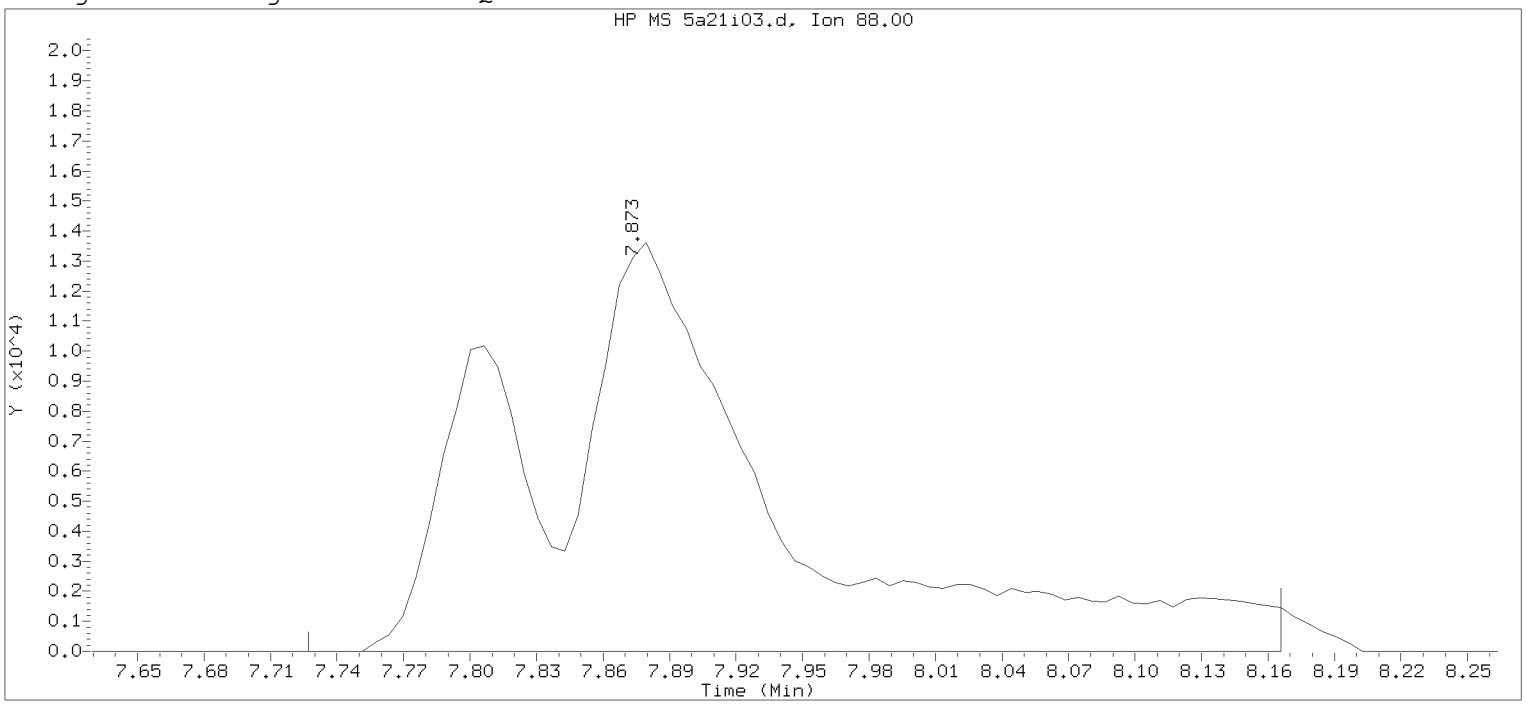
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

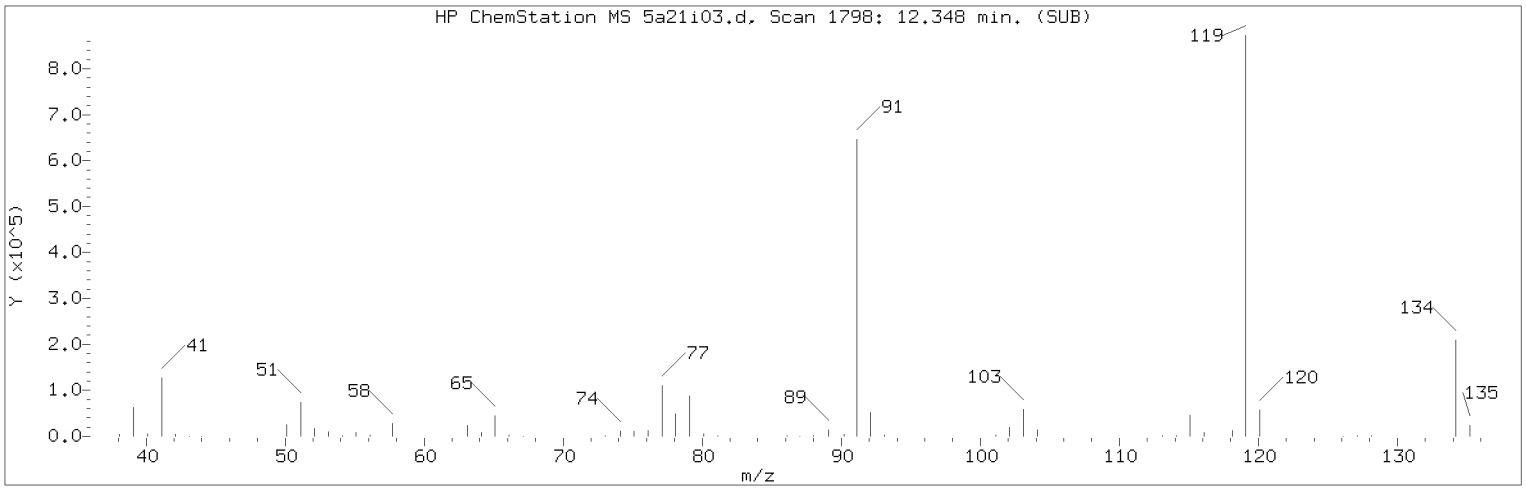
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

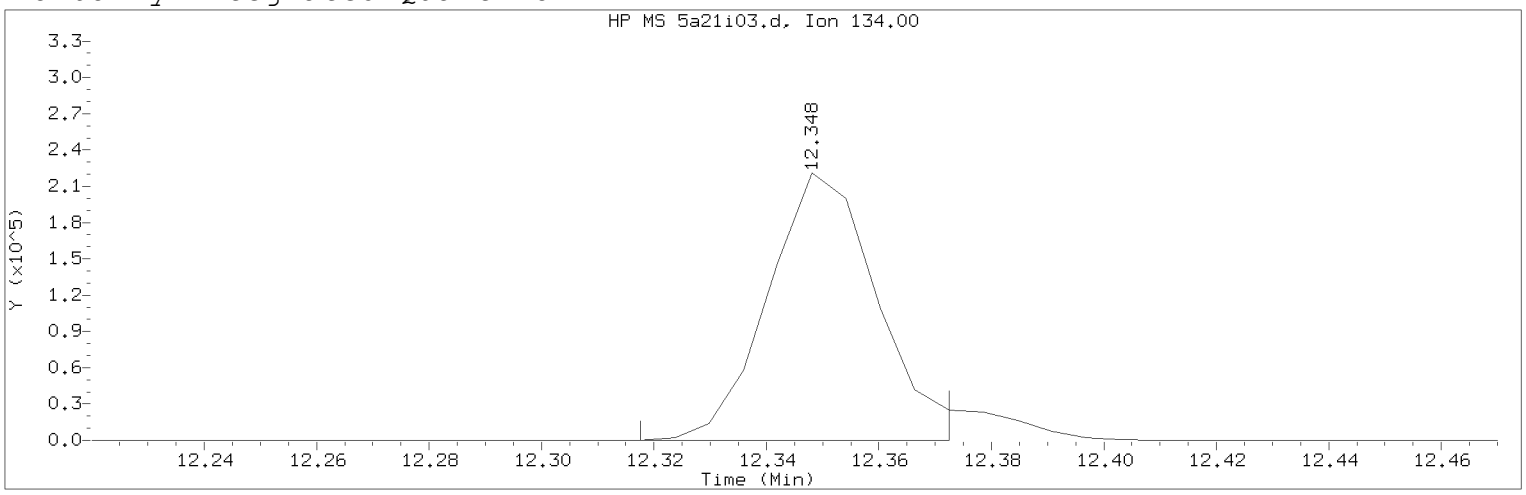
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 107258
On-column Amount (ng) : 750.0099
Integration start scan : 1039 Integration stop scan: 1111
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

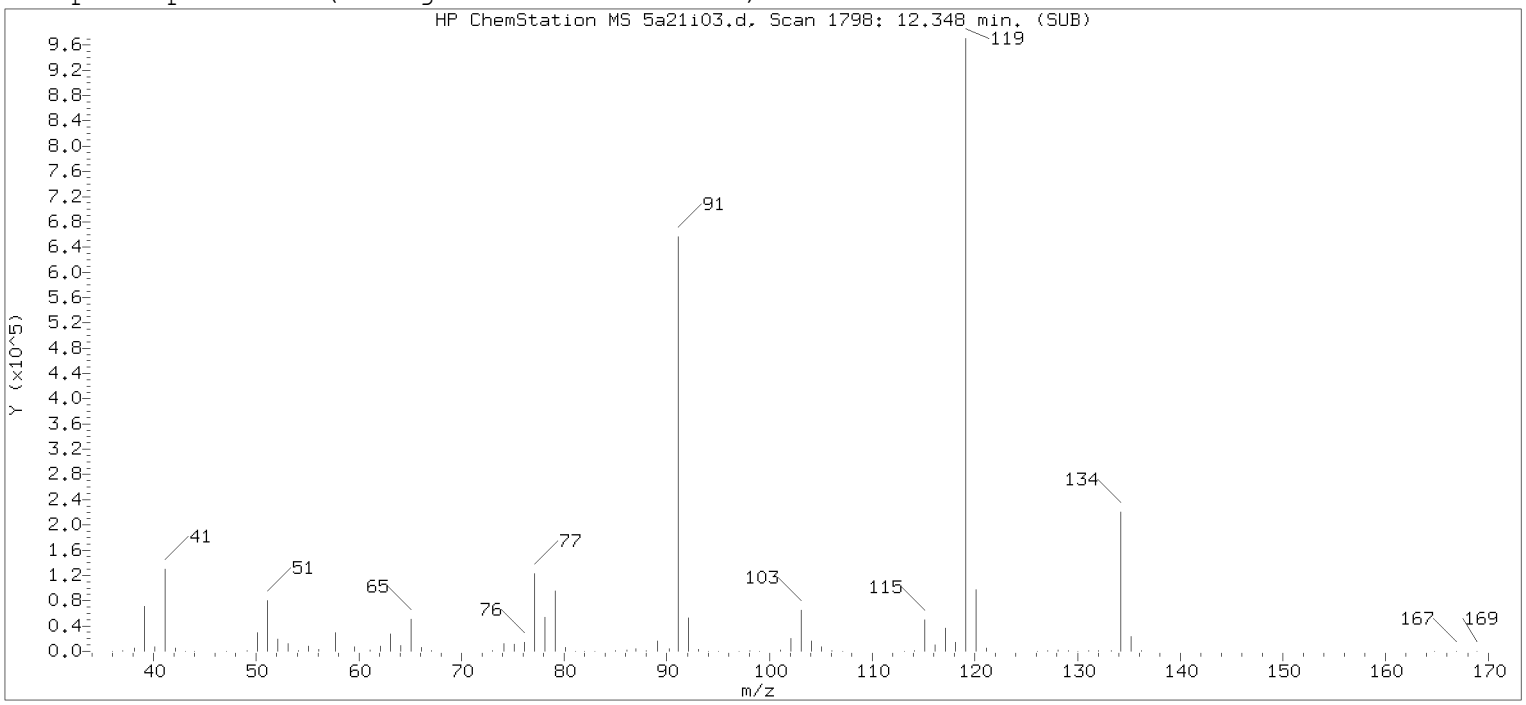
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 298649M
On-Column Amount (ng) : 52.4110
Integration start scan : 1792 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

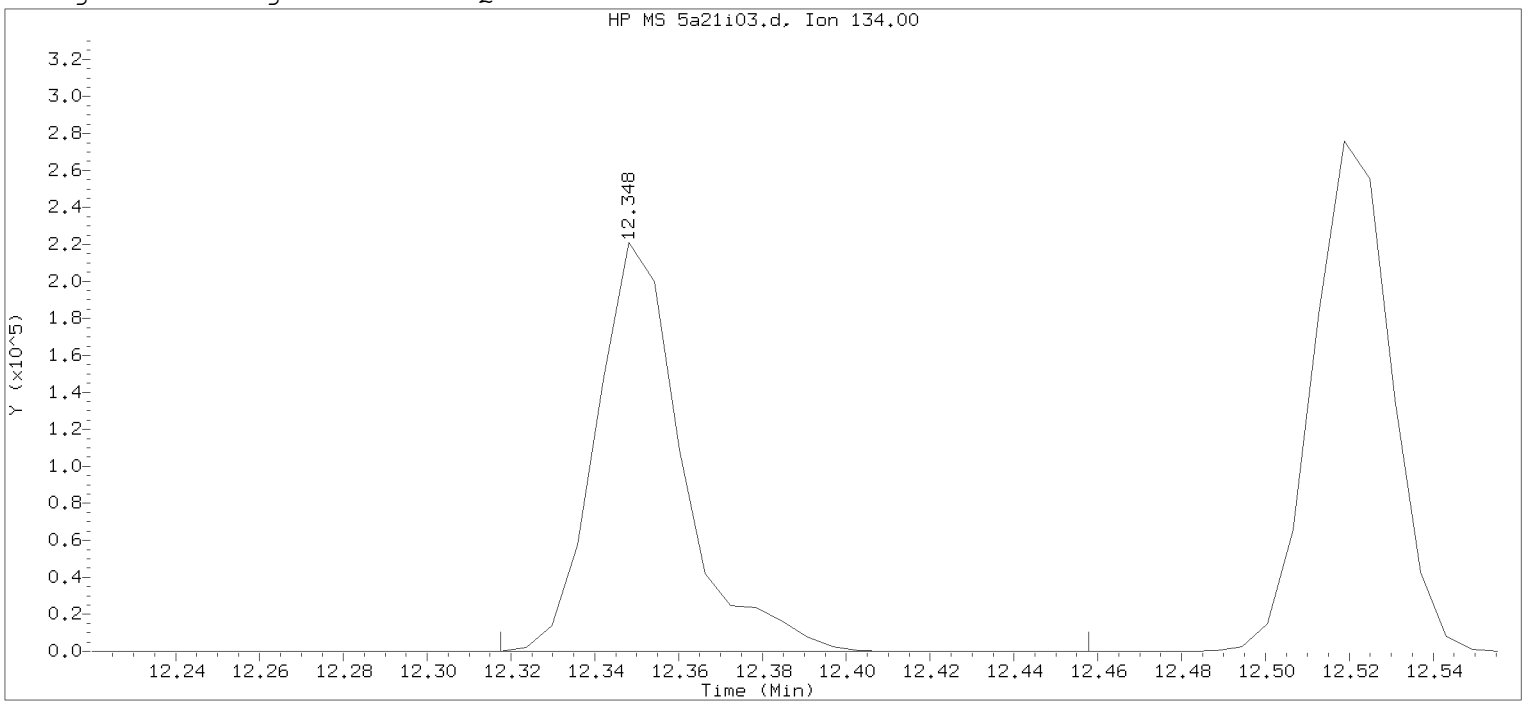
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



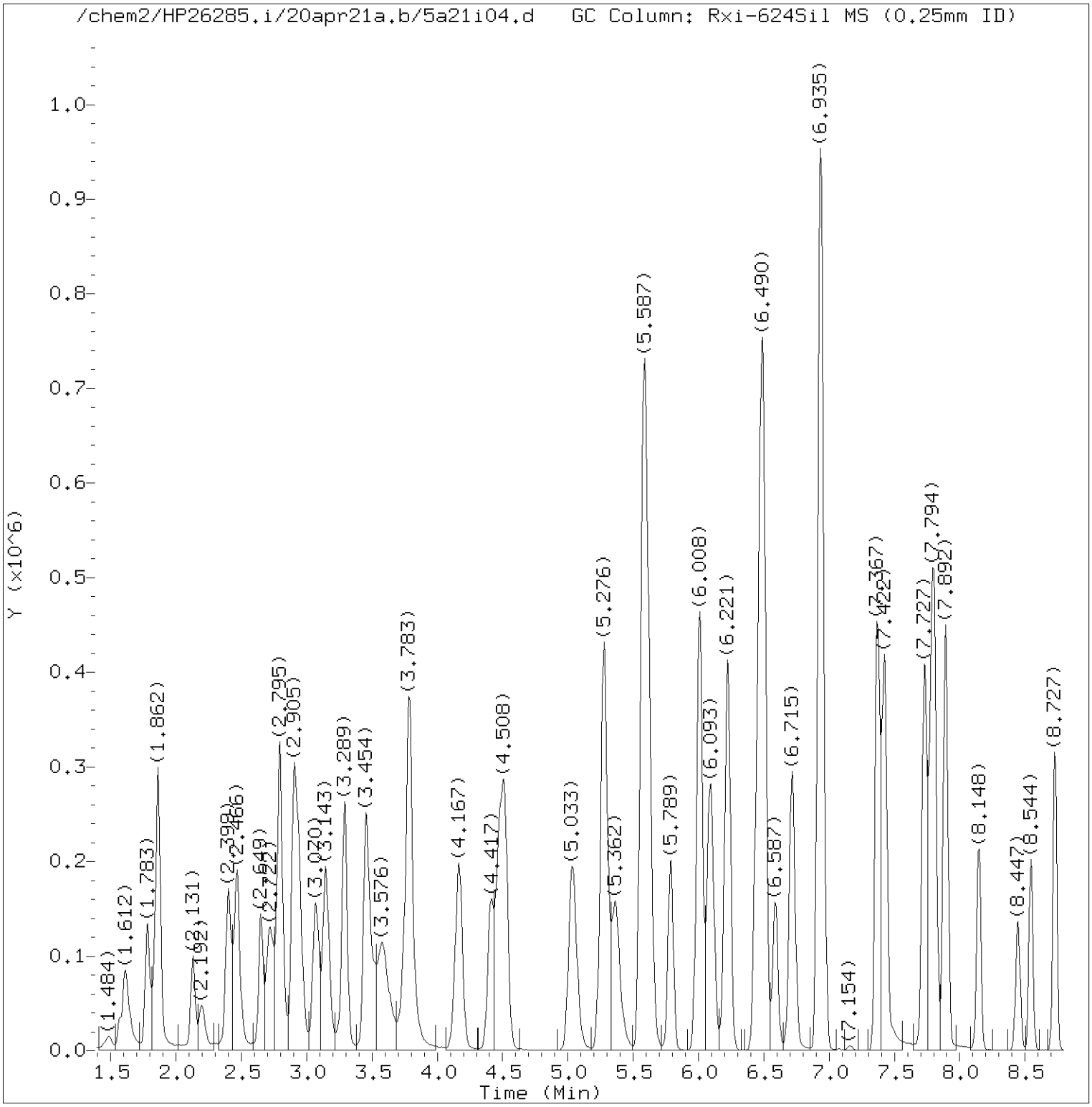
Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 125		
Compound Name	: tert-Butylbenzene		
Scan Number	: 1798		
Retention Time (minutes)	: 12.348		
Quant Ion	: 134.00		
Area	: 316930		
On-column Amount (ng)	: 49.2990		
Integration start scan	: 1792	Integration stop scan:	1815
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger



Total Ion Chromatogram (TIC)

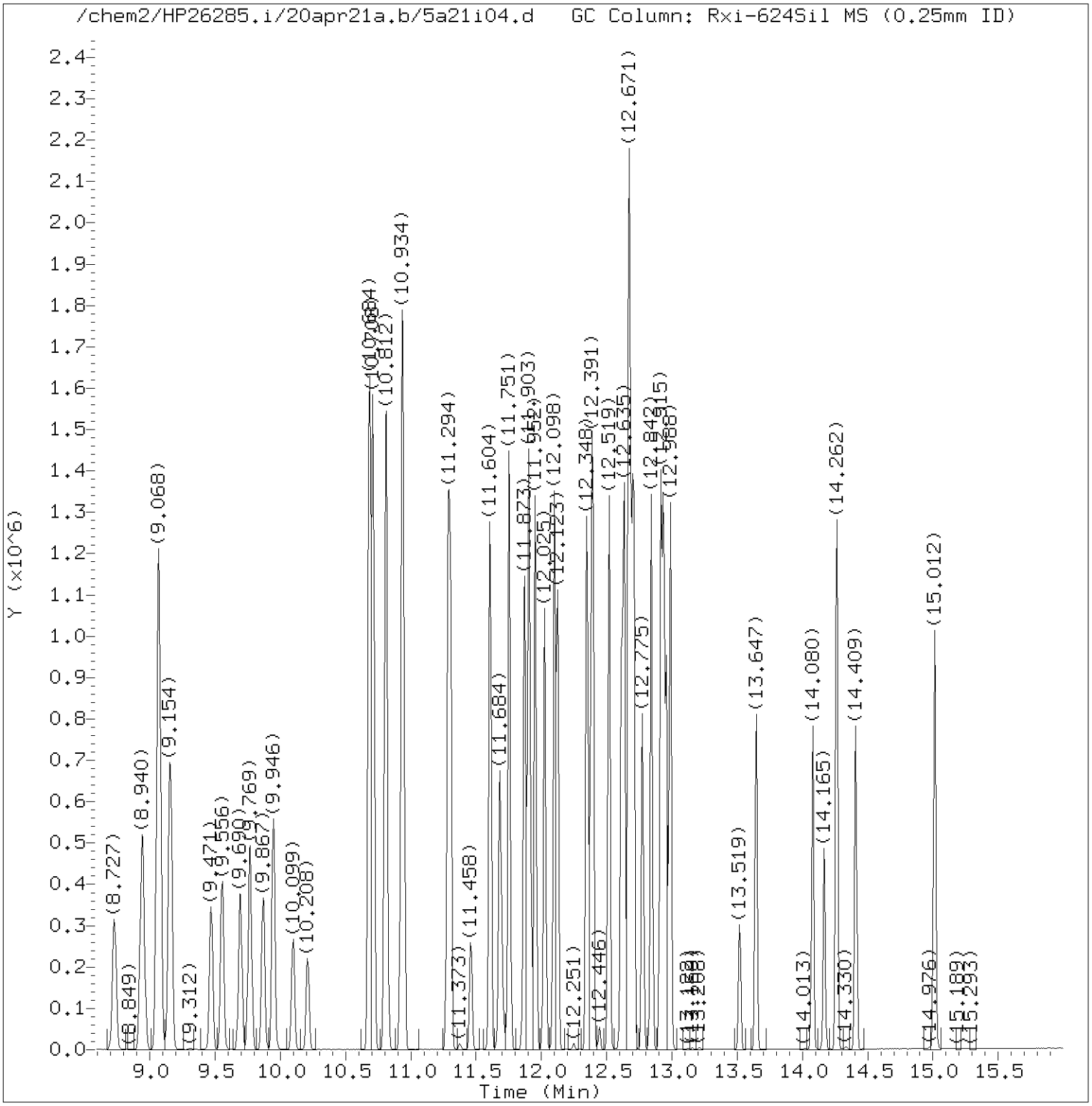
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	176107	20.225
4) Chloromethane	(2)	1.777	50	137441	19.762
5) 1,3-Butadiene	(2)	1.856	39	167227	17.418
6) Vinyl Chloride	(2)	1.869	62	123095	20.150
8) Bromomethane	(2)	2.131	94	83021	20.241
9) Chloroethane	(2)	2.198	64	59332	20.513
10) Dichlorofluoromethane	(2)	2.399	67	188045	19.951
12) Trichlorofluoromethane	(2)	2.442	101	152369	20.365
11) n-Pentane	(2)	2.466	43	133320	19.143
14) Ethyl ether	(2)	2.649	59	101749	19.726
15) Freon 123a	(2)	2.716	67	160831	20.593
16) Acrolein	(1)	2.795	56	458690	193.463
17) 1,1-Dichloroethene	(2)	2.899	96	118012	20.300
17) 1,1-Dichloroethene	(2)	2.899	63	60161	20.649
19) Freon 113	(2)	2.929	101	135617	20.611
18) Acetone	(1)	2.935	58	45901	39.254
22) Methyl Iodide	(2)	3.063	142	226771	20.458
21) 2-Propanol	(1)	3.088	45	191798	201.567
23) Carbon Disulfide	(2)	3.149	76	410208	20.061
27) Methyl Acetate	(2)	3.277	43	163698	19.531
25) Allyl Chloride	(2)	3.295	41	193933	19.929
28) Methylene Chloride	(2)	3.454	84	133170	20.323
29)*t-Butyl alcohol-d10	(1)	3.484	65	374444M	250.000
30) t-Butyl alcohol	(1)	3.588	59	361536	204.986
31) Acrylonitrile	(2)	3.740	53	86420	19.534
32) trans-1,2-Dichloroethene	(2)	3.789	96	133401	20.508
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	353312	20.535
34) n-Hexane	(2)	4.167	57	200748	20.813
36) 1,1-Dichloroethane	(2)	4.405	63	240987	20.466
38) di-Isopropyl ether	(2)	4.478	45	430753	20.481
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	205108	20.503
40) Ethyl t-butyl ether	(2)	5.033	59	384962	20.618
44) 2-Butanone	(2)	5.264	43	247601	38.454
42) cis-1,2-Dichloroethene	(2)	5.276	96	151588	20.604
45) 2,2-Dichloropropane	(2)	5.289	77	202238	20.355
47) Propionitrile	(1)	5.368	54	383292	199.634
48) Methacrylonitrile	(2)	5.581	67	448172	101.718
49) Bromochloromethane	(2)	5.618	128	68545	20.342

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	65537	37.768
51) Chloroform	(2)	5.789	83	240712	20.381
53) 1,1,1-Trichloroethane	(2)	6.002	97	217888	20.490
52)$Dibromofluoromethane	(2)	6.014	113	268044	50.054
52)$Dibromofluoromethane	(2)	6.008	111	273439	49.870
54) Cyclohexane	(2)	6.093	56	254296	20.533
54) Cyclohexane	(2)	6.087	84	208410	20.344
54) Cyclohexane	(2)	6.087	69	78176	20.351
43) 1,2-Dichloroethene (Total)	(2)		96	284989	41.112
56) Carbon Tetrachloride	(2)	6.215	117	190269	20.508
55) 1,1-Dichloropropene	(2)	6.227	75	196038	20.351
58) Isobutyl Alcohol	(1)	6.453	41	296319	504.036
57)$1,2-Dichloroethane-d4	(2)	6.484	102	59913	50.023
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291867	49.843
57)$1,2-Dichloroethane-d4	(2)	6.477	104	38655	50.405
60) Benzene	(2)	6.502	78	587925	20.526
61) 1,2-Dichloroethane	(2)	6.587	62	174387	19.823
61) 1,2-Dichloroethane	(2)	6.587	98	15862	21.321
65) t-Amyl methyl ether	(2)	6.715	73	387268	20.786
66)*Fluorobenzene	(2)	6.929	96	1075151	50.000
67) n-Heptane	(2)	6.953	43	187178	20.091
69) n-Butanol	(1)	7.367	56	515020	1015.260
71) Trichloroethene	(2)	7.428	95	153449	20.415
73) Methylcyclohexane	(2)	7.727	83	241143	20.186
73) Methylcyclohexane	(2)	7.727	98	101510	20.072
74) 1,2-Dichloropropane	(2)	7.776	63	147620	20.588
76) 1,4-Dioxane	(1)	7.873	88	66419M	527.847
75) Dibromomethane	(2)	7.886	93	92310	20.446
77) Methyl Methacrylate	(2)	7.892	69	136501	20.348
79) Bromodichloromethane	(2)	8.148	83	178766	20.419
80) 2-Nitropropane	(2)	8.447	41	116656	38.471
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	112482	20.271
82) cis-1,3-Dichloropropene	(2)	8.727	75	227783	20.589
83) 4-Methyl-2-pentanone	(2)	8.940	43	482790	38.902
84)$Toluene-d8	(3)	9.068	98	1037913	49.941
84)$Toluene-d8	(3)	9.068	100	681258	49.784
89) Toluene	(3)	9.160	92	378117	20.633
90) trans-1,3-Dichloropropene	(3)	9.471	75	203161	20.662

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	230361	20.604
93) 1,1,2-Trichloroethane	(3)	9.696	97	134083	20.466
94) Tetrachloroethene	(3)	9.769	166	158715	20.420
95) 1,3-Dichloropropane	(3)	9.867	76	220946	20.311
97) 2-Hexanone	(3)	9.946	43	381856	39.219
91) 1,3-Dichloropropene (total)	(3)		100	430944	41.251
98) Dibromochloromethane	(3)	10.099	129	143238	20.662
100) 1,2-Dibromoethane	(3)	10.208	107	147552	20.430
101)*Chlorobenzene-d5	(3)	10.684	117	845669	50.000
103) Chlorobenzene	(3)	10.708	112	411422	20.687
102) 1-Chlorohexane	(3)	10.708	91	216785	20.341
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	144477	21.057
105) Ethylbenzene	(3)	10.812	91	747467	21.095
107) m+p-Xylene	(3)	10.934	106	574961	42.292
108) o-Xylene	(3)	11.287	106	279276	20.988
110) Styrene	(3)	11.306	104	459033	21.405
111) Bromoform	(3)	11.458	173	103338	20.603
112) Isopropylbenzene	(3)	11.604	105	733240	20.998
113) Cyclohexanone	(1)	11.684	55	289862	501.521
115)$4-Bromofluorobenzene	(3)	11.751	95	433370	49.490
115)$4-Bromofluorobenzene	(3)	11.757	174	338199	49.509
109) Xylene (Total)	(3)		106	854237	63.280
116) Bromobenzene	(4)	11.867	156	171502	20.687
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	231383	20.567
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	199102	92.001
118) 1,2,3-Trichloropropane	(4)	11.915	110	68108	20.560
120) n-Propylbenzene	(4)	11.952	91	868732	21.313
121) 2-Chlorotoluene	(4)	12.025	126	173212	20.732
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	609013	21.255
122) 4-Chlorotoluene	(4)	12.123	126	175742	20.823
125) tert-Butylbenzene	(4)	12.348	134	117503M	20.635
126) Pentachloroethane	(4)	12.379	167	98208	21.007
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	627833	21.278
128) sec-Butylbenzene	(4)	12.519	105	751728	21.161
130) 1,3-Dichlorobenzene	(4)	12.610	146	320824	20.574
131) p-Isopropyltoluene	(4)	12.635	119	626227	21.139
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	434870	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	327263	20.679

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

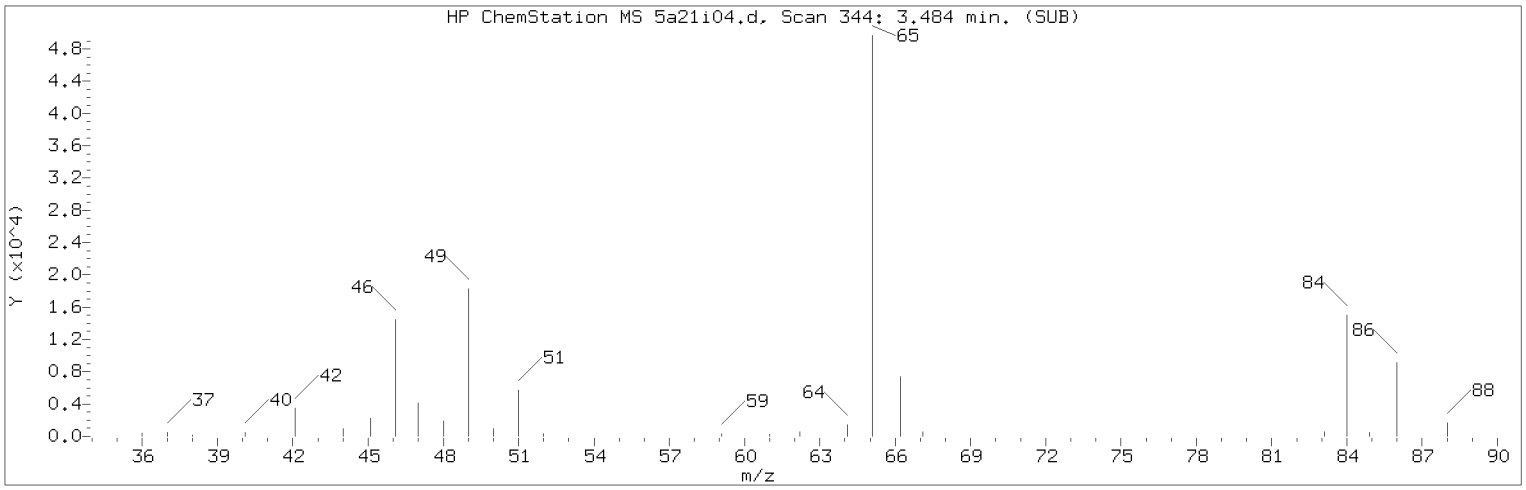
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

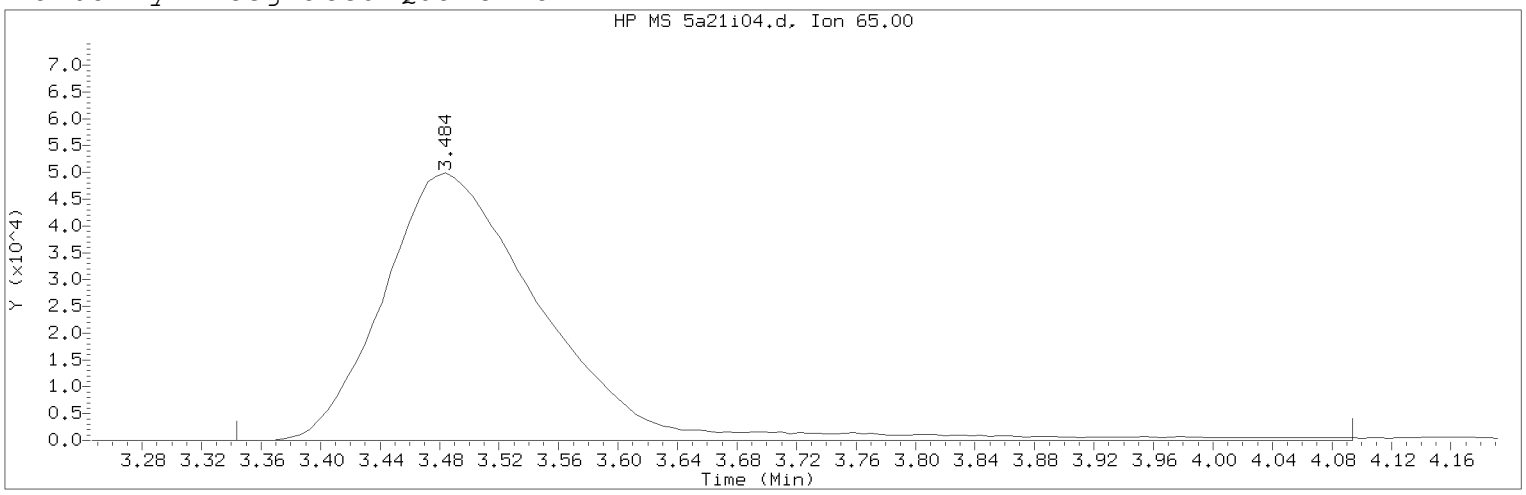
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	585964	20.689
136)	Benzyl Chloride	(4)	12.775	91	463026	21.453
137)	1,3-Diethylbenzene	(4)	12.842	119	355157	20.749
138)	1,4-Diethylbenzene	(4)	12.915	119	368021	20.787
140)	n-Butylbenzene	(4)	12.933	92	312980	20.945
139)	1,2-Dichlorobenzene	(4)	12.958	146	310508	20.730
141)	1,2-Diethylbenzene	(4)	12.988	119	299568	20.693
142)	Diethylbenzene (total)	(4)		100	1022746	62.229
143)	1,2-Dibromo-3-chloropropane	(4)	13.519	75	58485	20.591
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	203775	20.597
147)	1,2,4-Trichlorobenzene	(4)	14.080	180	189717	20.411
148)	Hexachlorobutadiene	(4)	14.171	225	73242	20.490
149)	Naphthalene	(4)	14.262	128	780086	21.194
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	188286	20.471
151)	2-Methylnaphthalene	(4)	15.012	142	405277	21.193

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

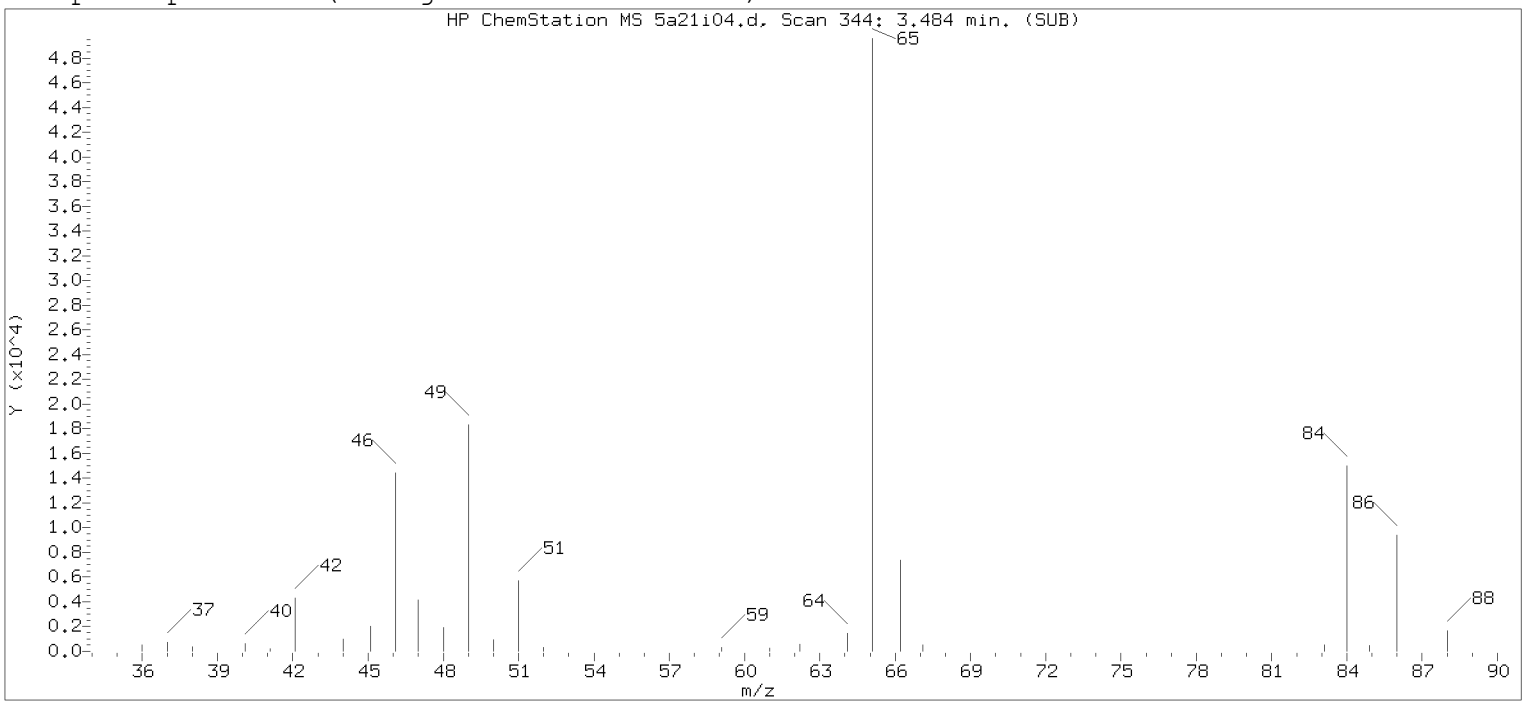
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 374444M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 443
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

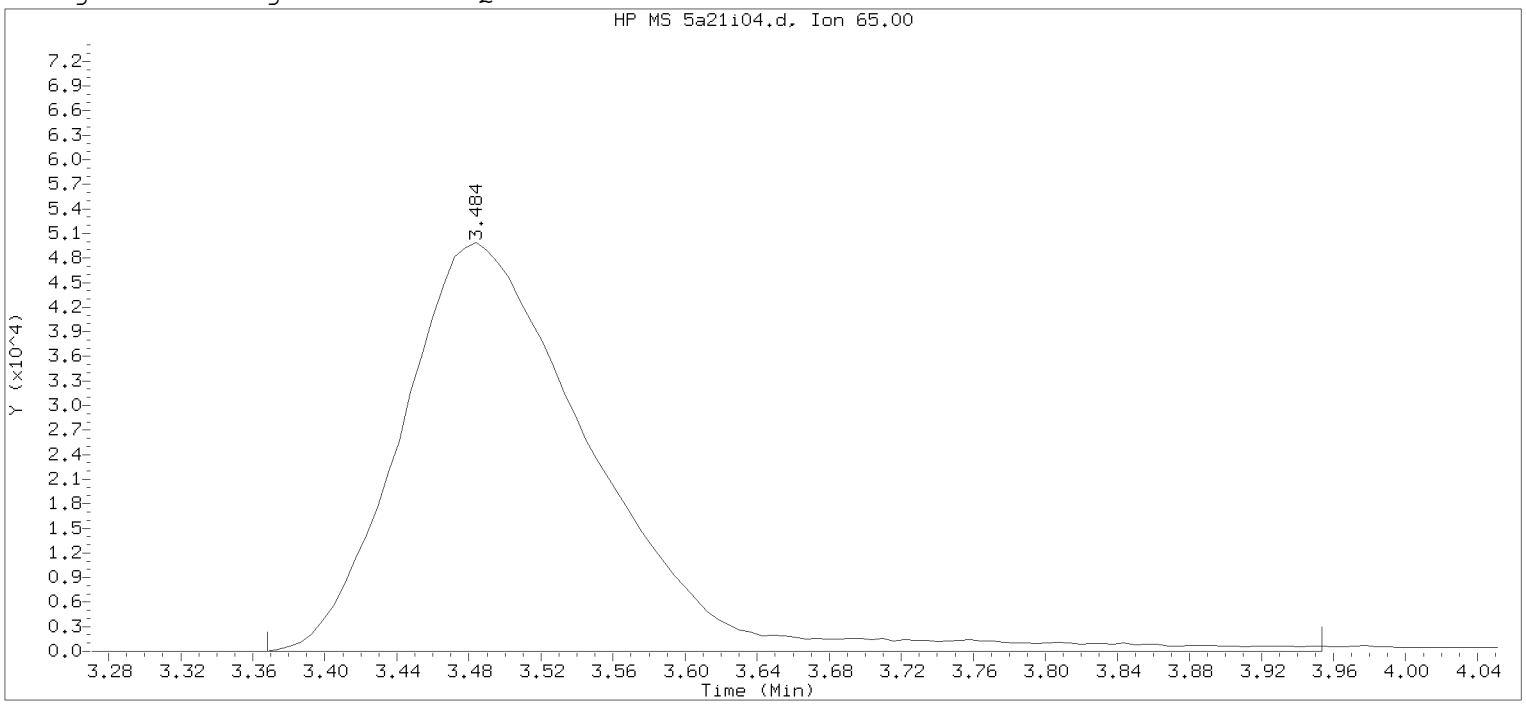
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

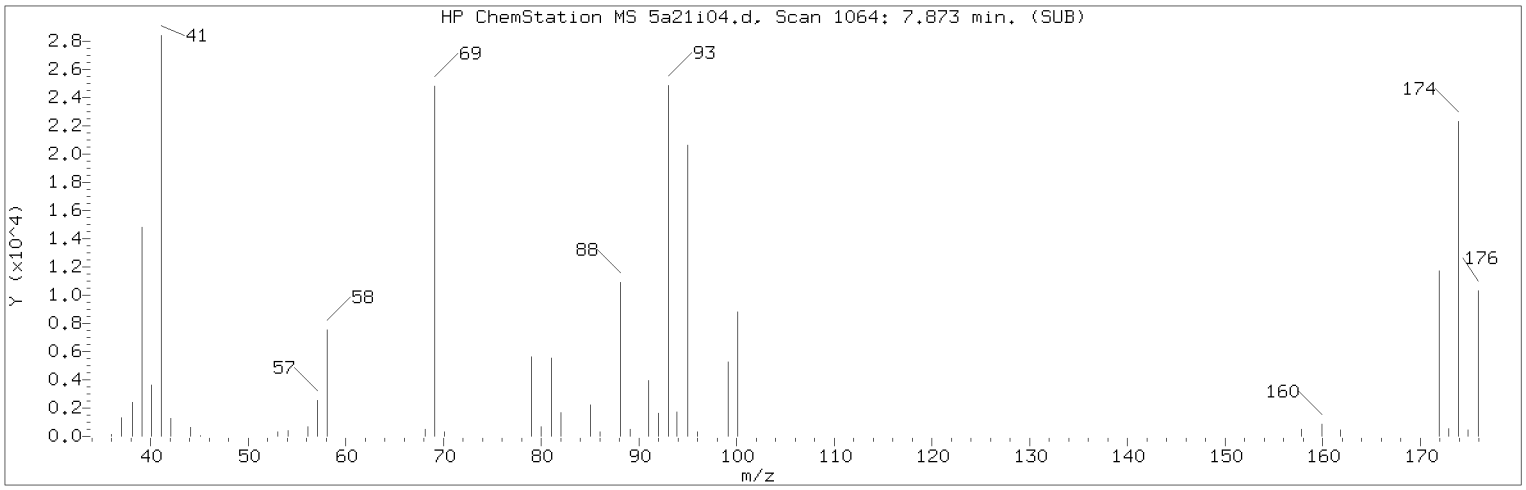
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

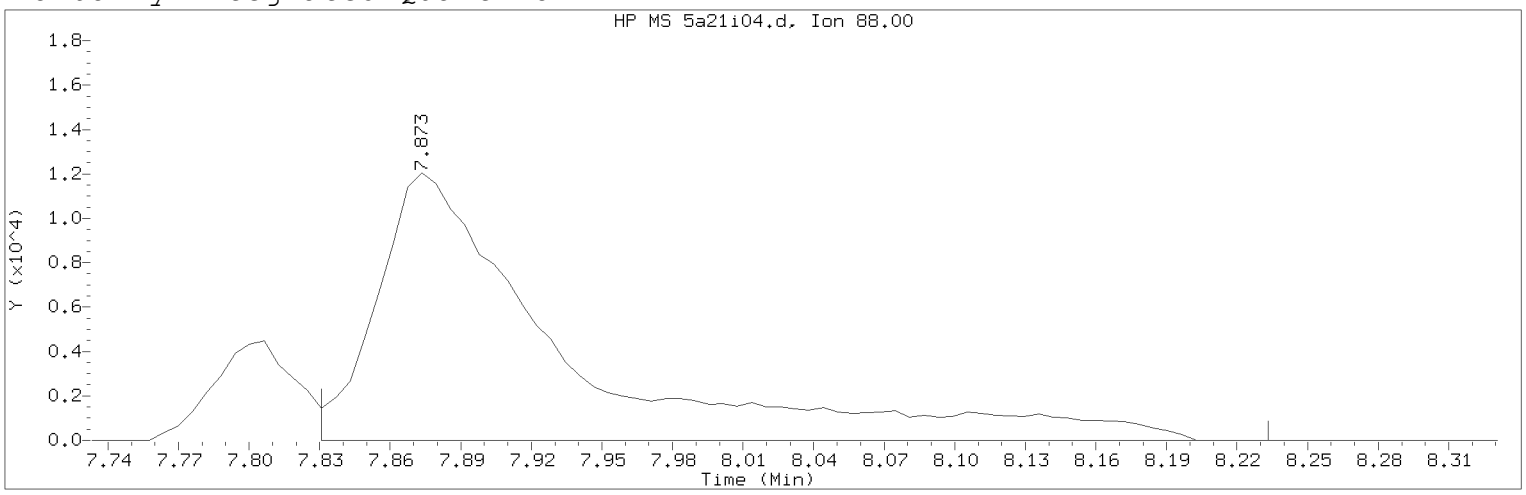
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 370124
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

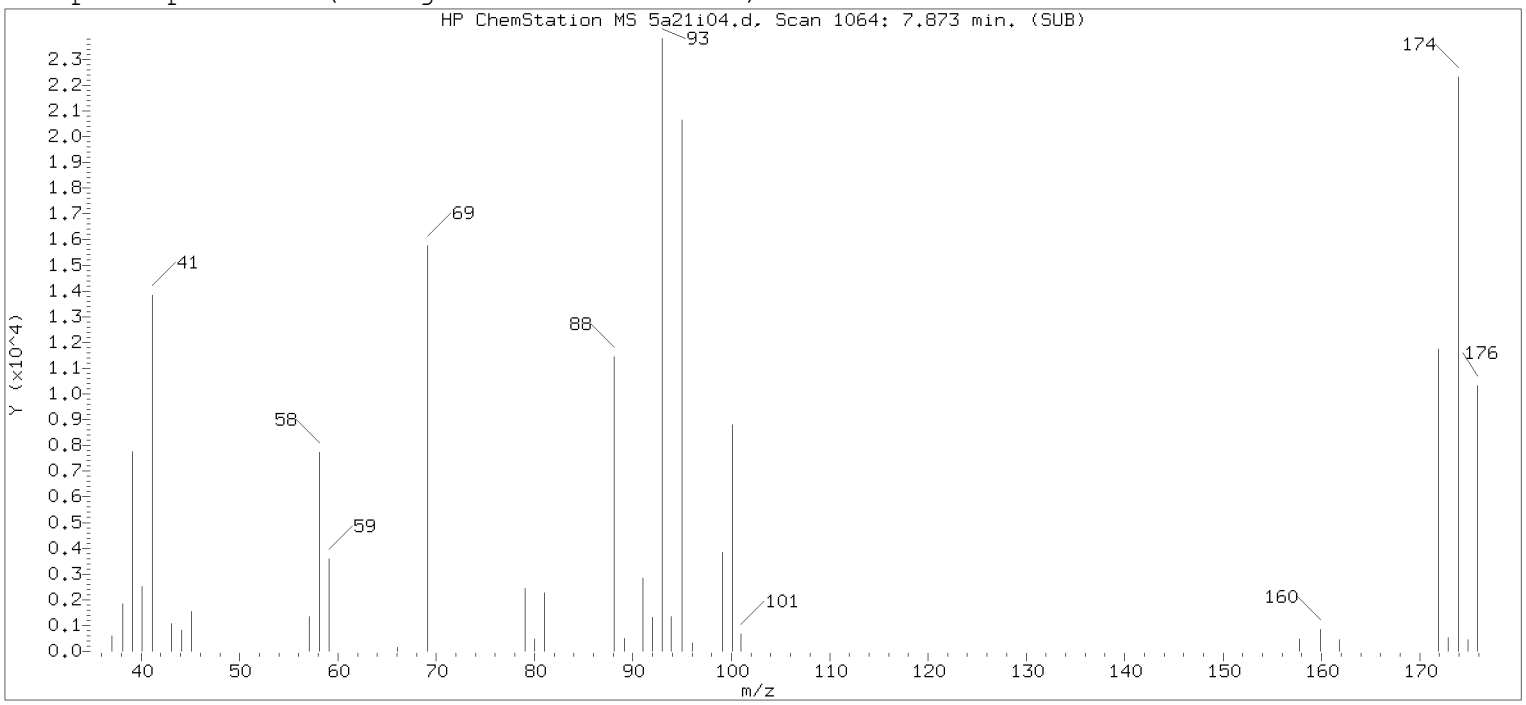
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 66419M
On-Column Amount (ng) : 527.8469
Integration start scan : 1056 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

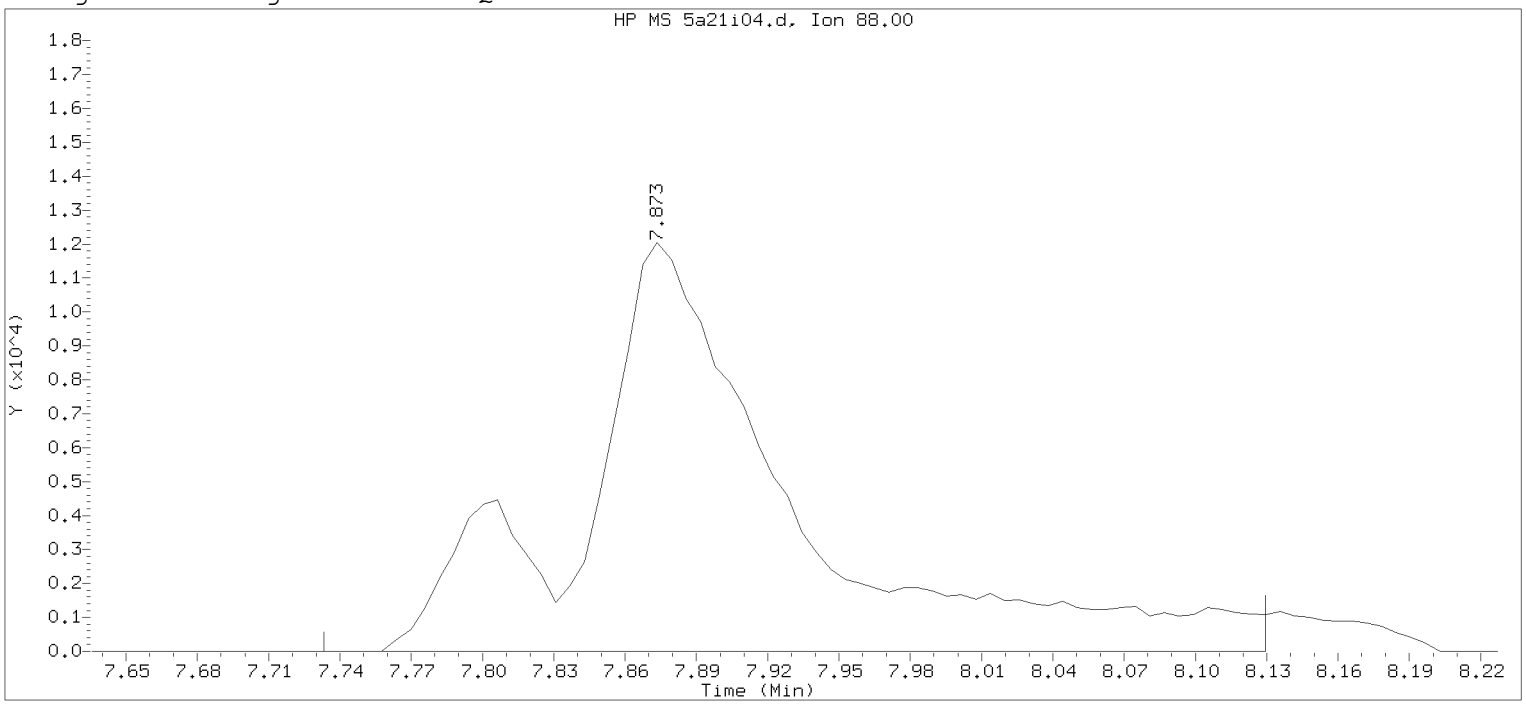
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

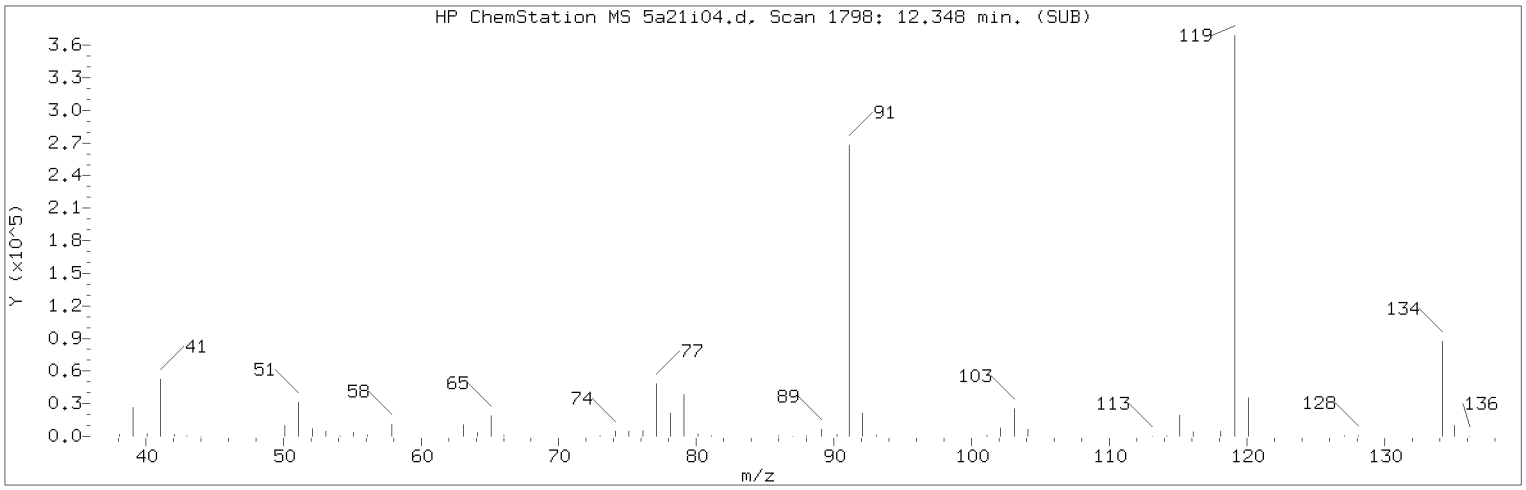
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

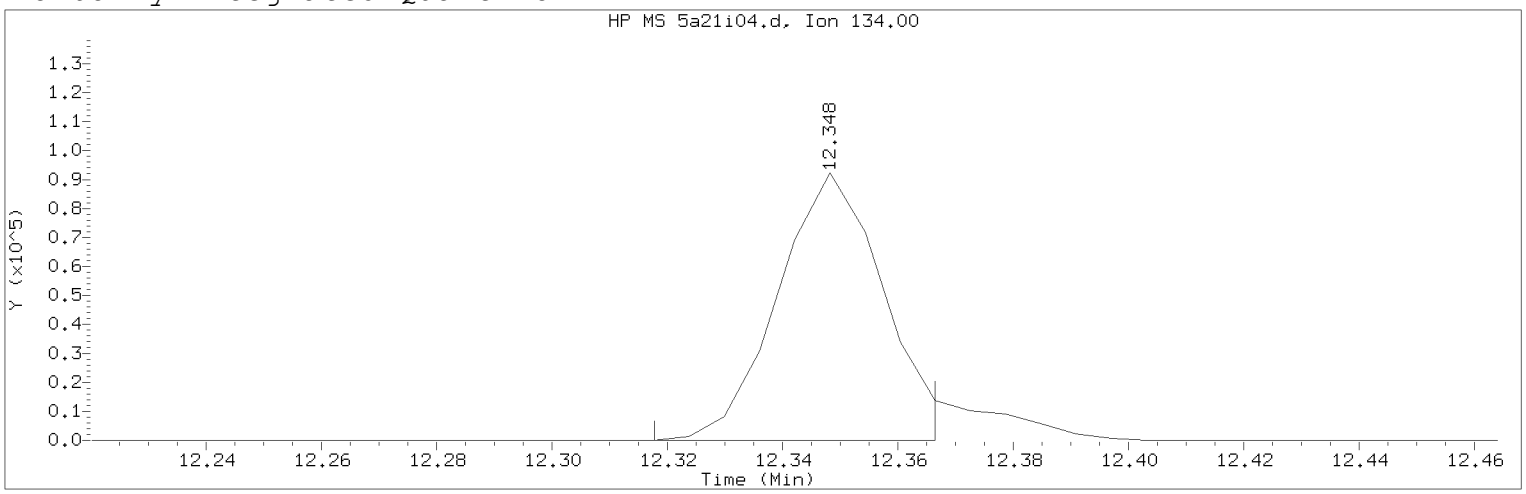
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 73501
On-column Amount (ng) : 470.0717
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

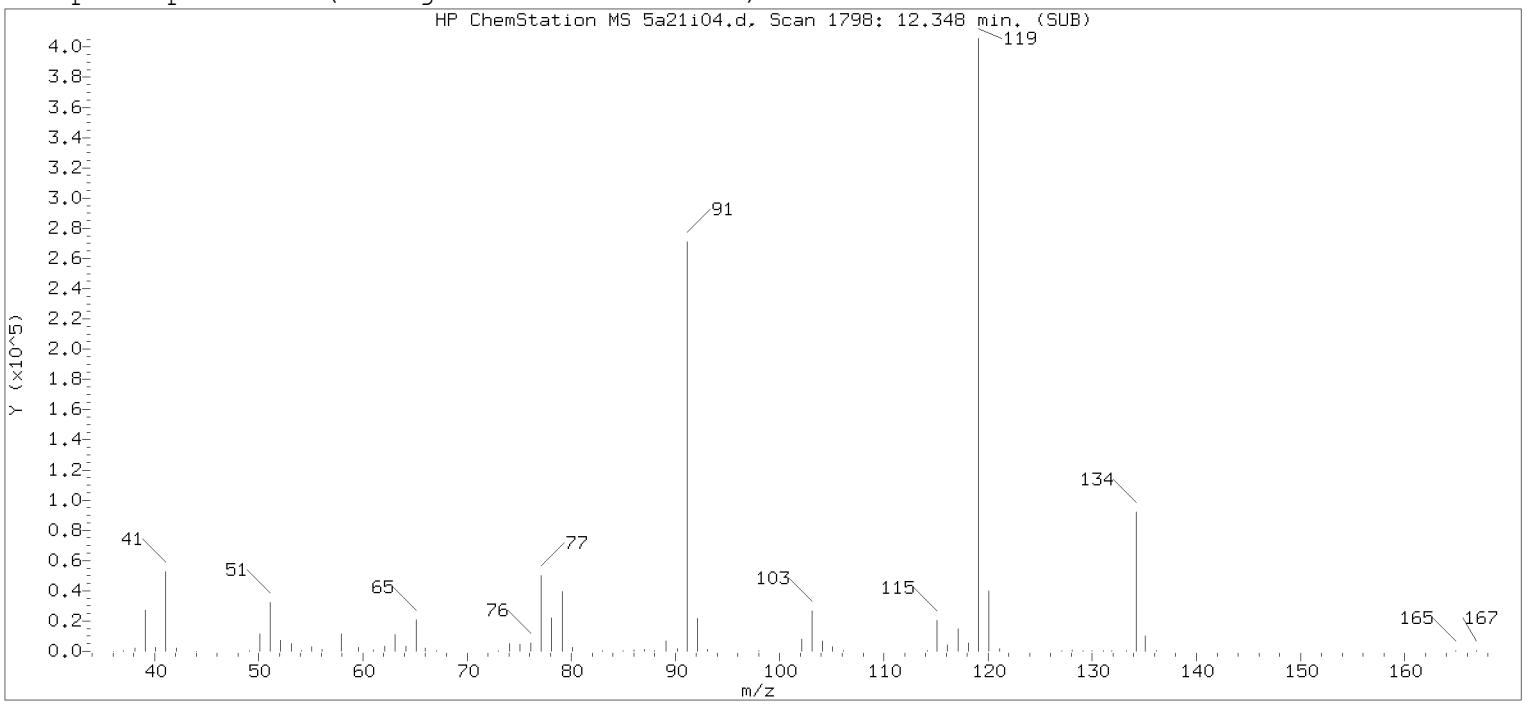
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 117503M
On-Column Amount (ng) : 20.6345
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

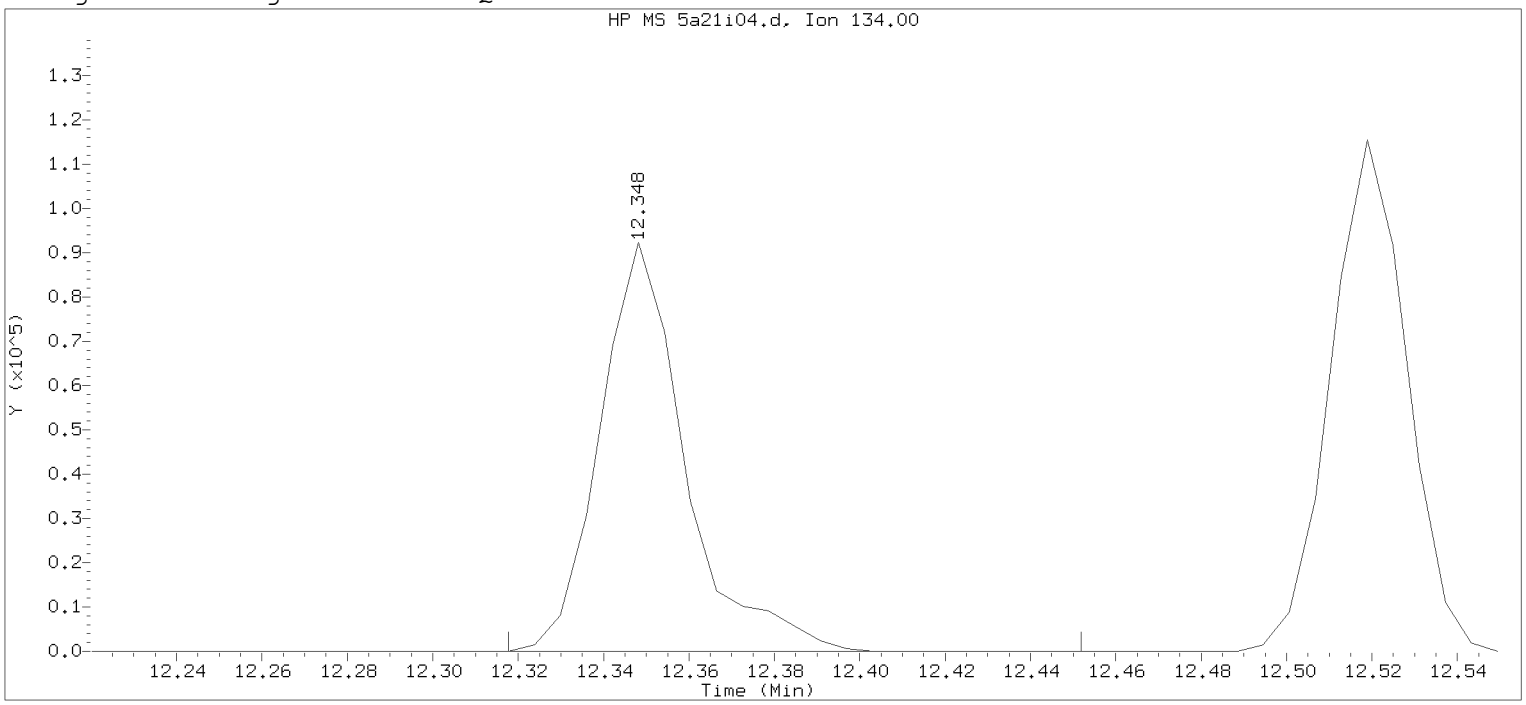
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



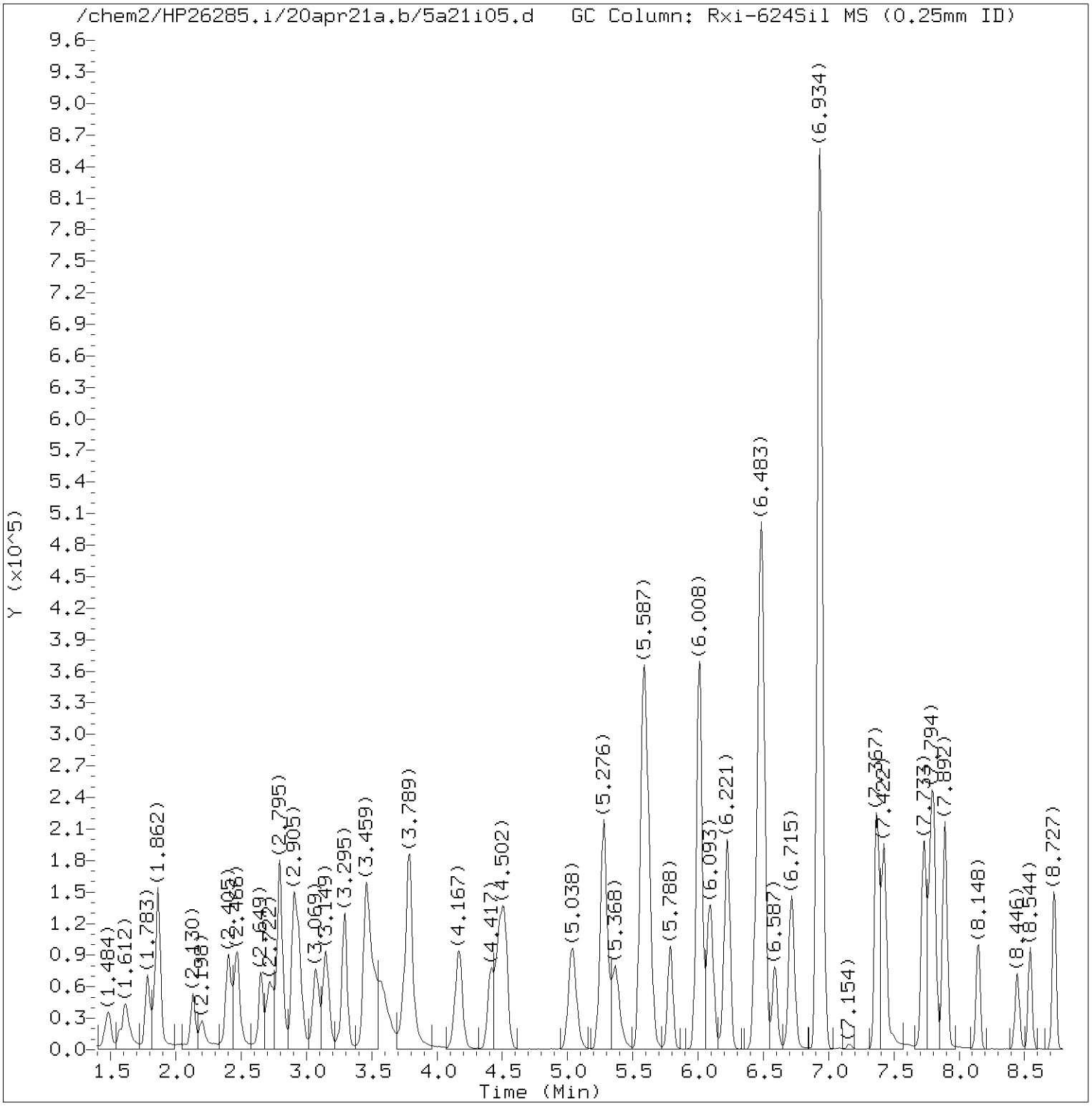
Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 127683
On-column Amount (ng) : 20.9115
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

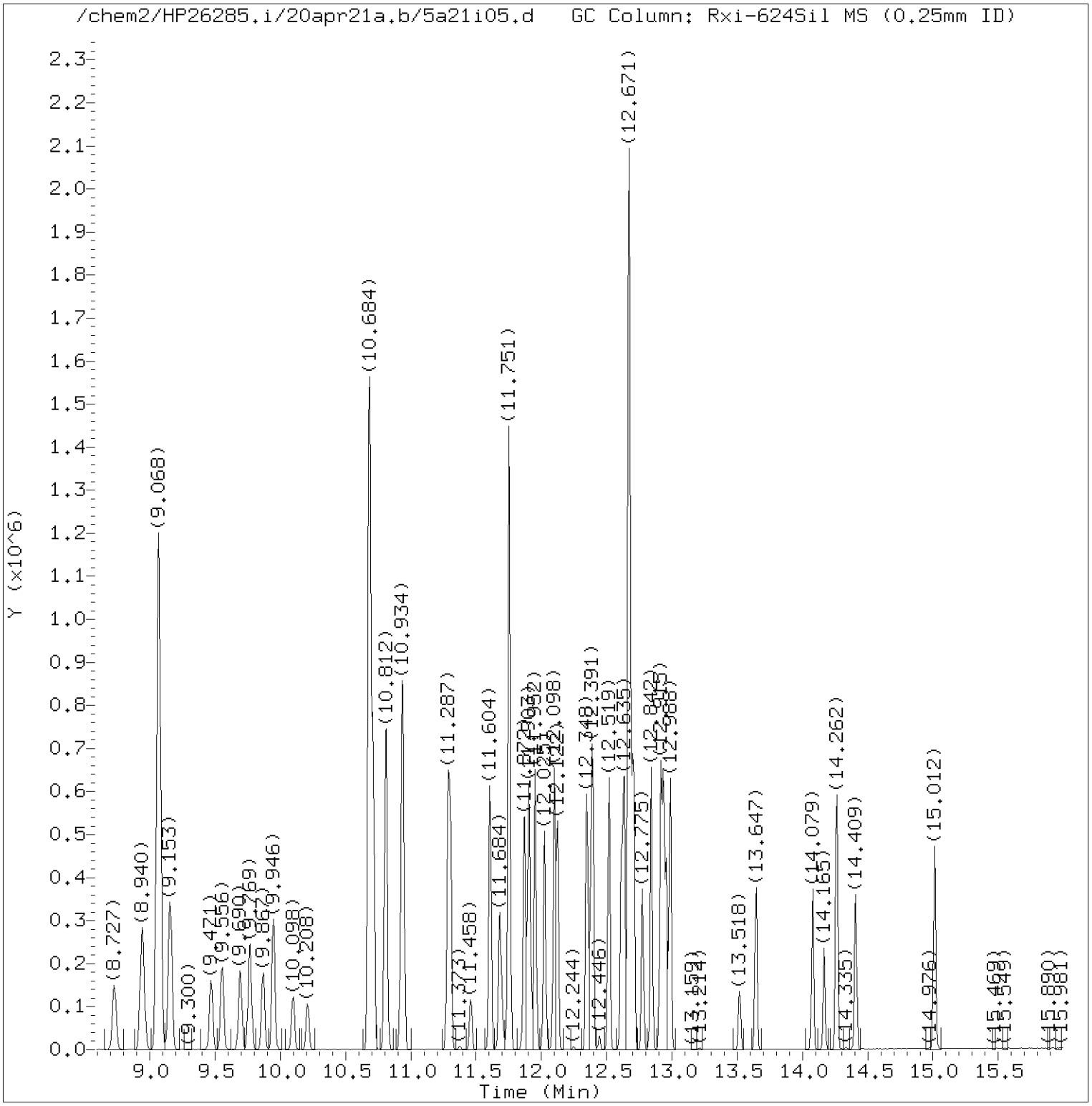
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	90205	10.452
4) Chloromethane	(2)	1.777	50	71545	10.378
5) 1,3-Butadiene	(2)	1.856	39	86291	9.068
6) Vinyl Chloride	(2)	1.868	62	62356	10.298
8) Bromomethane	(2)	2.130	94	42903	10.553
9) Chloroethane	(2)	2.198	64	30296	10.567
10) Dichlorofluoromethane	(2)	2.405	67	97996	10.489
12) Trichlorofluoromethane	(2)	2.441	101	78339	10.563
11) n-Pentane	(2)	2.472	43	68099	9.865
14) Ethyl ether	(2)	2.649	59	52497	10.268
15) Freon 123a	(2)	2.722	67	79096	10.218
16) Acrolein	(1)	2.795	56	252226	108.084
17) 1,1-Dichloroethene	(2)	2.899	96	57993	10.065
17) 1,1-Dichloroethene	(2)	2.899	63	29384	10.175
18) Acetone	(1)	2.941	58	25156	21.857
19) Freon 113	(2)	2.941	101	65457	10.036
22) Methyl Iodide	(2)	3.069	142	109970	10.009
21) 2-Propanol	(1)	3.088	45	94551	100.957
23) Carbon Disulfide	(2)	3.149	76	198468	9.792
27) Methyl Acetate	(2)	3.283	43	81962	9.866
25) Allyl Chloride	(2)	3.295	41	98639	10.226
28) Methylene Chloride	(2)	3.453	84	64974	10.004
29)*t-Butyl alcohol-d10	(1)	3.478	65	368547M	250.000
30) t-Butyl alcohol	(1)	3.588	59	172401	99.313
31) Acrylonitrile	(2)	3.746	53	47066	10.733
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	173129	10.152
32) trans-1,2-Dichloroethene	(2)	3.789	96	64527	10.008
34) n-Hexane	(2)	4.167	57	94872	9.923
36) 1,1-Dichloroethane	(2)	4.411	63	117563	10.073
38) di-Isopropyl ether	(2)	4.471	45	209578	10.053
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	98506	9.934
40) Ethyl t-butyl ether	(2)	5.038	59	187431	10.128
44) 2-Butanone	(2)	5.270	43	134437	21.064
42) cis-1,2-Dichloroethene	(2)	5.276	96	73625	10.096
45) 2,2-Dichloropropane	(2)	5.282	77	97436	9.894
47) Propionitrile	(1)	5.368	54	188839	99.929
48) Methacrylonitrile	(2)	5.581	67	220510	50.492
49) Bromochloromethane	(2)	5.624	128	34123	10.216

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	35702	20.904
51) Chloroform	(2)	5.788	83	116640	9.964
52)$Dibromofluoromethane	(2)	6.008	113	264399	49.811
52)$Dibromofluoromethane	(2)	6.014	111	270750	49.818
53) 1,1,1-Trichloroethane	(2)	6.008	97	103888	9.856
54) Cyclohexane	(2)	6.093	56	121473	9.895
54) Cyclohexane	(2)	6.093	84	102260	10.071
54) Cyclohexane	(2)	6.093	69	38003	9.981
43) 1,2-Dichloroethene (Total)	(2)		96	138152	20.104
56) Carbon Tetrachloride	(2)	6.215	117	89359	9.717
55) 1,1-Dichloropropene	(2)	6.227	75	95259	9.977
58) Isobutyl Alcohol	(1)	6.453	41	143748	248.426
57)$1,2-Dichloroethane-d4	(2)	6.477	102	59505M	50.124
57)$1,2-Dichloroethane-d4	(2)	6.477	65	289071	49.804
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37791	49.716
60) Benzene	(2)	6.502	78	286428	10.089
61) 1,2-Dichloroethane	(2)	6.587	62	85001	9.748
61) 1,2-Dichloroethane	(2)	6.593	98	7607	10.316
65) t-Amyl methyl ether	(2)	6.715	73	189587	10.266
66)*Fluorobenzene	(2)	6.928	96	1065691	50.000
67) n-Heptane	(2)	6.953	43	89571	9.699
69) n-Butanol	(1)	7.367	56	244784	490.264
71) Trichloroethene	(2)	7.428	95	74216	9.961
73) Methylcyclohexane	(2)	7.733	83	117405	9.915
73) Methylcyclohexane	(2)	7.733	98	49758	9.926
74) 1,2-Dichloropropane	(2)	7.776	63	71376	10.043
76) 1,4-Dioxane	(1)	7.873	88	31904M	257.605
75) Dibromomethane	(2)	7.885	93	44493	9.942
77) Methyl Methacrylate	(2)	7.892	69	64708	9.731
79) Bromodichloromethane	(2)	8.148	83	84113	9.693
80) 2-Nitropropane	(2)	8.446	41	61555	20.480
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	53554	9.737
82) cis-1,3-Dichloropropene	(2)	8.727	75	106067	9.672
83) 4-Methyl-2-pentanone	(2)	8.940	43	260820	21.203
84)$Toluene-d8	(3)	9.068	98	1025182	50.528
84)$Toluene-d8	(3)	9.068	100	673846	50.440
89) Toluene	(3)	9.153	92	182907	10.224
90) trans-1,3-Dichloropropene	(3)	9.471	75	93619	9.753

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	108268	9.919
93) 1,1,2-Trichloroethane	(3)	9.690	97	64165	10.032
94) Tetrachloroethene	(3)	9.769	166	79032	10.416
95) 1,3-Dichloropropane	(3)	9.867	76	106961	10.072
97) 2-Hexanone	(3)	9.946	43	204853	21.551
91) 1,3-Dichloropropene (total)	(3)		100	199686	19.425
98) Dibromochloromethane	(3)	10.098	129	66102	9.767
100) 1,2-Dibromoethane	(3)	10.208	107	71037	10.075
101)*Chlorobenzene-d5	(3)	10.684	117	825598	50.000
103) Chlorobenzene	(3)	10.708	112	198021	10.199
102) 1-Chlorohexane	(3)	10.708	91	104471	10.041
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	67396	10.061
105) Ethylbenzene	(3)	10.812	91	356222	10.298
107) m+p-Xylene	(3)	10.940	106	276013	20.796
108) o-Xylene	(3)	11.287	106	133376	10.267
110) Styrene	(3)	11.306	104	214319	10.237
111) Bromoform	(3)	11.458	173	46594	9.515
112) Isopropylbenzene	(3)	11.604	105	352266	10.333
113) Cyclohexanone	(1)	11.684	55	139805	245.762
115)$4-Bromofluorobenzene	(3)	11.751	95	423376	49.525
115)$4-Bromofluorobenzene	(3)	11.751	174	330390	49.542
109) Xylene (Total)	(3)		106	409389	31.063
116) Bromobenzene	(4)	11.866	156	82170	10.150
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	109894	10.003
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	83843	47.448
118) 1,2,3-Trichloropropane	(4)	11.915	110	32467	10.037
120) n-Propylbenzene	(4)	11.952	91	413695	10.394
121) 2-Chlorotoluene	(4)	12.025	126	82850	10.155
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	288261	10.303
122) 4-Chlorotoluene	(4)	12.122	126	84124	10.208
125) tert-Butylbenzene	(4)	12.348	134	55294M	9.944
126) Pentachloroethane	(4)	12.378	167	44337	9.712
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	296576	10.293
128) sec-Butylbenzene	(4)	12.519	105	355600	10.251
130) 1,3-Dichlorobenzene	(4)	12.610	146	155576	10.217
131) p-Isopropyltoluene	(4)	12.635	119	298147	10.306
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	424651	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	158115	10.232

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

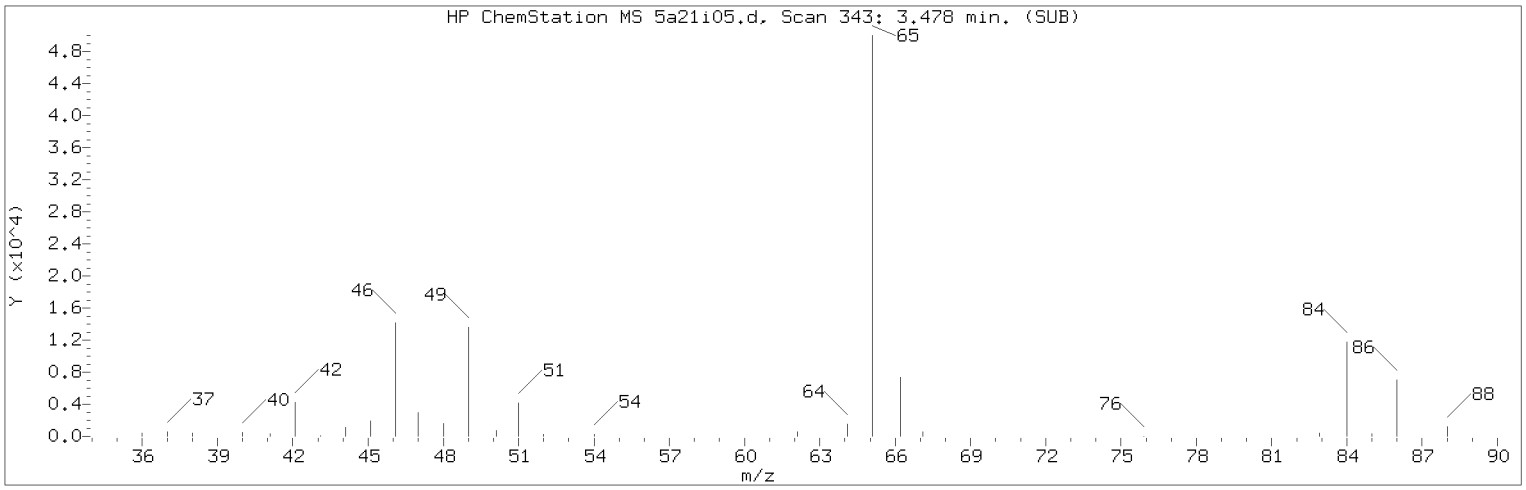
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

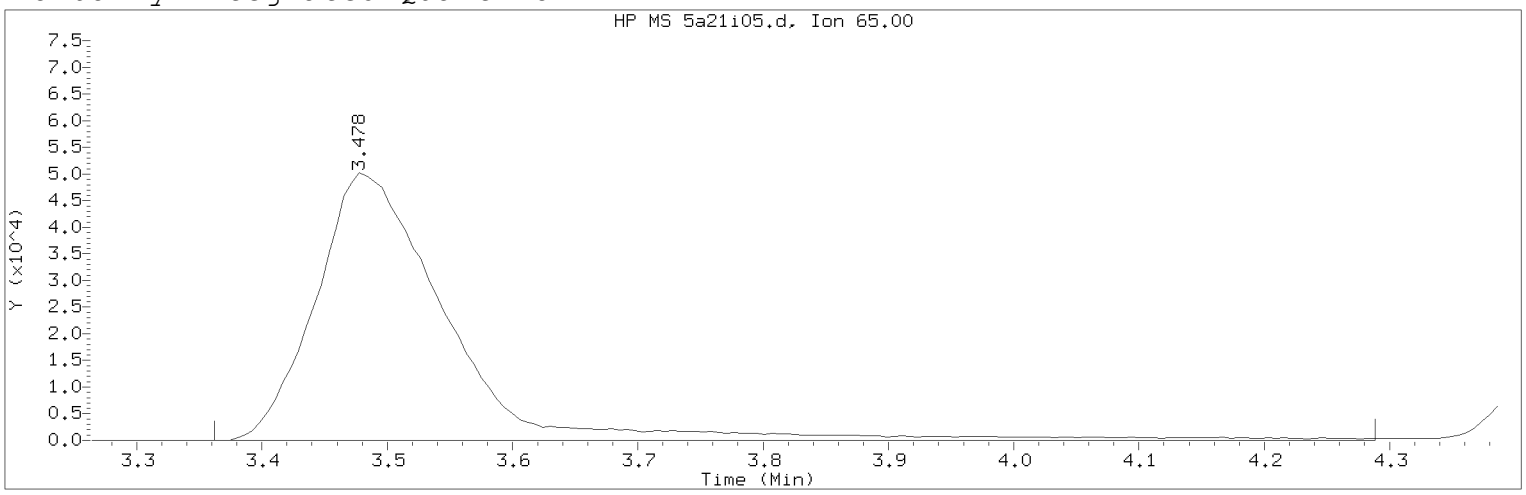
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	285226	10.313
136) Benzyl Chloride	(4)	12.775	91	207519	9.846
137) 1,3-Diethylbenzene	(4)	12.842	119	172875	10.343
138) 1,4-Diethylbenzene	(4)	12.915	119	178899	10.348
140) n-Butylbenzene	(4)	12.933	92	147655	10.119
139) 1,2-Dichlorobenzene	(4)	12.958	146	148814	10.174
141) 1,2-Diethylbenzene	(4)	12.988	119	145158	10.268
142) Diethylbenzene (total)	(4)		100	496932	30.959
143) 1,2-Dibromo-3-chloropropane	(4)	13.518	75	26754	9.646
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	96065	9.944
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	90853	10.010
148) Hexachlorobutadiene	(4)	14.165	225	34259	9.815
149) Naphthalene	(4)	14.262	128	368201	10.244
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	89515	9.967
151) 2-Methylnaphthalene	(4)	15.012	142	187053	10.017

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

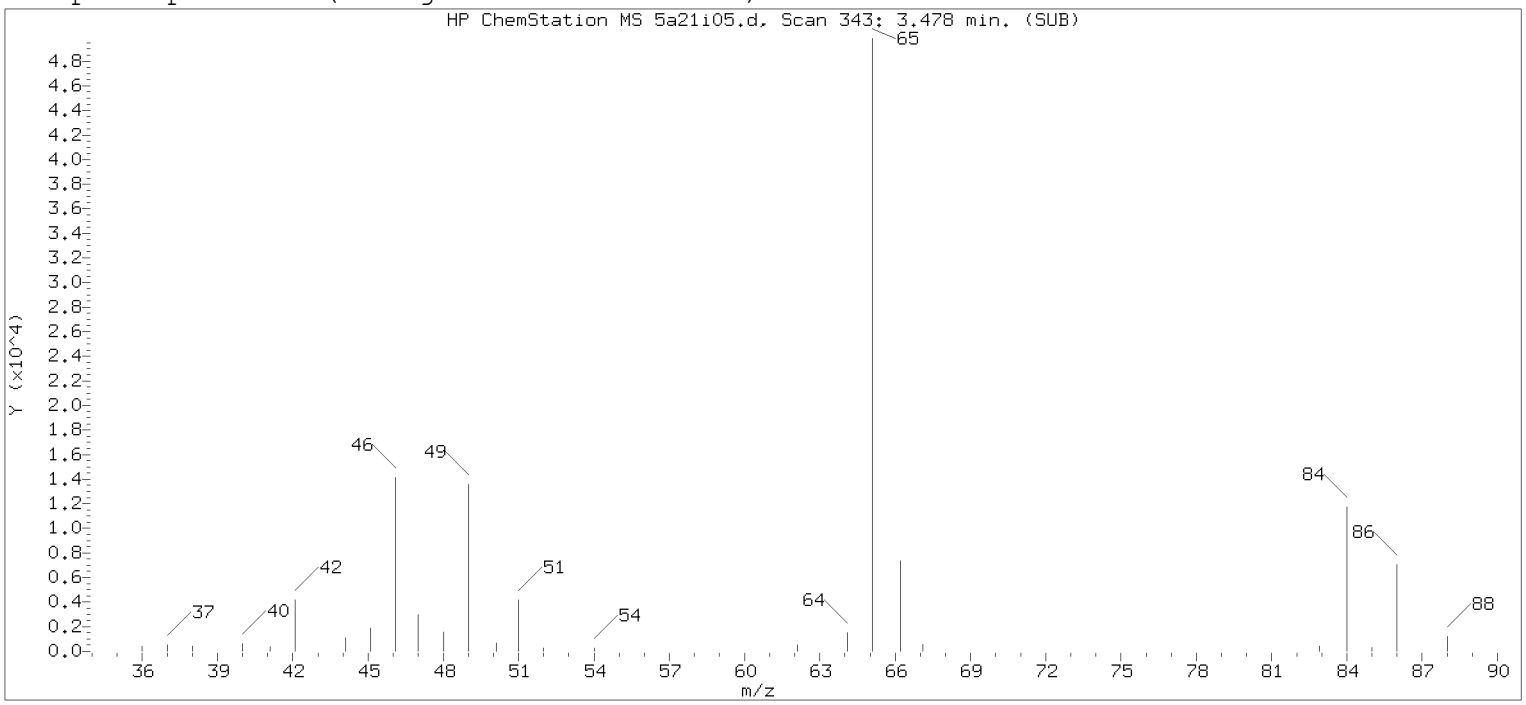
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 368547M
On-Column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 475
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

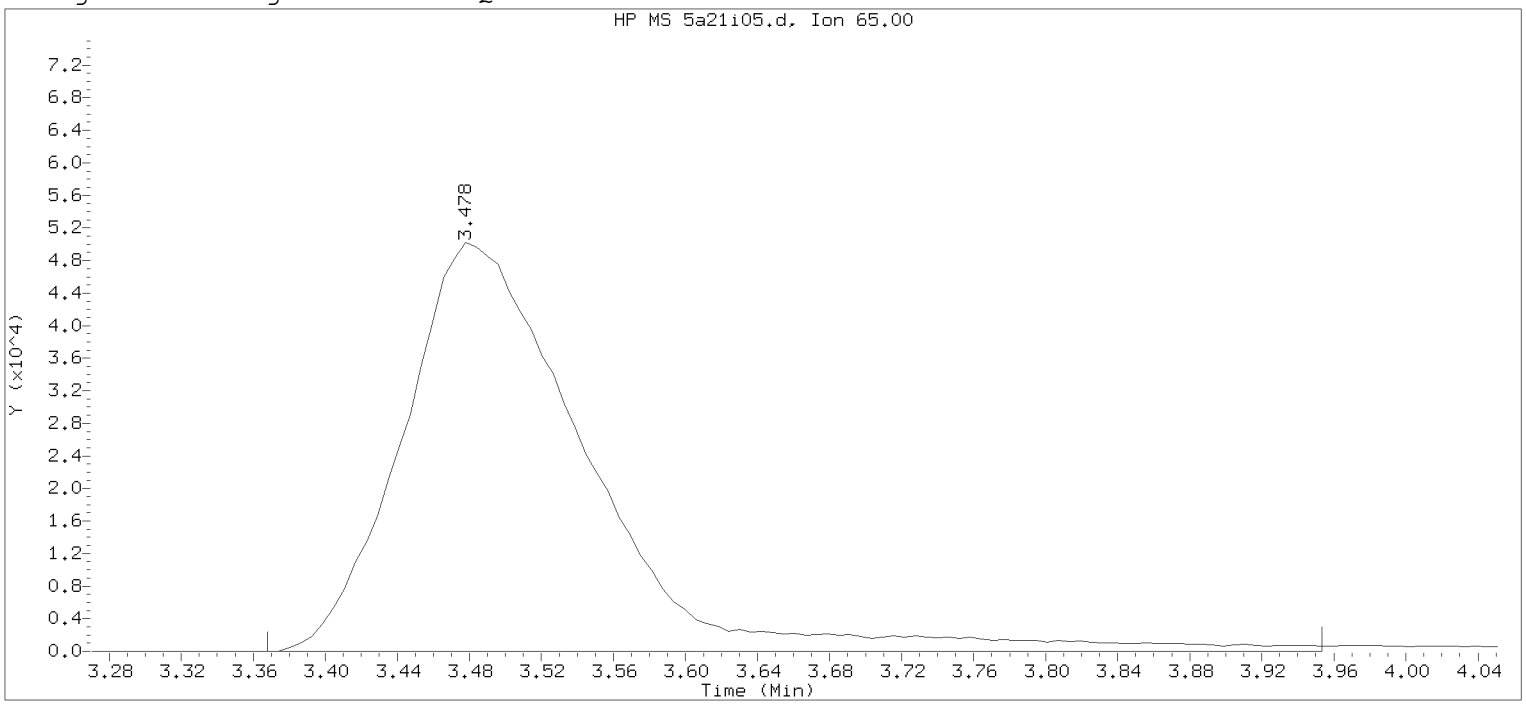
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

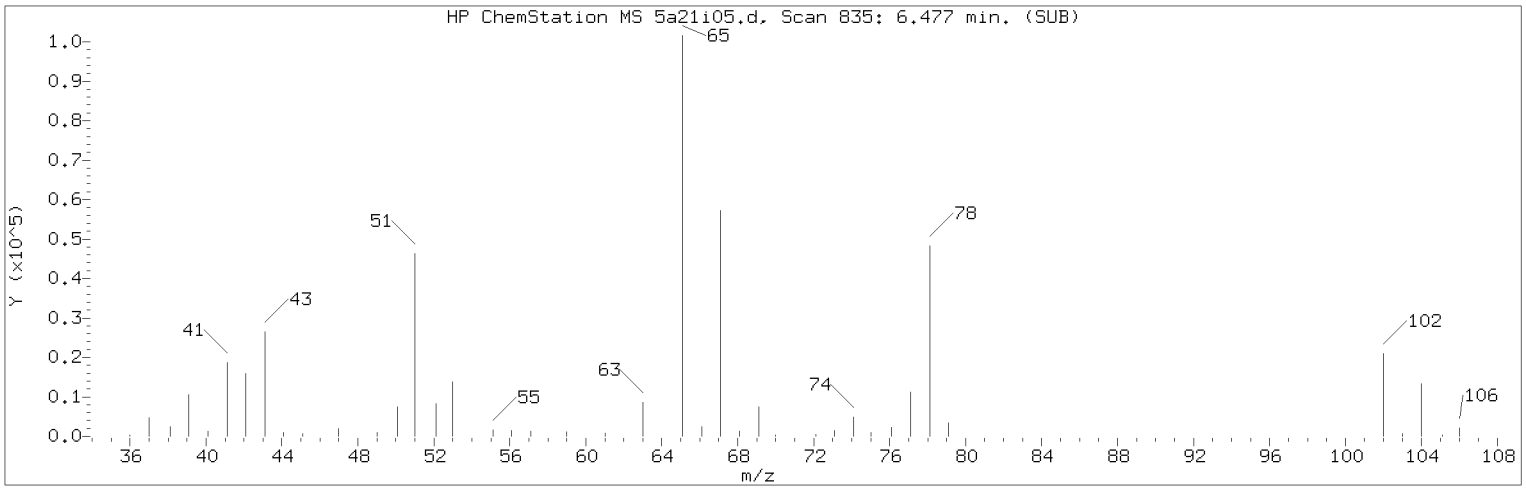
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

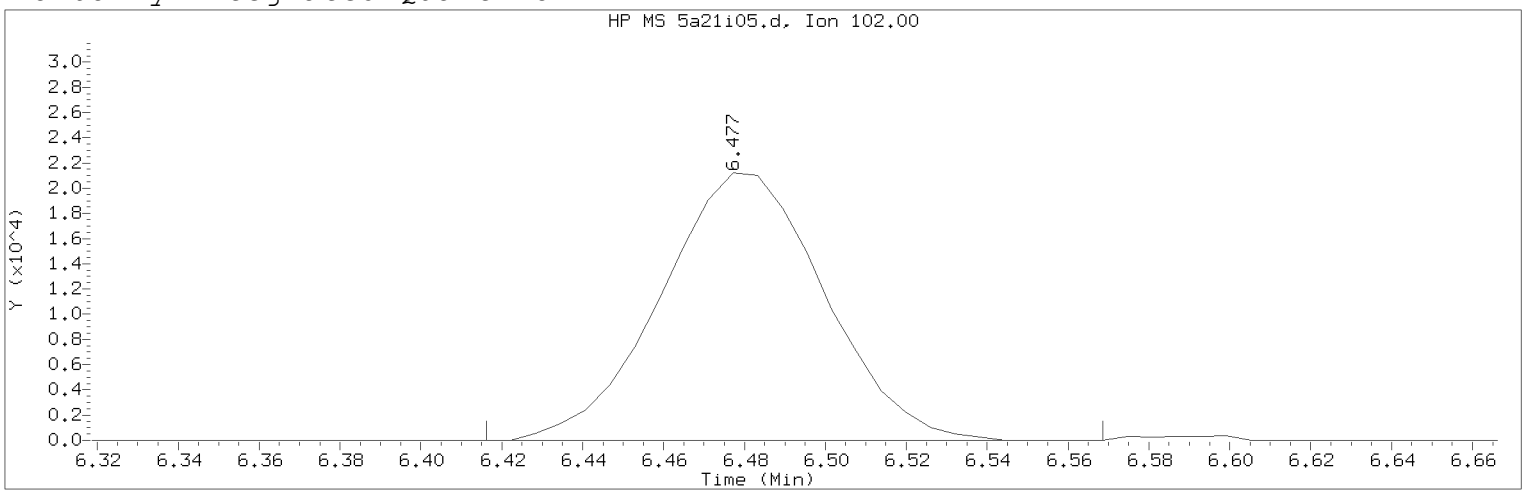
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 358381
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

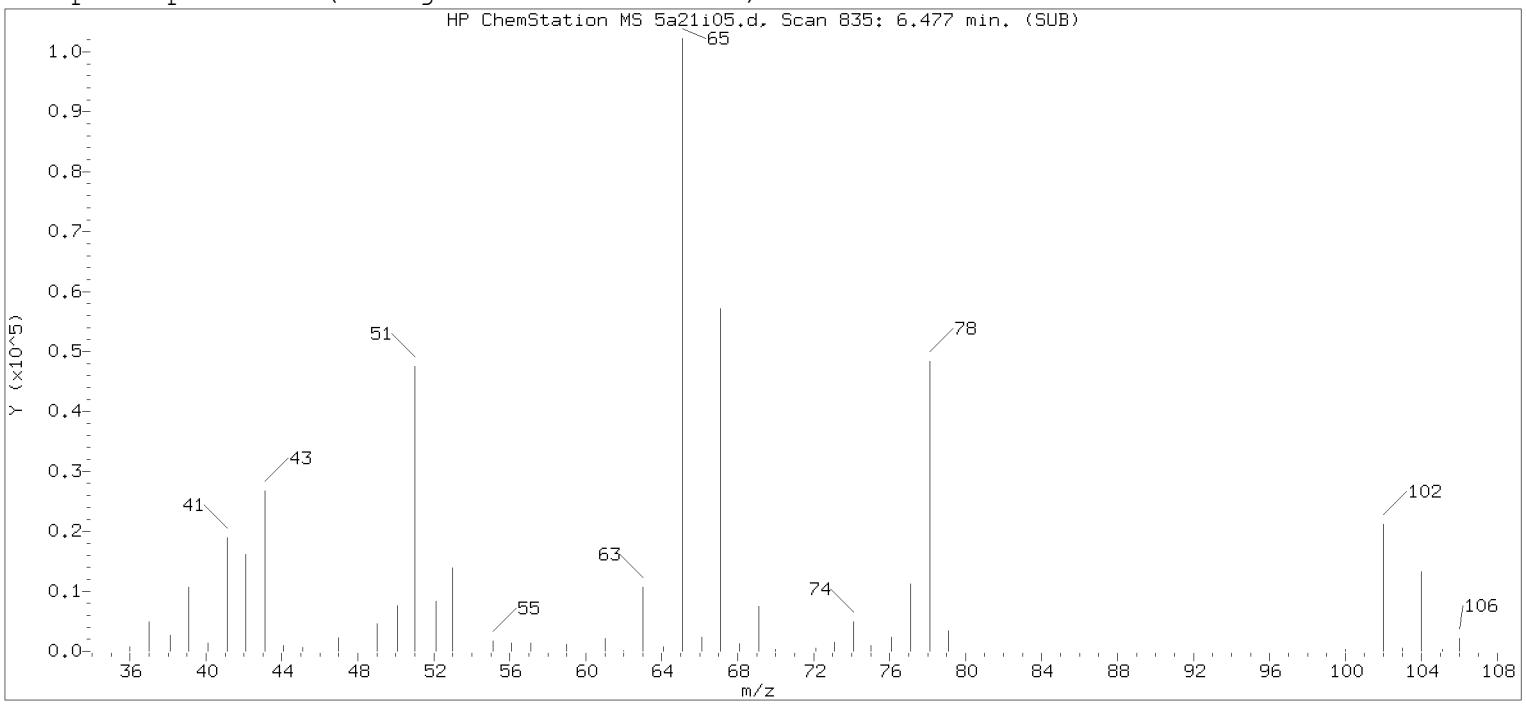
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area (flag) : 59505M
On-Column Amount (ng) : 50.1238
Integration start scan : 824 Integration stop scan: 849
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

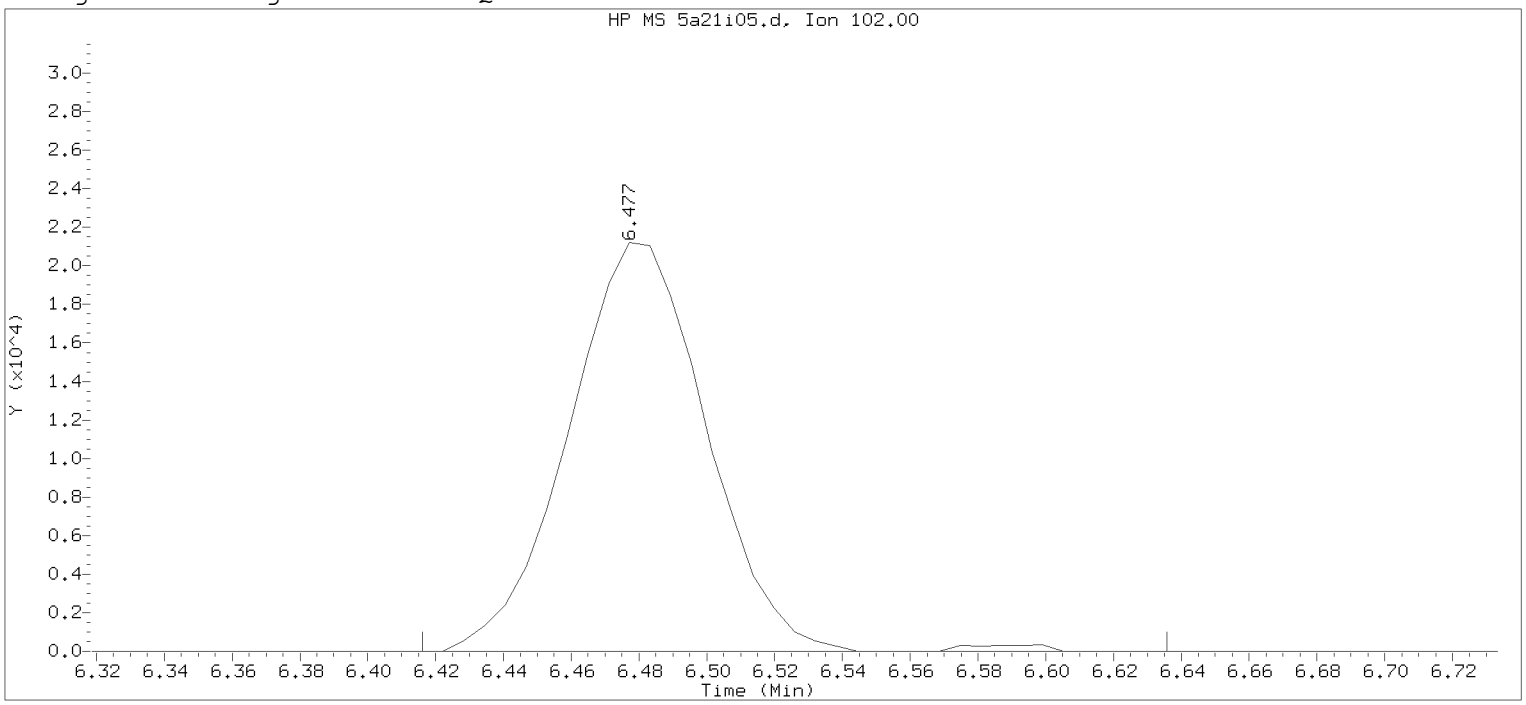
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

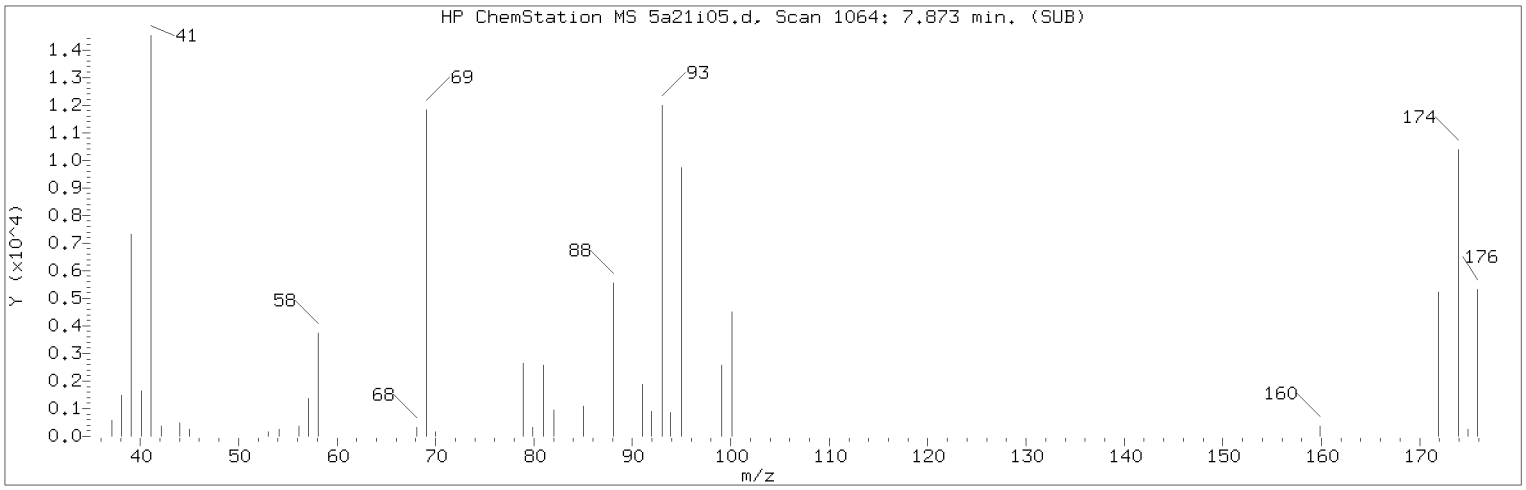
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

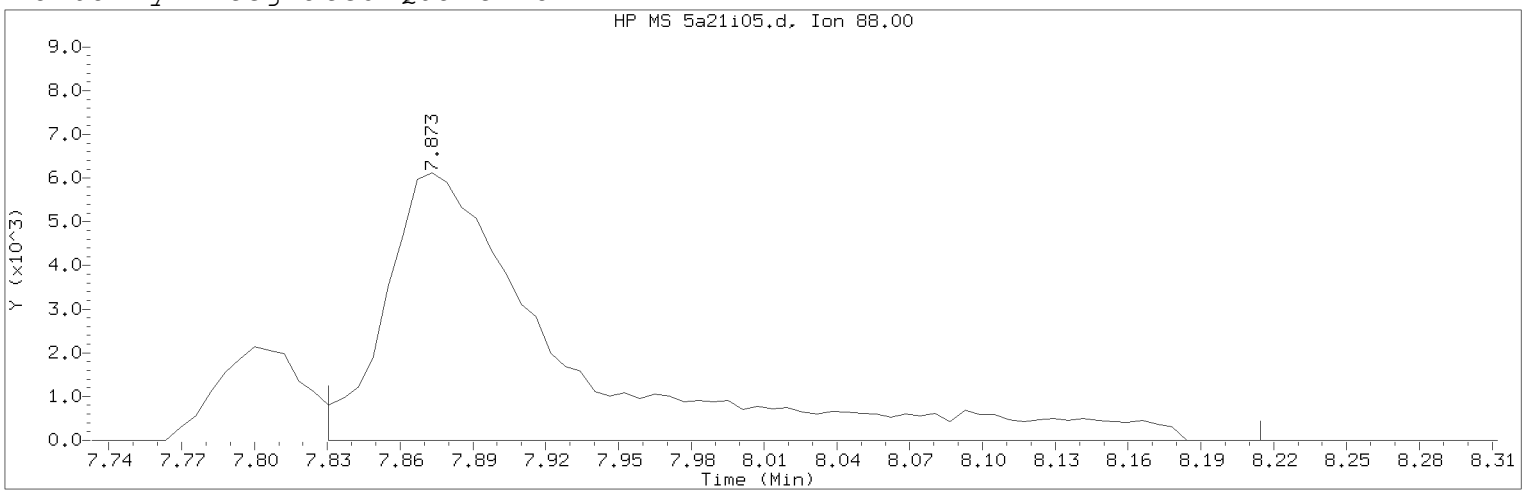
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area : 60057
On-column Amount (ng) : 50.5589
Integration start scan : 824 Integration stop scan: 860
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

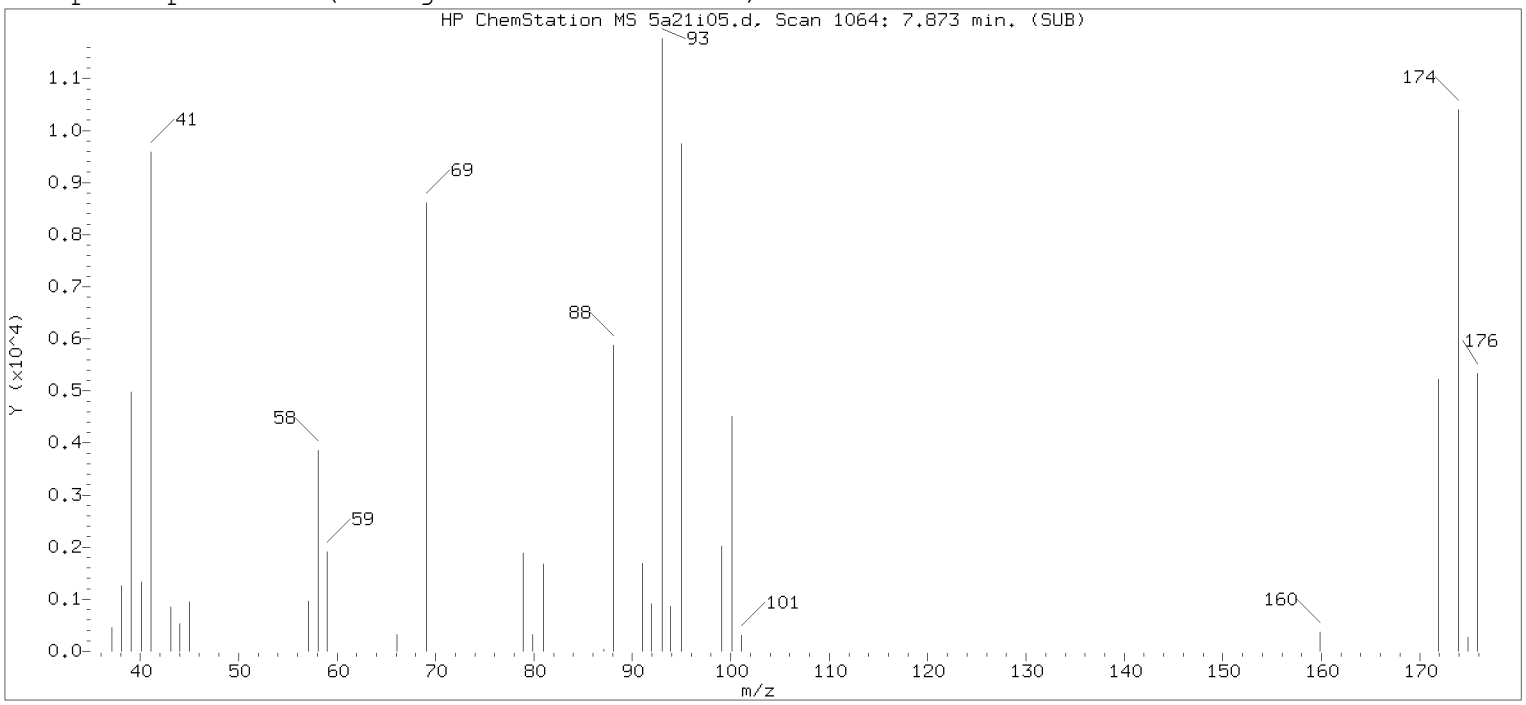
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 31904M
On-Column Amount (ng) : 257.6053
Integration start scan : 1056 Integration stop scan: 1119
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

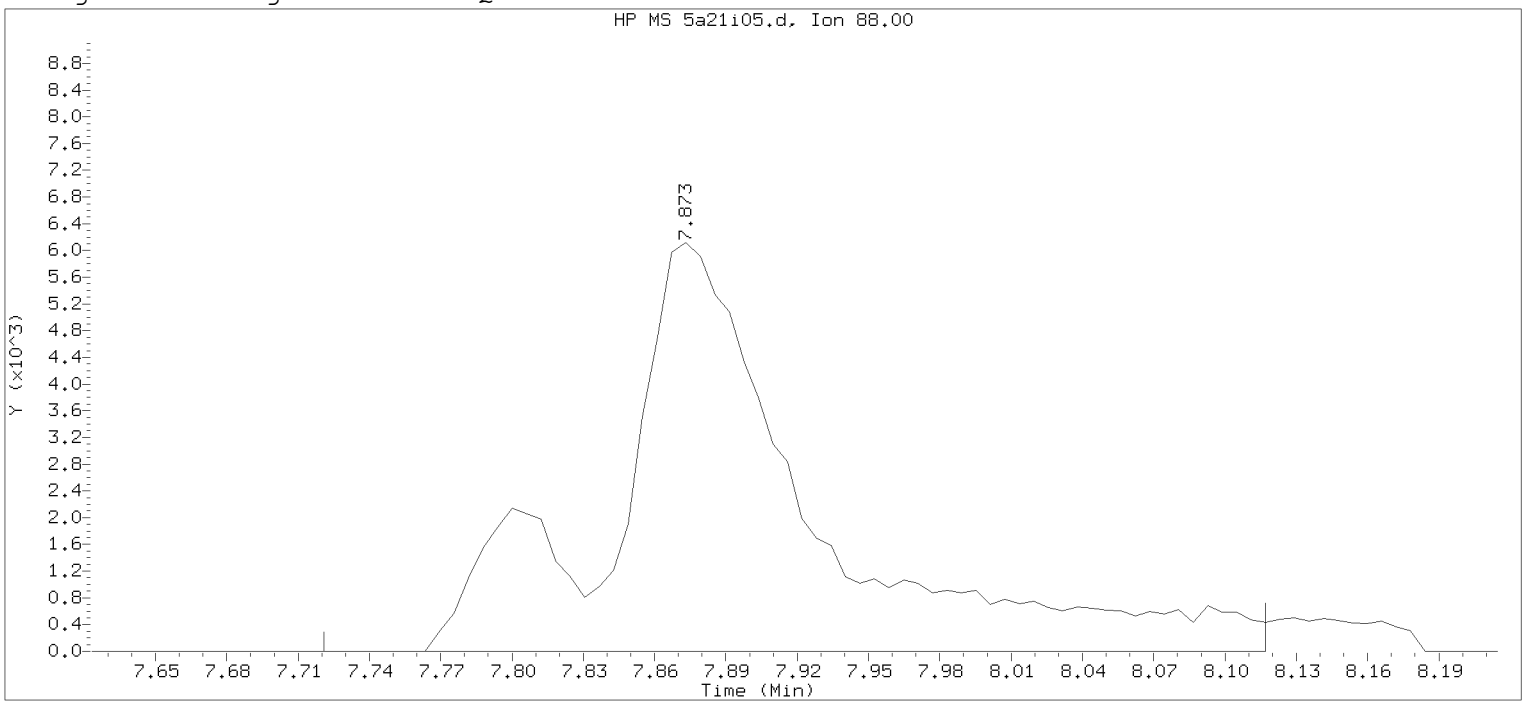
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

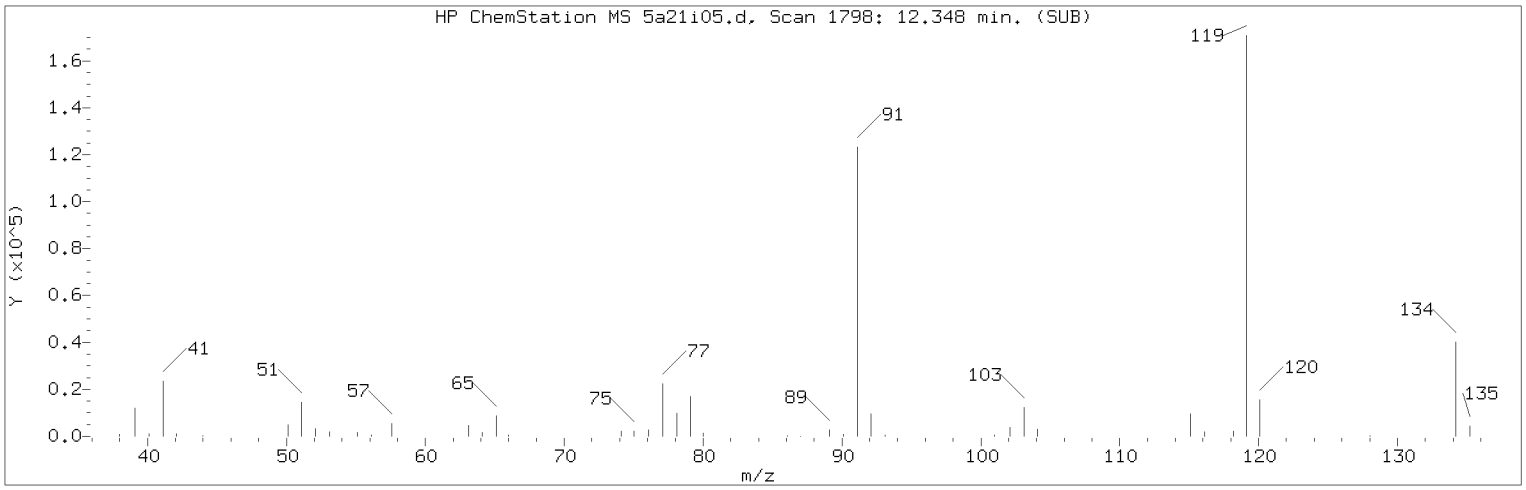
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

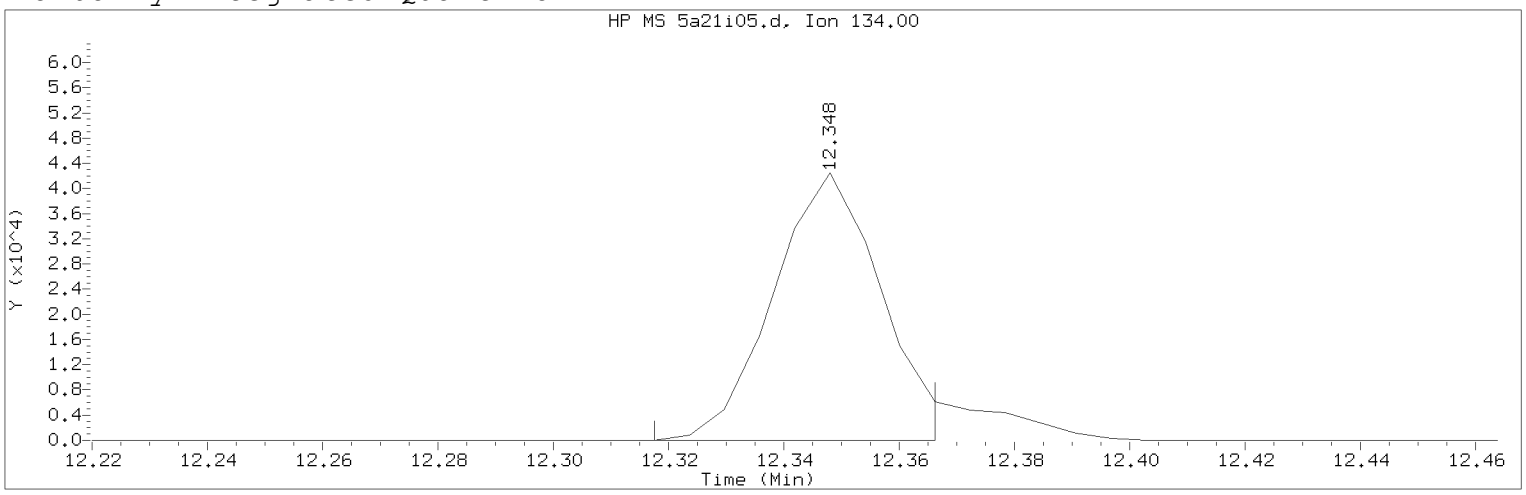
Compound Number	: 76		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1064		
Retention Time (minutes)	: 7.873		
Quant Ion	: 88.00		
Area	: 35370		
On-column Amount (ng)	: 236.7248		
Integration start scan	: 1038	Integration stop scan:	1103
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

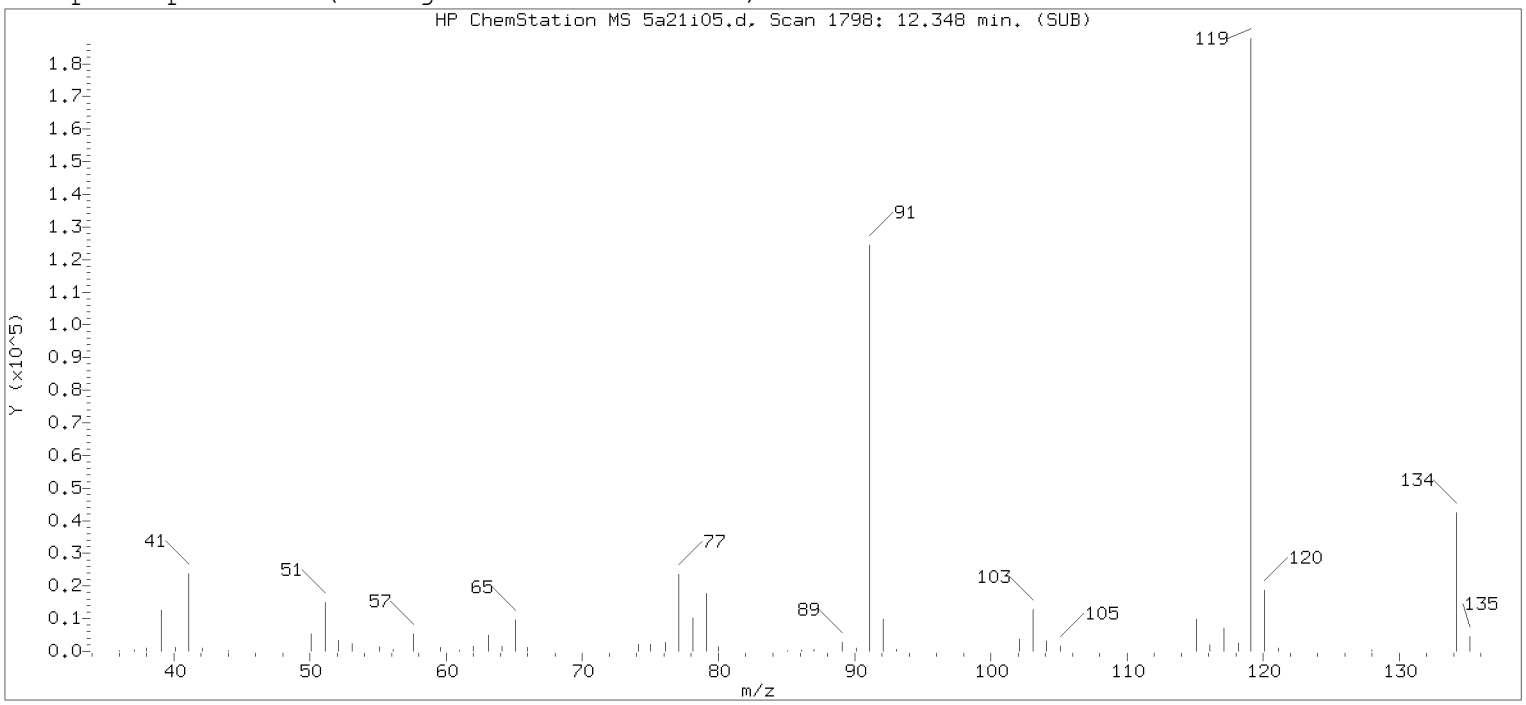
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 55294M
On-Column Amount (ng) : 9.9438
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

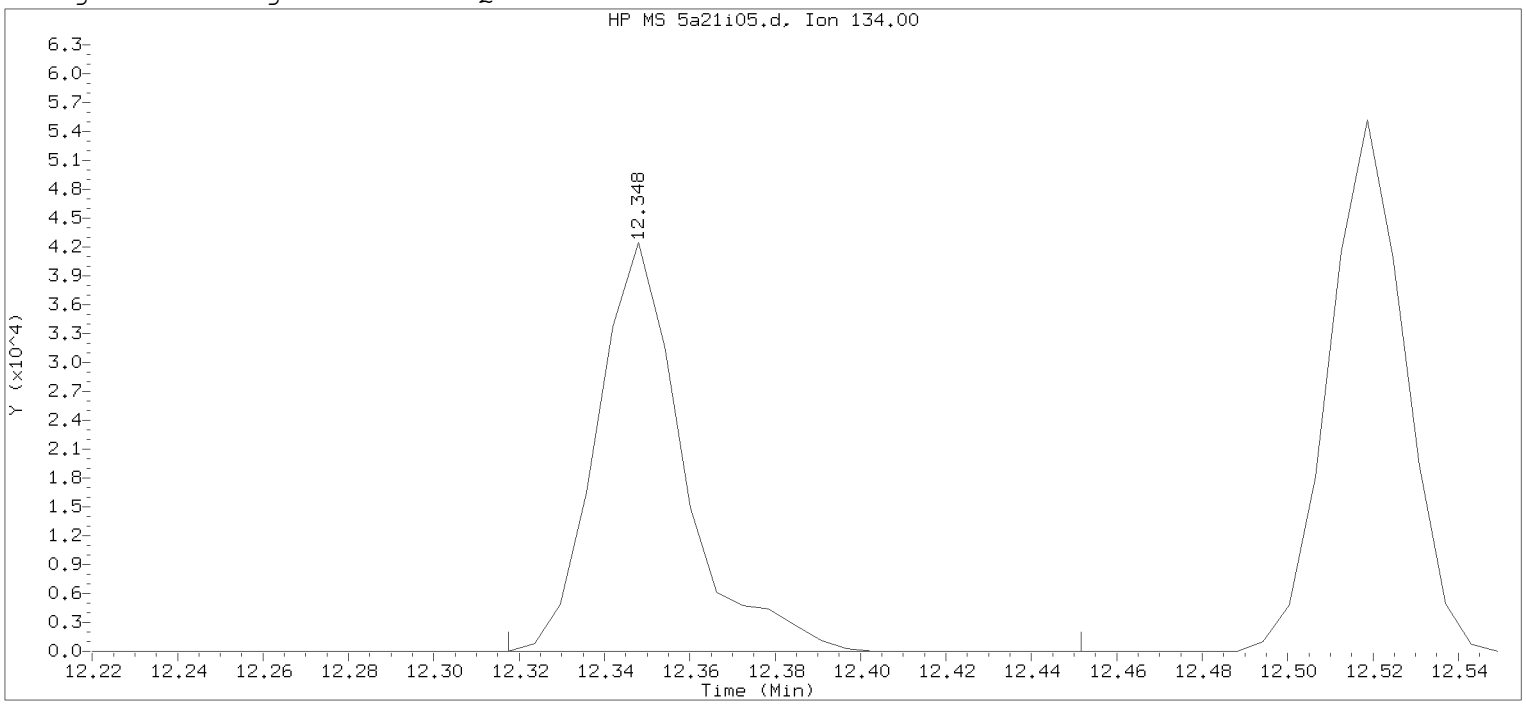
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



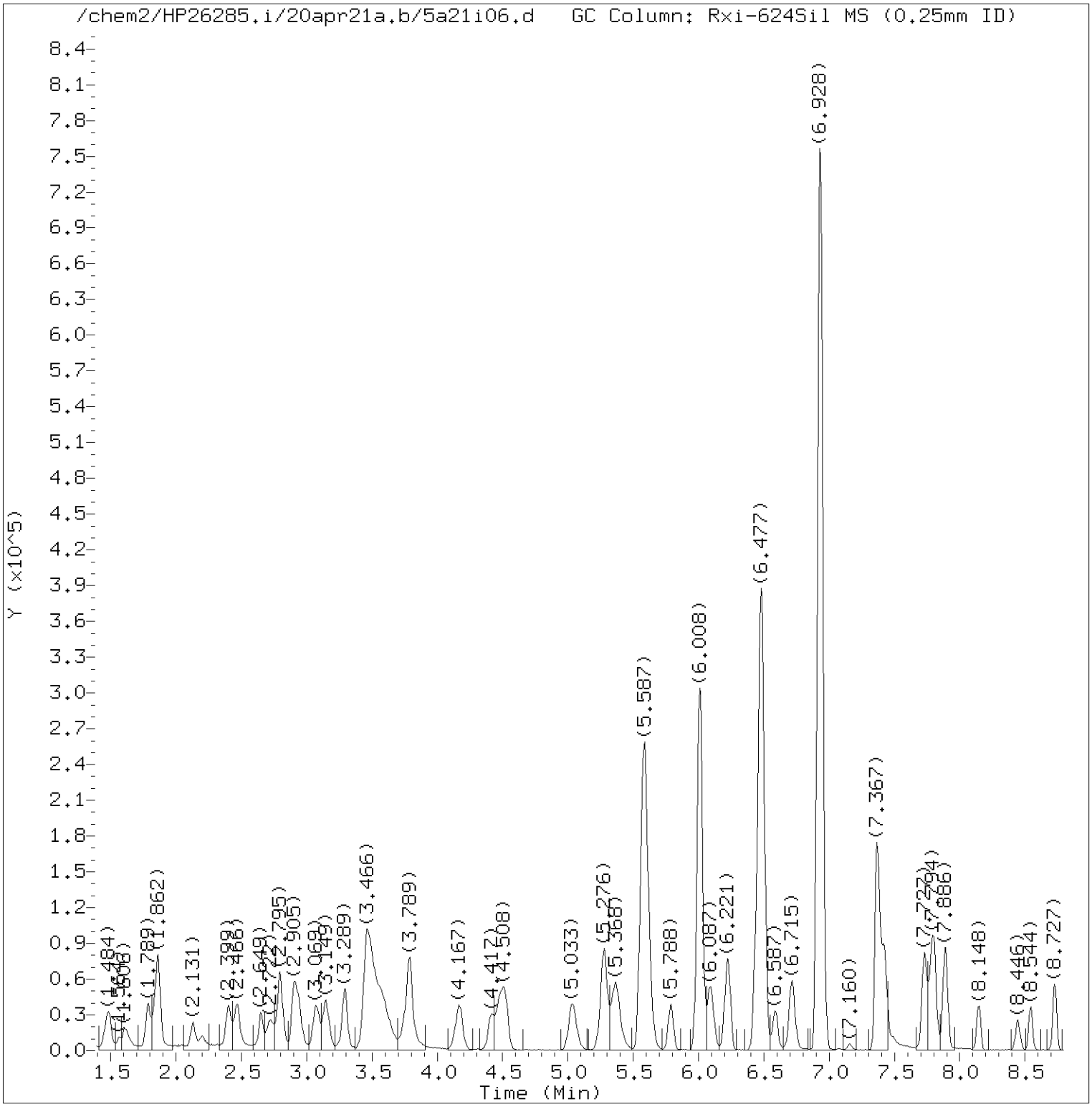
Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 60150
On-column Amount (ng) : 10.0705
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

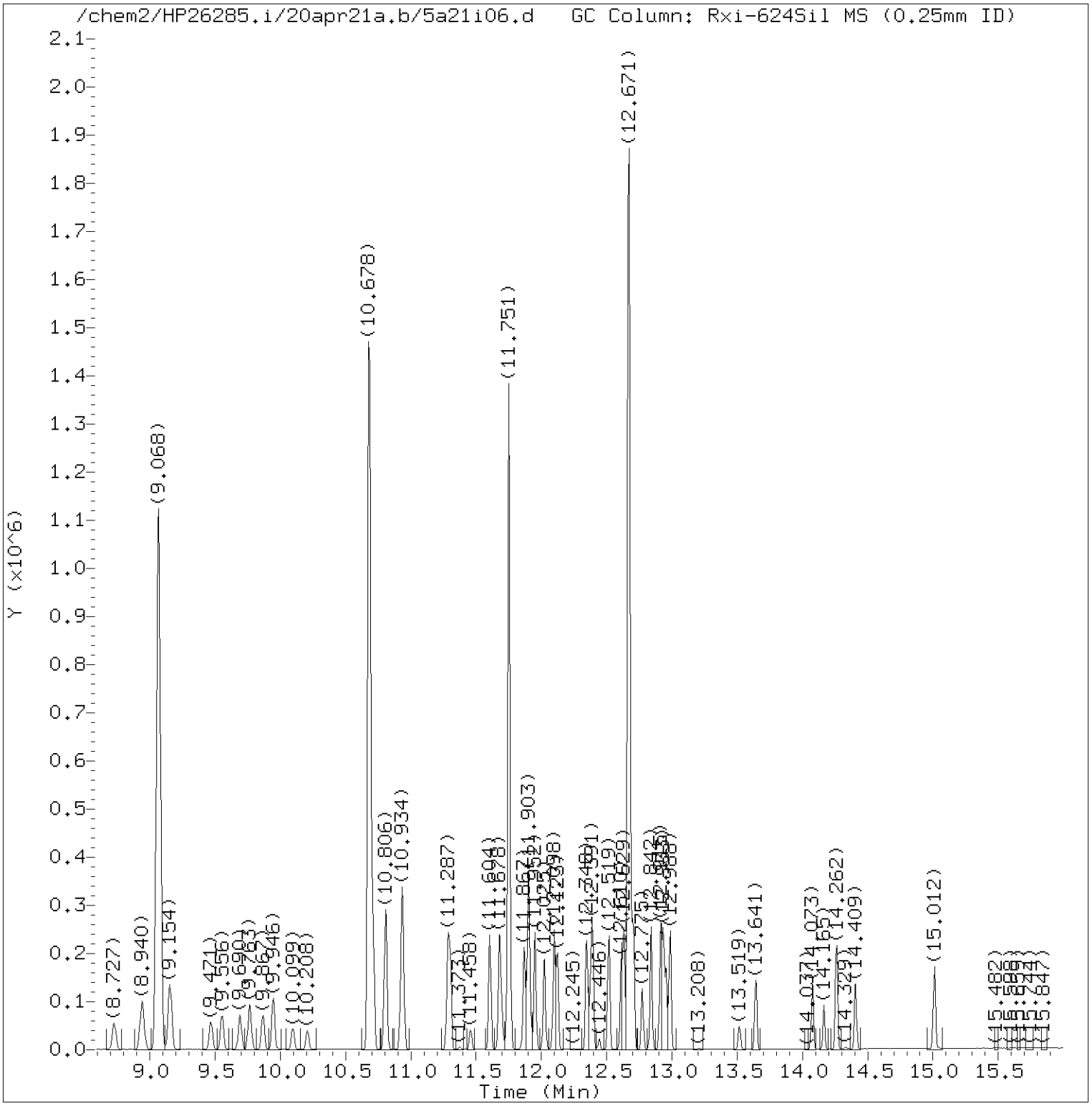
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.619	85	34476	4.213
4) Chloromethane	(2)	1.777	50	29941	4.580
5) 1,3-Butadiene	(2)	1.856	39	55604	6.162
6) Vinyl Chloride	(2)	1.868	62	24470	4.262
8) Bromomethane	(2)	2.131	94	16661	4.322
9) Chloroethane	(2)	2.198	64	11678	4.296
10) Dichlorofluoromethane	(2)	2.399	67	38057	4.296
12) Trichlorofluoromethane	(2)	2.442	101	30449	4.330
11) n-Pentane	(2)	2.472	43	29312	4.478
14) Ethyl ether	(2)	2.655	59	20997	4.331
15) Freon 123a	(2)	2.722	67	32224	4.390
16) Acrolein	(1)	2.801	56	93288	42.674
17) 1,1-Dichloroethene	(2)	2.899	96	23204	4.247
17) 1,1-Dichloroethene	(2)	2.899	63	12012	4.386
19) Freon 113	(2)	2.929	101	25378	4.103
18) Acetone	(1)	2.941	58	8714	8.082
22) Methyl Iodide	(2)	3.063	142	43602	4.185
21) 2-Propanol	(1)	3.082	45	68781	78.398
23) Carbon Disulfide	(2)	3.149	76	79286	4.125
27) Methyl Acetate	(2)	3.283	43	34676	4.402
25) Allyl Chloride	(2)	3.295	41	38956	4.259
28) Methylene Chloride	(2)	3.460	84	25742	4.180
29)*t-Butyl alcohol-d10	(1)	3.490	65	345244M	250.000
30) t-Butyl alcohol	(1)	3.588	59	130136	80.026
31) Acrylonitrile	(2)	3.740	53	16850	4.052
32) trans-1,2-Dichloroethene	(2)	3.789	96	25808	4.221
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	67965	4.203
34) n-Hexane	(2)	4.167	57	37512	4.138
36) 1,1-Dichloroethane	(2)	4.411	63	45897	4.147
38) di-Isopropyl ether	(2)	4.472	45	82225	4.160
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	38653	4.111
40) Ethyl t-butyl ether	(2)	5.033	59	74286	4.233
44) 2-Butanone	(2)	5.264	43	48644	8.038
42) cis-1,2-Dichloroethene	(2)	5.276	96	28807	4.166
45) 2,2-Dichloropropane	(2)	5.289	77	38728	4.147
47) Propionitrile	(1)	5.368	54	143140	80.859
48) Methacrylonitrile	(2)	5.587	67	168253	40.628
49) Bromochloromethane	(2)	5.618	128	13506	4.264

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	12997	8.123
51) Chloroform	(2)	5.788	83	46340	4.174
53) 1,1,1-Trichloroethane	(2)	6.002	97	41024	4.105
52)$Dibromofluoromethane	(2)	6.008	113	250494	49.767
52)$Dibromofluoromethane	(2)	6.014	111	257903	50.044
54) Cyclohexane	(2)	6.093	56	47020	4.039
54) Cyclohexane	(2)	6.093	84	39183	4.069
54) Cyclohexane	(2)	6.087	69	15033	4.164
43) 1,2-Dichloroethene (Total)	(2)		96	54615	8.387
56) Carbon Tetrachloride	(2)	6.215	117	34824	3.994
55) 1,1-Dichloropropene	(2)	6.227	75	37898	4.186
58) Isobutyl Alcohol	(1)	6.453	41	107038	197.470
57)$1,2-Dichloroethane-d4	(2)	6.477	102	56616	50.293
57)$1,2-Dichloroethane-d4	(2)	6.477	65	276097	50.164
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36268	50.316
60) Benzene	(2)	6.502	78	112819	4.191
61) 1,2-Dichloroethane	(2)	6.587	62	34225	4.139
61) 1,2-Dichloroethane	(2)	6.587	98	3083	4.409
65) t-Amyl methyl ether	(2)	6.715	73	74270	4.241
66)*Fluorobenzene	(2)	6.928	96	1010545	50.000
67) n-Heptane	(2)	6.953	43	36742	4.196
69) n-Butanol	(1)	7.367	56	181564	388.189
71) Trichloroethene	(2)	7.422	95	29188	4.131
73) Methylcyclohexane	(2)	7.727	83	47155	4.200
73) Methylcyclohexane	(2)	7.727	98	20305	4.272
74) 1,2-Dichloropropane	(2)	7.776	63	27684	4.108
76) 1,4-Dioxane	(1)	7.880	88	23612M	203.521
75) Dibromomethane	(2)	7.886	93	17306	4.078
77) Methyl Methacrylate	(2)	7.892	69	24521	3.889
79) Bromodichloromethane	(2)	8.148	83	31908	3.878
80) 2-Nitropropane	(2)	8.446	41	21269	7.463
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	20564	3.943
82) cis-1,3-Dichloropropene	(2)	8.727	75	40408	3.886
83) 4-Methyl-2-pentanone	(2)	8.940	43	92185	7.903
84)$Toluene-d8	(3)	9.068	98	968812	50.385
84)$Toluene-d8	(3)	9.068	100	635718	50.212
89) Toluene	(3)	9.154	92	71824	4.236
90) trans-1,3-Dichloropropene	(3)	9.465	75	34689	3.813

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* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	39991	3.866
93) 1,1,2-Trichloroethane	(3)	9.690	97	24859	4.101
94) Tetrachloroethene	(3)	9.763	166	30292	4.212
95) 1,3-Dichloropropane	(3)	9.867	76	41190	4.093
97) 2-Hexanone	(3)	9.946	43	70525	7.829
91) 1,3-Dichloropropene (total)	(3)		100	75097	7.699
98) Dibromochloromethane	(3)	10.093	129	24227	3.777
100) 1,2-Dibromoethane	(3)	10.208	107	26686	3.994
101)*Chlorobenzene-d5	(3)	10.678	117	782414	50.000
103) Chlorobenzene	(3)	10.708	112	77695	4.222
102) 1-Chlorohexane	(3)	10.708	91	41072	4.165
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	25538	4.023
105) Ethylbenzene	(3)	10.812	91	137287	4.188
107) m+p-Xylene	(3)	10.934	106	106522	8.469
108) o-Xylene	(3)	11.281	106	51224	4.161
110) Styrene	(3)	11.300	104	79480	4.006
111) Bromoform	(3)	11.458	173	16572	3.571
112) Isopropylbenzene	(3)	11.604	105	135714	4.201
113) Cyclohexanone	(1)	11.678	55	104529	196.153
115)$4-Bromofluorobenzene	(3)	11.751	95	399475	49.308
115)$4-Bromofluorobenzene	(3)	11.751	174	315416	49.907
109) Xylene (Total)	(3)		106	157746	12.630
116) Bromobenzene	(4)	11.867	156	31836	4.175
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	43128	4.168
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	55180	37.271
118) 1,2,3-Trichloropropane	(4)	11.915	110	12625	4.144
120) n-Propylbenzene	(4)	11.952	91	160284	4.276
121) 2-Chlorotoluene	(4)	12.025	126	31984	4.162
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	109570	4.158
122) 4-Chlorotoluene	(4)	12.123	126	32100	4.135
125) tert-Butylbenzene	(4)	12.348	134	21537M	4.112
126) Pentachloroethane	(4)	12.379	167	17264	4.015
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	112369	4.141
128) sec-Butylbenzene	(4)	12.519	105	139030	4.255
130) 1,3-Dichlorobenzene	(4)	12.610	146	60272	4.202
131) p-Isopropyltoluene	(4)	12.629	119	114197	4.191
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	399968	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	60798	4.177

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	112388	4.314
136) Benzyl Chloride	(4)	12.775	91	72151	3.635
137) 1,3-Diethylbenzene	(4)	12.842	119	67279	4.273
138) 1,4-Diethylbenzene	(4)	12.915	119	70931	4.356
140) n-Butylbenzene	(4)	12.933	92	57583	4.190
139) 1,2-Dichlorobenzene	(4)	12.958	146	57262	4.156
141) 1,2-Diethylbenzene	(4)	12.988	119	57341	4.307
142) Diethylbenzene (total)	(4)		100	195551	12.936
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	9836	3.765
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	36830	4.047
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	35023	4.097
148) Hexachlorobutadiene	(4)	14.165	225	13270	4.036
149) Naphthalene	(4)	14.262	128	138750	4.099
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	34713	4.103
151) 2-Methylnaphthalene	(4)	15.012	142	67881	3.859

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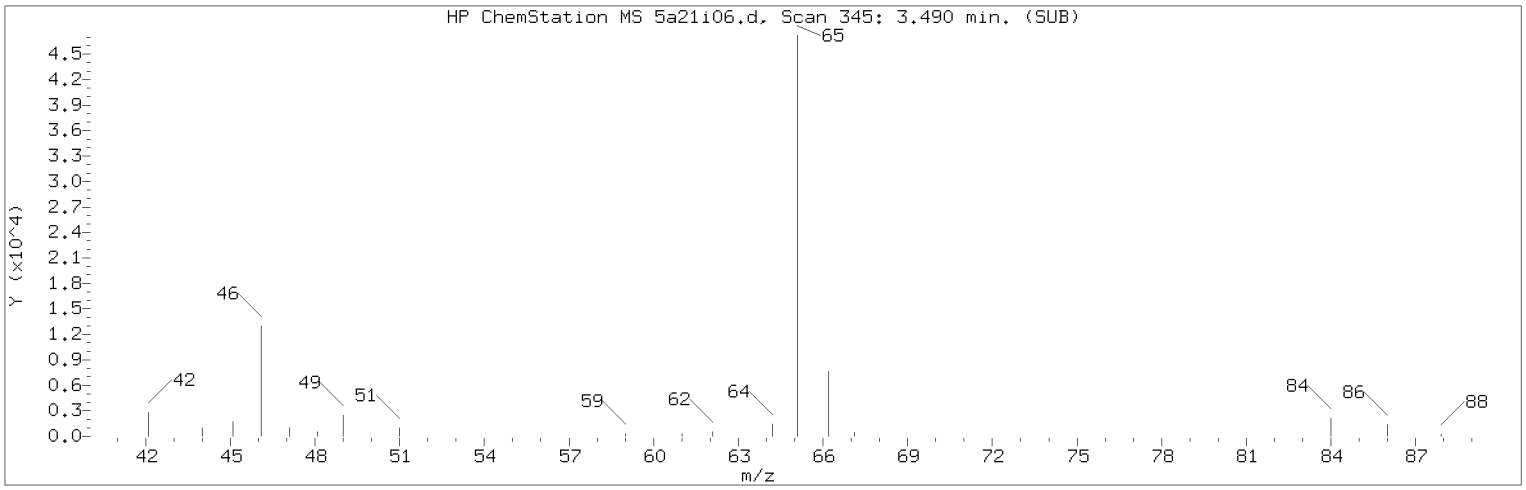
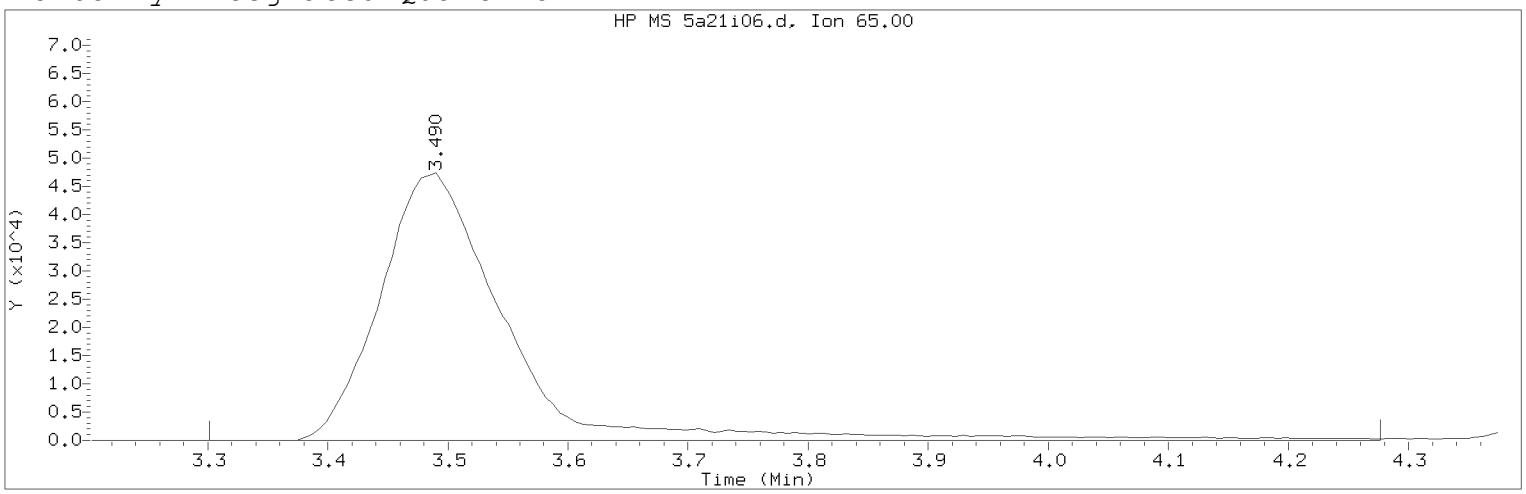
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

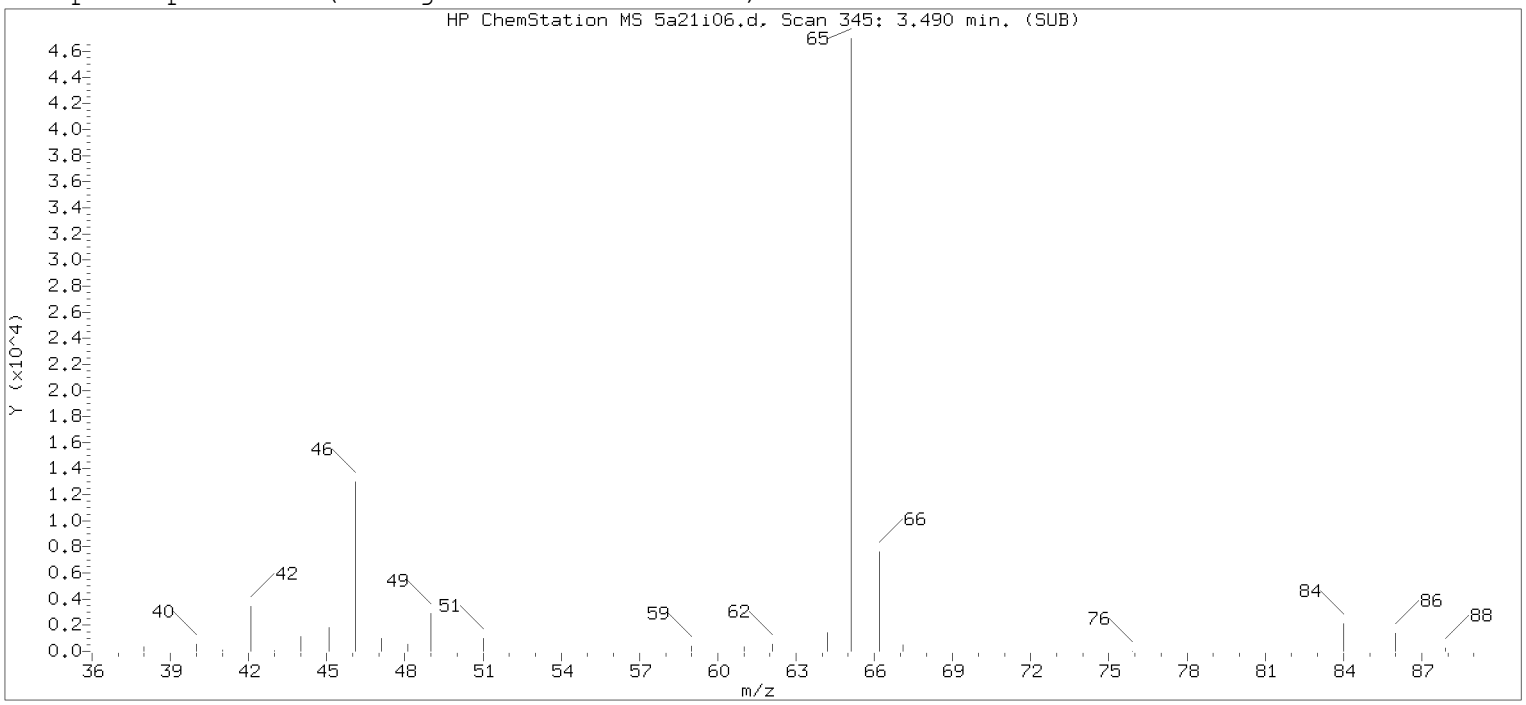
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 345244M
On-Column Amount (ng) : 250.0000
Integration start scan : 313 Integration stop scan: 473
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

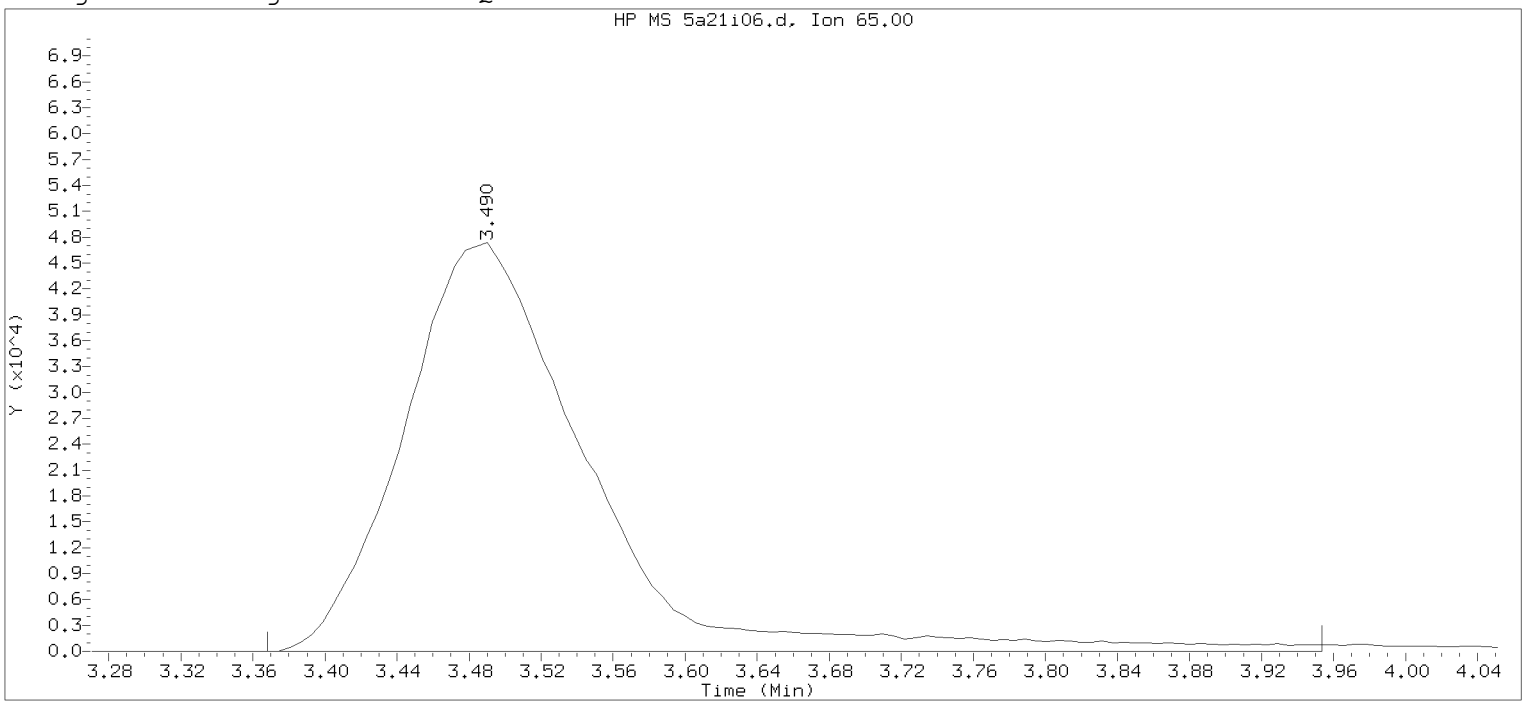
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

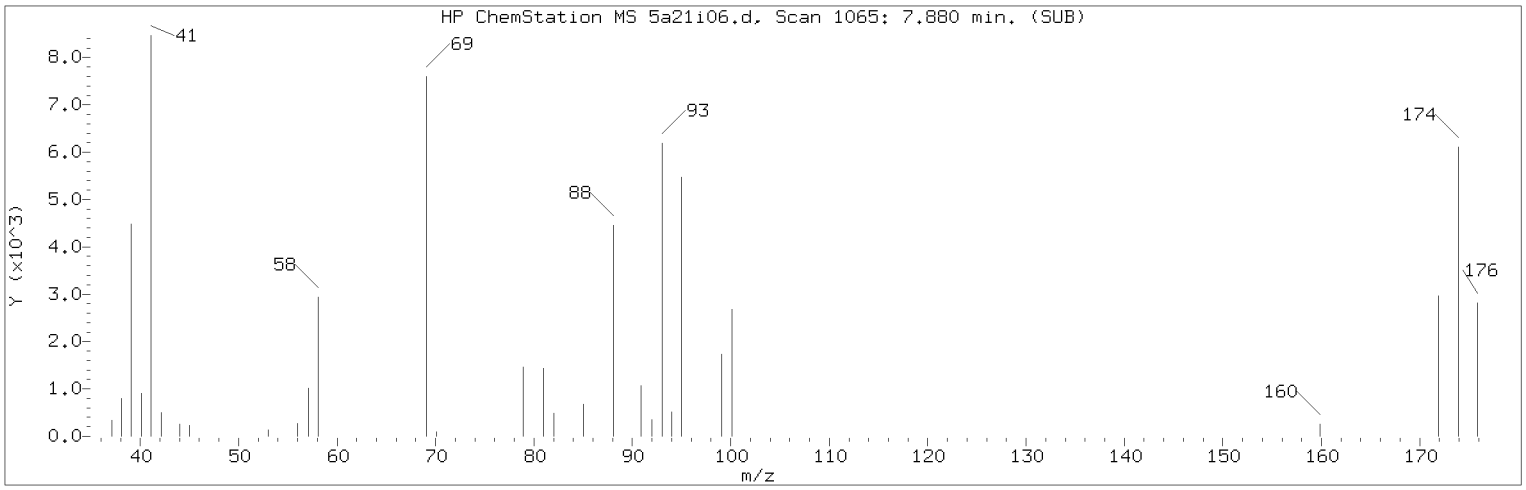
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

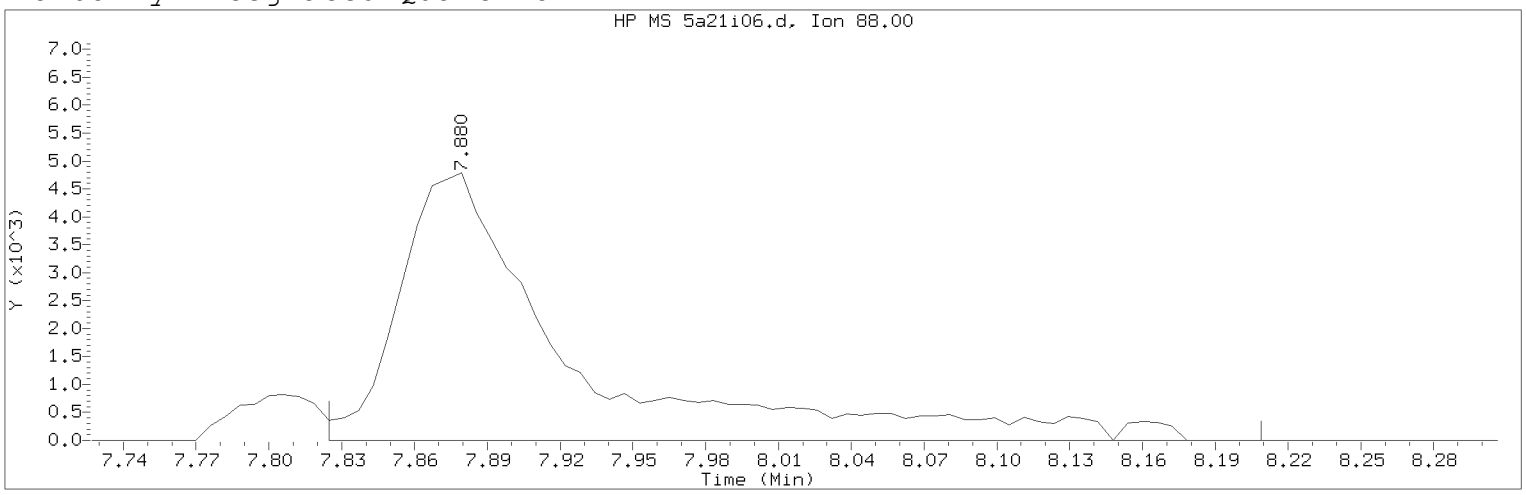
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 335904
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

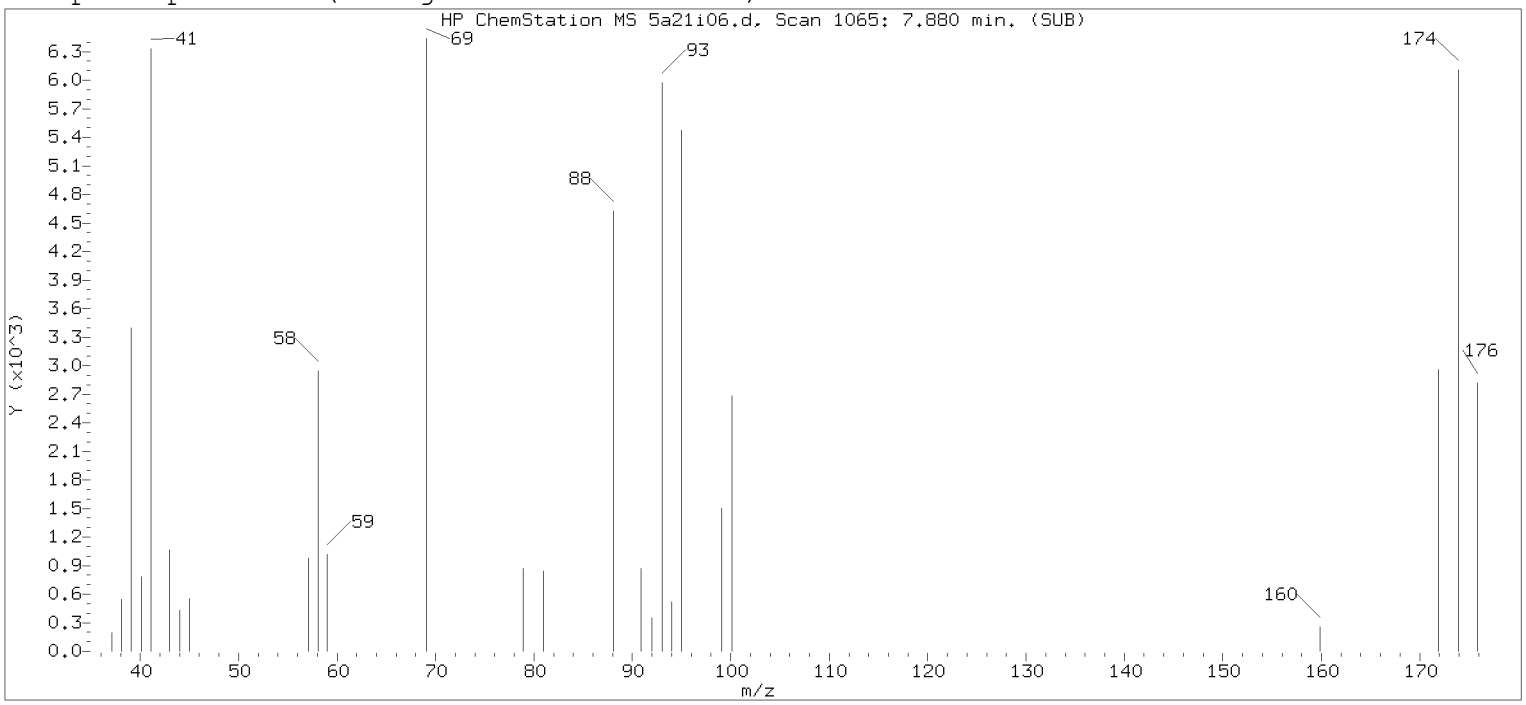
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area (flag) : 23612M
On-Column Amount (ng) : 203.5210
Integration start scan : 1055 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

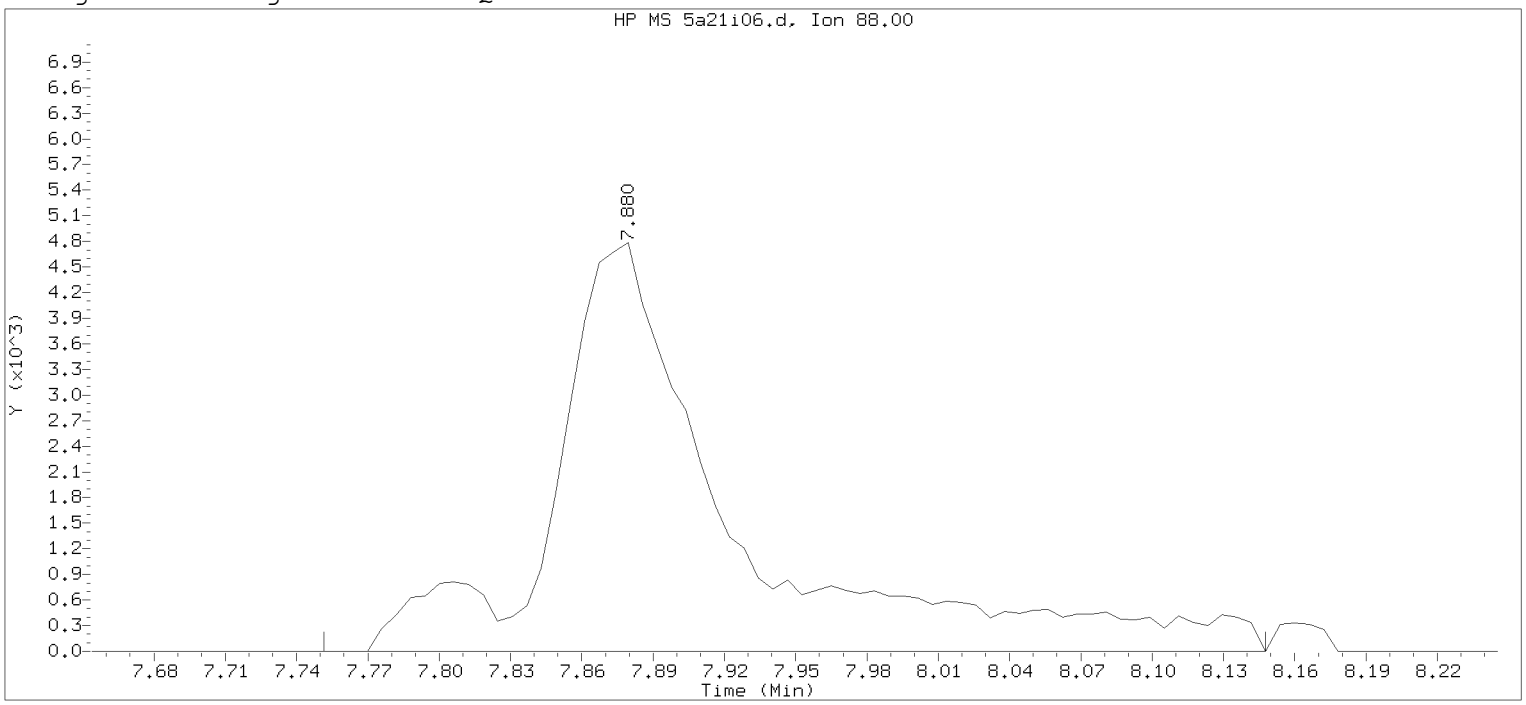
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

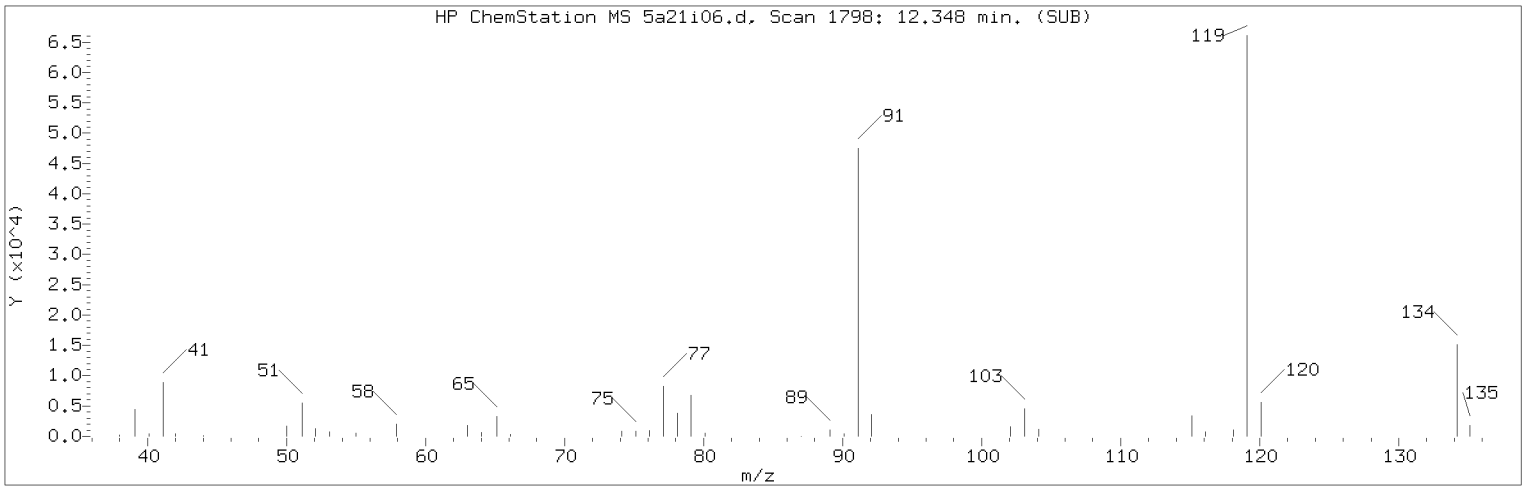
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

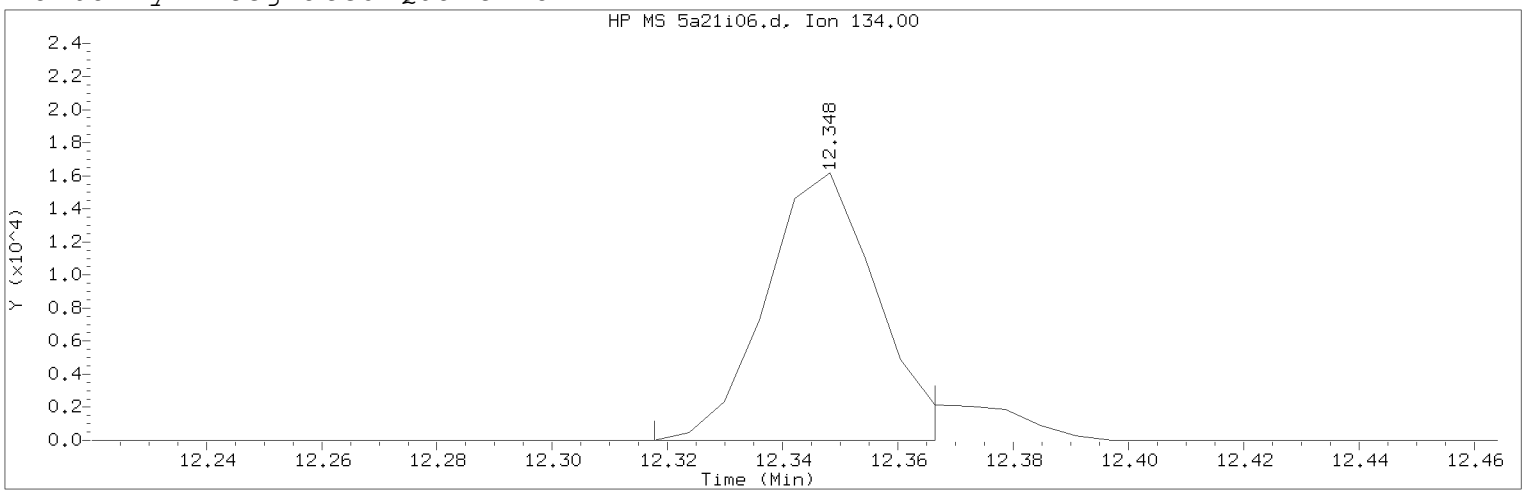
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area : 25003
On-column Amount (ng) : 181.7905
Integration start scan : 1043 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

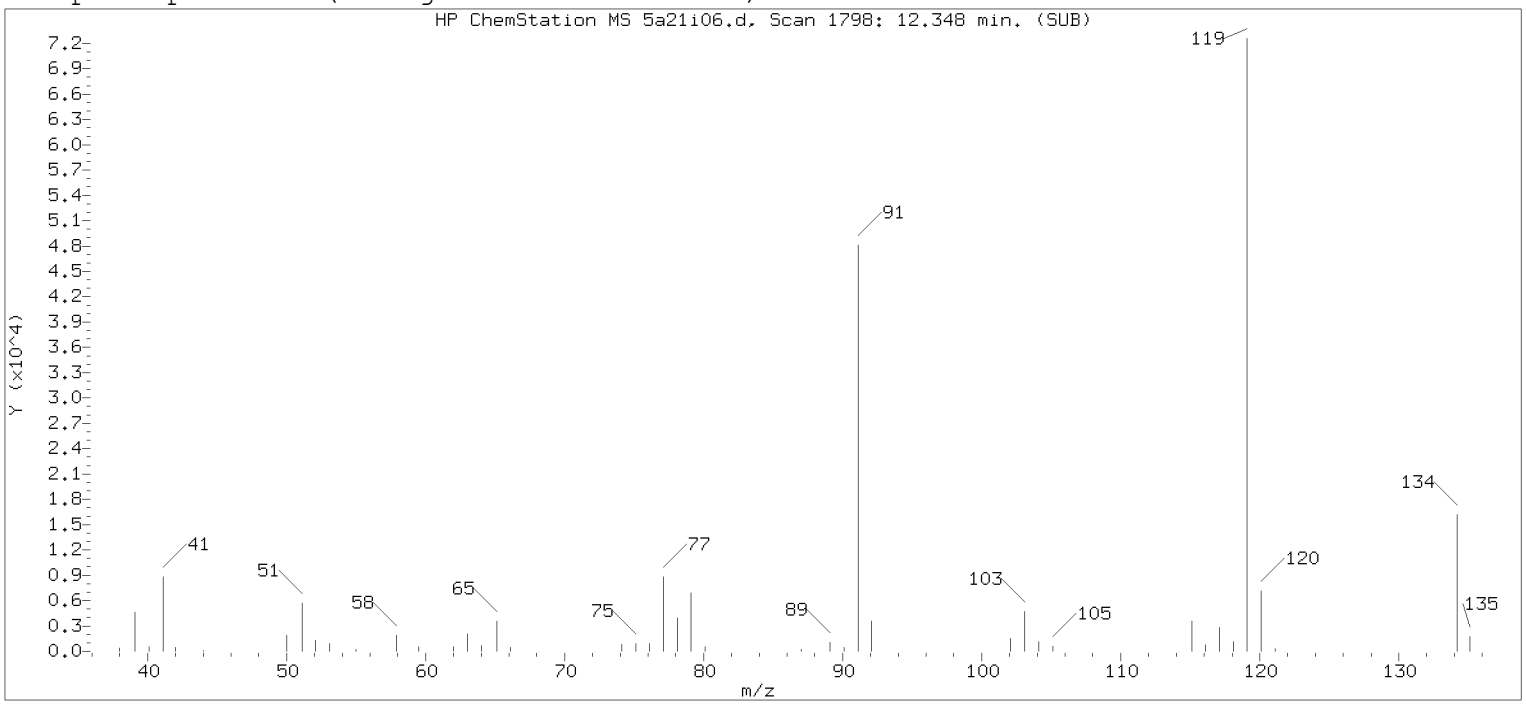
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 21537M
On-Column Amount (ng) : 4.1121
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

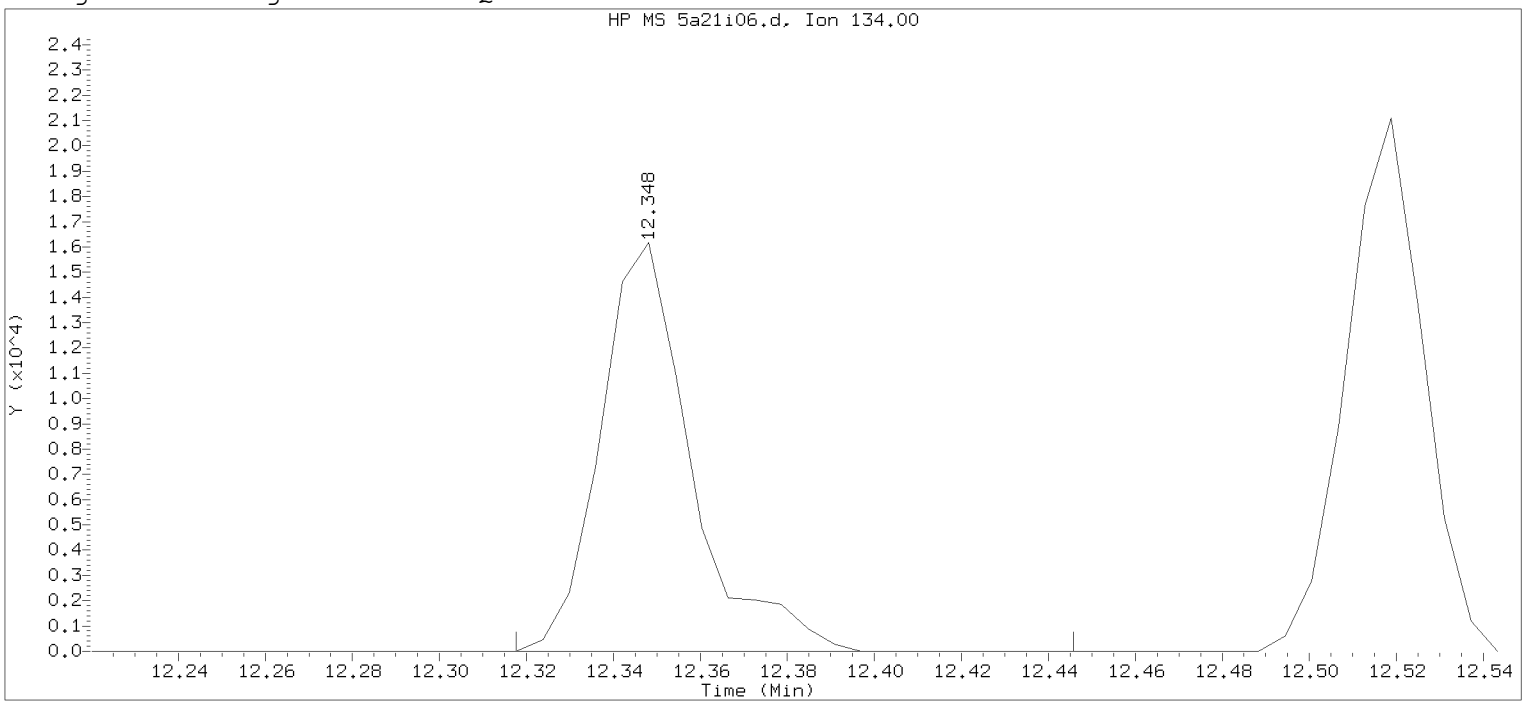
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



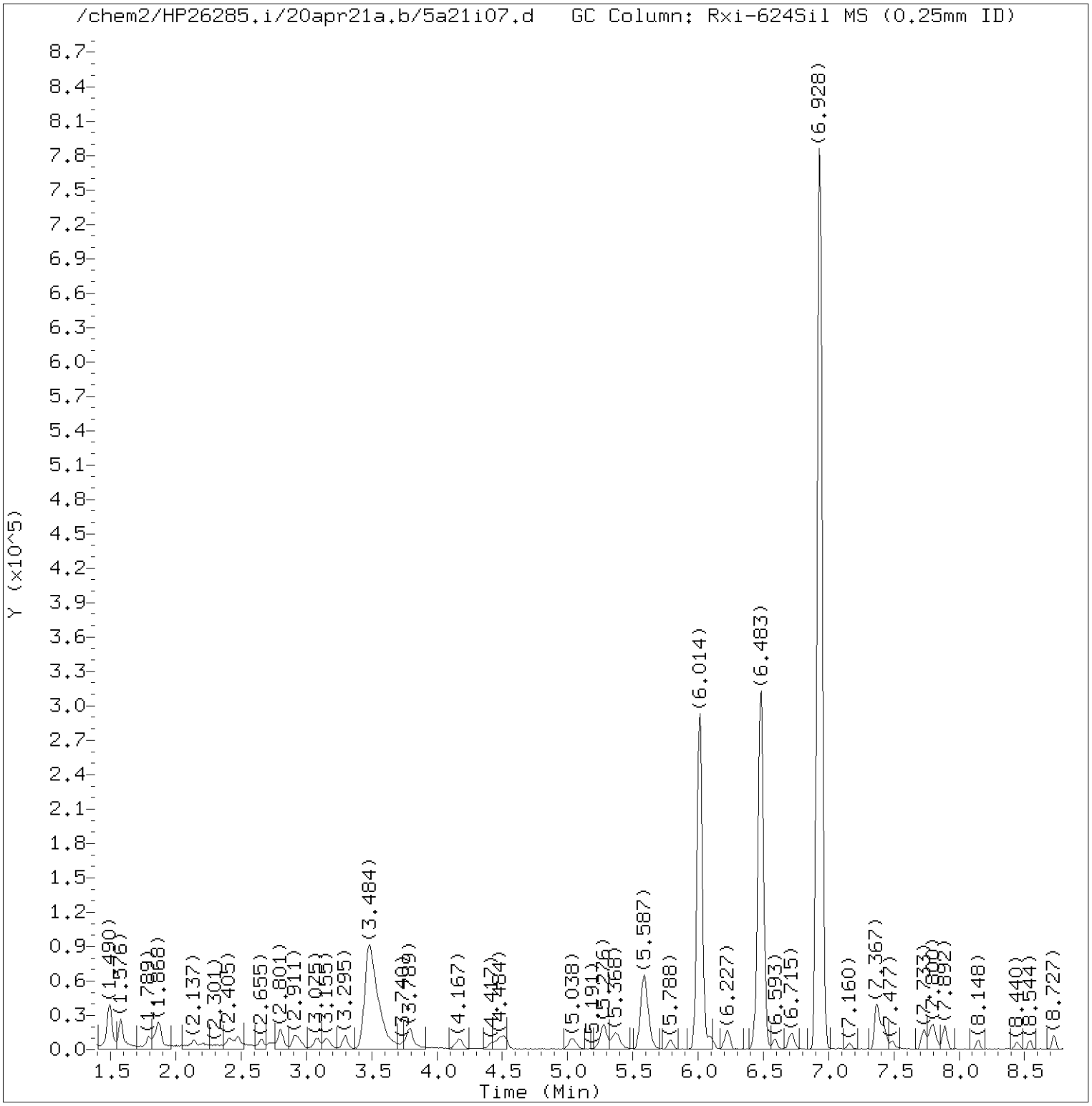
Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 23385
On-column Amount (ng) : 4.1298
Integration start scan : 1792 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

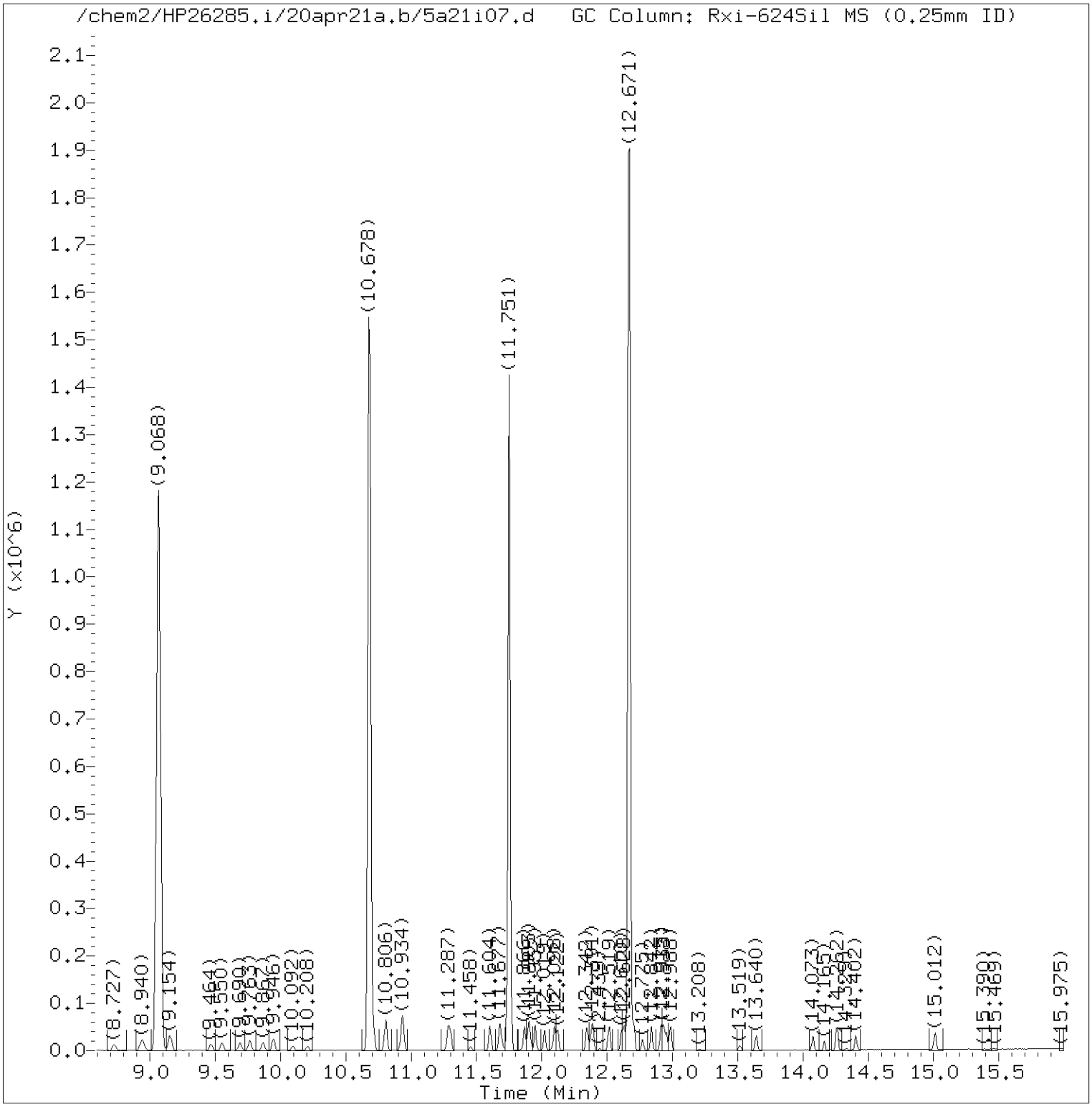
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	6939	0.803
4) Chloromethane	(2)	1.789	50	6579M	0.953
5) 1,3-Butadiene	(2)	1.868	39	16377	1.718
6) Vinyl Chloride	(2)	1.874	62	5527	0.911
8) Bromomethane	(2)	2.137	94	3884	0.954
9) Chloroethane	(2)	2.204	64	2509	0.874
10) Dichlorofluoromethane	(2)	2.411	67	9178	0.981
12) Trichlorofluoromethane	(2)	2.448	101	6287	0.846
11) n-Pentane	(2)	2.478	43	8231	1.190
14) Ethyl ether	(2)	2.655	59	4749	0.927
15) Freon 123a	(2)	2.734	67	7167	0.924
16) Acrolein	(1)	2.801	56	23824	10.408
17) 1,1-Dichloroethene	(2)	2.911	96	5107	0.885
17) 1,1-Dichloroethene	(2)	2.905	63	2264	0.783
19) Freon 113	(2)	2.923	101	5289	0.810
18) Acetone	(1)	2.947	58	1867	1.654
22) Methyl Iodide	(2)	3.075	142	9768	0.888
21) 2-Propanol	(1)	3.088	45	17481	19.028
23) Carbon Disulfide	(2)	3.149	76	18507M	0.912
27) Methyl Acetate	(2)	3.283	43	8546	1.027
25) Allyl Chloride	(2)	3.301	41	8694M	0.900
28) Methylene Chloride	(2)	3.460	84	5897	0.906
29)*t-Butyl alcohol-d10	(1)	3.484	65	361518M	250.000
30) t-Butyl alcohol	(1)	3.600	59	32314M	18.977
31) Acrylonitrile	(2)	3.740	53	3824	0.871
32) trans-1,2-Dichloroethene	(2)	3.789	96	5821	0.901
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	15820M	0.926
34) n-Hexane	(2)	4.179	57	8105	0.846
36) 1,1-Dichloroethane	(2)	4.417	63	10392	0.889
38) di-Isopropyl ether	(2)	4.478	45	19628	0.940
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	8217	0.827
40) Ethyl t-butyl ether	(2)	5.038	59	17658	0.953
44) 2-Butanone	(2)	5.270	43	12857	2.011
42) cis-1,2-Dichloroethene	(2)	5.276	96	6566	0.899
45) 2,2-Dichloropropane	(2)	5.282	77	8837	0.896
47) Propionitrile	(1)	5.368	54	34573	18.651
48) Methacrylonitrile	(2)	5.587	67	40726	9.310
49) Bromochloromethane	(2)	5.618	128	3030	0.906

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	3069	1.832
51) Chloroform	(2)	5.788	83	10429	0.889
53) 1,1,1-Trichloroethane	(2)	6.002	97	8963	0.849
52)$Dibromofluoromethane	(2)	6.014	113	263595	49.579
52)$Dibromofluoromethane	(2)	6.014	111	271166	49.814
54) Cyclohexane	(2)	6.087	56	10506	0.854
54) Cyclohexane	(2)	6.093	84	8610	0.847
54) Cyclohexane	(2)	6.087	69	3054	0.801
43) 1,2-Dichloroethene (Total)	(2)		96	12387	1.800
56) Carbon Tetrachloride	(2)	6.215	117	7571	0.822
55) 1,1-Dichloropropene	(2)	6.227	75	8354	0.874
58) Isobutyl Alcohol	(1)	6.453	41	26237M	46.225
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59481	50.022
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291006	50.056
57)$1,2-Dichloroethane-d4	(2)	6.483	104	38189	50.158
60) Benzene	(2)	6.502	78	25751	0.906
61) 1,2-Dichloroethane	(2)	6.587	62	9219	1.056
61) 1,2-Dichloroethane	(2)	6.587	98	434	0.588
65) t-Amyl methyl ether	(2)	6.721	73	17424	0.942
66)*Fluorobenzene	(2)	6.928	96	1067423	50.000
67) n-Heptane	(2)	6.953	43	8854	0.957
69) n-Butanol	(1)	7.367	56	41924	85.600
71) Trichloroethene	(2)	7.422	95	6720	0.901
73) Methylcyclohexane	(2)	7.727	83	10354	0.873
73) Methylcyclohexane	(2)	7.733	98	4274	0.851
74) 1,2-Dichloropropane	(2)	7.770	63	6360	0.893
76) 1,4-Dioxane	(1)	7.879	88	4070	33.502
77) Methyl Methacrylate	(2)	7.892	69	5680	0.853
75) Dibromomethane	(2)	7.892	93	3930	0.877
79) Bromodichloromethane	(2)	8.148	83	7143	0.822
80) 2-Nitropropane	(2)	8.440	41	5190	1.724
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	4703	0.854
82) cis-1,3-Dichloropropene	(2)	8.727	75	8961	0.816
83) 4-Methyl-2-pentanone	(2)	8.940	43	21641	1.756
84)$Toluene-d8	(3)	9.068	98	1019435	50.910
84)$Toluene-d8	(3)	9.068	100	669873	50.807
89) Toluene	(3)	9.154	92	16283	0.922
90) trans-1,3-Dichloropropene	(3)	9.471	75	7617	0.804

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	9087	0.844
93) 1,1,2-Trichloroethane	(3)	9.690	97	5773	0.915
94) Tetrachloroethene	(3)	9.763	166	6696	0.894
95) 1,3-Dichloropropane	(3)	9.867	76	9729	0.928
97) 2-Hexanone	(3)	9.946	43	16333	1.741
91) 1,3-Dichloropropene (total)	(3)		100	16578	1.620
98) Dibromochloromethane	(3)	10.098	129	5234	0.784
100) 1,2-Dibromoethane	(3)	10.208	107	6141	0.882
101)*Chlorobenzene-d5	(3)	10.678	117	814804	50.000
103) Chlorobenzene	(3)	10.708	112	18102	0.945
102) 1-Chlorohexane	(3)	10.708	91	10207	0.994
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	5579	0.844
105) Ethylbenzene	(3)	10.806	91	30747	0.901
107) m+p-Xylene	(3)	10.934	106	24189	1.847
108) o-Xylene	(3)	11.281	106	11654	0.909
110) Styrene	(3)	11.299	104	16925	0.819
111) Bromoform	(3)	11.458	173	3302	0.683
112) Isopropylbenzene	(3)	11.604	105	30197	0.898
113) Cyclohexanone	(1)	11.677	55	24191M	43.352
115)$4-Bromofluorobenzene	(3)	11.751	95	419145	49.679
115)$4-Bromofluorobenzene	(3)	11.751	174	328326	49.885
109) Xylene (Total)	(3)		106	35843	2.756
116) Bromobenzene	(4)	11.866	156	7456	0.929
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	9543	0.876
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	9462	17.513
118) 1,2,3-Trichloropropane	(4)	11.915	110	3041	0.949
120) n-Propylbenzene	(4)	11.952	91	34829	0.883
121) 2-Chlorotoluene	(4)	12.025	126	7317	0.905
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	24086	0.869
122) 4-Chlorotoluene	(4)	12.122	126	7265	0.889
125) tert-Butylbenzene	(4)	12.348	134	4987M	0.905
126) Pentachloroethane	(4)	12.372	167	3489	0.771
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	24828	0.869
128) sec-Butylbenzene	(4)	12.519	105	30653	0.892
130) 1,3-Dichlorobenzene	(4)	12.610	146	14042	0.930
131) p-Isopropyltoluene	(4)	12.628	119	24633	0.859
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	420878	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	14739	0.962

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	24915	0.909
136) Benzyl Chloride	(4)	12.775	91	14578	0.698
137) 1,3-Diethylbenzene	(4)	12.842	119	14145	0.854
138) 1,4-Diethylbenzene	(4)	12.915	119	14603	0.852
140) n-Butylbenzene	(4)	12.933	92	12995M	0.899
139) 1,2-Dichlorobenzene	(4)	12.958	146	13657	0.942
141) 1,2-Diethylbenzene	(4)	12.988	119	12587	0.898
142) Diethylbenzene (total)	(4)		100	41335	2.604
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	2182	0.794
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	8922	0.932
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	8146	0.906
148) Hexachlorobutadiene	(4)	14.165	225	3137	0.907
149) Naphthalene	(4)	14.262	128	32106	0.901
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	8253	0.927
151) 2-Methylnaphthalene	(4)	15.012	142	14971	0.809

M = Compound was manually integrated.

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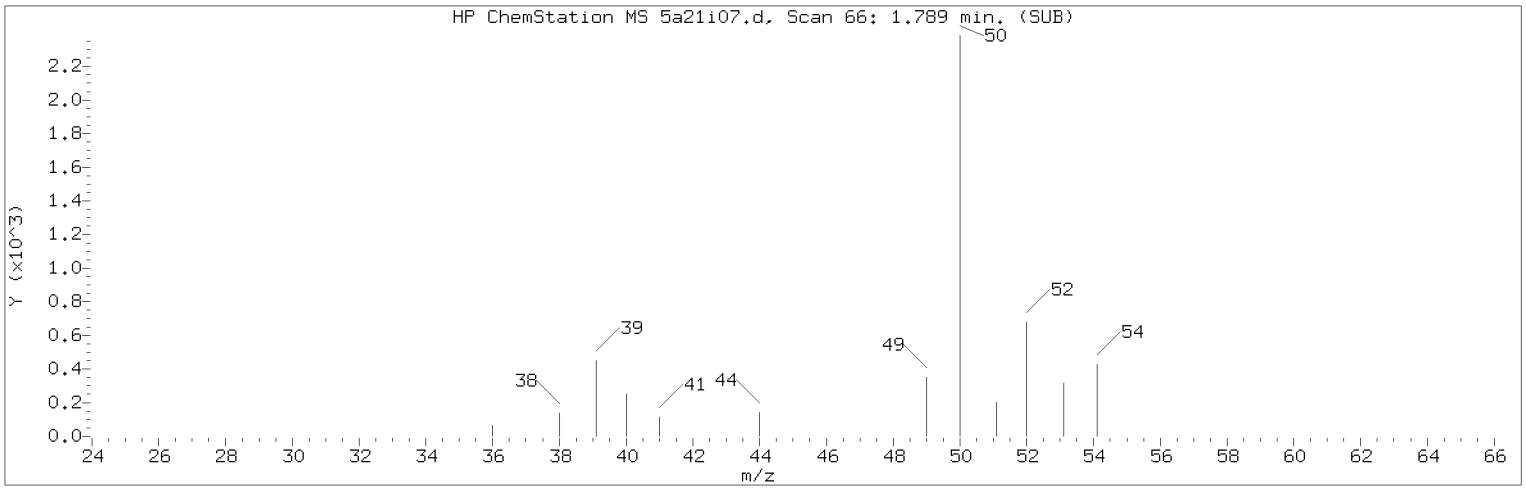
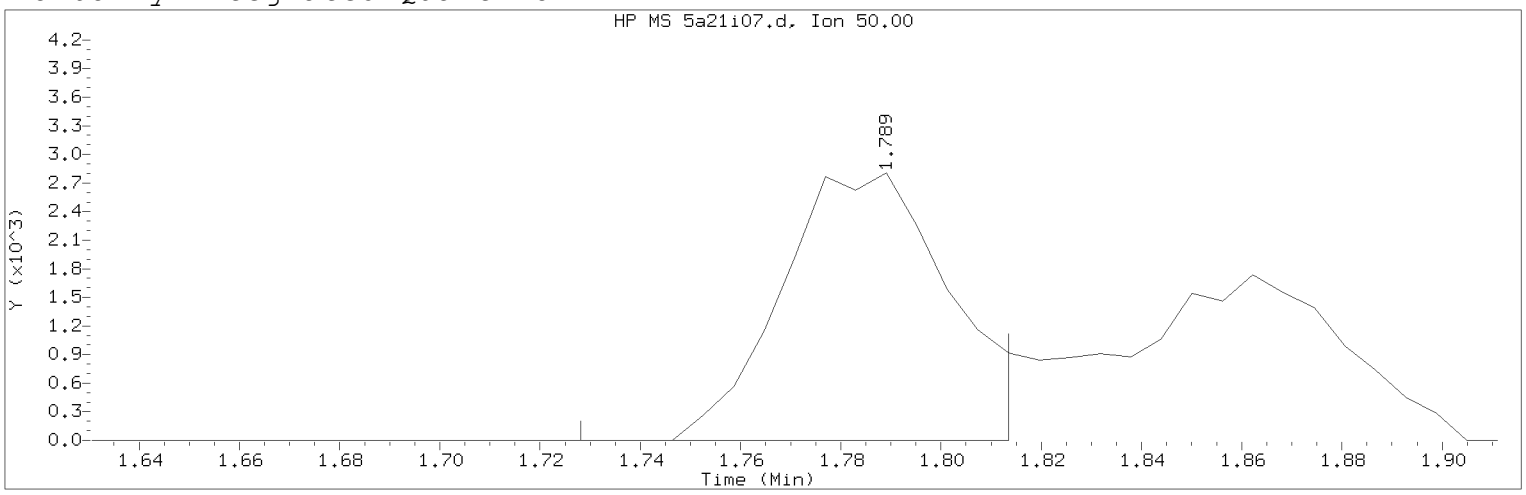
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

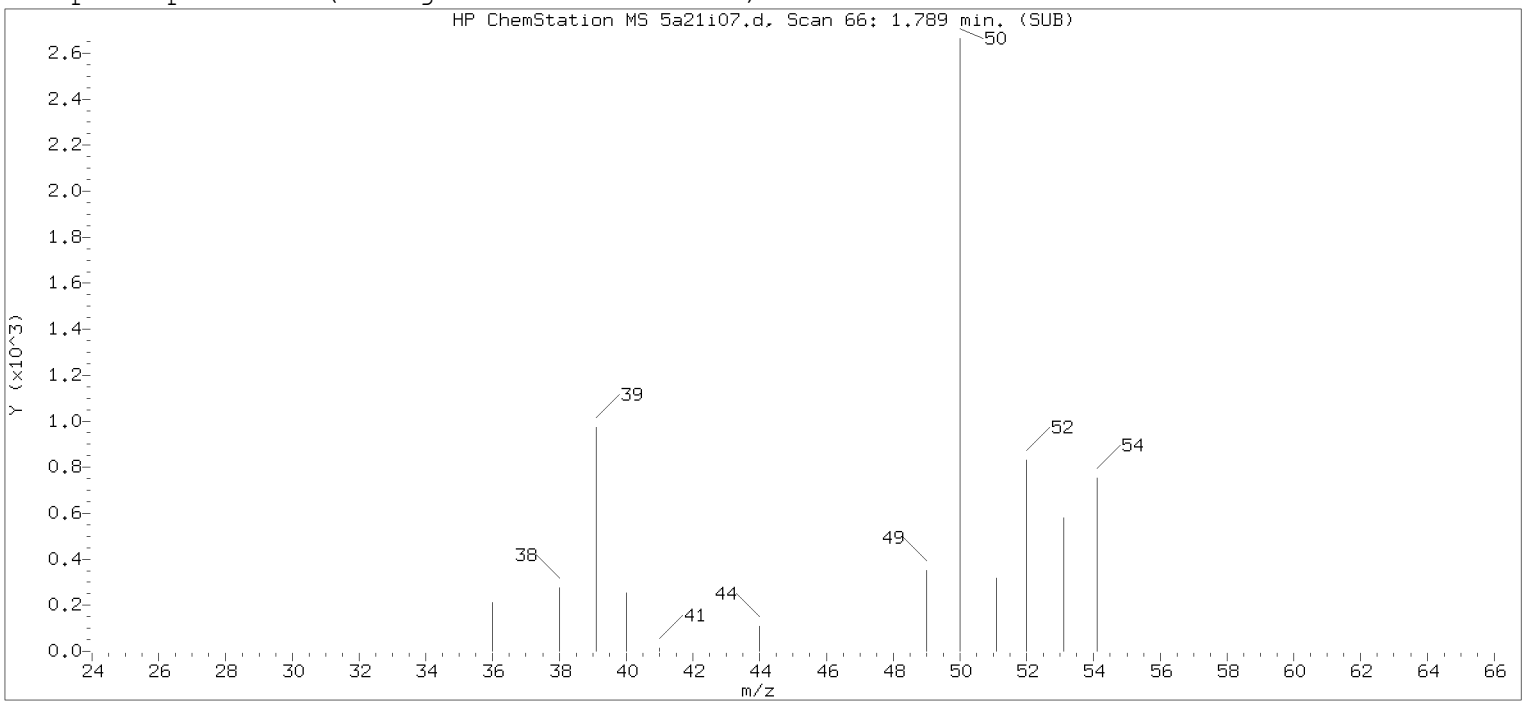
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area (flag) : 6579M
On-Column Amount (ng) : 0.9528
Integration start scan : 55 Integration stop scan: 69
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

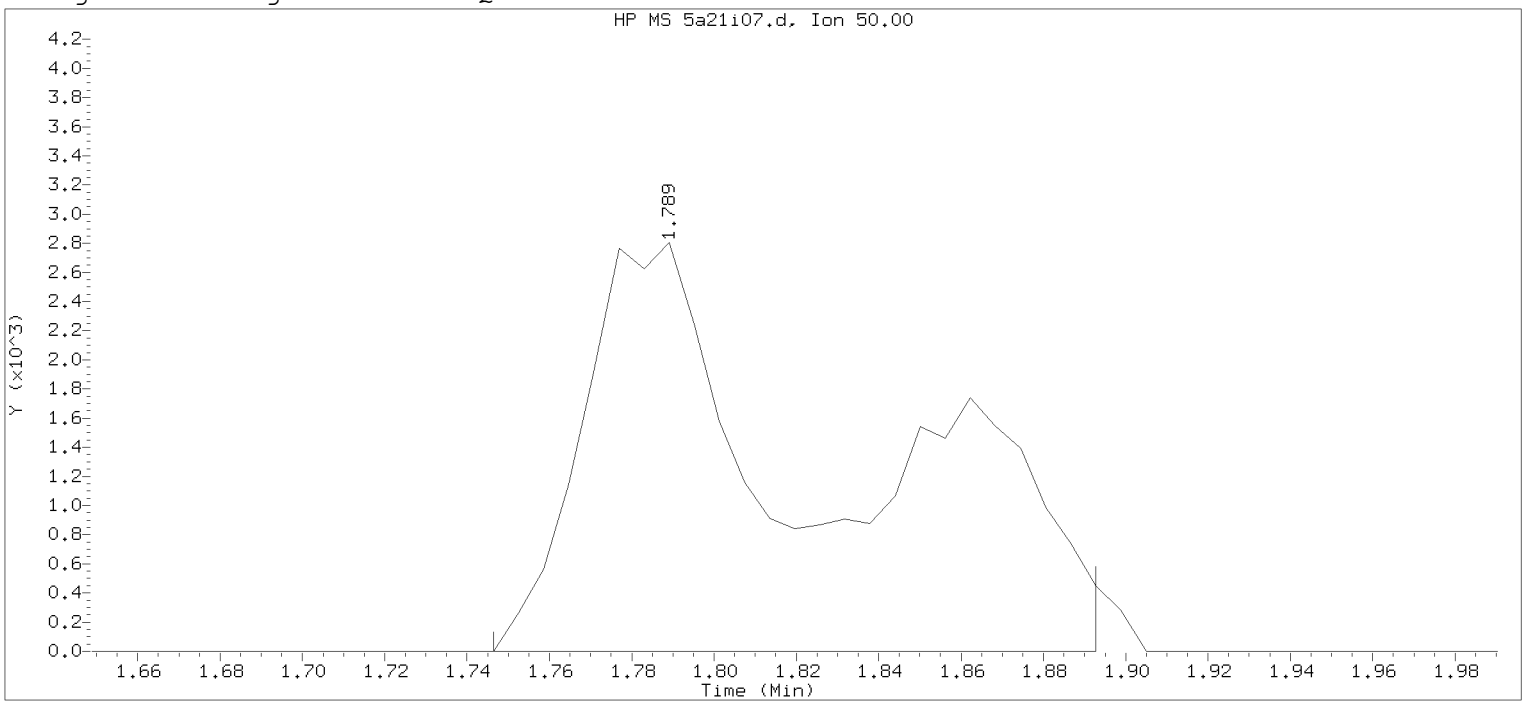
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area : 11768
On-column Amount (ng) : 1.5486
Integration start scan : 58 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

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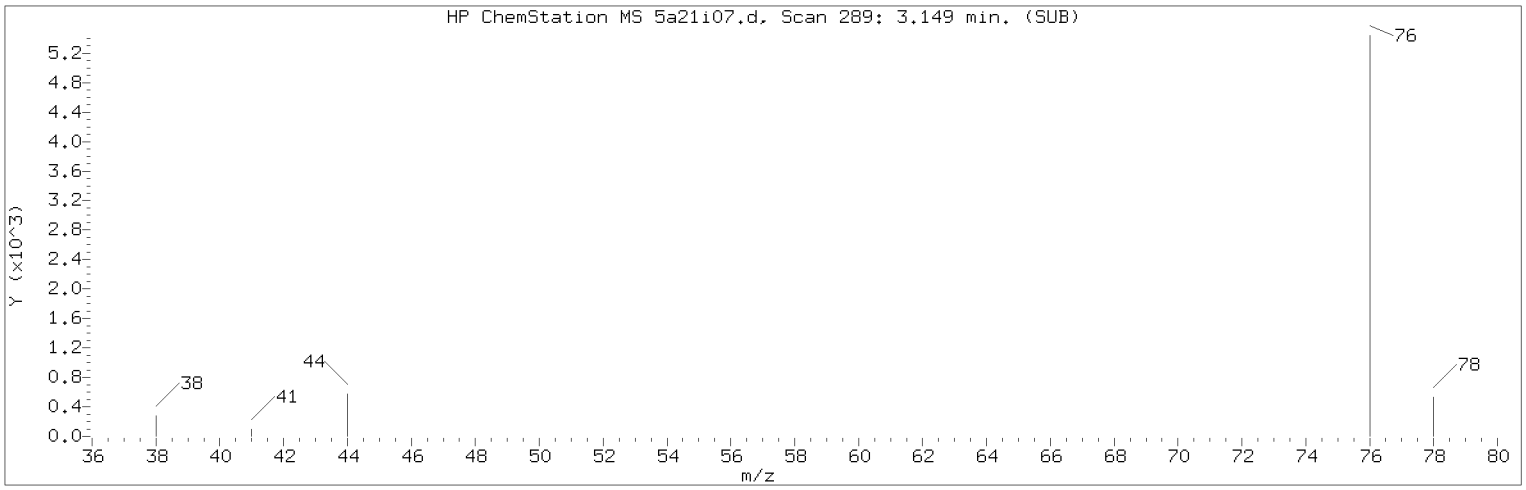
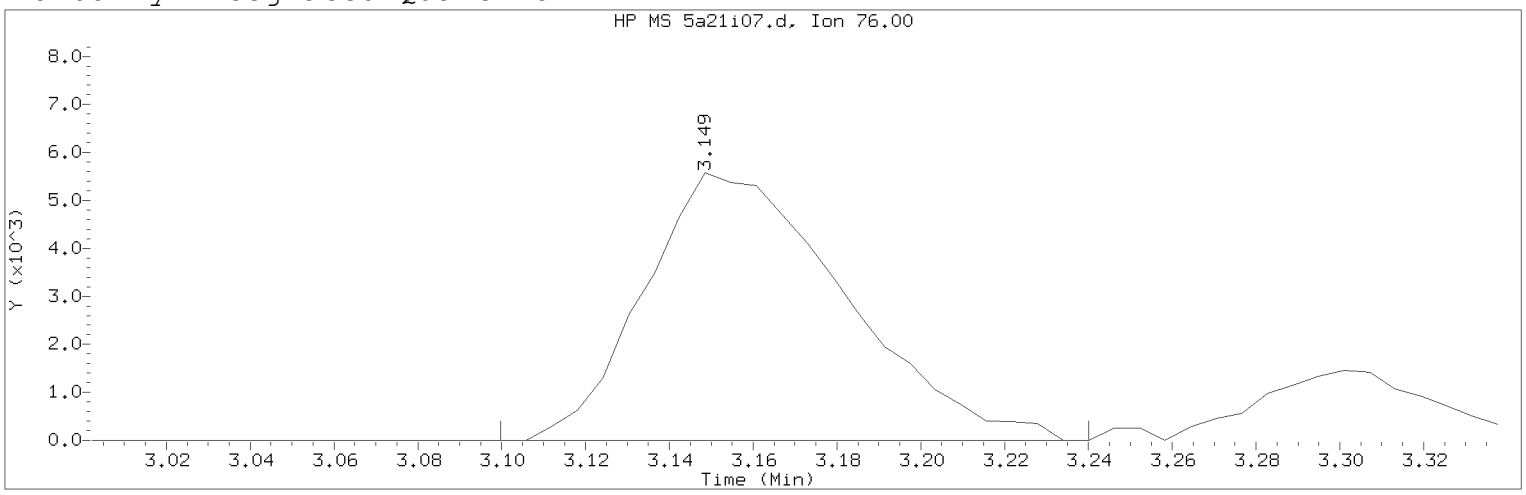
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

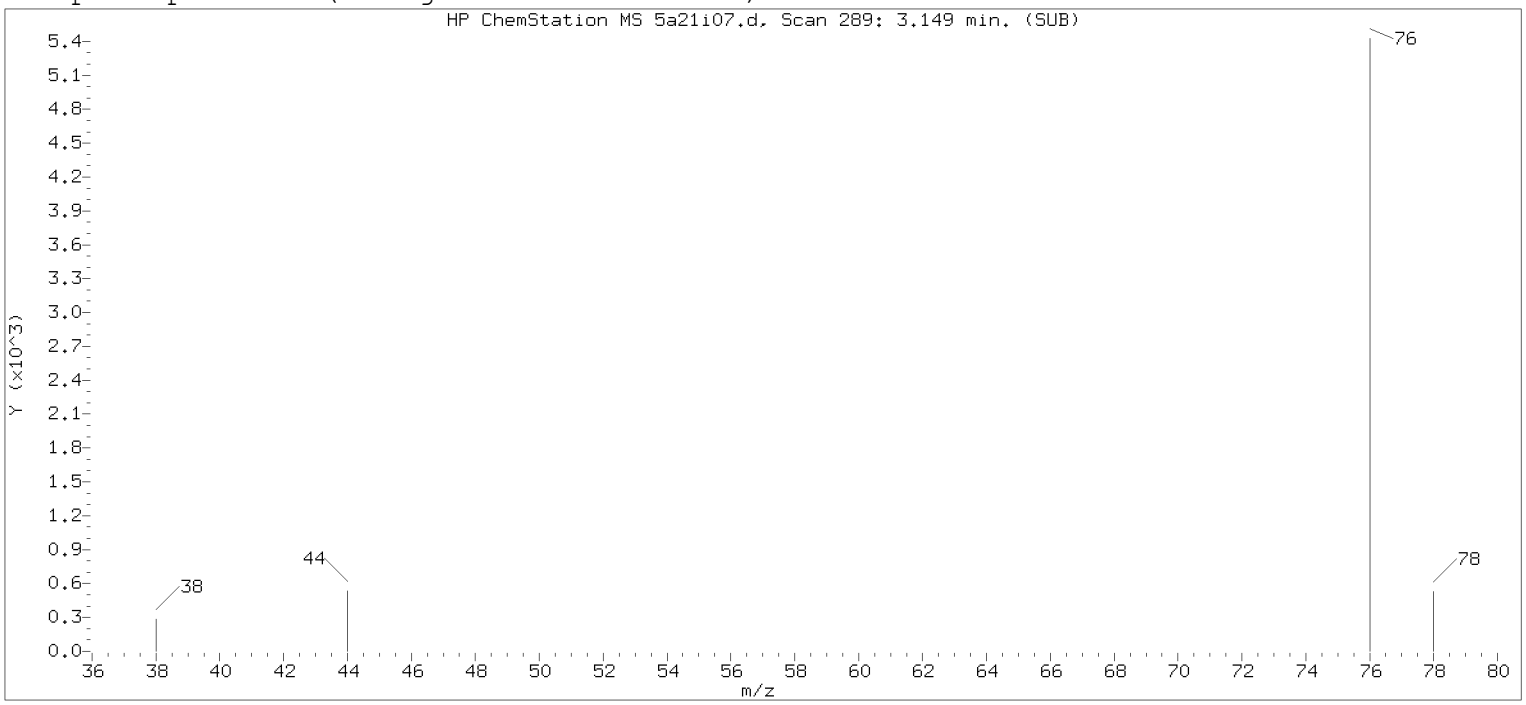
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area (flag) : 18507M
On-Column Amount (ng) : 0.9116
Integration start scan : 280 Integration stop scan: 303
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

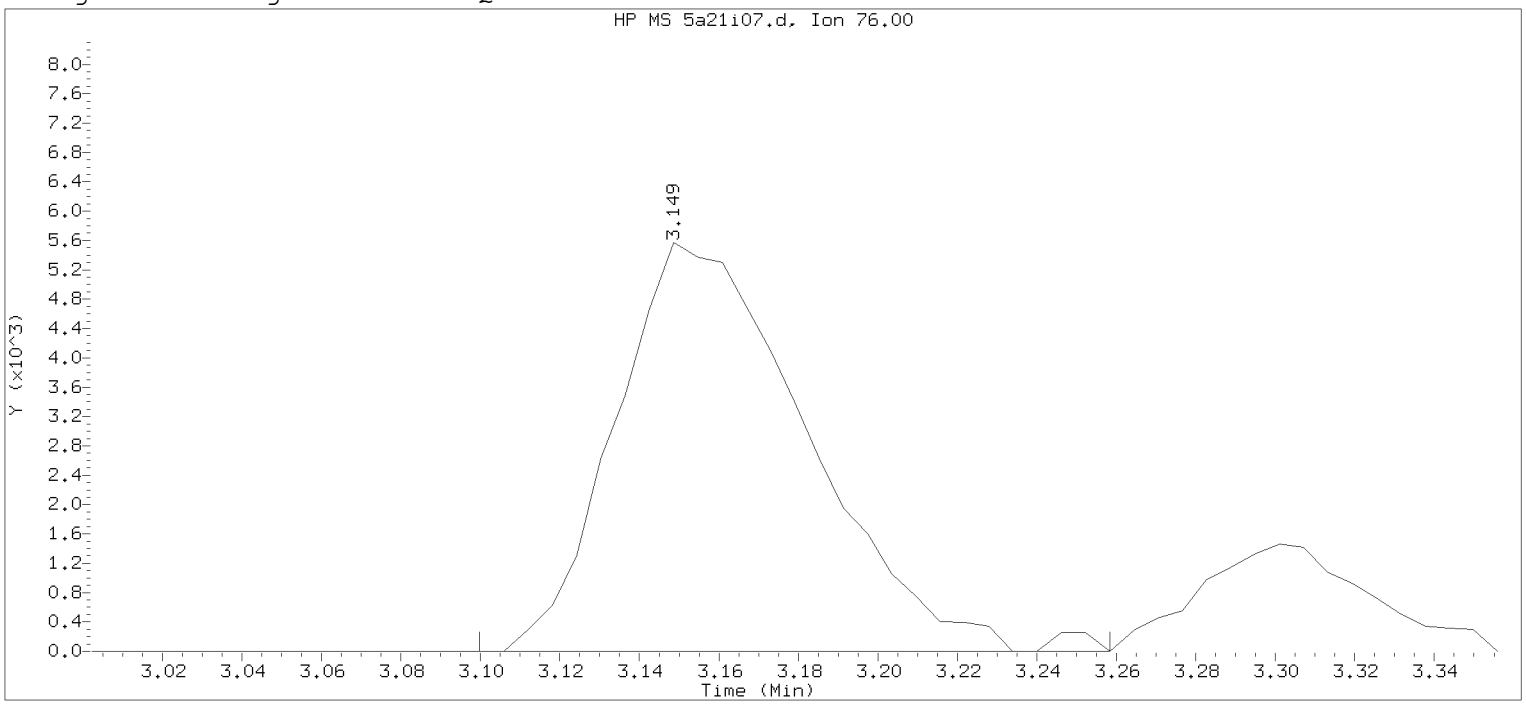
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

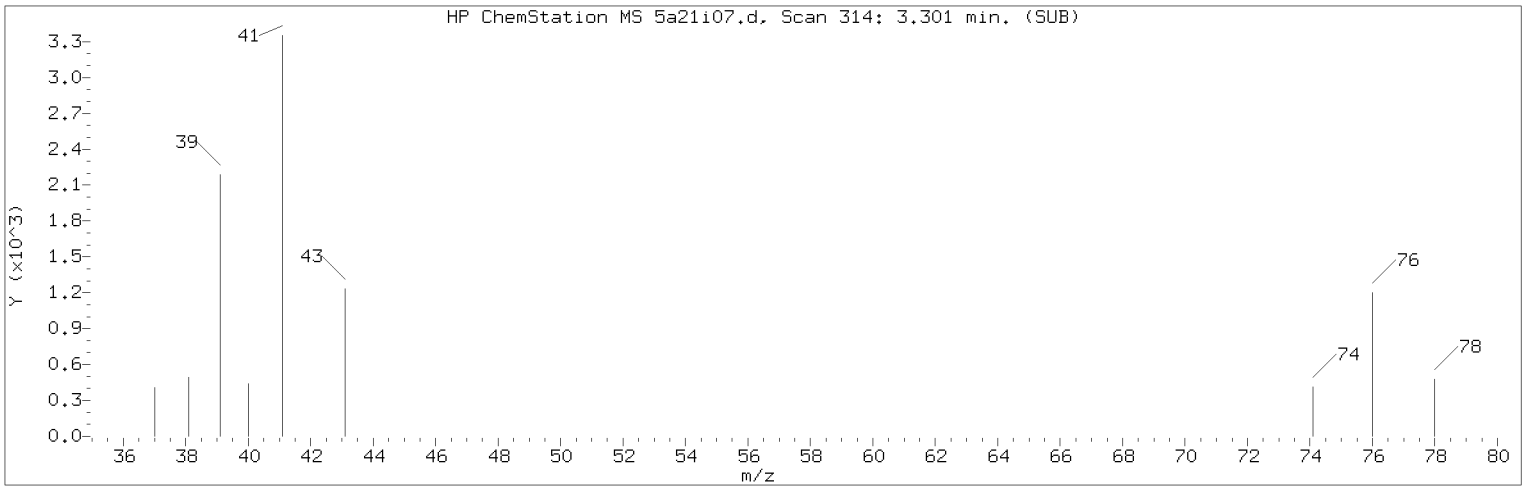
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

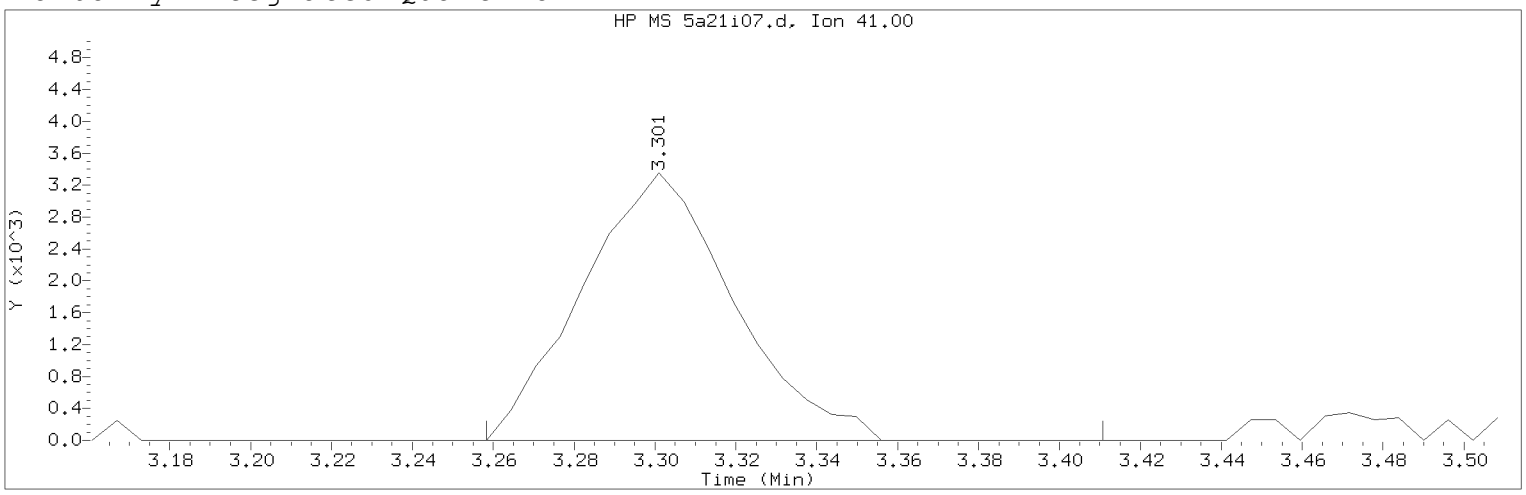
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area : 18694
On-column Amount (ng) : 0.9196
Integration start scan : 280 Integration stop scan: 306
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

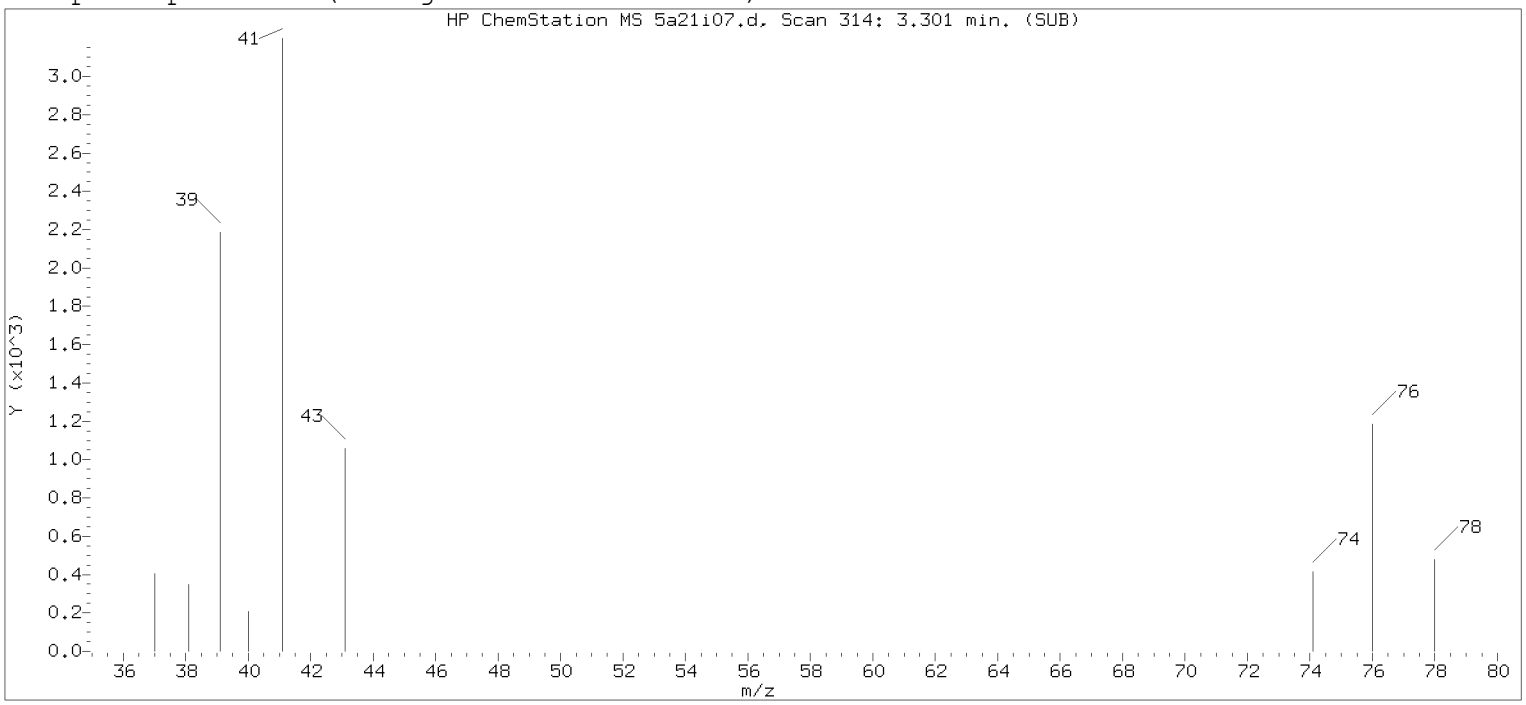
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area (flag) : 8694M
On-Column Amount (ng) : 0.8999
Integration start scan : 306 Integration stop scan: 331
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

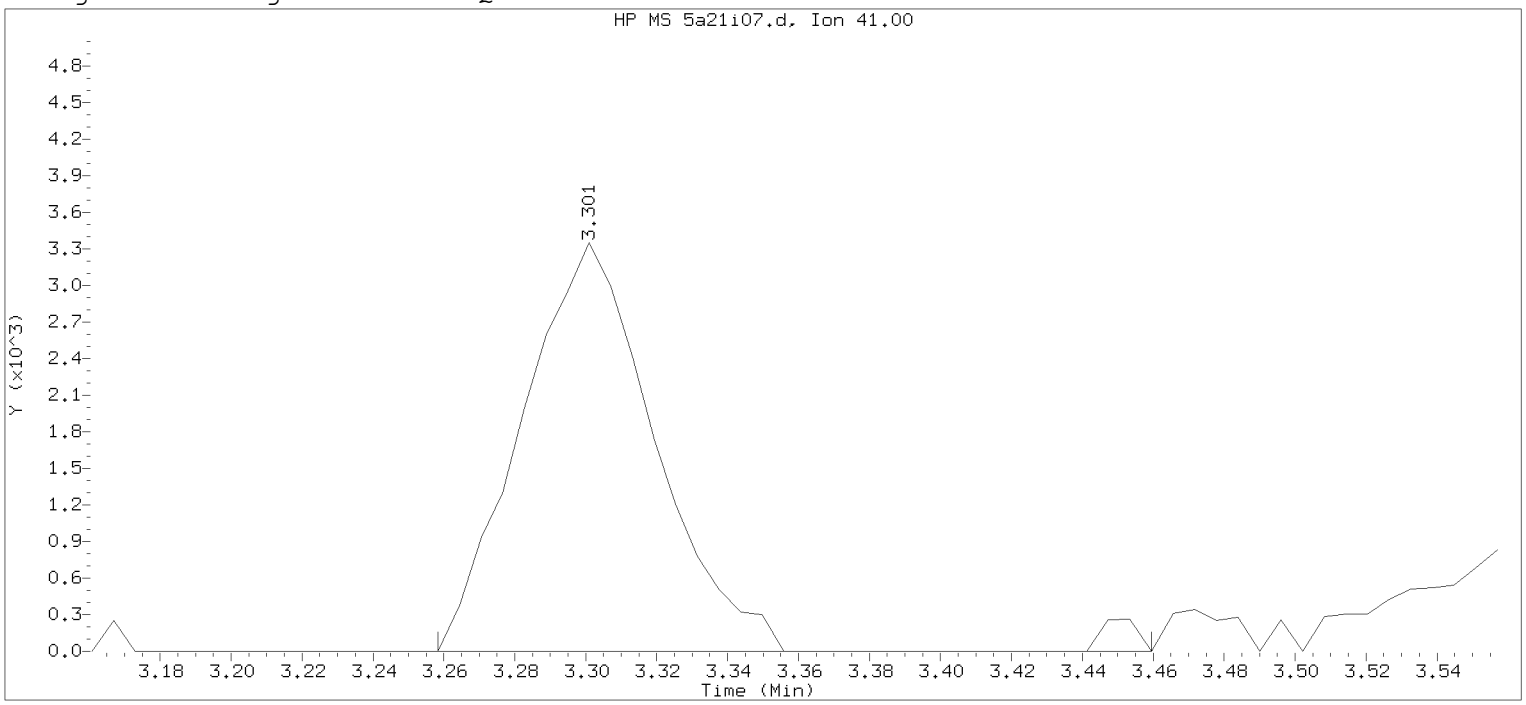
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

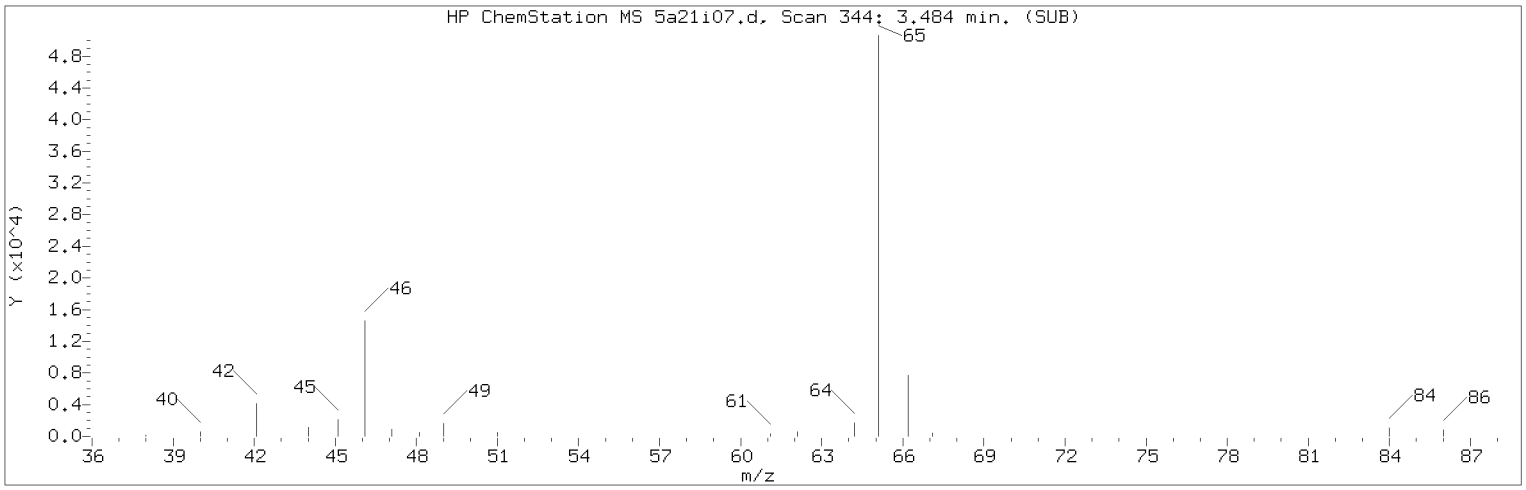
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

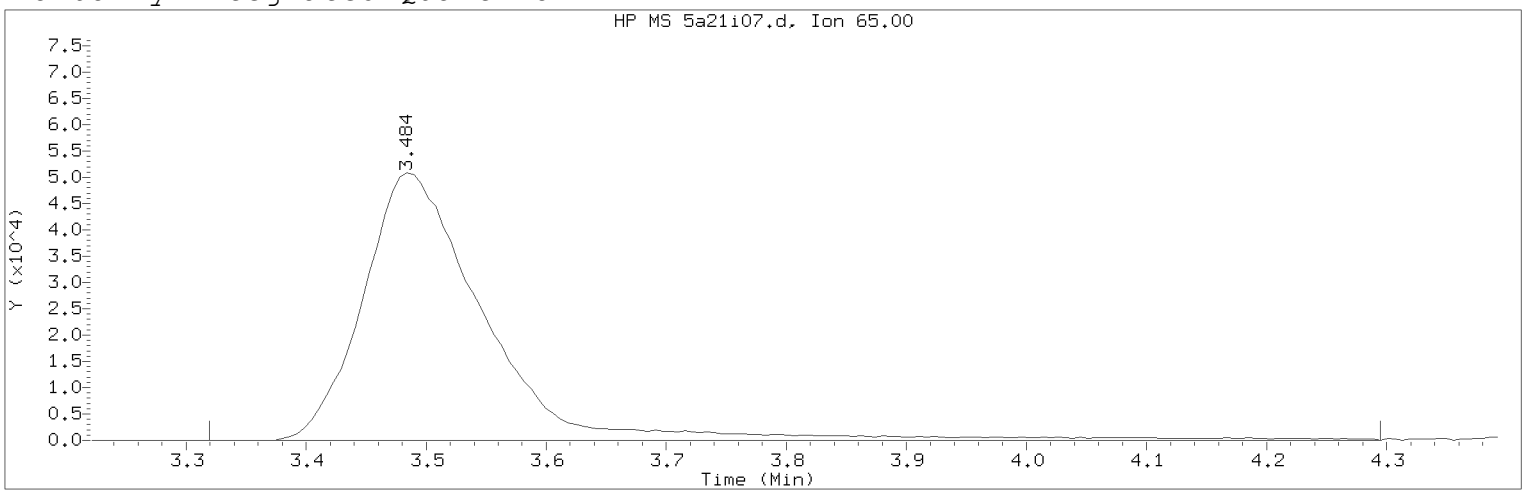
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area : 8884
On-column Amount (ng) : 0.9170
Integration start scan : 306 Integration stop scan: 339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

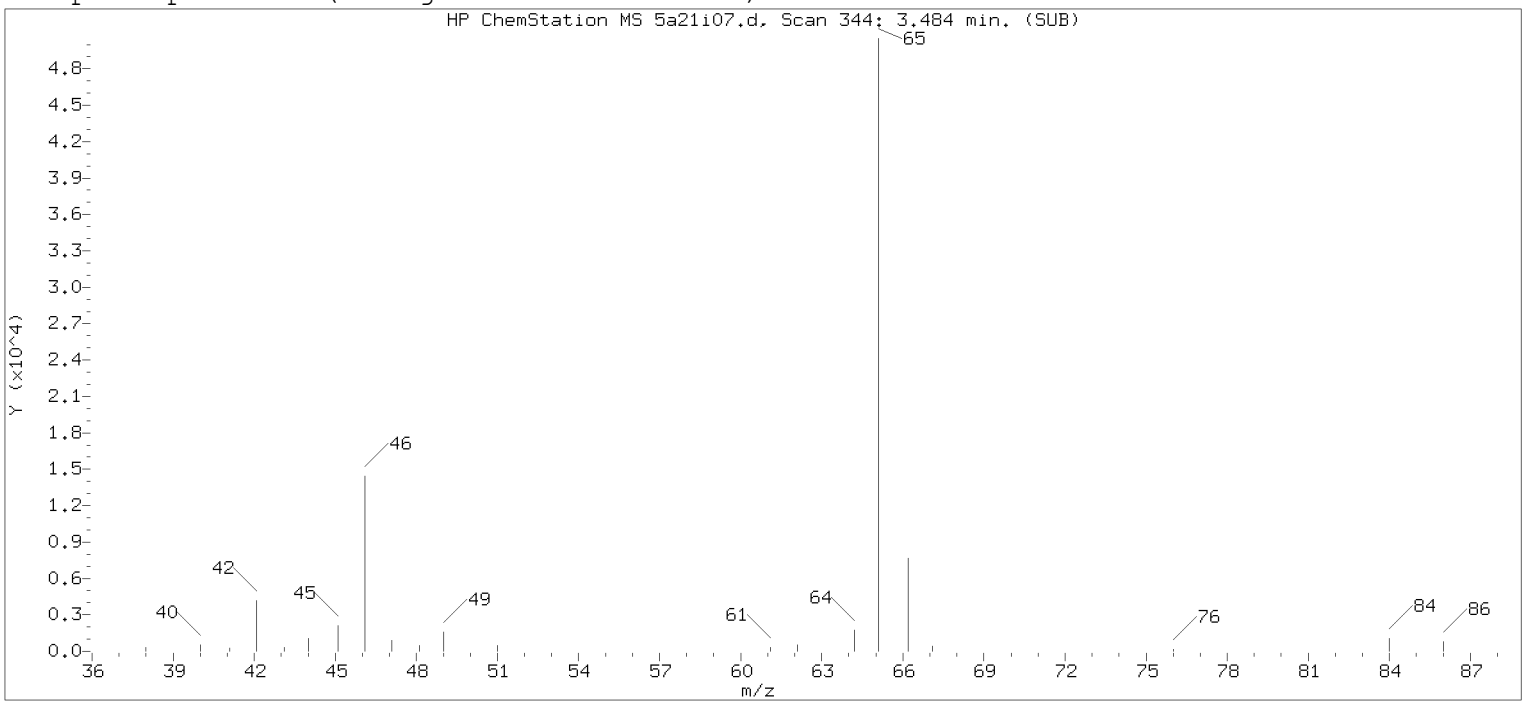
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 361518M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 476
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

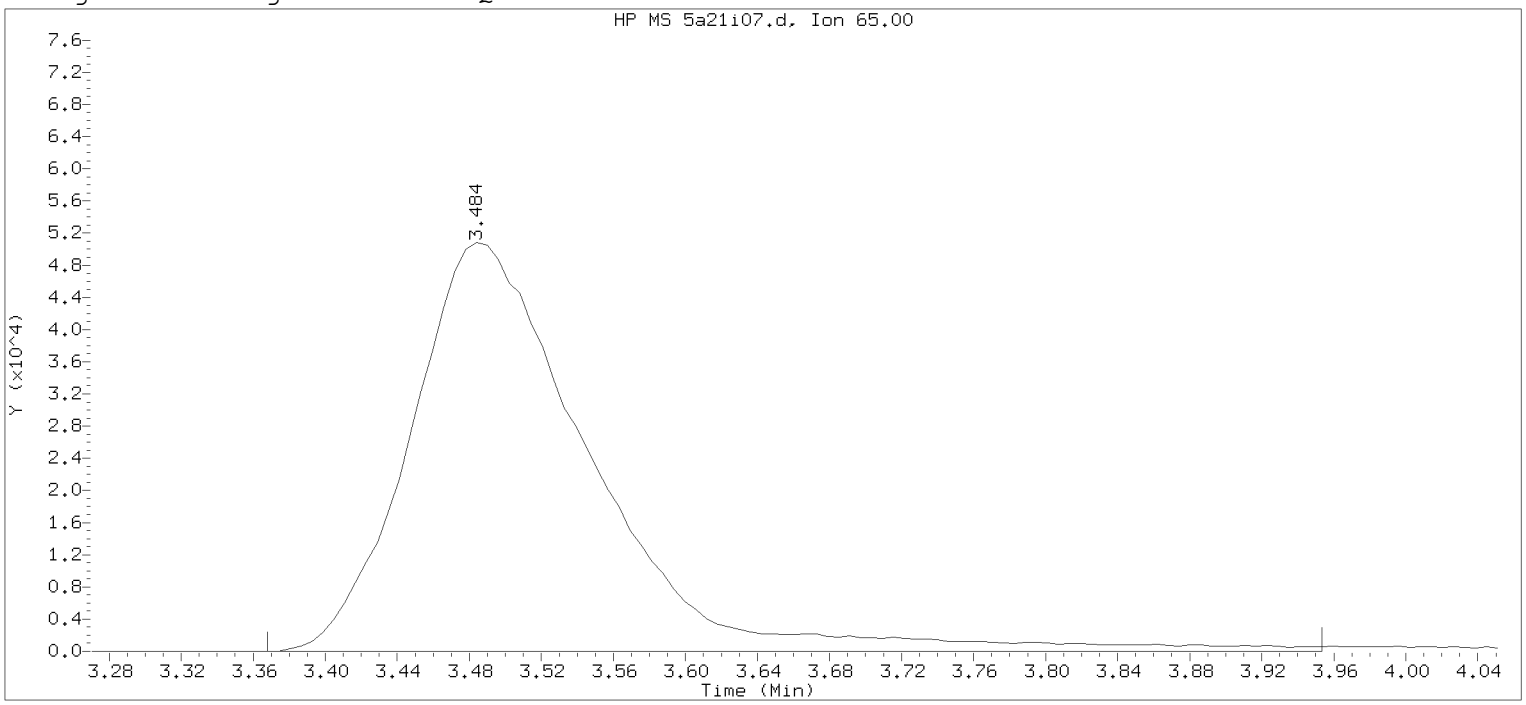
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

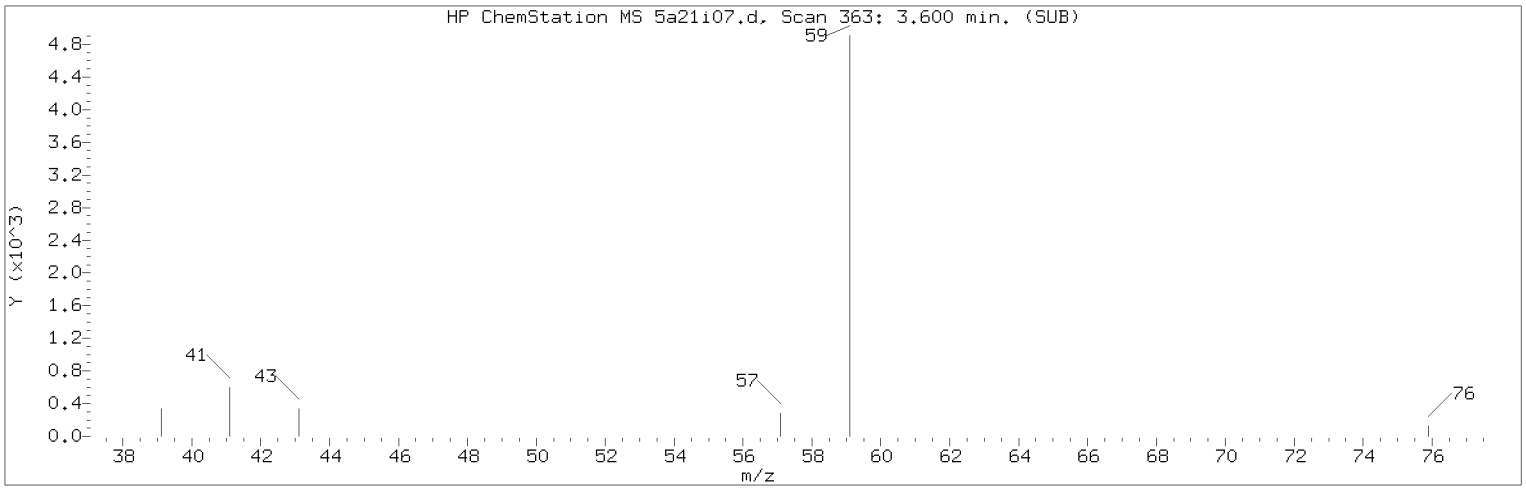
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

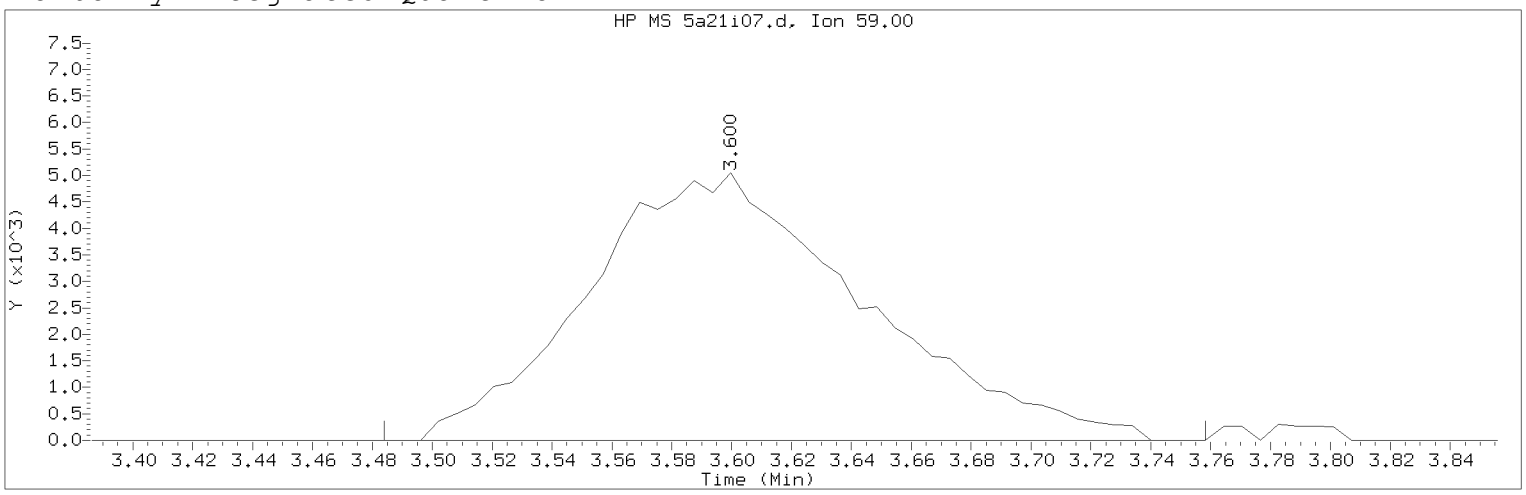
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 352847
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

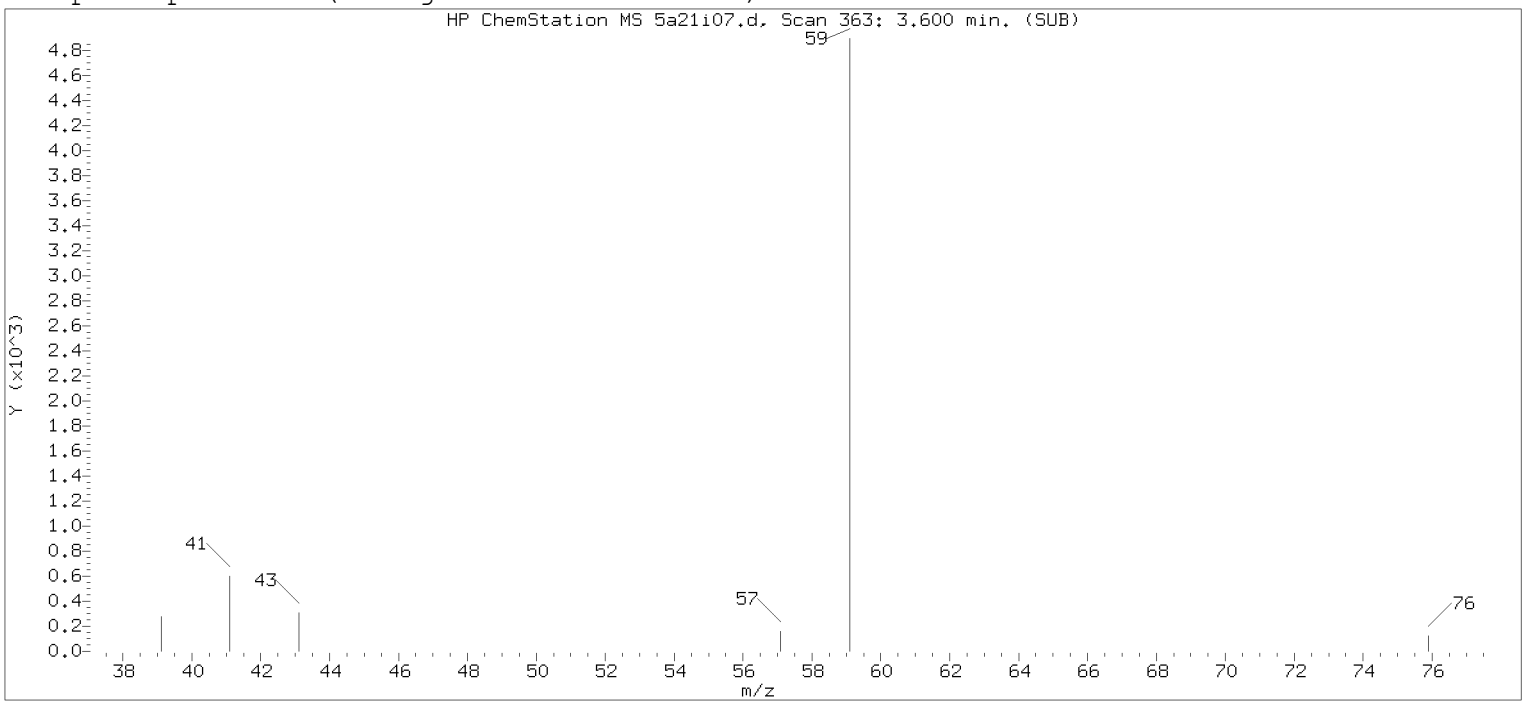
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area (flag) : 32314M
On-Column Amount (ng) : 18.9767
Integration start scan : 343 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

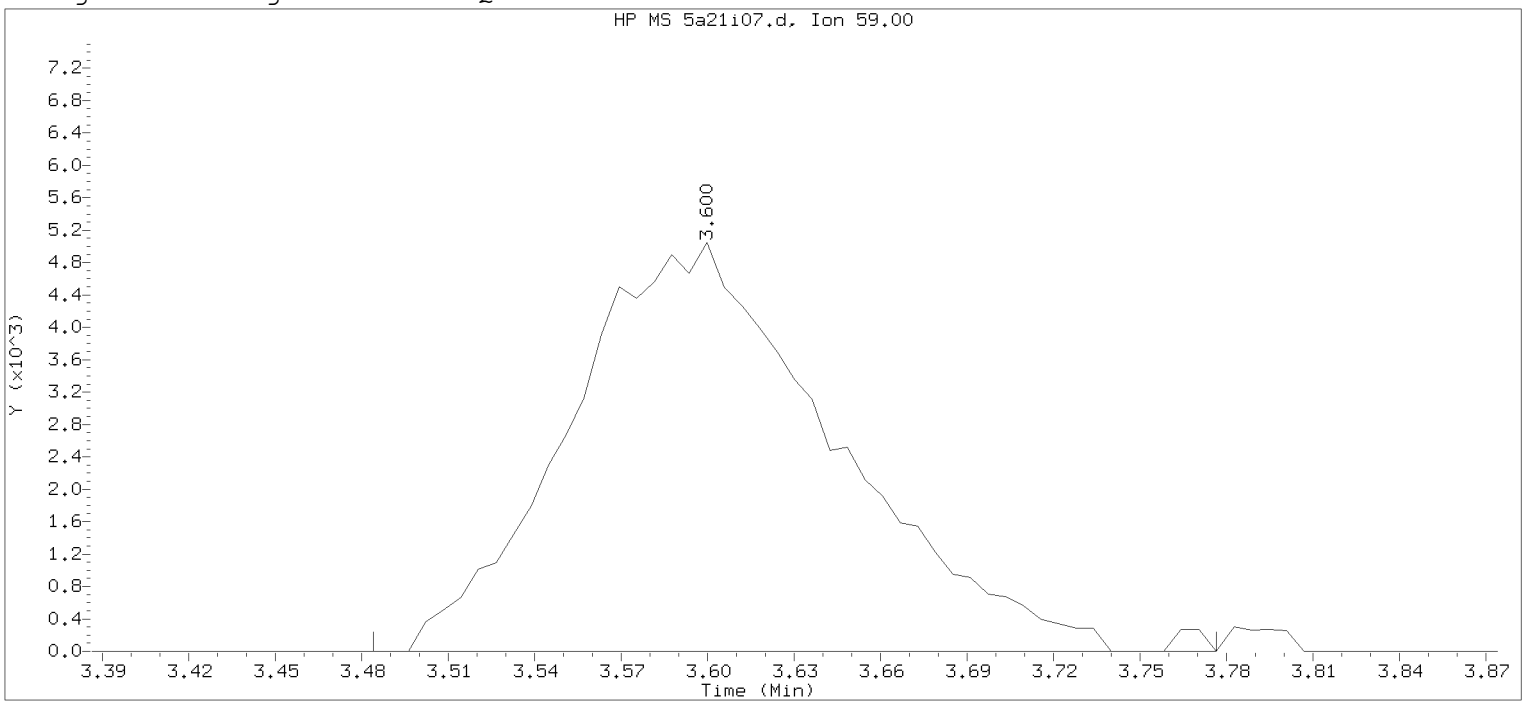
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

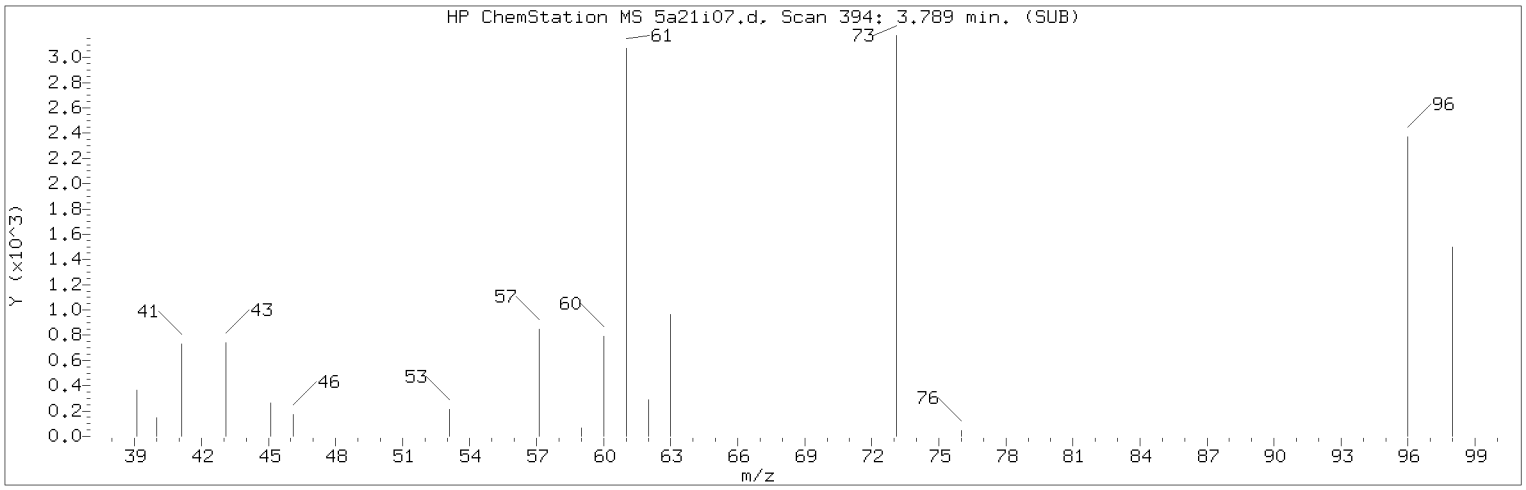
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

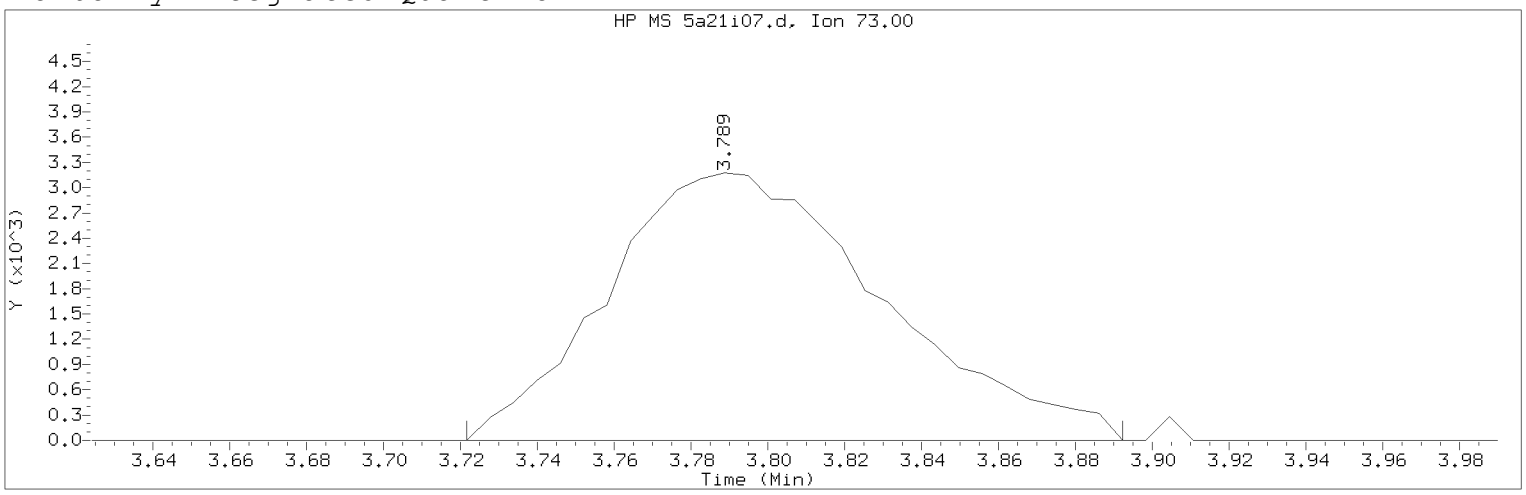
Compound Number	: 30		
Compound Name	: t-Butyl alcohol		
Scan Number	: 363		
Retention Time (minutes)	: 3.600		
Quant Ion	: 59.00		
Area	: 32510		
On-column Amount (ng)	: 19.0163		
Integration start scan	: 343	Integration stop scan:	391
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

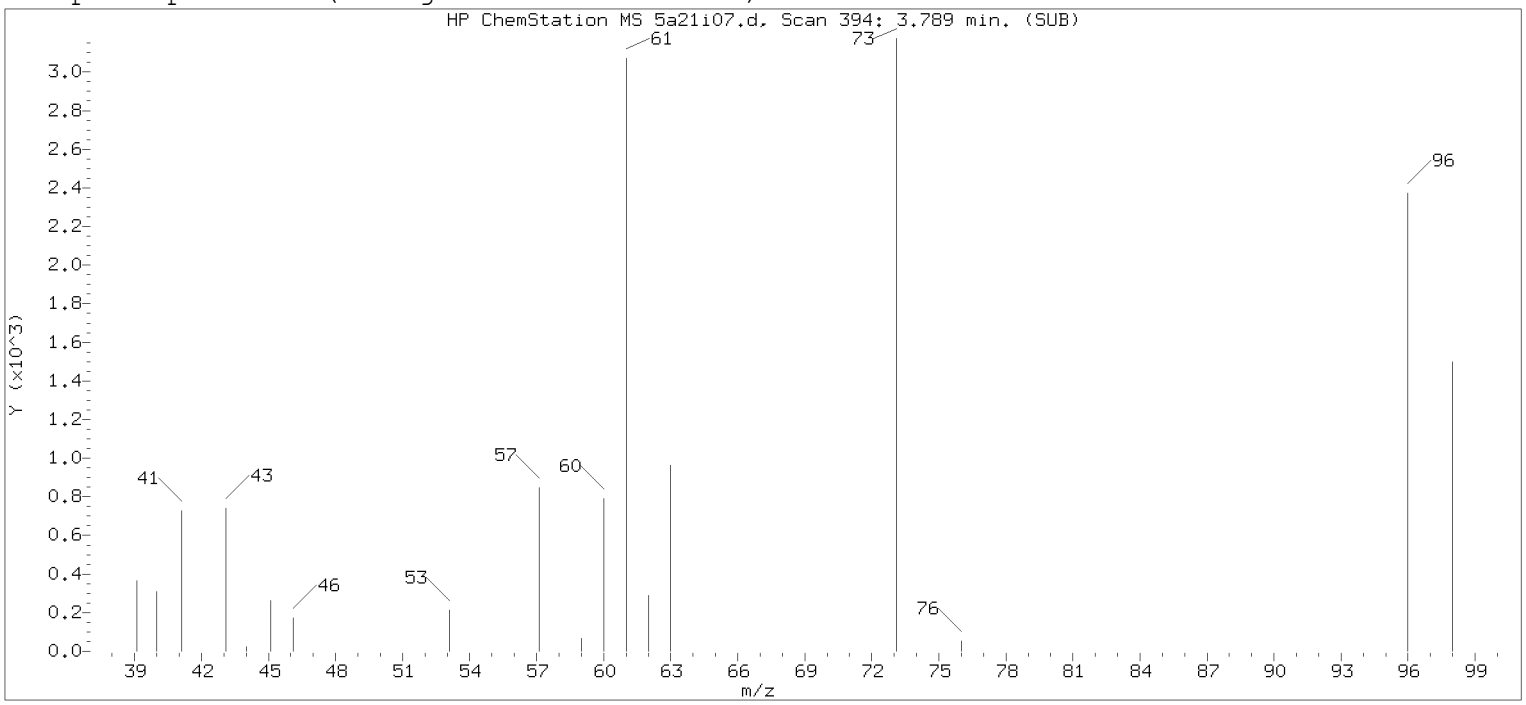
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area (flag) : 15820M
On-Column Amount (ng) : 0.9261
Integration start scan : 382 Integration stop scan: 410
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

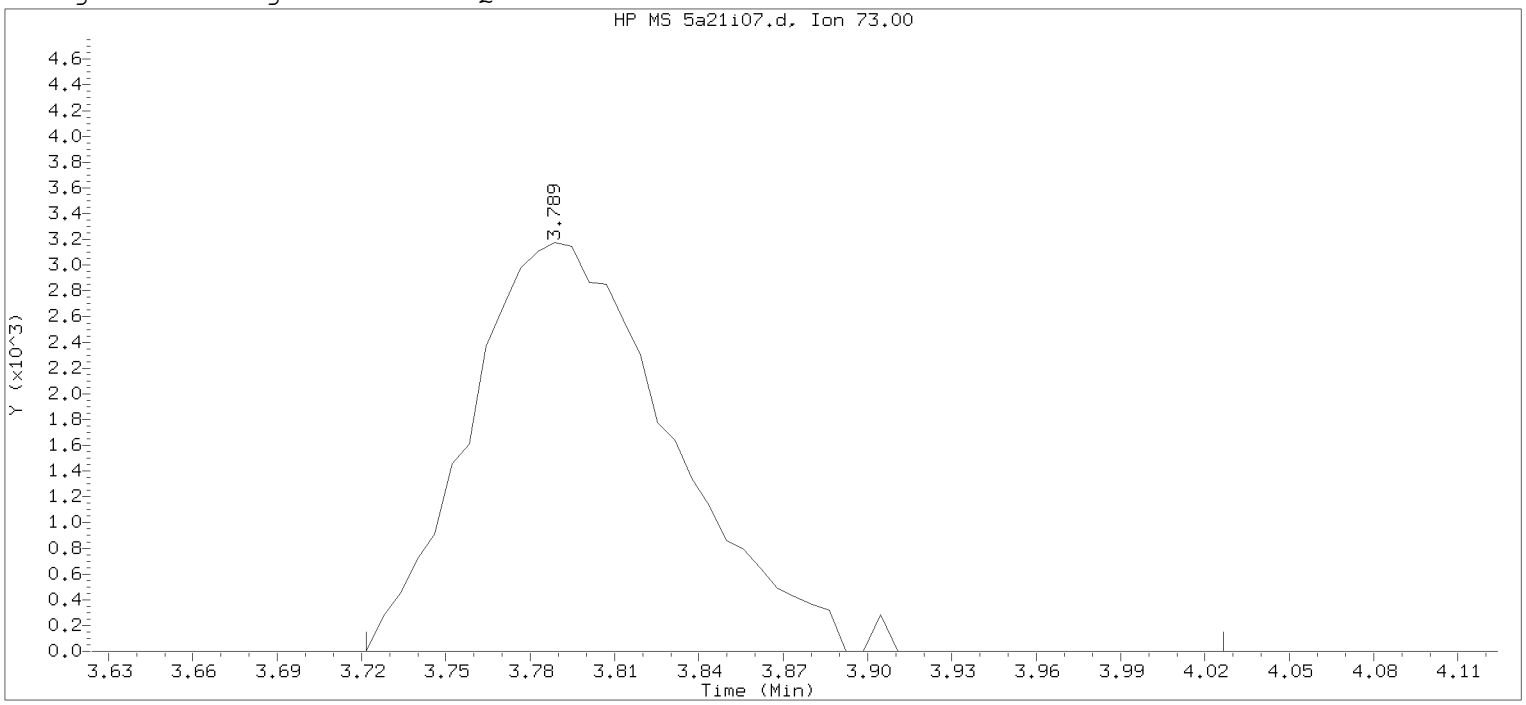
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

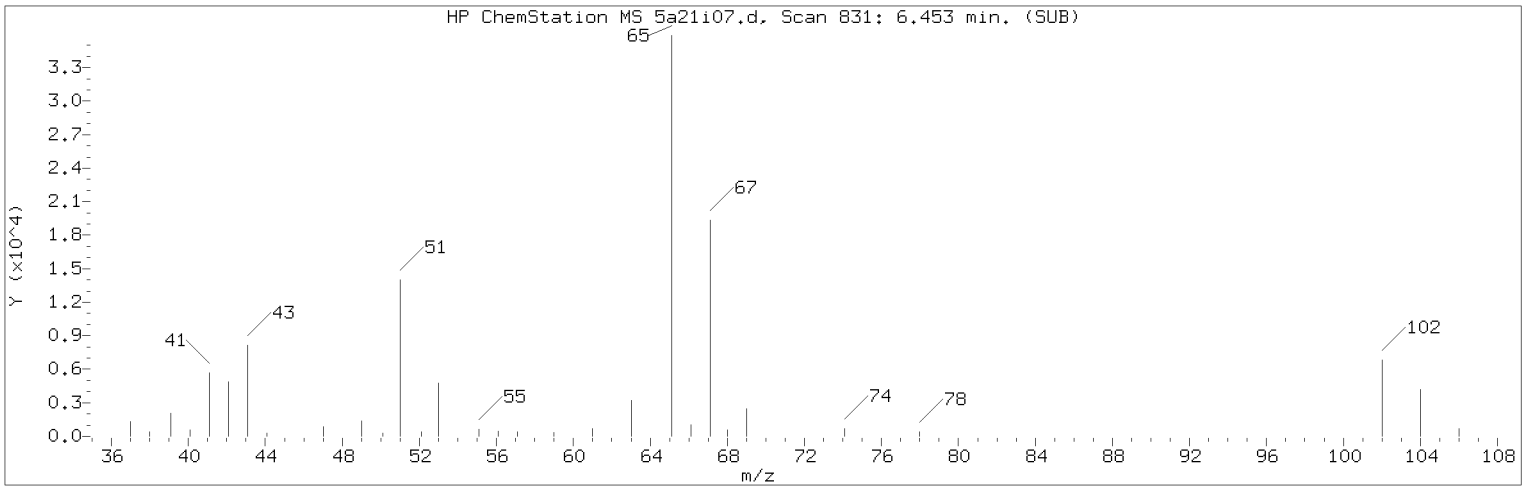
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

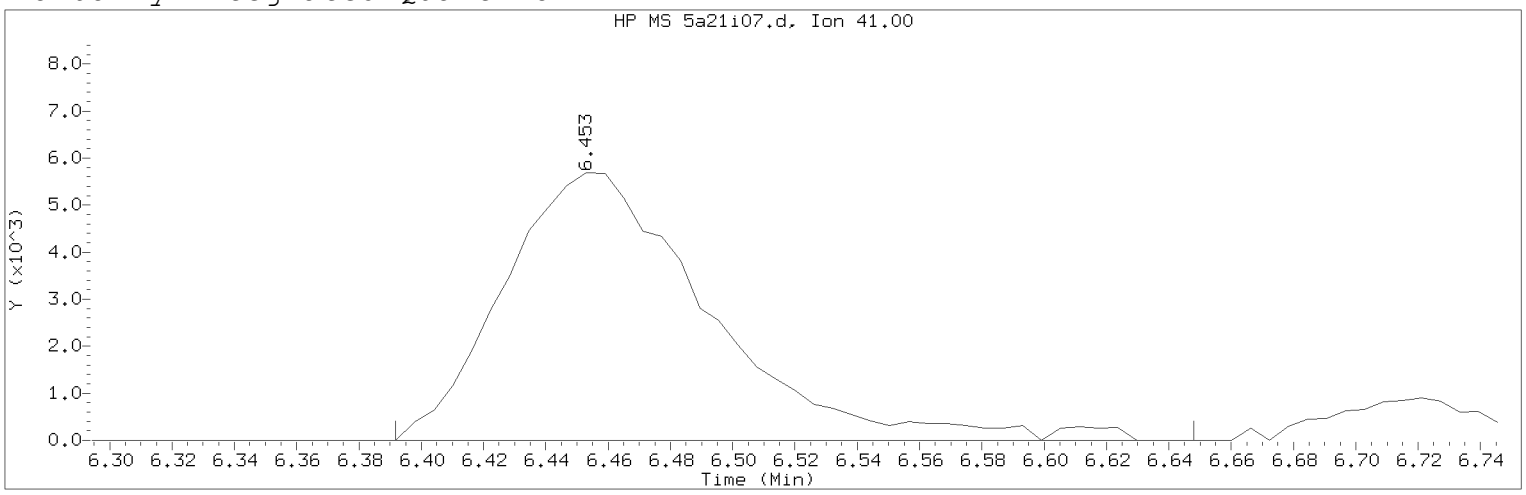
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area : 15924
On-column Amount (ng) : 0.9314
Integration start scan : 382 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

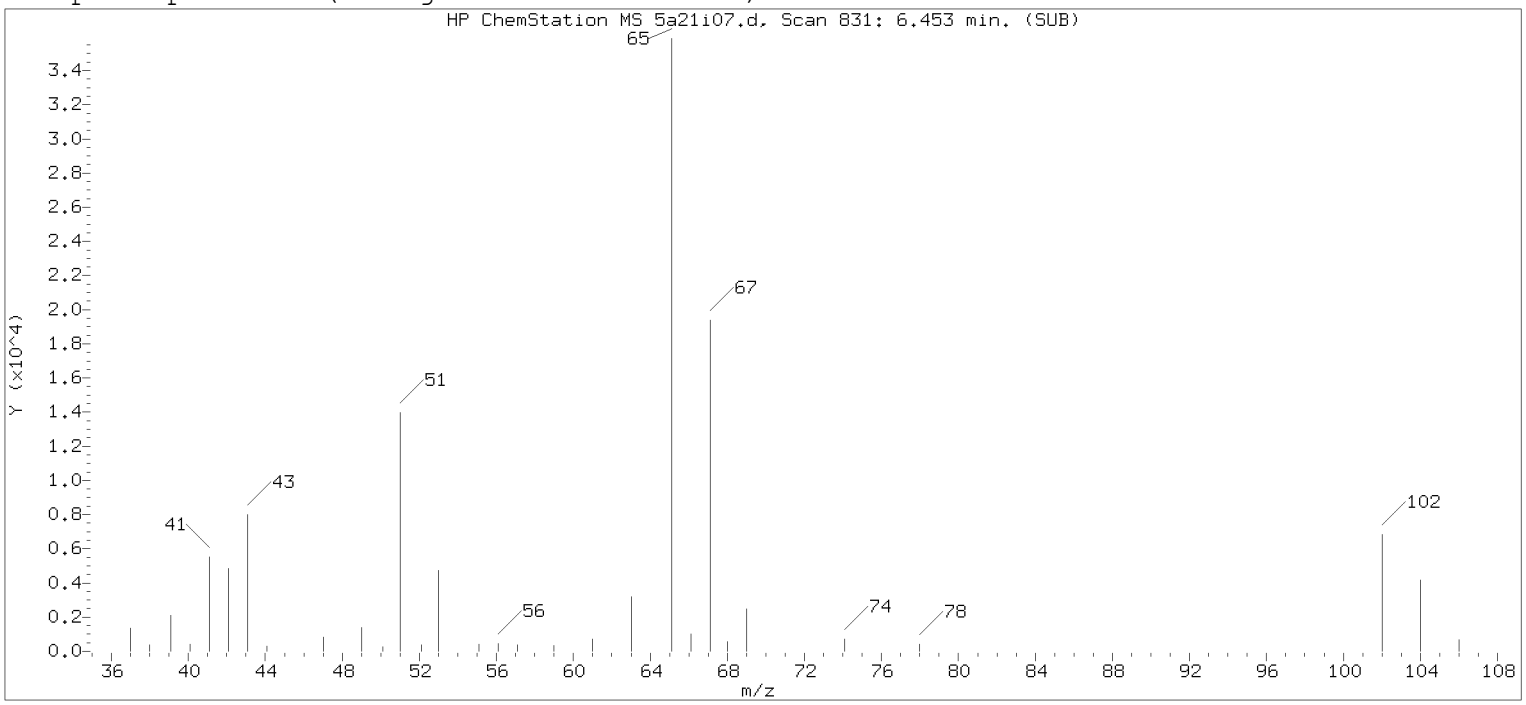
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area (flag) : 26237M
On-Column Amount (ng) : 46.2246
Integration start scan : 820 Integration stop scan: 862
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

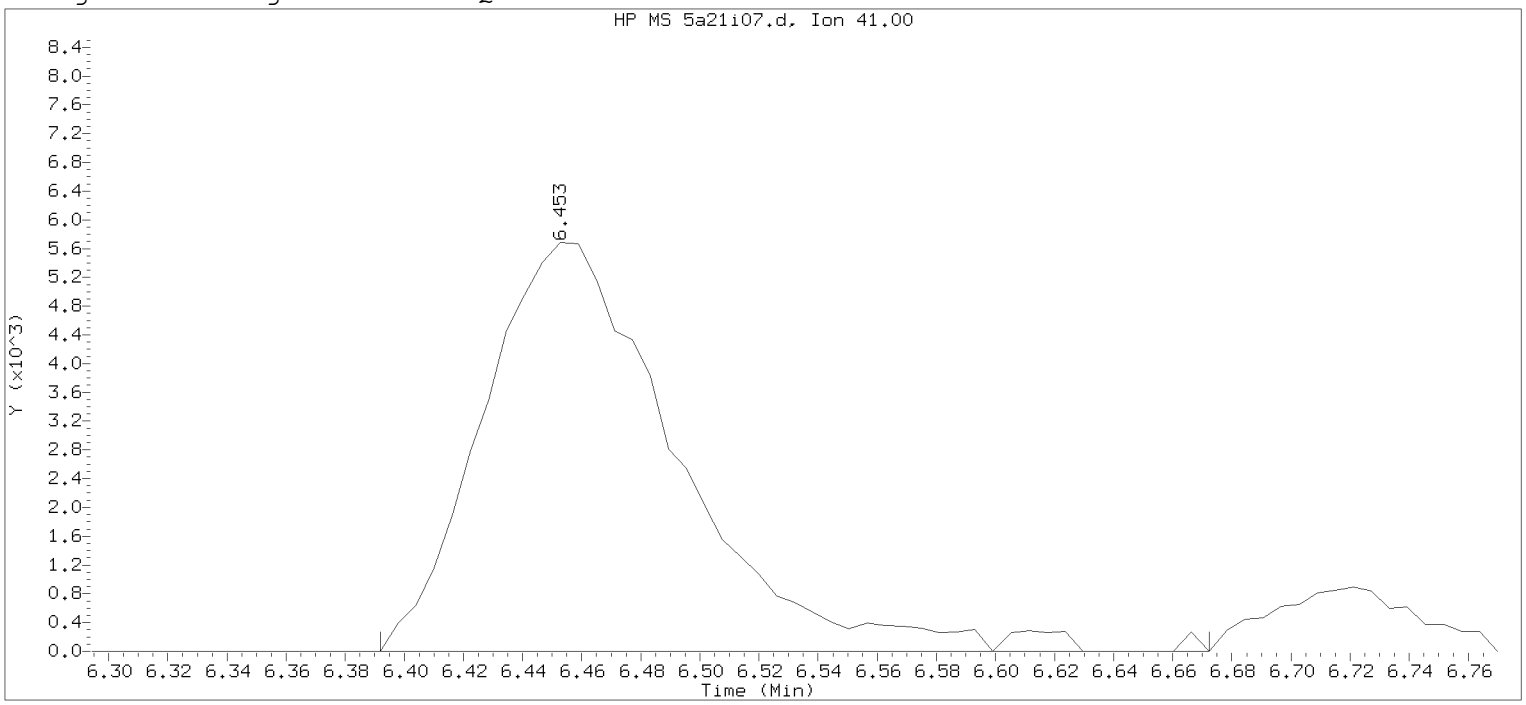
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

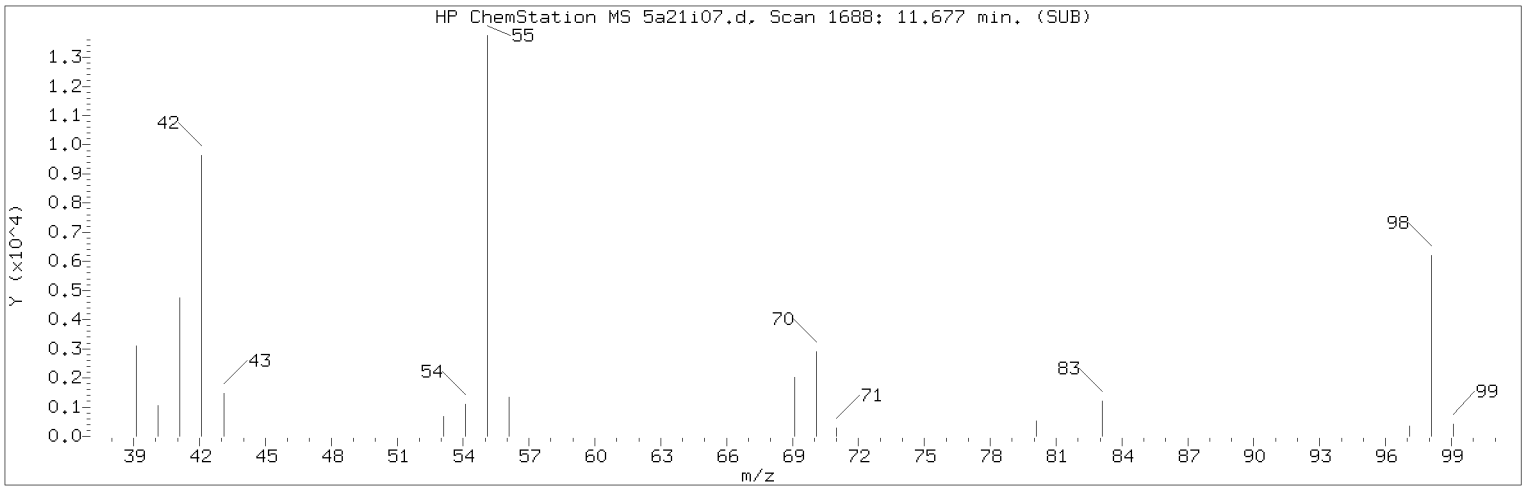
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

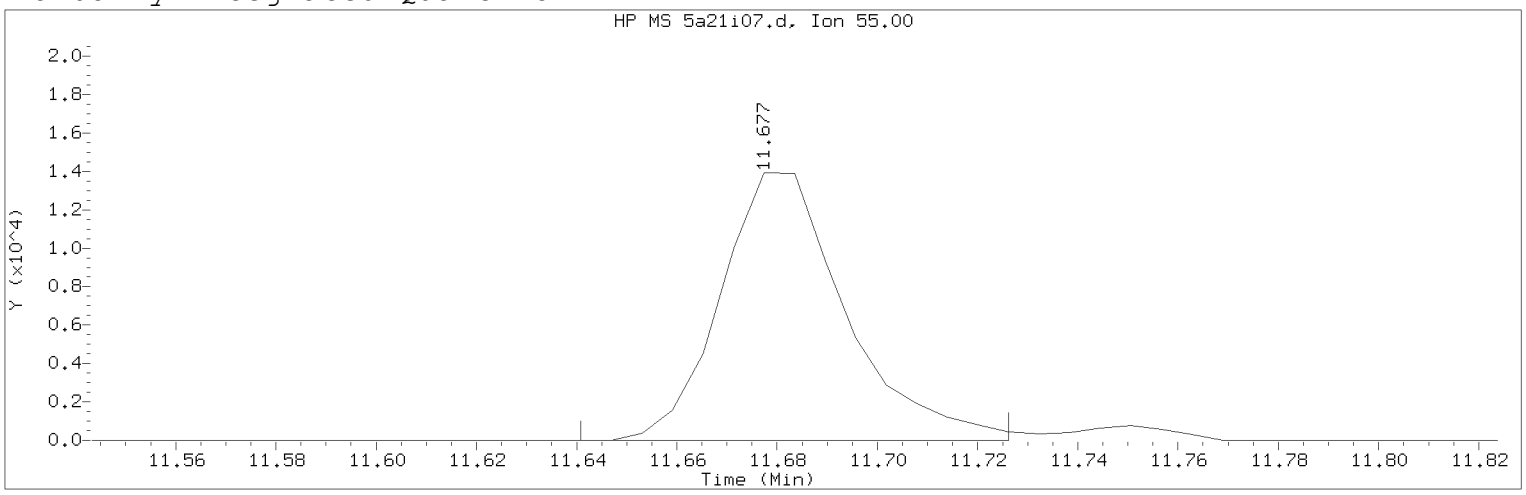
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area : 26334
On-column Amount (ng) : 46.6405
Integration start scan : 820 Integration stop scan: 866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

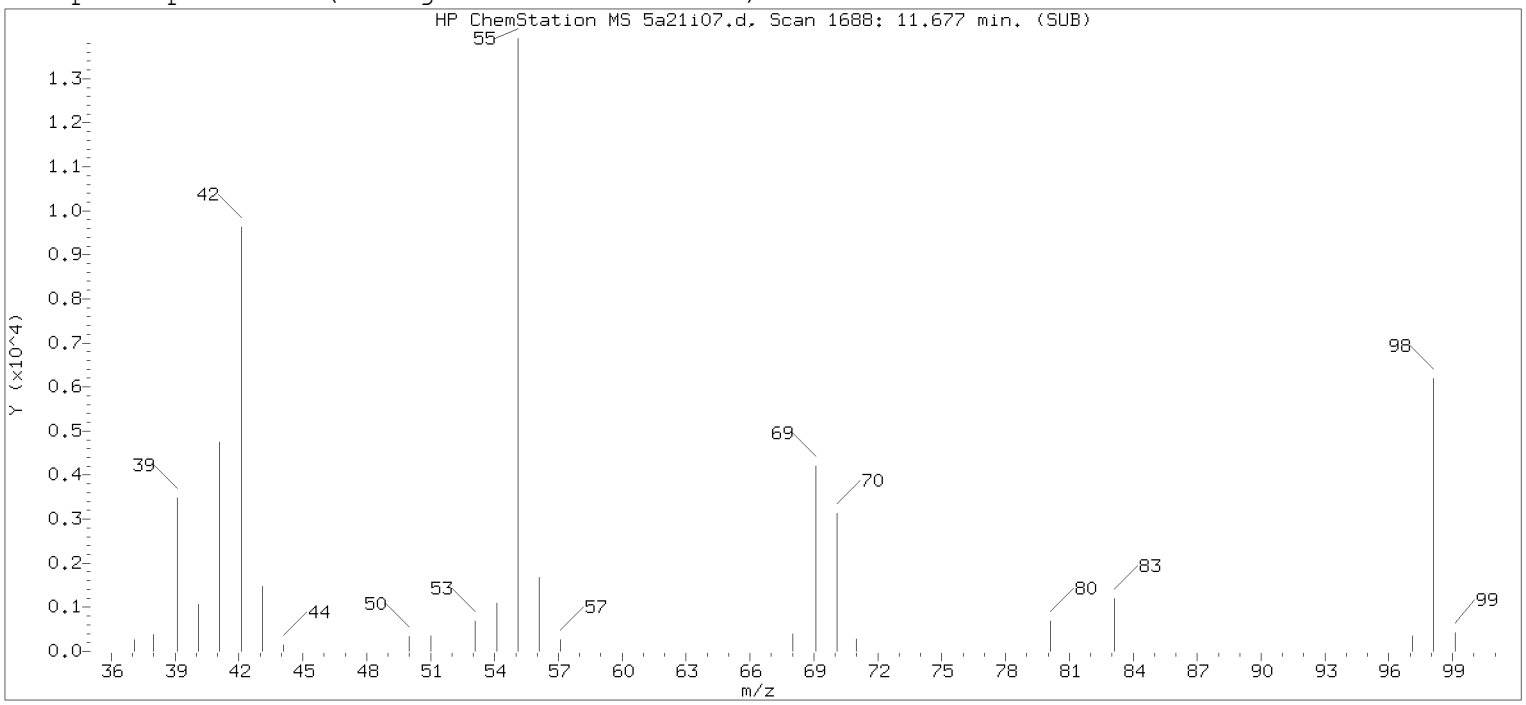
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area (flag) : 24191M
On-Column Amount (ng) : 43.3520
Integration start scan : 1681 Integration stop scan: 1695
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

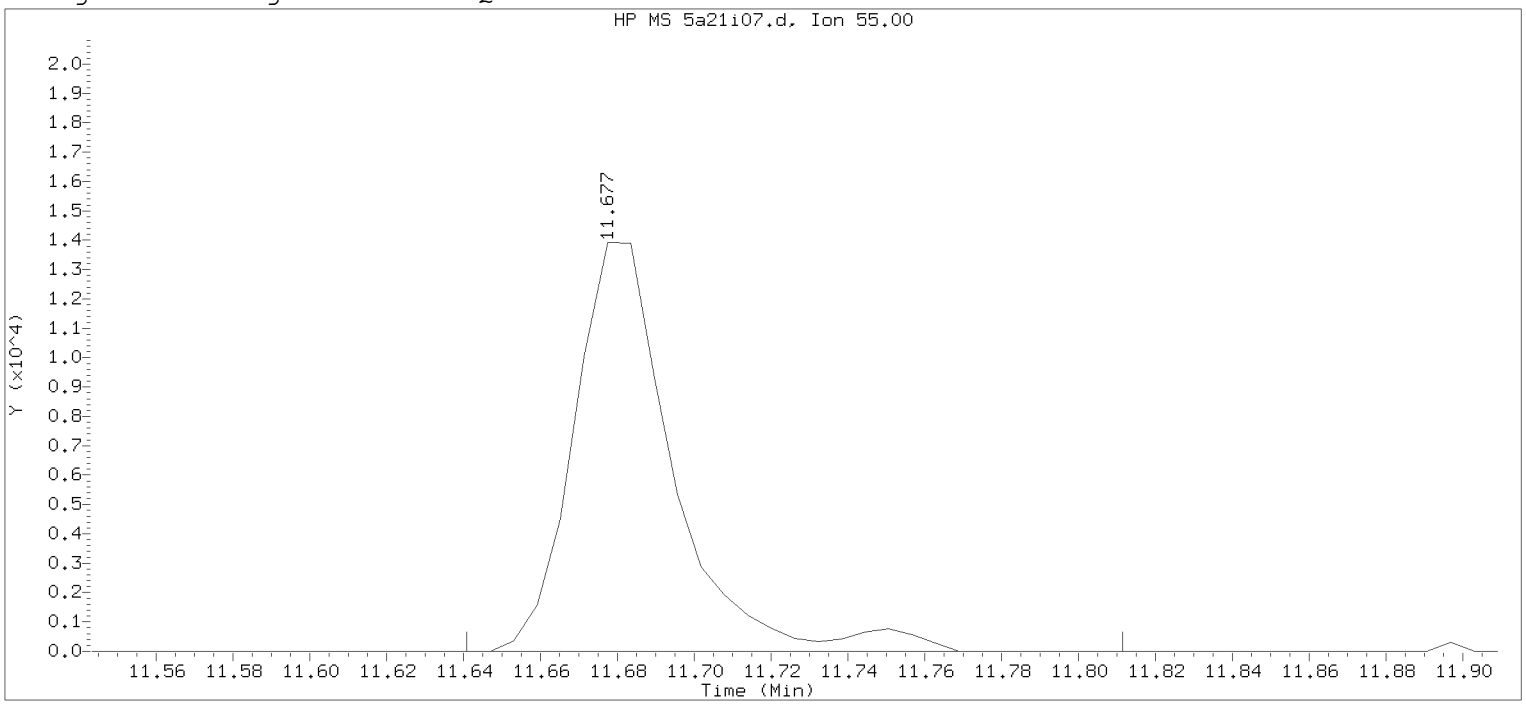
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

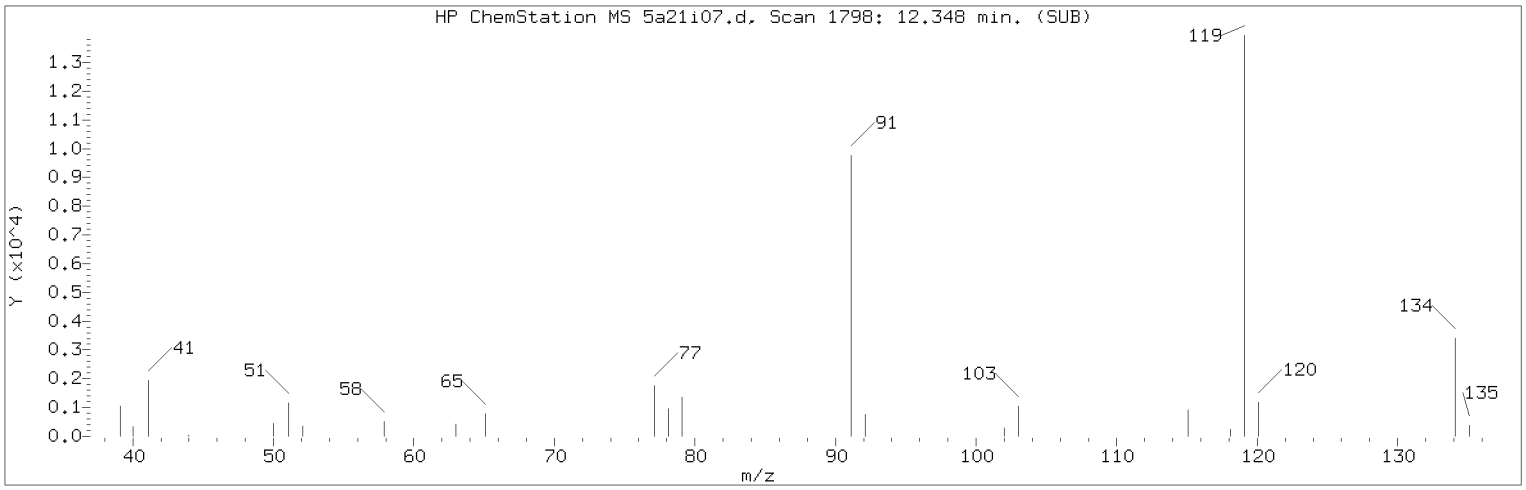
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

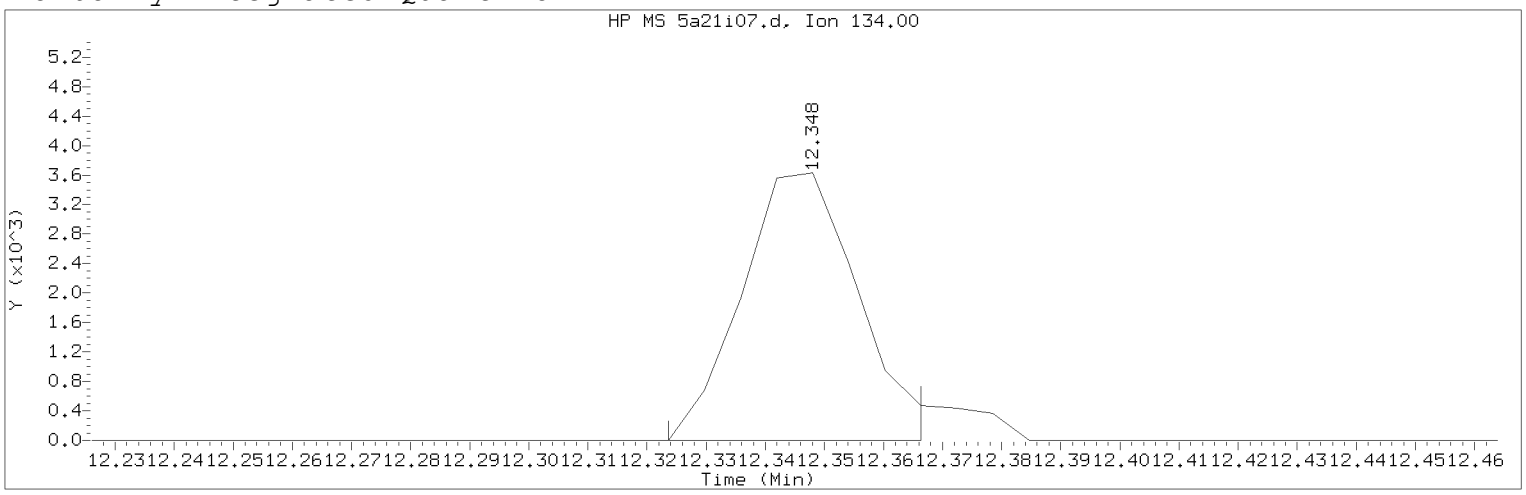
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area : 25283
On-column Amount (ng) : 45.3144
Integration start scan : 1681 Integration stop scan: 1709
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

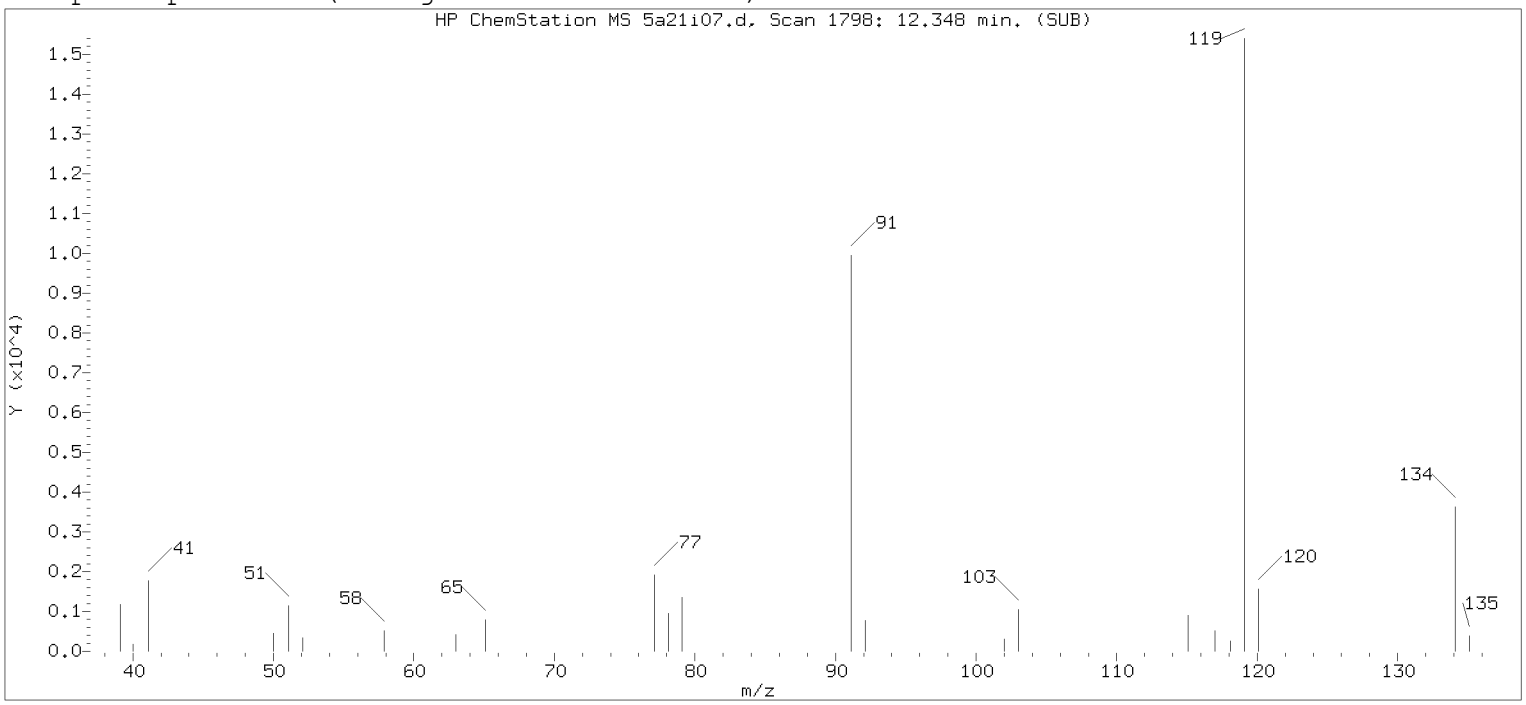
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 4987M
On-Column Amount (ng) : 0.9049
Integration start scan : 1793 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

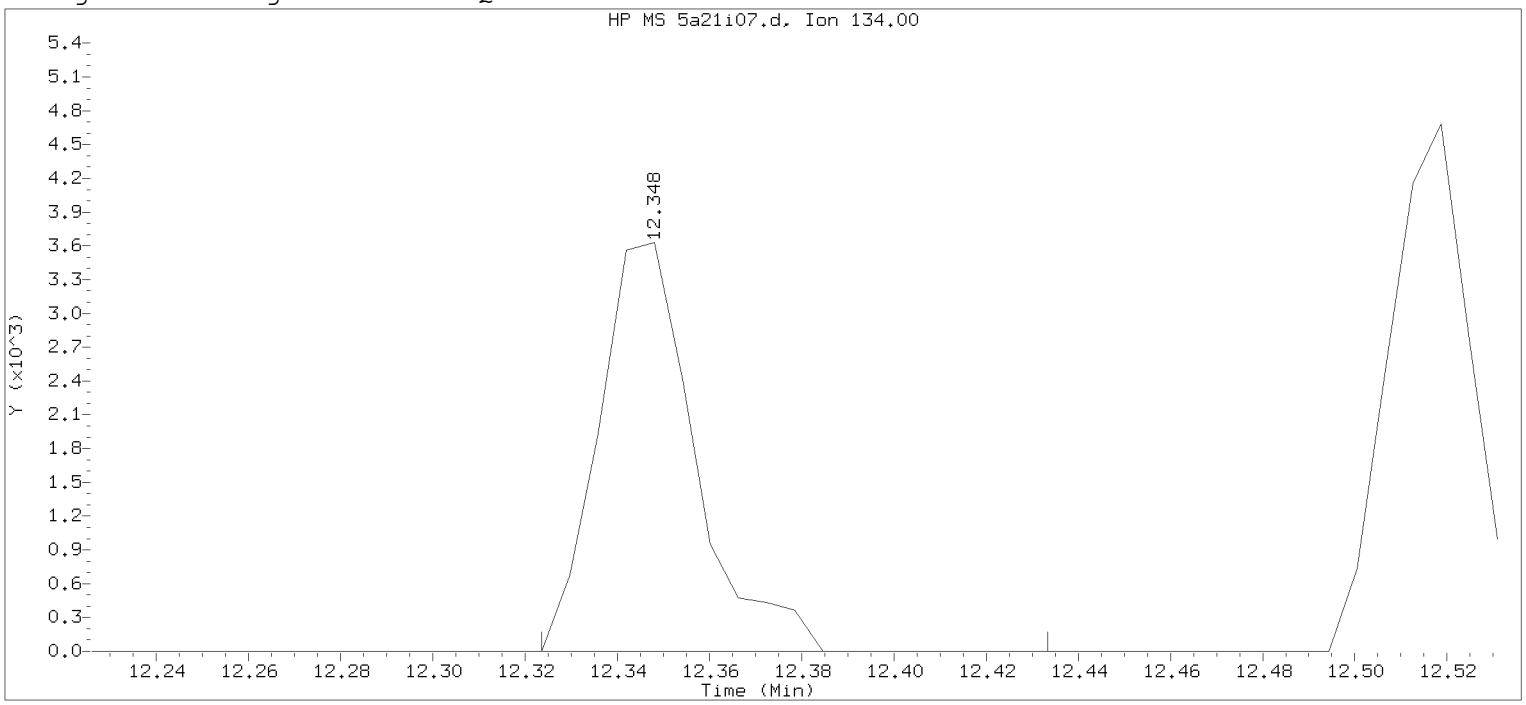
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

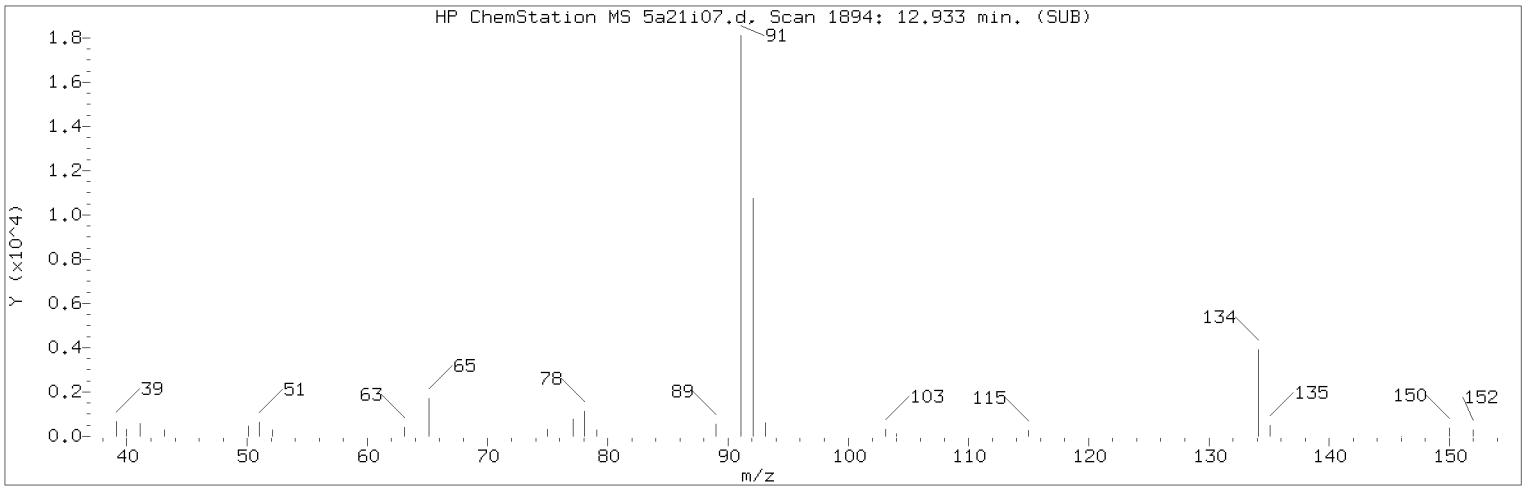
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

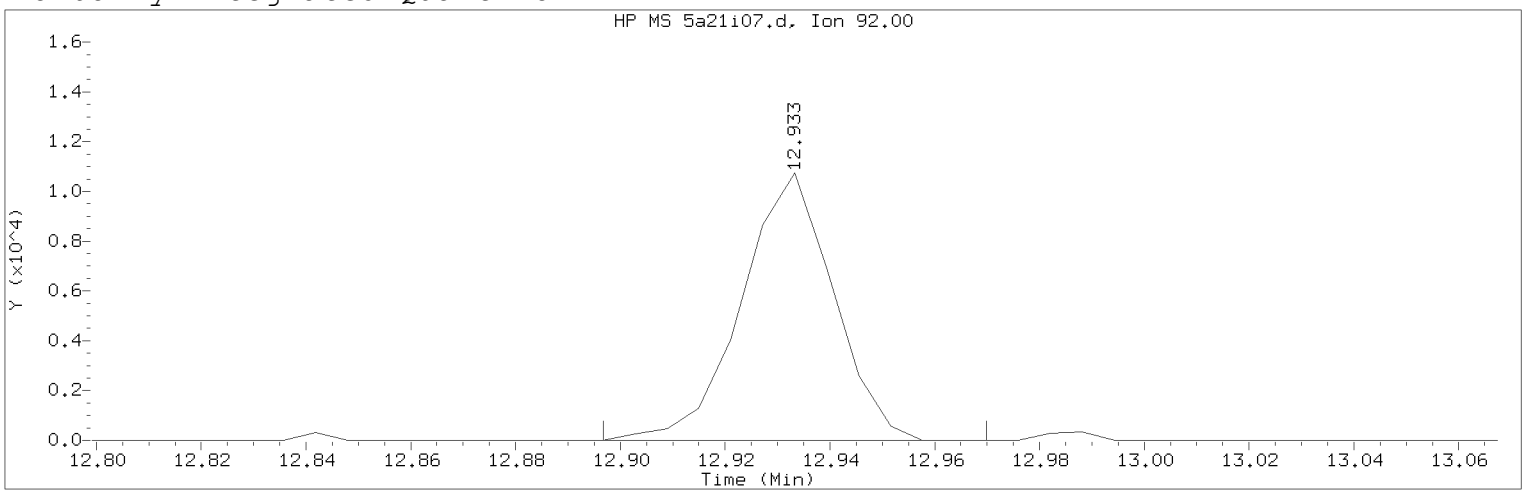
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 5280
On-column Amount (ng) : 0.9008
Integration start scan : 1793 Integration stop scan: 1811
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

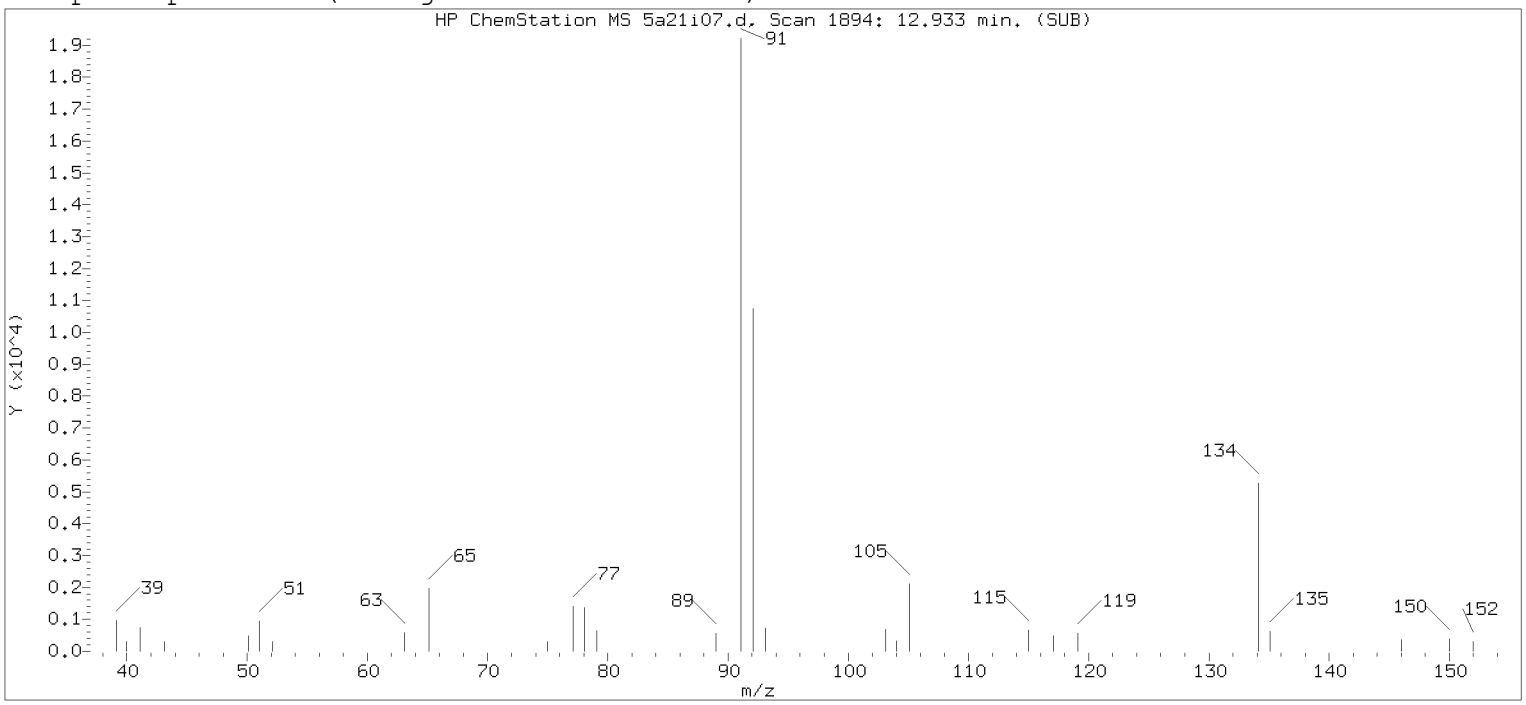
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area (flag) : 12995M
On-Column Amount (ng) : 0.8985
Integration start scan : 1887 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

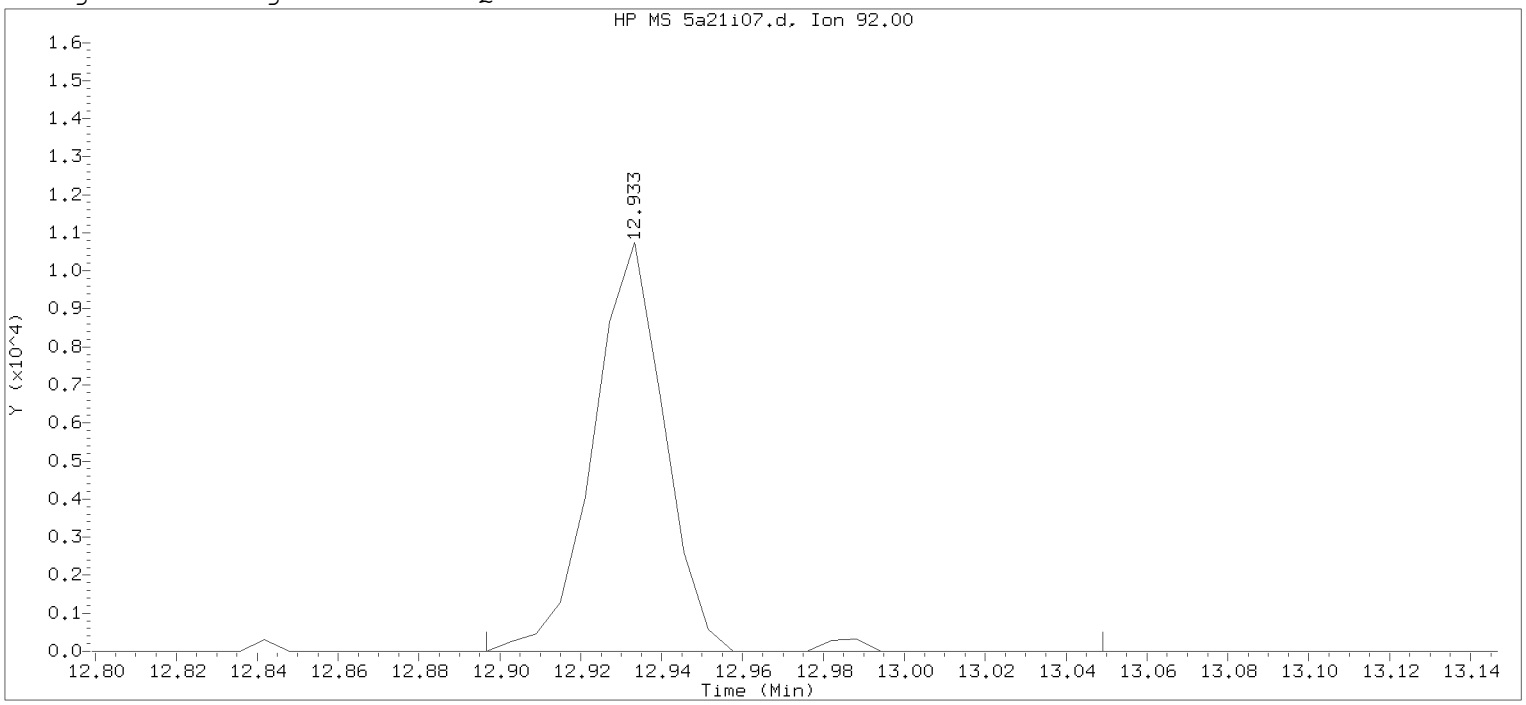
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



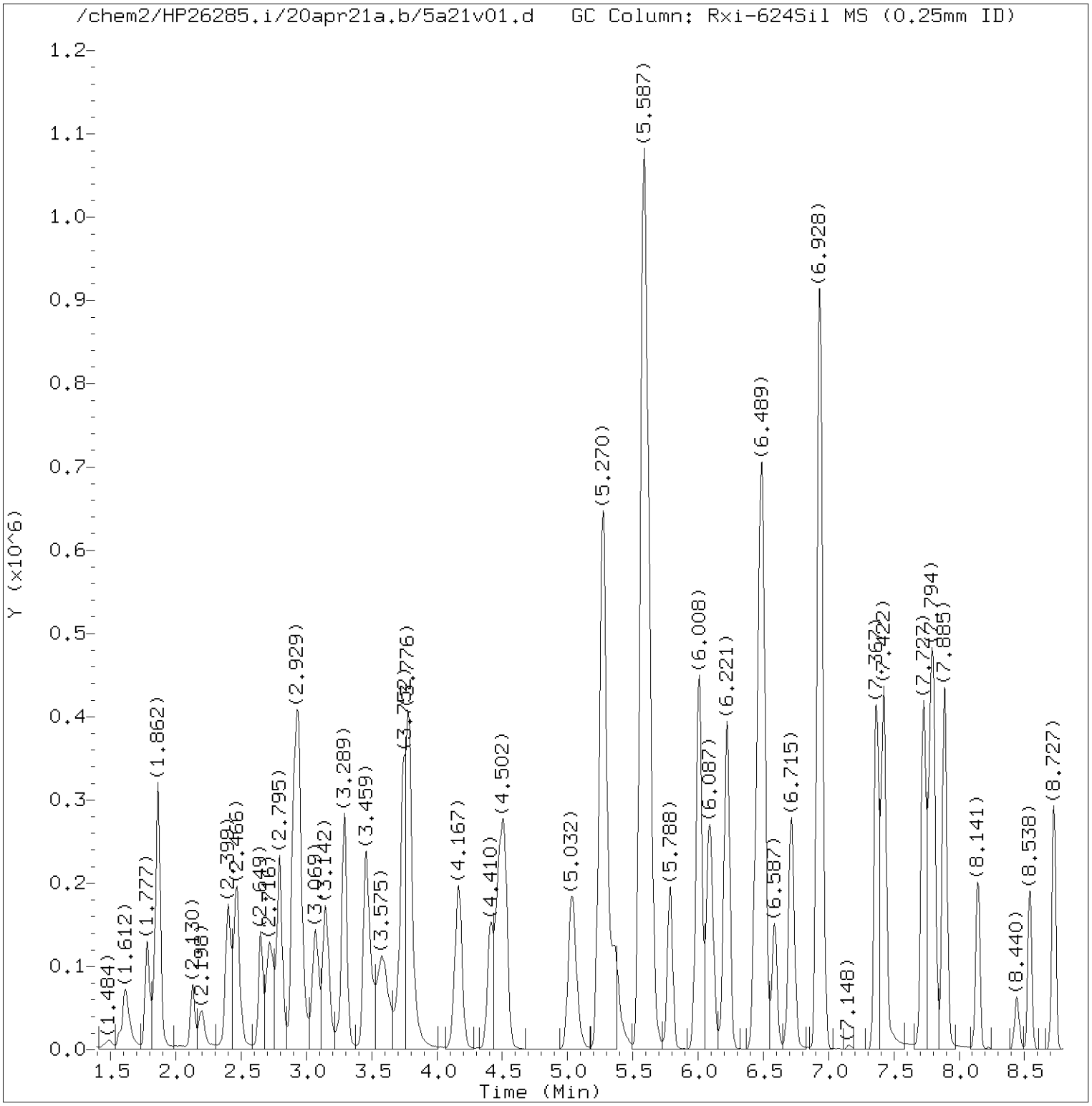
Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area : 13218
On-column Amount (ng) : 0.9120
Integration start scan : 1887 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

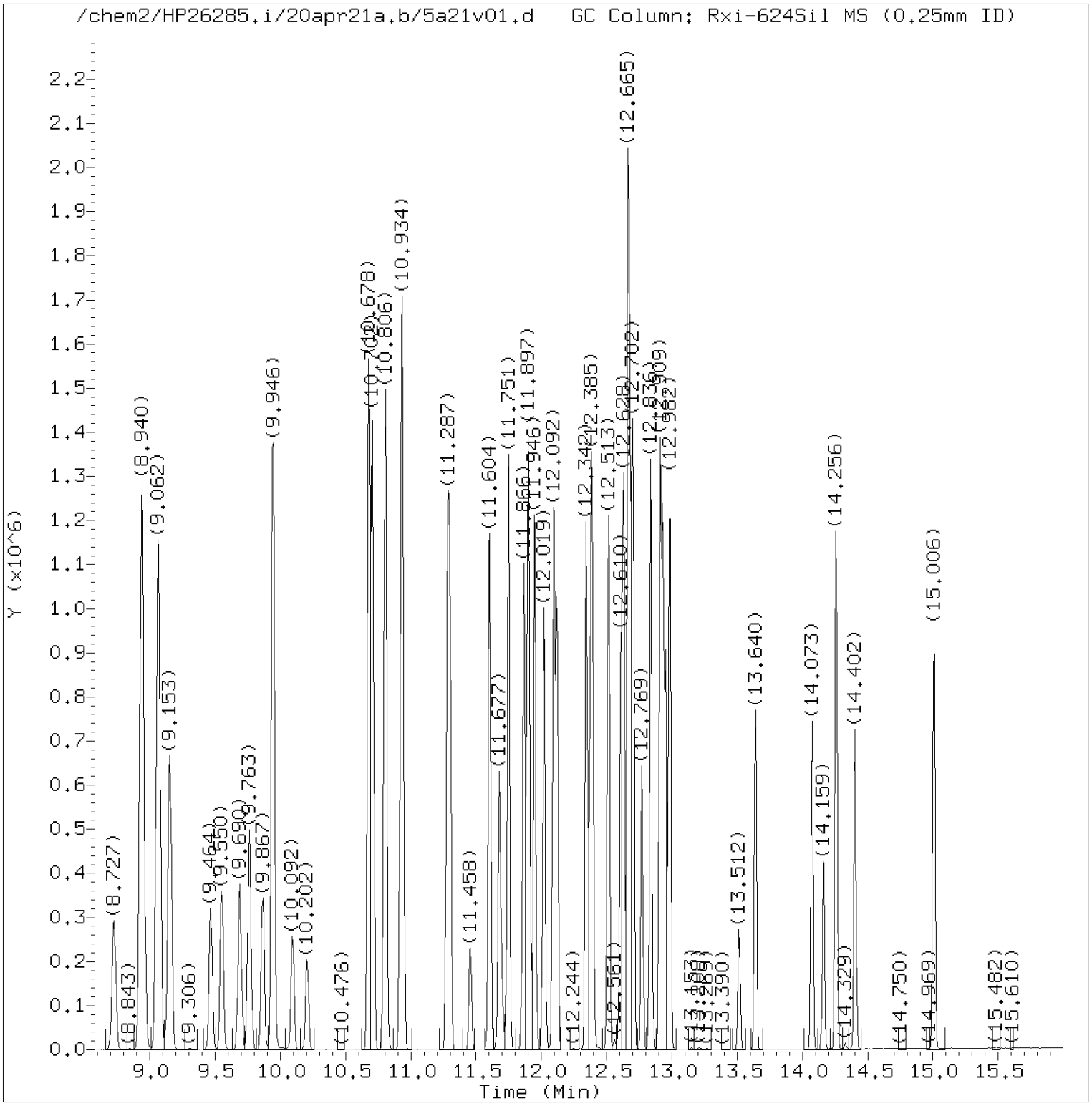
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	153929	18.338
4) Chloromethane	(2)	1.777	50	142840	21.449
5) 1,3-Butadiene	(2)	1.856	39	175348	18.945
6) Vinyl Chloride	(2)	1.868	62	129473	21.984
8) Bromomethane	(2)	2.130	94	66235	16.751
9) Chloroethane	(2)	2.198	64	60087	21.549
10) Dichlorofluoromethane	(2)	2.399	67	189640	20.870
12) Trichlorofluoromethane	(2)	2.441	101	169578	23.510
11) n-Pentane	(2)	2.472	43	137590	20.493
14) Ethyl ether	(2)	2.649	59	98927	19.894
15) Freon 123a	(2)	2.716	67	156875	20.836
16) Acrolein	(1)	2.795	56	315459	136.518
17) 1,1-Dichloroethene	(2)	2.905	96	119026	21.239
18) Acetone	(1)	2.935	58	179400	157.417
19) Freon 113	(2)	2.935	101	135384	21.343
22) Methyl Iodide	(2)	3.069	142	211731	19.813
21) 2-Propanol	(1)	3.081	45	144837	156.180
23) Carbon Disulfide	(2)	3.142	76	389090	19.738
27) Methyl Acetate	(2)	3.277	43	174516	21.598
25) Allyl Chloride	(2)	3.295	41	208700	22.247
28) Methylene Chloride	(2)	3.453	84	130962	20.731
29)*t-Butyl alcohol-d10	(1)	3.484	65	364936M	250.000
30) t-Butyl alcohol	(1)	3.587	59	363942	211.727
31) Acrylonitrile	(2)	3.740	53	413194	96.882
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	334830	20.187
32) trans-1,2-Dichloroethene	(2)	3.789	96	127049	20.260
34) n-Hexane	(2)	4.167	57	197244	21.213
36) 1,1-Dichloroethane	(2)	4.410	63	230235	20.282
38) di-Isopropyl ether	(2)	4.478	45	409230	20.184
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	195245	20.245
40) Ethyl t-butyl ether	(2)	5.038	59	362275	20.127
44) 2-Butanone	(2)	5.264	43	925621	149.118
42) cis-1,2-Dichloroethene	(2)	5.276	96	151628	21.378
45) 2,2-Dichloropropane	(2)	5.282	77	191399	19.982
47) Propionitrile	(1)	5.368	54	279353	149.289
48) Methacrylonitrile	(2)	5.581	67	640971	150.902
49) Bromochloromethane	(2)	5.618	128	69450	21.379
50) Tetrahydrofuran	(1)	5.630	71	165640	97.943

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.788	83	228695	20.086
53) 1,1,1-Trichloroethane	(2)	6.002	97	204895	19.987
52)$Dibromofluoromethane	(2)	6.008	113	258345	50.042
54) Cyclohexane	(2)	6.087	56	237837	19.921
43) 1,2-Dichloroethene (Total)	(2)		96	278677	41.638
56) Carbon Tetrachloride	(2)	6.215	117	181425	20.284
55) 1,1-Dichloropropene	(2)	6.227	75	185502	19.975
58) Isobutyl Alcohol	(1)	6.453	41	282165	492.465
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57776	50.038
60) Benzene	(2)	6.502	78	549206	19.890
61) 1,2-Dichloroethane	(2)	6.587	62	165650	19.532
65) t-Amyl methyl ether	(2)	6.715	73	363717	20.250
66)*Fluorobenzene	(2)	6.928	96	1036492	50.000
67) n-Heptane	(2)	6.947	43	171340	19.077
69) n-Butanol	(1)	7.367	56	485921	982.854
71) Trichloroethene	(2)	7.422	95	144668	19.965
73) Methylcyclohexane	(2)	7.727	83	246562	21.409
74) 1,2-Dichloropropane	(2)	7.776	63	141108	20.414
76) 1,4-Dioxane	(1)	7.867	88	63824M	520.439
75) Dibromomethane	(2)	7.885	93	87732	20.156
77) Methyl Methacrylate	(2)	7.892	69	134720	20.831
79) Bromodichloromethane	(2)	8.141	83	168466	19.960
80) 2-Nitropropane	(2)	8.440	41	54115	18.512
81) 2-Chloroethyl Vinyl Ether	(2)	8.538	63	107594	20.113
82) cis-1,3-Dichloropropene	(2)	8.727	75	209585	19.651
83) 4-Methyl-2-pentanone	(2)	8.940	43	1181742	98.773
84)$Toluene-d8	(3)	9.062	98	996070	50.667
89) Toluene	(3)	9.153	92	354959	20.477
90) trans-1,3-Dichloropropene	(3)	9.464	75	185163	19.908
92) Ethyl Methacrylate	(3)	9.550	69	202199	19.119
93) 1,1,2-Trichloroethane	(3)	9.690	97	128978	20.812
94) Tetrachloroethene	(3)	9.763	166	155797	21.191
95) 1,3-Dichloropropane	(3)	9.867	76	204418	19.866
97) 2-Hexanone	(3)	9.940	43	956228	103.826
91) 1,3-Dichloropropene (total)	(3)		100	394748	39.559
98) Dibromochloromethane	(3)	10.092	129	136958	20.885
100) 1,2-Dibromoethane	(3)	10.202	107	139008	20.347
101)*Chlorobenzene-d5	(3)	10.678	117	799942	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	388499	20.651
102) 1-Chlorohexane	(3)	10.708	91	200269	19.866
104) 1,1,1,2-Tetrachloroethane	(3)	10.800	131	133789	20.614
105) Ethylbenzene	(3)	10.806	91	694156	20.710
107) m+p-Xylene	(3)	10.934	106	542472	42.184
108) o-Xylene	(3)	11.281	106	262207	20.832
110) Styrene	(3)	11.299	104	428010	21.099
111) Bromoform	(3)	11.458	173	94256	19.866
112) Isopropylbenzene	(3)	11.604	105	695740	21.063
113) Cyclohexanone	(1)	11.677	55	268497	476.659
115)$4-Bromofluorobenzene	(3)	11.751	95	406882	49.122
109) Xylene (Total)	(3)		106	804679	63.015
116) Bromobenzene	(4)	11.866	156	162891	20.782
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	221731	20.847
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	197086	95.682
118) 1,2,3-Trichloropropane	(4)	11.909	110	64916	20.727
120) n-Propylbenzene	(4)	11.946	91	818744	21.246
121) 2-Chlorotoluene	(4)	12.019	126	161976	20.506
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	567082	20.934
122) 4-Chlorotoluene	(4)	12.116	126	164921	20.669
125) tert-Butylbenzene	(4)	12.342	134	112503M	20.897
126) Pentachloroethane	(4)	12.372	167	96008	21.722
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	576776	20.675
128) sec-Butylbenzene	(4)	12.513	105	700610	20.860
130) 1,3-Dichlorobenzene	(4)	12.610	146	303723	20.601
131) p-Isopropyltoluene	(4)	12.628	119	588086	20.997
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	411145	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	311579	20.825
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	605473	22.612
136) Benzyl Chloride	(4)	12.769	91	369928	18.129
137) 1,3-Diethylbenzene	(4)	12.836	119	355013	21.937
138) 1,4-Diethylbenzene	(4)	12.909	119	366890	21.919
140) n-Butylbenzene	(4)	12.927	92	289999	20.527
139) 1,2-Dichlorobenzene	(4)	12.952	146	294834	20.819
141) 1,2-Diethylbenzene	(4)	12.982	119	297190	21.714
142) Diethylbenzene (total)	(4)		100	1019093	65.569
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	54669	20.358
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	189738	20.285

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

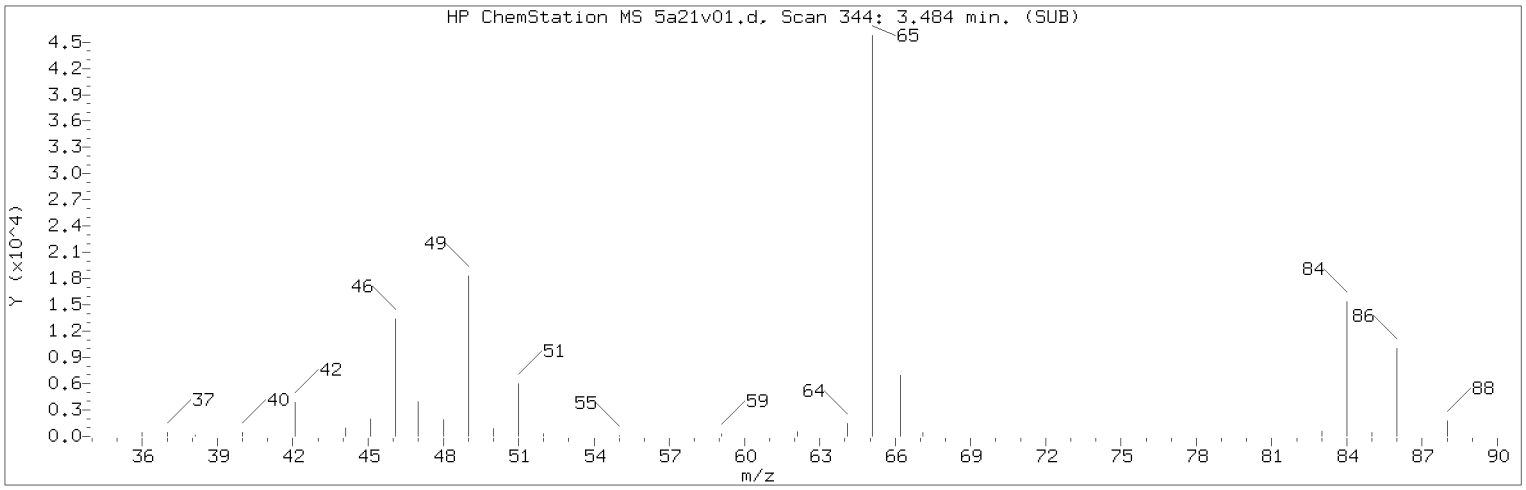
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

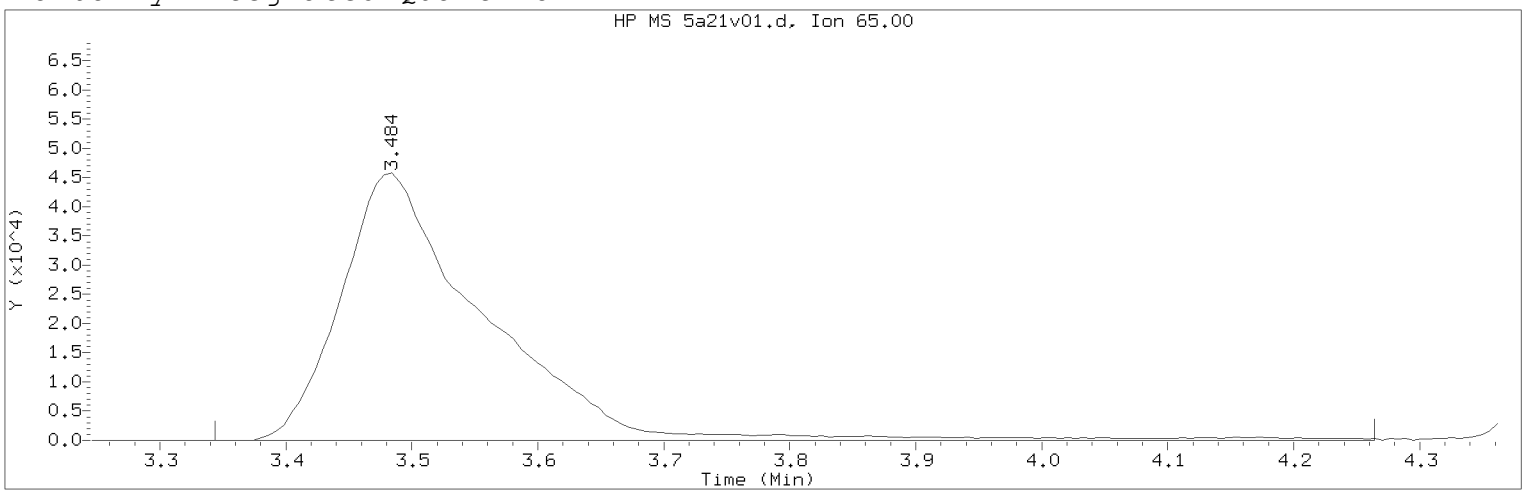
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2,4-Trichlorobenzene	(4)	14.073	180	180603	20.552
148) Hexachlorobutadiene	(4)	14.165	225	66276	19.611
149) Naphthalene	(4)	14.256	128	720292	20.699
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	175964	20.235
151) 2-Methylnaphthalene	(4)	15.006	142	382869	21.177

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

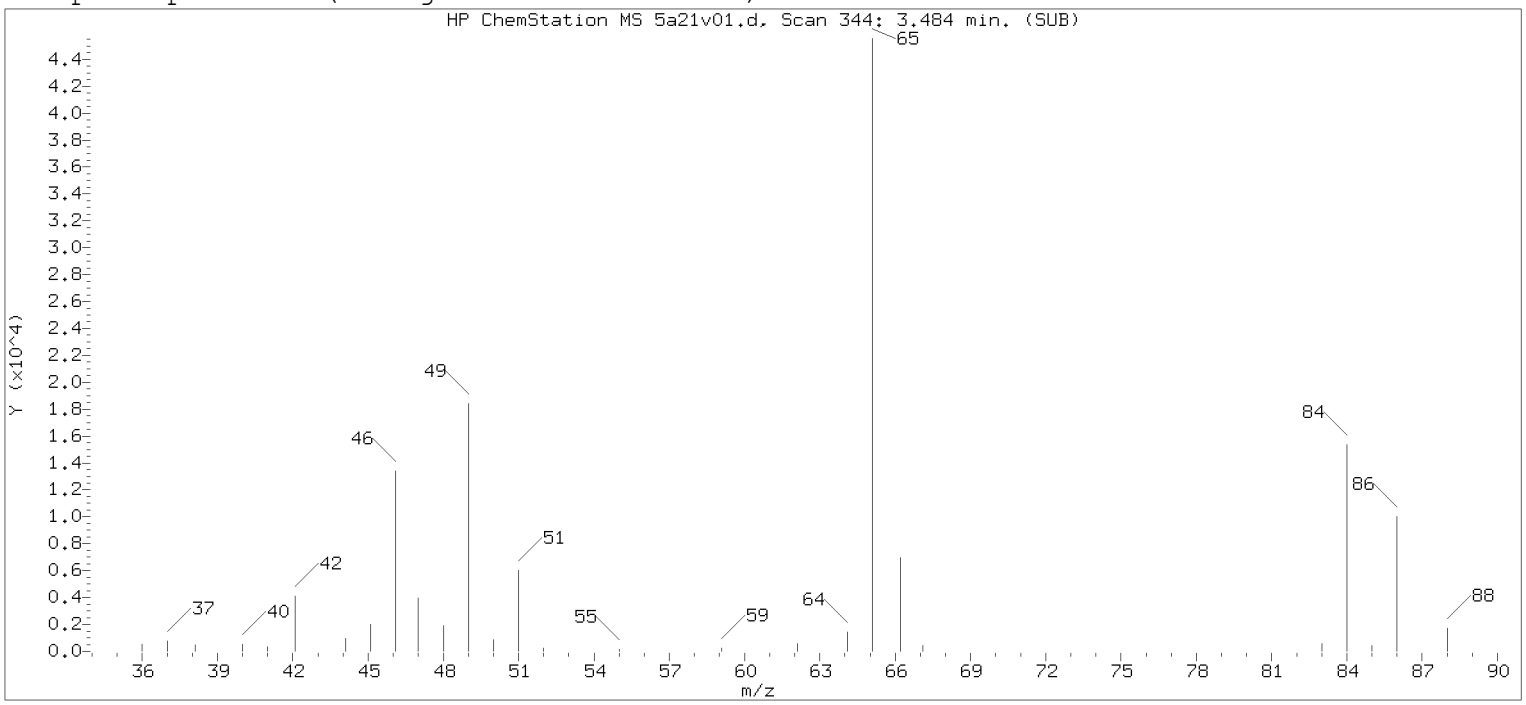
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 364936M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

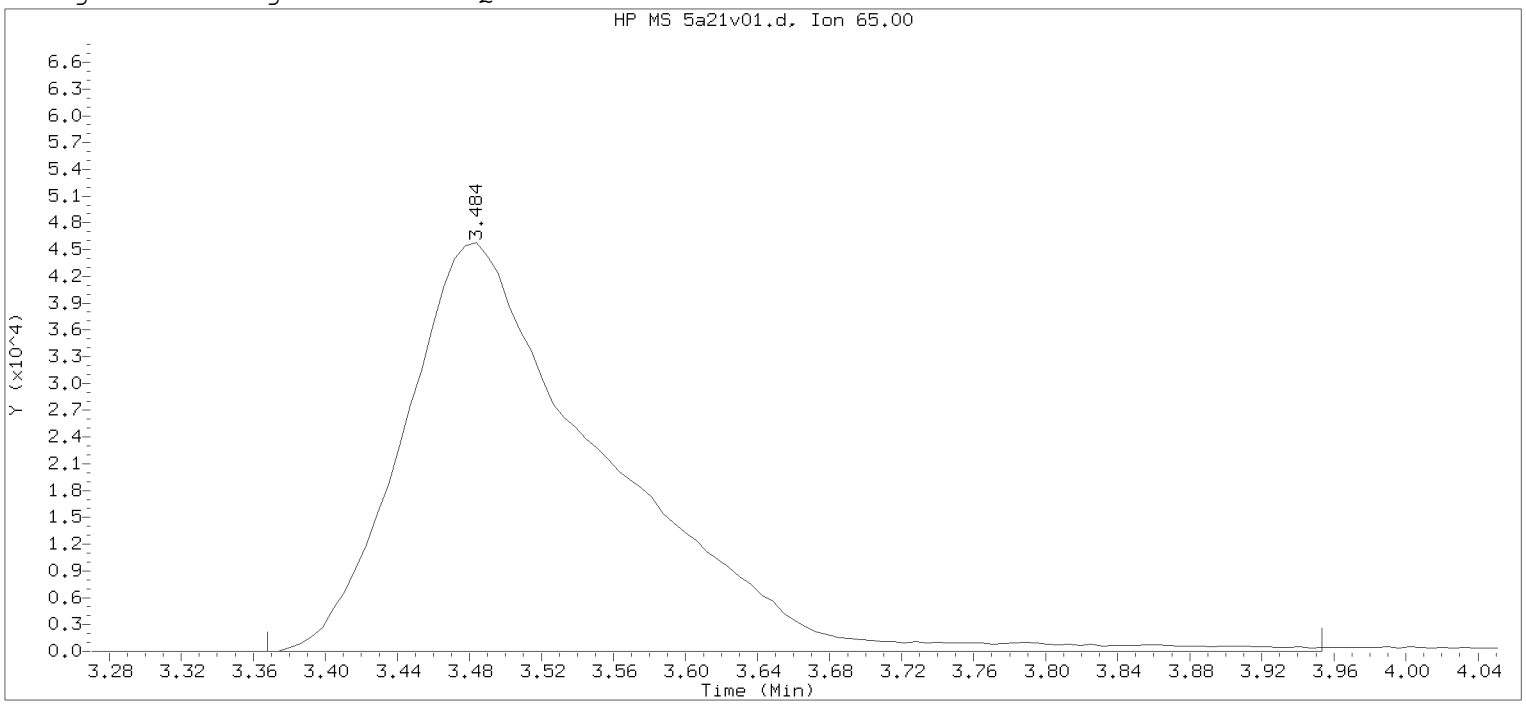
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

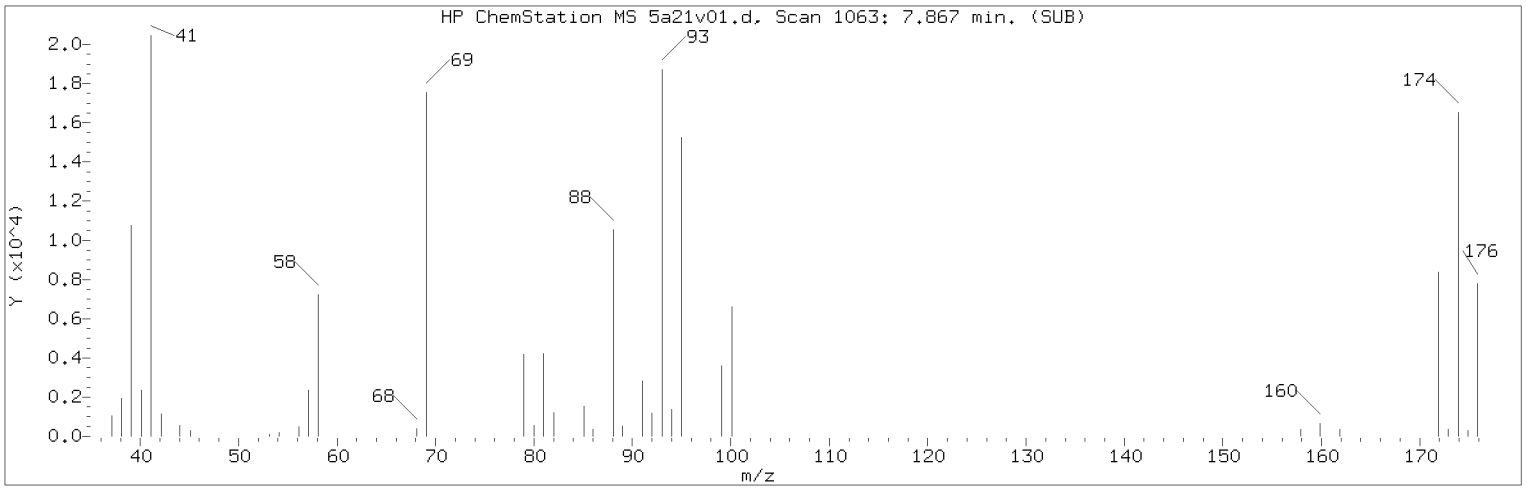
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

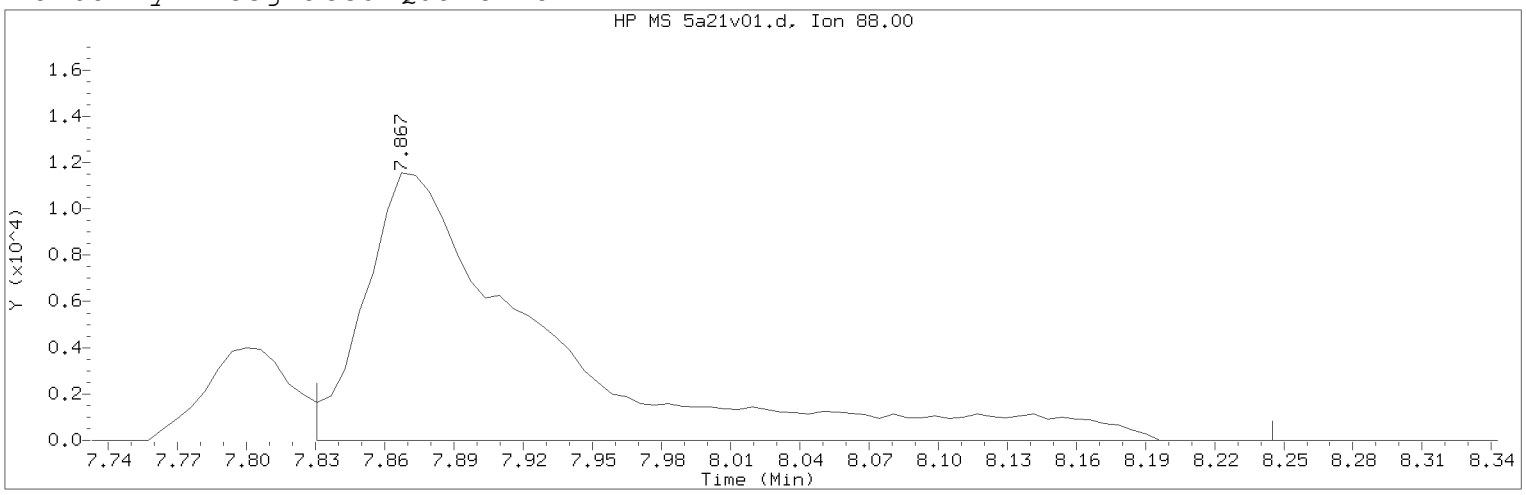
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 357592
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

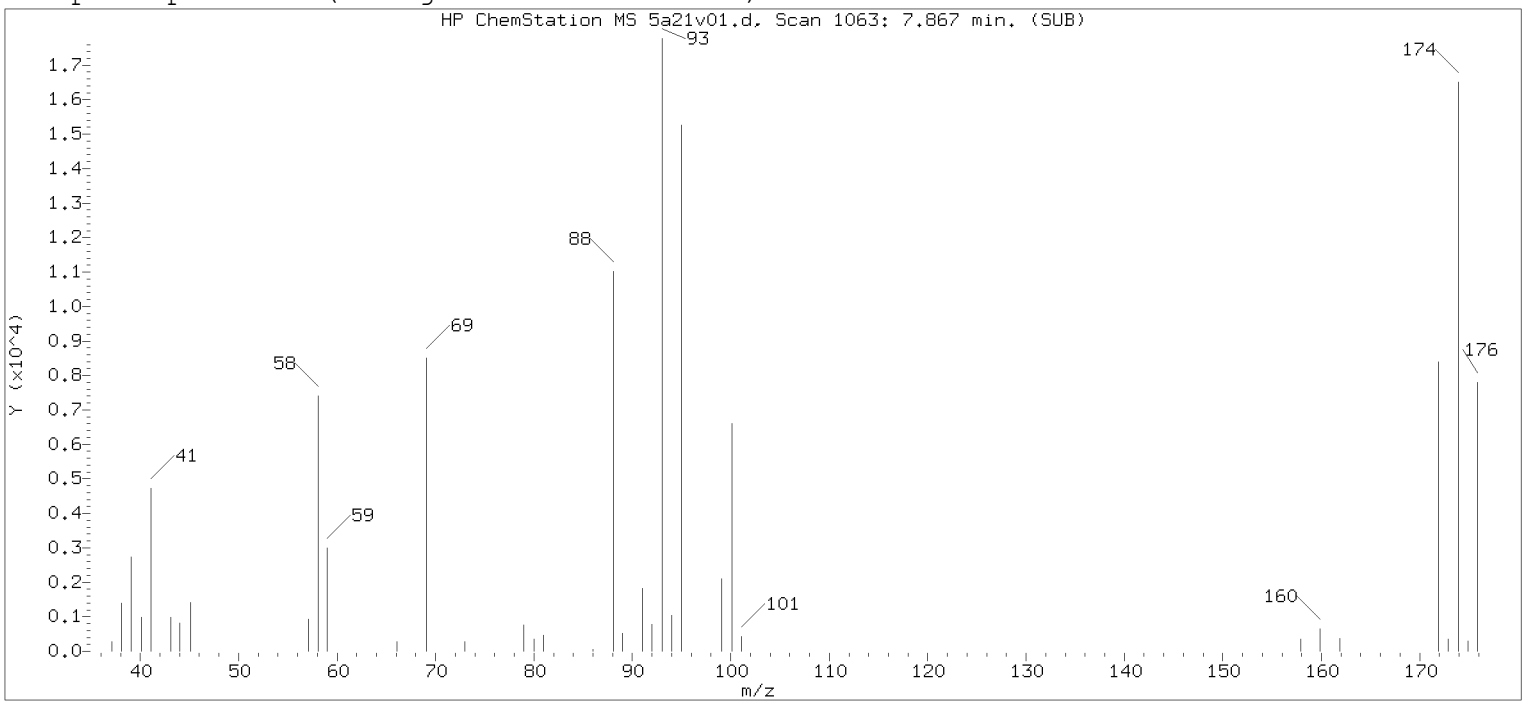
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area (flag) : 63824M
On-Column Amount (ng) : 520.4390
Integration start scan : 1056 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

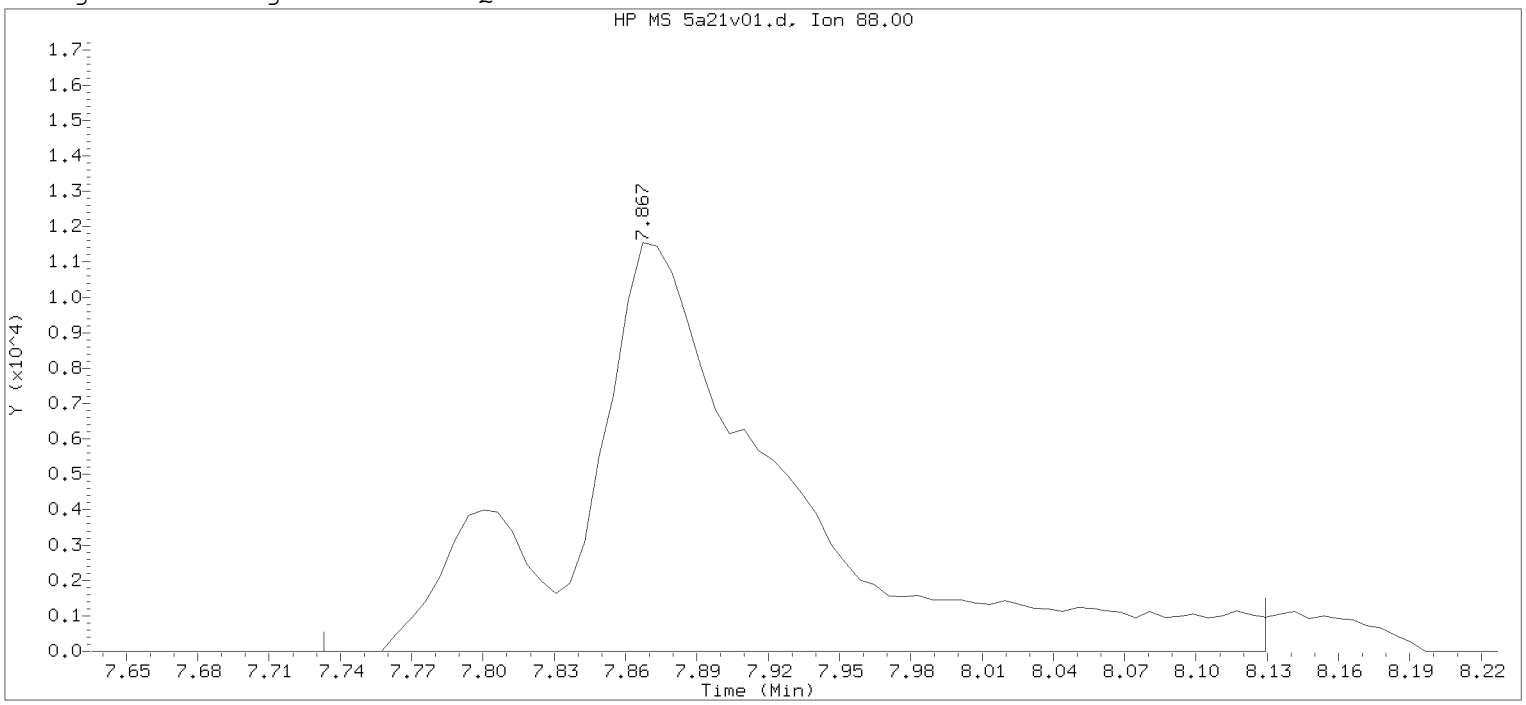
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

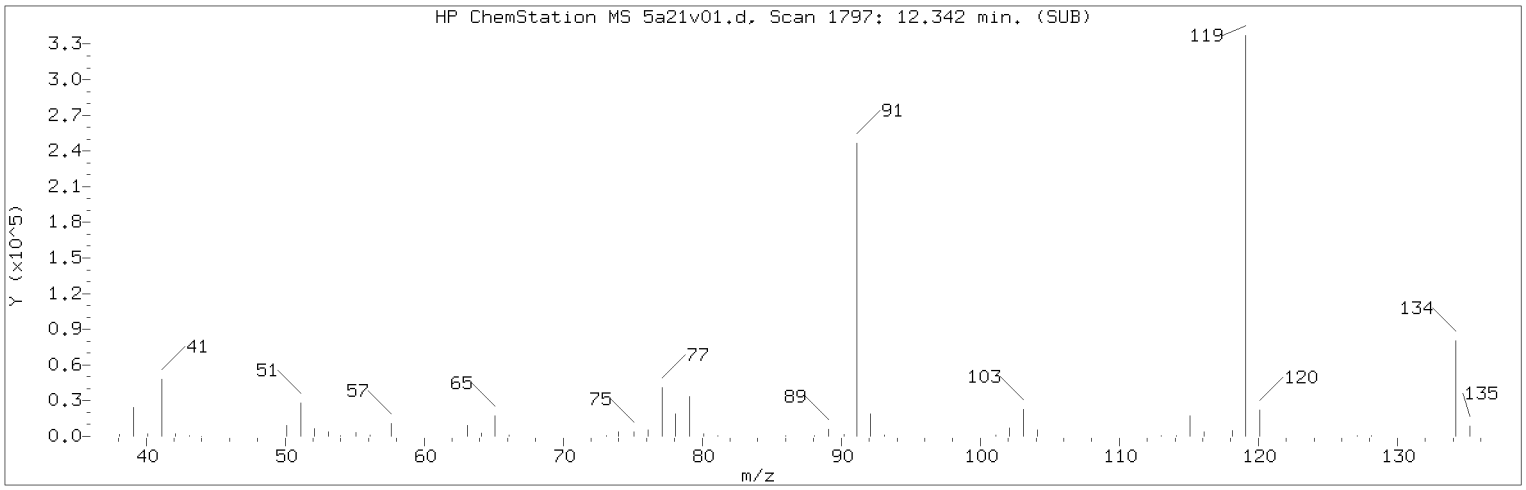
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

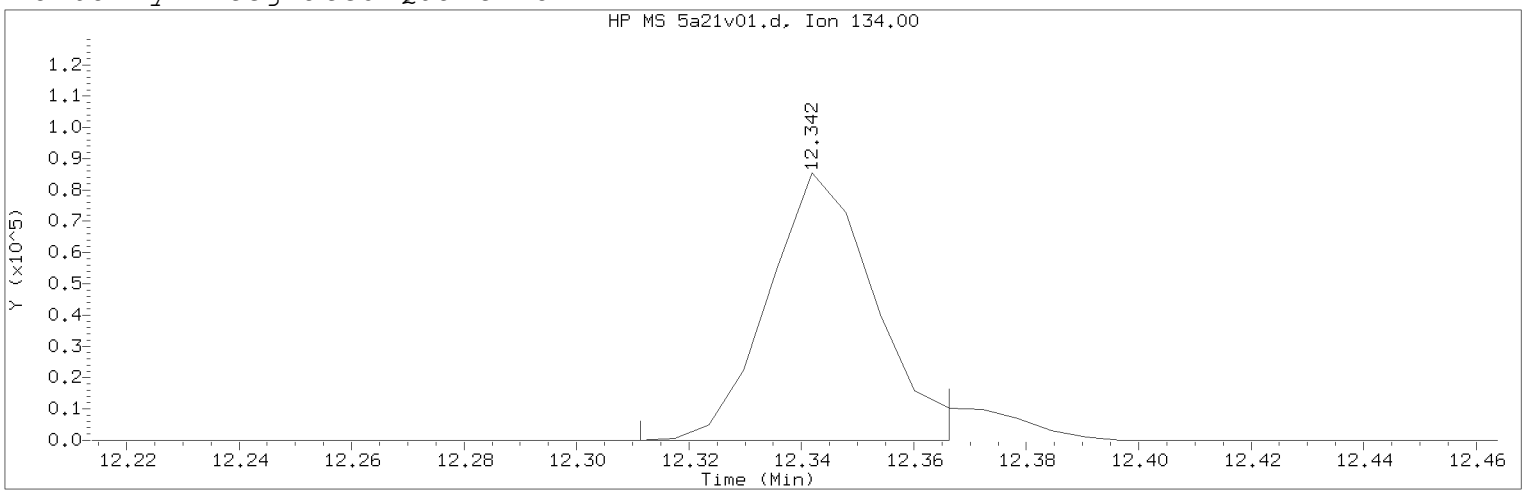
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area : 70811
On-column Amount (ng) : 589.2768
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

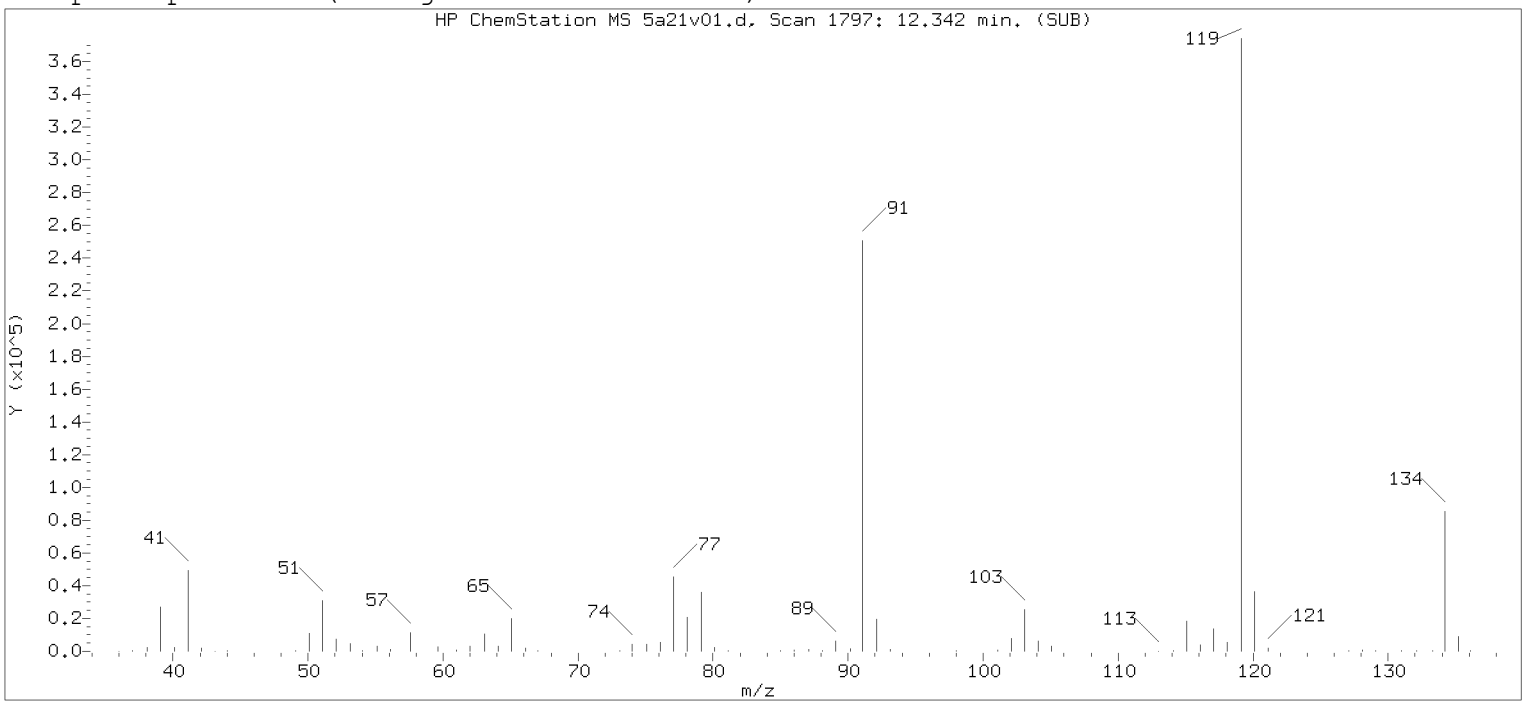
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 112503M
On-Column Amount (ng) : 20.8965
Integration start scan : 1791 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

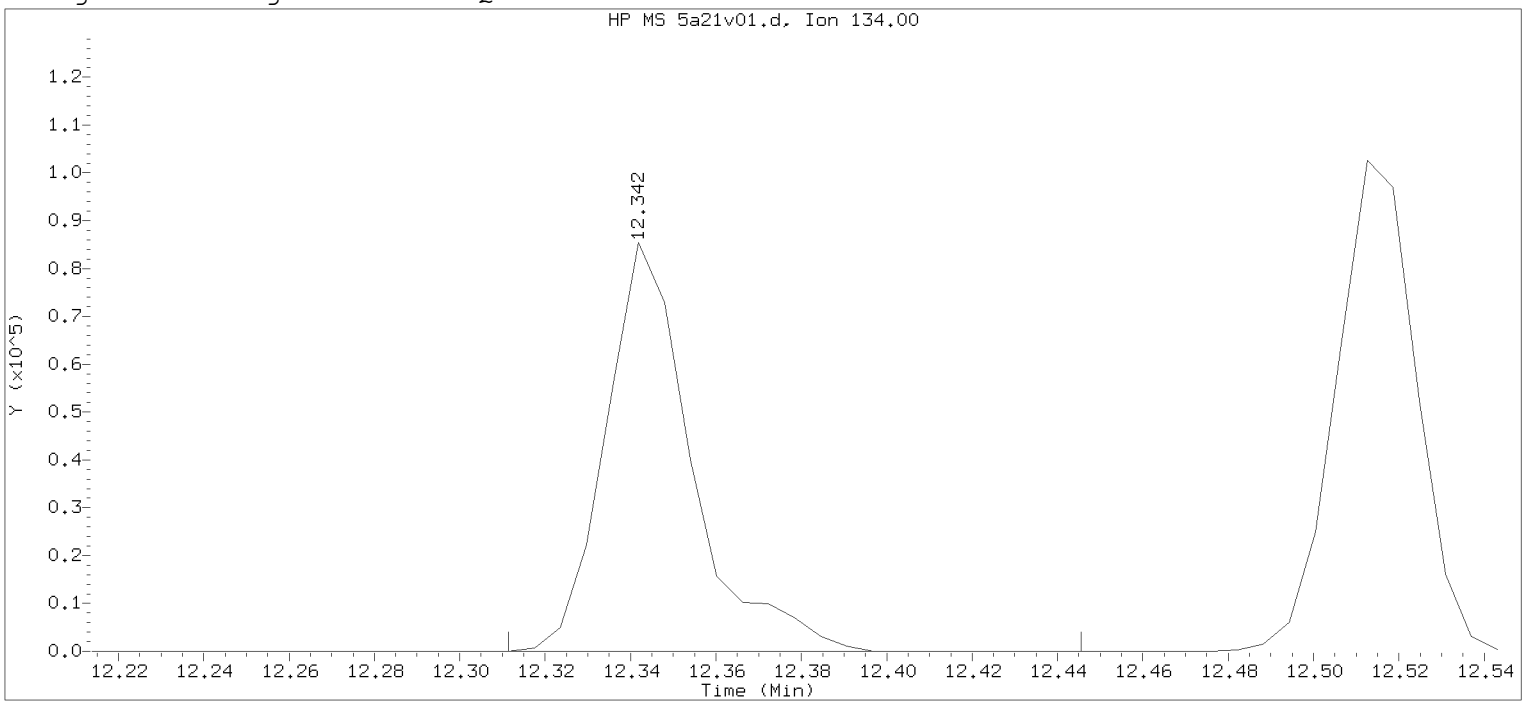
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 120170
On-column Amount (ng) : 22.3208
Integration start scan : 1791 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: KAS02648

Data File: /chem2/HP26285.i/20may23a.b/5y23t01.d

Date : 23-MAY-2020 14:02

Client ID: jan28-20

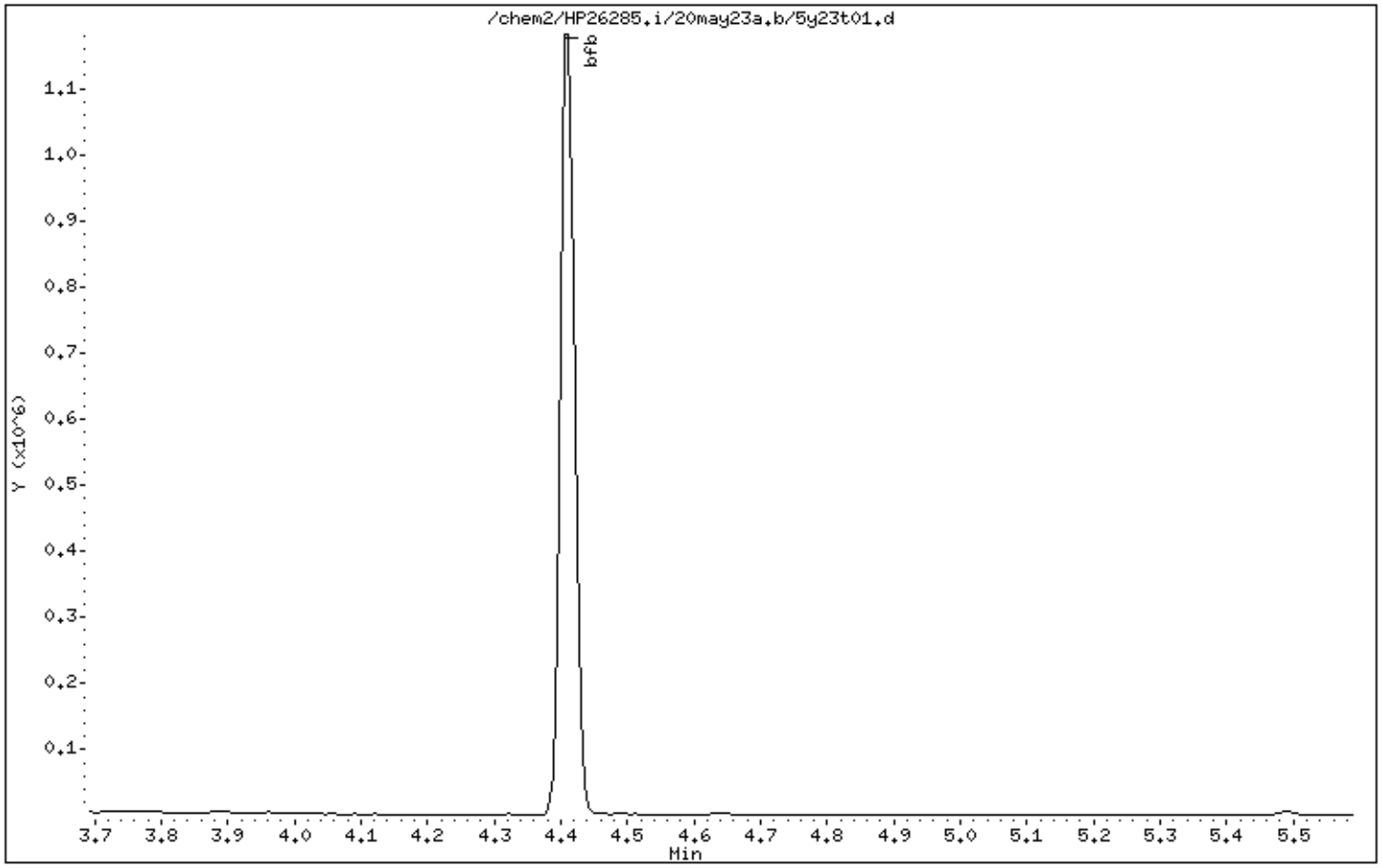
Instrument: HP26285.i

Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may23a.b/5y23t01.d

Date : 23-MAY-2020 14:02

Client ID: jan28-20

Instrument: HP26285.i

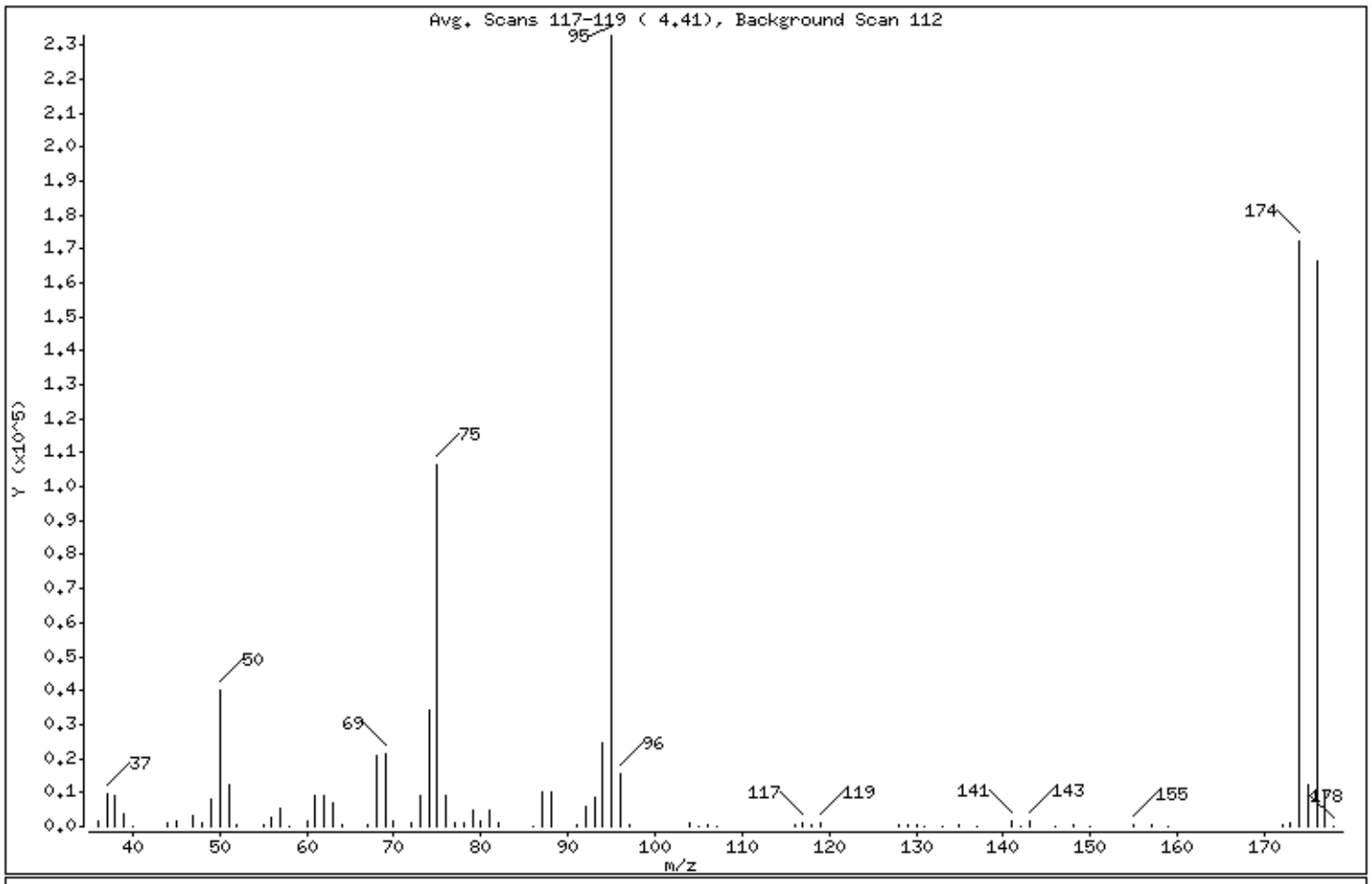
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.23
75	30.00 - 60.00% of mass 95	45.82
96	5.00 - 9.00% of mass 95	6.72
173	Less than 2.00% of mass 174	0.50 (0.67)
174	50.00 - 100.00% of mass 95	74.03
175	5.00 - 9.00% of mass 174	5.26 (7.11)
176	95.00 - 101.00% of mass 174	71.43 (96.49)
177	5.00 - 9.00% of mass 176	4.71 (6.59)

Date : 23-MAY-2020 14:02

Client ID: jan28-20 Instrument: HP26285.i

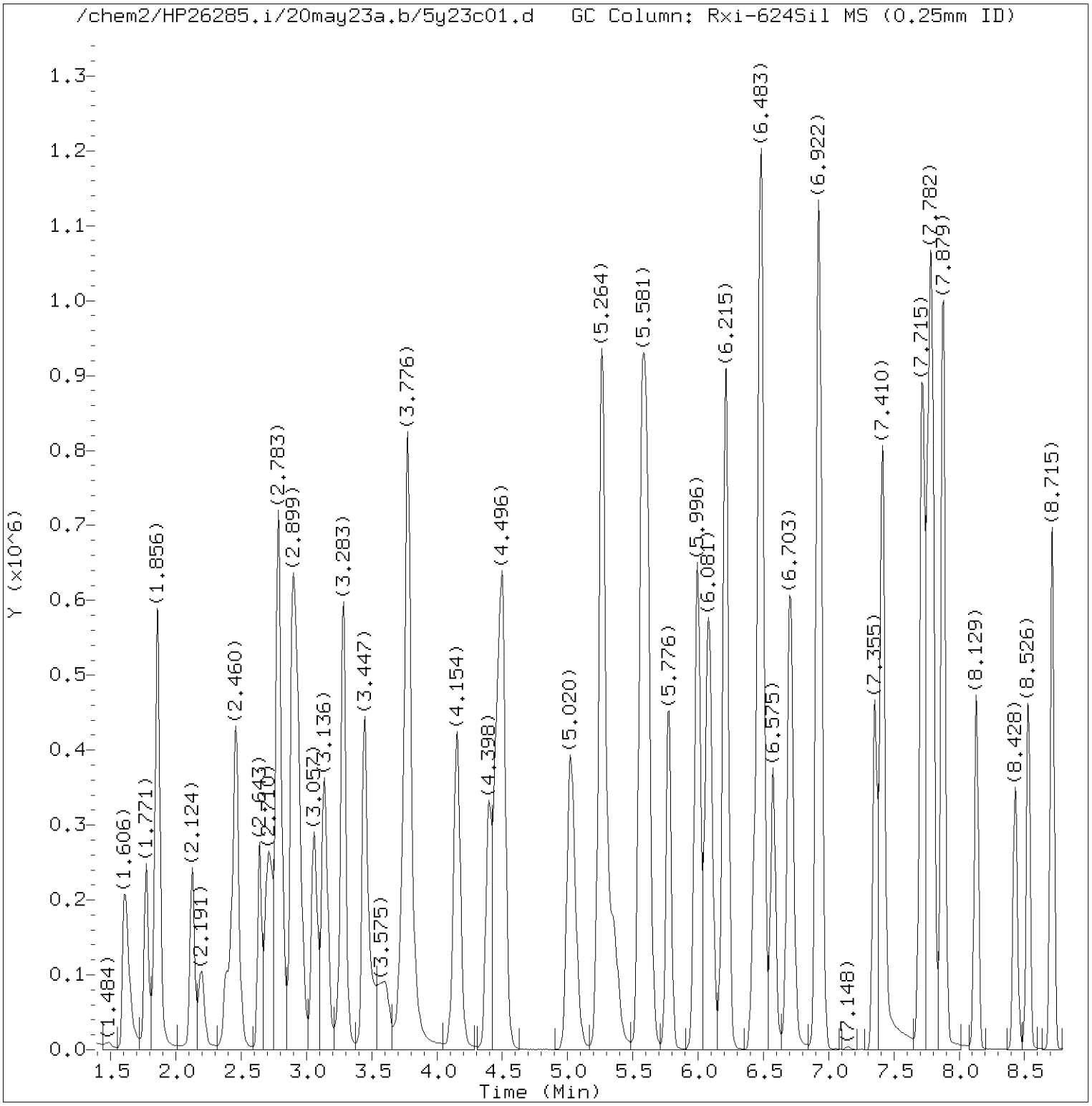
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y23t01.d
Spectrum: Avg. Scans 117-119 (4.41), Background Scan 112
Location of Maximum: 95.00
Number of points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1839	63.00	6821	91.00	712	135.00	379
37.00	9862	64.00	646	92.00	5680	137.00	217
38.00	8858	67.00	606	93.00	8790	141.00	1677
39.00	3526	68.00	20976	94.00	24440	142.00	97
40.00	203	69.00	21440	95.00	232768	143.00	1743
44.00	1020	70.00	1670	96.00	15633	146.00	200
45.00	1799	72.00	929	97.00	498	148.00	459
47.00	3222	73.00	8857	104.00	854	150.00	99
48.00	1158	74.00	34240	105.00	260	155.00	484
49.00	8269	75.00	106672	106.00	714	157.00	373
50.00	40120	76.00	9192	107.00	83	159.00	93
51.00	12255	77.00	1318	116.00	674	172.00	278
52.00	575	78.00	869	117.00	1122	173.00	1163
55.00	594	79.00	4674	118.00	703	174.00	172288
56.00	2833	80.00	1399	119.00	998	175.00	12253
57.00	5349	81.00	4919	128.00	745	176.00	166272
58.00	84	82.00	1008	129.00	384	177.00	10963
60.00	1773	86.00	211	130.00	736	178.00	267
61.00	9181	87.00	10085	131.00	219		
62.00	9291	88.00	9906	133.00	114		



Total Ion Chromatogram (TIC)

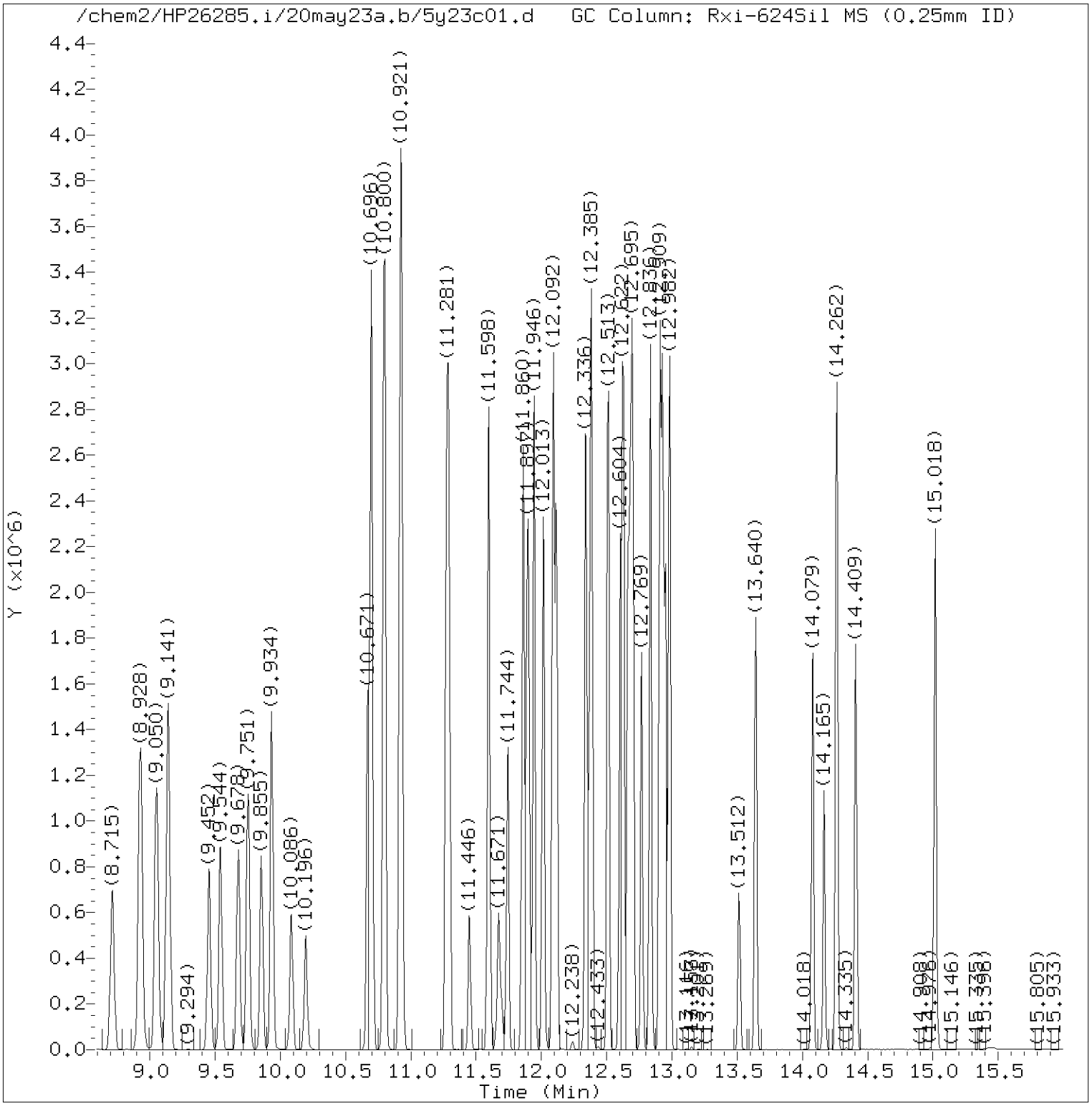
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	474502	58.780
4) Chloromethane	(2)	1.771	50	321469	50.195
5) 1,3-Butadiene	(2)	1.856	39	288551	32.417
6) Vinyl Chloride	(2)	1.862	62	315014	55.620
8) Bromomethane	(2)	2.124	94	220027	57.862
9) Chloroethane	(2)	2.198	64	149617	55.794
12) Trichlorofluoromethane	(2)	2.435	101	395751	57.053
11) n-Pentane	(2)	2.460	43	297828	46.125
14) Ethyl ether	(2)	2.643	59	191302	40.004
15) Freon 123a	(2)	2.710	67	335464	46.331
16) Acrolein	(1)	2.783	56	1024944	540.347
17) 1,1-Dichloroethene	(2)	2.893	96	255576	47.421
17) 1,1-Dichloroethene	(2)	2.893	63	132816	49.170
19) Freon 113	(2)	2.923	101	294703	48.309
18) Acetone	(1)	2.929	58	111549	119.239
22) Methyl Iodide	(2)	3.057	142	488082	47.493
21) 2-Propanol	(1)	3.069	45	155238	203.924
23) Carbon Disulfide	(2)	3.136	76	807597	42.599
27) Methyl Acetate	(2)	3.264	43	376253	48.421
25) Allyl Chloride	(2)	3.283	41	424523	47.055
28) Methylene Chloride	(2)	3.447	84	286257	47.120
29)*t-Butyl alcohol-d10	(1)	3.502	65	299566	250.000
30) t-Butyl alcohol	(1)	3.600	59	313149	221.931
31) Acrylonitrile	(2)	3.728	53	207173	50.511
32) trans-1,2-Dichloroethene	(2)	3.776	96	282149	46.786
33) Methyl Tertiary Butyl Ether	(2)	3.776	73	771175	48.346
34) n-Hexane	(2)	4.154	57	401129	44.858
36) 1,1-Dichloroethane	(2)	4.392	63	505128	46.270
38) di-Isopropyl ether	(2)	4.465	45	885929	45.436
39) 2-Chloro-1,3-butadiene	(2)	4.502	53	435105	46.914
40) Ethyl t-butyl ether	(2)	5.020	59	787682	45.504
44) 2-Butanone	(2)	5.258	43	590464	98.913
42) cis-1,2-Dichloroethene	(2)	5.264	96	321767	47.173
45) 2,2-Dichloropropane	(2)	5.276	77	411078	44.627
47) Propionitrile	(1)	5.355	54	423912	275.979
48) Methacrylonitrile	(2)	5.569	67	486431	119.081
49) Bromochloromethane	(2)	5.605	128	155115	49.651
50) Tetrahydrofuran	(1)	5.618	71	161831	116.572

* = Compound is an internal standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.776	83	520148	47.503
52)$Dibromofluoromethane	(2)	5.996	113	245138	49.375
52)$Dibromofluoromethane	(2)	5.996	111	251455	49.466
53) 1,1,1-Trichloroethane	(2)	5.996	97	470940	47.770
54) Cyclohexane	(2)	6.081	56	523973	45.635
54) Cyclohexane	(2)	6.081	84	440187	46.346
54) Cyclohexane	(2)	6.081	69	163362	45.871
43) 1,2-Dichloroethene (Total)	(2)		96	603916	93.959
56) Carbon Tetrachloride	(2)	6.203	117	407894	47.422
55) 1,1-Dichloropropene	(2)	6.215	75	415589	46.535
58) Isobutyl Alcohol	(1)	6.447	41	305847	650.280
57)$1,2-Dichloroethane-d4	(2)	6.465	102	55573	50.048
57)$1,2-Dichloroethane-d4	(2)	6.465	65	275640	50.772
57)$1,2-Dichloroethane-d4	(2)	6.471	104	35754	50.288
60) Benzene	(2)	6.489	78	1241453	46.750
61) 1,2-Dichloroethane	(2)	6.575	62	387905	47.560
61) 1,2-Dichloroethane	(2)	6.575	98	35041	50.804
65) t-Amyl methyl ether	(2)	6.703	73	797389	46.164
66)*Fluorobenzene	(2)	6.916	96	996784	50.000
67) n-Heptane	(2)	6.934	43	381144	44.126
69) n-Butanol	(1)	7.355	56	542431	1336.571
71) Trichloroethene	(2)	7.410	95	330234	47.389
73) Methylcyclohexane	(2)	7.715	83	538343	48.608
73) Methylcyclohexane	(2)	7.715	98	227114	48.439
74) 1,2-Dichloropropane	(2)	7.764	63	315562	47.471
76) 1,4-Dioxane	(1)	7.861	88	76977M	764.671
75) Dibromomethane	(2)	7.873	93	202527	48.384
77) Methyl Methacrylate	(2)	7.879	69	300837	48.370
79) Bromodichloromethane	(2)	8.129	83	386004	47.557
80) 2-Nitropropane	(2)	8.428	41	291047	103.528
81) 2-Chloroethyl Vinyl Ether	(2)	8.526	63	249803	48.558
82) cis-1,3-Dichloropropene	(2)	8.715	75	492296	47.996
83) 4-Methyl-2-pentanone	(2)	8.928	43	1196509	103.991
84)$Toluene-d8	(3)	9.050	98	959114	50.258
84)$Toluene-d8	(3)	9.050	100	627469	49.936
89) Toluene	(3)	9.141	92	807644	47.996
90) trans-1,3-Dichloropropene	(3)	9.452	75	458733	50.809
92) Ethyl Methacrylate	(3)	9.544	69	503425	49.036

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) 1,1,2-Trichloroethane	(3)	9.678	97	303522	50.453
94) Tetrachloroethene	(3)	9.751	166	356018	49.884
95) 1,3-Dichloropropane	(3)	9.855	76	491984	49.254
97) 2-Hexanone	(3)	9.934	43	972882	108.819
98) Dibromochloromethane	(3)	10.086	129	319227	50.147
91) 1,3-Dichloropropene (total)	(3)		100	951029	98.805
100) 1,2-Dibromoethane	(3)	10.196	107	334020	50.366
101)*Chlorobenzene-d5	(3)	10.671	117	776530	50.000
103) Chlorobenzene	(3)	10.696	112	911124	49.891
102) 1-Chlorohexane	(3)	10.696	91	466973	47.718
104) 1,1,1,2-Tetrachloroethane	(3)	10.793	131	324292	51.472
105) Ethylbenzene	(3)	10.800	91	1640923	50.433
107) m+p-Xylene	(3)	10.921	106	1257831	100.760
108) o-Xylene	(3)	11.275	106	619454	50.698
110) Styrene	(3)	11.293	104	1013868	51.487
111) Bromoform	(3)	11.452	173	236435	51.335
112) Isopropylbenzene	(3)	11.598	105	1625994	50.710
113) Cyclohexanone	(1)	11.671	55	288415MA	623.752
115)$4-Bromofluorobenzene	(3)	11.744	95	397940	49.491
115)$4-Bromofluorobenzene	(3)	11.744	174	319231	50.893
109) Xylene (Total)	(3)		106	1877285	151.458
116) Bromobenzene	(4)	11.860	156	393227	49.738
117) 1,1,2,2-Tetrachloroethane	(4)	11.866	83	543222	50.634
119) trans-1,4-Dichloro-2-butene	(4)	11.891	53	298438	136.792
118) 1,2,3-Trichloropropane	(4)	11.903	110	158175	50.070
120) n-Propylbenzene	(4)	11.946	91	1919906	49.392
121) 2-Chlorotoluene	(4)	12.013	126	386969	48.569
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	1356508	49.645
122) 4-Chlorotoluene	(4)	12.116	126	396564	49.273
125) tert-Butylbenzene	(4)	12.342	134	269454M	49.619
126) Pentachloroethane	(4)	12.366	167	226093	50.714
127) 1,2,4-Trimethylbenzene	(4)	12.385	105	1420551	50.485
128) sec-Butylbenzene	(4)	12.513	105	1683332	49.689
130) 1,3-Dichlorobenzene	(4)	12.604	146	737999	49.628
131) p-Isopropyltoluene	(4)	12.628	119	1419663	50.251
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	414707	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	748129	49.572
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	1346627	49.858

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

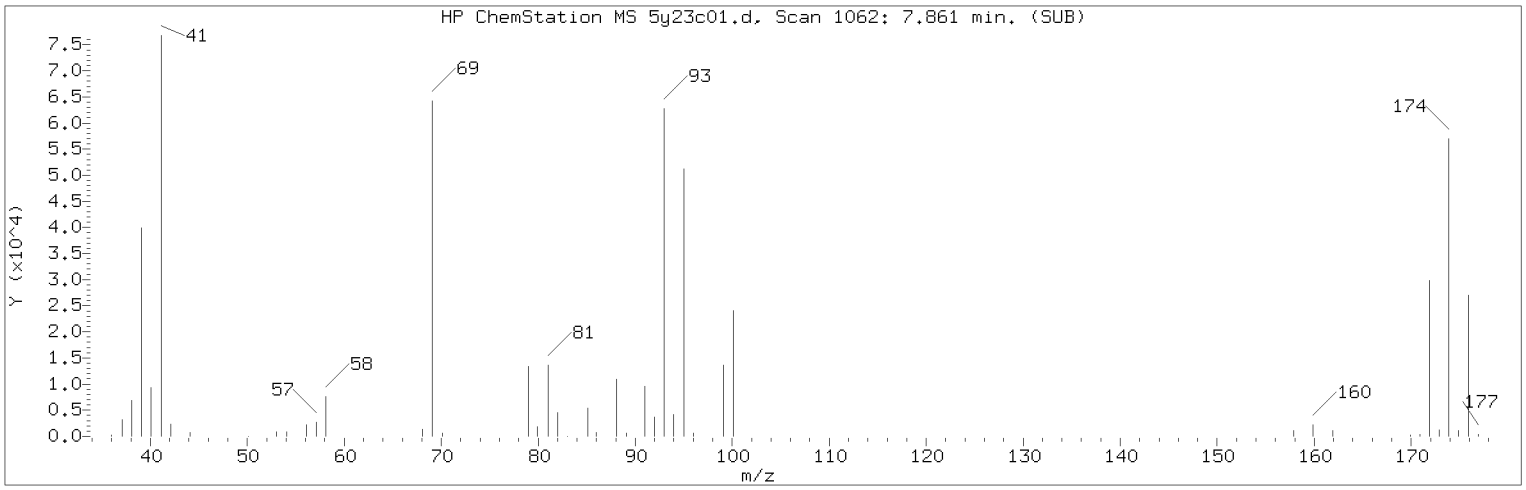
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

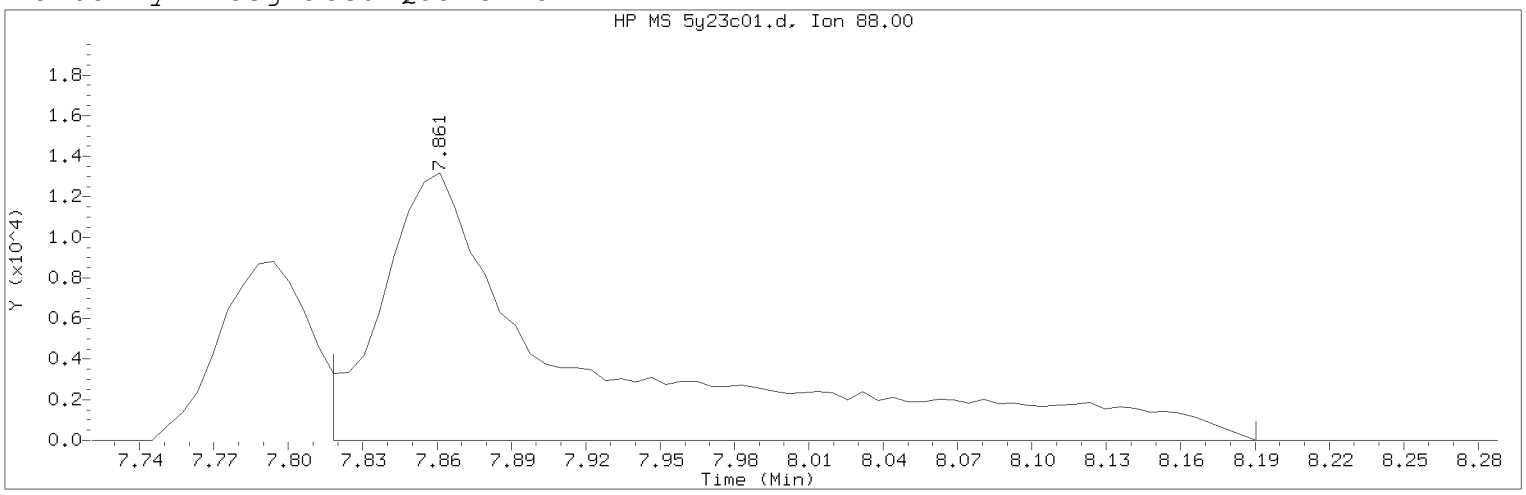
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
136) Benzyl Chloride	(4)	12.769	91	989368	48.069
137) 1,3-Diethylbenzene	(4)	12.836	119	816636	50.028
138) 1,4-Diethylbenzene	(4)	12.909	119	849103	50.291
140) n-Butylbenzene	(4)	12.927	92	696224	48.857
139) 1,2-Dichlorobenzene	(4)	12.952	146	706923	49.489
141) 1,2-Diethylbenzene	(4)	12.982	119	682389	49.430
142) Diethylbenzene (total)	(4)		100	2348128	149.749
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	136244	50.300
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	469231	49.734
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	440659	49.715
148) Hexachlorobutadiene	(4)	14.165	225	164524	48.264
149) Naphthalene	(4)	14.262	128	1802168	51.343
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	435836	49.690
151) 2-Methylnaphthalene	(4)	15.018	142	920764	50.491

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

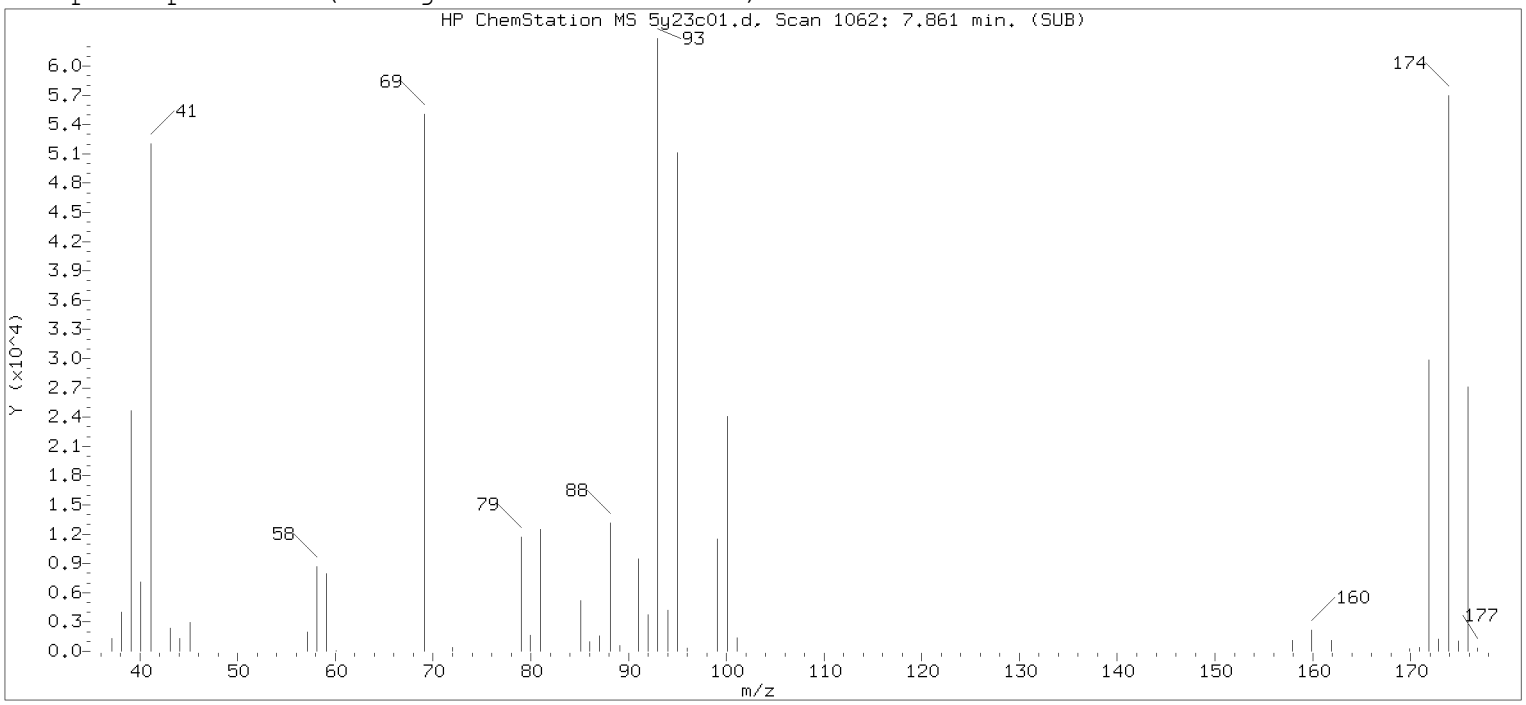
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 76977M
On-Column Amount (ng) : 764.6713
Integration start scan : 1054 Integration stop scan: 1115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

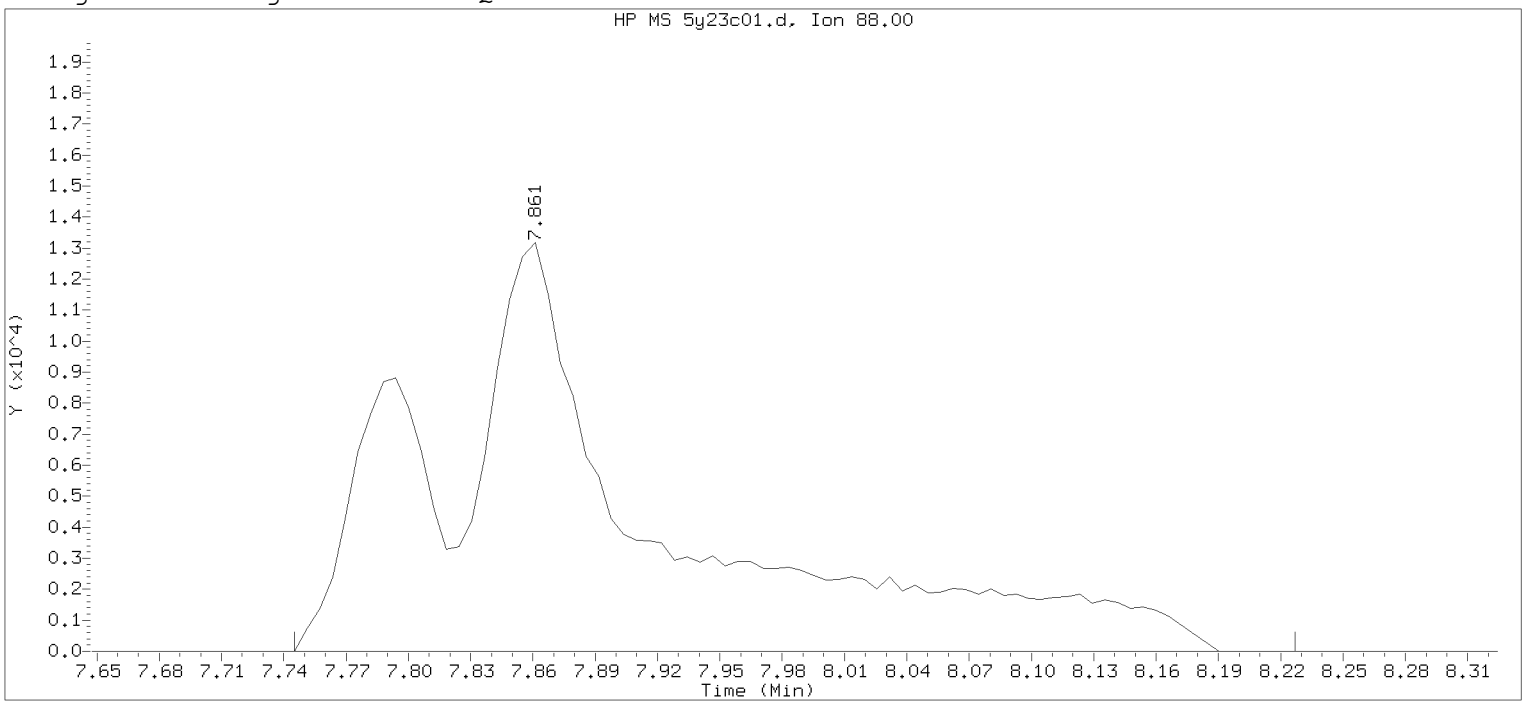
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

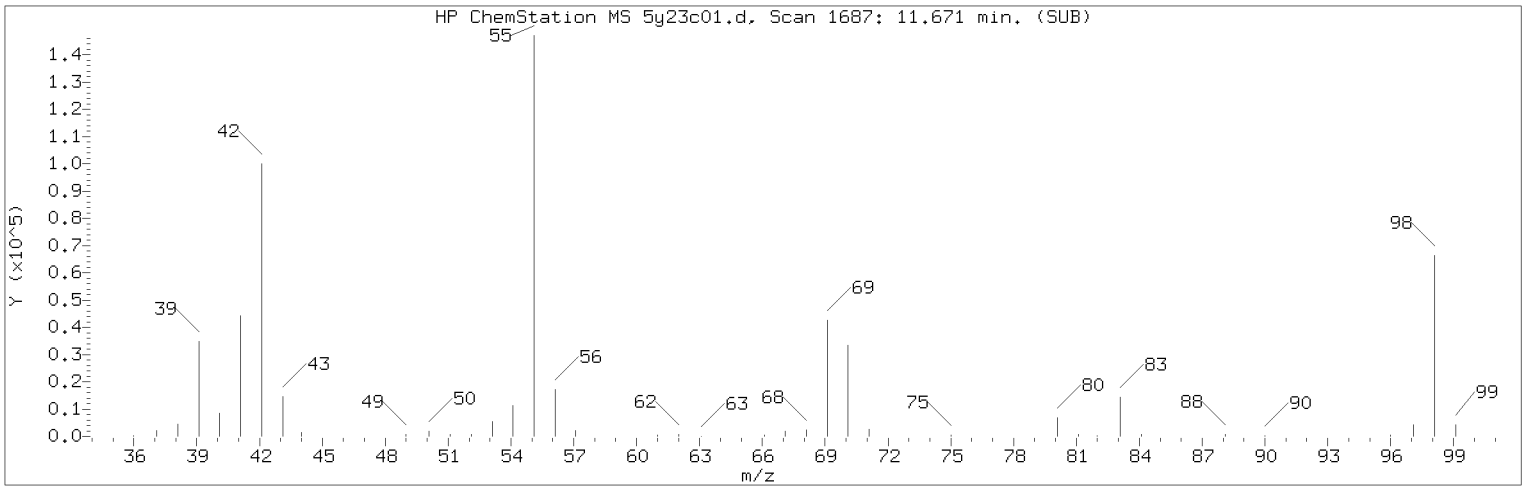
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

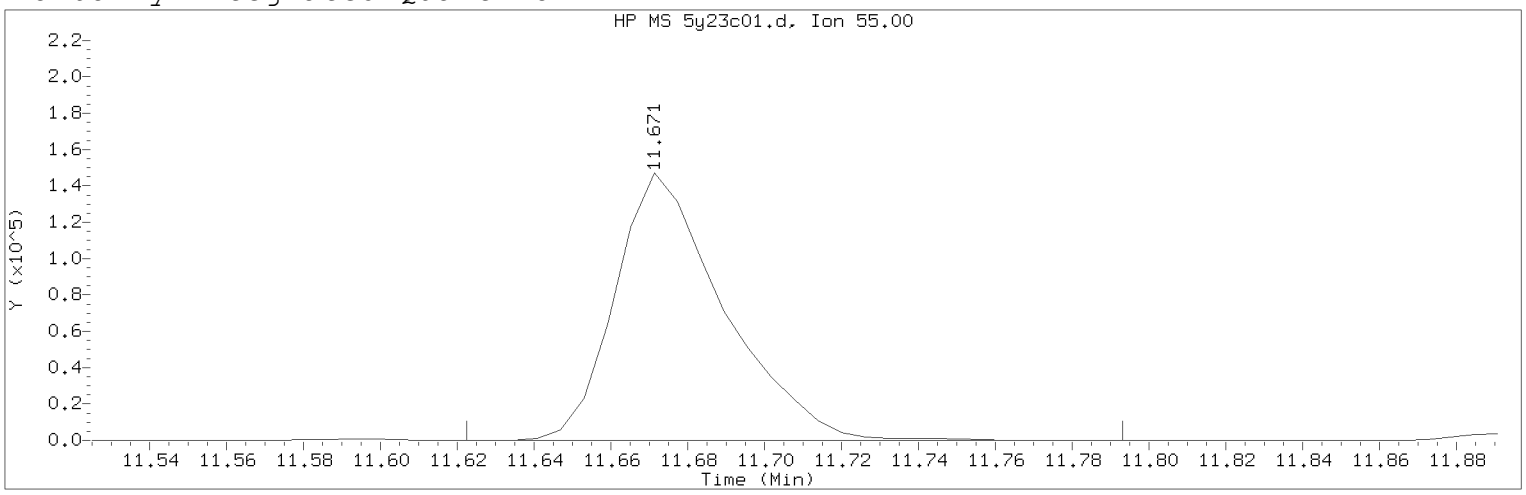
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 98668
On-column Amount (ng) : 980.1421
Integration start scan : 1042 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:10.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

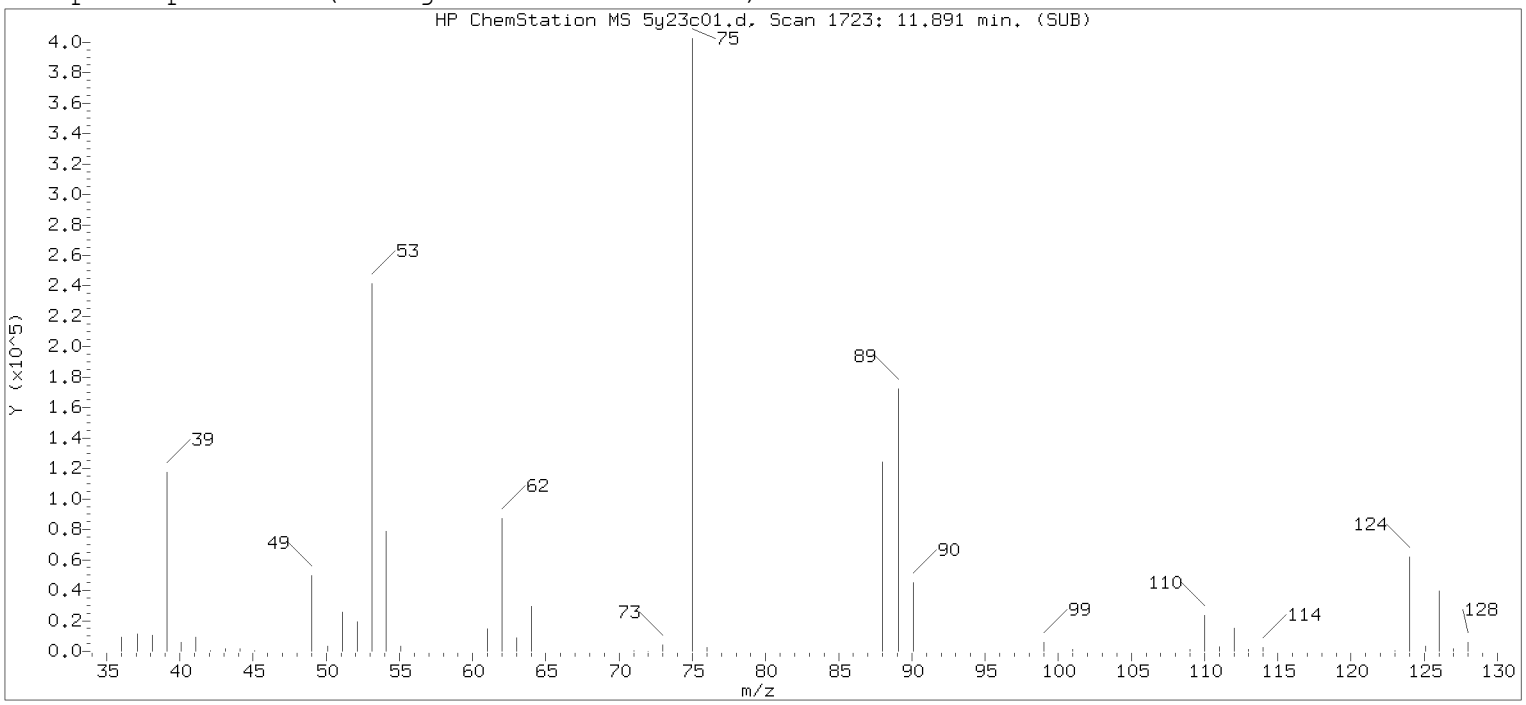
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1687
Retention Time (minutes): 11.671
Quant Ion : 55.00
Area (flag) : 288415MA
On-Column Amount (ng) : 623.7517
Integration start scan : 1678 Integration stop scan: 1706
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

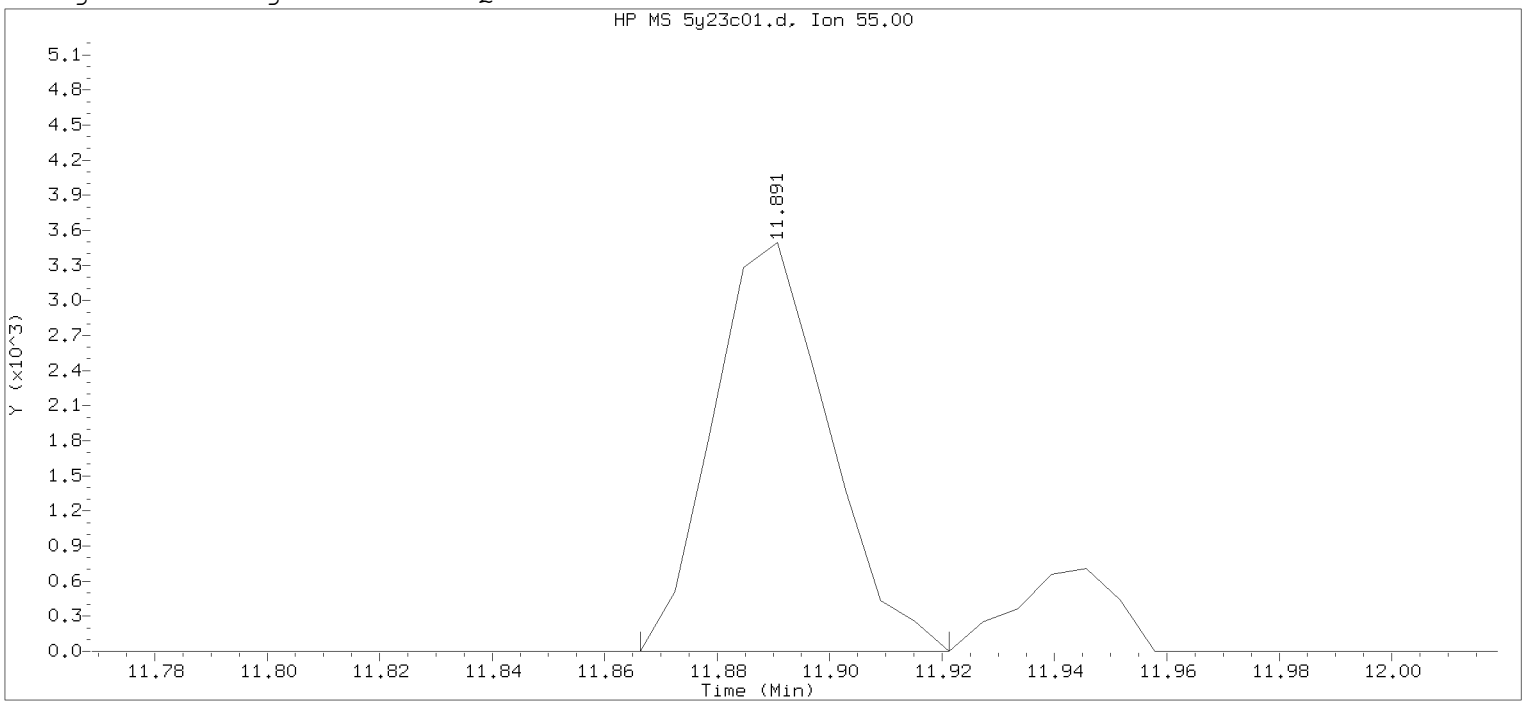
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

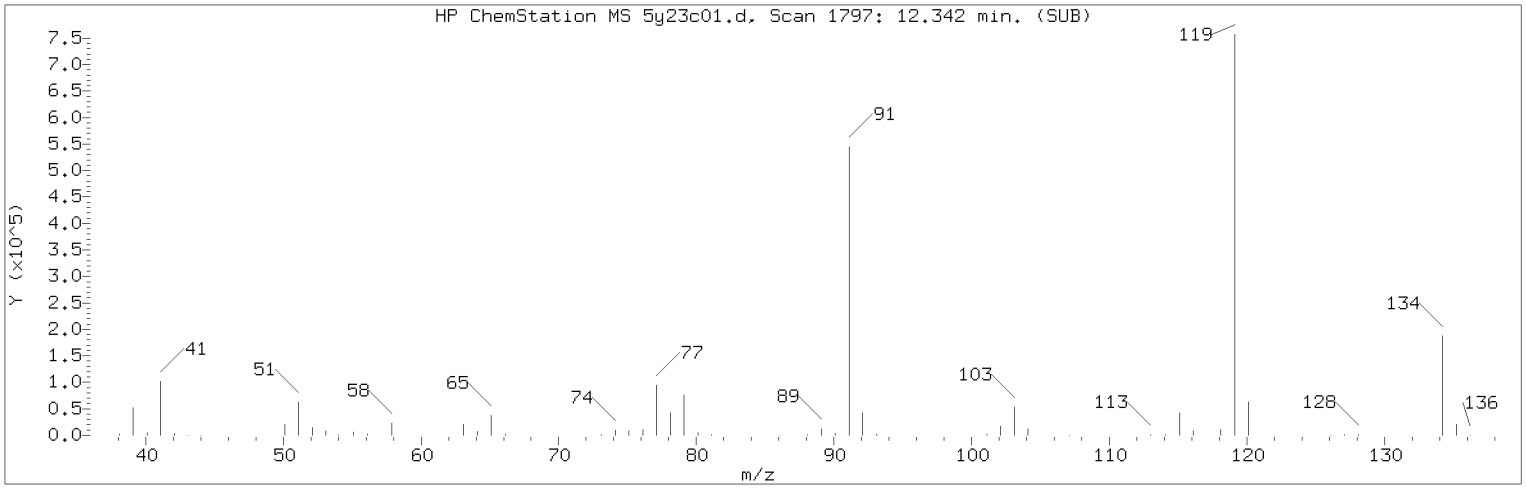
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

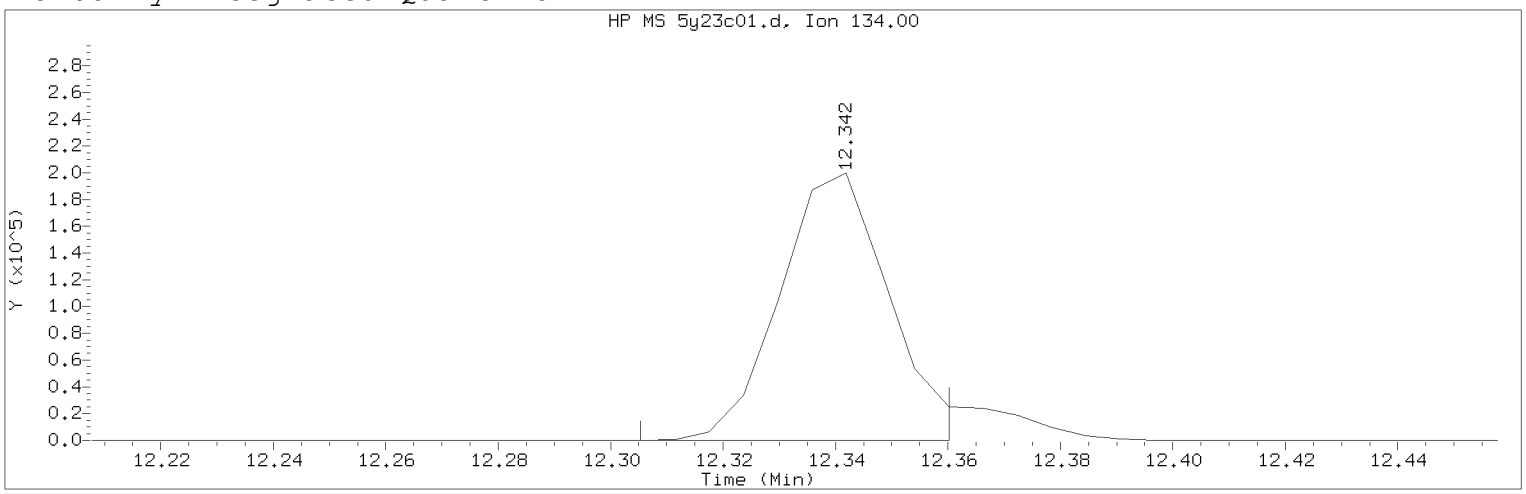
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1723
Retention Time (minutes): 11.891
Quant Ion : 55.00
Area : 4985
On-column Amount (ng) : 10.7830
Integration start scan : 1718 Integration stop scan: 1727
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:10.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:10 kas02648

Sample Name: VSTD050 Lab Sample ID: VSTD050

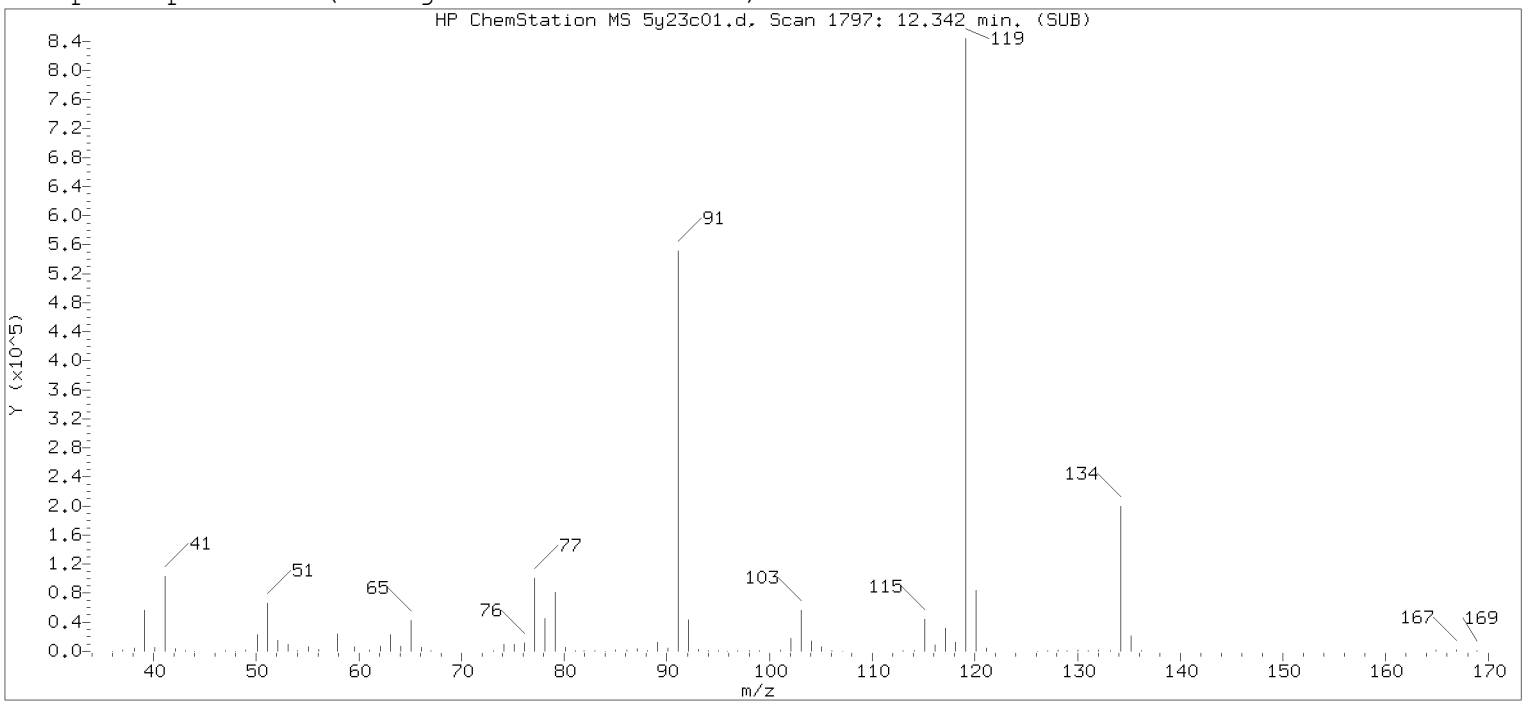
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 269454M
On-Column Amount (ng) : 49.6191
Integration start scan : 1790 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

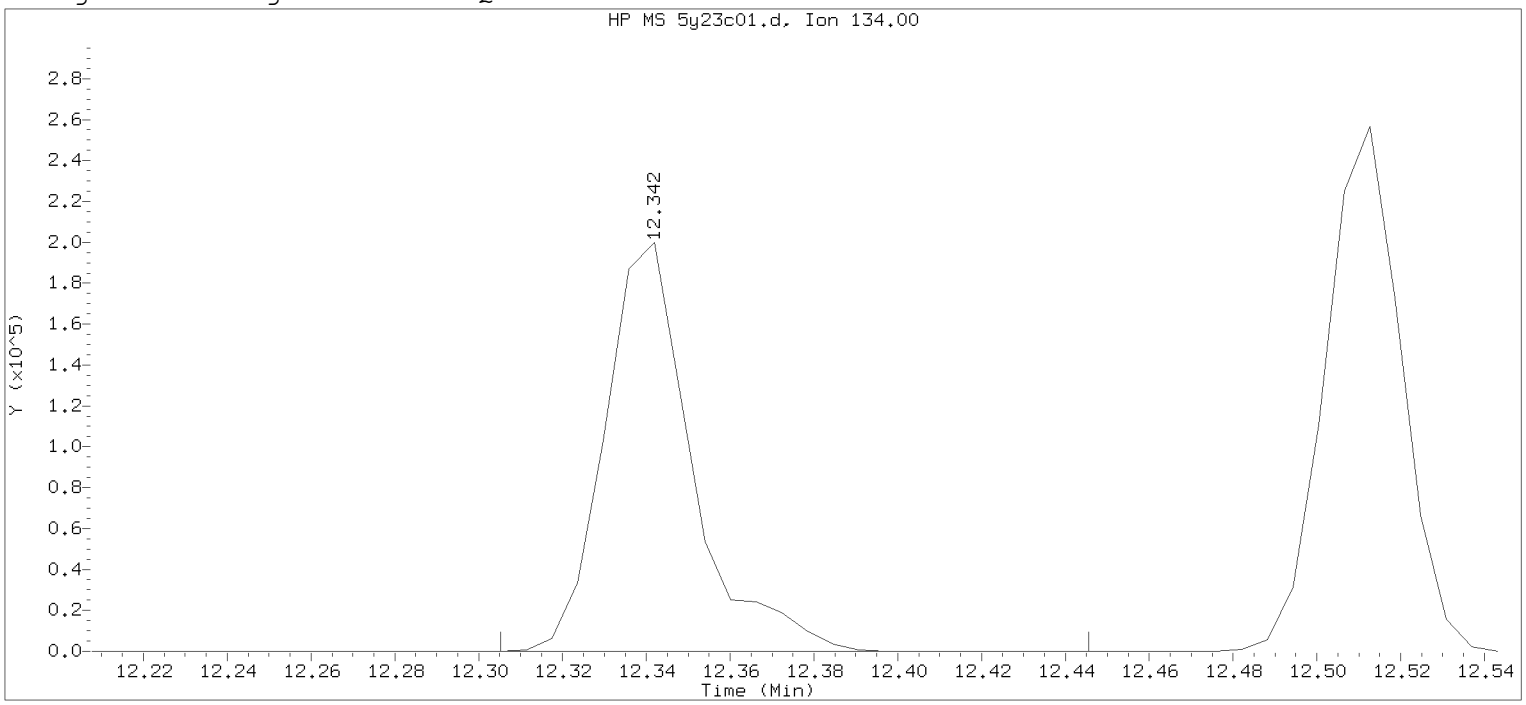
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:10.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23c01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:34 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 14:52 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 290245
On-column Amount (ng) : 53.4477
Integration start scan : 1790 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:10.
Target 3.5 esignature user: KAS02648

Raw QC Data

Volatiles by GC/MS

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;;
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Injection date and time: **23-MAY-2020 15:36**
Instrument ID: **HP26285.i** Batch: **5201441AA**

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.484	(0.018)	344	65	276314	(-8)	250.00	
66) Fluorobenzene	6.916	(0.000)	907	96	975534	(-2)	50.00	
101) Chlorobenzene-d5	10.672	(0.000)	1523	117	753626	(-3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665	(0.000)	1850	152	392354	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002	(-0.001)	113	236076	48.586	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471	(-0.001)	102	55553	51.120	102%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	918531	49.595	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.744	(0.000)	95	372449	47.728	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d Injection date and time: **23-MAY-2020 15:36**
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:57. Target 3.5 esignature user ID: kas02648

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23b01.d Injection date and time: **23-MAY-2020 15:36**
Data file Sample Info. Line: VBLK567;VBLK567;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

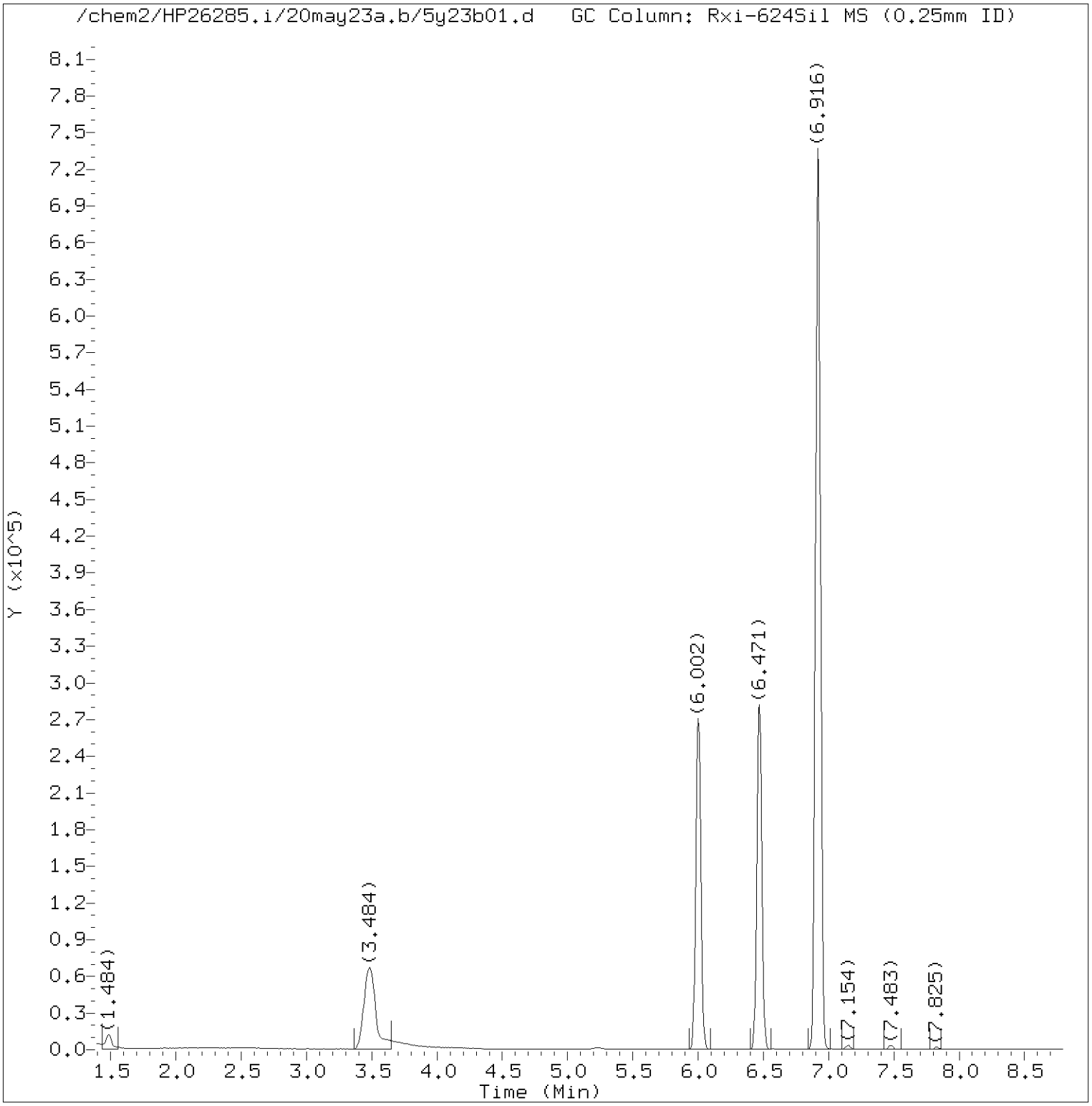
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:57. Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

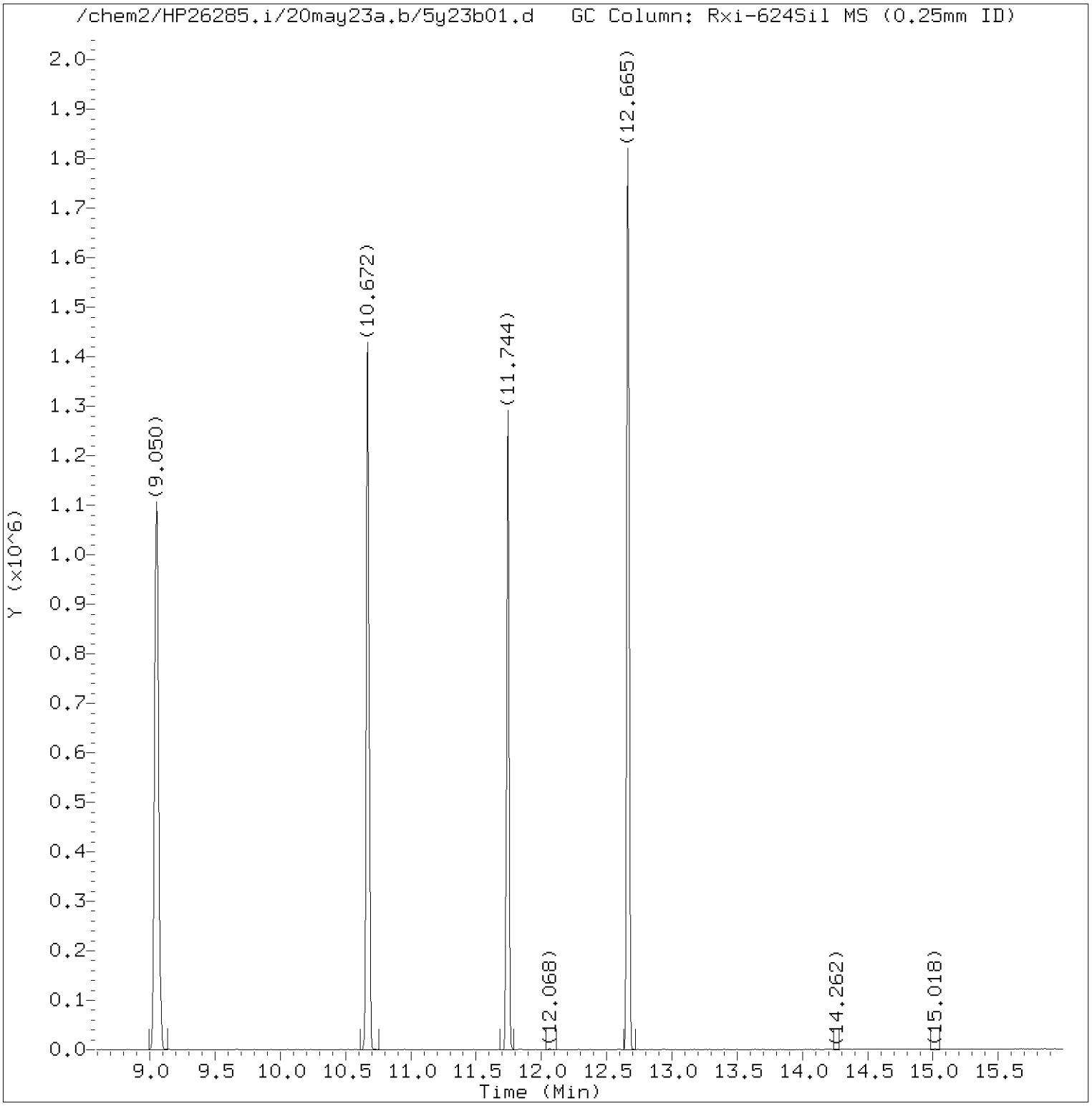
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23b01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 15:36 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:54 chemist

Sample Name: VBLK567 Lab Sample ID: VBLK567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.484	65	276314	250.000
52)$Dibromofluoromethane	(2)	6.002	113	236076	48.586
57)$1,2-Dichloroethane-d4	(2)	6.471	102	55553	51.120
66)*Fluorobenzene	(2)	6.916	96	975534	50.000
84)$Toluene-d8	(3)	9.050	98	918531	49.595
101)*Chlorobenzene-d5	(3)	10.672	117	753626	50.000
115)$4-Bromofluorobenzene	(3)	11.744	95	372449	47.728
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	392354	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:57.
Target 3.5 esignature user ID: kas02648

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKL95

Data file: /chem/HP09915.i/20may26b.b/ly26b50.d
Data file Sample Info. Line: VBLKL95;VBLKL95;1;3;;;;;;
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Injection date and time: **26-MAY-2020 21:16**
Instrument ID: **HP09915.i** Batch: **L201472AA**

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 20:28
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.506	(-0.019)	940	65	334743	(1)	250.00	
66) Fluorobenzene	7.950	(-0.003)	2011	96	1649904	(-4)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1233892	(-7)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	657146	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.072	(-0.001)	113	413636	49.764	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	105406	49.977	100%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1588004	50.097	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342	(0.000)	95	567602	46.538	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Laura J. Green on 05/26/2020 at 23:42. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may26b.b/ly26b50.d Injection date and time: **26-MAY-2020 21:16**
Data file Sample Info. Line: VBLKL95;VBLKL95;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 20:28
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
101) 1-Chlorohexane	(3)				Not Detected					0.3	5
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Laura J. Green on 05/26/2020 at 23:42. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may26b.b/ly26b50.d Injection date and time: **26-MAY-2020 21:16**
Data file Sample Info. Line: VBLKL95;VBLKL95;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 20:28
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

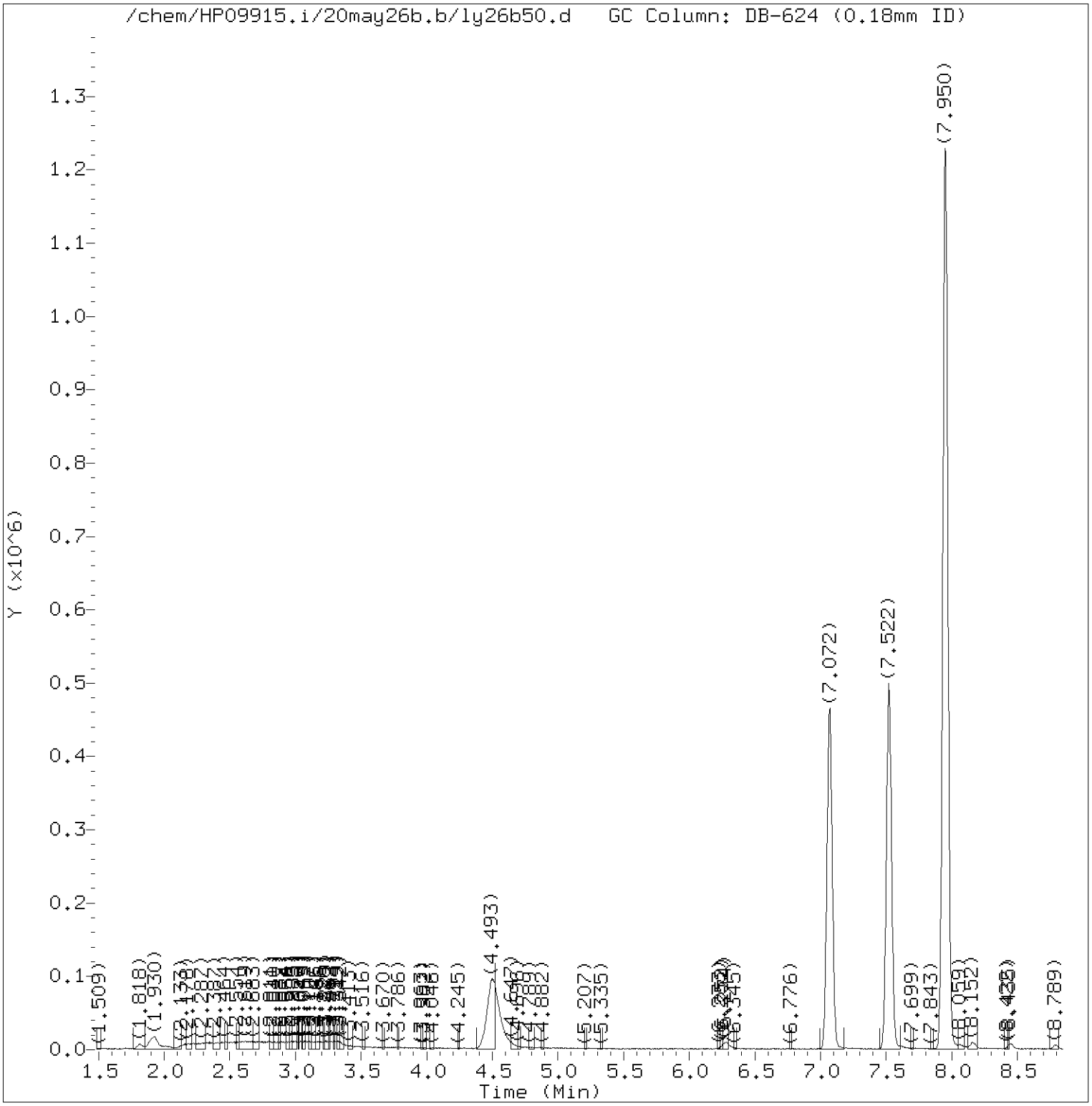
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)			Not Detected					0.2	5
121) 4-Chlorotoluene	(4)			Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)			Not Detected					0.3	5
124) tert-Butylbenzene	(4)			Not Detected					0.3	5
125) Pentachloroethane	(4)			Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)			Not Detected					1	5
127) sec-Butylbenzene	(4)			Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)			Not Detected					0.2	5
130) p-Isopropyltoluene	(4)			Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)			Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)			Not Detected					0.3	5
135) Benzyl Chloride	(4)			Not Detected					1	5
136) 1,3-Diethylbenzene	(4)			Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)			Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
139) n-Butylbenzene	(4)			Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)			Not Detected					0.2	5
141) Diethylbenzene (total)	(4)			Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)			Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)			Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)			Not Detected					0.3	5
147) Hexachlorobutadiene	(4)			Not Detected					2	5
148) Naphthalene	(4)			Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)			Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)	15.557(0.000)	142	1620	2.998	3.00		J	2	4

Total number of targets = 110

Digitally signed by Laura J. Green on 05/26/2020 at 23:42. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:20. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

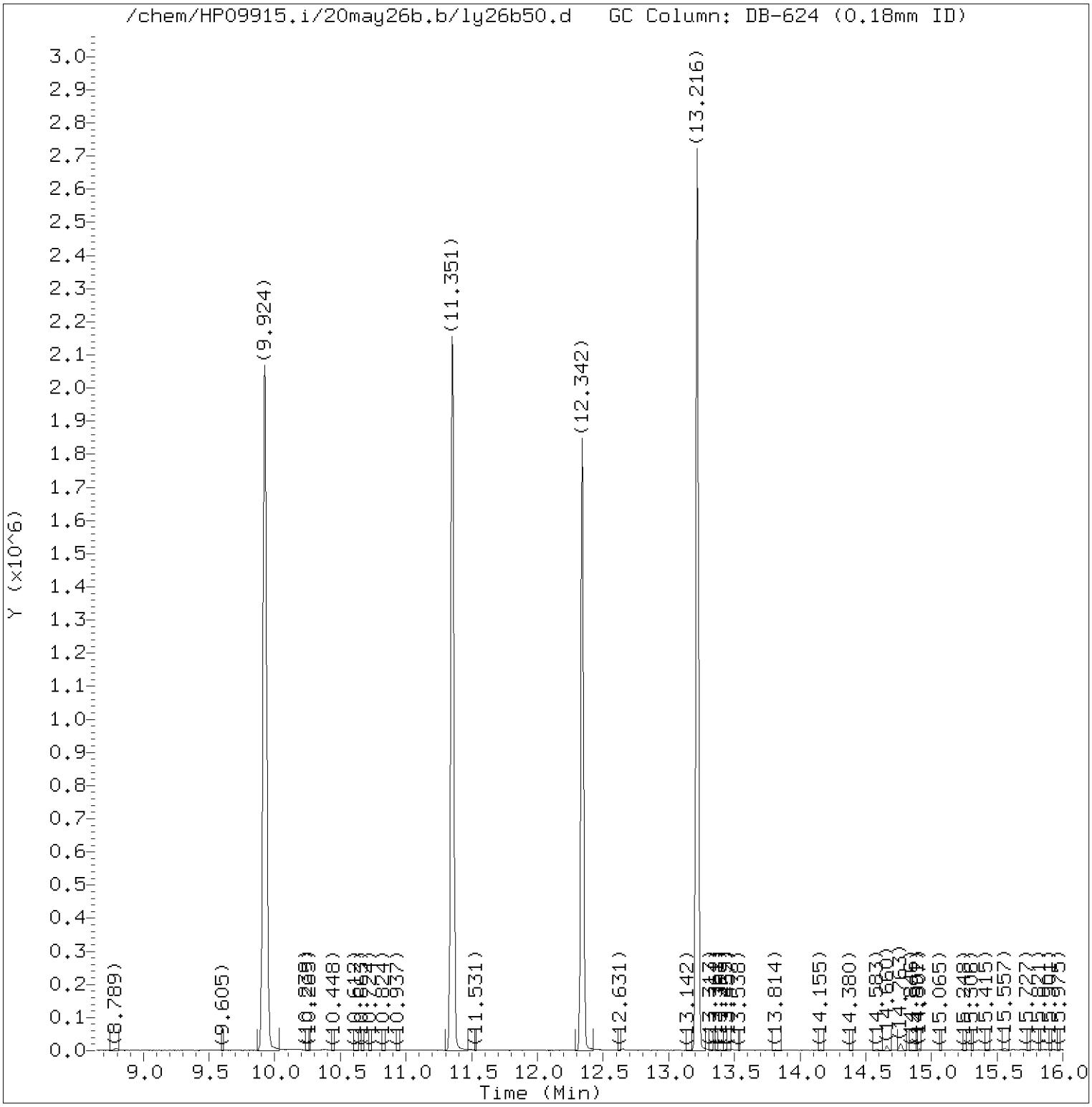
Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26b50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 21:16 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: VBLKL95 Lab Sample ID: VBLKL95

Digitally signed by Laura J. Green
on 05/26/2020 at 23:42.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26b50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 21:16 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: VBLKL95 Lab Sample ID: VBLKL95

Digitally signed by Laura J. Green
on 05/26/2020 at 23:42.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26b50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 21:16 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

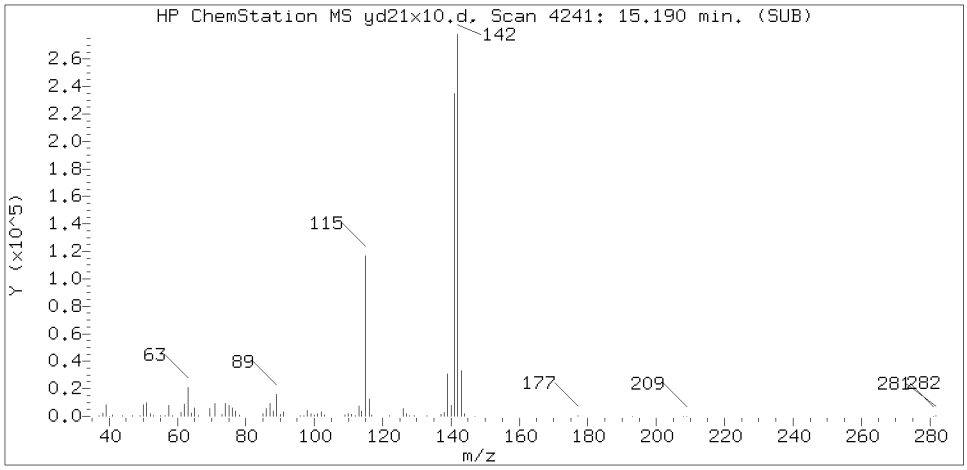
Sample Name: VBLKL95 Lab Sample ID: VBLKL95

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.506	65	334743	250.000
52)$Dibromofluoromethane	(2)	7.072	113	413636	49.764
57)$1,2-Dichloroethane-d4	(2)	7.522	102	105406	49.977
66)*Fluorobenzene	(2)	7.950	96	1649904	50.000
83)$Toluene-d8	(3)	9.924	98	1588004	50.097
100)*Chlorobenzene-d5	(3)	11.351	117	1233892	50.000
114)$4-Bromofluorobenzene	(3)	12.342	95	567602	46.538
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	657146	50.000
150) 2-Methylnaphthalene	(4)	15.557	142	1620	2.998

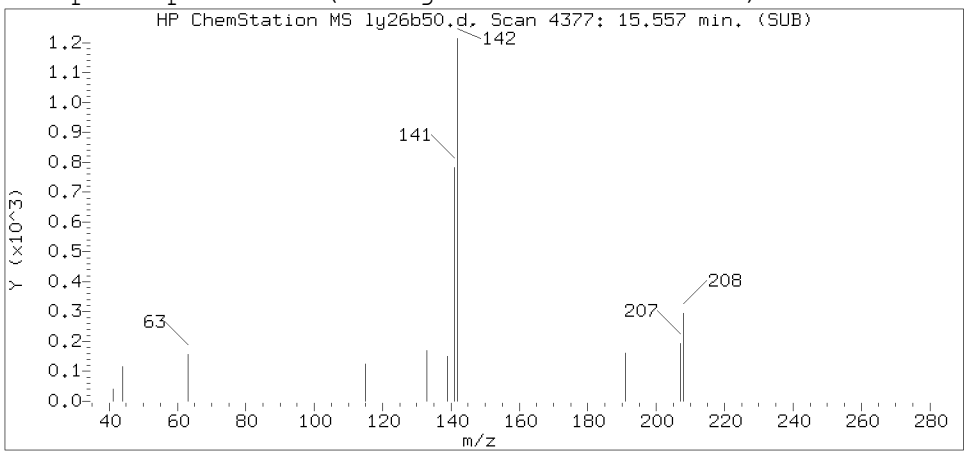
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 23:42.
Target 3.5 esignature user ID: ljg30941

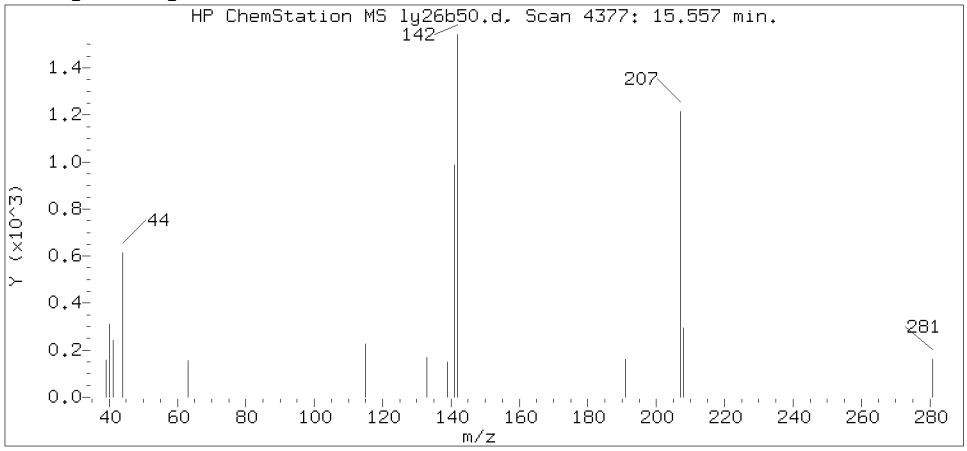
Reference Standard Spectrum for 2-Methylnaphthalene

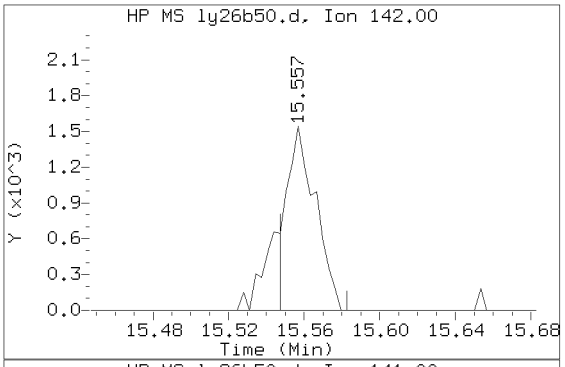


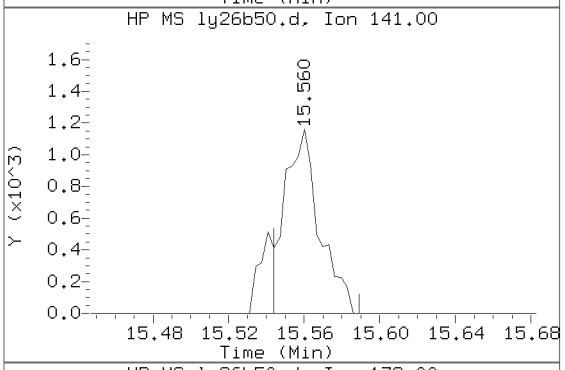
Sample Spectrum (Background Subtracted)

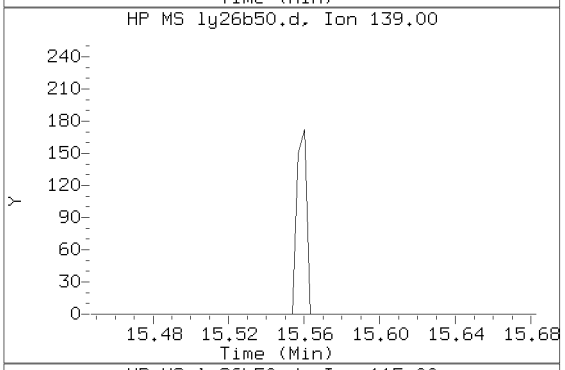


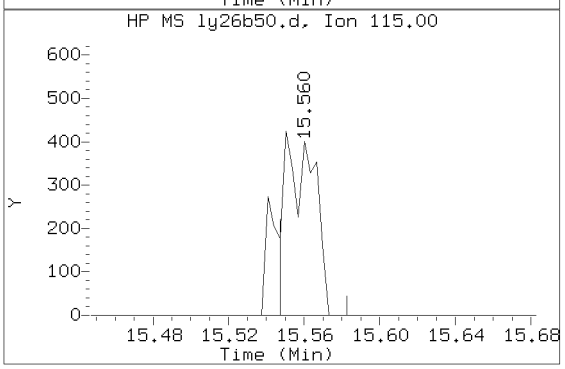
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20may26b.b/ly26b50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 21:16 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: VBLKL95 Lab Sample ID: VBLKL95

Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Relative Retention Time : 0.00000
Quant Ion : 142.00
Area (flag) : 1620
On-Column Amount (ng) : 2.9984

Digitally signed by Laura J. Green on 05/26/2020 at 23:42.
Target 3.5 esignature user ID: ljg30941

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.398	(0.024)	503	65	321315	(14)	250.00	
66) Fluorobenzene	7.926	(0.000)	1083	96	1158785	(10)	50.00	
100) Chlorobenzene-d5	11.363	(0.000)	1648	117	862795	(3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243	(0.000)	1957	152	450523	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026	(0.001)	113	270155	46.978	94%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.482	(0.002)	102	70945	48.792	98%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1084248	48.184	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361	(0.000)	95	394483	44.374	89%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
13) Ethanol	(1)				Not Detected					280	750
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:49. Target 3.5 esignature user ID: sej02002

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22b01.d Injection date and time: **22-MAY-2020 12:06**
Data file Sample Info. Line: VBLKN45;VBLKN45;1;3;;;;;; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

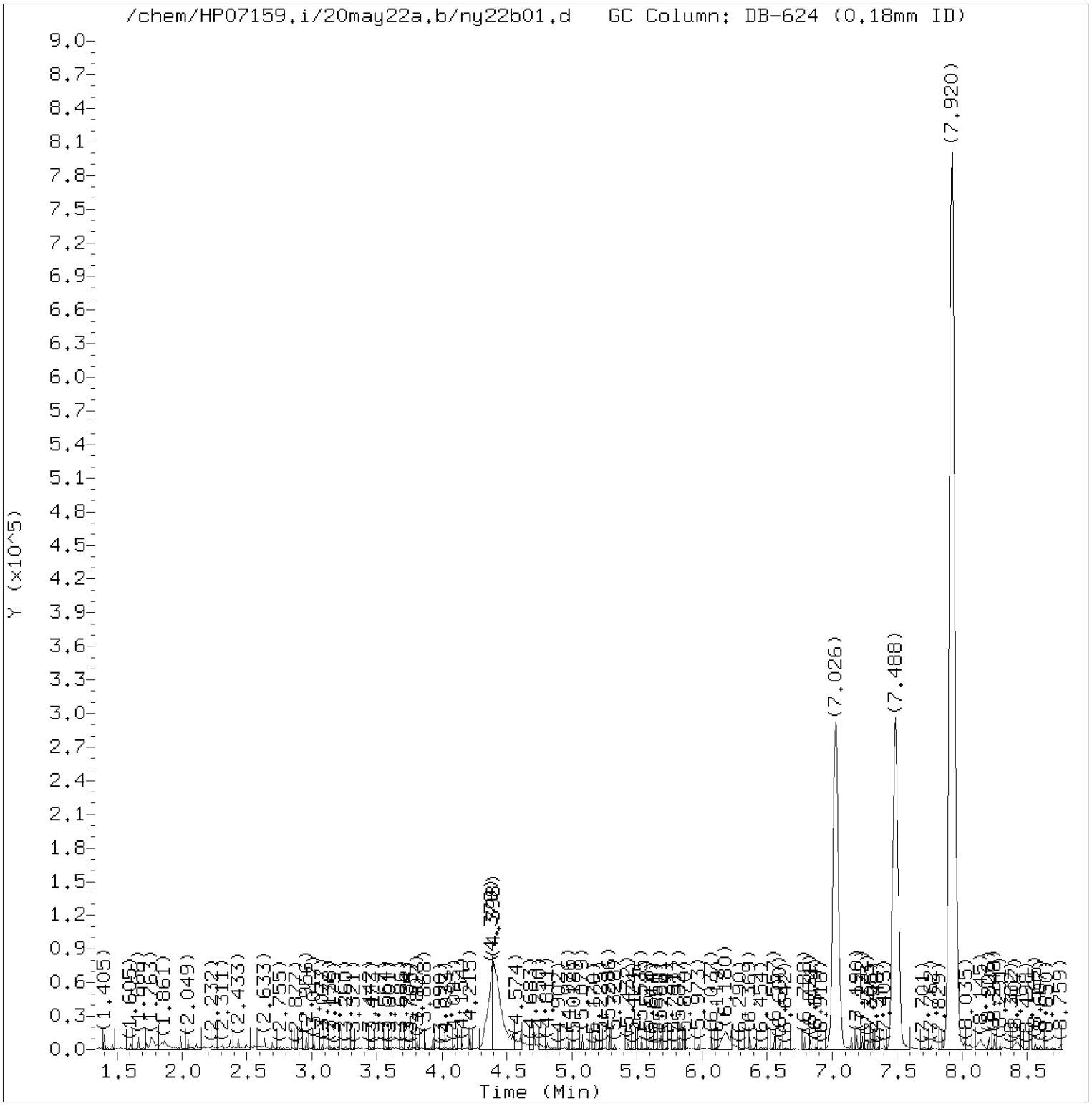
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 109

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:49. Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

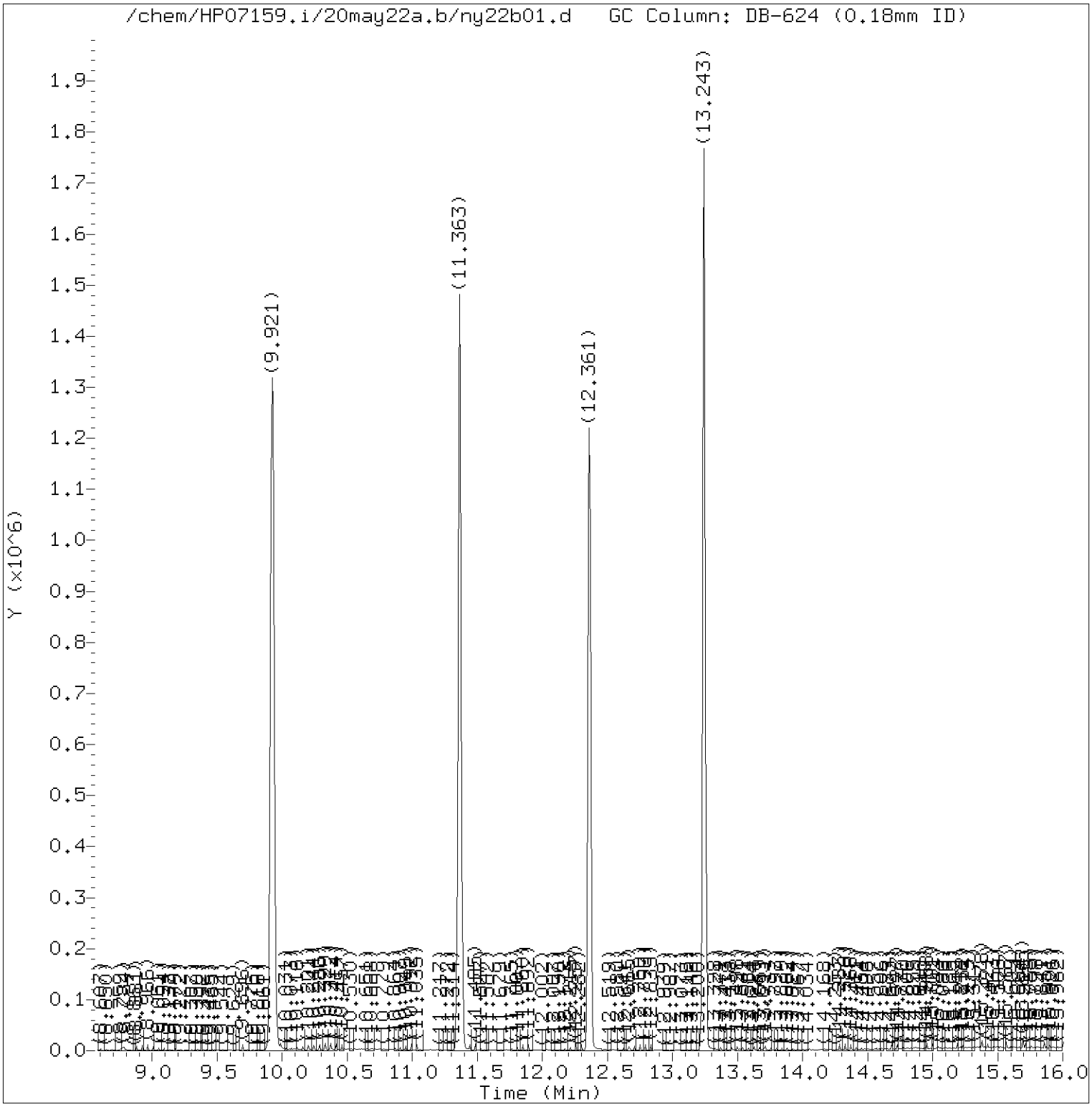
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22b01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 12:06 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 12:36 Automation

Sample Name: VBLKN45 Lab Sample ID: VBLKN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.398	65	321315	250.000
52)$Dibromofluoromethane	(2)	7.026	113	270155	46.978
57)$1,2-Dichloroethane-d4	(2)	7.482	102	70945	48.792
66)*Fluorobenzene	(2)	7.926	96	1158785	50.000
83)$Toluene-d8	(3)	9.921	98	1084248	48.184
100)*Chlorobenzene-d5	(3)	11.363	117	862795	50.000
114)$4-Bromofluorobenzene	(3)	12.361	95	394483	44.374
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	450523	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:49.
Target 3.5 esignature user ID: sej02002

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKY94

Data file: /chem2/HP09355.i/20may22a.b/yy22b01.d
Data file Sample Info. Line: VBLKY94;VBLKY94;1;3;;;;;;
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Injection date and time: **22-MAY-2020 10:48**
Instrument ID: **HP09355.i** Batch: **Y201431AA**

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.355	(0.006)	456	65	432906	(-6)	250.00	
66) Fluorobenzene	7.866	(0.000)	1033	96	1346258	(-4)	50.00	
100) Chlorobenzene-d5	11.303	(0.000)	1598	117	1001973	(-6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177	(0.000)	1906	152	526202	(-8)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971	(0.000)	113	303747	49.675	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428	(0.000)	102	82436	51.121	102%		80 - 120
83) Toluene-d8	(3)	9.855	(0.001)	98	1267133	48.430	97%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294	(0.000)	95	464253	46.830	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP09355.i/20may22a.b/yy22b01.d Injection date and time: **22-MAY-2020 10:48**
Data file Sample Info. Line: VBLKY94;VBLKY94;1;3;;;;;; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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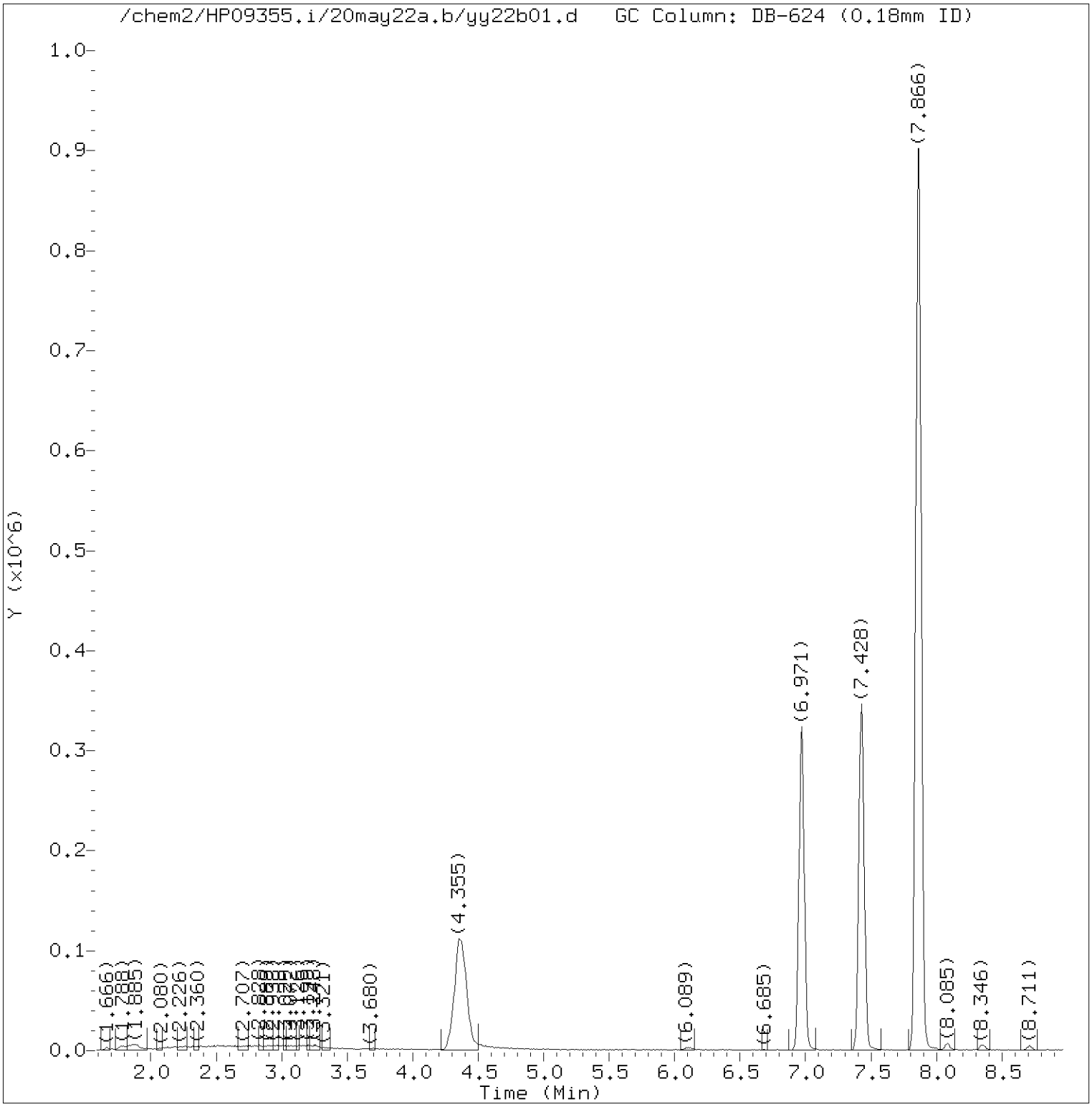
Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

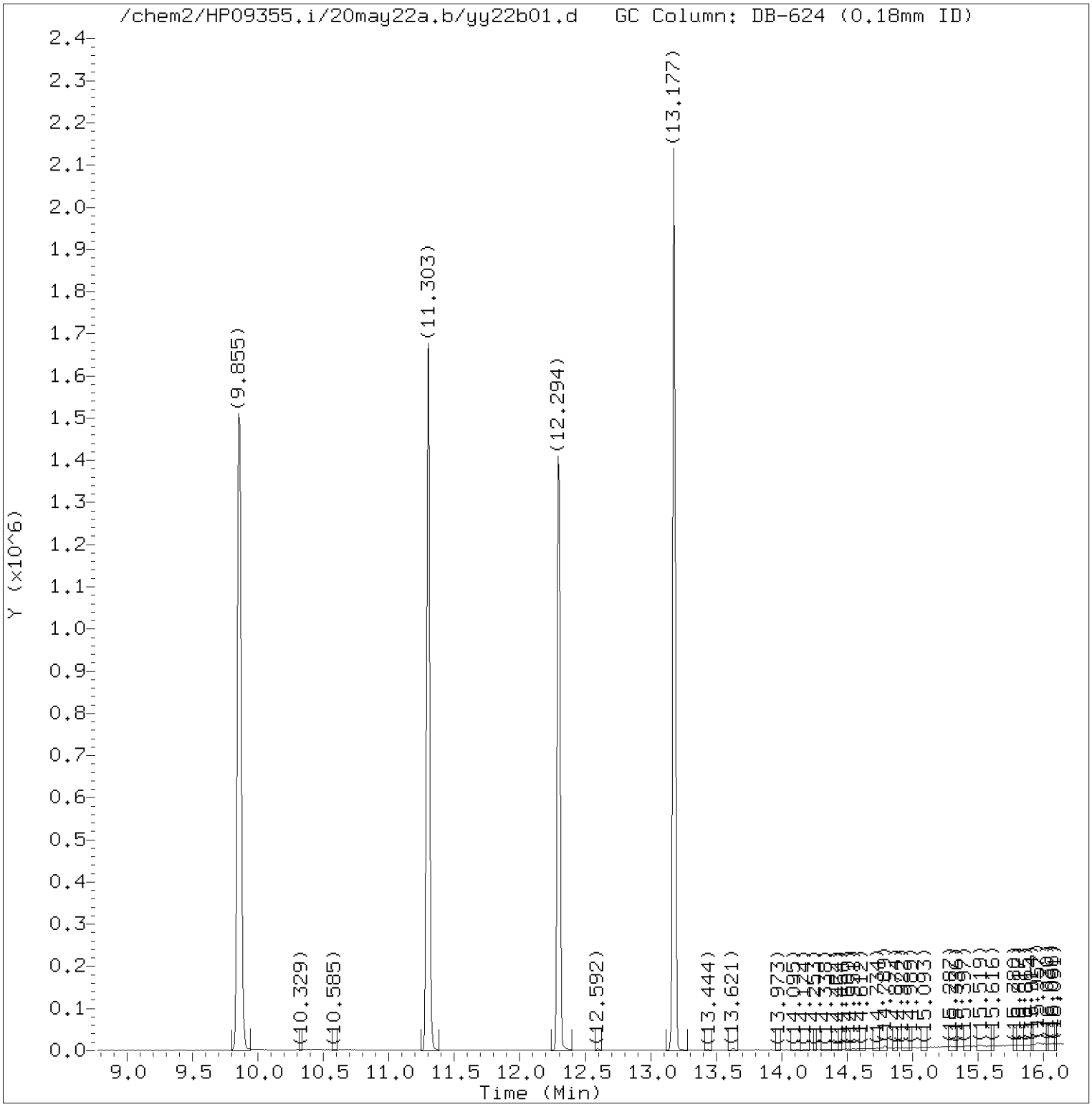
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22b01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:48 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:06 Automation

Sample Name: VBLKY94 Lab Sample ID: VBLKY94

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.355	65	432906	250.000
52)$Dibromofluoromethane	(2)	6.971	113	303747	49.675
57)$1,2-Dichloroethane-d4	(2)	7.428	102	82436	51.121
66)*Fluorobenzene	(2)	7.866	96	1346258	50.000
83)$Toluene-d8	(3)	9.855	98	1267133	48.430
100)*Chlorobenzene-d5	(3)	11.303	117	1001973	50.000
114)$4-Bromofluorobenzene	(3)	12.294	95	464253	46.830
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	526202	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	17	
106-99-0	1,3-Butadiene	15	
75-01-4	Vinyl Chloride	18	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	14	
75-69-4	Trichlorofluoromethane	18	
60-29-7	Ethyl ether	17	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	120	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	190	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	110	
74-88-4	Methyl Iodide	18	
75-15-0	Carbon Disulfide	16	
107-05-1	Allyl Chloride	18	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl alcohol	180	
107-13-1	Acrylonitrile	91	
156-60-5	trans-1,2-Dichloroethene	18	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	18	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	38	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	17	
107-12-0	Propionitrile	160	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	17	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	18	
78-83-1	Isobutyl Alcohol	510	
71-43-2	Benzene	18	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	1000	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	19	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	650	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	18	
79-46-9	2-Nitropropane	16	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	94	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	36	
97-63-2	Ethyl Methacrylate	18	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	19	
591-78-6	2-Hexanone	100	
124-48-1	Dibromochloromethane	18	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	19	
179601-23-1	m+p-Xylene	39	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	59	
100-42-5	Styrene	19	
75-25-2	Bromoform	17	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	590	
108-86-1	Bromobenzene	19	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	20	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	20	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	19	
76-01-7	Pentachloroethane	18	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS567

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS567

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may23a.b/5y23s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/23/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	19	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	17	
141-93-5	1,3-Diethylbenzene	19	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	18	

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.478(0.024)	343	65	283549 (-5)	250.00	
66) Fluorobenzene	6.922(-0.006)	908	96	997523 (0)	50.00	
101) Chlorobenzene-d5	10.672(0.000)	1523	117	773893 (0)	50.00	
132) 1,4-Dichlorobenzene-d4	12.665(0.000)	1850	152	408577 (-1)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.002(0.000)	113	242954	48.899	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.471(0.000)	102	56521	50.864	102%		80 - 120
84) Toluene-d8	(3)	9.056(-0.001)	98	959627	50.457	101%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.745(0.000)	95	397519	49.607	99%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.612(-0.000)	85	118058	14.614	14.61			0.2	1
4) Chloromethane	(2)	1.777(-0.000)	50	105946	16.530	16.53			0.2	1
5) 1,3-Butadiene	(2)	1.862(-0.000)	39	137129	15.394	15.39			1	3
6) Vinyl Chloride	(2)	1.868(-0.000)	62	102531	18.090	18.09			0.2	1
8) Bromomethane	(2)	2.130(-0.000)	94	66344	17.434	17.43			0.3	1
9) Chloroethane	(2)	2.198(0.000)	64	46195	17.214	17.21			0.2	1
11) n-Pentane	(2)	2.466(-0.000)	43	91106	14.099	14.10			0.4	10
12) Trichlorofluoromethane	(2)	2.441(-0.000)	101	124166	17.887	17.89			0.2	1
14) Ethyl ether	(2)	2.649(-0.000)	59	79462	16.604	16.60			0.2	5
15) Freon 123a	(2)	2.722(-0.001)	67	115623	15.957	15.96			0.4	5
16) Acrolein	(1)	2.795(-0.009)	56	224308	124.934	124.93			2	100
17) 1,1-Dichloroethene	(2)	2.899(-0.000)	96	100215	18.581	18.58			0.2	1
18) Acetone	(1)	2.941(-0.009)	58	172381	194.673	194.67			0.7	20
19) Freon 113	(2)	2.935(-0.001)	101	106018	17.366	17.37			0.2	10
21) 2-Propanol	(1)	3.082(-0.009)	45	78481	108.918	108.92			18	100
22) Methyl Iodide	(2)	3.063(-0.000)	142	182844	17.778	17.78			0.2	1
23) Carbon Disulfide	(2)	3.149(-0.001)	76	298128	15.714	15.71			0.2	5
25) Allyl Chloride	(2)	3.295(-0.001)	41	166473	18.439	18.44			0.3	5
27) Methyl Acetate	(2)	3.277(-0.001)	43	151931	19.538	19.54			0.3	5
28) Methylene Chloride	(2)	3.453(-0.000)	84	114641	18.857	18.86			0.3	1
30) t-Butyl alcohol	(1)	3.600(-0.007)	59	237770	178.028	178.03			12	50
31) Acrylonitrile	(2)	3.740(-0.001)	53	374088	91.140	91.14			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.783(-0.000)	96	111373	18.454	18.45			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.783(-0.000)	73	288989	18.104	18.10			0.2	1
34) n-Hexane	(2)	4.161(-0.000)	57	151336	16.911	16.91			2	5
36) 1,1-Dichloroethane	(2)	4.404(-0.001)	63	199246	18.238	18.24			0.2	1
38) di-Isopropyl ether	(2)	4.472(-0.000)	45	339757	17.412	17.41			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.514(-0.001)	53	163336	17.598	17.60			0.2	5
40) Ethyl t-butyl ether	(2)	5.032(-0.001)	59	301723	17.417	17.42			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.270(-0.000)	96	133162	19.508	19.51			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	244535	37.962	37.96			0.4	2

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56. Target 3.5 esignature user ID: kas02648

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.264(-0.000)	43	861998	144.293	144.29			0.3	10
45) 2,2-Dichloropropane	(2)	5.282(-0.000)	77	160449	17.406	17.41			0.3	1
47) Propionitrile	(1)	5.362(-0.012)	54	238828	164.267	164.27			14	100
48) Methacrylonitrile	(2)	5.575(-0.000)	67	570153	139.473	139.47			6	50
49) Bromochloromethane	(2)	5.612(-0.000)	128	59475	19.023	19.02			0.2	5
50) Tetrahydrofuran	(1)	5.630(-0.014)	71	149944	114.110	114.11			0.7	10
51) Chloroform	(2)	5.782(-0.000)	83	203334	18.556	18.56			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.996(0.000)	97	178569	18.100	18.10			0.3	1
54) Cyclohexane	(2)	6.087(-0.000)	56	200303	17.432	17.43			1	5
55) 1,1-Dichloropropene	(2)	6.221(-0.000)	75	163075	18.246	18.25			0.2	5
56) Carbon Tetrachloride	(2)	6.209(-0.000)	117	154001	17.891	17.89			0.2	1
58) Isobutyl Alcohol	(1)	6.441(-0.011)	41	228355	512.946	512.95			36	250
60) Benzene	(2)	6.496(-0.000)	78	489472	18.419	18.42			0.2	1
61) 1,2-Dichloroethane	(2)	6.581(-0.000)	62	153768	18.839	18.84			0.3	1
65) t-Amyl methyl ether	(2)	6.709(-0.000)	73	312718	18.091	18.09			0.8	5
67) n-Heptane	(2)	6.947(-0.000)	43	145109	16.787	16.79			2	5
69) n-Butanol	(1)	7.361(-0.016)	56	385716	1004.106	1004.11			61	250
71) Trichloroethene	(2)	7.416(0.000)	95	129111	18.514	18.51			0.2	1
73) Methylcyclohexane	(2)	7.721(0.000)	83	208670	18.827	18.83			0.5	5
74) 1,2-Dichloropropane	(2)	7.764(0.000)	63	125468	18.861	18.86			0.2	1
75) Dibromomethane	(2)	7.879(0.000)	93	78114	18.648	18.65			0.2	1
76) 1,4-Dioxane	(1)	7.861(-0.015)	88	61459M	645.000	645.00			29	250
77) Methyl Methacrylate	(2)	7.879(0.001)	69	112291	18.041	18.04			0.2	5
79) Bromodichloromethane	(2)	8.136(0.000)	83	144158	17.747	17.75			0.2	1
80) 2-Nitropropane	(2)	8.434(0.000)	41	45940	16.329	16.33			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.532(0.000)	63	92100	17.890	17.89			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.715(0.001)	75	183168	17.845	17.84			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.928(0.001)	43	1083446	94.095	94.10			0.5	10
89) Toluene	(3)	9.141(-0.000)	92	316043	18.846	18.85			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.458(-0.000)	75	161162	17.911	17.91			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	344330	35.756	35.76			0.4	2
92) Ethyl Methacrylate	(3)	9.544(-0.000)	69	183436	17.928	17.93			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(-0.000)	97	118033	19.687	19.69			0.2	1
94) Tetrachloroethene	(3)	9.757(-0.000)	166	142017	19.967	19.97			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(-0.000)	76	187591	18.844	18.84			0.2	1
97) 2-Hexanone	(3)	9.934(-0.000)	43	908487	101.962	101.96			0.3	10
98) Dibromochloromethane	(3)	10.086(-0.000)	129	114119	17.988	17.99			0.2	1
100) 1,2-Dibromoethane	(3)	10.196(-0.000)	107	125285	18.956	18.96			0.2	1
102) 1-Chlorohexane	(3)	10.696(0.000)	91	175989	18.045	18.04			0.3	5
103) Chlorobenzene	(3)	10.696(0.000)	112	355582	19.537	19.54			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.794(0.000)	131	118939	18.943	18.94			0.2	1
105) Ethylbenzene	(3)	10.800(-0.000)	91	631959	19.489	19.49			0.4	1
107) m+p-Xylene	(3)	10.928(-0.000)	106	488494	39.265	39.26			1	5
108) o-Xylene	(3)	11.275(-0.000)	106	235930	19.375	19.37			0.4	1
109) Xylene (Total)	(3)		106	724424	58.640	58.64			1	6
110) Styrene	(3)	11.293(0.000)	104	381273	19.428	19.43			0.2	5
111) Bromoform	(3)	11.452(0.000)	173	77065	16.790	16.79			1	4
112) Isopropylbenzene	(3)	11.598(0.000)	105	622063	19.467	19.47			0.2	5
113) Cyclohexanone	(1)	11.671(-0.023)	55	259662A	593.288	593.29			25	100
116) Bromobenzene	(4)	11.860(-0.000)	156	150835	19.365	19.36			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.866(-0.000)	83	208970	19.770	19.77			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.903(-0.000)	110	61450	19.744	19.74			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.891(-0.000)	53	228483	109.345	109.35			6	50
120) n-Propylbenzene	(4)	11.946(-0.000)	91	754072	19.691	19.69			0.2	5

M = Compound was manually integrated. A = User selected an alternate peak.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may23a.b/5y23s01.d Injection date and time: **23-MAY-2020 14:54**
Data file Sample Info. Line: LCS567;LCS567;1;3;LCS;;;;5y23b01; Instrument ID: **HP26285.i** Batch: **5201441AA**
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Blank Data file reference: **/chem2/HP26285.i/20may23a.b/5y23b01.d**

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 23-MAY-2020 14:52
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may23a.b/5y23c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.013(-0.000)	126	149221	19.010	19.01			0.2	5
122) 4-Chlorotoluene	(4)	12.116(-0.000)	126	152566	19.241	19.24			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.092(-0.000)	105	516286	19.178	19.18			0.3	5
125) tert-Butylbenzene	(4)	12.342(-0.000)	134	101214M	18.918	18.92			0.3	5
126) Pentachloroethane	(4)	12.366(-0.000)	167	80382	18.301	18.30			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.385(-0.000)	105	526308	18.985	18.98			1	5
128) sec-Butylbenzene	(4)	12.513(-0.000)	105	641589	19.223	19.22			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.604(-0.000)	146	283679	19.363	19.36			0.2	5
131) p-Isopropyltoluene	(4)	12.628(-0.000)	119	541625	19.459	19.46			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.683(0.000)	146	292135	19.648	19.65			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.696(0.000)	105	531722	19.982	19.98			0.3	5
136) Benzyl Chloride	(4)	12.769(0.000)	91	350957	17.307	17.31			1	5
137) 1,3-Diethylbenzene	(4)	12.836(0.000)	119	312448	19.428	19.43			0.2	5
138) 1,4-Diethylbenzene	(4)	12.909(0.000)	119	325072	19.542	19.54			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.952(0.000)	146	277282	19.703	19.70			0.2	5
140) n-Butylbenzene	(4)	12.927(-0.000)	92	266607	18.990	18.99			0.2	5
141) 1,2-Diethylbenzene	(4)	12.982(-0.000)	119	262998	19.336	19.34			0.2	5
142) Diethylbenzene (total)	(4)		100	900518	58.307	58.31			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.512(0.000)	75	49891	18.696	18.70			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.640(0.000)	180	178387	19.191	19.19			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.079(0.000)	180	166987	19.122	19.12			0.3	5
148) Hexachlorobutadiene	(4)	14.165(0.000)	225	64130	19.095	19.10			2	5
149) Naphthalene	(4)	14.262(0.000)	128	670527	19.390	19.39			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.409(0.000)	180	166538	19.272	19.27			0.4	5
151) 2-Methylnaphthalene	(4)	15.018(0.000)	142	331340	18.442	18.44			2	4

M = Compound was manually integrated.

Total number of targets = 110

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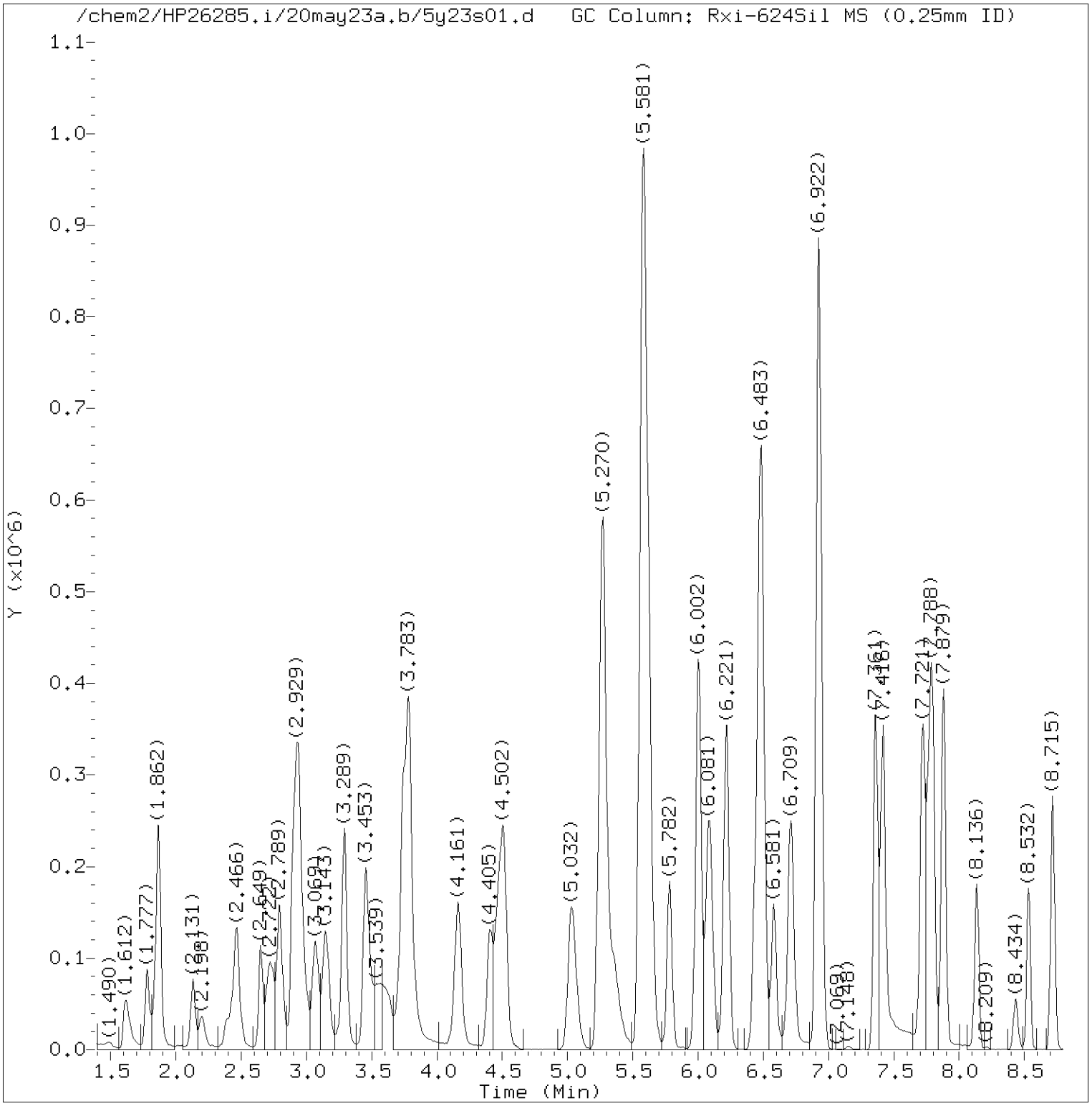
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

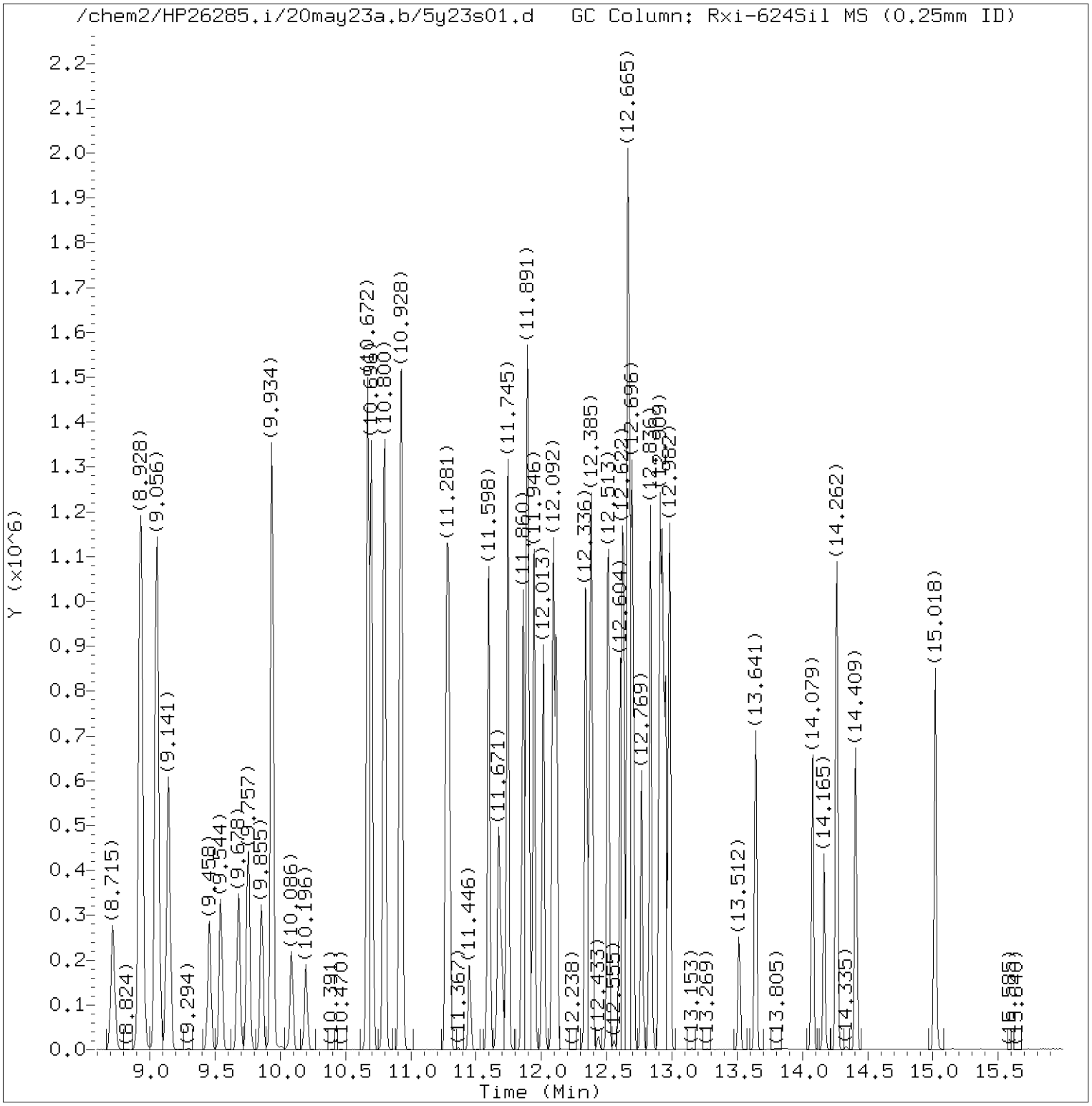
Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	118058	14.614
4) Chloromethane	(2)	1.777	50	105946	16.530
5) 1,3-Butadiene	(2)	1.862	39	137129	15.394
6) Vinyl Chloride	(2)	1.868	62	102531	18.090
8) Bromomethane	(2)	2.131	94	66344	17.434
9) Chloroethane	(2)	2.198	64	46195	17.214
12) Trichlorofluoromethane	(2)	2.441	101	124166	17.887
11) n-Pentane	(2)	2.466	43	91106	14.099
14) Ethyl ether	(2)	2.649	59	79462	16.604
15) Freon 123a	(2)	2.722	67	115623	15.957
16) Acrolein	(1)	2.795	56	224308	124.934
17) 1,1-Dichloroethene	(2)	2.899	96	100215	18.581
19) Freon 113	(2)	2.935	101	106018	17.366
18) Acetone	(1)	2.941	58	172381	194.673
22) Methyl Iodide	(2)	3.063	142	182844	17.778
21) 2-Propanol	(1)	3.082	45	78481	108.918
23) Carbon Disulfide	(2)	3.149	76	298128	15.714
27) Methyl Acetate	(2)	3.277	43	151931	19.538
25) Allyl Chloride	(2)	3.295	41	166473	18.439
28) Methylene Chloride	(2)	3.453	84	114641	18.857
29)*t-Butyl alcohol-d10	(1)	3.478	65	283549	250.000
30) t-Butyl alcohol	(1)	3.600	59	237770	178.028
31) Acrylonitrile	(2)	3.740	53	374088	91.140
32) trans-1,2-Dichloroethene	(2)	3.783	96	111373	18.454
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	288989	18.104
34) n-Hexane	(2)	4.161	57	151336	16.911
36) 1,1-Dichloroethane	(2)	4.405	63	199246	18.238
38) di-Isopropyl ether	(2)	4.472	45	339757	17.412
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	163336	17.598
40) Ethyl t-butyl ether	(2)	5.032	59	301723	17.417
44) 2-Butanone	(2)	5.264	43	861998	144.293
42) cis-1,2-Dichloroethene	(2)	5.270	96	133162	19.508
45) 2,2-Dichloropropane	(2)	5.282	77	160449	17.406
47) Propionitrile	(1)	5.362	54	238828	164.267
48) Methacrylonitrile	(2)	5.575	67	570153	139.473
49) Bromochloromethane	(2)	5.612	128	59475	19.023
50) Tetrahydrofuran	(1)	5.630	71	149944	114.110
51) Chloroform	(2)	5.782	83	203334	18.556

* = Compound is an internal standard.

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Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.996	97	178569	18.100
52)$Dibromofluoromethane	(2)	6.002	113	242954	48.899
54) Cyclohexane	(2)	6.087	56	200303	17.432
43) 1,2-Dichloroethene (Total)	(2)		96	244535	37.962
56) Carbon Tetrachloride	(2)	6.209	117	154001	17.891
55) 1,1-Dichloropropene	(2)	6.221	75	163075	18.246
58) Isobutyl Alcohol	(1)	6.441	41	228355	512.946
57)$1,2-Dichloroethane-d4	(2)	6.471	102	56521	50.864
60) Benzene	(2)	6.496	78	489472	18.419
61) 1,2-Dichloroethane	(2)	6.581	62	153768	18.839
65) t-Amyl methyl ether	(2)	6.709	73	312718	18.091
66)*Fluorobenzene	(2)	6.922	96	997523	50.000
67) n-Heptane	(2)	6.947	43	145109	16.787
69) n-Butanol	(1)	7.361	56	385716	1004.106
71) Trichloroethene	(2)	7.416	95	129111	18.514
73) Methylcyclohexane	(2)	7.721	83	208670	18.827
74) 1,2-Dichloropropane	(2)	7.764	63	125468	18.861
76) 1,4-Dioxane	(1)	7.861	88	61459M	645.000
75) Dibromomethane	(2)	7.879	93	78114	18.648
77) Methyl Methacrylate	(2)	7.879	69	112291	18.041
79) Bromodichloromethane	(2)	8.136	83	144158	17.747
80) 2-Nitropropane	(2)	8.434	41	45940	16.329
81) 2-Chloroethyl Vinyl Ether	(2)	8.532	63	92100	17.890
82) cis-1,3-Dichloropropene	(2)	8.715	75	183168	17.845
83) 4-Methyl-2-pentanone	(2)	8.928	43	1083446	94.095
84)$Toluene-d8	(3)	9.056	98	959627	50.457
89) Toluene	(3)	9.141	92	316043	18.846
90) trans-1,3-Dichloropropene	(3)	9.458	75	161162	17.911
92) Ethyl Methacrylate	(3)	9.544	69	183436	17.928
93) 1,1,2-Trichloroethane	(3)	9.678	97	118033	19.687
94) Tetrachloroethene	(3)	9.757	166	142017	19.967
95) 1,3-Dichloropropane	(3)	9.855	76	187591	18.844
97) 2-Hexanone	(3)	9.934	43	908487	101.962
98) Dibromochloromethane	(3)	10.086	129	114119	17.988
91) 1,3-Dichloropropene (total)	(3)		100	344330	35.756
100) 1,2-Dibromoethane	(3)	10.196	107	125285	18.956
101)*Chlorobenzene-d5	(3)	10.672	117	773893	50.000
102) 1-Chlorohexane	(3)	10.696	91	175989	18.045

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.696	112	355582	19.537
104) 1,1,1,2-Tetrachloroethane	(3)	10.794	131	118939	18.943
105) Ethylbenzene	(3)	10.800	91	631959	19.489
107) m+p-Xylene	(3)	10.928	106	488494	39.265
108) o-Xylene	(3)	11.275	106	235930	19.375
110) Styrene	(3)	11.293	104	381273	19.428
111) Bromoform	(3)	11.452	173	77065	16.790
112) Isopropylbenzene	(3)	11.598	105	622063	19.467
113) Cyclohexanone	(1)	11.671	55	259662A	593.288
115)$4-Bromofluorobenzene	(3)	11.745	95	397519	49.607
109) Xylene (Total)	(3)		106	724424	58.640
116) Bromobenzene	(4)	11.860	156	150835	19.365
117) 1,1,2,2-Tetrachloroethane	(4)	11.866	83	208970	19.770
119) trans-1,4-Dichloro-2-butene	(4)	11.891	53	228483	109.345
118) 1,2,3-Trichloropropane	(4)	11.903	110	61450	19.744
120) n-Propylbenzene	(4)	11.946	91	754072	19.691
121) 2-Chlorotoluene	(4)	12.013	126	149221	19.010
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	516286	19.178
122) 4-Chlorotoluene	(4)	12.116	126	152566	19.241
125) tert-Butylbenzene	(4)	12.342	134	101214M	18.918
126) Pentachloroethane	(4)	12.366	167	80382	18.301
127) 1,2,4-Trimethylbenzene	(4)	12.385	105	526308	18.985
128) sec-Butylbenzene	(4)	12.513	105	641589	19.223
130) 1,3-Dichlorobenzene	(4)	12.604	146	283679	19.363
131) p-Isopropyltoluene	(4)	12.629	119	541625	19.459
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	408577	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	292135	19.648
135) 1,2,3-Trimethylbenzene	(4)	12.696	105	531722	19.982
136) Benzyl Chloride	(4)	12.769	91	350957	17.307
137) 1,3-Diethylbenzene	(4)	12.836	119	312448	19.428
138) 1,4-Diethylbenzene	(4)	12.909	119	325072	19.542
140) n-Butylbenzene	(4)	12.927	92	266607	18.990
139) 1,2-Dichlorobenzene	(4)	12.952	146	277282	19.703
141) 1,2-Diethylbenzene	(4)	12.982	119	262998	19.336
142) Diethylbenzene (total)	(4)		100	900518	58.307
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	49891	18.696
145) 1,3,5-Trichlorobenzene	(4)	13.641	180	178387	19.191
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	166987	19.122

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

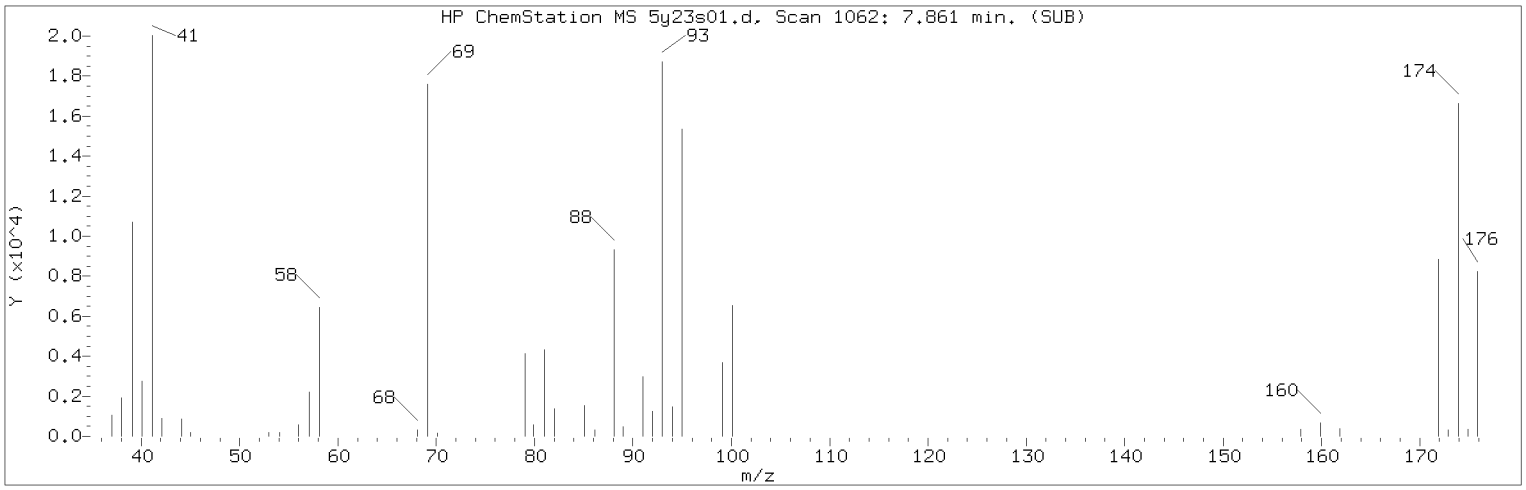
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

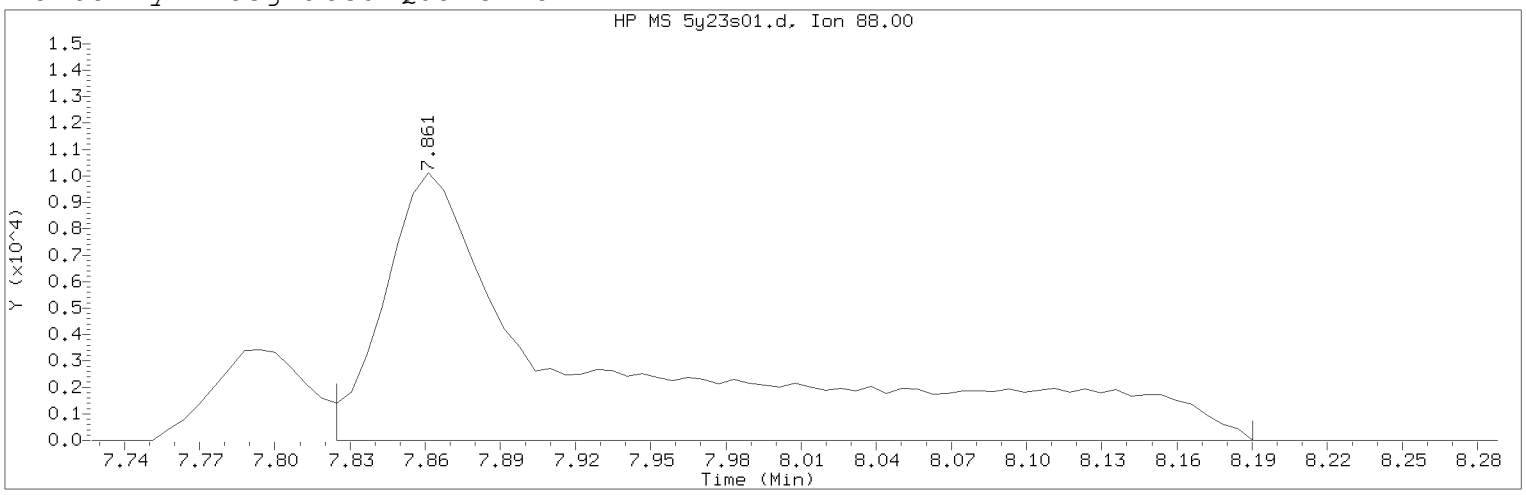
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.165	225	64130	19.095
149) Naphthalene	(4)	14.262	128	670527	19.390
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	166538	19.272
151) 2-Methylnaphthalene	(4)	15.018	142	331340	18.442

Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

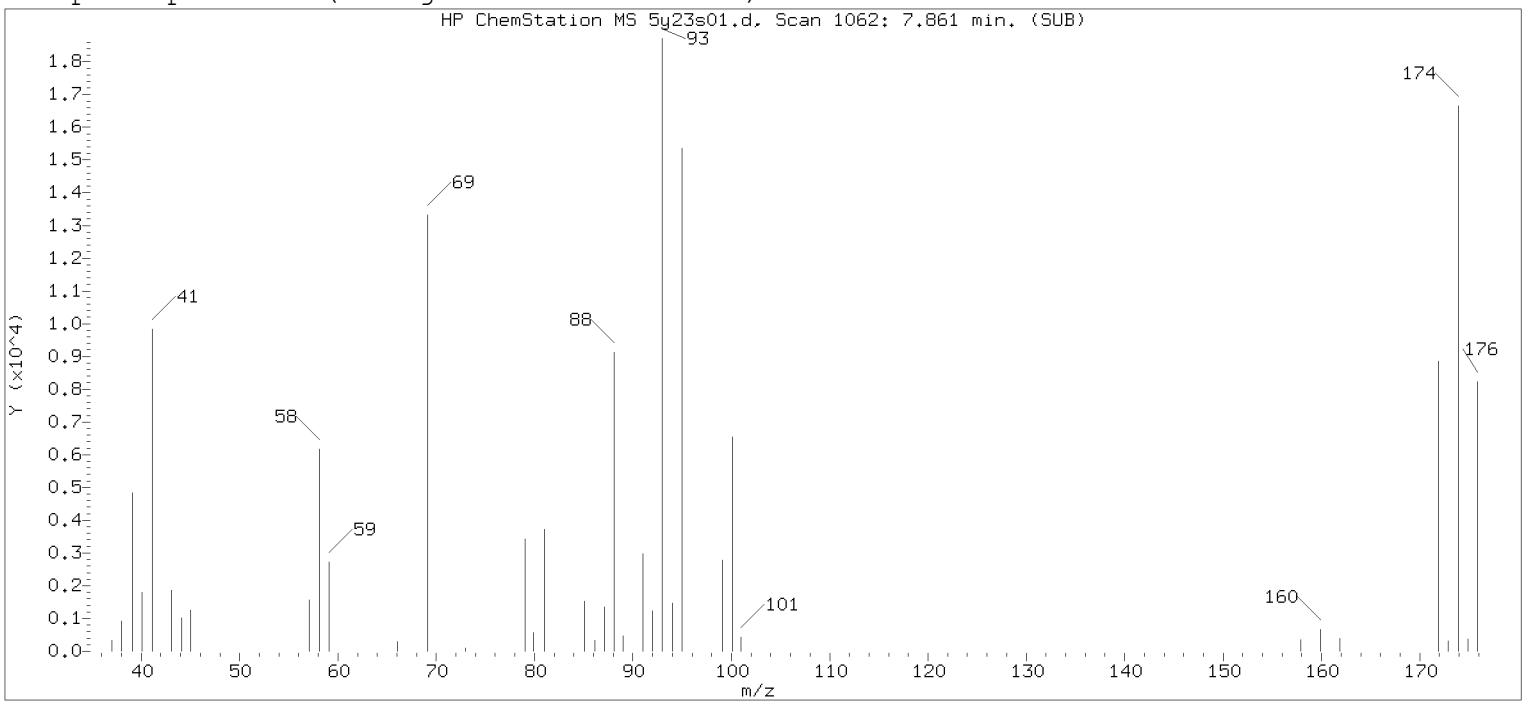
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area (flag) : 61459M
On-Column Amount (ng) : 645.0002
Integration start scan : 1055 Integration stop scan: 1115
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

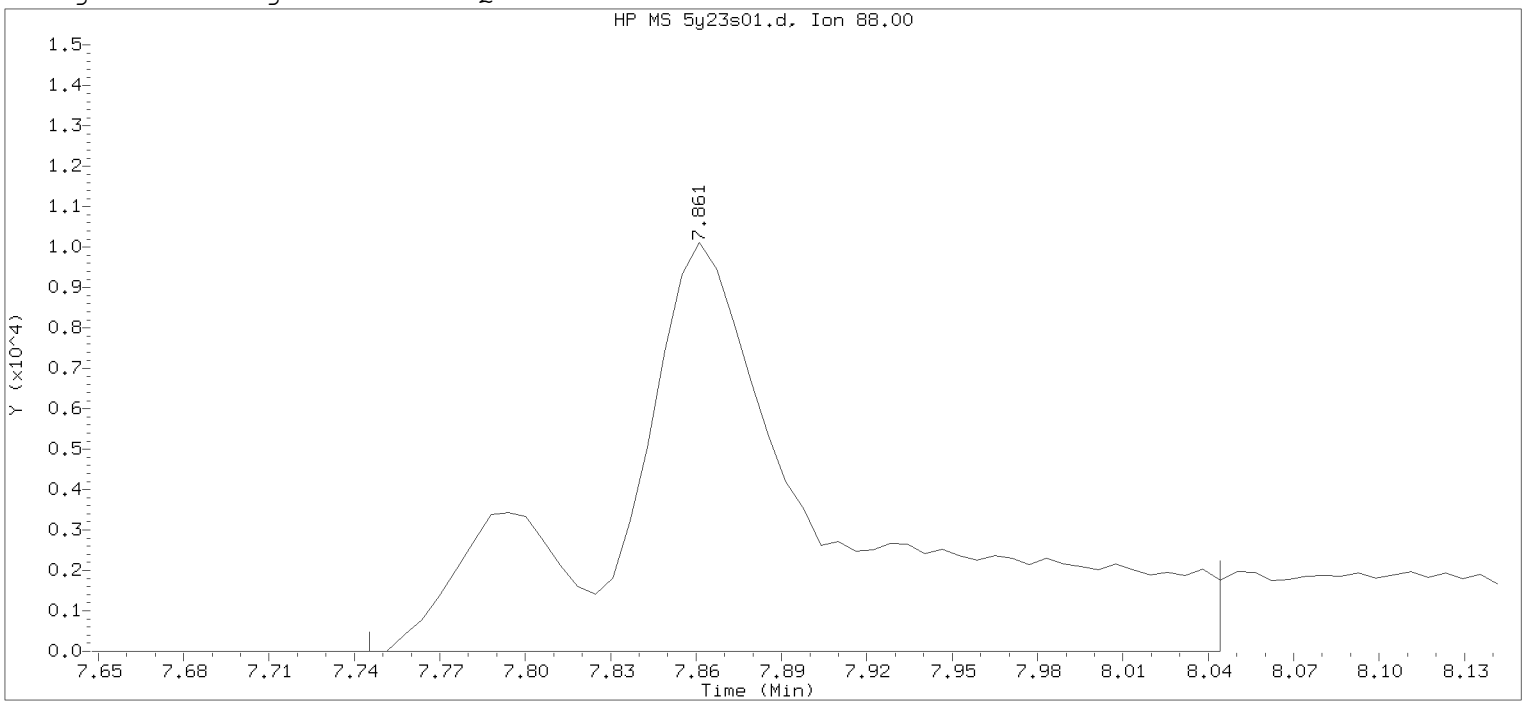
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

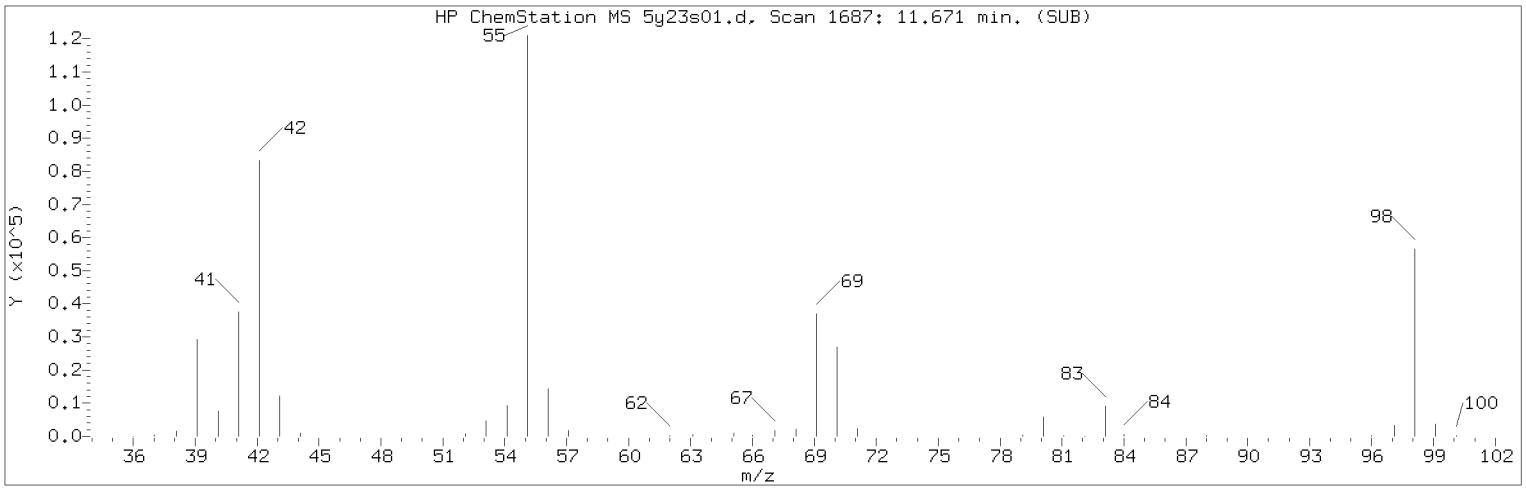
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

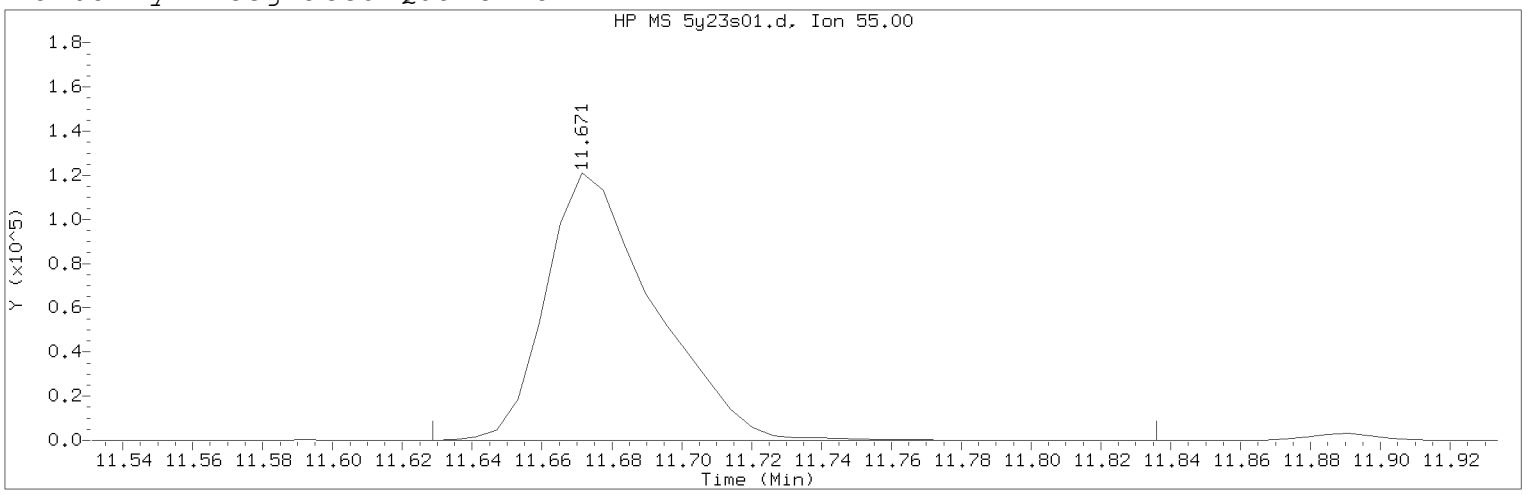
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1062
Retention Time (minutes): 7.861
Quant Ion : 88.00
Area : 55963
On-column Amount (ng) : 587.3275
Integration start scan : 1042 Integration stop scan: 1091
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

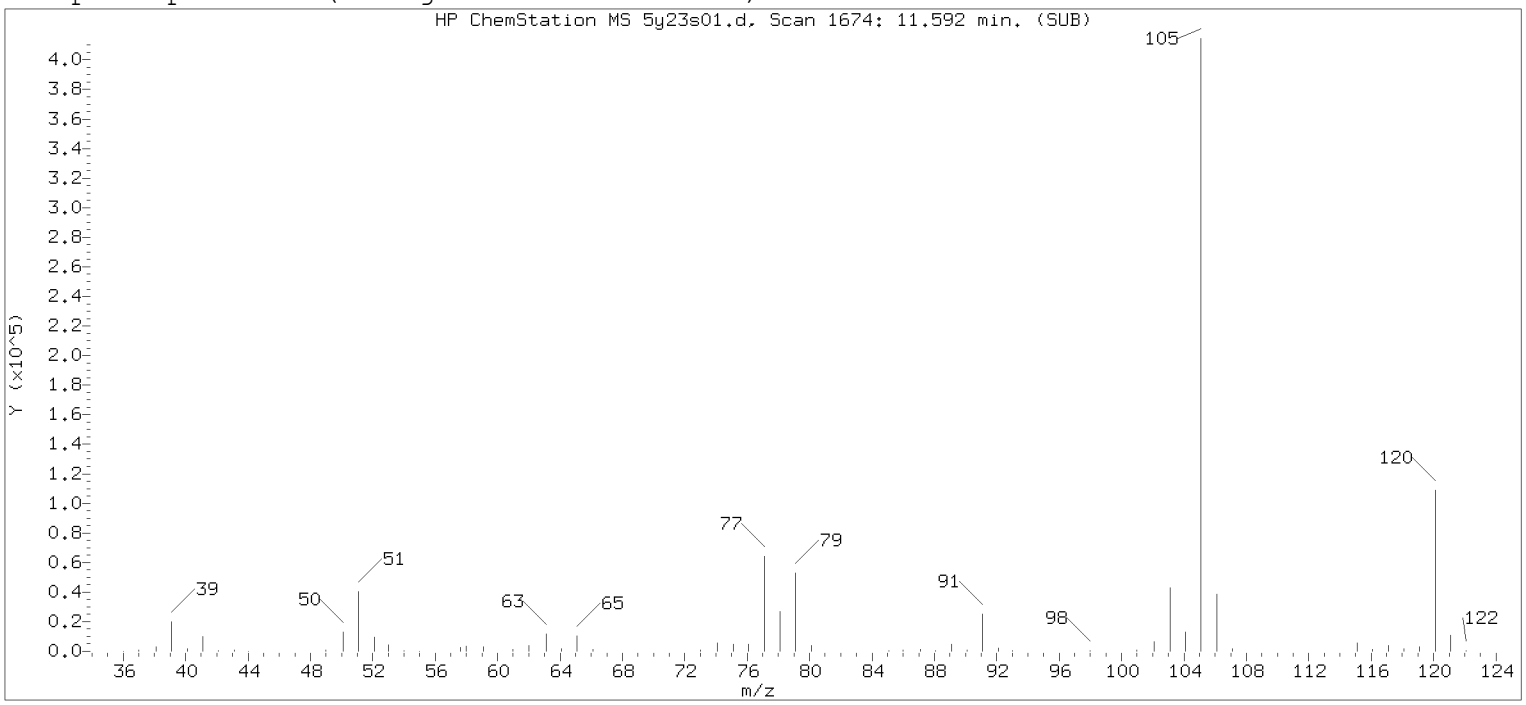
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1687
Retention Time (minutes): 11.671
Quant Ion : 55.00
Area (flag) : 259662A
On-Column Amount (ng) : 593.2878
Integration start scan : 1679 Integration stop scan: 1713
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

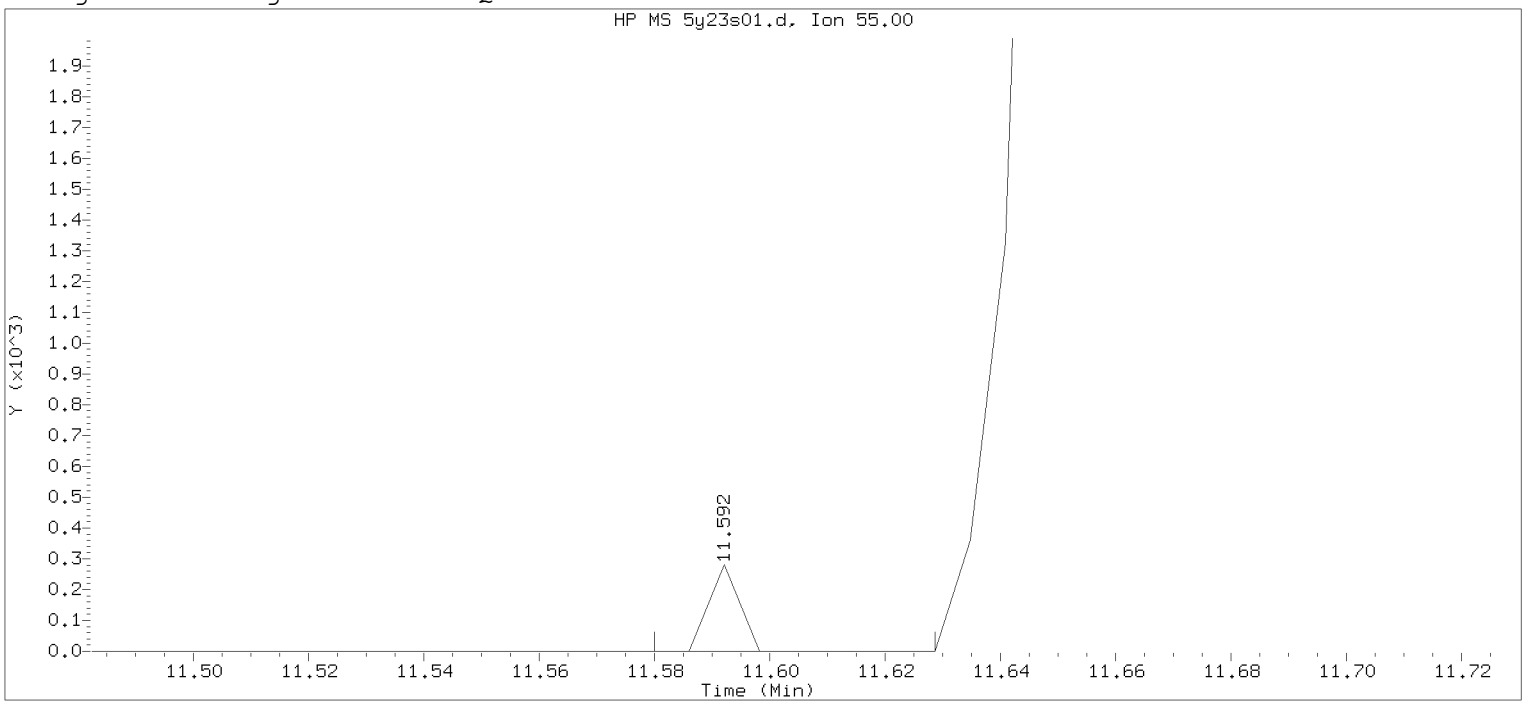
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

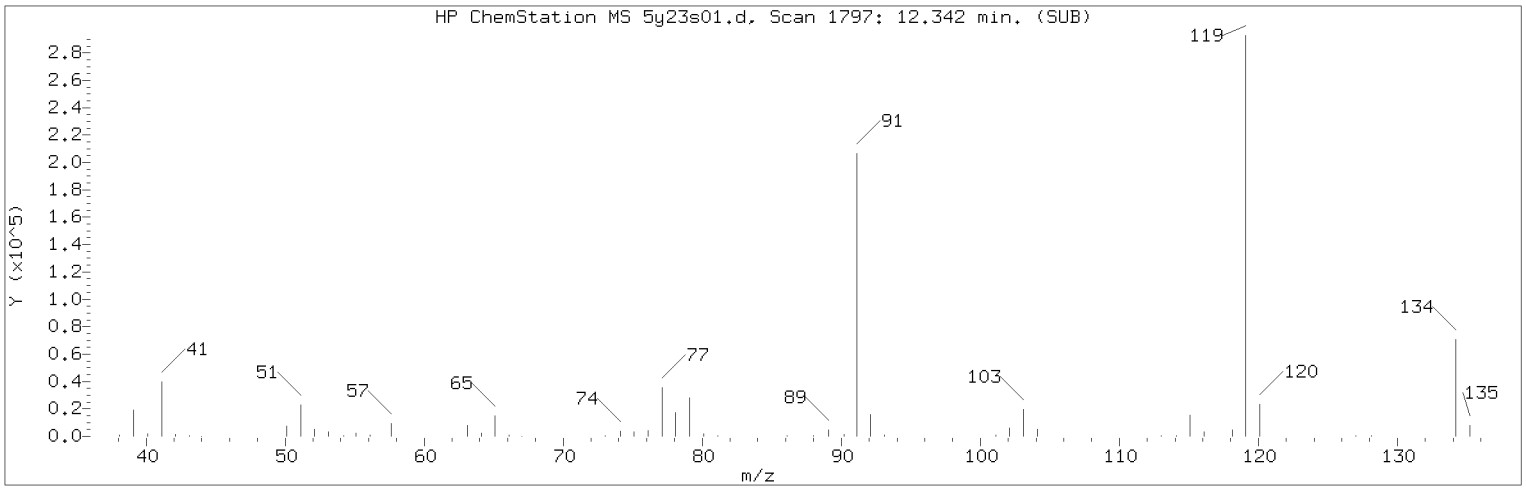
Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

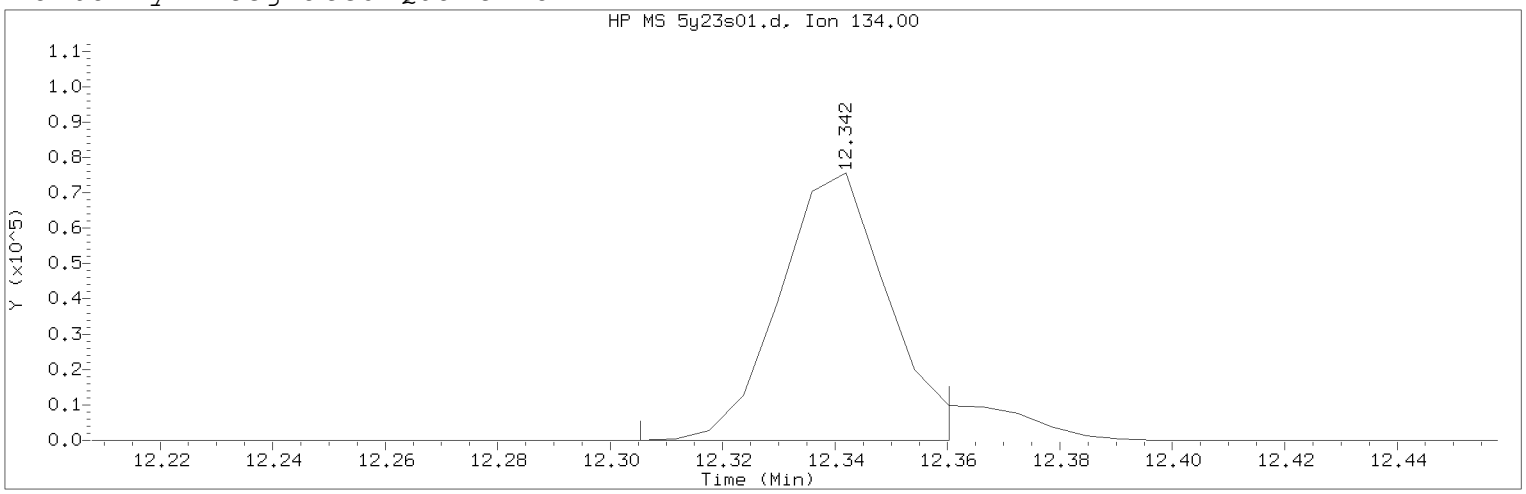
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1674
Retention Time (minutes): 11.592
Quant Ion : 55.00
Area : 103
On-column Amount (ng) : 0.2357
Integration start scan : 1671 Integration stop scan: 1679
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:55 kas02648

Sample Name: LCS567 Lab Sample ID: LCS567

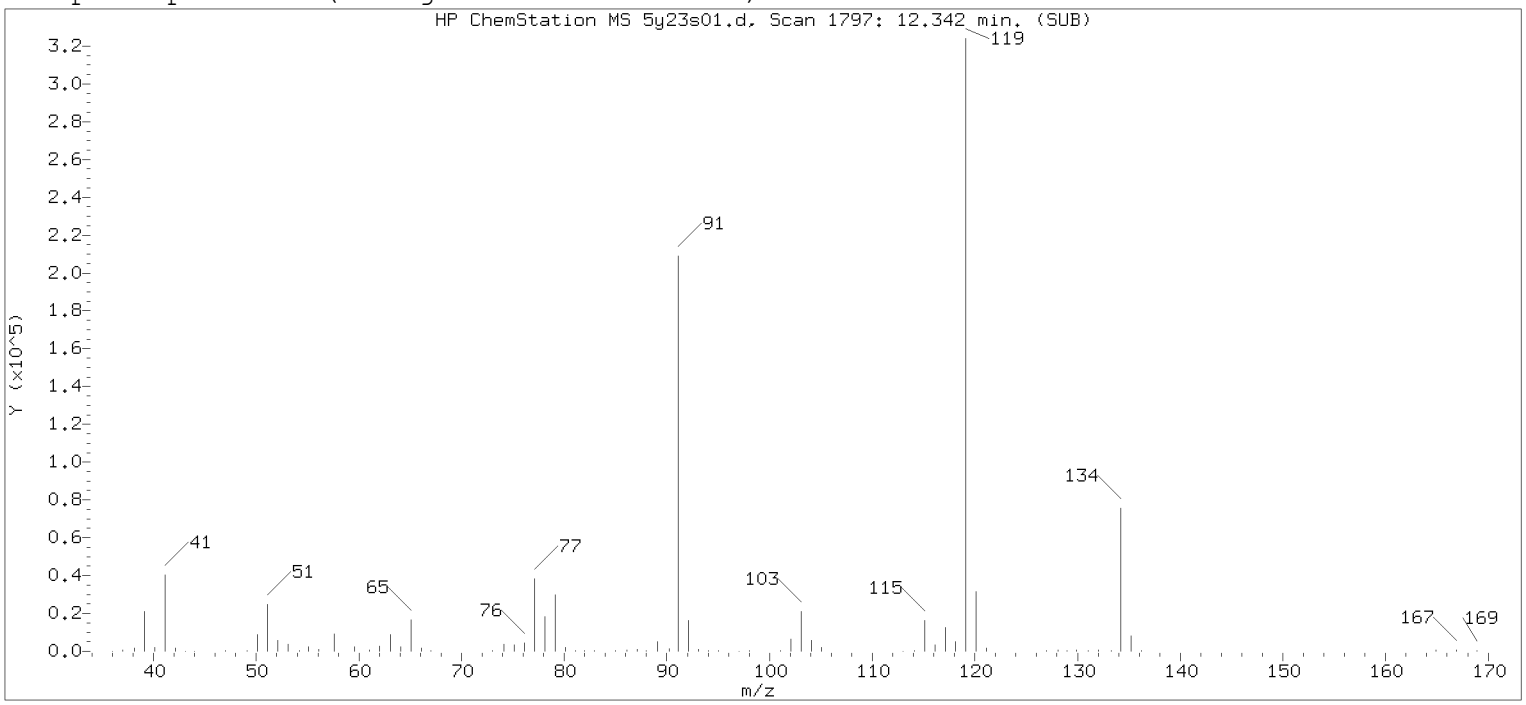
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 101214M
On-Column Amount (ng) : 18.9178
Integration start scan : 1790 Integration stop scan: 1799
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

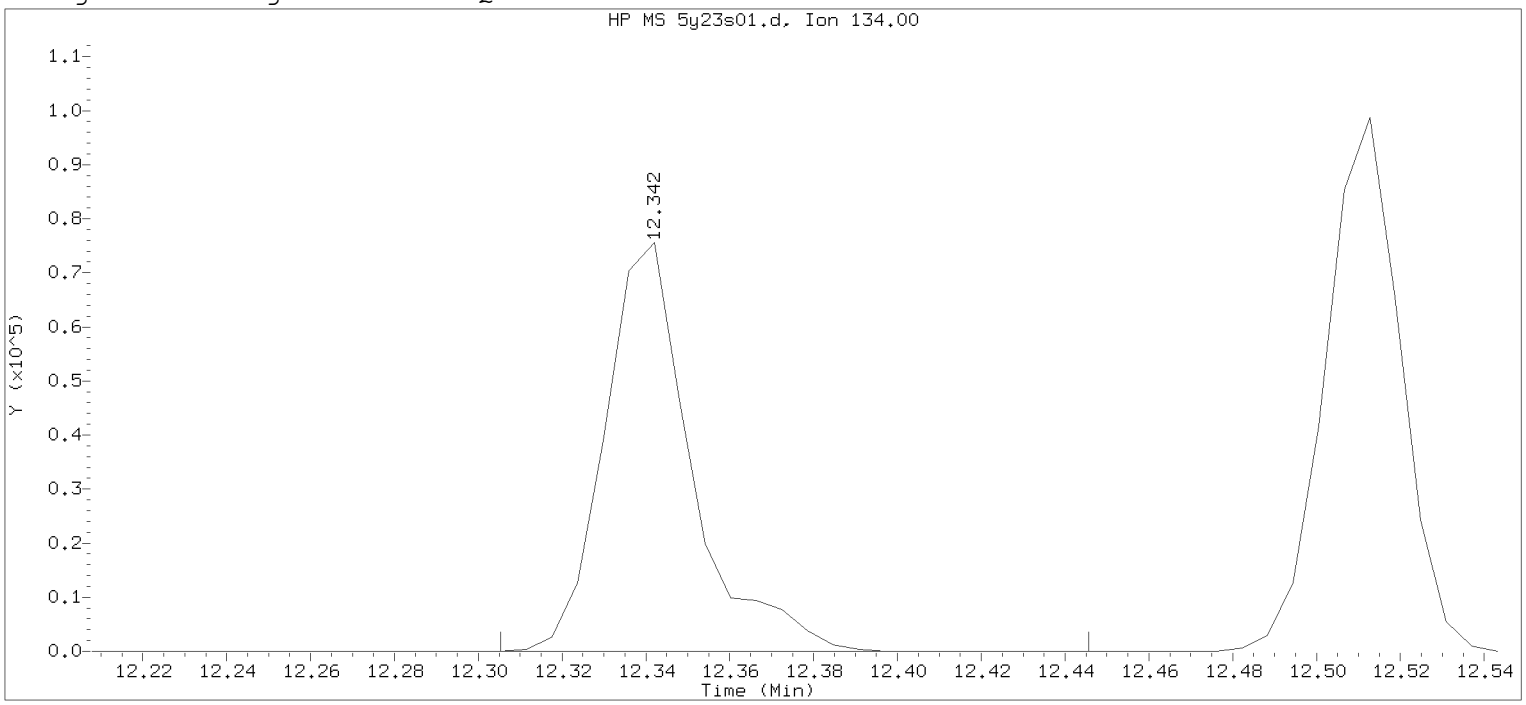
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 05/23/2020 at 15:56.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 11:54.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may23a.b/5y23s01.d Instrument ID: HP26285.i
Injection date and time: 23-MAY-2020 14:54 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20may23a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 23-MAY-2020 14:52
Date, time and analyst ID of latest file update: 23-May-2020 15:12 chemist

Sample Name: LCS567 Lab Sample ID: LCS567

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 109441
On-column Amount (ng) : 20.4556
Integration start scan : 1790 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 05/23/2020 at 15:56.
Target 3.5 esignature user: KAS02648

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL95

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL95

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may26b.b/ly26l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/26/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	11	
74-87-3	Chloromethane	17	
106-99-0	1,3-Butadiene	26	
75-01-4	Vinyl Chloride	17	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	19	
109-66-0	n-Pentane	22	
75-69-4	Trichlorofluoromethane	19	
60-29-7	Ethyl ether	19	
354-23-4	Freon 123a	19	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	18	
67-64-1	Acetone	190	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	150	
74-88-4	Methyl Iodide	18	
75-15-0	Carbon Disulfide	19	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	19	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl alcohol	200	
107-13-1	Acrylonitrile	94	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	18	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	19	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	18	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL95

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL95

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may26b.b/ly26l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/26/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	39	
78-93-3	2-Butanone	170	
594-20-7	2,2-Dichloropropane	19	
107-12-0	Propionitrile	160	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	100	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	19	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	530	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	18	
71-36-3	n-Butanol	1000	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	20	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	510	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL95

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL95

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may26b.b/ly26l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/26/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	19	
542-75-6	1,3-Dichloropropene (total)	38	
97-63-2	Ethyl Methacrylate	20	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	19	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	19	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	41	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	61	
100-42-5	Styrene	20	
75-25-2	Bromoform	19	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	530	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	21	
98-06-6	tert-Butylbenzene	20	
76-01-7	Pentachloroethane	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL95

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL95

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may26b.b/ly26l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/26/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	21	
135-98-8	sec-Butylbenzene	21	
541-73-1	1,3-Dichlorobenzene	21	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	21	
526-73-8	1,2,3-Trimethylbenzene	21	
100-44-7	Benzyl Chloride	20	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	21	
95-50-1	1,2-Dichlorobenzene	21	
104-51-8	n-Butylbenzene	21	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	62	
96-12-8	1,2-Dibromo-3-chloropropane	20	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	20	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	21	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	16	B

Data file: /chem/HP09915.i/20may26b.b/ly26150.d Injection date and time: **26-MAY-2020 20:32**
Data file Sample Info. Line: LCSL95;LCSL95;1;3;LCS;;;;ly26b50; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 23:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.503	(-0.016)	939	65	348222	(5)	250.00	
66) Fluorobenzene	7.950	(-0.003)	2011	96	1680858	(-2)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1280313	(-3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	706240	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065	(0.000)	113	414275	48.923	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519	(0.001)	102	106801	49.706	99%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1669893	50.771	102%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	624953	49.382	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.094	(-0.001)	85	129196	11.209	11.21			0.2	1
4) Chloromethane	(2)	2.297	(-0.000)	50	184073	17.104	17.10			0.2	1
5) 1,3-Butadiene	(2)	2.416	(-0.001)	39	181919M	26.350	26.35			1	3
6) Vinyl Chloride	(2)	2.416	(-0.000)	62	177440	17.086	17.09			0.2	1
8) Bromomethane	(2)	2.750	(0.000)	94	127924	17.085	17.08			0.3	1
9) Chloroethane	(2)	2.844	(0.000)	64	108974	18.794	18.79			0.2	1
11) n-Pentane	(2)	3.213	(-0.000)	43	237388	22.291	22.29			0.4	10
12) Trichlorofluoromethane	(2)	3.162	(-0.000)	101	214232	18.888	18.89			0.2	1
14) Ethyl ether	(2)	3.435	(-0.000)	59	154923	19.330	19.33			0.2	5
15) Freon 123a	(2)	3.528	(-0.000)	67	176129	19.167	19.17			0.4	5
16) Acrolein	(1)	3.625	(0.001)	56	400964	139.965	139.97			2	100
17) 1,1-Dichloroethene	(2)	3.763	(0.000)	96	133748	18.490	18.49			0.2	1
18) Acetone	(1)	3.808	(0.000)	58	251344	192.345	192.35			0.7	20
19) Freon 113	(2)	3.795	(-0.000)	101	130183	17.347	17.35			0.2	10
21) 2-Propanol	(1)	3.992	(0.000)	45	122888	147.552	147.55			18	100
22) Methyl Iodide	(2)	3.975	(-0.000)	142	249563	17.903	17.90			0.2	1
23) Carbon Disulfide	(2)	4.078	(-0.000)	76	470749	19.328	19.33			0.2	5
25) Allyl Chloride	(2)	4.278	(-0.001)	41	217999	18.597	18.60			0.3	5
27) Methyl Acetate	(2)	4.246	(-0.001)	43	176784	19.163	19.16			0.3	5
28) Methylene Chloride	(2)	4.477	(-0.000)	84	165368	19.219	19.22			0.3	1
30) t-Butyl alcohol	(1)	4.631	(0.000)	59	280112	199.251	199.25			12	50
31) Acrylonitrile	(2)	4.828	(-0.000)	53	480794	94.079	94.08			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.889	(-0.000)	96	155335	18.667	18.67			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.885	(-0.000)	73	434192	17.502	17.50			0.2	1
34) n-Hexane	(2)	5.310	(-0.000)	57	207687	17.822	17.82			2	5
36) 1,1-Dichloroethane	(2)	5.548	(-0.000)	63	283950	19.455	19.46			0.2	1
38) di-Isopropyl ether	(2)	5.606	(-0.000)	45	482122	18.783	18.78			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.657	(-0.000)	53	218005	18.730	18.73			0.2	5
40) Ethyl t-butyl ether	(2)	6.133	(0.000)	59	425933	17.859	17.86			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.377	(-0.000)	96	188540	20.204	20.20			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	343875	38.871	38.87			0.4	2

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may26b.b/ly26l50.d Injection date and time: **26-MAY-2020 20:32**
Data file Sample Info. Line: LCSL95;LCSL95;1;3;LCS;;;;ly26b50; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 23:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.352(-0.000)	43	1047707	168.896	168.90			0.3	10
45) 2,2-Dichloropropane	(2)	6.384(0.000)	77	219000	19.415	19.41			0.3	1
47) Propionitrile	(1)	6.451(0.003)	54	295707	155.699	155.70			14	100
48) Methacrylonitrile	(2)	6.660(-0.000)	67	773004	150.874	150.87			6	50
49) Bromochloromethane	(2)	6.705(-0.000)	128	90074	18.707	18.71			0.2	5
50) Tetrahydrofuran	(1)	6.712(0.004)	71	168880	101.630	101.63			0.7	10
51) Chloroform	(2)	6.853(-0.000)	83	276620	19.400	19.40			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075(-0.000)	97	228912	18.713	18.71			0.3	1
54) Cyclohexane	(2)	7.171(-0.000)	56	255233	18.639	18.64			1	5
55) 1,1-Dichloropropene	(2)	7.284(-0.000)	75	212759	18.973	18.97			0.2	5
56) Carbon Tetrachloride	(2)	7.281(-0.000)	117	198612	19.378	19.38			0.2	1
58) Isobutyl Alcohol	(1)	7.445(0.005)	41	253152	530.824	530.82			36	250
60) Benzene	(2)	7.551(-0.000)	78	663211	19.105	19.11			0.2	1
61) 1,2-Dichloroethane	(2)	7.622(-0.000)	62	224942	19.331	19.33			0.3	1
65) t-Amyl methyl ether	(2)	7.734(-0.000)	73	445503	18.285	18.29			0.8	5
67) n-Heptane	(2)	7.953(0.000)	43	219884	18.145	18.14			2	5
69) n-Butanol	(1)	8.319(0.005)	56	404051	1039.075	1039.08			61	250
71) Trichloroethene	(2)	8.419(0.000)	95	164773	18.758	18.76			0.2	1
72) Methylcyclohexane	(2)	8.724(0.000)	83	251501	17.608	17.61			0.5	5
73) 1,2-Dichloropropane	(2)	8.757(0.000)	63	177153	19.807	19.81			0.2	1
74) Dibromomethane	(2)	8.869(0.000)	93	114305	19.542	19.54			0.2	1
75) 1,4-Dioxane	(1)	8.843(0.007)	88	59297	507.279	507.28			29	250
76) Methyl Methacrylate	(2)	8.834(0.000)	69	143432	18.651	18.65			0.2	5
78) Bromodichloromethane	(2)	9.101(0.000)	83	201552	19.220	19.22			0.2	1
79) 2-Nitropropane	(2)	9.377(-0.000)	41	54961	17.480	17.48			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.448(0.000)	63	110461	18.548	18.55			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.628(0.000)	75	252900	18.454	18.45			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.795(0.000)	43	1269824	101.083	101.08			0.5	10
88) Toluene	(3)	9.998(-0.000)	92	410823	19.596	19.60			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.245(0.000)	75	232023	19.289	19.29			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	484923	37.743	37.74			0.4	2
91) Ethyl Methacrylate	(3)	10.303(-0.000)	69	238105	19.673	19.67			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.448(-0.000)	97	162347	19.957	19.96			0.2	1
93) Tetrachloroethene	(3)	10.531(-0.000)	166	173644	19.436	19.44			0.2	1
94) 1,3-Dichloropropane	(3)	10.612(-0.000)	76	267047	19.630	19.63			0.2	1
96) 2-Hexanone	(3)	10.657(-0.000)	43	985899	112.152	112.15			0.3	10
97) Dibromochloromethane	(3)	10.818(-0.000)	129	169343	20.012	20.01			0.2	1
99) 1,2-Dibromoethane	(3)	10.927(-0.000)	107	170898	19.548	19.55			0.2	1
101) 1-Chlorohexane	(3)	11.354(0.000)	91	205140	19.121	19.12			0.3	5
102) Chlorobenzene	(3)	11.377(0.000)	112	479457	19.915	19.92			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.457(-0.000)	131	163591	20.044	20.04			0.2	1
104) Ethylbenzene	(3)	11.461(-0.000)	91	771016	19.869	19.87			0.4	1
106) m+p-Xylene	(3)	11.570(0.000)	106	629066	41.257	41.26			1	5
107) o-Xylene	(3)	11.901(-0.000)	106	293879	19.931	19.93			0.4	1
108) Xylene (Total)	(3)		106	922945	61.188	61.19			1	6
109) Styrene	(3)	11.914(0.000)	104	488180	20.358	20.36			0.2	5
110) Bromoform	(3)	12.072(0.000)	173	119029	19.322	19.32			1	4
111) Isopropylbenzene	(3)	12.197(0.000)	105	758558	20.273	20.27			0.2	5
112) Cyclohexanone	(1)	12.277(0.009)	55	229193	526.749	526.75			25	100
115) Bromobenzene	(4)	12.457(-0.000)	156	210970	20.414	20.41			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.441(-0.000)	83	268513	20.855	20.86			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.486(-0.000)	110	82731	21.039	21.04			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.464(0.000)	53	407605	108.830	108.83			6	50
119) n-Propylbenzene	(4)	12.522(-0.000)	91	940960	21.067	21.07			0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may26b.b/ly26l50.d Injection date and time: **26-MAY-2020 20:32**
Data file Sample Info. Line: LCSL95;LCSL95;1;3;LCS;;;;ly26b50; Instrument ID: **HP09915.i** Batch: **L201472AA**
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may26b.b/ly26b50.d**

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 26-MAY-2020 23:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may26b.b/ly26c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)	12.599(-0.000)	126	193571	20.285	20.29			0.2	5
121) 4-Chlorotoluene	(4)	12.692(-0.000)	126	204824	20.680	20.68			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.657(-0.000)	105	667848	20.693	20.69			0.3	5
124) tert-Butylbenzene	(4)	12.898(-0.000)	134	135210M	20.380	20.38			0.3	5
125) Pentachloroethane	(4)	12.933(-0.000)	167	122522	20.794	20.79			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.940(-0.000)	105	695664	20.847	20.85			1	5
127) sec-Butylbenzene	(4)	13.059(0.000)	105	822963	20.943	20.94			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.162(-0.000)	146	400060	20.773	20.77			0.2	5
130) p-Isopropyltoluene	(4)	13.165(-0.000)	119	722944	21.471	21.47			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.232(-0.000)	146	417674	20.665	20.66			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.242(0.000)	105	738488	21.299	21.30			0.3	5
135) Benzyl Chloride	(4)	13.309(0.000)	91	518735	19.773	19.77			1	5
136) 1,3-Diethylbenzene	(4)	13.364(0.000)	119	443663	20.450	20.45			0.2	5
137) 1,4-Diethylbenzene	(4)	13.435(0.000)	119	472250	20.796	20.80			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.496(0.000)	146	399709	20.621	20.62			0.2	5
139) n-Butylbenzene	(4)	13.457(0.000)	92	365620	21.135	21.13			0.2	5
140) 1,2-Diethylbenzene	(4)	13.509(0.000)	119	383765	20.722	20.72			0.2	5
141) Diethylbenzene (total)	(4)		100	1299678	61.968	61.97			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.036(0.000)	75	56253	19.740	19.74			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.158(0.000)	180	287186	19.668	19.67			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.583(0.000)	180	267964	19.637	19.64			0.3	5
147) Hexachlorobutadiene	(4)	14.660(0.000)	225	114787	18.235	18.23			2	5
148) Naphthalene	(4)	14.766(-0.000)	128	925793	20.959	20.96			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.911(0.000)	180	274660	20.256	20.26			0.4	5
150) 2-Methylnaphthalene	(4)	15.557(0.000)	142	469595	16.291	16.29	2.998	B	2	4

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Total number of targets = 110

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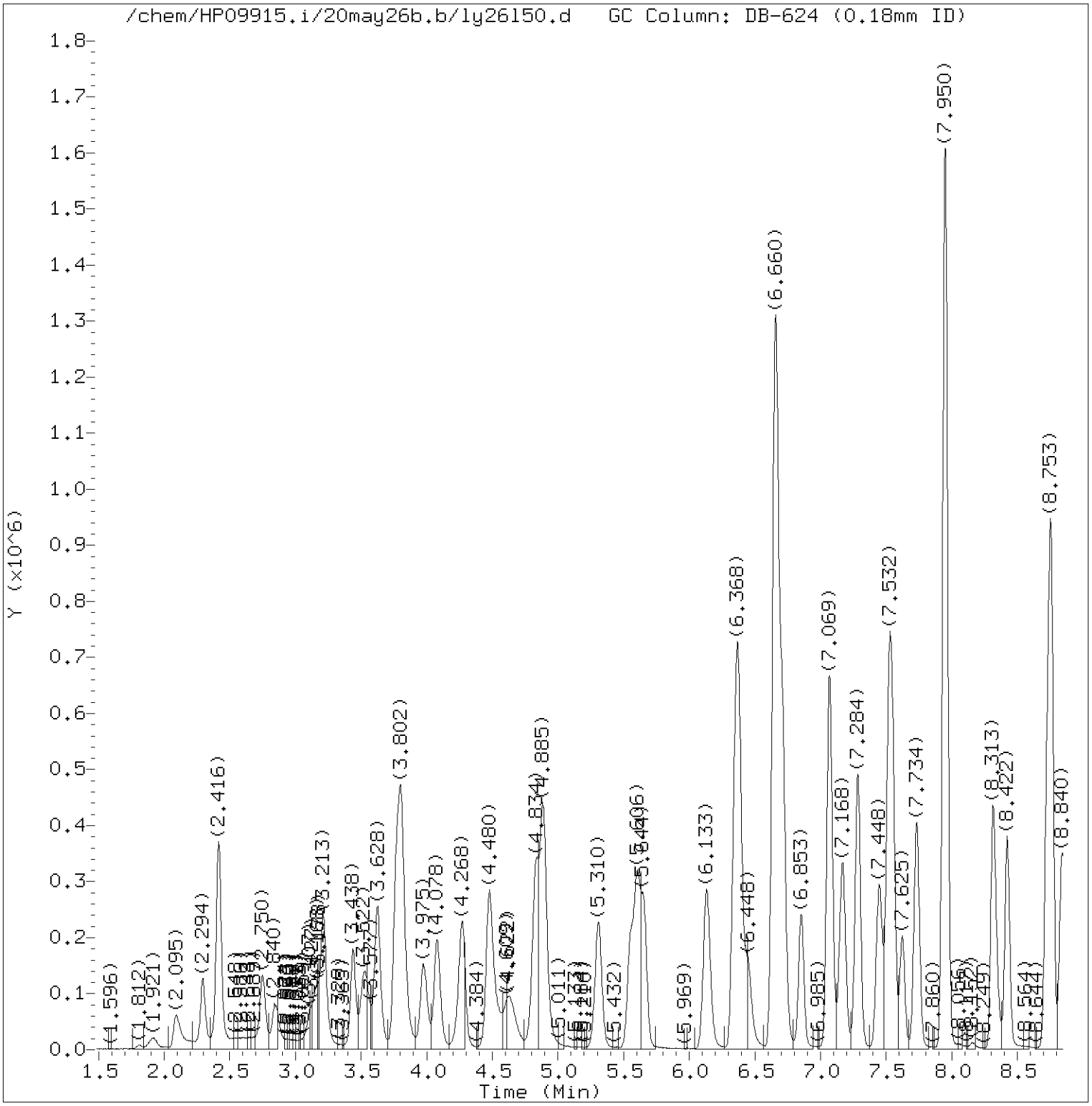
Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:20. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

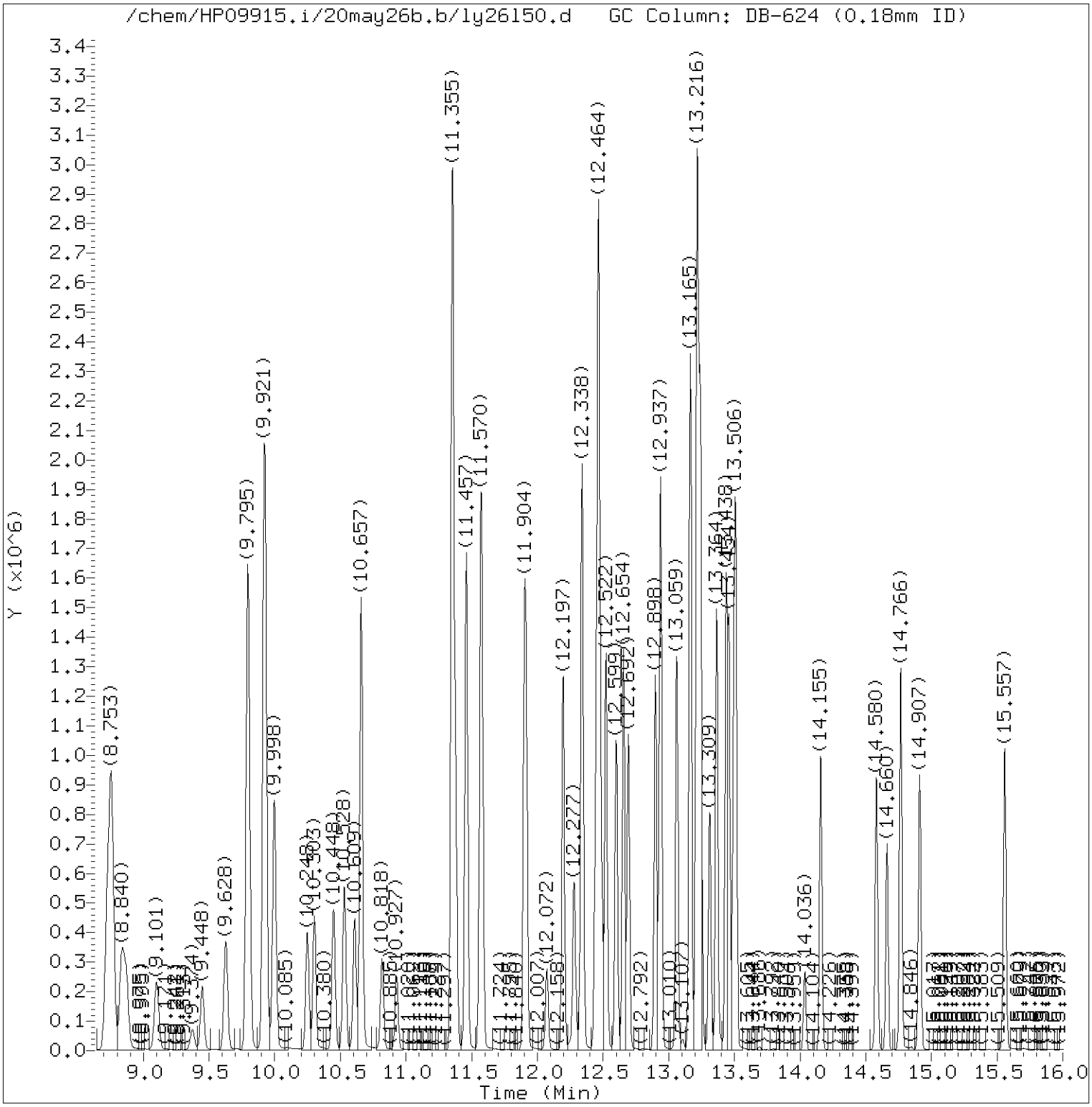
Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.095	85	129196	11.209
4) Chloromethane	(2)	2.297	50	184073	17.104
5) 1,3-Butadiene	(2)	2.416	39	181919M	26.350
6) Vinyl Chloride	(2)	2.416	62	177440	17.086
8) Bromomethane	(2)	2.750	94	127924	17.085
9) Chloroethane	(2)	2.844	64	108974	18.794
12) Trichlorofluoromethane	(2)	3.162	101	214232	18.888
11) n-Pentane	(2)	3.213	43	237388	22.291
14) Ethyl ether	(2)	3.435	59	154923	19.330
15) Freon 123a	(2)	3.529	67	176129	19.167
16) Acrolein	(1)	3.625	56	400964	139.965
17) 1,1-Dichloroethene	(2)	3.763	96	133748	18.490
19) Freon 113	(2)	3.795	101	130183	17.347
18) Acetone	(1)	3.808	58	251344	192.345
22) Methyl Iodide	(2)	3.975	142	249563	17.903
21) 2-Propanol	(1)	3.992	45	122888	147.552
23) Carbon Disulfide	(2)	4.078	76	470749	19.328
27) Methyl Acetate	(2)	4.246	43	176784	19.163
25) Allyl Chloride	(2)	4.278	41	217999	18.597
28) Methylene Chloride	(2)	4.477	84	165368	19.219
29)*t-Butyl alcohol-d10	(1)	4.503	65	348222	250.000
30) t-Butyl alcohol	(1)	4.631	59	280112	199.251
31) Acrylonitrile	(2)	4.827	53	480794	94.079
33) Methyl Tertiary Butyl Ether	(2)	4.885	73	434192	17.502
32) trans-1,2-Dichloroethene	(2)	4.889	96	155335	18.667
34) n-Hexane	(2)	5.310	57	207687	17.822
36) 1,1-Dichloroethane	(2)	5.548	63	283950	19.455
38) di-Isopropyl ether	(2)	5.606	45	482122	18.783
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	218005	18.730
40) Ethyl t-butyl ether	(2)	6.133	59	425933	17.859
43) 1,2-Dichloroethene (Total)	(2)		96	343875	38.871
44) 2-Butanone	(2)	6.352	43	1047707	168.896
42) cis-1,2-Dichloroethene	(2)	6.377	96	188540	20.204
45) 2,2-Dichloropropane	(2)	6.384	77	219000	19.415
47) Propionitrile	(1)	6.451	54	295707	155.699
48) Methacrylonitrile	(2)	6.660	67	773004	150.874
49) Bromochloromethane	(2)	6.705	128	90074	18.707
50) Tetrahydrofuran	(1)	6.712	71	168880	101.630

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.853	83	276620	19.400
52)$Dibromofluoromethane	(2)	7.065	113	414275	48.923
53) 1,1,1-Trichloroethane	(2)	7.075	97	228912	18.713
54) Cyclohexane	(2)	7.171	56	255233	18.639
56) Carbon Tetrachloride	(2)	7.281	117	198612	19.378
55) 1,1-Dichloropropene	(2)	7.284	75	212759	18.973
58) Isobutyl Alcohol	(1)	7.445	41	253152	530.824
57)$1,2-Dichloroethane-d4	(2)	7.519	102	106801	49.706
60) Benzene	(2)	7.551	78	663211	19.105
61) 1,2-Dichloroethane	(2)	7.622	62	224942	19.331
65) t-Amyl methyl ether	(2)	7.734	73	445503	18.285
66)*Fluorobenzene	(2)	7.950	96	1680858	50.000
67) n-Heptane	(2)	7.953	43	219884	18.145
69) n-Butanol	(1)	8.319	56	404051	1039.075
71) Trichloroethene	(2)	8.419	95	164773	18.758
72) Methylcyclohexane	(2)	8.724	83	251501	17.608
73) 1,2-Dichloropropane	(2)	8.757	63	177153	19.807
76) Methyl Methacrylate	(2)	8.834	69	143432	18.651
75) 1,4-Dioxane	(1)	8.843	88	59297	507.279
74) Dibromomethane	(2)	8.869	93	114305	19.542
78) Bromodichloromethane	(2)	9.101	83	201552	19.220
79) 2-Nitropropane	(2)	9.377	41	54961	17.480
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	110461	18.548
81) cis-1,3-Dichloropropene	(2)	9.628	75	252900	18.454
82) 4-Methyl-2-pentanone	(2)	9.795	43	1269824	101.083
83)$Toluene-d8	(3)	9.921	98	1669893	50.771
88) Toluene	(3)	9.998	92	410823	19.596
90) 1,3-Dichloropropene (total)	(3)		100	484923	37.743
89) trans-1,3-Dichloropropene	(3)	10.245	75	232023	19.289
91) Ethyl Methacrylate	(3)	10.303	69	238105	19.673
92) 1,1,2-Trichloroethane	(3)	10.448	97	162347	19.957
93) Tetrachloroethene	(3)	10.531	166	173644	19.436
94) 1,3-Dichloropropane	(3)	10.612	76	267047	19.630
96) 2-Hexanone	(3)	10.657	43	985899	112.152
97) Dibromochloromethane	(3)	10.818	129	169343	20.012
99) 1,2-Dibromoethane	(3)	10.927	107	170898	19.548
100)*Chlorobenzene-d5	(3)	11.351	117	1280313	50.000
101) 1-Chlorohexane	(3)	11.355	91	205140	19.121

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.377	112	479457	19.915
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	163591	20.044
104) Ethylbenzene	(3)	11.461	91	771016	19.869
106) m+p-Xylene	(3)	11.570	106	629066	41.257
108) Xylene (Total)	(3)		106	922945	61.188
107) o-Xylene	(3)	11.901	106	293879	19.931
109) Styrene	(3)	11.914	104	488180	20.358
110) Bromoform	(3)	12.072	173	119029	19.322
111) Isopropylbenzene	(3)	12.197	105	758558	20.273
112) Cyclohexanone	(1)	12.277	55	229193	526.749
114)$4-Bromofluorobenzene	(3)	12.338	95	624953	49.382
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	268513	20.855
115) Bromobenzene	(4)	12.457	156	210970	20.414
118) trans-1,4-Dichloro-2-butene	(4)	12.464	53	407605	108.830
117) 1,2,3-Trichloropropane	(4)	12.486	110	82731	21.039
119) n-Propylbenzene	(4)	12.522	91	940960	21.067
120) 2-Chlorotoluene	(4)	12.599	126	193571	20.285
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	667848	20.693
121) 4-Chlorotoluene	(4)	12.692	126	204824	20.680
124) tert-Butylbenzene	(4)	12.898	134	135210M	20.380
125) Pentachloroethane	(4)	12.933	167	122522	20.794
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	695664	20.847
127) sec-Butylbenzene	(4)	13.059	105	822963	20.943
129) 1,3-Dichlorobenzene	(4)	13.162	146	400060	20.773
130) p-Isopropyltoluene	(4)	13.165	119	722944	21.471
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	706240	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	417674	20.665
134) 1,2,3-Trimethylbenzene	(4)	13.242	105	738488	21.299
135) Benzyl Chloride	(4)	13.309	91	518735	19.773
136) 1,3-Diethylbenzene	(4)	13.364	119	443663	20.450
141) Diethylbenzene (total)	(4)		100	1299678	61.968
137) 1,4-Diethylbenzene	(4)	13.435	119	472250	20.796
139) n-Butylbenzene	(4)	13.457	92	365620	21.135
138) 1,2-Dichlorobenzene	(4)	13.496	146	399709	20.621
140) 1,2-Diethylbenzene	(4)	13.509	119	383765	20.722
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	56253	19.740
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	287186	19.668
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	267964	19.637

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

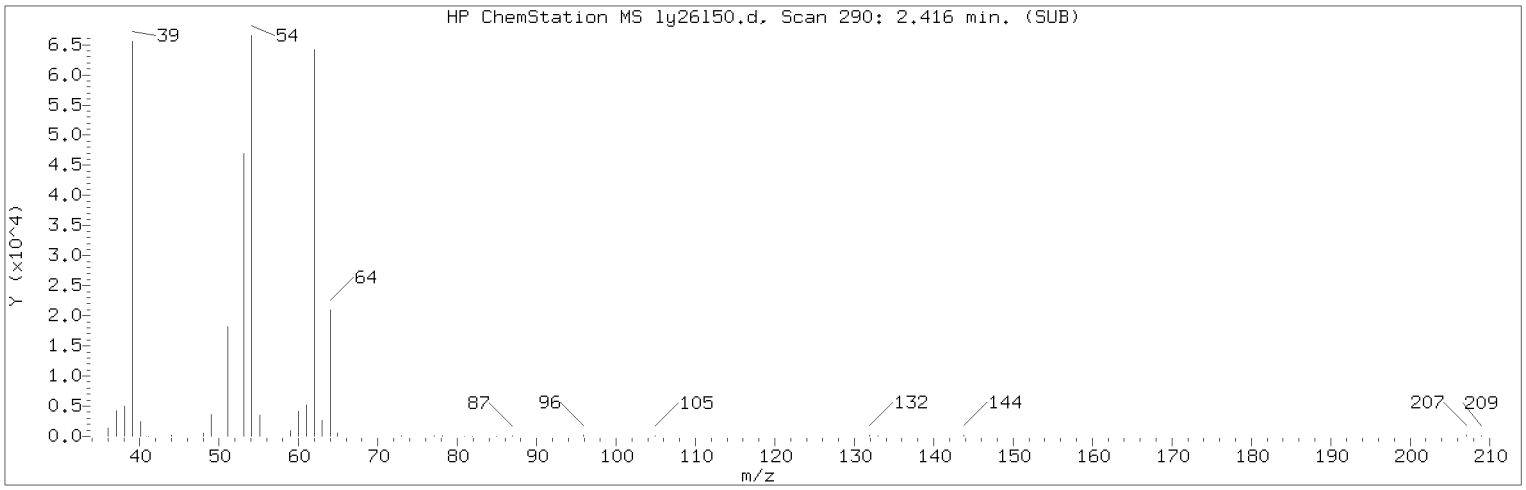
Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

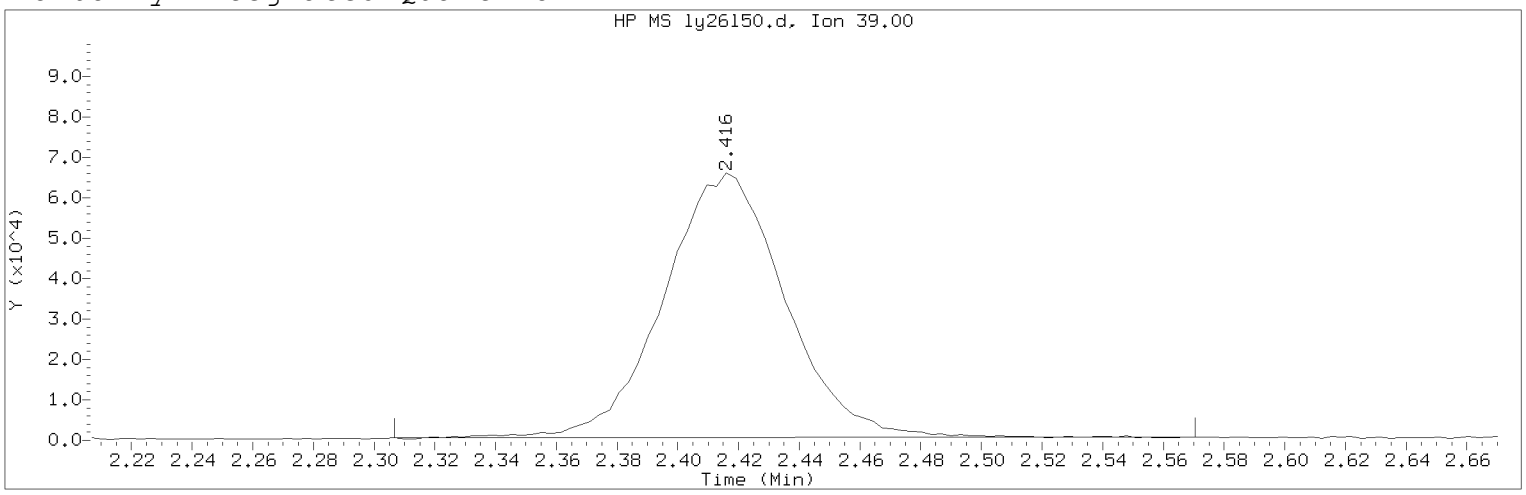
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.660	225	114787	18.235
148) Naphthalene	(4)	14.766	128	925793	20.959
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	274660	20.256
150) 2-Methylnaphthalene	(4)	15.557	142	469595	16.291

Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

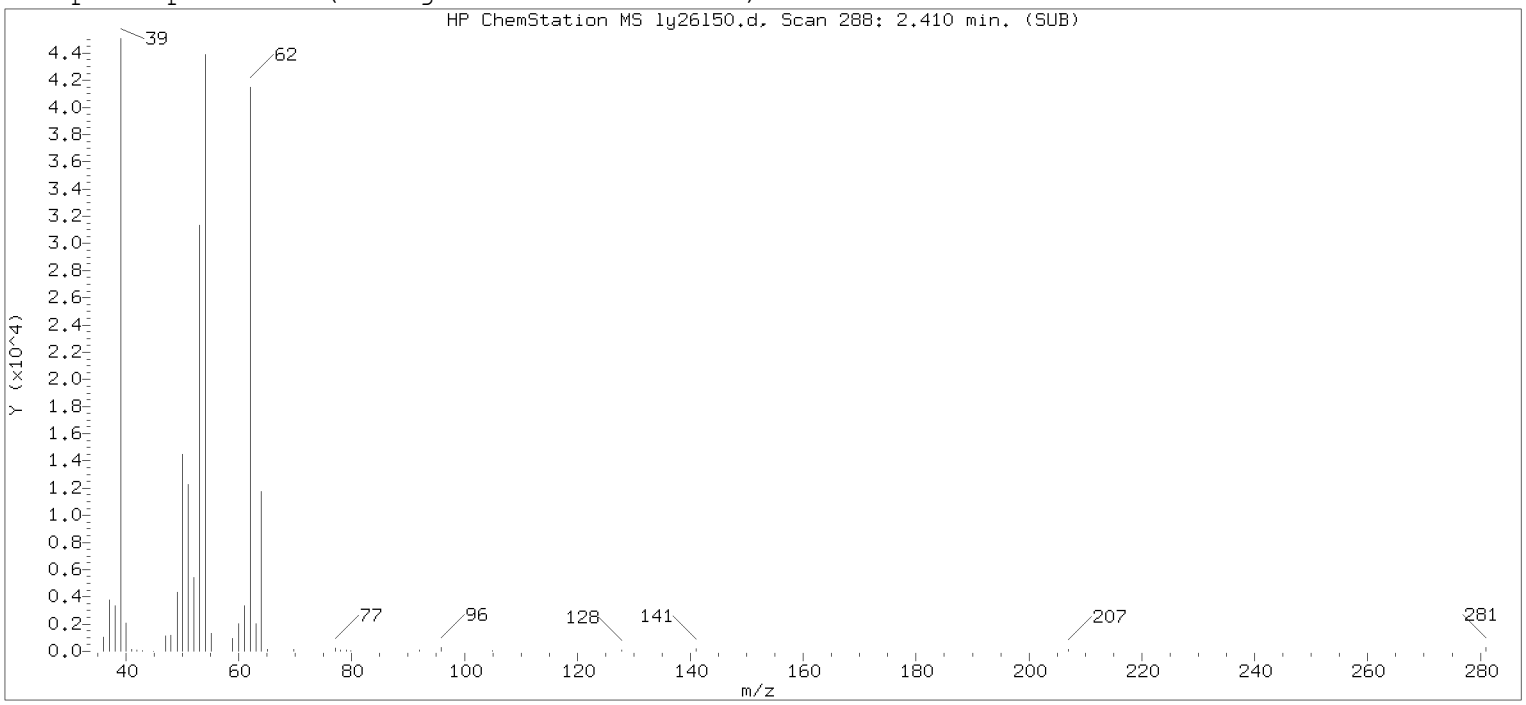
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 290
Retention Time (minutes): 2.416
Quant Ion : 39.00
Area (flag) : 181919M
On-Column Amount (ng) : 26.3501
Integration start scan : 255 Integration stop scan: 337
Y at integration start : 582 Y at integration end: 798

Reason for manual integration: improper integration

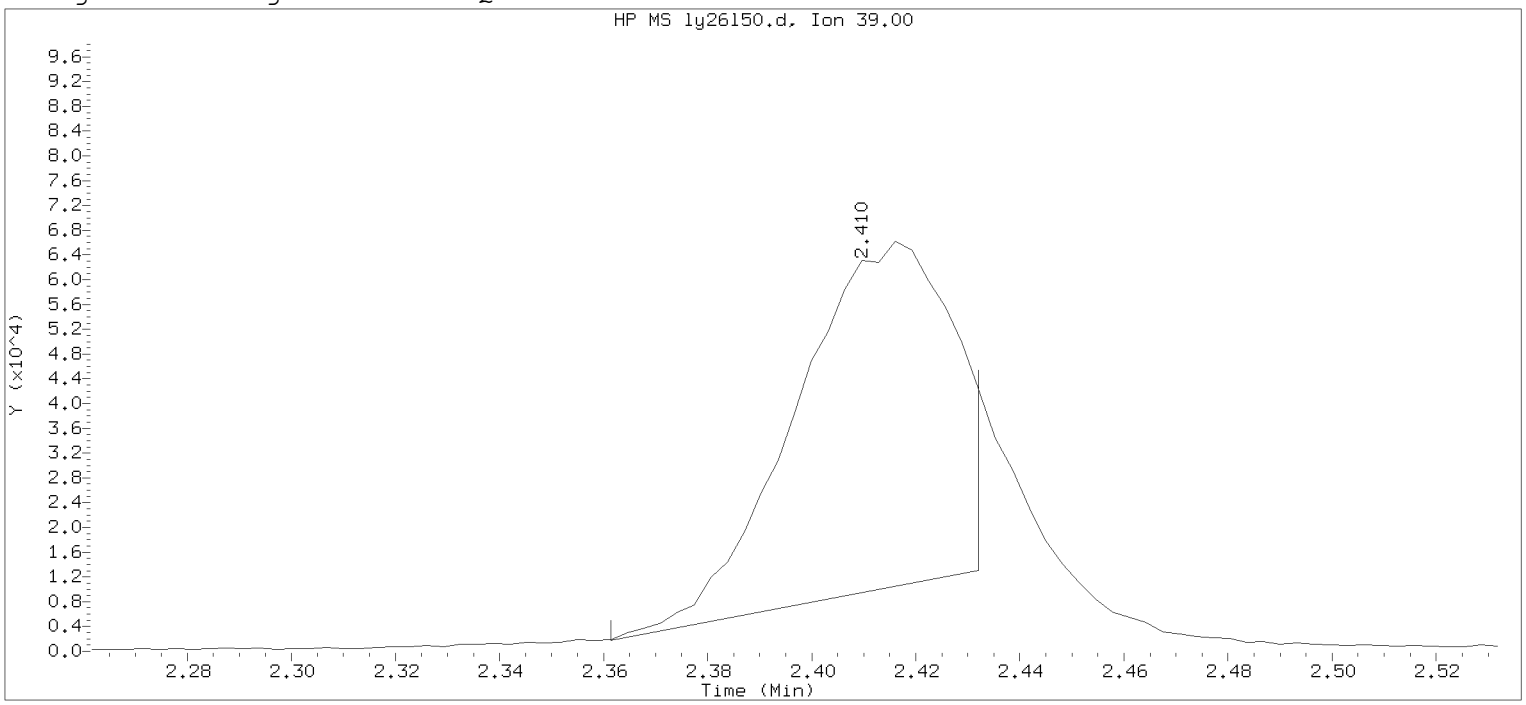
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:20.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

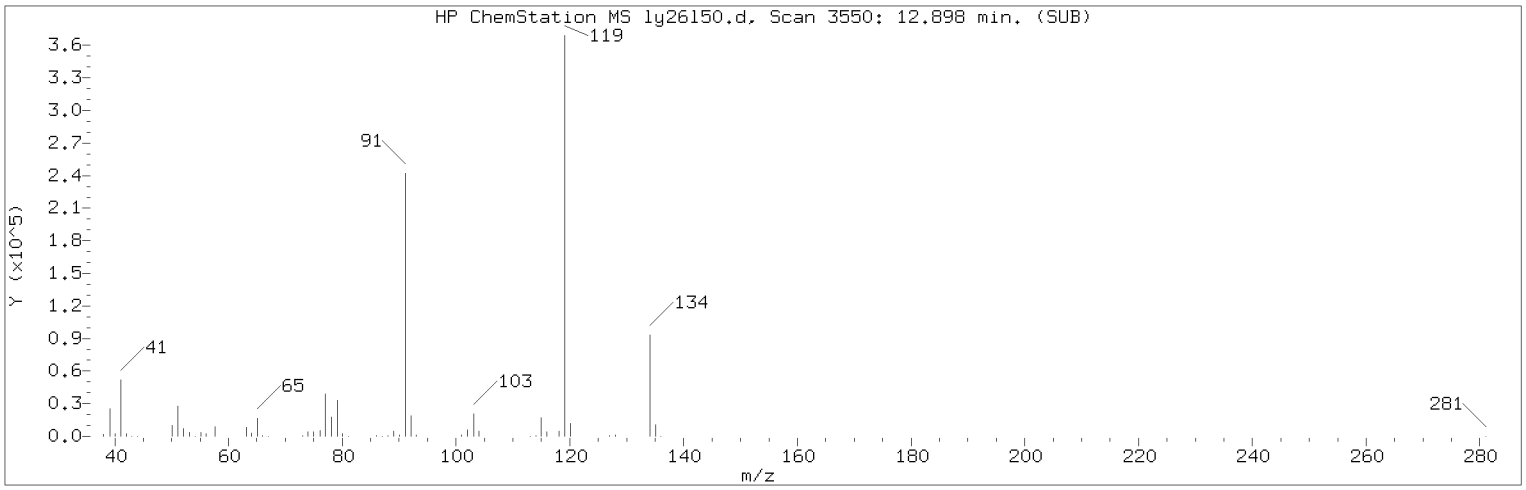
Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:50 Automation

Sample Name: LCSL95 Lab Sample ID: LCSL95

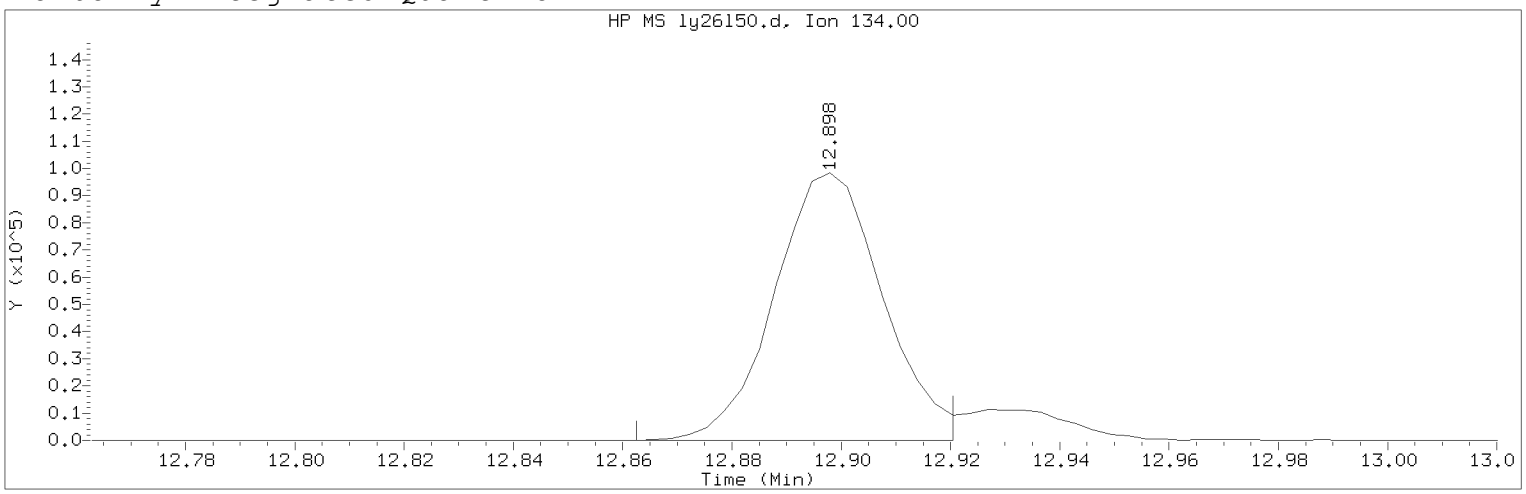
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area : 116570
On-column Amount (ng) : 16.8847
Integration start scan : 272 Integration stop scan: 294
Y at integration start : 1711 Y at integration end: 13096

Digitally signed by Laura J. Green on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 23:41
Date, time and analyst ID of latest file update: 26-May-2020 23:42 ljg30941

Sample Name: LCSL95 Lab Sample ID: LCSL95

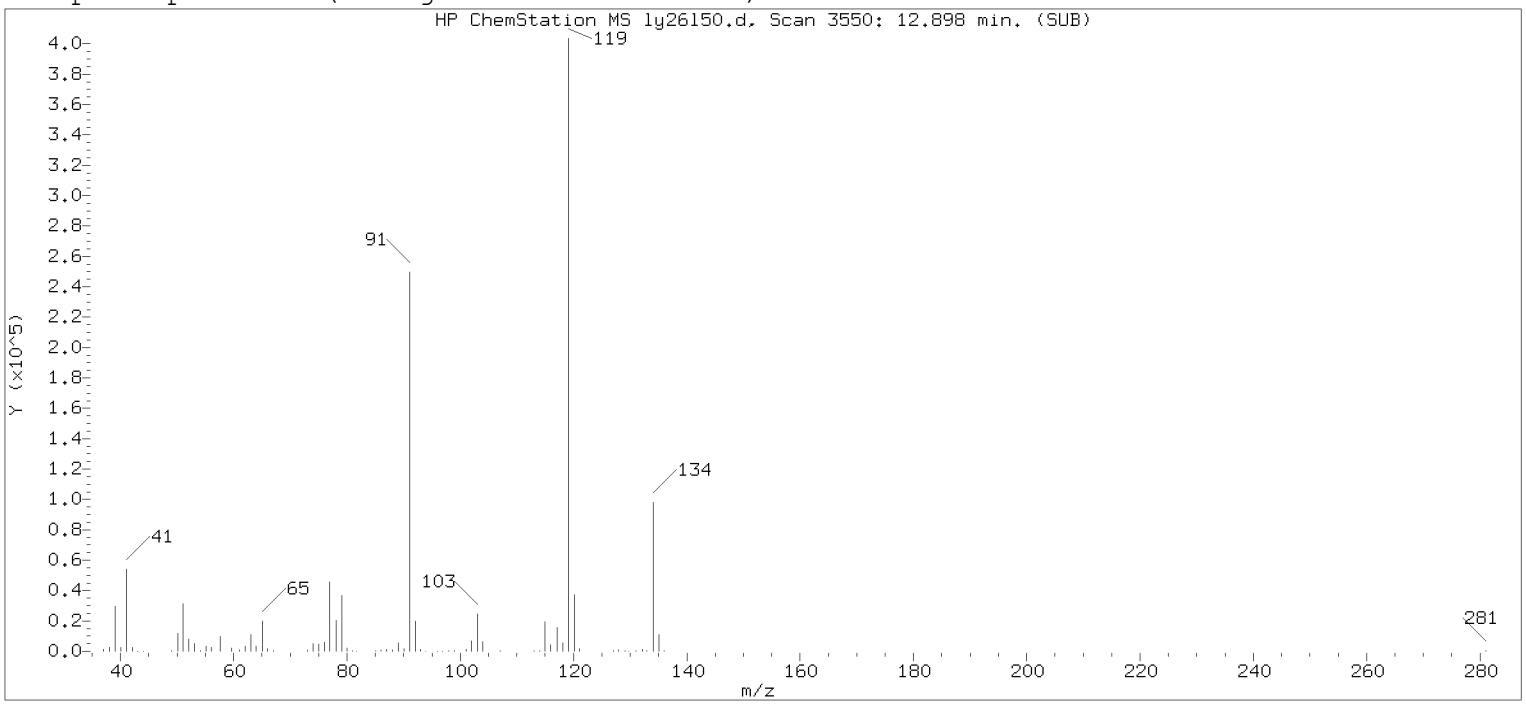
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 135210M
On-Column Amount (ng) : 20.3803
Integration start scan : 3538 Integration stop scan: 3556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

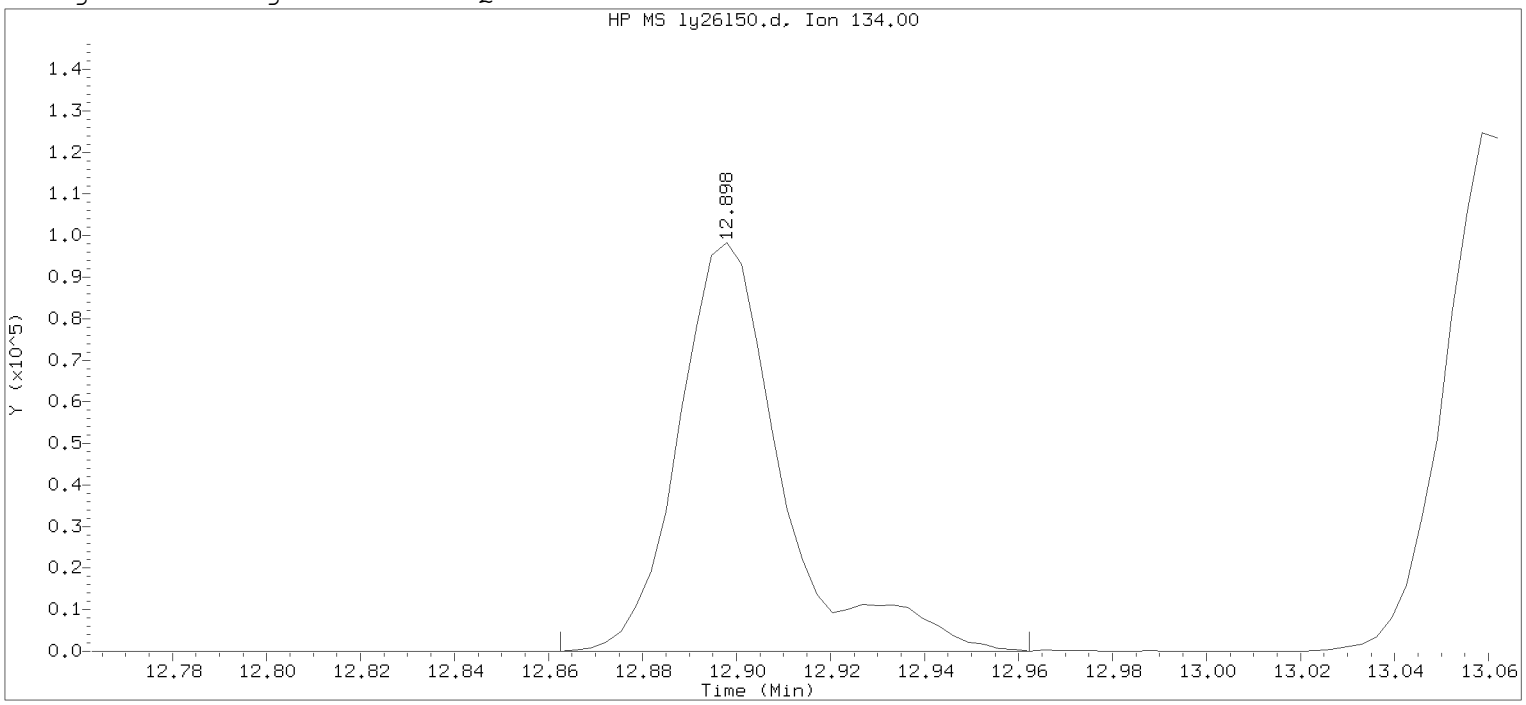
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/26/2020 at 23:43.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/27/2020 at 20:20.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may26b.b/ly26l50.d Instrument ID: HP09915.i
Injection date and time: 26-MAY-2020 20:32 Analyst ID: LJG30941

Method used: /chem/HP09915.i/20may26b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 26-MAY-2020 20:28
Date, time and analyst ID of latest file update: 26-May-2020 20:50 Automation

Sample Name: LCSL95 Lab Sample ID: LCSL95

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 149944
On-column Amount (ng) : 22.6012
Integration start scan : 3538 Integration stop scan: 3569
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/26/2020 at 23:43.
Target 3.5 esignature user: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	15	
74-87-3	Chloromethane	16	
106-99-0	1,3-Butadiene	21	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	17	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	21	
75-69-4	Trichlorofluoromethane	19	
64-17-5	Ethanol	1100	
354-23-4	Freon 123a	21	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	180	
76-13-1	Freon 113	22	
67-63-0	2-Propanol	180	
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	21	
107-05-1	Allyl Chloride	20	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	230	
107-13-1	Acrylonitrile	98	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	23	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	20	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	19	
156-59-2	cis-1,2-Dichloroethene	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	41	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	23	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	550	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	18	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	21	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	23	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	470	
80-62-6	Methyl Methacrylate	20	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	14	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	94	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	37	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	94	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	41	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	61	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	460	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-butene	85	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	18	
95-63-6	1,2,4-Trimethylbenzene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSN45

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSN45

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP07159.i/20may22a.b/ny22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	20	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	18	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	18	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	16	

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.410(0.011)	505	65	317361 (12)	250.00	
66) Fluorobenzene	7.920(0.005)	1082	96	1191852 (13)	50.00	
100) Chlorobenzene-d5	11.364(-0.001)	1648	117	899461 (8)	50.00	
131) 1,4-Dichlorobenzene-d4	13.243(-0.001)	1957	152	495502 (0)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.026(0.000)	113	281460	47.586	95%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.488(0.000)	102	72452	48.446	97%		80 - 120
83) Toluene-d8	(3)	9.922(0.000)	98	1122813	47.864	96%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.361(0.000)	95	415870	44.873	90%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.031(0.000)	85	137854	14.860	14.86			0.2	1
4) Chloromethane	(2)	2.232(0.000)	50	155510	15.644	15.64			0.2	1
5) 1,3-Butadiene	(2)	2.360(0.000)	39	148004	21.338	21.34			1	3
6) Vinyl Chloride	(2)	2.360(-0.000)	62	151466	15.658	15.66			0.2	1
8) Bromomethane	(2)	2.694(0.000)	94	111567	16.821	16.82			0.3	1
9) Chloroethane	(2)	2.786(0.001)	64	96747	17.088	17.09			0.2	1
11) n-Pentane	(2)	3.169(-0.000)	43	215352	20.675	20.68			0.4	10
12) Trichlorofluoromethane	(2)	3.102(0.000)	101	200087	18.821	18.82			0.2	1
13) Ethanol	(1)	3.248(-0.004)	45	83105	1081.908	1081.91			280	750
15) Freon 123a	(2)	3.455(0.000)	67	165169	21.207	21.21			0.4	5
16) Acrolein	(1)	3.564(-0.002)	56	306228	142.292	142.29			2	100
17) 1,1-Dichloroethene	(2)	3.710(0.000)	96	126976	20.494	20.49			0.2	1
18) Acetone	(1)	3.741(-0.002)	58	165761	182.868	182.87			0.7	20
19) Freon 113	(2)	3.741(-0.000)	101	125350	21.806	21.81			0.2	10
21) 2-Propanol	(1)	3.930(-0.006)	45	109865M	183.508	183.51			18	100
22) Methyl Iodide	(2)	3.923(-0.000)	142	218315	18.878	18.88			0.2	1
23) Carbon Disulfide	(2)	4.039(-0.000)	76	408506	20.618	20.62			0.2	5
25) Allyl Chloride	(2)	4.215(-0.001)	41	216707	19.812	19.81			0.3	5
27) Methyl Acetate	(2)	4.179(-0.000)	43	157137	20.645	20.64			0.3	5
28) Methylene Chloride	(2)	4.410(0.000)	84	146217	19.870	19.87			0.3	1
30) t-Butyl alcohol	(1)	4.550(-0.005)	59	268158	226.644	226.64			12	50
31) Acrylonitrile	(2)	4.751(-0.001)	53	402246	97.850	97.85			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.836(0.000)	96	140174	19.818	19.82			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.818(-0.001)	73	367860	18.271	18.27			0.2	1
34) n-Hexane	(2)	5.256(-0.000)	57	225765	23.122	23.12			2	5
36) 1,1-Dichloroethane	(2)	5.499(-0.000)	63	255700	19.817	19.82			0.2	1
38) di-Isopropyl ether	(2)	5.548(-0.000)	45	448580	20.181	20.18			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.602(-0.000)	53	218337	19.169	19.17			0.2	5
40) Ethyl t-butyl ether	(2)	6.083(-0.000)	59	401369	18.998	19.00			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.326(0.000)	96	167261	20.821	20.82			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	307435	40.639	40.64			0.4	2

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.284(-0.000)	43	832091	144.761	144.76			0.3	10
45) 2,2-Dichloropropane	(2)	6.338(0.000)	77	208268	18.282	18.28			0.3	1
47) Propionitrile	(1)	6.381(-0.002)	54	252719	182.881	182.88			14	100
48) Methacrylonitrile	(2)	6.594(-0.000)	67	638736	153.824	153.82			6	50
49) Bromochloromethane	(2)	6.661(0.000)	128	77115	20.303	20.30			0.2	5
50) Tetrahydrofuran	(1)	6.667(-0.004)	71	158159	110.240	110.24			0.7	10
51) Chloroform	(2)	6.819(-0.001)	83	240328	19.095	19.10			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.044(-0.000)	97	206149	18.105	18.10			0.3	1
54) Cyclohexane	(2)	7.142(0.000)	56	271787	23.206	23.21			1	5
55) 1,1-Dichloropropene	(2)	7.251(0.000)	75	200657	19.483	19.48			0.2	5
56) Carbon Tetrachloride	(2)	7.263(-0.001)	117	185180	18.862	18.86			0.2	1
58) Isobutyl Alcohol	(1)	7.379(-0.003)	41	233018	549.794	549.79			36	250
60) Benzene	(2)	7.519(0.000)	78	597984	20.398	20.40			0.2	1
61) 1,2-Dichloroethane	(2)	7.586(0.000)	62	189708	18.291	18.29			0.3	1
65) t-Amyl methyl ether	(2)	7.701(0.000)	73	408493	19.274	19.27			0.8	5
67) n-Heptane	(2)	7.932(-0.000)	43	232632	20.641	20.64			2	5
69) n-Butanol	(1)	8.267(-0.005)	56	397187	1087.916	1087.92			61	250
71) Trichloroethene	(2)	8.407(-0.000)	95	148059	19.170	19.17			0.2	1
72) Methylcyclohexane	(2)	8.723(-0.000)	83	297276	23.415	23.41			0.5	5
73) 1,2-Dichloropropane	(2)	8.742(-0.000)	63	158071	21.086	21.09			0.2	1
74) Dibromomethane	(2)	8.851(-0.000)	93	92151	19.274	19.27			0.2	1
75) 1,4-Dioxane	(1)	8.827(-0.005)	88	43004M	466.264	466.26			29	250
76) Methyl Methacrylate	(2)	8.814(-0.000)	69	136914	19.972	19.97			0.2	5
78) Bromodichloromethane	(2)	9.088(-0.000)	83	180714	18.515	18.52			0.2	1
79) 2-Nitropropane	(2)	9.350(-0.000)	41	49977	14.098	14.10			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.435(-0.000)	63	111279	18.765	18.77			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.624(-0.000)	75	234752	18.855	18.85			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.782(-0.000)	43	1098300	94.307	94.31			0.5	10
88) Toluene	(3)	10.001(-0.000)	92	374623	19.659	19.66			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.250(-0.000)	75	209310	17.697	17.70			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552	36.55			0.4	2
91) Ethyl Methacrylate	(3)	10.305(-0.000)	69	224462	19.048	19.05			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.451(-0.000)	97	133238	19.748	19.75			0.2	1
93) Tetrachloroethene	(3)	10.542(-0.000)	166	175080	20.980	20.98			0.2	1
94) 1,3-Dichloropropane	(3)	10.615(-0.000)	76	229773	19.622	19.62			0.2	1
96) 2-Hexanone	(3)	10.652(-0.000)	43	847590	93.966	93.97			0.3	10
97) Dibromochloromethane	(3)	10.828(-0.000)	129	152462	19.692	19.69			0.2	1
99) 1,2-Dibromoethane	(3)	10.938(-0.000)	107	143506	19.424	19.42			0.2	1
102) Chlorobenzene	(3)	11.388(0.000)	112	422510	19.866	19.87			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.473(0.000)	131	144878	18.903	18.90			0.2	1
104) Ethylbenzene	(3)	11.473(0.000)	91	738218	20.028	20.03			0.4	1
106) m+p-Xylene	(3)	11.588(0.000)	106	594767	41.069	41.07			1	5
107) o-Xylene	(3)	11.917(0.000)	106	282336	19.822	19.82			0.4	1
108) Xylene (Total)	(3)		106	877103	60.892	60.89			1	6
109) Styrene	(3)	11.929(0.000)	104	467434	19.540	19.54			0.2	5
110) Bromoform	(3)	12.094(0.000)	173	107919	18.463	18.46			1	4
111) Isopropylbenzene	(3)	12.215(0.000)	105	749520	19.925	19.92			0.2	5
112) Cyclohexanone	(1)	12.294(-0.007)	55	169473A	458.179	458.18			25	100
115) Bromobenzene	(4)	12.477(-0.000)	156	183160	19.987	19.99			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.458(-0.000)	83	217439	19.950	19.95			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.507(-0.000)	110	66385	19.228	19.23			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.483(-0.000)	53	316904	84.528	84.53			6	50
119) n-Propylbenzene	(4)	12.544(-0.000)	91	913193	20.554	20.55			0.2	5
120) 2-Chlorotoluene	(4)	12.623(-0.000)	126	180417	19.696	19.70			0.2	5

M = Compound was manually integrated. A = User selected an alternate peak.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP07159.i/20may22a.b/ny22s01.d Injection date and time: **22-MAY-2020 11:22**
Data file Sample Info. Line: LCSN45;LCSN45;1;3;LCS;;;;ny22b01; Instrument ID: **HP07159.i** Batch: **N201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Blank Data file reference: **/chem/HP07159.i/20may22a.b/ny22b01.d**

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 22-MAY-2020 11:38
Mid Level Daily Calibration Standard Reference: **/chem/HP07159.i/20may22a.b/ny22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 4-Chlorotoluene	(4)	12.714(-0.000)	126	185058	19.494	19.49			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.678(-0.000)	105	633599	19.463	19.46			0.3	5
124) tert-Butylbenzene	(4)	12.921(-0.000)	134	149844	20.771	20.77			0.3	5
125) Pentachloroethane	(4)	12.957(-0.000)	167	103983	18.002	18.00			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.963(-0.000)	105	642200	19.007	19.01			1	5
127) sec-Butylbenzene	(4)	13.085(-0.000)	105	854567	20.209	20.21			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.188(-0.000)	146	353633	19.841	19.84			0.2	5
130) p-Isopropyltoluene	(4)	13.188(0.000)	119	731454	19.878	19.88			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.262(0.000)	146	357709	19.790	19.79			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.268(0.000)	105	647148	19.734	19.73			0.3	5
135) Benzyl Chloride	(4)	13.334(0.000)	91	445261	18.483	18.48			1	5
136) 1,3-Diethylbenzene	(4)	13.389(0.000)	119	432008	19.612	19.61			0.2	5
137) 1,4-Diethylbenzene	(4)	13.462(0.000)	119	458422	19.600	19.60			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.523(0.000)	146	335418	19.849	19.85			0.2	5
139) n-Butylbenzene	(4)	13.480(0.000)	92	359089	18.917	18.92			0.2	5
140) 1,2-Diethylbenzene	(4)	13.535(0.000)	119	358963	19.263	19.26			0.2	5
141) Diethylbenzene (total)	(4)		100	1249393	58.474	58.47			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.064(0.000)	75	53173	18.052	18.05			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.192(0.000)	180	250436	18.593	18.59			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.618(0.000)	180	221942	18.897	18.90			0.3	5
147) Hexachlorobutadiene	(4)	14.697(0.000)	225	98180	18.480	18.48			2	5
148) Naphthalene	(4)	14.801(0.000)	128	702183	19.068	19.07			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.947(0.000)	180	203128	18.841	18.84			0.4	5
150) 2-Methylnaphthalene	(4)	15.604(0.000)	142	348476	16.383	16.38			2	4

Total number of targets = 109

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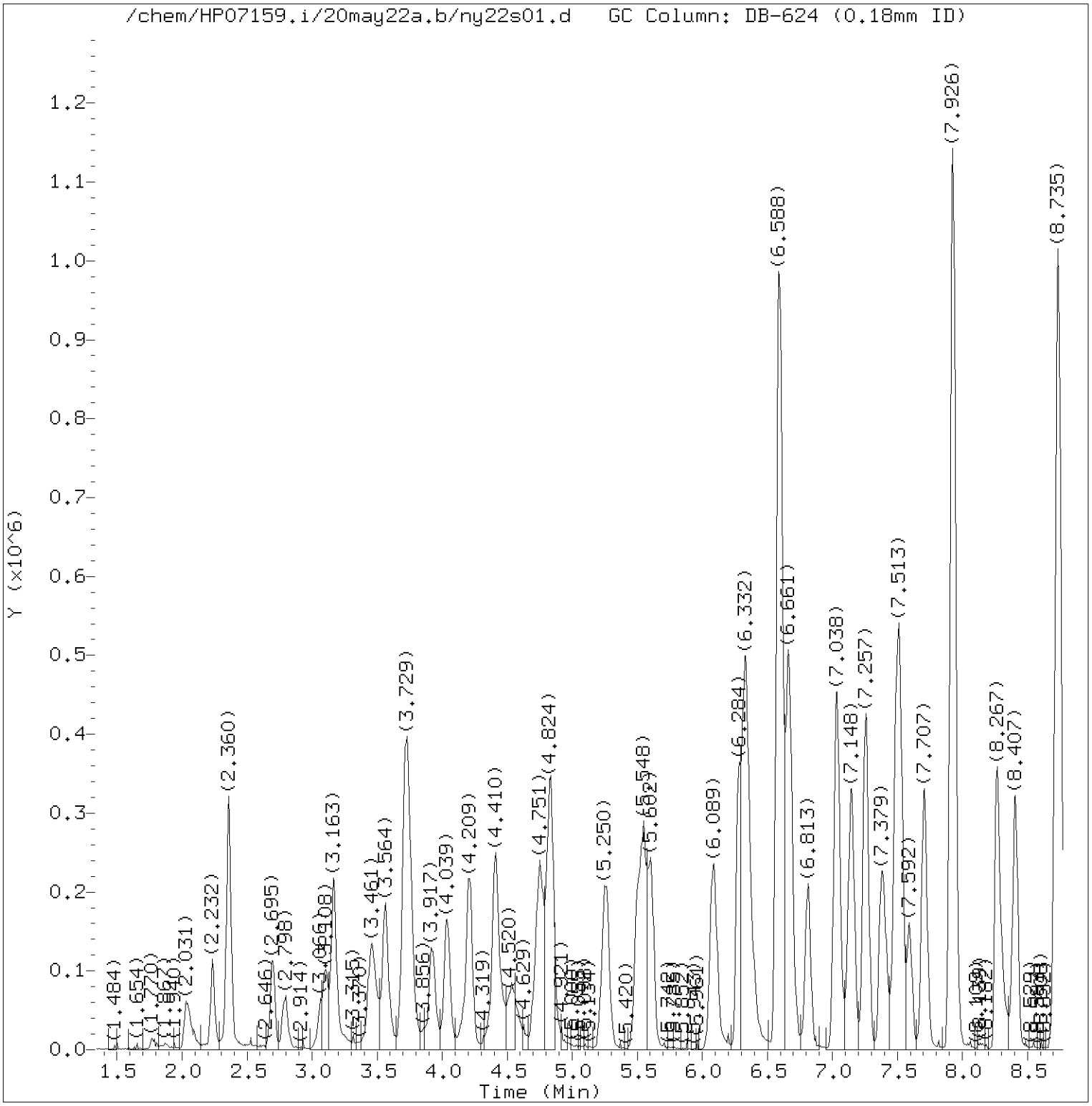
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

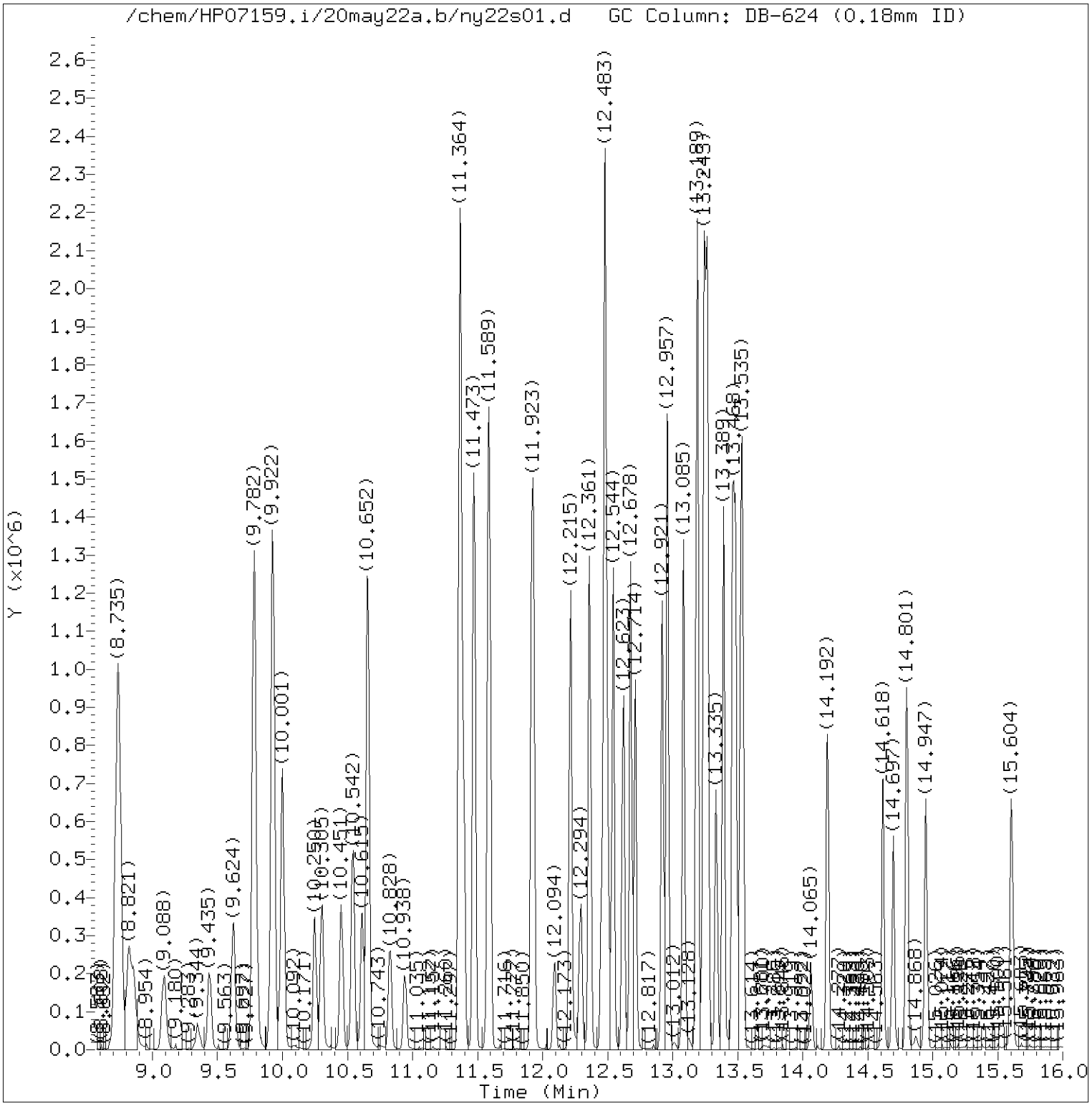
Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.031	85	137854	14.860
4) Chloromethane	(2)	2.232	50	155510	15.644
5) 1,3-Butadiene	(2)	2.360	39	148004	21.338
6) Vinyl Chloride	(2)	2.360	62	151466	15.658
8) Bromomethane	(2)	2.695	94	111567	16.821
9) Chloroethane	(2)	2.786	64	96747	17.088
12) Trichlorofluoromethane	(2)	3.102	101	200087	18.821
11) n-Pentane	(2)	3.169	43	215352	20.675
13) Ethanol	(1)	3.248	45	83105	1081.908
15) Freon 123a	(2)	3.455	67	165169	21.207
16) Acrolein	(1)	3.564	56	306228	142.292
17) 1,1-Dichloroethene	(2)	3.711	96	126976	20.494
18) Acetone	(1)	3.741	58	165761	182.868
19) Freon 113	(2)	3.741	101	125350	21.806
22) Methyl Iodide	(2)	3.923	142	218315	18.878
21) 2-Propanol	(1)	3.930	45	109865M	183.508
23) Carbon Disulfide	(2)	4.039	76	408506	20.618
27) Methyl Acetate	(2)	4.179	43	157137	20.645
25) Allyl Chloride	(2)	4.215	41	216707	19.812
28) Methylene Chloride	(2)	4.410	84	146217	19.870
29)*t-Butyl alcohol-d10	(1)	4.410	65	317361	250.000
30) t-Butyl alcohol	(1)	4.550	59	268158	226.644
31) Acrylonitrile	(2)	4.751	53	402246	97.850
33) Methyl Tertiary Butyl Ether	(2)	4.818	73	367860	18.271
32) trans-1,2-Dichloroethene	(2)	4.836	96	140174	19.818
34) n-Hexane	(2)	5.256	57	225765	23.122
36) 1,1-Dichloroethane	(2)	5.499	63	255700	19.817
38) di-Isopropyl ether	(2)	5.548	45	448580	20.181
39) 2-Chloro-1,3-butadiene	(2)	5.602	53	218337	19.169
40) Ethyl t-butyl ether	(2)	6.083	59	401369	18.998
43) 1,2-Dichloroethene (Total)	(2)		96	307435	40.639
44) 2-Butanone	(2)	6.284	43	832091	144.761
42) cis-1,2-Dichloroethene	(2)	6.326	96	167261	20.821
45) 2,2-Dichloropropane	(2)	6.339	77	208268	18.282
47) Propionitrile	(1)	6.381	54	252719	182.881
48) Methacrylonitrile	(2)	6.594	67	638736	153.824
49) Bromochloromethane	(2)	6.661	128	77115	20.303
50) Tetrahydrofuran	(1)	6.667	71	158159	110.240

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.819	83	240328	19.095
52)$Dibromofluoromethane	(2)	7.026	113	281460	47.586
53) 1,1,1-Trichloroethane	(2)	7.044	97	206149	18.105
54) Cyclohexane	(2)	7.142	56	271787	23.206
55) 1,1-Dichloropropene	(2)	7.251	75	200657	19.483
56) Carbon Tetrachloride	(2)	7.263	117	185180	18.862
58) Isobutyl Alcohol	(1)	7.379	41	233018	549.794
57)$1,2-Dichloroethane-d4	(2)	7.488	102	72452	48.446
60) Benzene	(2)	7.519	78	597984	20.398
61) 1,2-Dichloroethane	(2)	7.586	62	189708	18.291
65) t-Amyl methyl ether	(2)	7.701	73	408493	19.274
66)*Fluorobenzene	(2)	7.920	96	1191852	50.000
67) n-Heptane	(2)	7.932	43	232632	20.641
69) n-Butanol	(1)	8.267	56	397187	1087.916
71) Trichloroethene	(2)	8.407	95	148059	19.170
72) Methylcyclohexane	(2)	8.723	83	297276	23.415
73) 1,2-Dichloropropane	(2)	8.742	63	158071	21.086
76) Methyl Methacrylate	(2)	8.815	69	136914	19.972
75) 1,4-Dioxane	(1)	8.827	88	43004M	466.264
74) Dibromomethane	(2)	8.851	93	92151	19.274
78) Bromodichloromethane	(2)	9.088	83	180714	18.515
79) 2-Nitropropane	(2)	9.350	41	49977	14.098
80) 2-Chloroethyl Vinyl Ether	(2)	9.435	63	111279	18.765
81) cis-1,3-Dichloropropene	(2)	9.624	75	234752	18.855
82) 4-Methyl-2-pentanone	(2)	9.782	43	1098300	94.307
83)$Toluene-d8	(3)	9.922	98	1122813	47.864
88) Toluene	(3)	10.001	92	374623	19.659
90) 1,3-Dichloropropene (total)	(3)		100	444062	36.552
89) trans-1,3-Dichloropropene	(3)	10.250	75	209310	17.697
91) Ethyl Methacrylate	(3)	10.305	69	224462	19.048
92) 1,1,2-Trichloroethane	(3)	10.451	97	133238	19.748
93) Tetrachloroethene	(3)	10.542	166	175080	20.980
94) 1,3-Dichloropropane	(3)	10.615	76	229773	19.622
96) 2-Hexanone	(3)	10.652	43	847590	93.966
97) Dibromochloromethane	(3)	10.828	129	152462	19.692
99) 1,2-Dibromoethane	(3)	10.938	107	143506	19.424
100)*Chlorobenzene-d5	(3)	11.364	117	899461	50.000
102) Chlorobenzene	(3)	11.388	112	422510	19.866

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) 1,1,1,2-Tetrachloroethane	(3)	11.473	131	144878	18.903
104) Ethylbenzene	(3)	11.473	91	738218	20.028
106) m+p-Xylene	(3)	11.589	106	594767	41.069
108) Xylene (Total)	(3)		106	877103	60.892
107) o-Xylene	(3)	11.917	106	282336	19.822
109) Styrene	(3)	11.929	104	467434	19.540
110) Bromoform	(3)	12.094	173	107919	18.463
111) Isopropylbenzene	(3)	12.215	105	749520	19.925
112) Cyclohexanone	(1)	12.294	55	169473A	458.179
114)$4-Bromofluorobenzene	(3)	12.361	95	415870	44.873
116) 1,1,2,2-Tetrachloroethane	(4)	12.459	83	217439	19.950
115) Bromobenzene	(4)	12.477	156	183160	19.987
118) trans-1,4-Dichloro-2-butene	(4)	12.483	53	316904	84.528
117) 1,2,3-Trichloropropane	(4)	12.507	110	66385	19.228
119) n-Propylbenzene	(4)	12.544	91	913193	20.554
120) 2-Chlorotoluene	(4)	12.623	126	180417	19.696
122) 1,3,5-Trimethylbenzene	(4)	12.678	105	633599	19.463
121) 4-Chlorotoluene	(4)	12.714	126	185058	19.494
124) tert-Butylbenzene	(4)	12.921	134	149844	20.771
125) Pentachloroethane	(4)	12.957	167	103983	18.002
126) 1,2,4-Trimethylbenzene	(4)	12.963	105	642200	19.007
127) sec-Butylbenzene	(4)	13.085	105	854567	20.209
129) 1,3-Dichlorobenzene	(4)	13.189	146	353633	19.841
130) p-Isopropyltoluene	(4)	13.189	119	731454	19.878
131)*1,4-Dichlorobenzene-d4	(4)	13.243	152	495502	50.000
133) 1,4-Dichlorobenzene	(4)	13.262	146	357709	19.790
134) 1,2,3-Trimethylbenzene	(4)	13.268	105	647148	19.734
135) Benzyl Chloride	(4)	13.335	91	445261	18.483
141) Diethylbenzene (total)	(4)		100	1249393	58.474
136) 1,3-Diethylbenzene	(4)	13.389	119	432008	19.612
137) 1,4-Diethylbenzene	(4)	13.462	119	458422	19.600
139) n-Butylbenzene	(4)	13.481	92	359089	18.917
138) 1,2-Dichlorobenzene	(4)	13.523	146	335418	19.849
140) 1,2-Diethylbenzene	(4)	13.535	119	358963	19.263
142) 1,2-Dibromo-3-chloropropane	(4)	14.065	75	53173	18.052
144) 1,3,5-Trichlorobenzene	(4)	14.192	180	250436	18.593
146) 1,2,4-Trichlorobenzene	(4)	14.618	180	221942	18.897
147) Hexachlorobutadiene	(4)	14.697	225	98180	18.480

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

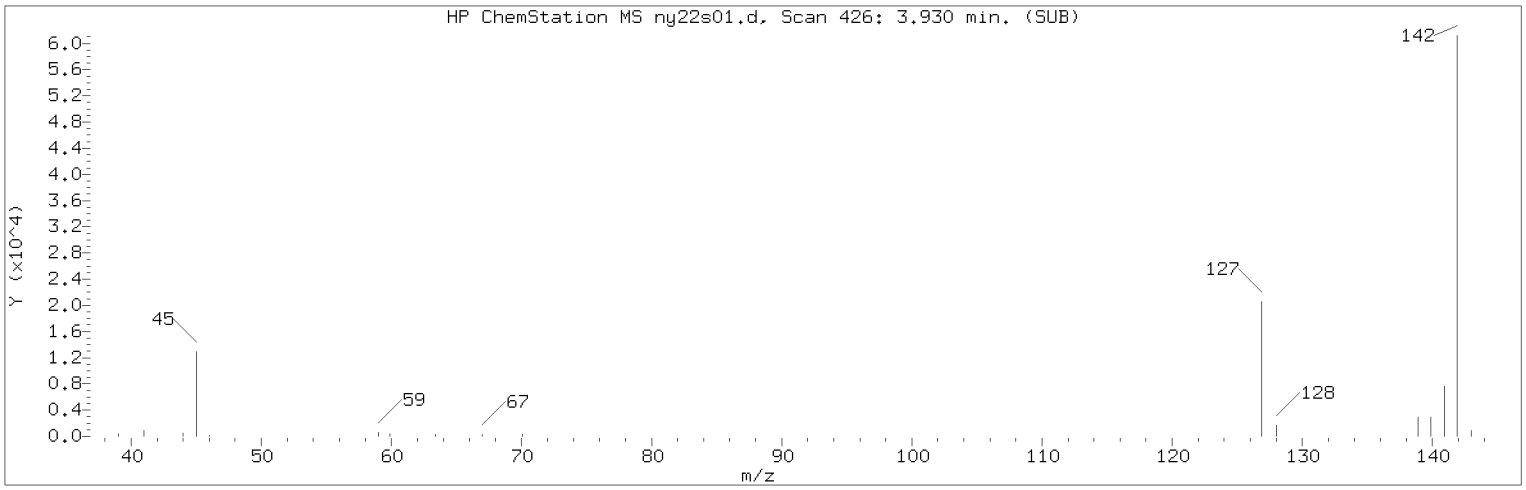
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

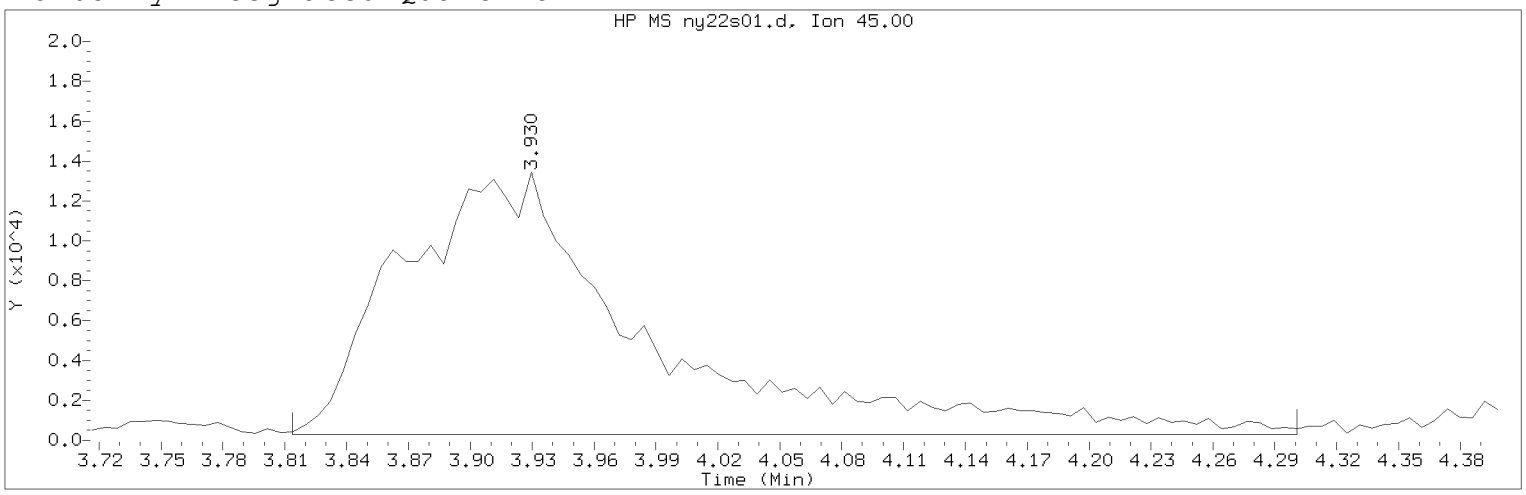
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Naphthalene	(4)	14.801	128	702183	19.068
149) 1,2,3-Trichlorobenzene	(4)	14.947	180	203128	18.841
150) 2-Methylnaphthalene	(4)	15.604	142	348476	16.383

Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

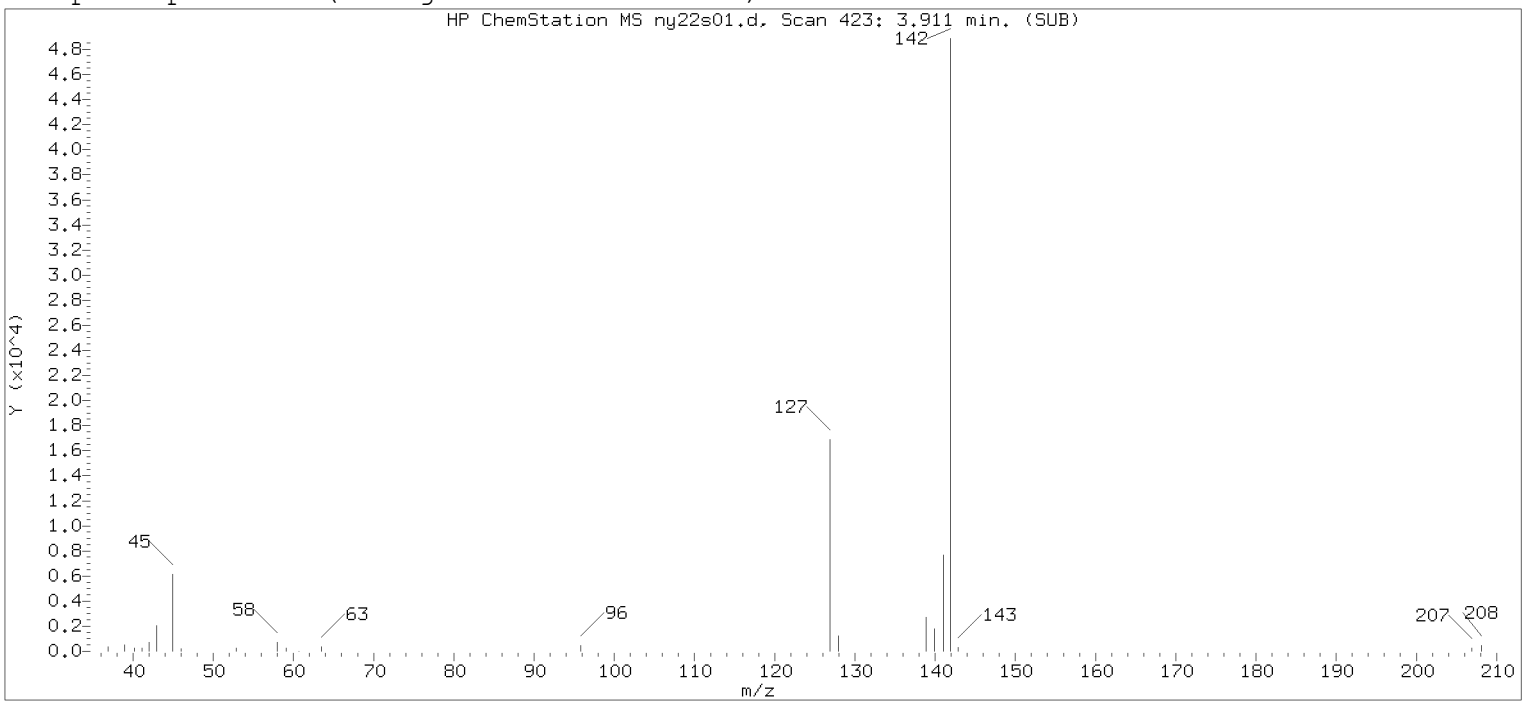
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 426
Retention Time (minutes): 3.930
Quant Ion : 45.00
Area (flag) : 109865M
On-Column Amount (ng) : 183.5076
Integration start scan : 406 Integration stop scan: 486
Y at integration start : 285 Y at integration end: 285

Reason for manual integration: improper integration

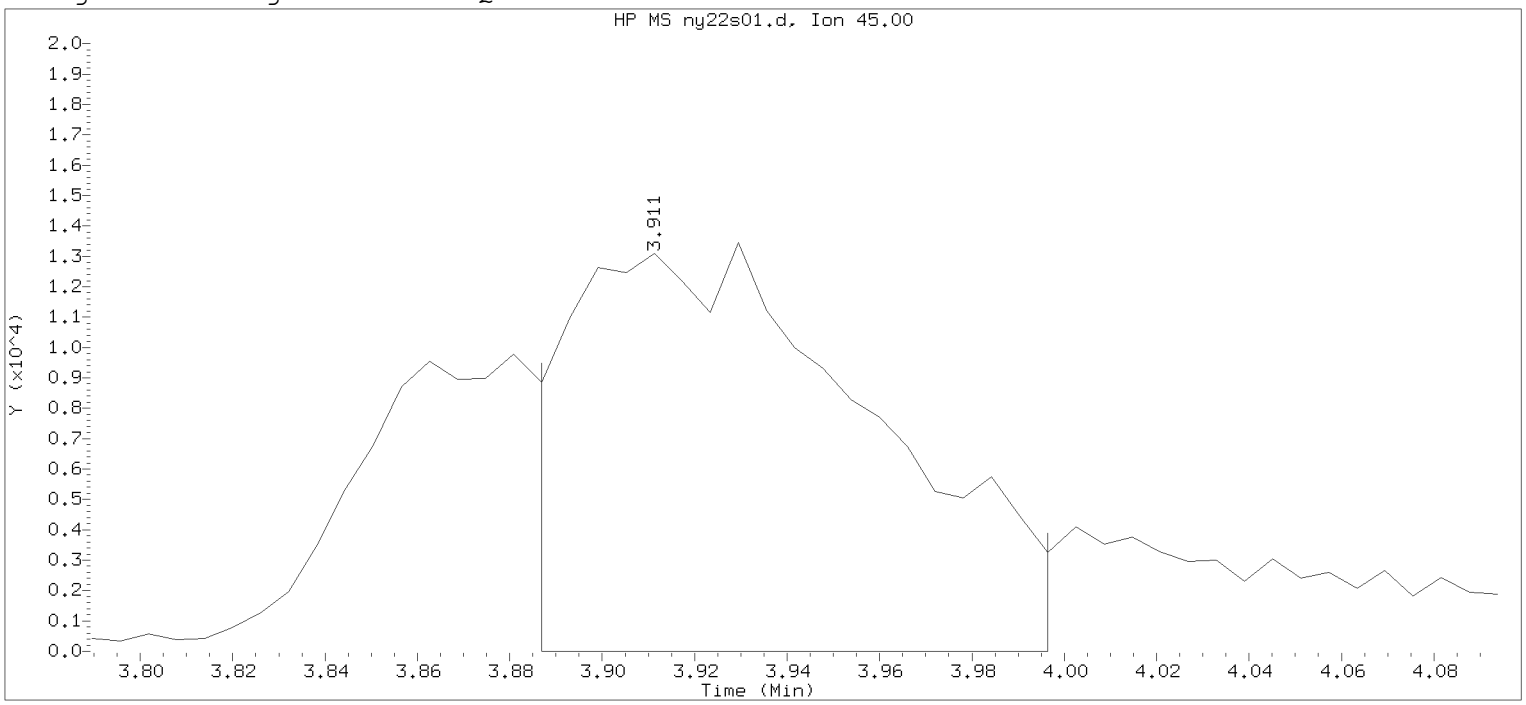
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

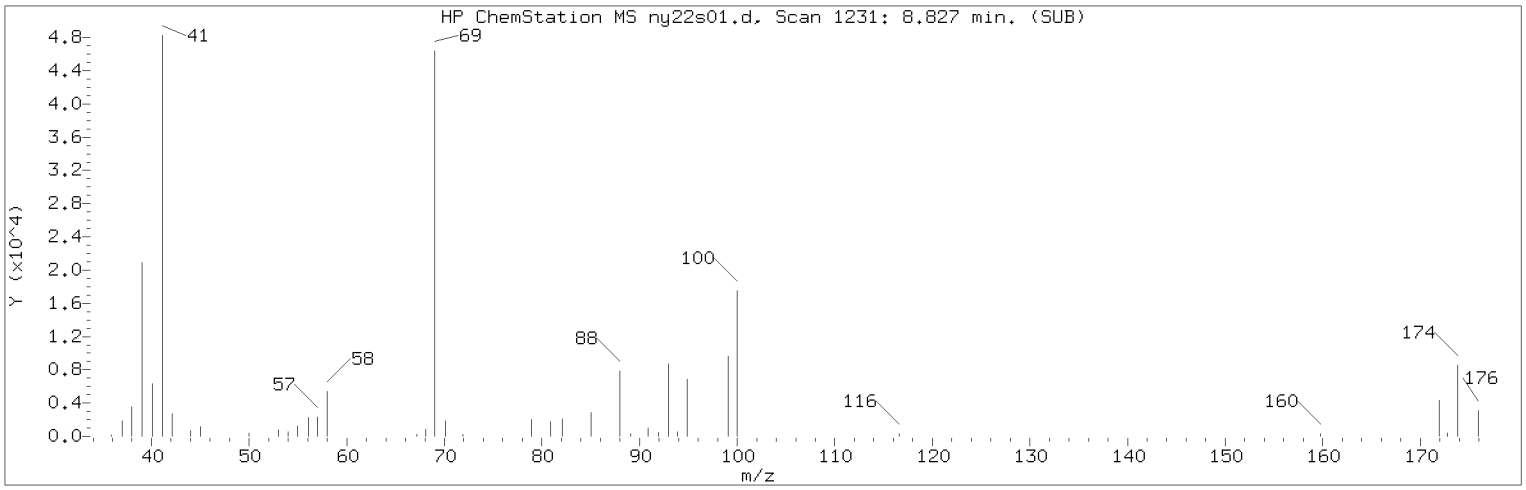
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

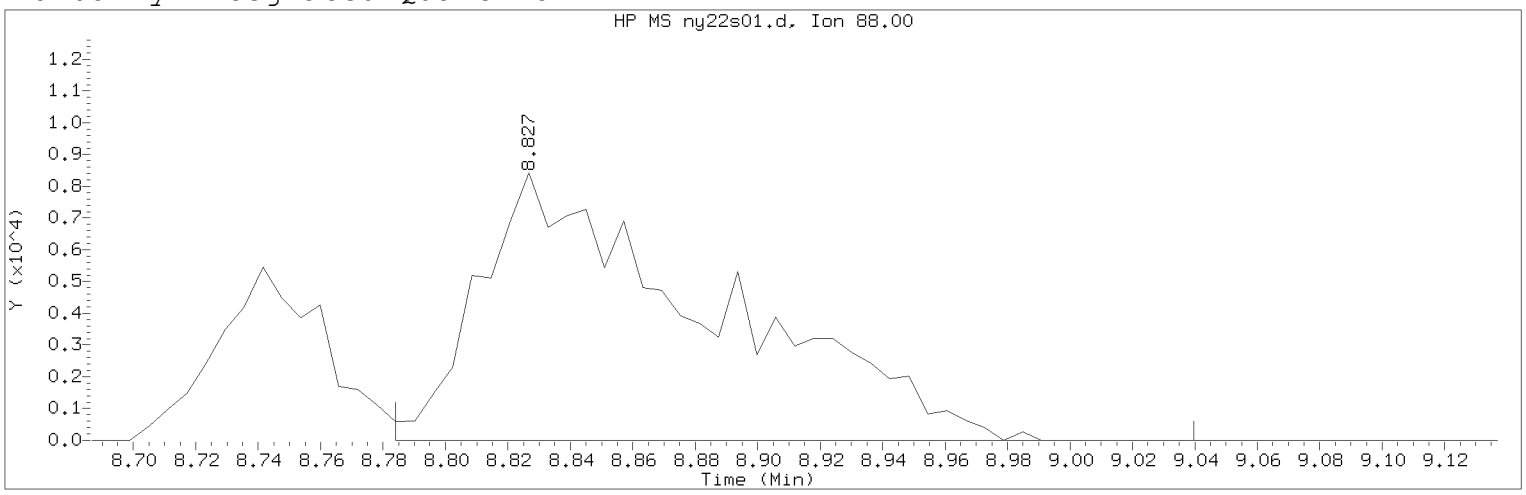
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 423
Retention Time (minutes): 3.911
Quant Ion : 45.00
Area : 60500
On-column Amount (ng) : 101.0542
Integration start scan : 418 Integration stop scan: 436
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0067

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

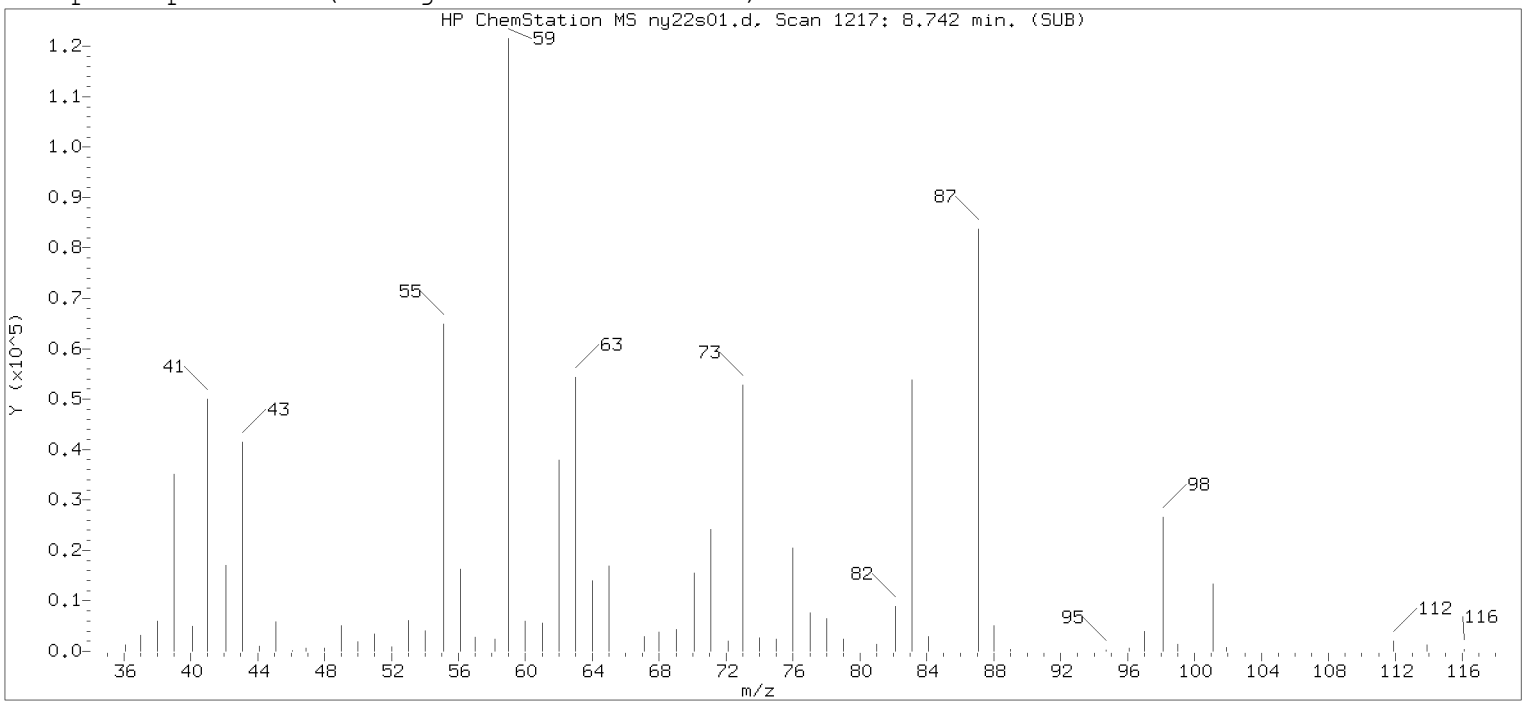
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1231
Retention Time (minutes): 8.827
Quant Ion : 88.00
Area (flag) : 43004M
On-Column Amount (ng) : 466.2638
Integration start scan : 1223 Integration stop scan: 1265
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

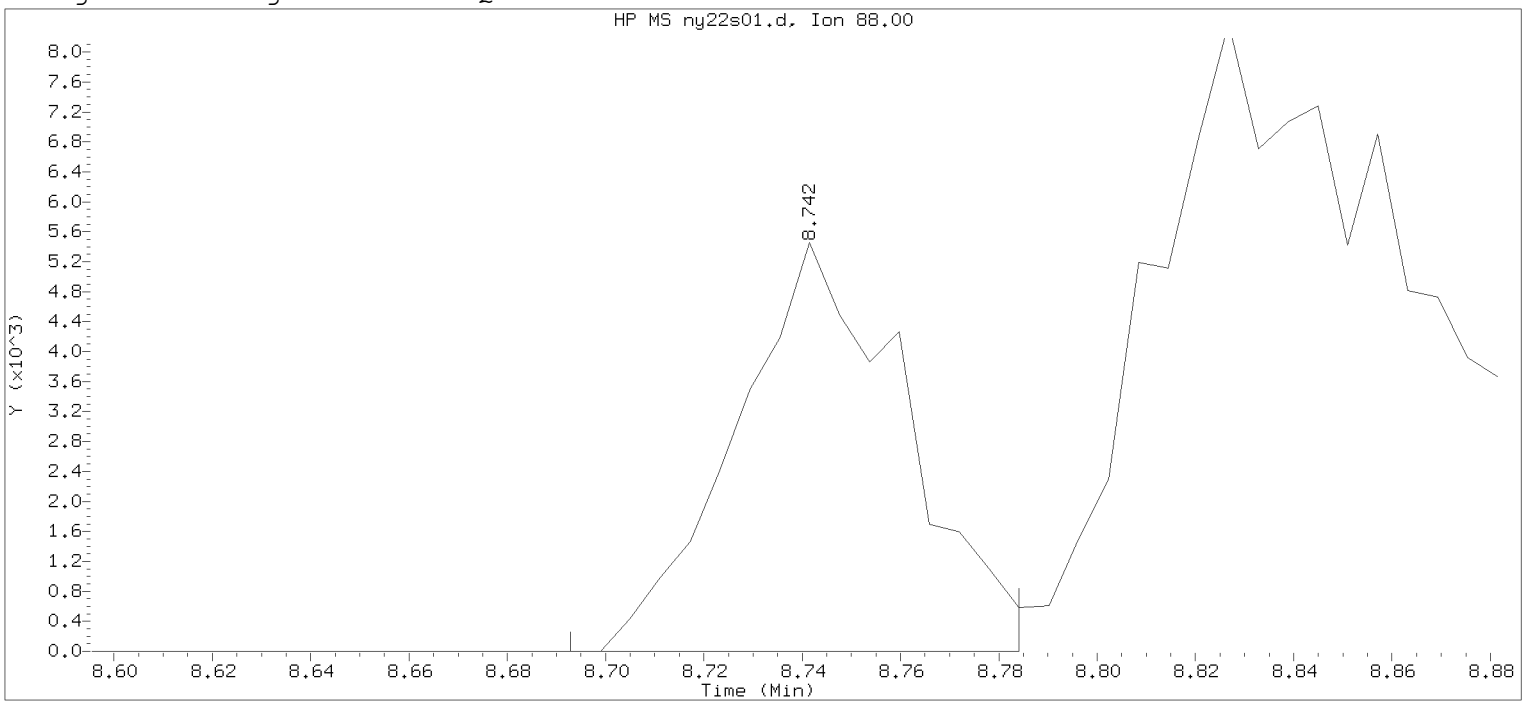
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

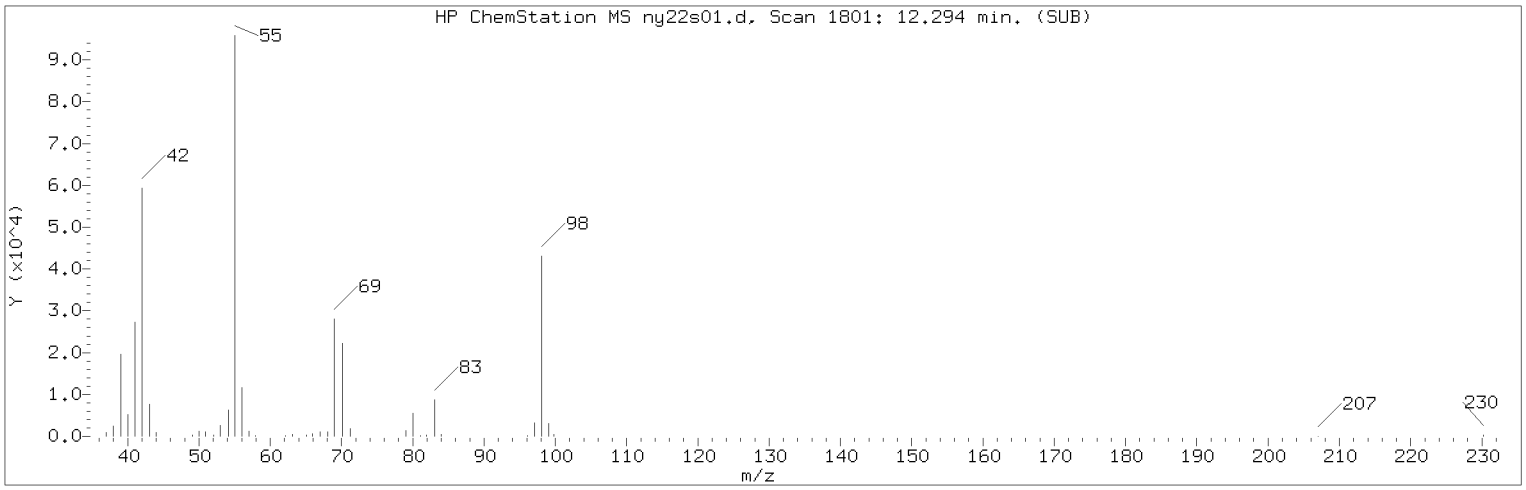
Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

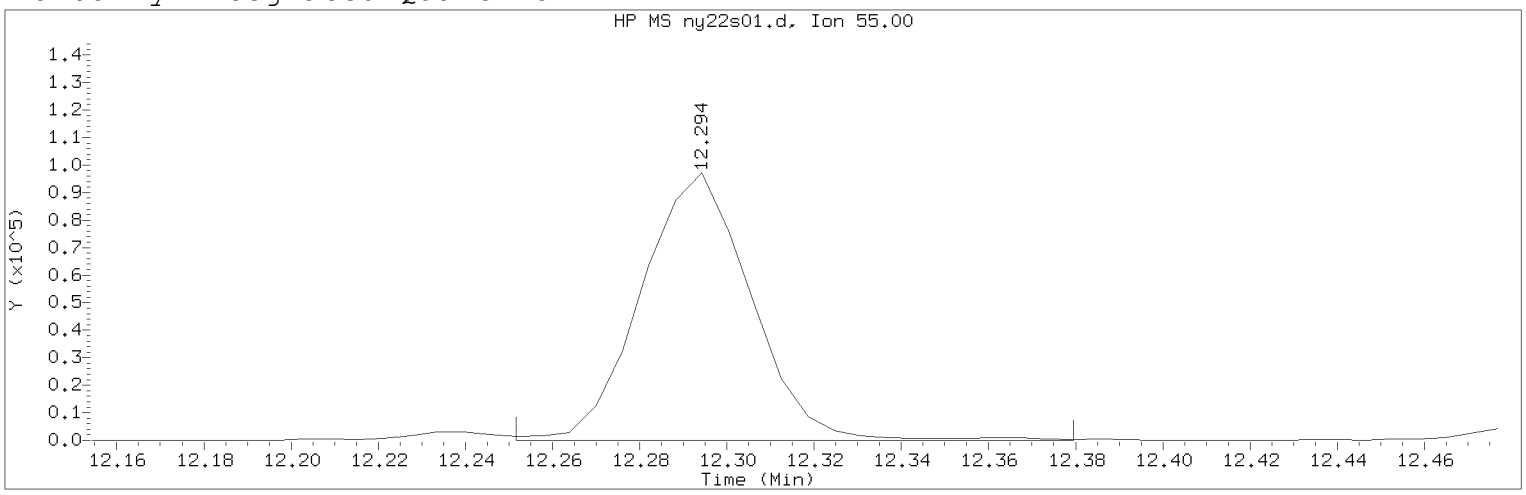
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1217
Retention Time (minutes): 8.742
Quant Ion : 88.00
Area : 13053
On-column Amount (ng) : 141.5347
Integration start scan : 1208 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0862

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 21:47 sej02002

Sample Name: LCSN45 Lab Sample ID: LCSN45

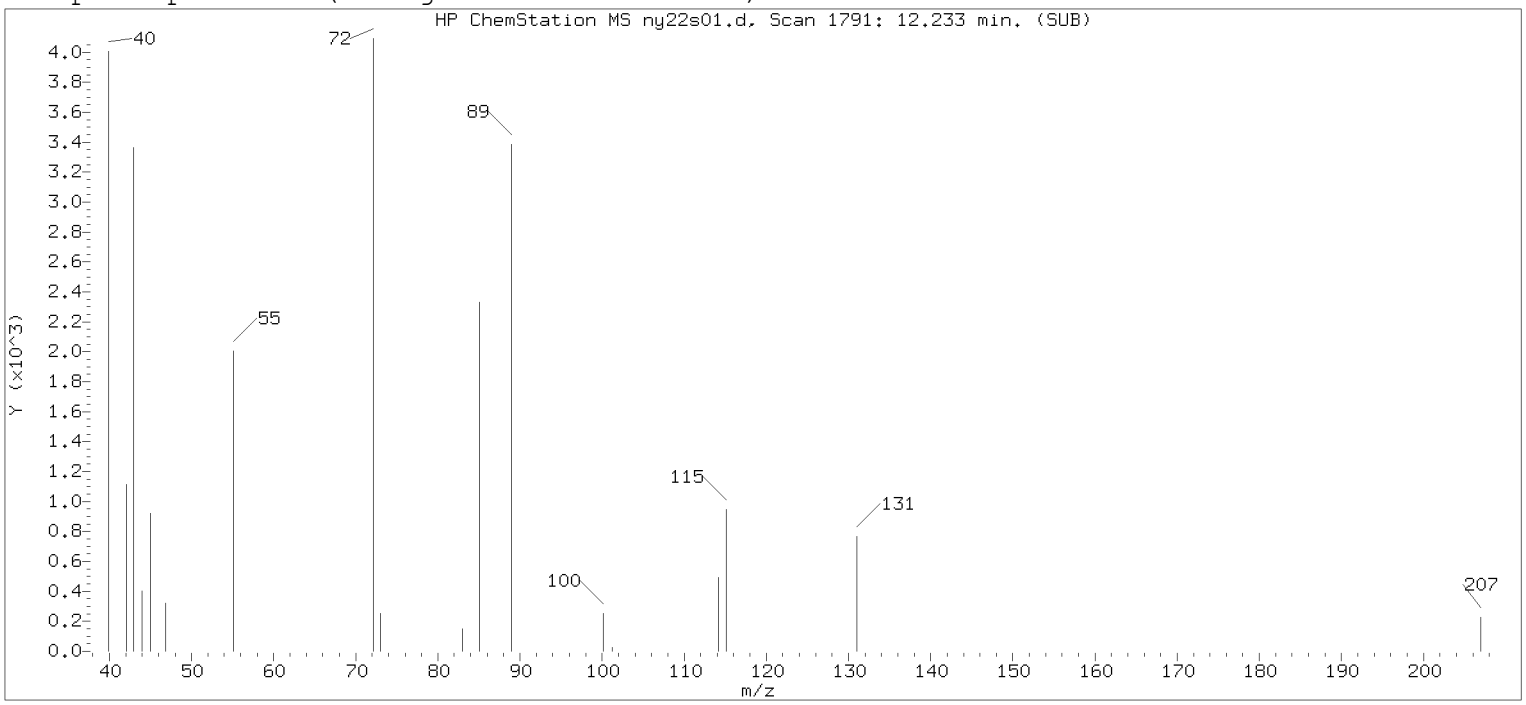
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1801
Retention Time (minutes): 12.294
Quant Ion : 55.00
Area (flag) : 169473A
On-Column Amount (ng) : 458.1795
Integration start scan : 1793 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

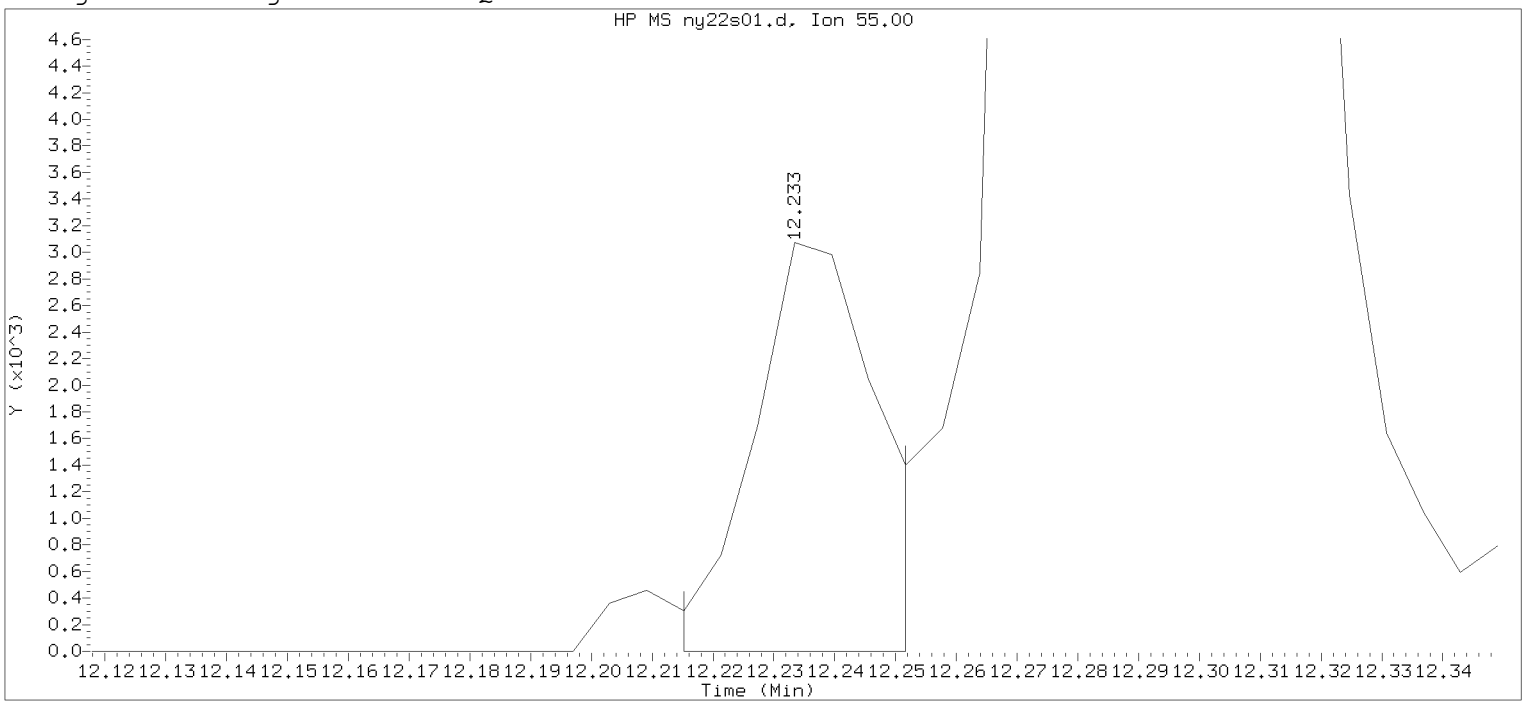
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/26/2020 at 10:21.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP07159.i/20may22a.b/ny22s01.d Instrument ID: HP07159.i
Injection date and time: 22-MAY-2020 11:22 Analyst ID: LCP00895

Method used: /chem/HP07159.i/20may22a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 22-MAY-2020 11:38
Date, time and analyst ID of latest file update: 22-May-2020 11:44 Automation

Sample Name: LCSN45 Lab Sample ID: LCSN45

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 1791
Retention Time (minutes): 12.233
Quant Ion : 55.00
Area : 4149
On-column Amount (ng) : 11.2184
Integration start scan : 1787 Integration stop scan: 1793
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/22/2020 at 21:48.
Target 3.5 esignature user ID: sejo0071

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSY94

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSY94

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09355.i/20may22a.b/yy22s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/22/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	19	
75-35-4	1,1-Dichloroethene	18	
67-64-1	Acetone	140	
76-13-1	Freon 113	17	
75-15-0	Carbon Disulfide	18	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	19	
75-34-3	1,1-Dichloroethane	19	
156-59-2	cis-1,2-Dichloroethene	20	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	20	
123-91-1	1,4-Dioxane	490	
108-88-3	Toluene	20	
127-18-4	Tetrachloroethene	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	60	
95-50-1	1,2-Dichlorobenzene	20	
91-20-3	Naphthalene	19	

FORM I VOA

^

Data file: /chem2/HP09355.i/20may22a.b/yy22s01.d Injection date and time: **22-MAY-2020 10:04**
Data file Sample Info. Line: LCSY94;LCSY94;1;3;LCS;;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.374(-0.012)	459	65	467977M (2)	250.00	
66) Fluorobenzene	7.866(0.000)	1033	96	1390983 (-1)	50.00	
100) Chlorobenzene-d5	11.303(0.000)	1598	117	1043777 (-2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.177(0.000)	1906	152	560618 (-2)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	6.971(0.000)	113	310319	49.118	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.428(0.000)	102	84051	50.447	101%		80 - 120
83) Toluene-d8	(3)	9.861(0.000)	98	1337227	49.062	98%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.294(0.000)	95	497134	48.138	96%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
6) Vinyl Chloride	(2)	2.372(-0.000)	62	160774	19.315	19.32			0.2	1
17) 1,1-Dichloroethene	(2)	3.686(0.000)	96	137816	18.008	18.01			0.2	1
18) Acetone	(1)	3.698(0.002)	58	249815	139.233	139.23			0.7	20
19) Freon 113	(2)	3.717(0.001)	101	119605	17.327	17.33			0.2	10
23) Carbon Disulfide	(2)	4.021(-0.000)	76	453742	18.325	18.32			0.2	5
28) Methylene Chloride	(2)	4.368(0.000)	84	164907	20.116	20.12			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.806(-0.000)	96	160191	19.071	19.07			0.2	1
36) 1,1-Dichloroethane	(2)	5.450(-0.000)	63	275784	19.360	19.36			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.272(-0.000)	96	190817	20.144	20.14			0.2	1
44) 2-Butanone	(2)	6.223(0.000)	43	1194922	145.899	145.90			0.3	10
51) Chloroform	(2)	6.758(-0.000)	83	271309	19.838	19.84			0.2	1
53) 1,1,1-Trichloroethane	(2)	6.990(0.000)	97	227473	19.404	19.40			0.3	1
60) Benzene	(2)	7.464(-0.000)	78	666094	19.272	19.27			0.2	1
61) 1,2-Dichloroethane	(2)	7.531(-0.000)	62	220777	19.911	19.91			0.3	1
71) Trichloroethene	(2)	8.346(0.000)	95	168811	19.713	19.71			0.2	1
75) 1,4-Dioxane	(1)	8.754(0.006)	88	92162M	488.132	488.13			29	250
88) Toluene	(3)	9.934(-0.000)	92	428060	19.553	19.55			0.2	1
93) Tetrachloroethene	(3)	10.482(-0.000)	166	175218	19.613	19.61			0.2	1
104) Ethylbenzene	(3)	11.412(0.000)	91	814952	19.513	19.51			0.4	1
106) m+p-Xylene	(3)	11.522(0.000)	106	660489	40.073	40.07			1	5
107) o-Xylene	(3)	11.850(0.000)	106	317838	19.611	19.61			0.4	1
108) Xylene (Total)	(3)		106	978327	59.685	59.68			1	6
138) 1,2-Dichlorobenzene	(4)	13.450(-0.000)	146	394027	19.804	19.80			0.2	5
148) Naphthalene	(4)	14.728(0.000)	128	977712	19.203	19.20			1	5

M = Compound was manually integrated.

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Data file: /chem2/HP09355.i/20may22a.b/yy22s01.d Injection date and time: **22-MAY-2020 10:04**
Data file Sample Info. Line: LCSY94;LCSY94;1;3;LCS;;;;yy22b01; Instrument ID: **HP09355.i** Batch: **Y201431AA**
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Blank Data file reference: **/chem2/HP09355.i/20may22a.b/yy22b01.d**

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 22-MAY-2020 10:00
Mid Level Daily Calibration Standard Reference: **/chem2/HP09355.i/20may22a.b/yy22c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

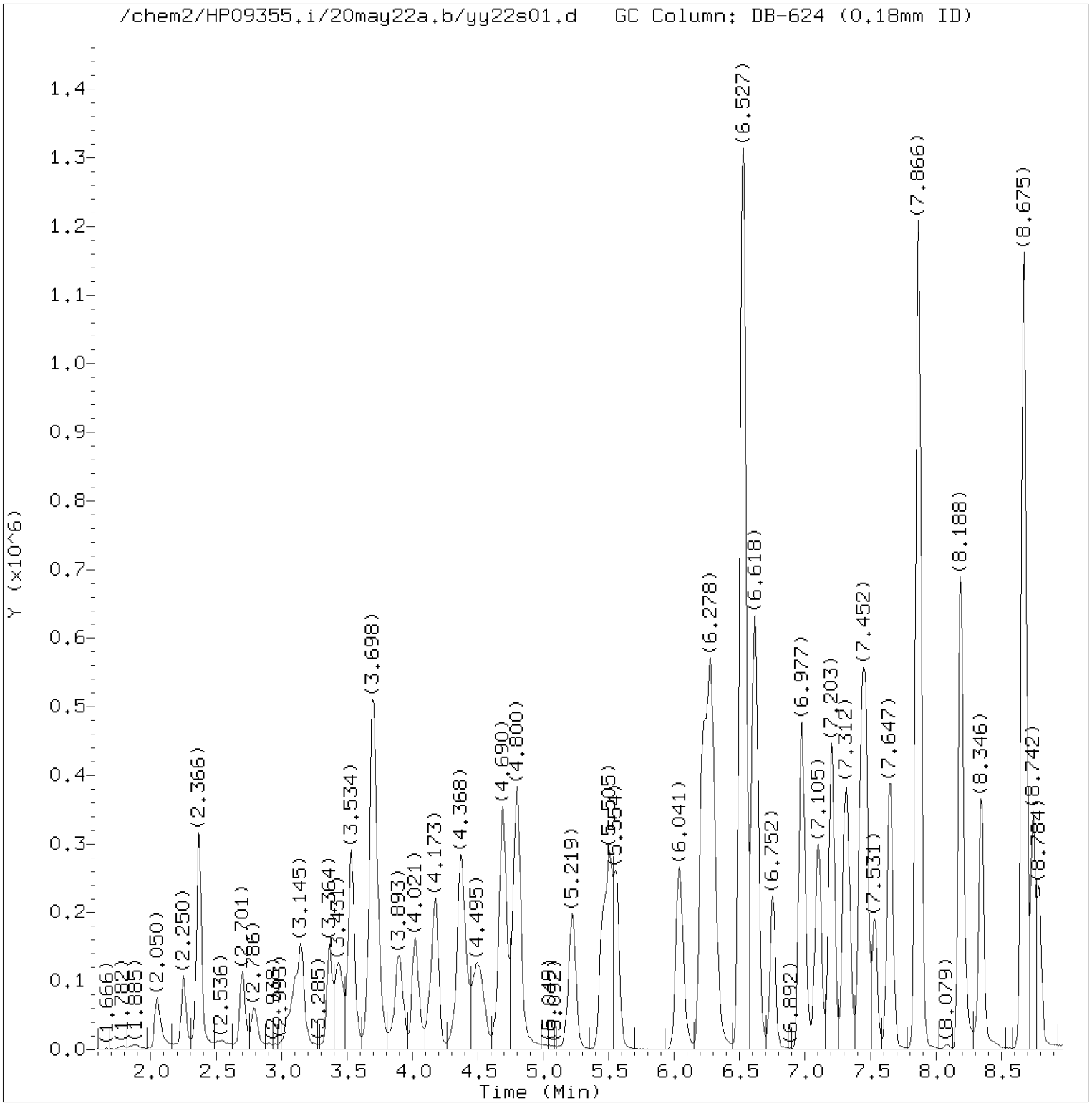
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Don V. Viray on 05/22/2020 at 11:08. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

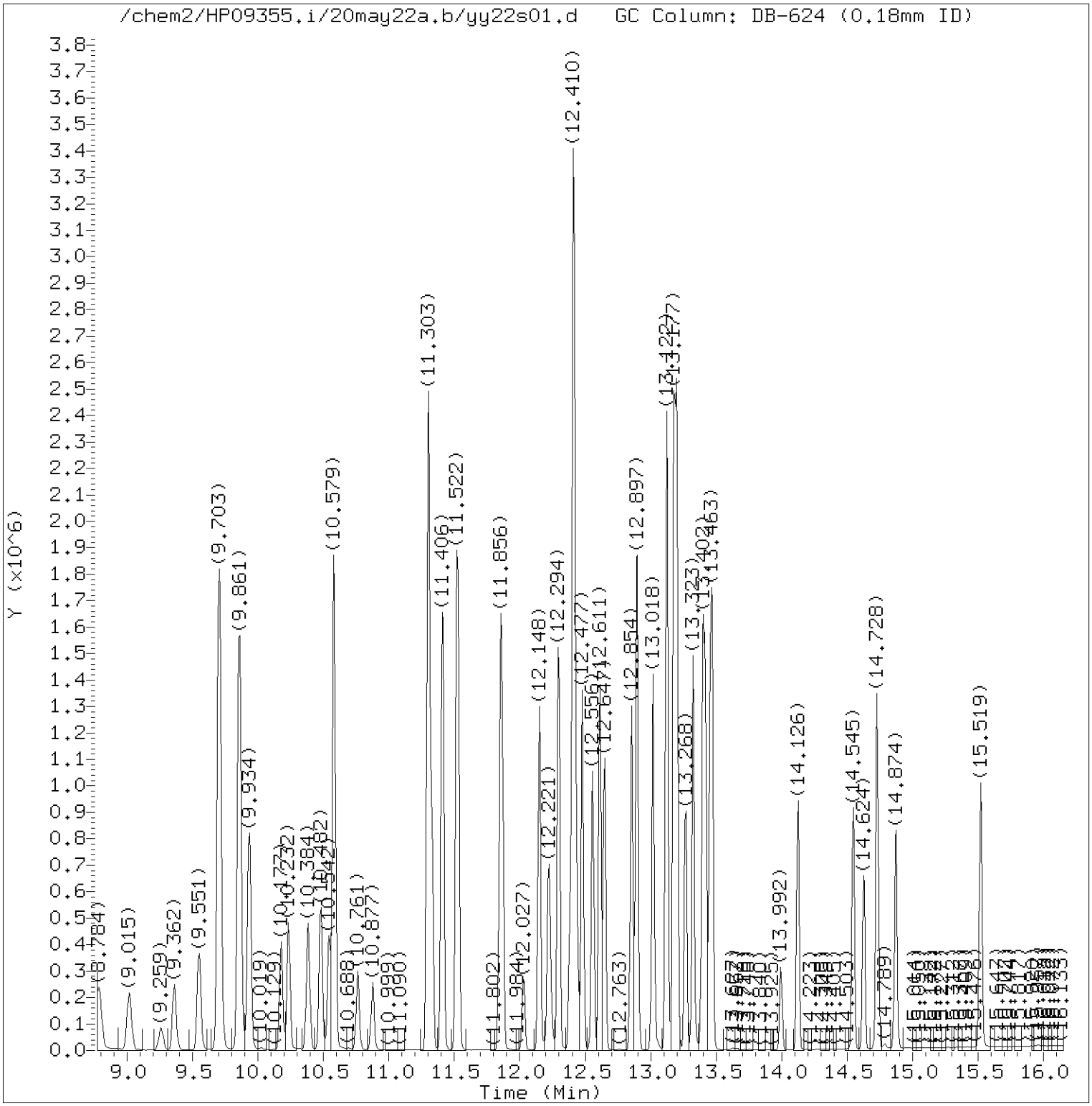
Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

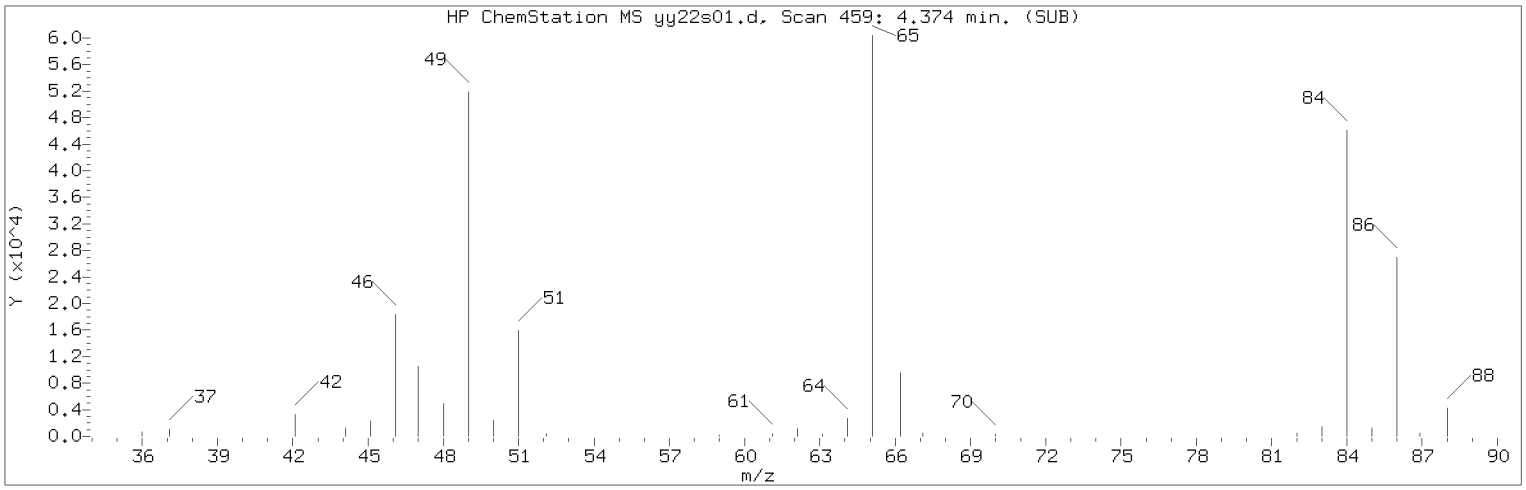
Sample Name: LCSY94 Lab Sample ID: LCSY94

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.372	62	160774	19.315
17) 1,1-Dichloroethene	(2)	3.686	96	137816	18.008
18) Acetone	(1)	3.698	58	249815	139.233
19) Freon 113	(2)	3.717	101	119605	17.327
23) Carbon Disulfide	(2)	4.021	76	453742	18.325
28) Methylene Chloride	(2)	4.368	84	164907	20.116
29)*t-Butyl alcohol-d10	(1)	4.374	65	467977M	250.000
32) trans-1,2-Dichloroethene	(2)	4.806	96	160191	19.071
36) 1,1-Dichloroethane	(2)	5.450	63	275784	19.360
44) 2-Butanone	(2)	6.223	43	1194922	145.899
42) cis-1,2-Dichloroethene	(2)	6.272	96	190817	20.144
51) Chloroform	(2)	6.758	83	271309	19.838
52)$Dibromofluoromethane	(2)	6.971	113	310319	49.118
53) 1,1,1-Trichloroethane	(2)	6.990	97	227473	19.404
57)$1,2-Dichloroethane-d4	(2)	7.428	102	84051	50.447
60) Benzene	(2)	7.464	78	666094	19.272
61) 1,2-Dichloroethane	(2)	7.531	62	220777	19.911
66)*Fluorobenzene	(2)	7.866	96	1390983	50.000
71) Trichloroethene	(2)	8.346	95	168811	19.713
75) 1,4-Dioxane	(1)	8.754	88	92162M	488.132
83)$Toluene-d8	(3)	9.861	98	1337227	49.062
88) Toluene	(3)	9.934	92	428060	19.553
93) Tetrachloroethene	(3)	10.482	166	175218	19.613
100)*Chlorobenzene-d5	(3)	11.303	117	1043777	50.000
104) Ethylbenzene	(3)	11.412	91	814952	19.513
106) m+p-Xylene	(3)	11.522	106	660489	40.073
108) Xylene (Total)	(3)		106	978327	59.685
107) o-Xylene	(3)	11.850	106	317838	19.611
114)$4-Bromofluorobenzene	(3)	12.294	95	497134	48.138
131)*1,4-Dichlorobenzene-d4	(4)	13.177	152	560618	50.000
138) 1,2-Dichlorobenzene	(4)	13.450	146	394027	19.804
148) Naphthalene	(4)	14.728	128	977712	19.203

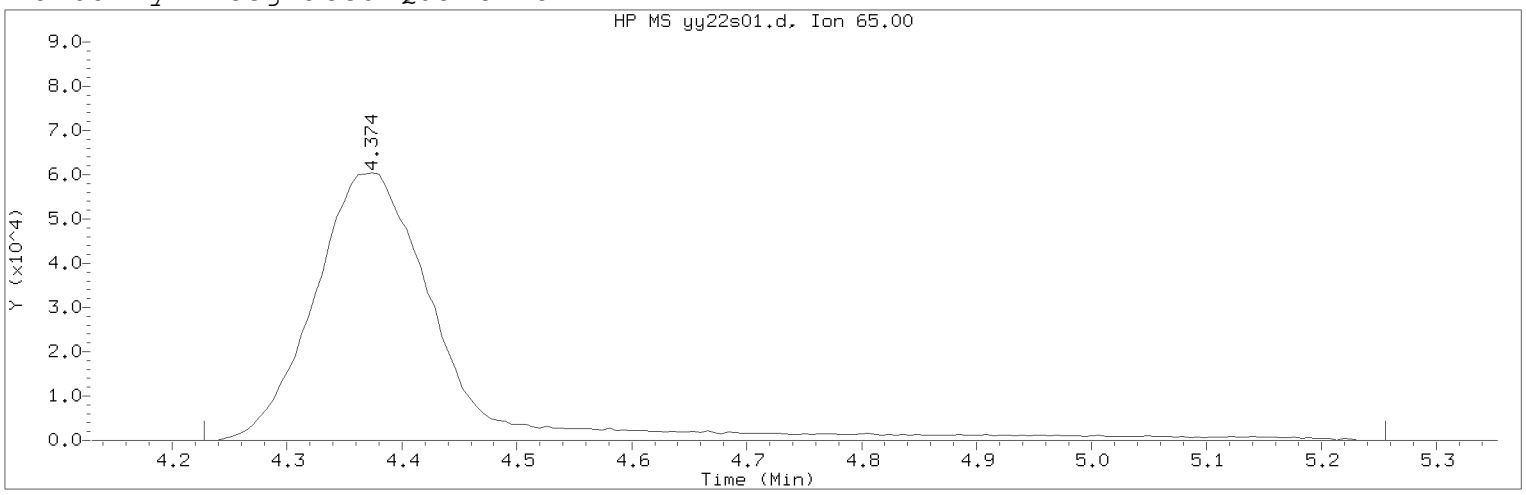
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

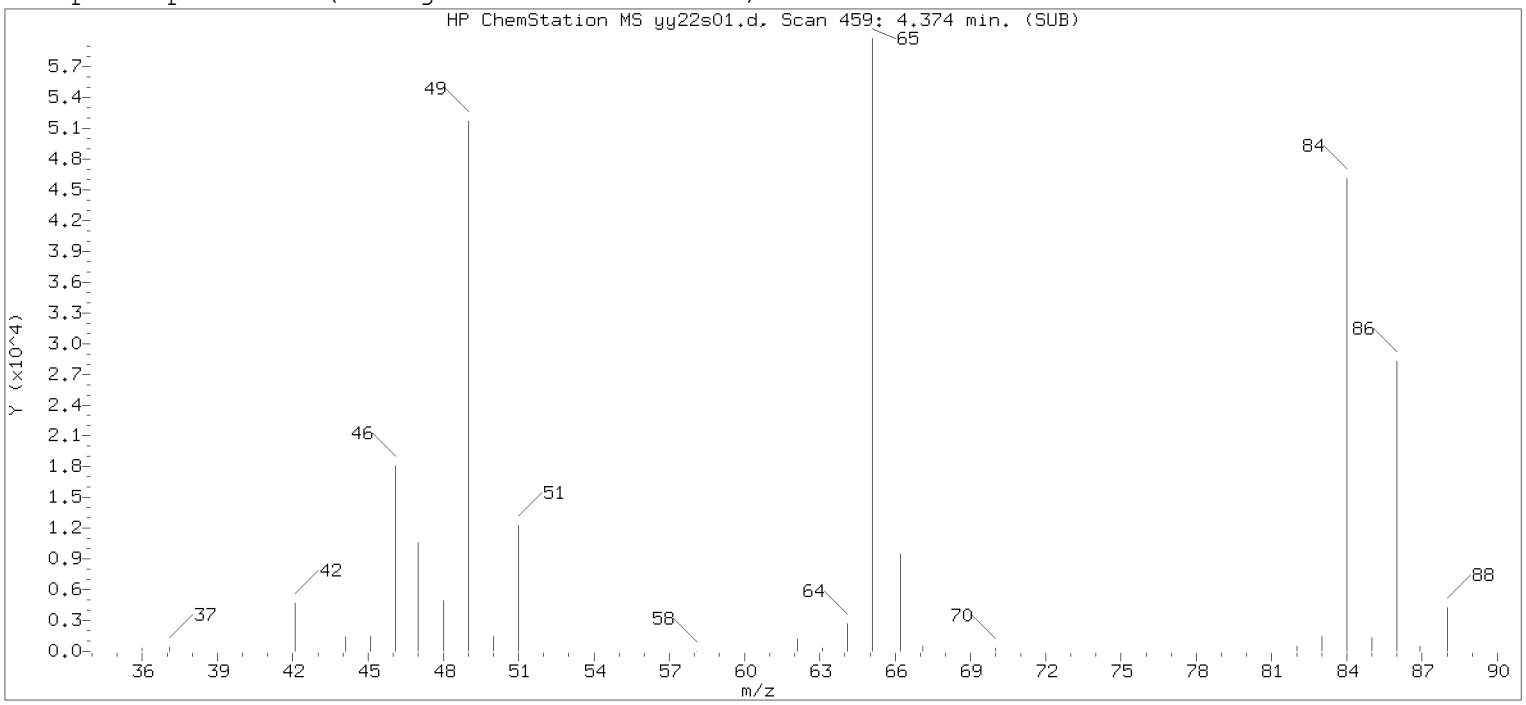
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 459
Retention Time (minutes): 4.374
Quant Ion : 65.00
Area (flag) : 467977M
On-Column Amount (ng) : 250.0000
Integration start scan : 434 Integration stop scan: 603
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

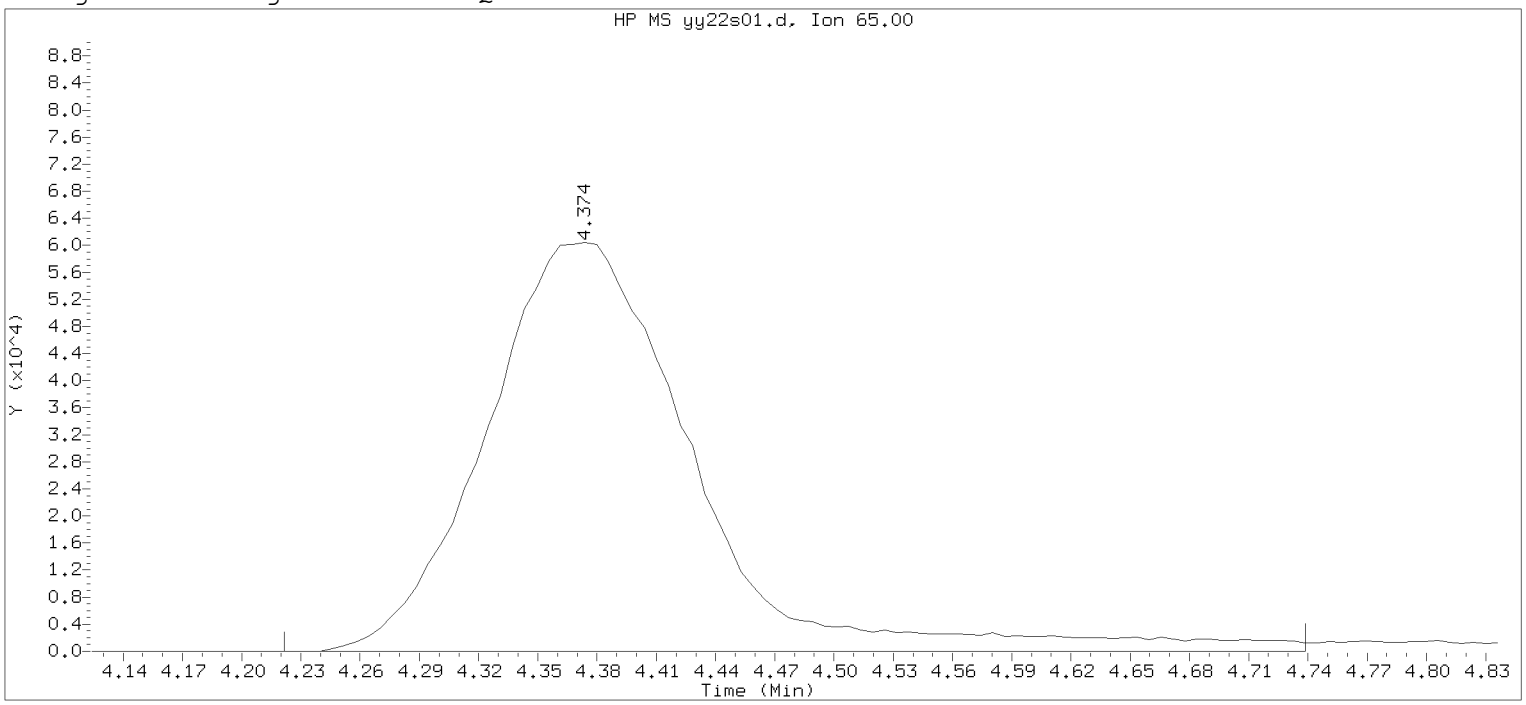
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

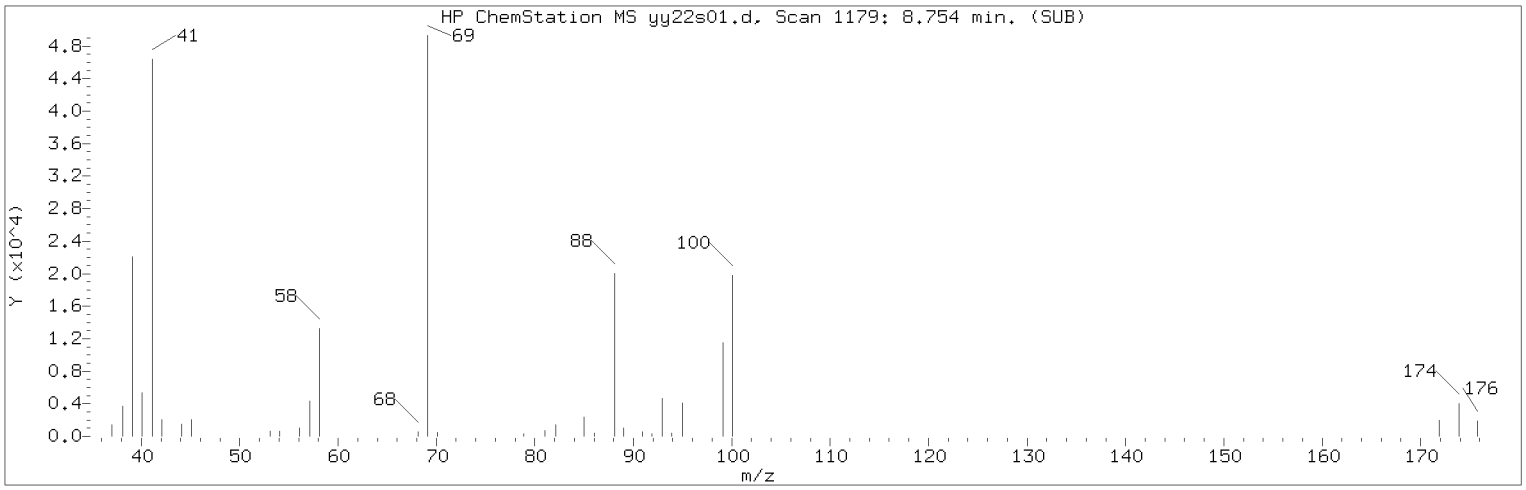
Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:21 Automation

Sample Name: LCSY94 Lab Sample ID: LCSY94

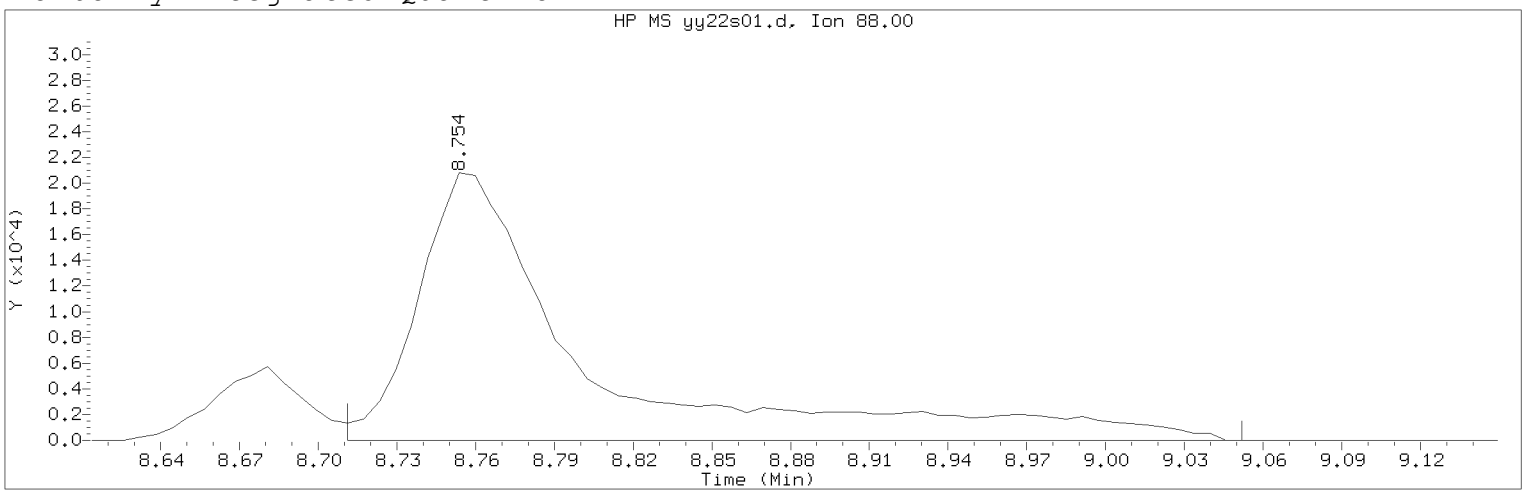
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 459
Retention Time (minutes): 4.374
Quant Ion : 65.00
Area : 439293
On-column Amount (ng) : 250.0000
Integration start scan : 433 Integration stop scan: 518
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 11:08 dvv10203

Sample Name: LCSY94 Lab Sample ID: LCSY94

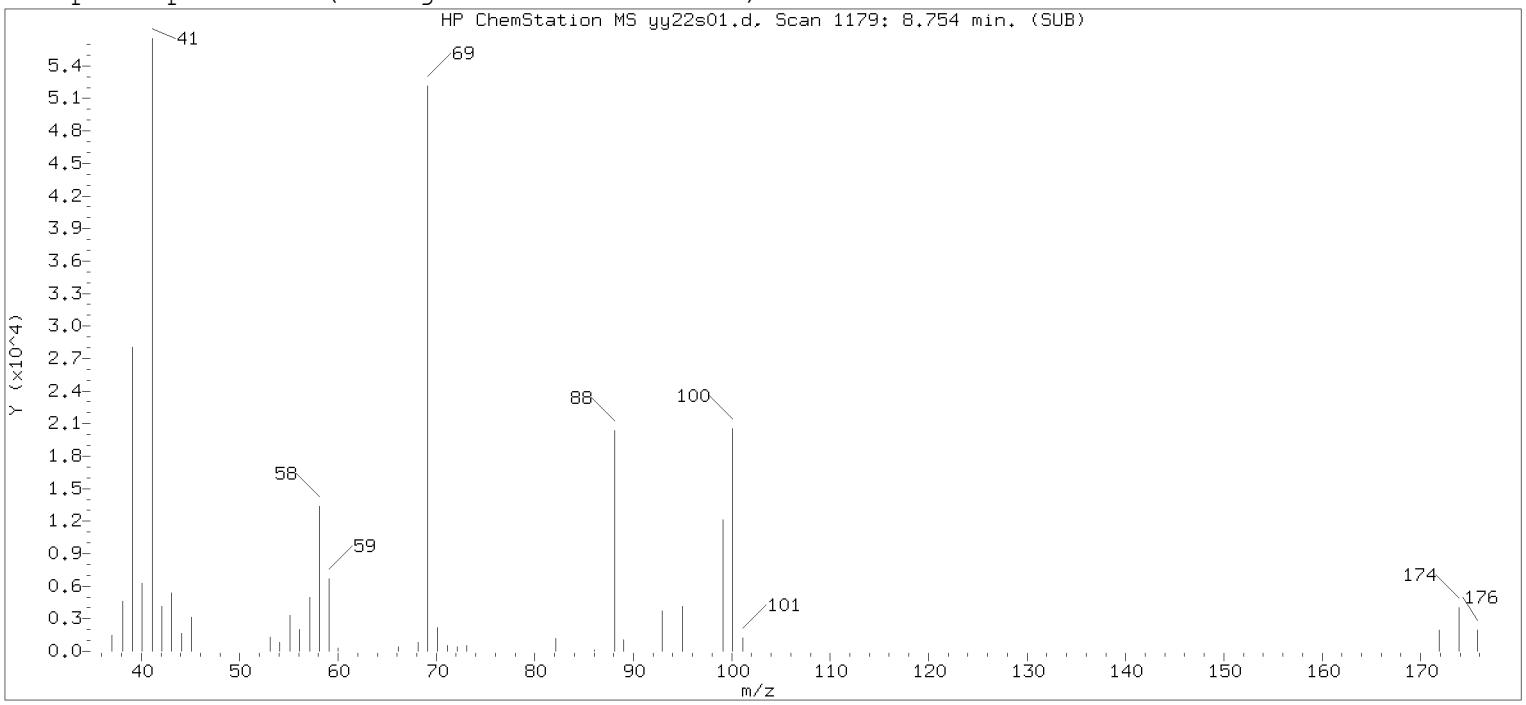
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area (flag) : 92162M
On-Column Amount (ng) : 488.1320
Integration start scan : 1171 Integration stop scan: 1227
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

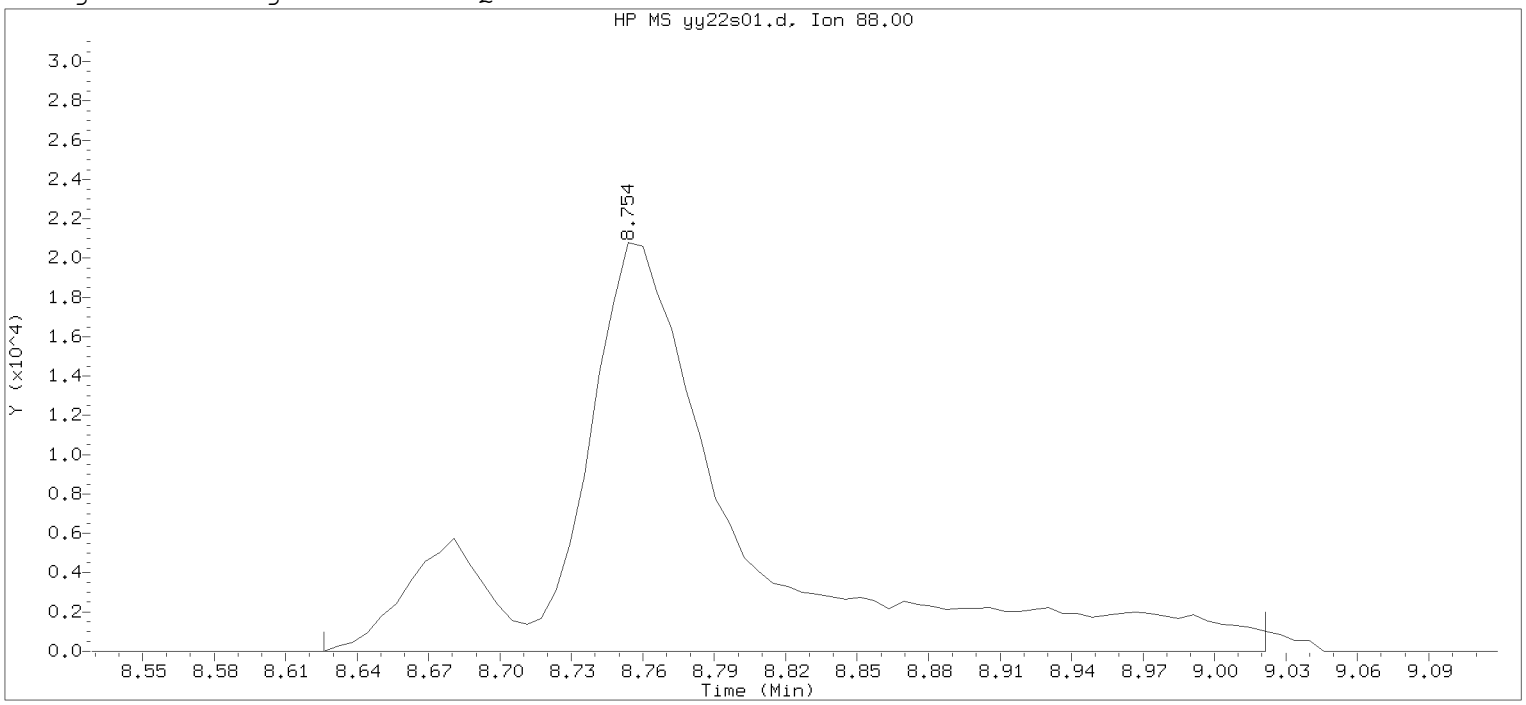
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Rachel Krueger on 05/27/2020 at 22:48.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP09355.i/20may22a.b/yy22s01.d Instrument ID: HP09355.i
Injection date and time: 22-MAY-2020 10:04 Analyst ID: DVV10203

Method used: /chem2/HP09355.i/20may22a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 22-MAY-2020 10:00
Date, time and analyst ID of latest file update: 22-May-2020 10:21 Automation

Sample Name: LCSY94 Lab Sample ID: LCSY94

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 1179
Retention Time (minutes): 8.754
Quant Ion : 88.00
Area : 104680
On-column Amount (ng) : 590.6342
Integration start scan : 1157 Integration stop scan: 1222
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/22/2020 at 11:08.
Target 3.5 esignature user ID: dvv10203

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Groundwater and Water Samples
Collected on 05/15/20-05/19/20

SDG# JCW58

GROUP	SAMPLE NUMBERS
2100281	1318256-1318284

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **06/26/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

2425 New Holland Pike, Lancaster, PA 17601 | 717-656-2300 | Fax: 717-656-2681 | www.LancasterLabs.com

Table of Contents for SDG# JCW58

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 6
4. Analysis Reports / Field Chain of Custody 7
5. Volatiles by GC/MS Data 55
   a. Case Narrative/Conformance Summary 56
   b. Quality Control and Calibration Summary Forms 61
   c. Sample Data 144
   d. Standards Data 353
   e. Raw QC Data 692

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Sample Reference List for SDG Number JCW58
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1318256	J14-BR02	05/19/2020 11:00	05/20/2020 10:21	W5801
1318257	J14-BR01	05/19/2020 10:00	05/20/2020 10:21	W5802
1318258	J14-BR01 MS	05/19/2020 10:00	05/20/2020 10:21	W5802
1318259	J14-BR01 MSD	05/19/2020 10:00	05/20/2020 10:21	W5802
1318260	J14-UC01	05/19/2020 08:20	05/20/2020 10:21	W5803
1318261	J14-UC02	05/19/2020 07:40	05/20/2020 10:21	W5804
1318262	EB-QML	05/19/2020 12:10	05/20/2020 10:21	W5805
1318263	Trip Blank	05/15/2020 00:00	05/20/2020 10:21	W5806
1318264	J12-BR01	05/17/2020 12:25	05/20/2020 10:21	W5807
1318265	J12-BR02	05/17/2020 10:55	05/20/2020 10:21	W5808
1318266	J13-UC02	05/17/2020 13:45	05/20/2020 10:21	W5809
1318267	J13-UC03	05/17/2020 14:58	05/20/2020 10:21	W5810
1318268	J13-BR01	05/17/2020 16:20	05/20/2020 10:21	W5811
1318269	J13-BR02	05/17/2020 17:35	05/20/2020 10:21	W5812
1318270	J08-UC01	05/16/2020 17:55	05/20/2020 10:21	W5813
1318271	J11-BR02	05/16/2020 16:45	05/20/2020 10:21	W5814
1318272	J11-BR01	05/16/2020 14:50	05/20/2020 10:21	W5815
1318273	J11-UC01	05/16/2020 12:25	05/20/2020 10:21	W5816
1318274	J11-UC02	05/16/2020 13:40	05/20/2020 10:21	W5817
1318275	J04-BR02	05/16/2020 11:15	05/20/2020 10:21	W5818
1318276	J04-BR01	05/16/2020 09:50	05/20/2020 10:21	W5819
1318277	J07-UC02	05/15/2020 15:50	05/20/2020 10:21	W5820
1318278	MW-15	05/15/2020 14:15	05/20/2020 10:21	W5821
1318279	DUP-03	05/15/2020 12:00	05/20/2020 10:21	W5822
1318280	MW-10	05/15/2020 12:50	05/20/2020 10:21	W5823
1318281	J05-BR01	05/15/2020 11:15	05/20/2020 10:21	W5824
1318282	J05-BR02	05/15/2020 09:45	05/20/2020 10:21	W5825
1318283	DUP-01	05/15/2020 08:00	05/20/2020 10:21	W5826
1318284	RIZ-19	05/15/2020 16:45	05/20/2020 10:21	W5827

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Sample pH Log

SDG: JCW58

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1318256	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/1/2020 10:57:55AM	27445
1318256	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/1/2020 10:57:51AM	27445
1318256	038C	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/1/2020 10:57:51AM	27445
1318257	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:14:27PM	30941
1318258	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:14:28PM	30941
1318258	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:14:28PM	30941
1318259	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:14:28PM	30941
1318259	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:14:28PM	30941
1318260	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:13PM	30941
1318261	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318262	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318263	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:57:12PM	30941
1318264	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318265	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318266	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318267	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318268	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:10PM	30941
1318269	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318270	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318271	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318272	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318273	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318274	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318275	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318276	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318277	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:54PM	30941
1318278	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:02PM	895
1318279	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895
1318280	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895
1318281	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895
1318282	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895
1318283	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895
1318284	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:03PM	895

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: June 01, 2020 22:11

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2100281
SDG: JCW58
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

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To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
J14-BR02 Grab Groundwater	05/19/2020 11:00	1318256
J14-BR01 Grab Groundwater	05/19/2020 10:00	1318257
J14-BR01 MS Grab Groundwater	05/19/2020 10:00	1318258
J14-BR01 MSD Grab Groundwater	05/19/2020 10:00	1318259
J14-UC01 Grab Groundwater	05/19/2020 08:20	1318260
J14-UC02 Grab Groundwater	05/19/2020 07:40	1318261
EB-QML Grab Water	05/19/2020 12:10	1318262
Trip Blank Water	05/15/2020	1318263
J12-BR01 Grab Groundwater	05/17/2020 12:25	1318264
J12-BR02 Grab Groundwater	05/17/2020 10:55	1318265
J13-UC02 Grab Groundwater	05/17/2020 13:45	1318266
J13-UC03 Grab Groundwater	05/17/2020 14:58	1318267
J13-BR01 Grab Groundwater	05/17/2020 16:20	1318268
J13-BR02 Grab Groundwater	05/17/2020 17:35	1318269
J08-UC01 Grab Groundwater	05/16/2020 17:55	1318270
J11-BR02 Grab Groundwater	05/16/2020 16:45	1318271
J11-BR01 Grab Groundwater	05/16/2020 14:50	1318272
J11-UC01 Grab Groundwater	05/16/2020 12:25	1318273
J11-UC02 Grab Groundwater	05/16/2020 13:40	1318274
J04-BR02 Grab Groundwater	05/16/2020 11:15	1318275
J04-BR01 Grab Groundwater	05/16/2020 09:50	1318276
J07-UC02 Grab Groundwater	05/15/2020 15:50	1318277
MW-15 Grab Groundwater	05/15/2020 14:15	1318278
DUP-03 Grab Groundwater	05/15/2020 12:00	1318279
MW-10 Grab Groundwater	05/15/2020 12:50	1318280
J05-BR01 Grab Groundwater	05/15/2020 11:15	1318281
J05-BR02 Grab Groundwater	05/15/2020 09:45	1318282
DUP-01 Grab Groundwater	05/15/2020 08:00	1318283
RIZ-19 Grab Groundwater	05/15/2020 16:45	1318284

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **J14-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 11:00
SDG#: JCW58-01

VHB
ELLE Sample #: GW 1318256
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201521AA	05/31/2020 13:35	Don V Viray	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201521AA	05/31/2020 13:34	Don V Viray	1

*=This limit was used in the evaluation of the final result

Sample Description: **J14-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 10:00
SDG#: JCW58-02BKG

VHB
ELLE Sample #: GW 1318257
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201502AA	05/29/2020 14:40	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201502AA	05/29/2020 14:39	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J14-BR01 MS Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 10:00
SDG#: JCW58-02MS

VHB
ELLE Sample #: GW 1318258
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Acetone	67-64-1	140	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	150	0.3	10	1
11997	Carbon Disulfide	75-15-0	21	0.2	5	1
11997	Chloroform	67-66-3	20	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	20	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	19	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	21	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	21	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	20	0.2	1	1
11997	1,4-Dioxane	123-91-1	510	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	19	0.2	10	1
11997	Methylene Chloride	75-09-2	20	0.3	1	1
11997	Naphthalene	91-20-3	19	1	5	1
11997	Tetrachloroethene	127-18-4	21	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	23	0.3	1	1
11997	Trichloroethene	79-01-6	20	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	65	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201502AA	05/29/2020 15:02	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201502AA	05/29/2020 15:01	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J14-BR01 MSD Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 10:00
SDG#: JCW58-02MSD

VHB
ELLE Sample #: GW 1318259
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Acetone	67-64-1	140	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	150	0.3	10	1
11997	Carbon Disulfide	75-15-0	21	0.2	5	1
11997	Chloroform	67-66-3	20	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	21	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	19	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	21	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	21	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	20	0.2	1	1
11997	1,4-Dioxane	123-91-1	500	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	19	0.2	10	1
11997	Methylene Chloride	75-09-2	20	0.3	1	1
11997	Naphthalene	91-20-3	19	1	5	1
11997	Tetrachloroethene	127-18-4	21	0.2	1	1
11997	Toluene	108-88-3	21	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	23	0.3	1	1
11997	Trichloroethene	79-01-6	20	0.2	1	1
11997	Vinyl Chloride	75-01-4	20	0.2	1	1
11997	Xylene (Total)	1330-20-7	64	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201502AA	05/29/2020 15:24	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201502AA	05/29/2020 15:23	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J14-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 08:20
SDG#: JCW58-03

VHB
ELLE Sample #: GW 1318260
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.5 J	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 13:35	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 13:34	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J14-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 07:40
SDG#: JCW58-04

VHB
ELLE Sample #: GW 1318261
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.7 J	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 13:55	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 13:54	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **EB-QML Grab Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/19/2020 12:10
SDG#: JCW58-05EB

VHB
ELLE Sample #: GW 1318262
ELLE Group #: 2100281
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 12:12	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 12:11	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **Trip Blank Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020
SDG#: JCW58-06TB

VHB
ELLE Sample #: GW 1318263
ELLE Group #: 2100281
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 13:34	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 13:33	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J12-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 12:25
SDG#: JCW58-07

VHB
ELLE Sample #: GW 1318264
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 14:16	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 14:15	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J12-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 10:55
SDG#: JCW58-08

VHB
ELLE Sample #: GW 1318265
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 14:36	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 14:35	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J13-UC02 Grab Groundwater New Windsor, NY**

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 13:45
SDG#: JCW58-09

VHB
ELLE Sample #: GW 1318266
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	1	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	1	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	1	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	2	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	11	0.3	1	1
11997	Trichloroethene	79-01-6	100	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 14:57	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 14:56	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J13-UC03 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 14:58
SDG#: JCW58-10

VHB
ELLE Sample #: GW 1318267
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	2	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.4 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	4	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 15:17	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 15:16	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J13-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 16:20
SDG#: JCW58-11

VHB
ELLE Sample #: GW 1318268
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	3	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.9 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	1	0.3	1	1
11997	Trichloroethene	79-01-6	4	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 15:38	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 15:37	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J13-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/17/2020 17:35
SDG#: JCW58-12

VHB
ELLE Sample #: GW 1318269
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 15:59	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 15:58	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J08-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 17:55
SDG#: JCW58-13

VHB
ELLE Sample #: GW 1318270
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.7 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 16:19	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 16:18	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J11-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 16:45
SDG#: JCW58-14

VHB
ELLE Sample #: GW 1318271
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 16:40	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 16:39	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J11-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 14:50
SDG#: JCW58-15

VHB
ELLE Sample #: GW 1318272
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 17:00	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 16:59	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J11-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 12:25
SDG#: JCW58-16

VHB
ELLE Sample #: GW 1318273
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 17:21	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 17:20	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J11-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 13:40
SDG#: JCW58-17

VHB
ELLE Sample #: GW 1318274
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 17:42	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 17:41	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J04-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 11:15
SDG#: JCW58-18

VHB
ELLE Sample #: GW 1318275
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 18:02	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 18:01	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J04-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/16/2020 09:50
SDG#: JCW58-19

VHB
ELLE Sample #: GW 1318276
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 18:23	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 18:22	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J07-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 15:50
SDG#: JCW58-20

VHB
ELLE Sample #: GW 1318277
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 13:55	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 13:54	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-15 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 14:15
SDG#: JCW58-21

VHB
ELLE Sample #: GW 1318278
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.2 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.4 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	5	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/27/2020 22:41	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/27/2020 22:40	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-03 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 12:00
SDG#: JCW58-22FD

VHB
ELLE Sample #: GW 1318279
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.2 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.4 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	5	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 03:09	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 03:08	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-10 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 12:50
SDG#: JCW58-23

VHB
ELLE Sample #: GW 1318280
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.4 J	0.3	1	1
11997	Trichloroethene	79-01-6	0.6 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/27/2020 23:02	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/27/2020 23:01	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **J05-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 11:15
SDG#: JCW58-24

VHB
ELLE Sample #: GW 1318281
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	1	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.3 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/27/2020 23:22	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/27/2020 23:21	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **J05-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 09:45
SDG#: JCW58-25

VHB
ELLE Sample #: GW 1318282
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	2	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.3 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.9 J	0.3	1	1
11997	Trichloroethene	79-01-6	9	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/27/2020 23:43	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/27/2020 23:42	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 08:00
SDG#: JCW58-26FD

VHB
ELLE Sample #: GW 1318283
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	2	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.3 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.2 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.9 J	0.3	1	1
11997	Trichloroethene	79-01-6	9	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 03:29	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 03:28	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **RIZ-19 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 16:45
SDG#: JCW58-27

VHB
ELLE Sample #: GW 1318284
ELLE Group #: 2100281
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.7 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	3	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 00:03	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 00:02	Laura Green	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 5201481AA	Sample number(s): 1318263,1318277		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: 5201482AA	Sample number(s): 1318278-1318284		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: 5201501AA	Sample number(s): 1318260-1318262,1318264-1318276		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: L201502AA	Sample number(s): 1318257-1318259		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: L201521AA	Sample number(s): 1318256		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5201481AA	Sample number(s): 1318263,1318277								
Acetone	150	189.55			126		54-157		
Benzene	20	19.95			100		80-120		

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Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
2-Butanone	150	149.85			100		59-135		
Carbon Disulfide	20	17.17			86		65-128		
Chloroform	20	20.28			101		80-120		
1,2-Dichlorobenzene	20	20.66			103		80-120		
1,1-Dichloroethane	20	19.84			99		80-120		
1,2-Dichloroethane	20	20.45			102		73-124		
1,1-Dichloroethene	20	19.04			95		80-131		
cis-1,2-Dichloroethene	20	21.18			106		80-125		
trans-1,2-Dichloroethene	20	20.11			101		80-126		
1,4-Dioxane	500	657.59			132		63-146		
Ethylbenzene	20	20.95			105		80-120		
Freon 113	20	18.78			94		73-139		
Methylene Chloride	20	20.66			103		80-120		
Naphthalene	20	20.32			102		53-124		
Tetrachloroethene	20	21.59			108		80-120		
Toluene	20	20.2			101		80-120		
1,1,1-Trichloroethane	20	19.56			98		67-126		
Trichloroethene	20	20.44			102		80-120		
Vinyl Chloride	20	20.45			102		56-120		
Xylene (Total)	60	63.37			106		80-120		
Batch number: 5201482AA	Sample number(s): 1318278-1318284								
Acetone	150	189.6	150	211.41	126	141	54-157	11	30
Benzene	20	20.53	20	18.78	103	94	80-120	9	30
2-Butanone	150	152.63	150	155.57	102	104	59-135	2	30
Carbon Disulfide	20	18.22	20	16.57	91	83	65-128	10	30
Chloroform	20	21.45	20	19.84	107	99	80-120	8	30
1,2-Dichlorobenzene	20	21.54	20	20.16	108	101	80-120	7	30
1,1-Dichloroethane	20	20.44	20	18.85	102	94	80-120	8	30
1,2-Dichloroethane	20	21.97	20	20.68	110	103	73-124	6	30
1,1-Dichloroethene	20	21.03	20	18.67	105	93	80-131	12	30
cis-1,2-Dichloroethene	20	22	20	20.41	110	102	80-125	7	30
trans-1,2-Dichloroethene	20	21.16	20	19.34	106	97	80-126	9	30
1,4-Dioxane	500	644.82	500	669.47	129	134	63-146	4	30
Ethylbenzene	20	21.01	20	19.54	105	98	80-120	7	30
Freon 113	20	19.3	20	17.46	97	87	73-139	10	30
Methylene Chloride	20	21.27	20	20.11	106	101	80-120	6	30
Naphthalene	20	20.85	20	19.71	104	99	53-124	6	30
Tetrachloroethene	20	22.37	20	20.66	112	103	80-120	8	30
Toluene	20	20.29	20	19.04	101	95	80-120	6	30
1,1,1-Trichloroethane	20	21.12	20	19.19	106	96	67-126	10	30
Trichloroethene	20	21.29	20	19.57	106	98	80-120	8	30
Vinyl Chloride	20	21.69	20	19.82	108	99	56-120	9	30
Xylene (Total)	60	63.72	60	59.42	106	99	80-120	7	30

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5201501AA	Sample number(s): 1318260-1318262,1318264-1318276								
Acetone	150	147.91			99		54-157		
Benzene	20	18.63			93		80-120		
2-Butanone	150	140.9			94		59-135		
Carbon Disulfide	20	17.23			86		65-128		
Chloroform	20	19.13			96		80-120		
1,2-Dichlorobenzene	20	19.31			97		80-120		
1,1-Dichloroethane	20	18.89			94		80-120		
1,2-Dichloroethane	20	19.26			96		73-124		
1,1-Dichloroethene	20	18.85			94		80-131		
cis-1,2-Dichloroethene	20	19.98			100		80-125		
trans-1,2-Dichloroethene	20	18.99			95		80-126		
1,4-Dioxane	500	534.9			107		63-146		
Ethylbenzene	20	19.42			97		80-120		
Freon 113	20	16.92			85		73-139		
Methylene Chloride	20	19.62			98		80-120		
Naphthalene	20	18.43			92		53-124		
Tetrachloroethene	20	20.28			101		80-120		
Toluene	20	18.81			94		80-120		
1,1,1-Trichloroethane	20	18.4			92		67-126		
Trichloroethene	20	19.12			96		80-120		
Vinyl Chloride	20	17.22			86		56-120		
Xylene (Total)	60	58.45			97		80-120		
Batch number: L201502AA	Sample number(s): 1318257-1318259								
Acetone	150	135.34			90		54-157		
Benzene	20	18.39			92		80-120		
2-Butanone	150	149.09			99		59-135		
Carbon Disulfide	20	18.16			91		65-128		
Chloroform	20	18.23			91		80-120		
1,2-Dichlorobenzene	20	19.96			100		80-120		
1,1-Dichloroethane	20	18.56			93		80-120		
1,2-Dichloroethane	20	17.86			89		73-124		
1,1-Dichloroethene	20	17.77			89		80-131		
cis-1,2-Dichloroethene	20	19.41			97		80-125		
trans-1,2-Dichloroethene	20	17.96			90		80-126		
1,4-Dioxane	500	473.5			95		63-146		
Ethylbenzene	20	19.2			96		80-120		
Freon 113	20	15.64			78		73-139		
Methylene Chloride	20	18.65			93		80-120		
Naphthalene	20	19.45			97		53-124		
Tetrachloroethene	20	18.81			94		80-120		
Toluene	20	18.98			95		80-120		
1,1,1-Trichloroethane	20	17.21			86		67-126		

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Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Trichloroethene	20	17.79			89		80-120		
Vinyl Chloride	20	15.66			78		56-120		
Xylene (Total)	60	59.54			99		80-120		
Batch number: L201521AA	Sample number(s): 1318256								
Acetone	150	138.44			92		54-157		
Benzene	20	20.04			100		80-120		
2-Butanone	150	162.06			108		59-135		
Carbon Disulfide	20	20.73			104		65-128		
Chloroform	20	19.71			99		80-120		
1,2-Dichlorobenzene	20	20.73			104		80-120		
1,1-Dichloroethane	20	20.4			102		80-120		
1,2-Dichloroethane	20	19.5			98		73-124		
1,1-Dichloroethene	20	19.66			98		80-131		
cis-1,2-Dichloroethene	20	20.49			102		80-125		
trans-1,2-Dichloroethene	20	19.67			98		80-126		
1,4-Dioxane	500	500.96			100		63-146		
Ethylbenzene	20	20.68			103		80-120		
Freon 113	20	16.82			84		73-139		
Methylene Chloride	20	20.13			101		80-120		
Naphthalene	20	19.96			100		53-124		
Tetrachloroethene	20	19.97			100		80-120		
Toluene	20	20.36			102		80-120		
1,1,1-Trichloroethane	20	19.04			95		67-126		
Trichloroethene	20	19.25			96		80-120		
Vinyl Chloride	20	21.78			109		56-120		
Xylene (Total)	60	62.84			105		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: L201502AA	Sample number(s): 1318257-1318259 UNSPK: 1318257									
Acetone	N.D.	150	141.19	150	136.77	94	91	54-157	3	30
Benzene	N.D.	20	20.18	20	20.09	101	100	80-120	0	30
2-Butanone	N.D.	150	145.67	150	147.05	97	98	59-135	1	30
Carbon Disulfide	N.D.	20	20.96	20	20.89	105	104	65-128	0	30
Chloroform	N.D.	20	19.73	20	19.8	99	99	80-120	0	30
1,2-Dichlorobenzene	N.D.	20	20.42	20	20.79	102	104	80-120	2	30

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Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
1,1-Dichloroethane	0.635	20	20.99	20	21.25	102	103	80-120	1	30
1,2-Dichloroethane	N.D.	20	18.81	20	18.8	94	94	73-124	0	30
1,1-Dichloroethene	N.D.	20	20.83	20	20.63	104	103	80-131	1	30
cis-1,2-Dichloroethene	N.D.	20	20.72	20	20.74	104	104	80-120	0	30
trans-1,2-Dichloroethene	N.D.	20	19.98	20	19.99	100	100	80-120	0	30
1,4-Dioxane	N.D.	500	512.19	500	495.77	102	99	63-146	3	30
Ethylbenzene	N.D.	20	21.33	20	21.12	107	106	80-120	1	30
Freon 113	N.D.	20	19.15	20	19.18	96	96	73-139	0	30
Methylene Chloride	N.D.	20	19.92	20	19.99	100	100	80-120	0	30
Naphthalene	N.D.	20	19.06	20	19.27	95	96	53-124	1	30
Tetrachloroethene	N.D.	20	21.19	20	20.85	106	104	80-120	2	30
Toluene	N.D.	20	20.81	20	20.57	104	103	80-120	1	30
1,1,1-Trichloroethane	3.34	20	22.95	20	22.97	98	98	67-126	0	30
Trichloroethene	N.D.	20	19.81	20	19.96	99	100	80-120	1	30
Vinyl Chloride	N.D.	20	20.54	20	20.12	103	101	56-120	2	30
Xylene (Total)	N.D.	60	65.01	60	64.26	108	107	80-120	1	30
Batch number: L201521AA	Sample number(s): 1318256 UNSPK: 1318256									
Acetone	N.D.	150	153.91	150	149.29	103	100	54-157	3	30
Benzene	N.D.	20	21.02	20	21.3	105	106	80-120	1	30
2-Butanone	N.D.	150	155.85	150	157.77	104	105	59-135	1	30
Carbon Disulfide	N.D.	20	22.55	20	22.81	113	114	65-128	1	30
Chloroform	N.D.	20	20.9	20	20.93	104	105	80-120	0	30
1,2-Dichlorobenzene	N.D.	20	21.52	20	21.97	108	110	80-120	2	30
1,1-Dichloroethane	N.D.	20	21.58	20	21.72	108	109	80-120	1	30
1,2-Dichloroethane	N.D.	20	20.37	20	20.29	102	101	73-124	0	30
1,1-Dichloroethene	N.D.	20	21.51	20	21.72	108	109	80-131	1	30
cis-1,2-Dichloroethene	N.D.	20	21.43	20	21.7	107	108	80-120	1	30
trans-1,2-Dichloroethene	N.D.	20	20.87	20	20.94	104	105	80-120	0	30
1,4-Dioxane	N.D.	500	542.44	500	545.27	108	109	63-146	1	30
Ethylbenzene	N.D.	20	21.89	20	22.26	109	111	80-120	2	30
Freon 113	N.D.	20	20.66	20	20.9	103	105	73-139	1	30
Methylene Chloride	N.D.	20	20.87	20	21.08	104	105	80-120	1	30
Naphthalene	N.D.	20	19.28	20	19.78	96	99	53-124	3	30
Tetrachloroethene	N.D.	20	21.88	20	21.71	109	109	80-120	1	30
Toluene	N.D.	20	21.42	20	21.82	107	109	80-120	2	30
1,1,1-Trichloroethane	N.D.	20	20.69	20	20.81	103	104	67-126	1	30
Trichloroethene	N.D.	20	20.53	20	20.69	103	103	80-120	1	30
Vinyl Chloride	N.D.	20	23.6	20	23.35	118	117	56-120	1	30
Xylene (Total)	N.D.	60	66.02	60	67.17	110	112	80-120	2	30

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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201481AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318263	101	103	98	94
1318277	101	105	97	94
Blank	100	104	98	95
LCS	100	101	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318278	105	105	96	93
1318279	106	105	96	93
1318280	105	105	96	93
1318281	105	105	97	93
1318282	106	106	96	93
1318283	106	106	97	92
1318284	106	104	96	92
Blank	102	105	97	94
LCS	102	104	99	100
LCSD	102	103	99	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201501AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318260	100	103	98	96
1318261	102	104	98	95
1318262	100	103	98	96
1318264	101	105	98	95
1318265	102	104	97	94
1318266	103	106	97	95
1318267	103	104	97	94
1318268	102	104	97	94
1318269	103	103	96	94
1318270	103	104	96	94
1318271	104	106	97	94
1318272	104	106	96	94
1318273	105	107	96	94
1318274	105	106	96	94

*- Outside of specification
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Quality Control Summary

Client Name: VHB
Reported: 06/01/2020 22:11

Group Number: 2100281

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201501AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318275	105	106	96	93
1318276	106	107	95	93
Blank	100	103	98	96
LCS	100	102	99	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: L201502AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318257	98	99	100	94
1318258	96	98	103	99
1318259	97	100	102	99
Blank	97	100	100	94
LCS	96	100	102	99
MS	96	98	103	99
MSD	97	100	102	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: L201521AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318256	100	103	100	93
Blank	99	103	100	94
LCS	97	100	102	101
MS	97	100	103	101
MSD	96	99	103	101
Limits:	80-120	80-120	80-120	80-120

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Environmental Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories Environmental

For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # 2100281 Sample # 1318256-84

COC #606203

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AO-New Windsor / 58300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Soil	Sediment	Tissue	Potable	Ground	NPDES	Surface	Other	Total # of Containers	H	8260 c - VOCs	Remarks
J14-BR02	5/19/20	1100	X					X					3	X		
J14-BR01	5/19/20	1000	X					X					9	X		MS/MSD
J14-UC01	5/19/20	820	X					X					3	X		
J14-UC02	5/19/20	740	X					X					3	X		
EB-QML	5/19/20	1210	X					Lab DI					3	X		
Trip Blank	—	—						Lab DI					3	X		

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1400			
				5/20/2020	1021

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only
Acct. # 6556 Group # 210028 Sample # 1318256-84

COC #606201

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AO-New Windsor / 55300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only
FSC:
SCR#:

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260C VOCs
J12-BR01	5/17/20	1225	X		3	X	X
J12-BR02	5/17/20	1055	X		3	X	X
J13-UC02	5/17/20	1345	X		3	X	X
J13-UC03	5/17/20	1455	X		3	X	X
J13-BR01	5/17/20	1620	X		3	X	X
J13-BR02	5/17/20	1735	X		3	X	X

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glester@vhb.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/18/20	1400			
				5/20/2020	1021

EDD Required? Yes No
If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # ~~20~~-210028 Sample # 1318256-84

③ KM2 2123 5/21/20

COC # 606400

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AO-New Windsor/558300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	(8260C-VOCs)	Remarks
J08-UC01	5/16/20	1755	X		3	X		
J11-BR02	5/16/20	1645	X		3	X		
J11-BR01	5/16/20	1450	X		3	X		
J11-UC01	5/16/20	1225	X		3	X		
J11-UC02	5/16/20	1340	X		3	X		
~~J11-BR03~~ J04-BR02 QAM 5.16.20	5/16/20	1115	X		3	X		
J04-BR01	5/16/20	950	X		3	X		

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1400			
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	Date	Time
Relinquished by	Date	Time	Received by	5/20/20	1021

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # 2100281 Sample # 1318256-84

COC # 606399

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AD-New Windsor / 58300	PWSID #:
Project Manager: George Lestet	P.O. #:
Sampler: Quinn Ledak	Quote #:

State where samples were collected: NY

For Compliance: Yes ☒ No ☐

Matrix

Soil ☐ Sediment ☐ Tissue ☐ | Water ☒ Potable ☐ Ground ☐ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested

Preservation and Filtration Codes

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260C - VOCs	Remarks
JO7-UC02	5/15/20	1550	X		3	X	X	
MW-15	5/15/20	1415	X		3	X	X	
DUP-03	5/15/20	1200	X		3	X	X	
MW-10	5/15/20	1250	X		3	X	X	
JO5-BR01	5/15/20	1115	X		3	X	X	
JO5-BR02	5/15/20	945	X		3	X	X	
DUP-01	5/15/20	800	X		3	X	X	
RIZ-19	5/15/20	1645	X		3	X	X	

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glestet@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) | Type VI (Raw Data Only)

Type III (Reduced non-CLP) | NJ DKQP | TX TRRP-13

NYSDEC Category A or B | MA MCP | CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1900			
				5/20/2020	1021

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:

UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 285082

Group Number(s): 2100281

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/21/2020
Number of Packages:	1	Number of Projects:	2
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	0
Samples Chilled:	Yes	Air Quality Samples Present:	No
Paperwork Enclosed:	Yes		
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: *DT = Digital (Temp. Bottle)* *IR = Infrared (Surface Temp)* *All Temperatures in °C.*

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	46730060WS	5.1	IR	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425
T 717-656-2300
F 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

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Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW58

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1318256	J14-BR02	X		1	
1318257	J14-BR01	X		1	Unspiked
1318258	J14-BR01 MS	X		1	Matrix Spike
1318259	J14-BR01 MSD	X		1	Matrix Spike Duplicate
1318260	J14-UC01	X		1	
1318261	J14-UC02	X		1	
1318262	EB-QML	X		1	Equipment Blank
1318263	Trip Blank	X		1	Trip Blank
1318264	J12-BR01	X		1	
1318265	J12-BR02	X		1	
1318266	J13-UC02	X		1	
1318267	J13-UC03	X		1	
1318268	J13-BR01	X		1	
1318269	J13-BR02	X		1	
1318270	J08-UC01	X		1	
1318271	J11-BR02	X		1	
1318272	J11-BR01	X		1	
1318273	J11-UC01	X		1	
1318274	J11-UC02	X		1	
1318275	J04-BR02	X		1	
1318276	J04-BR01	X		1	
1318277	J07-UC02	X		1	
1318278	MW-15	X		1	
1318279	DUP-03	X		1	Field Duplicate Sample
1318280	MW-10	X		1	
1318281	J05-BR01	X		1	
1318282	J05-BR02	X		1	
1318283	DUP-01	X		1	Field Duplicate Sample
1318284	RIZ-19	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW58

GC/MS Volatiles

Fraction: Volatiles by GC/MS

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g / L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW58

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	5201481AA	VBLK572	05/27/2020 10:08
		LCS572	05/27/2020 09:27
		1318263	05/27/2020 13:34
		1318277	05/27/2020 13:55
VOCs- 5ml Water by 8260C/D	5201482AA	VBLK573	05/27/2020 21:35
		LCS573	05/27/2020 20:33
		LCD573	05/27/2020 20:53
		1318278	05/27/2020 22:41
		1318279	05/28/2020 03:09
		1318280	05/27/2020 23:02
		1318281	05/27/2020 23:22
		1318282	05/27/2020 23:43
		1318283	05/28/2020 03:29
		1318284	05/28/2020 00:03
VOCs- 5ml Water by 8260C/D	5201501AA	VBLK578	05/29/2020 11:33
		LCS578	05/29/2020 10:52
		1318260	05/29/2020 13:35
		1318261	05/29/2020 13:55
		1318262	05/29/2020 12:12
		1318264	05/29/2020 14:16
		1318265	05/29/2020 14:36
		1318266	05/29/2020 14:57
		1318267	05/29/2020 15:17
		1318268	05/29/2020 15:38
		1318269	05/29/2020 15:59
		1318270	05/29/2020 16:19
		1318271	05/29/2020 16:40
		1318272	05/29/2020 17:00
		1318273	05/29/2020 17:21
		1318274	05/29/2020 17:42
		1318275	05/29/2020 18:02
		1318276	05/29/2020 18:23
VOCs- 5ml Water by 8260C/D	L201502AA	VBLKL05	05/29/2020 12:01
		LCSL05	05/29/2020 10:55
		1318257 UNSPK	05/29/2020 14:40
		1318258 MS	05/29/2020 15:02
		1318259 MSD	05/29/2020 15:24
VOCs- 5ml Water by 8260C/D	L201521AA	VBLKL11	05/31/2020 12:29
		LCSL11	05/31/2020 11:45
		1318256 UNSPK	05/31/2020 13:35
		1318256 MS	05/31/2020 13:57
		1318256 MSD	05/31/2020 14:19

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW58

Fraction: Volatiles by GC/MS

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW58
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201481AA / VBLK572 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Acetone	05/27/20	N.D.	ug/l	0.7	20
Freon 113	05/27/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/27/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/27/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/27/20	N.D.	ug/l	0.2	1
2-Butanone	05/27/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Chloroform	05/27/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/27/20	N.D.	ug/l	0.3	1
Benzene	05/27/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/27/20	N.D.	ug/l	0.3	1
Trichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/27/20	N.D.	ug/l	29	250
Toluene	05/27/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/27/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/27/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/27/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/27/20	N.D.	ug/l	0.2	5
Naphthalene	05/27/20	N.D.	ug/l	1	5

5201482AA / VBLK573 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Acetone	05/27/20	N.D.	ug/l	0.7	20
Freon 113	05/27/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/27/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/27/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/27/20	N.D.	ug/l	0.2	1
2-Butanone	05/27/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Chloroform	05/27/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/27/20	N.D.	ug/l	0.3	1
Benzene	05/27/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/27/20	N.D.	ug/l	0.3	1
Trichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/27/20	N.D.	ug/l	29	250
Toluene	05/27/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/27/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/27/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/27/20	N.D.	ug/l	1	6

Fraction: Volatiles by GC/MS

5201482AA / VBLK573 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
1,2-Dichlorobenzene	05/27/20	N.D.	ug/l	0.2	5
Naphthalene	05/27/20	N.D.	ug/l	1	5

5201501AA / VBLK578 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
Vinyl Chloride	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Acetone	05/29/20	N.D.	ug/l	0.7	20
Freon 113	05/29/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/29/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/29/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/29/20	N.D.	ug/l	0.2	1
2-Butanone	05/29/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Chloroform	05/29/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/29/20	N.D.	ug/l	0.3	1
Benzene	05/29/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/29/20	N.D.	ug/l	0.3	1
Trichloroethene	05/29/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/29/20	N.D.	ug/l	29	250
Toluene	05/29/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/29/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/29/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/29/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/29/20	N.D.	ug/l	0.2	5
Naphthalene	05/29/20	N.D.	ug/l	1	5

L201502AA / VBLKL05 **Analyte**	**Analysis Date**	**Blank Results**	**Units**	**MDL**	**LOQ**
Vinyl Chloride	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Acetone	05/29/20	N.D.	ug/l	0.7	20
Freon 113	05/29/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/29/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/29/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/29/20	N.D.	ug/l	0.2	1
2-Butanone	05/29/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Chloroform	05/29/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/29/20	N.D.	ug/l	0.3	1
Benzene	05/29/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/29/20	N.D.	ug/l	0.3	1
Trichloroethene	05/29/20	N.D.	ug/l	0.2	1

Fraction: Volatiles by GC/MS

L201502AA / VBLKL05 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,4-Dioxane	05/29/20	N.D.	ug/l	29	250
Toluene	05/29/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/29/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/29/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/29/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/29/20	N.D.	ug/l	0.2	5
Naphthalene	05/29/20	N.D.	ug/l	1	5

L201521AA / VBLKL11 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/31/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/31/20	N.D.	ug/l	0.2	1
Acetone	05/31/20	N.D.	ug/l	0.7	20
Freon 113	05/31/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/31/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/31/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/31/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/31/20	N.D.	ug/l	0.2	1
2-Butanone	05/31/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/31/20	N.D.	ug/l	0.2	1
Chloroform	05/31/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/31/20	N.D.	ug/l	0.3	1
Benzene	05/31/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/31/20	N.D.	ug/l	0.3	1
Trichloroethene	05/31/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/31/20	N.D.	ug/l	29	250
Toluene	05/31/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/31/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/31/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/31/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/31/20	N.D.	ug/l	0.2	5
Naphthalene	05/31/20	N.D.	ug/l	1	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW58
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201481AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK572	104	80 - 120	95	80 - 120	100	80 - 120	98	80 - 120
LCS572	101	80 - 120	99	80 - 120	100	80 - 120	100	80 - 120
1318263	103	80 - 120	94	80 - 120	101	80 - 120	98	80 - 120
1318277	105	80 - 120	94	80 - 120	101	80 - 120	97	80 - 120

5201482AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK573	105	80 - 120	94	80 - 120	102	80 - 120	97	80 - 120
LCS573	104	80 - 120	100	80 - 120	102	80 - 120	99	80 - 120
LCD573	103	80 - 120	100	80 - 120	102	80 - 120	99	80 - 120
1318278	105	80 - 120	93	80 - 120	105	80 - 120	96	80 - 120
1318279	105	80 - 120	93	80 - 120	106	80 - 120	96	80 - 120
1318280	105	80 - 120	93	80 - 120	105	80 - 120	96	80 - 120
1318281	105	80 - 120	93	80 - 120	105	80 - 120	97	80 - 120
1318282	106	80 - 120	93	80 - 120	106	80 - 120	96	80 - 120
1318283	106	80 - 120	92	80 - 120	106	80 - 120	97	80 - 120
1318284	104	80 - 120	92	80 - 120	106	80 - 120	96	80 - 120

5201501AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK578	103	80 - 120	96	80 - 120	100	80 - 120	98	80 - 120
LCS578	102	80 - 120	99	80 - 120	100	80 - 120	99	80 - 120
1318260	103	80 - 120	96	80 - 120	100	80 - 120	98	80 - 120
1318261	104	80 - 120	95	80 - 120	102	80 - 120	98	80 - 120
1318262	103	80 - 120	96	80 - 120	100	80 - 120	98	80 - 120
1318264	105	80 - 120	95	80 - 120	101	80 - 120	98	80 - 120
1318265	104	80 - 120	94	80 - 120	102	80 - 120	97	80 - 120
1318266	106	80 - 120	95	80 - 120	103	80 - 120	97	80 - 120
1318267	104	80 - 120	94	80 - 120	103	80 - 120	97	80 - 120
1318268	104	80 - 120	94	80 - 120	102	80 - 120	97	80 - 120
1318269	103	80 - 120	94	80 - 120	103	80 - 120	96	80 - 120
1318270	104	80 - 120	94	80 - 120	103	80 - 120	96	80 - 120
1318271	106	80 - 120	94	80 - 120	104	80 - 120	97	80 - 120
1318272	106	80 - 120	94	80 - 120	104	80 - 120	96	80 - 120
1318273	107	80 - 120	94	80 - 120	105	80 - 120	96	80 - 120
1318274	106	80 - 120	94	80 - 120	105	80 - 120	96	80 - 120
1318275	106	80 - 120	93	80 - 120	105	80 - 120	96	80 - 120
1318276	107	80 - 120	93	80 - 120	106	80 - 120	95	80 - 120

Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW58
Matrix: LIQUID

Fraction: Volatiles by GC/MS

L201502AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKL05	100	80 - 120	94	80 - 120	97	80 - 120	100	80 - 120
LCSL05	100	80 - 120	99	80 - 120	96	80 - 120	102	80 - 120
1318257 UNSPK	99	80 - 120	94	80 - 120	98	80 - 120	100	80 - 120
1318258 MS	98	80 - 120	99	80 - 120	96	80 - 120	103	80 - 120
1318259 MSD	100	80 - 120	99	80 - 120	97	80 - 120	102	80 - 120

L201521AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKL11	103	80 - 120	94	80 - 120	99	80 - 120	100	80 - 120
LCSL11	100	80 - 120	101	80 - 120	97	80 - 120	102	80 - 120
1318256 UNSPK	103	80 - 120	93	80 - 120	100	80 - 120	100	80 - 120
1318256 MS	100	80 - 120	101	80 - 120	97	80 - 120	103	80 - 120
1318256 MSD	99	80 - 120	101	80 - 120	96	80 - 120	103	80 - 120

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1318257 MS: 1318258 MSD: 1318259 **Analyte**	Batch: **L201502AA** (Sample number(s): 1318257-1318259)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	N.D.	20.54	20.12	103	101	56-120	2	30
1,1-Dichloroethene	20	N.D.	20.83	20.63	104	103	80-131	1	30
Acetone	150	N.D.	141.19	136.77	94	91	54-157	3	30
Freon 113	20	N.D.	19.15	19.18	96	96	73-139	0	30
Carbon Disulfide	20	N.D.	20.96	20.89	105	104	65-128	0	30
Methylene Chloride	20	N.D.	19.92	19.99	100	100	80-120	0	30
trans-1,2-Dichloroethene	20	N.D.	19.98	19.99	100	100	80-120	0	30
1,1-Dichloroethane	20	0.635 J	20.99	21.25	102	103	80-120	1	30
2-Butanone	150	N.D.	145.67	147.05	97	98	59-135	1	30
cis-1,2-Dichloroethene	20	N.D.	20.72	20.74	104	104	80-120	0	30
1,1,1-Trichloroethane	20	3.34	22.95	22.97	98	98	67-126	0	30
Chloroform	20	N.D.	19.73	19.8	99	99	80-120	0	30
1,2-Dichloroethane	20	N.D.	18.81	18.8	94	94	73-124	0	30
Benzene	20	N.D.	20.18	20.09	101	100	80-120	0	30
Trichloroethene	20	N.D.	19.81	19.96	99	100	80-120	1	30
1,4-Dioxane	500	N.D.	512.19	495.77	102	99	63-146	3	30
Toluene	20	N.D.	20.81	20.57	104	103	80-120	1	30
Tetrachloroethene	20	N.D.	21.19	20.85	106	104	80-120	2	30
Ethylbenzene	20	N.D.	21.33	21.12	107	106	80-120	1	30
Xylene (Total)	60	N.D.	65.01	64.26	108	107	80-120	1	30
1,2-Dichlorobenzene	20	N.D.	20.42	20.79	102	104	80-120	2	30
Naphthalene	20	N.D.	19.06	19.27	95	96	53-124	1	30

UNSPK: 1318256 MS: 1318256 MSD: 1318256 **Analyte**	Batch: **L201521AA** (Sample number(s): 1318256)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	N.D.	23.6	23.35	118	117	56-120	1	30
1,1-Dichloroethene	20	N.D.	21.51	21.72	108	109	80-131	1	30
Acetone	150	N.D.	153.91	149.29	103	100	54-157	3	30
Freon 113	20	N.D.	20.66	20.9	103	105	73-139	1	30
Carbon Disulfide	20	N.D.	22.55	22.81	113	114	65-128	1	30
Methylene Chloride	20	N.D.	20.87	21.08	104	105	80-120	1	30
trans-1,2-Dichloroethene	20	N.D.	20.87	20.94	104	105	80-120	0	30
1,1-Dichloroethane	20	N.D.	21.58	21.72	108	109	80-120	1	30
2-Butanone	150	N.D.	155.85	157.77	104	105	59-135	1	30
cis-1,2-Dichloroethene	20	N.D.	21.43	21.7	107	108	80-120	1	30
1,1,1-Trichloroethane	20	N.D.	20.69	20.81	103	104	67-126	1	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1318256 MS: 1318256 MSD: 1318256 **Analyte**	Batch: **L201521AA** (Sample number(s): 1318256)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Chloroform	20	N.D.	20.9	20.93	104	105	80-120	0	30
1,2-Dichloroethane	20	N.D.	20.37	20.29	102	101	73-124	0	30
Benzene	20	N.D.	21.02	21.3	105	106	80-120	1	30
Trichloroethene	20	N.D.	20.53	20.69	103	103	80-120	1	30
1,4-Dioxane	500	N.D.	542.44	545.27	108	109	63-146	1	30
Toluene	20	N.D.	21.42	21.82	107	109	80-120	2	30
Tetrachloroethene	20	N.D.	21.88	21.71	109	109	80-120	1	30
Ethylbenzene	20	N.D.	21.89	22.26	109	111	80-120	2	30
Xylene (Total)	60	N.D.	66.02	67.17	110	112	80-120	2	30
1,2-Dichlorobenzene	20	N.D.	21.52	21.97	108	110	80-120	2	30
Naphthalene	20	N.D.	19.28	19.78	96	99	53-124	3	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS572	Batch: **5201481AA** (Sample number(s): 1318263, 1318277)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	20.45	NA	102	NA	56-120	NA	NA
1,1-Dichloroethene	20	19.04	NA	95	NA	80-131	NA	NA
Acetone	150	189.55	NA	126	NA	54-157	NA	NA
Freon 113	20	18.78	NA	94	NA	73-139	NA	NA
Carbon Disulfide	20	17.17	NA	86	NA	65-128	NA	NA
Methylene Chloride	20	20.66	NA	103	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	20.11	NA	101	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.84	NA	99	NA	80-120	NA	NA
2-Butanone	150	149.85	NA	100	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	21.18	NA	106	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.56	NA	98	NA	67-126	NA	NA
Chloroform	20	20.28	NA	101	NA	80-120	NA	NA
1,2-Dichloroethane	20	20.45	NA	102	NA	73-124	NA	NA
Benzene	20	19.95	NA	100	NA	80-120	NA	NA
Trichloroethene	20	20.44	NA	102	NA	80-120	NA	NA
1,4-Dioxane	500	657.59	NA	132	NA	63-146	NA	NA
Toluene	20	20.2	NA	101	NA	80-120	NA	NA
Tetrachloroethene	20	21.59	NA	108	NA	80-120	NA	NA
Ethylbenzene	20	20.95	NA	105	NA	80-120	NA	NA
Xylene (Total)	60	63.37	NA	106	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	20.66	NA	103	NA	80-120	NA	NA
Naphthalene	20	20.32	NA	102	NA	53-124	NA	NA

LCS: LCS573 LCSD: LCD573	Batch: **5201482AA** (Sample number(s): 1318278-1318284)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	21.69	19.82	108	99	56-120	9	30
1,1-Dichloroethene	20	21.03	18.67	105	93	80-131	12	30
Acetone	150	189.6	211.41	126	141	54-157	11	30
Freon 113	20	19.3	17.46	97	87	73-139	10	30
Carbon Disulfide	20	18.22	16.57	91	83	65-128	10	30
Methylene Chloride	20	21.27	20.11	106	101	80-120	6	30
trans-1,2-Dichloroethene	20	21.16	19.34	106	97	80-126	9	30
1,1-Dichloroethane	20	20.44	18.85	102	94	80-120	8	30
2-Butanone	150	152.63	155.57	102	104	59-135	2	30
cis-1,2-Dichloroethene	20	22	20.41	110	102	80-125	7	30
1,1,1-Trichloroethane	20	21.12	19.19	106	96	67-126	10	30
Chloroform	20	21.45	19.84	107	99	80-120	8	30
1,2-Dichloroethane	20	21.97	20.68	110	103	73-124	6	30
Benzene	20	20.53	18.78	103	94	80-120	9	30
Trichloroethene	20	21.29	19.57	106	98	80-120	8	30

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS573 LCSD: LCD573	Batch: **5201482AA** (Sample number(s): 1318278-1318284)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	500	644.82	669.47	129	134	63-146	4	30
Toluene	20	20.29	19.04	101	95	80-120	6	30
Tetrachloroethene	20	22.37	20.66	112	103	80-120	8	30
Ethylbenzene	20	21.01	19.54	105	98	80-120	7	30
Xylene (Total)	60	63.72	59.42	106	99	80-120	7	30
1,2-Dichlorobenzene	20	21.54	20.16	108	101	80-120	7	30
Naphthalene	20	20.85	19.71	104	99	53-124	6	30

LCS: LCS578	Batch: **5201501AA** (Sample number(s): 1318260-1318262, 1318264-1318276)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	17.22	NA	86	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.85	NA	94	NA	80-131	NA	NA
Acetone	150	147.91	NA	99	NA	54-157	NA	NA
Freon 113	20	16.92	NA	85	NA	73-139	NA	NA
Carbon Disulfide	20	17.23	NA	86	NA	65-128	NA	NA
Methylene Chloride	20	19.62	NA	98	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	18.99	NA	95	NA	80-126	NA	NA
1,1-Dichloroethane	20	18.89	NA	94	NA	80-120	NA	NA
2-Butanone	150	140.9	NA	94	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	19.98	NA	100	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.4	NA	92	NA	67-126	NA	NA
Chloroform	20	19.13	NA	96	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.26	NA	96	NA	73-124	NA	NA
Benzene	20	18.63	NA	93	NA	80-120	NA	NA
Trichloroethene	20	19.12	NA	96	NA	80-120	NA	NA
1,4-Dioxane	500	534.9	NA	107	NA	63-146	NA	NA
Toluene	20	18.81	NA	94	NA	80-120	NA	NA
Tetrachloroethene	20	20.28	NA	101	NA	80-120	NA	NA
Ethylbenzene	20	19.42	NA	97	NA	80-120	NA	NA
Xylene (Total)	60	58.45	NA	97	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.31	NA	97	NA	80-120	NA	NA
Naphthalene	20	18.43	NA	92	NA	53-124	NA	NA

LCS: LCSL05	Batch: **L201502AA** (Sample number(s): 1318257-1318259)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	15.66	NA	78	NA	56-120	NA	NA
1,1-Dichloroethene	20	17.77	NA	89	NA	80-131	NA	NA
Acetone	150	135.34	NA	90	NA	54-157	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSL05	Batch: **L201502AA** (Sample number(s): 1318257-1318259)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Freon 113	20	15.64	NA	78	NA	73-139	NA	NA
Carbon Disulfide	20	18.16	NA	91	NA	65-128	NA	NA
Methylene Chloride	20	18.65	NA	93	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	17.96	NA	90	NA	80-126	NA	NA
1,1-Dichloroethane	20	18.56	NA	93	NA	80-120	NA	NA
2-Butanone	150	149.09	NA	99	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	19.41	NA	97	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	17.21	NA	86	NA	67-126	NA	NA
Chloroform	20	18.23	NA	91	NA	80-120	NA	NA
1,2-Dichloroethane	20	17.86	NA	89	NA	73-124	NA	NA
Benzene	20	18.39	NA	92	NA	80-120	NA	NA
Trichloroethene	20	17.79	NA	89	NA	80-120	NA	NA
1,4-Dioxane	500	473.5	NA	95	NA	63-146	NA	NA
Toluene	20	18.98	NA	95	NA	80-120	NA	NA
Tetrachloroethene	20	18.81	NA	94	NA	80-120	NA	NA
Ethylbenzene	20	19.2	NA	96	NA	80-120	NA	NA
Xylene (Total)	60	59.54	NA	99	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.96	NA	100	NA	80-120	NA	NA
Naphthalene	20	19.45	NA	97	NA	53-124	NA	NA

LCS: LCSL11	Batch: **L201521AA** (Sample number(s): 1318256)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	21.78	NA	109	NA	56-120	NA	NA
1,1-Dichloroethene	20	19.66	NA	98	NA	80-131	NA	NA
Acetone	150	138.44	NA	92	NA	54-157	NA	NA
Freon 113	20	16.82	NA	84	NA	73-139	NA	NA
Carbon Disulfide	20	20.73	NA	104	NA	65-128	NA	NA
Methylene Chloride	20	20.13	NA	101	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.67	NA	98	NA	80-126	NA	NA
1,1-Dichloroethane	20	20.4	NA	102	NA	80-120	NA	NA
2-Butanone	150	162.06	NA	108	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.49	NA	102	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.04	NA	95	NA	67-126	NA	NA
Chloroform	20	19.71	NA	99	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.5	NA	98	NA	73-124	NA	NA
Benzene	20	20.04	NA	100	NA	80-120	NA	NA
Trichloroethene	20	19.25	NA	96	NA	80-120	NA	NA
1,4-Dioxane	500	500.96	NA	100	NA	63-146	NA	NA
Toluene	20	20.36	NA	102	NA	80-120	NA	NA
Tetrachloroethene	20	19.97	NA	100	NA	80-120	NA	NA

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSL11	Batch: **L201521AA** (Sample number(s): 1318256)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Ethylbenzene	20	20.68	NA	103	NA	80-120	NA	NA
Xylene (Total)	60	62.84	NA	105	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	20.73	NA	104	NA	80-120	NA	NA
Naphthalene	20	19.96	NA	100	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly04t02.d BFB Injection Date: 05/04/20

Instrument ID: HP09915 BFB Injection Time: 11:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.11
75	30.0 - 60.0% of mass 95	45.65
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.62 (0.72)1
174	Greater than 50.0% of mass 95	86.35
175	5.0 - 9.0% of mass 174	6.12 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.51 (96.71)1
177	5.0 - 9.0% of mass 176	5.61 (6.72)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ly04i01.d	05/04/20	12:18
02	VSTD100	ly04i02.d	05/04/20	12:40
03	VSTD50	ly04i03.d	05/04/20	13:02
04	VSTD20	ly04i04.d	05/04/20	13:24
05	VSTD10	ly04i05.d	05/04/20	13:46
06	VSTD4	ly04i06.d	05/04/20	14:08
07	VSTD1	ly04i07.d	05/04/20	14:30
08	ICVLLG	ly04v01.d	05/04/20	14:52

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly29t02.d BFB Injection Date: 05/29/20

Instrument ID: HP09915 BFB Injection Time: 08:58

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.73
75	30.0 - 60.0% of mass 95	43.90
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.50 (0.60)1
174	Greater than 50.0% of mass 95	83.38
175	5.0 - 9.0% of mass 174	5.69 (6.82)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.18 (96.17)1
177	5.0 - 9.0% of mass 176	5.42 (6.76)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ly29c01.d	05/29/20	09:50
02	VSTD50	ly29c02.d	05/29/20	10:11
03	LCSL02	ly29s01.d	05/29/20	10:55
04	LCSL05	ly29s31.d	05/29/20	10:55
05	LCSL04	ly29s02.d	05/29/20	11:17
06	LCSL06	ly29s32.d	05/29/20	11:17
07	VBLKL02	ly29b01.d	05/29/20	12:01
08	VBLKL05	ly29b05.d	05/29/20	12:01
09	1318540	ly29s03.d	05/29/20	12:50
10	1318541MS	ly29s04.d	05/29/20	13:12
11	1318542MSD	ly29s05.d	05/29/20	13:34
12	1318541MSMS1	ly29s06.d	05/29/20	13:56
13	1318542MSDMS	ly29s07.d	05/29/20	14:18
14	1318257	ly29s33.d	05/29/20	14:40
15	1318258MS	ly29s34.d	05/29/20	15:02
16	1318259MSD	ly29s35.d	05/29/20	15:24
17	1318258MSMS1	ly29s36.d	05/29/20	15:46
18	1318259MSDMS	ly29s37.d	05/29/20	16:08
19	1318514	ly29s08.d	05/29/20	16:30
20	1318515	ly29s09.d	05/29/20	16:52
21	1318516	ly29s10.d	05/29/20	17:14
22	1318517	ly29s11.d	05/29/20	17:36

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly29t02.d BFB Injection Date: 05/29/20

Instrument ID: HP09915 BFB Injection Time: 08:58

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	15.73
75	30.0 - 60.0% of mass 95	43.90
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.81
173	Less than 2.0% of mass 174	0.50 (0.60)1
174	Greater than 50.0% of mass 95	83.38
175	5.0 - 9.0% of mass 174	5.69 (6.82)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.18 (96.17)1
177	5.0 - 9.0% of mass 176	5.42 (6.76)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318518	ly29s12.d	05/29/20	17:58
24	1318538	ly29s13.d	05/29/20	18:20
25	1318539	ly29s14.d	05/29/20	18:42
26	1317596	ly29s15.d	05/29/20	19:04
27	1316943	ly29s38.d	05/29/20	19:26
28	1316943DL	ly29s39.d	05/29/20	19:48
29	1316949	ly29s40.d	05/29/20	20:10
30	1316949DL	ly29s41.d	05/29/20	20:32
31	SECC050	ly29ec5.d	05/29/20	20:54
32	SECA050	ly29ec6.d	05/29/20	21:16

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly31t01.d BFB Injection Date: 05/31/20

Instrument ID: HP09915 BFB Injection Time: 10:45

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.66
75	30.0 - 60.0% of mass 95	47.19
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.70 (0.84)1
174	Greater than 50.0% of mass 95	84.31
175	5.0 - 9.0% of mass 174	6.08 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.11 (97.40)1
177	5.0 - 9.0% of mass 176	5.52 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	ly31c01.d	05/31/20	11:23
02	LCSL11	ly31s01.d	05/31/20	11:45
03	VBLKL11	ly31b01.d	05/31/20	12:29
04	1318897	ly31s02.d	05/31/20	12:51
05	1321015	ly31s03.d	05/31/20	13:13
06	1318256	ly31s04.d	05/31/20	13:35
07	1318256MS	ly31s05.d	05/31/20	13:57
08	1318256MSD	ly31s06.d	05/31/20	14:19
09	1320082	ly31s07.d	05/31/20	15:03
10	1320084	ly31s08.d	05/31/20	15:25
11	1320086	ly31s09.d	05/31/20	15:47
12	1320088	ly31s10.d	05/31/20	16:09
13	1320089	ly31s11.d	05/31/20	16:31
14	1318864	ly31s12.d	05/31/20	16:52
15	1320776	ly31s14.d	05/31/20	17:36
16	1320776DL	ly31s15.d	05/31/20	17:58
17	1318887	ly31s16.d	05/31/20	18:20
18	1318888	ly31s17.d	05/31/20	18:42
19	1318889	ly31s18.d	05/31/20	19:04
20	1318890	ly31s19.d	05/31/20	19:26
21	1318891	ly31s20.d	05/31/20	19:48
22	1318892	ly31s21.d	05/31/20	20:10

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly31t01.d BFB Injection Date: 05/31/20

Instrument ID: HP09915 BFB Injection Time: 10:45

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.66
75	30.0 - 60.0% of mass 95	47.19
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.70 (0.84)1
174	Greater than 50.0% of mass 95	84.31
175	5.0 - 9.0% of mass 174	6.08 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	82.11 (97.40)1
177	5.0 - 9.0% of mass 176	5.52 (6.73)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318893	ly31s22.d	05/31/20	20:32
24	1318894	ly31s23.d	05/31/20	20:54
25	1318895	ly31s24.d	05/31/20	21:16
26	1318896	ly31s25.d	05/31/20	21:38
27	1321013	ly31s26.d	05/31/20	22:00

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5a21t01.d BFB Injection Date: 04/21/20

Instrument ID: HP26285 BFB Injection Time: 20:36

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.28
75	30.0 - 60.0% of mass 95	45.20
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.52 (0.67)1
174	Greater than 50.0% of mass 95	77.82
175	5.0 - 9.0% of mass 174	5.61 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.39 (96.88)1
177	5.0 - 9.0% of mass 176	4.85 (6.43)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	5a21i01.d	04/21/20	21:19
02	VSTD100	5a21i02.d	04/21/20	21:40
03	VSTD50	5a21i03.d	04/21/20	22:00
04	VSTD20	5a21i04.d	04/21/20	22:21
05	VSTD10	5a21i05.d	04/21/20	22:42
06	VSTD4	5a21i06.d	04/21/20	23:02
07	VSTD1	5a21i07.d	04/21/20	23:23
08	LG5ICV	5a21v01.d	04/22/20	00:05

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t01.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 07:59

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.22
75	30.0 - 60.0% of mass 95	44.93
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.50 (0.61)1
174	Greater than 50.0% of mass 95	82.33
175	5.0 - 9.0% of mass 174	5.82 (7.07)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.04 (97.22)1
177	5.0 - 9.0% of mass 176	5.25 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y27c01.d	05/27/20	08:46
02	LCS572	5y27s01.d	05/27/20	09:27
03	VBLK572	5y27b01.d	05/27/20	10:08
04	1319246	5y27s02.d	05/27/20	10:29
05	1319248	5y27s03.d	05/27/20	10:50
06	1319229	5y27s04.d	05/27/20	11:10
07	1319230MS	5y27s05.d	05/27/20	11:31
08	1319231MSD	5y27s06.d	05/27/20	11:52
09	1319239	5y27s07.d	05/27/20	12:12
10	1319242	5y27s08.d	05/27/20	12:33
11	1319251	5y27s09.d	05/27/20	12:53
12	1318263	5y27s11.d	05/27/20	13:34
13	1318277	5y27s12.d	05/27/20	13:55
14	1318292	5y27s13.d	05/27/20	14:16
15	1318293	5y27s14.d	05/27/20	14:36
16	1318293DL	5y27s15.d	05/27/20	14:57
17	1318295	5y27s16.d	05/27/20	15:17
18	1318295DL	5y27s17.d	05/27/20	15:38
19	1318296	5y27s18.d	05/27/20	15:58
20	1318296DL	5y27s19.d	05/27/20	16:19
21	1318297	5y27s20.d	05/27/20	16:40
22	1318298	5y27s21.d	05/27/20	17:01

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t01.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 07:59

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.22
75	30.0 - 60.0% of mass 95	44.93
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.50 (0.61)1
174	Greater than 50.0% of mass 95	82.33
175	5.0 - 9.0% of mass 174	5.82 (7.07)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.04 (97.22)1
177	5.0 - 9.0% of mass 176	5.25 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318299	5y27s22.d	05/27/20	17:21
24	1318300	5y27s23.d	05/27/20	17:42
25	1318301	5y27s24.d	05/27/20	18:03
26	1318302	5y27s25.d	05/27/20	18:23
27	1318303	5y27s26.d	05/27/20	18:44
28	1318294	5y27s27.d	05/27/20	19:05

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t51.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 19:39

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.38
75	30.0 - 60.0% of mass 95	46.34
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.61 (0.73)1
174	Greater than 50.0% of mass 95	83.26
175	5.0 - 9.0% of mass 174	6.04 (7.25)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.92 (95.99)1
177	5.0 - 9.0% of mass 176	5.23 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y27c50.d	05/27/20	20:12
02	LCS573	5y27150.d	05/27/20	20:33
03	LCS574	5y27170.d	05/27/20	20:33
04	LCD573	5y27151.d	05/27/20	20:53
05	LCD574	5y27171.d	05/27/20	20:53
06	VBLK573	5y27b50.d	05/27/20	21:35
07	VBLK574	5y27b70.d	05/27/20	21:35
08	1319994	5y27s51.d	05/27/20	22:00
09	1319996	5y27s52.d	05/27/20	22:20
10	1318278	5y27s53.d	05/27/20	22:41
11	1318280	5y27s54.d	05/27/20	23:02
12	1318281	5y27s55.d	05/27/20	23:22
13	1318282	5y27s56.d	05/27/20	23:43
14	1318284	5y27s57.d	05/28/20	00:03
15	1318304	5y27s58.d	05/28/20	00:24
16	1318305	5y27s59.d	05/28/20	00:44
17	1318306	5y27s60.d	05/28/20	01:05
18	1319980	5y27s61.d	05/28/20	01:26
19	1319981MS	5y27s62.d	05/28/20	01:46
20	1319982MSD	5y27s63.d	05/28/20	02:07
21	1319990	5y27s64.d	05/28/20	02:28
22	1318294DL	5y27s65.d	05/28/20	02:48

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t51.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 19:39

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.38
75	30.0 - 60.0% of mass 95	46.34
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.61 (0.73)1
174	Greater than 50.0% of mass 95	83.26
175	5.0 - 9.0% of mass 174	6.04 (7.25)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.92 (95.99)1
177	5.0 - 9.0% of mass 176	5.23 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318279	5y27s66.d	05/28/20	03:09
24	1318283	5y27s67.d	05/28/20	03:29
25	1314747	5y27s69.d	05/28/20	04:10
26	1314747MS	5y27s70.d	05/28/20	04:31
27	1316625	5y27s71.d	05/28/20	04:52
28	1317516DL2	5y27s80.d	05/28/20	05:33
29	1320777	5y27s81.d	05/28/20	05:54

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y29t01.d BFB Injection Date: 05/29/20

Instrument ID: HP26285 BFB Injection Time: 09:29

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.62
75	30.0 - 60.0% of mass 95	46.02
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	0.53 (0.66)1
174	Greater than 50.0% of mass 95	80.20
175	5.0 - 9.0% of mass 174	5.69 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.44 (96.57)1
177	5.0 - 9.0% of mass 176	4.99 (6.44)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y29c01.d	05/29/20	10:11
02	LCS578	5y29s01.d	05/29/20	10:52
03	VBLK578	5y29b01.d	05/29/20	11:33
04	1318262	5y29s02.d	05/29/20	12:12
05	1318286	5y29s03.d	05/29/20	12:33
06	1318287MS	5y29s04.d	05/29/20	12:53
07	1318288MSD	5y29s05.d	05/29/20	13:14
08	1318260	5y29s06.d	05/29/20	13:35
09	1318261	5y29s07.d	05/29/20	13:55
10	1318264	5y29s08.d	05/29/20	14:16
11	1318265	5y29s09.d	05/29/20	14:36
12	1318266	5y29s10.d	05/29/20	14:57
13	1318267	5y29s11.d	05/29/20	15:17
14	1318268	5y29s12.d	05/29/20	15:38
15	1318269	5y29s13.d	05/29/20	15:59
16	1318270	5y29s14.d	05/29/20	16:19
17	1318271	5y29s15.d	05/29/20	16:40
18	1318272	5y29s16.d	05/29/20	17:00
19	1318273	5y29s17.d	05/29/20	17:21
20	1318274	5y29s18.d	05/29/20	17:42
21	1318275	5y29s19.d	05/29/20	18:02
22	1318276	5y29s20.d	05/29/20	18:23

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y29t01.d BFB Injection Date: 05/29/20

Instrument ID: HP26285 BFB Injection Time: 09:29

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.62
75	30.0 - 60.0% of mass 95	46.02
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	0.53 (0.66)1
174	Greater than 50.0% of mass 95	80.20
175	5.0 - 9.0% of mass 174	5.69 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.44 (96.57)1
177	5.0 - 9.0% of mass 176	4.99 (6.44)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318285	5y29s21.d	05/29/20	18:44
24	1318289	5y29s22.d	05/29/20	19:04
25	1318290	5y29s23.d	05/29/20	19:25
26	1318291	5y29s24.d	05/29/20	19:46

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.3072	0.3749	0.3447	0.3545	0.3366	0.3268	0.3554	0.3429	6	AVG	#
Chloromethane	#0.3484	0.3928	0.3004	0.3118	0.2810	0.3014	0.3050	0.3201	12	AVG	#
1,3-Butadiene	0.2177	0.2159	0.2035	0.1909	0.2017	0.1994	0.2084	0.2054	5	AVG	
Vinyl Chloride	#0.3345	0.3722	0.2898	0.3057	0.2850	0.2851	0.2901	0.3089	11	AVG	#
Bromomethane	#0.2618	0.2776	0.2081	0.2164	0.1931	0.1989	0.2031	0.2227	15	AVG	#
Chloroethane	#0.2082	0.2129	0.1636	0.1659	0.1543	0.1485	0.1539	0.1725	15	AVG	#
Dichlorofluoromethane	0.3912	0.4483	0.3730	0.3566	0.3471	0.3369	0.3514	0.3720	10	AVG	
n-Pentane	0.2913	0.3255	0.3315	0.2814	0.3331	0.3148	0.3399	0.3168	7	AVG	
Trichlorofluoromethane	#0.3223	0.3834	0.3290	0.3363	0.3305	0.3177	0.3426	0.3374	6	AVG	#
Ethyl ether	0.2085	0.2298	0.2403	0.2495	0.2468	0.2508	0.2432	0.2384	6	AVG	
Freon 123a	0.2397	0.2803	0.2761	0.2695	0.2834	0.2757	0.2886	0.2733	6	AVG	
Acrolein	1.9675	1.9584	2.3526	2.1490	1.9219	2.0204	2.0271	2.0567	7	AVG	
1,1-Dichloroethene	#0.2125	0.2244	0.2165	0.2075	0.2164	0.2106	0.2183	0.2152	3	AVG	#
1,1-Dichloroethene(2)	#0.0844	0.1075	0.1050	0.1016	0.1063	0.1046	0.1078	0.1025	8	AVG	#
Acetone	#1.1737	0.9368	0.9557	0.9252	0.8233	0.8652	0.8872	0.9381	12	AVG	#
Freon 113	#0.1875	0.2308	0.2325	0.2037	0.2359	0.2271	0.2451	0.2232	9	AVG	#
2-Propanol	0.6343	0.5939	0.5852	0.6111	0.5714	0.5851	0.6045	0.5979	3	AVG	
Methyl Iodide	0.3705	0.4177	0.4125	0.4203	0.4260	0.4199	0.4356	0.4147	5	AVG	
Carbon Disulfide	#0.6293	0.7190	0.7287	0.7248	0.7533	0.7429	0.7734	0.7245	6	AVG	#
Allyl Chloride	0.3126	0.3330	0.3401	0.3598	0.3560	0.3714	0.3682	0.3487	6	AVG	
Methyl Acetate	#0.2838	0.2818	0.2652	0.2744	0.2660	0.2745	0.2753	0.2744	3	AVG	#
Methylene Chloride	#0.2407	0.2611	0.2575	0.2576	0.2599	0.2554	0.2595	0.2560	3	AVG	#
t-Butyl alcohol	0.9840	1.0154	0.9988	1.0451	0.9821	1.0222	1.0175	1.0093	2	AVG	
Acrylonitrile	0.1469	0.1480	0.1588	0.1591	0.1521	0.1474	0.1518	0.1520	3	AVG	
trans-1,2-Dichloroethene	#0.2340	0.2526	0.2491	0.2486	0.2501	0.2467	0.2517	0.2475	3	AVG	#
Methyl Tertiary Butyl Ether	#0.6899	0.7176	0.7259	0.7729	0.7641	0.7564	0.7387	0.7379	4	AVG	#
n-Hexane	0.2488	0.2975	0.3616	0.3141	0.4006	0.3755	0.4285	0.3467	18	AVG	
1,1-Dichloroethane	#0.3917	0.4392	0.4377	0.4425	0.4471	0.4408	0.4399	0.4342	4	AVG	#
di-Isopropyl ether	0.6250	0.7167	0.7581	0.8043	0.8200	0.8181	0.8027	0.7635	9	AVG	
2-Chloro-1,3-butadiene	0.2504	0.3270	0.3433	0.3538	0.3803	0.3769	0.3919	0.3462	14	AVG	
Ethyl t-butyl ether	0.5831	0.6749	0.7049	0.7549	0.7669	0.7555	0.7257	0.7094	9	AVG	
cis-1,2-Dichloroethene	#0.2571	0.2721	0.2797	0.2848	0.2857	0.2816	0.2821	0.2776	4	AVG	#
2-Butanone	#0.1740	0.1778	0.1902	0.1929	0.1856	0.1830	0.1882	0.1845	4	AVG	#
2,2-Dichloropropane	0.2884	0.3383	0.3276	0.3395	0.3534	0.3473	0.3544	0.3355	7	AVG	
Propionitrile	1.2708	1.3533	1.3265	1.3974	1.3327	1.4224	1.4415	1.3635	4	AVG	
Methacrylonitrile	0.1325	0.1512	0.1492	0.1614	0.1576	0.1581	0.1568	0.1524	6	AVG	
Bromochloromethane	0.1268	0.1457	0.1435	0.1473	0.1449	0.1483	0.1461	0.1432	5	AVG	
Tetrahydrofuran	1.0939	1.2175	1.2309	1.2069	1.1339	1.2158	1.2522	1.1930	5	AVG	
Chloroform	#0.3949	0.4255	0.4186	0.4310	0.4353	0.4288	0.4350	0.4241	3	AVG	#
1,1,1-Trichloroethane	#0.3205	0.3731	0.3563	0.3608	0.3789	0.3703	0.3873	0.3639	6	AVG	#
Cyclohexane	#0.2724	0.3861	0.4199	0.3788	0.4671	0.4459	0.4812	0.4073	17	AVG	#
Cyclohexane(2)	#0.2623	0.3387	0.3613	0.3246	0.3996	0.3831	0.4193	0.3555	15	AVG	#
Cyclohexane(3)	#0.0911	0.1232	0.1295	0.1156	0.1414	0.1371	0.1483	0.1266	15	AVG	#
1,1-Dichloropropene	0.2663	0.3431	0.3356	0.3313	0.3539	0.3450	0.3597	0.3336	9	AVG	
Carbon Tetrachloride	#0.2381	0.3157	0.3037	0.2960	0.3275	0.3180	0.3351	0.3049	11	AVG	#
Isobutyl Alcohol	0.3260	0.3424	0.3330	0.3489	0.3302	0.3507	0.3655	0.3424	4	AVG	
Benzene	#0.9337	1.0554	1.0404	1.0552	1.0612	1.0432	1.0391	1.0326	4	AVG	#
1,2-Dichloroethane	#0.3641	0.3511	0.3344	0.3464	0.3428	0.3380	0.3462	0.3461	3	AVG	#
1,2-Dichloroethane(2)	#0.0281	0.0355	0.0337	0.0352	0.0346	0.0342	0.0349	0.0337	8	AVG	#<-
t-Amyl methyl ether	0.6250	0.6922	0.7120	0.7698	0.7825	0.7707	0.7211	0.7247	8	AVG	
n-Heptane	0.2919	0.2979	0.3961	0.3092	0.4230	0.3738	0.4314	0.3605	17	AVG	
n-Butanol	0.2186	0.2666	0.2596	0.2947	0.2827	0.3159	0.3160	0.2792	12	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2314	0.2738	0.2568	0.2636	0.2685	0.2638	0.2713	0.2613	5	AVG #
Methylcyclohexane	#0.2885	0.3775	0.4342	0.4256	0.4691	0.4913	0.4880	0.4249	17	AVG #
Methylcyclohexane(2)	#0.1299	0.1713	0.1982	0.1902	0.2105	0.2220	0.2232	0.1922	17	AVG #
1,2-Dichloropropane	#0.2481	0.2664	0.2633	0.2760	0.2761	0.2709	0.2616	0.2661	4	AVG #
Dibromomethane	0.1562	0.1741	0.1704	0.1795	0.1796	0.1784	0.1799	0.1740	5	AVG
1,4-Dioxane	0.0712	0.0836	0.0835	0.0860	0.0869	0.0895	0.0867	0.0839	7	AVG
Methyl Methacrylate	0.1827	0.2123	0.2140	0.2362	0.2458	0.2529	0.2576	0.2288	12	AVG
Bromodichloromethane	#0.2641	0.2941	0.2982	0.3169	0.3295	0.3343	0.3465	0.3119	9	AVG #
2-Nitropropane	0.0743	0.0857	0.0951	0.0979	0.0980	0.0986	0.1052	0.0935	11	AVG
2-Chloroethyl Vinyl Ether	0.1183	0.1448	0.1627	0.1947	0.1994	0.2086	0.2116	0.1771	20	AVG
cis-1,3-Dichloropropene	#0.3089	0.3747	0.3951	0.4279	0.4420	0.4496	0.4555	0.4077	13	AVG #
4-Methyl-2-pentanone	#0.2810	0.3388	0.4261	0.4030	0.3910	0.3859	0.3899	0.3737	13	AVG #
Toluene	#0.7145	0.8626	0.8222	0.8465	0.8374	0.8251	0.8229	0.8187	6	AVG #
trans-1,3-Dichloropropene	#0.3772	0.4265	0.4447	0.4869	0.5027	0.5193	0.5309	0.4697	12	AVG #
Ethyl Methacrylate	0.3211	0.3977	0.4423	0.5102	0.5309	0.5517	0.5549	0.4727	19	AVG
1,1,2-Trichloroethane	#0.2982	0.3188	0.3085	0.3275	0.3213	0.3234	0.3261	0.3177	3	AVG #
Tetrachloroethene	#0.2723	0.3673	0.3559	0.3466	0.3684	0.3573	0.3745	0.3489	10	AVG #
1,3-Dichloropropane	0.4791	0.5230	0.5157	0.5502	0.5434	0.5534	0.5541	0.5313	5	AVG
2-Hexanone	#0.2485	0.3013	0.4213	0.3640	0.3525	0.3516	0.3639	0.3433	16	AVG #
Dibromochloromethane	#0.2440	0.3047	0.3124	0.3453	0.3551	0.3686	0.3831	0.3305	14	AVG #
1,2-Dibromoethane	#0.2855	0.3244	0.3336	0.3554	0.3560	0.3632	0.3719	0.3414	9	AVG #
1-Chlorohexane	0.3851	0.3832	0.4200	0.4024	0.4558	0.4290	0.4575	0.4190	7	AVG
Chlorobenzene	#0.8366	0.9889	0.9494	0.9763	0.9558	0.9470	0.9273	0.9402	5	AVG #
1,1,1,2-Tetrachloroethane	0.2628	0.3249	0.3142	0.3374	0.3359	0.3349	0.3210	0.3187	8	AVG
Ethylbenzene	#1.1980	1.5354	1.5535	1.5949	1.6192	1.5836	1.5237	1.5155	10	AVG #
m+p-Xylene	#0.4460	0.6043	0.6194	0.6385	0.6437	0.6277	0.5885	0.5954	12	AVG #
o-Xylene	#0.4117	0.5682	0.6009	0.6270	0.6275	0.6156	0.5799	0.5758	13	AVG #
Styrene	#0.6016	0.8862	0.9556	1.0324	1.0459	1.0431	0.9904	0.9365	17	AVG #
Bromoform	#0.1799	0.2110	0.2189	0.2495	0.2599	0.2759	0.2890	0.2406	16	AVG #
Isopropylbenzene	#0.9358	1.3619	1.5410	1.5672	1.6596	1.5754	1.5876	1.4612	17	AVG #
Cyclohexanone	0.2577	0.3055	0.3001	0.3389	0.3302	0.3416	0.3126	0.3124	9	AVG
Bromobenzene	0.6587	0.7746	0.7359	0.7664	0.7519	0.7500	0.6841	0.7317	6	AVG
1,1,2,2-Tetrachloroethane	#0.8524	0.9494	0.8835	0.9572	0.9208	0.9383	0.8790	0.9115	4	AVG #
1,2,3-Trichloropropane	0.2443	0.2882	0.2764	0.2890	0.2829	0.2899	0.2781	0.2784	6	AVG
trans-1,4-Dichloro-2-butene	0.2199	0.2612	0.2636	0.2848	0.2749	0.2847	0.2669	0.2652	8	AVG
n-Propylbenzene	2.4687	3.0300	3.3092	3.3293	3.4486	3.2920	3.2581	3.1622	10	AVG
2-Chlorotoluene	0.5357	0.6720	0.6927	0.7089	0.7183	0.7016	0.6998	0.6756	9	AVG
4-Chlorotoluene	0.5634	0.6918	0.7282	0.7444	0.7361	0.7276	0.7169	0.7012	9	AVG
1,3,5-Trimethylbenzene	1.5451	2.0898	2.4017	2.4957	2.5571	2.4536	2.4519	2.2850	16	AVG
tert-Butylbenzene	0.3304	0.4041	0.4839	0.4974	0.5371	0.5101	0.5247	0.4697	16	AVG
Pentachloroethane	0.3408	0.3819	0.4075	0.4439	0.4444	0.4739	0.4277	0.4171	11	AVG
1,2,4-Trimethylbenzene	1.5205	2.1963	2.5099	2.6437	2.6613	2.5628	2.4430	2.3625	17	AVG
sec-Butylbenzene	1.7497	2.4116	3.0315	2.9653	3.2861	3.0004	3.0298	2.7821	19	AVG
1,3-Dichlorobenzene	#1.1765	1.3970	1.4310	1.4819	1.4327	1.3931	1.2318	1.3634	8	AVG #
p-Isopropyltoluene	1.4601	2.0907	2.5969	2.6277	2.8513	2.5939	2.4662	2.3838	20	AVG
1,4-Dichlorobenzene	#1.2907	1.4922	1.4894	1.5270	1.4774	1.4358	1.3041	1.4309	7	AVG #
1,2,3-Trimethylbenzene	2.0761	2.3800	2.5083	2.6252	2.5574	2.6533	2.3826	2.4547	8	AVG
Benzyl Chloride	1.3247	1.7290	1.7424	2.0110	2.0302	2.1027	2.0613	1.8573	15	AVG
1,3-Diethylbenzene	1.1591	1.4712	1.5631	1.6678	1.6283	1.6909	1.5713	1.5359	12	AVG
1,4-Diethylbenzene	1.1634	1.5982	1.6598	1.7486	1.7167	1.7645	1.6027	1.6077	13	AVG
1,2-Dichlorobenzene	#1.2166	1.4364	1.4175	1.4718	1.4157	1.3811	1.2672	1.3723	7	AVG #
n-Butylbenzene	0.8915	1.0844	1.3461	1.2989	1.4058	1.2740	1.2726	1.2248	14	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

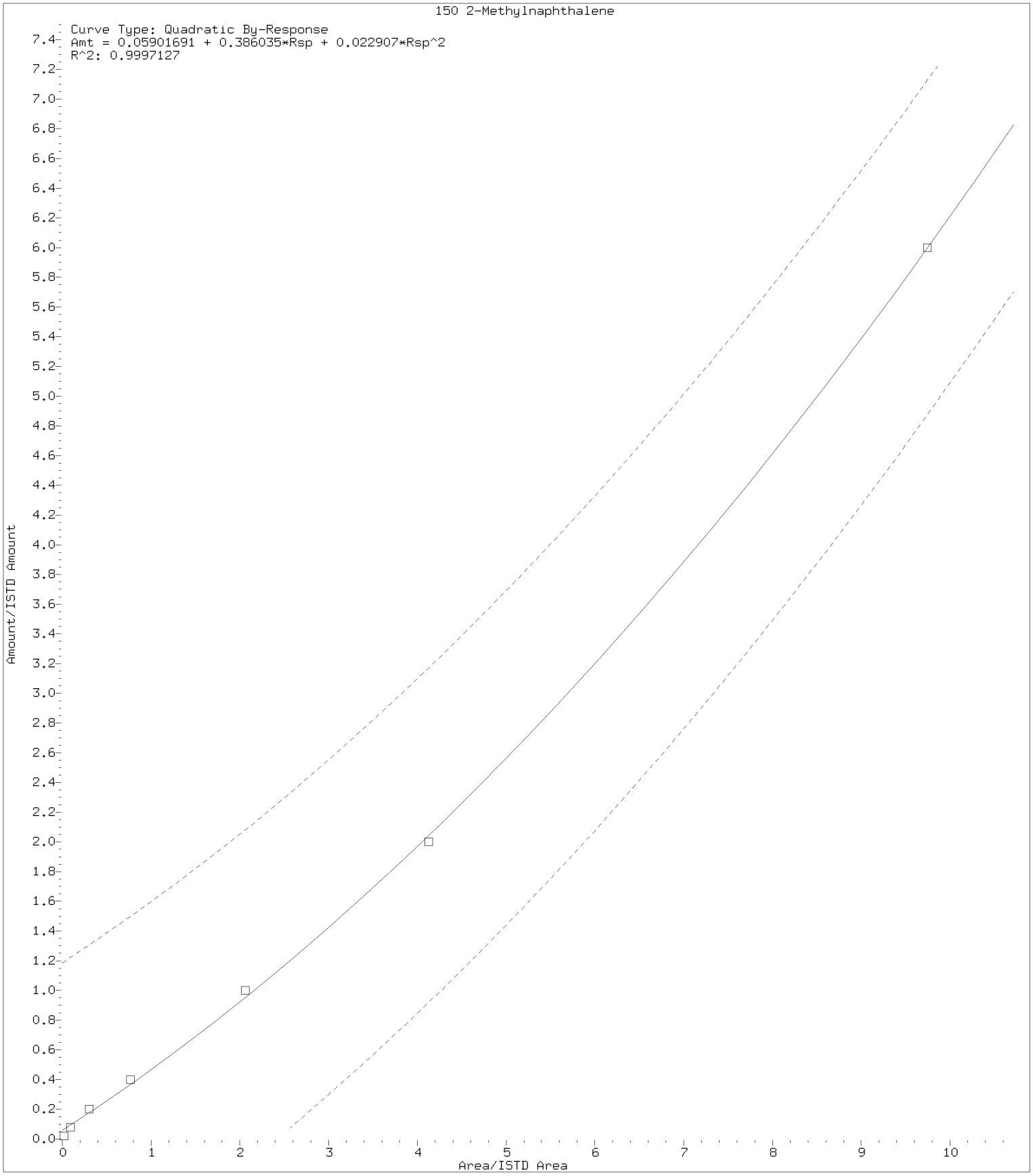
LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.0295	1.2919	1.3577	1.4248	1.3730	1.4224	1.2789	1.3112	10	AVG
1,2-Dibromo-3-chloropropane	#0.1650	0.1952	0.1877	0.2082	0.2117	0.2210	0.2234	0.2017	10	AVG #
1,3,5-Trichlorobenzene	0.9105	0.9328	1.0642	1.1130	1.1344	1.0562	1.0255	1.0338	8	AVG
1,2,4-Trichlorobenzene	#0.8186	0.8601	0.9774	1.0647	1.0739	1.0166	0.9515	0.9661	10	AVG #
Hexachlorobutadiene	0.4642	0.3762	0.4840	0.4490	0.4958	0.4333	0.4173	0.4457	9	AVG
Naphthalene	2.1271	2.7842	3.1577	3.6036	3.5783	3.5111	3.1283	3.1272	17	AVG
1,2,3-Trichlorobenzene	0.8188	0.9091	0.9941	1.0776	1.0567	0.9828	0.8808	0.9600	10	AVG
2-Methylnaphthalene	0.9957	1.1581	1.5261	1.9196	2.0622	2.0644	1.6238	1.6214	26	2NDDEG
Dibromofluoromethane	0.2505	0.2508	0.2465	0.2524	0.2528	0.2526	0.2576	0.2519	1	AVG
Dibromofluoromethane(2)	0.2560	0.2558	0.2540	0.2570	0.2584	0.2581	0.2631	0.2575	1	AVG
1,2-Dichloroethane-d4	0.0639	0.0649	0.0632	0.0643	0.0637	0.0634	0.0641	0.0639	1	AVG
1,2-Dichloroethane-d4(2)	0.2831	0.2821	0.2786	0.2841	0.2859	0.2832	0.2889	0.2837	1	AVG
1,2-Dichloroethane-d4(3)	0.0411	0.0407	0.0405	0.0403	0.0412	0.0403	0.0409	0.0407	1	AVG
Toluene-d8	1.2649	1.2749	1.2826	1.2779	1.2796	1.2921	1.3194	1.2845	1	AVG
Toluene-d8(2)	0.8203	0.8238	0.8322	0.8288	0.8303	0.8382	0.8615	0.8336	2	AVG
4-Bromofluorobenzene	0.4907	0.4958	0.4937	0.4907	0.4880	0.4920	0.5088	0.4942	1	AVG
4-Bromofluorobenzene(2)	0.4227	0.4258	0.4239	0.4223	0.4176	0.4192	0.4346	0.4237	1	AVG

Average %RSD 9

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Don V. Viray on 05/06/2020 at 08:01.
Target 3.5 esignature user ID: dvv10203

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i01.d	VSTD300
/chem/HP09915.i/20may04i.b/ly04i02.d	VSTD100
/chem/HP09915.i/20may04i.b/ly04i03.d	VSTD050
/chem/HP09915.i/20may04i.b/ly04i04.d	VSTD020
/chem/HP09915.i/20may04i.b/ly04i05.d	VSTD010
/chem/HP09915.i/20may04i.b/ly04i06.d	VSTD004
/chem/HP09915.i/20may04i.b/ly04i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	276925	272479	302938	286065	282164	285792	294363	285818	4	Yes
Fluorobenzene	1336369	1305159	1335958	1286965	1307193	1299562	1305845	1311007	1	Yes
Chlorobenzene-d5	1059501	1042614	1078517	1031952	1036265	1041559	1044326	1047819	2	Yes
1,4-Dichlorobenzene-d4	596140	579781	608929	580388	588728	598089	599351	593058	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. RT
t-Butyl alcohol-d10	4.493	4.490	4.487	4.500	4.480	4.490	4.487	4.489
Fluorobenzene	7.956	7.950	7.950	7.950	7.946	7.950	7.949	7.950
Chlorobenzene-d5	11.355	11.351	11.355	11.352	11.351	11.351	11.351	11.352
1,4-Dichlorobenzene-d4	13.220	13.216	13.216	13.216	13.216	13.216	13.216	13.217

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 05/04/2020 at 20:24.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.3214	18.75	20	-6	#
# Chloromethane	0.3201	0.3356	20.96	20	5	#
1,3-Butadiene	0.2054	0.2400	23.37	20	17	
# Vinyl Chloride	0.3089	0.3258	21.09	20	5	#
# Bromomethane	0.2227	0.2138	19.20	20	-4	#
# Chloroethane	0.1725	0.1685	19.54	20	-2	#
Dichlorofluoromethane	0.3720	0.3467	18.64	20	-7	
n-Pentane	0.3168	0.2920	18.44	20	-8	
# Trichlorofluoromethane	0.3374	0.3815	22.62	20	13	#
Ethyl ether	0.2384	0.2427	20.36	20	2	
Freon 123a	0.2733	0.2842	20.79	20	4	
Acrolein	2.0567	1.9145	139.63	150	-7	
# 1,1-Dichloroethene	0.2152	0.2238	20.81	20	4	#
# Acetone	0.9381	1.2084	193.20	150	29	#
# Freon 113	0.2232	0.2160	19.35	20	-3	#
2-Propanol	0.5979	0.5997	150.46	150	0	
Methyl Iodide	0.4147	0.4128	19.91	20	0	
# Carbon Disulfide	0.7245	0.7565	20.88	20	4	#
Allyl Chloride	0.3487	0.3386	19.42	20	-3	
# Methyl Acetate	0.2744	0.2632	19.19	20	-4	#
# Methylene Chloride	0.2560	0.2627	20.53	20	3	#
t-Butyl alcohol	1.0093	1.0232	202.75	200	1	
Acrylonitrile	0.1520	0.1437	94.53	100	-5	
# trans-1,2-Dichloroethene	0.2475	0.2522	20.38	20	2	#
# Methyl Tertiary Butyl Ether	0.7379	0.7082	19.19	20	-4	#
n-Hexane	0.3467	0.3630	20.94	20	5	
# 1,1-Dichloroethane	0.4342	0.4377	20.16	20	1	#
di-Isopropyl ether	0.7635	0.7617	19.95	20	0	
2-Chloro-1,3-butadiene	0.3462	0.3545	20.48	20	2	
Ethyl t-butyl ether	0.7094	0.7036	19.83	20	-1	
# cis-1,2-Dichloroethene	0.2776	0.2992	21.56	20	8	#
# 2-Butanone	0.1845	0.2032	165.20	150	10	#
2,2-Dichloropropane	0.3355	0.3414	20.35	20	2	
Propionitrile	1.3635	1.3708	150.80	150	1	
Methacrylonitrile	0.1524	0.1558	153.33	150	2	
Bromochloromethane	0.1432	0.1393	19.46	20	-3	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
	COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
	Tetrahydrofuran	1.1930	1.1661	97.74	100	-2	
#	Chloroform	0.4241	0.4279	20.17	20	1	#
#	1,1,1-Trichloroethane	0.3639	0.3607	19.82	20	-1	#
#	Cyclohexane	0.4073	0.4374	21.47	20	7	#
	1,1-Dichloropropene	0.3336	0.3395	20.36	20	2	
#	Carbon Tetrachloride	0.3049	0.3112	20.41	20	2	#
	Isobutyl Alcohol	0.3424	0.3394	495.65	500	-1	
#	Benzene	1.0326	1.0345	20.04	20	0	#
#	1,2-Dichloroethane	0.3461	0.3416	19.74	20	-1	#
	t-Amyl methyl ether	0.7247	0.7311	20.18	20	1	
	n-Heptane	0.3605	0.3680	20.42	20	2	
	n-Butanol	0.2792	0.2785	997.61	1000	0	
#	Trichloroethene	0.2613	0.2612	19.99	20	0	#
#	Methylcyclohexane	0.4249	0.4329	20.38	20	2	#
#	1,2-Dichloropropane	0.2661	0.2707	20.35	20	2	#
	Dibromomethane	0.1740	0.1735	19.95	20	0	
	1,4-Dioxane	0.0839	0.0858	511.19	500	2	
	Methyl Methacrylate	0.2288	0.2242	19.60	20	-2	
#	Bromodichloromethane	0.3119	0.3091	19.82	20	-1	#
	2-Nitropropane	0.0935	0.0827	17.68	20	-12	
	2-Chloroethyl Vinyl Ether	0.1771	0.1812	20.46	20	2	
#	cis-1,3-Dichloropropene	0.4077	0.4095	20.09	20	0	#
#	4-Methyl-2-pentanone	0.3737	0.3719	99.52	100	0	#
#	Toluene	0.8187	0.8182	19.99	20	0	#
#	trans-1,3-Dichloropropene	0.4697	0.4640	19.75	20	-1	#
	Ethyl Methacrylate	0.4727	0.4884	20.67	20	3	
#	1,1,2-Trichloroethane	0.3177	0.3265	20.55	20	3	#
#	Tetrachloroethene	0.3489	0.3623	20.77	20	4	#
	1,3-Dichloropropane	0.5313	0.5263	19.81	20	-1	
#	2-Hexanone	0.3433	0.3688	107.42	100	7	#
#	Dibromochloromethane	0.3305	0.3353	20.29	20	1	#
#	1,2-Dibromoethane	0.3414	0.3377	19.78	20	-1	#
	1-Chlorohexane	0.4190	0.4185	19.98	20	0	
#	Chlorobenzene	0.9402	0.9522	20.25	20	1	#
	1,1,1,2-Tetrachloroethane	0.3187	0.3157	19.81	20	-1	
#	Ethylbenzene	1.5155	1.5683	20.70	20	3	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.5954	0.6363	42.74	40	7	#
# o-Xylene	0.5758	0.6111	21.22	20	6	#
# Styrene	0.9365	1.0037	21.44	20	7	#
# Bromoform	0.2406	0.2327	19.35	20	-3	#
# Isopropylbenzene	1.4612	1.5847	21.69	20	8	#
Cyclohexanone	0.3124	0.3038	486.31	500	-3	
Bromobenzene	0.7317	0.7299	19.95	20	0	
# 1,1,2,2-Tetrachloroethane	0.9115	0.8947	19.63	20	-2	#
1,2,3-Trichloropropane	0.2784	0.2733	19.63	20	-2	
trans-1,4-Dichloro-2-butene	0.2652	0.2704	101.96	100	2	
n-Propylbenzene	3.1622	3.3324	21.08	20	5	
2-Chlorotoluene	0.6756	0.6871	20.34	20	2	
4-Chlorotoluene	0.7012	0.7093	20.23	20	1	
1,3,5-Trimethylbenzene	2.2850	2.4203	21.18	20	6	
tert-Butylbenzene	0.4697	0.4987	21.23	20	6	
Pentachloroethane	0.4171	0.4280	20.52	20	3	
1,2,4-Trimethylbenzene	2.3625	2.4992	21.16	20	6	
sec-Butylbenzene	2.7821	3.0192	21.70	20	9	
# 1,3-Dichlorobenzene	1.3634	1.4139	20.74	20	4	#
p-Isopropyltoluene	2.3838	2.6505	22.24	20	11	
# 1,4-Dichlorobenzene	1.4309	1.4574	20.37	20	2	#
1,2,3-Trimethylbenzene	2.4547	2.6124	21.28	20	6	
Benzyl Chloride	1.8573	1.8061	19.45	20	-3	
1,3-Diethylbenzene	1.5359	1.6082	20.94	20	5	
1,4-Diethylbenzene	1.6077	1.6862	20.98	20	5	
# 1,2-Dichlorobenzene	1.3723	1.3876	20.22	20	1	#
n-Butylbenzene	1.2248	1.2895	21.06	20	5	
1,2-Diethylbenzene	1.3112	1.3708	20.91	20	5	
# 1,2-Dibromo-3-chloropropane	0.2017	0.1875	18.58	20	-7	#
1,3,5-Trichlorobenzene	1.0338	1.0450	20.22	20	1	
# 1,2,4-Trichlorobenzene	0.9661	0.9908	20.51	20	3	#
Hexachlorobutadiene	0.4457	0.4238	19.02	20	-5	
Naphthalene	3.1272	3.2483	20.77	20	4	
1,2,3-Trichlorobenzene	0.9600	0.9906	20.64	20	3	
2-Methylnaphthalene	1.6214	1.6341	16.06	20	-20	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3250	0.4265	0.4232	0.4095	0.4323	0.4213	0.3967	0.4049	9	AVG #
Chloromethane	#0.3082	0.3704	0.3357	0.3196	0.3179	0.3164	0.2807	0.3212	8	AVG #
1,3-Butadiene	0.7671	0.6878	0.4049	0.3888	0.3035	0.3064	0.2670	0.4465	45	AVG
Vinyl Chloride	#0.2589	0.3027	0.2926	0.2862	0.2988	0.2915	0.2580	0.2841	6	AVG #
Bromomethane	#0.1819	0.2061	0.2013	0.1930	0.1997	0.1910	0.1622	0.1907	8	AVG #
Chloroethane	#0.1175	0.1445	0.1421	0.1380	0.1400	0.1397	0.1198	0.1345	8	AVG #
Dichlorofluoromethane	0.4299	0.4707	0.4598	0.4373	0.4435	0.4467	0.3805	0.4383	7	AVG
n-Pentane	0.3856	0.3626	0.3195	0.3100	0.3069	0.3142	0.2685	0.3239	12	AVG
Trichlorofluoromethane	#0.2945	0.3766	0.3675	0.3543	0.3695	0.3627	0.3104	0.3480	9	AVG #
Ethyl ether	0.2225	0.2597	0.2463	0.2366	0.2477	0.2533	0.2131	0.2399	7	AVG
Freon 123a	0.3357	0.3986	0.3711	0.3740	0.3618	0.3725	0.3287	0.3632	7	AVG
Acrolein	1.6475	1.6888	1.7109	1.5312	1.6360	1.6208	1.2455	1.5830	10	AVG
1,1-Dichloroethene	#0.2392	0.2870	0.2721	0.2744	0.2734	0.2812	0.2650	0.2703	6	AVG #
1,1-Dichloroethene(2)	#0.1060	0.1486	0.1379	0.1399	0.1395	0.1429	0.1337	0.1355	10	AVG #
Acetone	#0.6455	0.7888	0.8532	0.7662	0.8282	0.8438	0.7394	0.7807	9	AVG #
Freon 113	#0.2477	0.3139	0.3071	0.3153	0.3201	0.3291	0.3087	0.3060	9	AVG #
2-Propanol	0.6044	0.6226	0.6414	0.6403	0.6679	0.6685	0.6021	0.6353	4	AVG
Methyl Iodide	0.4576	0.5393	0.5160	0.5273	0.5199	0.5367	0.5118	0.5155	5	AVG
Carbon Disulfide	#0.8669	0.9807	0.9312	0.9538	0.9571	0.9982	0.9687	0.9510	4	AVG #
Allyl Chloride	0.4072	0.4819	0.4628	0.4509	0.4561	0.4712	0.4376	0.4525	5	AVG
Methyl Acetate	#0.4003	0.4289	0.3845	0.3806	0.3802	0.3897	0.3641	0.3898	5	AVG #
Methylene Chloride	#0.2762	0.3184	0.3048	0.3097	0.3068	0.3164	0.3008	0.3047	5	AVG #
t-Butyl alcohol	1.1173	1.1779	1.1695	1.2069	1.2245	1.2107	1.1360	1.1775	3	AVG
Acrylonitrile	0.1791	0.2084	0.2208	0.2009	0.2186	0.2159	0.1963	0.2057	7	AVG
trans-1,2-Dichloroethene	#0.2727	0.3192	0.3027	0.3102	0.3069	0.3129	0.2929	0.3025	5	AVG #
Methyl Tertiary Butyl Ether	#0.7410	0.8407	0.8123	0.8215	0.8126	0.8267	0.7460	0.8001	5	AVG #
n-Hexane	0.3797	0.4640	0.4451	0.4668	0.4628	0.4761	0.4453	0.4485	7	AVG
1,1-Dichloroethane	#0.4868	0.5677	0.5516	0.5604	0.5577	0.5707	0.5384	0.5476	5	AVG #
di-Isopropyl ether	0.9194	1.0171	0.9833	1.0016	0.9910	1.0151	0.9190	0.9781	4	AVG
2-Chloro-1,3-butadiene	0.3849	0.4781	0.4622	0.4769	0.4846	0.4988	0.4710	0.4652	8	AVG
Ethyl t-butyl ether	0.8271	0.9189	0.8794	0.8951	0.8763	0.8852	0.7961	0.8683	5	AVG
cis-1,2-Dichloroethene	#0.3076	0.3563	0.3454	0.3525	0.3469	0.3563	0.3301	0.3422	5	AVG #
2-Butanone	#0.3011	0.3009	0.3154	0.2879	0.3088	0.3054	0.2767	0.2994	4	AVG #
2,2-Dichloropropane	0.4139	0.4790	0.4571	0.4703	0.4707	0.4848	0.4586	0.4620	5	AVG
Propionitrile	1.1954	1.2956	1.2810	1.2795	1.2867	1.3607	1.2742	1.2819	4	AVG
Methacrylonitrile	0.1908	0.2081	0.2069	0.2084	0.2086	0.2150	0.1965	0.2049	4	AVG
Bromochloromethane	0.1419	0.1671	0.1601	0.1594	0.1560	0.1628	0.1497	0.1567	5	AVG
Tetrahydrofuran	1.0611	1.1764	1.2109	1.0939	1.2096	1.2535	1.1044	1.1586	6	AVG
Chloroform	#0.4885	0.5732	0.5473	0.5597	0.5579	0.5732	0.5450	0.5493	5	AVG #
1,1,1-Trichloroethane	#0.4198	0.5074	0.4874	0.5066	0.5068	0.5254	0.5080	0.4945	7	AVG #
Cyclohexane	#0.4921	0.5816	0.5699	0.5913	0.5947	0.6153	0.5866	0.5759	7	AVG #
Cyclohexane(2)	#0.4033	0.4847	0.4798	0.4846	0.4909	0.5071	0.4846	0.4764	7	AVG #
Cyclohexane(3)	#0.1431	0.1860	0.1783	0.1818	0.1857	0.1915	0.1841	0.1786	9	AVG #
1,1-Dichloropropene	0.3913	0.4688	0.4469	0.4558	0.4544	0.4717	0.4469	0.4480	6	AVG
Carbon Tetrachloride	#0.3546	0.4308	0.4193	0.4424	0.4508	0.4702	0.4521	0.4315	9	AVG #
Isobutyl Alcohol	0.3629	0.3875	0.3900	0.3957	0.4136	0.4118	0.3861	0.3925	4	AVG
Benzene	#1.2062	1.3955	1.3439	1.3671	1.3518	1.3834	1.2764	1.3320	5	AVG #
1,2-Dichloroethane	#0.4318	0.4233	0.3988	0.4055	0.4000	0.4145	0.3899	0.4091	4	AVG #
1,2-Dichloroethane(2)	#0.0203	0.0381	0.0357	0.0369	0.0367	0.0383	0.0362	0.0346	18	AVG #<-
t-Amyl methyl ether	0.8162	0.9187	0.8895	0.9005	0.8865	0.8848	0.7688	0.8664	6	AVG
n-Heptane	0.4147	0.4545	0.4202	0.4352	0.4366	0.4554	0.4163	0.4333	4	AVG
n-Butanol	0.2899	0.3287	0.3321	0.3439	0.3681	0.3593	0.3489	0.3387	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3148	0.3610	0.3482	0.3568	0.3543	0.3658	0.3459	0.3496	5	AVG #
Methylcyclohexane	#0.4850	0.5833	0.5508	0.5607	0.5606	0.5935	0.5549	0.5555	6	AVG #
Methylcyclohexane(2)	#0.2002	0.2512	0.2335	0.2360	0.2367	0.2524	0.2364	0.2352	7	AVG #
1,2-Dichloropropane	#0.2979	0.3424	0.3349	0.3433	0.3407	0.3503	0.3247	0.3334	5	AVG #
Dibromomethane	0.1841	0.2141	0.2088	0.2146	0.2151	0.2235	0.2095	0.2100	6	AVG
1,4-Dioxane	0.0563	0.0855	0.0866	0.0887	0.0879	0.0903	0.0928	0.0840	15	AVG
Methyl Methacrylate	0.2661	0.3033	0.3036	0.3174	0.3274	0.3429	0.3232	0.3120	8	AVG
Bromodichloromethane	#0.3346	0.3947	0.3946	0.4157	0.4242	0.4494	0.4367	0.4071	9	AVG #
2-Nitropropane	0.1216	0.1315	0.1444	0.1356	0.1535	0.1555	0.1450	0.1410	9	AVG
2-Chloroethyl Vinyl Ether	0.2203	0.2544	0.2513	0.2615	0.2688	0.2827	0.2674	0.2580	8	AVG
cis-1,3-Dichloropropene	#0.4197	0.4998	0.4976	0.5297	0.5421	0.5682	0.5444	0.5145	9	AVG #
4-Methyl-2-pentanone	#0.5069	0.5701	0.6119	0.5613	0.6248	0.6191	0.5461	0.5771	8	AVG #
Toluene	#0.9992	1.1475	1.1077	1.1178	1.1041	1.1109	0.9973	1.0835	6	AVG #
trans-1,3-Dichloropropene	#0.4674	0.5542	0.5670	0.6006	0.6195	0.6492	0.6115	0.5813	10	AVG #
Ethyl Methacrylate	0.5576	0.6389	0.6557	0.6810	0.7019	0.7241	0.6681	0.6610	8	AVG
1,1,2-Trichloroethane	#0.3543	0.3972	0.3886	0.3964	0.3956	0.4054	0.3741	0.3873	5	AVG #
Tetrachloroethene	#0.4109	0.4840	0.4786	0.4692	0.4630	0.4723	0.4388	0.4595	6	AVG #
1,3-Dichloropropane	0.5970	0.6581	0.6478	0.6532	0.6524	0.6703	0.6234	0.6431	4	AVG
2-Hexanone	#0.5011	0.5634	0.6203	0.5644	0.6306	0.6156	0.5343	0.5757	8	AVG #
Dibromochloromethane	#0.3212	0.3871	0.4003	0.4234	0.4392	0.4622	0.4358	0.4099	11	AVG #
1,2-Dibromoethane	#0.3768	0.4263	0.4302	0.4362	0.4418	0.4541	0.4237	0.4270	6	AVG #
1-Chlorohexane	0.6263	0.6562	0.6327	0.6409	0.6455	0.6521	0.5571	0.6301	5	AVG
Chlorobenzene	#1.1108	1.2413	1.1993	1.2163	1.2047	1.2245	1.0345	1.1759	6	AVG #
1,1,1,2-Tetrachloroethane	0.3424	0.4080	0.4082	0.4271	0.4339	0.4417	0.3785	0.4057	9	AVG
Ethylbenzene	#1.8868	2.1933	2.1574	2.2097	2.1969	2.2103	1.8107	2.0950	8	AVG #
m+p-Xylene	#0.7422	0.8509	0.8358	0.8499	0.8426	0.8385	0.6667	0.8038	9	AVG #
o-Xylene	#0.7151	0.8184	0.8078	0.8256	0.8250	0.8292	0.6861	0.7867	8	AVG #
Styrene	#1.0386	1.2698	1.2980	1.3570	1.3724	1.3858	1.1539	1.2679	10	AVG #
Bromoform	#0.2026	0.2648	0.2822	0.3055	0.3313	0.3509	0.3387	0.2966	17	AVG #
Isopropylbenzene	#1.8530	2.1682	2.1334	2.1676	2.1562	2.1677	1.8060	2.0646	8	AVG #
Cyclohexanone	0.3346	0.3785	0.3793	0.3871	0.3974	0.4159	0.4085	0.3859	7	AVG
Bromobenzene	0.8858	0.9950	0.9675	0.9859	0.9790	1.0004	0.8588	0.9532	6	AVG
1,1,2,2-Tetrachloroethane	#1.1337	1.3479	1.2939	1.3302	1.3550	1.3978	1.1960	1.2935	7	AVG #
1,2,3-Trichloropropane	0.3613	0.3946	0.3823	0.3915	0.3964	0.3965	0.3437	0.3809	5	AVG
trans-1,4-Dichloro-2-butene	0.1124	0.1725	0.1974	0.2289	0.2572	0.2866	0.2862	0.2202	29	1STDEG
n-Propylbenzene	4.1377	5.0093	4.8710	4.9942	4.9587	4.9680	3.8666	4.6865	10	AVG
2-Chlorotoluene	0.8693	0.9996	0.9755	0.9958	0.9816	1.0025	0.9001	0.9606	6	AVG
4-Chlorotoluene	0.8631	1.0032	0.9905	1.0103	1.0063	1.0201	0.8991	0.9704	6	AVG
1,3,5-Trimethylbenzene	2.8614	3.4243	3.3941	3.5011	3.4757	3.5301	2.8741	3.2944	9	AVG
tert-Butylbenzene	0.5925	0.6731	0.6511	0.6755	0.6863	0.6975	0.6072	0.6547	6	AVG
Pentachloroethane	0.4145	0.5395	0.5220	0.5646	0.5756	0.6025	0.5438	0.5375	11	AVG
1,2,4-Trimethylbenzene	2.9495	3.5118	3.4920	3.6093	3.5933	3.6435	2.9484	3.3925	9	AVG
sec-Butylbenzene	3.6416	4.3450	4.1870	4.3216	4.2930	4.3534	3.4501	4.0845	9	AVG
1,3-Dichlorobenzene	#1.6682	1.8837	1.8318	1.8444	1.8396	1.8724	1.6104	1.7929	6	AVG #
p-Isopropyltoluene	2.9264	3.5689	3.5105	3.6001	3.6197	3.6510	2.9665	3.4062	9	AVG
1,4-Dichlorobenzene	#1.7510	1.9001	1.8617	1.8814	1.8653	1.8798	1.5978	1.8196	6	AVG #
1,2,3-Trimethylbenzene	2.9599	3.5124	3.3584	3.3686	3.3577	3.4363	2.8016	3.2564	8	AVG
Benzyl Chloride	1.7319	2.2549	2.4434	2.6619	2.7965	2.8961	2.5863	2.4816	16	AVG
1,3-Diethylbenzene	1.6804	2.1026	2.0355	2.0417	2.0306	2.1028	1.7829	1.9681	8	AVG
1,4-Diethylbenzene	1.7348	2.2168	2.1064	2.1157	2.1084	2.1731	1.7942	2.0356	9	AVG
1,2-Dichlorobenzene	#1.6224	1.7896	1.7522	1.7851	1.7633	1.7935	1.5494	1.7222	6	AVG #
n-Butylbenzene	1.5438	1.7996	1.7385	1.7993	1.7969	1.8465	1.5022	1.7181	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

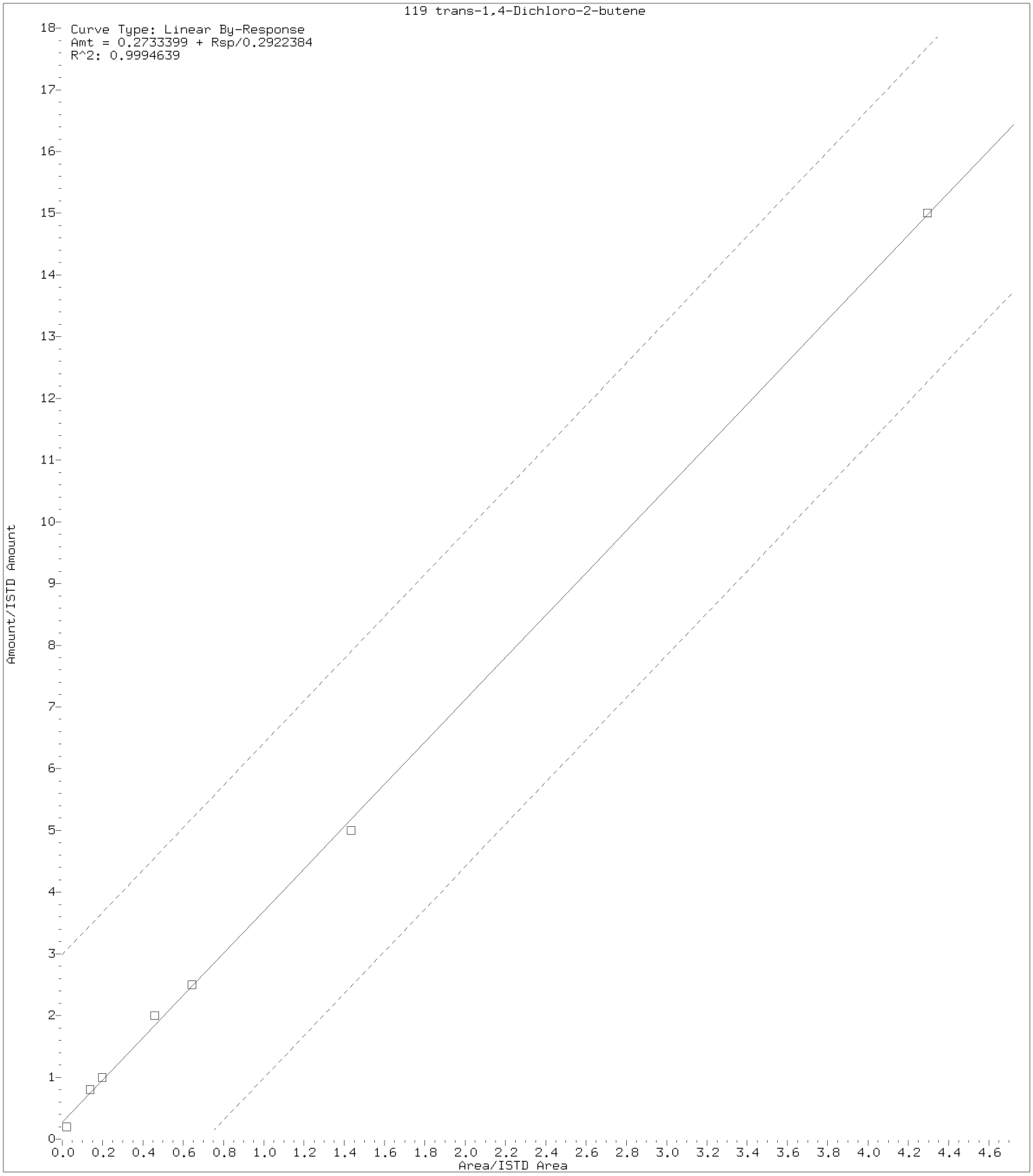
LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.4953	1.7921	1.7091	1.7222	1.6962	1.7516	1.4848	1.6645	7	AVG
1,2-Dibromo-3-chloropropane	#0.2592	0.3074	0.3150	0.3362	0.3563	0.3626	0.3492	0.3266	11	AVG #
1,3,5-Trichlorobenzene	1.0599	1.1510	1.1311	1.1715	1.1685	1.2021	1.0786	1.1375	5	AVG
1,2,4-Trichlorobenzene	#0.9677	1.0946	1.0697	1.0907	1.1027	1.1358	1.0195	1.0687	5	AVG #
Hexachlorobutadiene	0.3727	0.4147	0.4034	0.4211	0.4201	0.4361	0.4089	0.4110	5	AVG
Naphthalene	3.8142	4.3363	4.3353	4.4846	4.5265	4.5548	3.5723	4.2320	9	AVG
1,2,3-Trichlorobenzene	0.9804	1.0849	1.0540	1.0824	1.0902	1.1186	0.9921	1.0575	5	AVG
2-Methylnaphthalene	1.7785	2.1215	2.2024	2.3299	2.3869	2.4989	2.0727	2.1987	11	AVG
Dibromofluoromethane	0.2469	0.2479	0.2481	0.2493	0.2492	0.2505	0.2513	0.2490	1	AVG
Dibromofluoromethane(2)	0.2540	0.2552	0.2541	0.2543	0.2544	0.2560	0.2569	0.2550	0	AVG
1,2-Dichloroethane-d4	0.0557	0.0560	0.0558	0.0557	0.0559	0.0557	0.0550	0.0557	1	AVG
1,2-Dichloroethane-d4(2)	0.2726	0.2732	0.2713	0.2715	0.2725	0.2728	0.2723	0.2723	0	AVG
1,2-Dichloroethane-d4(3)	0.0358	0.0359	0.0355	0.0360	0.0357	0.0359	0.0349	0.0357	1	AVG
Toluene-d8	1.2511	1.2382	1.2417	1.2273	1.2232	1.2188	1.2010	1.2288	1	AVG
Toluene-d8(2)	0.8221	0.8125	0.8162	0.8056	0.8064	0.8044	0.7964	0.8091	1	AVG
4-Bromofluorobenzene	0.5144	0.5106	0.5128	0.5125	0.5201	0.5209	0.5328	0.5177	1	AVG
4-Bromofluorobenzene(2)	0.4030	0.4031	0.4002	0.3999	0.4030	0.4027	0.4153	0.4039	1	AVG

Average %RSD 7

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:37.
Target 3.5 esignature user ID: clm27445

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i01.d	VSTD300
/chem2/HP26285.i/20apr21a.b/5a21i02.d	VSTD100
/chem2/HP26285.i/20apr21a.b/5a21i03.d	VSTD050
/chem2/HP26285.i/20apr21a.b/5a21i04.d	VSTD020
/chem2/HP26285.i/20apr21a.b/5a21i05.d	VSTD010
/chem2/HP26285.i/20apr21a.b/5a21i06.d	VSTD004
/chem2/HP26285.i/20apr21a.b/5a21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	363110	347877	370304	374444	368547	345244	361518	361578	3	Yes
Fluorobenzene	1056605	1036304	1062743	1075151	1065691	1010545	1067423	1053495	2	Yes
Chlorobenzene-d5	869195	831366	842446	845669	825598	782414	814804	830213	3	Yes
1,4-Dichlorobenzene-d4	462526	432195	435155	434870	424651	399968	420878	430035	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. RT
t-Butyl alcohol-d10	3.490	3.472	3.478	3.484	3.478	3.490	3.484	3.482
Fluorobenzene	6.928	6.928	6.934	6.929	6.928	6.928	6.928	6.929
Chlorobenzene-d5	10.684	10.684	10.684	10.684	10.684	10.678	10.678	10.682
1,4-Dichlorobenzene-d4	12.671	12.671	12.671	12.671	12.671	12.671	12.671	12.671

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/23/2020 at 07:23.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.3713	18.34	20	-8	#
# Chloromethane	0.3212	0.3445	21.45	20	7	#
1,3-Butadiene	0.4465	0.4229	18.94	20	-5	
# Vinyl Chloride	0.2841	0.3123	21.98	20	10	#
# Bromomethane	0.1907	0.1598	16.75	20	-16	#
# Chloroethane	0.1345	0.1449	21.55	20	8	#
Dichlorofluoromethane	0.4383	0.4574	20.87	20	4	
n-Pentane	0.3239	0.3319	20.49	20	2	
# Trichlorofluoromethane	0.3480	0.4090	23.51	20	18	#
Ethyl ether	0.2399	0.2386	19.89	20	-1	
Freon 123a	0.3632	0.3784	20.84	20	4	
Acrolein	1.5830	1.4407	136.52	150	-9	
# 1,1-Dichloroethene	0.2703	0.2871	21.24	20	6	#
# Acetone	0.7807	0.8193	157.42	150	5	#
# Freon 113	0.3060	0.3265	21.34	20	7	#
2-Propanol	0.6353	0.6615	156.18	150	4	
Methyl Iodide	0.5155	0.5107	19.81	20	-1	
# Carbon Disulfide	0.9510	0.9385	19.74	20	-1	#
Allyl Chloride	0.4525	0.5034	22.25	20	11	
# Methyl Acetate	0.3898	0.4209	21.60	20	8	#
# Methylene Chloride	0.3047	0.3159	20.73	20	4	#
t-Butyl alcohol	1.1775	1.2466	211.73	200	6	
Acrylonitrile	0.2057	0.1993	96.88	100	-3	
# trans-1,2-Dichloroethene	0.3025	0.3064	20.26	20	1	#
# Methyl Tertiary Butyl Ether	0.8001	0.8076	20.19	20	1	#
n-Hexane	0.4485	0.4757	21.21	20	6	
# 1,1-Dichloroethane	0.5476	0.5553	20.28	20	1	#
di-Isopropyl ether	0.9781	0.9871	20.18	20	1	
2-Chloro-1,3-butadiene	0.4652	0.4709	20.25	20	1	
Ethyl t-butyl ether	0.8683	0.8738	20.13	20	1	
# cis-1,2-Dichloroethene	0.3422	0.3657	21.38	20	7	#
# 2-Butanone	0.2994	0.2977	149.12	150	-1	#
2,2-Dichloropropane	0.4620	0.4617	19.98	20	0	
Propionitrile	1.2819	1.2758	149.29	150	0	
Methacrylonitrile	0.2049	0.2061	150.90	150	1	
Bromochloromethane	0.1567	0.1675	21.38	20	7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1586	1.1347	97.94	100	-2	
#	Chloroform	0.5493	0.5516	20.09	20	0	#
#	1,1,1-Trichloroethane	0.4945	0.4942	19.99	20	0	#
#	Cyclohexane	0.5759	0.5737	19.92	20	0	#
	1,1-Dichloropropene	0.4480	0.4474	19.98	20	0	
#	Carbon Tetrachloride	0.4315	0.4376	20.28	20	1	#
	Isobutyl Alcohol	0.3925	0.3866	492.46	500	-2	
#	Benzene	1.3320	1.3247	19.89	20	-1	#
#	1,2-Dichloroethane	0.4091	0.3995	19.53	20	-2	#
	t-Amyl methyl ether	0.8664	0.8773	20.25	20	1	
	n-Heptane	0.4333	0.4133	19.08	20	-5	
	n-Butanol	0.3387	0.3329	982.85	1000	-2	
#	Trichloroethene	0.3496	0.3489	19.96	20	0	#
#	Methylcyclohexane	0.5555	0.5947	21.41	20	7	#
#	1,2-Dichloropropane	0.3334	0.3403	20.41	20	2	#
	Dibromomethane	0.2100	0.2116	20.16	20	1	
	1,4-Dioxane	0.0840	0.0874	520.44	500	4	
	Methyl Methacrylate	0.3120	0.3249	20.83	20	4	
#	Bromodichloromethane	0.4071	0.4063	19.96	20	0	#
	2-Nitropropane	0.1410	0.1305	18.51	20	-7	
	2-Chloroethyl Vinyl Ether	0.2580	0.2595	20.11	20	1	
#	cis-1,3-Dichloropropene	0.5145	0.5055	19.65	20	-2	#
#	4-Methyl-2-pentanone	0.5771	0.5701	98.77	100	-1	#
#	Toluene	1.0835	1.1093	20.48	20	2	#
#	trans-1,3-Dichloropropene	0.5813	0.5787	19.91	20	0	#
	Ethyl Methacrylate	0.6610	0.6319	19.12	20	-4	
#	1,1,2-Trichloroethane	0.3873	0.4031	20.81	20	4	#
#	Tetrachloroethene	0.4595	0.4869	21.19	20	6	#
	1,3-Dichloropropane	0.6431	0.6389	19.87	20	-1	
#	2-Hexanone	0.5757	0.5977	103.83	100	4	#
#	Dibromochloromethane	0.4099	0.4280	20.88	20	4	#
#	1,2-Dibromoethane	0.4270	0.4344	20.35	20	2	#
	1-Chlorohexane	0.6301	0.6259	19.87	20	-1	
#	Chlorobenzene	1.1759	1.2141	20.65	20	3	#
	1,1,1,2-Tetrachloroethane	0.4057	0.4181	20.61	20	3	
#	Ethylbenzene	2.0950	2.1694	20.71	20	4	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	m+p-Xylene	0.8038	0.8477	42.18	40	5	#
#	o-Xylene	0.7867	0.8195	20.83	20	4	#
#	Styrene	1.2679	1.3376	21.10	20	5	#
#	Bromoform	0.2966	0.2946	19.87	20	-1	#
#	Isopropylbenzene	2.0646	2.1743	21.06	20	5	#
	Cyclohexanone	0.3859	0.3679	476.66	500	-5	
	Bromobenzene	0.9532	0.9905	20.78	20	4	
#	1,1,2,2-Tetrachloroethane	1.2935	1.3483	20.85	20	4	#
	1,2,3-Trichloropropane	0.3809	0.3947	20.73	20	4	
	trans-1,4-Dichloro-2-butene	0.2202	0.2397	95.68	100	-4	
	n-Propylbenzene	4.6865	4.9784	21.25	20	6	
	2-Chlorotoluene	0.9606	0.9849	20.51	20	3	
	4-Chlorotoluene	0.9704	1.0028	20.67	20	3	
	1,3,5-Trimethylbenzene	3.2944	3.4482	20.93	20	5	
	tert-Butylbenzene	0.6547	0.6841	20.90	20	4	
	Pentachloroethane	0.5375	0.5838	21.72	20	9	
	1,2,4-Trimethylbenzene	3.3925	3.5071	20.68	20	3	
	sec-Butylbenzene	4.0845	4.2601	20.86	20	4	
#	1,3-Dichlorobenzene	1.7929	1.8468	20.60	20	3	#
	p-Isopropyltoluene	3.4062	3.5759	21.00	20	5	
#	1,4-Dichlorobenzene	1.8196	1.8946	20.82	20	4	#
	1,2,3-Trimethylbenzene	3.2564	3.6816	22.61	20	13	
	Benzyl Chloride	2.4816	2.2494	18.13	20	-9	
	1,3-Diethylbenzene	1.9681	2.1587	21.94	20	10	
	1,4-Diethylbenzene	2.0356	2.2309	21.92	20	10	
#	1,2-Dichlorobenzene	1.7222	1.7928	20.82	20	4	#
	n-Butylbenzene	1.7181	1.7634	20.53	20	3	
	1,2-Diethylbenzene	1.6645	1.8071	21.71	20	9	
#	1,2-Dibromo-3-chloropropane	0.3266	0.3324	20.36	20	2	#
	1,3,5-Trichlorobenzene	1.1375	1.1537	20.28	20	1	
#	1,2,4-Trichlorobenzene	1.0687	1.0982	20.55	20	3	#
	Hexachlorobutadiene	0.4110	0.4030	19.61	20	-2	
	Naphthalene	4.2320	4.3798	20.70	20	3	
	1,2,3-Trichlorobenzene	1.0575	1.0700	20.24	20	1	
	2-Methylnaphthalene	2.1987	2.3281	21.18	20	6	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

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Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i07.d
/chem/HP09915.i/20may04i.b/ly04i06.d
/chem/HP09915.i/20may04i.b/ly04i05.d
/chem/HP09915.i/20may04i.b/ly04i04.d
/chem/HP09915.i/20may04i.b/ly04i03.d
/chem/HP09915.i/20may04i.b/ly04i02.d
/chem/HP09915.i/20may04i.b/ly04i01.d

File /chem/HP09915.i/20may04i.b/ly04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP09915.i/20may29a.b/ly29c01.d

RT Summary

Internal Standard Name	File ID: ly29c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.493	4.487	Yes
Fluorobenzene	7.946	7.950	Yes
Chlorobenzene-d5	11.351	11.355	Yes
1,4-Dichlorobenzene-d4	13.216	13.216	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ly29c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	377436	302938	151469	605876	Yes
Fluorobenzene	1693947	1335958	667979	2671916	Yes
Chlorobenzene-d5	1291203	1078517	539258	2157034	Yes
1,4-Dichlorobenzene-d4	703456	608929	304464	1217858	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments:

report generated on 05/29/2020 at 10:14

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/29/20 Time: 09:50

Lab File ID: ly29c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.2947	42.97	50	-14	#
# Chloromethane	0.3201	0.3292	51.41	50	3	#
1,3-Butadiene	0.2054	0.3054	74.36	50	49	<-
# Vinyl Chloride	0.3089	0.3082	49.88	50	0	#
# Bromomethane	0.2227	0.2131	47.84	50	-4	#
# Chloroethane	0.1725	0.1750	50.72	50	1	#
Dichlorofluoromethane	0.3720	0.3724	50.04	50	0	
n-Pentane	0.3168	0.3716	58.65	50	17	
# Trichlorofluoromethane	0.3374	0.3163	46.87	50	-6	#
Ethyl ether	0.2384	0.2136	44.79	50	-10	
Freon 123a	0.2733	0.2534	46.36	50	-7	
Acrolein	2.0567	1.7362	422.09	500	-16	
# 1,1-Dichloroethene	0.2152	0.1924	44.70	50	-11	#
# 1,1-Dichloroethene(2)	0.1025	0.0964	47.02	50	-6	#<-
# Acetone	0.9381	0.7915	84.37	100	-16	#
# Freon 113	0.2232	0.1979	44.32	50	-11	#
2-Propanol	0.5979	0.5908	247.02	250	-1	
Methyl Iodide	0.4147	0.3834	46.22	50	-8	
# Carbon Disulfide	0.7245	0.6966	48.08	50	-4	#
Allyl Chloride	0.3487	0.3394	48.66	50	-3	
# Methyl Acetate	0.2744	0.2751	50.11	50	0	#
# Methylene Chloride	0.2560	0.2389	46.66	50	-7	#
t-Butyl alcohol	1.0093	0.9476	234.73	250	-6	
Acrylonitrile	0.1520	0.1417	46.61	50	-7	
# trans-1,2-Dichloroethene	0.2475	0.2264	45.73	50	-9	#
# Methyl Tertiary Butyl Ether	0.7379	0.6763	45.82	50	-8	#
n-Hexane	0.3467	0.3377	48.71	50	-3	
# 1,1-Dichloroethane	0.4342	0.4107	47.30	50	-5	#
di-Isopropyl ether	0.7635	0.7789	51.00	50	2	
2-Chloro-1,3-butadiene	0.3462	0.3403	49.15	50	-2	
Ethyl t-butyl ether	0.7094	0.6853	48.30	50	-3	
# cis-1,2-Dichloroethene	0.2776	0.2594	46.72	50	-7	#
# 2-Butanone	0.1845	0.1745	94.58	100	-5	#
2,2-Dichloropropane	0.3355	0.3077	45.85	50	-8	
Propionitrile	1.3635	1.3664	250.52	250	0	
Methacrylonitrile	0.1524	0.1571	128.84	125	3	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/29/20 Time: 09:50

Lab File ID: ly29c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
	COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
	Bromochloromethane	0.1432	0.1361	47.52	50	-5	
|	Tetrahydrofuran	1.1930	1.0699	89.68	100	-10	
#	Chloroform	0.4241	0.3931	46.34	50	-7	#
#	1,1,1-Trichloroethane	0.3639	0.3288	45.18	50	-10	#
#	Cyclohexane	0.4073	0.3963	48.65	50	-3	#
#	Cyclohexane(2)	0.3555	0.3299	46.39	50	-7	#
#	Cyclohexane(3)	0.1266	0.1194	47.16	50	-6	#
|	1,1-Dichloropropene	0.3336	0.3151	47.24	50	-6	
#	Carbon Tetrachloride	0.3049	0.2826	46.34	50	-7	#
|	Isobutyl Alcohol	0.3424	0.3376	616.35	625	-1	
#	Benzene	1.0326	0.9733	47.13	50	-6	#
#	1,2-Dichloroethane	0.3461	0.3147	45.46	50	-9	#
#	1,2-Dichloroethane(2)	0.0337	0.0316	46.90	50	-6	#<-
|	t-Amyl methyl ether	0.7247	0.7069	48.77	50	-2	
|	n-Heptane	0.3605	0.3599	49.92	50	0	
|	n-Butanol	0.2792	0.2874	1287.05	1250	3	
#	Trichloroethene	0.2613	0.2411	46.13	50	-8	#
#	Methylcyclohexane	0.4249	0.4000	47.07	50	-6	#
#	Methylcyclohexane(2)	0.1922	0.1781	46.34	50	-7	#
#	1,2-Dichloropropane	0.2661	0.2634	49.50	50	-1	#
|	Dibromomethane	0.1740	0.1699	48.81	50	-2	
|	1,4-Dioxane	0.0839	0.0890	662.48	625	6	
|	Methyl Methacrylate	0.2288	0.2390	52.24	50	4	
#	Bromodichloromethane	0.3119	0.3003	48.14	50	-4	#
|	2-Nitropropane	0.0935	0.0869	92.86	100	-7	
|	2-Chloroethyl Vinyl Ether	0.1771	0.1961	55.34	50	11	
#	cis-1,3-Dichloropropene	0.4077	0.4087	50.13	50	0	#
#	4-Methyl-2-pentanone	0.3737	0.3635	97.27	100	-3	#
#	Toluene	0.8187	0.8049	49.15	50	-2	#
#	trans-1,3-Dichloropropene	0.4697	0.4910	52.27	50	5	#
|	Ethyl Methacrylate	0.4727	0.5372	56.82	50	14	
#	1,1,2-Trichloroethane	0.3177	0.3205	50.44	50	1	#
#	Tetrachloroethene	0.3489	0.3341	47.88	50	-4	#
|	1,3-Dichloropropane	0.5313	0.5475	51.52	50	3	
#	2-Hexanone	0.3433	0.3471	101.12	100	1	#
#	Dibromochloromethane	0.3305	0.3397	51.39	50	3	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/29/20 Time: 09:50

Lab File ID: ly29c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# 1,2-Dibromoethane	0.3414	0.3459	50.65	50	1	#
1-Chlorohexane	0.4190	0.4214	50.29	50	1	
# Chlorobenzene	0.9402	0.9161	48.72	50	-3	#
1,1,1,2-Tetrachloroethane	0.3187	0.3204	50.26	50	1	
# Ethylbenzene	1.5155	1.5421	50.88	50	2	#
# m+p-Xylene	0.5954	0.6118	102.74	100	3	#
# o-Xylene	0.5758	0.5976	51.89	50	4	#
# Styrene	0.9365	1.0181	54.36	50	9	#
# Bromoform	0.2406	0.2529	52.57	50	5	#
# Isopropylbenzene	1.4612	1.5306	52.37	50	5	#
Cyclohexanone	0.3124	0.2754	551.02	625	-12	
Bromobenzene	0.7317	0.7414	50.66	50	1	
# 1,1,2,2-Tetrachloroethane	0.9115	0.9812	53.82	50	8	#
1,2,3-Trichloropropane	0.2784	0.2928	52.59	50	5	
trans-1,4-Dichloro-2-butene	0.2652	0.1990	93.82	125	-25	<-
n-Propylbenzene	3.1622	3.3209	52.51	50	5	
2-Chlorotoluene	0.6756	0.6944	51.39	50	3	
4-Chlorotoluene	0.7012	0.7259	51.76	50	4	
1,3,5-Trimethylbenzene	2.2850	2.4455	53.51	50	7	
tert-Butylbenzene	0.4697	0.5074	54.01	50	8	
Pentachloroethane	0.4171	0.4428	53.08	50	6	
1,2,4-Trimethylbenzene	2.3625	2.5762	54.52	50	9	
sec-Butylbenzene	2.7821	3.0381	54.60	50	9	
# 1,3-Dichlorobenzene	1.3634	1.4078	51.63	50	3	#
p-Isopropyltoluene	2.3838	2.6554	55.70	50	11	
# 1,4-Dichlorobenzene	1.4309	1.4467	50.55	50	1	#
1,2,3-Trimethylbenzene	2.4547	2.5777	52.51	50	5	
Benzyl Chloride	1.8573	2.0168	54.29	50	9	
1,3-Diethylbenzene	1.5359	1.6157	52.60	50	5	
1,4-Diethylbenzene	1.6077	1.6877	52.49	50	5	
# 1,2-Dichlorobenzene	1.3723	1.3946	50.81	50	2	#
n-Butylbenzene	1.2248	1.3182	53.82	50	8	
1,2-Diethylbenzene	1.3112	1.3717	52.31	50	5	
# 1,2-Dibromo-3-chloropropane	0.2017	0.2113	52.37	50	5	#
1,3,5-Trichlorobenzene	1.0338	1.0238	49.52	50	-1	
# 1,2,4-Trichlorobenzene	0.9661	0.9589	49.63	50	-1	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/29/20 Time: 09:50

Lab File ID: ly29c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	$\overline{RRF}$	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Hexachlorobutadiene	0.4457	0.3892	43.66	50	-13
Naphthalene	3.1272	3.3579	53.69	50	7
1,2,3-Trichlorobenzene	0.9600	0.9533	49.65	50	-1
2-Methylnaphthalene	1.6214	1.8335	42.19	50	-16
Dibromofluoromethane	0.2519	0.2441	48.46	50	-3
Dibromofluoromethane(2)	0.2575	0.2486	48.27	50	-3
1,2-Dichloroethane-d4	0.0639	0.0625	48.92	50	-2
1,2-Dichloroethane-d4(2)	0.2837	0.2785	49.08	50	-2
1,2-Dichloroethane-d4(3)	0.0407	0.0399	49.06	50	-2
Toluene-d8	1.2845	1.3098	50.98	50	2
Toluene-d8(2)	0.8336	0.8502	50.99	50	2
4-Bromofluorobenzene	0.4942	0.4839	48.95	50	-2
4-Bromofluorobenzene(2)	0.4237	0.4026	47.51	50	-5

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i07.d
/chem/HP09915.i/20may04i.b/ly04i06.d
/chem/HP09915.i/20may04i.b/ly04i05.d
/chem/HP09915.i/20may04i.b/ly04i04.d
/chem/HP09915.i/20may04i.b/ly04i03.d
/chem/HP09915.i/20may04i.b/ly04i02.d
/chem/HP09915.i/20may04i.b/ly04i01.d

File /chem/HP09915.i/20may04i.b/ly04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP09915.i/20may31a.b/ly31c01.d

RT Summary

Internal Standard Name	File ID: ly31c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.493	4.487	Yes
Fluorobenzene	7.946	7.950	Yes
Chlorobenzene-d5	11.351	11.355	Yes
1,4-Dichlorobenzene-d4	13.216	13.216	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: ly31c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	332568	302938	151469	605876	Yes
Fluorobenzene	1519847	1335958	667979	2671916	Yes
Chlorobenzene-d5	1154765	1078517	539258	2157034	Yes
1,4-Dichlorobenzene-d4	638424	608929	304464	1217858	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/31/2020 at 12:19

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/31/20 Time: 11:23

Lab File ID: ly31c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.2963	43.20	50	-14	#
# Chloromethane	0.3201	0.3600	56.23	50	12	#
1,3-Butadiene	0.2054	0.2799	68.14	50	36	<-
# Vinyl Chloride	0.3089	0.3388	54.83	50	10	#
# Bromomethane	0.2227	0.2310	51.85	50	4	#
# Chloroethane	0.1725	0.1937	56.15	50	12	#
n-Pentane	0.3168	0.3884	61.30	50	23	<-
# Trichlorofluoromethane	0.3374	0.3374	50.00	50	0	#
Ethyl ether	0.2384	0.2111	44.28	50	-11	
Freon 123a	0.2733	0.2824	51.66	50	3	
Acrolein	2.0567	1.8754	455.92	500	-9	
# 1,1-Dichloroethene	0.2152	0.2037	47.33	50	-5	#
# 1,1-Dichloroethene(2)	0.1025	0.1049	51.16	50	2	#
# Acetone	0.9381	0.8495	90.55	100	-9	#
# Freon 113	0.2232	0.2000	44.79	50	-10	#
2-Propanol	0.5979	0.6811	284.76	250	14	
Methyl Iodide	0.4147	0.3953	47.66	50	-5	
# Carbon Disulfide	0.7245	0.7569	52.23	50	4	#
Allyl Chloride	0.3487	0.3787	54.31	50	9	
# Methyl Acetate	0.2744	0.2845	51.83	50	4	#
# Methylene Chloride	0.2560	0.2534	49.50	50	-1	#
t-Butyl alcohol	1.0093	1.0767	266.70	250	7	
Acrylonitrile	0.1520	0.1476	48.55	50	-3	
# trans-1,2-Dichloroethene	0.2475	0.2422	48.93	50	-2	#
# Methyl Tertiary Butyl Ether	0.7379	0.6882	46.63	50	-7	#
n-Hexane	0.3467	0.3274	47.22	50	-6	
# 1,1-Dichloroethane	0.4342	0.4476	51.54	50	3	#
di-Isopropyl ether	0.7635	0.8196	53.67	50	7	
2-Chloro-1,3-butadiene	0.3462	0.3712	53.60	50	7	
Ethyl t-butyl ether	0.7094	0.6955	49.02	50	-2	
# cis-1,2-Dichloroethene	0.2776	0.2730	49.17	50	-2	#
# 2-Butanone	0.1845	0.1831	99.22	100	-1	#
2,2-Dichloropropane	0.3355	0.3351	49.93	50	0	
Propionitrile	1.3635	1.5328	281.03	250	12	
Methacrylonitrile	0.1524	0.1654	135.67	125	9	
Bromochloromethane	0.1432	0.1377	48.07	50	-4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/31/20 Time: 11:23

Lab File ID: ly31c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1930	1.1064	92.74	100	-7	
# Chloroform	0.4241	0.4233	49.90	50	0	#
# 1,1,1-Trichloroethane	0.3639	0.3539	48.62	50	-3	#
# Cyclohexane	0.4073	0.4024	49.40	50	-1	#
# Cyclohexane(2)	0.3555	0.3263	45.88	50	-8	#
# Cyclohexane(3)	0.1266	0.1176	46.47	50	-7	#
1,1-Dichloropropene	0.3336	0.3384	50.73	50	1	
# Carbon Tetrachloride	0.3049	0.3048	49.99	50	0	#
Isobutyl Alcohol	0.3424	0.4209	768.33	625	23	<-
# Benzene	1.0326	1.0441	50.56	50	1	#
# 1,2-Dichloroethane	0.3461	0.3422	49.42	50	-1	#
# 1,2-Dichloroethane(2)	0.0337	0.0332	49.26	50	-1	#<-
t-Amyl methyl ether	0.7247	0.7185	49.57	50	-1	
n-Heptane	0.3605	0.3708	51.43	50	3	
n-Butanol	0.2792	0.3465	1551.59	1250	24	<-
# Trichloroethene	0.2613	0.2570	49.18	50	-2	#
# Methylcyclohexane	0.4249	0.4040	47.54	50	-5	#
# Methylcyclohexane(2)	0.1922	0.1806	46.97	50	-6	#
# 1,2-Dichloropropane	0.2661	0.2836	53.29	50	7	#
Dibromomethane	0.1740	0.1796	51.61	50	3	
1,4-Dioxane	0.0839	0.1001	745.43	625	19	
Methyl Methacrylate	0.2288	0.2548	55.68	50	11	
# Bromodichloromethane	0.3119	0.3224	51.68	50	3	#
2-Nitropropane	0.0935	0.0928	99.27	100	-1	
2-Chloroethyl Vinyl Ether	0.1771	0.1935	54.61	50	9	
# cis-1,3-Dichloropropene	0.4077	0.4320	52.98	50	6	#
# 4-Methyl-2-pentanone	0.3737	0.3824	102.32	100	2	#
# Toluene	0.8187	0.8571	52.34	50	5	#
# trans-1,3-Dichloropropene	0.4697	0.5273	56.13	50	12	#
Ethyl Methacrylate	0.4727	0.5796	61.31	50	23	<-
# 1,1,2-Trichloroethane	0.3177	0.3400	53.51	50	7	#
# Tetrachloroethene	0.3489	0.3561	51.03	50	2	#
1,3-Dichloropropane	0.5313	0.5866	55.21	50	10	
# 2-Hexanone	0.3433	0.3726	108.53	100	9	#
# Dibromochloromethane	0.3305	0.3634	54.98	50	10	#
# 1,2-Dibromoethane	0.3414	0.3628	53.12	50	6	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/31/20 Time: 11:23

Lab File ID: ly31c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
1-Chlorohexane	0.4190	0.4333	51.71	50	3	
# Chlorobenzene	0.9402	0.9813	52.19	50	4	#
1,1,1,2-Tetrachloroethane	0.3187	0.3418	53.62	50	7	
# Ethylbenzene	1.5155	1.6494	54.42	50	9	#
# m+p-Xylene	0.5954	0.6561	110.19	100	10	#
# o-Xylene	0.5758	0.6320	54.87	50	10	#
# Styrene	0.9365	1.0822	57.78	50	16	#
# Bromoform	0.2406	0.2728	56.70	50	13	#
# Isopropylbenzene	1.4612	1.6038	54.88	50	10	#
Cyclohexanone	0.3124	0.3745	749.35	625	20	
Bromobenzene	0.7317	0.7849	53.64	50	7	
# 1,1,2,2-Tetrachloroethane	0.9115	1.0843	59.48	50	19	#
1,2,3-Trichloropropane	0.2784	0.3229	58.00	50	16	
trans-1,4-Dichloro-2-butene	0.2652	0.3219	151.72	125	21	<-
n-Propylbenzene	3.1622	3.5300	55.81	50	12	
2-Chlorotoluene	0.6756	0.7250	53.66	50	7	
4-Chlorotoluene	0.7012	0.7609	54.26	50	9	
1,3,5-Trimethylbenzene	2.2850	2.5666	56.16	50	12	
tert-Butylbenzene	0.4697	0.5262	56.02	50	12	
Pentachloroethane	0.4171	0.4415	52.92	50	6	
1,2,4-Trimethylbenzene	2.3625	2.7118	57.39	50	15	
sec-Butylbenzene	2.7821	3.1639	56.86	50	14	
# 1,3-Dichlorobenzene	1.3634	1.4809	54.31	50	9	#
p-Isopropyltoluene	2.3838	2.7634	57.96	50	16	
# 1,4-Dichlorobenzene	1.4309	1.5355	53.65	50	7	#
1,2,3-Trimethylbenzene	2.4547	2.6001	52.96	50	6	
Benzyl Chloride	1.8573	2.2236	59.86	50	20	
1,3-Diethylbenzene	1.5359	1.6204	52.75	50	5	
1,4-Diethylbenzene	1.6077	1.6981	52.81	50	6	
# 1,2-Dichlorobenzene	1.3723	1.4738	53.70	50	7	#
n-Butylbenzene	1.2248	1.3922	56.84	50	14	
1,2-Diethylbenzene	1.3112	1.3908	53.04	50	6	
# 1,2-Dibromo-3-chloropropane	0.2017	0.2364	58.59	50	17	#
1,3,5-Trichlorobenzene	1.0338	1.0450	50.54	50	1	
# 1,2,4-Trichlorobenzene	0.9661	0.9643	49.91	50	0	#
Hexachlorobutadiene	0.4457	0.3963	44.46	50	-11	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 05/31/20 Time: 11:23

Lab File ID: ly31c01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	3.1272	3.5324	56.48	50	13
1,2,3-Trichlorobenzene	0.9600	0.9685	50.44	50	1
2-Methylnaphthalene	1.6214	1.7599	40.47	50	-19
Dibromofluoromethane	0.2519	0.2421	48.06	50	-4
Dibromofluoromethane(2)	0.2575	0.2460	47.76	50	-4
1,2-Dichloroethane-d4	0.0639	0.0626	48.98	50	-2
1,2-Dichloroethane-d4(2)	0.2837	0.2889	50.91	50	2
1,2-Dichloroethane-d4(3)	0.0407	0.0403	49.55	50	-1
Toluene-d8	1.2845	1.3159	51.22	50	2
Toluene-d8(2)	0.8336	0.8534	51.18	50	2
4-Bromofluorobenzene	0.4942	0.4924	49.82	50	0
4-Bromofluorobenzene(2)	0.4237	0.4036	47.63	50	-5

Average %Drift 8

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may27a.b/5y27c01.d

RT Summary

File ID:

Internal Standard Name	5y27c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.417	3.478	Yes
Fluorobenzene	6.874	6.934	Yes
Chlorobenzene-d5	10.678	10.684	Yes
1,4-Dichlorobenzene-d4	12.696	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

File ID:

Internal Standard Name	5y27c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	297333	370304	185152	740608	Yes
Fluorobenzene	1014821	1062743	531372	2125486	Yes
Chlorobenzene-d5	807296	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	434682	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments:

report generated on 05/27/2020 at 09:26

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4626	57.13	50	14	#
# Chloromethane	0.3212	0.3130	48.72	50	-3	#
1,3-Butadiene	0.4465	0.3169	35.49	50	-29	<-
# Vinyl Chloride	0.2841	0.3140	55.27	50	11	#
# Bromomethane	0.1907	0.2286	59.92	50	20	#
# Chloroethane	0.1345	0.1531	56.89	50	14	#
n-Pentane	0.3239	0.3420	52.80	50	6	
# Trichlorofluoromethane	0.3480	0.4174	59.97	50	20	#
Freon 123a	0.3632	0.3610	49.70	50	-1	
Acrolein	1.5830	1.7364	548.45	500	10	
# 1,1-Dichloroethene	0.2703	0.2807	51.92	50	4	#
# 1,1-Dichloroethene(2)	0.1355	0.1431	52.81	50	6	#
# Acetone	0.7807	0.9474	121.35	100	21	#<-
# Freon 113	0.3060	0.3258	53.24	50	6	#
2-Propanol	0.6353	0.4630	182.20	250	-27	<-
Methyl Iodide	0.5155	0.5476	53.12	50	6	
# Carbon Disulfide	0.9510	0.9097	47.83	50	-4	#
Allyl Chloride	0.4525	0.4183	46.21	50	-8	
# Methyl Acetate	0.3898	0.3795	48.69	50	-3	#
# Methylene Chloride	0.3047	0.3107	50.98	50	2	#
t-Butyl alcohol	1.1775	1.0040	213.15	250	-15	
Acrylonitrile	0.2057	0.2071	50.34	50	1	
# trans-1,2-Dichloroethene	0.3025	0.3078	50.88	50	2	#
# Methyl Tertiary Butyl Ether	0.8001	0.7908	49.42	50	-1	#
n-Hexane	0.4485	0.4610	51.38	50	3	
# 1,1-Dichloroethane	0.5476	0.5389	49.20	50	-2	#
di-Isopropyl ether	0.9781	0.9046	46.24	50	-8	
2-Chloro-1,3-butadiene	0.4652	0.4654	50.02	50	0	
Ethyl t-butyl ether	0.8683	0.7906	45.53	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3438	50.24	50	0	#
# 2-Butanone	0.2994	0.2893	96.61	100	-3	#
2,2-Dichloropropane	0.4620	0.4339	46.96	50	-6	
Propionitrile	1.2819	1.4843	289.48	250	16	
Methacrylonitrile	0.2049	0.2053	125.25	125	0	
Bromochloromethane	0.1567	0.1639	52.30	50	5	
Tetrahydrofuran	1.1586	1.3597	117.36	100	17	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chloroform	0.5493	0.5538	50.42	50	1	#
# 1,1,1-Trichloroethane	0.4945	0.5013	50.69	50	1	#
# Cyclohexane	0.5759	0.5527	47.98	50	-4	#
# Cyclohexane(2)	0.4764	0.4740	49.75	50	-1	#
# Cyclohexane(3)	0.1786	0.1744	48.82	50	-2	#
1,1-Dichloropropene	0.4480	0.4455	49.72	50	-1	
# Carbon Tetrachloride	0.4315	0.4405	51.04	50	2	#
Isobutyl Alcohol	0.3925	0.4248	676.39	625	8	
# Benzene	1.3320	1.3154	49.37	50	-1	#
# 1,2-Dichloroethane	0.4091	0.4099	50.10	50	0	#
# 1,2-Dichloroethane(2)	0.0346	0.0370	53.52	50	7	#<-
t-Amyl methyl ether	0.8664	0.8046	46.43	50	-7	
n-Heptane	0.4333	0.4541	52.41	50	5	
n-Butanol	0.3387	0.3636	1341.96	1250	7	
# Trichloroethene	0.3496	0.3543	50.67	50	1	#
# Methylcyclohexane	0.5555	0.5508	49.57	50	-1	#
# Methylcyclohexane(2)	0.2352	0.2350	49.96	50	0	#
# 1,2-Dichloropropane	0.3334	0.3263	48.92	50	-2	#
Dibromomethane	0.2100	0.2149	51.18	50	2	
1,4-Dioxane	0.0840	0.1012	752.80	625	20	
Methyl Methacrylate	0.3120	0.3150	50.48	50	1	
# Bromodichloromethane	0.4071	0.4061	49.88	50	0	#
2-Nitropropane	0.1410	0.1431	101.47	100	1	
2-Chloroethyl Vinyl Ether	0.2580	0.2551	49.42	50	-1	
# cis-1,3-Dichloropropene	0.5145	0.5090	49.47	50	-1	#
# 4-Methyl-2-pentanone	0.5771	0.5798	100.45	100	0	#
# Toluene	1.0835	1.0763	49.67	50	-1	#
# trans-1,3-Dichloropropene	0.5813	0.5917	50.89	50	2	#
Ethyl Methacrylate	0.6610	0.6472	48.95	50	-2	
# 1,1,2-Trichloroethane	0.3873	0.3979	51.36	50	3	#
# Tetrachloroethene	0.4595	0.4859	52.87	50	6	#
1,3-Dichloropropane	0.6431	0.6414	49.87	50	0	
# 2-Hexanone	0.5757	0.5988	104.01	100	4	#
# Dibromochloromethane	0.4099	0.4215	51.41	50	3	#
# 1,2-Dibromoethane	0.4270	0.4409	51.63	50	3	#
1-Chlorohexane	0.6301	0.6292	49.93	50	0	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chlorobenzene	1.1759	1.2153	51.67	50	3	#
1,1,1,2-Tetrachloroethane	0.4057	0.4297	52.96	50	6	
# Ethylbenzene	2.0950	2.1660	51.69	50	3	#
# m+p-Xylene	0.8038	0.8363	104.04	100	4	#
# o-Xylene	0.7867	0.8119	51.60	50	3	#
# Styrene	1.2679	1.3390	52.80	50	6	#
# Bromoform	0.2966	0.3157	53.23	50	6	#
# Isopropylbenzene	2.0646	2.1612	52.34	50	5	#
Cyclohexanone	0.3859	0.3950	639.78	625	2	
Bromobenzene	0.9532	0.9745	51.12	50	2	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3269	51.29	50	3	#
1,2,3-Trichloropropane	0.3809	0.3914	51.39	50	3	
trans-1,4-Dichloro-2-butene	0.2202	0.2998	141.89	125	14	
n-Propylbenzene	4.6865	4.8019	51.23	50	2	
2-Chlorotoluene	0.9606	0.9634	50.15	50	0	
4-Chlorotoluene	0.9704	0.9862	50.81	50	2	
1,3,5-Trimethylbenzene	3.2944	3.3782	51.27	50	3	
tert-Butylbenzene	0.6547	0.7298	55.74	50	11	
Pentachloroethane	0.5375	0.5708	53.09	50	6	
1,2,4-Trimethylbenzene	3.3925	3.5159	51.82	50	4	
sec-Butylbenzene	4.0845	4.2598	52.15	50	4	
# 1,3-Dichlorobenzene	1.7929	1.8514	51.63	50	3	#
p-Isopropyltoluene	3.4062	3.6025	52.88	50	6	
# 1,4-Dichlorobenzene	1.8196	1.8669	51.30	50	3	#
1,2,3-Trimethylbenzene	3.2564	3.3413	51.30	50	3	
Benzyl Chloride	2.4816	2.4976	50.32	50	1	
1,3-Diethylbenzene	1.9681	2.0505	52.09	50	4	
1,4-Diethylbenzene	2.0356	2.1177	52.02	50	4	
# 1,2-Dichlorobenzene	1.7222	1.7617	51.15	50	2	#
n-Butylbenzene	1.7181	1.7921	52.15	50	4	
1,2-Diethylbenzene	1.6645	1.6962	50.95	50	2	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3389	51.88	50	4	#
1,3,5-Trichlorobenzene	1.1375	1.2128	53.31	50	7	
# 1,2,4-Trichlorobenzene	1.0687	1.1232	52.55	50	5	#
Hexachlorobutadiene	0.4110	0.4422	53.79	50	8	
Naphthalene	4.2320	4.4717	52.83	50	6	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2,3-Trichlorobenzene	1.0575	1.1153	52.73	50	5
2-Methylnaphthalene	2.1987	2.3282	52.95	50	6
Dibromofluoromethane	0.2490	0.2521	50.62	50	1
Dibromofluoromethane(2)	0.2550	0.2579	50.58	50	1
1,2-Dichloroethane-d4	0.0557	0.0565	50.76	50	2
1,2-Dichloroethane-d4(2)	0.2723	0.2825	51.88	50	4
1,2-Dichloroethane-d4(3)	0.0357	0.0362	50.71	50	1
Toluene-d8	1.2288	1.2198	49.64	50	-1
Toluene-d8(2)	0.8091	0.7961	49.20	50	-2
4-Bromofluorobenzene	0.5177	0.5107	49.32	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4196	51.95	50	4

Average %Drift 5

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may27b.b/5y27c50.d

RT Summary

Internal Standard Name	File ID: 5y27c50.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.423	3.478	Yes
Fluorobenzene	6.880	6.934	Yes
Chlorobenzene-d5	10.678	10.684	Yes
1,4-Dichlorobenzene-d4	12.702	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y27c50.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	230837	370304	185152	740608	Yes
Fluorobenzene	817966	1062743	531372	2125486	Yes
Chlorobenzene-d5	662490	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	373763	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/27/2020 at 20:39

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4799	59.26	50	19	#
# Chloromethane	0.3212	0.3253	50.63	50	1	#
1,3-Butadiene	0.4465	0.2799	31.34	50	-37	<-
# Vinyl Chloride	0.2841	0.3239	57.01	50	14	#
# Bromomethane	0.1907	0.2527	66.23	50	32	#<-
# Chloroethane	0.1345	0.1655	61.52	50	23	#<-
n-Pentane	0.3239	0.2891	44.64	50	-11	
# Trichlorofluoromethane	0.3480	0.4832	69.43	50	39	#<-
Ethyl ether	0.2399	0.2232	46.52	50	-7	
Freon 123a	0.3632	0.3701	50.94	50	2	
Acrolein	1.5830	2.0736	654.97	500	31	<-
# 1,1-Dichloroethene	0.2703	0.2743	50.74	50	1	#
# 1,1-Dichloroethene(2)	0.1355	0.1424	52.56	50	5	#
# Acetone	0.7807	1.0252	131.31	100	31	#<-
# Freon 113	0.3060	0.3121	51.00	50	2	#
2-Propanol	0.6353	0.5140	202.25	250	-19	
Methyl Iodide	0.5155	0.5526	53.60	50	7	
# Carbon Disulfide	0.9510	0.8455	44.46	50	-11	#
Allyl Chloride	0.4525	0.4257	47.03	50	-6	
# Methyl Acetate	0.3898	0.3928	50.39	50	1	#
# Methylene Chloride	0.3047	0.3133	51.41	50	3	#
t-Butyl alcohol	1.1775	1.0792	229.13	250	-8	
Acrylonitrile	0.2057	0.2212	53.76	50	8	
# trans-1,2-Dichloroethene	0.3025	0.3125	51.65	50	3	#
# Methyl Tertiary Butyl Ether	0.8001	0.8143	50.88	50	2	#
n-Hexane	0.4485	0.3819	42.57	50	-15	
# 1,1-Dichloroethane	0.5476	0.5463	49.88	50	0	#
di-Isopropyl ether	0.9781	0.8884	45.42	50	-9	
2-Chloro-1,3-butadiene	0.4652	0.4706	50.58	50	1	
Ethyl t-butyl ether	0.8683	0.7897	45.47	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3543	51.77	50	4	#
# 2-Butanone	0.2994	0.3059	102.17	100	2	#
2,2-Dichloropropane	0.4620	0.4552	49.26	50	-1	
Propionitrile	1.2819	1.5479	301.88	250	21	<-
Methacrylonitrile	0.2049	0.2103	128.31	125	3	
Bromochloromethane	0.1567	0.1769	56.44	50	13	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.5112	130.44	100	30	<-
# Chloroform	0.5493	0.5962	54.27	50	9	#
# 1,1,1-Trichloroethane	0.4945	0.5406	54.66	50	9	#
# Cyclohexane	0.5759	0.5008	43.47	50	-13	#
# Cyclohexane(2)	0.4764	0.4395	46.13	50	-8	#
# Cyclohexane(3)	0.1786	0.1578	44.15	50	-12	#
1,1-Dichloropropene	0.4480	0.4517	50.42	50	1	
# Carbon Tetrachloride	0.4315	0.4800	55.63	50	11	#
Isobutyl Alcohol	0.3925	0.5145	819.30	625	31	<-
# Benzene	1.3320	1.3521	50.76	50	2	#
# 1,2-Dichloroethane	0.4091	0.4636	56.66	50	13	#
# 1,2-Dichloroethane(2)	0.0346	0.0390	56.30	50	13	#<-
t-Amyl methyl ether	0.8664	0.8321	48.02	50	-4	
n-Heptane	0.4333	0.3931	45.37	50	-9	
n-Butanol	0.3387	0.4231	1561.36	1250	25	<-
# Trichloroethene	0.3496	0.3726	53.29	50	7	#
# Methylcyclohexane	0.5555	0.5370	48.33	50	-3	#
# Methylcyclohexane(2)	0.2352	0.2320	49.32	50	-1	#
# 1,2-Dichloropropane	0.3334	0.3375	50.61	50	1	#
Dibromomethane	0.2100	0.2346	55.87	50	12	
1,4-Dioxane	0.0840	0.1155	859.50	625	38	<-
Methyl Methacrylate	0.3120	0.3281	52.59	50	5	
# Bromodichloromethane	0.4071	0.4420	54.28	50	9	#
2-Nitropropane	0.1410	0.1681	119.23	100	19	
2-Chloroethyl Vinyl Ether	0.2580	0.2596	50.31	50	1	
# cis-1,3-Dichloropropene	0.5145	0.5288	51.39	50	3	#
# 4-Methyl-2-pentanone	0.5771	0.6389	110.71	100	11	#
# Toluene	1.0835	1.1092	51.19	50	2	#
# trans-1,3-Dichloropropene	0.5813	0.6205	53.37	50	7	#
Ethyl Methacrylate	0.6610	0.6783	51.31	50	3	
# 1,1,2-Trichloroethane	0.3873	0.4281	55.26	50	11	#
# Tetrachloroethene	0.4595	0.5202	56.60	50	13	#
1,3-Dichloropropane	0.6431	0.6832	53.11	50	6	
# 2-Hexanone	0.5757	0.6755	117.34	100	17	#
# Dibromochloromethane	0.4099	0.4576	55.82	50	12	#
# 1,2-Dibromoethane	0.4270	0.4684	54.85	50	10	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
1-Chlorohexane	0.6301	0.6303	50.02	50	0	
# Chlorobenzene	1.1759	1.3055	55.51	50	11	#
1,1,1,2-Tetrachloroethane	0.4057	0.4733	58.33	50	17	
# Ethylbenzene	2.0950	2.2950	54.77	50	10	#
# m+p-Xylene	0.8038	0.8908	110.82	100	11	#
# o-Xylene	0.7867	0.8623	54.80	50	10	#
# Styrene	1.2679	1.4423	56.88	50	14	#
# Bromoform	0.2966	0.3510	59.19	50	18	#
# Isopropylbenzene	2.0646	2.2835	55.30	50	11	#
Cyclohexanone	0.3859	0.4437	718.67	625	15	
Bromobenzene	0.9532	1.0348	54.28	50	9	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3984	54.05	50	8	#
1,2,3-Trichloropropane	0.3809	0.4333	56.88	50	14	
trans-1,4-Dichloro-2-butene	0.2202	0.3502	163.46	125	31	<-
n-Propylbenzene	4.6865	4.8886	52.16	50	4	
2-Chlorotoluene	0.9606	1.0061	52.37	50	5	
4-Chlorotoluene	0.9704	1.0314	53.15	50	6	
1,3,5-Trimethylbenzene	3.2944	3.4935	53.02	50	6	
tert-Butylbenzene	0.6547	0.7414	56.62	50	13	
Pentachloroethane	0.5375	0.5874	54.64	50	9	
1,2,4-Trimethylbenzene	3.3925	3.6556	53.88	50	8	
sec-Butylbenzene	4.0845	4.2868	52.48	50	5	
# 1,3-Dichlorobenzene	1.7929	1.9670	54.86	50	10	#
p-Isopropyltoluene	3.4062	3.7024	54.35	50	9	
# 1,4-Dichlorobenzene	1.8196	2.0082	55.18	50	10	#
1,2,3-Trimethylbenzene	3.2564	3.4102	52.36	50	5	
Benzyl Chloride	2.4816	2.6836	54.07	50	8	
1,3-Diethylbenzene	1.9681	2.0794	52.83	50	6	
1,4-Diethylbenzene	2.0356	2.1630	53.13	50	6	
# 1,2-Dichlorobenzene	1.7222	1.9071	55.37	50	11	#
n-Butylbenzene	1.7181	1.8235	53.07	50	6	
1,2-Diethylbenzene	1.6645	1.7361	52.15	50	4	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3762	57.60	50	15	#
1,3,5-Trichlorobenzene	1.1375	1.2971	57.01	50	14	
# 1,2,4-Trichlorobenzene	1.0687	1.2012	56.20	50	12	#
Hexachlorobutadiene	0.4110	0.4549	55.34	50	11	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.2320	4.9030	57.93	50	16
1,2,3-Trichlorobenzene	1.0575	1.2160	57.49	50	15
2-Methylnaphthalene	2.1987	2.4324	55.31	50	11
Dibromofluoromethane	0.2490	0.2583	51.86	50	4
Dibromofluoromethane(2)	0.2550	0.2650	51.96	50	4
1,2-Dichloroethane-d4	0.0557	0.0573	51.45	50	3
1,2-Dichloroethane-d4(2)	0.2723	0.3004	55.15	50	10
1,2-Dichloroethane-d4(3)	0.0357	0.0360	50.40	50	1
Toluene-d8	1.2288	1.2132	49.37	50	-1
Toluene-d8(2)	0.8091	0.7916	48.92	50	-2
4-Bromofluorobenzene	0.5177	0.5178	50.00	50	0
4-Bromofluorobenzene(2)	0.4039	0.4390	54.35	50	9

Average %Drift 10

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may29a.b/5y29c01.d

RT Summary

Internal Standard Name	File ID: 5y29c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.429	3.478	Yes
Fluorobenzene	6.892	6.934	Yes
Chlorobenzene-d5	10.690	10.684	Yes
1,4-Dichlorobenzene-d4	12.708	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y29c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	346604	370304	185152	740608	Yes
Fluorobenzene	1014999	1062743	531372	2125486	Yes
Chlorobenzene-d5	809407	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	437870	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/29/2020 at 10:42

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4205	51.93	50	4	#
# Chloromethane	0.3212	0.3159	49.17	50	-2	#
1,3-Butadiene	0.4465	0.3261	36.51	50	-27	<-
# Vinyl Chloride	0.2841	0.3092	54.42	50	9	#
# Bromomethane	0.1907	0.2240	58.72	50	17	#
# Chloroethane	0.1345	0.1517	56.39	50	13	#
Dichlorofluoromethane	0.4383	0.4193	47.83	50	-4	
n-Pentane	0.3239	0.2982	46.03	50	-8	
# Trichlorofluoromethane	0.3480	0.3961	56.92	50	14	#
Ethyl ether	0.2399	0.2033	42.38	50	-15	
Freon 123a	0.3632	0.3380	46.53	50	-7	
Acrolein	1.5830	1.3509	426.70	500	-15	
# 1,1-Dichloroethene	0.2703	0.2570	47.52	50	-5	#
# 1,1-Dichloroethene(2)	0.1355	0.1311	48.38	50	-3	#
# Acetone	0.7807	0.7642	97.89	100	-2	#
# Freon 113	0.3060	0.2894	47.29	50	-5	#
2-Propanol	0.6353	0.4041	159.03	250	-36	<-
Methyl Iodide	0.5155	0.5174	50.19	50	0	
# Carbon Disulfide	0.9510	0.8859	46.58	50	-7	#
Allyl Chloride	0.4525	0.4073	45.01	50	-10	
# Methyl Acetate	0.3898	0.3713	47.63	50	-5	#
# Methylene Chloride	0.3047	0.2920	47.91	50	-4	#
t-Butyl alcohol	1.1775	0.8817	187.19	250	-25	<-
Acrylonitrile	0.2057	0.1899	46.16	50	-8	
# trans-1,2-Dichloroethene	0.3025	0.2909	48.08	50	-4	#
# Methyl Tertiary Butyl Ether	0.8001	0.7689	48.05	50	-4	#
n-Hexane	0.4485	0.3973	44.29	50	-11	
# 1,1-Dichloroethane	0.5476	0.5193	47.42	50	-5	#
di-Isopropyl ether	0.9781	0.8803	45.00	50	-10	
2-Chloro-1,3-butadiene	0.4652	0.4488	48.24	50	-4	
Ethyl t-butyl ether	0.8683	0.7746	44.60	50	-11	
# cis-1,2-Dichloroethene	0.3422	0.3287	48.04	50	-4	#
# 2-Butanone	0.2994	0.2606	87.03	100	-13	#
2,2-Dichloropropane	0.4620	0.4140	44.80	50	-10	
Propionitrile	1.2819	1.2229	238.50	250	-5	
Methacrylonitrile	0.2049	0.1962	119.70	125	-4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Bromochloromethane	0.1567	0.1572	50.15	50	0	
Tetrahydrofuran	1.1586	1.0585	91.37	100	-9	
# Chloroform	0.5493	0.5339	48.60	50	-3	#
# 1,1,1-Trichloroethane	0.4945	0.4746	47.98	50	-4	#
# Cyclohexane	0.5759	0.4965	43.10	50	-14	#
# Cyclohexane(2)	0.4764	0.4235	44.44	50	-11	#
# Cyclohexane(3)	0.1786	0.1548	43.34	50	-13	#
1,1-Dichloropropene	0.4480	0.4244	47.37	50	-5	
# Carbon Tetrachloride	0.4315	0.4163	48.24	50	-4	#
Isobutyl Alcohol	0.3925	0.3543	564.08	625	-10	
# Benzene	1.3320	1.2615	47.35	50	-5	#
# 1,2-Dichloroethane	0.4091	0.3970	48.52	50	-3	#
# 1,2-Dichloroethane(2)	0.0346	0.0354	51.22	50	2	#<-
t-Amyl methyl ether	0.8664	0.7866	45.40	50	-9	
n-Heptane	0.4333	0.3946	45.53	50	-9	
n-Butanol	0.3387	0.2969	1095.85	1250	-12	
# Trichloroethene	0.3496	0.3407	48.74	50	-3	#
# Methylcyclohexane	0.5555	0.5007	45.06	50	-10	#
# Methylcyclohexane(2)	0.2352	0.2110	44.86	50	-10	#
# 1,2-Dichloropropane	0.3334	0.3151	47.25	50	-5	#
Dibromomethane	0.2100	0.2058	49.01	50	-2	
1,4-Dioxane	0.0840	0.0845	628.39	625	1	
Methyl Methacrylate	0.3120	0.3003	48.13	50	-4	
# Bromodichloromethane	0.4071	0.3940	48.39	50	-3	#
2-Nitropropane	0.1410	0.1319	93.53	100	-6	
2-Chloroethyl Vinyl Ether	0.2580	0.2366	45.85	50	-8	
# cis-1,3-Dichloropropene	0.5145	0.4920	47.81	50	-4	#
# 4-Methyl-2-pentanone	0.5771	0.5212	90.31	100	-10	#
# Toluene	1.0835	1.0313	47.59	50	-5	#
# trans-1,3-Dichloropropene	0.5813	0.5551	47.74	50	-5	#
Ethyl Methacrylate	0.6610	0.6206	46.94	50	-6	
# 1,1,2-Trichloroethane	0.3873	0.3754	48.45	50	-3	#
# Tetrachloroethene	0.4595	0.4645	50.54	50	1	#
1,3-Dichloropropane	0.6431	0.6129	47.64	50	-5	
# 2-Hexanone	0.5757	0.5358	93.07	100	-7	#
# Dibromochloromethane	0.4099	0.4012	48.94	50	-2	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# 1,2-Dibromoethane	0.4270	0.4215	49.36	50	-1	#
1-Chlorohexane	0.6301	0.5832	46.27	50	-7	
# Chlorobenzene	1.1759	1.1593	49.30	50	-1	#
1,1,1,2-Tetrachloroethane	0.4057	0.4104	50.58	50	1	
# Ethylbenzene	2.0950	2.0786	49.61	50	-1	#
# m+p-Xylene	0.8038	0.8017	99.73	100	0	#
# o-Xylene	0.7867	0.7723	49.09	50	-2	#
# Styrene	1.2679	1.2871	50.76	50	2	#
# Bromoform	0.2966	0.2979	50.23	50	0	#
# Isopropylbenzene	2.0646	2.0530	49.72	50	-1	#
Cyclohexanone	0.3859	0.3296	533.78	625	-15	
Bromobenzene	0.9532	0.9316	48.86	50	-2	
# 1,1,2,2-Tetrachloroethane	1.2935	1.2210	47.20	50	-6	#
1,2,3-Trichloropropane	0.3809	0.3706	48.65	50	-3	
trans-1,4-Dichloro-2-butene	0.2202	0.2237	109.33	125	-13	
n-Propylbenzene	4.6865	4.5259	48.29	50	-3	
2-Chlorotoluene	0.9606	0.9138	47.56	50	-5	
4-Chlorotoluene	0.9704	0.9451	48.70	50	-3	
1,3,5-Trimethylbenzene	3.2944	3.1967	48.52	50	-3	
tert-Butylbenzene	0.6547	0.6465	49.37	50	-1	
Pentachloroethane	0.5375	0.5350	49.76	50	0	
1,2,4-Trimethylbenzene	3.3925	3.3206	48.94	50	-2	
sec-Butylbenzene	4.0845	3.9650	48.54	50	-3	
# 1,3-Dichlorobenzene	1.7929	1.7580	49.03	50	-2	#
p-Isopropyltoluene	3.4062	3.3722	49.50	50	-1	
# 1,4-Dichlorobenzene	1.8196	1.7800	48.91	50	-2	#
1,2,3-Trimethylbenzene	3.2564	3.1970	49.09	50	-2	
Benzyl Chloride	2.4816	2.3073	46.49	50	-7	
1,3-Diethylbenzene	1.9681	1.9792	50.28	50	1	
1,4-Diethylbenzene	2.0356	2.0627	50.66	50	1	
# 1,2-Dichlorobenzene	1.7222	1.6806	48.79	50	-2	#
n-Butylbenzene	1.7181	1.6711	48.63	50	-3	
1,2-Diethylbenzene	1.6645	1.6417	49.32	50	-1	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3245	49.68	50	-1	#
1,3,5-Trichlorobenzene	1.1375	1.1378	50.01	50	0	
# 1,2,4-Trichlorobenzene	1.0687	1.0509	49.17	50	-2	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Hexachlorobutadiene	0.4110	0.4132	50.27	50	1
Naphthalene	4.2320	4.1875	49.47	50	-1
1,2,3-Trichlorobenzene	1.0575	1.0348	48.93	50	-2
2-Methylnaphthalene	2.1987	2.1351	48.55	50	-3
Dibromofluoromethane	0.2490	0.2538	50.95	50	2
Dibromofluoromethane(2)	0.2550	0.2587	50.73	50	1
1,2-Dichloroethane-d4	0.0557	0.0569	51.05	50	2
1,2-Dichloroethane-d4(2)	0.2723	0.2851	52.35	50	5
1,2-Dichloroethane-d4(3)	0.0357	0.0359	50.31	50	1
Toluene-d8	1.2288	1.2183	49.57	50	-1
Toluene-d8(2)	0.8091	0.7951	49.14	50	-2
4-Bromofluorobenzene	0.5177	0.5127	49.51	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4220	52.24	50	4

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly29c01.d Date Analyzed: 05/29/20

Instrument ID: HP09915 Time Analyzed: 09:50

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	377436	4.493	1693947	7.946	1291203	11.351	703456	13.216
UPPER LIMIT	754872	4.993	3387894	8.446	2582406	11.851	1406912	13.716
LOWER LIMIT	188718	3.993	846974	7.446	645602	10.851	351728	12.716
LAB SAMPLE ID								
01 LCSL02	366066	4.503	1671339	7.949	1271031	11.351	696732	13.216
02 LCSL05	366066	4.503	1671339	7.949	1271031	11.351	696732	13.216
03 LCSL04	368992	4.493	1663473	7.946	1245309	11.351	656807	13.216
04 LCSL06	368992	4.493	1663473	7.946	1245309	11.351	656807	13.216
05 VBLKL02	319939	4.487	1593241	7.946	1207769	11.351	650457	13.216
06 VBLKL05	319939	4.487	1593241	7.946	1207769	11.351	650457	13.216
07 1318540	368984	4.496	1695982	7.949	1290269	11.351	697958	13.216
08 1318541MS	367032	4.499	1640354	7.949	1246867	11.351	693212	13.216
09 1318542MSD	368087	4.500	1639457	7.946	1246239	11.351	678444	13.216
10 1318541MSMS1	353080	4.493	1636137	7.946	1225933	11.351	645048	13.216
11 1318542MSDMS	365942	4.487	1659840	7.943	1239963	11.351	654242	13.216
12 1318257	305872	4.496	1555696	7.953	1170183	11.351	622142	13.216
13 1318258MS	332144	4.500	1640857	7.950	1231322	11.351	688015	13.216
14 1318259MSD	351318	4.487	1650162	7.946	1253868	11.351	686925	13.216
15 1318258MSMS1	348158	4.506	1623017	7.950	1219053	11.351	642892	13.216
16 1318259MSDMS	327716	4.496	1569450	7.949	1172015	11.351	610997	13.216
17 1318514	295777	4.496	1559893	7.953	1171163	11.351	633619	13.216
18 1318515	315682	4.499	1559047	7.950	1172084	11.351	619713	13.216
19 1318516	306365	4.493	1563431	7.950	1200833	11.351	674415	13.216
20 1318517	313767	4.496	1611581	7.950	1213011	11.351	679670	13.216
21 1318518	300164	4.487	1523147	7.950	1147145	11.351	618330	13.216
22 1318538	324880	4.496	1540421	7.950	1168884	11.351	618221	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly29c01.d Date Analyzed: 05/29/20

Instrument ID: HP09915 Time Analyzed: 09:50

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	377436	4.493	1693947	7.946	1291203	11.351	703456	13.216
UPPER LIMIT	754872	4.993	3387894	8.446	2582406	11.851	1406912	13.716
LOWER LIMIT	188718	3.993	846974	7.446	645602	10.851	351728	12.716
	LAB SAMPLE ID							
23	1318539	310841	4.490	1537606	7.949	1176809	11.351	635248	13.216
24	1317596	320104	4.496	1556964	7.953	1178776	11.351	631640	13.216
25	1316943	408223	4.487	1731685	7.946	1339034	11.351	724347	13.216
26	1316943DL	333423	4.490	1609464	7.946	1200299	11.351	670879	13.216
27	1316949	420665	4.490	1688559	7.950	1296834	11.351	686145	13.216
28	1316949DL	385459	4.493	1689097	7.953	1254881	11.351	686669	13.216
29	SECC050	368314	4.493	1700092	7.946	1284567	11.351	700068	13.216
30	SECA050	340701	4.490	1664541	7.950	1249347	11.351	648003	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly31c01.d Date Analyzed: 05/31/20

Instrument ID: HP09915 Time Analyzed: 11:23

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	332568	4.493	1519847	7.946	1154765	11.351	638424	13.216
UPPER LIMIT	665136	4.993	3039694	8.446	2309530	11.851	1276848	13.716
LOWER LIMIT	166284	3.993	759924	7.446	577382	10.851	319212	12.716
LAB SAMPLE ID								
01 LCSL11	351606	4.506	1555724	7.950	1189079	11.351	659646	13.216
02 VBLKL11	295491	4.490	1451950	7.950	1101086	11.351	590022	13.216
03 1318897	277091	4.503	1419728	7.950	1070597	11.351	567553	13.216
04 1321015	280652	4.493	1396208	7.946	1067996	11.351	575990	13.216
05 1318256	261491	4.490	1369634	7.946	1040842	11.351	553970	13.216
06 1318256MS	291903	4.503	1479212	7.949	1125078	11.351	628258	13.213
07 1318256MSD	310928	4.486	1494121	7.946	1132735	11.351	628236	13.216
08 1320082	279635	4.503	1378787	7.950	1043158	11.351	556752	13.216
09 1320084	273049	4.493	1345921	7.950	1032793	11.351	560278	13.216
10 1320086	348596	4.487	1474833	7.946	1152645	11.352	632194	13.213
11 1320088	284529	4.509	1587803	7.950	1214884	11.351	655100	13.216
12 1320089	288566	4.493	1411571	7.950	1069344	11.351	578269	13.216
13 1318864	328851	4.487	1480333	7.946	1158627	11.351	625160	13.216
14 1320776	319452	4.506	1512934	7.953	1163676	11.351	608665	13.216
15 1320776DL	292475	4.490	1462584	7.946	1111881	11.351	592994	13.216
16 1318887	362561	4.490	1507770	7.949	1163205	11.351	626538	13.216
17 1318888	389219	4.500	1546587	7.953	1195358	11.351	647249	13.216
18 1318889	369050	4.503	1552974	7.950	1187434	11.351	639850	13.216
19 1318890	364073	4.493	1561588	7.946	1199253	11.351	658083	13.216
20 1318891	368732	4.484	1593038	7.943	1223696	11.351	666343	13.216
21 1318892	380620	4.490	1578464	7.946	1196013	11.351	658739	13.216
22 1318893	408859	4.496	1658821	7.950	1253246	11.351	673028	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): ly31c01.d Date Analyzed: 05/31/20

Instrument ID: HP09915 Time Analyzed: 11:23

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	332568	4.493	1519847	7.946	1154765	11.351	638424	13.216
UPPER LIMIT	665136	4.993	3039694	8.446	2309530	11.851	1276848	13.716
LOWER LIMIT	166284	3.993	759924	7.446	577382	10.851	319212	12.716
LAB SAMPLE ID								
23 1318894	401446	4.490	1614055	7.949	1223437	11.351	655247	13.216
24 1318895	405195	4.487	1618467	7.946	1228997	11.351	662416	13.213
25 1318896	397721	4.500	1591831	7.946	1228025	11.351	663578	13.216
26 1321013	368337	4.487	1579764	7.946	1187283	11.351	643198	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c01.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 08:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	297333	3.417	1014821	6.874	807296	10.678	434682	12.696
UPPER LIMIT	594666	3.917	2029642	7.374	1614592	11.178	869364	13.196
LOWER LIMIT	148666	2.917	507410	6.374	403648	10.178	217341	12.196
LAB SAMPLE ID								
01 LCS572	289246	3.423	1001983	6.873	789314	10.678	428224	12.695
02 VBLK572	281319	3.447	970263	6.874	761606	10.678	402762	12.696
03 1319246	281700	3.441	958804	6.873	753005	10.678	399336	12.696
04 1319248	283289	3.441	994490	6.880	782745	10.678	417126	12.696
05 1319229	305748	3.453	988667	6.880	779998	10.678	413652	12.695
06 1319230MS	291912	3.423	1010634	6.873	807844	10.677	438087	12.695
07 1319231MSD	291027	3.435	986009	6.880	779960	10.678	424089	12.696
08 1319239	325262	3.454	1033132	6.880	812564	10.678	430325	12.696
09 1319242	303052	3.447	951764	6.873	747381	10.678	397807	12.695
10 1319251	277060	3.466	1001424	6.880	785028	10.678	413998	12.696
11 1318263	293382	3.453	990357	6.880	782876	10.678	417243	12.696
12 1318277	279389	3.447	922948	6.880	731808	10.678	388333	12.696
13 1318292	275342	3.447	965832	6.880	769733	10.678	411388	12.696
14 1318293	278434	3.441	955750	6.880	758931	10.678	406015	12.702
15 1318293DL	267433	3.441	921355	6.880	732948	10.678	391786	12.696
16 1318295	290875	3.454	921268	6.880	731738	10.678	390321	12.702
17 1318295DL	268213	3.447	927542	6.880	742100	10.684	398207	12.702
18 1318296	251940	3.454	858830	6.880	685656	10.678	366449	12.702
19 1318296DL	247000	3.453	859564	6.886	687059	10.684	366454	12.702
20 1318297	246948	3.447	837828	6.880	670444	10.684	361591	12.702
21 1318298	258042	3.460	848033	6.880	679412	10.684	362982	12.702
22 1318299	235000	3.454	808277	6.880	644338	10.684	344655	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c01.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 08:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	297333	3.417	1014821	6.874	807296	10.678	434682	12.696
UPPER LIMIT	594666	3.917	2029642	7.374	1614592	11.178	869364	13.196
LOWER LIMIT	148666	2.917	507410	6.374	403648	10.178	217341	12.196
LAB SAMPLE ID								
23 1318300	241821	3.454	836181	6.886	669595	10.684	358407	12.702
24 1318301	248340	3.447	831011	6.880	665659	10.684	358031	12.702
25 1318302	232925	3.453	798815	6.886	641775	10.684	346160	12.702
26 1318303	224853	3.447	785113	6.880	631620	10.684	338918	12.702
27 1318294	239550	3.447	839998	6.880	673144	10.684	359411	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c50.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 20:12

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	230837	3.423	817966	6.880	662490	10.678	373763	12.702
UPPER LIMIT	461674	3.923	1635932	7.380	1324980	11.178	747526	13.202
LOWER LIMIT	115418	2.923	408983	6.380	331245	10.178	186882	12.202
LAB SAMPLE ID								
01 LCS573	267518	3.453	870740	6.880	701085	10.684	384631	12.702
02 LCS574	267518	3.453	870740	6.880	701085	10.684	384631	12.702
03 LCD573	275661	3.429	915629	6.880	730532	10.684	400844	12.702
04 LCD574	275661	3.429	915629	6.880	730532	10.684	400844	12.702
05 VBLK573	275498	3.460	906238	6.886	721241	10.684	385606	12.702
06 VBLK574	275498	3.460	906238	6.886	721241	10.684	385606	12.702
07 1319994	267862	3.453	865866	6.879	693901	10.684	373334	12.702
08 1319996	253591	3.454	853682	6.880	684661	10.678	370097	12.702
09 1318278	261150	3.447	866487	6.880	697043	10.678	376345	12.702
10 1318280	250333	3.447	859721	6.880	695861	10.678	373335	12.702
11 1318281	241259	3.441	796387	6.880	641305	10.678	345880	12.696
12 1318282	227224	3.453	782859	6.880	631677	10.678	341004	12.702
13 1318284	223177	3.441	775324	6.874	625965	10.678	337025	12.702
14 1318304	240652	3.447	799287	6.880	647188	10.678	348923	12.702
15 1318305	231576	3.460	767912	6.880	620116	10.684	334758	12.702
16 1318306	225980	3.453	764757	6.880	617283	10.678	335174	12.702
17 1319980	229441	3.441	807964	6.880	655068	10.678	353501	12.702
18 1319981MS	247887	3.435	821381	6.880	664722	10.684	379898	12.702
19 1319982MSD	258873	3.447	836496	6.880	675915	10.684	377771	12.702
20 1319990	269099	3.447	827257	6.880	667849	10.684	358138	12.702
21 1318294DL	241419	3.454	813558	6.886	655869	10.684	350721	12.702
22 1318279	255502	3.454	846571	6.880	682422	10.684	367914	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c50.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 20:12

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	230837	3.423	817966	6.880	662490	10.678	373763	12.702
UPPER LIMIT	461674	3.923	1635932	7.380	1324980	11.178	747526	13.202
LOWER LIMIT	115418	2.923	408983	6.380	331245	10.178	186882	12.202
	LAB SAMPLE ID							
23	1318283	226090	3.453	764271	6.880	616470	10.684	331388	12.702
24	1314747	179681	3.441	785049	6.880	630052	10.684	346591	12.702
25	1314747MS	202781	3.459	848691	6.880	689254	10.684	389096	12.702
26	1316625	261810	3.460	834982	6.880	673663	10.684	362957	12.702
27	1317516DL2	240873	3.460	797617	6.880	645212	10.684	346390	12.702
28	1320777	237772	3.466	772392	6.886	625674	10.684	338367	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y29c01.d Date Analyzed: 05/29/20

Instrument ID: HP26285 Time Analyzed: 10:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	346604	3.429	1014999	6.892	809407	10.690	437870	12.708
UPPER LIMIT	693208	3.929	2029998	7.392	1618814	11.190	875740	13.208
LOWER LIMIT	173302	2.929	507500	6.392	404704	10.190	218935	12.208
LAB SAMPLE ID								
01 LCS578	350785	3.441	1006881	6.892	801216	10.690	433991	12.708
02 VBLK578	316522	3.460	982866	6.892	775701	10.690	414789	12.708
03 1318262	333772	3.460	1026061	6.898	810183	10.696	431198	12.708
04 1318286	302011	3.472	979977	6.898	778035	10.690	415472	12.708
05 1318287MS	321317	3.447	1008110	6.898	805354	10.690	442974	12.708
06 1318288MSD	319065	3.453	966491	6.898	769934	10.690	417150	12.708
07 1318260	279322	3.460	913731	6.898	721928	10.690	382631	12.708
08 1318261	278573	3.466	919108	6.898	727889	10.690	389747	12.708
09 1318264	270856	3.454	887285	6.898	702913	10.696	376381	12.708
10 1318265	268209	3.466	910434	6.898	726642	10.696	388532	12.708
11 1318266	285897	3.472	918843	6.904	730964	10.696	389958	12.708
12 1318267	270383	3.466	891719	6.898	714630	10.696	383483	12.708
13 1318268	272514	3.478	918853	6.904	733798	10.696	396078	12.708
14 1318269	267987	3.466	911963	6.898	733689	10.696	396307	12.708
15 1318270	253371	3.460	868259	6.898	695788	10.696	377766	12.708
16 1318271	252383	3.466	860432	6.898	693221	10.690	375733	12.708
17 1318272	255843	3.460	838863	6.898	677086	10.690	365155	12.708
18 1318273	234537	3.454	825368	6.898	667387	10.690	363695	12.708
19 1318274	235452	3.459	814853	6.898	661986	10.696	357369	12.708
20 1318275	234276	3.466	787039	6.904	640011	10.696	346605	12.708
21 1318276	234405	3.472	791893	6.904	647201	10.696	352242	12.708
22 1318285	216283	3.460	758959	6.898	616400	10.696	333736	12.708

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y29c01.d Date Analyzed: 05/29/20

Instrument ID: HP26285 Time Analyzed: 10:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	346604	3.429	1014999	6.892	809407	10.690	437870	12.708
UPPER LIMIT	693208	3.929	2029998	7.392	1618814	11.190	875740	13.208
LOWER LIMIT	173302	2.929	507500	6.392	404704	10.190	218935	12.208
LAB SAMPLE ID								
23 1318289	219847	3.460	746594	6.898	607500	10.696	330237	12.708
24 1318290	222843	3.472	749911	6.904	613343	10.696	332957	12.708
25 1318291	217944	3.459	739166	6.898	607713	10.696	328476	12.708

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5801

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318256

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s04.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5801 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318256

Data file: /chem/HP09915.i/20may31a.b/ly31s04.d Injection date and time: **31-MAY-2020 13:35**
Data file Sample Info. Line: W5801;1318256;1;0;;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.490	(0.003)	935	65	261491	(-21)	250.00	
66) Fluorobenzene	7.946	(0.000)	2010	96	1369634	(-10)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1040842	(-10)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	553970	(-13)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.059	(0.001)	113	346327	50.192	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.516	(0.000)	102	89866	51.328	103%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1338046	50.041	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	479106	46.568	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20may31a.b/ly31s04.d Injection date and time: **31-MAY-2020 13:35**
Data file Sample Info. Line: W5801;1318256;1;0;;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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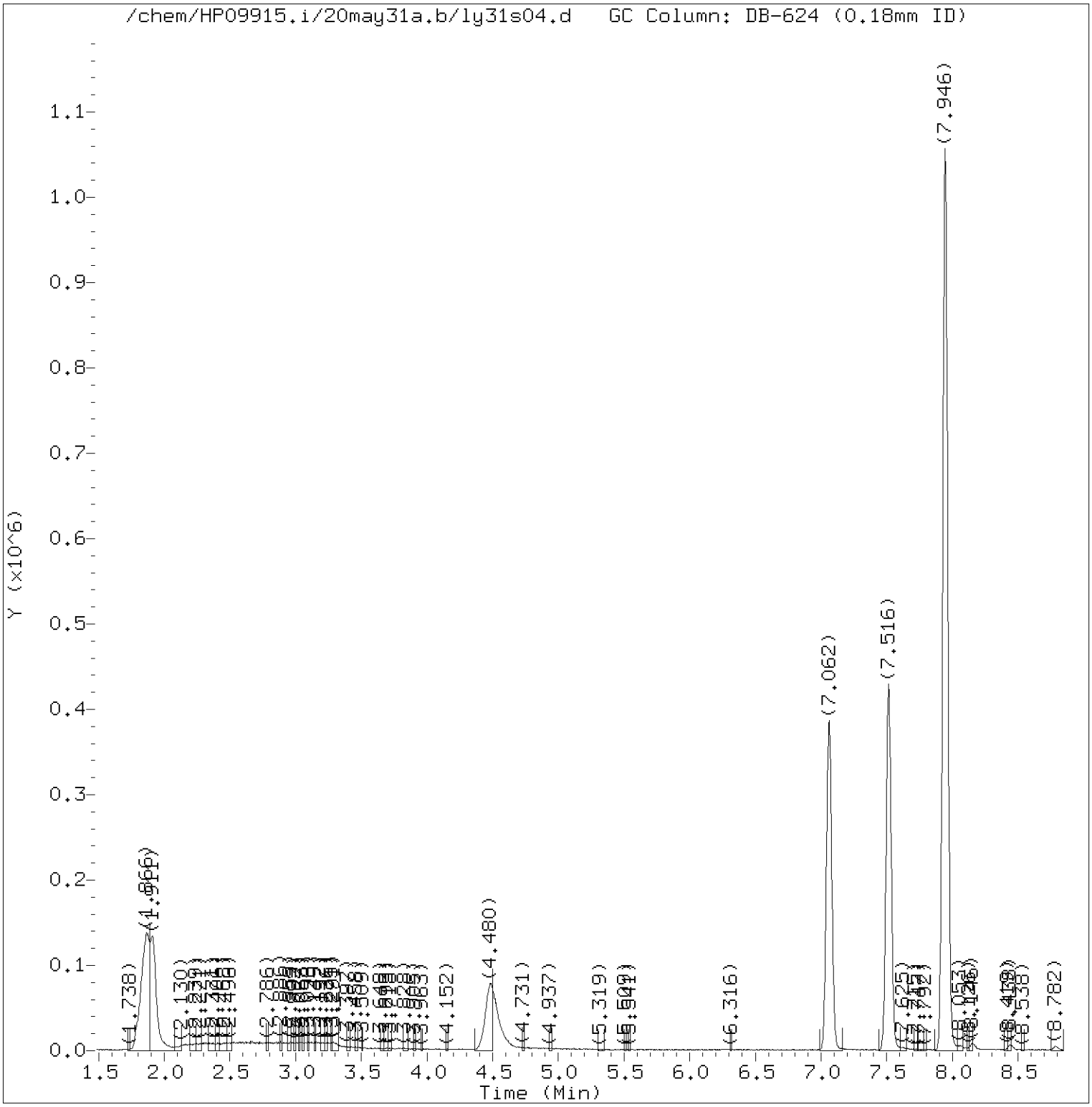
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 21:38. PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

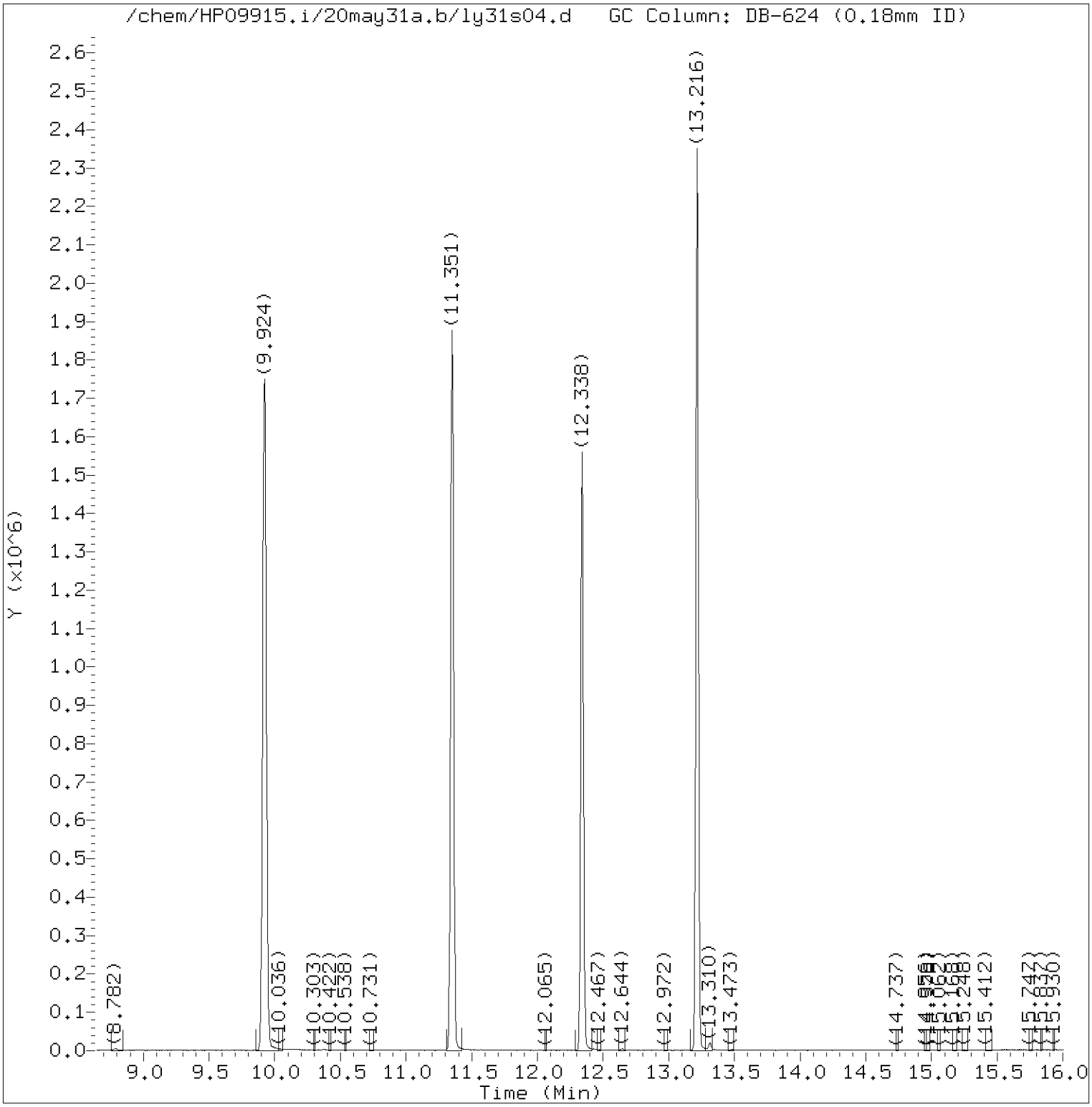
Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s04.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:35 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801 Lab Sample ID: 1318256

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s04.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:35 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801 Lab Sample ID: 1318256

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s04.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:35 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801 Lab Sample ID: 1318256

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.490	65	261491	250.000
52)$Dibromofluoromethane	(2)	7.059	113	346327	50.192
57)$1,2-Dichloroethane-d4	(2)	7.516	102	89866	51.328
66)*Fluorobenzene	(2)	7.946	96	1369634	50.000
83)$Toluene-d8	(3)	9.924	98	1338046	50.041
100)*Chlorobenzene-d5	(3)	11.351	117	1040842	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	479106	46.568
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	553970	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5802

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318257

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s33.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.6	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5802 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318257

Data file: /chem/HP09915.i/20may29a.b/ly29s33.d Injection date and time: **29-MAY-2020 14:40**
Data file Sample Info. Line: W5802;1318257;1;0;;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.496	(-0.003)	937	65	305872	(-19)	250.00	
66) Fluorobenzene	7.953	(-0.006)	2012	96	1555696	(-8)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1170183	(-9)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	622142	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.069	(0.000)	113	385899	49.239	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519	(0.001)	102	98826	49.694	99%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1508199	50.170	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342	(0.000)	95	541391	46.805	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.551	(0.000)	63	8573	0.635	0.63		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075	(0.000)	97	37839	3.342	3.34			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Data file: /chem/HP09915.i/20may29a.b/ly29s33.d Injection date and time: **29-MAY-2020 14:40**
Data file Sample Info. Line: W5802;1318257;1;0;;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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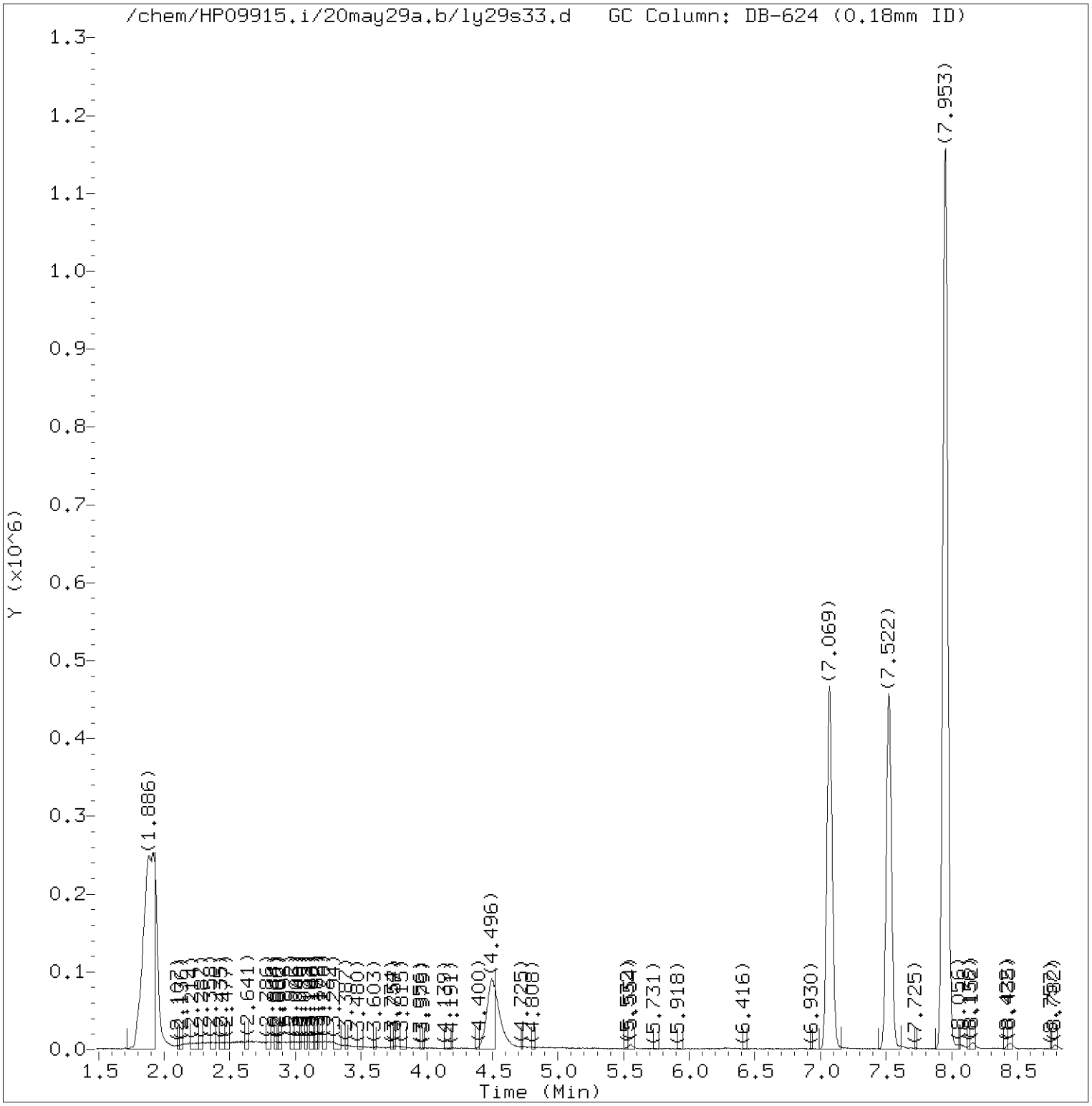
Total number of targets = 24

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

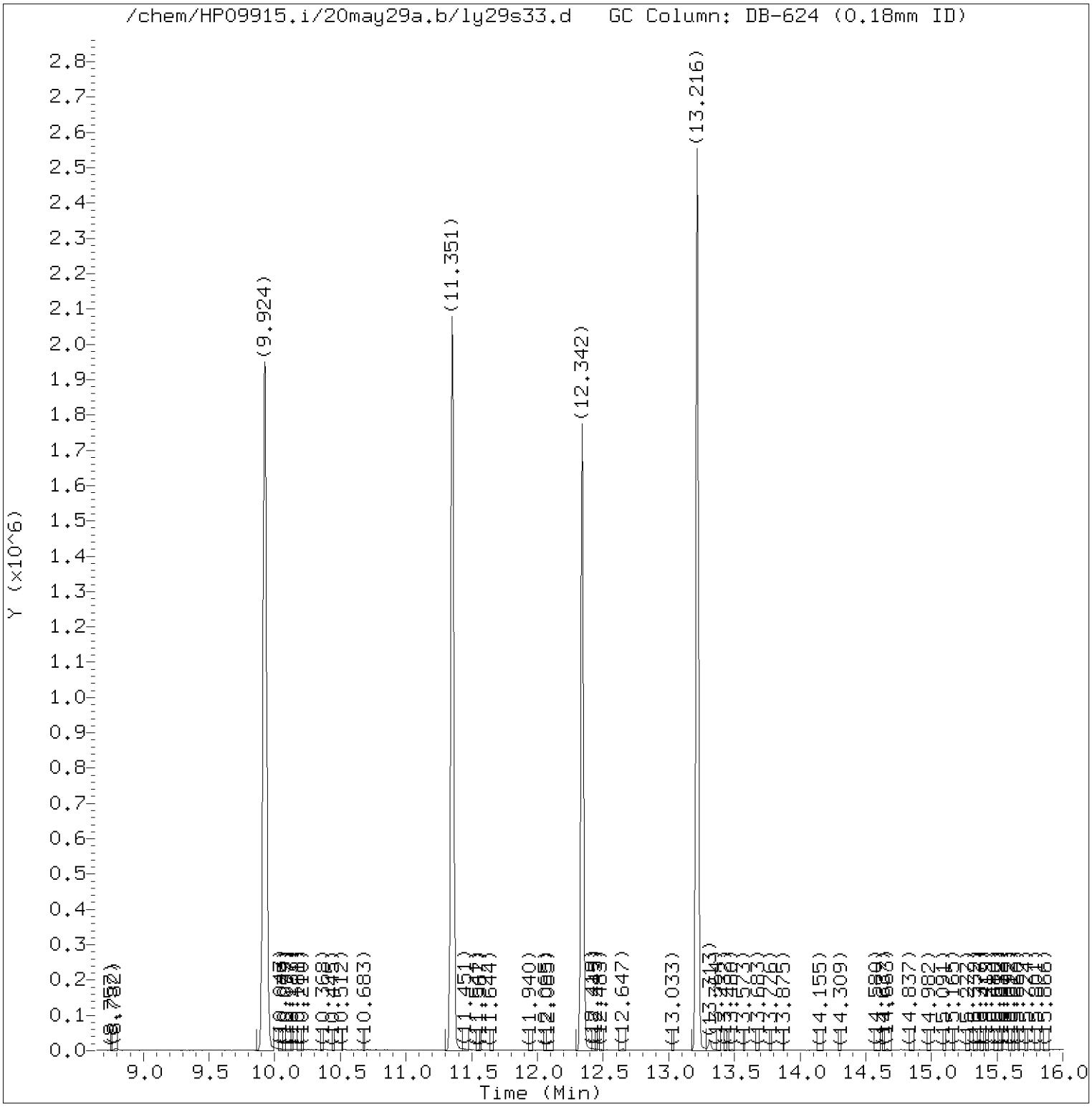
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s33.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 14:40 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Sample Name: W5802 Lab Sample ID: 1318257

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s33.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 14:40 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Sample Name: W5802 Lab Sample ID: 1318257

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s33.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 14:40 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Sample Name: W5802 Lab Sample ID: 1318257

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.496	65	305872	250.000
36) 1,1-Dichloroethane	(2)	5.551	63	8573	0.635
52)$Dibromofluoromethane	(2)	7.069	113	385899	49.239
53) 1,1,1-Trichloroethane	(2)	7.075	97	37839	3.342
57)$1,2-Dichloroethane-d4	(2)	7.519	102	98826	49.694
66)*Fluorobenzene	(2)	7.953	96	1555696	50.000
83)$Toluene-d8	(3)	9.924	98	1508199	50.170
100)*Chlorobenzene-d5	(3)	11.351	117	1170183	50.000
114)$4-Bromofluorobenzene	(3)	12.342	95	541391	46.805
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	622142	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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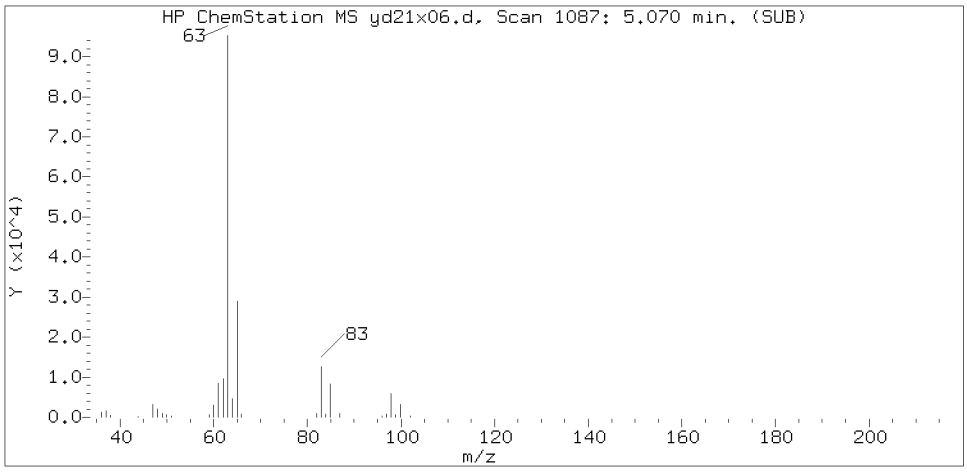
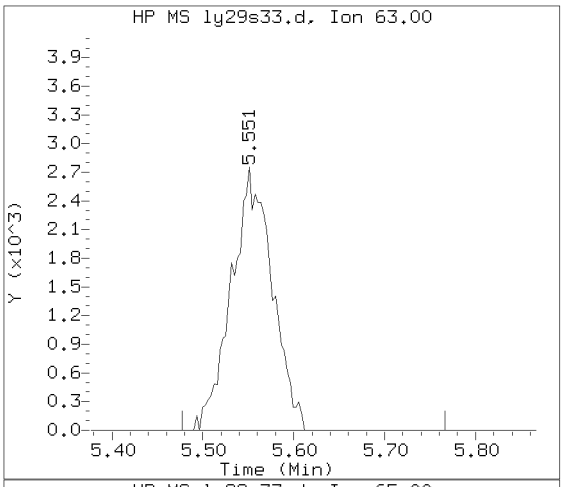
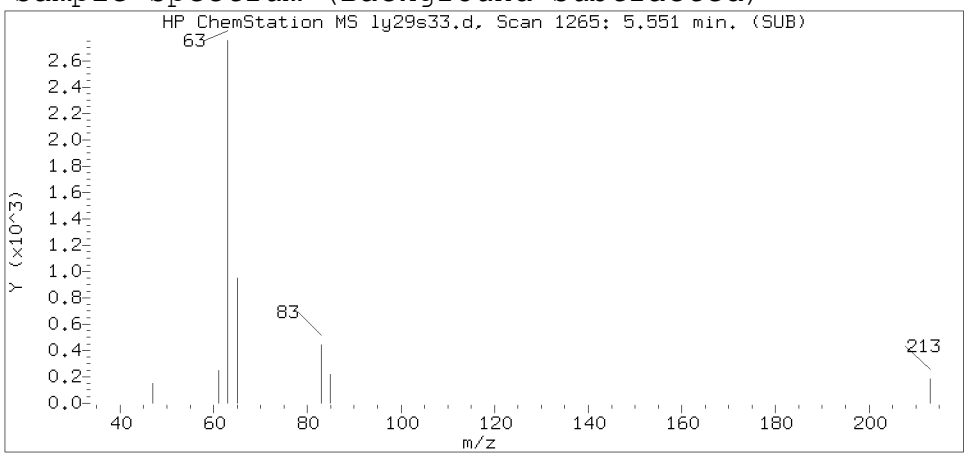
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

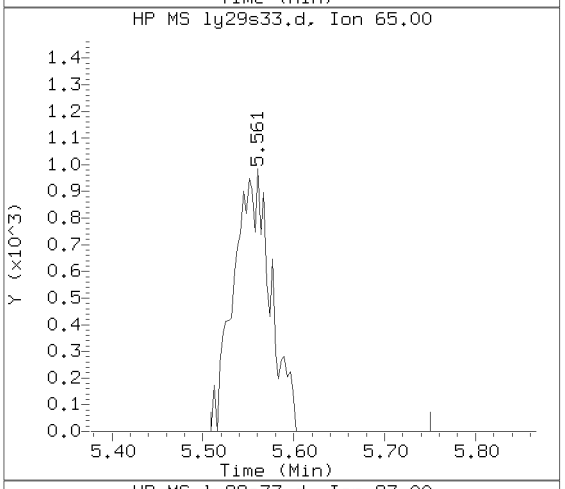
Reference Standard Spectrum for 1,1-Dichloroethane



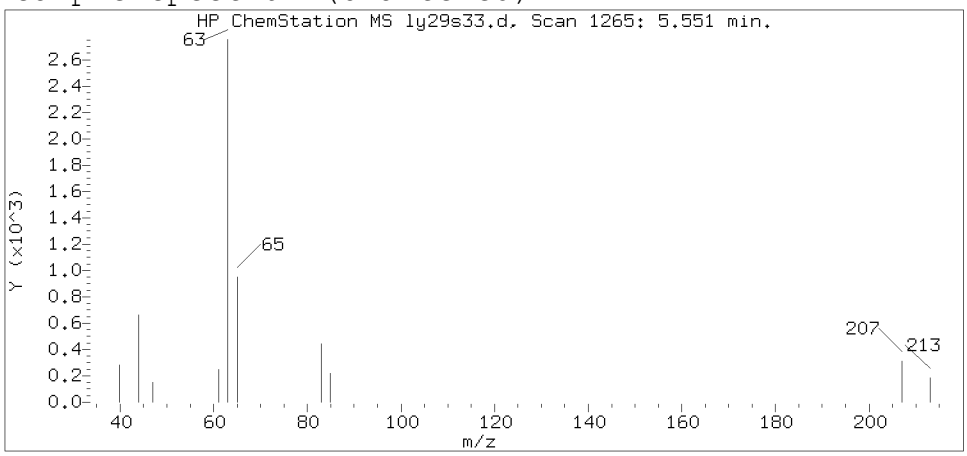


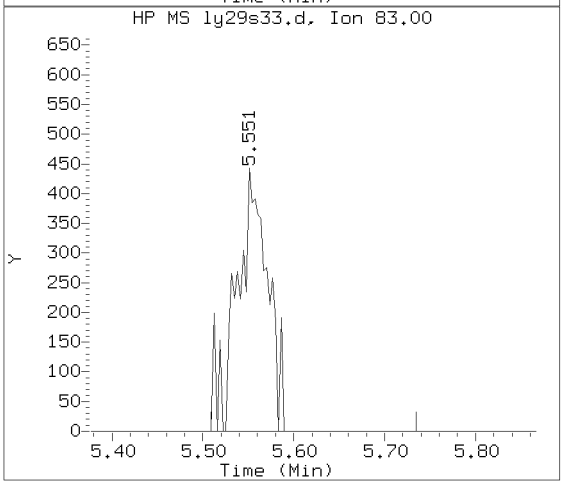
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20may29a.b/ly29s33.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 14:40 Analyst ID: CLM27445

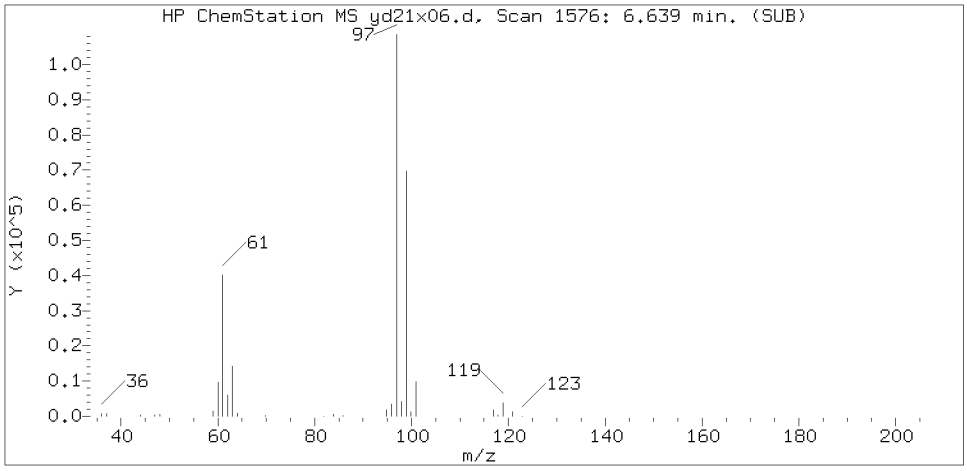
Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

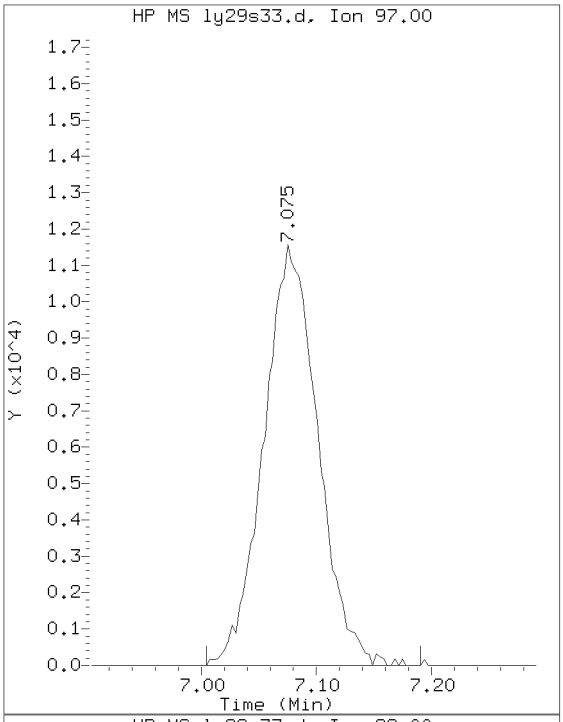
Sample Name: W5802 Lab Sample ID: 1318257

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 1265
Retention Time (minutes): 5.551
Relative Retention Time : 0.00016
Quant Ion : 63.00
Area (flag) : 8573
On-Column Amount (ng) : 0.6347

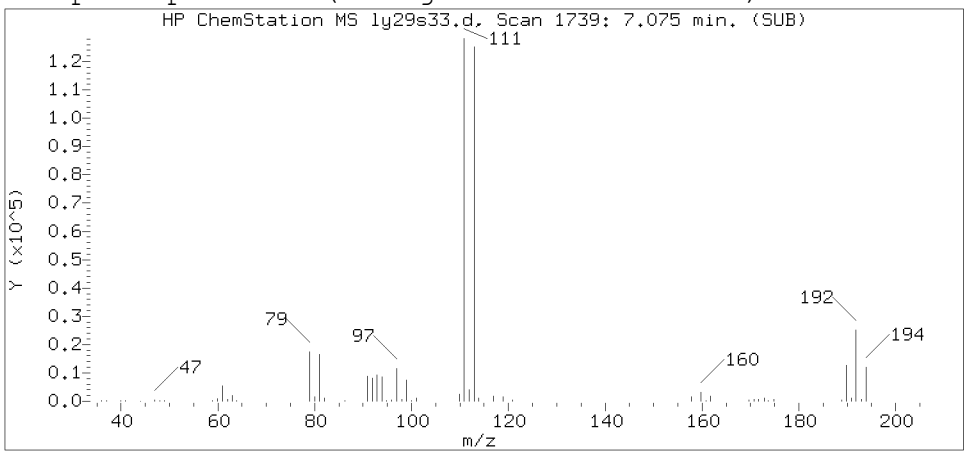
Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

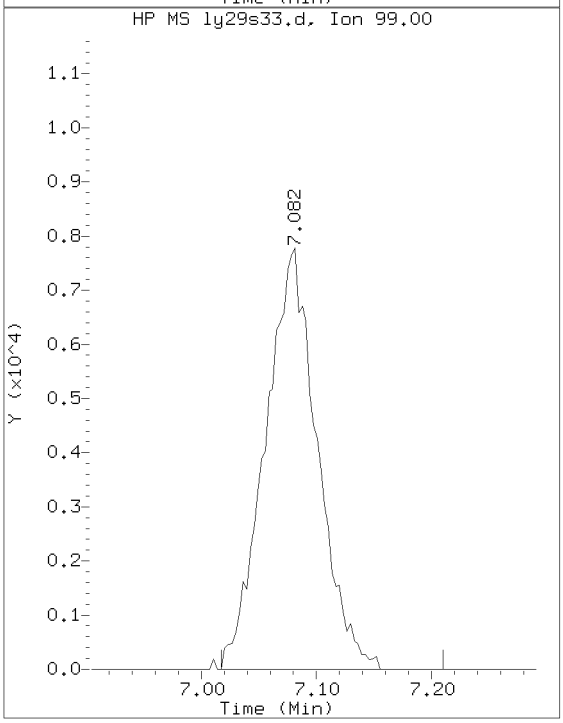
Reference Standard Spectrum for 1,1,1-Trichloroethane



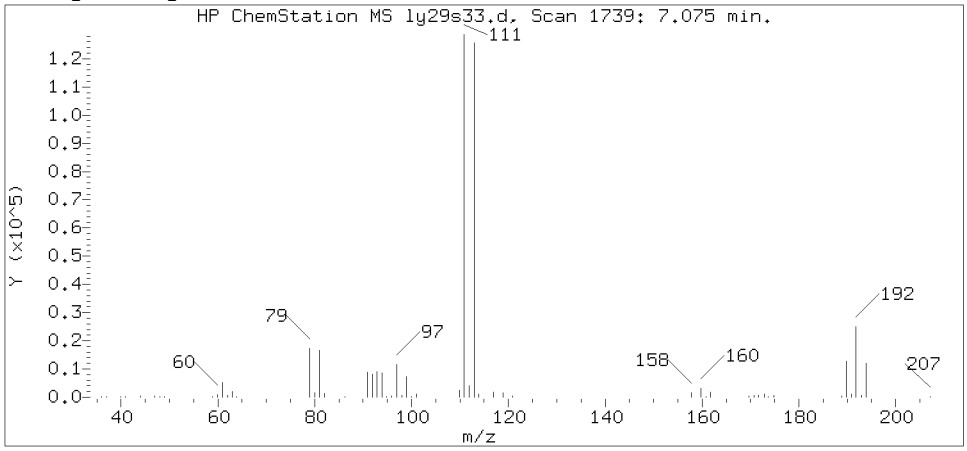


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20may29a.b/ly29s33.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 14:40 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:00 ljg30941

Sample Name: W5802 Lab Sample ID: 1318257

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1739
Retention Time (minutes): 7.075
Relative Retention Time : 0.00031
Quant Ion : 97.00
Area (flag) : 37839
On-Column Amount (ng) : 3.3421

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5803

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318260

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s06.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.5	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5803 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318260

Data file: /chem2/HP26285.i/20may29a.b/5y29s06.d Injection date and time: **29-MAY-2020 13:35**
Data file Sample Info. Line: W5803;1318260;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	279322	(-19)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	913731	(-10)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	721928	(-11)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	382631	(-13)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	228324	50.169	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	52613	51.690	103%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	866044	48.814	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	357088	47.769	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953	(0.001)	97	4516	0.500	0.50		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s06.d Injection date and time: **29-MAY-2020 13:35**
Data file Sample Info. Line: W5803;1318260;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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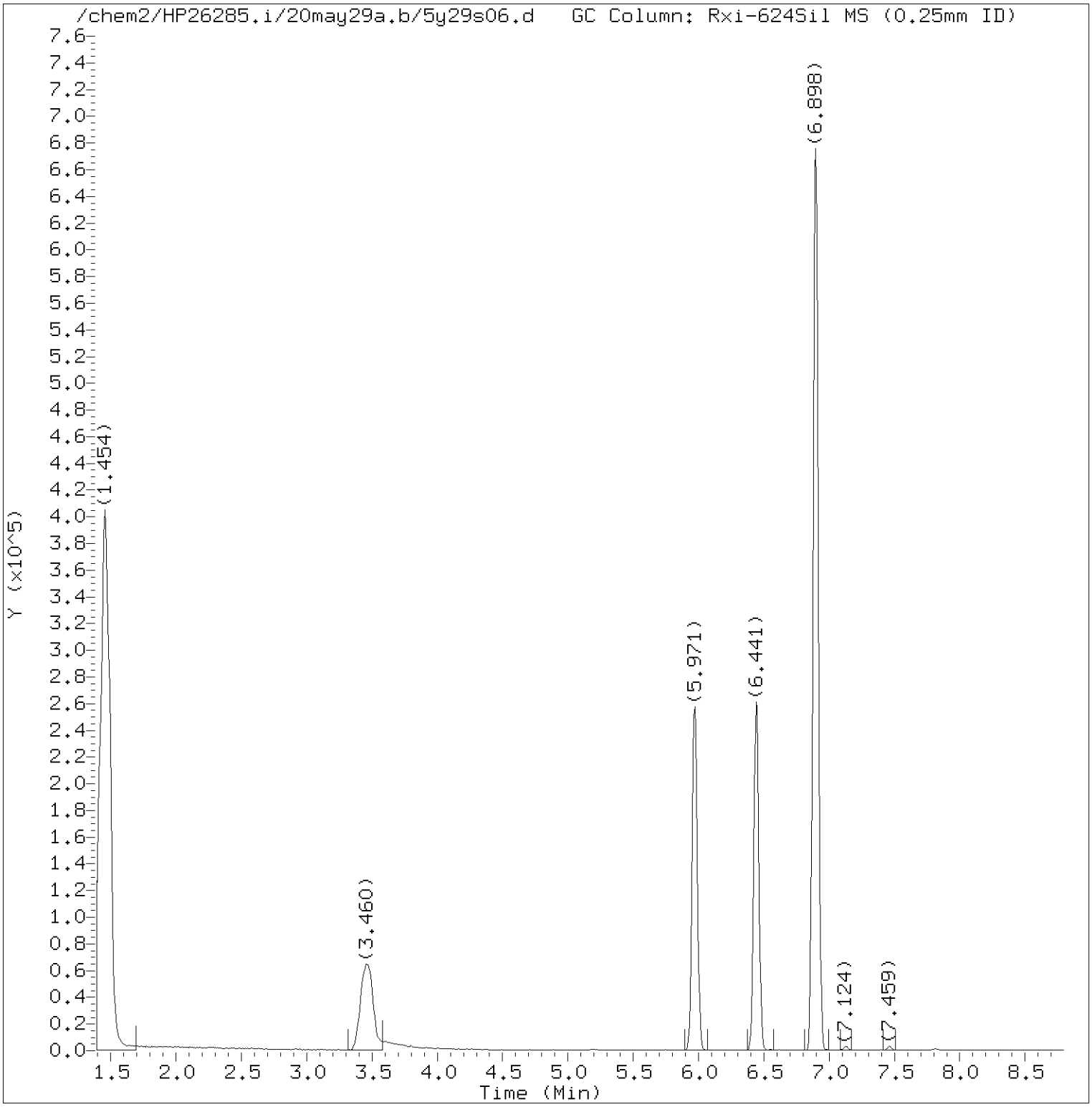
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

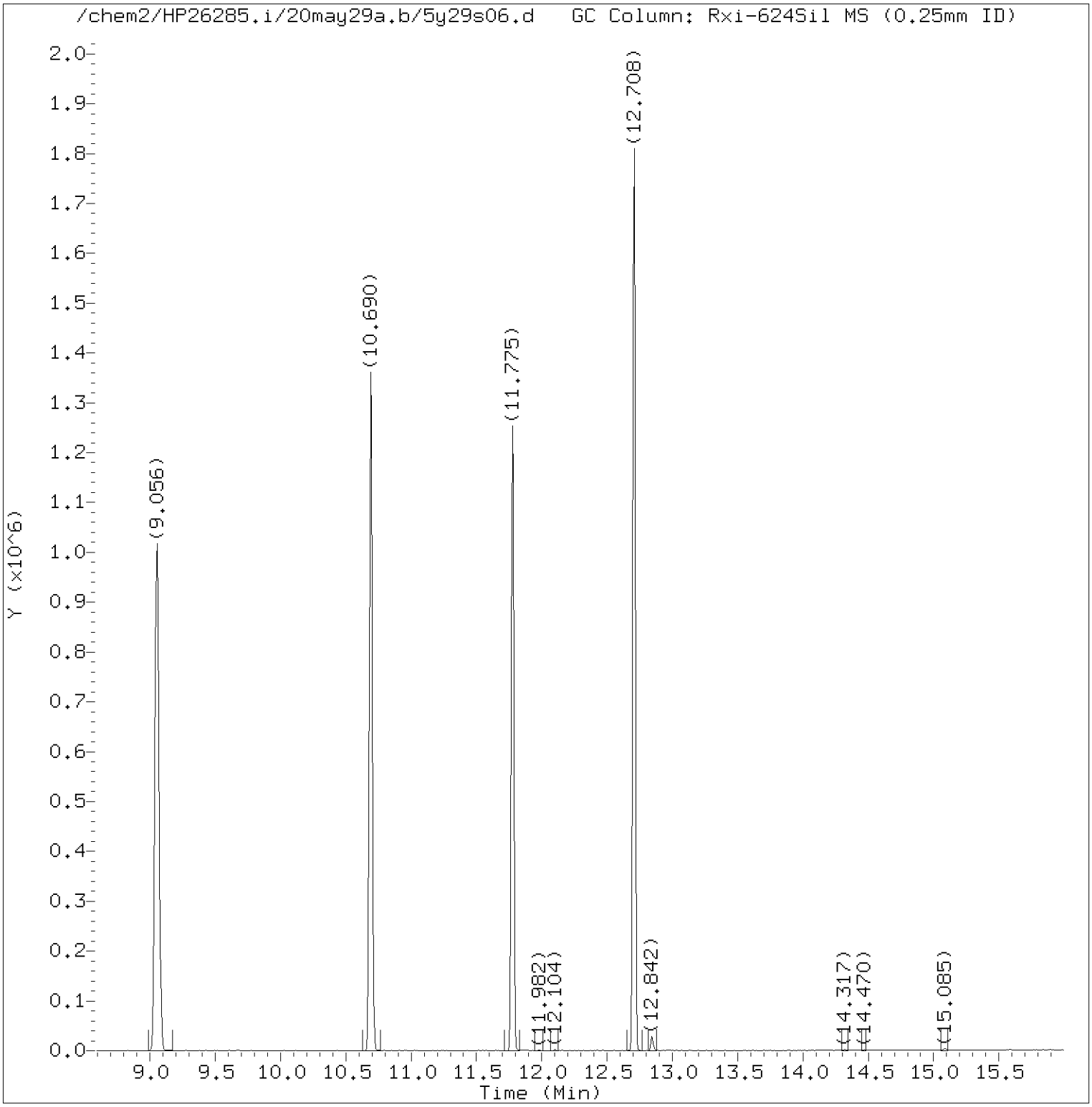
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s06.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:35 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Sample Name: W5803 Lab Sample ID: 1318260

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s06.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:35 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Sample Name: W5803 Lab Sample ID: 1318260

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s06.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:35 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Sample Name: W5803 Lab Sample ID: 1318260

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	279322	250.000
53) 1,1,1-Trichloroethane	(2)	5.953	97	4516	0.500
52)$Dibromofluoromethane	(2)	5.971	113	228324	50.169
57)$1,2-Dichloroethane-d4	(2)	6.441	102	52613	51.690
66)*Fluorobenzene	(2)	6.898	96	913731	50.000
84)$Toluene-d8	(3)	9.056	98	866044	48.814
101)*Chlorobenzene-d5	(3)	10.690	117	721928	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	357088	47.769
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	382631	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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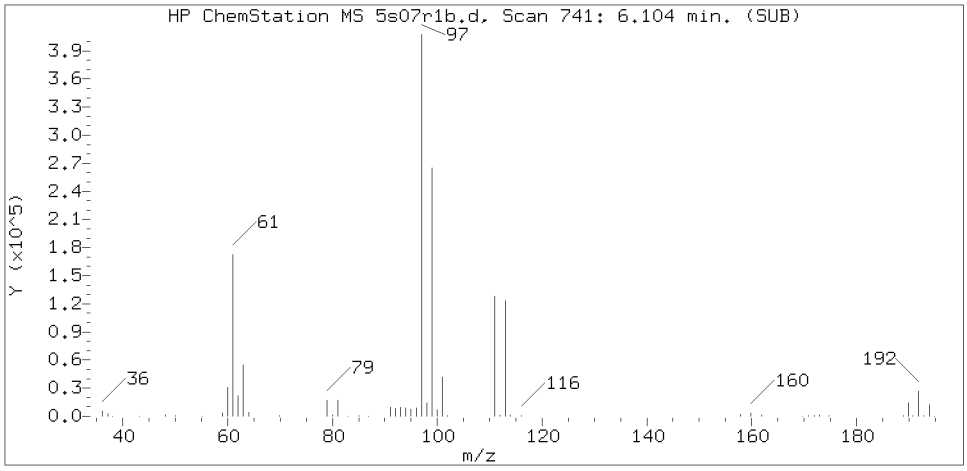
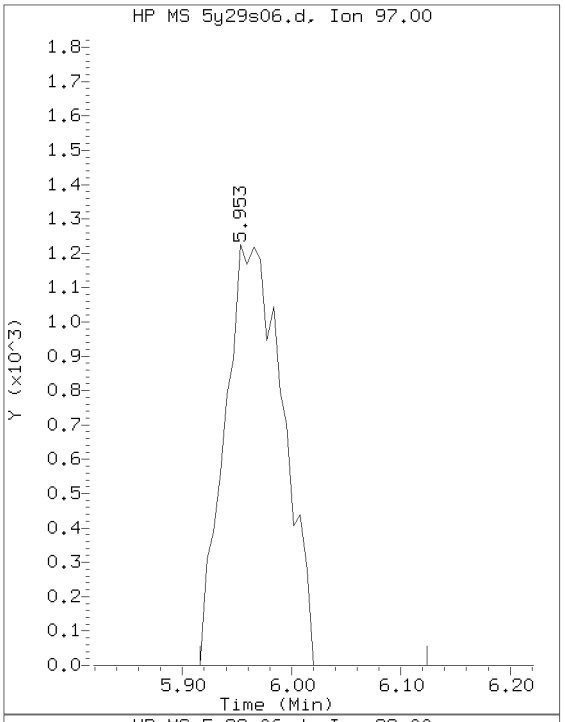
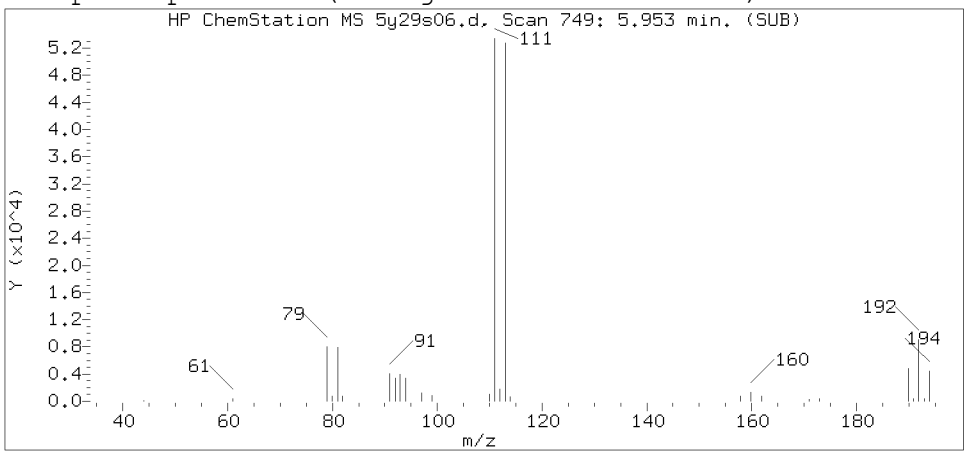
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

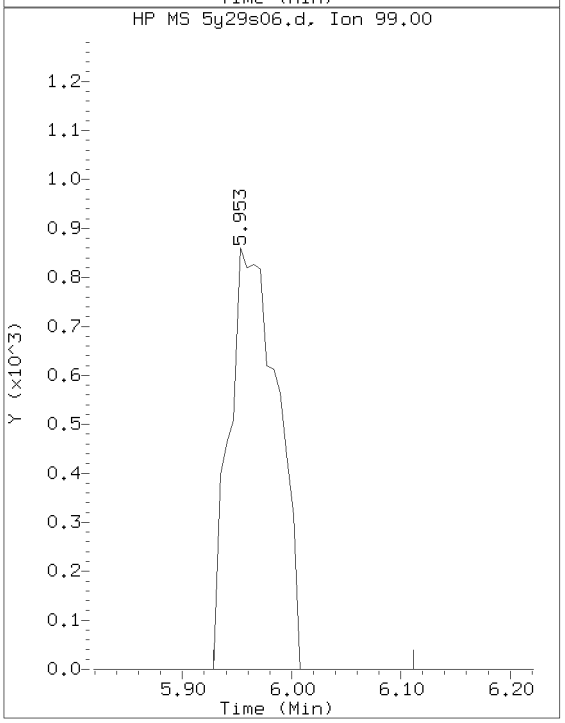
Reference Standard Spectrum for 1,1,1-Trichloroethane



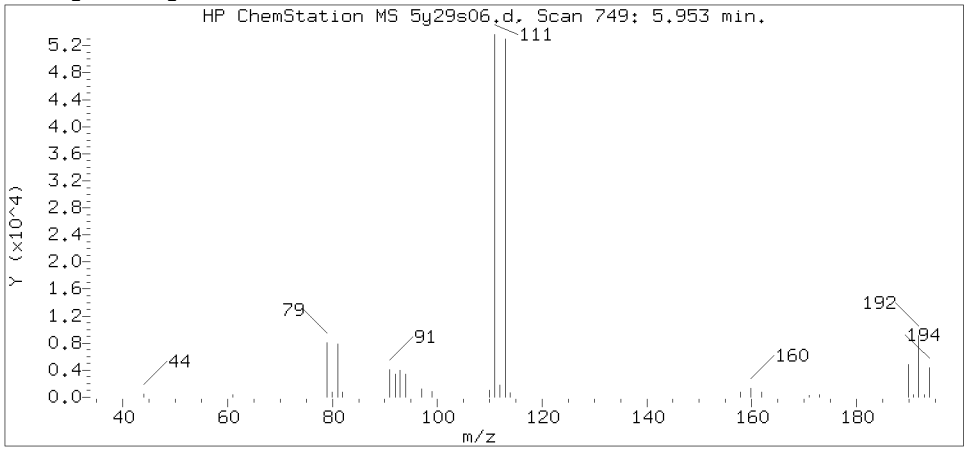


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s06.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:35 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 13:53 chemist

Sample Name: W5803 Lab Sample ID: 1318260

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 749
Retention Time (minutes)	: 5.953
Relative Retention Time	: 0.00165
Quant Ion	: 97.00
Area (flag)	: 4516
On-Column Amount (ng)	: 0.4998

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5804

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318261

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s07.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.7	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5804 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318261

Data file: /chem2/HP26285.i/20may29a.b/5y29s07.d Injection date and time: **29-MAY-2020 13:55**
Data file Sample Info. Line: W5804;1318261;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466	(-0.037)	341	65	278573	(-20)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	919108	(-9)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	727889	(-10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	389747	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	232597	50.809	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	53356	52.112	104%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	874999	48.915	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	358241	47.531	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.971	(-0.001)	97	6283	0.691	0.69		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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W5804 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318261

Data file: /chem2/HP26285.i/20may29a.b/5y29s07.d Injection date and time: **29-MAY-2020 13:55**
Data file Sample Info. Line: W5804;1318261;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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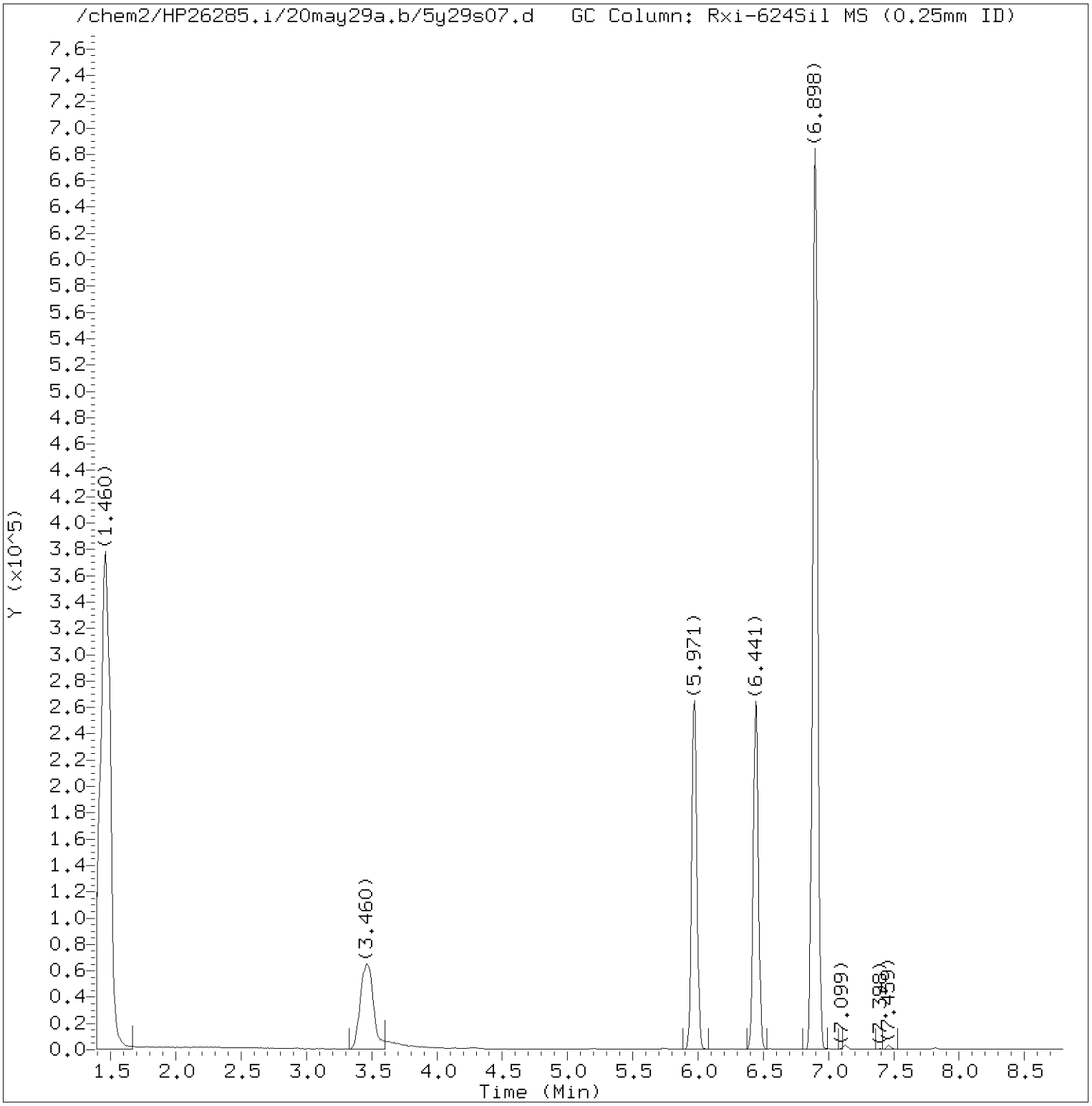
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s07.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:55 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Sample Name: W5804 Lab Sample ID: 1318261

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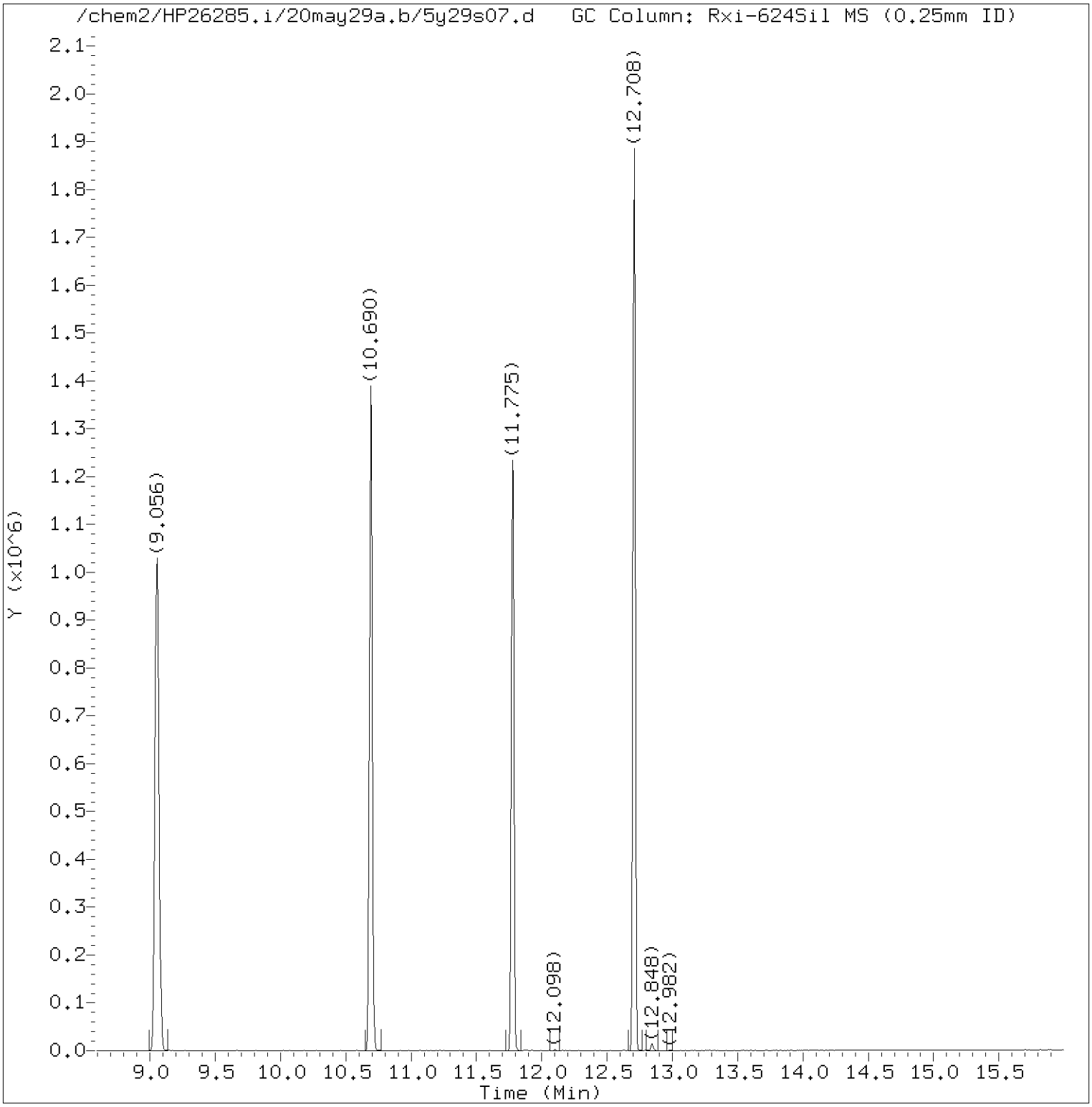
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s07.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:55 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Sample Name: W5804 Lab Sample ID: 1318261

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s07.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:55 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Sample Name: W5804 Lab Sample ID: 1318261

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	278573	250.000
53) 1,1,1-Trichloroethane	(2)	5.971	97	6283	0.691
52)$Dibromofluoromethane	(2)	5.971	113	232597	50.809
57)$1,2-Dichloroethane-d4	(2)	6.441	102	53356	52.112
66)*Fluorobenzene	(2)	6.898	96	919108	50.000
84)$Toluene-d8	(3)	9.056	98	874999	48.915
101)*Chlorobenzene-d5	(3)	10.690	117	727889	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	358241	47.531
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	389747	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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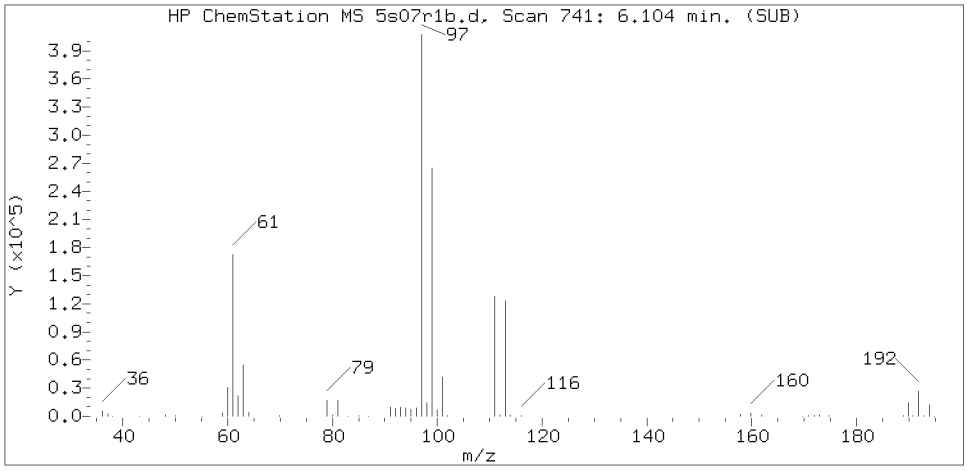
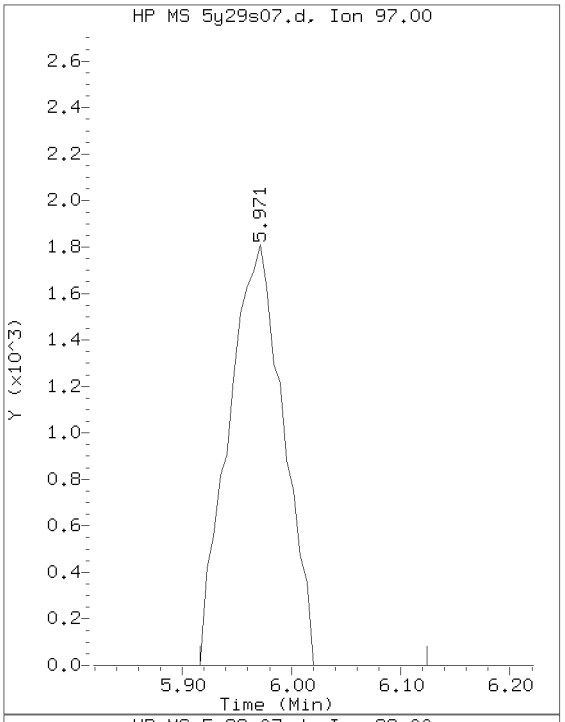
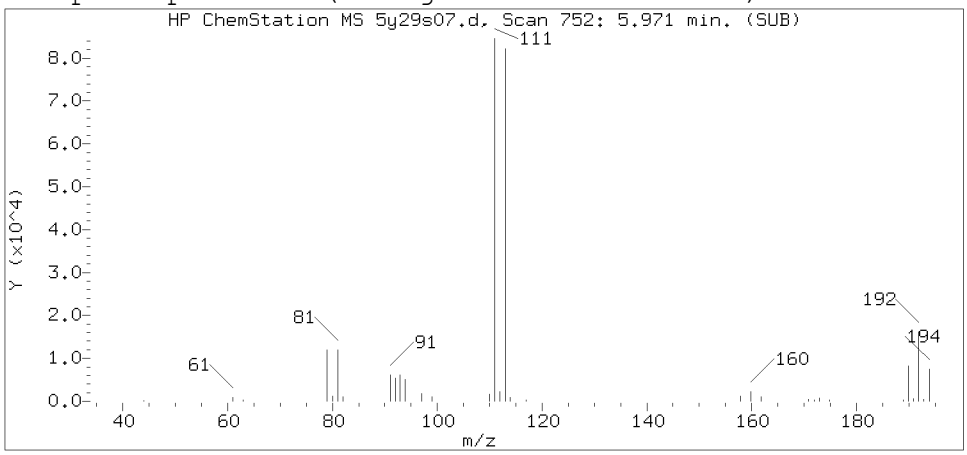
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

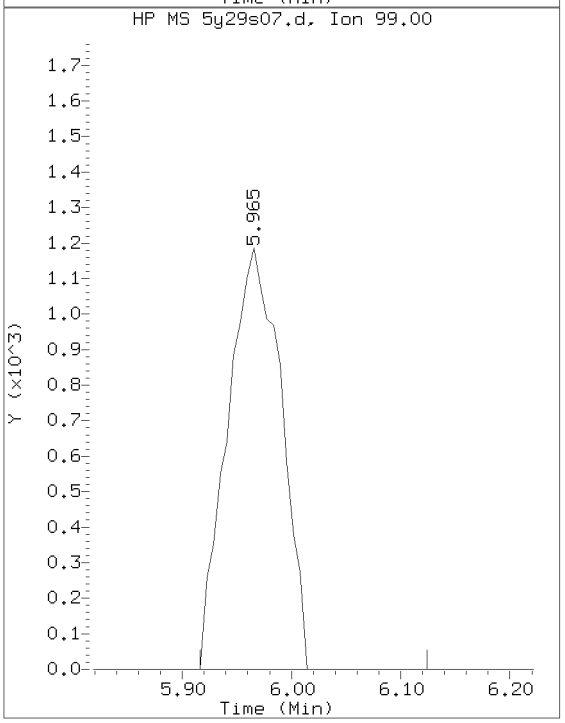
Reference Standard Spectrum for 1,1,1-Trichloroethane



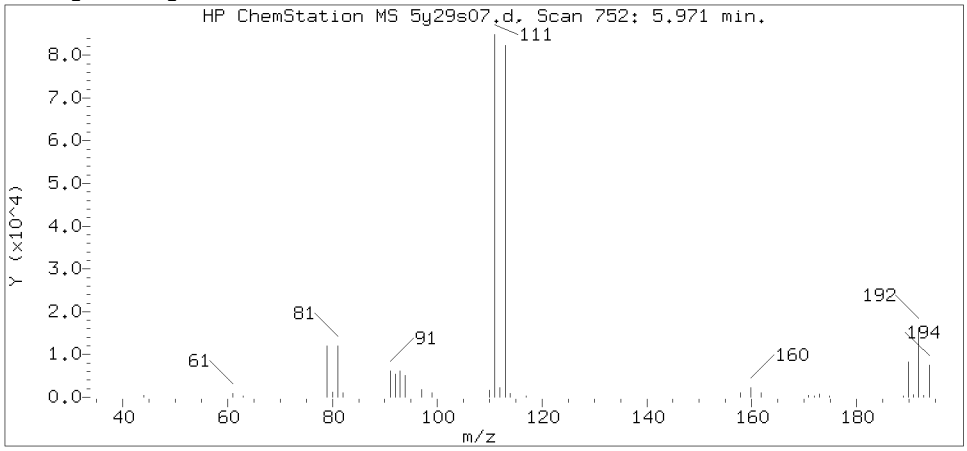


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s07.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:55 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:14 chemist

Sample Name: W5804 Lab Sample ID: 1318261

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 752
Retention Time (minutes): 5.971
Relative Retention Time :-0.00101
Quant Ion : 97.00
Area (flag) : 6283
On-Column Amount (ng) : 0.6912

Digitally signed by Laura J. Green on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5805

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318262

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s02.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5805 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318262

Data file: /chem2/HP26285.i/20may29a.b/5y29s02.d Injection date and time: **29-MAY-2020 12:12**
Data file Sample Info. Line: W5805;1318262;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:31 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.031)	340	65	333772	(-4)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	1026061	(1)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	810183	(0)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	431198	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	255926	50.077	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447	(0.000)	102	58889	51.521	103%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	971481	48.792	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	401836	47.899	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:39. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s02.d Injection date and time: **29-MAY-2020 12:12**
Data file Sample Info. Line: W5805;1318262;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:31 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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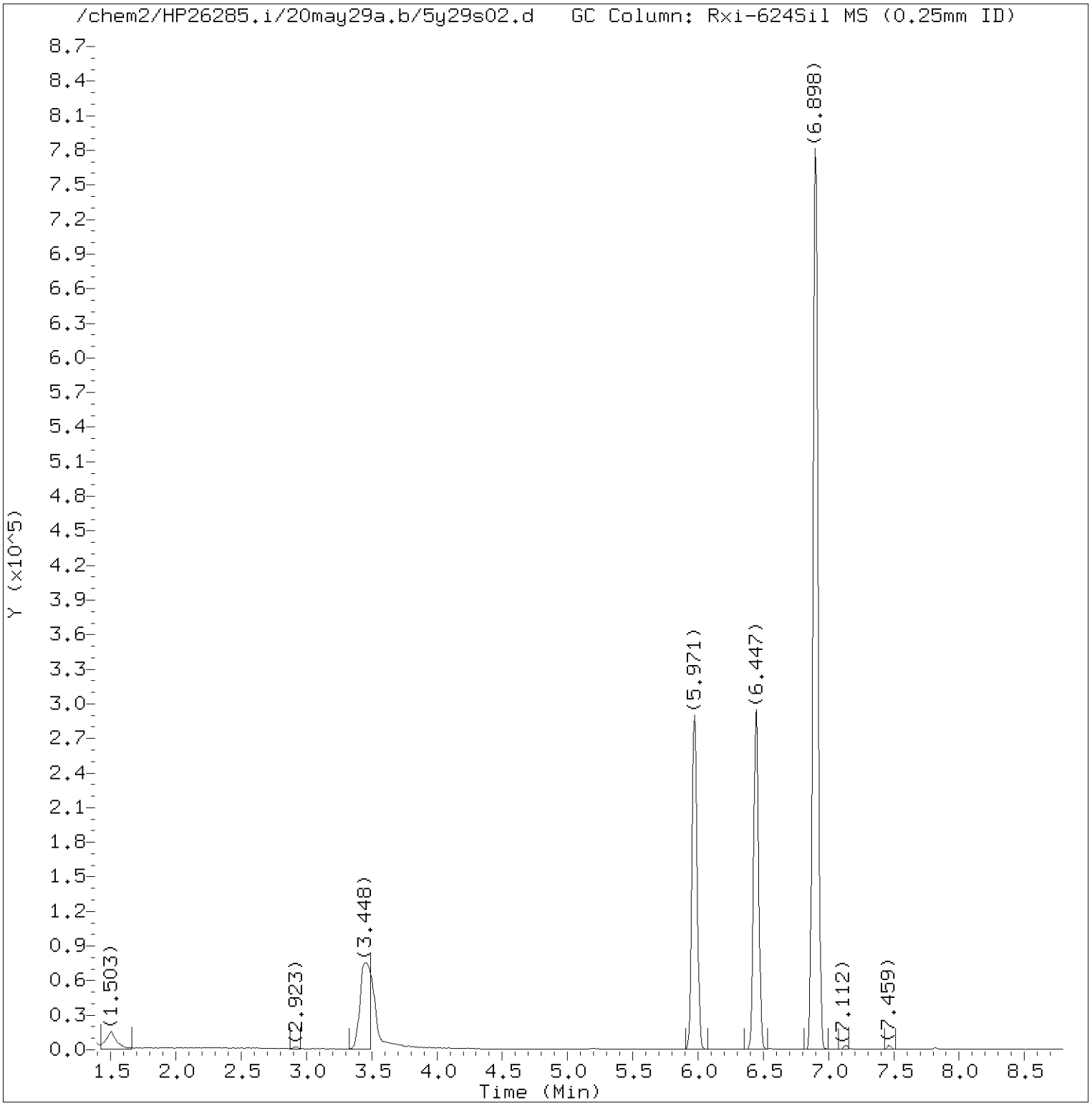
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:39. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

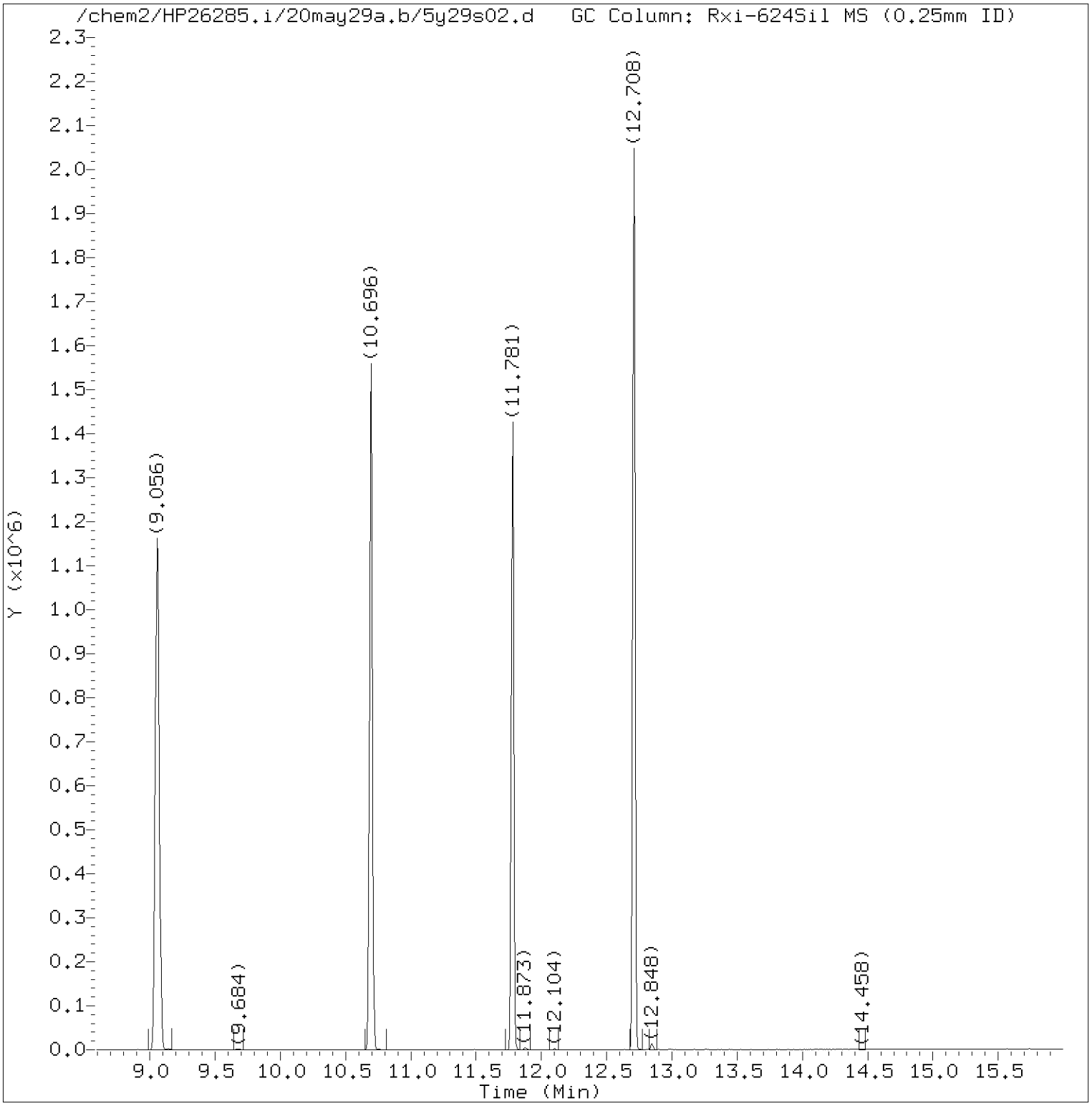
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s02.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:12 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 12:31 chemist

Sample Name: W5805 Lab Sample ID: 1318262

Digitally signed by Laura J. Green
on 05/29/2020 at 17:39.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s02.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:12 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 12:31 chemist

Sample Name: W5805 Lab Sample ID: 1318262

Digitally signed by Laura J. Green
on 05/29/2020 at 17:39.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s02.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:12 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 12:31 chemist

Sample Name: W5805 Lab Sample ID: 1318262

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	333772	250.000
52)$Dibromofluoromethane	(2)	5.971	113	255926	50.077
57)$1,2-Dichloroethane-d4	(2)	6.447	102	58889	51.521
66)*Fluorobenzene	(2)	6.898	96	1026061	50.000
84)$Toluene-d8	(3)	9.056	98	971481	48.792
101)*Chlorobenzene-d5	(3)	10.696	117	810183	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	401836	47.899
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	431198	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:39.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5806

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318263

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s11.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5806 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318263

Data file: /chem2/HP26285.i/20may27a.b/5y27s11.d Injection date and time: **27-MAY-2020 13:34**
Data file Sample Info. Line: W5806;1318263;1;0;;JCW58;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 13:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453(-0.036)	339	65	293382 (-1)	250.00	
66) Fluorobenzene	6.880(-0.006)	901	96	990357 (-2)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	782876 (-3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696(0.000)	1855	152	417243 (-4)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(0.000)	113	248328	50.342	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(-0.001)	102	57080	51.739	103%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	939732	48.844	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(-0.001)	95	380248	46.907	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s11.d Injection date and time: **27-MAY-2020 13:34**
Data file Sample Info. Line: W5806;1318263;1;0;;JCW58;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 13:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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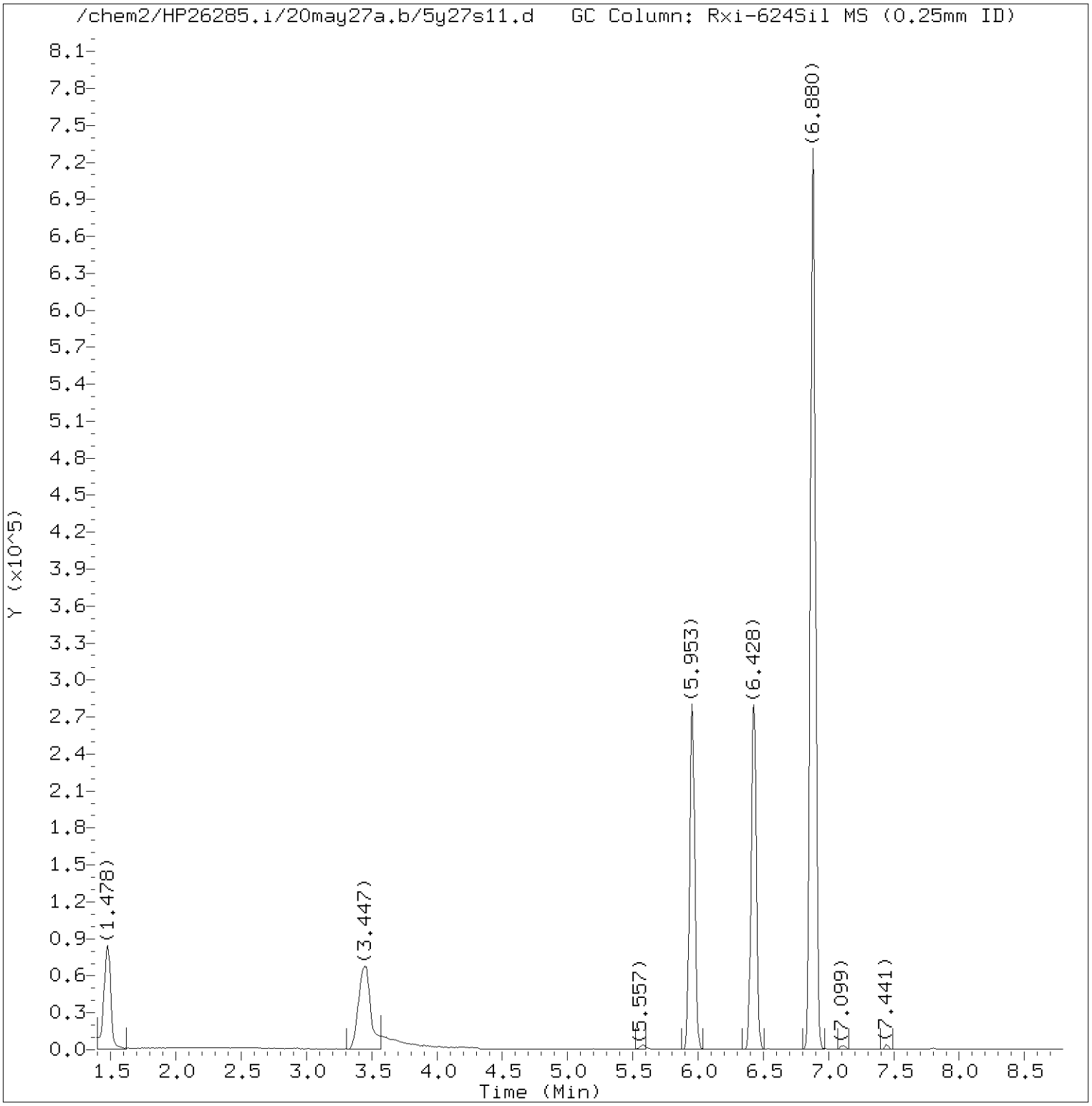
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

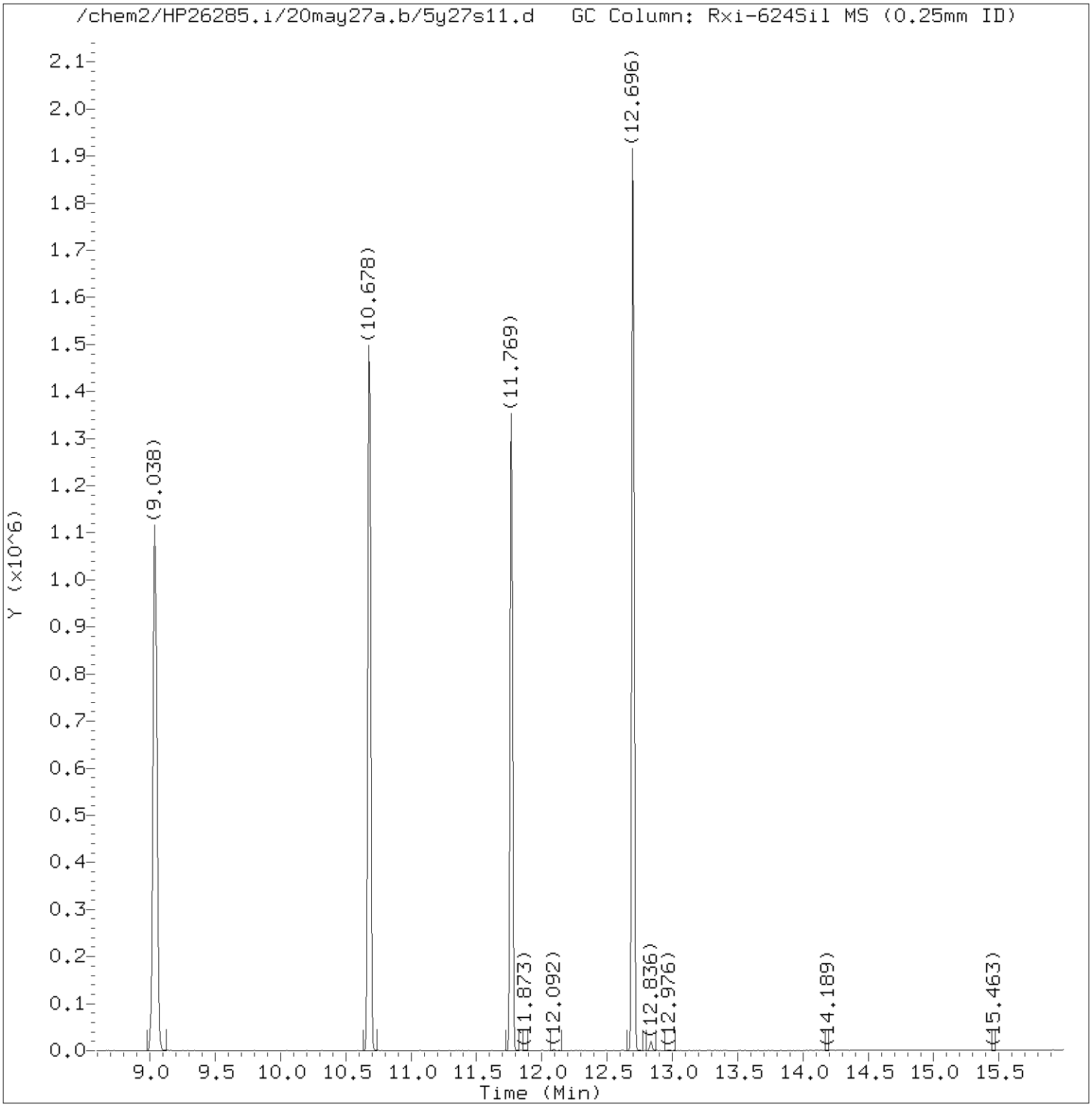
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s11.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:34 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 13:53 chemist

Sample Name: W5806 Lab Sample ID: 1318263

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s11.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:34 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 13:53 chemist

Sample Name: W5806 Lab Sample ID: 1318263

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s11.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:34 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 13:53 chemist

Sample Name: W5806 Lab Sample ID: 1318263

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.453	65	293382	250.000
52)$Dibromofluoromethane	(2)	5.953	113	248328	50.342
57)$1,2-Dichloroethane-d4	(2)	6.428	102	57080	51.739
66)*Fluorobenzene	(2)	6.880	96	990357	50.000
84)$Toluene-d8	(3)	9.038	98	939732	48.844
101)*Chlorobenzene-d5	(3)	10.678	117	782876	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	380248	46.907
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	417243	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5807

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318264

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s08.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5807 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318264

Data file: /chem2/HP26285.i/20may29a.b/5y29s08.d Injection date and time: **29-MAY-2020 14:16**
Data file Sample Info. Line: W5807;1318264;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:34 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454	(-0.024)	339	65	270856	(-22)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	887285	(-13)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	702913	(-13)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	376381	(-14)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	224053	50.698	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	52104	52.715	105%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	843705	48.841	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.001)	95	347189	47.701	95%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s08.d Injection date and time: **29-MAY-2020 14:16**
Data file Sample Info. Line: W5807;1318264;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:34 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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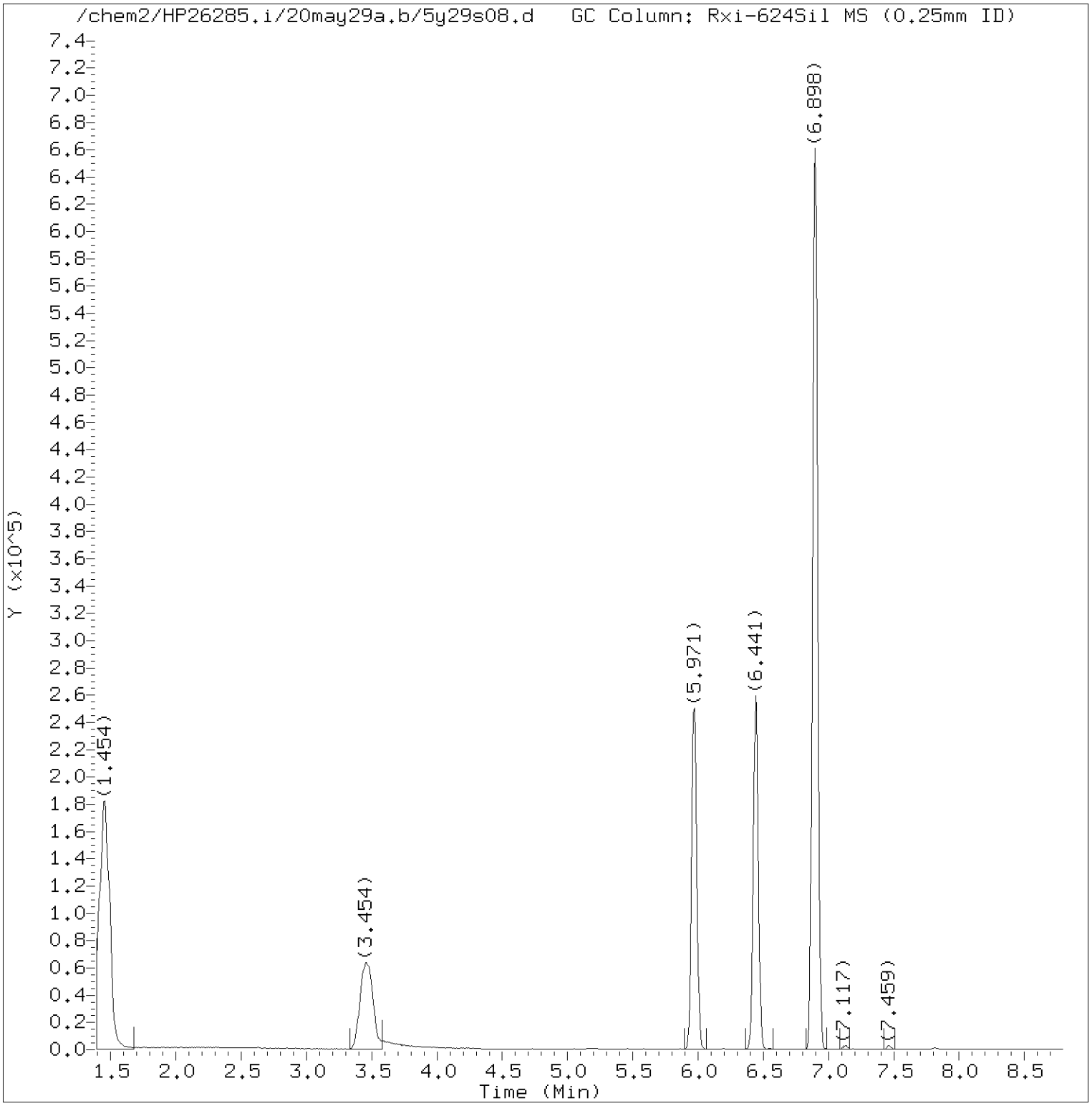
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

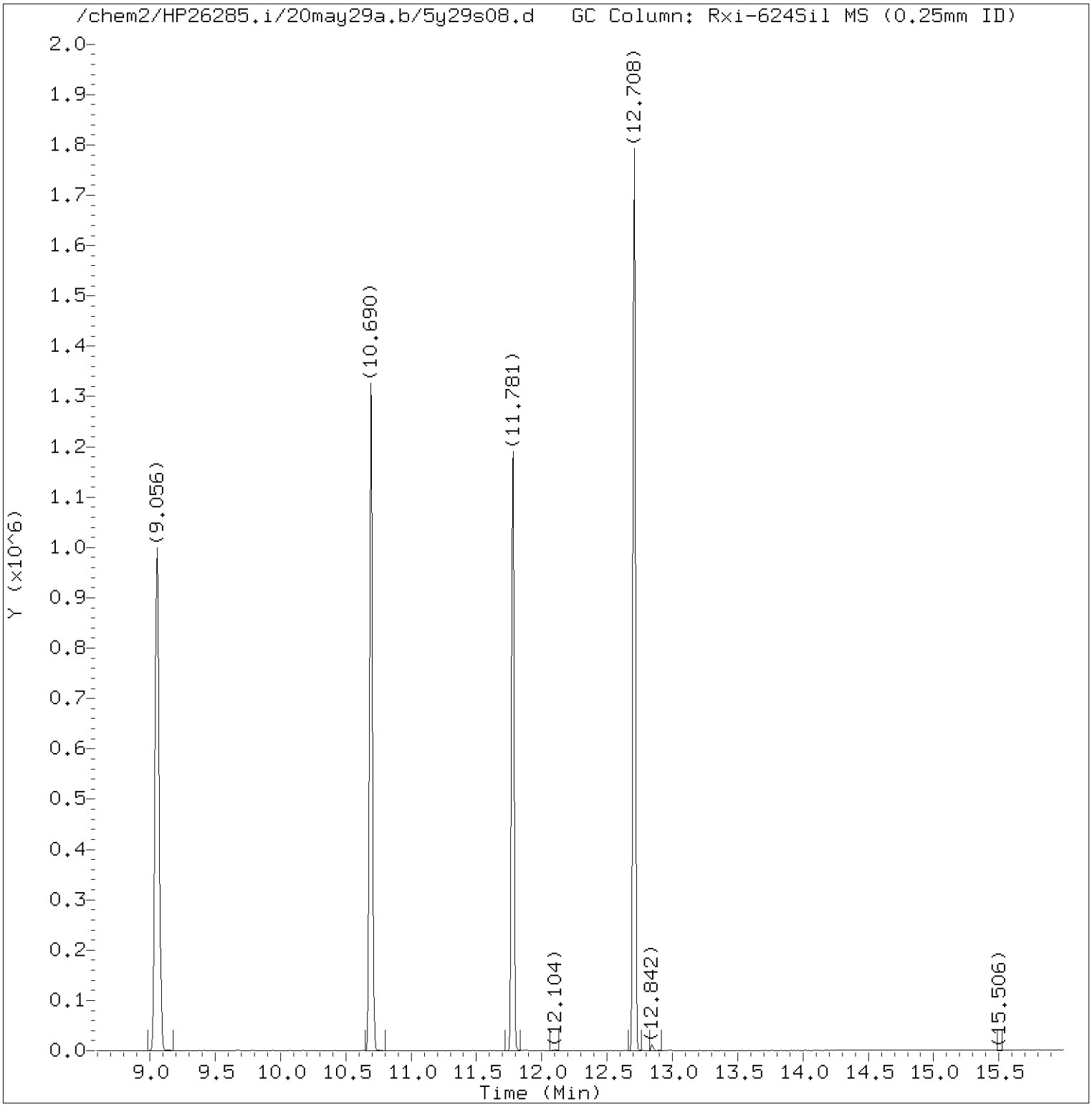
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s08.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:16 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:34 chemist

Sample Name: W5807 Lab Sample ID: 1318264

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s08.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:16 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:34 chemist

Sample Name: W5807 Lab Sample ID: 1318264

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s08.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:16 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:34 chemist

Sample Name: W5807 Lab Sample ID: 1318264

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.454	65	270856	250.000
52)$Dibromofluoromethane	(2)	5.971	113	224053	50.698
57)$1,2-Dichloroethane-d4	(2)	6.441	102	52104	52.715
66)*Fluorobenzene	(2)	6.898	96	887285	50.000
84)$Toluene-d8	(3)	9.056	98	843705	48.841
101)*Chlorobenzene-d5	(3)	10.696	117	702913	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	347189	47.701
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	376381	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5808

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318265

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s09.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5808 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318265

Data file: /chem2/HP26285.i/20may29a.b/5y29s09.d Injection date and time: **29-MAY-2020 14:36**
Data file Sample Info. Line: W5808;1318265;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:55 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466	(-0.036)	341	65	268209	(-23)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	910434	(-10)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	726642	(-10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	388532	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	230688	50.872	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447	(0.000)	102	52719	51.981	104%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	867199	48.562	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	355168	47.204	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s09.d Injection date and time: **29-MAY-2020 14:36**
Data file Sample Info. Line: W5808;1318265;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 14:55 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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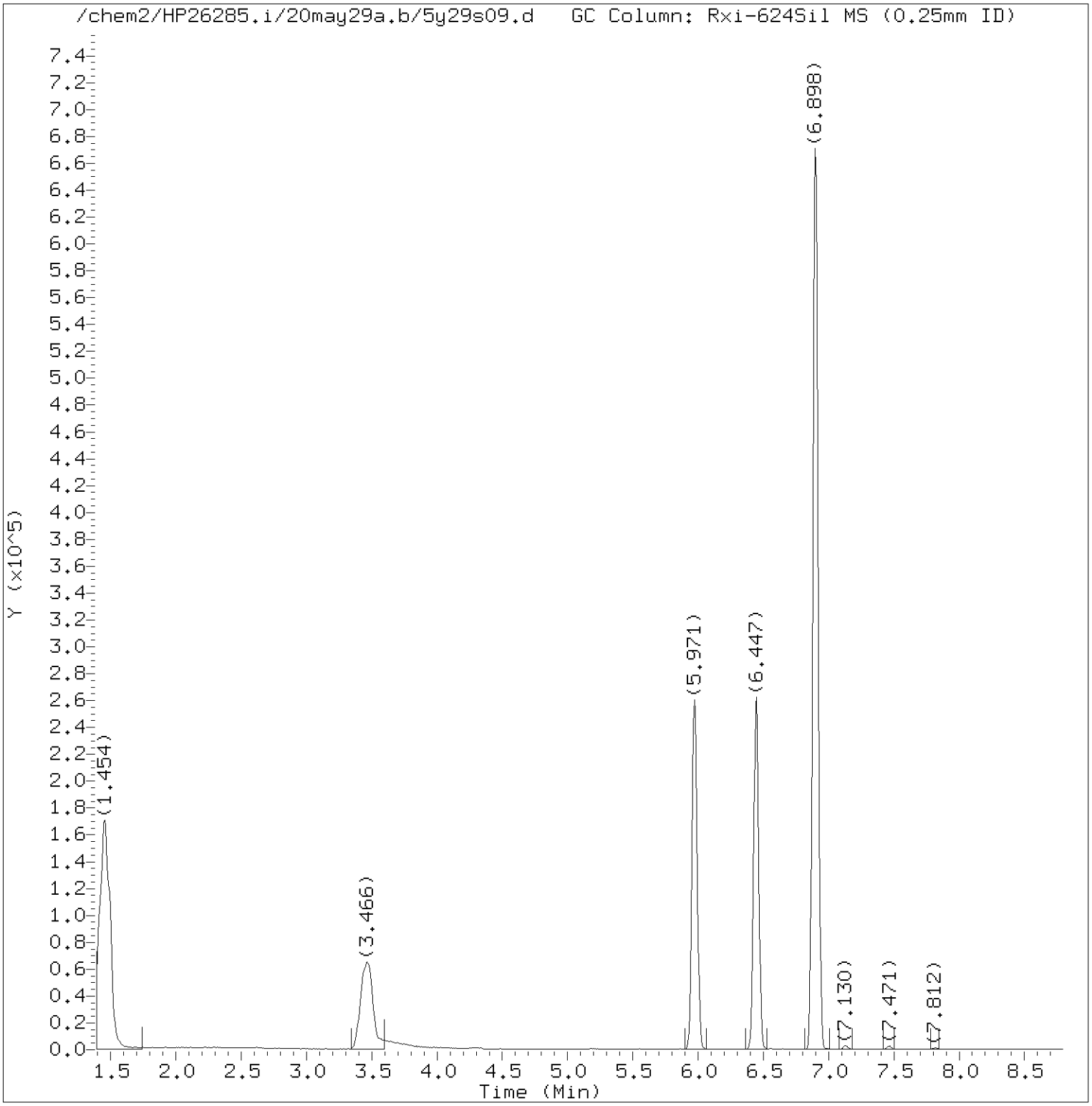
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:51. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

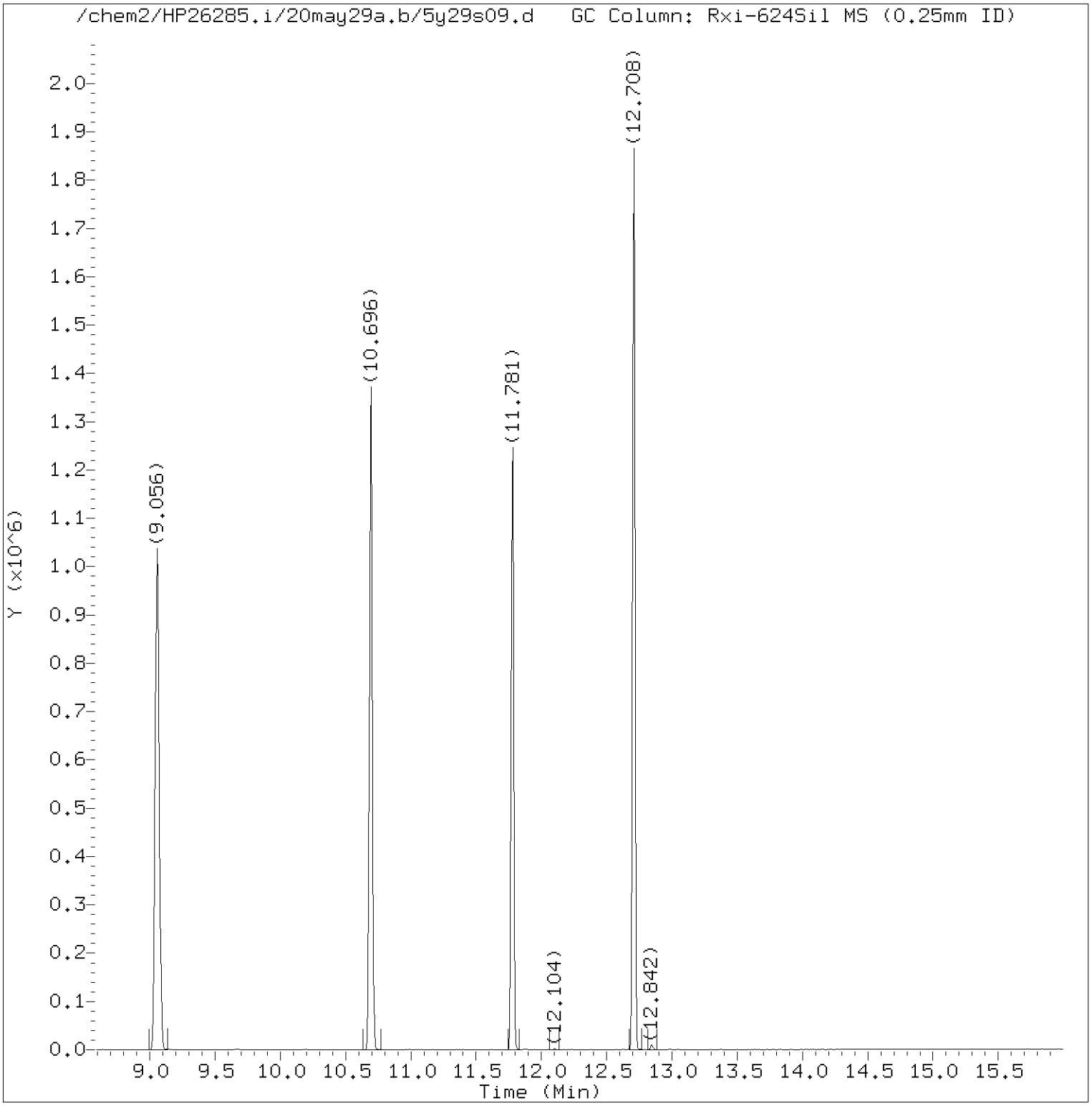
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s09.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:36 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:55 chemist

Sample Name: W5808 Lab Sample ID: 1318265

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s09.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:36 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:55 chemist

Sample Name: W5808 Lab Sample ID: 1318265

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s09.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:36 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 14:55 chemist

Sample Name: W5808 Lab Sample ID: 1318265

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	268209	250.000
52)$Dibromofluoromethane	(2)	5.971	113	230688	50.872
57)$1,2-Dichloroethane-d4	(2)	6.447	102	52719	51.981
66)*Fluorobenzene	(2)	6.898	96	910434	50.000
84)$Toluene-d8	(3)	9.056	98	867199	48.562
101)*Chlorobenzene-d5	(3)	10.696	117	726642	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	355168	47.204
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	388532	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5809

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318266

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s10.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	
156-59-2	cis-1,2-Dichloroethene	1	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	11	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	100	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	2	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5809 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1318266

Data file: /chem2/HP26285.i/20may29a.b/5y29s10.d Injection date and time: **29-MAY-2020 14:57**
Data file Sample Info. Line: W5809;1318266;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.472 (-0.043)	342	65	285897 (-18)	250.00	
66) Fluorobenzene	6.904 (-0.012)	905	96	918843 (-9)	50.00	
101) Chlorobenzene-d5	10.696 (-0.006)	1527	117	730964 (-10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708 (0.000)	1857	152	389958 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971 (0.000)	113	234903	51.327	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447 (0.001)	102	54072	52.827	106%		80 - 120
84) Toluene-d8	(3)	9.056 (0.000)	98	874802	48.698	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775 (0.001)	95	357971	47.295	95%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.893 (-0.001)	96	5118	1.030	1.03			0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.374 (-0.001)	63	10954	1.089	1.09			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.240 (-0.000)	96	6862	1.091	1.09			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.971 (-0.000)	97	95582	10.518	10.52			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.404 (0.000)	95	661675	103.005	103.00			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.769 (-0.000)	166	13964	2.079	2.08			0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s10.d Injection date and time: **29-MAY-2020 14:57**
Data file Sample Info. Line: W5809;1318266;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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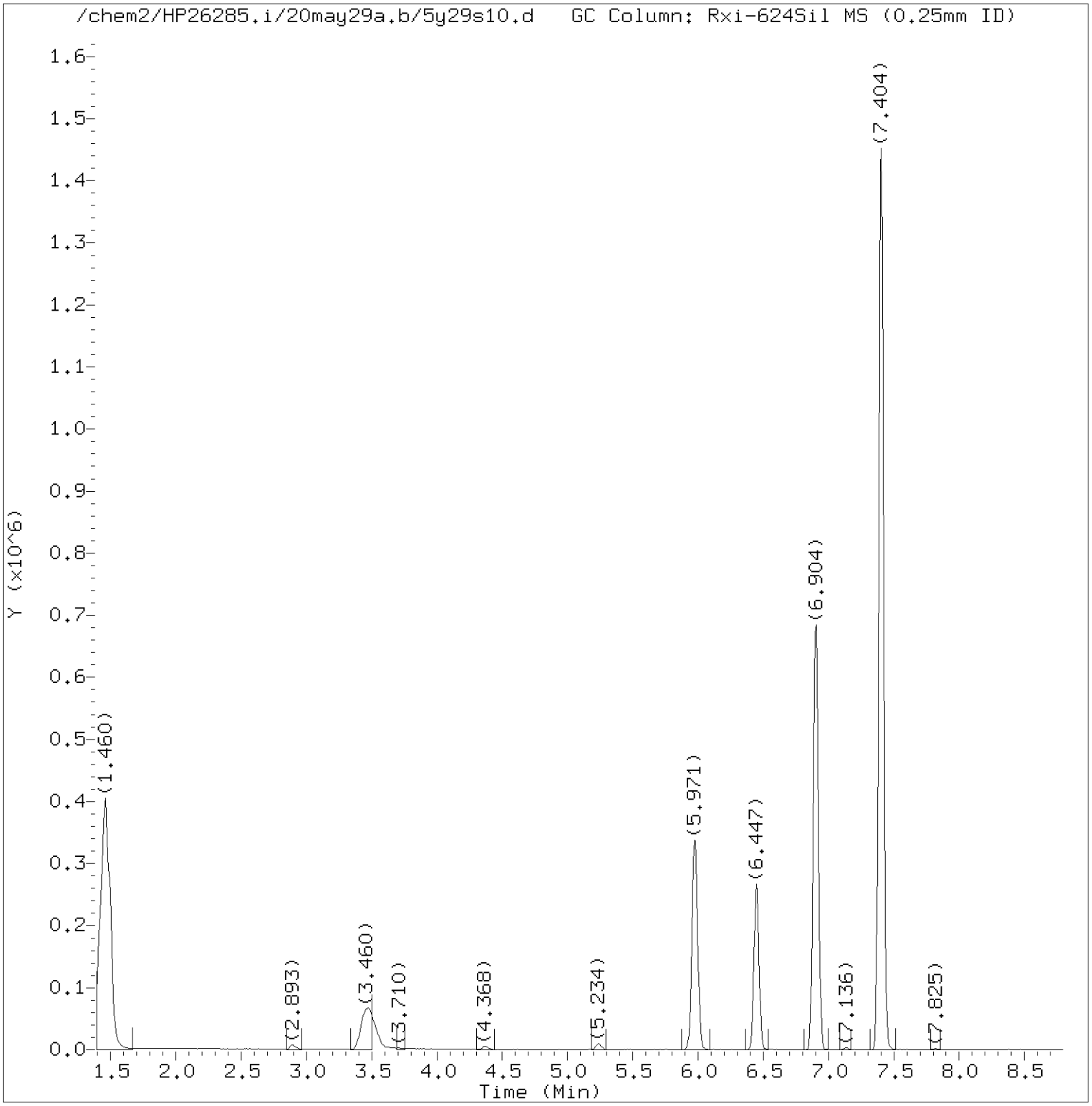
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

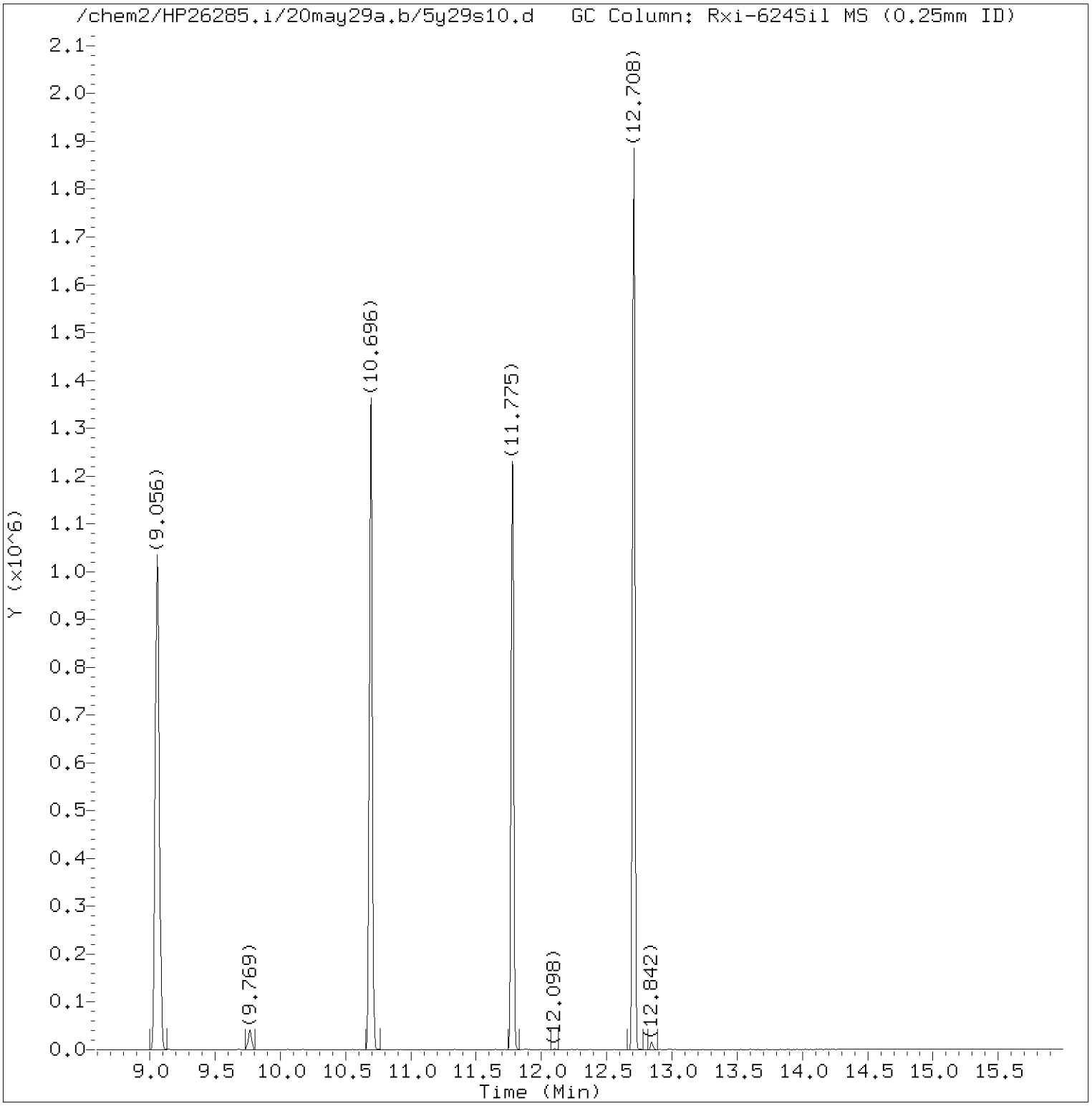
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Digitally signed by Laura J. Green
on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

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on 05/29/2020 at 17:51.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.893	96	5118	1.030
29)*t-Butyl alcohol-d10	(1)	3.472	65	285897	250.000
36) 1,1-Dichloroethane	(2)	4.374	63	10954	1.089
42) cis-1,2-Dichloroethene	(2)	5.240	96	6862	1.091
53) 1,1,1-Trichloroethane	(2)	5.971	97	95582	10.518
52)$Dibromofluoromethane	(2)	5.971	113	234903	51.327
57)$1,2-Dichloroethane-d4	(2)	6.447	102	54072	52.827
66)*Fluorobenzene	(2)	6.904	96	918843	50.000
71) Trichloroethene	(2)	7.404	95	661675	103.005
84)$Toluene-d8	(3)	9.056	98	874802	48.698
94) Tetrachloroethene	(3)	9.769	166	13964	2.079
101)*Chlorobenzene-d5	(3)	10.696	117	730964	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	357971	47.295
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	389958	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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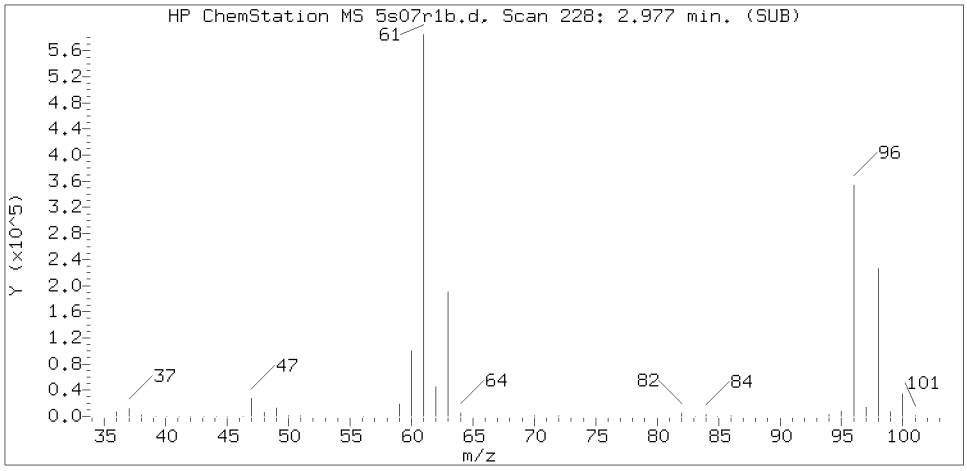
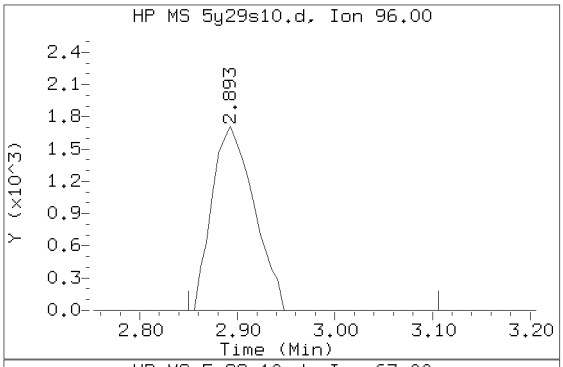
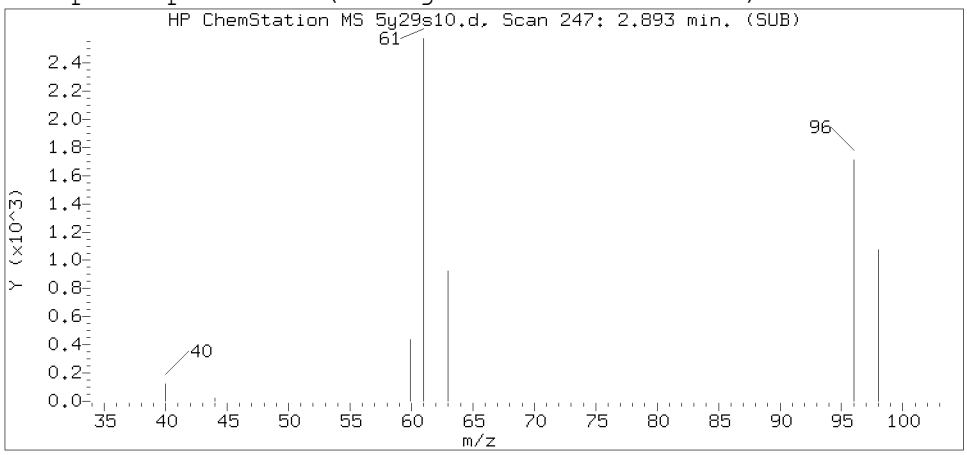
Target 3.5 esignature user ID: ljg30941

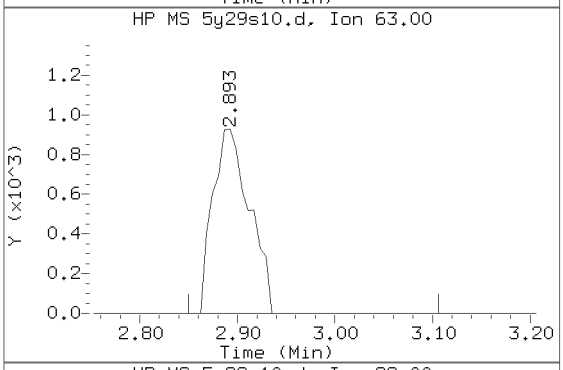
Reference Standard Spectrum for 1,1-Dichloroethene

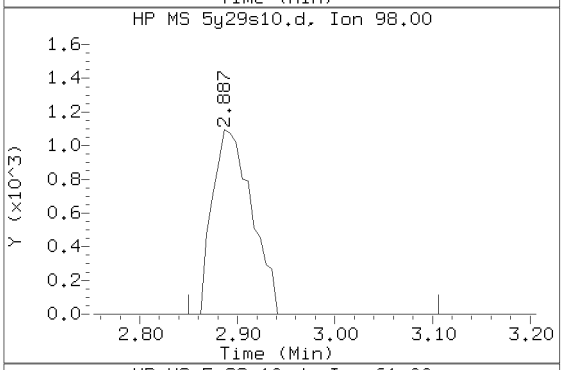




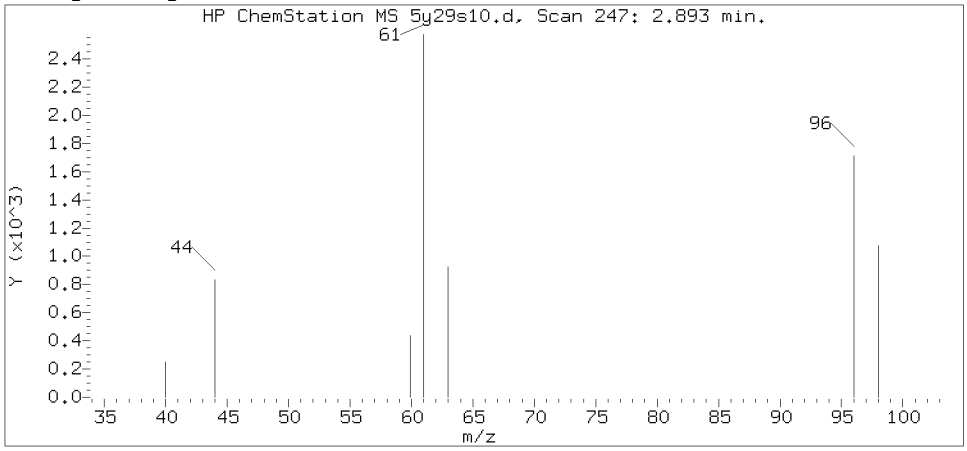
Sample Spectrum (Background Subtracted)

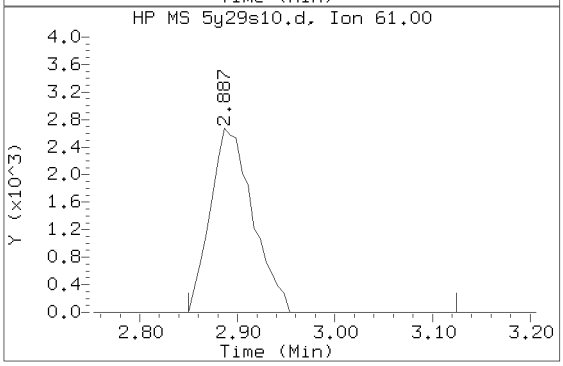






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 247
Retention Time (minutes): 2.893
Relative Retention Time :-0.00104
Quant Ion : 96.00
Area (flag) : 5118
On-Column Amount (ng) : 1.0302

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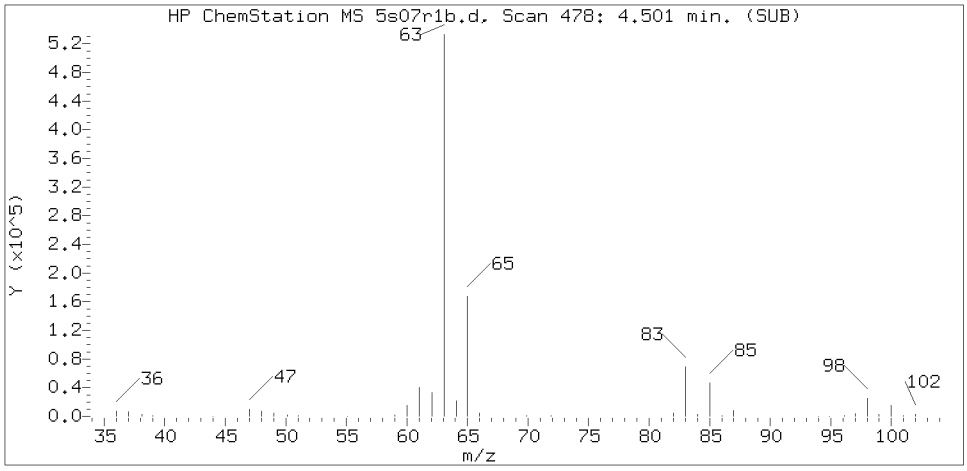
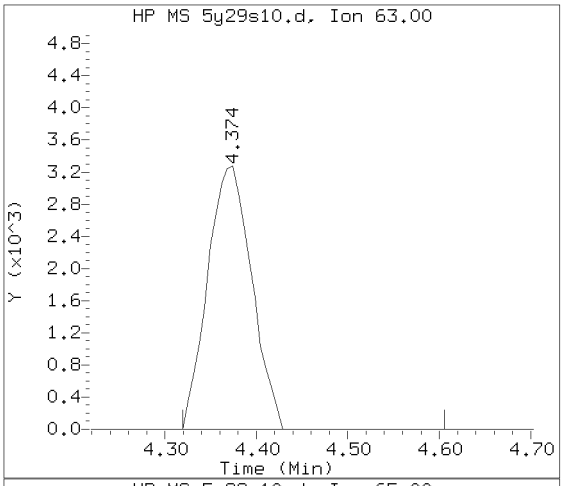
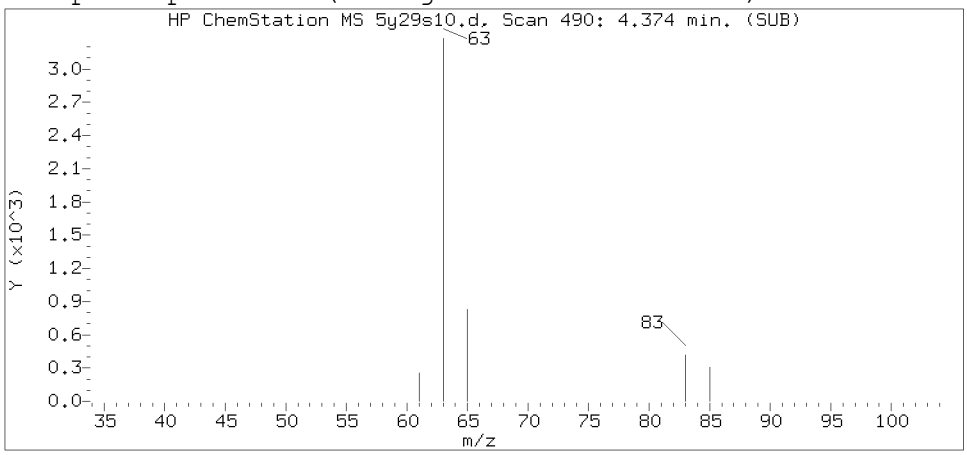
Target 3.5 esignature user ID: ljg30941

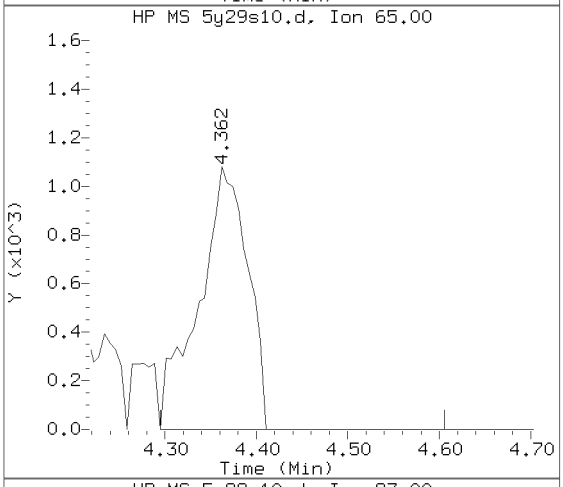
Reference Standard Spectrum for 1,1-Dichloroethane



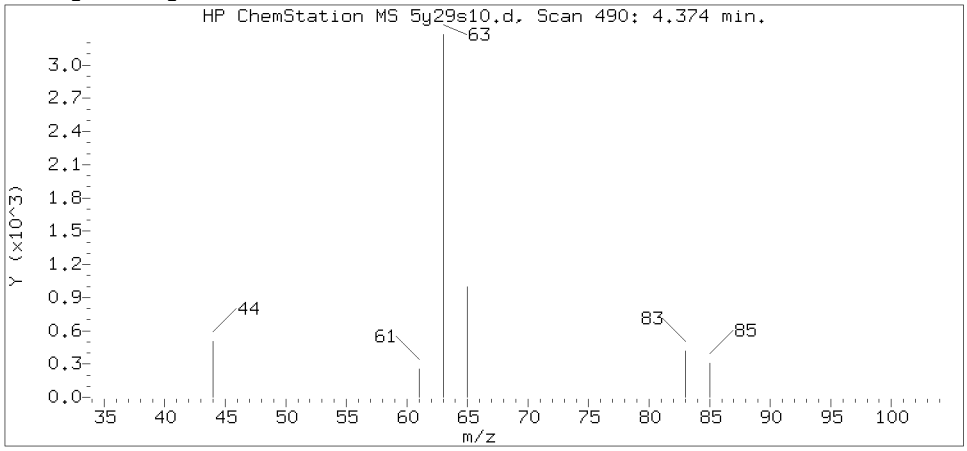


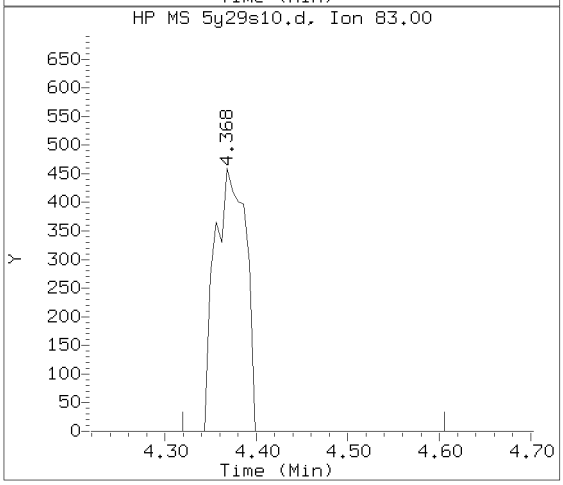
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 490
Retention Time (minutes): 4.374
Relative Retention Time :-0.00154
Quant Ion : 63.00
Area (flag) : 10954
On-Column Amount (ng) : 1.0886

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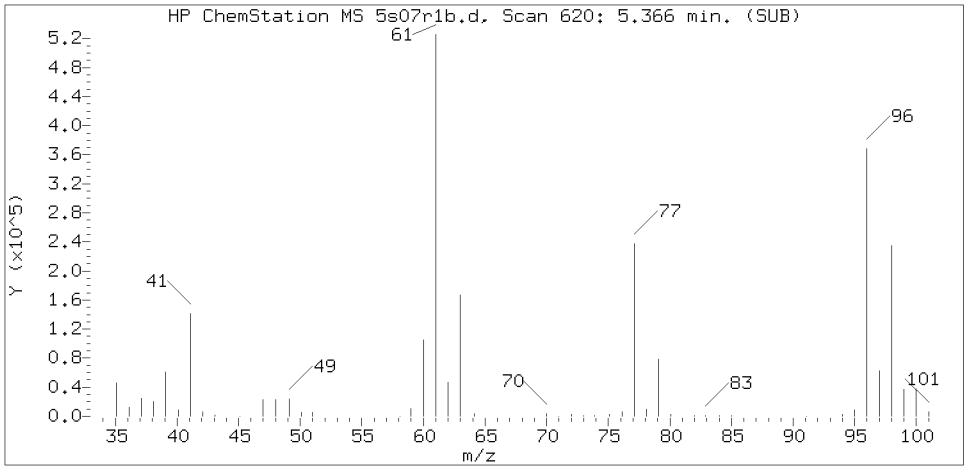
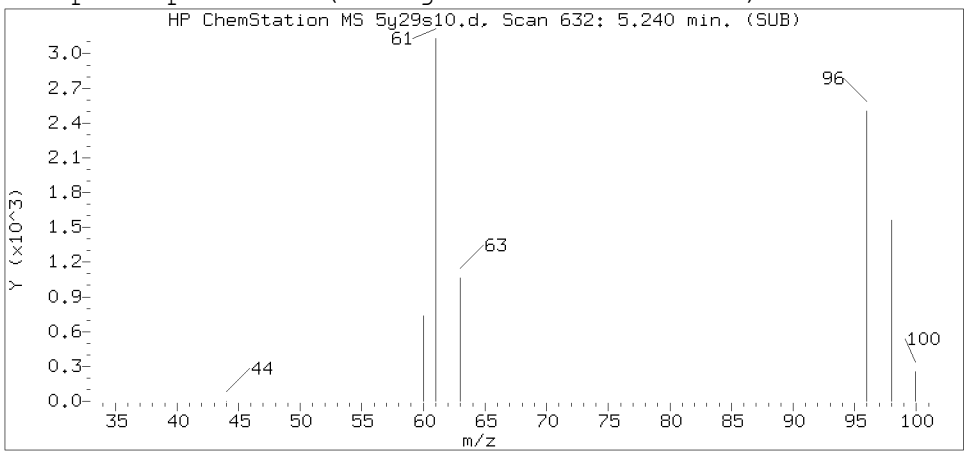
Target 3.5 esignature user ID: ljg30941

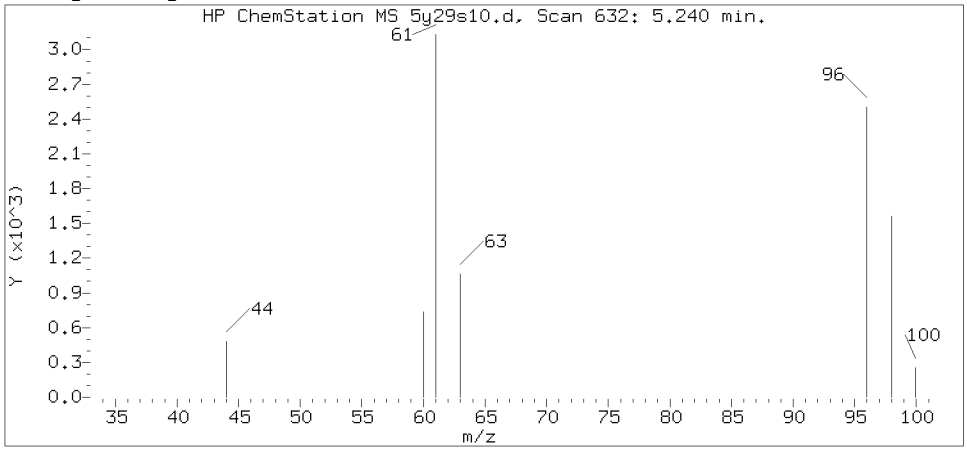
Reference Standard Spectrum for cis-1,2-Dichloroethene

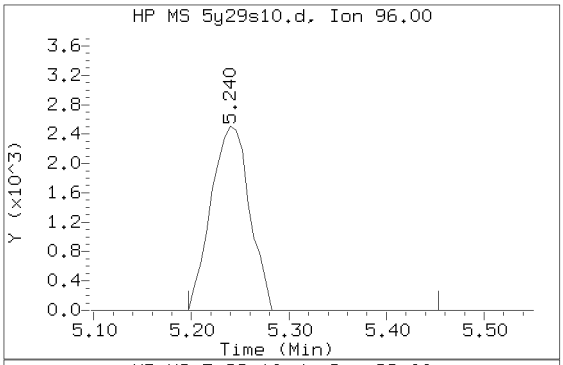


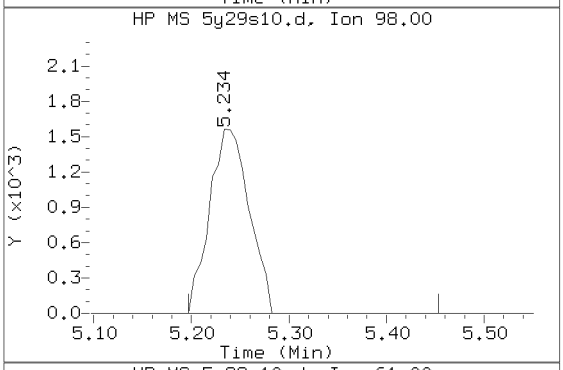
Sample Spectrum (Background Subtracted)

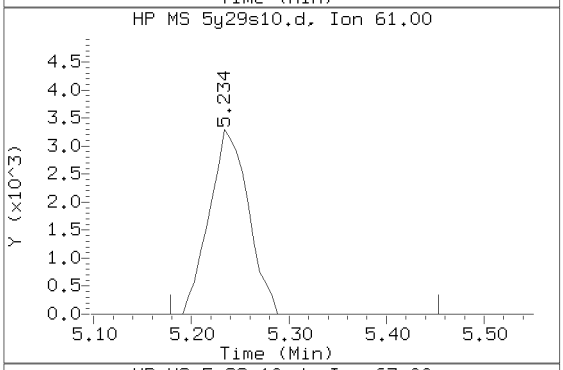


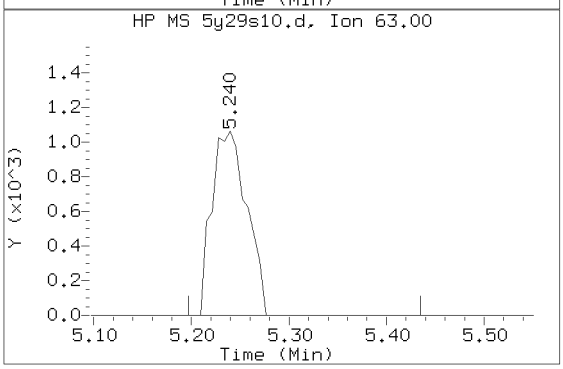
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 632
Retention Time (minutes): 5.240
Relative Retention Time :-0.00043
Quant Ion : 96.00
Area (flag) : 6862
On-Column Amount (ng) : 1.0915

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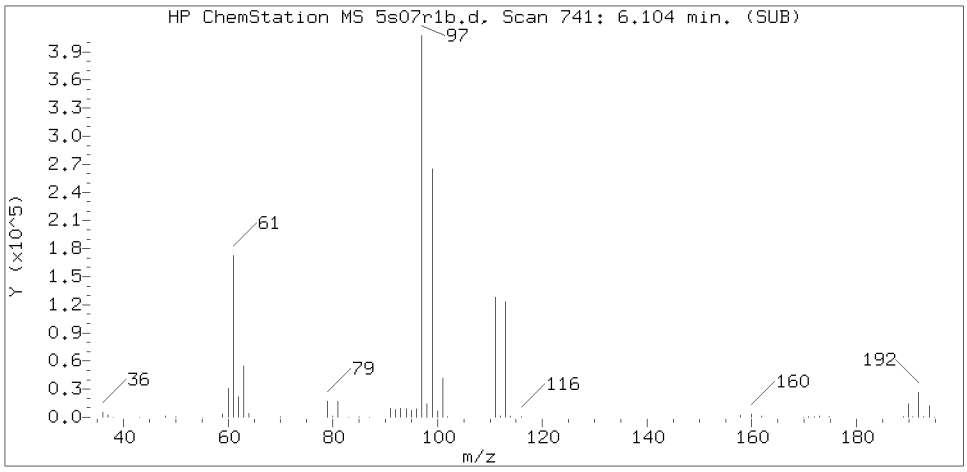
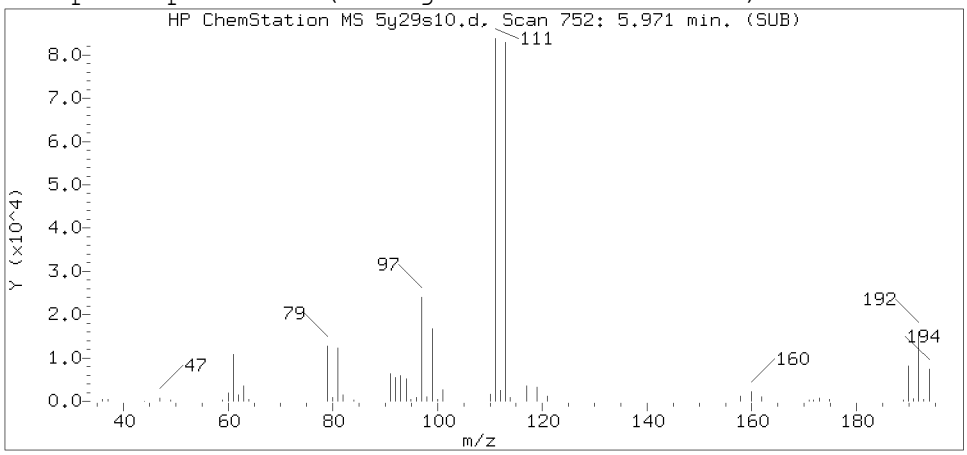
Target 3.5 esignature user ID: ljg30941

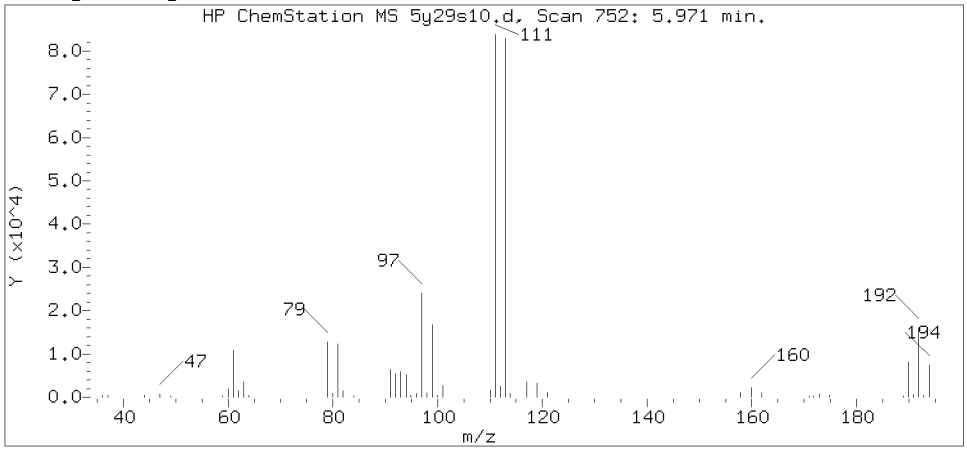
Reference Standard Spectrum for 1,1,1-Trichloroethane

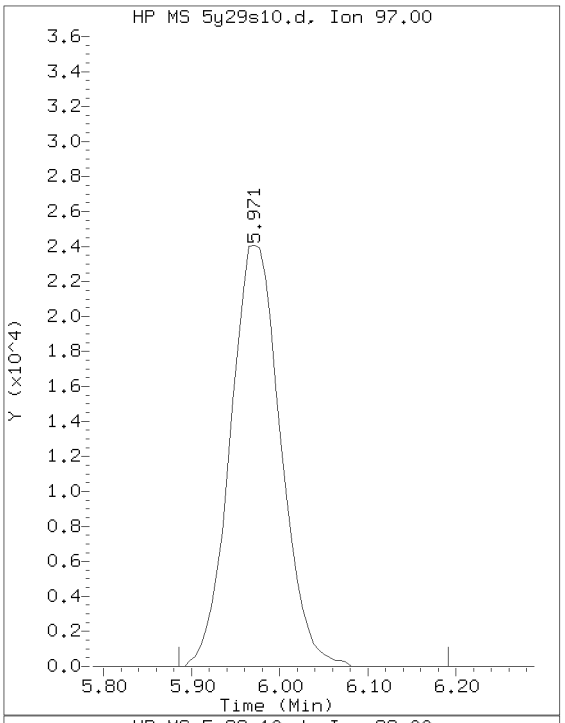


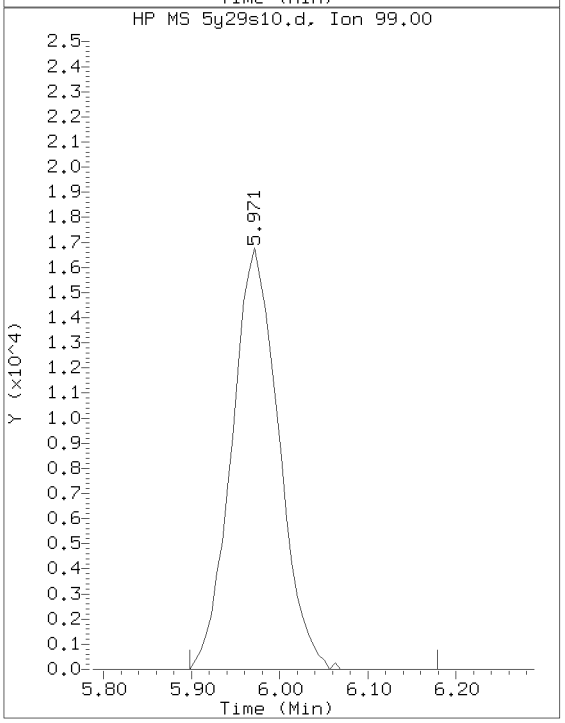
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 752
Retention Time (minutes): 5.971
Relative Retention Time :-0.00024
Quant Ion : 97.00
Area (flag) : 95582
On-Column Amount (ng) : 10.5178

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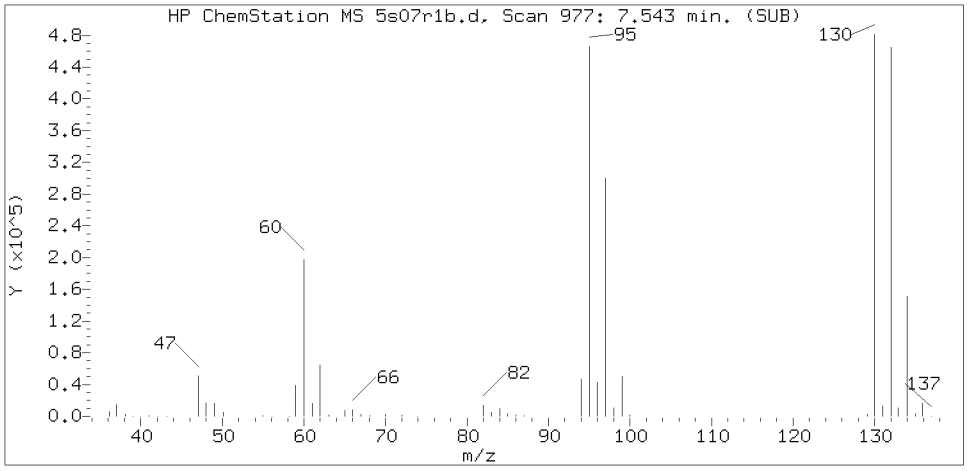
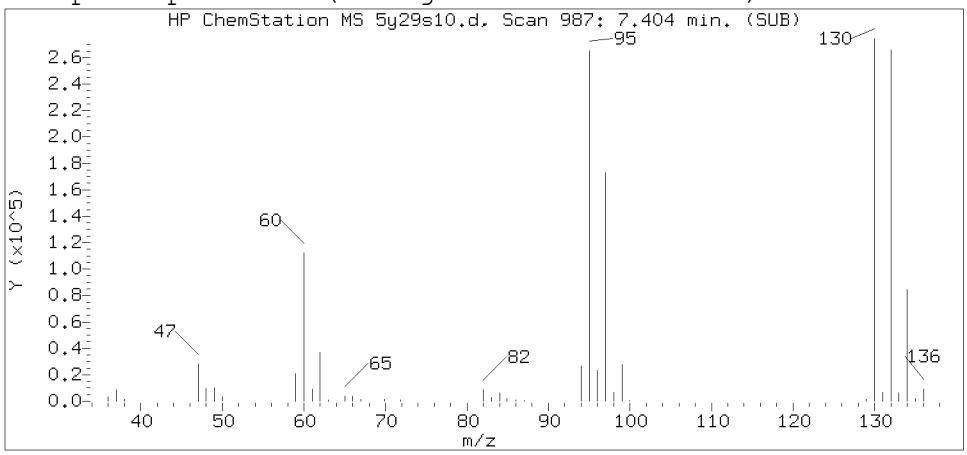
Target 3.5 esignature user ID: ljg30941

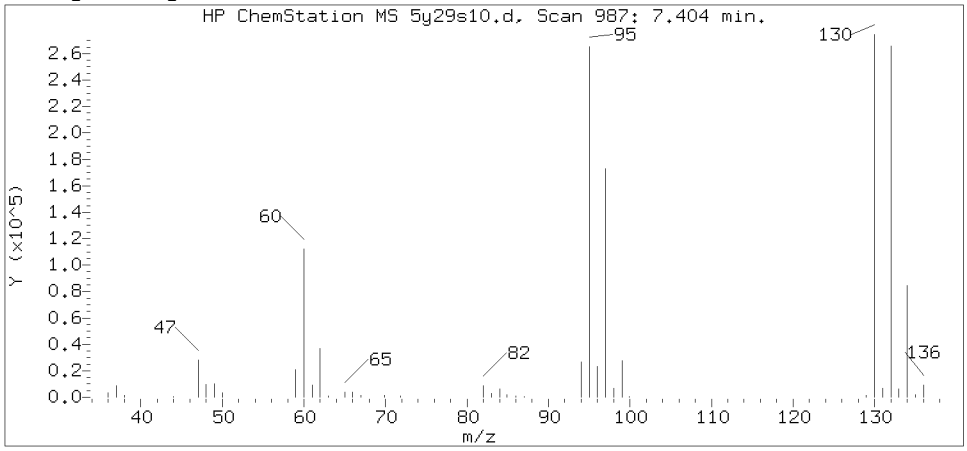
Reference Standard Spectrum for Trichloroethene

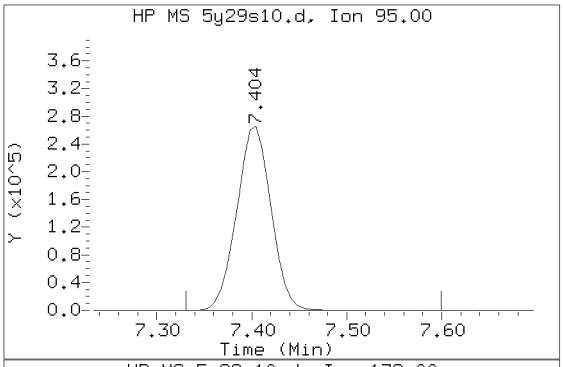


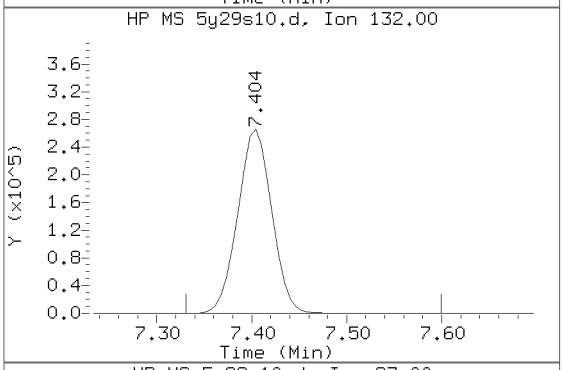
Sample Spectrum (Background Subtracted)

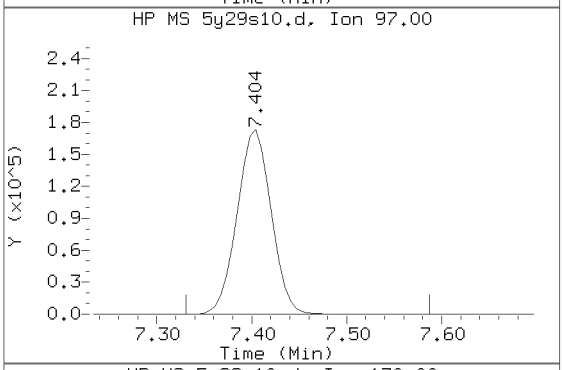


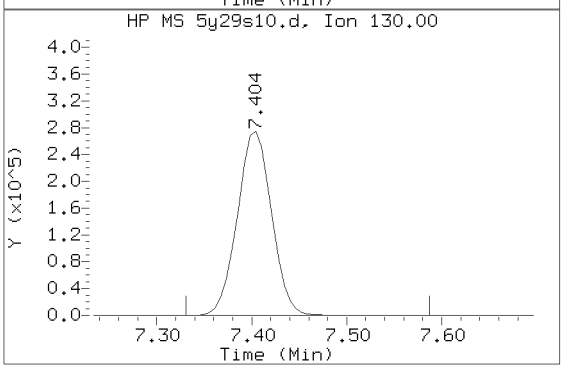
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 987
Retention Time (minutes): 7.404
Relative Retention Time : 0.00013
Quant Ion : 95.00
Area (flag) : 661675
On-Column Amount (ng) : 103.0047

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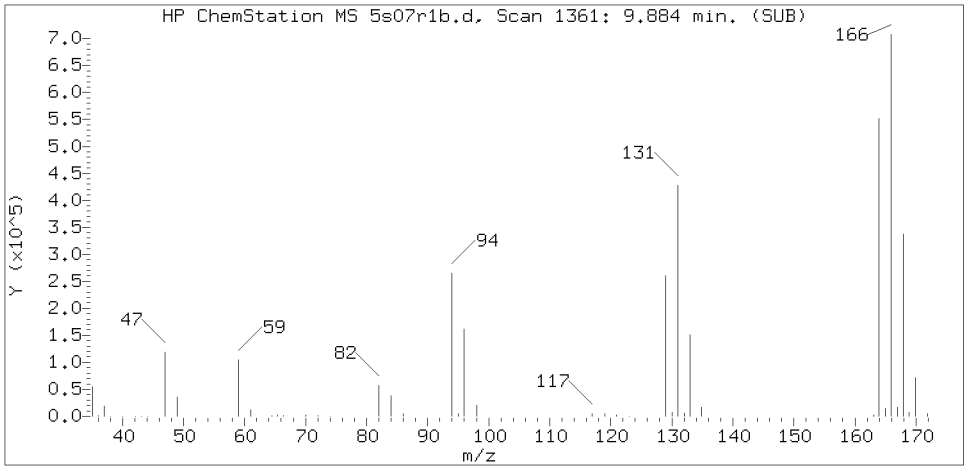
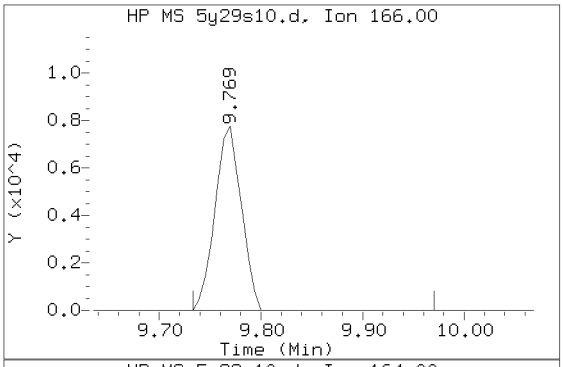
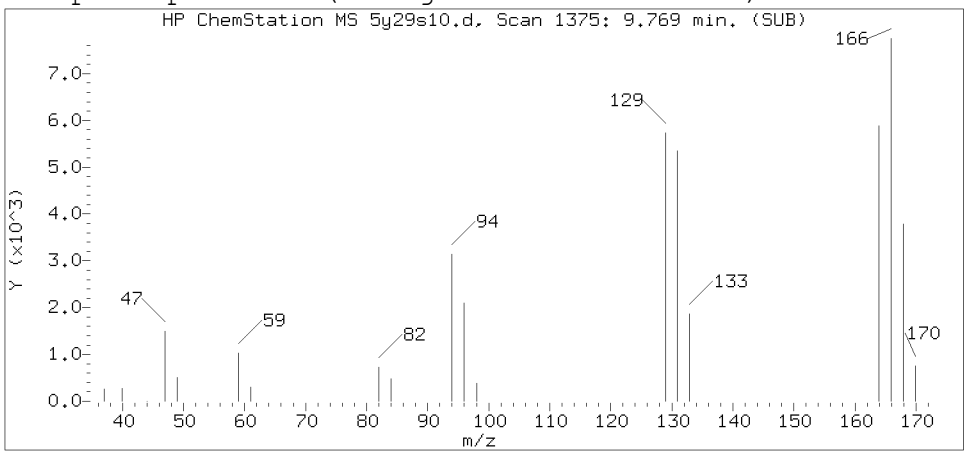
Target 3.5 esignature user ID: ljg30941

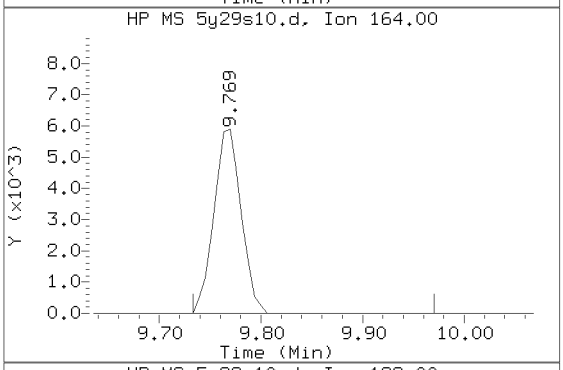
Reference Standard Spectrum for Tetrachloroethene

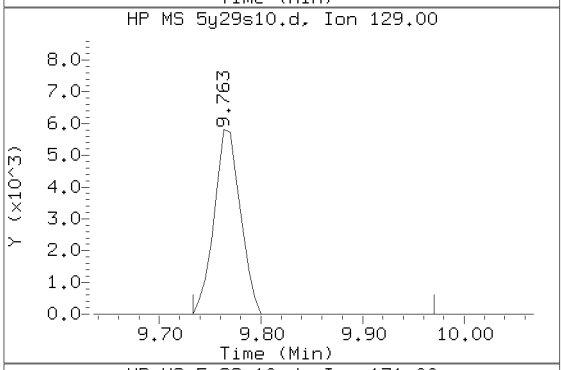




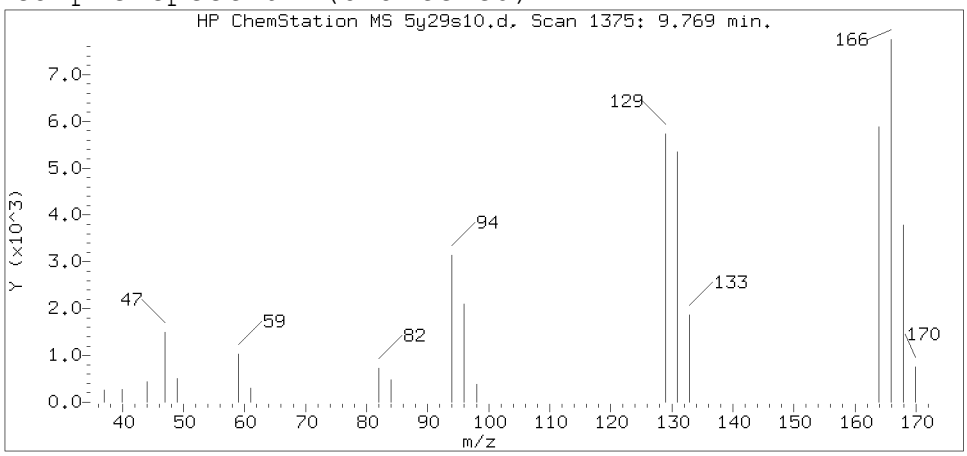
Sample Spectrum (Background Subtracted)

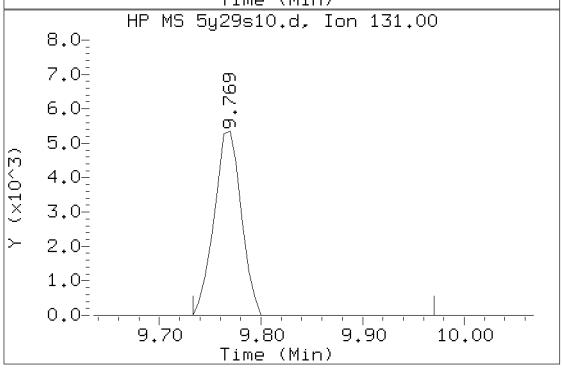






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s10.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 14:57 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:15 chemist

Sample Name: W5809 Lab Sample ID: 1318266

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1375
Retention Time (minutes): 9.769
Relative Retention Time :-0.00005
Quant Ion : 166.00
Area (flag) : 13964
On-Column Amount (ng) : 2.0787

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5810

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318267

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s11.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.4	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2	
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	4	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5810 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318267

Data file: /chem2/HP26285.i/20may29a.b/5y29s11.d Injection date and time: **29-MAY-2020 15:17**
Data file Sample Info. Line: W5810;1318267;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466	(-0.037)	341	65	270383	(-22)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	891719	(-12)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	714630	(-12)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	383483	(-12)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	228683	51.488	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	51714	52.060	104%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	850906	48.450	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	347640	46.980	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.887	(-0.000)	96	1924	0.399	0.40		J	0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.362	(-0.000)	63	23627	2.419	2.42			0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.965	(-0.000)	97	37531	4.256	4.26			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.398	(0.000)	95	6955	1.116	1.12			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s11.d Injection date and time: **29-MAY-2020 15:17**
Data file Sample Info. Line: W5810;1318267;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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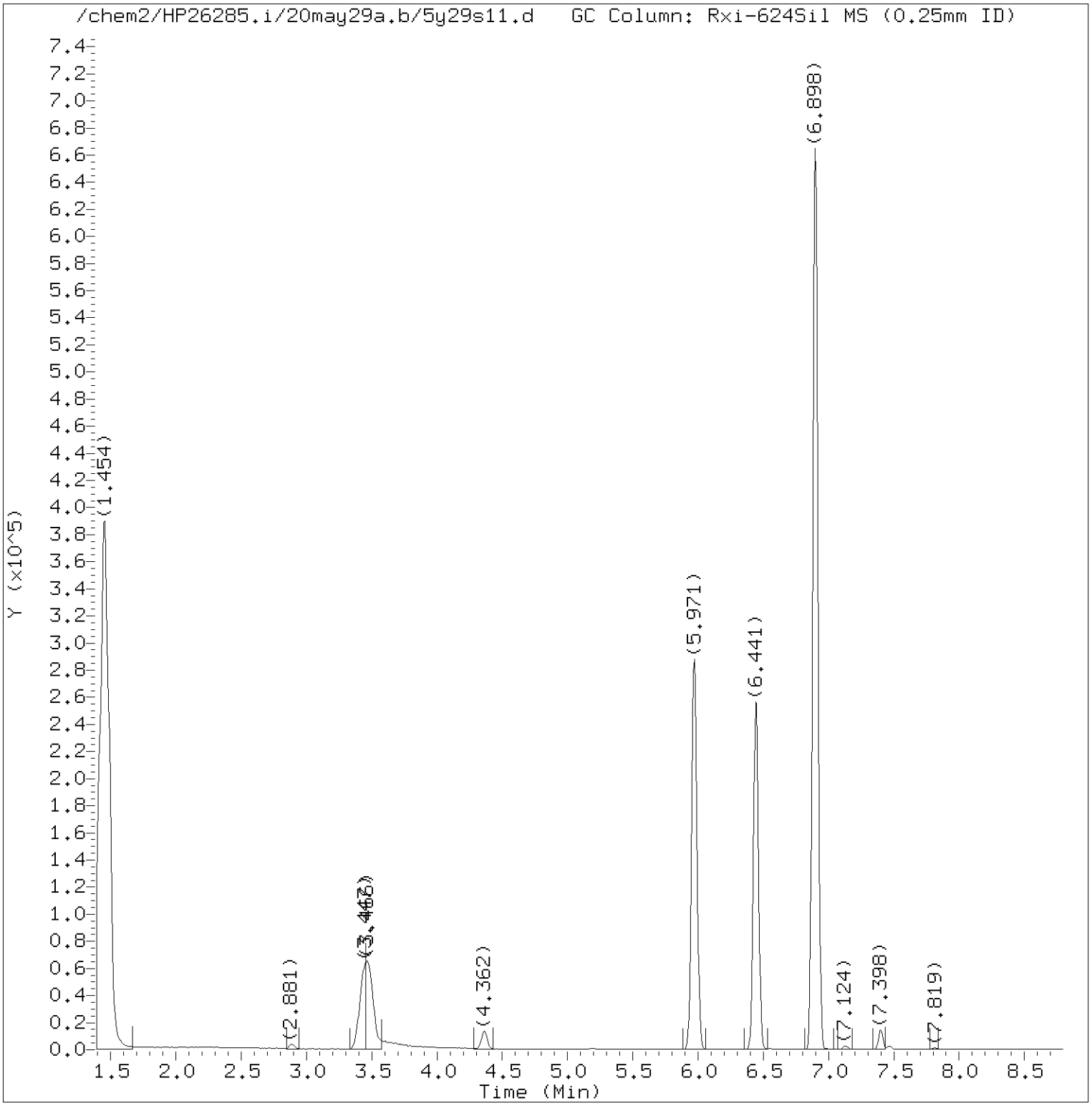
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

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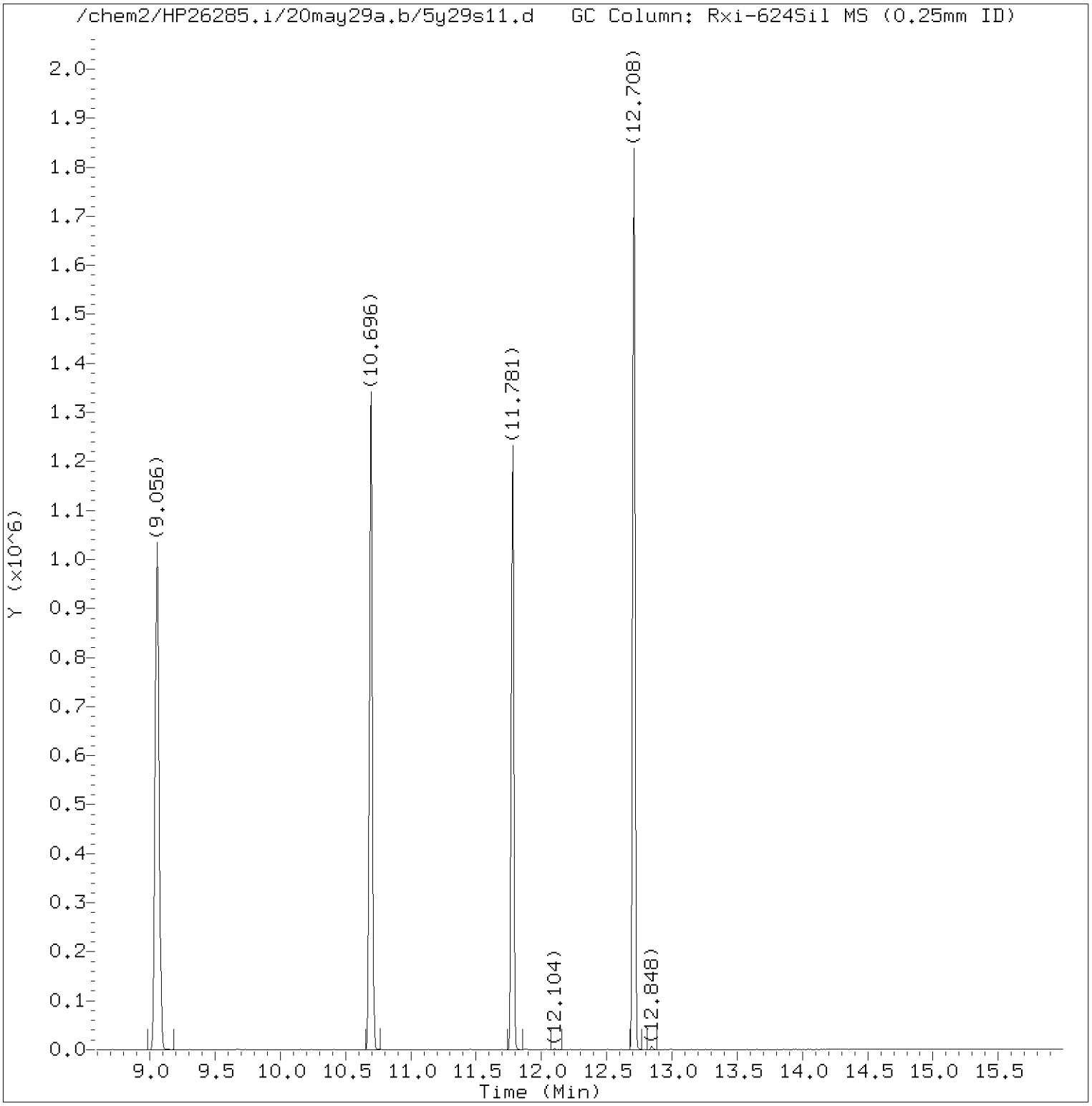
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.887	96	1924	0.399
29)*t-Butyl alcohol-d10	(1)	3.466	65	270383	250.000
36) 1,1-Dichloroethane	(2)	4.362	63	23627	2.419
53) 1,1,1-Trichloroethane	(2)	5.965	97	37531	4.256
52)$Dibromofluoromethane	(2)	5.971	113	228683	51.488
57)$1,2-Dichloroethane-d4	(2)	6.441	102	51714	52.060
66)*Fluorobenzene	(2)	6.898	96	891719	50.000
71) Trichloroethene	(2)	7.398	95	6955	1.116
84)$Toluene-d8	(3)	9.056	98	850906	48.450
101)*Chlorobenzene-d5	(3)	10.696	117	714630	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	347640	46.980
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	383483	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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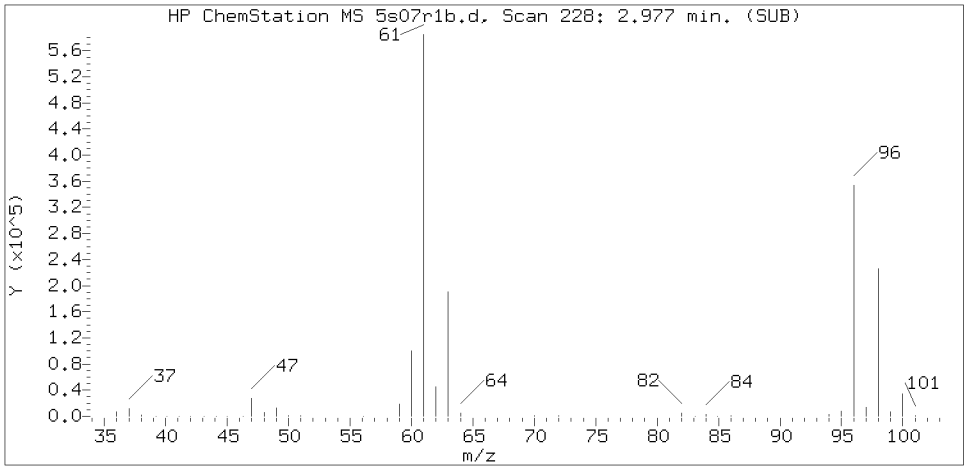
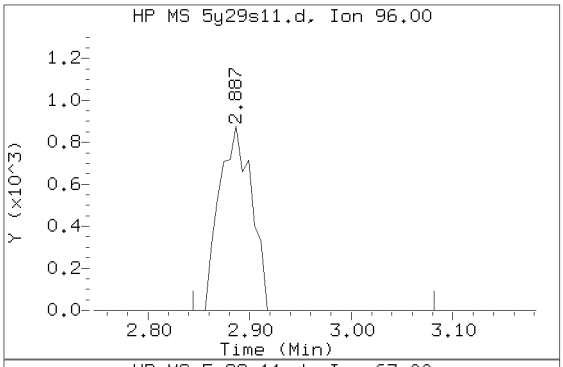
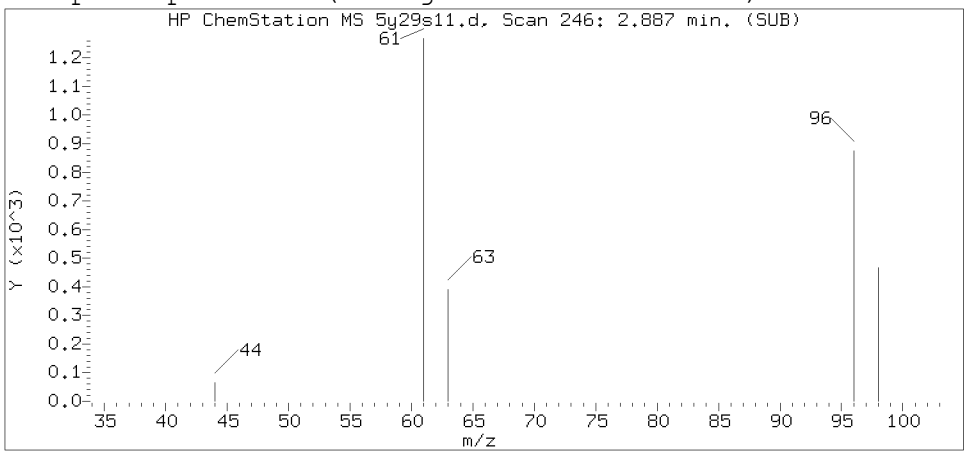
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

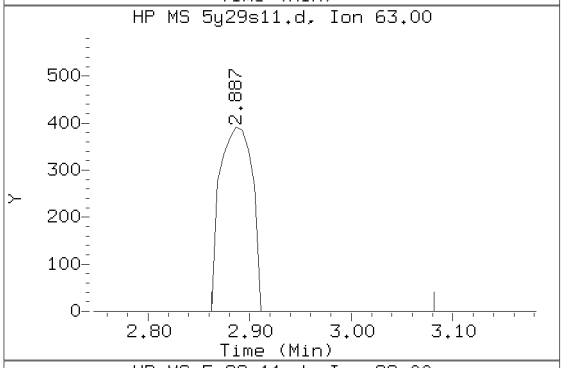
Reference Standard Spectrum for 1,1-Dichloroethene

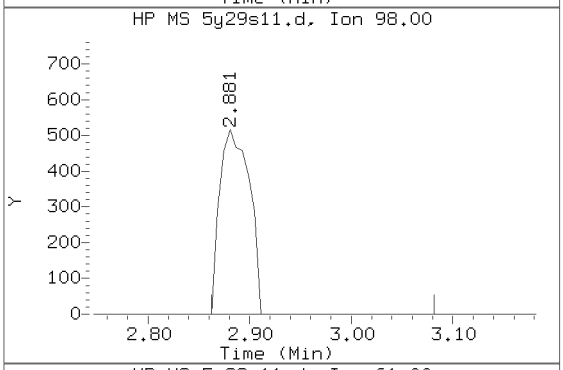




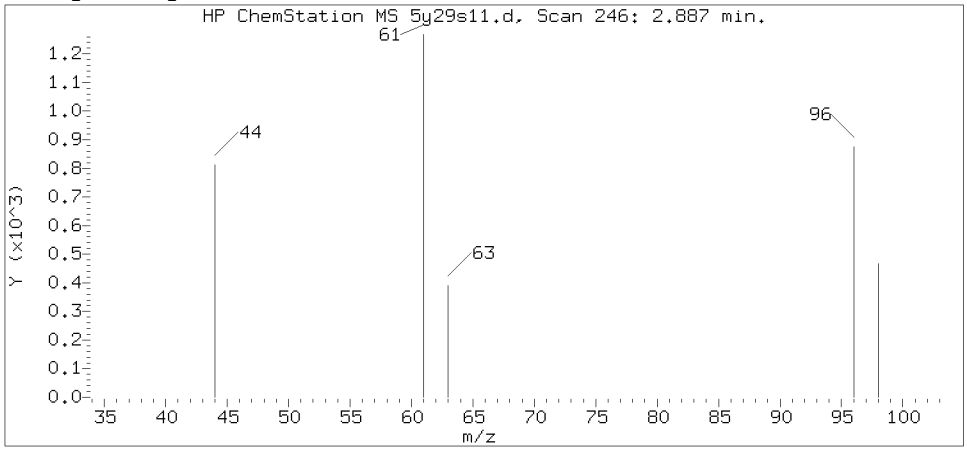
Sample Spectrum (Background Subtracted)

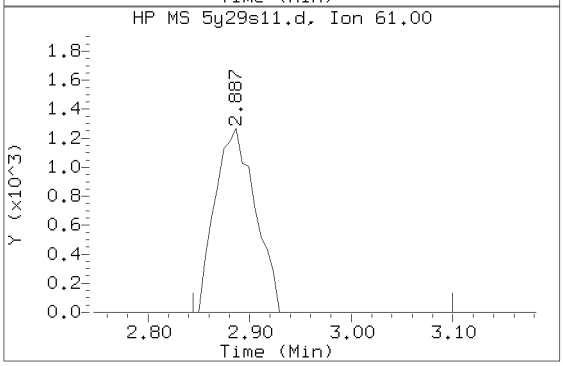






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 246
Retention Time (minutes): 2.887
Relative Retention Time :-0.00052
Quant Ion : 96.00
Area (flag) : 1924
On-Column Amount (ng) : 0.3990

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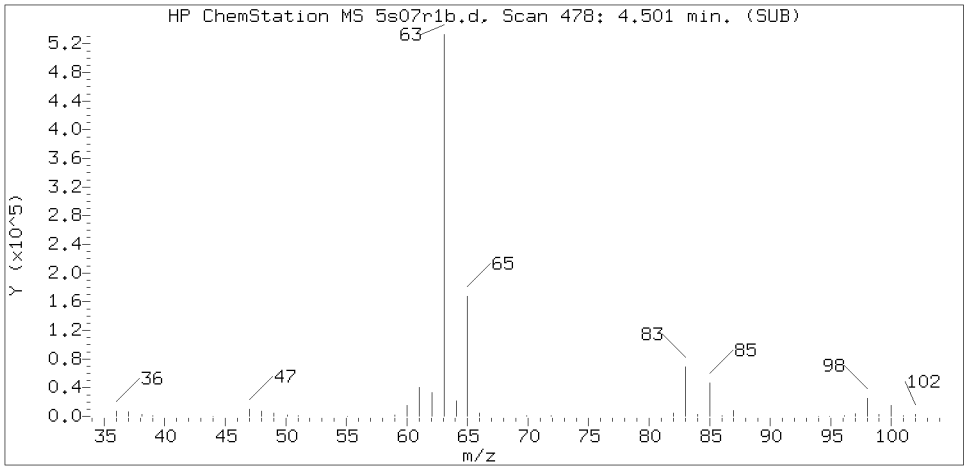
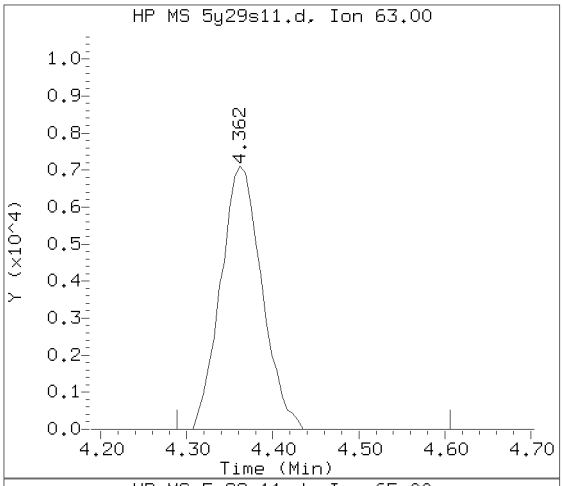
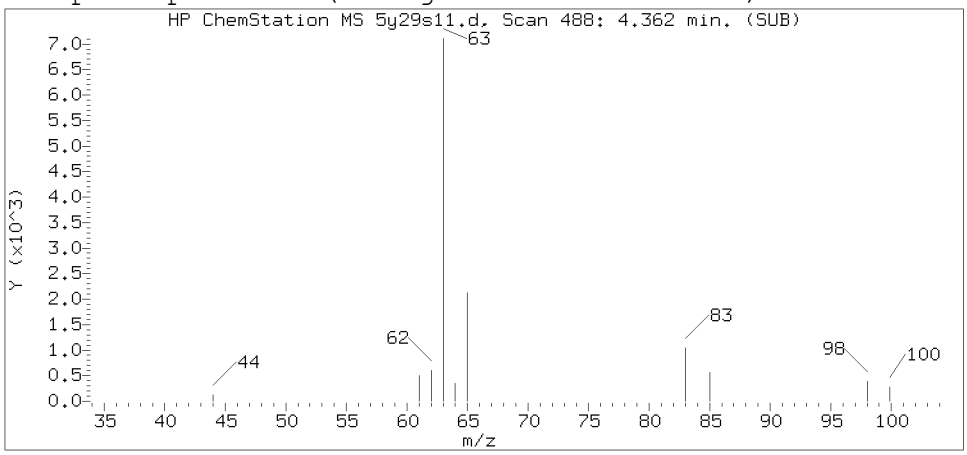
Target 3.5 esignature user ID: ljg30941

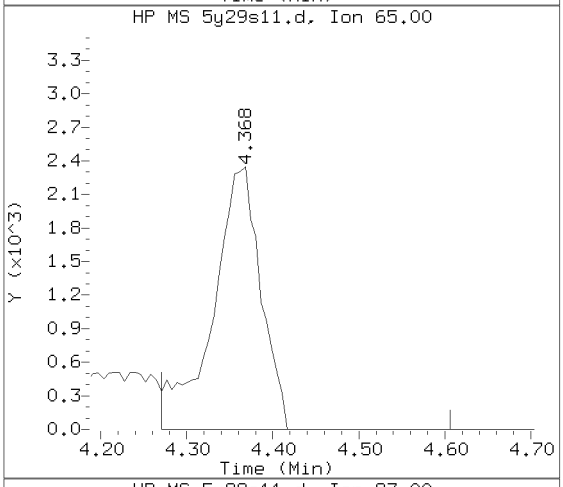
Reference Standard Spectrum for 1,1-Dichloroethane



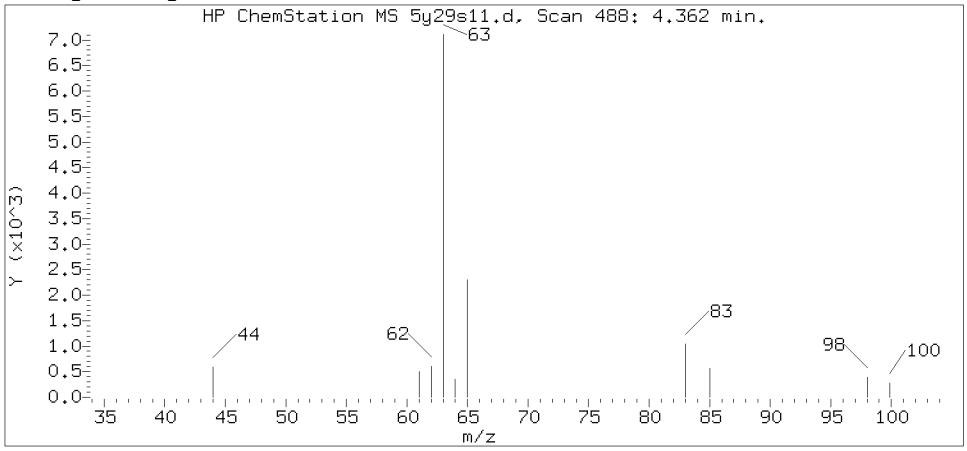


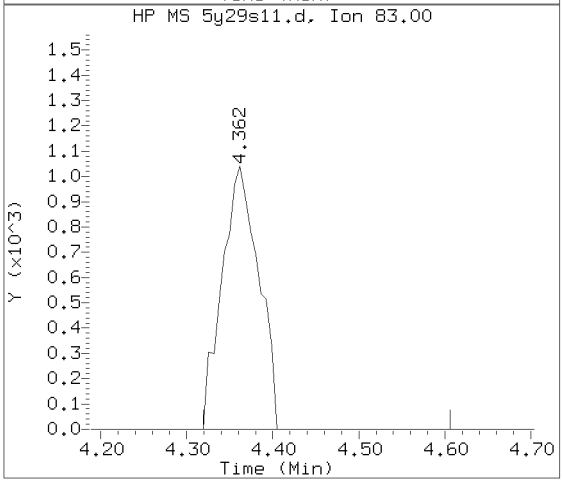
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 488
Retention Time (minutes): 4.362
Relative Retention Time :-0.00033
Quant Ion : 63.00
Area (flag) : 23627
On-Column Amount (ng) : 2.4194

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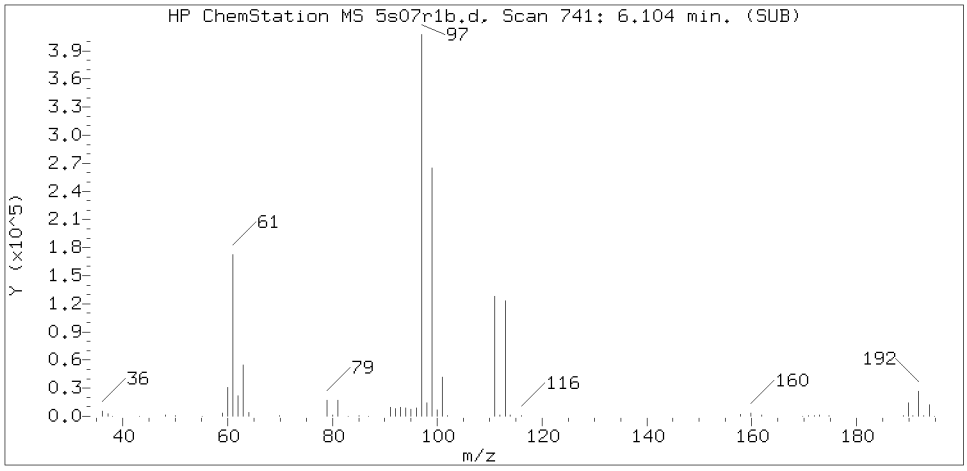
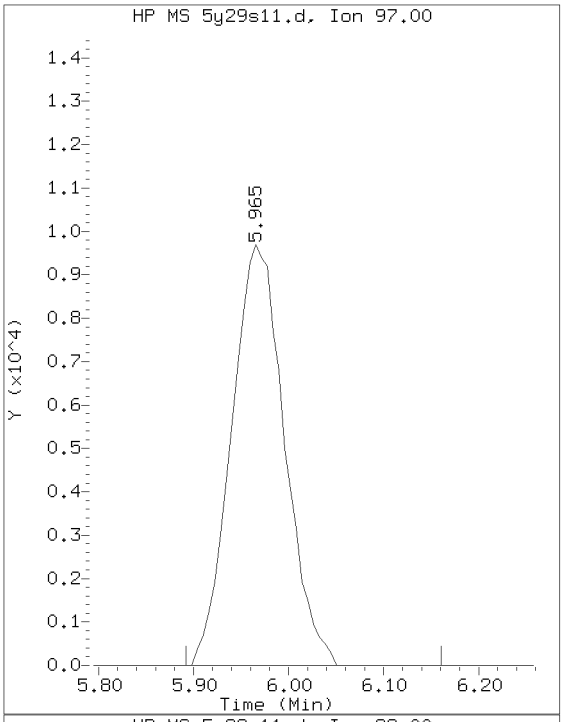
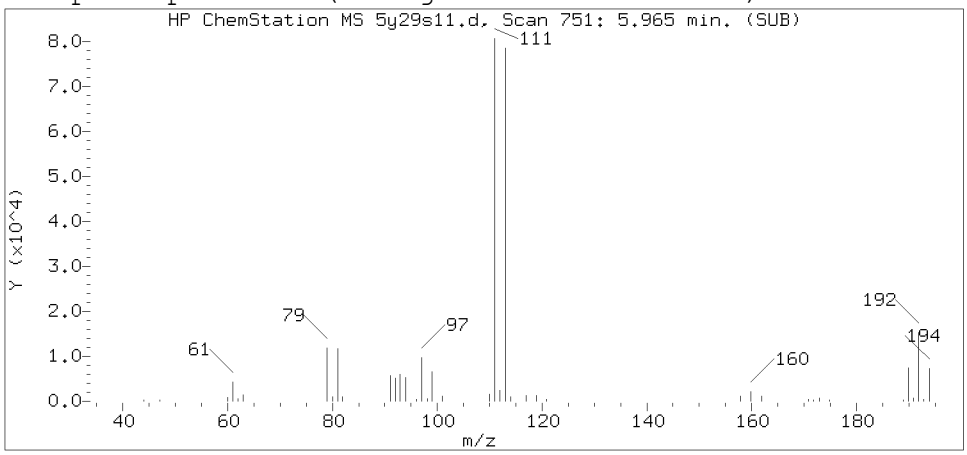
Target 3.5 esignature user ID: ljg30941

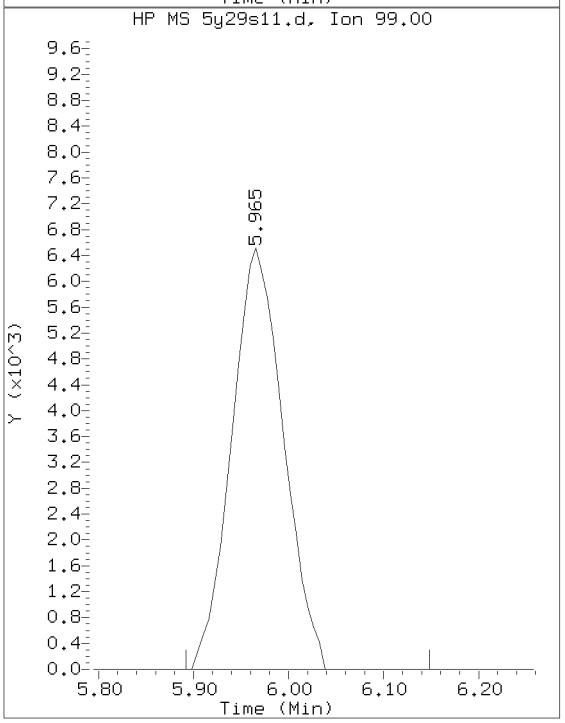
Reference Standard Spectrum for 1,1,1-Trichloroethane



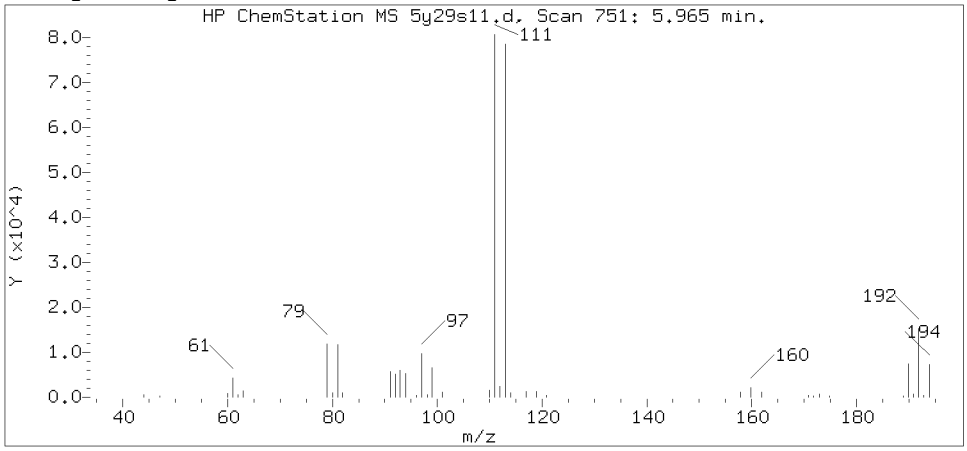


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 751
Retention Time (minutes)	: 5.965
Relative Retention Time	:-0.00012
Quant Ion	: 97.00
Area (flag)	: 37531
On-Column Amount (ng)	: 4.2556

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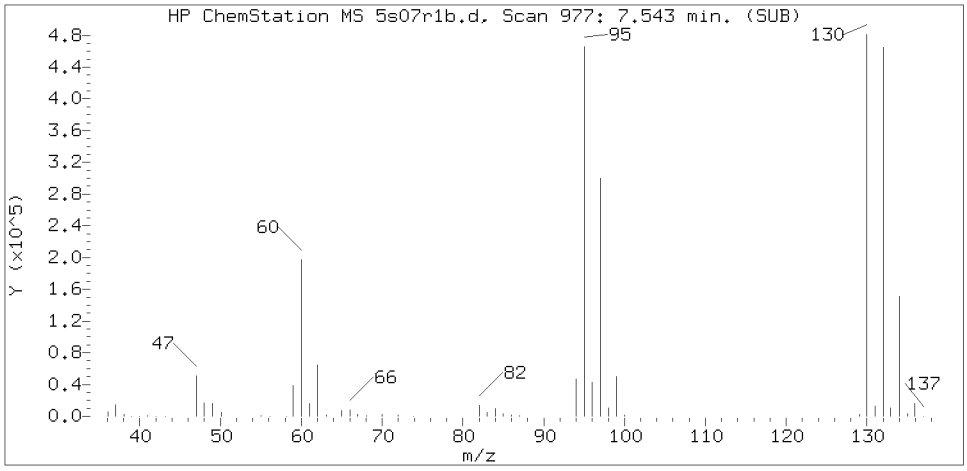
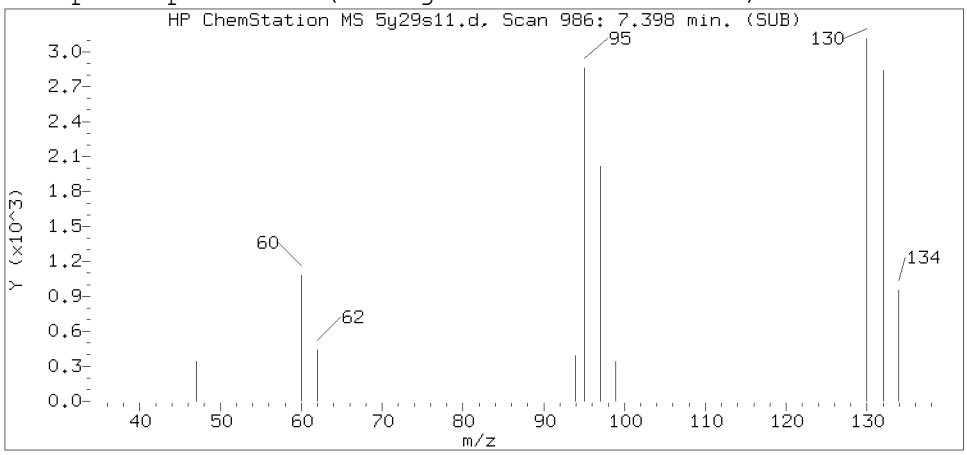
Target 3.5 esignature user ID: ljg30941

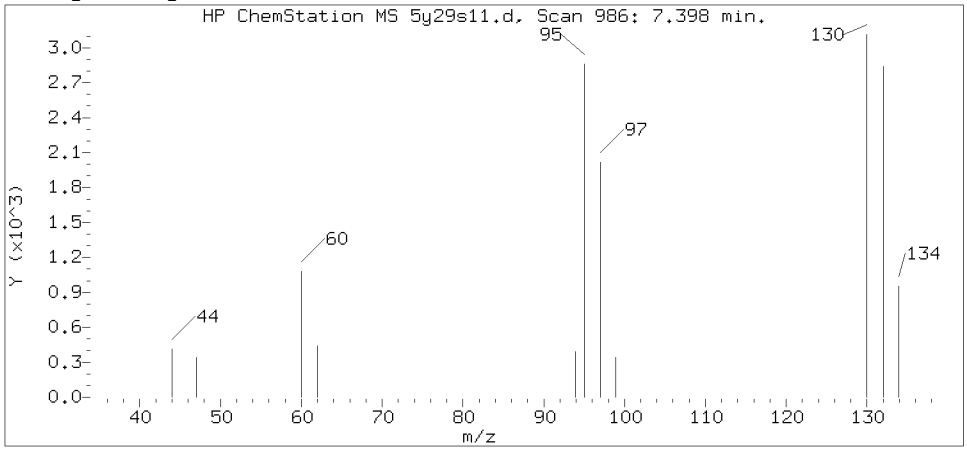
Reference Standard Spectrum for Trichloroethene

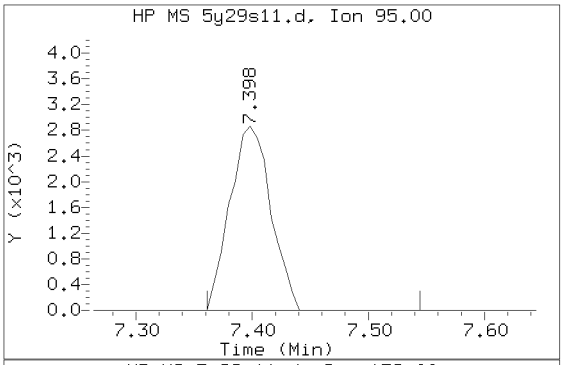


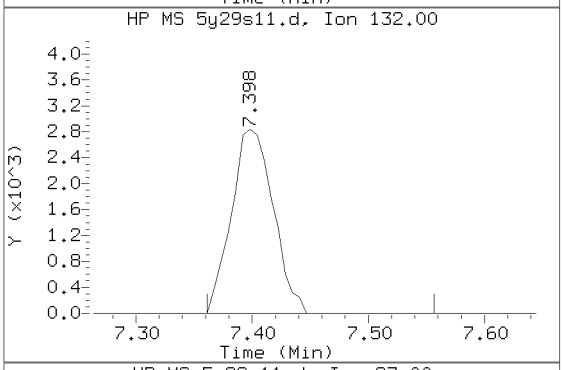
Sample Spectrum (Background Subtracted)

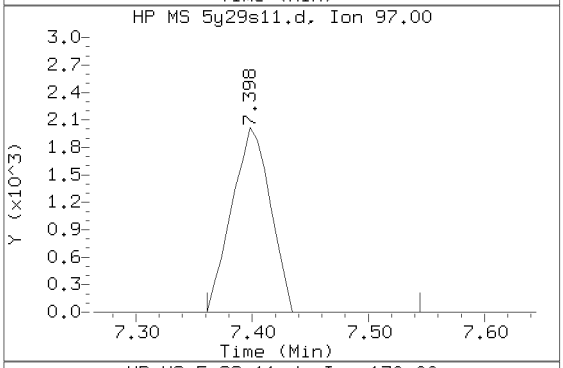


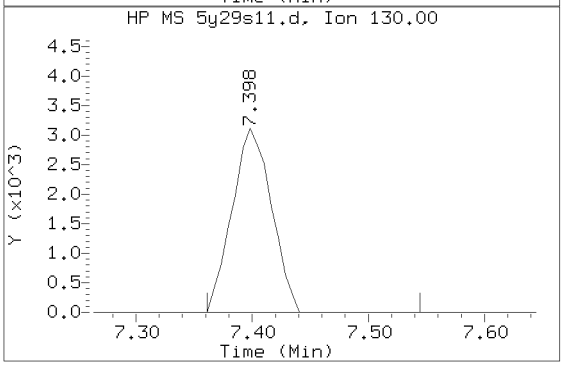
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s11.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:17 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:36 chemist

Sample Name: W5810 Lab Sample ID: 1318267

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 986
Retention Time (minutes)	: 7.398
Relative Retention Time	: 0.00007
Quant Ion	: 95.00
Area (flag)	: 6955
On-Column Amount (ng)	: 1.1157

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5811

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318268

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s12.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.9	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	3	
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	4	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5811 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1318268

Data file: /chem2/HP26285.i/20may29a.b/5y29s12.d Injection date and time: **29-MAY-2020 15:38**
Data file Sample Info. Line: W5811;1318268;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.478 (-0.049)	343	65	272514 (-21)	250.00	
66) Fluorobenzene	6.904 (-0.012)	905	96	918853 (-9)	50.00	
101) Chlorobenzene-d5	10.696 (-0.006)	1527	117	733798 (-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708 (0.000)	1857	152	396078 (-10)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.977 (-0.001)	113	233697	51.063	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447 (0.001)	102	53213	51.988	104%		80 - 120
84) Toluene-d8	(3)	9.056 (0.000)	98	876843	48.623	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781 (0.000)	95	358493	47.181	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.893 (-0.001)	96	4240	0.854	0.85		J	0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.368 (-0.000)	63	34205	3.399	3.40			0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.971 (-0.000)	97	10765	1.185	1.18			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.404 (0.000)	95	25045	3.899	3.90			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s12.d Injection date and time: **29-MAY-2020 15:38**
Data file Sample Info. Line: W5811;1318268;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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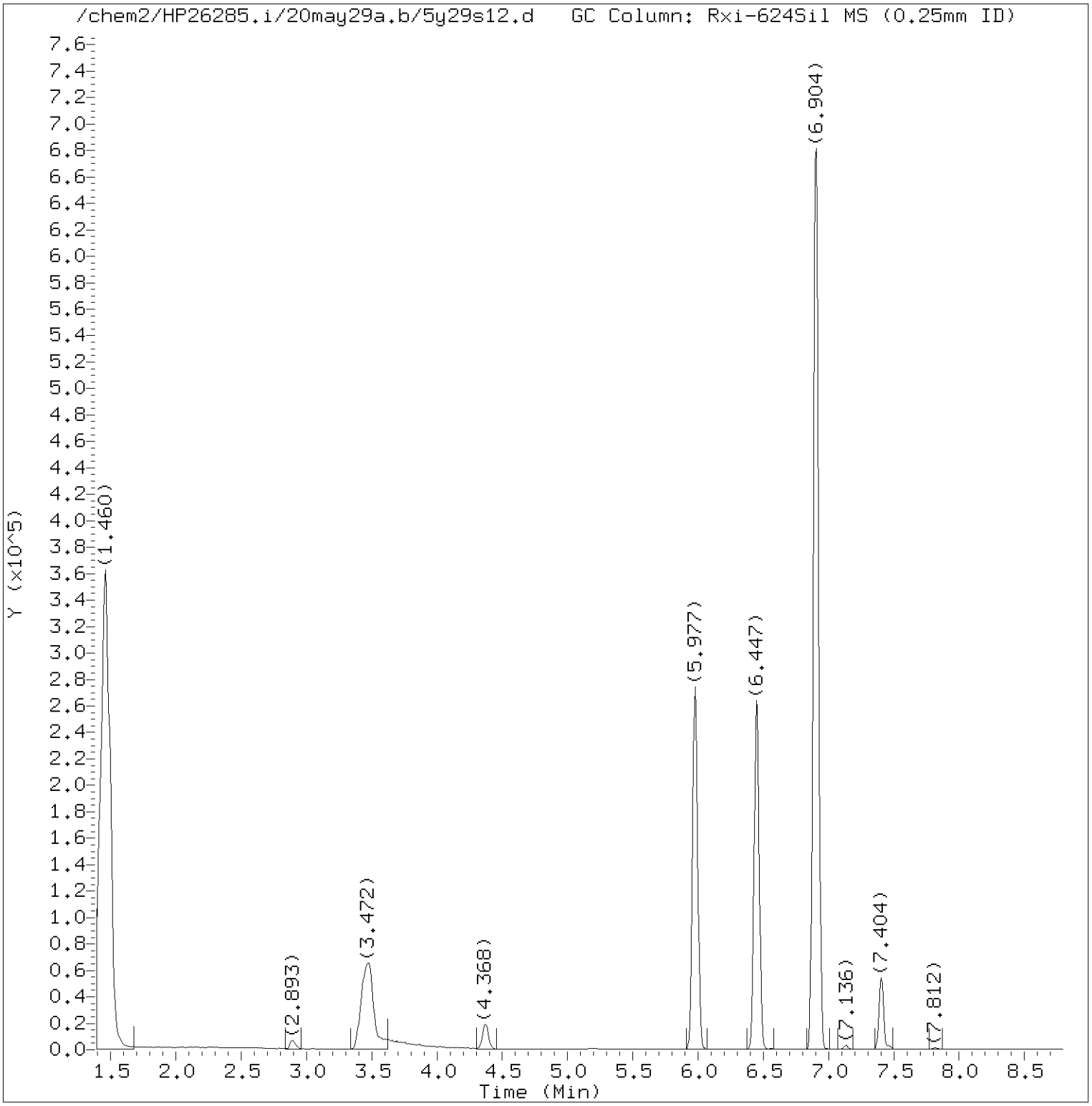
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

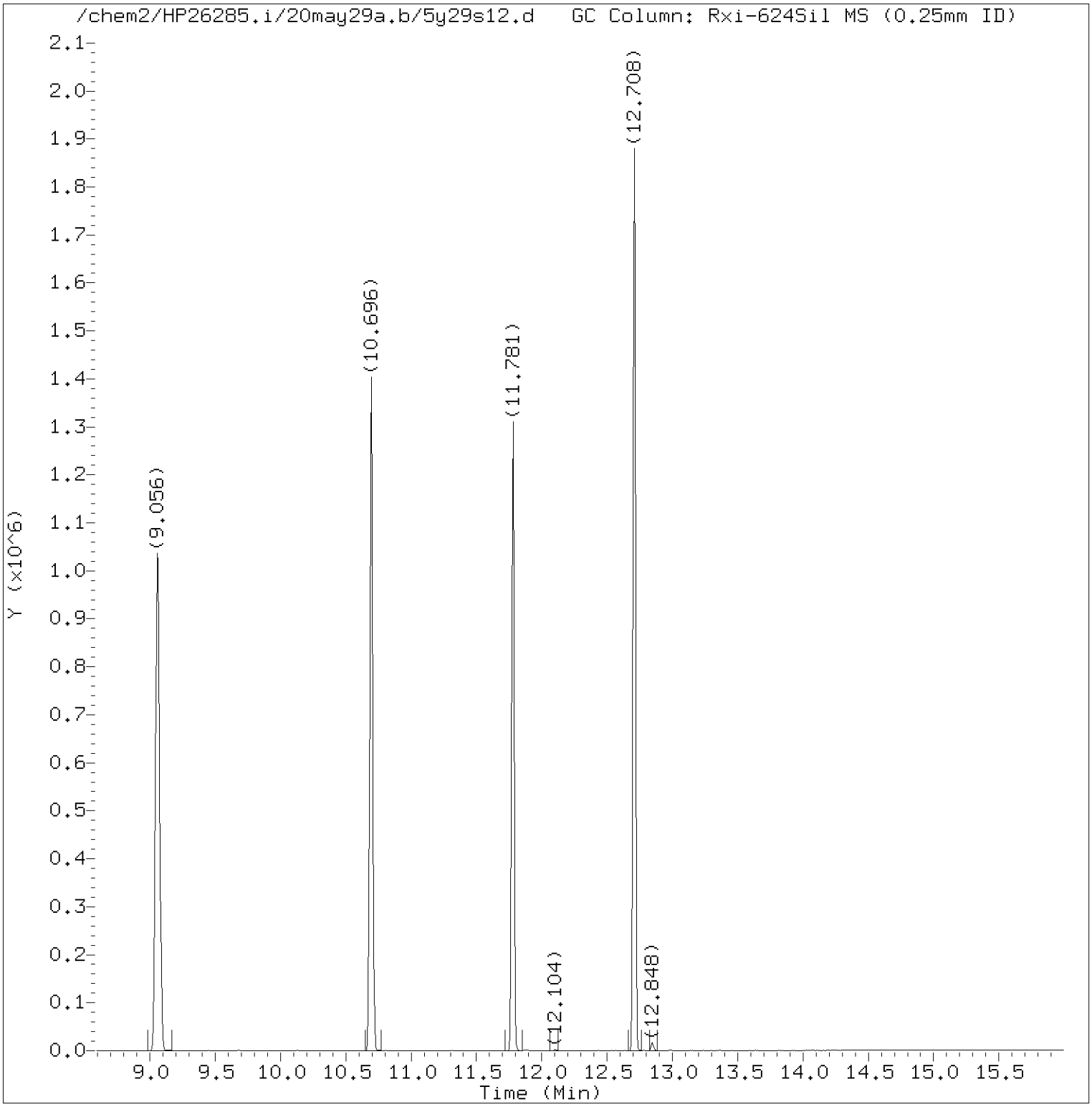
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.893	96	4240	0.854
29)*t-Butyl alcohol-d10	(1)	3.478	65	272514	250.000
36) 1,1-Dichloroethane	(2)	4.368	63	34205	3.399
53) 1,1,1-Trichloroethane	(2)	5.971	97	10765	1.185
52)$Dibromofluoromethane	(2)	5.977	113	233697	51.063
57)$1,2-Dichloroethane-d4	(2)	6.447	102	53213	51.988
66)*Fluorobenzene	(2)	6.904	96	918853	50.000
71) Trichloroethene	(2)	7.404	95	25045	3.899
84)$Toluene-d8	(3)	9.056	98	876843	48.623
101)*Chlorobenzene-d5	(3)	10.696	117	733798	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	358493	47.181
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	396078	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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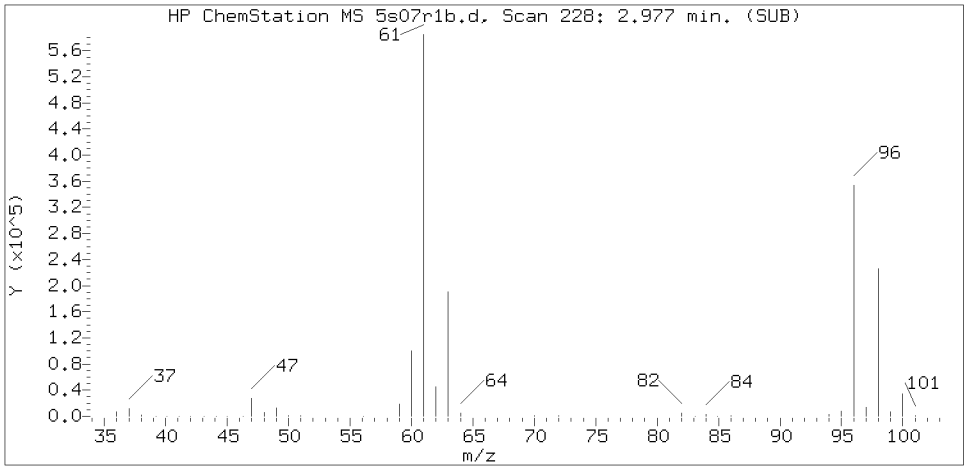
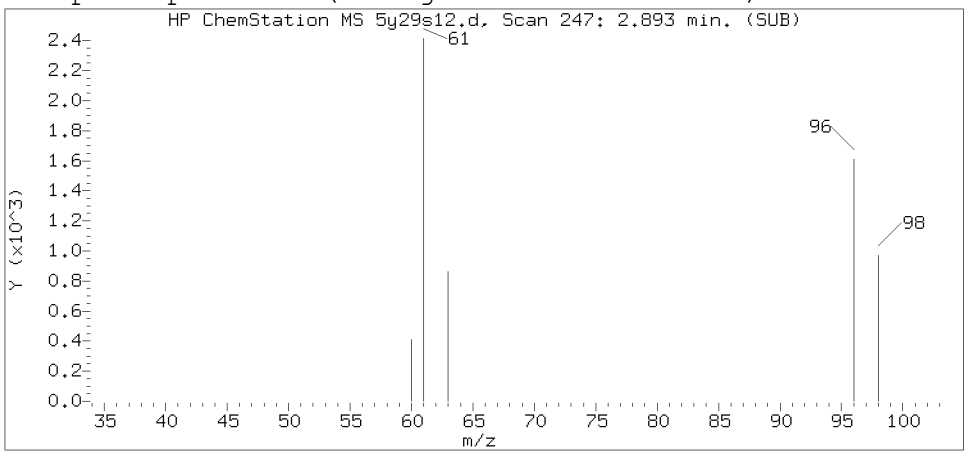
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

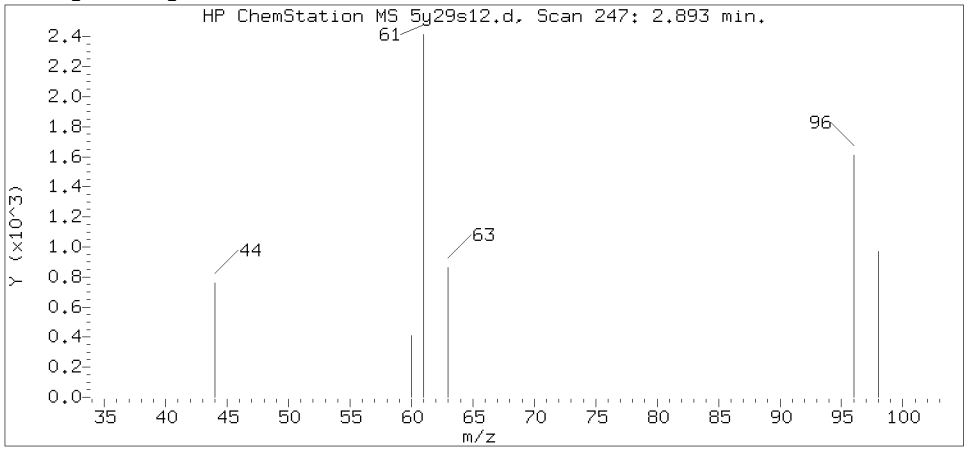
Reference Standard Spectrum for 1,1-Dichloroethene

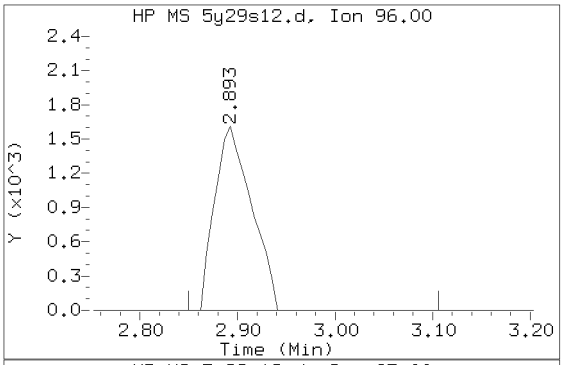


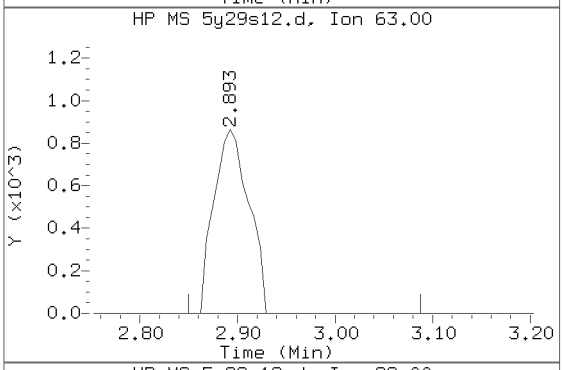
Sample Spectrum (Background Subtracted)

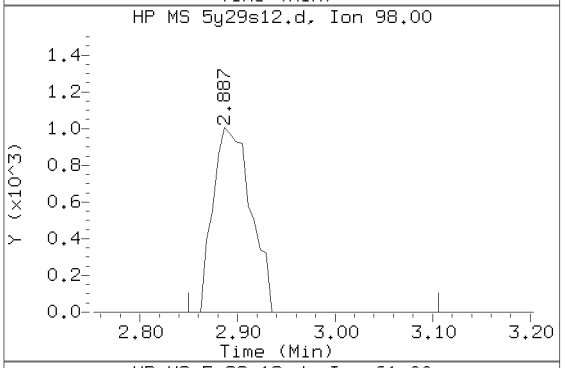


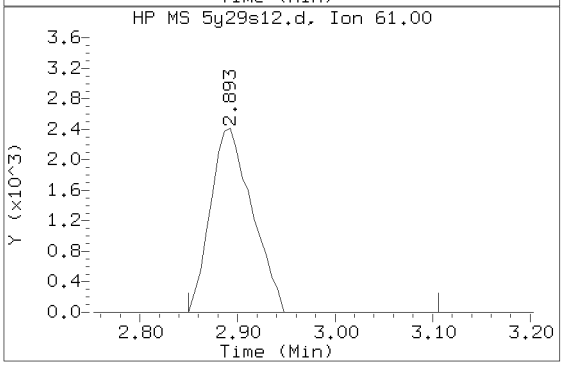
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 247
Retention Time (minutes): 2.893
Relative Retention Time :-0.00103
Quant Ion : 96.00
Area (flag) : 4240
On-Column Amount (ng) : 0.8536

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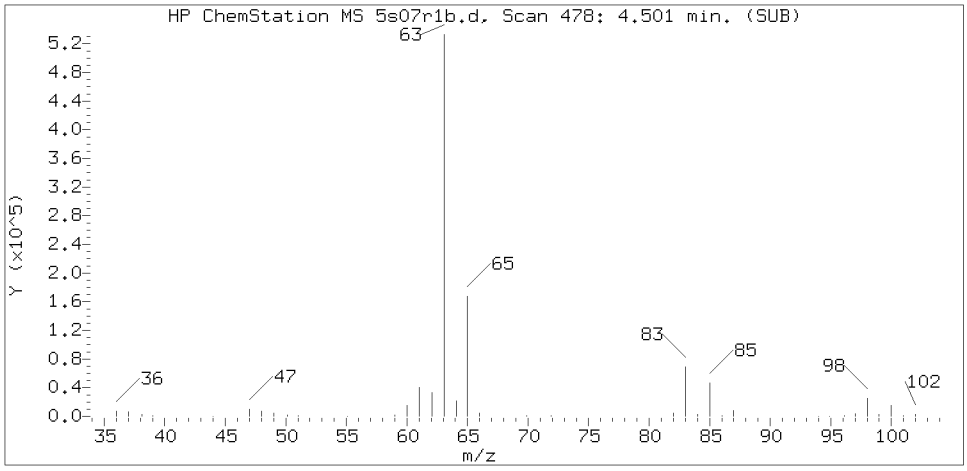
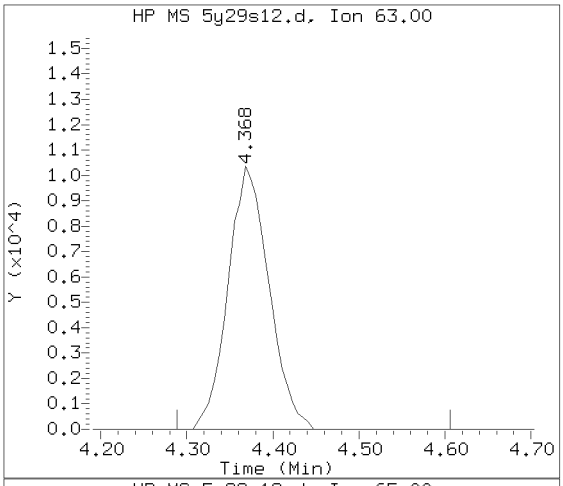
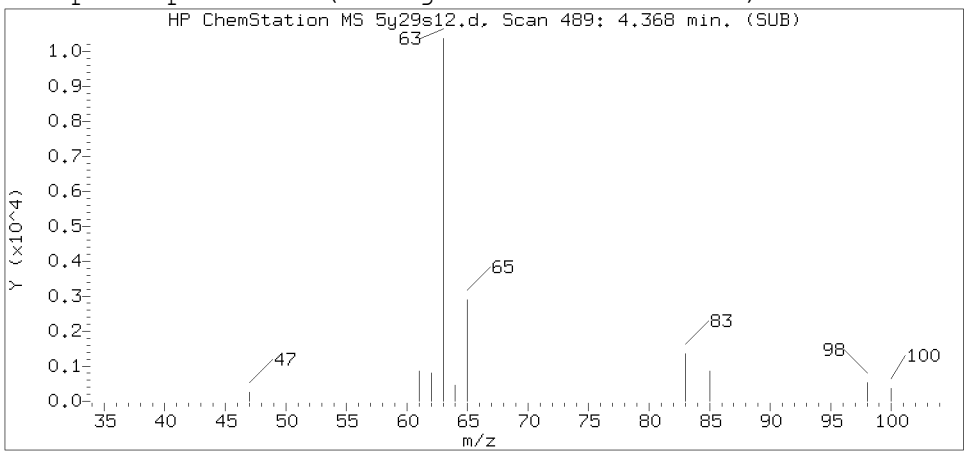
Target 3.5 esignature user ID: ljg30941

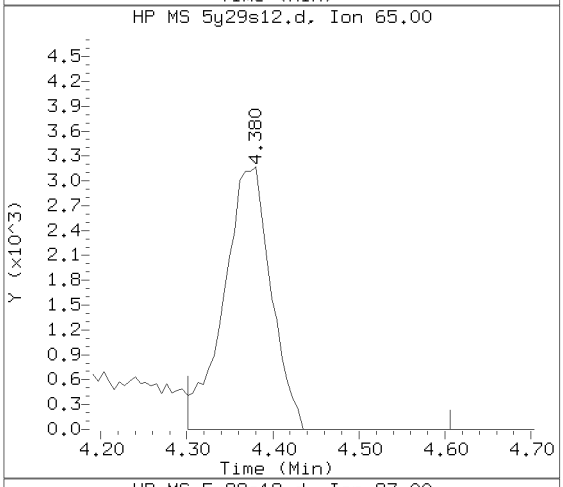
Reference Standard Spectrum for 1,1-Dichloroethane



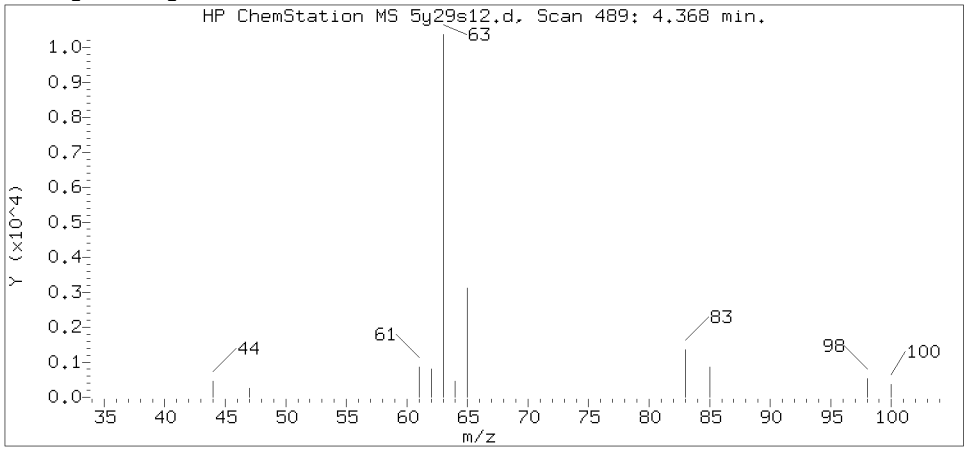


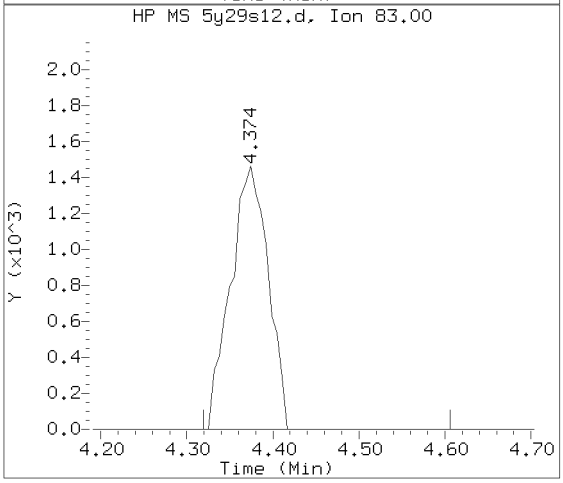
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

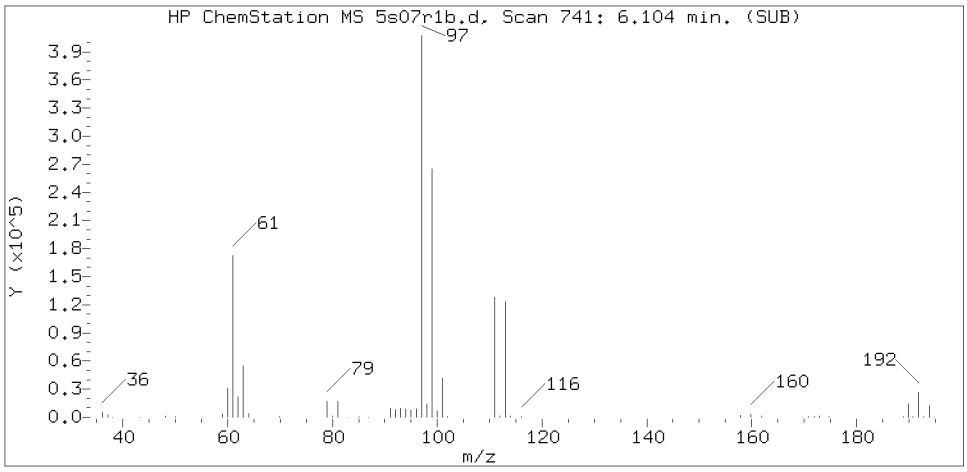
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

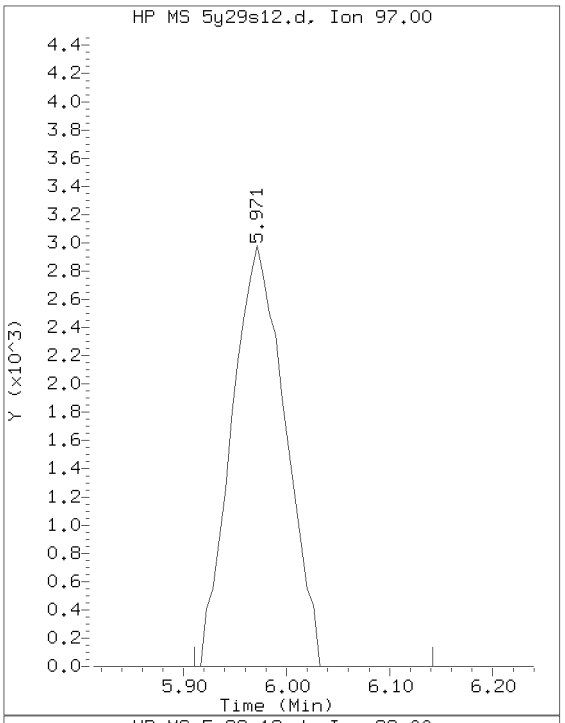
Sample Name: W5811 Lab Sample ID: 1318268

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 489
Retention Time (minutes): 4.368
Relative Retention Time :-0.00065
Quant Ion : 63.00
Area (flag) : 34205
On-Column Amount (ng) : 3.3990

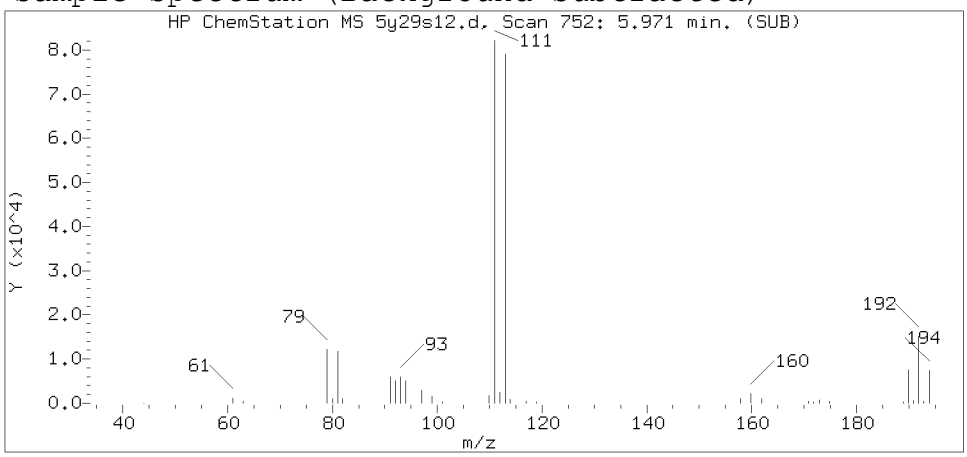
Digitally signed by Laura J. Green on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

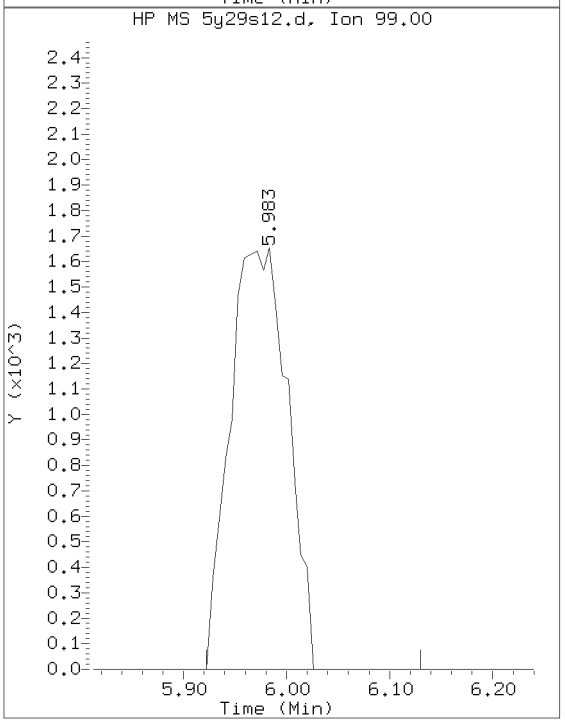
Reference Standard Spectrum for 1,1,1-Trichloroethane



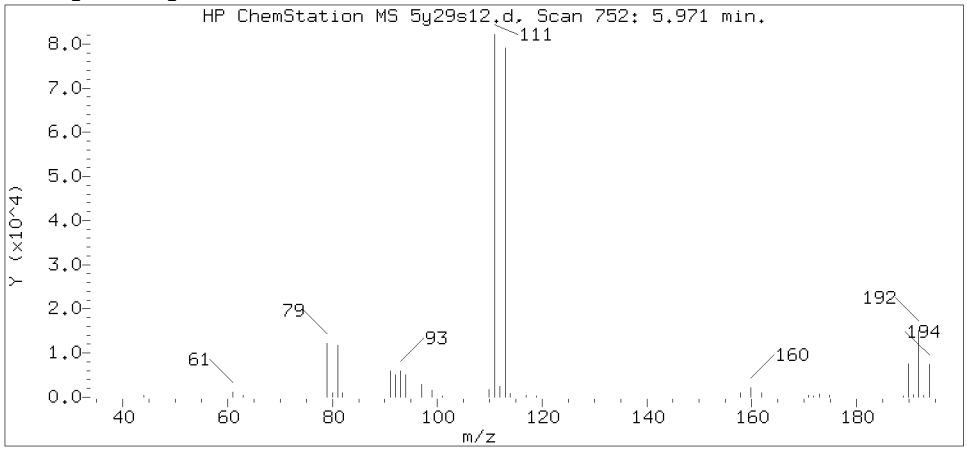


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 752
Retention Time (minutes): 5.971
Relative Retention Time :-0.00024
Quant Ion : 97.00
Area (flag) : 10765
On-Column Amount (ng) : 1.1846

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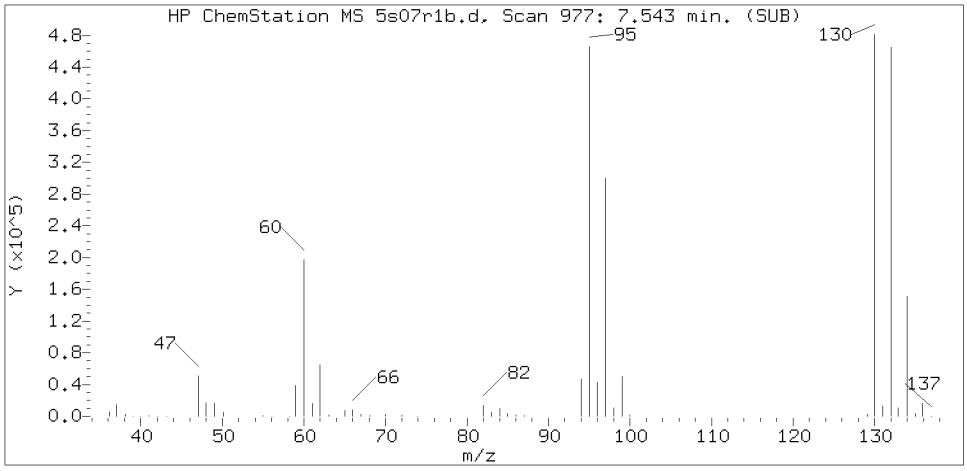
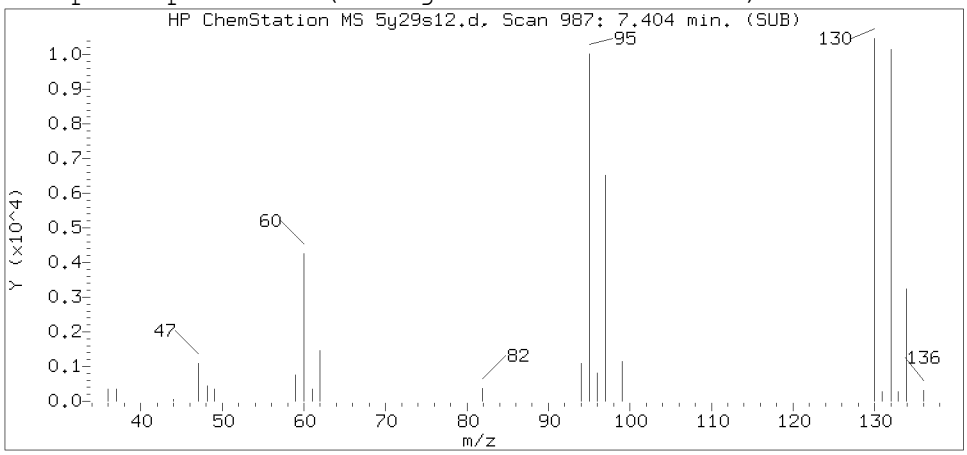
Target 3.5 esignature user ID: ljg30941

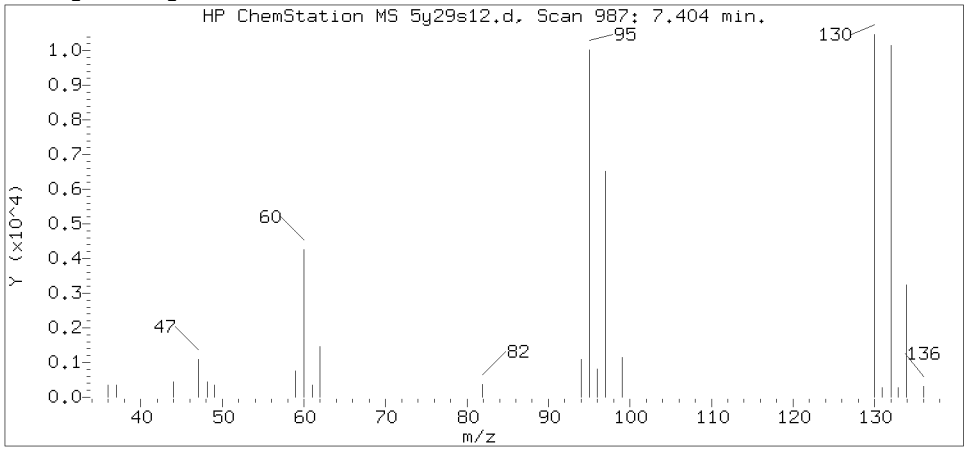
Reference Standard Spectrum for Trichloroethene

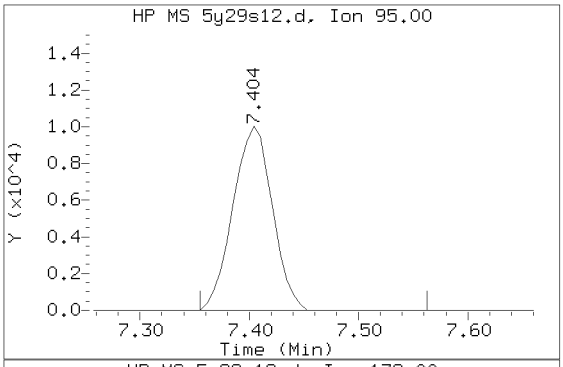


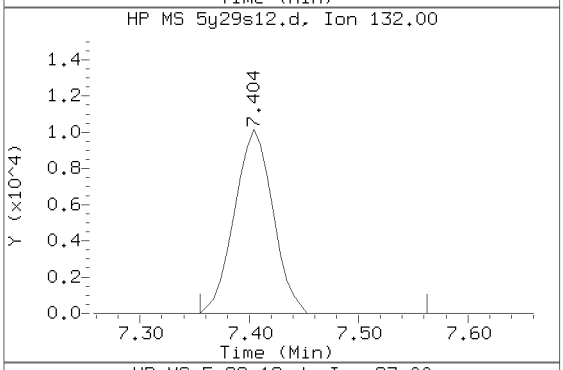
Sample Spectrum (Background Subtracted)

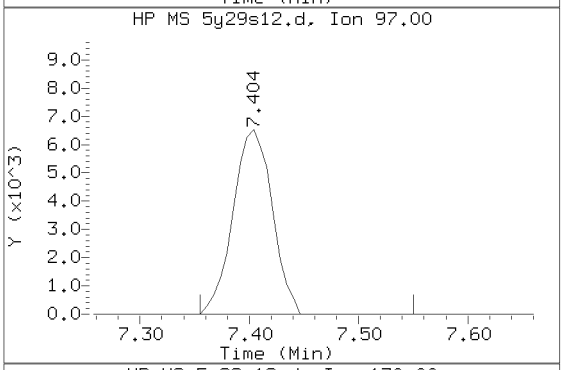


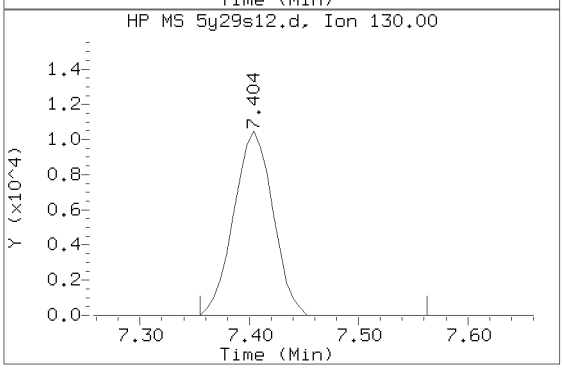
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s12.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:38 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 15:57 chemist

Sample Name: W5811 Lab Sample ID: 1318268

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 987
Retention Time (minutes)	: 7.404
Relative Retention Time	: 0.00013
Quant Ion	: 95.00
Area (flag)	: 25045
On-Column Amount (ng)	: 3.8989

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5812

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318269

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s13.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5812 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318269

Data file: /chem2/HP26285.i/20may29a.b/5y29s13.d Injection date and time: **29-MAY-2020 15:59**
Data file Sample Info. Line: W5812;1318269;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:17 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466(-0.037)	341	65	267987 (-23)	250.00	
66) Fluorobenzene	6.898(-0.006)	904	96	911963 (-10)	50.00	
101) Chlorobenzene-d5	10.696(-0.006)	1527	117	733689 (-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708(0.000)	1857	152	396307 (-9)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.978(-0.002)	113	234548	51.636	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447(0.000)	102	52572	51.749	103%		80 - 120
84) Toluene-d8	(3)	9.056(0.000)	98	868343	48.159	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781(0.000)	95	358346	47.169	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s13.d Injection date and time: **29-MAY-2020 15:59**
Data file Sample Info. Line: W5812;1318269;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:17 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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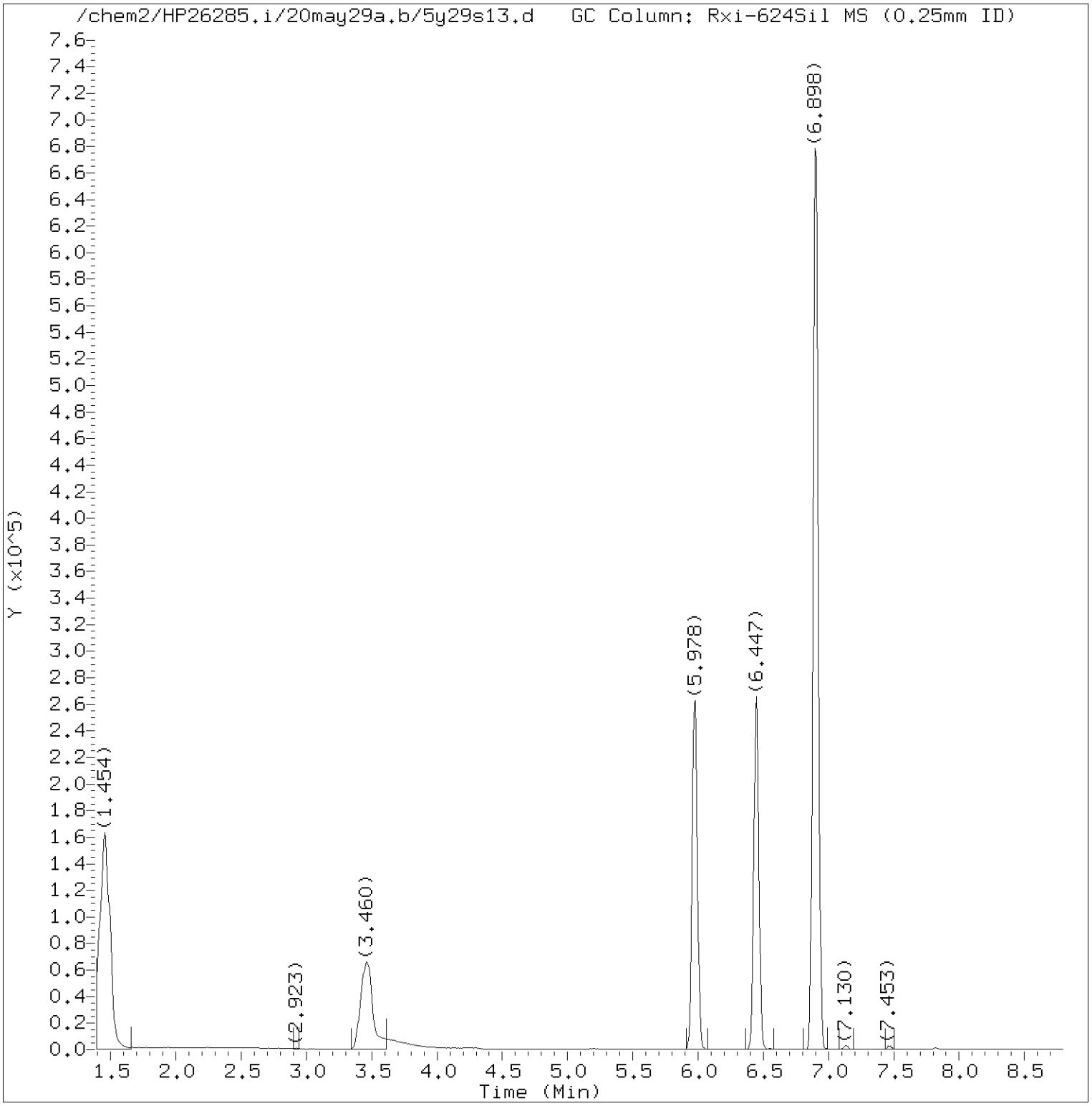
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

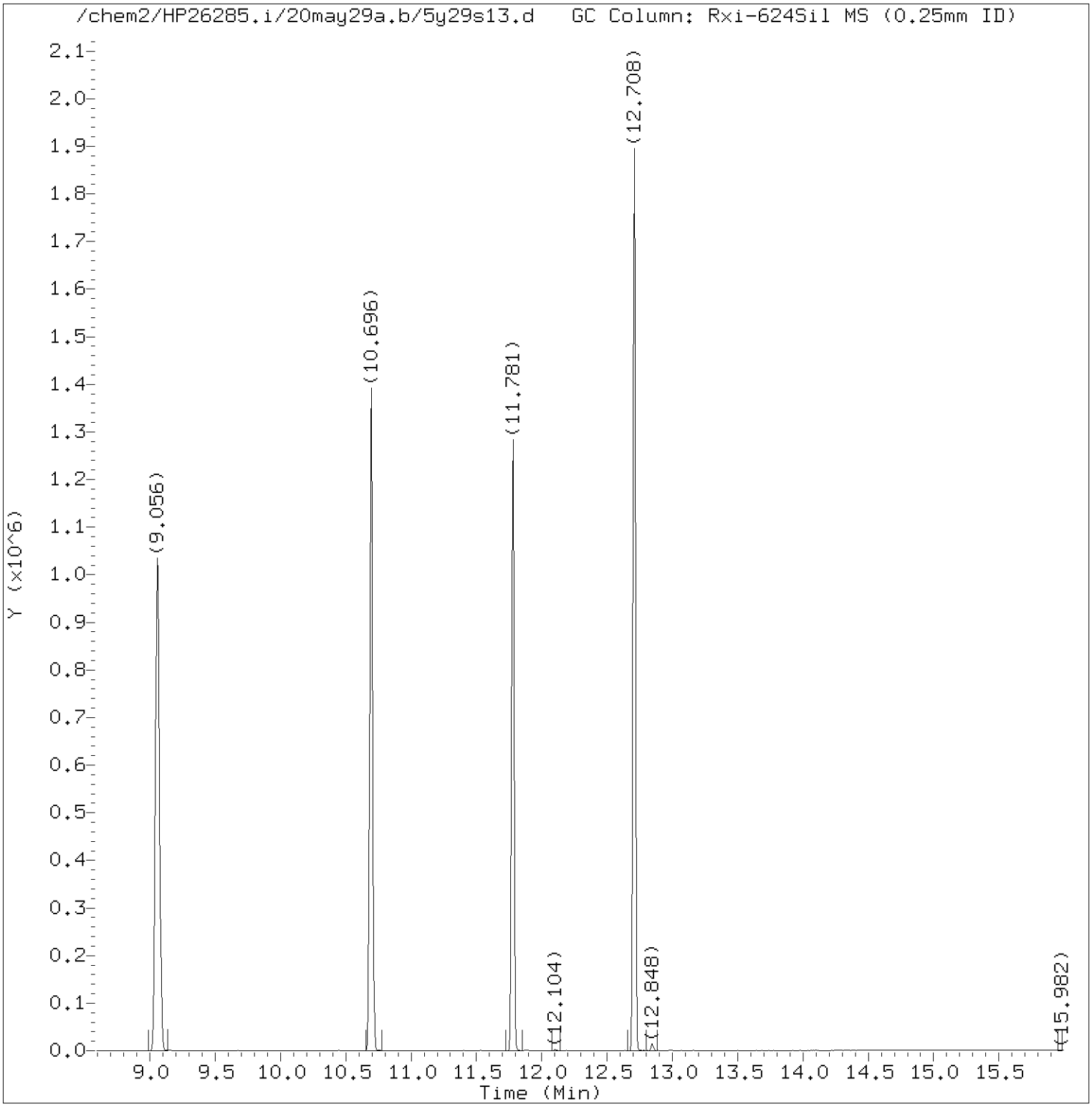
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s13.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:59 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:17 chemist

Sample Name: W5812 Lab Sample ID: 1318269

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s13.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:59 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:17 chemist

Sample Name: W5812 Lab Sample ID: 1318269

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s13.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 15:59 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:17 chemist

Sample Name: W5812 Lab Sample ID: 1318269

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	267987	250.000
52)$Dibromofluoromethane	(2)	5.978	113	234548	51.636
57)$1,2-Dichloroethane-d4	(2)	6.447	102	52572	51.749
66)*Fluorobenzene	(2)	6.898	96	911963	50.000
84)$Toluene-d8	(3)	9.056	98	868343	48.159
101)*Chlorobenzene-d5	(3)	10.696	117	733689	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	358346	47.169
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	396307	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5813

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318270

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s14.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.7	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5813 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318270

Data file: /chem2/HP26285.i/20may29a.b/5y29s14.d Injection date and time: **29-MAY-2020 16:19**
Data file Sample Info. Line: W5813;1318270;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.031)	340	65	253371	(-27)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	868259	(-14)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	695788	(-14)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	377766	(-14)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	222792	51.517	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	50127	51.826	104%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	822319	48.091	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.001)	95	337888	46.899	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.398	(0.000)	95	4084	0.673	0.67		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s14.d Injection date and time: **29-MAY-2020 16:19**
Data file Sample Info. Line: W5813;1318270;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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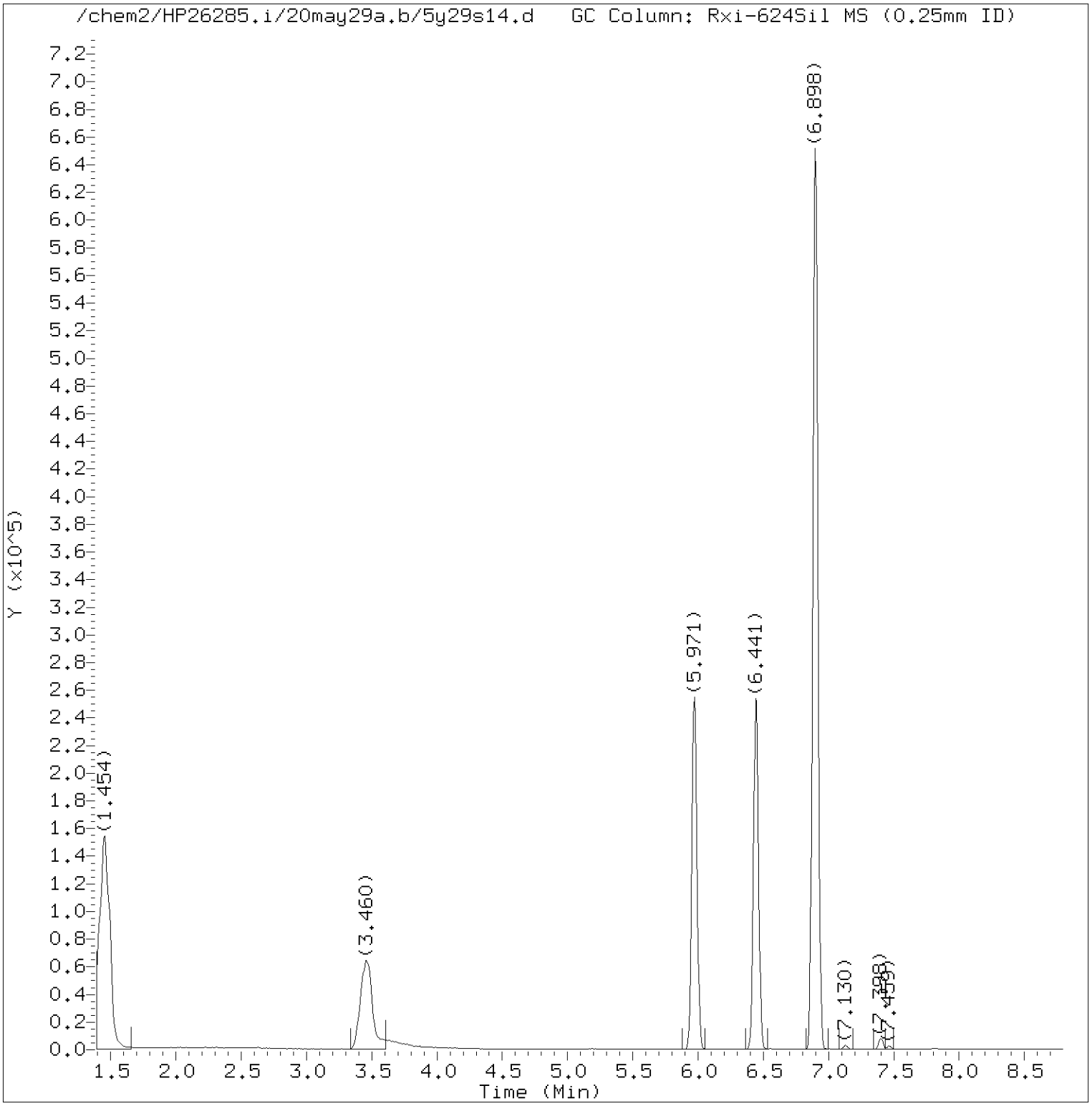
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

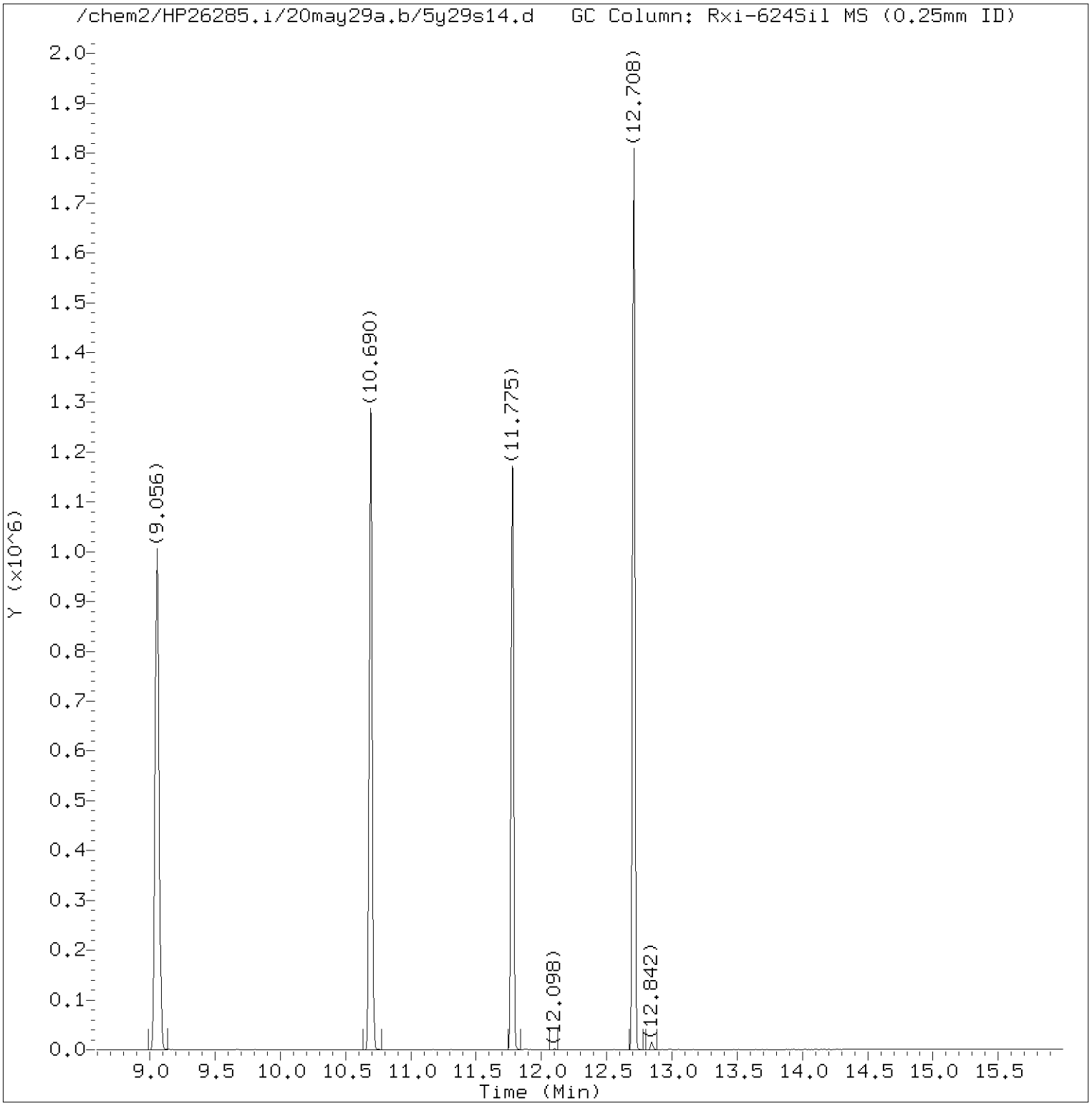
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s14.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:19 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

Sample Name: W5813 Lab Sample ID: 1318270

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s14.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:19 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

Sample Name: W5813 Lab Sample ID: 1318270

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s14.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:19 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

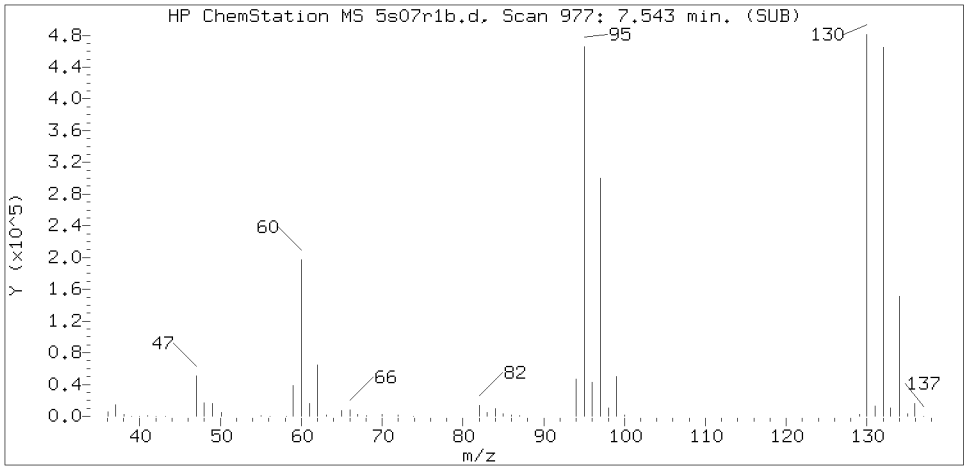
Sample Name: W5813 Lab Sample ID: 1318270

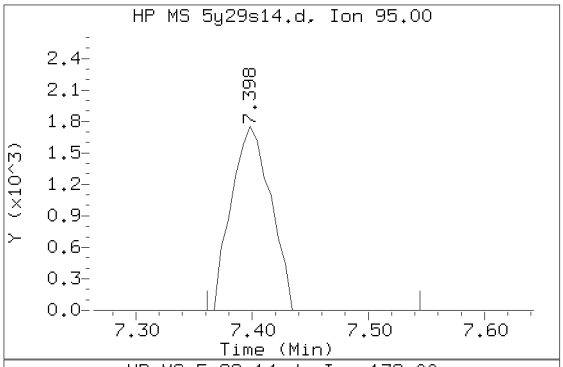
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	253371	250.000
52)$Dibromofluoromethane	(2)	5.971	113	222792	51.517
57)$1,2-Dichloroethane-d4	(2)	6.441	102	50127	51.826
66)*Fluorobenzene	(2)	6.898	96	868259	50.000
71) Trichloroethene	(2)	7.398	95	4084	0.673
84)$Toluene-d8	(3)	9.056	98	822319	48.091
101)*Chlorobenzene-d5	(3)	10.696	117	695788	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	337888	46.899
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	377766	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

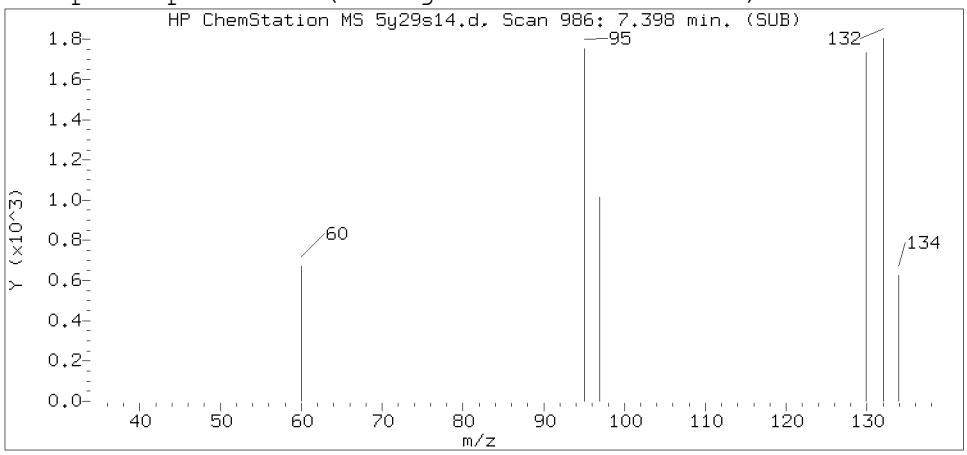
Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

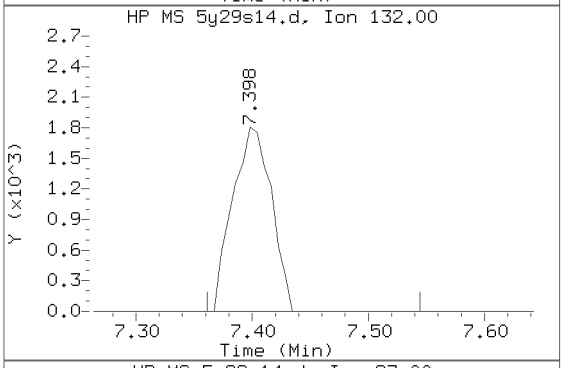
Reference Standard Spectrum for Trichloroethene

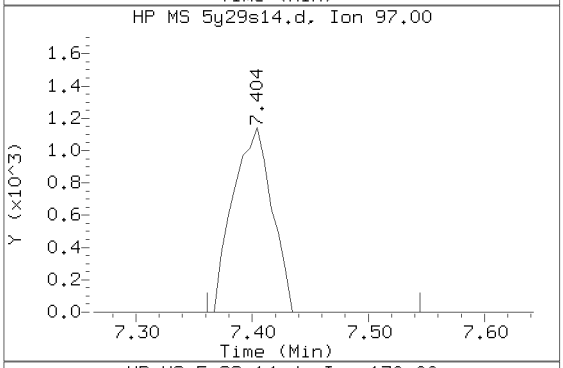




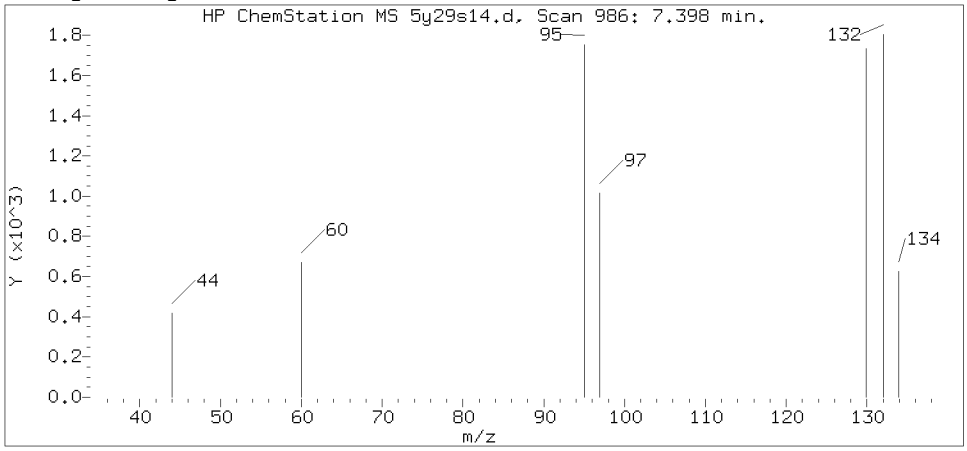
Sample Spectrum (Background Subtracted)

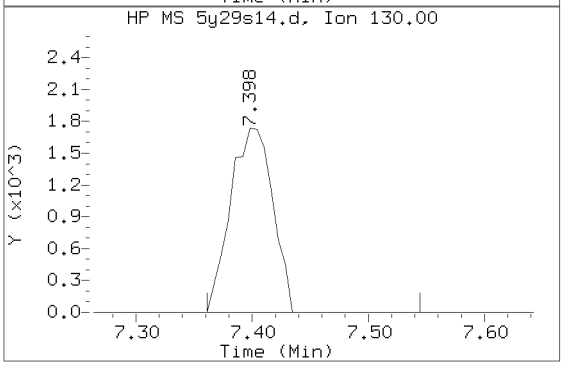






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s14.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:19 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:38 chemist

Sample Name: W5813 Lab Sample ID: 1318270

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 986
Retention Time (minutes)	: 7.398
Relative Retention Time	: 0.00007
Quant Ion	: 95.00
Area (flag)	: 4084
On-Column Amount (ng)	: 0.6729

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5814

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318271

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s15.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5814 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318271

Data file: /chem2/HP26285.i/20may29a.b/5y29s15.d Injection date and time: **29-MAY-2020 16:40**
Data file Sample Info. Line: W5814;1318271;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466	(-0.036)	341	65	252383	(-27)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	860432	(-15)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	693221	(-14)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	375733	(-14)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	222441	51.904	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	50900	53.104	106%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	822380	48.272	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	337257	46.984	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s15.d Injection date and time: **29-MAY-2020 16:40**
Data file Sample Info. Line: W5814;1318271;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 16:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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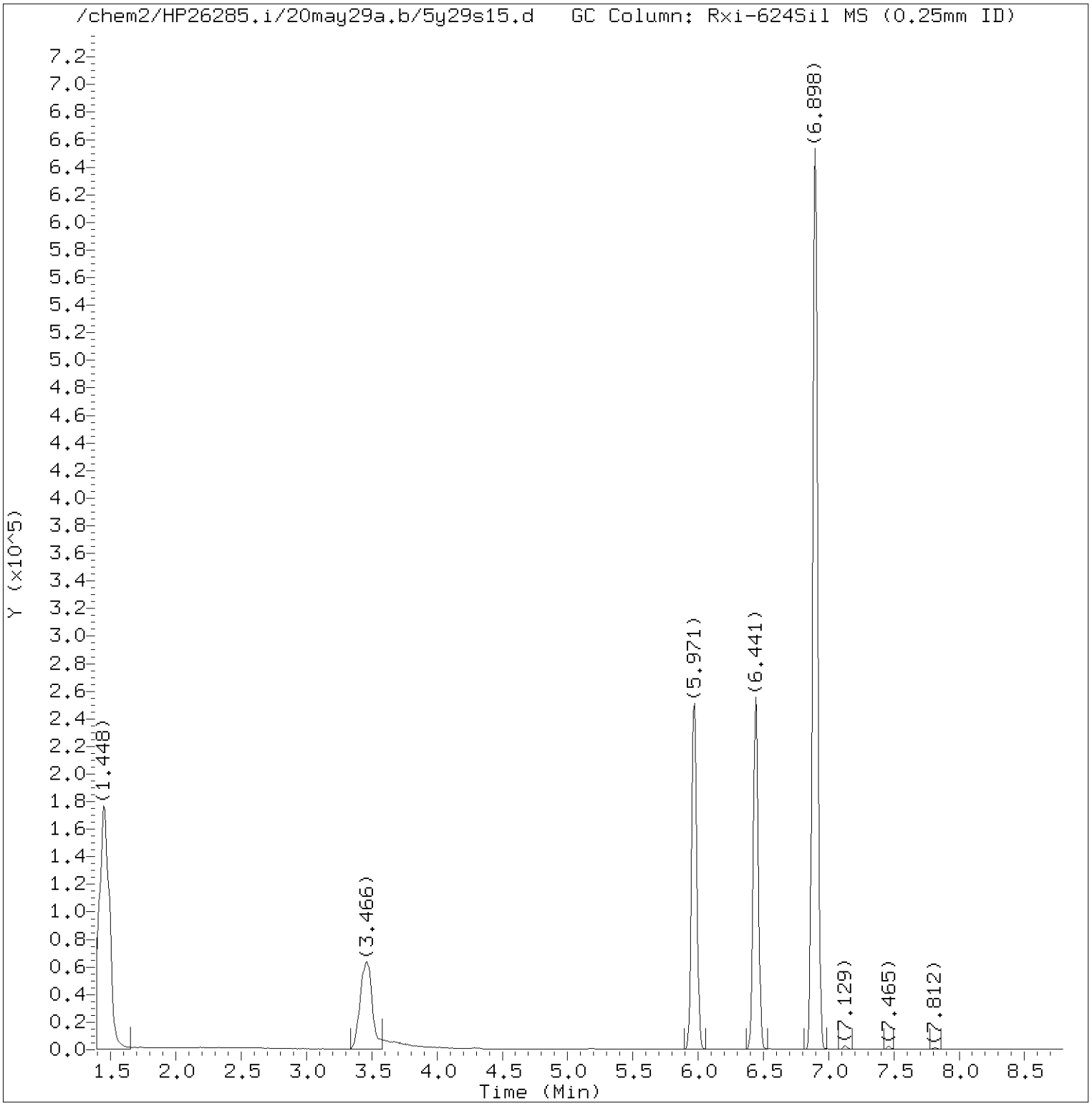
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

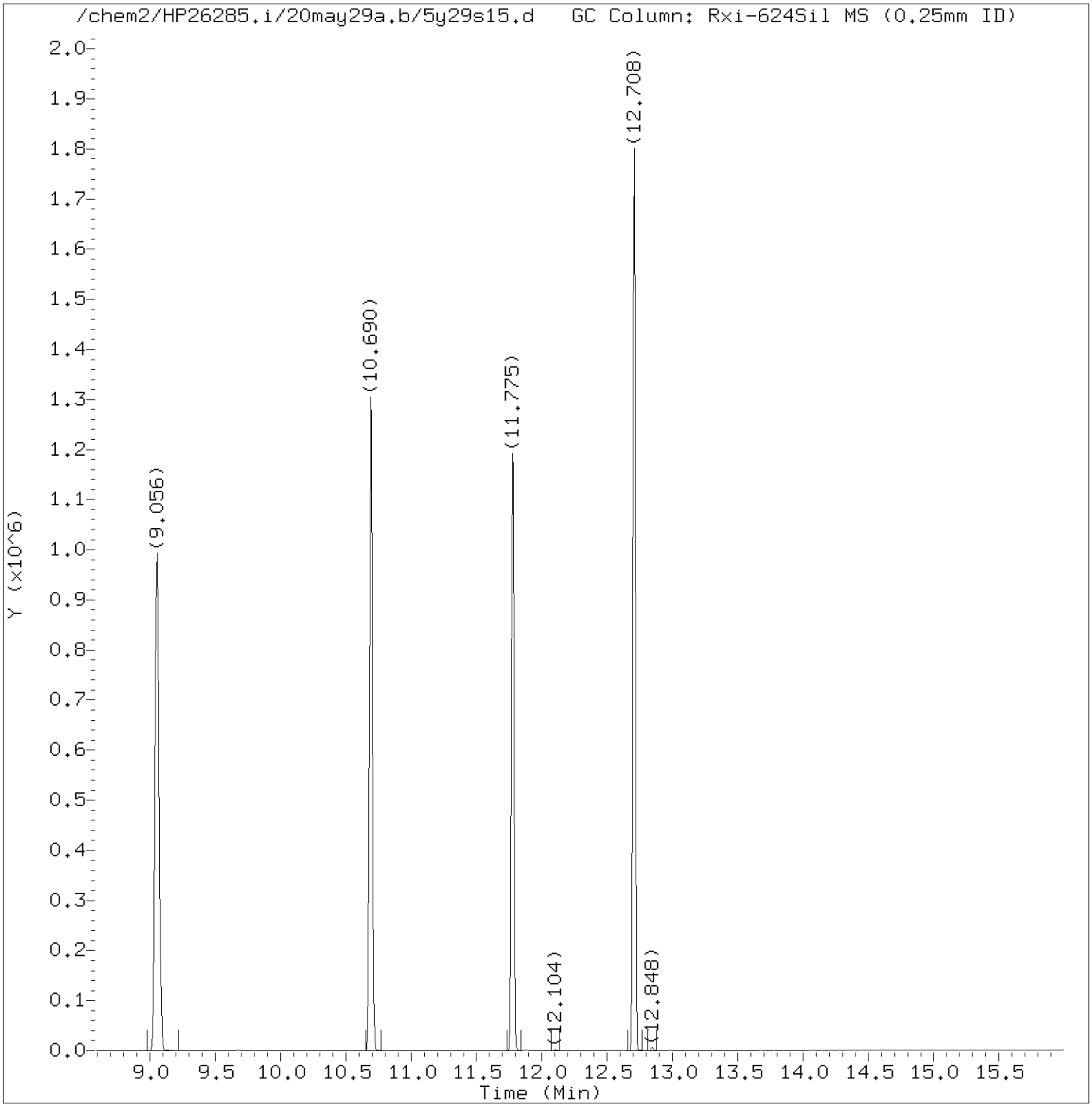
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s15.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:40 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:59 chemist

Sample Name: W5814 Lab Sample ID: 1318271

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s15.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:40 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:59 chemist

Sample Name: W5814 Lab Sample ID: 1318271

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s15.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 16:40 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 16:59 chemist

Sample Name: W5814 Lab Sample ID: 1318271

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	252383	250.000
52)$Dibromofluoromethane	(2)	5.971	113	222441	51.904
57)$1,2-Dichloroethane-d4	(2)	6.441	102	50900	53.104
66)*Fluorobenzene	(2)	6.898	96	860432	50.000
84)$Toluene-d8	(3)	9.056	98	822380	48.272
101)*Chlorobenzene-d5	(3)	10.690	117	693221	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	337257	46.984
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	375733	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5815

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318272

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s16.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5815 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1318272

Data file: /chem2/HP26285.i/20may29a.b/5y29s16.d Injection date and time: **29-MAY-2020 17:00**
Data file Sample Info. Line: W5815;1318272;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:18 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	255843	(-26)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	838863	(-17)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	677086	(-16)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	365155	(-17)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	218051	52.187	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447	(0.000)	102	49352	52.813	106%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	798978	48.016	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	328986	46.924	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s16.d Injection date and time: **29-MAY-2020 17:00**
Data file Sample Info. Line: W5815;1318272;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:18 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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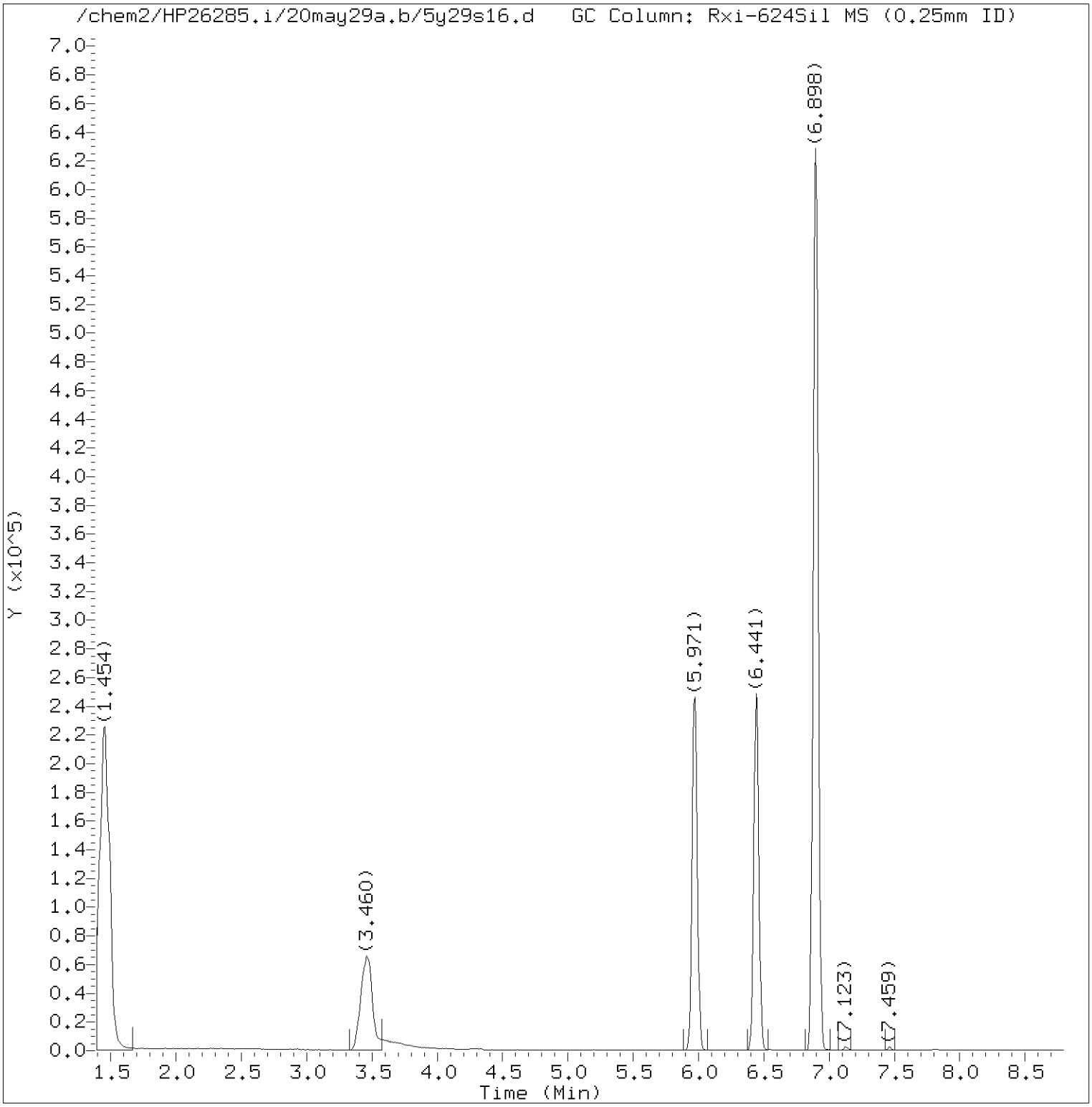
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

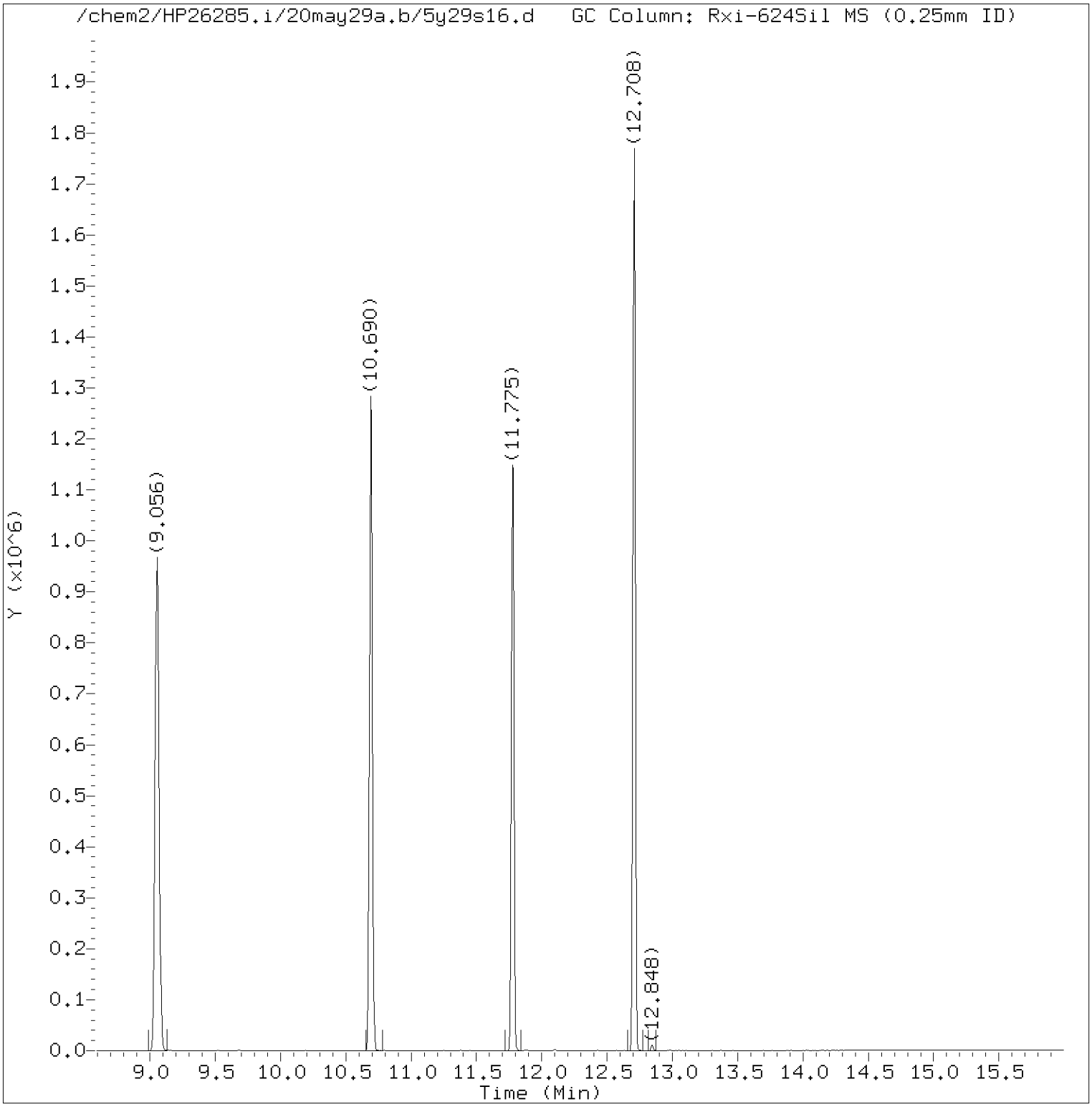
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s16.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:00 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:18 chemist

Sample Name: W5815 Lab Sample ID: 1318272

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s16.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:00 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:18 chemist

Sample Name: W5815 Lab Sample ID: 1318272

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s16.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:00 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:18 chemist

Sample Name: W5815 Lab Sample ID: 1318272

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	255843	250.000
52)$Dibromofluoromethane	(2)	5.971	113	218051	52.187
57)$1,2-Dichloroethane-d4	(2)	6.447	102	49352	52.813
66)*Fluorobenzene	(2)	6.898	96	838863	50.000
84)$Toluene-d8	(3)	9.056	98	798978	48.016
101)*Chlorobenzene-d5	(3)	10.690	117	677086	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	328986	46.924
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	365155	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5816

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318273

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s17.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5816 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318273

Data file: /chem2/HP26285.i/20may29a.b/5y29s17.d Injection date and time: **29-MAY-2020 17:21**
Data file Sample Info. Line: W5816;1318273;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:40 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454	(-0.024)	339	65	234537	(-32)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	825368	(-19)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	667387	(-18)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	363695	(-17)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	216586	52.684	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	48994	53.287	107%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	789020	48.107	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	323079	46.751	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s17.d Injection date and time: **29-MAY-2020 17:21**
Data file Sample Info. Line: W5816;1318273;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:40 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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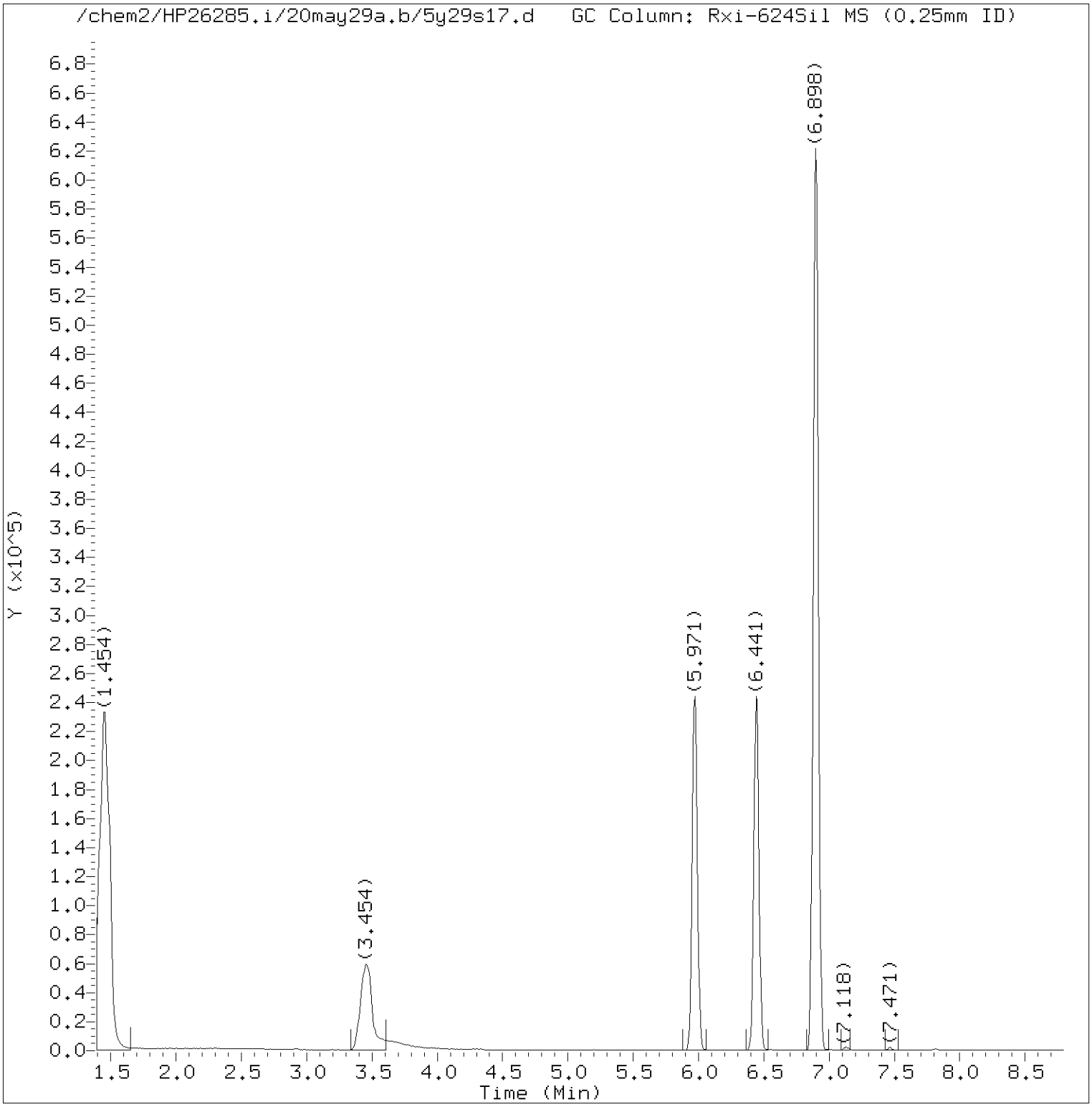
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

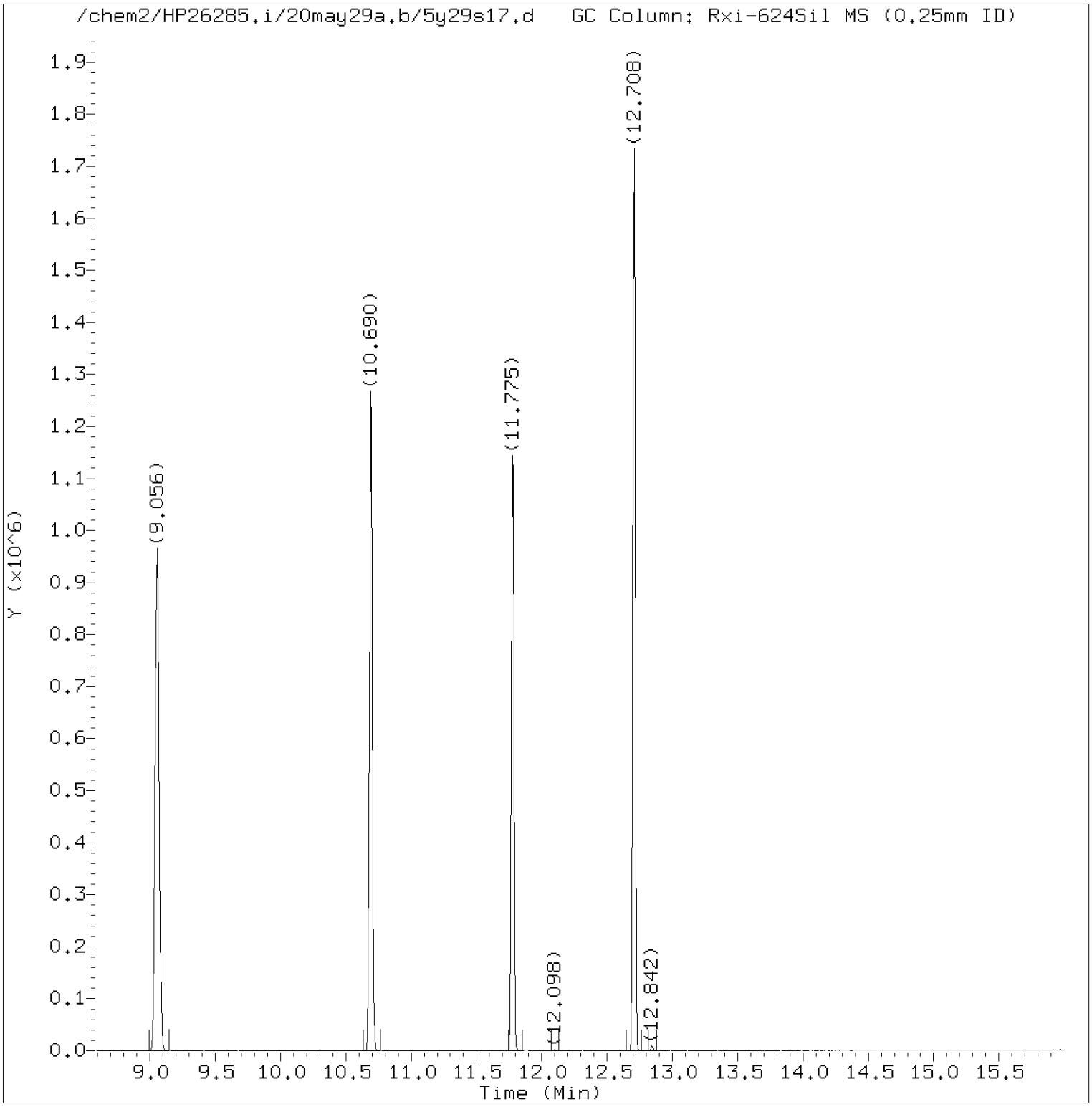
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s17.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:21 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:40 chemist

Sample Name: W5816 Lab Sample ID: 1318273

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s17.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:21 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:40 chemist

Sample Name: W5816 Lab Sample ID: 1318273

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s17.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:21 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:40 chemist

Sample Name: W5816 Lab Sample ID: 1318273

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.454	65	234537	250.000
52)$Dibromofluoromethane	(2)	5.971	113	216586	52.684
57)$1,2-Dichloroethane-d4	(2)	6.441	102	48994	53.287
66)*Fluorobenzene	(2)	6.898	96	825368	50.000
84)$Toluene-d8	(3)	9.056	98	789020	48.107
101)*Chlorobenzene-d5	(3)	10.690	117	667387	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	323079	46.751
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	363695	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5817

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318274

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s18.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5817 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318274

Data file: /chem2/HP26285.i/20may29a.b/5y29s18.d Injection date and time: **29-MAY-2020 17:42**
Data file Sample Info. Line: W5817;1318274;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:00 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.459	(-0.030)	340	65	235452	(-32)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	814853	(-20)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	661986	(-18)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	357369	(-18)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	212773	52.425	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	48328	53.241	106%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	780105	47.951	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	320786	46.798	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 18:14. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s18.d Injection date and time: **29-MAY-2020 17:42**
Data file Sample Info. Line: W5817;1318274;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:00 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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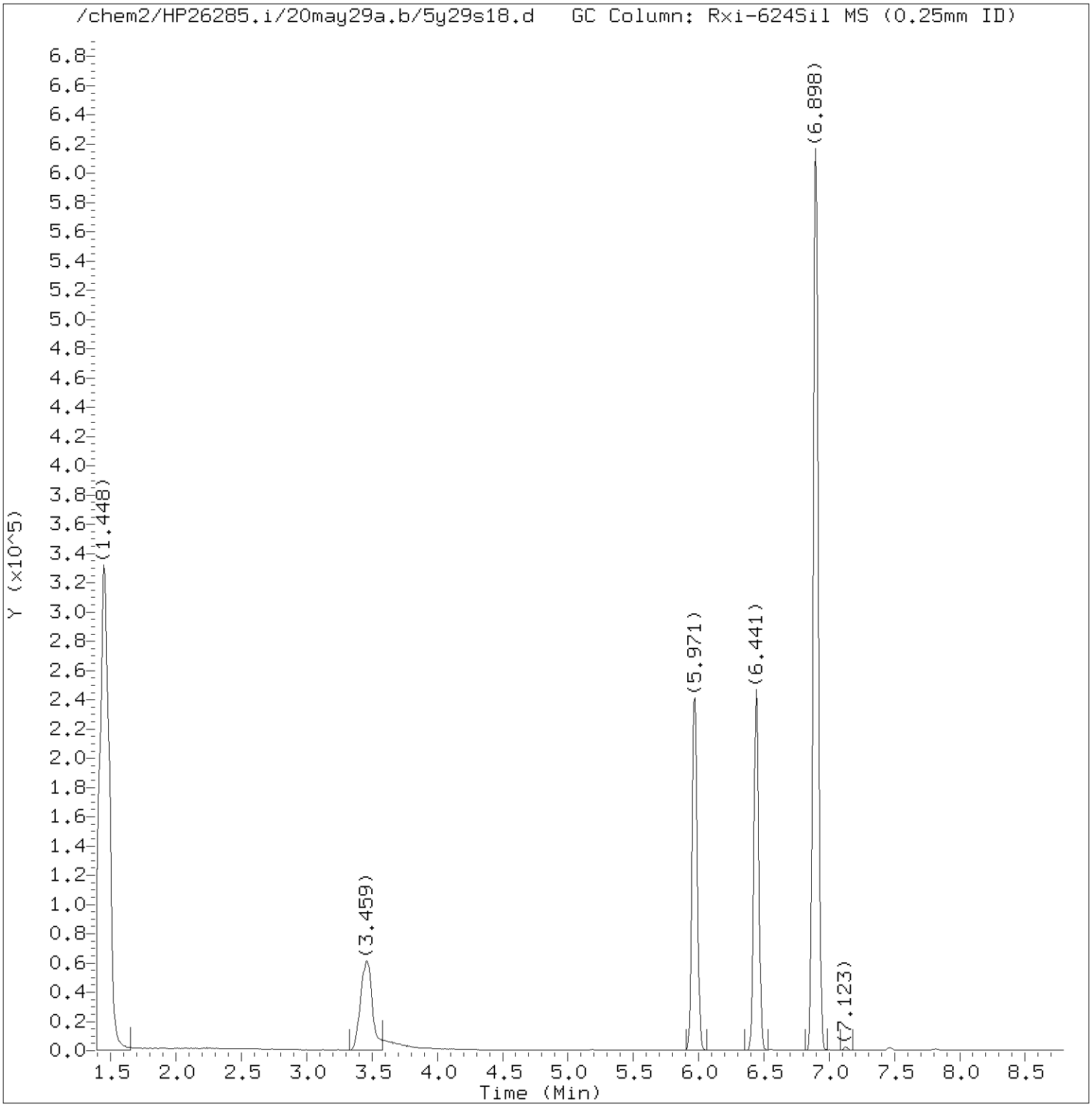
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 18:14. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

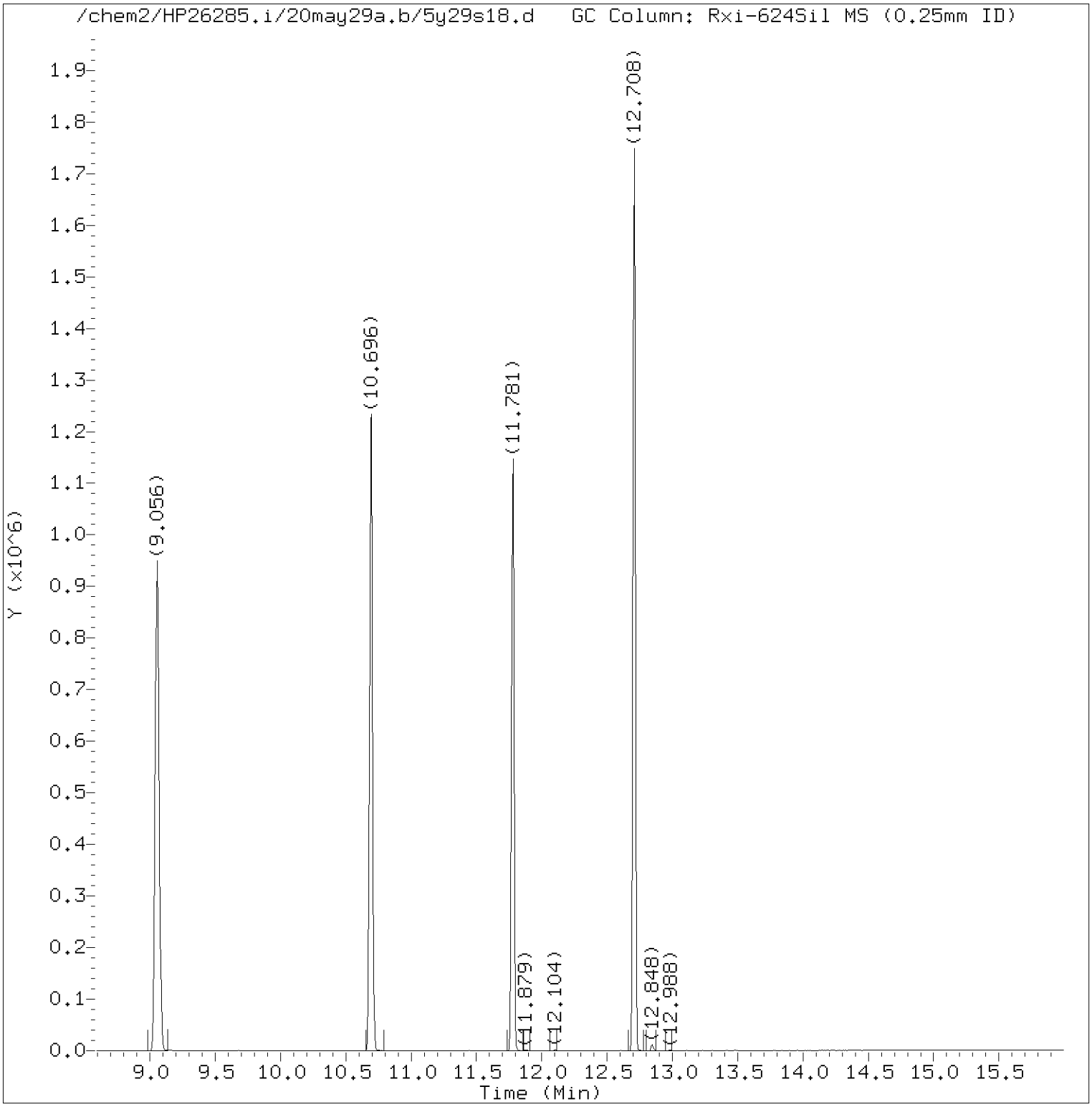
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s18.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:42 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:00 chemist

Sample Name: W5817 Lab Sample ID: 1318274

Digitally signed by Laura J. Green
on 05/29/2020 at 18:14.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s18.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:42 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:00 chemist

Sample Name: W5817 Lab Sample ID: 1318274

Digitally signed by Laura J. Green
on 05/29/2020 at 18:14.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s18.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 17:42 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:00 chemist

Sample Name: W5817 Lab Sample ID: 1318274

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.459	65	235452	250.000
52)$Dibromofluoromethane	(2)	5.971	113	212773	52.425
57)$1,2-Dichloroethane-d4	(2)	6.441	102	48328	53.241
66)*Fluorobenzene	(2)	6.898	96	814853	50.000
84)$Toluene-d8	(3)	9.056	98	780105	47.951
101)*Chlorobenzene-d5	(3)	10.696	117	661986	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	320786	46.798
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	357369	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 18:14.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5818

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318275

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s19.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5818 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318275

Data file: /chem2/HP26285.i/20may29a.b/5y29s19.d Injection date and time: **29-MAY-2020 18:02**
Data file Sample Info. Line: W5818;1318275;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:21 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.466(-0.037)	341	65	234276 (-32)	250.00	
66) Fluorobenzene	6.904(-0.012)	905	96	787039 (-22)	50.00	
101) Chlorobenzene-d5	10.696(-0.006)	1527	117	640011 (-21)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708(0.000)	1857	152	346605 (-21)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971(0.000)	113	206355	52.640	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447(0.001)	102	46563	53.110	106%		80 - 120
84) Toluene-d8	(3)	9.056(0.000)	98	753365	47.898	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781(0.000)	95	307580	46.412	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 18:23. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s19.d Injection date and time: **29-MAY-2020 18:02**
Data file Sample Info. Line: W5818;1318275;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:21 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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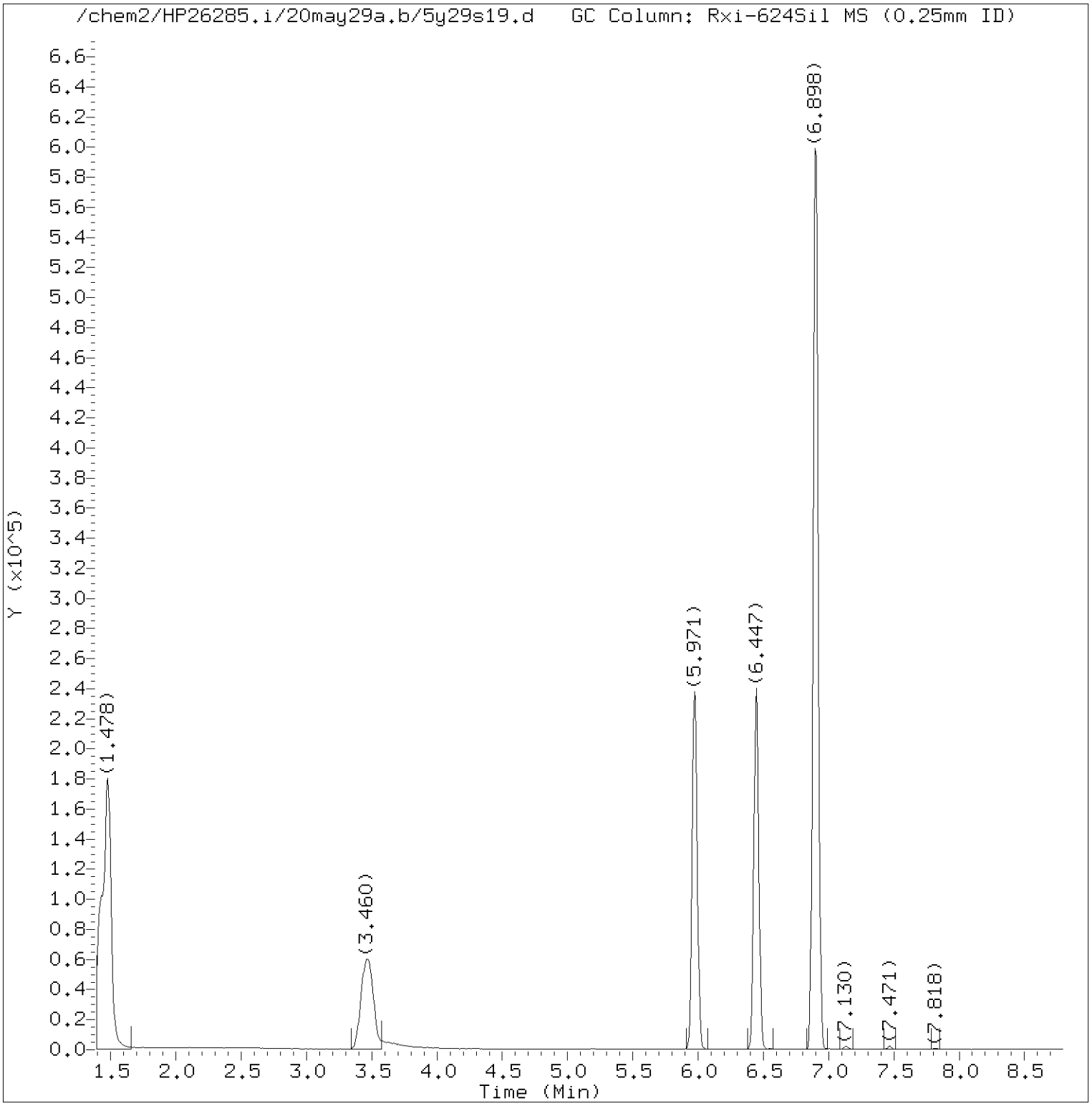
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 18:23. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

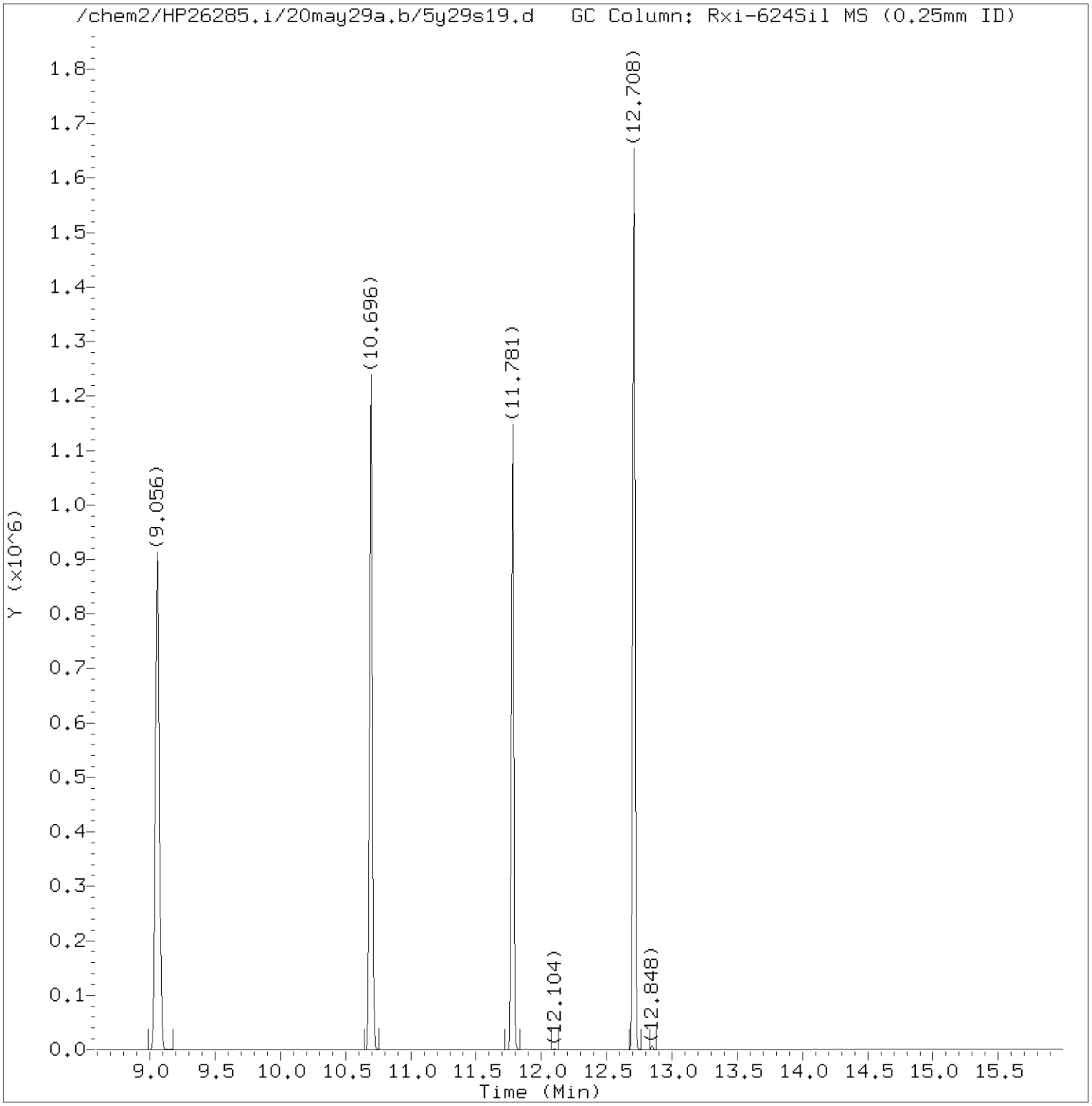
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s19.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:02 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:21 chemist

Sample Name: W5818 Lab Sample ID: 1318275

Digitally signed by Laura J. Green
on 05/29/2020 at 18:23.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s19.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:02 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:21 chemist

Sample Name: W5818 Lab Sample ID: 1318275

Digitally signed by Laura J. Green
on 05/29/2020 at 18:23.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s19.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:02 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:21 chemist

Sample Name: W5818 Lab Sample ID: 1318275

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.466	65	234276	250.000
52)$Dibromofluoromethane	(2)	5.971	113	206355	52.640
57)$1,2-Dichloroethane-d4	(2)	6.447	102	46563	53.110
66)*Fluorobenzene	(2)	6.904	96	787039	50.000
84)$Toluene-d8	(3)	9.056	98	753365	47.898
101)*Chlorobenzene-d5	(3)	10.696	117	640011	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	307580	46.412
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	346605	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 18:23.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5819

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318276

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s20.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5819 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318276

Data file: /chem2/HP26285.i/20may29a.b/5y29s20.d Injection date and time: **29-MAY-2020 18:23**
Data file Sample Info. Line: W5819;1318276;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:42 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.472 (-0.043)	342	65	234405 (-32)	250.00	
66) Fluorobenzene	6.904 (-0.012)	905	96	791893 (-22)	50.00	
101) Chlorobenzene-d5	10.696 (-0.006)	1527	117	647201 (-20)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708 (0.000)	1857	152	352242 (-20)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.977 (-0.001)	113	208888	52.960	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447 (0.001)	102	47122	53.417	107%		80 - 120
84) Toluene-d8	(3)	9.056 (0.000)	98	758713	47.702	95%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781 (0.000)	95	312042	46.563	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 18:46. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s20.d Injection date and time: **29-MAY-2020 18:23**
Data file Sample Info. Line: W5819;1318276;1;0;;JCW58;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 18:42 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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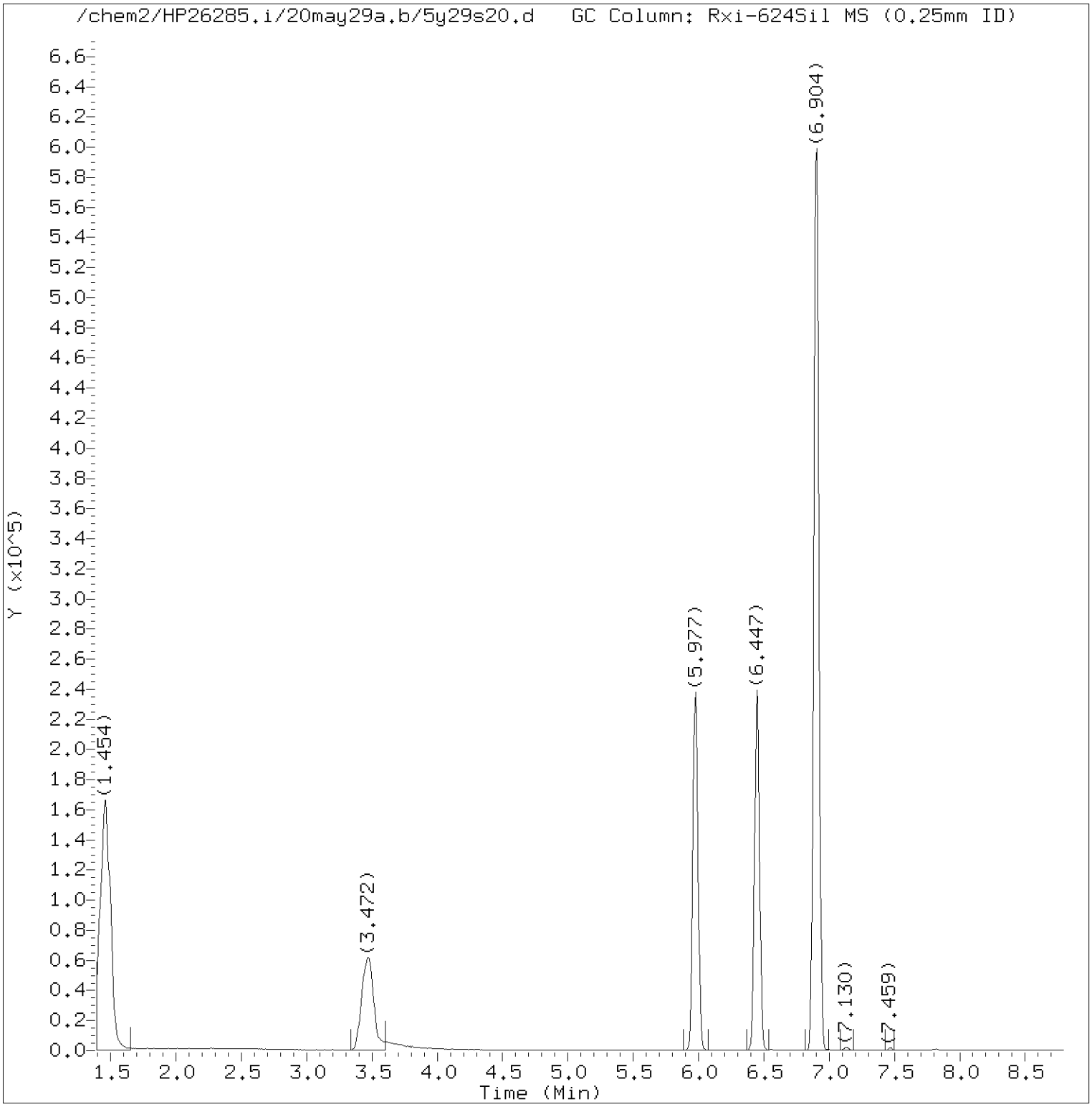
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 18:46. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

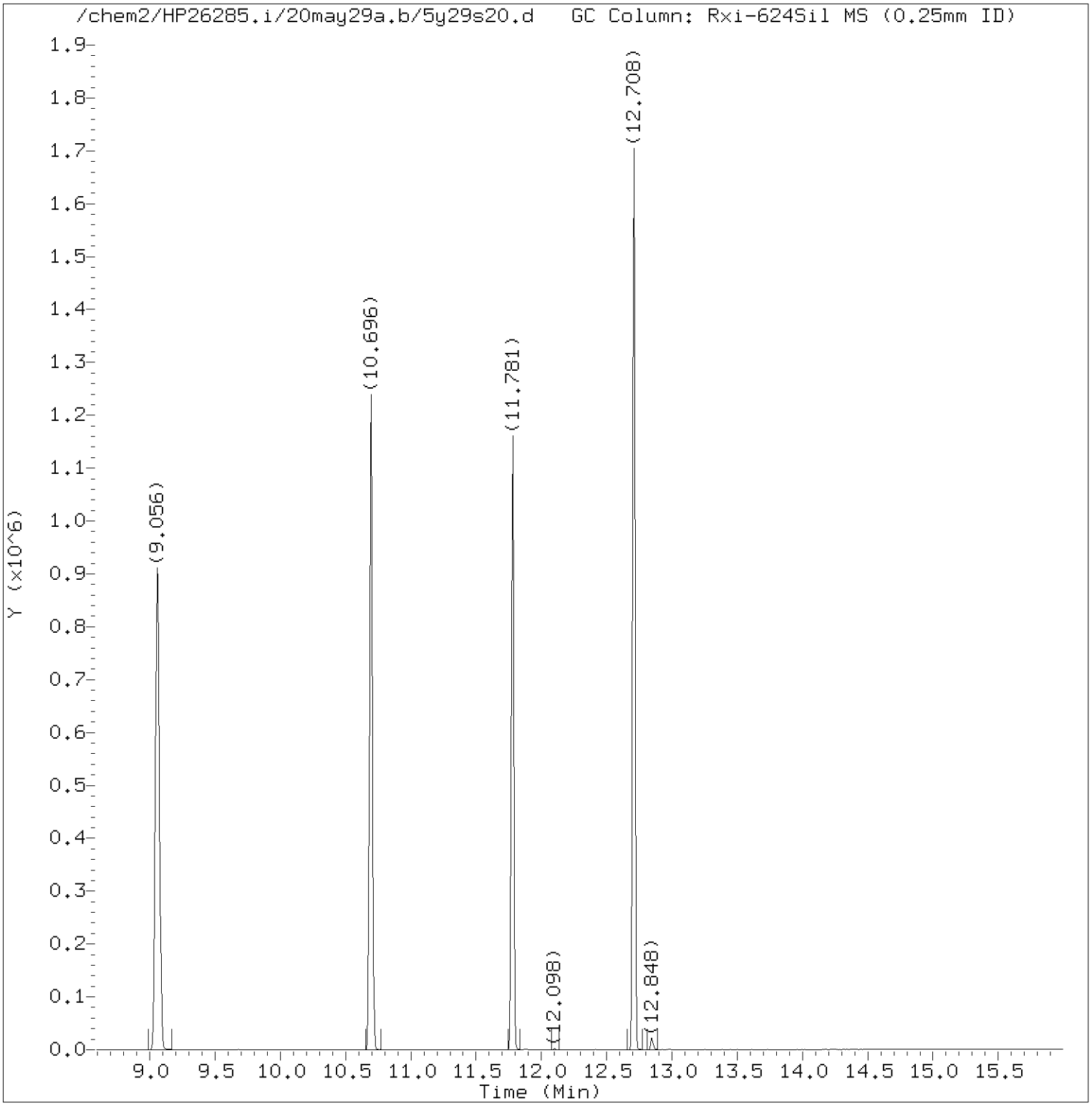
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s20.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:23 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:42 chemist

Sample Name: W5819 Lab Sample ID: 1318276

Digitally signed by Laura J. Green
on 05/29/2020 at 18:46.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s20.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:23 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:42 chemist

Sample Name: W5819 Lab Sample ID: 1318276

Digitally signed by Laura J. Green
on 05/29/2020 at 18:46.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s20.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:23 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 18:42 chemist

Sample Name: W5819 Lab Sample ID: 1318276

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.472	65	234405	250.000
52)$Dibromofluoromethane	(2)	5.977	113	208888	52.960
57)$1,2-Dichloroethane-d4	(2)	6.447	102	47122	53.417
66)*Fluorobenzene	(2)	6.904	96	791893	50.000
84)$Toluene-d8	(3)	9.056	98	758713	47.702
101)*Chlorobenzene-d5	(3)	10.696	117	647201	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	312042	46.563
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	352242	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 18:46.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5820

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318277

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s12.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5820 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318277

Data file: /chem2/HP26285.i/20may27a.b/5y27s12.d Injection date and time: **27-MAY-2020 13:55**
Data file Sample Info. Line: W5820;1318277;1;0;;JCW58;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.030)	338	65	279389	(-6)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	922948	(-9)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	731808	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696	(0.000)	1855	152	388333	(-11)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(0.000)	113	232478	50.571	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(0.000)	102	53949	52.472	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	875205	48.664	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(-0.001)	95	355995	46.980	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(0.000)	95	6863	1.064	1.06			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may27a.b/5y27s12.d Injection date and time: **27-MAY-2020 13:55**
Data file Sample Info. Line: W5820;1318277;1;0;;JCW58;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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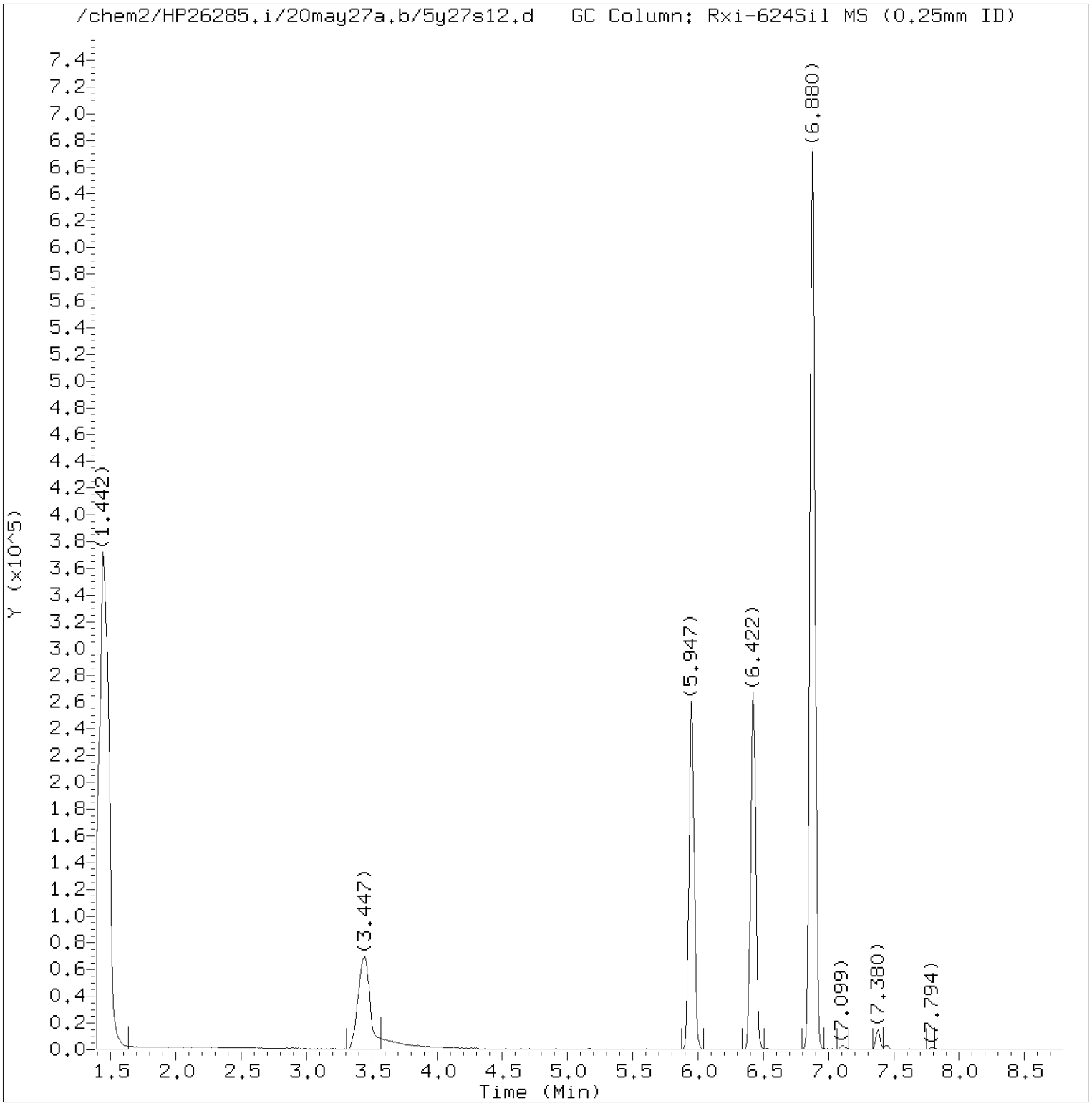
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

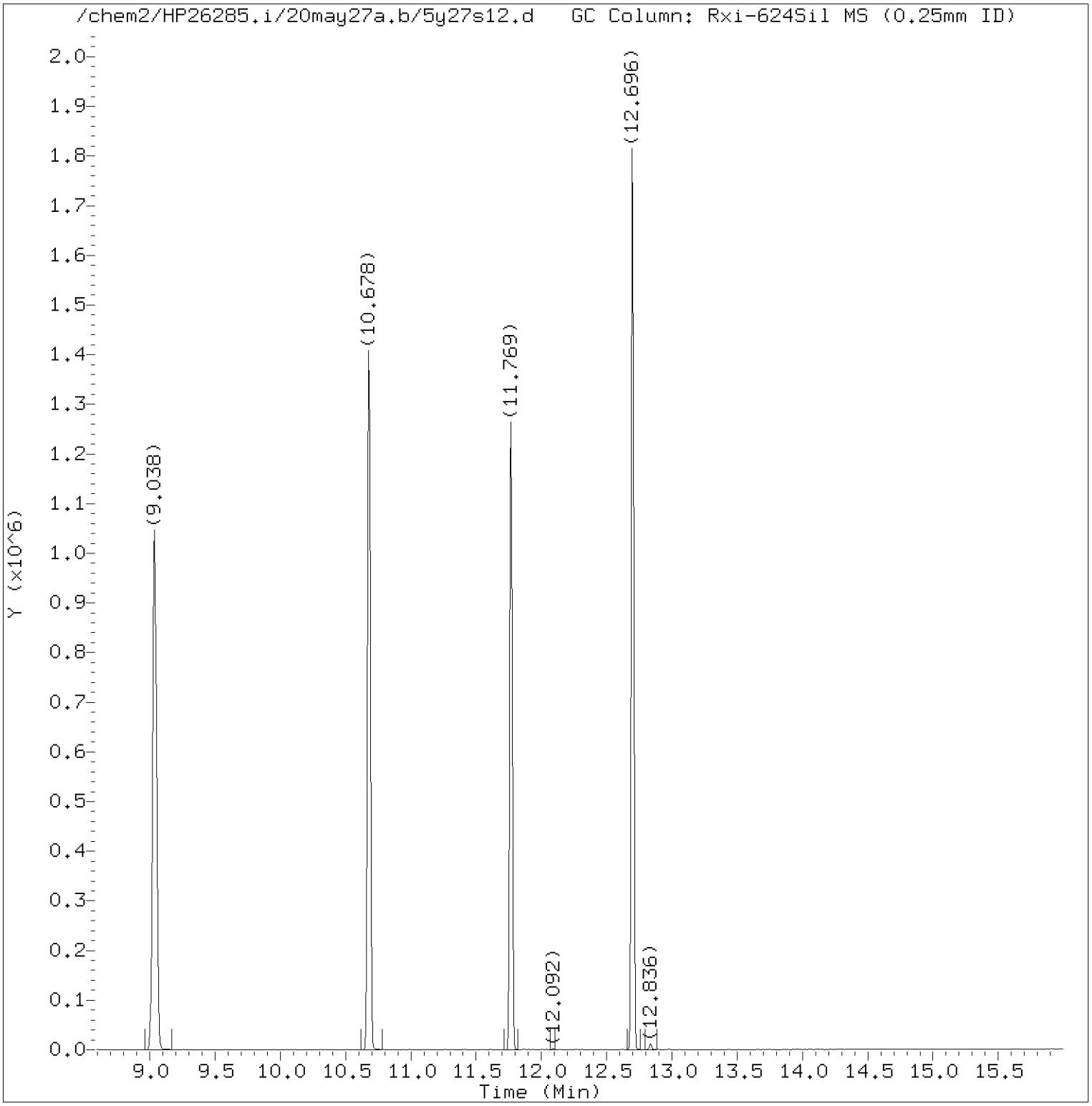
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s12.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:55 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Sample Name: W5820 Lab Sample ID: 1318277

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s12.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:55 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Sample Name: W5820 Lab Sample ID: 1318277

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s12.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:55 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Sample Name: W5820 Lab Sample ID: 1318277

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	279389	250.000
52)$Dibromofluoromethane	(2)	5.953	113	232478	50.571
57)$1,2-Dichloroethane-d4	(2)	6.422	102	53949	52.472
66)*Fluorobenzene	(2)	6.880	96	922948	50.000
71) Trichloroethene	(2)	7.380	95	6863	1.064
84)$Toluene-d8	(3)	9.038	98	875205	48.664
101)*Chlorobenzene-d5	(3)	10.678	117	731808	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	355995	46.980
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	388333	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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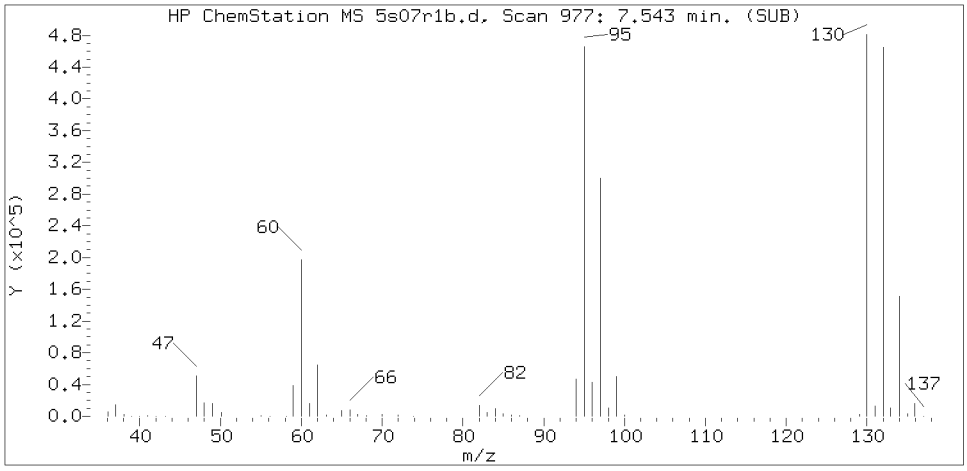
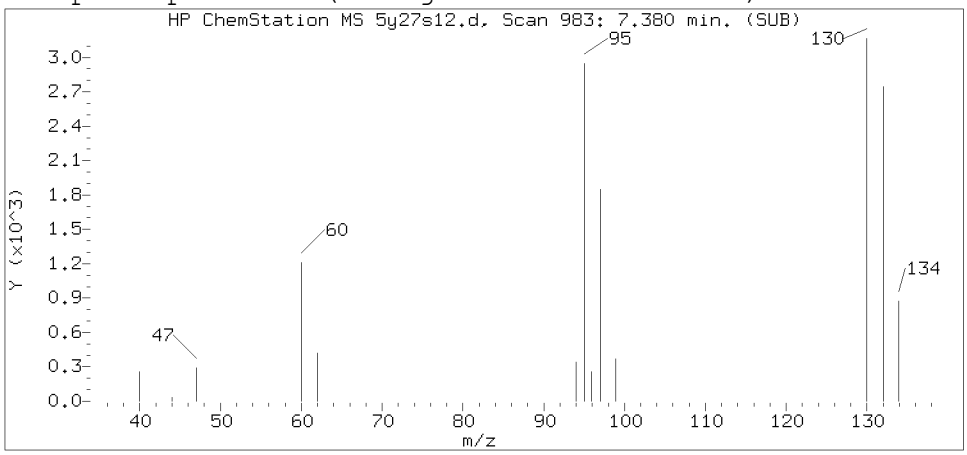
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

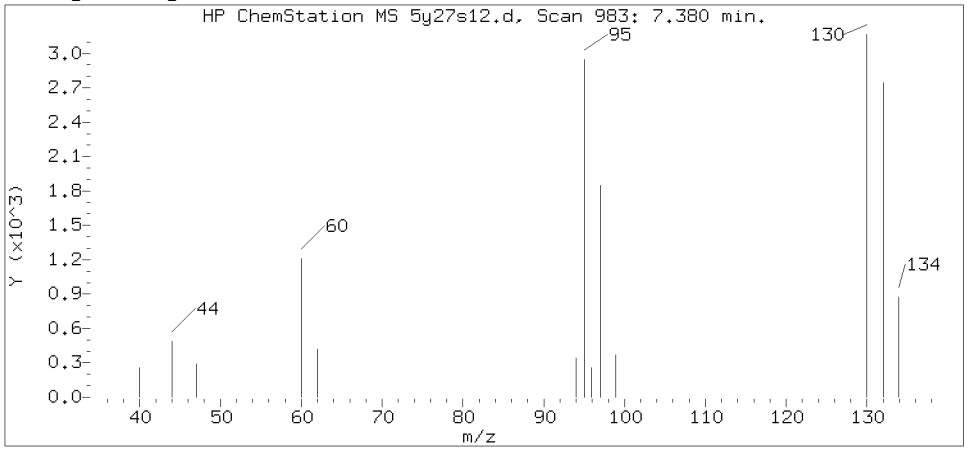
Reference Standard Spectrum for Trichloroethene

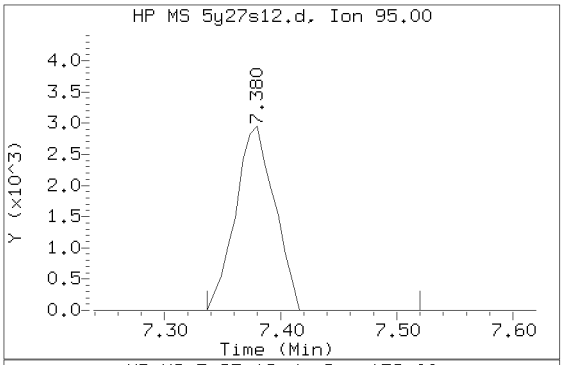


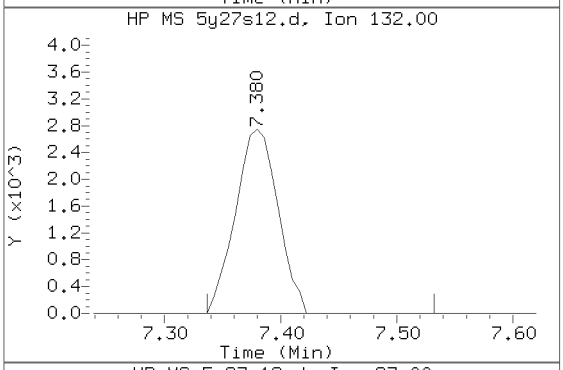
Sample Spectrum (Background Subtracted)

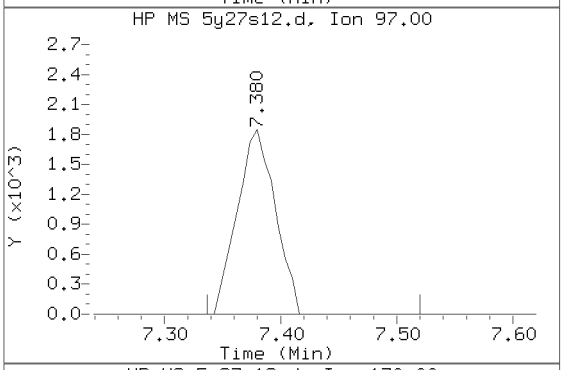


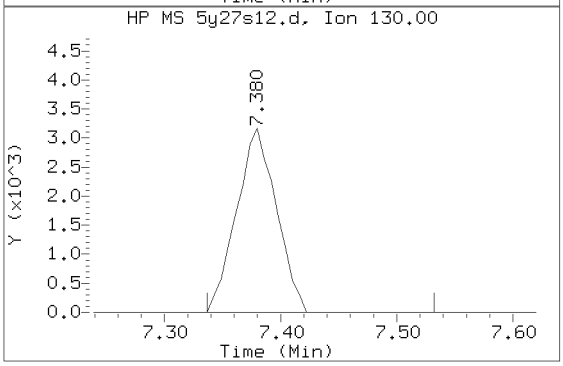
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s12.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 13:55 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:14 chemist

Sample Name: W5820 Lab Sample ID: 1318277

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 983
Retention Time (minutes)	: 7.380
Relative Retention Time	: 0.00095
Quant Ion	: 95.00
Area (flag)	: 6863
On-Column Amount (ng)	: 1.0637

Digitally signed by Laura J. Green on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg3041

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5821

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318278

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s53.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.4	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.2	J
156-59-2	cis-1,2-Dichloroethene	0.4	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	5	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5821 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318278

Data file: /chem2/HP26285.i/20may27b.b/5y27s53.d Injection date and time: **27-MAY-2020 22:41**
Data file Sample Info. Line: W5821;1318278;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447(-0.024)	338	65	261150 (13)	250.00	
66) Fluorobenzene	6.880(0.000)	901	96	866487 (6)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	697043 (5)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	376345 (1)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(-0.001)	113	226168	52.405	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429(0.000)	102	50782	52.610	105%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	824516	48.132	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	335678	46.508	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.874(-0.000)	96	2051	0.438	0.44		J	0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.344(0.000)	63	2033	0.214	0.21		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.209(0.000)	96	2547	0.430	0.43		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	28309	3.303	3.30			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.380(-0.000)	95	27780	4.586	4.59			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may27b.b/5y27s53.d Injection date and time: **27-MAY-2020 22:41**
Data file Sample Info. Line: W5821;1318278;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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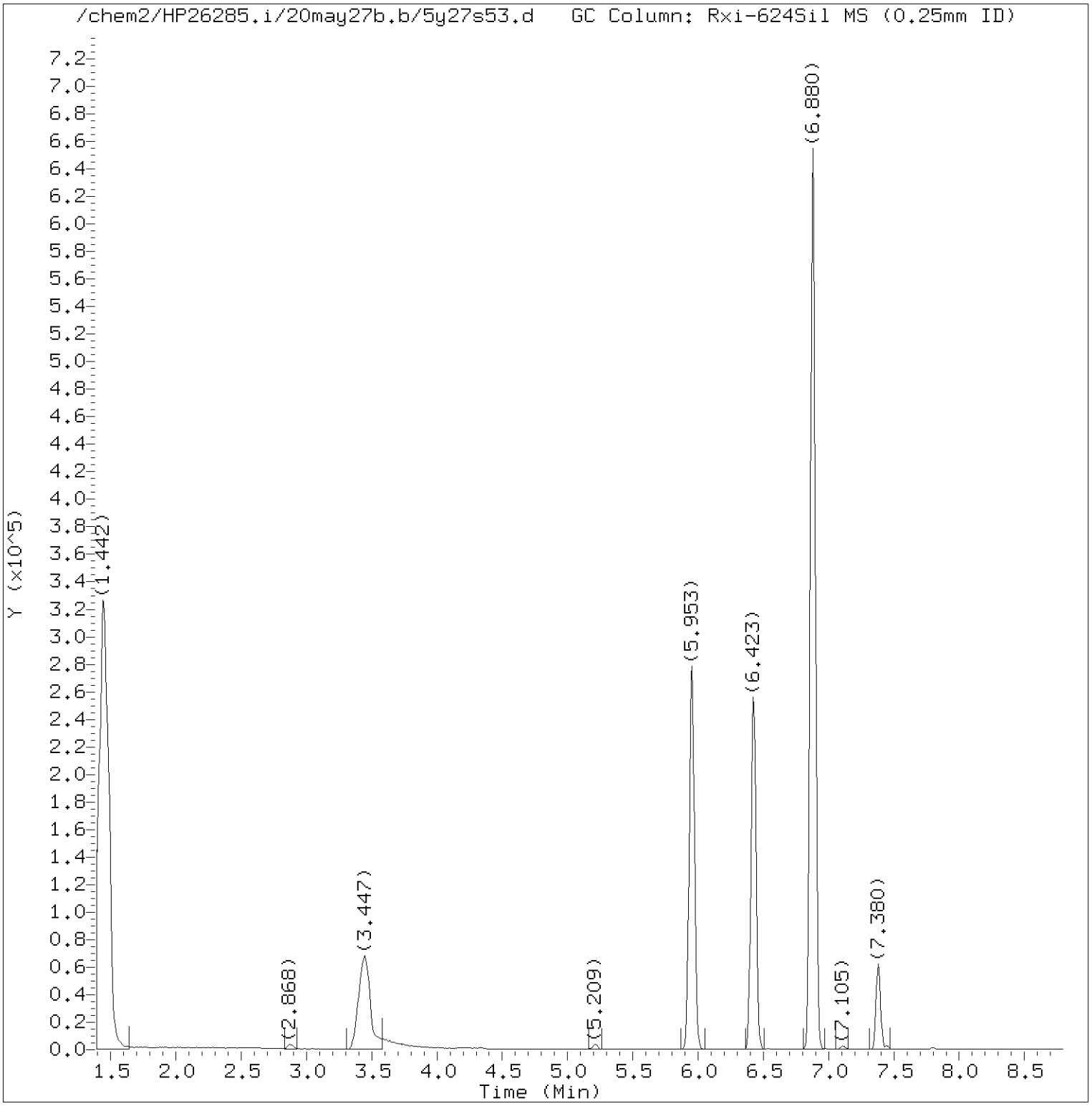
Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

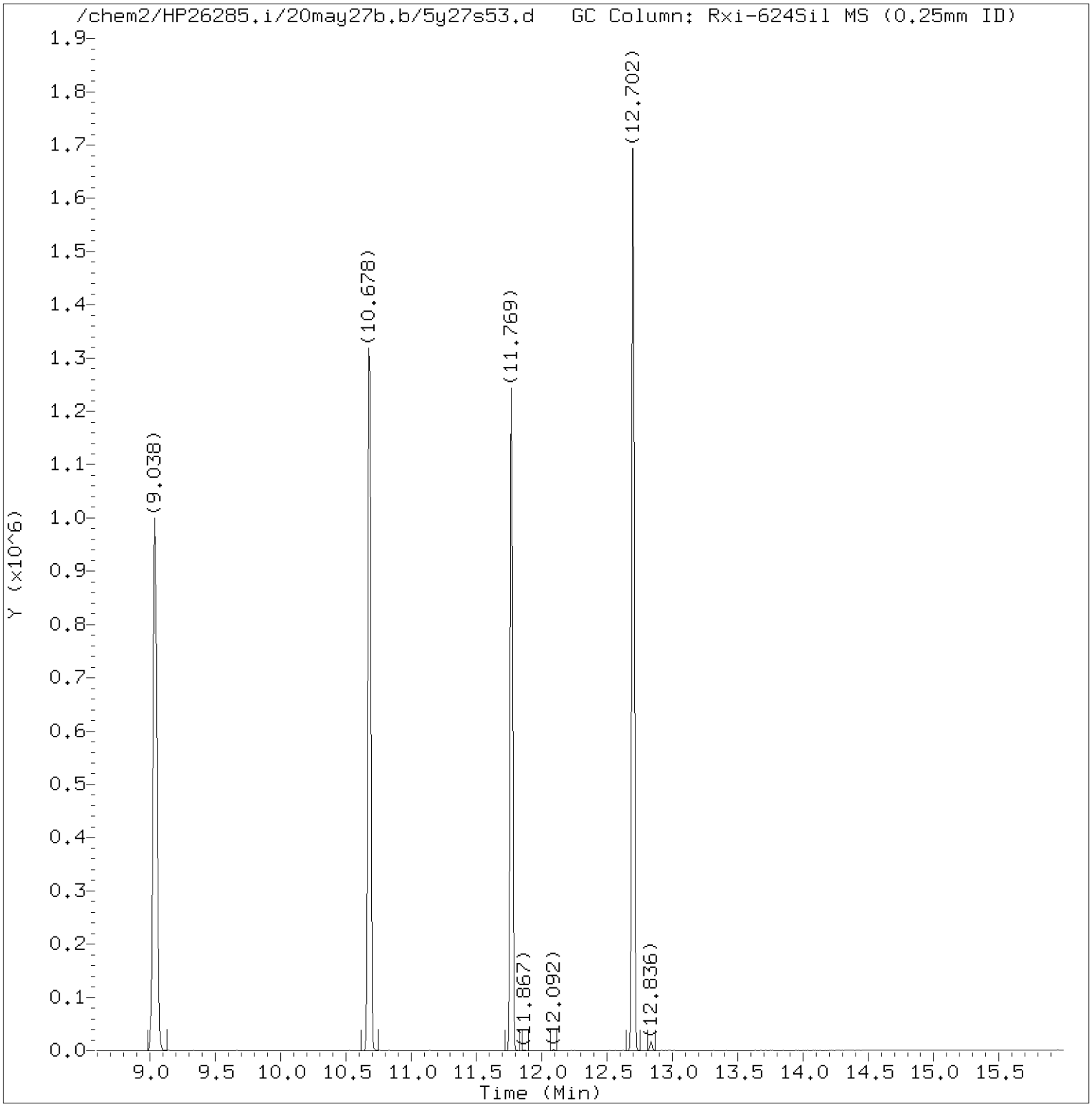
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

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on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.874	96	2051	0.438
29)*t-Butyl alcohol-d10	(1)	3.447	65	261150	250.000
36) 1,1-Dichloroethane	(2)	4.344	63	2033	0.214
42) cis-1,2-Dichloroethene	(2)	5.209	96	2547	0.430
53) 1,1,1-Trichloroethane	(2)	5.947	97	28309	3.303
52)$Dibromofluoromethane	(2)	5.953	113	226168	52.405
57)$1,2-Dichloroethane-d4	(2)	6.429	102	50782	52.610
66)*Fluorobenzene	(2)	6.880	96	866487	50.000
71) Trichloroethene	(2)	7.380	95	27780	4.586
84)$Toluene-d8	(3)	9.038	98	824516	48.132
101)*Chlorobenzene-d5	(3)	10.678	117	697043	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	335678	46.508
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	376345	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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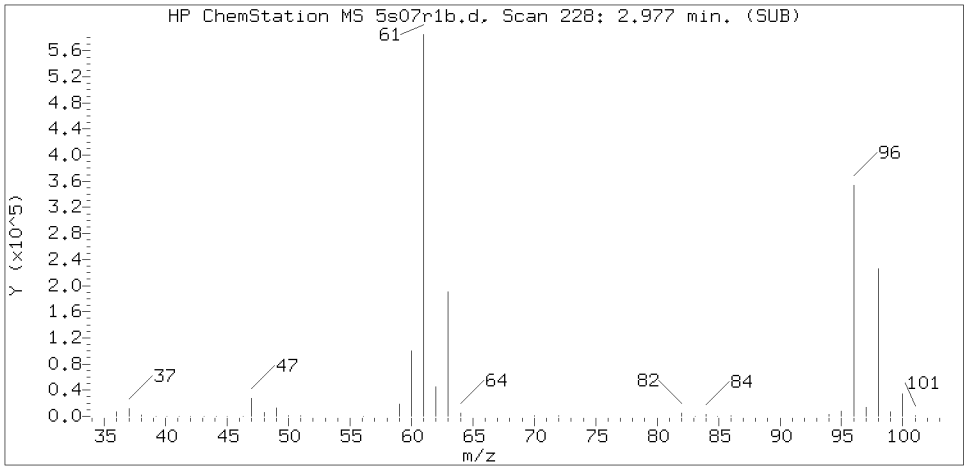
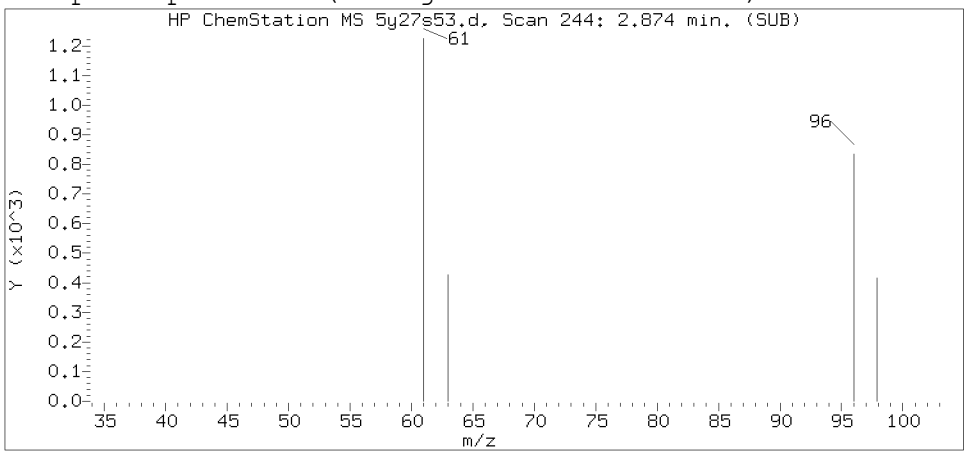
Target 3.5 esignature user ID: lcp00895

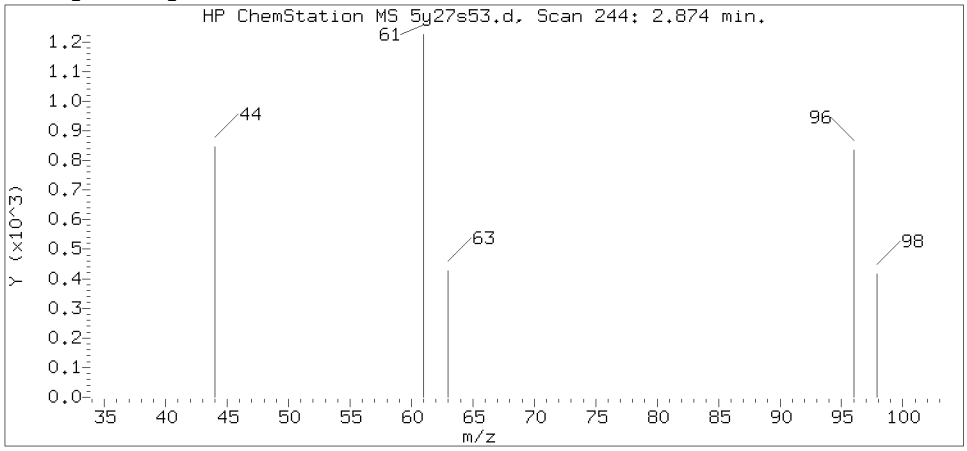
Reference Standard Spectrum for 1,1-Dichloroethene

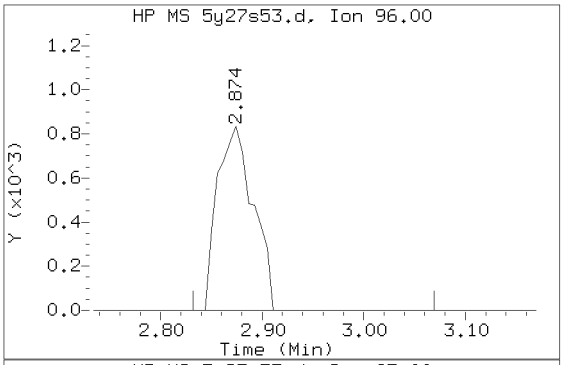


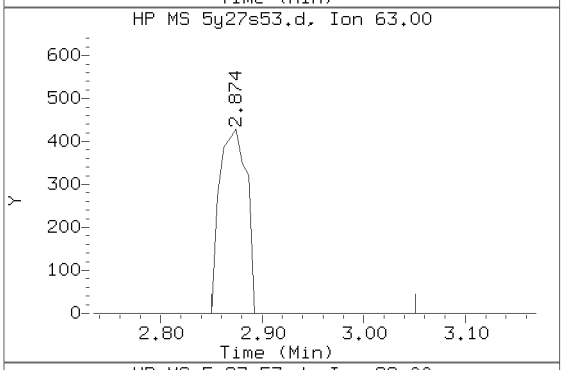
Sample Spectrum (Background Subtracted)

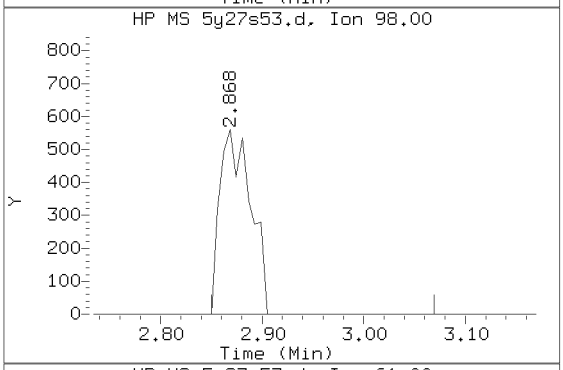


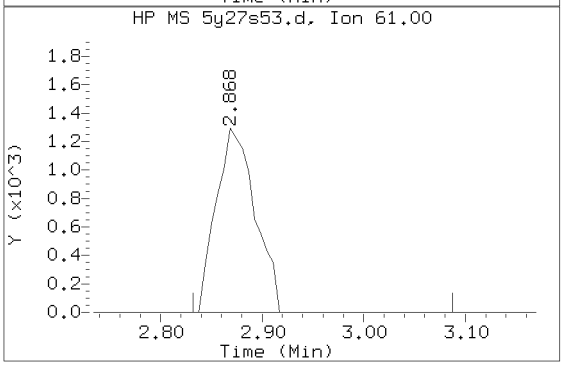
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 244
Retention Time (minutes): 2.874
Relative Retention Time :-0.00088
Quant Ion : 96.00
Area (flag) : 2051
On-Column Amount (ng) : 0.4378

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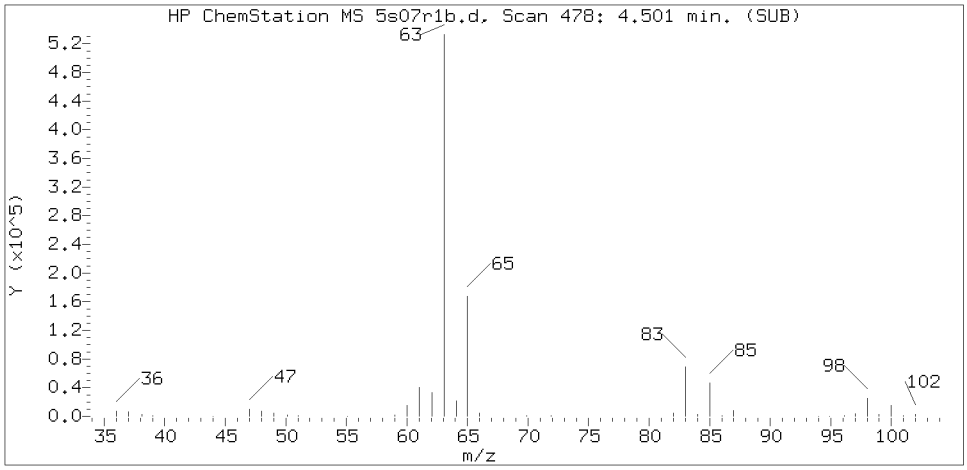
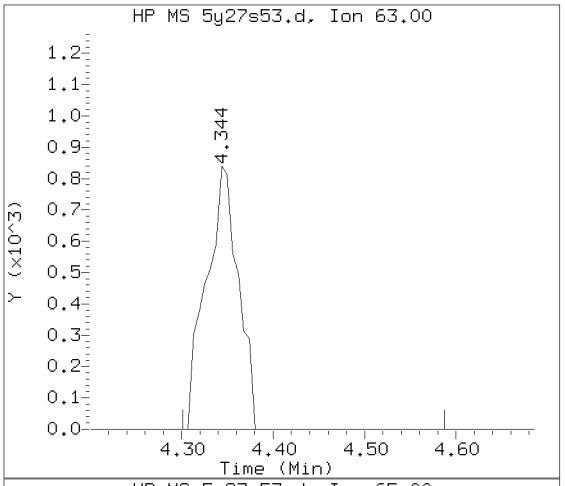
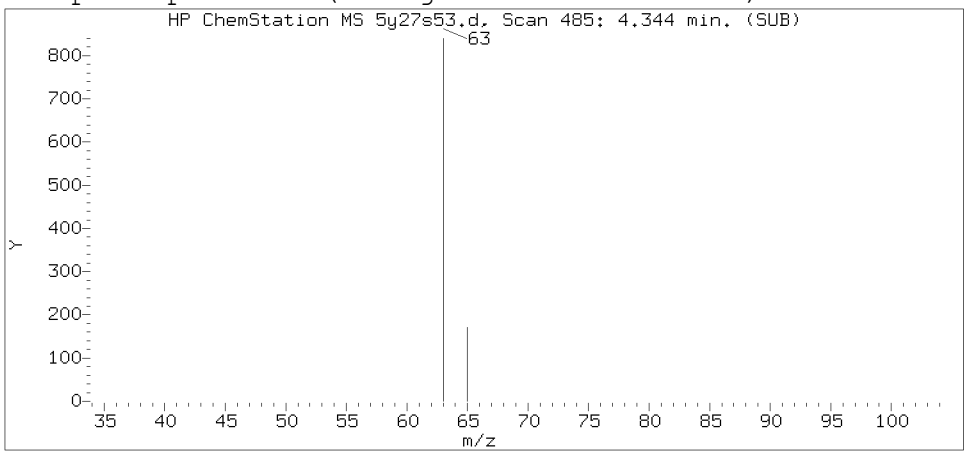
Target 3.5 esignature user ID: lcp00895

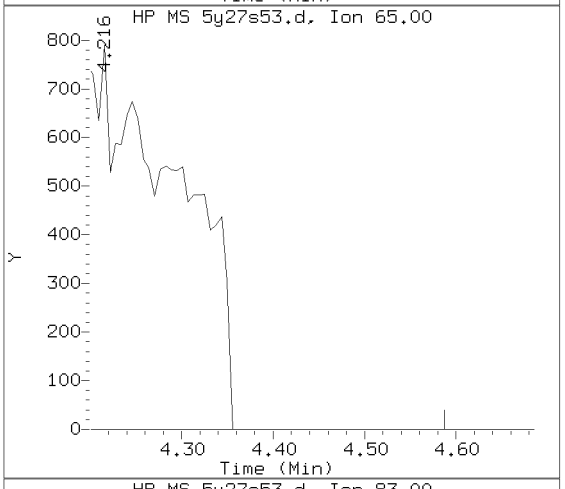
Reference Standard Spectrum for 1,1-Dichloroethane



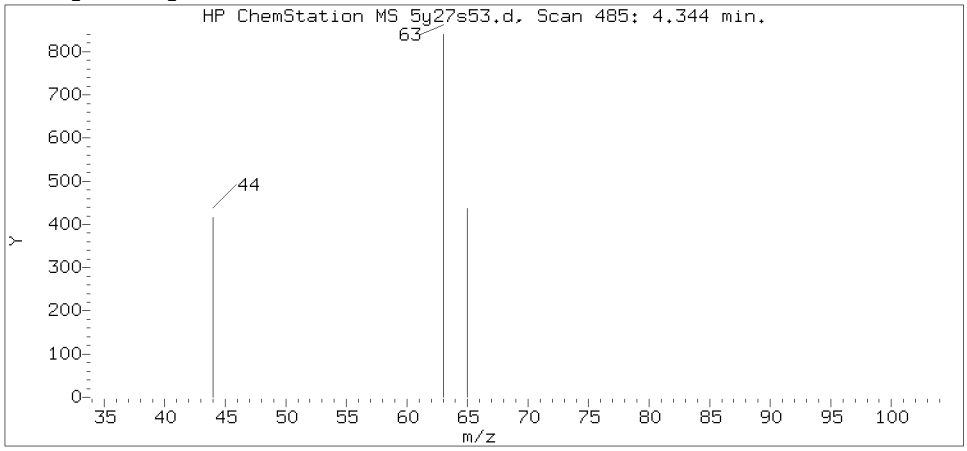


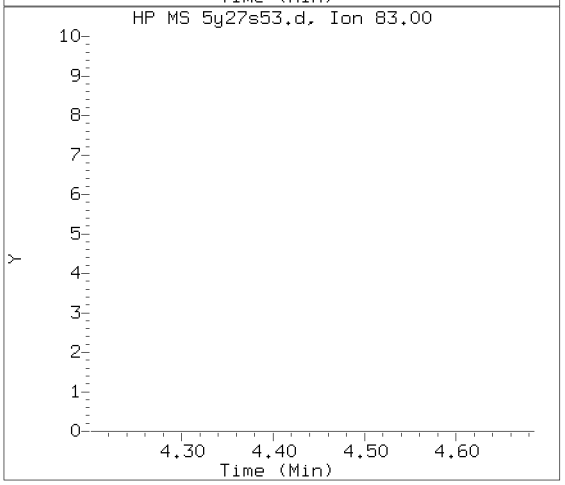
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 485
Retention Time (minutes)	: 4.344
Relative Retention Time	: 0.00000
Quant Ion	: 63.00
Area (flag)	: 2033
On-Column Amount (ng)	: 0.2143

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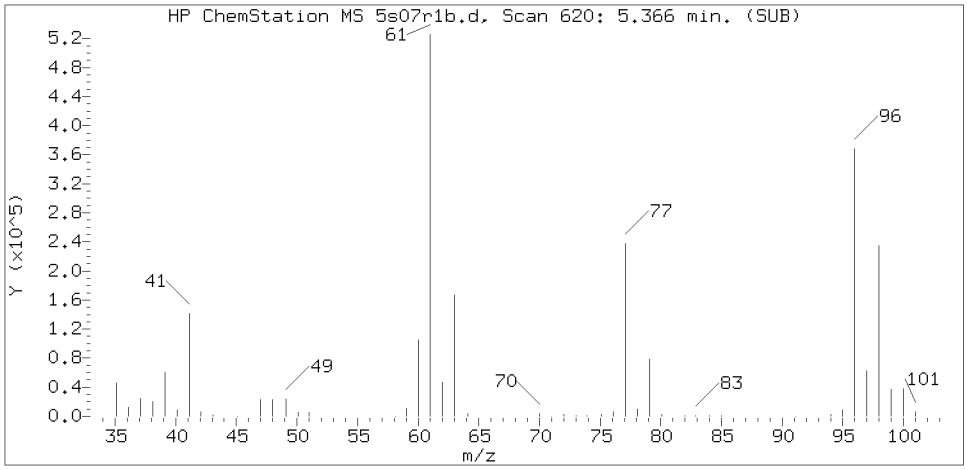
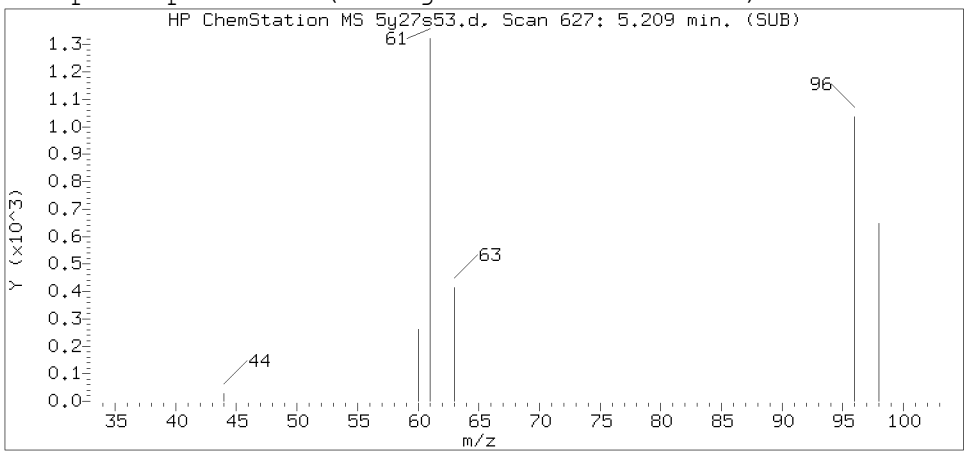
Target 3.5 esignature user ID: lcp00895

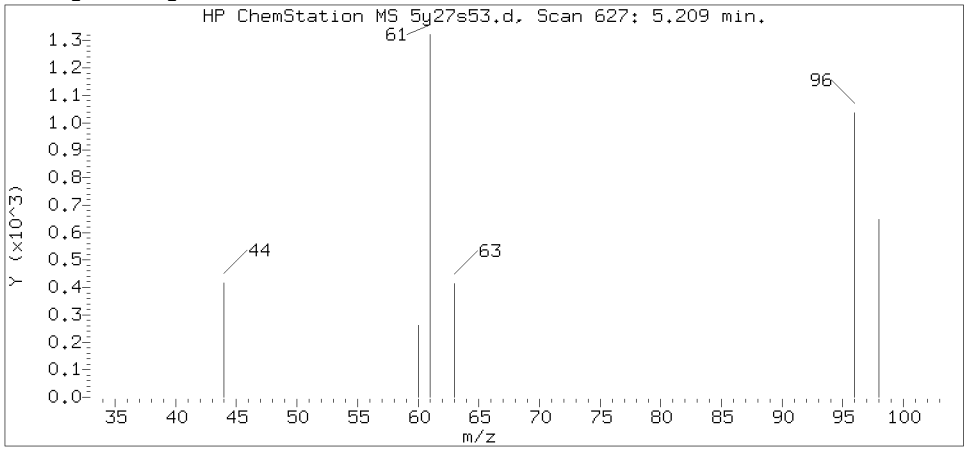
Reference Standard Spectrum for cis-1,2-Dichloroethene

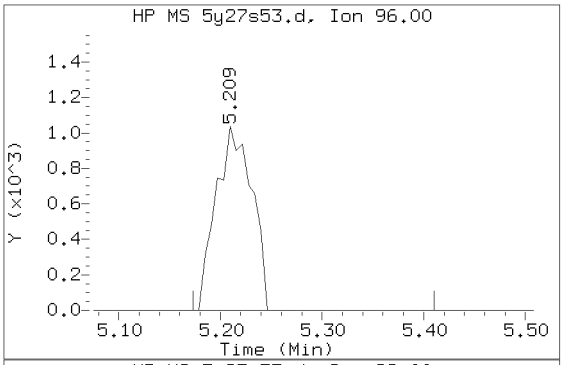


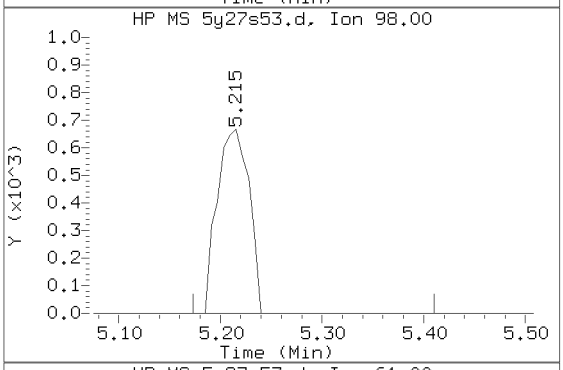
Sample Spectrum (Background Subtracted)

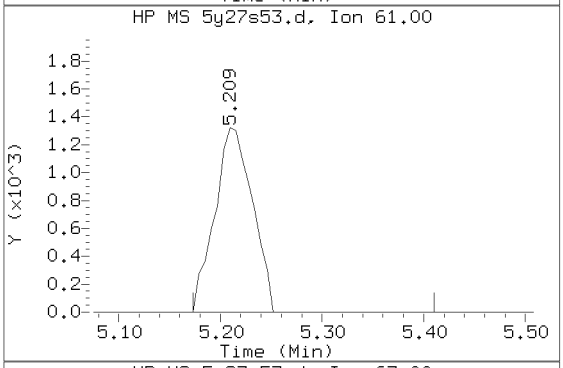


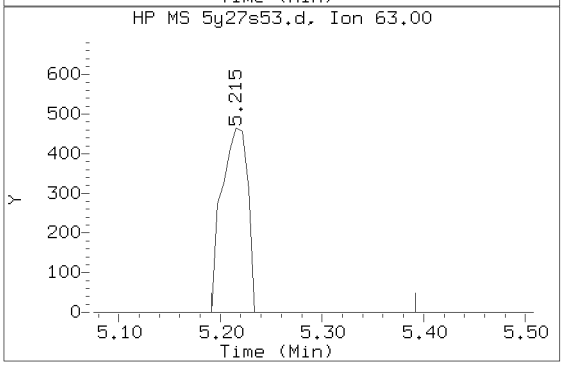
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 627
Retention Time (minutes): 5.209
Relative Retention Time : 0.00000
Quant Ion : 96.00
Area (flag) : 2547
On-Column Amount (ng) : 0.4297

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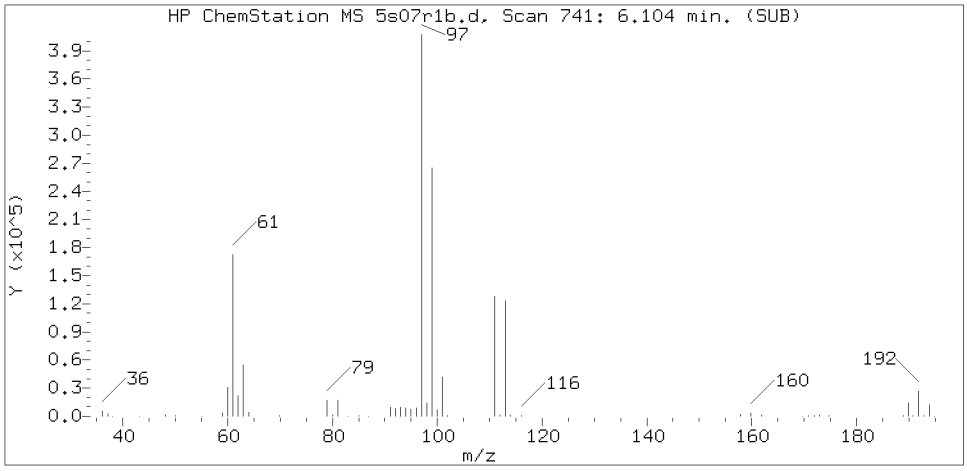
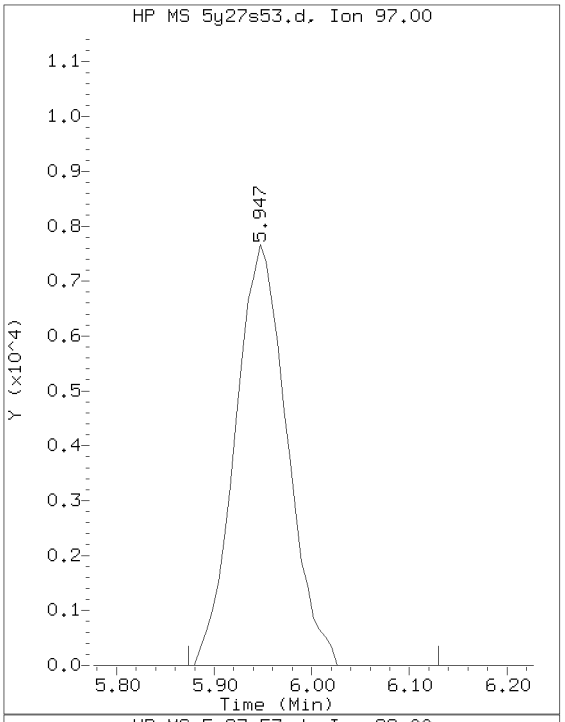
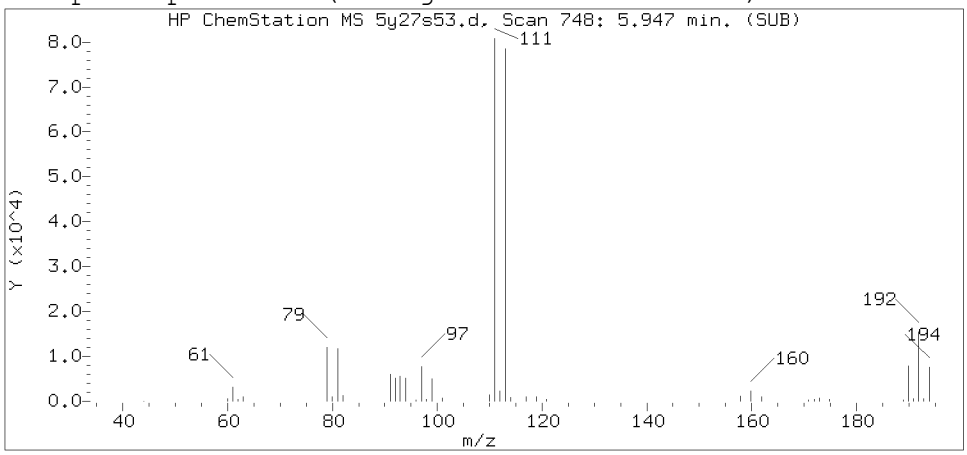
Target 3.5 esignature user ID: lcp00895

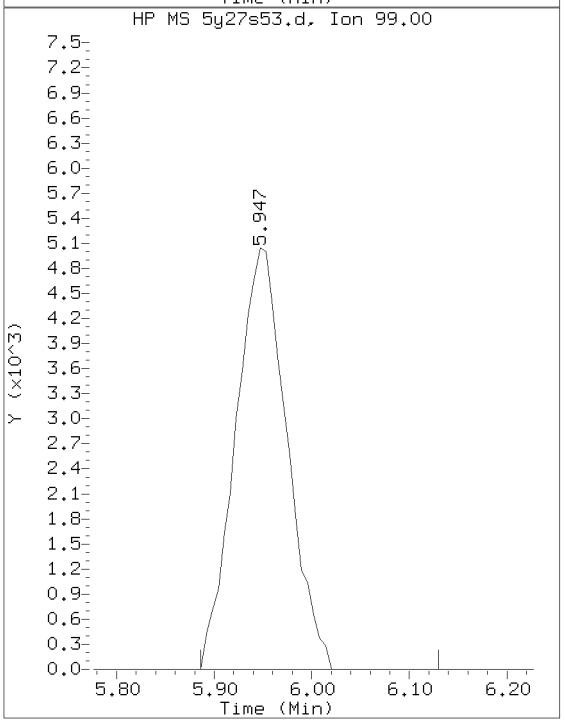
Reference Standard Spectrum for 1,1,1-Trichloroethane



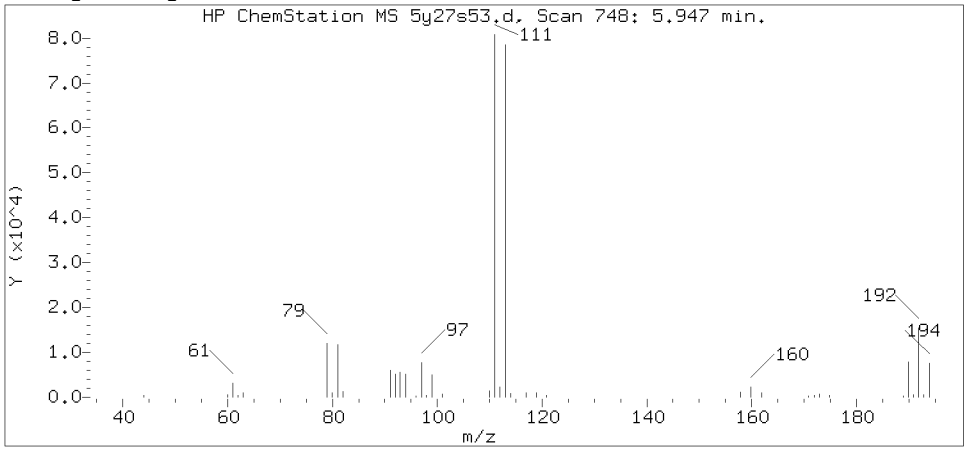


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 748
Retention Time (minutes)	: 5.947
Relative Retention Time	: 0.00000
Quant Ion	: 97.00
Area (flag)	: 28309
On-Column Amount (ng)	: 3.3033

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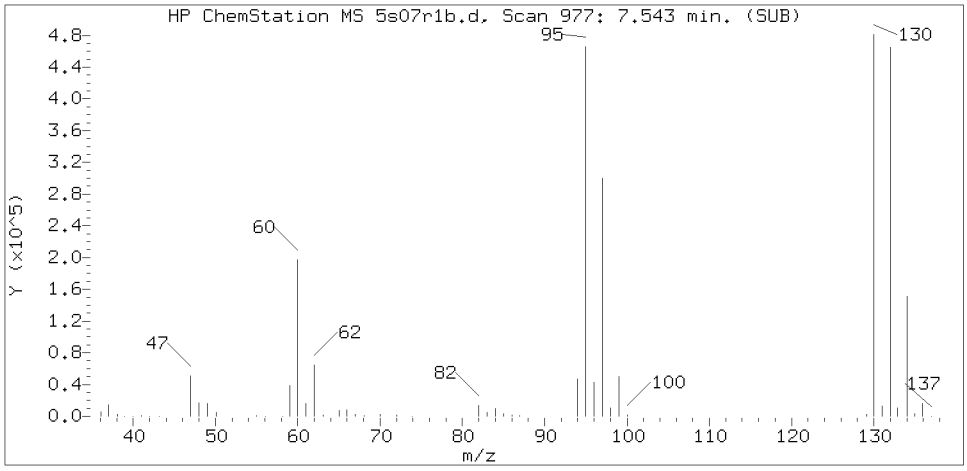
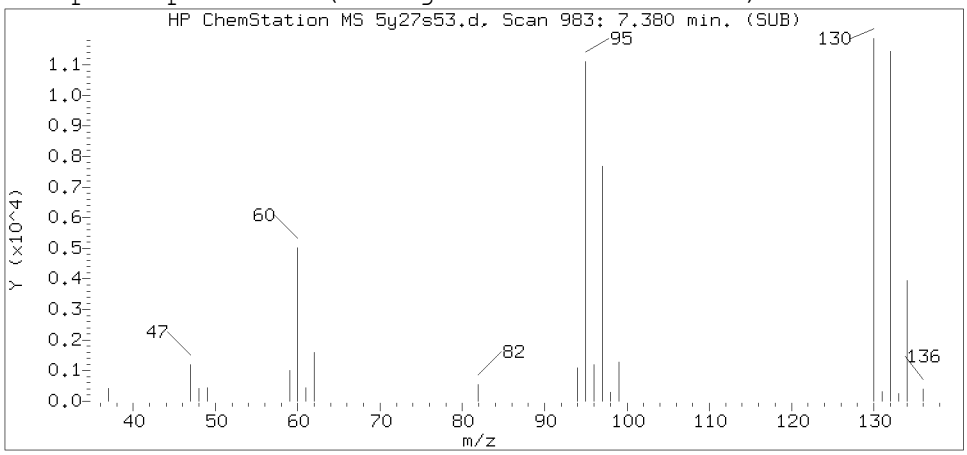
Target 3.5 esignature user ID: lcp00895

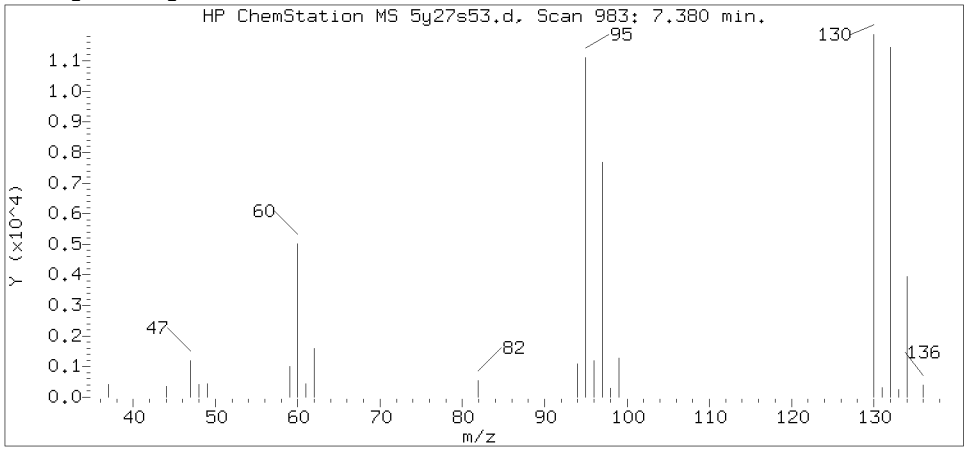
Reference Standard Spectrum for Trichloroethene

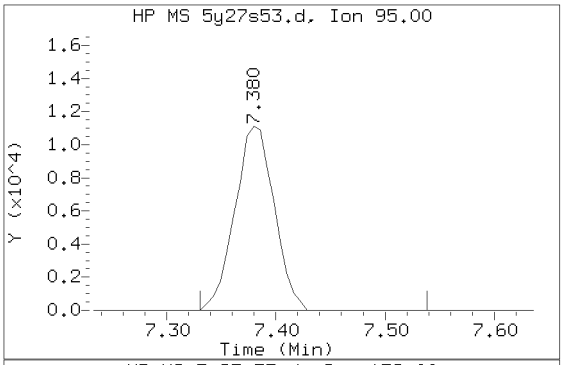


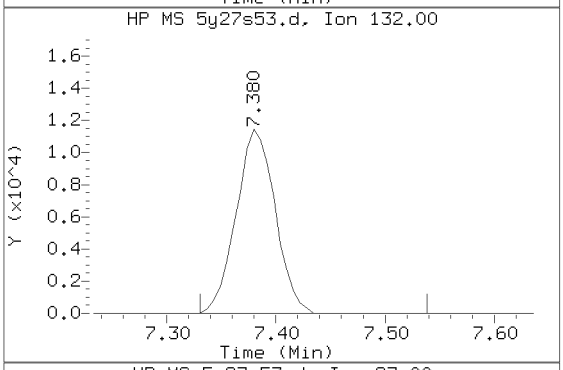
Sample Spectrum (Background Subtracted)

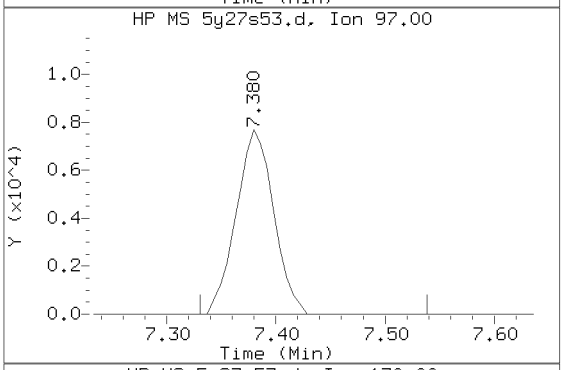


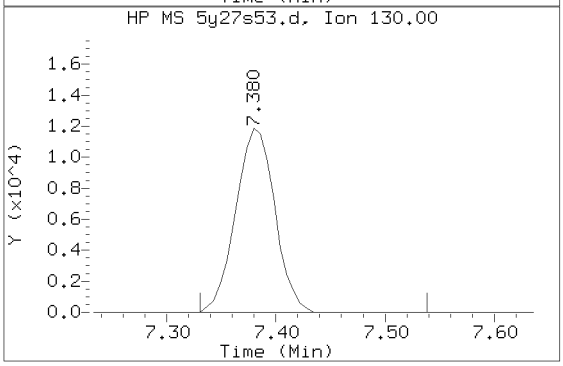
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s53.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 22:41 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 22:59 chemist

Sample Name: W5821 Lab Sample ID: 1318278

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 27780
On-Column Amount (ng) : 4.5860

Digitally signed by Linda C. Pape on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5822

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318279

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s66.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.4	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.2	J
156-59-2	cis-1,2-Dichloroethene	0.4	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	5	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s66.d
Injection date and time: **28-MAY-2020 03:09**
Data file Sample Info. Line: W5822;1318279;1;0;;JCW58;;;5y27b50;
Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454(-0.030)	339	65	255502 (11)	250.00	
66) Fluorobenzene	6.880(0.000)	901	96	846571 (3)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	682422 (3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	367914 (-2)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(-0.001)	113	222736	52.823	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429(0.000)	102	49723	52.726	105%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	807943	48.175	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.001)	95	329280	46.599	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.868(0.000)	96	2018	0.441	0.44		J	0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.344(0.000)	63	1856	0.200	0.20		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.221(-0.001)	96	2343	0.404	0.40		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	27187	3.247	3.25			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.386(-0.000)	95	26891	4.544	4.54			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may27b.b/5y27s66.d Injection date and time: **28-MAY-2020 03:09**
Data file Sample Info. Line: W5822;1318279;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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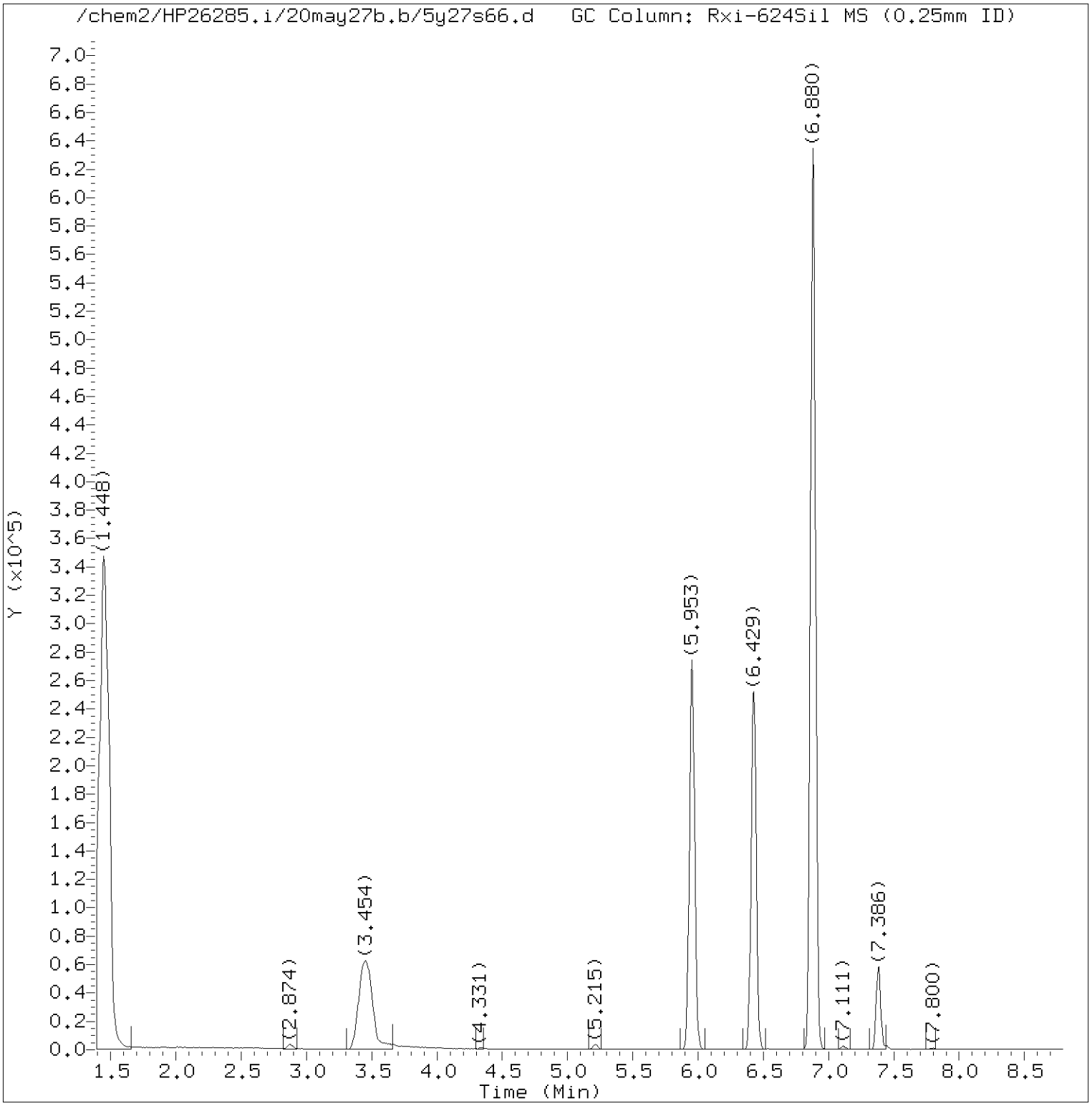
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:54. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

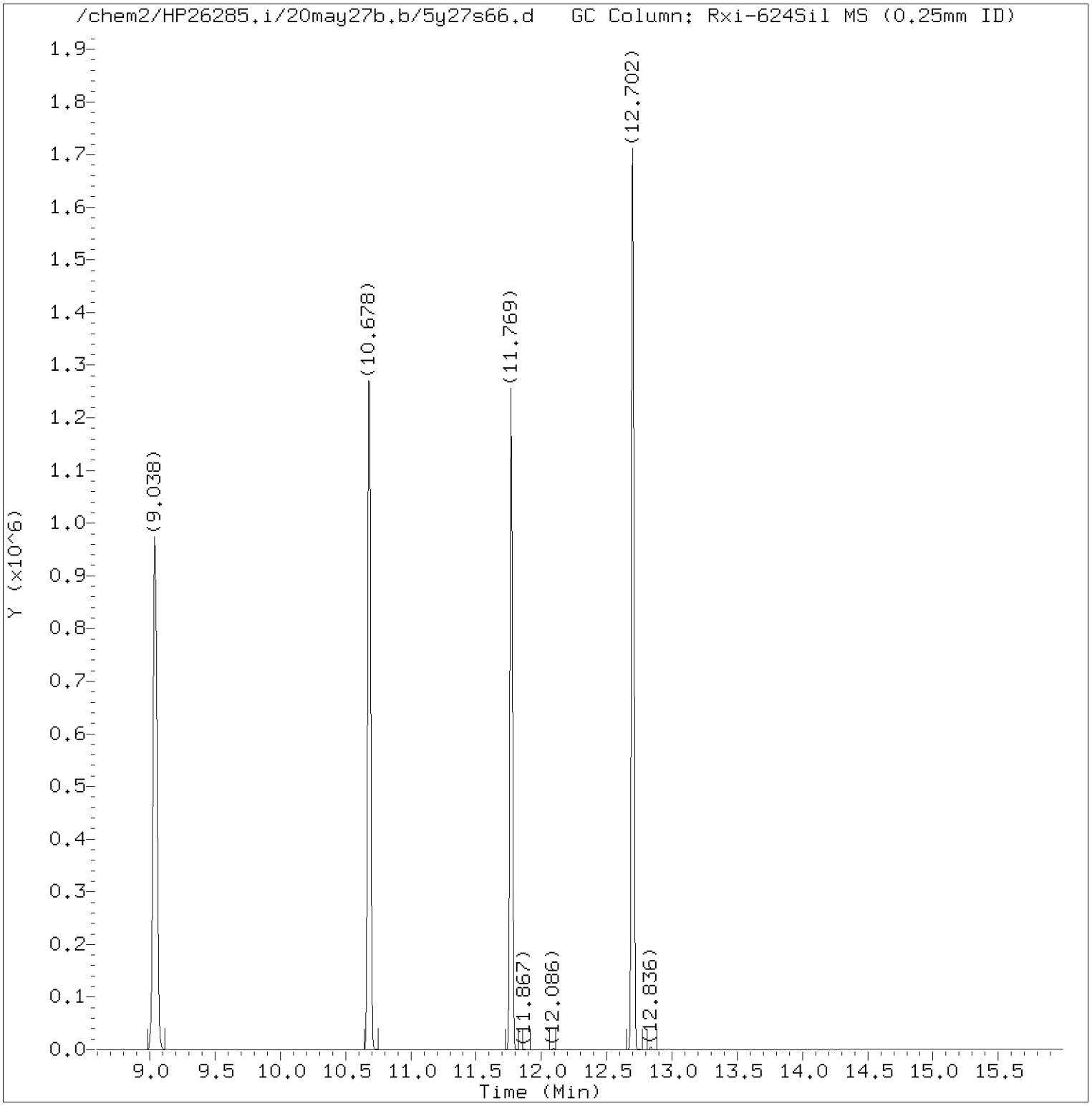
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:54.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:54.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.868	96	2018	0.441
29)*t-Butyl alcohol-d10	(1)	3.454	65	255502	250.000
36) 1,1-Dichloroethane	(2)	4.344	63	1856	0.200
42) cis-1,2-Dichloroethene	(2)	5.221	96	2343	0.404
53) 1,1,1-Trichloroethane	(2)	5.947	97	27187	3.247
52)$Dibromofluoromethane	(2)	5.953	113	222736	52.823
57)$1,2-Dichloroethane-d4	(2)	6.429	102	49723	52.726
66)*Fluorobenzene	(2)	6.880	96	846571	50.000
71) Trichloroethene	(2)	7.386	95	26891	4.544
84)$Toluene-d8	(3)	9.038	98	807943	48.175
101)*Chlorobenzene-d5	(3)	10.684	117	682422	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	329280	46.599
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	367914	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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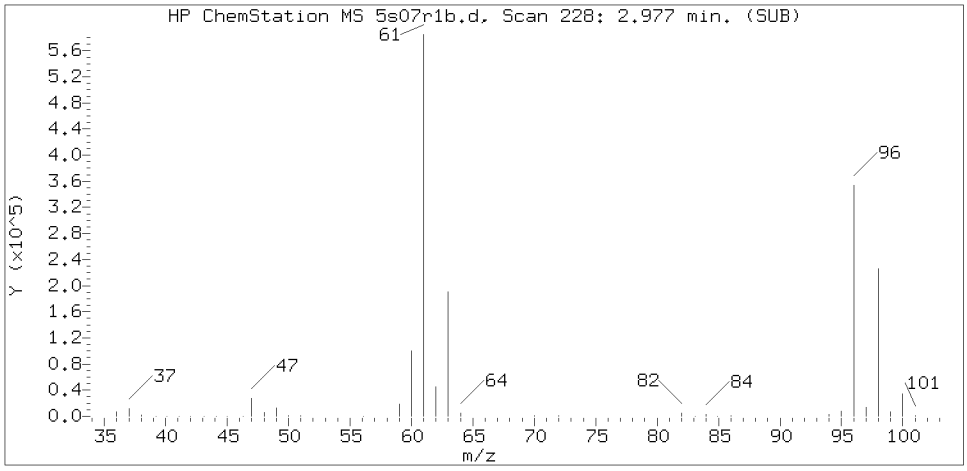
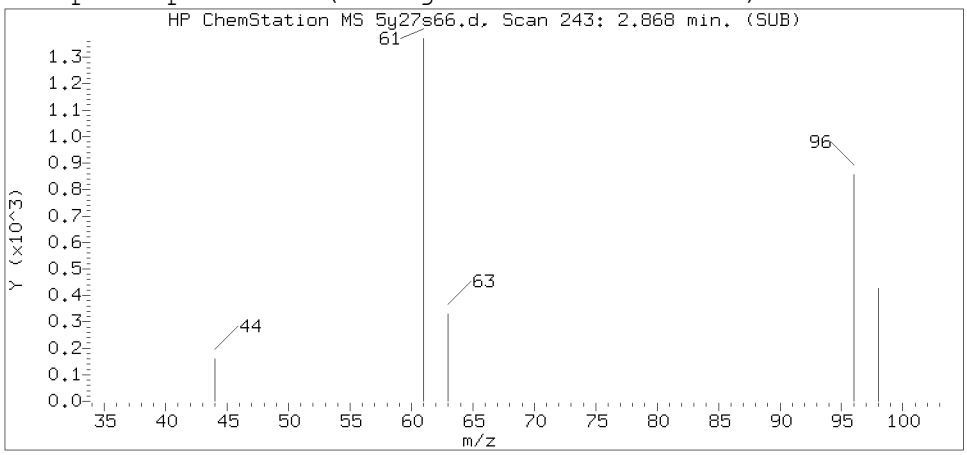
on 05/28/2020 at 12:54.
Target 3.5 esignature user ID: lcp00895

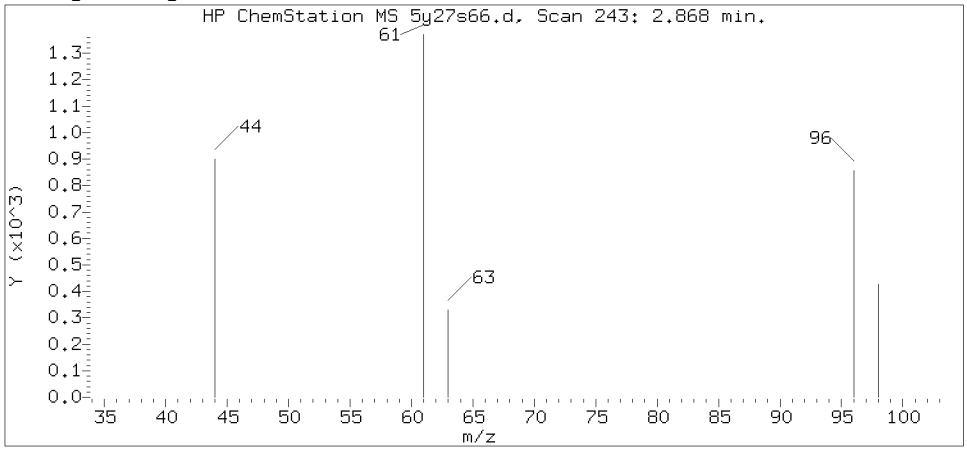
Reference Standard Spectrum for 1,1-Dichloroethene

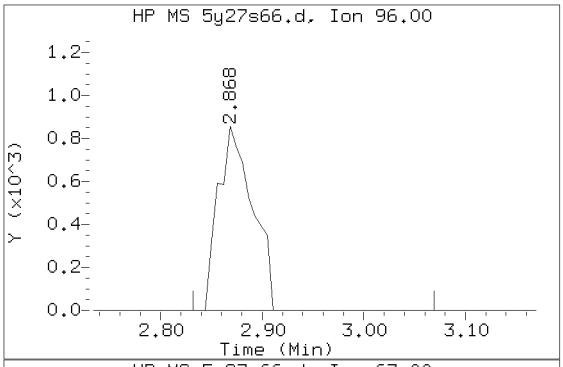


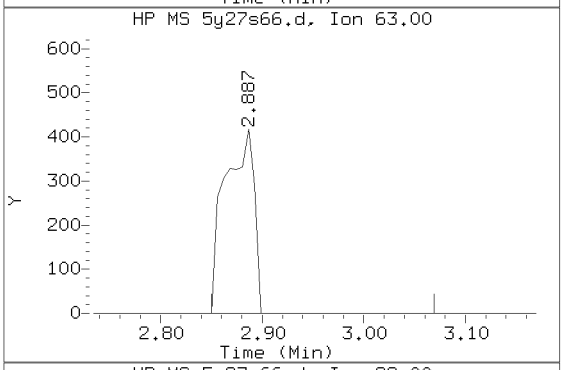
Sample Spectrum (Background Subtracted)

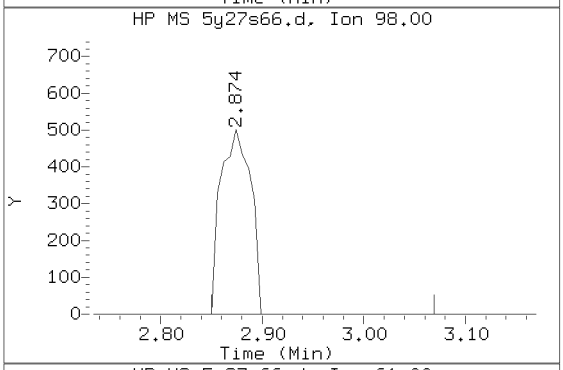


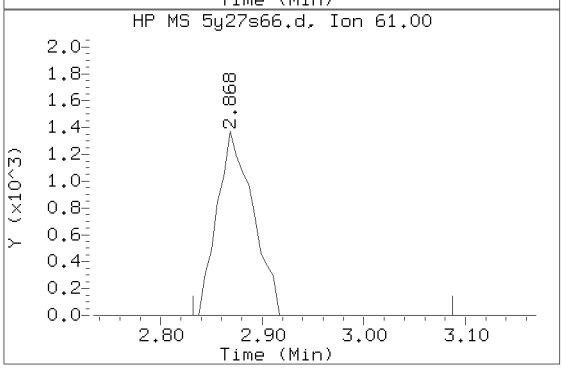
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Compound Number	: 17
Compound Name	: 1,1-Dichloroethene
Scan Number	: 243
Retention Time (minutes)	: 2.868
Relative Retention Time	: 0.00001
Quant Ion	: 96.00
Area (flag)	: 2018
On-Column Amount (ng)	: 0.4410

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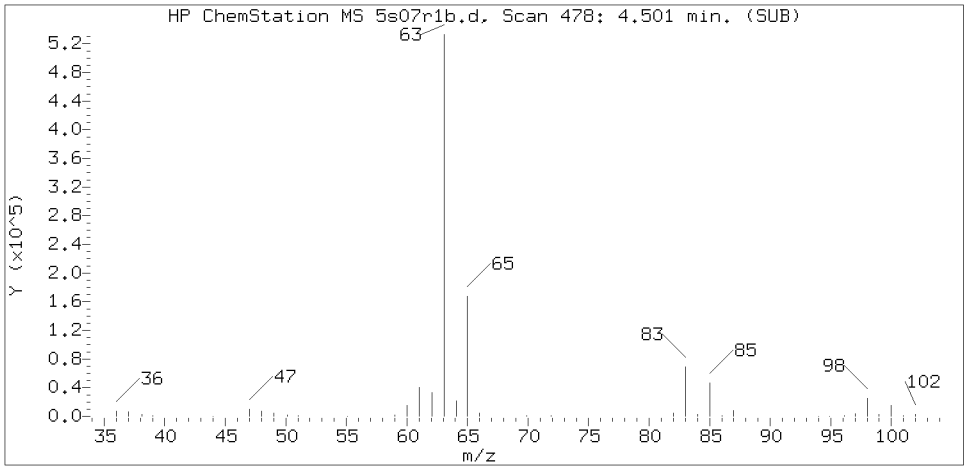
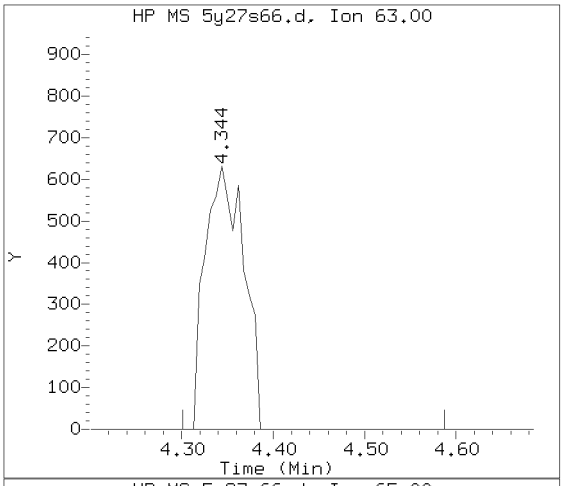
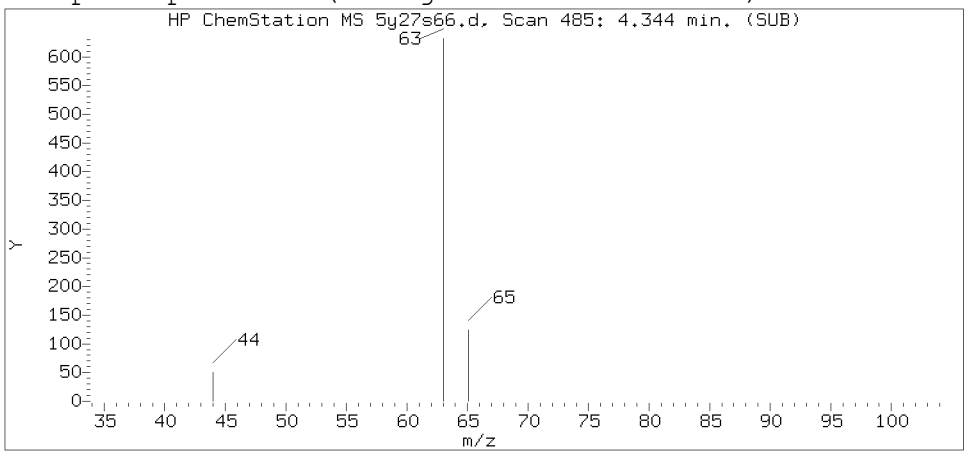
Target 3.5 esignature user ID: lcp00895

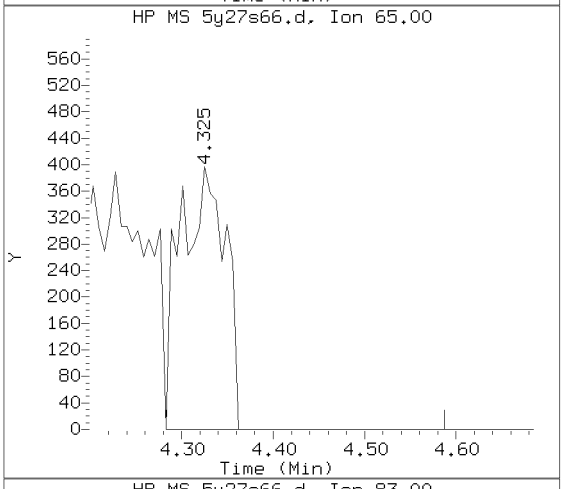
Reference Standard Spectrum for 1,1-Dichloroethane



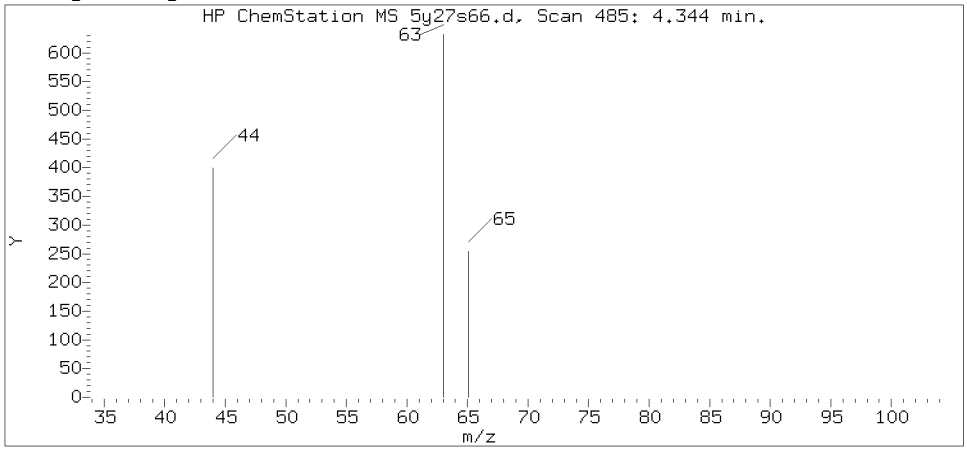


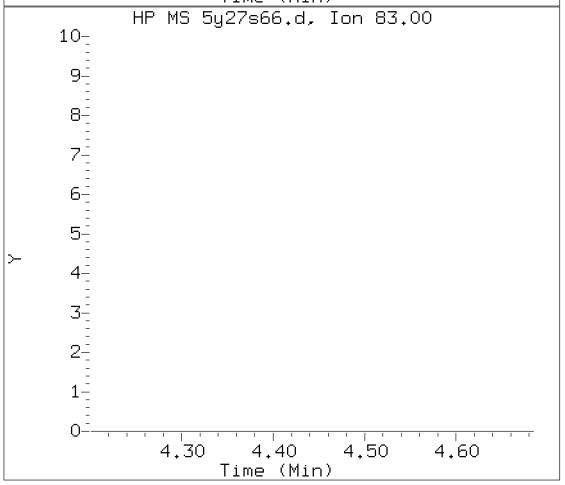
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 485
Retention Time (minutes): 4.344
Relative Retention Time : 0.00001
Quant Ion : 63.00
Area (flag) : 1856
On-Column Amount (ng) : 0.2002

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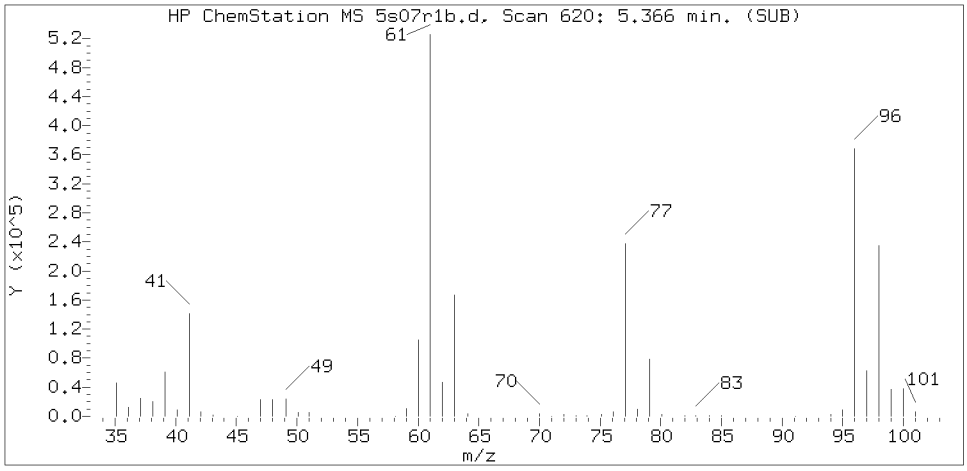
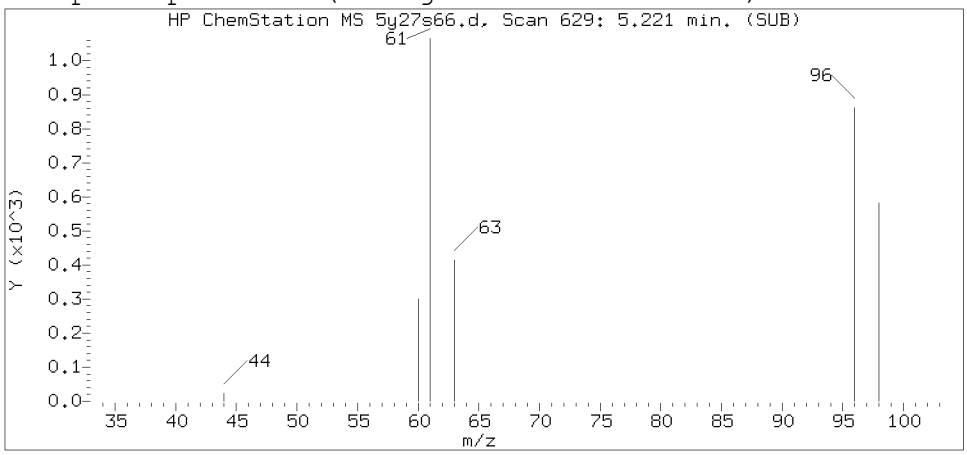
Target 3.5 esignature user ID: lcp00895

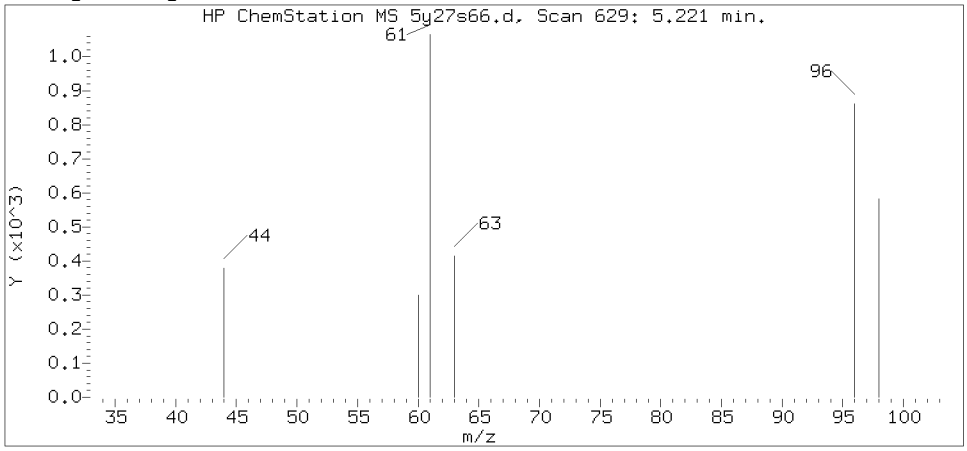
Reference Standard Spectrum for cis-1,2-Dichloroethene

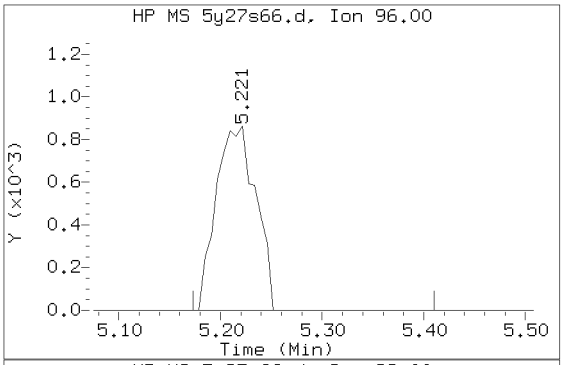


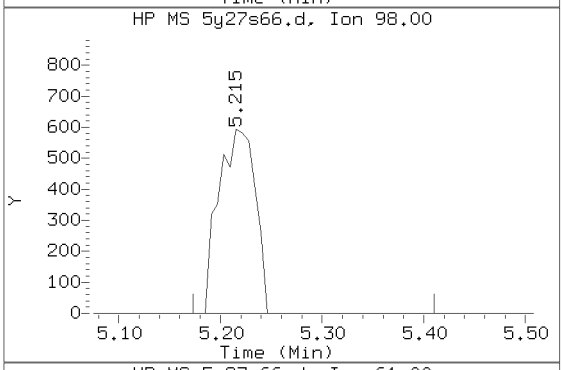
Sample Spectrum (Background Subtracted)

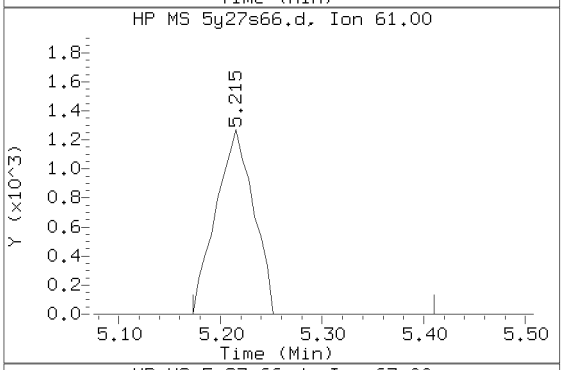


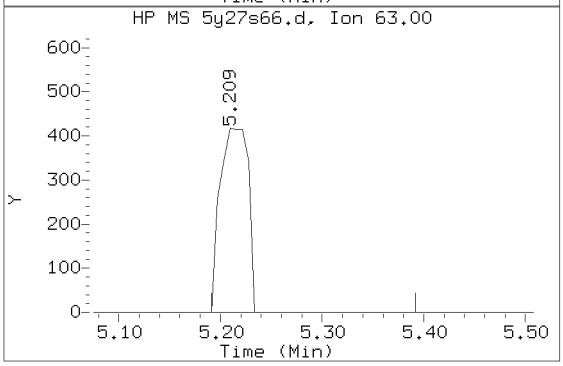
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

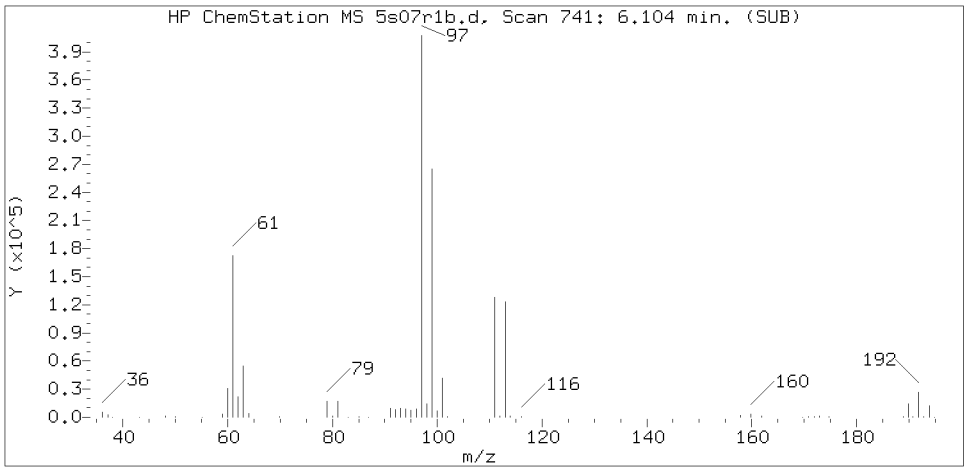
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

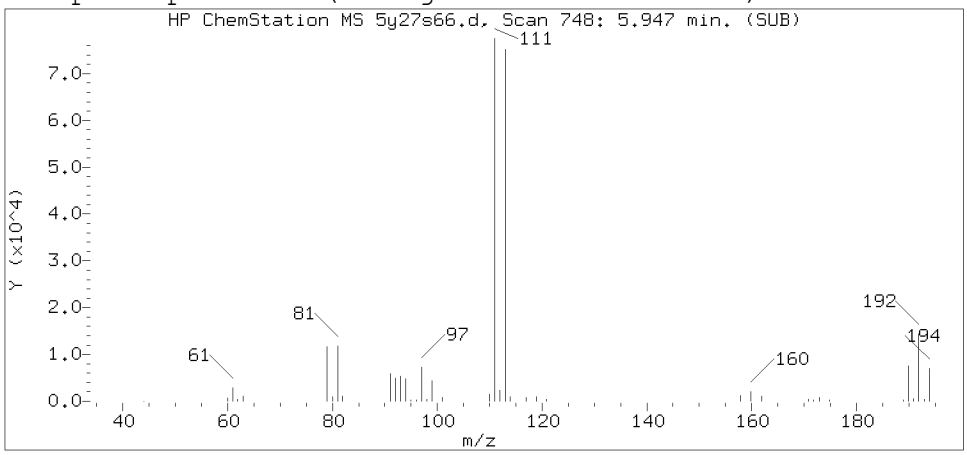
Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 629
Retention Time (minutes): 5.221
Relative Retention Time :-0.00177
Quant Ion : 96.00
Area (flag) : 2343
On-Column Amount (ng) : 0.4045

Digitally signed by Linda C. Pape on 05/28/2020 at 12:54.
Target 3.5 esignature user ID: lcp00895

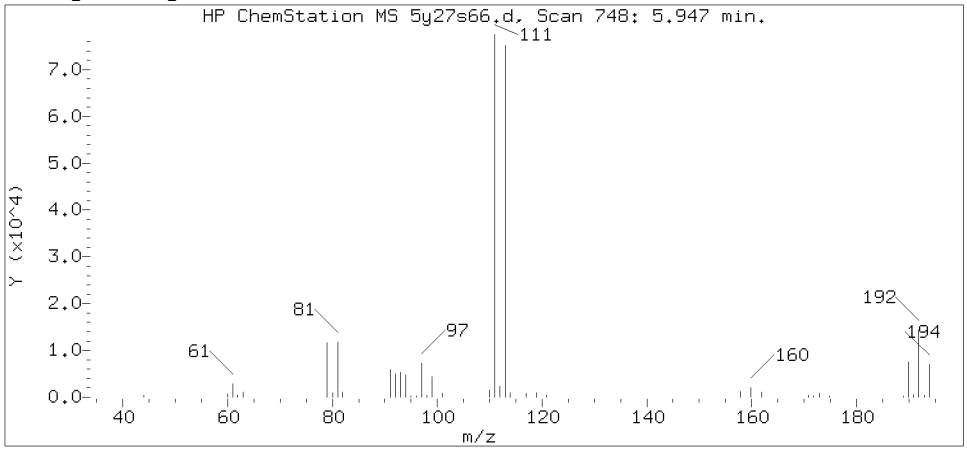
Reference Standard Spectrum for 1,1,1-Trichloroethane

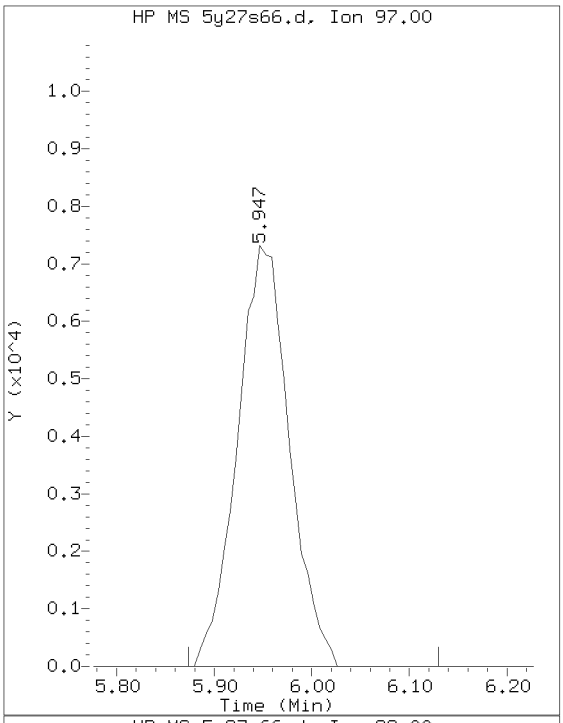


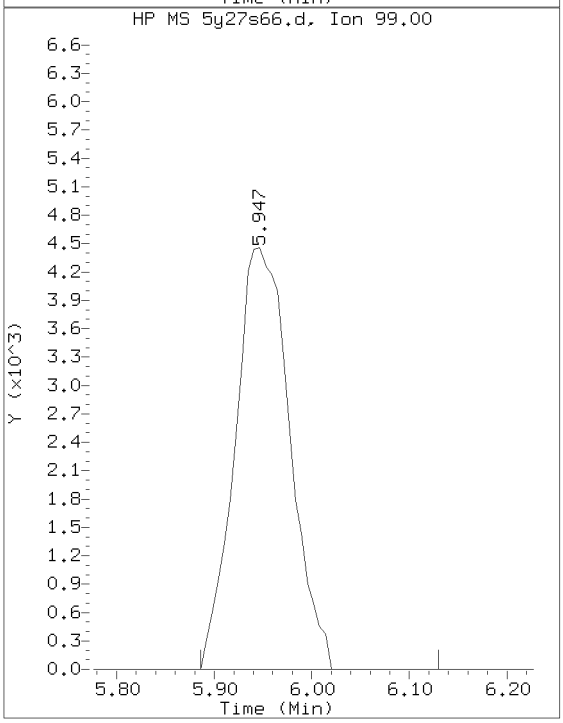
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

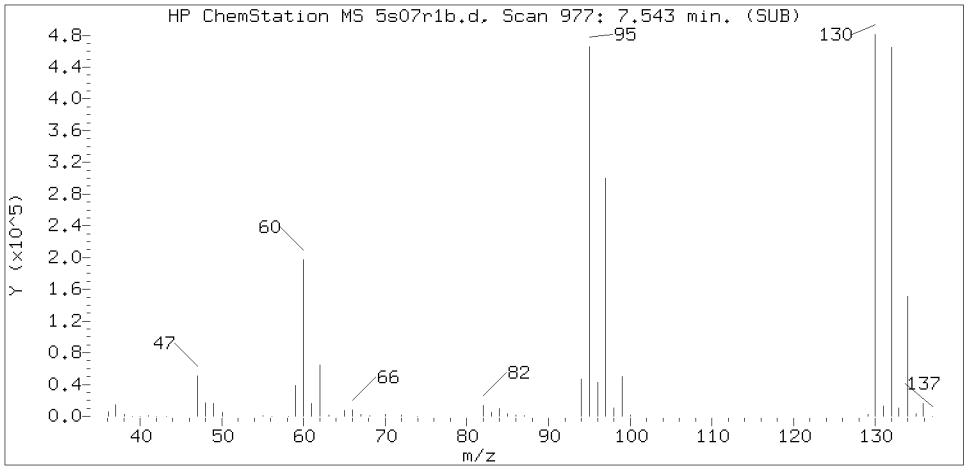
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

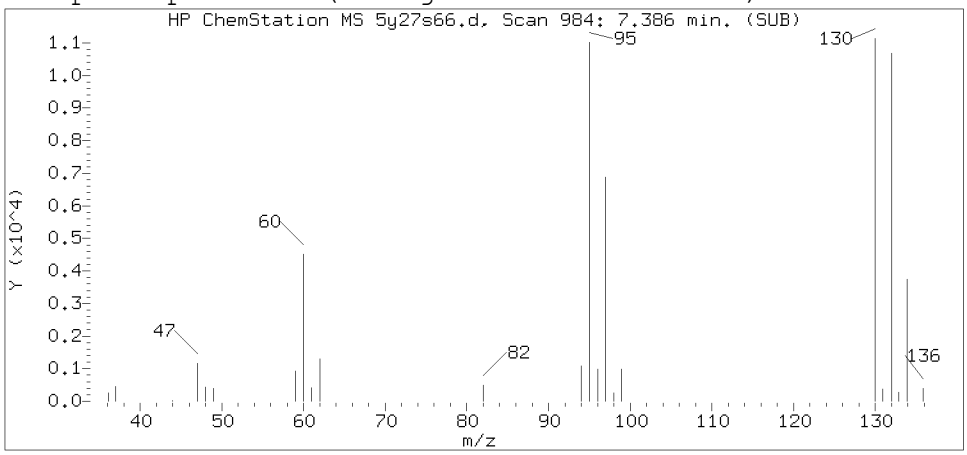
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 748
Retention Time (minutes)	: 5.947
Relative Retention Time	: 0.00000
Quant Ion	: 97.00
Area (flag)	: 27187
On-Column Amount (ng)	: 3.2470

Digitally signed by Linda C. Pape on 05/28/2020 at 12:54.
Target 3.5 esignature user ID: lcp00895

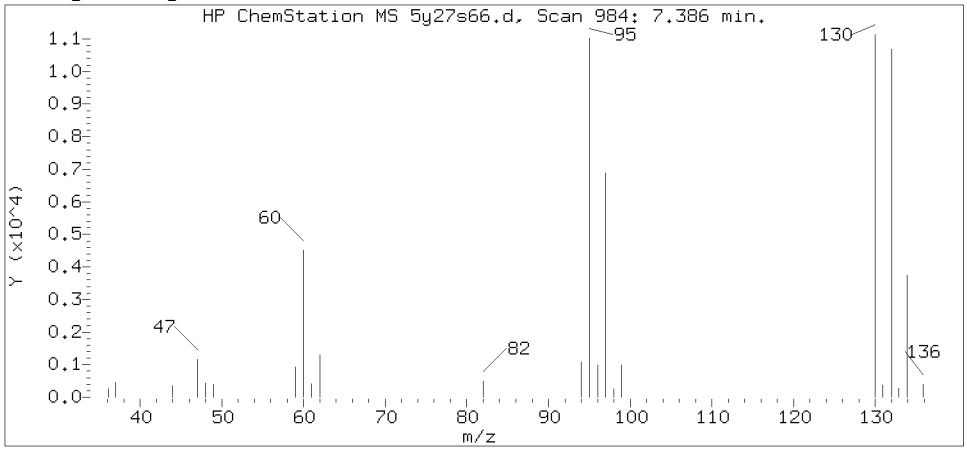
Reference Standard Spectrum for Trichloroethene

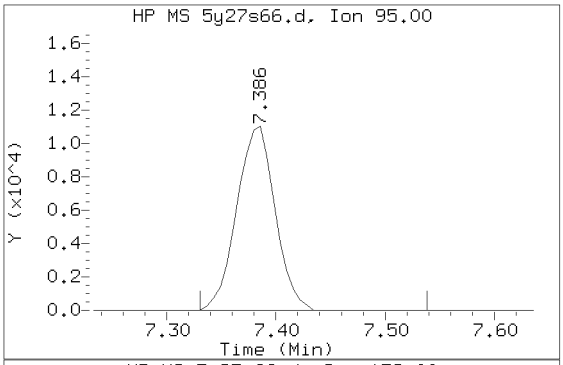


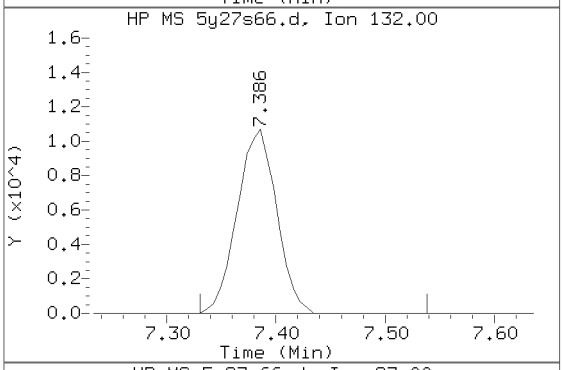
Sample Spectrum (Background Subtracted)

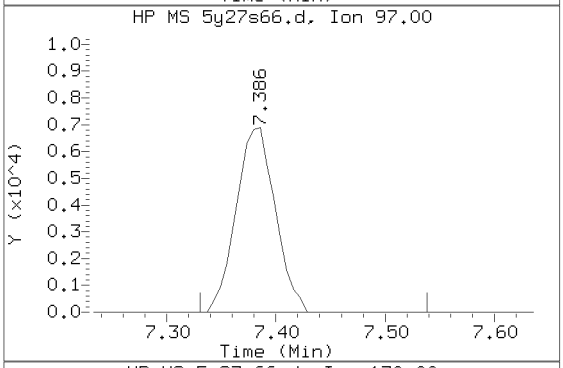


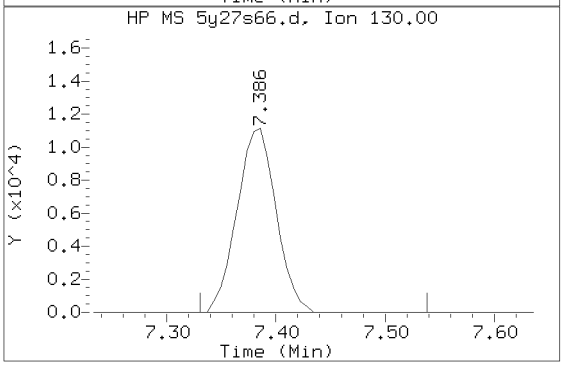
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s66.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:09 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:28 chemist

Sample Name: W5822 Lab Sample ID: 1318279

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 984
Retention Time (minutes): 7.386
Relative Retention Time :-0.00089
Quant Ion : 95.00
Area (flag) : 26891
On-Column Amount (ng) : 4.5436

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Target 3.5 esignature user ID: lcp00895

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5823

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318280

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s54.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.6	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.4	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.6	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5823 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318280

Data file: /chem2/HP26285.i/20may27b.b/5y27s54.d Injection date and time: **27-MAY-2020 23:02**
Data file Sample Info. Line: W5823;1318280;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.024)	338	65	250333	(8)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	859721	(5)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	695861	(5)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	373335	(0)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	223878	52.282	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(0.001)	102	50381	52.606	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	820414	47.974	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	334025	46.358	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.344	(0.000)	63	5193	0.552	0.55		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947	(0.000)	97	3083	0.363	0.36		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(-0.000)	95	3900	0.649	0.65		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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W5823 Lancaster Laboratories 1318280
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s54.d Injection date and time: **27-MAY-2020 23:02**
Data file Sample Info. Line: W5823;1318280;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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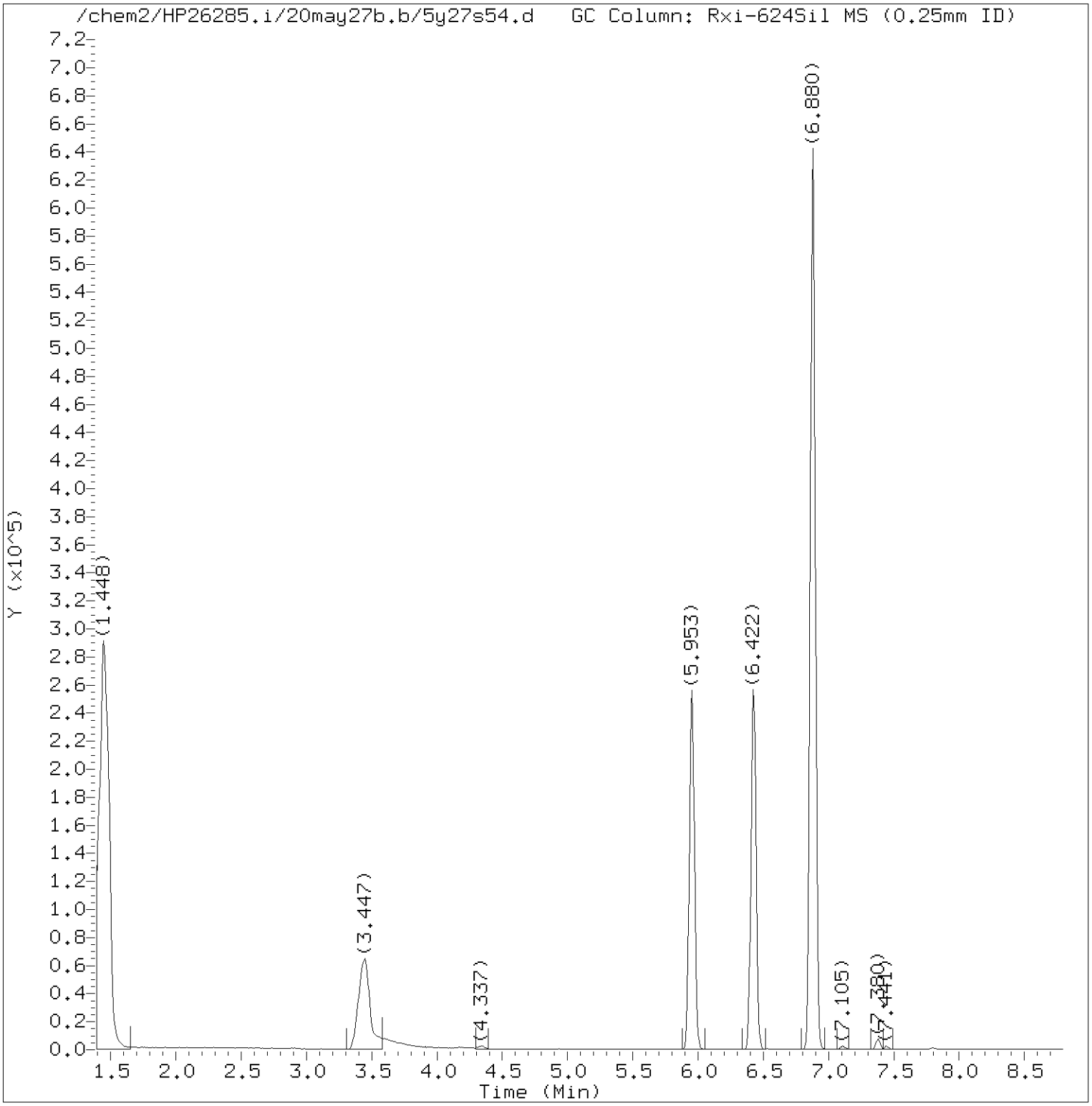
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:28. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

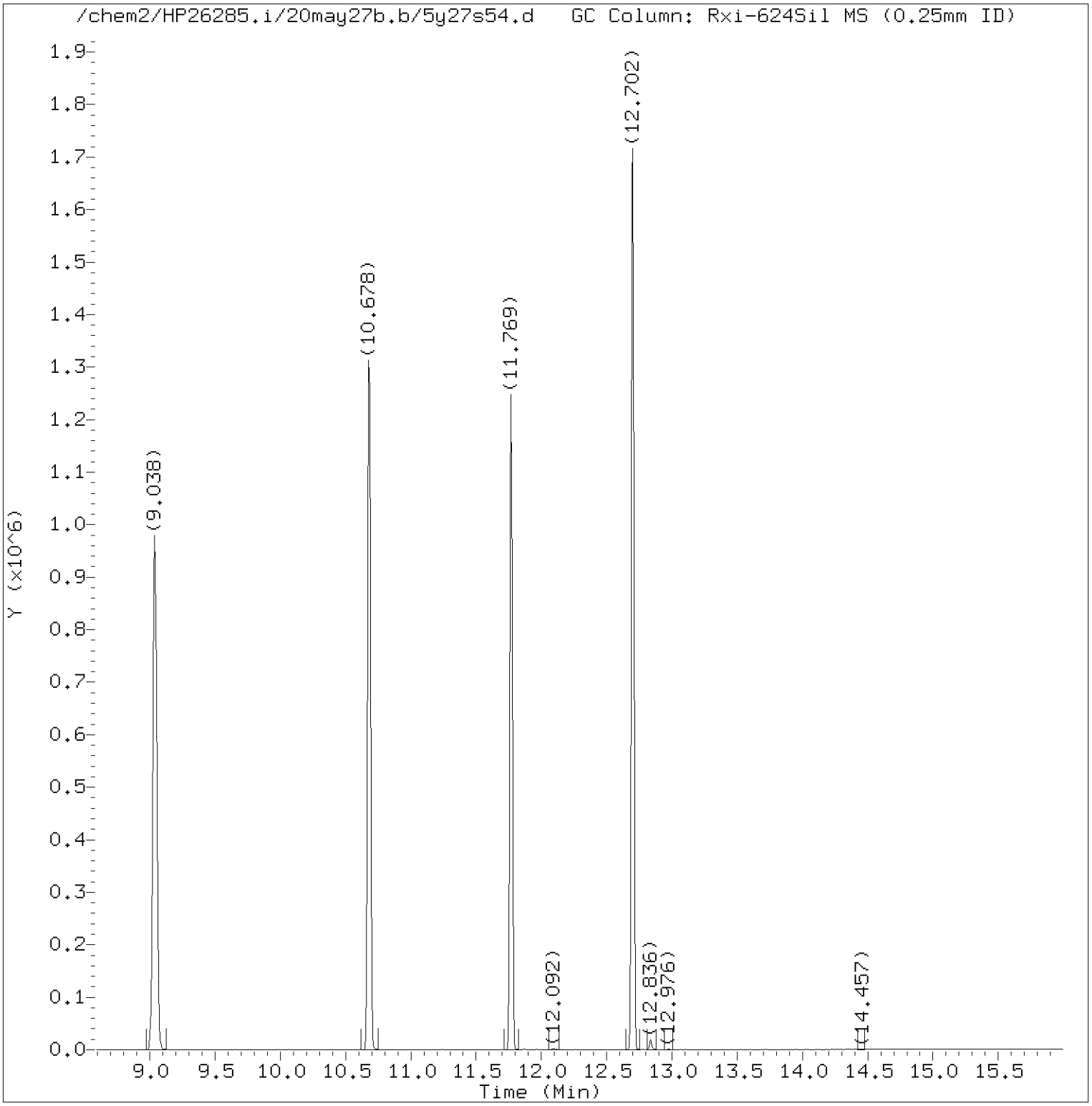
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	250333	250.000
36) 1,1-Dichloroethane	(2)	4.344	63	5193	0.552
53) 1,1,1-Trichloroethane	(2)	5.947	97	3083	0.363
52)$Dibromofluoromethane	(2)	5.953	113	223878	52.282
57)$1,2-Dichloroethane-d4	(2)	6.422	102	50381	52.606
66)*Fluorobenzene	(2)	6.880	96	859721	50.000
71) Trichloroethene	(2)	7.380	95	3900	0.649
84)$Toluene-d8	(3)	9.038	98	820414	47.974
101)*Chlorobenzene-d5	(3)	10.678	117	695861	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	334025	46.358
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	373335	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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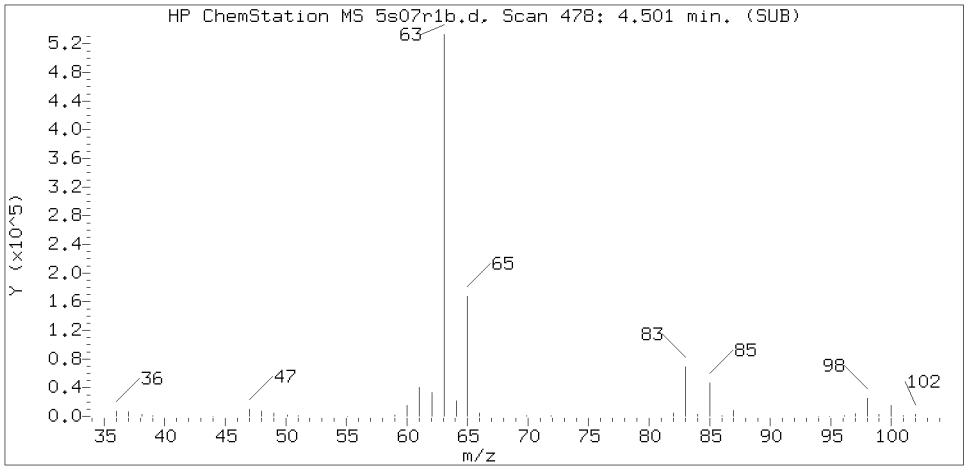
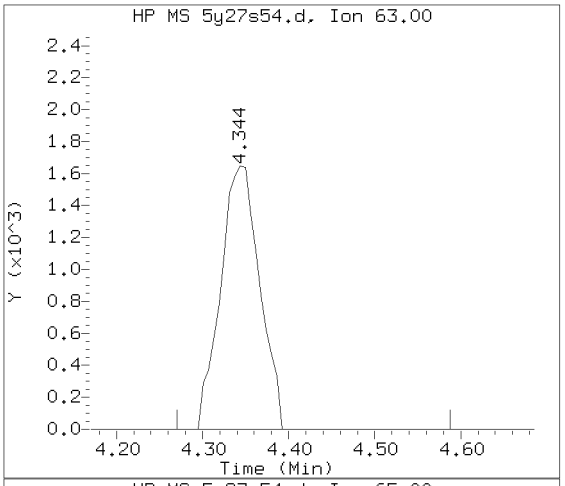
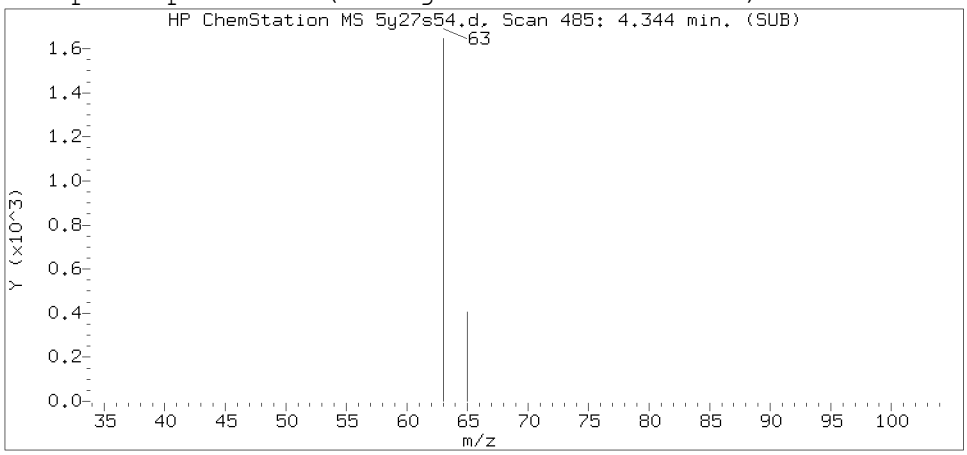
on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

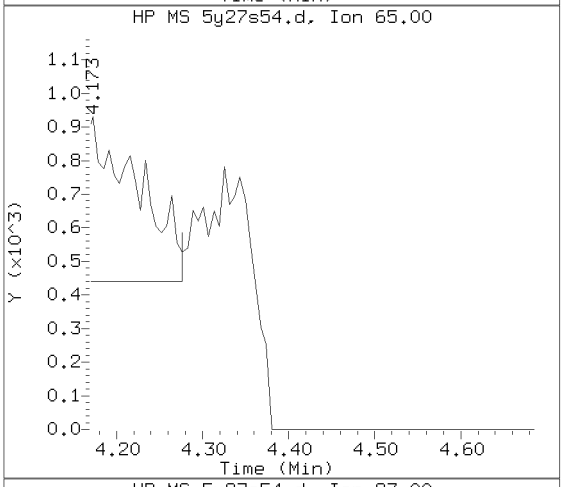
Reference Standard Spectrum for 1,1-Dichloroethane



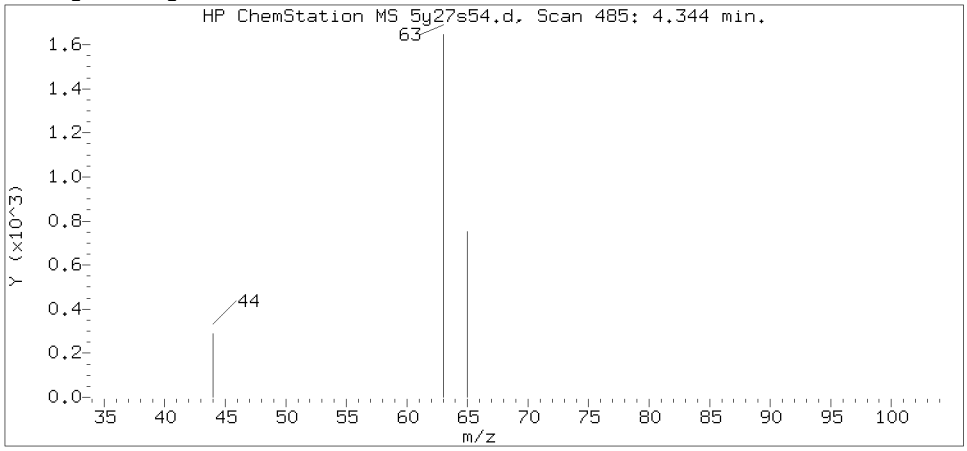


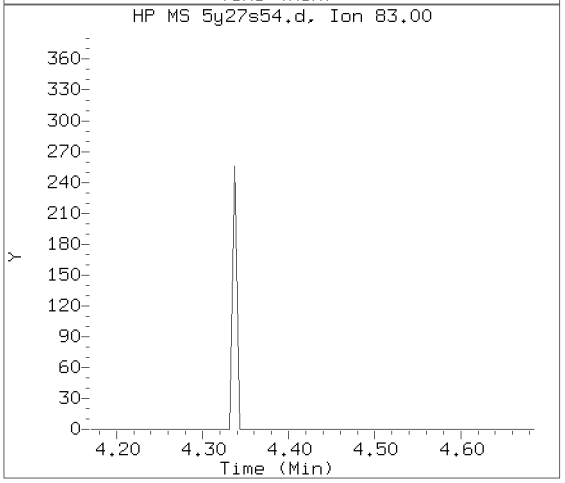
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 485
Retention Time (minutes): 4.344
Relative Retention Time : 0.00001
Quant Ion : 63.00
Area (flag) : 5193
On-Column Amount (ng) : 0.5516

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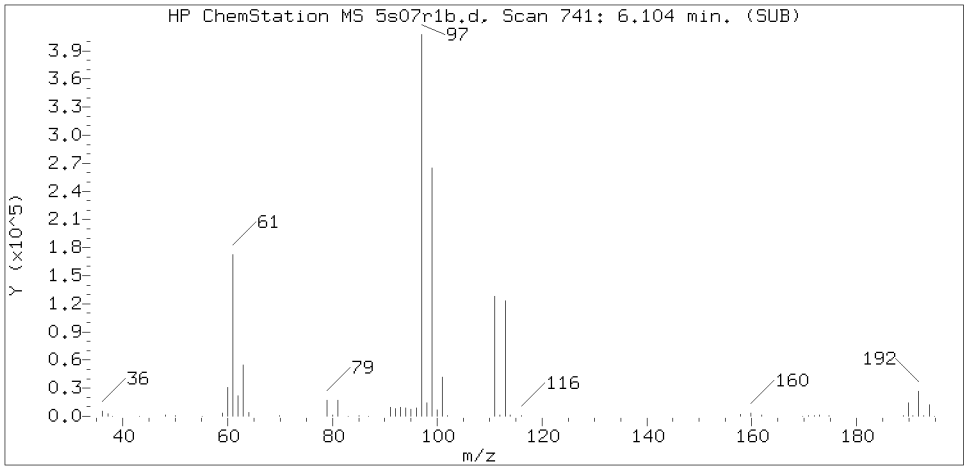
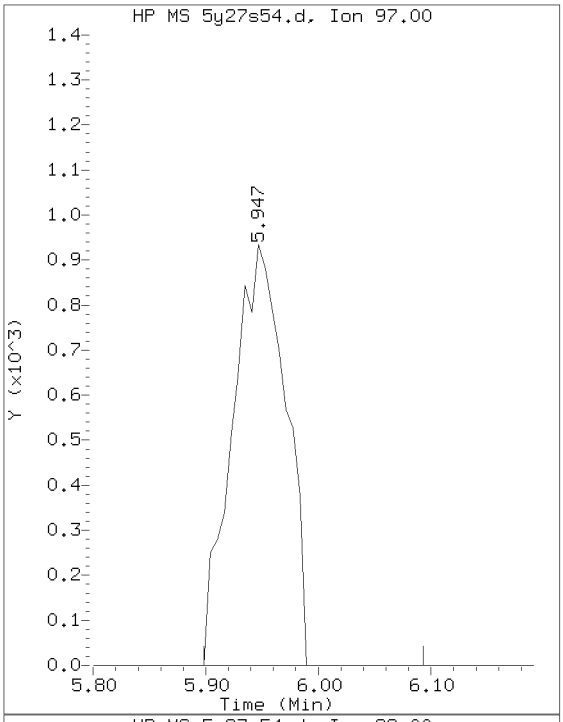
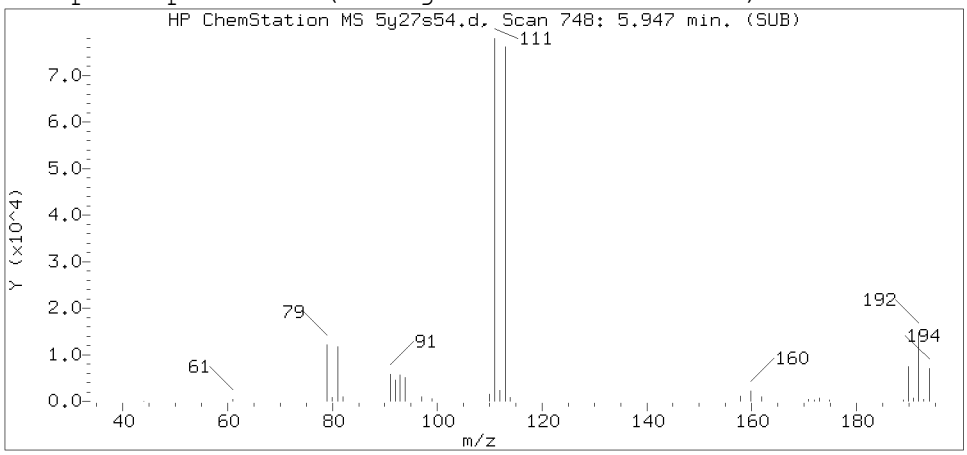
Target 3.5 esignature user ID: lcp00895

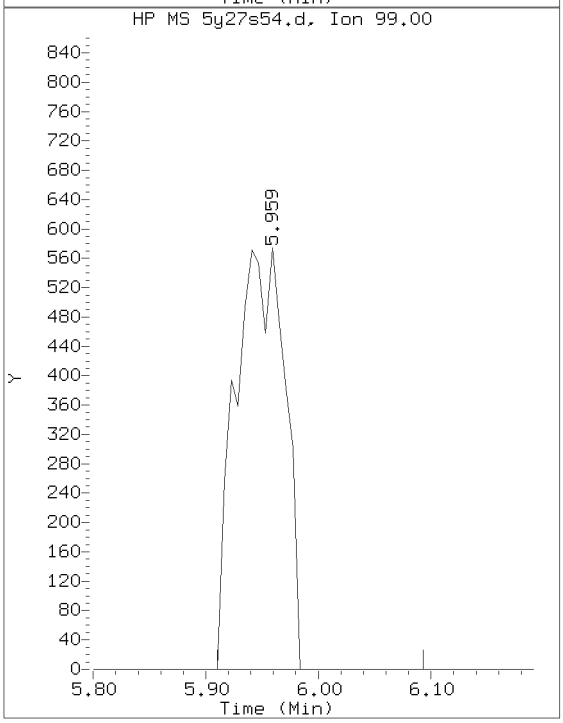
Reference Standard Spectrum for 1,1,1-Trichloroethane



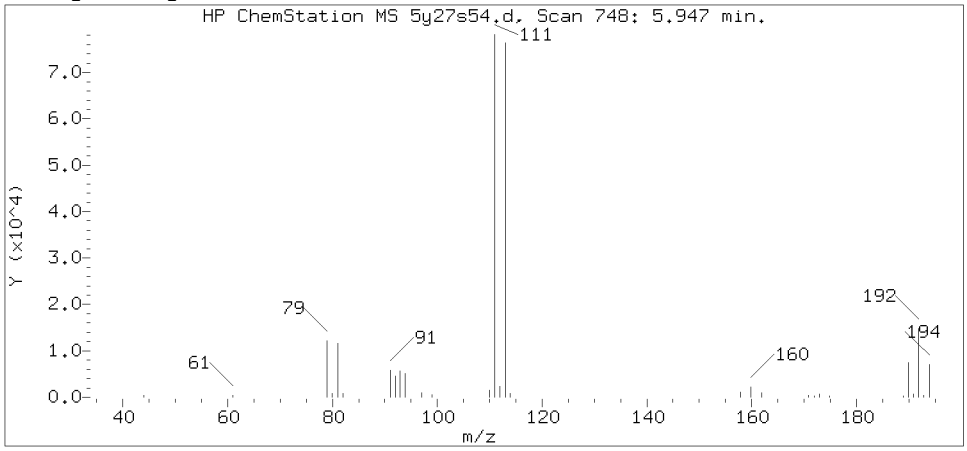


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

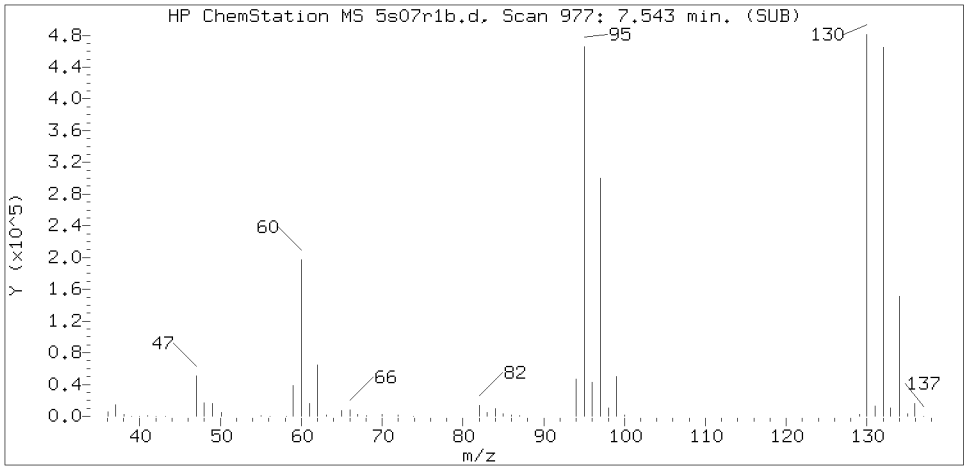
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

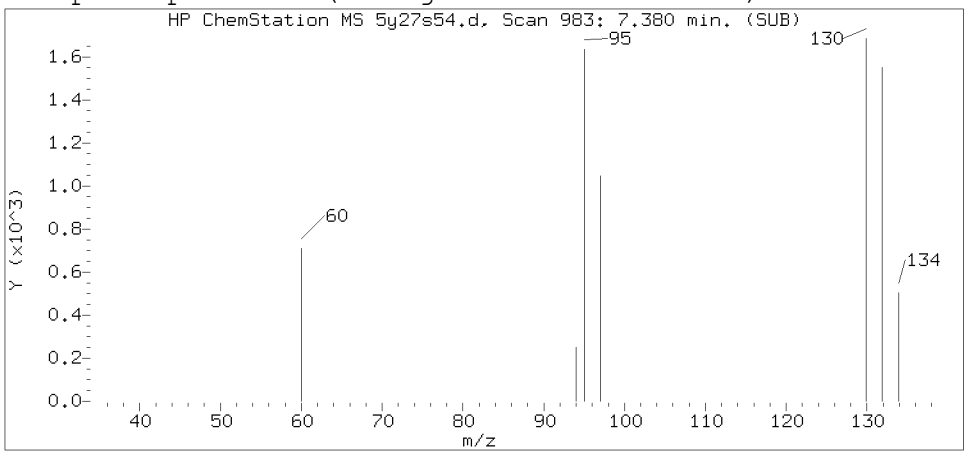
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 748
Retention Time (minutes)	: 5.947
Relative Retention Time	: 0.00000
Quant Ion	: 97.00
Area (flag)	: 3083
On-Column Amount (ng)	: 0.3626

Digitally signed by Linda C. Pape on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

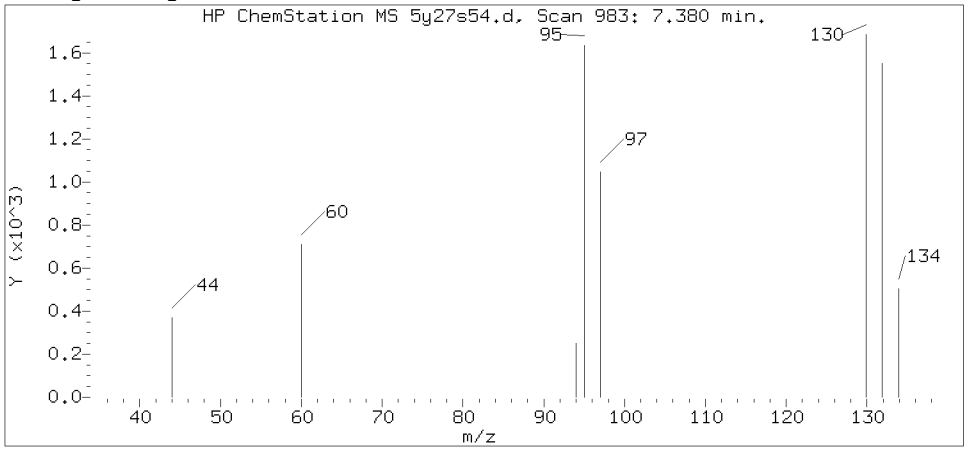
Reference Standard Spectrum for Trichloroethene

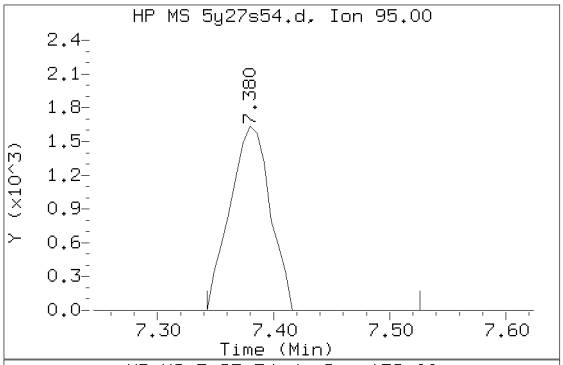


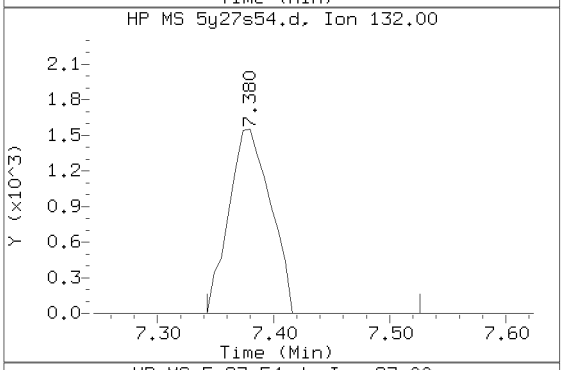
Sample Spectrum (Background Subtracted)

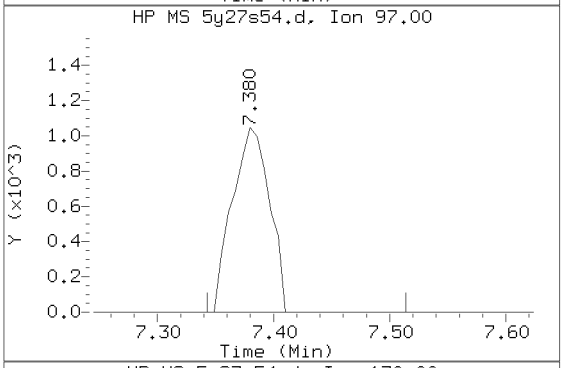


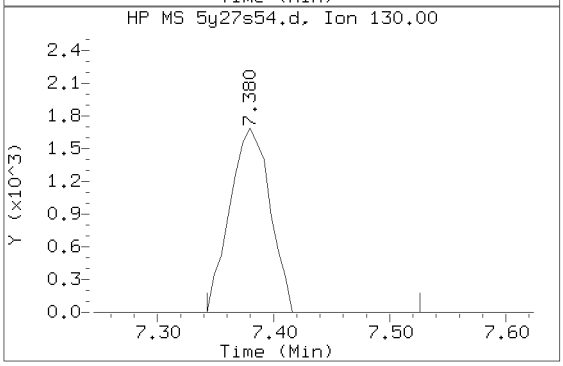
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s54.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:02 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:21 chemist

Sample Name: W5823 Lab Sample ID: 1318280

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 3900
On-Column Amount (ng) : 0.6489

Digitally signed by Linda C. Pape on 05/28/2020 at 12:28.
Target 3.5 esignature user ID: lcp00895

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5824

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318281

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s55.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.3	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5824 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318281

Data file: /chem2/HP26285.i/20may27b.b/5y27s55.d Injection date and time: **27-MAY-2020 23:22**
Data file Sample Info. Line: W5824;1318281;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441	(-0.018)	337	65	241259	(5)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	796387	(-3)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	641305	(-3)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696	(0.006)	1855	152	345880	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947	(0.000)	113	209240	52.750	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(0.001)	102	46740	52.685	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	760500	48.254	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	309737	46.644	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.338	(0.000)	63	11252	1.290	1.29			0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.374	(0.000)	95	1907	0.343	0.34		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Linda C. Pape on 05/28/2020 at 12:31. Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27s55.d Injection date and time: **27-MAY-2020 23:22**
Data file Sample Info. Line: W5824;1318281;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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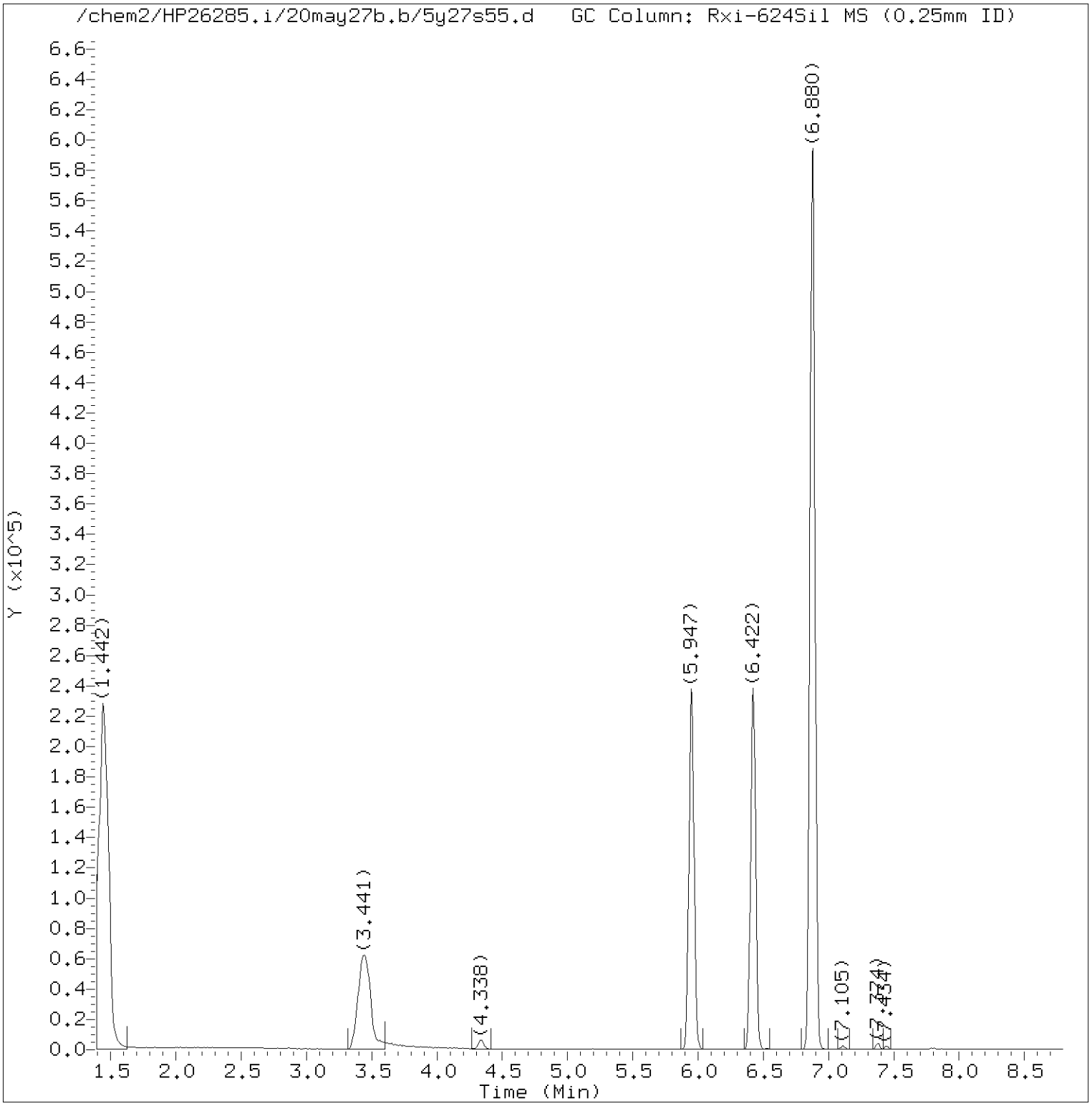
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:31. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

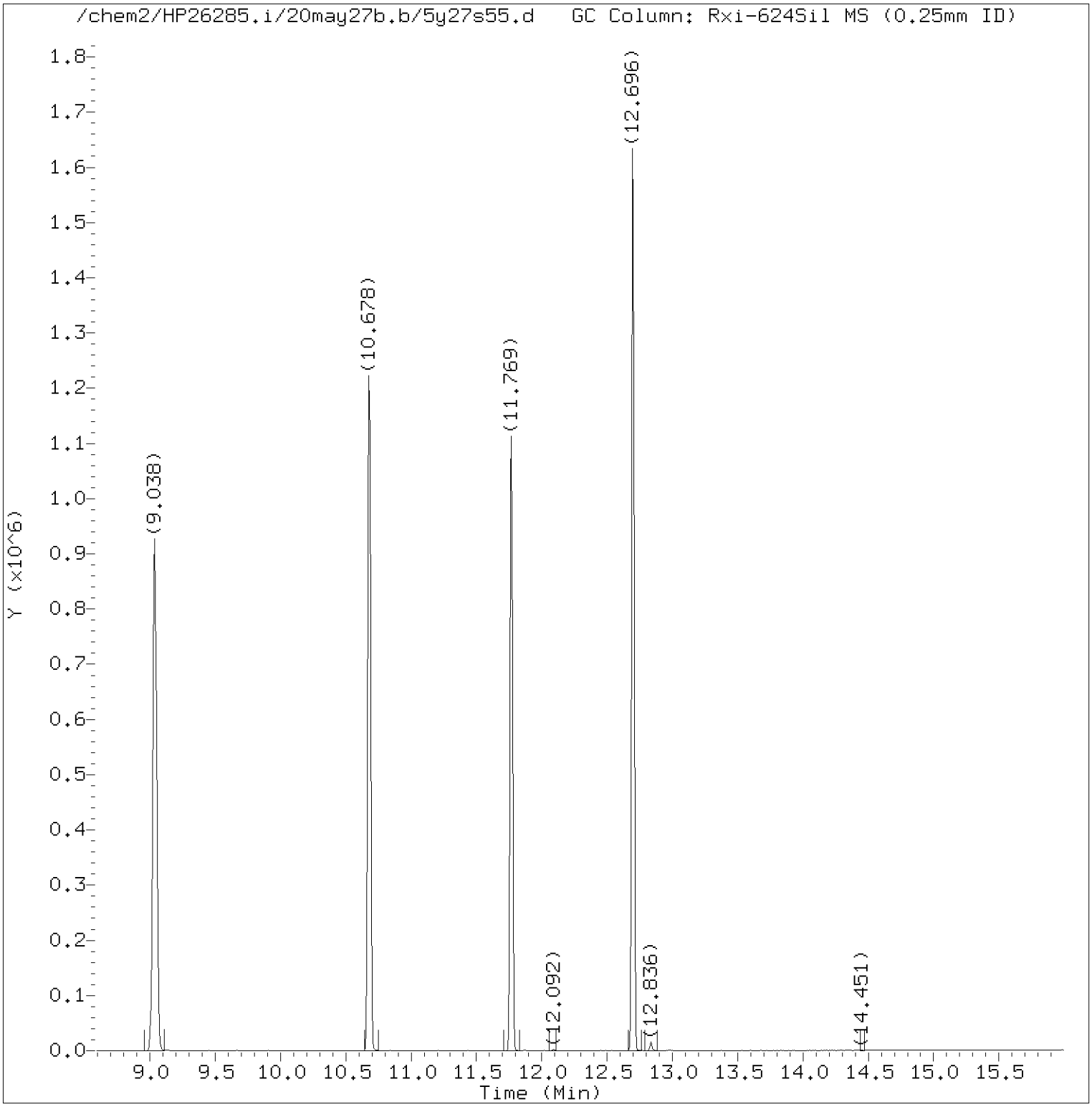
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s55.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:22 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Sample Name: W5824 Lab Sample ID: 1318281

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:31.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s55.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:22 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Sample Name: W5824 Lab Sample ID: 1318281

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:31.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s55.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:22 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Sample Name: W5824 Lab Sample ID: 1318281

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.441	65	241259	250.000
36) 1,1-Dichloroethane	(2)	4.338	63	11252	1.290
52)$Dibromofluoromethane	(2)	5.947	113	209240	52.750
57)$1,2-Dichloroethane-d4	(2)	6.422	102	46740	52.685
66)*Fluorobenzene	(2)	6.880	96	796387	50.000
71) Trichloroethene	(2)	7.374	95	1907	0.343
84)$Toluene-d8	(3)	9.038	98	760500	48.254
101)*Chlorobenzene-d5	(3)	10.678	117	641305	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	309737	46.644
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	345880	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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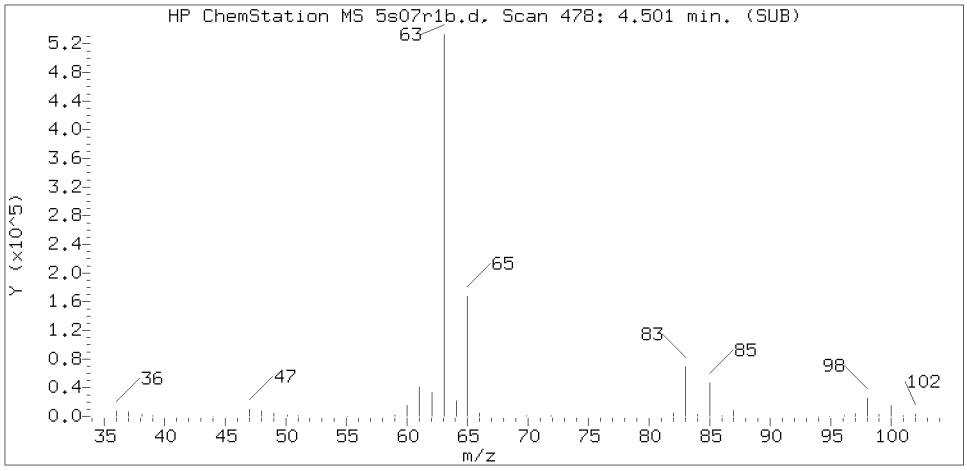
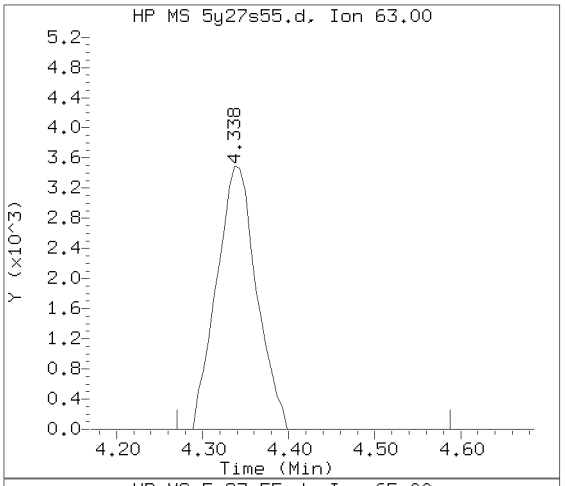
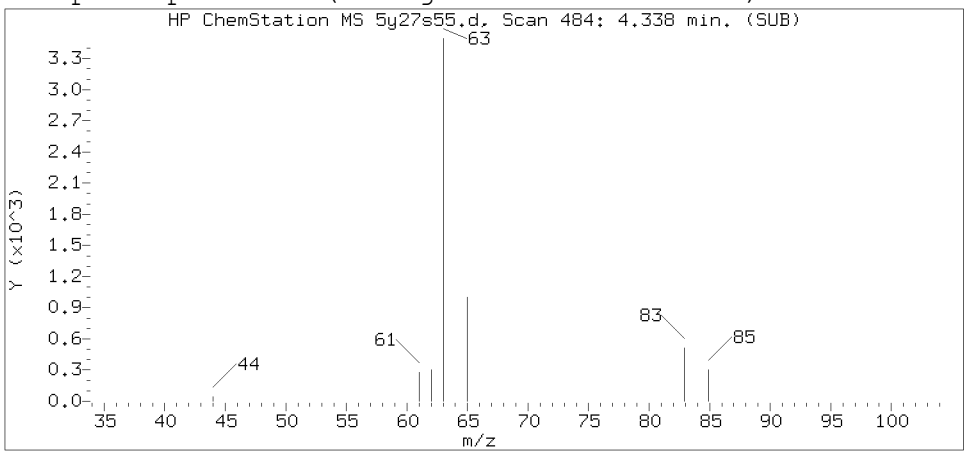
on 05/28/2020 at 12:31.
Target 3.5 esignature user ID: lcp00895

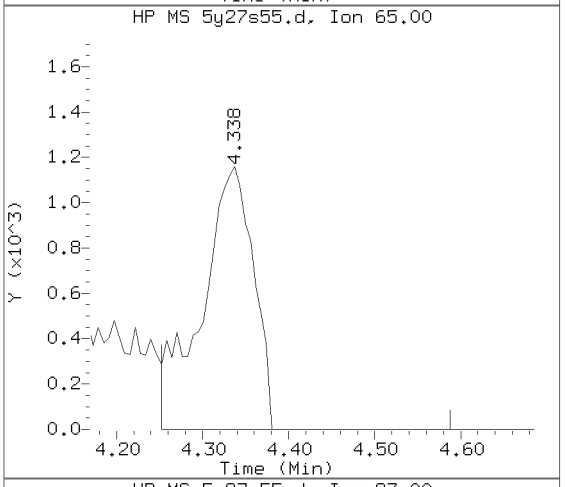
Reference Standard Spectrum for 1,1-Dichloroethane



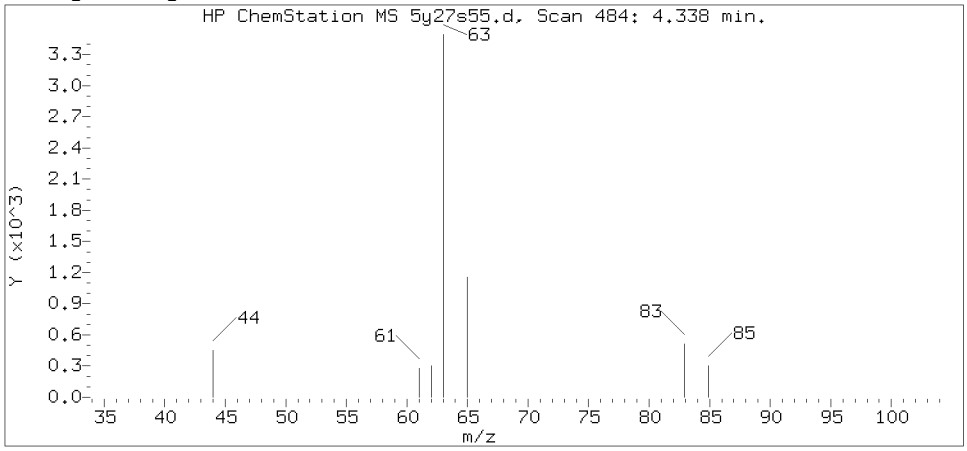


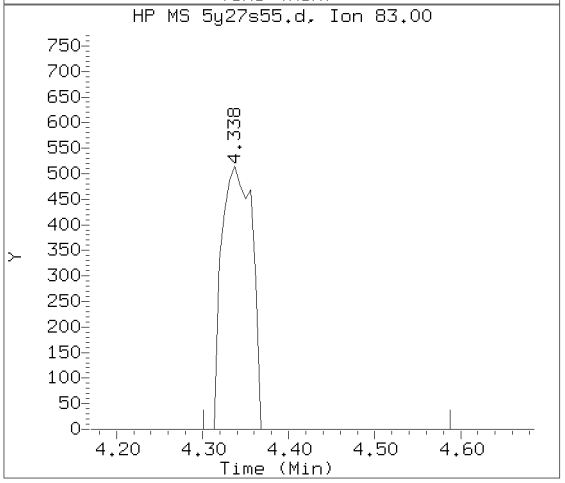
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s55.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:22 Analyst ID: LJG30941

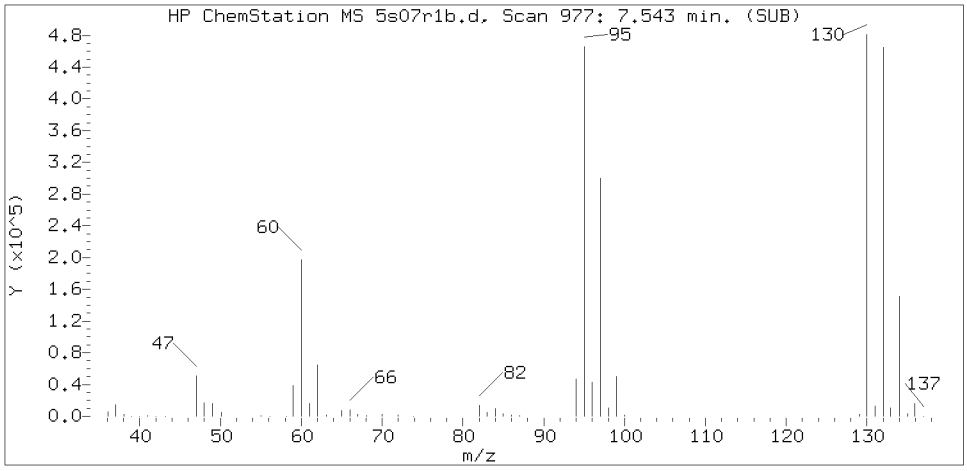
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Sample Name: W5824 Lab Sample ID: 1318281

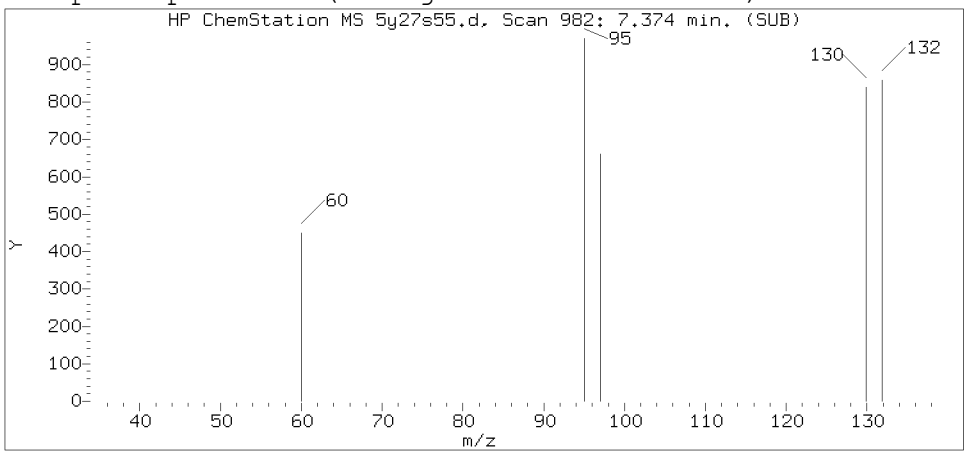
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 484
Retention Time (minutes): 4.338
Relative Retention Time : 0.00089
Quant Ion : 63.00
Area (flag) : 11252
On-Column Amount (ng) : 1.2902

Digitally signed by Linda C. Pape on 05/28/2020 at 12:31.
Target 3.5 esignature user ID: lcp00895

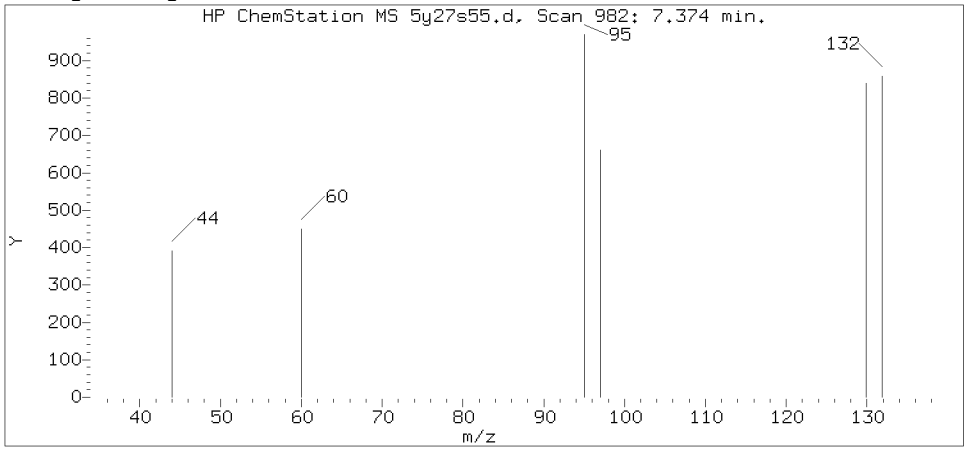
Reference Standard Spectrum for Trichloroethene

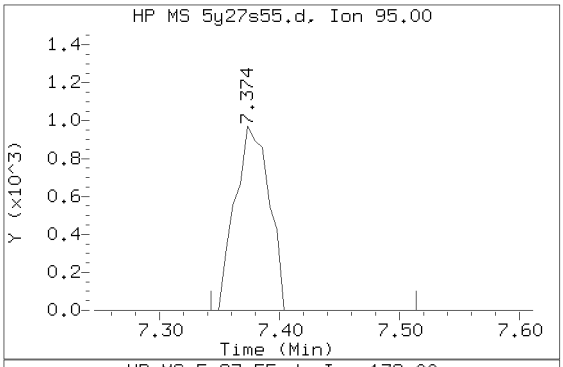


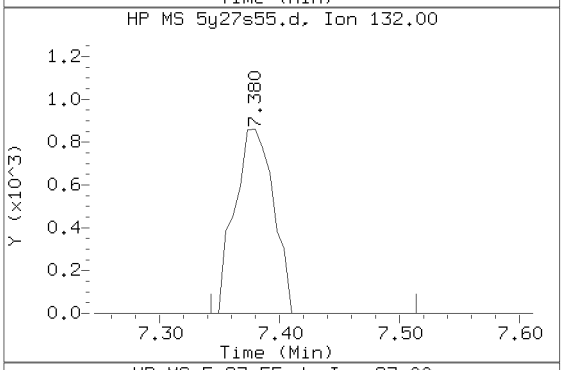
Sample Spectrum (Background Subtracted)

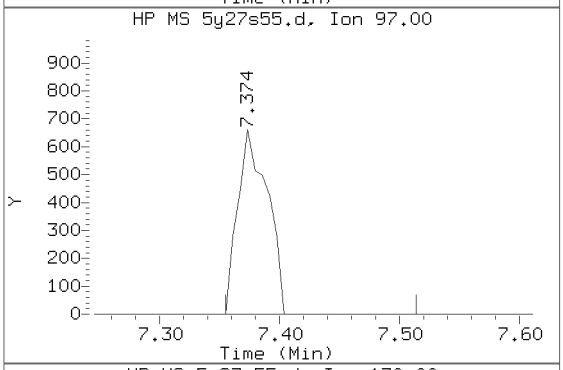


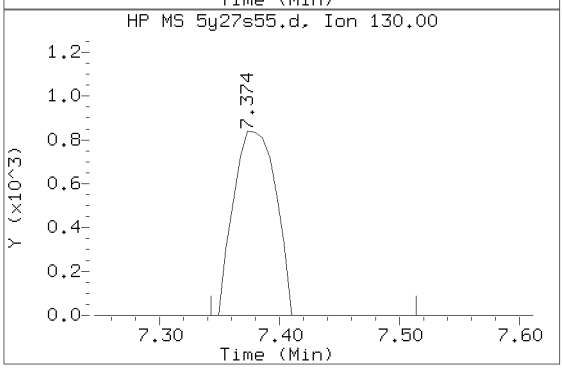
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s55.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:22 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 23:41 chemist

Sample Name: W5824 Lab Sample ID: 1318281

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 982
Retention Time (minutes): 7.374
Relative Retention Time : 0.00088
Quant Ion : 95.00
Area (flag) : 1907
On-Column Amount (ng) : 0.3426

Digitally signed by Linda C. Pape on 05/28/2020 at 12:31.
Target 3.5 esignature user ID: lcp00895

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5825

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318282

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s56.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.3	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2	
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.9	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	9	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5825 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1318282

Data file: /chem2/HP26285.i/20may27b.b/5y27s56.d Injection date and time: **27-MAY-2020 23:43**
Data file Sample Info. Line: W5825;1318282;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453	(-0.030)	339	65	227224	(-2)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	782859	(-4)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	631677	(-5)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	341004	(-9)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	206272	52.900	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428	(0.000)	102	46269	53.056	106%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	748257	48.201	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	304119	46.496	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.868	(0.000)	96	1415	0.335	0.33		J	0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.350	(-0.000)	63	15874	1.851	1.85			0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953	(-0.000)	97	6881	0.889	0.89		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(-0.000)	95	50556	9.237	9.24			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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W5825 Lancaster Laboratories 1318282
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s56.d Injection date and time: **27-MAY-2020 23:43**
Data file Sample Info. Line: W5825;1318282;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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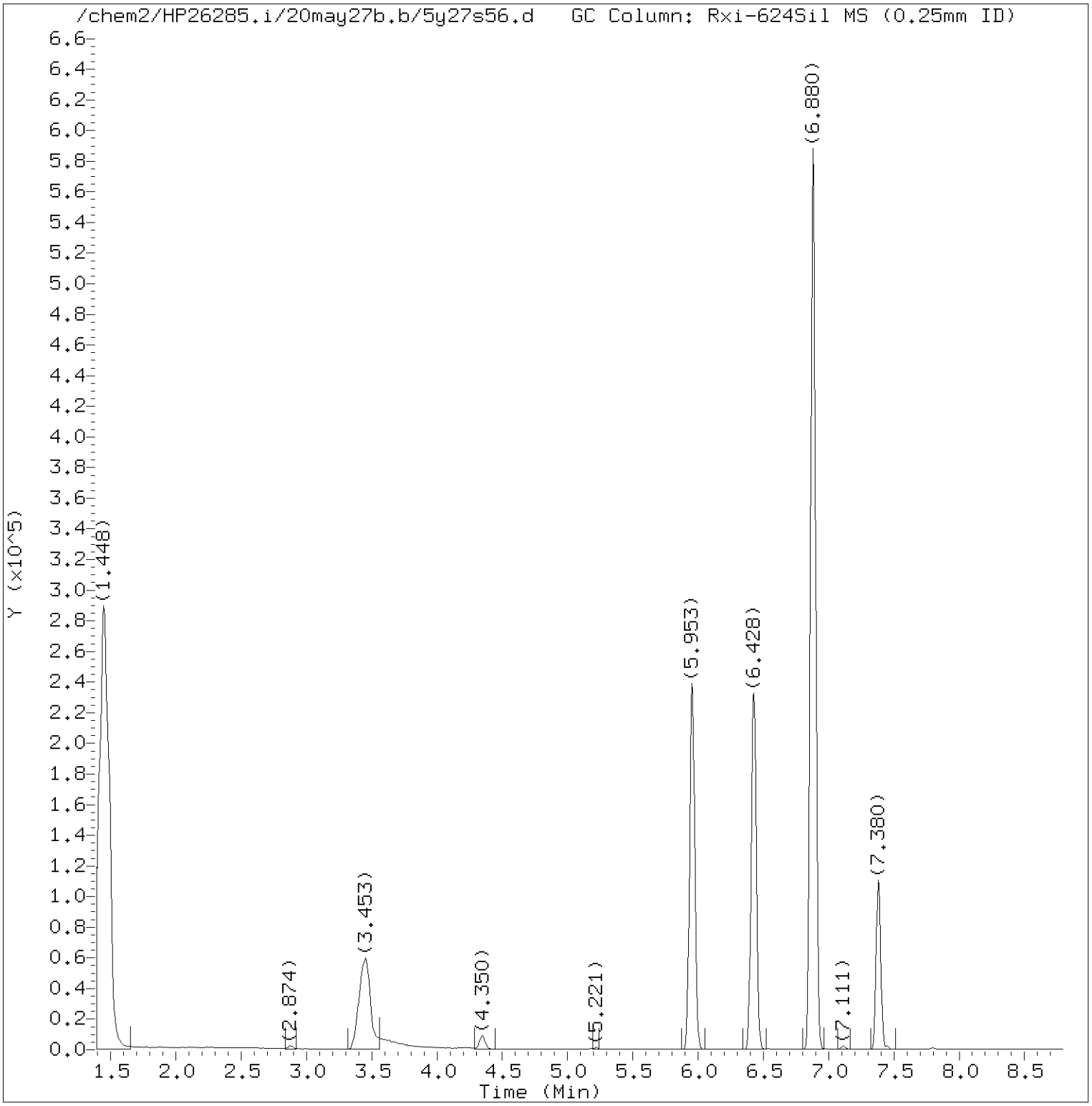
Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

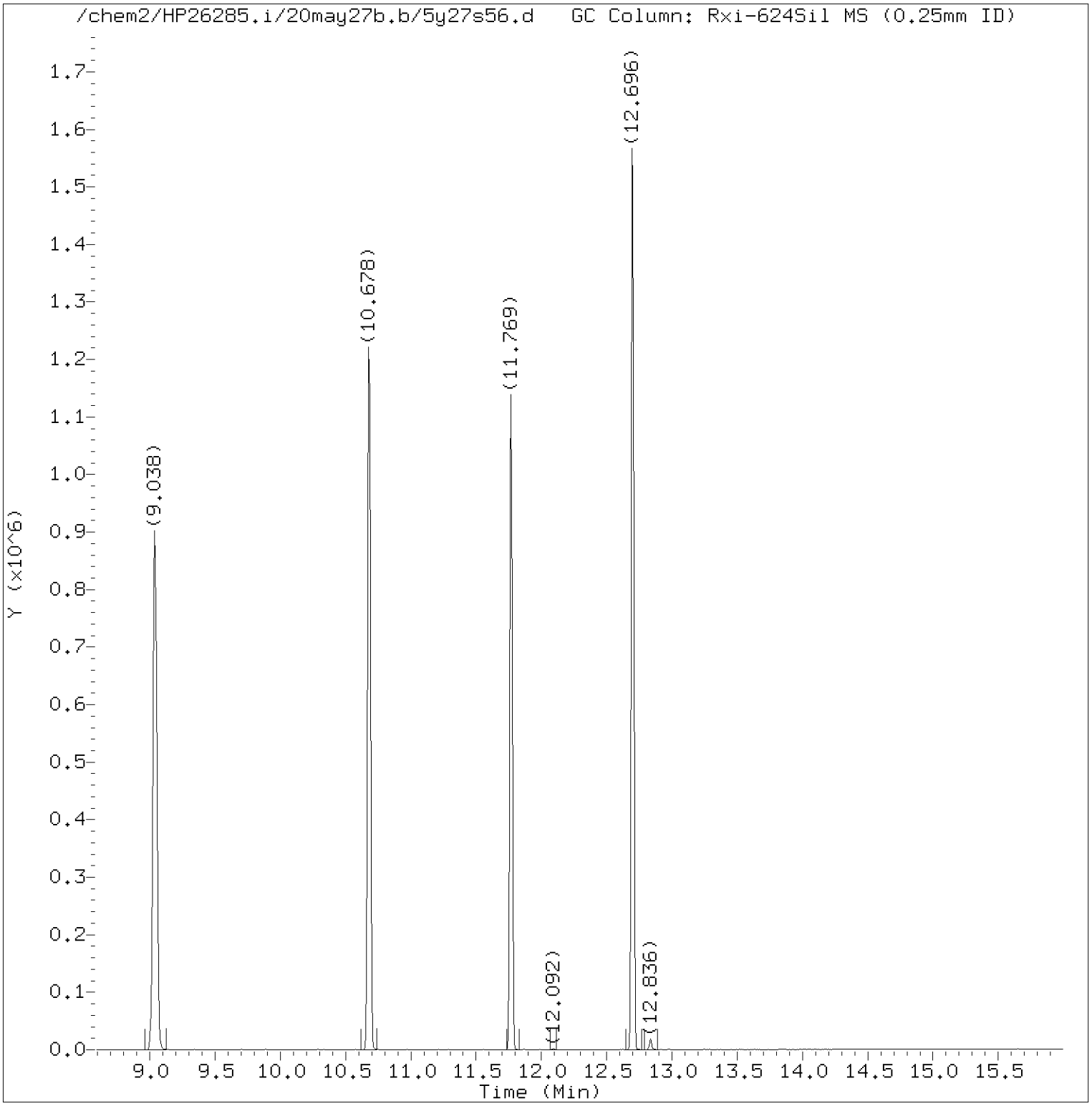
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:32.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

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on 05/28/2020 at 12:32.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.868	96	1415	0.335
29)*t-Butyl alcohol-d10	(1)	3.453	65	227224	250.000
36) 1,1-Dichloroethane	(2)	4.350	63	15874	1.851
53) 1,1,1-Trichloroethane	(2)	5.953	97	6881	0.889
52)$Dibromofluoromethane	(2)	5.953	113	206272	52.900
57)$1,2-Dichloroethane-d4	(2)	6.428	102	46269	53.056
66)*Fluorobenzene	(2)	6.880	96	782859	50.000
71) Trichloroethene	(2)	7.380	95	50556	9.237
84)$Toluene-d8	(3)	9.038	98	748257	48.201
101)*Chlorobenzene-d5	(3)	10.678	117	631677	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	304119	46.496
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	341004	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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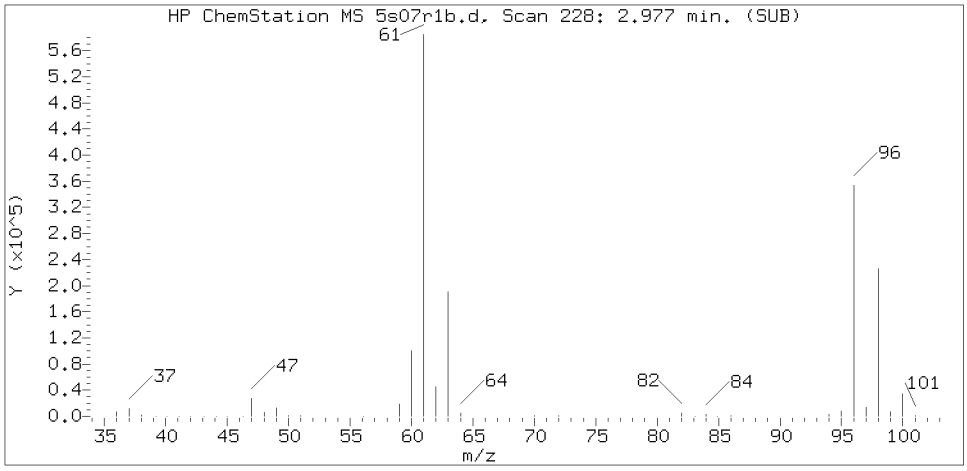
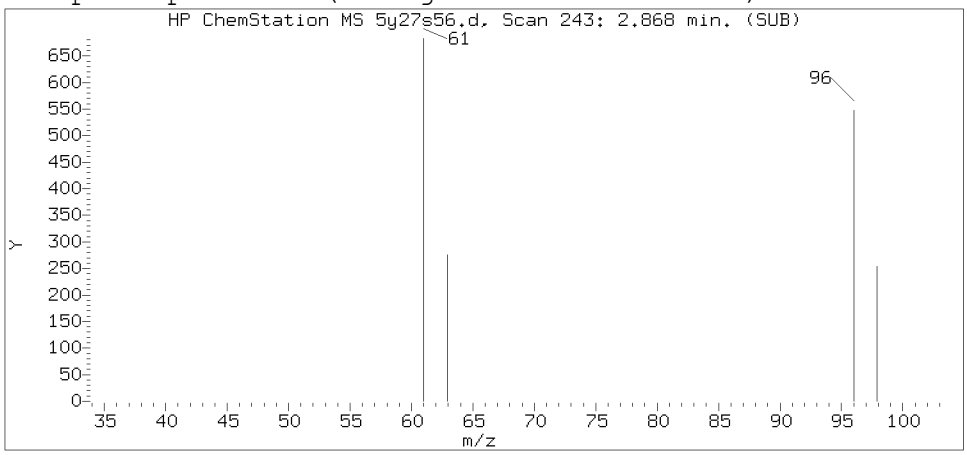
on 05/28/2020 at 12:32.
Target 3.5 esignature user ID: lcp00895

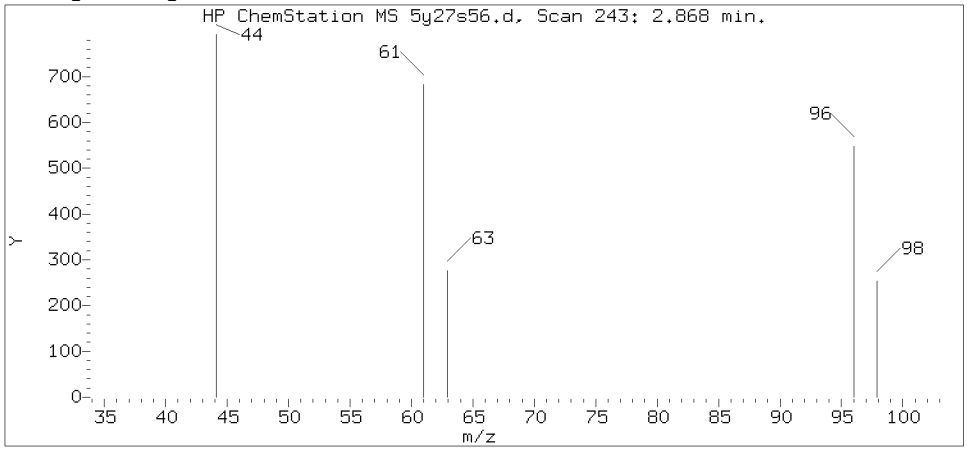
Reference Standard Spectrum for 1,1-Dichloroethene

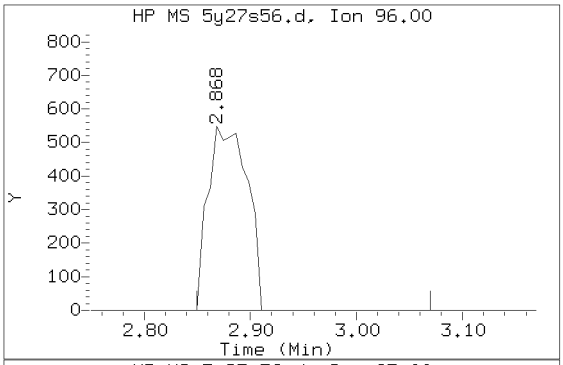


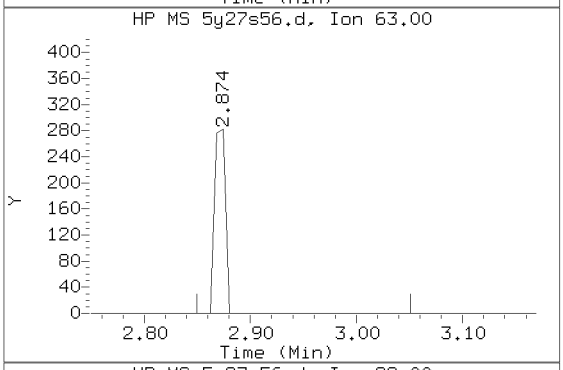
Sample Spectrum (Background Subtracted)

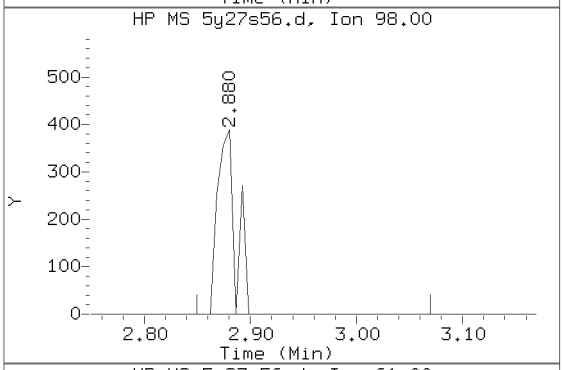


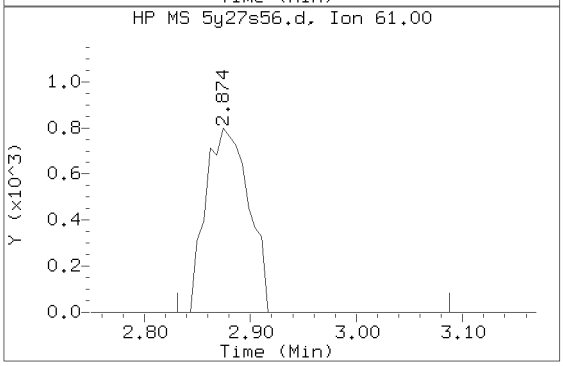
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Compound Number	: 17
Compound Name	: 1,1-Dichloroethene
Scan Number	: 243
Retention Time (minutes)	: 2.868
Relative Retention Time	: 0.00001
Quant Ion	: 96.00
Area (flag)	: 1415
On-Column Amount (ng)	: 0.3345

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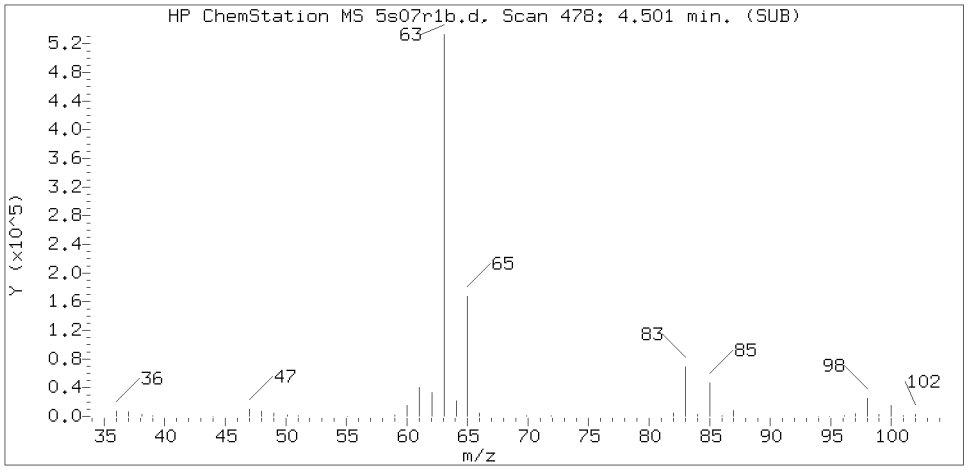
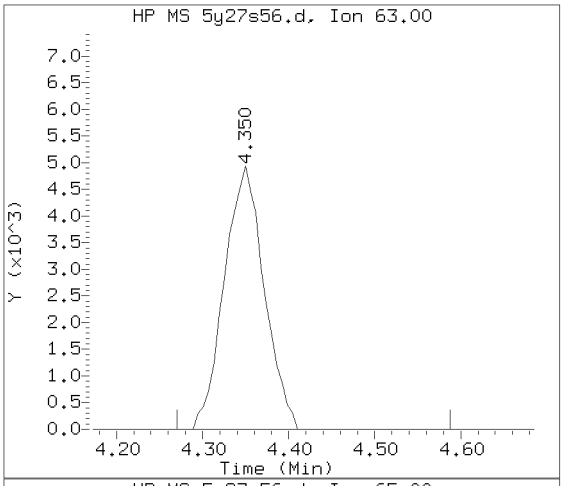
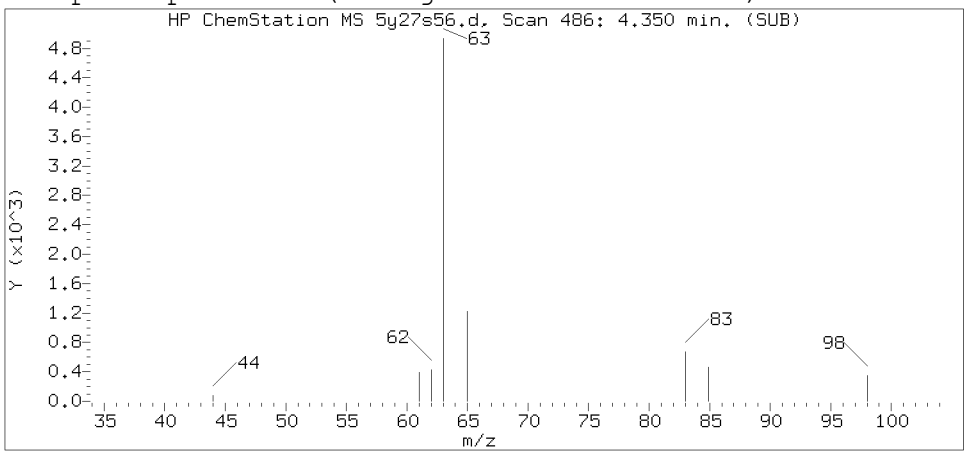
Target 3.5 esignature user ID: lcp00895

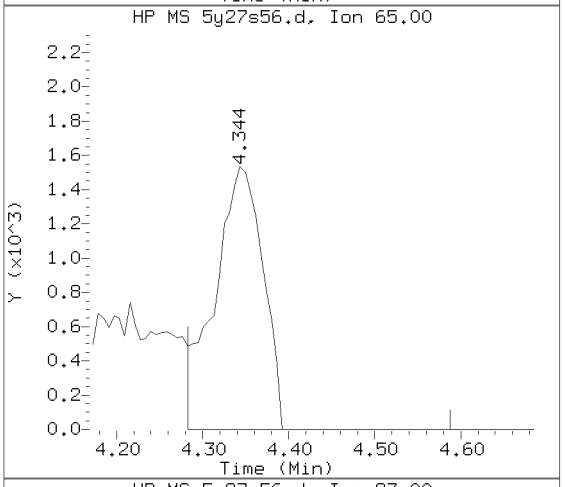
Reference Standard Spectrum for 1,1-Dichloroethane



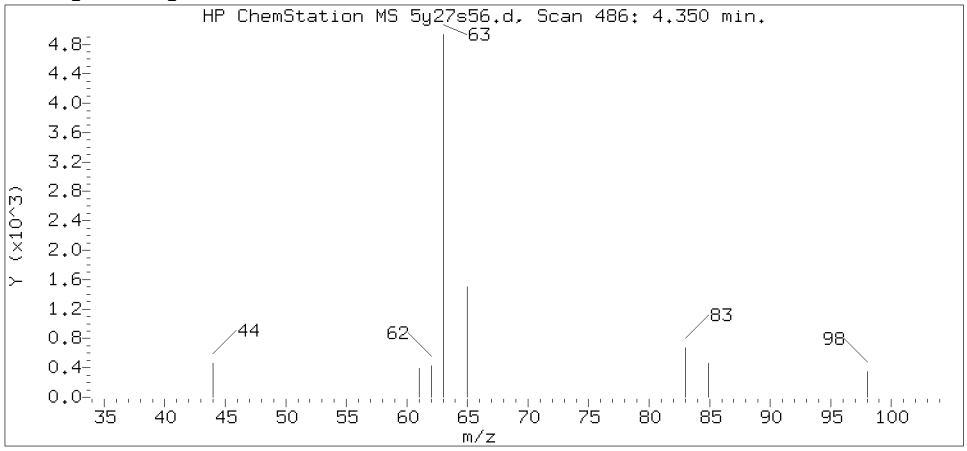


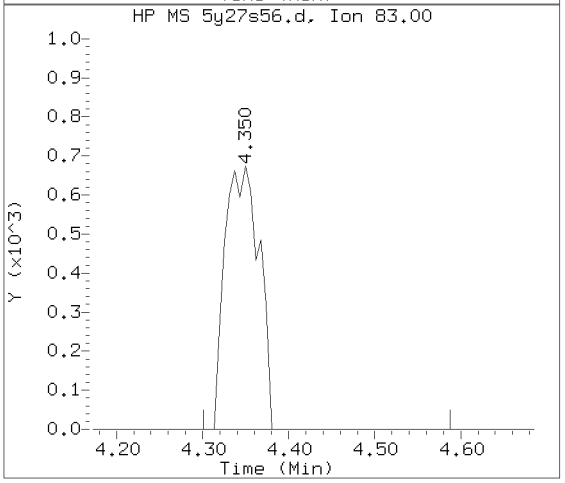
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 486
Retention Time (minutes): 4.350
Relative Retention Time :-0.00088
Quant Ion : 63.00
Area (flag) : 15874
On-Column Amount (ng) : 1.8514

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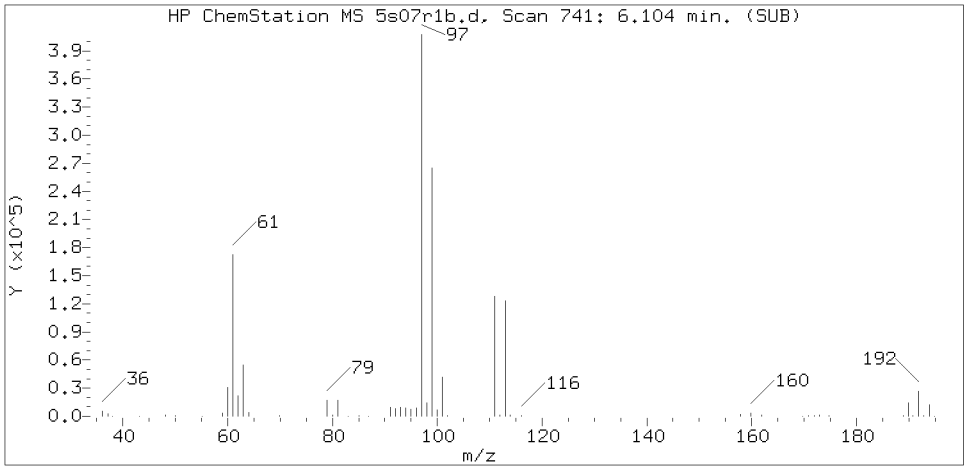
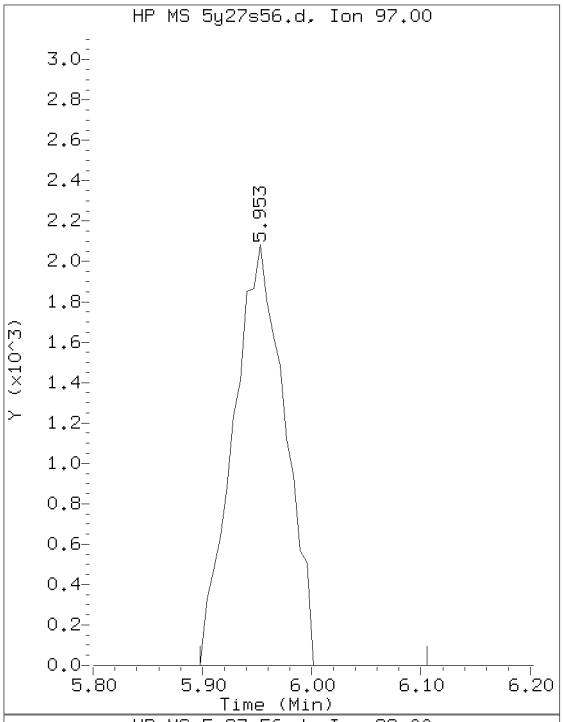
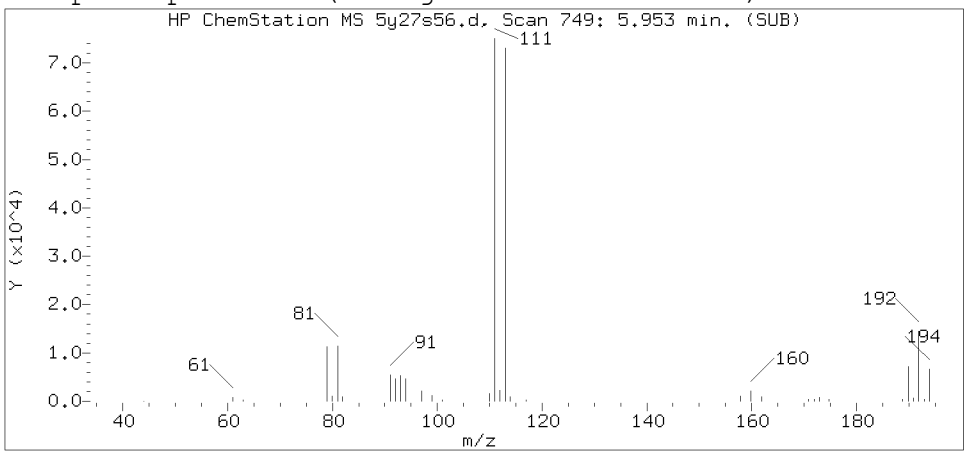
Target 3.5 esignature user ID: lcp00895

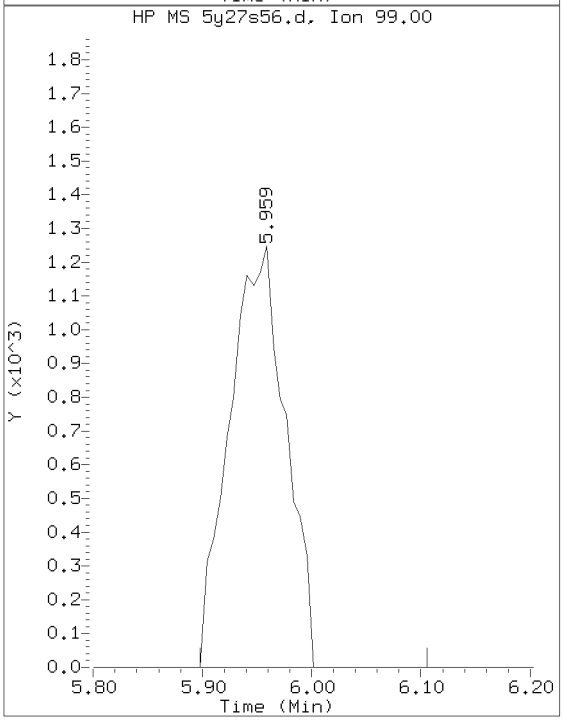
Reference Standard Spectrum for 1,1,1-Trichloroethane



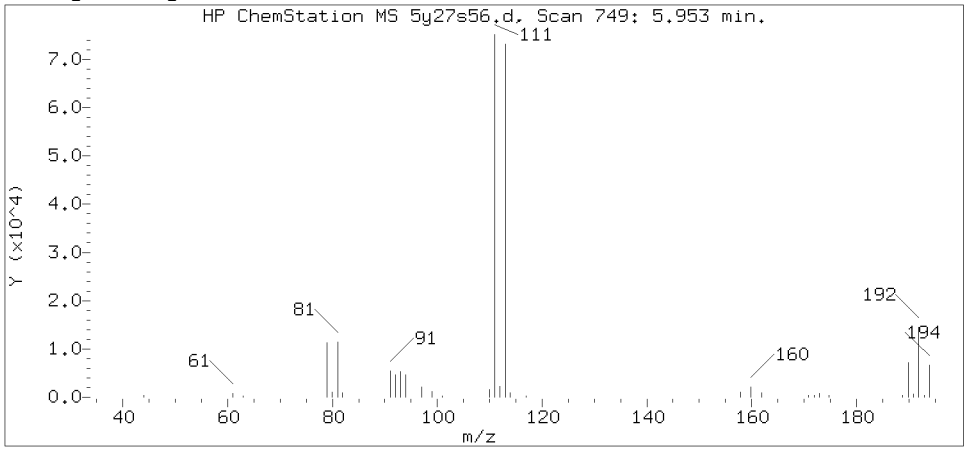


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 749
Retention Time (minutes): 5.953
Relative Retention Time :-0.00088
Quant Ion : 97.00
Area (flag) : 6881
On-Column Amount (ng) : 0.8888

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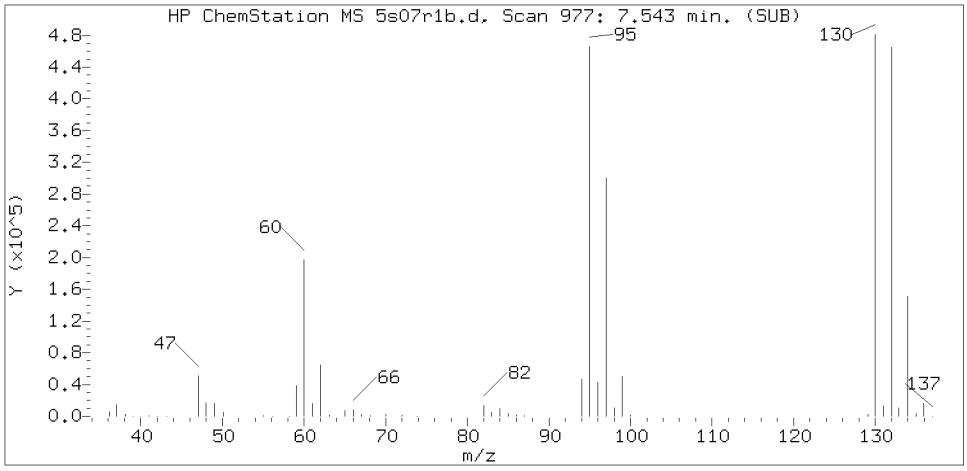
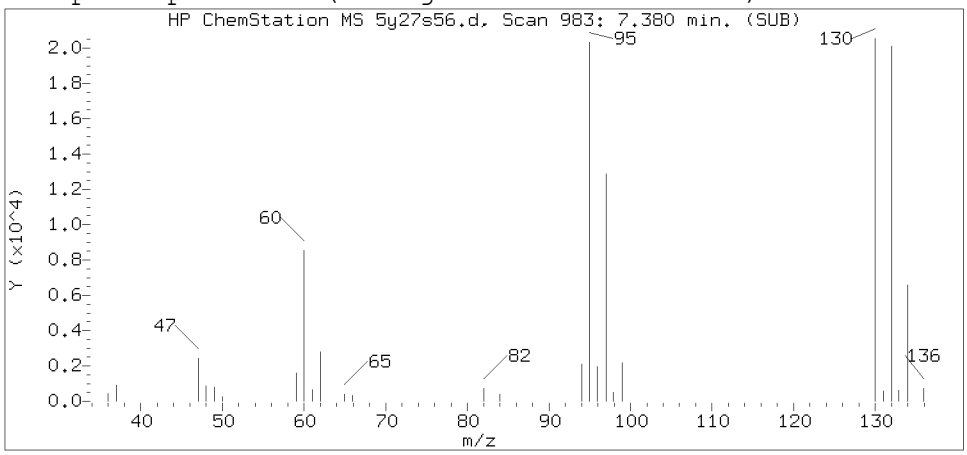
Target 3.5 esignature user ID: lcp00895

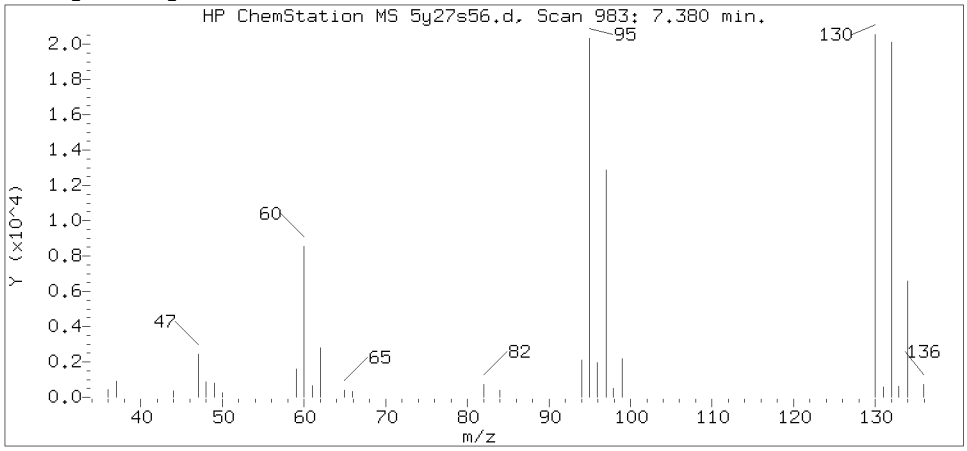
Reference Standard Spectrum for Trichloroethene

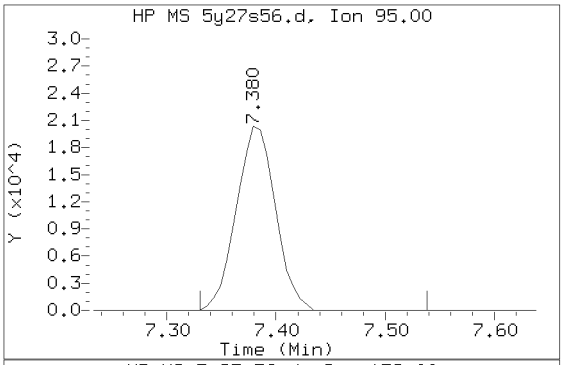


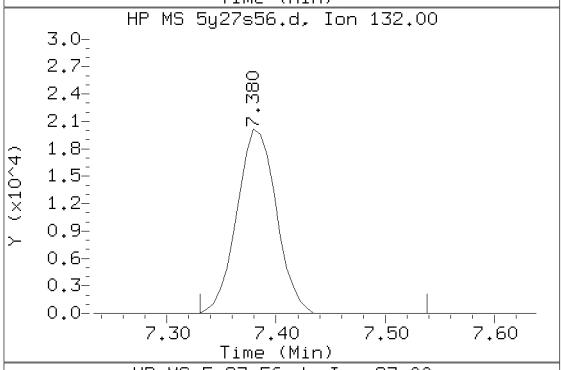
Sample Spectrum (Background Subtracted)

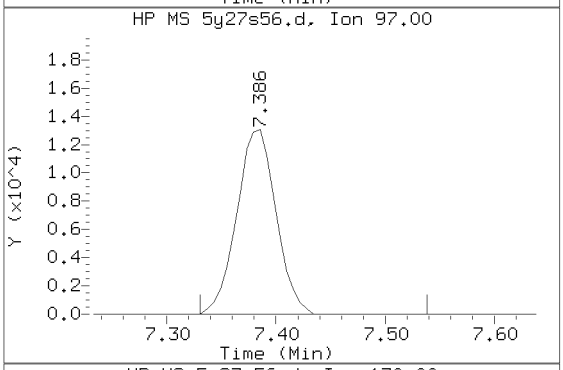


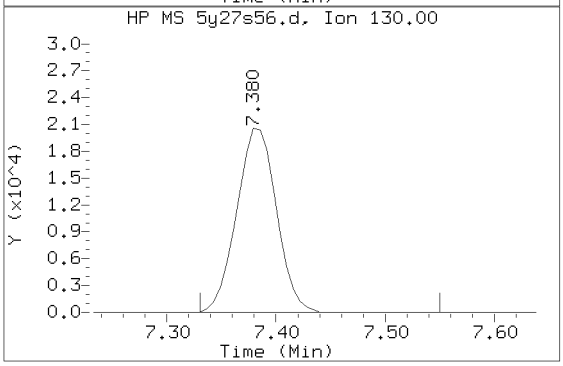
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s56.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 23:43 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 chemist

Sample Name: W5825 Lab Sample ID: 1318282

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 50556
On-Column Amount (ng) : 9.2374

Digitally signed by Linda C. Pape on 05/28/2020 at 12:32.
Target 3.5 esignature user ID: lcp00895

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5826

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318283

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s67.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.3	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2	
156-59-2	cis-1,2-Dichloroethene	0.2	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.9	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	9	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5826 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318283

Data file: /chem2/HP26285.i/20may27b.b/5y27s67.d Injection date and time: **28-MAY-2020 03:29**
Data file Sample Info. Line: W5826;1318283;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453(-0.030)	339	65	226090 (-2)	250.00	
66) Fluorobenzene	6.880(0.000)	901	96	764271 (-7)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	616470 (-7)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	331388 (-11)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(-0.001)	113	202270	53.135	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422(0.001)	102	45214	53.107	106%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	731641	48.293	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.001)	95	294964	46.208	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.862(0.000)	96	1252	0.303	0.30		J	0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.337(0.000)	63	15991	1.910	1.91			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215(-0.000)	96	1148	0.220	0.22		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	6993	0.925	0.93		J	0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.380(-0.000)	95	50326	9.419	9.42			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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W5826 Lancaster Laboratories 1318283
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s67.d Injection date and time: **28-MAY-2020 03:29**
Data file Sample Info. Line: W5826;1318283;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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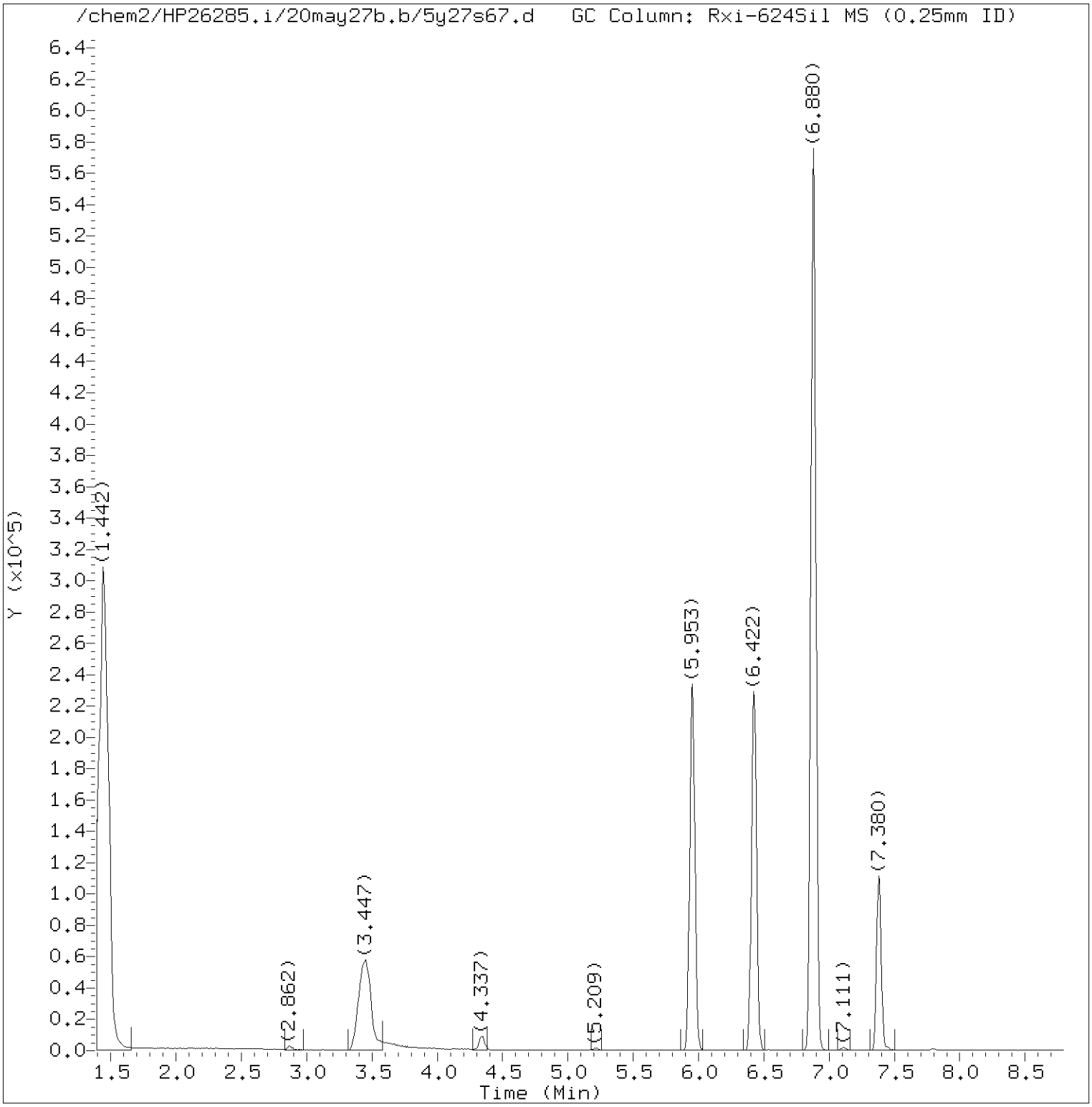
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:55. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

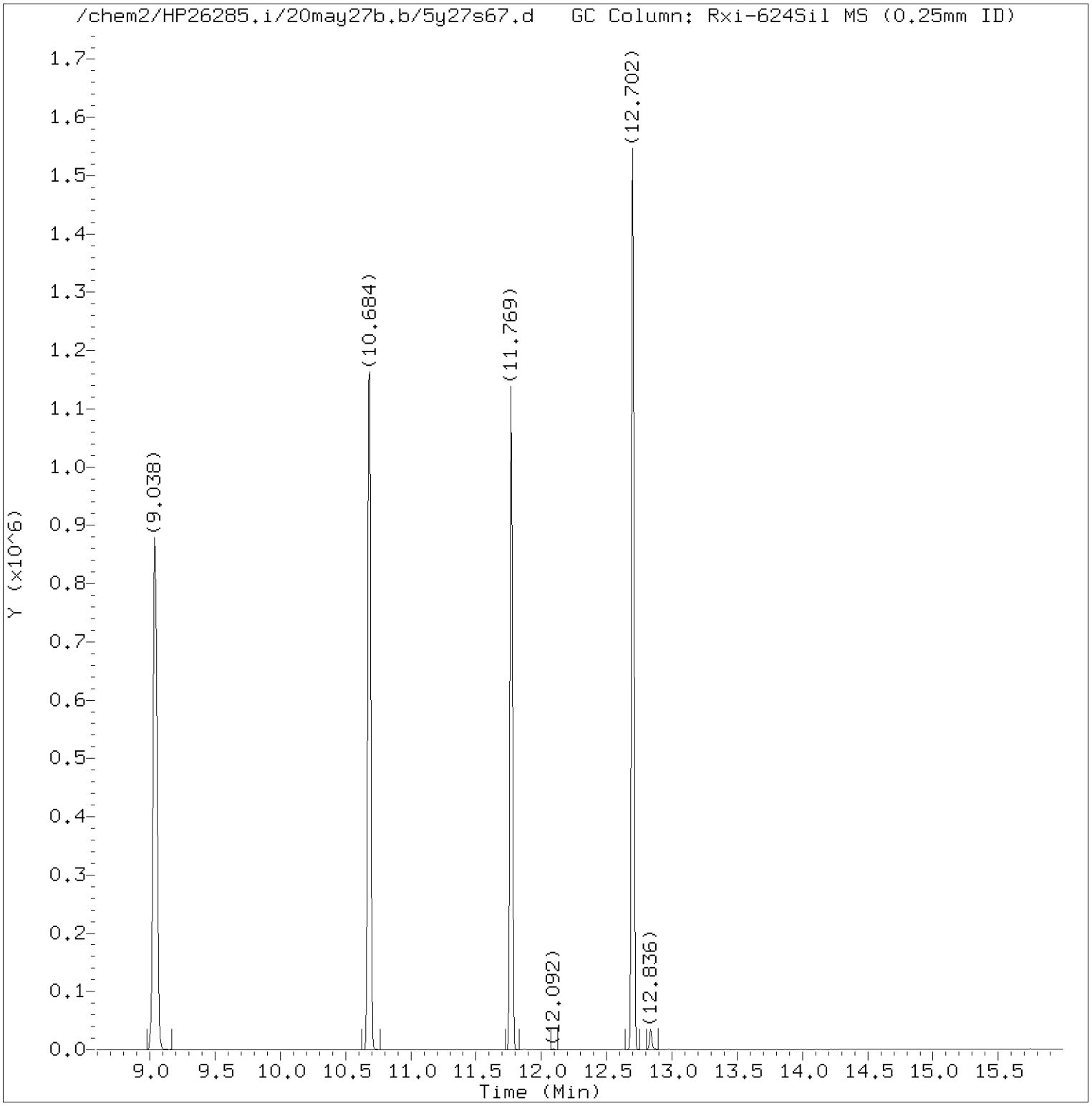
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:55.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:55.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.862	96	1252	0.303
29)*t-Butyl alcohol-d10	(1)	3.453	65	226090	250.000
36) 1,1-Dichloroethane	(2)	4.337	63	15991	1.910
42) cis-1,2-Dichloroethene	(2)	5.215	96	1148	0.220
53) 1,1,1-Trichloroethane	(2)	5.947	97	6993	0.925
52)$Dibromofluoromethane	(2)	5.953	113	202270	53.135
57)$1,2-Dichloroethane-d4	(2)	6.422	102	45214	53.107
66)*Fluorobenzene	(2)	6.880	96	764271	50.000
71) Trichloroethene	(2)	7.380	95	50326	9.419
84)$Toluene-d8	(3)	9.038	98	731641	48.293
101)*Chlorobenzene-d5	(3)	10.684	117	616470	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	294964	46.208
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	331388	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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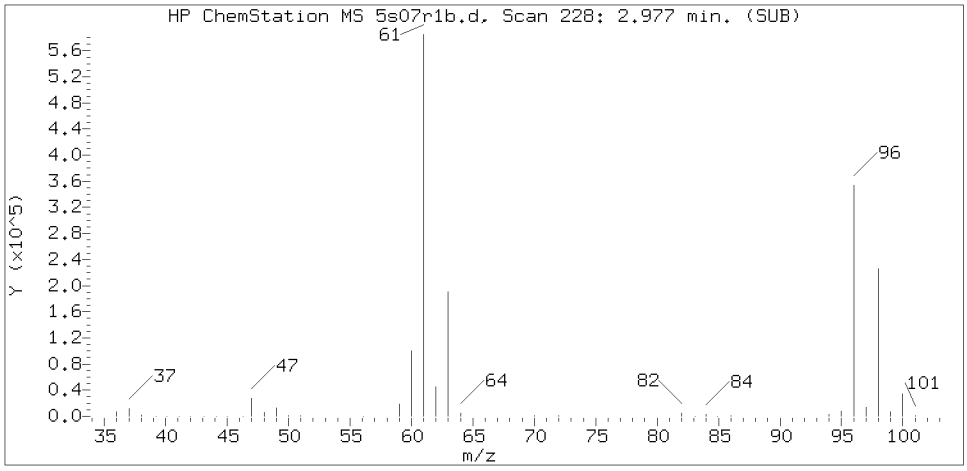
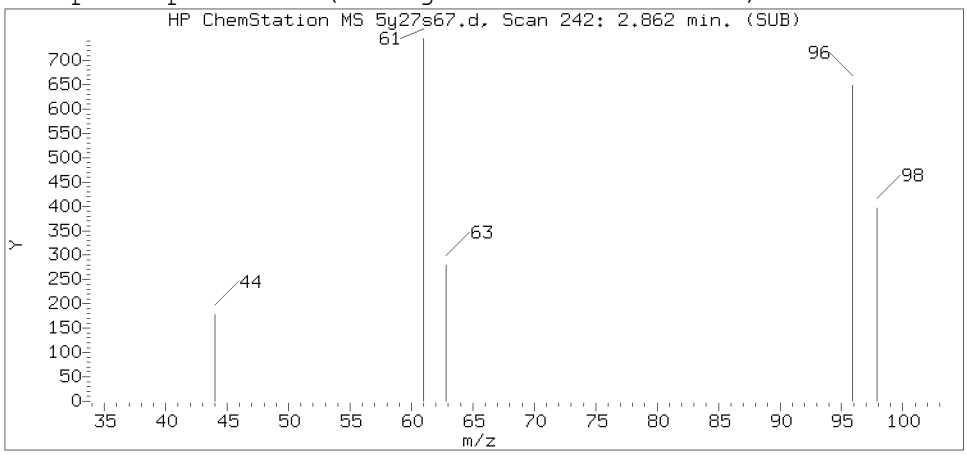
on 05/28/2020 at 12:55.
Target 3.5 esignature user ID: lcp00895

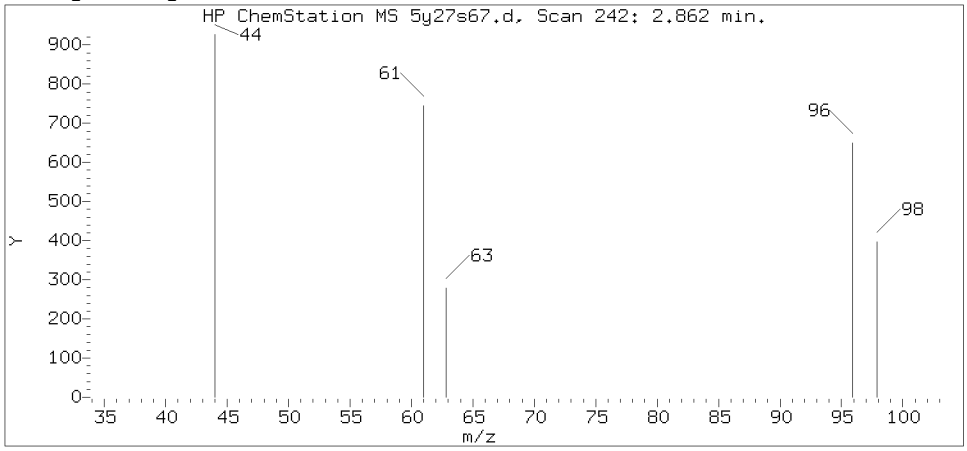
Reference Standard Spectrum for 1,1-Dichloroethene

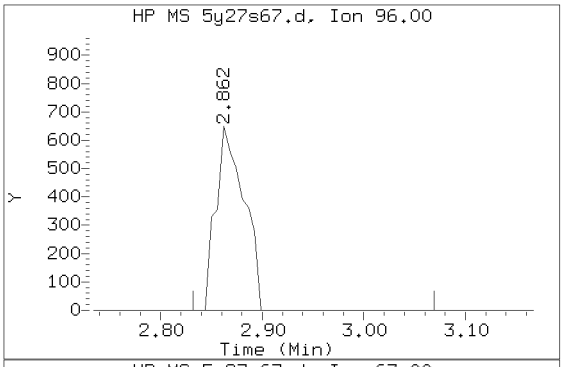


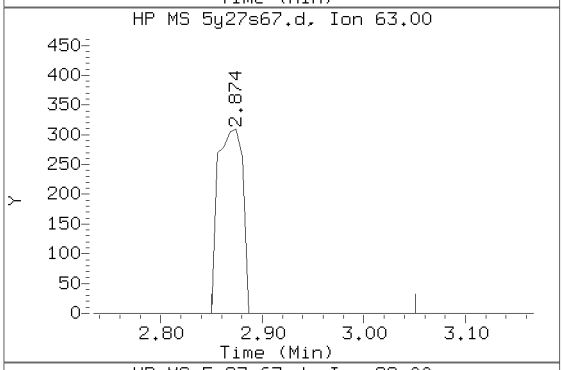
Sample Spectrum (Background Subtracted)

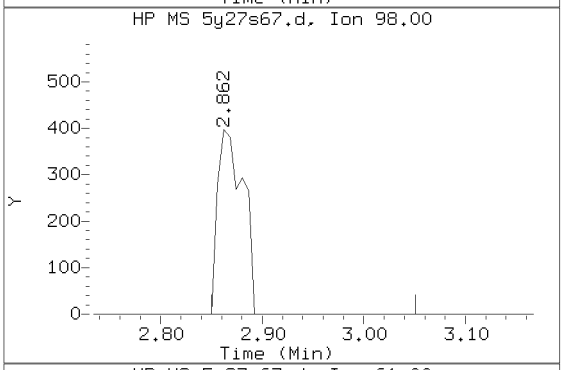


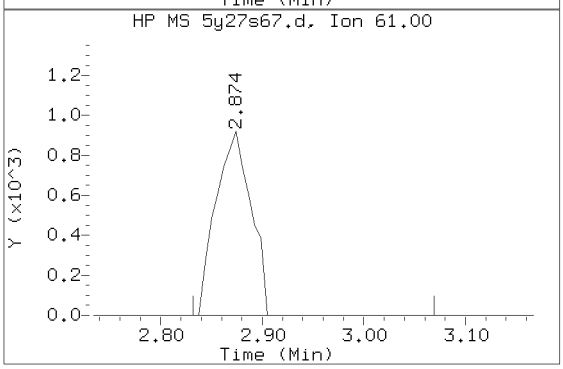
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 242
Retention Time (minutes): 2.862
Relative Retention Time : 0.00090
Quant Ion : 96.00
Area (flag) : 1252
On-Column Amount (ng) : 0.3032

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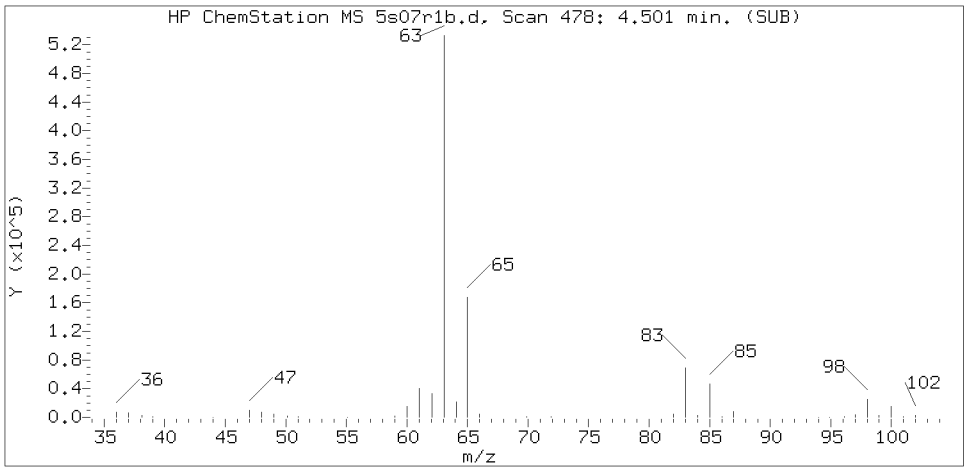
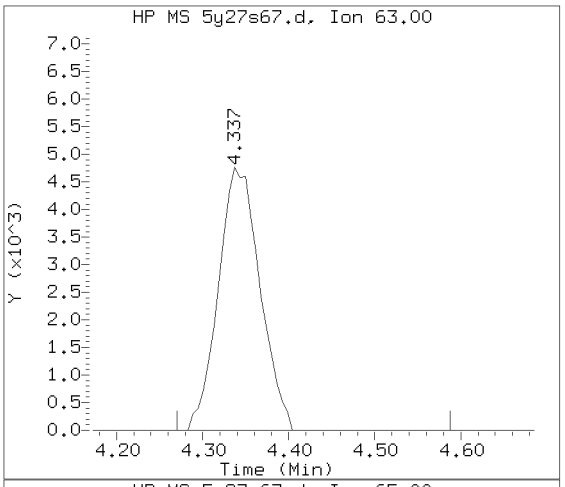
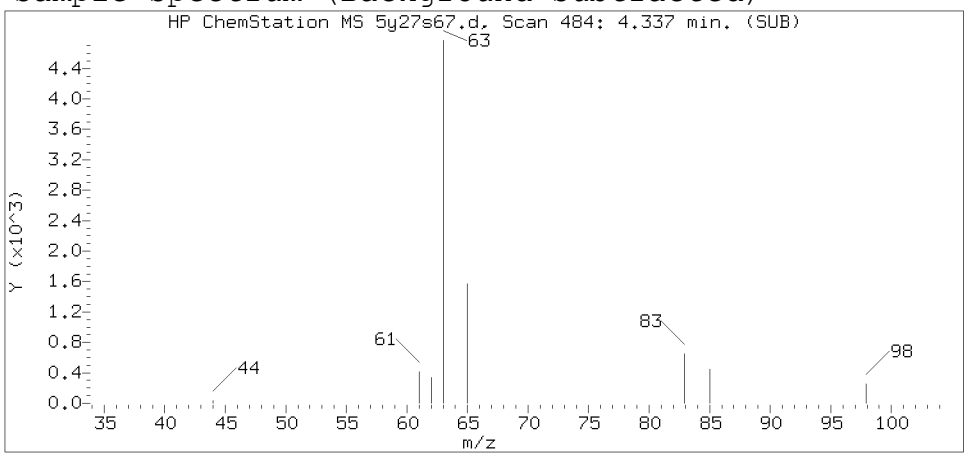
Target 3.5 esignature user ID: lcp00895

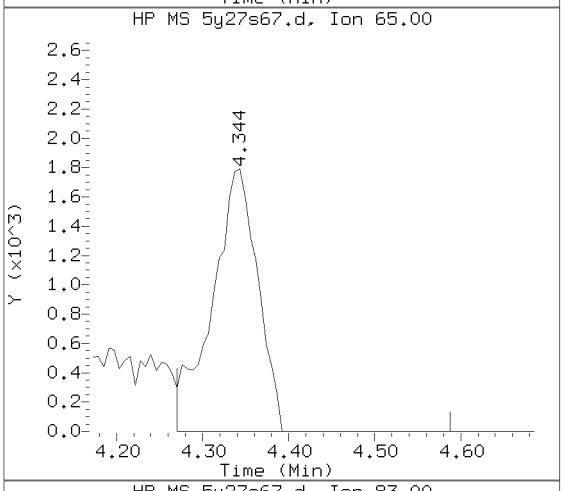
Reference Standard Spectrum for 1,1-Dichloroethane



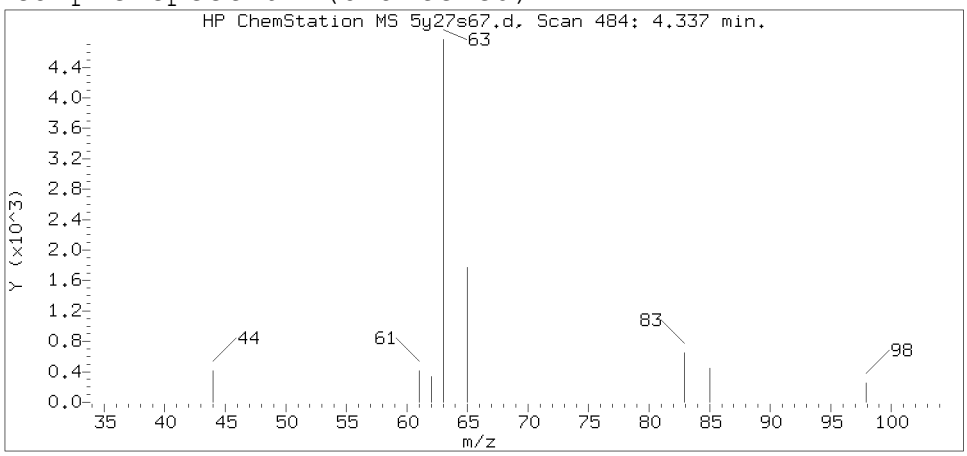


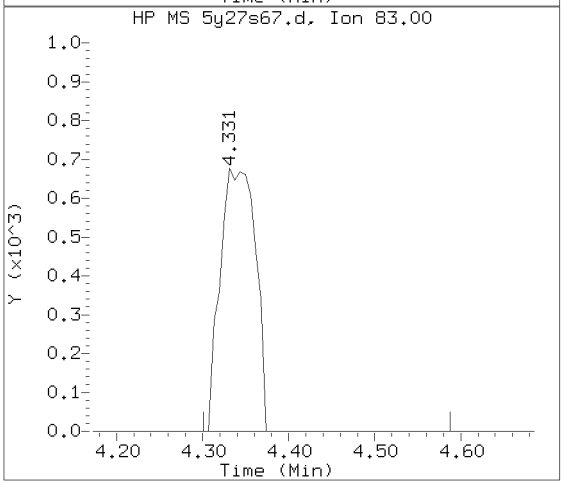
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 484
Retention Time (minutes): 4.337
Relative Retention Time : 0.00089
Quant Ion : 63.00
Area (flag) : 15991
On-Column Amount (ng) : 1.9105

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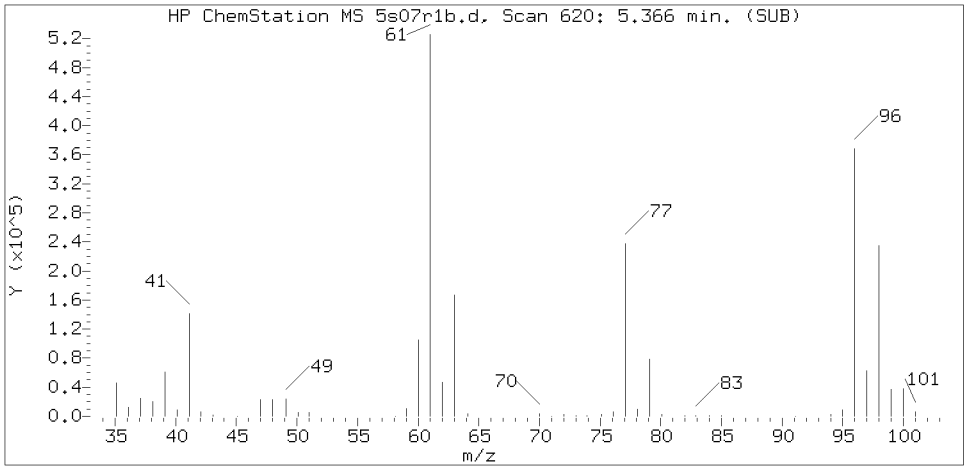
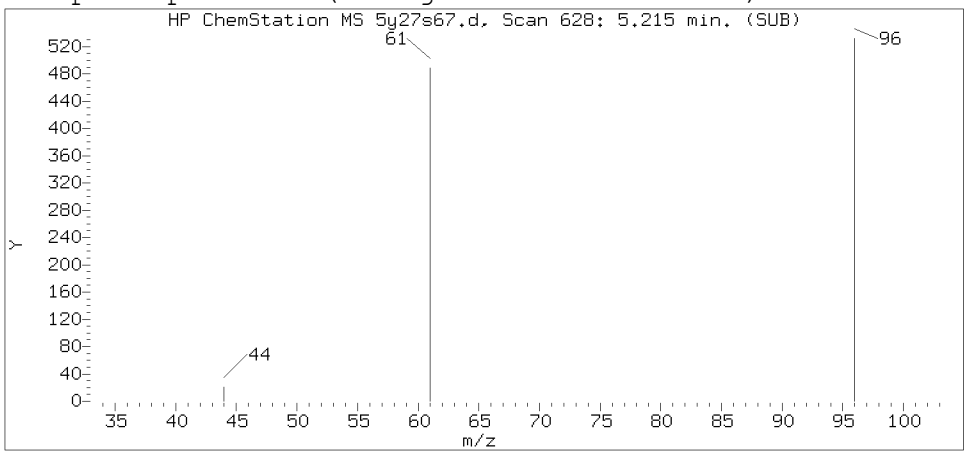
Target 3.5 esignature user ID: lcp00895

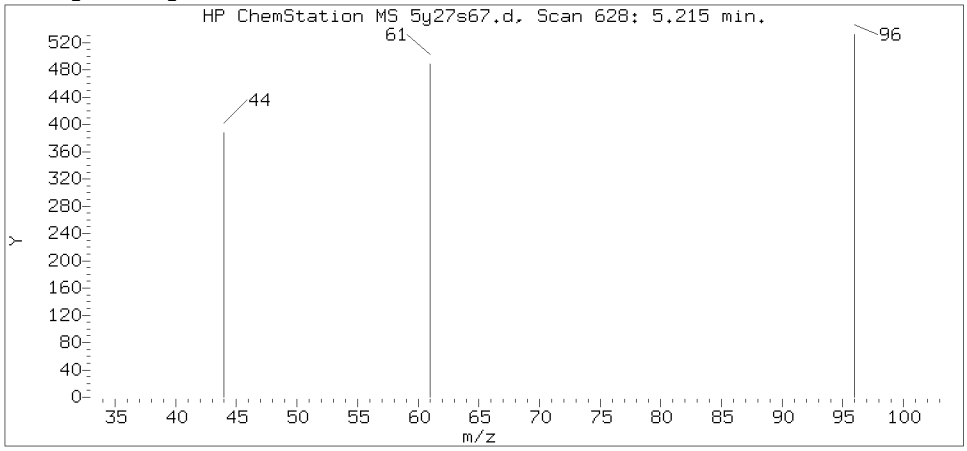
Reference Standard Spectrum for cis-1,2-Dichloroethene

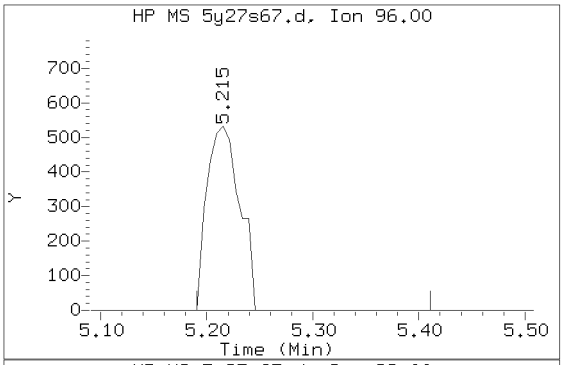


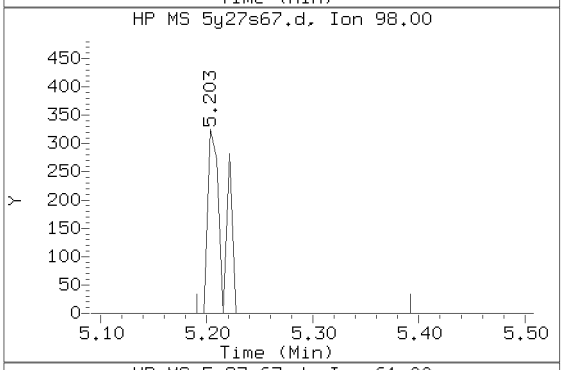
Sample Spectrum (Background Subtracted)

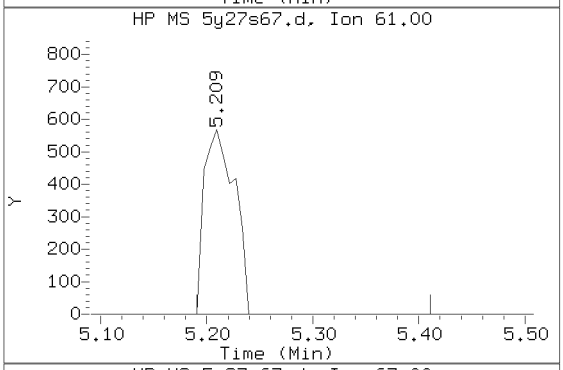


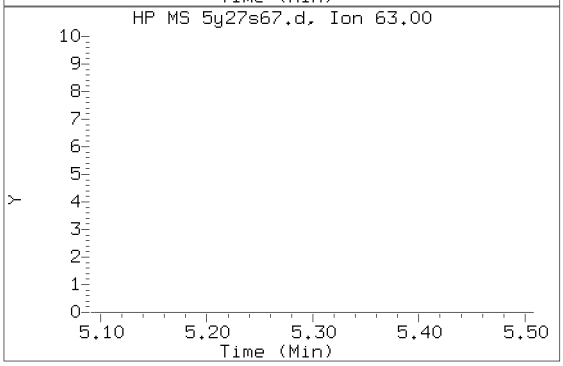
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 628
Retention Time (minutes): 5.215
Relative Retention Time :-0.00088
Quant Ion : 96.00
Area (flag) : 1148
On-Column Amount (ng) : 0.2196

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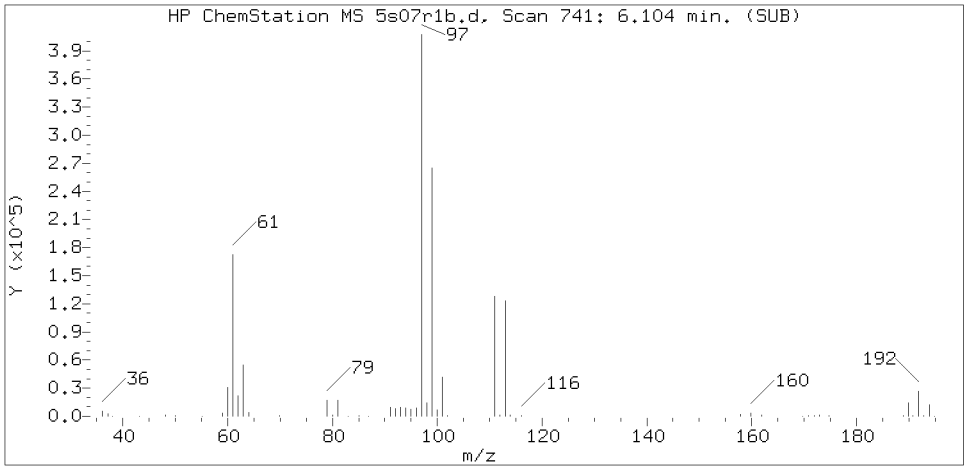
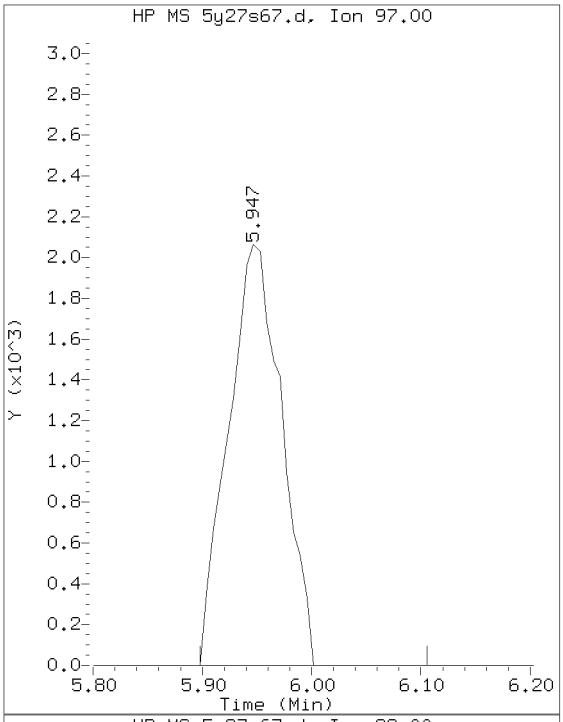
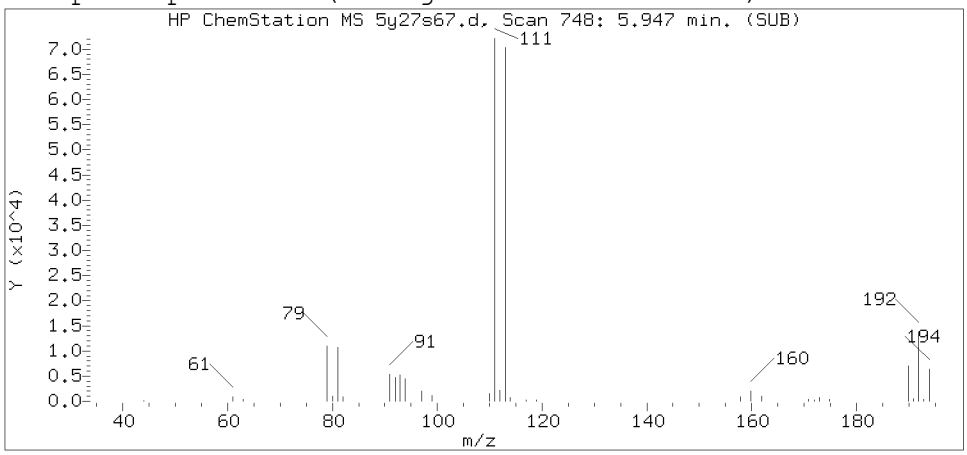
Target 3.5 esignature user ID: lcp00895

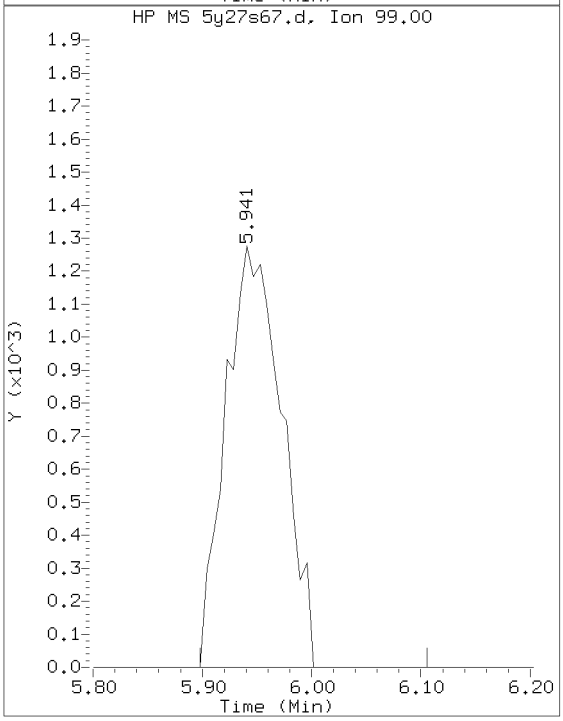
Reference Standard Spectrum for 1,1,1-Trichloroethane



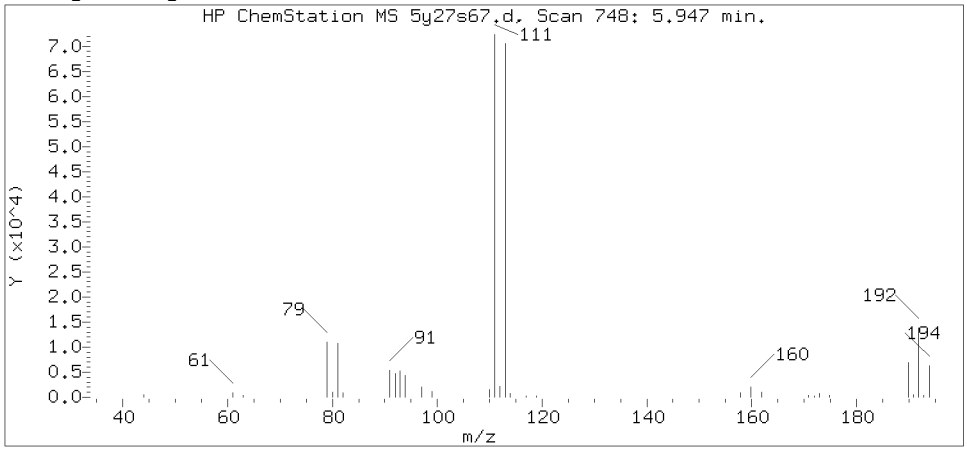


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

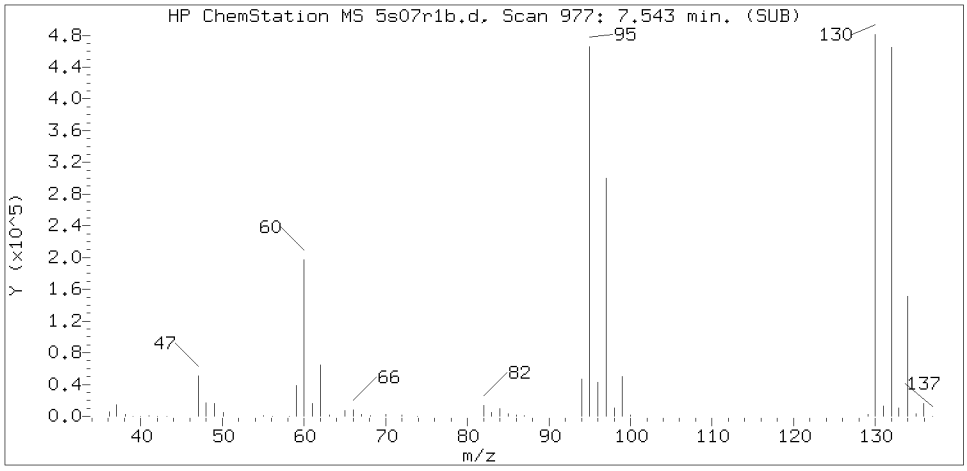
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

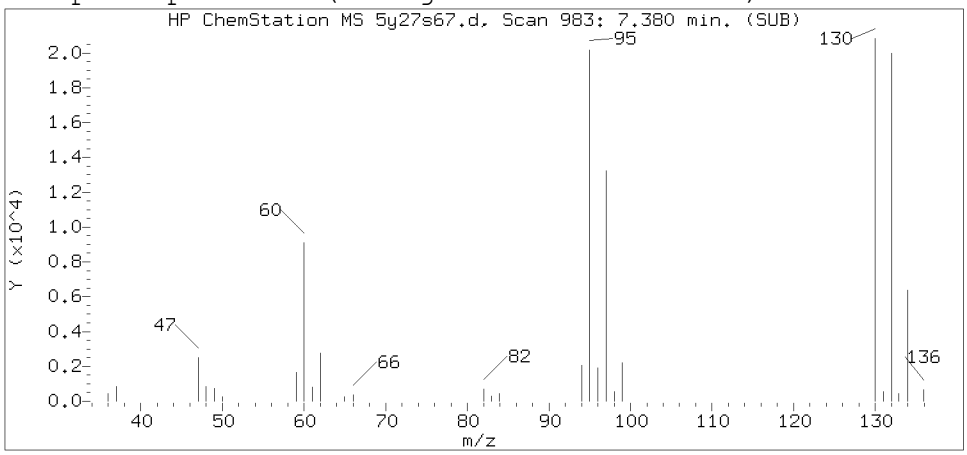
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 748
Retention Time (minutes): 5.947
Relative Retention Time : 0.00001
Quant Ion : 97.00
Area (flag) : 6993
On-Column Amount (ng) : 0.9253

Digitally signed by Linda C. Pape on 05/28/2020 at 12:55.
Target 3.5 esignature user ID: lcp00895

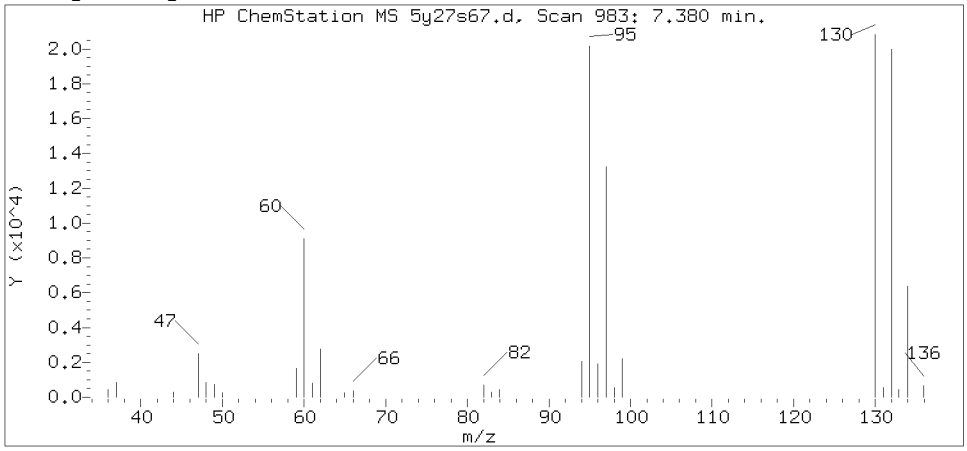
Reference Standard Spectrum for Trichloroethene

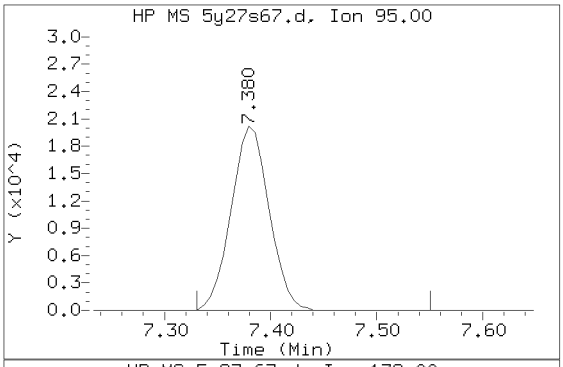


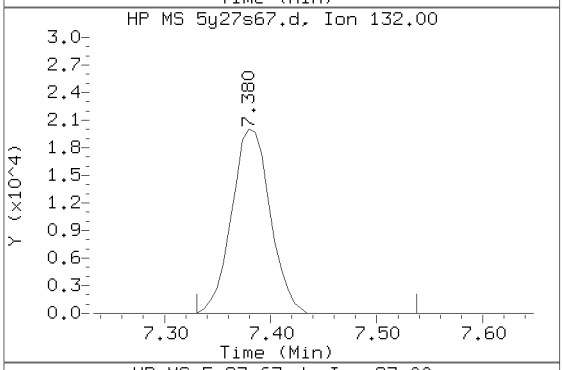
Sample Spectrum (Background Subtracted)

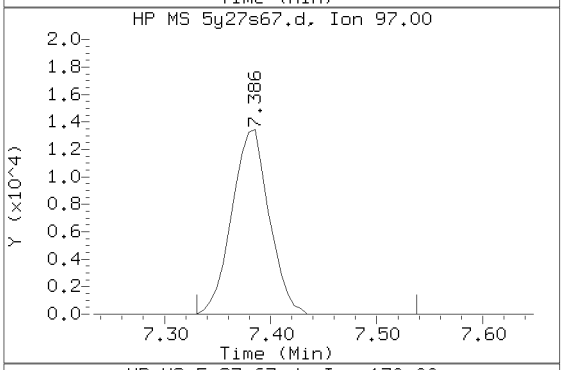


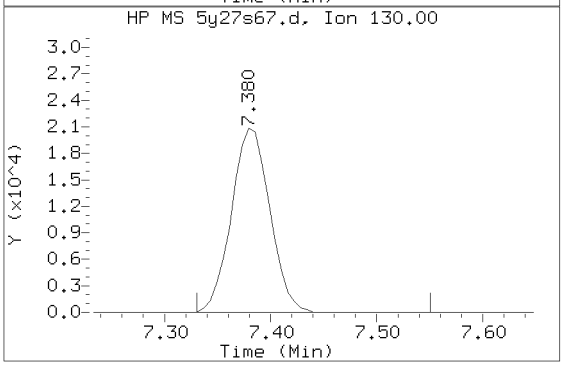
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s67.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 03:29 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 03:47 chemist

Sample Name: W5826 Lab Sample ID: 1318283

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 50326
On-Column Amount (ng) : 9.4190

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Target 3.5 esignature user ID: lcp00895

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5827

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318284

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s57.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	3	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.7	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5827 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318284

Data file: /chem2/HP26285.i/20may27b.b/5y27s57.d Injection date and time: **28-MAY-2020 00:03**
Data file Sample Info. Line: W5827;1318284;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441(-0.018)	337	65	223177 (-3)	250.00	
66) Fluorobenzene	6.874(0.006)	900	96	775324 (-5)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	625965 (-6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	337025 (-10)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947(-0.001)	113	205200	53.136	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422(0.000)	102	45034	52.142	104%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	741160	48.179	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	298424	46.041	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.374(-0.000)	95	18332	3.382	3.38			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.745(0.000)	166	4279	0.744	0.74		J	0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Linda C. Pape on 05/28/2020 at 12:33. Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27s57.d Injection date and time: **28-MAY-2020 00:03**
Data file Sample Info. Line: W5827;1318284;1;0;;JCW58;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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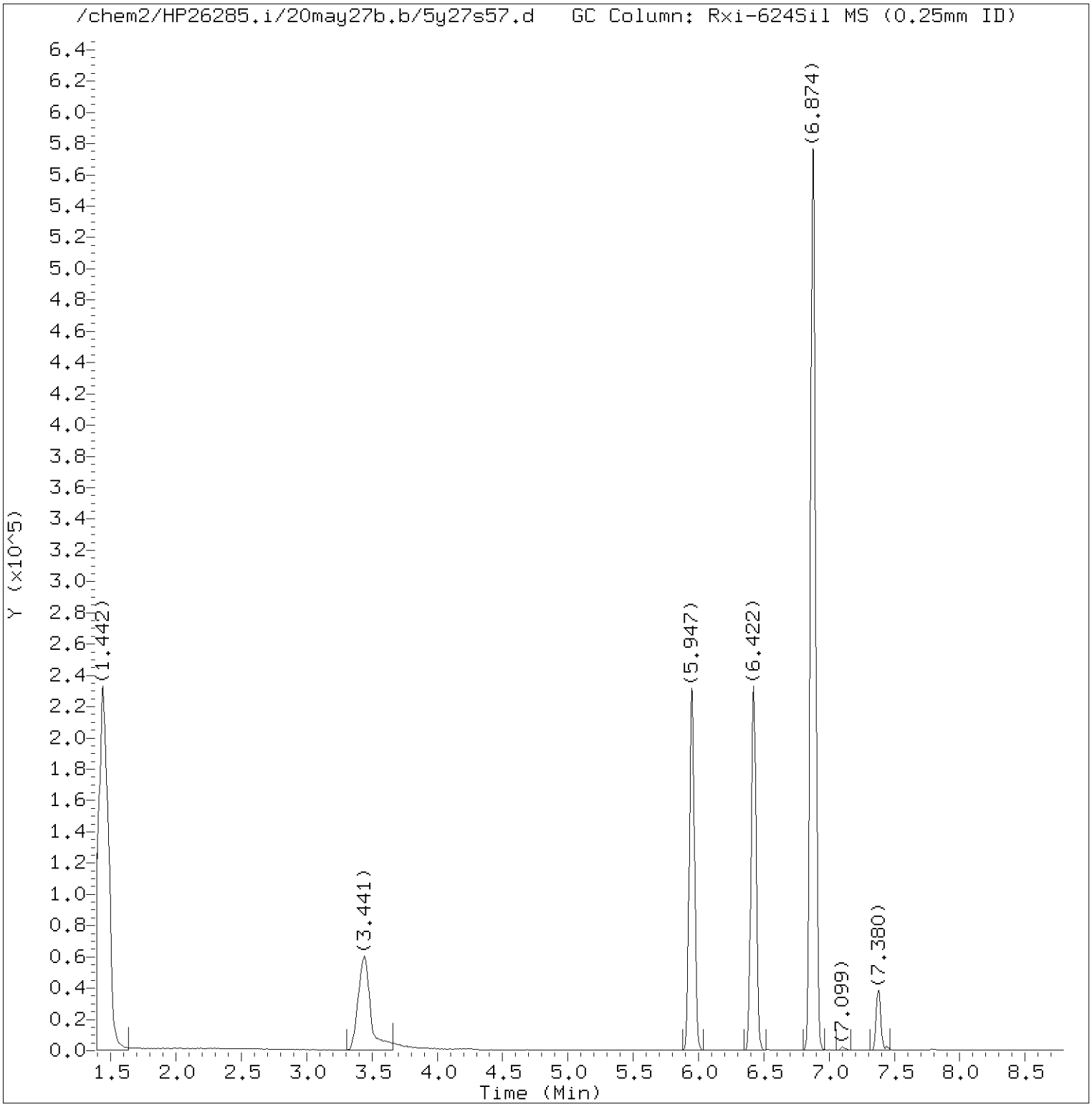
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:33. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

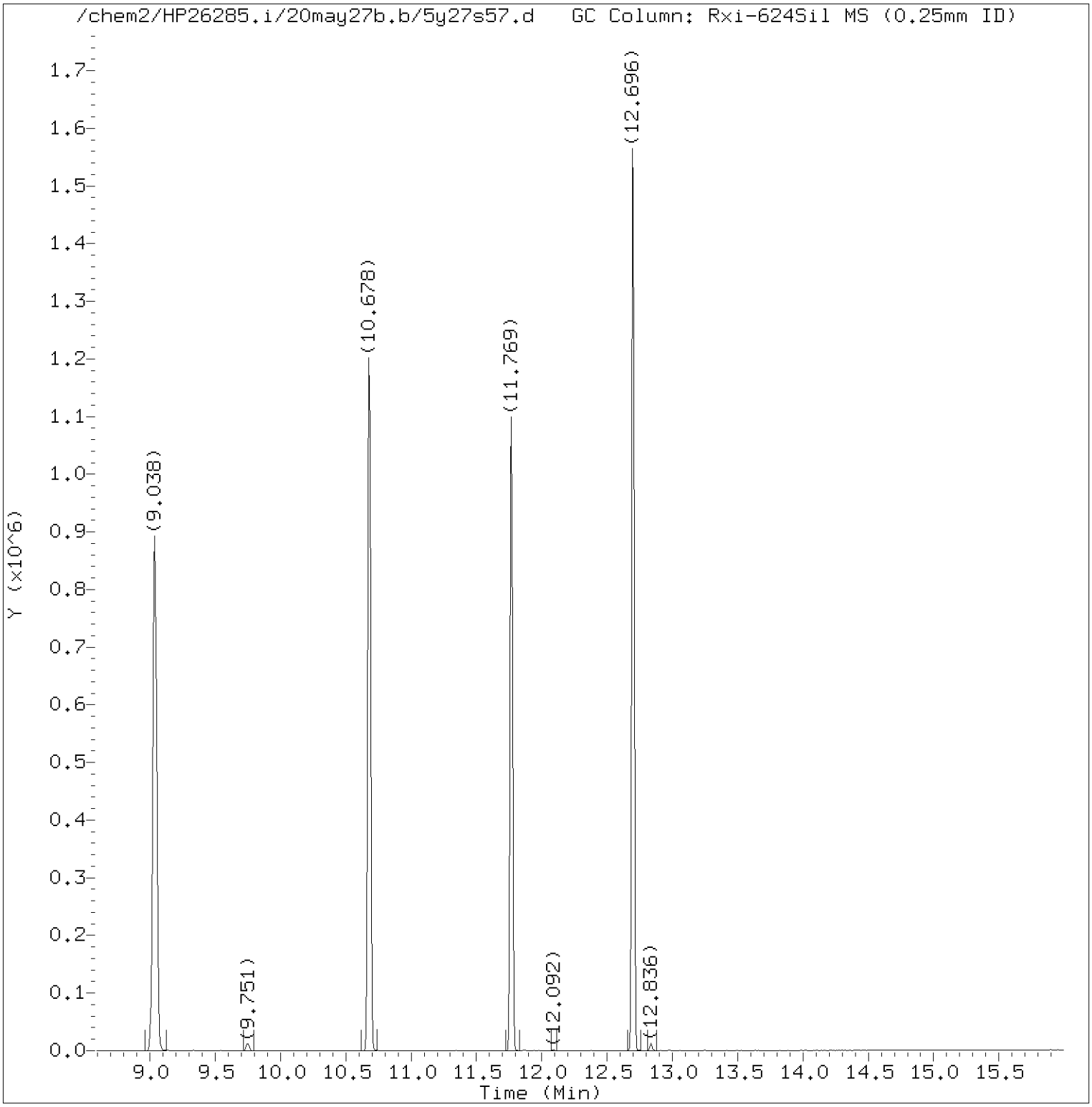
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s57.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:03 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Sample Name: W5827 Lab Sample ID: 1318284

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:33.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s57.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:03 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Sample Name: W5827 Lab Sample ID: 1318284

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:33.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s57.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:03 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Sample Name: W5827 Lab Sample ID: 1318284

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.441	65	223177	250.000
52)$Dibromofluoromethane	(2)	5.947	113	205200	53.136
57)$1,2-Dichloroethane-d4	(2)	6.422	102	45034	52.142
66)*Fluorobenzene	(2)	6.874	96	775324	50.000
71) Trichloroethene	(2)	7.374	95	18332	3.382
84)$Toluene-d8	(3)	9.038	98	741160	48.179
94) Tetrachloroethene	(3)	9.745	166	4279	0.744
101)*Chlorobenzene-d5	(3)	10.678	117	625965	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	298424	46.041
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	337025	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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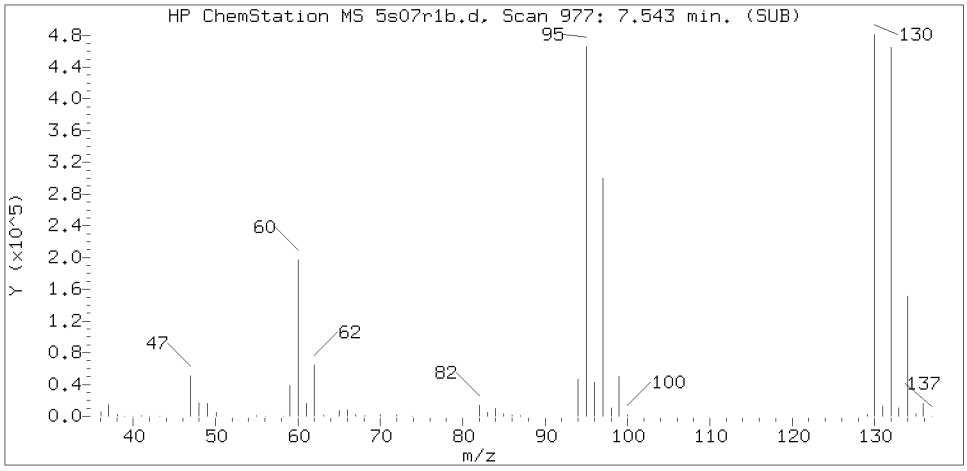
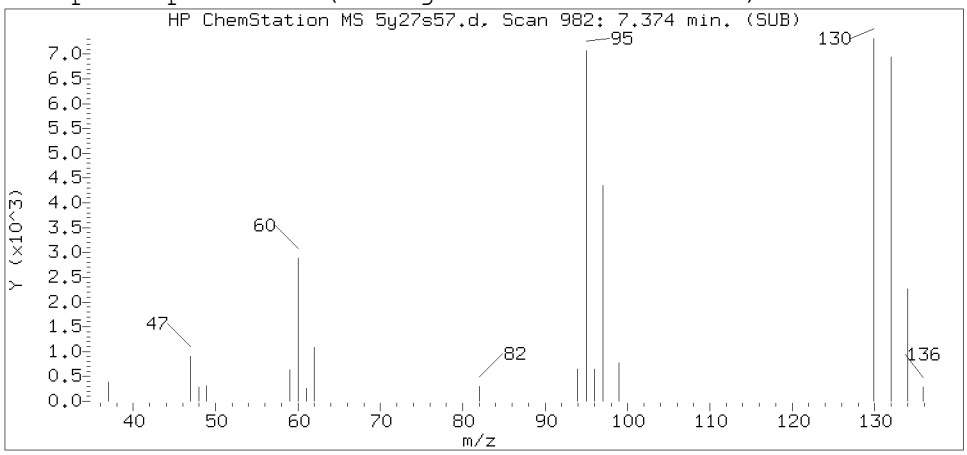
on 05/28/2020 at 12:33.
Target 3.5 esignature user ID: lcp00895

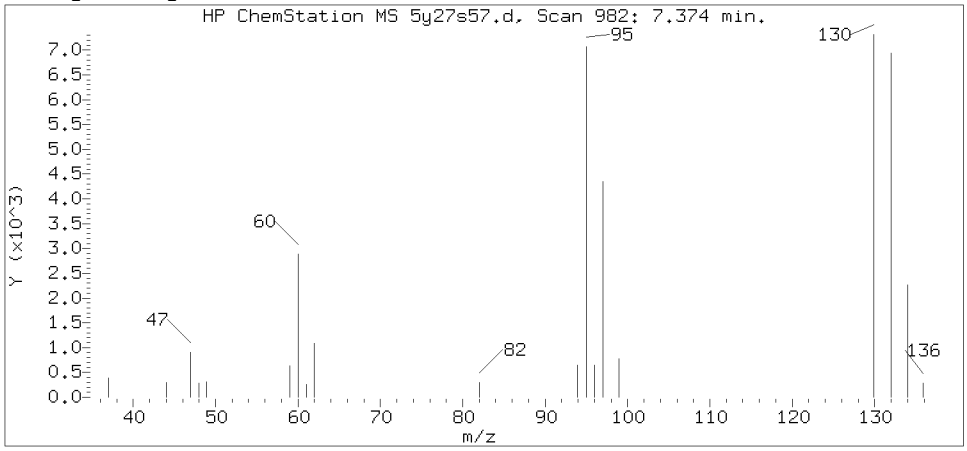
Reference Standard Spectrum for Trichloroethene

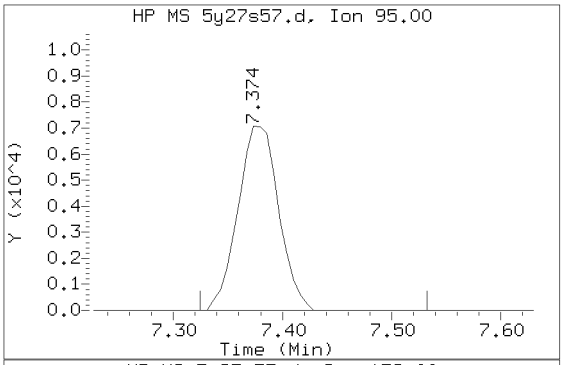


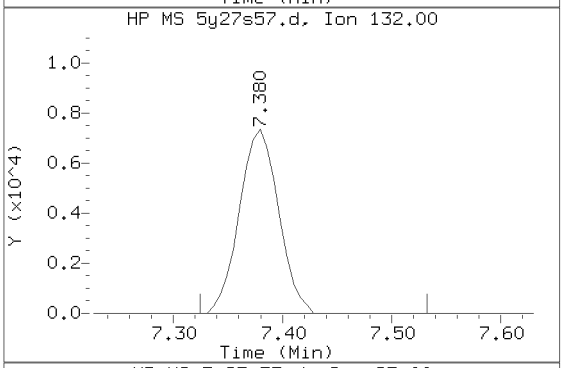
Sample Spectrum (Background Subtracted)

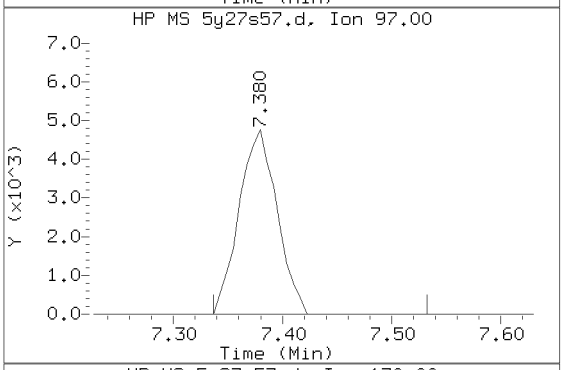


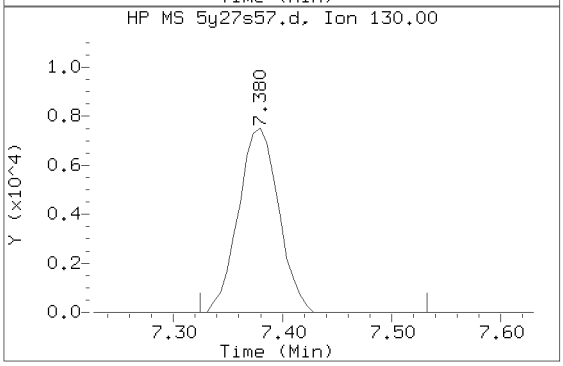
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s57.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:03 Analyst ID: LJG30941

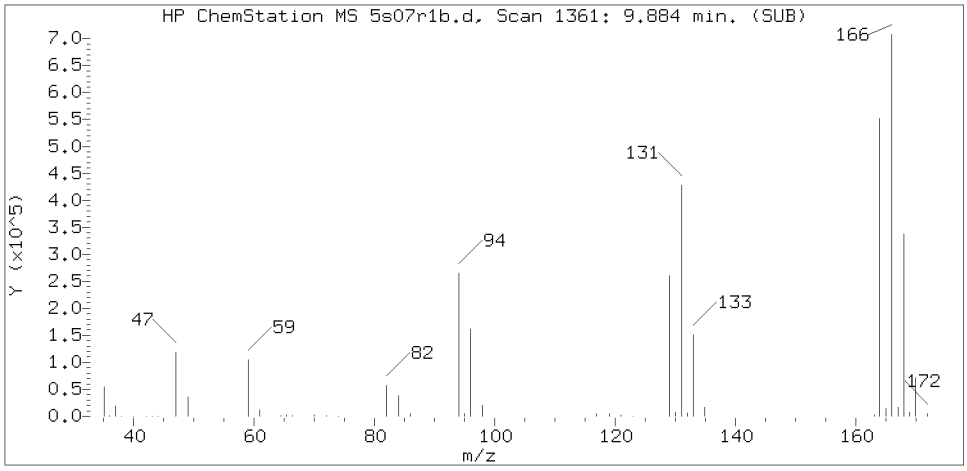
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

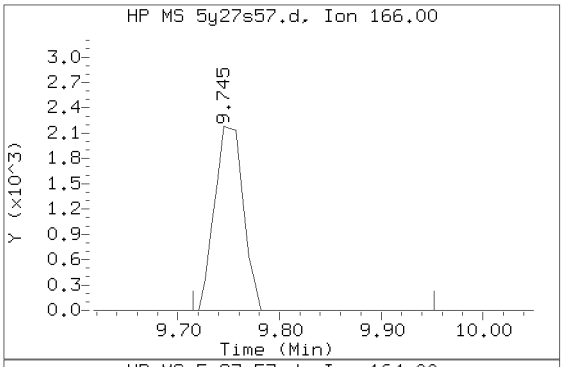
Sample Name: W5827 Lab Sample ID: 1318284

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 982
Retention Time (minutes): 7.374
Relative Retention Time :-0.00006
Quant Ion : 95.00
Area (flag) : 18332
On-Column Amount (ng) : 3.3821

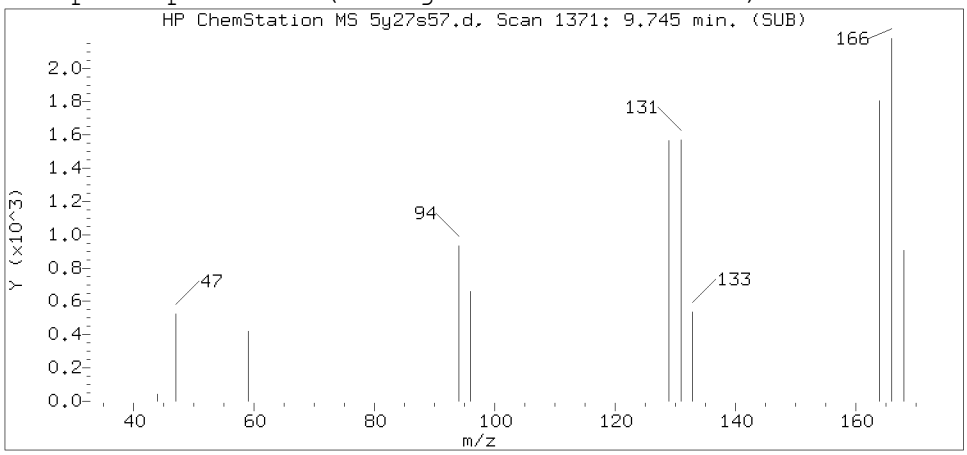
Digitally signed by Linda C. Pape on 05/28/2020 at 12:33.
Target 3.5 esignature user ID: lcp00895

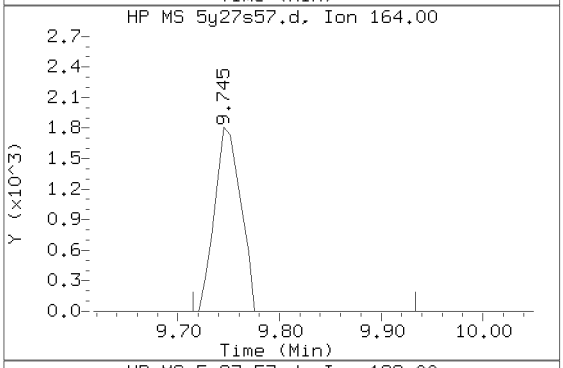
Reference Standard Spectrum for Tetrachloroethene

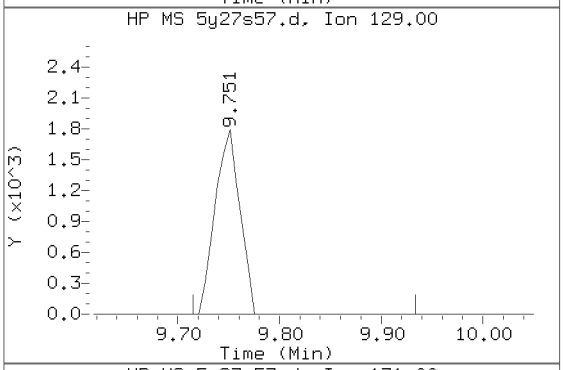




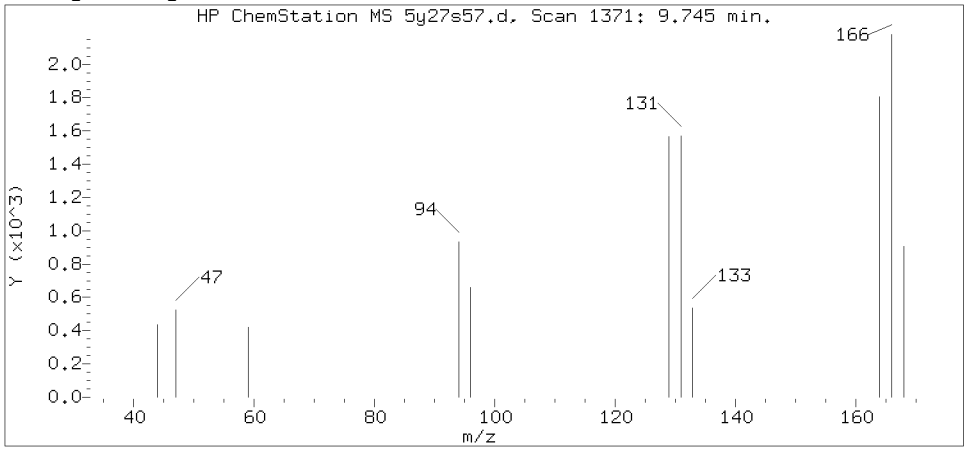
Sample Spectrum (Background Subtracted)

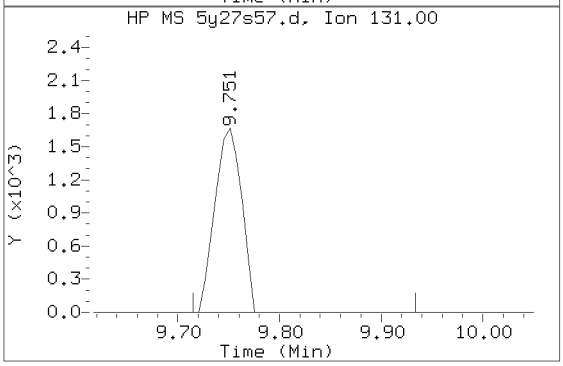






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s57.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:03 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:22 chemist

Sample Name: W5827 Lab Sample ID: 1318284

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1371
Retention Time (minutes): 9.745
Relative Retention Time : 0.00057
Quant Ion : 166.00
Area (flag) : 4279
On-Column Amount (ng) : 0.7439

Digitally signed by Linda C. Pape on 05/28/2020 at 12:33.
Target 3.5 esignature user ID: lcp00895

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may04I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	LY04T02.D	50NGBFB	05/04/2020	11:11		
lcp00895	LY04X01.D	CLNBLK	05/04/2020	11:56		
lcp00895	LY04I01.D	VSTD300	05/04/2020	12:18		
lcp00895	LY04I02.D	VSTD100	05/04/2020	12:40		
lcp00895	LY04I03.D	VSTD050	05/04/2020	13:02		
lcp00895	LY04I04.D	VSTD020	05/04/2020	13:24		
lcp00895	LY04I05.D	VSTD010	05/04/2020	13:46		
lcp00895	LY04I06.D	VSTD004	05/04/2020	14:08		
lcp00895	LY04I07.D	VSTD001	05/04/2020	14:30		
lcp00895	LY04V01.D	ICVLLG	05/04/2020	14:52		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5A21T01.D	50 ng BFB	04/21/2020	20:36		
KAS02648	5A21X01.D	BLK	04/21/2020	20:59		
KAS02648	5A21I01.D	VSTD300	04/21/2020	21:19		
KAS02648	5A21I02.D	VSTD100	04/21/2020	21:40		
KAS02648	5A21I03.D	VSTD050	04/21/2020	22:00		
KAS02648	5A21I04.D	VSTD020	04/21/2020	22:21		
KAS02648	5A21I05.D	VSTD010	04/21/2020	22:42		
KAS02648	5A21I06.D	VSTD004	04/21/2020	23:02		
KAS02648	5A21I07.D	VSTD001	04/21/2020	23:23		
KAS02648	5A21X02.D	BLK	04/21/2020	23:44		
KAS02648	5A21V01.D	LG5ICV	04/22/2020	00:05		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may29a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
CLM27445	LY29T01.D	50NGBFB	05/29/2020	08:42	L201501AA	
CLM27445	LY29T02.D	50NGBFB	05/29/2020	08:58	L201501AA	
CLM27445	LY29X00.D	VBLKL02	05/29/2020	09:28	L201501AA	
CLM27445	LY29C01.D	VSTD050	05/29/2020	09:50	L201501AA	
CLM27445	LY29C02.D	VSTD050	05/29/2020	10:11	L201501AA	
CLM27445	LY29X01.D	VBLKL02	05/29/2020	10:33	L201501AA	
CLM27445	LY29S01.D	LCSL02	05/29/2020	10:55	L201501AA	
CLM27445	LY29S02.D	LCSL04	05/29/2020	11:17	L201501AA	
CLM27445	LY29R01.D	LCSL02	05/29/2020	11:39	L201501AA	
CLM27445	LY29B01.D	VBLKL02	05/29/2020	12:01	L201501AA	
CLM27445	LY29S03.D	1318540	05/29/2020	12:50	L201501AA	
CLM27445	LY29S04.D	1318541MS	05/29/2020	13:12	L201501AA	
CLM27445	LY29S05.D	1318542MSD	05/29/2020	13:34	L201501AA	
CLM27445	LY29S06.D	1318541MS	05/29/2020	13:56	L201501AA	
CLM27445	LY29S07.D	1318542MSD	05/29/2020	14:18	L201501AA	
CLM27445	LY29S33.D	1318257	05/29/2020	14:40	L201502AA	
CLM27445	LY29S34.D	1318258MS	05/29/2020	15:02	L201502AA	
CLM27445	LY29S35.D	1318259MSD	05/29/2020	15:24	L201502AA	
CLM27445	LY29S36.D	1318258MS	05/29/2020	15:46	L201502AA	
CLM27445	LY29S37.D	1318259MSD	05/29/2020	16:08	L201502AA	
CLM27445	LY29S08.D	1318514	05/29/2020	16:30	L201501AA	
CLM27445	LY29S09.D	1318515	05/29/2020	16:52	L201501AA	
CLM27445	LY29S10.D	1318516	05/29/2020	17:14	L201501AA	
CLM27445	LY29S11.D	1318517	05/29/2020	17:36	L201501AA	
CLM27445	LY29S12.D	1318518	05/29/2020	17:58	L201501AA	
CLM27445	LY29S13.D	1318538	05/29/2020	18:20	L201501AA	
CLM27445	LY29S14.D	1318539	05/29/2020	18:42	L201501AA	
CLM27445	LY29S15.D	1317596	05/29/2020	19:04	L201501AA	
CLM27445	LY29S38.D	1316943	05/29/2020	19:26	L201502AA	
CLM27445	LY29S39.D	1316943DL	05/29/2020	19:48	L201502AA	10
CLM27445	LY29S40.D	1316949	05/29/2020	20:10	L201502AA	2
CLM27445	LY29S41.D	1316949DL	05/29/2020	20:32	L201502AA	20
CLM27445	LY29EC5.D	SECC050	05/29/2020	20:54	L201501AA	
CLM27445	LY29EC6.D	SECA050	05/29/2020	21:16	L201501AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may31a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
dvv10203	LY31T01.D	50NGBFB	05/31/2020	10:45		
DVV10203	LY31X01.D	BLK	05/31/2020	11:01	L201521AA	
DVV10203	LY31C01.D	VSTD050	05/31/2020	11:23	L201521AA	
DVV10203	LY31S01.D	LCSL11	05/31/2020	11:45	L201521AA	
DVV10203	LY31R01.D	RLVL11	05/31/2020	12:07	L201521AA	
DVV10203	LY31B01.D	VBLKL11	05/31/2020	12:29	L201521AA	
DVV10203	LY31S02.D	1318897	05/31/2020	12:51	L201521AA	
DVV10203	LY31S03.D	1321015	05/31/2020	13:13	L201521AA	
DVV10203	LY31S04.D	1318256	05/31/2020	13:35	L201521AA	
DVV10203	LY31S05.D	1318256MS	05/31/2020	13:57	L201521AA	
DVV10203	LY31S06.D	1318256MSD	05/31/2020	14:19	L201521AA	
DVV10203	LY31X02.D	BLK	05/31/2020	14:41	L201521AA	
DVV10203	LY31S07.D	1320082	05/31/2020	15:03	L201521AA	
DVV10203	LY31S08.D	1320084	05/31/2020	15:25	L201521AA	
DVV10203	LY31S09.D	1320086	05/31/2020	15:47	L201521AA	
DVV10203	LY31S10.D	1320088	05/31/2020	16:09	L201521AA	
DVV10203	LY31S11.D	1320089	05/31/2020	16:31	L201521AA	
DVV10203	LY31S12.D	1318864	05/31/2020	16:52	L201521AA	
DVV10203	LY31S13.D	1318864DL	05/31/2020	17:14	L201521AA	10
DVV10203	LY31S14.D	1320776	05/31/2020	17:36	L201521AA	
DVV10203	LY31S15.D	1320776DL	05/31/2020	17:58	L201521AA	10
DVV10203	LY31S16.D	1318887	05/31/2020	18:20	L201521AA	
DVV10203	LY31S17.D	1318888	05/31/2020	18:42	L201521AA	
DVV10203	LY31S18.D	1318889	05/31/2020	19:04	L201521AA	
DVV10203	LY31S19.D	1318890	05/31/2020	19:26	L201521AA	
DVV10203	LY31S20.D	1318891	05/31/2020	19:48	L201521AA	
DVV10203	LY31S21.D	1318892	05/31/2020	20:10	L201521AA	
DVV10203	LY31S22.D	1318893	05/31/2020	20:32	L201521AA	
DVV10203	LY31S23.D	1318894	05/31/2020	20:54	L201521AA	
DVV10203	LY31S24.D	1318895	05/31/2020	21:16	L201521AA	
DVV10203	LY31S25.D	1318896	05/31/2020	21:38	L201521AA	
DVV10203	LY31S26.D	1321013	05/31/2020	22:00	L201521AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20MAY27A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	5Y27T01.D	50 ng BFB	05/27/2020	07:59		
LCP00895	5Y27X00.D	CBLK	05/27/2020	08:26	5201481AA	
LCP00895	5Y27C01.D	VSTD050	05/27/2020	08:46	5201481AA	
LCP00895	5Y27X01.D	CBLK	05/27/2020	09:07	5201481AA	
LCP00895	5Y27S01.D	LCS572	05/27/2020	09:27	5201481AA	
LCP00895	5Y27R01.D	RLV572	05/27/2020	09:48	5201481AA	
LCP00895	5Y27B01.D	VBLK572	05/27/2020	10:08	5201481AA	
LCP00895	5Y27S02.D	1319246	05/27/2020	10:29	5201481AA	
LCP00895	5Y27S03.D	1319248	05/27/2020	10:50	5201481AA	
LCP00895	5Y27S04.D	1319229	05/27/2020	11:10	5201481AA	
LCP00895	5Y27S05.D	1319230MS	05/27/2020	11:31	5201481AA	
LCP00895	5Y27S06.D	1319231MSD	05/27/2020	11:52	5201481AA	
LCP00895	5Y27S07.D	1319239	05/27/2020	12:12	5201481AA	
LCP00895	5Y27S08.D	1319242	05/27/2020	12:33	5201481AA	
LCP00895	5Y27S09.D	1319251	05/27/2020	12:53	5201481AA	
LCP00895	5Y27S10.D	1319251DL	05/27/2020	13:14	5201481AA	10
LCP00895	5Y27S11.D	1318263	05/27/2020	13:34	5201481AA	
LCP00895	5Y27S12.D	1318277	05/27/2020	13:55	5201481AA	
LCP00895	5Y27S13.D	1318292	05/27/2020	14:16	5201481AA	
LCP00895	5Y27S14.D	1318293	05/27/2020	14:36	5201481AA	
LCP00895	5Y27S15.D	1318293DL	05/27/2020	14:57	5201481AA	10
LCP00895	5Y27S16.D	1318295	05/27/2020	15:17	5201481AA	
LCP00895	5Y27S17.D	1318295DL	05/27/2020	15:38	5201481AA	10
LCP00895	5Y27S18.D	1318296	05/27/2020	15:58	5201481AA	
LCP00895	5Y27S19.D	1318296DL	05/27/2020	16:19	5201481AA	10
LCP00895	5Y27S20.D	1318297	05/27/2020	16:40	5201481AA	
LCP00895	5Y27S21.D	1318298	05/27/2020	17:01	5201481AA	
LCP00895	5Y27S22.D	1318299	05/27/2020	17:21	5201481AA	
LCP00895	5Y27S23.D	1318300	05/27/2020	17:42	5201481AA	
LCP00895	5Y27S24.D	1318301	05/27/2020	18:03	5201481AA	
LCP00895	5Y27S25.D	1318302	05/27/2020	18:23	5201481AA	
LCP00895	5Y27S26.D	1318303	05/27/2020	18:44	5201481AA	
LCP00895	5Y27S27.D	1318294	05/27/2020	19:05	5201481AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20MAY27B\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LJG30941	5Y27T50.D	50 ng BFB	05/27/2020	19:29		
LJG30941	5Y27T51.D	50 ng BFB	05/27/2020	19:39		
LJG30941	5Y27X50.D	BLK	05/27/2020	19:52	5201482AA	
LJG30941	5Y27C50.D	VSTD050	05/27/2020	20:12	5201482AA	
LJG30941	5Y27L50.D	LCS573	05/27/2020	20:33	5201482AA	
LJG30941	5Y27L51.D	LCD573	05/27/2020	20:53	5201482AA	
LJG30941	5Y27R50.D	RLV573	05/27/2020	21:14	5201482AA	
LJG30941	5Y27B50.D	VBLK573	05/27/2020	21:35	5201482AA	
LJG30941	5Y27S51.D	1319994	05/27/2020	22:00	5201482AA	
LJG30941	5Y27S52.D	1319996	05/27/2020	22:20	5201482AA	
LJG30941	5Y27S53.D	1318278	05/27/2020	22:41	5201482AA	
LJG30941	5Y27S54.D	1318280	05/27/2020	23:02	5201482AA	
LJG30941	5Y27S55.D	1318281	05/27/2020	23:22	5201482AA	
LJG30941	5Y27S56.D	1318282	05/27/2020	23:43	5201482AA	
LJG30941	5Y27S57.D	1318284	05/28/2020	00:03	5201482AA	
LJG30941	5Y27S58.D	1318304	05/28/2020	00:24	5201482AA	
LJG30941	5Y27S59.D	1318305	05/28/2020	00:44	5201482AA	
LJG30941	5Y27S60.D	1318306	05/28/2020	01:05	5201482AA	
LJG30941	5Y27S61.D	1319980	05/28/2020	01:26	5201482AA	
LJG30941	5Y27S62.D	1319981MS	05/28/2020	01:46	5201482AA	
LJG30941	5Y27S63.D	1319982MSD	05/28/2020	02:07	5201482AA	
LJG30941	5Y27S64.D	1319990	05/28/2020	02:28	5201482AA	
LJG30941	5Y27S65.D	1318294DL	05/28/2020	02:48	5201482AA	10
LJG30941	5Y27S66.D	1318279	05/28/2020	03:09	5201482AA	
LJG30941	5Y27S67.D	1318283	05/28/2020	03:29	5201482AA	
LJG30941	5Y27S68.D	1319251DL2	05/28/2020	03:50	5201482AA	100
LJG30941	5Y27S69.D	1314747	05/28/2020	04:10	5201482AA	20
LJG30941	5Y27S70.D	1314747MS	05/28/2020	04:31	5201482AA	20
LJG30941	5Y27S71.D	1316625	05/28/2020	04:52	5201482AA	20
LJG30941	5Y27X81.D	BLK	05/28/2020	05:12	5201484AA	
LJG30941	5Y27S80.D	1317516DL2	05/28/2020	05:33	5201484AA	20
LJG30941	5Y27S81.D	1320777	05/28/2020	05:54	5201484AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20may29a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
CLM27445	5Y29T01.D	50NGBFB	05/29/2020	09:29	5201501AA	
CLM27445	5Y29X00.D	VBLK578	05/29/2020	09:50	5201501AA	
CLM27445	5Y29C01.D	VSTD050	05/29/2020	10:11	5201501AA	
CLM27445	5Y29X01.D	VBLK578	05/29/2020	10:31	5201501AA	
CLM27445	5Y29S01.D	LCS578	05/29/2020	10:52	5201501AA	
CLM27445	5Y29R01.D	RLV578	05/29/2020	11:12	5201501AA	
CLM27445	5Y29B01.D	VBLK578	05/29/2020	11:33	5201501AA	
CLM27445	5Y29S02.D	1318262	05/29/2020	12:12	5201501AA	
CLM27445	5Y29S03.D	1318286	05/29/2020	12:33	5201501AA	
CLM27445	5Y29S04.D	1318287MS	05/29/2020	12:53	5201501AA	
CLM27445	5Y29S05.D	1318288MSD	05/29/2020	13:14	5201501AA	
CLM27445	5Y29S06.D	1318260	05/29/2020	13:35	5201501AA	
CLM27445	5Y29S07.D	1318261	05/29/2020	13:55	5201501AA	
CLM27445	5Y29S08.D	1318264	05/29/2020	14:16	5201501AA	
CLM27445	5Y29S09.D	1318265	05/29/2020	14:36	5201501AA	
CLM27445	5Y29S10.D	1318266	05/29/2020	14:57	5201501AA	
CLM27445	5Y29S11.D	1318267	05/29/2020	15:17	5201501AA	
CLM27445	5Y29S12.D	1318268	05/29/2020	15:38	5201501AA	
CLM27445	5Y29S13.D	1318269	05/29/2020	15:59	5201501AA	
CLM27445	5Y29S14.D	1318270	05/29/2020	16:19	5201501AA	
CLM27445	5Y29S15.D	1318271	05/29/2020	16:40	5201501AA	
CLM27445	5Y29S16.D	1318272	05/29/2020	17:00	5201501AA	
CLM27445	5Y29S17.D	1318273	05/29/2020	17:21	5201501AA	
CLM27445	5Y29S18.D	1318274	05/29/2020	17:42	5201501AA	
CLM27445	5Y29S19.D	1318275	05/29/2020	18:02	5201501AA	
CLM27445	5Y29S20.D	1318276	05/29/2020	18:23	5201501AA	
CLM27445	5Y29S21.D	1318285	05/29/2020	18:44	5201501AA	
CLM27445	5Y29S22.D	1318289	05/29/2020	19:04	5201501AA	
CLM27445	5Y29S23.D	1318290	05/29/2020	19:25	5201501AA	
CLM27445	5Y29S24.D	1318291	05/29/2020	19:46	5201501AA	

Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

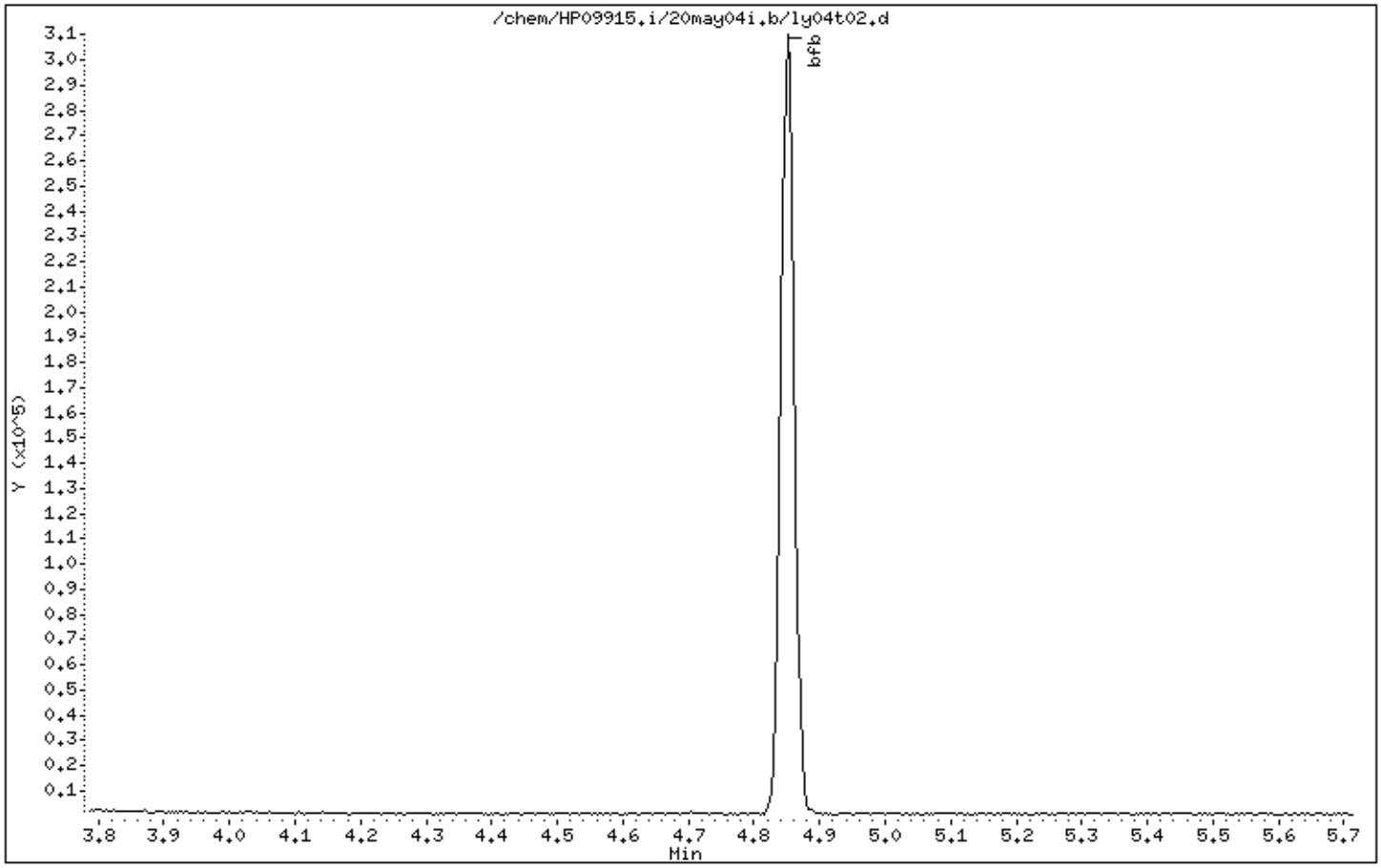
Instrument: HP09915.i

Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

Instrument: HP09915.i

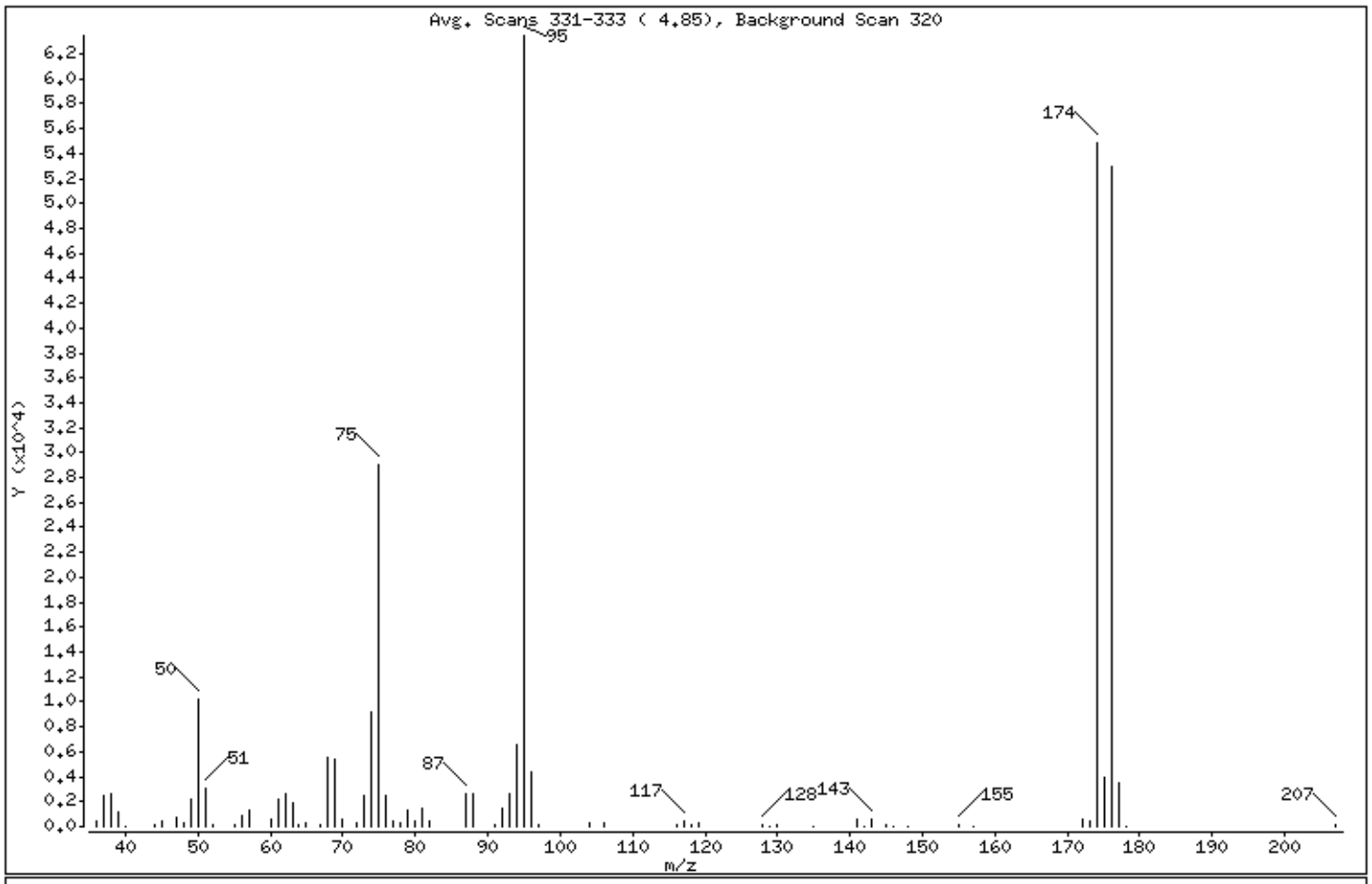
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.11
75	30.00 - 60.00% of mass 95	45.65
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.62 (0.72)
174	50.00 - 100.00% of mass 95	86.35
175	5.00 - 9.00% of mass 174	6.12 (7.09)
176	95.00 - 101.00% of mass 174	83.51 (96.71)
177	5.00 - 9.00% of mass 176	5.61 (6.72)

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020 Instrument: HP09915.i

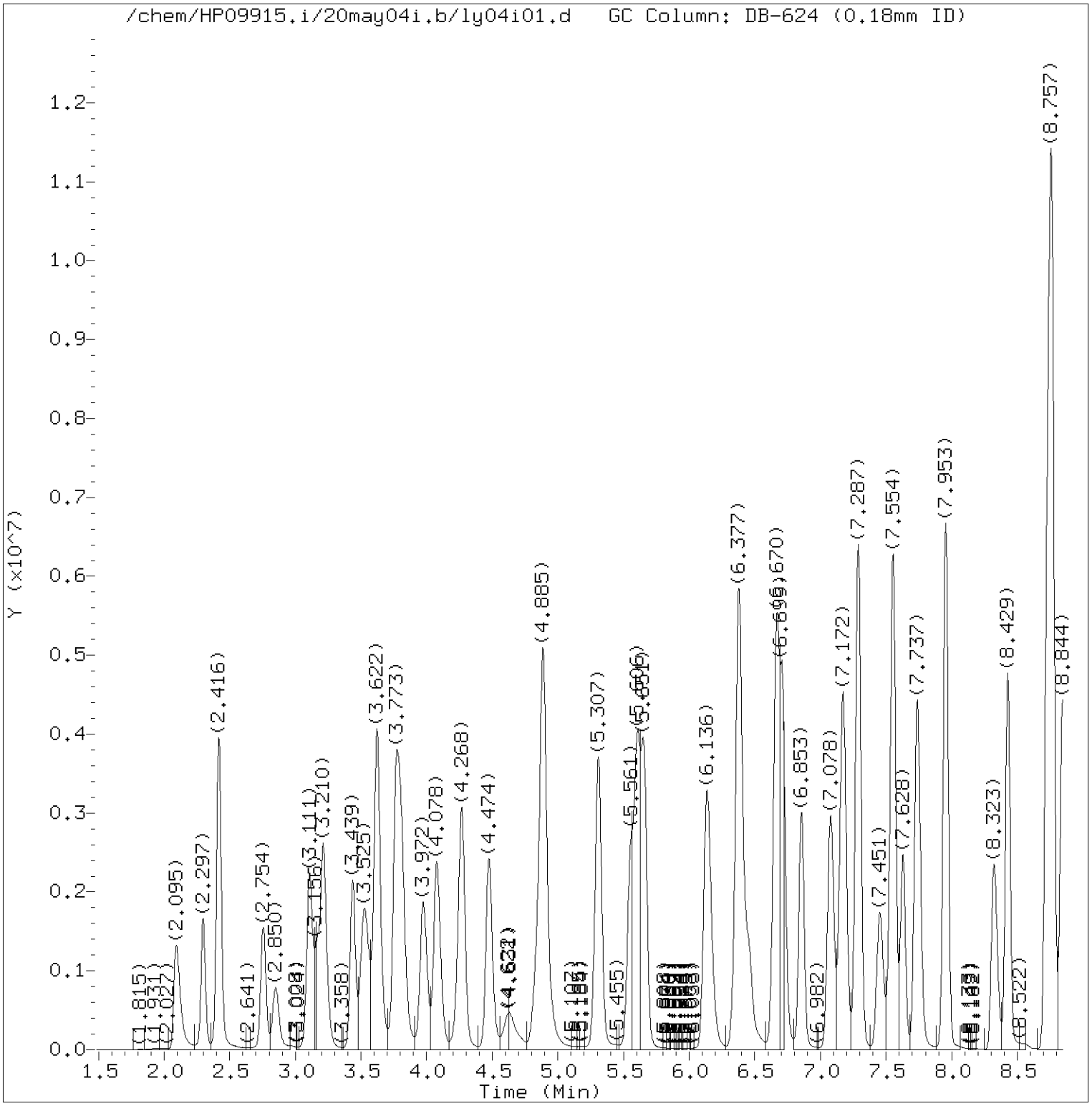
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly04t02.d
Spectrum: Avg. Scans 331-333 (4.85), Background Scan 320
Location of Maximum: 95.00
Number of points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	476	63.00	1957	88.00	2668	142.00	52
37.00	2534	64.00	142	91.00	204	143.00	605
38.00	2595	65.00	303	92.00	1519	145.00	111
39.00	1106	67.00	129	93.00	2560	146.00	66
40.00	24	68.00	5558	94.00	6611	148.00	64
44.00	212	69.00	5470	95.00	63464	155.00	179
45.00	424	70.00	517	96.00	4356	157.00	66
47.00	782	72.00	336	97.00	161	172.00	534
48.00	340	73.00	2550	104.00	267	173.00	394
49.00	2157	74.00	9180	106.00	245	174.00	54800
50.00	10227	75.00	28968	116.00	144	175.00	3885
51.00	3113	76.00	2532	117.00	442	176.00	53000
52.00	116	77.00	409	118.00	140	177.00	3561
55.00	141	78.00	281	119.00	290	178.00	53
56.00	824	79.00	1307	128.00	211	207.00	80
57.00	1289	80.00	480	129.00	61		
60.00	558	81.00	1409	130.00	177		
61.00	2232	82.00	376	135.00	50		
62.00	2640	87.00	2697	141.00	604		



Total Ion Chromatogram (TIC)

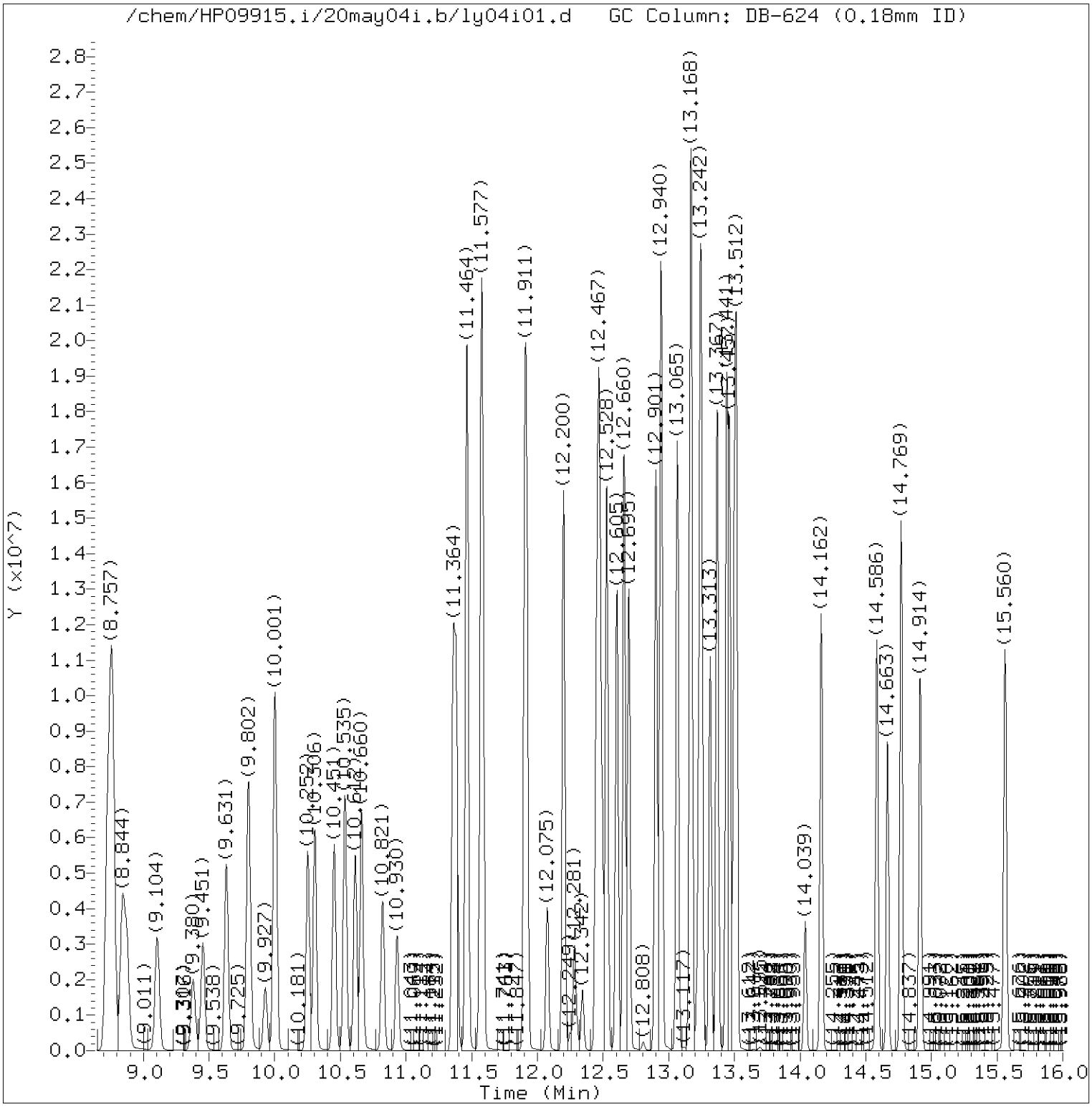
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	2849449	310.933
4) Chloromethane	(2)	2.297	50	2445659	285.835
5) 1,3-Butadiene	(2)	2.416	39	1671151	304.456
6) Vinyl Chloride	(2)	2.419	62	2326215	281.733
8) Bromomethane	(2)	2.757	94	1628456	273.549
9) Chloroethane	(2)	2.847	64	1234318	267.749
10) Dichlorofluoromethane	(2)	3.107	67	2817375	283.327
12) Trichlorofluoromethane	(2)	3.165	101	2746924	304.613
11) n-Pentane	(2)	3.213	43	2725741	321.927
14) Ethyl ether	(2)	3.439	59	1949746	305.988
15) Freon 123a	(2)	3.525	67	2314368	316.788
16) Acrolein	(1)	3.622	56	6736298	2956.857
17) 1,1-Dichloroethene	(2)	3.763	96	1750450	304.377
17) 1,1-Dichloroethene	(2)	3.763	63	864563	315.653
19) Freon 113	(2)	3.799	101	1965220M	329.366
18) Acetone	(1)	3.808	58	589621	567.388
22) Methyl Iodide	(2)	3.972	142	3492933	315.159
21) 2-Propanol	(1)	3.998	45	1004357	1516.417
23) Carbon Disulfide	(2)	4.078	76	6201547	320.266
27) Methyl Acetate	(2)	4.242	43	2207320	300.940
25) Allyl Chloride	(2)	4.271	41	2951991M	316.747
28) Methylene Chloride	(2)	4.474	84	2081076	304.203
29)*t-Butyl alcohol-d10	(1)	4.493	65	276925	250.000
30) t-Butyl alcohol	(1)	4.631	59	1690701	1512.274
31) Acrylonitrile	(2)	4.831	53	1217218	299.575
33) Methyl Tertiary Butyl Ether	(2)	4.885	73	5922996	300.305
32) trans-1,2-Dichloroethene	(2)	4.889	96	2018303	305.069
34) n-Hexane	(2)	5.307	57	3435497	370.798
36) 1,1-Dichloroethane	(2)	5.551	63	3527467	303.995
38) di-Isopropyl ether	(2)	5.606	45	6436416	315.389
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	3142519	339.593
40) Ethyl t-butyl ether	(2)	6.136	59	5819054	306.888
43) 1,2-Dichloroethene (Total)	(2)		96	4280297	609.947
44) 2-Butanone	(2)	6.358	43	3017645	611.860
42) cis-1,2-Dichloroethene	(2)	6.377	96	2261994	304.878
45) 2,2-Dichloropropane	(2)	6.393	77	2841421	316.832
47) Propionitrile	(1)	6.458	54	2395140	1585.804
48) Methacrylonitrile	(2)	6.667	67	3143939	771.811

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	1171429	306.006
50) Tetrahydrofuran	(1)	6.718	71	832254	629.784
51) Chloroform	(2)	6.853	83	3487929	307.674
52)$Dibromofluoromethane	(2)	7.069	113	344246	51.133
52)$Dibromofluoromethane	(2)	7.065	111	351617	51.092
53) 1,1,1-Trichloroethane	(2)	7.078	97	3105225	319.282
54) Cyclohexane	(2)	7.172	56	3858125	354.379
54) Cyclohexane	(2)	7.172	84	3361998	353.780
54) Cyclohexane	(2)	7.175	69	1189358	351.544
56) Carbon Tetrachloride	(2)	7.284	117	2686794	329.725
55) 1,1-Dichloropropene	(2)	7.291	75	2884427	323.528
58) Isobutyl Alcohol	(1)	7.451	41	1518165	4002.966
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85616	50.117
57)$1,2-Dichloroethane-d4	(2)	7.522	65	386104	50.918
57)$1,2-Dichloroethane-d4	(2)	7.528	104	54697	50.282
60) Benzene	(2)	7.554	78	8331618	301.883
61) 1,2-Dichloroethane	(2)	7.628	62	2775900	300.052
61) 1,2-Dichloroethane	(2)	7.628	98	279550	310.087
65) t-Amyl methyl ether	(2)	7.737	73	5782061	298.496
67) n-Heptane	(2)	7.953	43	3459353	359.052
66)*Fluorobenzene	(2)	7.956	96	1336369	50.000
69) n-Butanol	(1)	8.323	56	2625257	8489.394
71) Trichloroethene	(2)	8.429	95	2175307	311.470
72) Methylcyclohexane	(2)	8.728	83	3912993	344.571
72) Methylcyclohexane	(2)	8.728	98	1789837	348.458
73) 1,2-Dichloropropane	(2)	8.763	63	2097702	294.997
76) Methyl Methacrylate	(2)	8.840	69	2065513	337.817
75) 1,4-Dioxane	(1)	8.847	88	360140M	3874.180
74) Dibromomethane	(2)	8.872	93	1442276	310.134
78) Bromodichloromethane	(2)	9.104	83	2778142	333.221
79) 2-Nitropropane	(2)	9.380	41	1686406	674.629
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	1696782	358.355
81) cis-1,3-Dichloropropene	(2)	9.631	75	3652268	335.198
82) 4-Methyl-2-pentanone	(2)	9.798	43	6253254	626.102
83)$Toluene-d8	(3)	9.927	98	1397873	51.358
83)$Toluene-d8	(3)	9.927	100	912756	51.674
88) Toluene	(3)	10.001	92	5231241	301.533
90) 1,3-Dichloropropene (total)	(3)		100	7027137	674.241

M = Compound was manually integrated.
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on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.252	75	3374869	339.043
91) Ethyl Methacrylate	(3)	10.306	69	3527262	352.166
92) 1,1,2-Trichloroethane	(3)	10.454	97	2073298	307.981
93) Tetrachloroethene	(3)	10.535	166	2380389	321.959
94) 1,3-Dichloropropane	(3)	10.615	76	3522161	312.866
96) 2-Hexanone	(3)	10.660	43	4626222	635.941
97) Dibromochloromethane	(3)	10.821	129	2435189	347.755
99) 1,2-Dibromoethane	(3)	10.930	107	2364461	326.815
100)*Chlorobenzene-d5	(3)	11.355	117	1059501	50.000
101) 1-Chlorohexane	(3)	11.358	91	2908408	327.586
102) Chlorobenzene	(3)	11.380	112	5895135	295.899
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	2040552	302.127
104) Ethylbenzene	(3)	11.464	91	9686310	301.633
106) m+p-Xylene	(3)	11.577	106	7482333	593.004
108) Xylene (Total)	(3)		106	11168702	895.120
107) o-Xylene	(3)	11.901	106	3686369	302.116
109) Styrene	(3)	11.917	104	6296133	317.282
110) Bromoform	(3)	12.075	173	1837073	360.361
111) Isopropylbenzene	(3)	12.200	105	10092328	325.945
112) Cyclohexanone	(1)	12.281	55	1298373A	3752.287
114)$4-Bromofluorobenzene	(3)	12.342	95	539077	51.474
114)$4-Bromofluorobenzene	(3)	12.345	174	460451	51.282
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	3144189	289.308
115) Bromobenzene	(4)	12.461	156	2447059	280.512
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	2386999	755.035
117) 1,2,3-Trichloropropane	(4)	12.493	110	994731	299.689
119) n-Propylbenzene	(4)	12.528	91	11653592	309.091
120) 2-Chlorotoluene	(4)	12.605	126	2503021	310.746
122) 1,3,5-Trimethylbenzene	(4)	12.660	105	8770052	321.916
121) 4-Chlorotoluene	(4)	12.695	126	2564262	306.721
124) tert-Butylbenzene	(4)	12.901	134	1876803M	335.139
125) Pentachloroethane	(4)	12.933	167	1529691	307.565
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	8738342	310.227
127) sec-Butylbenzene	(4)	13.065	105	10837099	326.714
129) 1,3-Dichlorobenzene	(4)	13.162	146	4405889	271.032
130) p-Isopropyltoluene	(4)	13.171	119	8821149	310.365
131)*1,4-Dichlorobenzene-d4	(4)	13.220	152	596140	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	4664438	273.400

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

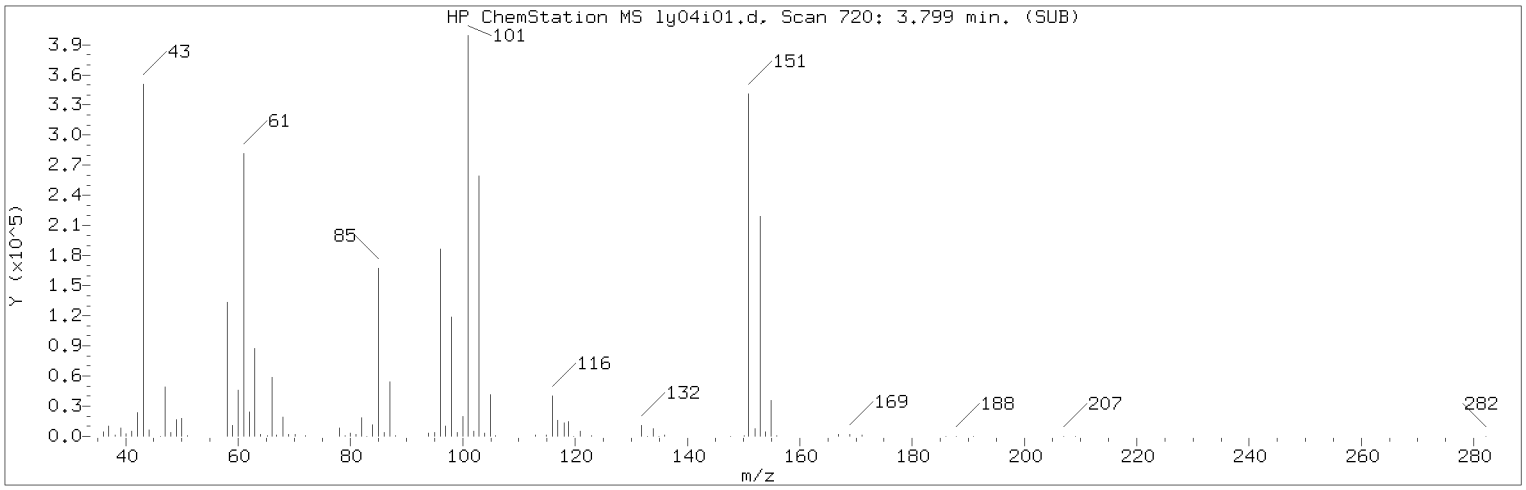
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

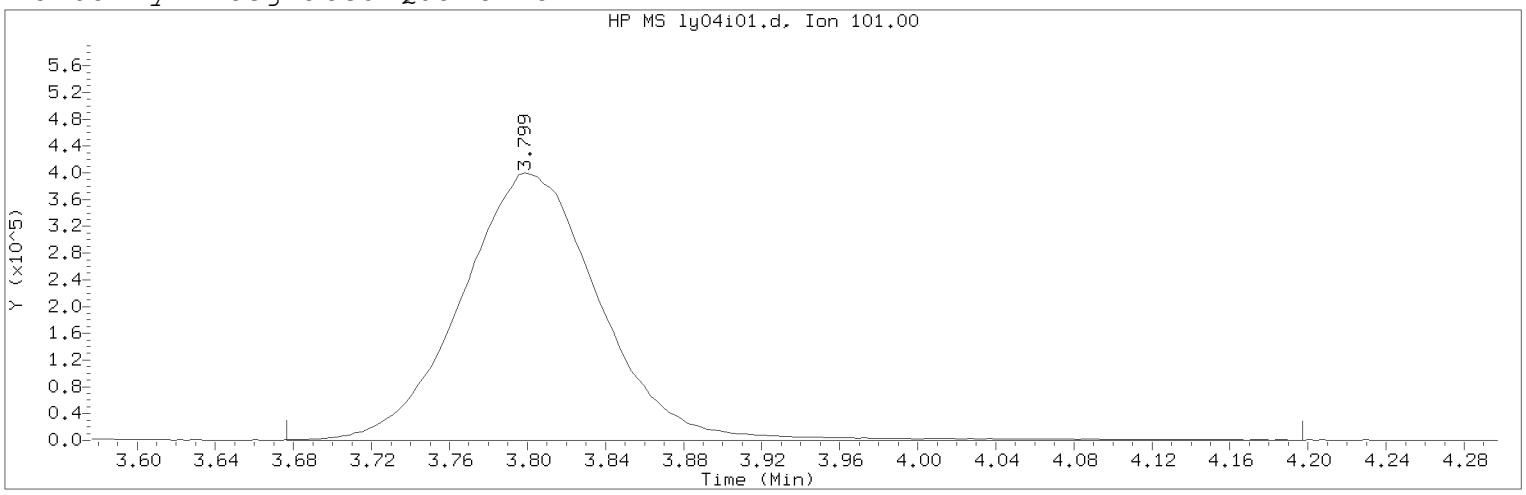
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.248	105	8522094	291.186
135)	Benzyl Chloride	(4)	13.313	91	7372827	332.941
136)	1,3-Diethylbenzene	(4)	13.367	119	5620297	306.903
141)	Diethylbenzene (total)	(4)		100	15927292	898.580
137)	1,4-Diethylbenzene	(4)	13.441	119	5732746	299.071
139)	n-Butylbenzene	(4)	13.461	92	4551903	311.717
138)	1,2-Dichlorobenzene	(4)	13.496	146	4532401	277.010
140)	1,2-Diethylbenzene	(4)	13.515	119	4574249	292.606
142)	1,2-Dibromo-3-chloropropane	(4)	14.039	75	799123	332.209
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	3668043	297.595
146)	1,2,4-Trichlorobenzene	(4)	14.586	180	3403261	295.460
147)	Hexachlorobutadiene	(4)	14.666	225	1492448	280.870
148)	Naphthalene	(4)	14.769	128	11189563	300.110
149)	1,2,3-Trichlorobenzene	(4)	14.914	180	3150450	275.252
150)	2-Methylnaphthalene	(4)	15.560	142	5808143	299.728

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

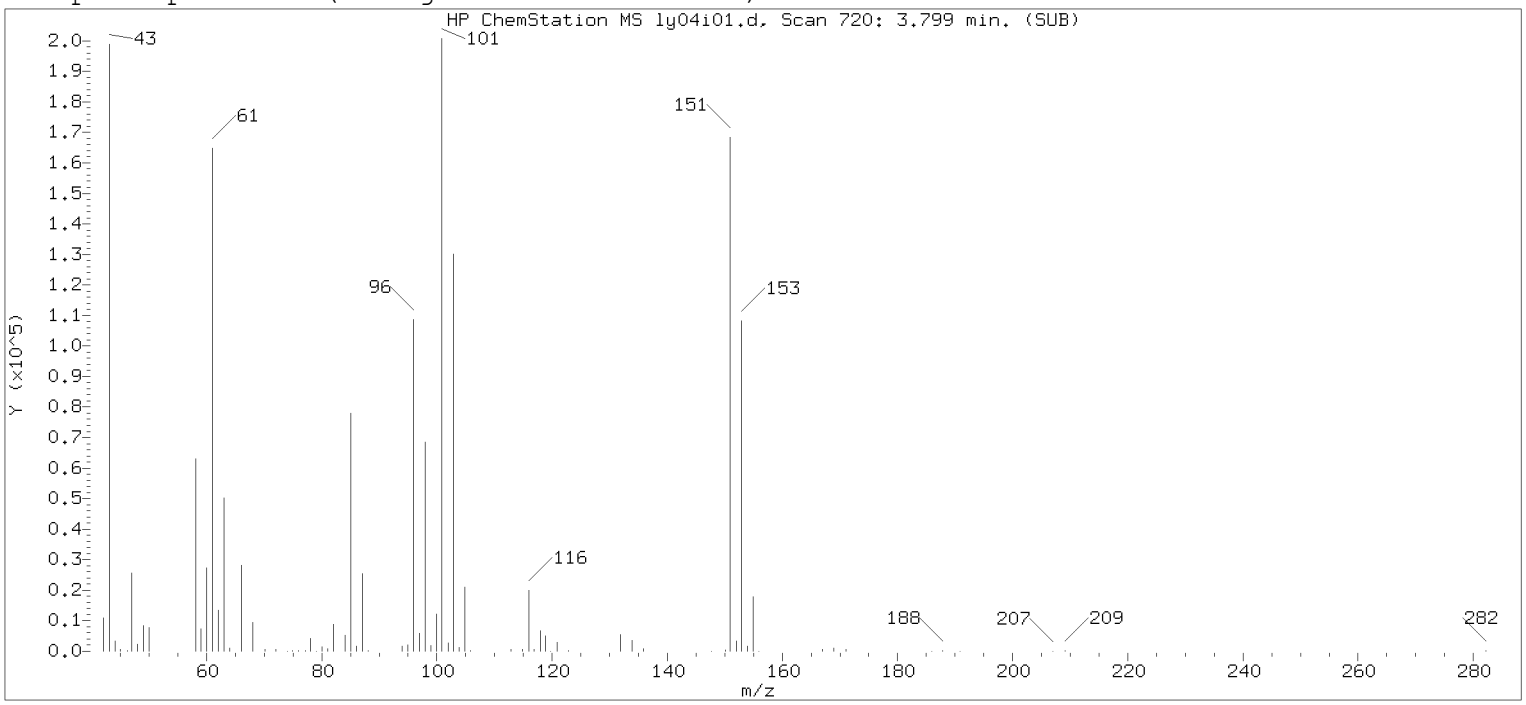
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area (flag) : 1965220M
On-Column Amount (ng) : 329.3664
Integration start scan : 681 Integration stop scan: 843
Y at integration start : 276 Y at integration end: 276

Reason for manual integration: improper integration

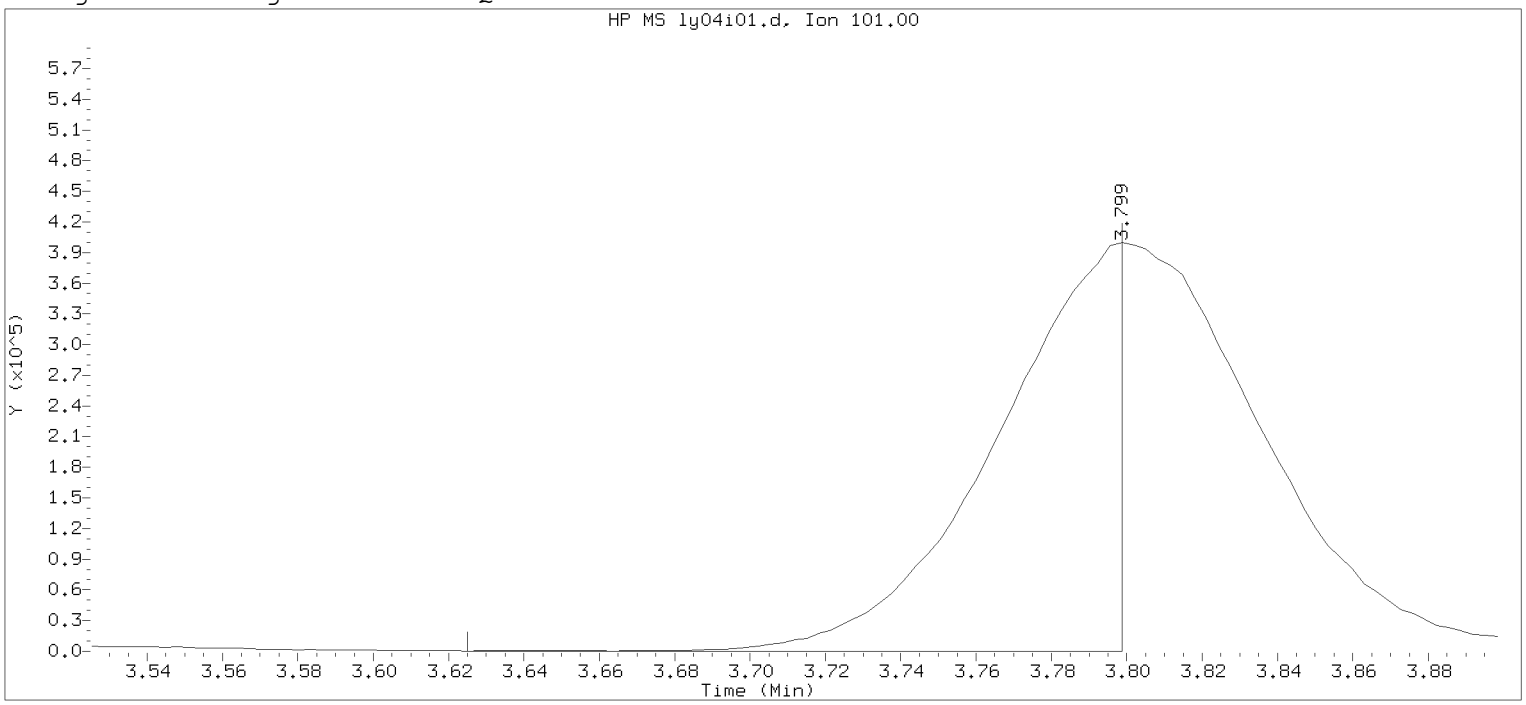
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

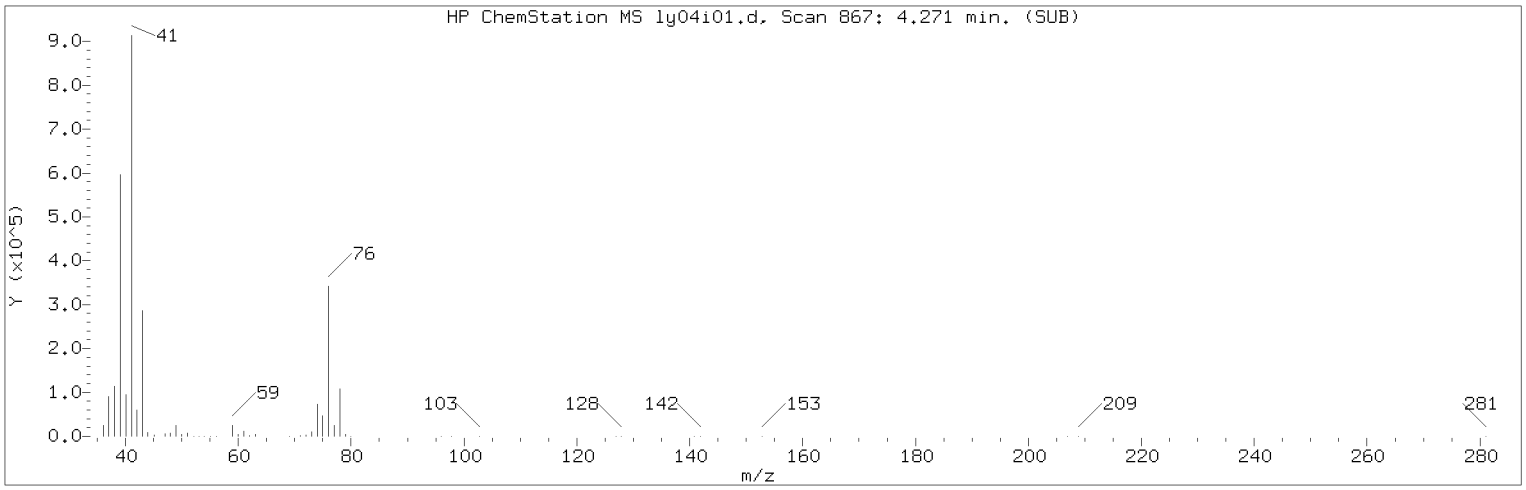
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

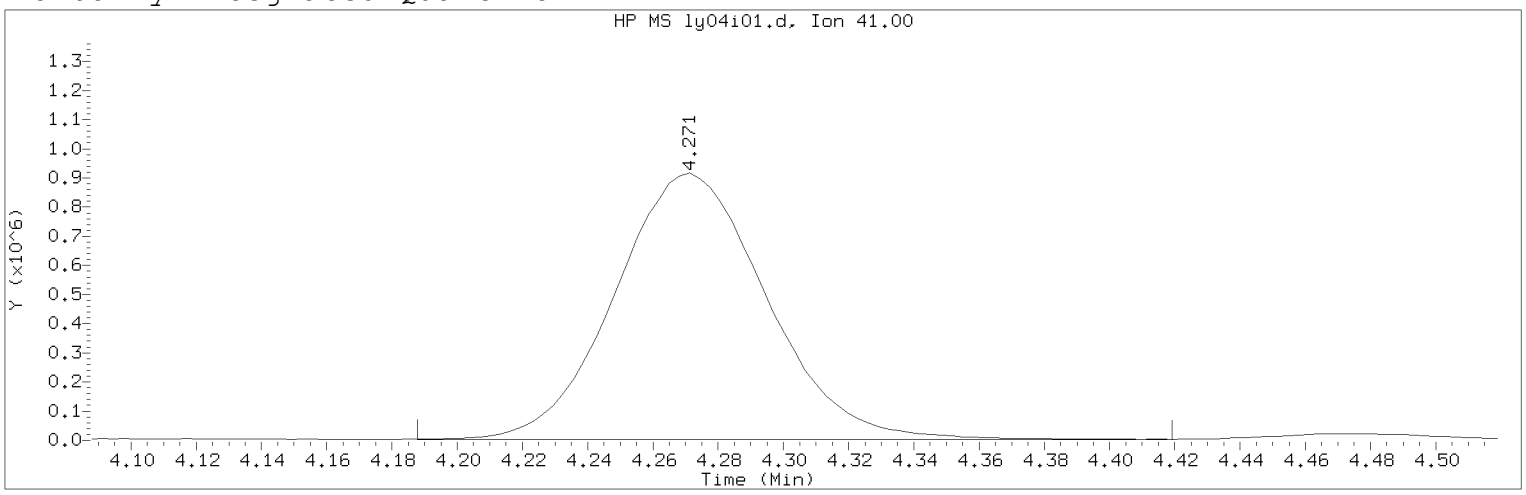
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area : 893647
On-column Amount (ng) : 300.0000
Integration start scan : 665 Integration stop scan: 719
Y at integration start : 308 Y at integration end: 308

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0071

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

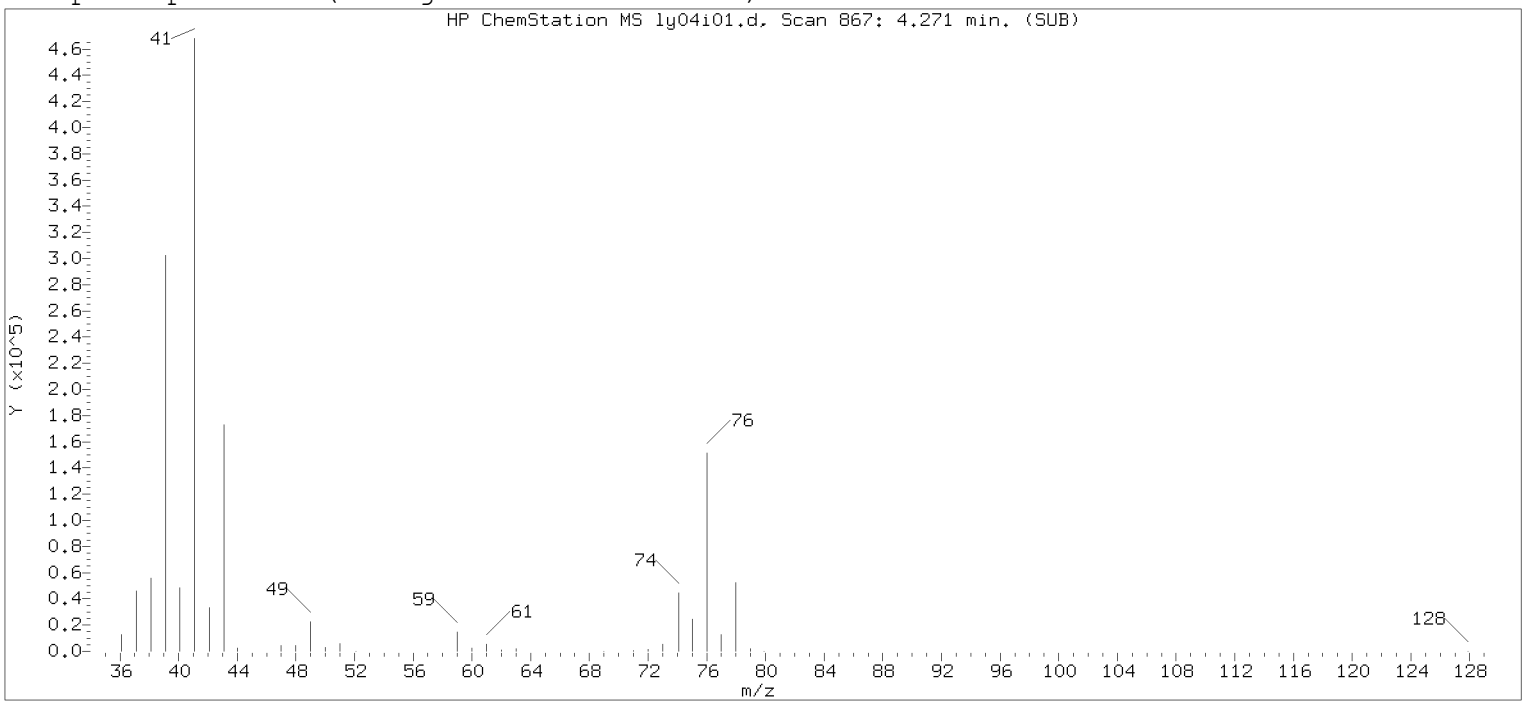
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area (flag) : 2951991M
On-Column Amount (ng) : 316.7471
Integration start scan : 840 Integration stop scan: 912
Y at integration start : 2551 Y at integration end: 2551

Reason for manual integration: improper integration

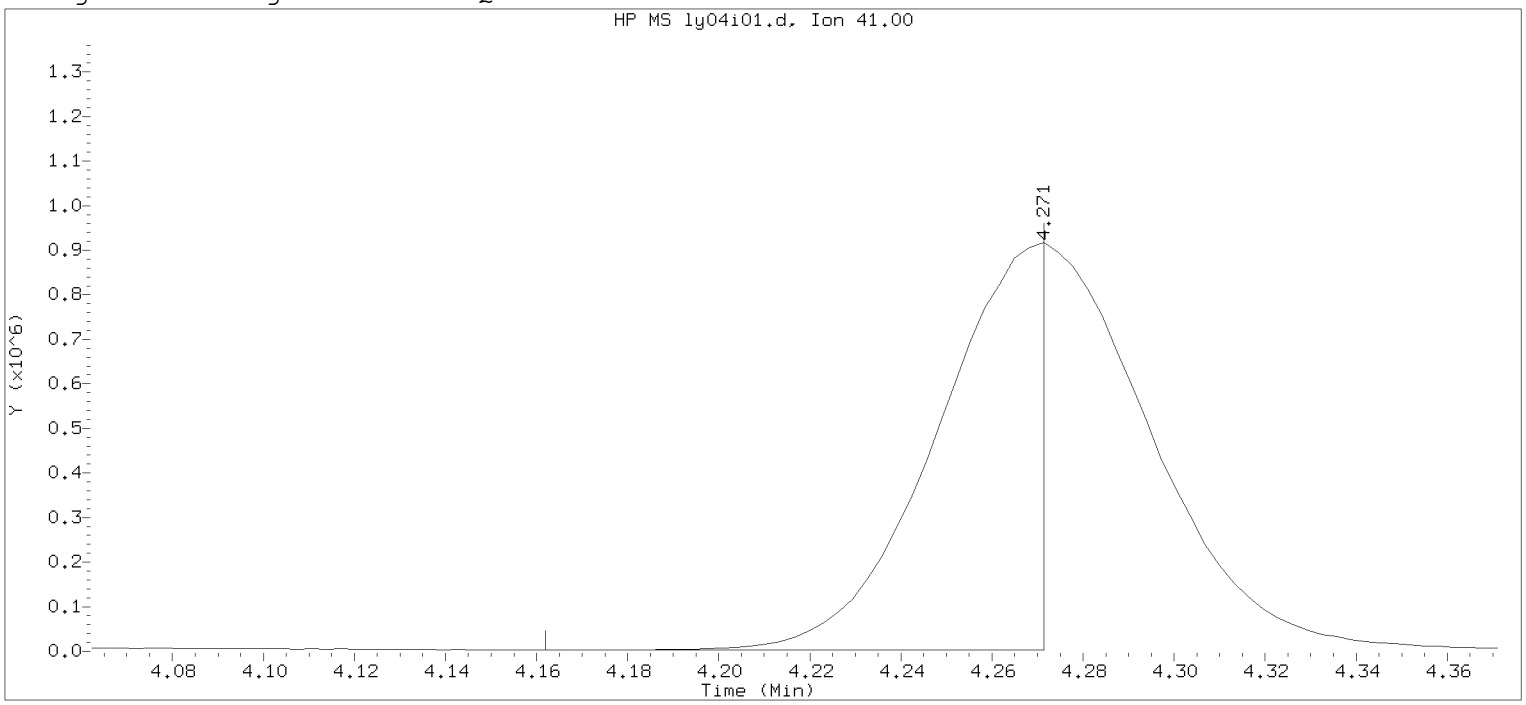
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

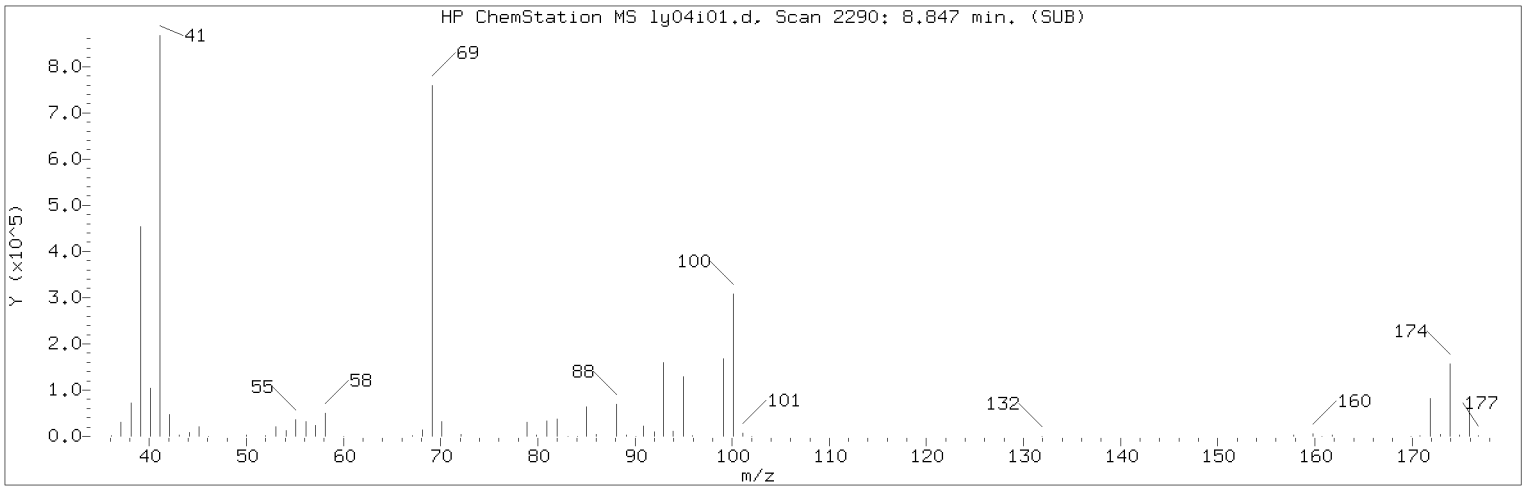
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

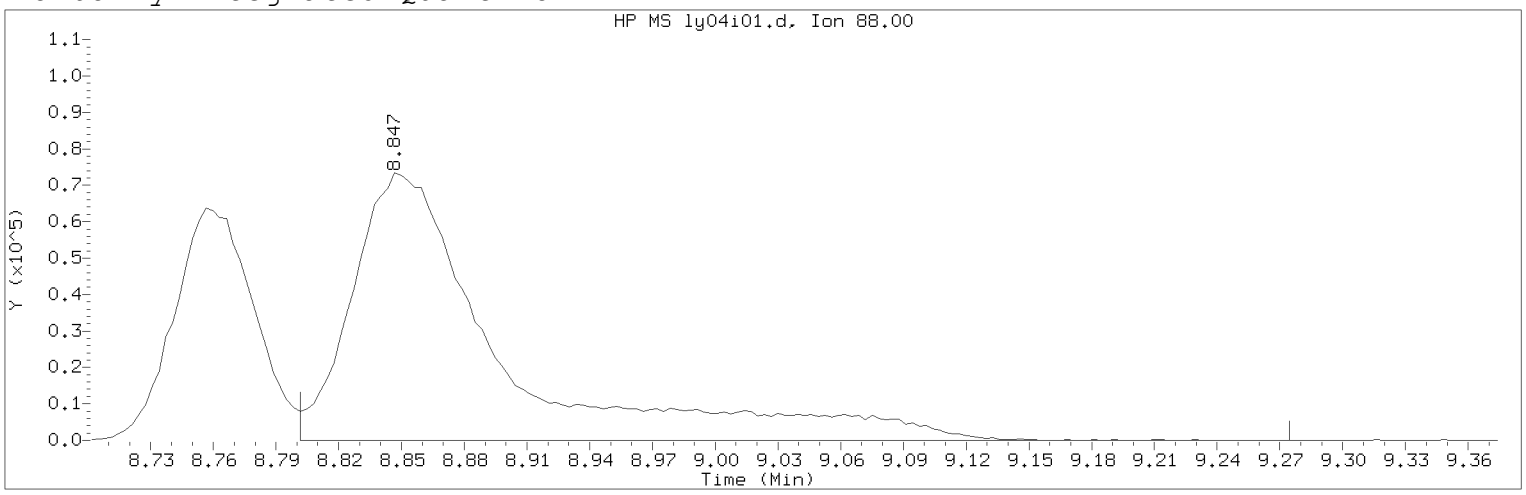
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area : 1439953
On-column Amount (ng) : 300.0000
Integration start scan : 832 Integration stop scan: 866
Y at integration start : 2601 Y at integration end: 2601

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

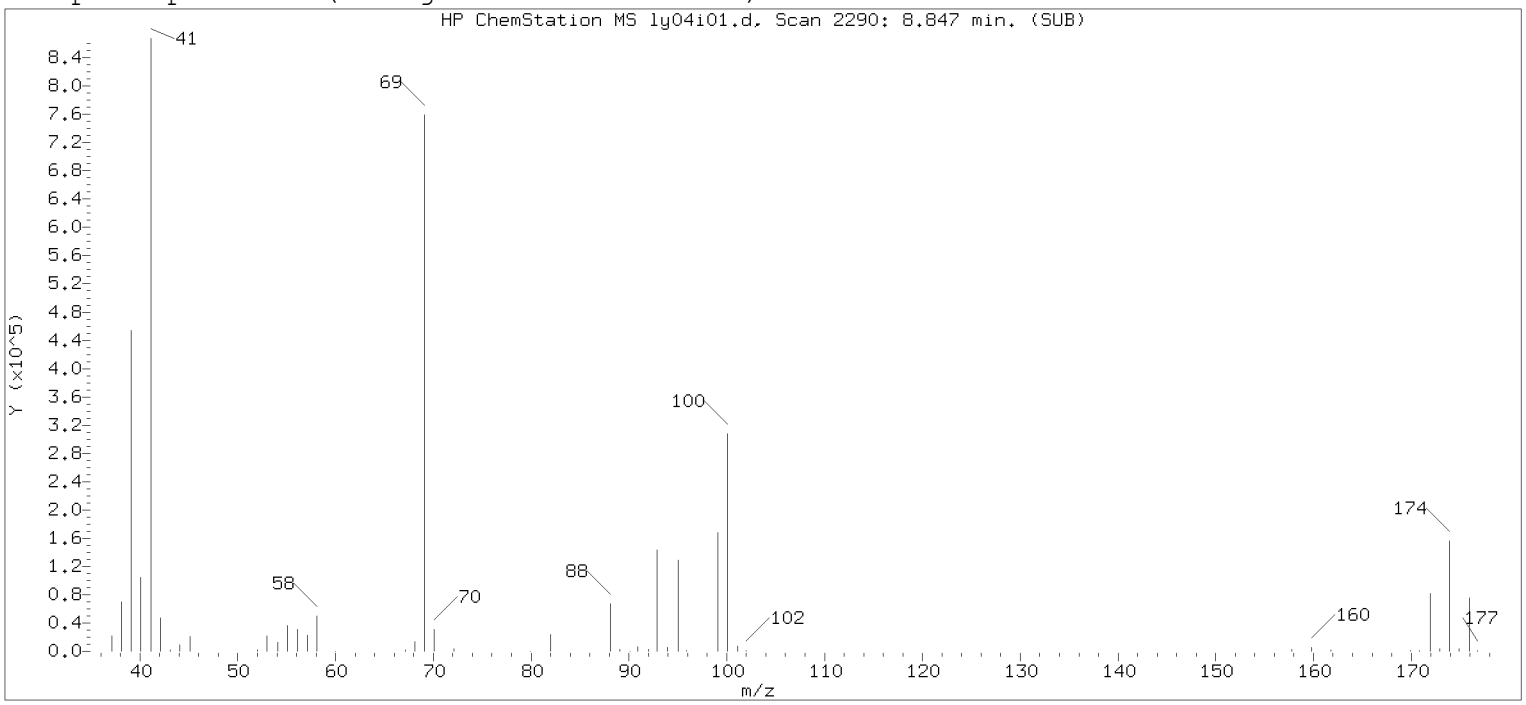
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 360140M
On-Column Amount (ng) : 3874.1804
Integration start scan : 2275 Integration stop scan: 2422
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

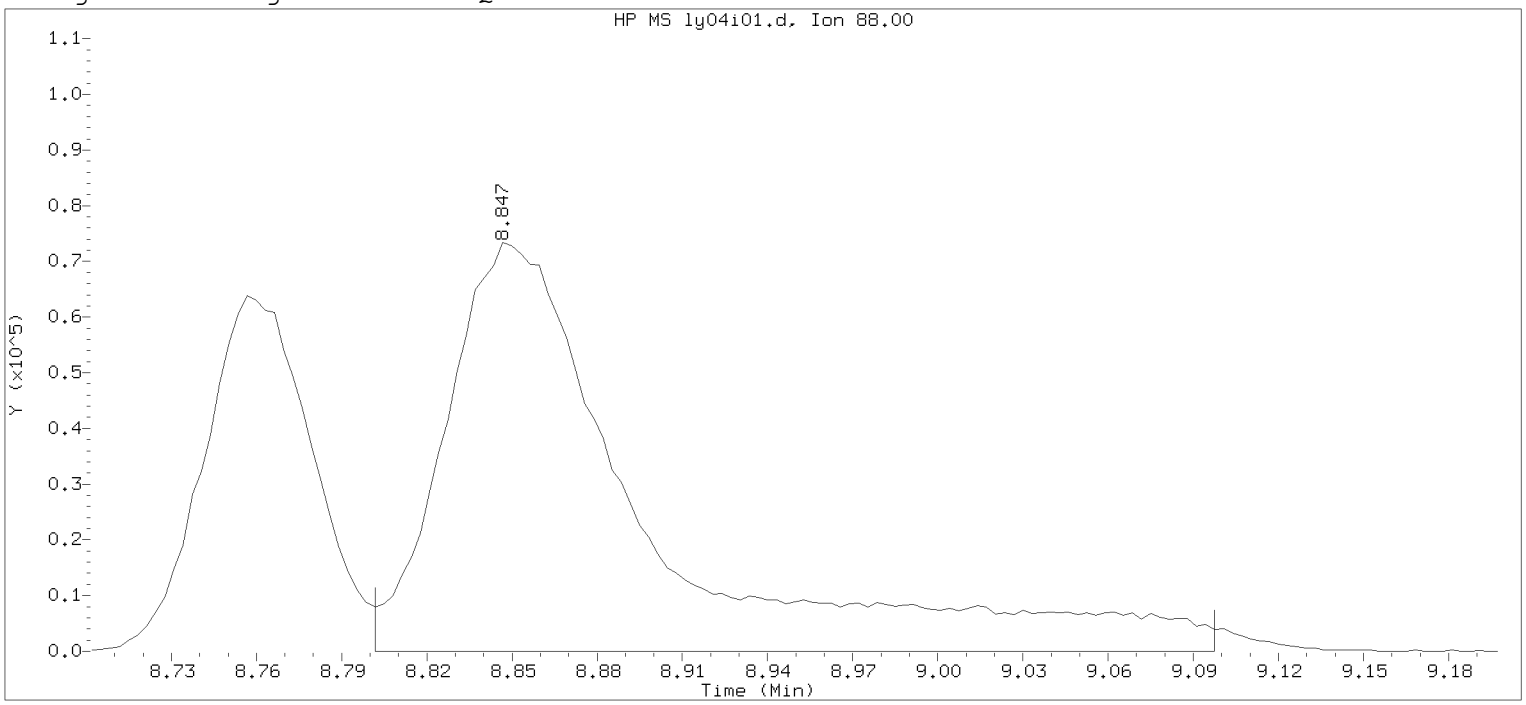
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

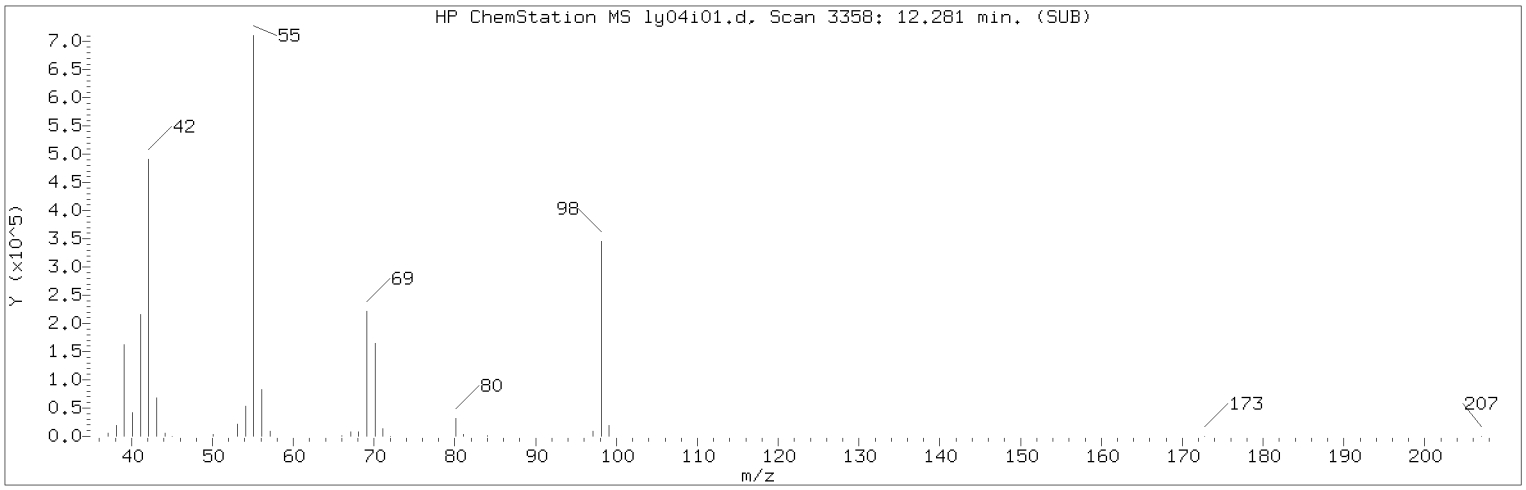
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

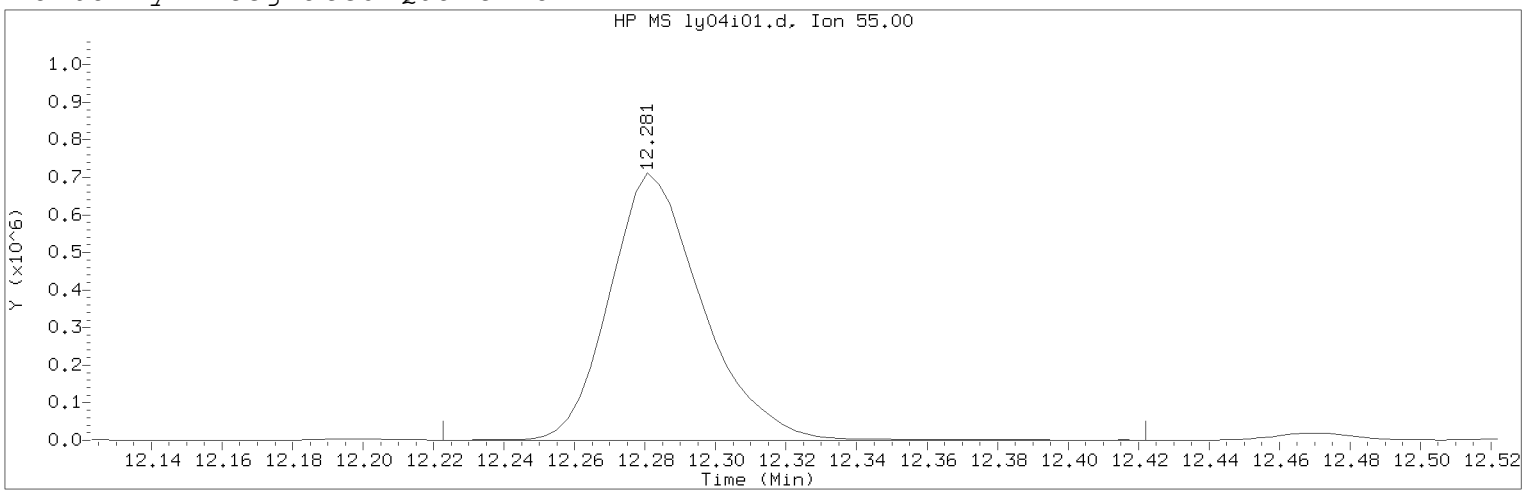
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 354631
On-column Amount (ng) : 3750.0000
Integration start scan : 2275 Integration stop scan: 2367
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

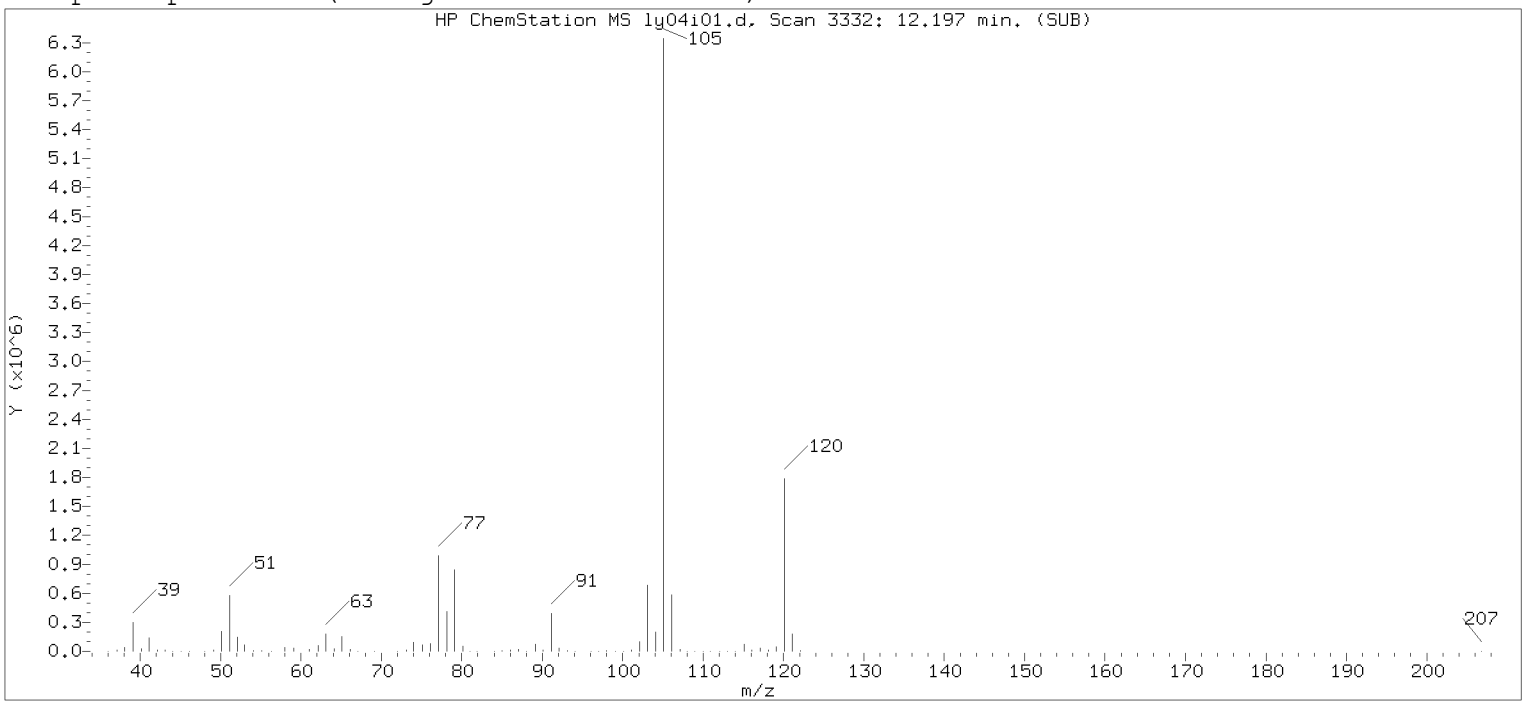
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 1298373A
On-Column Amount (ng) : 3752.2869
Integration start scan : 3339 Integration stop scan: 3401
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

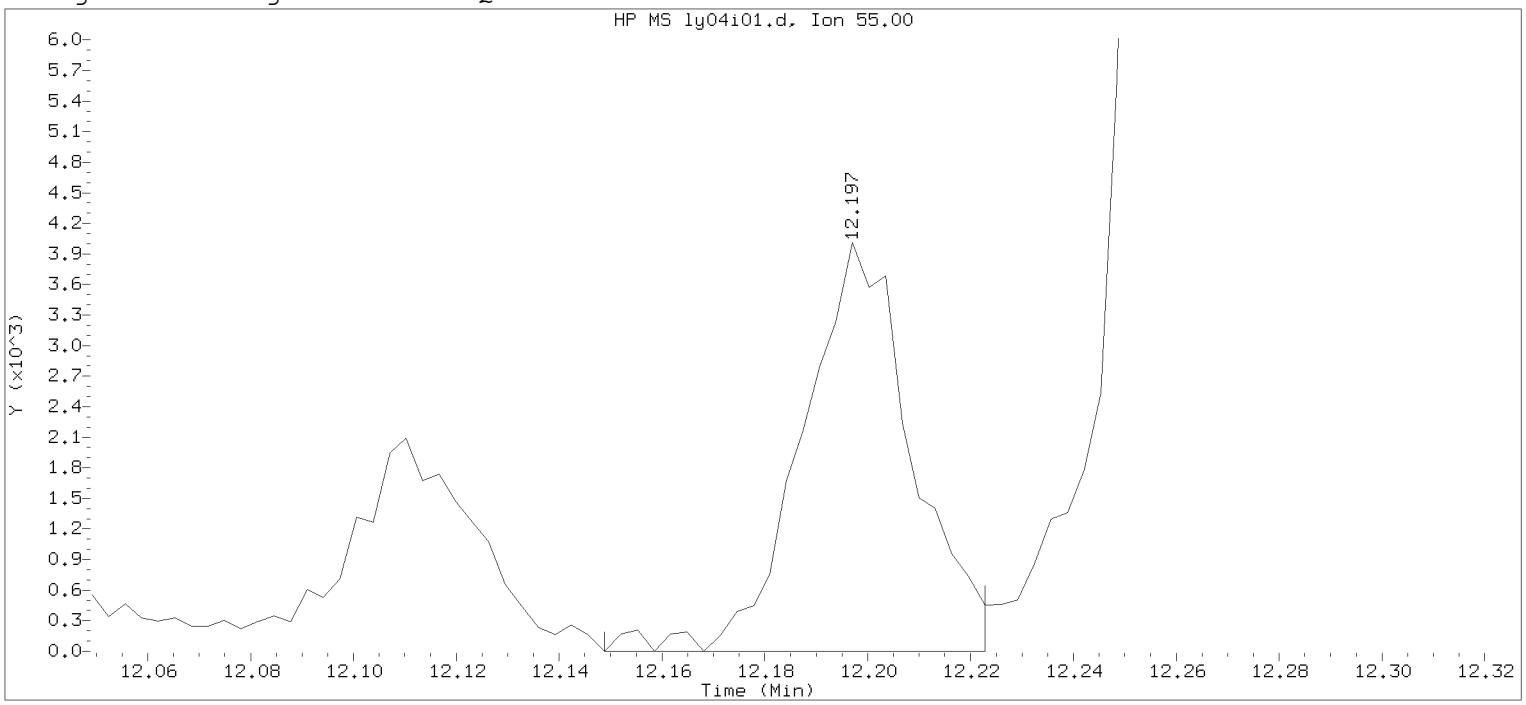
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

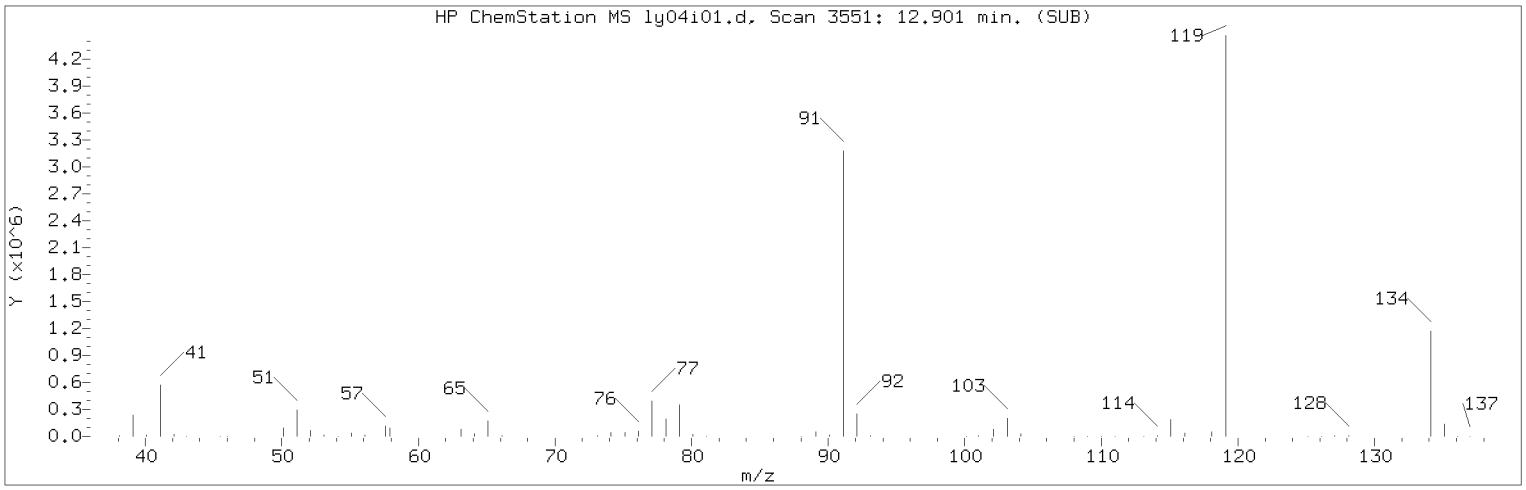
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

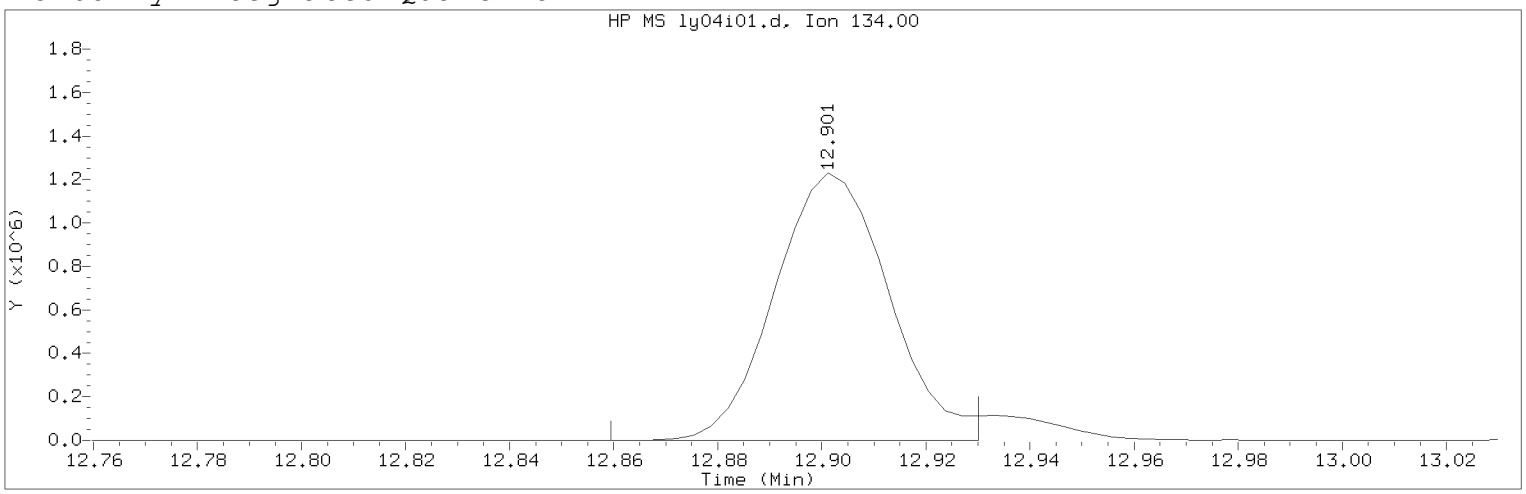
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3332
Retention Time (minutes): 12.197
Quant Ion : 55.00
Area : 5922
On-column Amount (ng) : 3750.0000
Integration start scan : 3316 Integration stop scan: 3339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0077

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

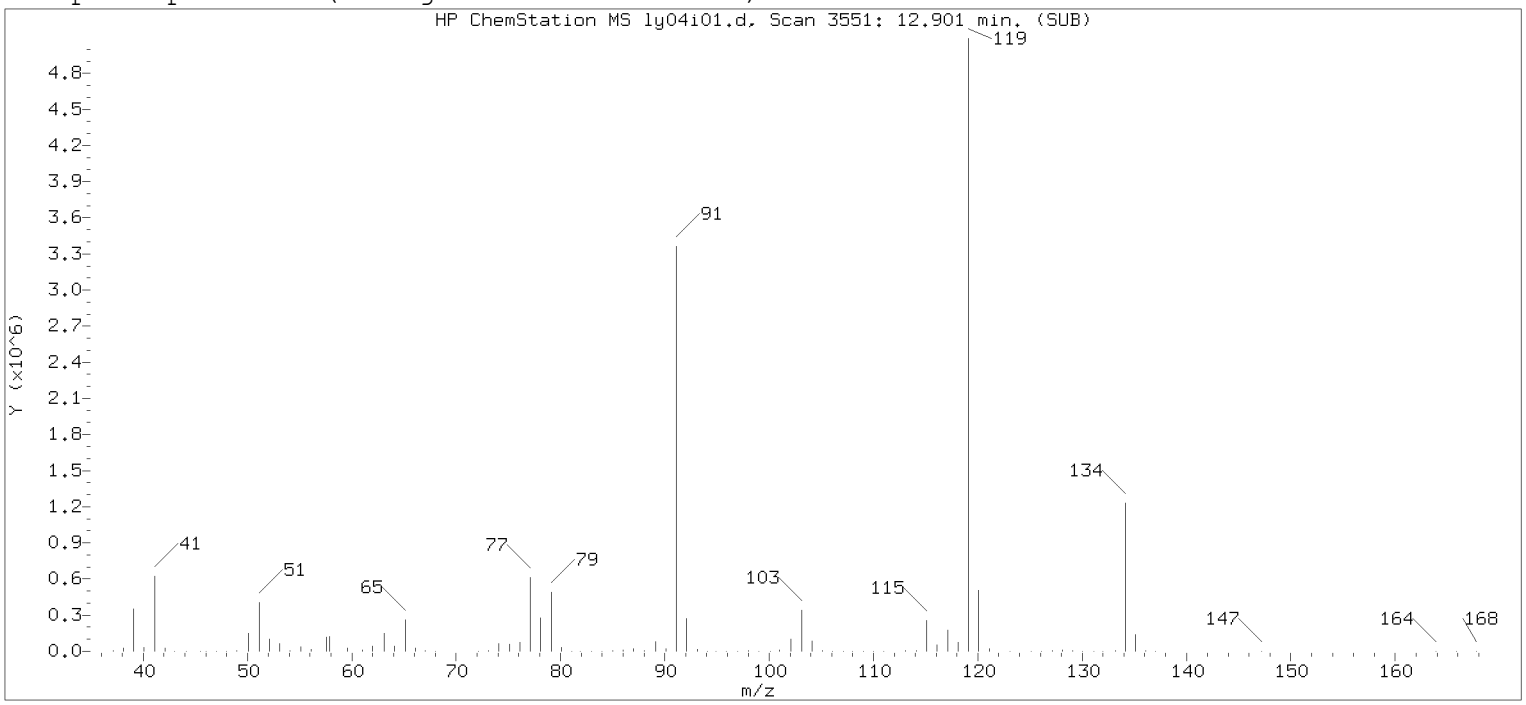
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 1876803M
On-Column Amount (ng) : 335.1392
Integration start scan : 3537 Integration stop scan: 3559
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

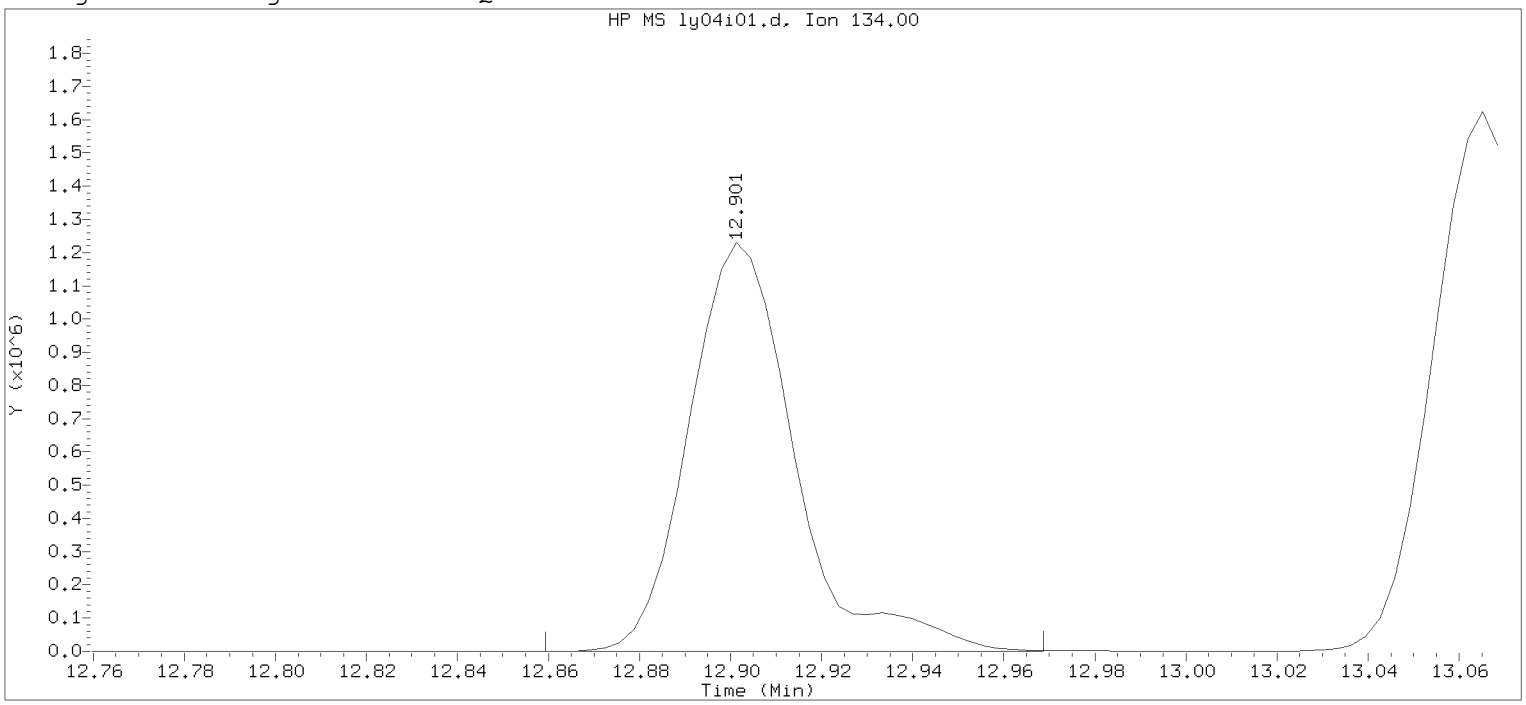
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



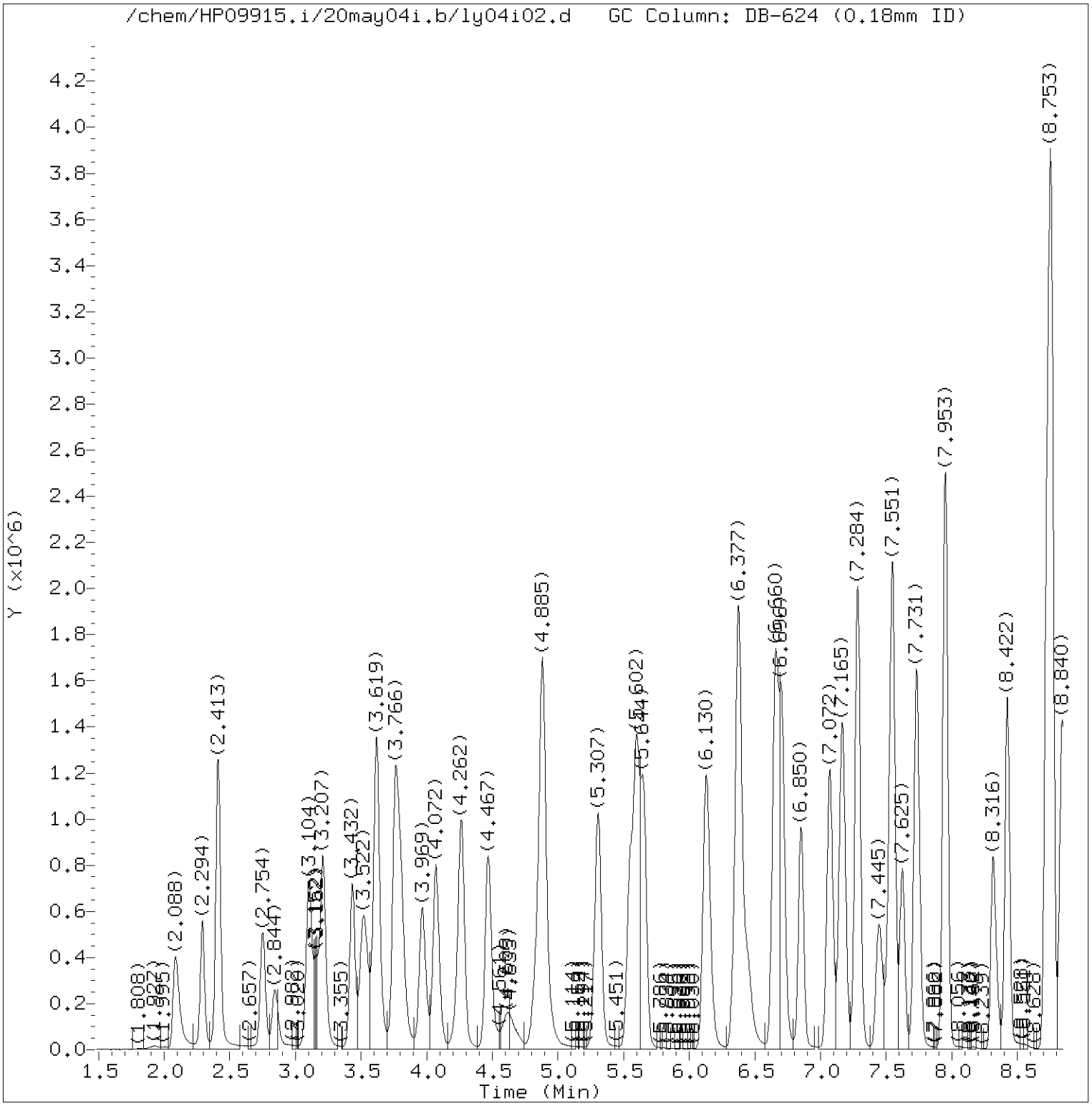
Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 1987823
On-column Amount (ng) : 300.0000
Integration start scan : 3537 Integration stop scan: 3571
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0079



Total Ion Chromatogram (TIC)

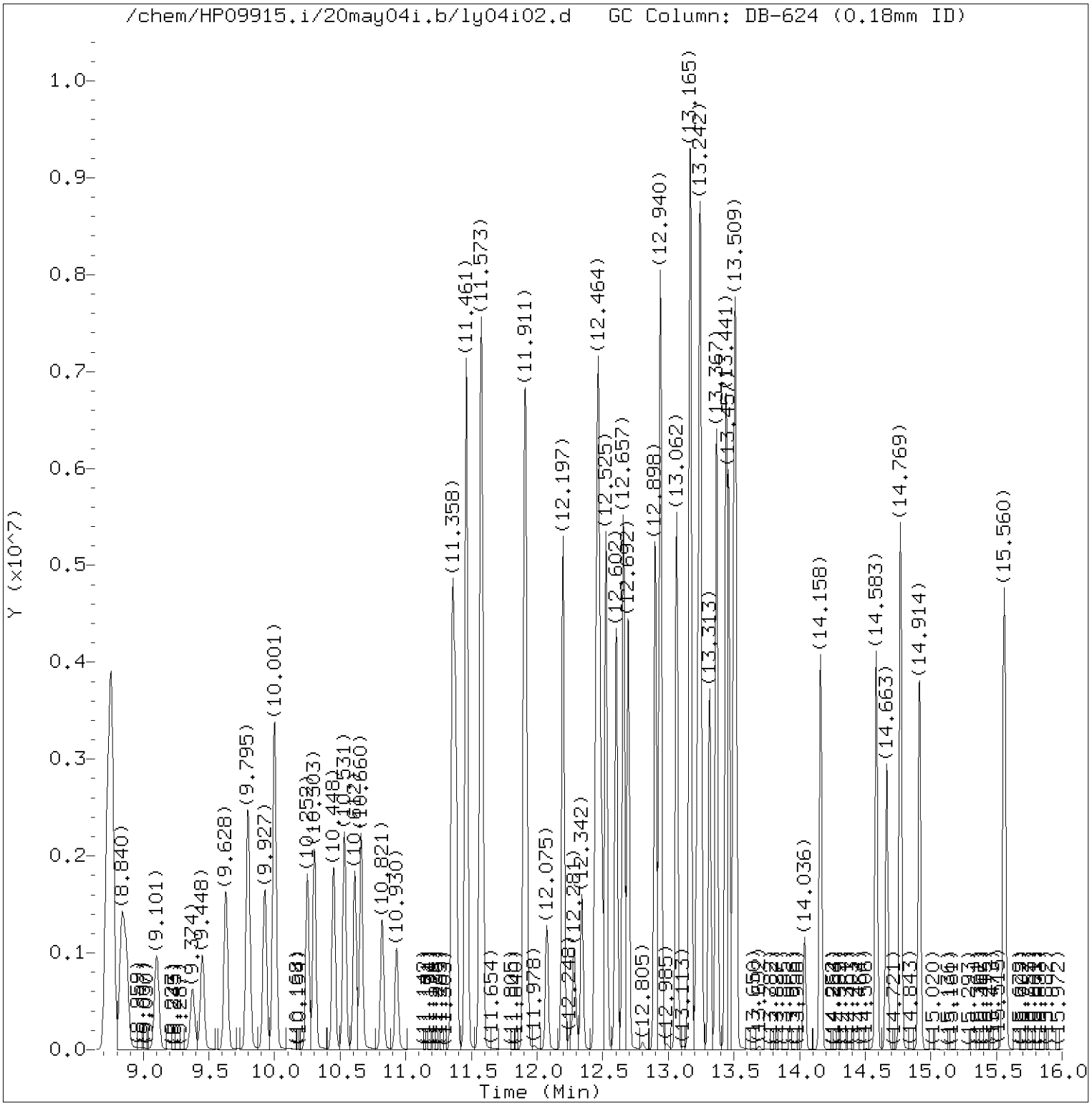
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	853077	95.314
4) Chloromethane	(2)	2.291	50	786838	94.160
5) 1,3-Butadiene	(2)	2.410	39	520508	97.096
6) Vinyl Chloride	(2)	2.413	62	744105	92.275
8) Bromomethane	(2)	2.754	94	519305	89.319
9) Chloroethane	(2)	2.844	64	387582	86.085
10) Dichlorofluoromethane	(2)	3.101	67	879288	90.539
12) Trichlorofluoromethane	(2)	3.162	101	829326	94.165
11) n-Pentane	(2)	3.210	43	821828	99.384
14) Ethyl ether	(2)	3.432	59	654590	105.186
15) Freon 123a	(2)	3.522	67	719785	100.879
16) Acrolein	(1)	3.619	56	2202055	982.350
17) 1,1-Dichloroethene	(2)	3.760	96	549714	97.873
17) 1,1-Dichloroethene	(2)	3.760	63	273099	102.093
19) Freon 113	(2)	3.795	101	592843	101.735
18) Acetone	(1)	3.802	58	188610	184.460
22) Methyl Iodide	(2)	3.969	142	1096160	101.269
21) 2-Propanol	(1)	3.985	45	318831	489.238
23) Carbon Disulfide	(2)	4.072	76	1939244	102.543
27) Methyl Acetate	(2)	4.239	43	716612	100.037
25) Allyl Chloride	(2)	4.268	41	969396	106.503
28) Methylene Chloride	(2)	4.471	84	666610	99.772
29)*t-Butyl alcohol-d10	(1)	4.490	65	272479	250.000
30) t-Butyl alcohol	(1)	4.622	59	557035	506.379
31) Acrylonitrile	(2)	4.827	53	384725	96.951
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	1974492	102.504
32) trans-1,2-Dichloroethene	(2)	4.885	96	643936	99.659
34) n-Hexane	(2)	5.307	57	980157	108.319
36) 1,1-Dichloroethane	(2)	5.548	63	1150743	101.542
38) di-Isopropyl ether	(2)	5.599	45	2135393	107.138
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	983912	108.868
40) Ethyl t-butyl ether	(2)	6.130	59	1972223	106.499
43) 1,2-Dichloroethene (Total)	(2)		96	1379003	201.103
44) 2-Butanone	(2)	6.348	43	955566	198.384
42) cis-1,2-Dichloroethene	(2)	6.377	96	735067	101.444
45) 2,2-Dichloropropane	(2)	6.384	77	906496	103.496
47) Propionitrile	(1)	6.448	54	775173	521.611
48) Methacrylonitrile	(2)	6.657	67	1032016	259.410

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	387109	103.541
50) Tetrahydrofuran	(1)	6.715	71	265025	203.822
51) Chloroform	(2)	6.850	83	1119265	101.093
52)$Dibromofluoromethane	(2)	7.069	113	329675	50.139
52)$Dibromofluoromethane	(2)	7.069	111	336828	50.113
53) 1,1,1-Trichloroethane	(2)	7.075	97	966703	101.774
54) Cyclohexane	(2)	7.165	56	1163895	109.463
54) Cyclohexane	(2)	7.168	84	1000103	107.756
54) Cyclohexane	(2)	7.165	69	357764	108.275
56) Carbon Tetrachloride	(2)	7.278	117	830197	104.318
55) 1,1-Dichloropropene	(2)	7.287	75	900576	103.427
58) Isobutyl Alcohol	(1)	7.445	41	477848	1280.506
57)$1,2-Dichloroethane-d4	(2)	7.522	102	82703	49.570
57)$1,2-Dichloroethane-d4	(2)	7.522	65	369652	49.914
57)$1,2-Dichloroethane-d4	(2)	7.519	104	52535	49.449
60) Benzene	(2)	7.551	78	2723134	101.028
61) 1,2-Dichloroethane	(2)	7.625	62	882324	97.653
61) 1,2-Dichloroethane	(2)	7.625	98	89171	101.277
65) t-Amyl methyl ether	(2)	7.731	73	2011782	106.341
66)*Fluorobenzene	(2)	7.950	96	1305159	50.000
67) n-Heptane	(2)	7.956	43	975825	103.704
69) n-Butanol	(1)	8.316	56	860676	2828.614
71) Trichloroethene	(2)	8.425	95	688560	100.949
72) Methylcyclohexane	(2)	8.728	83	1282390	115.625
72) Methylcyclohexane	(2)	8.728	98	579444	115.508
73) 1,2-Dichloropropane	(2)	8.760	63	707167	101.826
76) Methyl Methacrylate	(2)	8.837	69	660132	110.547
75) 1,4-Dioxane	(1)	8.843	88	121991M	1333.722
74) Dibromomethane	(2)	8.869	93	465649	102.523
78) Bromodichloromethane	(2)	9.101	83	872696	107.177
79) 2-Nitropropane	(2)	9.374	41	514618	210.790
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	544528	117.753
81) cis-1,3-Dichloropropene	(2)	9.628	75	1173507	110.278
82) 4-Methyl-2-pentanone	(2)	9.795	43	2014827M	206.557
83)$Toluene-d8	(3)	9.927	98	1347192	50.298
83)$Toluene-d8	(3)	9.927	100	873877	50.274
88) Toluene	(3)	10.001	92	1720446	100.774
90) 1,3-Dichloropropene (total)	(3)		100	2256338	220.822

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	1082831	110.544
91) Ethyl Methacrylate	(3)	10.303	69	1150351	116.713
92) 1,1,2-Trichloroethane	(3)	10.448	97	674393	101.801
93) Tetrachloroethene	(3)	10.531	166	745147	102.417
94) 1,3-Dichloropropane	(3)	10.612	76	1153873	104.156
96) 2-Hexanone	(3)	10.660	43	1466416	204.845
97) Dibromochloromethane	(3)	10.821	129	768603	111.537
99) 1,2-Dibromoethane	(3)	10.930	107	757251	106.362
100)*Chlorobenzene-d5	(3)	11.351	117	1042614	50.000
101) 1-Chlorohexane	(3)	11.358	91	894543	102.388
102) Chlorobenzene	(3)	11.380	112	1974796	100.728
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	698262	105.060
104) Ethylbenzene	(3)	11.461	91	3302145	104.495
106) m+p-Xylene	(3)	11.573	106	2617893	210.839
108) Xylene (Total)	(3)		106	3901521	317.742
107) o-Xylene	(3)	11.901	106	1283628	106.904
109) Styrene	(3)	11.917	104	2175134	111.387
110) Bromoform	(3)	12.075	173	575326	114.684
111) Isopropylbenzene	(3)	12.197	105	3285092	107.815
112) Cyclohexanone	(1)	12.281	55	465460A	1367.124
114)$4-Bromofluorobenzene	(3)	12.342	95	512925	49.770
114)$4-Bromofluorobenzene	(3)	12.342	174	437104	49.470
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	1088037	102.939
115) Bromobenzene	(4)	12.461	156	869682	102.507
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	825411	268.454
117) 1,2,3-Trichloropropane	(4)	12.490	110	336139	104.128
119) n-Propylbenzene	(4)	12.525	91	3817261	104.103
120) 2-Chlorotoluene	(4)	12.602	126	813495	103.844
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	2845054	107.378
121) 4-Chlorotoluene	(4)	12.692	126	843646	103.759
124) tert-Butylbenzene	(4)	12.898	134	591495M	108.603
125) Pentachloroethane	(4)	12.933	167	549570	113.616
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	2971690	108.477
127) sec-Butylbenzene	(4)	13.062	105	3479126	107.847
129) 1,3-Dichlorobenzene	(4)	13.162	146	1615369	102.175
130) p-Isopropyltoluene	(4)	13.168	119	3007783	108.812
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	579781	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	1664879	100.338

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

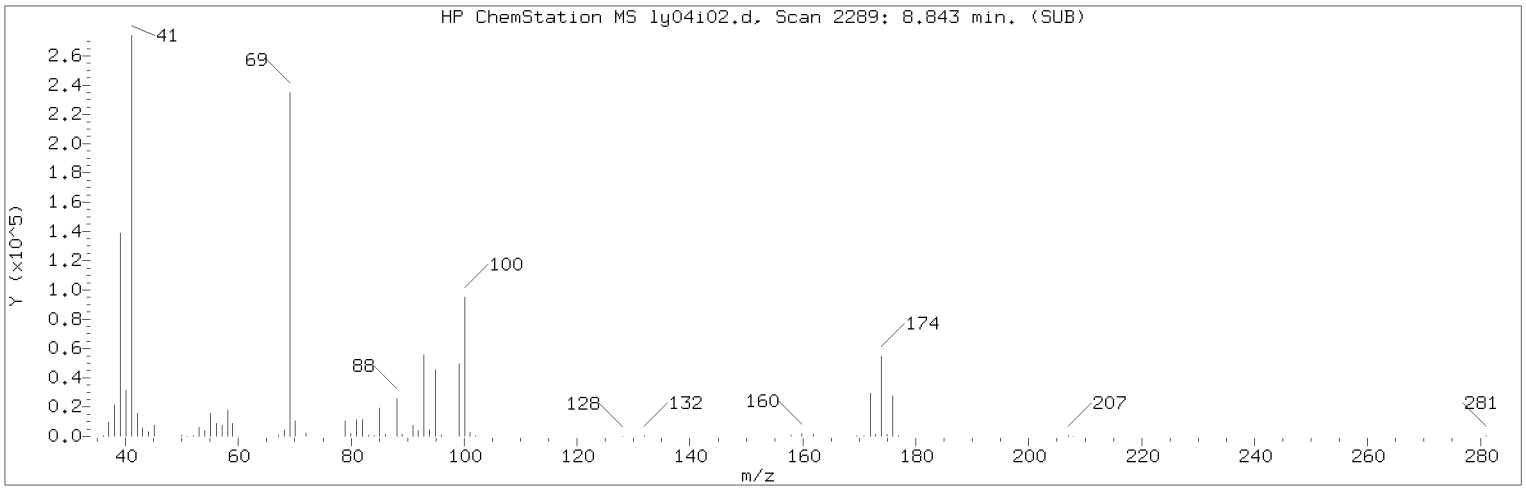
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

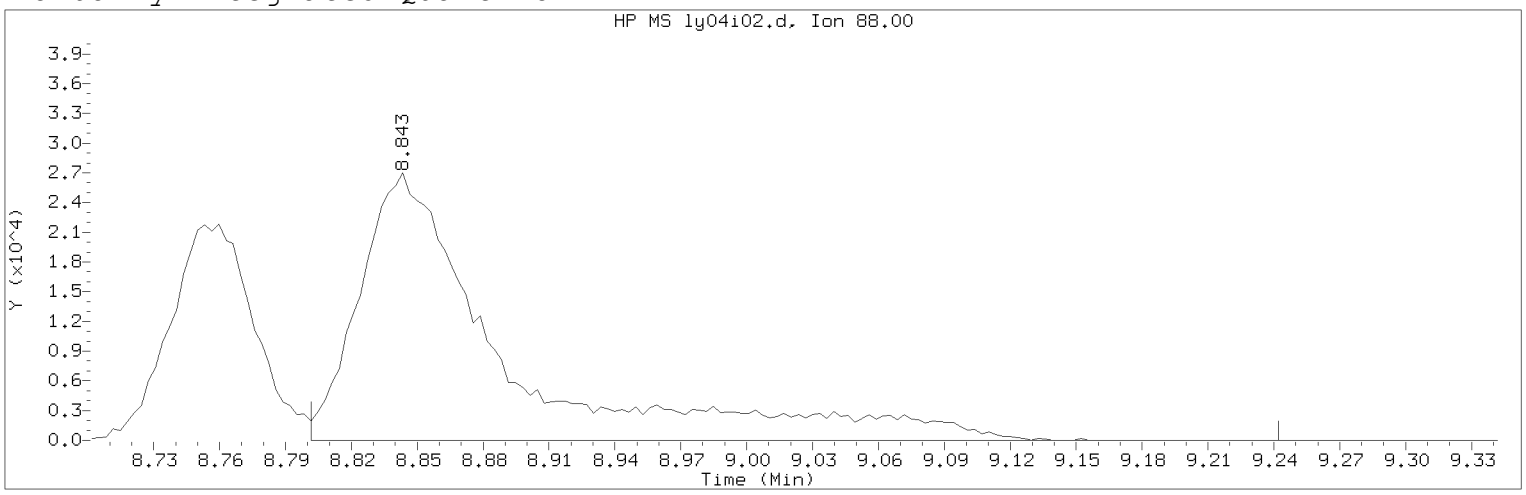
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	3076651	108.090
135) Benzyl Chloride	(4)	13.313	91	2438204	113.211
136) 1,3-Diethylbenzene	(4)	13.367	119	1960676	110.086
141) Diethylbenzene (total)	(4)		100	5656125	328.324
137) 1,4-Diethylbenzene	(4)	13.438	119	2046082	109.754
139) n-Butylbenzene	(4)	13.457	92	1477265	104.018
138) 1,2-Dichlorobenzene	(4)	13.496	146	1601420	100.637
140) 1,2-Diethylbenzene	(4)	13.512	119	1649367	108.484
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	256247	109.532
144) 1,3,5-Trichlorobenzene	(4)	14.162	180	1224679	102.164
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	1178758	105.224
147) Hexachlorobutadiene	(4)	14.663	225	502383	97.213
148) Naphthalene	(4)	14.769	128	4071339	112.277
149) 1,2,3-Trichlorobenzene	(4)	14.914	180	1139574	102.373
150) 2-Methylnaphthalene	(4)	15.560	142	2393759	102.167

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

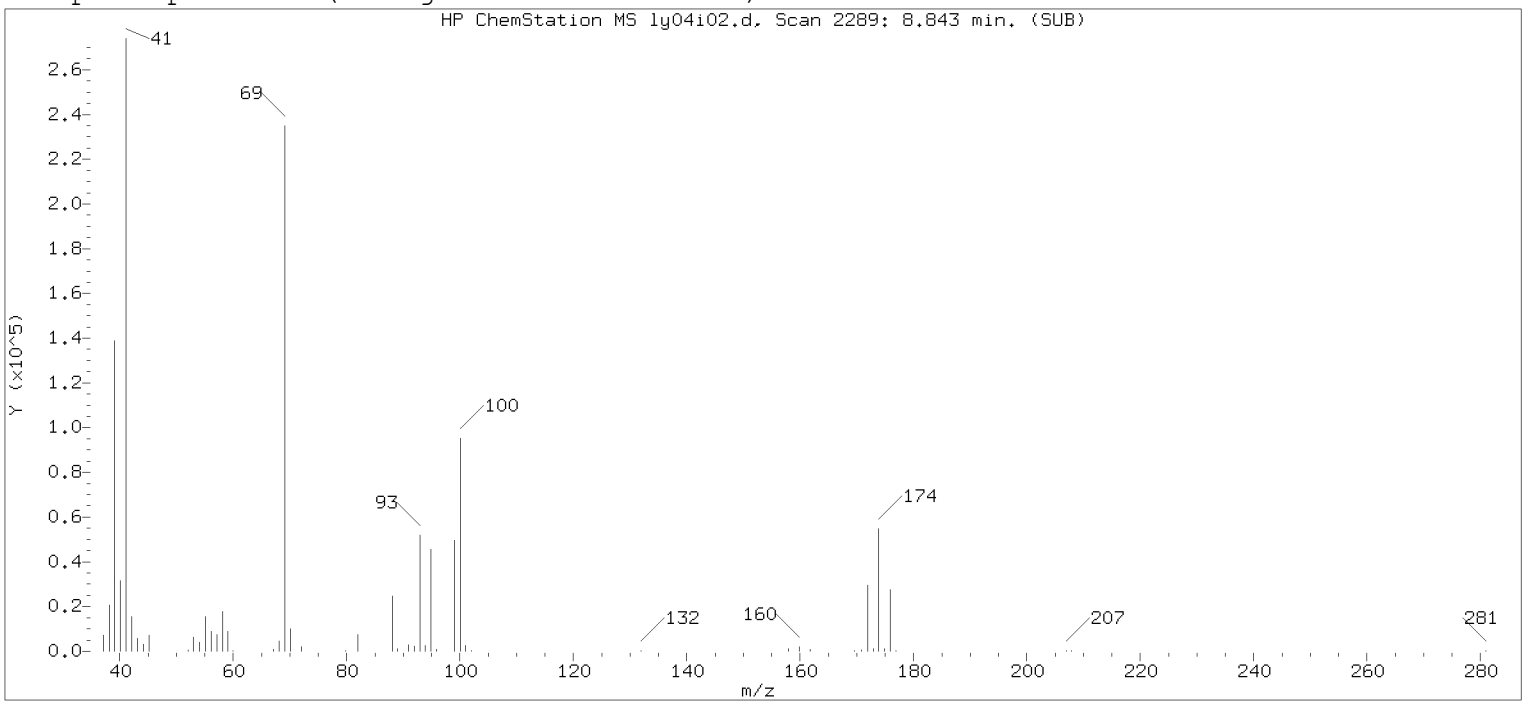
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area (flag) : 121991M
On-Column Amount (ng) : 1333.7223
Integration start scan : 2275 Integration stop scan: 2412
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

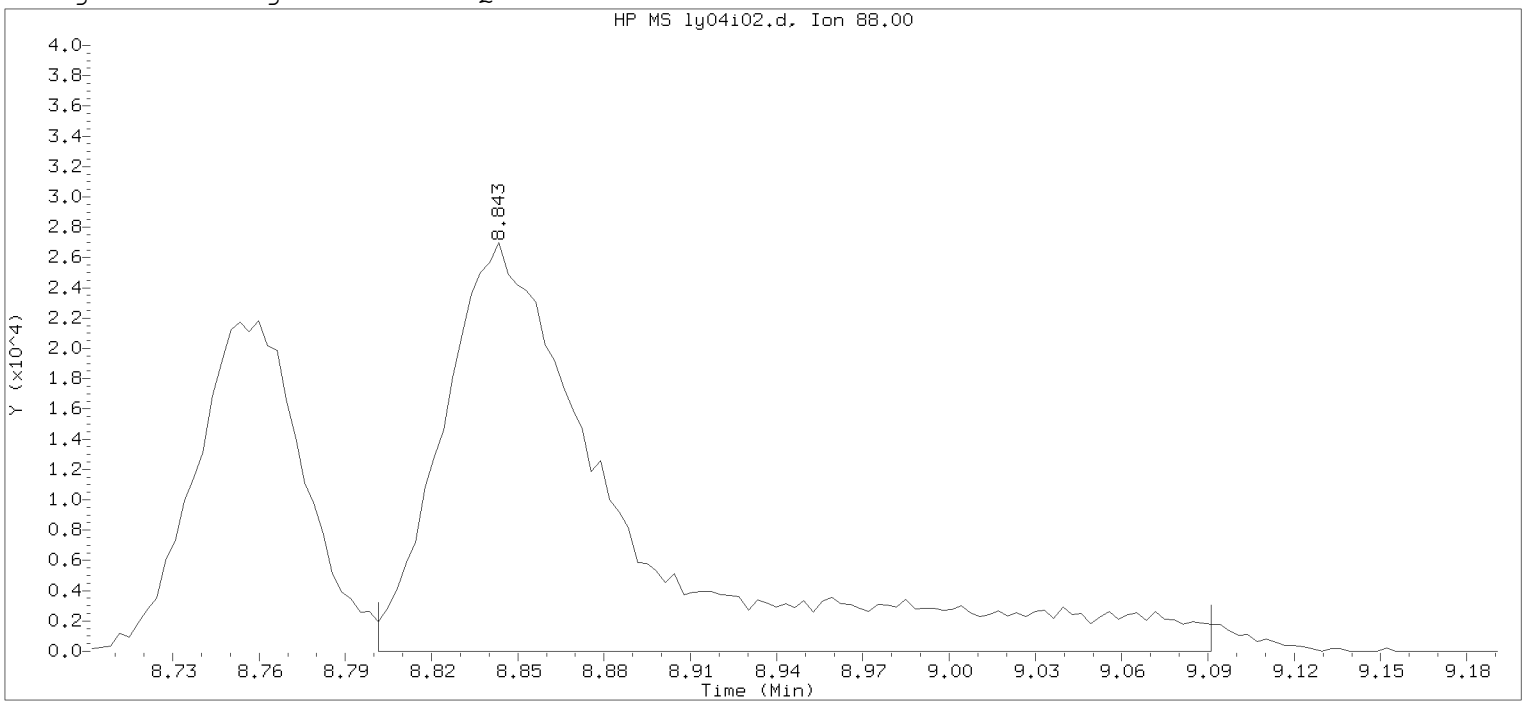
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

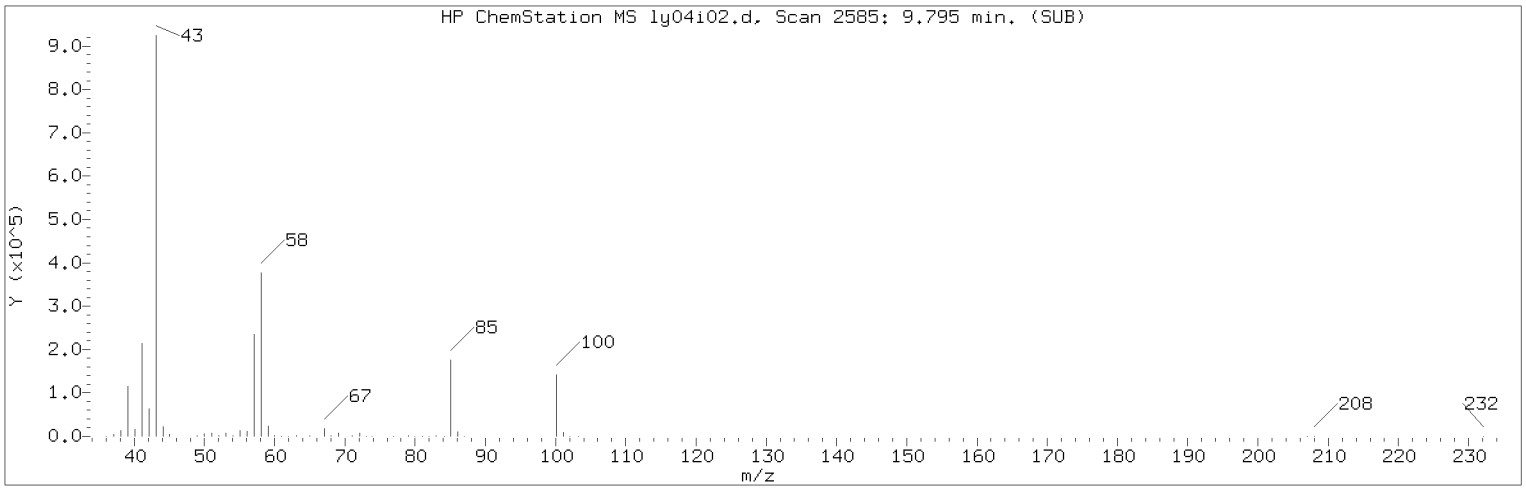
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

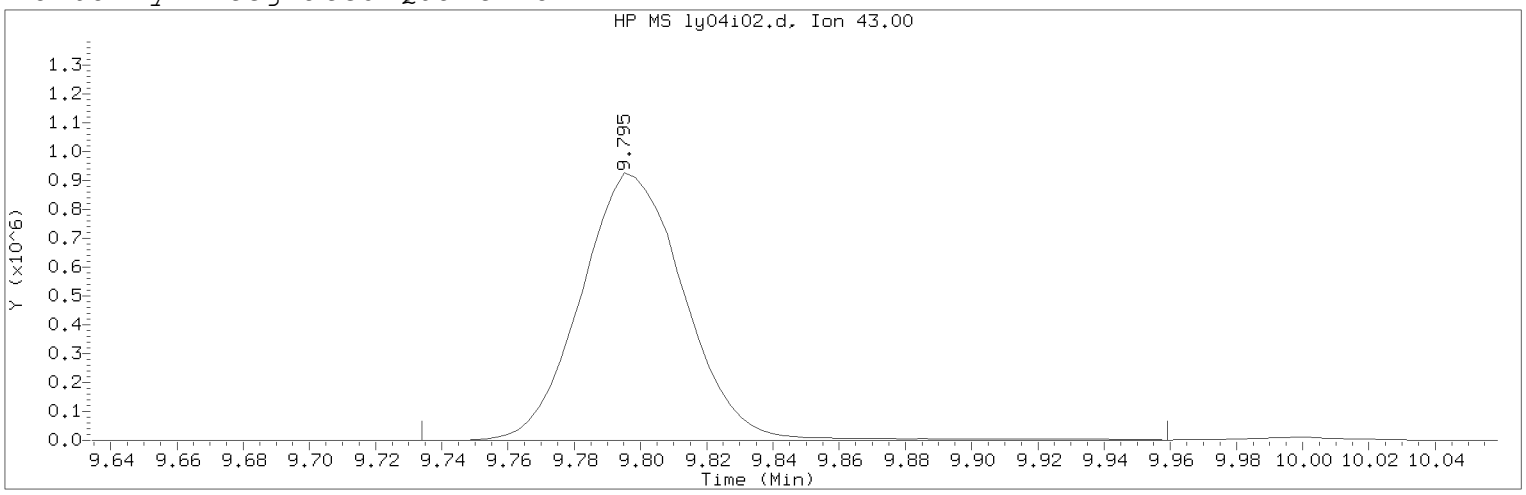
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area : 119871
On-column Amount (ng) : 1268.8357
Integration start scan : 2275 Integration stop scan: 2365
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0087

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

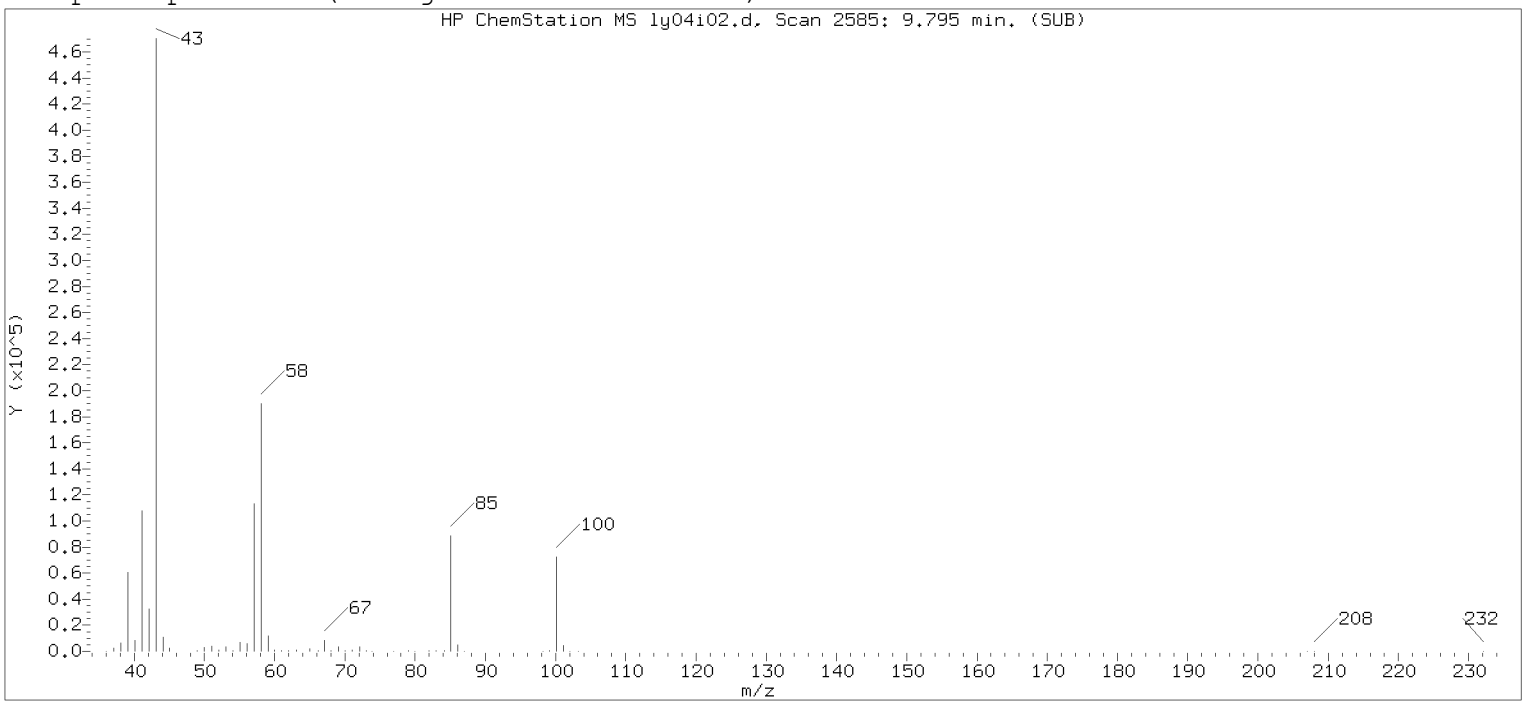
Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area (flag) : 2014827M
On-Column Amount (ng) : 206.5570
Integration start scan : 2565 Integration stop scan: 2635
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

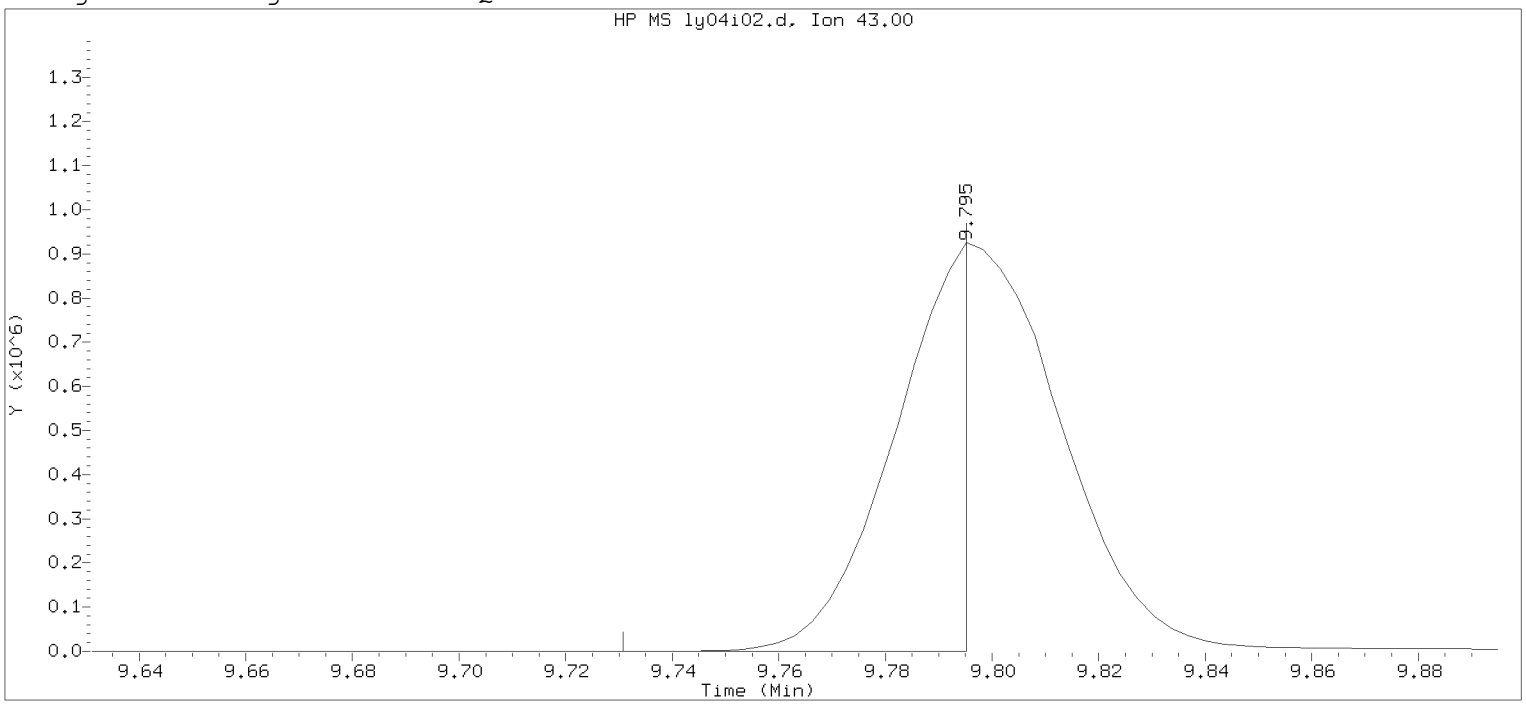
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

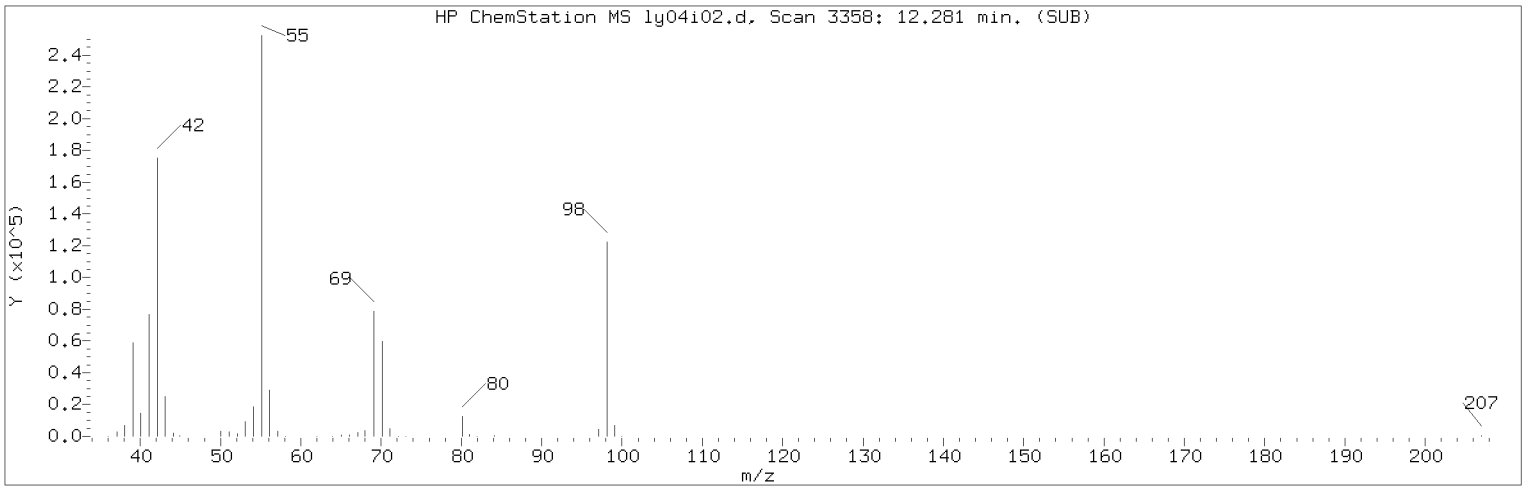
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

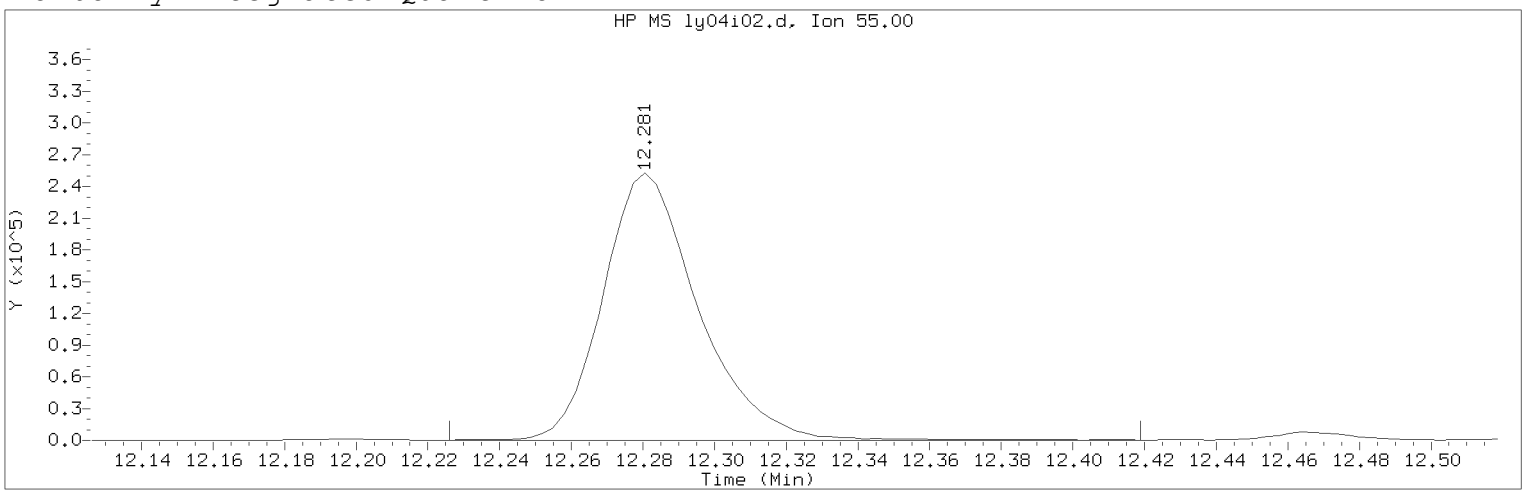
Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area : 841283
On-column Amount (ng) : 116.9659
Integration start scan : 2564 Integration stop scan: 2584
Y at integration start : 188 Y at integration end: 188

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

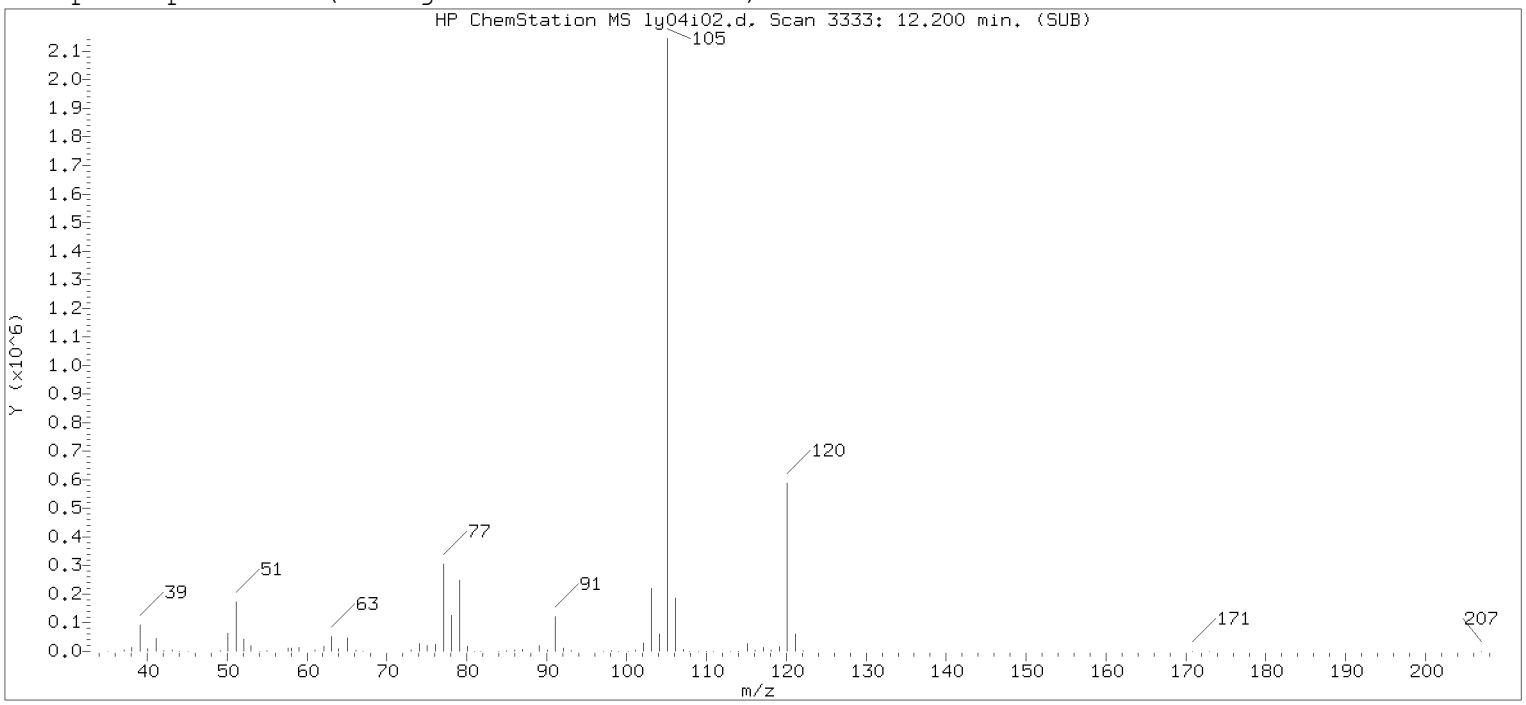
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 465460A
On-Column Amount (ng) : 1367.1245
Integration start scan : 3340 Integration stop scan: 3400
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

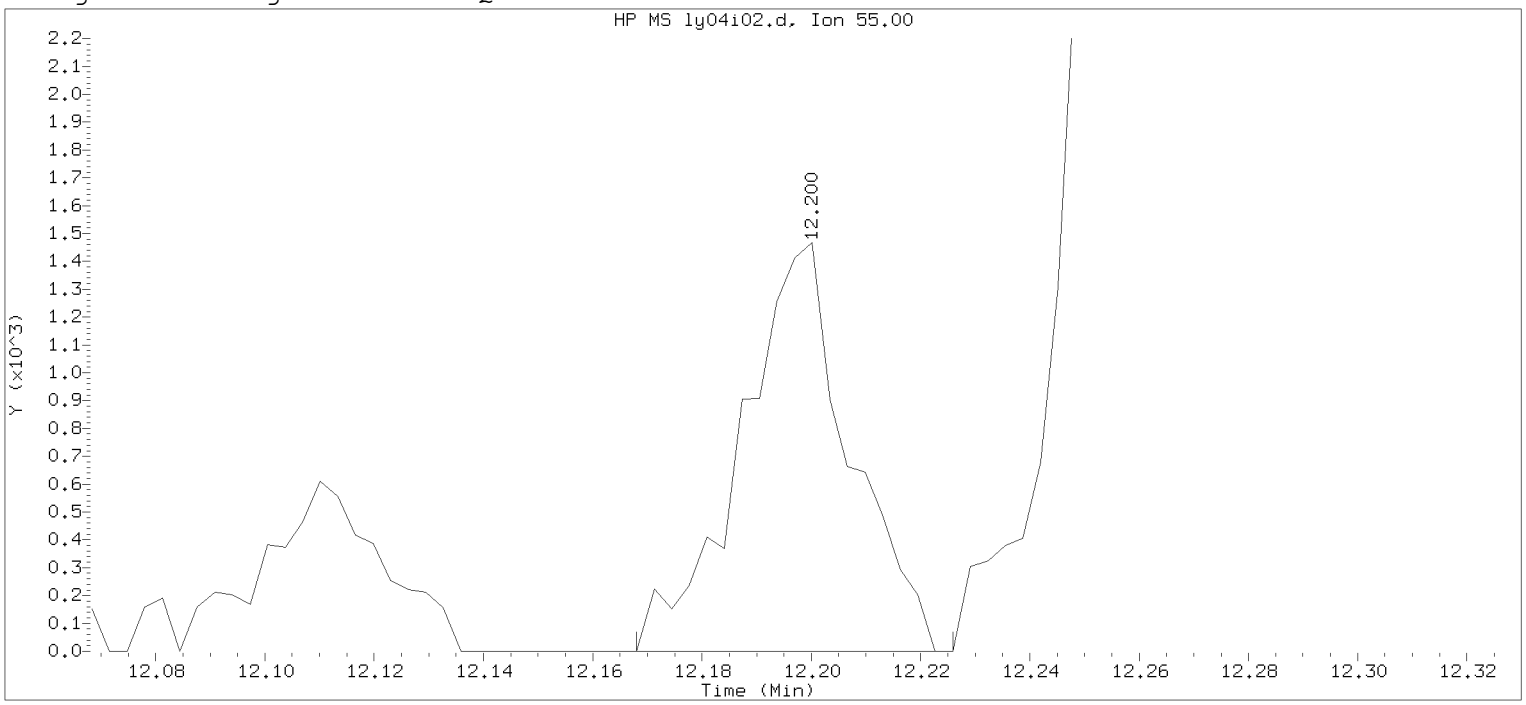
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

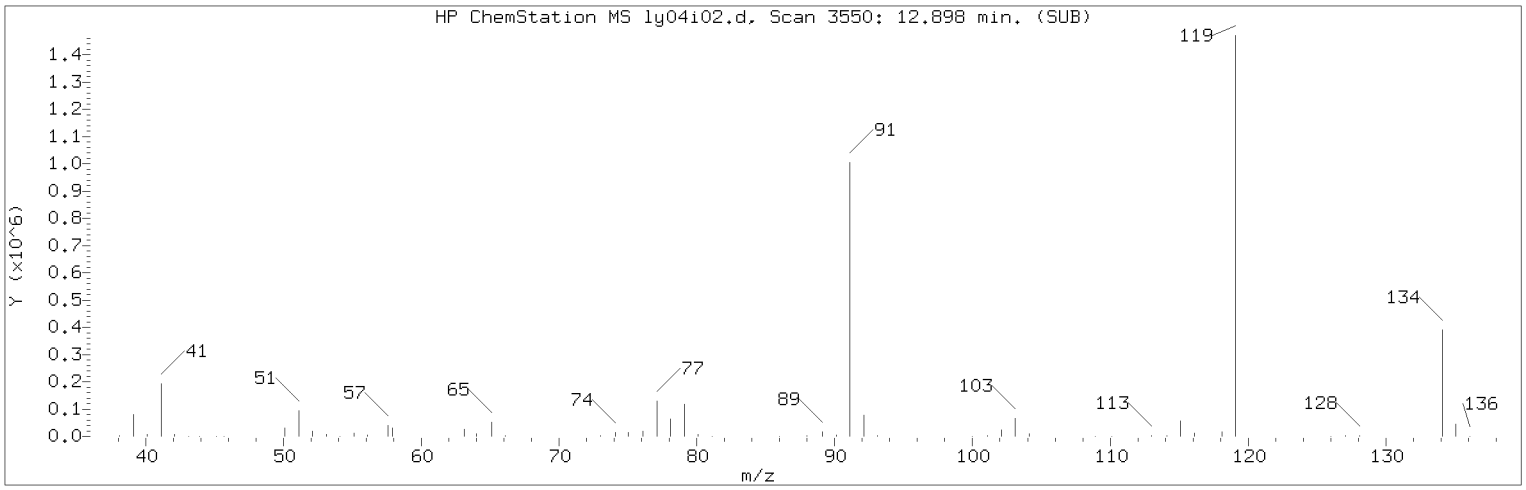
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

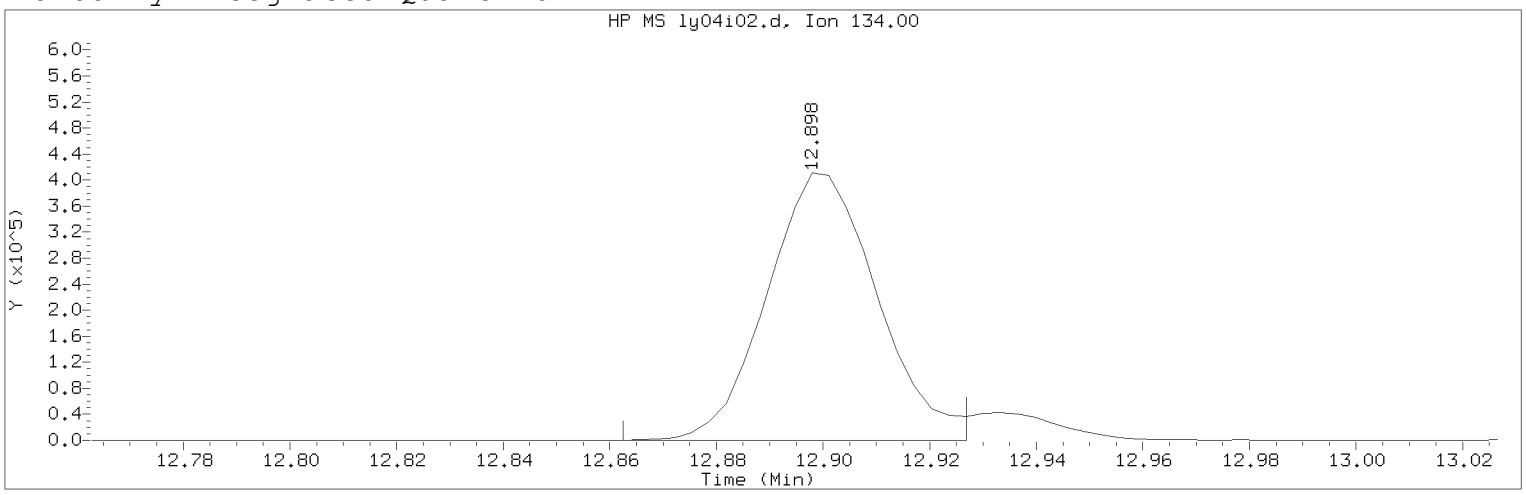
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3333
Retention Time (minutes): 12.200
Quant Ion : 55.00
Area : 2031
On-column Amount (ng) : 1278.2054
Integration start scan : 3322 Integration stop scan: 3340
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0092

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

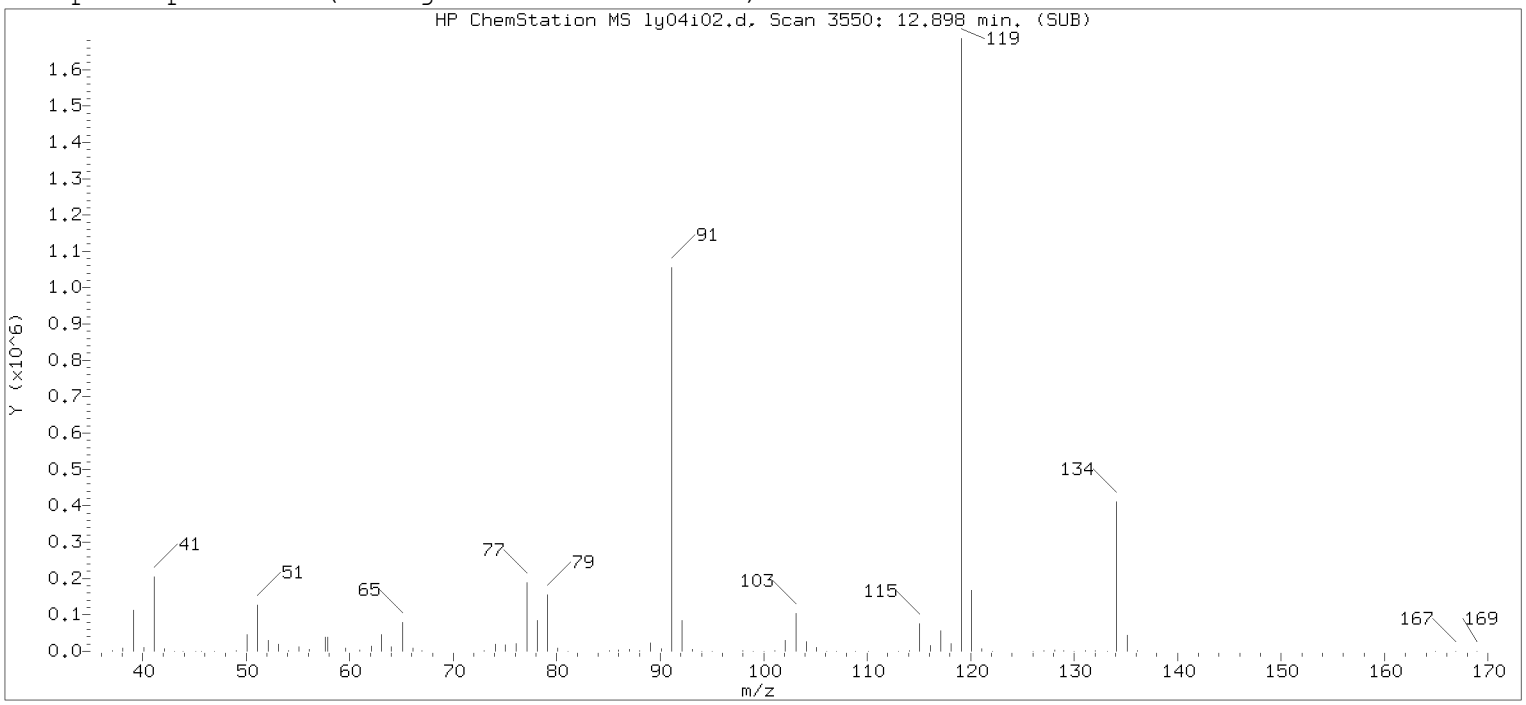
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 591495M
On-Column Amount (ng) : 108.6030
Integration start scan : 3538 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

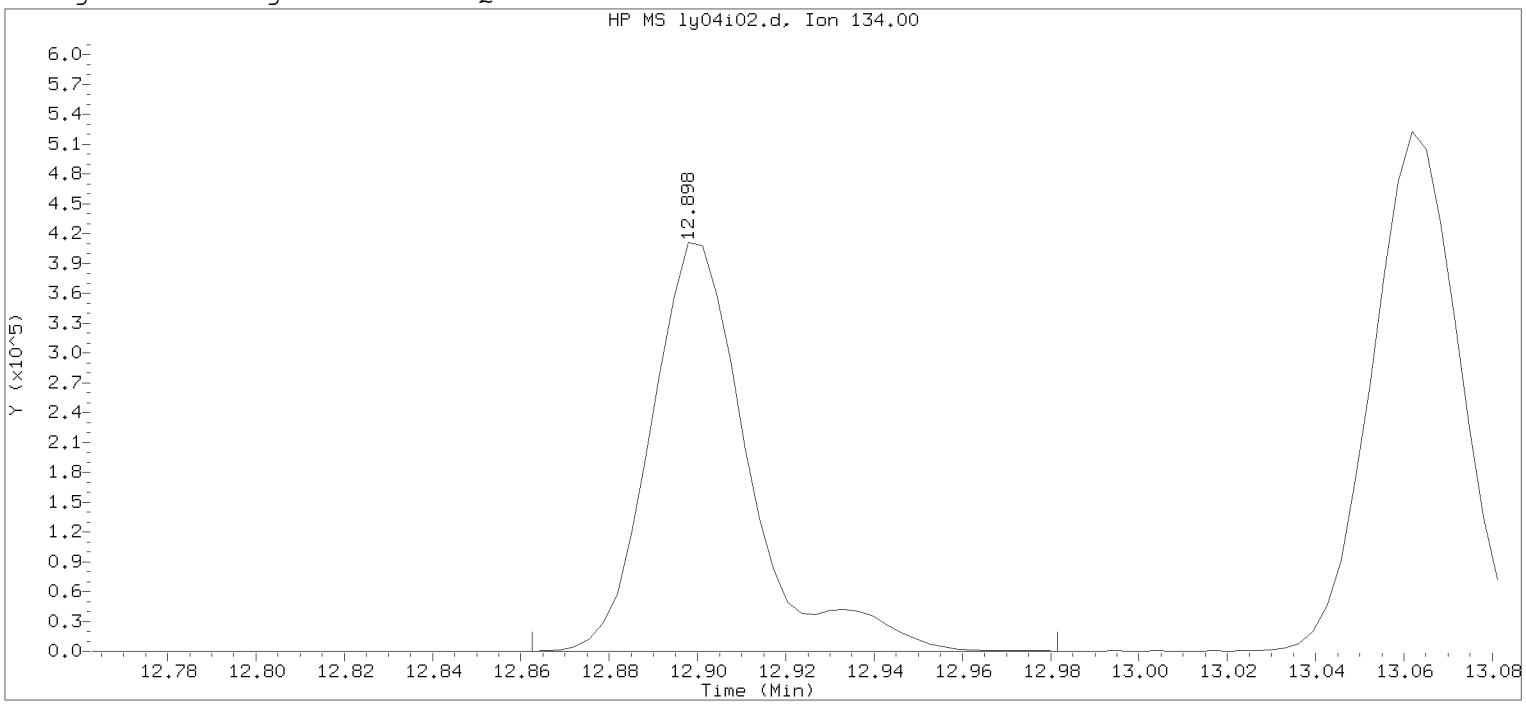
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



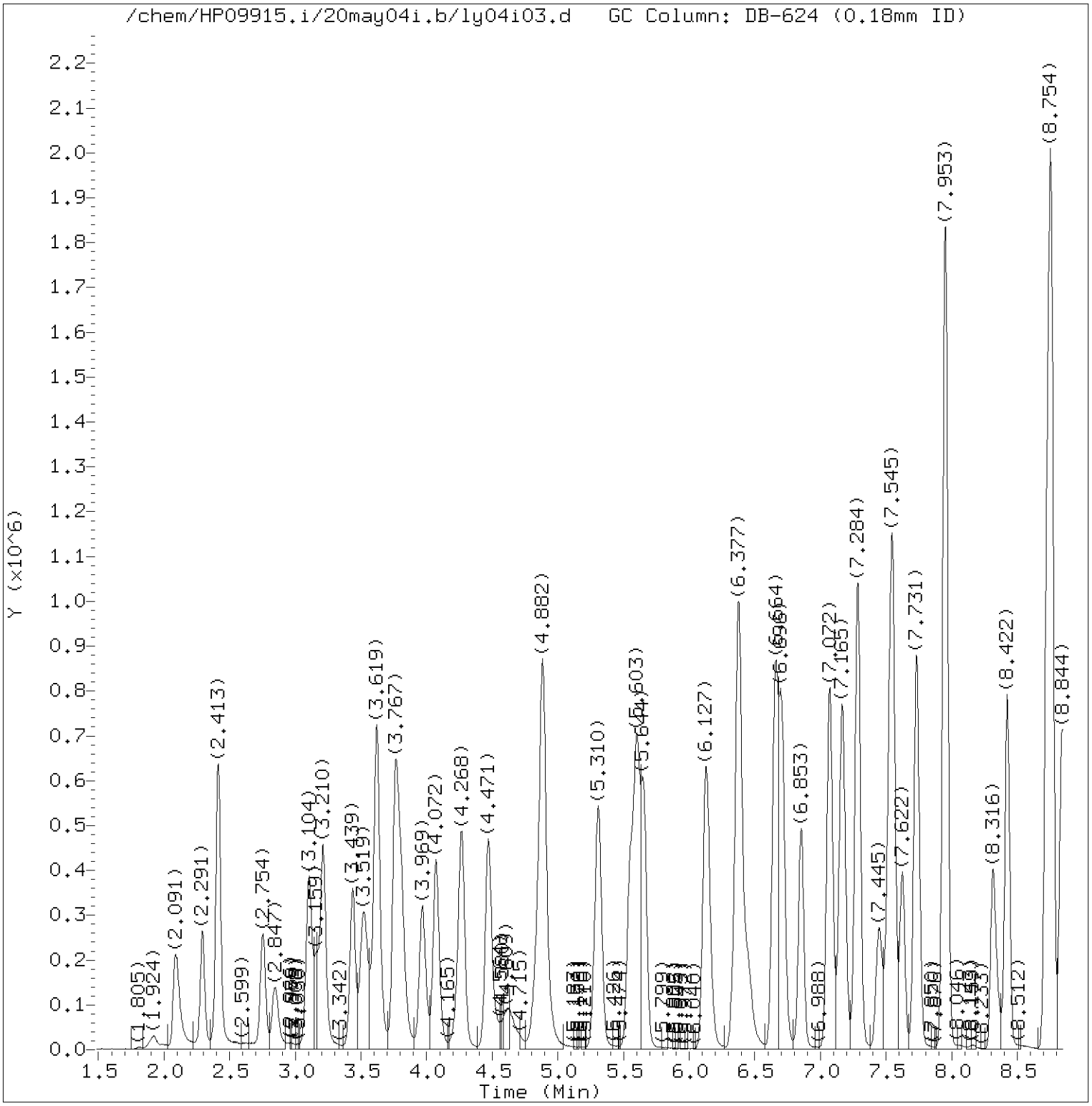
Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 636568
On-column Amount (ng) : 99.3867
Integration start scan : 3538 Integration stop scan: 3575
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0092



Total Ion Chromatogram (TIC)

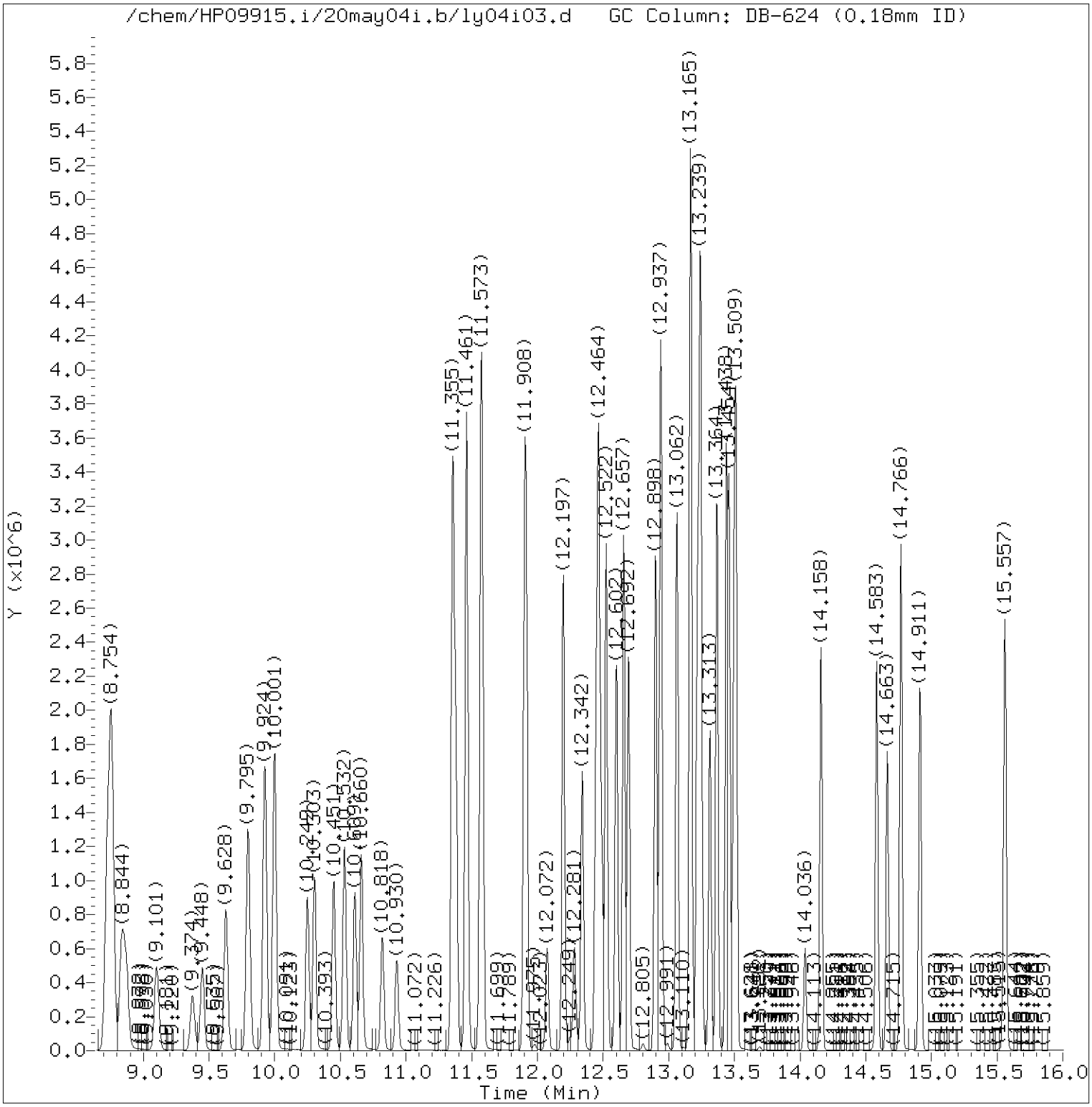
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	449709	49.088
4) Chloromethane	(2)	2.291	50	375424	43.891
5) 1,3-Butadiene	(2)	2.413	39	269470	49.108
6) Vinyl Chloride	(2)	2.416	62	380784	46.132
8) Bromomethane	(2)	2.754	94	257980	43.349
9) Chloroethane	(2)	2.847	64	206201	44.743
10) Dichlorofluoromethane	(2)	3.104	67	463748	46.651
12) Trichlorofluoromethane	(2)	3.159	101	441482	48.972
11) n-Pentane	(2)	3.214	43	444974	52.570
14) Ethyl ether	(2)	3.439	59	329703	51.759
15) Freon 123a	(2)	3.525	67	378614	51.840
16) Acrolein	(1)	3.622	56	1164434	467.232
17) 1,1-Dichloroethene	(2)	3.760	96	289094	50.285
17) 1,1-Dichloroethene	(2)	3.760	63	142043	51.876
19) Freon 113	(2)	3.796	101	315184	52.840
18) Acetone	(1)	3.799	58	99761	87.756
22) Methyl Iodide	(2)	3.966	142	569177	51.371
21) 2-Propanol	(1)	3.988	45	173097	238.907
23) Carbon Disulfide	(2)	4.072	76	1006416	51.990
27) Methyl Acetate	(2)	4.239	43	355334	48.460
25) Allyl Chloride	(2)	4.271	41	475545	51.041
28) Methylene Chloride	(2)	4.471	84	347199	50.768
29)*t-Butyl alcohol-d10	(1)	4.487	65	302938	250.000
30) t-Butyl alcohol	(1)	4.625	59	297512	243.263
31) Acrylonitrile	(2)	4.831	53	203235	50.035
33) Methyl Tertiary Butyl Ether	(2)	4.873	73	1020841	51.774
32) trans-1,2-Dichloroethene	(2)	4.889	96	334114	50.517
34) n-Hexane	(2)	5.307	57	535246	57.788
36) 1,1-Dichloroethane	(2)	5.548	63	597370	51.497
38) di-Isopropyl ether	(2)	5.603	45	1095502	53.697
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	508071	54.921
40) Ethyl t-butyl ether	(2)	6.127	59	1024536	54.049
43) 1,2-Dichloroethene (Total)	(2)		96	715832	101.982
44) 2-Butanone	(2)	6.358	43	495815	100.563
42) cis-1,2-Dichloroethene	(2)	6.374	96	381718	51.465
45) 2,2-Dichloropropane	(2)	6.387	77	472103	52.658
47) Propionitrile	(1)	6.448	54	403723	244.349
48) Methacrylonitrile	(2)	6.657	67	526393	129.265

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	193620	50.594
50) Tetrahydrofuran	(1)	6.718	71	137401	95.046
51) Chloroform	(2)	6.853	83	581531	51.313
52)$Dibromofluoromethane	(2)	7.065	113	337742	50.182
52)$Dibromofluoromethane	(2)	7.065	111	345243	50.181
53) 1,1,1-Trichloroethane	(2)	7.078	97	506155	52.059
54) Cyclohexane	(2)	7.168	56	624004	57.334
54) Cyclohexane	(2)	7.165	84	533866	56.195
54) Cyclohexane	(2)	7.165	69	188877	55.844
56) Carbon Tetrachloride	(2)	7.281	117	437519	53.709
55) 1,1-Dichloropropene	(2)	7.287	75	472822	53.050
58) Isobutyl Alcohol	(1)	7.451	41	250108	602.836
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85148	49.859
57)$1,2-Dichloroethane-d4	(2)	7.522	65	382006	50.393
57)$1,2-Dichloroethane-d4	(2)	7.519	104	54993	50.569
60) Benzene	(2)	7.551	78	1417699	51.384
61) 1,2-Dichloroethane	(2)	7.625	62	457945	49.515
61) 1,2-Dichloroethane	(2)	7.625	98	46267	51.337
65) t-Amyl methyl ether	(2)	7.731	73	1045355	53.982
66)*Fluorobenzene	(2)	7.950	96	1335958	50.000
67) n-Heptane	(2)	7.956	43	565094	58.670
69) n-Butanol	(1)	8.316	56	428273	1266.001
71) Trichloroethene	(2)	8.422	95	358732	51.381
72) Methylcyclohexane	(2)	8.725	83	626729	55.206
72) Methylcyclohexane	(2)	8.728	98	281181	54.759
73) 1,2-Dichloropropane	(2)	8.760	63	368890	51.892
76) Methyl Methacrylate	(2)	8.837	69	328320	53.714
75) 1,4-Dioxane	(1)	8.847	88	65798M	647.038
74) Dibromomethane	(2)	8.869	93	239968	51.616
78) Bromodichloromethane	(2)	9.098	83	440131	52.807
79) 2-Nitropropane	(2)	9.374	41	261718	104.730
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	266380	56.276
81) cis-1,3-Dichloropropene	(2)	9.628	75	590475	54.209
82) 4-Methyl-2-pentanone	(2)	9.795	43	1044729	104.635
83)$Toluene-d8	(3)	9.924	98	1380023	49.808
83)$Toluene-d8	(3)	9.924	100	895486	49.802
88) Toluene	(3)	10.001	92	903135	51.140
90) 1,3-Dichloropropene (total)	(3)		100	1132692	107.721

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	542217	53.511
91) Ethyl Methacrylate	(3)	10.303	69	572533	56.155
92) 1,1,2-Trichloroethane	(3)	10.451	97	346501	50.564
93) Tetrachloroethene	(3)	10.532	166	397309	52.791
94) 1,3-Dichloropropane	(3)	10.609	76	586078	51.142
96) 2-Hexanone	(3)	10.660	43	760412	102.687
97) Dibromochloromethane	(3)	10.818	129	383013	53.731
99) 1,2-Dibromoethane	(3)	10.930	107	383959	52.135
100)*Chlorobenzene-d5	(3)	11.355	117	1078517	50.000
101) 1-Chlorohexane	(3)	11.358	91	491546	54.389
102) Chlorobenzene	(3)	11.377	112	1030814	50.828
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	362258	52.691
104) Ethylbenzene	(3)	11.461	91	1746331	53.422
106) m+p-Xylene	(3)	11.573	106	1388438	108.099
108) Xylene (Total)	(3)		106	2065199	162.585
107) o-Xylene	(3)	11.901	106	676761	54.486
109) Styrene	(3)	11.917	104	1128029	55.843
110) Bromoform	(3)	12.075	173	280294	54.013
111) Isopropylbenzene	(3)	12.197	105	1789947	56.789
112) Cyclohexanone	(1)	12.281	55	250083A	660.677
114)$4-Bromofluorobenzene	(3)	12.342	95	526272	49.365
114)$4-Bromofluorobenzene	(3)	12.342	174	450419	49.280
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	560714M	50.510
115) Bromobenzene	(4)	12.461	156	457863	51.384
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	418508	129.599
117) 1,2,3-Trichloropropane	(4)	12.490	110	172280	50.814
119) n-Propylbenzene	(4)	12.522	91	2099925	54.527
120) 2-Chlorotoluene	(4)	12.602	126	437402	53.162
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1557090	55.955
121) 4-Chlorotoluene	(4)	12.692	126	448224	52.488
124) tert-Butylbenzene	(4)	12.898	134	327078M	57.179
125) Pentachloroethane	(4)	12.933	167	270606	53.266
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1620529	56.323
127) sec-Butylbenzene	(4)	13.062	105	2000977	59.058
129) 1,3-Dichlorobenzene	(4)	13.162	146	872418	52.540
130) p-Isopropyltoluene	(4)	13.168	119	1736247	59.805
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	608929	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	899651	51.624

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	1557265	52.092
135)	Benzyl Chloride	(4)	13.313	91	1236236	54.653
136)	1,3-Diethylbenzene	(4)	13.367	119	991545	53.007
141)	Diethylbenzene (total)	(4)		100	2872948	158.754
137)	1,4-Diethylbenzene	(4)	13.438	119	1045337	53.389
139)	n-Butylbenzene	(4)	13.458	92	856054	57.392
138)	1,2-Dichlorobenzene	(4)	13.496	146	862079	51.582
140)	1,2-Diethylbenzene	(4)	13.512	119	836066	52.358
142)	1,2-Dibromo-3-chloropropane	(4)	14.036	75	128904	52.462
144)	1,3,5-Trichlorobenzene	(4)	14.158	180	690748	54.865
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	653918	55.579
147)	Hexachlorobutadiene	(4)	14.663	225	301933	55.629
148)	Naphthalene	(4)	14.766	128	2178912	57.212
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	643443	55.036
150)	2-Methylnaphthalene	(4)	15.560	142	1255729	47.626

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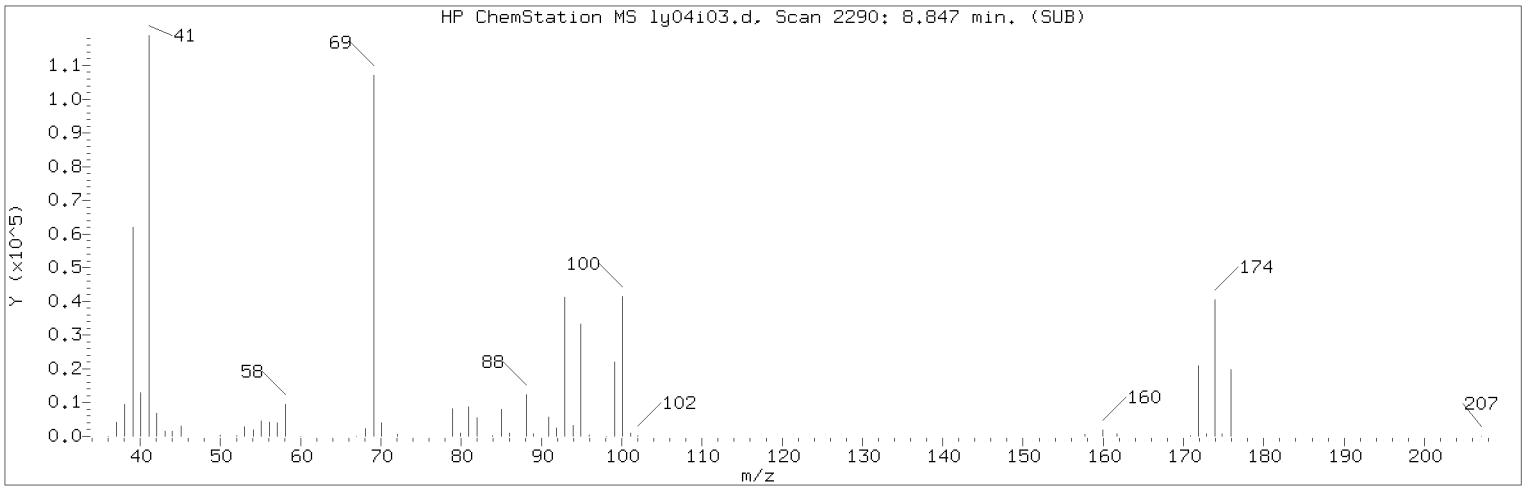
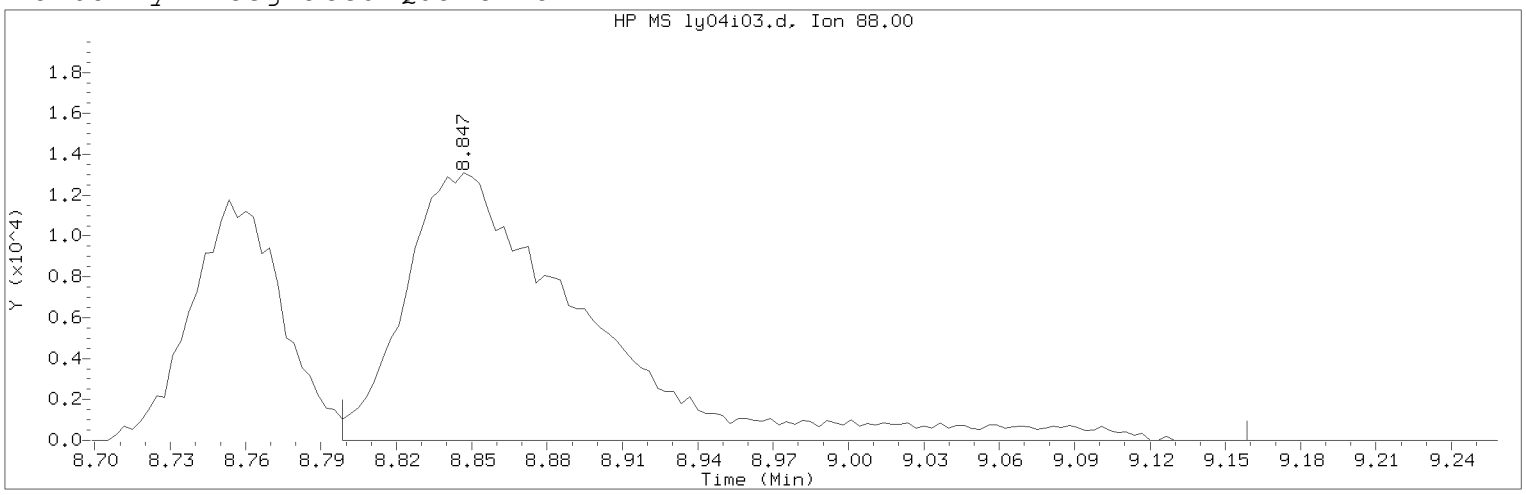
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

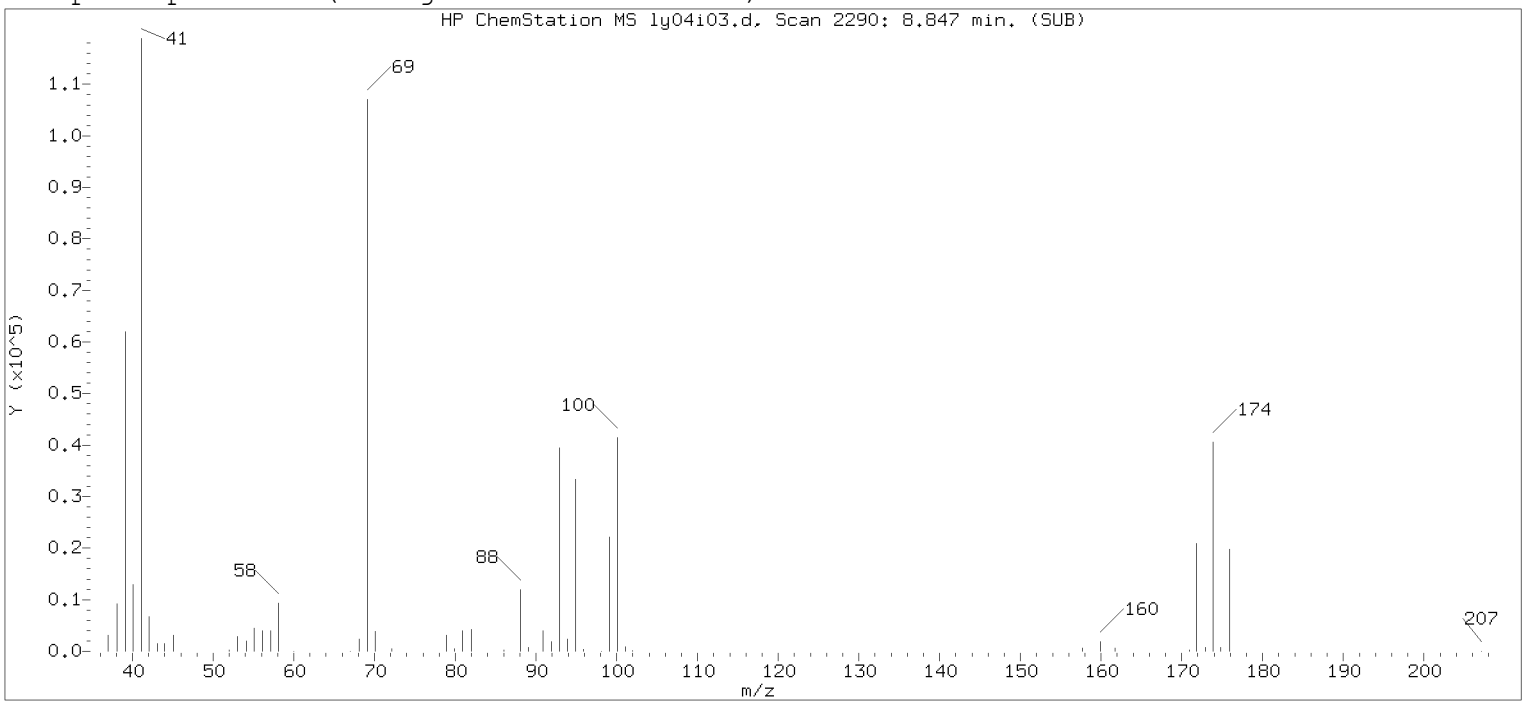
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 65798M
On-Column Amount (ng) : 647.0377
Integration start scan : 2274 Integration stop scan: 2386
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

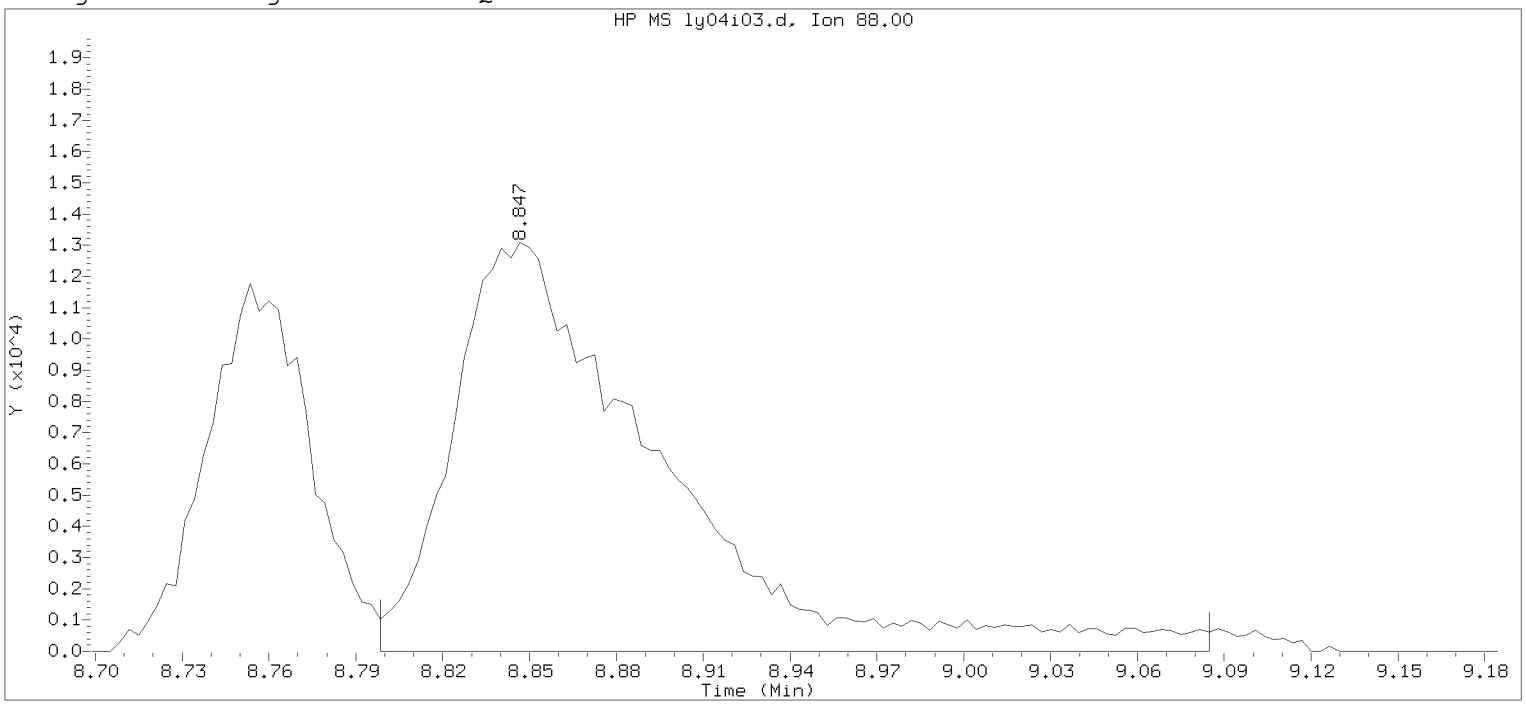
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

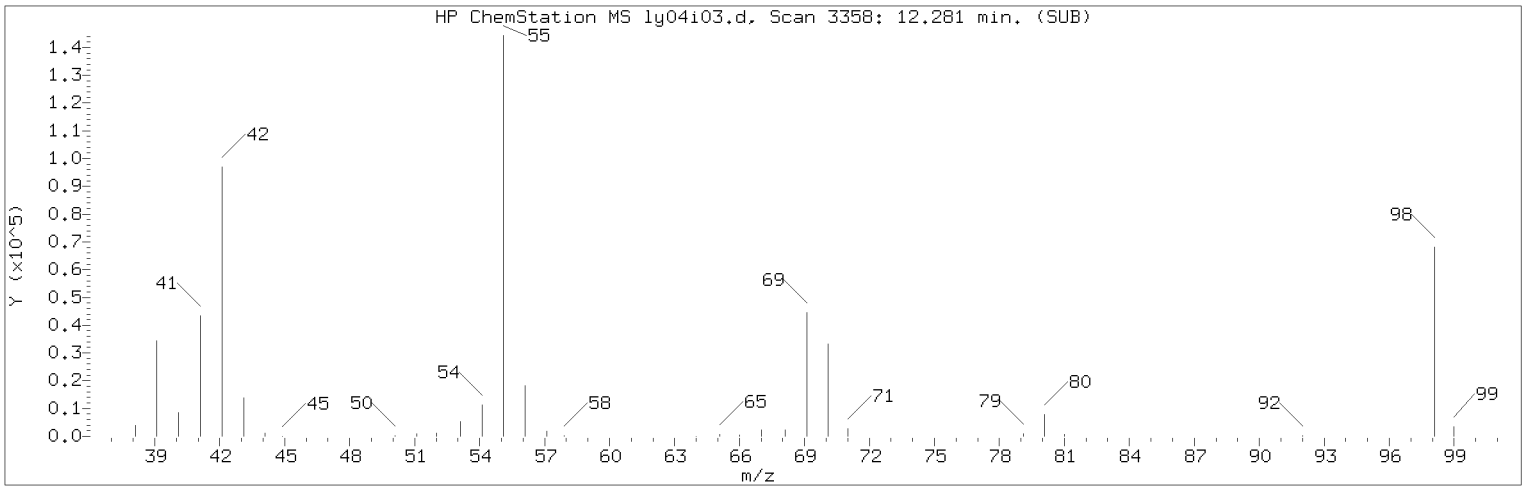
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

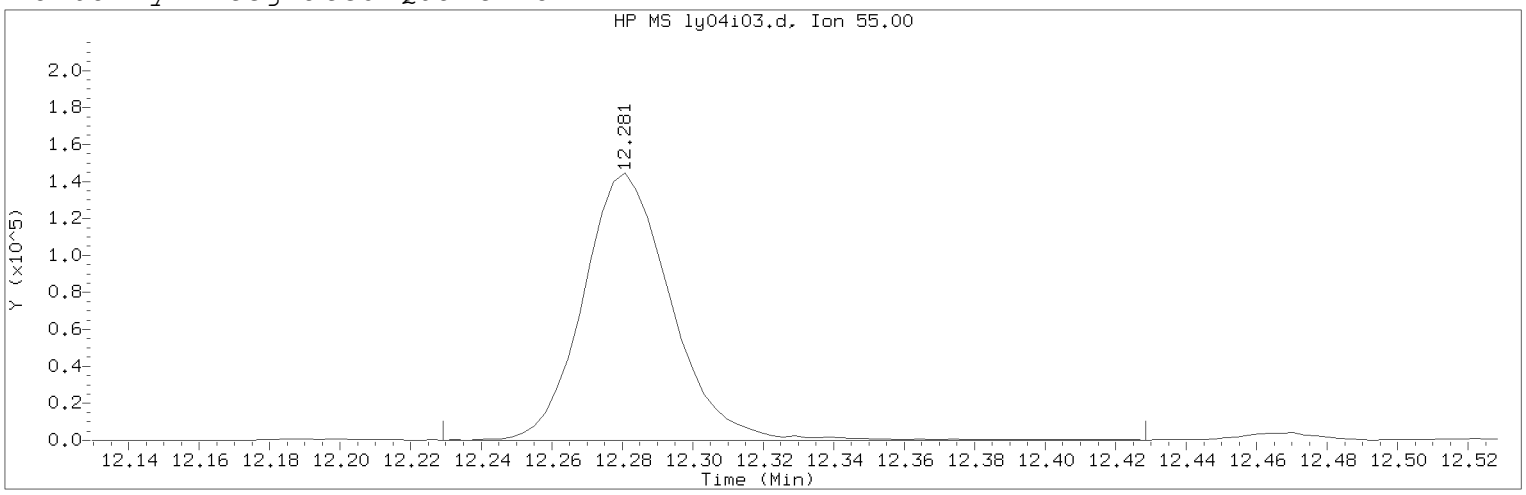
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 64664
On-column Amount (ng) : 618.7368
Integration start scan : 2274 Integration stop scan: 2363
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

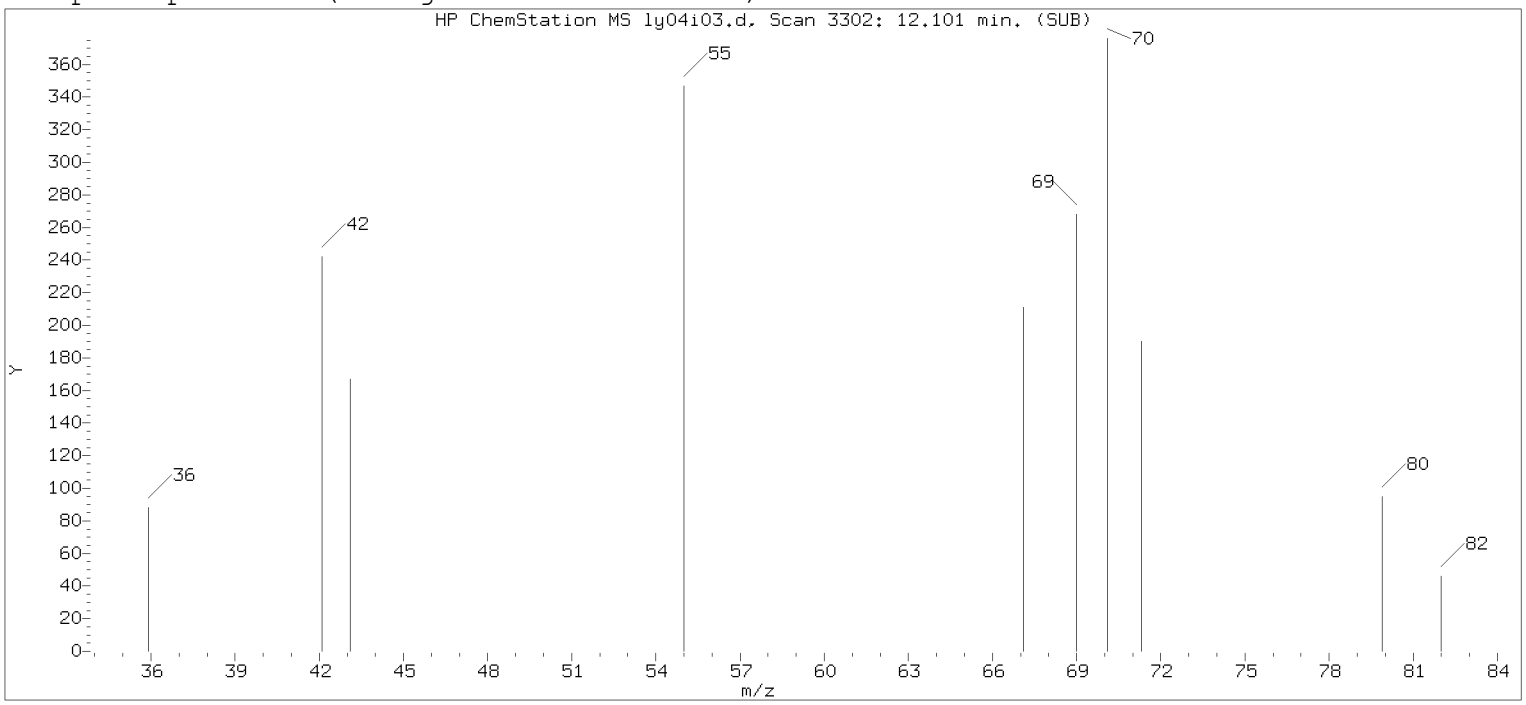
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 250083A
On-Column Amount (ng) : 660.6769
Integration start scan : 3341 Integration stop scan: 3403
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

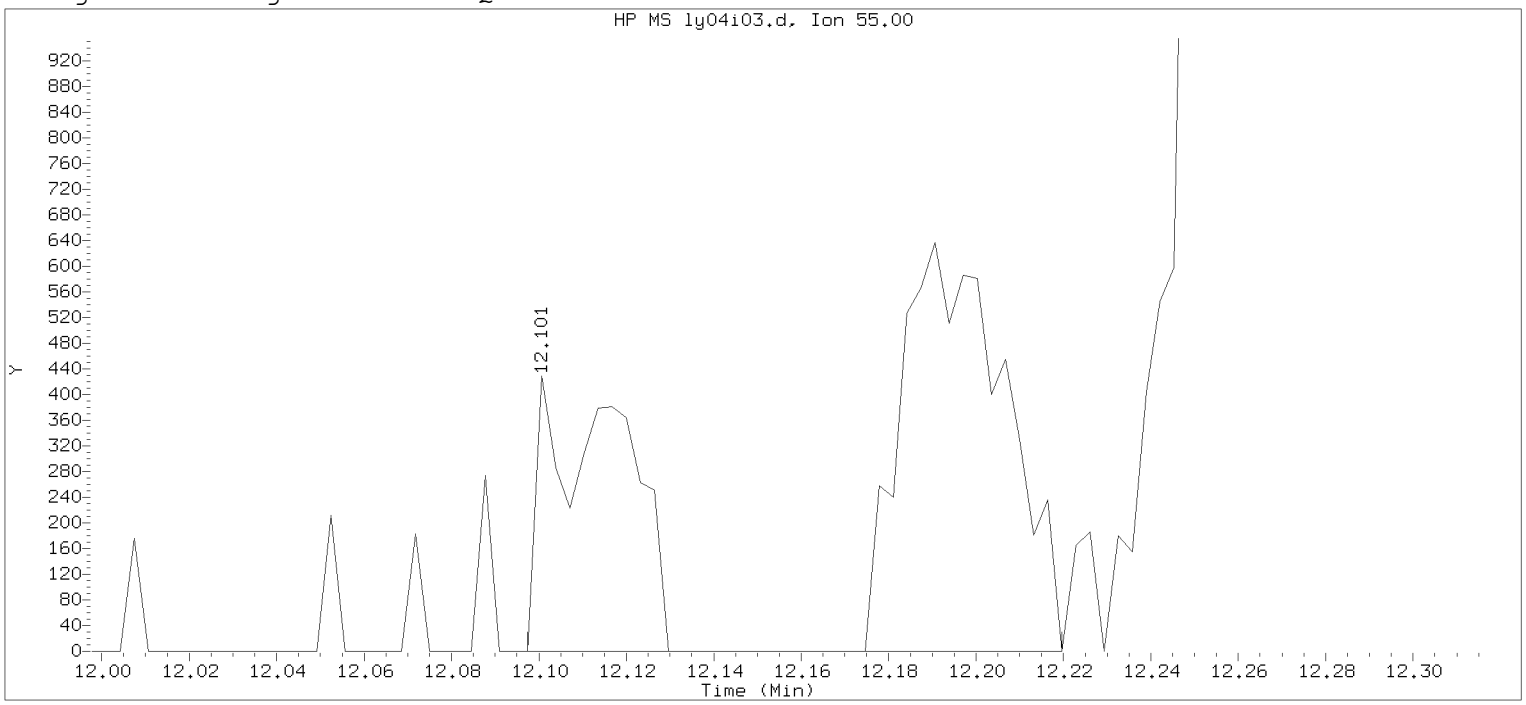
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

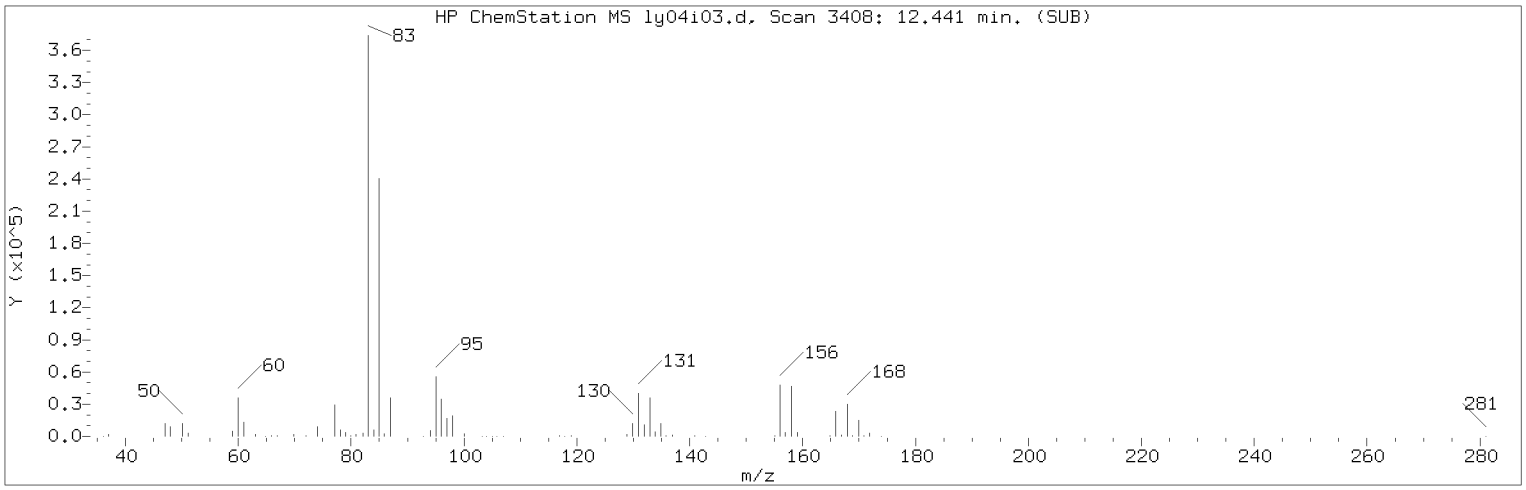
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

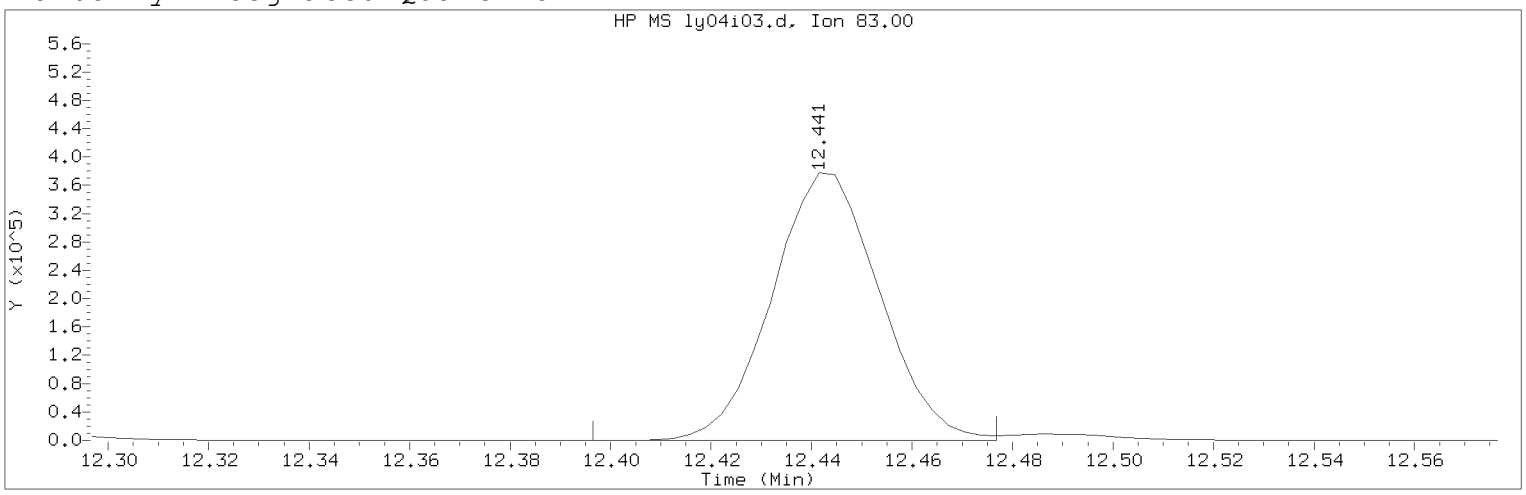
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3302
Retention Time (minutes): 12.101
Quant Ion : 55.00
Area : 1618
On-column Amount (ng) : 793.0477
Integration start scan : 3300 Integration stop scan: 3338
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

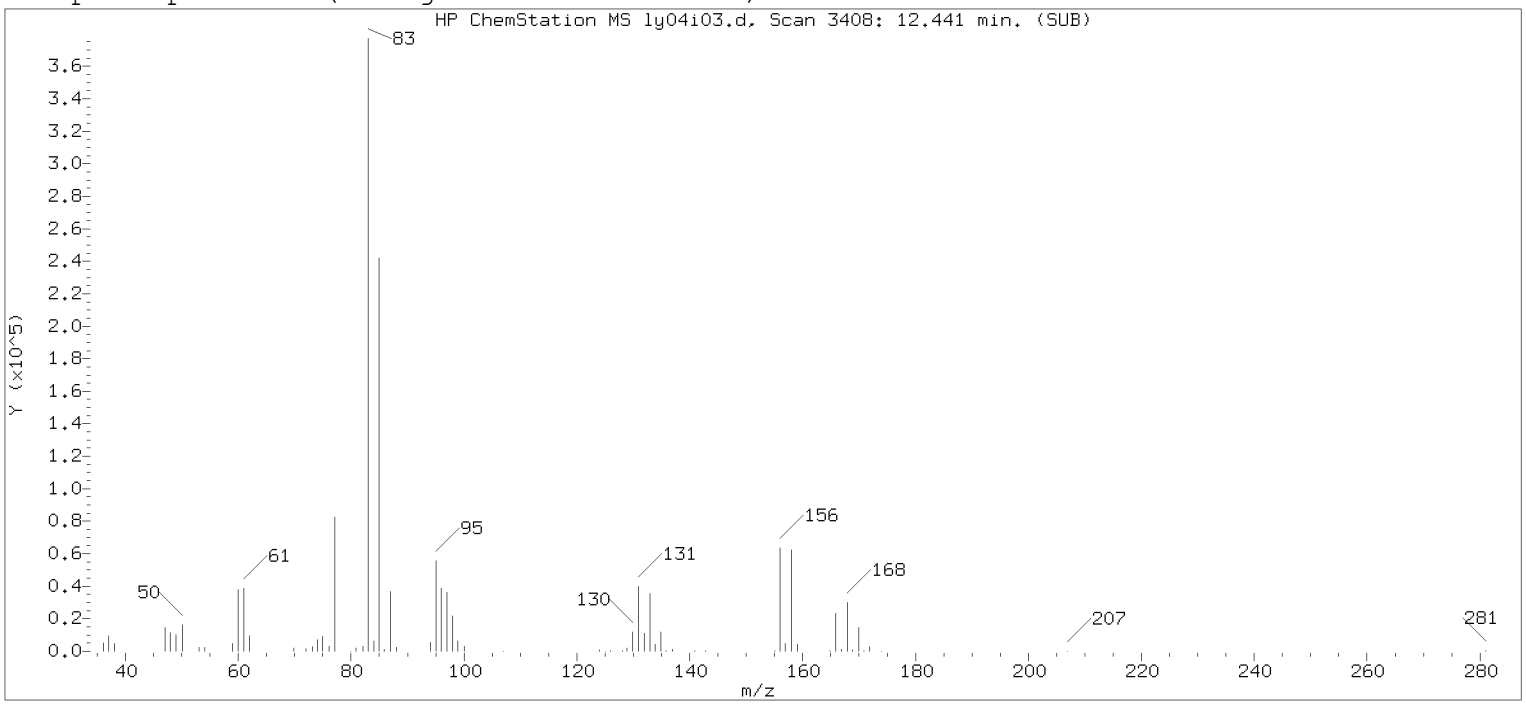
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 560714M
On-Column Amount (ng) : 50.5096
Integration start scan : 3393 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

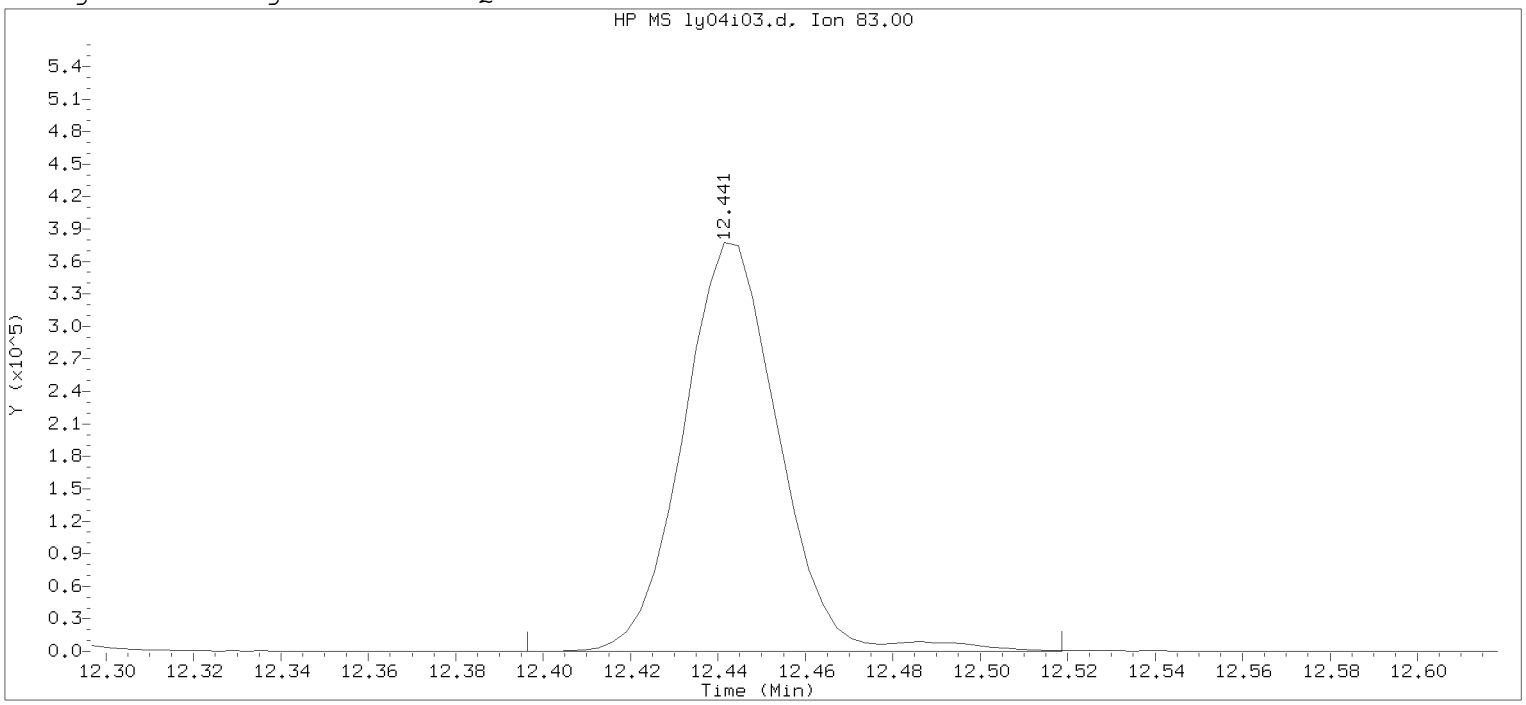
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 572715
On-column Amount (ng) : 51.1549
Integration start scan : 3393 Integration stop scan: 3431
Y at integration start : 0 Y at integration end: 0

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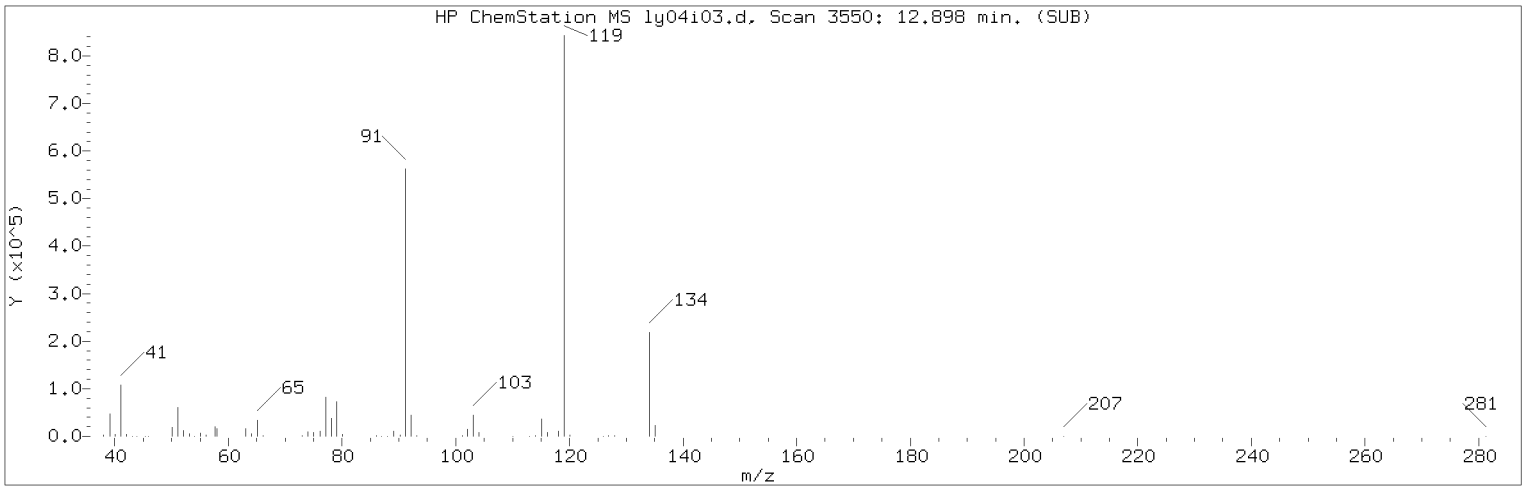
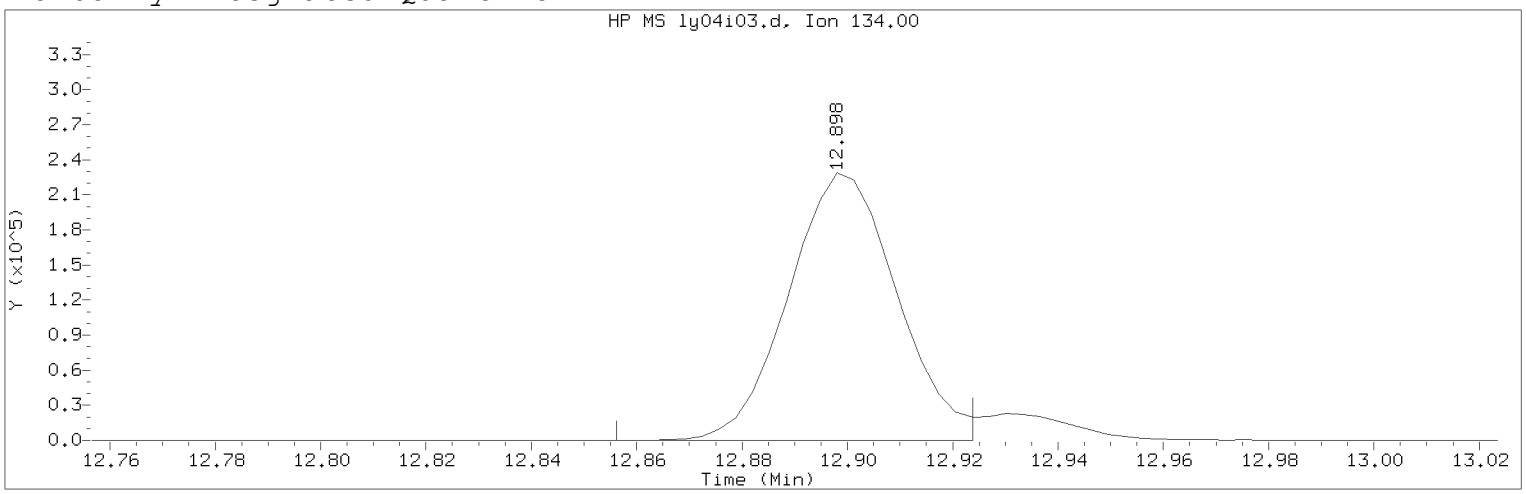
Target 3.5 esignature user ID: sejo0005

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

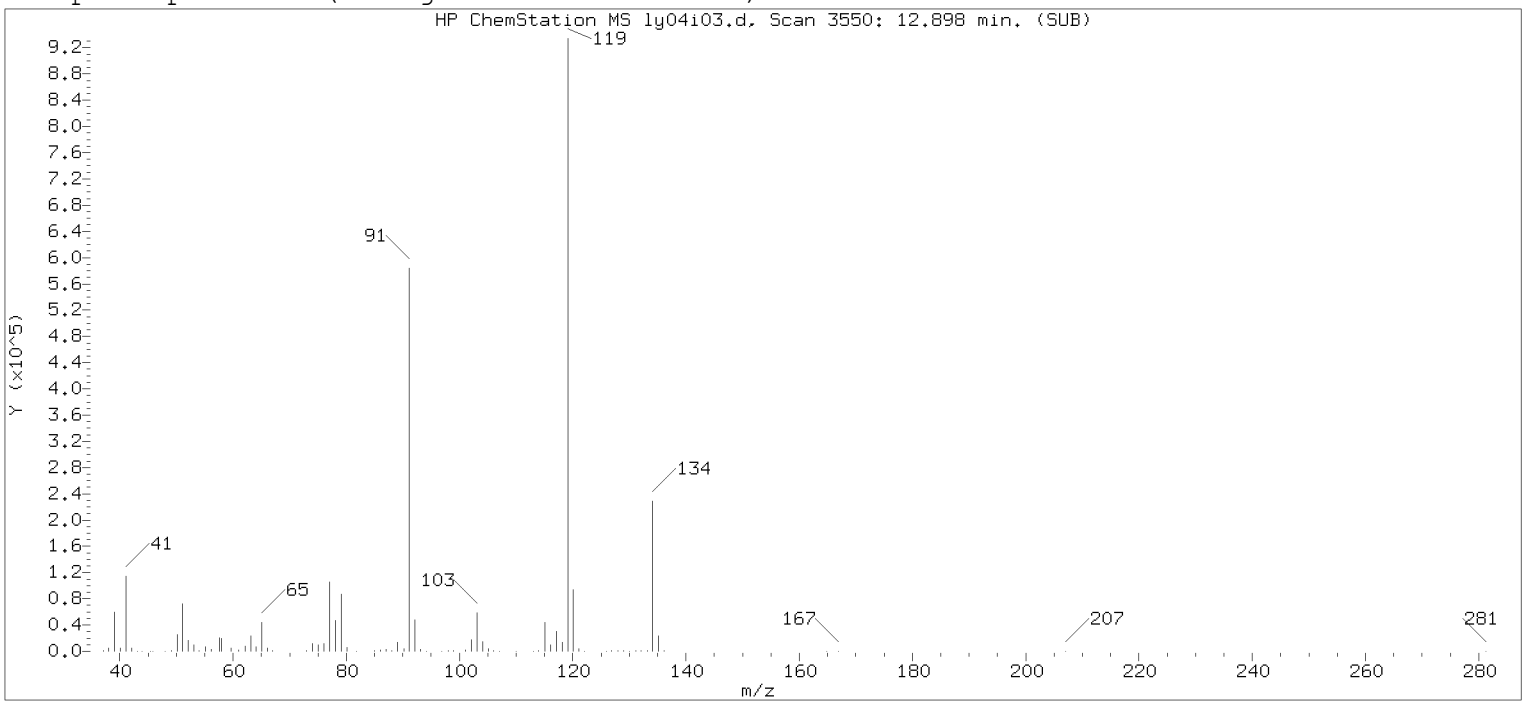
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 327078M
On-Column Amount (ng) : 57.1794
Integration start scan : 3536 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

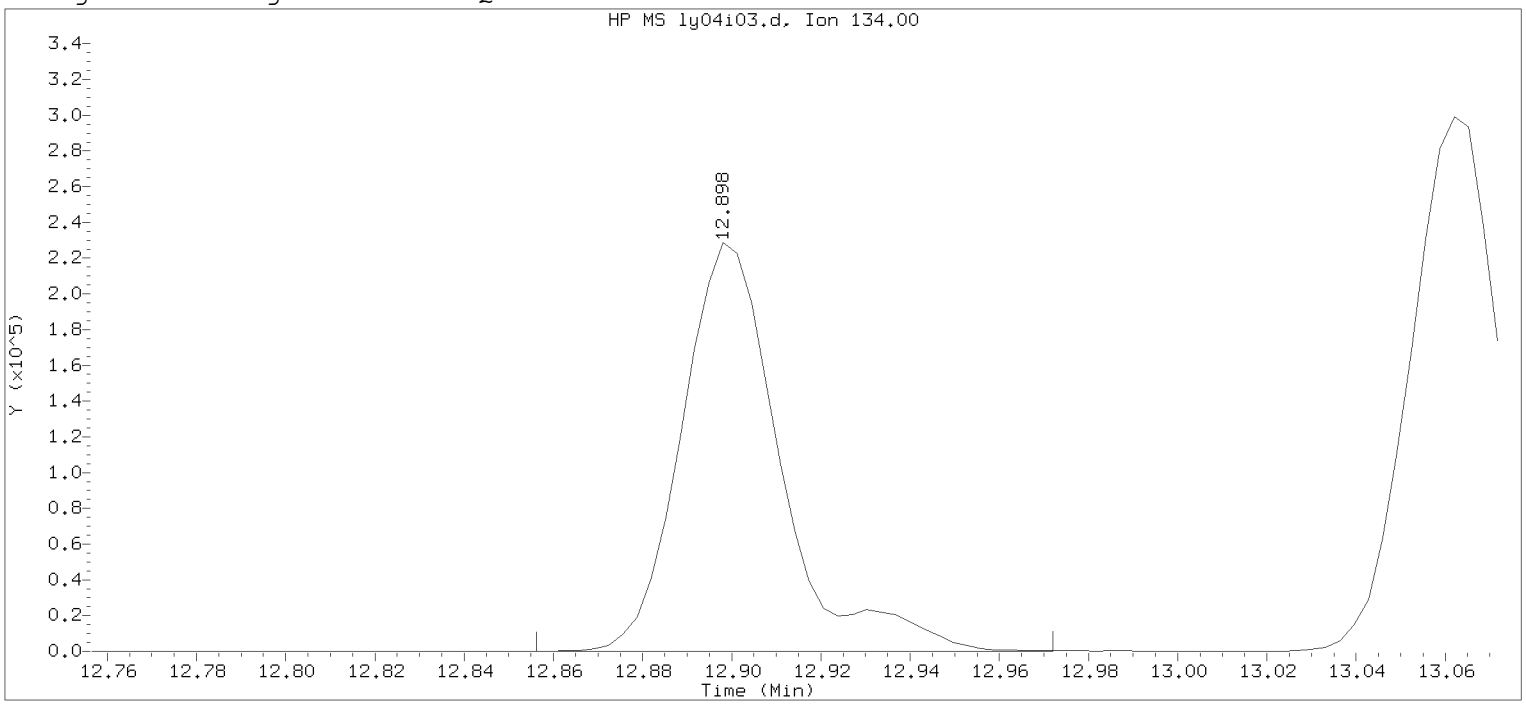
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



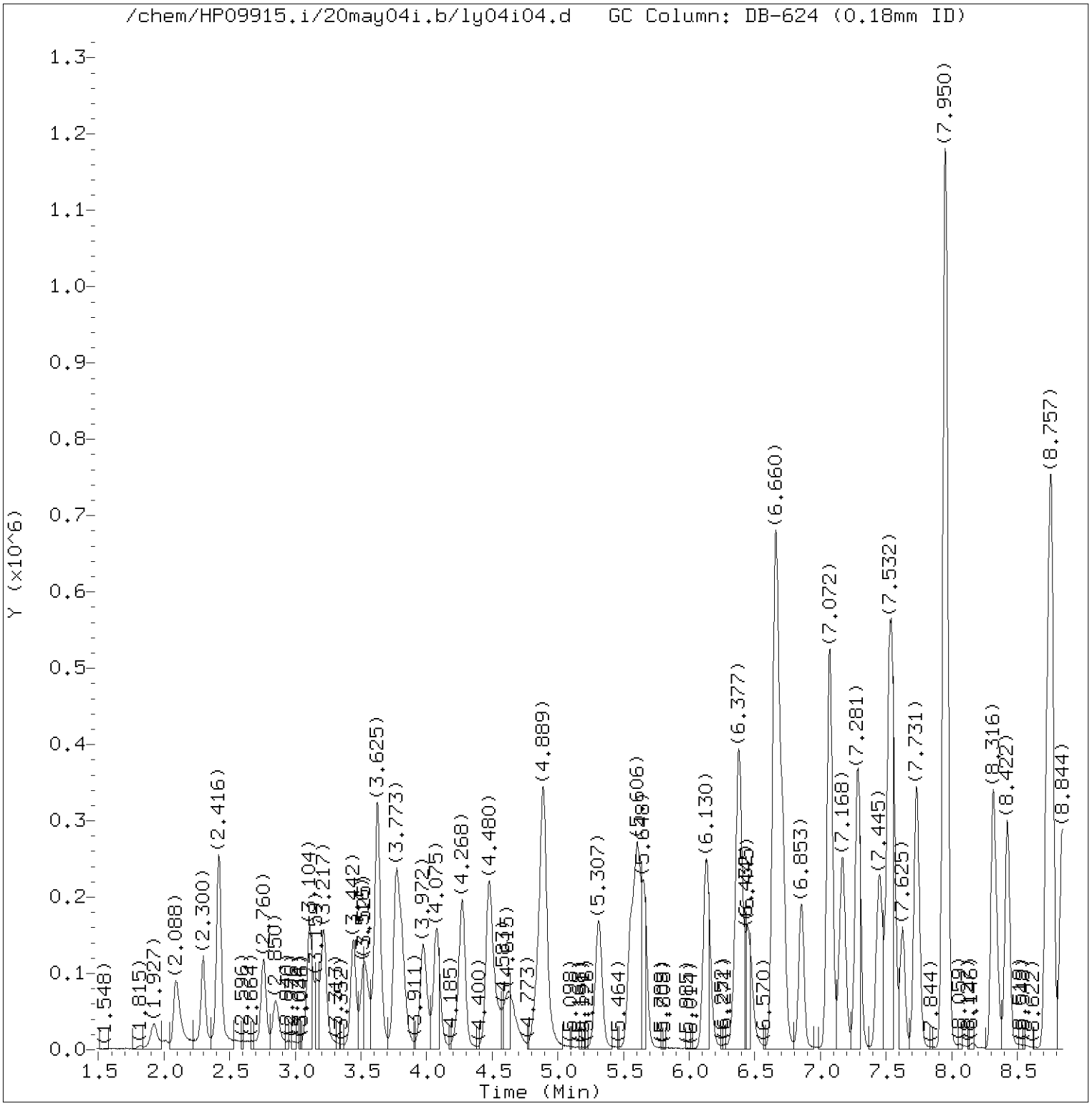
Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 353406
On-column Amount (ng) : 51.6624
Integration start scan : 3536 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002



Total Ion Chromatogram (TIC)

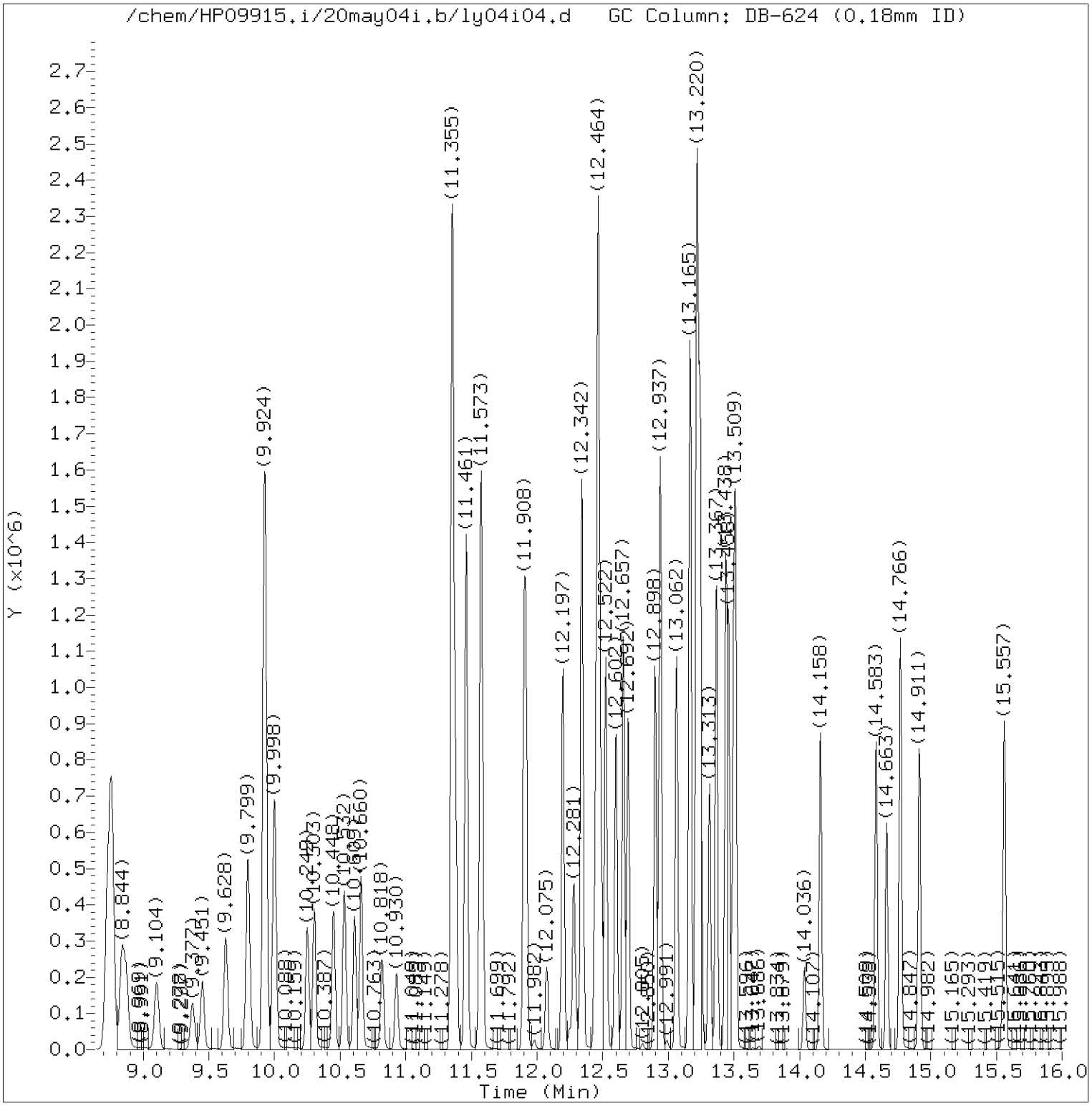
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.098	85	182493	20.678
4) Chloromethane	(2)	2.297	50	160528	19.482
5) 1,3-Butadiene	(2)	2.413	39	98295	18.595
6) Vinyl Chloride	(2)	2.416	62	157383	19.793
8) Bromomethane	(2)	2.760	94	111396	19.431
9) Chloroethane	(2)	2.847	64	85384	19.233
10) Dichlorofluoromethane	(2)	3.104	67	183563	19.169
12) Trichlorofluoromethane	(2)	3.169	101	173142	19.937
11) n-Pentane	(2)	3.217	43	144840	17.763
14) Ethyl ether	(2)	3.445	59	128448	20.932
15) Freon 123a	(2)	3.525	67	138710	19.715
16) Acrolein	(1)	3.625	56	491814	208.981
17) 1,1-Dichloroethene	(2)	3.763	96	106805	19.285
17) 1,1-Dichloroethene	(2)	3.763	63	52324	19.837
19) Freon 113	(2)	3.792	101	104838	18.245
18) Acetone	(1)	3.808	58	42345	39.446
22) Methyl Iodide	(2)	3.972	142	216364	20.271
21) 2-Propanol	(1)	3.992	45	139861	204.421
23) Carbon Disulfide	(2)	4.075	76	373129	20.009
27) Methyl Acetate	(2)	4.246	43	141236	19.995
25) Allyl Chloride	(2)	4.275	41	185201	20.635
28) Methylene Chloride	(2)	4.477	84	132592	20.126
29)*t-Butyl alcohol-d10	(1)	4.500	65	286065	250.000
30) t-Butyl alcohol	(1)	4.625	59	239168	207.092
31) Acrylonitrile	(2)	4.841	53	81905	20.932
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	397874	20.947
32) trans-1,2-Dichloroethene	(2)	4.889	96	127981	20.087
34) n-Hexane	(2)	5.310	57	161671	18.119
36) 1,1-Dichloroethane	(2)	5.554	63	227789	20.384
38) di-Isopropyl ether	(2)	5.603	45	414045	21.067
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	182122	20.436
40) Ethyl t-butyl ether	(2)	6.130	59	388621	21.282
43) 1,2-Dichloroethene (Total)	(2)		96	274584	40.605
44) 2-Butanone	(2)	6.358	43	198595	41.813
42) cis-1,2-Dichloroethene	(2)	6.374	96	146603	20.518
45) 2,2-Dichloropropane	(2)	6.394	77	174795	20.239
47) Propionitrile	(1)	6.451	54	319787	204.964
48) Methacrylonitrile	(2)	6.660	67	415491	105.915

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	75830	20.569
50) Tetrahydrofuran	(1)	6.709	71	55239	40.465
51) Chloroform	(2)	6.853	83	221887	20.324
52)$Dibromofluoromethane	(2)	7.069	113	324872	50.107
52)$Dibromofluoromethane	(2)	7.069	111	330761	49.906
53) 1,1,1-Trichloroethane	(2)	7.072	97	185712	19.828
54) Cyclohexane	(2)	7.168	56	195002	18.599
54) Cyclohexane	(2)	7.165	84	167123	18.261
54) Cyclohexane	(2)	7.168	69	59506	18.264
56) Carbon Tetrachloride	(2)	7.284	117	152394	19.420
55) 1,1-Dichloropropene	(2)	7.287	75	170572	19.866
58) Isobutyl Alcohol	(1)	7.451	41	199593	509.455
57)$1,2-Dichloroethane-d4	(2)	7.519	102	82752	50.300
57)$1,2-Dichloroethane-d4	(2)	7.519	65	365637	50.070
57)$1,2-Dichloroethane-d4	(2)	7.522	104	51858	49.502
60) Benzene	(2)	7.551	78	543226	20.439
61) 1,2-Dichloroethane	(2)	7.625	62	178307	20.013
61) 1,2-Dichloroethane	(2)	7.625	98	18135	20.888
65) t-Amyl methyl ether	(2)	7.734	73	396286	21.243
67) n-Heptane	(2)	7.950	43	159155	17.153
66)*Fluorobenzene	(2)	7.950	96	1286965	50.000
69) n-Butanol	(1)	8.319	56	337255	1055.749
71) Trichloroethene	(2)	8.422	95	135676	20.172
72) Methylcyclohexane	(2)	8.728	83	219111	20.035
72) Methylcyclohexane	(2)	8.731	98	97903	19.792
73) 1,2-Dichloropropane	(2)	8.763	63	142062	20.745
76) Methyl Methacrylate	(2)	8.834	69	121569	20.646
75) 1,4-Dioxane	(1)	8.847	88	49216	512.522
74) Dibromomethane	(2)	8.869	93	92385	20.628
78) Bromodichloromethane	(2)	9.104	83	163155	20.321
79) 2-Nitropropane	(2)	9.377	41	100789	41.867
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	100249	21.985
81) cis-1,3-Dichloropropene	(2)	9.628	75	220292	20.994
82) 4-Methyl-2-pentanone	(2)	9.799	43	414870	43.133
83)$Toluene-d8	(3)	9.924	98	1318781	49.746
83)$Toluene-d8	(3)	9.924	100	855298	49.713
88) Toluene	(3)	10.001	92	349405	20.678
90) 1,3-Dichloropropene (total)	(3)		100	421273	41.724

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	200981	20.730
91) Ethyl Methacrylate	(3)	10.303	69	210606	21.589
92) 1,1,2-Trichloroethane	(3)	10.448	97	135197	20.619
93) Tetrachloroethene	(3)	10.532	166	143073	19.868
94) 1,3-Dichloropropane	(3)	10.609	76	227131	20.714
96) 2-Hexanone	(3)	10.660	43	300504	42.411
97) Dibromochloromethane	(3)	10.818	129	142549	20.900
99) 1,2-Dibromoethane	(3)	10.930	107	146696	20.818
100)*Chlorobenzene-d5	(3)	11.352	117	1031952	50.000
101) 1-Chlorohexane	(3)	11.358	91	166099	19.208
102) Chlorobenzene	(3)	11.377	112	402991	20.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	139268	21.171
104) Ethylbenzene	(3)	11.461	91	658352	21.048
106) m+p-Xylene	(3)	11.573	106	527120	42.892
108) Xylene (Total)	(3)		106	785933	64.669
107) o-Xylene	(3)	11.901	106	258813	21.777
109) Styrene	(3)	11.917	104	426156	22.049
110) Bromoform	(3)	12.072	173	102983	20.740
111) Isopropylbenzene	(3)	12.197	105	646899	21.450
112) Cyclohexanone	(1)	12.281	55	193908A	542.487
114)$4-Bromofluorobenzene	(3)	12.342	95	506416	49.646
114)$4-Bromofluorobenzene	(3)	12.342	174	435782	49.830
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	222212M	21.001
115) Bromobenzene	(4)	12.461	156	177922	20.949
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	330551	107.395
117) 1,2,3-Trichloropropane	(4)	12.490	110	67089	20.761
119) n-Propylbenzene	(4)	12.522	91	772909	21.056
120) 2-Chlorotoluene	(4)	12.602	126	164580	20.987
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	579385	21.844
121) 4-Chlorotoluene	(4)	12.692	126	172819	21.233
124) tert-Butylbenzene	(4)	12.898	134	115481M	21.181
125) Pentachloroethane	(4)	12.933	167	103044	21.281
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	613752	22.381
127) sec-Butylbenzene	(4)	13.062	105	688409	21.317
129) 1,3-Dichlorobenzene	(4)	13.162	146	344035	21.738
130) p-Isopropyltoluene	(4)	13.168	119	610035	22.046
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	580388	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	354497	21.342

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	609451	21.389
135) Benzyl Chloride	(4)	13.313	91	466875	21.655
136) 1,3-Diethylbenzene	(4)	13.367	119	387190	21.717
141) Diethylbenzene (total)	(4)		100	1123913	65.203
137) 1,4-Diethylbenzene	(4)	13.438	119	405953	21.753
139) n-Butylbenzene	(4)	13.458	92	301552	21.211
138) 1,2-Dichlorobenzene	(4)	13.496	146	341680	21.449
140) 1,2-Diethylbenzene	(4)	13.512	119	330770	21.733
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	48343	20.642
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	258381	21.532
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	247167	22.041
147) Hexachlorobutadiene	(4)	14.663	225	104234	20.149
148) Naphthalene	(4)	14.769	128	836600	23.047
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	250166	22.450
150) 2-Methylnaphthalene	(4)	15.560	142	445635	18.446

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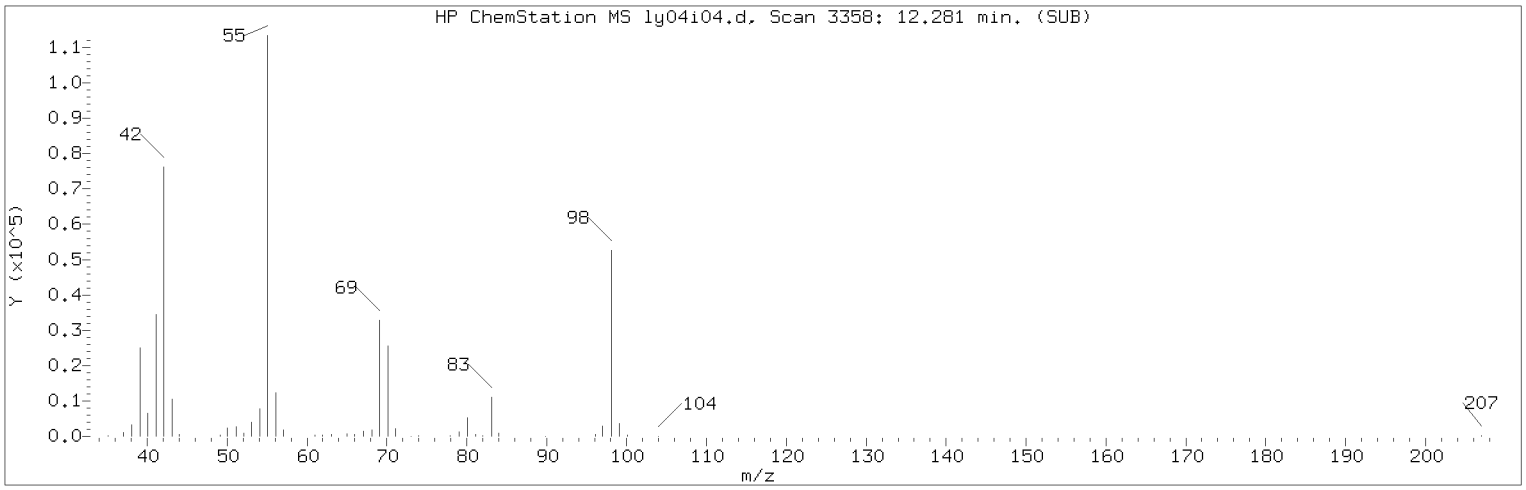
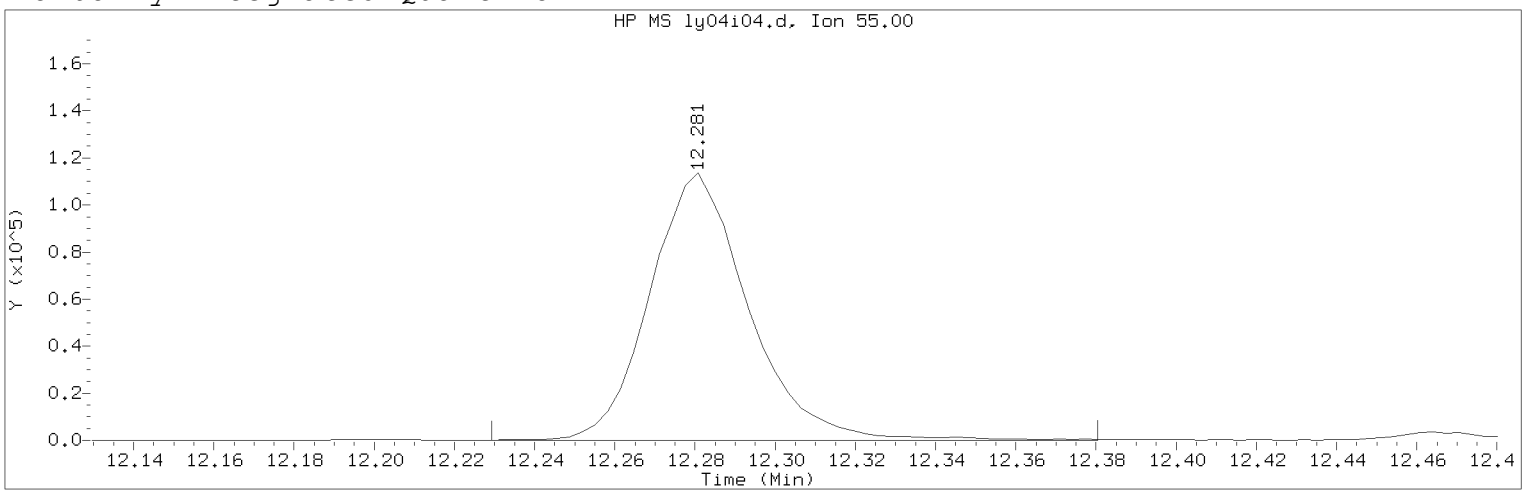
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

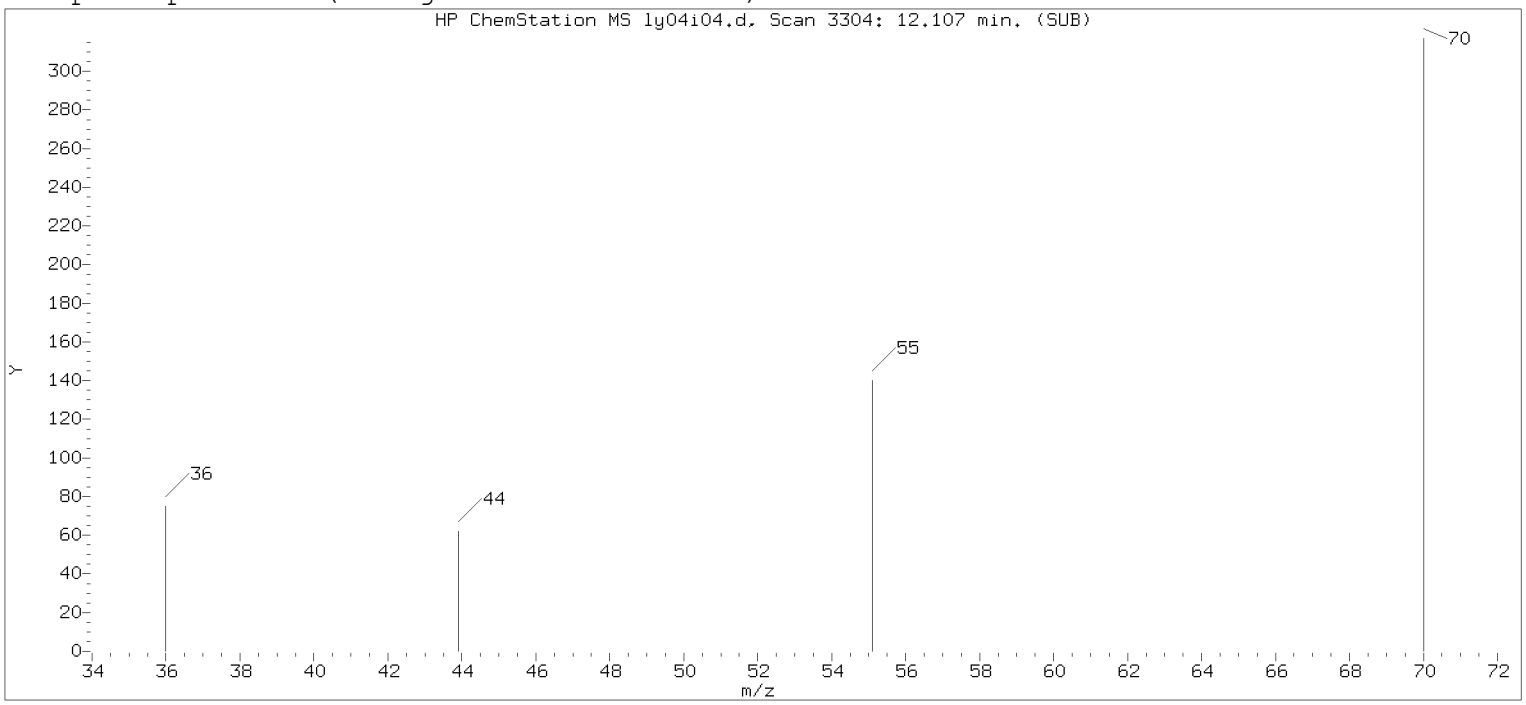
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 193908A
On-Column Amount (ng) : 542.4875
Integration start scan : 3341 Integration stop scan: 3388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

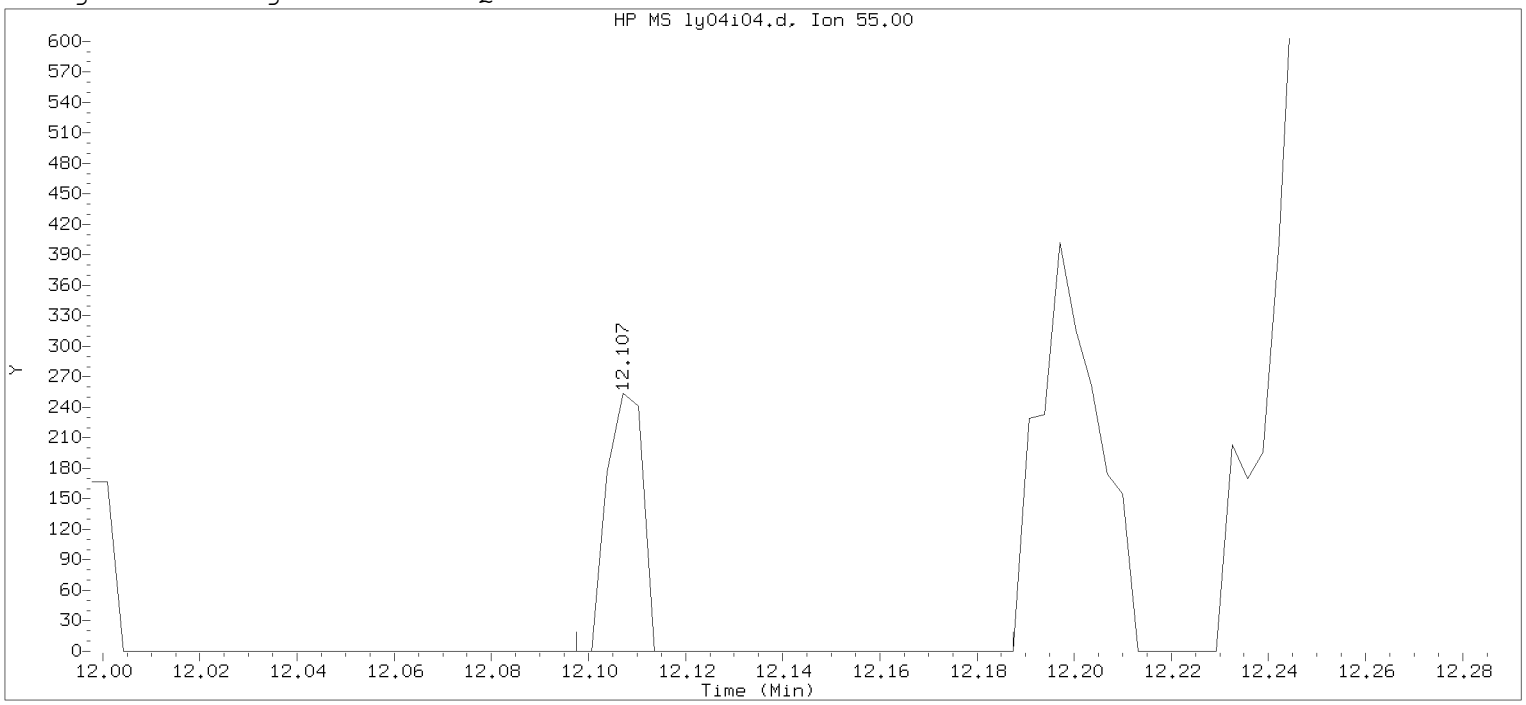
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

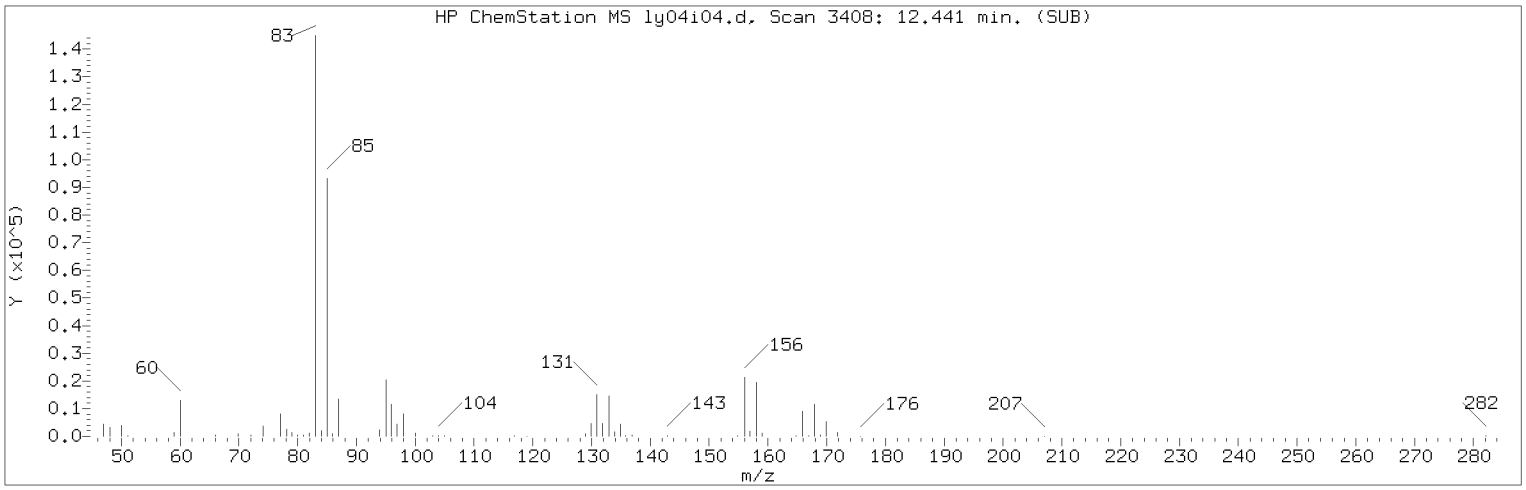
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

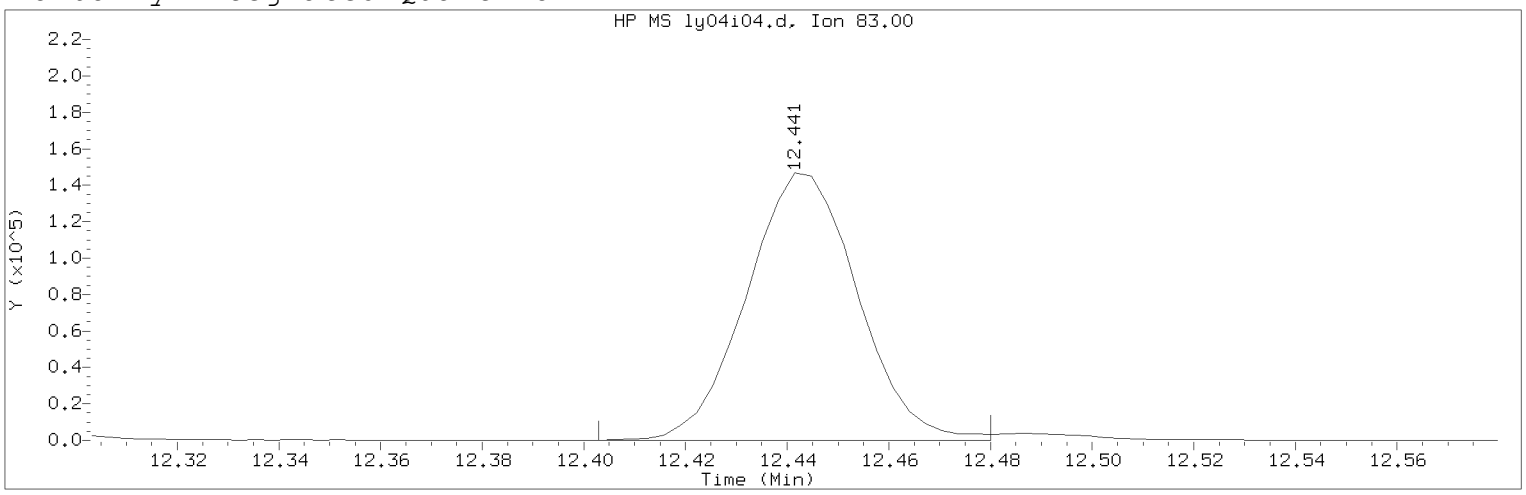
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3304
Retention Time (minutes): 12.107
Quant Ion : 55.00
Area : 129
On-column Amount (ng) : 85.7174
Integration start scan : 3300 Integration stop scan: 3328
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0012

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

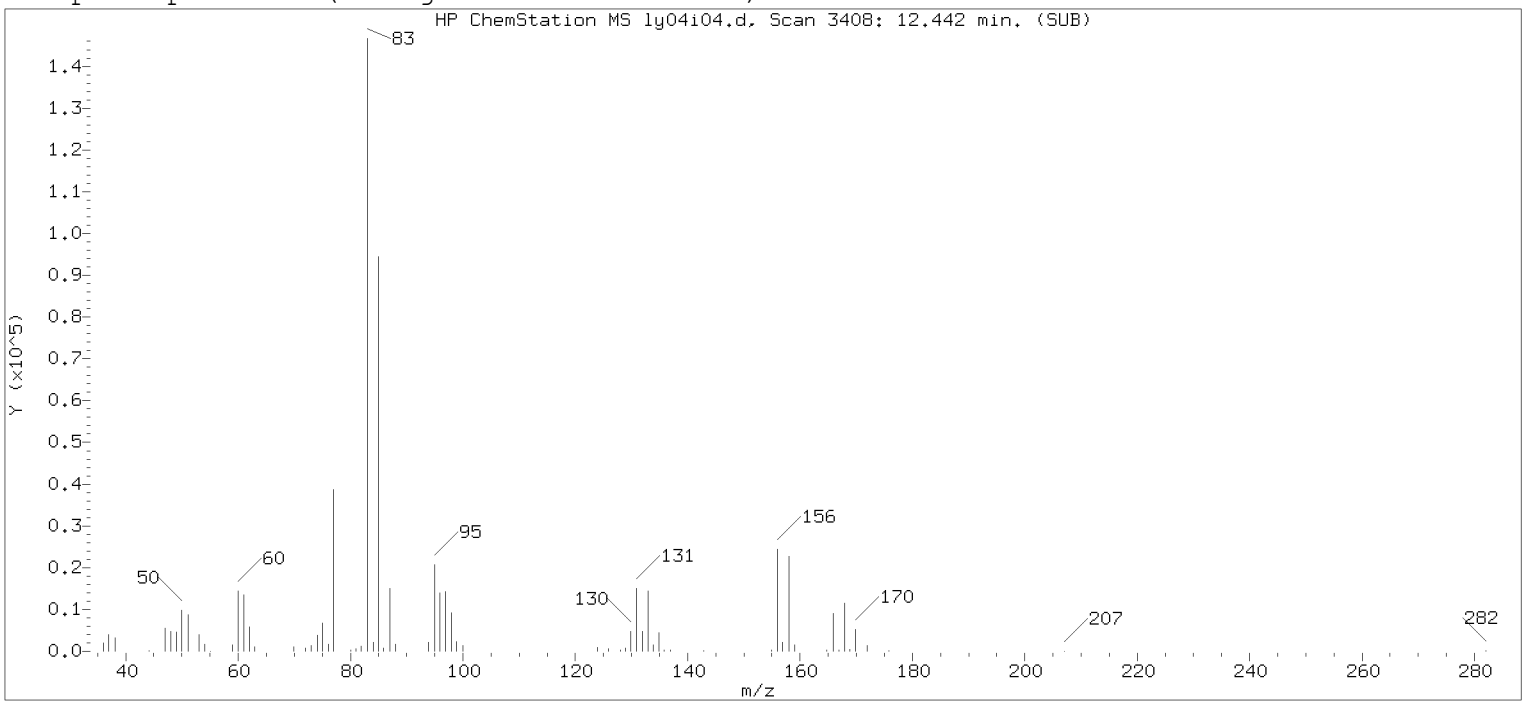
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 222212M
On-Column Amount (ng) : 21.0014
Integration start scan : 3395 Integration stop scan: 3419
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

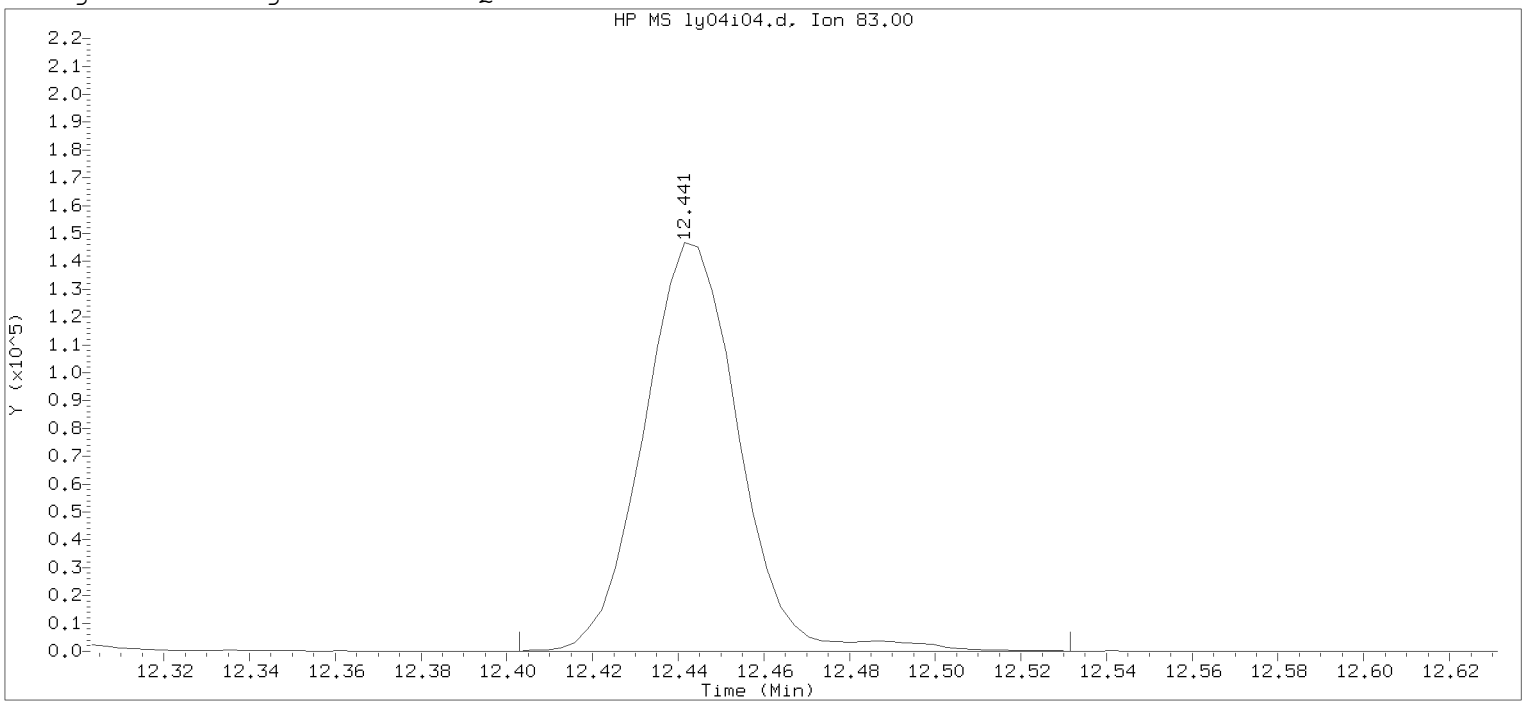
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

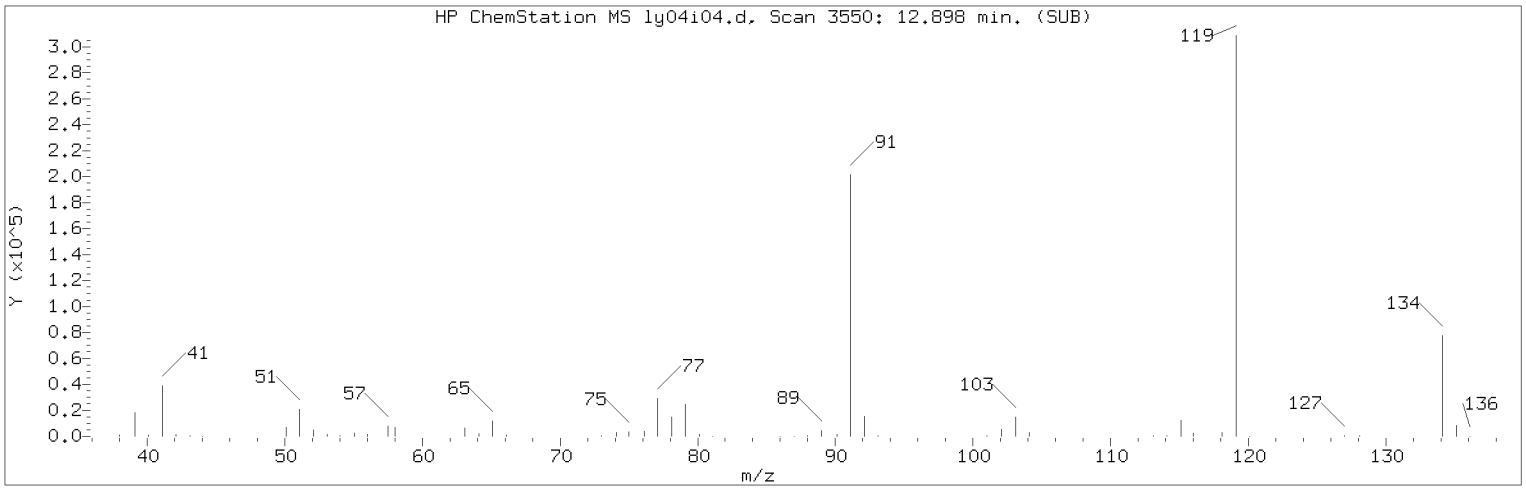
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

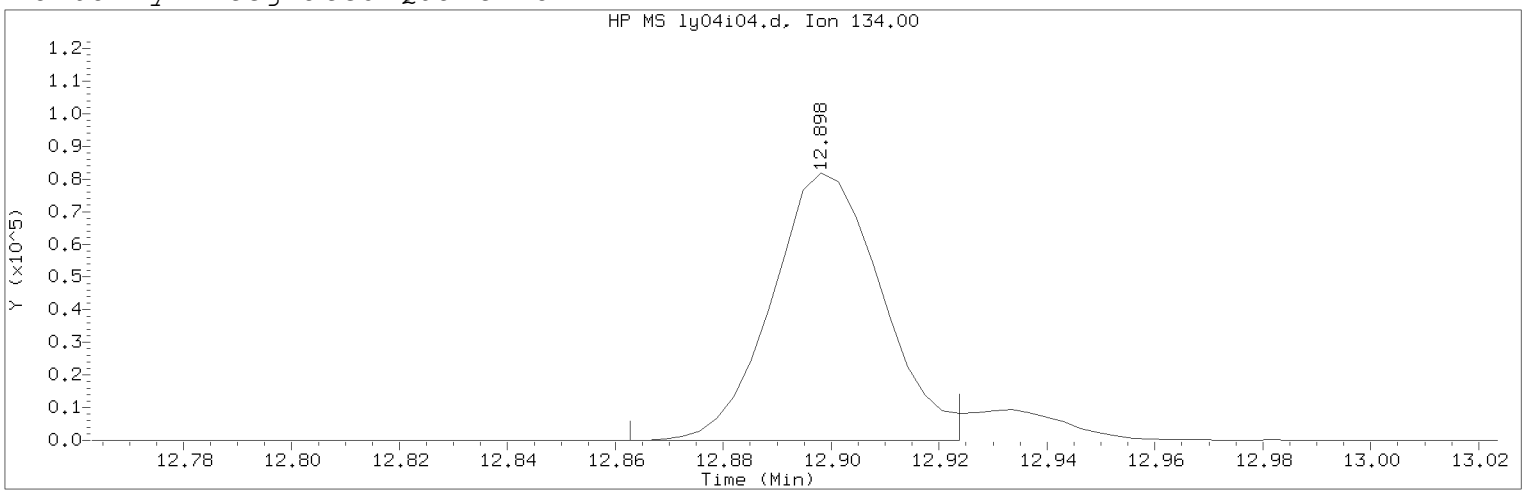
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 226818
On-column Amount (ng) : 20.9272
Integration start scan : 3395 Integration stop scan: 3435
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0017

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

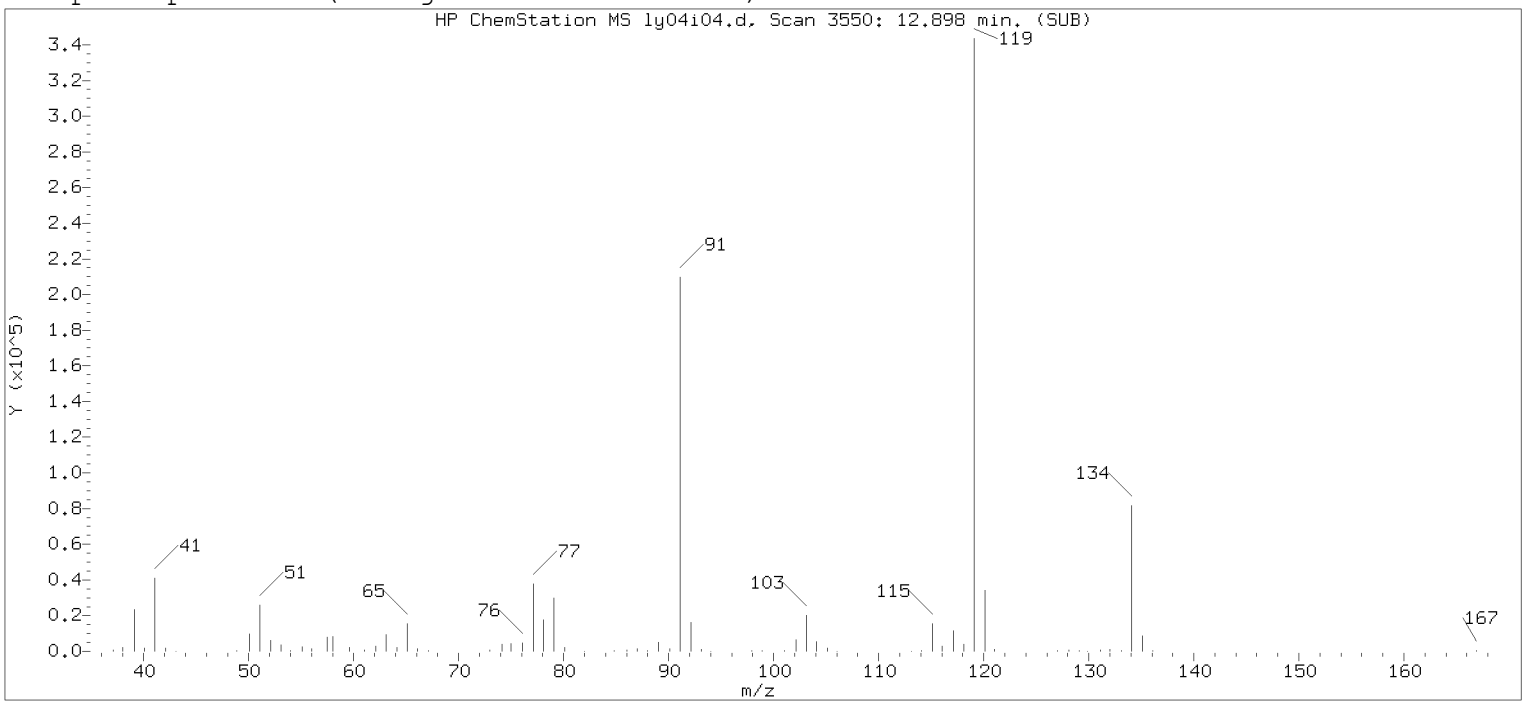
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 115481M
On-Column Amount (ng) : 21.1810
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

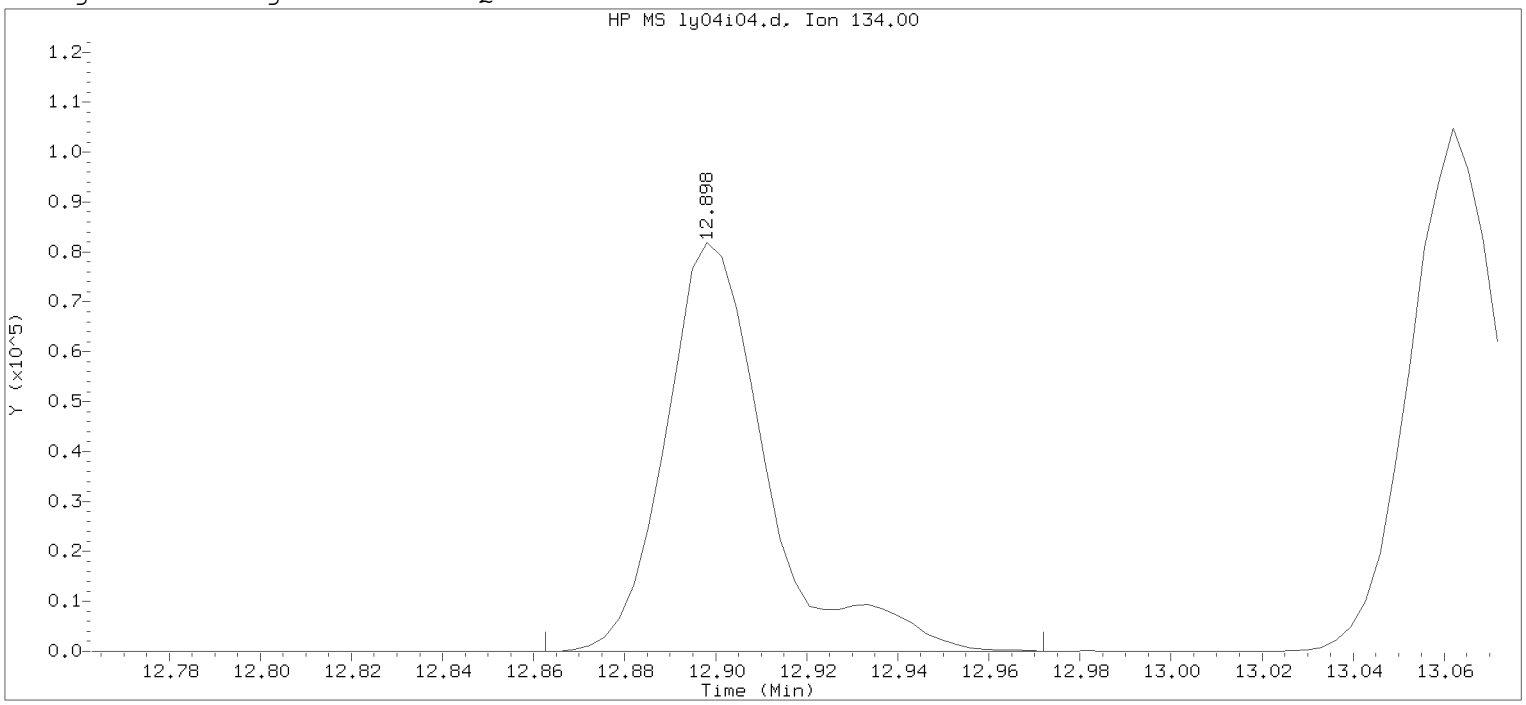
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



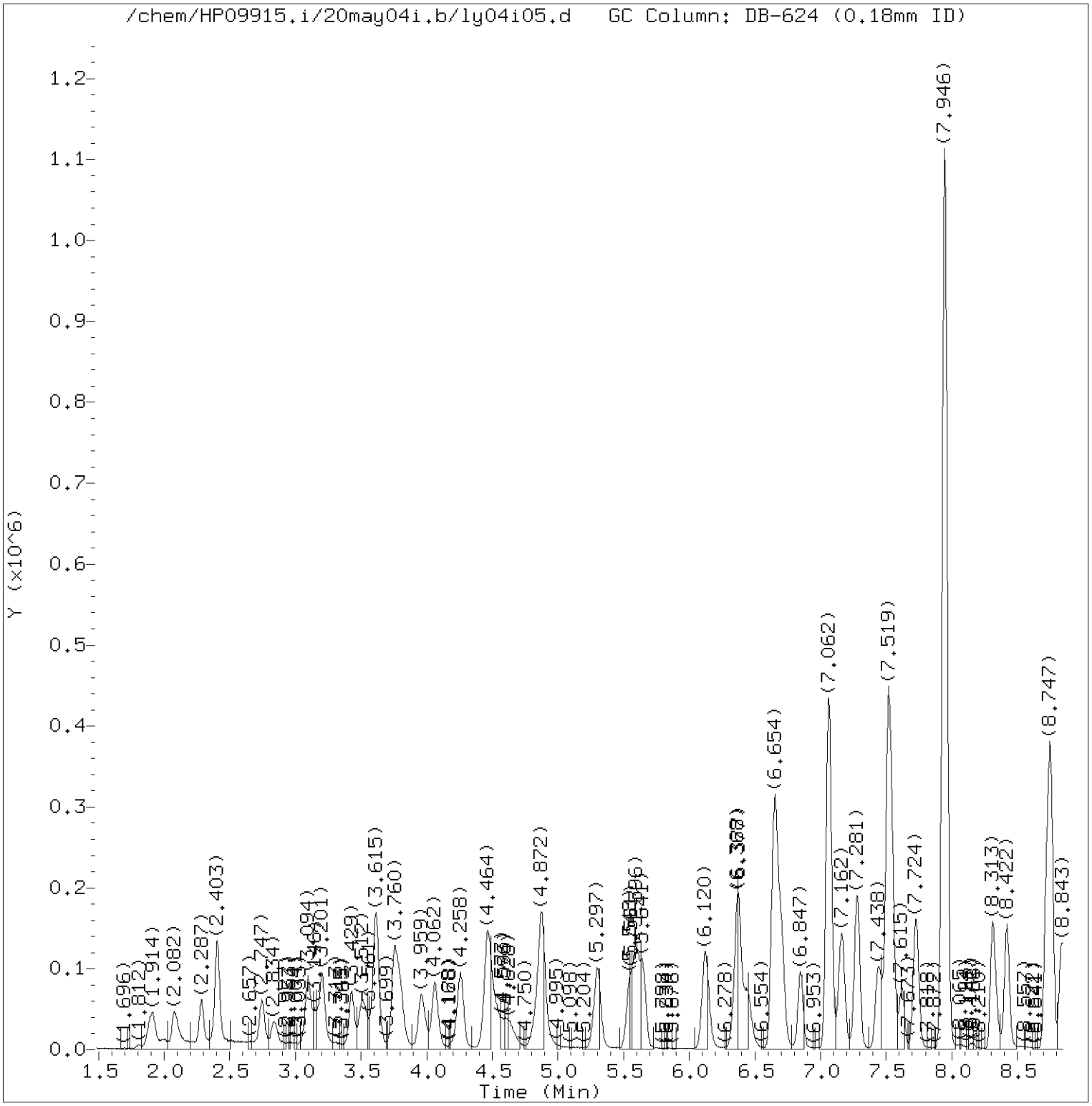
Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 126488
On-column Amount (ng) : 19.5466
Integration start scan : 3538 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0019



Total Ion Chromatogram (TIC)

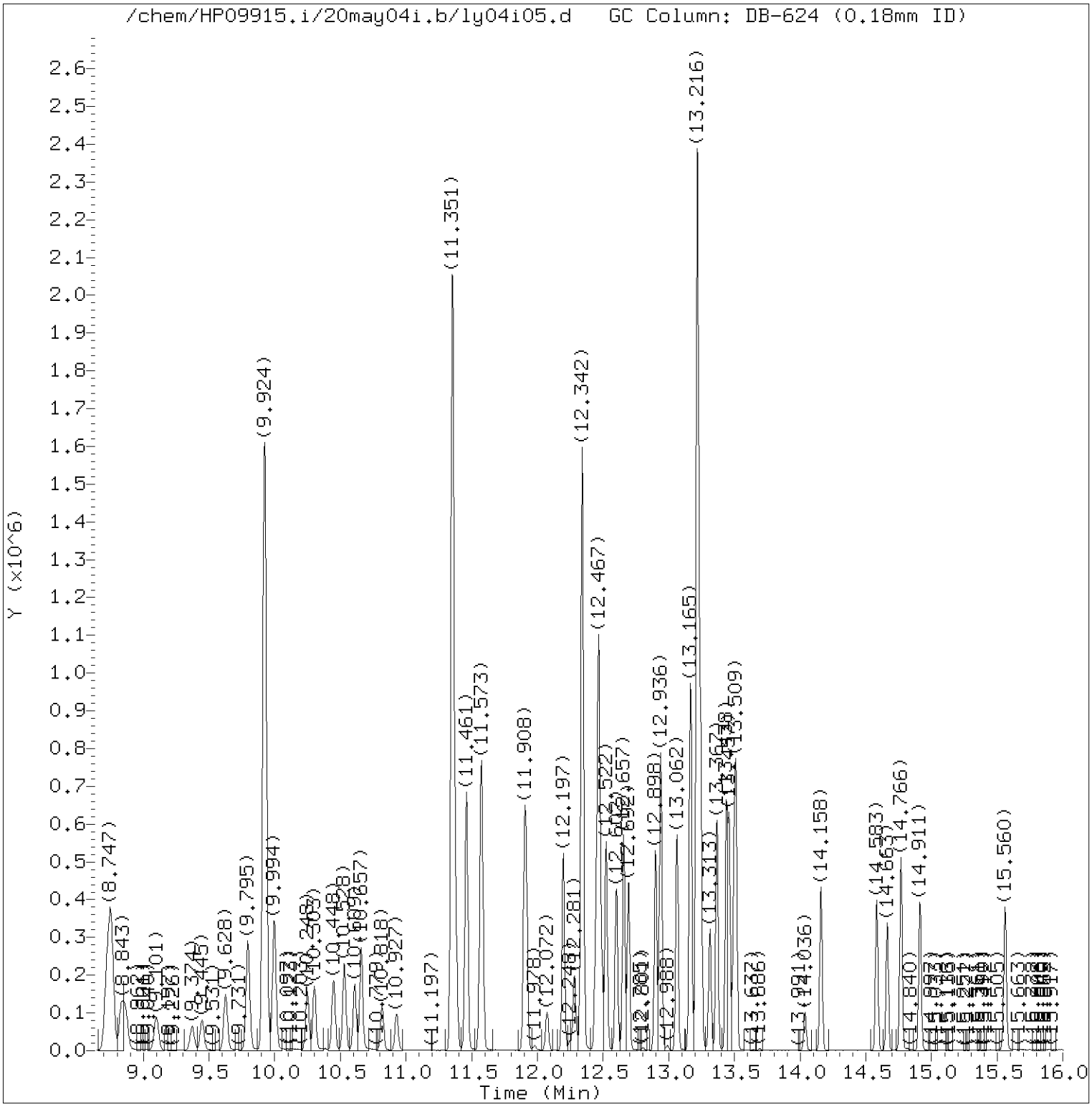
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.082	85	90118	10.053
4) Chloromethane	(2)	2.284	50	78549	9.385
5) 1,3-Butadiene	(2)	2.403	39	53204	9.909
6) Vinyl Chloride	(2)	2.406	62	75776	9.382
8) Bromomethane	(2)	2.747	94	54416	9.345
9) Chloroethane	(2)	2.844	64	42783	9.488
10) Dichlorofluoromethane	(2)	3.094	67	97511	10.025
12) Trichlorofluoromethane	(2)	3.149	101	86007	9.750
11) n-Pentane	(2)	3.201	43	86657	10.463
14) Ethyl ether	(2)	3.426	59	62820	10.079
15) Freon 123a	(2)	3.512	67	72194	10.102
16) Acrolein	(1)	3.615	56	265523	114.386
17) 1,1-Dichloroethene	(2)	3.750	96	56607	10.063
17) 1,1-Dichloroethene	(2)	3.757	63	27453	10.247
19) Freon 113	(2)	3.779	101	60789	10.415
18) Acetone	(1)	3.795	58	21573	20.374
22) Methyl Iodide	(2)	3.956	142	107855	9.949
21) 2-Propanol	(1)	3.979	45	66051	97.875
23) Carbon Disulfide	(2)	4.062	76	190505	10.058
27) Methyl Acetate	(2)	4.236	43	69346	9.665
25) Allyl Chloride	(2)	4.258	41	88910	9.753
28) Methylene Chloride	(2)	4.461	84	67332	10.062
29)*t-Butyl alcohol-d10	(1)	4.480	65	282164	250.000
30) t-Butyl alcohol	(1)	4.615	59	112728	98.959
31) Acrylonitrile	(2)	4.821	53	41519	10.447
33) Methyl Tertiary Butyl Ether	(2)	4.866	73	189790	9.837
32) trans-1,2-Dichloroethene	(2)	4.882	96	65119	10.062
34) n-Hexane	(2)	5.297	57	94542	10.432
36) 1,1-Dichloroethane	(2)	5.541	63	114433	10.082
38) di-Isopropyl ether	(2)	5.599	45	198191	9.928
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	89746	9.915
40) Ethyl t-butyl ether	(2)	6.126	59	184298	9.937
43) 1,2-Dichloroethene (Total)	(2)		96	138243	20.138
44) 2-Butanone	(2)	6.345	43	99442	20.613
42) cis-1,2-Dichloroethene	(2)	6.371	96	73124	10.076
45) 2,2-Dichloropropane	(2)	6.377	77	85647	9.763
47) Propionitrile	(1)	6.448	54	149718	97.287
48) Methacrylonitrile	(2)	6.654	67	195000	48.939

* = Compound is an internal standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.696	128	37514	10.018
50) Tetrahydrofuran	(1)	6.708	71	27785	20.635
51) Chloroform	(2)	6.850	83	109436	9.869
52)$Dibromofluoromethane	(2)	7.062	113	322240	48.932
52)$Dibromofluoromethane	(2)	7.059	111	332011	49.320
53) 1,1,1-Trichloroethane	(2)	7.069	97	93153	9.792
54) Cyclohexane	(2)	7.162	56	109782	10.309
54) Cyclohexane	(2)	7.162	84	94445	10.160
54) Cyclohexane	(2)	7.155	69	33849	10.228
56) Carbon Tetrachloride	(2)	7.278	117	79395	9.961
55) 1,1-Dichloropropene	(2)	7.284	75	87744	10.061
58) Isobutyl Alcohol	(1)	7.448	41	93954	243.130
57)$1,2-Dichloroethane-d4	(2)	7.512	102	82568	49.412
57)$1,2-Dichloroethane-d4	(2)	7.519	65	364177	49.098
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52909	49.724
60) Benzene	(2)	7.544	78	272006	10.076
61) 1,2-Dichloroethane	(2)	7.622	62	87436	9.662
61) 1,2-Dichloroethane	(2)	7.618	98	8802	9.981
65) t-Amyl methyl ether	(2)	7.724	73	186147	9.824
67) n-Heptane	(2)	7.946	43	103553	10.988
66)*Fluorobenzene	(2)	7.946	96	1307193	50.000
69) n-Butanol	(1)	8.313	56	146517	465.001
71) Trichloroethene	(2)	8.419	95	67138	9.828
72) Methylcyclohexane	(2)	8.724	83	113527	10.220
72) Methylcyclohexane	(2)	8.724	98	51823	10.314
73) 1,2-Dichloropropane	(2)	8.750	63	68836	9.896
76) Methyl Methacrylate	(2)	8.831	69	55947	9.354
75) 1,4-Dioxane	(1)	8.850	88	23550M	248.634
74) Dibromomethane	(2)	8.863	93	44545	9.792
78) Bromodichloromethane	(2)	9.101	83	77969	9.561
79) 2-Nitropropane	(2)	9.371	41	49747	20.345
80) 2-Chloroethyl Vinyl Ether	(2)	9.445	63	42539	9.185
81) cis-1,3-Dichloropropene	(2)	9.628	75	103288	9.691
82) 4-Methyl-2-pentanone	(2)	9.795	43	222795	22.805
83)$Toluene-d8	(3)	9.924	98	1329104	49.926
83)$Toluene-d8	(3)	9.924	100	862386	49.917
88) Toluene	(3)	9.994	92	170397	10.042
90) 1,3-Dichloropropene (total)	(3)		100	195460	19.158

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	92172	9.467
91) Ethyl Methacrylate	(3)	10.300	69	91658	9.356
92) 1,1,2-Trichloroethane	(3)	10.451	97	63938	9.711
93) Tetrachloroethene	(3)	10.528	166	73770	10.201
94) 1,3-Dichloropropane	(3)	10.612	76	106883	9.707
96) 2-Hexanone	(3)	10.657	43	174630	24.544
97) Dibromochloromethane	(3)	10.818	129	64751	9.454
99) 1,2-Dibromoethane	(3)	10.930	107	69131	9.770
100)*Chlorobenzene-d5	(3)	11.351	117	1036265	50.000
101) 1-Chlorohexane	(3)	11.355	91	87039	10.023
102) Chlorobenzene	(3)	11.377	112	196773	10.098
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	65125	9.859
104) Ethylbenzene	(3)	11.461	91	321971	10.251
106) m+p-Xylene	(3)	11.573	106	256765	20.806
108) Xylene (Total)	(3)		106	381311	31.242
107) o-Xylene	(3)	11.901	106	124546	10.436
109) Styrene	(3)	11.914	104	198052	10.204
110) Bromoform	(3)	12.072	173	45366	9.099
111) Isopropylbenzene	(3)	12.197	105	319386	10.546
112) Cyclohexanone	(1)	12.281	55	84690	240.209
114)$4-Bromofluorobenzene	(3)	12.342	95	511563	49.942
114)$4-Bromofluorobenzene	(3)	12.342	174	439236	50.016
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	104030	9.693
115) Bromobenzene	(4)	12.457	156	86654	10.058
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	155211	49.713
117) 1,2,3-Trichloropropane	(4)	12.490	110	32547	9.929
119) n-Propylbenzene	(4)	12.522	91	389641	10.465
120) 2-Chlorotoluene	(4)	12.602	126	81568	10.254
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	282787	10.511
121) 4-Chlorotoluene	(4)	12.695	126	85740	10.385
124) tert-Butylbenzene	(4)	12.901	134	56977	10.302
125) Pentachloroethane	(4)	12.933	167	47983	9.769
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	295531	10.624
127) sec-Butylbenzene	(4)	13.062	105	356950	10.897
129) 1,3-Dichlorobenzene	(4)	13.162	146	168498	10.496
130) p-Isopropyltoluene	(4)	13.168	119	305773	10.894
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	588728	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	175369	10.408

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	295346	10.219
135)	Benzyl Chloride	(4)	13.313	91	205157	9.381
136)	1,3-Diethylbenzene	(4)	13.367	119	184043	10.176
141)	Diethylbenzene (total)	(4)		100	539339	30.855
137)	1,4-Diethylbenzene	(4)	13.438	119	195436	10.324
139)	n-Butylbenzene	(4)	13.457	92	158495	10.990
138)	1,2-Dichlorobenzene	(4)	13.499	146	166903	10.329
140)	1,2-Diethylbenzene	(4)	13.512	119	159860	10.355
142)	1,2-Dibromo-3-chloropropane	(4)	14.039	75	22103	9.304
144)	1,3,5-Trichlorobenzene	(4)	14.158	180	125310	10.295
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	115079	10.117
147)	Hexachlorobutadiene	(4)	14.663	225	56989	10.860
148)	Naphthalene	(4)	14.769	128	371810	10.098
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	117053	10.356
150)	2-Methylnaphthalene	(4)	15.560	142	179694	8.949

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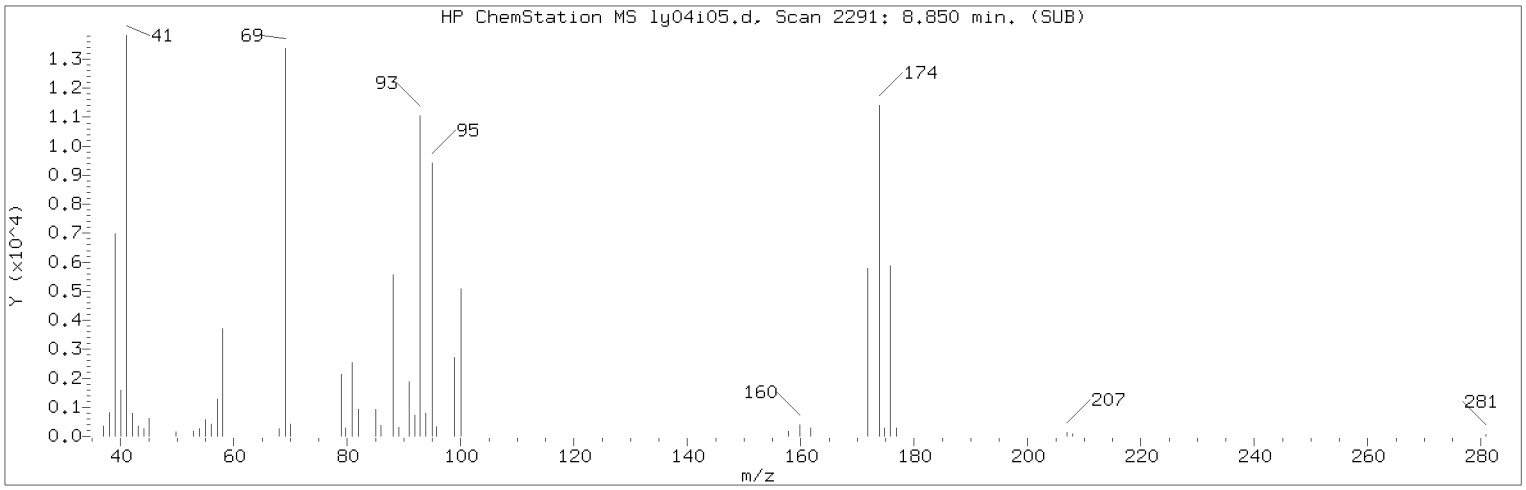
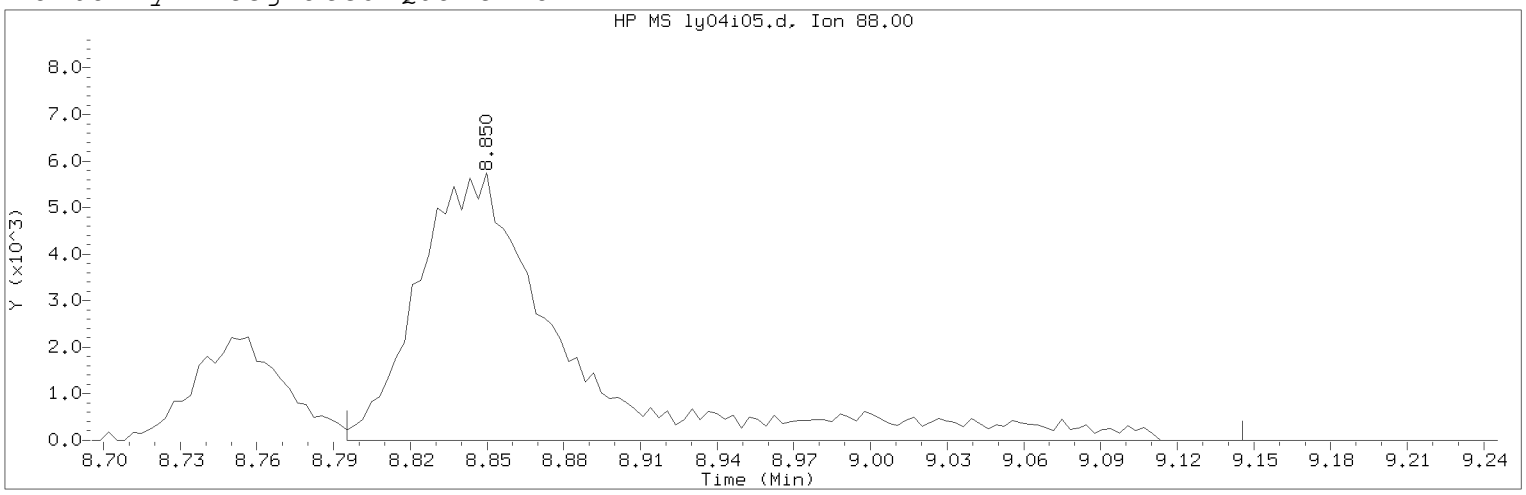
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

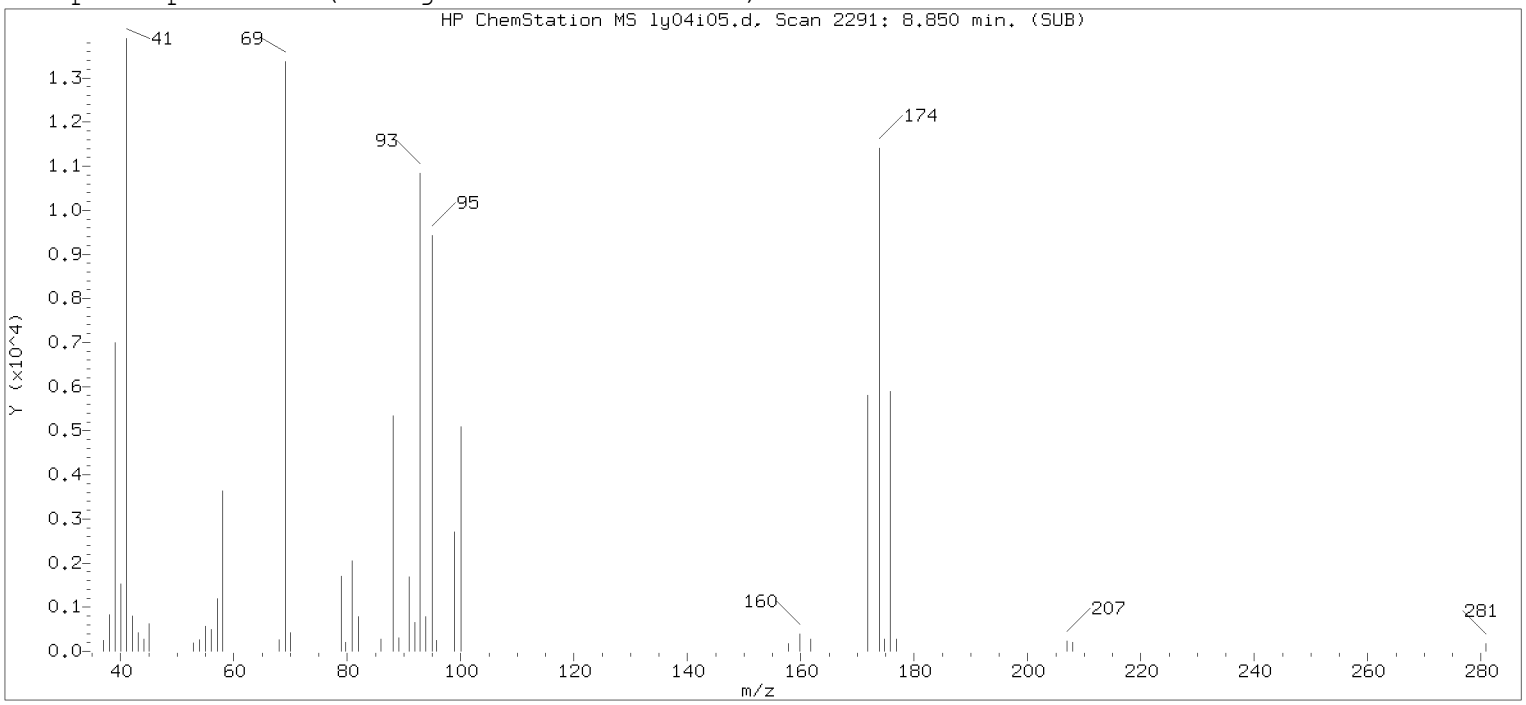
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area (flag) : 23550M
On-Column Amount (ng) : 248.6337
Integration start scan : 2273 Integration stop scan: 2382
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

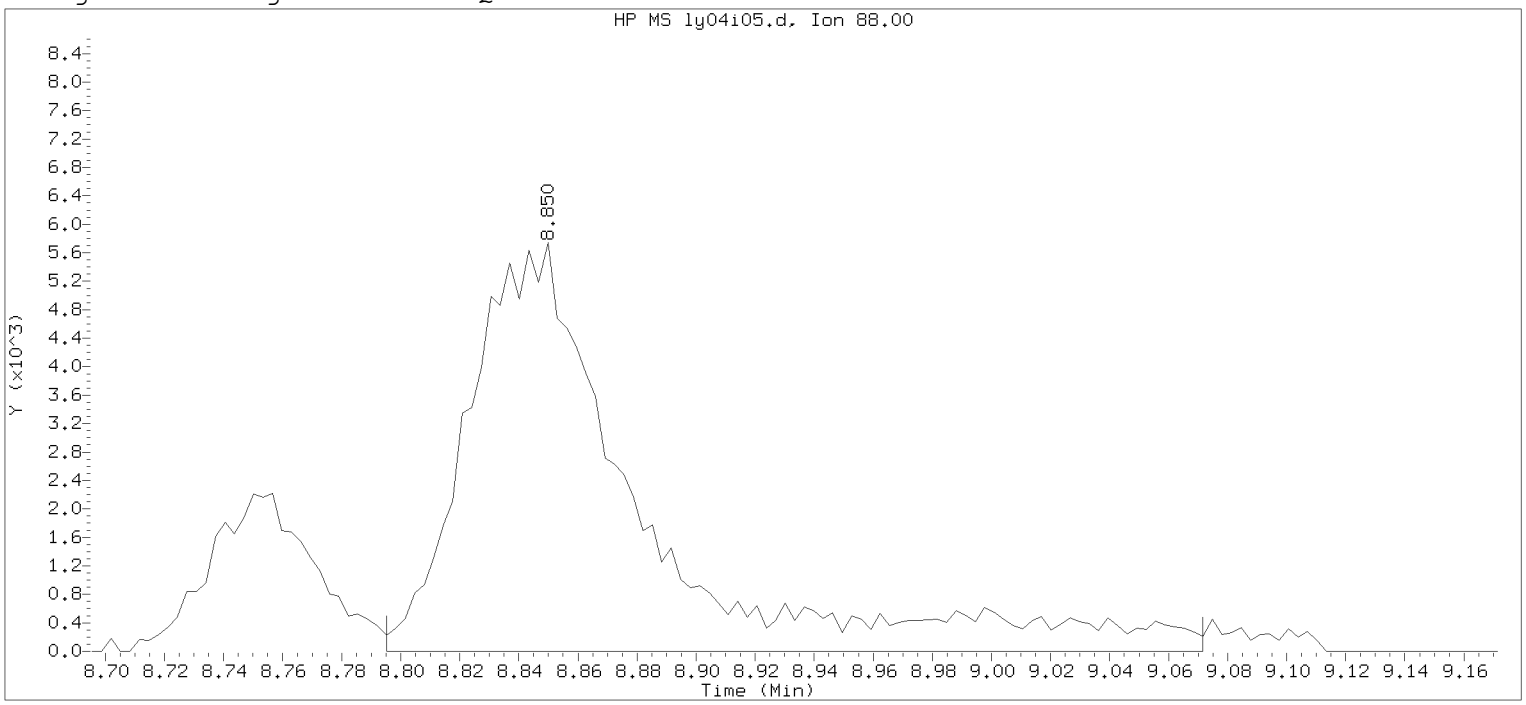
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



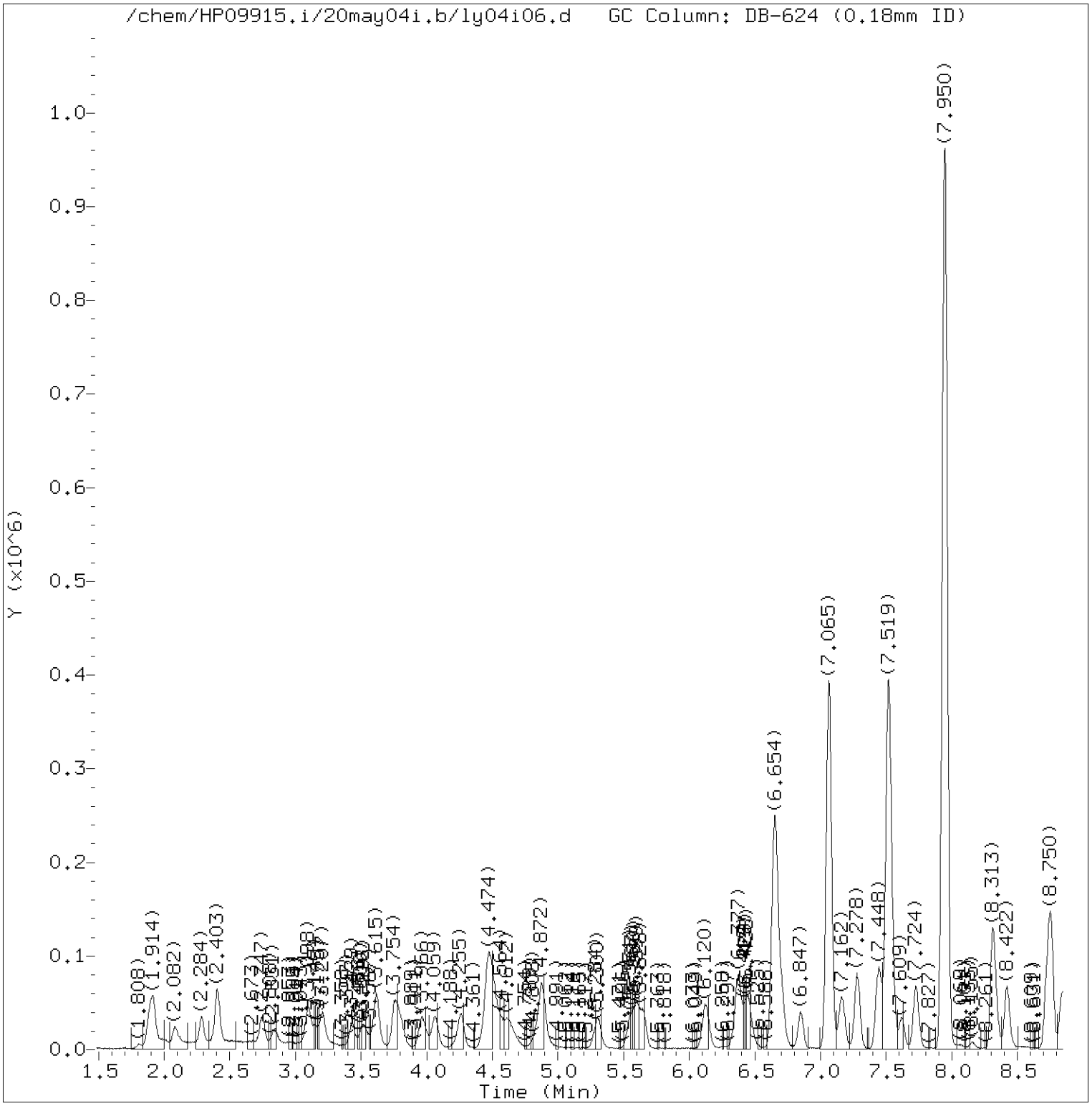
Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:04
Date, time and analyst ID of latest file update: 04-May-2020 14:04 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area : 22923
On-column Amount (ng) : 235.9161
Integration start scan : 2273 Integration stop scan: 2359
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0027



Total Ion Chromatogram (TIC)

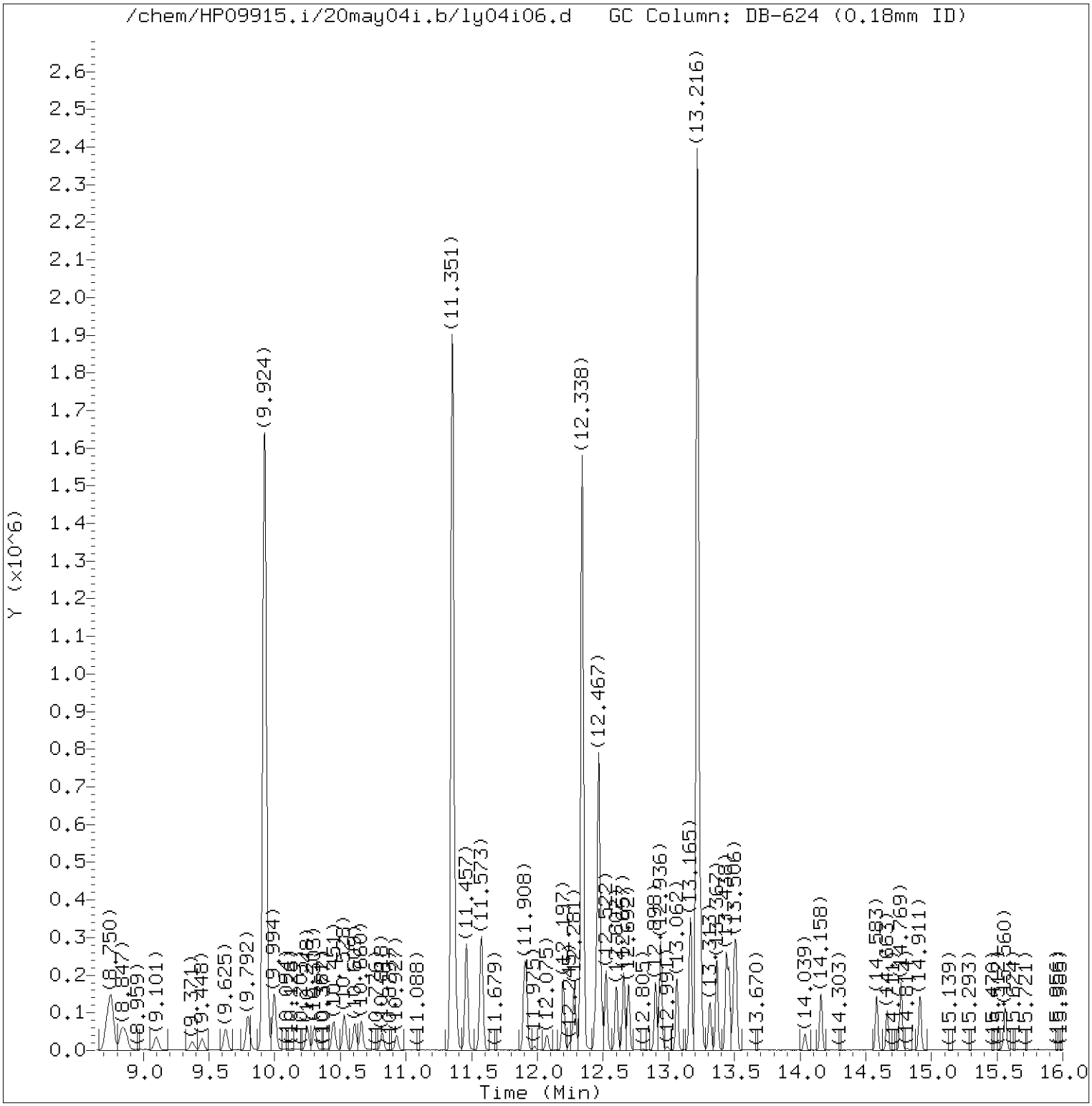
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	38980	4.374
4) Chloromethane	(2)	2.281	50	40837	4.908
5) 1,3-Butadiene	(2)	2.403	39	22445M	4.205
6) Vinyl Chloride	(2)	2.410	62	38694	4.819
8) Bromomethane	(2)	2.747	94	28864	4.986
9) Chloroethane	(2)	2.850	64	22132M	4.937
10) Dichlorofluoromethane	(2)	3.098	67	46604	4.819
12) Trichlorofluoromethane	(2)	3.149	101	39863	4.546
11) n-Pentane	(2)	3.207	43	33845	4.111
14) Ethyl ether	(2)	3.435	59	23890	3.855
15) Freon 123a	(2)	3.522	67	29140	4.102
16) Acrolein	(1)	3.615	56	89549	38.087
17) 1,1-Dichloroethene	(2)	3.754	96	23333	4.172
17) 1,1-Dichloroethene	(2)	3.754	63	11176	4.196
19) Freon 113	(2)	3.789	101	24000	4.136
18) Acetone	(1)	3.808	58	8567M	7.988
22) Methyl Iodide	(2)	3.959	142	43429	4.029
21) 2-Propanol	(1)	3.982	45	54311	79.457
23) Carbon Disulfide	(2)	4.065	76	74748	3.970
27) Methyl Acetate	(2)	4.239	43	29297	4.107
25) Allyl Chloride	(2)	4.262	41	34618	3.820
28) Methylene Chloride	(2)	4.458	84	27141	4.080
29)*t-Butyl alcohol-d10	(1)	4.490	65	285792	250.000
30) t-Butyl alcohol	(1)	4.622	59	92858	80.481
31) Acrylonitrile	(2)	4.821	53	15387	3.894
33) Methyl Tertiary Butyl Ether	(2)	4.872	73	74603	3.890
32) trans-1,2-Dichloroethene	(2)	4.879	96	26257	4.081
34) n-Hexane	(2)	5.307	57	30933	3.433
36) 1,1-Dichloroethane	(2)	5.545	63	45665	4.047
38) di-Isopropyl ether	(2)	5.599	45	74509	3.754
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	33993	3.777
40) Ethyl t-butyl ether	(2)	6.130	59	70167	3.805
43) 1,2-Dichloroethene (Total)	(2)		96	54548	8.002
44) 2-Butanone	(2)	6.348	43	36969	7.708
42) cis-1,2-Dichloroethene	(2)	6.371	96	28291	3.921
45) 2,2-Dichloropropane	(2)	6.380	77	35169M	4.033
47) Propionitrile	(1)	6.445	54	123766	79.402
48) Methacrylonitrile	(2)	6.647	67	157154	39.673

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	15148	4.069
50) Tetrahydrofuran	(1)	6.702	71	11134	8.164
51) Chloroform	(2)	6.847	83	44235	4.013
52)$Dibromofluoromethane	(2)	7.065	113	325931	49.783
52)$Dibromofluoromethane	(2)	7.065	111	332442	49.674
53) 1,1,1-Trichloroethane	(2)	7.069	97	38791	4.101
54) Cyclohexane	(2)	7.159	56	40137	3.791
54) Cyclohexane	(2)	7.162	84	35210	3.810
54) Cyclohexane	(2)	7.159	69	12808	3.893
56) Carbon Tetrachloride	(2)	7.278	117	32820	4.142
55) 1,1-Dichloropropene	(2)	7.287	75	35669	4.114
58) Isobutyl Alcohol	(1)	7.448	41	78273	199.980
57)$1,2-Dichloroethane-d4	(2)	7.515	102	84287	50.737
57)$1,2-Dichloroethane-d4	(2)	7.519	65	366597	49.715
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52842	49.952
60) Benzene	(2)	7.544	78	109723	4.088
61) 1,2-Dichloroethane	(2)	7.622	62	36503	4.057
61) 1,2-Dichloroethane	(2)	7.618	98	3686	4.204
65) t-Amyl methyl ether	(2)	7.731	73	71962	3.820
67) n-Heptane	(2)	7.946	43	30974	3.306
66)*Fluorobenzene	(2)	7.950	96	1299562	50.000
69) n-Butanol	(1)	8.313	56	121908	381.987
71) Trichloroethene	(2)	8.422	95	28461	4.191
72) Methylcyclohexane	(2)	8.718	83	39242	3.553
72) Methylcyclohexane	(2)	8.718	98	17809	3.565
73) 1,2-Dichloropropane	(2)	8.750	63	27695	4.005
76) Methyl Methacrylate	(2)	8.837	69	22069	3.712
75) 1,4-Dioxane	(1)	8.840	88	19114M	199.238
74) Dibromomethane	(2)	8.869	93	18097	4.002
78) Bromodichloromethane	(2)	9.101	83	30571	3.771
79) 2-Nitropropane	(2)	9.374	41	17814	7.328
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	15049	3.268
81) cis-1,3-Dichloropropene	(2)	9.628	75	38959	3.677
82) 4-Methyl-2-pentanone	(2)	9.798	43	70454	7.254
83)$Toluene-d8	(3)	9.924	98	1327920	49.628
83)$Toluene-d8	(3)	9.924	100	858083	49.415
88) Toluene	(3)	9.994	92	71873	4.214
90) 1,3-Dichloropropene (total)	(3)		100	74497	7.309

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$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	35538	3.632
91) Ethyl Methacrylate	(3)	10.303	69	33141	3.366
92) 1,1,2-Trichloroethane	(3)	10.451	97	26564	4.014
93) Tetrachloroethene	(3)	10.531	166	30607	4.211
94) 1,3-Dichloropropane	(3)	10.609	76	43581	3.938
96) 2-Hexanone	(3)	10.660	43	50212	7.021
97) Dibromochloromethane	(3)	10.821	129	25387	3.688
99) 1,2-Dibromoethane	(3)	10.927	107	27031	3.801
100)*Chlorobenzene-d5	(3)	11.351	117	1041559	50.000
101) 1-Chlorohexane	(3)	11.355	91	31930	3.658
102) Chlorobenzene	(3)	11.377	112	82399	4.207
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	27074	4.078
104) Ethylbenzene	(3)	11.461	91	127933	4.052
106) m+p-Xylene	(3)	11.570	106	100704	8.119
108) Xylene (Total)	(3)		106	148049	12.066
107) o-Xylene	(3)	11.901	106	47345	3.947
109) Styrene	(3)	11.917	104	73846	3.785
110) Bromoform	(3)	12.075	173	17579	3.508
111) Isopropylbenzene	(3)	12.197	105	113477	3.728
112) Cyclohexanone	(1)	12.281	55	69843	195.583
114)$4-Bromofluorobenzene	(3)	12.342	95	516427	50.161
114)$4-Bromofluorobenzene	(3)	12.342	174	443503	50.246
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	45427	4.166
115) Bromobenzene	(4)	12.457	156	37061	4.235
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	124994	39.408
117) 1,2,3-Trichloropropane	(4)	12.486	110	13788	4.140
119) n-Propylbenzene	(4)	12.522	91	144976	3.833
120) 2-Chlorotoluene	(4)	12.602	126	32155	3.979
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	99992	3.658
121) 4-Chlorotoluene	(4)	12.692	126	33101	3.946
124) tert-Butylbenzene	(4)	12.901	134	19337M	3.442
125) Pentachloroethane	(4)	12.930	167	18271	3.662
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	105087	3.719
127) sec-Butylbenzene	(4)	13.062	105	115390	3.467
129) 1,3-Dichlorobenzene	(4)	13.162	146	66842	4.098
130) p-Isopropyltoluene	(4)	13.165	119	100033	3.508
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	598089	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	71398	4.171

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	113876	3.878
135)	Benzyl Chloride	(4)	13.313	91	82729	3.724
136)	1,3-Diethylbenzene	(4)	13.367	119	70395	3.831
141)	Diethylbenzene (total)	(4)		100	208679	11.749
137)	1,4-Diethylbenzene	(4)	13.438	119	76469	3.976
139)	n-Butylbenzene	(4)	13.457	92	51886	3.542
138)	1,2-Dichlorobenzene	(4)	13.496	146	68727	4.187
140)	1,2-Diethylbenzene	(4)	13.512	119	61815	3.941
142)	1,2-Dibromo-3-chloropropane	(4)	14.033	75	9341	3.871
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	44631	3.609
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	41152	3.561
147)	Hexachlorobutadiene	(4)	14.663	225	18000	3.376
148)	Naphthalene	(4)	14.766	128	133216	3.561
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	43500	3.788
150)	2-Methylnaphthalene	(4)	15.560	142	55411	4.749

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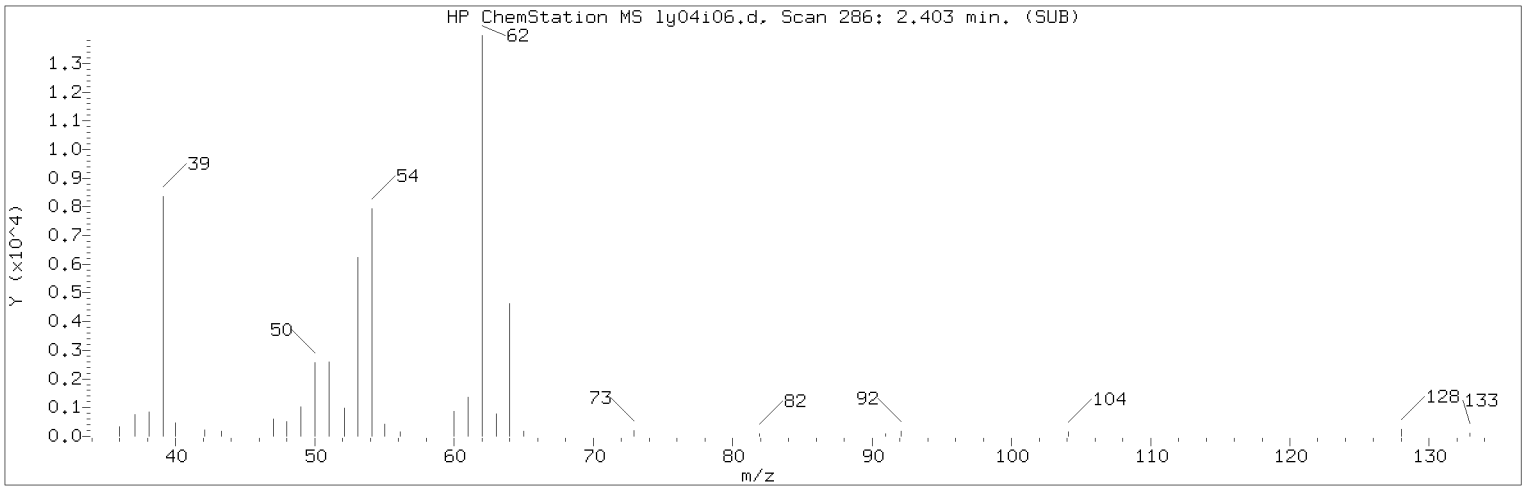
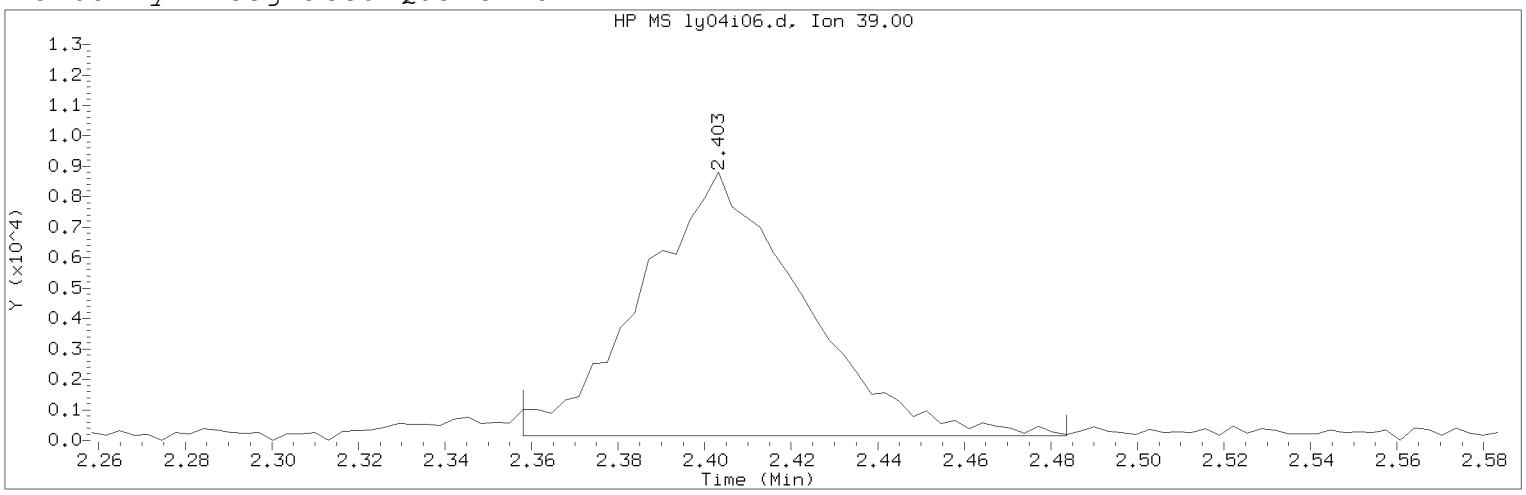
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

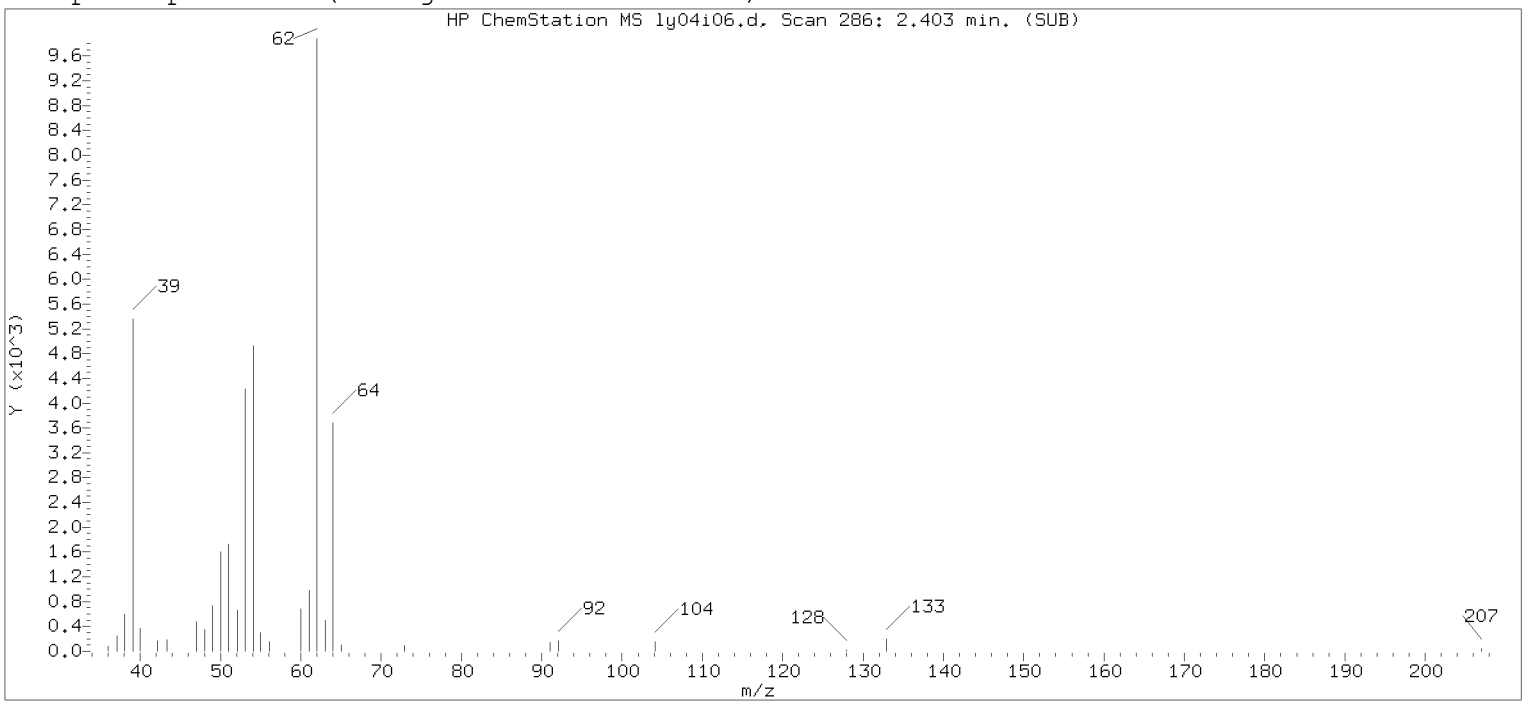
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area (flag) : 22445M
On-Column Amount (ng) : 4.2049
Integration start scan : 271 Integration stop scan: 310
Y at integration start : 140 Y at integration end: 140

Reason for manual integration: improper integration

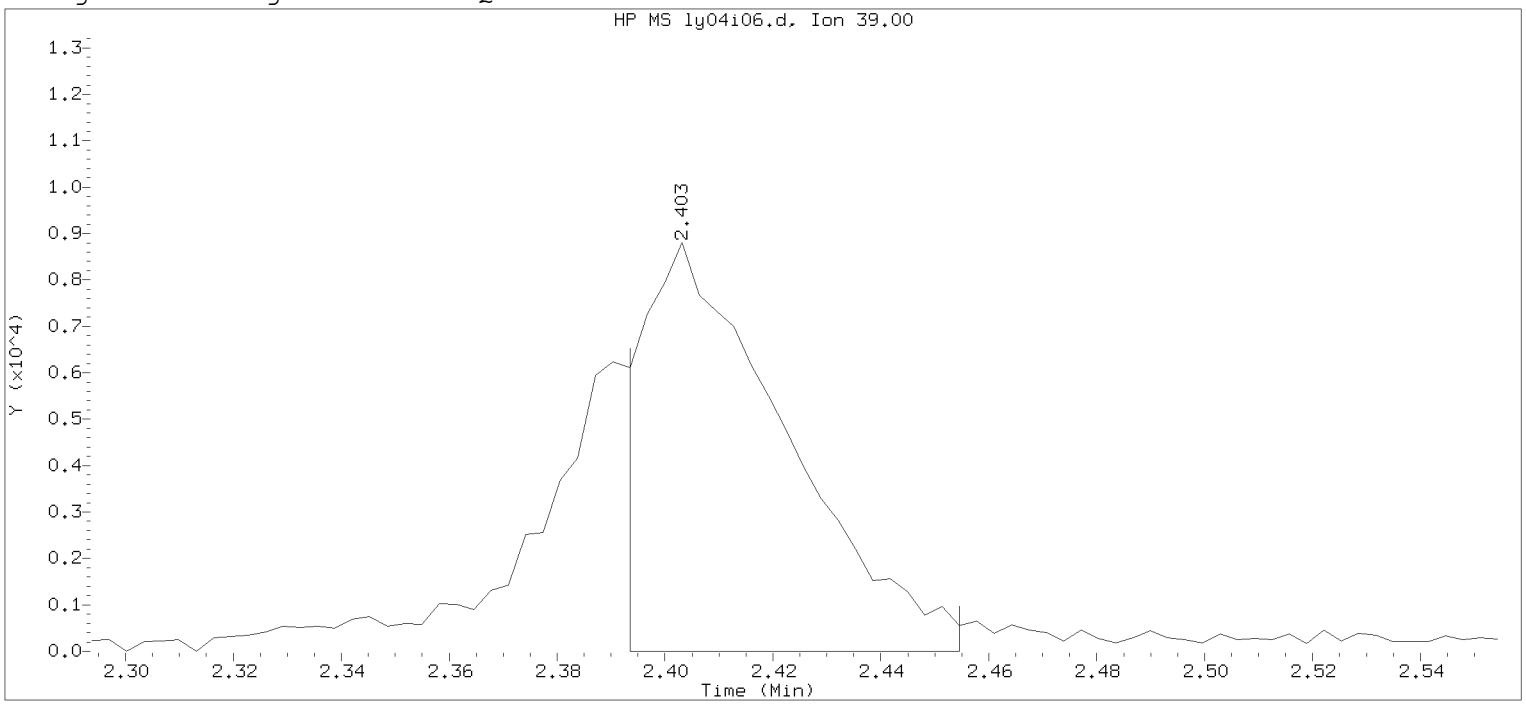
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

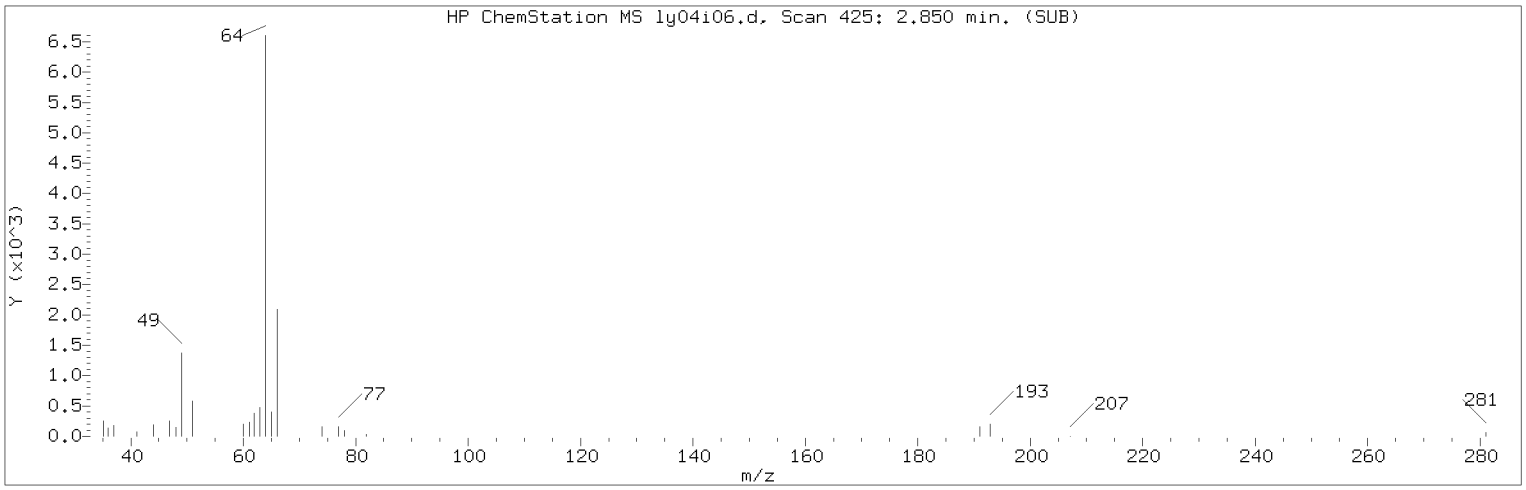
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

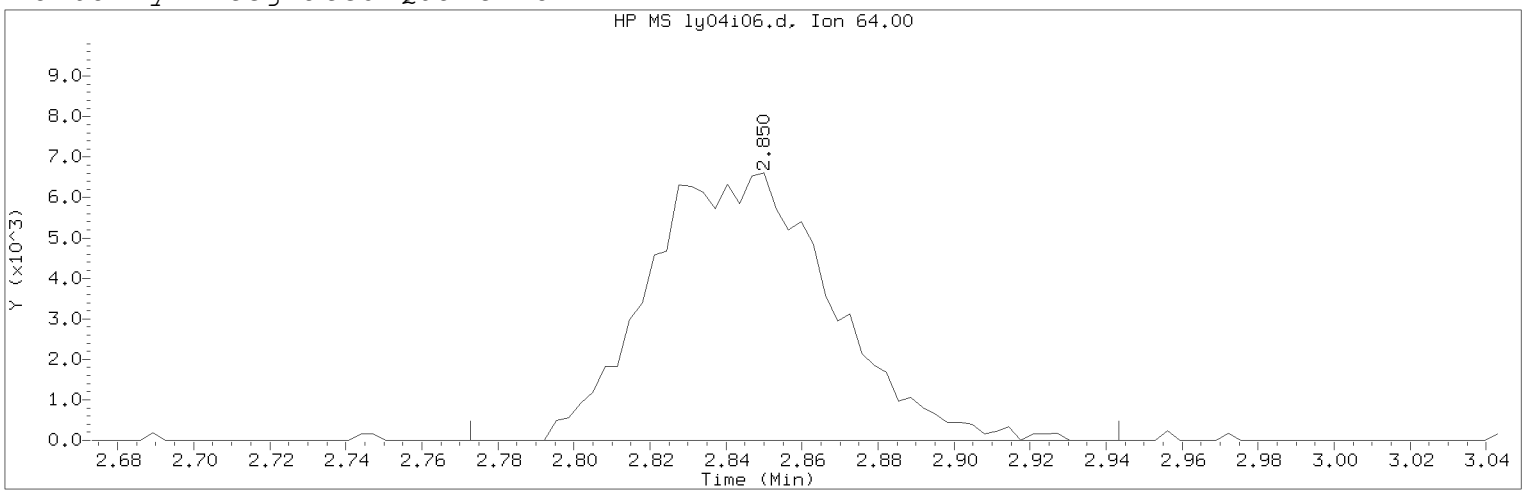
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area : 16243
On-column Amount (ng) : 3.2238
Integration start scan : 282 Integration stop scan: 301
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0035

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

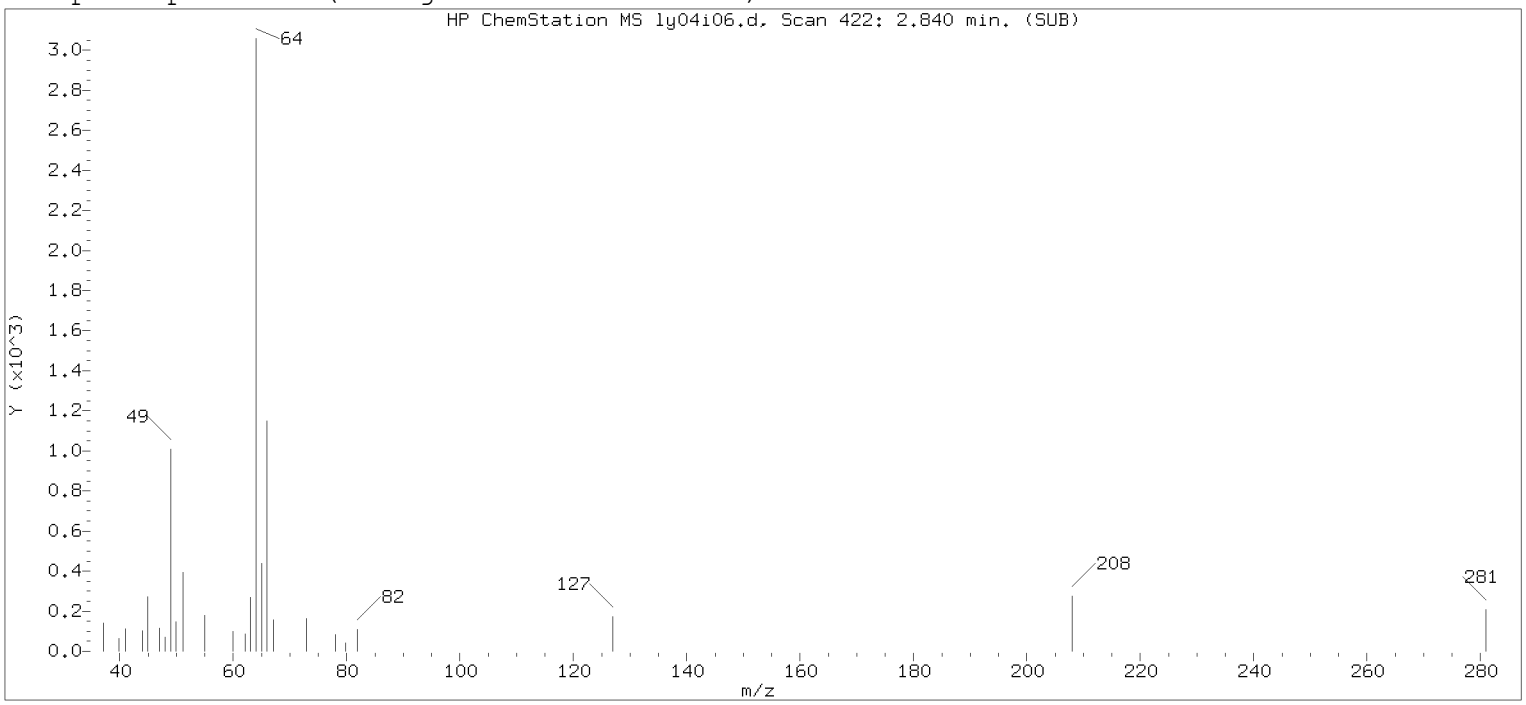
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 425
Retention Time (minutes): 2.850
Quant Ion : 64.00
Area (flag) : 22132M
On-Column Amount (ng) : 4.9369
Integration start scan : 400 Integration stop scan: 453
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

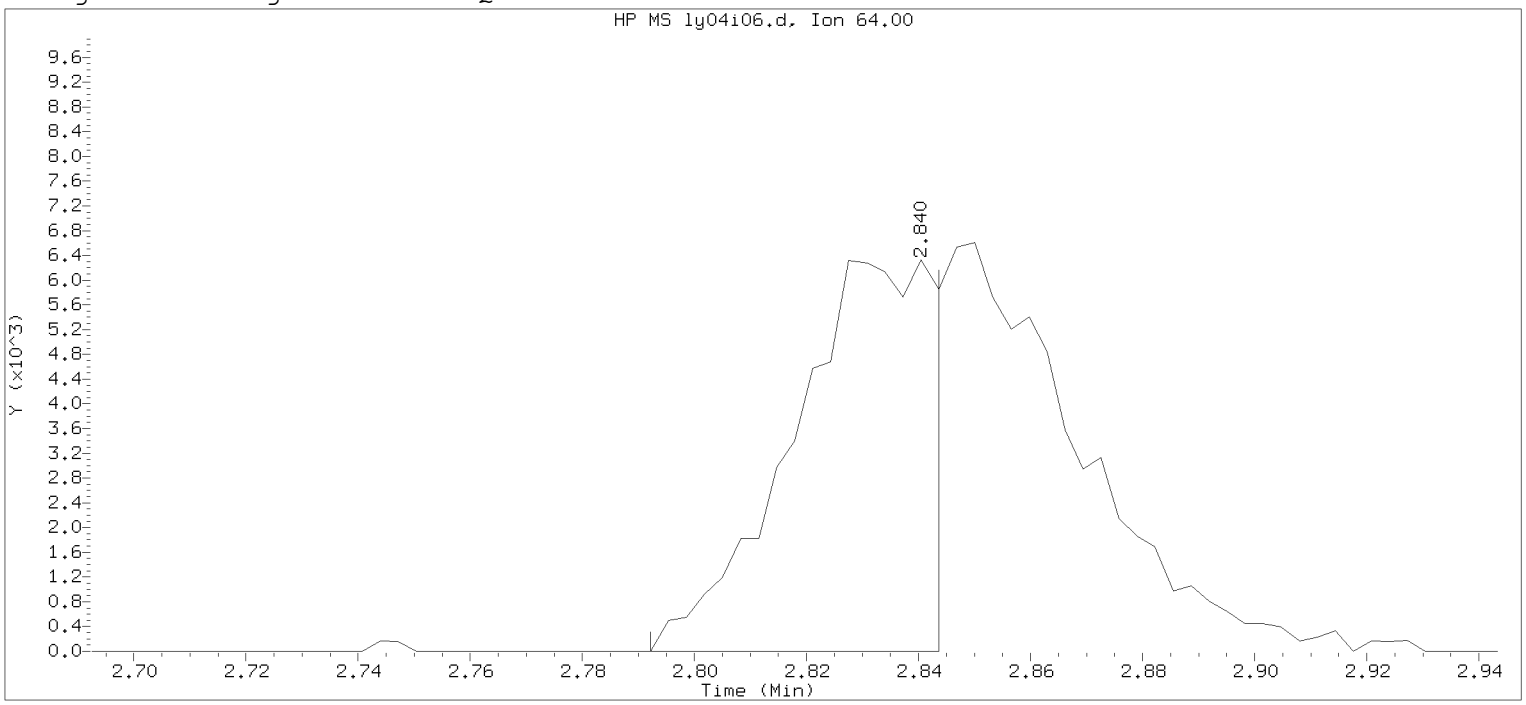
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 10831
On-column Amount (ng) : 2.8757
Integration start scan : 406 Integration stop scan: 422
Y at integration start : 0 Y at integration end: 0

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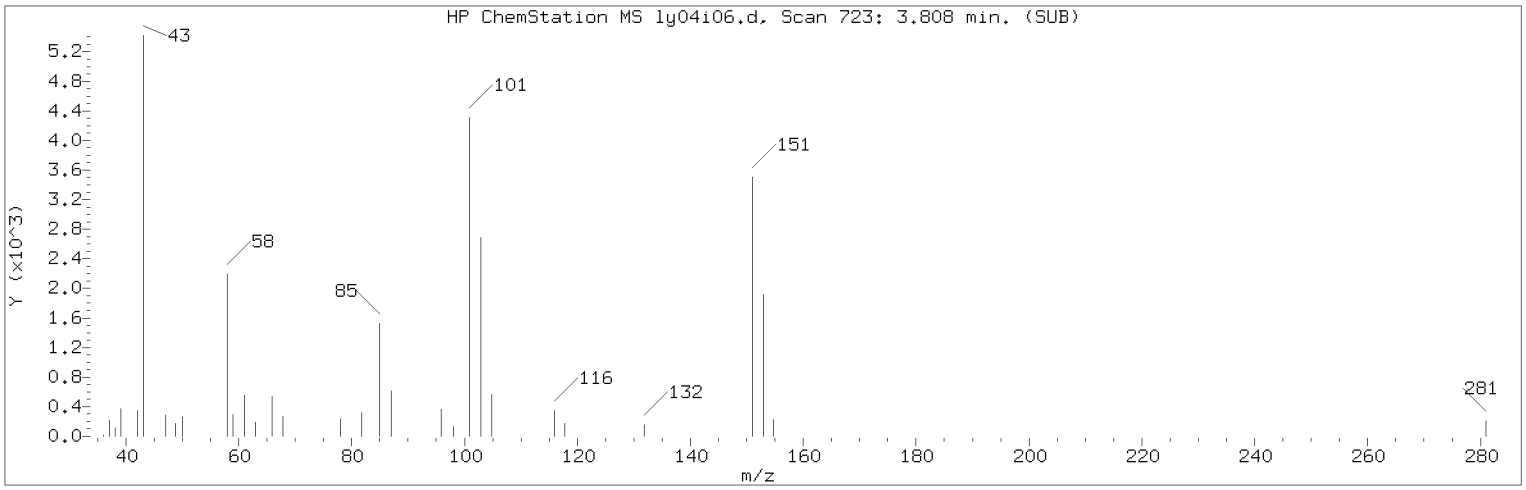
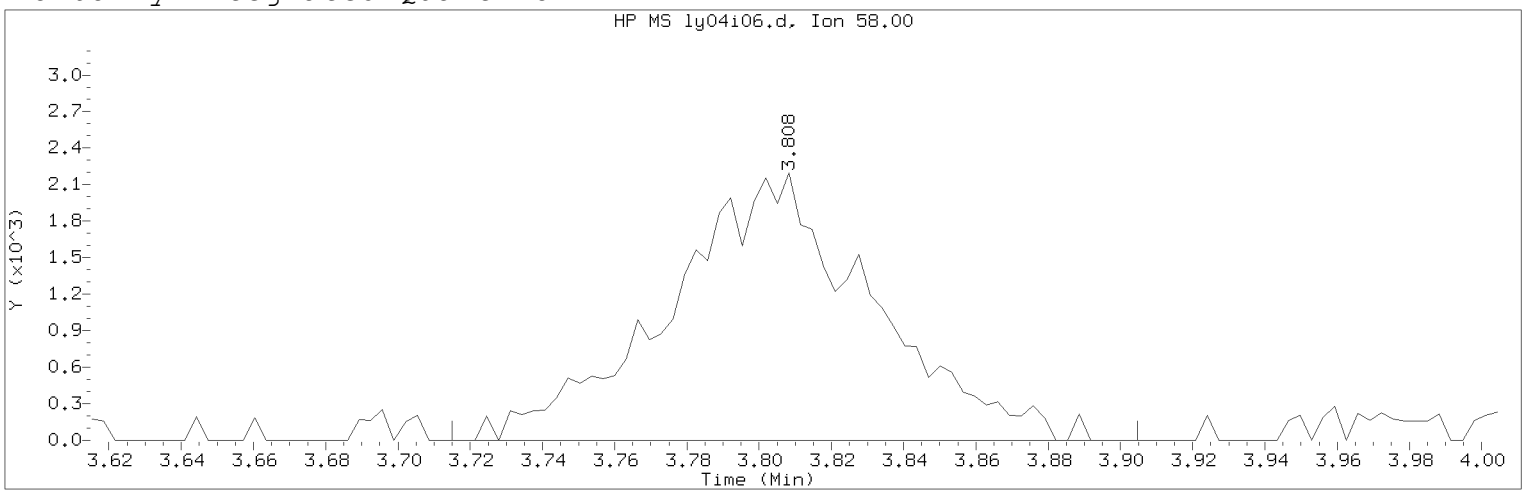
Target 3.5 esignature user ID: sejo0037

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

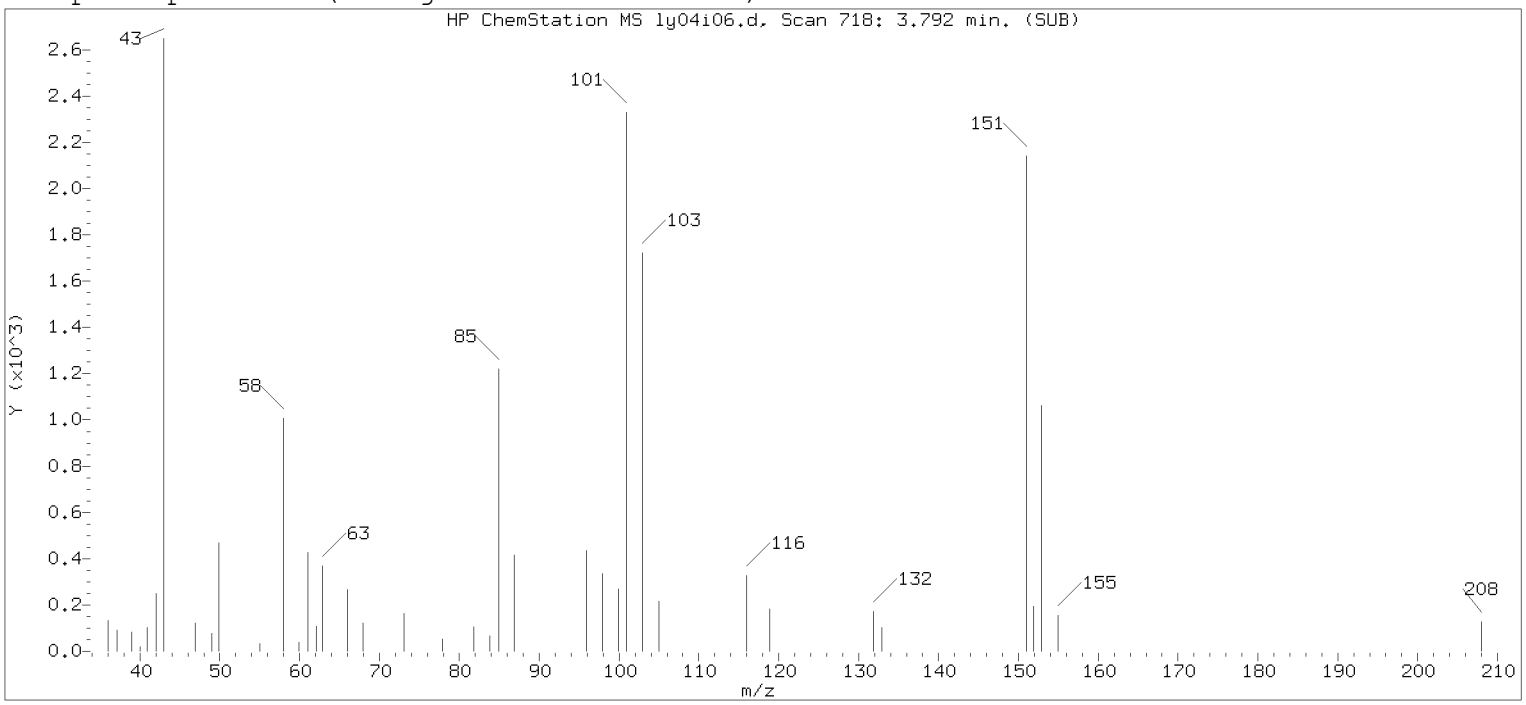
Compound Number : 18
Compound Name : Acetone
Scan Number : 723
Retention Time (minutes): 3.808
Quant Ion : 58.00
Area (flag) : 8567M
On-Column Amount (ng) : 7.9882
Integration start scan : 693 Integration stop scan: 752
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

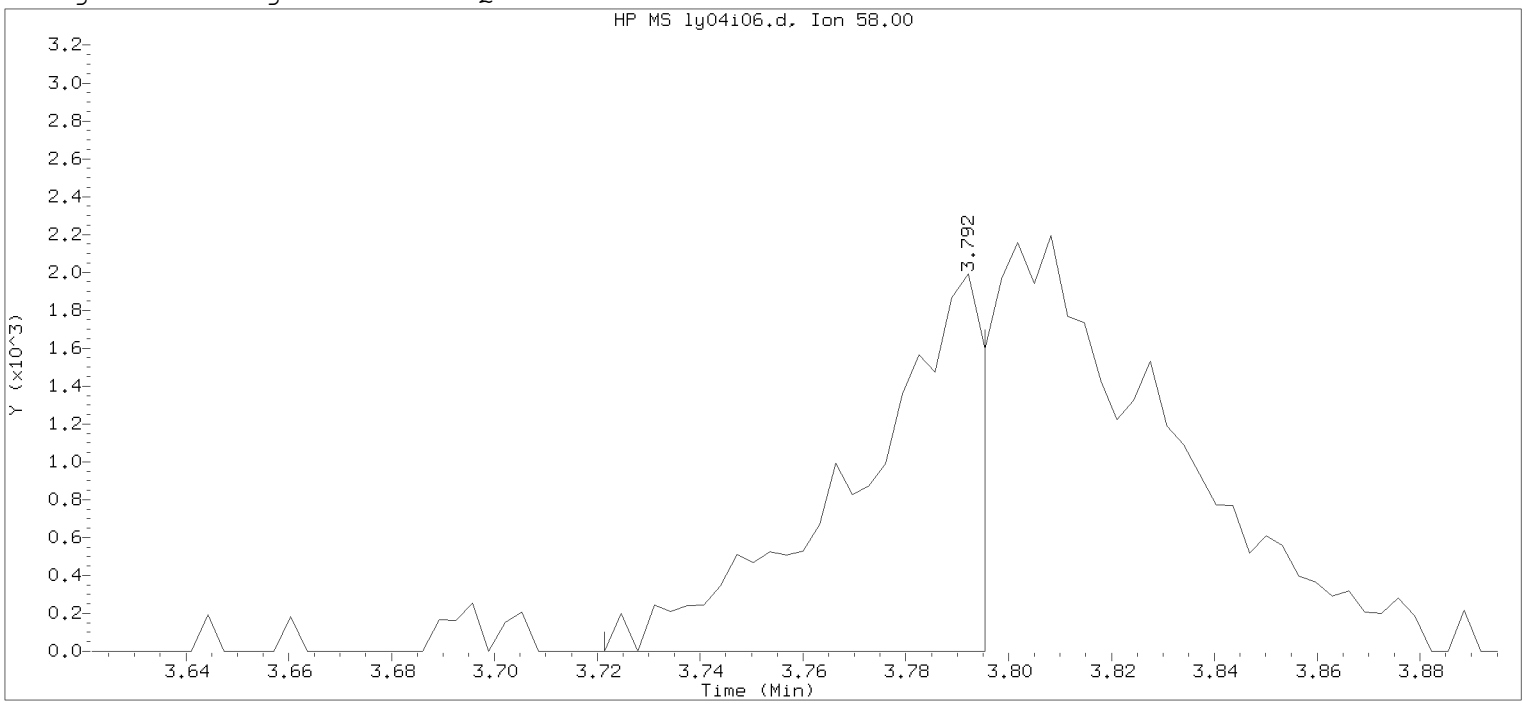
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

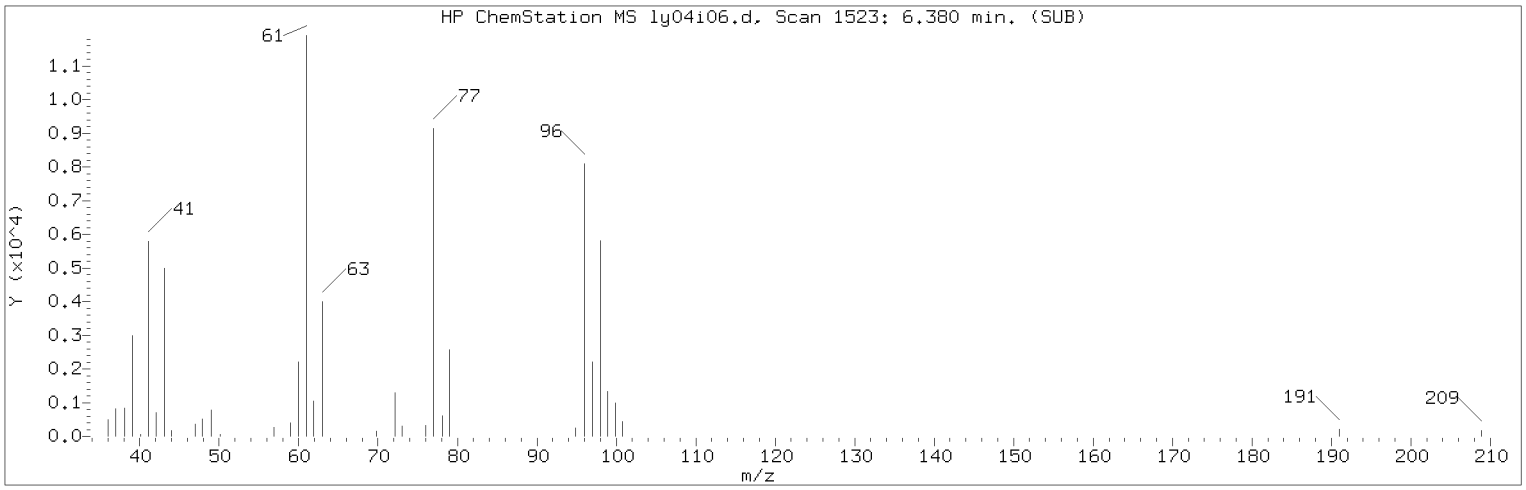
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

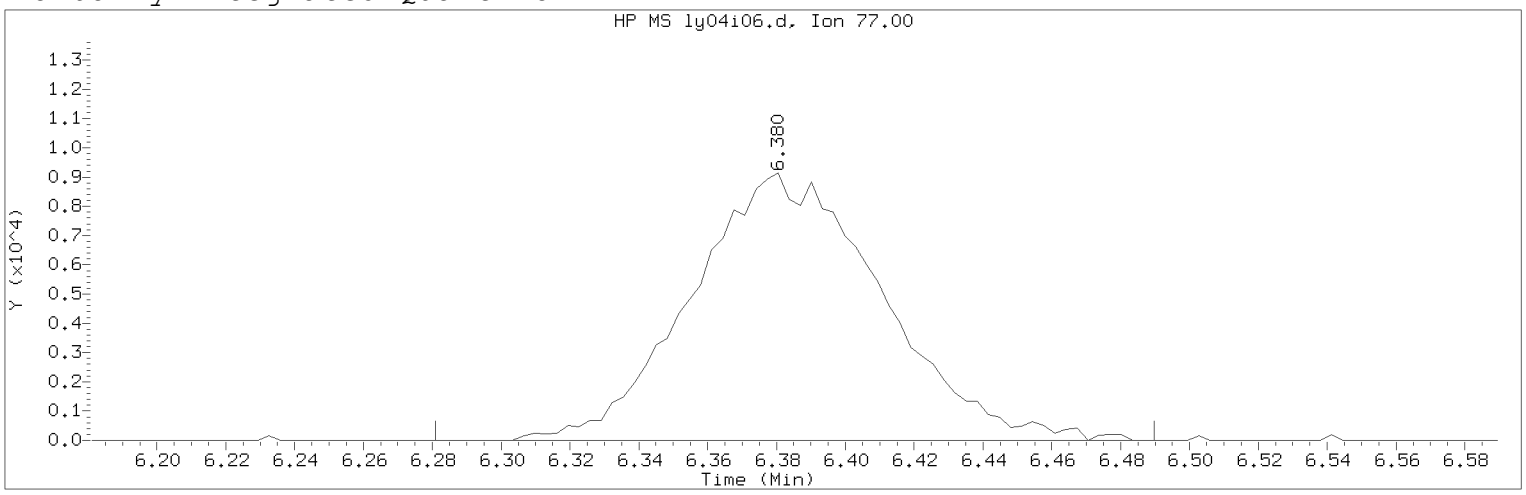
Compound Number : 18
Compound Name : Acetone
Scan Number : 718
Retention Time (minutes): 3.792
Quant Ion : 58.00
Area : 3364
On-column Amount (ng) : 3.7739
Integration start scan : 695 Integration stop scan: 718
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user review complete.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

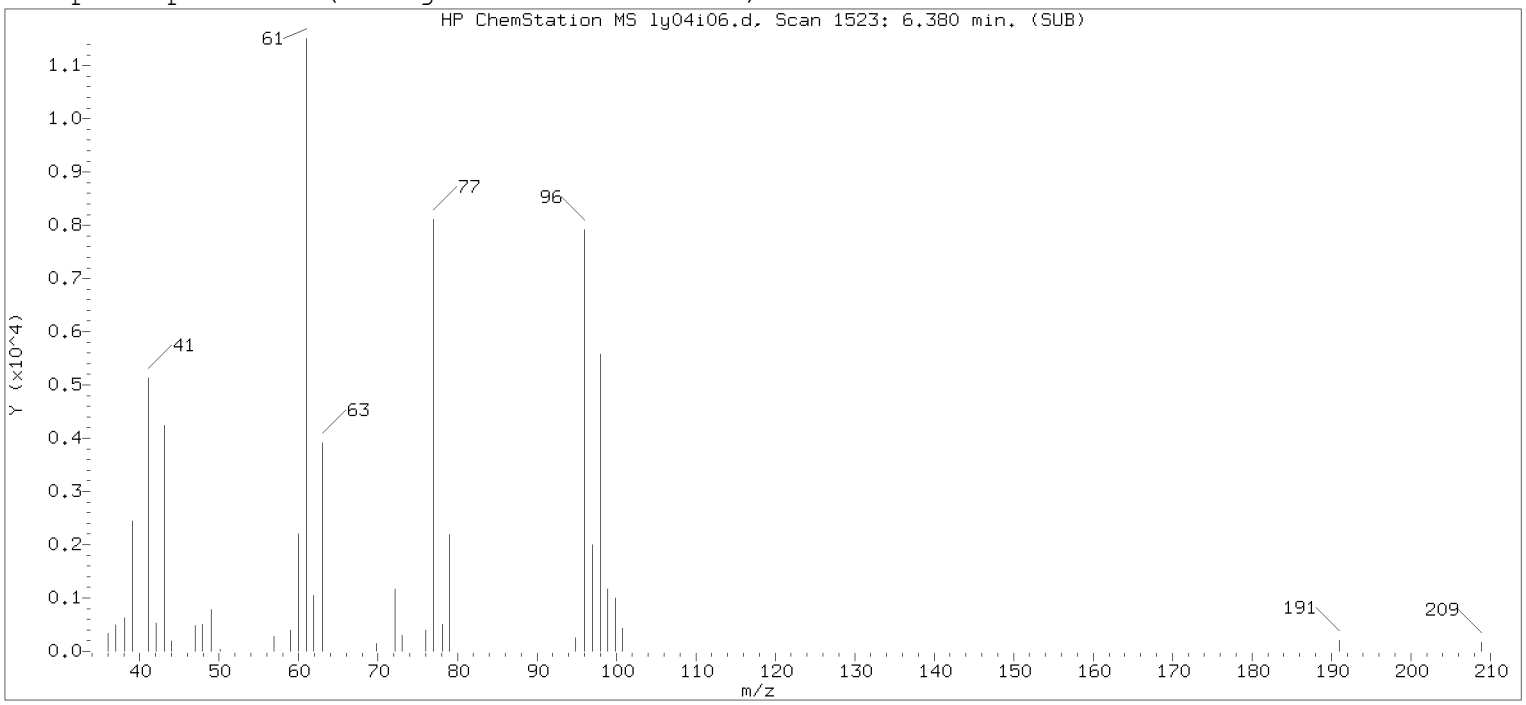
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area (flag) : 35169M
On-Column Amount (ng) : 4.0326
Integration start scan : 1491 Integration stop scan: 1556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

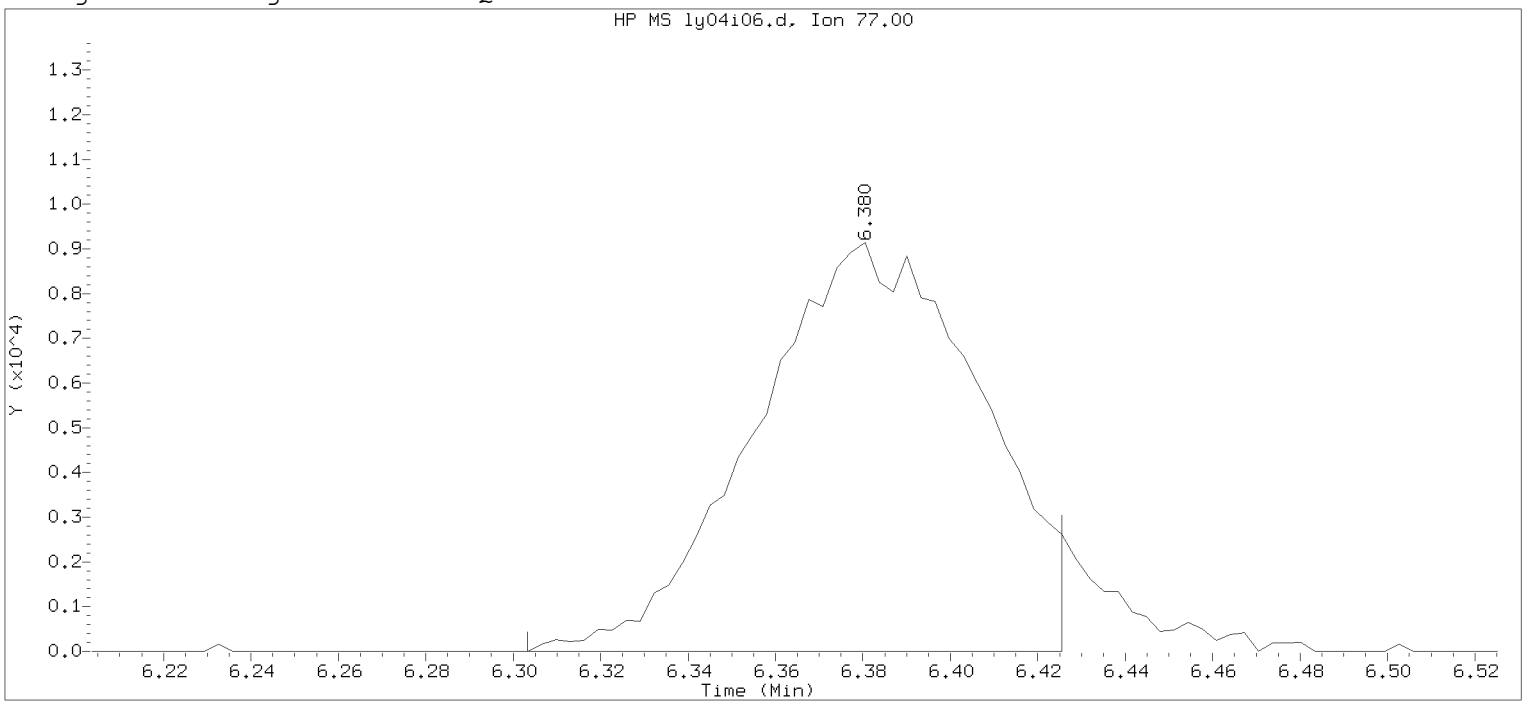
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

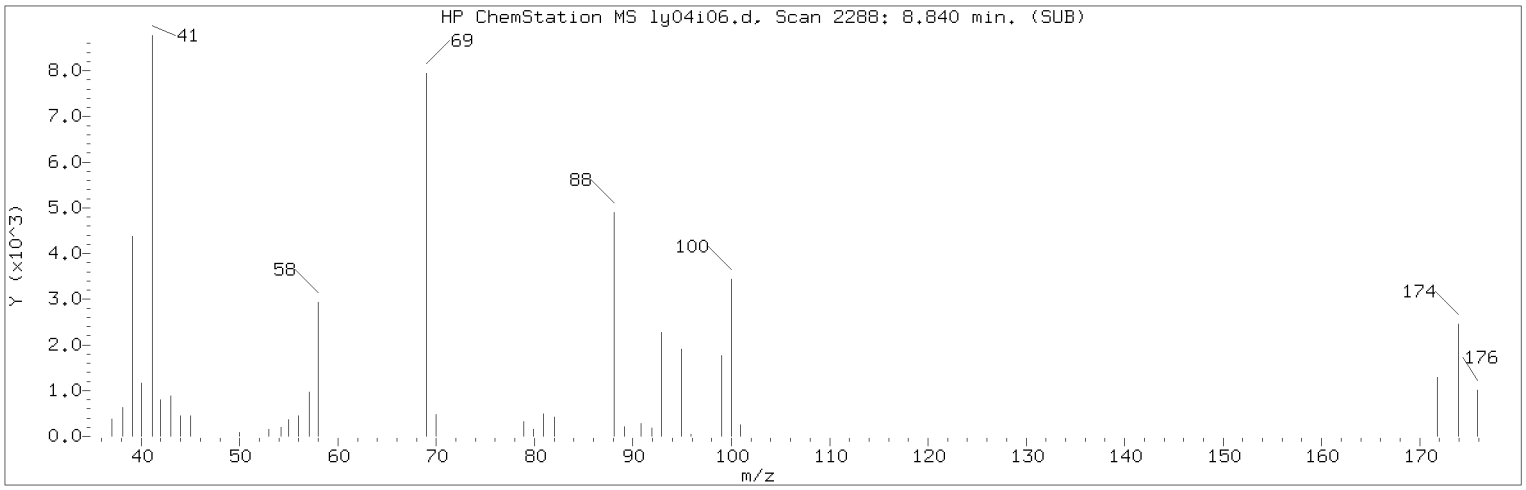
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

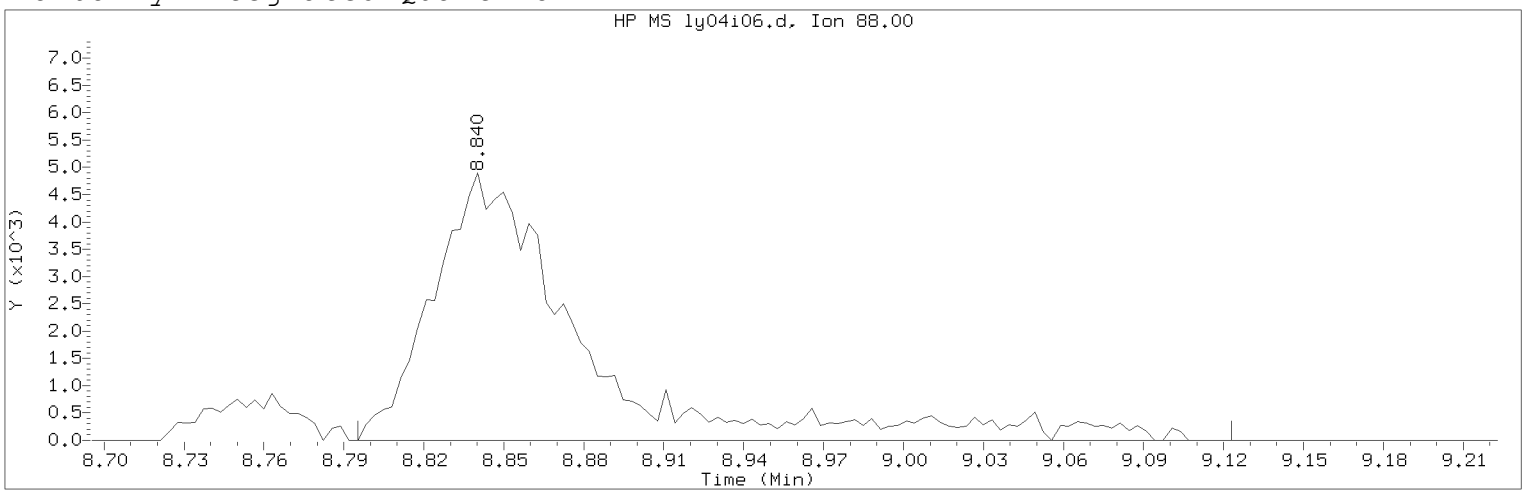
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area : 32659
On-column Amount (ng) : 3.7028
Integration start scan : 1498 Integration stop scan: 1536
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0001

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

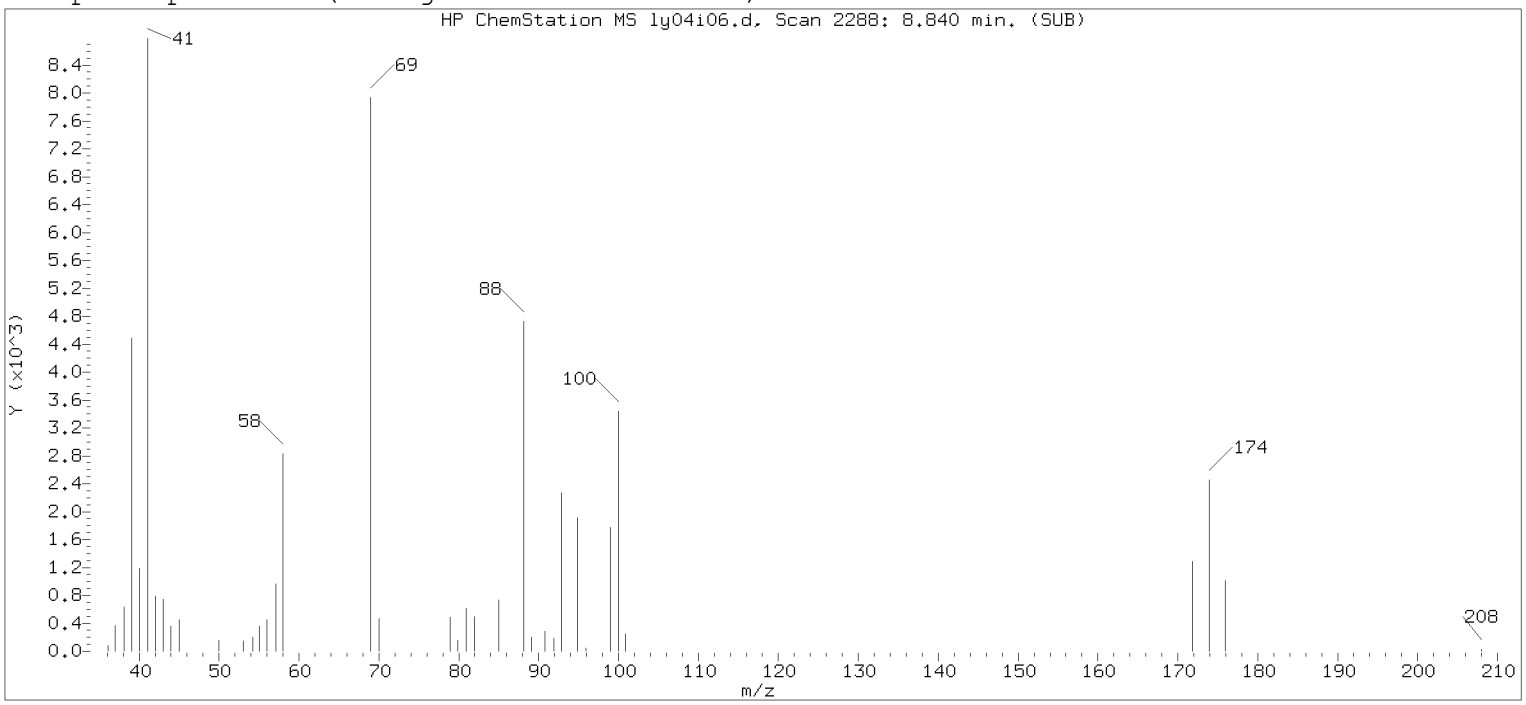
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 19114M
On-Column Amount (ng) : 199.2380
Integration start scan : 2273 Integration stop scan: 2375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

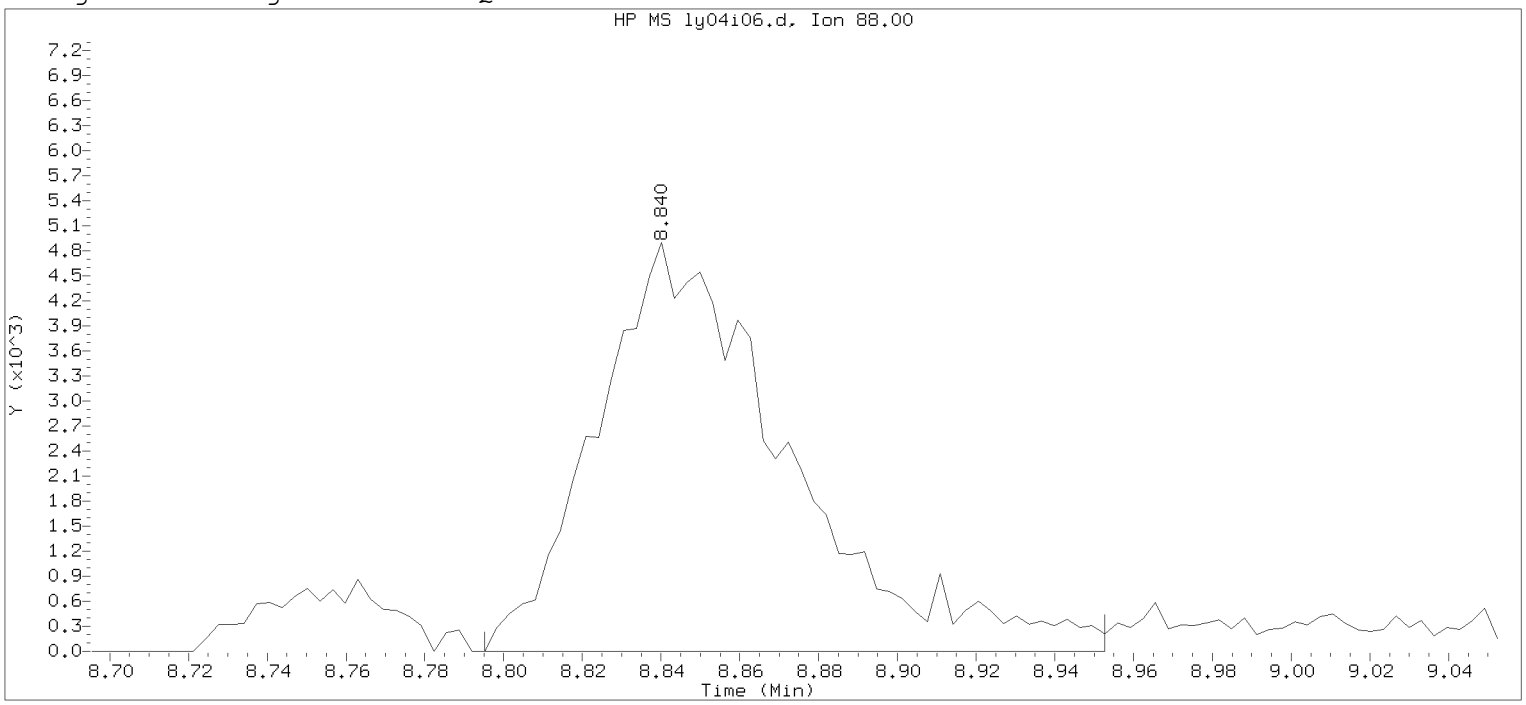
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

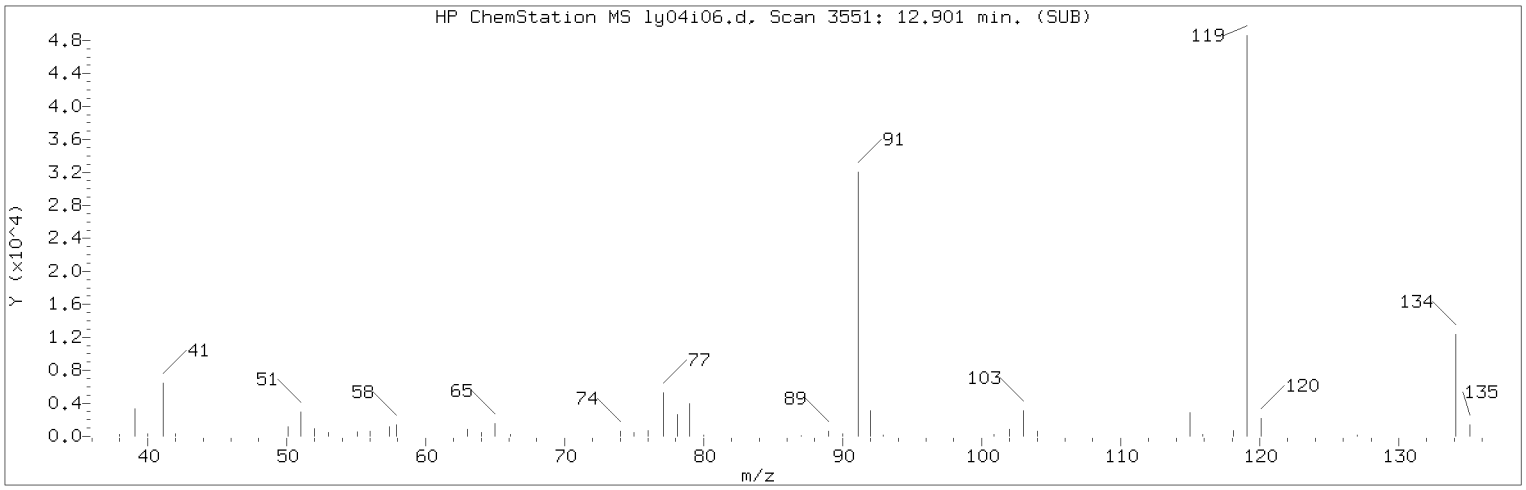
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

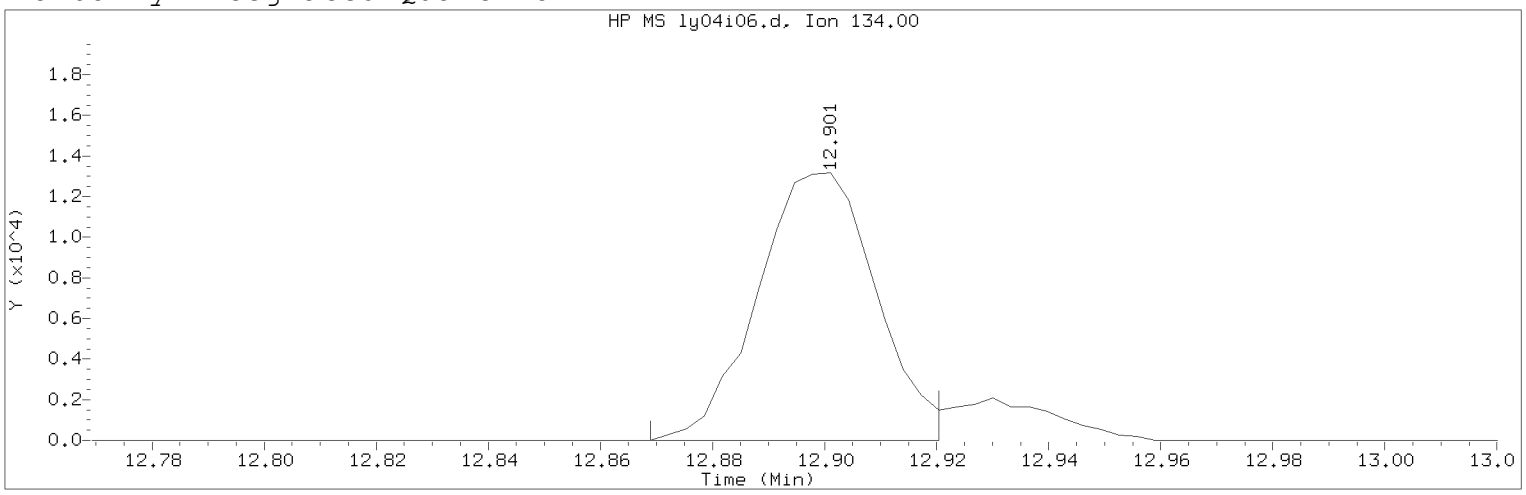
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area : 16526
On-column Amount (ng) : 173.4864
Integration start scan : 2273 Integration stop scan: 2322
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0042

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

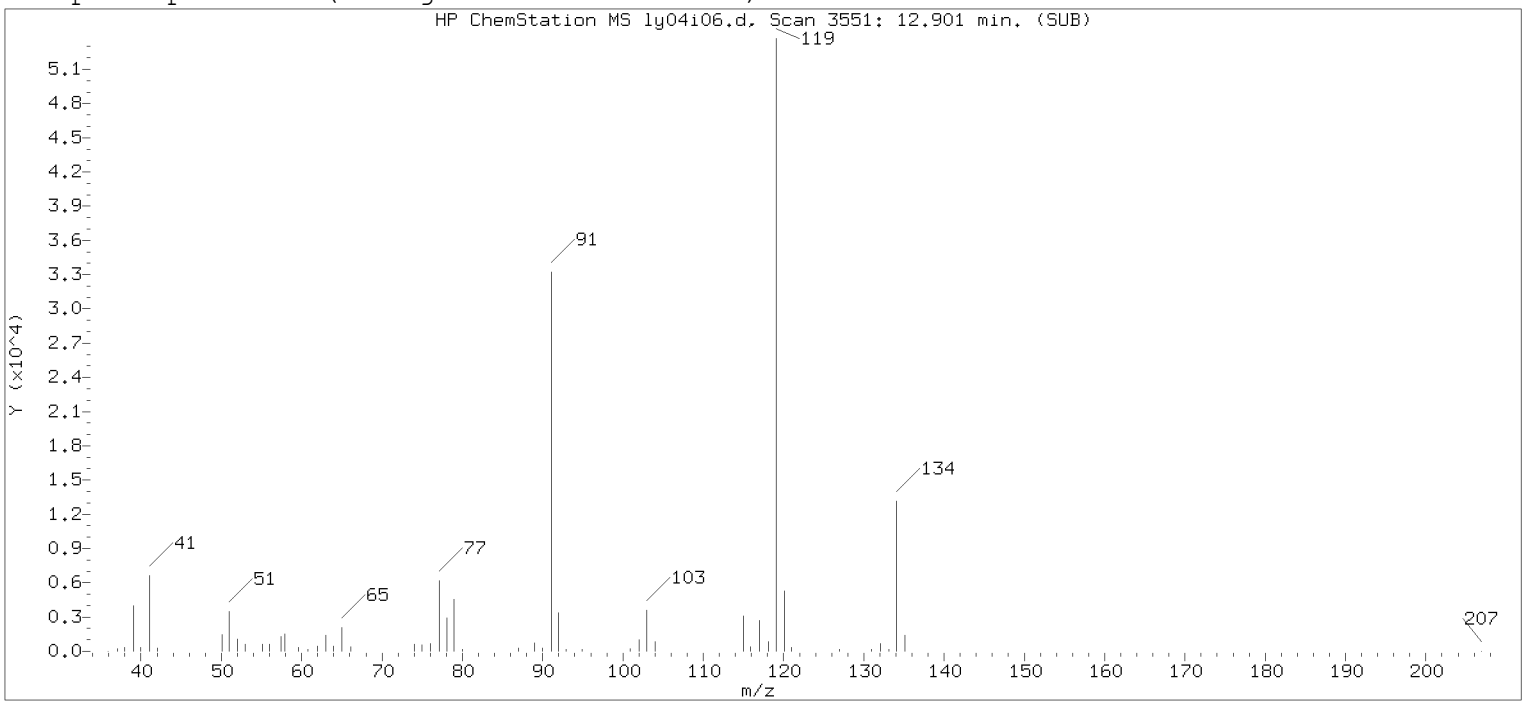
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 19337M
On-Column Amount (ng) : 3.4417
Integration start scan : 3540 Integration stop scan: 3556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

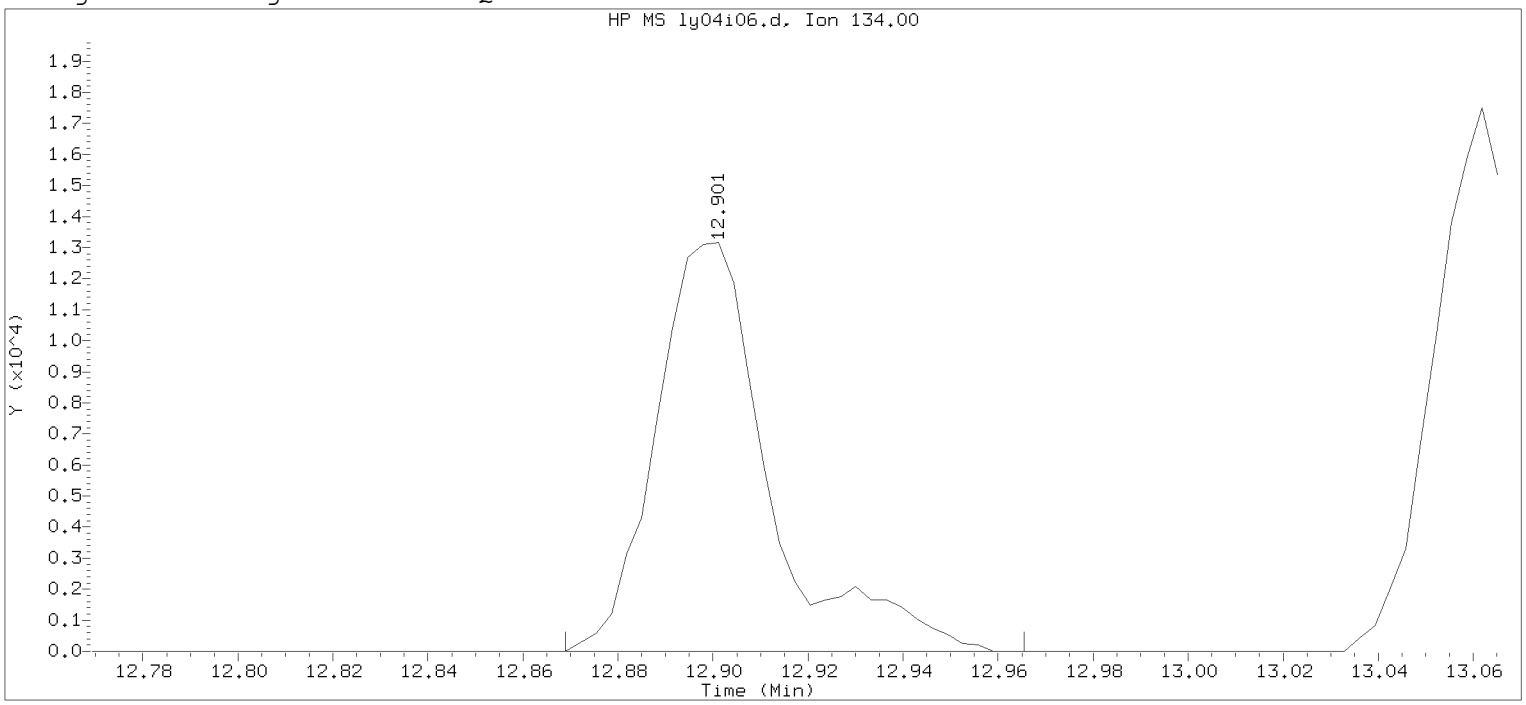
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



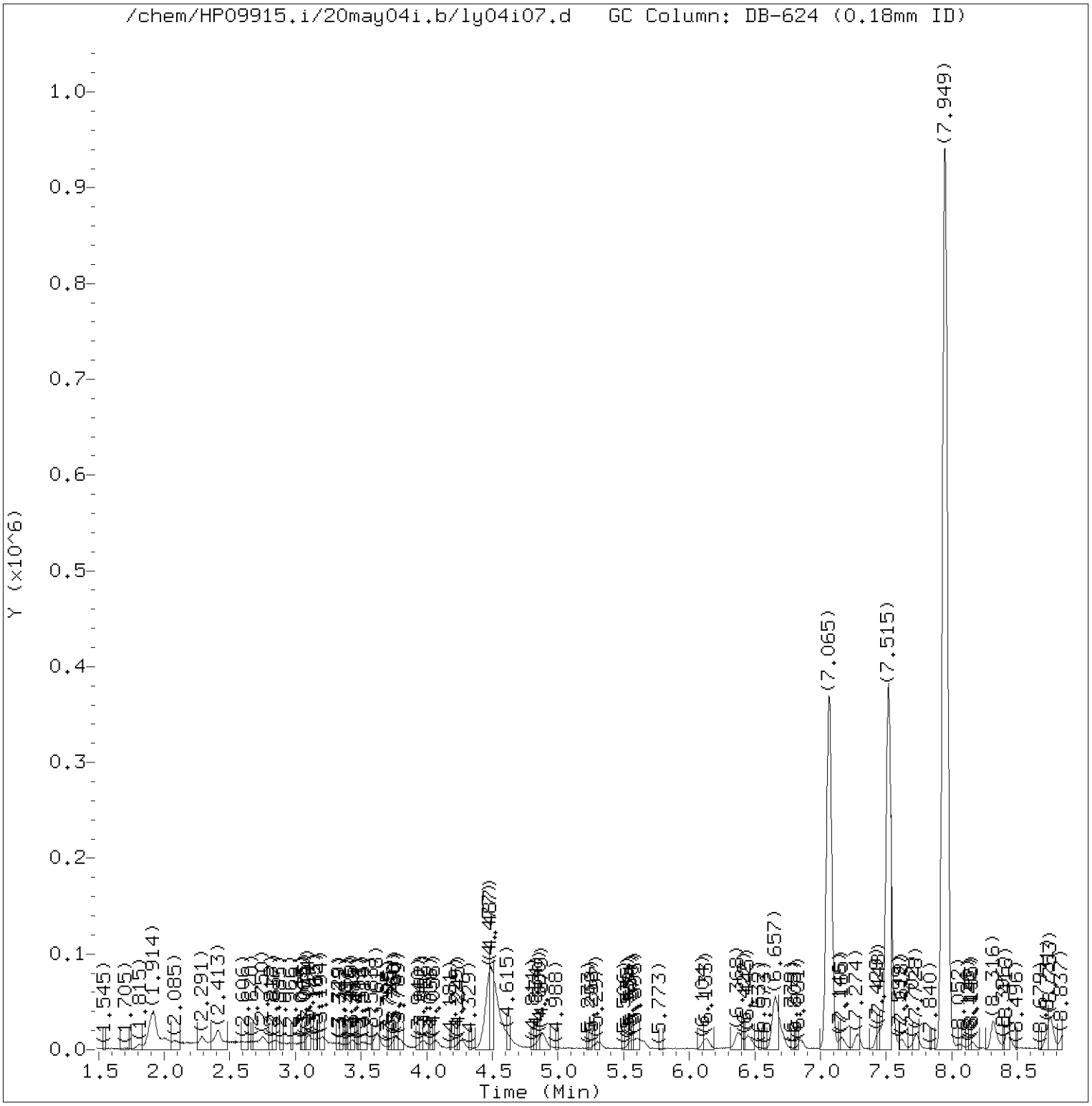
Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 21846
On-column Amount (ng) : 3.6346
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0042



Total Ion Chromatogram (TIC)

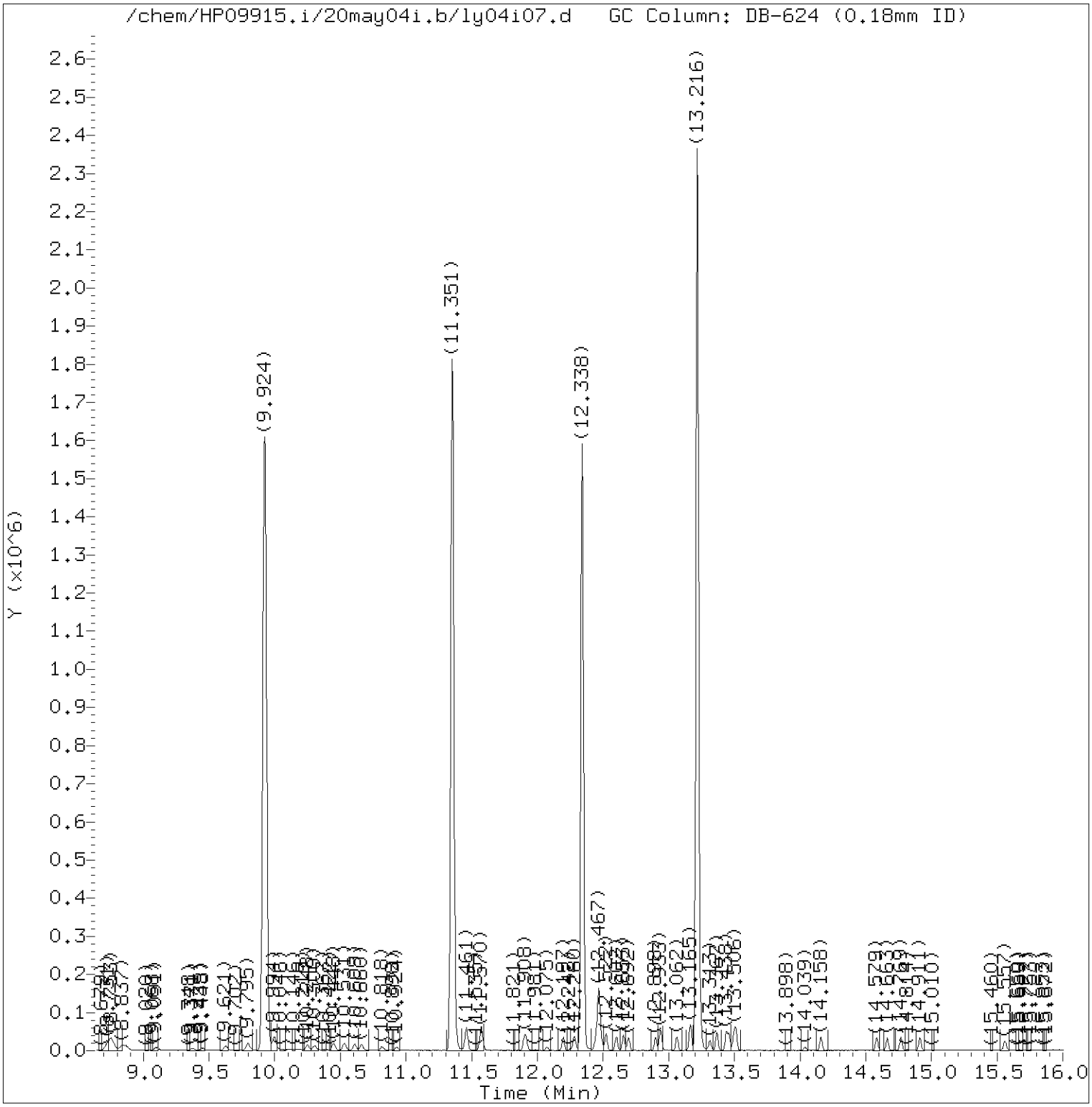
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

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Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.085	85	8023	0.896
4) Chloromethane	(2)	2.291	50	9098	1.088
5) 1,3-Butadiene	(2)	2.406	39	5686M	1.060
6) Vinyl Chloride	(2)	2.416	62	8737	1.083
8) Bromomethane	(2)	2.747	94	6838	1.176
9) Chloroethane	(2)	2.840	64	5438M	1.207
10) Dichlorofluoromethane	(2)	3.094	67	10216	1.051
12) Trichlorofluoromethane	(2)	3.168	101	8417	0.955
11) n-Pentane	(2)	3.210	43	7608M	0.920
14) Ethyl ether	(2)	3.432	59	5446	0.875
15) Freon 123a	(2)	3.516	67	6261	0.877
16) Acrolein	(1)	3.615	56	23166	9.566
17) 1,1-Dichloroethene	(2)	3.757	96	5549	0.987
17) 1,1-Dichloroethene	(2)	3.770	63	2205	0.824
19) Freon 113	(2)	3.799	101	4898	0.840
18) Acetone	(1)	3.821	58	2764M	2.502
22) Methyl Iodide	(2)	3.969	142	9677	0.894
21) 2-Propanol	(1)	3.985	45	14938M	21.218
23) Carbon Disulfide	(2)	4.062	76	16435M	0.869
27) Methyl Acetate	(2)	4.252	43	7412M	1.034
25) Allyl Chloride	(2)	4.271	41	8163	0.896
28) Methylene Chloride	(2)	4.471	84	6287	0.940
29)*t-Butyl alcohol-d10	(1)	4.487	65	294363	250.000
30) t-Butyl alcohol	(1)	4.615	59	23172	19.499
31) Acrylonitrile	(2)	4.834	53	3837	0.966
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	18019	0.935
32) trans-1,2-Dichloroethene	(2)	4.888	96	6111M	0.945
34) n-Hexane	(2)	5.310	57	6497M	0.718
36) 1,1-Dichloroethane	(2)	5.548	63	10230	0.902
38) di-Isopropyl ether	(2)	5.596	45	16324	0.819
39) 2-Chloro-1,3-butadiene	(2)	5.663	53	6540	0.723
40) Ethyl t-butyl ether	(2)	6.130	59	15230	0.822
43) 1,2-Dichloroethene (Total)	(2)		96	12826	1.871
44) 2-Butanone	(2)	6.358	43	9091	1.886
42) cis-1,2-Dichloroethene	(2)	6.377	96	6715	0.926
45) 2,2-Dichloropropane	(2)	6.390	77	7531M	0.859
47) Propionitrile	(1)	6.448	54	29925	18.639
48) Methacrylonitrile	(2)	6.657	67	34606	8.694

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.692	128	3311	0.885
50) Tetrahydrofuran	(1)	6.718	71	2576	1.834
51) Chloroform	(2)	6.856	83	10313	0.931
52)$Dibromofluoromethane	(2)	7.065	113	327107	49.723
52)$Dibromofluoromethane	(2)	7.065	111	334312	49.713
53) 1,1,1-Trichloroethane	(2)	7.075	97	8371	0.881
54) Cyclohexane	(2)	7.165	56	7115	0.669
54) Cyclohexane	(2)	7.165	84	6850	0.738
54) Cyclohexane	(2)	7.165	69	2378	0.719
56) Carbon Tetrachloride	(2)	7.281	117	6219	0.781
55) 1,1-Dichloropropene	(2)	7.287	75	6955M	0.798
58) Isobutyl Alcohol	(1)	7.448	41	19195	47.613
57)$1,2-Dichloroethane-d4	(2)	7.515	102	83472	50.005
57)$1,2-Dichloroethane-d4	(2)	7.519	65	369677	49.891
57)$1,2-Dichloroethane-d4	(2)	7.522	104	53704	50.523
60) Benzene	(2)	7.548	78	24385	0.904
61) 1,2-Dichloroethane	(2)	7.618	62	9508M	1.052
61) 1,2-Dichloroethane	(2)	7.615	98	734	0.833
65) t-Amyl methyl ether	(2)	7.734	73	16322	0.862
67) n-Heptane	(2)	7.946	43	7624	0.810
66)*Fluorobenzene	(2)	7.949	96	1305845	50.000
69) n-Butanol	(1)	8.313	56	25742	78.312
71) Trichloroethene	(2)	8.425	95	6044	0.886
72) Methylcyclohexane	(2)	8.731	83	7534	0.679
72) Methylcyclohexane	(2)	8.731	98	3392	0.676
73) 1,2-Dichloropropane	(2)	8.757	63	6479	0.932
76) Methyl Methacrylate	(2)	8.840	69	4771M	0.799
75) 1,4-Dioxane	(1)	8.850	88	4194	42.444
74) Dibromomethane	(2)	8.869	93	4079M	0.898
78) Bromodichloromethane	(2)	9.107	83	6897	0.847
79) 2-Nitropropane	(2)	9.374	41	3881	1.589
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	3089	0.668
81) cis-1,3-Dichloropropene	(2)	9.631	75	8067	0.758
82) 4-Methyl-2-pentanone	(2)	9.795	43	14679	1.504
83)$Toluene-d8	(3)	9.924	98	1320930	49.236
83)$Toluene-d8	(3)	9.924	100	856712	49.205
88) Toluene	(3)	9.991	92	14924	0.873
90) 1,3-Dichloropropene (total)	(3)		100	15946	1.561

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Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	7879	0.803
91) Ethyl Methacrylate	(3)	10.306	69	6707	0.679
92) 1,1,2-Trichloroethane	(3)	10.448	97	6228	0.939
93) Tetrachloroethene	(3)	10.531	166	5688	0.781
94) 1,3-Dichloropropane	(3)	10.609	76	10007	0.902
96) 2-Hexanone	(3)	10.657	43	10381	1.448
97) Dibromochloromethane	(3)	10.818	129	5097	0.738
99) 1,2-Dibromoethane	(3)	10.924	107	5964	0.836
100)*Chlorobenzene-d5	(3)	11.351	117	1044326	50.000
101) 1-Chlorohexane	(3)	11.354	91	8043	0.919
102) Chlorobenzene	(3)	11.377	112	17474	0.890
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	5490	0.825
104) Ethylbenzene	(3)	11.461	91	25022	0.791
106) m+p-Xylene	(3)	11.573	106	18632	1.498
108) Xylene (Total)	(3)		106	27231	2.213
107) o-Xylene	(3)	11.898	106	8599	0.715
109) Styrene	(3)	11.917	104	12566	0.642
110) Bromoform	(3)	12.075	173	3758	0.748
111) Isopropylbenzene	(3)	12.197	105	19546	0.640
112) Cyclohexanone	(1)	12.280	55	15170M	41.244
114)$4-Bromofluorobenzene	(3)	12.338	95	512453	49.643
114)$4-Bromofluorobenzene	(3)	12.342	174	441400	49.875
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	10218	0.935
115) Bromobenzene	(4)	12.457	156	7896	0.900
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	26358	8.293
117) 1,2,3-Trichloropropane	(4)	12.493	110	2928	0.877
119) n-Propylbenzene	(4)	12.525	91	29592	0.781
120) 2-Chlorotoluene	(4)	12.599	126	6422	0.793
122) 1,3,5-Trimethylbenzene	(4)	12.653	105	18521	0.676
121) 4-Chlorotoluene	(4)	12.692	126	6754	0.804
124) tert-Butylbenzene	(4)	12.901	134	3961M	0.704
125) Pentachloroethane	(4)	12.933	167	4085	0.817
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	18226	0.644
127) sec-Butylbenzene	(4)	13.062	105	20974	0.629
130) p-Isopropyltoluene	(4)	13.165	119	17502	0.612
129) 1,3-Dichlorobenzene	(4)	13.165	146	14103	0.863
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	599351	50.000
133) 1,4-Dichlorobenzene	(4)	13.235	146	15472	0.902

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

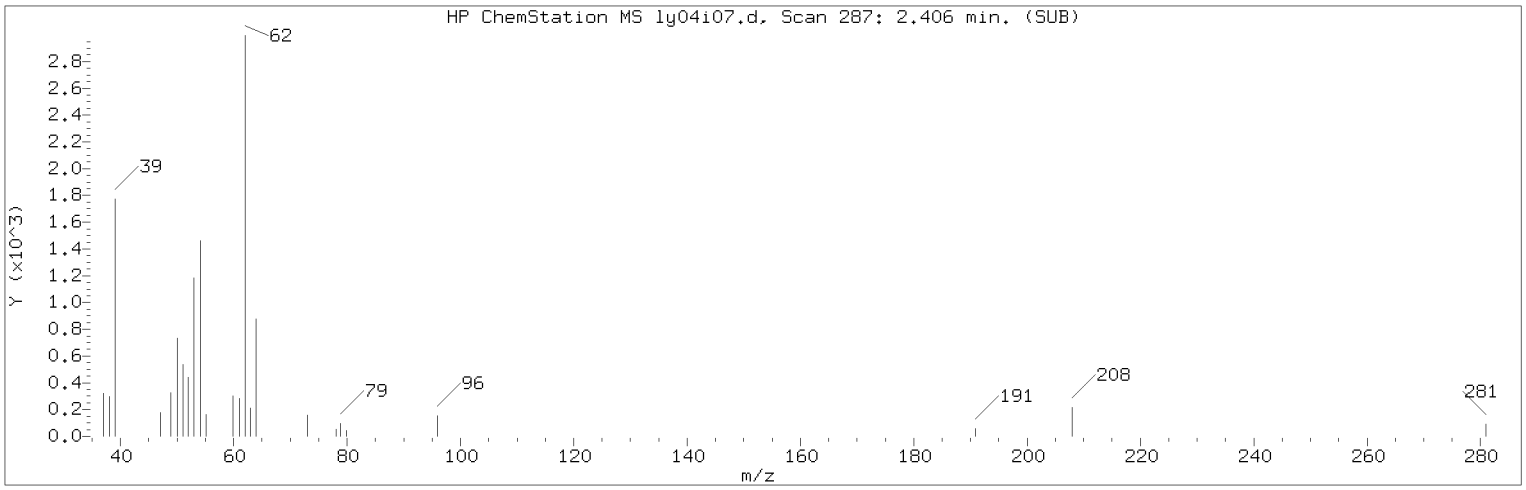
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	24886	0.846
135) Benzyl Chloride	(4)	13.313	91	15879	0.713
136) 1,3-Diethylbenzene	(4)	13.364	119	13894	0.755
141) Diethylbenzene (total)	(4)		100	40181	2.263
137) 1,4-Diethylbenzene	(4)	13.435	119	13946	0.724
139) n-Butylbenzene	(4)	13.457	92	10687	0.728
138) 1,2-Dichlorobenzene	(4)	13.493	146	14584	0.887
140) 1,2-Diethylbenzene	(4)	13.512	119	12341	0.785
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	1978	0.818
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	10914	0.881
146) 1,2,4-Trichlorobenzene	(4)	14.579	180	9813	0.847
147) Hexachlorobutadiene	(4)	14.660	225	5564	1.042
148) Naphthalene	(4)	14.766	128	25497	0.680
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	9815	0.853
150) 2-Methylnaphthalene	(4)	15.557	142	11936M	3.336

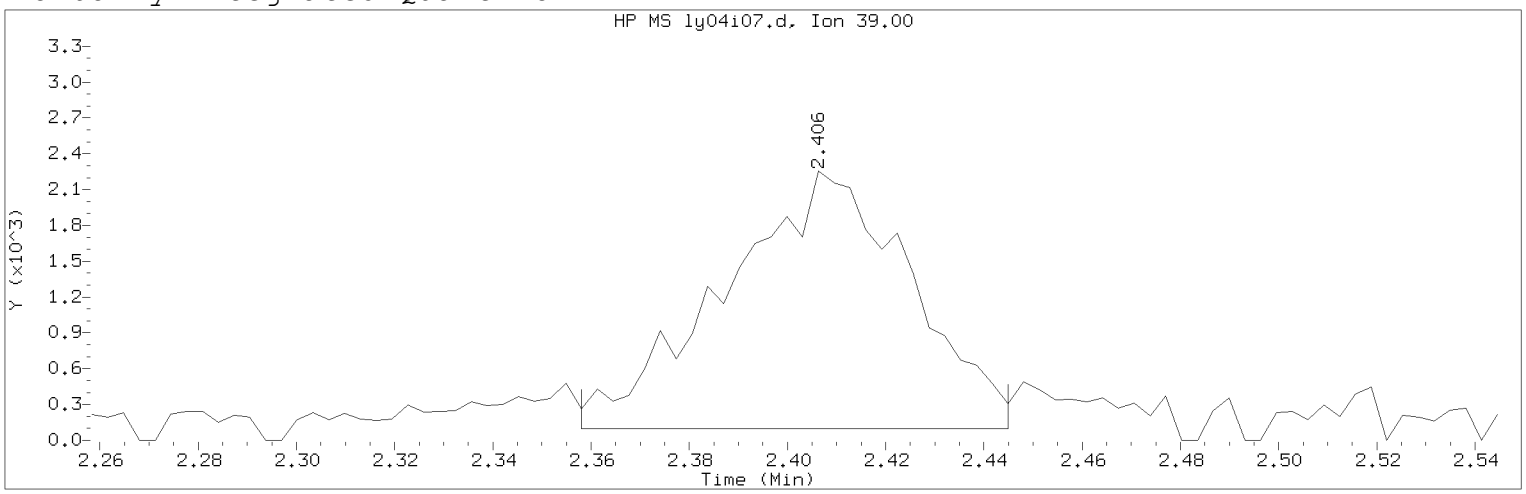
M = Compound was manually integrated.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

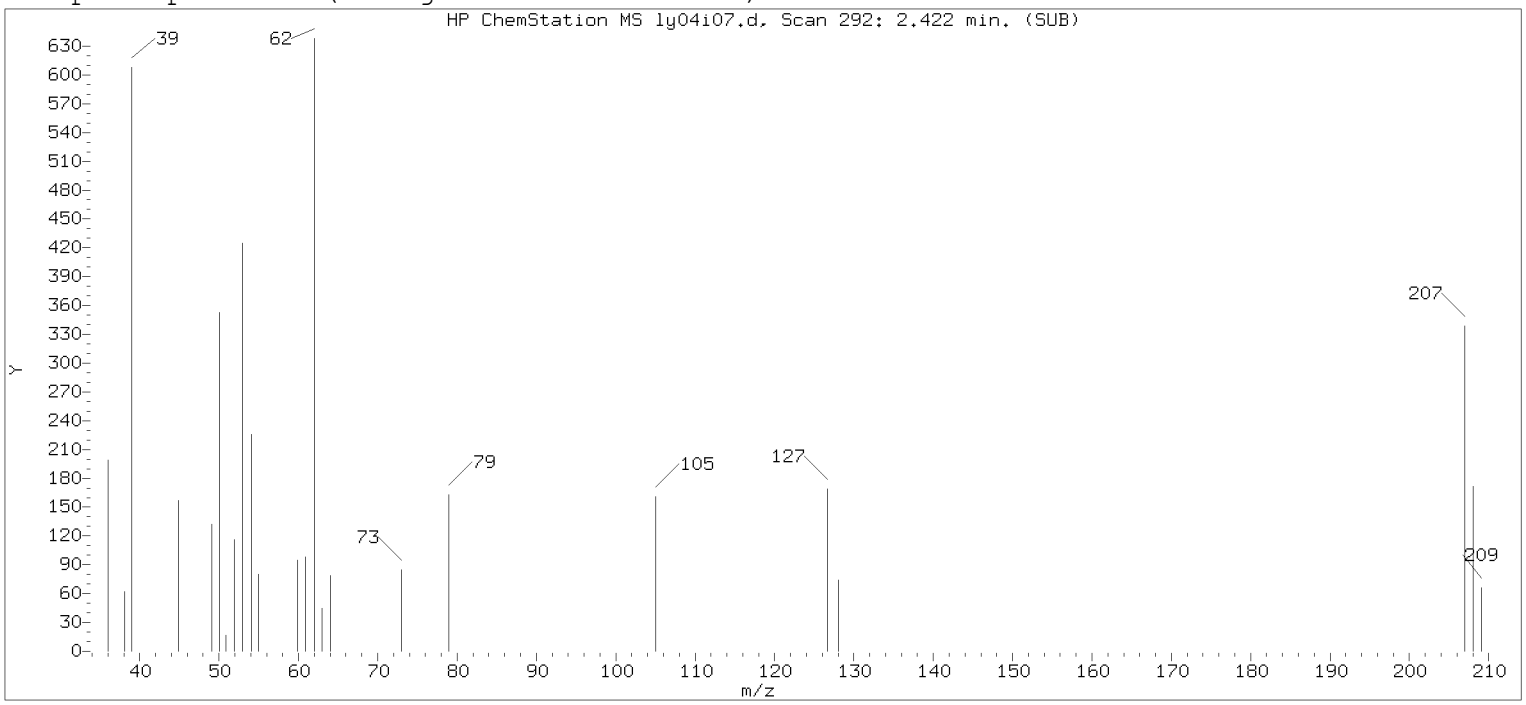
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 287
Retention Time (minutes): 2.406
Quant Ion : 39.00
Area (flag) : 5686M
On-Column Amount (ng) : 1.0601
Integration start scan : 271 Integration stop scan: 298
Y at integration start : 98 Y at integration end: 98

Reason for manual integration: improper integration

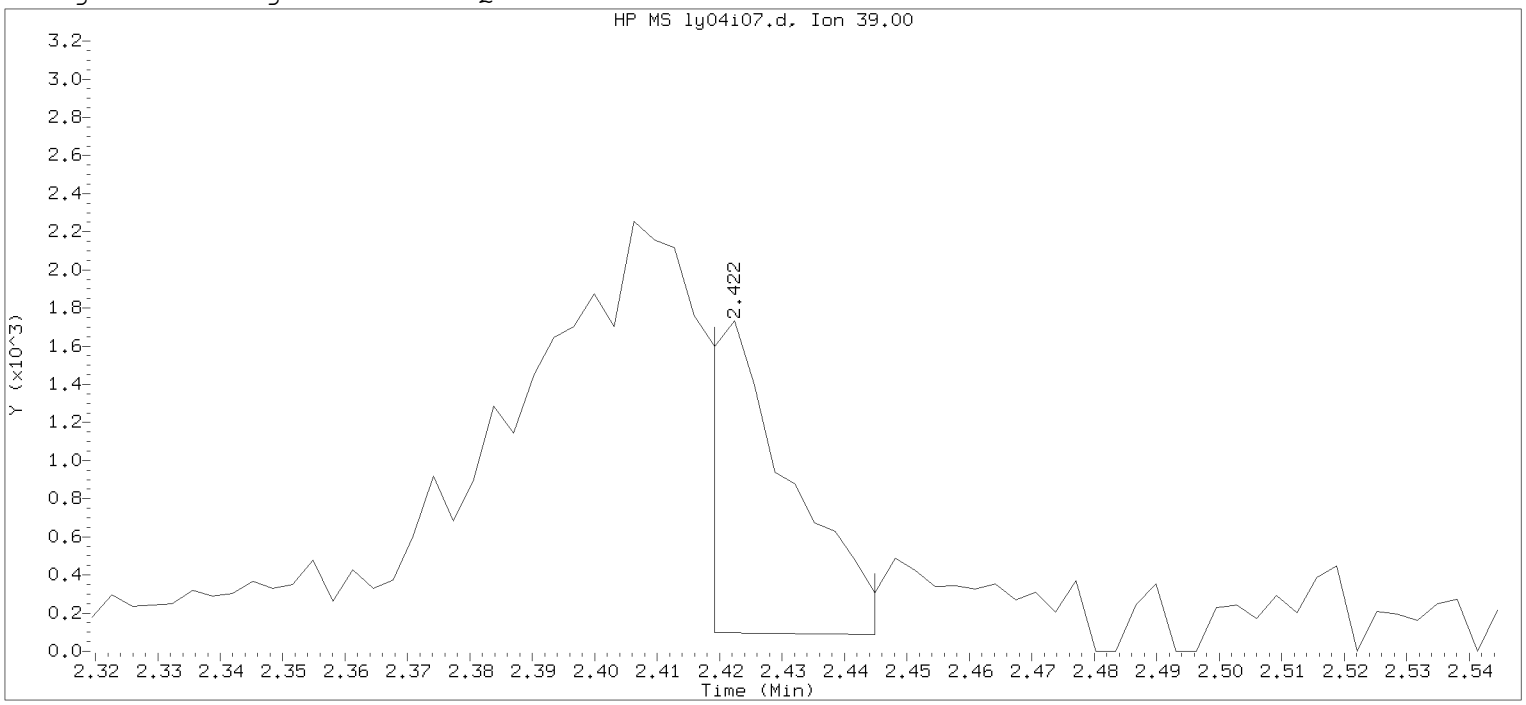
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

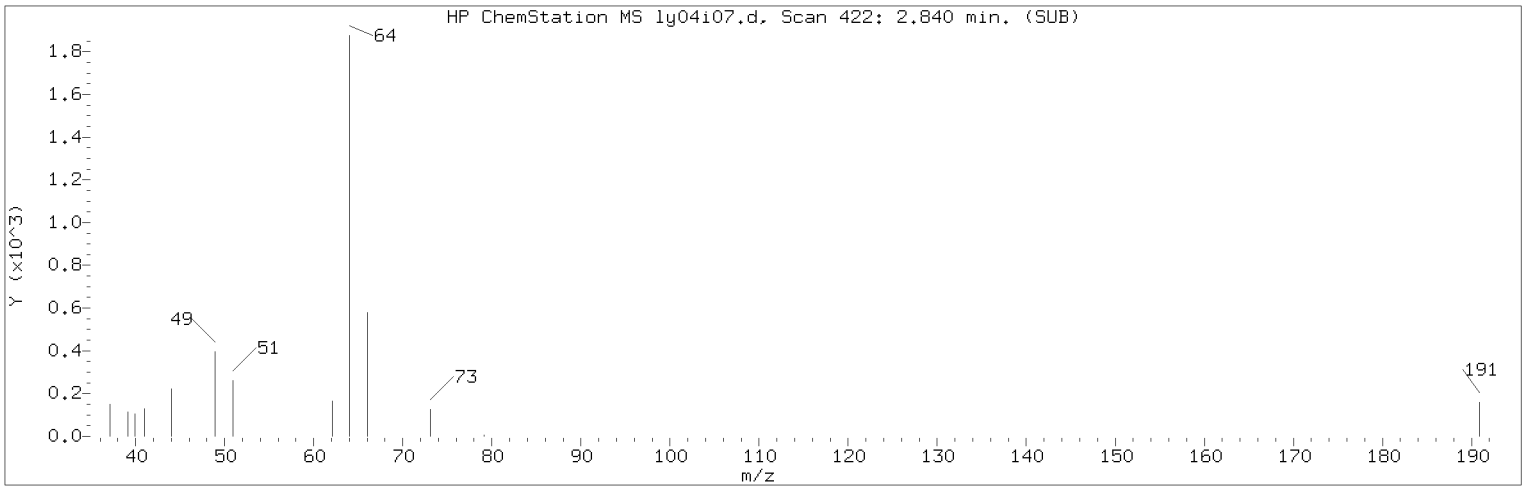
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

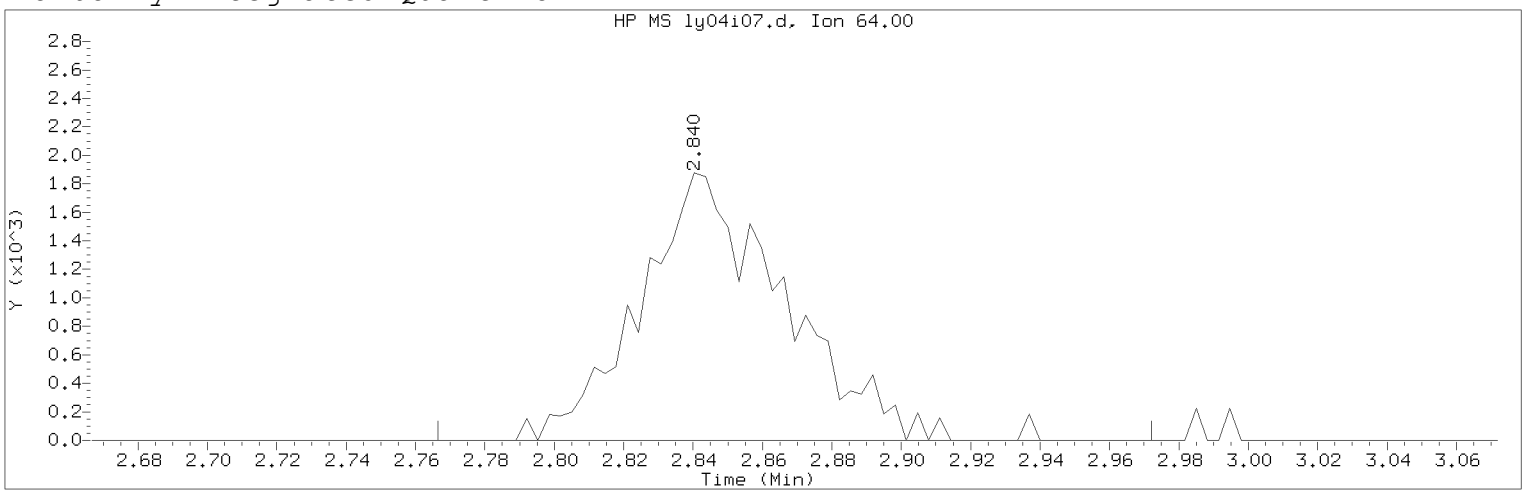
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 292
Retention Time (minutes): 2.422
Quant Ion : 39.00
Area : 1340
On-column Amount (ng) : 0.3017
Integration start scan : 290 Integration stop scan: 298
Y at integration start : 97 Y at integration end: 86

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

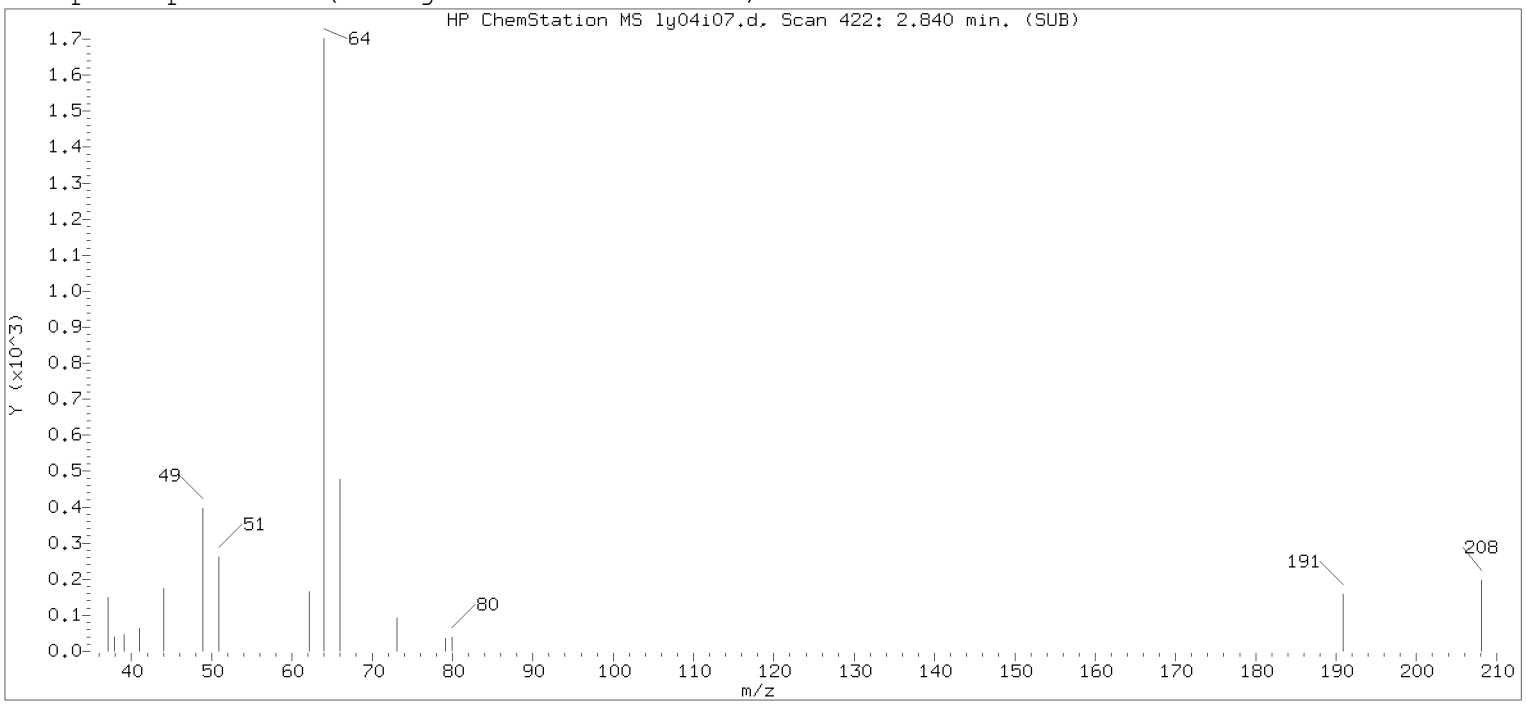
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area (flag) : 5438M
On-Column Amount (ng) : 1.2072
Integration start scan : 398 Integration stop scan: 462
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

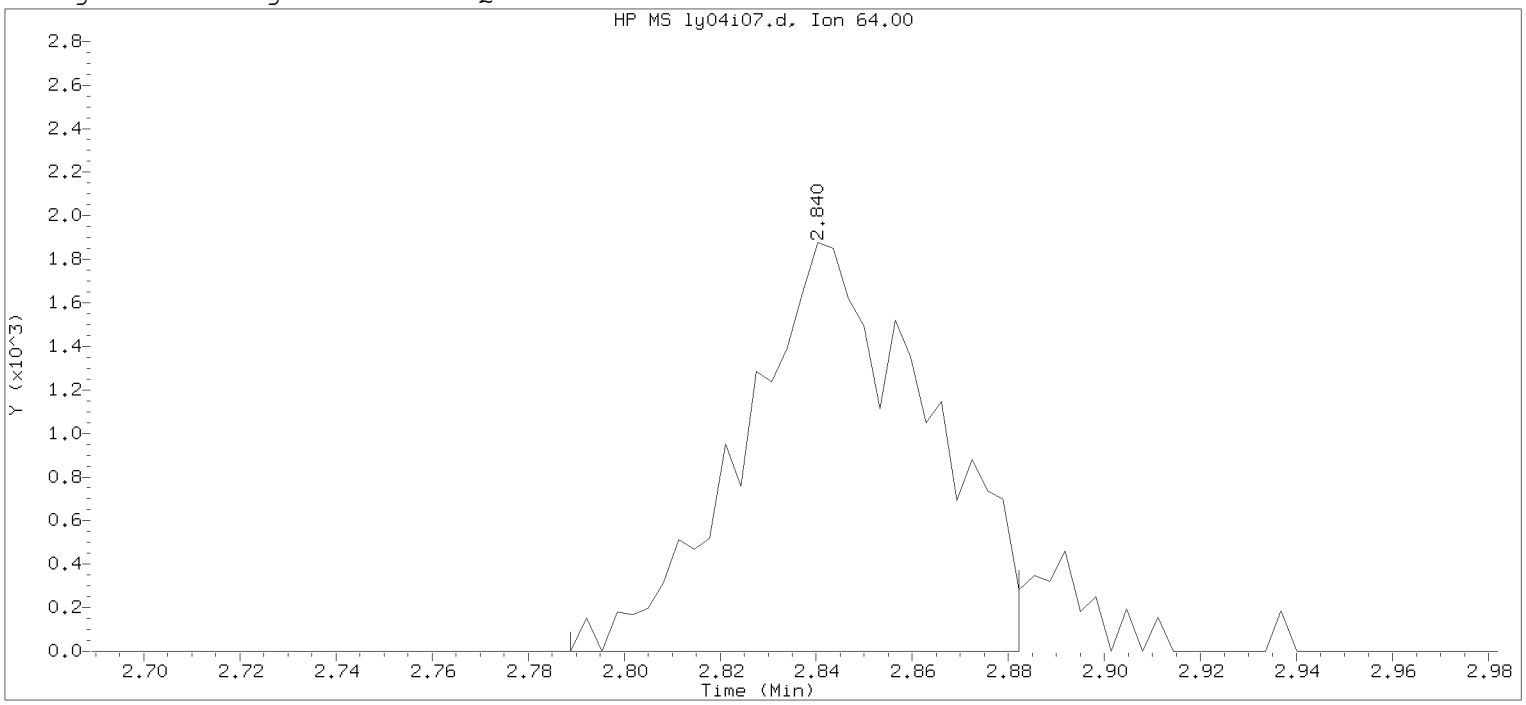
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

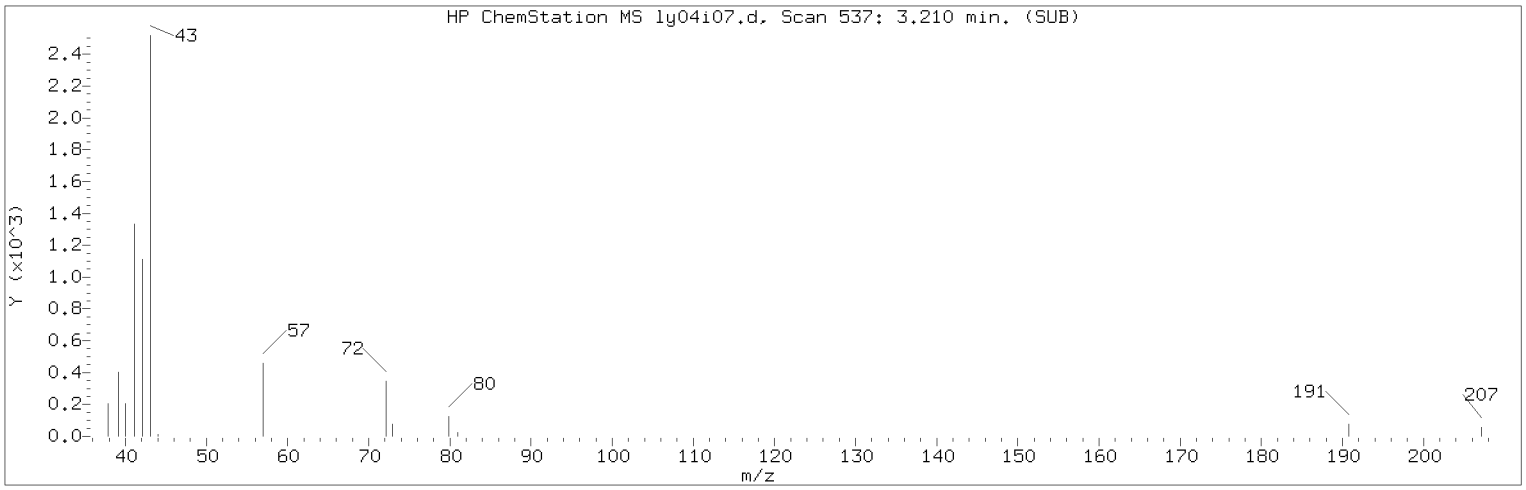
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

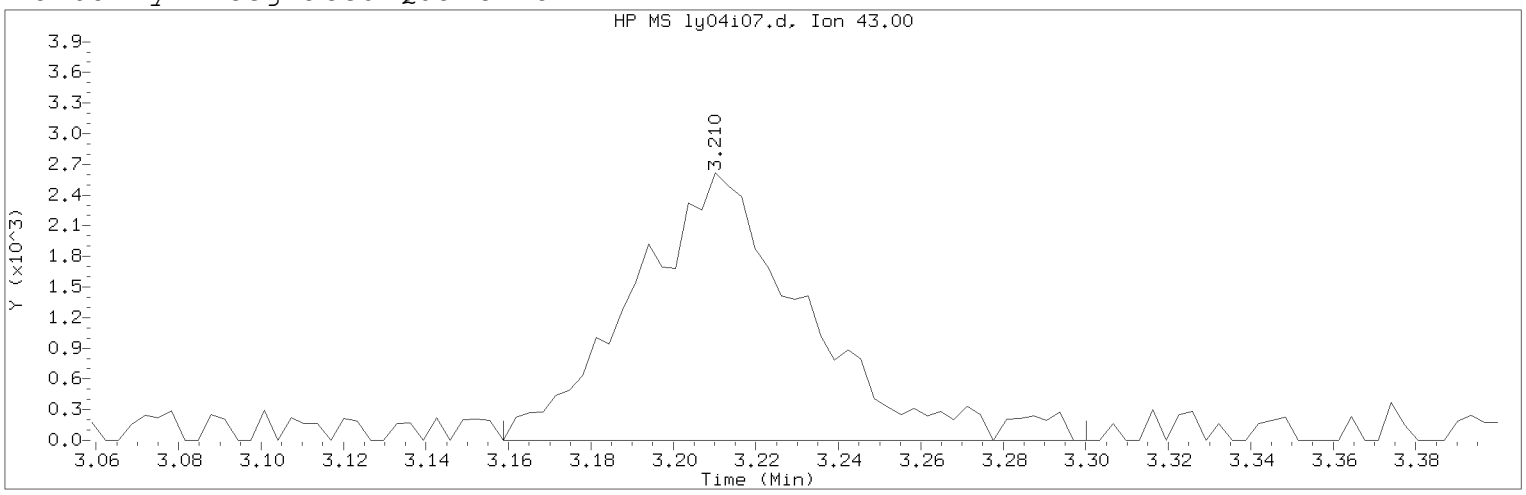
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 5005
On-column Amount (ng) : 1.2551
Integration start scan : 405 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0055

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

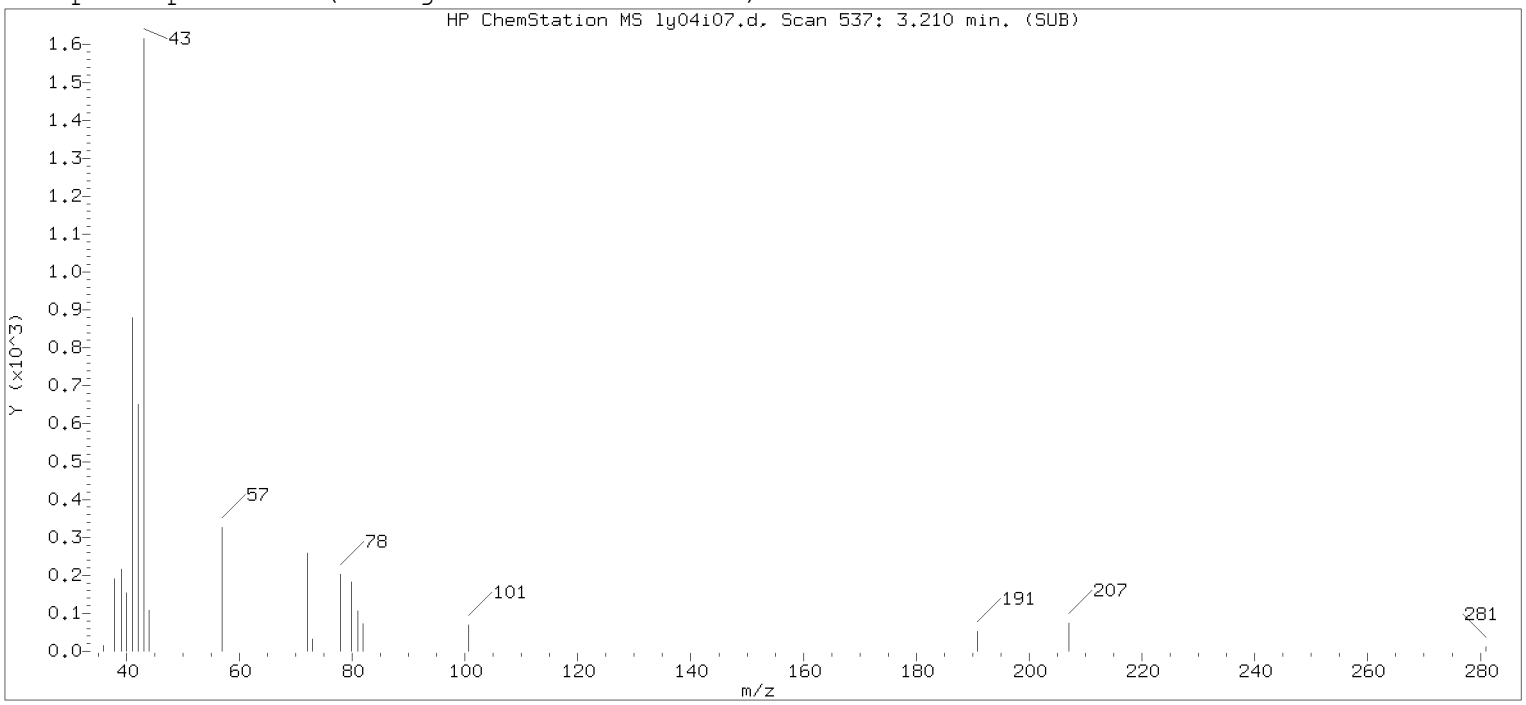
Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area (flag) : 7608M
On-Column Amount (ng) : 0.9196
Integration start scan : 520 Integration stop scan: 564
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

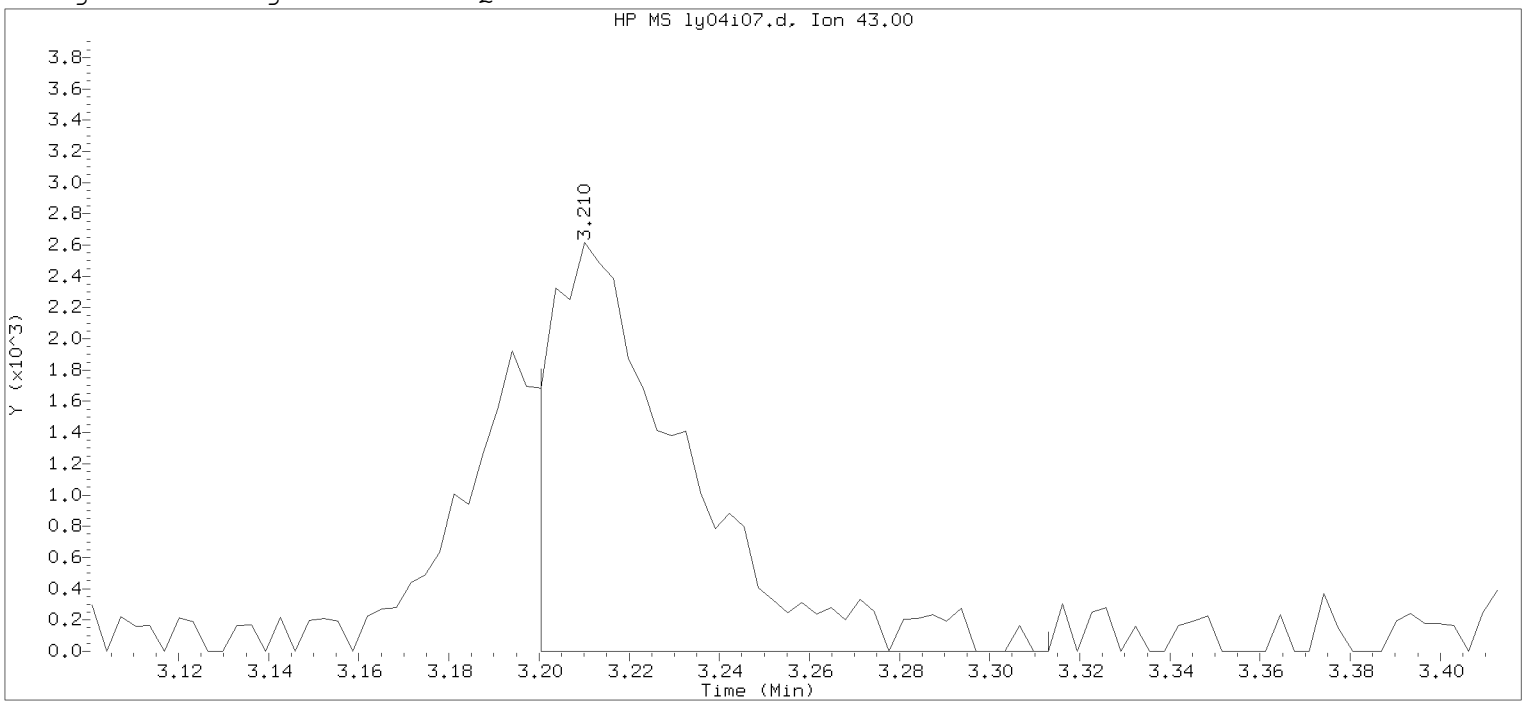
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

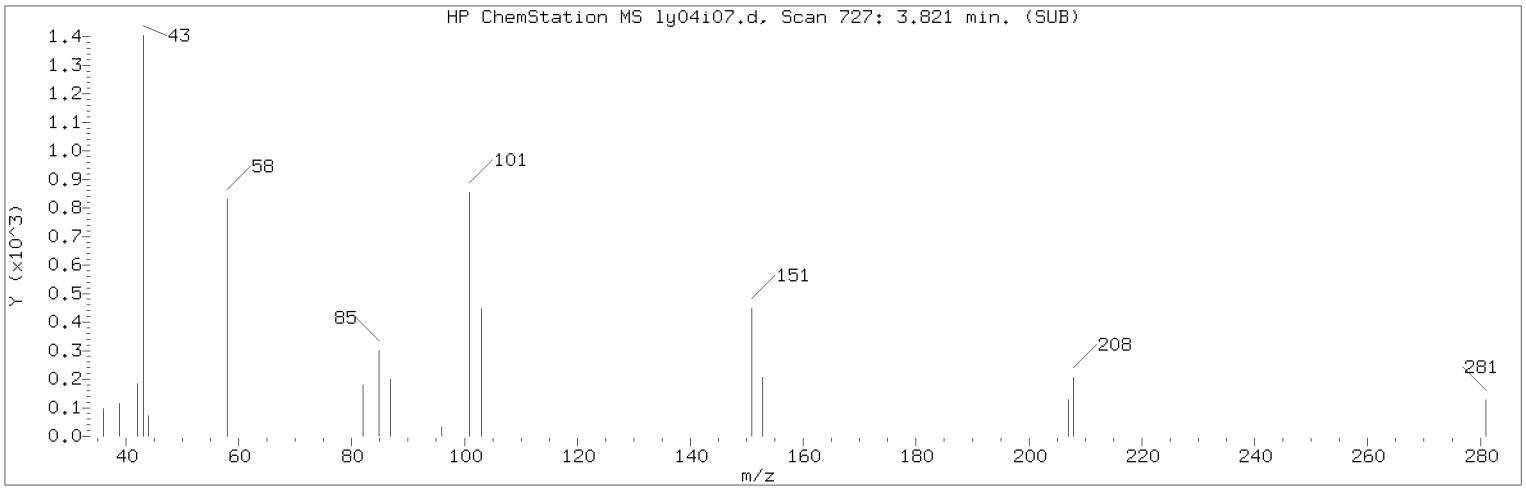
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

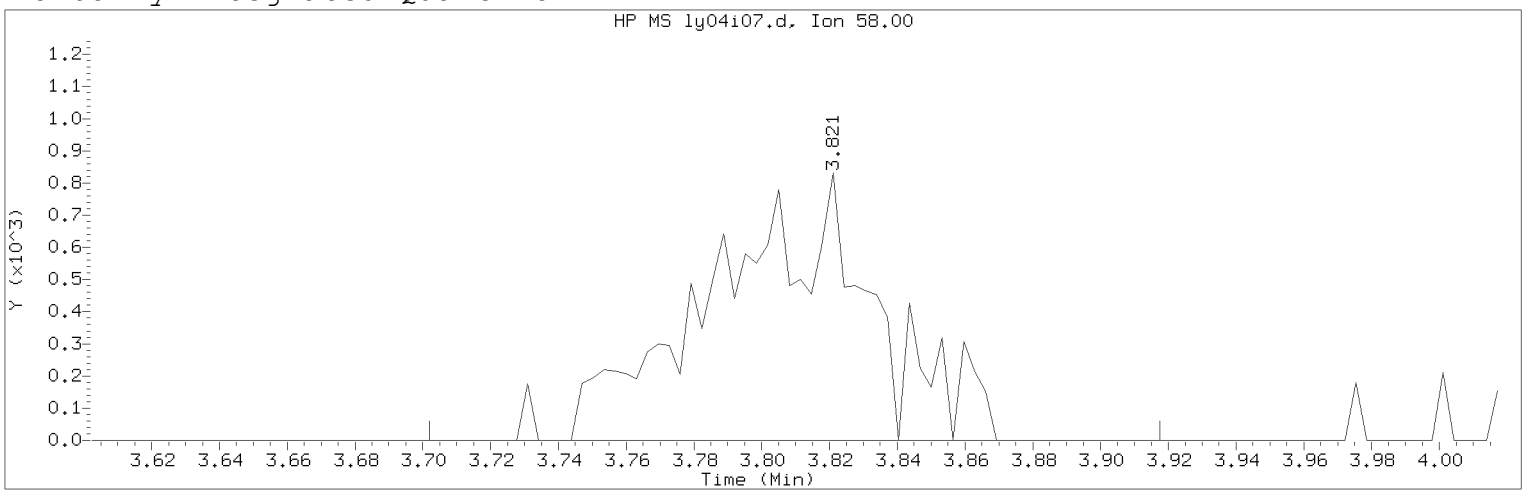
Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area : 5408
On-column Amount (ng) : 0.6709
Integration start scan : 533 Integration stop scan: 568
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0057

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

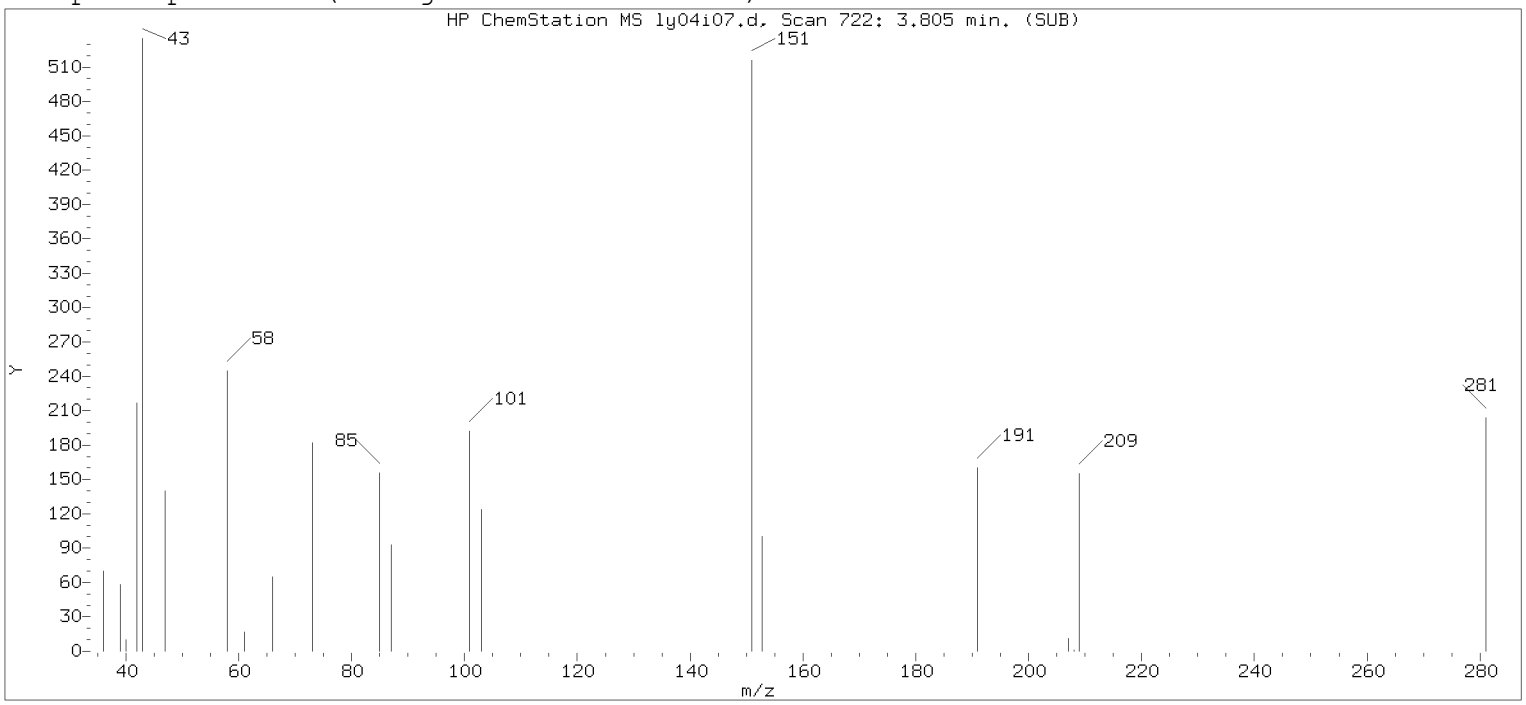
Compound Number : 18
Compound Name : Acetone
Scan Number : 727
Retention Time (minutes): 3.821
Quant Ion : 58.00
Area (flag) : 2764M
On-Column Amount (ng) : 2.5022
Integration start scan : 689 Integration stop scan: 756
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

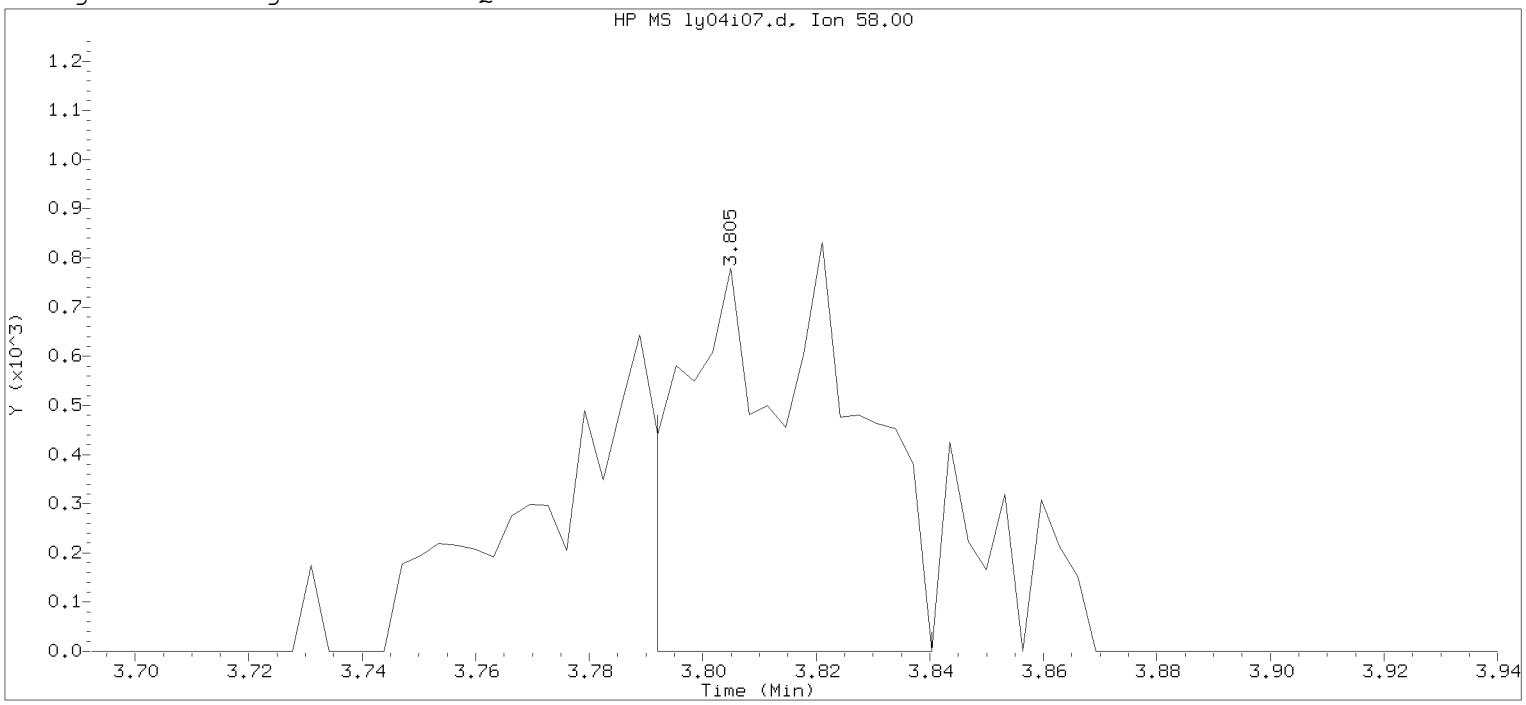
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

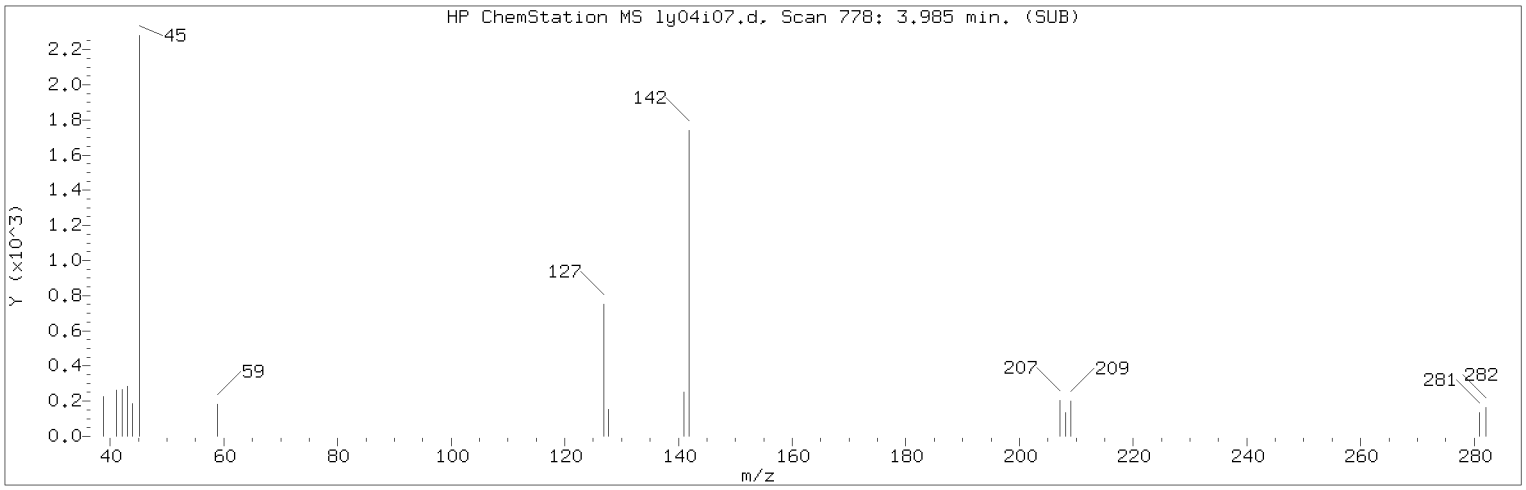
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

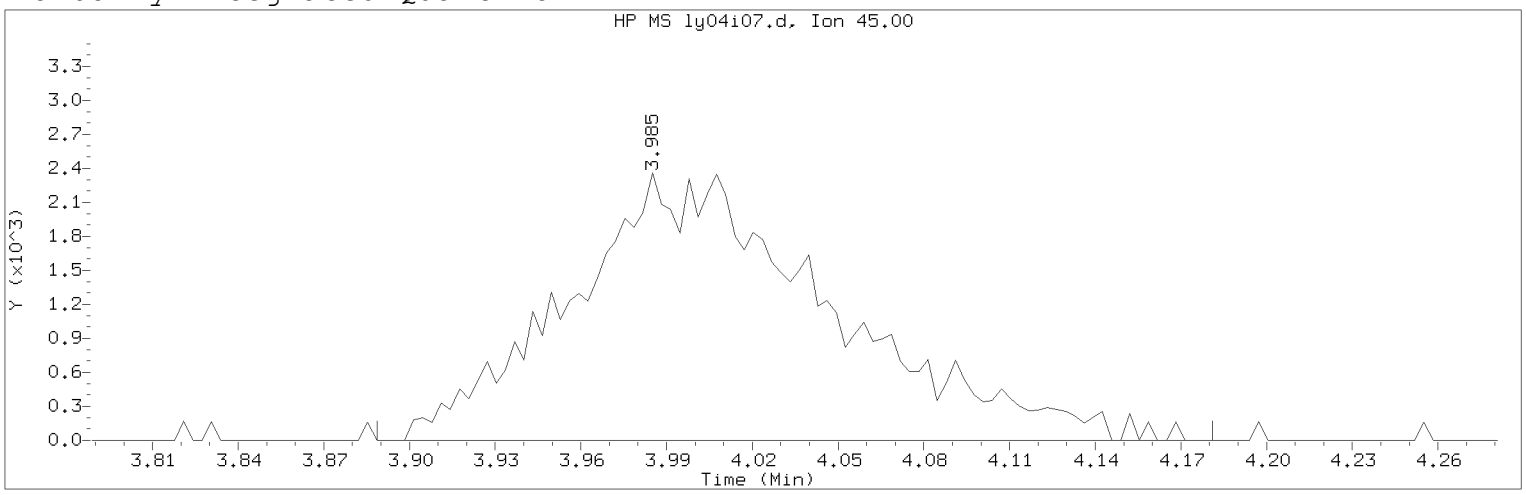
Compound Number : 18
Compound Name : Acetone
Scan Number : 722
Retention Time (minutes): 3.805
Quant Ion : 58.00
Area : 1517
On-column Amount (ng) : 1.7017
Integration start scan : 717 Integration stop scan: 732
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

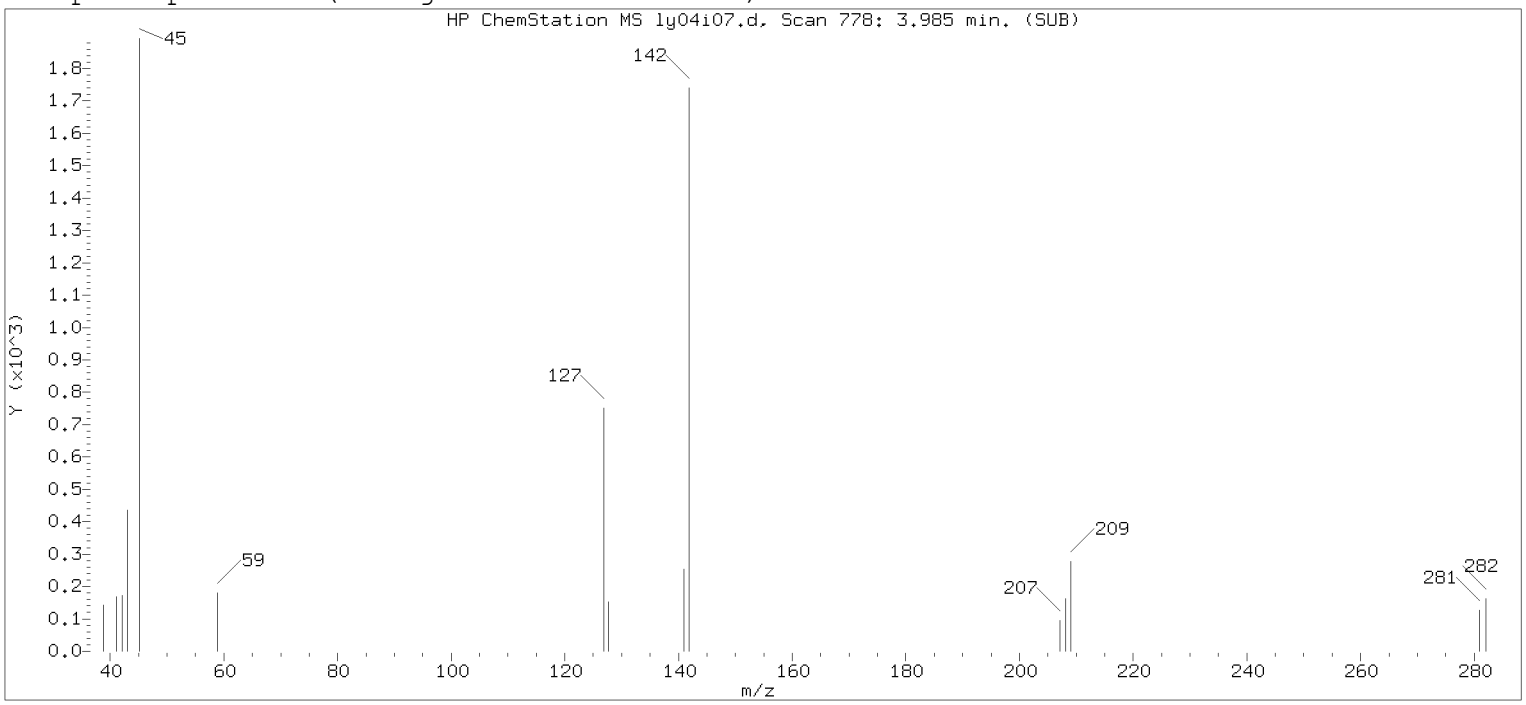
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area (flag) : 14938M
On-Column Amount (ng) : 21.2179
Integration start scan : 747 Integration stop scan: 838
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

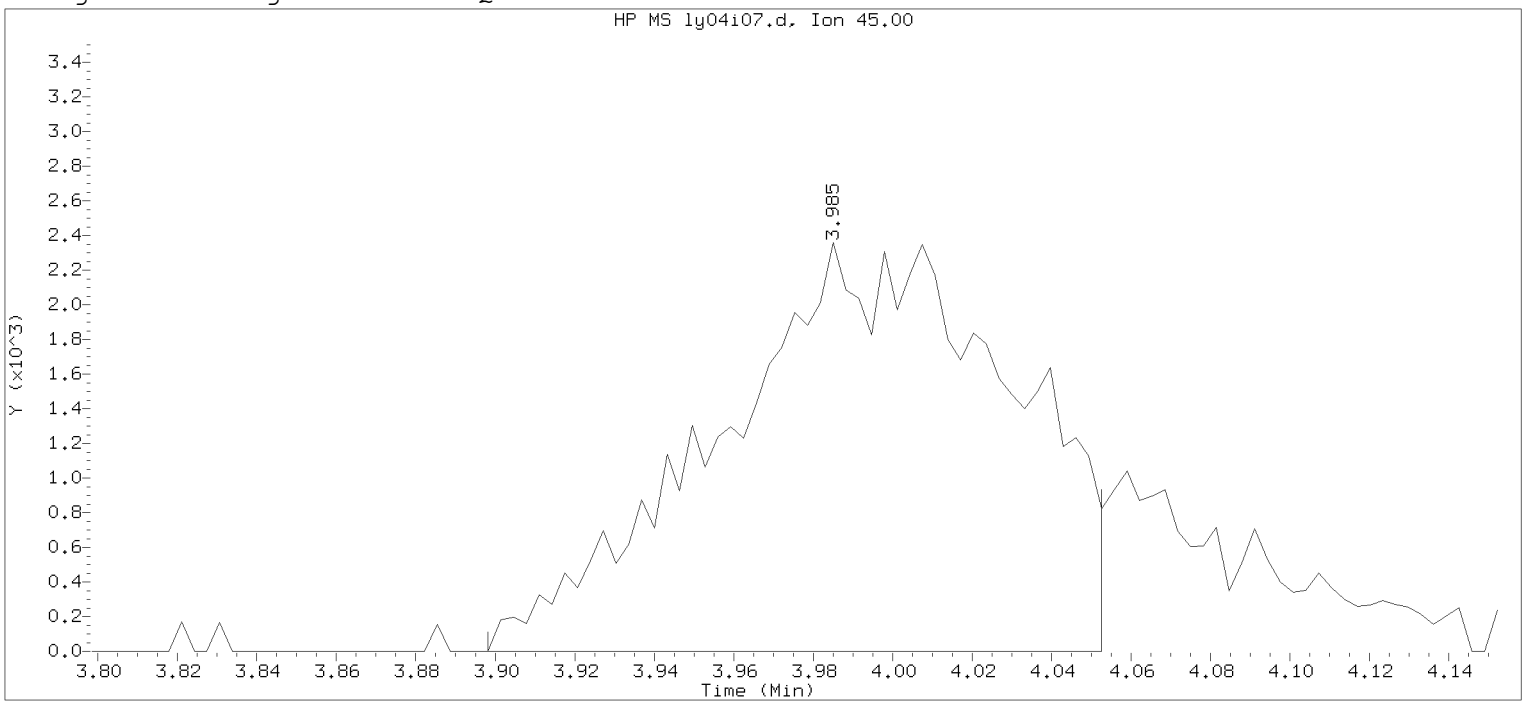
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

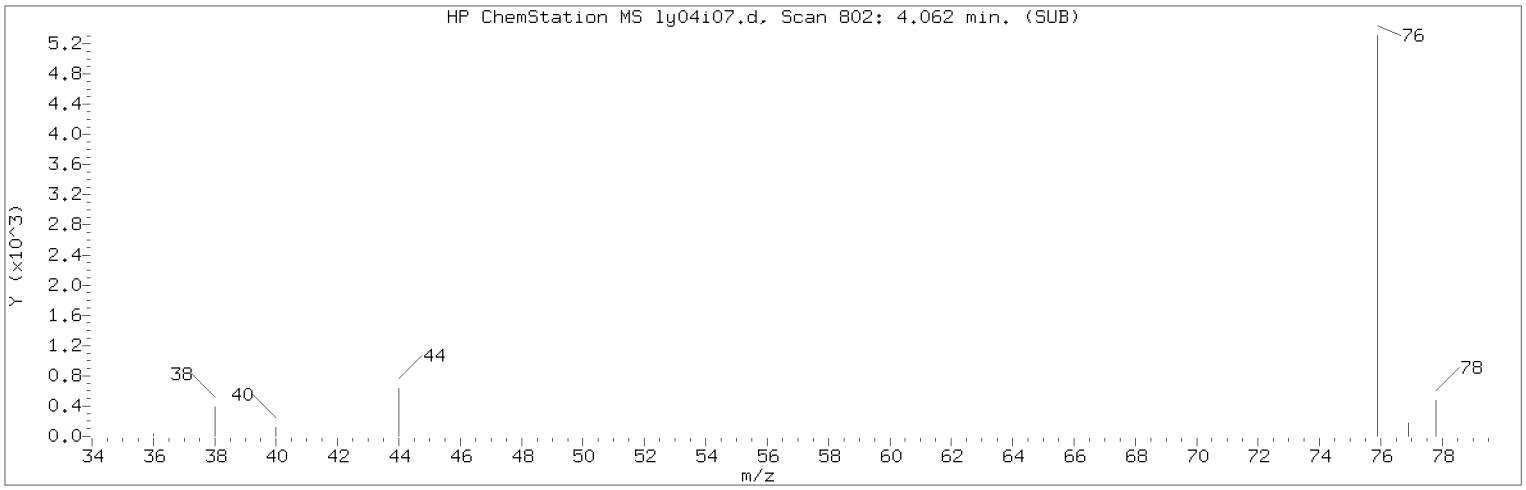
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

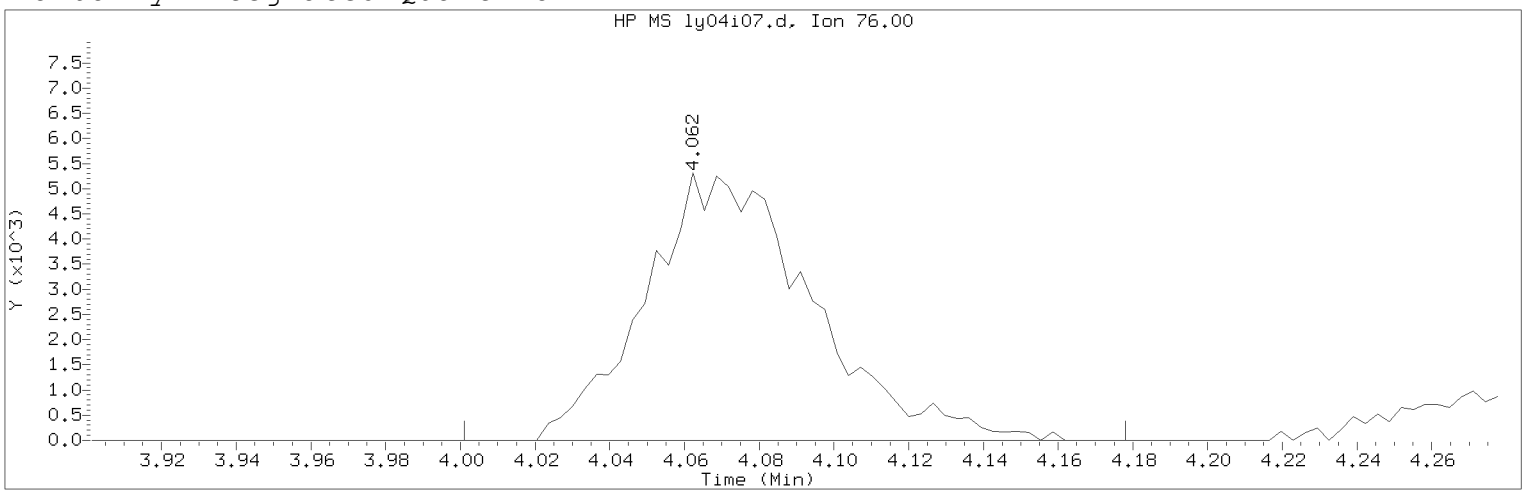
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area : 12094
On-column Amount (ng) : 17.8452
Integration start scan : 750 Integration stop scan: 798
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0061

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

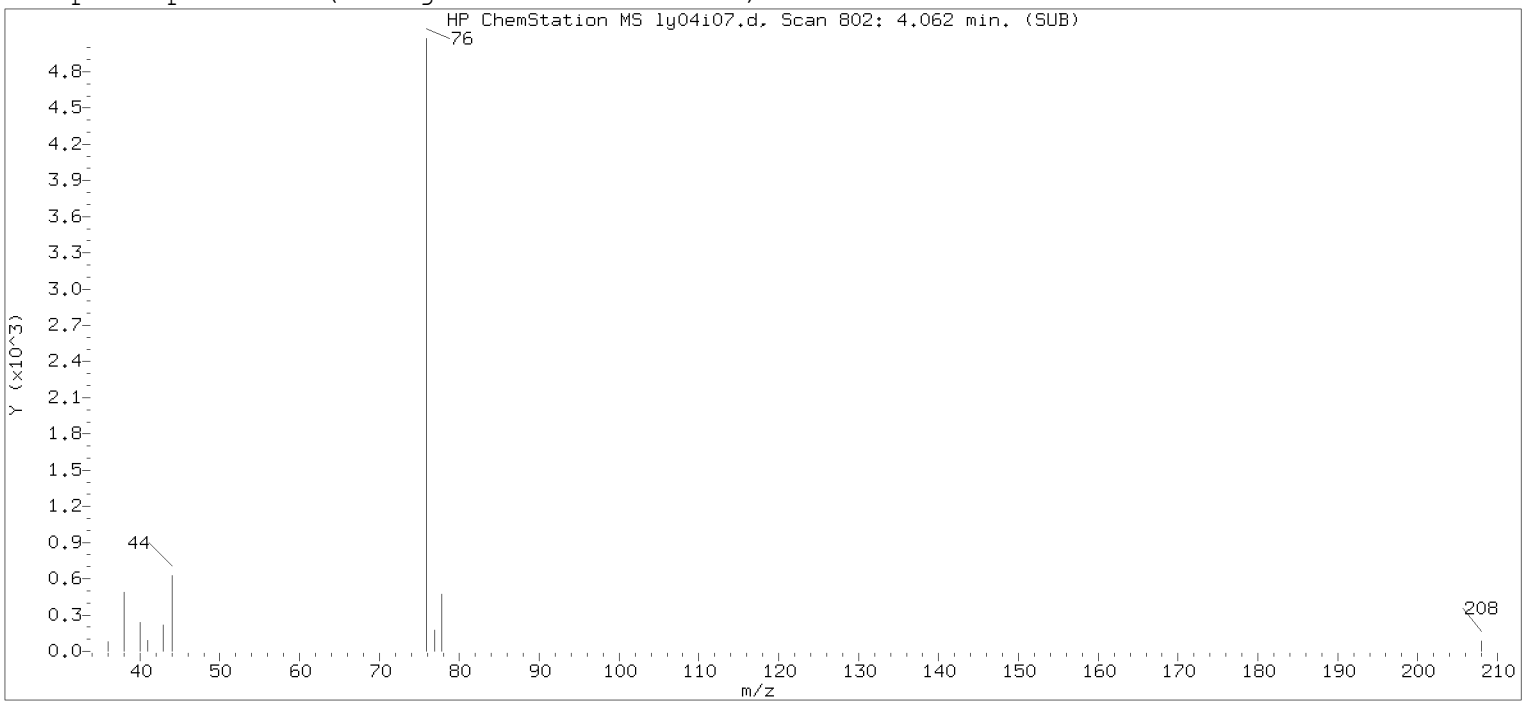
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area (flag) : 16435M
On-Column Amount (ng) : 0.8686
Integration start scan : 782 Integration stop scan: 837
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

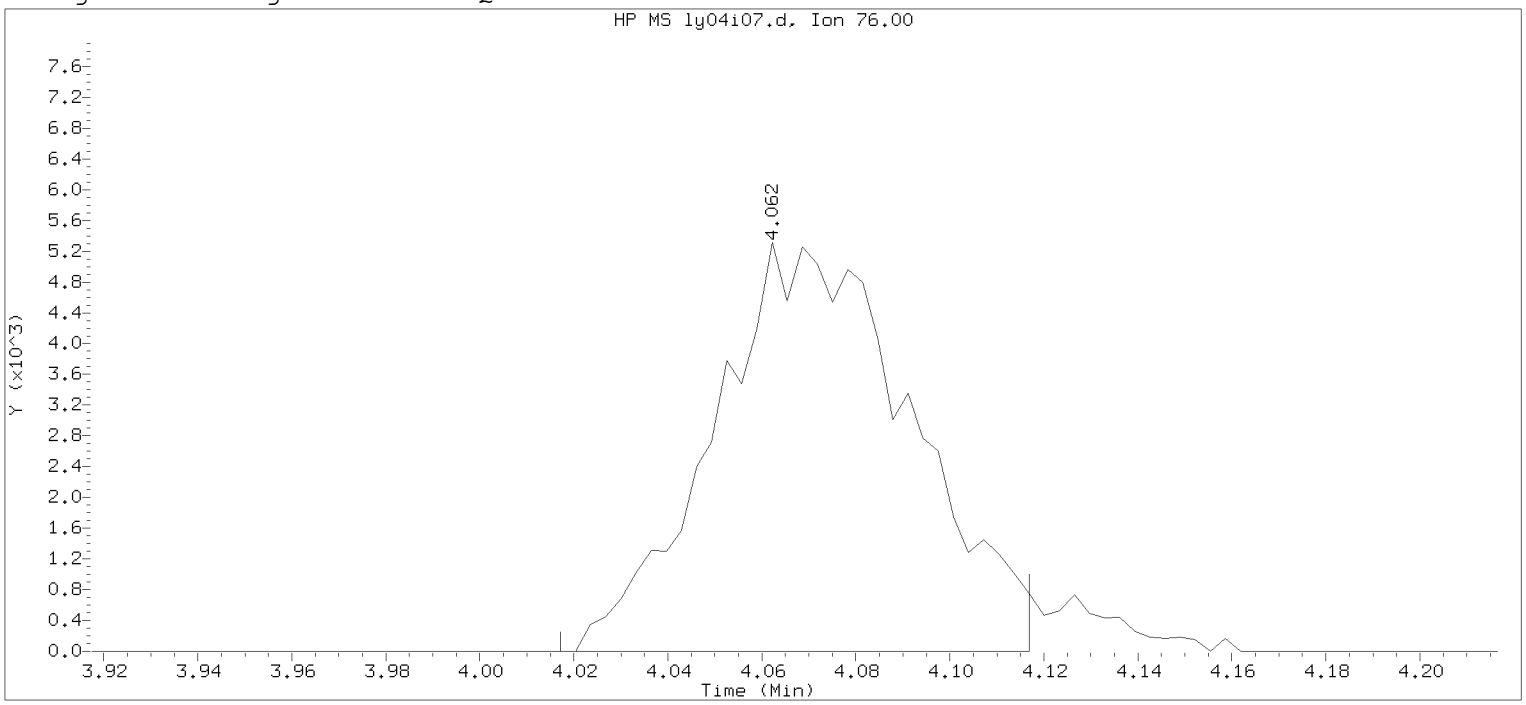
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

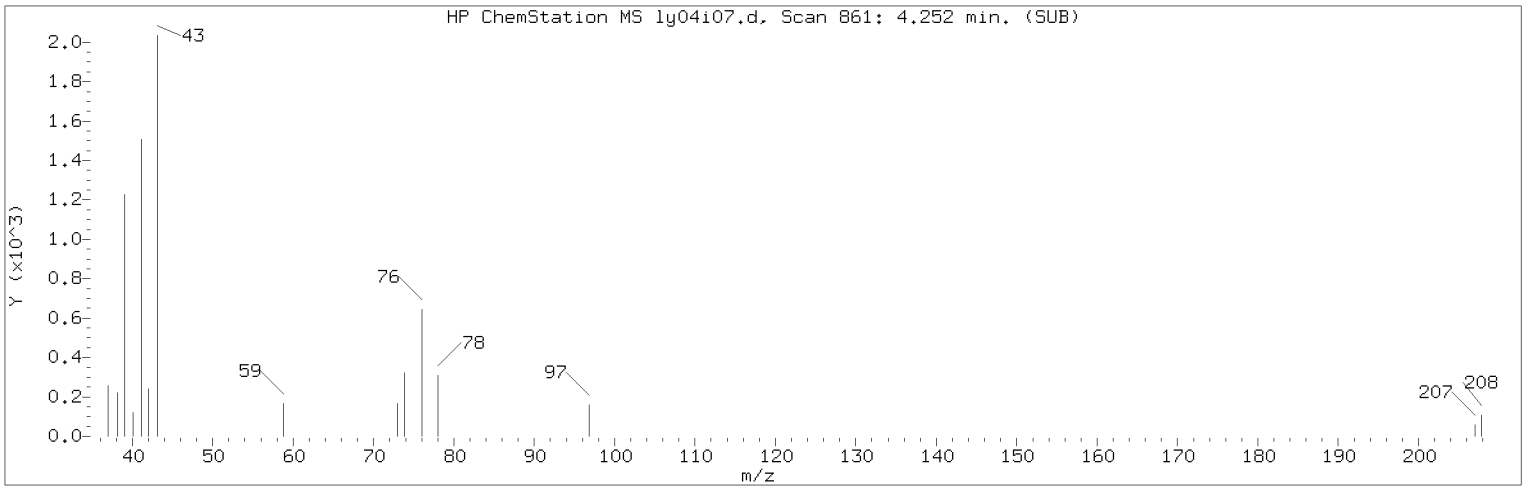
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

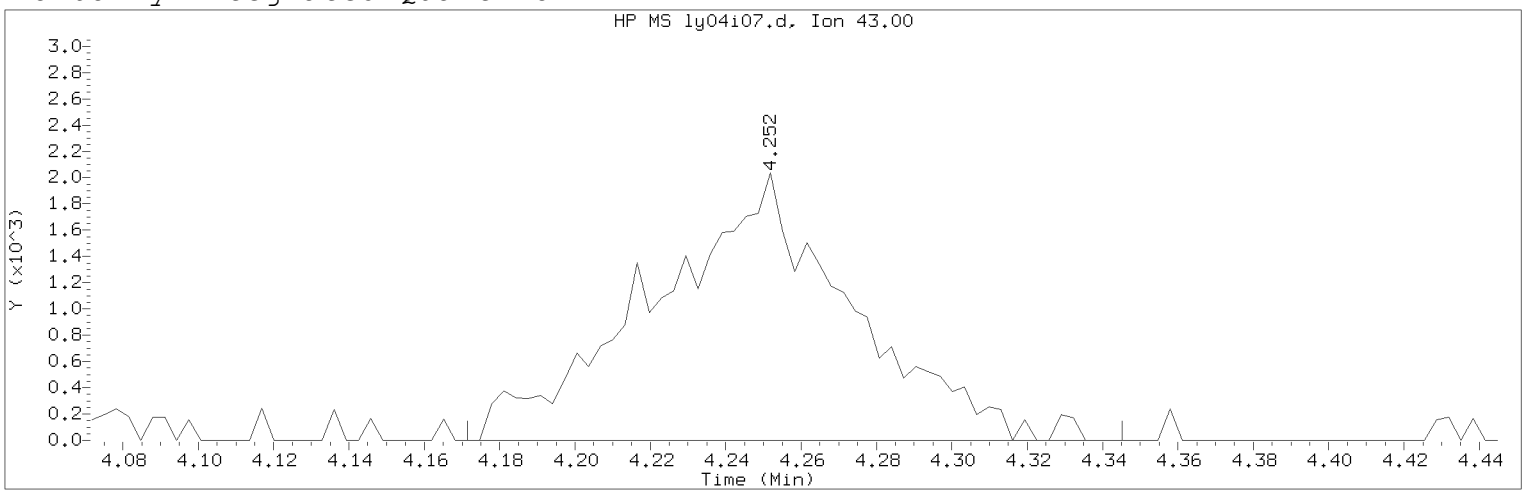
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area : 15554
On-column Amount (ng) : 0.8286
Integration start scan : 787 Integration stop scan: 818
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0062

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

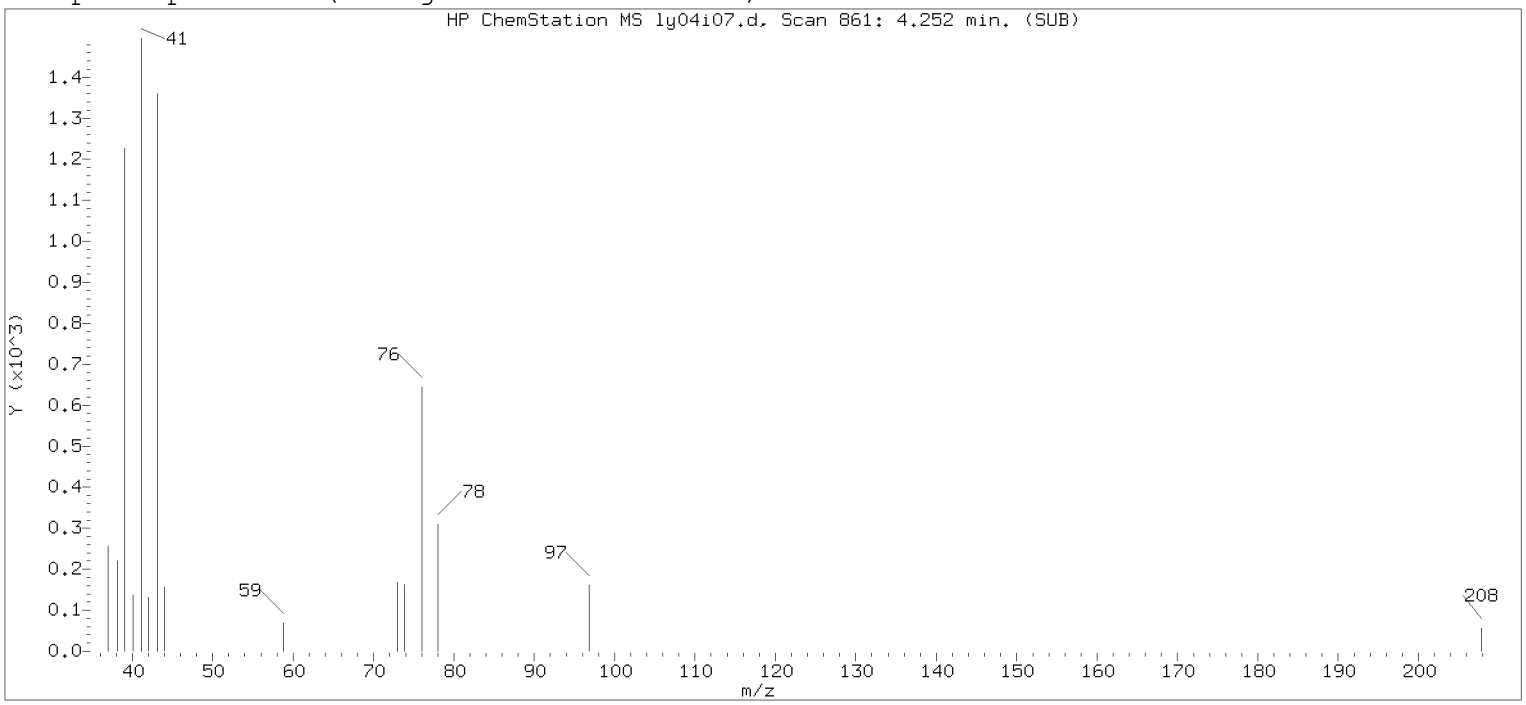
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area (flag) : 7412M
On-Column Amount (ng) : 1.0342
Integration start scan : 835 Integration stop scan: 889
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

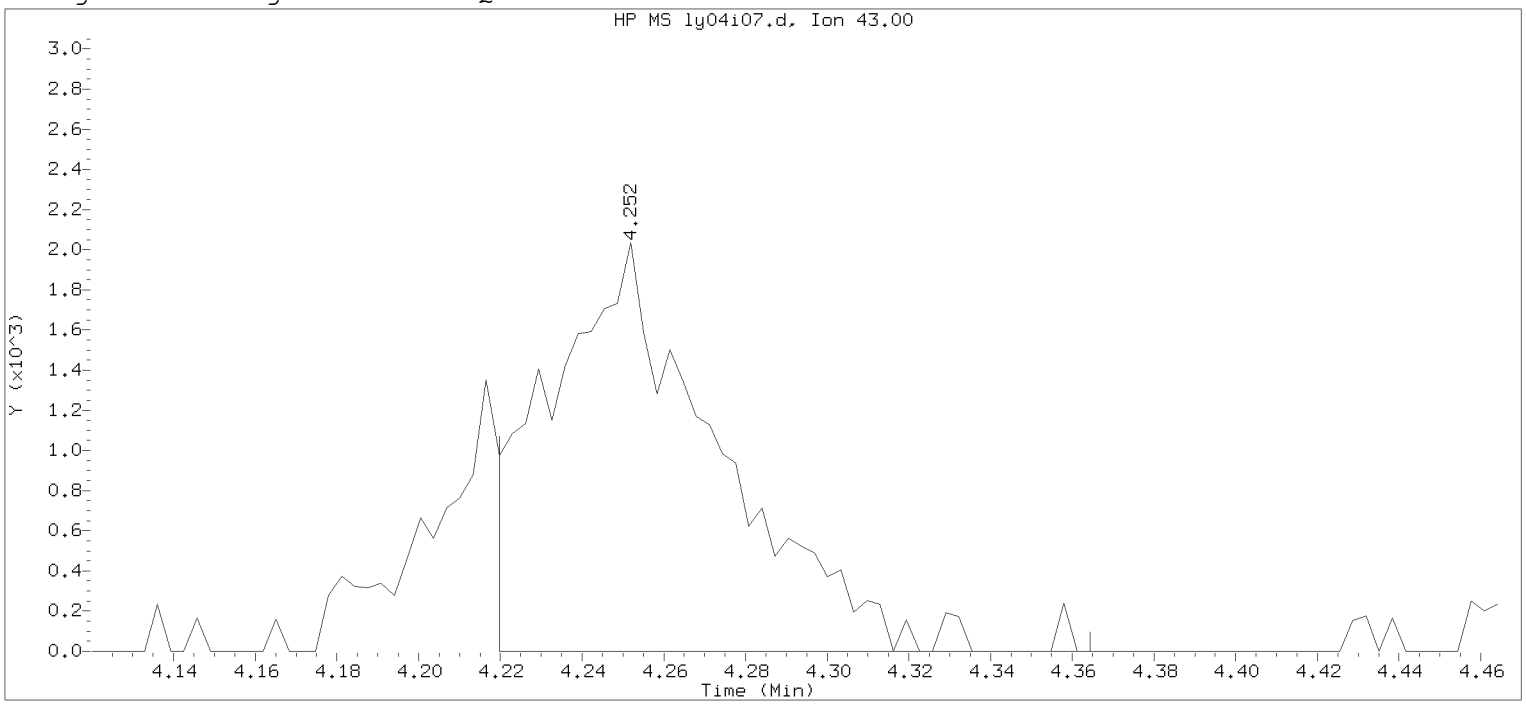
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

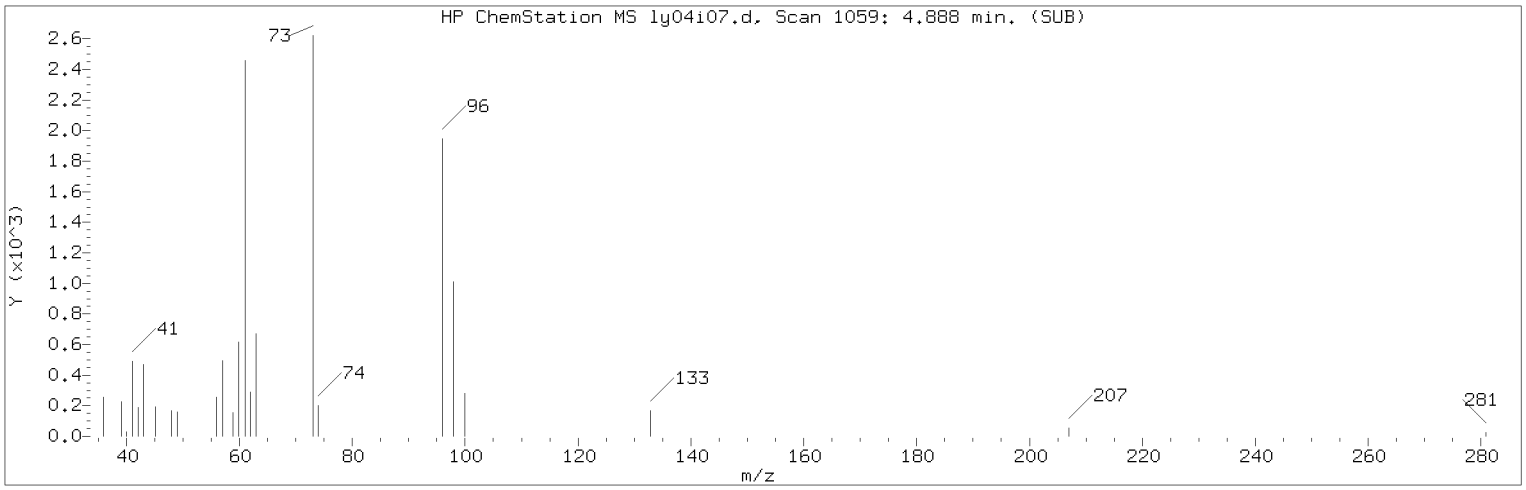
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

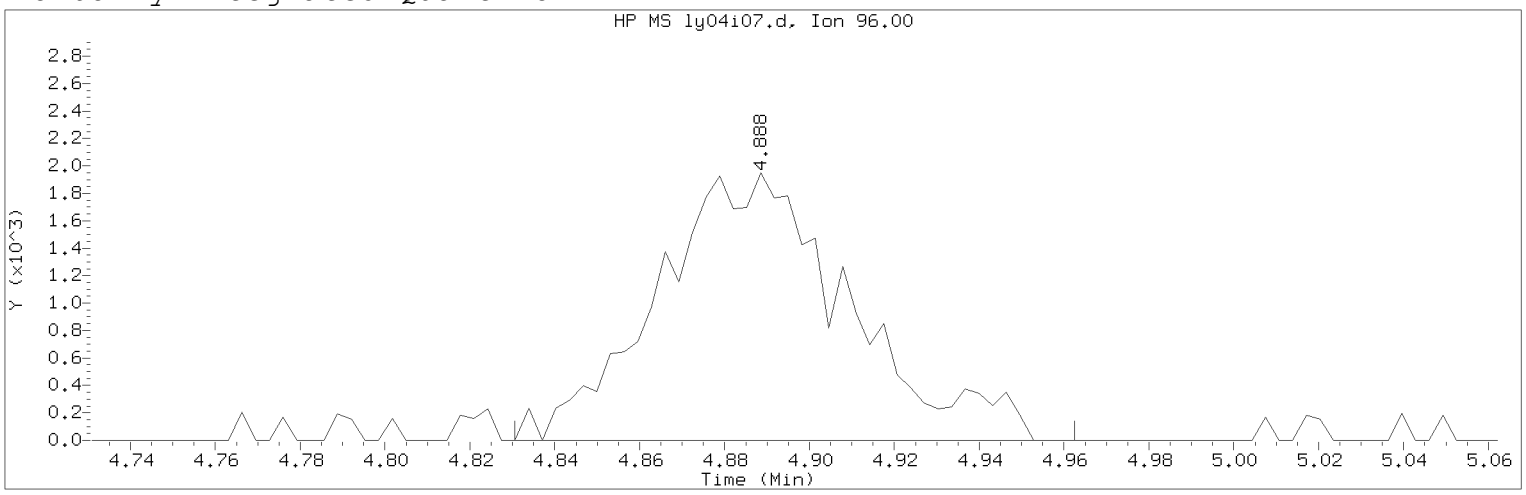
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area : 5953
On-column Amount (ng) : 0.8598
Integration start scan : 850 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0065

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

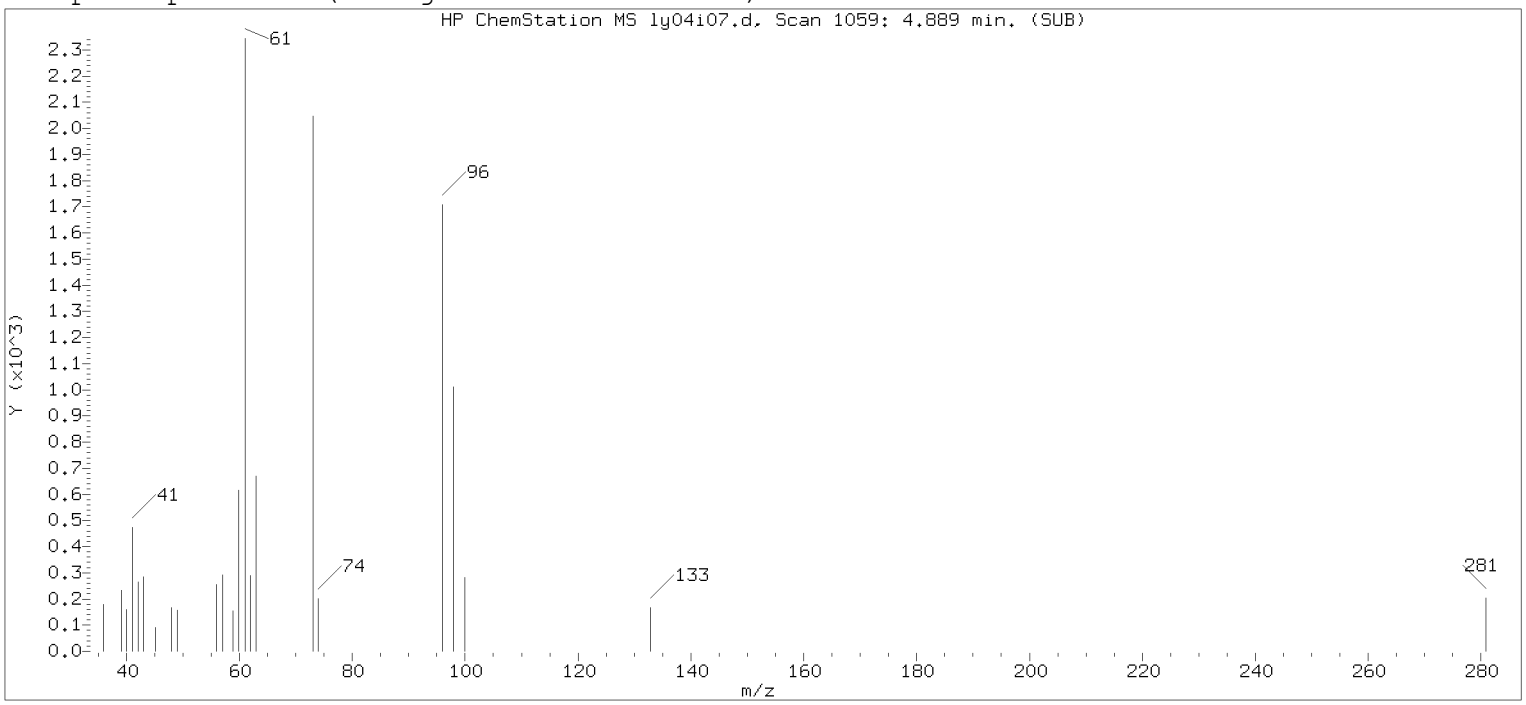
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area (flag) : 6111M
On-Column Amount (ng) : 0.9453
Integration start scan : 1040 Integration stop scan: 1081
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

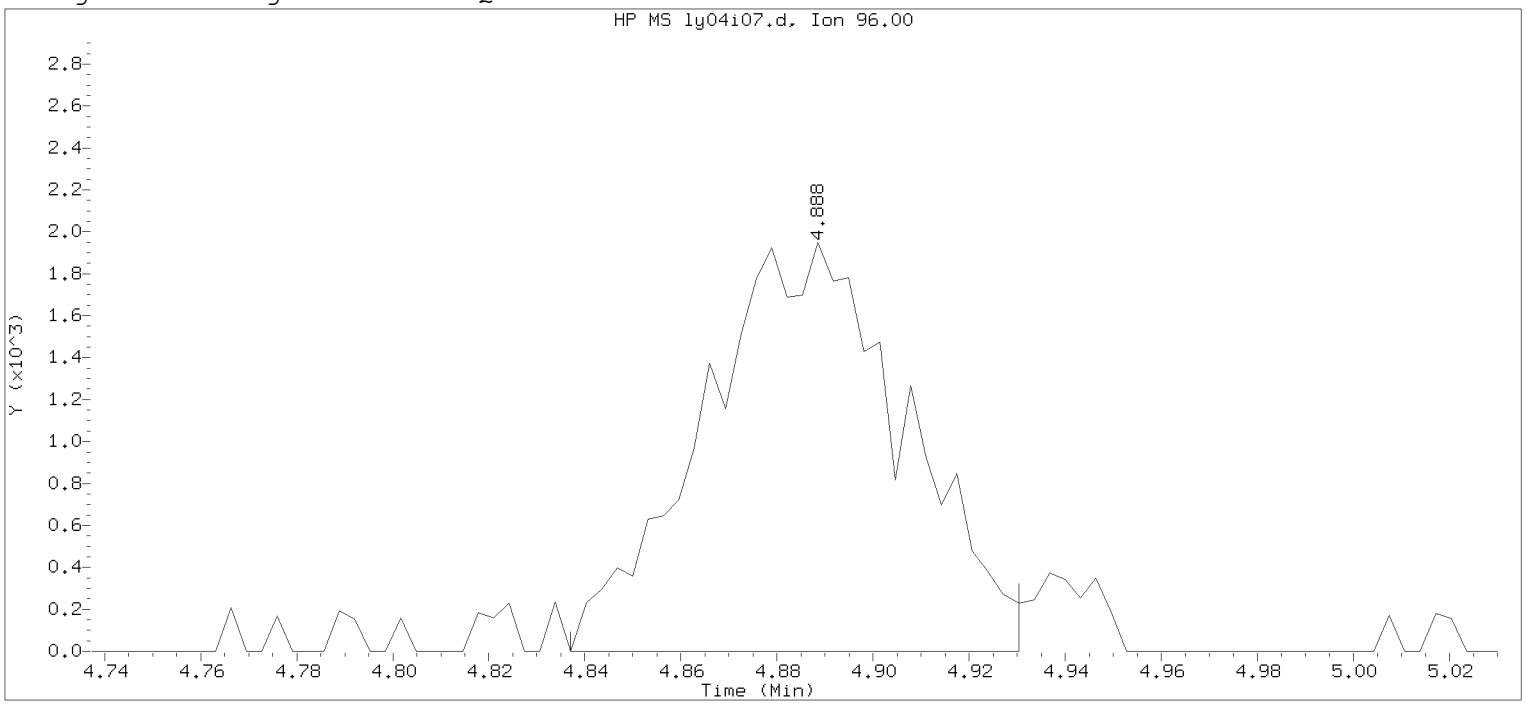
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

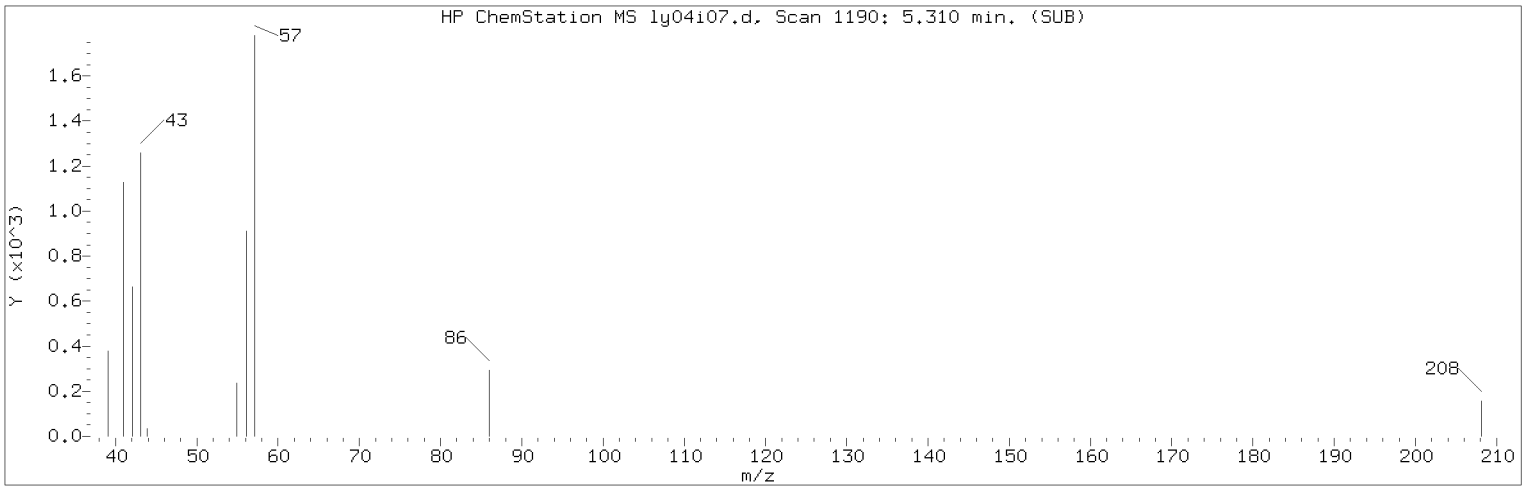
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

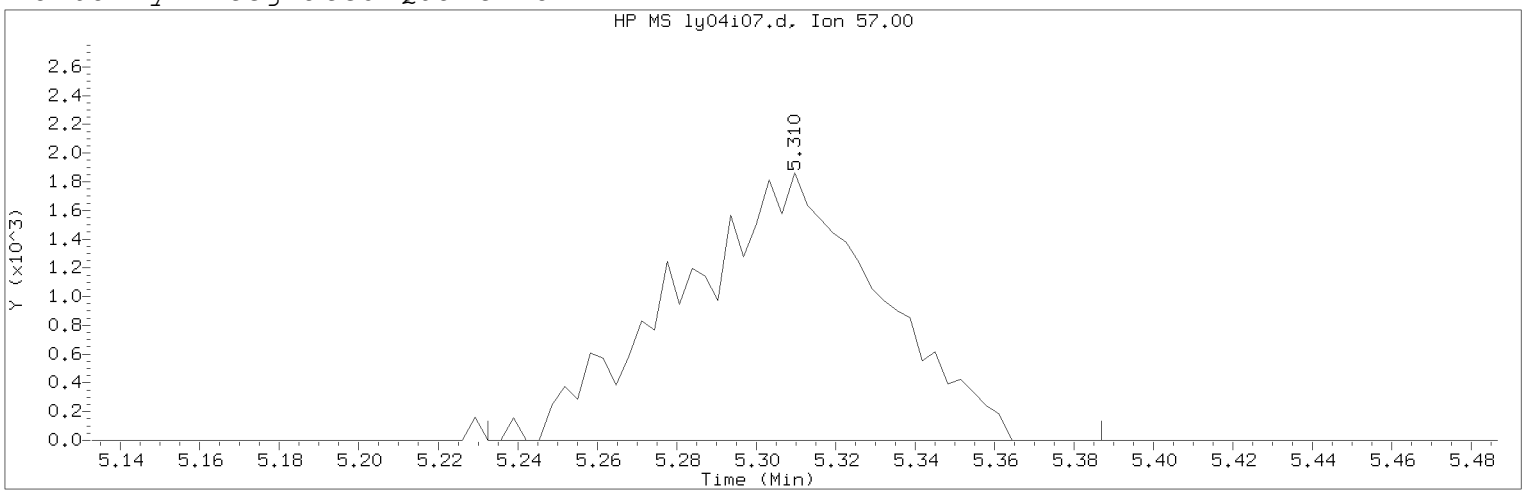
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area : 5705
On-column Amount (ng) : 0.8926
Integration start scan : 1042 Integration stop scan: 1071
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0067

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

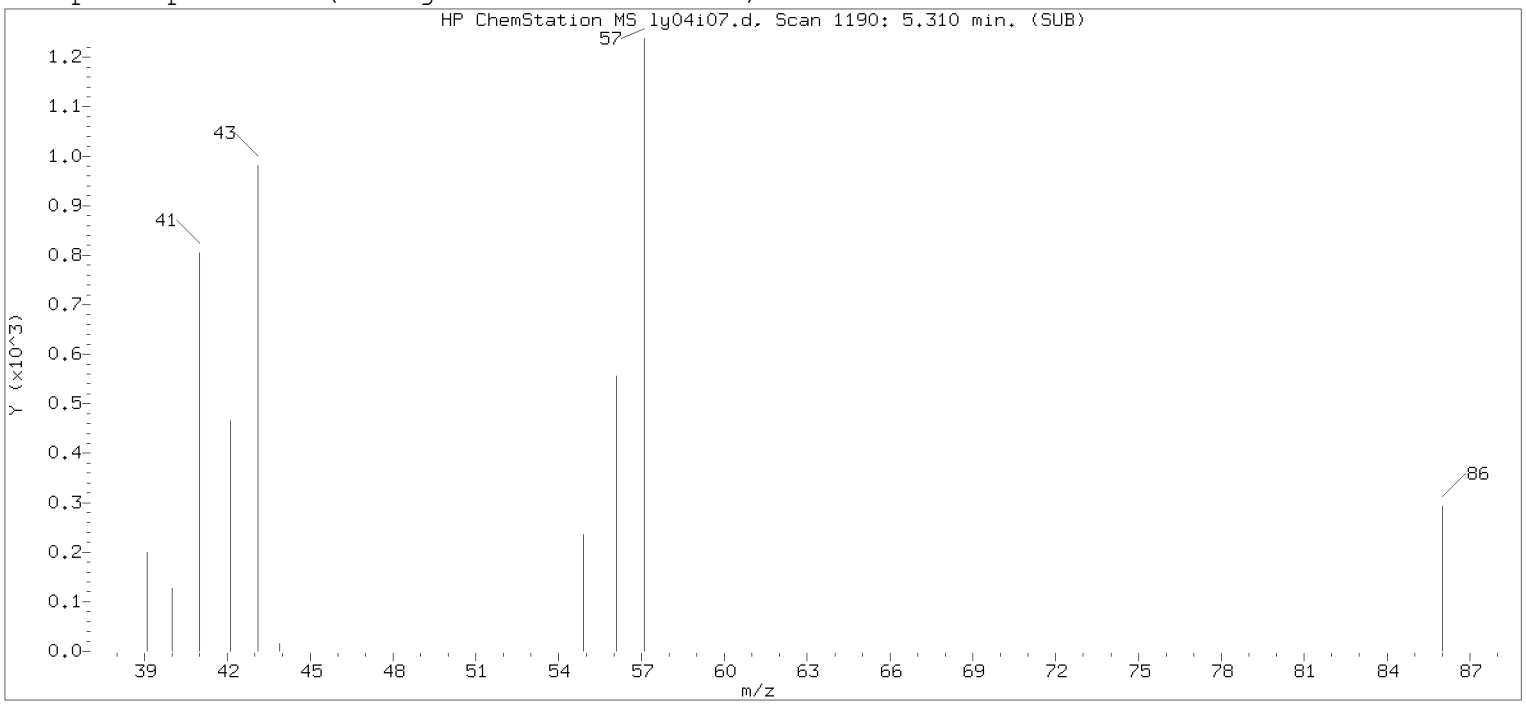
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area (flag) : 6497M
On-Column Amount (ng) : 0.7176
Integration start scan : 1165 Integration stop scan: 1213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

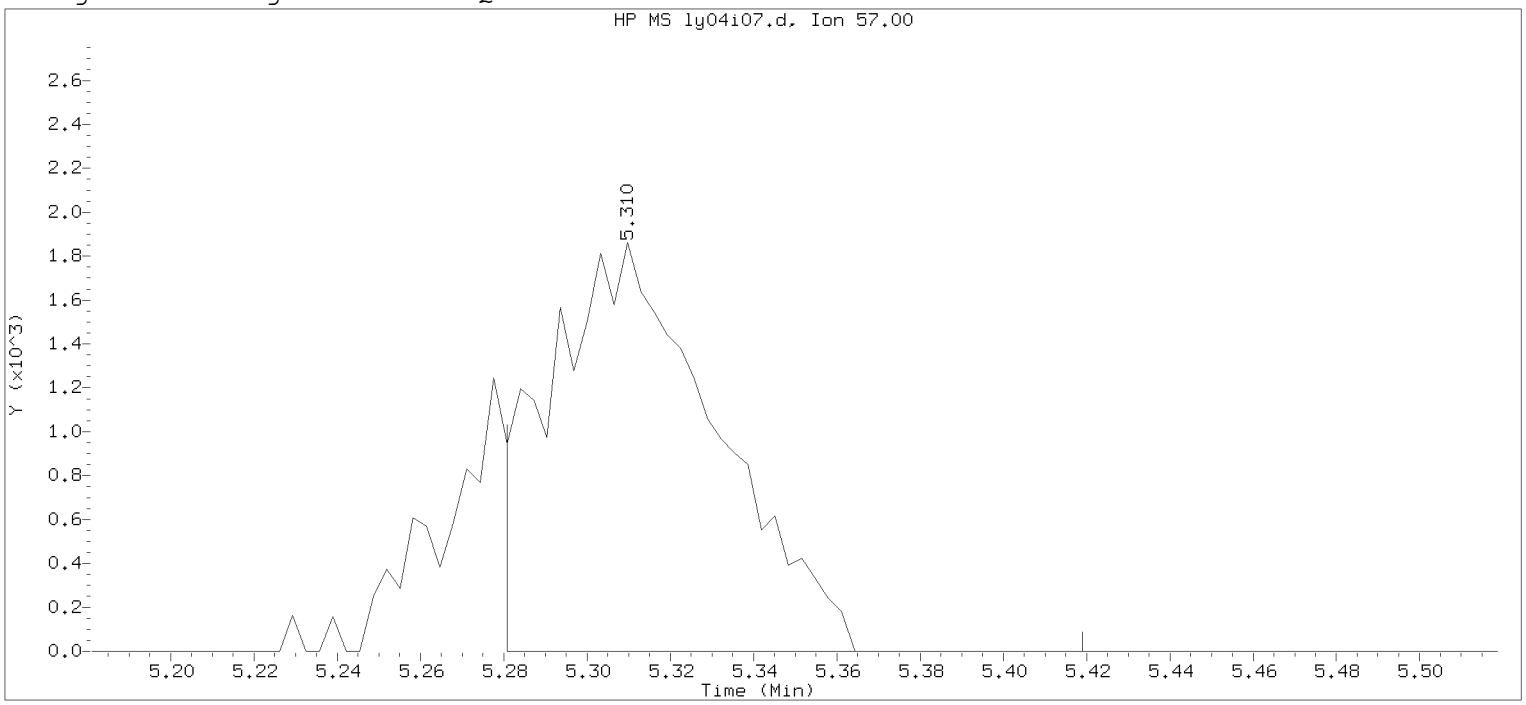
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

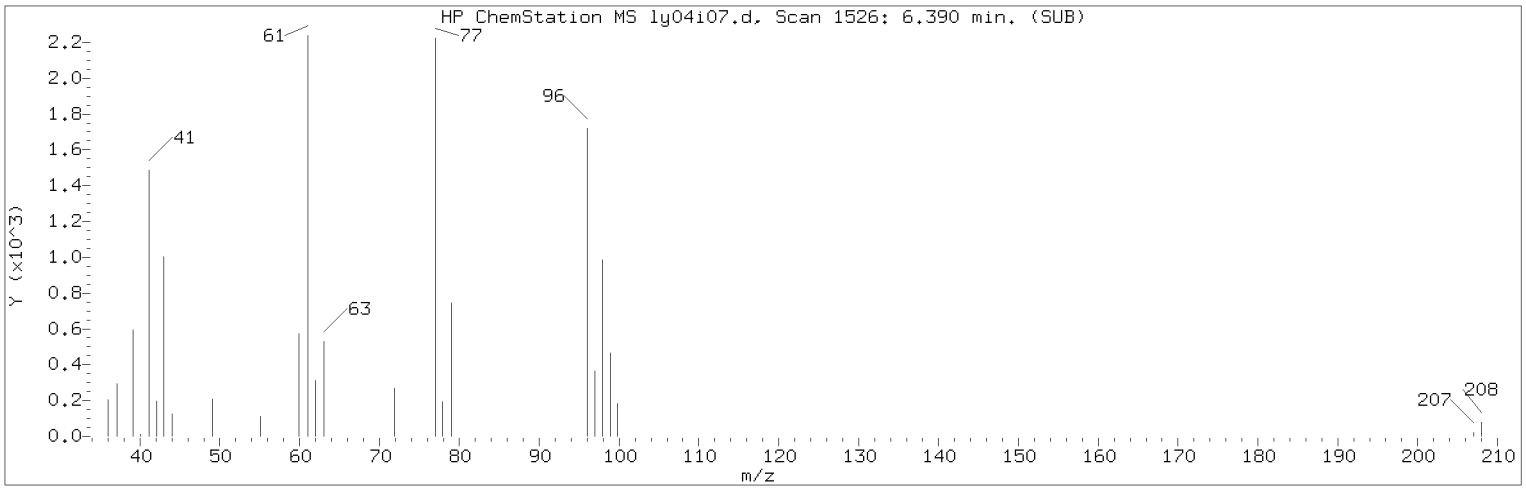
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

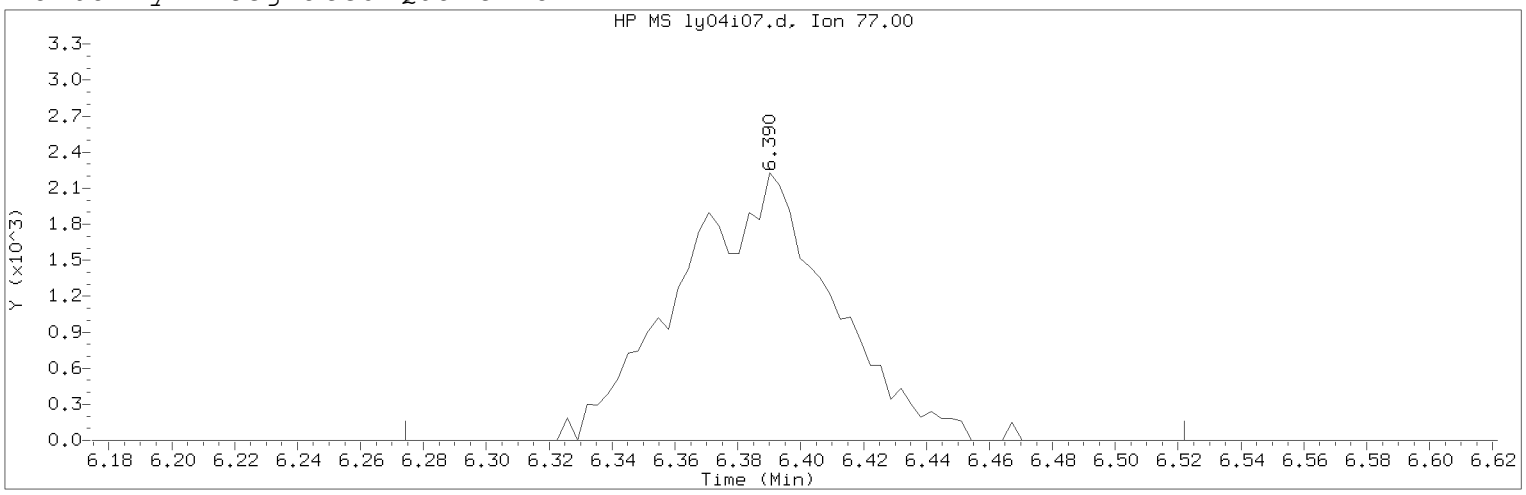
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area : 5237
On-column Amount (ng) : 0.5829
Integration start scan : 1180 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0462

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

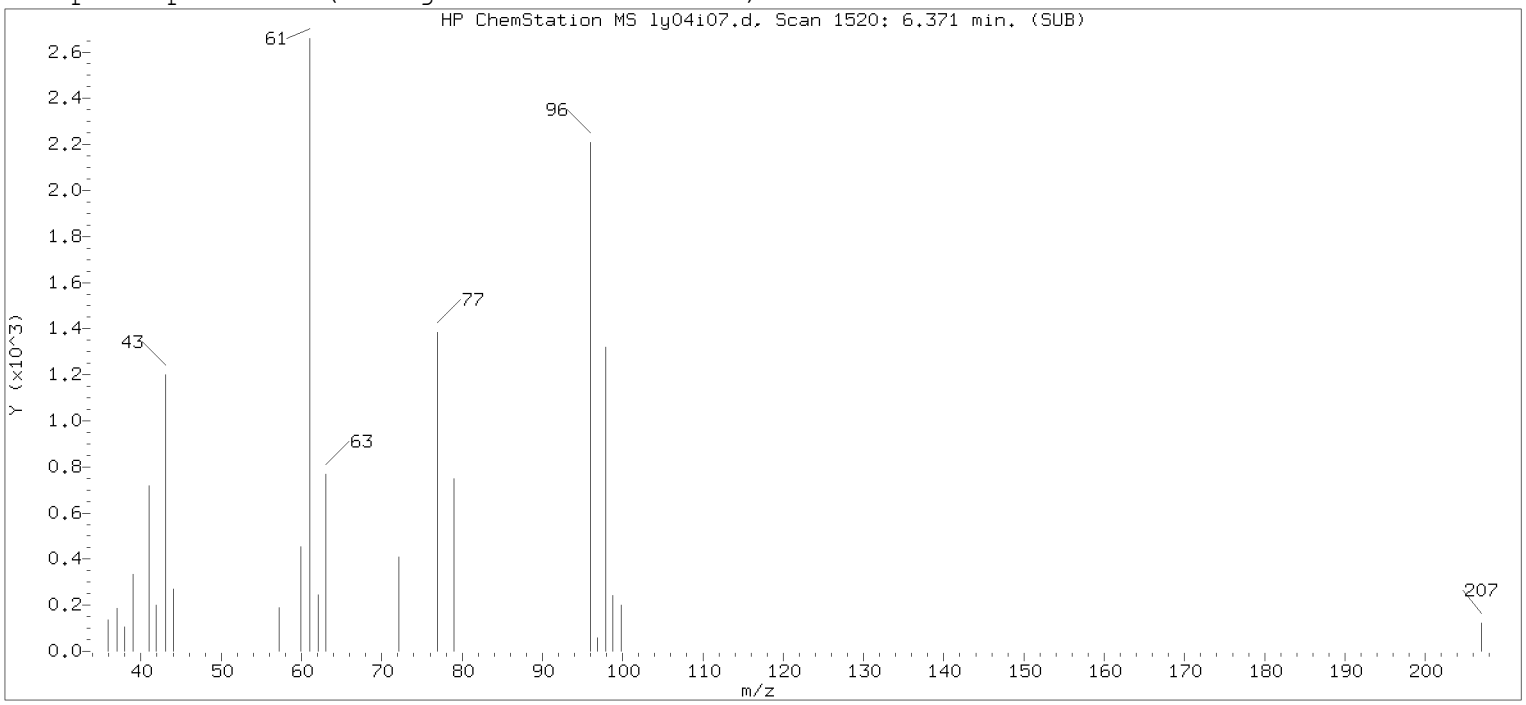
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1526
Retention Time (minutes): 6.390
Quant Ion : 77.00
Area (flag) : 7531M
On-Column Amount (ng) : 0.8594
Integration start scan : 1489 Integration stop scan: 1566
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

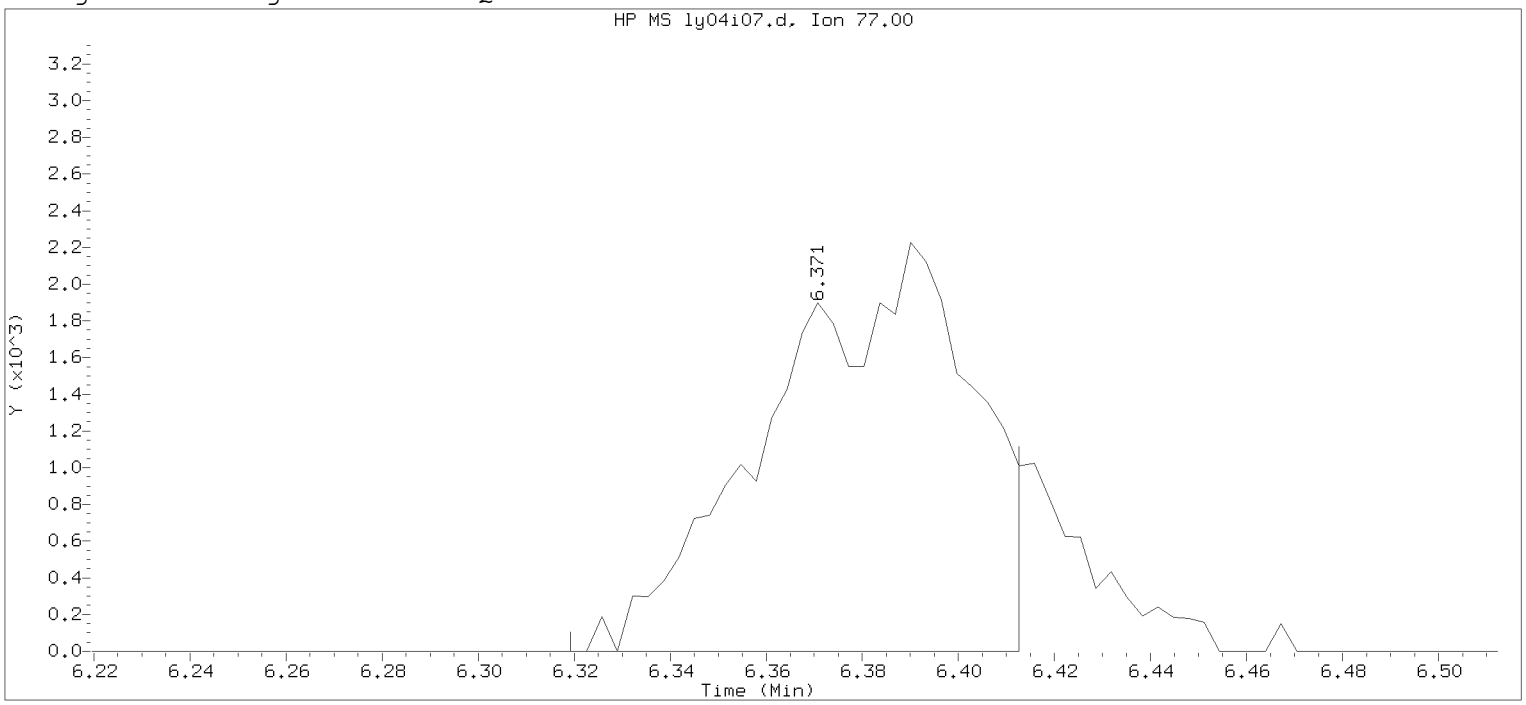
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

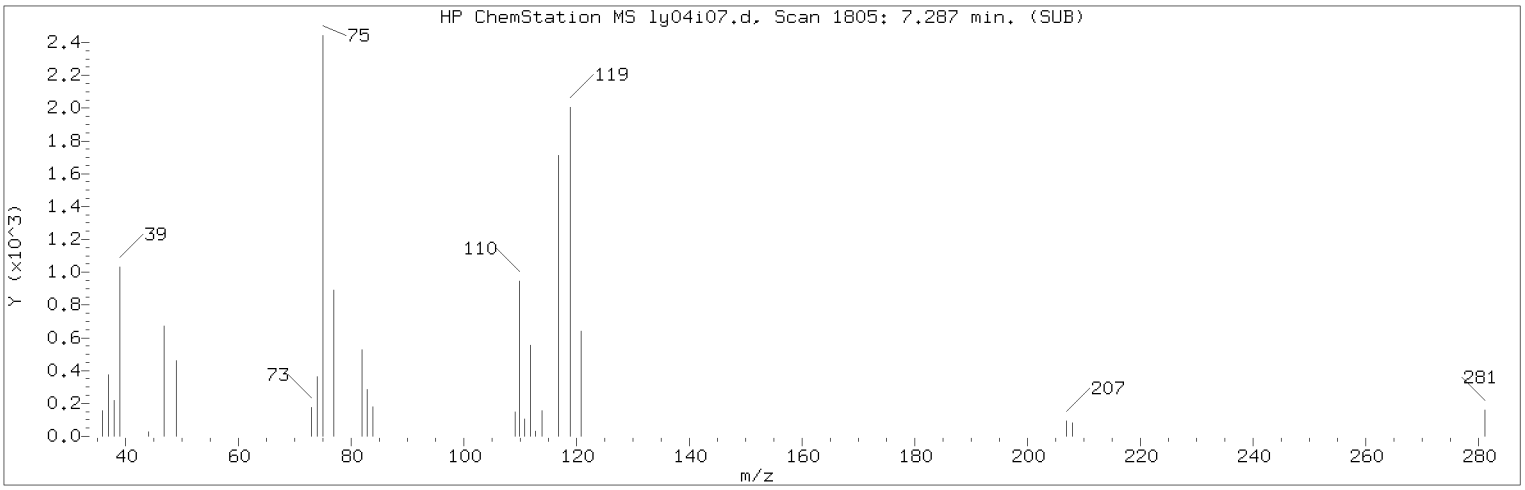
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

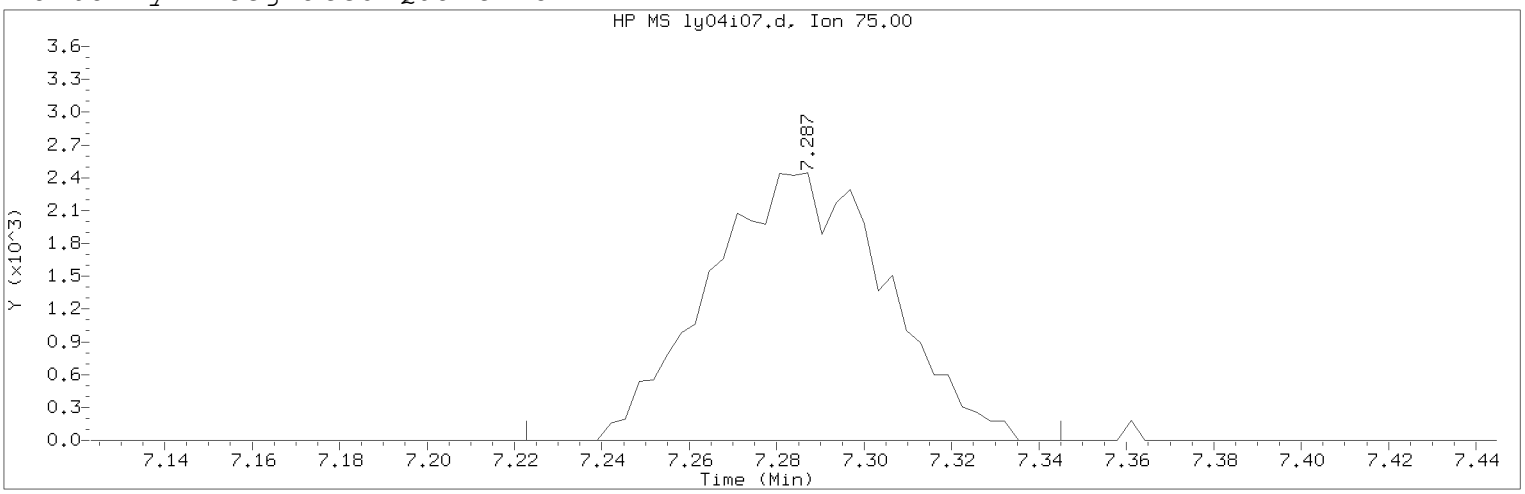
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1520
Retention Time (minutes): 6.371
Quant Ion : 77.00
Area : 6414
On-column Amount (ng) : 0.7586
Integration start scan : 1503 Integration stop scan: 1532
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0071

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

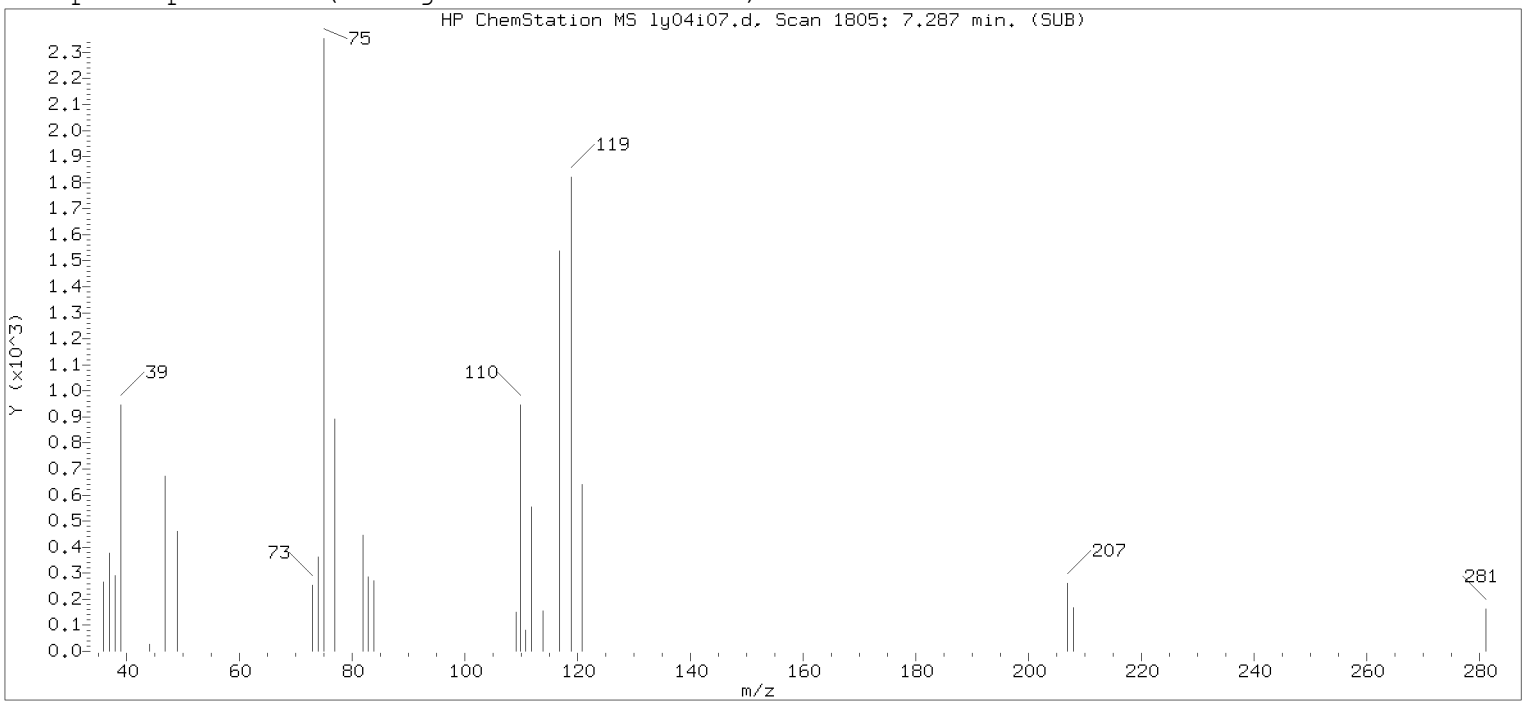
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area (flag) : 6955M
On-Column Amount (ng) : 0.7983
Integration start scan : 1784 Integration stop scan: 1822
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

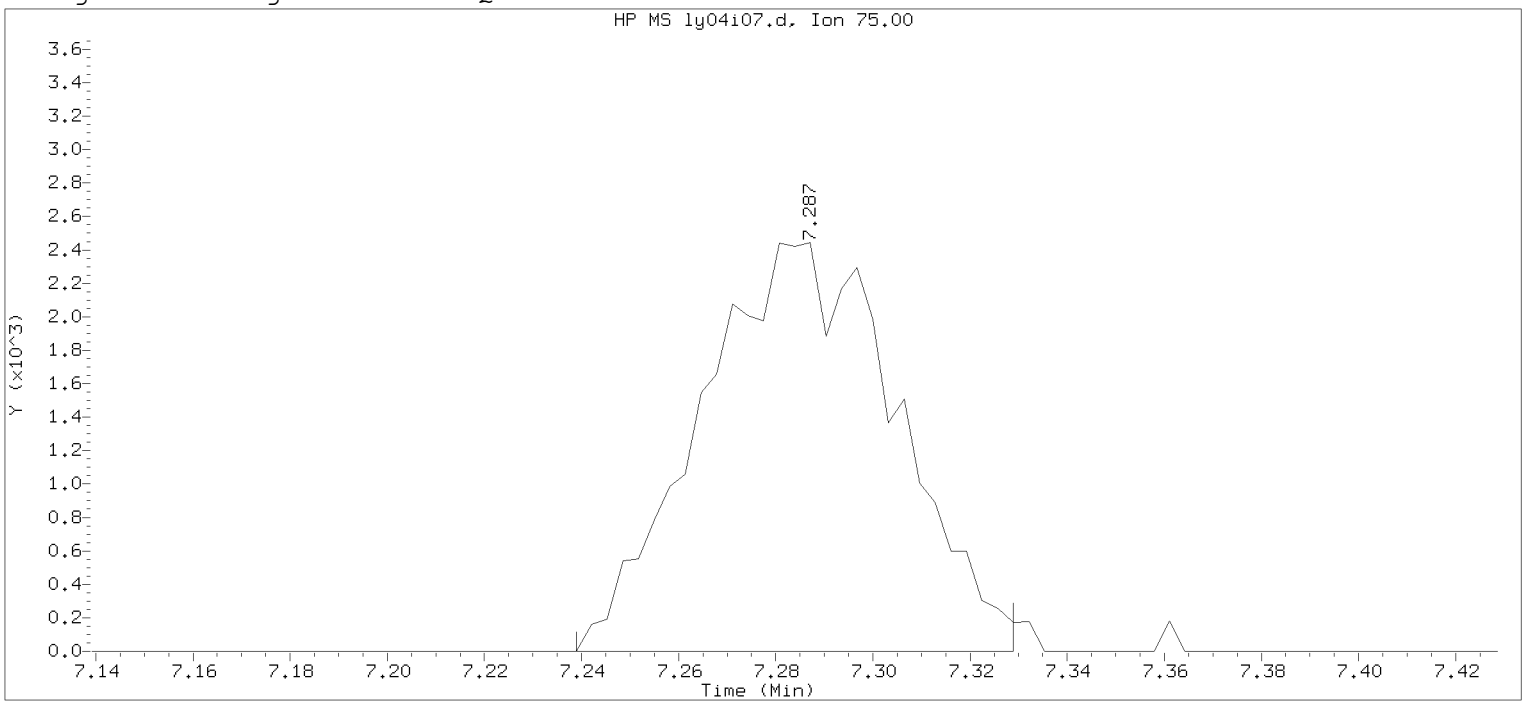
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

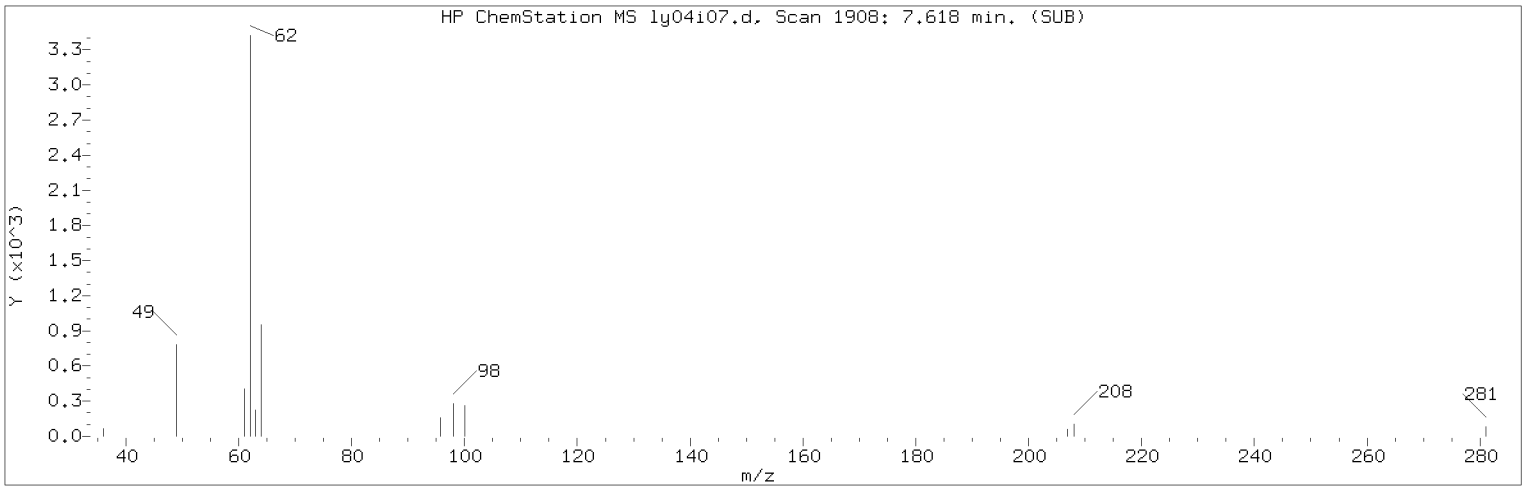
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

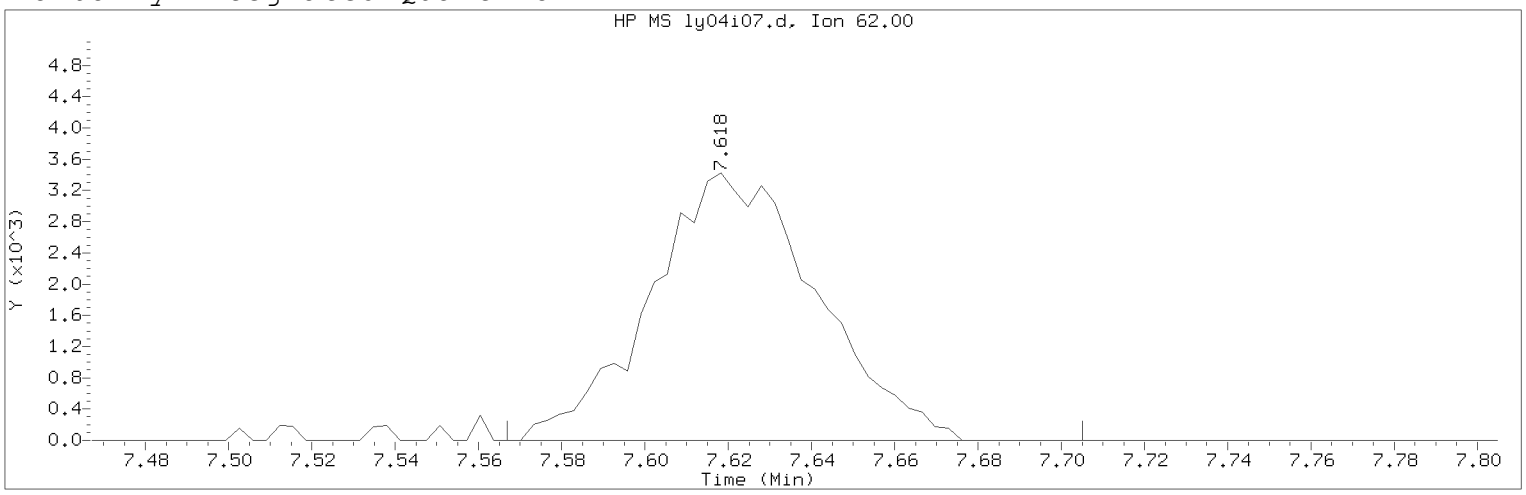
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area : 6904
On-column Amount (ng) : 0.7924
Integration start scan : 1789 Integration stop scan: 1817
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0072

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

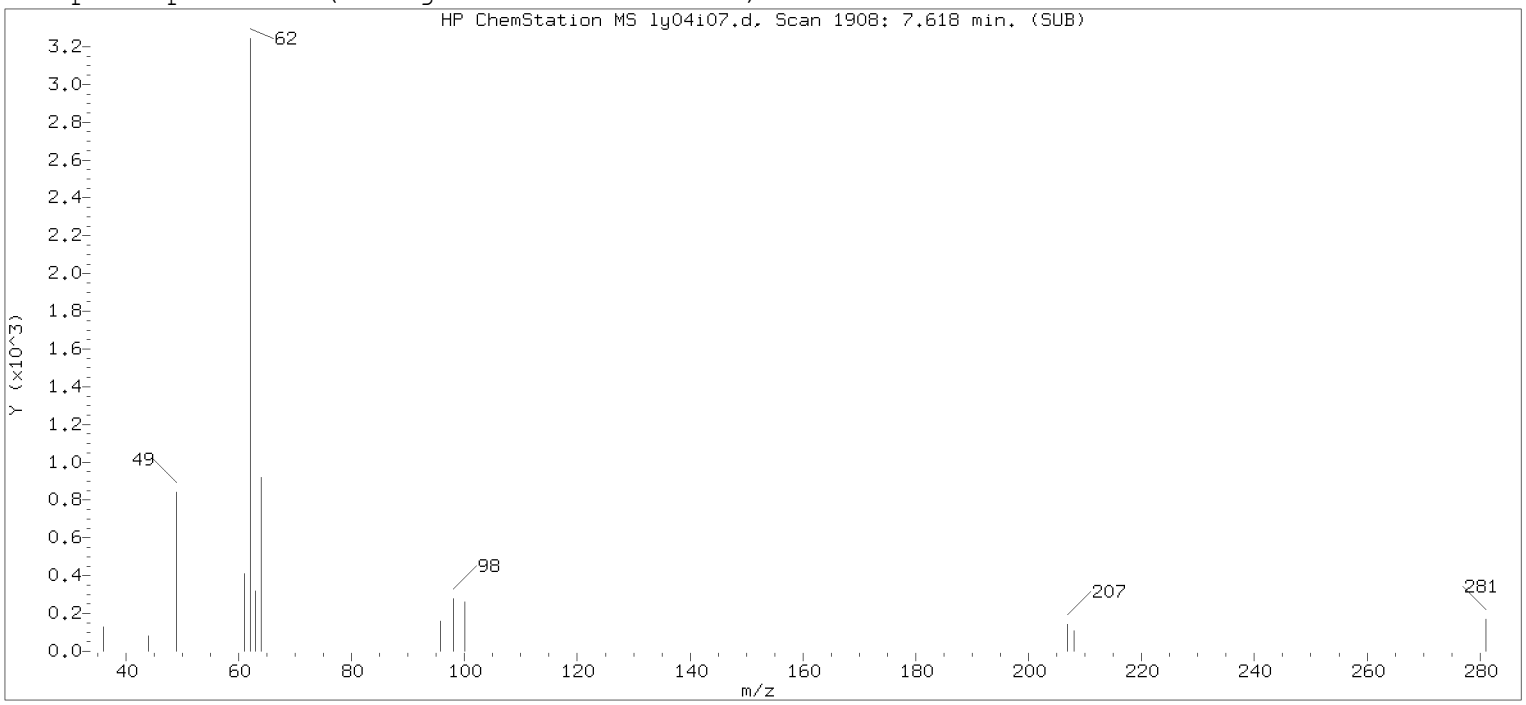
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area (flag) : 9508M
On-Column Amount (ng) : 1.0518
Integration start scan : 1891 Integration stop scan: 1934
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

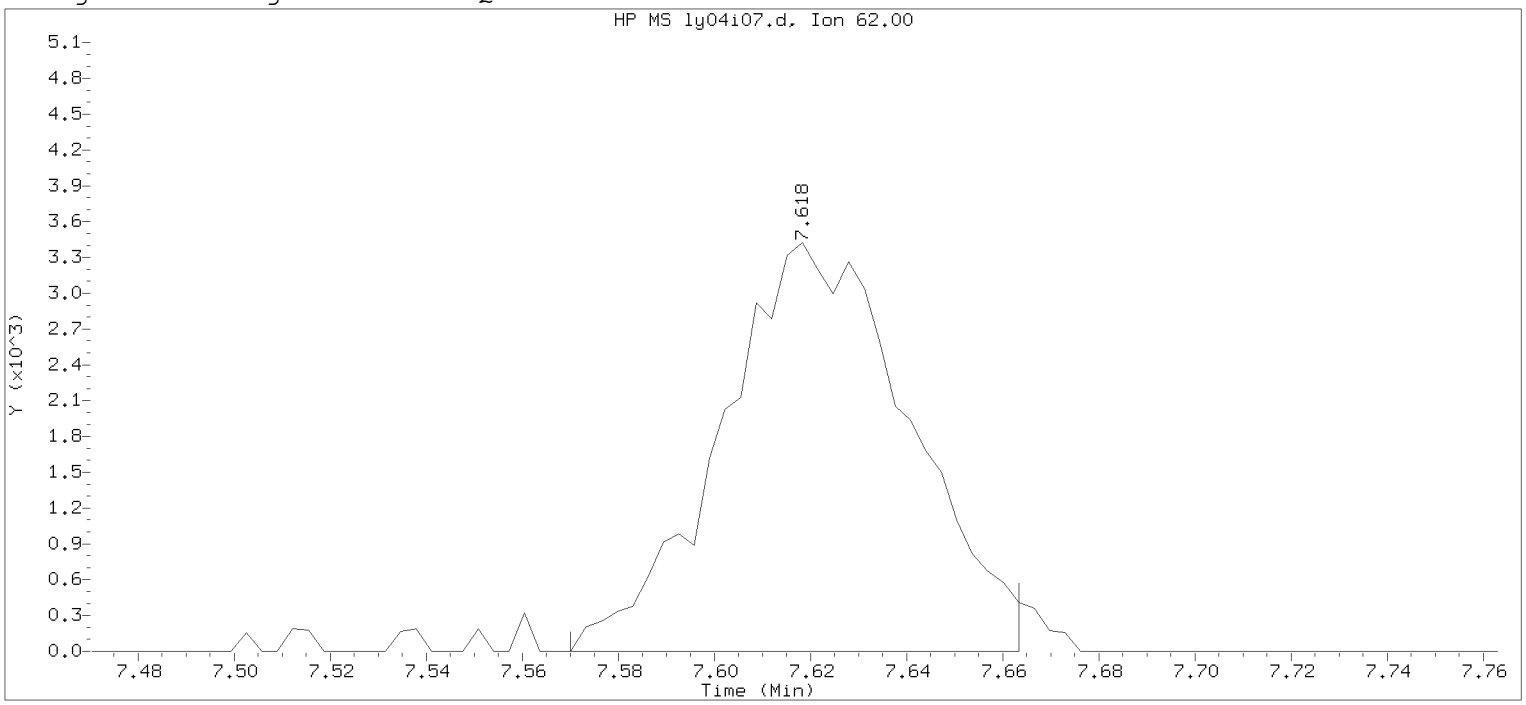
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

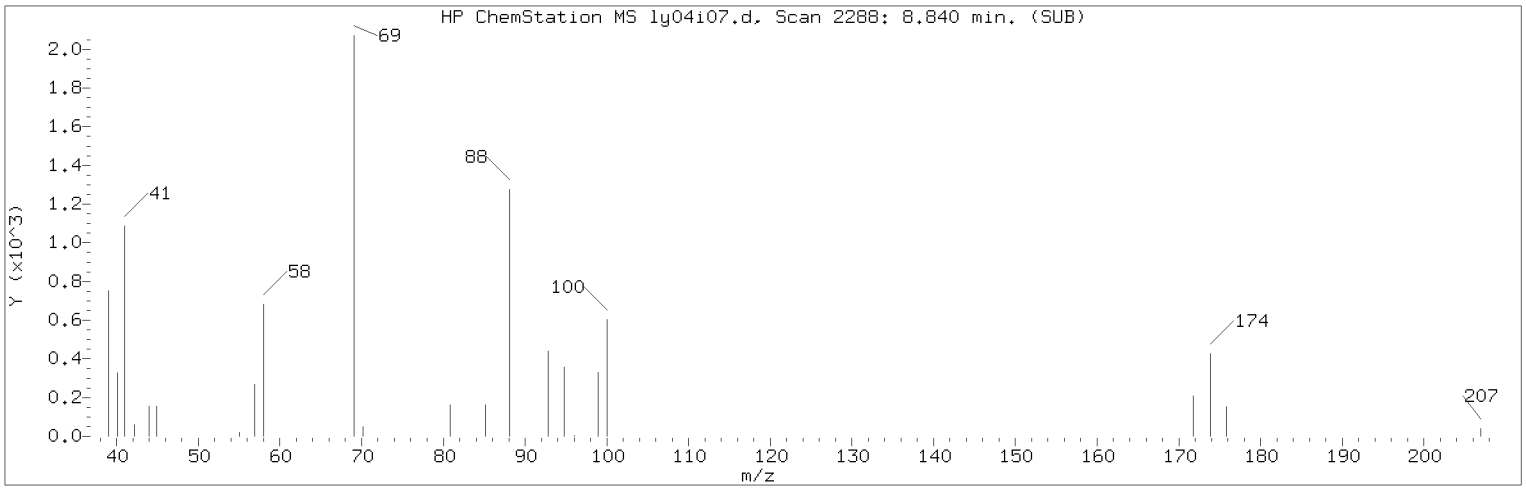
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

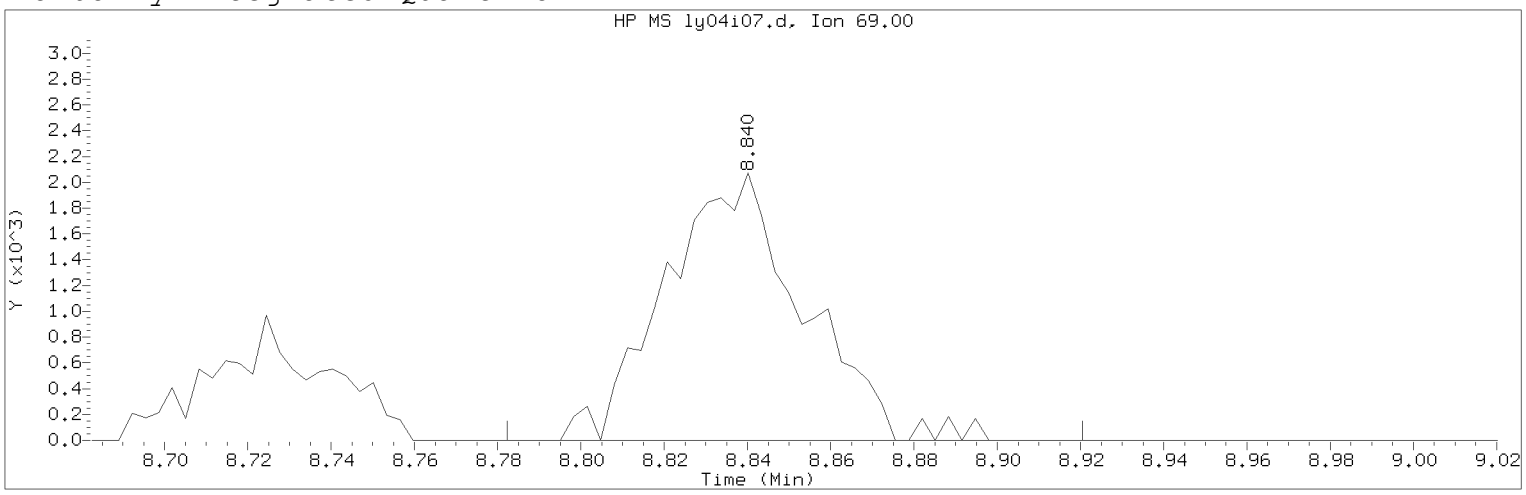
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area : 9335
On-column Amount (ng) : 1.0361
Integration start scan : 1892 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0075

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

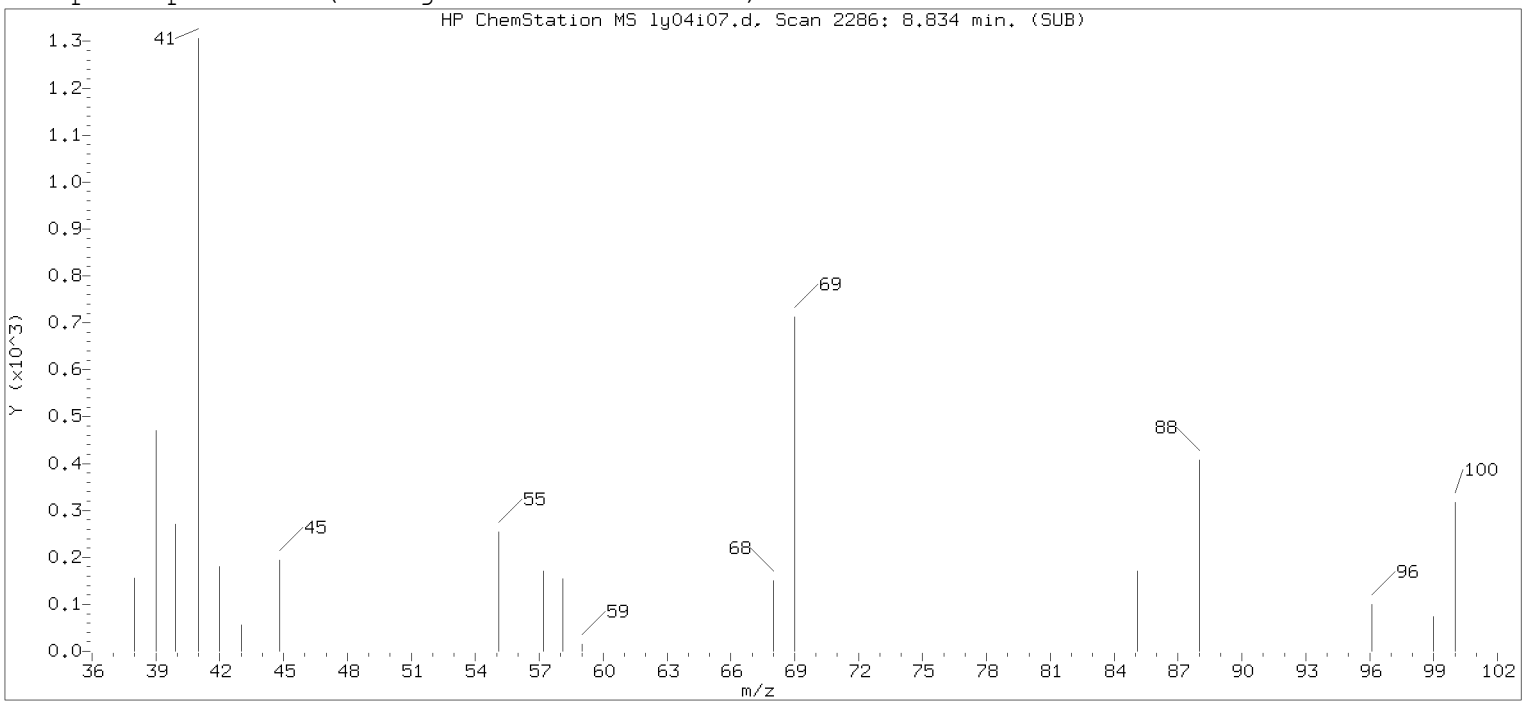
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 69.00
Area (flag) : 4771M
On-Column Amount (ng) : 0.7985
Integration start scan : 2269 Integration stop scan: 2312
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

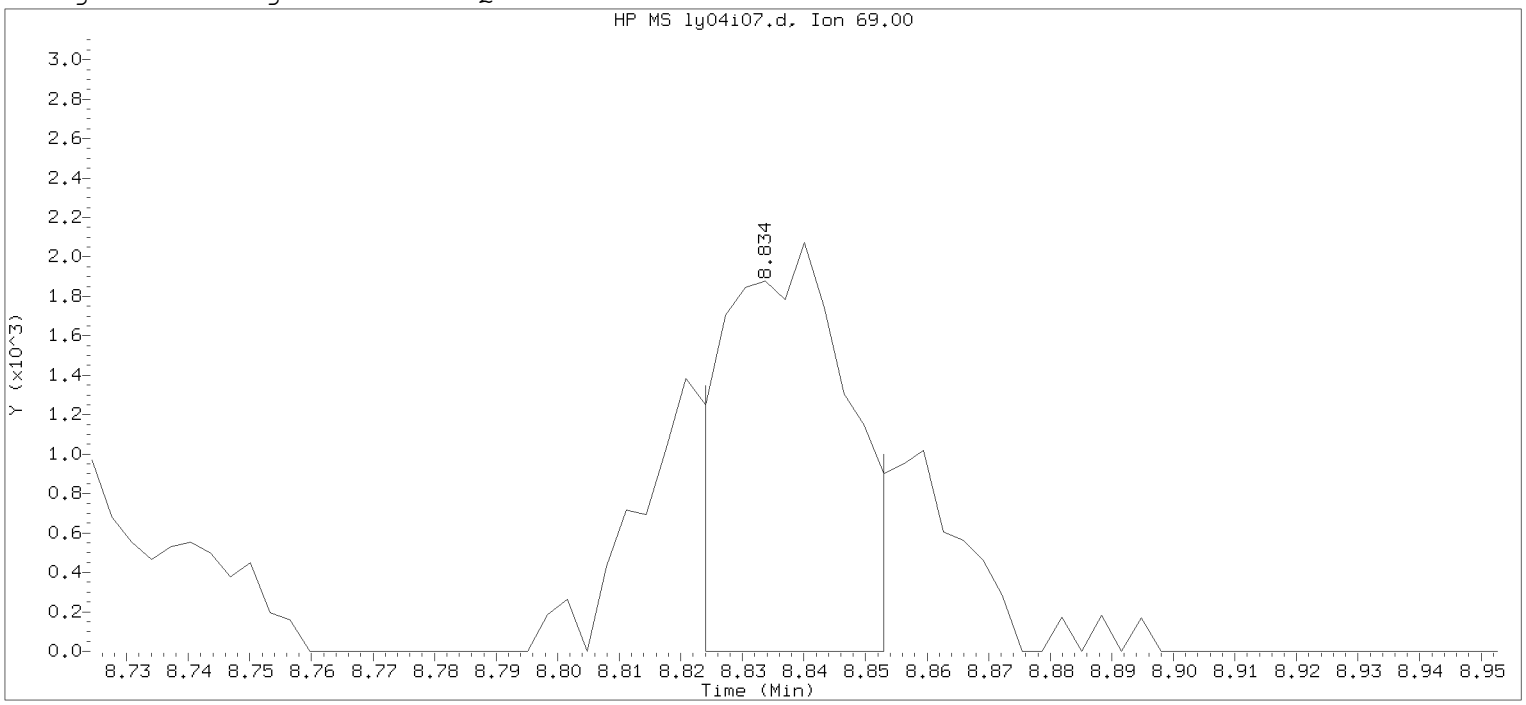
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

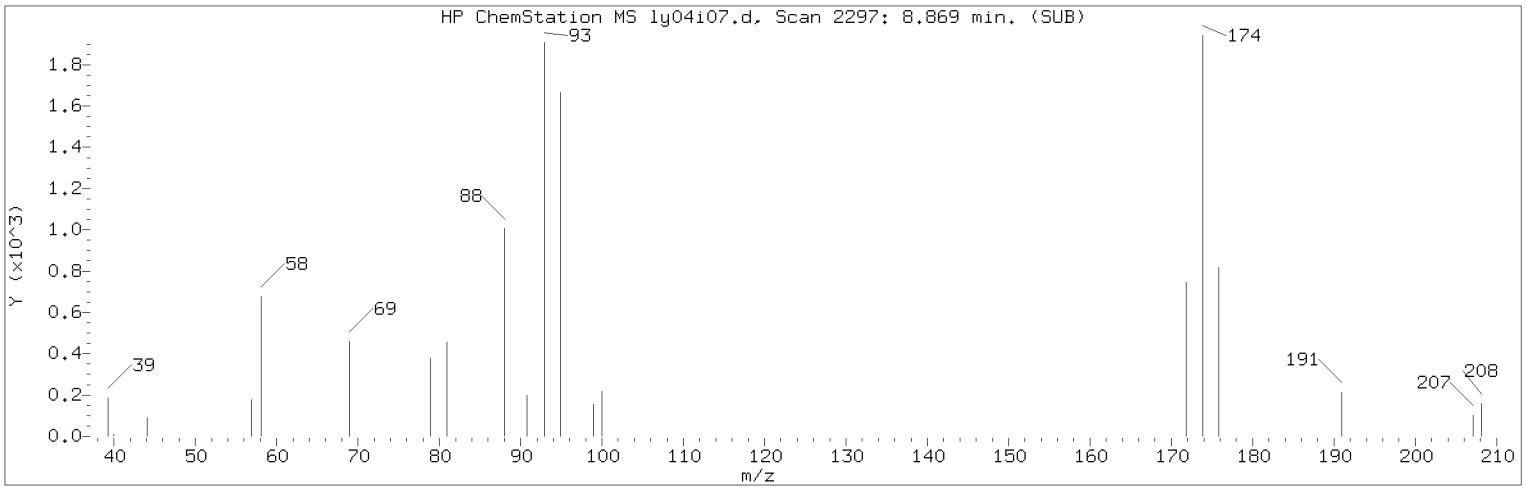
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

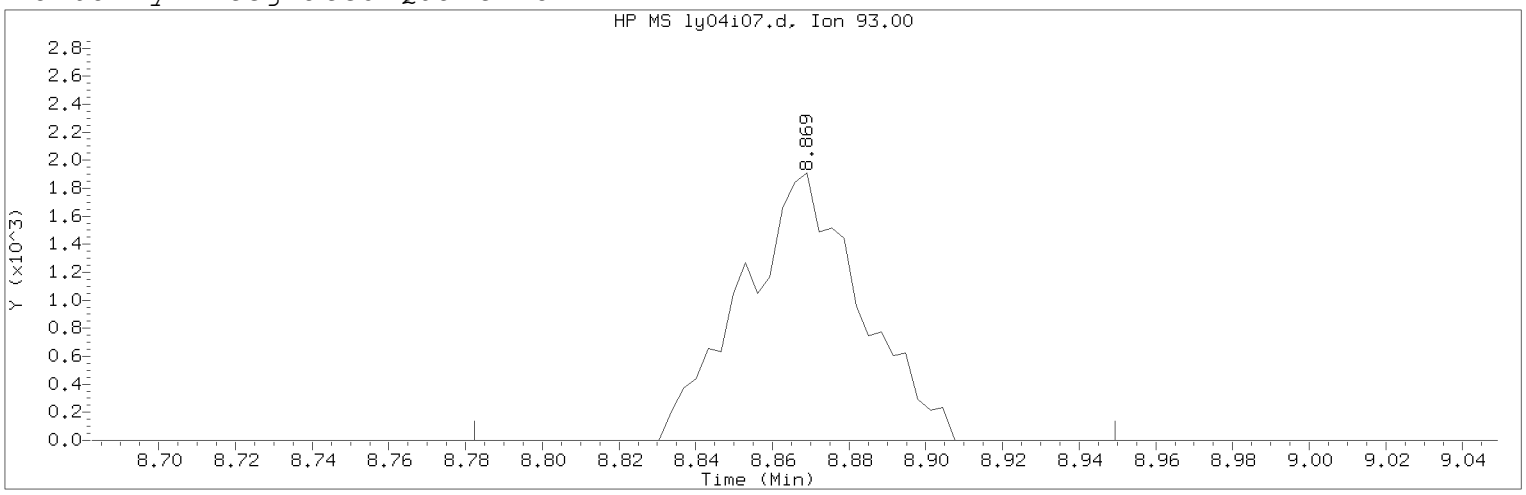
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2286
Retention Time (minutes): 8.834
Quant Ion : 69.00
Area : 2808
On-column Amount (ng) : 0.5001
Integration start scan : 2282 Integration stop scan: 2291
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0077

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

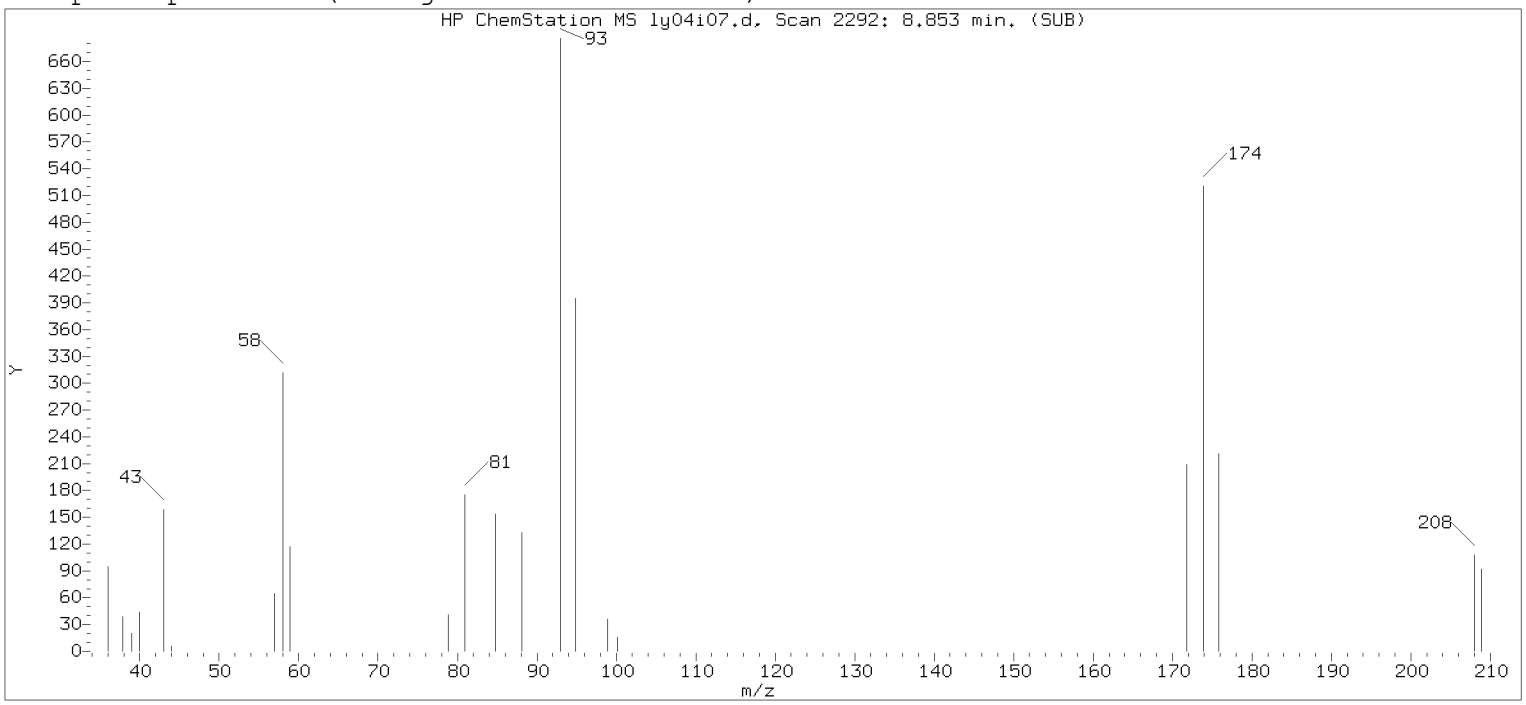
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2297
Retention Time (minutes): 8.869
Quant Ion : 93.00
Area (flag) : 4079M
On-Column Amount (ng) : 0.8976
Integration start scan : 2269 Integration stop scan: 2321
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

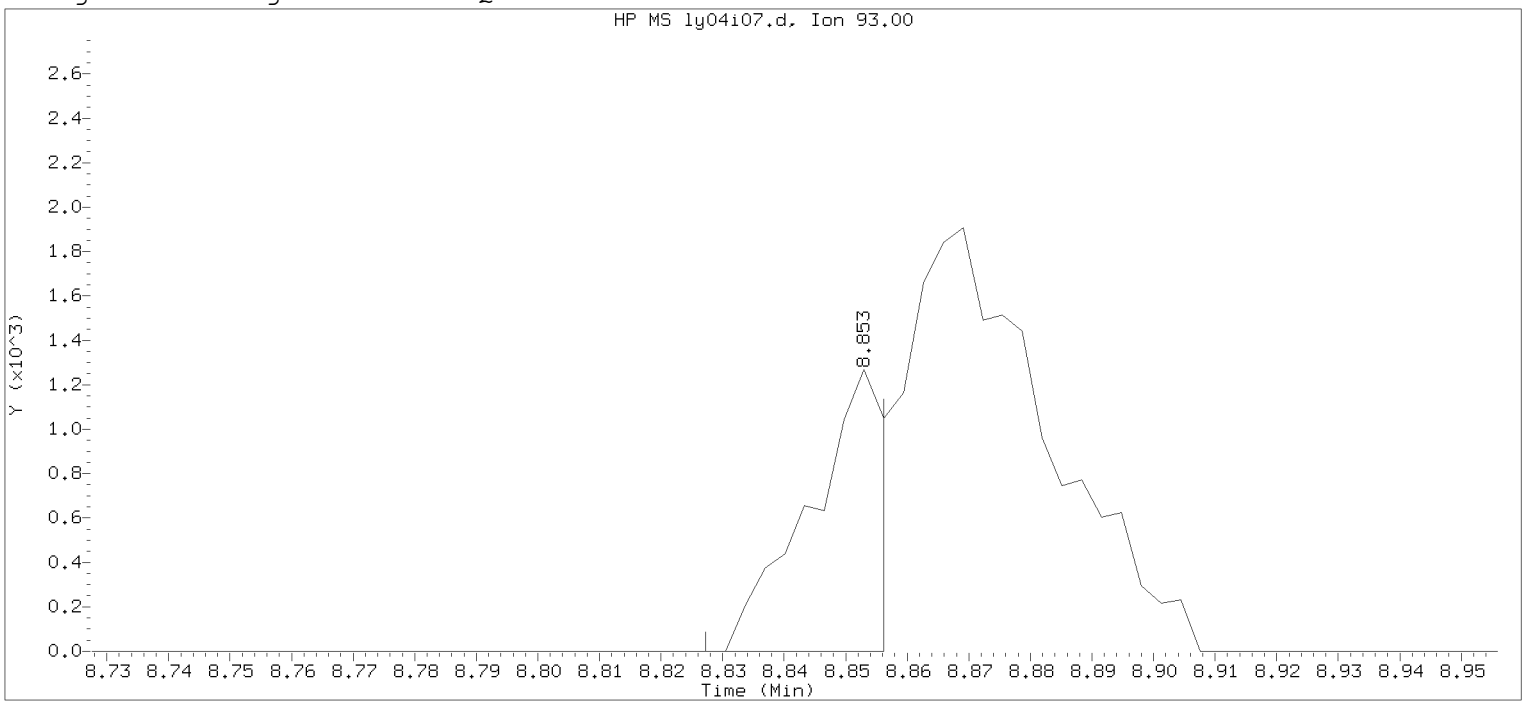
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

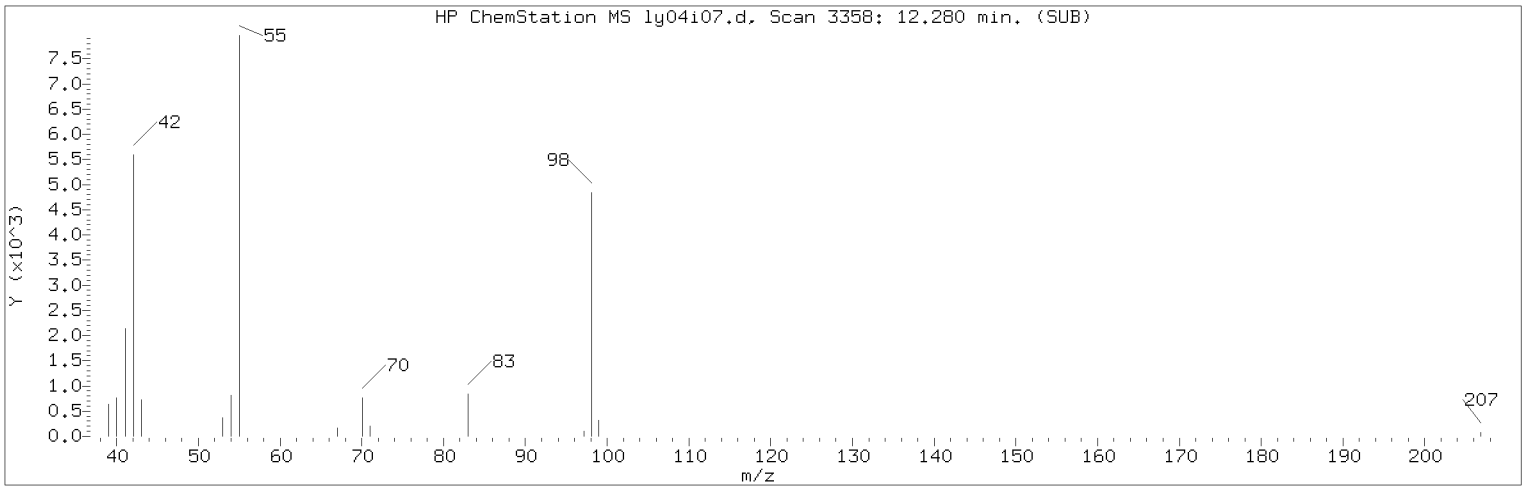
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

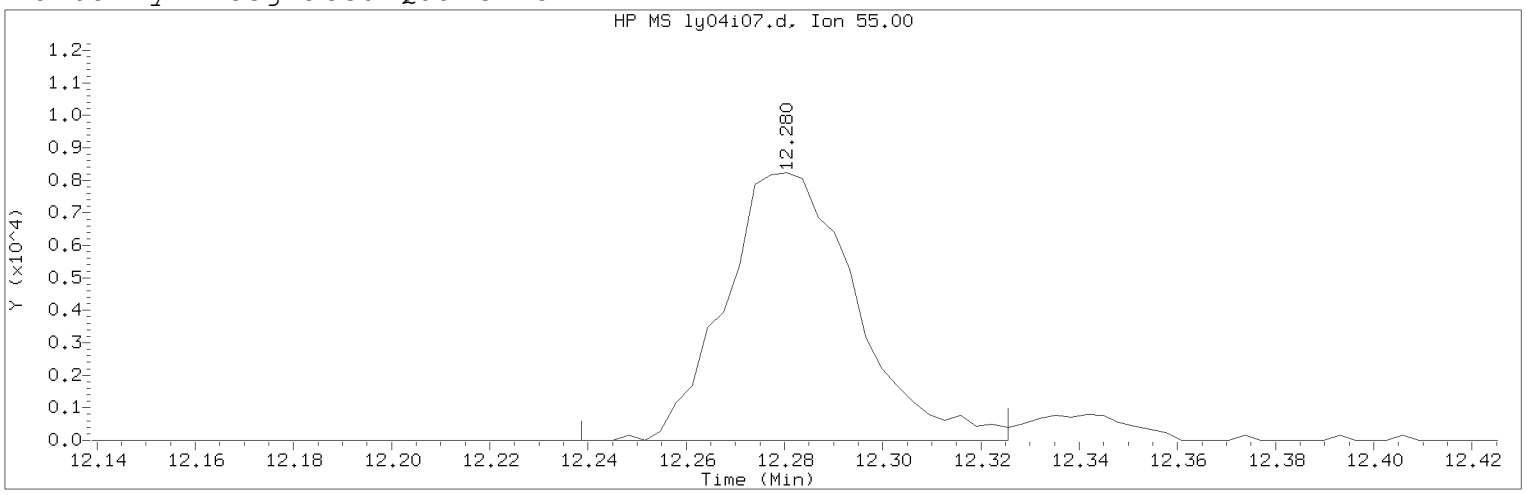
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2292
Retention Time (minutes): 8.853
Quant Ion : 93.00
Area : 993
On-column Amount (ng) : 0.2481
Integration start scan : 2283 Integration stop scan: 2292
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0079

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

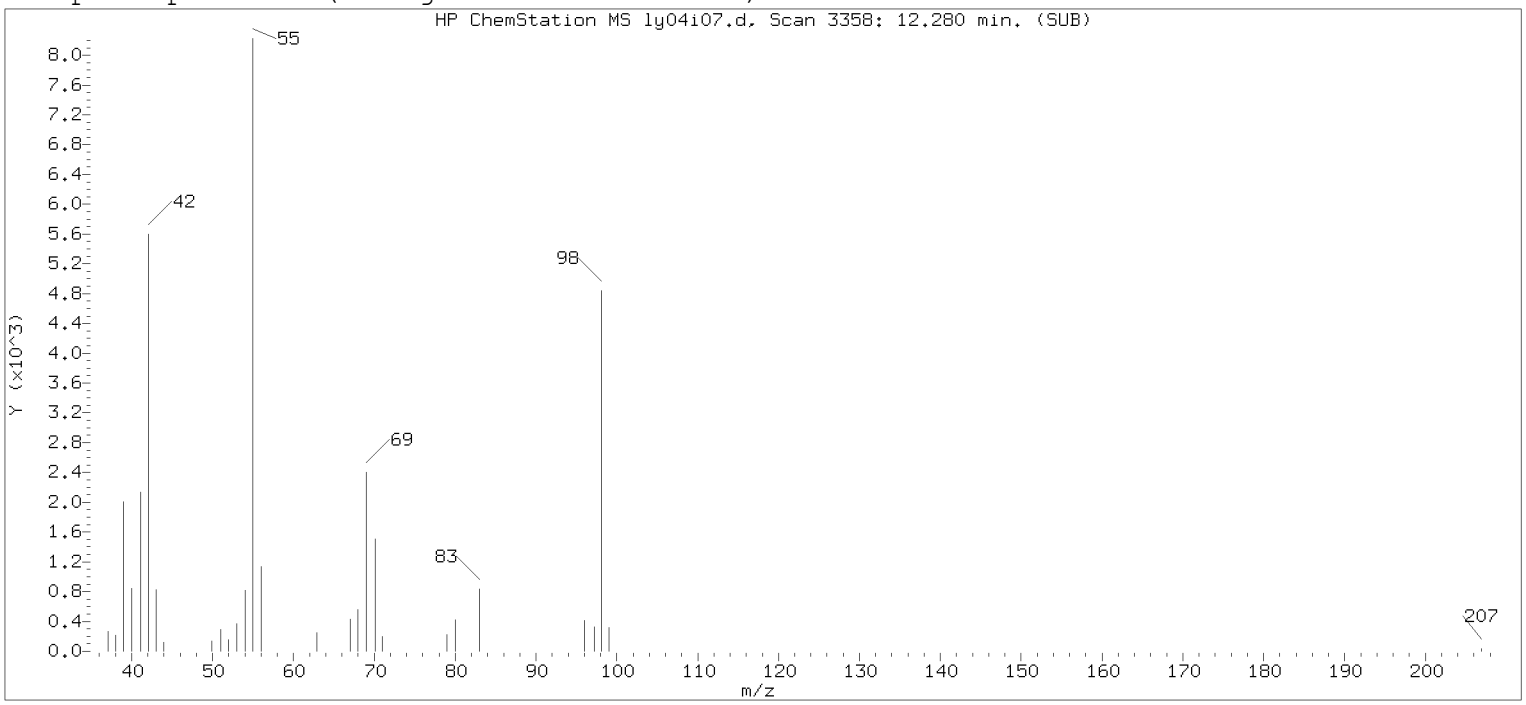
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area (flag) : 15170M
On-Column Amount (ng) : 41.2440
Integration start scan : 3344 Integration stop scan: 3371
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

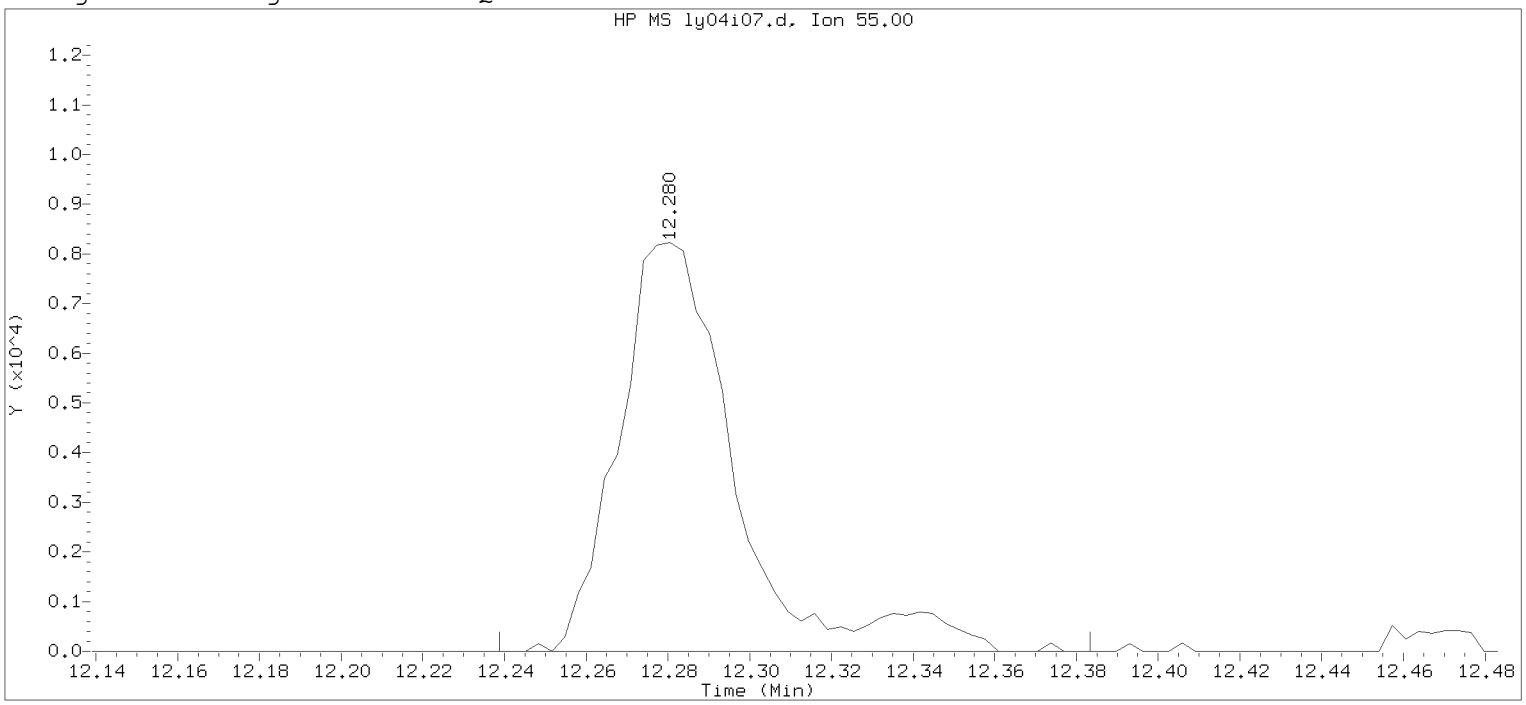
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

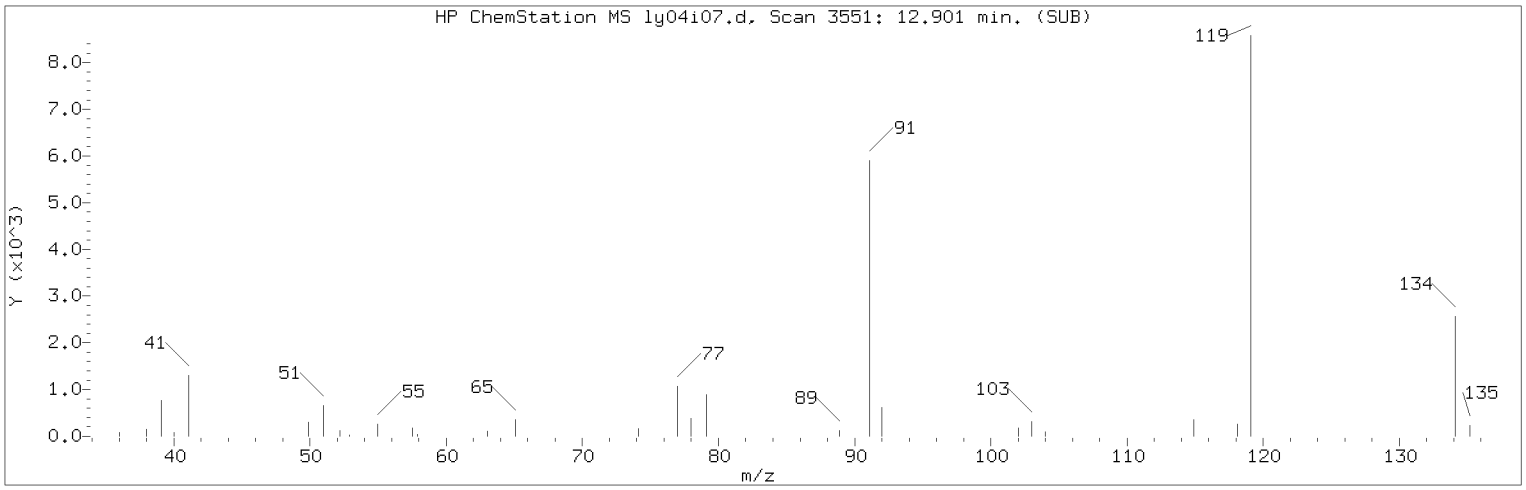
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

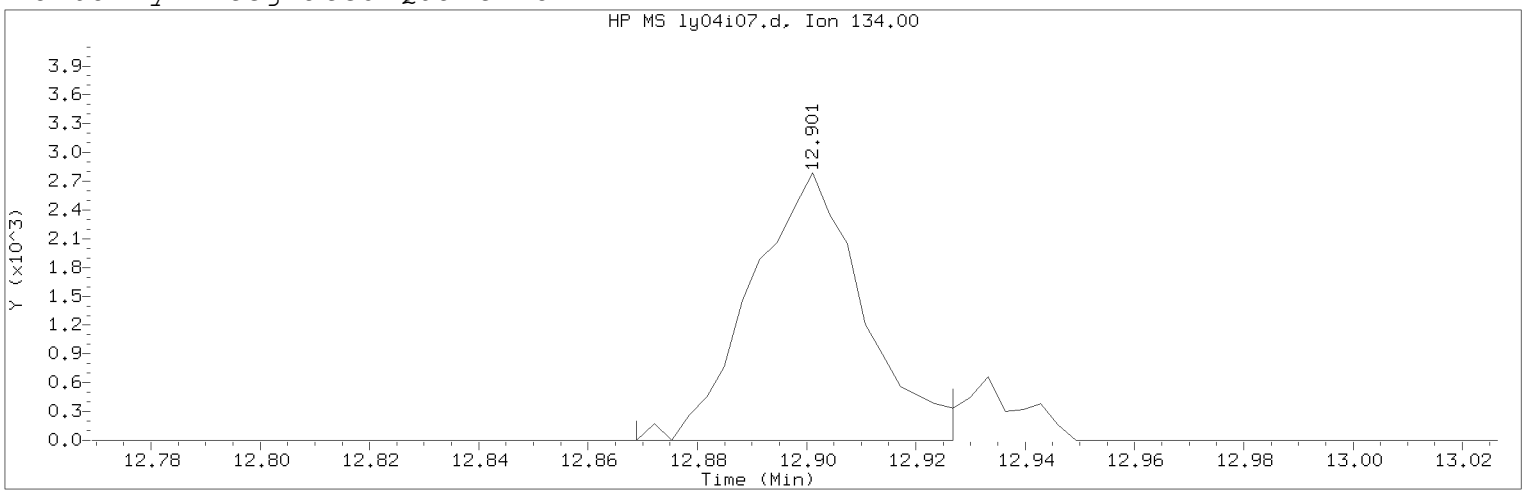
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area : 16320
On-column Amount (ng) : 44.5393
Integration start scan : 3344 Integration stop scan: 3389
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0081

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

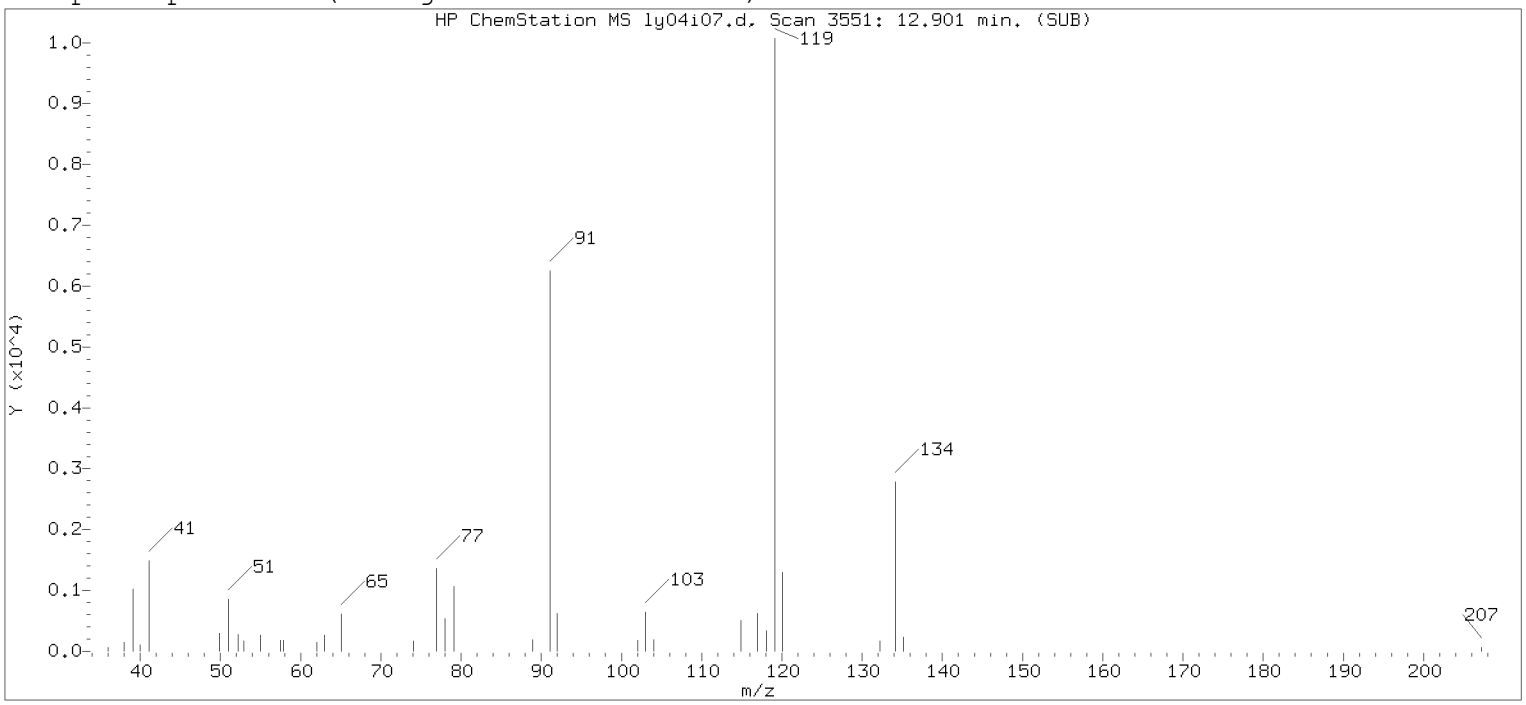
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 3961M
On-Column Amount (ng) : 0.7035
Integration start scan : 3540 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

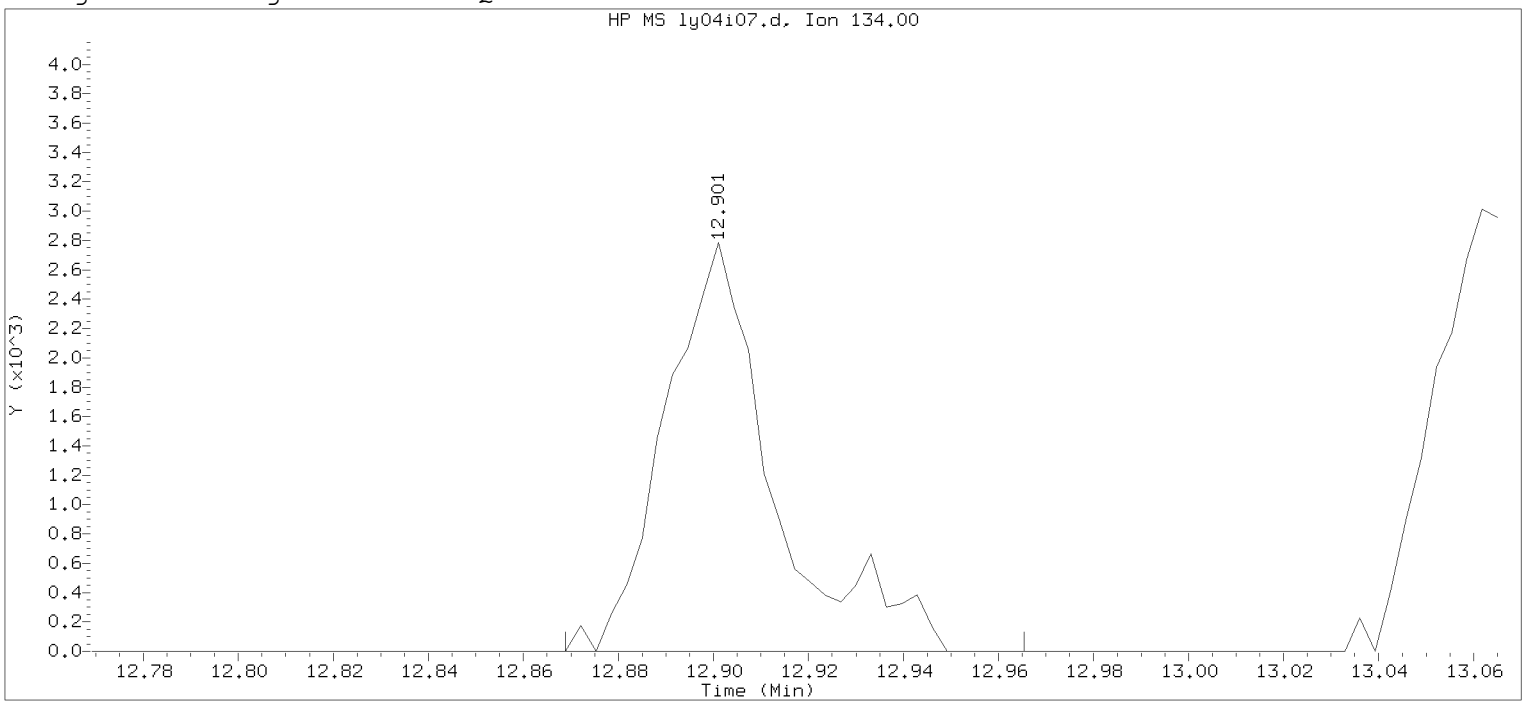
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

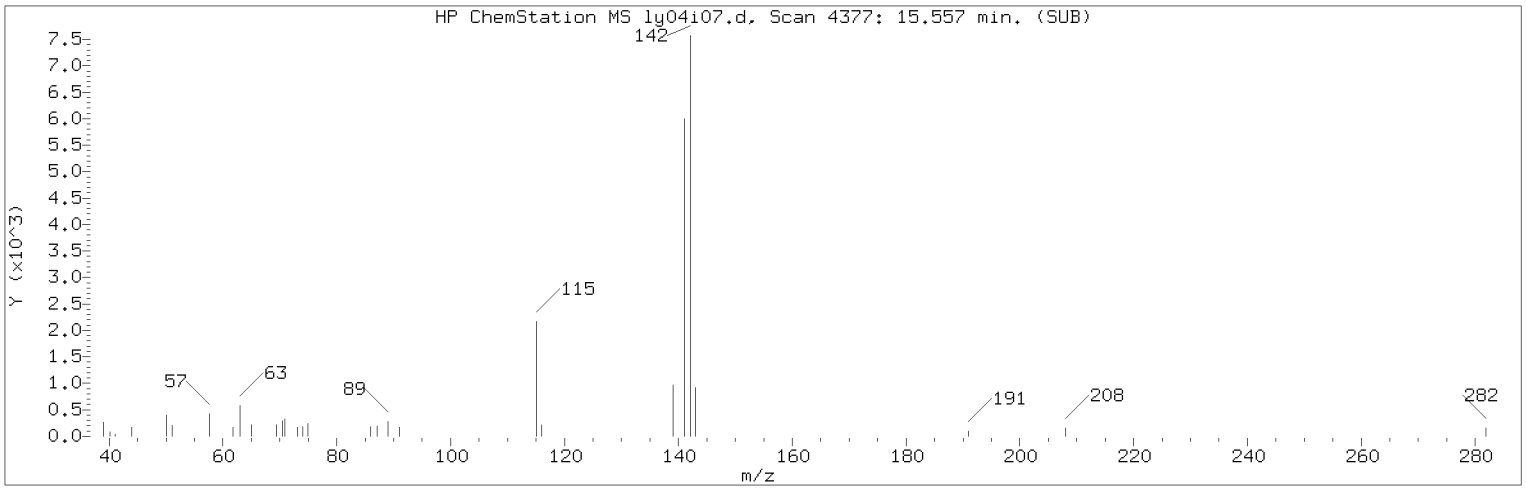
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

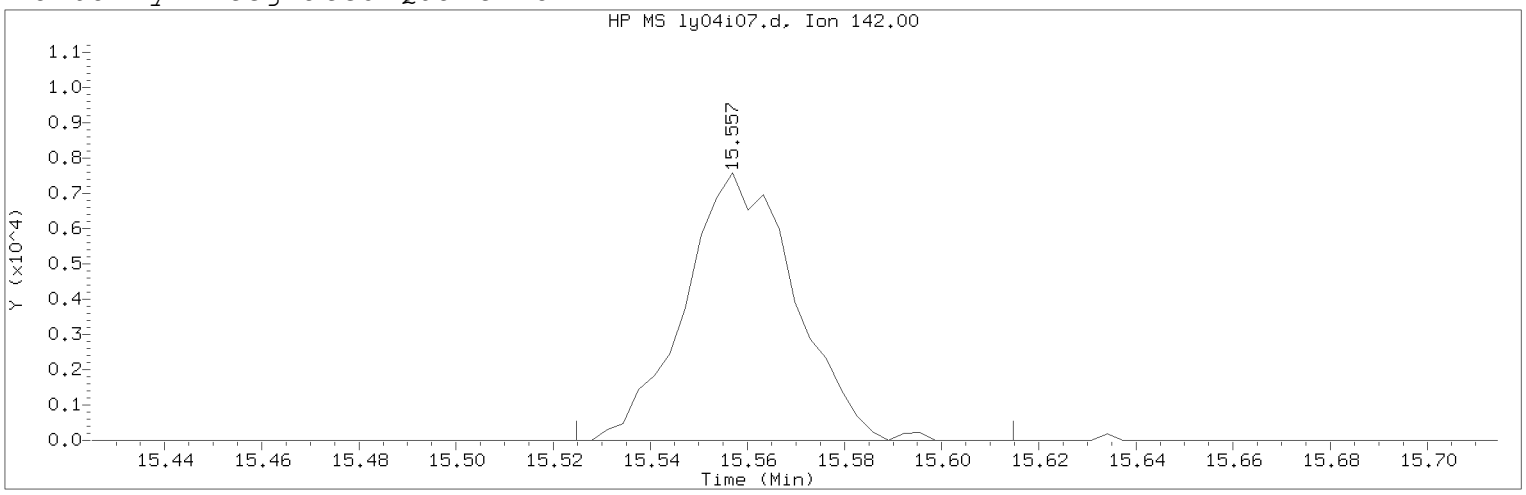
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 4401
On-column Amount (ng) : 0.7650
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

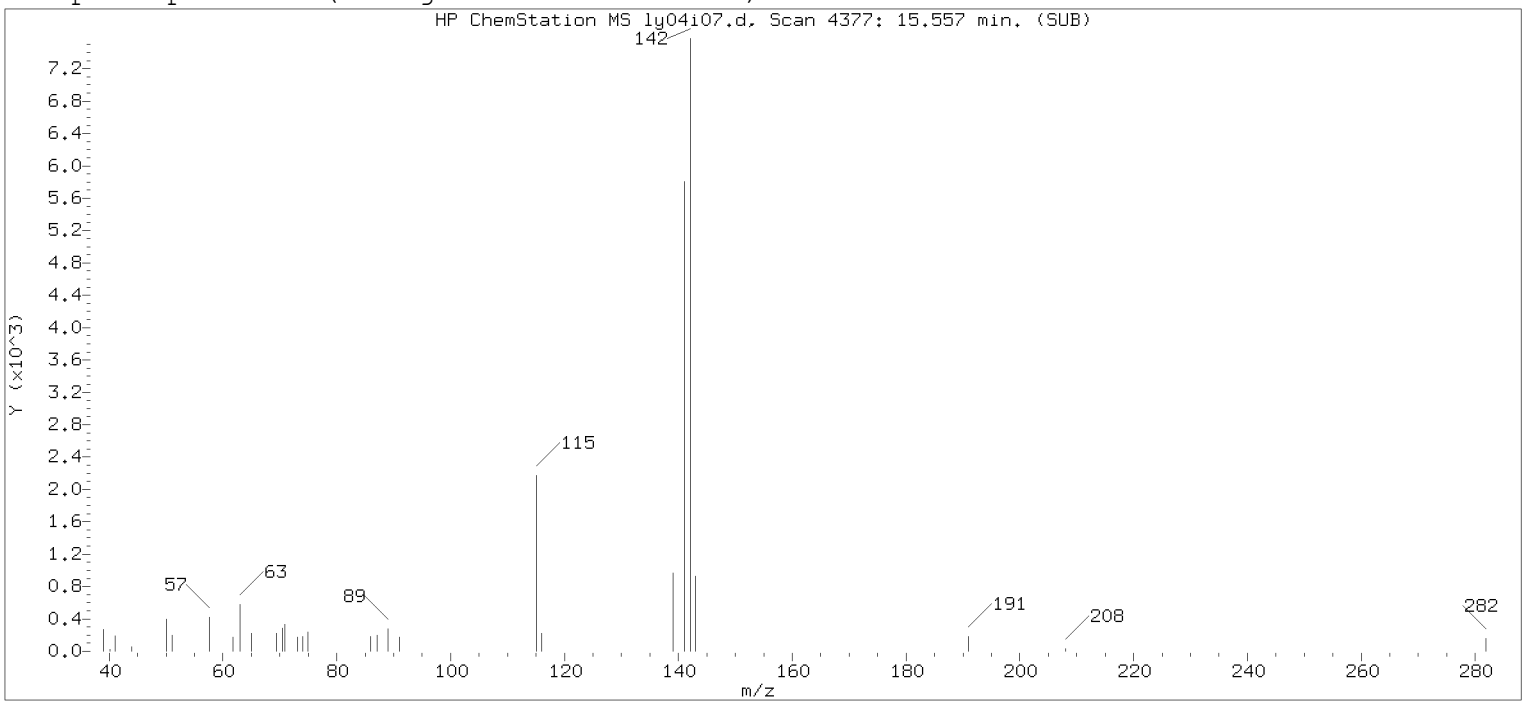
Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area (flag) : 11936M
On-Column Amount (ng) : 3.3357
Integration start scan : 4366 Integration stop scan: 4394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

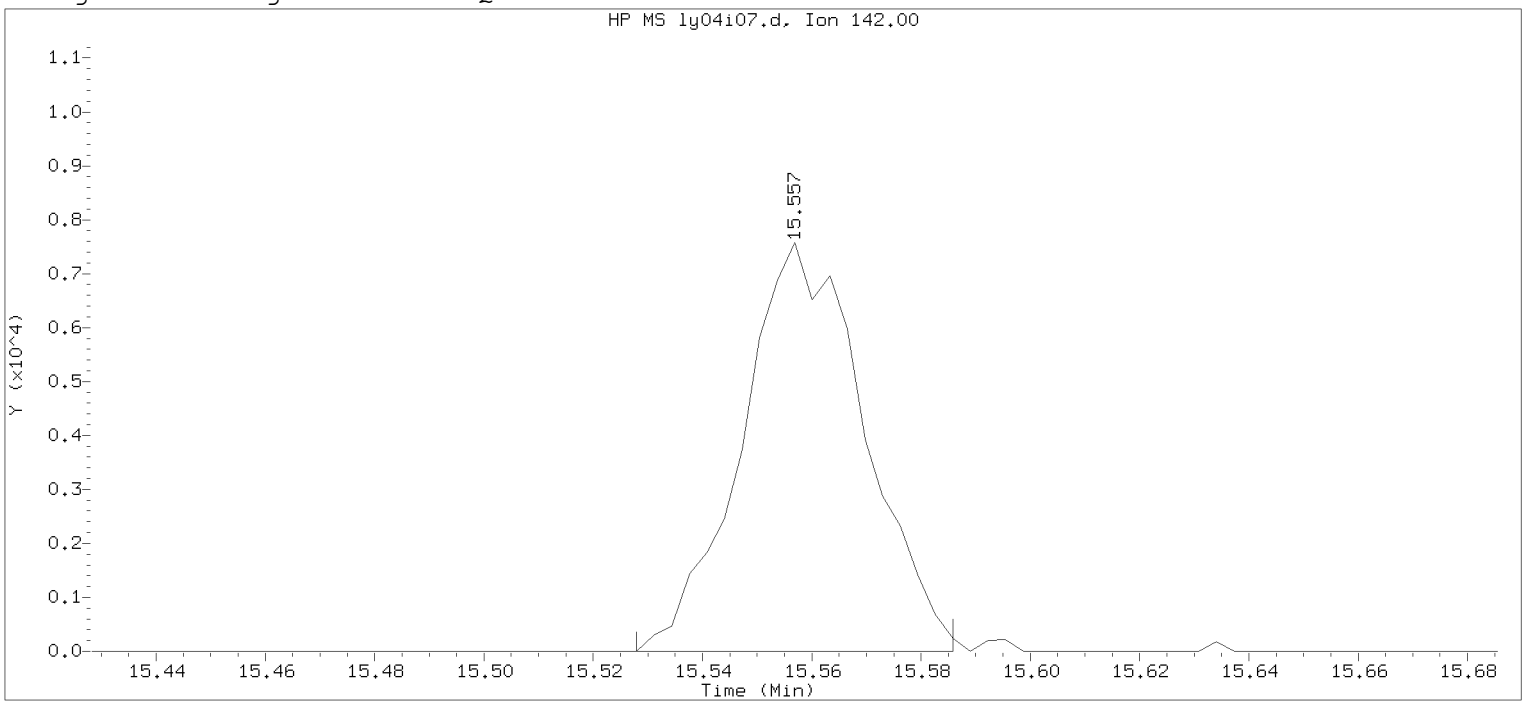
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



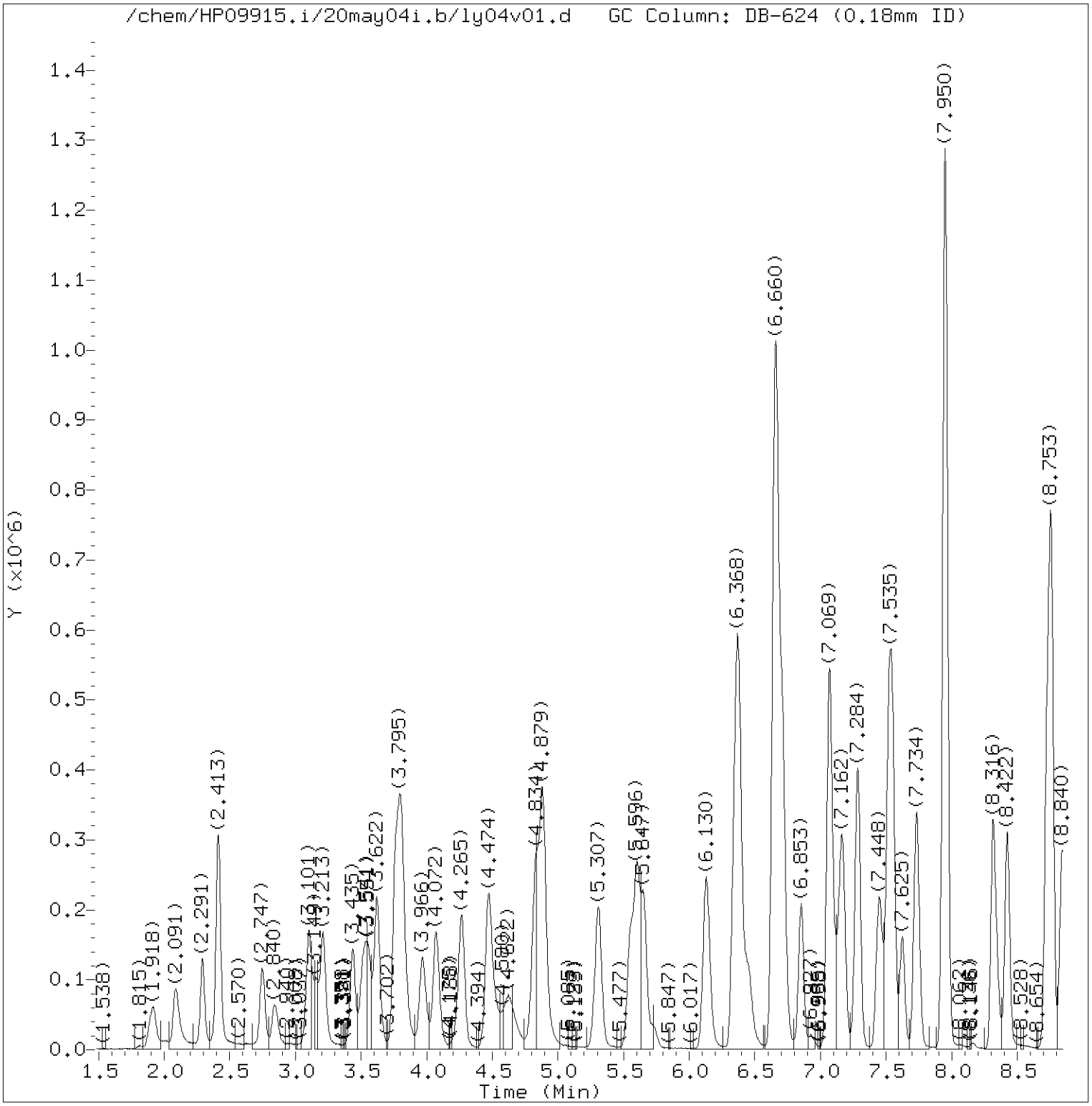
Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area : 11832
On-column Amount (ng) : 0.6286
Integration start scan : 4367 Integration stop scan: 4385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0085



Total Ion Chromatogram (TIC)

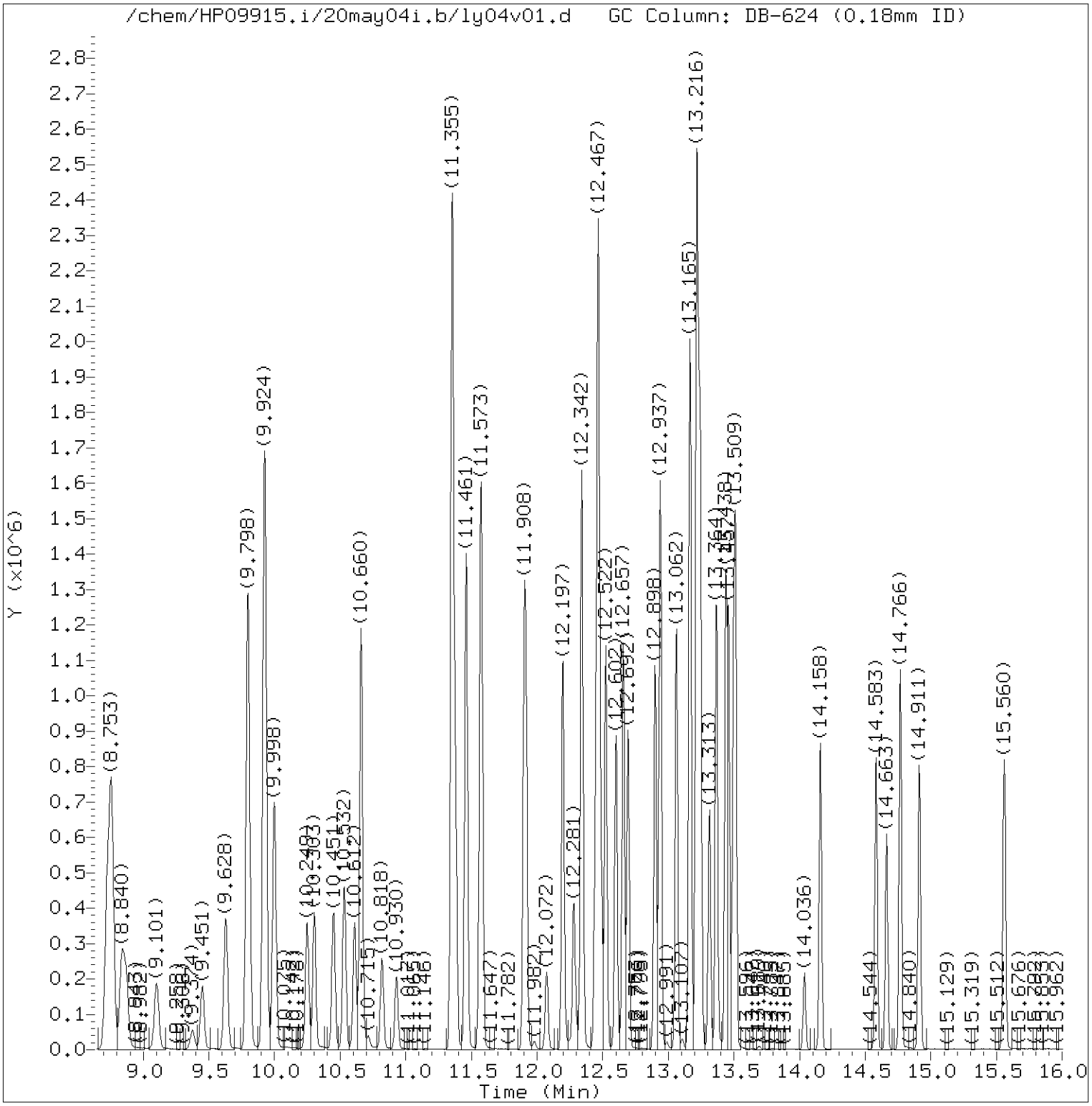
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	170822	18.748
4) Chloromethane	(2)	2.294	50	178347	20.965
5) 1,3-Butadiene	(2)	2.410	39	127548M	23.372
6) Vinyl Chloride	(2)	2.413	62	173135	21.090
8) Bromomethane	(2)	2.747	94	113651	19.202
9) Chloroethane	(2)	2.837	64	89576	19.543
10) Dichlorofluoromethane	(2)	3.101	67	184252	18.636
12) Trichlorofluoromethane	(2)	3.156	101	202771	22.616
11) n-Pentane	(2)	3.213	43	155213	18.438
14) Ethyl ether	(2)	3.435	59	129003	20.363
15) Freon 123a	(2)	3.525	67	151026	20.792
16) Acrolein	(1)	3.622	56	329175	139.630
17) 1,1-Dichloroethene	(2)	3.760	96	118964	20.806
19) Freon 113	(2)	3.792	101	114815	19.354
18) Acetone	(1)	3.802	58	207762	193.204
22) Methyl Iodide	(2)	3.966	142	219377	19.908
21) 2-Propanol	(1)	3.985	45	103119	150.457
23) Carbon Disulfide	(2)	4.072	76	402072	20.884
27) Methyl Acetate	(2)	4.242	43	139909	19.185
25) Allyl Chloride	(2)	4.268	41	179935	19.419
28) Methylene Chloride	(2)	4.467	84	139636	20.530
29)*t-Butyl alcohol-d10	(1)	4.493	65	286563	250.000
30) t-Butyl alcohol	(1)	4.622	59	234564	202.753
31) Acrylonitrile	(2)	4.824	53	381896	94.534
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	376365	19.193
32) trans-1,2-Dichloroethene	(2)	4.889	96	134049	20.379
34) n-Hexane	(2)	5.310	57	192921	20.943
36) 1,1-Dichloroethane	(2)	5.548	63	232641	20.165
38) di-Isopropyl ether	(2)	5.602	45	404847	19.953
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	188423	20.480
40) Ethyl t-butyl ether	(2)	6.130	59	373926	19.834
43) 1,2-Dichloroethene (Total)	(2)		96	293072	41.937
44) 2-Butanone	(2)	6.352	43	810086	165.204
42) cis-1,2-Dichloroethene	(2)	6.377	96	159023	21.558
45) 2,2-Dichloropropane	(2)	6.387	77	181449	20.350
47) Propionitrile	(1)	6.448	54	235686	150.798
48) Methacrylonitrile	(2)	6.657	67	620974	153.326
49) Bromochloromethane	(2)	6.705	128	74060	19.458

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.712	71	133663	97.744
51) Chloroform	(2)	6.853	83	227394	20.175
52)$Dibromofluoromethane	(2)	7.069	113	330544	49.382
53) 1,1,1-Trichloroethane	(2)	7.072	97	191699	19.825
54) Cyclohexane	(2)	7.168	56	232443	21.474
56) Carbon Tetrachloride	(2)	7.281	117	165383	20.413
55) 1,1-Dichloropropene	(2)	7.284	75	180448	20.357
58) Isobutyl Alcohol	(1)	7.454	41	194524	495.653
57)$1,2-Dichloroethane-d4	(2)	7.519	102	84686	49.860
60) Benzene	(2)	7.551	78	549814	20.037
61) 1,2-Dichloroethane	(2)	7.625	62	181543	19.737
65) t-Amyl methyl ether	(2)	7.734	73	388580	20.176
66)*Fluorobenzene	(2)	7.950	96	1328679	50.000
67) n-Heptane	(2)	7.956	43	195566	20.416
69) n-Butanol	(1)	8.313	56	319239	997.615
71) Trichloroethene	(2)	8.422	95	138805	19.990
72) Methylcyclohexane	(2)	8.721	83	230091	20.379
73) 1,2-Dichloropropane	(2)	8.757	63	143846	20.346
76) Methyl Methacrylate	(2)	8.834	69	119148	19.600
75) 1,4-Dioxane	(1)	8.840	88	49173M	511.194
74) Dibromomethane	(2)	8.866	93	92229	19.947
78) Bromodichloromethane	(2)	9.104	83	164272	19.817
79) 2-Nitropropane	(2)	9.374	41	43949	17.683
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	96311	20.458
81) cis-1,3-Dichloropropene	(2)	9.628	75	217653	20.091
82) 4-Methyl-2-pentanone	(2)	9.795	43	988209	99.516
83)$Toluene-d8	(3)	9.924	98	1360447	49.949
88) Toluene	(3)	9.998	92	346986	19.987
90) 1,3-Dichloropropene (total)	(3)		100	414410	39.844
89) trans-1,3-Dichloropropene	(3)	10.249	75	196757	19.753
91) Ethyl Methacrylate	(3)	10.303	69	207140	20.667
92) 1,1,2-Trichloroethane	(3)	10.451	97	138453	20.553
93) Tetrachloroethene	(3)	10.528	166	153665	20.770
94) 1,3-Dichloropropane	(3)	10.609	76	223187	19.812
96) 2-Hexanone	(3)	10.660	43	781980	107.421
97) Dibromochloromethane	(3)	10.818	129	142177	20.290
99) 1,2-Dibromoethane	(3)	10.930	107	143222	19.783
100)*Chlorobenzene-d5	(3)	11.351	117	1060223	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.358	91	177481	19.977
102) Chlorobenzene	(3)	11.380	112	403802	20.255
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	133891	19.811
104) Ethylbenzene	(3)	11.461	91	665092	20.697
106) m+p-Xylene	(3)	11.573	106	539656	42.741
108) Xylene (Total)	(3)		106	798814	63.966
107) o-Xylene	(3)	11.901	106	259158	21.225
109) Styrene	(3)	11.917	104	425651	21.435
110) Bromoform	(3)	12.072	173	98703	19.348
111) Isopropylbenzene	(3)	12.197	105	672074	21.691
112) Cyclohexanone	(1)	12.277	55	174130	486.309
114)$4-Bromofluorobenzene	(3)	12.342	95	522085	49.817
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	216158M	19.631
115) Bromobenzene	(4)	12.461	156	176337	19.952
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	326570	101.958
117) 1,2,3-Trichloropropane	(4)	12.490	110	66018	19.632
119) n-Propylbenzene	(4)	12.522	91	805085	21.076
120) 2-Chlorotoluene	(4)	12.602	126	165995	20.341
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	584710	21.184
121) 4-Chlorotoluene	(4)	12.692	126	171352	20.230
124) tert-Butylbenzene	(4)	12.898	134	120476M	21.234
125) Pentachloroethane	(4)	12.933	167	103397	20.520
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	603784	21.157
127) sec-Butylbenzene	(4)	13.062	105	729406	21.705
129) 1,3-Dichlorobenzene	(4)	13.162	146	341577	20.740
130) p-Isopropyltoluene	(4)	13.165	119	640341	22.238
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	603976	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	352089	20.370
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	631126	21.285
135) Benzyl Chloride	(4)	13.313	91	436330	19.448
136) 1,3-Diethylbenzene	(4)	13.367	119	388528	20.941
141) Diethylbenzene (total)	(4)		100	1127079	62.827
137) 1,4-Diethylbenzene	(4)	13.438	119	407378	20.977
139) n-Butylbenzene	(4)	13.457	92	311525	21.057
138) 1,2-Dichlorobenzene	(4)	13.496	146	335221	20.222
140) 1,2-Diethylbenzene	(4)	13.512	119	331173	20.910
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	45288	18.583
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	252472	20.218

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

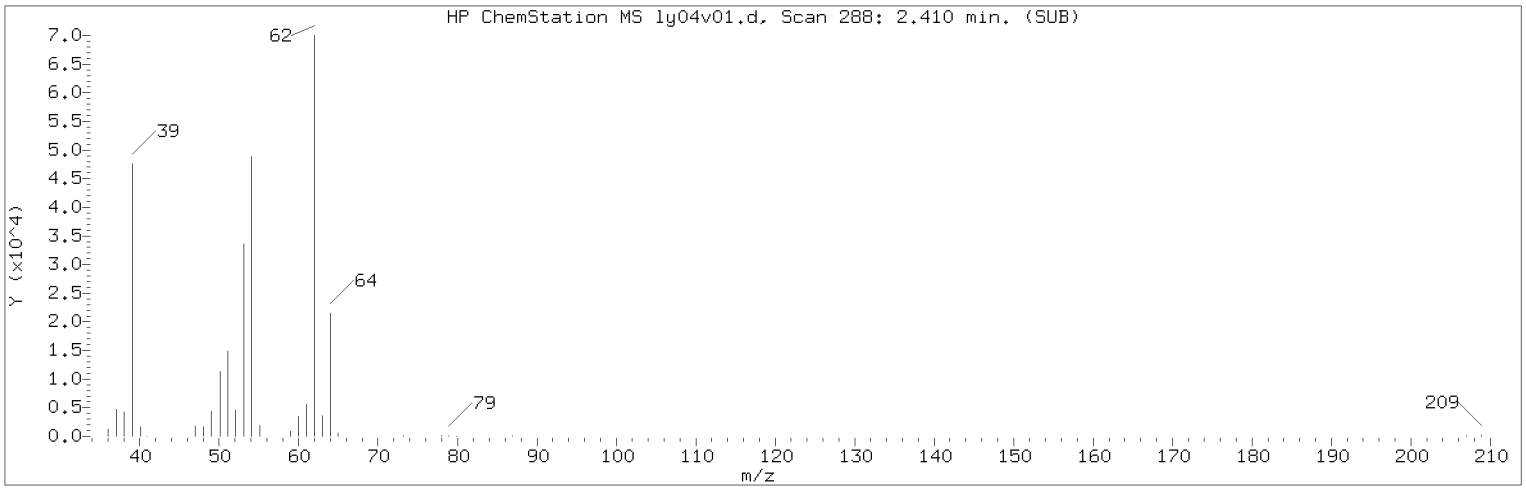
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

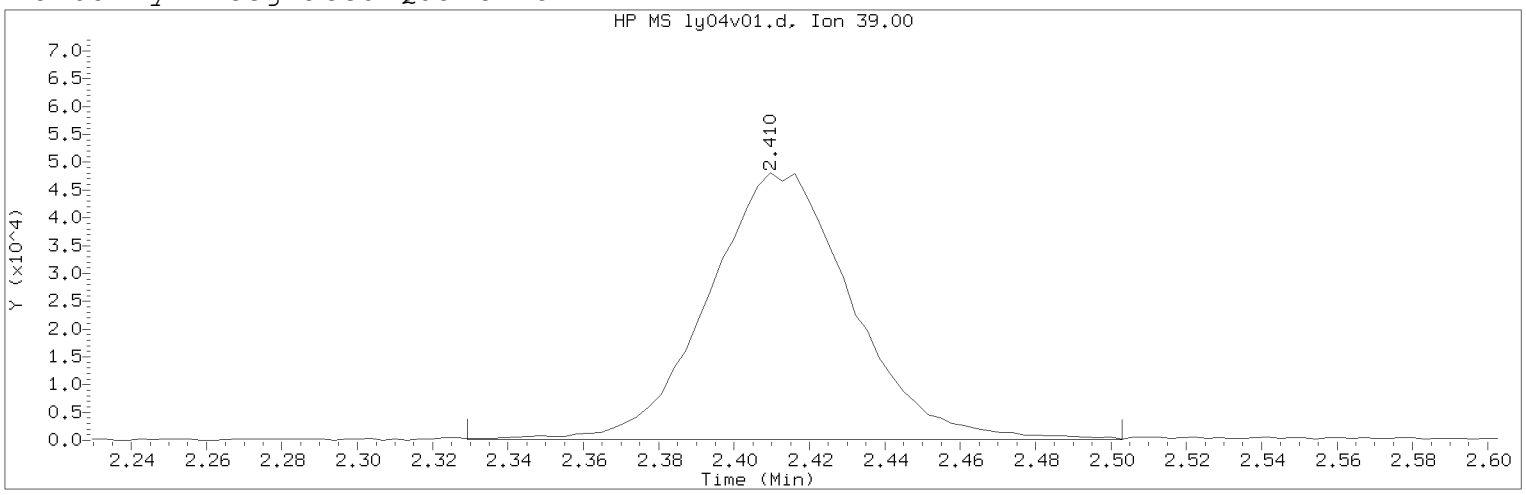
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	239361	20.511
147)	Hexachlorobutadiene	(4)	14.663	225	102388	19.019
148)	Naphthalene	(4)	14.766	128	784765	20.775
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	239315	20.637
150)	2-Methylnaphthalene	(4)	15.560	142	394789	16.057

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

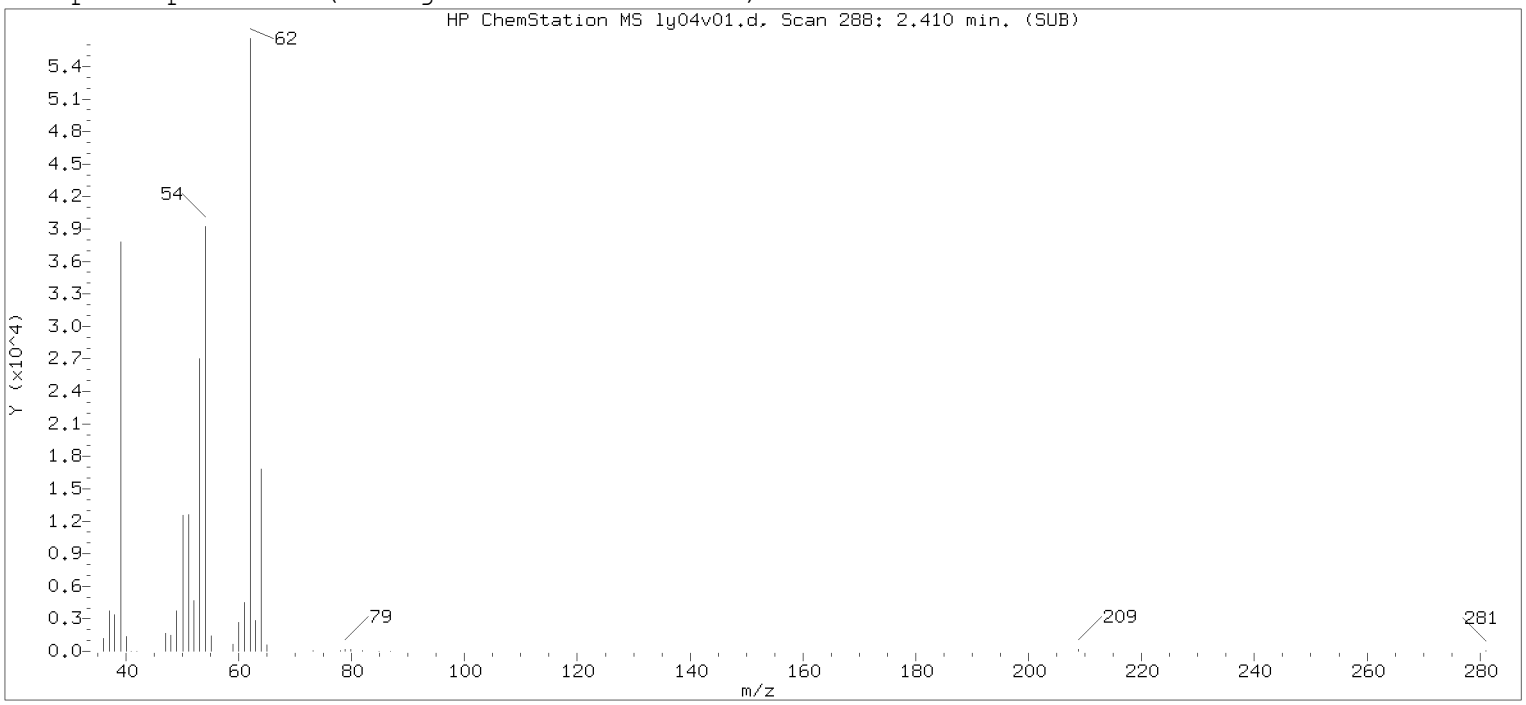
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area (flag) : 127548M
On-Column Amount (ng) : 23.3717
Integration start scan : 262 Integration stop scan: 316
Y at integration start : 100 Y at integration end: 100

Reason for manual integration: improper integration

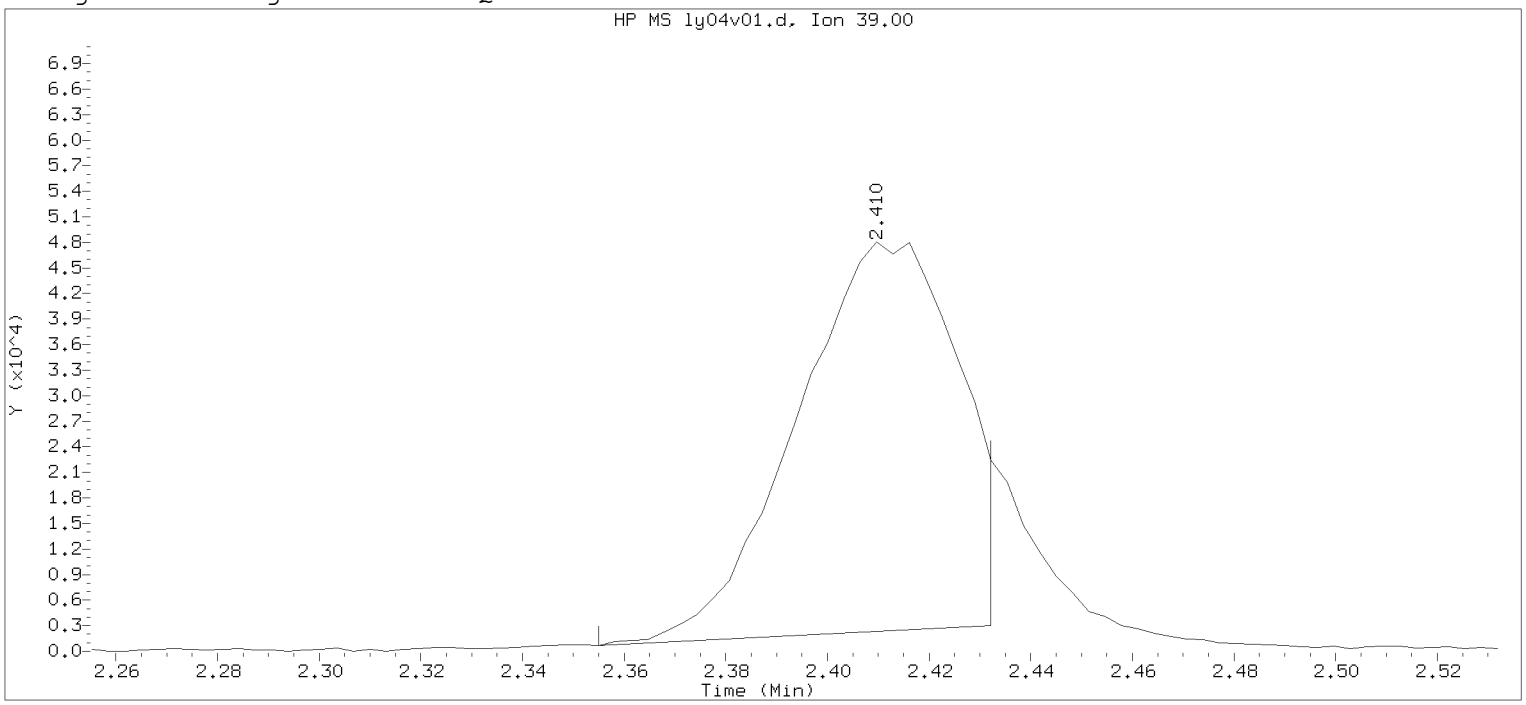
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

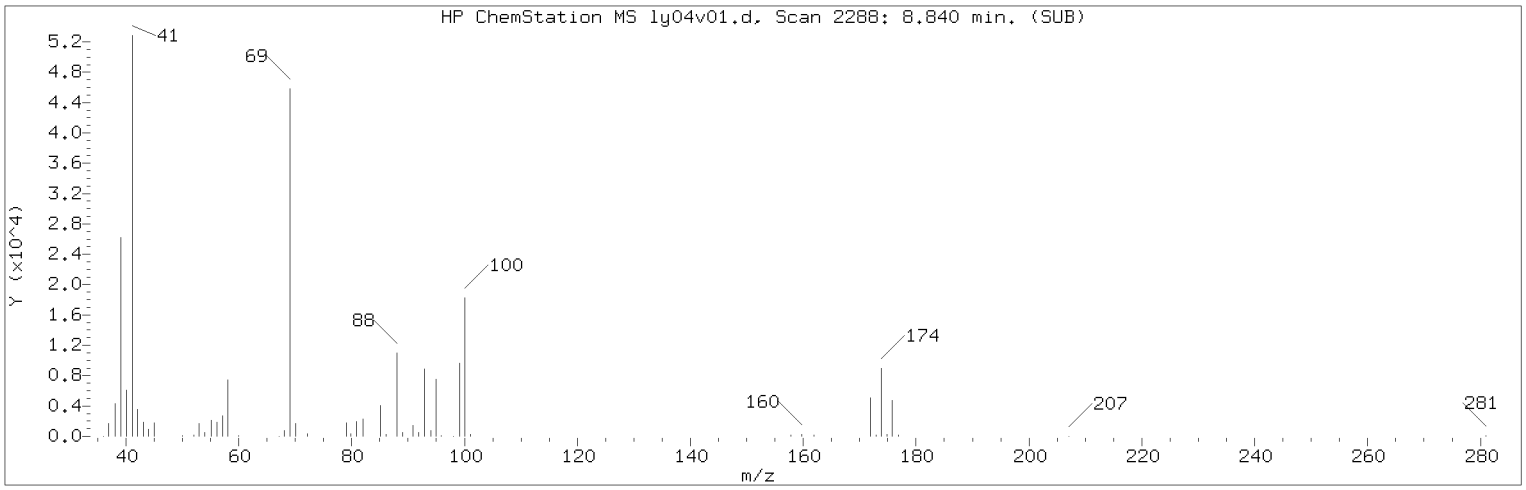
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

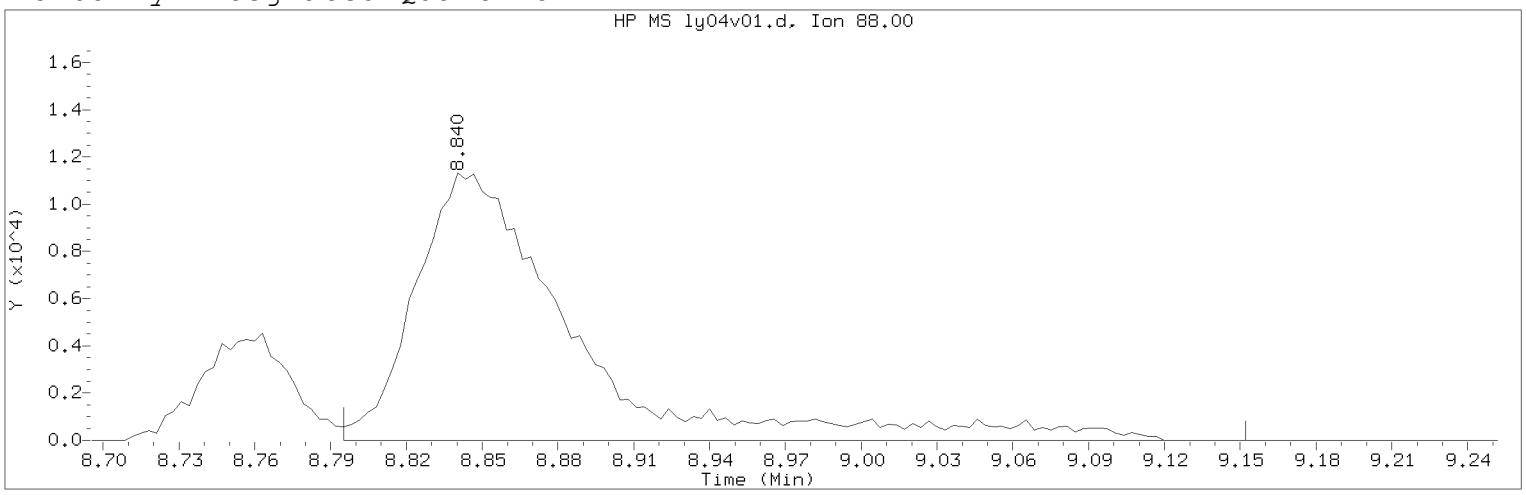
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area : 99799
On-column Amount (ng) : 22.0790
Integration start scan : 270 Integration stop scan: 294
Y at integration start : 715 Y at integration end: 3016

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

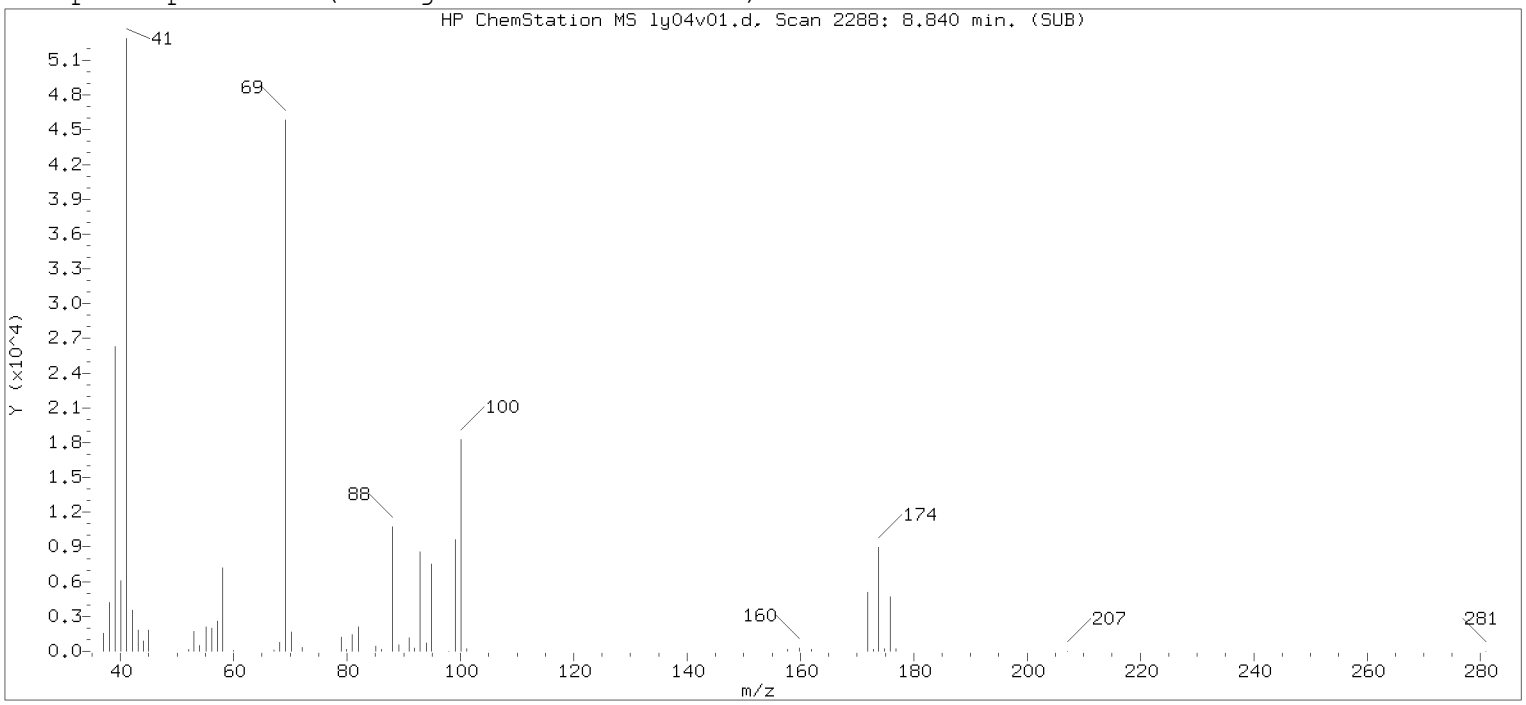
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 49173M
On-Column Amount (ng) : 511.1942
Integration start scan : 2273 Integration stop scan: 2384
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

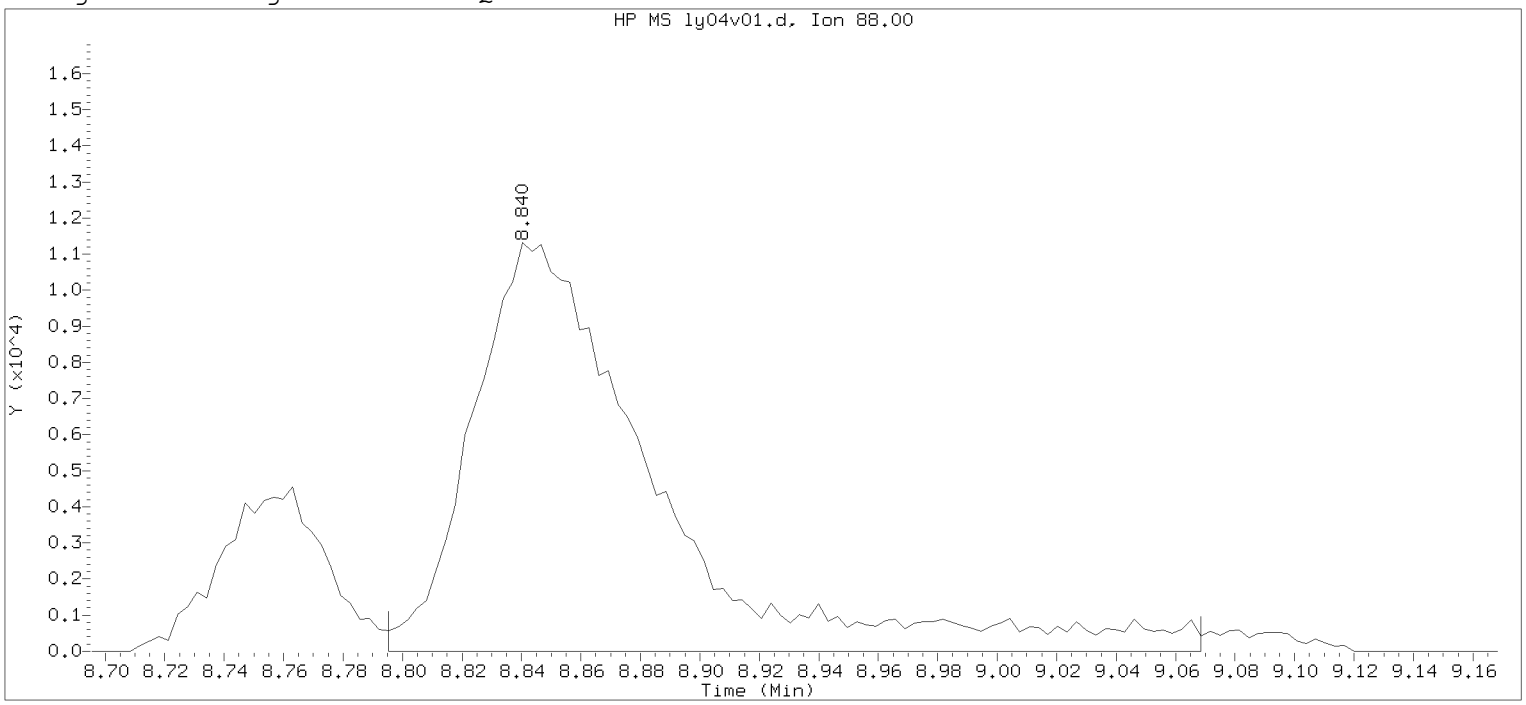
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

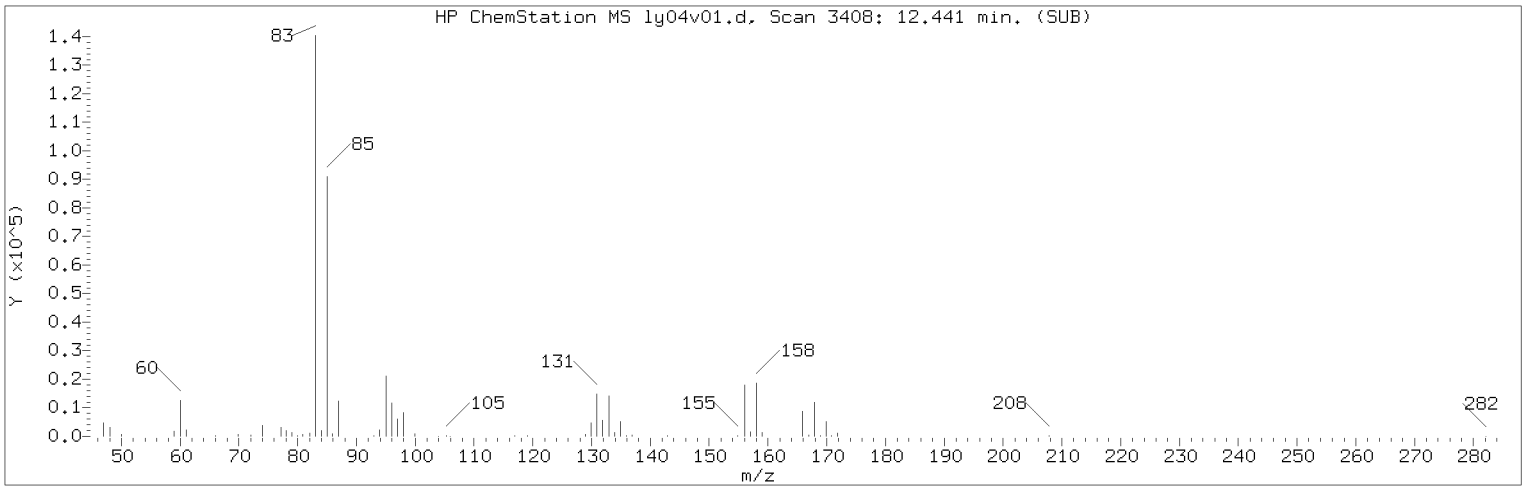
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

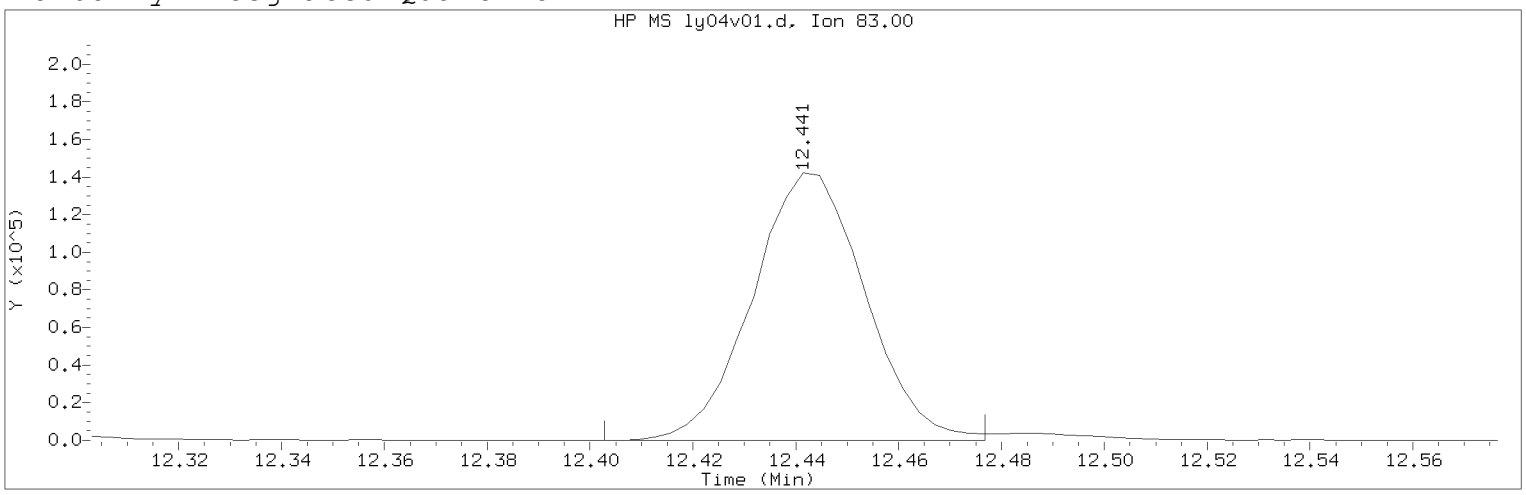
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area : 47936
On-column Amount (ng) : 514.2935
Integration start scan : 2273 Integration stop scan: 2358
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10295

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

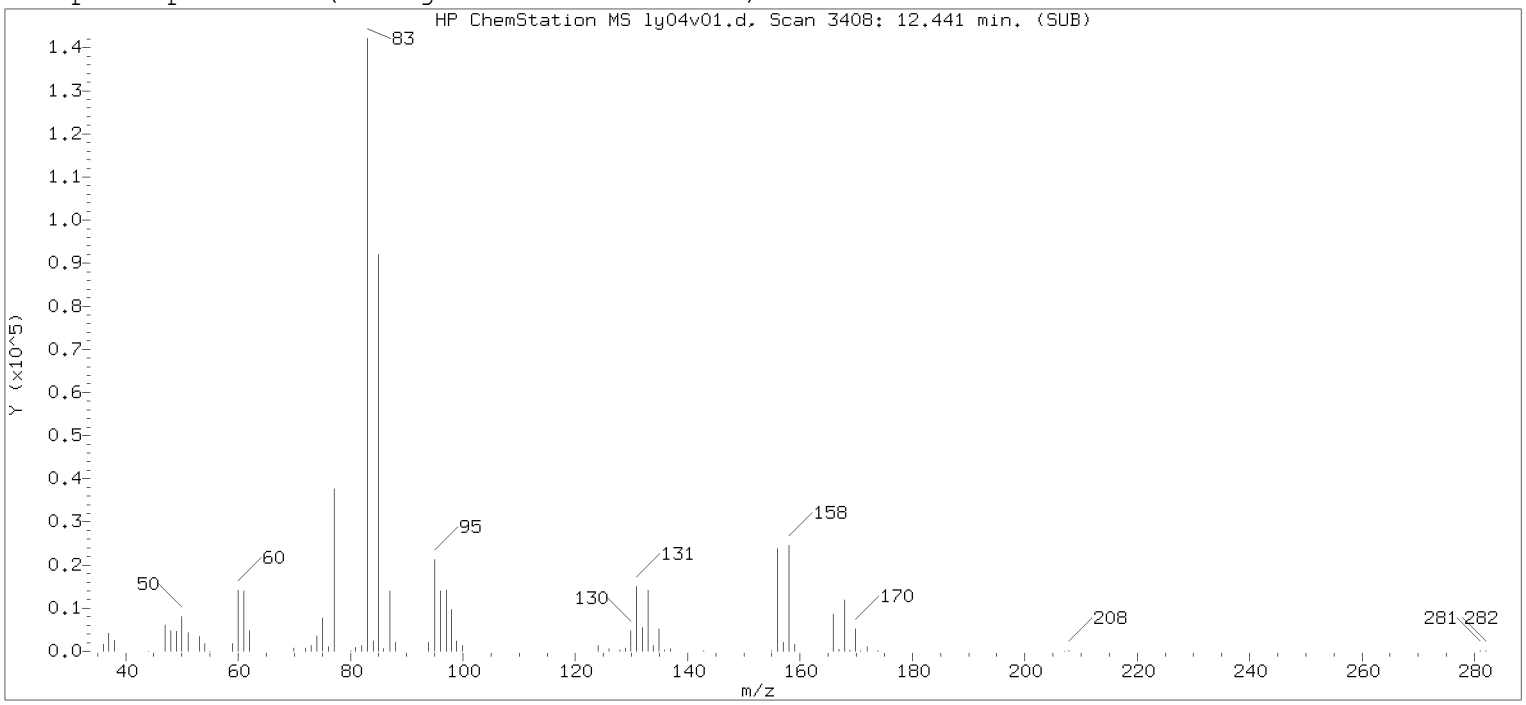
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 216158M
On-Column Amount (ng) : 19.6314
Integration start scan : 3395 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

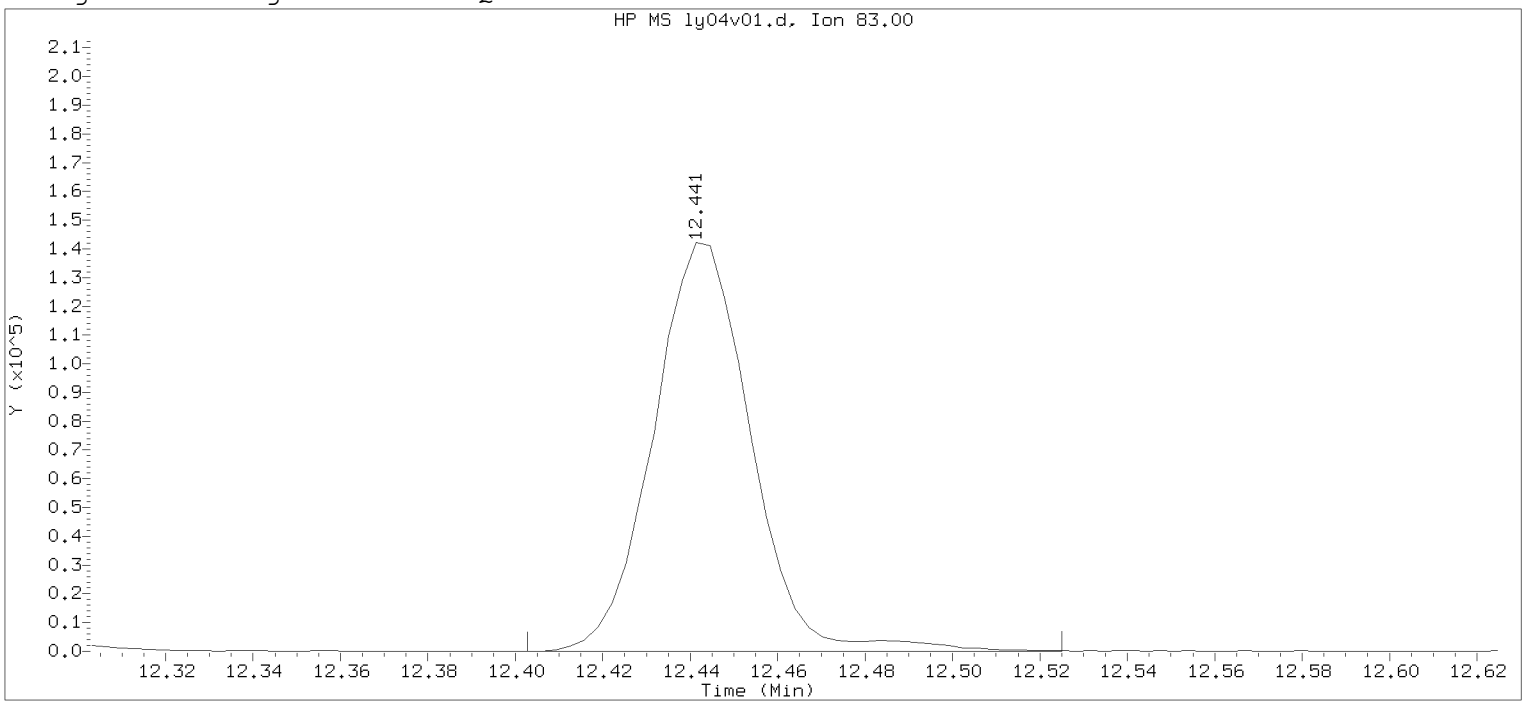
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

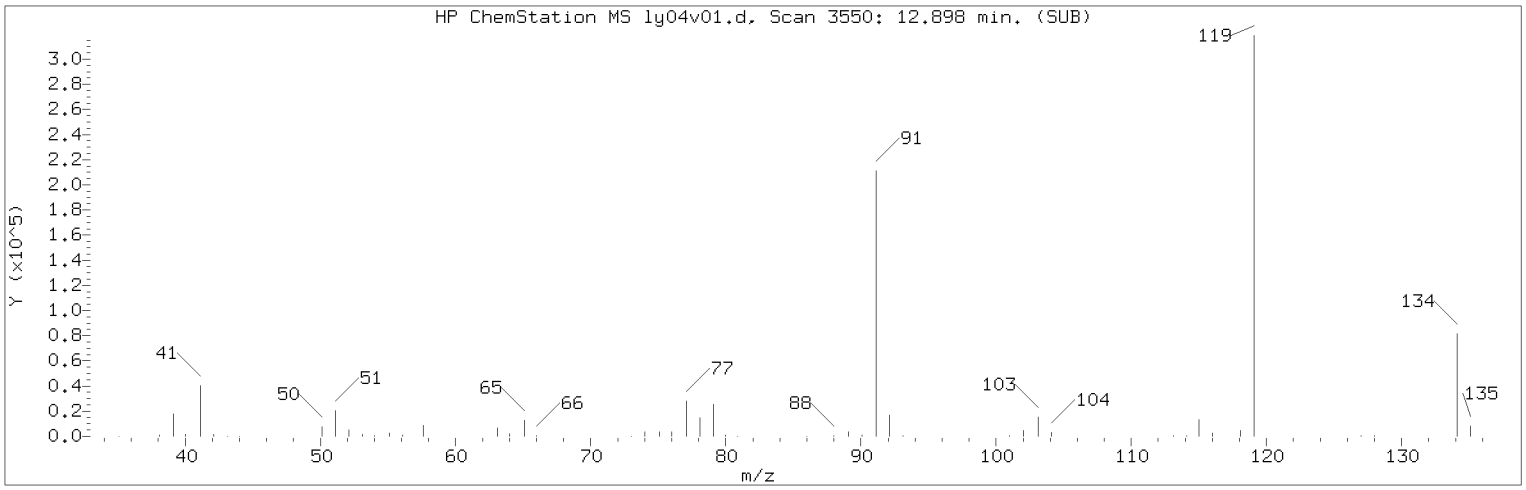
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

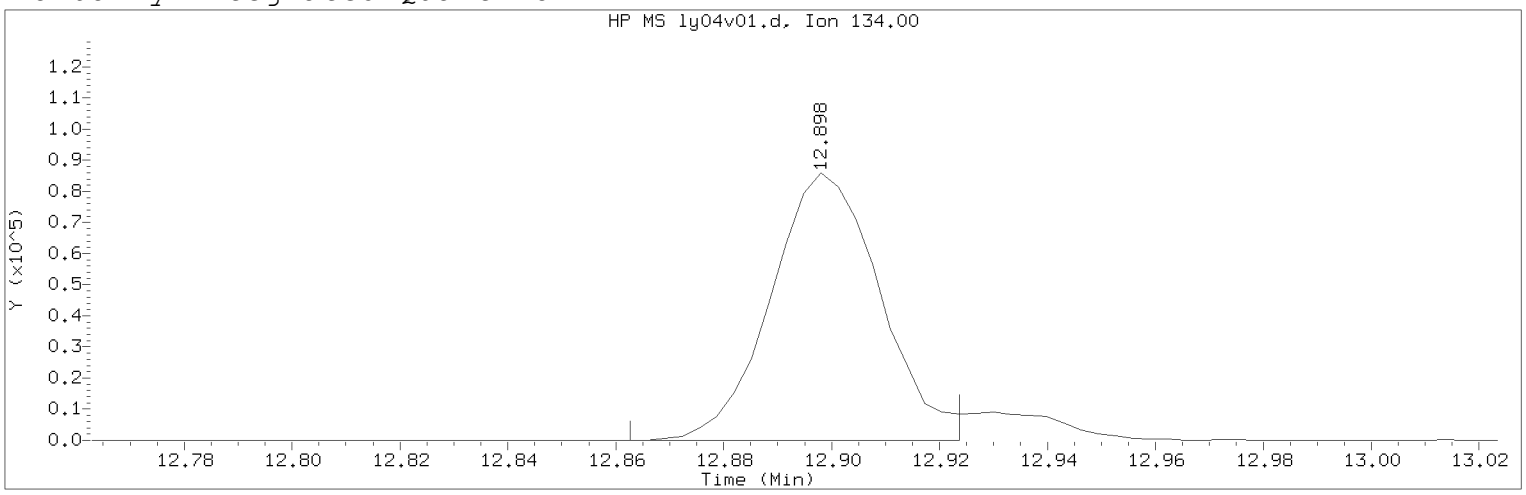
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 221202
On-column Amount (ng) : 20.1851
Integration start scan : 3395 Integration stop scan: 3433
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10293

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

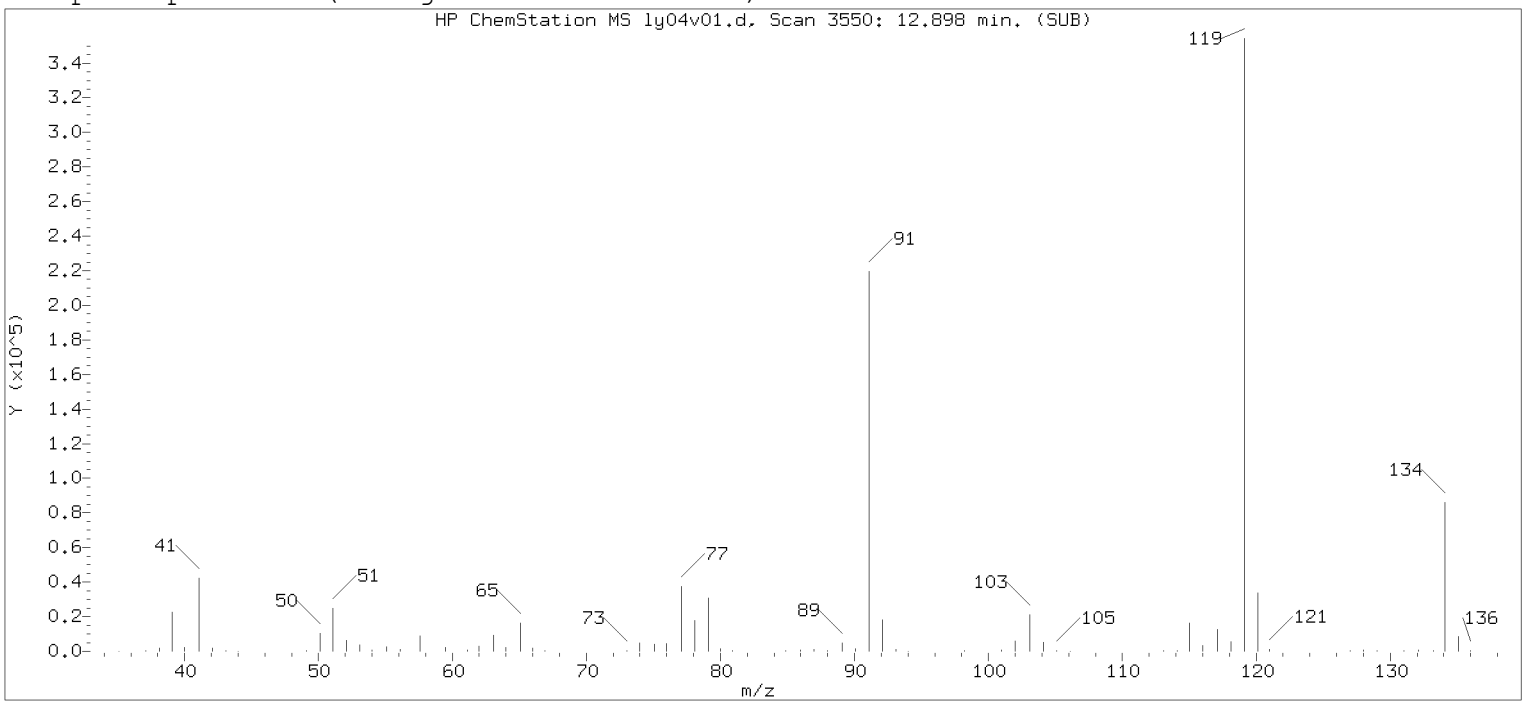
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 120476M
On-Column Amount (ng) : 21.2342
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

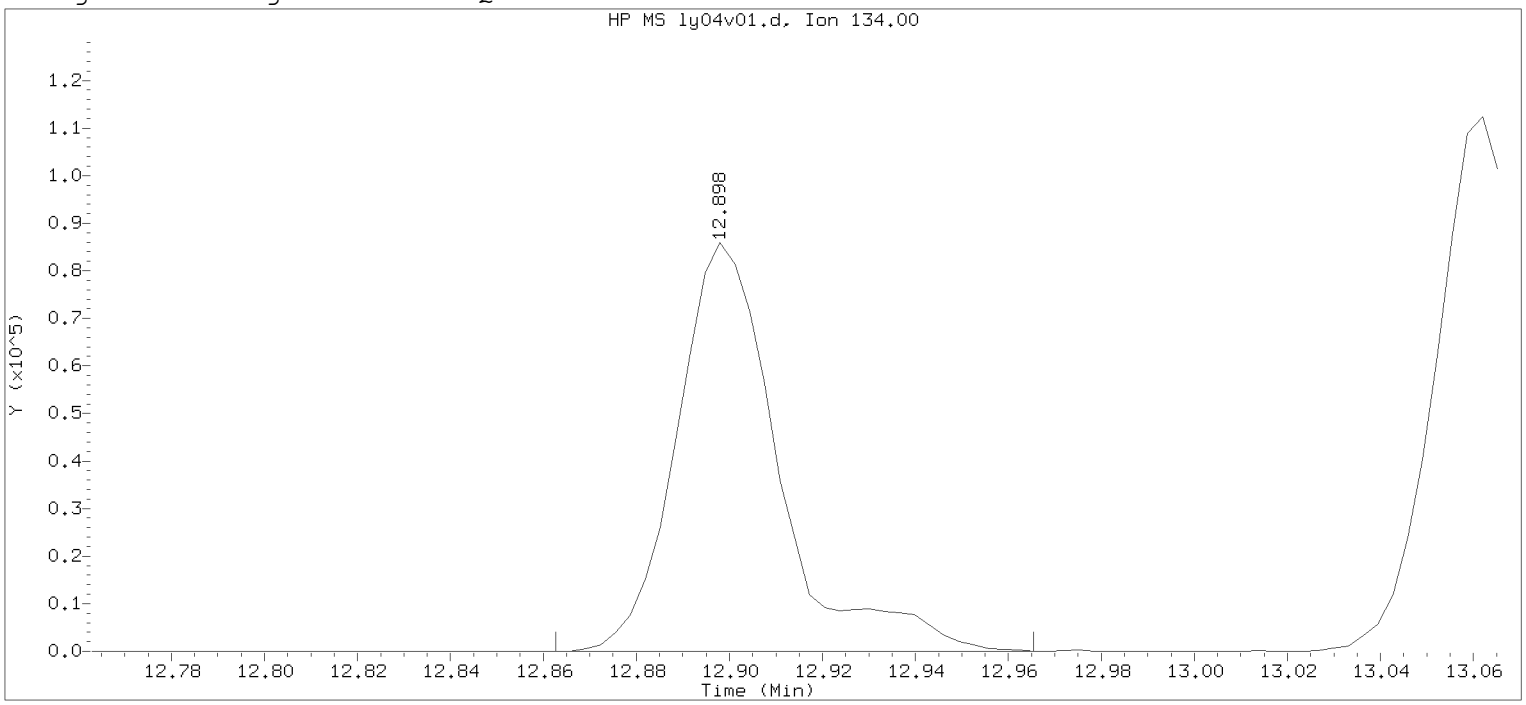
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 131138
On-column Amount (ng) : 22.6204
Integration start scan : 3538 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10209

Data File: /chem/HP09915.i/20may29a.b/ly29t02.d

Date : 29-MAY-2020 08:58

Client ID: jan28-20

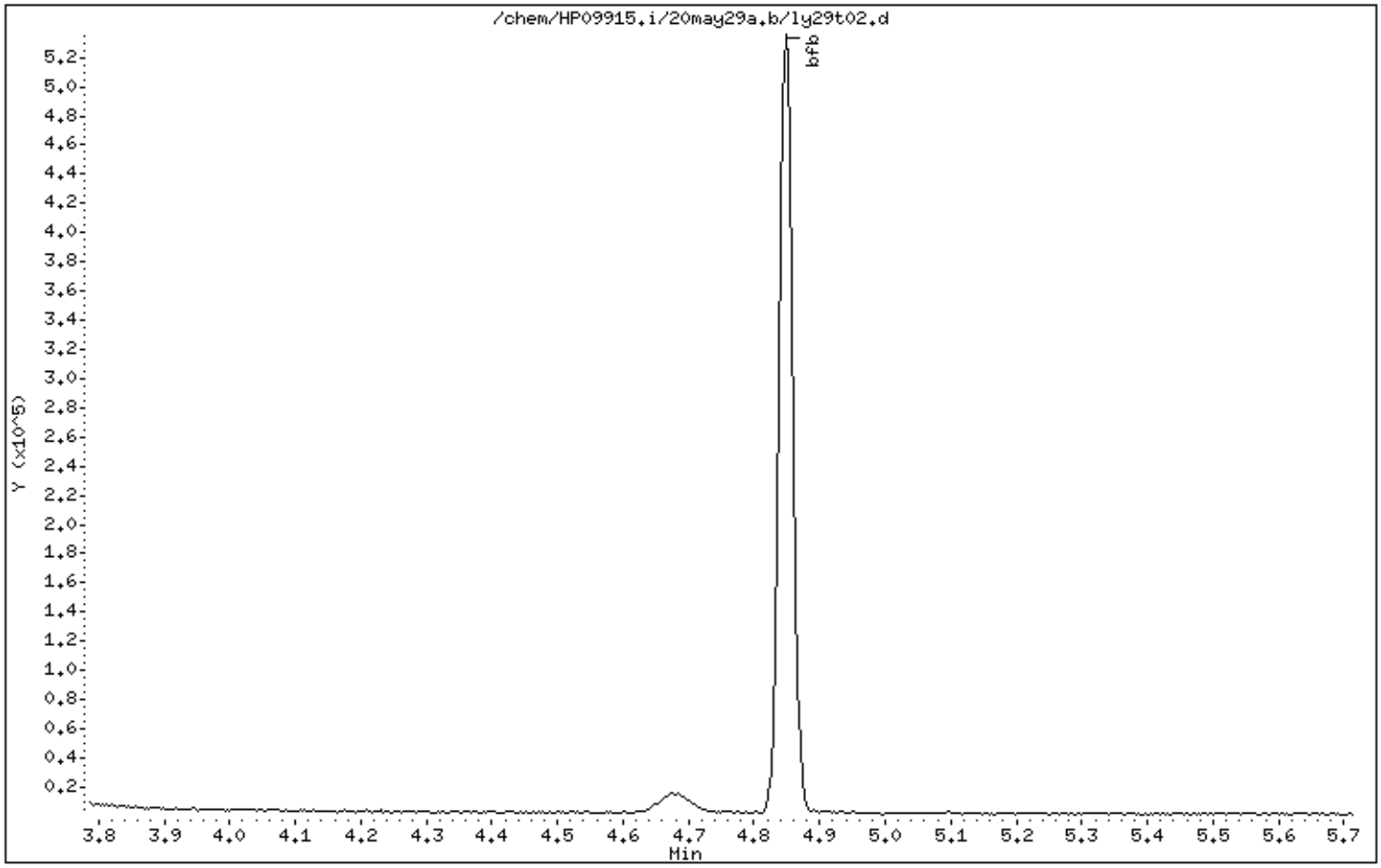
Instrument: HP09915.i

Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may29a.b/ly29t02.d

Date : 29-MAY-2020 08:58

Client ID: jan28-20

Instrument: HP09915.i

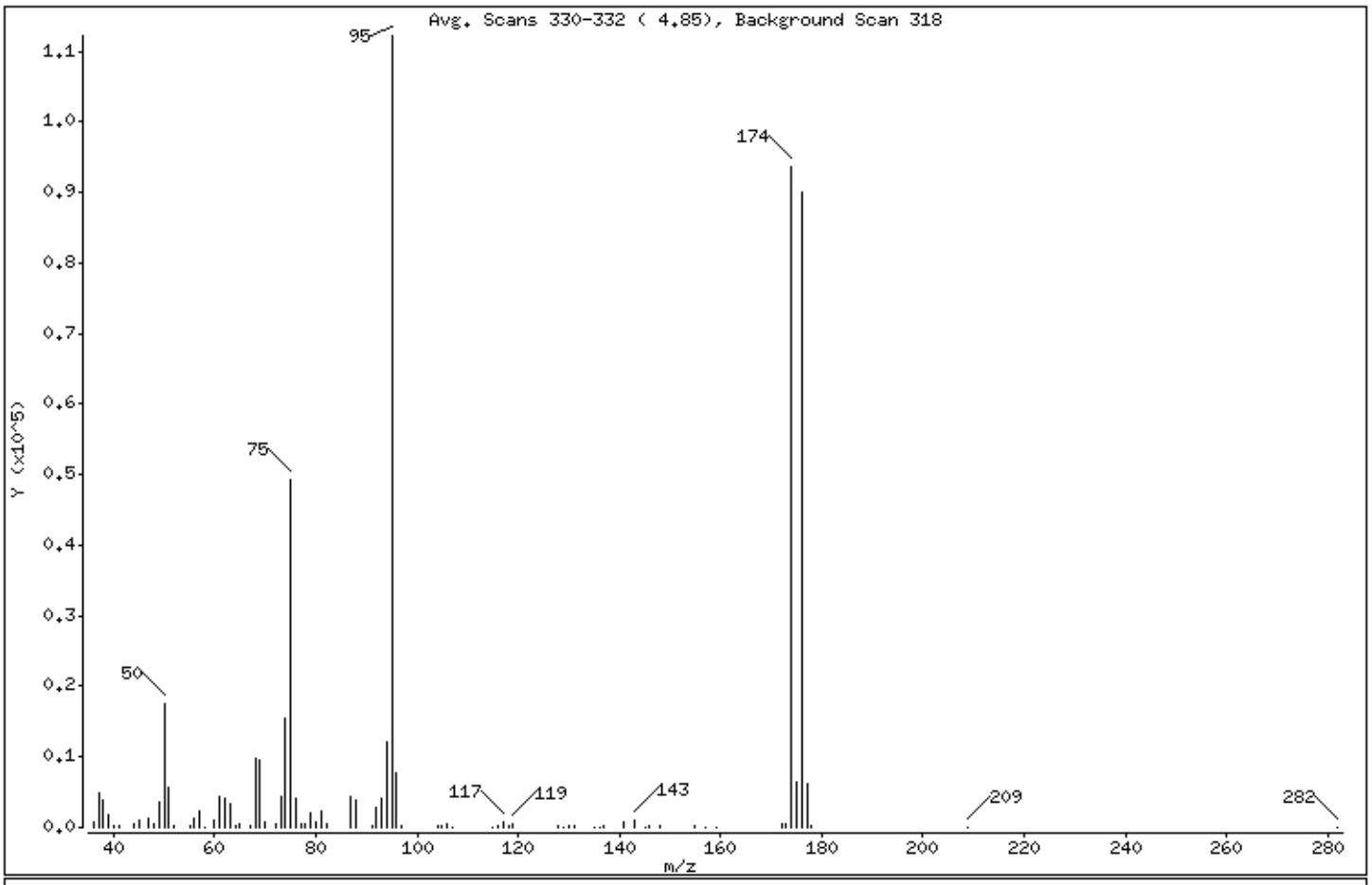
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	15.73
75	30.00 - 60.00% of mass 95	43.90
96	5.00 - 9.00% of mass 95	6.81
173	Less than 2.00% of mass 174	0.50 (0.60)
174	50.00 - 100.00% of mass 95	83.38
175	5.00 - 9.00% of mass 174	5.69 (6.82)
176	95.00 - 101.00% of mass 174	80.18 (96.17)
177	5.00 - 9.00% of mass 176	5.42 (6.76)

Date : 29-MAY-2020 08:58

Client ID: jan28-20 Instrument: HP09915.i

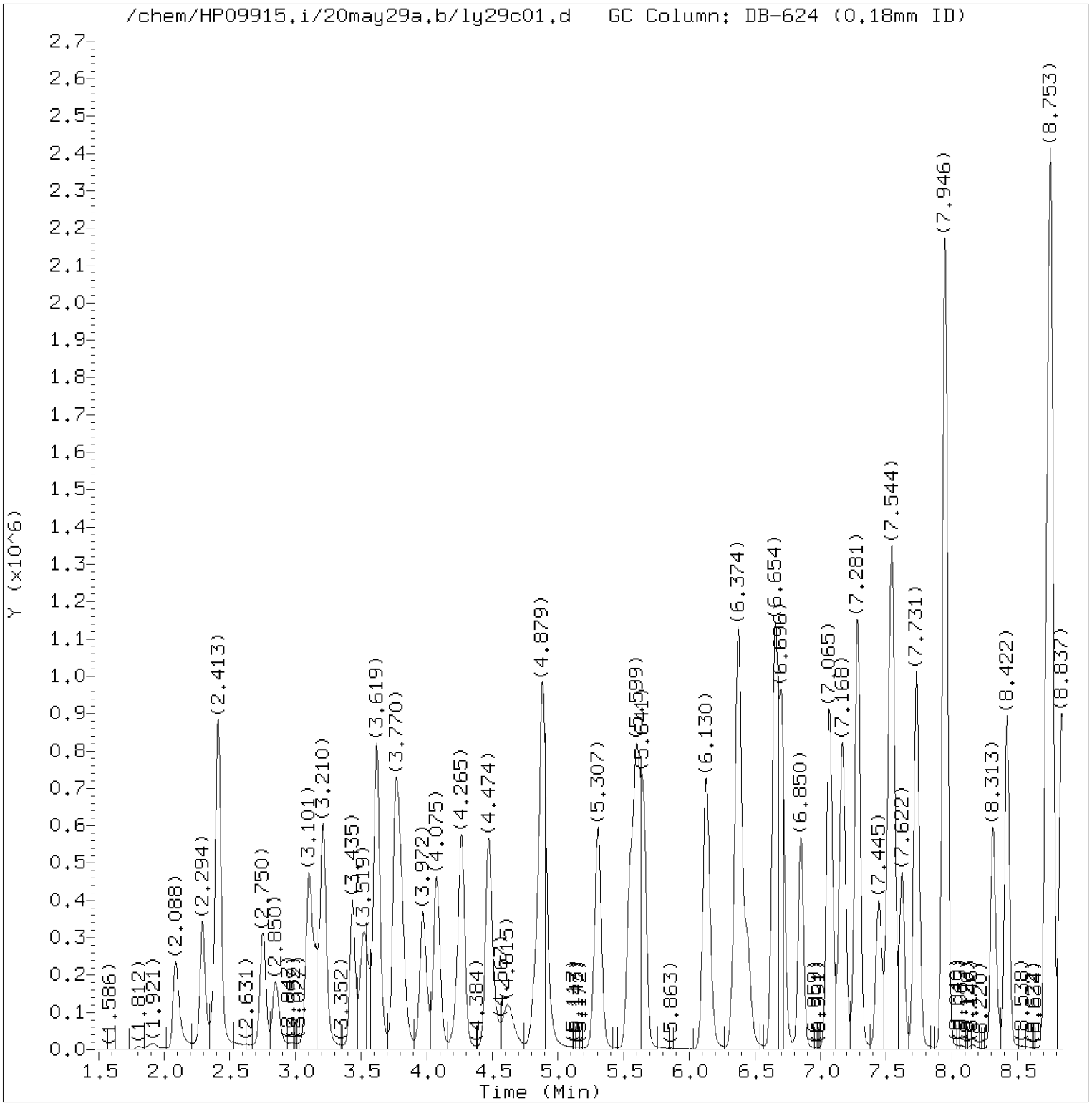
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly29t02.d
Spectrum: Avg. Scans 330-332 (4.85), Background Scan 318
Location of Maximum: 95.00
Number of points: 81

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	885	63.00	3259	92.00	2751	137.00	135
37.00	4832	64.00	363	93.00	4229	141.00	734
38.00	3864	65.00	404	94.00	12152	143.00	964
39.00	1694	67.00	274	95.00	112224	145.00	77
40.00	130	68.00	9877	96.00	7640	146.00	165
41.00	131	69.00	9617	97.00	207	148.00	173
44.00	612	70.00	775	104.00	349	155.00	259
45.00	905	72.00	548	105.00	215	157.00	127
47.00	1226	73.00	4357	106.00	391	159.00	59
48.00	457	74.00	15441	107.00	83	172.00	459
49.00	3579	75.00	49264	115.00	60	173.00	559
50.00	17648	76.00	4164	116.00	288	174.00	93568
51.00	5672	77.00	620	117.00	653	175.00	6386
52.00	279	78.00	535	118.00	273	176.00	89984
55.00	229	79.00	2143	119.00	473	177.00	6082
56.00	1279	80.00	754	128.00	271	178.00	219
57.00	2271	81.00	2381	129.00	115	209.00	117
58.00	106	82.00	526	130.00	372	282.00	65
60.00	951	87.00	4275	131.00	164		
61.00	4463	88.00	3927	135.00	54		
62.00	4152	91.00	327	136.00	52		



Total Ion Chromatogram (TIC)

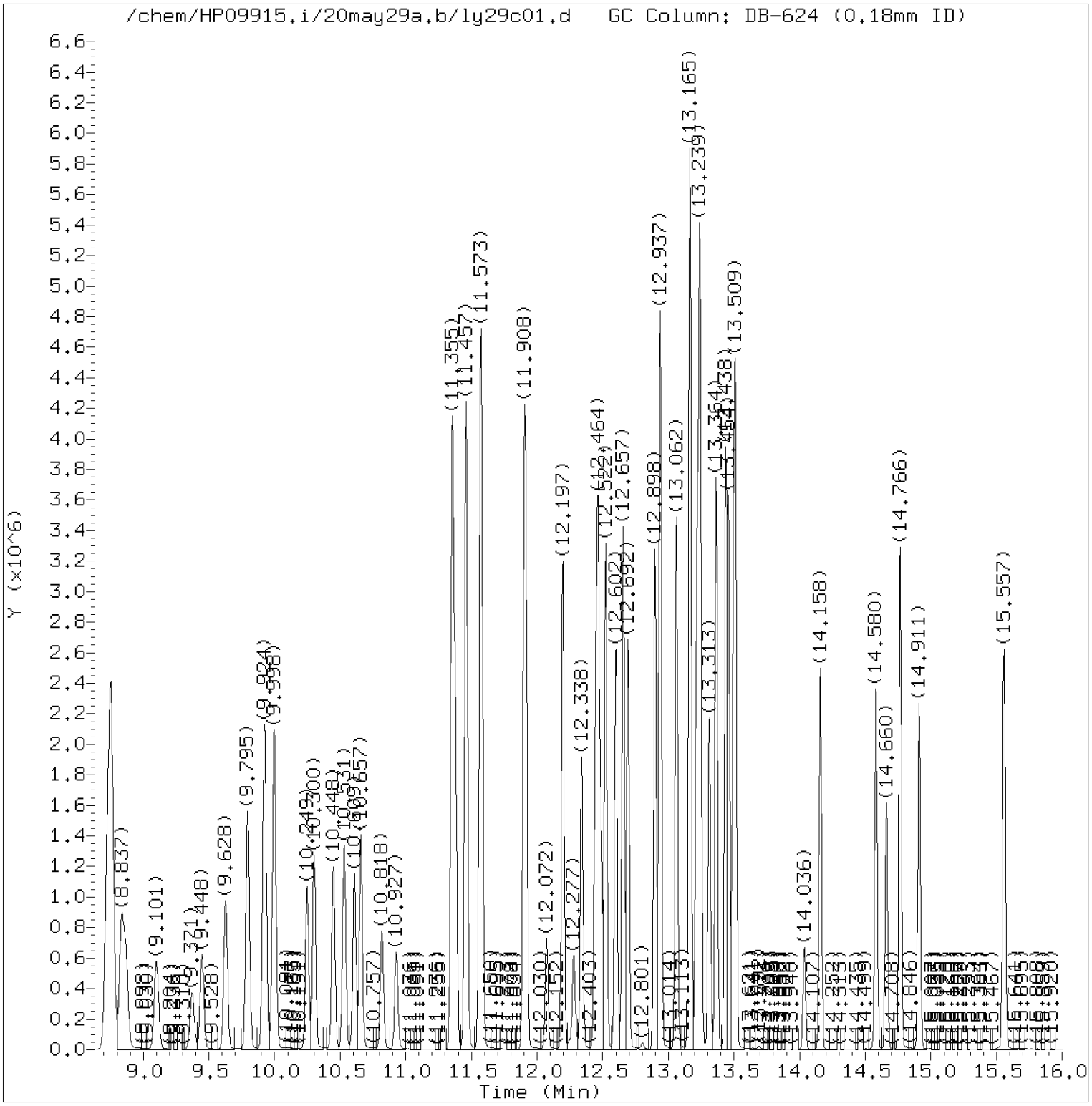
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:13.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:13.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	499199	42.974
4) Chloromethane	(2)	2.294	50	557565	51.409
5) 1,3-Butadiene	(2)	2.406	39	517342	74.356
6) Vinyl Chloride	(2)	2.413	62	522034	49.878
8) Bromomethane	(2)	2.754	94	360986	47.838
9) Chloroethane	(2)	2.847	64	296404	50.724
10) Dichlorofluoromethane	(2)	3.101	67	630756	50.042
12) Trichlorofluoromethane	(2)	3.156	101	535771	46.871
11) n-Pentane	(2)	3.210	43	629476	58.651
14) Ethyl ether	(2)	3.435	59	361767	44.790
15) Freon 123a	(2)	3.529	67	429298	46.358
16) Acrolein	(1)	3.619	56	1310636	422.095
17) 1,1-Dichloroethene	(2)	3.763	96	325848	44.700
17) 1,1-Dichloroethene	(2)	3.760	63	163239	47.018
19) Freon 113	(2)	3.795	101	335228	44.324
18) Acetone	(1)	3.802	58	119496	84.368
22) Methyl Iodide	(2)	3.972	142	649377	46.224
21) 2-Propanol	(1)	3.992	45	222992	247.024
23) Carbon Disulfide	(2)	4.075	76	1180072	48.078
27) Methyl Acetate	(2)	4.242	43	465924	50.114
25) Allyl Chloride	(2)	4.268	41	574877	48.663
28) Methylene Chloride	(2)	4.471	84	404615	46.660
29)*t-Butyl alcohol-d10	(1)	4.493	65	377436M	250.000
30) t-Butyl alcohol	(1)	4.619	59	357671	234.729
31) Acrylonitrile	(2)	4.824	53	240041	46.607
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	1145622	45.824
32) trans-1,2-Dichloroethene	(2)	4.885	96	383506	45.731
34) n-Hexane	(2)	5.307	57	572023	48.707
36) 1,1-Dichloroethane	(2)	5.548	63	695697	47.299
38) di-Isopropyl ether	(2)	5.596	45	1319405	51.004
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	576520	49.150
40) Ethyl t-butyl ether	(2)	6.130	59	1160837	48.298
43) 1,2-Dichloroethene (Total)	(2)		96	822876	92.450
44) 2-Butanone	(2)	6.348	43	591259	94.578
42) cis-1,2-Dichloroethene	(2)	6.374	96	439370	46.719
45) 2,2-Dichloropropane	(2)	6.390	77	521181	45.847
47) Propionitrile	(1)	6.445	54	515711	250.521
48) Methacrylonitrile	(2)	6.654	67	665274	128.844

M = Compound was manually integrated.
* = Compound is an internal standard.

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Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	230607	47.524
50) Tetrahydrofuran	(1)	6.708	71	161526	89.680
51) Chloroform	(2)	6.853	83	665914	46.341
52)$Dibromofluoromethane	(2)	7.065	113	413539	48.459
52)$Dibromofluoromethane	(2)	7.065	111	421116	48.274
53) 1,1,1-Trichloroethane	(2)	7.072	97	557012	45.183
54) Cyclohexane	(2)	7.168	56	671340	48.648
54) Cyclohexane	(2)	7.165	84	558789	46.388
54) Cyclohexane	(2)	7.168	69	202238	47.158
56) Carbon Tetrachloride	(2)	7.281	117	478653	46.341
55) 1,1-Dichloropropene	(2)	7.284	75	533848	47.239
58) Isobutyl Alcohol	(1)	7.442	41	318602	616.354
57)$1,2-Dichloroethane-d4	(2)	7.522	102	105928	48.918
57)$1,2-Dichloroethane-d4	(2)	7.519	65	471729	49.078
57)$1,2-Dichloroethane-d4	(2)	7.519	104	67654	49.064
60) Benzene	(2)	7.548	78	1648792	47.131
61) 1,2-Dichloroethane	(2)	7.622	62	533128	45.462
61) 1,2-Dichloroethane	(2)	7.625	98	53595	46.900
65) t-Amyl methyl ether	(2)	7.731	73	1197470	48.769
66)*Fluorobenzene	(2)	7.946	96	1693947	50.000
67) n-Heptane	(2)	7.950	43	609618	49.917
69) n-Butanol	(1)	8.313	56	542467	1287.055
71) Trichloroethene	(2)	8.422	95	408350	46.127
72) Methylcyclohexane	(2)	8.728	83	677583	47.072
72) Methylcyclohexane	(2)	8.731	98	301701	46.338
73) 1,2-Dichloropropane	(2)	8.760	63	446191	49.502
76) Methyl Methacrylate	(2)	8.834	69	404865	52.239
75) 1,4-Dioxane	(1)	8.850	88	83935M	662.476
74) Dibromomethane	(2)	8.866	93	287757	48.815
78) Bromodichloromethane	(2)	9.101	83	508735	48.139
79) 2-Nitropropane	(2)	9.371	41	294243	92.861
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	332123	55.337
81) cis-1,3-Dichloropropene	(2)	9.628	75	692371	50.131
82) 4-Methyl-2-pentanone	(2)	9.795	43	1231458	97.271
83)$Toluene-d8	(3)	9.924	98	1691185	50.984
83)$Toluene-d8	(3)	9.924	100	1097727	50.993
88) Toluene	(3)	9.998	92	1039268	49.155
90) 1,3-Dichloropropene (total)	(3)		100	1326395	102.396

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Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	634024	52.265
91) Ethyl Methacrylate	(3)	10.303	69	693599	56.823
92) 1,1,2-Trichloroethane	(3)	10.448	97	413812	50.440
93) Tetrachloroethene	(3)	10.531	166	431409	47.879
94) 1,3-Dichloropropane	(3)	10.609	76	706904	51.525
96) 2-Hexanone	(3)	10.657	43	896467	101.119
97) Dibromochloromethane	(3)	10.818	129	438575	51.392
99) 1,2-Dibromoethane	(3)	10.927	107	446603	50.652
100)*Chlorobenzene-d5	(3)	11.351	117	1291203	50.000
101) 1-Chlorohexane	(3)	11.355	91	544148	50.291
102) Chlorobenzene	(3)	11.377	112	1182925	48.721
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	413712	50.263
104) Ethylbenzene	(3)	11.461	91	1991105	50.877
106) m+p-Xylene	(3)	11.573	106	1579795	102.737
108) Xylene (Total)	(3)		106	2351468	154.631
107) o-Xylene	(3)	11.901	106	771673	51.894
109) Styrene	(3)	11.914	104	1314616	54.360
110) Bromoform	(3)	12.072	173	326582	52.567
111) Isopropylbenzene	(3)	12.197	105	1976346	52.375
112) Cyclohexanone	(1)	12.281	55	259869	551.023
114)$4-Bromofluorobenzene	(3)	12.338	95	624792	48.953
114)$4-Bromofluorobenzene	(3)	12.342	174	519873	47.510
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	690242	53.822
115) Bromobenzene	(4)	12.457	156	521532	50.664
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	350009	93.822
117) 1,2,3-Trichloropropane	(4)	12.486	110	205989	52.592
119) n-Propylbenzene	(4)	12.522	91	2336089	52.508
120) 2-Chlorotoluene	(4)	12.602	126	488488	51.393
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1720335	53.514
121) 4-Chlorotoluene	(4)	12.692	126	510618	51.759
124) tert-Butylbenzene	(4)	12.898	134	356920M	54.012
125) Pentachloroethane	(4)	12.933	167	311495	53.076
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1812232	54.522
127) sec-Butylbenzene	(4)	13.062	105	2137164	54.601
129) 1,3-Dichlorobenzene	(4)	13.162	146	990290	51.625
130) p-Isopropyltoluene	(4)	13.165	119	1867987	55.697
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	703456	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	1017663	50.549

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Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	1813314	52.506
135) Benzyl Chloride	(4)	13.313	91	1418727	54.293
136) 1,3-Diethylbenzene	(4)	13.364	119	1136561	52.595
141) Diethylbenzene (total)	(4)		100	3288691	157.390
137) 1,4-Diethylbenzene	(4)	13.435	119	1187212	52.487
139) n-Butylbenzene	(4)	13.457	92	927327	53.816
138) 1,2-Dichlorobenzene	(4)	13.496	146	981046	50.812
140) 1,2-Diethylbenzene	(4)	13.512	119	964918	52.308
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	148645	52.367
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	720214	49.518
146) 1,2,4-Trichlorobenzene	(4)	14.580	180	674556	49.629
147) Hexachlorobutadiene	(4)	14.663	225	273753	43.659
148) Naphthalene	(4)	14.766	128	2362155	53.689
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	670618	49.653
150) 2-Methylnaphthalene	(4)	15.557	142	1289806	42.192

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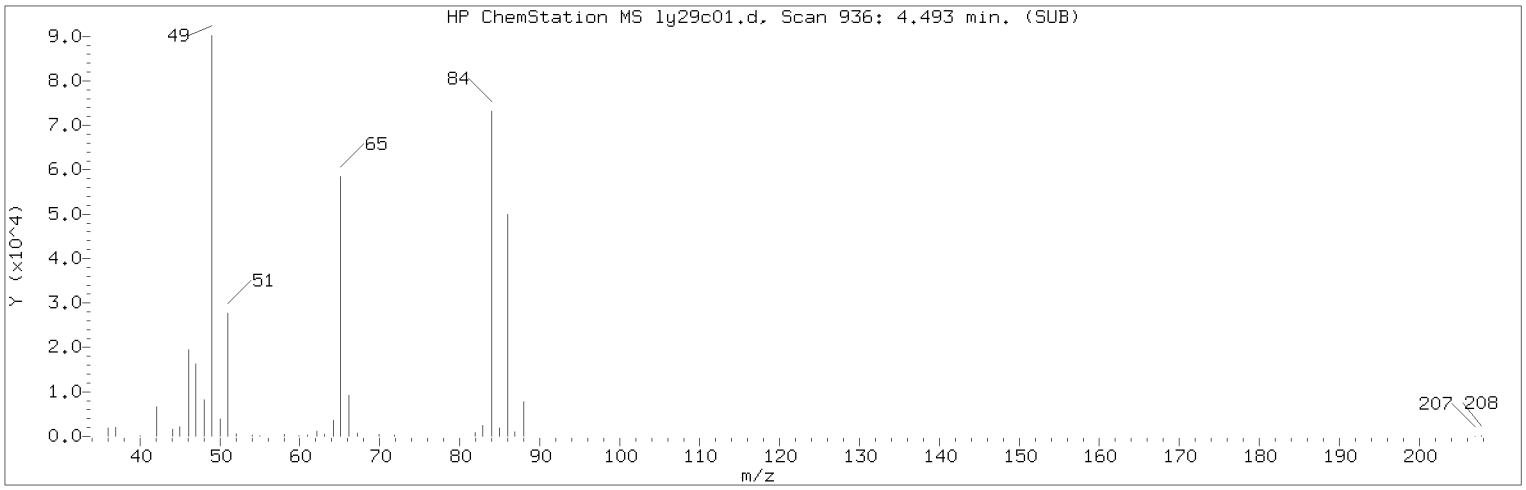
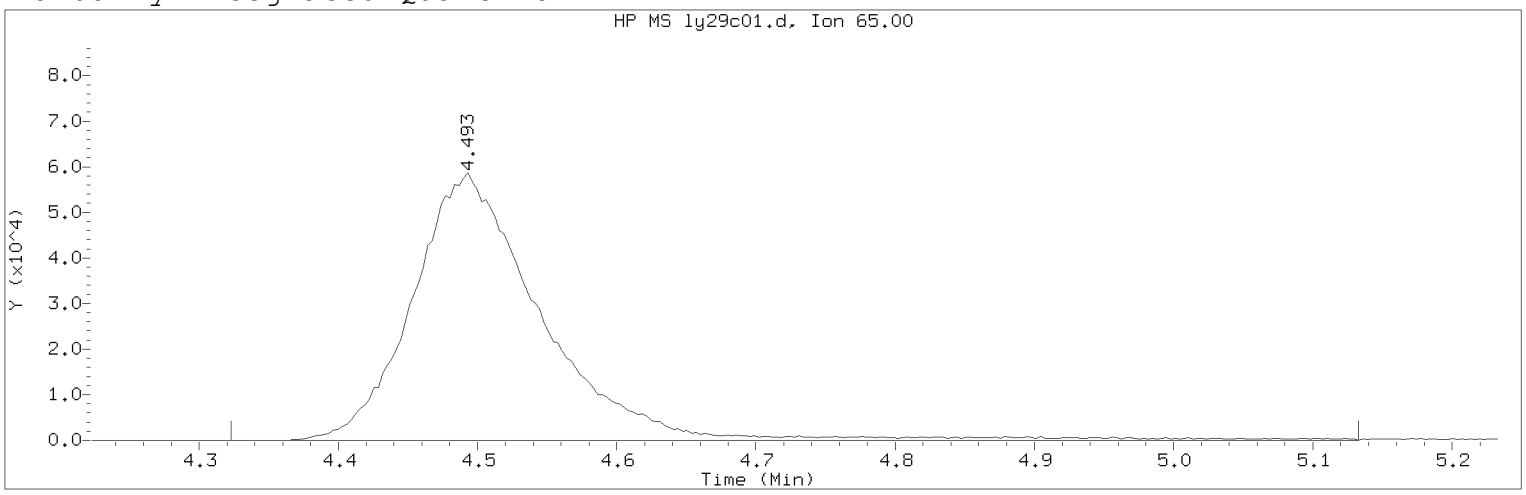
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

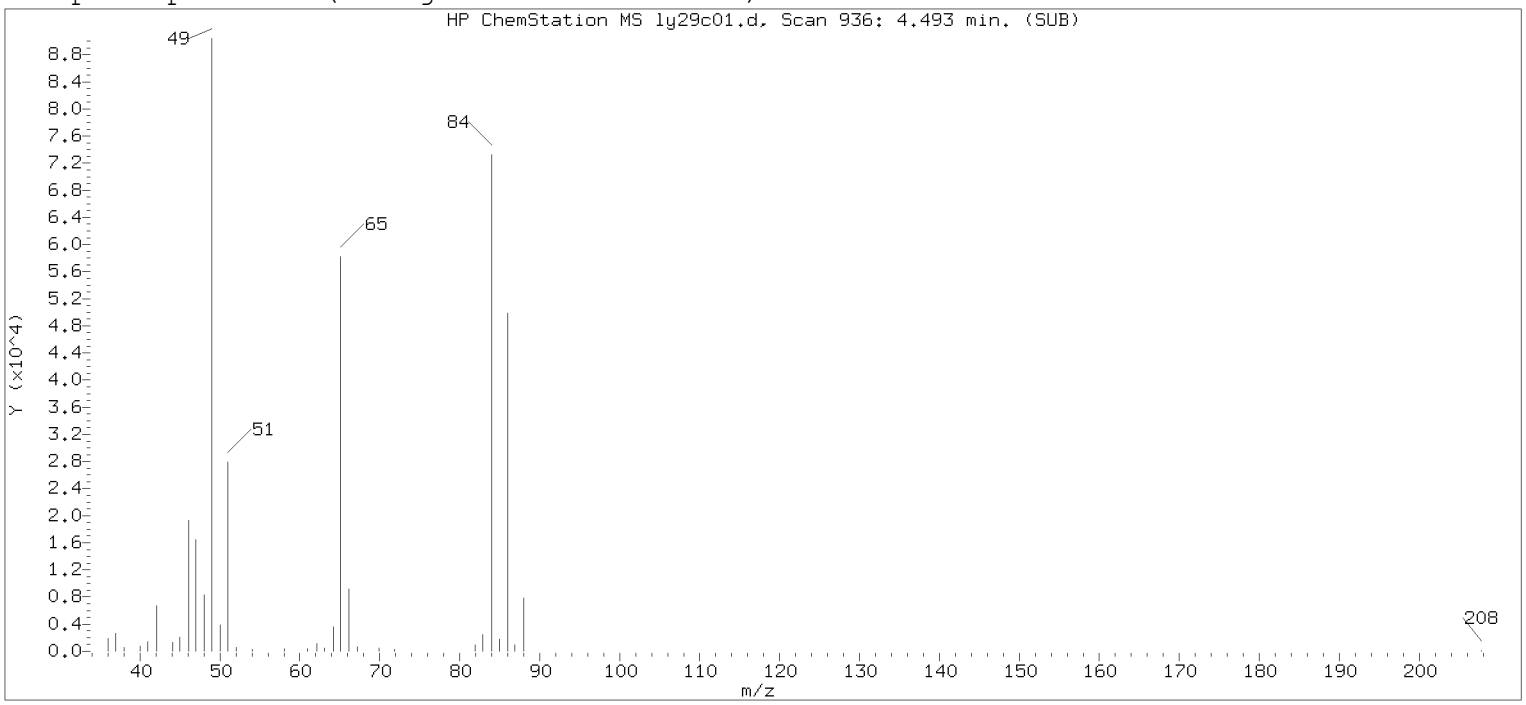
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 936
Retention Time (minutes): 4.493
Quant Ion : 65.00
Area (flag) : 377436M
On-Column Amount (ng) : 250.0000
Integration start scan : 882 Integration stop scan: 1134
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

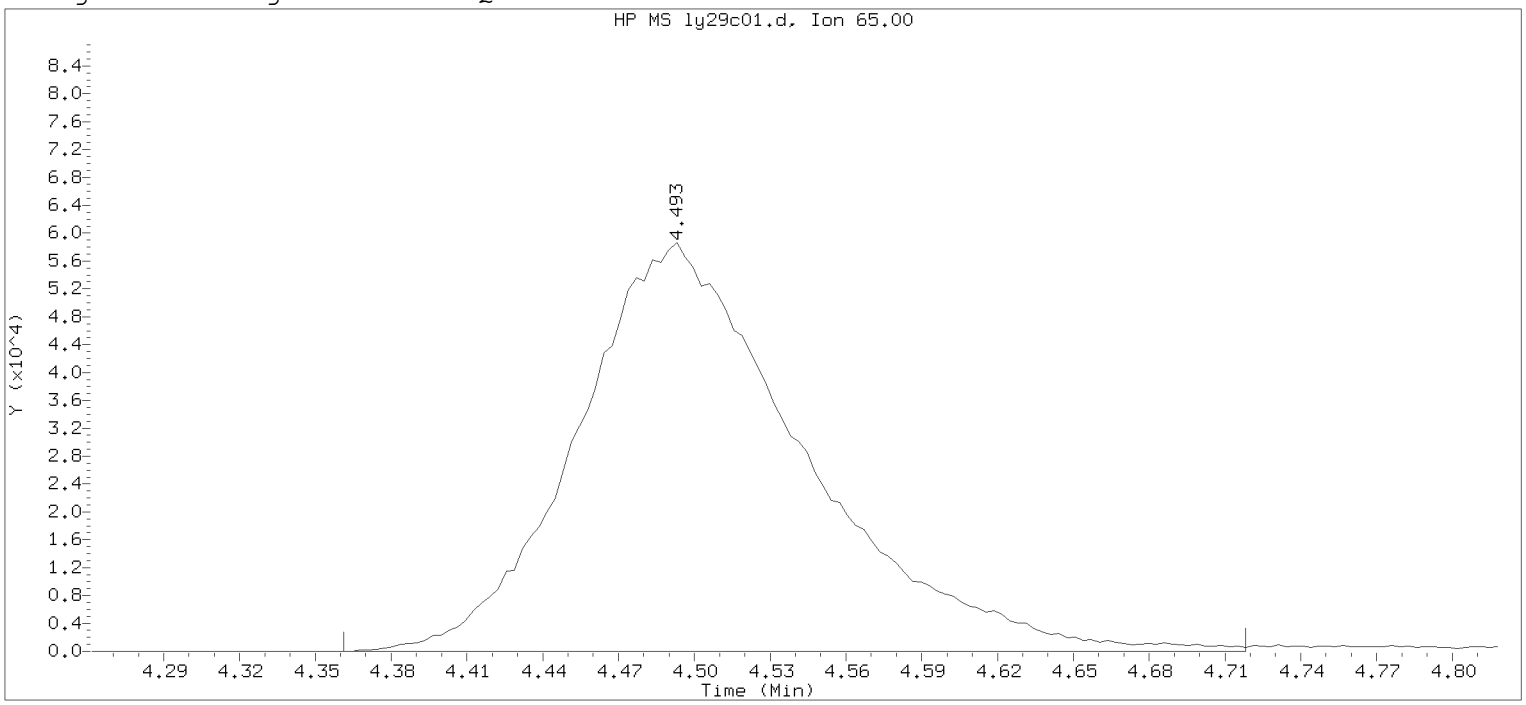
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:13.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

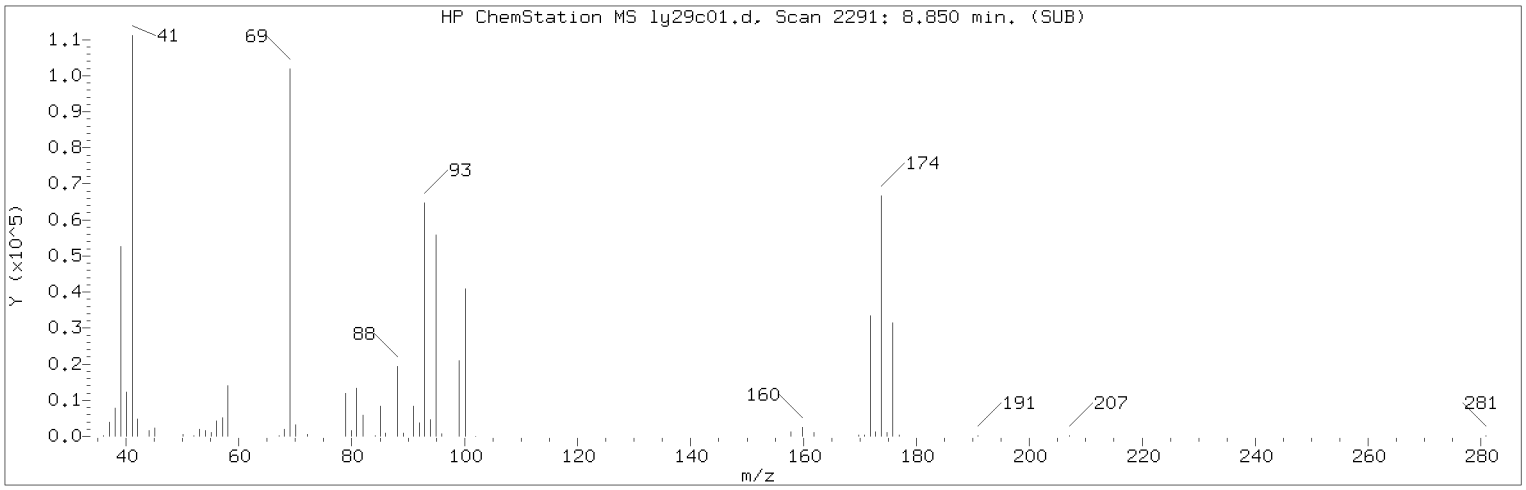
Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:07
Date, time and analyst ID of latest file update: 29-May-2020 10:07 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

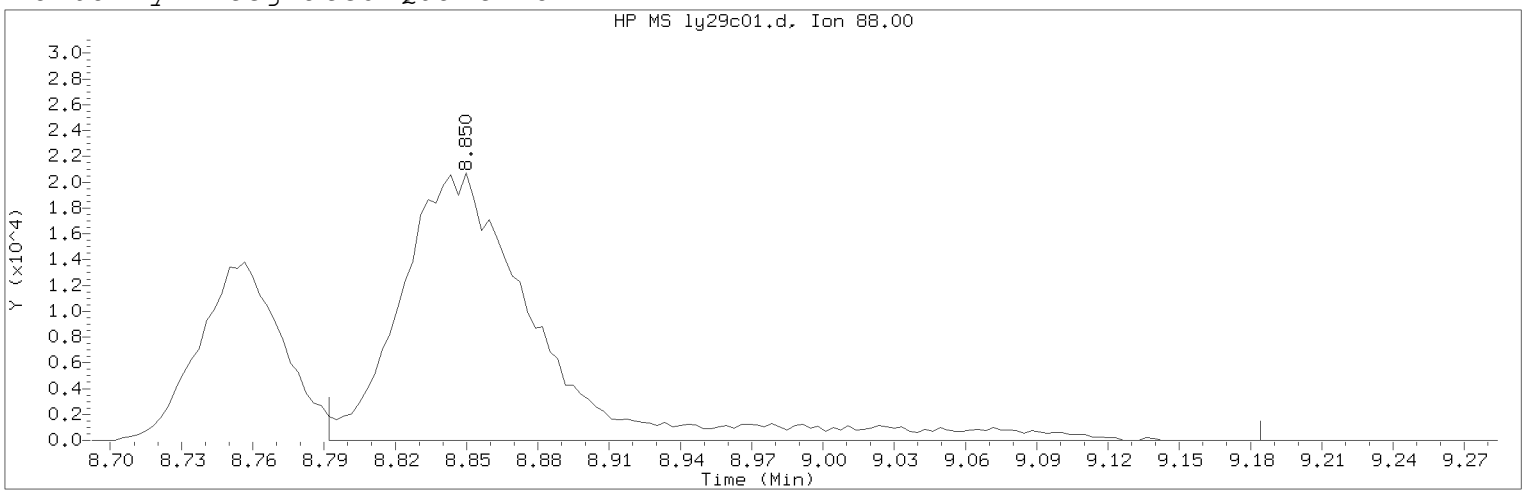
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 936
Retention Time (minutes): 4.493
Quant Ion : 65.00
Area : 364886
On-column Amount (ng) : 250.0000
Integration start scan : 894 Integration stop scan: 1005
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:13.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
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Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

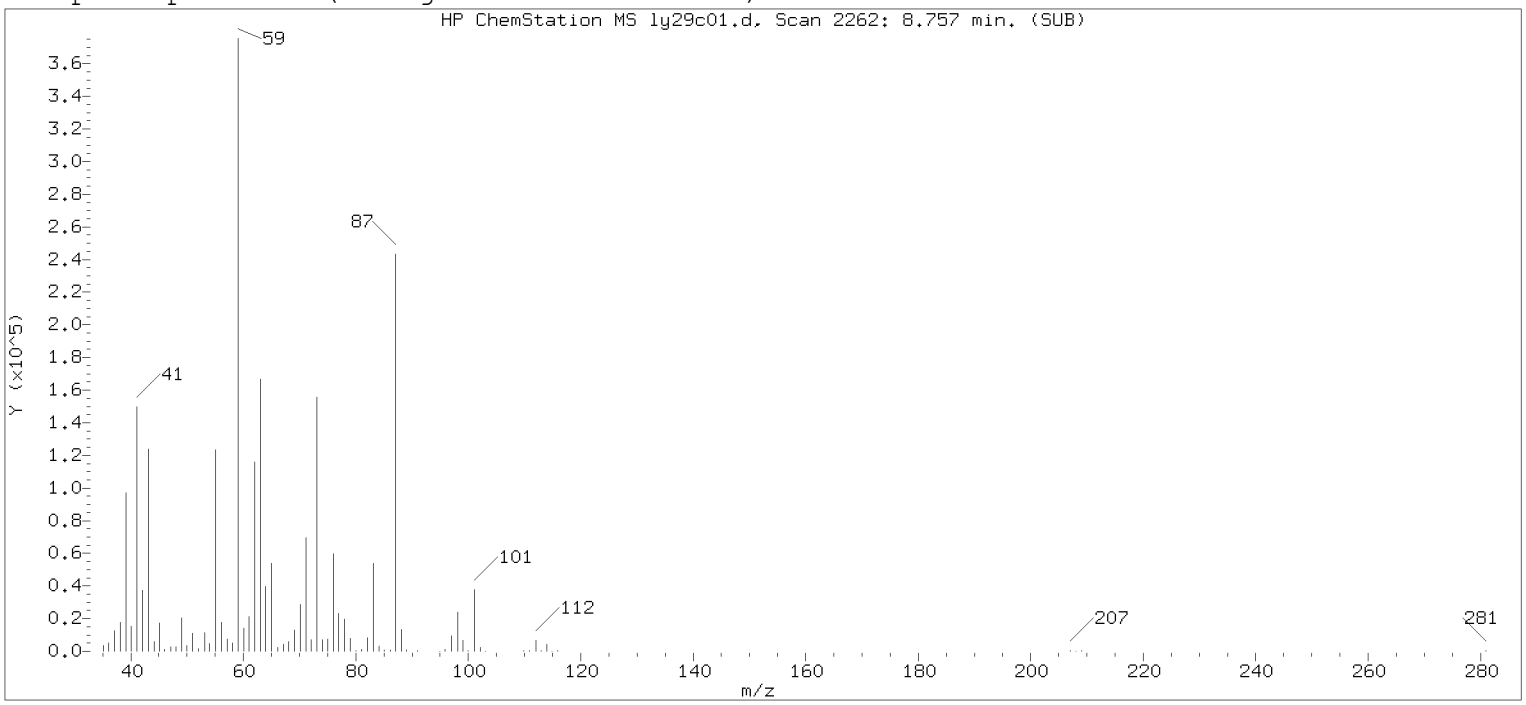
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area (flag) : 83935M
On-Column Amount (ng) : 662.4764
Integration start scan : 2272 Integration stop scan: 2394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

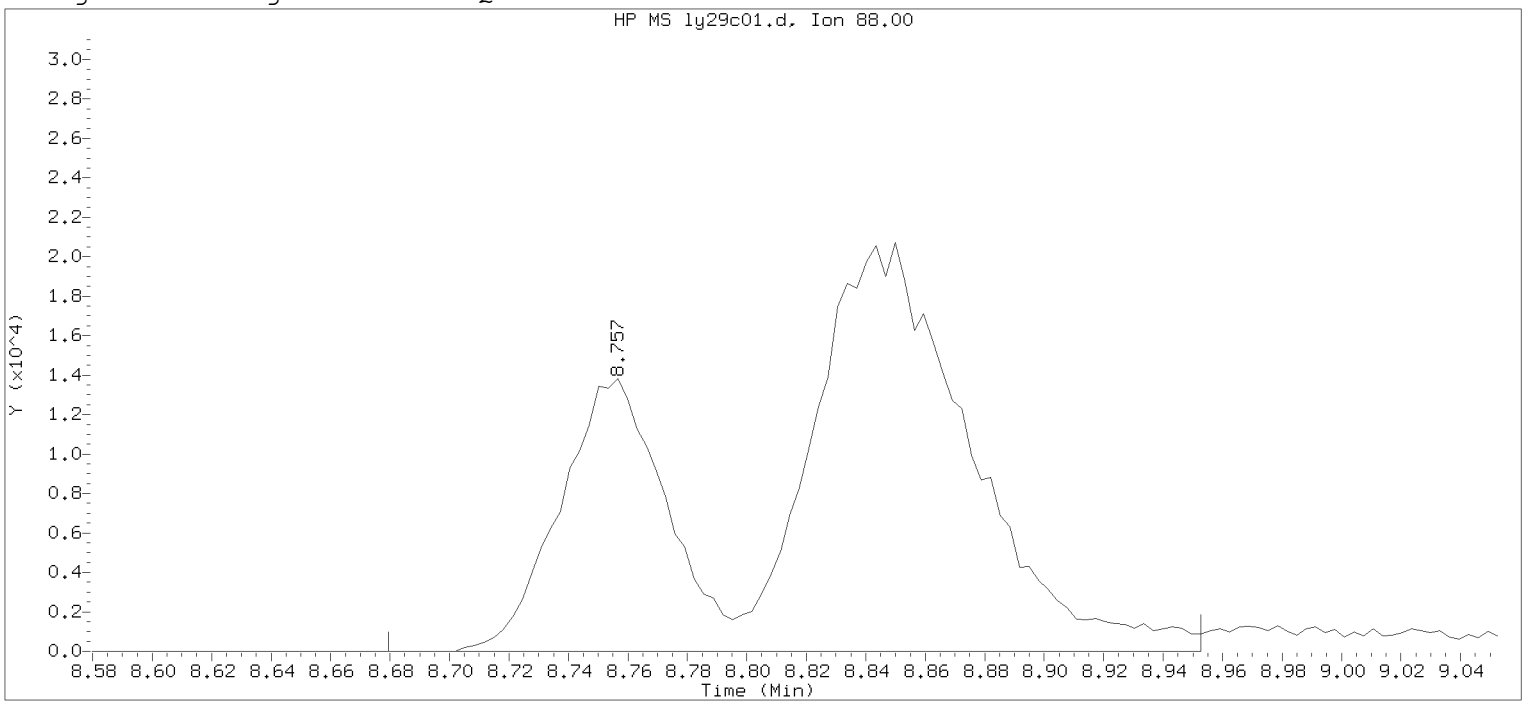
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:13.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
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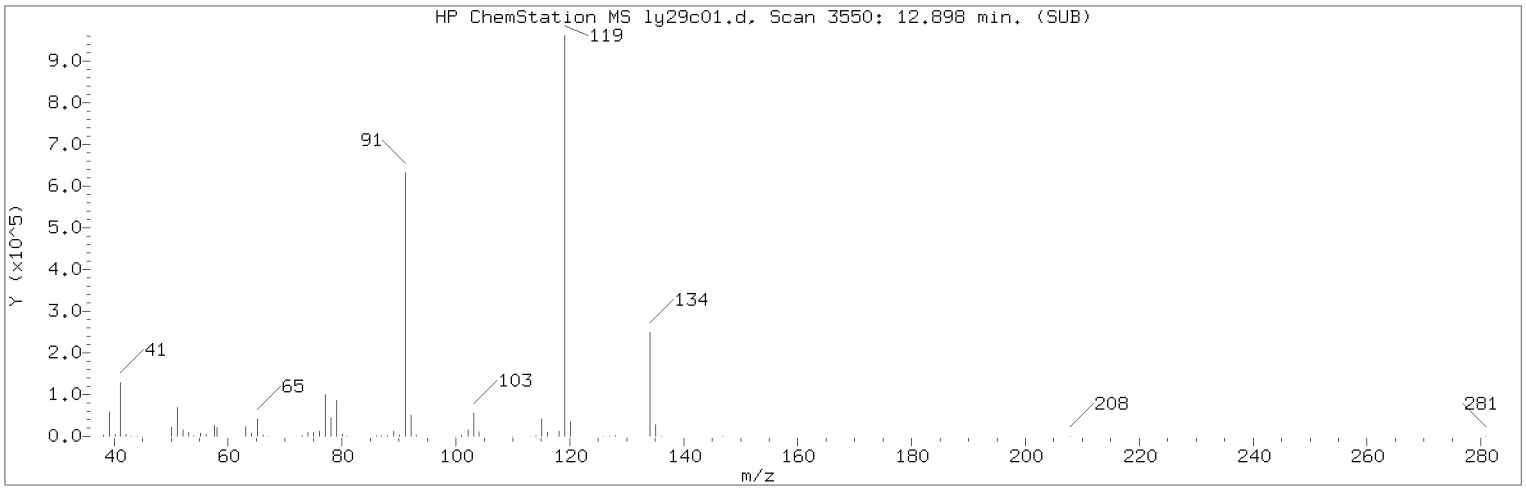
Calibration date and time: 29-MAY-2020 10:07
Date, time and analyst ID of latest file update: 29-May-2020 10:07 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

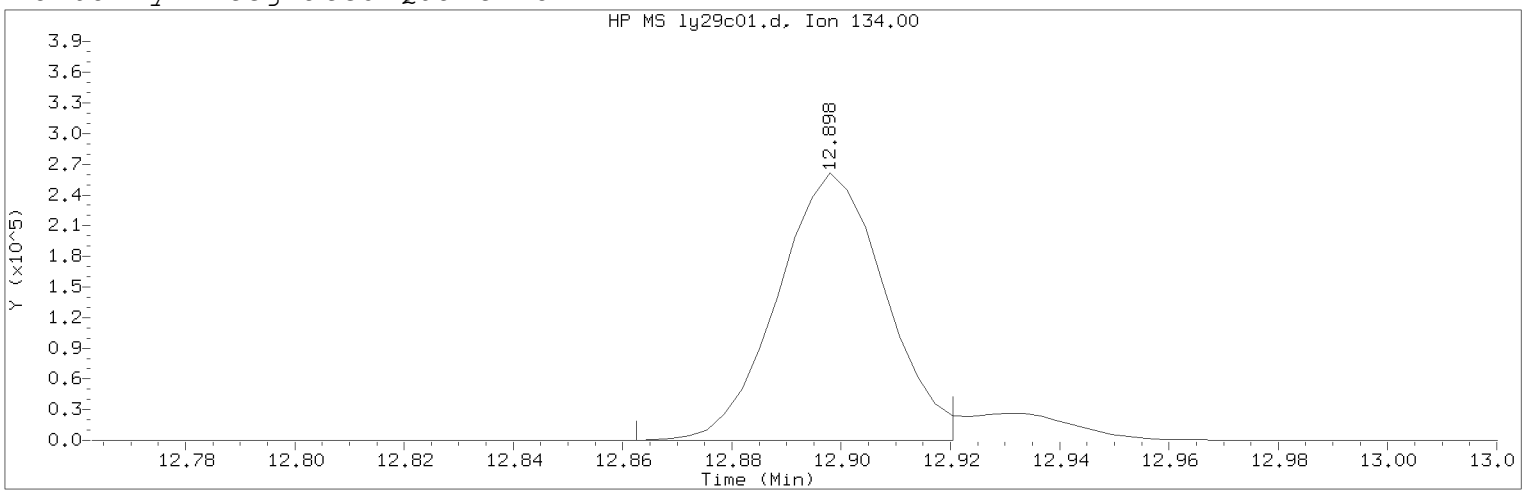
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 2262		
Retention Time (minutes)	: 8.757		
Quant Ion	: 88.00		
Area	: 108766		
On-column Amount (ng)	: 887.9872		
Integration start scan	: 2237	Integration stop scan:	2322
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:13.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Calibration date and time: 29-MAY-2020 10:12
Date, time and analyst ID of latest file update: 29-May-2020 10:12 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

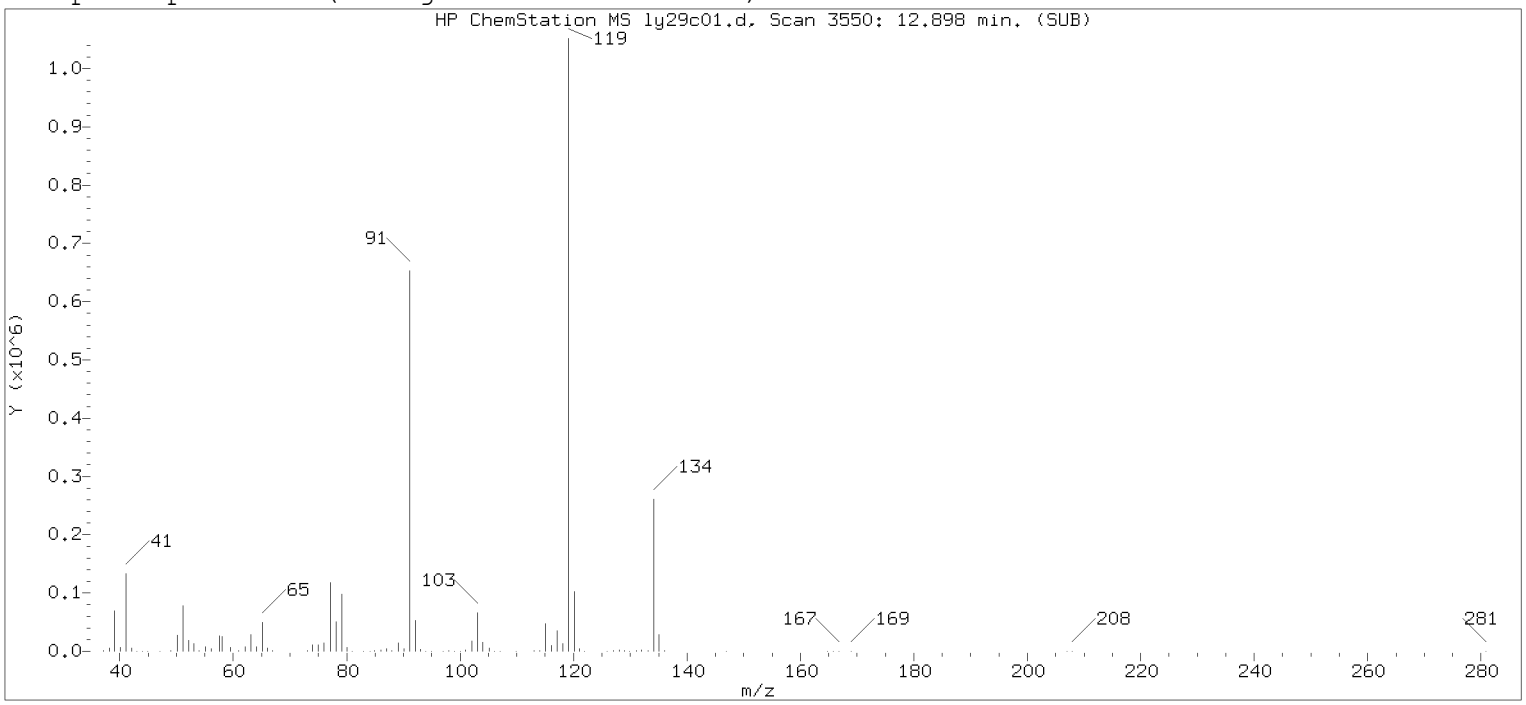
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 356920M
On-Column Amount (ng) : 54.0118
Integration start scan : 3538 Integration stop scan: 3556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

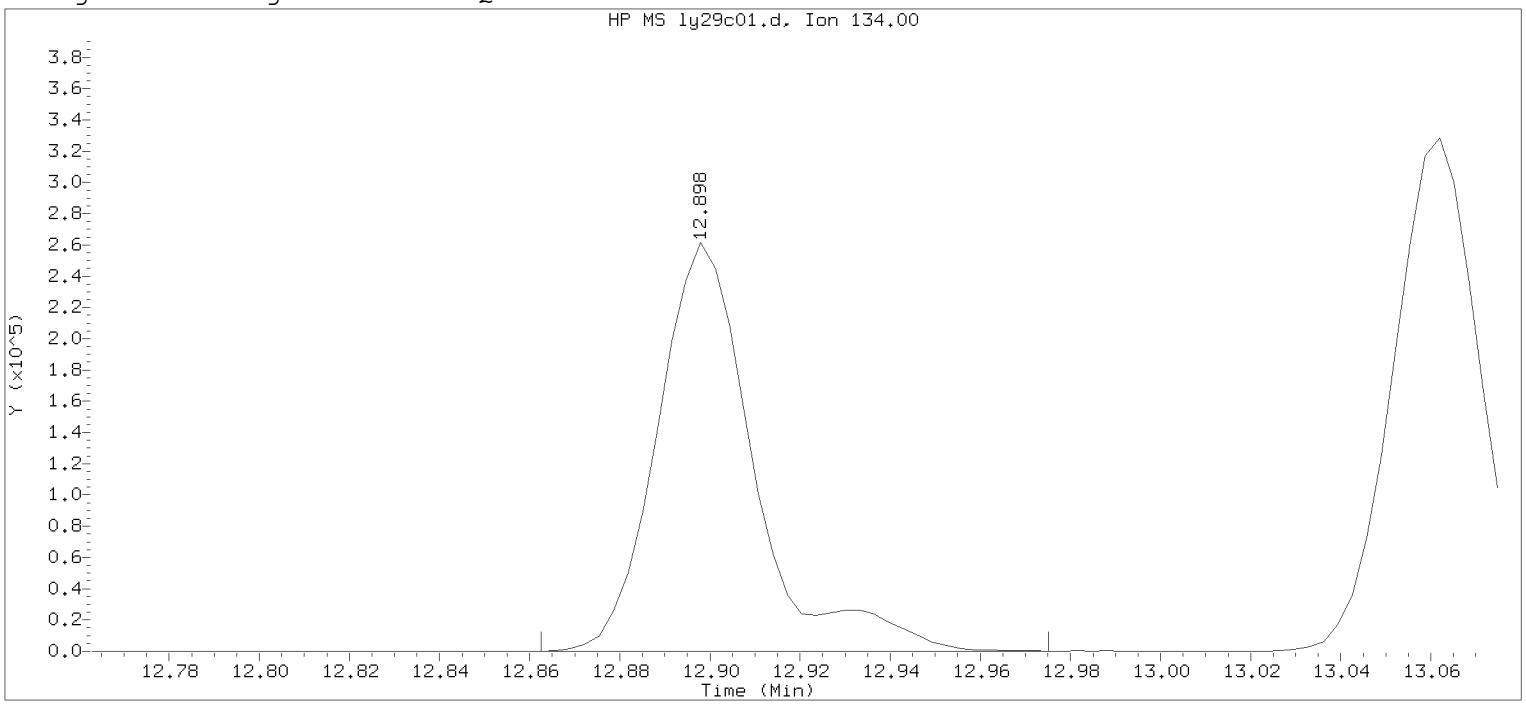
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:13.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29c01.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 09:50 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:07
Date, time and analyst ID of latest file update: 29-May-2020 10:07 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 391882
On-column Amount (ng) : 59.3025
Integration start scan : 3538 Integration stop scan: 3573
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:13.
Target 3.5 esignature user: CLM27445

Data File: /chem/HP09915.i/20may31a.b/ly31t01.d

Date : 31-MAY-2020 10:45

Client ID: JAN28-2020

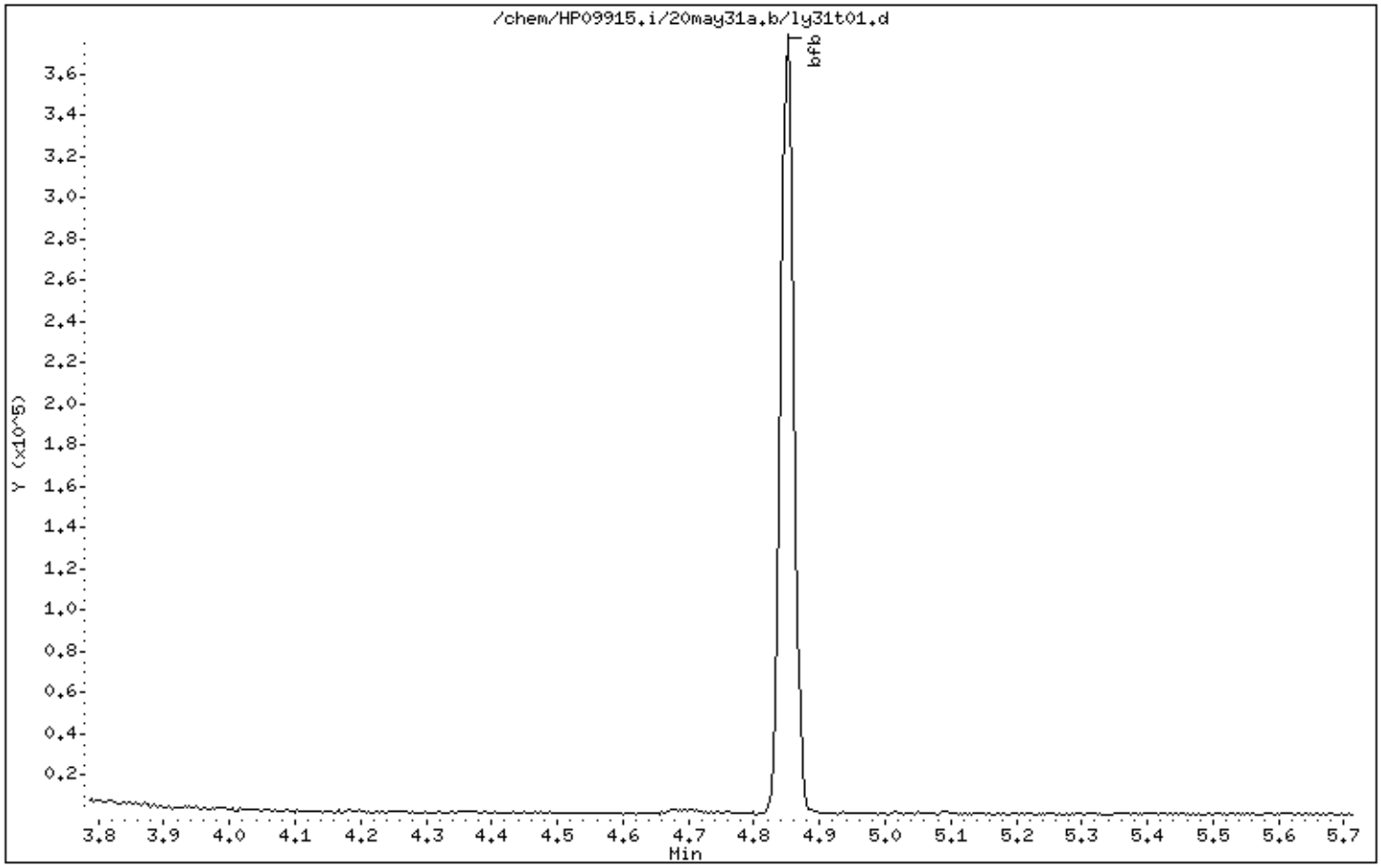
Instrument: HP09915.i

Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may31a.b/ly31t01.d

Date : 31-MAY-2020 10:45

Client ID: JAN28-2020

Instrument: HP09915.i

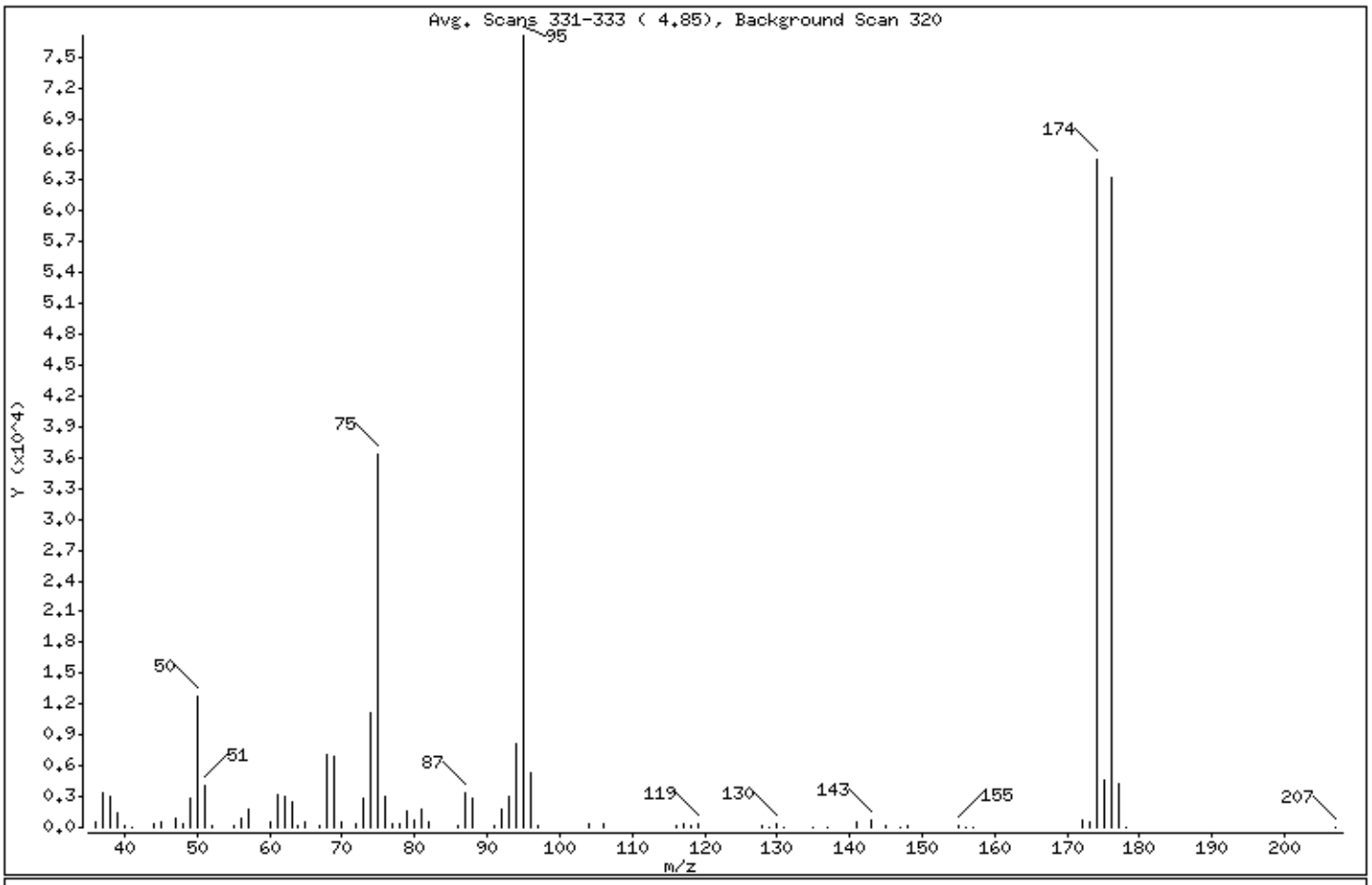
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.66
75	30.00 - 60.00% of mass 95	47.19
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.70 (0.84)
174	50.00 - 100.00% of mass 95	84.31
175	5.00 - 9.00% of mass 174	6.08 (7.21)
176	95.00 - 101.00% of mass 174	82.11 (97.40)
177	5.00 - 9.00% of mass 176	5.52 (6.73)

Date : 31-MAY-2020 10:45

Client ID: JAN28-2020 Instrument: HP09915.i

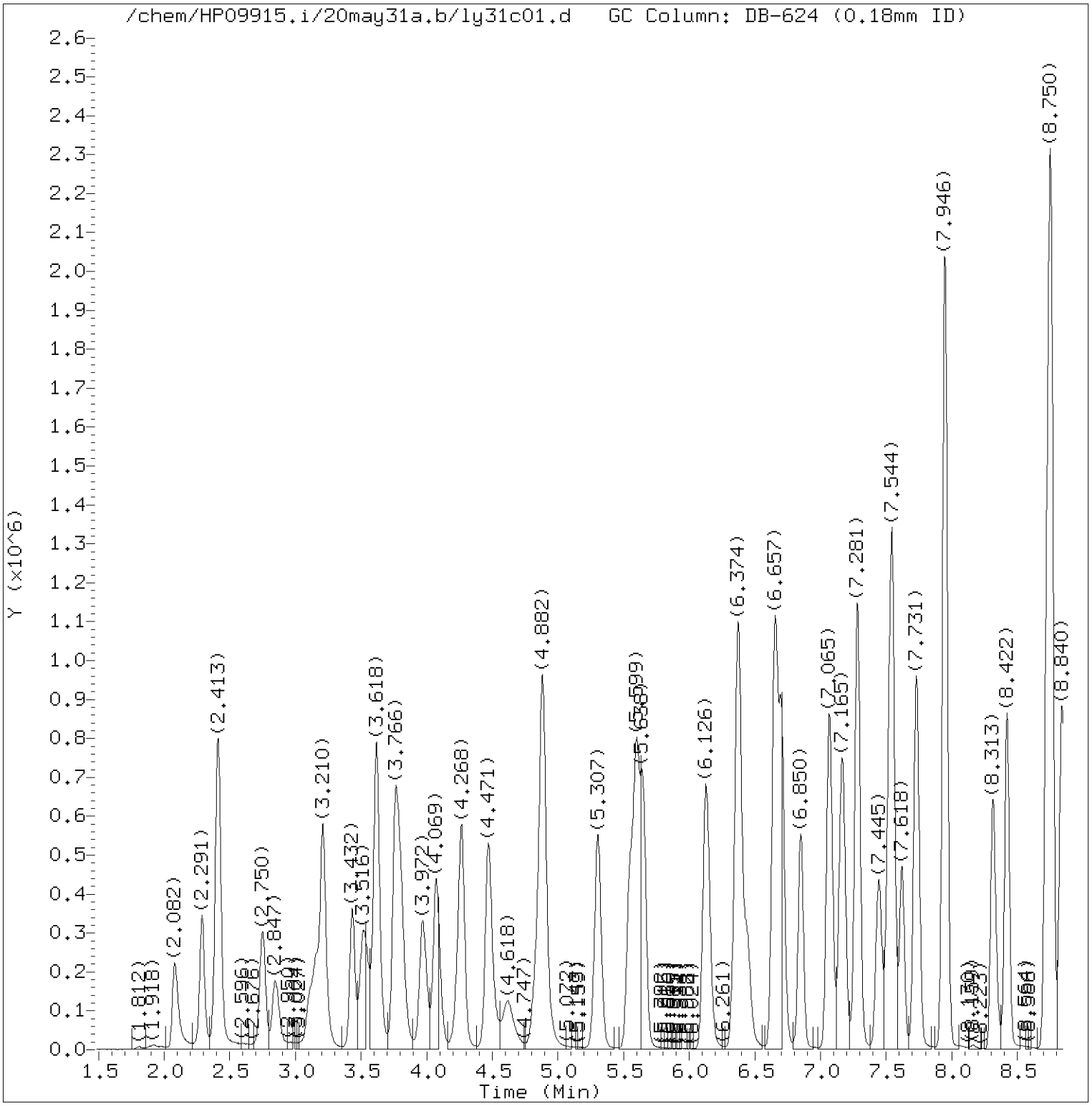
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: dvv10203

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly31t01.d
Spectrum: Avg. Scans 331-333 (4.85), Background Scan 320
Location of Maximum: 95.00
Number of points: 76

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	537	63.00	2551	88.00	2782	141.00	514
37.00	3392	64.00	260	91.00	221	143.00	716
38.00	3096	65.00	503	92.00	1843	145.00	219
39.00	1382	67.00	158	93.00	3029	147.00	59
40.00	199	68.00	7043	94.00	8129	148.00	114
41.00	13	69.00	6951	95.00	77088	155.00	125
44.00	281	70.00	602	96.00	5276	156.00	55
45.00	596	72.00	368	97.00	149	157.00	53
47.00	816	73.00	2801	104.00	279	172.00	701
48.00	390	74.00	11151	106.00	269	173.00	543
49.00	2897	75.00	36376	116.00	238	174.00	64992
50.00	12846	76.00	2941	117.00	348	175.00	4688
51.00	4107	77.00	412	118.00	247	176.00	63296
52.00	212	78.00	351	119.00	384	177.00	4257
55.00	159	79.00	1678	128.00	262	178.00	74
56.00	929	80.00	645	129.00	57	207.00	36
57.00	1684	81.00	1749	130.00	287		
60.00	556	82.00	480	131.00	53		
61.00	3135	86.00	135	135.00	68		
62.00	3039	87.00	3347	137.00	54		



Total Ion Chromatogram (TIC)

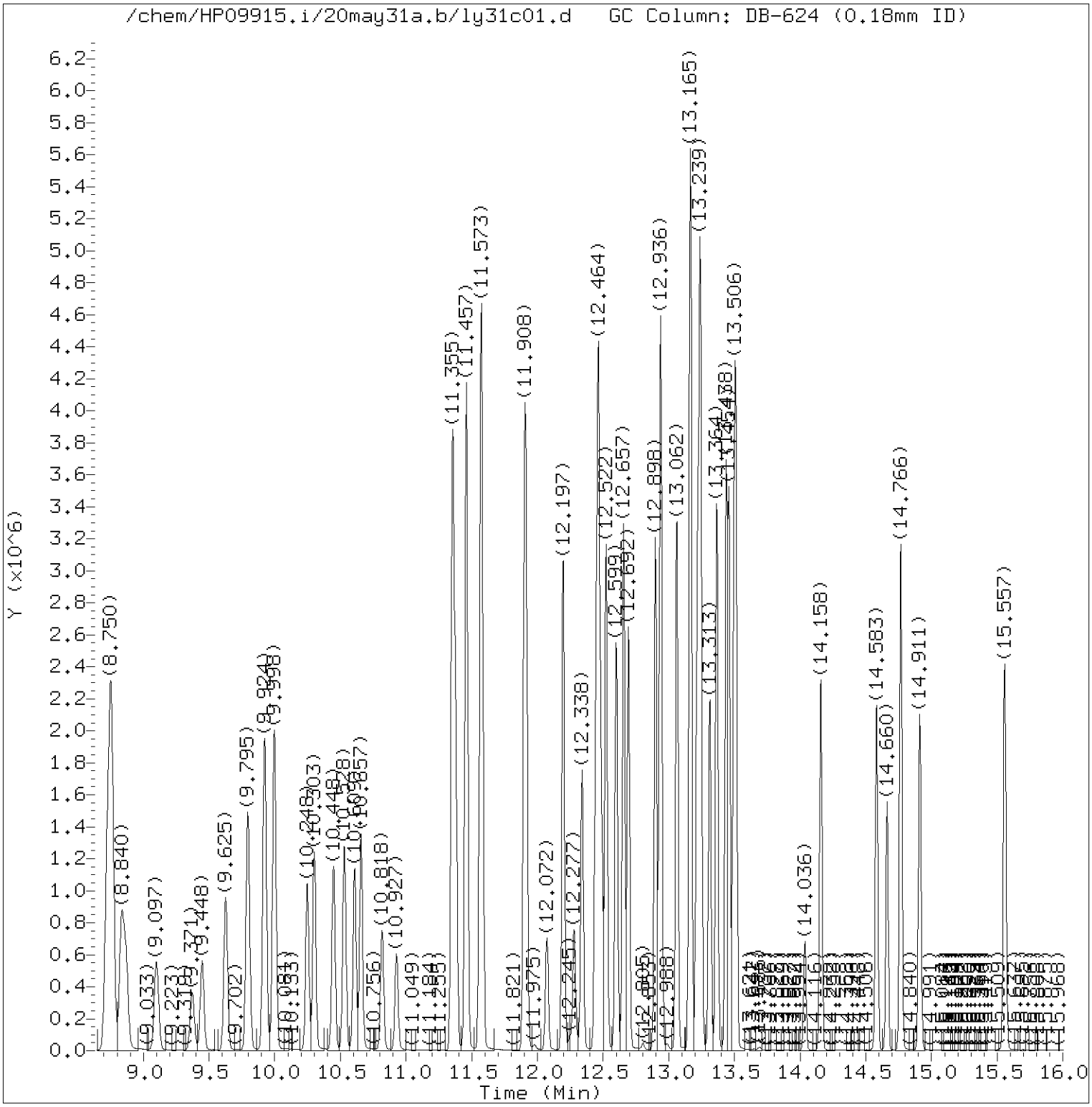
Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.082	85	450279	43.203
4) Chloromethane	(2)	2.291	50	547177	56.231
5) 1,3-Butadiene	(2)	2.410	39	425380	68.142
6) Vinyl Chloride	(2)	2.413	62	514850	54.827
8) Bromomethane	(2)	2.750	94	351037	51.849
9) Chloroethane	(2)	2.847	64	294407	56.153
12) Trichlorofluoromethane	(2)	3.155	101	512803	50.001
11) n-Pentane	(2)	3.210	43	590268	61.298
14) Ethyl ether	(2)	3.432	59	320900	44.282
15) Freon 123a	(2)	3.516	67	429245	51.662
16) Acrolein	(1)	3.618	56	1247373	455.918
17) 1,1-Dichloroethene	(2)	3.763	96	309556	47.329
17) 1,1-Dichloroethene	(2)	3.757	63	159372	51.162
19) Freon 113	(2)	3.792	101	303956	44.793
18) Acetone	(1)	3.802	58	113003	90.548
22) Methyl Iodide	(2)	3.969	142	600754	47.661
21) 2-Propanol	(1)	3.988	45	226502	284.763
23) Carbon Disulfide	(2)	4.075	76	1150322	52.234
27) Methyl Acetate	(2)	4.236	43	432380	51.833
25) Allyl Chloride	(2)	4.268	41	575598	54.305
28) Methylene Chloride	(2)	4.471	84	385120	49.499
29)*t-Butyl alcohol-d10	(1)	4.493	65	332568M	250.000
30) t-Butyl alcohol	(1)	4.618	59	358084	266.704
31) Acrylonitrile	(2)	4.824	53	224353	48.551
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	1045995	46.631
32) trans-1,2-Dichloroethene	(2)	4.882	96	368181	48.933
34) n-Hexane	(2)	5.310	57	497540	47.217
36) 1,1-Dichloroethane	(2)	5.548	63	680215	51.544
38) di-Isopropyl ether	(2)	5.599	45	1245602	53.667
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	564100	53.600
40) Ethyl t-butyl ether	(2)	6.133	59	1057019	49.016
43) 1,2-Dichloroethene (Total)	(2)		96	783088	98.104
44) 2-Butanone	(2)	6.348	43	556506	99.216
42) cis-1,2-Dichloroethene	(2)	6.377	96	414907	49.171
45) 2,2-Dichloropropane	(2)	6.384	77	509267	49.931
47) Propionitrile	(1)	6.445	54	509753	281.035
48) Methacrylonitrile	(2)	6.654	67	628530	135.672
49) Bromochloromethane	(2)	6.702	128	209266	48.066

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.708	71	147183	92.742
51) Chloroform	(2)	6.850	83	643320	49.897
52)$Dibromofluoromethane	(2)	7.065	113	367992	48.061
52)$Dibromofluoromethane	(2)	7.062	111	373821	47.761
53) 1,1,1-Trichloroethane	(2)	7.075	97	537817	48.623
54) Cyclohexane	(2)	7.165	56	611648	49.399
54) Cyclohexane	(2)	7.162	84	495870	45.881
54) Cyclohexane	(2)	7.165	69	178786	46.465
56) Carbon Tetrachloride	(2)	7.278	117	463239	49.986
55) 1,1-Dichloropropene	(2)	7.281	75	514354	50.727
58) Isobutyl Alcohol	(1)	7.445	41	349946	768.326
57)$1,2-Dichloroethane-d4	(2)	7.515	102	95161	48.980
57)$1,2-Dichloroethane-d4	(2)	7.515	65	439079	50.914
57)$1,2-Dichloroethane-d4	(2)	7.519	104	61298	49.547
60) Benzene	(2)	7.548	78	1586905	50.558
61) 1,2-Dichloroethane	(2)	7.618	62	520020	49.424
61) 1,2-Dichloroethane	(2)	7.622	98	50506	49.260
65) t-Amyl methyl ether	(2)	7.731	73	1091960	49.567
66)*Fluorobenzene	(2)	7.946	96	1519847	50.000
67) n-Heptane	(2)	7.950	43	563593	51.434
69) n-Butanol	(1)	8.313	56	576224	1551.593
71) Trichloroethene	(2)	8.419	95	390666	49.184
72) Methylcyclohexane	(2)	8.724	83	614043	47.544
72) Methylcyclohexane	(2)	8.724	98	274412	46.975
73) 1,2-Dichloropropane	(2)	8.757	63	430954	53.288
76) Methyl Methacrylate	(2)	8.834	69	387191	55.681
75) 1,4-Dioxane	(1)	8.843	88	83217M	745.427
74) Dibromomethane	(2)	8.866	93	272954	51.608
78) Bromodichloromethane	(2)	9.097	83	490049	51.682
79) 2-Nitropropane	(2)	9.371	41	282225	99.272
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	294063	54.608
81) cis-1,3-Dichloropropene	(2)	9.625	75	656544	52.982
82) 4-Methyl-2-pentanone	(2)	9.795	43	1162290	102.325
83)$Toluene-d8	(3)	9.924	98	1519606	51.225
83)$Toluene-d8	(3)	9.924	100	985420	51.185
88) Toluene	(3)	9.998	92	989691	52.340
90) 1,3-Dichloropropene (total)	(3)		100	1265507	109.112
89) trans-1,3-Dichloropropene	(3)	10.248	75	608963	56.130

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.303	69	669246	61.306
92) 1,1,2-Trichloroethane	(3)	10.448	97	392609	53.509
93) Tetrachloroethene	(3)	10.531	166	411213	51.030
94) 1,3-Dichloropropane	(3)	10.609	76	677418	55.210
96) 2-Hexanone	(3)	10.657	43	860538	108.535
97) Dibromochloromethane	(3)	10.818	129	419644	54.983
99) 1,2-Dibromoethane	(3)	10.927	107	418903	53.124
100)*Chlorobenzene-d5	(3)	11.351	117	1154765	50.000
101) 1-Chlorohexane	(3)	11.358	91	500355	51.708
102) Chlorobenzene	(3)	11.377	112	1133222	52.188
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	394674	53.615
104) Ethylbenzene	(3)	11.461	91	1904648	54.418
106) m+p-Xylene	(3)	11.573	106	1515285	110.185
108) Xylene (Total)	(3)		106	2245054	165.059
107) o-Xylene	(3)	11.901	106	729769	54.874
109) Styrene	(3)	11.914	104	1249686	57.780
110) Bromoform	(3)	12.075	173	315063	56.704
111) Isopropylbenzene	(3)	12.197	105	1851989	54.878
112) Cyclohexanone	(1)	12.277	55	311390	749.347
114)$4-Bromofluorobenzene	(3)	12.338	95	568616	49.815
114)$4-Bromofluorobenzene	(3)	12.342	174	466108	47.630
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	692273	59.480
115) Bromobenzene	(4)	12.457	156	501086	53.636
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	513692	151.725
117) 1,2,3-Trichloropropane	(4)	12.486	110	206157	57.997
119) n-Propylbenzene	(4)	12.522	91	2253642	55.815
120) 2-Chlorotoluene	(4)	12.599	126	462874	53.659
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1638585	56.163
121) 4-Chlorotoluene	(4)	12.692	126	485764	54.256
124) tert-Butylbenzene	(4)	12.898	134	335938M	56.015
125) Pentachloroethane	(4)	12.930	167	281876	52.921
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1731254	57.392
127) sec-Butylbenzene	(4)	13.062	105	2019884	56.862
129) 1,3-Dichlorobenzene	(4)	13.162	146	945428	54.307
130) p-Isopropyltoluene	(4)	13.168	119	1764218	57.961
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	638424	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	980318	53.654
134) 1,2,3-Trimethylbenzene	(4)	13.242	105	1659995	52.963

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

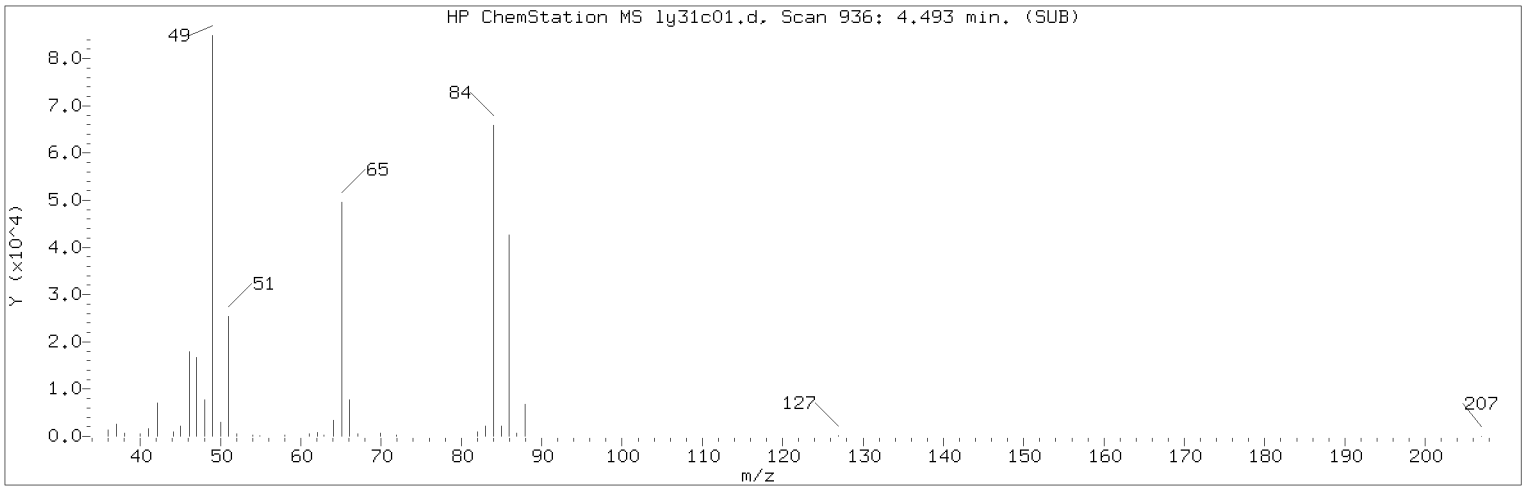
Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

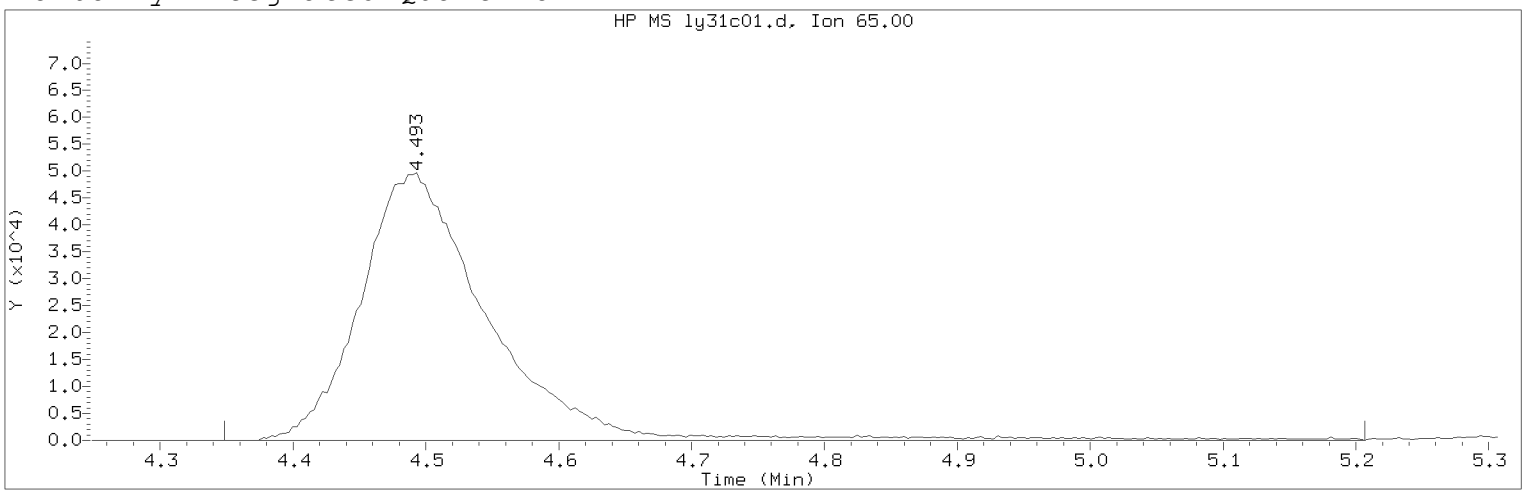
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	Benzyl Chloride	(4)	13.313	91	1419595	59.860
136)	1,3-Diethylbenzene	(4)	13.364	119	1034497	52.749
141)	Diethylbenzene (total)	(4)		100	3006470	158.593
137)	1,4-Diethylbenzene	(4)	13.438	119	1084080	52.810
139)	n-Butylbenzene	(4)	13.457	92	888838	56.837
138)	1,2-Dichlorobenzene	(4)	13.496	146	940903	53.697
140)	1,2-Diethylbenzene	(4)	13.509	119	887893	53.035
142)	1,2-Dibromo-3-chloropropane	(4)	14.036	75	150936	58.591
144)	1,3,5-Trichlorobenzene	(4)	14.158	180	667175	50.544
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	615609	49.905
147)	Hexachlorobutadiene	(4)	14.663	225	252995	44.459
148)	Naphthalene	(4)	14.766	128	2255145	56.478
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	618283	50.441
150)	2-Methylnaphthalene	(4)	15.557	142	1123543	40.467

Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

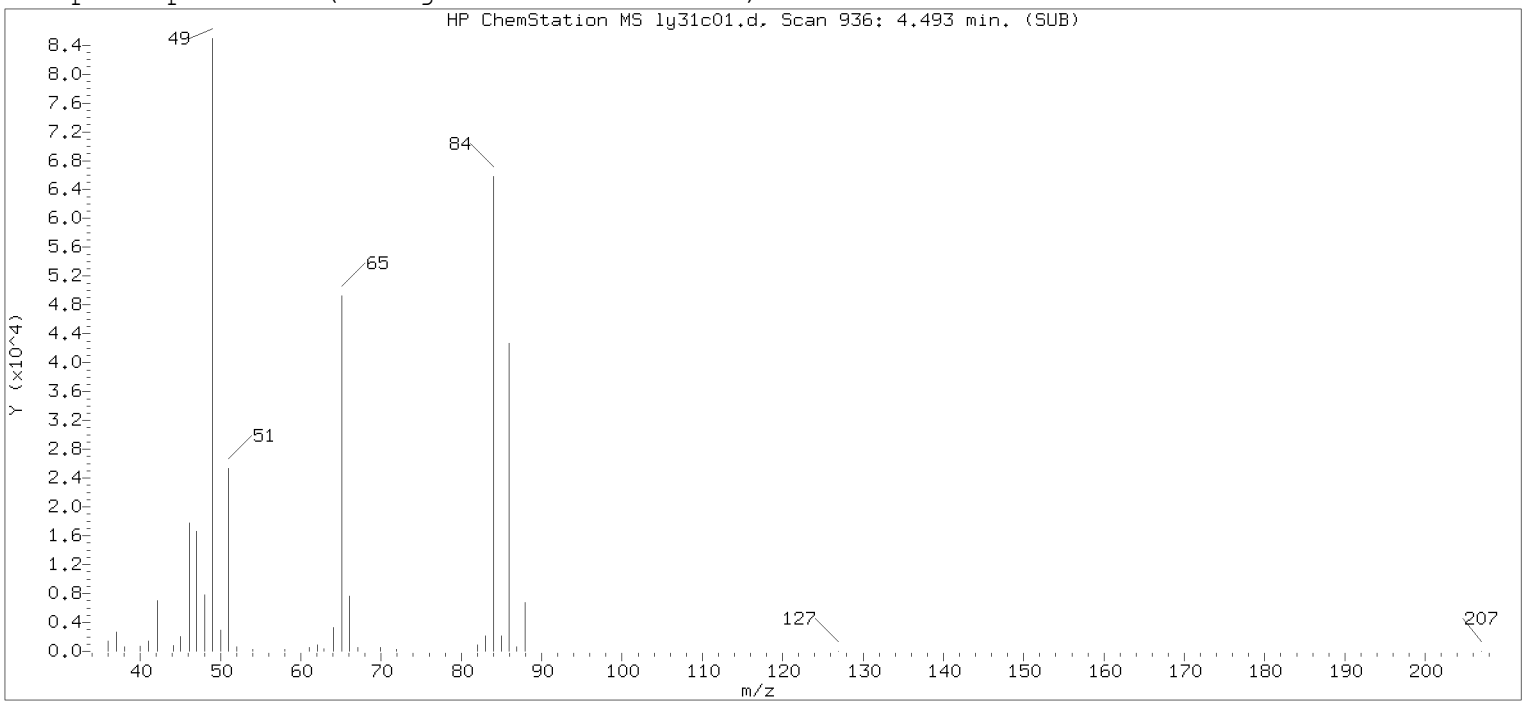
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 936
Retention Time (minutes): 4.493
Quant Ion : 65.00
Area (flag) : 332568M
On-Column Amount (ng) : 250.0000
Integration start scan : 890 Integration stop scan: 1157
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

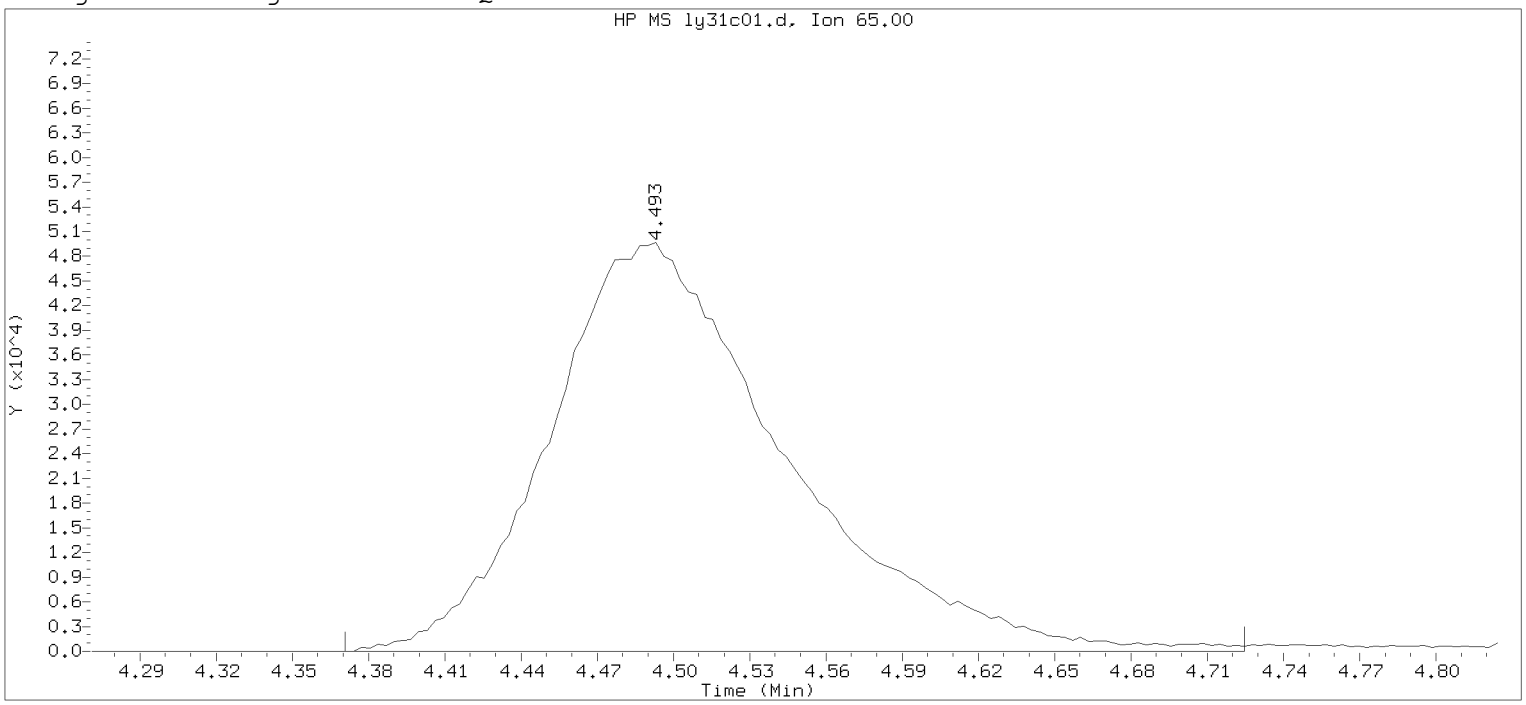
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

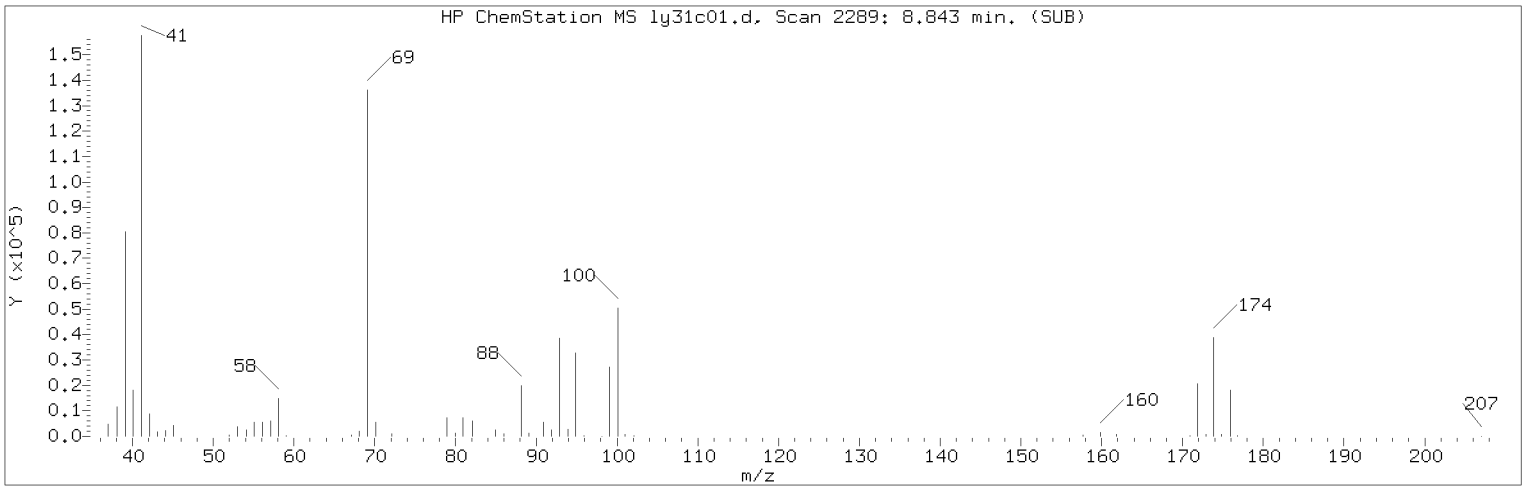
Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 11:41 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

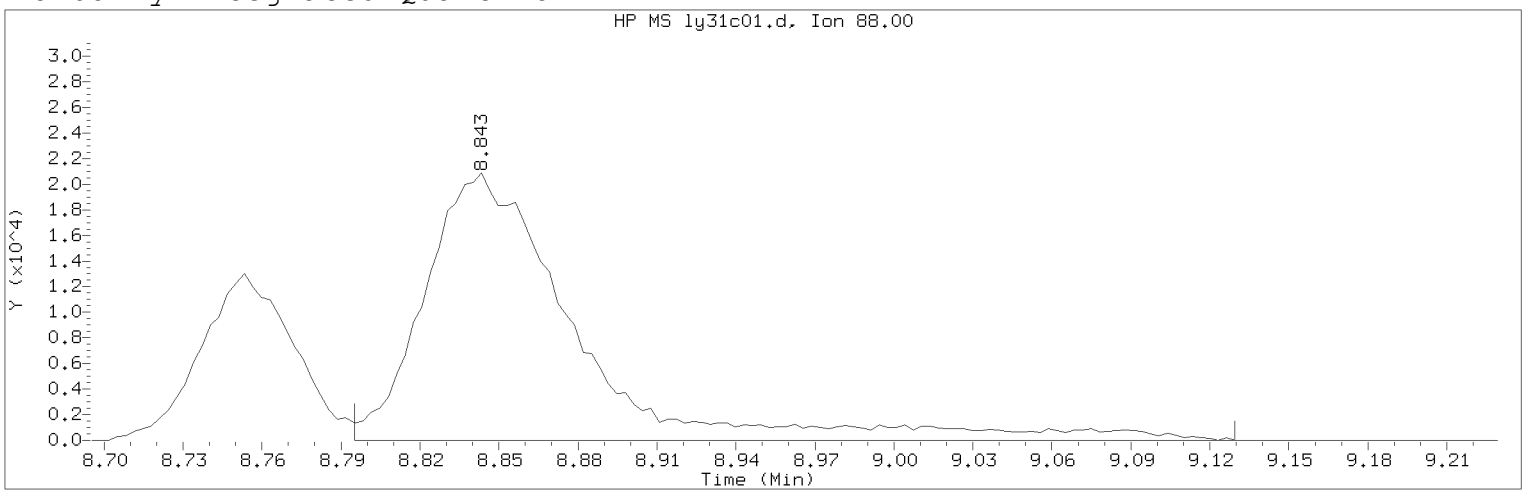
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 936
Retention Time (minutes): 4.493
Quant Ion : 65.00
Area : 319812
On-column Amount (ng) : 250.0000
Integration start scan : 897 Integration stop scan: 1007
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

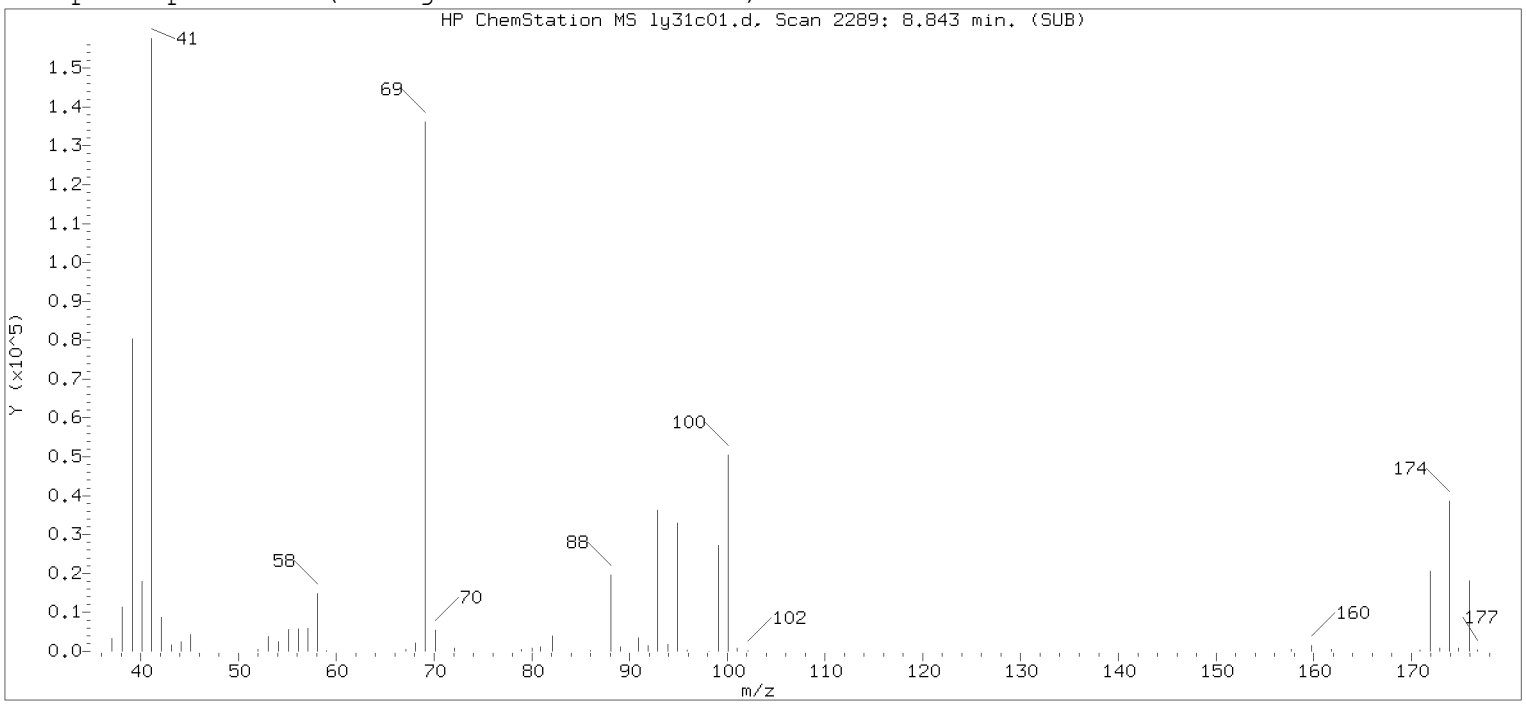
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area (flag) : 83217M
On-Column Amount (ng) : 745.4270
Integration start scan : 2273 Integration stop scan: 2377
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

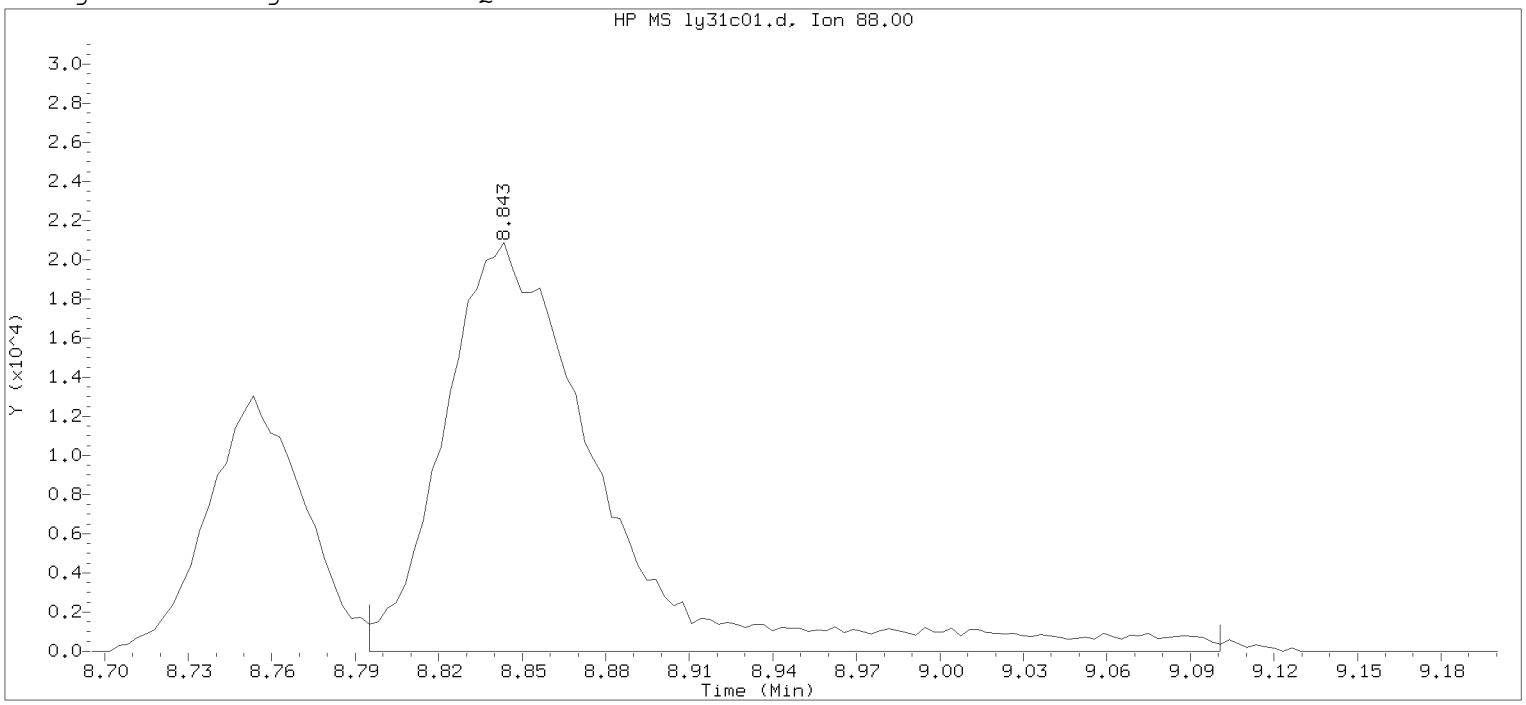
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

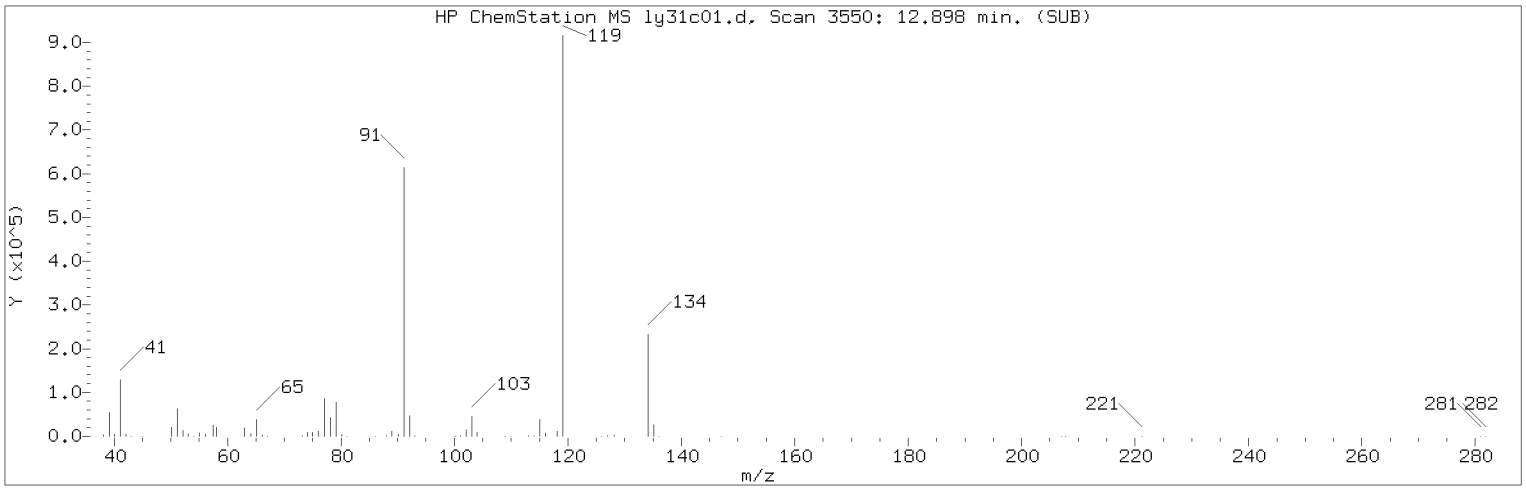
Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 11:41 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

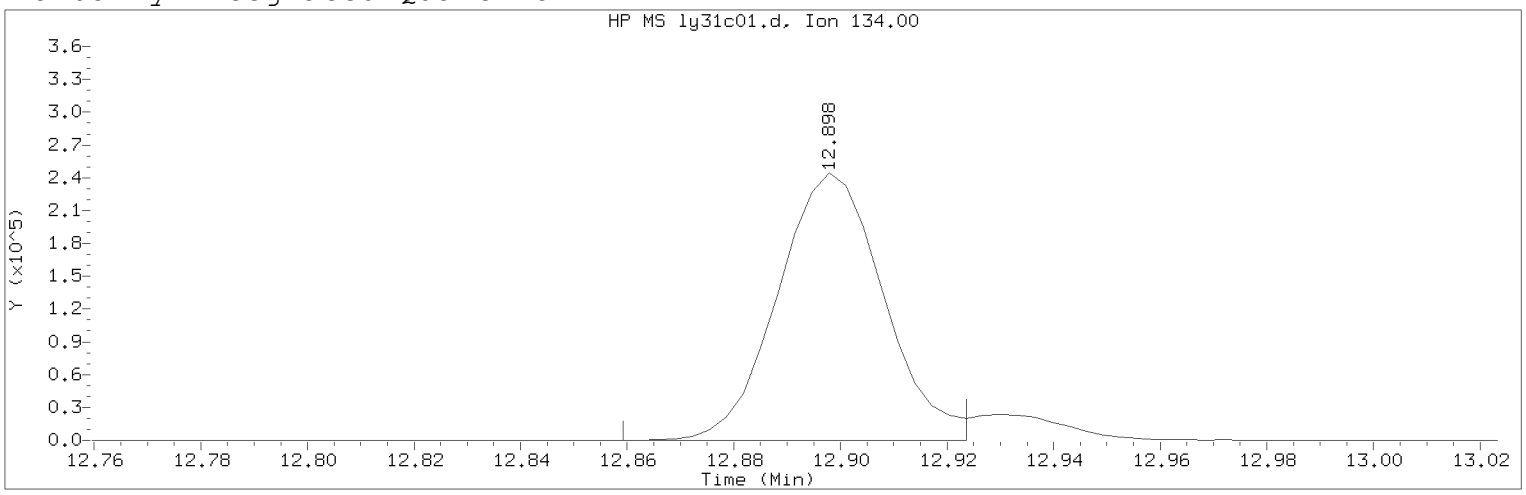
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area : 82654
On-column Amount (ng) : 769.9177
Integration start scan : 2273 Integration stop scan: 2368
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: DVV10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:19 dvv10203

Sample Name: VSTD050 Lab Sample ID: VSTD050

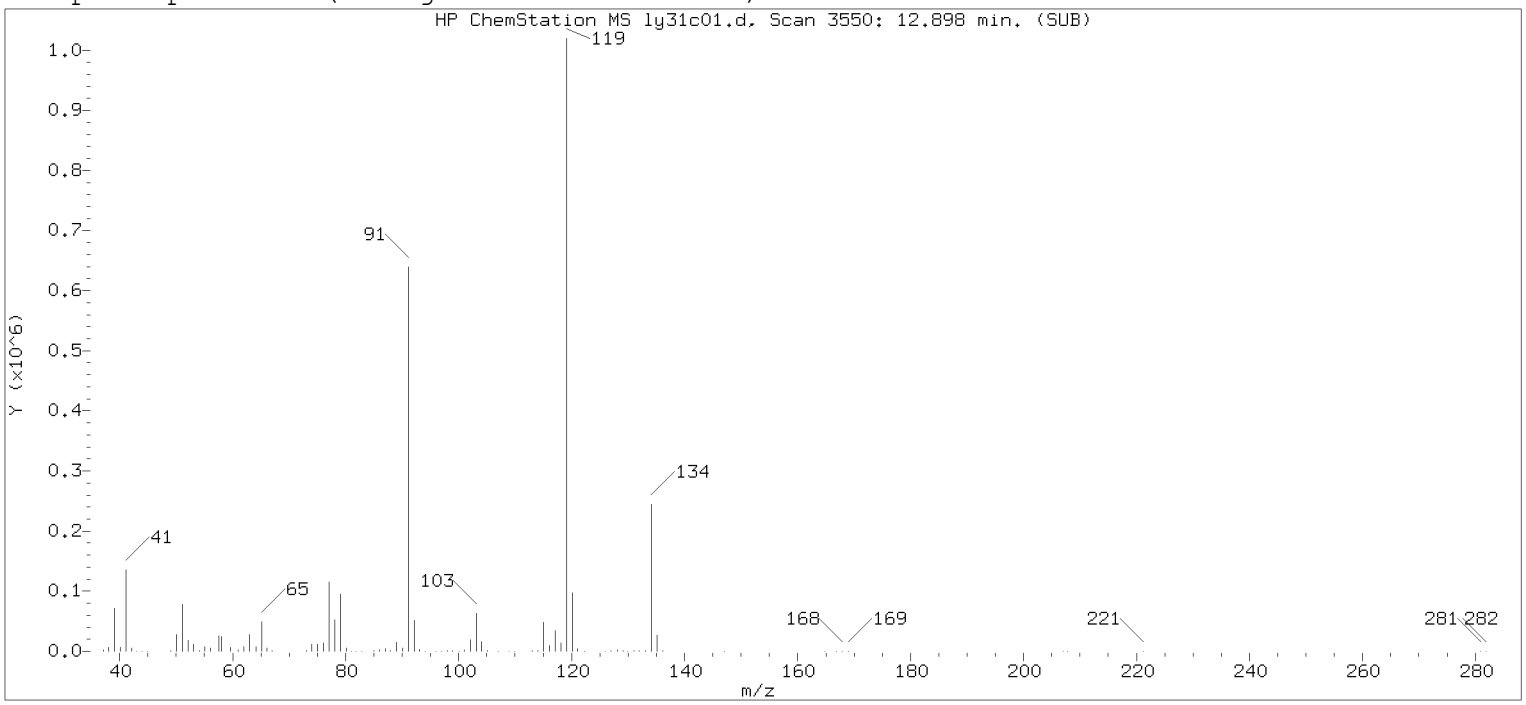
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 335938M
On-Column Amount (ng) : 56.0151
Integration start scan : 3537 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

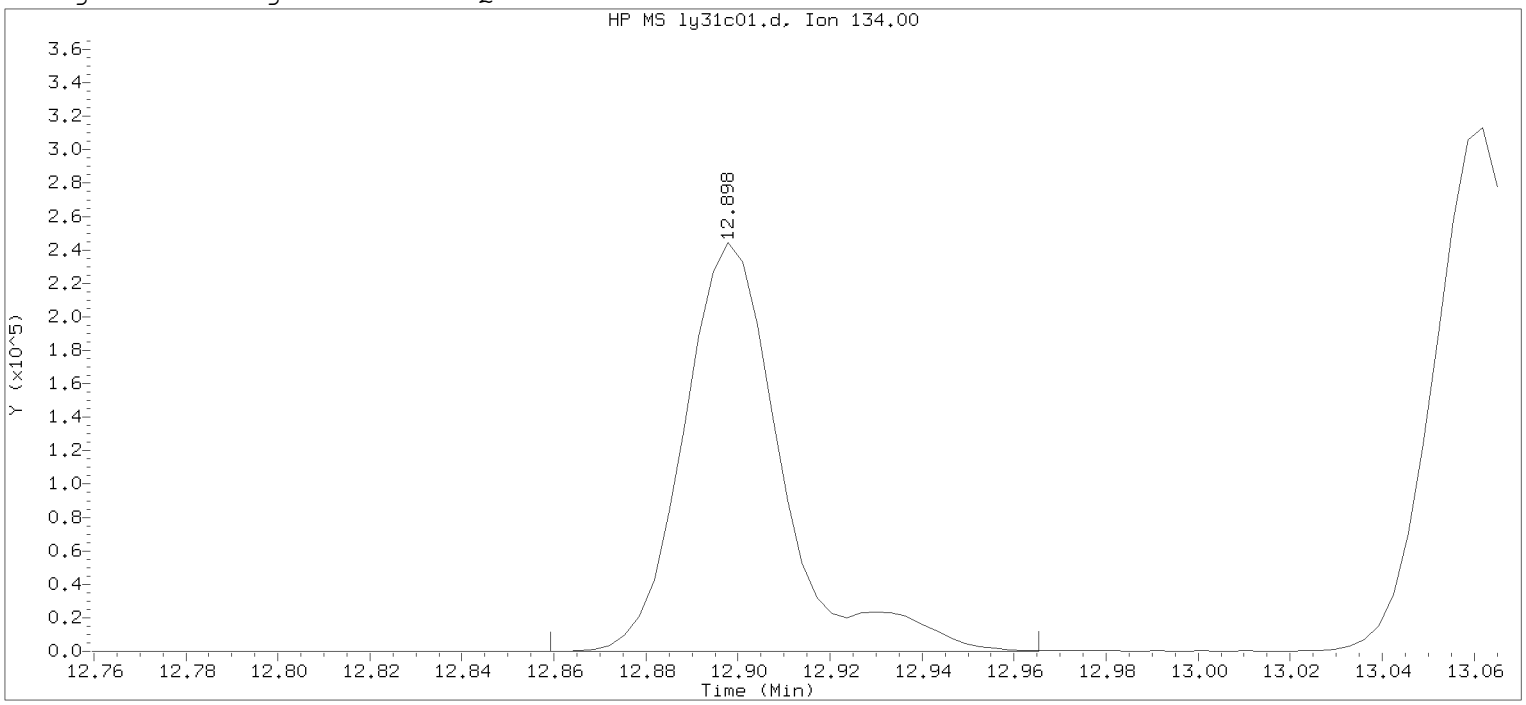
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/31/2020 at 12:19.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31c01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:23 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 11:41 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 362672
On-column Amount (ng) : 60.4727
Integration start scan : 3537 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/31/2020 at 12:19.
Target 3.5 esignature user: DVV10203

Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

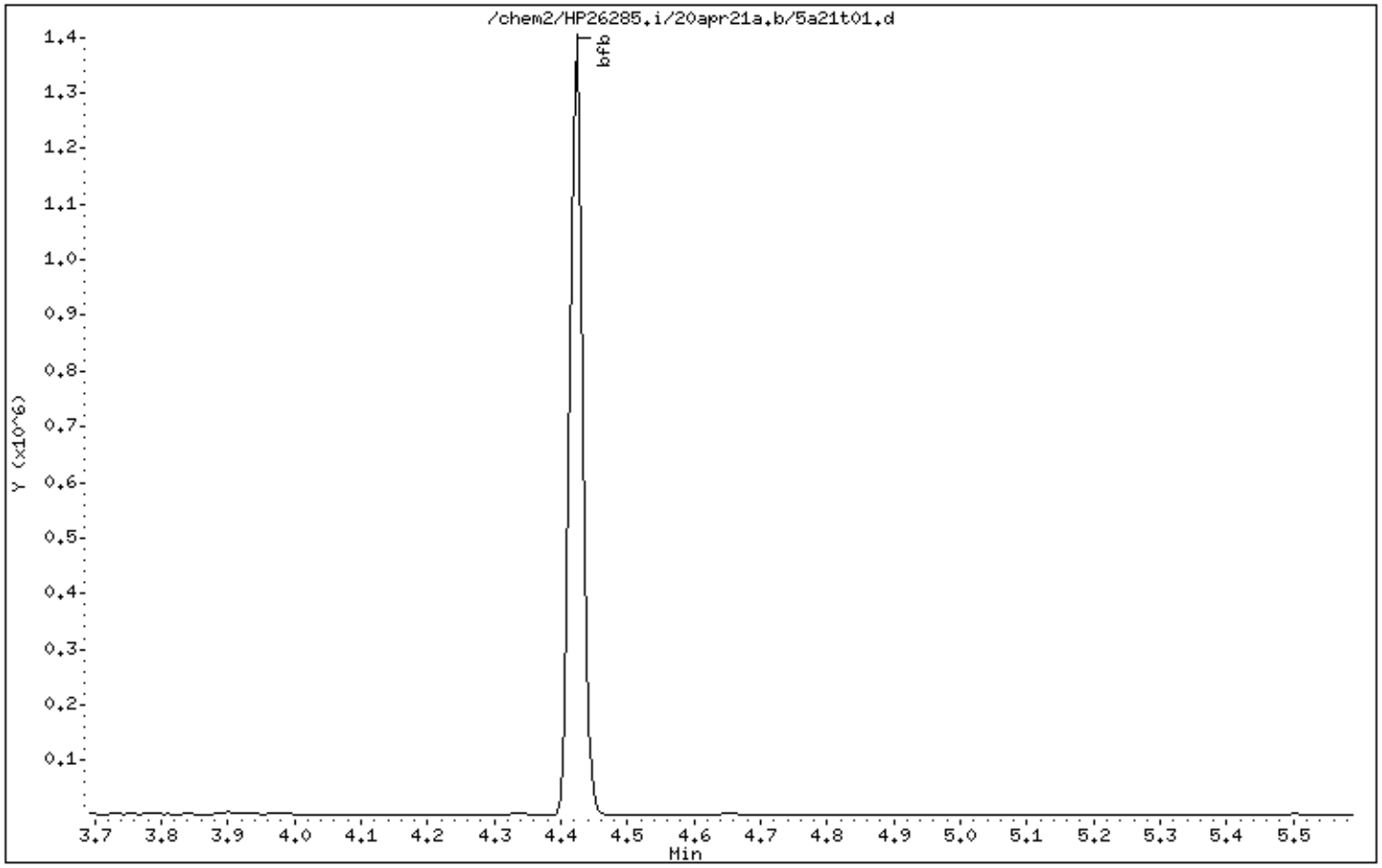
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

Instrument: HP26285.i

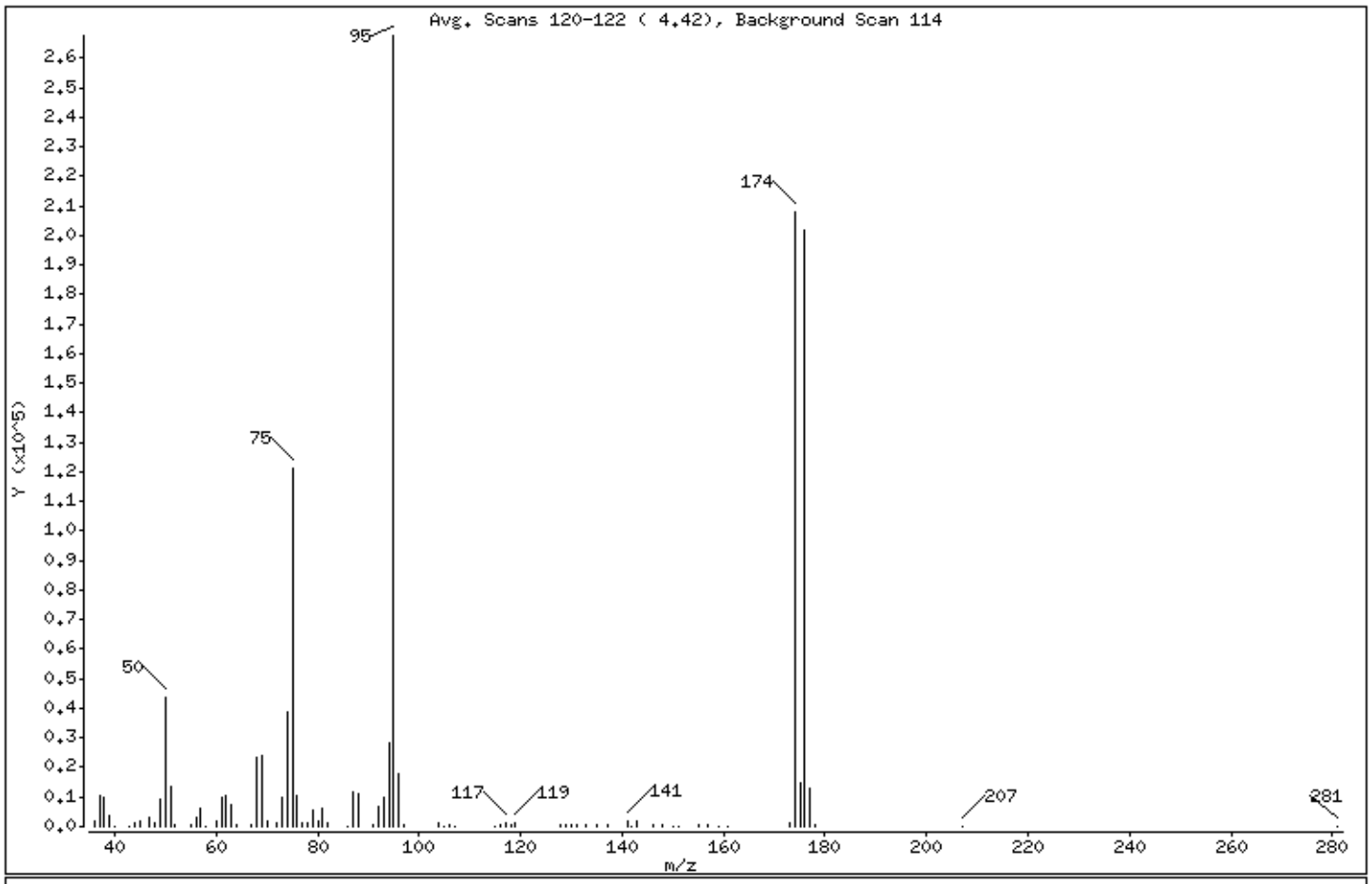
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.28
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	0.52 (0.67)
174	50.00 - 100.00% of mass 95	77.82
175	5.00 - 9.00% of mass 174	5.61 (7.21)
176	95.00 - 101.00% of mass 174	75.39 (96.88)
177	5.00 - 9.00% of mass 176	4.85 (6.43)

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20 Instrument: HP26285.i

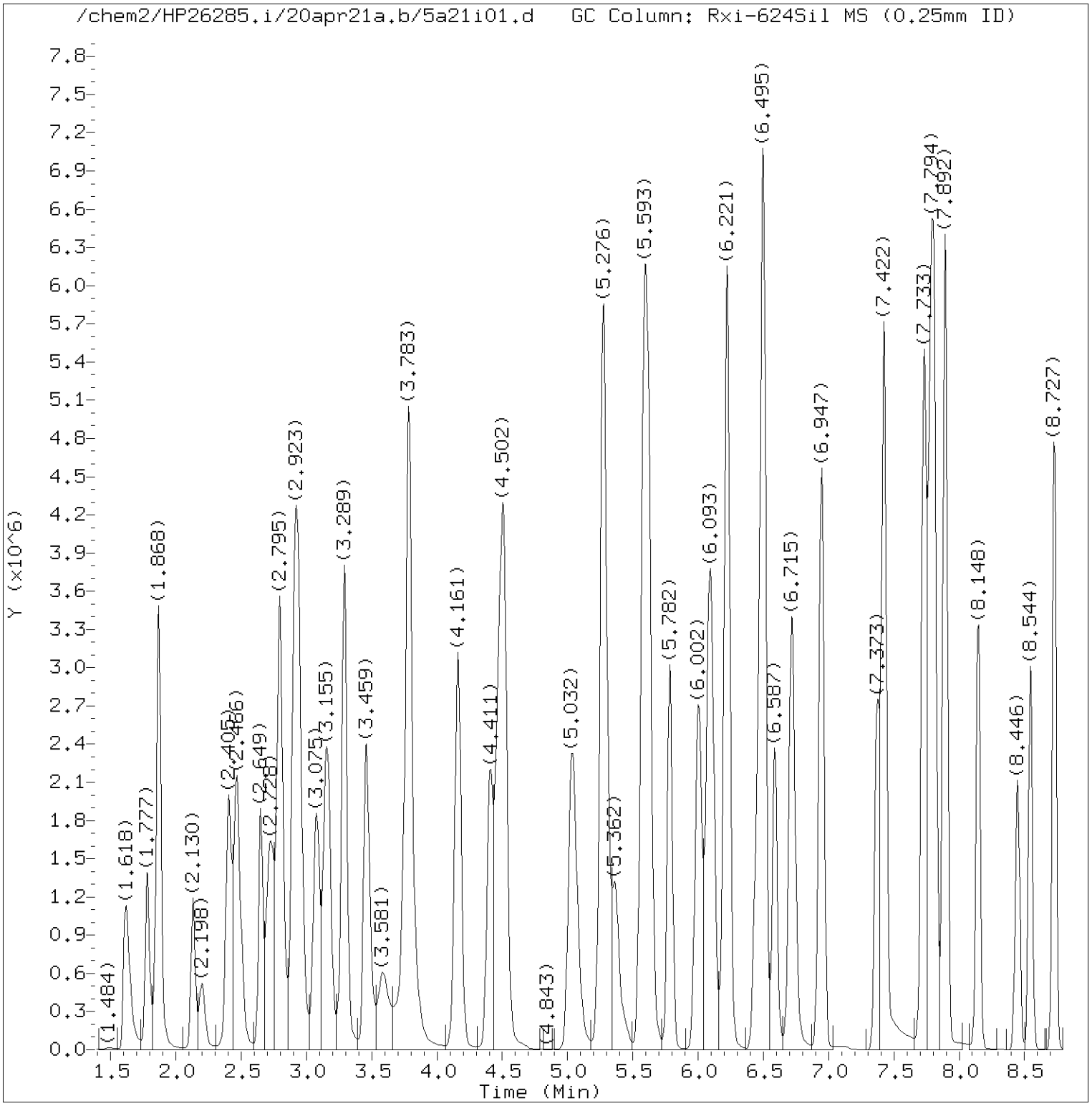
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5a21t01.d
Spectrum: Avg. Scans 120-122 (4.42), Background Scan 114
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1859	63.00	7563	92.00	6626	137.00	416
37.00	10659	64.00	691	93.00	9904	141.00	2114
38.00	9637	67.00	643	94.00	28296	142.00	170
39.00	3822	68.00	23688	95.00	267648	143.00	1976
40.00	46	69.00	23744	96.00	17848	146.00	317
43.00	89	70.00	1883	97.00	561	148.00	581
44.00	1347	72.00	1214	104.00	985	150.00	114
45.00	2117	73.00	10018	105.00	287	151.00	104
47.00	3360	74.00	38552	106.00	920	155.00	650
48.00	1250	75.00	120968	107.00	94	157.00	358
49.00	9060	76.00	10309	115.00	188	159.00	114
50.00	43568	77.00	1497	116.00	721	161.00	189
51.00	13630	78.00	1072	117.00	1379	173.00	1394
52.00	611	79.00	5472	118.00	834	174.00	208256
55.00	676	80.00	1787	119.00	1226	175.00	15026
56.00	3306	81.00	5890	128.00	862	176.00	201728
57.00	5865	82.00	1362	129.00	418	177.00	12981
58.00	201	86.00	188	130.00	914	178.00	386
60.00	1989	87.00	11389	131.00	328	207.00	75
61.00	10148	88.00	11066	133.00	345	281.00	206
62.00	10316	91.00	818	135.00	469		



Total Ion Chromatogram (TIC)

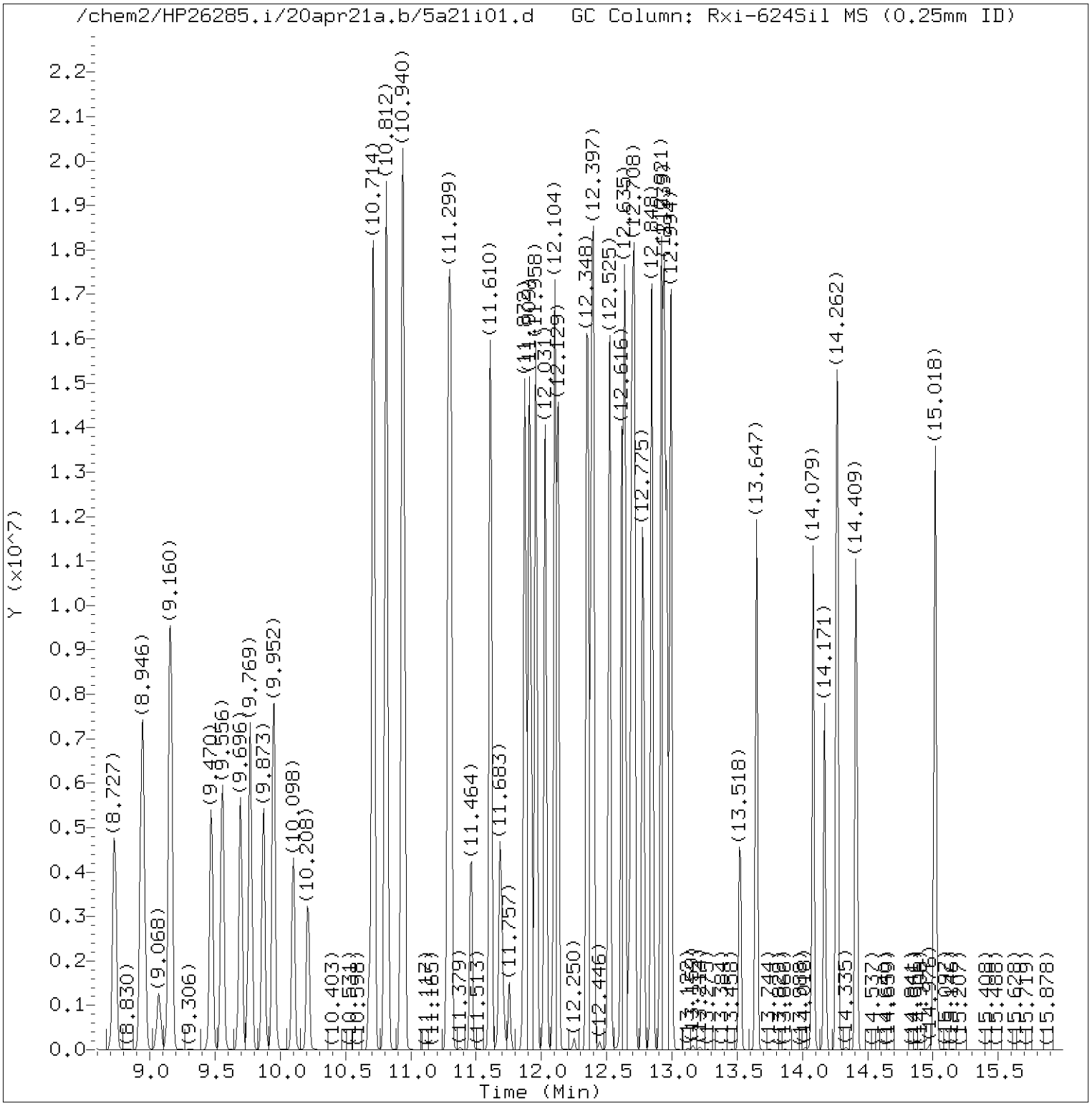
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	2514781	293.886
4) Chloromethane	(2)	1.777	50	1779525	260.361
5) 1,3-Butadiene	(2)	1.862	39	1692569	179.387
6) Vinyl Chloride	(2)	1.868	62	1635639	272.442
8) Bromomethane	(2)	2.130	94	1028216	255.090
9) Chloroethane	(2)	2.198	64	759321	267.130
10) Dichlorofluoromethane	(2)	2.405	67	2412071	260.399
12) Trichlorofluoromethane	(2)	2.441	101	1968139	267.668
11) n-Pentane	(2)	2.472	43	1702407	248.729
14) Ethyl ether	(2)	2.649	59	1350690	266.456
15) Freon 123a	(2)	2.722	67	2083785	271.498
16) Acrolein	(1)	2.795	56	5427011	2360.411
17) 1,1-Dichloroethene	(2)	2.905	96	1680210	294.103
17) 1,1-Dichloroethene	(2)	2.905	63	847789	296.090
19) Freon 113	(2)	2.935	101	1957046	302.645
18) Acetone	(1)	2.941	58	644334	568.222
22) Methyl Iodide	(2)	3.075	142	3244772	297.857
21) 2-Propanol	(1)	3.088	45	1311806	1421.652
23) Carbon Disulfide	(2)	3.155	76	6141301	305.602
27) Methyl Acetate	(2)	3.277	43	2308362	280.248
25) Allyl Chloride	(2)	3.295	41	2774449	290.117
28) Methylene Chloride	(2)	3.459	84	1906798	296.101
29)*t-Butyl alcohol-d10	(1)	3.490	65	363110M	250.000
30) t-Butyl alcohol	(1)	3.581	59	2474869M	1447.019
31) Acrylonitrile	(2)	3.740	53	1244590	286.266
32) trans-1,2-Dichloroethene	(2)	3.783	96	1856699	290.450
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	4729659	279.720
34) n-Hexane	(2)	4.161	57	2823354	297.858
36) 1,1-Dichloroethane	(2)	4.404	63	3413350	294.965
38) di-Isopropyl ether	(2)	4.471	45	5826089	281.879
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	2986113	303.744
40) Ethyl t-butyl ether	(2)	5.032	59	5047239	275.067
42) cis-1,2-Dichloroethene	(2)	5.270	96	2092441	289.396
44) 2-Butanone	(2)	5.270	43	3508151	554.406
45) 2,2-Dichloropropane	(2)	5.288	77	2907210	297.741
47) Propionitrile	(1)	5.368	54	2776028	1491.001
48) Methacrylonitrile	(2)	5.587	67	3113931	719.149
49) Bromochloromethane	(2)	5.618	128	949029	286.579

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	962421	571.941
51) Chloroform	(2)	5.782	83	3454950	297.665
53) 1,1,1-Trichloroethane	(2)	6.002	97	3220555	308.180
52)$Dibromofluoromethane	(2)	6.008	113	265501	50.449
52)$Dibromofluoromethane	(2)	6.008	111	271428	50.372
54) Cyclohexane	(2)	6.093	56	3718949	305.559
54) Cyclohexane	(2)	6.093	84	3072191	305.152
54) Cyclohexane	(2)	6.093	69	1167415	309.242
43) 1,2-Dichloroethene (Total)	(2)		96	3949140	579.846
56) Carbon Tetrachloride	(2)	6.215	117	2866099	314.348
55) 1,1-Dichloropropene	(2)	6.227	75	2833013	299.261
58) Isobutyl Alcohol	(1)	6.459	41	2102817	3688.520
57)$1,2-Dichloroethane-d4	(2)	6.477	102	58127	49.384
57)$1,2-Dichloroethane-d4	(2)	6.477	65	287760	50.004
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36918	48.985
60) Benzene	(2)	6.502	78	8091915	287.471
61) 1,2-Dichloroethane	(2)	6.587	62	2471700	285.891
61) 1,2-Dichloroethane	(2)	6.587	98	229468	313.856
65) t-Amyl methyl ether	(2)	6.715	73	4873975	266.199
66)*Fluorobenzene	(2)	6.928	96	1056605	50.000
67) n-Heptane	(2)	6.947	43	2638875	288.213
69) n-Butanol	(1)	7.373	56	3800976	7726.750
71) Trichloroethene	(2)	7.428	95	2193082	296.890
73) Methylcyclohexane	(2)	7.733	83	3517963	299.657
73) Methylcyclohexane	(2)	7.733	98	1498995	301.607
74) 1,2-Dichloropropane	(2)	7.776	63	2058190	292.092
76) 1,4-Dioxane	(1)	7.879	88	505646M	4143.915
75) Dibromomethane	(2)	7.885	93	1328443	299.400
77) Methyl Methacrylate	(2)	7.898	69	2048784	310.762
79) Bromodichloromethane	(2)	8.148	83	2768802	321.810
80) 2-Nitropropane	(2)	8.446	41	1838471	616.936
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	1695315	310.886
82) cis-1,3-Dichloropropene	(2)	8.727	75	3451312	317.433
83) 4-Methyl-2-pentanone	(2)	8.946	43	6923514	567.670
84)$Toluene-d8	(3)	9.068	98	1043925	48.871
84)$Toluene-d8	(3)	9.068	100	692193	49.214
89) Toluene	(3)	9.160	92	5200843	276.121
90) trans-1,3-Dichloropropene	(3)	9.470	75	3189196	315.576

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	3484392	303.213
93) 1,1,2-Trichloroethane	(3)	9.696	97	1950775	289.700
94) Tetrachloroethene	(3)	9.769	166	2288562	286.479
95) 1,3-Dichloropropane	(3)	9.873	76	3251231	290.792
97) 2-Hexanone	(3)	9.946	43	5572720	556.867
91) 1,3-Dichloropropene (total)	(3)		100	6640508	633.008
98) Dibromochloromethane	(3)	10.098	129	2272719	318.957
100) 1,2-Dibromoethane	(3)	10.208	107	2209467	297.643
101)*Chlorobenzene-d5	(3)	10.684	117	869195	50.000
103) Chlorobenzene	(3)	10.714	112	5394866	263.916
102) 1-Chlorohexane	(3)	10.714	91	2905458	265.245
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	1973861	279.894
105) Ethylbenzene	(3)	10.812	91	9442911	259.282
107) m+p-Xylene	(3)	10.940	106	6954208	497.686
108) o-Xylene	(3)	11.287	106	3578067	261.618
110) Styrene	(3)	11.306	104	6017910	273.026
111) Bromoform	(3)	11.464	173	1766291	342.616
112) Isopropylbenzene	(3)	11.610	105	9418520	262.423
113) Cyclohexanone	(1)	11.683	55	2225130	3970.108
115)$4-Bromofluorobenzene	(3)	11.757	95	463125	51.457
115)$4-Bromofluorobenzene	(3)	11.757	174	360966	51.412
109) Xylene (Total)	(3)		106	10532275	759.304
116) Bromobenzene	(4)	11.872	156	2383355	270.294
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	3318957	277.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	1985915	748.278
118) 1,2,3-Trichloropropane	(4)	11.921	110	953780	270.703
120) n-Propylbenzene	(4)	11.958	91	10730524	247.518
121) 2-Chlorotoluene	(4)	12.031	126	2497956	281.107
123) 1,3,5-Trimethylbenzene	(4)	12.104	105	7976165	261.729
122) 4-Chlorotoluene	(4)	12.129	126	2495146	277.968
125) tert-Butylbenzene	(4)	12.354	134	1685066M	278.218
126) Pentachloroethane	(4)	12.378	167	1509123	303.509
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	8182264	260.724
128) sec-Butylbenzene	(4)	12.525	105	9574539	253.403
130) 1,3-Dichlorobenzene	(4)	12.616	146	4469009	269.455
131) p-Isopropyltoluene	(4)	12.641	119	8232580	261.279
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	462526	50.000
134) 1,4-Dichlorobenzene	(4)	12.695	146	4434033	263.430

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

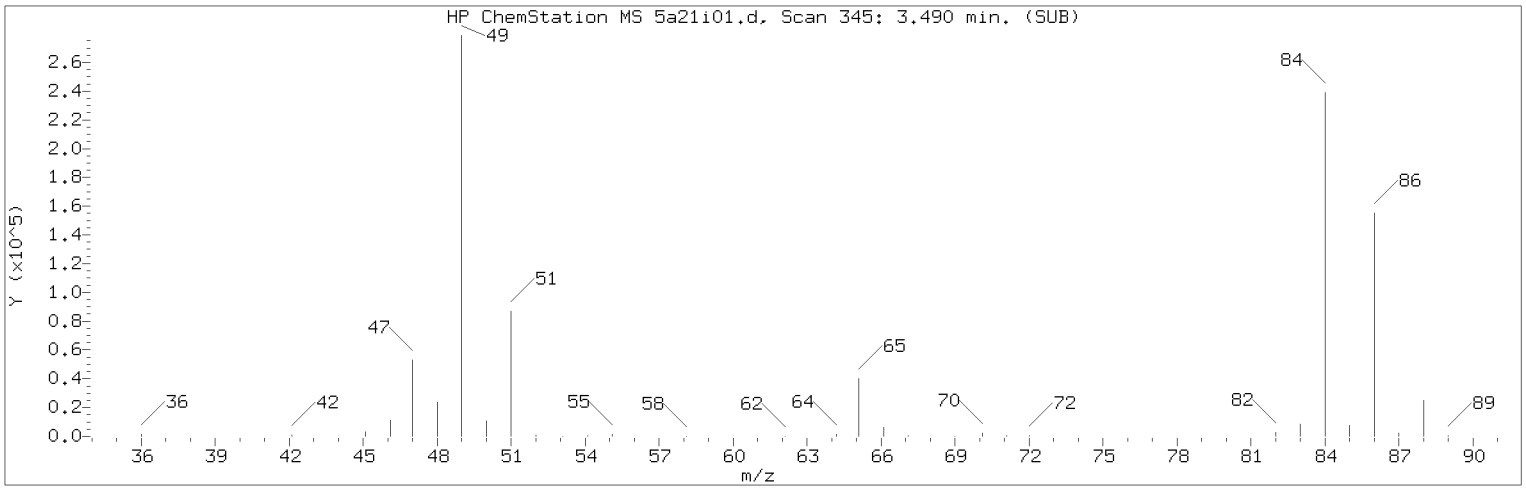
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

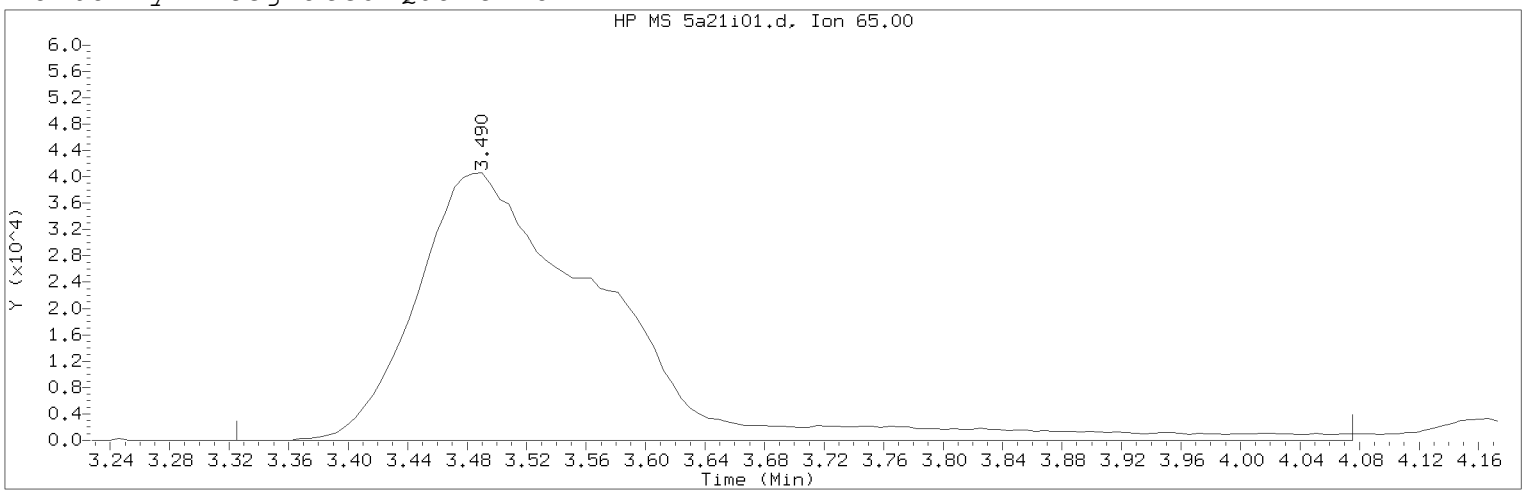
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	7774791	258.098
136)	Benzyl Chloride	(4)	12.775	91	7177348	312.660
137)	1,3-Diethylbenzene	(4)	12.848	119	4947733	271.768
138)	1,4-Diethylbenzene	(4)	12.921	119	4979240	264.422
140)	n-Butylbenzene	(4)	12.939	92	4168841	262.298
139)	1,2-Dichlorobenzene	(4)	12.964	146	4299940	269.902
141)	1,2-Diethylbenzene	(4)	12.994	119	4120446	267.611
142)	Diethylbenzene (total)	(4)		100	14047419	803.801
143)	1,2-Dibromo-3-chloropropane	(4)	13.518	75	969124	320.802
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	2993247	284.456
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	2829365	286.205
148)	Hexachlorobutadiene	(4)	14.171	225	1134842	298.493
149)	Naphthalene	(4)	14.268	128	9913701	253.236
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	2753131	281.432
151)	2-Methylnaphthalene	(4)	15.018	142	5752055	282.809

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

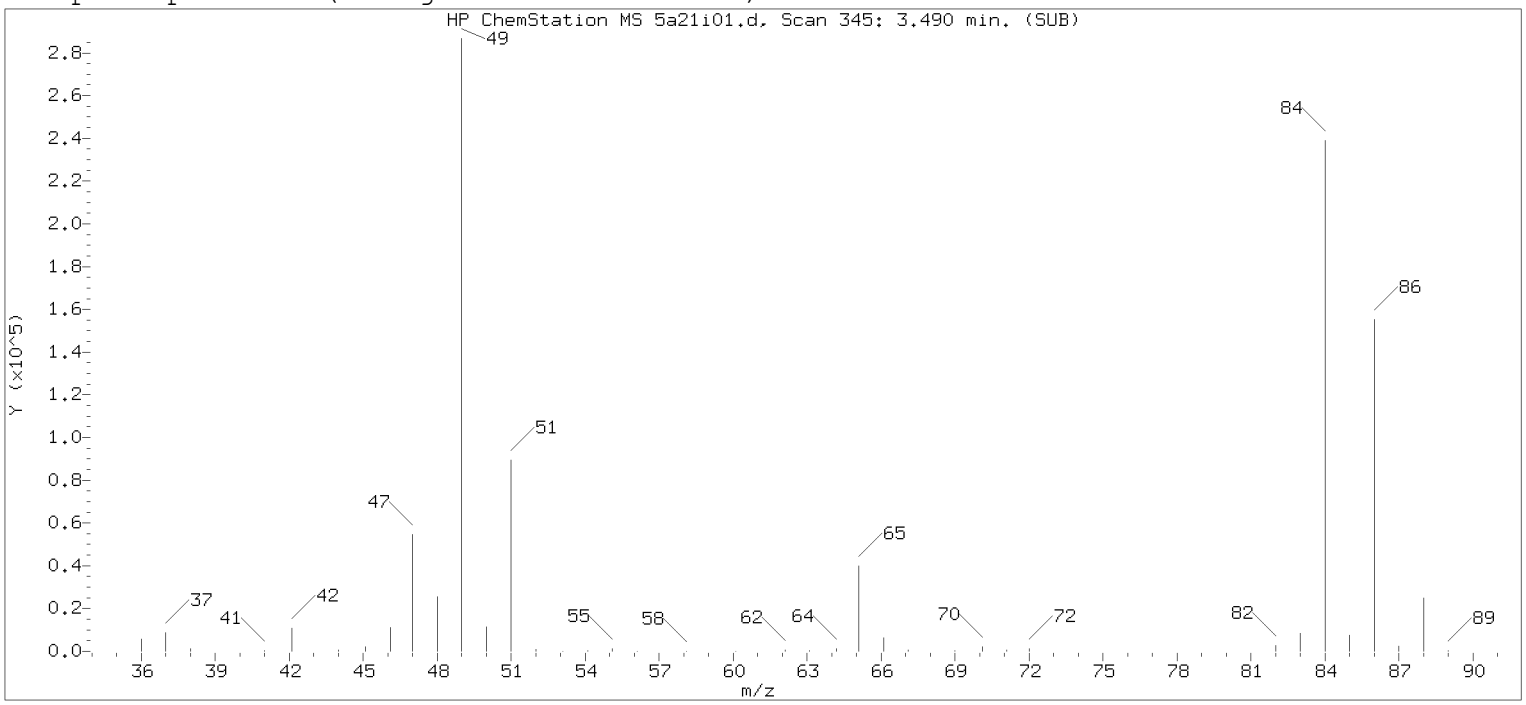
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 363110M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 440
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

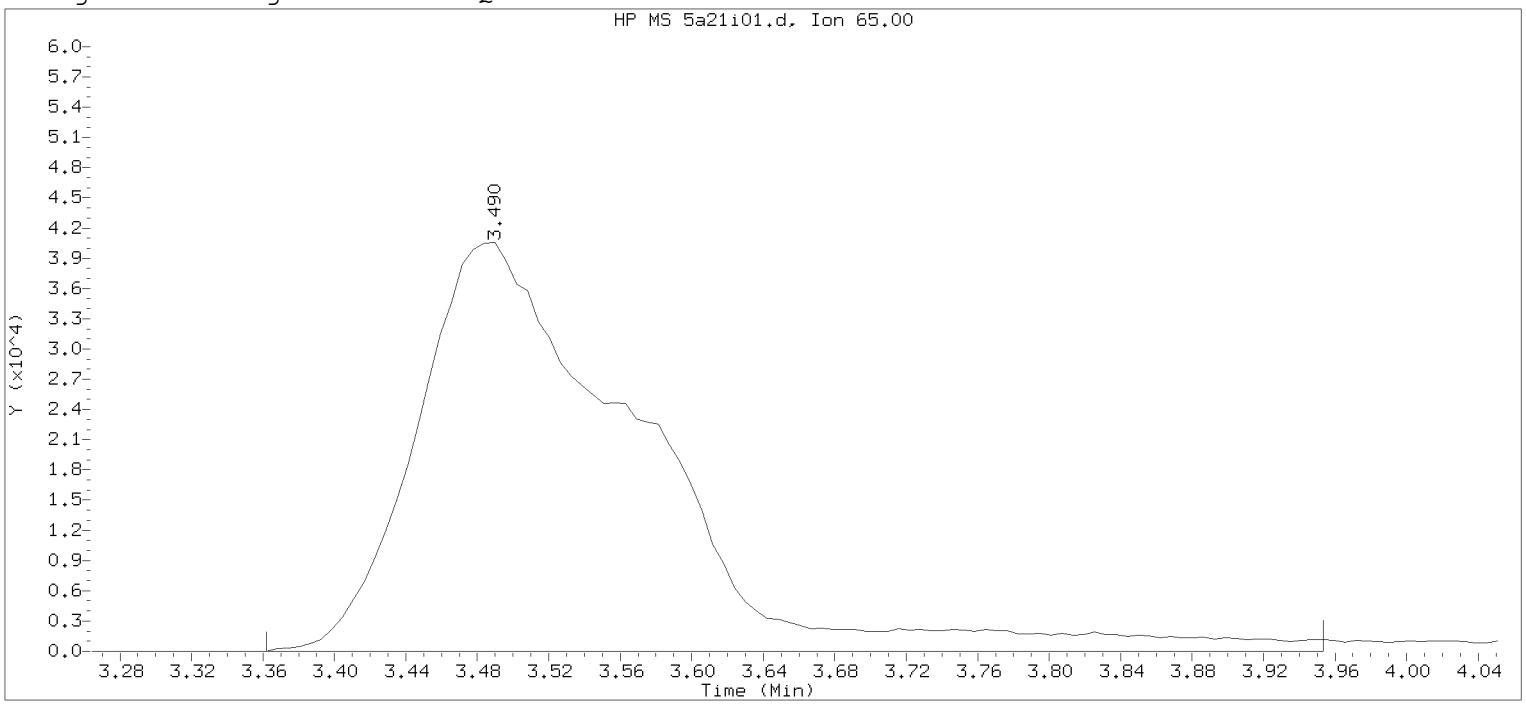
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

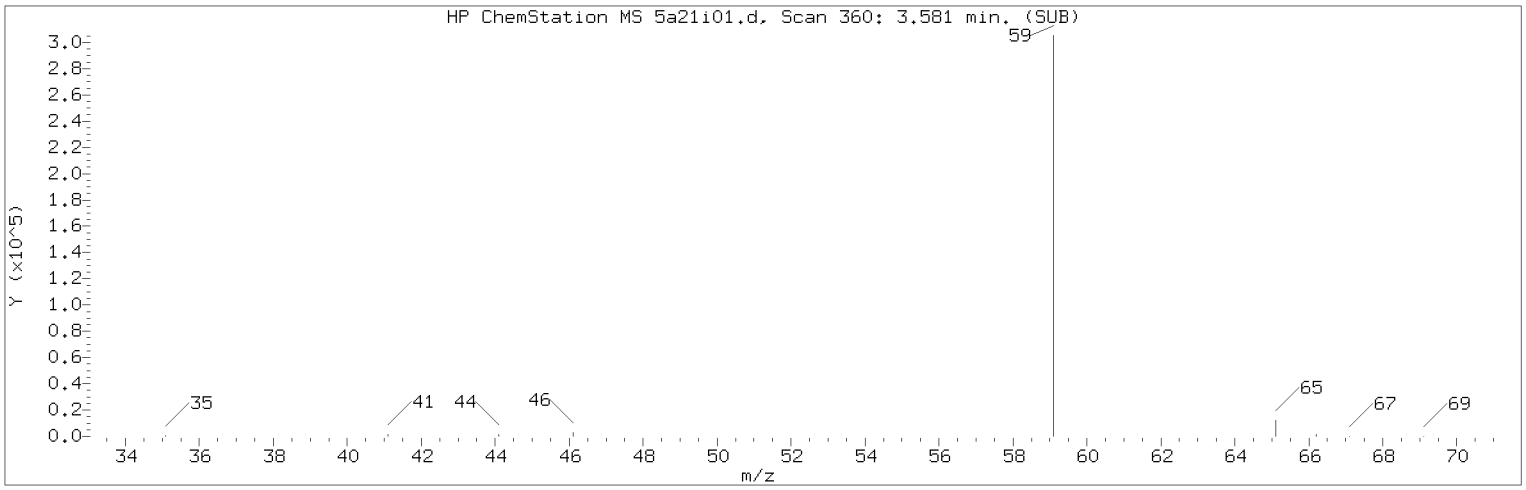
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

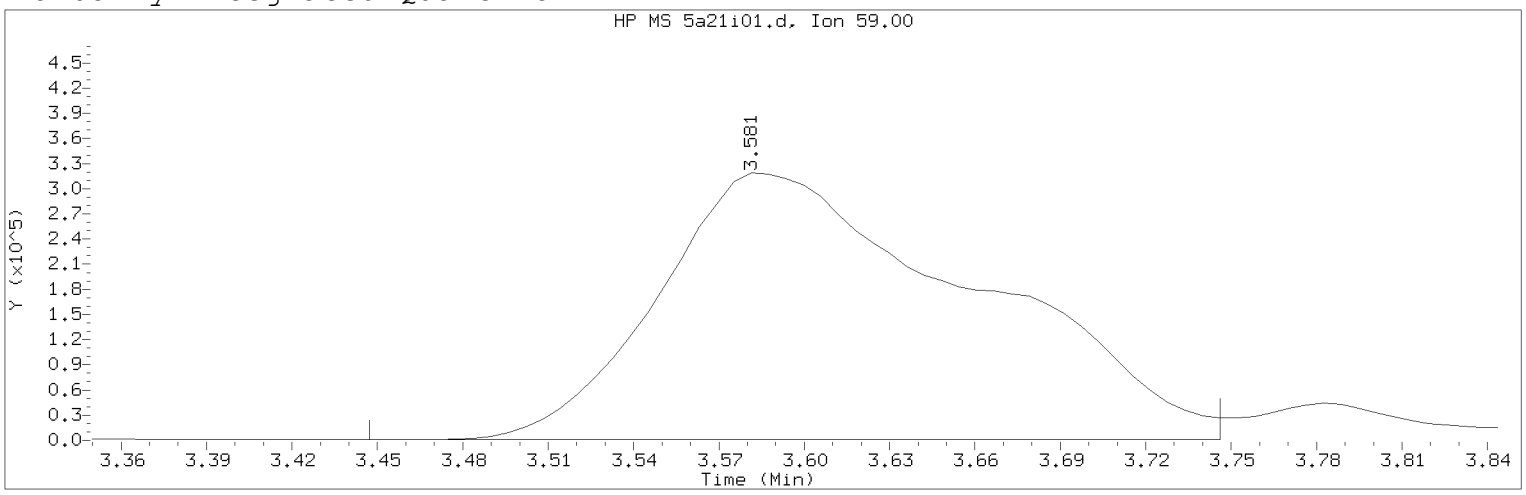
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 355812
On-column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

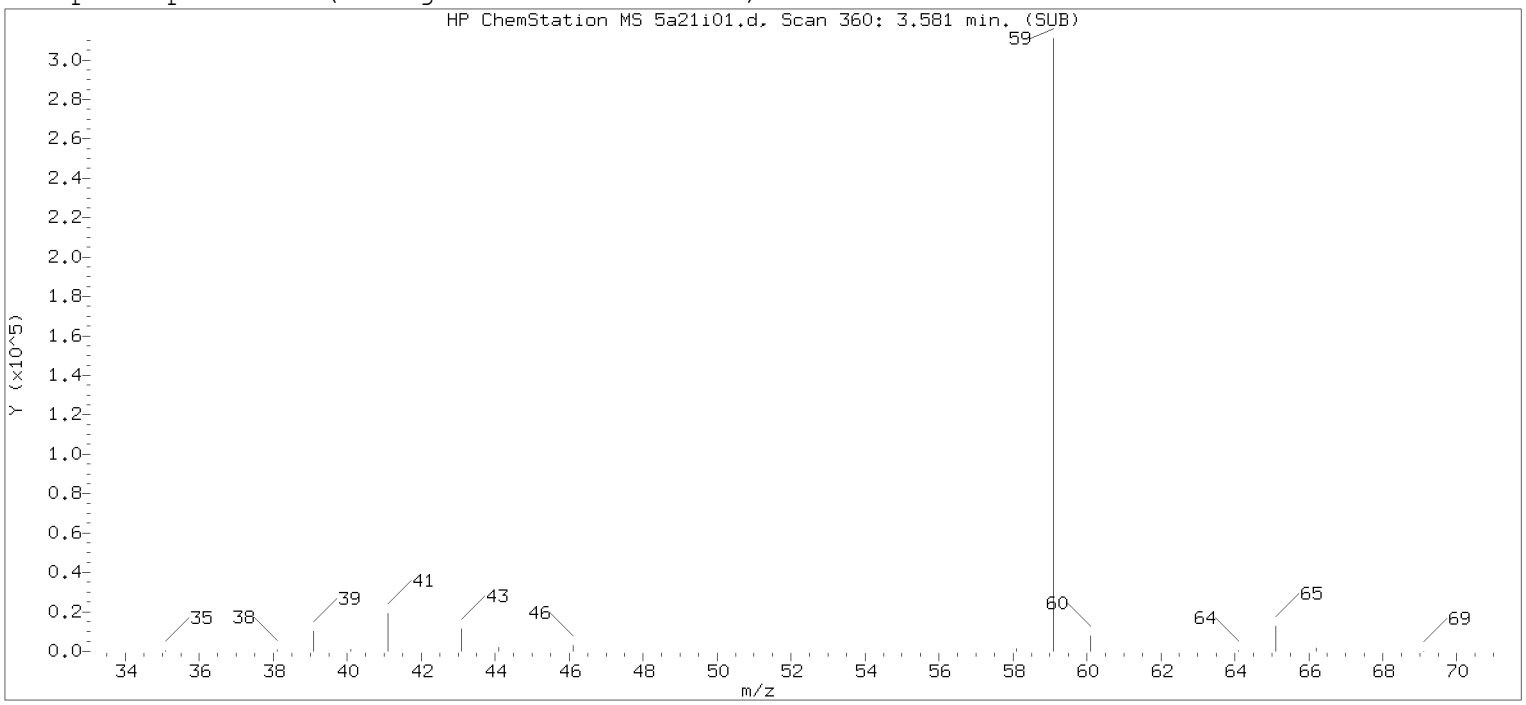
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area (flag) : 2474869M
On-Column Amount (ng) : 1447.0190
Integration start scan : 337 Integration stop scan: 386
Y at integration start : 427 Y at integration end: 427

Reason for manual integration: improper integration

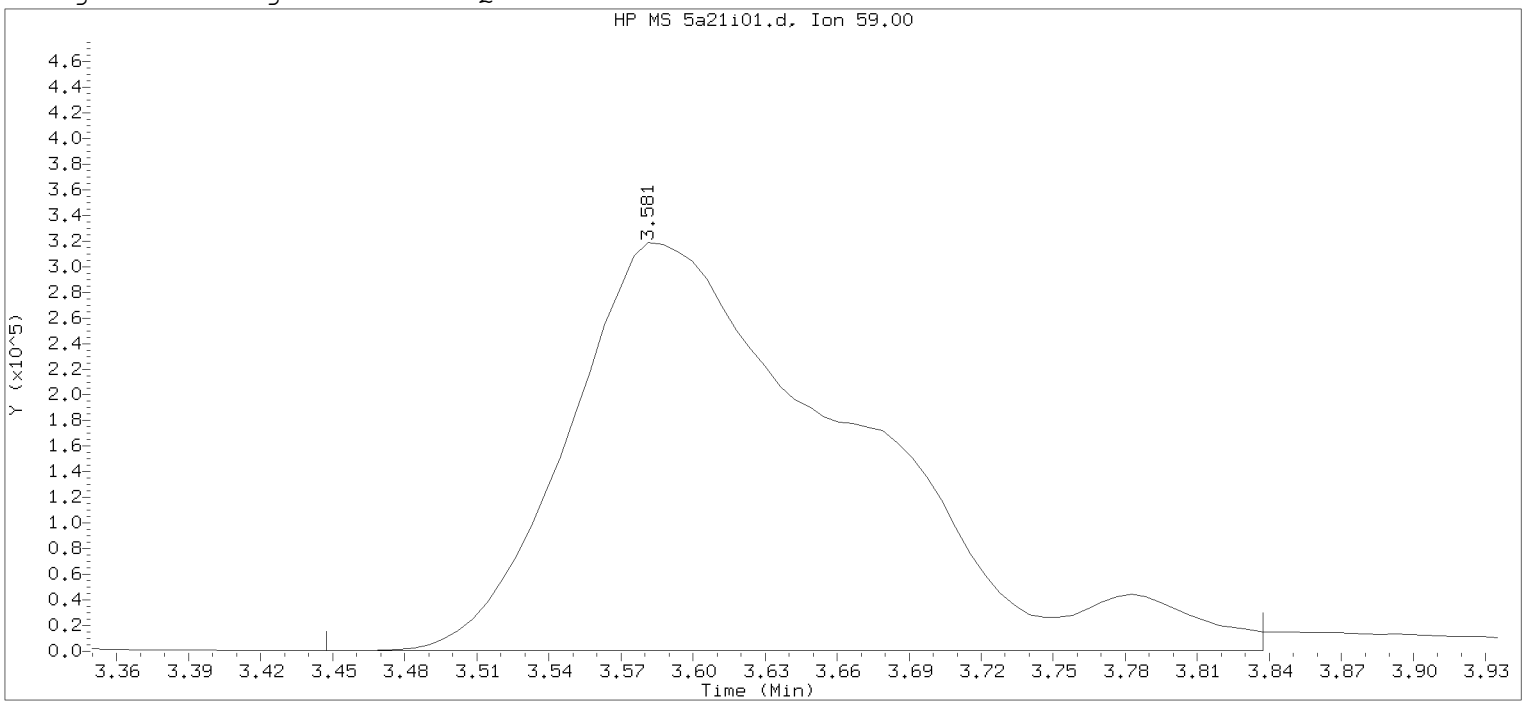
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

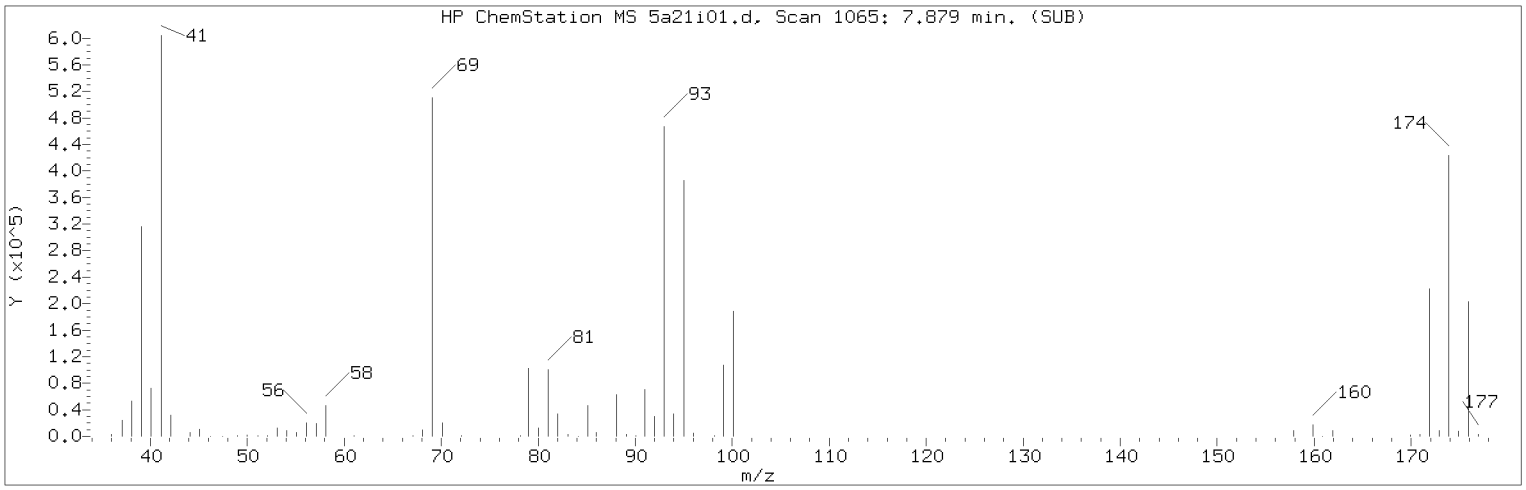
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

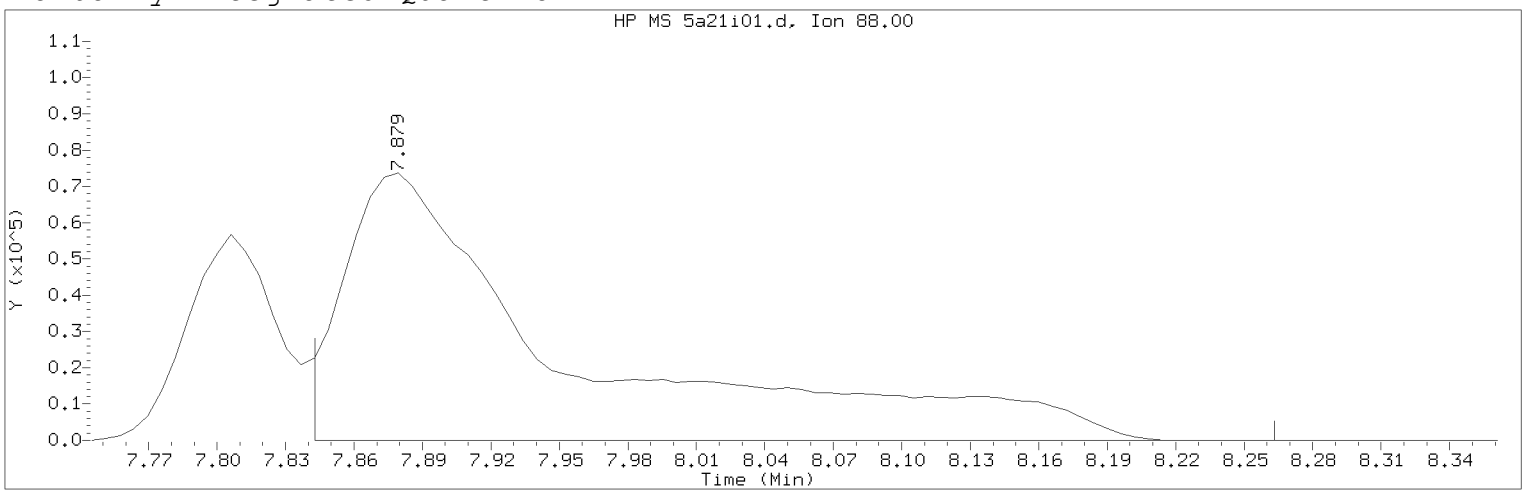
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area : 2634322
On-column Amount (ng) : 1505.7364
Integration start scan : 337 Integration stop scan: 401
Y at integration start : 427 Y at integration end: 427

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

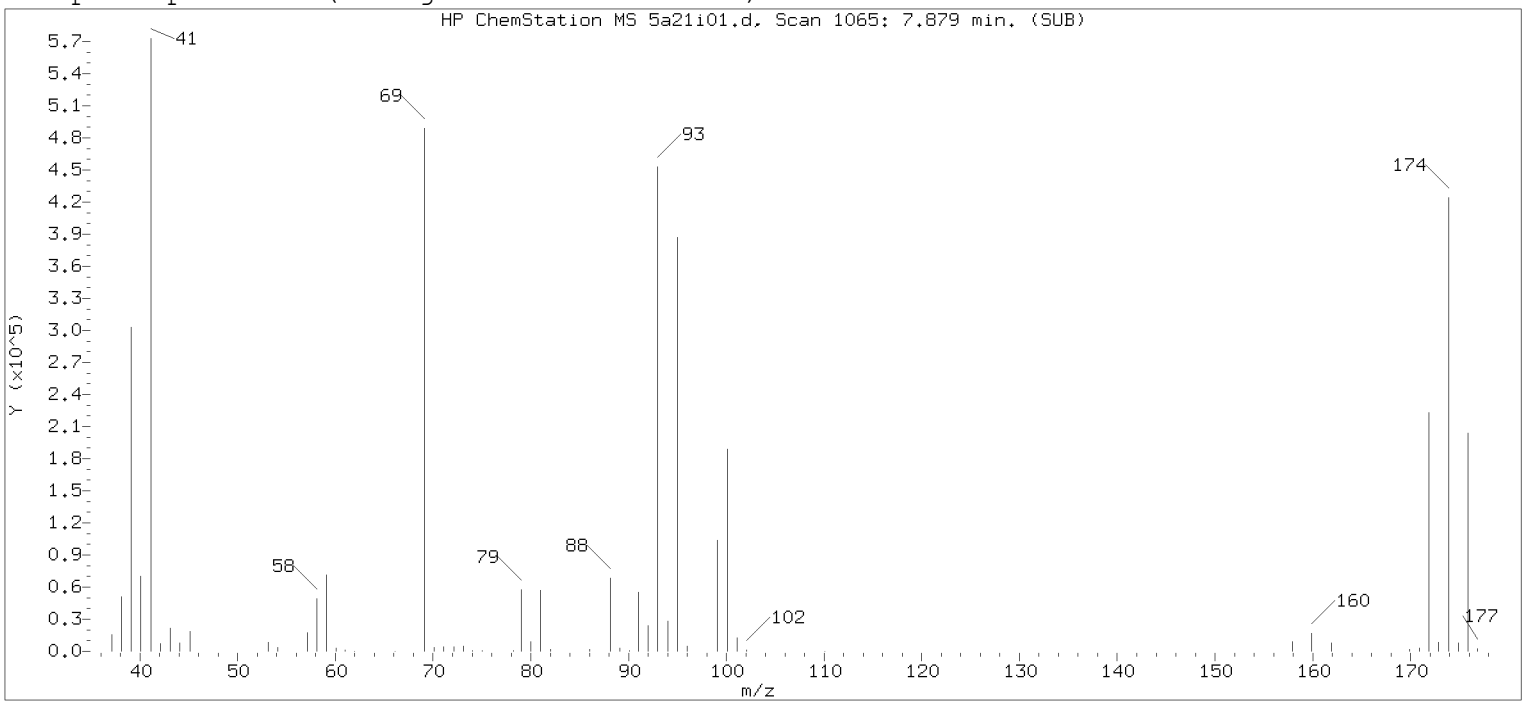
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 505646M
On-Column Amount (ng) : 4143.9152
Integration start scan : 1058 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

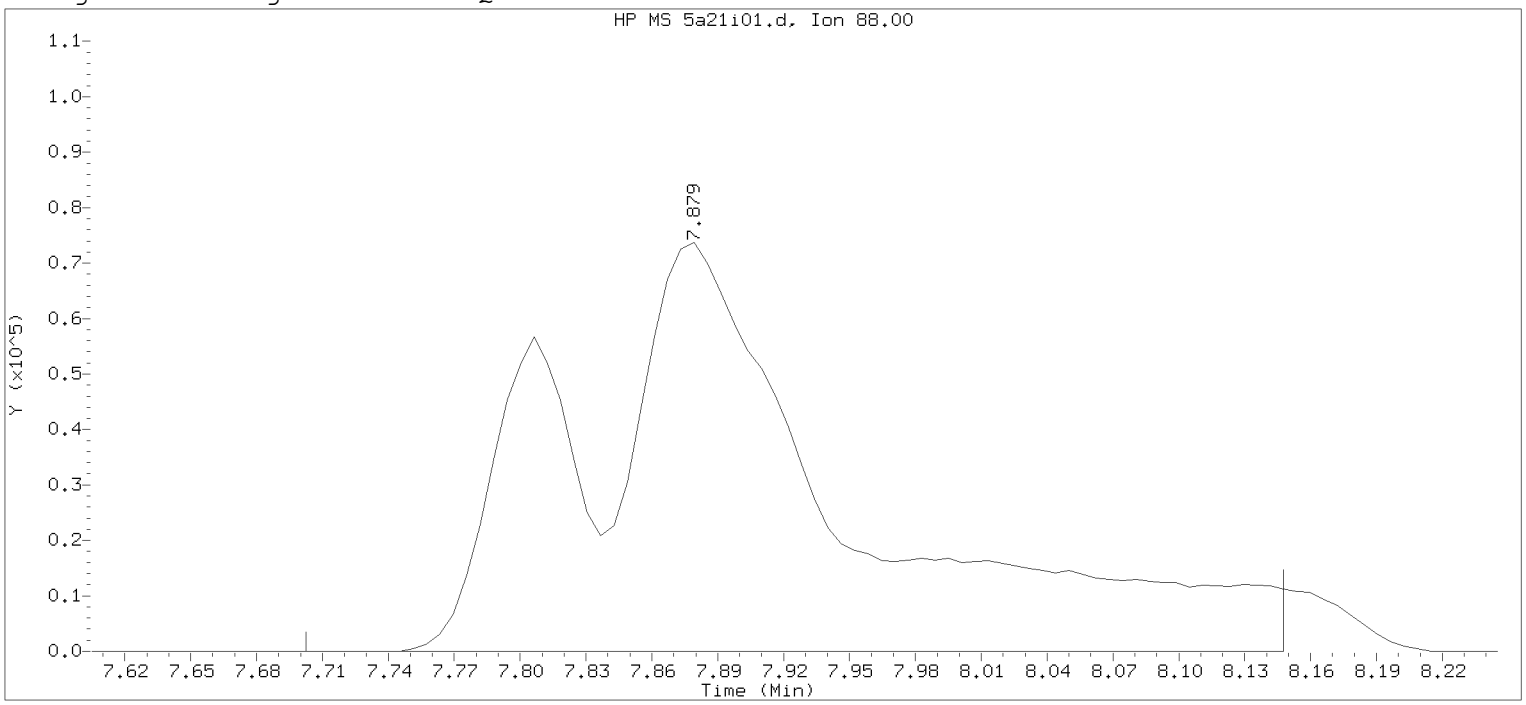
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

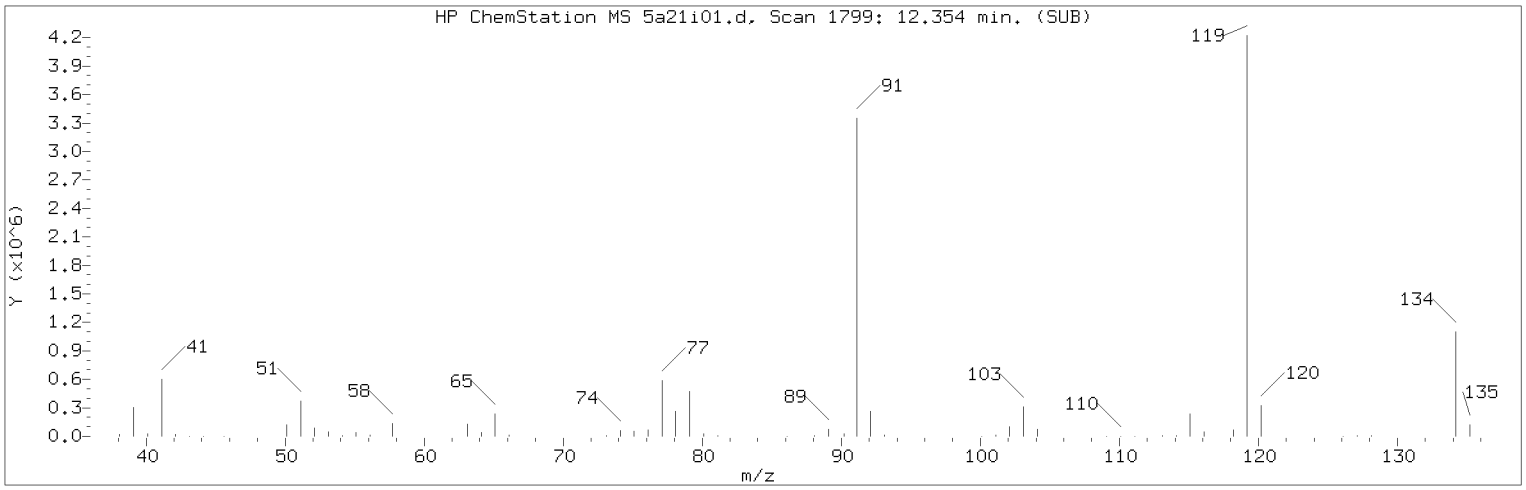
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

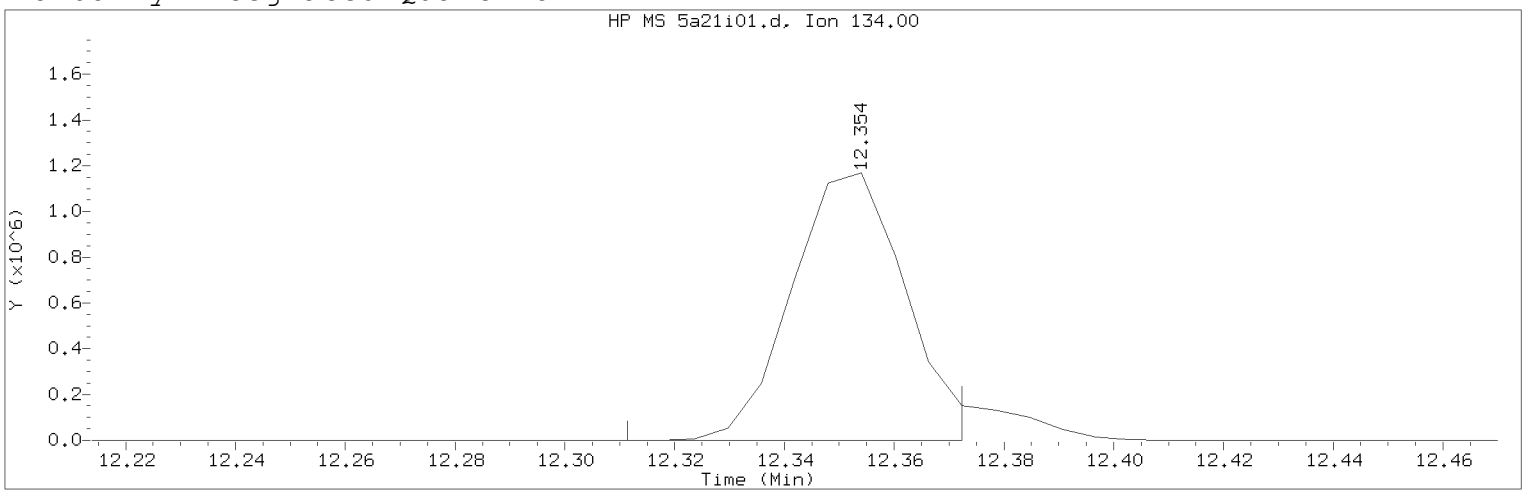
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area : 634455
On-column Amount (ng) : 4311.6616
Integration start scan : 1035 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

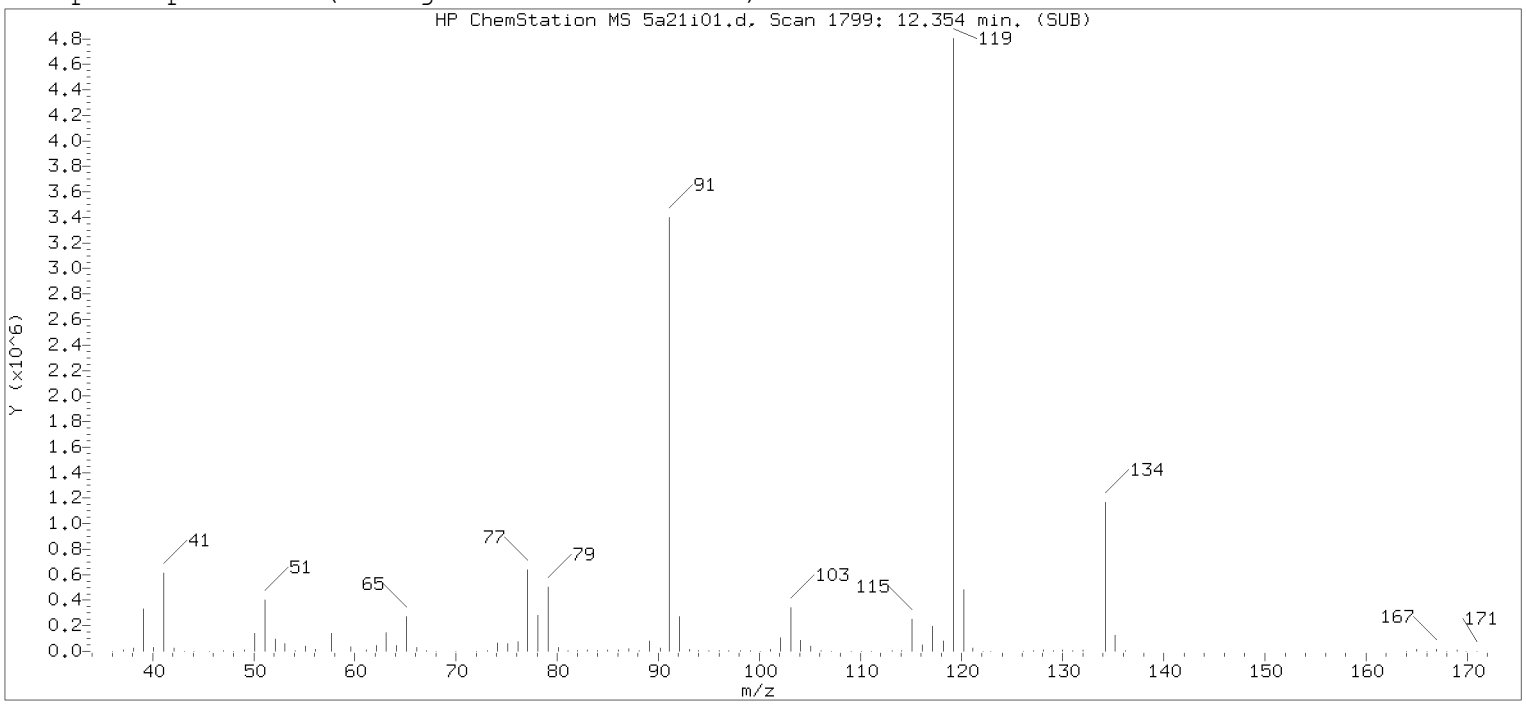
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area (flag) : 1685066M
On-Column Amount (ng) : 278.2183
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

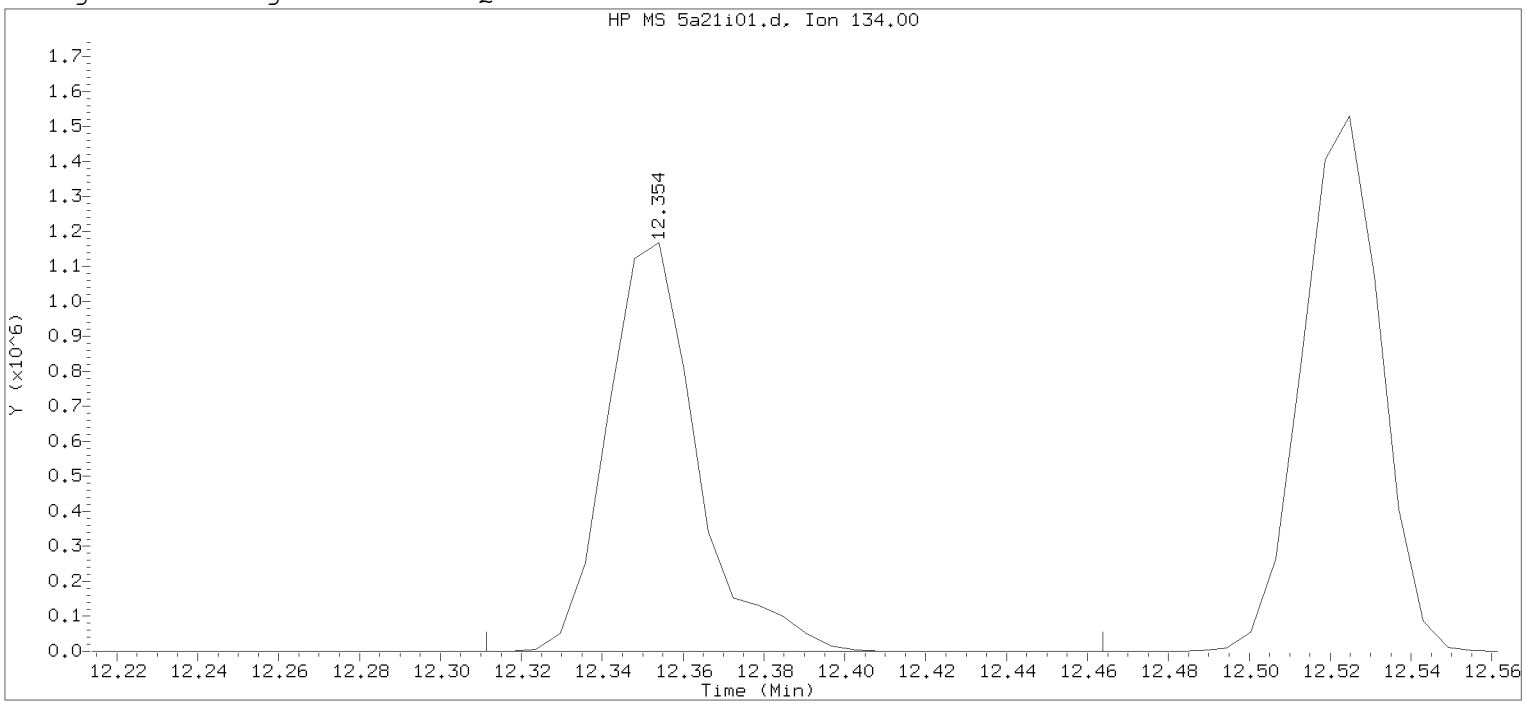
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



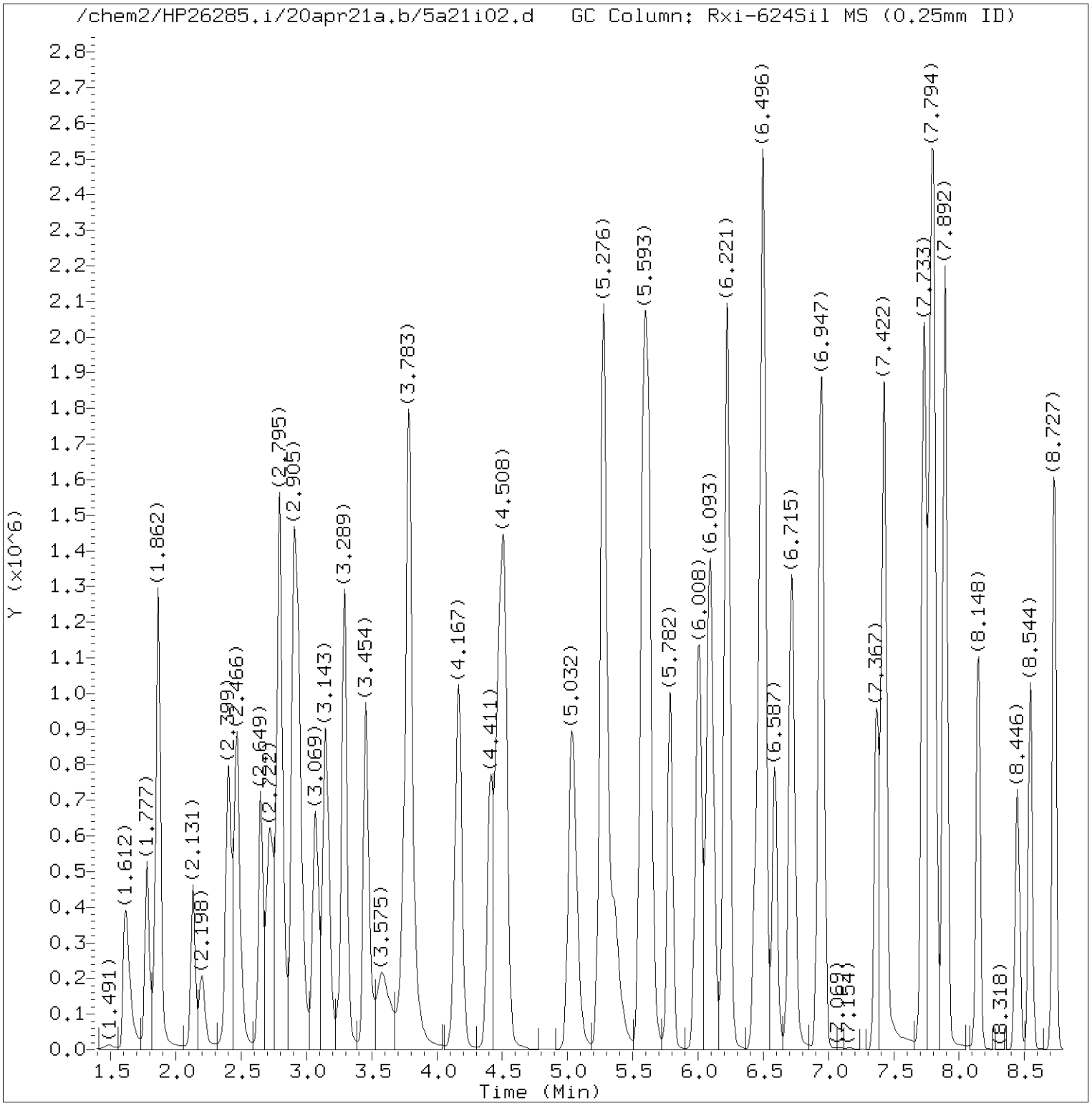
Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area : 1795576
On-column Amount (ng) : 291.1602
Integration start scan : 1791 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

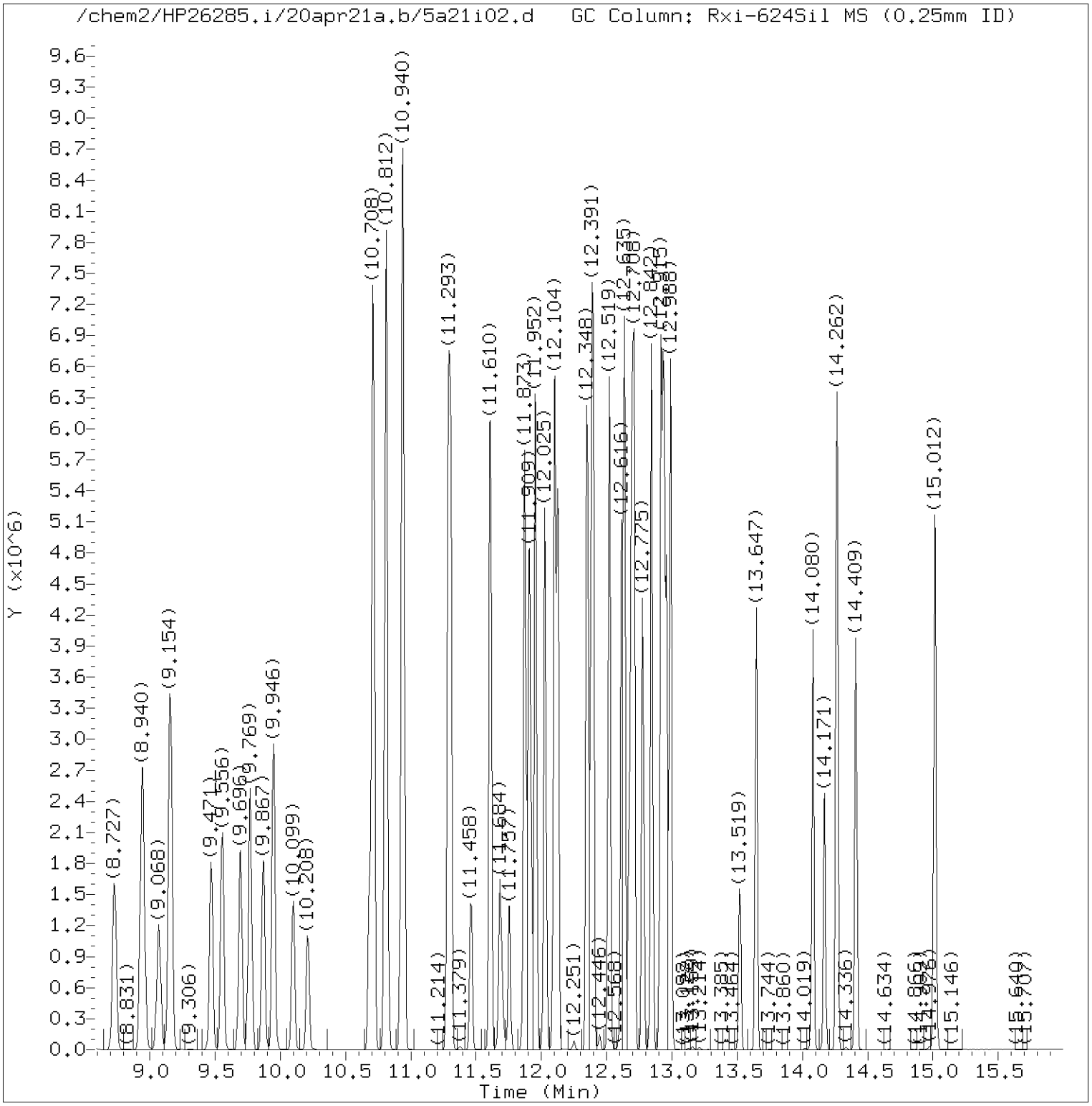
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	873226	104.047
4) Chloromethane	(2)	1.777	50	655841	97.836
5) 1,3-Butadiene	(2)	1.862	39	634972	68.616
6) Vinyl Chloride	(2)	1.868	62	604184	102.608
8) Bromomethane	(2)	2.131	94	395793	100.116
9) Chloroethane	(2)	2.198	64	289634	103.890
10) Dichlorofluoromethane	(2)	2.399	67	925922	101.918
12) Trichlorofluoromethane	(2)	2.442	101	751734	104.239
11) n-Pentane	(2)	2.472	43	651119	96.995
14) Ethyl ether	(2)	2.649	59	525058	105.609
15) Freon 123a	(2)	2.716	67	771972	102.551
16) Acrolein	(1)	2.795	56	2255420	1023.922
17) 1,1-Dichloroethene	(2)	2.899	96	582916	104.032
17) 1,1-Dichloroethene	(2)	2.899	63	296111	105.443
19) Freon 113	(2)	2.929	101	682149	107.557
18) Acetone	(1)	2.935	58	234830	216.159
22) Methyl Iodide	(2)	3.069	142	1112268	104.102
21) 2-Propanol	(1)	3.082	45	465082	526.097
23) Carbon Disulfide	(2)	3.143	76	2068953	104.972
27) Methyl Acetate	(2)	3.277	43	807702	99.981
25) Allyl Chloride	(2)	3.295	41	976677	104.129
28) Methylene Chloride	(2)	3.454	84	655842	103.839
29)*t-Butyl alcohol-d10	(1)	3.472	65	347877M	250.000
30) t-Butyl alcohol	(1)	3.588	59	842379	514.093
31) Acrylonitrile	(2)	3.740	53	447540	104.954
32) trans-1,2-Dichloroethene	(2)	3.783	96	648552	103.443
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	1713425	103.320
34) n-Hexane	(2)	4.167	57	986803	106.145
36) 1,1-Dichloroethane	(2)	4.405	63	1182811	104.215
38) di-Isopropyl ether	(2)	4.472	45	2103879	103.784
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	1033766	107.213
40) Ethyl t-butyl ether	(2)	5.032	59	1834635	101.944
44) 2-Butanone	(2)	5.264	43	1265905	203.974
42) cis-1,2-Dichloroethene	(2)	5.276	96	738513	104.141
45) 2,2-Dichloropropane	(2)	5.282	77	1004742	104.916
47) Propionitrile	(1)	5.362	54	946715	530.745
48) Methacrylonitrile	(2)	5.581	67	1113996	262.312
49) Bromochloromethane	(2)	5.618	128	337485	103.907

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	348863	216.398
51) Chloroform	(2)	5.782	83	1188040	104.362
53) 1,1,1-Trichloroethane	(2)	6.002	97	1089021	106.252
52)$Dibromofluoromethane	(2)	6.008	113	259630	50.300
52)$Dibromofluoromethane	(2)	6.008	111	265266	50.193
54) Cyclohexane	(2)	6.093	56	1275315	106.836
54) Cyclohexane	(2)	6.093	84	1050963	106.434
54) Cyclohexane	(2)	6.093	69	396926	107.203
43) 1,2-Dichloroethene (Total)	(2)		96	1387065	207.584
56) Carbon Tetrachloride	(2)	6.215	117	974553	108.981
55) 1,1-Dichloropropene	(2)	6.227	75	977668	105.297
58) Isobutyl Alcohol	(1)	6.453	41	716282	1311.436
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57676	49.961
57)$1,2-Dichloroethane-d4	(2)	6.477	65	282752	50.096
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37247	50.390
60) Benzene	(2)	6.502	78	2867187	103.854
61) 1,2-Dichloroethane	(2)	6.587	62	859134	101.319
61) 1,2-Dichloroethane	(2)	6.587	98	79345	110.650
65) t-Amyl methyl ether	(2)	6.715	73	1833906	102.124
66)*Fluorobenzene	(2)	6.928	96	1036304	50.000
67) n-Heptane	(2)	6.953	43	943779	105.097
69) n-Butanol	(1)	7.367	56	1249826	2651.941
71) Trichloroethene	(2)	7.428	95	758145	104.645
73) Methylcyclohexane	(2)	7.727	83	1230133	106.834
73) Methylcyclohexane	(2)	7.733	98	523046	107.302
74) 1,2-Dichloropropane	(2)	7.776	63	725959	105.044
76) 1,4-Dioxane	(1)	7.873	88	157068M	1343.583
75) Dibromomethane	(2)	7.892	93	463304	106.463
77) Methyl Methacrylate	(2)	7.898	69	710702	109.912
79) Bromodichloromethane	(2)	8.148	83	931524	110.389
80) 2-Nitropropane	(2)	8.446	41	644513	220.516
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	585861	109.539
82) cis-1,3-Dichloropropene	(2)	8.727	75	1177656	110.436
83) 4-Methyl-2-pentanone	(2)	8.940	43	2566204	214.529
84)$Toluene-d8	(3)	9.068	98	1013239	49.593
84)$Toluene-d8	(3)	9.068	100	668715	49.709
89) Toluene	(3)	9.154	92	1847083	102.527
90) trans-1,3-Dichloropropene	(3)	9.471	75	1079462	111.675

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	1204012	109.541
93) 1,1,2-Trichloroethane	(3)	9.696	97	674136	104.668
94) Tetrachloroethene	(3)	9.769	166	785305	102.776
95) 1,3-Dichloropropane	(3)	9.867	76	1114528	104.220
97) 2-Hexanone	(3)	9.946	43	2047052	213.864
91) 1,3-Dichloropropene (total)	(3)		100	2257118	222.111
98) Dibromochloromethane	(3)	10.099	129	768472	112.756
100) 1,2-Dibromoethane	(3)	10.208	107	755002	106.336
101)*Chlorobenzene-d5	(3)	10.684	117	831366	50.000
102) 1-Chlorohexane	(3)	10.708	91	1084300	103.492
103) Chlorobenzene	(3)	10.714	112	2035939	104.130
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	734441	108.883
105) Ethylbenzene	(3)	10.812	91	3675216	105.505
107) m+p-Xylene	(3)	10.940	106	2788515	208.644
108) o-Xylene	(3)	11.287	106	1378774	105.399
110) Styrene	(3)	11.306	104	2304191	109.295
111) Bromoform	(3)	11.464	173	583396	118.313
112) Isopropylbenzene	(3)	11.610	105	3604265	104.993
113) Cyclohexanone	(1)	11.684	55	723334	1347.095
115)$4-Bromofluorobenzene	(3)	11.751	95	433090	50.309
115)$4-Bromofluorobenzene	(3)	11.757	174	334791	49.854
109) Xylene (Total)	(3)		106	4167289	314.043
116) Bromobenzene	(4)	11.867	156	864771	104.955
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	1208260	108.065
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	619236	258.804
118) 1,2,3-Trichloropropane	(4)	11.915	110	342708	104.094
120) n-Propylbenzene	(4)	11.952	91	4294298	106.007
121) 2-Chlorotoluene	(4)	12.025	126	866539	104.359
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	3051340	107.153
122) 4-Chlorotoluene	(4)	12.129	126	881743	105.123
125) tert-Butylbenzene	(4)	12.348	134	602948M	106.538
126) Pentachloroethane	(4)	12.379	167	520795	112.091
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	3149431	107.398
128) sec-Butylbenzene	(4)	12.519	105	3763052	106.584
130) 1,3-Dichlorobenzene	(4)	12.616	146	1618478	104.433
131) p-Isopropyltoluene	(4)	12.635	119	3155925	107.189
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	432195	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	1624875	103.310

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	2970272	105.523
136) Benzyl Chloride	(4)	12.775	91	2503346	116.704
137) 1,3-Diethylbenzene	(4)	12.842	119	1817627	106.845
138) 1,4-Diethylbenzene	(4)	12.915	119	1878412	106.754
140) n-Butylbenzene	(4)	12.933	92	1596134	107.475
139) 1,2-Dichlorobenzene	(4)	12.958	146	1550292	104.139
141) 1,2-Diethylbenzene	(4)	12.988	119	1514030	105.233
142) Diethylbenzene (total)	(4)		100	5210069	318.831
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	313410	111.027
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	1039095	105.678
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	981755	106.279
148) Hexachlorobutadiene	(4)	14.171	225	376946	106.105
149) Naphthalene	(4)	14.262	128	3937085	107.627
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	966916	105.777
151) 2-Methylnaphthalene	(4)	15.012	142	2160027	113.654

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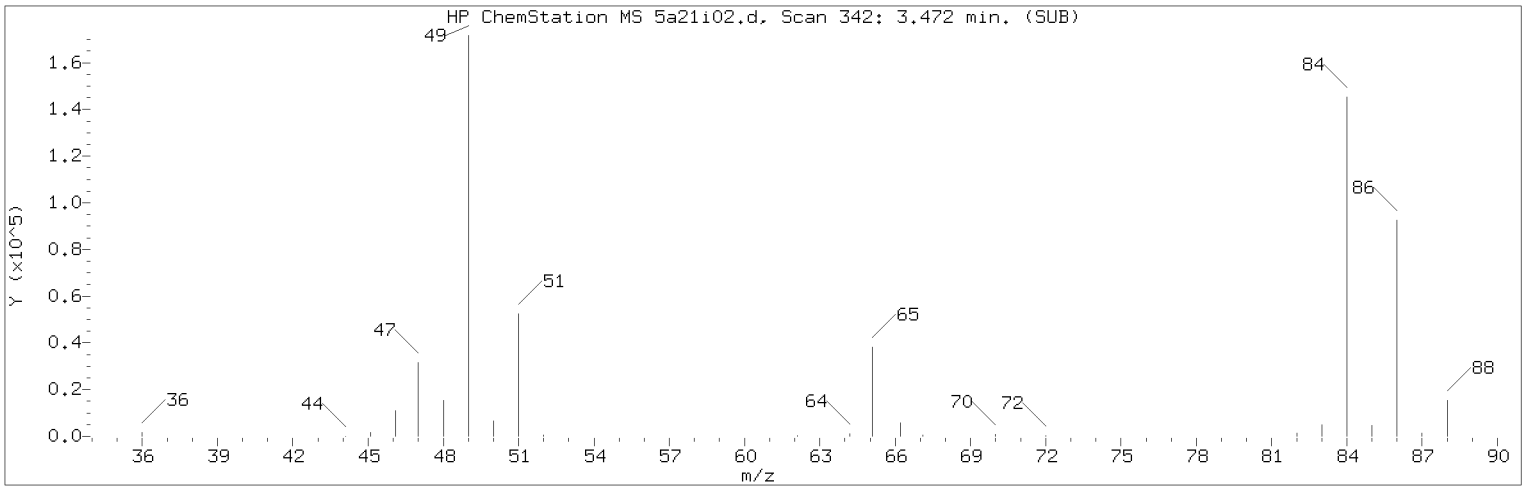
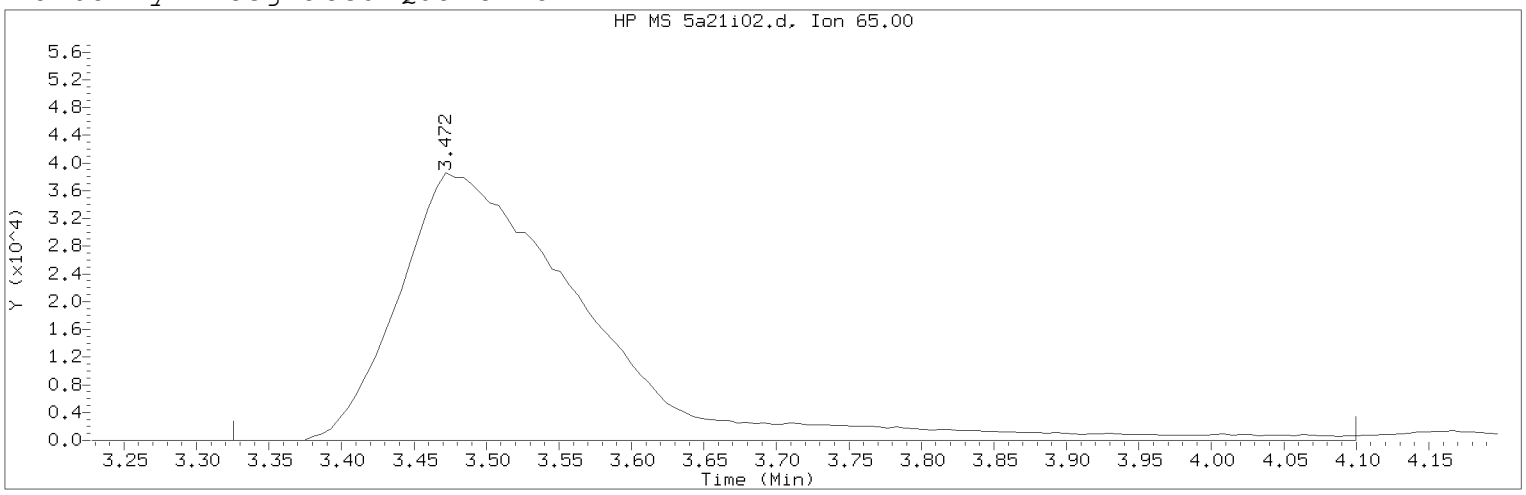
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

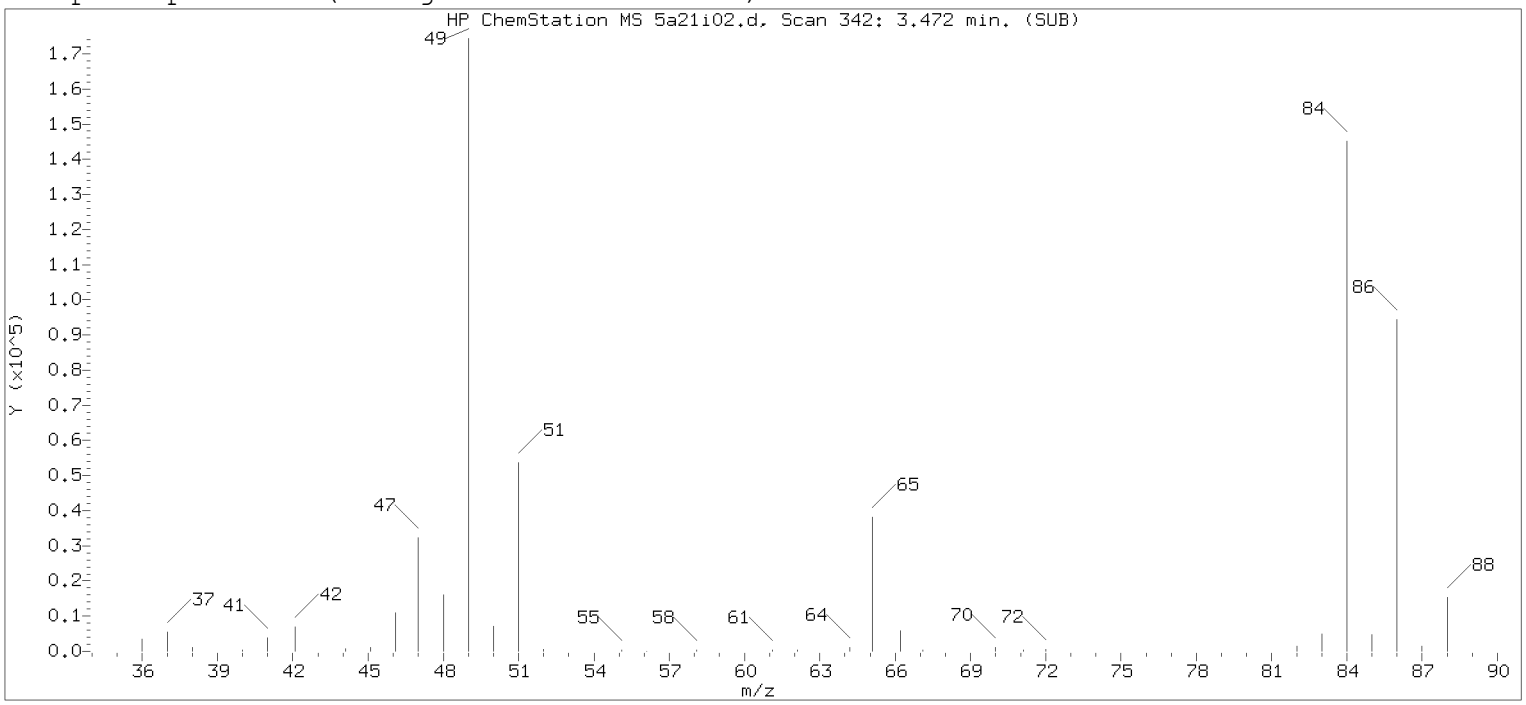
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area (flag) : 347877M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 444
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

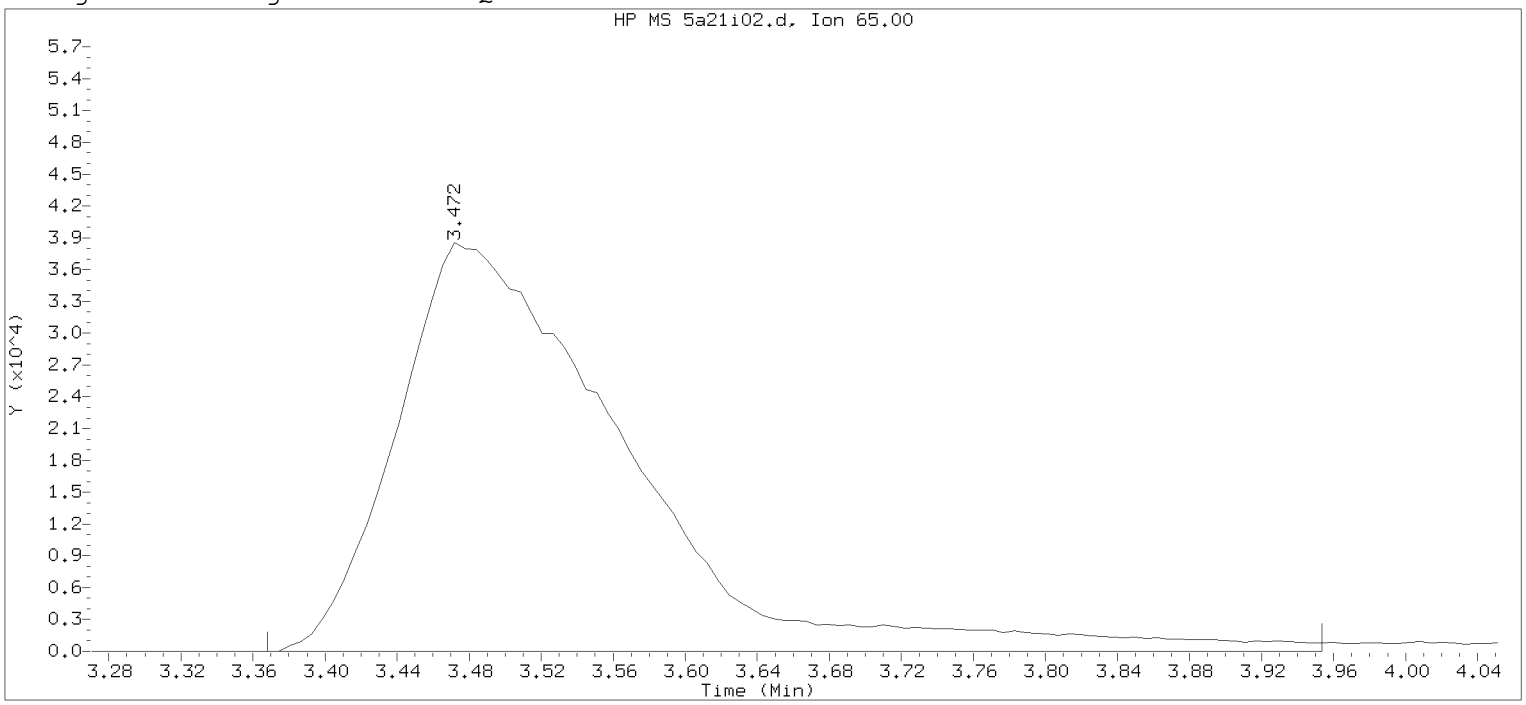
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

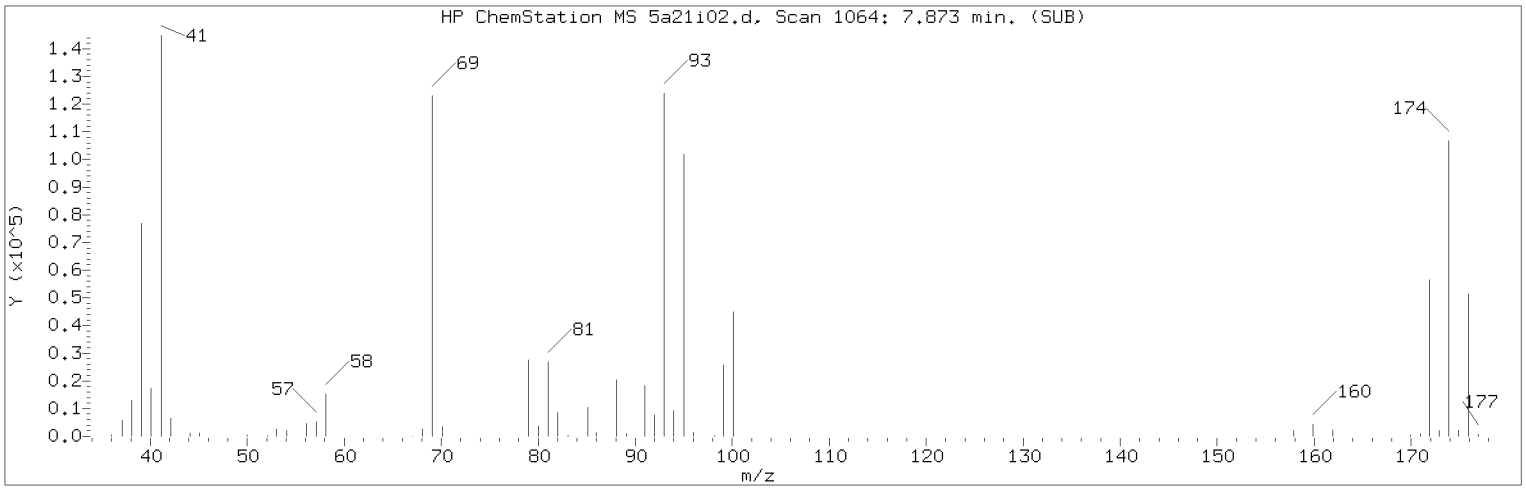
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

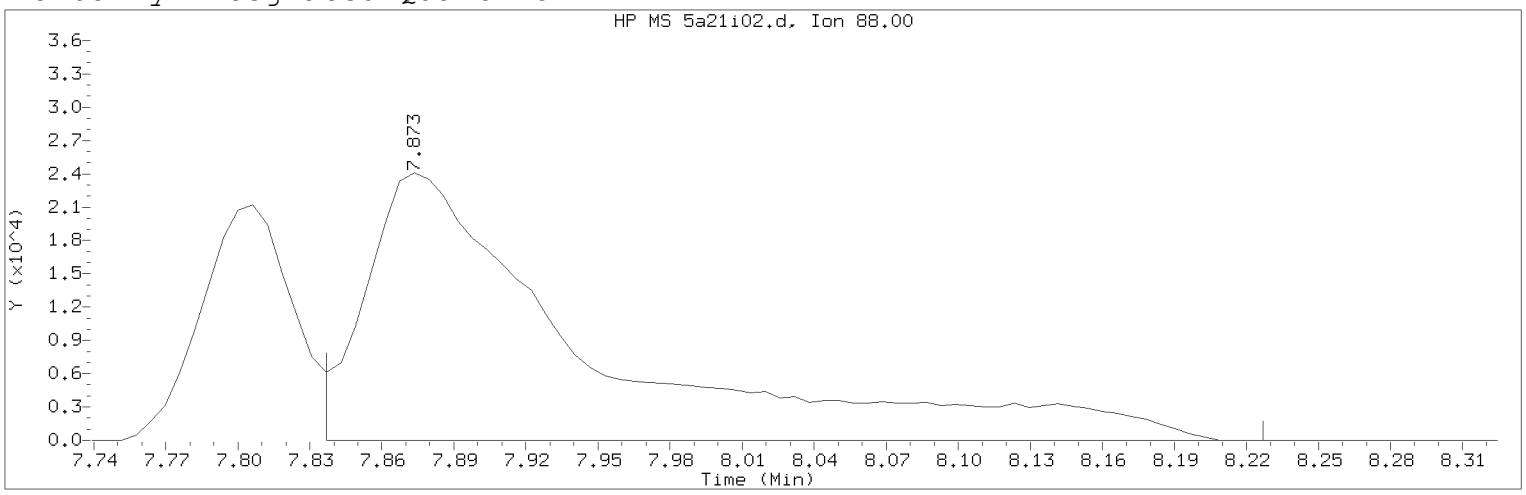
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area : 341170
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

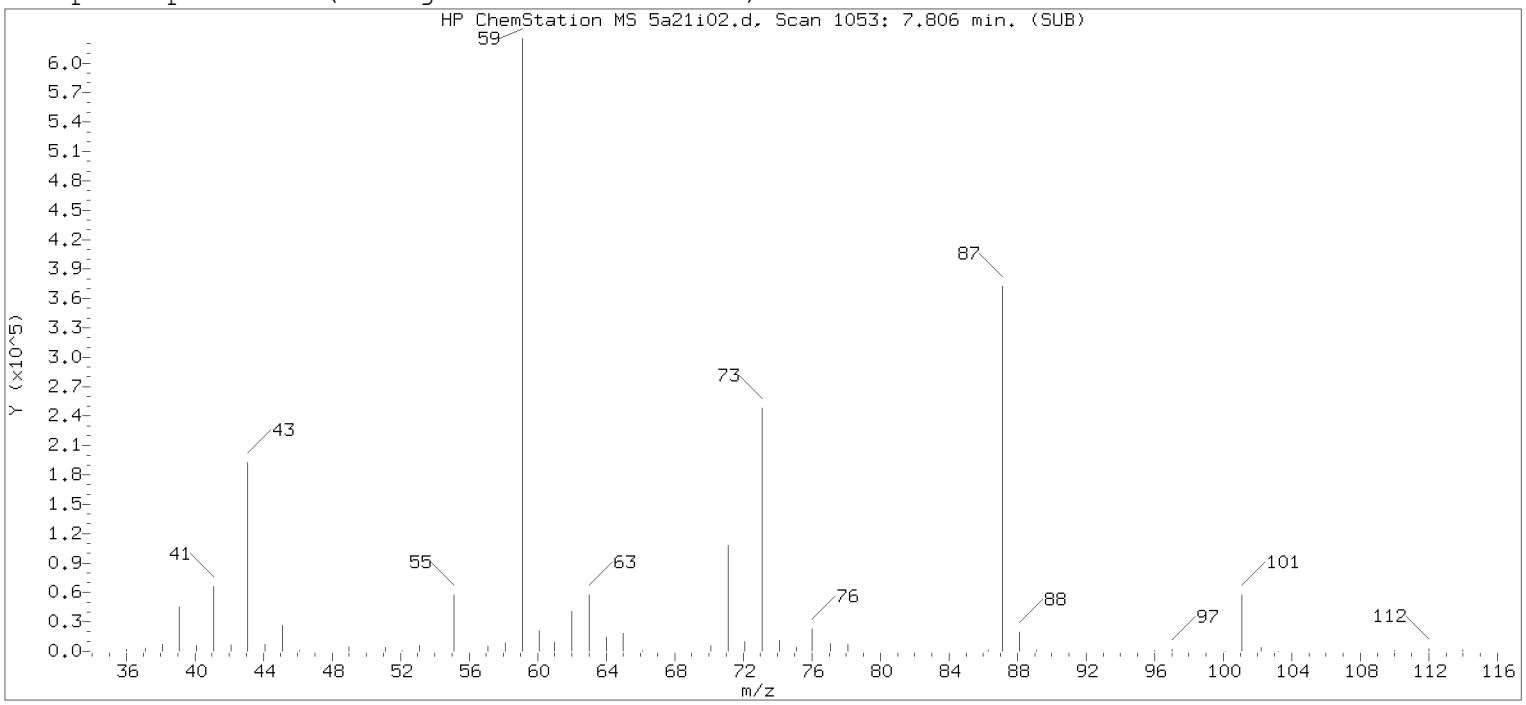
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 157068M
On-Column Amount (ng) : 1343.5830
Integration start scan : 1057 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

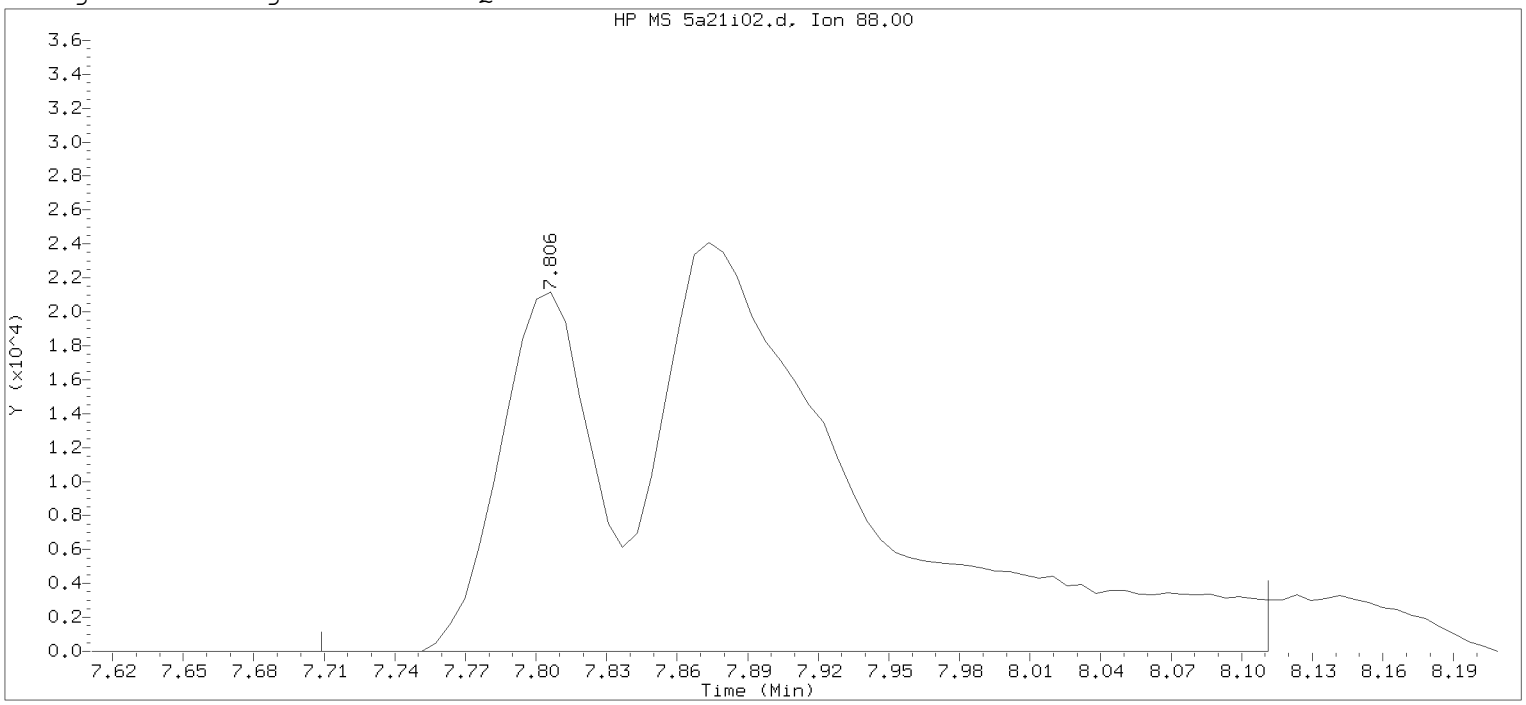
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

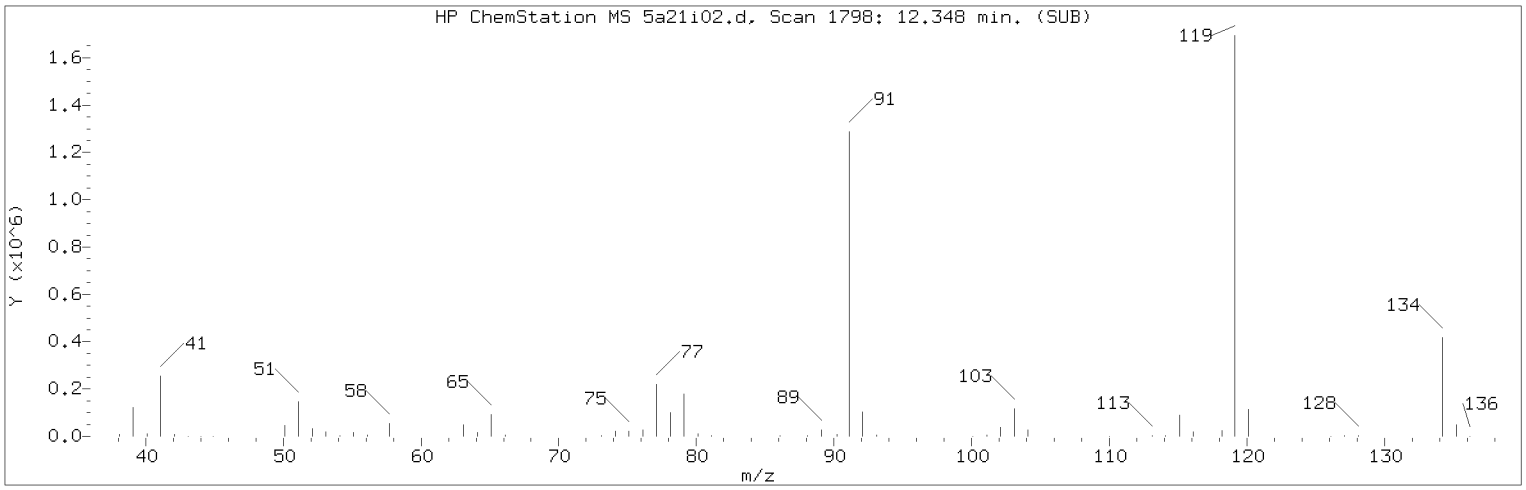
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

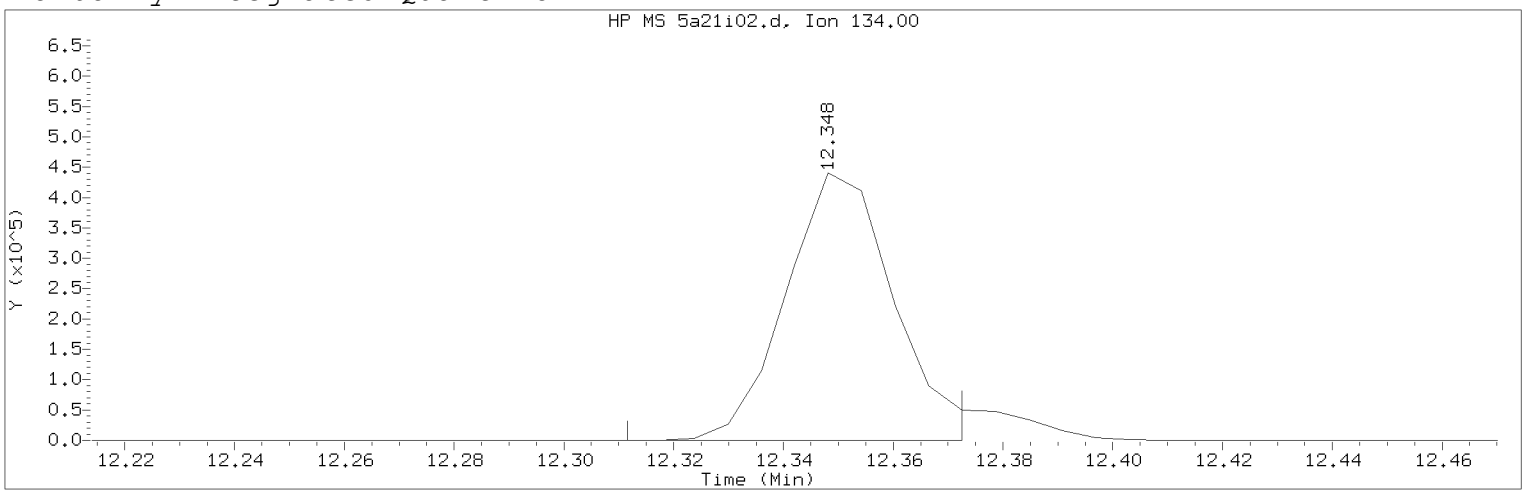
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1053
Retention Time (minutes): 7.806
Quant Ion : 88.00
Area : 198541
On-column Amount (ng) : 1350.5622
Integration start scan : 1036 Integration stop scan: 1102
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

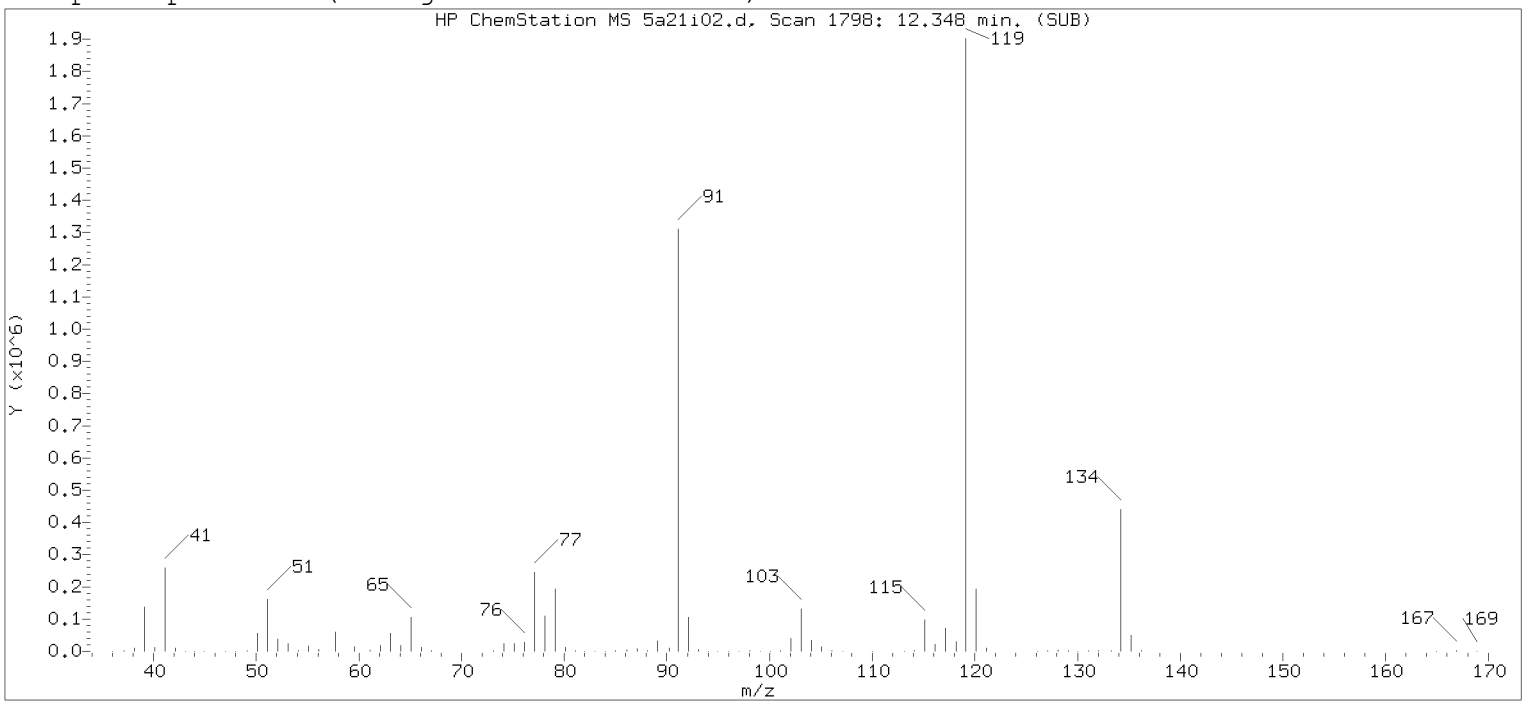
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 602948M
On-Column Amount (ng) : 106.5381
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

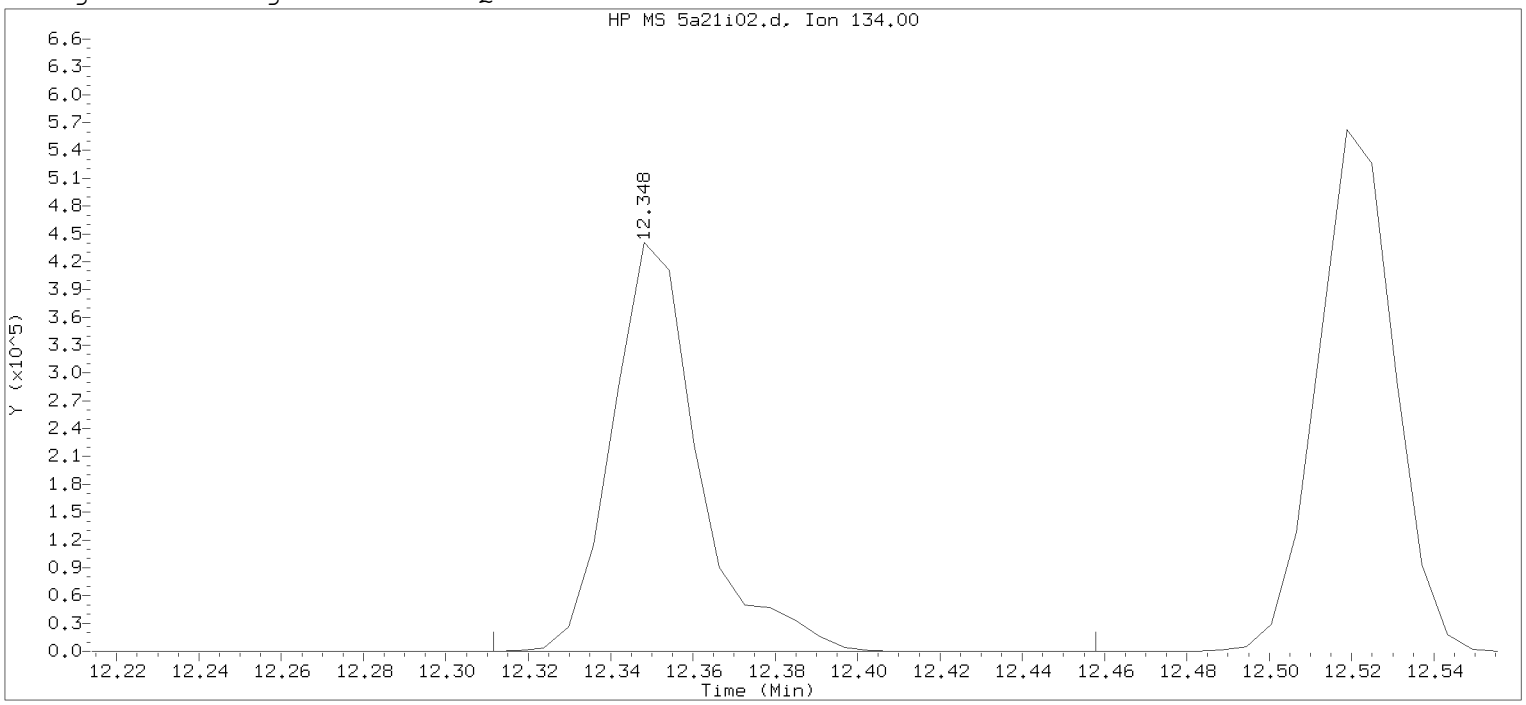
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



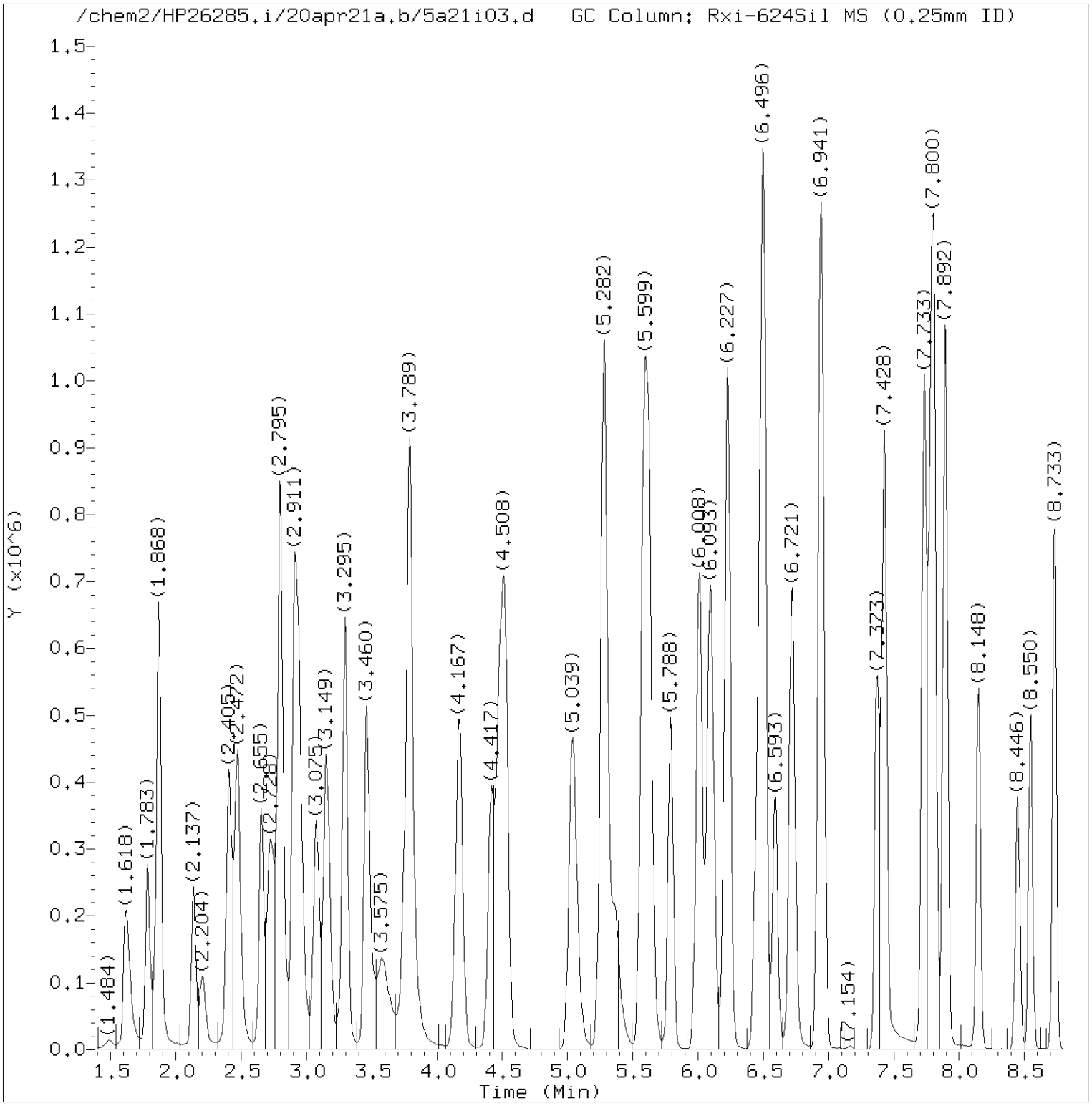
Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 640336
On-column Amount (ng) : 107.1483
Integration start scan : 1791 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

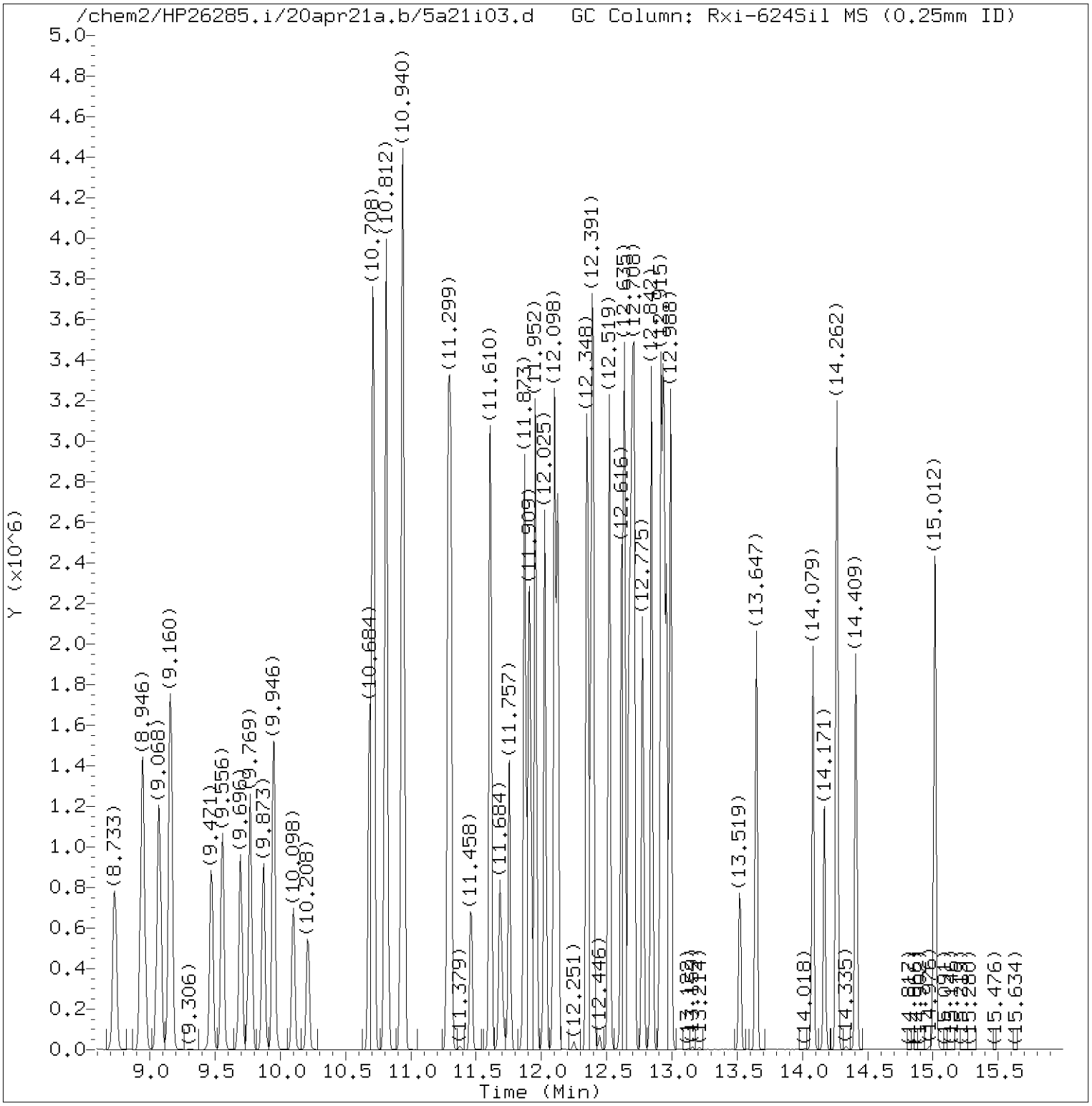
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	459427	53.380
4) Chloromethane	(2)	1.777	50	337795	49.137
5) 1,3-Butadiene	(2)	1.868	39	322506	33.983
6) Vinyl Chloride	(2)	1.874	62	317567	52.590
8) Bromomethane	(2)	2.137	94	212217	52.345
9) Chloroethane	(2)	2.204	64	148764	52.033
10) Dichlorofluoromethane	(2)	2.405	67	471274	50.583
12) Trichlorofluoromethane	(2)	2.448	101	392697	53.099
11) n-Pentane	(2)	2.478	43	326134	47.374
14) Ethyl ether	(2)	2.655	59	263214	51.625
15) Freon 123a	(2)	2.728	67	384551	49.814
16) Acrolein	(1)	2.801	56	1211648	516.753
17) 1,1-Dichloroethene	(2)	2.905	96	290561	50.566
17) 1,1-Dichloroethene	(2)	2.905	63	148228	51.470
18) Acetone	(1)	2.941	58	122675	106.082
19) Freon 113	(2)	2.941	101	340156	52.299
22) Methyl Iodide	(2)	3.075	142	552548	50.429
21) 2-Propanol	(1)	3.088	45	247311	262.813
23) Carbon Disulfide	(2)	3.149	76	1017161	50.323
27) Methyl Acetate	(2)	3.283	43	404064	48.772
25) Allyl Chloride	(2)	3.301	41	484707	50.392
28) Methylene Chloride	(2)	3.460	84	326045	50.338
29)*t-Butyl alcohol-d10	(1)	3.478	65	370304M	250.000
30) t-Butyl alcohol	(1)	3.588	59	453454	259.977
31) Acrylonitrile	(2)	3.746	53	232307	53.124
32) trans-1,2-Dichloroethene	(2)	3.789	96	326138	50.724
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	863622	50.781
34) n-Hexane	(2)	4.173	57	491875	51.592
36) 1,1-Dichloroethane	(2)	4.411	63	592688	50.921
38) di-Isopropyl ether	(2)	4.478	45	1053201	50.662
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	515013	52.084
40) Ethyl t-butyl ether	(2)	5.039	59	931255	50.459
44) 2-Butanone	(2)	5.270	43	656308	103.120
42) cis-1,2-Dichloroethene	(2)	5.282	96	368640	50.690
45) 2,2-Dichloropropane	(2)	5.288	77	500185	50.930
47) Propionitrile	(1)	5.368	54	476475	250.942
48) Methacrylonitrile	(2)	5.587	67	554277	127.268
49) Bromochloromethane	(2)	5.624	128	165738	49.759

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	179161	104.402
51) Chloroform	(2)	5.788	83	592887	50.786
53) 1,1,1-Trichloroethane	(2)	6.008	97	538643	51.246
52)$Dibromofluoromethane	(2)	6.014	113	264881	50.040
52)$Dibromofluoromethane	(2)	6.014	111	270386	49.889
54) Cyclohexane	(2)	6.093	56	632036	51.630
54) Cyclohexane	(2)	6.093	84	521687	51.518
54) Cyclohexane	(2)	6.093	69	197405	51.990
43) 1,2-Dichloroethene (Total)	(2)		96	694778	101.415
56) Carbon Tetrachloride	(2)	6.215	117	479110	52.244
55) 1,1-Dichloropropene	(2)	6.233	75	482899	50.716
58) Isobutyl Alcohol	(1)	6.453	41	382857	658.517
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59422	50.193
57)$1,2-Dichloroethane-d4	(2)	6.483	65	289602	50.033
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37924	50.029
60) Benzene	(2)	6.502	78	1436583	50.741
61) 1,2-Dichloroethane	(2)	6.593	62	425067	48.882
61) 1,2-Dichloroethane	(2)	6.593	98	38969	52.992
65) t-Amyl methyl ether	(2)	6.721	73	942139	51.159
66)*Fluorobenzene	(2)	6.934	96	1062743	50.000
67) n-Heptane	(2)	6.953	43	463995	50.384
69) n-Butanol	(1)	7.373	56	681476	1358.414
71) Trichloroethene	(2)	7.428	95	376563	50.683
73) Methylcyclohexane	(2)	7.733	83	595748	50.452
73) Methylcyclohexane	(2)	7.733	98	251504	50.312
74) 1,2-Dichloropropane	(2)	7.776	63	362077	51.088
76) 1,4-Dioxane	(1)	7.879	88	81378M	653.960
75) Dibromomethane	(2)	7.892	93	228623	51.229
77) Methyl Methacrylate	(2)	7.898	69	347950	52.473
79) Bromodichloromethane	(2)	8.148	83	450848	52.098
80) 2-Nitropropane	(2)	8.446	41	326295	108.862
81) 2-Chloroethyl Vinyl Ether	(2)	8.550	63	285666	52.083
82) cis-1,3-Dichloropropene	(2)	8.733	75	576071	52.678
83) 4-Methyl-2-pentanone	(2)	8.946	43	1327912	108.249
84)$Toluene-d8	(3)	9.068	98	1030482	49.773
84)$Toluene-d8	(3)	9.068	100	679337	49.834
89) Toluene	(3)	9.160	92	930169	50.952
90) trans-1,3-Dichloropropene	(3)	9.471	75	521871	53.280

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$ = Compound is a surrogate standard.

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	591279	53.087
93) 1,1,2-Trichloroethane	(3)	9.696	97	333288	51.066
94) Tetrachloroethene	(3)	9.769	166	390028	50.373
95) 1,3-Dichloropropane	(3)	9.873	76	549584	50.716
97) 2-Hexanone	(3)	9.946	43	1062422	109.536
91) 1,3-Dichloropropene (total)	(3)		100	1097942	105.957
98) Dibromochloromethane	(3)	10.098	129	370040	53.581
100) 1,2-Dibromoethane	(3)	10.208	107	372185	51.730
101)*Chlorobenzene-d5	(3)	10.684	117	842446	50.000
102) 1-Chlorohexane	(3)	10.708	91	543784	51.219
103) Chlorobenzene	(3)	10.714	112	1014909	51.226
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	365528	53.478
105) Ethylbenzene	(3)	10.812	91	1850788	52.432
107) m+p-Xylene	(3)	10.940	106	1419617	104.822
108) o-Xylene	(3)	11.287	106	695047	52.433
110) Styrene	(3)	11.306	104	1156203	54.121
111) Bromoform	(3)	11.458	173	279092	55.856
112) Isopropylbenzene	(3)	11.610	105	1816493	52.219
113) Cyclohexanone	(1)	11.684	55	367855	643.581
115)$4-Bromofluorobenzene	(3)	11.751	95	438187	50.232
115)$4-Bromofluorobenzene	(3)	11.757	174	339512	49.892
109) Xylene (Total)	(3)		106	2114664	157.256
116) Bromobenzene	(4)	11.866	156	426024	51.354
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	589637	52.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	279818	123.685
118) 1,2,3-Trichloropropane	(4)	11.915	110	172477	52.032
120) n-Propylbenzene	(4)	11.952	91	2157784	52.904
121) 2-Chlorotoluene	(4)	12.025	126	427135	51.091
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	1512463	52.751
122) 4-Chlorotoluene	(4)	12.123	126	437883	51.850
125) tert-Butylbenzene	(4)	12.348	134	298649M	52.411
126) Pentachloroethane	(4)	12.379	167	250481	53.544
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	1563641	52.959
128) sec-Butylbenzene	(4)	12.519	105	1868106	52.552
130) 1,3-Dichlorobenzene	(4)	12.616	146	800517	51.302
131) p-Isopropyltoluene	(4)	12.635	119	1575115	53.134
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	435155	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	811678	51.256

M = Compound was manually integrated.
* = Compound is an internal standard.
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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	1461119	51.555
136) Benzyl Chloride	(4)	12.775	91	1216929	56.346
137) 1,3-Diethylbenzene	(4)	12.842	119	883628	51.589
138) 1,4-Diethylbenzene	(4)	12.915	119	917465	51.787
140) n-Butylbenzene	(4)	12.933	92	781919	52.292
139) 1,2-Dichlorobenzene	(4)	12.958	146	767329	51.194
141) 1,2-Diethylbenzene	(4)	12.988	119	738126	50.954
142) Diethylbenzene (total)	(4)		100	2539219	154.330
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	155063	54.558
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	508462	51.360
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	479860	51.593
148) Hexachlorobutadiene	(4)	14.171	225	182815	51.110
149) Naphthalene	(4)	14.262	128	1969712	53.479
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	474408	51.546
151) 2-Methylnaphthalene	(4)	15.018	142	1038673	54.280

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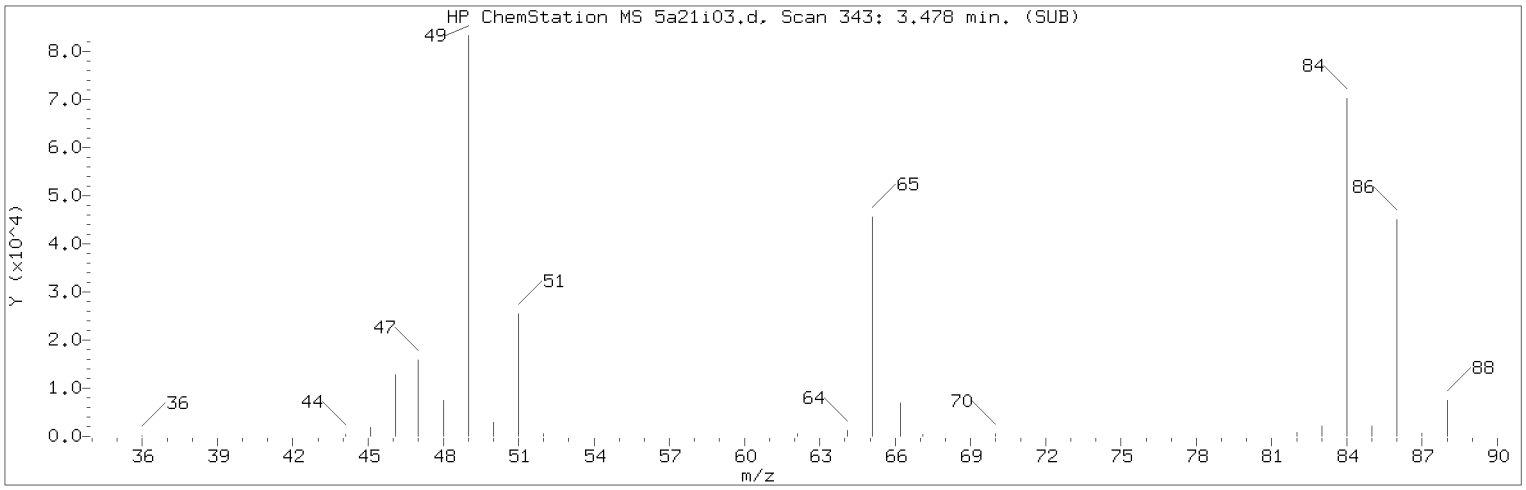
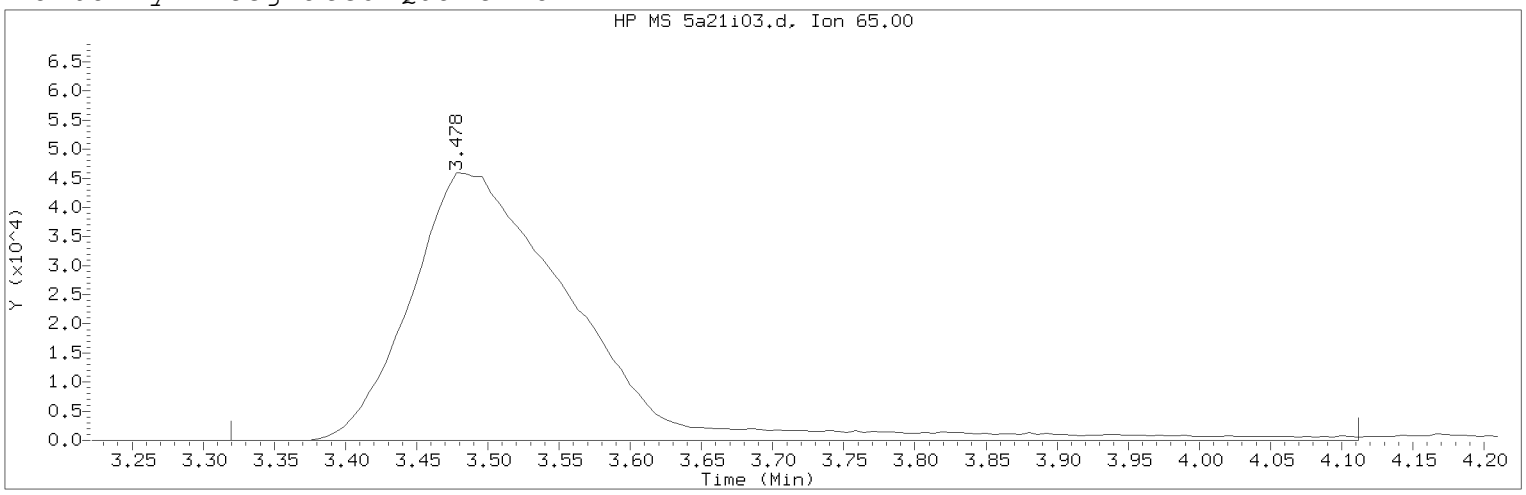
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

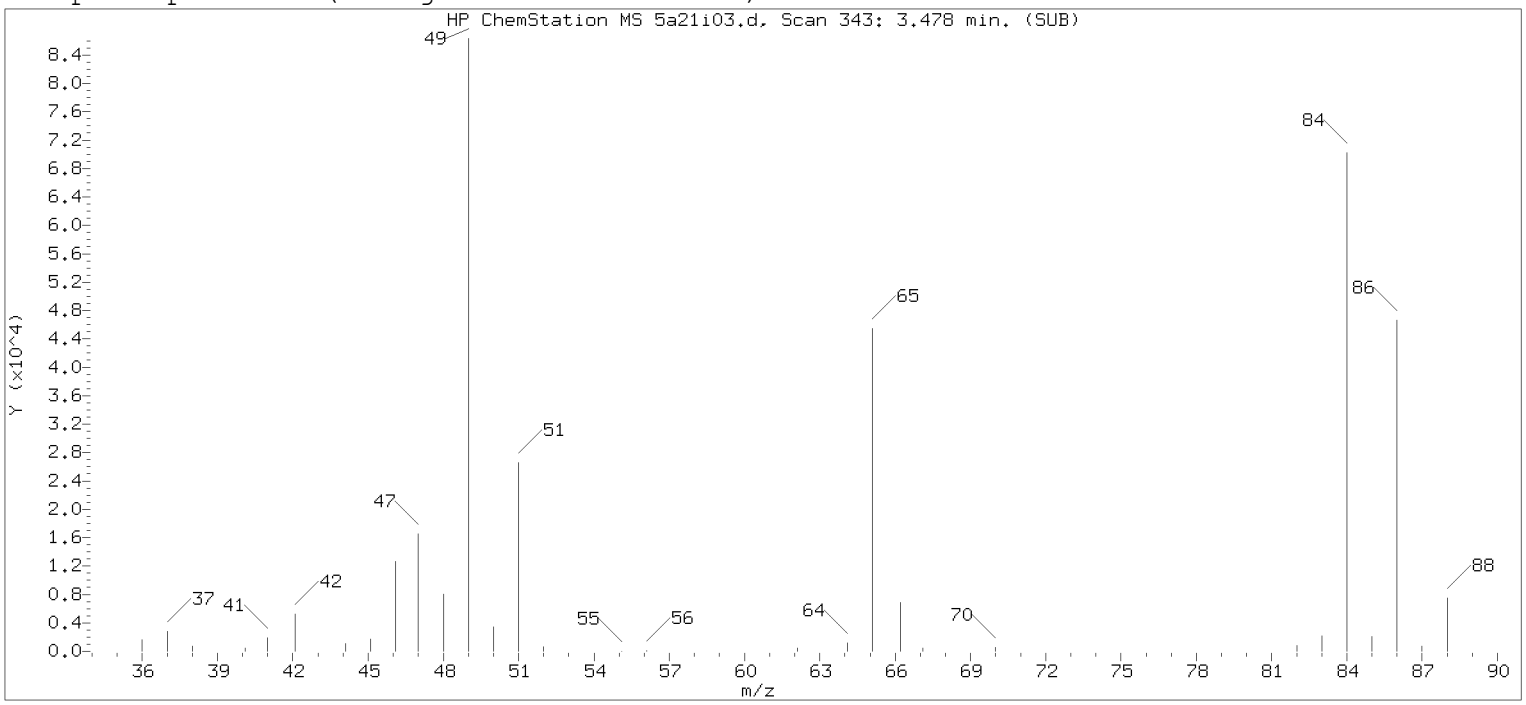
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 370304M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 446
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

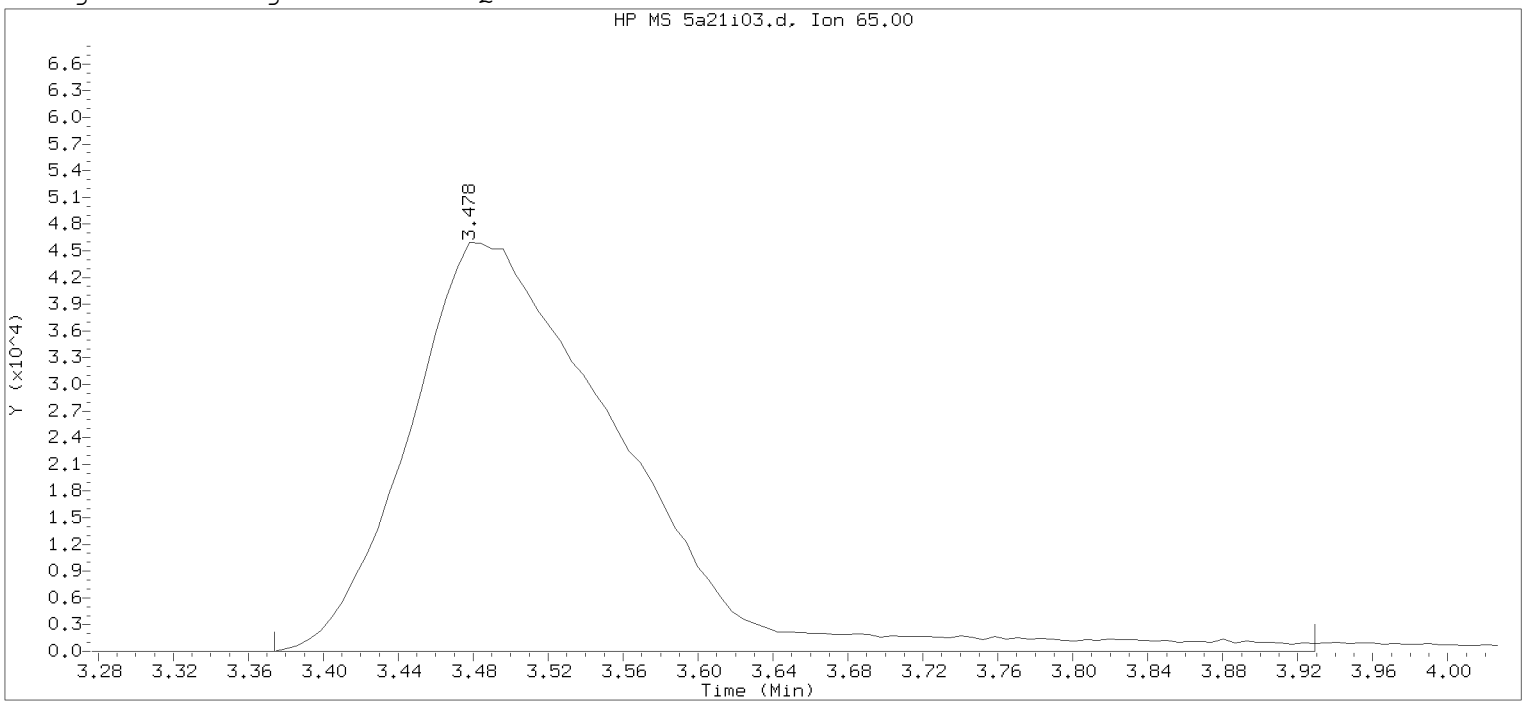
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

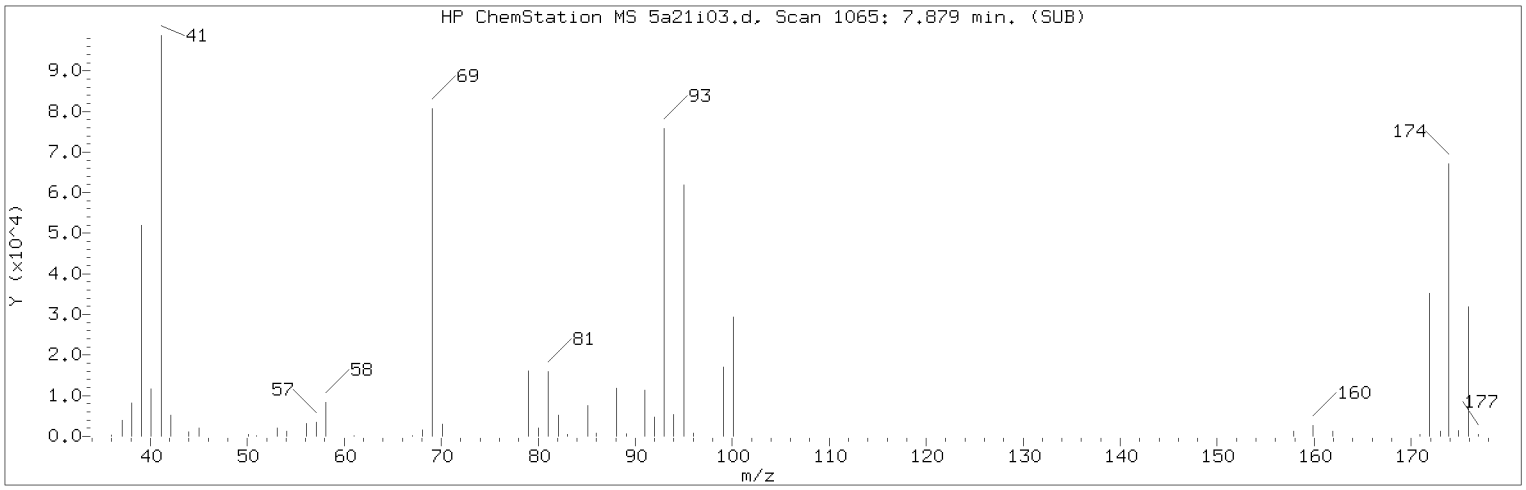
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

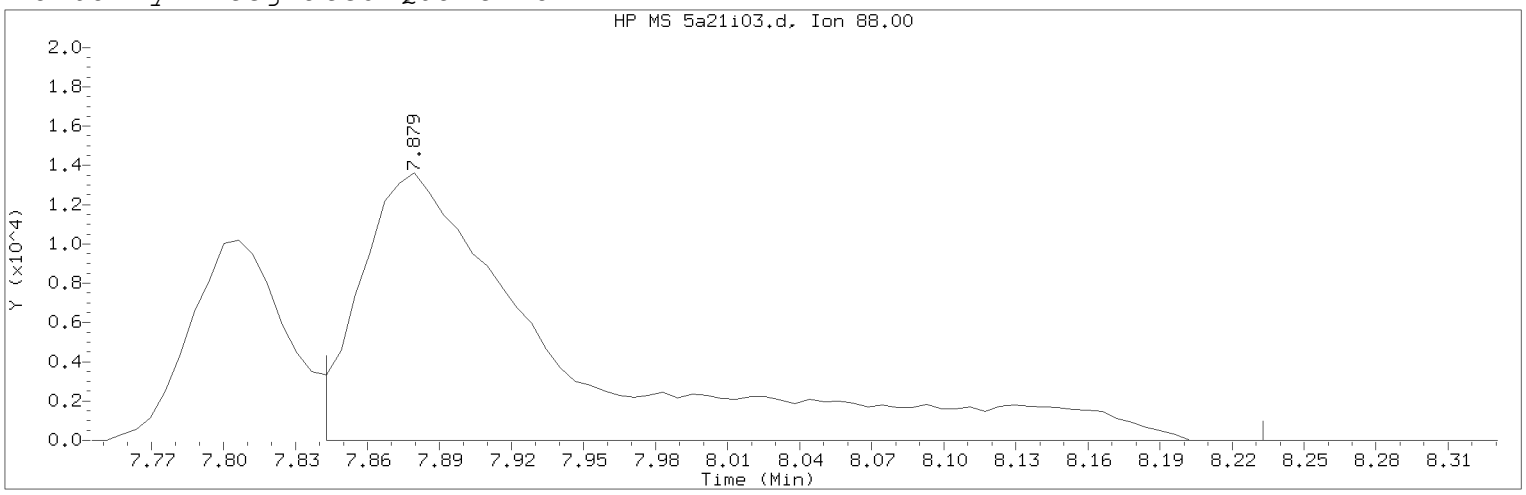
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 362266
On-column Amount (ng) : 250.0000
Integration start scan : 325 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

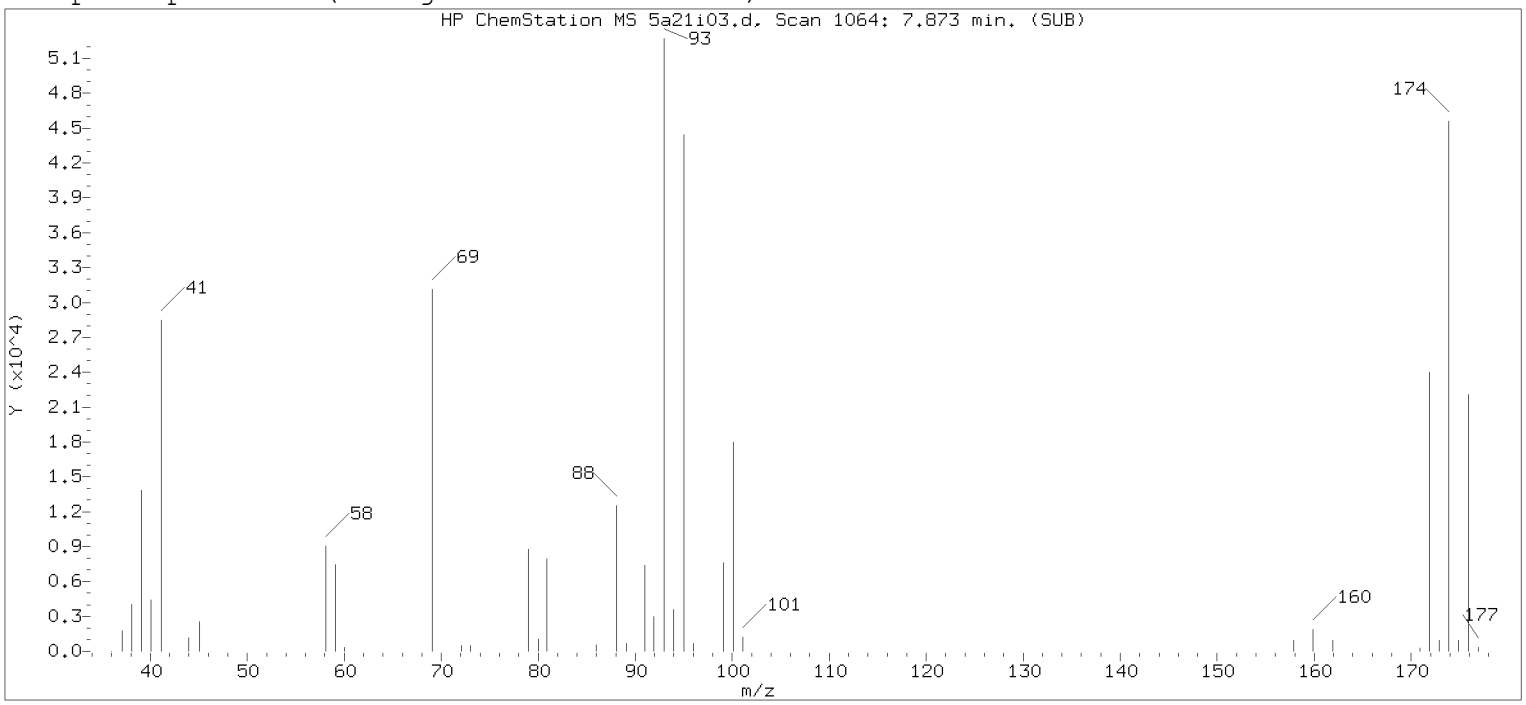
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 81378M
On-Column Amount (ng) : 653.9599
Integration start scan : 1058 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

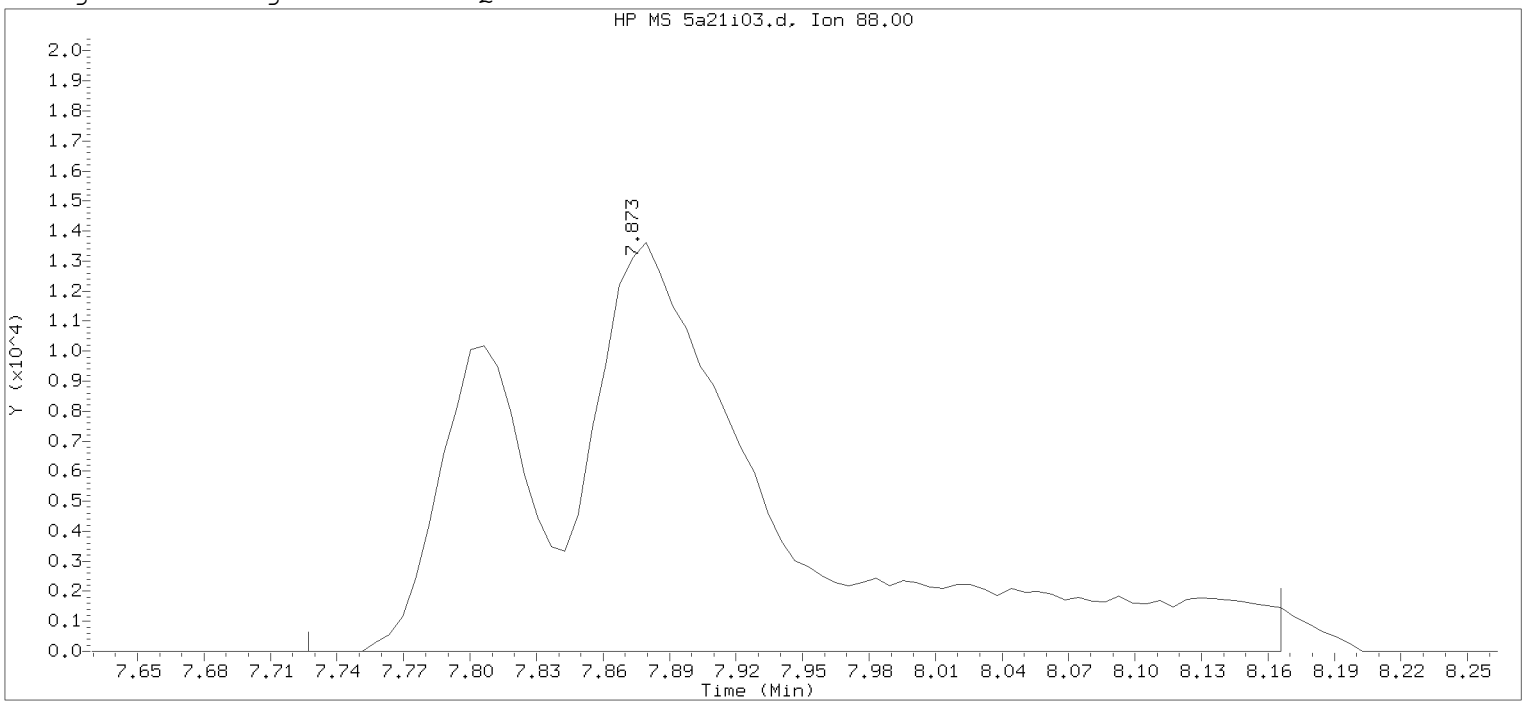
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

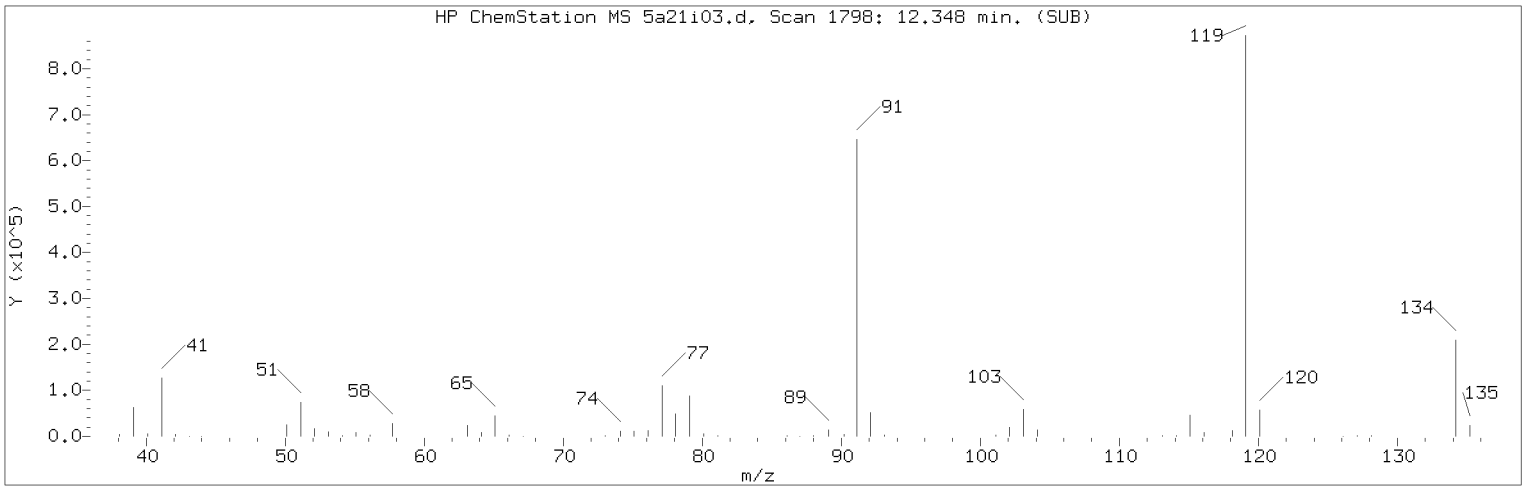
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

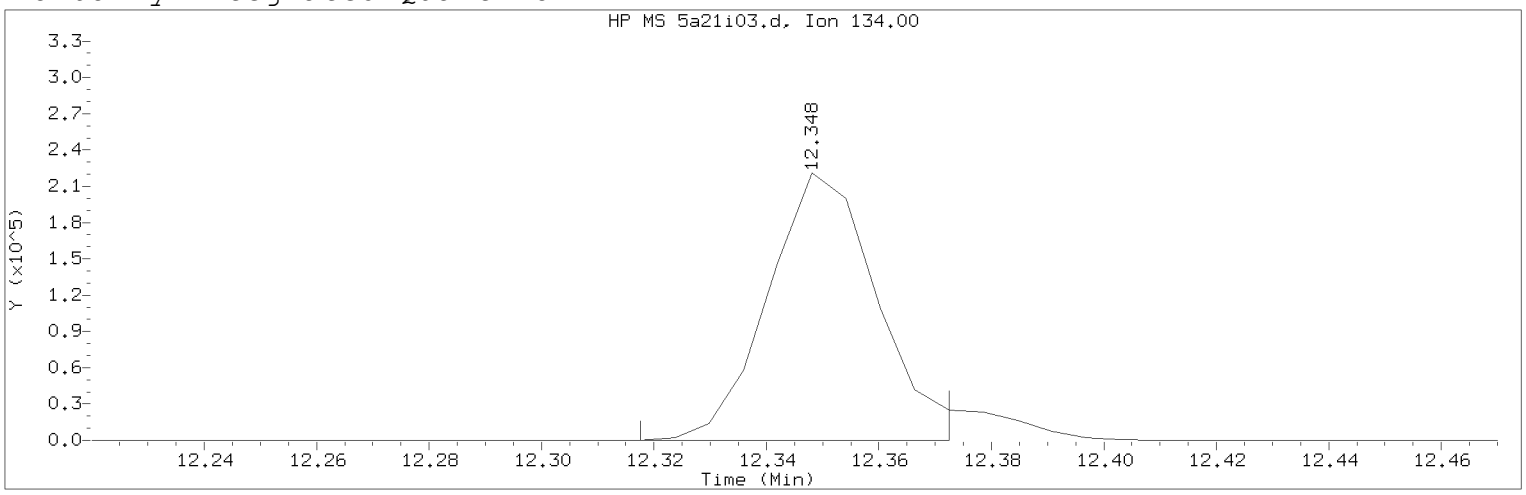
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 107258
On-column Amount (ng) : 750.0099
Integration start scan : 1039 Integration stop scan: 1111
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

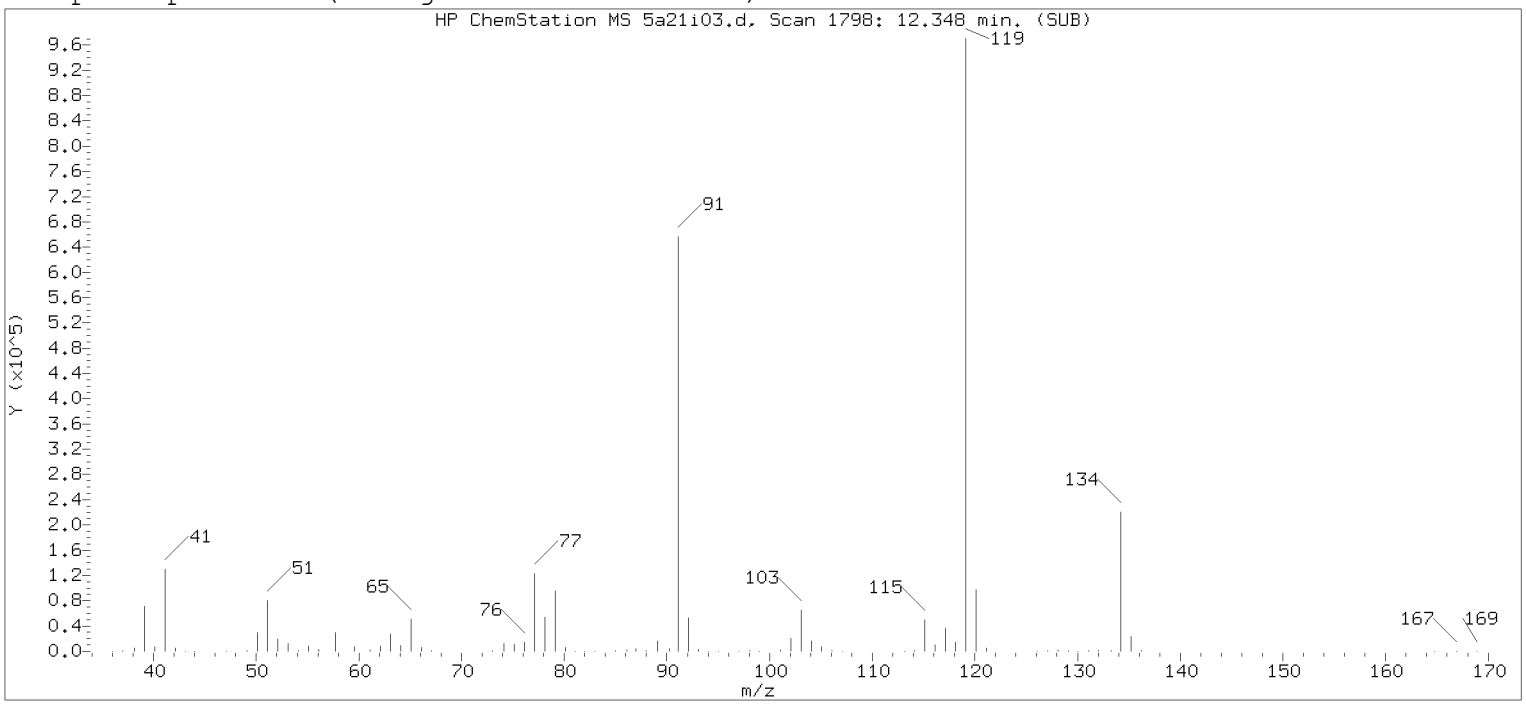
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 298649M
On-Column Amount (ng) : 52.4110
Integration start scan : 1792 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

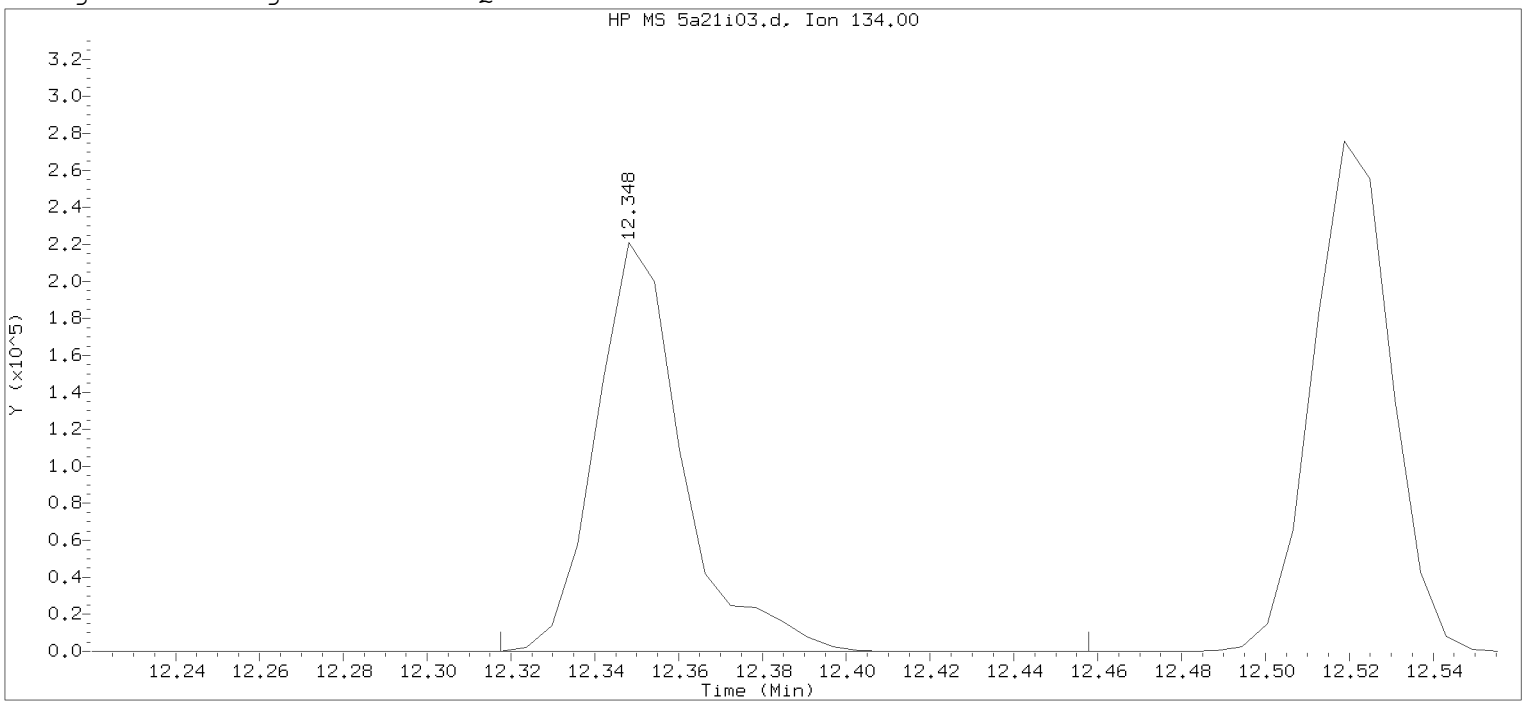
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



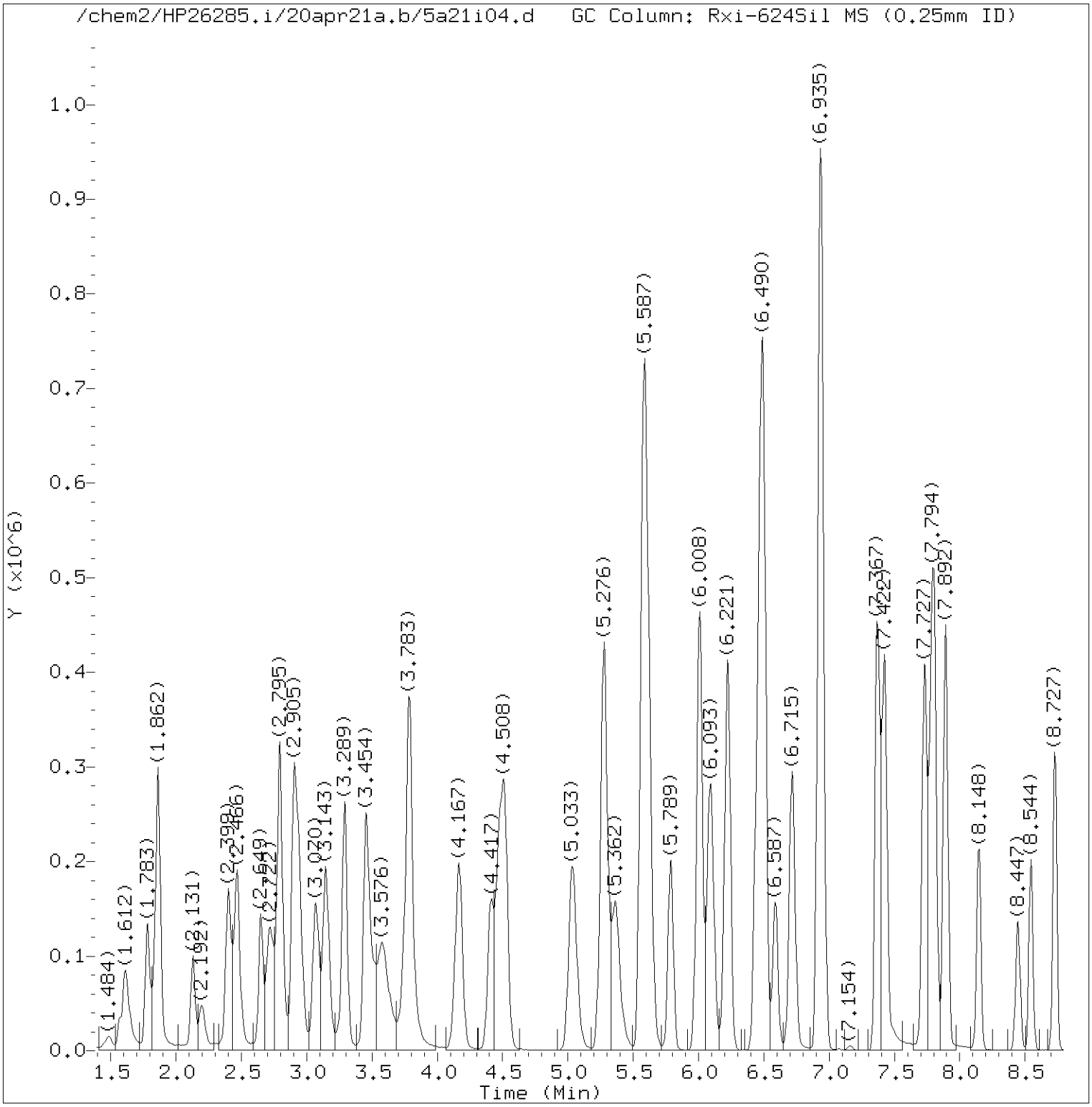
Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 316930
On-column Amount (ng) : 49.2990
Integration start scan : 1792 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger



Total Ion Chromatogram (TIC)

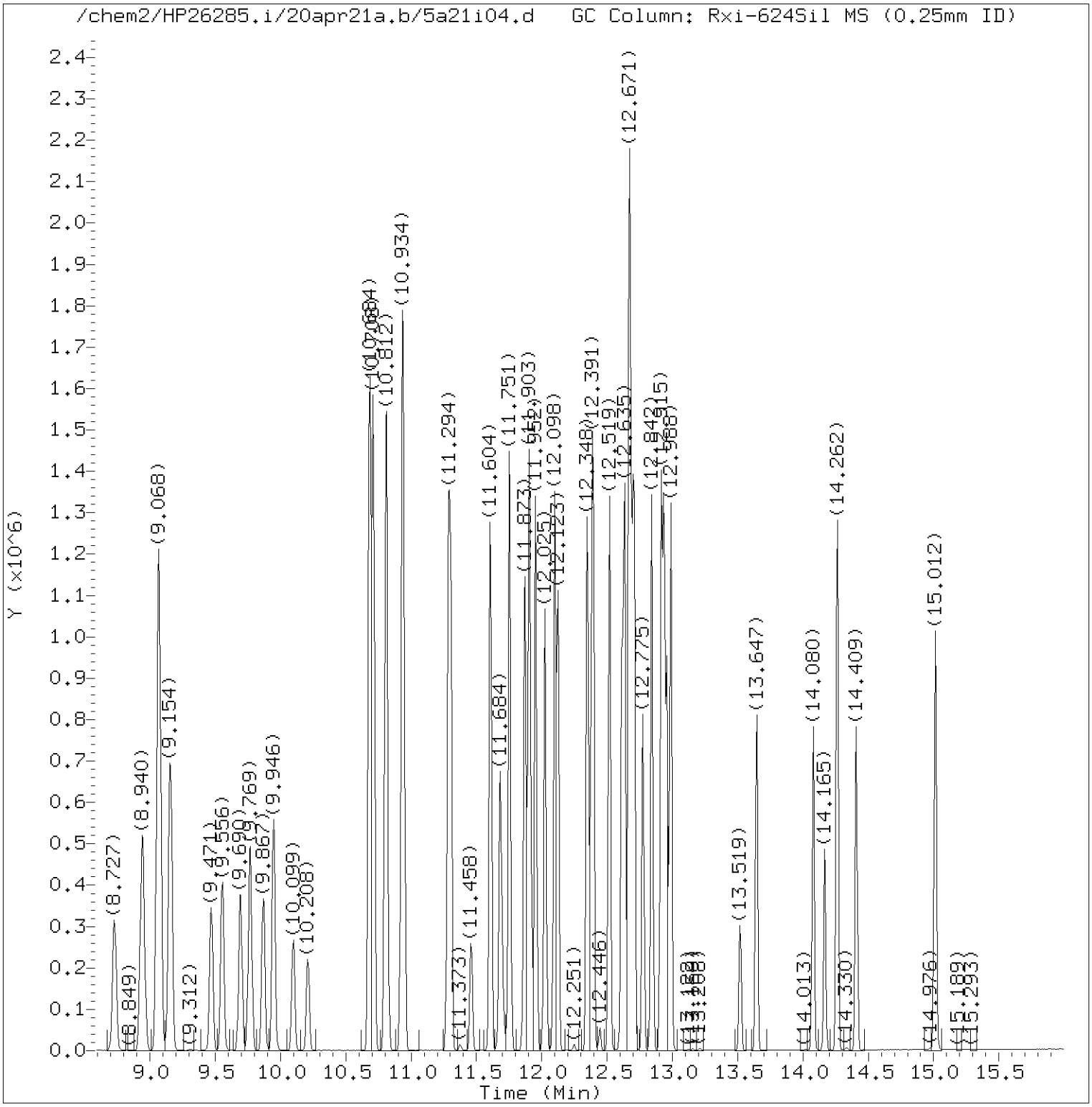
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	176107	20.225
4) Chloromethane	(2)	1.777	50	137441	19.762
5) 1,3-Butadiene	(2)	1.856	39	167227	17.418
6) Vinyl Chloride	(2)	1.869	62	123095	20.150
8) Bromomethane	(2)	2.131	94	83021	20.241
9) Chloroethane	(2)	2.198	64	59332	20.513
10) Dichlorofluoromethane	(2)	2.399	67	188045	19.951
12) Trichlorofluoromethane	(2)	2.442	101	152369	20.365
11) n-Pentane	(2)	2.466	43	133320	19.143
14) Ethyl ether	(2)	2.649	59	101749	19.726
15) Freon 123a	(2)	2.716	67	160831	20.593
16) Acrolein	(1)	2.795	56	458690	193.463
17) 1,1-Dichloroethene	(2)	2.899	96	118012	20.300
17) 1,1-Dichloroethene	(2)	2.899	63	60161	20.649
19) Freon 113	(2)	2.929	101	135617	20.611
18) Acetone	(1)	2.935	58	45901	39.254
22) Methyl Iodide	(2)	3.063	142	226771	20.458
21) 2-Propanol	(1)	3.088	45	191798	201.567
23) Carbon Disulfide	(2)	3.149	76	410208	20.061
27) Methyl Acetate	(2)	3.277	43	163698	19.531
25) Allyl Chloride	(2)	3.295	41	193933	19.929
28) Methylene Chloride	(2)	3.454	84	133170	20.323
29)*t-Butyl alcohol-d10	(1)	3.484	65	374444M	250.000
30) t-Butyl alcohol	(1)	3.588	59	361536	204.986
31) Acrylonitrile	(2)	3.740	53	86420	19.534
32) trans-1,2-Dichloroethene	(2)	3.789	96	133401	20.508
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	353312	20.535
34) n-Hexane	(2)	4.167	57	200748	20.813
36) 1,1-Dichloroethane	(2)	4.405	63	240987	20.466
38) di-Isopropyl ether	(2)	4.478	45	430753	20.481
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	205108	20.503
40) Ethyl t-butyl ether	(2)	5.033	59	384962	20.618
44) 2-Butanone	(2)	5.264	43	247601	38.454
42) cis-1,2-Dichloroethene	(2)	5.276	96	151588	20.604
45) 2,2-Dichloropropane	(2)	5.289	77	202238	20.355
47) Propionitrile	(1)	5.368	54	383292	199.634
48) Methacrylonitrile	(2)	5.581	67	448172	101.718
49) Bromochloromethane	(2)	5.618	128	68545	20.342

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	65537	37.768
51) Chloroform	(2)	5.789	83	240712	20.381
53) 1,1,1-Trichloroethane	(2)	6.002	97	217888	20.490
52)$Dibromofluoromethane	(2)	6.014	113	268044	50.054
52)$Dibromofluoromethane	(2)	6.008	111	273439	49.870
54) Cyclohexane	(2)	6.093	56	254296	20.533
54) Cyclohexane	(2)	6.087	84	208410	20.344
54) Cyclohexane	(2)	6.087	69	78176	20.351
43) 1,2-Dichloroethene (Total)	(2)		96	284989	41.112
56) Carbon Tetrachloride	(2)	6.215	117	190269	20.508
55) 1,1-Dichloropropene	(2)	6.227	75	196038	20.351
58) Isobutyl Alcohol	(1)	6.453	41	296319	504.036
57)$1,2-Dichloroethane-d4	(2)	6.484	102	59913	50.023
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291867	49.843
57)$1,2-Dichloroethane-d4	(2)	6.477	104	38655	50.405
60) Benzene	(2)	6.502	78	587925	20.526
61) 1,2-Dichloroethane	(2)	6.587	62	174387	19.823
61) 1,2-Dichloroethane	(2)	6.587	98	15862	21.321
65) t-Amyl methyl ether	(2)	6.715	73	387268	20.786
66)*Fluorobenzene	(2)	6.929	96	1075151	50.000
67) n-Heptane	(2)	6.953	43	187178	20.091
69) n-Butanol	(1)	7.367	56	515020	1015.260
71) Trichloroethene	(2)	7.428	95	153449	20.415
73) Methylcyclohexane	(2)	7.727	83	241143	20.186
73) Methylcyclohexane	(2)	7.727	98	101510	20.072
74) 1,2-Dichloropropane	(2)	7.776	63	147620	20.588
76) 1,4-Dioxane	(1)	7.873	88	66419M	527.847
75) Dibromomethane	(2)	7.886	93	92310	20.446
77) Methyl Methacrylate	(2)	7.892	69	136501	20.348
79) Bromodichloromethane	(2)	8.148	83	178766	20.419
80) 2-Nitropropane	(2)	8.447	41	116656	38.471
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	112482	20.271
82) cis-1,3-Dichloropropene	(2)	8.727	75	227783	20.589
83) 4-Methyl-2-pentanone	(2)	8.940	43	482790	38.902
84)$Toluene-d8	(3)	9.068	98	1037913	49.941
84)$Toluene-d8	(3)	9.068	100	681258	49.784
89) Toluene	(3)	9.160	92	378117	20.633
90) trans-1,3-Dichloropropene	(3)	9.471	75	203161	20.662

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	230361	20.604
93) 1,1,2-Trichloroethane	(3)	9.696	97	134083	20.466
94) Tetrachloroethene	(3)	9.769	166	158715	20.420
95) 1,3-Dichloropropane	(3)	9.867	76	220946	20.311
97) 2-Hexanone	(3)	9.946	43	381856	39.219
91) 1,3-Dichloropropene (total)	(3)		100	430944	41.251
98) Dibromochloromethane	(3)	10.099	129	143238	20.662
100) 1,2-Dibromoethane	(3)	10.208	107	147552	20.430
101)*Chlorobenzene-d5	(3)	10.684	117	845669	50.000
103) Chlorobenzene	(3)	10.708	112	411422	20.687
102) 1-Chlorohexane	(3)	10.708	91	216785	20.341
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	144477	21.057
105) Ethylbenzene	(3)	10.812	91	747467	21.095
107) m+p-Xylene	(3)	10.934	106	574961	42.292
108) o-Xylene	(3)	11.287	106	279276	20.988
110) Styrene	(3)	11.306	104	459033	21.405
111) Bromoform	(3)	11.458	173	103338	20.603
112) Isopropylbenzene	(3)	11.604	105	733240	20.998
113) Cyclohexanone	(1)	11.684	55	289862	501.521
115)$4-Bromofluorobenzene	(3)	11.751	95	433370	49.490
115)$4-Bromofluorobenzene	(3)	11.757	174	338199	49.509
109) Xylene (Total)	(3)		106	854237	63.280
116) Bromobenzene	(4)	11.867	156	171502	20.687
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	231383	20.567
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	199102	92.001
118) 1,2,3-Trichloropropane	(4)	11.915	110	68108	20.560
120) n-Propylbenzene	(4)	11.952	91	868732	21.313
121) 2-Chlorotoluene	(4)	12.025	126	173212	20.732
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	609013	21.255
122) 4-Chlorotoluene	(4)	12.123	126	175742	20.823
125) tert-Butylbenzene	(4)	12.348	134	117503M	20.635
126) Pentachloroethane	(4)	12.379	167	98208	21.007
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	627833	21.278
128) sec-Butylbenzene	(4)	12.519	105	751728	21.161
130) 1,3-Dichlorobenzene	(4)	12.610	146	320824	20.574
131) p-Isopropyltoluene	(4)	12.635	119	626227	21.139
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	434870	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	327263	20.679

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

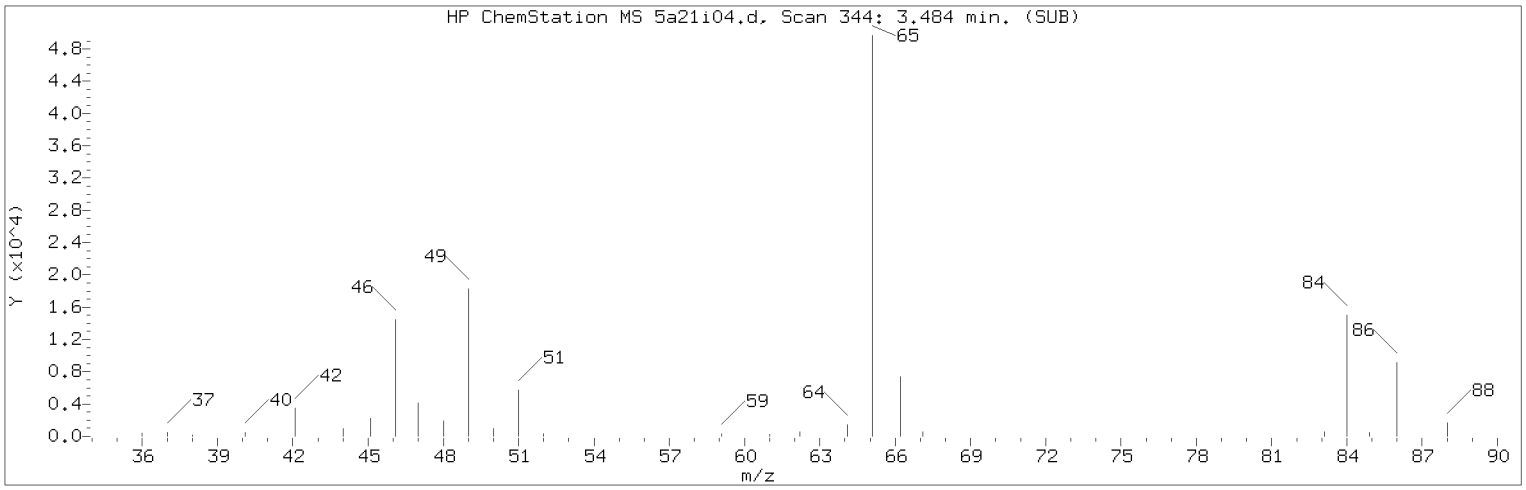
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

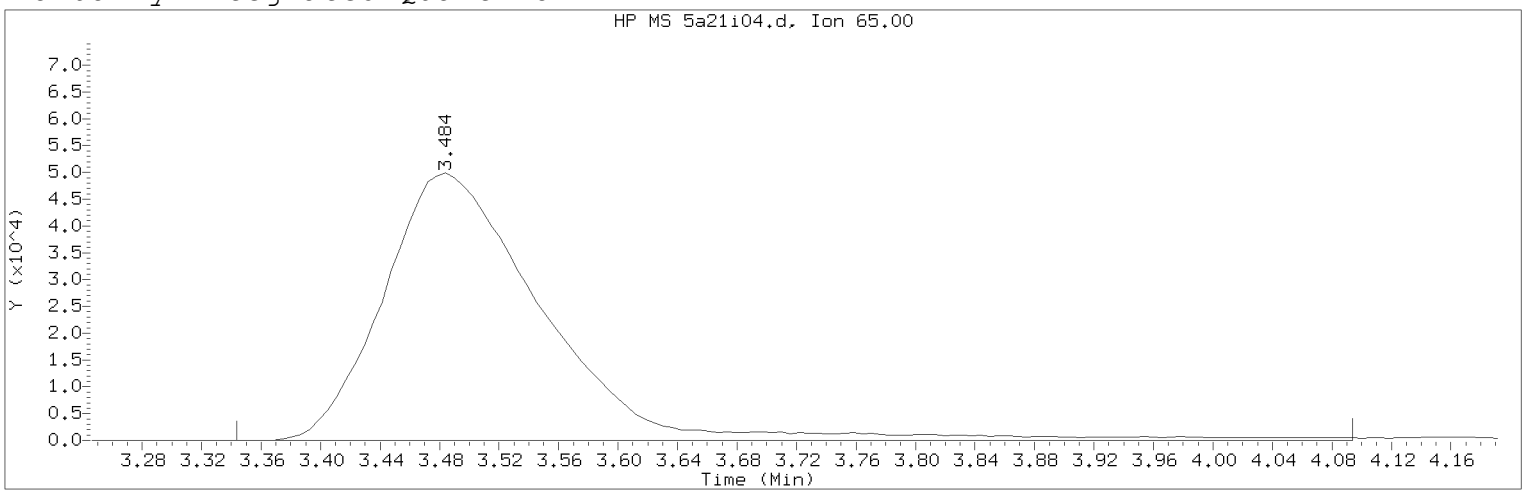
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	585964	20.689
136) Benzyl Chloride	(4)	12.775	91	463026	21.453
137) 1,3-Diethylbenzene	(4)	12.842	119	355157	20.749
138) 1,4-Diethylbenzene	(4)	12.915	119	368021	20.787
140) n-Butylbenzene	(4)	12.933	92	312980	20.945
139) 1,2-Dichlorobenzene	(4)	12.958	146	310508	20.730
141) 1,2-Diethylbenzene	(4)	12.988	119	299568	20.693
142) Diethylbenzene (total)	(4)		100	1022746	62.229
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	58485	20.591
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	203775	20.597
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	189717	20.411
148) Hexachlorobutadiene	(4)	14.171	225	73242	20.490
149) Naphthalene	(4)	14.262	128	780086	21.194
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	188286	20.471
151) 2-Methylnaphthalene	(4)	15.012	142	405277	21.193

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

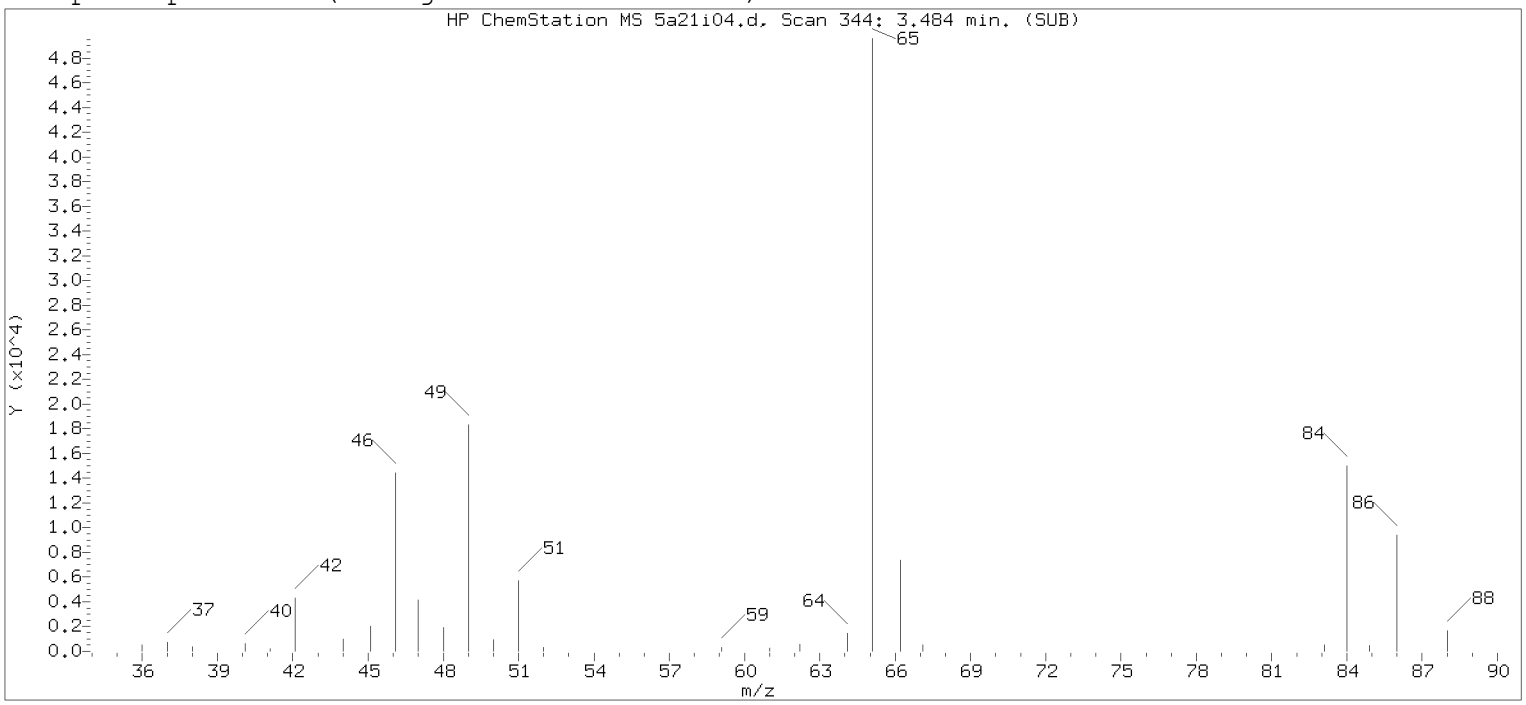
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 374444M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 443
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

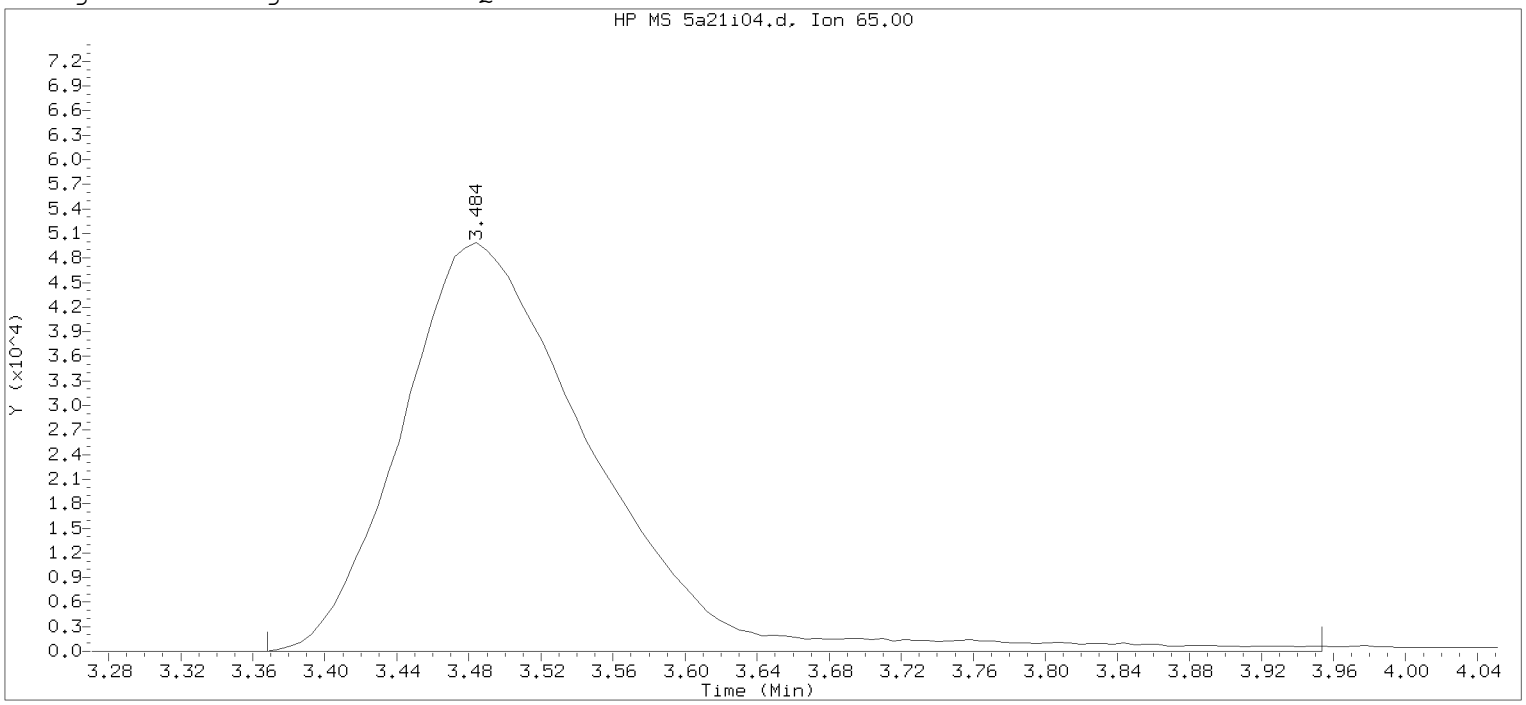
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

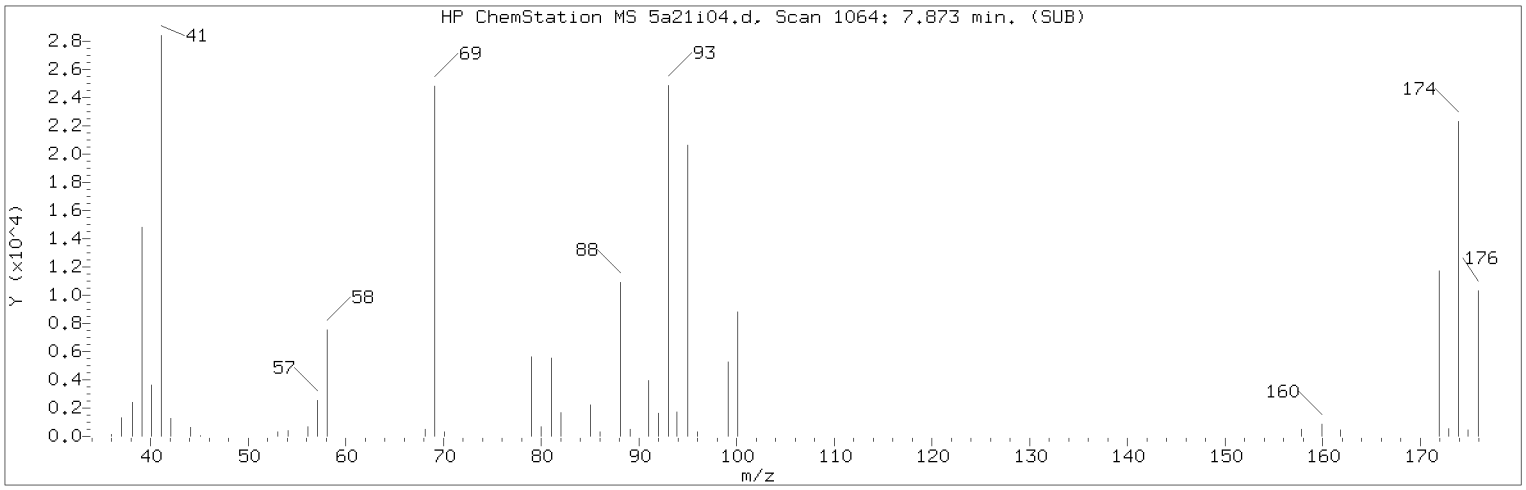
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

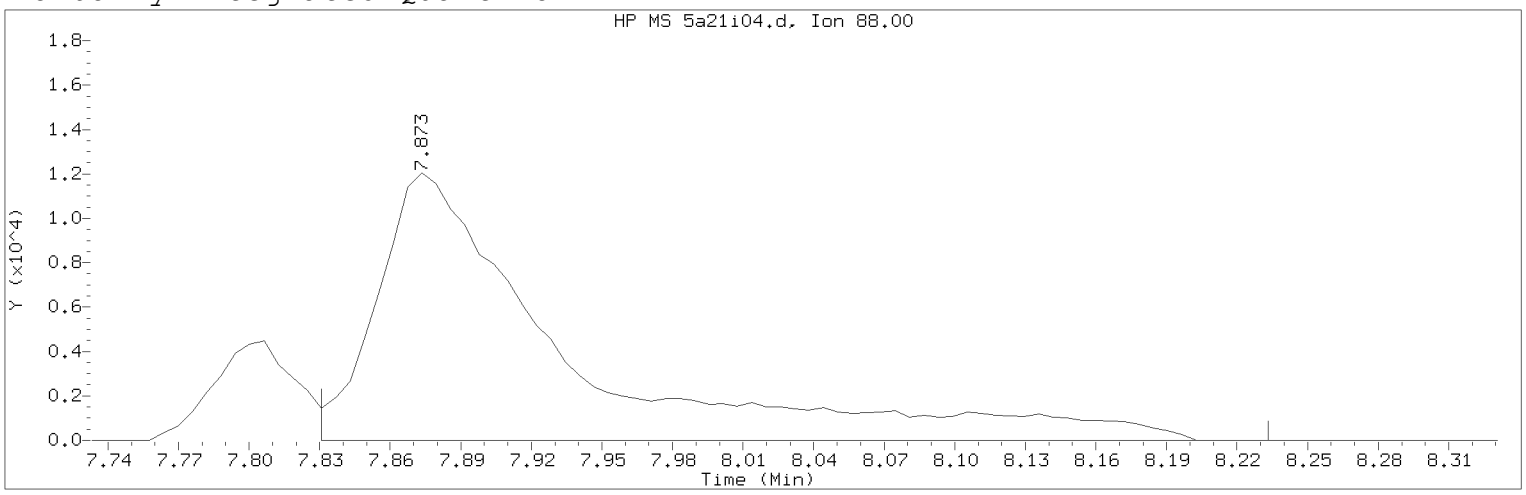
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 370124
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

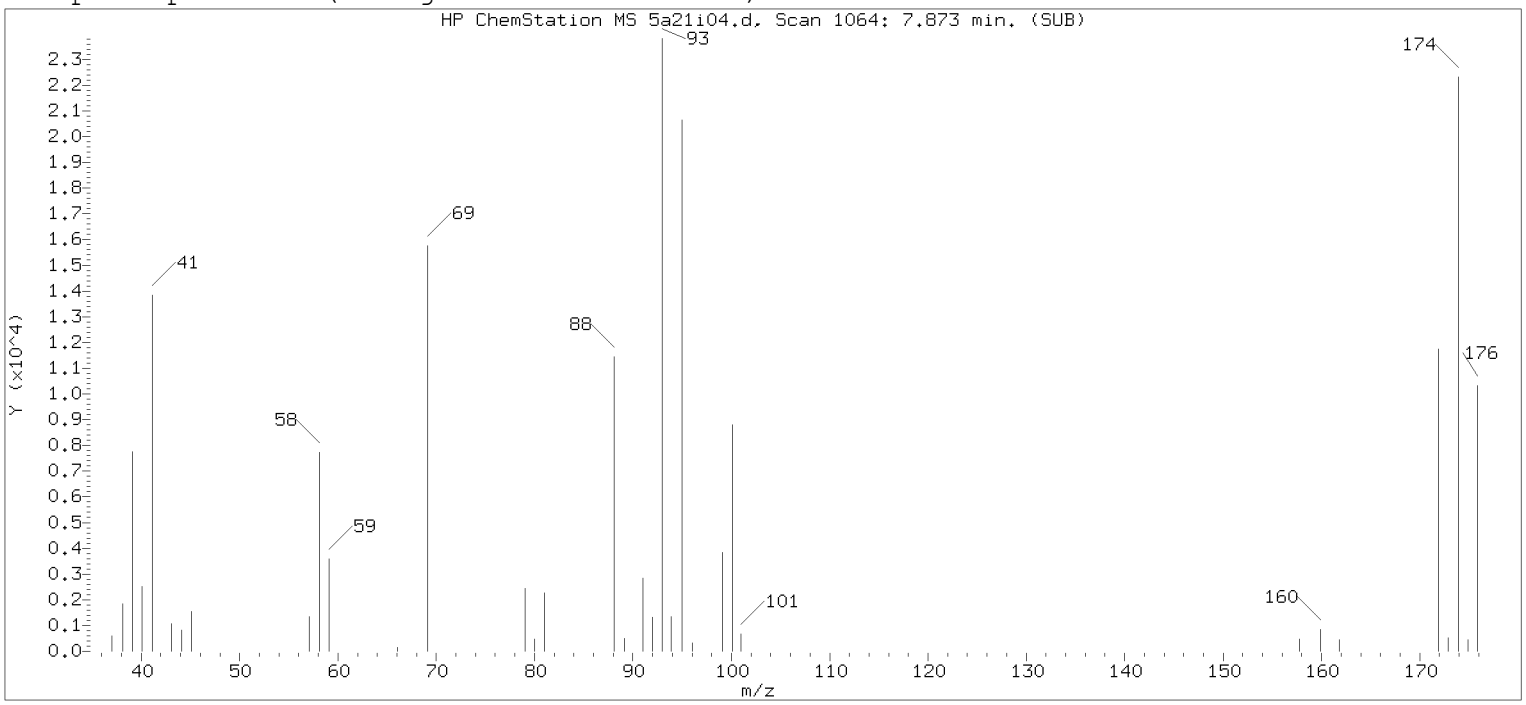
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 66419M
On-Column Amount (ng) : 527.8469
Integration start scan : 1056 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

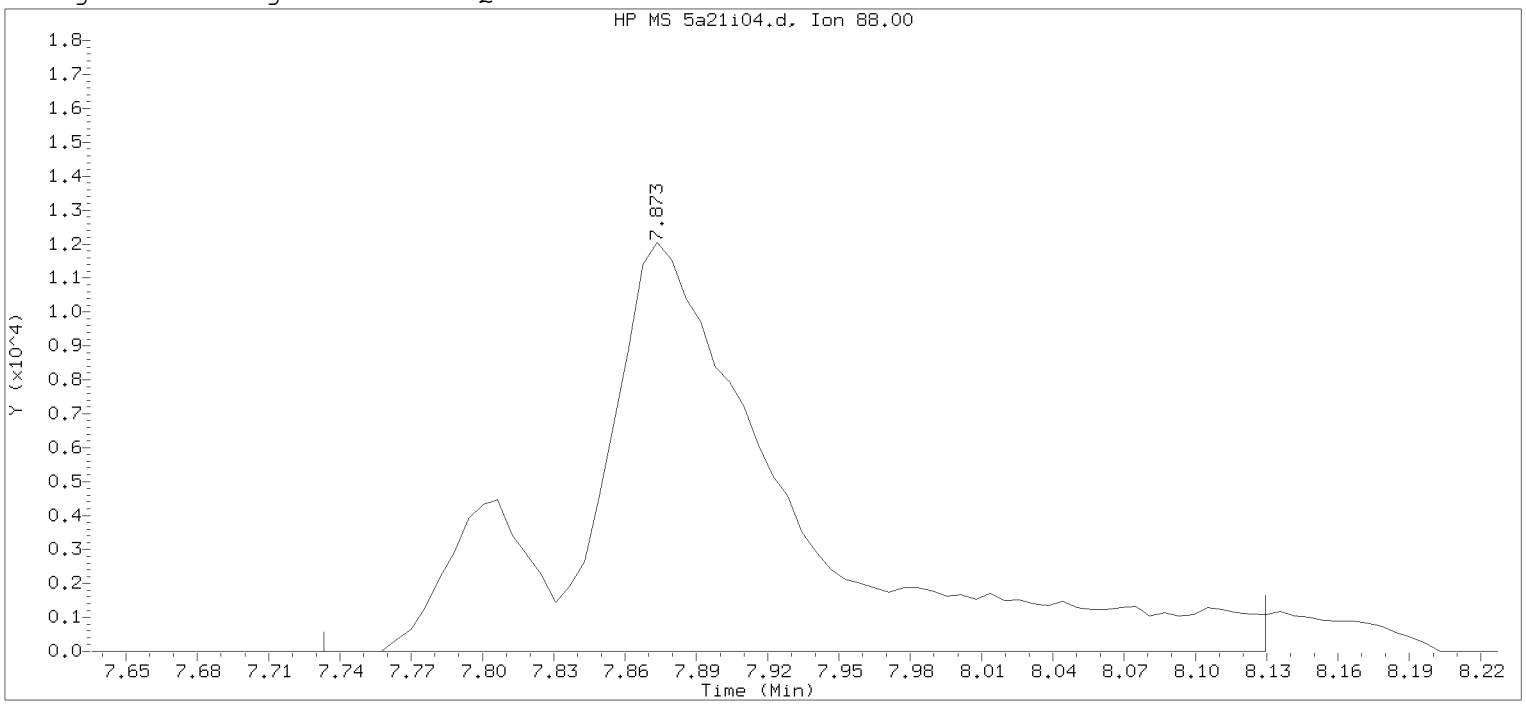
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

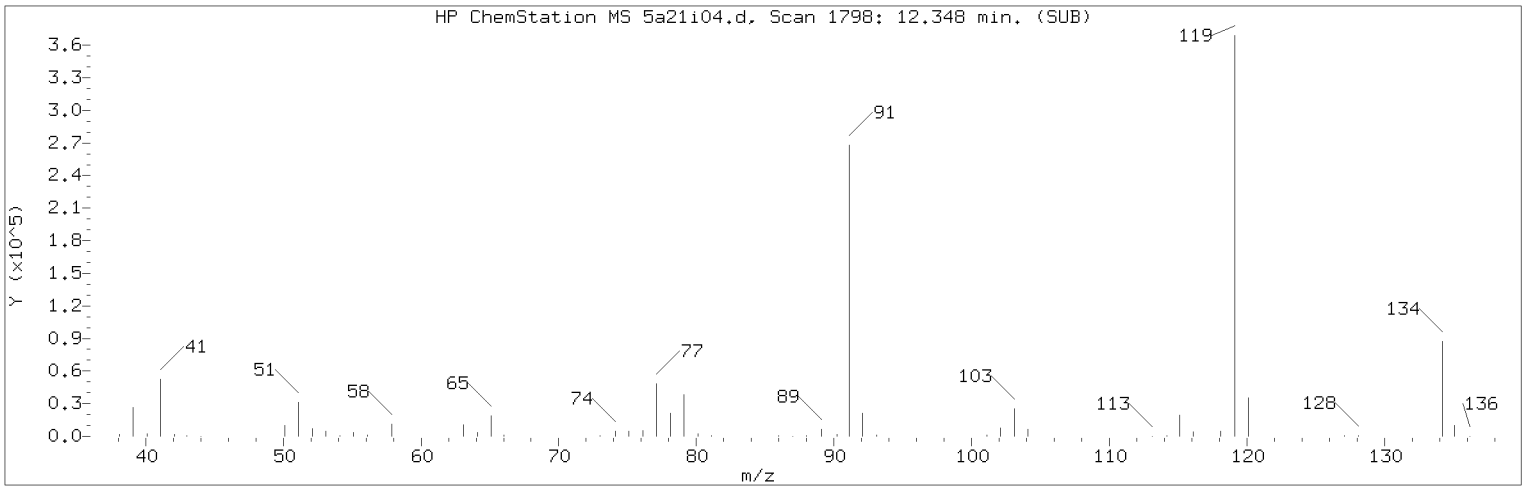
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

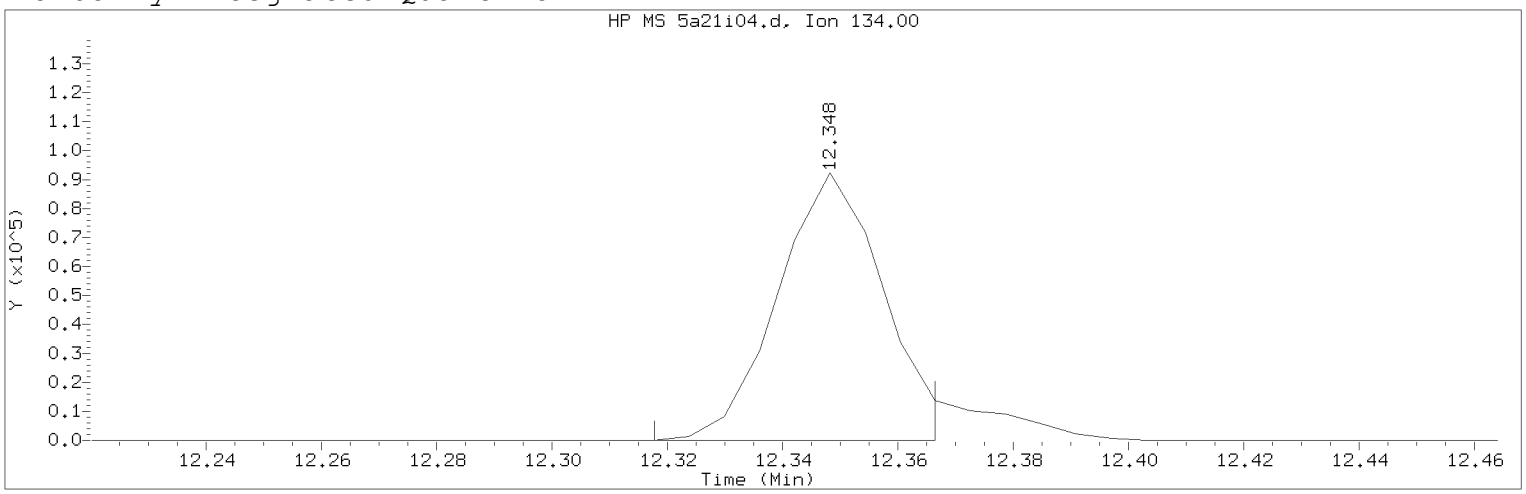
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 73501
On-column Amount (ng) : 470.0717
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

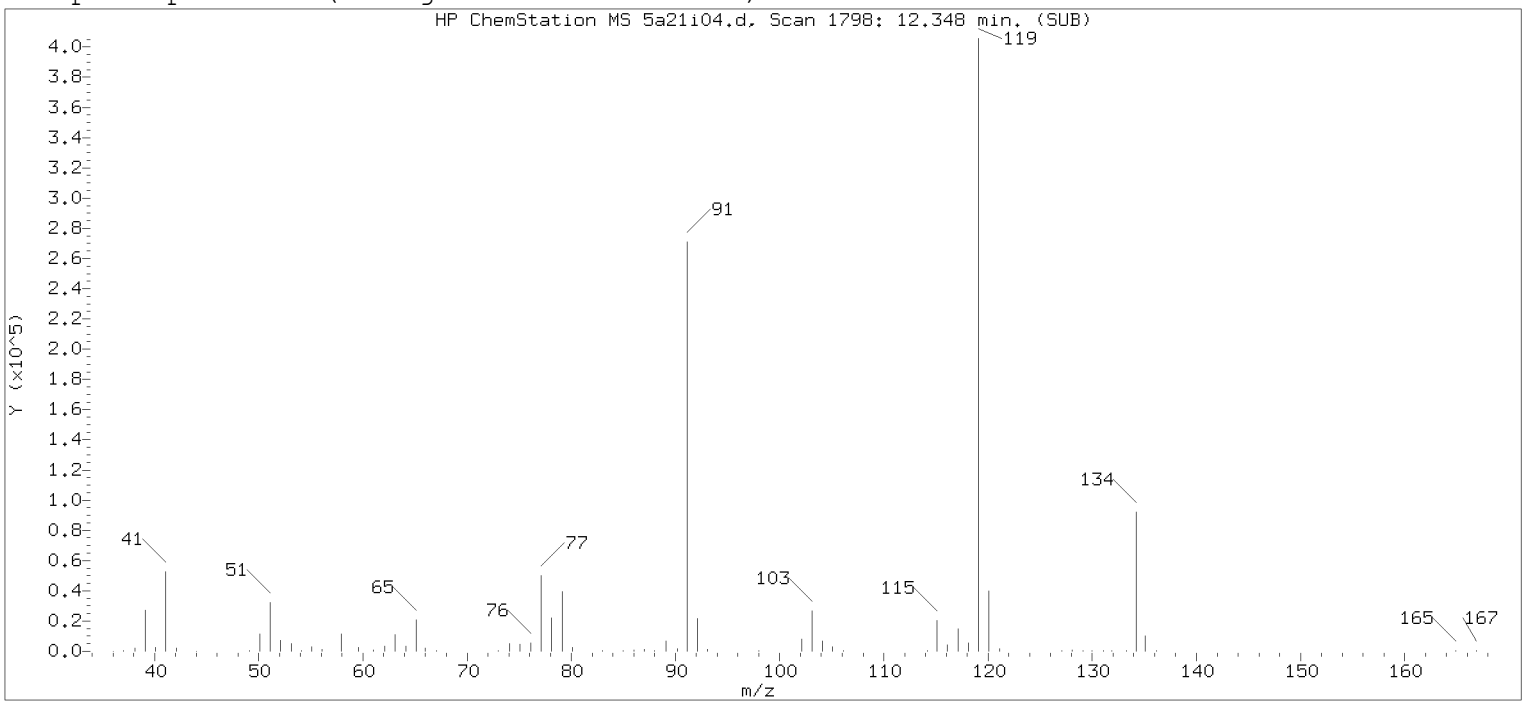
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 117503M
On-Column Amount (ng) : 20.6345
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

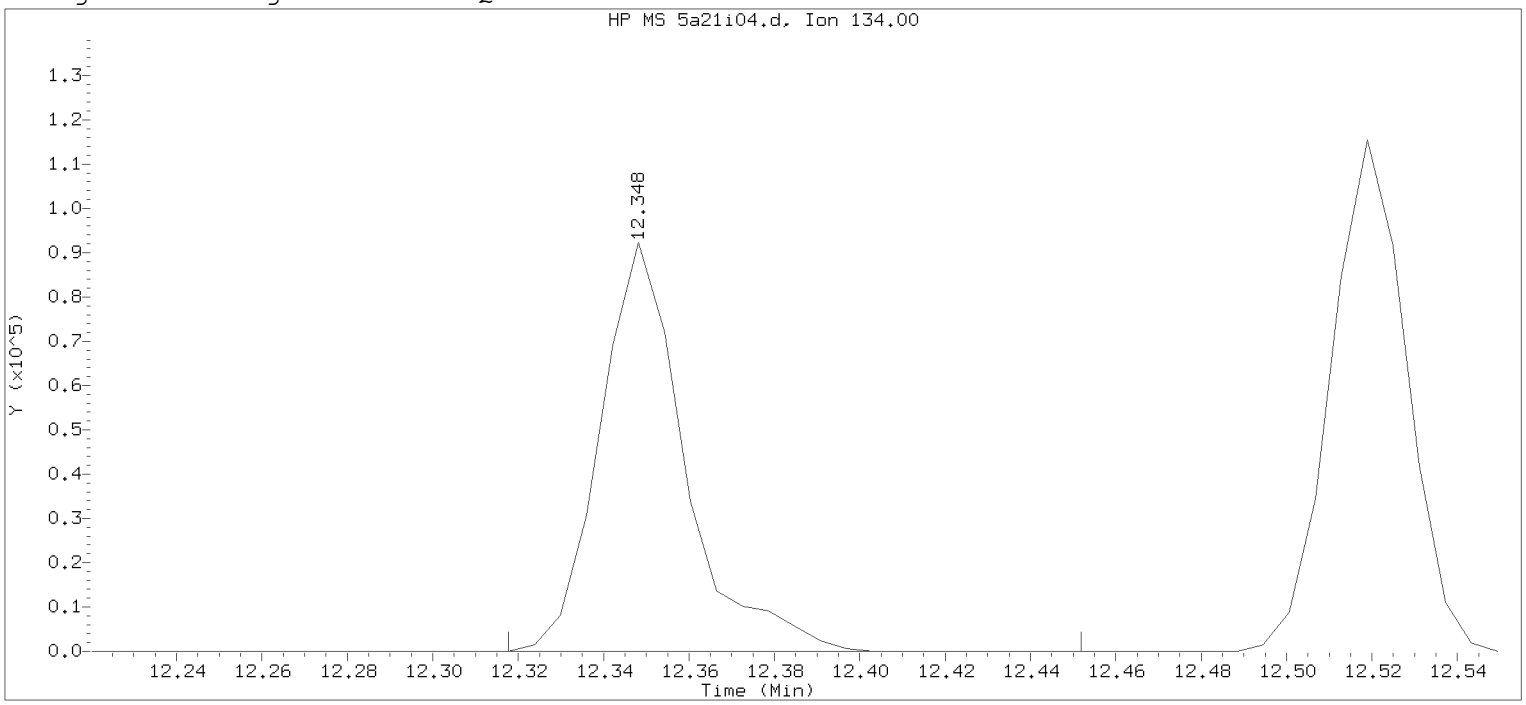
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



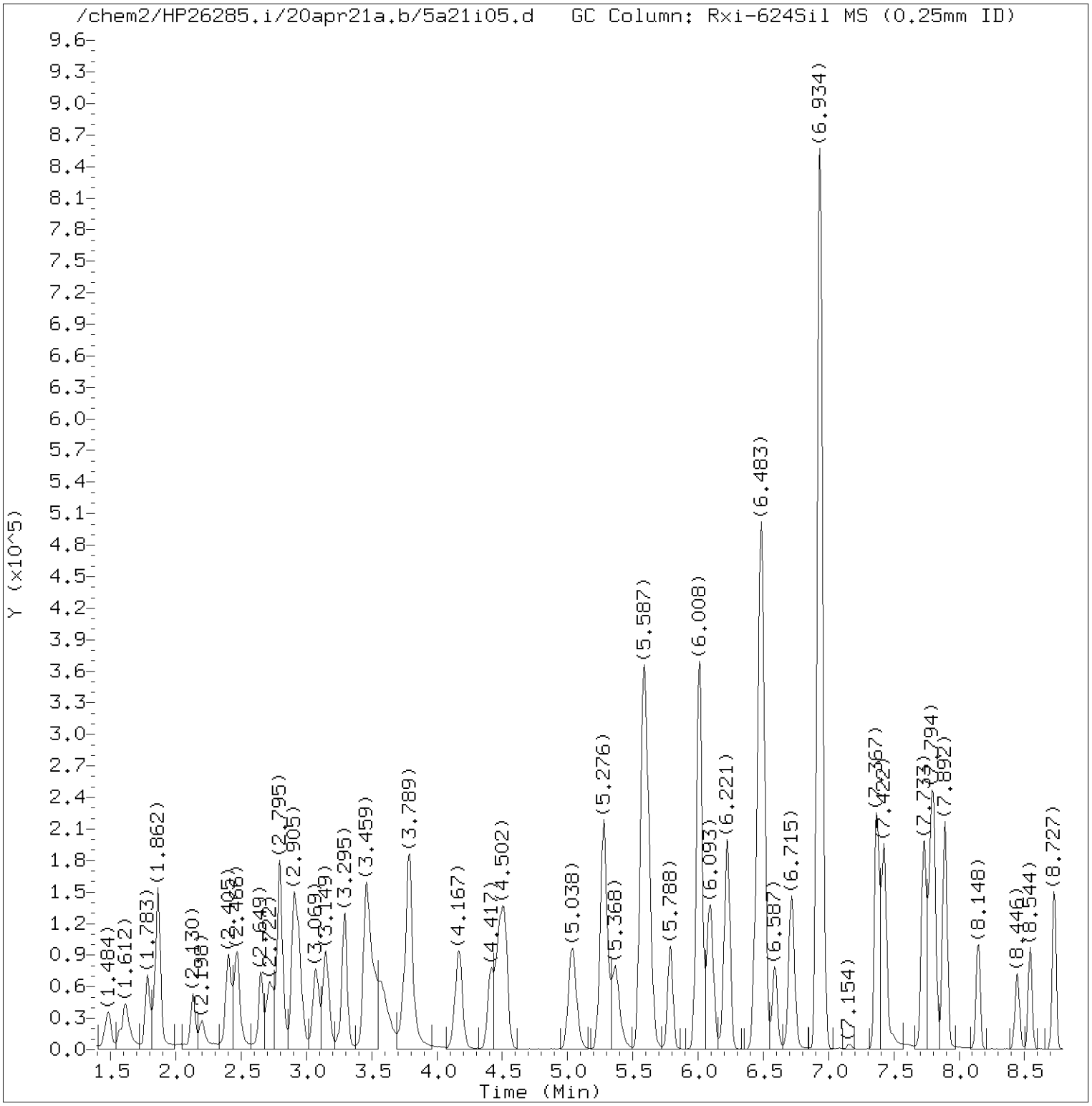
Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 127683
On-column Amount (ng) : 20.9115
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

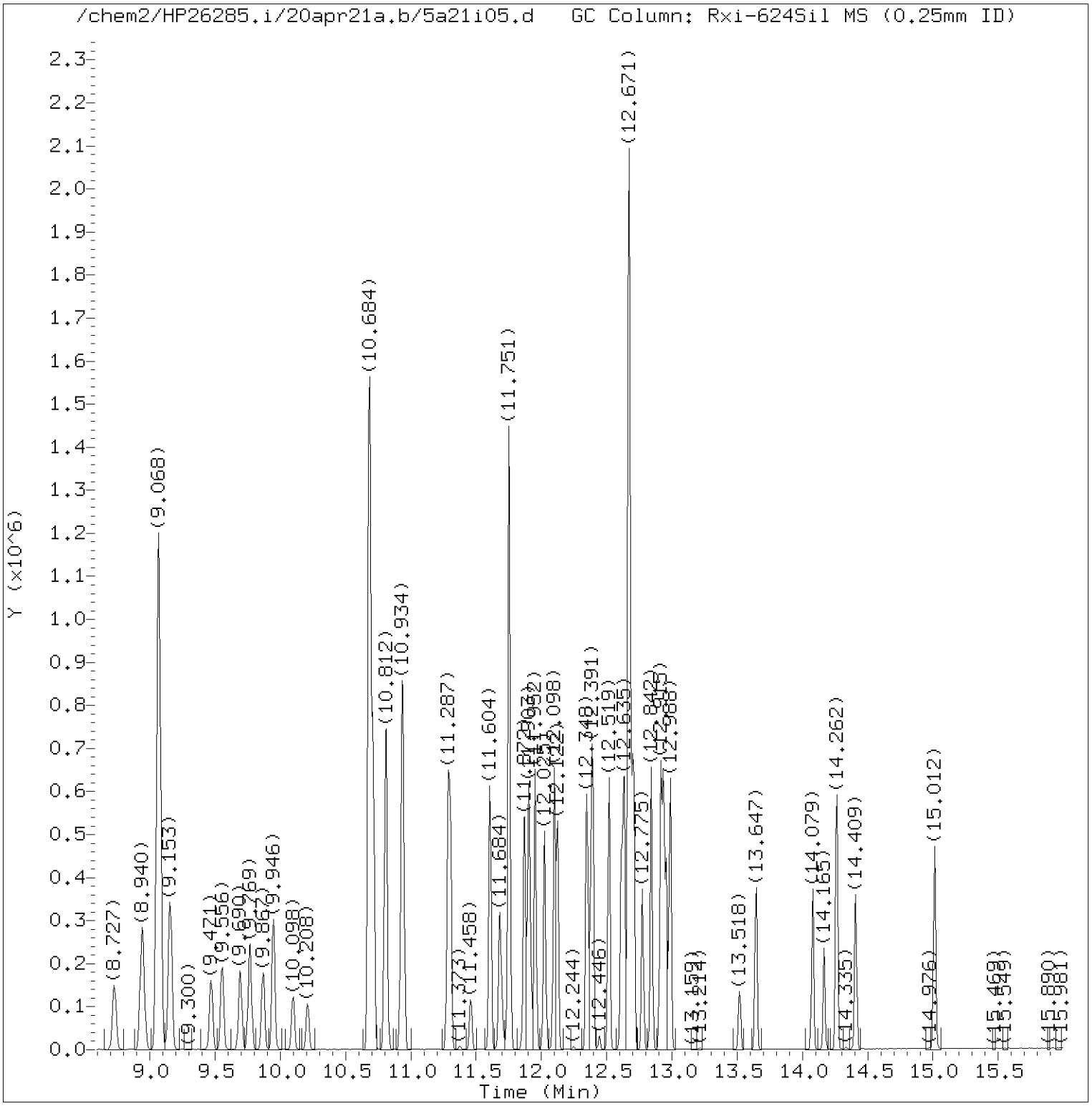
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	90205	10.452
4) Chloromethane	(2)	1.777	50	71545	10.378
5) 1,3-Butadiene	(2)	1.856	39	86291	9.068
6) Vinyl Chloride	(2)	1.868	62	62356	10.298
8) Bromomethane	(2)	2.130	94	42903	10.553
9) Chloroethane	(2)	2.198	64	30296	10.567
10) Dichlorofluoromethane	(2)	2.405	67	97996	10.489
12) Trichlorofluoromethane	(2)	2.441	101	78339	10.563
11) n-Pentane	(2)	2.472	43	68099	9.865
14) Ethyl ether	(2)	2.649	59	52497	10.268
15) Freon 123a	(2)	2.722	67	79096	10.218
16) Acrolein	(1)	2.795	56	252226	108.084
17) 1,1-Dichloroethene	(2)	2.899	96	57993	10.065
17) 1,1-Dichloroethene	(2)	2.899	63	29384	10.175
18) Acetone	(1)	2.941	58	25156	21.857
19) Freon 113	(2)	2.941	101	65457	10.036
22) Methyl Iodide	(2)	3.069	142	109970	10.009
21) 2-Propanol	(1)	3.088	45	94551	100.957
23) Carbon Disulfide	(2)	3.149	76	198468	9.792
27) Methyl Acetate	(2)	3.283	43	81962	9.866
25) Allyl Chloride	(2)	3.295	41	98639	10.226
28) Methylene Chloride	(2)	3.453	84	64974	10.004
29)*t-Butyl alcohol-d10	(1)	3.478	65	368547M	250.000
30) t-Butyl alcohol	(1)	3.588	59	172401	99.313
31) Acrylonitrile	(2)	3.746	53	47066	10.733
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	173129	10.152
32) trans-1,2-Dichloroethene	(2)	3.789	96	64527	10.008
34) n-Hexane	(2)	4.167	57	94872	9.923
36) 1,1-Dichloroethane	(2)	4.411	63	117563	10.073
38) di-Isopropyl ether	(2)	4.471	45	209578	10.053
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	98506	9.934
40) Ethyl t-butyl ether	(2)	5.038	59	187431	10.128
44) 2-Butanone	(2)	5.270	43	134437	21.064
42) cis-1,2-Dichloroethene	(2)	5.276	96	73625	10.096
45) 2,2-Dichloropropane	(2)	5.282	77	97436	9.894
47) Propionitrile	(1)	5.368	54	188839	99.929
48) Methacrylonitrile	(2)	5.581	67	220510	50.492
49) Bromochloromethane	(2)	5.624	128	34123	10.216

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	35702	20.904
51) Chloroform	(2)	5.788	83	116640	9.964
52)$Dibromofluoromethane	(2)	6.008	113	264399	49.811
52)$Dibromofluoromethane	(2)	6.014	111	270750	49.818
53) 1,1,1-Trichloroethane	(2)	6.008	97	103888	9.856
54) Cyclohexane	(2)	6.093	56	121473	9.895
54) Cyclohexane	(2)	6.093	84	102260	10.071
54) Cyclohexane	(2)	6.093	69	38003	9.981
43) 1,2-Dichloroethene (Total)	(2)		96	138152	20.104
56) Carbon Tetrachloride	(2)	6.215	117	89359	9.717
55) 1,1-Dichloropropene	(2)	6.227	75	95259	9.977
58) Isobutyl Alcohol	(1)	6.453	41	143748	248.426
57)$1,2-Dichloroethane-d4	(2)	6.477	102	59505M	50.124
57)$1,2-Dichloroethane-d4	(2)	6.477	65	289071	49.804
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37791	49.716
60) Benzene	(2)	6.502	78	286428	10.089
61) 1,2-Dichloroethane	(2)	6.587	62	85001	9.748
61) 1,2-Dichloroethane	(2)	6.593	98	7607	10.316
65) t-Amyl methyl ether	(2)	6.715	73	189587	10.266
66)*Fluorobenzene	(2)	6.928	96	1065691	50.000
67) n-Heptane	(2)	6.953	43	89571	9.699
69) n-Butanol	(1)	7.367	56	244784	490.264
71) Trichloroethene	(2)	7.428	95	74216	9.961
73) Methylcyclohexane	(2)	7.733	83	117405	9.915
73) Methylcyclohexane	(2)	7.733	98	49758	9.926
74) 1,2-Dichloropropane	(2)	7.776	63	71376	10.043
76) 1,4-Dioxane	(1)	7.873	88	31904M	257.605
75) Dibromomethane	(2)	7.885	93	44493	9.942
77) Methyl Methacrylate	(2)	7.892	69	64708	9.731
79) Bromodichloromethane	(2)	8.148	83	84113	9.693
80) 2-Nitropropane	(2)	8.446	41	61555	20.480
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	53554	9.737
82) cis-1,3-Dichloropropene	(2)	8.727	75	106067	9.672
83) 4-Methyl-2-pentanone	(2)	8.940	43	260820	21.203
84)$Toluene-d8	(3)	9.068	98	1025182	50.528
84)$Toluene-d8	(3)	9.068	100	673846	50.440
89) Toluene	(3)	9.153	92	182907	10.224
90) trans-1,3-Dichloropropene	(3)	9.471	75	93619	9.753

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	108268	9.919
93) 1,1,2-Trichloroethane	(3)	9.690	97	64165	10.032
94) Tetrachloroethene	(3)	9.769	166	79032	10.416
95) 1,3-Dichloropropane	(3)	9.867	76	106961	10.072
97) 2-Hexanone	(3)	9.946	43	204853	21.551
91) 1,3-Dichloropropene (total)	(3)		100	199686	19.425
98) Dibromochloromethane	(3)	10.098	129	66102	9.767
100) 1,2-Dibromoethane	(3)	10.208	107	71037	10.075
101)*Chlorobenzene-d5	(3)	10.684	117	825598	50.000
103) Chlorobenzene	(3)	10.708	112	198021	10.199
102) 1-Chlorohexane	(3)	10.708	91	104471	10.041
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	67396	10.061
105) Ethylbenzene	(3)	10.812	91	356222	10.298
107) m+p-Xylene	(3)	10.940	106	276013	20.796
108) o-Xylene	(3)	11.287	106	133376	10.267
110) Styrene	(3)	11.306	104	214319	10.237
111) Bromoform	(3)	11.458	173	46594	9.515
112) Isopropylbenzene	(3)	11.604	105	352266	10.333
113) Cyclohexanone	(1)	11.684	55	139805	245.762
115)$4-Bromofluorobenzene	(3)	11.751	95	423376	49.525
115)$4-Bromofluorobenzene	(3)	11.751	174	330390	49.542
109) Xylene (Total)	(3)		106	409389	31.063
116) Bromobenzene	(4)	11.866	156	82170	10.150
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	109894	10.003
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	83843	47.448
118) 1,2,3-Trichloropropane	(4)	11.915	110	32467	10.037
120) n-Propylbenzene	(4)	11.952	91	413695	10.394
121) 2-Chlorotoluene	(4)	12.025	126	82850	10.155
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	288261	10.303
122) 4-Chlorotoluene	(4)	12.122	126	84124	10.208
125) tert-Butylbenzene	(4)	12.348	134	55294M	9.944
126) Pentachloroethane	(4)	12.378	167	44337	9.712
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	296576	10.293
128) sec-Butylbenzene	(4)	12.519	105	355600	10.251
130) 1,3-Dichlorobenzene	(4)	12.610	146	155576	10.217
131) p-Isopropyltoluene	(4)	12.635	119	298147	10.306
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	424651	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	158115	10.232

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

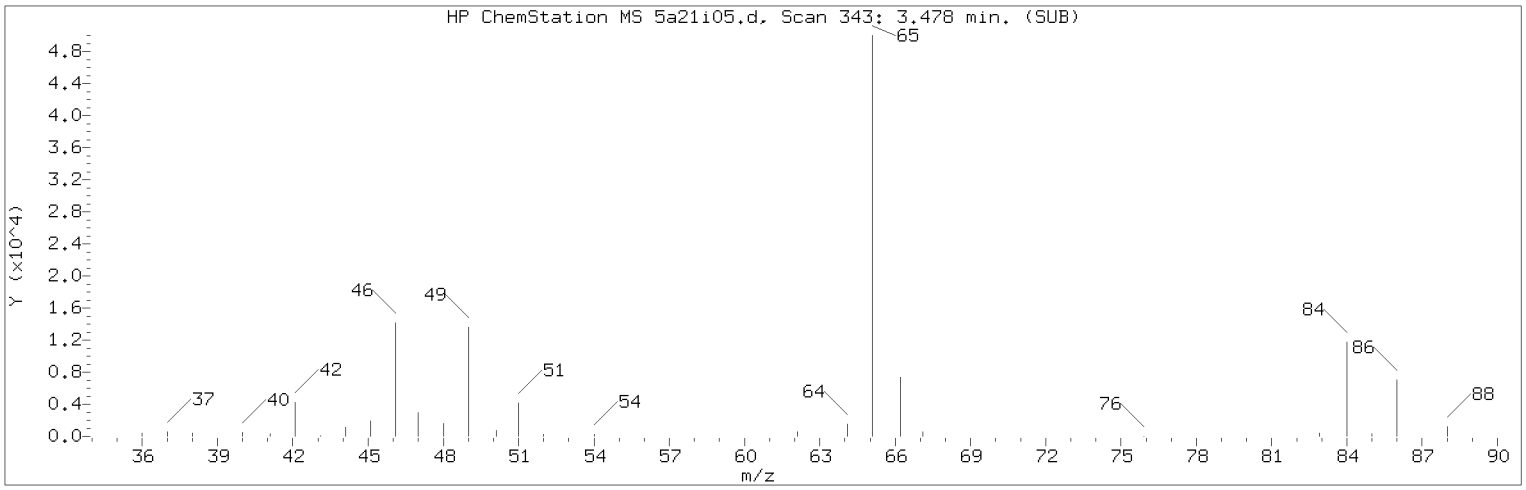
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

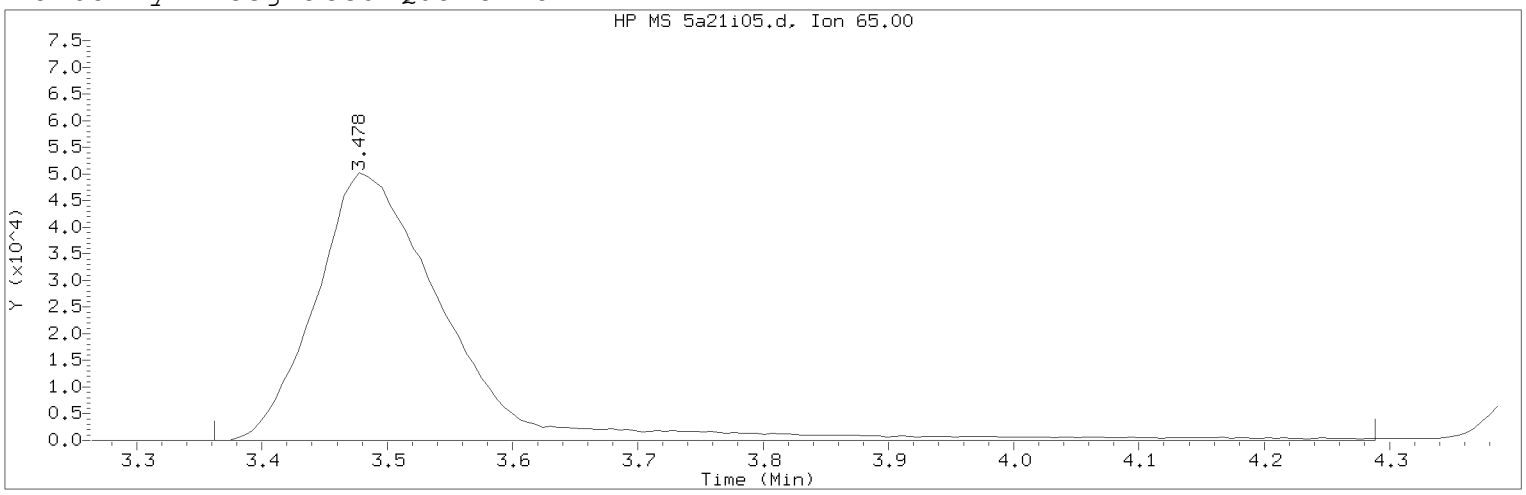
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	285226	10.313
136) Benzyl Chloride	(4)	12.775	91	207519	9.846
137) 1,3-Diethylbenzene	(4)	12.842	119	172875	10.343
138) 1,4-Diethylbenzene	(4)	12.915	119	178899	10.348
140) n-Butylbenzene	(4)	12.933	92	147655	10.119
139) 1,2-Dichlorobenzene	(4)	12.958	146	148814	10.174
141) 1,2-Diethylbenzene	(4)	12.988	119	145158	10.268
142) Diethylbenzene (total)	(4)		100	496932	30.959
143) 1,2-Dibromo-3-chloropropane	(4)	13.518	75	26754	9.646
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	96065	9.944
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	90853	10.010
148) Hexachlorobutadiene	(4)	14.165	225	34259	9.815
149) Naphthalene	(4)	14.262	128	368201	10.244
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	89515	9.967
151) 2-Methylnaphthalene	(4)	15.012	142	187053	10.017

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

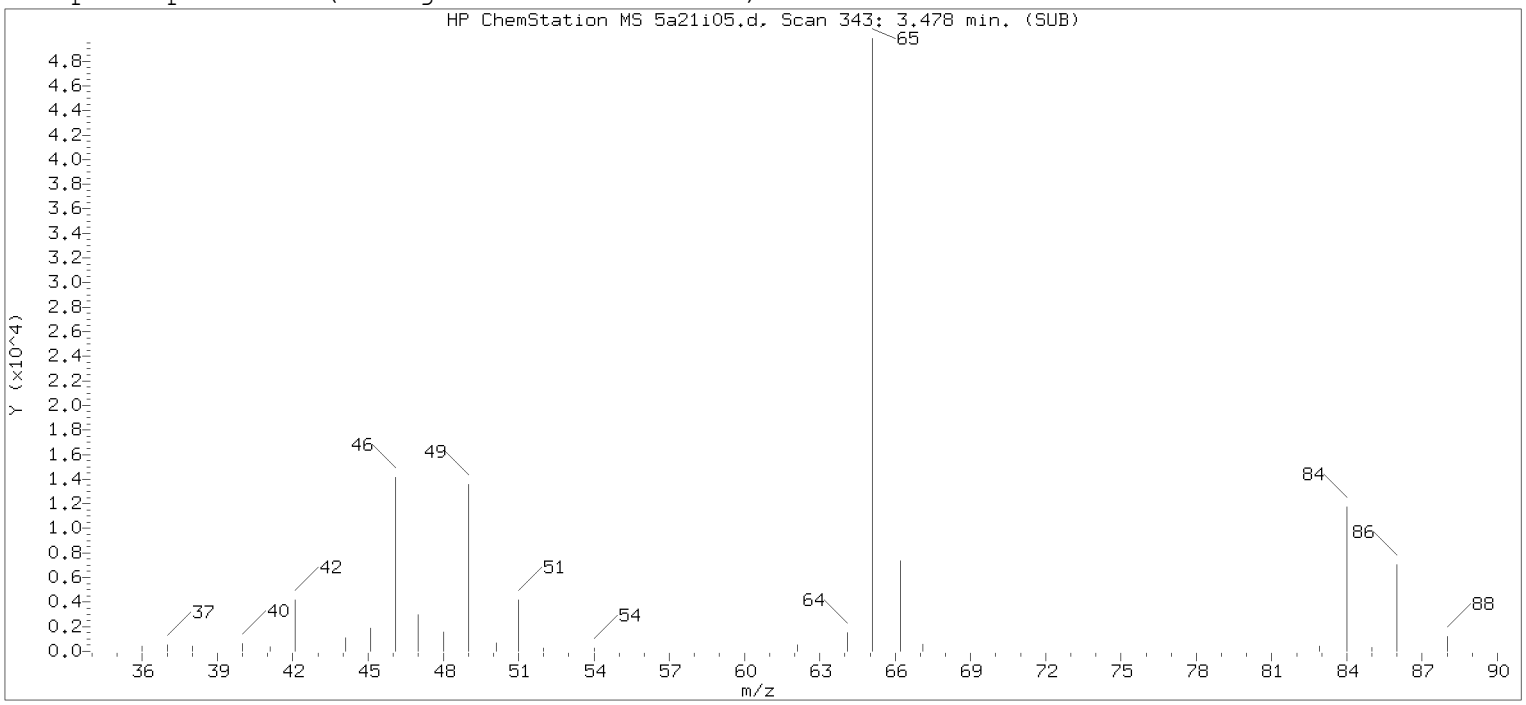
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 368547M
On-Column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 475
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

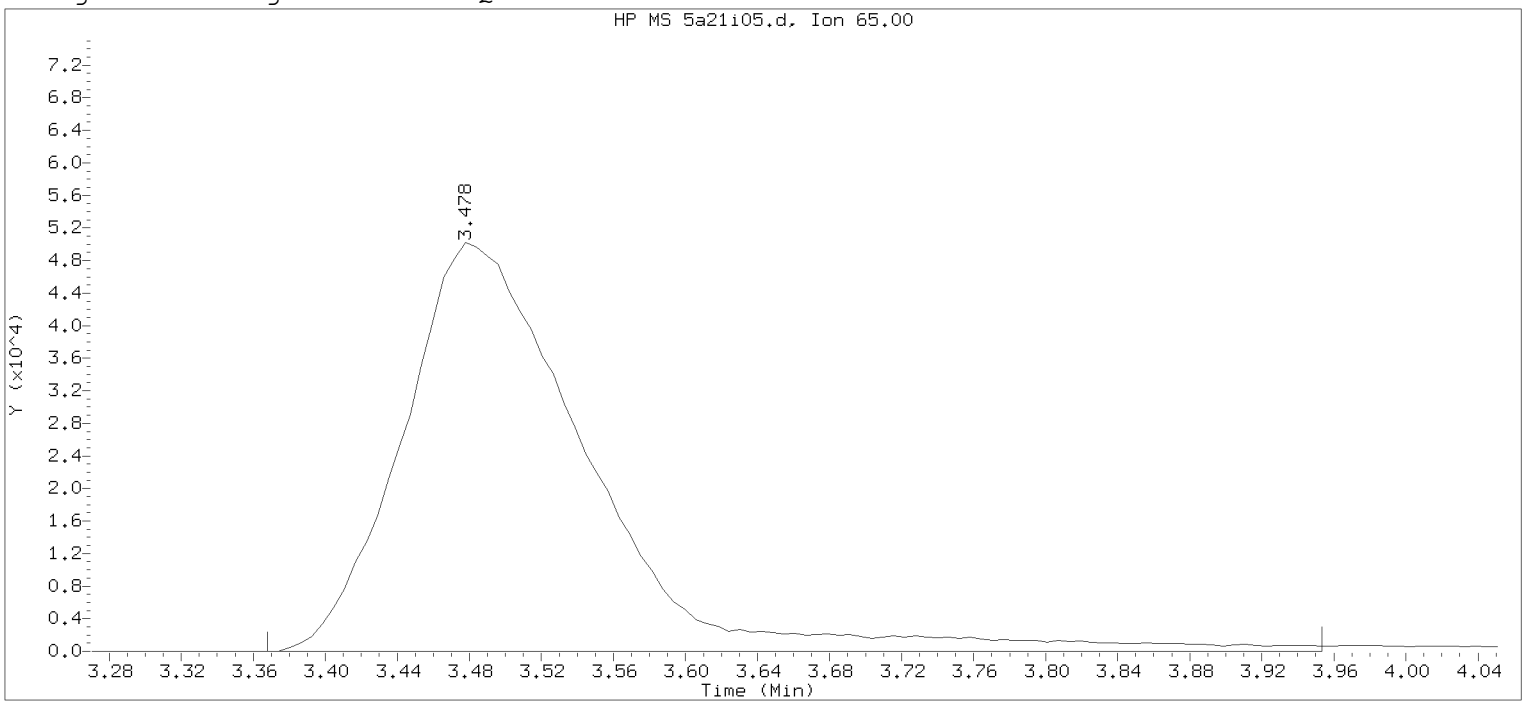
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

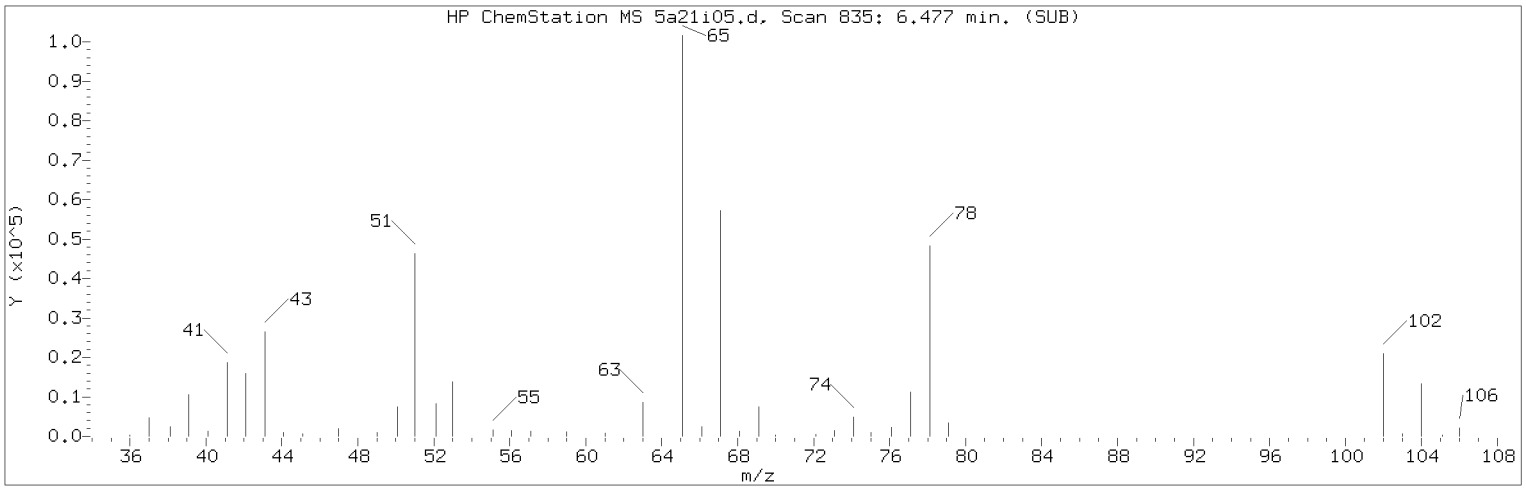
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

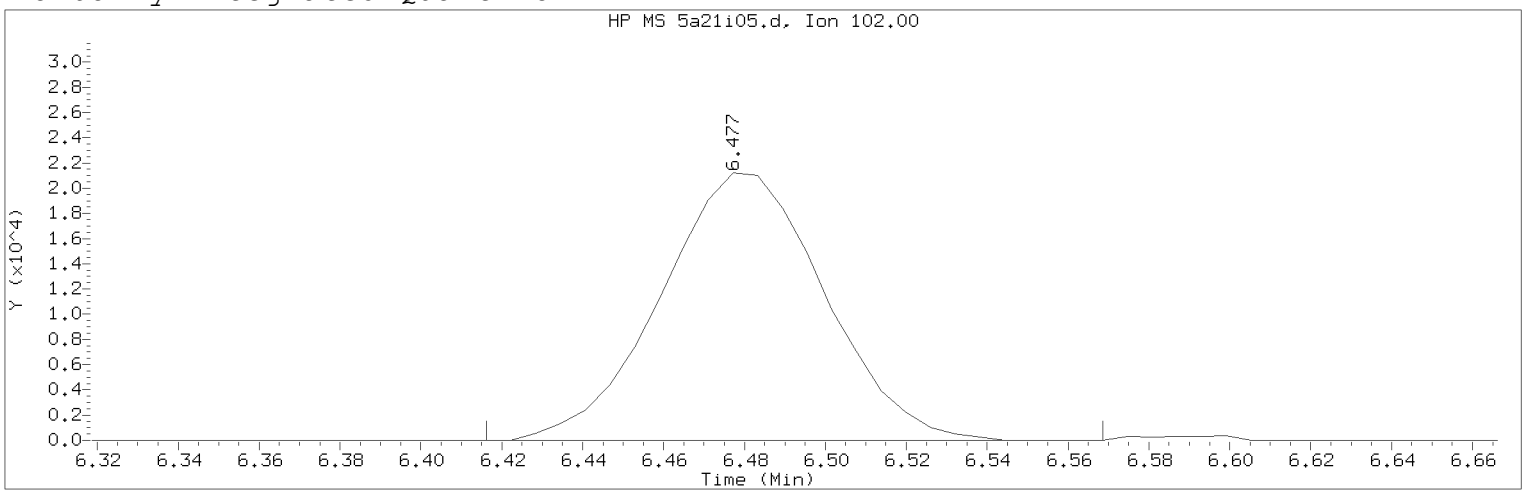
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 358381
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

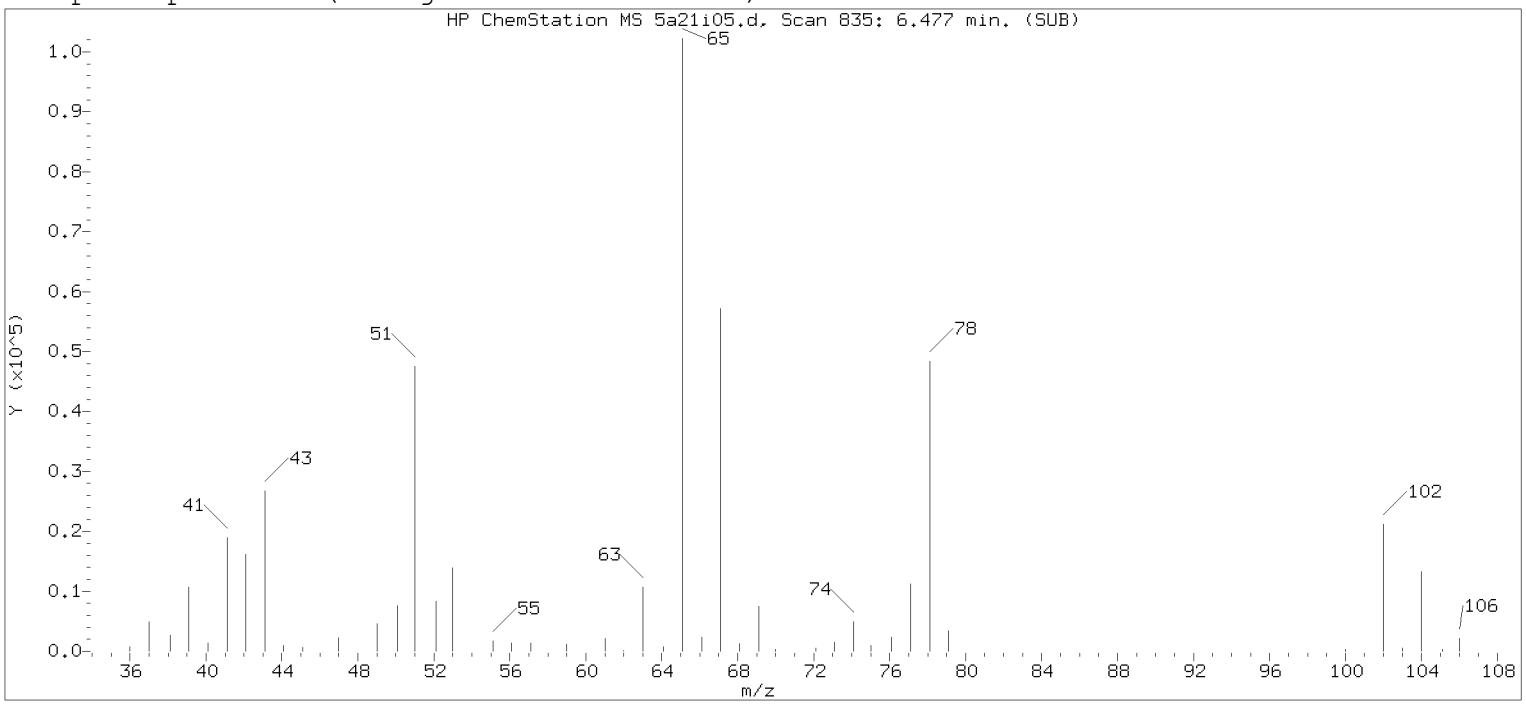
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area (flag) : 59505M
On-Column Amount (ng) : 50.1238
Integration start scan : 824 Integration stop scan: 849
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

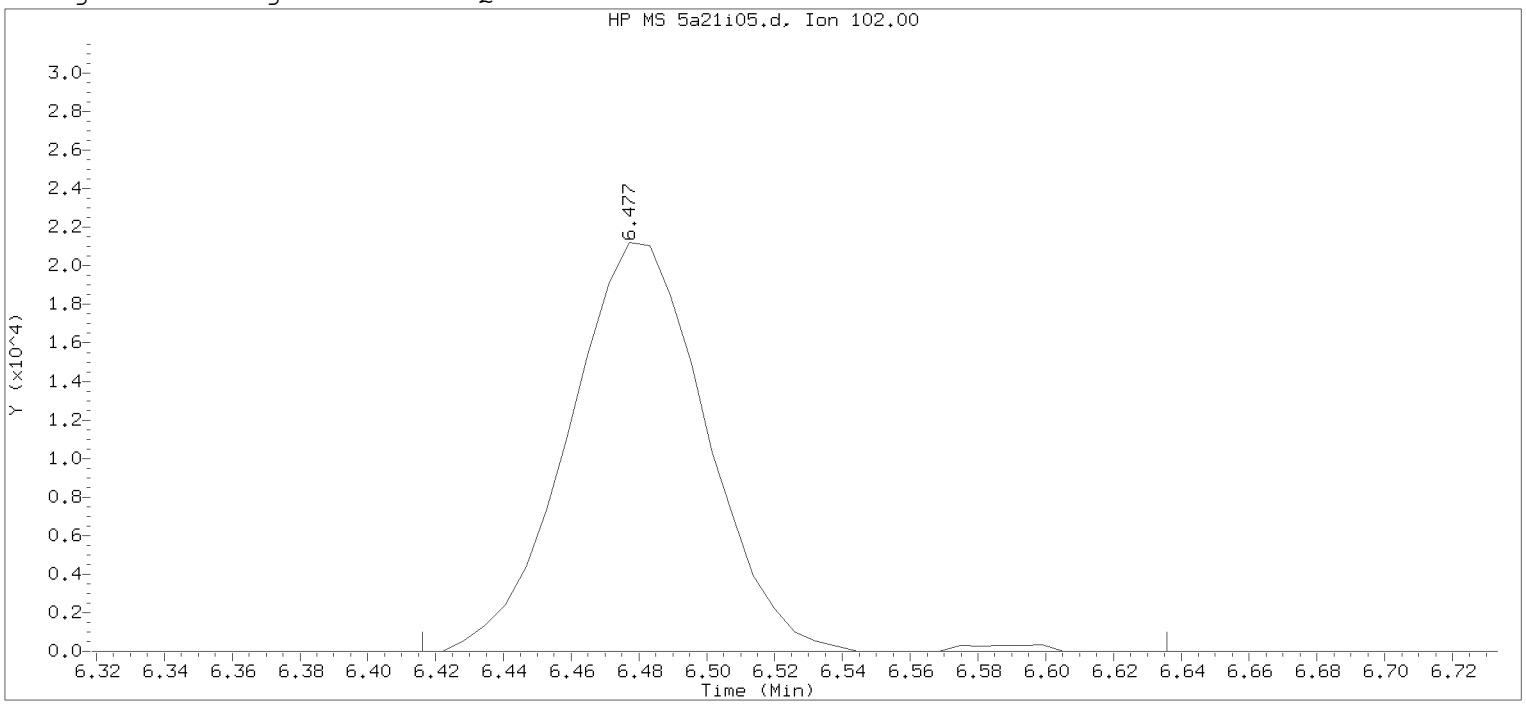
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

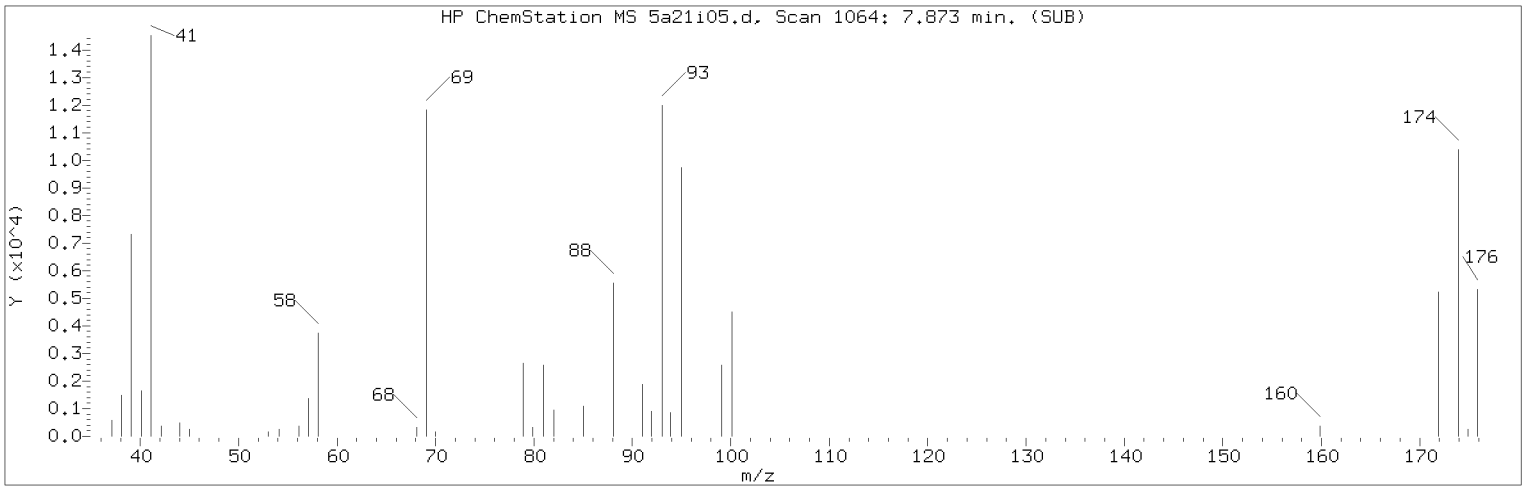
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

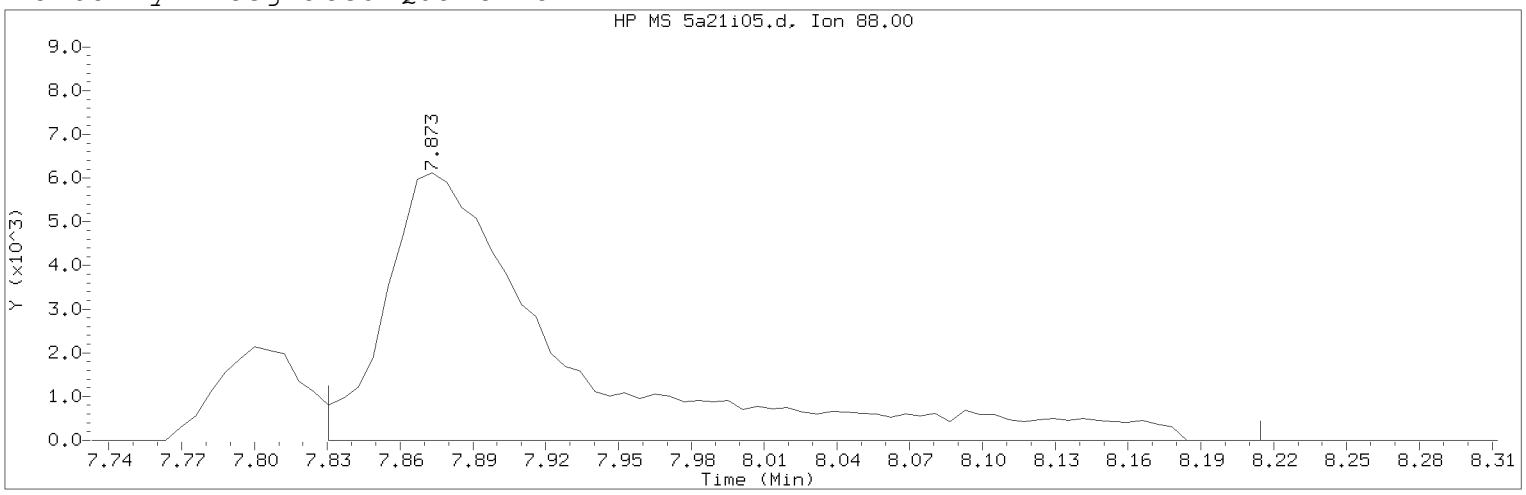
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area : 60057
On-column Amount (ng) : 50.5589
Integration start scan : 824 Integration stop scan: 860
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

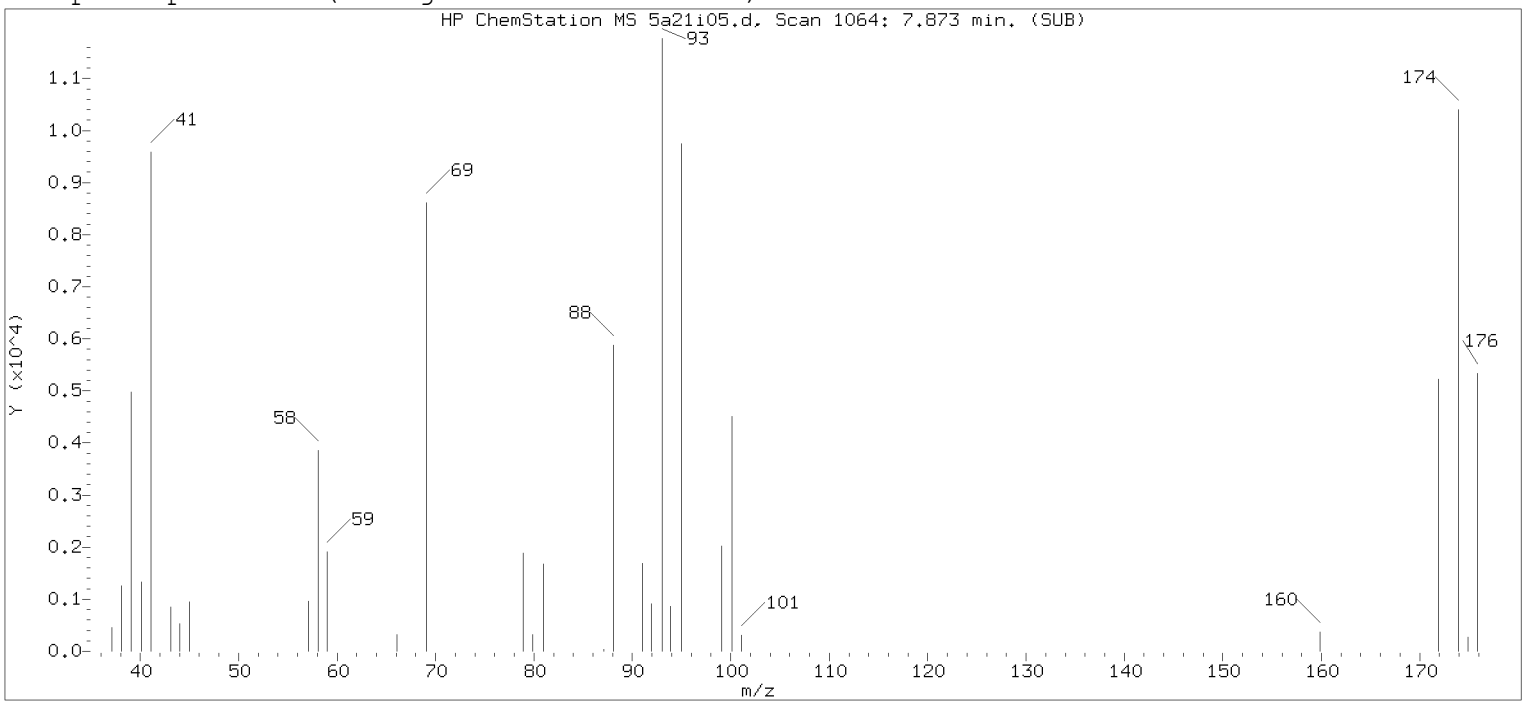
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 31904M
On-Column Amount (ng) : 257.6053
Integration start scan : 1056 Integration stop scan: 1119
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

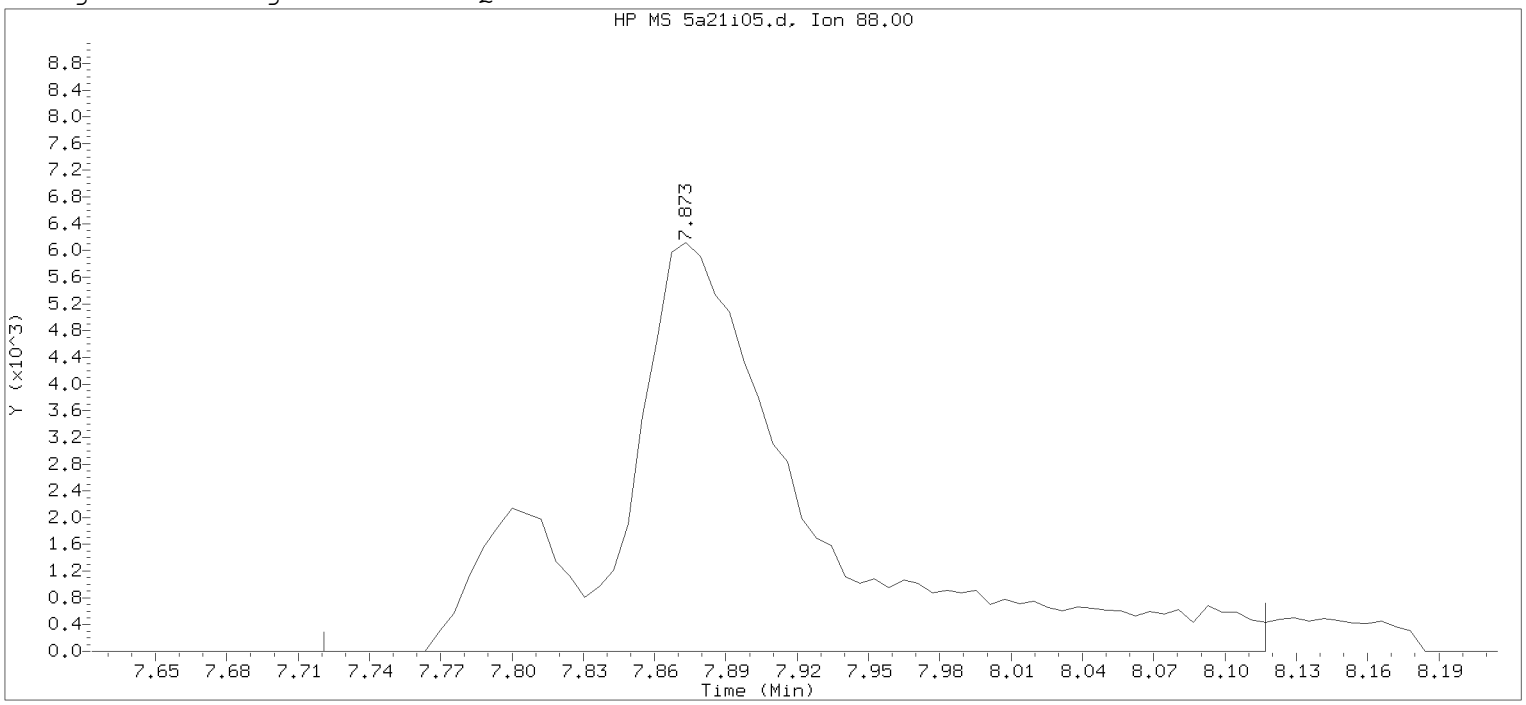
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

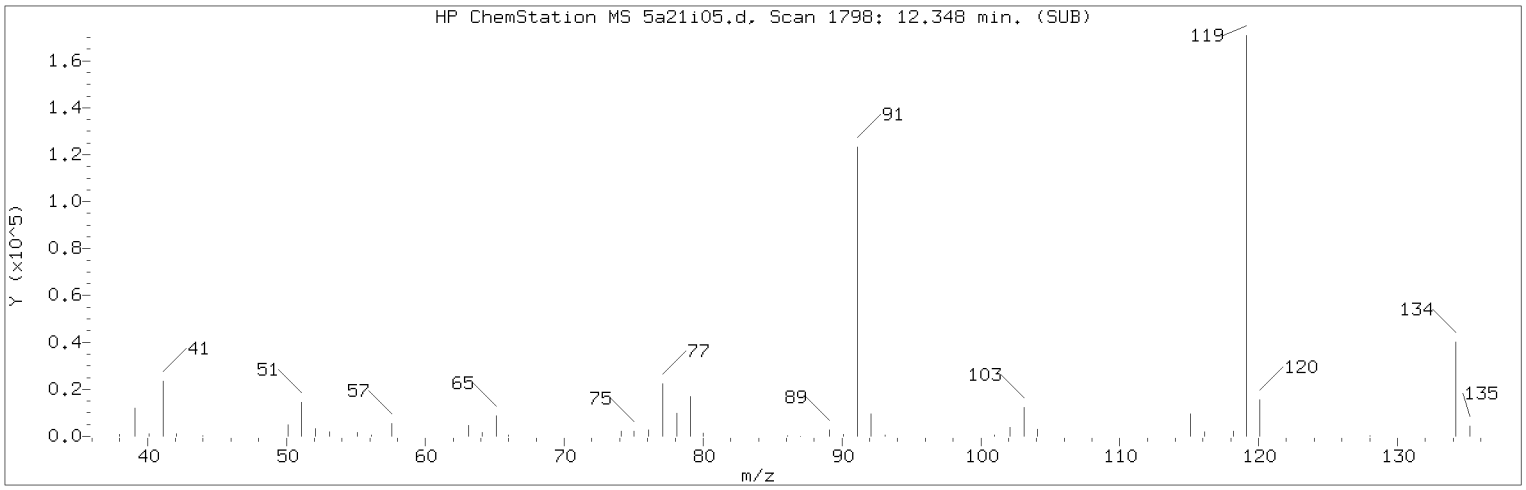
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

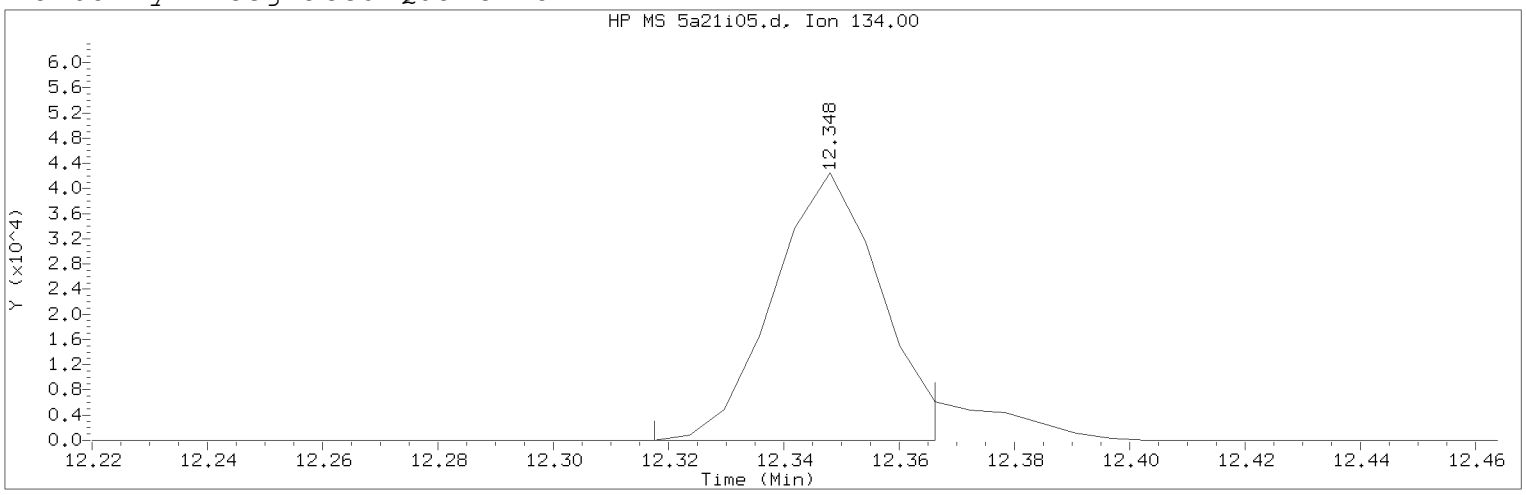
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 35370
On-column Amount (ng) : 236.7248
Integration start scan : 1038 Integration stop scan: 1103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

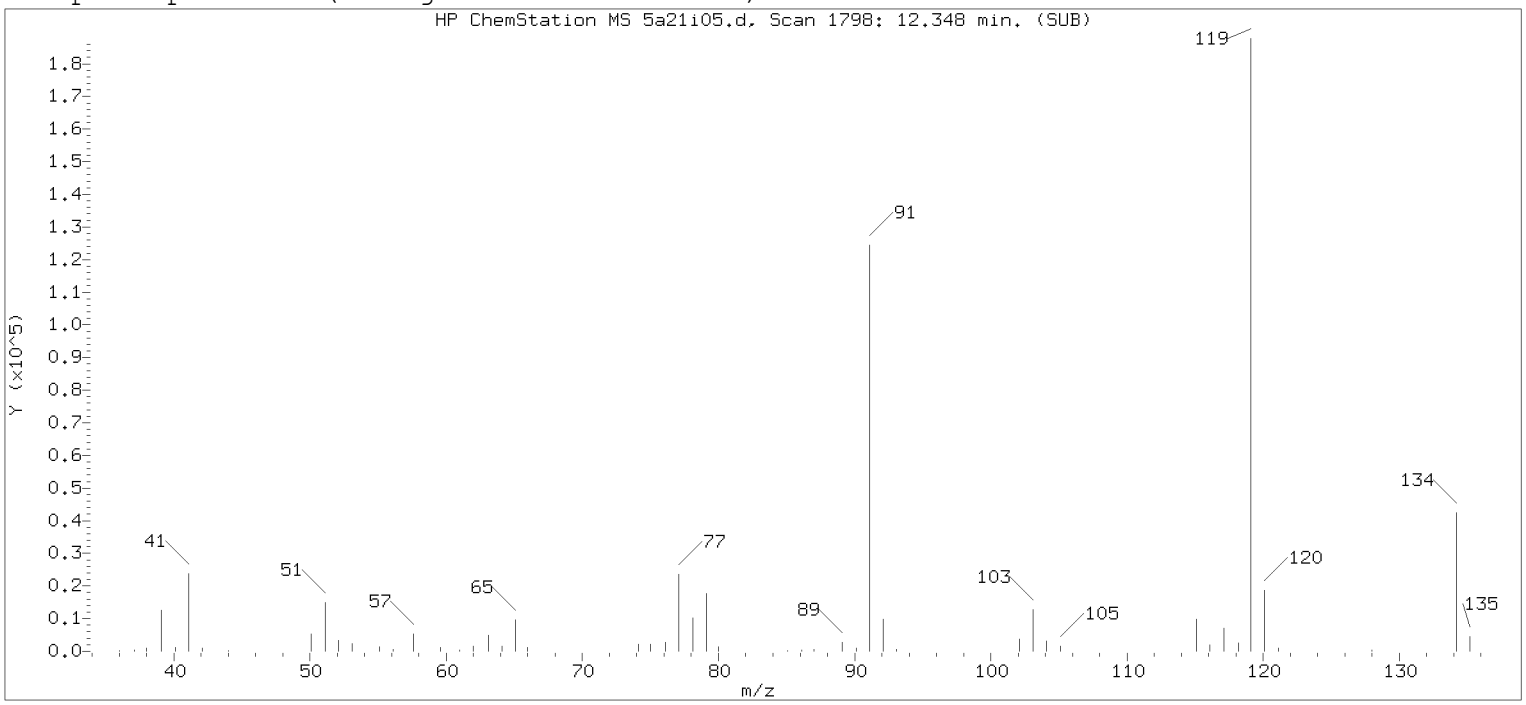
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 55294M
On-Column Amount (ng) : 9.9438
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

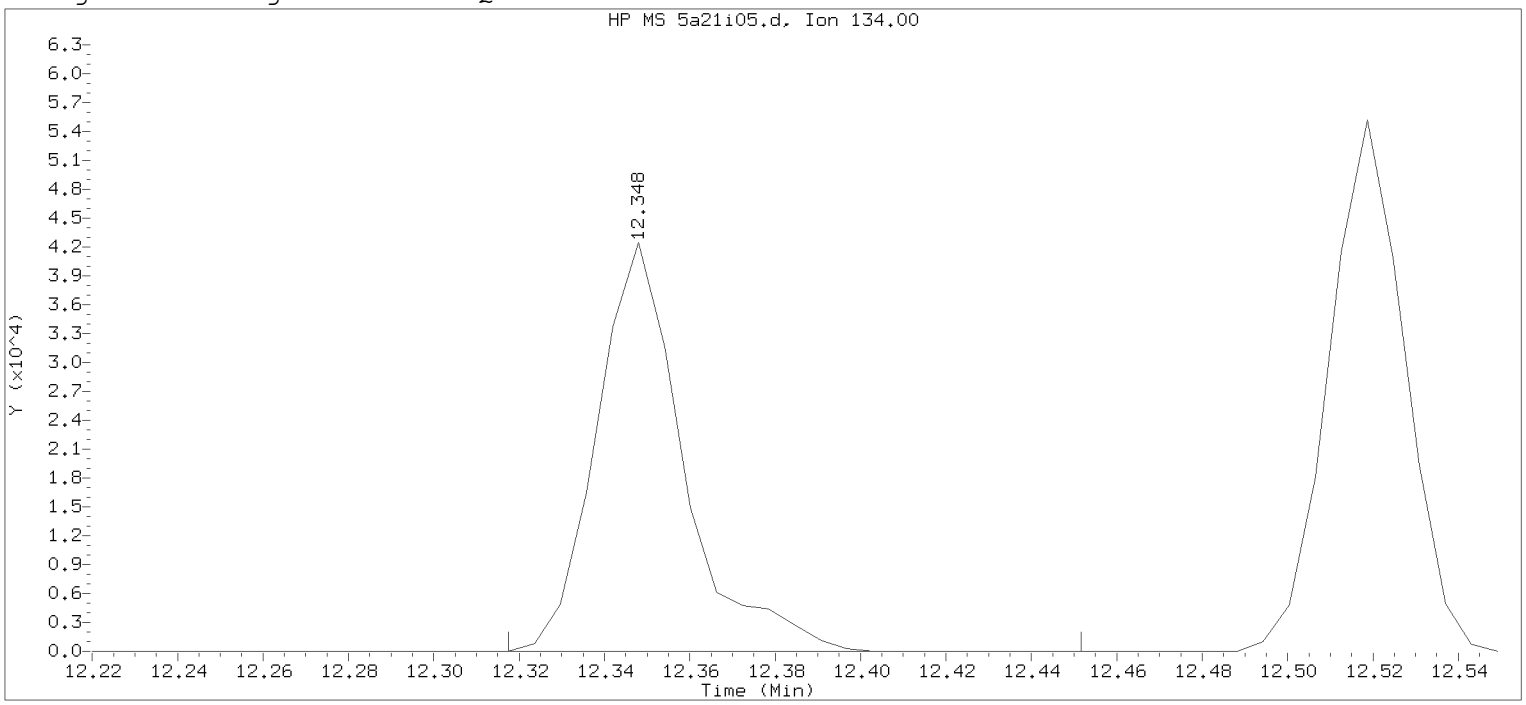
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



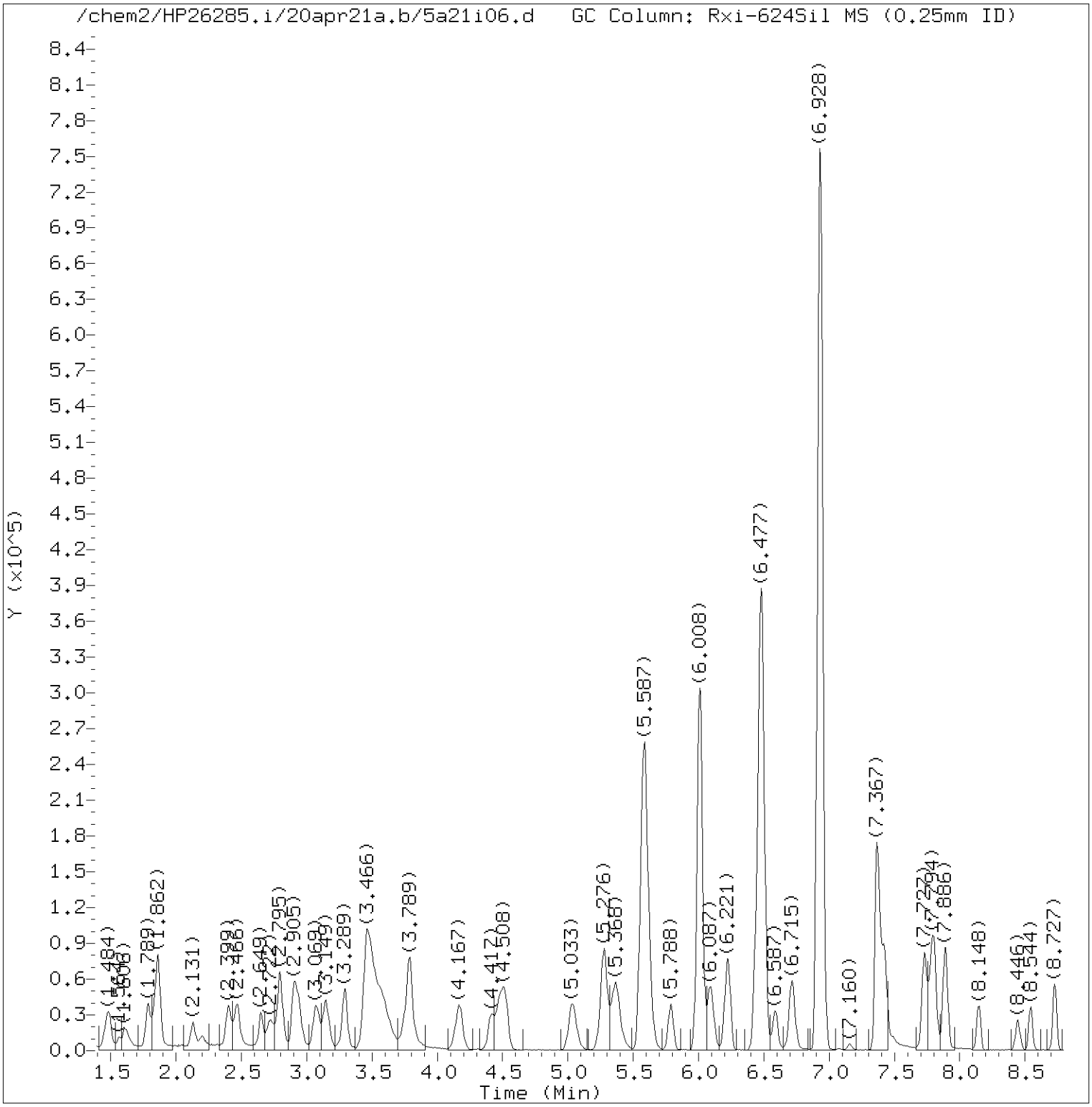
Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 60150
On-column Amount (ng) : 10.0705
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

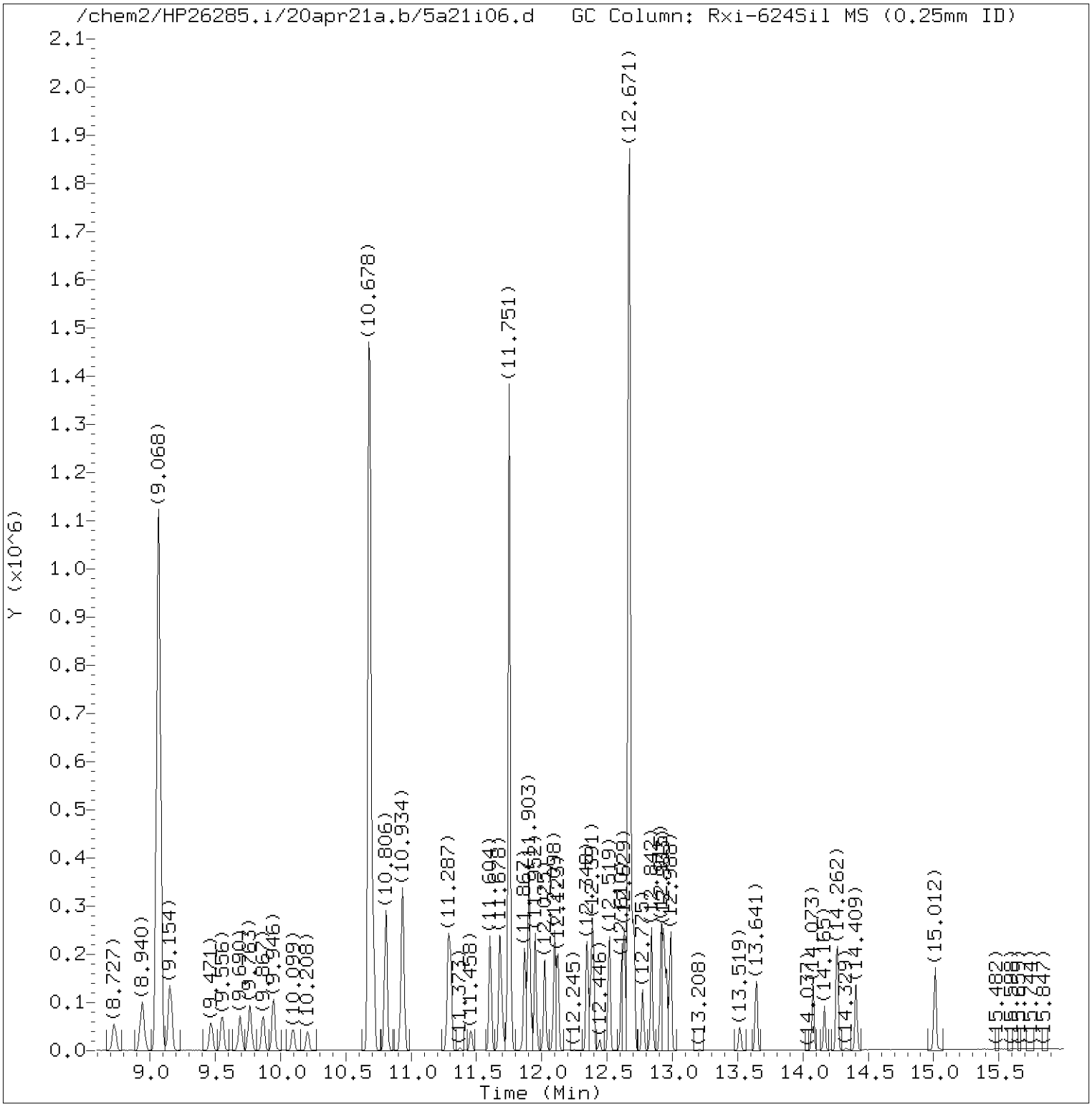
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.619	85	34476	4.213
4) Chloromethane	(2)	1.777	50	29941	4.580
5) 1,3-Butadiene	(2)	1.856	39	55604	6.162
6) Vinyl Chloride	(2)	1.868	62	24470	4.262
8) Bromomethane	(2)	2.131	94	16661	4.322
9) Chloroethane	(2)	2.198	64	11678	4.296
10) Dichlorofluoromethane	(2)	2.399	67	38057	4.296
12) Trichlorofluoromethane	(2)	2.442	101	30449	4.330
11) n-Pentane	(2)	2.472	43	29312	4.478
14) Ethyl ether	(2)	2.655	59	20997	4.331
15) Freon 123a	(2)	2.722	67	32224	4.390
16) Acrolein	(1)	2.801	56	93288	42.674
17) 1,1-Dichloroethene	(2)	2.899	96	23204	4.247
17) 1,1-Dichloroethene	(2)	2.899	63	12012	4.386
19) Freon 113	(2)	2.929	101	25378	4.103
18) Acetone	(1)	2.941	58	8714	8.082
22) Methyl Iodide	(2)	3.063	142	43602	4.185
21) 2-Propanol	(1)	3.082	45	68781	78.398
23) Carbon Disulfide	(2)	3.149	76	79286	4.125
27) Methyl Acetate	(2)	3.283	43	34676	4.402
25) Allyl Chloride	(2)	3.295	41	38956	4.259
28) Methylene Chloride	(2)	3.460	84	25742	4.180
29)*t-Butyl alcohol-d10	(1)	3.490	65	345244M	250.000
30) t-Butyl alcohol	(1)	3.588	59	130136	80.026
31) Acrylonitrile	(2)	3.740	53	16850	4.052
32) trans-1,2-Dichloroethene	(2)	3.789	96	25808	4.221
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	67965	4.203
34) n-Hexane	(2)	4.167	57	37512	4.138
36) 1,1-Dichloroethane	(2)	4.411	63	45897	4.147
38) di-Isopropyl ether	(2)	4.472	45	82225	4.160
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	38653	4.111
40) Ethyl t-butyl ether	(2)	5.033	59	74286	4.233
44) 2-Butanone	(2)	5.264	43	48644	8.038
42) cis-1,2-Dichloroethene	(2)	5.276	96	28807	4.166
45) 2,2-Dichloropropane	(2)	5.289	77	38728	4.147
47) Propionitrile	(1)	5.368	54	143140	80.859
48) Methacrylonitrile	(2)	5.587	67	168253	40.628
49) Bromochloromethane	(2)	5.618	128	13506	4.264

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	12997	8.123
51) Chloroform	(2)	5.788	83	46340	4.174
53) 1,1,1-Trichloroethane	(2)	6.002	97	41024	4.105
52)$Dibromofluoromethane	(2)	6.008	113	250494	49.767
52)$Dibromofluoromethane	(2)	6.014	111	257903	50.044
54) Cyclohexane	(2)	6.093	56	47020	4.039
54) Cyclohexane	(2)	6.093	84	39183	4.069
54) Cyclohexane	(2)	6.087	69	15033	4.164
43) 1,2-Dichloroethene (Total)	(2)		96	54615	8.387
56) Carbon Tetrachloride	(2)	6.215	117	34824	3.994
55) 1,1-Dichloropropene	(2)	6.227	75	37898	4.186
58) Isobutyl Alcohol	(1)	6.453	41	107038	197.470
57)$1,2-Dichloroethane-d4	(2)	6.477	102	56616	50.293
57)$1,2-Dichloroethane-d4	(2)	6.477	65	276097	50.164
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36268	50.316
60) Benzene	(2)	6.502	78	112819	4.191
61) 1,2-Dichloroethane	(2)	6.587	62	34225	4.139
61) 1,2-Dichloroethane	(2)	6.587	98	3083	4.409
65) t-Amyl methyl ether	(2)	6.715	73	74270	4.241
66)*Fluorobenzene	(2)	6.928	96	1010545	50.000
67) n-Heptane	(2)	6.953	43	36742	4.196
69) n-Butanol	(1)	7.367	56	181564	388.189
71) Trichloroethene	(2)	7.422	95	29188	4.131
73) Methylcyclohexane	(2)	7.727	83	47155	4.200
73) Methylcyclohexane	(2)	7.727	98	20305	4.272
74) 1,2-Dichloropropane	(2)	7.776	63	27684	4.108
76) 1,4-Dioxane	(1)	7.880	88	23612M	203.521
75) Dibromomethane	(2)	7.886	93	17306	4.078
77) Methyl Methacrylate	(2)	7.892	69	24521	3.889
79) Bromodichloromethane	(2)	8.148	83	31908	3.878
80) 2-Nitropropane	(2)	8.446	41	21269	7.463
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	20564	3.943
82) cis-1,3-Dichloropropene	(2)	8.727	75	40408	3.886
83) 4-Methyl-2-pentanone	(2)	8.940	43	92185	7.903
84)$Toluene-d8	(3)	9.068	98	968812	50.385
84)$Toluene-d8	(3)	9.068	100	635718	50.212
89) Toluene	(3)	9.154	92	71824	4.236
90) trans-1,3-Dichloropropene	(3)	9.465	75	34689	3.813

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	39991	3.866
93) 1,1,2-Trichloroethane	(3)	9.690	97	24859	4.101
94) Tetrachloroethene	(3)	9.763	166	30292	4.212
95) 1,3-Dichloropropane	(3)	9.867	76	41190	4.093
97) 2-Hexanone	(3)	9.946	43	70525	7.829
91) 1,3-Dichloropropene (total)	(3)		100	75097	7.699
98) Dibromochloromethane	(3)	10.093	129	24227	3.777
100) 1,2-Dibromoethane	(3)	10.208	107	26686	3.994
101)*Chlorobenzene-d5	(3)	10.678	117	782414	50.000
103) Chlorobenzene	(3)	10.708	112	77695	4.222
102) 1-Chlorohexane	(3)	10.708	91	41072	4.165
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	25538	4.023
105) Ethylbenzene	(3)	10.812	91	137287	4.188
107) m+p-Xylene	(3)	10.934	106	106522	8.469
108) o-Xylene	(3)	11.281	106	51224	4.161
110) Styrene	(3)	11.300	104	79480	4.006
111) Bromoform	(3)	11.458	173	16572	3.571
112) Isopropylbenzene	(3)	11.604	105	135714	4.201
113) Cyclohexanone	(1)	11.678	55	104529	196.153
115)$4-Bromofluorobenzene	(3)	11.751	95	399475	49.308
115)$4-Bromofluorobenzene	(3)	11.751	174	315416	49.907
109) Xylene (Total)	(3)		106	157746	12.630
116) Bromobenzene	(4)	11.867	156	31836	4.175
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	43128	4.168
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	55180	37.271
118) 1,2,3-Trichloropropane	(4)	11.915	110	12625	4.144
120) n-Propylbenzene	(4)	11.952	91	160284	4.276
121) 2-Chlorotoluene	(4)	12.025	126	31984	4.162
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	109570	4.158
122) 4-Chlorotoluene	(4)	12.123	126	32100	4.135
125) tert-Butylbenzene	(4)	12.348	134	21537M	4.112
126) Pentachloroethane	(4)	12.379	167	17264	4.015
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	112369	4.141
128) sec-Butylbenzene	(4)	12.519	105	139030	4.255
130) 1,3-Dichlorobenzene	(4)	12.610	146	60272	4.202
131) p-Isopropyltoluene	(4)	12.629	119	114197	4.191
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	399968	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	60798	4.177

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	112388	4.314
136) Benzyl Chloride	(4)	12.775	91	72151	3.635
137) 1,3-Diethylbenzene	(4)	12.842	119	67279	4.273
138) 1,4-Diethylbenzene	(4)	12.915	119	70931	4.356
140) n-Butylbenzene	(4)	12.933	92	57583	4.190
139) 1,2-Dichlorobenzene	(4)	12.958	146	57262	4.156
141) 1,2-Diethylbenzene	(4)	12.988	119	57341	4.307
142) Diethylbenzene (total)	(4)		100	195551	12.936
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	9836	3.765
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	36830	4.047
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	35023	4.097
148) Hexachlorobutadiene	(4)	14.165	225	13270	4.036
149) Naphthalene	(4)	14.262	128	138750	4.099
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	34713	4.103
151) 2-Methylnaphthalene	(4)	15.012	142	67881	3.859

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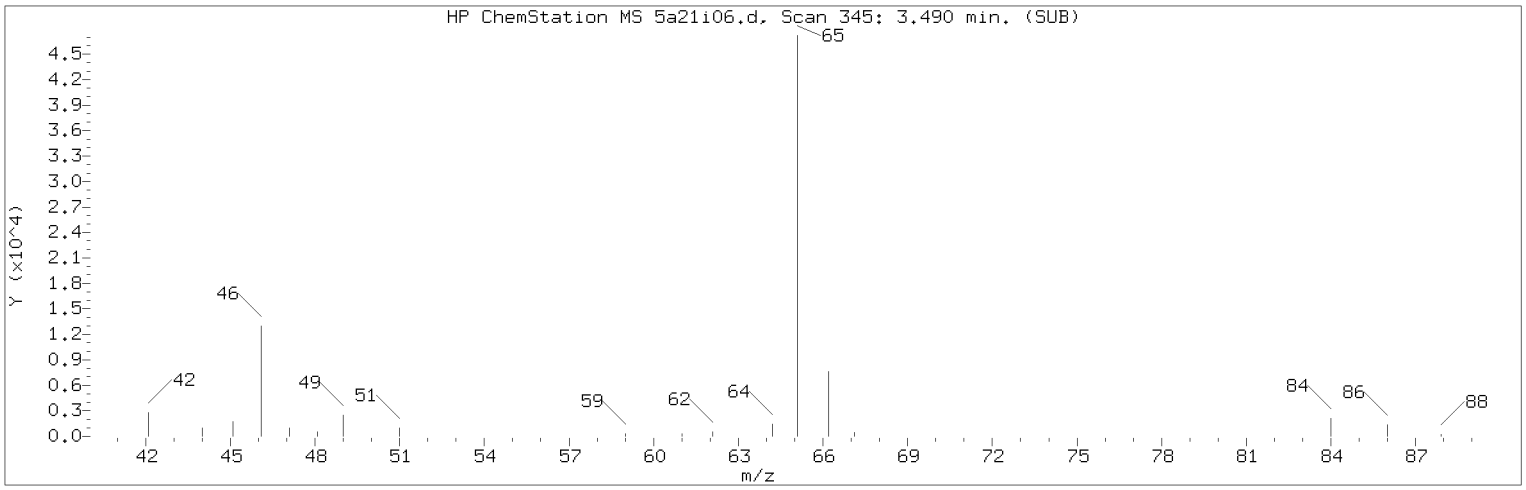
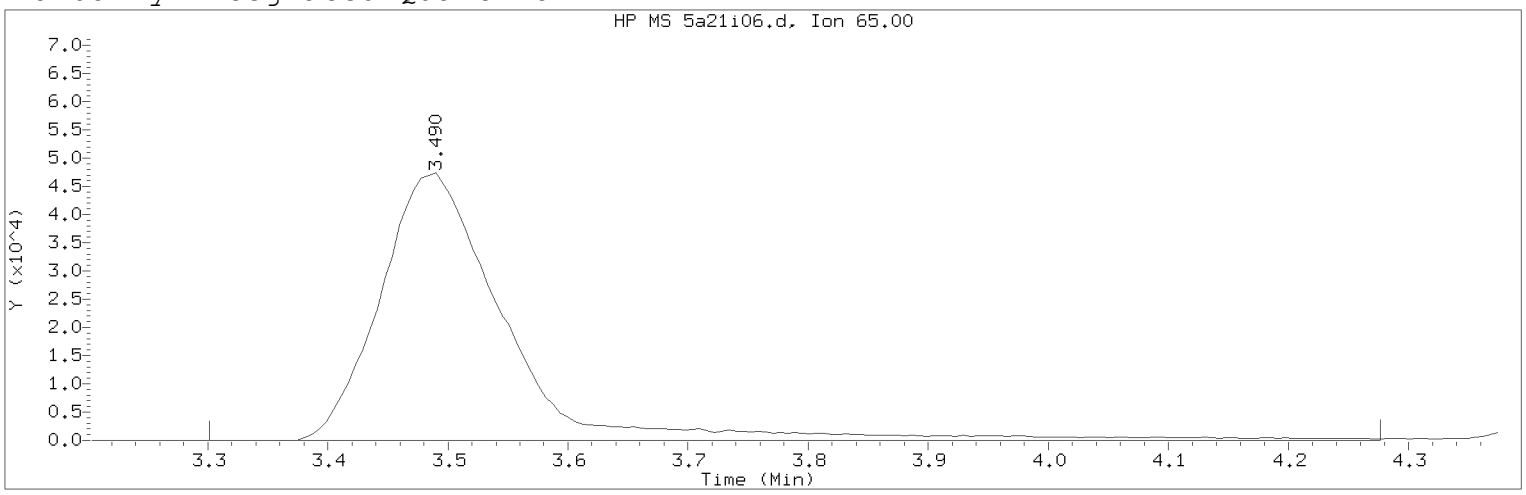
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

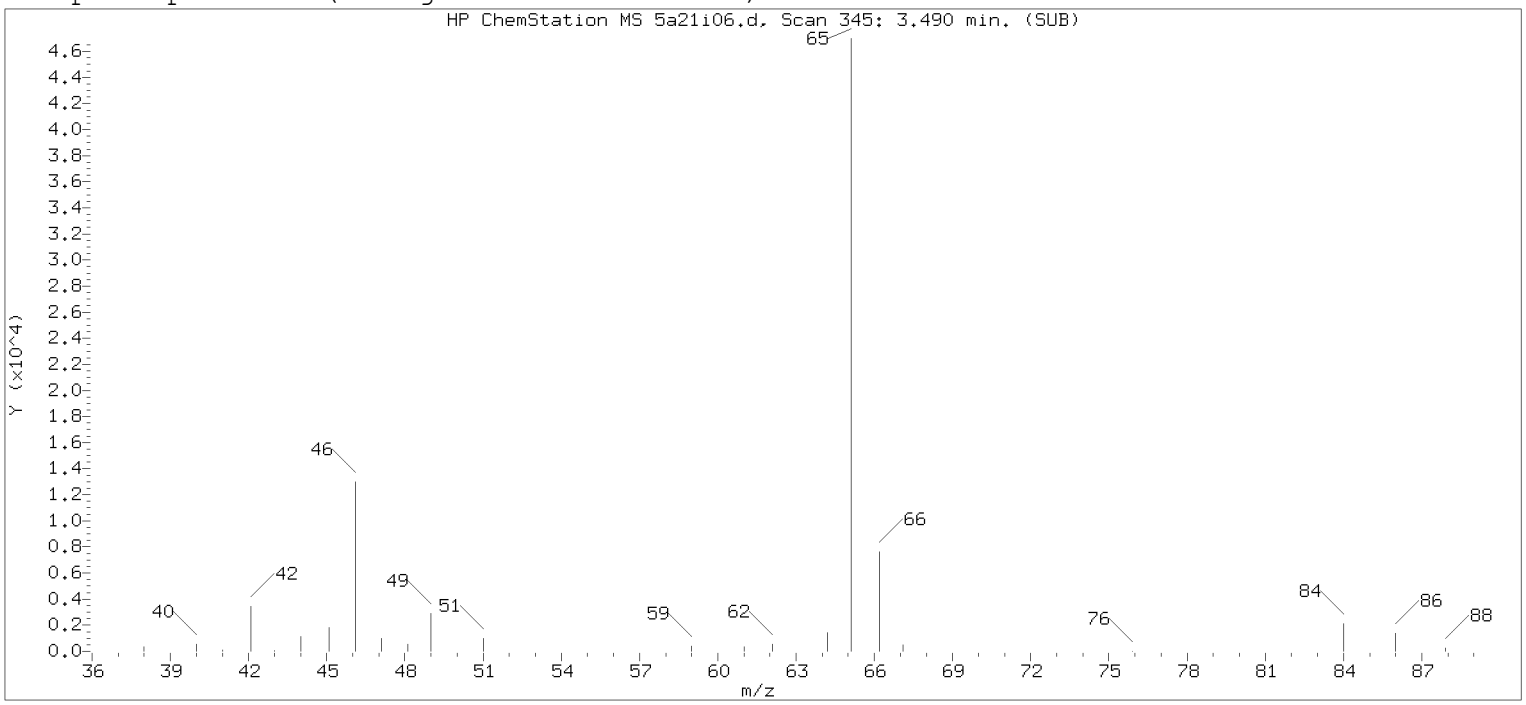
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 345244M
On-Column Amount (ng) : 250.0000
Integration start scan : 313 Integration stop scan: 473
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

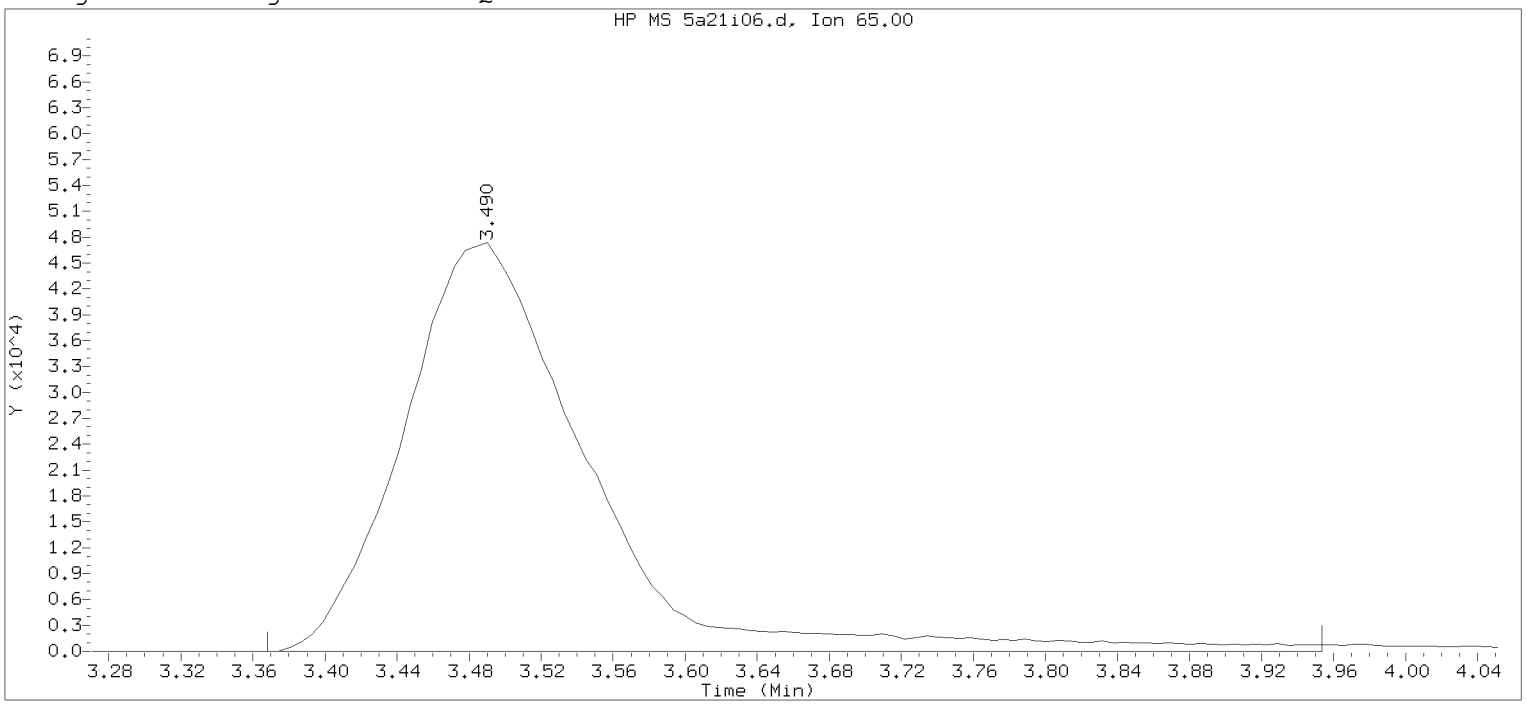
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

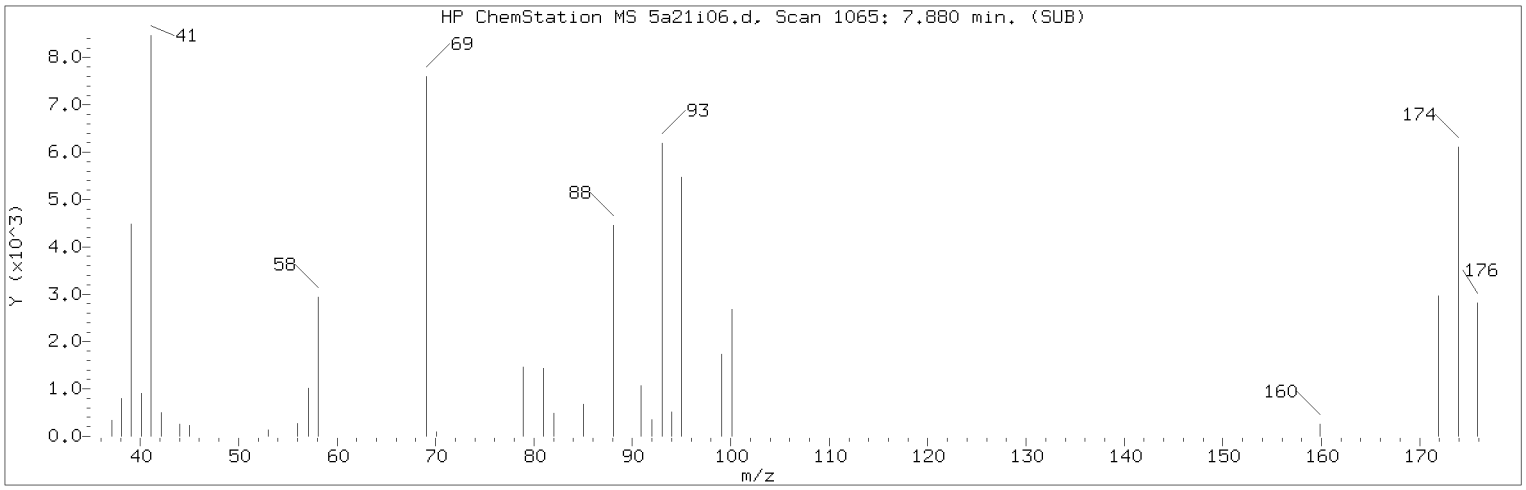
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

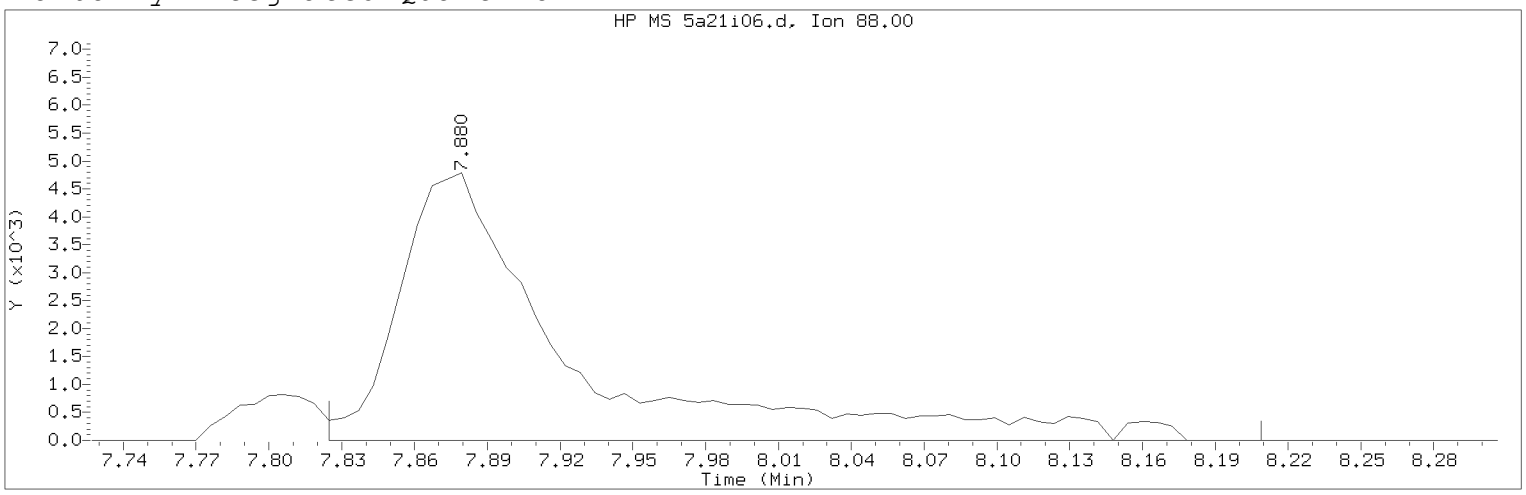
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 335904
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

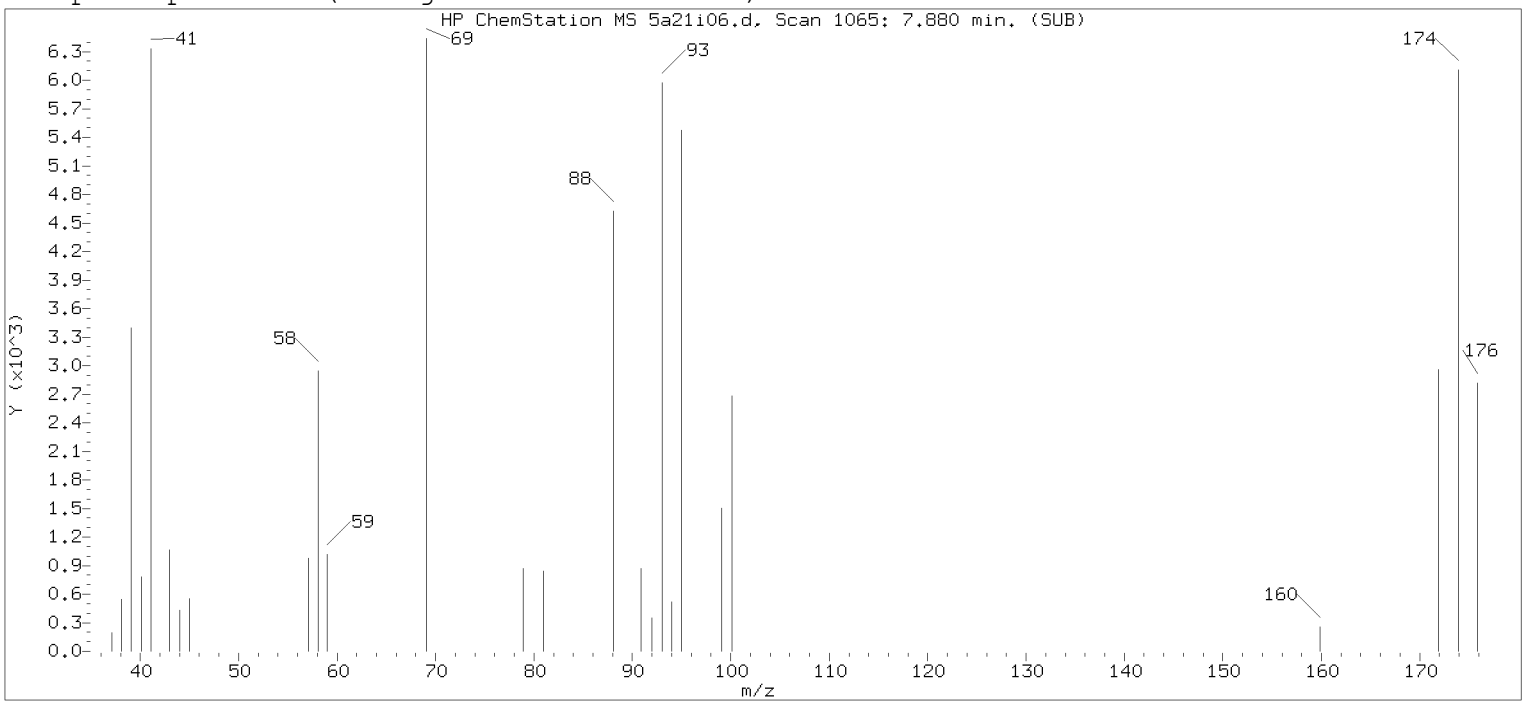
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area (flag) : 23612M
On-Column Amount (ng) : 203.5210
Integration start scan : 1055 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

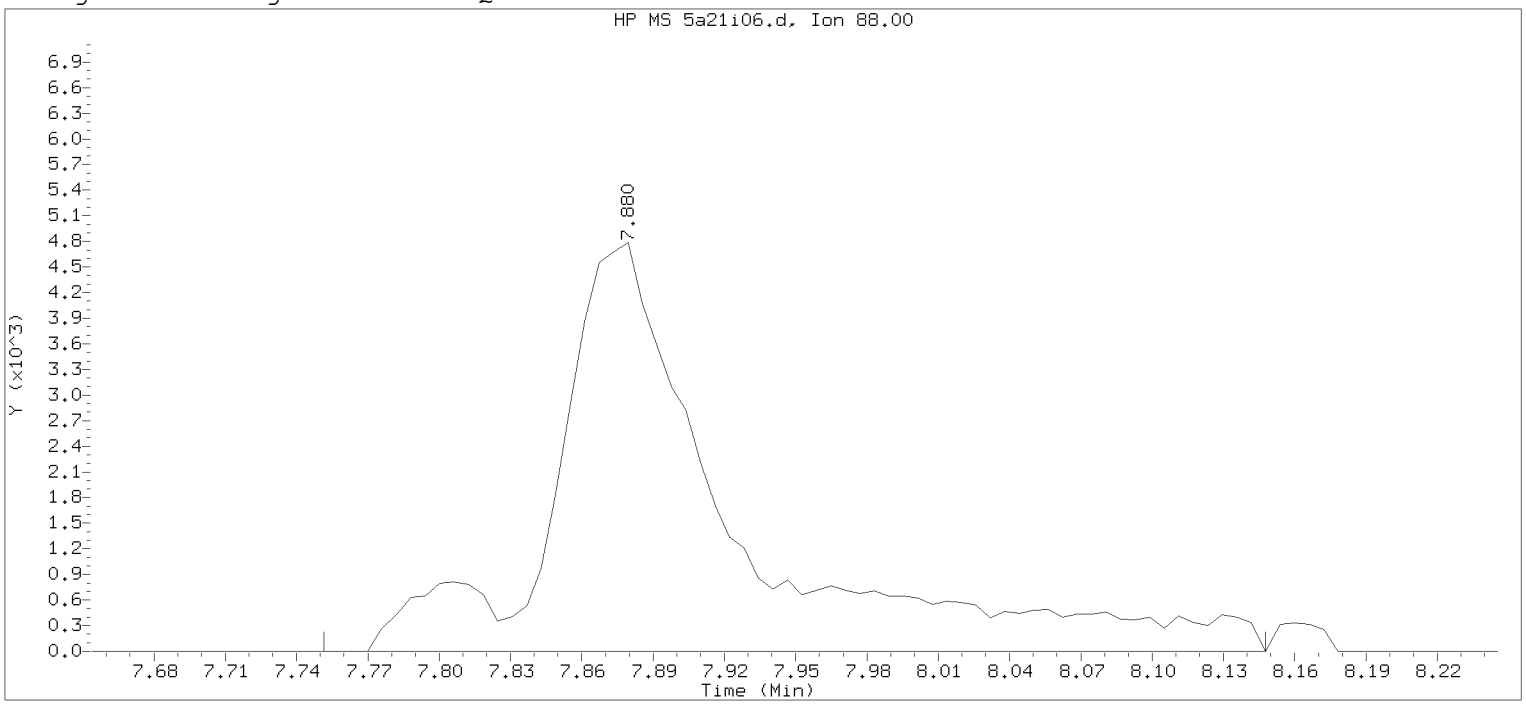
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area : 25003
On-column Amount (ng) : 181.7905
Integration start scan : 1043 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

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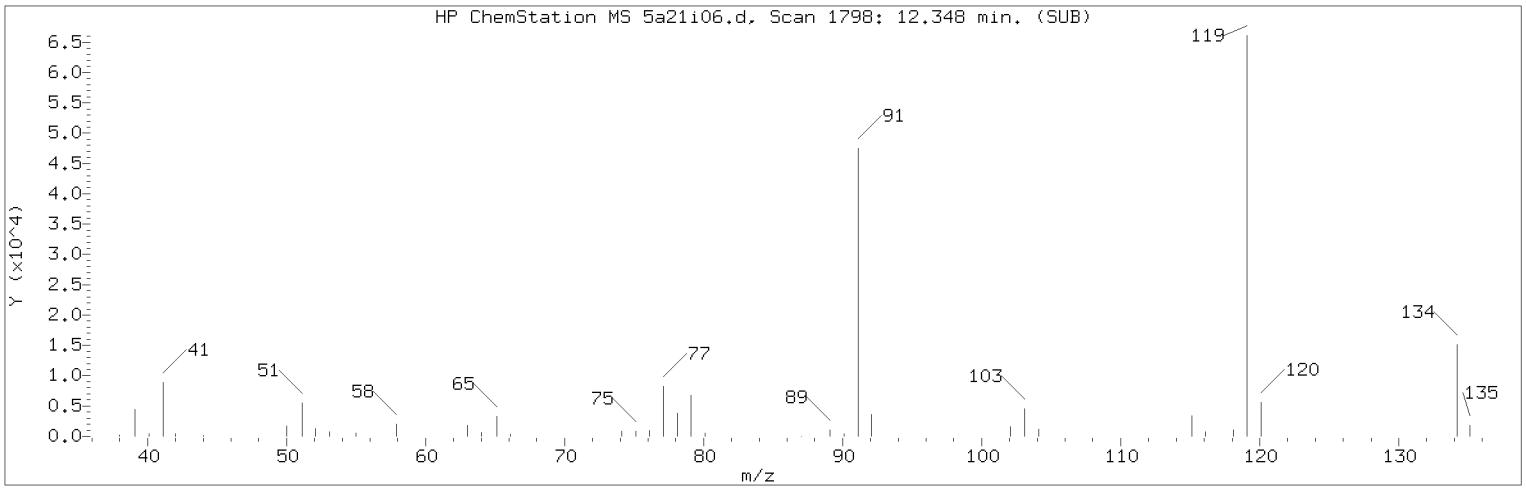
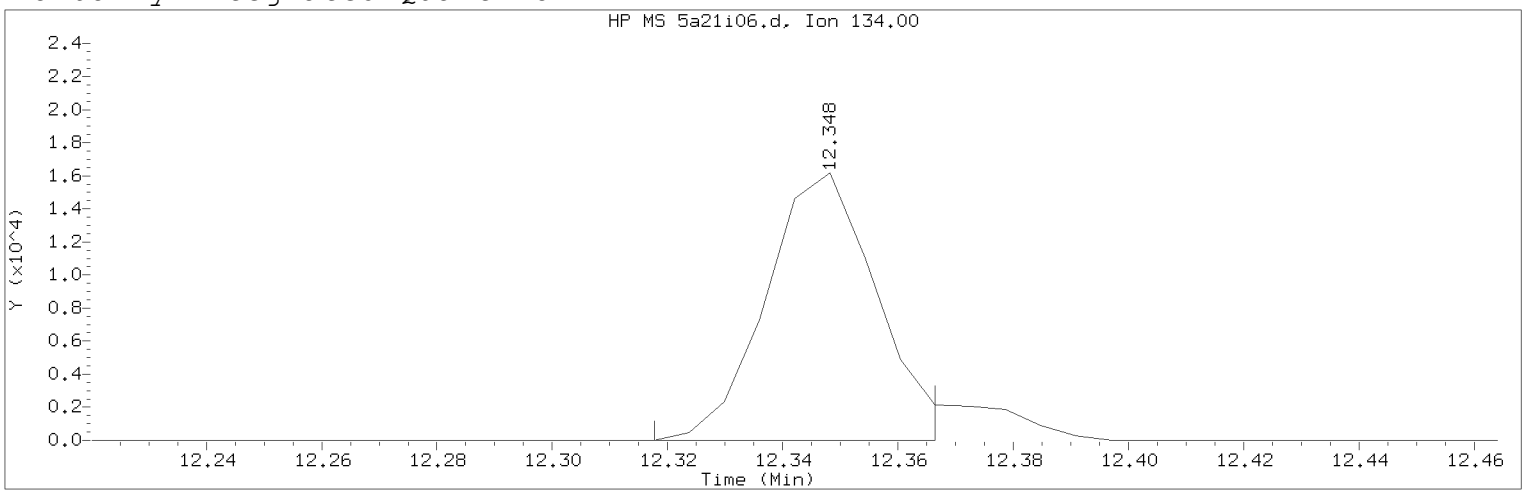
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

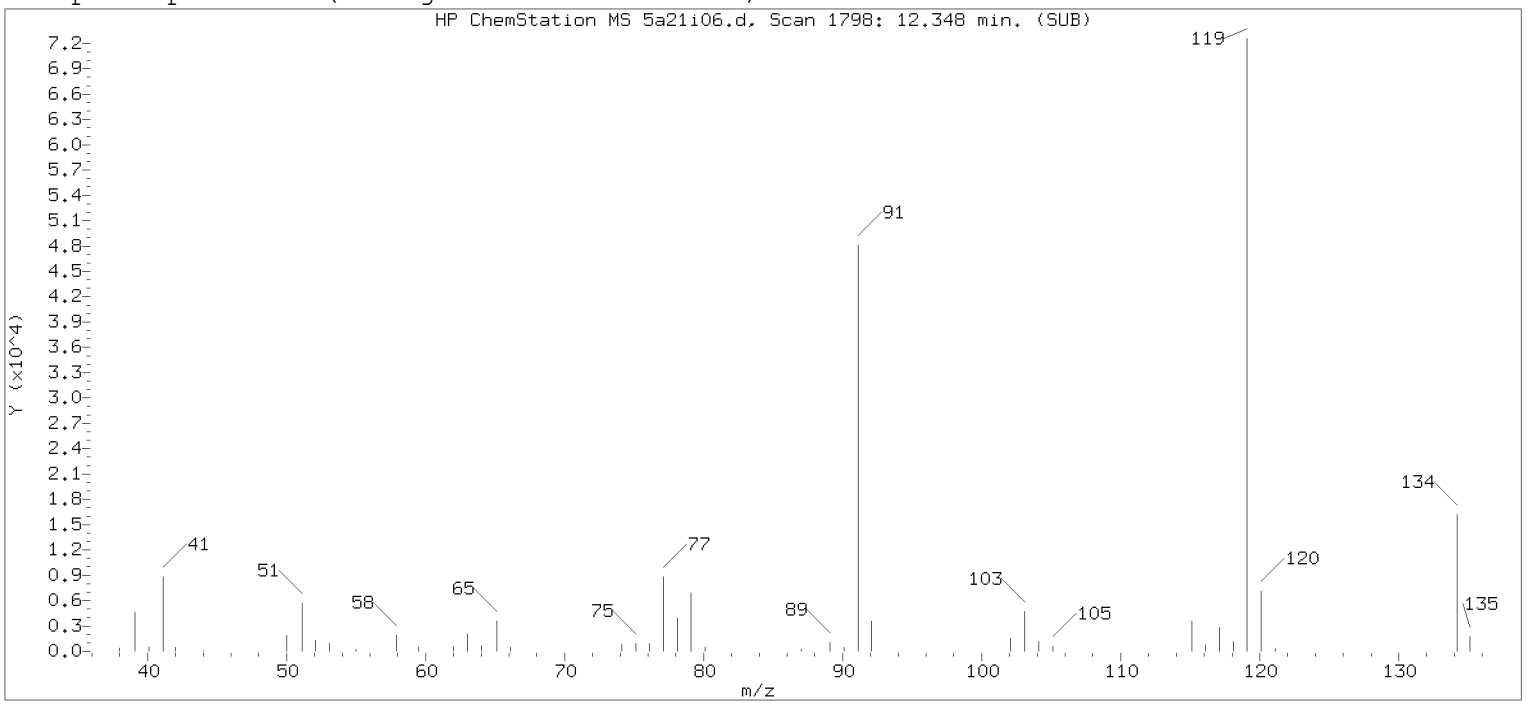
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 21537M
On-Column Amount (ng) : 4.1121
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

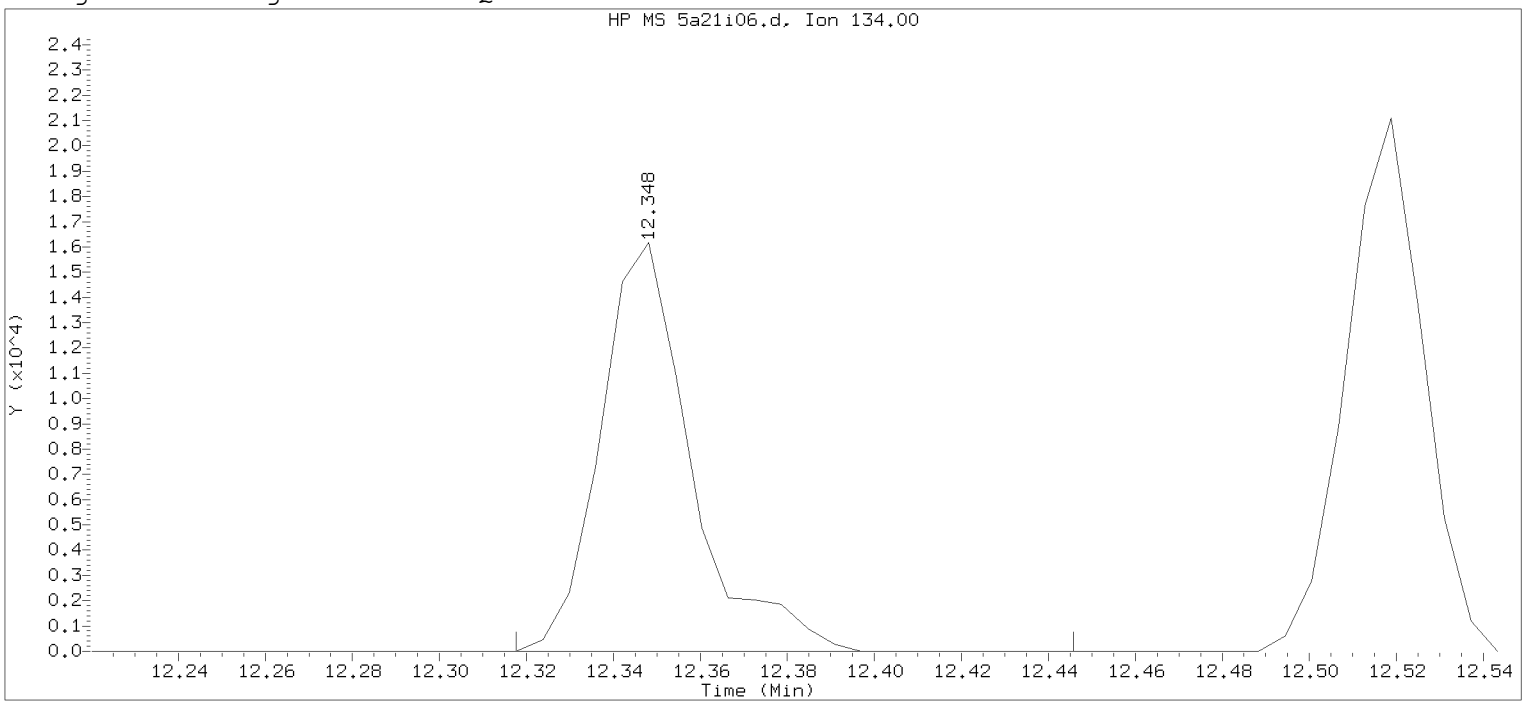
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



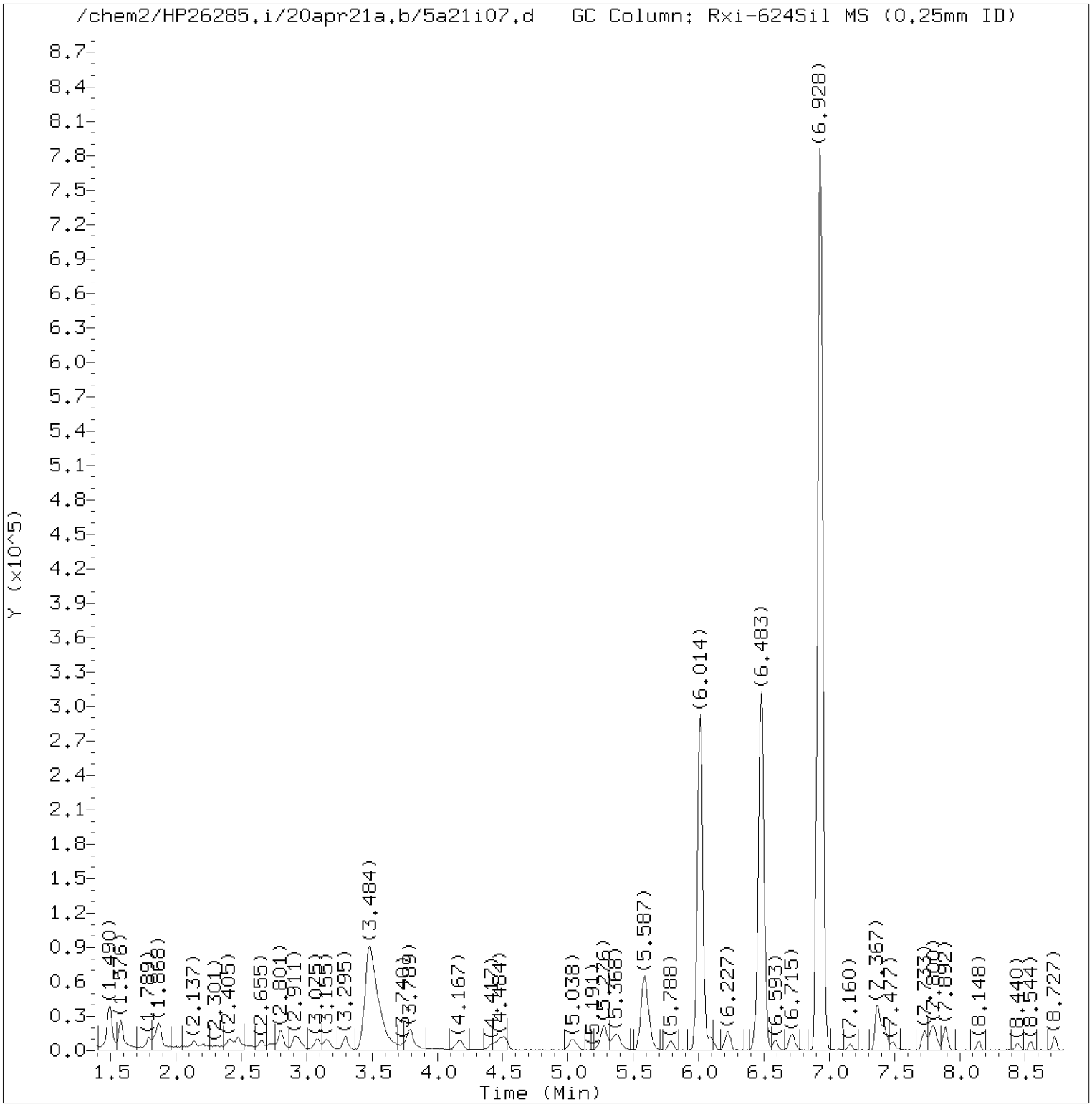
Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 23385
On-column Amount (ng) : 4.1298
Integration start scan : 1792 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

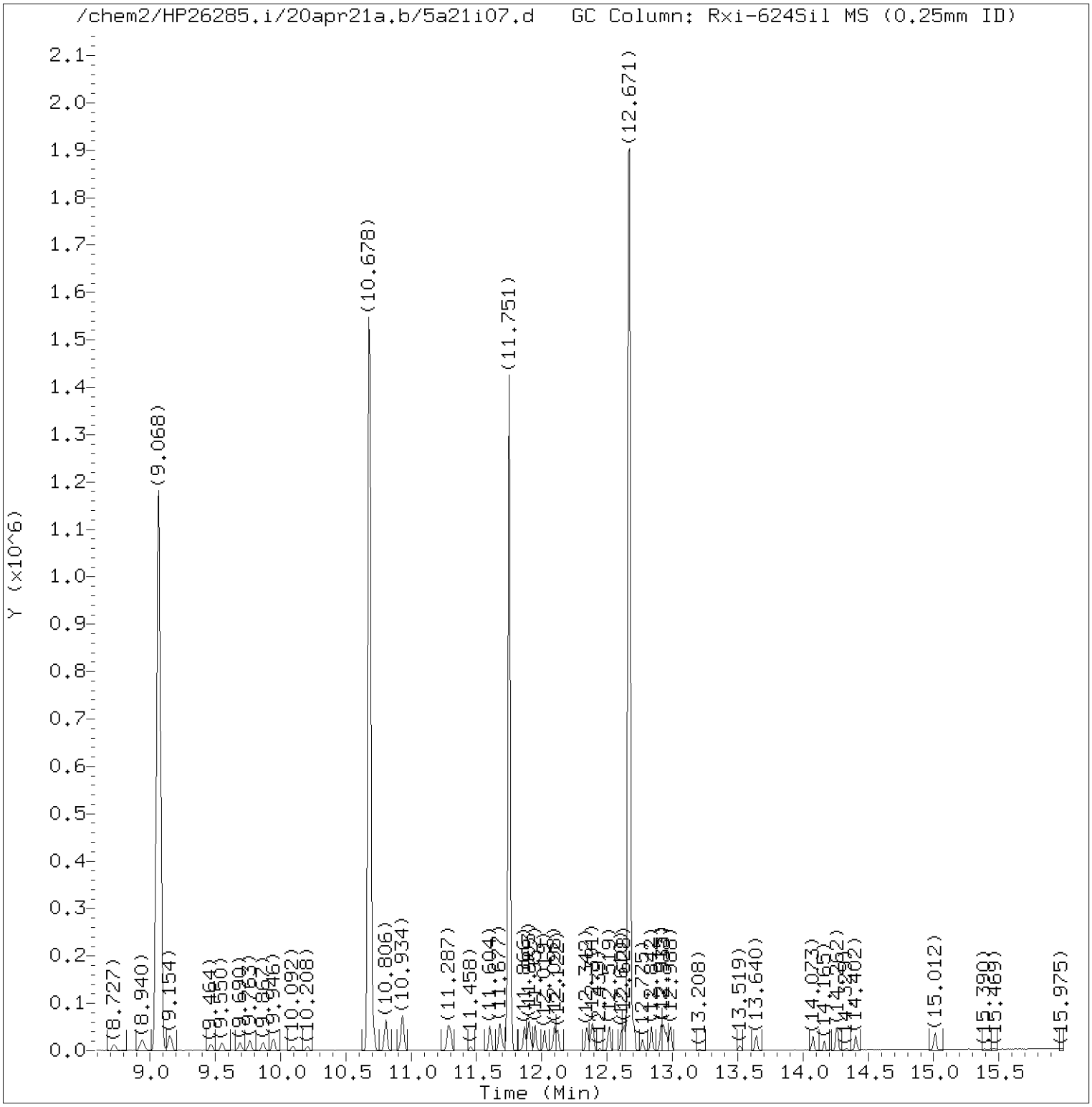
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	6939	0.803
4) Chloromethane	(2)	1.789	50	6579M	0.953
5) 1,3-Butadiene	(2)	1.868	39	16377	1.718
6) Vinyl Chloride	(2)	1.874	62	5527	0.911
8) Bromomethane	(2)	2.137	94	3884	0.954
9) Chloroethane	(2)	2.204	64	2509	0.874
10) Dichlorofluoromethane	(2)	2.411	67	9178	0.981
12) Trichlorofluoromethane	(2)	2.448	101	6287	0.846
11) n-Pentane	(2)	2.478	43	8231	1.190
14) Ethyl ether	(2)	2.655	59	4749	0.927
15) Freon 123a	(2)	2.734	67	7167	0.924
16) Acrolein	(1)	2.801	56	23824	10.408
17) 1,1-Dichloroethene	(2)	2.911	96	5107	0.885
17) 1,1-Dichloroethene	(2)	2.905	63	2264	0.783
19) Freon 113	(2)	2.923	101	5289	0.810
18) Acetone	(1)	2.947	58	1867	1.654
22) Methyl Iodide	(2)	3.075	142	9768	0.888
21) 2-Propanol	(1)	3.088	45	17481	19.028
23) Carbon Disulfide	(2)	3.149	76	18507M	0.912
27) Methyl Acetate	(2)	3.283	43	8546	1.027
25) Allyl Chloride	(2)	3.301	41	8694M	0.900
28) Methylene Chloride	(2)	3.460	84	5897	0.906
29)*t-Butyl alcohol-d10	(1)	3.484	65	361518M	250.000
30) t-Butyl alcohol	(1)	3.600	59	32314M	18.977
31) Acrylonitrile	(2)	3.740	53	3824	0.871
32) trans-1,2-Dichloroethene	(2)	3.789	96	5821	0.901
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	15820M	0.926
34) n-Hexane	(2)	4.179	57	8105	0.846
36) 1,1-Dichloroethane	(2)	4.417	63	10392	0.889
38) di-Isopropyl ether	(2)	4.478	45	19628	0.940
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	8217	0.827
40) Ethyl t-butyl ether	(2)	5.038	59	17658	0.953
44) 2-Butanone	(2)	5.270	43	12857	2.011
42) cis-1,2-Dichloroethene	(2)	5.276	96	6566	0.899
45) 2,2-Dichloropropane	(2)	5.282	77	8837	0.896
47) Propionitrile	(1)	5.368	54	34573	18.651
48) Methacrylonitrile	(2)	5.587	67	40726	9.310
49) Bromochloromethane	(2)	5.618	128	3030	0.906

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	3069	1.832
51) Chloroform	(2)	5.788	83	10429	0.889
53) 1,1,1-Trichloroethane	(2)	6.002	97	8963	0.849
52)$Dibromofluoromethane	(2)	6.014	113	263595	49.579
52)$Dibromofluoromethane	(2)	6.014	111	271166	49.814
54) Cyclohexane	(2)	6.087	56	10506	0.854
54) Cyclohexane	(2)	6.093	84	8610	0.847
54) Cyclohexane	(2)	6.087	69	3054	0.801
43) 1,2-Dichloroethene (Total)	(2)		96	12387	1.800
56) Carbon Tetrachloride	(2)	6.215	117	7571	0.822
55) 1,1-Dichloropropene	(2)	6.227	75	8354	0.874
58) Isobutyl Alcohol	(1)	6.453	41	26237M	46.225
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59481	50.022
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291006	50.056
57)$1,2-Dichloroethane-d4	(2)	6.483	104	38189	50.158
60) Benzene	(2)	6.502	78	25751	0.906
61) 1,2-Dichloroethane	(2)	6.587	62	9219	1.056
61) 1,2-Dichloroethane	(2)	6.587	98	434	0.588
65) t-Amyl methyl ether	(2)	6.721	73	17424	0.942
66)*Fluorobenzene	(2)	6.928	96	1067423	50.000
67) n-Heptane	(2)	6.953	43	8854	0.957
69) n-Butanol	(1)	7.367	56	41924	85.600
71) Trichloroethene	(2)	7.422	95	6720	0.901
73) Methylcyclohexane	(2)	7.727	83	10354	0.873
73) Methylcyclohexane	(2)	7.733	98	4274	0.851
74) 1,2-Dichloropropane	(2)	7.770	63	6360	0.893
76) 1,4-Dioxane	(1)	7.879	88	4070	33.502
77) Methyl Methacrylate	(2)	7.892	69	5680	0.853
75) Dibromomethane	(2)	7.892	93	3930	0.877
79) Bromodichloromethane	(2)	8.148	83	7143	0.822
80) 2-Nitropropane	(2)	8.440	41	5190	1.724
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	4703	0.854
82) cis-1,3-Dichloropropene	(2)	8.727	75	8961	0.816
83) 4-Methyl-2-pentanone	(2)	8.940	43	21641	1.756
84)$Toluene-d8	(3)	9.068	98	1019435	50.910
84)$Toluene-d8	(3)	9.068	100	669873	50.807
89) Toluene	(3)	9.154	92	16283	0.922
90) trans-1,3-Dichloropropene	(3)	9.471	75	7617	0.804

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	9087	0.844
93) 1,1,2-Trichloroethane	(3)	9.690	97	5773	0.915
94) Tetrachloroethene	(3)	9.763	166	6696	0.894
95) 1,3-Dichloropropane	(3)	9.867	76	9729	0.928
97) 2-Hexanone	(3)	9.946	43	16333	1.741
91) 1,3-Dichloropropene (total)	(3)		100	16578	1.620
98) Dibromochloromethane	(3)	10.098	129	5234	0.784
100) 1,2-Dibromoethane	(3)	10.208	107	6141	0.882
101)*Chlorobenzene-d5	(3)	10.678	117	814804	50.000
103) Chlorobenzene	(3)	10.708	112	18102	0.945
102) 1-Chlorohexane	(3)	10.708	91	10207	0.994
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	5579	0.844
105) Ethylbenzene	(3)	10.806	91	30747	0.901
107) m+p-Xylene	(3)	10.934	106	24189	1.847
108) o-Xylene	(3)	11.281	106	11654	0.909
110) Styrene	(3)	11.299	104	16925	0.819
111) Bromoform	(3)	11.458	173	3302	0.683
112) Isopropylbenzene	(3)	11.604	105	30197	0.898
113) Cyclohexanone	(1)	11.677	55	24191M	43.352
115)$4-Bromofluorobenzene	(3)	11.751	95	419145	49.679
115)$4-Bromofluorobenzene	(3)	11.751	174	328326	49.885
109) Xylene (Total)	(3)		106	35843	2.756
116) Bromobenzene	(4)	11.866	156	7456	0.929
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	9543	0.876
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	9462	17.513
118) 1,2,3-Trichloropropane	(4)	11.915	110	3041	0.949
120) n-Propylbenzene	(4)	11.952	91	34829	0.883
121) 2-Chlorotoluene	(4)	12.025	126	7317	0.905
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	24086	0.869
122) 4-Chlorotoluene	(4)	12.122	126	7265	0.889
125) tert-Butylbenzene	(4)	12.348	134	4987M	0.905
126) Pentachloroethane	(4)	12.372	167	3489	0.771
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	24828	0.869
128) sec-Butylbenzene	(4)	12.519	105	30653	0.892
130) 1,3-Dichlorobenzene	(4)	12.610	146	14042	0.930
131) p-Isopropyltoluene	(4)	12.628	119	24633	0.859
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	420878	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	14739	0.962

M = Compound was manually integrated.
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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

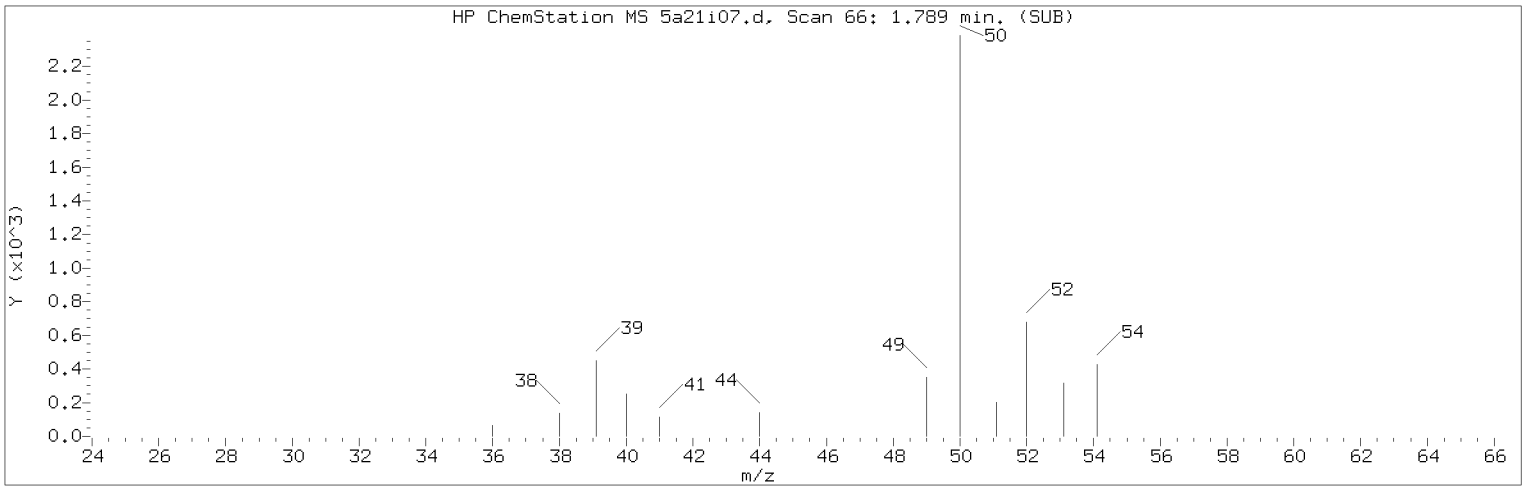
Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	24915	0.909
136) Benzyl Chloride	(4)	12.775	91	14578	0.698
137) 1,3-Diethylbenzene	(4)	12.842	119	14145	0.854
138) 1,4-Diethylbenzene	(4)	12.915	119	14603	0.852
140) n-Butylbenzene	(4)	12.933	92	12995M	0.899
139) 1,2-Dichlorobenzene	(4)	12.958	146	13657	0.942
141) 1,2-Diethylbenzene	(4)	12.988	119	12587	0.898
142) Diethylbenzene (total)	(4)		100	41335	2.604
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	2182	0.794
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	8922	0.932
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	8146	0.906
148) Hexachlorobutadiene	(4)	14.165	225	3137	0.907
149) Naphthalene	(4)	14.262	128	32106	0.901
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	8253	0.927
151) 2-Methylnaphthalene	(4)	15.012	142	14971	0.809

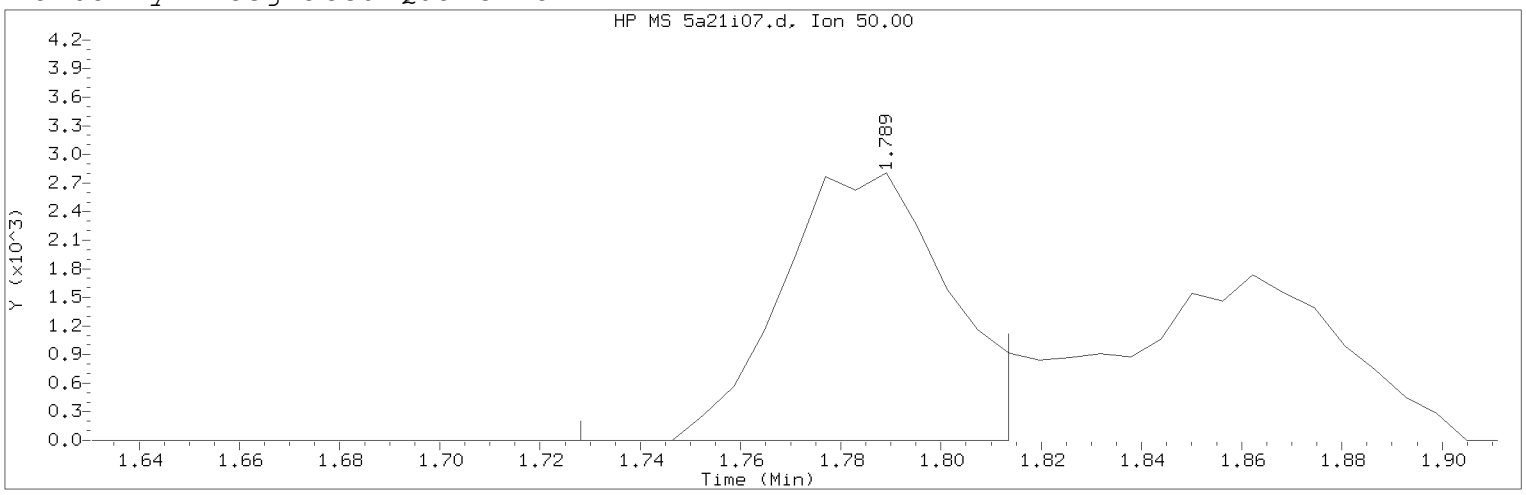
M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

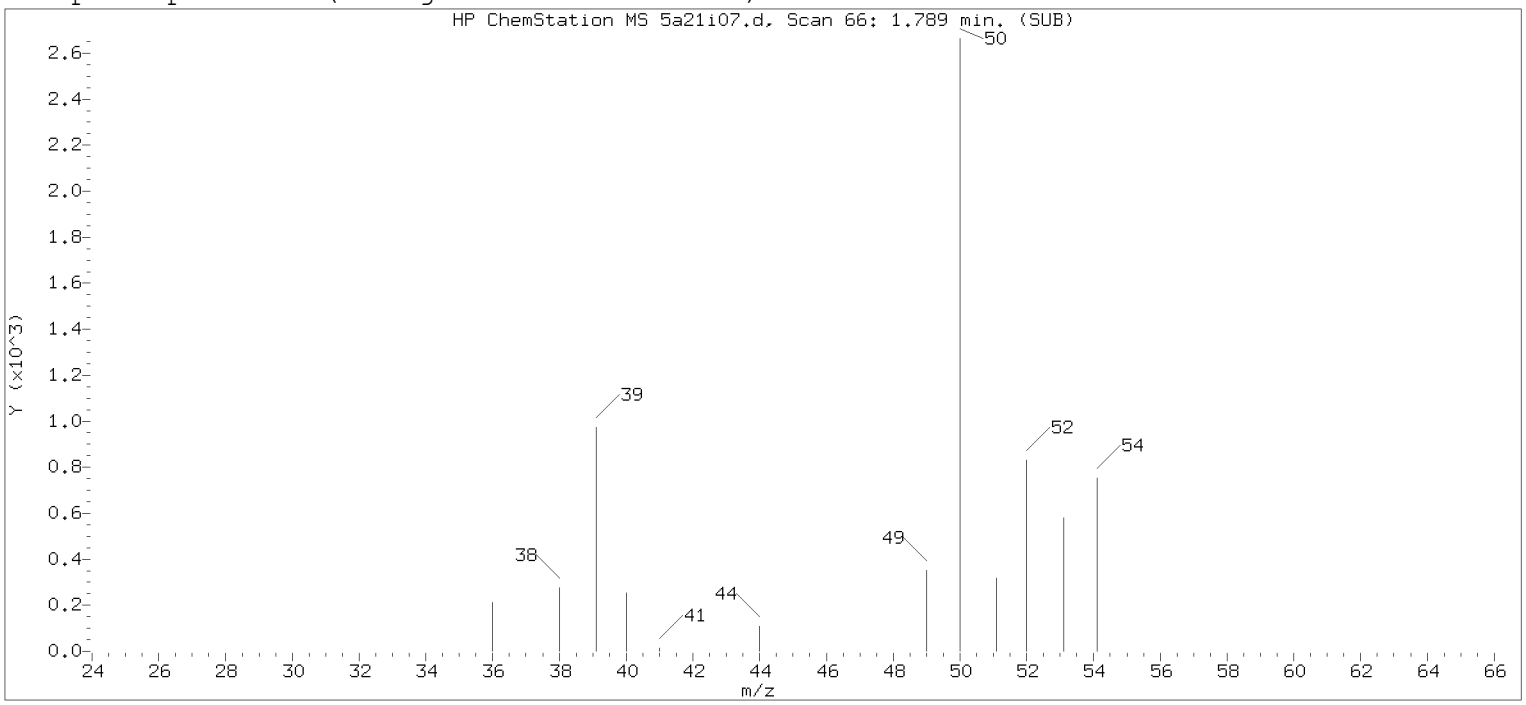
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area (flag) : 6579M
On-Column Amount (ng) : 0.9528
Integration start scan : 55 Integration stop scan: 69
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

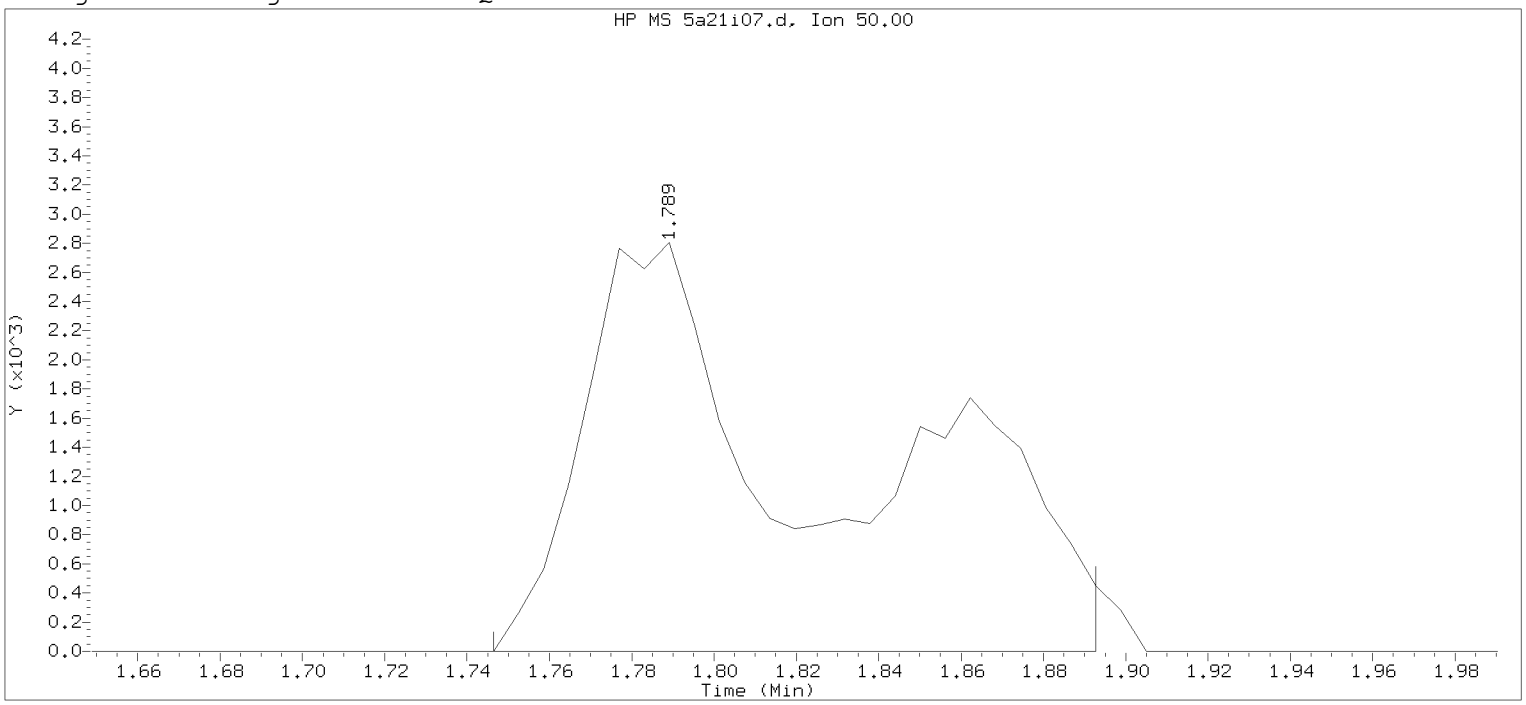
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

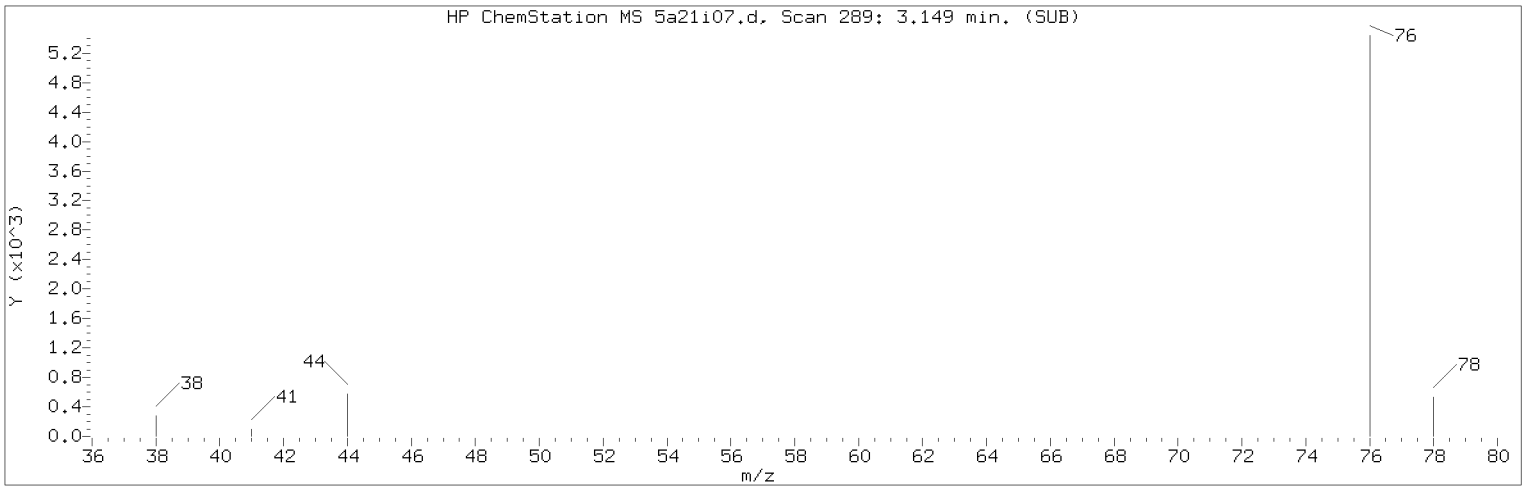
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

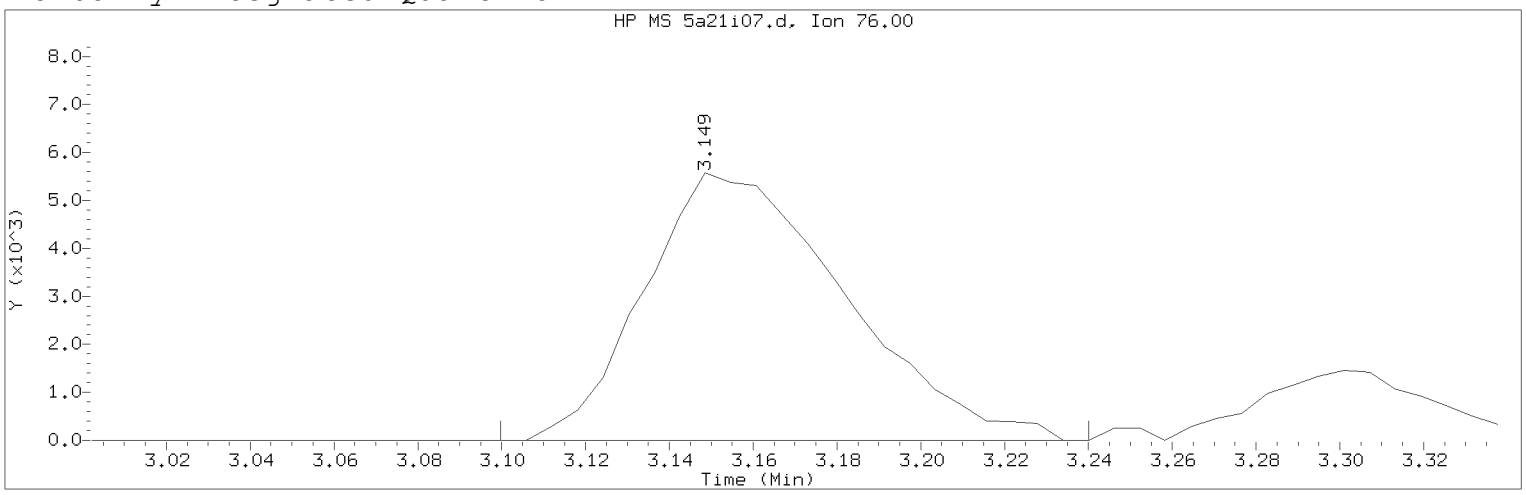
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area : 11768
On-column Amount (ng) : 1.5486
Integration start scan : 58 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

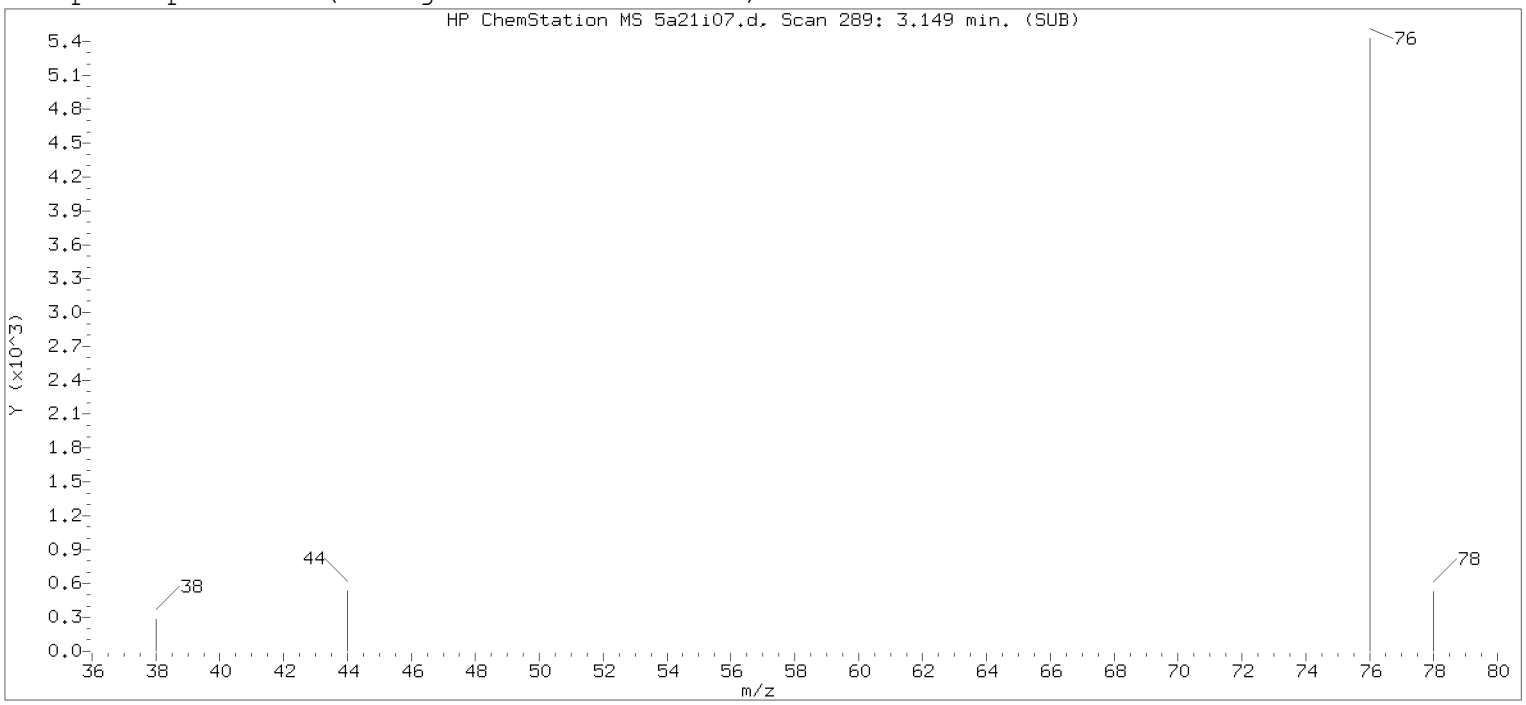
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area (flag) : 18507M
On-Column Amount (ng) : 0.9116
Integration start scan : 280 Integration stop scan: 303
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

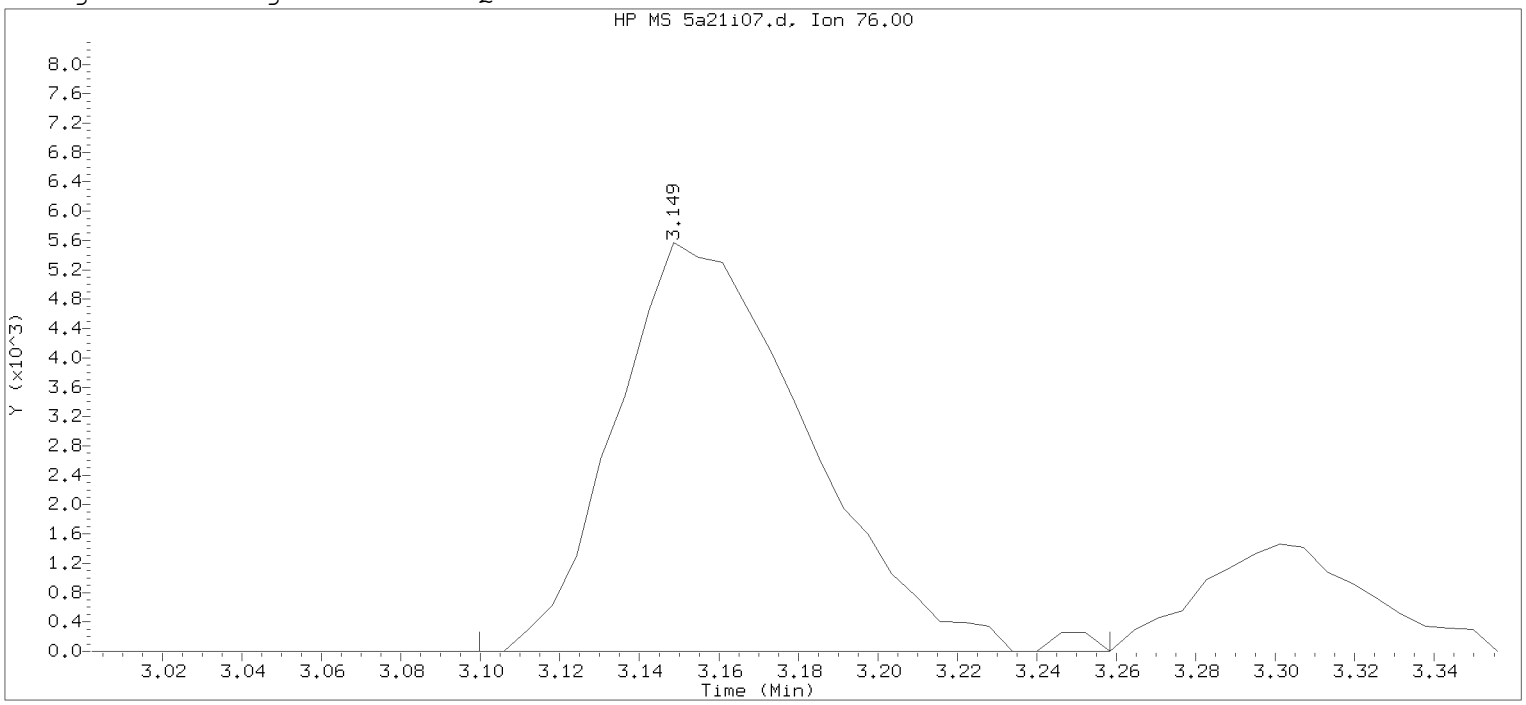
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

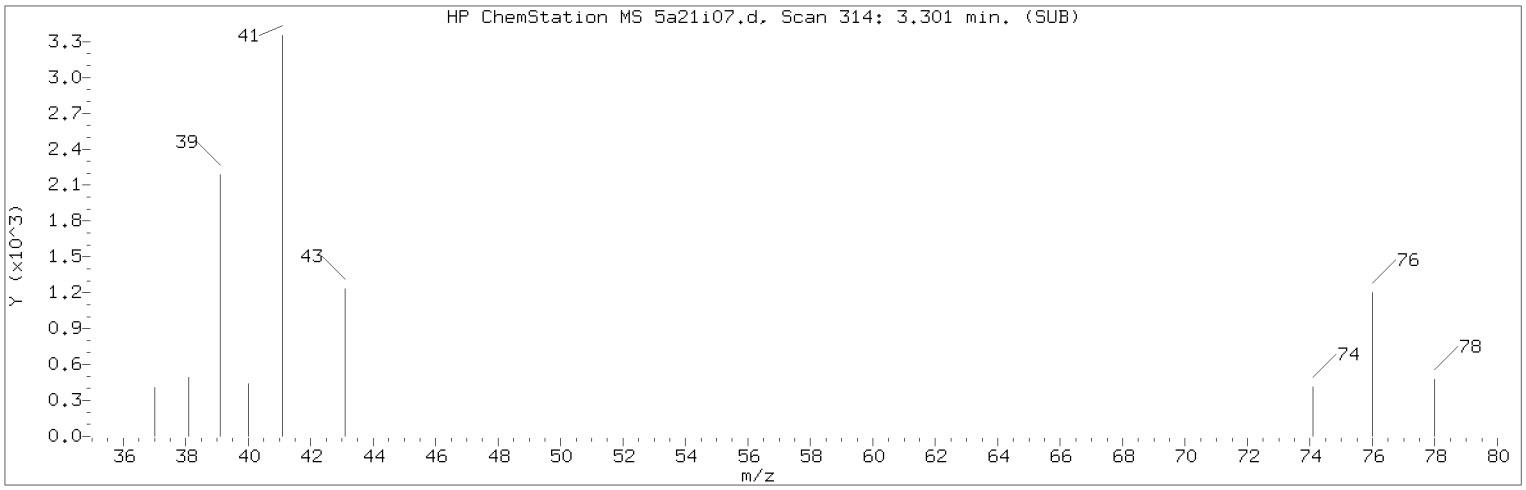
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

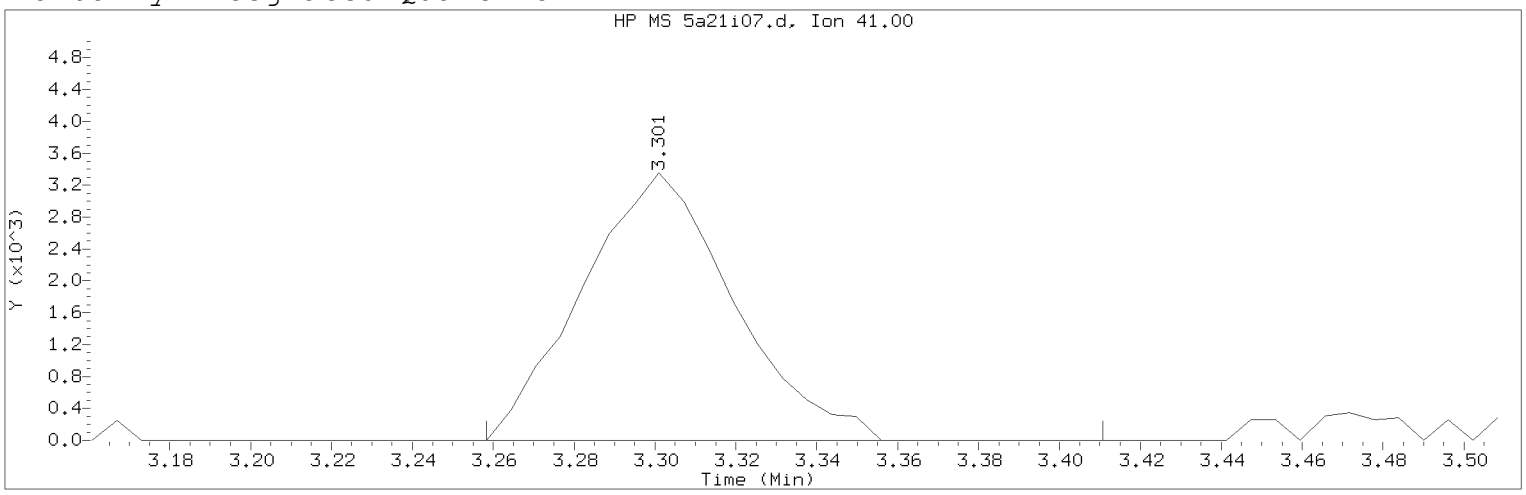
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area : 18694
On-column Amount (ng) : 0.9196
Integration start scan : 280 Integration stop scan: 306
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

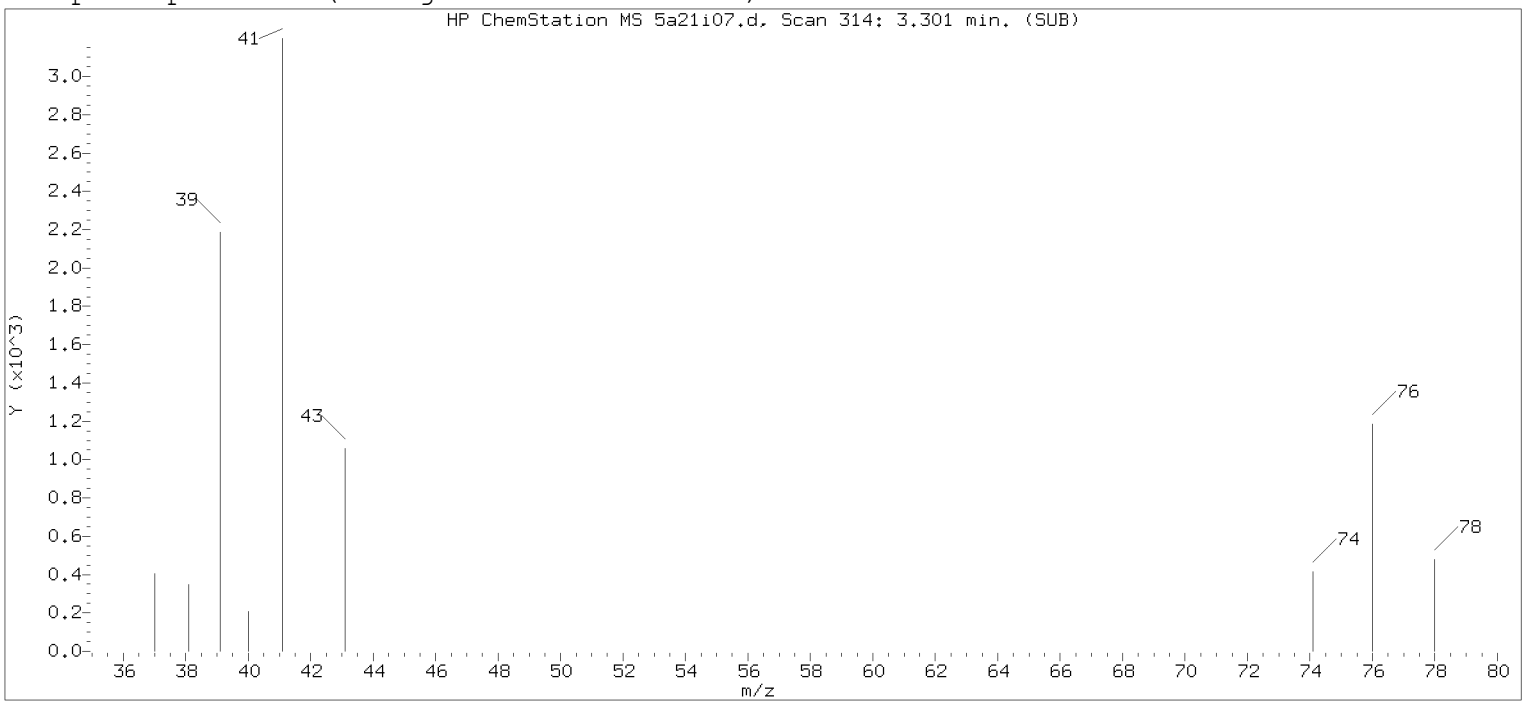
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area (flag) : 8694M
On-Column Amount (ng) : 0.8999
Integration start scan : 306 Integration stop scan: 331
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

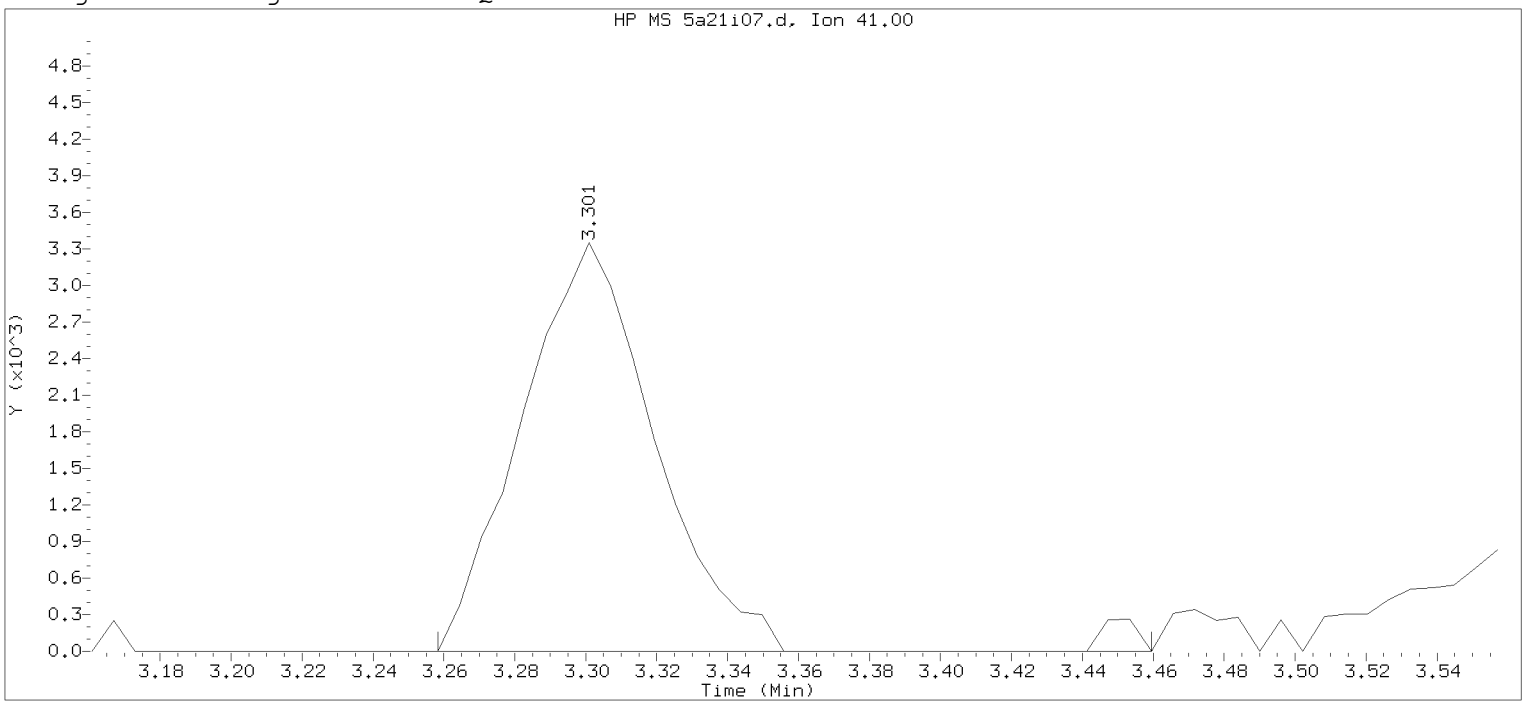
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

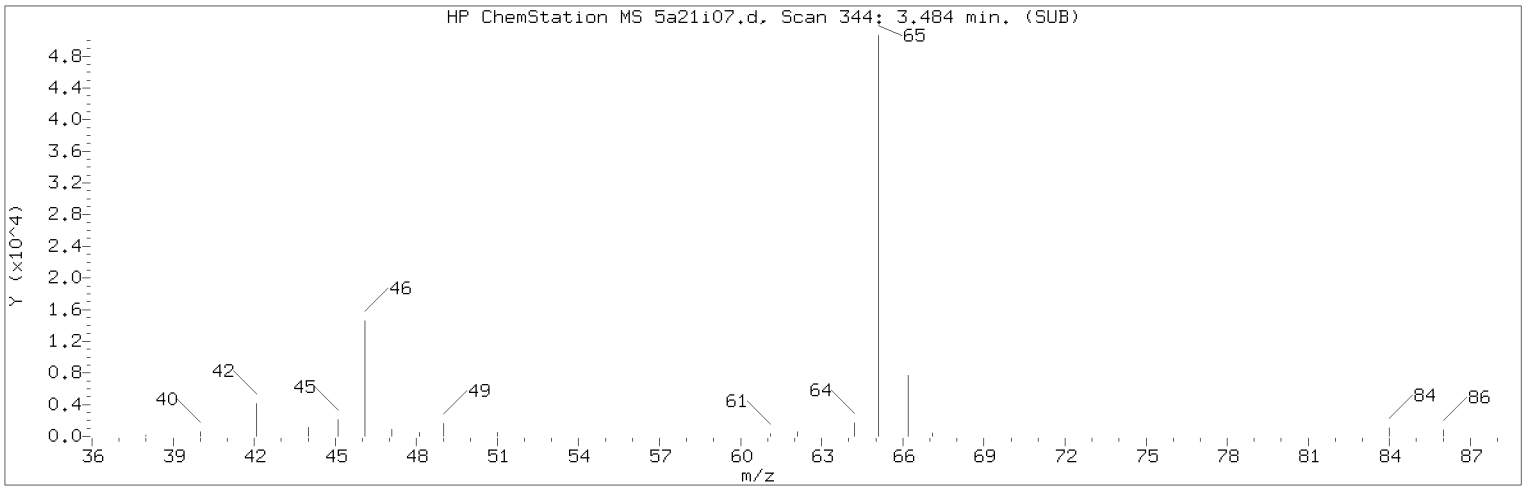
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

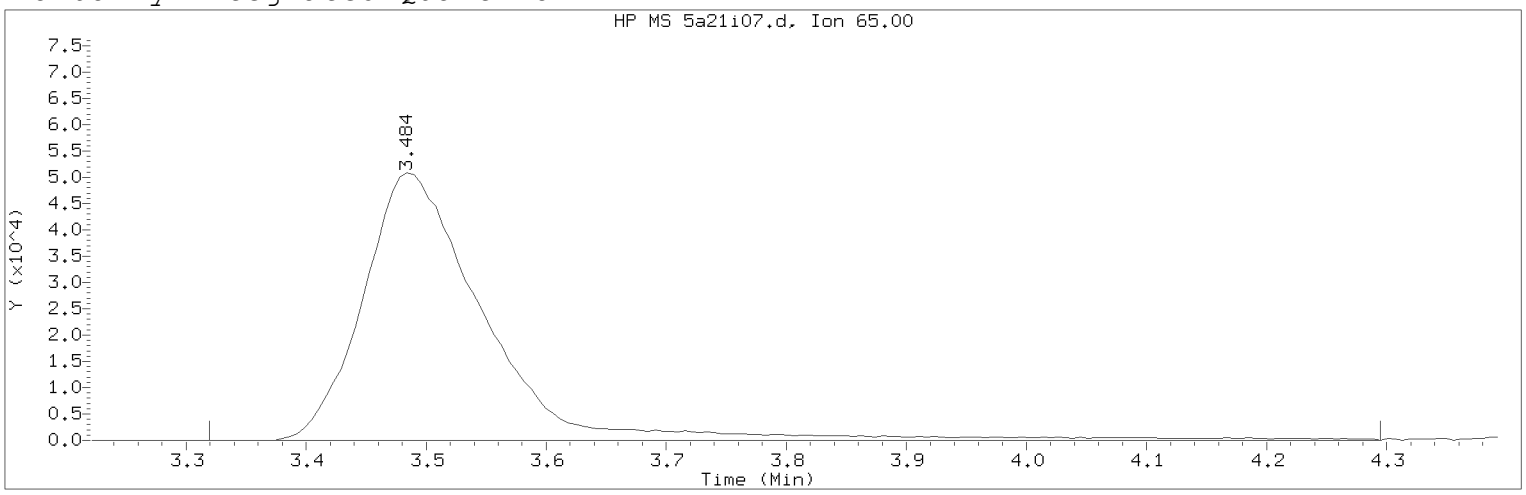
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area : 8884
On-column Amount (ng) : 0.9170
Integration start scan : 306 Integration stop scan: 339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

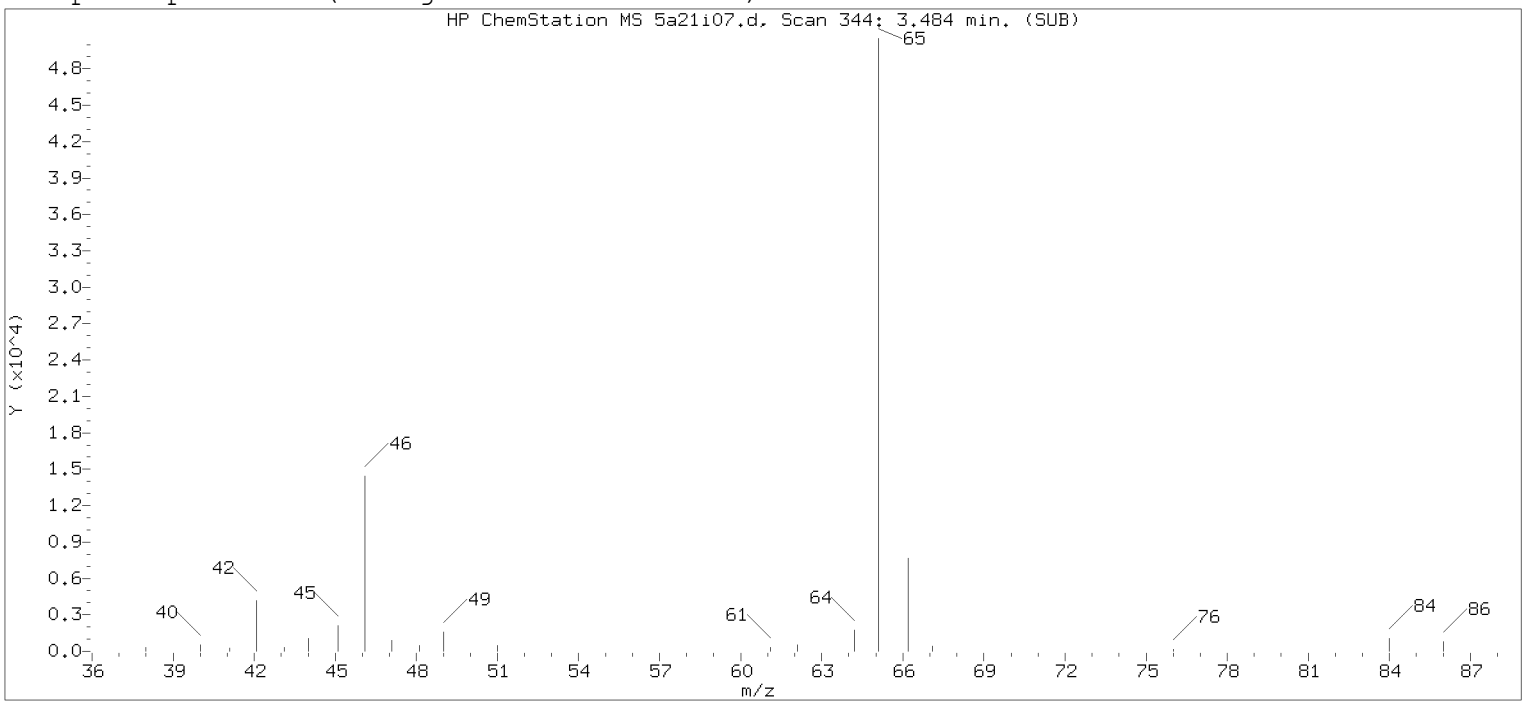
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 361518M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 476
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

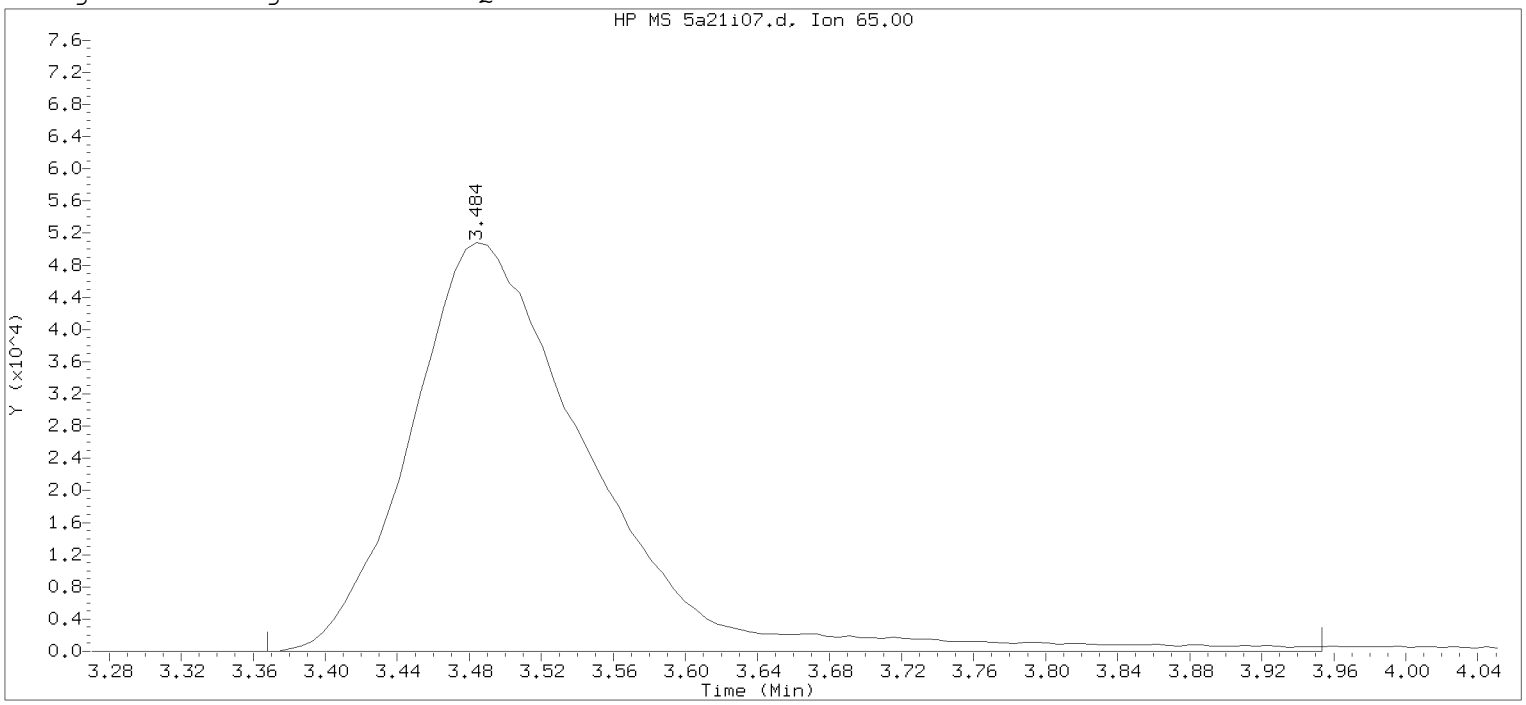
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

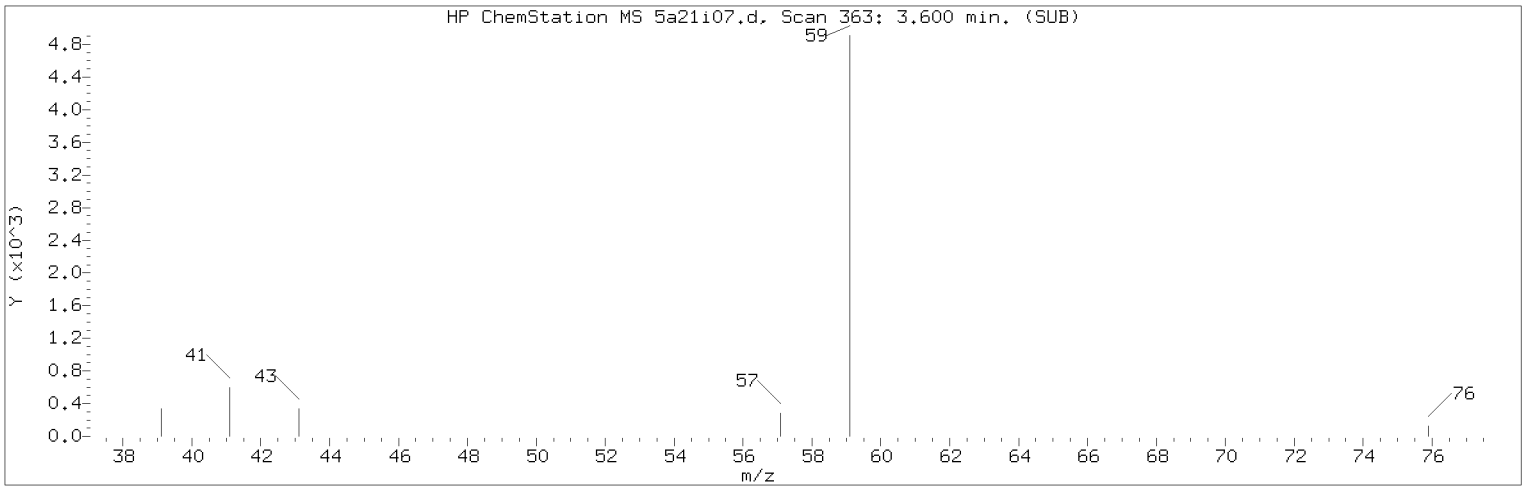
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

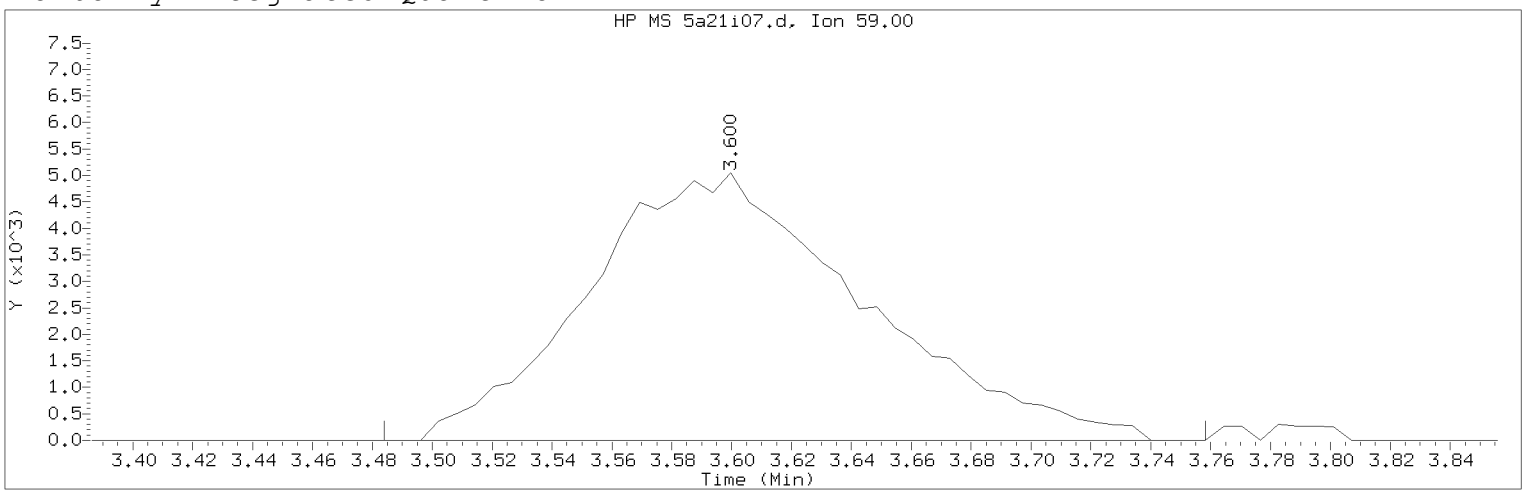
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 352847
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

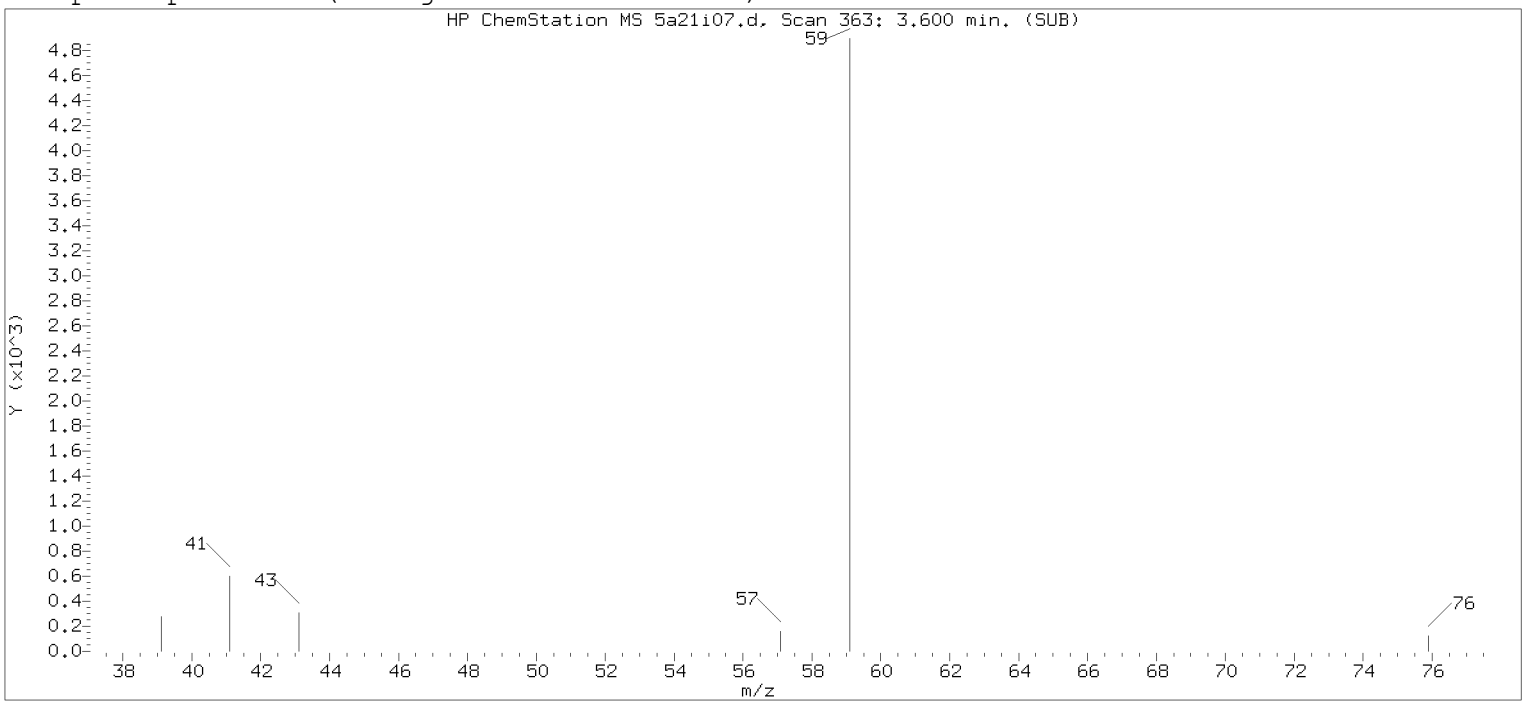
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area (flag) : 32314M
On-Column Amount (ng) : 18.9767
Integration start scan : 343 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

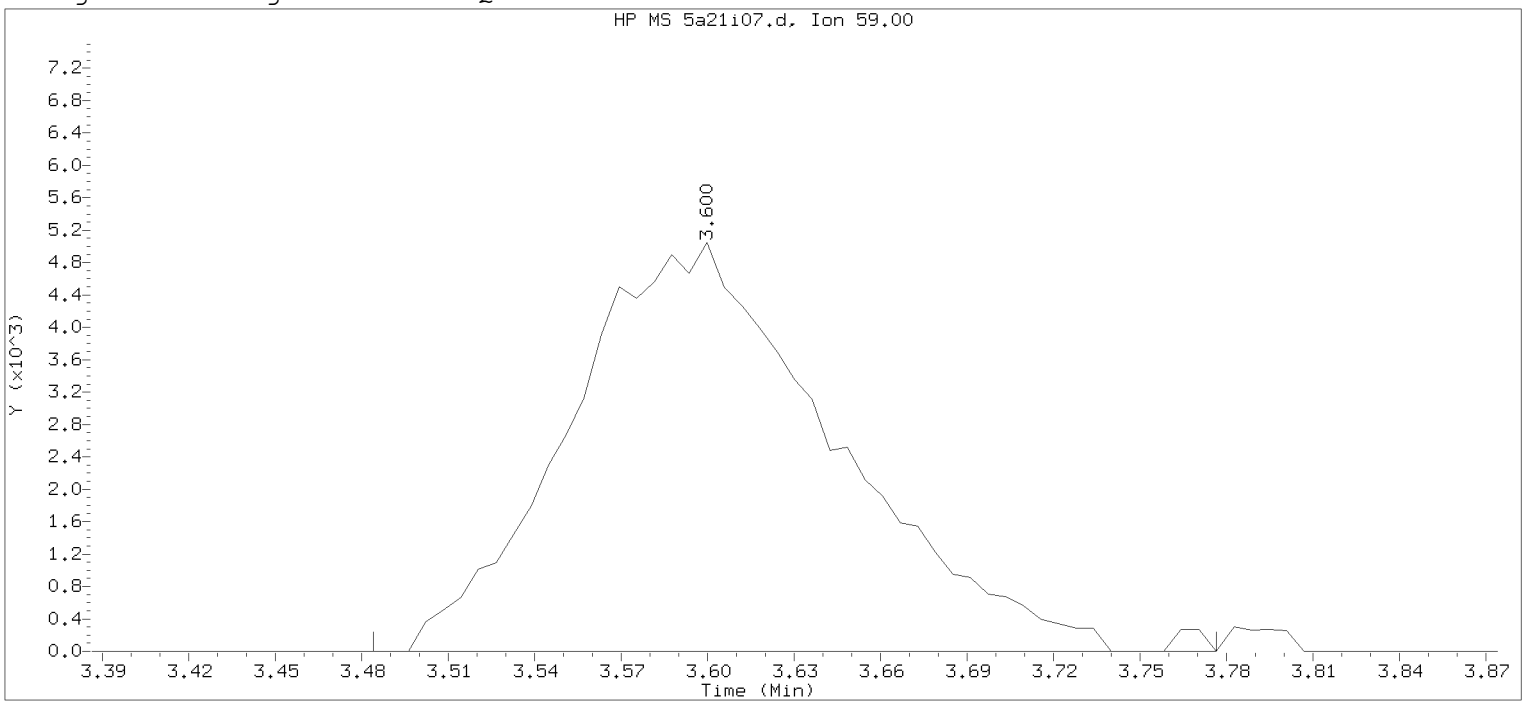
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

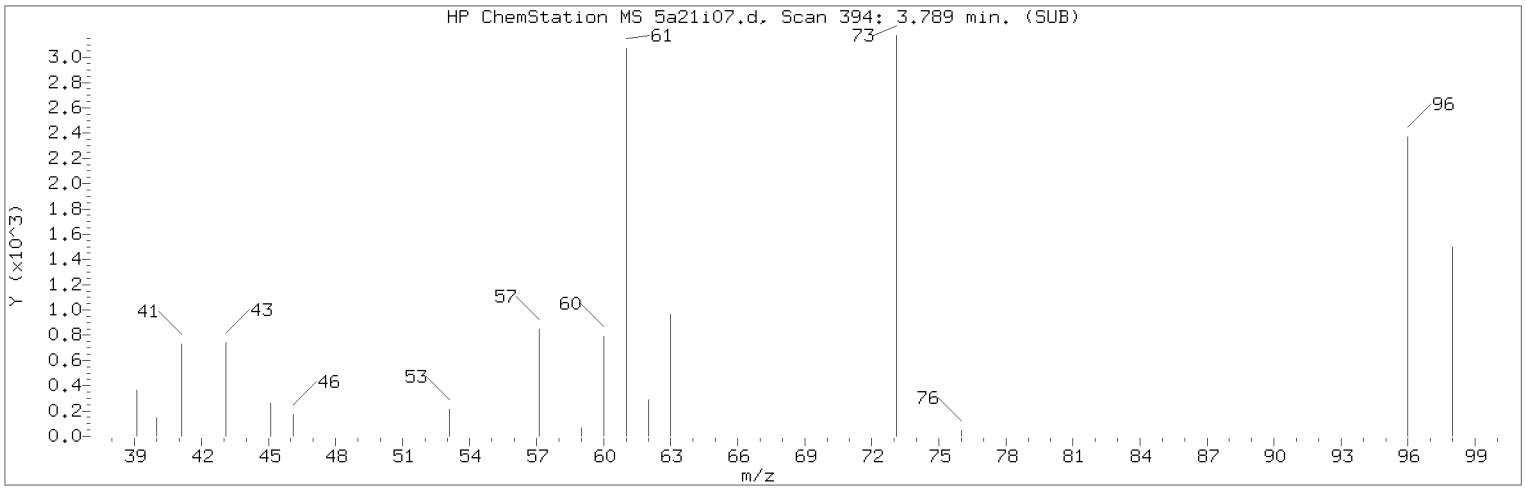
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

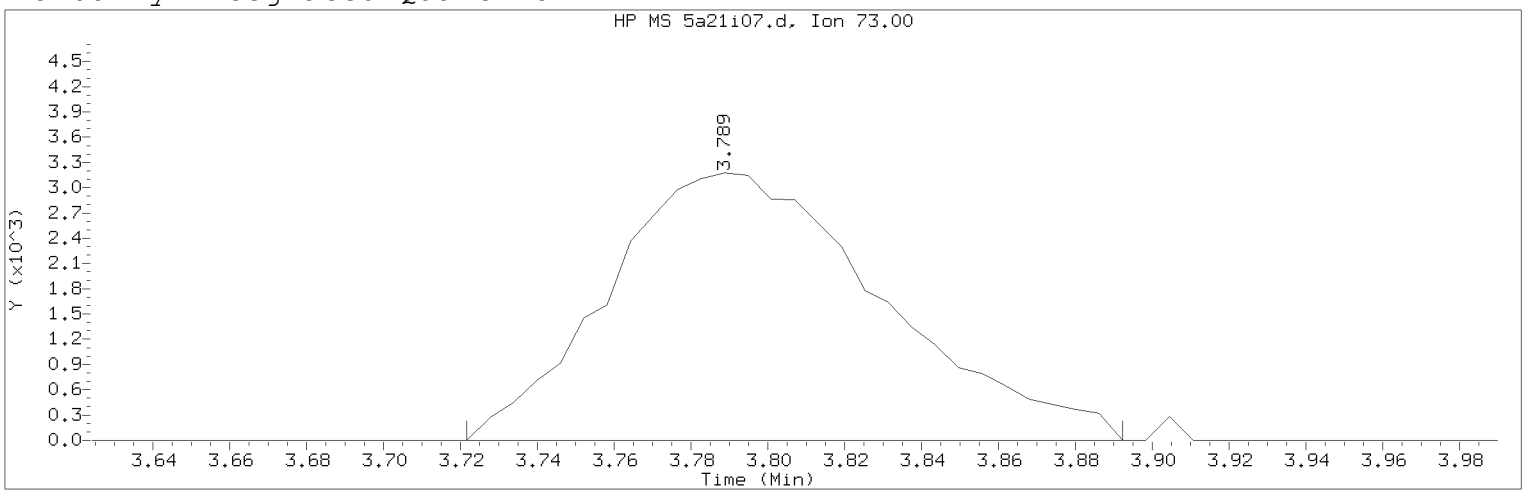
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area : 32510
On-column Amount (ng) : 19.0163
Integration start scan : 343 Integration stop scan: 391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

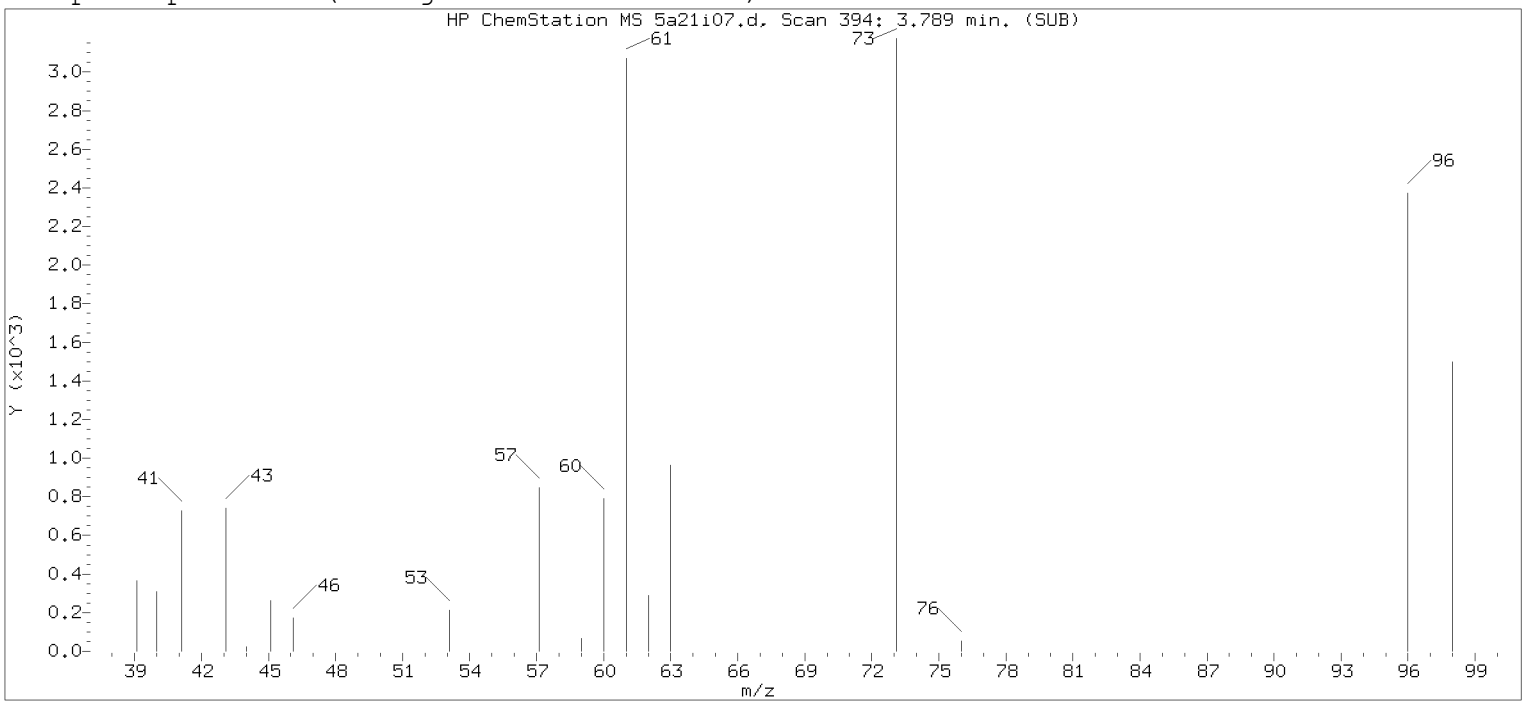
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area (flag) : 15820M
On-Column Amount (ng) : 0.9261
Integration start scan : 382 Integration stop scan: 410
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

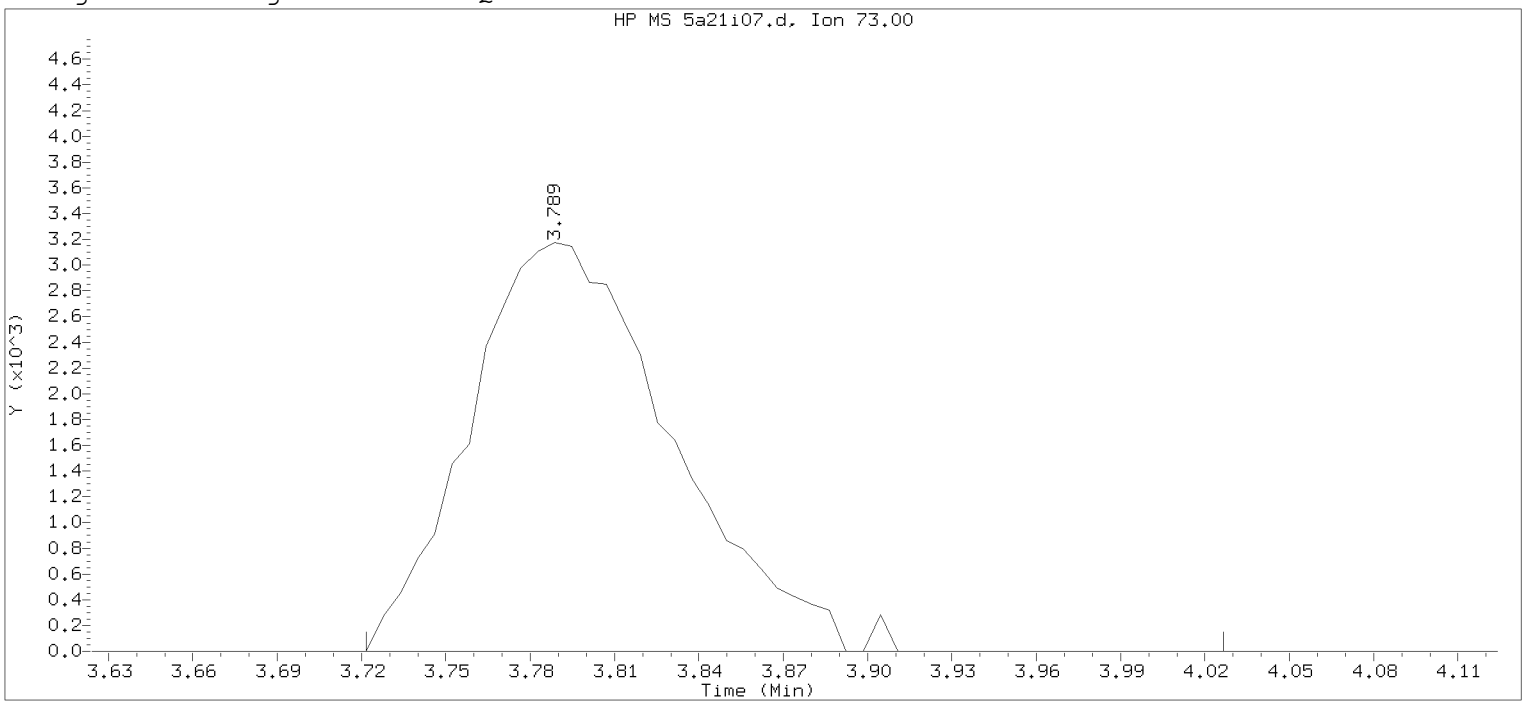
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

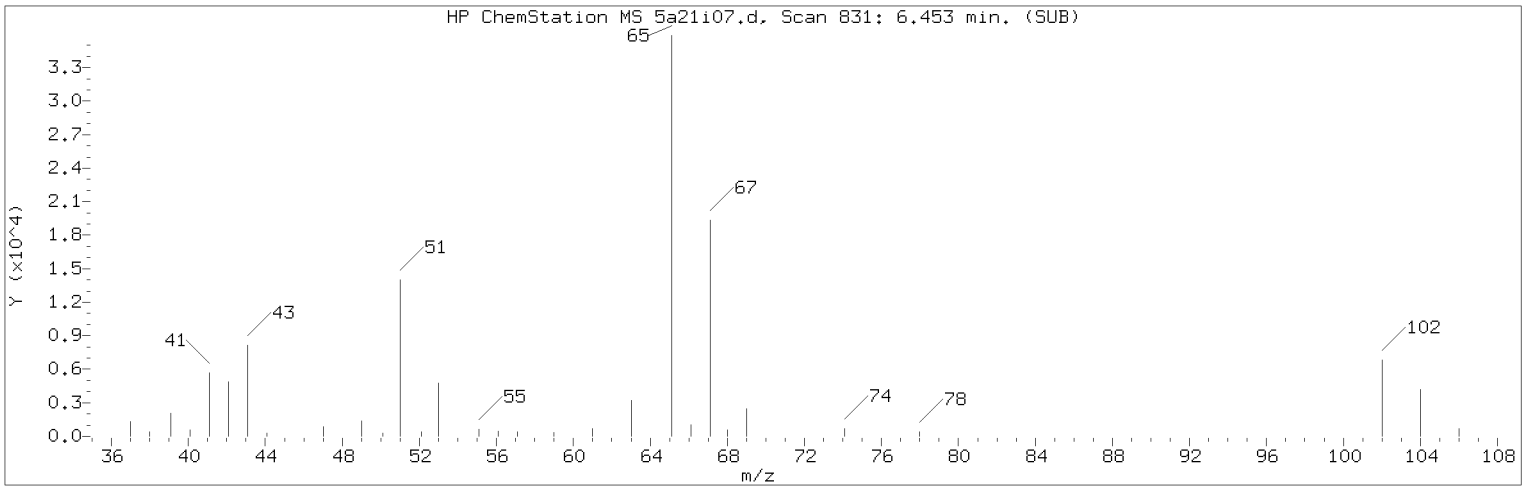
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

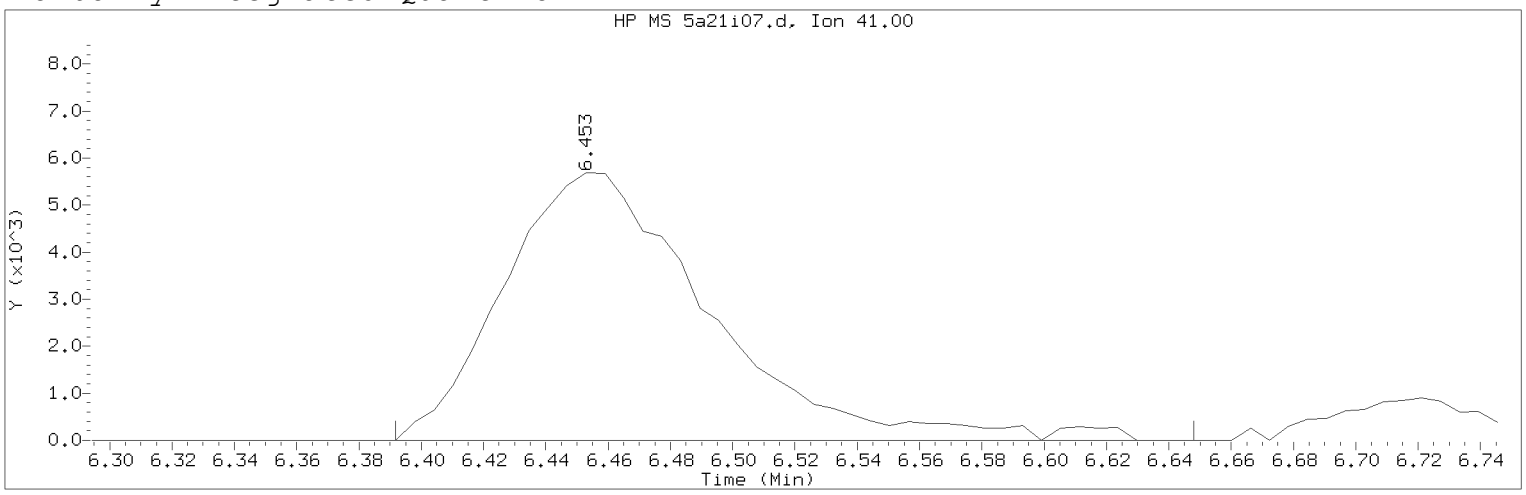
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area : 15924
On-column Amount (ng) : 0.9314
Integration start scan : 382 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

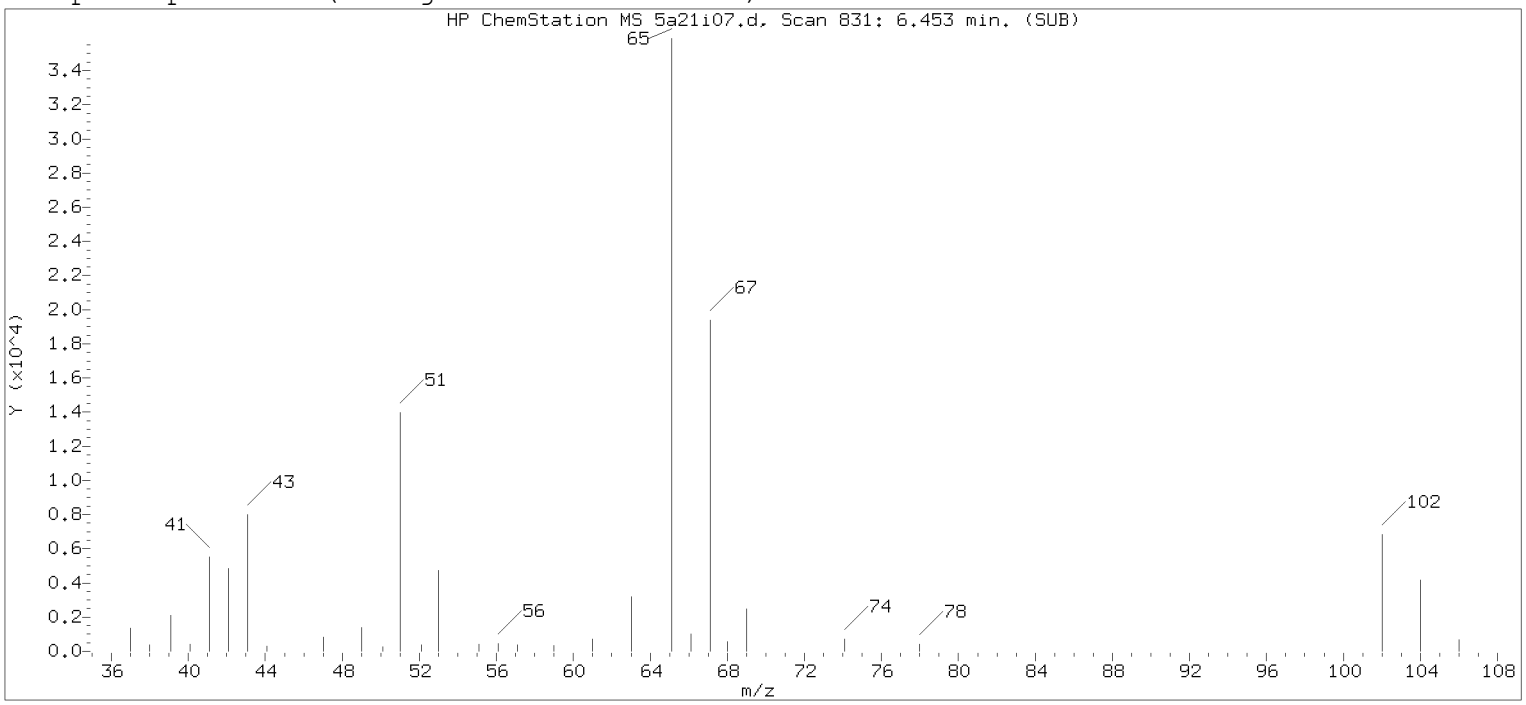
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area (flag) : 26237M
On-Column Amount (ng) : 46.2246
Integration start scan : 820 Integration stop scan: 862
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

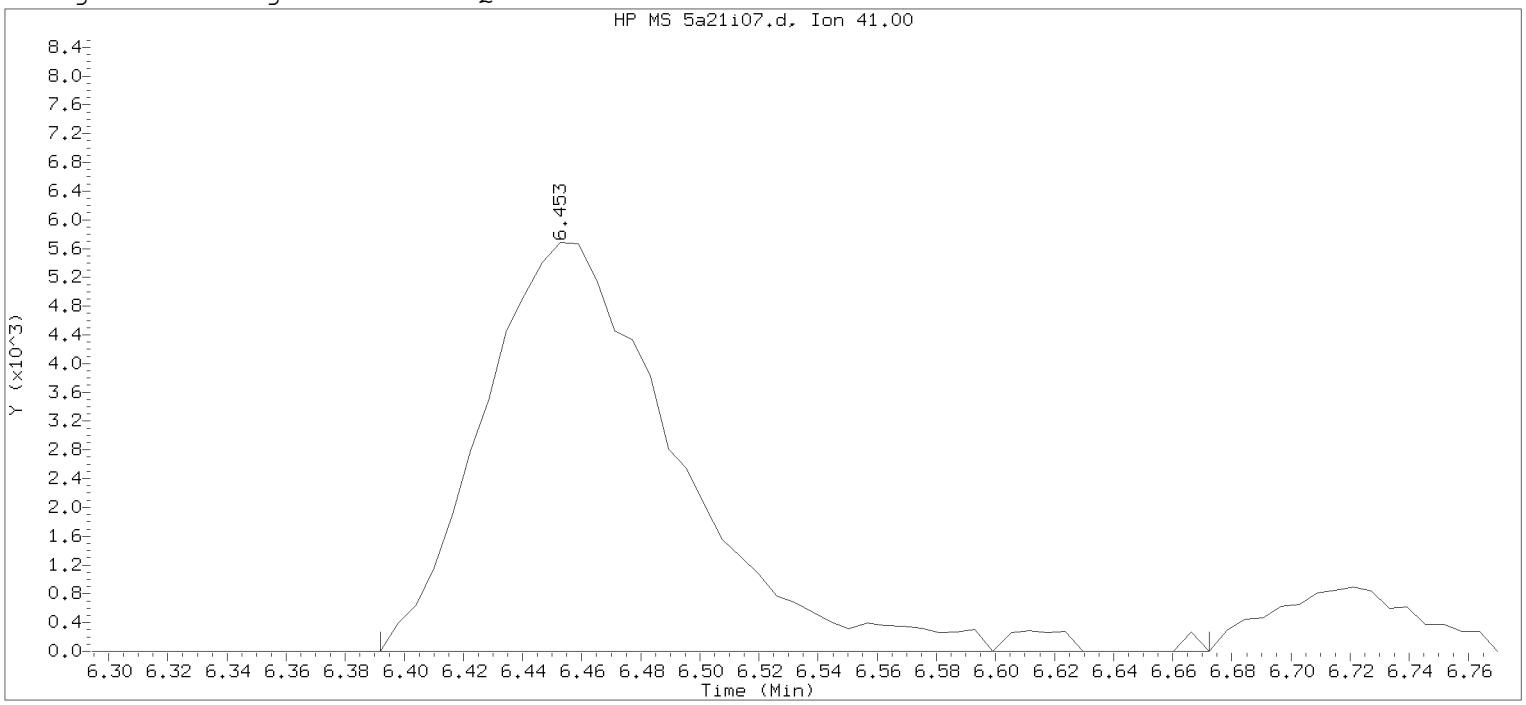
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

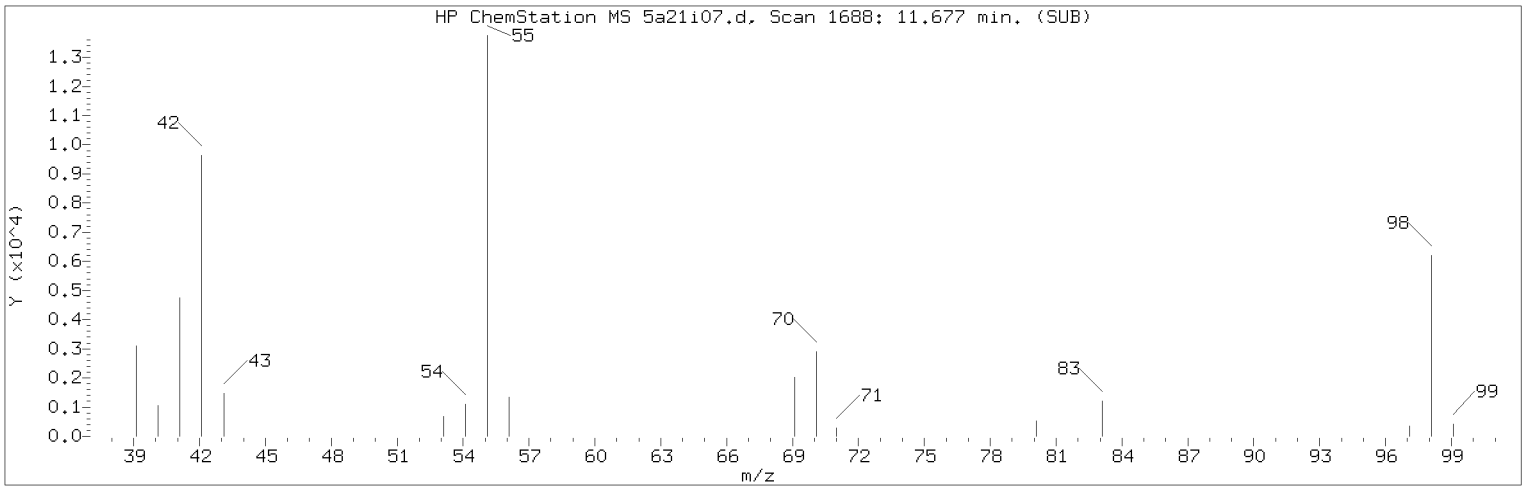
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

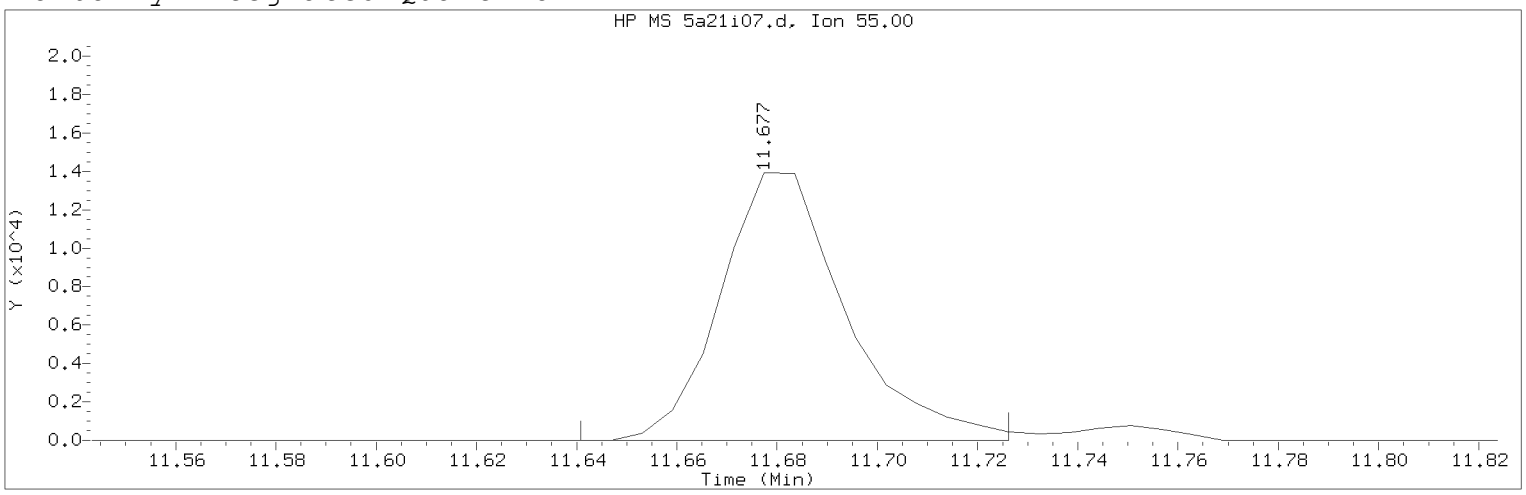
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area : 26334
On-column Amount (ng) : 46.6405
Integration start scan : 820 Integration stop scan: 866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

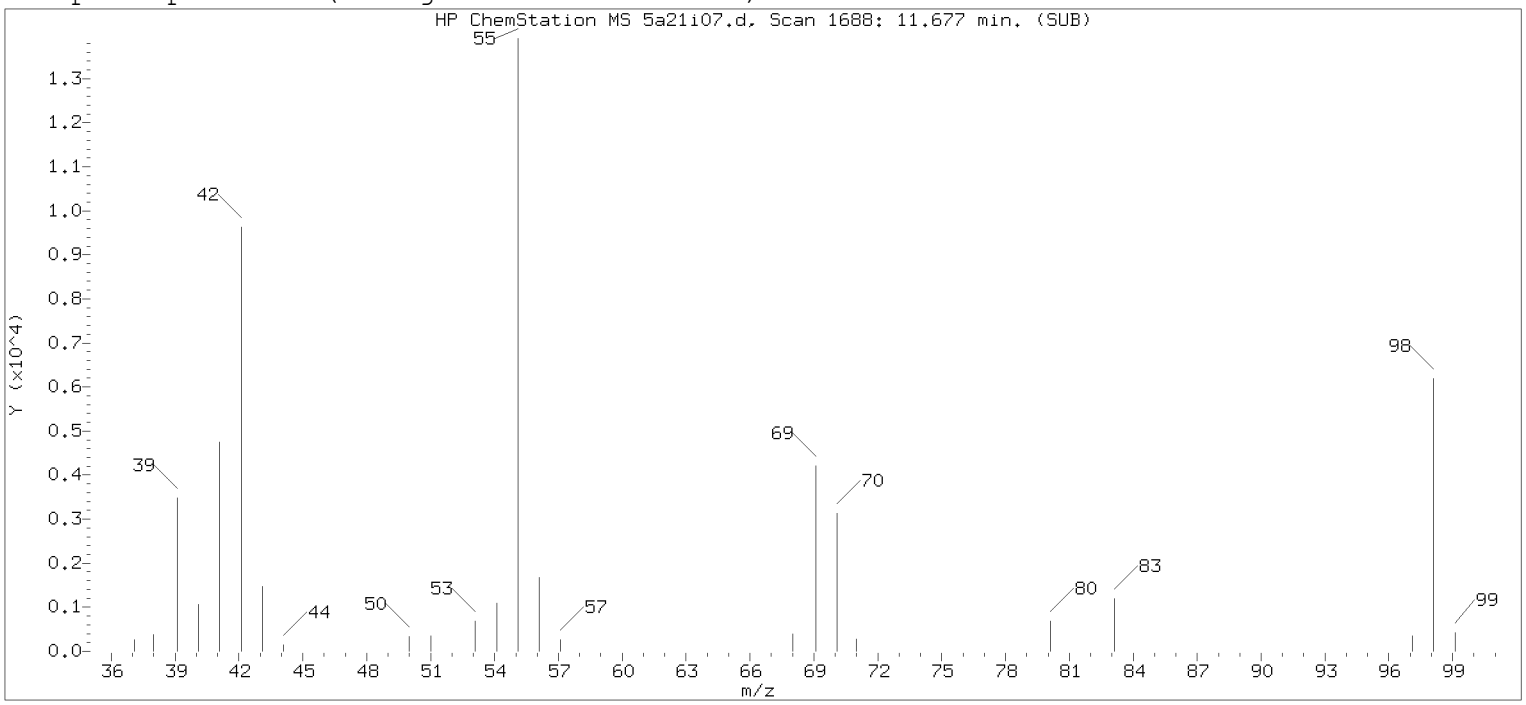
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area (flag) : 24191M
On-Column Amount (ng) : 43.3520
Integration start scan : 1681 Integration stop scan: 1695
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

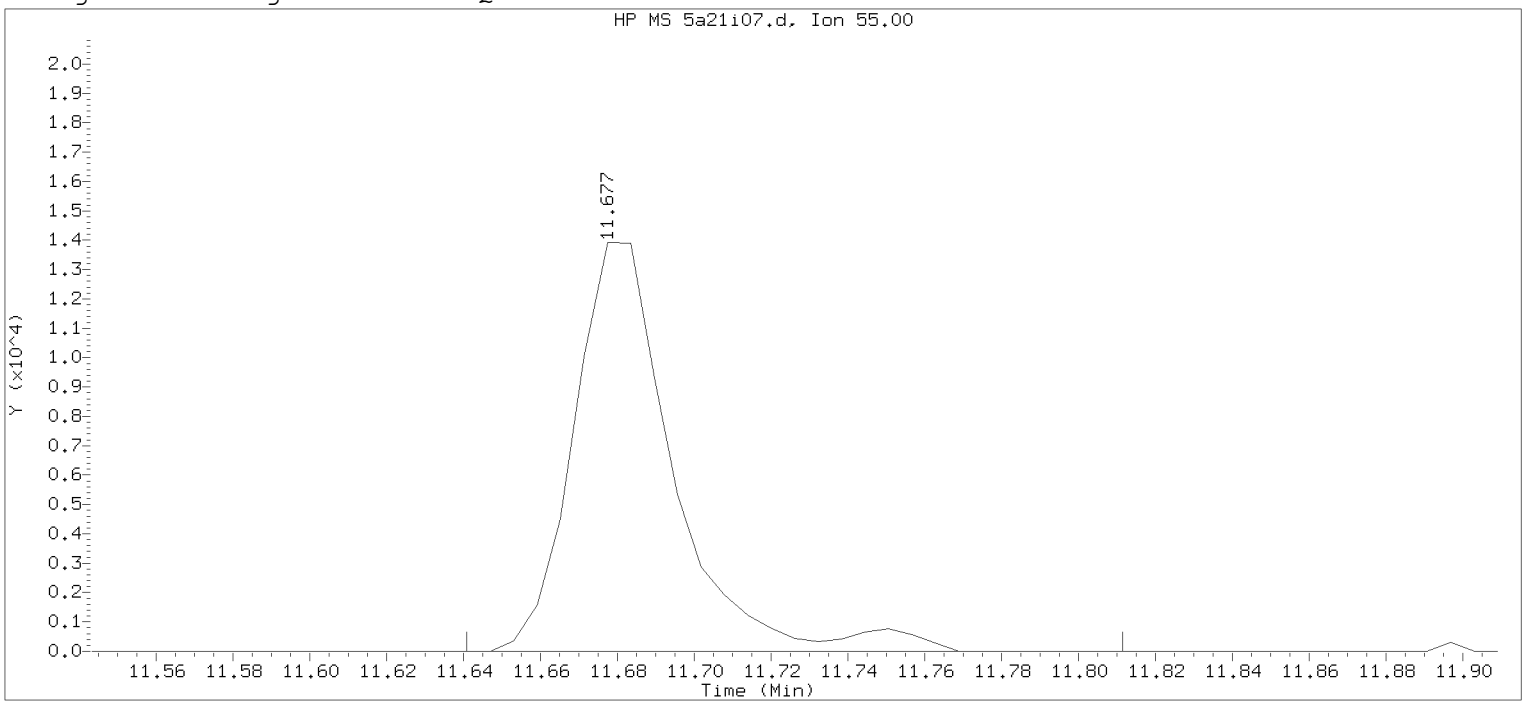
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

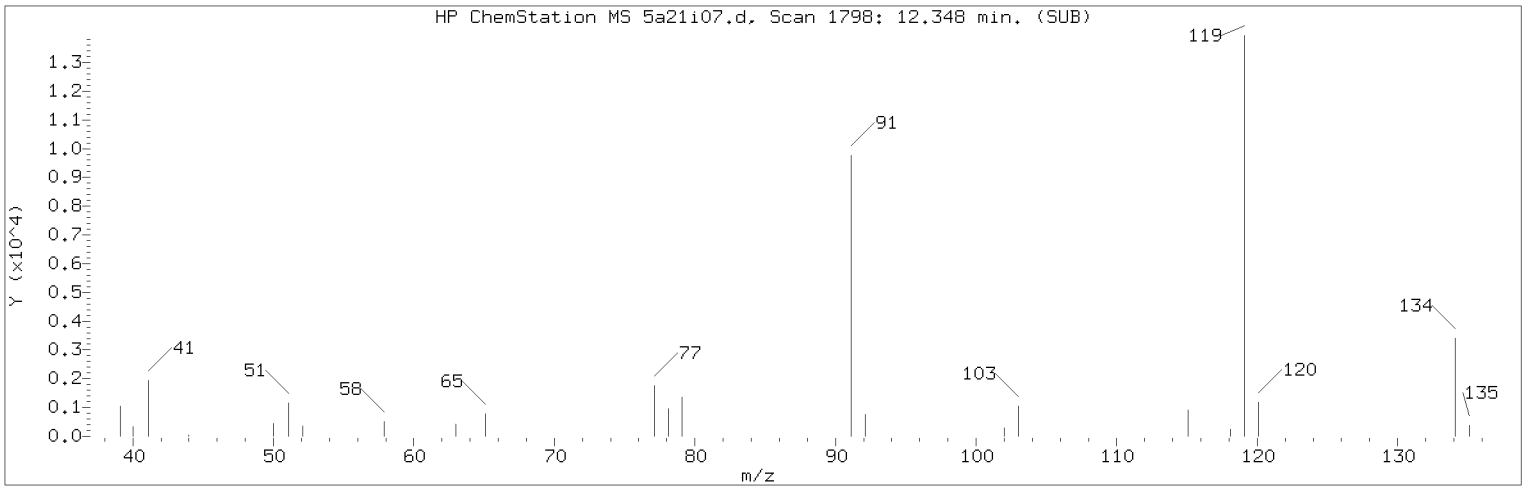
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

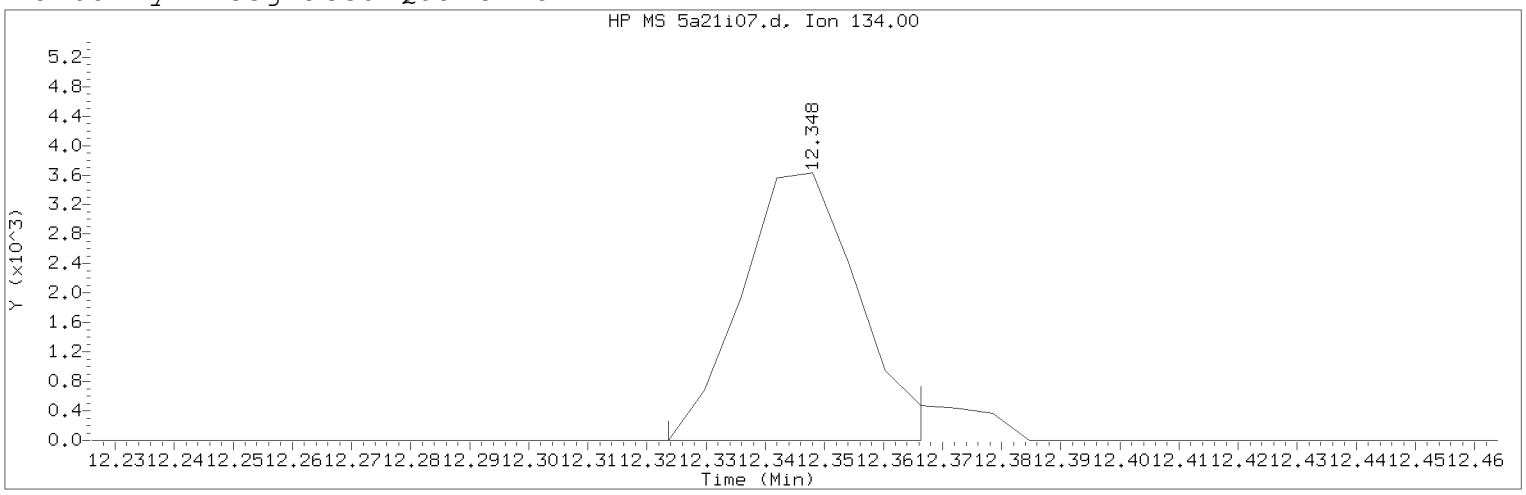
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area : 25283
On-column Amount (ng) : 45.3144
Integration start scan : 1681 Integration stop scan: 1709
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

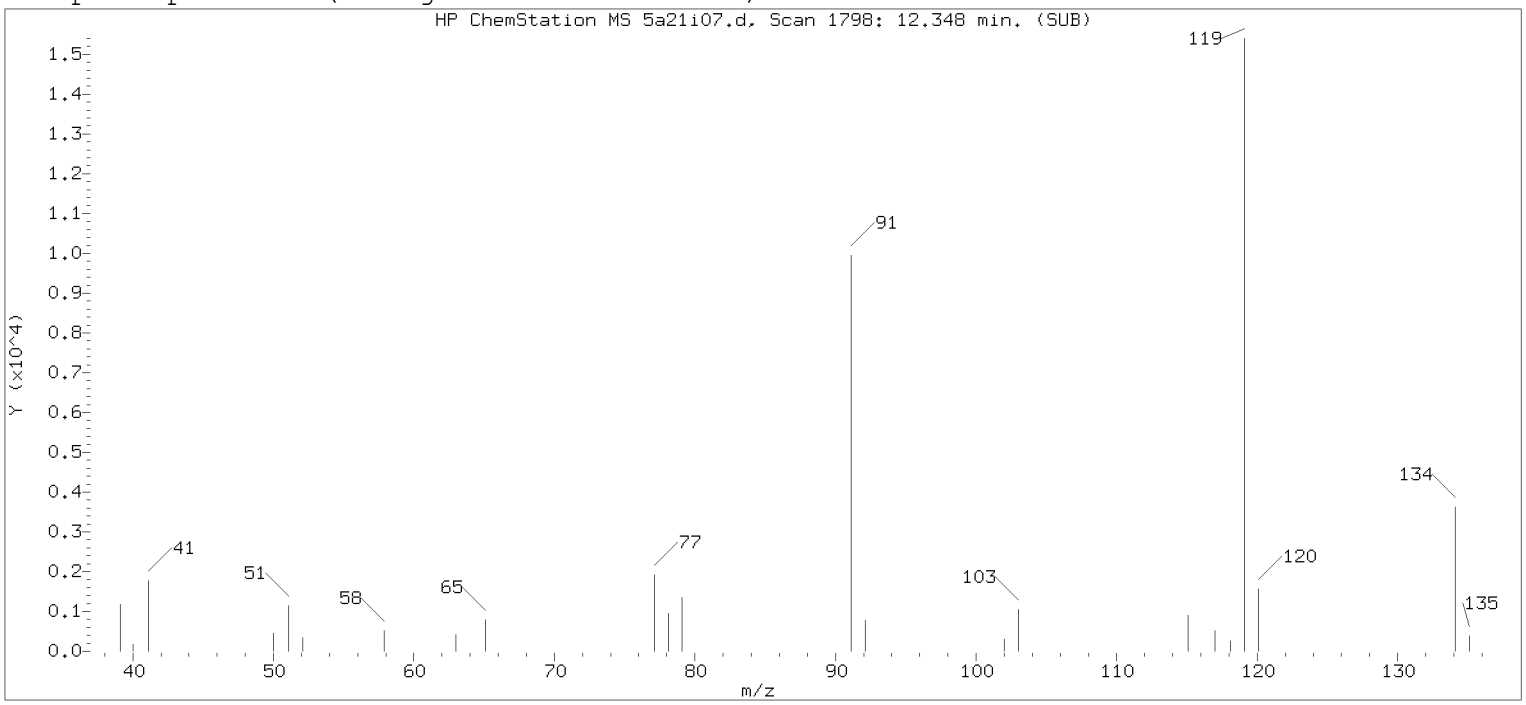
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 4987M
On-Column Amount (ng) : 0.9049
Integration start scan : 1793 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

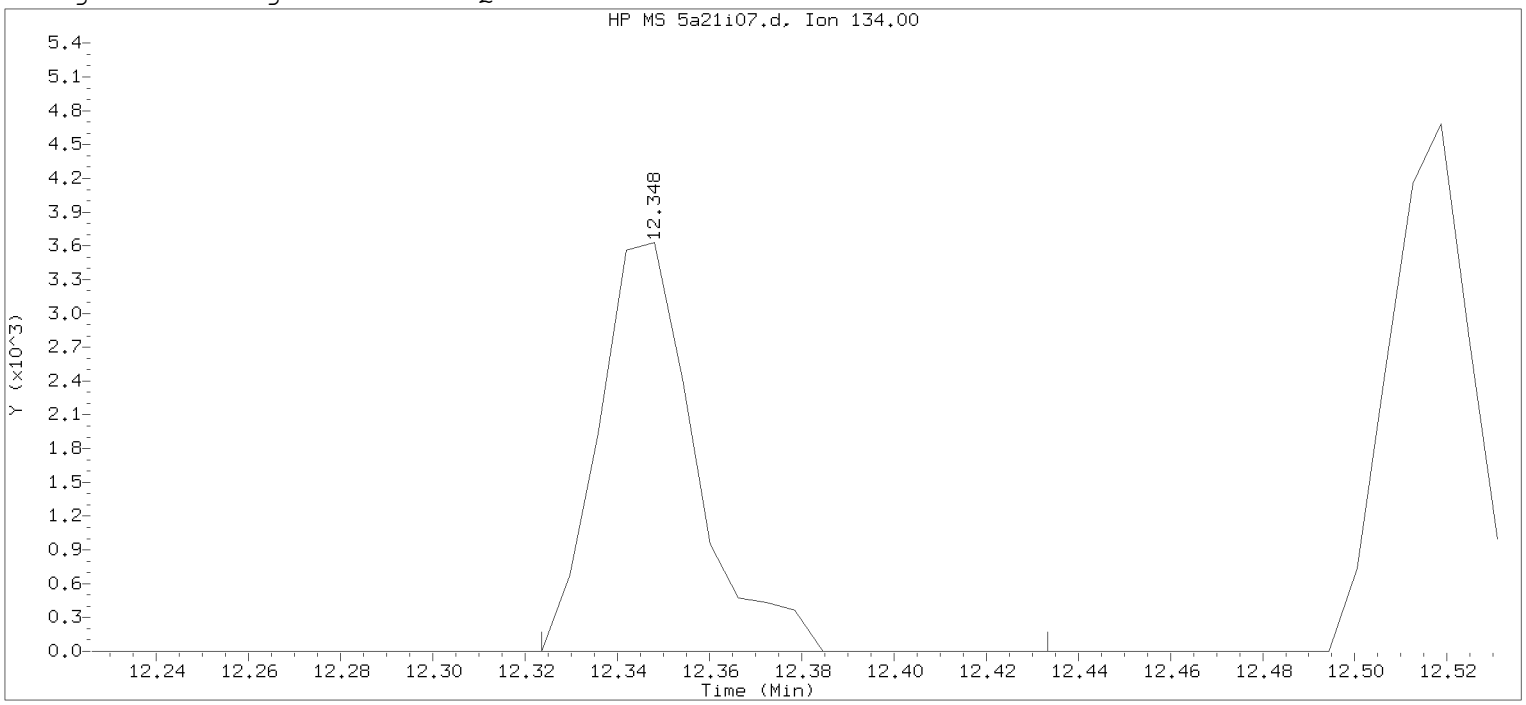
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

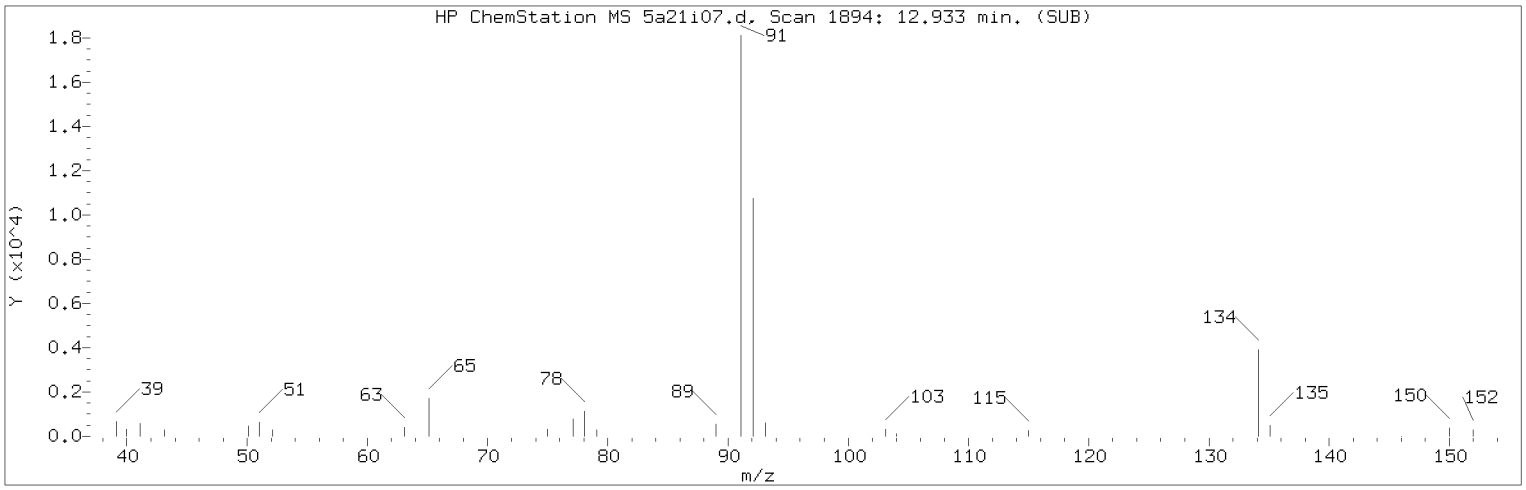
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

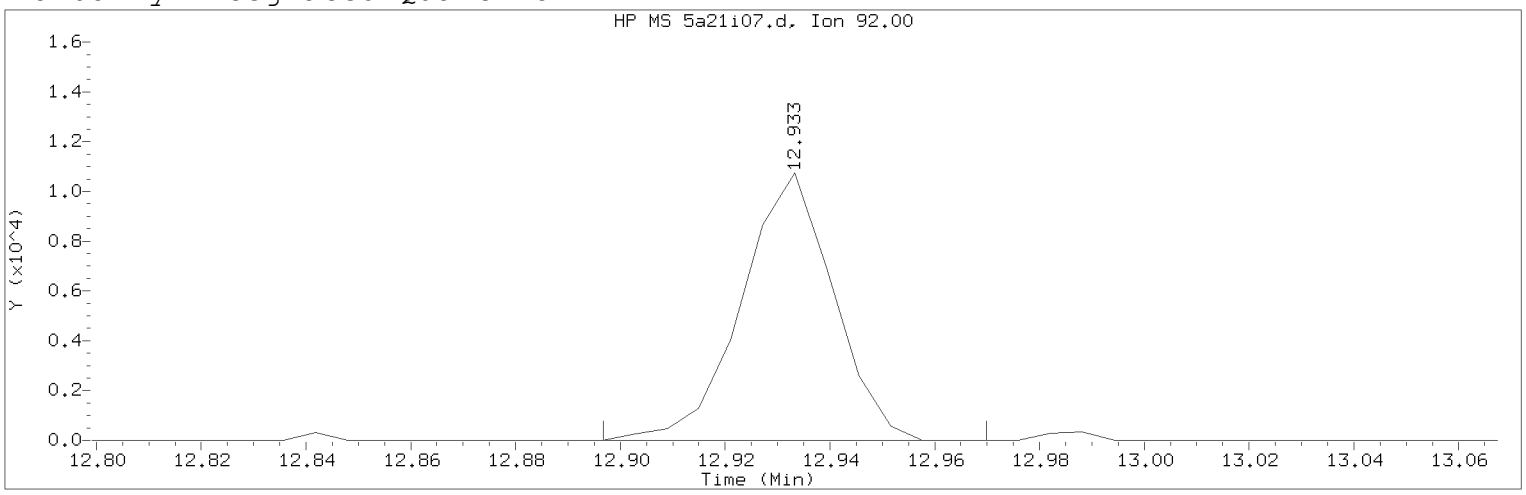
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 5280
On-column Amount (ng) : 0.9008
Integration start scan : 1793 Integration stop scan: 1811
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

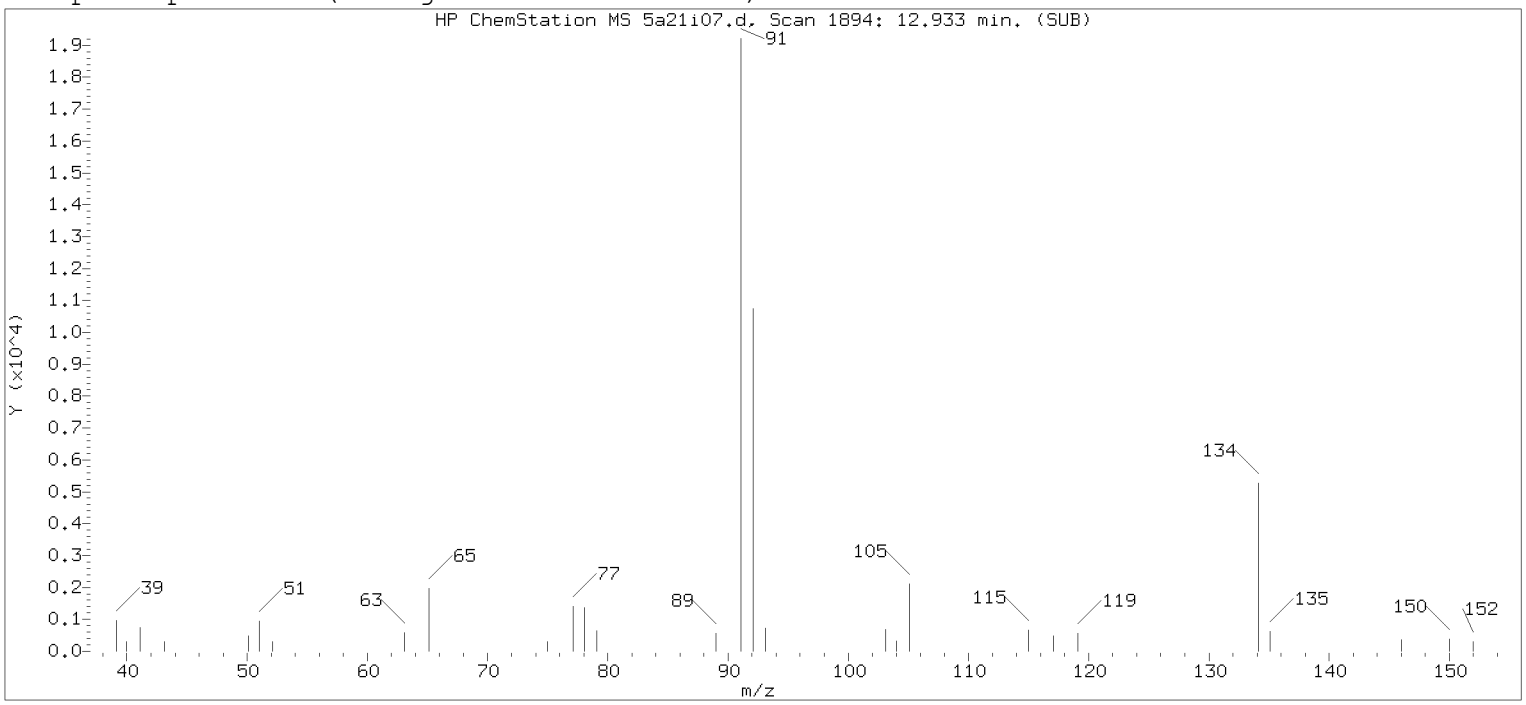
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area (flag) : 12995M
On-Column Amount (ng) : 0.8985
Integration start scan : 1887 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

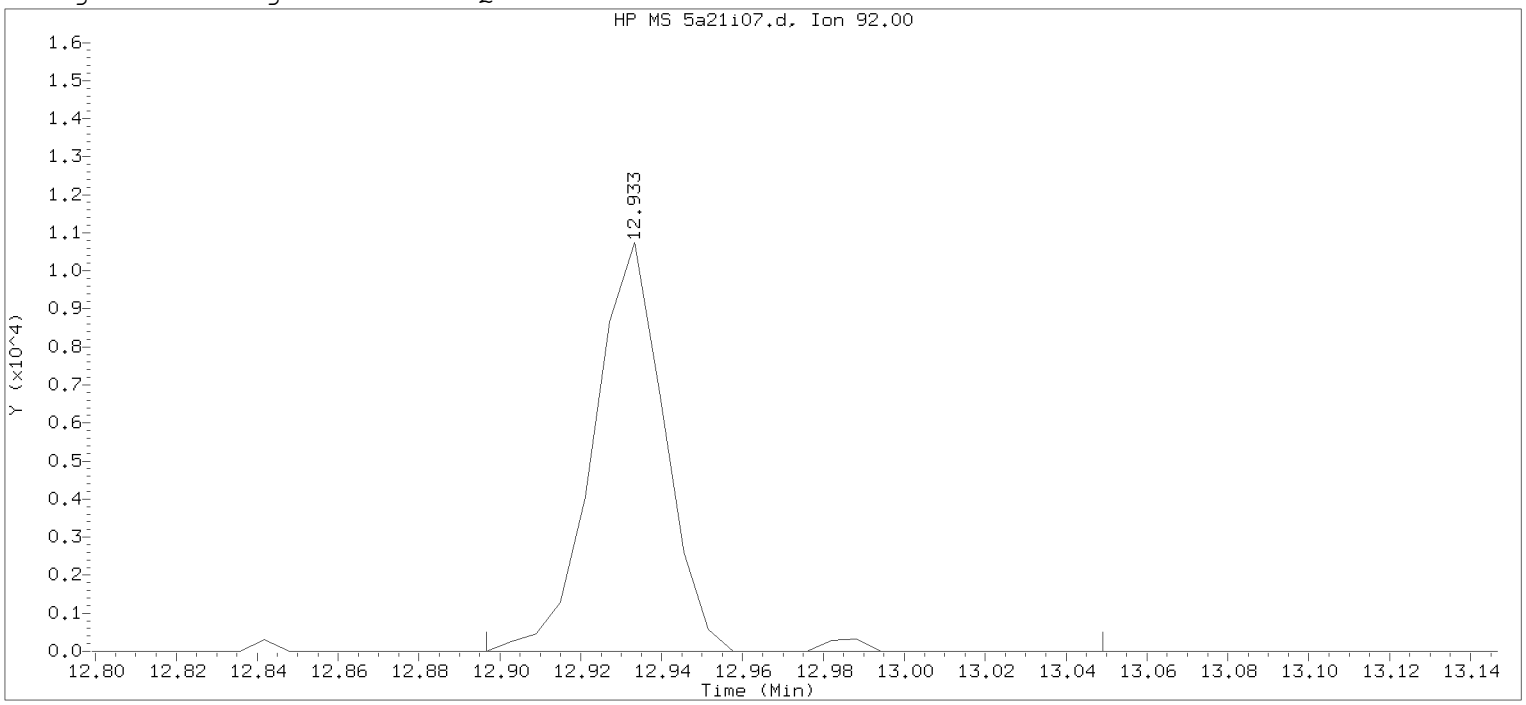
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



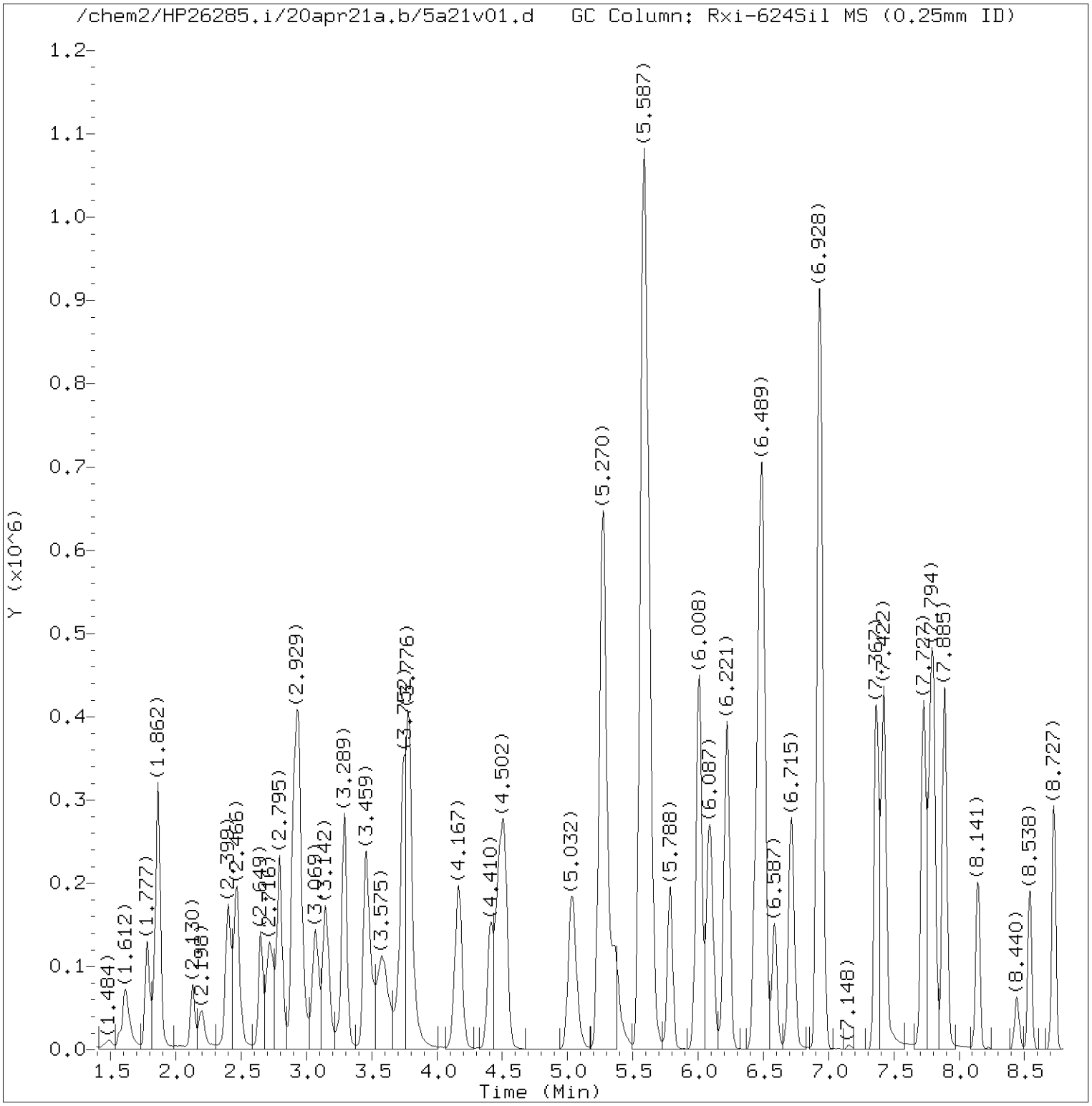
Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area : 13218
On-column Amount (ng) : 0.9120
Integration start scan : 1887 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

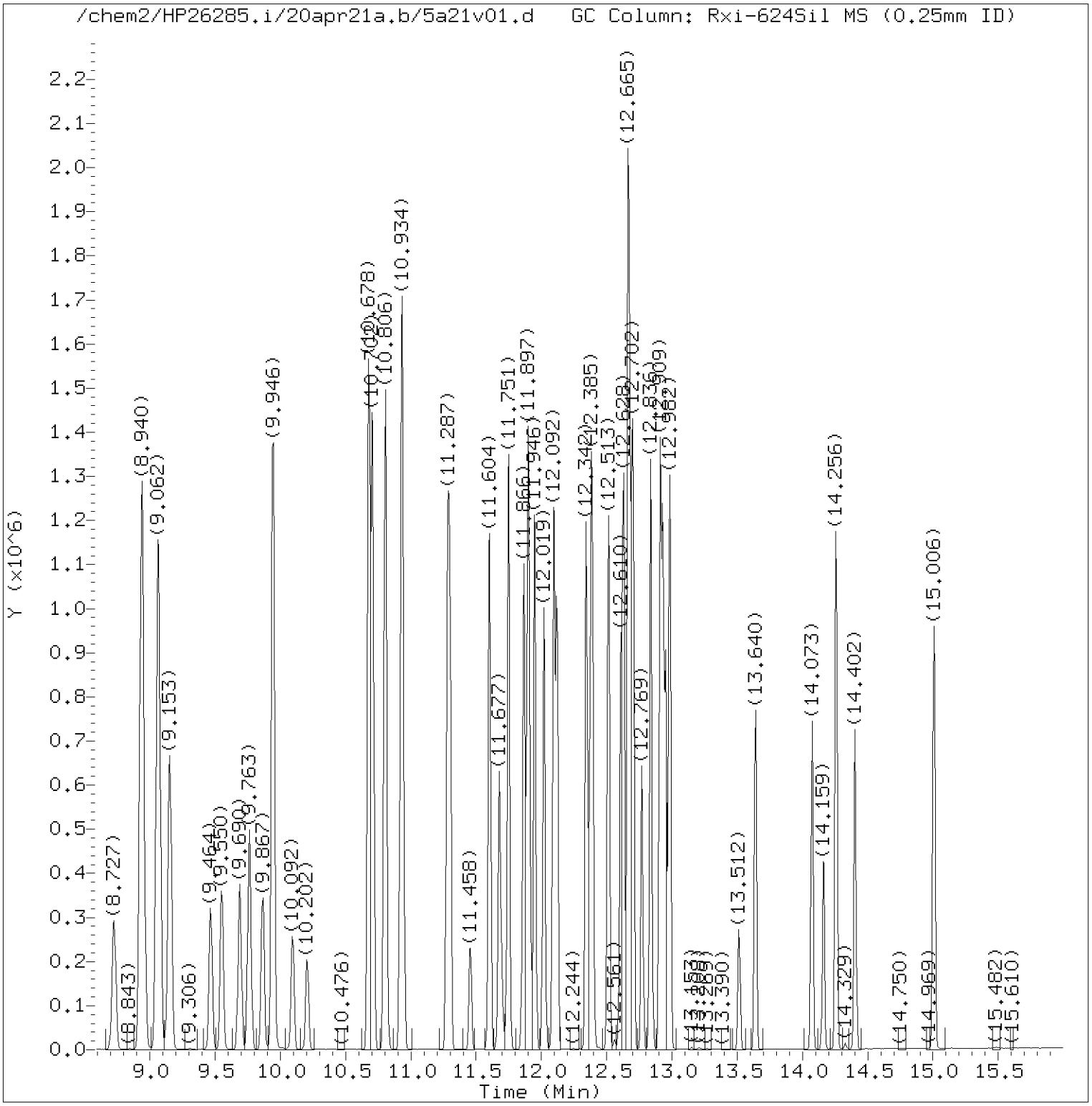
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	153929	18.338
4) Chloromethane	(2)	1.777	50	142840	21.449
5) 1,3-Butadiene	(2)	1.856	39	175348	18.945
6) Vinyl Chloride	(2)	1.868	62	129473	21.984
8) Bromomethane	(2)	2.130	94	66235	16.751
9) Chloroethane	(2)	2.198	64	60087	21.549
10) Dichlorofluoromethane	(2)	2.399	67	189640	20.870
12) Trichlorofluoromethane	(2)	2.441	101	169578	23.510
11) n-Pentane	(2)	2.472	43	137590	20.493
14) Ethyl ether	(2)	2.649	59	98927	19.894
15) Freon 123a	(2)	2.716	67	156875	20.836
16) Acrolein	(1)	2.795	56	315459	136.518
17) 1,1-Dichloroethene	(2)	2.905	96	119026	21.239
18) Acetone	(1)	2.935	58	179400	157.417
19) Freon 113	(2)	2.935	101	135384	21.343
22) Methyl Iodide	(2)	3.069	142	211731	19.813
21) 2-Propanol	(1)	3.081	45	144837	156.180
23) Carbon Disulfide	(2)	3.142	76	389090	19.738
27) Methyl Acetate	(2)	3.277	43	174516	21.598
25) Allyl Chloride	(2)	3.295	41	208700	22.247
28) Methylene Chloride	(2)	3.453	84	130962	20.731
29)*t-Butyl alcohol-d10	(1)	3.484	65	364936M	250.000
30) t-Butyl alcohol	(1)	3.587	59	363942	211.727
31) Acrylonitrile	(2)	3.740	53	413194	96.882
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	334830	20.187
32) trans-1,2-Dichloroethene	(2)	3.789	96	127049	20.260
34) n-Hexane	(2)	4.167	57	197244	21.213
36) 1,1-Dichloroethane	(2)	4.410	63	230235	20.282
38) di-Isopropyl ether	(2)	4.478	45	409230	20.184
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	195245	20.245
40) Ethyl t-butyl ether	(2)	5.038	59	362275	20.127
44) 2-Butanone	(2)	5.264	43	925621	149.118
42) cis-1,2-Dichloroethene	(2)	5.276	96	151628	21.378
45) 2,2-Dichloropropane	(2)	5.282	77	191399	19.982
47) Propionitrile	(1)	5.368	54	279353	149.289
48) Methacrylonitrile	(2)	5.581	67	640971	150.902
49) Bromochloromethane	(2)	5.618	128	69450	21.379
50) Tetrahydrofuran	(1)	5.630	71	165640	97.943

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.788	83	228695	20.086
53) 1,1,1-Trichloroethane	(2)	6.002	97	204895	19.987
52)$Dibromofluoromethane	(2)	6.008	113	258345	50.042
54) Cyclohexane	(2)	6.087	56	237837	19.921
43) 1,2-Dichloroethene (Total)	(2)		96	278677	41.638
56) Carbon Tetrachloride	(2)	6.215	117	181425	20.284
55) 1,1-Dichloropropene	(2)	6.227	75	185502	19.975
58) Isobutyl Alcohol	(1)	6.453	41	282165	492.465
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57776	50.038
60) Benzene	(2)	6.502	78	549206	19.890
61) 1,2-Dichloroethane	(2)	6.587	62	165650	19.532
65) t-Amyl methyl ether	(2)	6.715	73	363717	20.250
66)*Fluorobenzene	(2)	6.928	96	1036492	50.000
67) n-Heptane	(2)	6.947	43	171340	19.077
69) n-Butanol	(1)	7.367	56	485921	982.854
71) Trichloroethene	(2)	7.422	95	144668	19.965
73) Methylcyclohexane	(2)	7.727	83	246562	21.409
74) 1,2-Dichloropropane	(2)	7.776	63	141108	20.414
76) 1,4-Dioxane	(1)	7.867	88	63824M	520.439
75) Dibromomethane	(2)	7.885	93	87732	20.156
77) Methyl Methacrylate	(2)	7.892	69	134720	20.831
79) Bromodichloromethane	(2)	8.141	83	168466	19.960
80) 2-Nitropropane	(2)	8.440	41	54115	18.512
81) 2-Chloroethyl Vinyl Ether	(2)	8.538	63	107594	20.113
82) cis-1,3-Dichloropropene	(2)	8.727	75	209585	19.651
83) 4-Methyl-2-pentanone	(2)	8.940	43	1181742	98.773
84)$Toluene-d8	(3)	9.062	98	996070	50.667
89) Toluene	(3)	9.153	92	354959	20.477
90) trans-1,3-Dichloropropene	(3)	9.464	75	185163	19.908
92) Ethyl Methacrylate	(3)	9.550	69	202199	19.119
93) 1,1,2-Trichloroethane	(3)	9.690	97	128978	20.812
94) Tetrachloroethene	(3)	9.763	166	155797	21.191
95) 1,3-Dichloropropane	(3)	9.867	76	204418	19.866
97) 2-Hexanone	(3)	9.940	43	956228	103.826
91) 1,3-Dichloropropene (total)	(3)		100	394748	39.559
98) Dibromochloromethane	(3)	10.092	129	136958	20.885
100) 1,2-Dibromoethane	(3)	10.202	107	139008	20.347
101)*Chlorobenzene-d5	(3)	10.678	117	799942	50.000

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	388499	20.651
102) 1-Chlorohexane	(3)	10.708	91	200269	19.866
104) 1,1,1,2-Tetrachloroethane	(3)	10.800	131	133789	20.614
105) Ethylbenzene	(3)	10.806	91	694156	20.710
107) m+p-Xylene	(3)	10.934	106	542472	42.184
108) o-Xylene	(3)	11.281	106	262207	20.832
110) Styrene	(3)	11.299	104	428010	21.099
111) Bromoform	(3)	11.458	173	94256	19.866
112) Isopropylbenzene	(3)	11.604	105	695740	21.063
113) Cyclohexanone	(1)	11.677	55	268497	476.659
115)$4-Bromofluorobenzene	(3)	11.751	95	406882	49.122
109) Xylene (Total)	(3)		106	804679	63.015
116) Bromobenzene	(4)	11.866	156	162891	20.782
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	221731	20.847
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	197086	95.682
118) 1,2,3-Trichloropropane	(4)	11.909	110	64916	20.727
120) n-Propylbenzene	(4)	11.946	91	818744	21.246
121) 2-Chlorotoluene	(4)	12.019	126	161976	20.506
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	567082	20.934
122) 4-Chlorotoluene	(4)	12.116	126	164921	20.669
125) tert-Butylbenzene	(4)	12.342	134	112503M	20.897
126) Pentachloroethane	(4)	12.372	167	96008	21.722
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	576776	20.675
128) sec-Butylbenzene	(4)	12.513	105	700610	20.860
130) 1,3-Dichlorobenzene	(4)	12.610	146	303723	20.601
131) p-Isopropyltoluene	(4)	12.628	119	588086	20.997
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	411145	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	311579	20.825
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	605473	22.612
136) Benzyl Chloride	(4)	12.769	91	369928	18.129
137) 1,3-Diethylbenzene	(4)	12.836	119	355013	21.937
138) 1,4-Diethylbenzene	(4)	12.909	119	366890	21.919
140) n-Butylbenzene	(4)	12.927	92	289999	20.527
139) 1,2-Dichlorobenzene	(4)	12.952	146	294834	20.819
141) 1,2-Diethylbenzene	(4)	12.982	119	297190	21.714
142) Diethylbenzene (total)	(4)		100	1019093	65.569
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	54669	20.358
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	189738	20.285

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$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

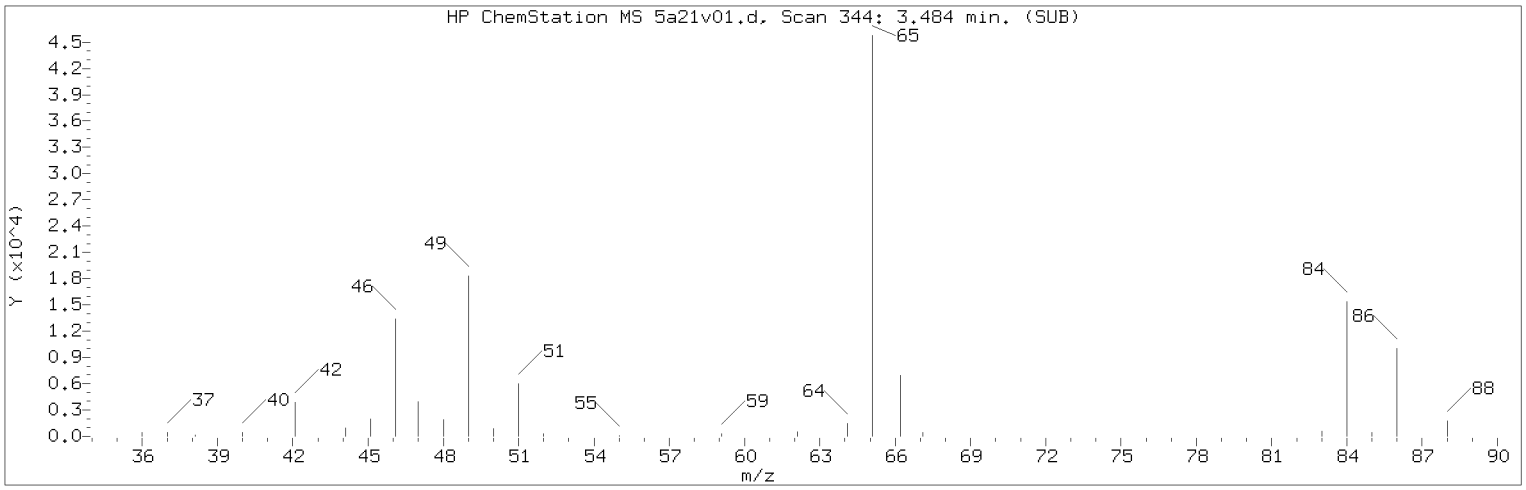
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

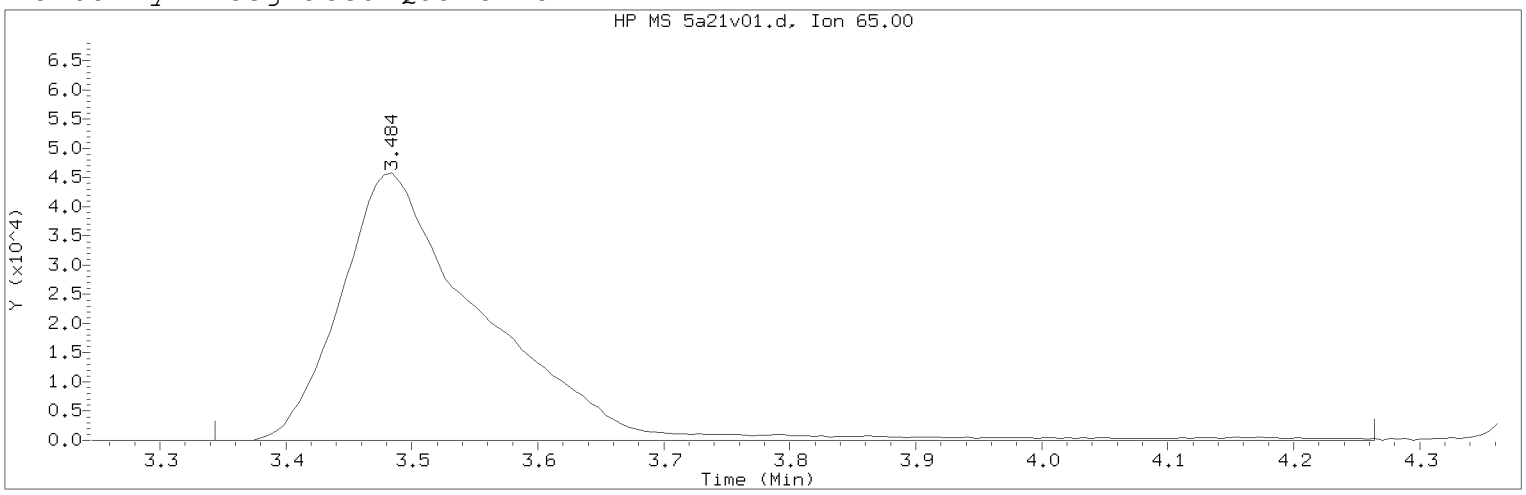
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2,4-Trichlorobenzene	(4)	14.073	180	180603	20.552
148) Hexachlorobutadiene	(4)	14.165	225	66276	19.611
149) Naphthalene	(4)	14.256	128	720292	20.699
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	175964	20.235
151) 2-Methylnaphthalene	(4)	15.006	142	382869	21.177

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

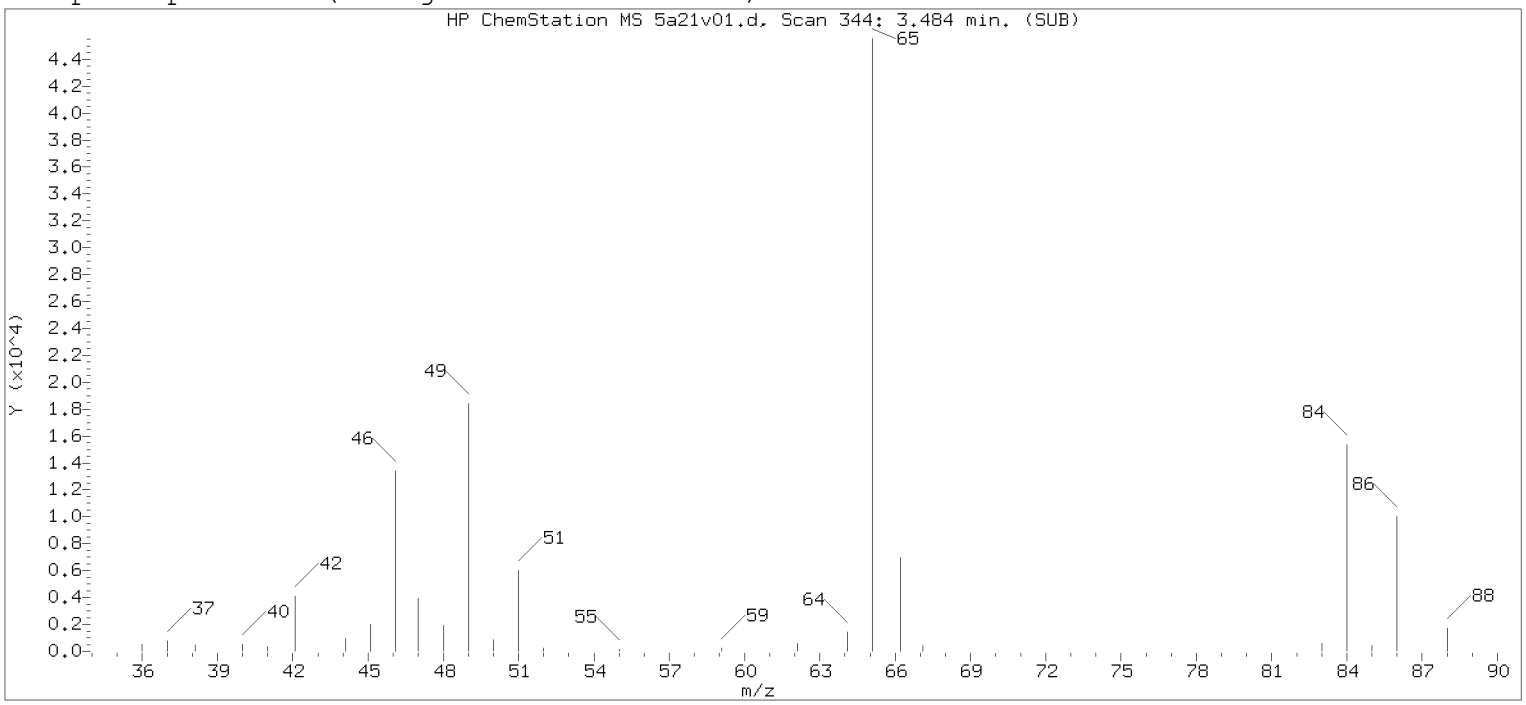
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 364936M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

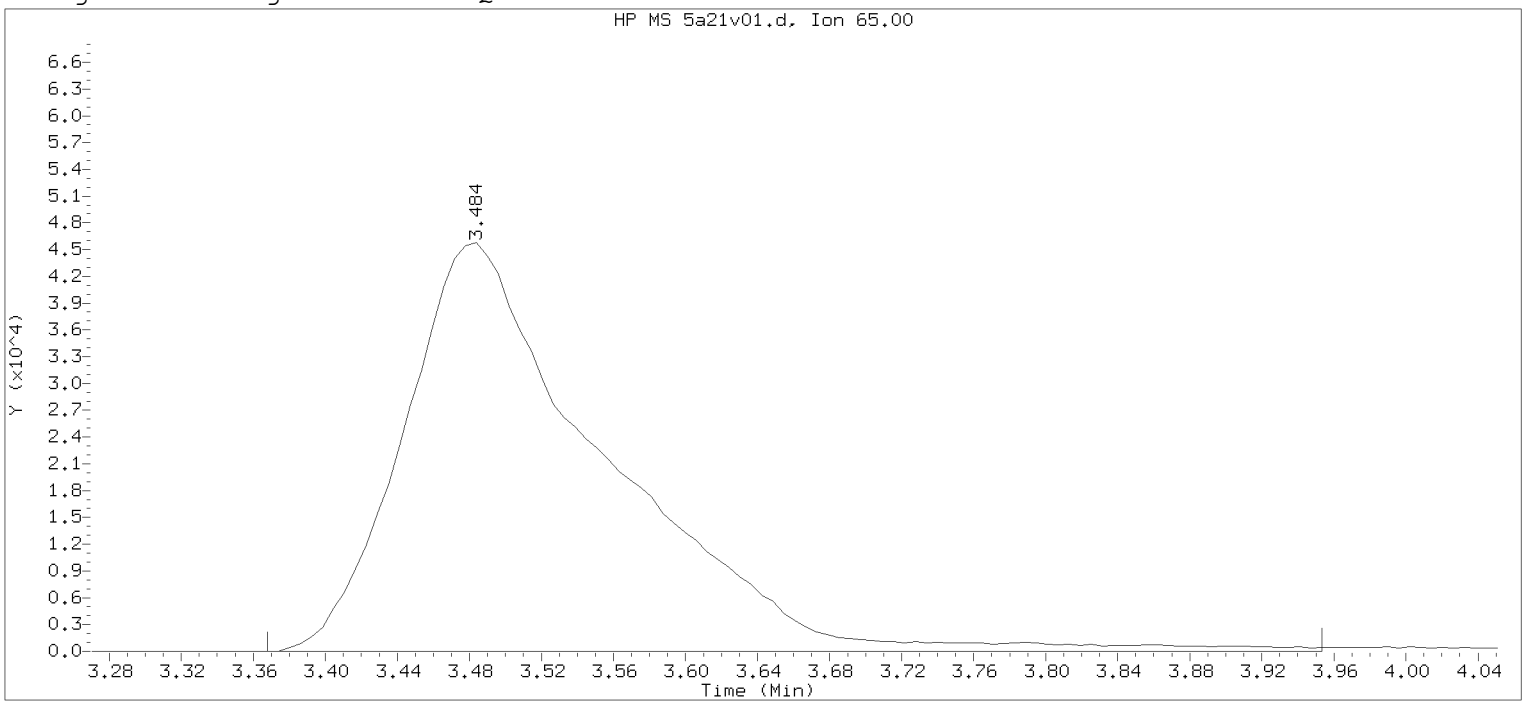
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

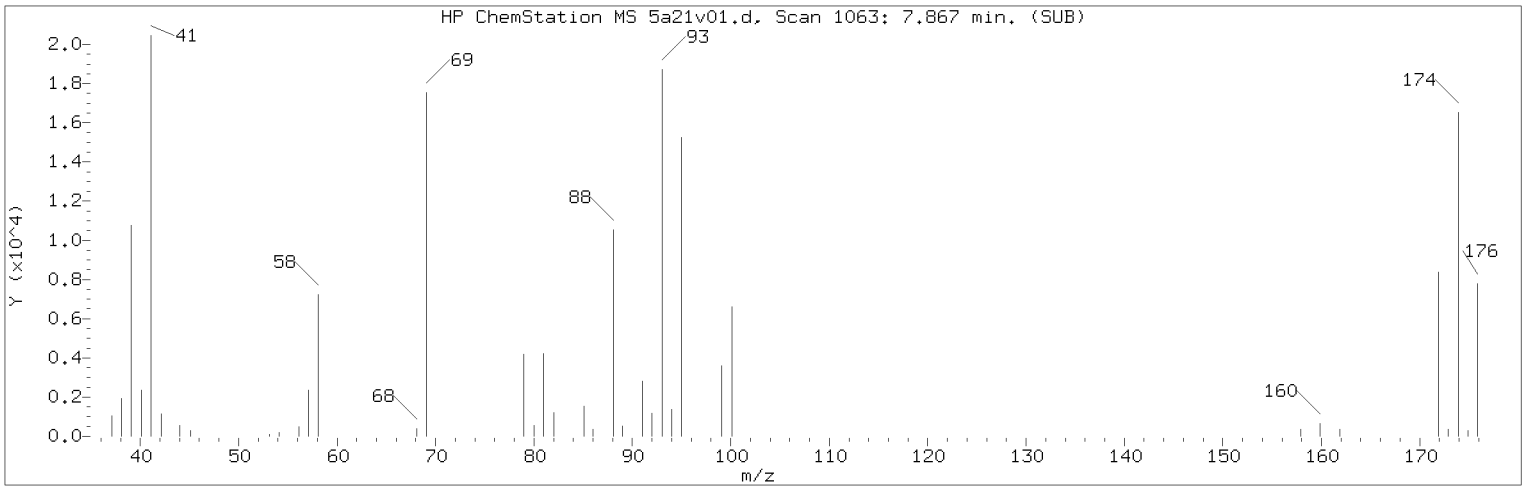
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

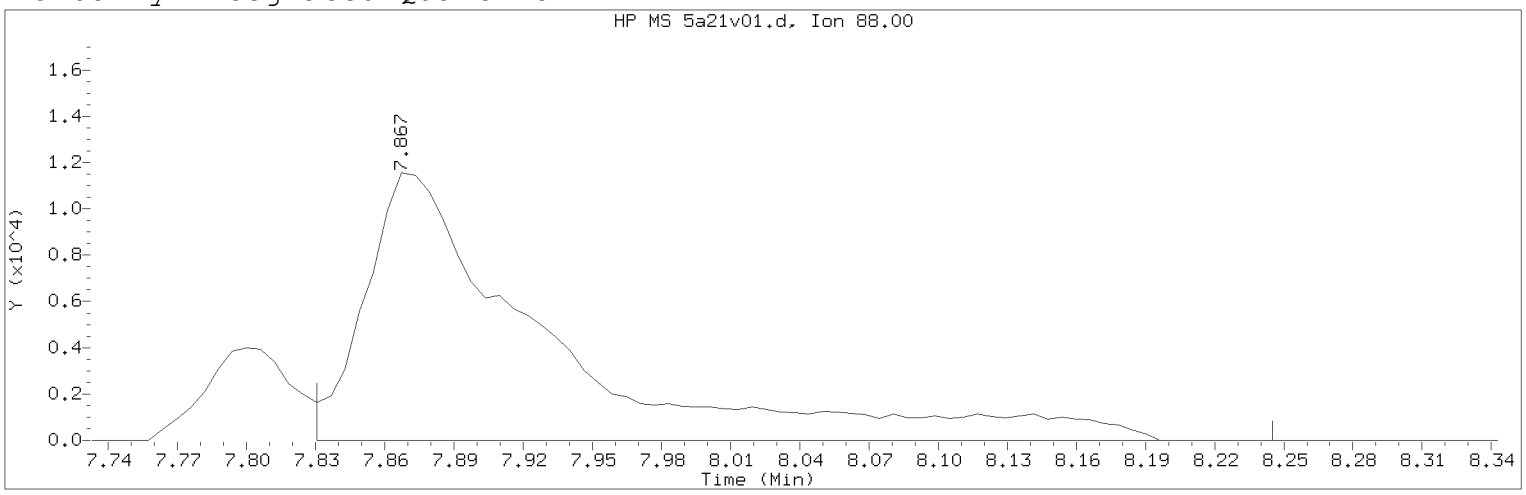
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 357592
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

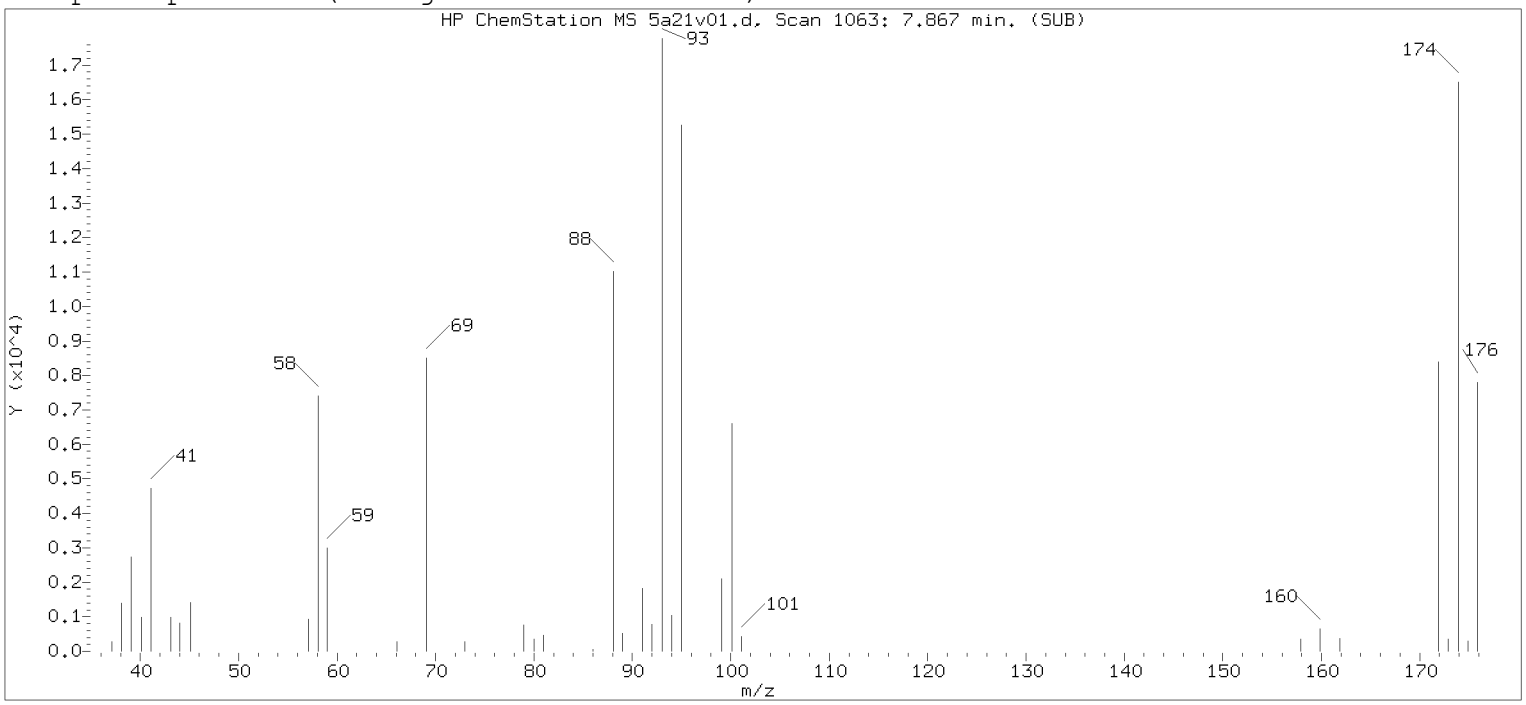
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area (flag) : 63824M
On-Column Amount (ng) : 520.4390
Integration start scan : 1056 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

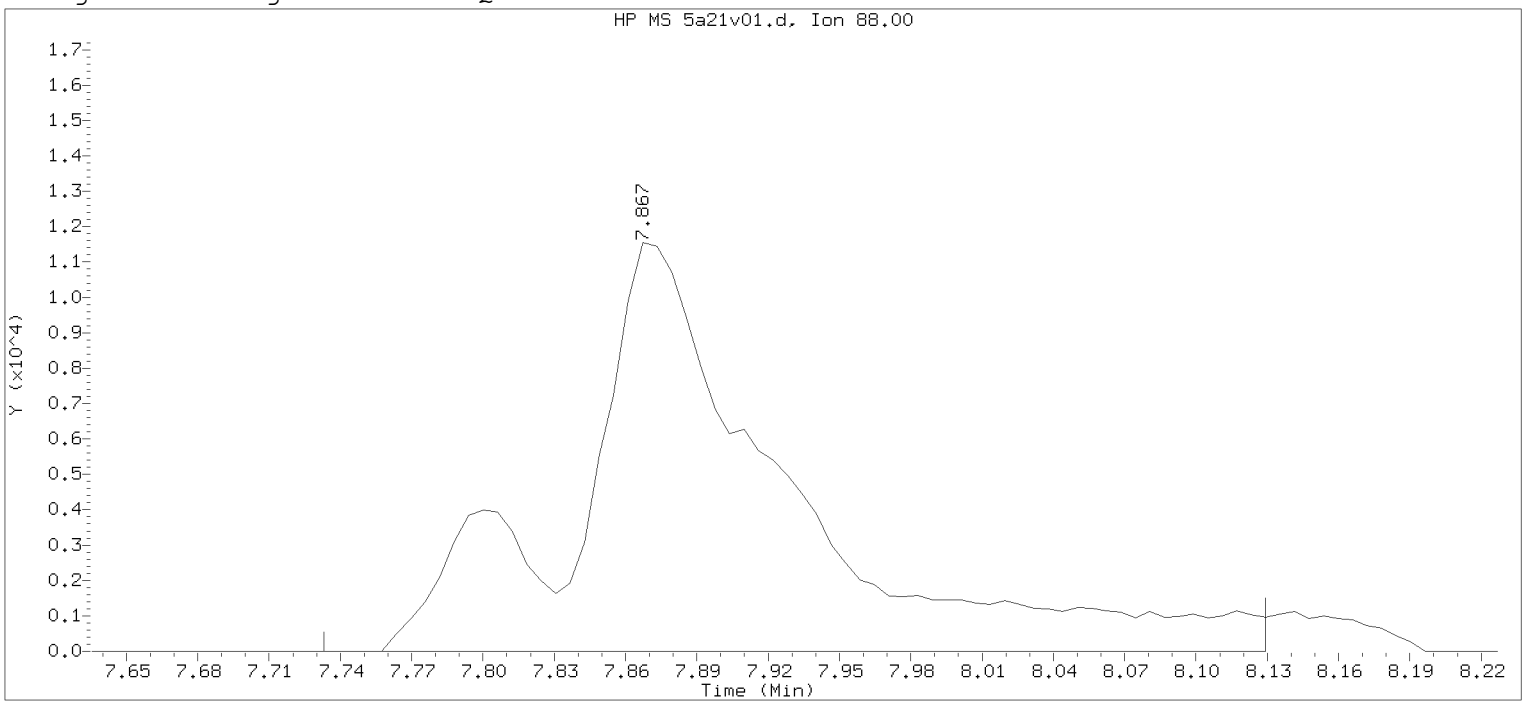
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

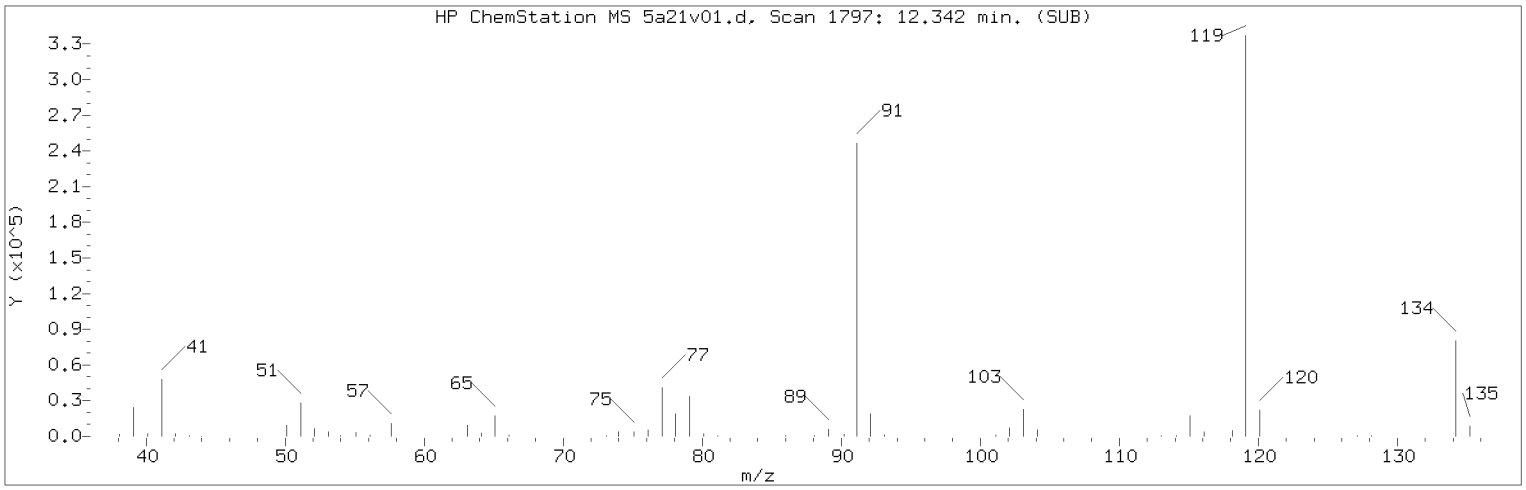
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

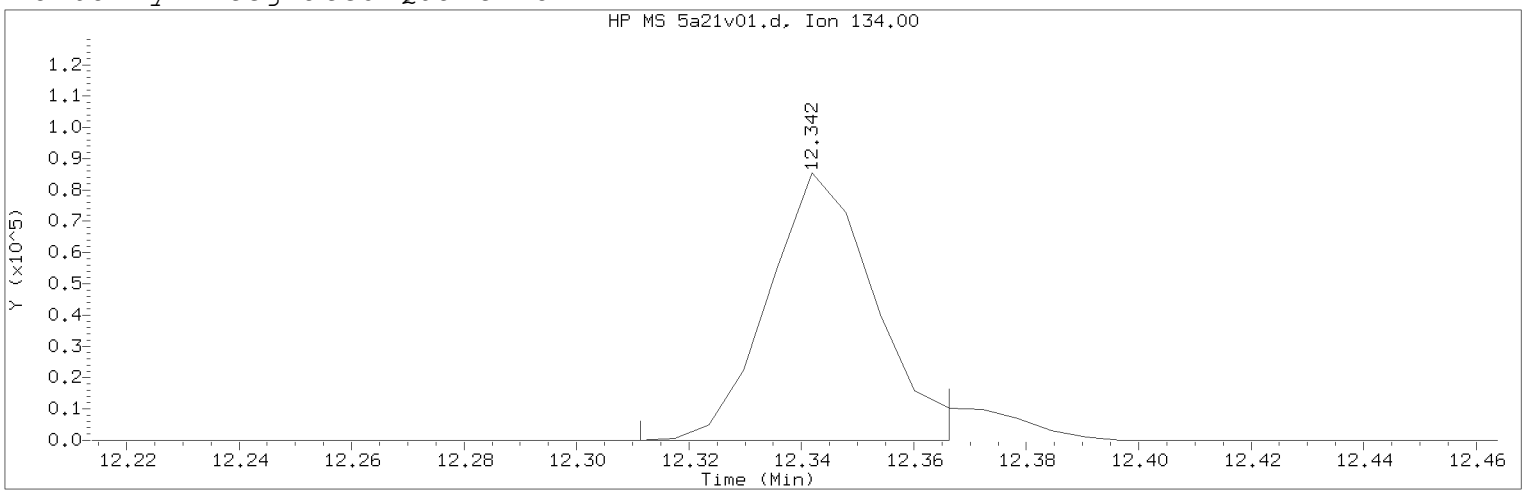
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area : 70811
On-column Amount (ng) : 589.2768
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

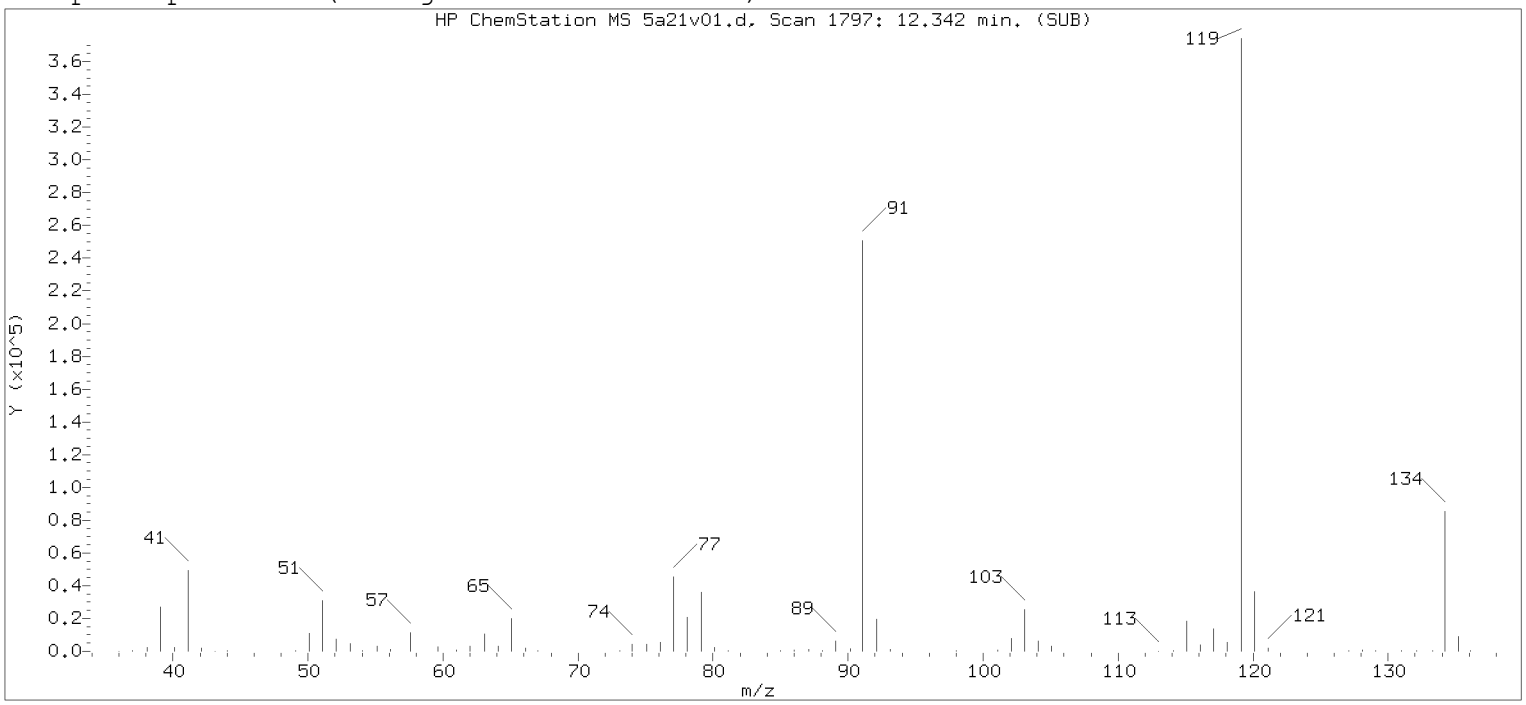
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 112503M
On-Column Amount (ng) : 20.8965
Integration start scan : 1791 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

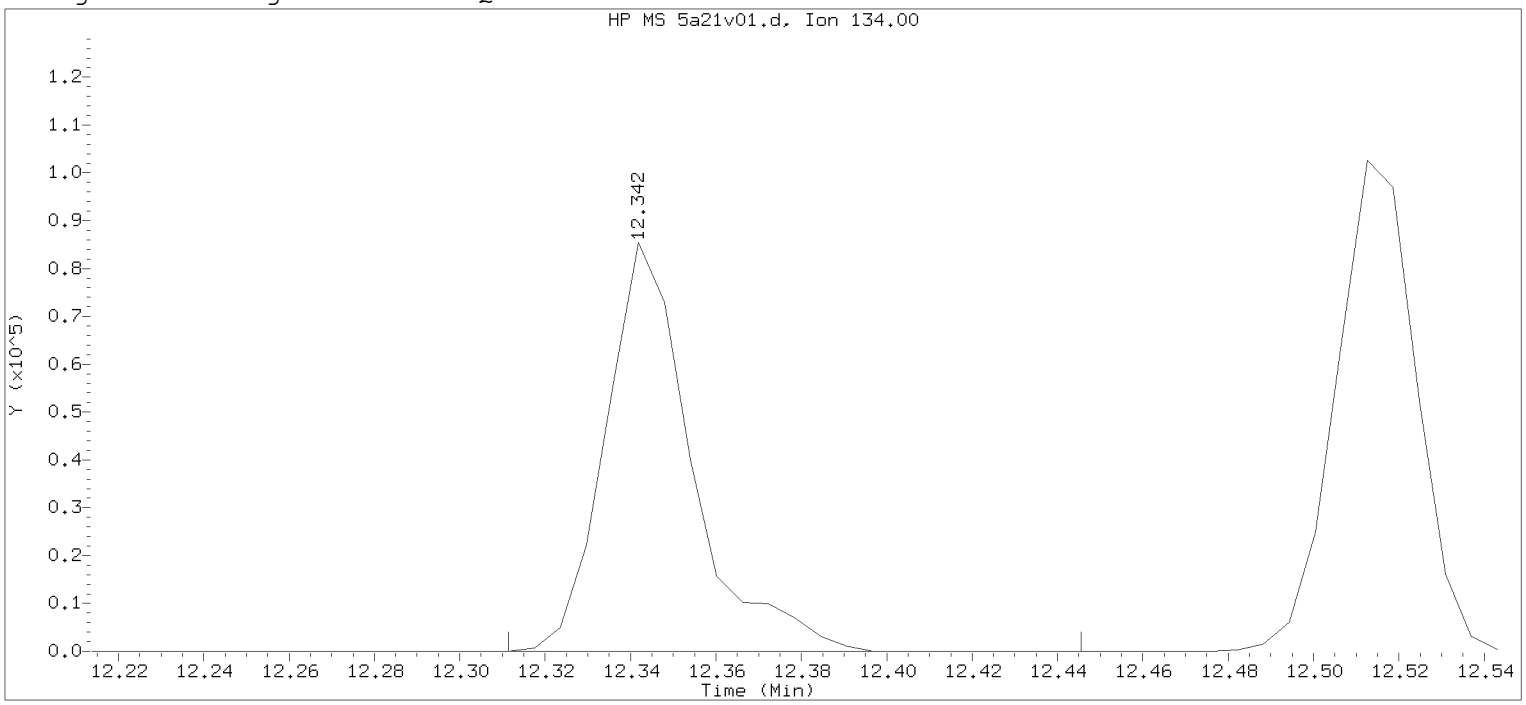
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 120170
On-column Amount (ng) : 22.3208
Integration start scan : 1791 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KAS02648

Data File: /chem2/HP26285.i/20may27a.b/5y27t01.d

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20

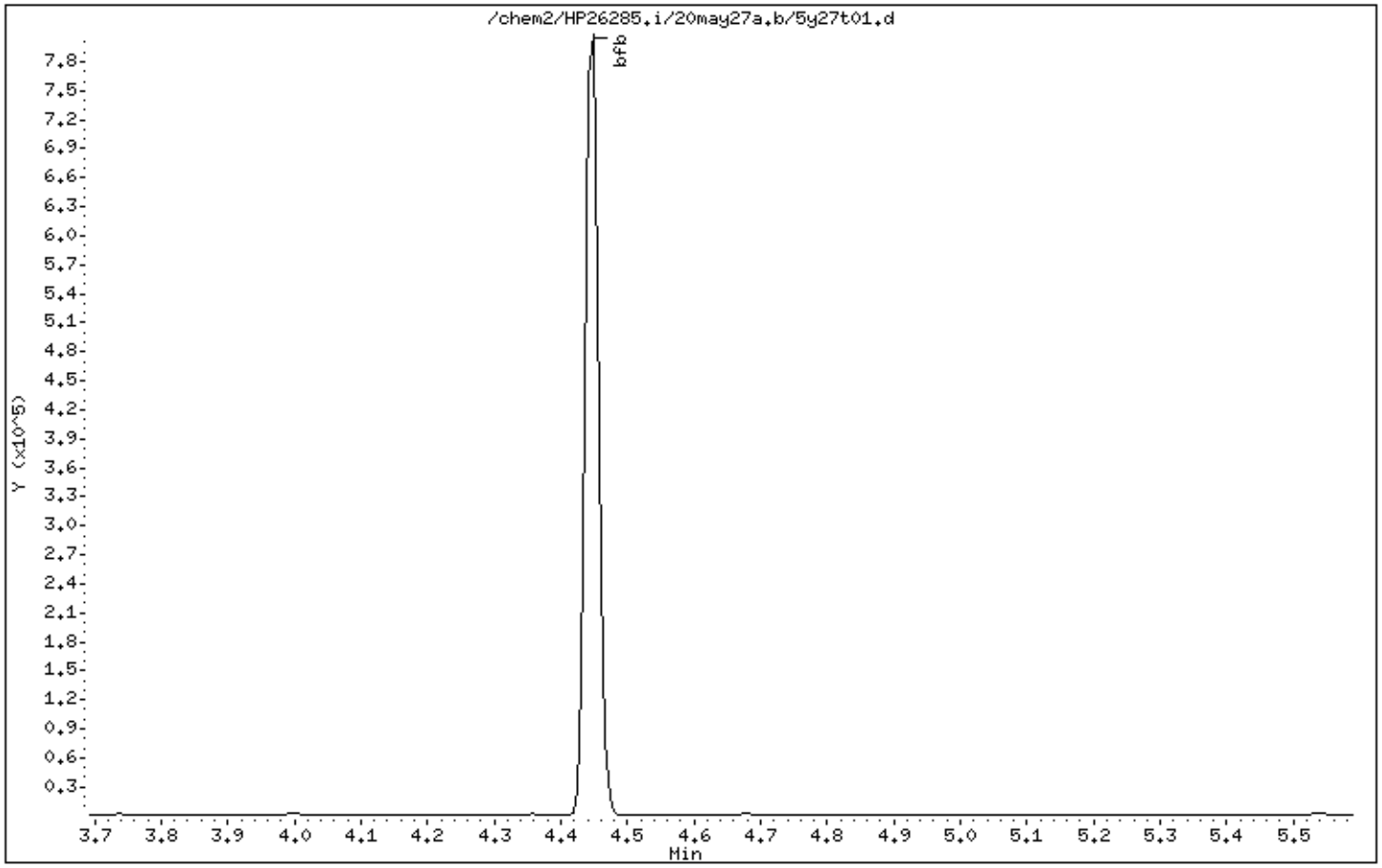
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may27a.b/5y27t01.d

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20

Instrument: HP26285.i

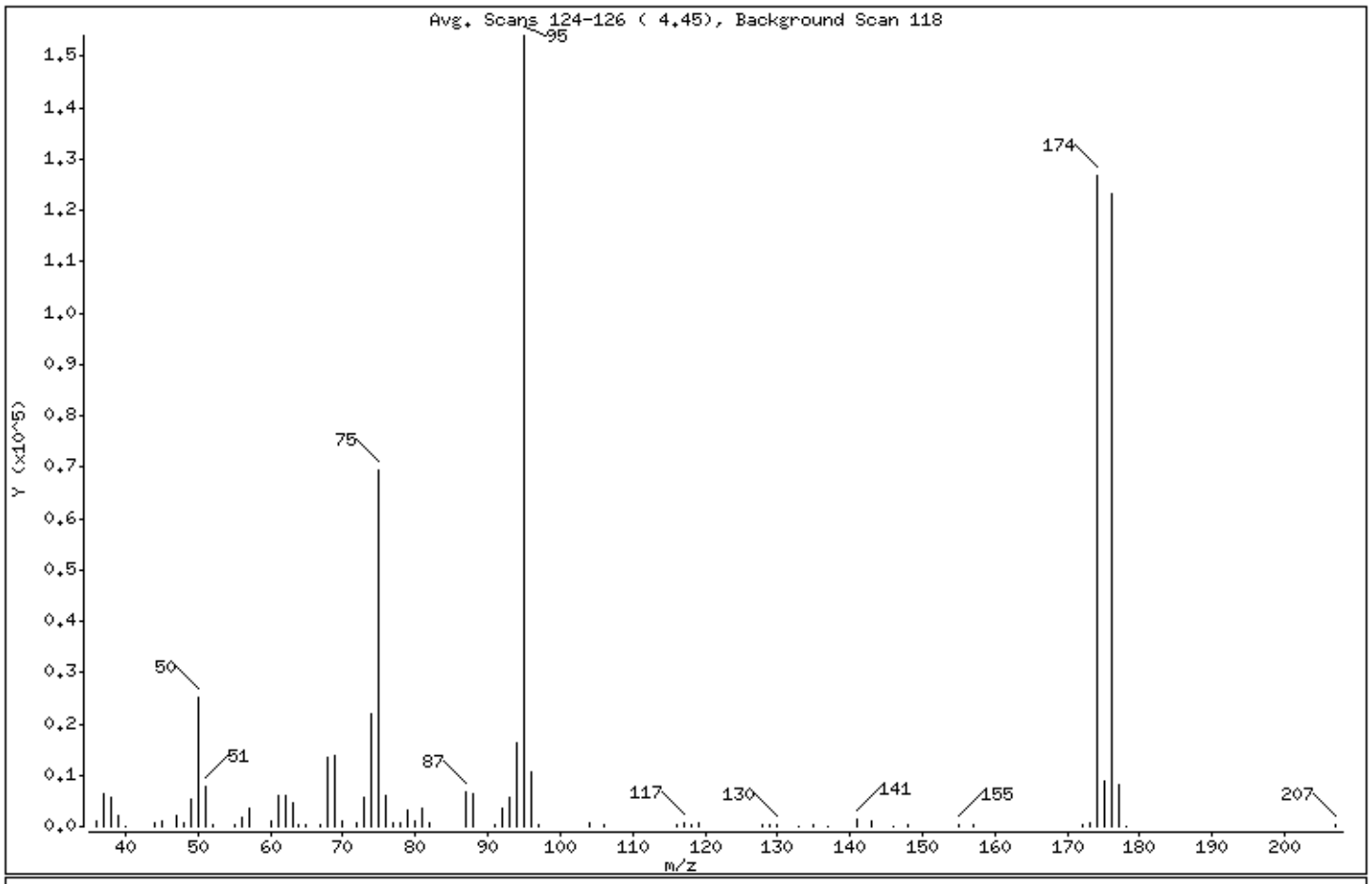
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.22
75	30.00 - 60.00% of mass 95	44.93
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.50 (0.61)
174	50.00 - 100.00% of mass 95	82.33
175	5.00 - 9.00% of mass 174	5.82 (7.07)
176	95.00 - 101.00% of mass 174	80.04 (97.22)
177	5.00 - 9.00% of mass 176	5.25 (6.55)

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20 Instrument: HP26285.i

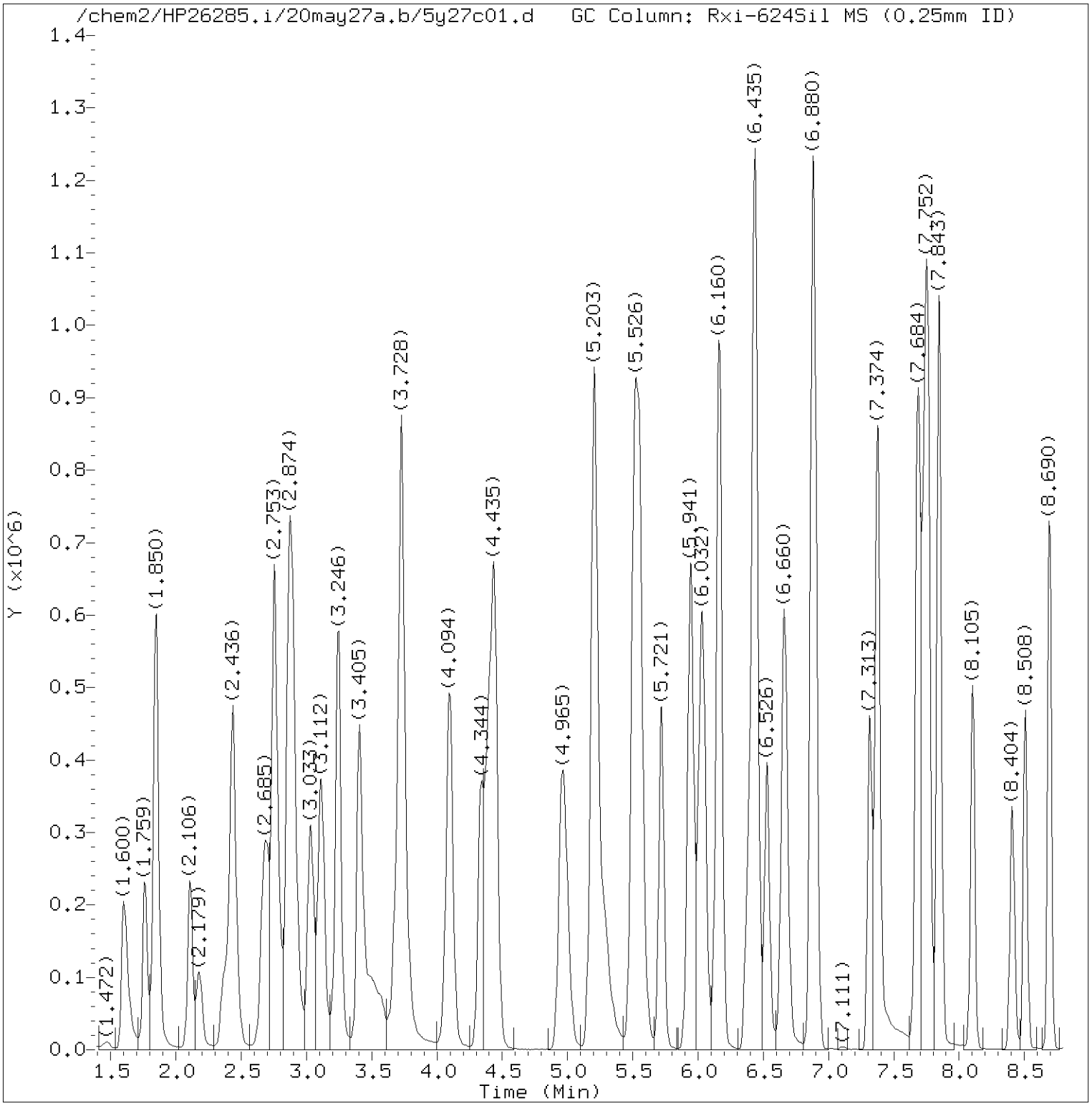
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y27t01.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1167	63.00	4474	88.00	6345	137.00	170
37.00	6207	64.00	466	91.00	485	141.00	1240
38.00	5540	65.00	243	92.00	3686	143.00	1181
39.00	2278	67.00	394	93.00	5841	146.00	86
40.00	15	68.00	13402	94.00	16234	148.00	206
44.00	753	69.00	13652	95.00	154048	155.00	349
45.00	1067	70.00	1062	96.00	10543	157.00	199
47.00	2115	72.00	656	97.00	226	172.00	442
48.00	771	73.00	5798	104.00	555	173.00	778
49.00	5253	74.00	21872	106.00	495	174.00	126872
50.00	24992	75.00	69248	116.00	424	175.00	8974
51.00	7728	76.00	6154	117.00	837	176.00	123344
52.00	347	77.00	881	118.00	423	177.00	8085
55.00	238	78.00	535	119.00	689	178.00	84
56.00	1852	79.00	3206	128.00	474	207.00	184
57.00	3365	80.00	949	129.00	193		
60.00	1106	81.00	3468	130.00	496		
61.00	5871	82.00	735	133.00	90		
62.00	5870	87.00	6828	135.00	206		



Total Ion Chromatogram (TIC)

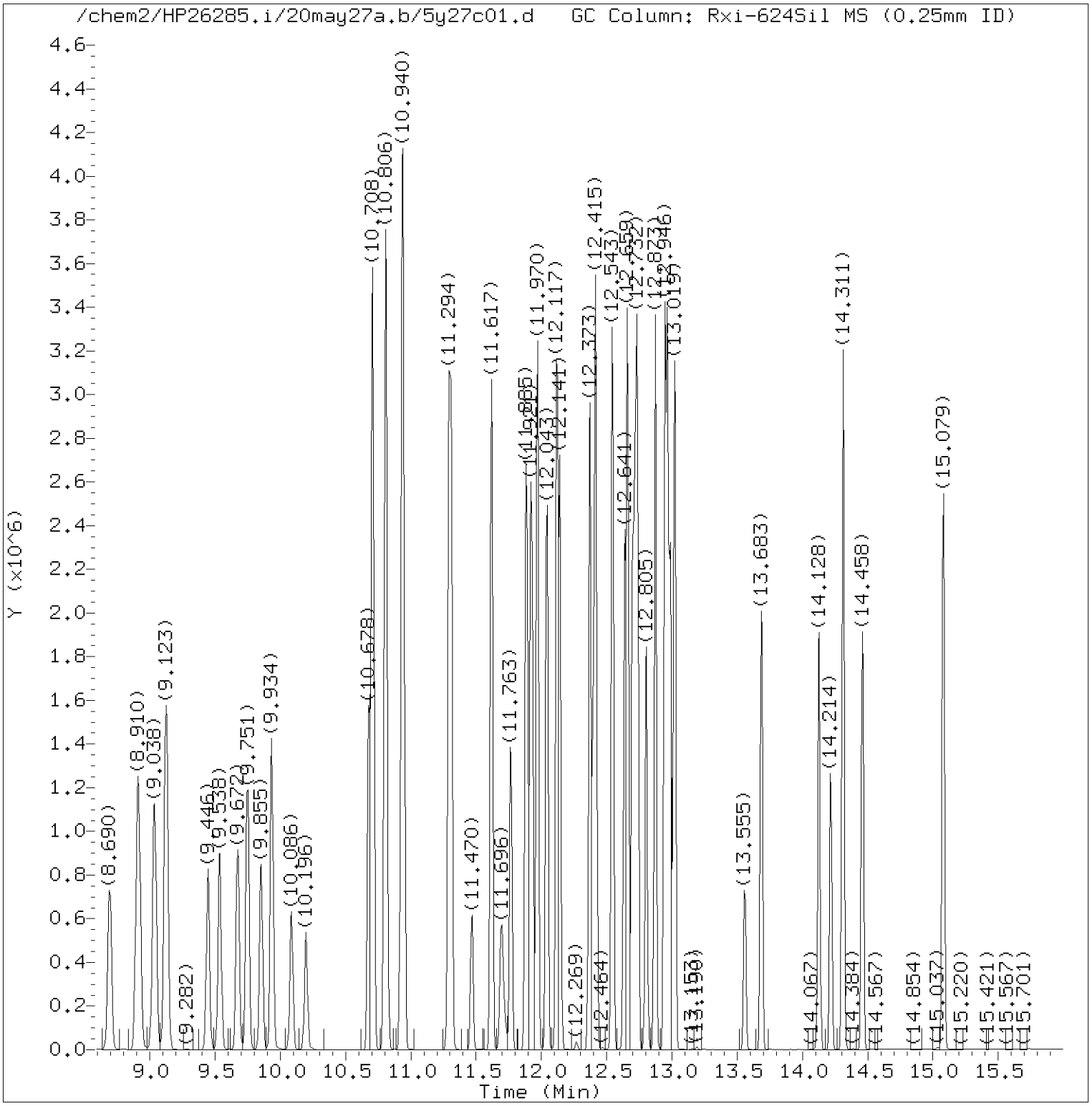
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.600	85	469502	57.127
4) Chloromethane	(2)	1.759	50	317679	48.722
5) 1,3-Butadiene	(2)	1.844	39	321646	35.493
6) Vinyl Chloride	(2)	1.850	62	318674	55.266
8) Bromomethane	(2)	2.106	94	231962	59.917
9) Chloroethane	(2)	2.179	64	155319	56.891
12) Trichlorofluoromethane	(2)	2.417	101	423537	59.973
11) n-Pentane	(2)	2.442	43	347114	52.803
15) Freon 123a	(2)	2.685	67	366339	49.696
16) Acrolein	(1)	2.753	56	1032562	548.451
17) 1,1-Dichloroethene	(2)	2.862	96	284892	51.921
17) 1,1-Dichloroethene	(2)	2.868	63	145237	52.812
18) Acetone	(1)	2.893	58	112681	121.354
19) Freon 113	(2)	2.893	101	330672	53.242
21) 2-Propanol	(1)	3.027	45	137669M	182.204
22) Methyl Iodide	(2)	3.033	142	555746	53.116
23) Carbon Disulfide	(2)	3.112	76	923219	47.833
27) Methyl Acetate	(2)	3.222	43	385163	48.686
25) Allyl Chloride	(2)	3.246	41	424474M	46.214
28) Methylene Chloride	(2)	3.405	84	315315	50.980
29)*t-Butyl alcohol-d10	(1)	3.417	65	297333	250.000
30) t-Butyl alcohol	(1)	3.521	59	298512	213.147
31) Acrylonitrile	(2)	3.679	53	210198	50.338
32) trans-1,2-Dichloroethene	(2)	3.728	96	312390	50.880
33) Methyl Tertiary Butyl Ether	(2)	3.728	73	802565	49.419
34) n-Hexane	(2)	4.094	57	467807	51.385
36) 1,1-Dichloroethane	(2)	4.331	63	546868	49.203
38) di-Isopropyl ether	(2)	4.399	45	918024	46.245
39) 2-Chloro-1,3-butadiene	(2)	4.441	53	472311	50.021
40) Ethyl t-butyl ether	(2)	4.965	59	802339	45.527
44) 2-Butanone	(2)	5.191	43	587127	96.606
42) cis-1,2-Dichloroethene	(2)	5.203	96	348859	50.236
45) 2,2-Dichloropropane	(2)	5.215	77	440376	46.958
47) Propionitrile	(1)	5.295	54	441329	289.475
48) Methacrylonitrile	(2)	5.514	67	520901	125.253
49) Bromochloromethane	(2)	5.551	128	166338	52.297
50) Tetrahydrofuran	(1)	5.557	71	161715	117.363
51) Chloroform	(2)	5.721	83	562027	50.416

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.941	97	508735	50.686
52)$Dibromofluoromethane	(2)	5.947	113	255883	50.623
52)$Dibromofluoromethane	(2)	5.947	111	261771	50.580
54) Cyclohexane	(2)	6.032	56	560878	47.981
54) Cyclohexane	(2)	6.032	84	481021	49.746
54) Cyclohexane	(2)	6.032	69	177025	48.824
56) Carbon Tetrachloride	(2)	6.154	117	446980	51.042
43) 1,2-Dichloroethene (Total)	(2)		96	661249	101.116
55) 1,1-Dichloropropene	(2)	6.166	75	452069	49.720
58) Isobutyl Alcohol	(1)	6.380	41	315755	676.388
57)$1,2-Dichloroethane-d4	(2)	6.416	102	57387	50.763
57)$1,2-Dichloroethane-d4	(2)	6.416	65	286731	51.877
57)$1,2-Dichloroethane-d4	(2)	6.423	104	36707	50.711
60) Benzene	(2)	6.441	78	1334871	49.375
61) 1,2-Dichloroethane	(2)	6.526	62	415975	50.095
61) 1,2-Dichloroethane	(2)	6.532	98	37581	53.518
65) t-Amyl methyl ether	(2)	6.660	73	816529	46.432
66)*Fluorobenzene	(2)	6.874	96	1014821	50.000
67) n-Heptane	(2)	6.892	43	460863	52.407
69) n-Butanol	(1)	7.313	56	540557	1341.956
71) Trichloroethene	(2)	7.380	95	359524	50.675
73) Methylcyclohexane	(2)	7.684	83	558921	49.569
73) Methylcyclohexane	(2)	7.684	98	238469	49.957
74) 1,2-Dichloropropane	(2)	7.727	63	331108	48.925
76) 1,4-Dioxane	(1)	7.825	88	75217M	752.798
75) Dibromomethane	(2)	7.843	93	218104	51.179
77) Methyl Methacrylate	(2)	7.849	69	319648	50.481
79) Bromodichloromethane	(2)	8.105	83	412154	49.876
80) 2-Nitropropane	(2)	8.404	41	290429	101.472
81) 2-Chloroethyl Vinyl Ether	(2)	8.508	63	258850	49.422
82) cis-1,3-Dichloropropene	(2)	8.690	75	516573	49.468
83) 4-Methyl-2-pentanone	(2)	8.910	43	1176695	100.452
84)$Toluene-d8	(3)	9.038	98	984748	49.635
84)$Toluene-d8	(3)	9.038	100	642726	49.201
89) Toluene	(3)	9.123	92	868865	49.666
90) trans-1,3-Dichloropropene	(3)	9.446	75	477676	50.891
92) Ethyl Methacrylate	(3)	9.538	69	522446	48.949
93) 1,1,2-Trichloroethane	(3)	9.672	97	321207	51.358

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on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) Tetrachloroethene	(3)	9.751	166	392266	52.868
95) 1,3-Dichloropropane	(3)	9.855	76	517837	49.867
97) 2-Hexanone	(3)	9.934	43	966767	104.014
98) Dibromochloromethane	(3)	10.086	129	340261	51.414
91) 1,3-Dichloropropene (total)	(3)		100	994249	100.359
100) 1,2-Dibromoethane	(3)	10.196	107	355962	51.629
101)*Chlorobenzene-d5	(3)	10.678	117	807296	50.000
102) 1-Chlorohexane	(3)	10.708	91	507990	49.931
103) Chlorobenzene	(3)	10.708	112	981089	51.675
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	346880	52.959
105) Ethylbenzene	(3)	10.812	91	1748620	51.695
107) m+p-Xylene	(3)	10.940	106	1350232	104.040
108) o-Xylene	(3)	11.294	106	655445	51.599
110) Styrene	(3)	11.312	104	1080996	52.804
111) Bromoform	(3)	11.470	173	254865	53.228
112) Isopropylbenzene	(3)	11.617	105	1744689	52.339
113) Cyclohexanone	(1)	11.696	55	293624	639.784
115)$4-Bromofluorobenzene	(3)	11.763	95	412302	49.323
115)$4-Bromofluorobenzene	(3)	11.769	174	338740	51.946
109) Xylene (Total)	(3)		106	2005677	155.639
116) Bromobenzene	(4)	11.885	156	423596	51.117
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	576758	51.289
119) trans-1,4-Dichloro-2-butene	(4)	11.915	53	325762	141.889
118) 1,2,3-Trichloropropane	(4)	11.934	110	170150	51.386
120) n-Propylbenzene	(4)	11.970	91	2087297	51.231
121) 2-Chlorotoluene	(4)	12.043	126	418775	50.145
123) 1,3,5-Trimethylbenzene	(4)	12.117	105	1468448	51.272
122) 4-Chlorotoluene	(4)	12.141	126	428669	50.814
125) tert-Butylbenzene	(4)	12.373	134	317245	55.735
126) Pentachloroethane	(4)	12.397	167	248095	53.092
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	1528315	51.818
128) sec-Butylbenzene	(4)	12.543	105	1851676	52.146
130) 1,3-Dichlorobenzene	(4)	12.641	146	804761	51.631
131) p-Isopropyltoluene	(4)	12.659	119	1565921	52.881
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	434682	50.000
134) 1,4-Dichlorobenzene	(4)	12.714	146	811496	51.300
135) 1,2,3-Trimethylbenzene	(4)	12.732	105	1452410	51.304
136) Benzyl Chloride	(4)	12.805	91	1085660	50.323

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on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
137) 1,3-Diethylbenzene	(4)	12.873	119	891303	52.093
138) 1,4-Diethylbenzene	(4)	12.946	119	920524	52.016
140) n-Butylbenzene	(4)	12.964	92	779006	52.154
139) 1,2-Dichlorobenzene	(4)	12.988	146	765778	51.146
141) 1,2-Diethylbenzene	(4)	13.019	119	737295	50.952
142) Diethylbenzene (total)	(4)		100	2549122	155.061
143) 1,2-Dibromo-3-chloropropane	(4)	13.555	75	147294	51.881
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	527198	53.310
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	488215	52.549
148) Hexachlorobutadiene	(4)	14.220	225	192211	53.795
149) Naphthalene	(4)	14.311	128	1943749	52.832
150) 1,2,3-Trichlorobenzene	(4)	14.458	180	484780	52.730
151) 2-Methylnaphthalene	(4)	15.079	142	1012047	52.946

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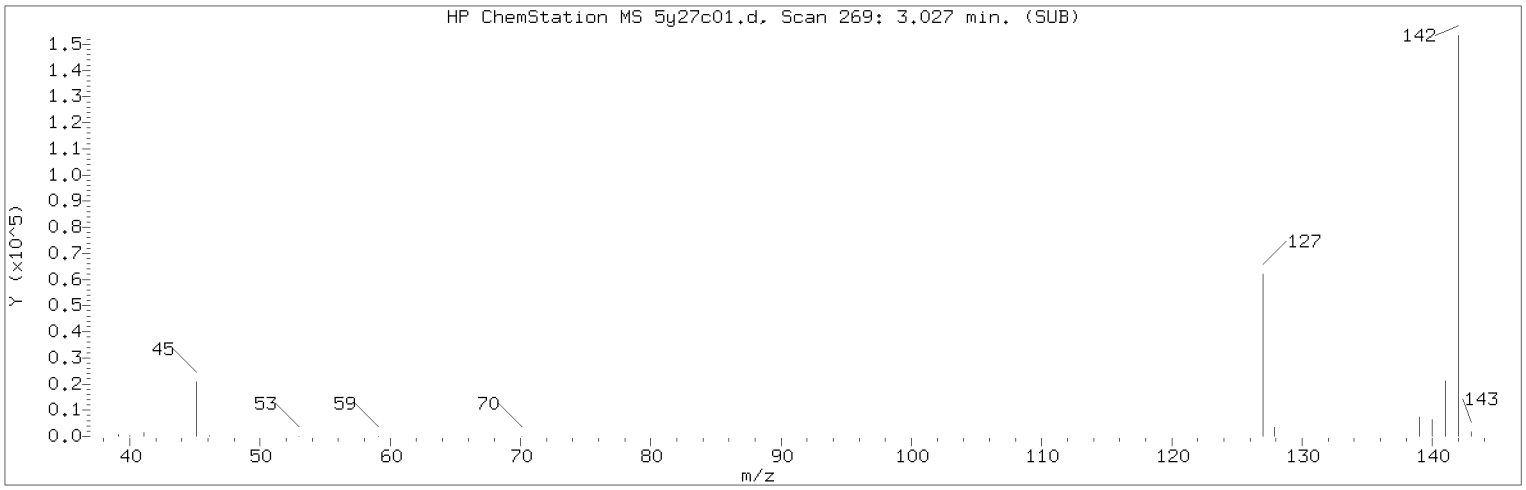
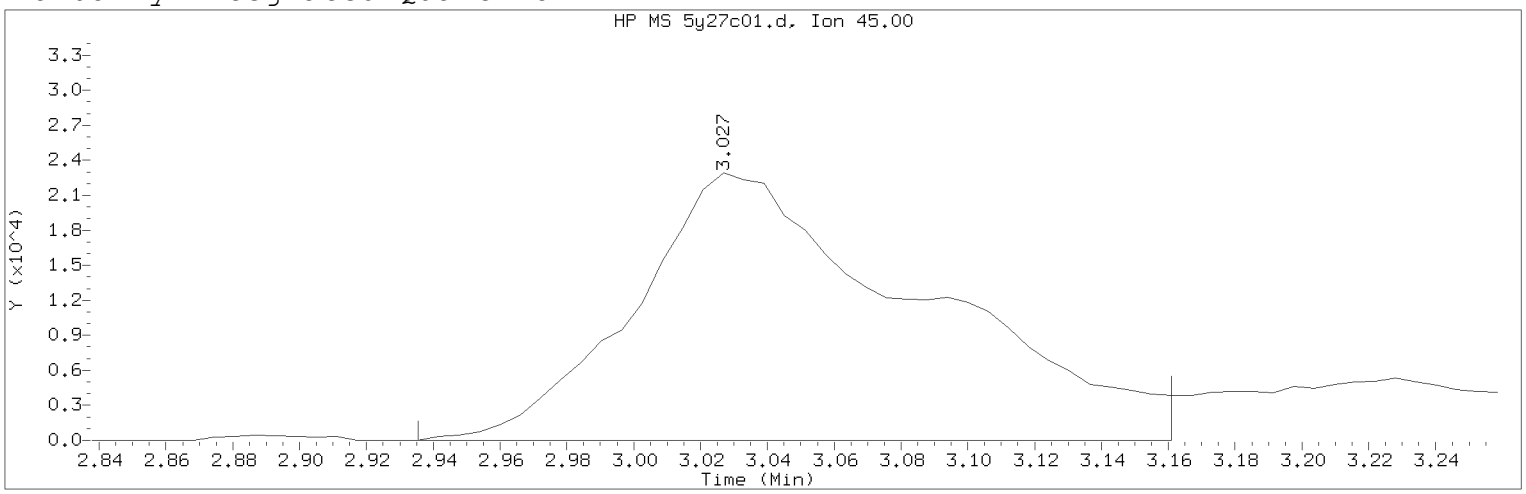
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

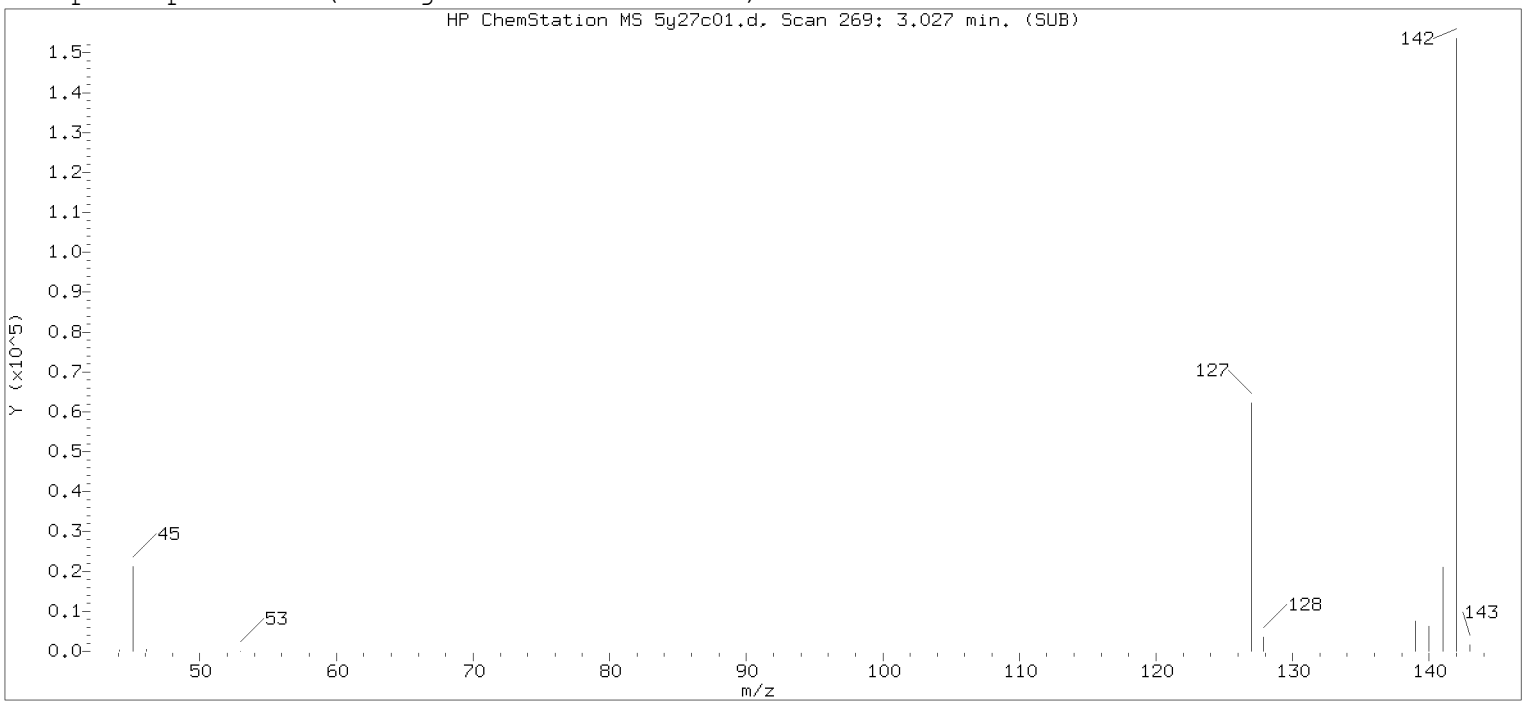
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 269
Retention Time (minutes): 3.027
Quant Ion : 45.00
Area (flag) : 137669M
On-Column Amount (ng) : 182.2039
Integration start scan : 253 Integration stop scan: 290
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

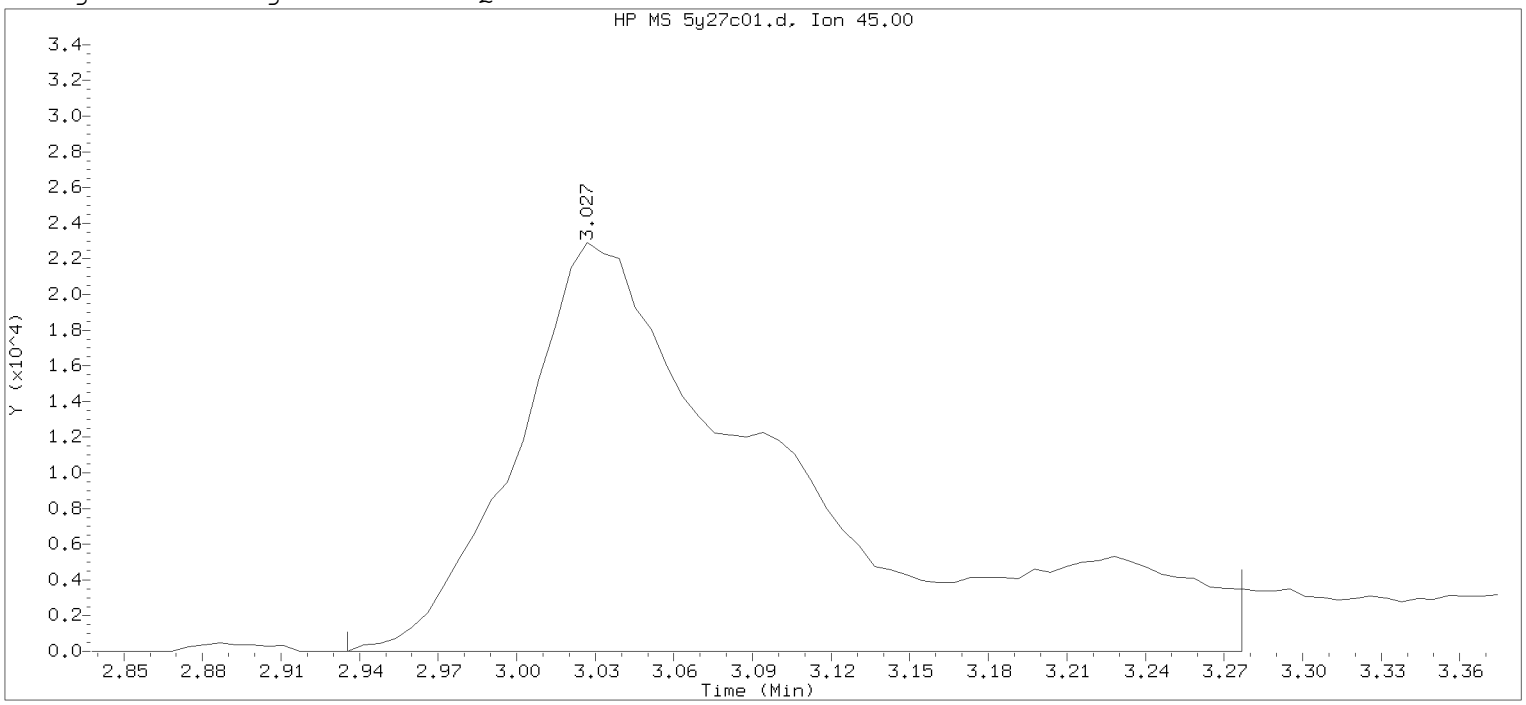
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

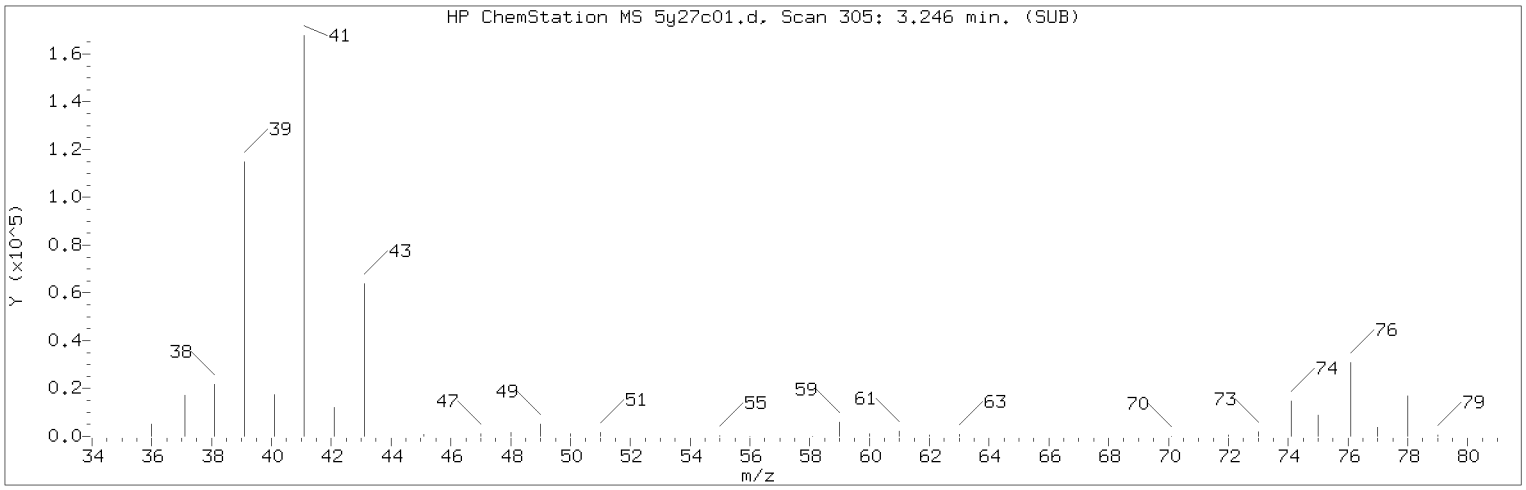
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

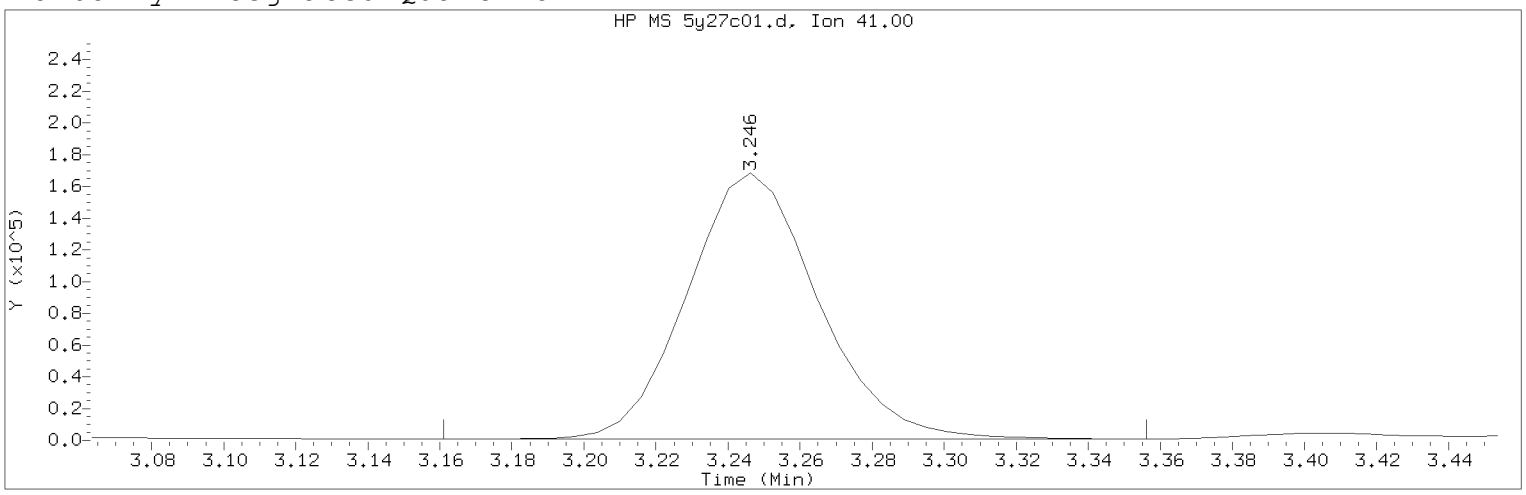
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 269
Retention Time (minutes): 3.027
Quant Ion : 45.00
Area : 167210
On-column Amount (ng) : 221.3008
Integration start scan : 253 Integration stop scan: 309
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00857

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

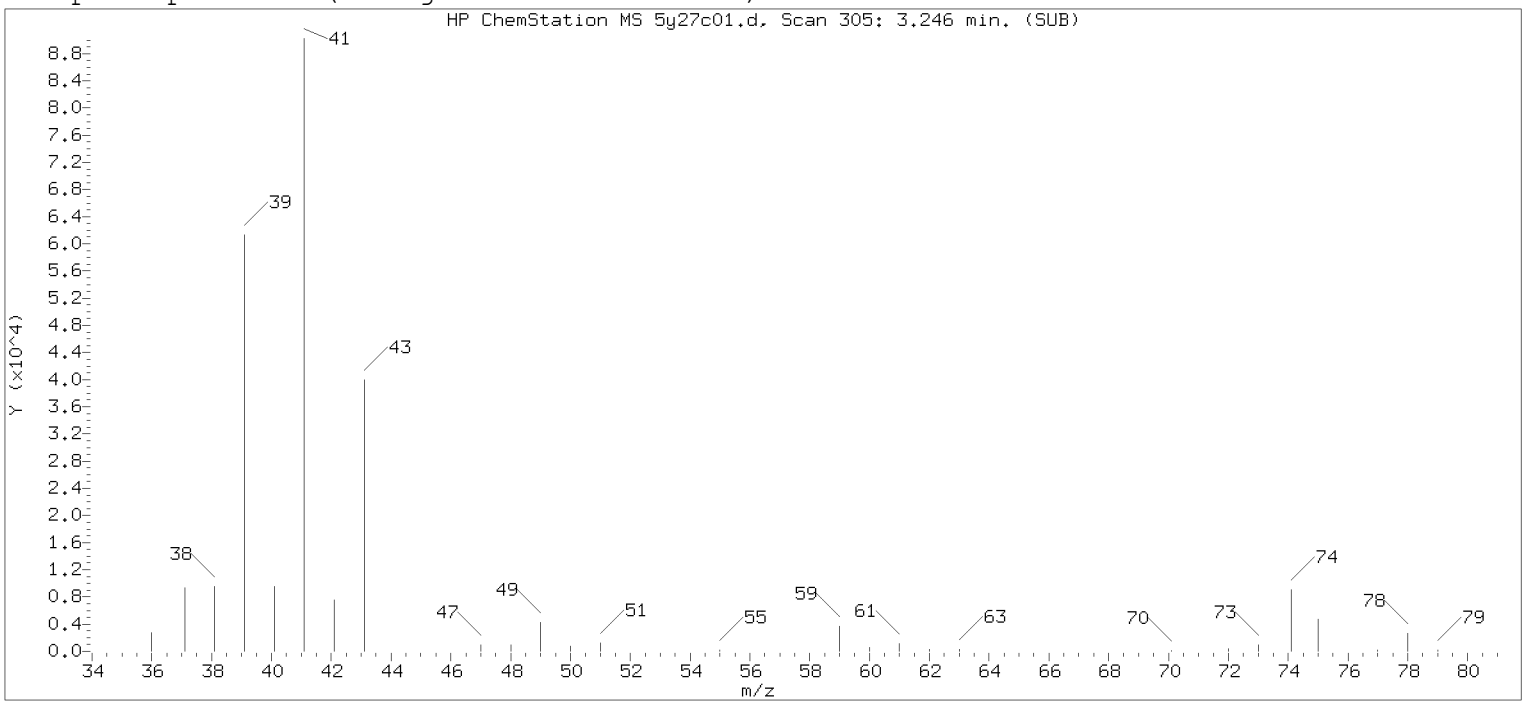
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 305
Retention Time (minutes): 3.246
Quant Ion : 41.00
Area (flag) : 424474M
On-Column Amount (ng) : 46.2138
Integration start scan : 290 Integration stop scan: 322
Y at integration start : 684 Y at integration end: 684

Reason for manual integration: improper integration

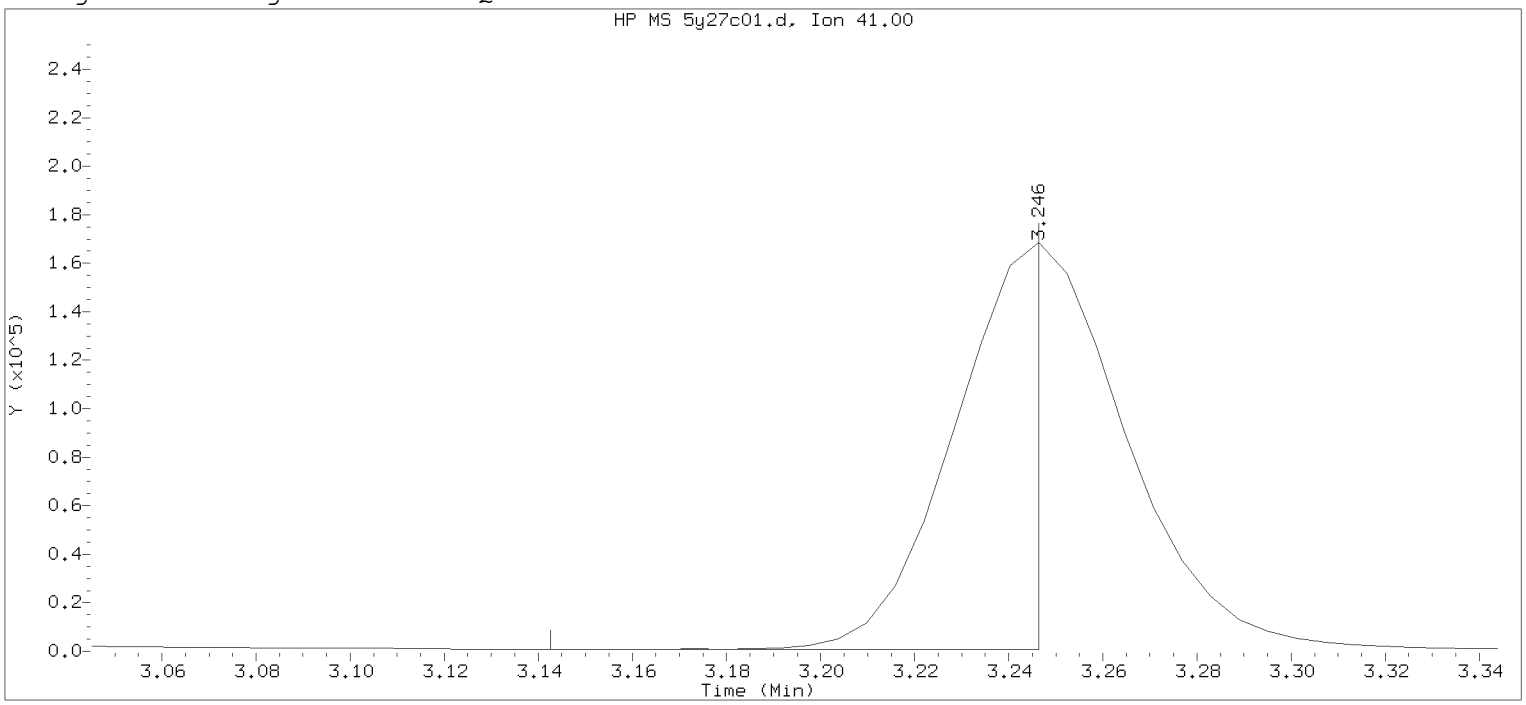
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

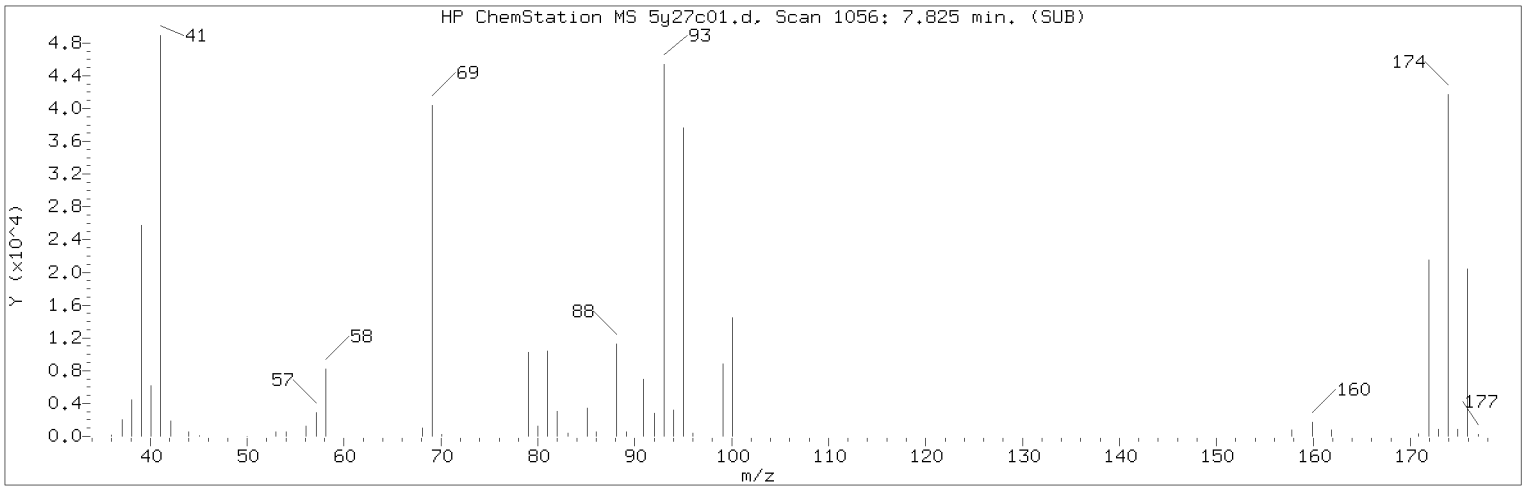
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

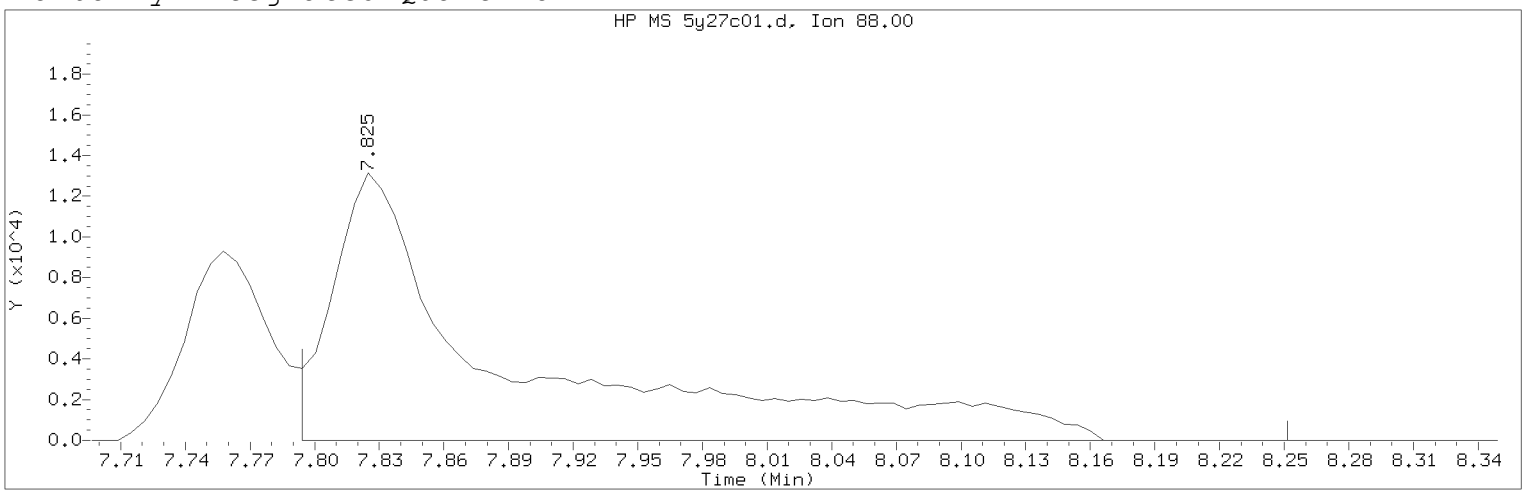
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 305
Retention Time (minutes): 3.246
Quant Ion : 41.00
Area : 202896
On-column Amount (ng) : 22.0899
Integration start scan : 287 Integration stop scan: 304
Y at integration start : 705 Y at integration end: 705

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

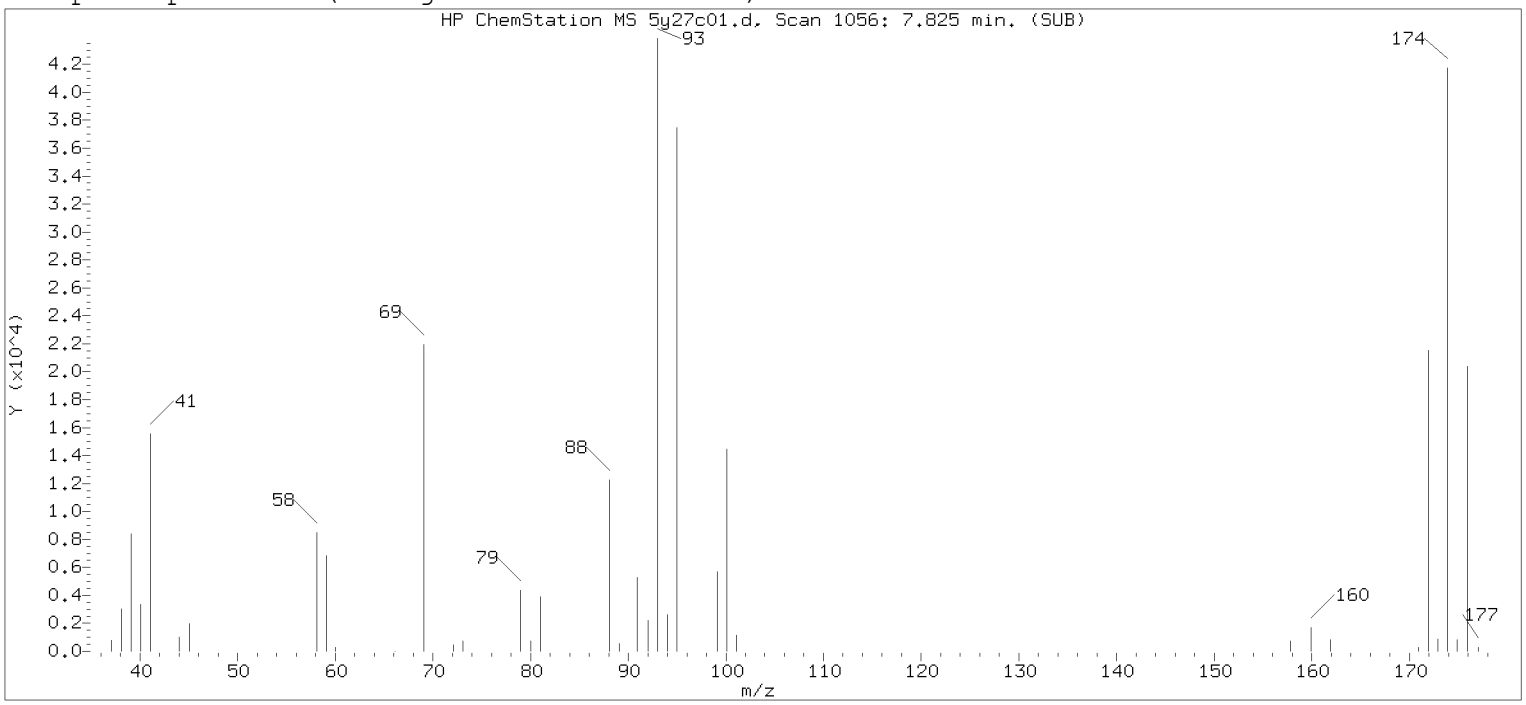
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1056
Retention Time (minutes): 7.825
Quant Ion : 88.00
Area (flag) : 75217M
On-Column Amount (ng) : 752.7979
Integration start scan : 1050 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

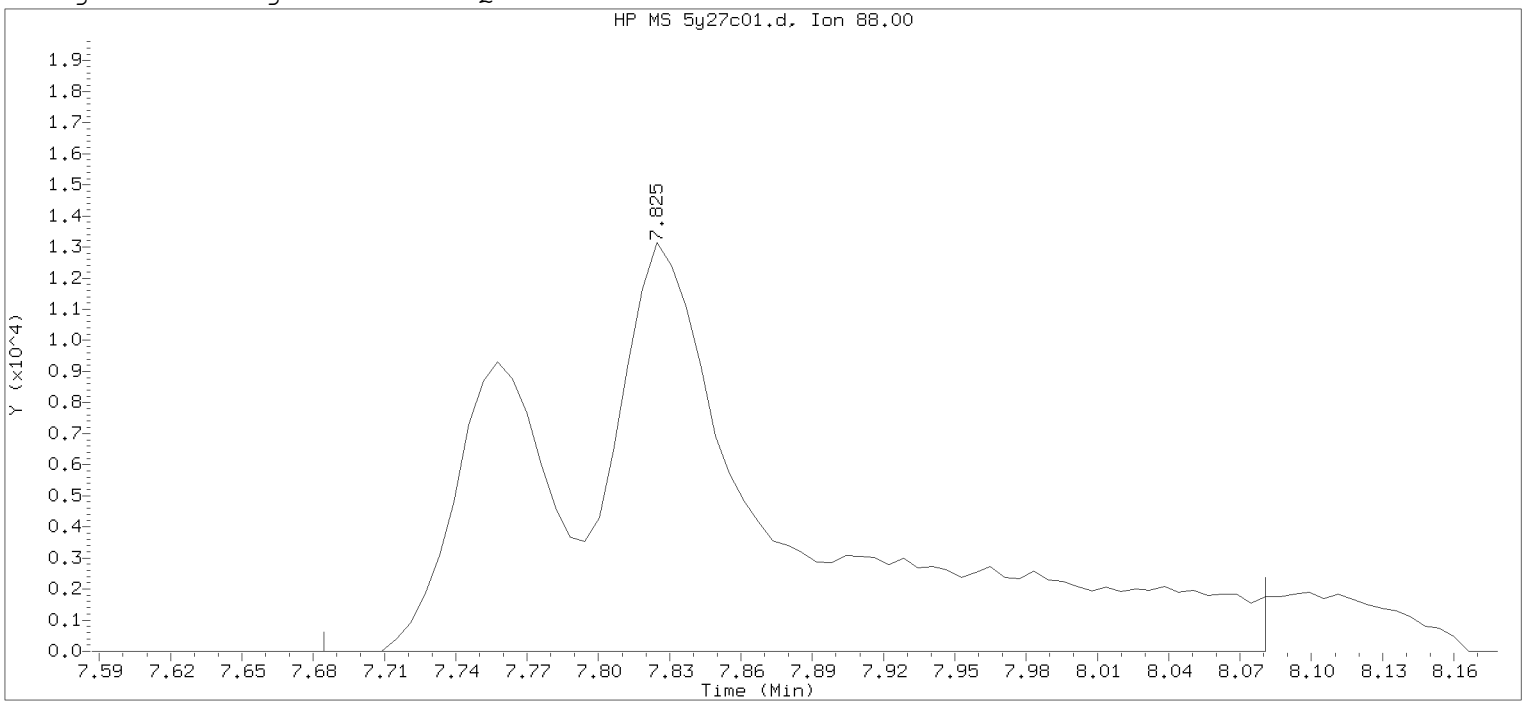
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number	: 76		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1056		
Retention Time (minutes)	: 7.825		
Quant Ion	: 88.00		
Area	: 92859		
On-column Amount (ng)	: 929.3582		
Integration start scan	: 1032	Integration stop scan:	1097
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00895

Data File: /chem2/HP26285.i/20may27b.b/5y27t51.d

Page 1

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20

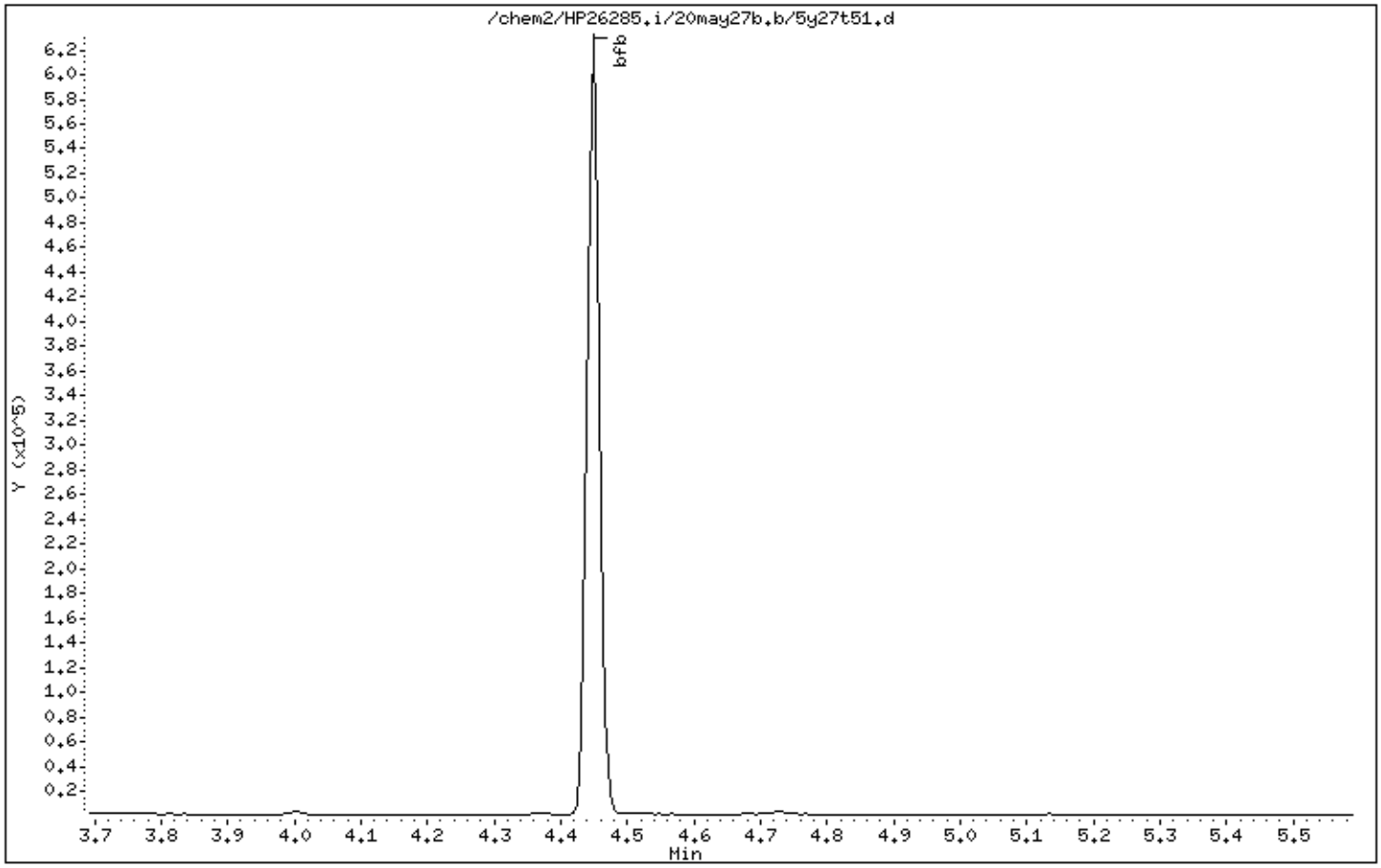
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may27b.b/5y27t51.d

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20

Instrument: HP26285.i

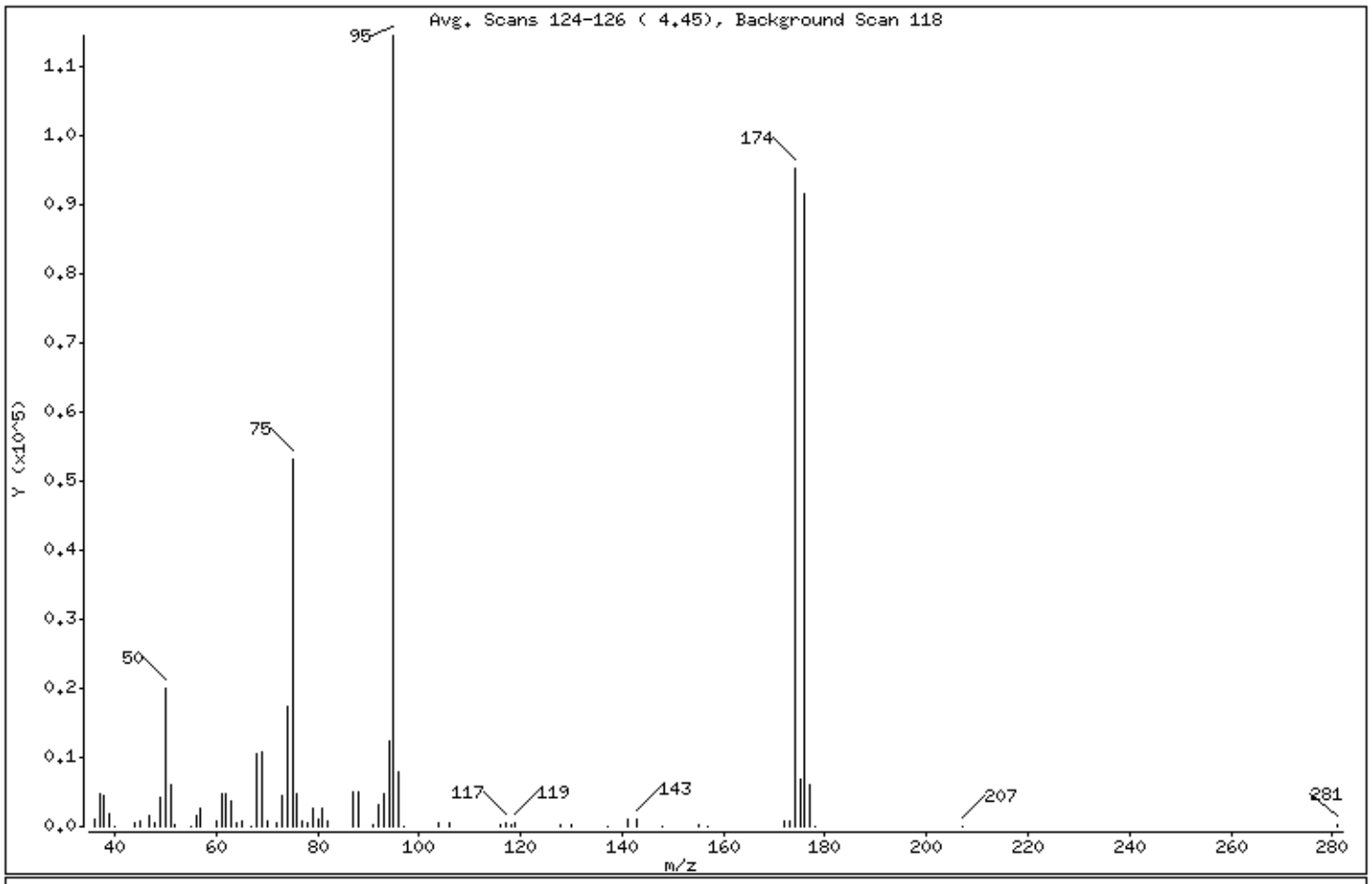
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.38
75	30.00 - 60.00% of mass 95	46.34
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.61 (0.73)
174	50.00 - 100.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.04 (7.25)
176	95.00 - 101.00% of mass 174	79.92 (95.99)
177	5.00 - 9.00% of mass 176	5.23 (6.55)

Data File: /chem2/HP26285.i/20may27b.b/5y27t51.d

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20 Instrument: HP26285.i

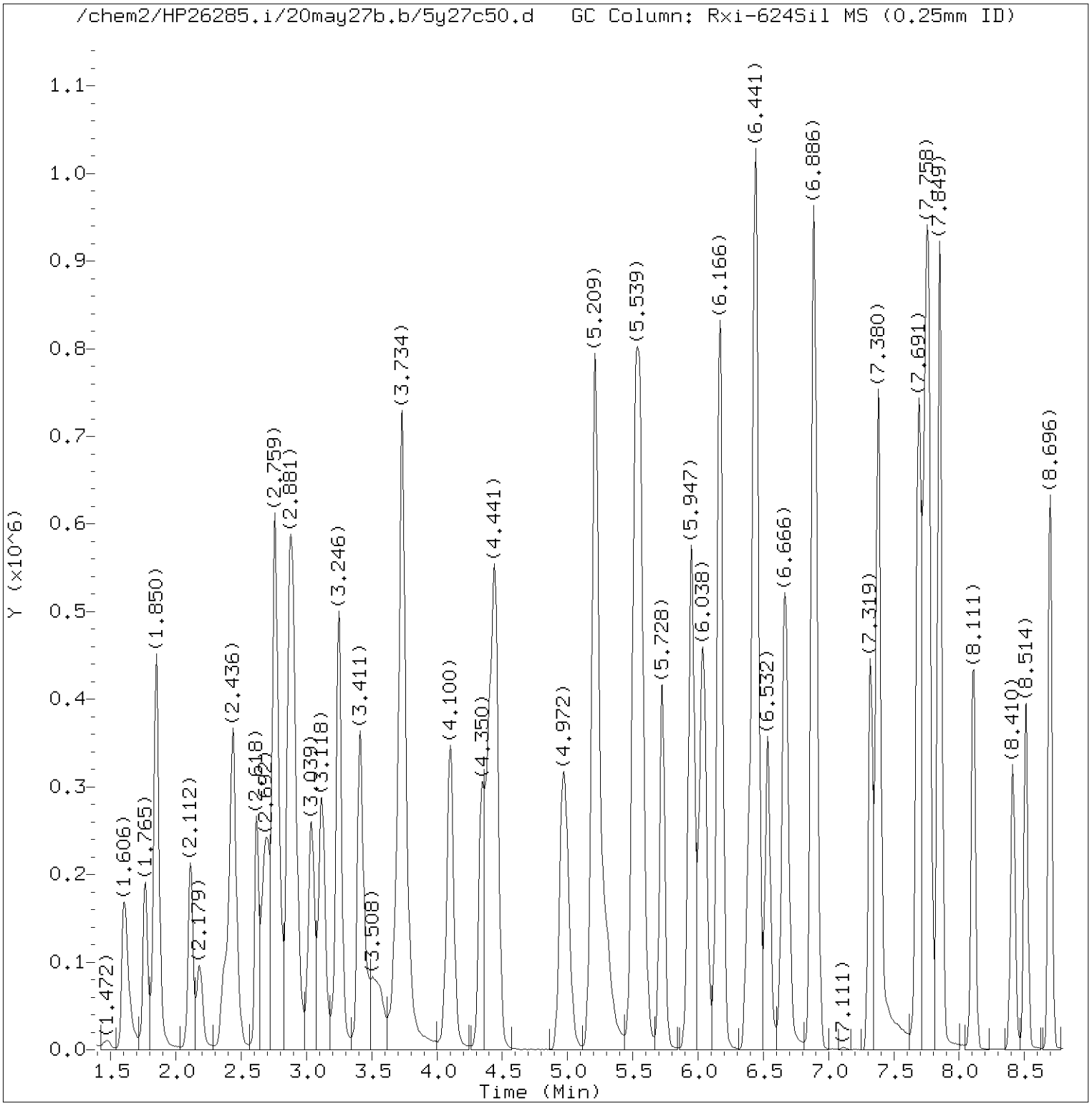
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y27t51.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	929	62.00	4670	82.00	773	137.00	85
37.00	4795	63.00	3724	87.00	4940	141.00	953
38.00	4353	64.00	448	88.00	4899	143.00	1059
39.00	1921	65.00	663	91.00	371	148.00	98
40.00	116	67.00	111	92.00	3084	155.00	172
44.00	525	68.00	10628	93.00	4620	157.00	102
45.00	921	69.00	10698	94.00	12330	172.00	897
47.00	1459	70.00	824	95.00	114488	173.00	693
48.00	577	72.00	534	96.00	7999	174.00	95320
49.00	4083	73.00	4525	97.00	98	175.00	6915
50.00	19896	74.00	17312	104.00	461	176.00	91496
51.00	6109	75.00	53056	106.00	423	177.00	5993
52.00	311	76.00	4652	116.00	372	178.00	93
55.00	106	77.00	682	117.00	601	207.00	129
56.00	1579	78.00	477	118.00	387	281.00	276
57.00	2628	79.00	2654	119.00	560		
60.00	875	80.00	953	128.00	364		
61.00	4786	81.00	2762	130.00	348		



Total Ion Chromatogram (TIC)

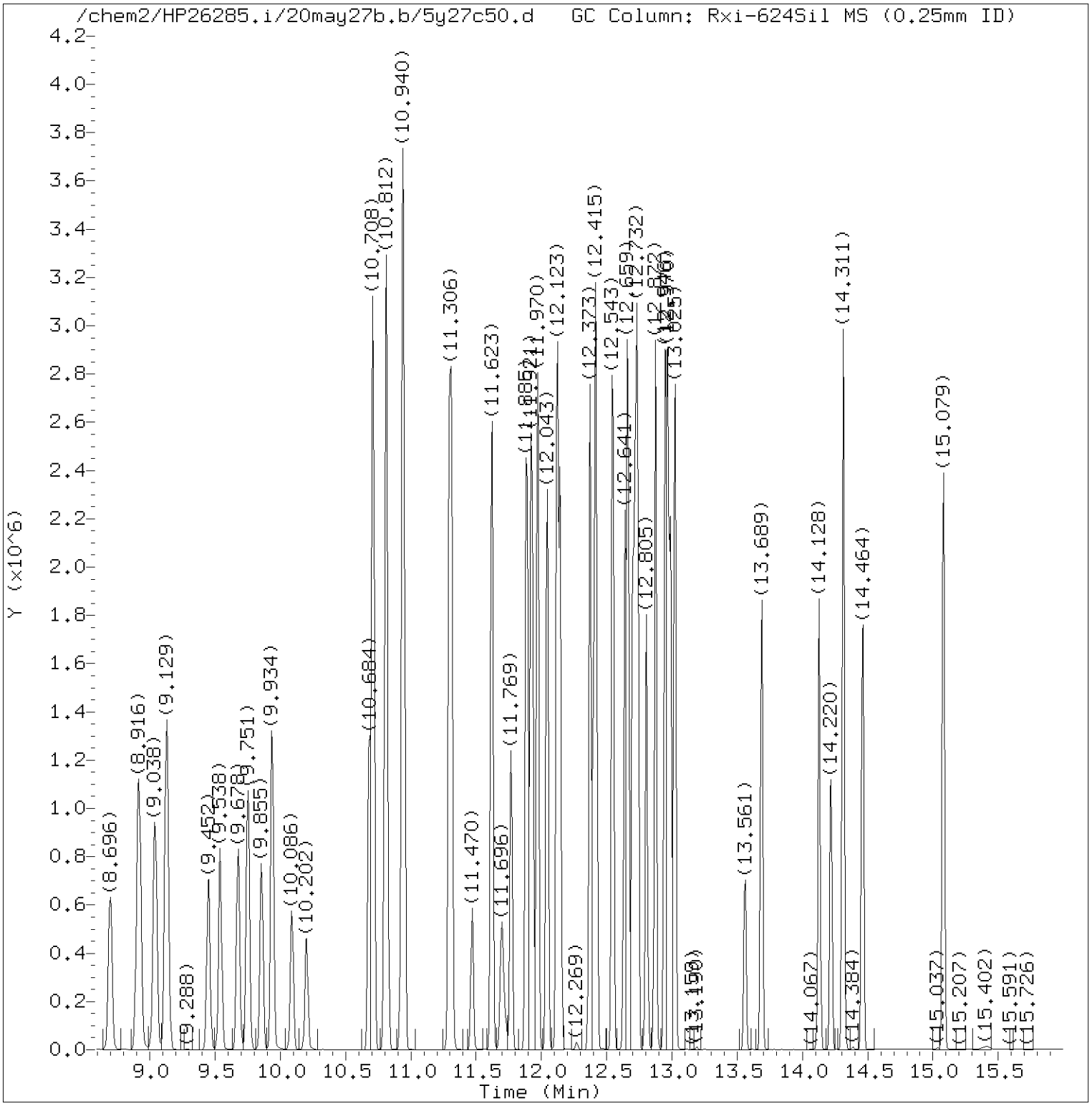
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	392577	59.263
4) Chloromethane	(2)	1.765	50	266064	50.626
5) 1,3-Butadiene	(2)	1.844	39	228951	31.345
6) Vinyl Chloride	(2)	1.856	62	264961	57.009
8) Bromomethane	(2)	2.112	94	206664	66.229
9) Chloroethane	(2)	2.179	64	135372	61.518
12) Trichlorofluoromethane	(2)	2.417	101	395227	69.433
11) n-Pentane	(2)	2.442	43	236502	44.635
14) Ethyl ether	(2)	2.618	59	182544	46.517
15) Freon 123a	(2)	2.692	67	302695	50.944
16) Acrolein	(1)	2.759	56	957323	654.965
17) 1,1-Dichloroethene	(2)	2.868	96	224403	50.739
17) 1,1-Dichloroethene	(2)	2.868	63	116500	52.558
18) Acetone	(1)	2.899	58	94658	131.310
19) Freon 113	(2)	2.899	101	255291	50.997
21) 2-Propanol	(1)	3.033	45	118639	202.248
22) Methyl Iodide	(2)	3.039	142	451993	53.596
23) Carbon Disulfide	(2)	3.118	76	691627	44.458
27) Methyl Acetate	(2)	3.228	43	321301	50.388
25) Allyl Chloride	(2)	3.252	41	348207	47.034
28) Methylene Chloride	(2)	3.411	84	256308	51.413
29)*t-Butyl alcohol-d10	(1)	3.423	65	230837	250.000
30) t-Butyl alcohol	(1)	3.527	59	249129	229.128
31) Acrylonitrile	(2)	3.685	53	180939	53.759
32) trans-1,2-Dichloroethene	(2)	3.734	96	255616	51.653
33) Methyl Tertiary Butyl Ether	(2)	3.740	73	666062	50.885
34) n-Hexane	(2)	4.100	57	312393	42.572
36) 1,1-Dichloroethane	(2)	4.344	63	446826	49.878
38) di-Isopropyl ether	(2)	4.405	45	726668	45.415
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	384933	50.578
40) Ethyl t-butyl ether	(2)	4.972	59	645922	45.472
44) 2-Butanone	(2)	5.197	43	500501	102.172
42) cis-1,2-Dichloroethene	(2)	5.209	96	289801	51.775
45) 2,2-Dichloropropane	(2)	5.228	77	372338	49.258
47) Propionitrile	(1)	5.295	54	357312	301.880
48) Methacrylonitrile	(2)	5.520	67	430113	128.313
49) Bromochloromethane	(2)	5.557	128	144703	56.444
50) Tetrahydrofuran	(1)	5.569	71	139537	130.439

* = Compound is an internal standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.728	83	487674	54.274
52)$Dibromofluoromethane	(2)	5.947	113	211289	51.861
52)$Dibromofluoromethane	(2)	5.947	111	216754	51.961
53) 1,1,1-Trichloroethane	(2)	5.947	97	442160	54.655
54) Cyclohexane	(2)	6.038	56	409606	43.473
54) Cyclohexane	(2)	6.038	84	359525	46.129
54) Cyclohexane	(2)	6.032	69	129040	44.155
43) 1,2-Dichloroethene (Total)	(2)		96	545417	103.428
56) Carbon Tetrachloride	(2)	6.160	117	392658	55.630
55) 1,1-Dichloropropene	(2)	6.173	75	369512	50.420
58) Isobutyl Alcohol	(1)	6.386	41	296932	819.295
57)$1,2-Dichloroethane-d4	(2)	6.429	102	46883	51.452
57)$1,2-Dichloroethane-d4	(2)	6.423	65	245705	55.153
57)$1,2-Dichloroethane-d4	(2)	6.429	104	29407	50.403
60) Benzene	(2)	6.447	78	1106013	50.755
61) 1,2-Dichloroethane	(2)	6.532	62	379243	56.663
61) 1,2-Dichloroethane	(2)	6.538	98	31868	56.304
65) t-Amyl methyl ether	(2)	6.666	73	680590	48.016
66)*Fluorobenzene	(2)	6.880	96	817966	50.000
67) n-Heptane	(2)	6.898	43	321579	45.369
69) n-Butanol	(1)	7.319	56	488279	1561.358
71) Trichloroethene	(2)	7.380	95	304765	53.295
73) Methylcyclohexane	(2)	7.691	83	439236	48.329
73) Methylcyclohexane	(2)	7.691	98	189749	49.317
74) 1,2-Dichloropropane	(2)	7.733	63	276078	50.611
76) 1,4-Dioxane	(1)	7.831	88	66673M	859.504
75) Dibromomethane	(2)	7.849	93	191896	55.867
77) Methyl Methacrylate	(2)	7.849	69	268391	52.587
79) Bromodichloromethane	(2)	8.111	83	361515	54.276
80) 2-Nitropropane	(2)	8.410	41	275062	119.232
81) 2-Chloroethyl Vinyl Ether	(2)	8.514	63	212375	50.307
82) cis-1,3-Dichloropropene	(2)	8.696	75	432527	51.388
83) 4-Methyl-2-pentanone	(2)	8.916	43	1045267	110.707
84)$Toluene-d8	(3)	9.038	98	803747	49.367
84)$Toluene-d8	(3)	9.038	100	524448	48.922
89) Toluene	(3)	9.129	92	734849	51.187
90) trans-1,3-Dichloropropene	(3)	9.452	75	411082	53.369
92) Ethyl Methacrylate	(3)	9.538	69	449368	51.305

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) 1,1,2-Trichloroethane	(3)	9.678	97	283638	55.264
94) Tetrachloroethene	(3)	9.751	166	344645	56.603
95) 1,3-Dichloropropane	(3)	9.855	76	452607	53.112
97) 2-Hexanone	(3)	9.934	43	895024	117.343
98) Dibromochloromethane	(3)	10.086	129	303128	55.815
91) 1,3-Dichloropropene (total)	(3)		100	843609	104.756
100) 1,2-Dibromoethane	(3)	10.202	107	310336	54.850
101)*Chlorobenzene-d5	(3)	10.678	117	662490	50.000
102) 1-Chlorohexane	(3)	10.708	91	417597	50.018
103) Chlorobenzene	(3)	10.708	112	864904	55.513
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	313534	58.331
105) Ethylbenzene	(3)	10.812	91	1520417	54.773
107) m+p-Xylene	(3)	10.940	106	1180250	110.820
108) o-Xylene	(3)	11.294	106	571248	54.800
110) Styrene	(3)	11.312	104	955499	56.876
111) Bromoform	(3)	11.470	173	232566	59.187
112) Isopropylbenzene	(3)	11.623	105	1512794	55.301
113) Cyclohexanone	(1)	11.696	55	256066A	718.674
115)$4-Bromofluorobenzene	(3)	11.769	95	343011	50.002
115)$4-Bromofluorobenzene	(3)	11.769	174	290845	54.350
109) Xylene (Total)	(3)		106	1751498	165.621
116) Bromobenzene	(4)	11.885	156	386778	54.281
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	522665	54.055
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	327231	163.460
118) 1,2,3-Trichloropropane	(4)	11.934	110	161937	56.876
120) n-Propylbenzene	(4)	11.970	91	1827176	52.156
121) 2-Chlorotoluene	(4)	12.043	126	376044	52.368
123) 1,3,5-Trimethylbenzene	(4)	12.123	105	1305727	53.021
122) 4-Chlorotoluene	(4)	12.147	126	385509	53.146
125) tert-Butylbenzene	(4)	12.373	134	277102	56.617
126) Pentachloroethane	(4)	12.403	167	219545	54.640
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	1366342	53.877
128) sec-Butylbenzene	(4)	12.543	105	1602254	52.476
130) 1,3-Dichlorobenzene	(4)	12.641	146	735209	54.856
131) p-Isopropyltoluene	(4)	12.665	119	1383833	54.349
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	373763	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	750595	55.184
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	1274625	52.362

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

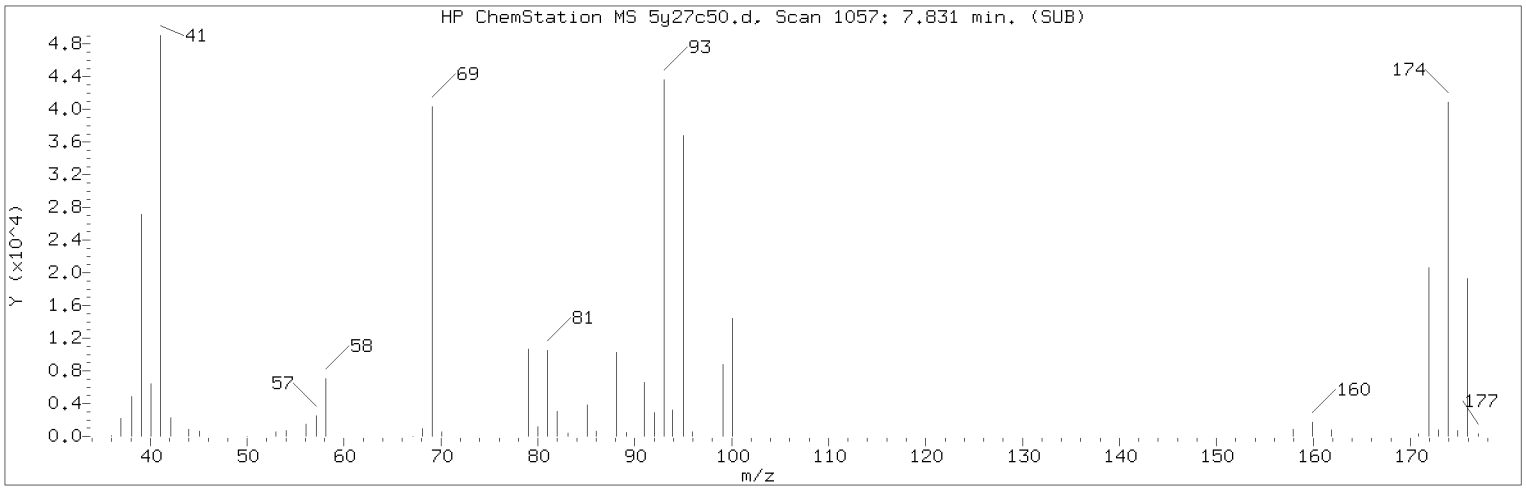
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

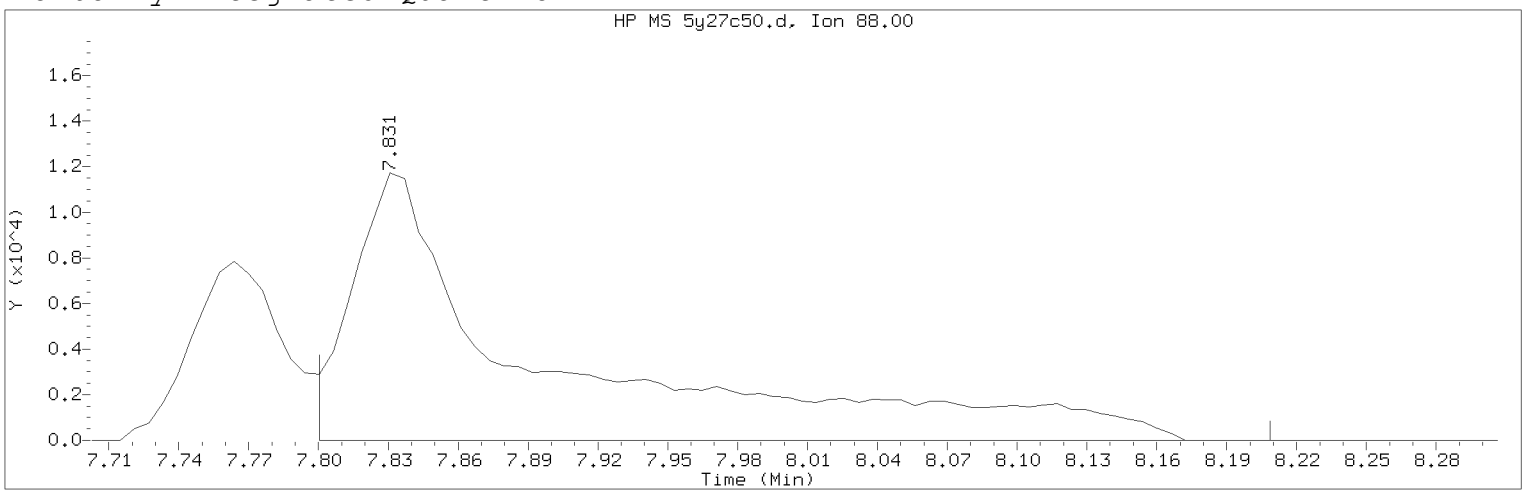
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
136) Benzyl Chloride	(4)	12.805	91	1003029	54.071
137) 1,3-Diethylbenzene	(4)	12.872	119	777197	52.828
138) 1,4-Diethylbenzene	(4)	12.946	119	808433	53.127
140) n-Butylbenzene	(4)	12.970	92	681548	53.066
139) 1,2-Dichlorobenzene	(4)	12.988	146	712818	55.368
141) 1,2-Diethylbenzene	(4)	13.025	119	648902	52.153
142) Diethylbenzene (total)	(4)		100	2234532	158.108
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	140608	57.598
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	484806	57.014
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	448949	56.198
148) Hexachlorobutadiene	(4)	14.220	225	170008	55.336
149) Naphthalene	(4)	14.311	128	1832563	57.928
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	454488	57.492
151) 2-Methylnaphthalene	(4)	15.079	142	909131	55.314

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

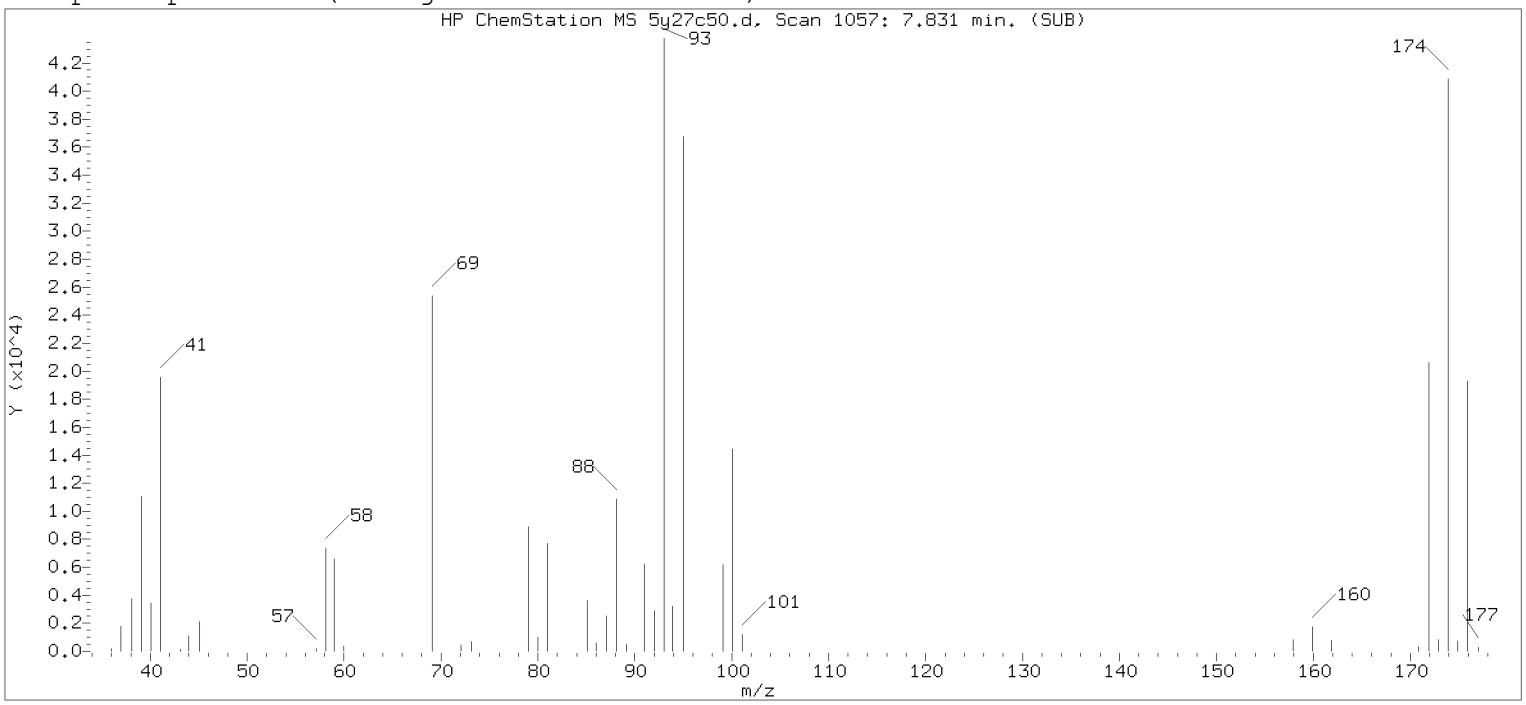
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 66673M
On-Column Amount (ng) : 859.5042
Integration start scan : 1051 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

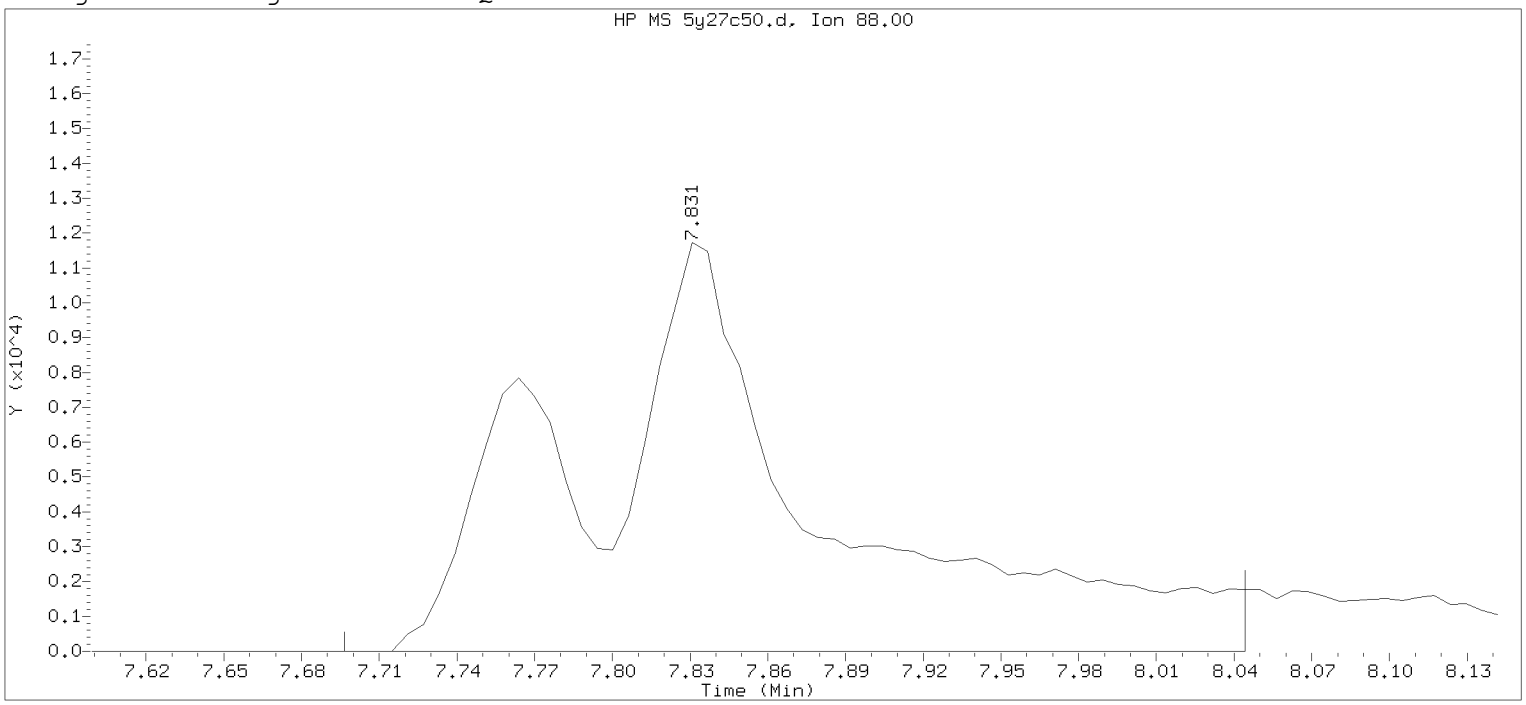
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

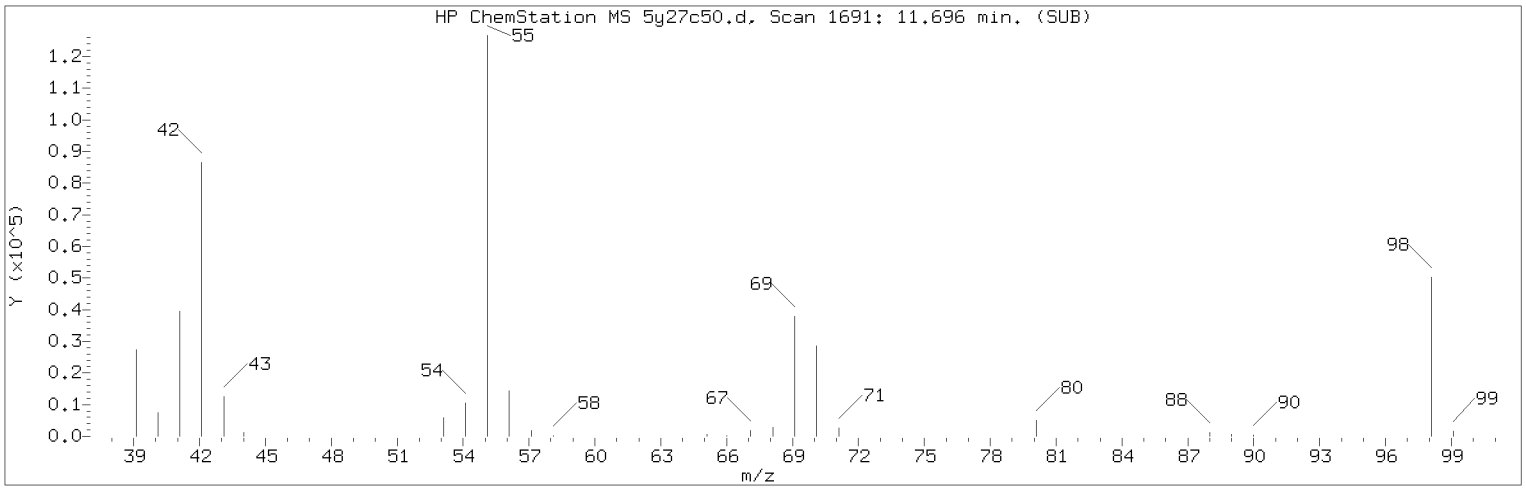
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

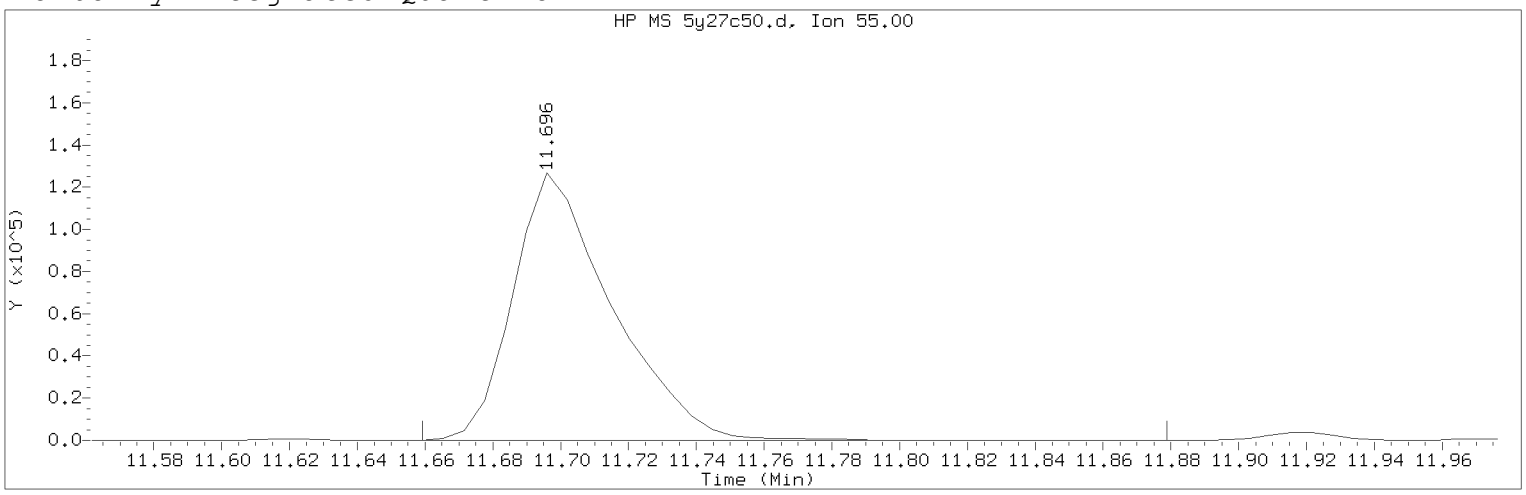
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 77495
On-column Amount (ng) : 999.0106
Integration start scan : 1034 Integration stop scan: 1091
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

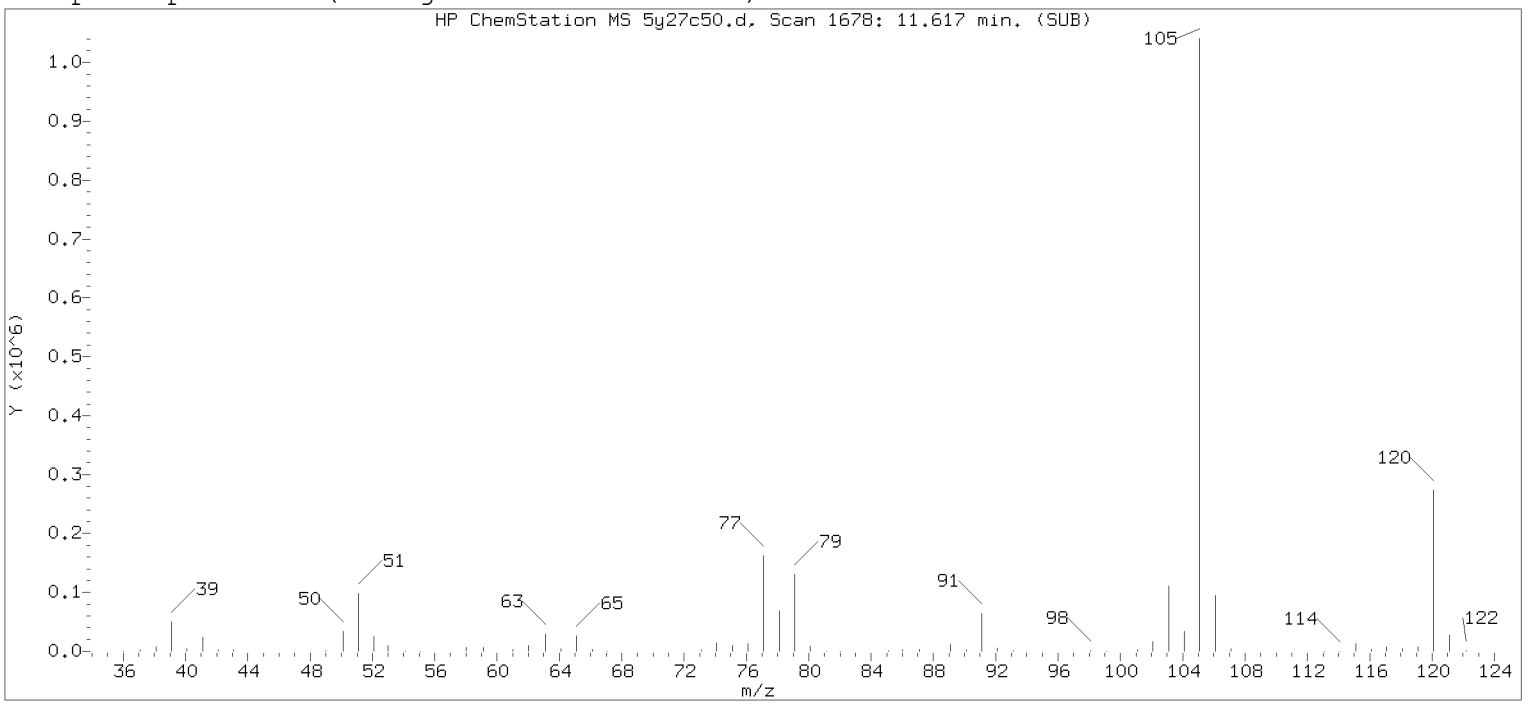
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1691
Retention Time (minutes): 11.696
Quant Ion : 55.00
Area (flag) : 256066A
On-Column Amount (ng) : 718.6735
Integration start scan : 1684 Integration stop scan: 1720
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

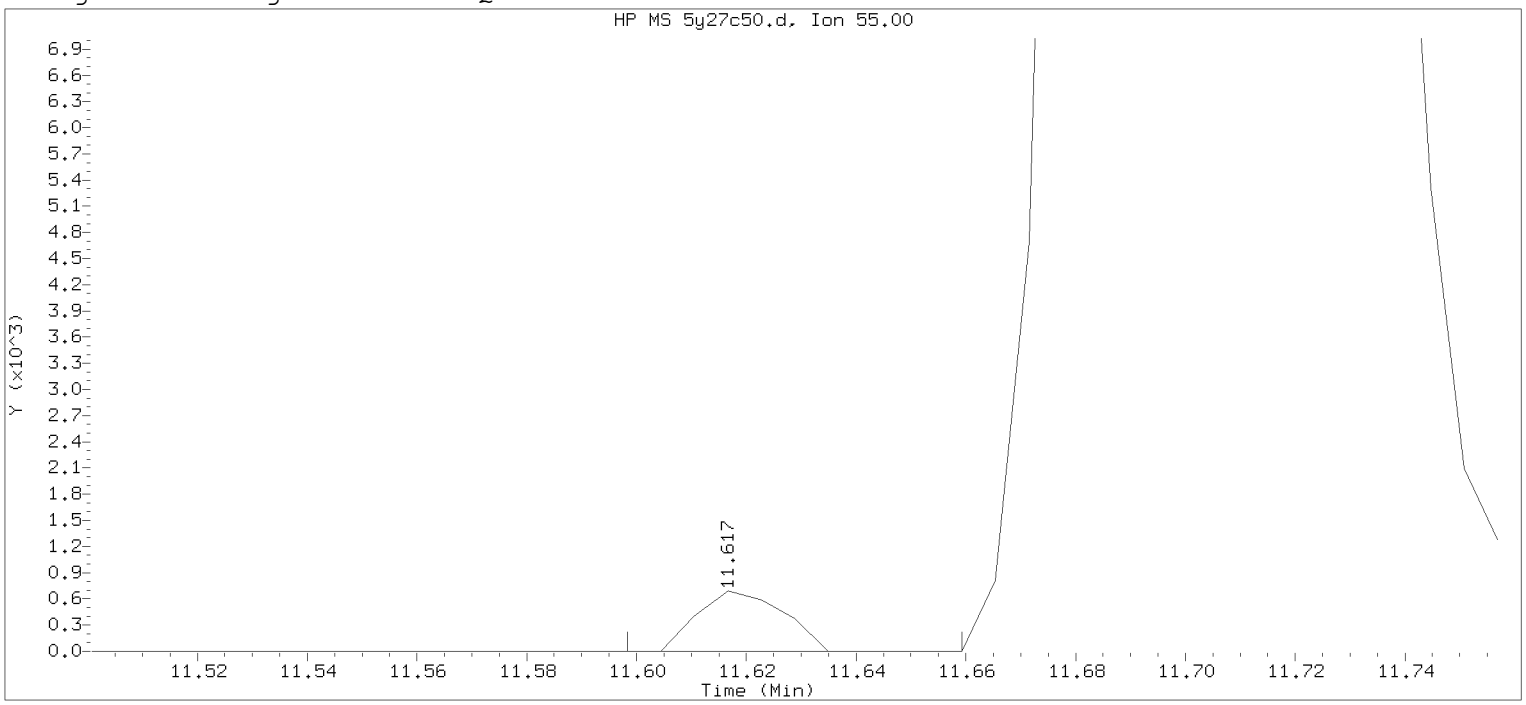
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1678
Retention Time (minutes): 11.617
Quant Ion : 55.00
Area : 752
On-column Amount (ng) : 2.1107
Integration start scan : 1674 Integration stop scan: 1684
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: LJG30941

Data File: /chem2/HP26285.i/20may29a.b/5y29t01.d

Date : 29-MAY-2020 09:29

Client ID: jan28-20

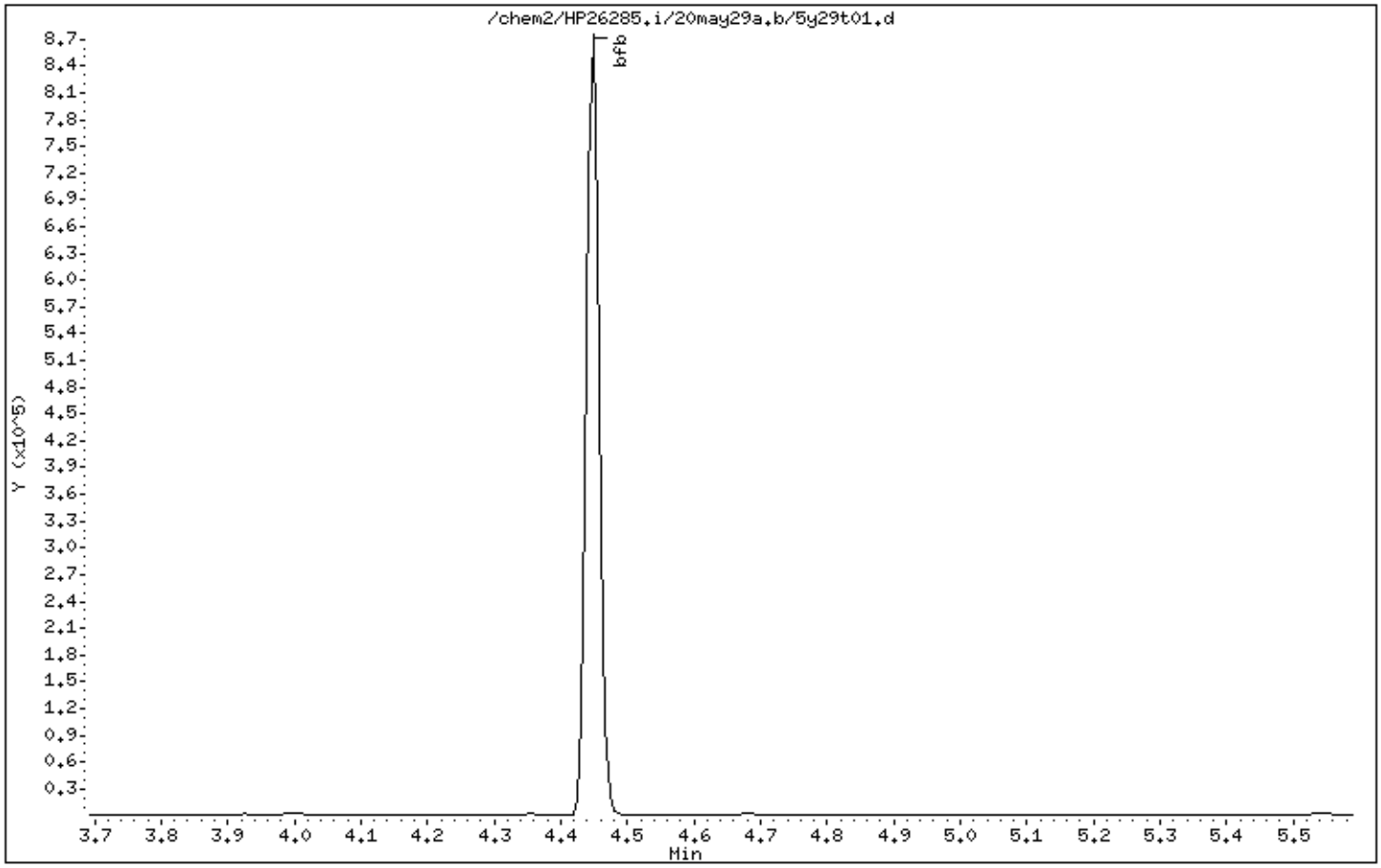
Instrument: HP26285.i

Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may29a.b/5y29t01.d

Date : 29-MAY-2020 09:29

Client ID: jan28-20

Instrument: HP26285.i

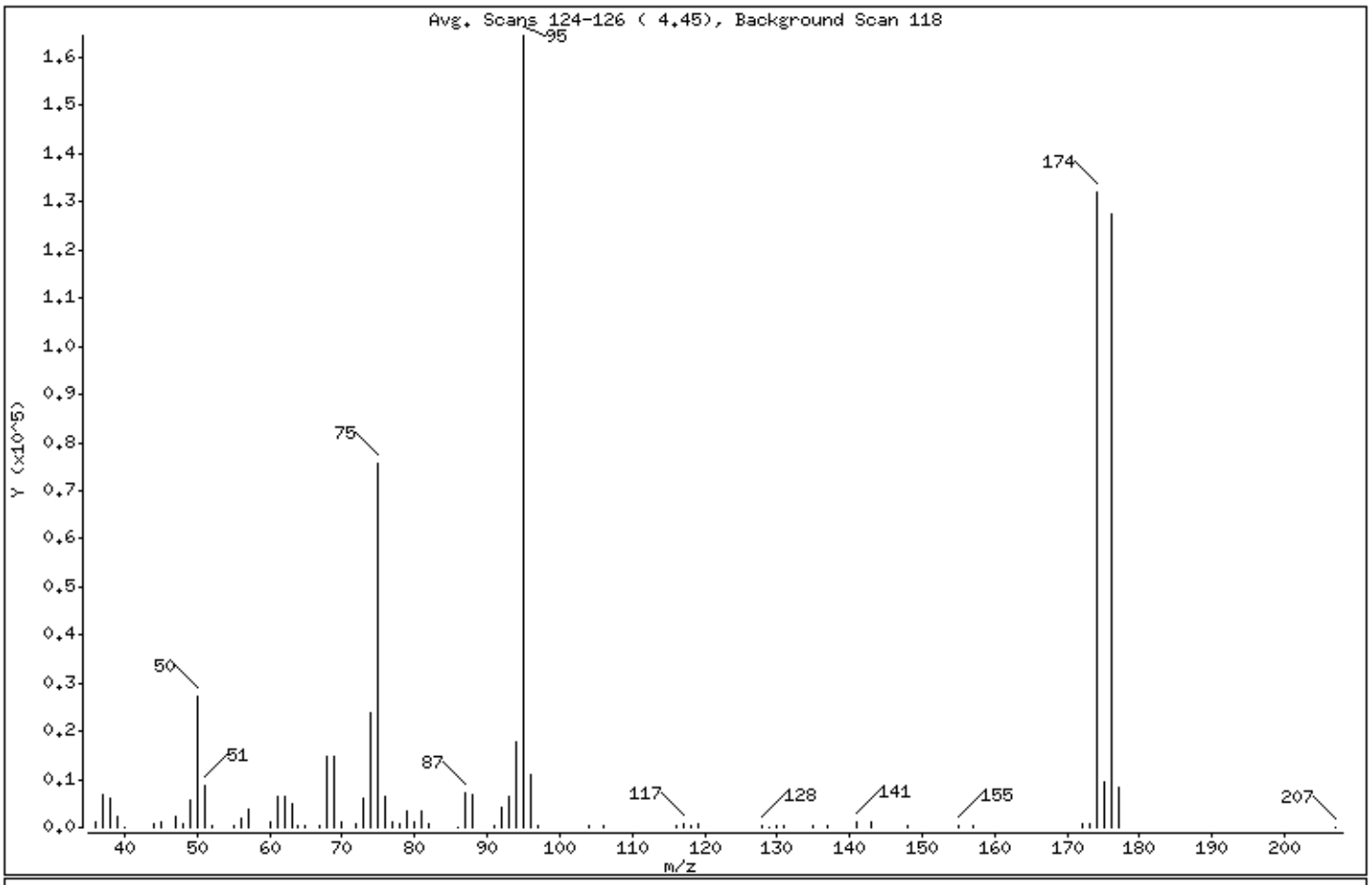
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.62
75	30.00 - 60.00% of mass 95	46.02
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.53 (0.66)
174	50.00 - 100.00% of mass 95	80.20
175	5.00 - 9.00% of mass 174	5.69 (7.09)
176	95.00 - 101.00% of mass 174	77.44 (96.57)
177	5.00 - 9.00% of mass 176	4.99 (6.44)

Date : 29-MAY-2020 09:29

Client ID: jan28-20 Instrument: HP26285.i

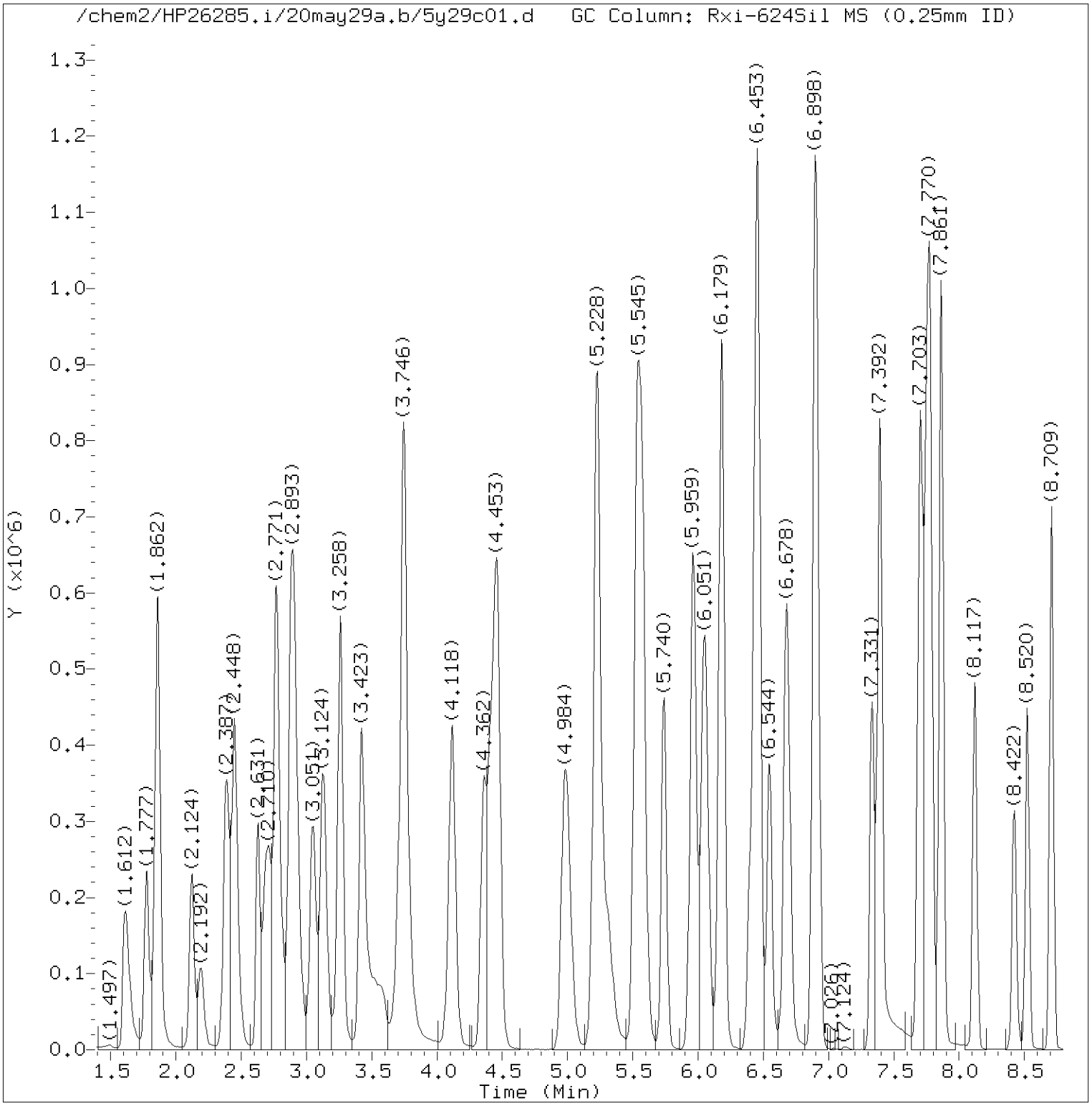
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y29t01.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1307	62.00	6249	82.00	761	129.00	97
37.00	6787	63.00	4761	86.00	98	130.00	489
38.00	6119	64.00	478	87.00	7298	131.00	194
39.00	2302	65.00	293	88.00	6644	135.00	284
40.00	125	67.00	422	91.00	498	137.00	191
44.00	661	68.00	14890	92.00	4092	141.00	1297
45.00	1170	69.00	14758	93.00	6357	143.00	1293
47.00	2298	70.00	1069	94.00	17864	148.00	343
48.00	896	72.00	765	95.00	164544	155.00	426
49.00	5732	73.00	6232	96.00	11137	157.00	209
50.00	27352	74.00	23832	97.00	357	172.00	576
51.00	8537	75.00	75728	104.00	552	173.00	872
52.00	375	76.00	6463	106.00	536	174.00	131904
55.00	375	77.00	951	116.00	456	175.00	9356
56.00	1983	78.00	670	117.00	815	176.00	127424
57.00	3743	79.00	3287	118.00	490	177.00	8208
60.00	1276	80.00	1088	119.00	677	207.00	95
61.00	6559	81.00	3428	128.00	518		



Total Ion Chromatogram (TIC)

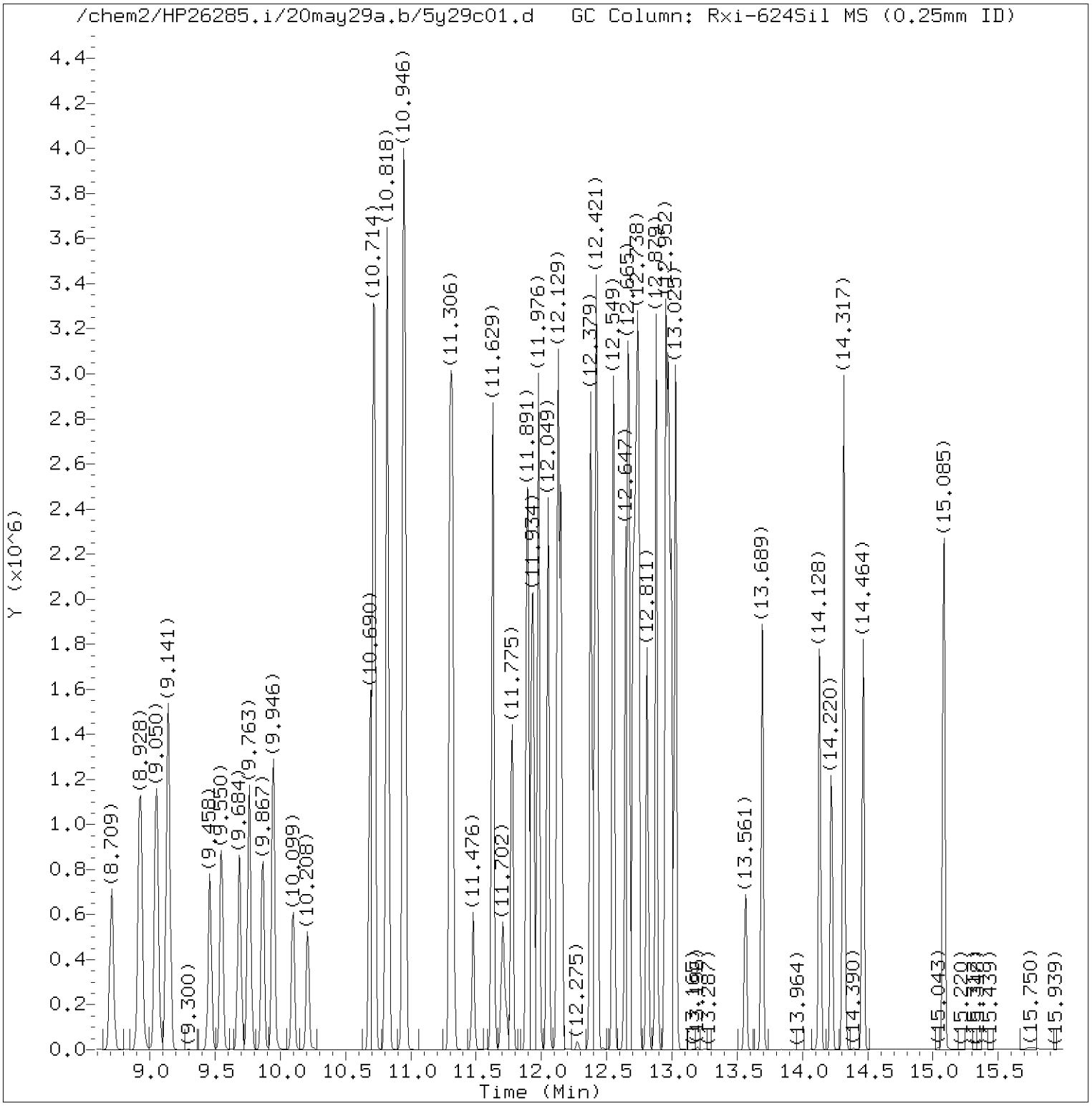
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	426826	51.925
4) Chloromethane	(2)	1.771	50	320676	49.173
5) 1,3-Butadiene	(2)	1.856	39	330948	36.513
6) Vinyl Chloride	(2)	1.862	62	313855	54.421
8) Bromomethane	(2)	2.124	94	227386	58.725
9) Chloroethane	(2)	2.192	64	153968	56.387
10) Dichlorofluoromethane	(2)	2.387	67	425597	47.829
12) Trichlorofluoromethane	(2)	2.429	101	402070	56.923
11) n-Pentane	(2)	2.454	43	302650	46.031
14) Ethyl ether	(2)	2.624	59	206380	42.382
15) Freon 123a	(2)	2.704	67	343058	46.529
16) Acrolein	(1)	2.771	56	936460	426.698
17) 1,1-Dichloroethene	(2)	2.880	96	260809	47.523
17) 1,1-Dichloroethene	(2)	2.880	63	133057	48.375
18) Acetone	(1)	2.905	58	105952	97.886
19) Freon 113	(2)	2.911	101	293757	47.290
21) 2-Propanol	(1)	3.045	45	140068	159.026
22) Methyl Iodide	(2)	3.051	142	525203	50.188
23) Carbon Disulfide	(2)	3.130	76	899190	46.579
27) Methyl Acetate	(2)	3.240	43	376882	47.631
25) Allyl Chloride	(2)	3.265	41	413451	45.006
28) Methylene Chloride	(2)	3.423	84	296395	47.913
29)*t-Butyl alcohol-d10	(1)	3.429	65	346604M	250.000
30) t-Butyl alcohol	(1)	3.539	59	305594	187.185
31) Acrylonitrile	(2)	3.697	53	192768	46.156
32) trans-1,2-Dichloroethene	(2)	3.746	96	295257	48.081
33) Methyl Tertiary Butyl Ether	(2)	3.752	73	780438	48.048
34) n-Hexane	(2)	4.118	57	403308	44.292
36) 1,1-Dichloroethane	(2)	4.356	63	527110	47.417
38) di-Isopropyl ether	(2)	4.417	45	893526	45.003
39) 2-Chloro-1,3-butadiene	(2)	4.465	53	455536	48.236
40) Ethyl t-butyl ether	(2)	4.990	59	786199	44.603
44) 2-Butanone	(2)	5.209	43	529046	87.034
42) cis-1,2-Dichloroethene	(2)	5.228	96	333640	48.036
45) 2,2-Dichloropropane	(2)	5.240	77	420214	44.800
47) Propionitrile	(1)	5.313	54	423862	238.497
48) Methacrylonitrile	(2)	5.532	67	497888	119.698
49) Bromochloromethane	(2)	5.569	128	159528	50.147

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.581	71	146755	91.366
51) Chloroform	(2)	5.740	83	541896	48.601
52)$Dibromofluoromethane	(2)	5.959	113	257586	50.951
52)$Dibromofluoromethane	(2)	5.965	111	262609	50.733
53) 1,1,1-Trichloroethane	(2)	5.959	97	481690	47.983
54) Cyclohexane	(2)	6.051	56	503909	43.100
54) Cyclohexane	(2)	6.051	84	429828	44.444
54) Cyclohexane	(2)	6.051	69	157155	43.336
43) 1,2-Dichloroethene (Total)	(2)		96	628897	96.117
56) Carbon Tetrachloride	(2)	6.172	117	422542	48.243
55) 1,1-Dichloropropene	(2)	6.185	75	430742	47.366
58) Isobutyl Alcohol	(1)	6.404	41	306963	564.081
57)$1,2-Dichloroethane-d4	(2)	6.441	102	57719	51.048
57)$1,2-Dichloroethane-d4	(2)	6.435	65	289399	52.350
57)$1,2-Dichloroethane-d4	(2)	6.441	104	36423	50.309
60) Benzene	(2)	6.459	78	1280466	47.354
61) 1,2-Dichloroethane	(2)	6.544	62	402983	48.522
61) 1,2-Dichloroethane	(2)	6.544	98	35977	51.225
65) t-Amyl methyl ether	(2)	6.678	73	798441	45.396
66)*Fluorobenzene	(2)	6.892	96	1014999	50.000
67) n-Heptane	(2)	6.910	43	400484	45.533
69) n-Butanol	(1)	7.331	56	514572	1095.854
71) Trichloroethene	(2)	7.392	95	345841	48.738
73) Methylcyclohexane	(2)	7.703	83	508226	45.065
73) Methylcyclohexane	(2)	7.703	98	214157	44.856
74) 1,2-Dichloropropane	(2)	7.745	63	319860	47.254
76) 1,4-Dioxane	(1)	7.849	88	73192M	628.395
75) Dibromomethane	(2)	7.861	93	208893	49.009
77) Methyl Methacrylate	(2)	7.867	69	304785	48.125
79) Bromodichloromethane	(2)	8.117	83	399922	48.387
80) 2-Nitropropane	(2)	8.422	41	267732	93.526
81) 2-Chloroethyl Vinyl Ether	(2)	8.520	63	240168	45.847
82) cis-1,3-Dichloropropene	(2)	8.709	75	499340	47.809
83) 4-Methyl-2-pentanone	(2)	8.928	43	1058090	90.311
84)$Toluene-d8	(3)	9.050	98	986094	49.573
84)$Toluene-d8	(3)	9.050	100	643588	49.139
89) Toluene	(3)	9.141	92	834731	47.591
90) trans-1,3-Dichloropropene	(3)	9.458	75	449313	47.744

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.550	69	502334	46.942
93) 1,1,2-Trichloroethane	(3)	9.684	97	303814	48.451
94) Tetrachloroethene	(3)	9.763	166	375975	50.540
95) 1,3-Dichloropropane	(3)	9.867	76	496049	47.644
97) 2-Hexanone	(3)	9.946	43	867333	93.072
91) 1,3-Dichloropropene (total)	(3)		100	948653	95.553
98) Dibromochloromethane	(3)	10.099	129	324718	48.938
100) 1,2-Dibromoethane	(3)	10.208	107	341195	49.358
101)*Chlorobenzene-d5	(3)	10.690	117	809407	50.000
103) Chlorobenzene	(3)	10.720	112	938358	49.295
102) 1-Chlorohexane	(3)	10.720	91	472022	46.275
104) 1,1,1,2-Tetrachloroethane	(3)	10.812	131	332146	50.577
105) Ethylbenzene	(3)	10.818	91	1682449	49.609
107) m+p-Xylene	(3)	10.946	106	1297724	99.733
108) o-Xylene	(3)	11.300	106	625145	49.085
110) Styrene	(3)	11.318	104	1041809	50.757
111) Bromoform	(3)	11.476	173	241121	50.226
112) Isopropylbenzene	(3)	11.629	105	1661691	49.719
113) Cyclohexanone	(1)	11.702	55	285567A	533.777
109) Xylene (Total)	(3)		106	1922869	148.819
115)$4-Bromofluorobenzene	(3)	11.775	95	414976	49.513
115)$4-Bromofluorobenzene	(3)	11.775	174	341533	52.237
116) Bromobenzene	(4)	11.891	156	407904	48.865
117) 1,1,2,2-Tetrachloroethane	(4)	11.897	83	534623	47.196
119) trans-1,4-Dichloro-2-butene	(4)	11.927	53	244831	109.332
118) 1,2,3-Trichloropropane	(4)	11.940	110	162283	48.653
120) n-Propylbenzene	(4)	11.976	91	1981752	48.287
121) 2-Chlorotoluene	(4)	12.049	126	400130	47.564
123) 1,3,5-Trimethylbenzene	(4)	12.129	105	1399747	48.517
122) 4-Chlorotoluene	(4)	12.153	126	413828	48.698
125) tert-Butylbenzene	(4)	12.379	134	283095M	49.373
126) Pentachloroethane	(4)	12.409	167	234246	49.763
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	1453988	48.939
128) sec-Butylbenzene	(4)	12.549	105	1736169	48.537
130) 1,3-Dichlorobenzene	(4)	12.647	146	769754	49.025
131) p-Isopropyltoluene	(4)	12.665	119	1476572	49.501
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	437870	50.000
134) 1,4-Dichlorobenzene	(4)	12.726	146	779411	48.913

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

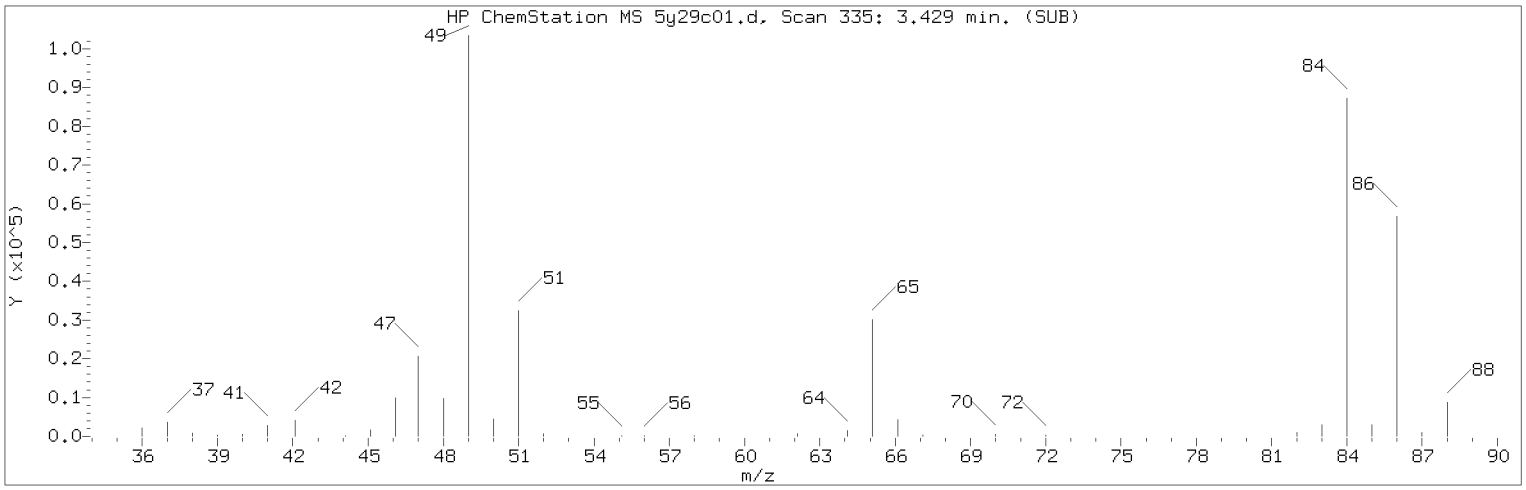
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

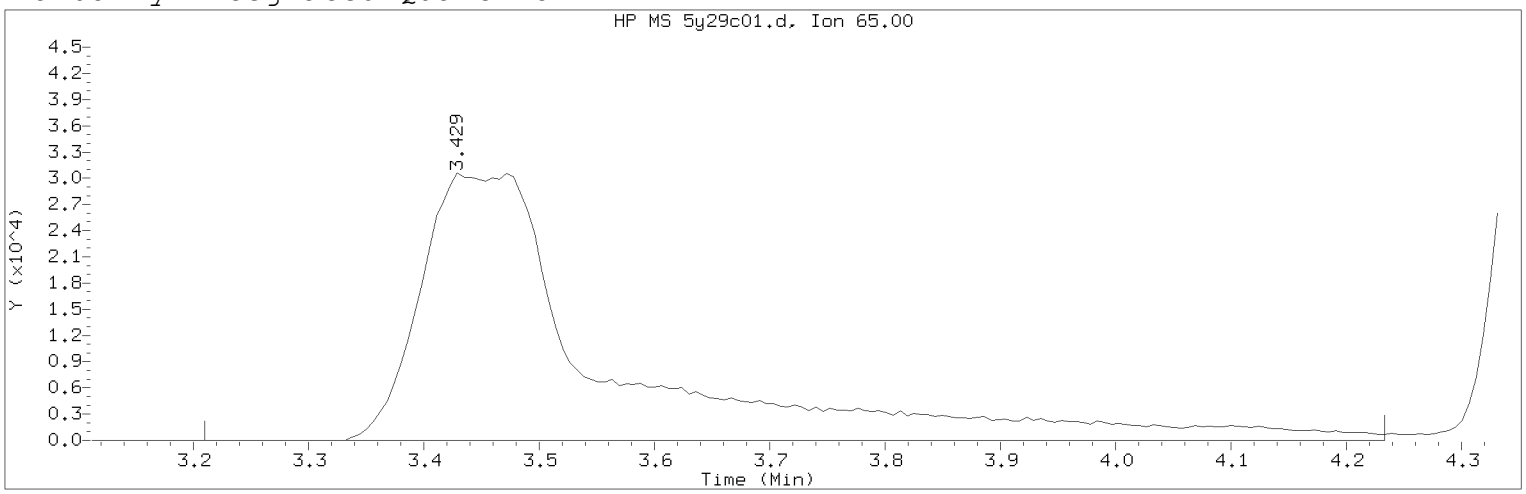
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.744	105	1399870	49.088
136) Benzyl Chloride	(4)	12.811	91	1010308	46.489
137) 1,3-Diethylbenzene	(4)	12.879	119	866612	50.281
138) 1,4-Diethylbenzene	(4)	12.952	119	903175	50.664
140) n-Butylbenzene	(4)	12.970	92	731742	48.633
139) 1,2-Dichlorobenzene	(4)	12.994	146	735895	48.792
141) 1,2-Diethylbenzene	(4)	13.025	119	718867	49.317
142) Diethylbenzene (total)	(4)		100	2488654	150.262
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	142085	49.682
145) 1,3,5-Trichlorobenzene	(4)	13.695	180	498198	50.011
147) 1,2,4-Trichlorobenzene	(4)	14.134	180	460166	49.169
148) Hexachlorobutadiene	(4)	14.220	225	180917	50.265
149) Naphthalene	(4)	14.317	128	1833566	49.474
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	453105	48.926
151) 2-Methylnaphthalene	(4)	15.085	142	934907	48.555

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

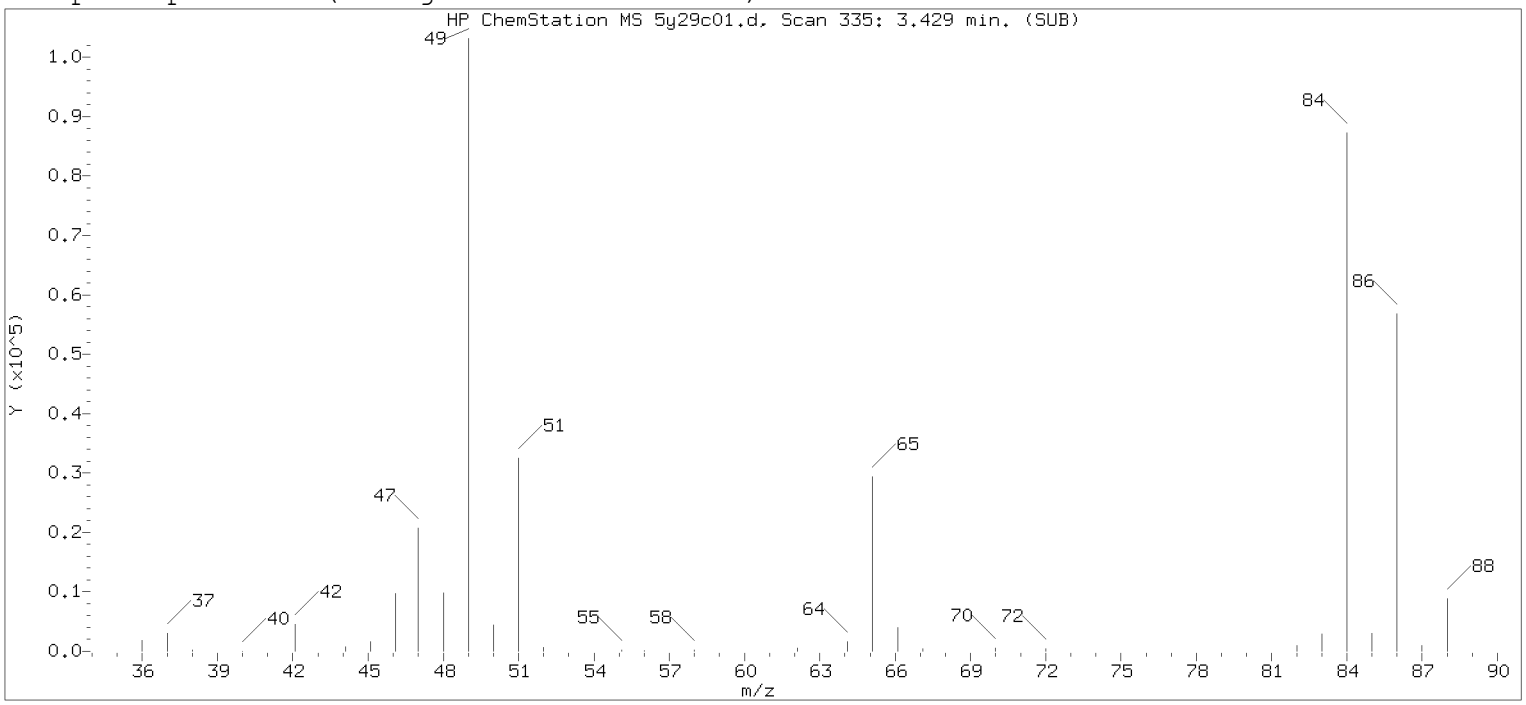
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 335
Retention Time (minutes): 3.429
Quant Ion : 65.00
Area (flag) : 346604M
On-Column Amount (ng) : 250.0000
Integration start scan : 298 Integration stop scan: 466
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

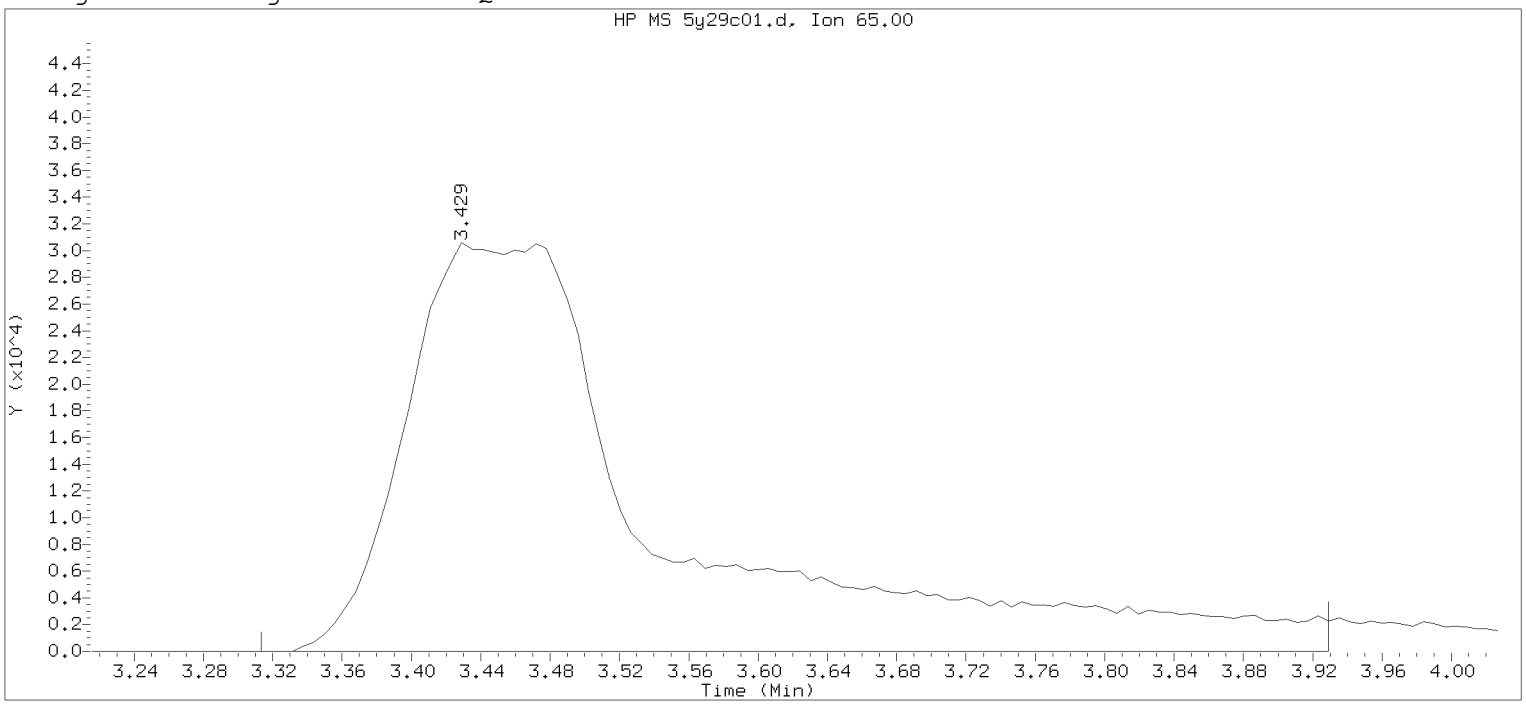
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

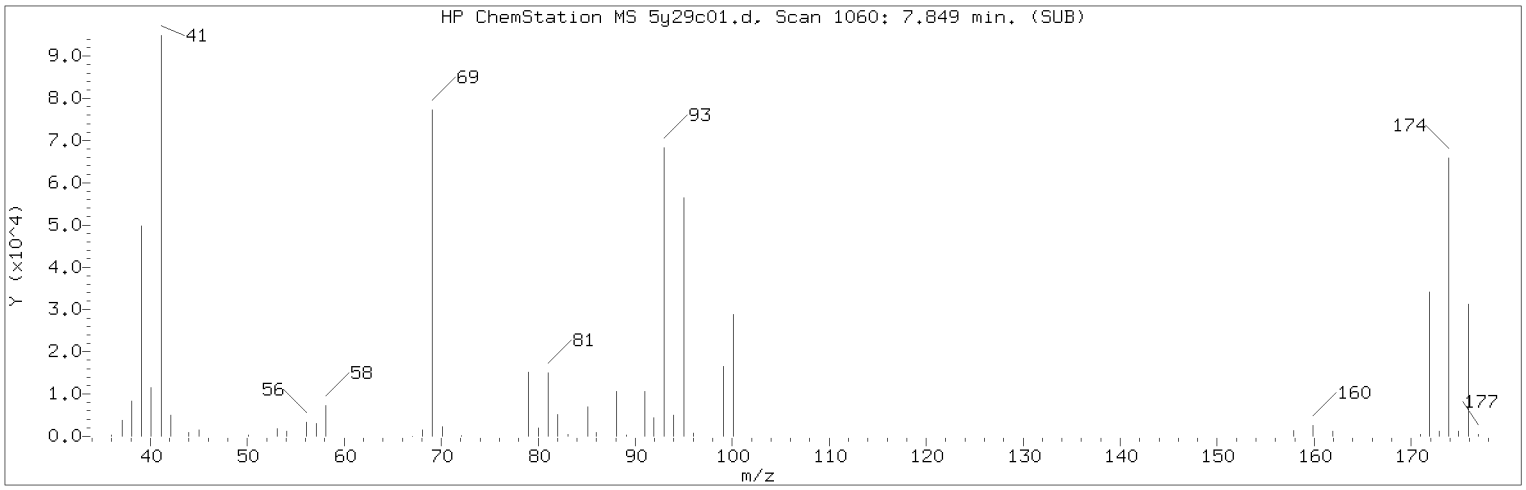
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

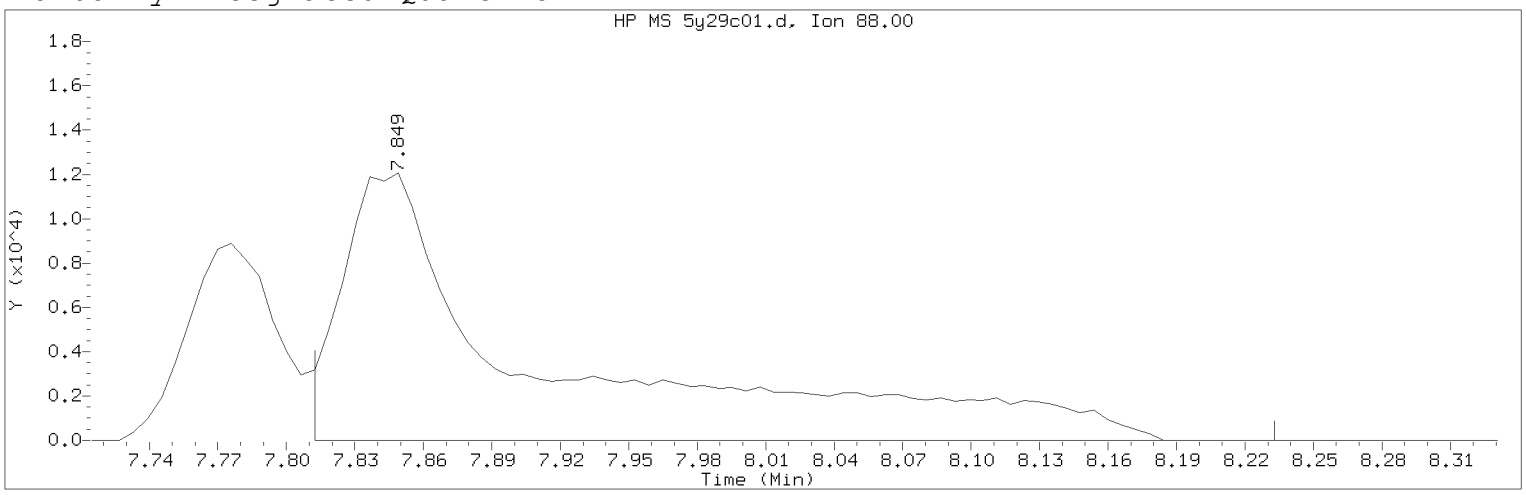
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 335
Retention Time (minutes): 3.429
Quant Ion : 65.00
Area : 318561
On-column Amount (ng) : 250.0000
Integration start scan : 315 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

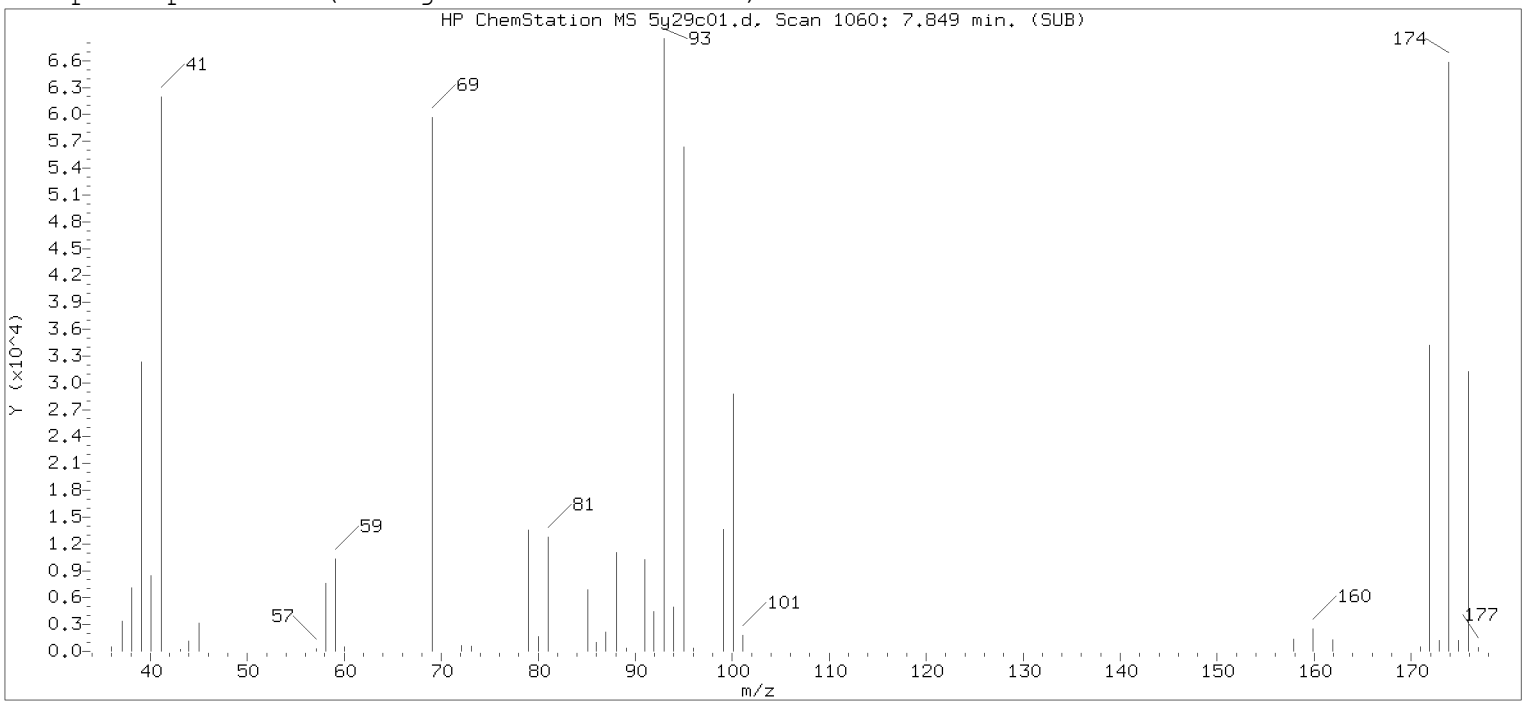
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 73192M
On-Column Amount (ng) : 628.3947
Integration start scan : 1053 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

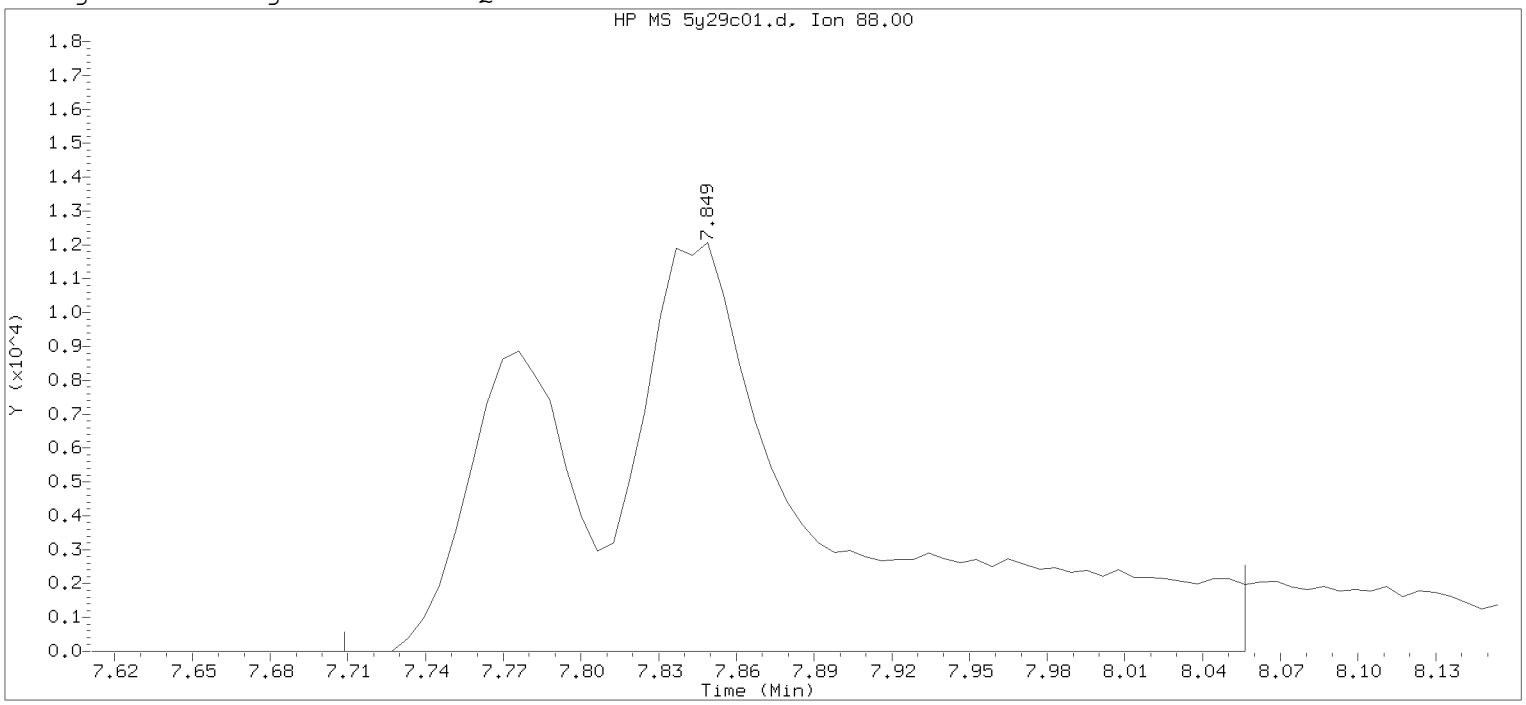
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

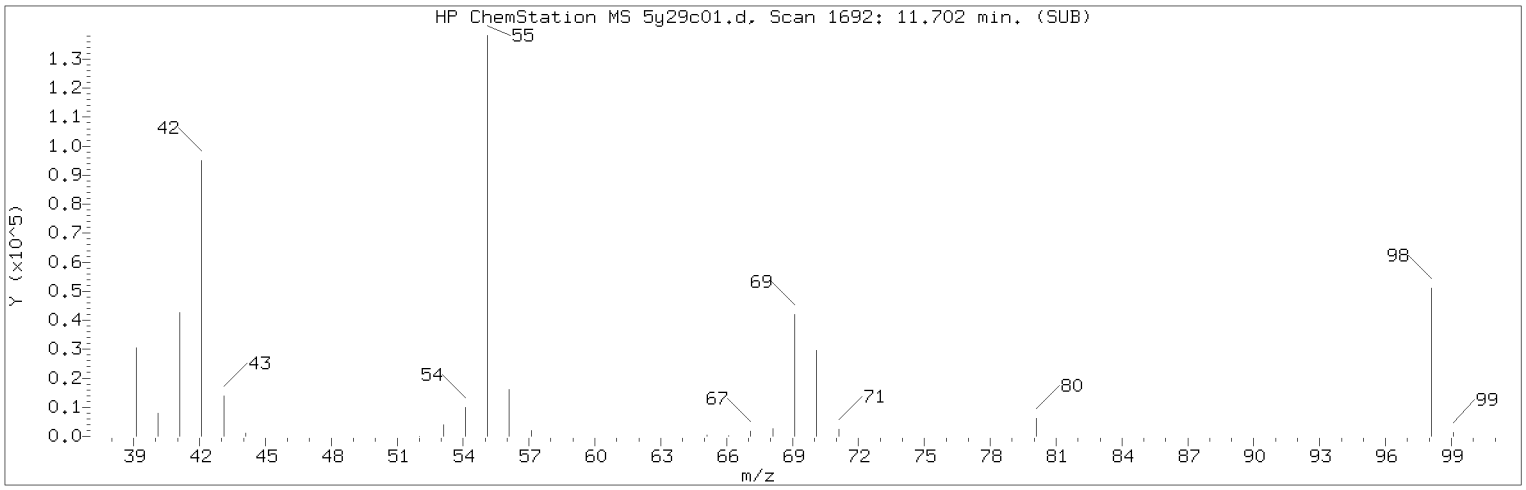
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

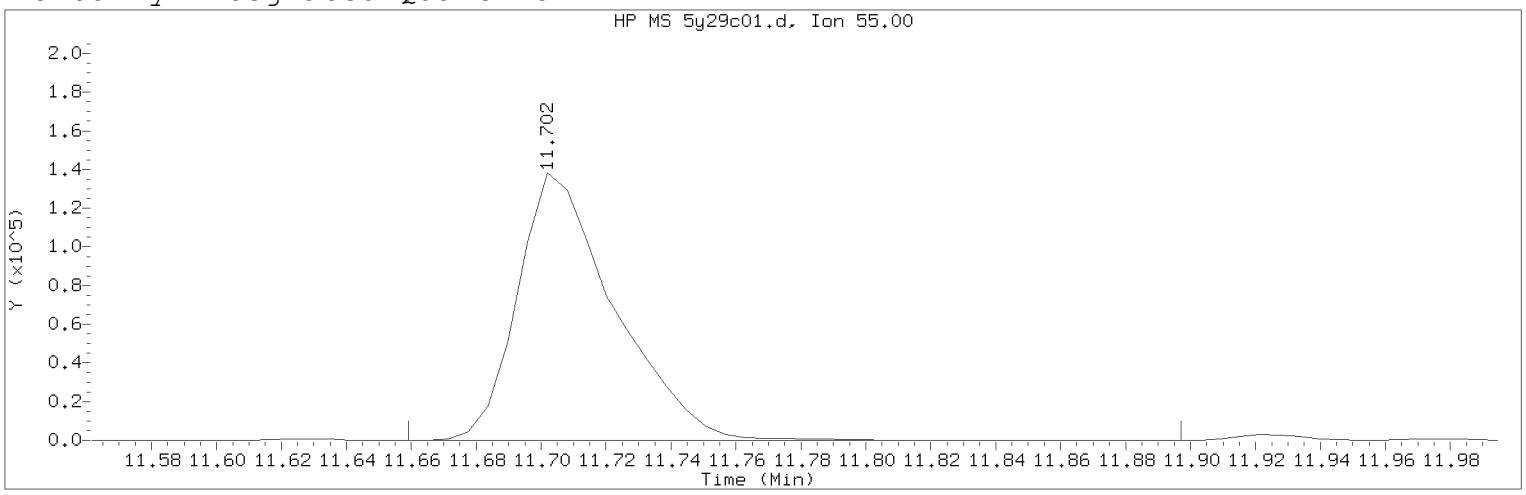
Compound Number	: 76		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1060		
Retention Time (minutes)	: 7.849		
Quant Ion	: 88.00		
Area	: 85521		
On-column Amount (ng)	: 798.8831		
Integration start scan	: 1036	Integration stop scan:	1093
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

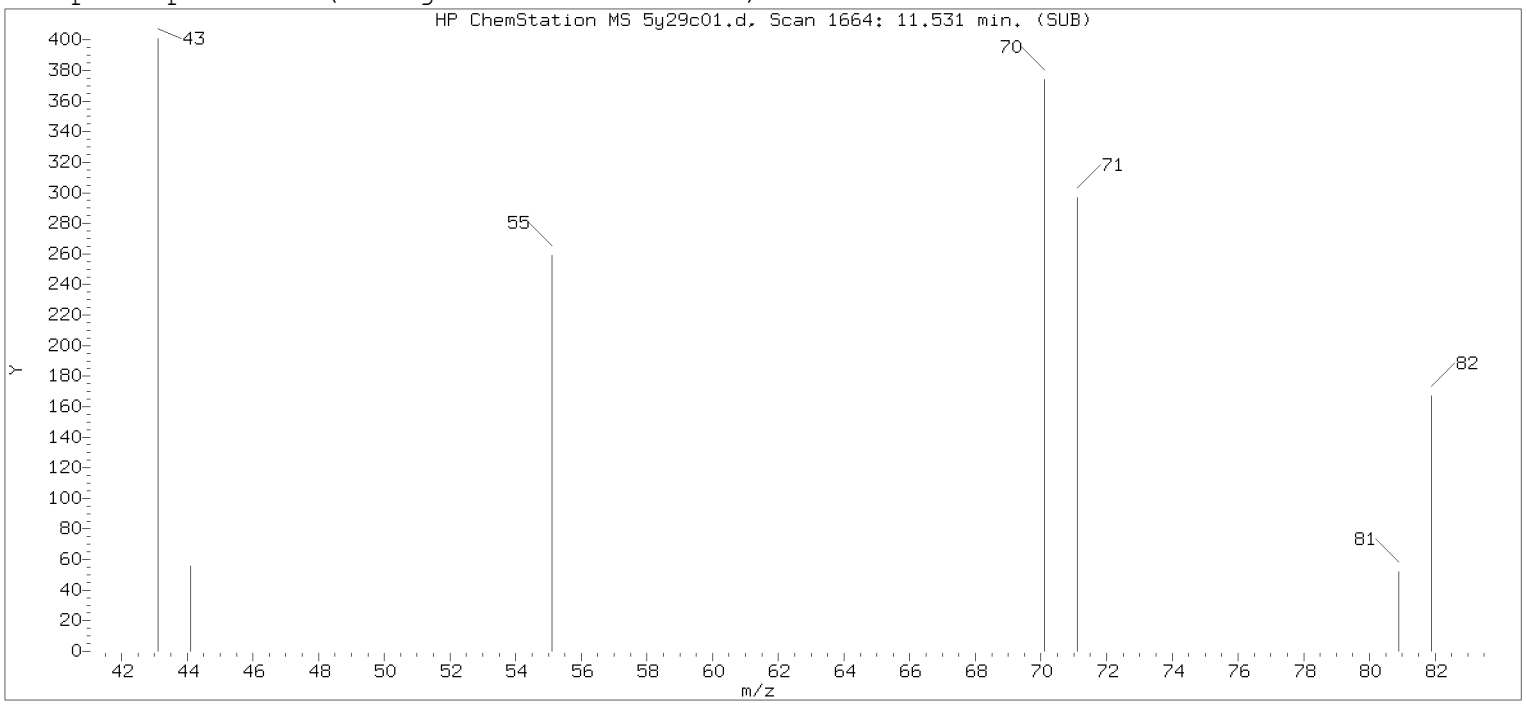
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1692
Retention Time (minutes): 11.702
Quant Ion : 55.00
Area (flag) : 285567A
On-Column Amount (ng) : 533.7767
Integration start scan : 1684 Integration stop scan: 1723
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

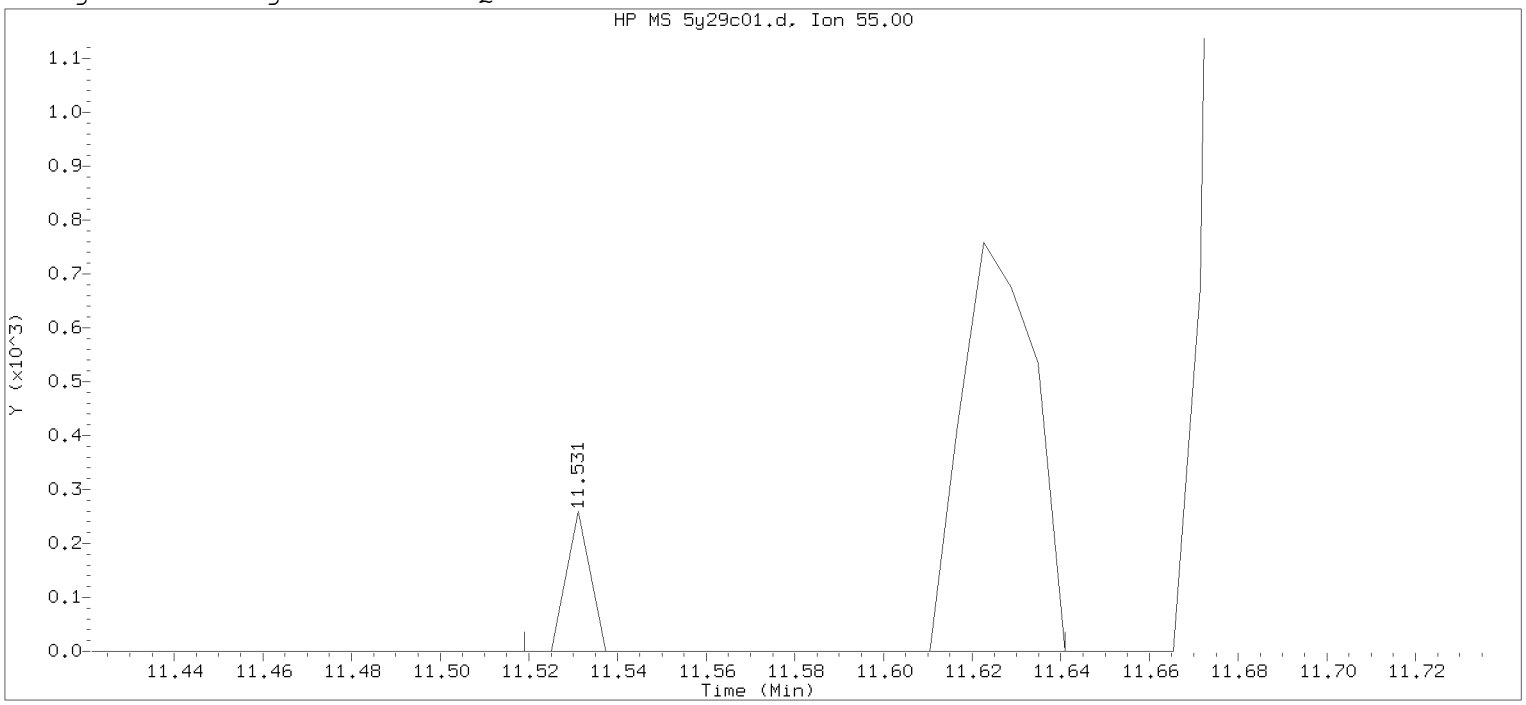
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

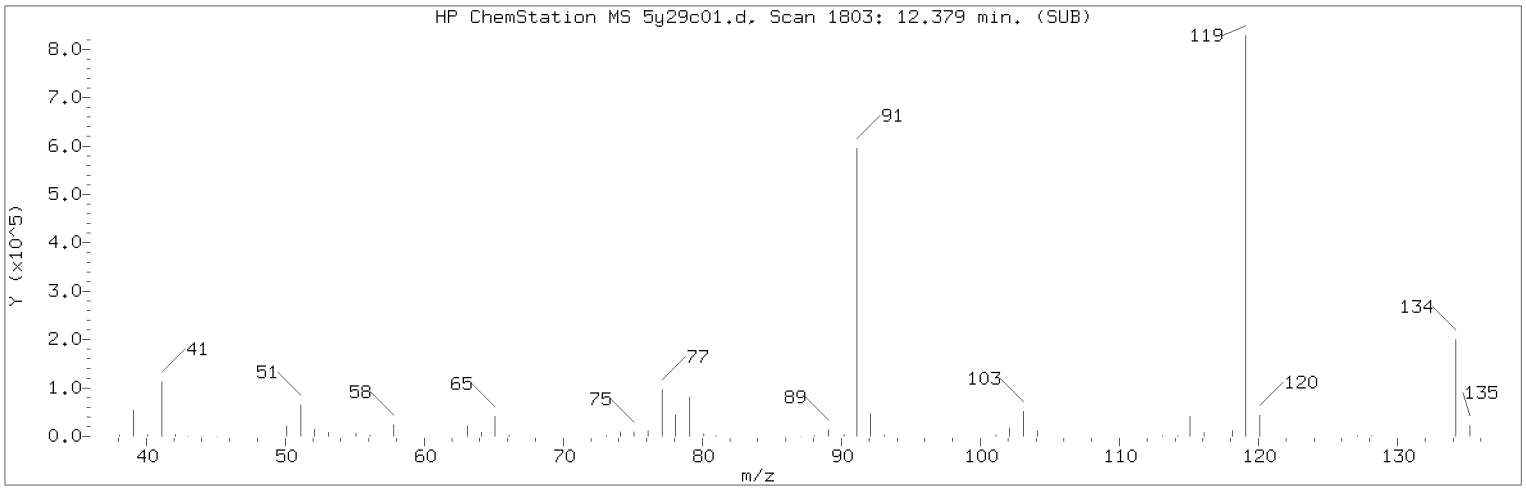
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

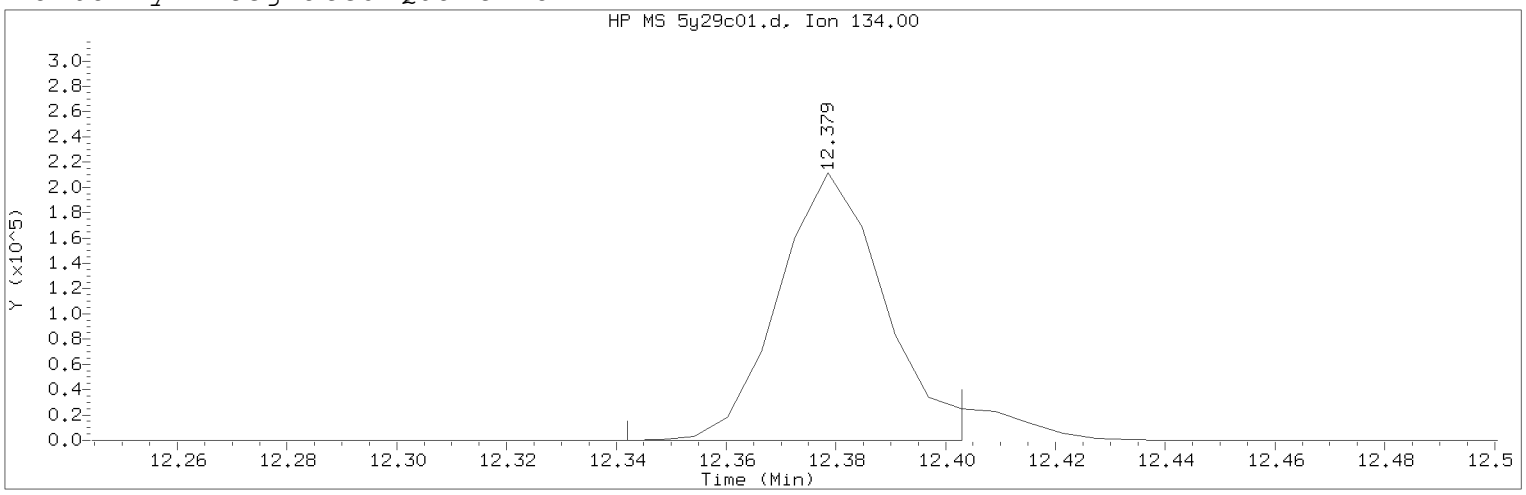
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1664
Retention Time (minutes): 11.531
Quant Ion : 55.00
Area : 964
On-column Amount (ng) : 1.9617
Integration start scan : 1661 Integration stop scan: 1681
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

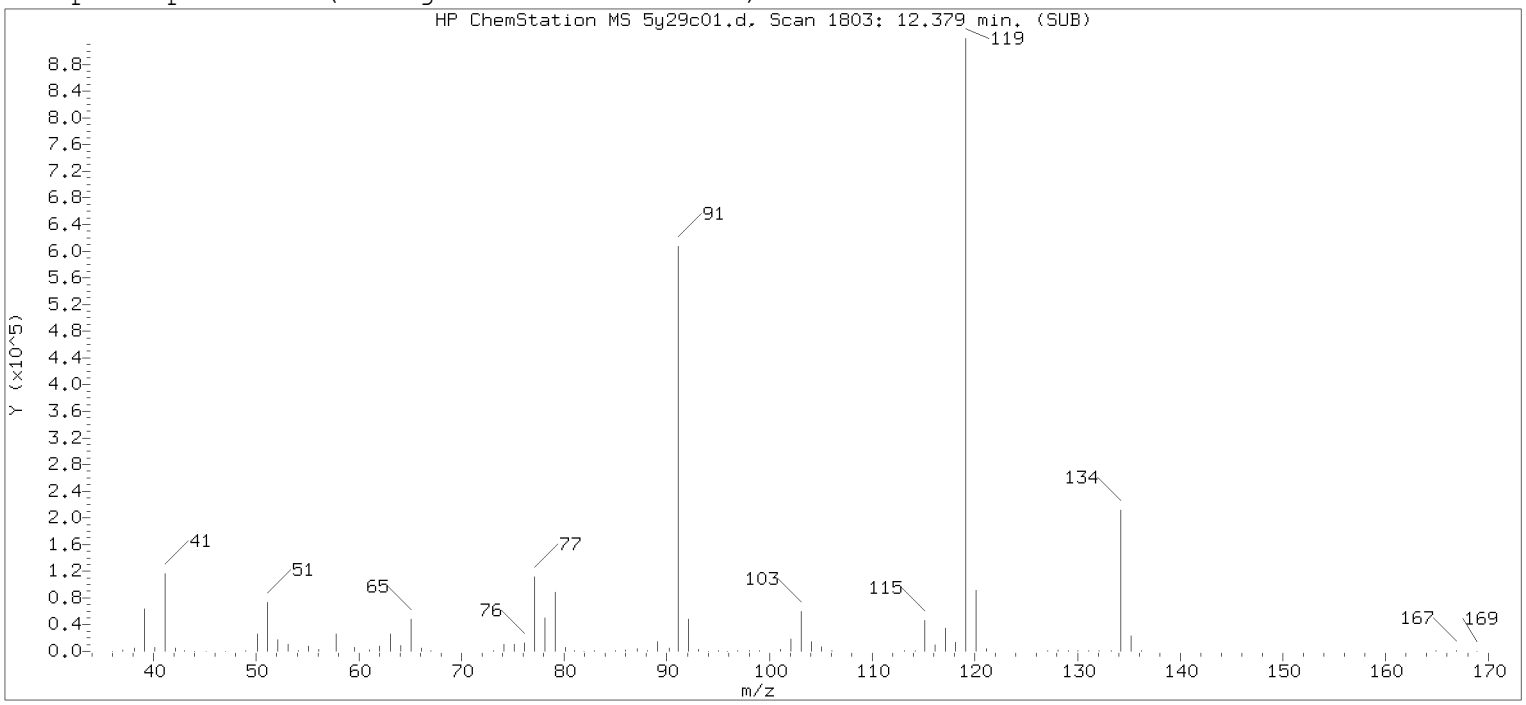
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area (flag) : 283095M
On-Column Amount (ng) : 49.3733
Integration start scan : 1796 Integration stop scan: 1806
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

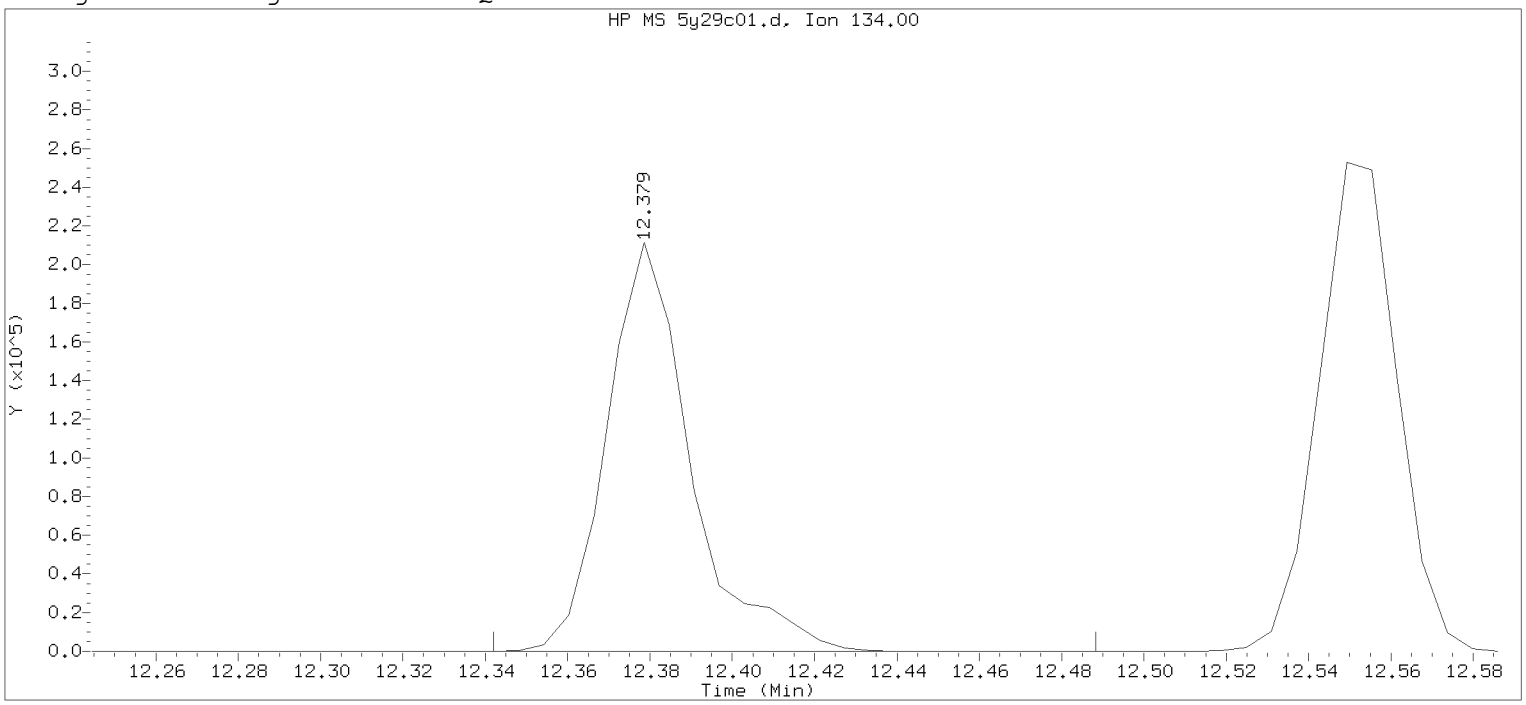
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area : 299233
On-column Amount (ng) : 52.1878
Integration start scan : 1796 Integration stop scan: 1820
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Raw QC Data

Volatiles by GC/MS

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;;
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Injection date and time: **27-MAY-2020 10:08**
Instrument ID: **HP26285.i** Batch: **5201481AA**

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447(-0.030)	338	65	281319 (-5)	250.00	
66) Fluorobenzene	6.874(0.000)	900	96	970263 (-4)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	761606 (-6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696(0.000)	1855	152	402762 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947(0.000)	113	240697	49.806	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.423(-0.001)	102	56071	51.877	104%		80 - 120
84) Toluene-d8	(3)	9.032(0.001)	98	918744	49.086	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.763(0.000)	95	374434	47.480	95%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)			Not Detected					0.4	2
44) 2-Butanone	(2)			Not Detected					0.3	10

Digitally signed by Linda C. Pape on 05/27/2020 at 10:42. Target 3.5 esignature user ID: lcp00895

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d Injection date and time: **27-MAY-2020 10:08**
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d Injection date and time: **27-MAY-2020 10:08**
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 109

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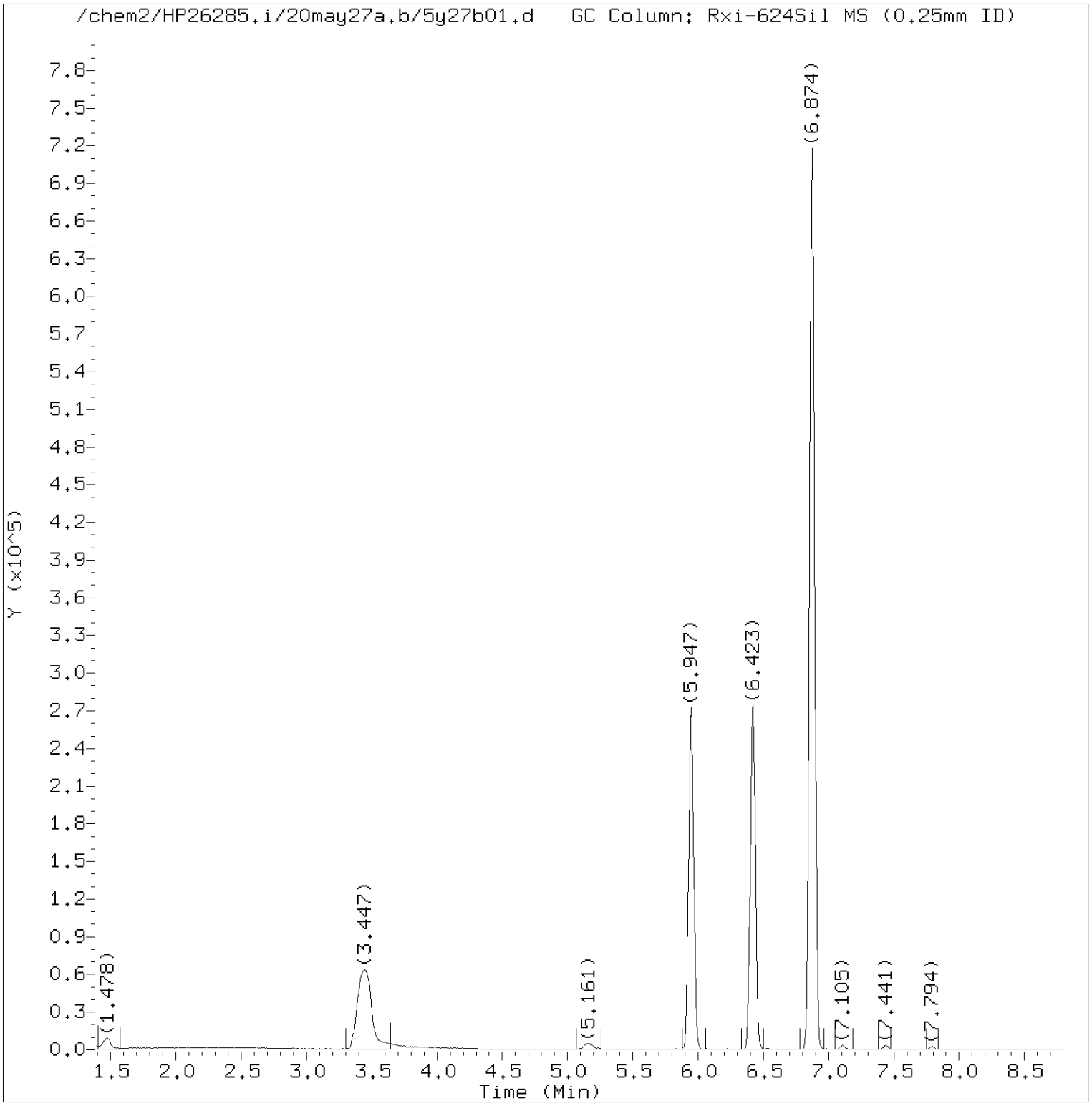
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

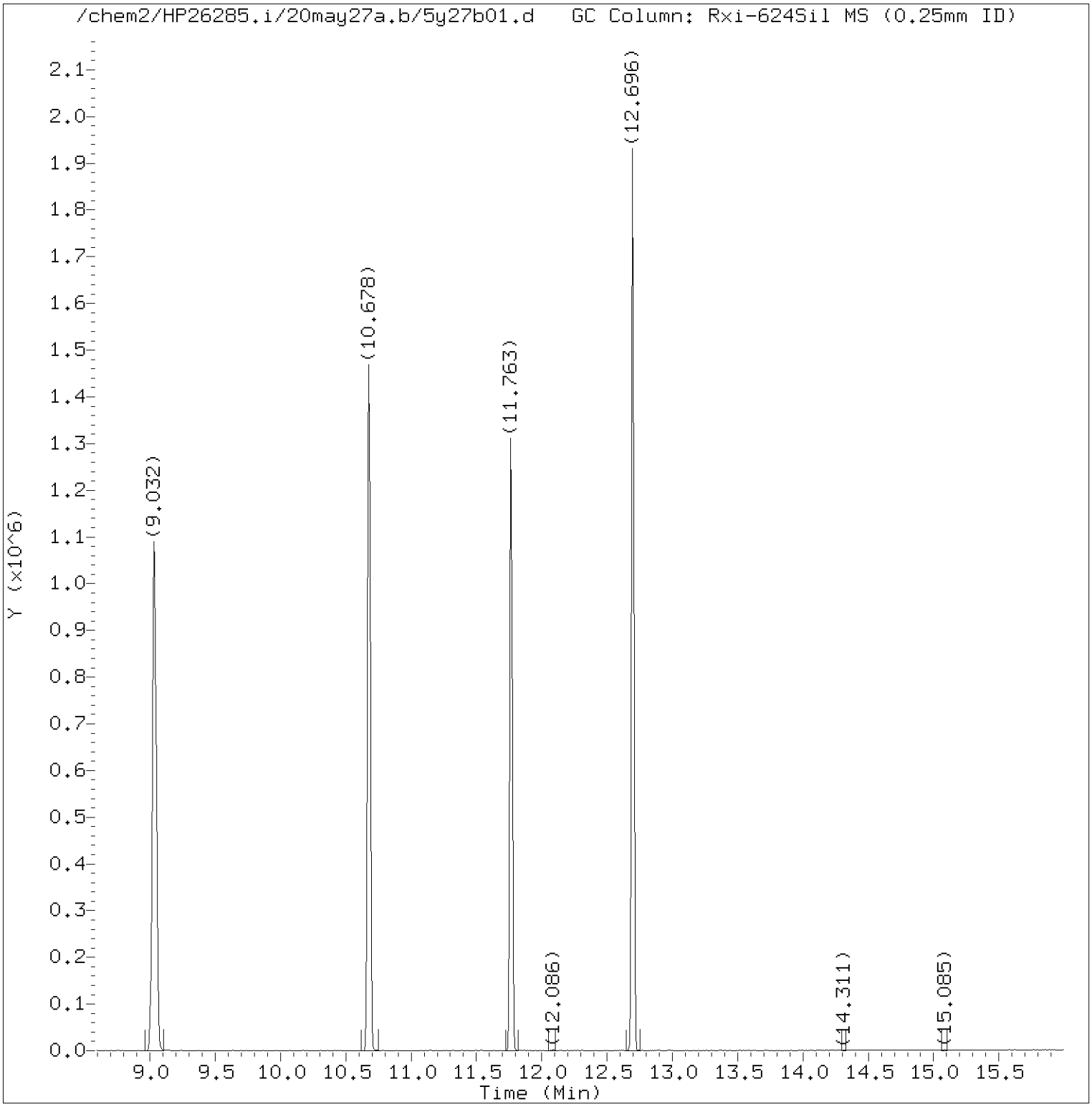
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

Digitally signed by Linda C. Pape
on 05/27/2020 at 10:42.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

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Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	281319	250.000
52)$Dibromofluoromethane	(2)	5.947	113	240697	49.806
57)$1,2-Dichloroethane-d4	(2)	6.423	102	56071	51.877
66)*Fluorobenzene	(2)	6.874	96	970263	50.000
84)$Toluene-d8	(3)	9.032	98	918744	49.086
101)*Chlorobenzene-d5	(3)	10.678	117	761606	50.000
115)$4-Bromofluorobenzene	(3)	11.763	95	374434	47.480
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	402762	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/27/2020 at 10:42.
Target 3.5 esignature user ID: lcp00895

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLK573

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;;
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Injection date and time: **27-MAY-2020 21:35**
Instrument ID: **HP26285.i** Batch: **5201482AA**

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460 (-0.036)	340	65	275498 (19)	250.00	
66) Fluorobenzene	6.886 (-0.006)	902	96	906238 (11)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	721241 (9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (0.000)	1856	152	385606 (3)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	231277	51.238	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428 (0.001)	102	52825	52.326	105%		80 - 120
84) Toluene-d8	(3)	9.038 (0.000)	98	858102	48.412	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.001)	95	350161	46.887	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
14) Ethyl ether	(2)			Not Detected					0.2	5
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)			Not Detected					0.4	2

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d Injection date and time: **27-MAY-2020 21:35**
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d Injection date and time: **27-MAY-2020 21:35**
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

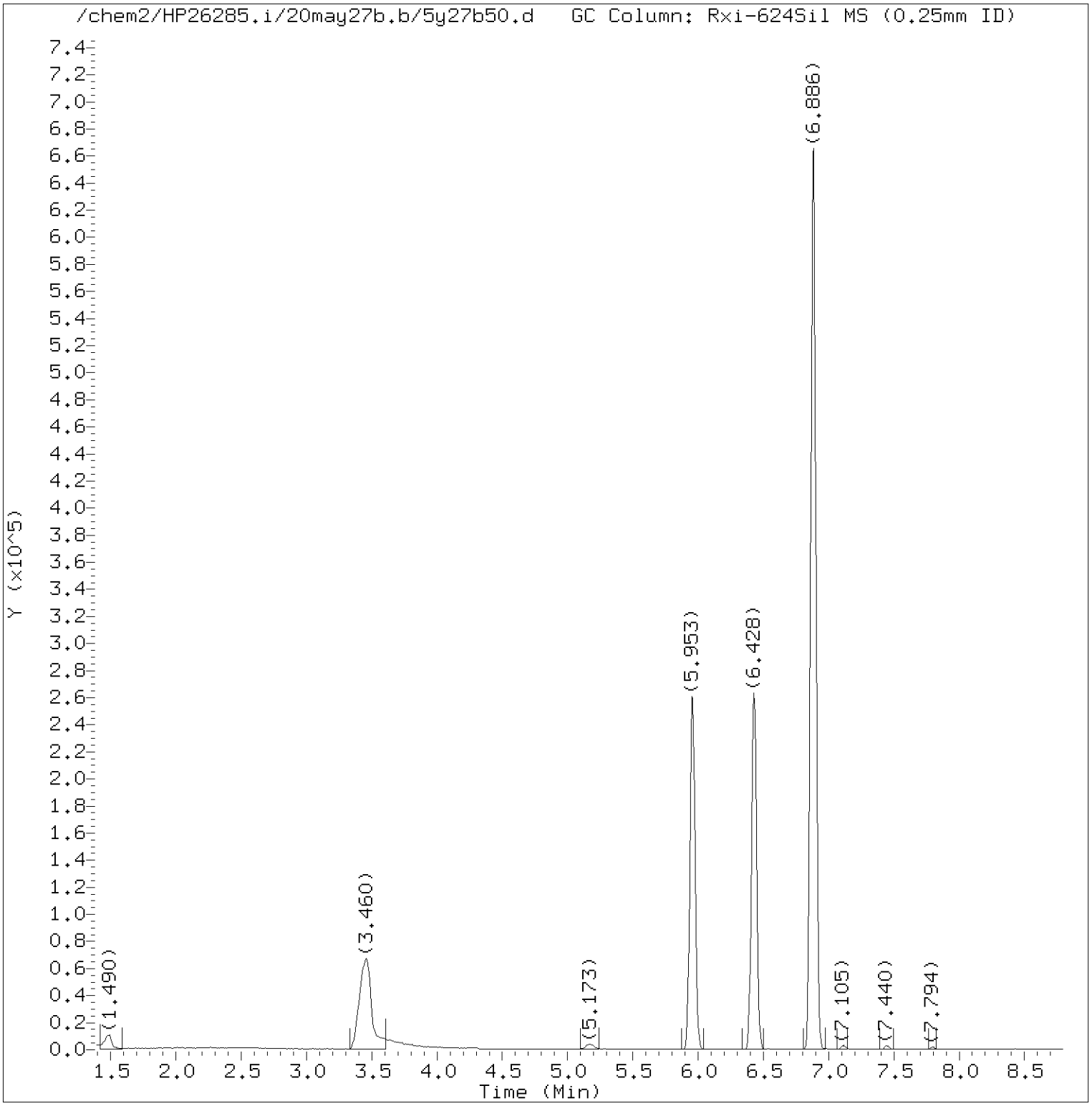
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Laura J. Green on 05/28/2020 at 00:02. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

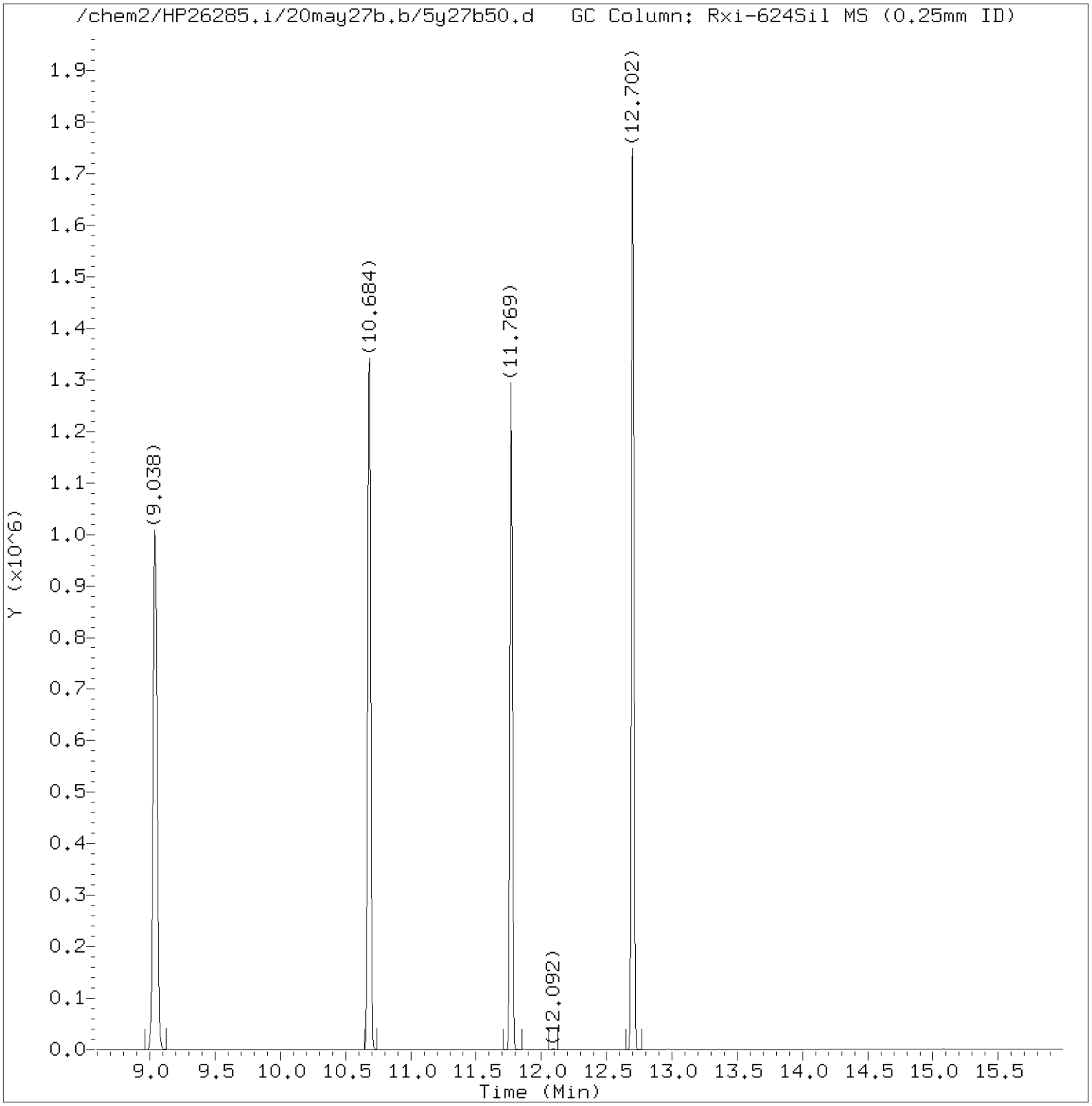
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	275498	250.000
52)$Dibromofluoromethane	(2)	5.953	113	231277	51.238
57)$1,2-Dichloroethane-d4	(2)	6.428	102	52825	52.326
66)*Fluorobenzene	(2)	6.886	96	906238	50.000
84)$Toluene-d8	(3)	9.038	98	858102	48.412
101)*Chlorobenzene-d5	(3)	10.684	117	721241	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	350161	46.887
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	385606	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;;
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Injection date and time: **29-MAY-2020 11:33**
Instrument ID: **HP26285.i** Batch: **5201501AA**

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	316522	(-9)	250.00	
66) Fluorobenzene	6.892	(0.000)	903	96	982866	(-3)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	775701	(-4)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	414789	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.965	(-0.001)	113	244754	49.996	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.000)	102	56193	51.323	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	929643	48.766	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	385597	48.007	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Laura J. Green on 05/31/2020 at 19:33. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d Injection date and time: **29-MAY-2020 11:33**
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Laura J. Green on 05/31/2020 at 19:33. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d Injection date and time: **29-MAY-2020 11:33**
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

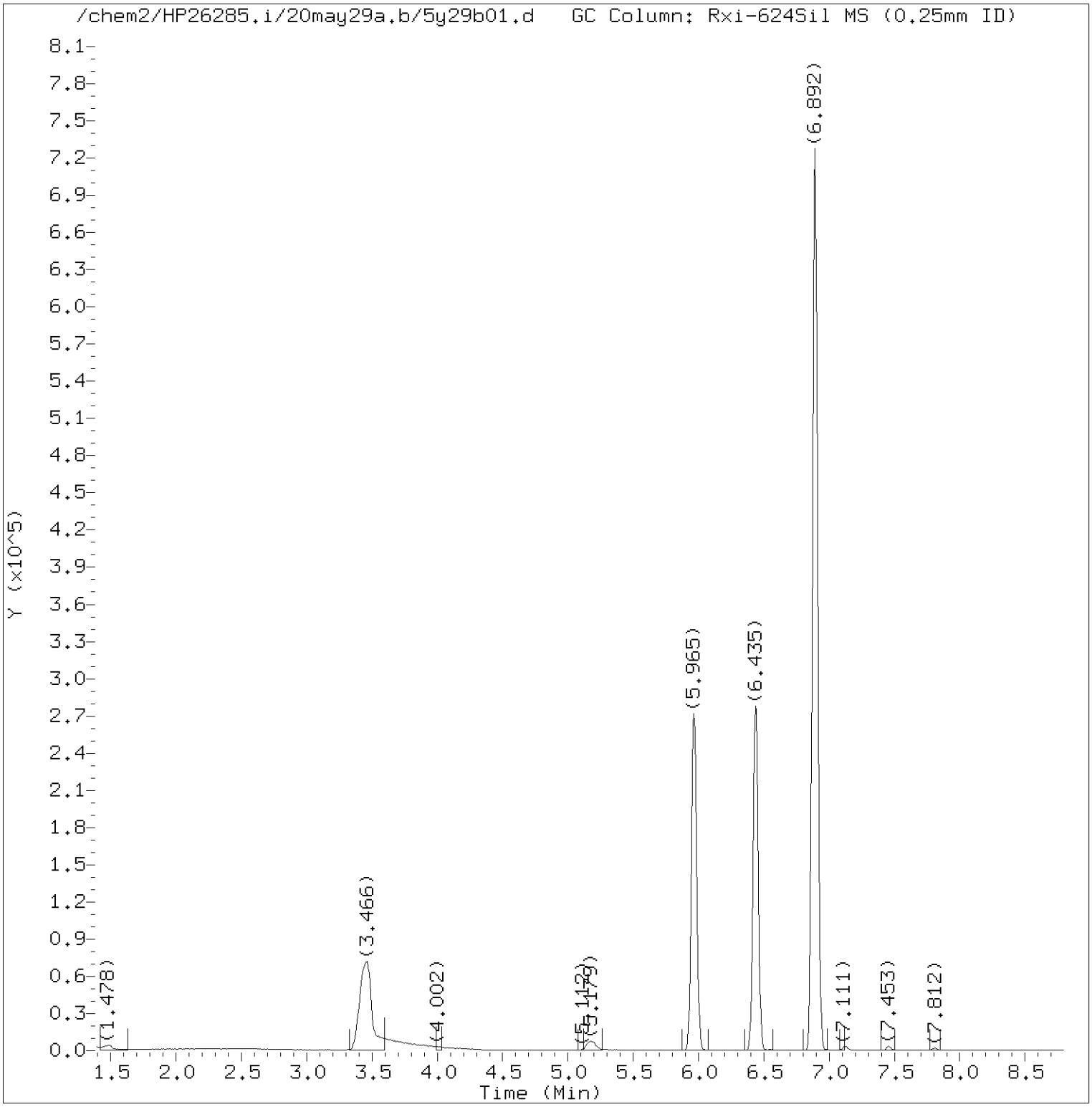
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Laura J. Green on 05/31/2020 at 19:33. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Marla S. Brewer on 05/31/2020 at 22:55. PARALLAX ID: msl01251



Total Ion Chromatogram (TIC)

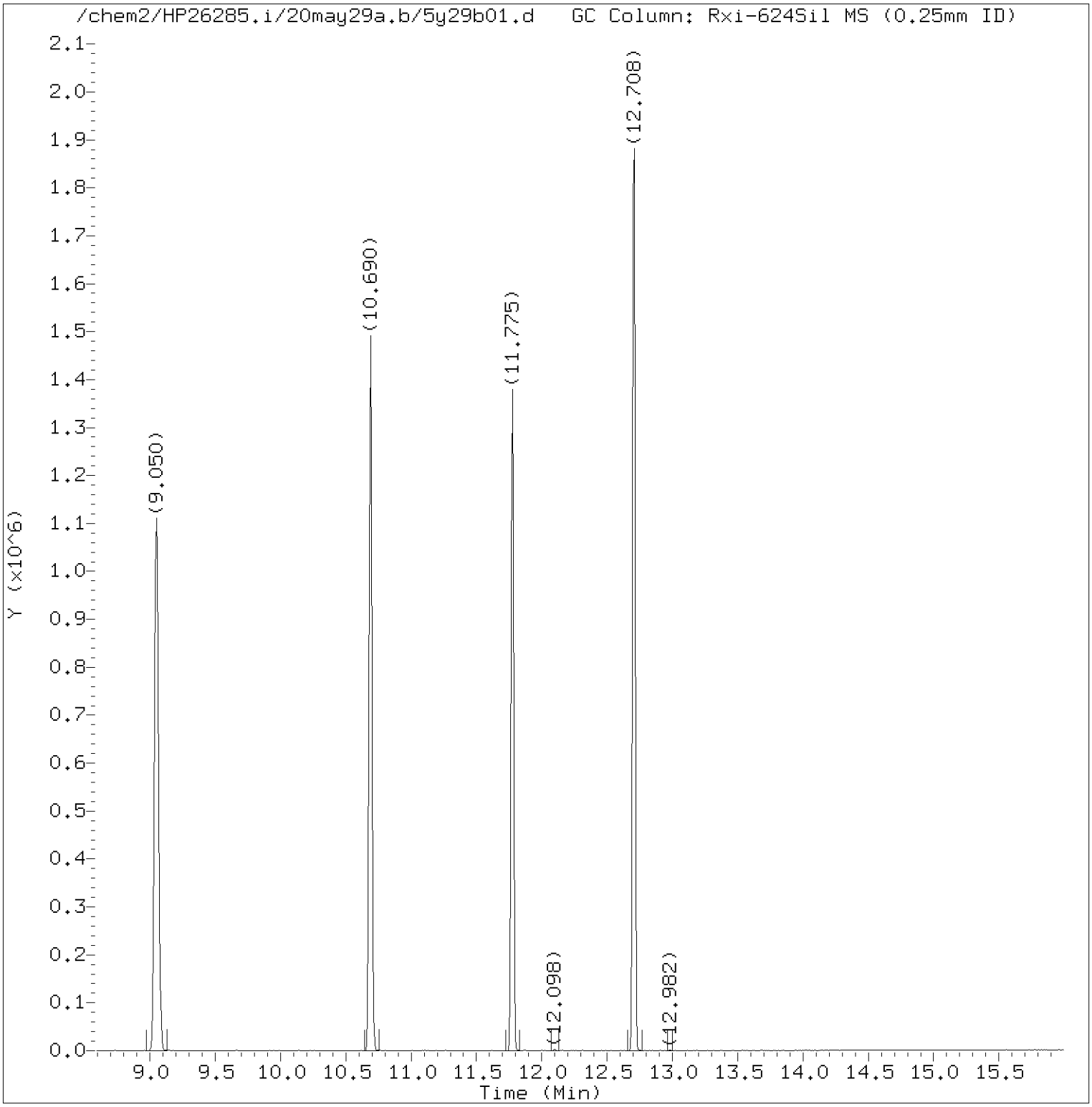
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	316522	250.000
52)$Dibromofluoromethane	(2)	5.965	113	244754	49.996
57)$1,2-Dichloroethane-d4	(2)	6.441	102	56193	51.323
66)*Fluorobenzene	(2)	6.892	96	982866	50.000
84)$Toluene-d8	(3)	9.050	98	929643	48.766
101)*Chlorobenzene-d5	(3)	10.690	117	775701	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	385597	48.007
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	414789	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941

Data file: /chem/HP09915.i/20may29a.b/ly29b05.d Injection date and time: **29-MAY-2020 12:01**
Data file Sample Info. Line: VBLKL05;VBLKL05;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D+SM**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487(0.006)	934	65	319939	(-15)	250.00	
66) Fluorobenzene	7.946(0.000)	2010	96	1593241	(-6)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	1207769	(-6)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(0.000)	3649	152	650457	(-8)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062(0.000)	113	391252	48.745	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519(0.000)	102	101817	49.992	100%		80 - 120
83) Toluene-d8	(3)	9.924(0.000)	98	1555243	50.125	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.339(0.000)	95	560667	46.963	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
13) Ethanol	(1)			Not Detected					280	750
14) Ethyl ether	(2)			Not Detected					0.2	5
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
24) Acetonitrile	(1)			Not Detected					16	100
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
37) Vinyl Acetate	(2)			Not Detected					0.7	10
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may29a.b/ly29b05.d Injection date and time: **29-MAY-2020 12:01**
Data file Sample Info. Line: VBLKL05;VBLKL05;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D+SM**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
46) Ethyl Acetate	(2)				Not Detected					0.7	5
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
62) Isopropyl acetate	(2)				Not Detected					0.7	5
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
77) n-Propyl acetate	(2)				Not Detected					0.6	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
98) Butyl acetate	(3)				Not Detected					0.8	10
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
101) 1-Chlorohexane	(3)				Not Detected					0.3	5
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKL05

Data file: /chem/HP09915.i/20may29a.b/ly29b05.d Injection date and time: **29-MAY-2020 12:01**
Data file Sample Info. Line: VBLKL05;VBLKL05;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D+SM**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)	15.554	(0.000)	142	624	2.969	2.97		J	2	4

Total number of targets = 117

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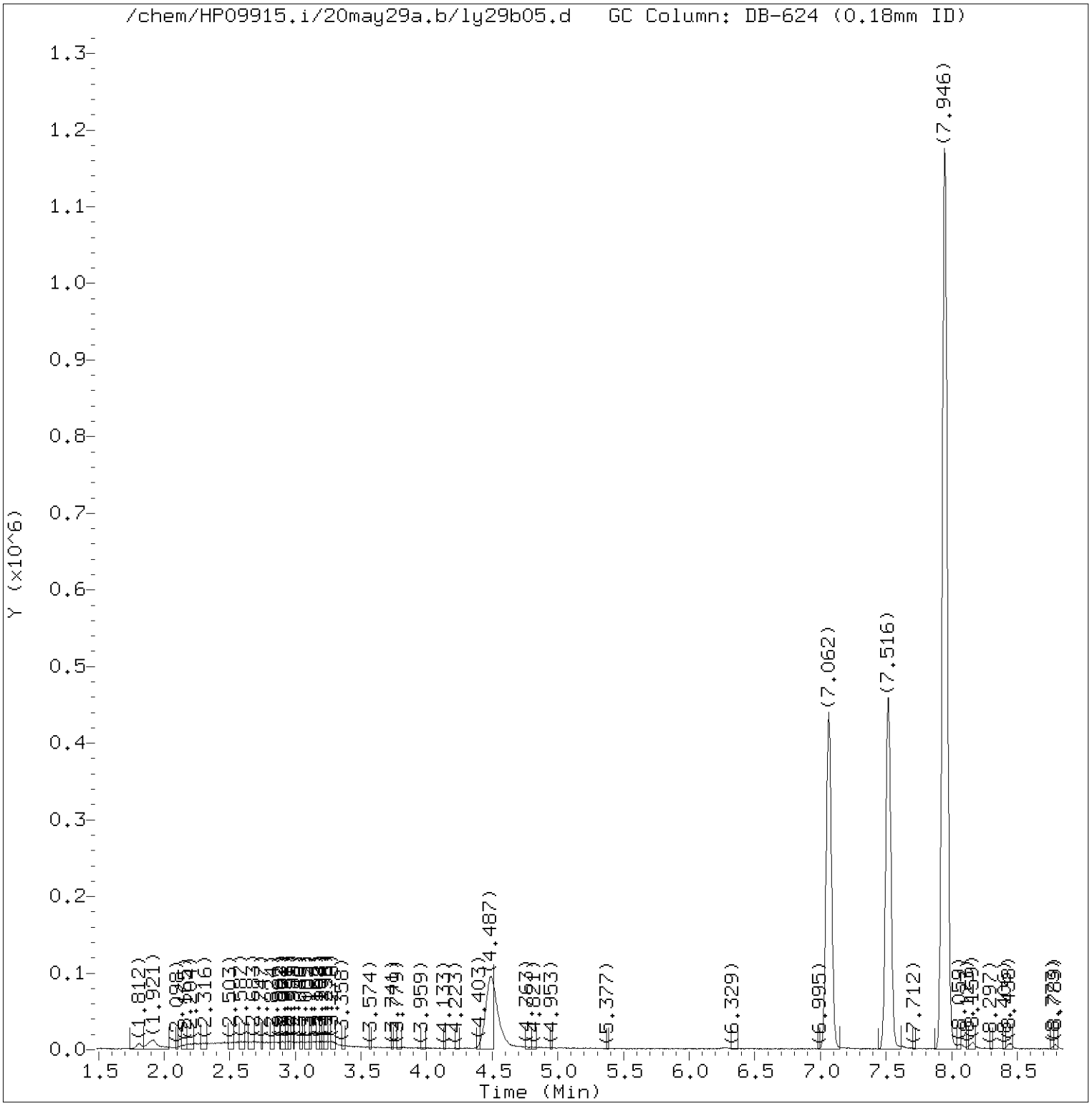
Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

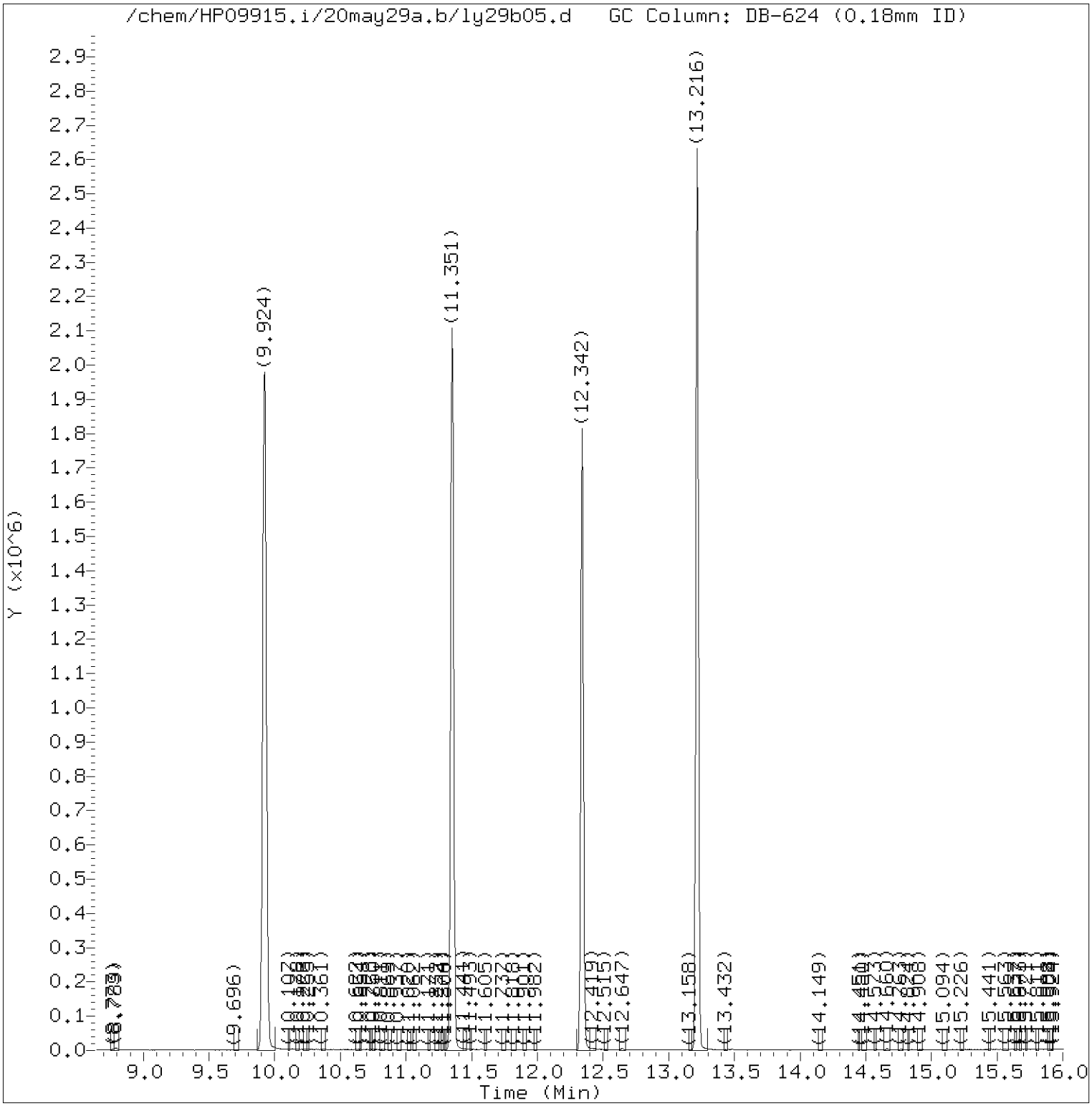
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29b05.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 12:01 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D+SM
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: VBLKL05 Lab Sample ID: VBLKL05

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:23.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29b05.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 12:01 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D+SM
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: VBLKL05 Lab Sample ID: VBLKL05

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:23.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29b05.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 12:01 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D+SM
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: VBLKL05 Lab Sample ID: VBLKL05

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.487	65	319939	250.000
52)$Dibromofluoromethane	(2)	7.062	113	391252	48.745
57)$1,2-Dichloroethane-d4	(2)	7.519	102	101817	49.992
66)*Fluorobenzene	(2)	7.946	96	1593241	50.000
83)$Toluene-d8	(3)	9.924	98	1555243	50.125
100)*Chlorobenzene-d5	(3)	11.351	117	1207769	50.000
114)$4-Bromofluorobenzene	(3)	12.339	95	560667	46.963
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	650457	50.000
150) 2-Methylnaphthalene	(4)	15.554	142	624	2.969

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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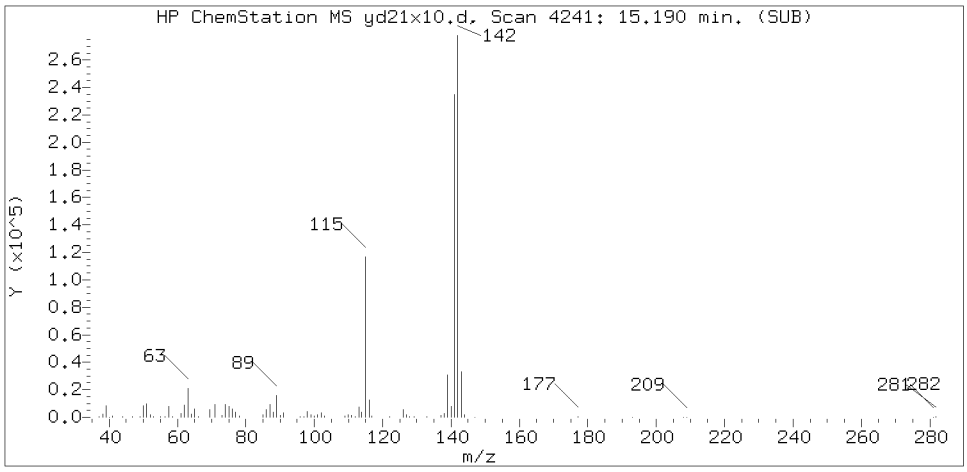
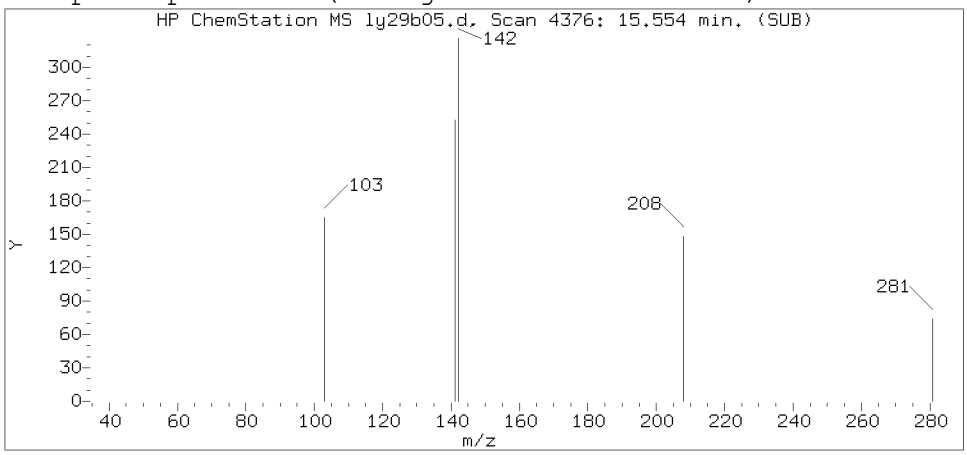
on 05/29/2020 at 12:23.
Target 3.5 esignature user ID: clm27445

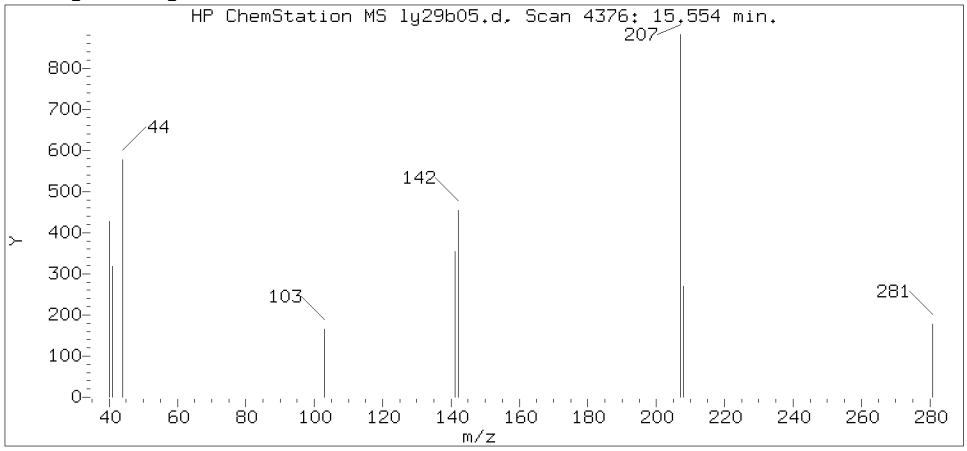
Reference Standard Spectrum for 2-Methylnaphthalene

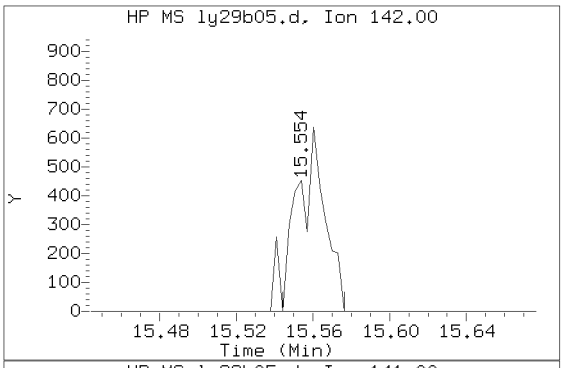


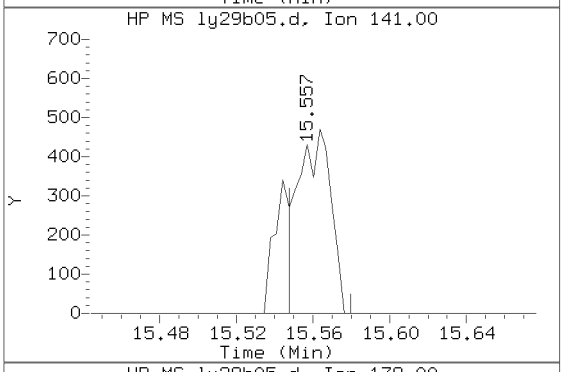
Sample Spectrum (Background Subtracted)

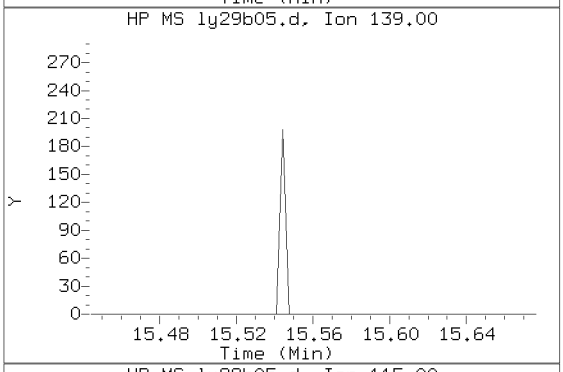


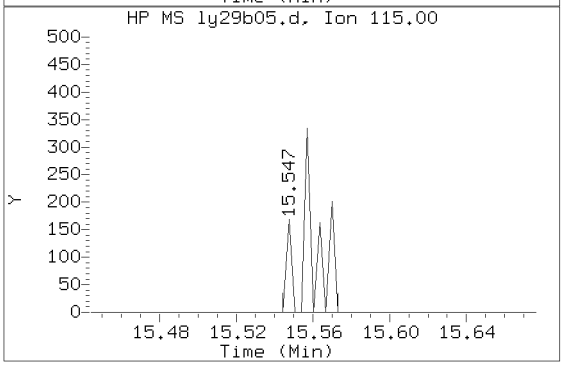
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20may29a.b/ly29b05.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 12:01 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D+SM
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: VBLKL05 Lab Sample ID: VBLKL05

Compound Number	: 150
Compound Name	: 2-Methylnaphthalene
Scan Number	: 4376
Retention Time (minutes)	: 15.554
Relative Retention Time	: 0.00024
Quant Ion	: 142.00
Area (flag)	: 624
On-Column Amount (ng)	: 2.9694

Digitally signed by Corie L. Mellinger on 05/29/2020 at 12:23.
Target 3.5 esignature user ID: clm27445

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may31a.b/ly31b01.d
Data file Sample Info. Line: VBLKL11;VBLKL11;1;3;;;;;;
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Injection date and time: **31-MAY-2020 12:29**
Instrument ID: **HP09915.i** Batch: **L201521AA**

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.490	(0.003)	935	65	295491	(-11)	250.00	
66) Fluorobenzene	7.950	(-0.003)	2011	96	1451950	(-4)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1101086	(-5)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	590022	(-8)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.001)	113	362204	49.517	99%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519	(0.000)	102	95256	51.322	103%		80 - 120
83) Toluene-d8	(3)	9.921	(0.000)	98	1410408	49.861	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	511112	46.960	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Don V. Viray on 05/31/2020 at 13:13. Target 3.5 esignature user ID: dvv10203

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may31a.b/ly31b01.d Injection date and time: **31-MAY-2020 12:29**
Data file Sample Info. Line: VBLKL11;VBLKL11;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
101) 1-Chlorohexane	(3)				Not Detected					0.3	5
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Don V. Viray on 05/31/2020 at 13:13. Target 3.5 esignature user ID: dvv10203

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKL11

Data file: /chem/HP09915.i/20may31a.b/ly31b01.d Injection date and time: **31-MAY-2020 12:29**
Data file Sample Info. Line: VBLKL11;VBLKL11;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

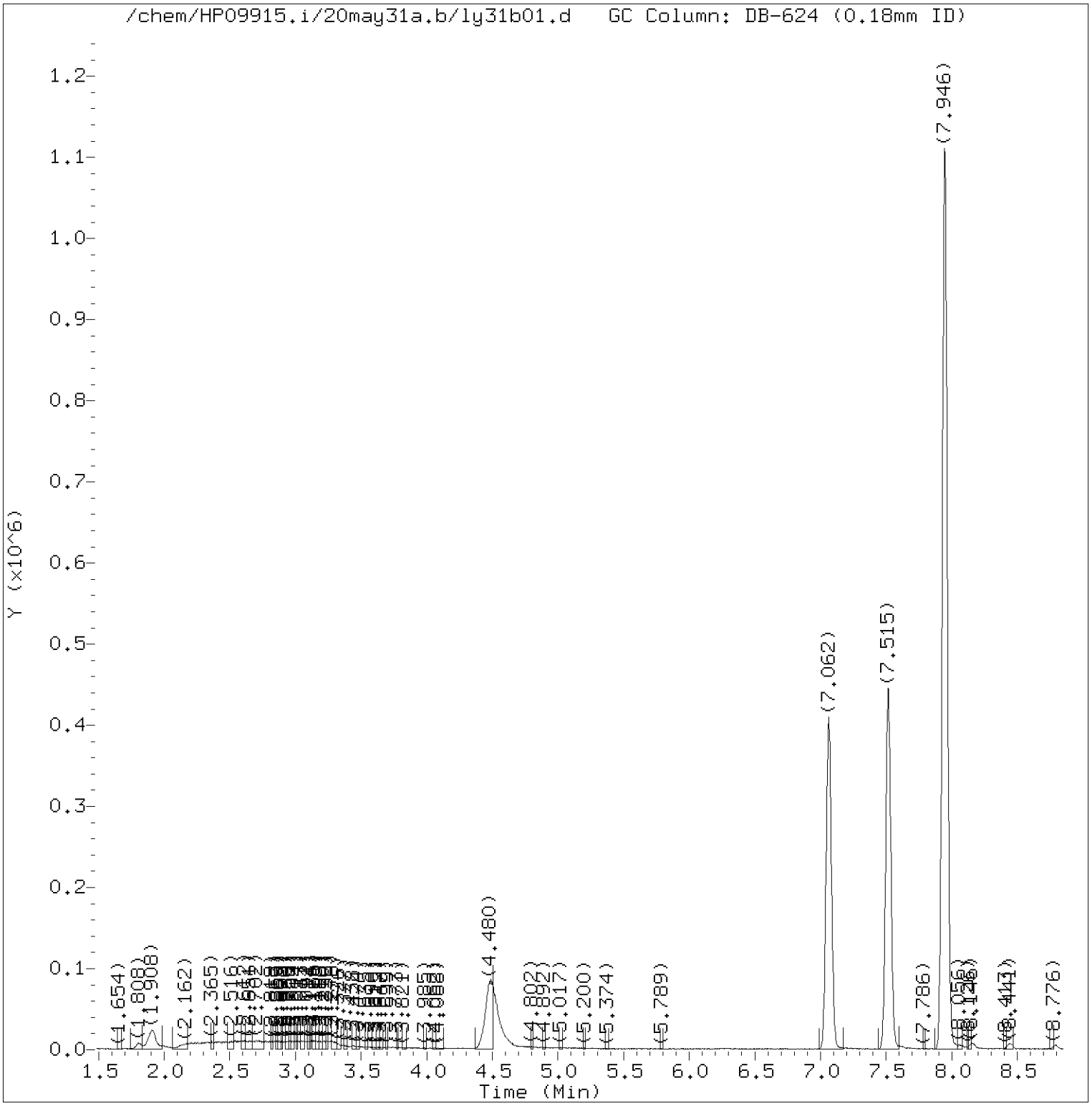
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Don V. Viray on 05/31/2020 at 13:13. Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32. PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

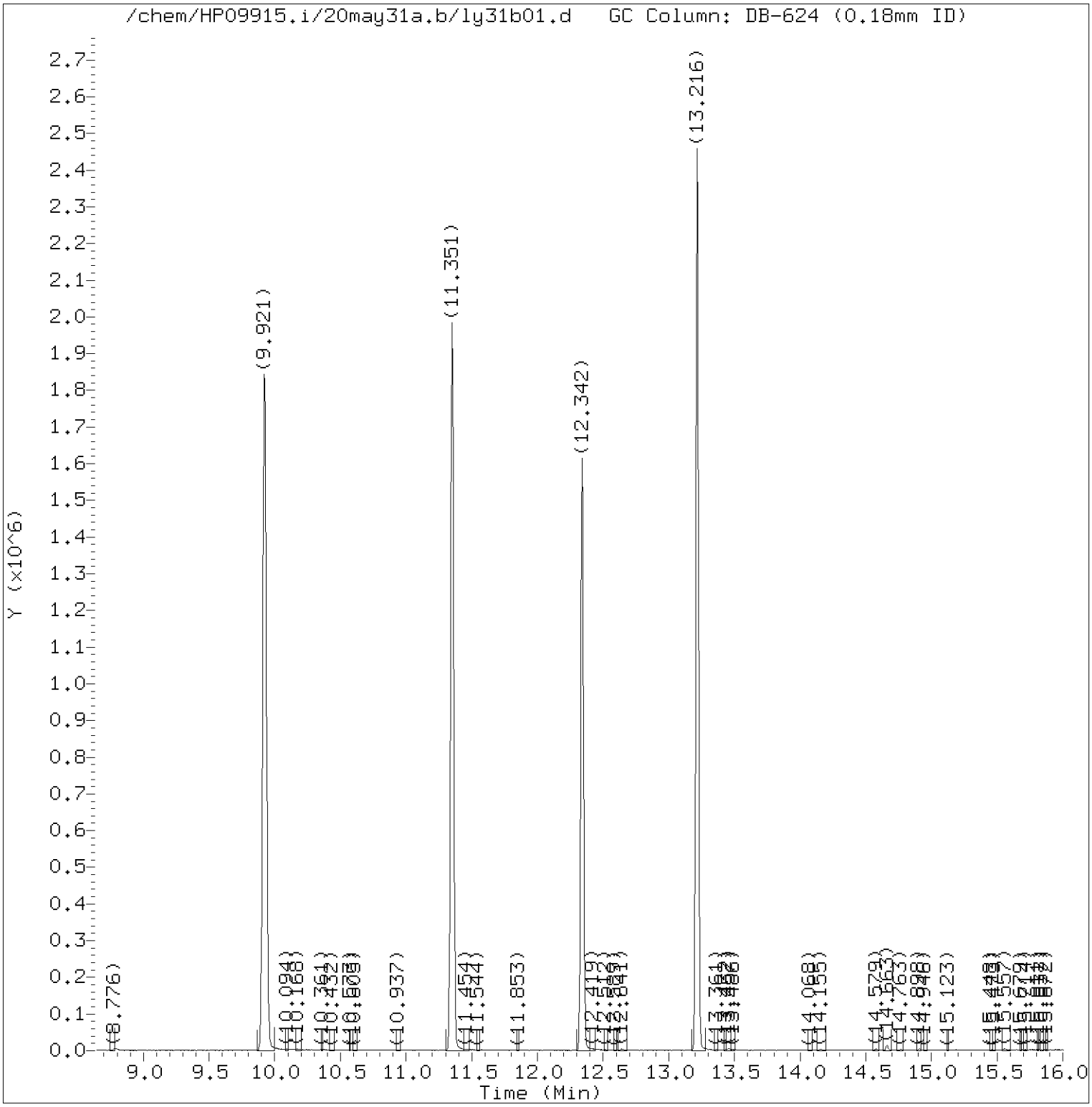
Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31b01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 12:29 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Sample Name: VBLKL11 Lab Sample ID: VBLKL11

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31b01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 12:29 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Sample Name: VBLKL11 Lab Sample ID: VBLKL11

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31b01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 12:29 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:13 dvv10203

Sample Name: VBLKL11 Lab Sample ID: VBLKL11

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.490	65	295491	250.000
52)$Dibromofluoromethane	(2)	7.062	113	362204	49.517
57)$1,2-Dichloroethane-d4	(2)	7.519	102	95256	51.322
66)*Fluorobenzene	(2)	7.950	96	1451950	50.000
83)$Toluene-d8	(3)	9.921	98	1410408	49.861
100)*Chlorobenzene-d5	(3)	11.351	117	1101086	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	511112	46.960
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	590022	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5802MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318258

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s34.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	140	
76-13-1	Freon 113	19	
75-15-0	Carbon Disulfide	21	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	20	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	23	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	19	
79-01-6	Trichloroethene	20	
123-91-1	1,4-Dioxane	510	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	21	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	65	
95-50-1	1,2-Dichlorobenzene	20	
91-20-3	Naphthalene	19	

FORM I VOA

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W5802MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318258MS

Data file: /chem/HP09915.i/20may29a.b/ly29s34.d Injection date and time: **29-MAY-2020 15:02**
Data file Sample Info. Line: W5802MS;1318258MS;1;3;MS;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.500 (-0.006)	938	65	332144 (-12)	250.00	
66) Fluorobenzene	7.950 (-0.003)	2011	96	1640857 (-3)	50.00	
100) Chlorobenzene-d5	11.351 (0.000)	3069	117	1231322 (-5)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216 (0.000)	3649	152	688015 (-2)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.069 (0.000)	113	396427	47.957	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522 (0.000)	102	103249	49.224	98%		80 - 120
83) Toluene-d8	(3)	9.924 (0.000)	98	1627129	51.439	103%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338 (0.000)	95	602555	49.506	99%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.419 (-0.000)	62	208284	20.545	20.54			0.2	1
17) 1,1-Dichloroethene	(2)	3.770 (-0.000)	96	147092	20.831	20.83			0.2	1
18) Acetone	(1)	3.811 (-0.000)	58	175976	141.188	141.19			0.7	20
19) Freon 113	(2)	3.802 (-0.000)	101	140320	19.153	19.15			0.2	10
23) Carbon Disulfide	(2)	4.082 (-0.000)	76	498420	20.963	20.96			0.2	5
28) Methylene Chloride	(2)	4.480 (-0.000)	84	167293	19.916	19.92			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.898 (-0.001)	96	162341	19.985	19.98			0.2	1
36) 1,1-Dichloroethane	(2)	5.551 (-0.000)	63	299061	20.990	20.99			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.380 (-0.000)	96	188765	20.721	20.72			0.2	1
44) 2-Butanone	(2)	6.352 (-0.000)	43	882100	145.666	145.67			0.3	10
51) Chloroform	(2)	6.853 (0.000)	83	274636	19.730	19.73			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.081 (-0.000)	97	274021	22.947	22.95			0.3	1
60) Benzene	(2)	7.548 (0.000)	78	683900	20.182	20.18			0.2	1
61) 1,2-Dichloroethane	(2)	7.622 (0.000)	62	213625	18.806	18.81			0.3	1
71) Trichloroethene	(2)	8.425 (0.000)	95	169899	19.813	19.81			0.2	1
75) 1,4-Dioxane	(1)	8.840 (0.004)	88	57107M	512.193	512.19			29	250
88) Toluene	(3)	9.998 (0.000)	92	419480	20.805	20.81			0.2	1
93) Tetrachloroethene	(3)	10.531 (0.000)	166	182104	21.193	21.19			0.2	1
104) Ethylbenzene	(3)	11.461 (-0.000)	91	795927	21.327	21.33			0.4	1
106) m+p-Xylene	(3)	11.573 (-0.000)	106	643125	43.858	43.86			1	5
107) o-Xylene	(3)	11.901 (-0.000)	106	299981	21.154	21.15			0.4	1
108) Xylene (Total)	(3)		106	943106	65.012	65.01			1	6
138) 1,2-Dichlorobenzene	(4)	13.496 (0.000)	146	385662	20.423	20.42			0.2	5
148) Naphthalene	(4)	14.766 (-0.000)	128	820297	19.063	19.06			1	5

M = Compound was manually integrated.

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Data file: /chem/HP09915.i/20may29a.b/ly29s34.d Injection date and time: **29-MAY-2020 15:02**
Data file Sample Info. Line: W5802MS;1318258MS;1;3;MS;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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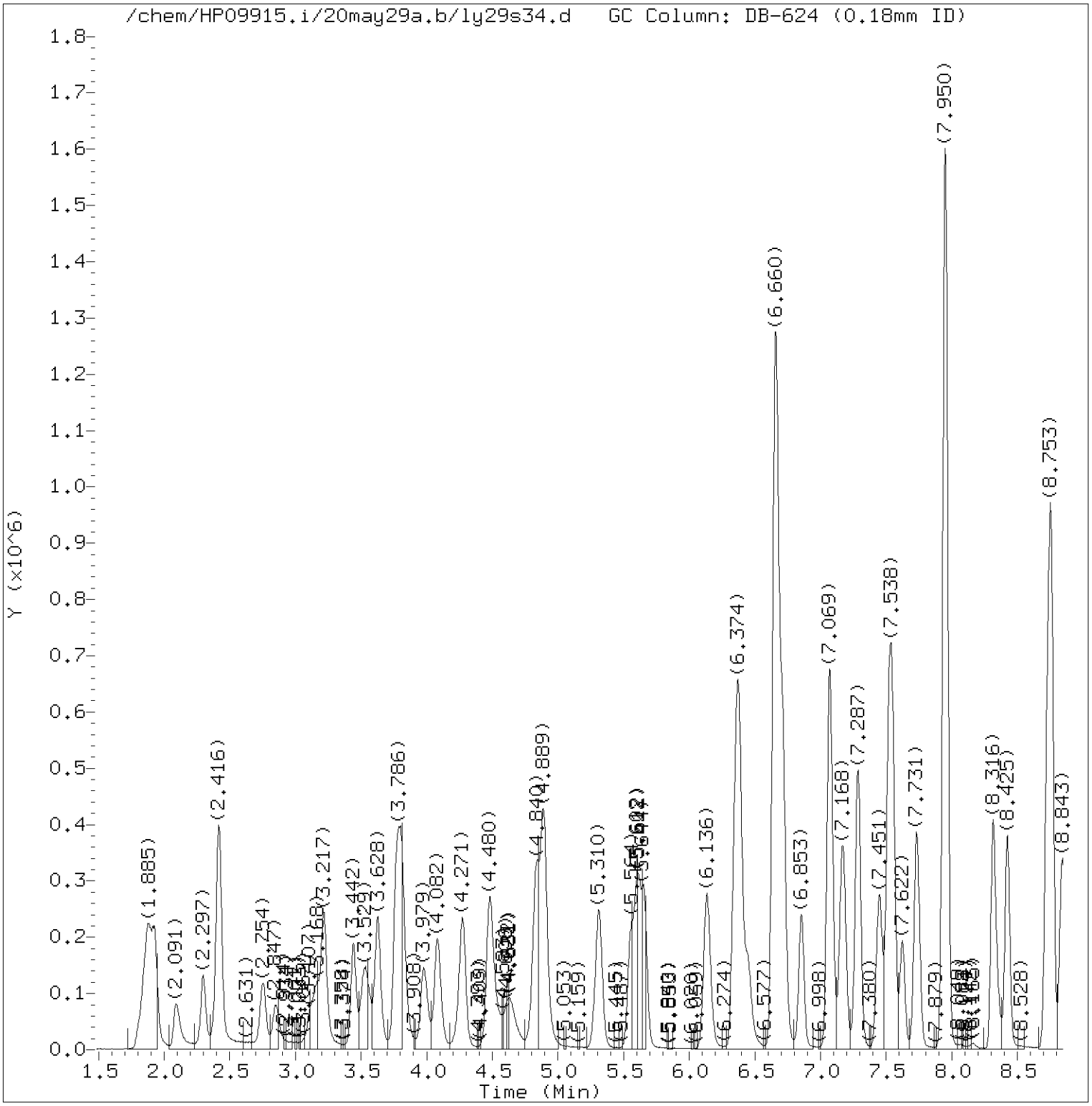
Total number of targets = 24

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

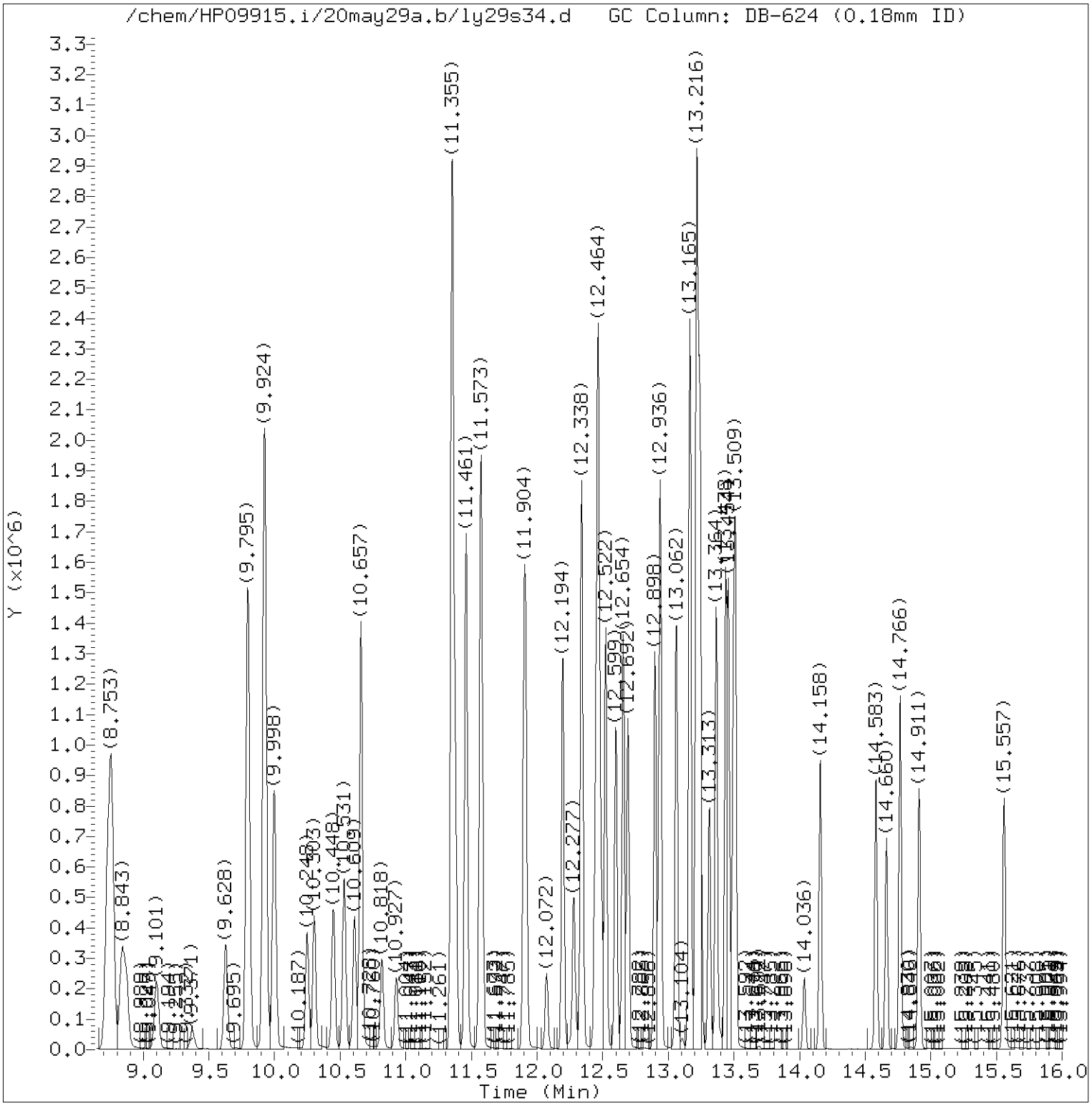
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s34.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:02 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MS Lab Sample ID: 1318258MS

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s34.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:02 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MS Lab Sample ID: 1318258MS

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s34.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:02 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

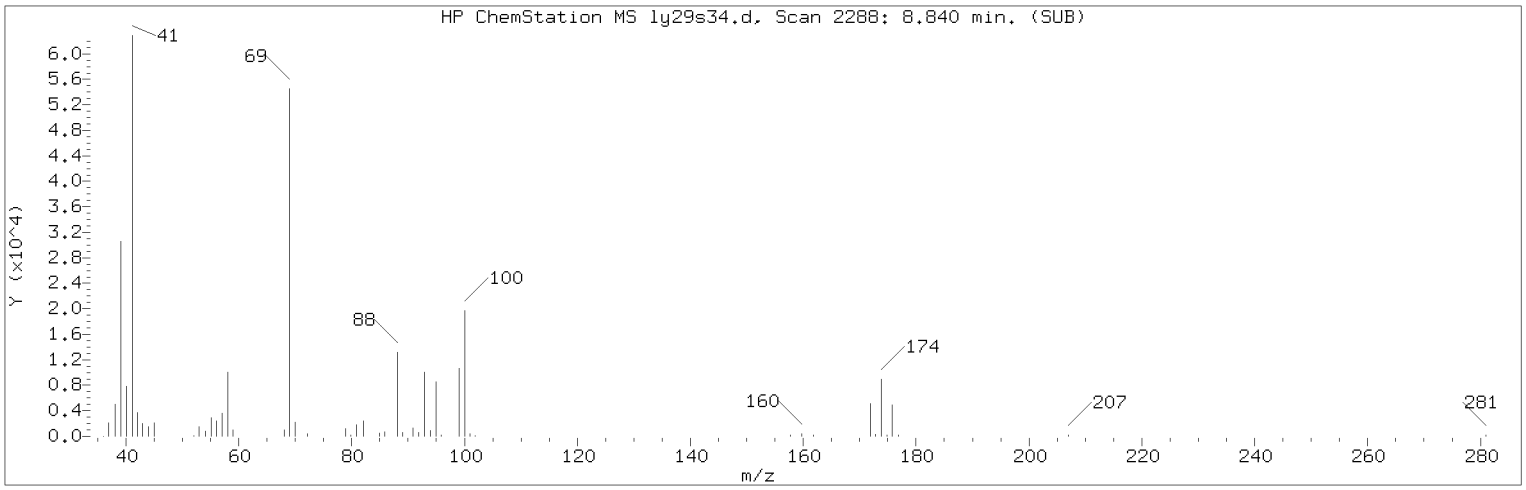
Sample Name: W5802MS Lab Sample ID: 1318258MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.419	62	208284	20.545
17) 1,1-Dichloroethene	(2)	3.770	96	147092	20.831
19) Freon 113	(2)	3.802	101	140320	19.153
18) Acetone	(1)	3.811	58	175976	141.188
23) Carbon Disulfide	(2)	4.082	76	498420	20.963
28) Methylene Chloride	(2)	4.480	84	167293	19.916
29)*t-Butyl alcohol-d10	(1)	4.500	65	332144	250.000
32) trans-1,2-Dichloroethene	(2)	4.898	96	162341	19.985
36) 1,1-Dichloroethane	(2)	5.551	63	299061	20.990
44) 2-Butanone	(2)	6.352	43	882100	145.666
42) cis-1,2-Dichloroethene	(2)	6.380	96	188765	20.721
51) Chloroform	(2)	6.853	83	274636	19.730
52)$Dibromofluoromethane	(2)	7.069	113	396427	47.957
53) 1,1,1-Trichloroethane	(2)	7.081	97	274021	22.947
57)$1,2-Dichloroethane-d4	(2)	7.522	102	103249	49.224
60) Benzene	(2)	7.548	78	683900	20.182
61) 1,2-Dichloroethane	(2)	7.622	62	213625	18.806
66)*Fluorobenzene	(2)	7.950	96	1640857	50.000
71) Trichloroethene	(2)	8.425	95	169899	19.813
75) 1,4-Dioxane	(1)	8.840	88	57107M	512.193
83)$Toluene-d8	(3)	9.924	98	1627129	51.439
88) Toluene	(3)	9.998	92	419480	20.805
93) Tetrachloroethene	(3)	10.531	166	182104	21.193
100)*Chlorobenzene-d5	(3)	11.351	117	1231322	50.000
104) Ethylbenzene	(3)	11.461	91	795927	21.327
106) m+p-Xylene	(3)	11.573	106	643125	43.858
108) Xylene (Total)	(3)		106	943106	65.012
107) o-Xylene	(3)	11.901	106	299981	21.154
114)$4-Bromofluorobenzene	(3)	12.338	95	602555	49.506
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	688015	50.000
138) 1,2-Dichlorobenzene	(4)	13.496	146	385662	20.423
148) Naphthalene	(4)	14.766	128	820297	19.063

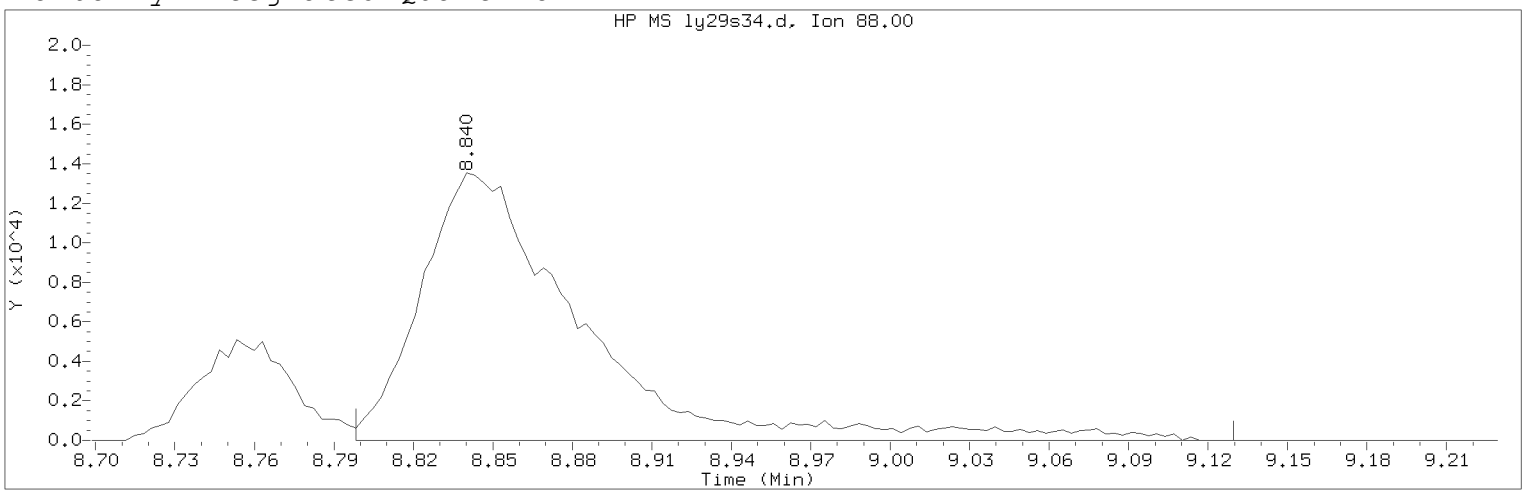
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s34.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:02 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MS Lab Sample ID: 1318258MS

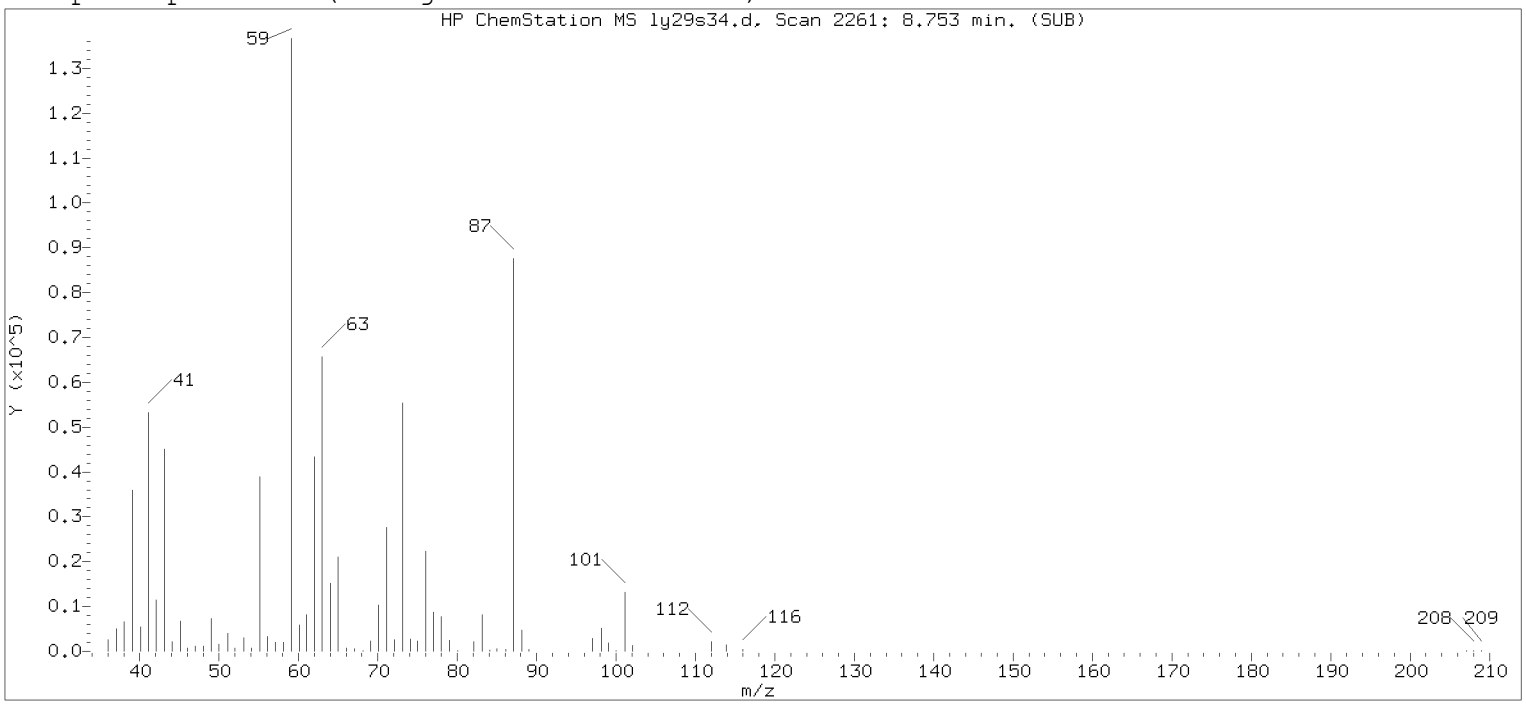
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 57107M
On-Column Amount (ng) : 512.1929
Integration start scan : 2274 Integration stop scan: 2377
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

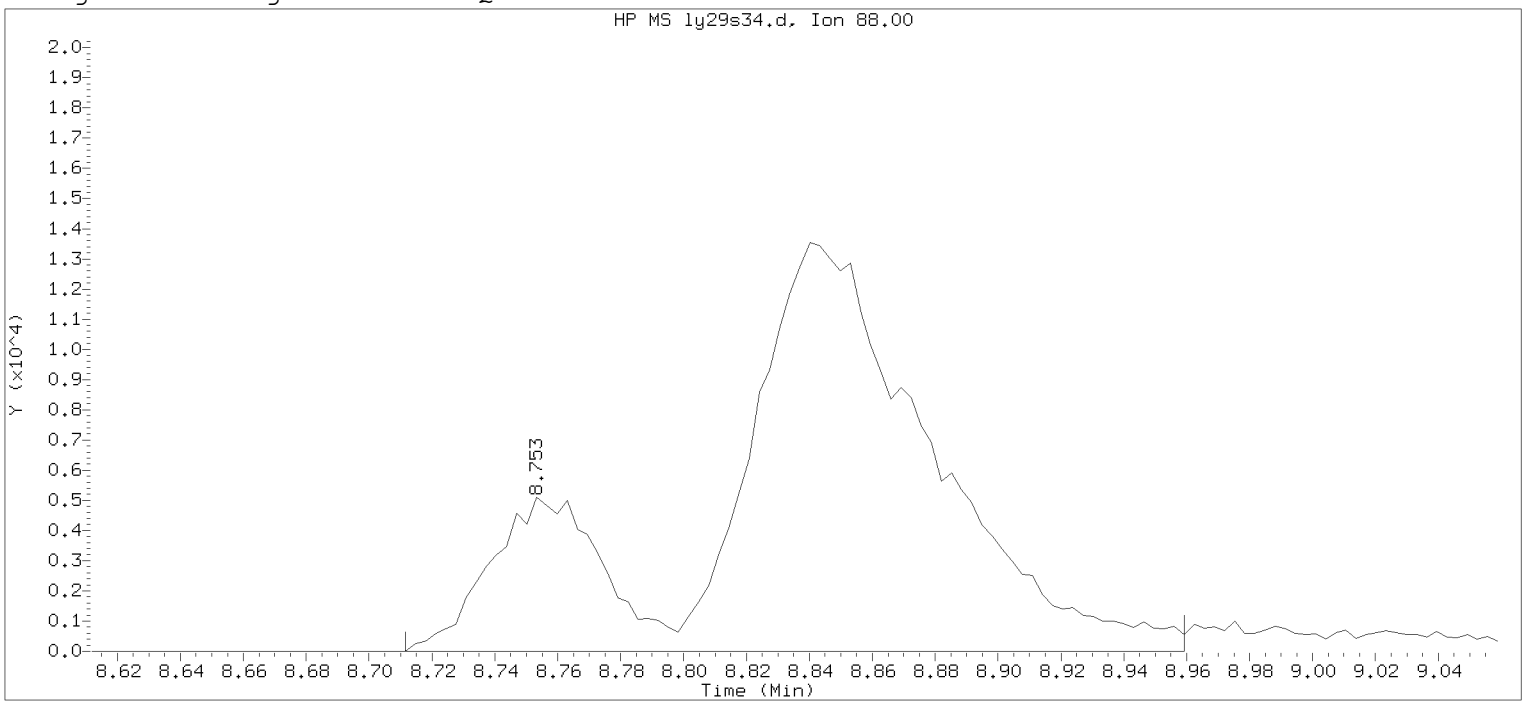
Analyst responsible for change: Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s34.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:02 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 16:47 ljg30941

Sample Name: W5802MS Lab Sample ID: 1318258MS

Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 2261		
Retention Time (minutes)	: 8.753		
Quant Ion	: 88.00		
Area	: 64951		
On-column Amount (ng)	: 582.5525		
Integration start scan	: 2247	Integration stop scan:	2324
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48.
Target 3.5 esignature user: CLM27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5802MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318259

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s35.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	20	
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	140	
76-13-1	Freon 113	19	
75-15-0	Carbon Disulfide	21	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	20	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	150	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	23	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	19	
79-01-6	Trichloroethene	20	
123-91-1	1,4-Dioxane	500	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	21	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	64	
95-50-1	1,2-Dichlorobenzene	21	
91-20-3	Naphthalene	19	

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may29a.b/ly29s35.d Injection date and time: **29-MAY-2020 15:24**
Data file Sample Info. Line: W5802MSD;1318259MSD;1;3;MSD;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487	(0.006)	934	65	351318	(-7)	250.00	
66) Fluorobenzene	7.946	(0.000)	2010	96	1650162	(-3)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1253868	(-3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	686925	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.000)	113	401925	48.348	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519	(0.000)	102	105252	49.896	100%		80 - 120
83) Toluene-d8	(3)	9.920	(0.000)	98	1642751	50.999	102%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	612997	49.459	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.413	(0.000)	62	205180	20.124	20.12			0.2	1
17) 1,1-Dichloroethene	(2)	3.763	(0.000)	96	146534	20.635	20.63			0.2	1
18) Acetone	(1)	3.805	(-0.001)	58	180315	136.773	136.77			0.7	20
19) Freon 113	(2)	3.798	(-0.000)	101	141296	19.178	19.18			0.2	10
23) Carbon Disulfide	(2)	4.075	(0.000)	76	499460	20.889	20.89			0.2	5
28) Methylene Chloride	(2)	4.470	(0.000)	84	168861	19.990	19.99			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.885	(0.000)	96	163332	19.993	19.99			0.2	1
36) 1,1-Dichloroethane	(2)	5.544	(0.000)	63	304526	21.253	21.25			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.374	(0.000)	96	189982	20.737	20.74			0.2	1
44) 2-Butanone	(2)	6.345	(0.000)	43	895521	147.048	147.05			0.3	10
51) Chloroform	(2)	6.853	(-0.000)	83	277119	19.797	19.80			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075	(-0.000)	97	275811	22.966	22.97			0.3	1
60) Benzene	(2)	7.548	(0.000)	78	684772	20.093	20.09			0.2	1
61) 1,2-Dichloroethane	(2)	7.622	(0.000)	62	214780	18.801	18.80			0.3	1
71) Trichloroethene	(2)	8.419	(0.000)	95	172147	19.962	19.96			0.2	1
75) 1,4-Dioxane	(1)	8.843	(-0.001)	88	58467	495.771	495.77			29	250
88) Toluene	(3)	9.998	(0.000)	92	422345	20.571	20.57			0.2	1
93) Tetrachloroethene	(3)	10.531	(0.000)	166	182419	20.848	20.85			0.2	1
104) Ethylbenzene	(3)	11.457	(0.000)	91	802754	21.123	21.12			0.4	1
106) m+p-Xylene	(3)	11.573	(-0.000)	106	648464	43.427	43.43			1	5
107) o-Xylene	(3)	11.898	(0.000)	106	300872	20.836	20.84			0.4	1
108) Xylene (Total)	(3)			106	949336	64.262	64.26			1	6
138) 1,2-Dichlorobenzene	(4)	13.496	(-0.000)	146	391950	20.789	20.79			0.2	5
148) Naphthalene	(4)	14.766	(-0.000)	128	828037	19.273	19.27			1	5

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may29a.b/ly29s35.d Injection date and time: **29-MAY-2020 15:24**
Data file Sample Info. Line: W5802MSD;1318259MSD;1;3;MSD;JCW58;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 16:43
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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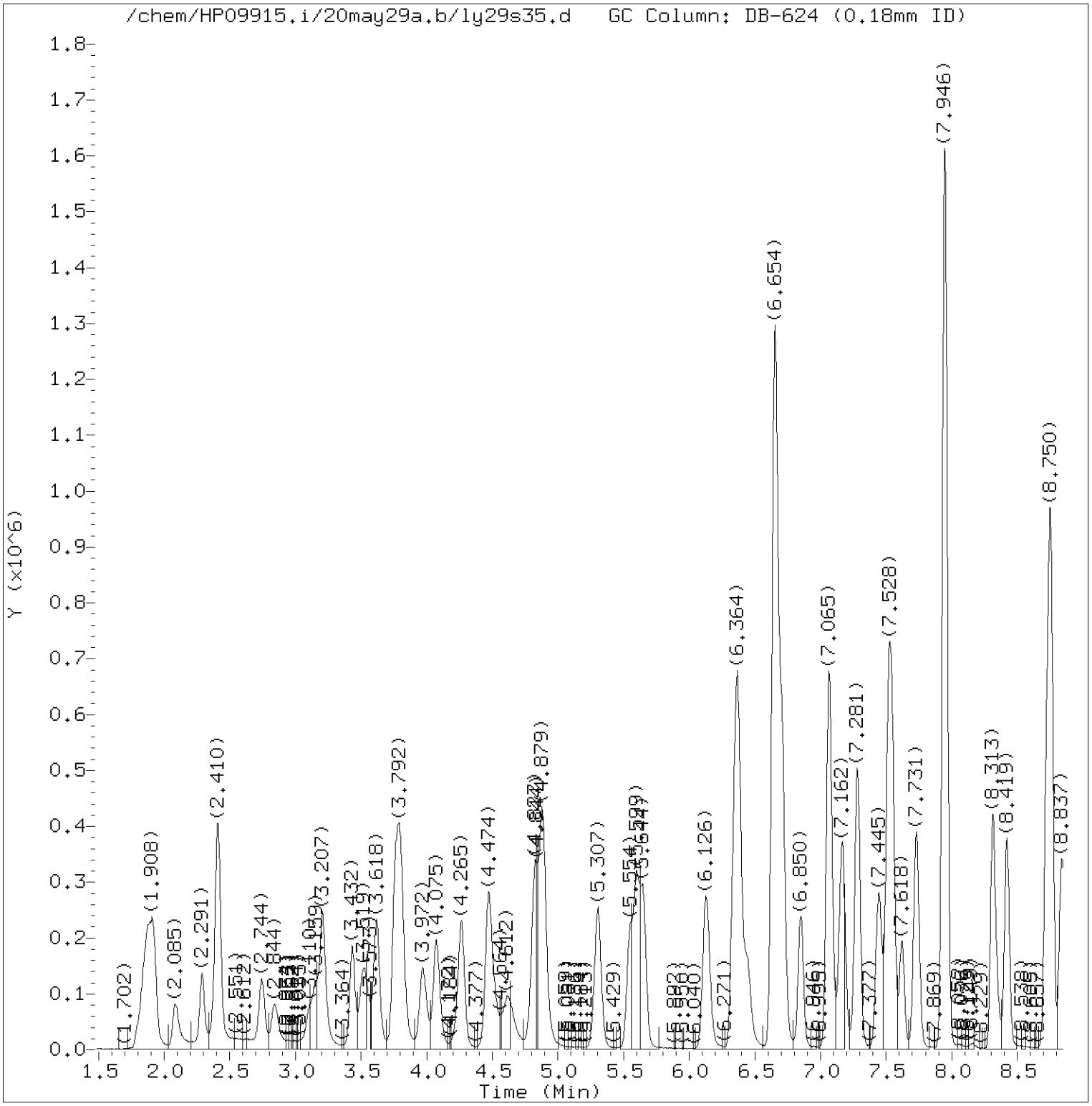
Total number of targets = 24

Digitally signed by Miranda E. Campbell on 05/29/2020 at 22:48. Target 3.5 esignature user ID: mec29284

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

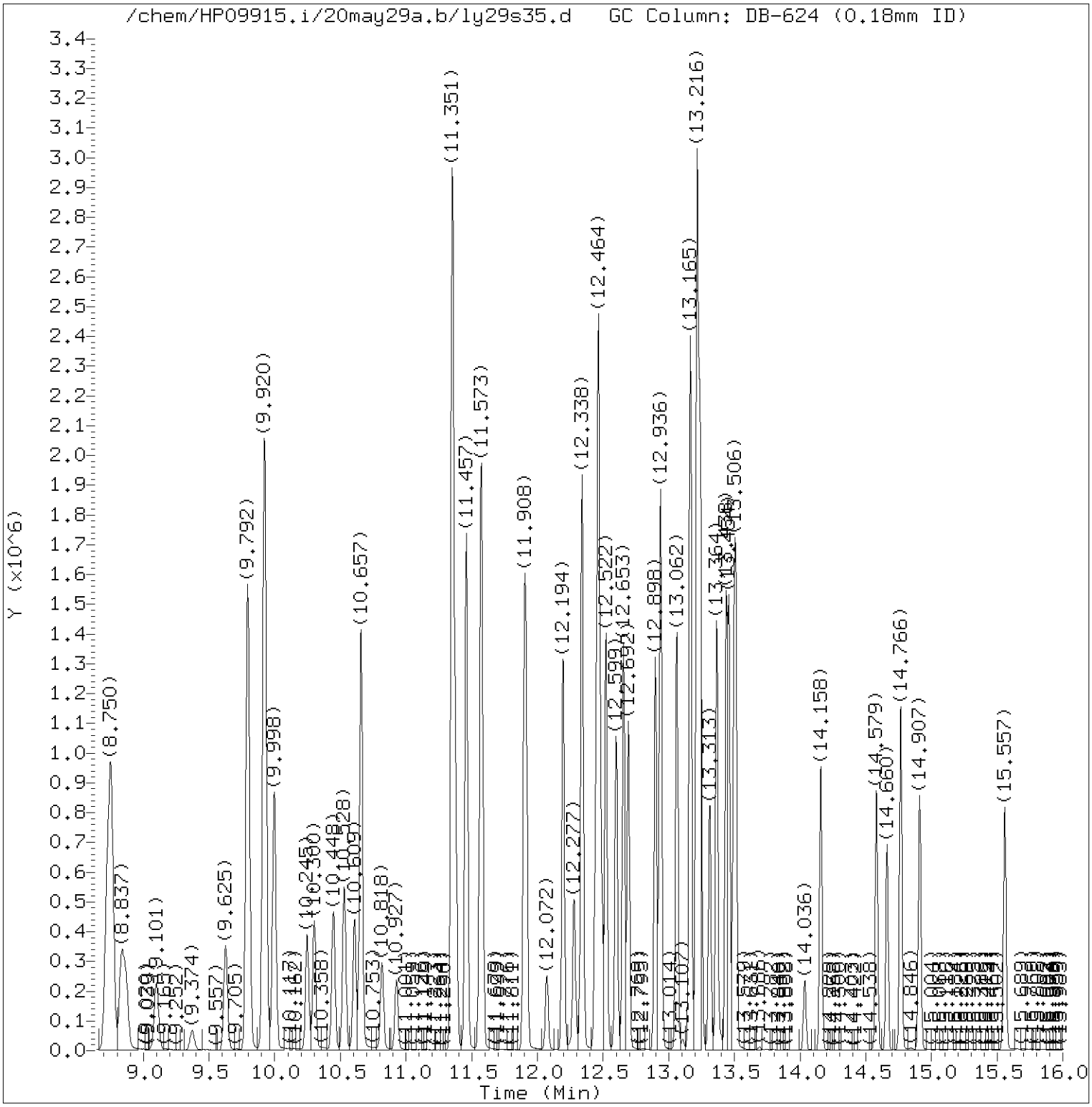
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s35.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:24 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MSD Lab Sample ID: 1318259MSD

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s35.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:24 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MSD Lab Sample ID: 1318259MSD

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s35.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 15:24 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 16:43
Date, time and analyst ID of latest file update: 29-May-2020 17:02 ljg30941

Sample Name: W5802MSD Lab Sample ID: 1318259MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.413	62	205180	20.124
17) 1,1-Dichloroethene	(2)	3.763	96	146534	20.635
19) Freon 113	(2)	3.799	101	141296	19.178
18) Acetone	(1)	3.805	58	180315	136.773
23) Carbon Disulfide	(2)	4.075	76	499460	20.889
28) Methylene Chloride	(2)	4.471	84	168861	19.990
29)*t-Butyl alcohol-d10	(1)	4.487	65	351318	250.000
32) trans-1,2-Dichloroethene	(2)	4.885	96	163332	19.993
36) 1,1-Dichloroethane	(2)	5.544	63	304526	21.253
44) 2-Butanone	(2)	6.345	43	895521	147.048
42) cis-1,2-Dichloroethene	(2)	6.374	96	189982	20.737
51) Chloroform	(2)	6.853	83	277119	19.797
52)$Dibromofluoromethane	(2)	7.062	113	401925	48.348
53) 1,1,1-Trichloroethane	(2)	7.075	97	275811	22.966
57)$1,2-Dichloroethane-d4	(2)	7.519	102	105252	49.896
60) Benzene	(2)	7.548	78	684772	20.093
61) 1,2-Dichloroethane	(2)	7.622	62	214780	18.801
66)*Fluorobenzene	(2)	7.946	96	1650162	50.000
71) Trichloroethene	(2)	8.419	95	172147	19.962
75) 1,4-Dioxane	(1)	8.843	88	58467	495.771
83)$Toluene-d8	(3)	9.920	98	1642751	50.999
88) Toluene	(3)	9.998	92	422345	20.571
93) Tetrachloroethene	(3)	10.531	166	182419	20.848
100)*Chlorobenzene-d5	(3)	11.351	117	1253868	50.000
104) Ethylbenzene	(3)	11.457	91	802754	21.123
106) m+p-Xylene	(3)	11.573	106	648464	43.427
108) Xylene (Total)	(3)		106	949336	64.262
107) o-Xylene	(3)	11.898	106	300872	20.836
114)$4-Bromofluorobenzene	(3)	12.338	95	612997	49.459
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	686925	50.000
138) 1,2-Dichlorobenzene	(4)	13.496	146	391950	20.789
148) Naphthalene	(4)	14.766	128	828037	19.273

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Miranda E. Campbell
on 05/29/2020 at 22:48.
Target 3.5 esignature user ID: mec29284

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5801MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318256

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s05.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	24	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	150	
76-13-1	Freon 113	21	
75-15-0	Carbon Disulfide	23	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	22	
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	160	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	21	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	21	
123-91-1	1,4-Dioxane	540	
108-88-3	Toluene	21	
127-18-4	Tetrachloroethene	22	
100-41-4	Ethylbenzene	22	
1330-20-7	Xylene (Total)	66	
95-50-1	1,2-Dichlorobenzene	22	
91-20-3	Naphthalene	19	

FORM I VOA

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W5801MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318256MS

Data file: /chem/HP09915.i/20may31a.b/ly31s05.d Injection date and time: **31-MAY-2020 13:57**
Data file Sample Info. Line: W5801MS;1318256MS;1;3;MS;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.503	(-0.010)	939	65	291903	(-12)	250.00	
66) Fluorobenzene	7.949	(-0.003)	2011	96	1479212	(-3)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1125078	(-3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.213	(0.003)	3648	152	628258	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065	(0.000)	113	360692	48.402	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.515	(0.000)	102	94299	49.870	100%		80 - 120
83) Toluene-d8	(3)	9.920	(0.000)	98	1485211	51.386	103%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	563107	50.634	101%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	2.416	(-0.000)	62	215658	23.597	23.60			0.2	1
17) 1,1-Dichloroethene	(2)	3.763	(0.000)	96	136897	21.506	21.51			0.2	1
18) Acetone	(1)	3.805	(0.001)	58	168593	153.911	153.91			0.7	20
19) Freon 113	(2)	3.792	(0.000)	101	136448	20.660	20.66			0.2	10
23) Carbon Disulfide	(2)	4.075	(0.000)	76	483275	22.548	22.55			0.2	5
28) Methylene Chloride	(2)	4.474	(-0.000)	84	158049	20.872	20.87			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.882	(0.000)	96	152848	20.872	20.87			0.2	1
36) 1,1-Dichloroethane	(2)	5.548	(0.000)	63	277208	21.583	21.58			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.374	(0.000)	96	175981	21.429	21.43			0.2	1
44) 2-Butanone	(2)	6.348	(0.000)	43	850781	155.847	155.85			0.3	10
51) Chloroform	(2)	6.847	(0.000)	83	262255	20.900	20.90			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075	(0.000)	97	222685	20.686	20.69			0.3	1
60) Benzene	(2)	7.544	(0.000)	78	642048	21.017	21.02			0.2	1
61) 1,2-Dichloroethane	(2)	7.621	(-0.000)	62	208609	20.371	20.37			0.3	1
71) Trichloroethene	(2)	8.419	(0.000)	95	158716	20.531	20.53			0.2	1
75) 1,4-Dioxane	(1)	8.843	(0.004)	88	53152M	542.440	542.44			29	250
88) Toluene	(3)	9.998	(0.000)	92	394539	21.416	21.42			0.2	1
93) Tetrachloroethene	(3)	10.528	(0.000)	166	171798	21.882	21.88			0.2	1
104) Ethylbenzene	(3)	11.460	(-0.000)	91	746300	21.885	21.89			0.4	1
106) m+p-Xylene	(3)	11.570	(0.000)	106	599999	44.781	44.78			1	5
107) o-Xylene	(3)	11.898	(0.000)	106	275252	21.243	21.24			0.4	1
108) Xylene (Total)	(3)			106	875251	66.024	66.02			1	6
138) 1,2-Dichlorobenzene	(4)	13.496	(-0.000)	146	371065	21.519	21.52			0.2	5
148) Naphthalene	(4)	14.766	(-0.000)	128	757616	19.281	19.28			1	5

M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20may31a.b/ly31s05.d Injection date and time: **31-MAY-2020 13:57**
Data file Sample Info. Line: W5801MS;1318256MS;1;3;MS;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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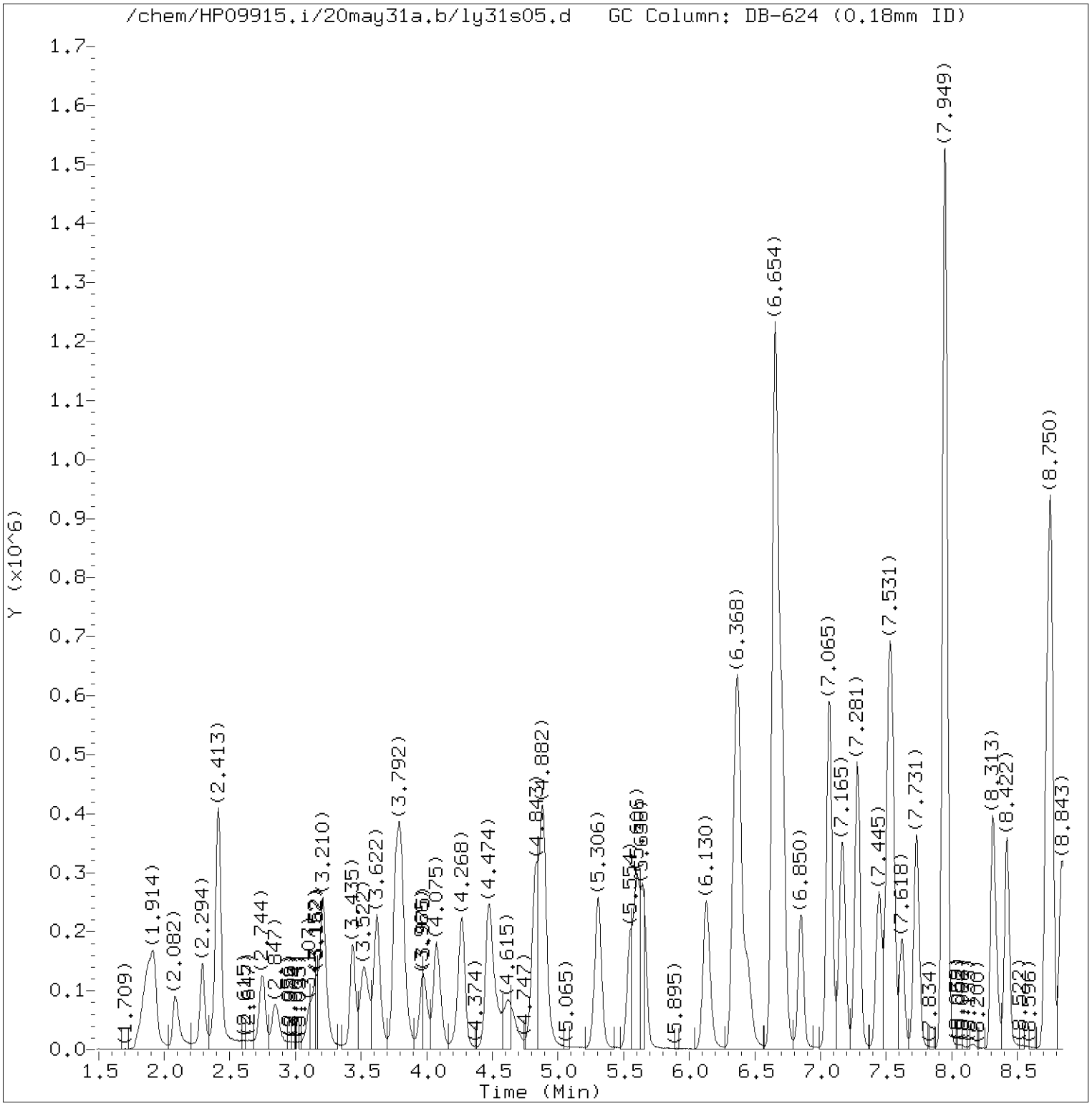
Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:37. PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

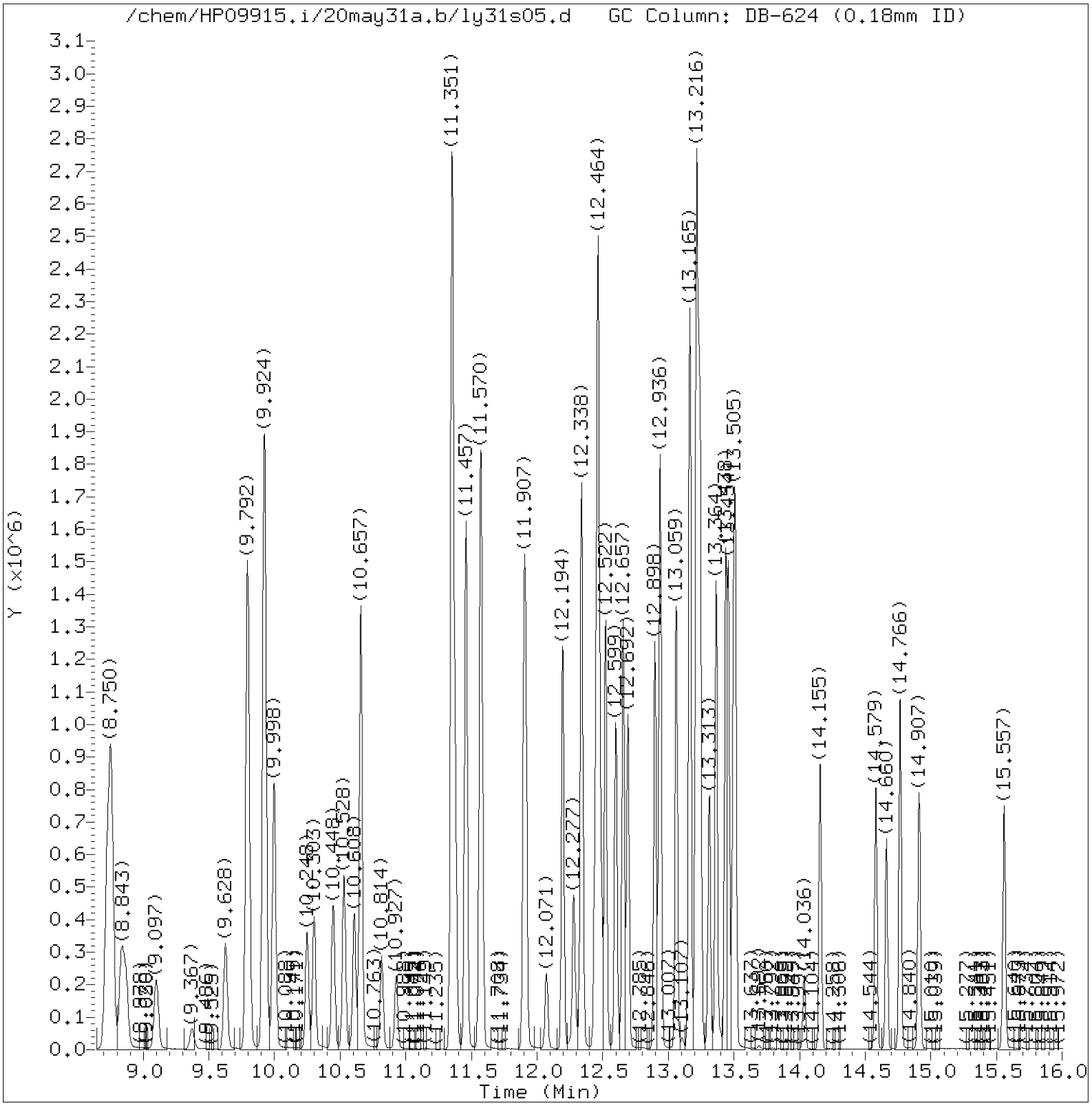
Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s05.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:57 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801MS Lab Sample ID: 1318256MS

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s05.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:57 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801MS Lab Sample ID: 1318256MS

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s05.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:57 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

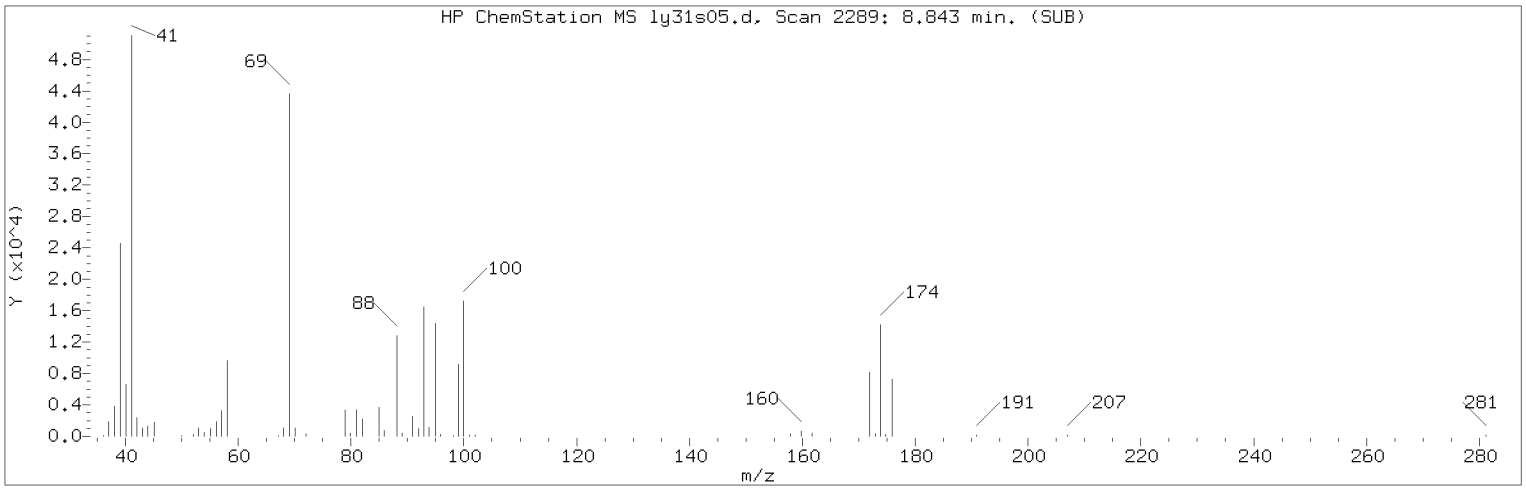
Sample Name: W5801MS Lab Sample ID: 1318256MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.416	62	215658	23.597
17) 1,1-Dichloroethene	(2)	3.763	96	136897	21.506
19) Freon 113	(2)	3.792	101	136448	20.660
18) Acetone	(1)	3.805	58	168593	153.911
23) Carbon Disulfide	(2)	4.075	76	483275	22.548
28) Methylene Chloride	(2)	4.474	84	158049	20.872
29)*t-Butyl alcohol-d10	(1)	4.503	65	291903	250.000
32) trans-1,2-Dichloroethene	(2)	4.882	96	152848	20.872
36) 1,1-Dichloroethane	(2)	5.548	63	277208	21.583
44) 2-Butanone	(2)	6.348	43	850781	155.847
42) cis-1,2-Dichloroethene	(2)	6.374	96	175981	21.429
51) Chloroform	(2)	6.847	83	262255	20.900
52)$Dibromofluoromethane	(2)	7.065	113	360692	48.402
53) 1,1,1-Trichloroethane	(2)	7.075	97	222685	20.686
57)$1,2-Dichloroethane-d4	(2)	7.515	102	94299	49.870
60) Benzene	(2)	7.544	78	642048	21.017
61) 1,2-Dichloroethane	(2)	7.621	62	208609	20.371
66)*Fluorobenzene	(2)	7.949	96	1479212	50.000
71) Trichloroethene	(2)	8.419	95	158716	20.531
75) 1,4-Dioxane	(1)	8.843	88	53152M	542.440
83)$Toluene-d8	(3)	9.920	98	1485211	51.386
88) Toluene	(3)	9.998	92	394539	21.416
93) Tetrachloroethene	(3)	10.528	166	171798	21.882
100)*Chlorobenzene-d5	(3)	11.351	117	1125078	50.000
104) Ethylbenzene	(3)	11.461	91	746300	21.885
106) m+p-Xylene	(3)	11.570	106	599999	44.781
108) Xylene (Total)	(3)		106	875251	66.024
107) o-Xylene	(3)	11.898	106	275252	21.243
114)$4-Bromofluorobenzene	(3)	12.338	95	563107	50.634
131)*1,4-Dichlorobenzene-d4	(4)	13.213	152	628258	50.000
138) 1,2-Dichlorobenzene	(4)	13.496	146	371065	21.519
148) Naphthalene	(4)	14.766	128	757616	19.281

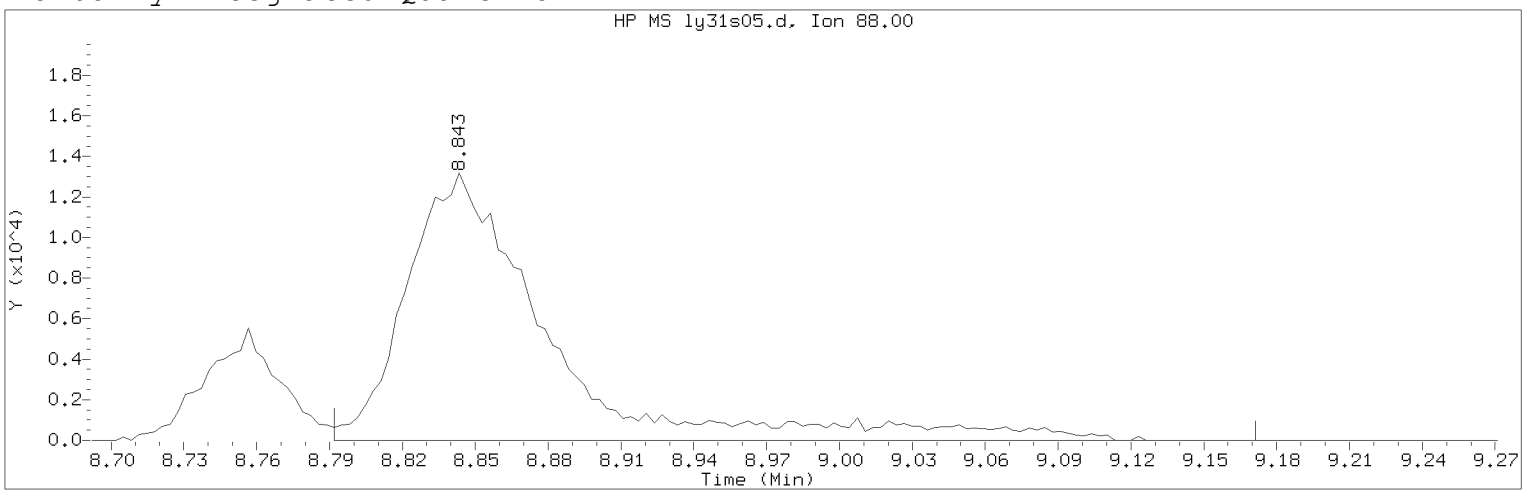
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s05.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:57 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:17 clm27445

Sample Name: W5801MS Lab Sample ID: 1318256MS

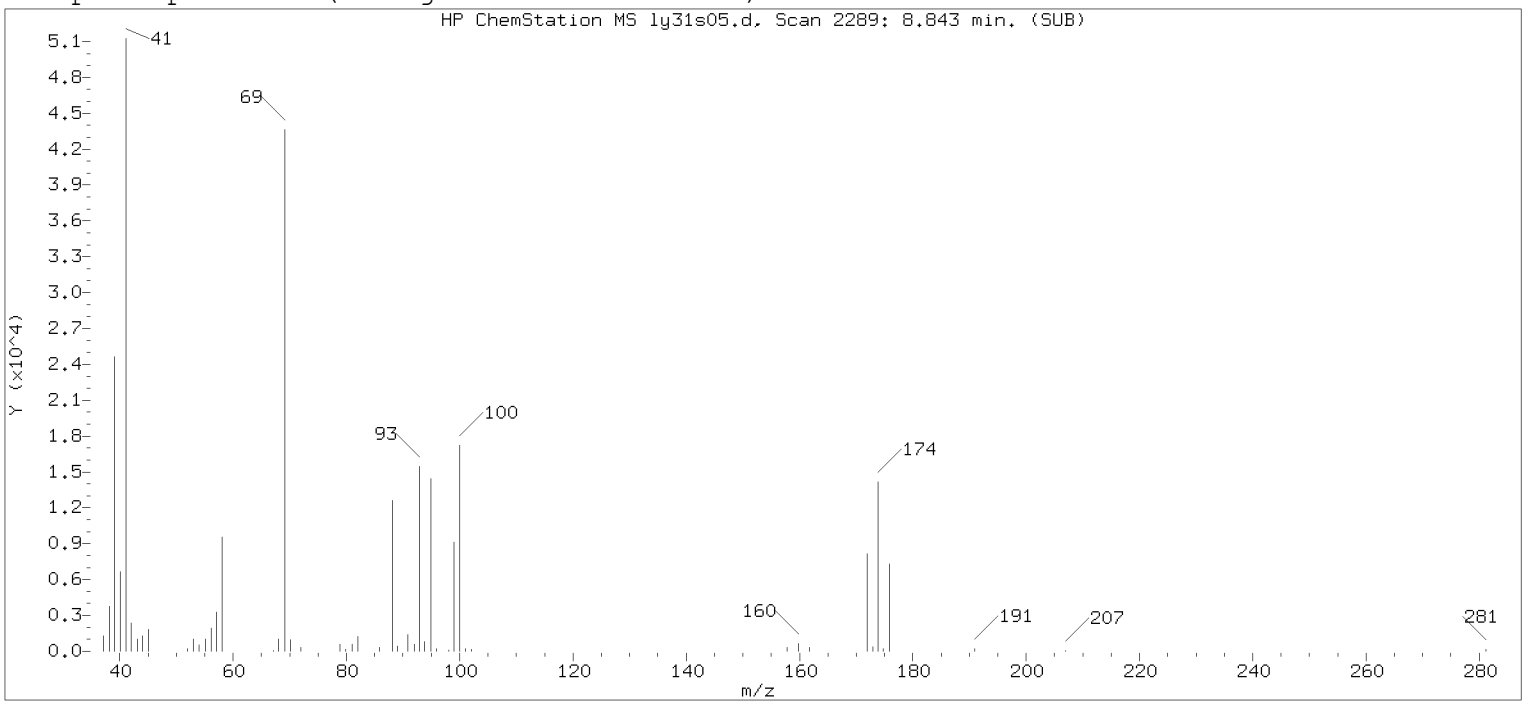
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area (flag) : 53152M
On-Column Amount (ng) : 542.4400
Integration start scan : 2272 Integration stop scan: 2390
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

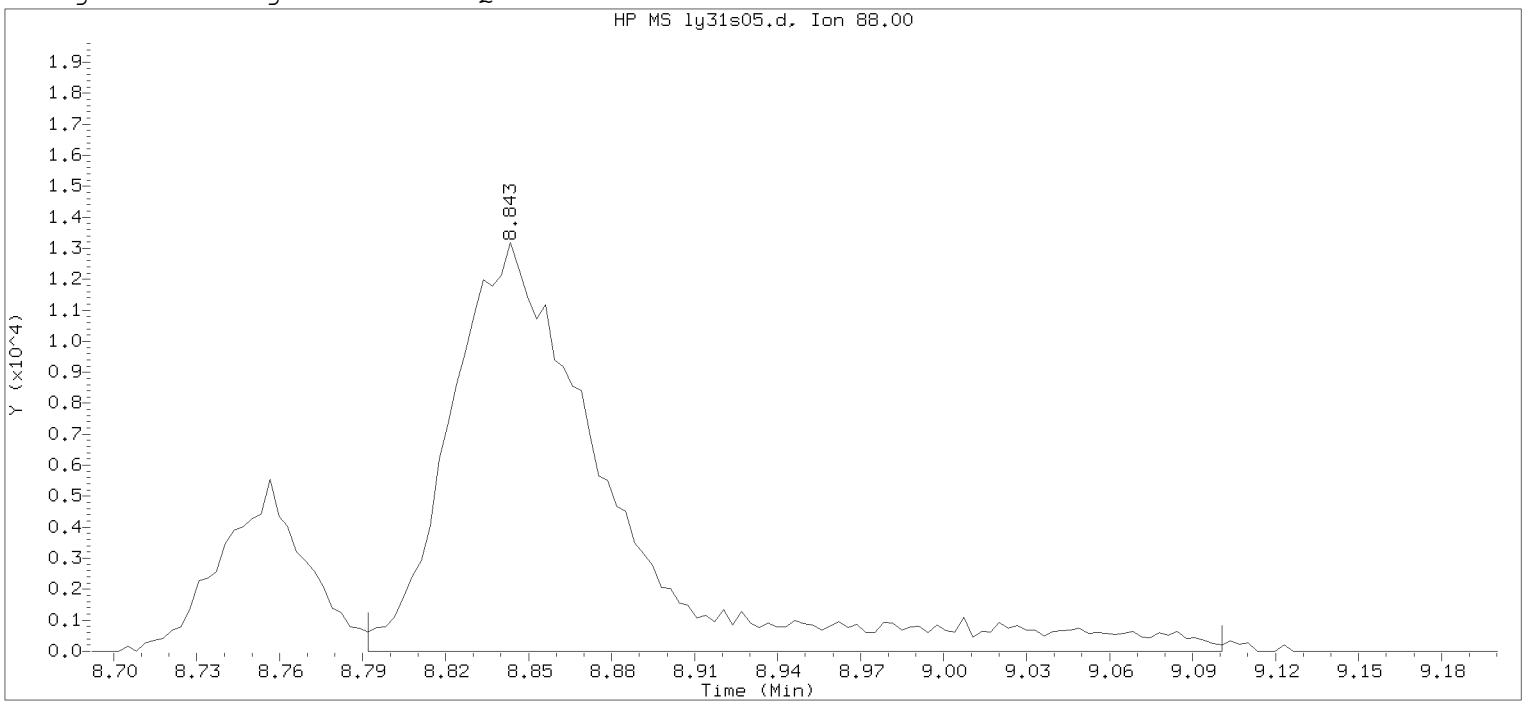
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s05.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 13:57 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 31-May-2020 14:14 Automation

Sample Name: W5801MS Lab Sample ID: 1318256MS

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area : 52873
On-column Amount (ng) : 539.5999
Integration start scan : 2272 Integration stop scan: 2368
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18.
Target 3.5 esignature user: CLMellinger

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5801MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318256

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s06.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	23	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	150	
76-13-1	Freon 113	21	
75-15-0	Carbon Disulfide	23	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	22	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	160	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	21	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	21	
123-91-1	1,4-Dioxane	550	
108-88-3	Toluene	22	
127-18-4	Tetrachloroethene	22	
100-41-4	Ethylbenzene	22	
1330-20-7	Xylene (Total)	67	
95-50-1	1,2-Dichlorobenzene	22	
91-20-3	Naphthalene	20	

FORM I VOA

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W5801MSD

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318256MSD

Data file: /chem/HP09915.i/20may31a.b/ly31s06.d Injection date and time: **31-MAY-2020 14:19**
Data file Sample Info. Line: W5801MSD;1318256MSD;1;3;MSD;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487(0.006)	934	65	310928	(-7)	250.00	
66) Fluorobenzene	7.946(0.000)	2010	96	1494121	(-2)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	1132735	(-2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(0.000)	3649	152	628236	(-2)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062(0.000)	113	362726	48.189	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.515(0.000)	102	94657	49.560	99%		80 - 120
83) Toluene-d8	(3)	9.920(0.000)	98	1499833	51.541	103%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338(0.000)	95	564116	50.382	101%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)	2.406(0.000)	62	215529	23.347	23.35			0.2	1
17) 1,1-Dichloroethene	(2)	3.760(0.000)	96	139628	21.716	21.72			0.2	1
18) Acetone	(1)	3.795(0.000)	58	174194	149.294	149.29			0.7	20
19) Freon 113	(2)	3.792(0.000)	101	139424	20.900	20.90			0.2	10
23) Carbon Disulfide	(2)	4.075(0.000)	76	493850	22.811	22.81			0.2	5
28) Methylene Chloride	(2)	4.467(0.000)	84	161210	21.077	21.08			0.3	1
32) trans-1,2-Dichloroethene	(2)	4.882(0.000)	96	154867	20.937	20.94			0.2	1
36) 1,1-Dichloroethane	(2)	5.541(0.000)	63	281762	21.718	21.72			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.368(0.001)	96	180004	21.700	21.70			0.2	1
44) 2-Butanone	(2)	6.342(0.000)	43	869959	157.770	157.77			0.3	10
51) Chloroform	(2)	6.847(0.000)	83	265231	20.926	20.93			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.072(0.000)	97	226272	20.809	20.81			0.3	1
60) Benzene	(2)	7.544(0.000)	78	657237	21.300	21.30			0.2	1
61) 1,2-Dichloroethane	(2)	7.618(0.000)	62	209835	20.287	20.29			0.3	1
71) Trichloroethene	(2)	8.419(-0.000)	95	161555	20.690	20.69			0.2	1
75) 1,4-Dioxane	(1)	8.846(-0.003)	88	56911M	545.264	545.26			29	250
88) Toluene	(3)	9.998(0.000)	92	404690	21.819	21.82			0.2	1
93) Tetrachloroethene	(3)	10.528(0.000)	166	171570	21.705	21.71			0.2	1
104) Ethylbenzene	(3)	11.460(-0.000)	91	764236	22.260	22.26			0.4	1
106) m+p-Xylene	(3)	11.570(0.000)	106	614840	45.578	45.58			1	5
107) o-Xylene	(3)	11.901(-0.000)	106	281697	21.594	21.59			0.4	1
108) Xylene (Total)	(3)		106	896537	67.172	67.17			1	6
138) 1,2-Dichlorobenzene	(4)	13.496(-0.000)	146	378780	21.967	21.97			0.2	5
148) Naphthalene	(4)	14.766(-0.000)	128	777088	19.777	19.78			1	5

M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may31a.b/ly31s06.d Injection date and time: **31-MAY-2020 14:19**
Data file Sample Info. Line: W5801MSD;1318256MSD;1;3;MSD;JCW58;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 31-MAY-2020 13:12
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: **038C** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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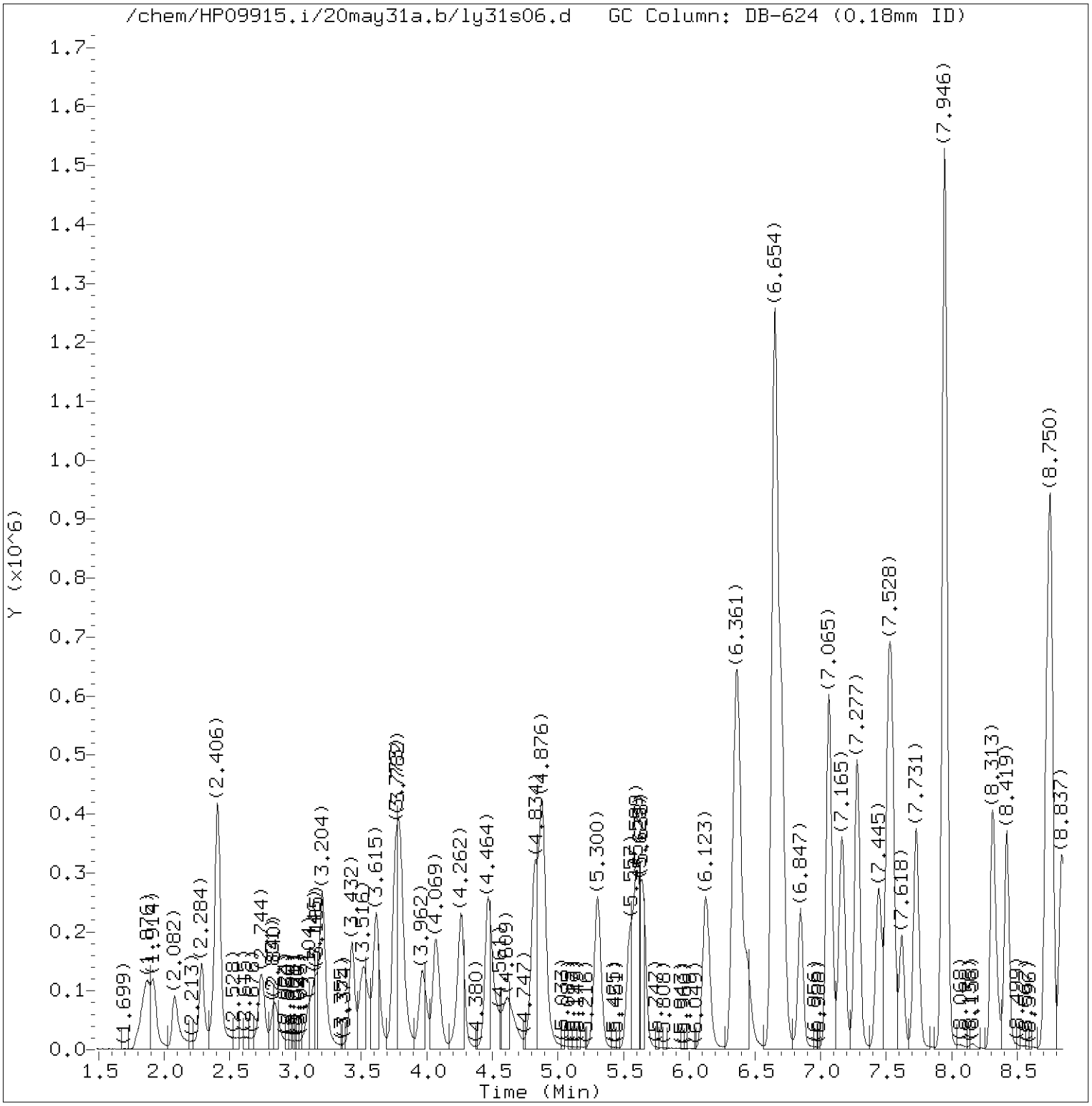
Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:37. PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

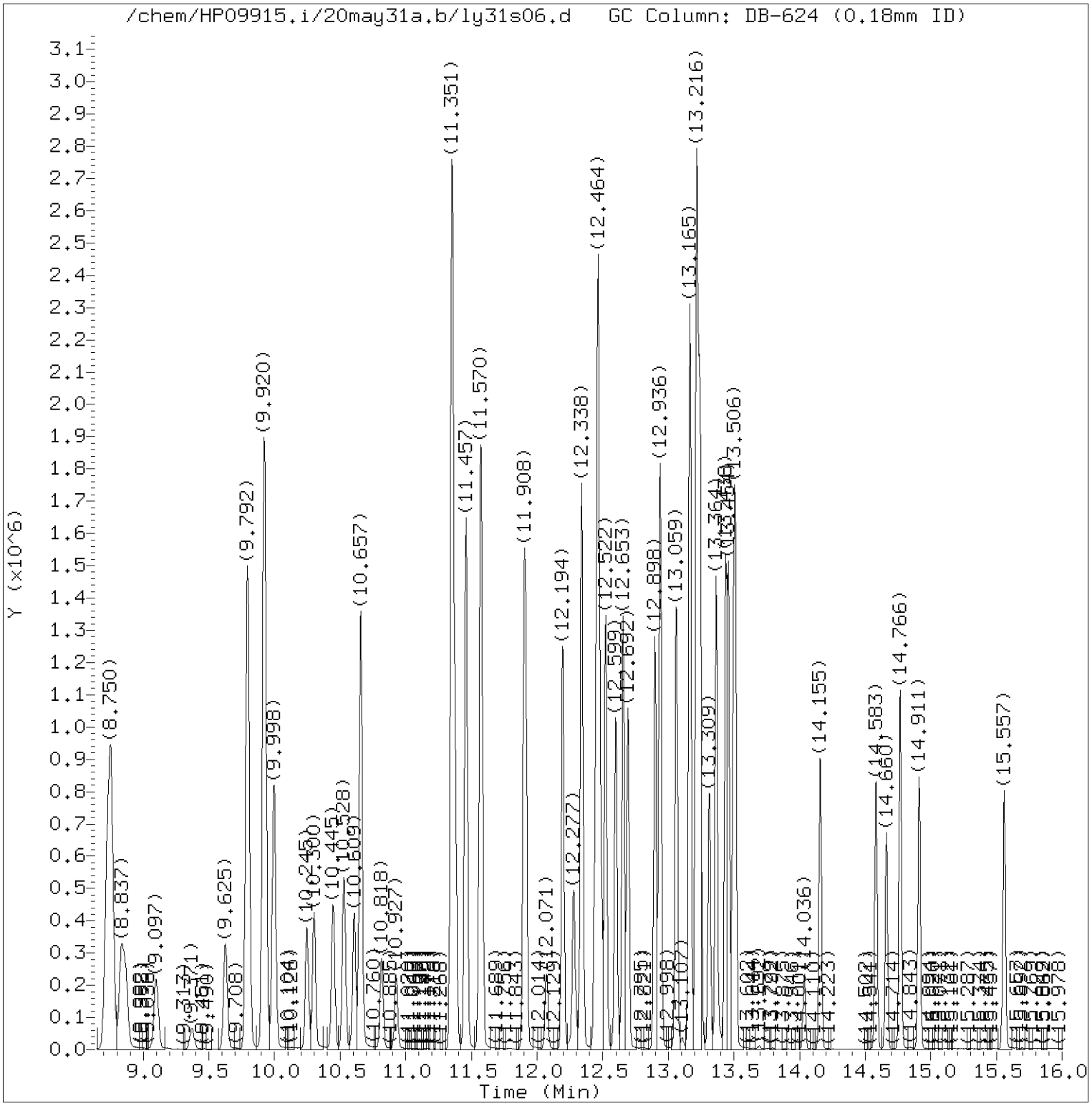
Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s06.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 14:19 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

Sample Name: W5801MSD Lab Sample ID: 1318256MSD

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s06.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 14:19 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

Sample Name: W5801MSD Lab Sample ID: 1318256MSD

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s06.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 14:19 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

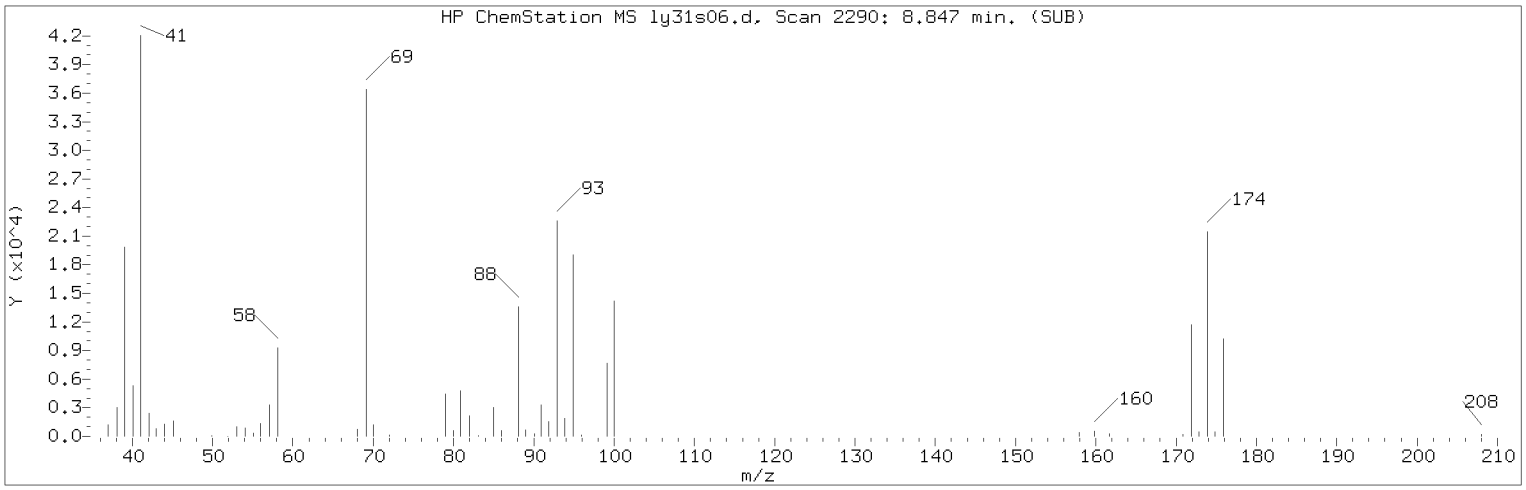
Sample Name: W5801MSD Lab Sample ID: 1318256MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	2.406	62	215529	23.347
17) 1,1-Dichloroethene	(2)	3.760	96	139628	21.716
19) Freon 113	(2)	3.792	101	139424	20.900
18) Acetone	(1)	3.795	58	174194	149.294
23) Carbon Disulfide	(2)	4.075	76	493850	22.811
28) Methylene Chloride	(2)	4.467	84	161210	21.077
29)*t-Butyl alcohol-d10	(1)	4.487	65	310928	250.000
32) trans-1,2-Dichloroethene	(2)	4.882	96	154867	20.937
36) 1,1-Dichloroethane	(2)	5.541	63	281762	21.718
44) 2-Butanone	(2)	6.342	43	869959	157.770
42) cis-1,2-Dichloroethene	(2)	6.368	96	180004	21.700
51) Chloroform	(2)	6.847	83	265231	20.926
52)$Dibromofluoromethane	(2)	7.062	113	362726	48.189
53) 1,1,1-Trichloroethane	(2)	7.072	97	226272	20.809
57)$1,2-Dichloroethane-d4	(2)	7.515	102	94657	49.560
60) Benzene	(2)	7.544	78	657237	21.300
61) 1,2-Dichloroethane	(2)	7.618	62	209835	20.287
66)*Fluorobenzene	(2)	7.946	96	1494121	50.000
71) Trichloroethene	(2)	8.419	95	161555	20.690
75) 1,4-Dioxane	(1)	8.847	88	56911M	545.264
83)$Toluene-d8	(3)	9.920	98	1499833	51.541
88) Toluene	(3)	9.998	92	404690	21.819
93) Tetrachloroethene	(3)	10.528	166	171570	21.705
100)*Chlorobenzene-d5	(3)	11.351	117	1132735	50.000
104) Ethylbenzene	(3)	11.461	91	764236	22.260
106) m+p-Xylene	(3)	11.570	106	614840	45.578
108) Xylene (Total)	(3)		106	896537	67.172
107) o-Xylene	(3)	11.901	106	281697	21.594
114)$4-Bromofluorobenzene	(3)	12.338	95	564116	50.382
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	628236	50.000
138) 1,2-Dichlorobenzene	(4)	13.496	146	378780	21.967
148) Naphthalene	(4)	14.766	128	777088	19.777

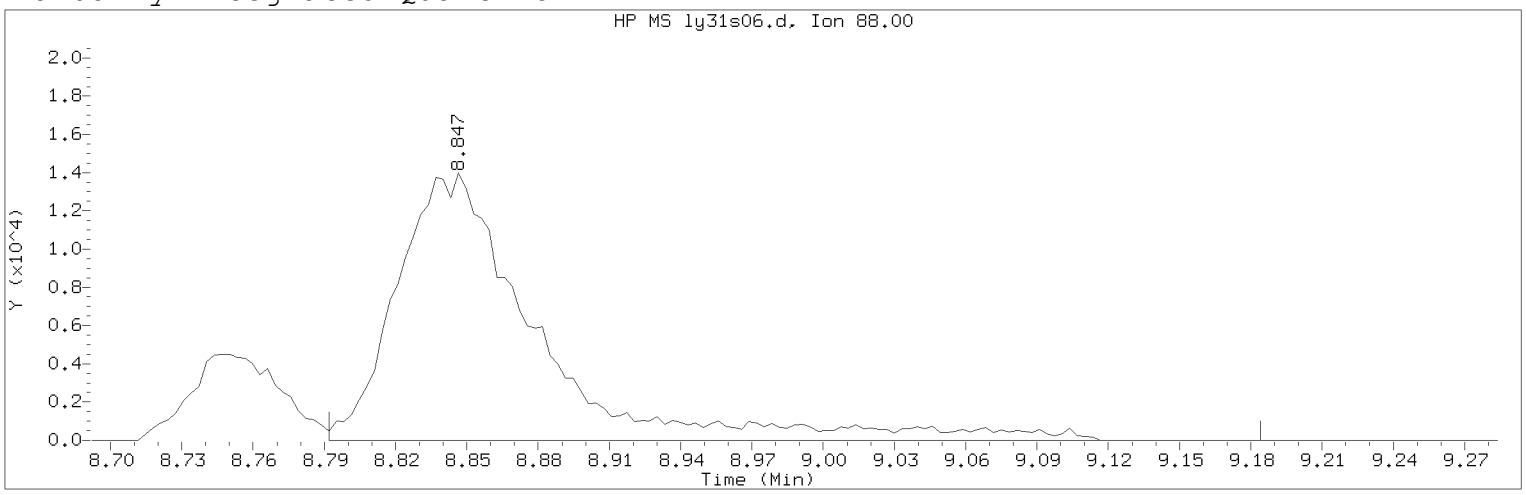
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s06.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 14:19 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 01-Jun-2020 10:18 clm27445

Sample Name: W5801MSD Lab Sample ID: 1318256MSD

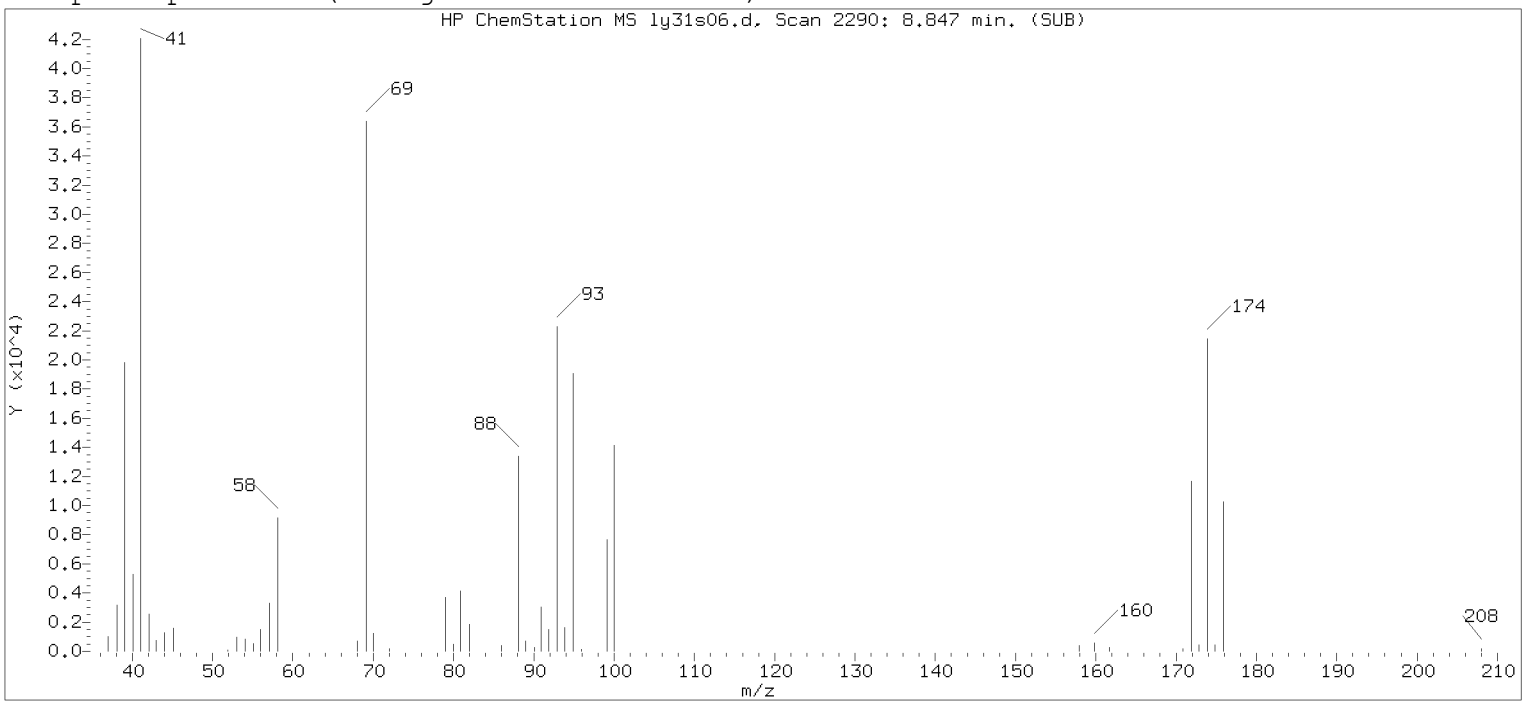
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 56911M
On-Column Amount (ng) : 545.2643
Integration start scan : 2272 Integration stop scan: 2394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

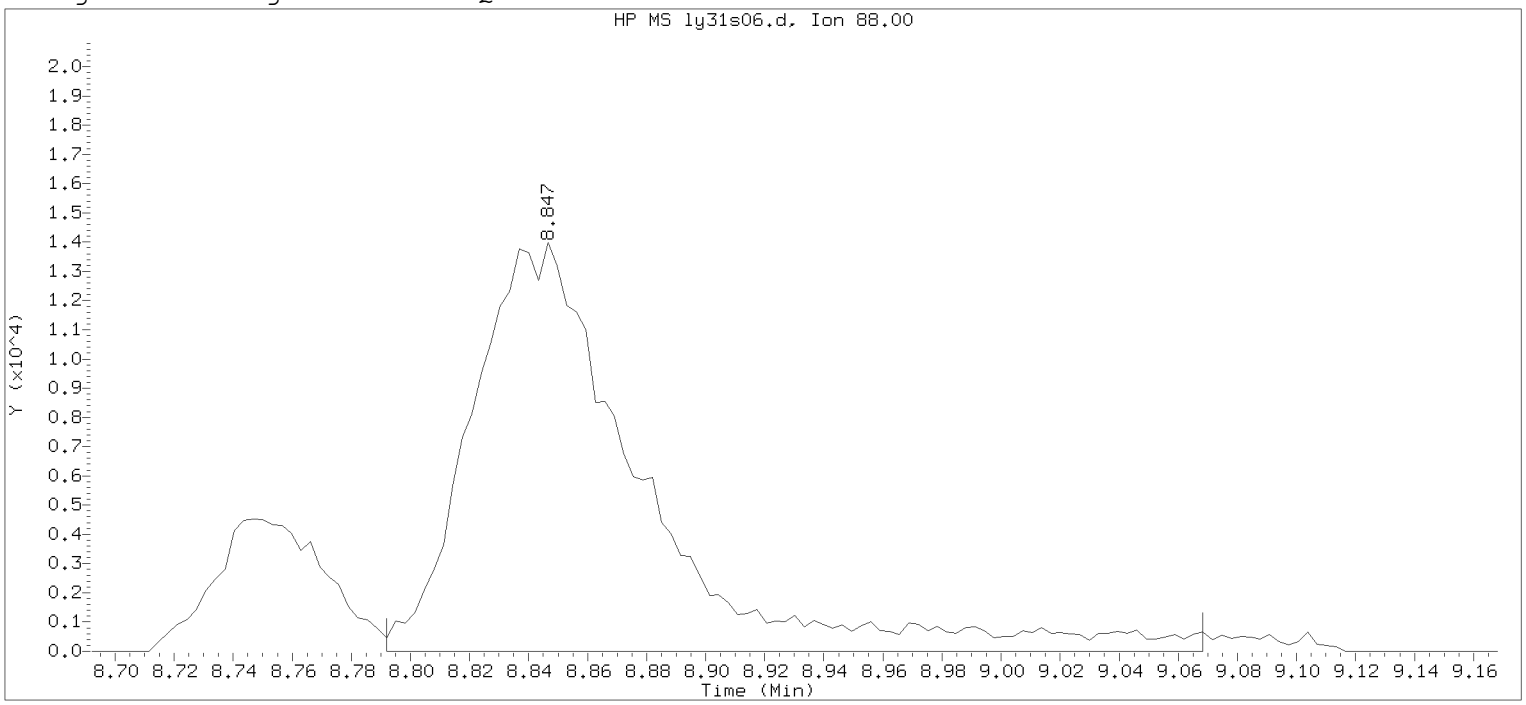
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/01/2020 at 10:18.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:37.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s06.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 14:19 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 13:12
Date, time and analyst ID of latest file update: 31-May-2020 14:36 Automation

Sample Name: W5801MSD Lab Sample ID: 1318256MSD

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 55750
On-column Amount (ng) : 534.1468
Integration start scan : 2272 Integration stop scan: 2358
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 06/01/2020 at 10:18.
Target 3.5 esignature user: CLMellinger

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	17	
74-87-3	Chloromethane	18	
106-99-0	1,3-Butadiene	18	
75-01-4	Vinyl Chloride	20	
74-83-9	Bromomethane	20	
75-00-3	Chloroethane	20	
109-66-0	n-Pentane	16	
75-69-4	Trichlorofluoromethane	22	
354-23-4	Freon 123a	17	
107-02-8	Acrolein	150	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	190	
76-13-1	Freon 113	19	
67-63-0	2-Propanol	120	
74-88-4	Methyl Iodide	20	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	22	
75-09-2	Methylene Chloride	21	
75-65-0	t-Butyl alcohol	190	
107-13-1	Acrylonitrile	100	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	19	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	18	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	18	
156-59-2	cis-1,2-Dichloroethene	21	
540-59-0	1,2-Dichloroethene (Total)	41	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	19	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	22	
109-99-9	Tetrahydrofuran	120	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	20	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	20	
56-23-5	Carbon Tetrachloride	20	
78-83-1	Isobutyl Alcohol	540	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	19	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	20	
108-87-2	Methylcyclohexane	20	
78-87-5	1,2-Dichloropropane	20	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	660	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	20	
10061-02-6	trans-1,3-Dichloropropene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
542-75-6	1,3-Dichloropropene (total)	38	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	22	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	19	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	19	
108-90-7	Chlorobenzene	21	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	43	
95-47-6	o-Xylene	21	
1330-20-7	Xylene (Total)	63	
100-42-5	Styrene	21	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	21	
108-94-1	Cyclohexanone	550	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	20	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	22	
95-63-6	1,2,4-Trimethylbenzene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	20	
106-46-7	1,4-Dichlorobenzene	21	
526-73-8	1,2,3-Trimethylbenzene	22	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	22	
105-05-5	1,4-Diethylbenzene	22	
95-50-1	1,2-Dichlorobenzene	21	
104-51-8	n-Butylbenzene	20	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	65	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	20	
87-68-3	Hexachlorobutadiene	20	
91-20-3	Naphthalene	20	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	20	

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCS572

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.423	(-0.006)	334	65	289246	(-3)	250.00	
66) Fluorobenzene	6.873	(0.000)	900	96	1001983	(-1)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	789314	(-2)	50.00	
132) 1,4-Dichlorobenzene-d4	12.695	(0.000)	1855	152	428224	(-1)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947	(0.000)	113	249320	49.957	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(-0.001)	102	56538	50.653	101%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	965489	49.773	100%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.763	(0.000)	95	405339	49.594	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.606	(-0.000)	85	138282	17.041	17.04			0.2	1
4) Chloromethane	(2)	1.765	(-0.000)	50	116835	18.148	18.15			0.2	1
5) 1,3-Butadiene	(2)	1.844	(0.000)	39	159144	17.786	17.79			1	3
6) Vinyl Chloride	(2)	1.856	(-0.000)	62	116402	20.446	20.45			0.2	1
8) Bromomethane	(2)	2.112	(-0.000)	94	78128	20.439	20.44			0.3	1
9) Chloroethane	(2)	2.179	(0.000)	64	53656	19.905	19.91			0.2	1
11) n-Pentane	(2)	2.441	(0.000)	43	102558	15.801	15.80			0.4	10
12) Trichlorofluoromethane	(2)	2.417	(0.000)	101	150798	21.627	21.63			0.2	1
15) Freon 123a	(2)	2.691	(-0.000)	67	126835	17.426	17.43			0.4	5
16) Acrolein	(1)	2.758	(-0.000)	56	272788	148.944	148.94			2	100
17) 1,1-Dichloroethene	(2)	2.868	(-0.000)	96	103163	19.042	19.04			0.2	1
18) Acetone	(1)	2.899	(-0.000)	58	171214	189.547	189.55			0.7	20
19) Freon 113	(2)	2.892	(0.000)	101	115186	18.784	18.78			0.2	10
21) 2-Propanol	(1)	3.039	(-0.001)	45	85913	116.884	116.88			18	100
22) Methyl Iodide	(2)	3.033	(0.000)	142	202650	19.617	19.62			0.2	1
23) Carbon Disulfide	(2)	3.112	(0.000)	76	327205	17.170	17.17			0.2	5
25) Allyl Chloride	(2)	3.246	(0.000)	41	172128	18.980	18.98			0.3	5
27) Methyl Acetate	(2)	3.228	(-0.000)	43	173778	22.248	22.25			0.3	5
28) Methylene Chloride	(2)	3.405	(0.000)	84	126172	20.661	20.66			0.3	1
30) t-Butyl alcohol	(1)	3.533	(-0.001)	59	254289	186.647	186.65			12	50
31) Acrylonitrile	(2)	3.685	(-0.000)	53	415551	100.791	100.79			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734	(-0.000)	96	121906	20.110	20.11			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.734	(-0.000)	73	305520	19.054	19.05			0.2	1
34) n-Hexane	(2)	4.100	(-0.000)	57	168988	18.800	18.80			2	5
36) 1,1-Dichloroethane	(2)	4.337	(-0.000)	63	217712	19.839	19.84			0.2	1
38) di-Isopropyl ether	(2)	4.404	(-0.000)	45	356035	18.165	18.16			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.447	(-0.000)	53	176173	18.897	18.90			0.2	5
40) Ethyl t-butyl ether	(2)	4.965	(0.000)	59	309249	17.772	17.77			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.209	(-0.000)	96	145241	21.183	21.18			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	267147	41.292	41.29			0.4	2
44) 2-Butanone	(2)	5.197	(-0.000)	43	899209	149.852	149.85			0.3	10

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
45) 2,2-Dichloropropane	(2)	5.221(-0.000)	77	173129	18.698	18.70			0.3	1
47) Propionitrile	(1)	5.294(0.002)	54	264800	178.543	178.54			14	100
48) Methacrylonitrile	(2)	5.520(-0.000)	67	625084	152.230	152.23			6	50
49) Bromochloromethane	(2)	5.557(-0.000)	128	68220	21.723	21.72			0.2	5
50) Tetrahydrofuran	(1)	5.569(-0.000)	71	163888	122.266	122.27			0.7	10
51) Chloroform	(2)	5.721(0.000)	83	223240	20.282	20.28			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.941(0.000)	97	193840	19.560	19.56			0.3	1
54) Cyclohexane	(2)	6.032(0.000)	56	210507	18.239	18.24			1	5
55) 1,1-Dichloropropene	(2)	6.166(0.000)	75	175444	19.543	19.54			0.2	5
56) Carbon Tetrachloride	(2)	6.154(0.000)	117	169910	19.651	19.65			0.2	1
58) Isobutyl Alcohol	(1)	6.392(-0.000)	41	243302	535.756	535.76			36	250
60) Benzene	(2)	6.440(0.000)	78	532659	19.955	19.95			0.2	1
61) 1,2-Dichloroethane	(2)	6.532(-0.000)	62	167697	20.454	20.45			0.3	1
65) t-Amyl methyl ether	(2)	6.660(0.000)	73	326269	18.791	18.79			0.8	5
67) n-Heptane	(2)	6.898(-0.000)	43	166266	19.149	19.15			2	5
69) n-Butanol	(1)	7.318(0.001)	56	422108	1077.200	1077.20			61	250
71) Trichloroethene	(2)	7.373(0.000)	95	143209	20.444	20.44			0.2	1
73) Methylcyclohexane	(2)	7.684(-0.000)	83	223870	20.109	20.11			0.5	5
74) 1,2-Dichloropropane	(2)	7.727(-0.000)	63	134598	20.143	20.14			0.2	1
75) Dibromomethane	(2)	7.843(-0.000)	93	85719	20.372	20.37			0.2	1
76) 1,4-Dioxane	(1)	7.830(0.002)	88	63917M	657.584	657.58			29	250
77) Methyl Methacrylate	(2)	7.849(-0.000)	69	120829	19.327	19.33			0.2	5
79) Bromodichloromethane	(2)	8.105(-0.000)	83	155639	19.076	19.08			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	48947	17.321	17.32			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.507(-0.000)	63	98449	19.038	19.04			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.690(-0.000)	75	195315	18.943	18.94			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.910(-0.000)	43	1172372	101.365	101.36			0.5	10
89) Toluene	(3)	9.123(0.000)	92	345468	20.198	20.20			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.446(0.000)	75	170749	18.606	18.61			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	366064	37.549	37.55			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	194031	18.593	18.59			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.672(0.000)	97	128842	21.070	21.07			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	156590	21.585	21.59			0.2	1
95) 1,3-Dichloropropane	(3)	9.854(0.000)	76	203349	20.028	20.03			0.2	1
97) 2-Hexanone	(3)	9.934(0.000)	43	977373	107.550	107.55			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	125375	19.376	19.38			0.2	1
100) 1,2-Dibromoethane	(3)	10.196(0.000)	107	136874	20.305	20.30			0.2	1
102) 1-Chlorohexane	(3)	10.708(-0.000)	91	192770	19.379	19.38			0.3	5
103) Chlorobenzene	(3)	10.708(-0.000)	112	390610	21.042	21.04			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	131065	20.466	20.47			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	693001	20.954	20.95			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	539524	42.519	42.52			1	5
108) o-Xylene	(3)	11.293(-0.000)	106	258963	20.851	20.85			0.4	1
109) Xylene (Total)	(3)		106	798487	63.370	63.37			1	6
110) Styrene	(3)	11.312(0.000)	104	415542	20.761	20.76			0.2	5
111) Bromoform	(3)	11.470(-0.000)	173	86047	18.380	18.38			1	4
112) Isopropylbenzene	(3)	11.616(-0.000)	105	684450	21.000	21.00			0.2	5
113) Cyclohexanone	(1)	11.696(0.005)	55	245560	550.016	550.02			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	166489	20.394	20.39			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	231704	20.916	20.92			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.933(0.000)	110	68044	20.859	20.86			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.915(0.000)	53	247051	112.374	112.37			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	825963	20.578	20.58			0.2	5
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	164681	20.017	20.02			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
122) 4-Chlorotoluene	(4)	12.141(0.000)	126	167182	20.117	20.12			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.116(0.000)	105	568831	20.161	20.16			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	120559	21.500	21.50			0.3	5
126) Pentachloroethane	(4)	12.397(0.000)	167	100122	21.749	21.75			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.415(0.000)	105	580980	19.996	20.00			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	702956	20.095	20.09			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.634(0.000)	146	314267	20.466	20.47			0.2	5
131) p-Isopropyltoluene	(4)	12.659(0.000)	119	590549	20.244	20.24			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.714(0.000)	146	324144	20.800	20.80			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.732(0.000)	105	622799	22.331	22.33			0.3	5
136) Benzyl Chloride	(4)	12.805(-0.000)	91	388424	18.276	18.28			1	5
137) 1,3-Diethylbenzene	(4)	12.872(0.000)	119	364420	21.620	21.62			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(-0.000)	119	382146	21.919	21.92			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(0.000)	146	304664	20.655	20.66			0.2	5
140) n-Butylbenzene	(4)	12.964(0.000)	92	295496	20.082	20.08			0.2	5
141) 1,2-Diethylbenzene	(4)	13.018(0.000)	119	304847	21.385	21.38			0.2	5
142) Diethylbenzene (total)	(4)		100	1051413	64.924	64.92			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.555(0.000)	75	54310	19.418	19.42			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	198472	20.372	20.37			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	186080	20.331	20.33			0.3	5
148) Hexachlorobutadiene	(4)	14.213(0.000)	225	71672	20.362	20.36			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	736320	20.315	20.32			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.457(-0.000)	180	184692	20.392	20.39			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	385507	20.472	20.47			2	4

Total number of targets = 109

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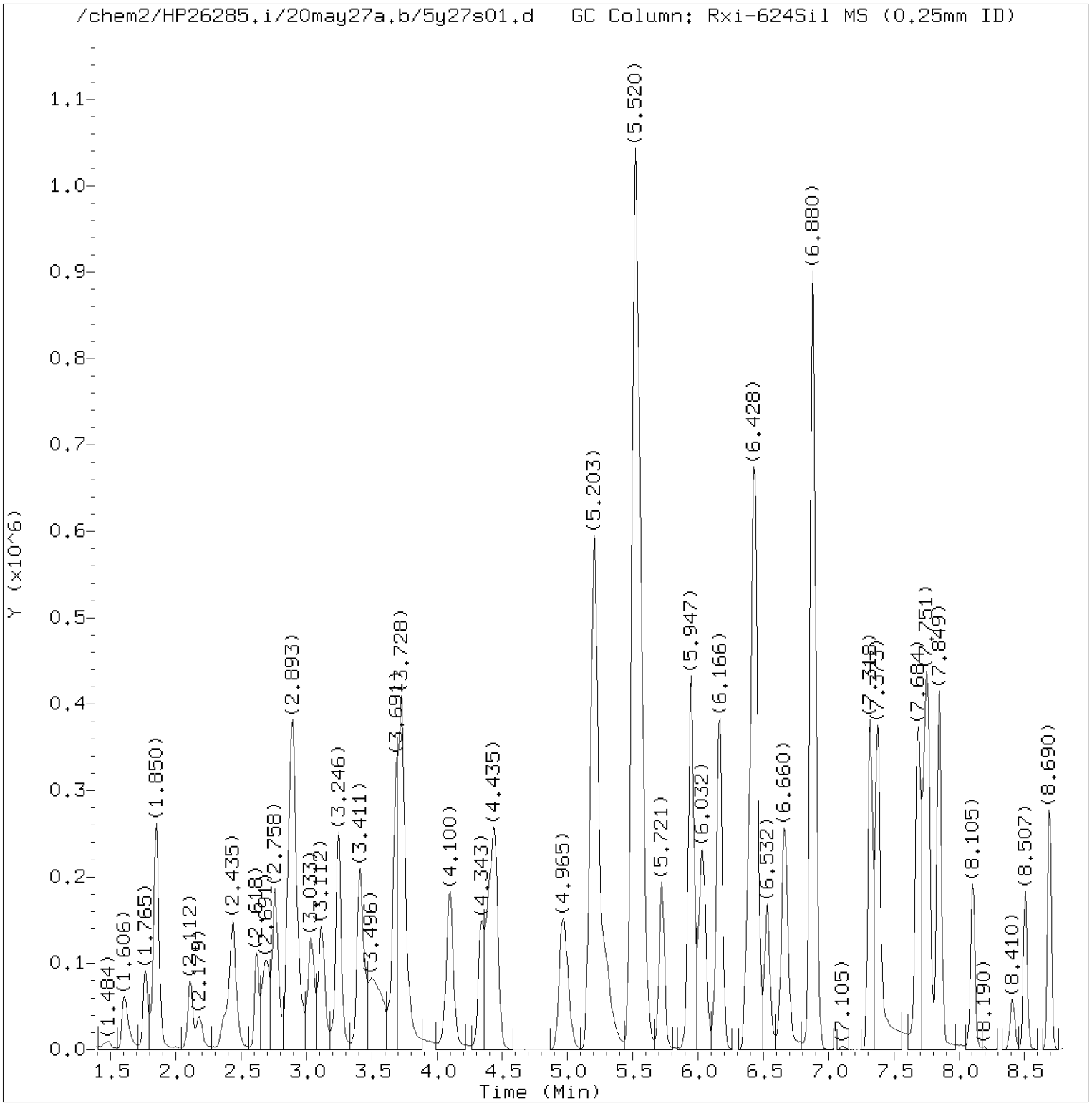
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

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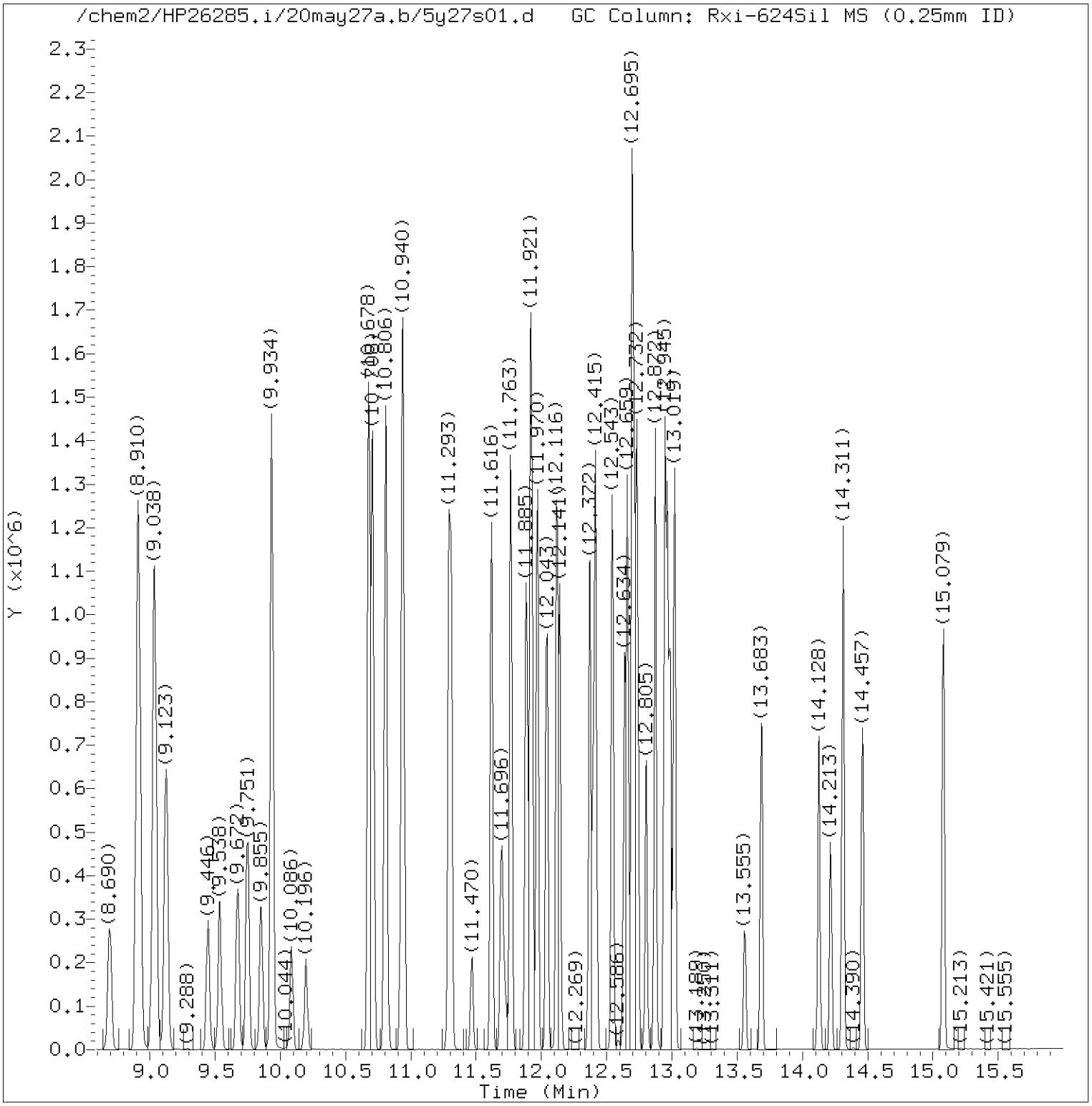
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	138282	17.041
4) Chloromethane	(2)	1.765	50	116835	18.148
5) 1,3-Butadiene	(2)	1.844	39	159144	17.786
6) Vinyl Chloride	(2)	1.856	62	116402	20.446
8) Bromomethane	(2)	2.112	94	78128	20.439
9) Chloroethane	(2)	2.179	64	53656	19.905
12) Trichlorofluoromethane	(2)	2.417	101	150798	21.627
11) n-Pentane	(2)	2.441	43	102558	15.801
15) Freon 123a	(2)	2.691	67	126835	17.426
16) Acrolein	(1)	2.758	56	272788	148.944
17) 1,1-Dichloroethene	(2)	2.868	96	103163	19.042
19) Freon 113	(2)	2.893	101	115186	18.784
18) Acetone	(1)	2.899	58	171214	189.547
22) Methyl Iodide	(2)	3.033	142	202650	19.617
21) 2-Propanol	(1)	3.039	45	85913	116.884
23) Carbon Disulfide	(2)	3.112	76	327205	17.170
27) Methyl Acetate	(2)	3.228	43	173778	22.248
25) Allyl Chloride	(2)	3.246	41	172128	18.980
28) Methylene Chloride	(2)	3.405	84	126172	20.661
29)*t-Butyl alcohol-d10	(1)	3.423	65	289246	250.000
30) t-Butyl alcohol	(1)	3.533	59	254289	186.647
31) Acrylonitrile	(2)	3.685	53	415551	100.791
32) trans-1,2-Dichloroethene	(2)	3.734	96	121906	20.110
33) Methyl Tertiary Butyl Ether	(2)	3.734	73	305520	19.054
34) n-Hexane	(2)	4.100	57	168988	18.800
36) 1,1-Dichloroethane	(2)	4.337	63	217712	19.839
38) di-Isopropyl ether	(2)	4.404	45	356035	18.165
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	176173	18.897
40) Ethyl t-butyl ether	(2)	4.965	59	309249	17.772
44) 2-Butanone	(2)	5.197	43	899209	149.852
42) cis-1,2-Dichloroethene	(2)	5.209	96	145241	21.183
45) 2,2-Dichloropropane	(2)	5.221	77	173129	18.698
47) Propionitrile	(1)	5.294	54	264800	178.543
48) Methacrylonitrile	(2)	5.520	67	625084	152.230
49) Bromochloromethane	(2)	5.557	128	68220	21.723
50) Tetrahydrofuran	(1)	5.569	71	163888	122.266
51) Chloroform	(2)	5.721	83	223240	20.282
53) 1,1,1-Trichloroethane	(2)	5.941	97	193840	19.560

* = Compound is an internal standard.

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on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52)$Dibromofluoromethane	(2)	5.947	113	249320	49.957
54) Cyclohexane	(2)	6.032	56	210507	18.239
56) Carbon Tetrachloride	(2)	6.154	117	169910	19.651
43) 1,2-Dichloroethene (Total)	(2)		96	267147	41.292
55) 1,1-Dichloropropene	(2)	6.166	75	175444	19.543
58) Isobutyl Alcohol	(1)	6.392	41	243302	535.756
57)$1,2-Dichloroethane-d4	(2)	6.422	102	56538	50.653
60) Benzene	(2)	6.441	78	532659	19.955
61) 1,2-Dichloroethane	(2)	6.532	62	167697	20.454
65) t-Amyl methyl ether	(2)	6.660	73	326269	18.791
66)*Fluorobenzene	(2)	6.873	96	1001983	50.000
67) n-Heptane	(2)	6.898	43	166266	19.149
69) n-Butanol	(1)	7.318	56	422108	1077.200
71) Trichloroethene	(2)	7.373	95	143209	20.444
73) Methylcyclohexane	(2)	7.684	83	223870	20.109
74) 1,2-Dichloropropane	(2)	7.727	63	134598	20.143
76) 1,4-Dioxane	(1)	7.831	88	63917M	657.584
75) Dibromomethane	(2)	7.843	93	85719	20.372
77) Methyl Methacrylate	(2)	7.849	69	120829	19.327
79) Bromodichloromethane	(2)	8.105	83	155639	19.076
80) 2-Nitropropane	(2)	8.410	41	48947	17.321
81) 2-Chloroethyl Vinyl Ether	(2)	8.507	63	98449	19.038
82) cis-1,3-Dichloropropene	(2)	8.690	75	195315	18.943
83) 4-Methyl-2-pentanone	(2)	8.910	43	1172372	101.365
84)$Toluene-d8	(3)	9.038	98	965489	49.773
89) Toluene	(3)	9.123	92	345468	20.198
90) trans-1,3-Dichloropropene	(3)	9.446	75	170749	18.606
92) Ethyl Methacrylate	(3)	9.538	69	194031	18.593
93) 1,1,2-Trichloroethane	(3)	9.672	97	128842	21.070
94) Tetrachloroethene	(3)	9.751	166	156590	21.585
95) 1,3-Dichloropropane	(3)	9.855	76	203349	20.028
97) 2-Hexanone	(3)	9.934	43	977373	107.550
98) Dibromochloromethane	(3)	10.086	129	125375	19.376
91) 1,3-Dichloropropene (total)	(3)		100	366064	37.549
100) 1,2-Dibromoethane	(3)	10.196	107	136874	20.305
101)*Chlorobenzene-d5	(3)	10.678	117	789314	50.000
102) 1-Chlorohexane	(3)	10.708	91	192770	19.379
103) Chlorobenzene	(3)	10.708	112	390610	21.042

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	131065	20.466
105) Ethylbenzene	(3)	10.812	91	693001	20.954
107) m+p-Xylene	(3)	10.940	106	539524	42.519
108) o-Xylene	(3)	11.293	106	258963	20.851
110) Styrene	(3)	11.312	104	415542	20.761
111) Bromoform	(3)	11.470	173	86047	18.380
112) Isopropylbenzene	(3)	11.616	105	684450	21.000
113) Cyclohexanone	(1)	11.696	55	245560	550.016
115)$4-Bromofluorobenzene	(3)	11.763	95	405339	49.594
109) Xylene (Total)	(3)		106	798487	63.370
116) Bromobenzene	(4)	11.885	156	166489	20.394
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	231704	20.916
119) trans-1,4-Dichloro-2-butene	(4)	11.915	53	247051	112.374
118) 1,2,3-Trichloropropane	(4)	11.933	110	68044	20.859
120) n-Propylbenzene	(4)	11.970	91	825963	20.578
121) 2-Chlorotoluene	(4)	12.043	126	164681	20.017
123) 1,3,5-Trimethylbenzene	(4)	12.116	105	568831	20.161
122) 4-Chlorotoluene	(4)	12.141	126	167182	20.117
125) tert-Butylbenzene	(4)	12.372	134	120559	21.500
126) Pentachloroethane	(4)	12.397	167	100122	21.749
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	580980	19.996
128) sec-Butylbenzene	(4)	12.543	105	702956	20.095
130) 1,3-Dichlorobenzene	(4)	12.634	146	314267	20.466
131) p-Isopropyltoluene	(4)	12.659	119	590549	20.244
132)*1,4-Dichlorobenzene-d4	(4)	12.695	152	428224	50.000
134) 1,4-Dichlorobenzene	(4)	12.714	146	324144	20.800
135) 1,2,3-Trimethylbenzene	(4)	12.732	105	622799	22.331
136) Benzyl Chloride	(4)	12.805	91	388424	18.276
137) 1,3-Diethylbenzene	(4)	12.872	119	364420	21.620
138) 1,4-Diethylbenzene	(4)	12.945	119	382146	21.919
140) n-Butylbenzene	(4)	12.964	92	295496	20.082
139) 1,2-Dichlorobenzene	(4)	12.988	146	304664	20.655
141) 1,2-Diethylbenzene	(4)	13.019	119	304847	21.385
142) Diethylbenzene (total)	(4)		100	1051413	64.924
143) 1,2-Dibromo-3-chloropropane	(4)	13.555	75	54310	19.418
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	198472	20.372
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	186080	20.331
148) Hexachlorobutadiene	(4)	14.213	225	71672	20.362

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

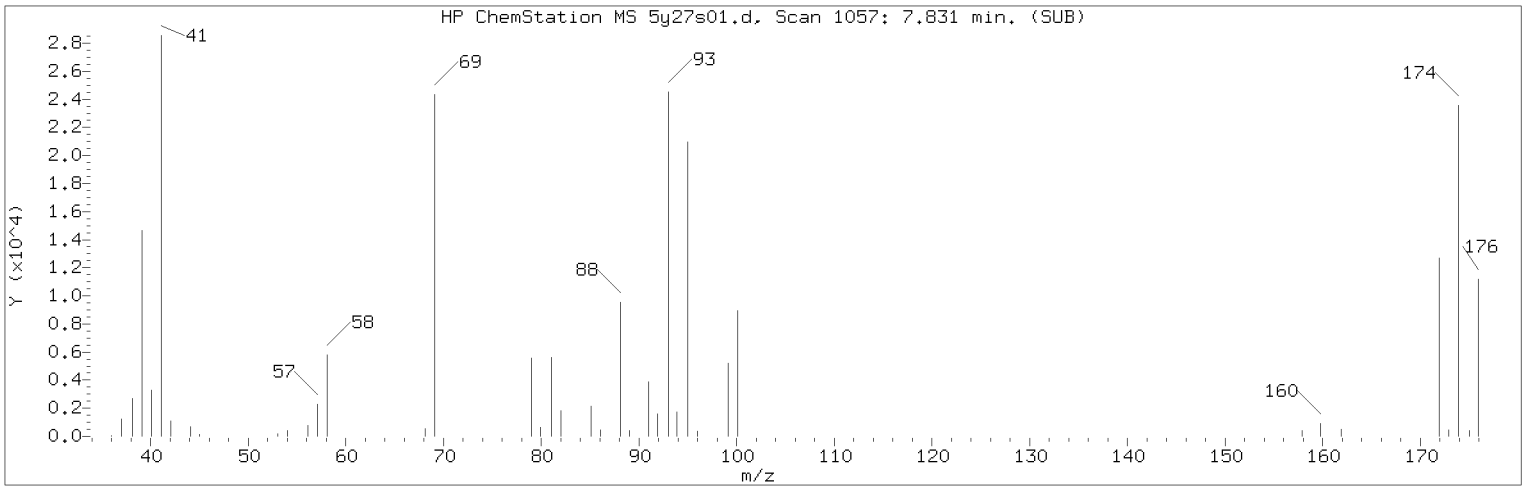
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

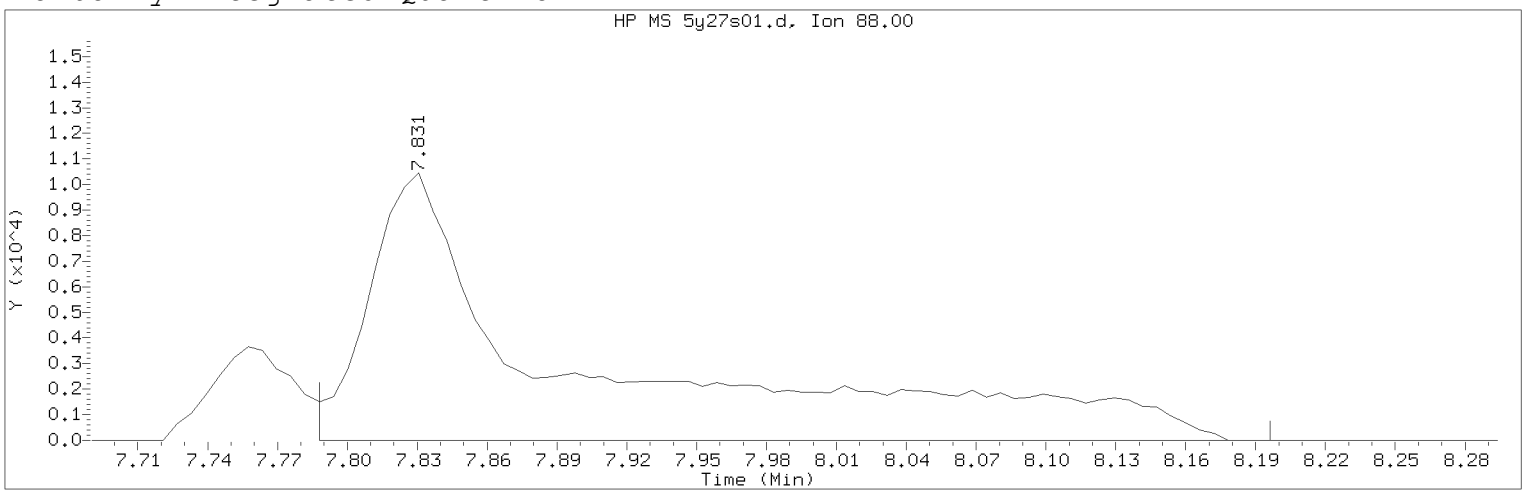
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
149) Naphthalene	(4)	14.311	128	736320	20.315
150) 1,2,3-Trichlorobenzene	(4)	14.457	180	184692	20.392
151) 2-Methylnaphthalene	(4)	15.079	142	385507	20.472

Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

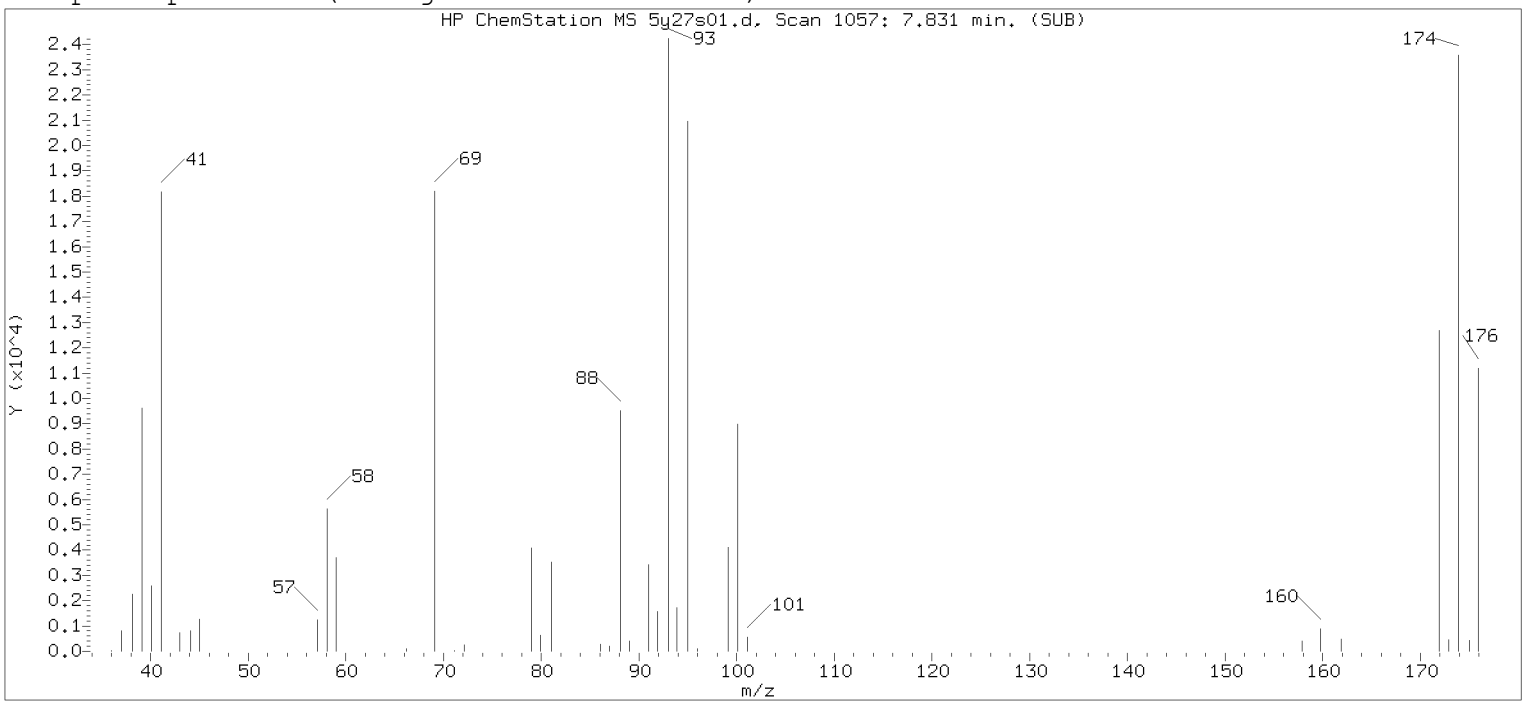
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 63917M
On-Column Amount (ng) : 657.5844
Integration start scan : 1049 Integration stop scan: 1116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

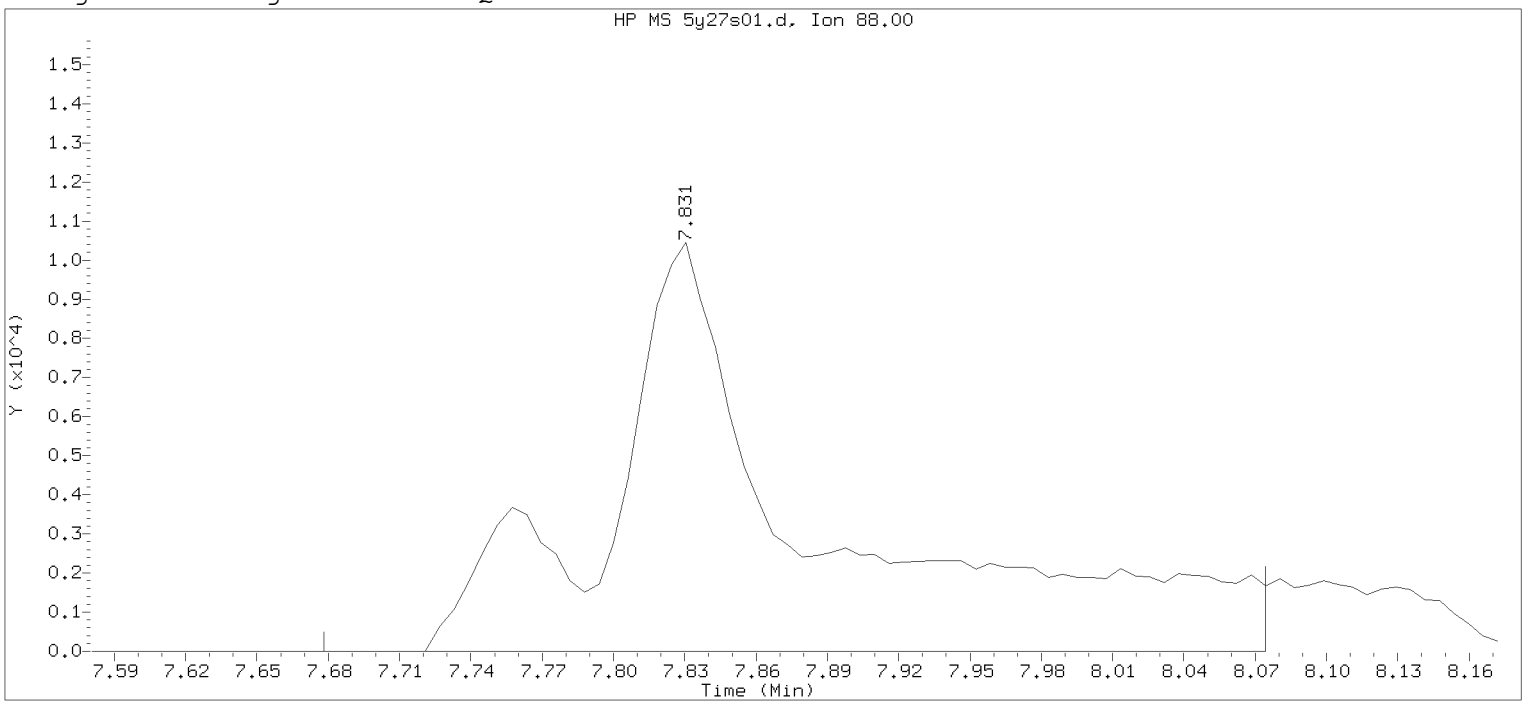
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:25
Date, time and analyst ID of latest file update: 27-May-2020 09:46 chemist

Sample Name: LCS572 Lab Sample ID: LCS572

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 64339
On-column Amount (ng) : 661.9332
Integration start scan : 1031 Integration stop scan: 1096
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: LJGreen

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	19	
74-87-3	Chloromethane	20	
106-99-0	1,3-Butadiene	17	
75-01-4	Vinyl Chloride	22	
74-83-9	Bromomethane	23	
75-00-3	Chloroethane	22	
109-66-0	n-Pentane	18	
75-69-4	Trichlorofluoromethane	24	
60-29-7	Ethyl ether	17	
354-23-4	Freon 123a	18	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	190	
76-13-1	Freon 113	19	
67-63-0	2-Propanol	120	
74-88-4	Methyl Iodide	21	
75-15-0	Carbon Disulfide	18	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	21	
75-65-0	t-Butyl alcohol	200	
107-13-1	Acrylonitrile	99	
156-60-5	trans-1,2-Dichloroethene	21	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	18	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	18	
126-99-8	2-Chloro-1,3-butadiene	20	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	22	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	43	
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	20	
107-12-0	Propionitrile	170	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	21	
109-99-9	Tetrahydrofuran	120	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	21	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	20	
56-23-5	Carbon Tetrachloride	21	
78-83-1	Isobutyl Alcohol	550	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	22	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	18	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	21	
108-87-2	Methylcyclohexane	19	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	21	
123-91-1	1,4-Dioxane	640	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	20	
79-46-9	2-Nitropropane	18	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	38	
97-63-2	Ethyl Methacrylate	18	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	22	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	19	
108-90-7	Chlorobenzene	22	
630-20-6	1,1,1,2-Tetrachloroethane	21	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	43	
95-47-6	o-Xylene	21	
1330-20-7	Xylene (Total)	64	
100-42-5	Styrene	21	
75-25-2	Bromoform	19	
98-82-8	Isopropylbenzene	21	
108-94-1	Cyclohexanone	600	
108-86-1	Bromobenzene	21	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	22	
110-57-6	trans-1,4-Dichloro-2-butene	120	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	22	
76-01-7	Pentachloroethane	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	21	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	22	
526-73-8	1,2,3-Trimethylbenzene	21	
100-44-7	Benzyl Chloride	19	
141-93-5	1,3-Diethylbenzene	21	
105-05-5	1,4-Diethylbenzene	21	
95-50-1	1,2-Dichlorobenzene	22	
104-51-8	n-Butylbenzene	21	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	64	
96-12-8	1,2-Dibromo-3-chloropropane	20	
108-70-3	1,3,5-Trichlorobenzene	21	
120-82-1	1,2,4-Trichlorobenzene	21	
87-68-3	Hexachlorobutadiene	22	
91-20-3	Naphthalene	21	
87-61-6	1,2,3-Trichlorobenzene	21	
91-57-6	2-Methylnaphthalene	20	

FORM I VOA

^

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCS573

Data file: /chem2/HP26285.i/20may27b.b/5y27l50.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453	(-0.030)	339	65	267518	(16)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	870740	(6)	50.00	
101) Chlorobenzene-d5	10.684	(-0.006)	1525	117	701085	(6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	384631	(3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	222217	51.237	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428	(0.000)	102	50233	51.787	104%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	849987	49.333	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.001)	95	361853	49.845	100%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.606	(0.000)	85	132460	18.784	18.78			0.2	1
4) Chloromethane	(2)	1.765	(0.000)	50	111024	19.845	19.84			0.2	1
5) 1,3-Butadiene	(2)	1.856	(-0.001)	39	135300	17.401	17.40			1	3
6) Vinyl Chloride	(2)	1.862	(-0.000)	62	107290	21.686	21.69			0.2	1
8) Bromomethane	(2)	2.112	(0.000)	94	75178	22.632	22.63			0.3	1
9) Chloroethane	(2)	2.179	(0.000)	64	51475	21.974	21.97			0.2	1
11) n-Pentane	(2)	2.448	(-0.000)	43	99906	17.712	17.71			0.4	10
12) Trichlorofluoromethane	(2)	2.423	(-0.000)	101	147767	24.386	24.39			0.2	1
14) Ethyl ether	(2)	2.624	(-0.000)	59	70304	16.830	16.83			0.2	5
15) Freon 123a	(2)	2.697	(-0.000)	67	116132	18.361	18.36			0.4	5
16) Acrolein	(1)	2.764	(0.005)	56	234448	138.407	138.41			2	100
17) 1,1-Dichloroethene	(2)	2.874	(-0.000)	96	99025	21.033	21.03			0.2	1
18) Acetone	(1)	2.905	(0.005)	58	158393	189.596	189.60			0.7	20
19) Freon 113	(2)	2.892	(0.000)	101	102864	19.303	19.30			0.2	10
21) 2-Propanol	(1)	3.045	(0.004)	45	83781	123.241	123.24			18	100
22) Methyl Iodide	(2)	3.039	(0.000)	142	190513	21.221	21.22			0.2	1
23) Carbon Disulfide	(2)	3.124	(-0.000)	76	301807	18.224	18.22			0.2	5
25) Allyl Chloride	(2)	3.258	(-0.000)	41	149208	18.933	18.93			0.3	5
27) Methyl Acetate	(2)	3.240	(-0.001)	43	140046	20.632	20.63			0.3	5
28) Methylene Chloride	(2)	3.417	(-0.000)	84	112878	21.270	21.27			0.3	1
30) t-Butyl alcohol	(1)	3.551	(0.002)	59	250975M	199.176	199.18			12	50
31) Acrylonitrile	(2)	3.691	(-0.000)	53	353532	98.673	98.67			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734	(0.000)	96	111483	21.162	21.16			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.746	(-0.000)	73	269809	19.363	19.36			0.2	1
34) n-Hexane	(2)	4.106	(-0.000)	57	140432	17.978	17.98			2	5
36) 1,1-Dichloroethane	(2)	4.344	(0.000)	63	194913	20.439	20.44			0.2	1
38) di-Isopropyl ether	(2)	4.410	(-0.000)	45	300753	17.657	17.66			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.453	(-0.000)	53	159094	19.637	19.64			0.2	5
40) Ethyl t-butyl ether	(2)	4.978	(-0.000)	59	261338	17.283	17.28			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215	(-0.000)	96	131059	21.995	22.00			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	242542	43.158	43.16			0.4	2

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/28/2020 at 00:04. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27150.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.203(-0.000)	43	795912	152.630	152.63			0.3	10
45) 2,2-Dichloropropane	(2)	5.227(0.000)	77	160761	19.979	19.98			0.3	1
47) Propionitrile	(1)	5.307(0.010)	54	230326	167.912	167.91			14	100
48) Methacrylonitrile	(2)	5.520(0.000)	67	537965	150.761	150.76			6	50
49) Bromochloromethane	(2)	5.563(-0.000)	128	58202	21.327	21.33			0.2	5
50) Tetrahydrofuran	(1)	5.575(0.012)	71	143113	115.439	115.44			0.7	10
51) Chloroform	(2)	5.727(0.000)	83	205142	21.447	21.45			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953(-0.000)	97	181908	21.123	21.12			0.3	1
54) Cyclohexane	(2)	6.038(0.000)	56	175562	17.504	17.50			1	5
55) 1,1-Dichloropropene	(2)	6.172(0.000)	75	157280	20.160	20.16			0.2	5
56) Carbon Tetrachloride	(2)	6.166(-0.000)	117	159050	21.168	21.17			0.2	1
58) Isobutyl Alcohol	(1)	6.392(0.014)	41	228934	545.062	545.06			36	250
60) Benzene	(2)	6.447(0.000)	78	476173	20.527	20.53			0.2	1
61) 1,2-Dichloroethane	(2)	6.538(-0.000)	62	156554	21.973	21.97			0.3	1
65) t-Amyl methyl ether	(2)	6.666(0.000)	73	280528	18.592	18.59			0.8	5
67) n-Heptane	(2)	6.904(-0.000)	43	139403	18.475	18.48			2	5
69) n-Butanol	(1)	7.325(0.017)	56	403857	1114.332	1114.33			61	250
71) Trichloroethene	(2)	7.386(-0.000)	95	129609	21.291	21.29			0.2	1
73) Methylcyclohexane	(2)	7.690(-0.000)	83	184529	19.073	19.07			0.5	5
74) 1,2-Dichloropropane	(2)	7.733(-0.000)	63	119593	20.595	20.60			0.2	1
75) Dibromomethane	(2)	7.849(-0.000)	93	77800	21.277	21.28			0.2	1
76) 1,4-Dioxane	(1)	7.837(0.018)	88	57968M	644.819	644.82			29	250
77) Methyl Methacrylate	(2)	7.855(-0.000)	69	102848	18.930	18.93			0.2	5
79) Bromodichloromethane	(2)	8.111(-0.000)	83	141485	19.955	19.95			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	44858	18.266	18.27			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.513(-0.000)	63	81809	18.204	18.20			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.696(-0.000)	75	171211	19.108	19.11			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.916(-0.000)	43	1026461	102.126	102.13			0.5	10
89) Toluene	(3)	9.129(0.000)	92	308266	20.291	20.29			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.452(0.000)	75	150355	18.445	18.45			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	321566	37.554	37.55			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	165627	17.869	17.87			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(0.000)	97	115365	21.240	21.24			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	144138	22.369	22.37			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(0.000)	76	178018	19.740	19.74			0.2	1
97) 2-Hexanone	(3)	9.940(-0.000)	43	873003	108.155	108.15			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	113301	19.714	19.71			0.2	1
100) 1,2-Dibromoethane	(3)	10.202(0.000)	107	122559	20.469	20.47			0.2	1
102) 1-Chlorohexane	(3)	10.708(0.000)	91	170657	19.315	19.32			0.3	5
103) Chlorobenzene	(3)	10.708(0.000)	112	357704	21.695	21.69			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	121496	21.359	21.36			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	617308	21.014	21.01			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	483929	42.937	42.94			1	5
108) o-Xylene	(3)	11.293(0.000)	106	229210	20.778	20.78			0.4	1
109) Xylene (Total)	(3)		106	713139	63.715	63.72			1	6
110) Styrene	(3)	11.312(0.000)	104	374168	21.046	21.05			0.2	5
111) Bromoform	(3)	11.470(0.000)	173	77120	18.546	18.55			1	4
112) Isopropylbenzene	(3)	11.622(0.000)	105	607901	20.999	21.00			0.2	5
113) Cyclohexanone	(1)	11.696(0.030)	55	247745	599.980	599.98			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	153777	20.972	20.97			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	208372	20.941	20.94			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.934(0.000)	110	63443	21.653	21.65			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.921(0.000)	53	248394	124.159	124.16			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	754701	20.934	20.93			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27150.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	149047	20.170	20.17			0.2	5
122) 4-Chlorotoluene	(4)	12.147(0.000)	126	154487	20.696	20.70			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.122(0.000)	105	517536	20.422	20.42			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	109760	21.792	21.79			0.3	5
126) Pentachloroethane	(4)	12.403(0.000)	167	87172	21.082	21.08			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.421(-0.000)	105	531095	20.350	20.35			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	638938	20.335	20.33			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.641(0.000)	146	292726	21.224	21.22			0.2	5
131) p-Isopropyltoluene	(4)	12.665(0.000)	119	545965	20.837	20.84			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.720(-0.000)	146	302574	21.617	21.62			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.738(-0.000)	105	536779	21.428	21.43			0.3	5
136) Benzyl Chloride	(4)	12.805(0.000)	91	355883	18.643	18.64			1	5
137) 1,3-Diethylbenzene	(4)	12.872(-0.000)	119	320153	21.147	21.15			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(0.000)	119	335008	21.394	21.39			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(-0.000)	146	285433	21.545	21.54			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	272423M	20.612	20.61			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	270031	21.089	21.09			0.2	5
142) Diethylbenzene (total)	(4)		100	925192	63.630	63.63			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(0.000)	75	50514	20.108	20.11			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	184938	21.134	21.13			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	172597	20.995	20.99			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	68746	21.744	21.74			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	678894	20.854	20.85			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.463(-0.000)	180	174408	21.439	21.44			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	331515	19.600	19.60			2	4

M = Compound was manually integrated.

Total number of targets = 110

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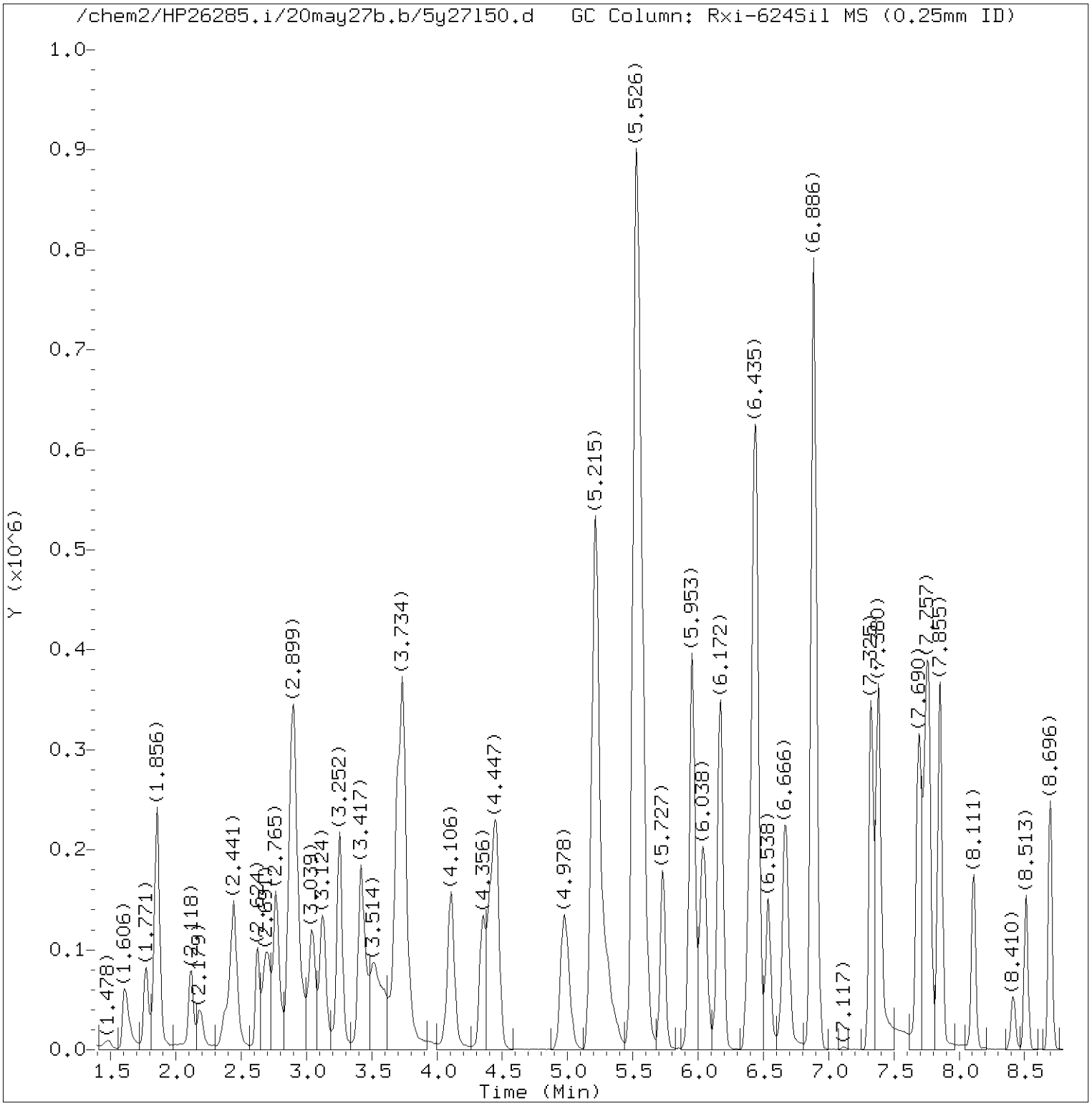
Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

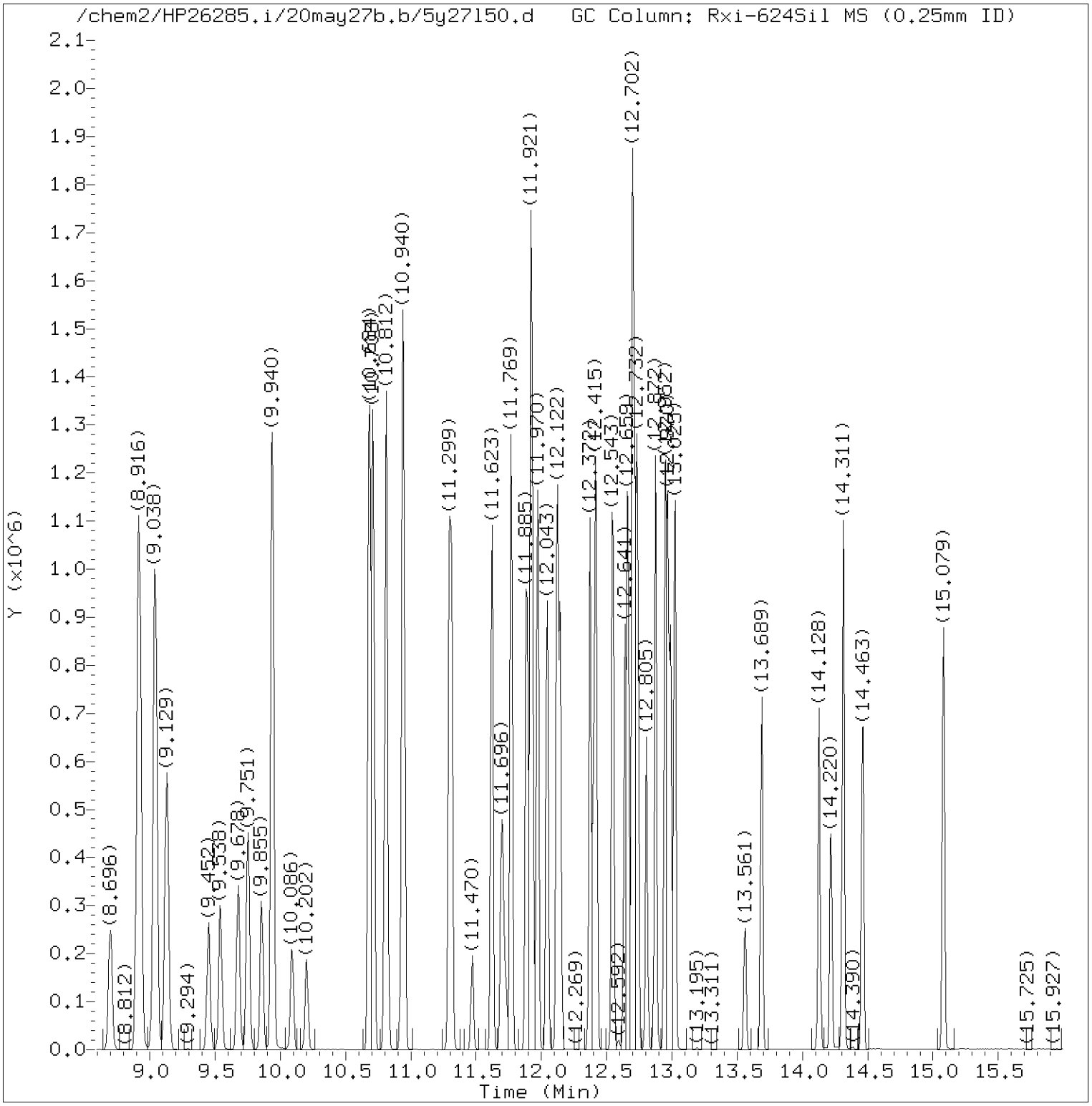
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	132460	18.784
4) Chloromethane	(2)	1.765	50	111024	19.845
5) 1,3-Butadiene	(2)	1.856	39	135300	17.401
6) Vinyl Chloride	(2)	1.862	62	107290	21.686
8) Bromomethane	(2)	2.112	94	75178	22.632
9) Chloroethane	(2)	2.179	64	51475	21.974
12) Trichlorofluoromethane	(2)	2.423	101	147767	24.386
11) n-Pentane	(2)	2.448	43	99906	17.712
14) Ethyl ether	(2)	2.624	59	70304	16.830
15) Freon 123a	(2)	2.697	67	116132	18.361
16) Acrolein	(1)	2.765	56	234448	138.407
17) 1,1-Dichloroethene	(2)	2.874	96	99025	21.033
19) Freon 113	(2)	2.893	101	102864	19.303
18) Acetone	(1)	2.905	58	158393	189.596
22) Methyl Iodide	(2)	3.039	142	190513	21.221
21) 2-Propanol	(1)	3.045	45	83781	123.241
23) Carbon Disulfide	(2)	3.124	76	301807	18.224
27) Methyl Acetate	(2)	3.240	43	140046	20.632
25) Allyl Chloride	(2)	3.258	41	149208	18.933
28) Methylene Chloride	(2)	3.417	84	112878	21.270
29)*t-Butyl alcohol-d10	(1)	3.453	65	267518	250.000
30) t-Butyl alcohol	(1)	3.551	59	250975M	199.176
31) Acrylonitrile	(2)	3.691	53	353532	98.673
32) trans-1,2-Dichloroethene	(2)	3.734	96	111483	21.162
33) Methyl Tertiary Butyl Ether	(2)	3.746	73	269809	19.363
34) n-Hexane	(2)	4.106	57	140432	17.978
36) 1,1-Dichloroethane	(2)	4.344	63	194913	20.439
38) di-Isopropyl ether	(2)	4.411	45	300753	17.657
39) 2-Chloro-1,3-butadiene	(2)	4.453	53	159094	19.637
40) Ethyl t-butyl ether	(2)	4.978	59	261338	17.283
44) 2-Butanone	(2)	5.203	43	795912	152.630
42) cis-1,2-Dichloroethene	(2)	5.215	96	131059	21.995
45) 2,2-Dichloropropane	(2)	5.227	77	160761	19.979
47) Propionitrile	(1)	5.307	54	230326	167.912
48) Methacrylonitrile	(2)	5.520	67	537965	150.761
49) Bromochloromethane	(2)	5.563	128	58202	21.327
50) Tetrahydrofuran	(1)	5.575	71	143113	115.439
51) Chloroform	(2)	5.727	83	205142	21.447

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52)$Dibromofluoromethane	(2)	5.953	113	222217	51.237
53) 1,1,1-Trichloroethane	(2)	5.953	97	181908	21.123
54) Cyclohexane	(2)	6.038	56	175562	17.504
43) 1,2-Dichloroethene (Total)	(2)		96	242542	43.158
56) Carbon Tetrachloride	(2)	6.166	117	159050	21.168
55) 1,1-Dichloropropene	(2)	6.172	75	157280	20.160
58) Isobutyl Alcohol	(1)	6.392	41	228934	545.062
57)$1,2-Dichloroethane-d4	(2)	6.428	102	50233	51.787
60) Benzene	(2)	6.447	78	476173	20.527
61) 1,2-Dichloroethane	(2)	6.538	62	156554	21.973
65) t-Amyl methyl ether	(2)	6.666	73	280528	18.592
66)*Fluorobenzene	(2)	6.880	96	870740	50.000
67) n-Heptane	(2)	6.904	43	139403	18.475
69) n-Butanol	(1)	7.325	56	403857	1114.332
71) Trichloroethene	(2)	7.386	95	129609	21.291
73) Methylcyclohexane	(2)	7.690	83	184529	19.073
74) 1,2-Dichloropropane	(2)	7.733	63	119593	20.595
76) 1,4-Dioxane	(1)	7.837	88	57968M	644.819
75) Dibromomethane	(2)	7.849	93	77800	21.277
77) Methyl Methacrylate	(2)	7.855	69	102848	18.930
79) Bromodichloromethane	(2)	8.111	83	141485	19.955
80) 2-Nitropropane	(2)	8.410	41	44858	18.266
81) 2-Chloroethyl Vinyl Ether	(2)	8.513	63	81809	18.204
82) cis-1,3-Dichloropropene	(2)	8.696	75	171211	19.108
83) 4-Methyl-2-pentanone	(2)	8.916	43	1026461	102.126
84)$Toluene-d8	(3)	9.038	98	849987	49.333
89) Toluene	(3)	9.129	92	308266	20.291
90) trans-1,3-Dichloropropene	(3)	9.452	75	150355	18.445
92) Ethyl Methacrylate	(3)	9.538	69	165627	17.869
93) 1,1,2-Trichloroethane	(3)	9.678	97	115365	21.240
94) Tetrachloroethene	(3)	9.751	166	144138	22.369
95) 1,3-Dichloropropane	(3)	9.855	76	178018	19.740
97) 2-Hexanone	(3)	9.940	43	873003	108.155
98) Dibromochloromethane	(3)	10.086	129	113301	19.714
91) 1,3-Dichloropropene (total)	(3)		100	321566	37.554
100) 1,2-Dibromoethane	(3)	10.202	107	122559	20.469
101)*Chlorobenzene-d5	(3)	10.684	117	701085	50.000
102) 1-Chlorohexane	(3)	10.708	91	170657	19.315

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	357704	21.695
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	121496	21.359
105) Ethylbenzene	(3)	10.812	91	617308	21.014
107) m+p-Xylene	(3)	10.940	106	483929	42.937
108) o-Xylene	(3)	11.293	106	229210	20.778
110) Styrene	(3)	11.312	104	374168	21.046
111) Bromoform	(3)	11.470	173	77120	18.546
112) Isopropylbenzene	(3)	11.623	105	607901	20.999
113) Cyclohexanone	(1)	11.696	55	247745	599.980
115)$4-Bromofluorobenzene	(3)	11.769	95	361853	49.845
109) Xylene (Total)	(3)		106	713139	63.715
116) Bromobenzene	(4)	11.885	156	153777	20.972
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	208372	20.941
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	248394	124.159
118) 1,2,3-Trichloropropane	(4)	11.934	110	63443	21.653
120) n-Propylbenzene	(4)	11.970	91	754701	20.934
121) 2-Chlorotoluene	(4)	12.043	126	149047	20.170
123) 1,3,5-Trimethylbenzene	(4)	12.122	105	517536	20.422
122) 4-Chlorotoluene	(4)	12.147	126	154487	20.696
125) tert-Butylbenzene	(4)	12.372	134	109760	21.792
126) Pentachloroethane	(4)	12.403	167	87172	21.082
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	531095	20.350
128) sec-Butylbenzene	(4)	12.543	105	638938	20.335
130) 1,3-Dichlorobenzene	(4)	12.641	146	292726	21.224
131) p-Isopropyltoluene	(4)	12.665	119	545965	20.837
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	384631	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	302574	21.617
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	536779	21.428
136) Benzyl Chloride	(4)	12.805	91	355883	18.643
137) 1,3-Diethylbenzene	(4)	12.872	119	320153	21.147
138) 1,4-Diethylbenzene	(4)	12.945	119	335008	21.394
140) n-Butylbenzene	(4)	12.970	92	272423M	20.612
139) 1,2-Dichlorobenzene	(4)	12.988	146	285433	21.545
141) 1,2-Diethylbenzene	(4)	13.025	119	270031	21.089
142) Diethylbenzene (total)	(4)		100	925192	63.630
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	50514	20.108
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	184938	21.134
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	172597	20.995

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	68746	21.744
149) Naphthalene	(4)	14.311	128	678894	20.854
150) 1,2,3-Trichlorobenzene	(4)	14.463	180	174408	21.439
151) 2-Methylnaphthalene	(4)	15.079	142	331515	19.600

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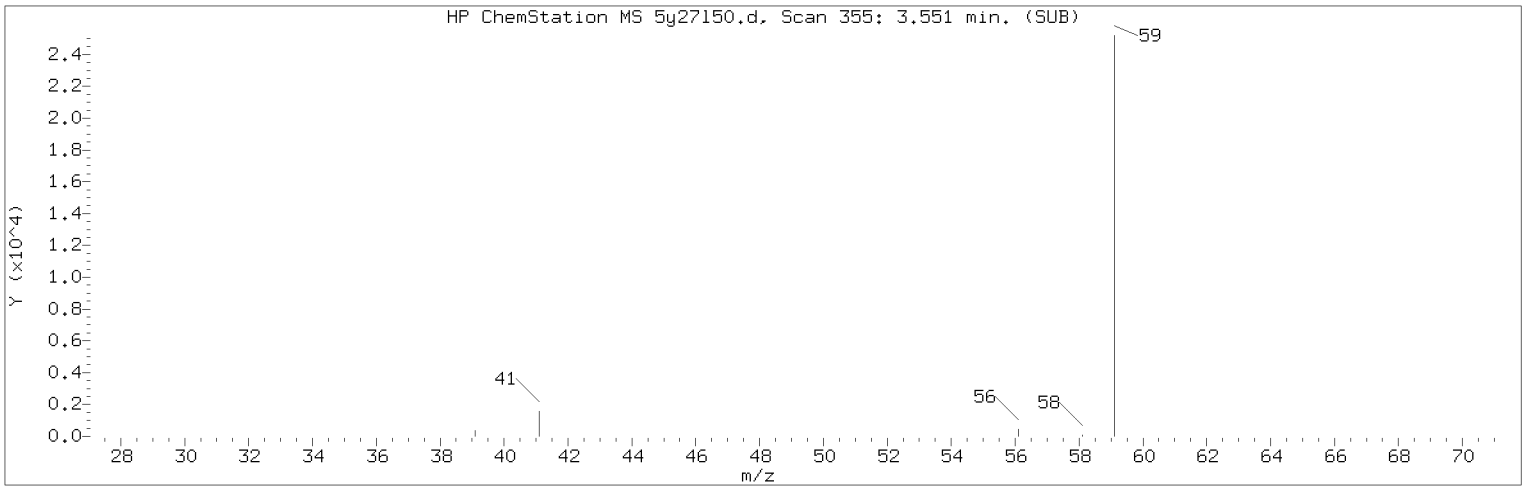
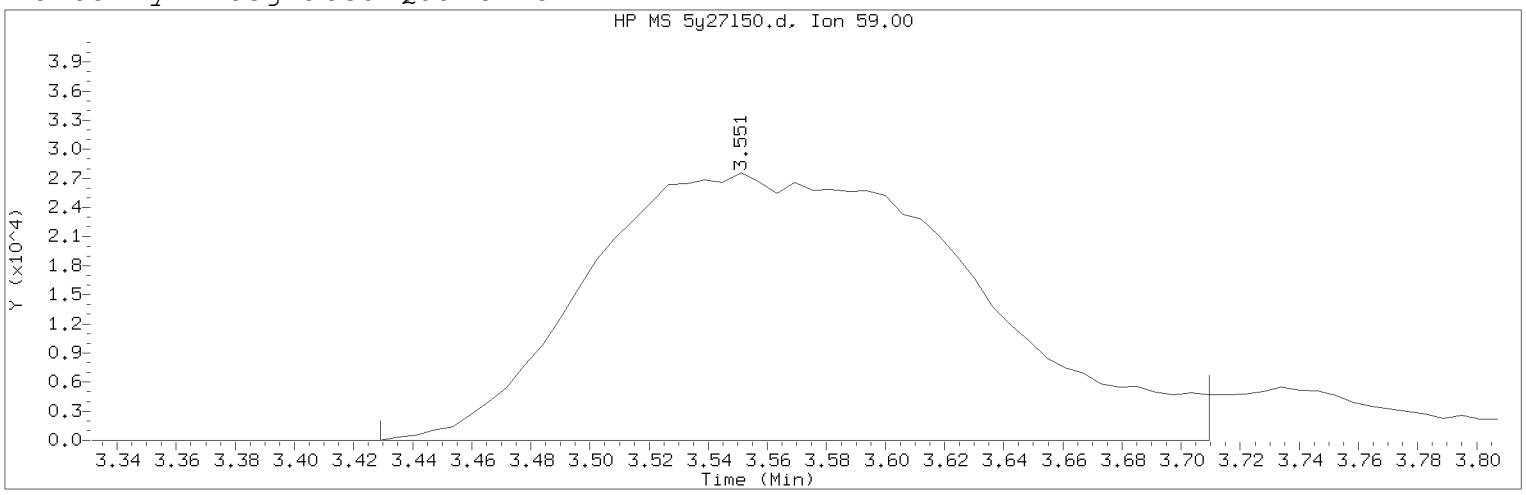
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

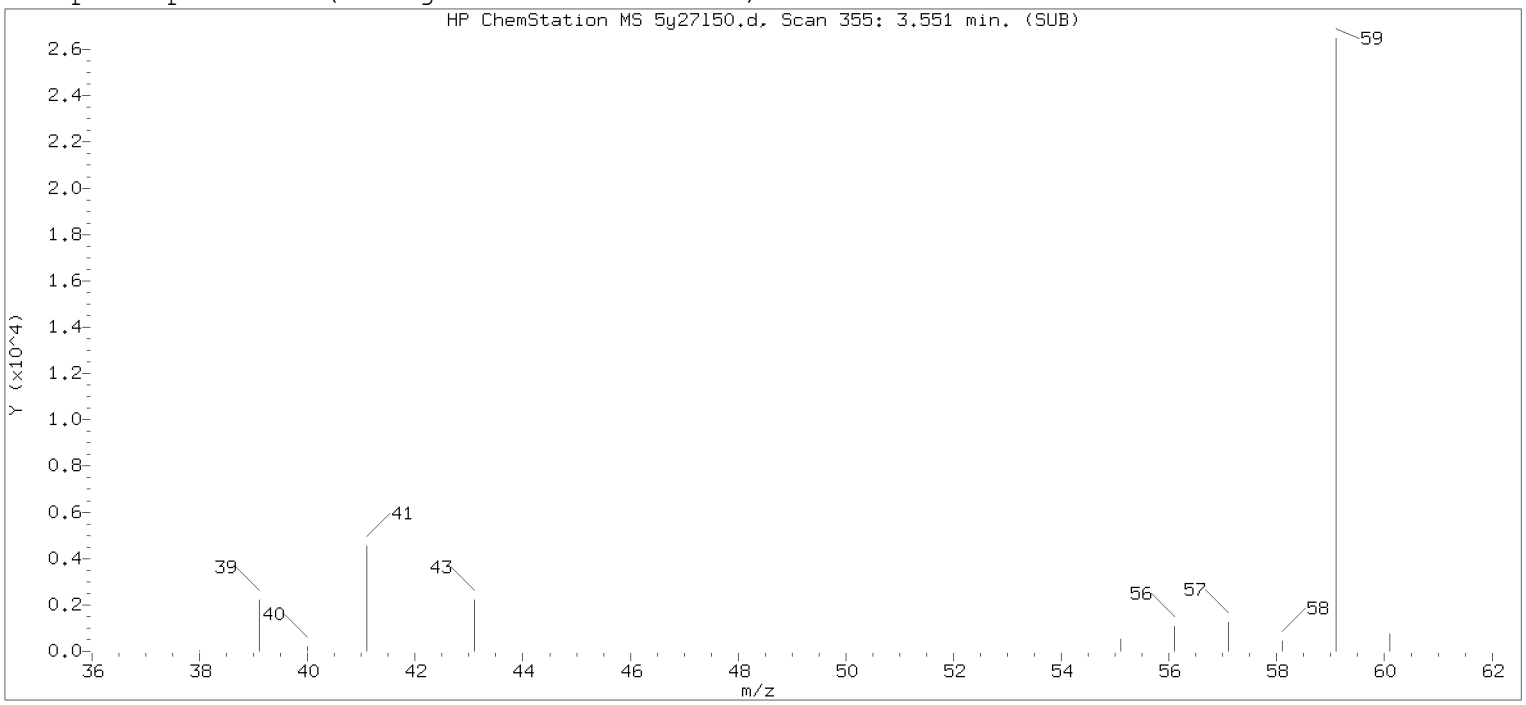
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 355
Retention Time (minutes): 3.551
Quant Ion : 59.00
Area (flag) : 250975M
On-Column Amount (ng) : 199.1763
Integration start scan : 334 Integration stop scan: 380
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

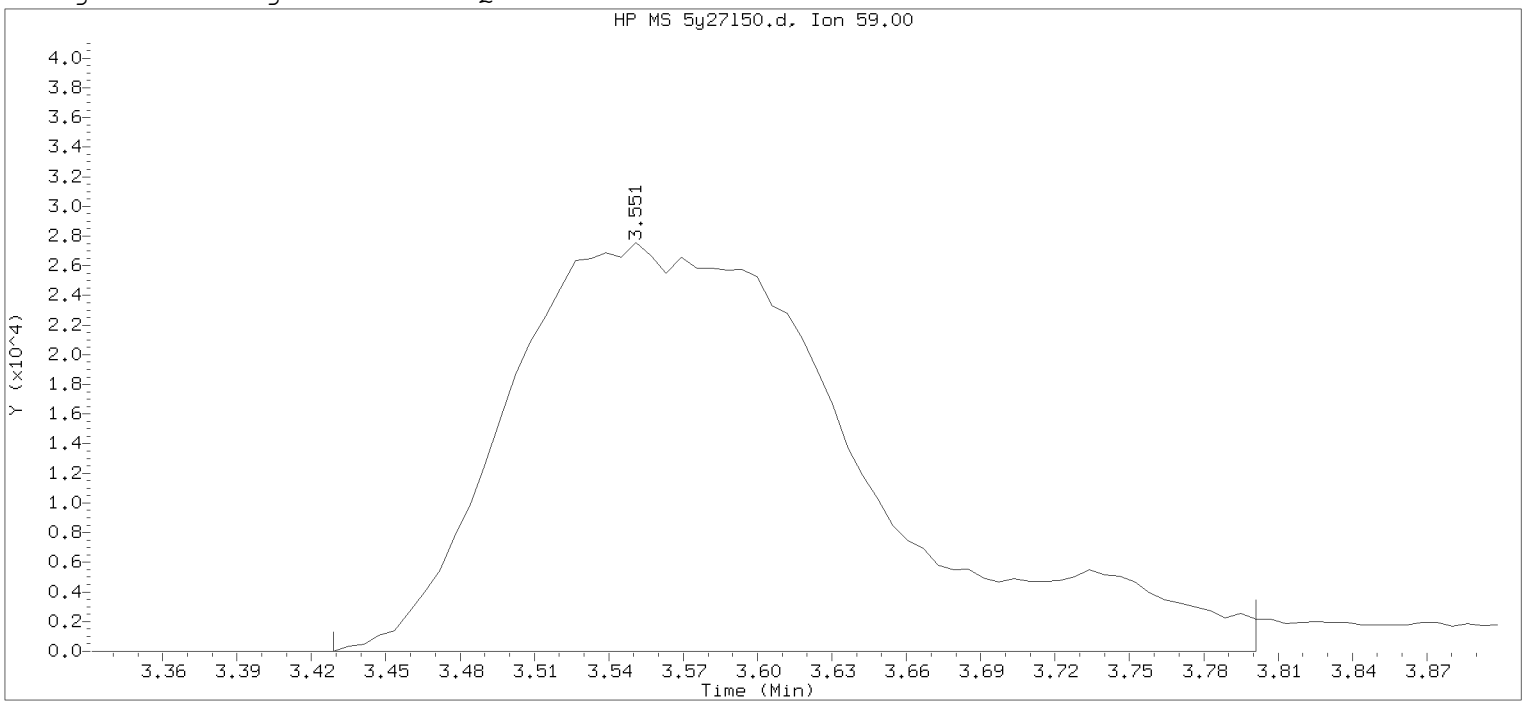
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

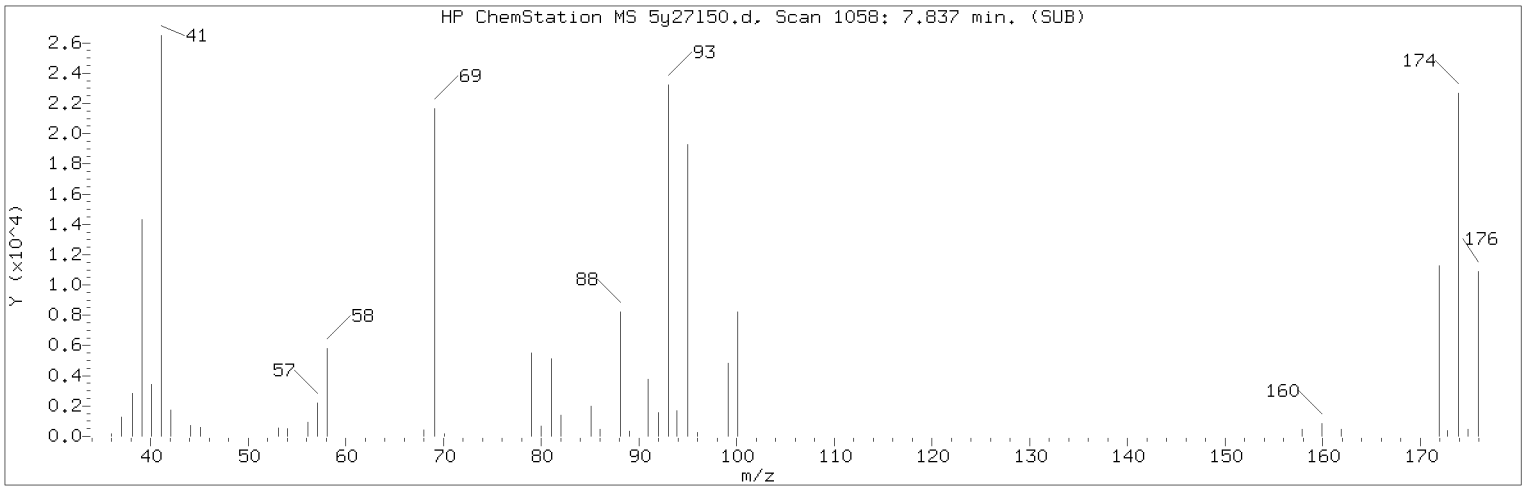
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

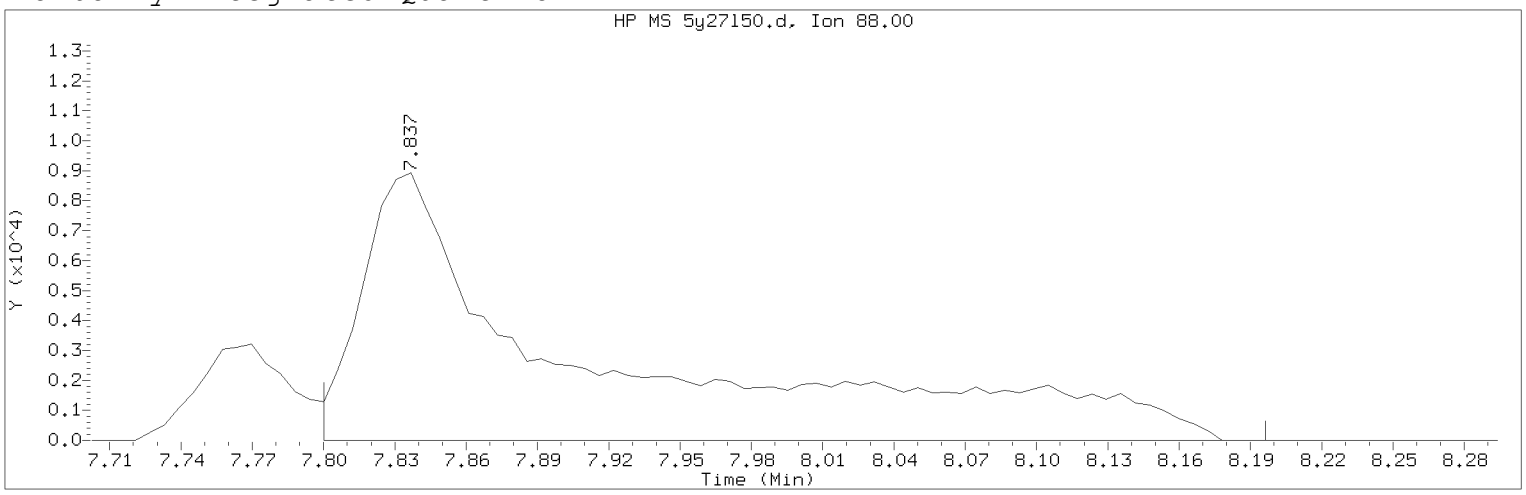
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 355
Retention Time (minutes): 3.551
Quant Ion : 59.00
Area : 271881
On-column Amount (ng) : 215.7676
Integration start scan : 334 Integration stop scan: 395
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

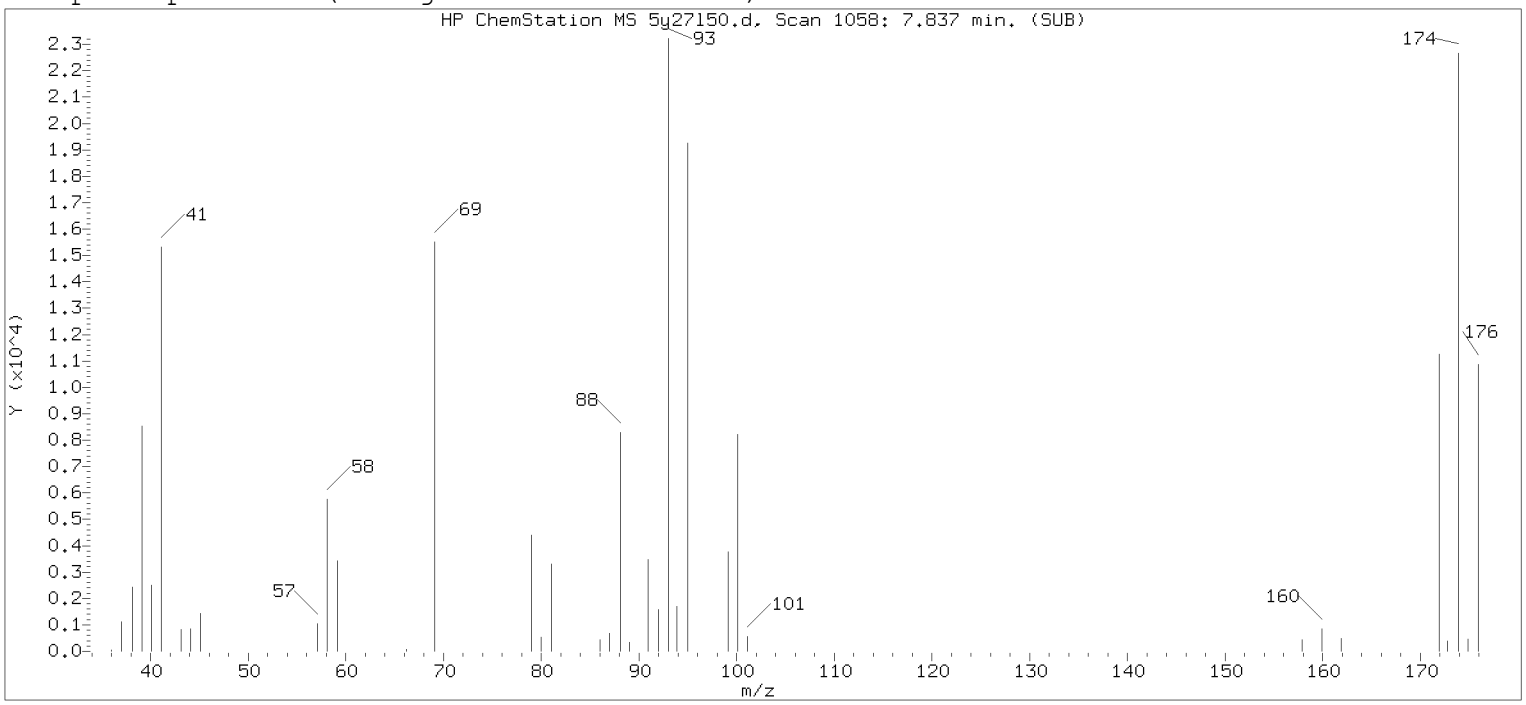
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1058
Retention Time (minutes): 7.837
Quant Ion : 88.00
Area (flag) : 57968M
On-Column Amount (ng) : 644.8190
Integration start scan : 1051 Integration stop scan: 1116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

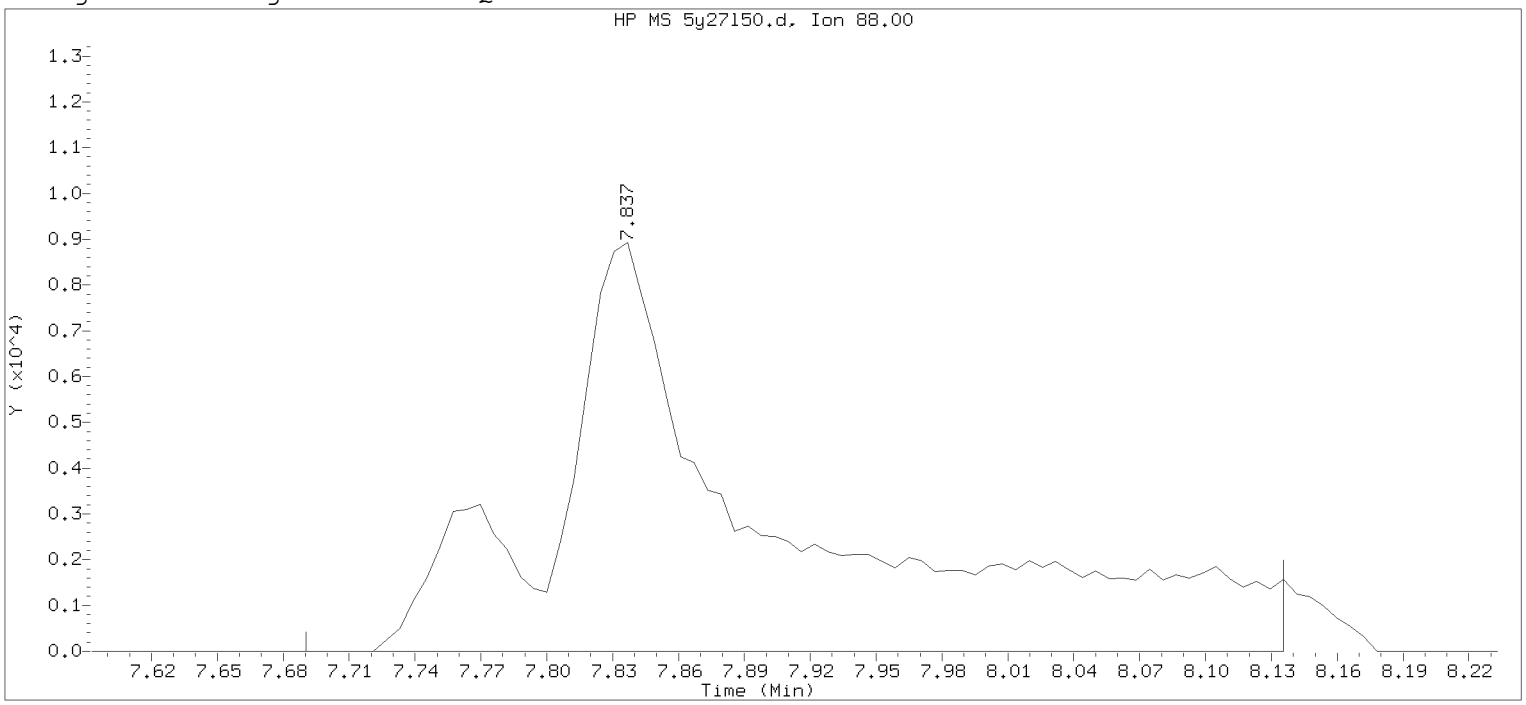
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

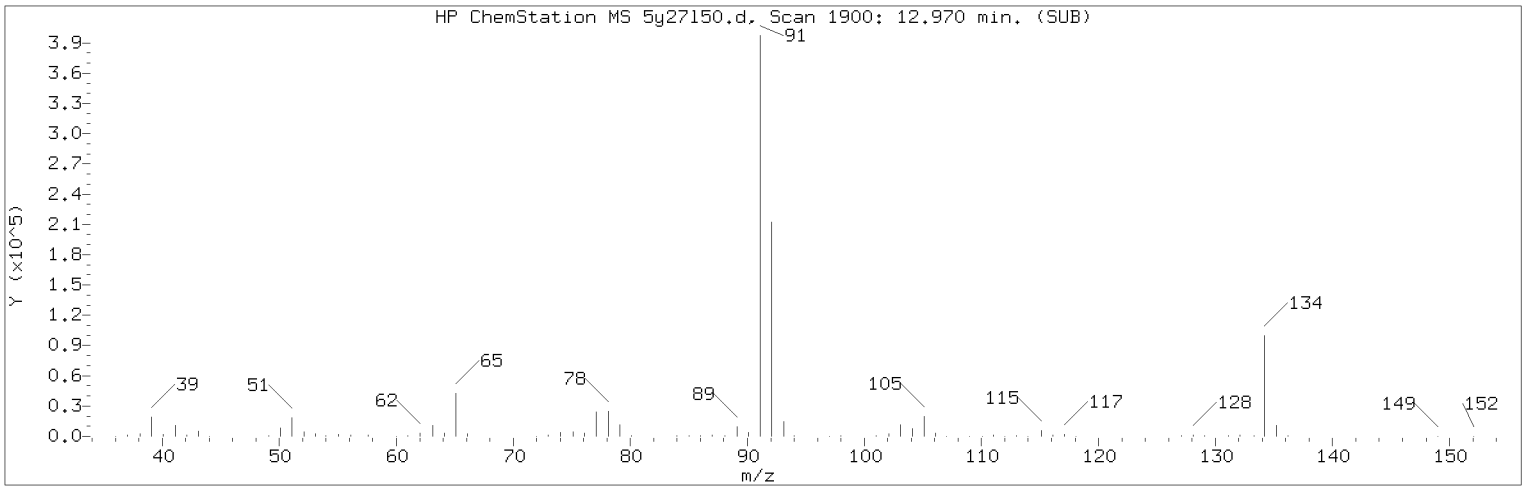
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

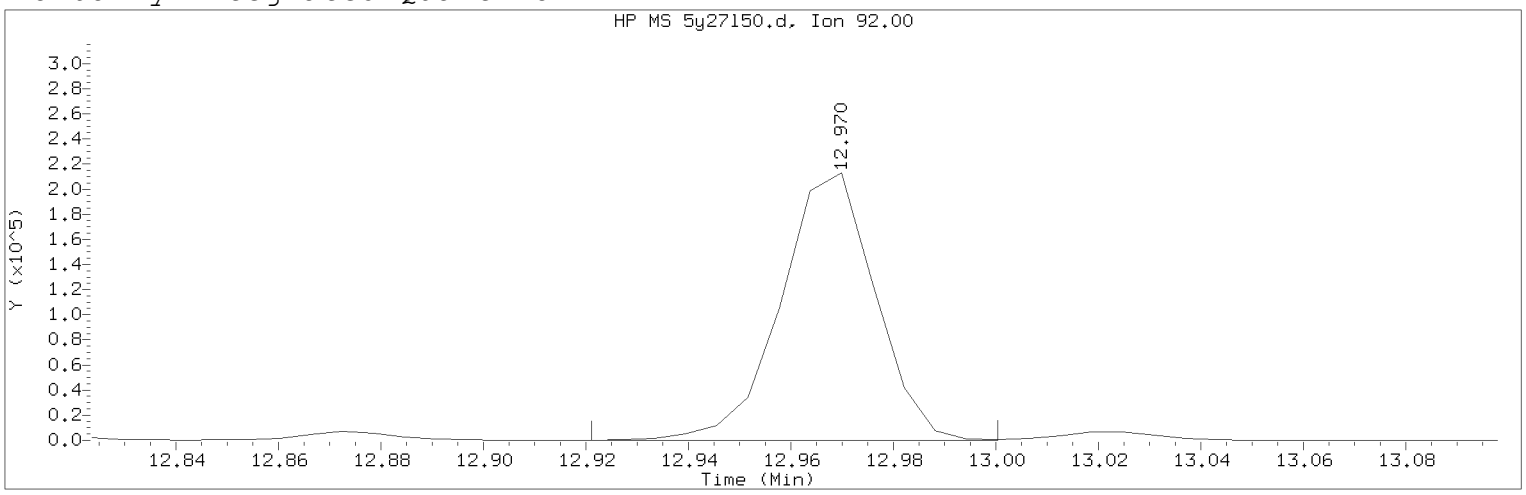
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1058
Retention Time (minutes): 7.837
Quant Ion : 88.00
Area : 64212
On-column Amount (ng) : 714.2854
Integration start scan : 1033 Integration stop scan: 1106
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

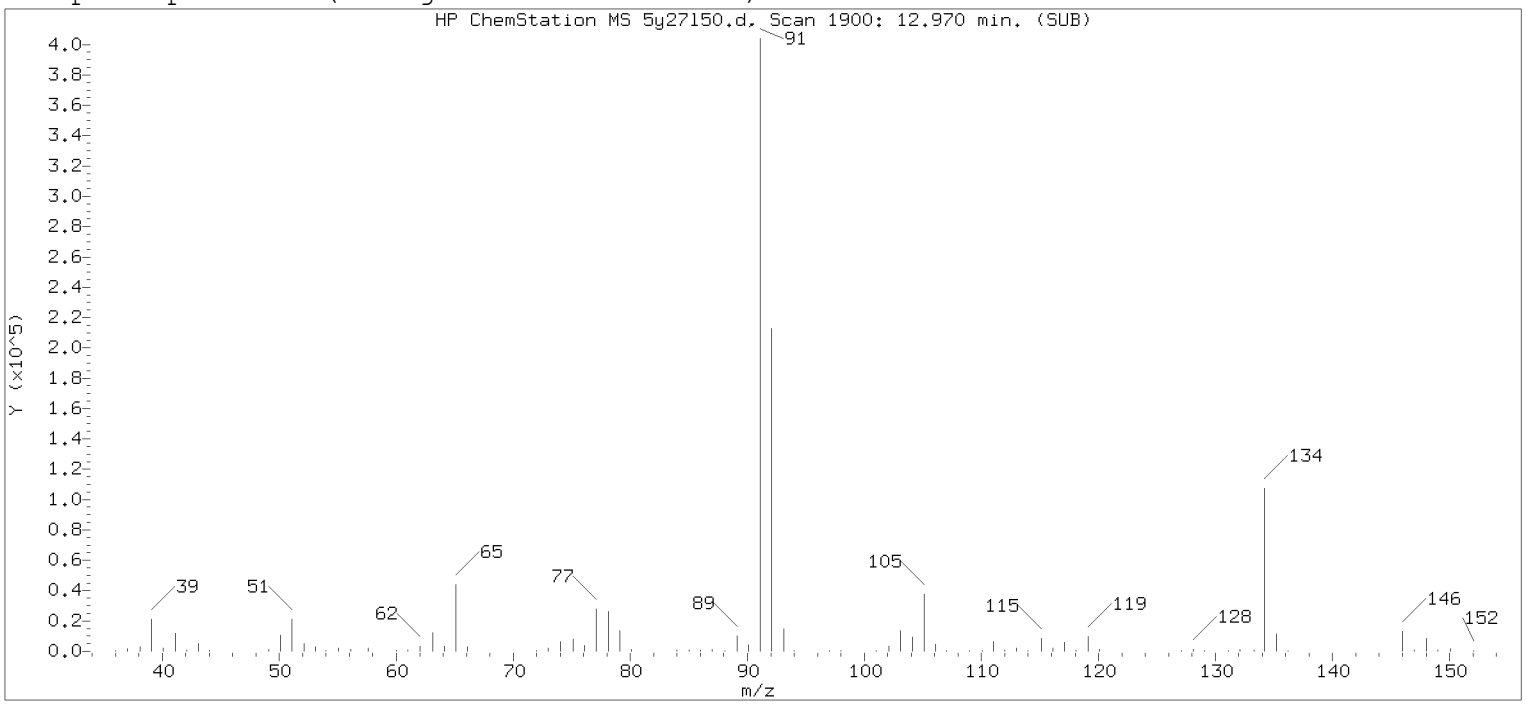
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area (flag) : 272423M
On-Column Amount (ng) : 20.6118
Integration start scan : 1891 Integration stop scan: 1904
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

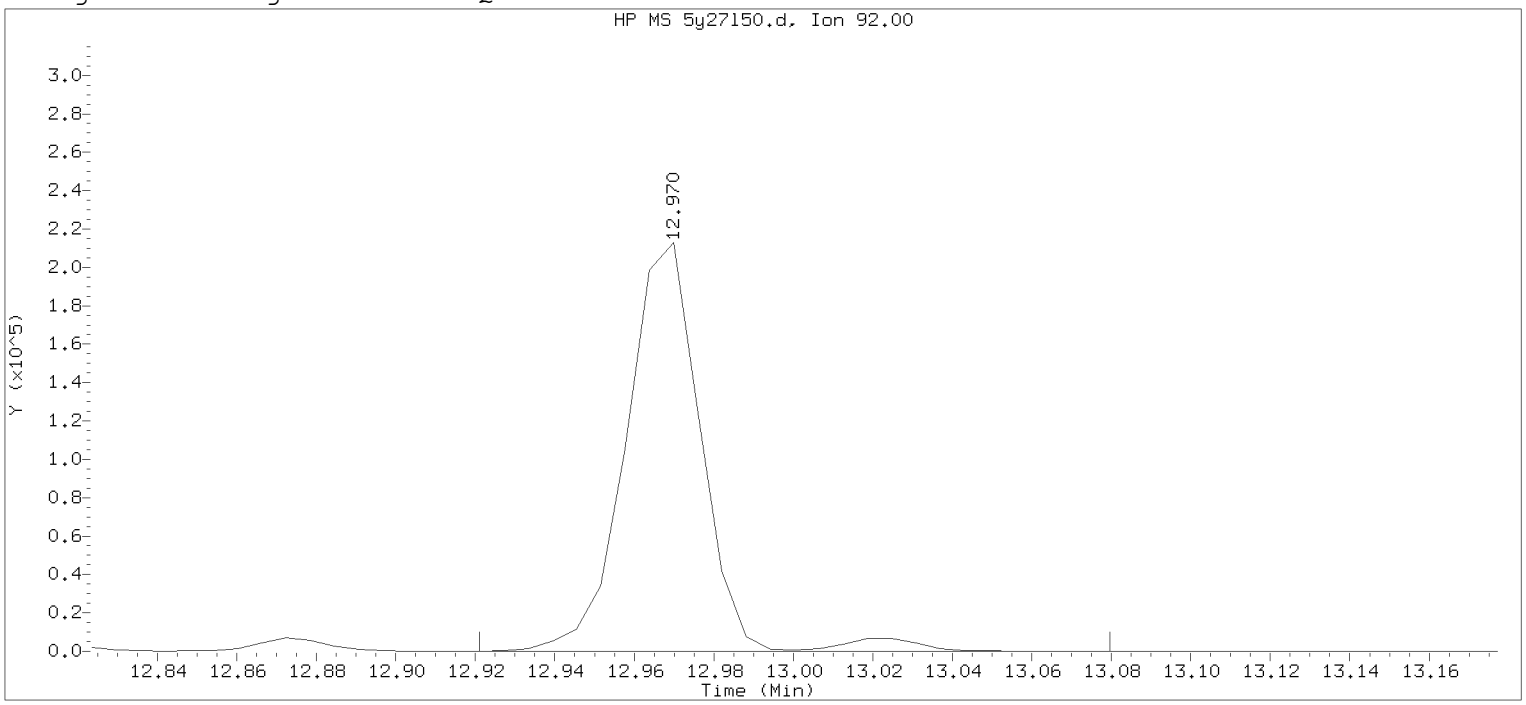
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area : 281506
On-column Amount (ng) : 21.2991
Integration start scan : 1891 Integration stop scan: 1917
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	17	
74-87-3	Chloromethane	18	
106-99-0	1,3-Butadiene	17	
75-01-4	Vinyl Chloride	20	
74-83-9	Bromomethane	20	
75-00-3	Chloroethane	20	
109-66-0	n-Pentane	16	
75-69-4	Trichlorofluoromethane	21	
60-29-7	Ethyl ether	16	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	130	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	210	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	130	
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	17	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	180	
107-13-1	Acrylonitrile	95	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	40	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	170	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	530	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	21	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	20	
108-87-2	Methylcyclohexane	17	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	670	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	18	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	98	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	36	
97-63-2	Ethyl Methacrylate	17	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	19	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	19	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	59	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	620	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	120	
103-65-1	n-Propylbenzene	19	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	20	
76-01-7	Pentachloroethane	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	59	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	20	
87-68-3	Hexachlorobutadiene	20	
91-20-3	Naphthalene	20	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	19	

Data file: /chem2/HP26285.i/20may27b.b/5y27l51.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.429(-0.006)	335	65	275661 (19)	250.00	
66) Fluorobenzene	6.880(0.000)	901	96	915629 (12)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	730532 (10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	400844 (7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(-0.001)	113	232090	50.890	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(0.000)	102	52308	51.283	103%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	890593	49.606	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.001)	95	376817	49.814	100%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.606(0.000)	85	124668	16.812	16.81			0.2	1
4) Chloromethane	(2)	1.765(0.000)	50	106278	18.065	18.07			0.2	1
5) 1,3-Butadiene	(2)	1.850(-0.000)	39	138580	16.949	16.95			1	3
6) Vinyl Chloride	(2)	1.856(0.000)	62	103126	19.822	19.82			0.2	1
8) Bromomethane	(2)	2.112(0.000)	94	71278	20.406	20.41			0.3	1
9) Chloroethane	(2)	2.179(0.000)	64	48523	19.699	19.70			0.2	1
11) n-Pentane	(2)	2.441(0.000)	43	92841	15.653	15.65			0.4	10
12) Trichlorofluoromethane	(2)	2.423(-0.000)	101	134305	21.078	21.08			0.2	1
14) Ethyl ether	(2)	2.618(0.000)	59	68678	15.634	15.63			0.2	5
15) Freon 123a	(2)	2.697(-0.000)	67	109309	16.435	16.43			0.4	5
16) Acrolein	(1)	2.764(-0.000)	56	234608	134.410	134.41			2	100
17) 1,1-Dichloroethene	(2)	2.868(0.000)	96	92440	18.672	18.67			0.2	1
18) Acetone	(1)	2.905(-0.000)	58	181997	211.414	211.41			0.7	20
19) Freon 113	(2)	2.899(0.000)	101	97822	17.457	17.46			0.2	10
21) 2-Propanol	(1)	3.045(-0.001)	45	94201	134.475	134.48			18	100
22) Methyl Iodide	(2)	3.039(0.000)	142	183602	19.449	19.45			0.2	1
23) Carbon Disulfide	(2)	3.124(-0.000)	76	288498	16.567	16.57			0.2	5
25) Allyl Chloride	(2)	3.252(0.000)	41	144044	17.381	17.38			0.3	5
27) Methyl Acetate	(2)	3.234(-0.000)	43	149696	20.972	20.97			0.3	5
28) Methylene Chloride	(2)	3.411(0.000)	84	112233	20.112	20.11			0.3	1
30) t-Butyl alcohol	(1)	3.533(0.000)	59	234997M	180.987	180.99			12	50
31) Acrylonitrile	(2)	3.691(-0.000)	53	359464	95.410	95.41			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734(0.000)	96	107130	19.339	19.34			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.740(0.000)	73	271491	18.529	18.53			0.2	1
34) n-Hexane	(2)	4.106(-0.000)	57	137045	16.684	16.68			2	5
36) 1,1-Dichloroethane	(2)	4.344(0.000)	63	189043	18.851	18.85			0.2	1
38) di-Isopropyl ether	(2)	4.404(0.000)	45	301300	16.822	16.82			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.447(0.000)	53	153967	18.073	18.07			0.2	5
40) Ethyl t-butyl ether	(2)	4.971(0.000)	59	265767	16.714	16.71			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215(-0.000)	96	127888	20.411	20.41			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	235018	39.750	39.75			0.4	2

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27151.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.203(-0.000)	43	853091	155.574	155.57			0.3	10
45) 2,2-Dichloropropane	(2)	5.227(0.000)	77	154066	18.208	18.21			0.3	1
47) Propionitrile	(1)	5.301(0.000)	54	233228	165.005	165.01			14	100
48) Methacrylonitrile	(2)	5.520(0.000)	67	543604	144.872	144.87			6	50
49) Bromochloromethane	(2)	5.563(-0.000)	128	58386	20.345	20.35			0.2	5
50) Tetrahydrofuran	(1)	5.575(0.001)	71	144410	113.044	113.04			0.7	10
51) Chloroform	(2)	5.727(0.000)	83	199516	19.836	19.84			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	173826	19.195	19.19			0.3	1
54) Cyclohexane	(2)	6.032(0.000)	56	169274	16.049	16.05			1	5
55) 1,1-Dichloropropene	(2)	6.172(0.000)	75	151690	18.491	18.49			0.2	5
56) Carbon Tetrachloride	(2)	6.160(0.000)	117	151275	19.146	19.15			0.2	1
58) Isobutyl Alcohol	(1)	6.392(0.001)	41	227732	526.184	526.18			36	250
60) Benzene	(2)	6.447(0.000)	78	458074	18.779	18.78			0.2	1
61) 1,2-Dichloroethane	(2)	6.538(-0.000)	62	154919	20.678	20.68			0.3	1
65) t-Amyl methyl ether	(2)	6.666(0.000)	73	285267	17.979	17.98			0.8	5
67) n-Heptane	(2)	6.898(0.000)	43	135852	17.122	17.12			2	5
69) n-Butanol	(1)	7.325(0.001)	56	397740	1065.035	1065.04			61	250
71) Trichloroethene	(2)	7.379(-0.000)	95	125247	19.566	19.57			0.2	1
73) Methylcyclohexane	(2)	7.690(-0.000)	83	175929	17.293	17.29			0.5	5
74) 1,2-Dichloropropane	(2)	7.733(-0.000)	63	115798	18.964	18.96			0.2	1
75) Dibromomethane	(2)	7.849(-0.000)	93	76735	19.957	19.96			0.2	1
76) 1,4-Dioxane	(1)	7.831(0.003)	88	62016M	669.470	669.47			29	250
77) Methyl Methacrylate	(2)	7.855(-0.000)	69	105023	18.383	18.38			0.2	5
79) Bromodichloromethane	(2)	8.111(-0.000)	83	138880	18.627	18.63			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	45371	17.569	17.57			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.513(-0.000)	63	83844	17.743	17.74			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.696(-0.000)	75	170744	18.122	18.12			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.916(-0.000)	43	1039545	98.357	98.36			0.5	10
89) Toluene	(3)	9.129(0.000)	92	301338	19.035	19.04			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.452(0.000)	75	149918	17.650	17.65			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	320662	35.772	35.77			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	167797	17.373	17.37			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(0.000)	97	114855	20.294	20.29			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	138714	20.660	20.66			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(0.000)	76	179173	19.067	19.07			0.2	1
97) 2-Hexanone	(3)	9.934(0.000)	43	900185	107.027	107.03			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	112383	18.766	18.77			0.2	1
100) 1,2-Dibromoethane	(3)	10.202(0.000)	107	123485	19.792	19.79			0.2	1
102) 1-Chlorohexane	(3)	10.708(0.000)	91	163486	17.758	17.76			0.3	5
103) Chlorobenzene	(3)	10.708(0.000)	112	344486	20.051	20.05			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	117705	19.859	19.86			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	597958	19.535	19.54			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	469349	39.965	39.97			1	5
108) o-Xylene	(3)	11.293(0.000)	106	223642	19.456	19.46			0.4	1
109) Xylene (Total)	(3)		106	692991	59.421	59.42			1	6
110) Styrene	(3)	11.312(0.000)	104	362754	19.582	19.58			0.2	5
111) Bromoform	(3)	11.470(0.000)	173	77388	17.861	17.86			1	4
112) Isopropylbenzene	(3)	11.622(0.000)	105	592169	19.631	19.63			0.2	5
113) Cyclohexanone	(1)	11.696(0.005)	55	262683	617.365	617.36			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	149508	19.565	19.56			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	208050	20.063	20.06			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.933(0.000)	110	62856	20.585	20.59			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.921(0.000)	53	244539	118.044	118.04			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	726196	19.329	19.33			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27151.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

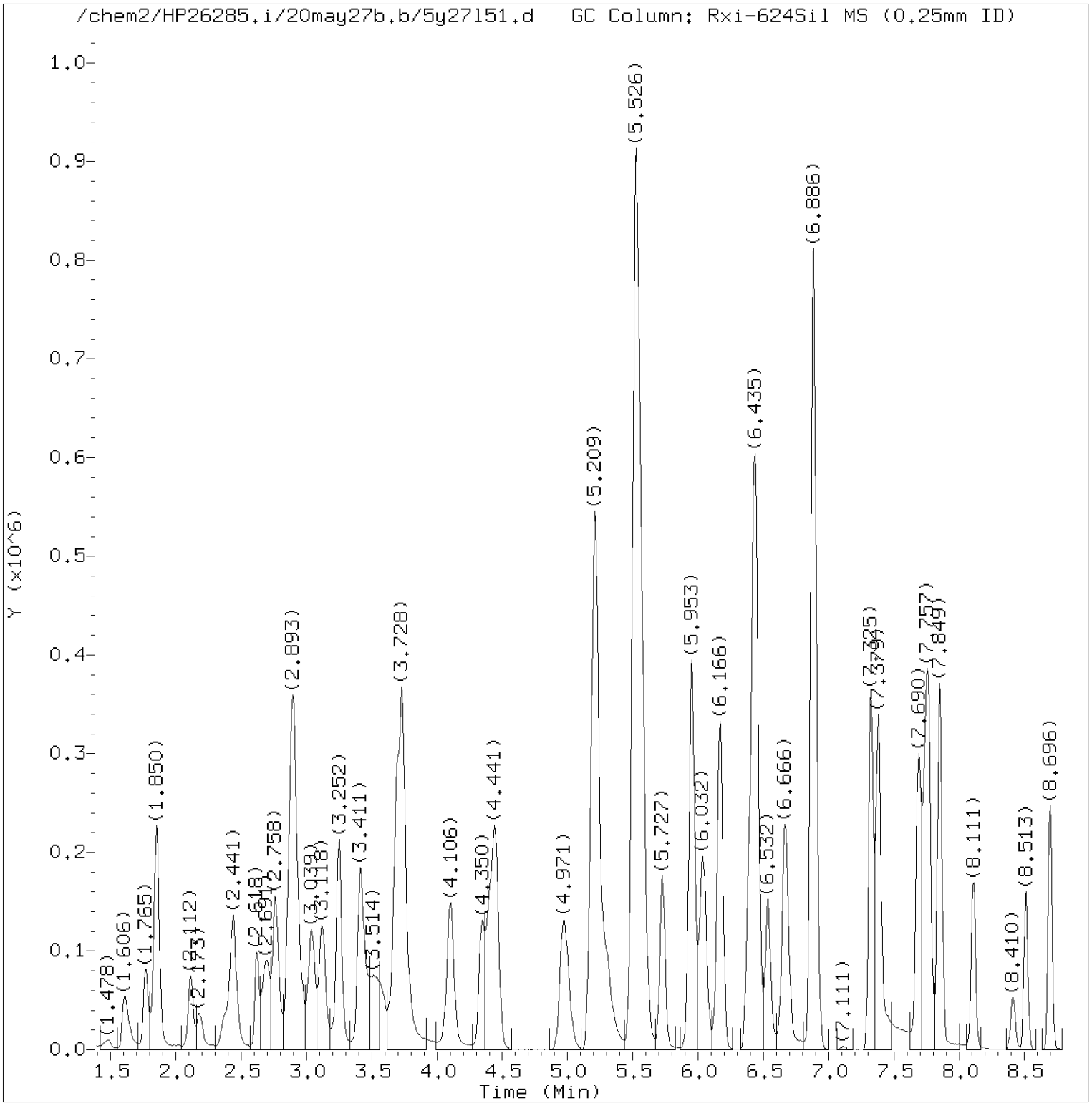
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	144637	18.781	18.78			0.2	5
122) 4-Chlorotoluene	(4)	12.147(0.000)	126	148915	19.142	19.14			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.122(0.000)	105	500174	18.938	18.94			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	104928	19.990	19.99			0.3	5
126) Pentachloroethane	(4)	12.403(0.000)	167	84488	19.607	19.61			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.421(-0.000)	105	512894	18.858	18.86			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	611179	18.665	18.66			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.641(0.000)	146	283162	19.700	19.70			0.2	5
131) p-Isopropyltoluene	(4)	12.665(0.000)	119	522412	19.131	19.13			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.720(0.000)	146	293208	20.100	20.10			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.738(-0.000)	105	526460	20.166	20.17			0.3	5
136) Benzyl Chloride	(4)	12.805(0.000)	91	356134	17.901	17.90			1	5
137) 1,3-Diethylbenzene	(4)	12.872(-0.000)	119	307952	19.518	19.52			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(0.000)	119	321070	19.674	19.67			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(-0.000)	146	278353	20.160	20.16			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	260485M	18.911	18.91			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	258589	19.379	19.38			0.2	5
142) Diethylbenzene (total)	(4)		100	887611	58.571	58.57			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(0.000)	75	50829	19.415	19.41			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	180530	19.796	19.80			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	167443	19.544	19.54			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	65793	19.968	19.97			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	668872	19.715	19.71			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.463(-0.000)	180	170486	20.109	20.11			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	331023	18.780	18.78			2	4

M = Compound was manually integrated.

Total number of targets = 110

Digitally signed by Laura J. Green on 05/28/2020 at 00:03. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

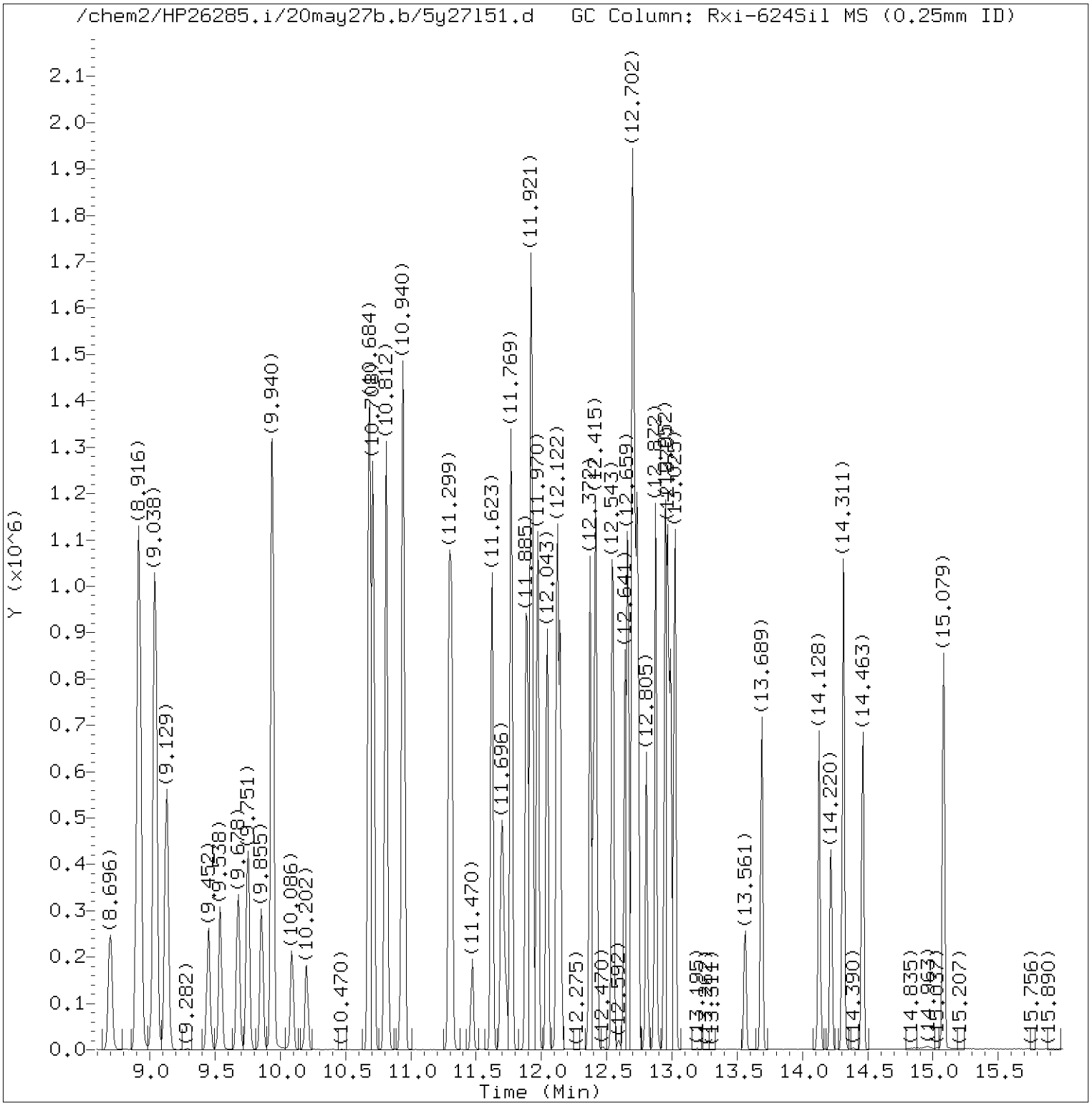
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	124668	16.812
4) Chloromethane	(2)	1.765	50	106278	18.065
5) 1,3-Butadiene	(2)	1.850	39	138580	16.949
6) Vinyl Chloride	(2)	1.856	62	103126	19.822
8) Bromomethane	(2)	2.112	94	71278	20.406
9) Chloroethane	(2)	2.179	64	48523	19.699
12) Trichlorofluoromethane	(2)	2.423	101	134305	21.078
11) n-Pentane	(2)	2.441	43	92841	15.653
14) Ethyl ether	(2)	2.618	59	68678	15.634
15) Freon 123a	(2)	2.697	67	109309	16.435
16) Acrolein	(1)	2.765	56	234608	134.410
17) 1,1-Dichloroethene	(2)	2.868	96	92440	18.672
19) Freon 113	(2)	2.899	101	97822	17.457
18) Acetone	(1)	2.905	58	181997	211.414
22) Methyl Iodide	(2)	3.039	142	183602	19.449
21) 2-Propanol	(1)	3.045	45	94201	134.475
23) Carbon Disulfide	(2)	3.124	76	288498	16.567
27) Methyl Acetate	(2)	3.234	43	149696	20.972
25) Allyl Chloride	(2)	3.252	41	144044	17.381
28) Methylene Chloride	(2)	3.411	84	112233	20.112
29)*t-Butyl alcohol-d10	(1)	3.429	65	275661	250.000
30) t-Butyl alcohol	(1)	3.533	59	234997M	180.987
31) Acrylonitrile	(2)	3.691	53	359464	95.410
32) trans-1,2-Dichloroethene	(2)	3.734	96	107130	19.339
33) Methyl Tertiary Butyl Ether	(2)	3.740	73	271491	18.529
34) n-Hexane	(2)	4.106	57	137045	16.684
36) 1,1-Dichloroethane	(2)	4.343	63	189043	18.851
38) di-Isopropyl ether	(2)	4.404	45	301300	16.822
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	153967	18.073
40) Ethyl t-butyl ether	(2)	4.971	59	265767	16.714
44) 2-Butanone	(2)	5.203	43	853091	155.574
42) cis-1,2-Dichloroethene	(2)	5.215	96	127888	20.411
45) 2,2-Dichloropropane	(2)	5.227	77	154066	18.208
47) Propionitrile	(1)	5.301	54	233228	165.005
48) Methacrylonitrile	(2)	5.520	67	543604	144.872
49) Bromochloromethane	(2)	5.563	128	58386	20.345
50) Tetrahydrofuran	(1)	5.575	71	144410	113.044
51) Chloroform	(2)	5.727	83	199516	19.836

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.947	97	173826	19.195
52)$Dibromofluoromethane	(2)	5.953	113	232090	50.890
54) Cyclohexane	(2)	6.032	56	169274	16.049
43) 1,2-Dichloroethene (Total)	(2)		96	235018	39.750
56) Carbon Tetrachloride	(2)	6.160	117	151275	19.146
55) 1,1-Dichloropropene	(2)	6.172	75	151690	18.491
58) Isobutyl Alcohol	(1)	6.392	41	227732	526.184
57)$1,2-Dichloroethane-d4	(2)	6.428	102	52308	51.283
60) Benzene	(2)	6.447	78	458074	18.779
61) 1,2-Dichloroethane	(2)	6.538	62	154919	20.678
65) t-Amyl methyl ether	(2)	6.666	73	285267	17.979
66)*Fluorobenzene	(2)	6.880	96	915629	50.000
67) n-Heptane	(2)	6.898	43	135852	17.122
69) n-Butanol	(1)	7.325	56	397740	1065.035
71) Trichloroethene	(2)	7.379	95	125247	19.566
73) Methylcyclohexane	(2)	7.690	83	175929	17.293
74) 1,2-Dichloropropane	(2)	7.733	63	115798	18.964
76) 1,4-Dioxane	(1)	7.831	88	62016M	669.470
75) Dibromomethane	(2)	7.849	93	76735	19.957
77) Methyl Methacrylate	(2)	7.855	69	105023	18.383
79) Bromodichloromethane	(2)	8.111	83	138880	18.627
80) 2-Nitropropane	(2)	8.410	41	45371	17.569
81) 2-Chloroethyl Vinyl Ether	(2)	8.513	63	83844	17.743
82) cis-1,3-Dichloropropene	(2)	8.696	75	170744	18.122
83) 4-Methyl-2-pentanone	(2)	8.916	43	1039545	98.357
84)$Toluene-d8	(3)	9.038	98	890593	49.606
89) Toluene	(3)	9.129	92	301338	19.035
90) trans-1,3-Dichloropropene	(3)	9.452	75	149918	17.650
92) Ethyl Methacrylate	(3)	9.538	69	167797	17.373
93) 1,1,2-Trichloroethane	(3)	9.678	97	114855	20.294
94) Tetrachloroethene	(3)	9.751	166	138714	20.660
95) 1,3-Dichloropropane	(3)	9.855	76	179173	19.067
97) 2-Hexanone	(3)	9.934	43	900185	107.027
98) Dibromochloromethane	(3)	10.086	129	112383	18.766
91) 1,3-Dichloropropene (total)	(3)		100	320662	35.772
100) 1,2-Dibromoethane	(3)	10.202	107	123485	19.792
101)*Chlorobenzene-d5	(3)	10.684	117	730532	50.000
102) 1-Chlorohexane	(3)	10.708	91	163486	17.758

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	344486	20.051
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	117705	19.859
105) Ethylbenzene	(3)	10.812	91	597958	19.535
107) m+p-Xylene	(3)	10.940	106	469349	39.965
108) o-Xylene	(3)	11.293	106	223642	19.456
110) Styrene	(3)	11.312	104	362754	19.582
111) Bromoform	(3)	11.470	173	77388	17.861
112) Isopropylbenzene	(3)	11.623	105	592169	19.631
113) Cyclohexanone	(1)	11.696	55	262683	617.365
115)$4-Bromofluorobenzene	(3)	11.769	95	376817	49.814
109) Xylene (Total)	(3)		106	692991	59.421
116) Bromobenzene	(4)	11.885	156	149508	19.565
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	208050	20.063
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	244539	118.044
118) 1,2,3-Trichloropropane	(4)	11.933	110	62856	20.585
120) n-Propylbenzene	(4)	11.970	91	726196	19.329
121) 2-Chlorotoluene	(4)	12.043	126	144637	18.781
123) 1,3,5-Trimethylbenzene	(4)	12.122	105	500174	18.938
122) 4-Chlorotoluene	(4)	12.147	126	148915	19.142
125) tert-Butylbenzene	(4)	12.372	134	104928	19.990
126) Pentachloroethane	(4)	12.403	167	84488	19.607
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	512894	18.858
128) sec-Butylbenzene	(4)	12.543	105	611179	18.665
130) 1,3-Dichlorobenzene	(4)	12.641	146	283162	19.700
131) p-Isopropyltoluene	(4)	12.665	119	522412	19.131
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	400844	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	293208	20.100
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	526460	20.166
136) Benzyl Chloride	(4)	12.805	91	356134	17.901
137) 1,3-Diethylbenzene	(4)	12.872	119	307952	19.518
138) 1,4-Diethylbenzene	(4)	12.945	119	321070	19.674
140) n-Butylbenzene	(4)	12.970	92	260485M	18.911
139) 1,2-Dichlorobenzene	(4)	12.988	146	278353	20.160
141) 1,2-Diethylbenzene	(4)	13.025	119	258589	19.379
142) Diethylbenzene (total)	(4)		100	887611	58.571
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	50829	19.415
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	180530	19.796
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	167443	19.544

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

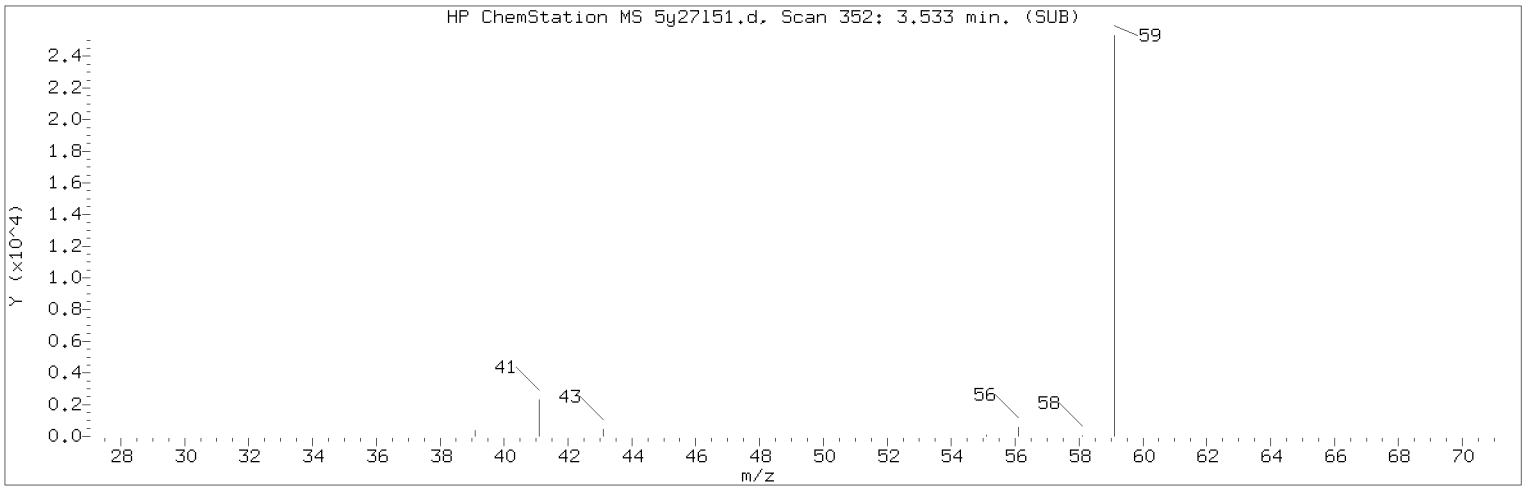
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

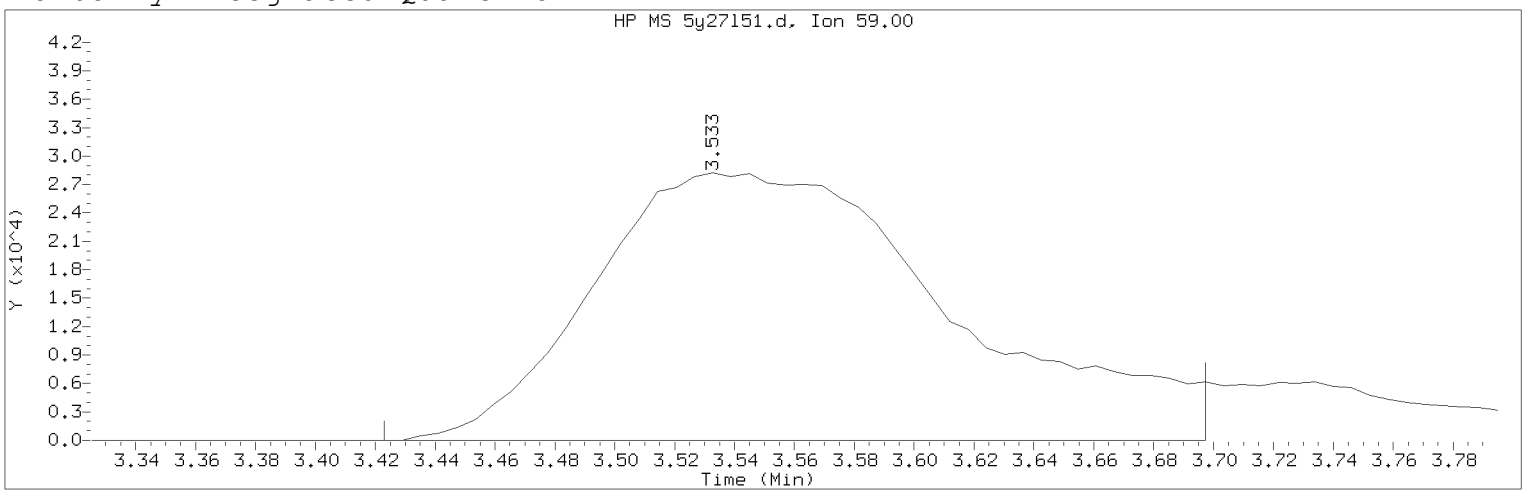
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	65793	19.968
149) Naphthalene	(4)	14.311	128	668872	19.715
150) 1,2,3-Trichlorobenzene	(4)	14.463	180	170486	20.109
151) 2-Methylnaphthalene	(4)	15.079	142	331023	18.780

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

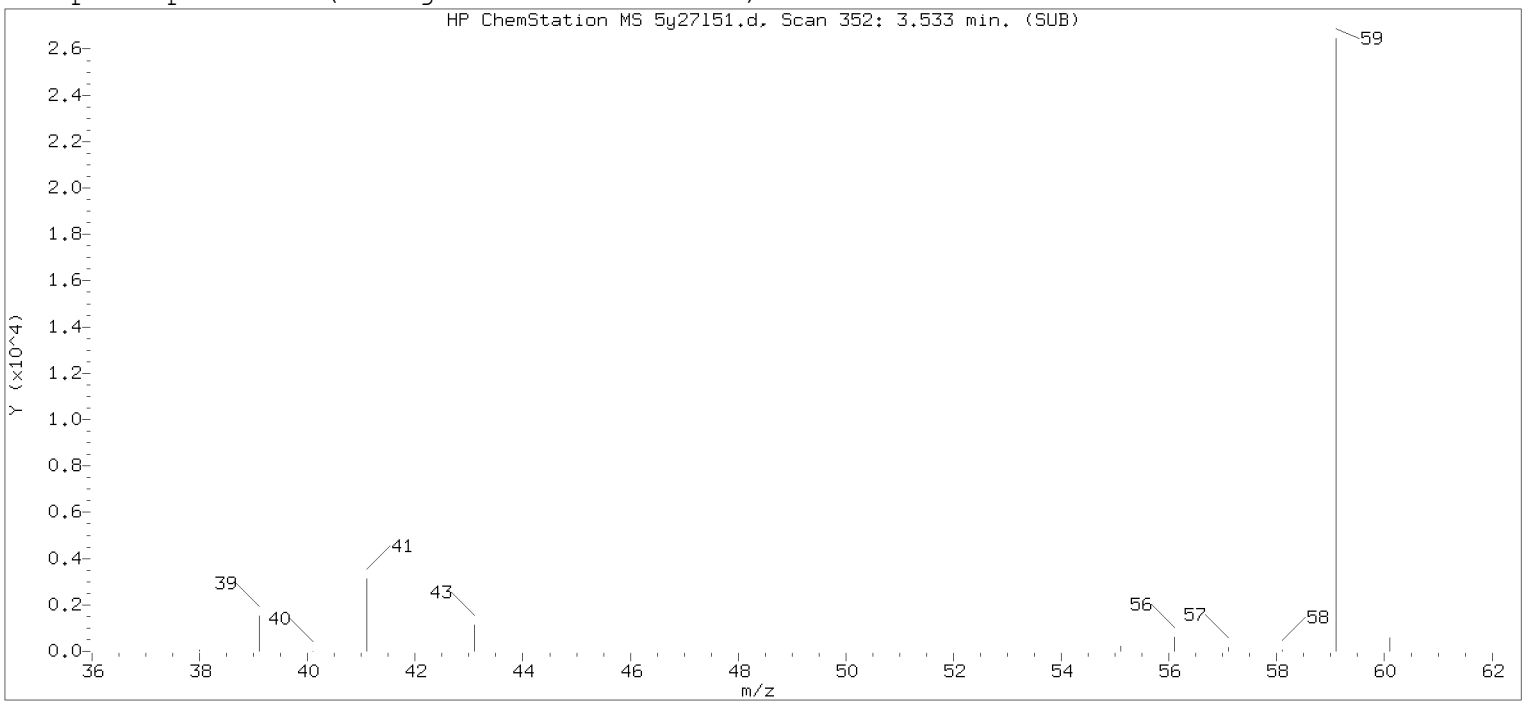
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 352
Retention Time (minutes): 3.533
Quant Ion : 59.00
Area (flag) : 234997M
On-Column Amount (ng) : 180.9869
Integration start scan : 333 Integration stop scan: 378
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

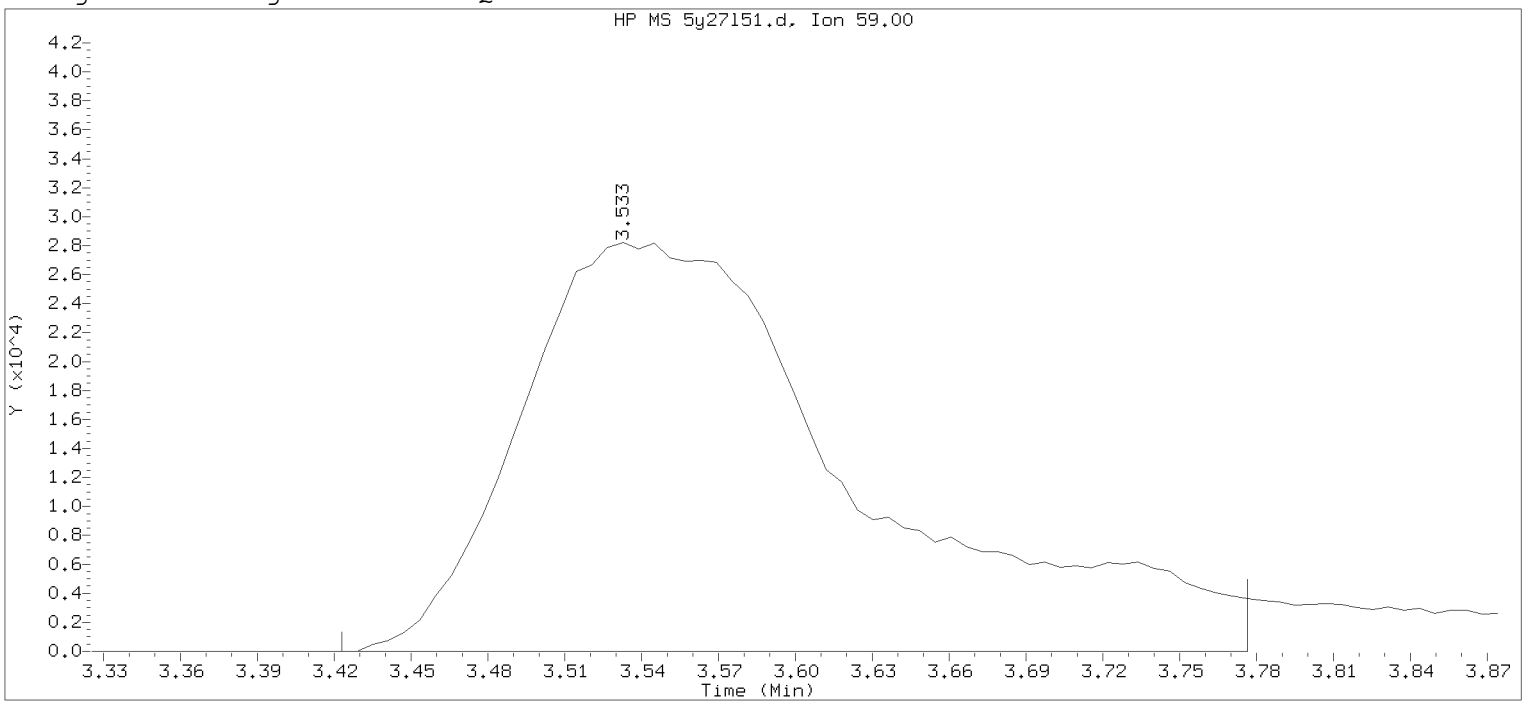
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

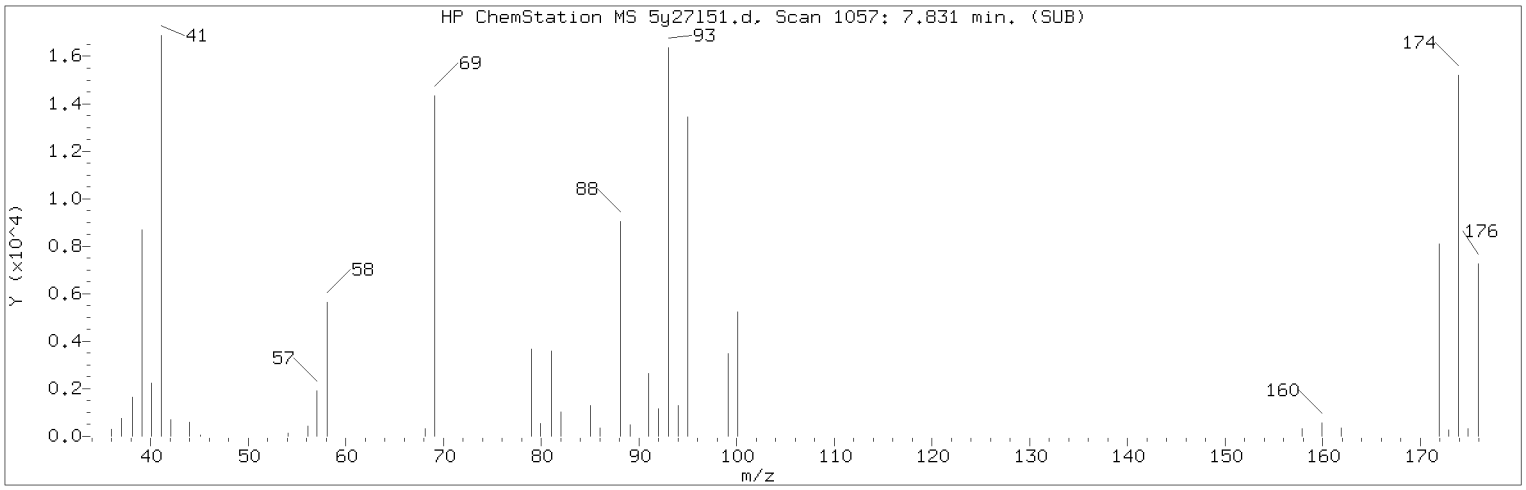
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

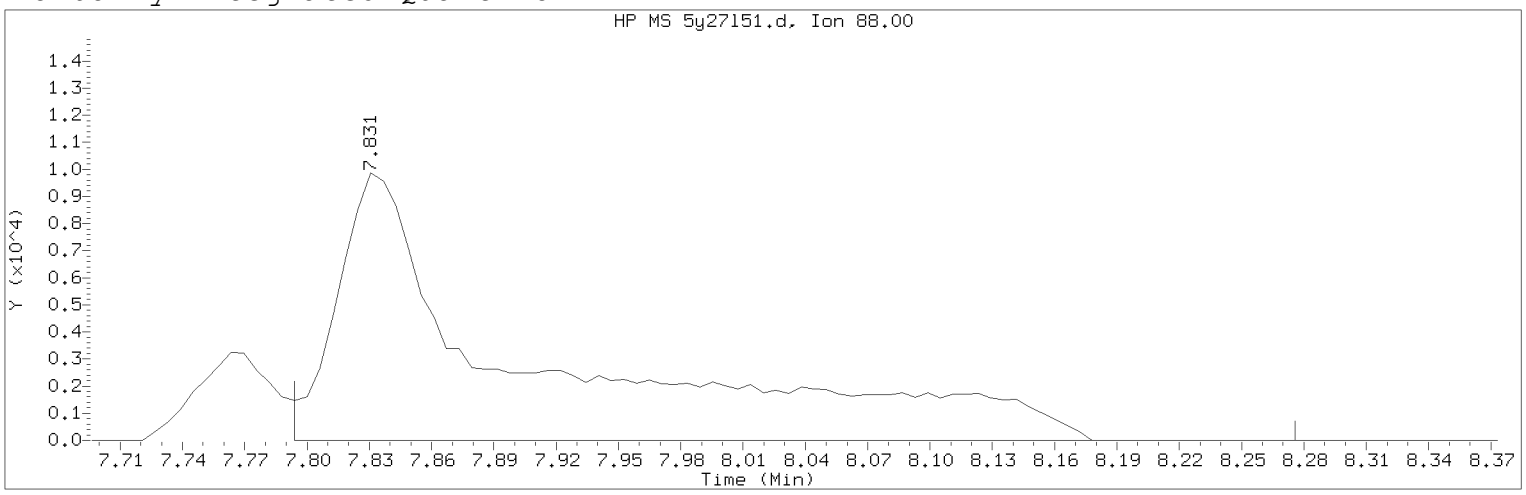
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 352
Retention Time (minutes): 3.533
Quant Ion : 59.00
Area : 259053
On-column Amount (ng) : 199.5140
Integration start scan : 333 Integration stop scan: 391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: lj30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

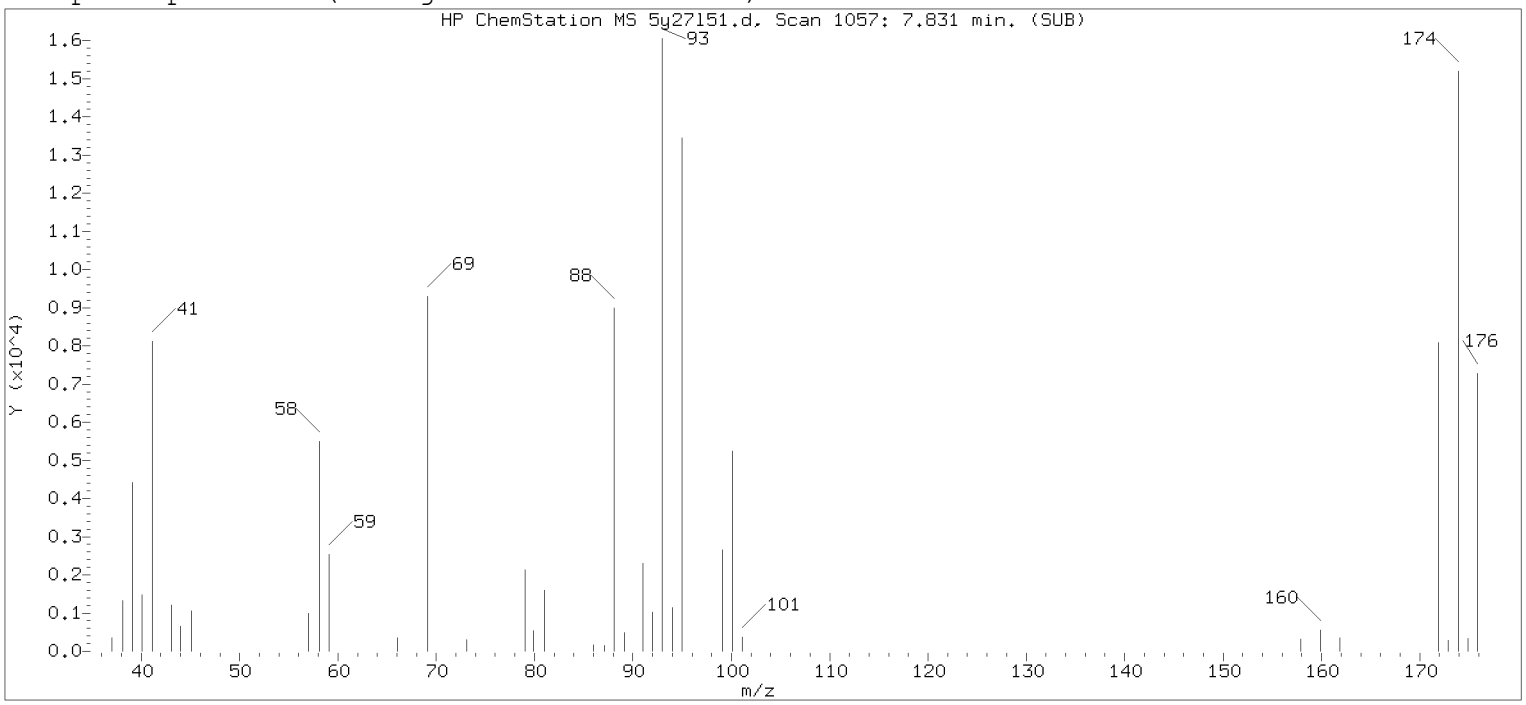
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 62016M
On-Column Amount (ng) : 669.4697
Integration start scan : 1050 Integration stop scan: 1129
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

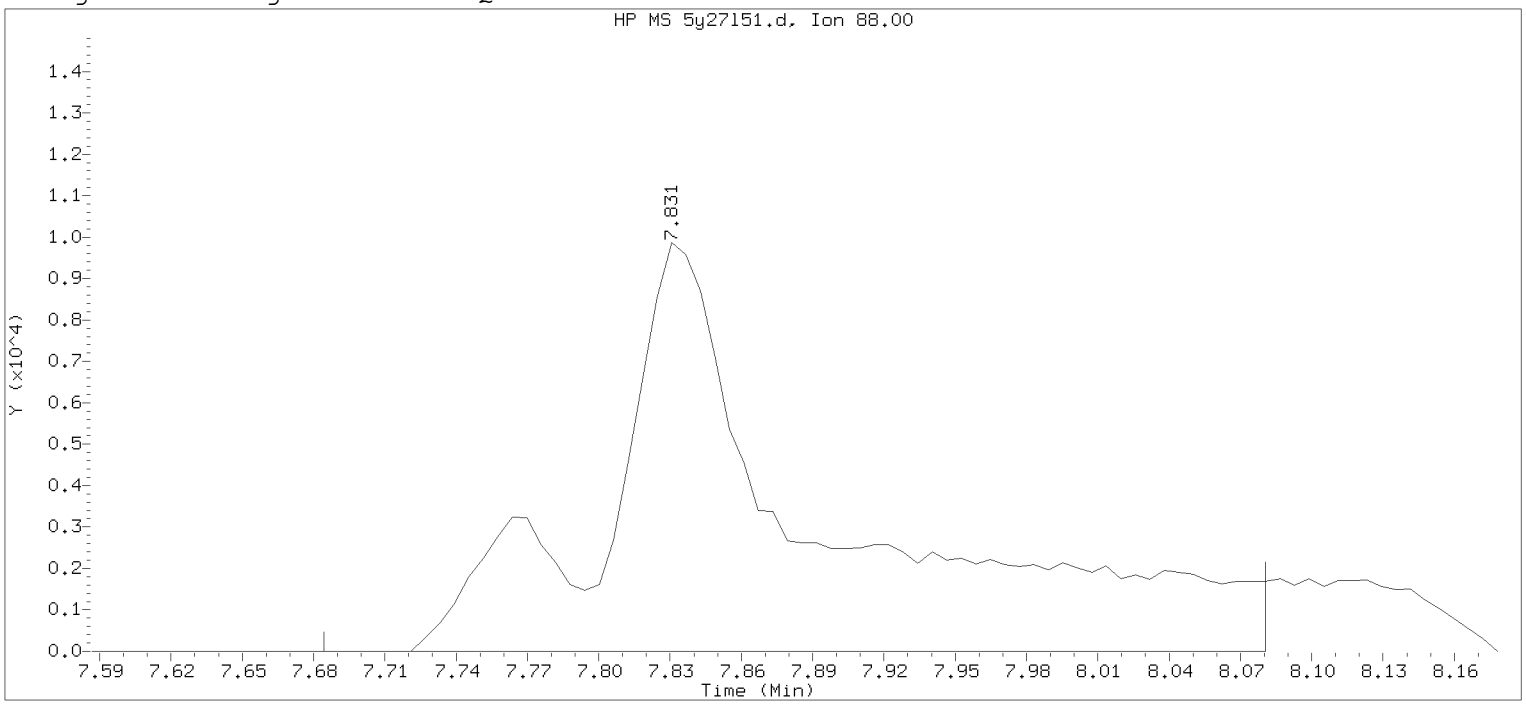
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

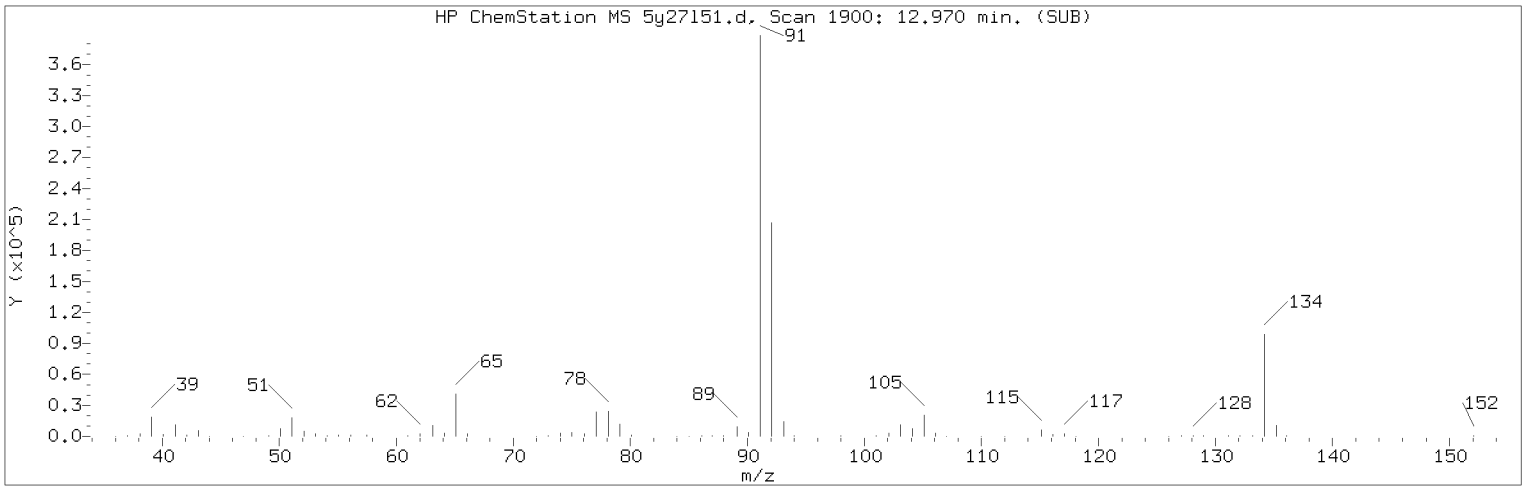
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

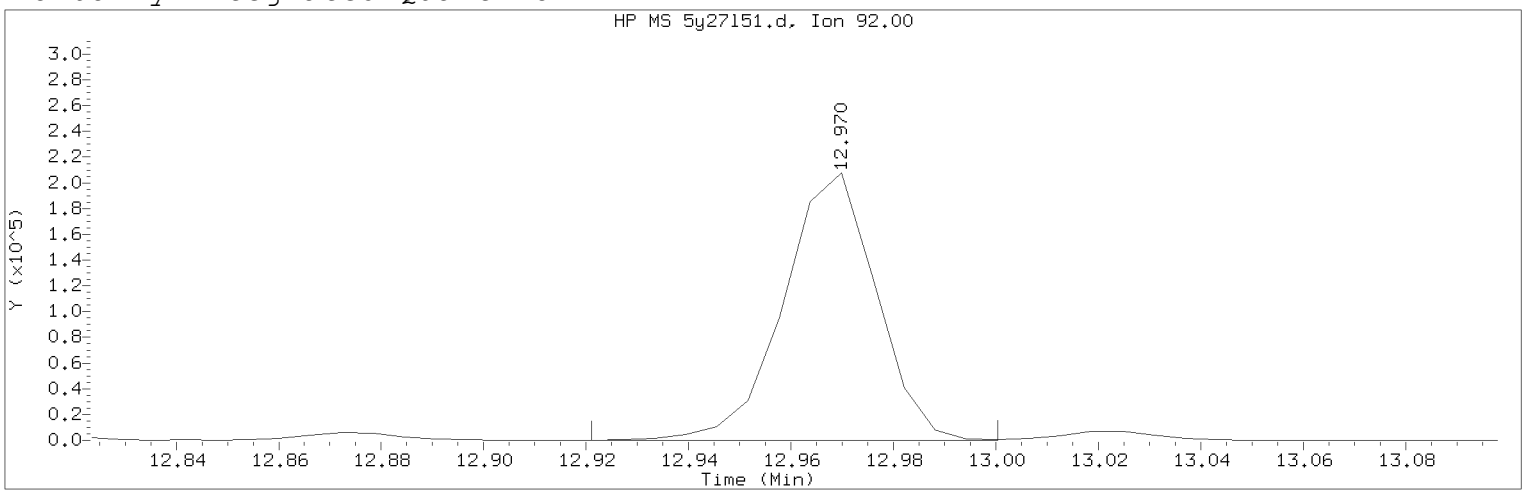
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 62249
On-column Amount (ng) : 671.9840
Integration start scan : 1032 Integration stop scan: 1097
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

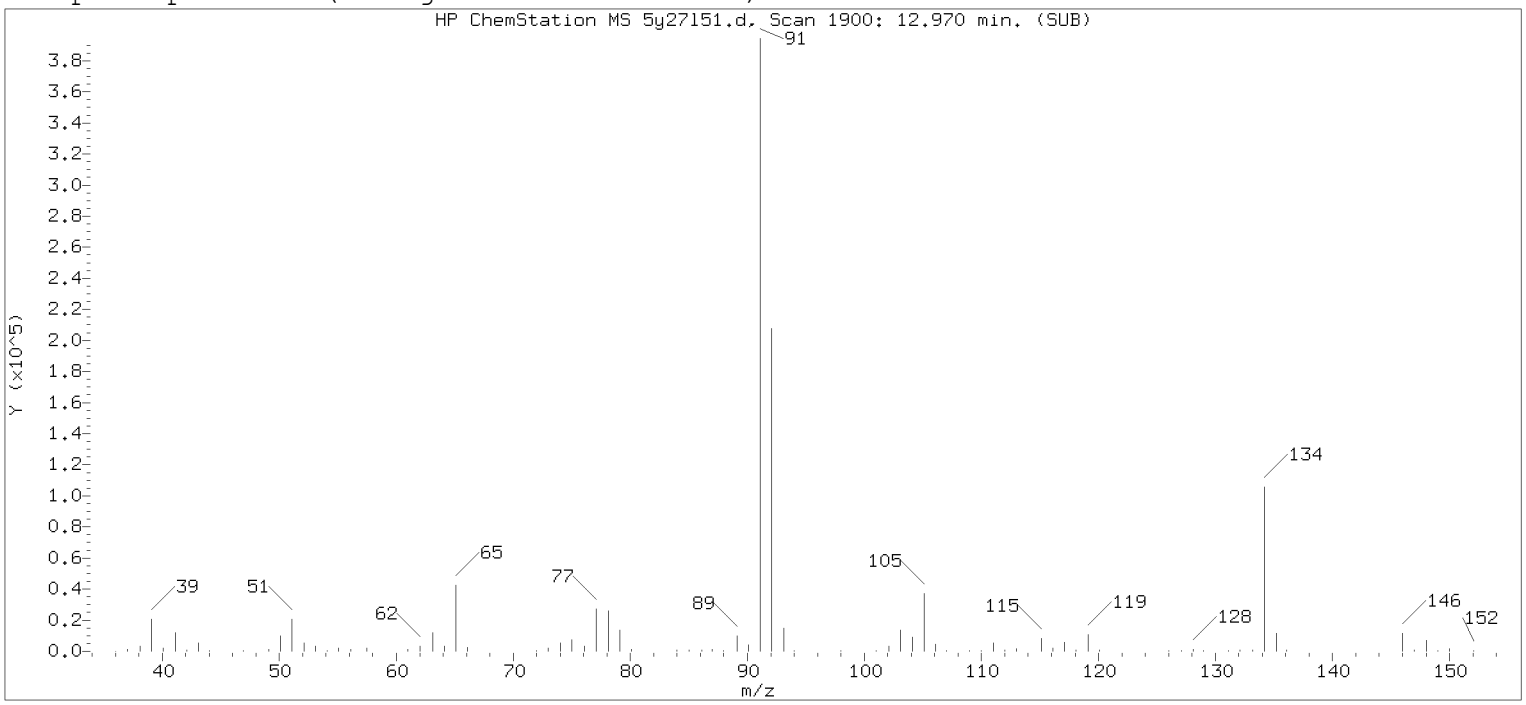
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area (flag) : 260485M
On-Column Amount (ng) : 18.9114
Integration start scan : 1891 Integration stop scan: 1904
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

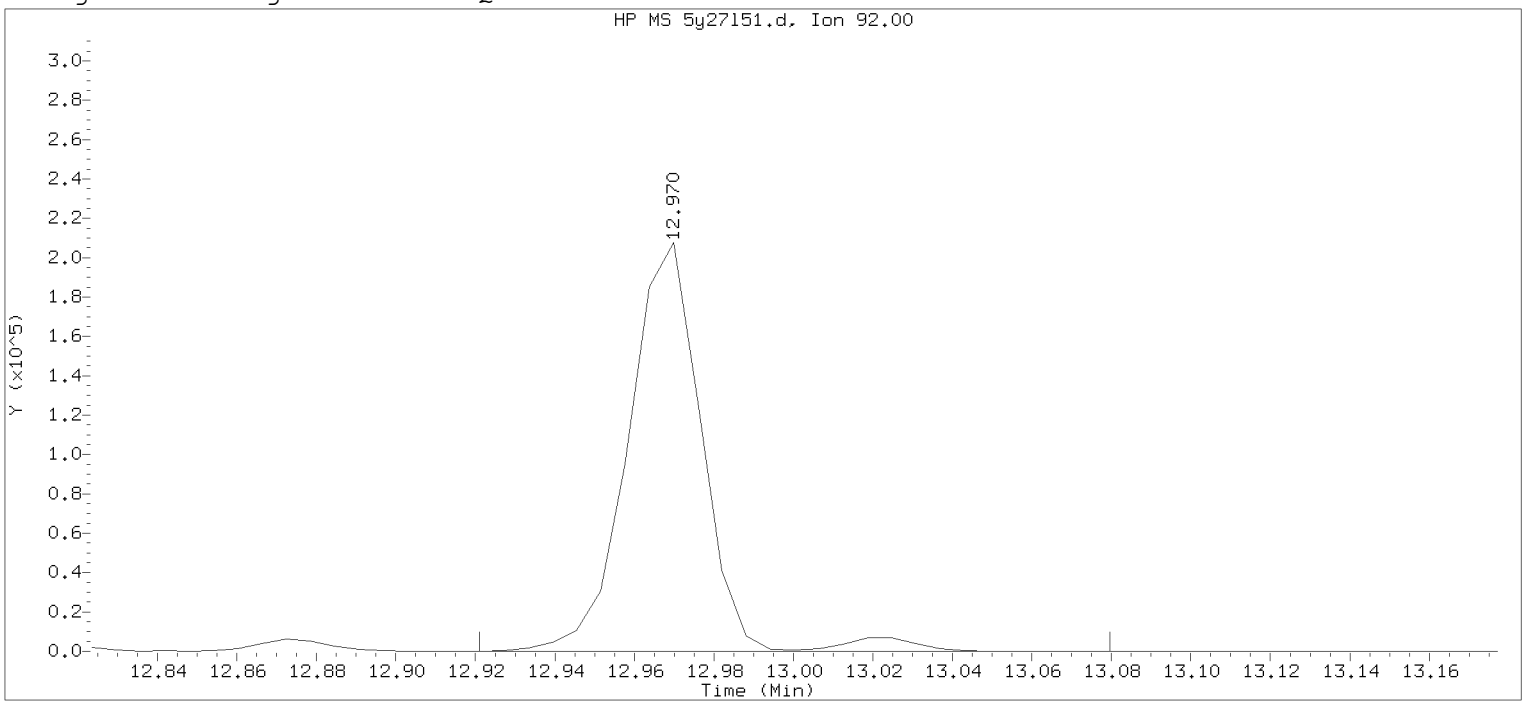
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area : 269365
On-column Amount (ng) : 19.5561
Integration start scan : 1891 Integration stop scan: 1917
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	12	
74-87-3	Chloromethane	16	
106-99-0	1,3-Butadiene	19	
75-01-4	Vinyl Chloride	17	
74-83-9	Bromomethane	18	
75-00-3	Chloroethane	18	
109-66-0	n-Pentane	14	
75-69-4	Trichlorofluoromethane	18	
60-29-7	Ethyl ether	16	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	110	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	150	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	99	J
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	18	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	160	
107-13-1	Acrylonitrile	93	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	39	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	17	
107-12-0	Propionitrile	140	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	95	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	18	
78-83-1	Isobutyl Alcohol	440	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	880	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	530	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	18	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	16	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	95	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	17	
542-75-6	1,3-Dichloropropene (total)	35	
97-63-2	Ethyl Methacrylate	17	
79-00-5	1,1,2-Trichloroethane	19	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	18	
591-78-6	2-Hexanone	99	
124-48-1	Dibromochloromethane	18	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	19	
179601-23-1	m+p-Xylene	39	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	58	
100-42-5	Styrene	19	
75-25-2	Bromoform	17	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	480	
108-86-1	Bromobenzene	19	
79-34-5	1,1,2,2-Tetrachloroethane	18	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-butene	85	
103-65-1	n-Propylbenzene	19	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	19	
76-01-7	Pentachloroethane	18	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	19	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	19	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	16	
141-93-5	1,3-Diethylbenzene	19	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	18	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	18	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	17	

FORM I VOA

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441	(-0.012)	337	65	350785M	(1)	250.00	
66) Fluorobenzene	6.892	(0.000)	903	96	1006881	(-1)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	801216	(-1)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	433991	(-1)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.965	(-0.001)	113	251445	50.138	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.000)	102	57104	50.911	102%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	978183	49.678	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	412738	49.749	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.612	(0.000)	85	100007	12.264	12.26			0.2	1
4) Chloromethane	(2)	1.777	(-0.000)	50	101998	15.767	15.77			0.2	1
5) 1,3-Butadiene	(2)	1.856	(0.000)	39	169471	18.848	18.85			1	3
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	98527	17.222	17.22			0.2	1
8) Bromomethane	(2)	2.124	(0.000)	94	67910	17.680	17.68			0.3	1
9) Chloroethane	(2)	2.192	(0.000)	64	47839	17.661	17.66			0.2	1
11) n-Pentane	(2)	2.454	(0.000)	43	92668	14.208	14.21			0.4	10
12) Trichlorofluoromethane	(2)	2.429	(0.000)	101	126722	18.085	18.09			0.2	1
14) Ethyl ether	(2)	2.630	(-0.000)	59	79573	16.473	16.47			0.2	5
15) Freon 123a	(2)	2.710	(-0.000)	67	118575	16.212	16.21			0.4	5
16) Acrolein	(1)	2.777	(0.001)	56	240781	108.404	108.40			2	100
17) 1,1-Dichloroethene	(2)	2.886	(-0.000)	96	102620	18.850	18.85			0.2	1
18) Acetone	(1)	2.917	(-0.000)	58	162029	147.910	147.91			0.7	20
19) Freon 113	(2)	2.911	(0.000)	101	104251	16.918	16.92			0.2	10
21) 2-Propanol	(1)	3.051	(0.001)	45	88618	99.413	99.41		J	18	100
22) Methyl Iodide	(2)	3.051	(0.000)	142	193325	18.623	18.62			0.2	1
23) Carbon Disulfide	(2)	3.130	(0.000)	76	329906	17.227	17.23			0.2	5
25) Allyl Chloride	(2)	3.264	(0.000)	41	164117	18.009	18.01			0.3	5
27) Methyl Acetate	(2)	3.246	(-0.000)	43	153518	19.558	19.56			0.3	5
28) Methylene Chloride	(2)	3.429	(-0.000)	84	120395	19.619	19.62			0.3	1
30) t-Butyl alcohol	(1)	3.539	(0.003)	59	262227	158.707	158.71			12	50
31) Acrylonitrile	(2)	3.703	(-0.000)	53	386318	93.244	93.24			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.752	(-0.000)	96	115697	18.993	18.99			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.752	(0.000)	73	291078	18.065	18.07			0.2	1
34) n-Hexane	(2)	4.118	(0.000)	57	149557	16.557	16.56			2	5
36) 1,1-Dichloroethane	(2)	4.356	(-0.000)	63	208313	18.890	18.89			0.2	1
38) di-Isopropyl ether	(2)	4.423	(-0.000)	45	336808	17.100	17.10			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.465	(-0.000)	53	168252	17.960	17.96			0.2	5
40) Ethyl t-butyl ether	(2)	4.990	(0.000)	59	293557	16.788	16.79			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.228	(0.000)	96	137651	19.978	19.98			0.2	1

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
43) 1,2-Dichloroethene (Total)	(2)		96	253348	38.971	38.97			0.4	2
44) 2-Butanone	(2)	5.215(-0.000)	43	849648	140.904	140.90			0.3	10
45) 2,2-Dichloropropane	(2)	5.246(-0.000)	77	162593	17.474	17.47			0.3	1
47) Propionitrile	(1)	5.319(0.003)	54	253227	140.787	140.79			14	100
48) Methacrylonitrile	(2)	5.538(-0.000)	67	581969	141.041	141.04			6	50
49) Bromochloromethane	(2)	5.575(-0.000)	128	60420	19.146	19.15			0.2	5
50) Tetrahydrofuran	(1)	5.587(0.003)	71	154555	95.075	95.08			0.7	10
51) Chloroform	(2)	5.740(0.000)	83	211552	19.127	19.13			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.959(0.000)	97	183265	18.403	18.40			0.3	1
54) Cyclohexane	(2)	6.050(0.000)	56	190363	16.413	16.41			1	5
55) 1,1-Dichloropropene	(2)	6.185(0.000)	75	165942	18.395	18.39			0.2	5
56) Carbon Tetrachloride	(2)	6.178(-0.000)	117	159250	18.329	18.33			0.2	1
58) Isobutyl Alcohol	(1)	6.410(0.004)	41	239576	435.002	435.00			36	250
60) Benzene	(2)	6.459(0.000)	78	499811	18.633	18.63			0.2	1
61) 1,2-Dichloroethane	(2)	6.550(-0.000)	62	158693	19.262	19.26			0.3	1
65) t-Amyl methyl ether	(2)	6.678(-0.000)	73	306283	17.554	17.55			0.8	5
67) n-Heptane	(2)	6.910(-0.000)	43	148300	16.997	17.00			2	5
69) n-Butanol	(1)	7.337(0.005)	56	419928	883.637	883.64			61	250
71) Trichloroethene	(2)	7.398(-0.000)	95	134584	19.119	19.12			0.2	1
73) Methylcyclohexane	(2)	7.703(-0.000)	83	200873	17.955	17.96			0.5	5
74) 1,2-Dichloropropane	(2)	7.745(-0.000)	63	125849	18.742	18.74			0.2	1
75) Dibromomethane	(2)	7.861(-0.000)	93	79796	18.872	18.87			0.2	1
76) 1,4-Dioxane	(1)	7.849(0.008)	88	63053M	534.893	534.89			29	250
77) Methyl Methacrylate	(2)	7.867(-0.000)	69	112175	17.855	17.86			0.2	5
79) Bromodichloromethane	(2)	8.123(-0.000)	83	148544	18.117	18.12			0.2	1
80) 2-Nitropropane	(2)	8.422(-0.000)	41	48350	17.026	17.03			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.526(-0.000)	63	85657	16.483	16.48			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.708(-0.000)	75	183194	17.681	17.68			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.928(-0.000)	43	1100755	94.710	94.71			0.5	10
89) Toluene	(3)	9.141(-0.000)	92	326595	18.811	18.81			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.458(0.000)	75	158588	17.024	17.02			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	341782	34.705	34.71			0.4	2
92) Ethyl Methacrylate	(3)	9.550(0.000)	69	181117	17.098	17.10			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.690(-0.000)	97	120646	19.437	19.44			0.2	1
94) Tetrachloroethene	(3)	9.763(0.000)	166	149304	20.275	20.28			0.2	1
95) 1,3-Dichloropropane	(3)	9.867(-0.000)	76	188932	18.332	18.33			0.2	1
97) 2-Hexanone	(3)	9.946(0.000)	43	916824	99.389	99.39			0.3	10
98) Dibromochloromethane	(3)	10.098(-0.000)	129	119064	18.127	18.13			0.2	1
100) 1,2-Dibromoethane	(3)	10.208(-0.000)	107	128465	18.774	18.77			0.2	1
102) 1-Chlorohexane	(3)	10.720(-0.000)	91	179871	17.814	17.81			0.3	5
103) Chlorobenzene	(3)	10.720(-0.000)	112	369554	19.612	19.61			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.818(-0.000)	131	123772	19.040	19.04			0.2	1
105) Ethylbenzene	(3)	10.824(-0.000)	91	652076	19.424	19.42			0.4	1
107) m+p-Xylene	(3)	10.952(-0.000)	106	505109	39.216	39.22			1	5
108) o-Xylene	(3)	11.300(-0.000)	106	242537	19.238	19.24			0.4	1
109) Xylene (Total)	(3)		106	747646	58.454	58.45			1	6
110) Styrene	(3)	11.318(-0.000)	104	392722	19.329	19.33			0.2	5
111) Bromoform	(3)	11.476(-0.000)	173	80725	16.987	16.99			1	4
112) Isopropylbenzene	(3)	11.629(-0.000)	105	640570	19.362	19.36			0.2	5
113) Cyclohexanone	(1)	11.702(0.012)	55	258110	476.704	476.70			25	100
116) Bromobenzene	(4)	11.891(-0.000)	156	157218	19.002	19.00			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.897(0.000)	83	207559	18.487	18.49			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.940(-0.000)	110	63472	19.199	19.20			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.927(0.000)	53	181802	85.339	85.34			6	50

M = Compound was manually integrated.

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

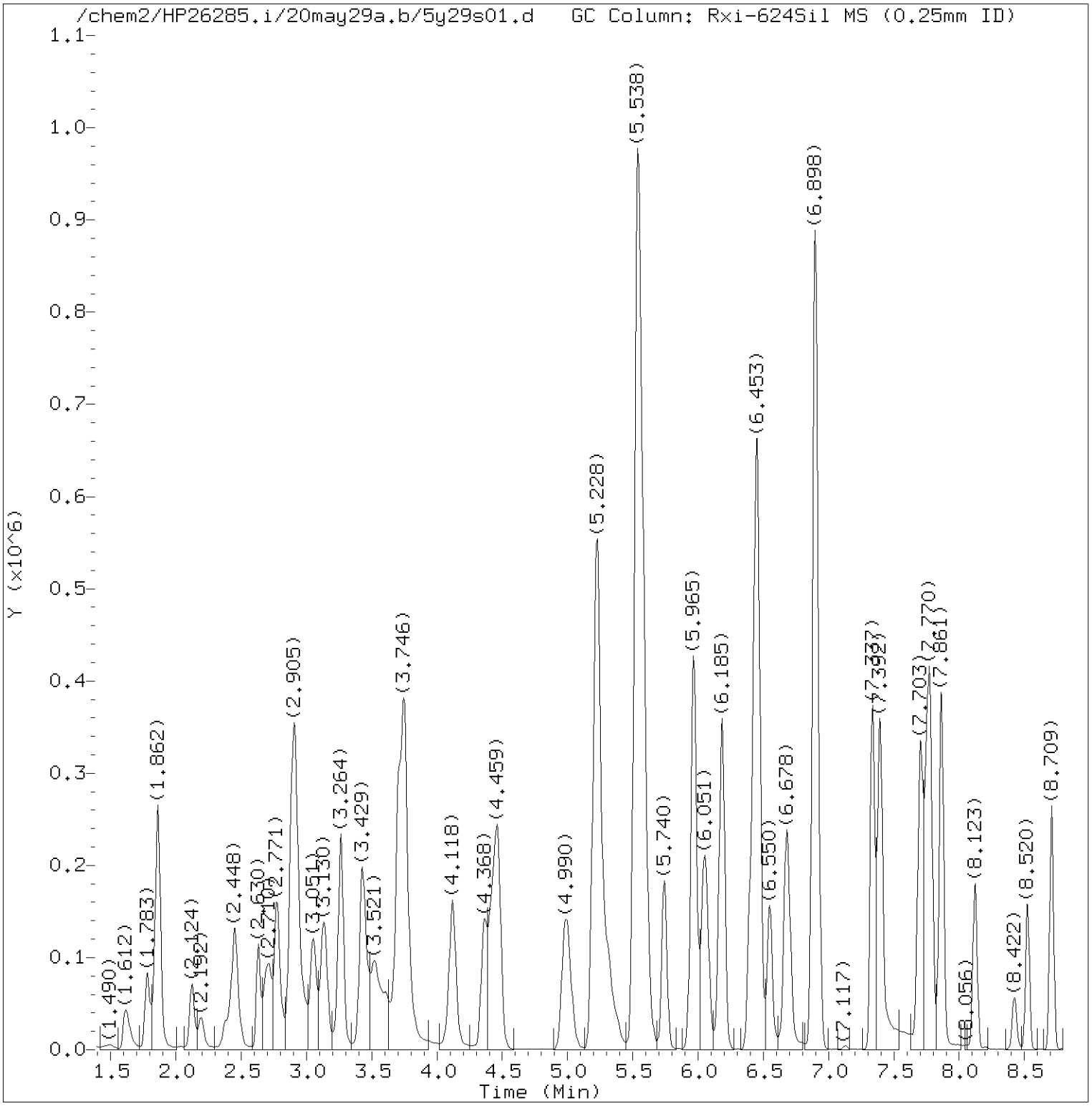
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) n-Propylbenzene	(4)	11.976(0.000)	91	781460	19.211	19.21			0.2	5
121) 2-Chlorotoluene	(4)	12.049(0.000)	126	154796	18.565	18.57			0.2	5
122) 4-Chlorotoluene	(4)	12.153(0.000)	126	157979	18.757	18.76			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.129(0.000)	105	536605	18.766	18.77			0.3	5
125) tert-Butylbenzene	(4)	12.378(0.000)	134	107069M	18.840	18.84			0.3	5
126) Pentachloroethane	(4)	12.409(0.000)	167	83560	17.910	17.91			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.427(-0.000)	105	550986	18.711	18.71			1	5
128) sec-Butylbenzene	(4)	12.549(0.000)	105	665000	18.757	18.76			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.647(-0.000)	146	299160	19.224	19.22			0.2	5
131) p-Isopropyltoluene	(4)	12.671(-0.000)	119	570097	19.283	19.28			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.726(-0.000)	146	305810	19.363	19.36			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.744(-0.000)	105	564462	19.970	19.97			0.3	5
136) Benzyl Chloride	(4)	12.811(-0.000)	91	347447	16.131	16.13			1	5
137) 1,3-Diethylbenzene	(4)	12.878(-0.000)	119	327986	19.200	19.20			0.2	5
138) 1,4-Diethylbenzene	(4)	12.952(-0.000)	119	344609	19.504	19.50			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.994(-0.000)	146	288638	19.309	19.31			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	282145	18.919	18.92			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	273659	18.942	18.94			0.2	5
142) Diethylbenzene (total)	(4)		100	946254	57.646	57.65			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(-0.000)	75	51132	18.039	18.04			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.695(-0.000)	180	188528	19.094	19.09			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.134(-0.000)	180	175218	18.890	18.89			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	69554	19.497	19.50			2	5
149) Naphthalene	(4)	14.317(-0.000)	128	676840	18.426	18.43			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.464(-0.000)	180	174719	19.035	19.03			0.4	5
151) 2-Methylnaphthalene	(4)	15.085(-0.000)	142	317431	16.633	16.63			2	4

M = Compound was manually integrated.

Total number of targets = 110

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

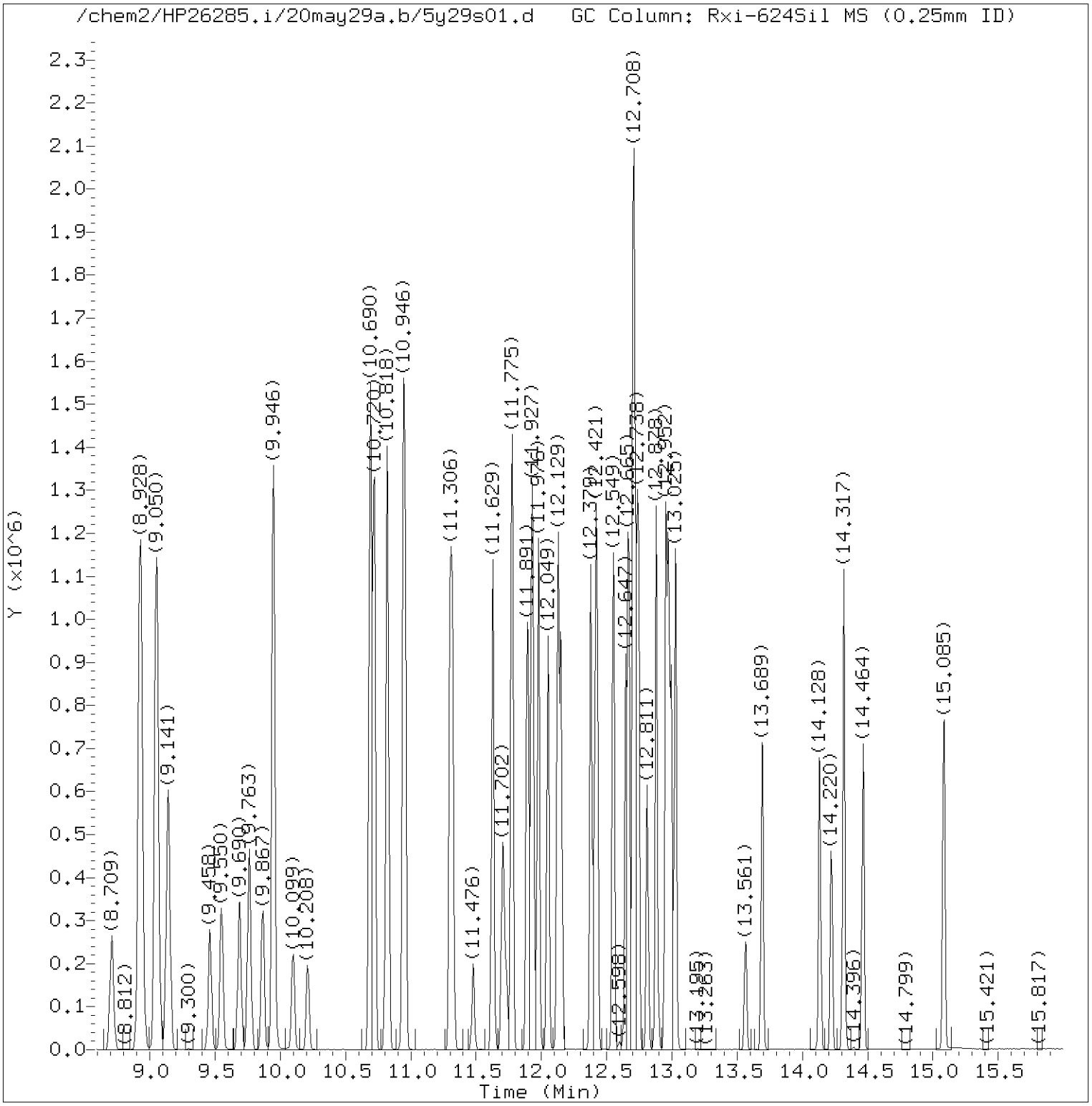
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	100007	12.264
4) Chloromethane	(2)	1.777	50	101998	15.767
5) 1,3-Butadiene	(2)	1.856	39	169471	18.848
6) Vinyl Chloride	(2)	1.868	62	98527	17.222
8) Bromomethane	(2)	2.124	94	67910	17.680
9) Chloroethane	(2)	2.192	64	47839	17.661
12) Trichlorofluoromethane	(2)	2.429	101	126722	18.085
11) n-Pentane	(2)	2.454	43	92668	14.208
14) Ethyl ether	(2)	2.630	59	79573	16.473
15) Freon 123a	(2)	2.710	67	118575	16.212
16) Acrolein	(1)	2.777	56	240781	108.404
17) 1,1-Dichloroethene	(2)	2.887	96	102620	18.850
19) Freon 113	(2)	2.911	101	104251	16.918
18) Acetone	(1)	2.917	58	162029	147.910
21) 2-Propanol	(1)	3.051	45	88618	99.413
22) Methyl Iodide	(2)	3.051	142	193325	18.623
23) Carbon Disulfide	(2)	3.130	76	329906	17.227
27) Methyl Acetate	(2)	3.246	43	153518	19.558
25) Allyl Chloride	(2)	3.264	41	164117	18.009
28) Methylene Chloride	(2)	3.429	84	120395	19.619
29)*t-Butyl alcohol-d10	(1)	3.441	65	350785M	250.000
30) t-Butyl alcohol	(1)	3.539	59	262227	158.707
31) Acrylonitrile	(2)	3.703	53	386318	93.244
32) trans-1,2-Dichloroethene	(2)	3.752	96	115697	18.993
33) Methyl Tertiary Butyl Ether	(2)	3.752	73	291078	18.065
34) n-Hexane	(2)	4.118	57	149557	16.557
36) 1,1-Dichloroethane	(2)	4.356	63	208313	18.890
38) di-Isopropyl ether	(2)	4.423	45	336808	17.100
39) 2-Chloro-1,3-butadiene	(2)	4.465	53	168252	17.960
40) Ethyl t-butyl ether	(2)	4.990	59	293557	16.788
44) 2-Butanone	(2)	5.215	43	849648	140.904
42) cis-1,2-Dichloroethene	(2)	5.228	96	137651	19.978
45) 2,2-Dichloropropane	(2)	5.246	77	162593	17.474
47) Propionitrile	(1)	5.319	54	253227	140.787
48) Methacrylonitrile	(2)	5.538	67	581969	141.041
49) Bromochloromethane	(2)	5.575	128	60420	19.146
50) Tetrahydrofuran	(1)	5.587	71	154555	95.075
51) Chloroform	(2)	5.740	83	211552	19.127

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.959	97	183265	18.403
52)$Dibromofluoromethane	(2)	5.965	113	251445	50.138
54) Cyclohexane	(2)	6.051	56	190363	16.413
43) 1,2-Dichloroethene (Total)	(2)		96	253348	38.971
56) Carbon Tetrachloride	(2)	6.179	117	159250	18.329
55) 1,1-Dichloropropene	(2)	6.185	75	165942	18.395
58) Isobutyl Alcohol	(1)	6.410	41	239576	435.002
57)$1,2-Dichloroethane-d4	(2)	6.441	102	57104	50.911
60) Benzene	(2)	6.459	78	499811	18.633
61) 1,2-Dichloroethane	(2)	6.550	62	158693	19.262
65) t-Amyl methyl ether	(2)	6.678	73	306283	17.554
66)*Fluorobenzene	(2)	6.892	96	1006881	50.000
67) n-Heptane	(2)	6.910	43	148300	16.997
69) n-Butanol	(1)	7.337	56	419928	883.637
71) Trichloroethene	(2)	7.398	95	134584	19.119
73) Methylcyclohexane	(2)	7.703	83	200873	17.955
74) 1,2-Dichloropropane	(2)	7.745	63	125849	18.742
76) 1,4-Dioxane	(1)	7.849	88	63053M	534.893
75) Dibromomethane	(2)	7.861	93	79796	18.872
77) Methyl Methacrylate	(2)	7.867	69	112175	17.855
79) Bromodichloromethane	(2)	8.123	83	148544	18.117
80) 2-Nitropropane	(2)	8.422	41	48350	17.026
81) 2-Chloroethyl Vinyl Ether	(2)	8.526	63	85657	16.483
82) cis-1,3-Dichloropropene	(2)	8.709	75	183194	17.681
83) 4-Methyl-2-pentanone	(2)	8.928	43	1100755	94.710
84)$Toluene-d8	(3)	9.050	98	978183	49.678
89) Toluene	(3)	9.141	92	326595	18.811
90) trans-1,3-Dichloropropene	(3)	9.458	75	158588	17.024
92) Ethyl Methacrylate	(3)	9.550	69	181117	17.098
93) 1,1,2-Trichloroethane	(3)	9.690	97	120646	19.437
94) Tetrachloroethene	(3)	9.763	166	149304	20.275
95) 1,3-Dichloropropane	(3)	9.867	76	188932	18.332
97) 2-Hexanone	(3)	9.946	43	916824	99.389
91) 1,3-Dichloropropene (total)	(3)		100	341782	34.705
98) Dibromochloromethane	(3)	10.099	129	119064	18.127
100) 1,2-Dibromoethane	(3)	10.208	107	128465	18.774
101)*Chlorobenzene-d5	(3)	10.690	117	801216	50.000
102) 1-Chlorohexane	(3)	10.720	91	179871	17.814

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$ = Compound is a surrogate standard.

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on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.720	112	369554	19.612
104) 1,1,1,2-Tetrachloroethane	(3)	10.818	131	123772	19.040
105) Ethylbenzene	(3)	10.824	91	652076	19.424
107) m+p-Xylene	(3)	10.952	106	505109	39.216
108) o-Xylene	(3)	11.300	106	242537	19.238
110) Styrene	(3)	11.318	104	392722	19.329
111) Bromoform	(3)	11.476	173	80725	16.987
112) Isopropylbenzene	(3)	11.629	105	640570	19.362
113) Cyclohexanone	(1)	11.702	55	258110	476.704
109) Xylene (Total)	(3)		106	747646	58.454
115)$4-Bromofluorobenzene	(3)	11.775	95	412738	49.749
116) Bromobenzene	(4)	11.891	156	157218	19.002
117) 1,1,2,2-Tetrachloroethane	(4)	11.897	83	207559	18.487
119) trans-1,4-Dichloro-2-butene	(4)	11.927	53	181802	85.339
118) 1,2,3-Trichloropropane	(4)	11.940	110	63472	19.199
120) n-Propylbenzene	(4)	11.976	91	781460	19.211
121) 2-Chlorotoluene	(4)	12.049	126	154796	18.565
123) 1,3,5-Trimethylbenzene	(4)	12.129	105	536605	18.766
122) 4-Chlorotoluene	(4)	12.153	126	157979	18.757
125) tert-Butylbenzene	(4)	12.379	134	107069M	18.840
126) Pentachloroethane	(4)	12.409	167	83560	17.910
127) 1,2,4-Trimethylbenzene	(4)	12.427	105	550986	18.711
128) sec-Butylbenzene	(4)	12.549	105	665000	18.757
130) 1,3-Dichlorobenzene	(4)	12.647	146	299160	19.224
131) p-Isopropyltoluene	(4)	12.671	119	570097	19.283
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	433991	50.000
134) 1,4-Dichlorobenzene	(4)	12.726	146	305810	19.363
135) 1,2,3-Trimethylbenzene	(4)	12.744	105	564462	19.970
136) Benzyl Chloride	(4)	12.811	91	347447	16.131
137) 1,3-Diethylbenzene	(4)	12.878	119	327986	19.200
138) 1,4-Diethylbenzene	(4)	12.952	119	344609	19.504
140) n-Butylbenzene	(4)	12.970	92	282145	18.919
139) 1,2-Dichlorobenzene	(4)	12.994	146	288638	19.309
141) 1,2-Diethylbenzene	(4)	13.025	119	273659	18.942
142) Diethylbenzene (total)	(4)		100	946254	57.646
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	51132	18.039
145) 1,3,5-Trichlorobenzene	(4)	13.695	180	188528	19.094
147) 1,2,4-Trichlorobenzene	(4)	14.134	180	175218	18.890

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on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	69554	19.497
149) Naphthalene	(4)	14.317	128	676840	18.426
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	174719	19.035
151) 2-Methylnaphthalene	(4)	15.085	142	317431	16.633

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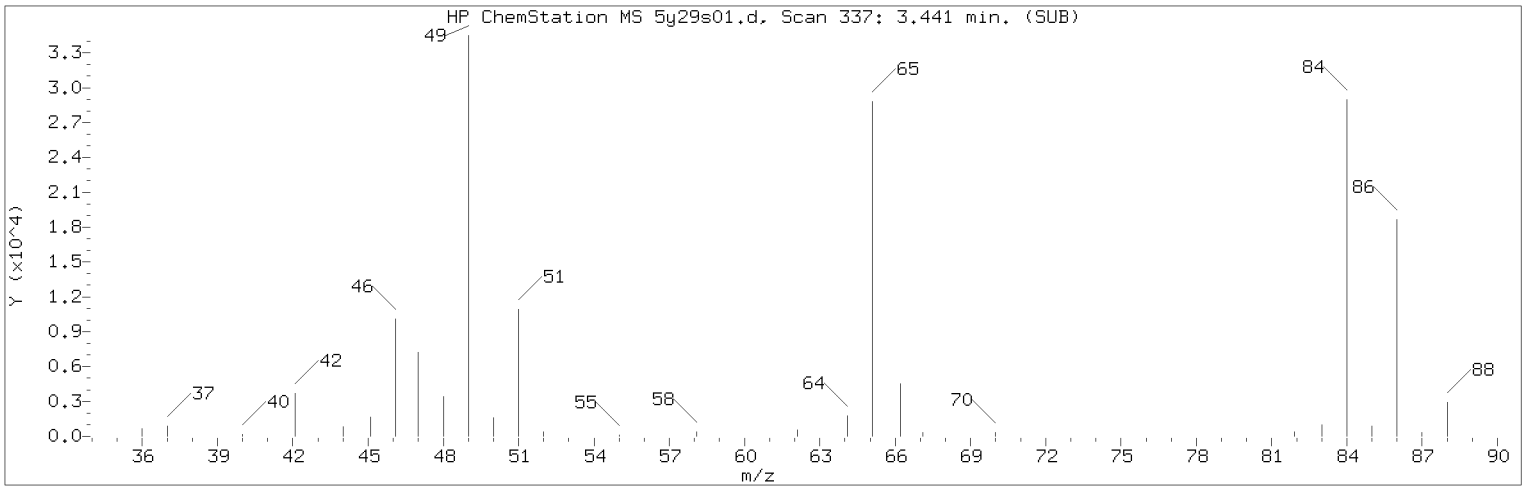
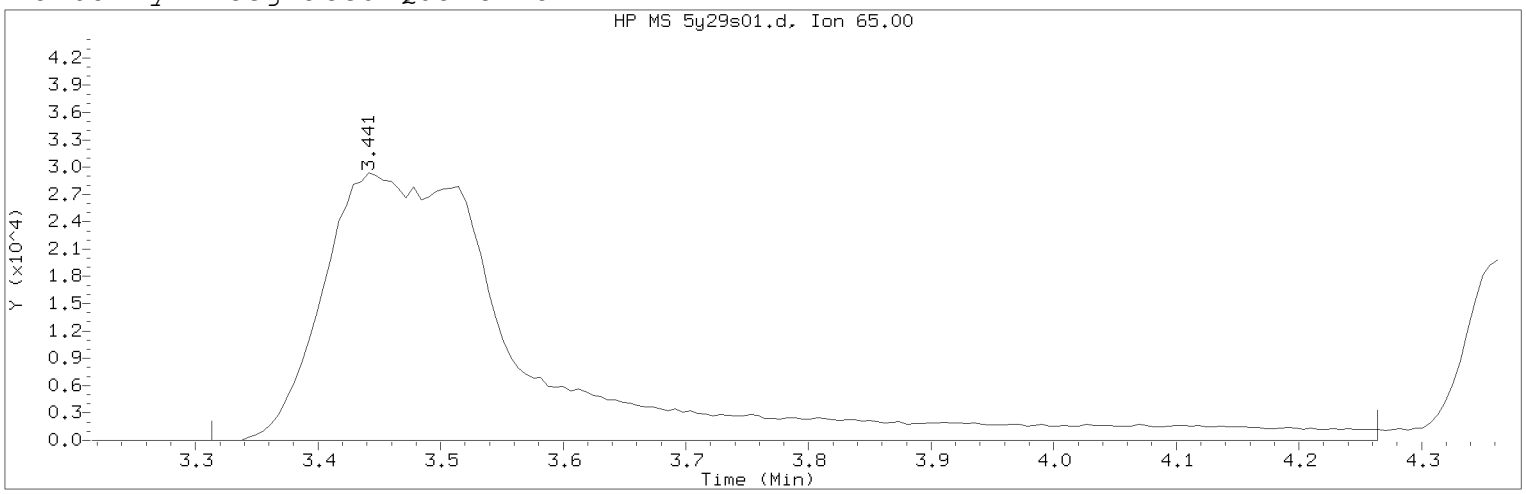
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

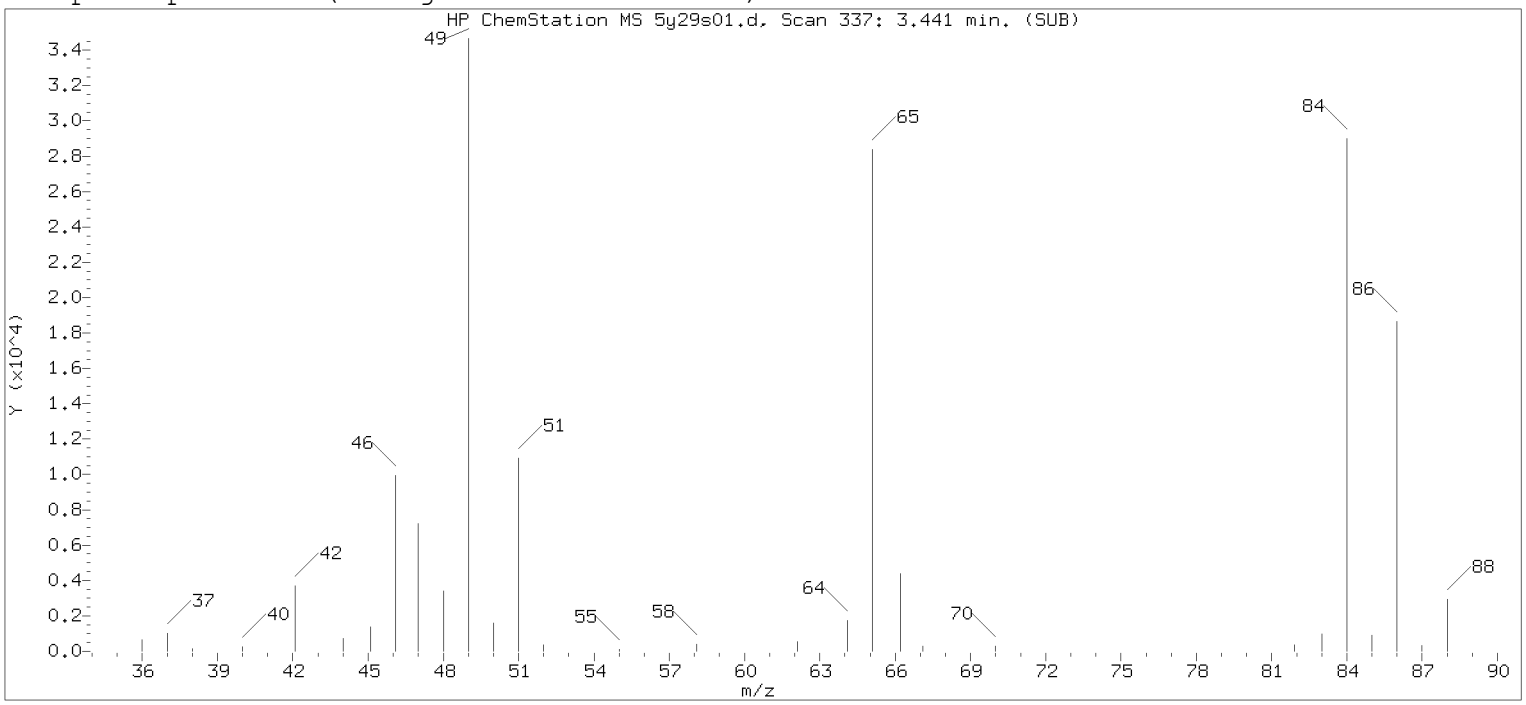
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 337
Retention Time (minutes): 3.441
Quant Ion : 65.00
Area (flag) : 350785M
On-Column Amount (ng) : 250.0000
Integration start scan : 315 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

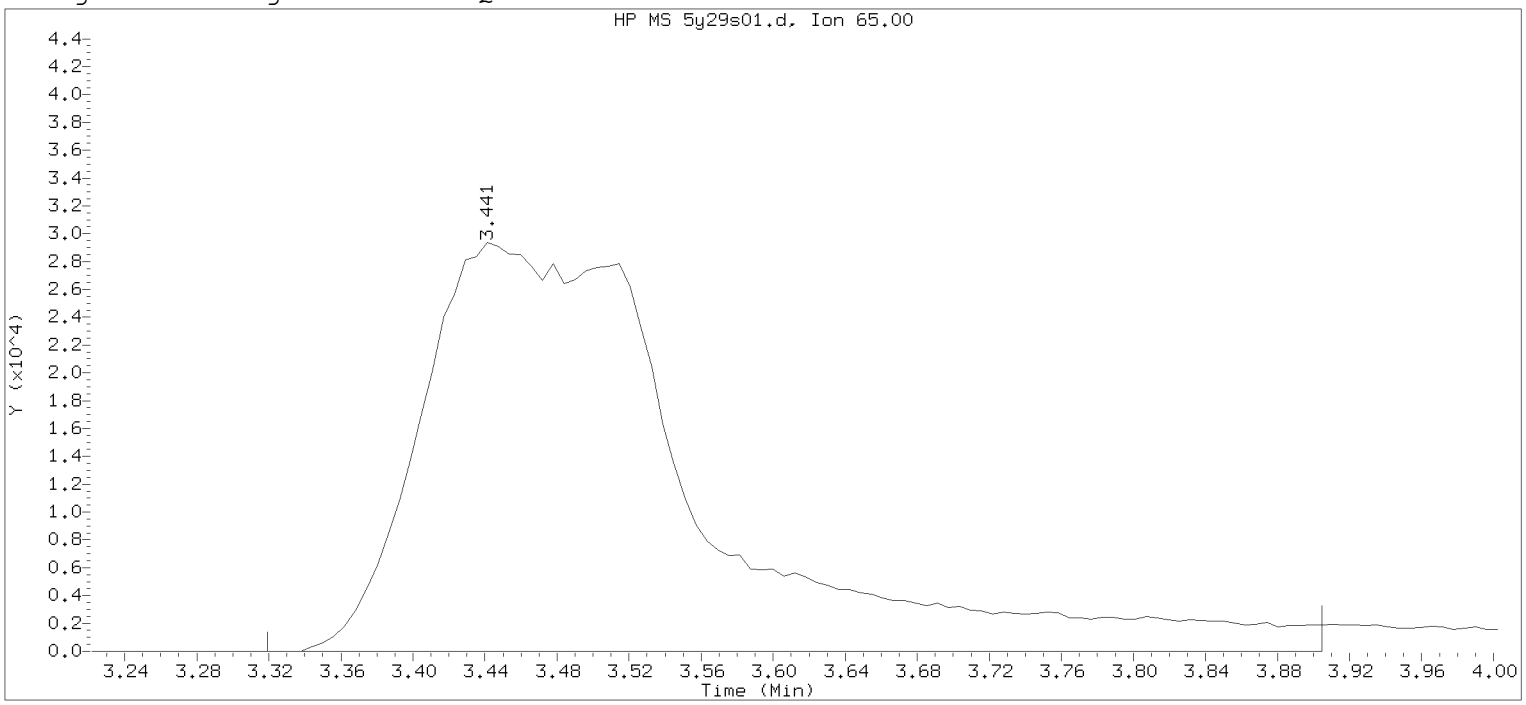
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

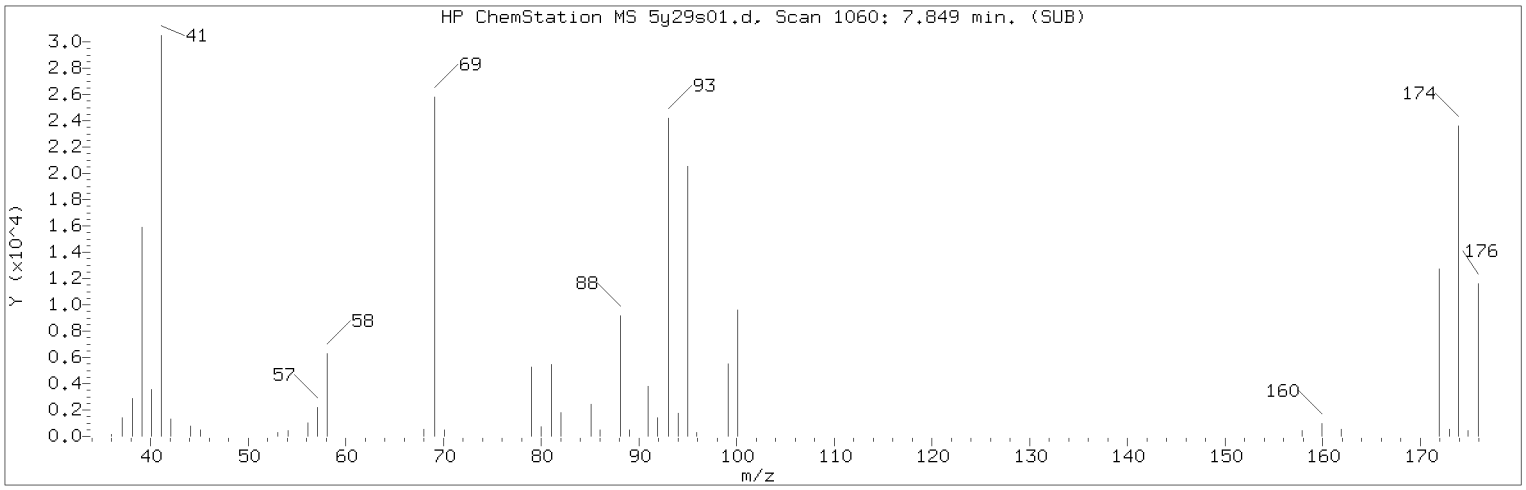
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

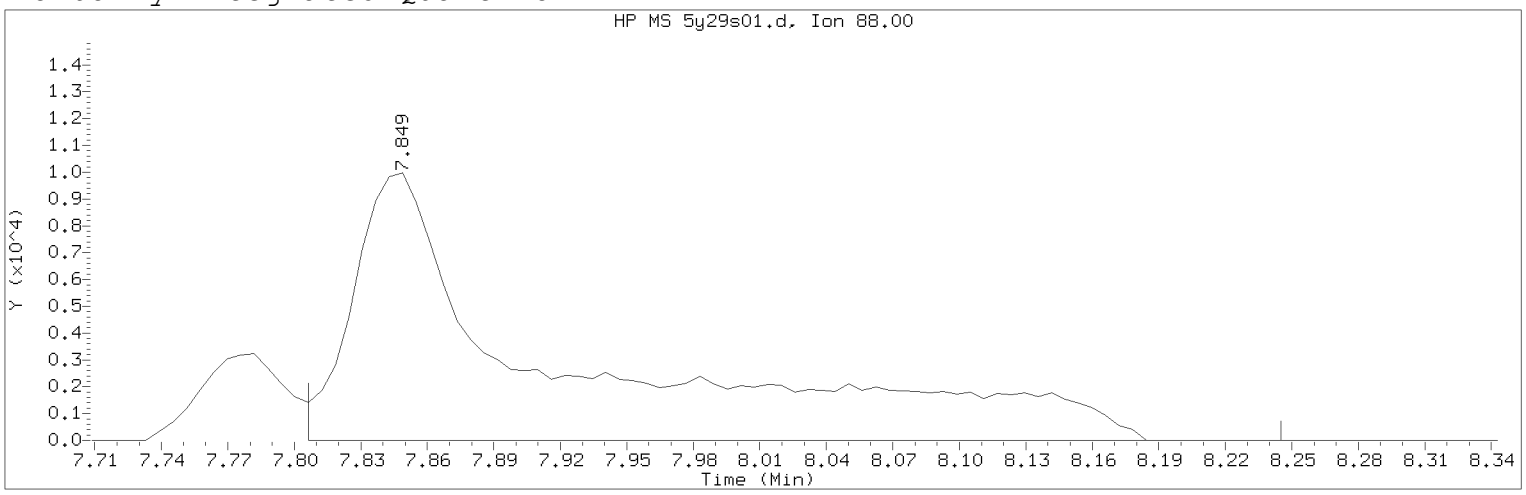
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 337
Retention Time (minutes): 3.441
Quant Ion : 65.00
Area : 317487
On-column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 412
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

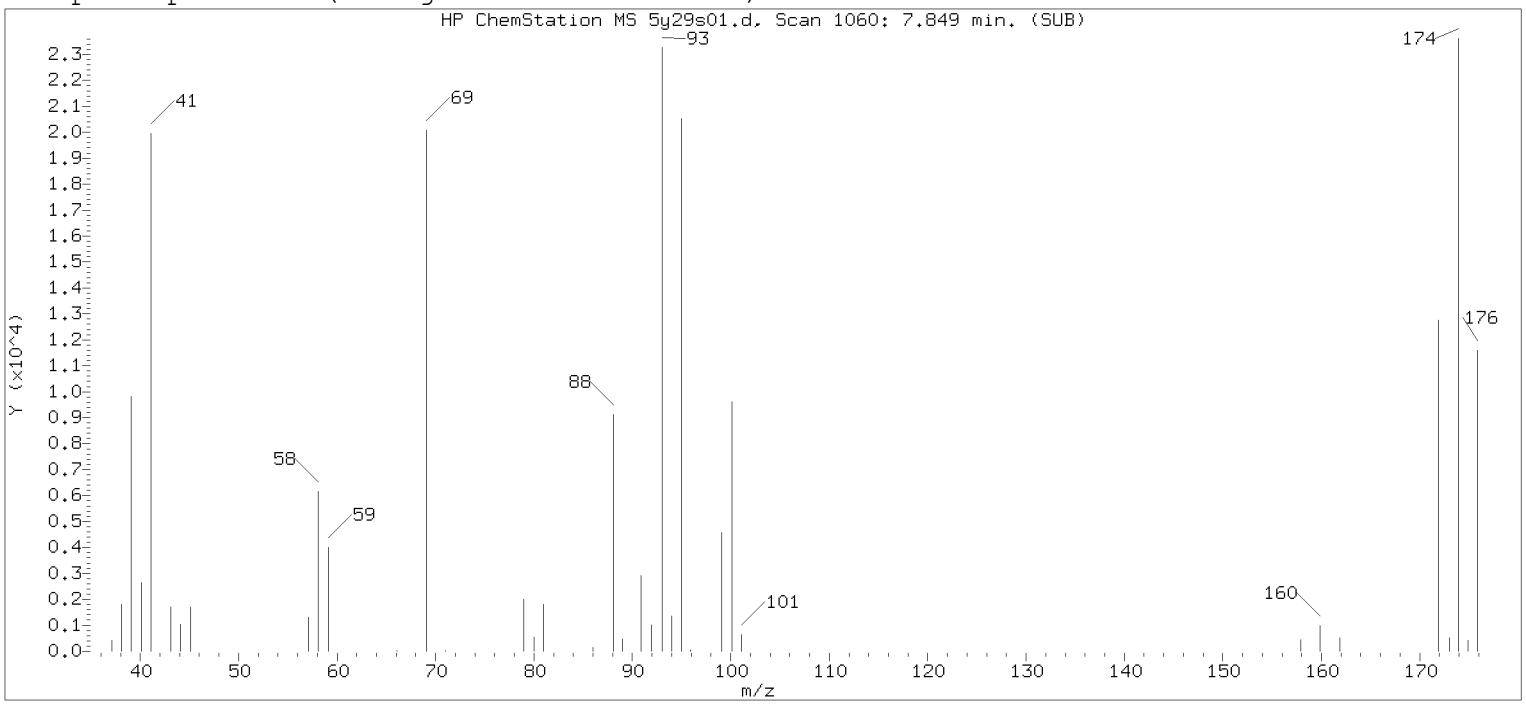
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 63053M
On-Column Amount (ng) : 534.8934
Integration start scan : 1052 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

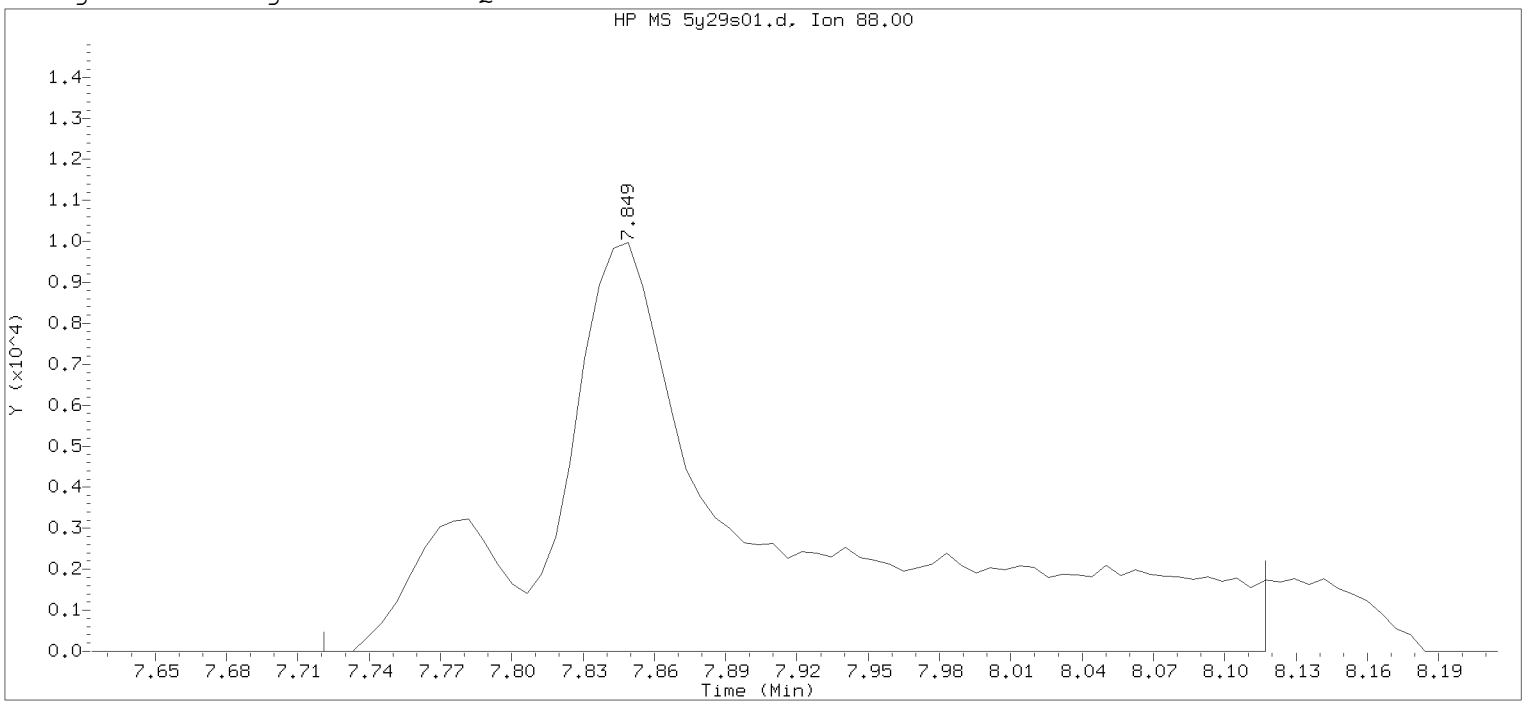
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

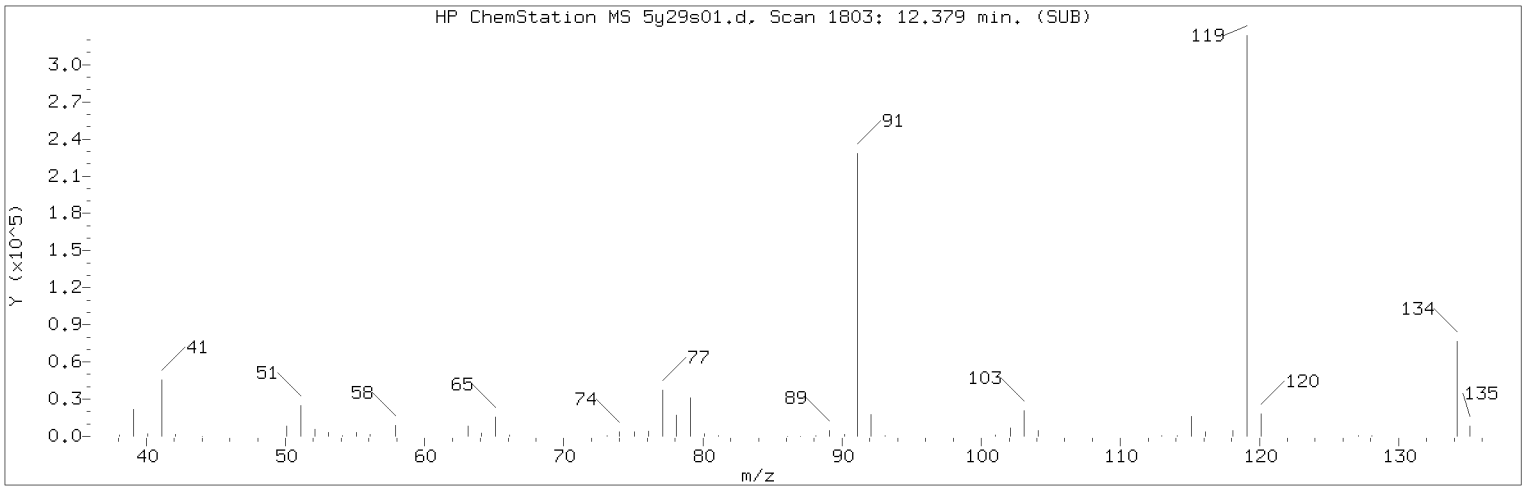
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

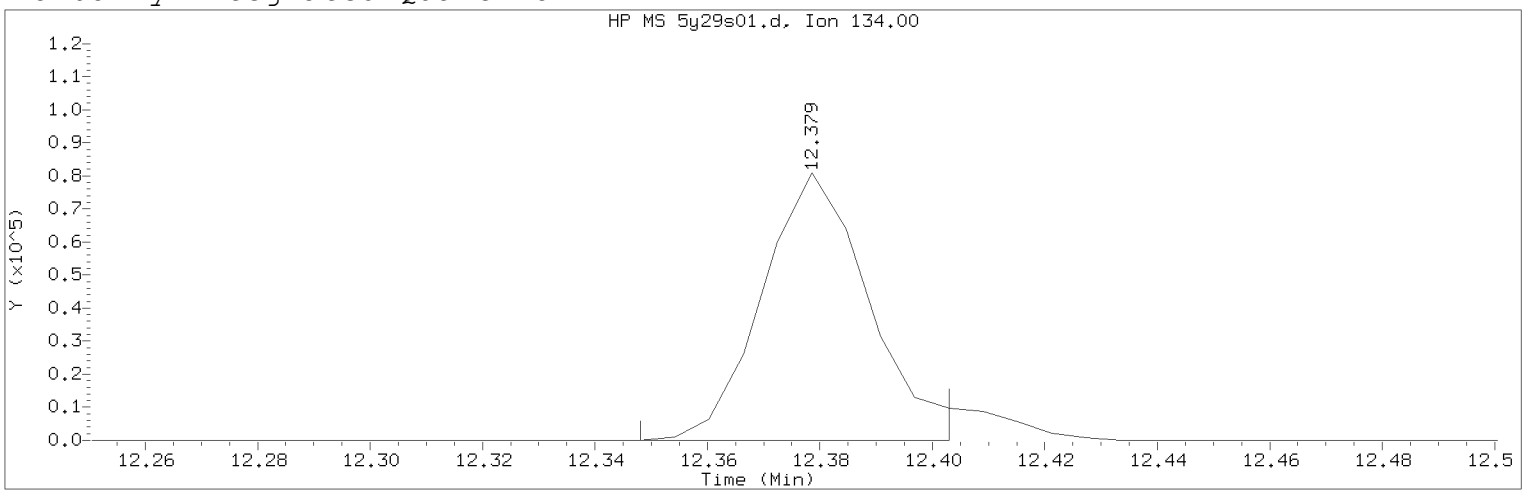
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area : 66277
On-column Amount (ng) : 621.2134
Integration start scan : 1038 Integration stop scan: 1103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

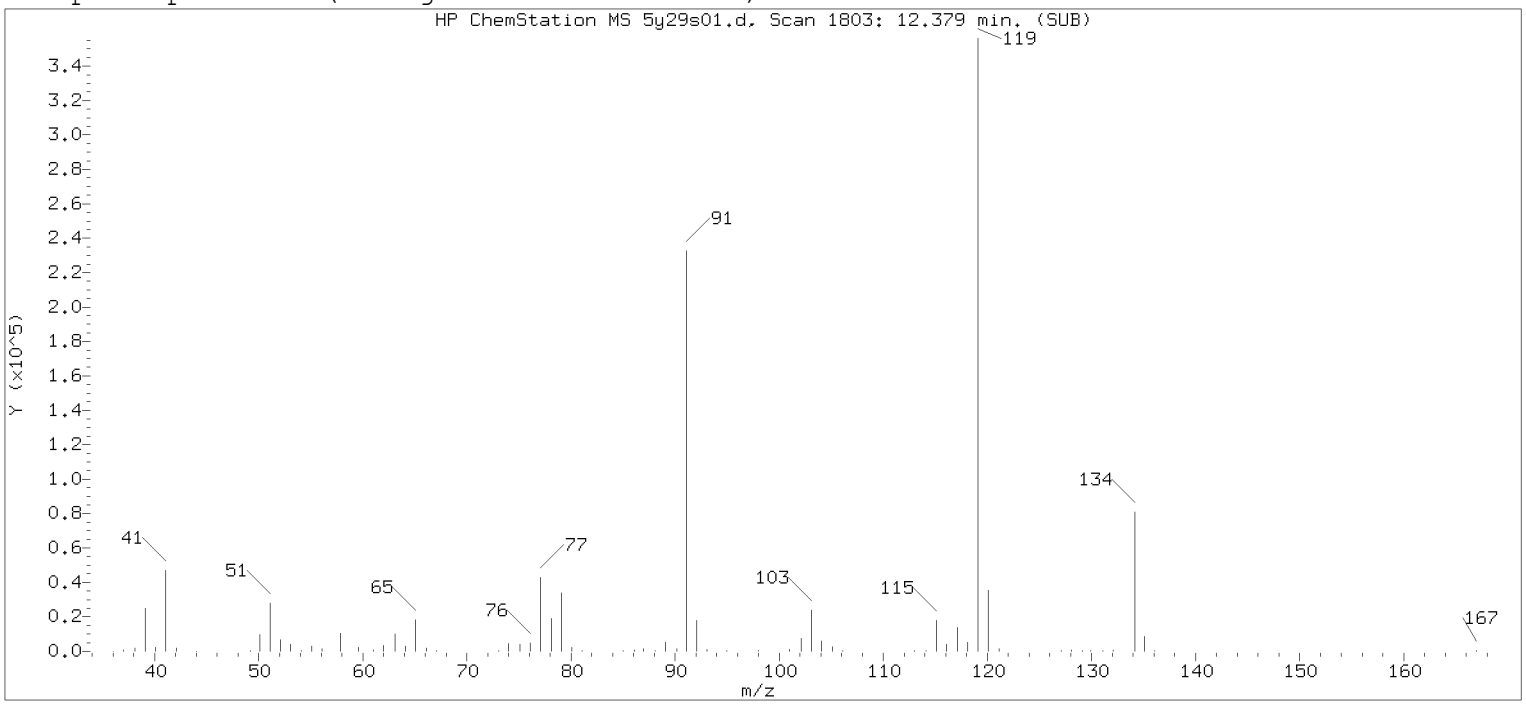
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area (flag) : 107069M
On-Column Amount (ng) : 18.8403
Integration start scan : 1797 Integration stop scan: 1806
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

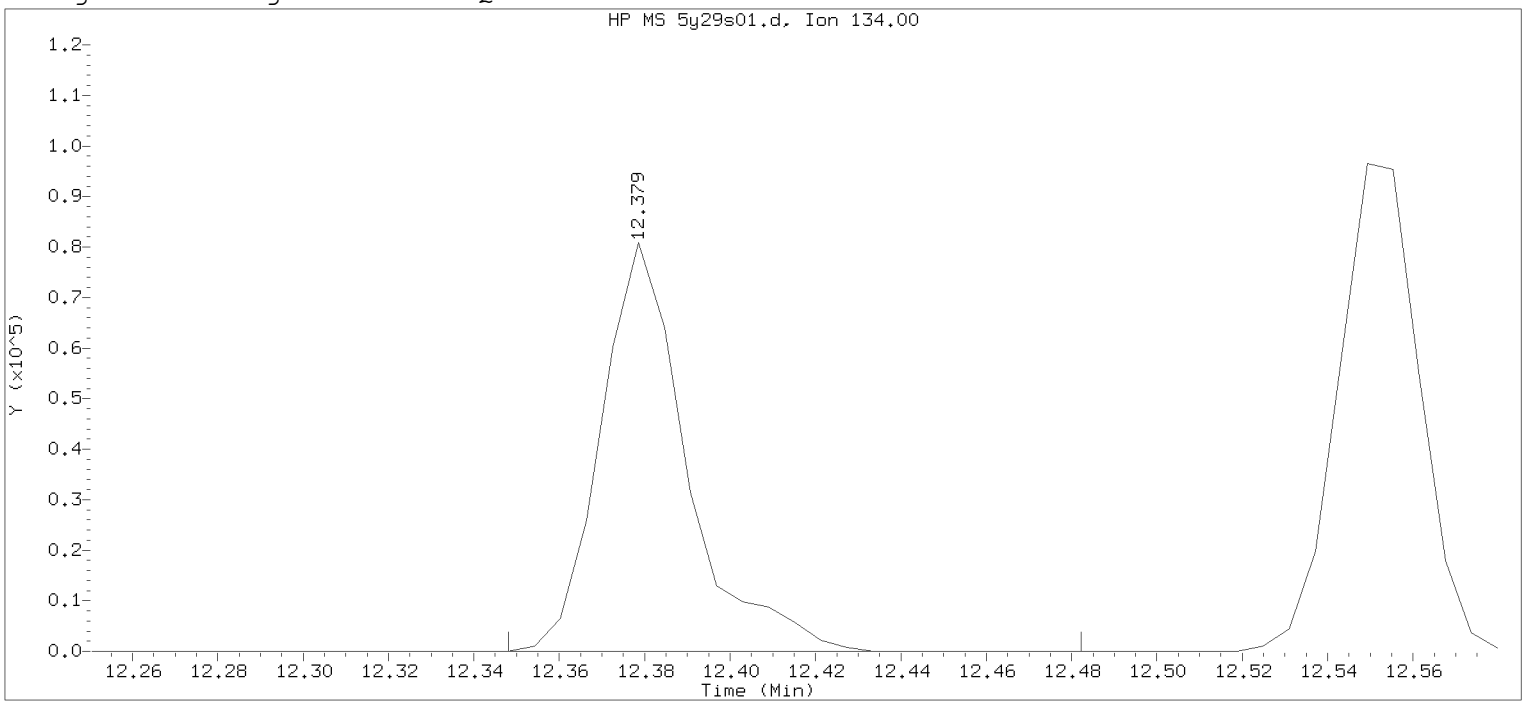
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area : 113451
On-column Amount (ng) : 19.9633
Integration start scan : 1797 Integration stop scan: 1819
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54.
Target 3.5 esignature user: CLM27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL05

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL05

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	10	
74-87-3	Chloromethane	15	
106-99-0	1,3-Butadiene	35	
75-01-4	Vinyl Chloride	16	
74-83-9	Bromomethane	16	
75-00-3	Chloroethane	17	
109-66-0	n-Pentane	19	
75-69-4	Trichlorofluoromethane	16	
60-29-7	Ethyl ether	20	
354-23-4	Freon 123a	18	
107-02-8	Acrolein	120	
75-35-4	1,1-Dichloroethene	18	
67-64-1	Acetone	140	
76-13-1	Freon 113	16	
67-63-0	2-Propanol	140	
74-88-4	Methyl Iodide	17	
75-15-0	Carbon Disulfide	18	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	19	
75-65-0	t-Butyl alcohol	180	
107-13-1	Acrylonitrile	95	
156-60-5	trans-1,2-Dichloroethene	18	
1634-04-4	Methyl Tertiary Butyl Ether	17	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	19	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL05

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL05

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	37	
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	150	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	18	
109-99-9	Tetrahydrofuran	97	
67-66-3	Chloroform	18	
71-55-6	1,1,1-Trichloroethane	17	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	18	
78-83-1	Isobutyl Alcohol	490	
71-43-2	Benzene	18	
107-06-2	1,2-Dichloroethane	18	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	960	
79-01-6	Trichloroethene	18	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	470	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	18	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL05

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL05

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	19	
542-75-6	1,3-Dichloropropene (total)	37	
97-63-2	Ethyl Methacrylate	20	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	19	
142-28-9	1,3-Dichloropropane	19	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	19	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	19	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	19	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	60	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	440	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	20	
110-57-6	trans-1,4-Dichloro-2-butene	78	
103-65-1	n-Propylbenzene	20	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	20	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	20	
76-01-7	Pentachloroethane	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL05

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL05

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may29a.b/ly29s31.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	21	
100-44-7	Benzyl Chloride	19	
141-93-5	1,3-Diethylbenzene	19	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	20	
135-01-3	1,2-Diethylbenzene	20	
25340-17-4	Diethylbenzene (total)	59	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	17	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	15	B

Data file: /chem/HP09915.i/20may29a.b/ly29s31.d Injection date and time: **29-MAY-2020 10:55**
Data file Sample Info. Line: LCSL05;LCSL05;1;3;LCS;;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.503	(-0.010)	939	65	366066M	(-3)	250.00	
66) Fluorobenzene	7.949	(-0.003)	2011	96	1671339	(-1)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	1271031	(-2)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(0.000)	3649	152	696732	(-1)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065	(0.000)	113	406129	48.234	96%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	106407	49.804	100%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1665962	51.021	102%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	624070	49.672	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.088	(0.000)	85	113535	9.906	9.91			0.2	1
4) Chloromethane	(2)	2.290	(0.000)	50	165599	15.475	15.48			0.2	1
5) 1,3-Butadiene	(2)	2.409	(-0.000)	39	237154	34.546	34.55			1	3
6) Vinyl Chloride	(2)	2.419	(-0.000)	62	161710	15.660	15.66			0.2	1
8) Bromomethane	(2)	2.750	(0.000)	94	115536	15.518	15.52			0.3	1
9) Chloroethane	(2)	2.850	(-0.000)	64	95765	16.610	16.61			0.2	1
11) n-Pentane	(2)	3.216	(-0.000)	43	199215	18.813	18.81			0.4	10
12) Trichlorofluoromethane	(2)	3.155	(0.000)	101	184300	16.341	16.34			0.2	1
14) Ethyl ether	(2)	3.438	(-0.000)	59	157753	19.795	19.80			0.2	5
15) Freon 123a	(2)	3.535	(-0.000)	67	166746	18.250	18.25			0.4	5
16) Acrolein	(1)	3.625	(0.000)	56	374221	124.262	124.26			2	100
17) 1,1-Dichloroethene	(2)	3.766	(-0.000)	96	127806	17.769	17.77			0.2	1
18) Acetone	(1)	3.805	(0.001)	58	185911	135.337	135.34			0.7	20
19) Freon 113	(2)	3.805	(-0.001)	101	116674	15.635	15.64			0.2	10
21) 2-Propanol	(1)	3.998	(0.000)	45	118421	135.258	135.26			18	100
22) Methyl Iodide	(2)	3.978	(-0.000)	142	234922	16.948	16.95			0.2	1
23) Carbon Disulfide	(2)	4.078	(-0.000)	76	439678	18.155	18.16			0.2	5
25) Allyl Chloride	(2)	4.271	(-0.000)	41	222805	19.115	19.12			0.3	5
27) Methyl Acetate	(2)	4.245	(-0.000)	43	180193	19.643	19.64			0.3	5
28) Methylene Chloride	(2)	4.477	(-0.000)	84	159576	18.651	18.65			0.3	1
30) t-Butyl alcohol	(1)	4.631	(-0.000)	59	270316	182.910	182.91			12	50
31) Acrylonitrile	(2)	4.831	(-0.000)	53	480707	94.598	94.60			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.892	(-0.000)	96	148612	17.961	17.96			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.882	(-0.000)	73	412913	16.739	16.74			0.2	1
34) n-Hexane	(2)	5.306	(0.000)	57	192575	16.619	16.62			2	5
36) 1,1-Dichloroethane	(2)	5.554	(-0.000)	63	269345	18.560	18.56			0.2	1
38) di-Isopropyl ether	(2)	5.605	(-0.000)	45	475710	18.638	18.64			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.660	(-0.000)	53	204176	17.642	17.64			0.2	5
40) Ethyl t-butyl ether	(2)	6.133	(-0.000)	59	413659	17.443	17.44			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.377	(-0.000)	96	180088	19.408	19.41			0.2	1

Digitally signed by Corie L. Mellinger on 05/29/2020 at 12:25. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may29a.b/ly29s31.d Injection date and time: **29-MAY-2020 10:55**
Data file Sample Info. Line: LCSL05;LCSL05;1;3;LCS;;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
43) 1,2-Dichloroethene (Total)	(2)		96	328700	37.369	37.37			0.4	2
44) 2-Butanone	(2)	6.351(-0.000)	43	919629	149.093	149.09			0.3	10
45) 2,2-Dichloropropane	(2)	6.393(-0.000)	77	199103	17.751	17.75			0.3	1
47) Propionitrile	(1)	6.448(0.002)	54	295825	148.169	148.17			14	100
48) Methacrylonitrile	(2)	6.657(-0.000)	67	769505	151.046	151.05			6	50
49) Bromochloromethane	(2)	6.705(-0.000)	128	86245	18.014	18.01			0.2	5
50) Tetrahydrofuran	(1)	6.712(0.002)	71	168849	96.658	96.66			0.7	10
51) Chloroform	(2)	6.856(-0.000)	83	258464	18.230	18.23			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.078(-0.000)	97	209334	17.210	17.21			0.3	1
54) Cyclohexane	(2)	7.165(0.000)	56	241612	17.745	17.74			1	5
55) 1,1-Dichloropropene	(2)	7.284(0.000)	75	200258	17.960	17.96			0.2	5
56) Carbon Tetrachloride	(2)	7.277(0.000)	117	179344	17.598	17.60			0.2	1
58) Isobutyl Alcohol	(1)	7.448(0.002)	41	244402	487.495	487.50			36	250
60) Benzene	(2)	7.548(0.000)	78	634835	18.392	18.39			0.2	1
61) 1,2-Dichloroethane	(2)	7.621(0.000)	62	206674	17.862	17.86			0.3	1
65) t-Amyl methyl ether	(2)	7.731(0.000)	73	436244	18.007	18.01			0.8	5
67) n-Heptane	(2)	7.953(0.000)	43	206638	17.149	17.15			2	5
69) n-Butanol	(1)	8.313(0.003)	56	393640	962.957	962.96			61	250
71) Trichloroethene	(2)	8.425(0.000)	95	155412	17.793	17.79			0.2	1
72) Methylcyclohexane	(2)	8.728(0.000)	83	250322	17.625	17.63			0.5	5
73) 1,2-Dichloropropane	(2)	8.760(0.000)	63	172238	19.367	19.37			0.2	1
74) Dibromomethane	(2)	8.869(0.000)	93	109729	18.866	18.87			0.2	1
75) 1,4-Dioxane	(1)	8.850(0.004)	88	58184M	473.494	473.49			29	250
76) Methyl Methacrylate	(2)	8.837(0.000)	69	144052	18.838	18.84			0.2	5
78) Bromodichloromethane	(2)	9.104(0.000)	83	189901	18.212	18.21			0.2	1
79) 2-Nitropropane	(2)	9.377(-0.000)	41	52622	16.832	16.83			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.448(0.000)	63	112015	18.916	18.92			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.631(0.000)	75	249648	18.320	18.32			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.795(0.000)	43	1245047	99.675	99.68			0.5	10
88) Toluene	(3)	9.998(0.000)	92	394981	18.978	18.98			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.248(0.000)	75	221429	18.543	18.54			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	471077	36.863	36.86			0.4	2
91) Ethyl Methacrylate	(3)	10.303(0.000)	69	239182	19.906	19.91			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.448(0.000)	97	159971	19.808	19.81			0.2	1
93) Tetrachloroethene	(3)	10.531(0.000)	166	166837	18.810	18.81			0.2	1
94) 1,3-Dichloropropane	(3)	10.608(0.000)	76	262526	19.439	19.44			0.2	1
96) 2-Hexanone	(3)	10.657(0.000)	43	924104	105.890	105.89			0.3	10
97) Dibromochloromethane	(3)	10.818(0.000)	129	161831	19.264	19.26			0.2	1
99) 1,2-Dibromoethane	(3)	10.927(0.000)	107	164475	18.950	18.95			0.2	1
101) 1-Chlorohexane	(3)	11.358(-0.000)	91	195341	18.340	18.34			0.3	5
102) Chlorobenzene	(3)	11.377(-0.000)	112	454365	19.011	19.01			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.457(-0.000)	131	152966	18.879	18.88			0.2	1
104) Ethylbenzene	(3)	11.460(-0.000)	91	739677	19.200	19.20			0.4	1
106) m+p-Xylene	(3)	11.573(-0.000)	106	604802	39.956	39.96			1	5
107) o-Xylene	(3)	11.898(0.000)	106	286684	19.585	19.59			0.4	1
108) Xylene (Total)	(3)		106	891486	59.541	59.54			1	6
109) Styrene	(3)	11.914(-0.000)	104	475125	19.958	19.96			0.2	5
110) Bromoform	(3)	12.071(-0.000)	173	112977	18.473	18.47			1	4
111) Isopropylbenzene	(3)	12.197(-0.000)	105	726287	19.553	19.55			0.2	5
112) Cyclohexanone	(1)	12.277(0.006)	55	203544	444.998	445.00			25	100
115) Bromobenzene	(4)	12.457(0.000)	156	198905	19.509	19.51			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.441(-0.000)	83	262148	20.639	20.64			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.489(-0.000)	110	79229	20.424	20.42			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.467(0.000)	53	287881	77.913	77.91			6	50

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may29a.b/ly29s31.d Injection date and time: **29-MAY-2020 10:55**
Data file Sample Info. Line: LCSL05;LCSL05;1;3;LCS;;;;ly29b05; Instrument ID: **HP09915.i** Batch: **L201502AA**
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Blank Data file reference: **/chem/HP09915.i/20may29a.b/ly29b05.d**

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 11:21
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may29a.b/ly29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
119) n-Propylbenzene	(4)	12.522(-0.000)	91	896312	20.341	20.34			0.2	5
120) 2-Chlorotoluene	(4)	12.599(0.000)	126	185116	19.664	19.66			0.2	5
121) 4-Chlorotoluene	(4)	12.692(0.000)	126	194735	19.930	19.93			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.657(0.000)	105	641052	20.133	20.13			0.3	5
124) tert-Butylbenzene	(4)	12.898(0.000)	134	129536M	19.792	19.79			0.3	5
125) Pentachloroethane	(4)	12.933(0.000)	167	109651	18.864	18.86			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.940(0.000)	105	665289	20.209	20.21			1	5
127) sec-Butylbenzene	(4)	13.058(0.000)	105	786117	20.278	20.28			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.161(0.000)	146	378228	19.908	19.91			0.2	5
130) p-Isopropyltoluene	(4)	13.165(0.000)	119	691042	20.803	20.80			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.232(-0.000)	146	395435	19.832	19.83			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.245(-0.000)	105	716169	20.937	20.94			0.3	5
135) Benzyl Chloride	(4)	13.312(-0.000)	91	498733	19.270	19.27			1	5
136) 1,3-Diethylbenzene	(4)	13.364(-0.000)	119	415782	19.426	19.43			0.2	5
137) 1,4-Diethylbenzene	(4)	13.435(-0.000)	119	440235	19.651	19.65			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.496(-0.000)	146	381626	19.957	19.96			0.2	5
139) n-Butylbenzene	(4)	13.457(-0.000)	92	346868	20.324	20.32			0.2	5
140) 1,2-Diethylbenzene	(4)	13.509(0.000)	119	356505	19.512	19.51			0.2	5
141) Diethylbenzene (total)	(4)		100	1212522	58.589	58.59			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.036(-0.000)	75	53550	19.048	19.05			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.158(-0.000)	180	268659	18.650	18.65			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.583(-0.000)	180	250358	18.597	18.60			0.3	5
147) Hexachlorobutadiene	(4)	14.660(0.000)	225	103732	16.703	16.70			2	5
148) Naphthalene	(4)	14.766(-0.000)	128	847444	19.447	19.45			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.910(-0.000)	180	253929	18.982	18.98			0.4	5
150) 2-Methylnaphthalene	(4)	15.557(-0.000)	142	413272	14.803	14.80	2.969	B	2	4

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Total number of targets = 110

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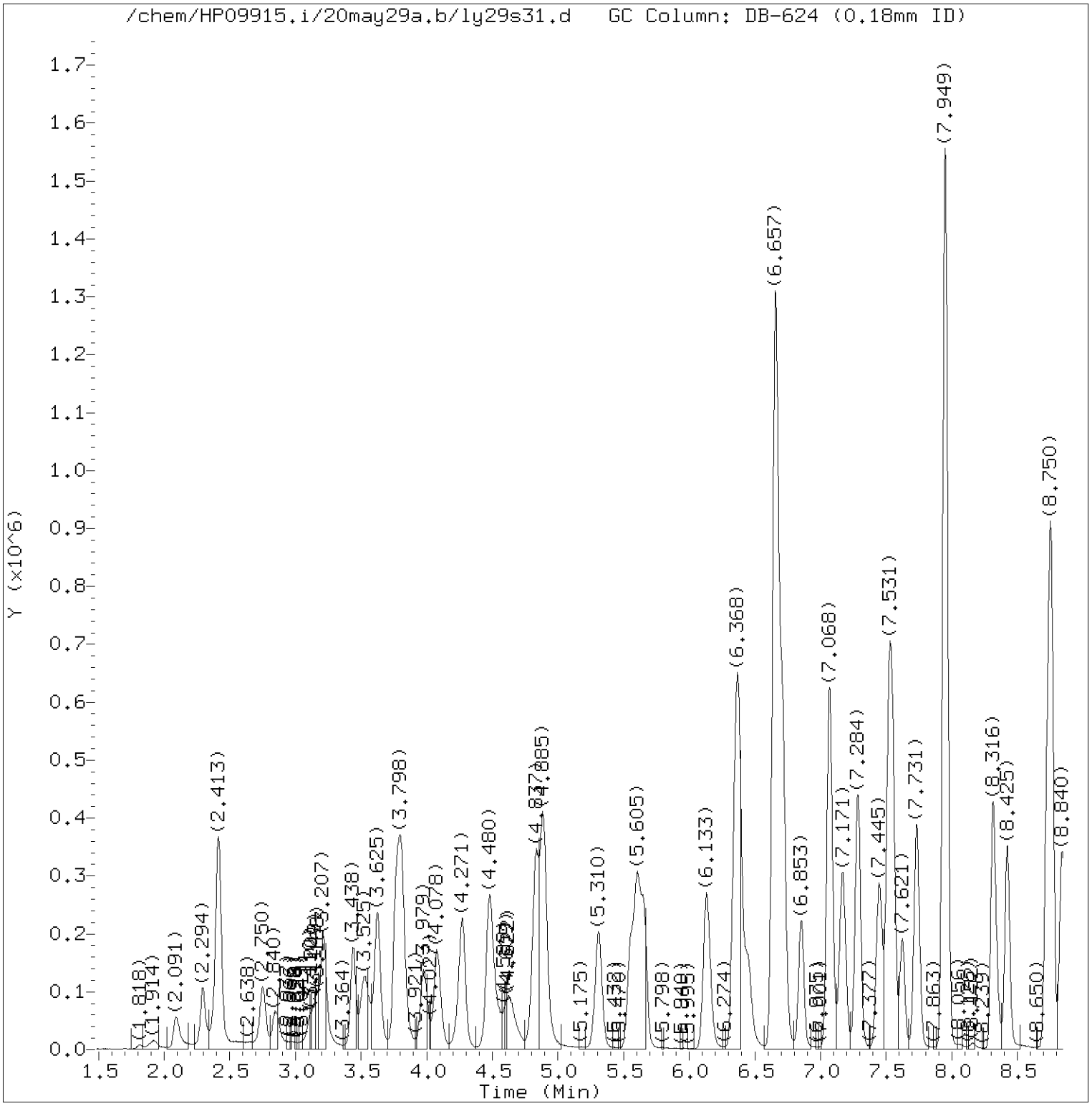
Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

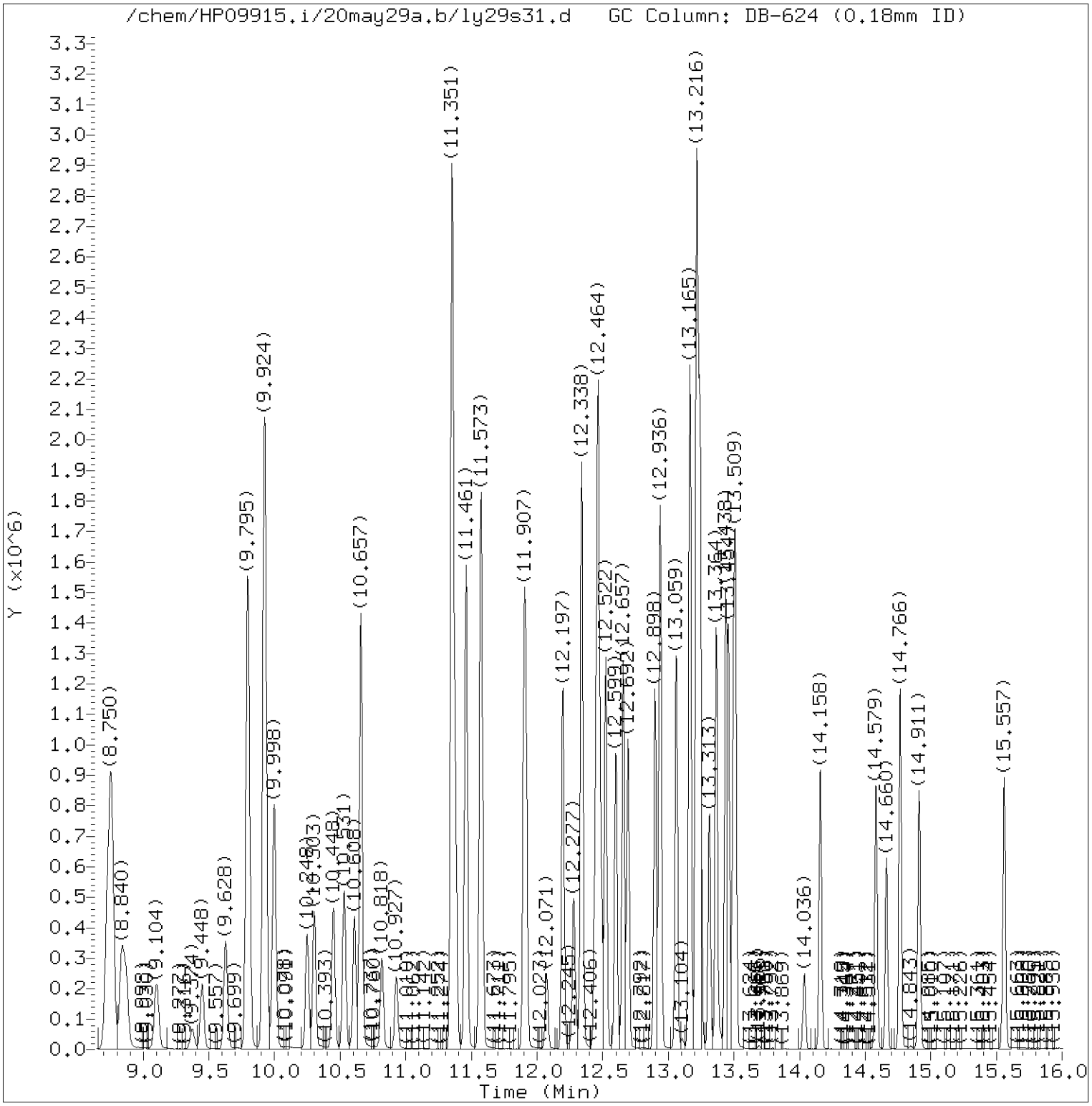
Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	113535	9.906
4) Chloromethane	(2)	2.291	50	165599	15.475
5) 1,3-Butadiene	(2)	2.409	39	237154	34.546
6) Vinyl Chloride	(2)	2.419	62	161710	15.660
8) Bromomethane	(2)	2.750	94	115536	15.518
9) Chloroethane	(2)	2.850	64	95765	16.610
12) Trichlorofluoromethane	(2)	3.155	101	184300	16.341
11) n-Pentane	(2)	3.217	43	199215	18.813
14) Ethyl ether	(2)	3.438	59	157753	19.795
15) Freon 123a	(2)	3.535	67	166746	18.250
16) Acrolein	(1)	3.625	56	374221	124.262
17) 1,1-Dichloroethene	(2)	3.766	96	127806	17.769
18) Acetone	(1)	3.805	58	185911	135.337
19) Freon 113	(2)	3.805	101	116674	15.635
22) Methyl Iodide	(2)	3.979	142	234922	16.948
21) 2-Propanol	(1)	3.998	45	118421	135.258
23) Carbon Disulfide	(2)	4.078	76	439678	18.155
27) Methyl Acetate	(2)	4.245	43	180193	19.643
25) Allyl Chloride	(2)	4.271	41	222805	19.115
28) Methylene Chloride	(2)	4.477	84	159576	18.651
29)*t-Butyl alcohol-d10	(1)	4.503	65	366066M	250.000
30) t-Butyl alcohol	(1)	4.631	59	270316	182.910
31) Acrylonitrile	(2)	4.831	53	480707	94.598
33) Methyl Tertiary Butyl Ether	(2)	4.882	73	412913	16.739
32) trans-1,2-Dichloroethene	(2)	4.892	96	148612	17.961
34) n-Hexane	(2)	5.306	57	192575	16.619
36) 1,1-Dichloroethane	(2)	5.554	63	269345	18.560
38) di-Isopropyl ether	(2)	5.605	45	475710	18.638
39) 2-Chloro-1,3-butadiene	(2)	5.660	53	204176	17.642
40) Ethyl t-butyl ether	(2)	6.133	59	413659	17.443
43) 1,2-Dichloroethene (Total)	(2)		96	328700	37.369
44) 2-Butanone	(2)	6.351	43	919629	149.093
42) cis-1,2-Dichloroethene	(2)	6.377	96	180088	19.408
45) 2,2-Dichloropropane	(2)	6.393	77	199103	17.751
47) Propionitrile	(1)	6.448	54	295825	148.169
48) Methacrylonitrile	(2)	6.657	67	769505	151.046
49) Bromochloromethane	(2)	6.705	128	86245	18.014
50) Tetrahydrofuran	(1)	6.712	71	168849	96.658

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.856	83	258464	18.230
52)$Dibromofluoromethane	(2)	7.065	113	406129	48.234
53) 1,1,1-Trichloroethane	(2)	7.078	97	209334	17.210
54) Cyclohexane	(2)	7.165	56	241612	17.745
56) Carbon Tetrachloride	(2)	7.277	117	179344	17.598
55) 1,1-Dichloropropene	(2)	7.284	75	200258	17.960
58) Isobutyl Alcohol	(1)	7.448	41	244402	487.495
57)$1,2-Dichloroethane-d4	(2)	7.522	102	106407	49.804
60) Benzene	(2)	7.548	78	634835	18.392
61) 1,2-Dichloroethane	(2)	7.621	62	206674	17.862
65) t-Amyl methyl ether	(2)	7.731	73	436244	18.007
66)*Fluorobenzene	(2)	7.949	96	1671339	50.000
67) n-Heptane	(2)	7.953	43	206638	17.149
69) n-Butanol	(1)	8.313	56	393640	962.957
71) Trichloroethene	(2)	8.425	95	155412	17.793
72) Methylcyclohexane	(2)	8.728	83	250322	17.625
73) 1,2-Dichloropropane	(2)	8.760	63	172238	19.367
76) Methyl Methacrylate	(2)	8.837	69	144052	18.838
75) 1,4-Dioxane	(1)	8.850	88	58184M	473.494
74) Dibromomethane	(2)	8.869	93	109729	18.866
78) Bromodichloromethane	(2)	9.104	83	189901	18.212
79) 2-Nitropropane	(2)	9.377	41	52622	16.832
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	112015	18.916
81) cis-1,3-Dichloropropene	(2)	9.631	75	249648	18.320
82) 4-Methyl-2-pentanone	(2)	9.795	43	1245047	99.675
83)$Toluene-d8	(3)	9.924	98	1665962	51.021
88) Toluene	(3)	9.998	92	394981	18.978
90) 1,3-Dichloropropene (total)	(3)		100	471077	36.863
89) trans-1,3-Dichloropropene	(3)	10.248	75	221429	18.543
91) Ethyl Methacrylate	(3)	10.303	69	239182	19.906
92) 1,1,2-Trichloroethane	(3)	10.448	97	159971	19.808
93) Tetrachloroethene	(3)	10.531	166	166837	18.810
94) 1,3-Dichloropropane	(3)	10.608	76	262526	19.439
96) 2-Hexanone	(3)	10.657	43	924104	105.890
97) Dibromochloromethane	(3)	10.818	129	161831	19.264
99) 1,2-Dibromoethane	(3)	10.927	107	164475	18.950
100)*Chlorobenzene-d5	(3)	11.351	117	1271031	50.000
101) 1-Chlorohexane	(3)	11.358	91	195341	18.340

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.377	112	454365	19.011
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	152966	18.879
104) Ethylbenzene	(3)	11.461	91	739677	19.200
106) m+p-Xylene	(3)	11.573	106	604802	39.956
108) Xylene (Total)	(3)		106	891486	59.541
107) o-Xylene	(3)	11.898	106	286684	19.585
109) Styrene	(3)	11.914	104	475125	19.958
110) Bromoform	(3)	12.071	173	112977	18.473
111) Isopropylbenzene	(3)	12.197	105	726287	19.553
112) Cyclohexanone	(1)	12.277	55	203544	444.998
114)$4-Bromofluorobenzene	(3)	12.338	95	624070	49.672
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	262148	20.639
115) Bromobenzene	(4)	12.457	156	198905	19.509
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	287881	77.913
117) 1,2,3-Trichloropropane	(4)	12.489	110	79229	20.424
119) n-Propylbenzene	(4)	12.522	91	896312	20.341
120) 2-Chlorotoluene	(4)	12.599	126	185116	19.664
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	641052	20.133
121) 4-Chlorotoluene	(4)	12.692	126	194735	19.930
124) tert-Butylbenzene	(4)	12.898	134	129536M	19.792
125) Pentachloroethane	(4)	12.933	167	109651	18.864
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	665289	20.209
127) sec-Butylbenzene	(4)	13.059	105	786117	20.278
129) 1,3-Dichlorobenzene	(4)	13.161	146	378228	19.908
130) p-Isopropyltoluene	(4)	13.165	119	691042	20.803
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	696732	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	395435	19.832
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	716169	20.937
135) Benzyl Chloride	(4)	13.313	91	498733	19.270
136) 1,3-Diethylbenzene	(4)	13.364	119	415782	19.426
141) Diethylbenzene (total)	(4)		100	1212522	58.589
137) 1,4-Diethylbenzene	(4)	13.435	119	440235	19.651
139) n-Butylbenzene	(4)	13.457	92	346868	20.324
138) 1,2-Dichlorobenzene	(4)	13.496	146	381626	19.957
140) 1,2-Diethylbenzene	(4)	13.509	119	356505	19.512
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	53550	19.048
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	268659	18.650
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	250358	18.597

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

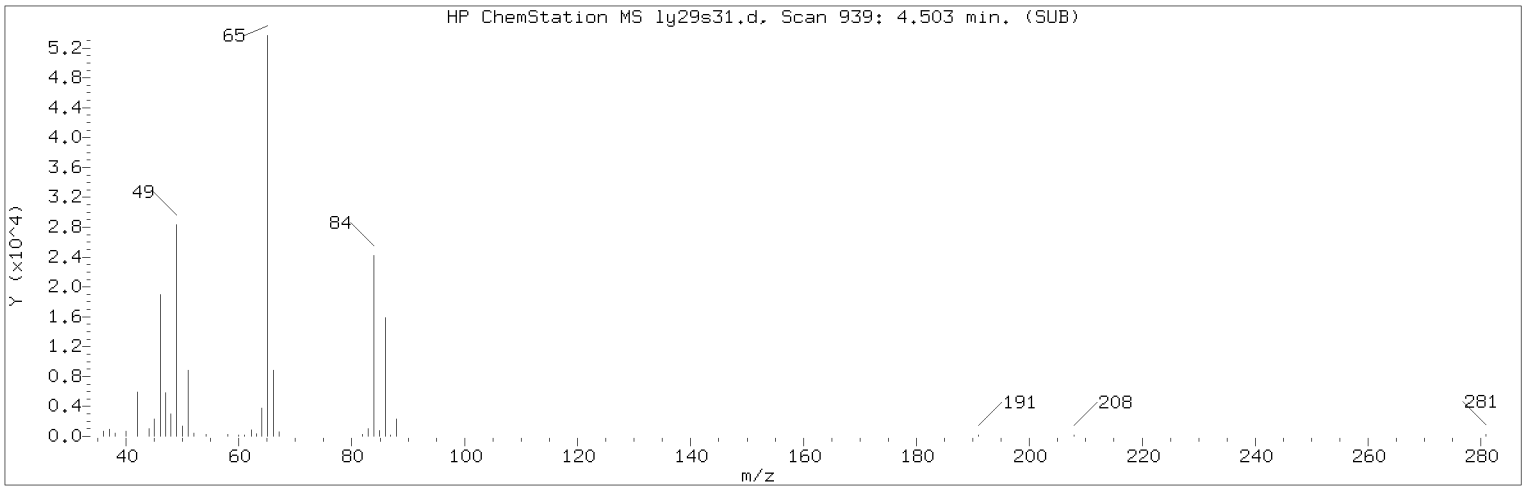
Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

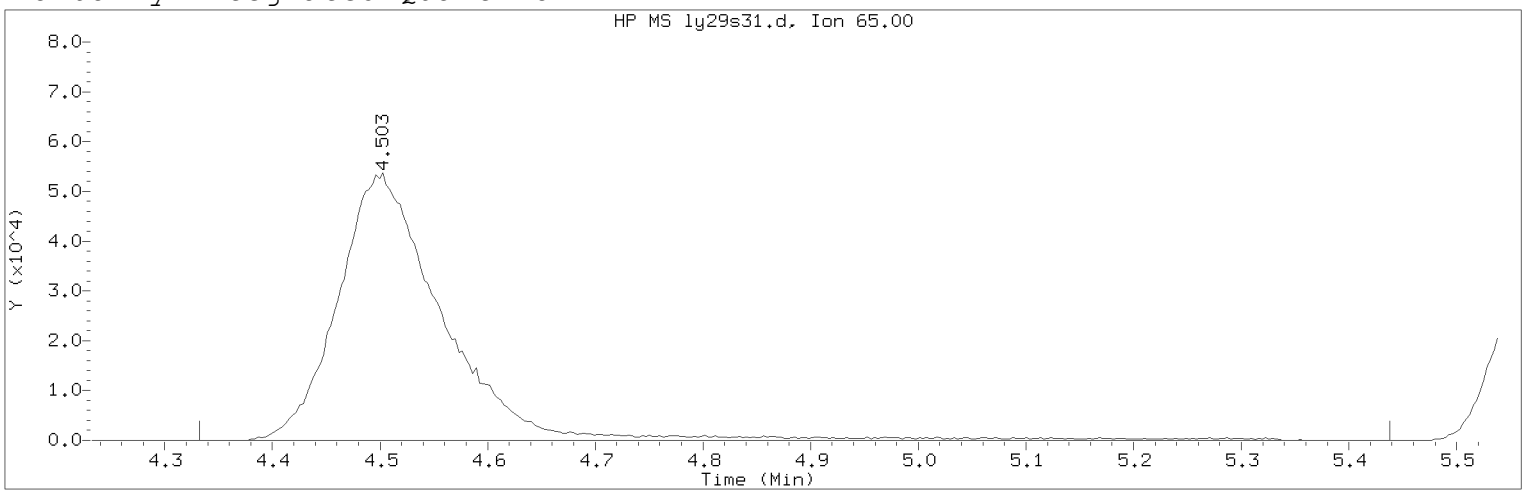
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.660	225	103732	16.703
148) Naphthalene	(4)	14.766	128	847444	19.447
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	253929	18.982
150) 2-Methylnaphthalene	(4)	15.557	142	413272	14.803

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

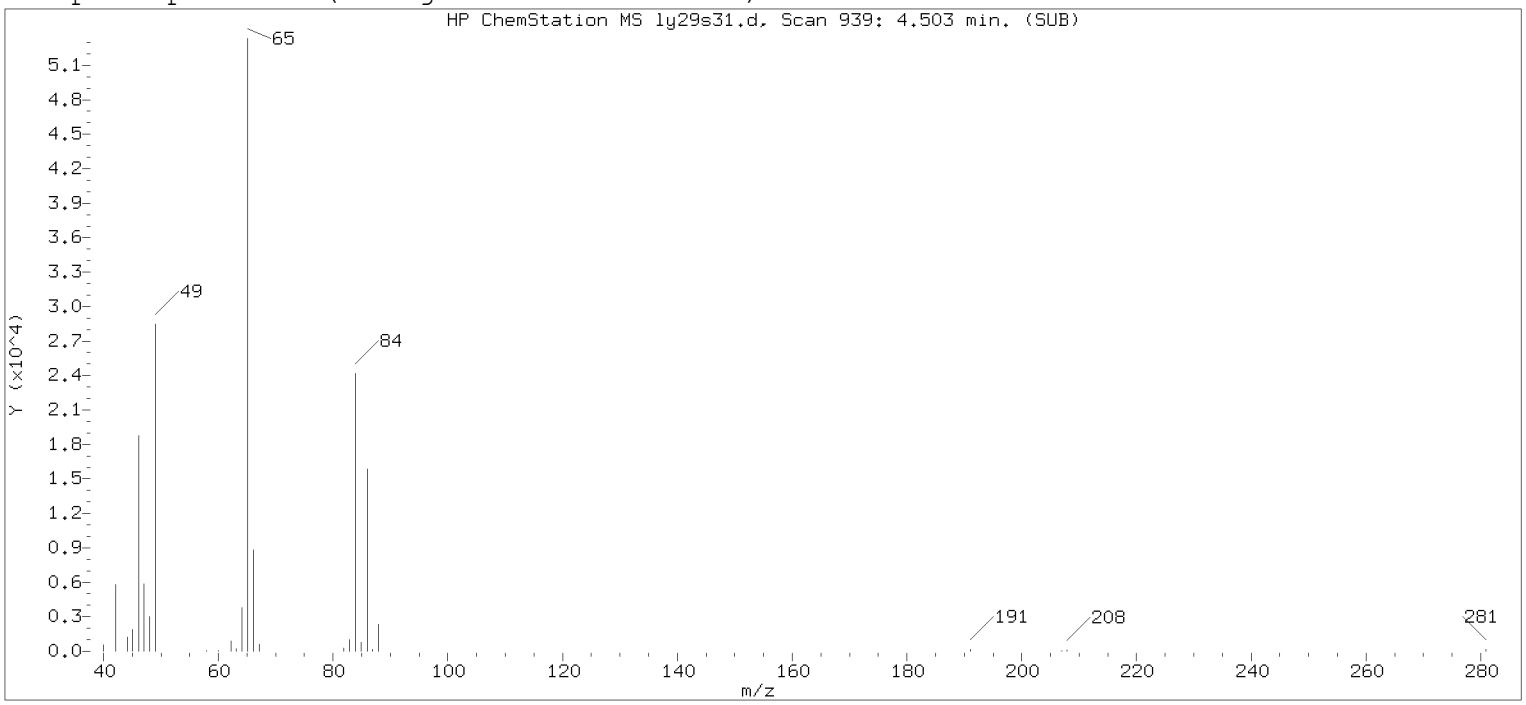
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 939
Retention Time (minutes): 4.503
Quant Ion : 65.00
Area (flag) : 366066M
On-Column Amount (ng) : 250.0000
Integration start scan : 885 Integration stop scan: 1229
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

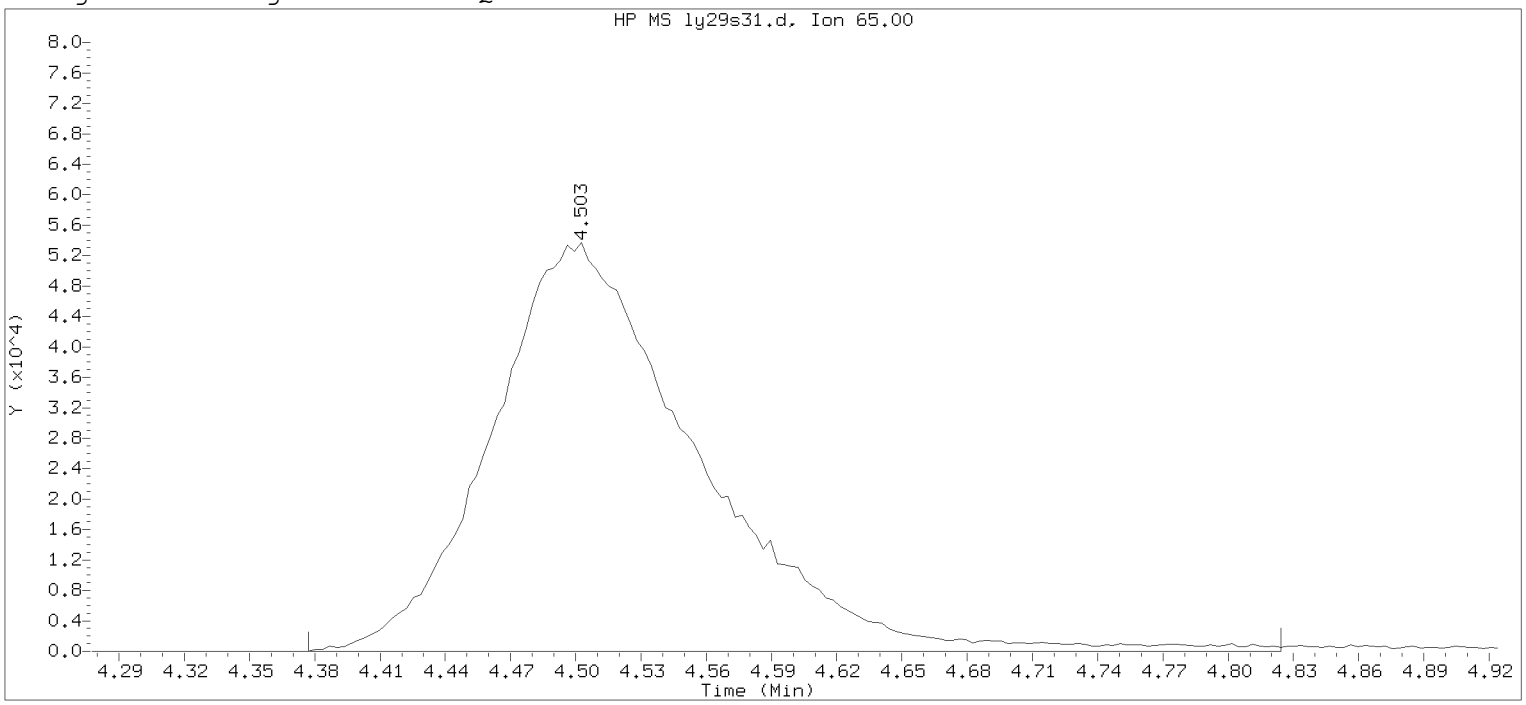
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

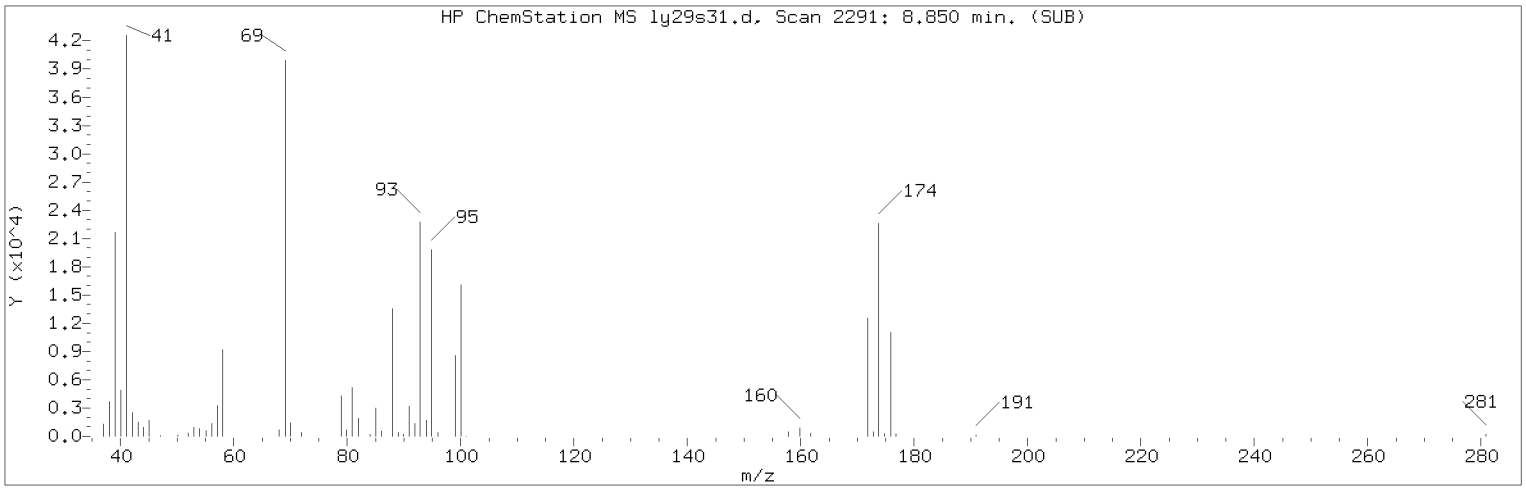
Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 11:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

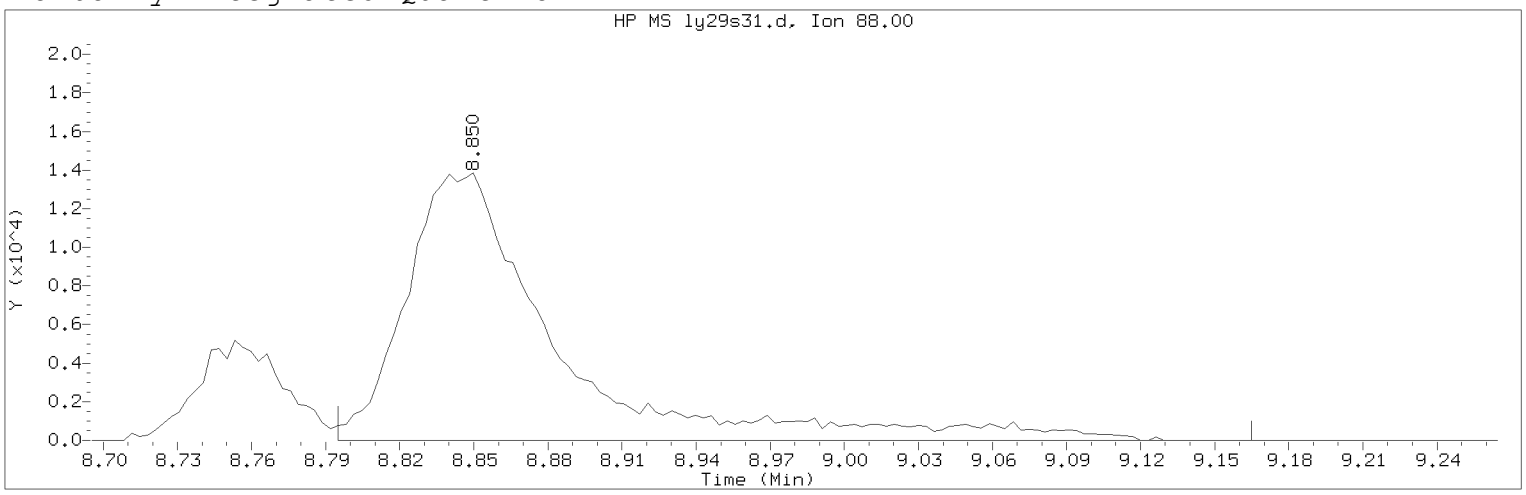
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 939
Retention Time (minutes): 4.503
Quant Ion : 65.00
Area : 353516
On-column Amount (ng) : 250.0000
Integration start scan : 899 Integration stop scan: 1038
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 12:25.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

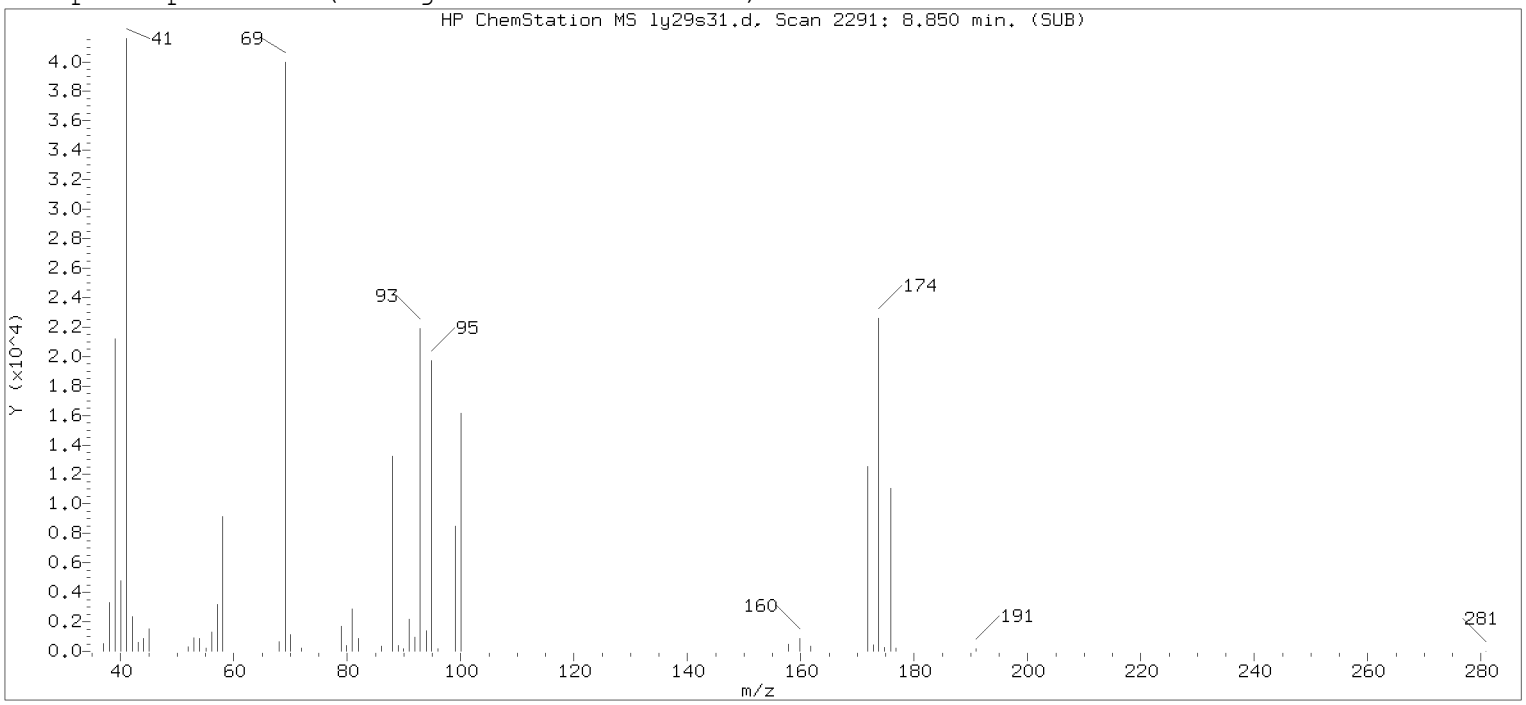
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area (flag) : 58184M
On-Column Amount (ng) : 473.4944
Integration start scan : 2273 Integration stop scan: 2388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

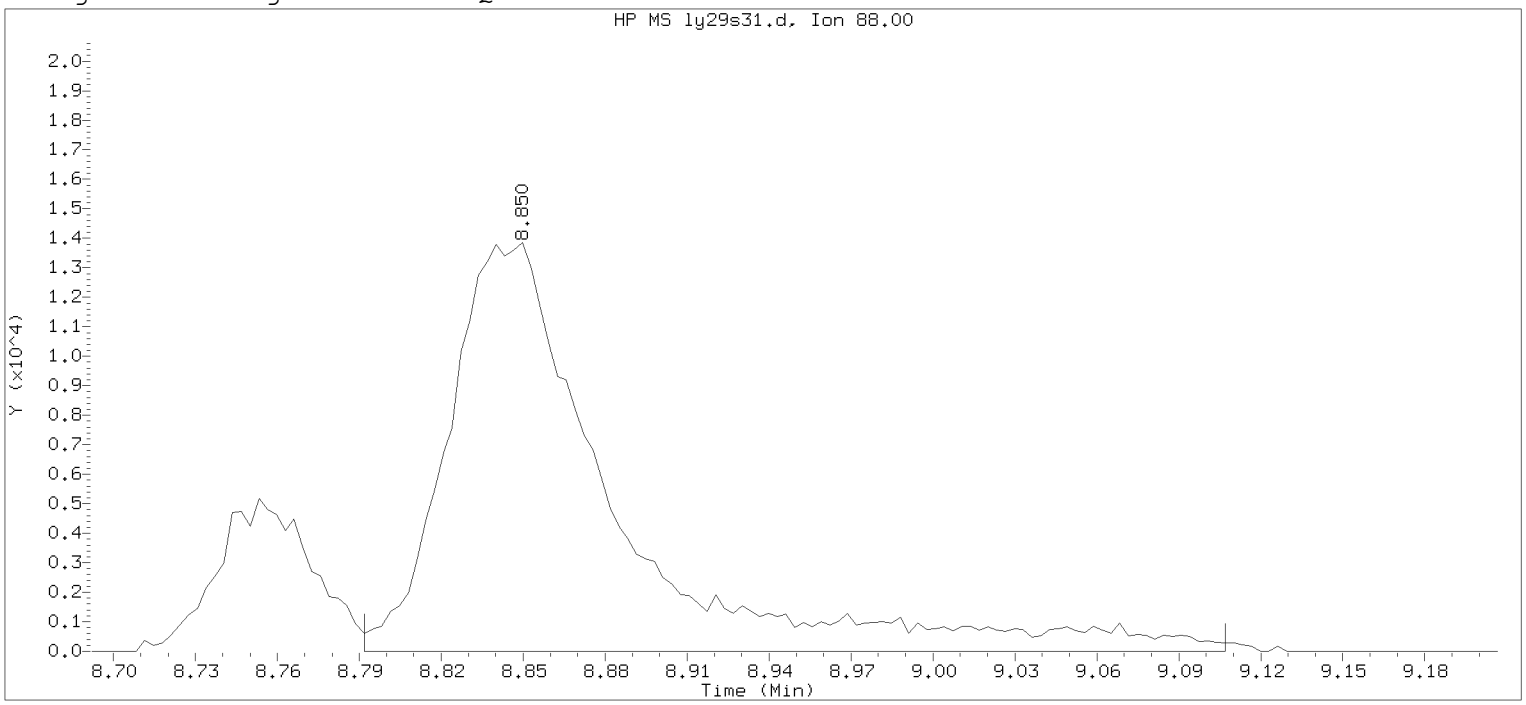
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

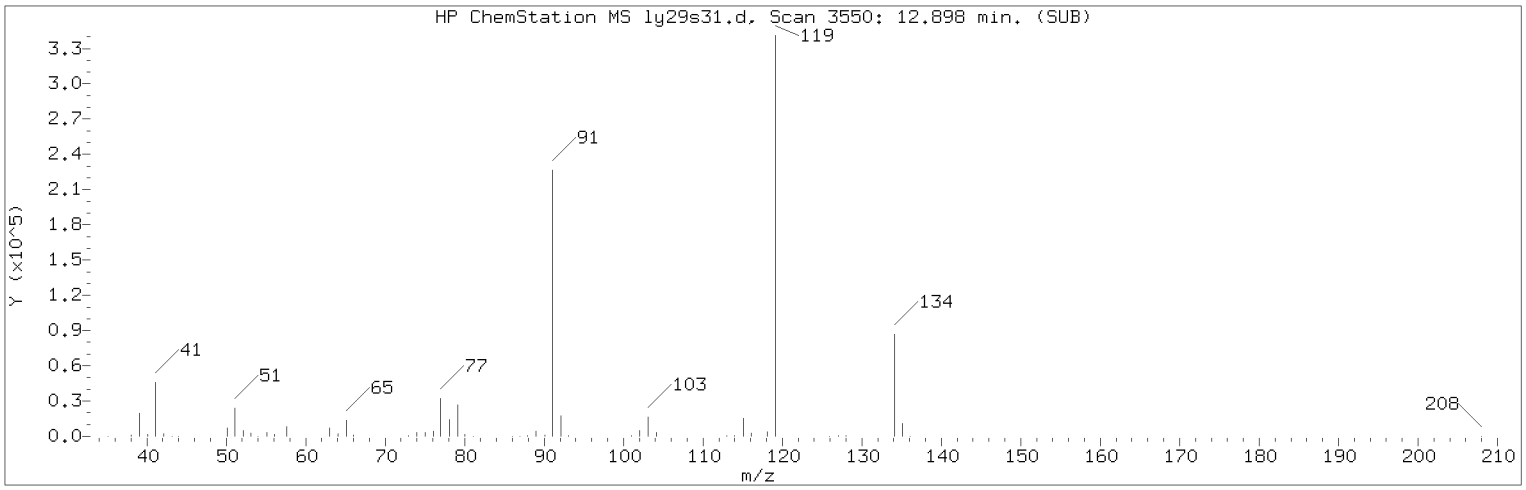
Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 11:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

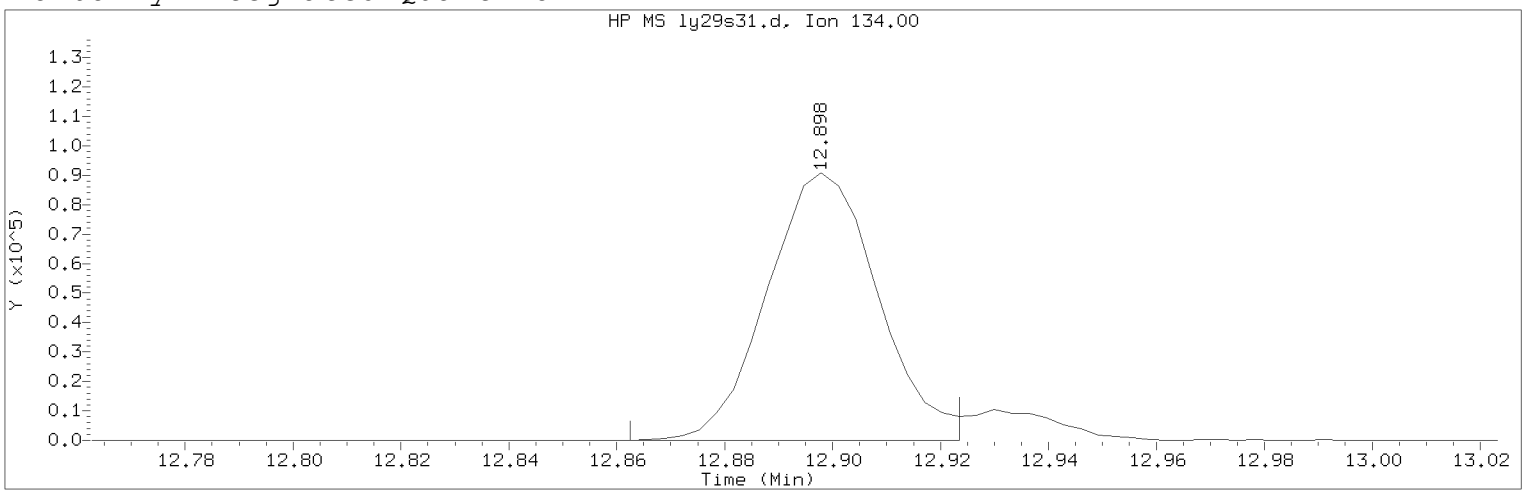
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area : 58049
On-column Amount (ng) : 489.1691
Integration start scan : 2272 Integration stop scan: 2370
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 12:25.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 12:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

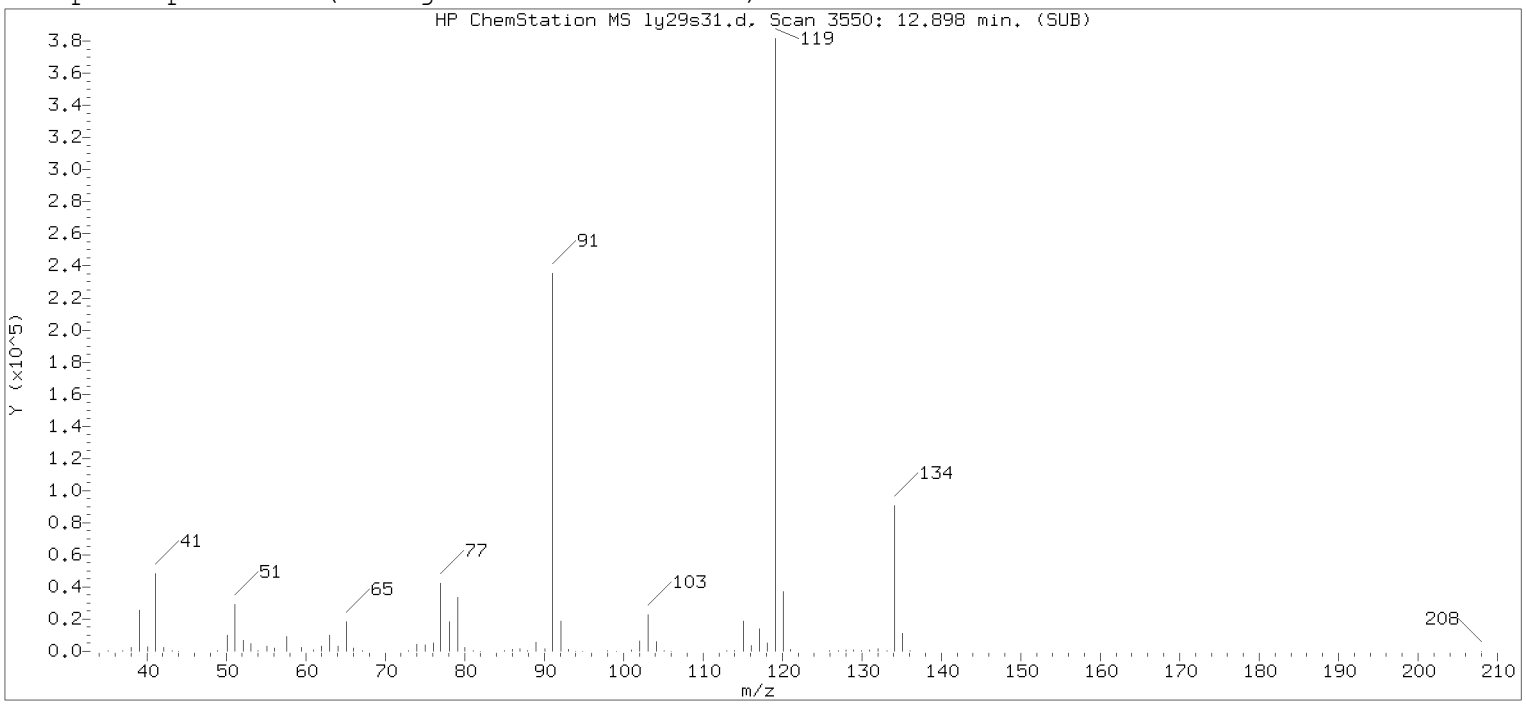
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 129536M
On-Column Amount (ng) : 19.7915
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

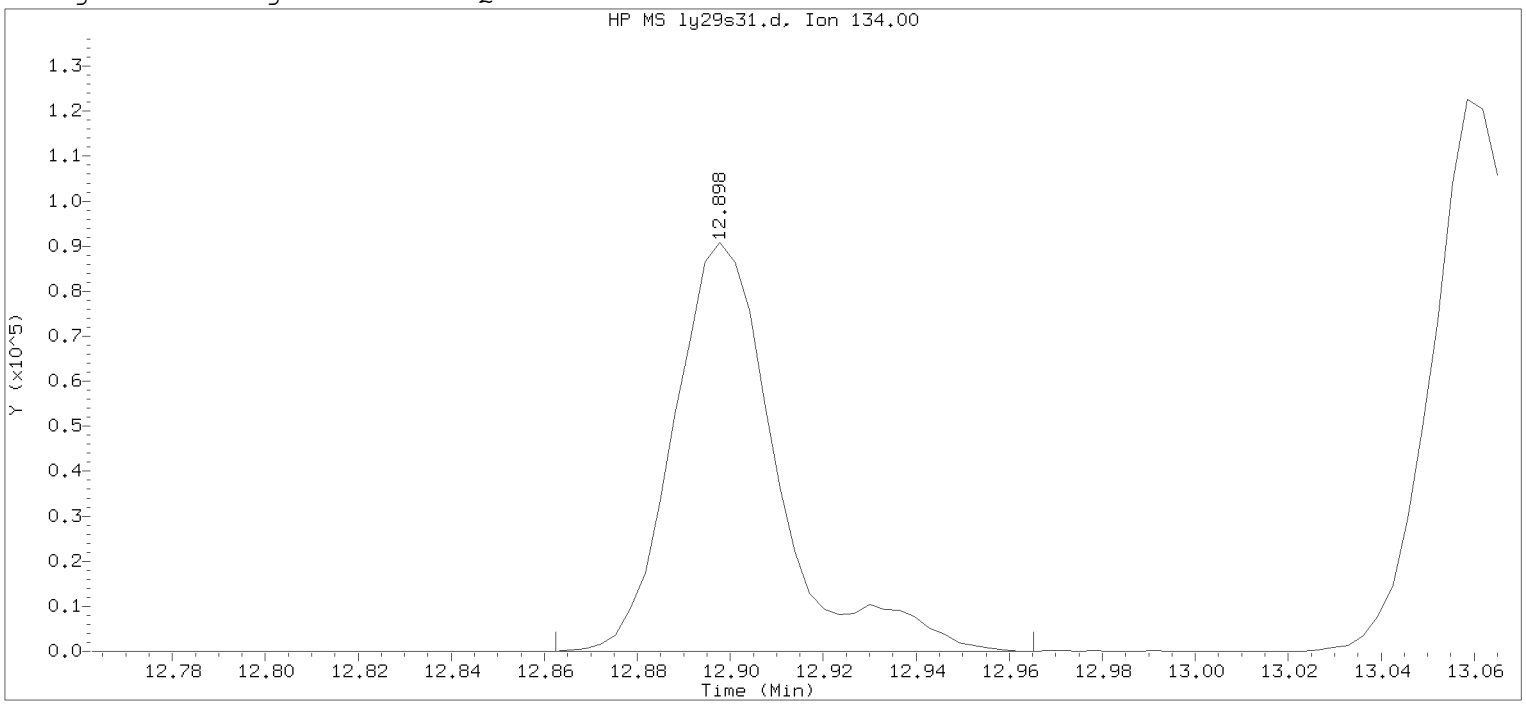
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Kari Becker on 05/30/2020 at 23:10.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may29a.b/ly29s31.d Instrument ID: HP09915.i
Injection date and time: 29-MAY-2020 10:55 Analyst ID: CLM27445

Method used: /chem/HP09915.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 11:21
Date, time and analyst ID of latest file update: 29-May-2020 11:23 clm27445

Sample Name: LCSL05 Lab Sample ID: LCSL05

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 140749
On-column Amount (ng) : 21.5049
Integration start scan : 3538 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 12:25.
Target 3.5 esignature user: CLM27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL11

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	14	
74-87-3	Chloromethane	23	
106-99-0	1,3-Butadiene	30	
75-01-4	Vinyl Chloride	22	
74-83-9	Bromomethane	20	
75-00-3	Chloroethane	22	
109-66-0	n-Pentane	22	
75-69-4	Trichlorofluoromethane	22	
60-29-7	Ethyl ether	22	
354-23-4	Freon 123a	21	
107-02-8	Acrolein	130	
75-35-4	1,1-Dichloroethene	20	
67-64-1	Acetone	140	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	140	
74-88-4	Methyl Iodide	18	
75-15-0	Carbon Disulfide	21	
107-05-1	Allyl Chloride	21	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	190	
107-13-1	Acrylonitrile	100	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	18	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	20	
126-99-8	2-Chloro-1,3-butadiene	20	
637-92-3	Ethyl t-butyl ether	18	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL11

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	40	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	20	
107-12-0	Propionitrile	160	
126-98-7	Methacrylonitrile	160	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	99	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	19	
563-58-6	1,1-Dichloropropene	20	
56-23-5	Carbon Tetrachloride	20	
78-83-1	Isobutyl Alcohol	520	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	19	
71-36-3	n-Butanol	1000	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	500	
80-62-6	Methyl Methacrylate	20	
75-27-4	Bromodichloromethane	20	
79-46-9	2-Nitropropane	19	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	110	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL11

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	20	
542-75-6	1,3-Dichloropropene (total)	40	
97-63-2	Ethyl Methacrylate	20	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	21	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	20	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	42	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	63	
100-42-5	Styrene	21	
75-25-2	Bromoform	19	
98-82-8	Isopropylbenzene	21	
108-94-1	Cyclohexanone	490	
108-86-1	Bromobenzene	21	
79-34-5	1,1,2,2-Tetrachloroethane	22	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	22	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	21	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL11

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL11

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20may31a.b/ly31s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/31/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	21	
135-98-8	sec-Butylbenzene	22	
541-73-1	1,3-Dichlorobenzene	21	
99-87-6	p-Isopropyltoluene	22	
106-46-7	1,4-Dichlorobenzene	21	
526-73-8	1,2,3-Trimethylbenzene	22	
100-44-7	Benzyl Chloride	21	
141-93-5	1,3-Diethylbenzene	21	
105-05-5	1,4-Diethylbenzene	21	
95-50-1	1,2-Dichlorobenzene	21	
104-51-8	n-Butylbenzene	22	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	62	
96-12-8	1,2-Dibromo-3-chloropropane	20	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	20	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	15	

Data file: /chem/HP09915.i/20may31a.b/ly31s01.d Injection date and time: **31-MAY-2020 11:45**
Data file Sample Info. Line: LCSL11;LCSL11;1;3;LCS;;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.506(-0.013)	940	65	351606M (6)	250.00	
66) Fluorobenzene	7.949(-0.003)	2011	96	1555724 (2)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	1189079 (3)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(0.000)	3649	152	659646 (3)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065(0.000)	113	382074	48.750	97%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522(0.000)	102	99385	49.975	100%		80 - 120
83) Toluene-d8	(3)	9.924(0.000)	98	1565329	51.243	102%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342(0.000)	95	592409	50.402	101%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.094(-0.001)	85	151501	14.201	14.20			0.2	1
4) Chloromethane	(2)	2.297(-0.000)	50	224937	22.583	22.58			0.2	1
5) 1,3-Butadiene	(2)	2.416(-0.000)	39	193554	30.290	30.29			1	3
6) Vinyl Chloride	(2)	2.416(-0.000)	62	209315	21.776	21.78			0.2	1
8) Bromomethane	(2)	2.754(-0.000)	94	140442	20.265	20.27			0.3	1
9) Chloroethane	(2)	2.847(0.000)	64	119408	22.250	22.25			0.2	1
11) n-Pentane	(2)	3.216(-0.000)	43	219507	22.270	22.27			0.4	10
12) Trichlorofluoromethane	(2)	3.155(0.000)	101	226499	21.576	21.58			0.2	1
14) Ethyl ether	(2)	3.438(-0.000)	59	163145	21.993	21.99			0.2	5
15) Freon 123a	(2)	3.519(-0.000)	67	177031	20.815	20.82			0.4	5
16) Acrolein	(1)	3.625(0.000)	56	386096	133.478	133.48			2	100
17) 1,1-Dichloroethene	(2)	3.770(-0.000)	96	131623	19.660	19.66			0.2	1
18) Acetone	(1)	3.811(0.000)	58	182665	138.442	138.44			0.7	20
19) Freon 113	(2)	3.805(-0.001)	101	116836	16.820	16.82			0.2	10
21) 2-Propanol	(1)	3.991(0.001)	45	120541	143.341	143.34			18	100
22) Methyl Iodide	(2)	3.972(-0.000)	142	231715	17.959	17.96			0.2	1
23) Carbon Disulfide	(2)	4.081(-0.000)	76	467274	20.729	20.73			0.2	5
25) Allyl Chloride	(2)	4.274(-0.000)	41	233105	21.485	21.49			0.3	5
27) Methyl Acetate	(2)	4.252(-0.001)	43	178634	20.921	20.92			0.3	5
28) Methylene Chloride	(2)	4.477(-0.000)	84	160332	20.132	20.13			0.3	1
30) t-Butyl alcohol	(1)	4.631(0.000)	59	272467	191.948	191.95			12	50
31) Acrylonitrile	(2)	4.827(-0.000)	53	486484	102.849	102.85			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.892(-0.000)	96	151460	19.665	19.67			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.879(0.000)	73	409827	17.849	17.85			0.2	1
34) n-Hexane	(2)	5.310(0.000)	57	193975	17.984	17.98			2	5
36) 1,1-Dichloroethane	(2)	5.551(-0.000)	63	275588	20.401	20.40			0.2	1
38) di-Isopropyl ether	(2)	5.609(-0.000)	45	469397	19.758	19.76			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.657(-0.000)	53	212385	19.715	19.72			0.2	5
40) Ethyl t-butyl ether	(2)	6.136(-0.000)	59	399341	18.091	18.09			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.374(0.000)	96	176957	20.488	20.49			0.2	1

Digitally signed by Don V. Viray on 05/31/2020 at 13:13. Target 3.5 esignature user ID: dvv10203

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may31a.b/ly31s01.d Injection date and time: **31-MAY-2020 11:45**
Data file Sample Info. Line: LCSL11;LCSL11;1;3;LCS;;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
43) 1,2-Dichloroethene (Total)	(2)		96	328417	40.153	40.15			0.4	2
44) 2-Butanone	(2)	6.352(-0.000)	43	930480	162.063	162.06			0.3	10
45) 2,2-Dichloropropane	(2)	6.390(-0.000)	77	207615	19.886	19.89			0.3	1
47) Propionitrile	(1)	6.448(0.003)	54	300255	156.572	156.57			14	100
48) Methacrylonitrile	(2)	6.657(-0.000)	67	759886	160.243	160.24			6	50
49) Bromochloromethane	(2)	6.702(0.000)	128	82816	18.583	18.58			0.2	5
50) Tetrahydrofuran	(1)	6.715(0.002)	71	165366	98.557	98.56			0.7	10
51) Chloroform	(2)	6.856(-0.000)	83	260073	19.707	19.71			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075(0.000)	97	215607	19.043	19.04			0.3	1
54) Cyclohexane	(2)	7.168(-0.000)	56	239855	18.925	18.92			1	5
55) 1,1-Dichloropropene	(2)	7.290(-0.000)	75	204216	19.676	19.68			0.2	5
56) Carbon Tetrachloride	(2)	7.287(-0.000)	117	186126	19.621	19.62			0.2	1
58) Isobutyl Alcohol	(1)	7.451(0.003)	41	250213	519.611	519.61			36	250
60) Benzene	(2)	7.551(-0.000)	78	643807	20.038	20.04			0.2	1
61) 1,2-Dichloroethane	(2)	7.625(-0.000)	62	210051	19.503	19.50			0.3	1
65) t-Amyl methyl ether	(2)	7.737(-0.000)	73	420872	18.664	18.66			0.8	5
67) n-Heptane	(2)	7.956(-0.000)	43	214217	19.099	19.10			2	5
69) n-Butanol	(1)	8.316(0.004)	56	403249	1027.032	1027.03			61	250
71) Trichloroethene	(2)	8.422(0.000)	95	156530	19.252	19.25			0.2	1
72) Methylcyclohexane	(2)	8.731(-0.000)	83	240759	18.211	18.21			0.5	5
73) 1,2-Dichloropropane	(2)	8.760(0.000)	63	175088	21.151	21.15			0.2	1
74) Dibromomethane	(2)	8.872(-0.000)	93	108056	19.959	19.96			0.2	1
75) 1,4-Dioxane	(1)	8.850(0.004)	88	59127	500.957	500.96			29	250
76) Methyl Methacrylate	(2)	8.834(0.000)	69	140022	19.672	19.67			0.2	5
78) Bromodichloromethane	(2)	9.104(-0.000)	83	191488	19.729	19.73			0.2	1
79) 2-Nitropropane	(2)	9.371(0.000)	41	54730	18.807	18.81			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.448(0.000)	63	107090	19.428	19.43			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.628(0.000)	75	245595	19.362	19.36			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.795(0.000)	43	1258190	108.213	108.21			0.5	10
88) Toluene	(3)	9.998(0.000)	92	396435	20.361	20.36			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.248(0.000)	75	225762	20.209	20.21			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	471357	39.571	39.57			0.4	2
91) Ethyl Methacrylate	(3)	10.303(0.000)	69	229032	20.375	20.37			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.448(0.000)	97	157396	20.833	20.83			0.2	1
93) Tetrachloroethene	(3)	10.531(0.000)	166	165727	19.973	19.97			0.2	1
94) 1,3-Dichloropropane	(3)	10.608(0.000)	76	259623	20.549	20.55			0.2	1
96) 2-Hexanone	(3)	10.657(0.000)	43	936639	114.724	114.72			0.3	10
97) Dibromochloromethane	(3)	10.818(0.000)	129	157921	20.094	20.09			0.2	1
99) 1,2-Dibromoethane	(3)	10.927(0.000)	107	161016	19.830	19.83			0.2	1
101) 1-Chlorohexane	(3)	11.354(0.000)	91	195848	19.655	19.66			0.3	5
102) Chlorobenzene	(3)	11.377(-0.000)	112	457880	20.478	20.48			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.457(-0.000)	131	152054	20.060	20.06			0.2	1
104) Ethylbenzene	(3)	11.461(-0.000)	91	745270	20.679	20.68			0.4	1
106) m+p-Xylene	(3)	11.573(-0.000)	106	600788	42.426	42.43			1	5
107) o-Xylene	(3)	11.901(-0.000)	106	279531	20.412	20.41			0.4	1
108) Xylene (Total)	(3)		106	880319	62.839	62.84			1	6
109) Styrene	(3)	11.914(-0.000)	104	466563	20.949	20.95			0.2	5
110) Bromoform	(3)	12.072(0.000)	173	109640	19.163	19.16			1	4
111) Isopropylbenzene	(3)	12.197(-0.000)	105	721015	20.749	20.75			0.2	5
112) Cyclohexanone	(1)	12.277(0.007)	55	216376	492.506	492.51			25	100
115) Bromobenzene	(4)	12.457(0.000)	156	197979	20.510	20.51			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.441(-0.000)	83	262715	21.846	21.85			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.490(-0.000)	110	78676	21.421	21.42			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.467(0.000)	53	382845	109.440	109.44			6	50

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20may31a.b/ly31s01.d Injection date and time: **31-MAY-2020 11:45**
Data file Sample Info. Line: LCSL11;LCSL11;1;3;LCS;;;;ly31b01; Instrument ID: **HP09915.i** Batch: **L201521AA**
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Blank Data file reference: **/chem/HP09915.i/20may31a.b/ly31b01.d**

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 31-MAY-2020 11:41
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20may31a.b/ly31c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
119) n-Propylbenzene	(4)	12.522(-0.000)	91	916662	21.972	21.97			0.2	5
120) 2-Chlorotoluene	(4)	12.602(-0.000)	126	181595	20.374	20.37			0.2	5
121) 4-Chlorotoluene	(4)	12.692(0.000)	126	192985	20.861	20.86			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.653(0.000)	105	640954	21.262	21.26			0.3	5
124) tert-Butylbenzene	(4)	12.898(0.000)	134	127419	20.563	20.56			0.3	5
125) Pentachloroethane	(4)	12.930(0.000)	167	111780	20.311	20.31			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.940(0.000)	105	667525	21.417	21.42			1	5
127) sec-Butylbenzene	(4)	13.062(0.000)	105	799246	21.776	21.78			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.162(0.000)	146	377902	21.009	21.01			0.2	5
130) p-Isopropyltoluene	(4)	13.165(0.000)	119	701027	22.291	22.29			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.232(-0.000)	146	394177	20.880	20.88			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.245(-0.000)	105	704234	21.746	21.75			0.3	5
135) Benzyl Chloride	(4)	13.313(-0.000)	91	513044	20.938	20.94			1	5
136) 1,3-Diethylbenzene	(4)	13.364(-0.000)	119	416230	20.541	20.54			0.2	5
137) 1,4-Diethylbenzene	(4)	13.438(-0.000)	119	444459	20.955	20.95			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.496(-0.000)	146	375396	20.734	20.73			0.2	5
139) n-Butylbenzene	(4)	13.457(-0.000)	92	358305	22.175	22.17			0.2	5
140) 1,2-Diethylbenzene	(4)	13.512(-0.000)	119	356725	20.622	20.62			0.2	5
141) Diethylbenzene (total)	(4)		100	1217414	62.117	62.12			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.036(-0.000)	75	53826	20.222	20.22			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.158(-0.000)	180	266267	19.523	19.52			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.583(-0.000)	180	240703	18.885	18.89			0.3	5
147) Hexachlorobutadiene	(4)	14.663(-0.000)	225	109860	18.685	18.68			2	5
148) Naphthalene	(4)	14.766(-0.000)	128	823596	19.963	19.96			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.911(-0.000)	180	251577	19.864	19.86			0.4	5
150) 2-Methylnaphthalene	(4)	15.557(-0.000)	142	410450	15.404	15.40			2	4

Total number of targets = 110

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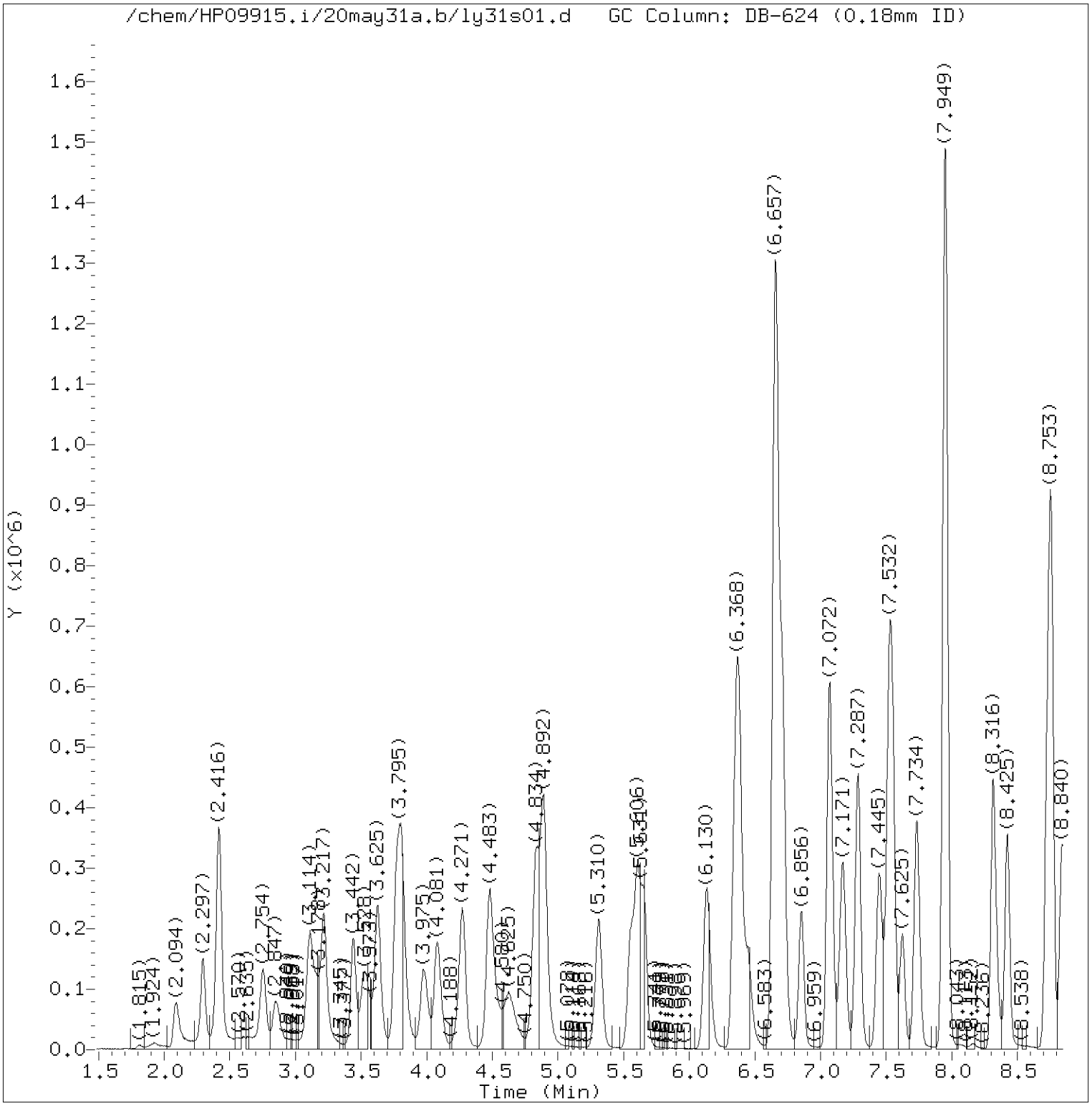
Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32. PARALLAX ID: kek01027



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

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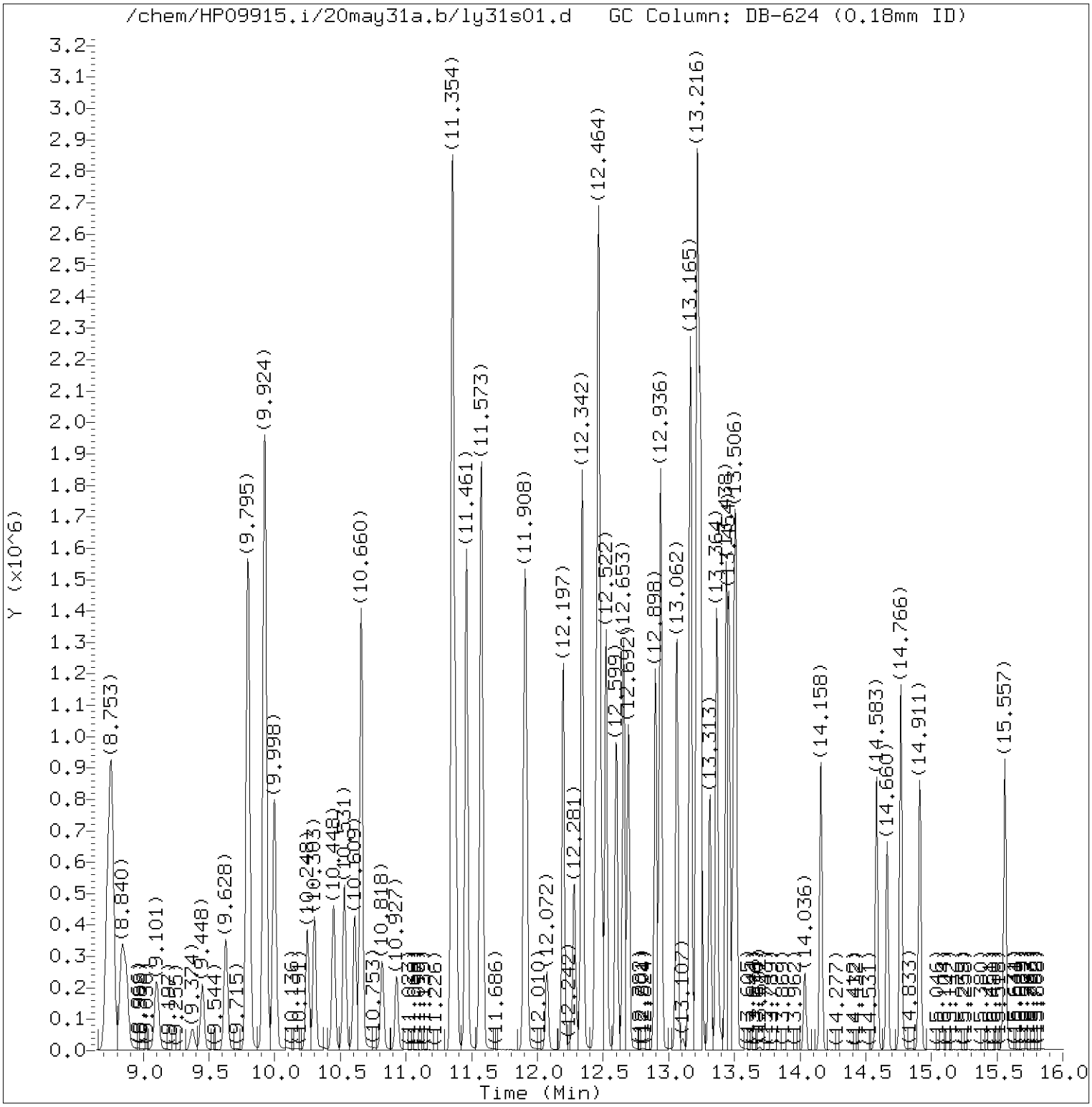
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.094	85	151501	14.201
4) Chloromethane	(2)	2.297	50	224937	22.583
5) 1,3-Butadiene	(2)	2.416	39	193554	30.290
6) Vinyl Chloride	(2)	2.416	62	209315	21.776
8) Bromomethane	(2)	2.754	94	140442	20.265
9) Chloroethane	(2)	2.847	64	119408	22.250
12) Trichlorofluoromethane	(2)	3.155	101	226499	21.576
11) n-Pentane	(2)	3.217	43	219507	22.270
14) Ethyl ether	(2)	3.438	59	163145	21.993
15) Freon 123a	(2)	3.519	67	177031	20.815
16) Acrolein	(1)	3.625	56	386096	133.478
17) 1,1-Dichloroethene	(2)	3.770	96	131623	19.660
19) Freon 113	(2)	3.805	101	116836	16.820
18) Acetone	(1)	3.811	58	182665	138.442
22) Methyl Iodide	(2)	3.972	142	231715	17.959
21) 2-Propanol	(1)	3.991	45	120541	143.341
23) Carbon Disulfide	(2)	4.081	76	467274	20.729
27) Methyl Acetate	(2)	4.252	43	178634	20.921
25) Allyl Chloride	(2)	4.274	41	233105	21.485
28) Methylene Chloride	(2)	4.477	84	160332	20.132
29)*t-Butyl alcohol-d10	(1)	4.506	65	351606M	250.000
30) t-Butyl alcohol	(1)	4.631	59	272467	191.948
31) Acrylonitrile	(2)	4.827	53	486484	102.849
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	409827	17.849
32) trans-1,2-Dichloroethene	(2)	4.892	96	151460	19.665
34) n-Hexane	(2)	5.310	57	193975	17.984
36) 1,1-Dichloroethane	(2)	5.551	63	275588	20.401
38) di-Isopropyl ether	(2)	5.609	45	469397	19.758
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	212385	19.715
40) Ethyl t-butyl ether	(2)	6.136	59	399341	18.091
43) 1,2-Dichloroethene (Total)	(2)		96	328417	40.153
44) 2-Butanone	(2)	6.351	43	930480	162.063
42) cis-1,2-Dichloroethene	(2)	6.374	96	176957	20.488
45) 2,2-Dichloropropane	(2)	6.390	77	207615	19.886
47) Propionitrile	(1)	6.448	54	300255	156.572
48) Methacrylonitrile	(2)	6.657	67	759886	160.243
49) Bromochloromethane	(2)	6.702	128	82816	18.583
50) Tetrahydrofuran	(1)	6.715	71	165366	98.557

M = Compound was manually integrated.
* = Compound is an internal standard.

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Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.856	83	260073	19.707
52)$Dibromofluoromethane	(2)	7.065	113	382074	48.750
53) 1,1,1-Trichloroethane	(2)	7.075	97	215607	19.043
54) Cyclohexane	(2)	7.168	56	239855	18.925
56) Carbon Tetrachloride	(2)	7.287	117	186126	19.621
55) 1,1-Dichloropropene	(2)	7.290	75	204216	19.676
58) Isobutyl Alcohol	(1)	7.451	41	250213	519.611
57)$1,2-Dichloroethane-d4	(2)	7.522	102	99385	49.975
60) Benzene	(2)	7.551	78	643807	20.038
61) 1,2-Dichloroethane	(2)	7.625	62	210051	19.503
65) t-Amyl methyl ether	(2)	7.737	73	420872	18.664
66)*Fluorobenzene	(2)	7.949	96	1555724	50.000
67) n-Heptane	(2)	7.956	43	214217	19.099
69) n-Butanol	(1)	8.316	56	403249	1027.032
71) Trichloroethene	(2)	8.422	95	156530	19.252
72) Methylcyclohexane	(2)	8.731	83	240759	18.211
73) 1,2-Dichloropropane	(2)	8.760	63	175088	21.151
76) Methyl Methacrylate	(2)	8.834	69	140022	19.672
75) 1,4-Dioxane	(1)	8.850	88	59127	500.957
74) Dibromomethane	(2)	8.872	93	108056	19.959
78) Bromodichloromethane	(2)	9.104	83	191488	19.729
79) 2-Nitropropane	(2)	9.371	41	54730	18.807
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	107090	19.428
81) cis-1,3-Dichloropropene	(2)	9.628	75	245595	19.362
82) 4-Methyl-2-pentanone	(2)	9.795	43	1258190	108.213
83)$Toluene-d8	(3)	9.924	98	1565329	51.243
88) Toluene	(3)	9.998	92	396435	20.361
90) 1,3-Dichloropropene (total)	(3)		100	471357	39.571
89) trans-1,3-Dichloropropene	(3)	10.248	75	225762	20.209
91) Ethyl Methacrylate	(3)	10.303	69	229032	20.375
92) 1,1,2-Trichloroethane	(3)	10.448	97	157396	20.833
93) Tetrachloroethene	(3)	10.531	166	165727	19.973
94) 1,3-Dichloropropane	(3)	10.609	76	259623	20.549
96) 2-Hexanone	(3)	10.657	43	936639	114.724
97) Dibromochloromethane	(3)	10.818	129	157921	20.094
99) 1,2-Dibromoethane	(3)	10.927	107	161016	19.830
100)*Chlorobenzene-d5	(3)	11.351	117	1189079	50.000
101) 1-Chlorohexane	(3)	11.354	91	195848	19.655

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.377	112	457880	20.478
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	152054	20.060
104) Ethylbenzene	(3)	11.461	91	745270	20.679
106) m+p-Xylene	(3)	11.573	106	600788	42.426
108) Xylene (Total)	(3)		106	880319	62.839
107) o-Xylene	(3)	11.901	106	279531	20.412
109) Styrene	(3)	11.914	104	466563	20.949
110) Bromoform	(3)	12.072	173	109640	19.163
111) Isopropylbenzene	(3)	12.197	105	721015	20.749
112) Cyclohexanone	(1)	12.277	55	216376	492.506
114)$4-Bromofluorobenzene	(3)	12.342	95	592409	50.402
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	262715	21.846
115) Bromobenzene	(4)	12.457	156	197979	20.510
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	382845	109.440
117) 1,2,3-Trichloropropane	(4)	12.490	110	78676	21.421
119) n-Propylbenzene	(4)	12.522	91	916662	21.972
120) 2-Chlorotoluene	(4)	12.602	126	181595	20.374
122) 1,3,5-Trimethylbenzene	(4)	12.653	105	640954	21.262
121) 4-Chlorotoluene	(4)	12.692	126	192985	20.861
124) tert-Butylbenzene	(4)	12.898	134	127419	20.563
125) Pentachloroethane	(4)	12.930	167	111780	20.311
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	667525	21.417
127) sec-Butylbenzene	(4)	13.062	105	799246	21.776
129) 1,3-Dichlorobenzene	(4)	13.162	146	377902	21.009
130) p-Isopropyltoluene	(4)	13.165	119	701027	22.291
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	659646	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	394177	20.880
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	704234	21.746
135) Benzyl Chloride	(4)	13.313	91	513044	20.938
136) 1,3-Diethylbenzene	(4)	13.364	119	416230	20.541
141) Diethylbenzene (total)	(4)		100	1217414	62.117
137) 1,4-Diethylbenzene	(4)	13.438	119	444459	20.955
139) n-Butylbenzene	(4)	13.457	92	358305	22.175
138) 1,2-Dichlorobenzene	(4)	13.496	146	375396	20.734
140) 1,2-Diethylbenzene	(4)	13.512	119	356725	20.622
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	53826	20.222
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	266267	19.523
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	240703	18.885

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

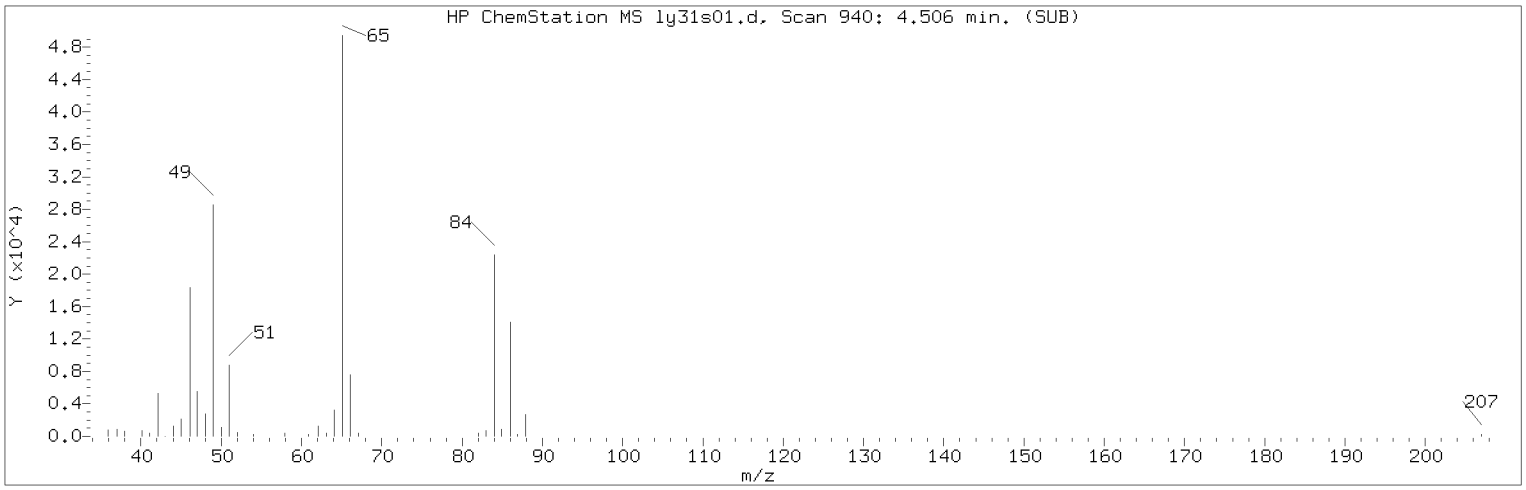
Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

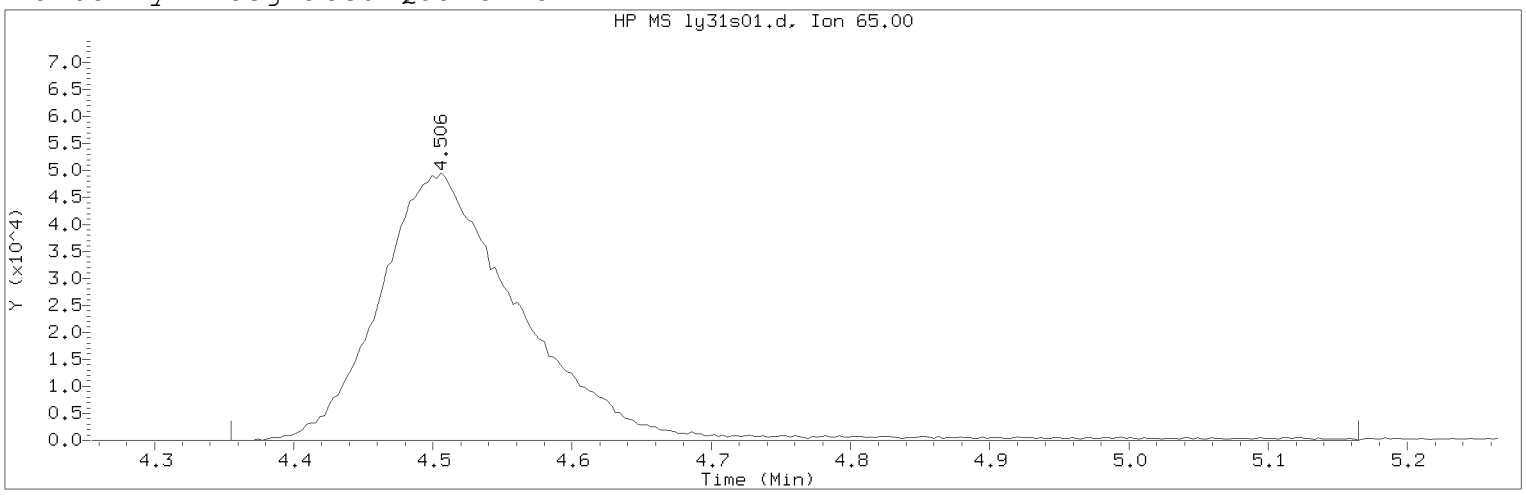
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.663	225	109860	18.685
148) Naphthalene	(4)	14.766	128	823596	19.963
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	251577	19.864
150) 2-Methylnaphthalene	(4)	15.557	142	410450	15.404

Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 13:12 dvv10203

Sample Name: LCSL11 Lab Sample ID: LCSL11

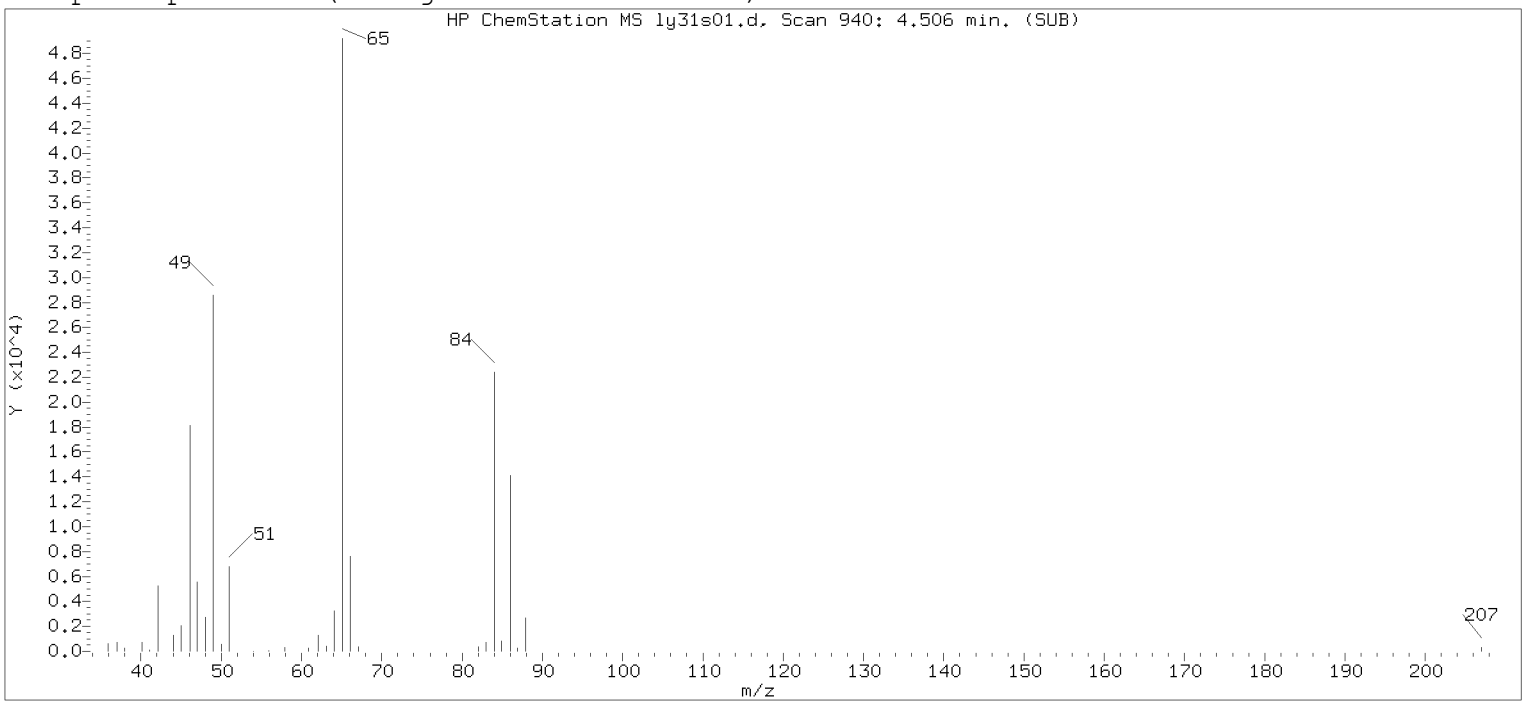
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 940
Retention Time (minutes): 4.506
Quant Ion : 65.00
Area (flag) : 351606M
On-Column Amount (ng) : 250.0000
Integration start scan : 892 Integration stop scan: 1144
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

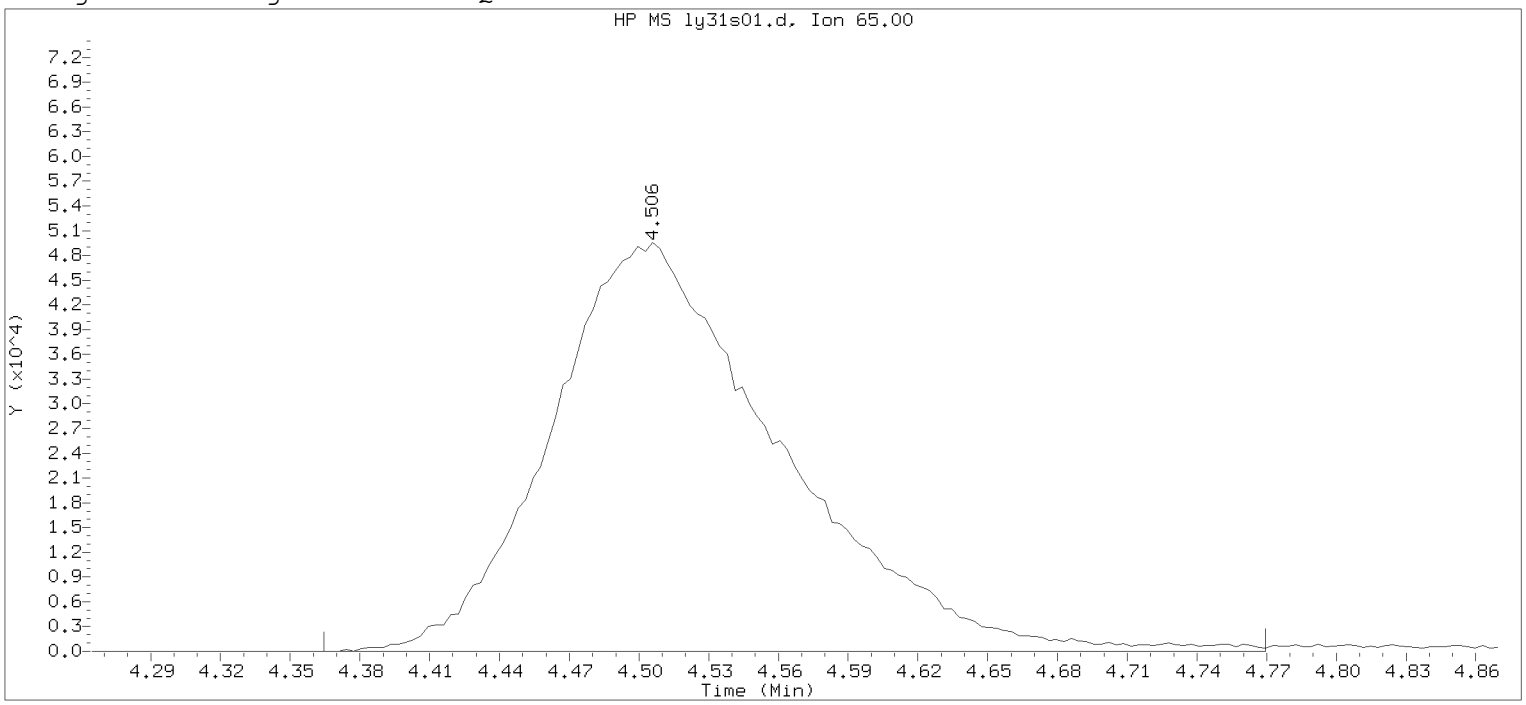
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Kelly E. Keller on 06/01/2020 at 20:32.
PARALLAX ID: kek01027

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may31a.b/ly31s01.d Instrument ID: HP09915.i
Injection date and time: 31-MAY-2020 11:45 Analyst ID: DVV10203

Method used: /chem/HP09915.i/20may31a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 31-MAY-2020 11:41
Date, time and analyst ID of latest file update: 31-May-2020 12:03 Automation

Sample Name: LCSL11 Lab Sample ID: LCSL11

Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 940
Retention Time (minutes): 4.506
Quant Ion : 65.00
Area : 341296
On-column Amount (ng) : 250.0000
Integration start scan : 895 Integration stop scan: 1021
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/31/2020 at 13:13.
Target 3.5 esignature user ID: DVV10203

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Groundwater Samples
Collected on 05/14/20-05/18/20

SDG# JCW59

GROUP	SAMPLE NUMBERS
2100282	1318285-1318306

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M. Kauffman **Date:** **06/16/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

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Table of Contents for SDG# JCW59

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 43
   a. Case Narrative/Conformance Summary 44
   b. Quality Control and Calibration Summary Forms 49
   c. Sample Data 97
   d. Standards Data 314
   e. Raw QC Data 481

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Sample Reference List for SDG Number JCW59
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1318285	J19-UC02	05/18/2020 12:10	05/20/2020 10:21	W5901
1318286	J18-UC02	05/18/2020 13:15	05/20/2020 10:21	W5902
1318287	J18-UC02 MS	05/18/2020 13:15	05/20/2020 10:21	W5902
1318288	J18-UC02 MSD	05/18/2020 13:15	05/20/2020 10:21	W5902
1318289	J17-BR01	05/18/2020 16:10	05/20/2020 10:21	W5903
1318290	J19-UC01	05/18/2020 11:00	05/20/2020 10:21	W5904
1318291	J08-UC02	05/18/2020 17:45	05/20/2020 10:21	W5905
1318292	MW-2I	05/14/2020 14:20	05/20/2020 10:21	W5906
1318293	MW-2	05/14/2020 12:15	05/20/2020 10:21	W5907
1318294	DUP-02	05/14/2020 08:00	05/20/2020 10:21	W5908
1318295	J23-UC01	05/14/2020 10:35	05/20/2020 10:21	W5909
1318296	J23-UC02	05/14/2020 09:25	05/20/2020 10:21	W5910
1318297	J06-UC01	05/14/2020 15:30	05/20/2020 10:21	W5911
1318298	J06-UC02	05/14/2020 16:35	05/20/2020 10:21	W5912
1318299	J22-BR02	05/14/2020 11:37	05/20/2020 10:21	W5913
1318300	J22-BR01	05/14/2020 13:07	05/20/2020 10:21	W5914
1318301	J21-UC02	05/14/2020 14:17	05/20/2020 10:21	W5915
1318302	J21-UC01	05/14/2020 14:57	05/20/2020 10:21	W5916
1318303	RIZ-7	05/14/2020 16:21	05/20/2020 10:21	W5917
1318304	J16-UC02	05/15/2020 09:09	05/20/2020 10:21	W5918
1318305	J16-UC01	05/15/2020 10:00	05/20/2020 10:21	W5919
1318306	J17-UC02	05/15/2020 11:27	05/20/2020 10:21	W5920

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Sample pH Log

SDG: JCW59

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1318285	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318286	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318287	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318288	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318289	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318290	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318291	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/29/2020 11:15:11PM	30941
1318292	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:54PM	30941
1318293	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:54PM	30941
1318293	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318294	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318294	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:04PM	895
1318295	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318295	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318296	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318296	038B	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318297	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318298	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318299	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318300	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318301	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318302	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318303	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/27/2020 8:55:55PM	30941
1318304	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:04PM	895
1318305	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:04PM	895
1318306	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	5/28/2020 1:56:04PM	895

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

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01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: May 31, 2020 23:44

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2100282
SDG: JCW59
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

(717) 556-7256

To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
J19-UC02 Grab Groundwater	05/18/2020 12:10	1318285
J18-UC02 Grab Groundwater	05/18/2020 13:15	1318286
J18-UC02 MS Grab Groundwater	05/18/2020 13:15	1318287
J18-UC02 MSD Grab Groundwater	05/18/2020 13:15	1318288
J17-BR01 Grab Groundwater	05/18/2020 16:10	1318289
J19-UC01 Grab Groundwater	05/18/2020 11:00	1318290
J08-UC02 Grab Groundwater	05/18/2020 17:45	1318291
MW-2I Grab Groundwater	05/14/2020 14:20	1318292
MW-2 Grab Groundwater	05/14/2020 12:15	1318293
DUP-02 Grab Groundwater	05/14/2020 08:00	1318294
J23-UC01 Grab Groundwater	05/14/2020 10:35	1318295
J23-UC02 Grab Groundwater	05/14/2020 09:25	1318296
J06-UC01 Grab Groundwater	05/14/2020 15:30	1318297
J06-UC02 Grab Groundwater	05/14/2020 16:35	1318298
J22-BR02 Grab Groundwater	05/14/2020 11:37	1318299
J22-BR01 Grab Groundwater	05/14/2020 13:07	1318300
J21-UC02 Grab Groundwater	05/14/2020 14:17	1318301
J21-UC01 Grab Groundwater	05/14/2020 14:57	1318302
RIZ-7 Grab Groundwater	05/14/2020 16:21	1318303
J16-UC02 Grab Groundwater	05/15/2020 09:09	1318304
J16-UC01 Grab Groundwater	05/15/2020 10:00	1318305
J17-UC02 Grab Groundwater	05/15/2020 11:27	1318306

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **J19-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 12:10
SDG#: JCW59-01

VHB
ELLE Sample #: GW 1318285
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	1	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 18:44	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 18:43	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J18-UC02 Grab Groundwater New Windsor, NY**

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 13:15
SDG#: JCW59-02BKG

VHB
ELLE Sample #: GW 1318286
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.5 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.3 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	1 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	14	0.3	1	1
11997	Trichloroethene	79-01-6	31	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 12:33	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 12:32	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J18-UC02 MS Grab Groundwater New Windsor, NY**

Project Name: **AD-New Windsor, NY**

VHB
ELLE Sample #: GW 1318287
ELLE Group #: 2100282
Matrix: Groundwater

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 13:15
SDG#: JCW59-02MS

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		ug/l	ug/l	ug/l	
11997	Acetone	67-64-1	160	0.7	20	1
11997	Benzene	71-43-2	19	0.2	1	1
11997	2-Butanone	78-93-3	140	0.3	10	1
11997	Carbon Disulfide	75-15-0	18	0.2	5	1
11997	Chloroform	67-66-3	20	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	19	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	20	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	20	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	22	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	21	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	20	0.2	1	1
11997	1,4-Dioxane	123-91-1	540	29	250	1
11997	Ethylbenzene	100-41-4	20	0.4	1	1
11997	Freon 113	76-13-1	20	0.2	10	1
11997	Methylene Chloride	75-09-2	20	0.3	1	1
11997	Naphthalene	91-20-3	18	1	5	1
11997	Tetrachloroethene	127-18-4	21	0.2	1	1
11997	Toluene	108-88-3	19	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	34	0.3	1	1
11997	Trichloroethene	79-01-6	51	0.2	1	1
11997	Vinyl Chloride	75-01-4	20	0.2	1	1
11997	Xylene (Total)	1330-20-7	60	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 12:53	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 12:52	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J18-UC02 MSD Grab Groundwater New Windsor, NY**

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 13:15
SDG#: JCW59-02MSD

VHB
ELLE Sample #: GW 1318288
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	160	0.7	20	1
11997	Benzene	71-43-2	20	0.2	1	1
11997	2-Butanone	78-93-3	140	0.3	10	1
11997	Carbon Disulfide	75-15-0	19	0.2	5	1
11997	Chloroform	67-66-3	21	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	20	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	21	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	20	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	22	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	22	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	21	0.2	1	1
11997	1,4-Dioxane	123-91-1	570	29	250	1
11997	Ethylbenzene	100-41-4	21	0.4	1	1
11997	Freon 113	76-13-1	20	0.2	10	1
11997	Methylene Chloride	75-09-2	21	0.3	1	1
11997	Naphthalene	91-20-3	19	1	5	1
11997	Tetrachloroethene	127-18-4	22	0.2	1	1
11997	Toluene	108-88-3	20	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	36	0.3	1	1
11997	Trichloroethene	79-01-6	53	0.2	1	1
11997	Vinyl Chloride	75-01-4	21	0.2	1	1
11997	Xylene (Total)	1330-20-7	63	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 13:14	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 13:13	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J17-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 16:10
SDG#: JCW59-03

VHB
ELLE Sample #: GW 1318289
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 19:04	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 19:03	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J19-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 11:00
SDG#: JCW59-04

VHB
ELLE Sample #: GW 1318290
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 19:25	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 19:24	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **J08-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/18/2020 17:45
SDG#: JCW59-05

VHB
ELLE Sample #: GW 1318291
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201501AA	05/29/2020 19:46	Corie Mellinger	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201501AA	05/29/2020 19:45	Corie Mellinger	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2I Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 14:20
SDG#: JCW59-06

VHB
ELLE Sample #: GW 1318292
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.3 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	3	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 14:16	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 14:15	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **MW-2 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 12:15
SDG#: JCW59-07

VHB
ELLE Sample #: GW 1318293
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.9 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	6	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	9	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	3	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	45	0.3	1	1
11997	Trichloroethene	79-01-6	330	2	10	10
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 14:36	Linda C Pape	1
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 14:57	Linda C Pape	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 14:35	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	5201481AA	05/27/2020 14:56	Linda C Pape	10

*=This limit was used in the evaluation of the final result

Sample Description: **DUP-02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 08:00
SDG#: JCW59-08FD

VHB
ELLE Sample #: GW 1318294
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.9 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	6	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	9	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	3	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	46	0.3	1	1
11997	Trichloroethene	79-01-6	320	2	10	10
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 19:05	Linda C Pape	1
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 02:48	Laura Green	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 19:04	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	5201482AA	05/28/2020 02:47	Laura Green	10

*=This limit was used in the evaluation of the final result

Sample Description: **J23-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 10:35
SDG#: JCW59-09

VHB
ELLE Sample #: GW 1318295
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.7 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	13	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	1	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	0.6 J	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	3	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	170	0.3	1	1
11997	Trichloroethene	79-01-6	340	2	10	10
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 15:17	Linda C Pape	1
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 15:38	Linda C Pape	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 15:16	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	5201481AA	05/27/2020 15:37	Linda C Pape	10

*=This limit was used in the evaluation of the final result

Sample Description: **J23-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 09:25
SDG#: JCW59-10

VHB
ELLE Sample #: GW 1318296
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	8	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.6 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	0.4 J	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	5	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	120	0.3	1	1
11997	Trichloroethene	79-01-6	520	2	10	10
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 15:58	Linda C Pape	1
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 16:19	Linda C Pape	10
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 15:57	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	2	5201481AA	05/27/2020 16:18	Linda C Pape	10

*=This limit was used in the evaluation of the final result

Sample Description: **J06-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 15:30
SDG#: JCW59-11

VHB
ELLE Sample #: GW 1318297
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.5 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 16:40	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 16:39	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J06-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 16:35
SDG#: JCW59-12

VHB
ELLE Sample #: GW 1318298
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 17:01	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 17:00	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J22-BR02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 11:37
SDG#: JCW59-13

VHB
ELLE Sample #: GW 1318299
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 17:21	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 17:20	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J22-BR01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 13:07
SDG#: JCW59-14

VHB
ELLE Sample #: GW 1318300
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 17:42	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 17:41	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J21-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 14:17
SDG#: JCW59-15

VHB
ELLE Sample #: GW 1318301
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.2 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 18:03	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 18:02	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J21-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 14:57
SDG#: JCW59-16

VHB
ELLE Sample #: GW 1318302
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.2 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.8 J	0.3	1	1
11997	Trichloroethene	79-01-6	0.7 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 18:23	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 18:22	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **RIZ-7 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/14/2020 16:21
SDG#: JCW59-17

VHB
ELLE Sample #: GW 1318303
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	0.5 J	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.7 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201481AA	05/27/2020 18:44	Linda C Pape	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201481AA	05/27/2020 18:43	Linda C Pape	1

*=This limit was used in the evaluation of the final result

Sample Description: **J16-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 09:09
SDG#: JCW59-18

VHB
ELLE Sample #: GW 1318304
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.4 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.7 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.8 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	10	0.3	1	1
11997	Trichloroethene	79-01-6	36	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 00:24	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 00:23	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **J16-UC01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 10:00
SDG#: JCW59-19

VHB
ELLE Sample #: GW 1318305
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.6 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.5 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	1	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.5 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	15	0.3	1	1
11997	Trichloroethene	79-01-6	33	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 00:44	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 00:43	Laura Green	1

*=This limit was used in the evaluation of the final result

Sample Description: **J17-UC02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/20/2020 10:21
Collection Date/Time: 05/15/2020 11:27
SDG#: JCW59-20

VHB
ELLE Sample #: GW 1318306
ELLE Group #: 2100282
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	1 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	5201482AA	05/28/2020 01:05	Laura Green	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	5201482AA	05/28/2020 01:04	Laura Green	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: 5201481AA	Sample number(s): 1318292-1318303		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: 5201482AA	Sample number(s): 1318294,1318304-1318306		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

Method Blank (continued)

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6
Batch number: 5201501AA	Sample number(s): 1318285-1318291		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: 5201481AA	Sample number(s): 1318292-1318303								
Acetone	150	189.55			126		54-157		
Benzene	20	19.95			100		80-120		
2-Butanone	150	149.85			100		59-135		
Carbon Disulfide	20	17.17			86		65-128		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Chloroform	20	20.28			101		80-120		
1,2-Dichlorobenzene	20	20.66			103		80-120		
1,1-Dichloroethane	20	19.84			99		80-120		
1,2-Dichloroethane	20	20.45			102		73-124		
1,1-Dichloroethene	20	19.04			95		80-131		
cis-1,2-Dichloroethene	20	21.18			106		80-125		
trans-1,2-Dichloroethene	20	20.11			101		80-126		
1,4-Dioxane	500	657.59			132		63-146		
Ethylbenzene	20	20.95			105		80-120		
Freon 113	20	18.78			94		73-139		
Methylene Chloride	20	20.66			103		80-120		
Naphthalene	20	20.32			102		53-124		
Tetrachloroethene	20	21.59			108		80-120		
Toluene	20	20.2			101		80-120		
1,1,1-Trichloroethane	20	19.56			98		67-126		
Trichloroethene	20	20.44			102		80-120		
Vinyl Chloride	20	20.45			102		56-120		
Xylene (Total)	60	63.37			106		80-120		
Batch number: 5201482AA	Sample number(s): 1318294,1318304-1318306								
Acetone	150	189.6	150	211.41	126	141	54-157	11	30
Benzene	20	20.53	20	18.78	103	94	80-120	9	30
2-Butanone	150	152.63	150	155.57	102	104	59-135	2	30
Carbon Disulfide	20	18.22	20	16.57	91	83	65-128	10	30
Chloroform	20	21.45	20	19.84	107	99	80-120	8	30
1,2-Dichlorobenzene	20	21.54	20	20.16	108	101	80-120	7	30
1,1-Dichloroethane	20	20.44	20	18.85	102	94	80-120	8	30
1,2-Dichloroethane	20	21.97	20	20.68	110	103	73-124	6	30
1,1-Dichloroethene	20	21.03	20	18.67	105	93	80-131	12	30
cis-1,2-Dichloroethene	20	22	20	20.41	110	102	80-125	7	30
trans-1,2-Dichloroethene	20	21.16	20	19.34	106	97	80-126	9	30
1,4-Dioxane	500	644.82	500	669.47	129	134	63-146	4	30
Ethylbenzene	20	21.01	20	19.54	105	98	80-120	7	30
Freon 113	20	19.3	20	17.46	97	87	73-139	10	30
Methylene Chloride	20	21.27	20	20.11	106	101	80-120	6	30
Naphthalene	20	20.85	20	19.71	104	99	53-124	6	30
Tetrachloroethene	20	22.37	20	20.66	112	103	80-120	8	30
Toluene	20	20.29	20	19.04	101	95	80-120	6	30
1,1,1-Trichloroethane	20	21.12	20	19.19	106	96	67-126	10	30
Trichloroethene	20	21.29	20	19.57	106	98	80-120	8	30
Vinyl Chloride	20	21.69	20	19.82	108	99	56-120	9	30
Xylene (Total)	60	63.72	60	59.42	106	99	80-120	7	30
Batch number: 5201501AA	Sample number(s): 1318285-1318291								
Acetone	150	147.91			99		54-157		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Benzene	20	18.63			93		80-120		
2-Butanone	150	140.9			94		59-135		
Carbon Disulfide	20	17.23			86		65-128		
Chloroform	20	19.13			96		80-120		
1,2-Dichlorobenzene	20	19.31			97		80-120		
1,1-Dichloroethane	20	18.89			94		80-120		
1,2-Dichloroethane	20	19.26			96		73-124		
1,1-Dichloroethene	20	18.85			94		80-131		
cis-1,2-Dichloroethene	20	19.98			100		80-125		
trans-1,2-Dichloroethene	20	18.99			95		80-126		
1,4-Dioxane	500	534.9			107		63-146		
Ethylbenzene	20	19.42			97		80-120		
Freon 113	20	16.92			85		73-139		
Methylene Chloride	20	19.62			98		80-120		
Naphthalene	20	18.43			92		53-124		
Tetrachloroethene	20	20.28			101		80-120		
Toluene	20	18.81			94		80-120		
1,1,1-Trichloroethane	20	18.4			92		67-126		
Trichloroethene	20	19.12			96		80-120		
Vinyl Chloride	20	17.22			86		56-120		
Xylene (Total)	60	58.45			97		80-120		

MS/MSD

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Batch number: 5201501AA	Sample number(s): 1318285-1318291 UNSPK: 1318286									
Acetone	N.D.	150	157.39	150	160.42	105	107	54-157	2	30
Benzene	N.D.	20	19.26	20	20.01	96	100	80-120	4	30
2-Butanone	N.D.	150	135.28	150	144.69	90	96	59-135	7	30
Carbon Disulfide	N.D.	20	17.87	20	18.52	89	93	65-128	4	30
Chloroform	0.545	20	20.37	20	21.06	99	103	80-120	3	30
1,2-Dichlorobenzene	N.D.	20	19.4	20	20.35	97	102	80-120	5	30
1,1-Dichloroethane	0.313	20	19.66	20	20.61	97	102	80-120	5	30
1,2-Dichloroethane	N.D.	20	19.59	20	20.26	98	101	73-124	3	30
1,1-Dichloroethene	0.994	20	21.57	20	22.27	103	106	80-131	3	30
cis-1,2-Dichloroethene	N.D.	20	20.78	20	21.56	104	108	80-120	4	30
trans-1,2-Dichloroethene	N.D.	20	20.03	20	20.56	100	103	80-120	3	30
1,4-Dioxane	N.D.	500	539.5	500	566.28	108	113	63-146	5	30

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

MS/MSD (continued)

Unspiked (UNSPK) = the sample used in conjunction with the matrix spike

Analysis Name	Unspiked Conc ug/l	MS Spike Added ug/l	MS Conc ug/l	MSD Spike Added ug/l	MSD Conc ug/l	MS %Rec	MSD %Rec	MS/MSD Limits	RPD	RPD Max
Ethylbenzene	N.D.	20	20.09	20	20.89	100	104	80-120	4	30
Freon 113	N.D.	20	19.69	20	20.41	98	102	73-139	4	30
Methylene Chloride	N.D.	20	19.99	20	20.69	100	103	80-120	3	30
Naphthalene	N.D.	20	18.11	20	19.26	91	96	53-124	6	30
Tetrachloroethene	N.D.	20	21.26	20	21.98	106	110	80-120	3	30
Toluene	N.D.	20	19.37	20	20.08	97	100	80-120	4	30
1,1,1-Trichloroethane	14.45	20	34.46	20	35.93	100	107	67-126	4	30
Trichloroethene	31.44	20	51.48	20	53.36	100	110	80-120	4	30
Vinyl Chloride	N.D.	20	20.44	20	21.47	102	107	56-120	5	30
Xylene (Total)	N.D.	60	60.28	60	62.74	100	105	80-120	4	30

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201481AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318292	102	105	97	94
1318293	105	105	98	93
1318294	109	105	97	92
1318295	107	105	97	93
1318296	108	105	98	93
1318297	104	107	97	93
1318298	104	106	96	93
1318299	105	108	97	92
1318300	104	107	96	93
1318301	105	106	97	93
1318302	106	106	97	93
1318303	106	106	96	92
Blank	100	104	98	95
LCS	100	101	100	99
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318304	108	107	97	92

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 05/31/2020 23:44

Group Number: 2100282

Surrogate Quality Control (continued)

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201482AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318305	108	107	96	92
1318306	107	107	96	92
Blank	102	105	97	94
LCS	102	104	99	100
LCSD	102	103	99	100
Limits:	80-120	80-120	80-120	80-120

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: 5201501AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1318285	106	105	96	93
1318286	102	103	98	95
1318287	101	103	99	99
1318288	101	101	99	99
1318289	107	107	96	93
1318290	107	106	96	93
1318291	107	106	95	92
Blank	100	103	98	96
LCS	100	102	99	99
MS	101	103	99	99
MSD	101	101	99	99
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # 2100282 Sample # 1318285-306

COC # 606202

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AD - New Windsor / 58300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: PY	For Compliance: Yes ☒ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ Other: ___

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: ___
SCR#: ___

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260C - VOCs	Remarks
J19-UC02	5/18/20	1240	X		3	X		
J18-UC02	5/18/20	1315	X		3	X		MS / MSD
J17-BR01	5/18/20	1610	X		3	X		
J19-UC01	5/18/20	1100	X		3	X		
J08-UC02	5/18/20	1745	X		3	X		

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ___

E-mail address: glester@vhb.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or (B) MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1400			
				5/20/20	1021

EDD Required? Yes No
If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ___ FedEx X Other ___

Temperature upon receipt 5.1 °C

NR

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 6556 Group # 2100282 Sample # 1318285-306

COC # 606398

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AU-New Windsor / 58300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Quinn Ledak	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix: ☐ Soil ☐ Sediment ☐ Tissue ☐ Water ☒ Ground ☐ Potable ☐ NPDES ☐ Surface ☐ Other: ____

Analysis Requested — Preservation and Filtration Codes

For Lab Use Only
FSC: ____
SCR#: ____

Preservation Codes
H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	H	8260 VOCs	Remarks
MW-2I	5/14/20	1420	X		3	X		
MW-2	5/14/20	1215	X		3	X		
DUP-02	5/14/20	800	X		3	X		
J23-UC01	5/14/20	1035	X		3	X		
J23-UC02	5/14/20	925	X		3	X		
J06-UC01	5/14/20	1530	X		3	X		
J06-UC02	5/14/20	1635	X		3	X		

Turnaround Time (TAT) Requested (please circle)
Standard Rush
(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: glester@vhb.com

Data Package Options (circle if required)
Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)
Type III (Reduced non-CLP) NJ DKQP TX TRRP-13
NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1400			
				5/20/20	1021

EDD Required? Yes No
If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No
(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier:
UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 65560 Group # 2100282 Sample # 1318285-306

COC #606397

Client Information

Client: VHB / The Johnson Company	Acct. #: 06556
Project Name/#: AD-New Windsor / 58300.00	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Adam Rabtoy	Quote #:
State where samples were collected: NY	For Compliance: Yes ☒ No ☐

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes: H

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Remarks

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	8260 - VOCs
J22-BR02	5/14/20	1137	X		3	X
J22-BR01	5/14/20	1307	X		3	X
J21-UC02	5/14/20	1417	X		3	X
J21-UC01	5/14/20	1457	X		3	X
RIZ-7	5/14/20	1621	X		3	X
J16-UC02	5/15/20	909	X		3	X
J16-UC01	5/15/20	1000	X		3	X
J17-UC02	5/15/20	1127	X		3	X

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/19/20	1400			

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature upon receipt 5.1 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 285082

Group Number(s): 2100282

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/20/2020
Number of Packages:	1	Number of Projects:	2
State/Province of Origin:	NY		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	3
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	46730060WS	5.1	IR	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17605-2425

T 717-656-2300
F 717-656-2681
www.LancasterLabs.cor

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW59

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Matrix Solid	DF	Comments
1318285	J19-UC02	X		1	
1318286	J18-UC02	X		1	Unspiked
1318287	J18-UC02 MS	X		1	Matrix Spike
1318288	J18-UC02 MSD	X		1	Matrix Spike Duplicate
1318289	J17-BR01	X		1	
1318290	J19-UC01	X		1	
1318291	J08-UC02	X		1	
1318292	MW-2I	X		1	
1318293	MW-2	X		1; 10	
1318294	DUP-02	X		1; 10	Field Duplicate Sample
1318295	J23-UC01	X		1; 10	
1318296	J23-UC02	X		1; 10	
1318297	J06-UC01	X		1	
1318298	J06-UC02	X		1	
1318299	J22-BR02	X		1	
1318300	J22-BR01	X		1	
1318301	J21-UC02	X		1	
1318302	J21-UC01	X		1	
1318303	RIZ-7	X		1	
1318304	J16-UC02	X		1	
1318305	J16-UC01	X		1	
1318306	J17-UC02	X		1	

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW59

GC/MS Volatiles

Fraction: Volatiles by GC/MS

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

All QC is within specification.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g / L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW59

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	5201481AA	VBLK572	05/27/2020 10:08
		LCS572	05/27/2020 09:27
		1318292	05/27/2020 14:16
		1318293	05/27/2020 14:36
		1318293	05/27/2020 14:57
		1318294	05/27/2020 19:05
		1318295	05/27/2020 15:17
		1318295	05/27/2020 15:38
		1318296	05/27/2020 15:58
		1318296	05/27/2020 16:19
		1318297	05/27/2020 16:40
		1318298	05/27/2020 17:01
		1318299	05/27/2020 17:21
		1318300	05/27/2020 17:42
		1318301	05/27/2020 18:03
		1318302	05/27/2020 18:23
		1318303	05/27/2020 18:44
VOCs- 5ml Water by 8260C/D	5201482AA	VBLK573	05/27/2020 21:35
		LCS573	05/27/2020 20:33
		LCD573	05/27/2020 20:53
		1318294	05/28/2020 02:48
		1318304	05/28/2020 00:24
		1318305	05/28/2020 00:44
		1318306	05/28/2020 01:05
VOCs- 5ml Water by 8260C/D	5201501AA	VBLK578	05/29/2020 11:33
		LCS578	05/29/2020 10:52
		1318285	05/29/2020 18:44
		1318286 UNSPK	05/29/2020 12:33
		1318287 MS	05/29/2020 12:53
		1318288 MSD	05/29/2020 13:14
		1318289	05/29/2020 19:04
		1318290	05/29/2020 19:25
		1318291	05/29/2020 19:46

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW59
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201481AA / VBLK572 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Acetone	05/27/20	N.D.	ug/l	0.7	20
Freon 113	05/27/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/27/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/27/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/27/20	N.D.	ug/l	0.2	1
2-Butanone	05/27/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Chloroform	05/27/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/27/20	N.D.	ug/l	0.3	1
Benzene	05/27/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/27/20	N.D.	ug/l	0.3	1
Trichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/27/20	N.D.	ug/l	29	250
Toluene	05/27/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/27/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/27/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/27/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/27/20	N.D.	ug/l	0.2	5
Naphthalene	05/27/20	N.D.	ug/l	1	5

5201482AA / VBLK573 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Acetone	05/27/20	N.D.	ug/l	0.7	20
Freon 113	05/27/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/27/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/27/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/27/20	N.D.	ug/l	0.2	1
2-Butanone	05/27/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/27/20	N.D.	ug/l	0.2	1
Chloroform	05/27/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/27/20	N.D.	ug/l	0.3	1
Benzene	05/27/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/27/20	N.D.	ug/l	0.3	1
Trichloroethene	05/27/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/27/20	N.D.	ug/l	29	250
Toluene	05/27/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/27/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/27/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/27/20	N.D.	ug/l	1	6

Fraction: Volatiles by GC/MS

5201482AA / VBLK573 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
1,2-Dichlorobenzene	05/27/20	N.D.	ug/l	0.2	5
Naphthalene	05/27/20	N.D.	ug/l	1	5

5201501AA / VBLK578 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Acetone	05/29/20	N.D.	ug/l	0.7	20
Freon 113	05/29/20	N.D.	ug/l	0.2	10
Carbon Disulfide	05/29/20	N.D.	ug/l	0.2	5
Methylene Chloride	05/29/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	05/29/20	N.D.	ug/l	0.2	1
2-Butanone	05/29/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	05/29/20	N.D.	ug/l	0.2	1
Chloroform	05/29/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	05/29/20	N.D.	ug/l	0.3	1
Benzene	05/29/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	05/29/20	N.D.	ug/l	0.3	1
Trichloroethene	05/29/20	N.D.	ug/l	0.2	1
1,4-Dioxane	05/29/20	N.D.	ug/l	29	250
Toluene	05/29/20	N.D.	ug/l	0.2	1
Tetrachloroethene	05/29/20	N.D.	ug/l	0.2	1
Ethylbenzene	05/29/20	N.D.	ug/l	0.4	1
Xylene (Total)	05/29/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	05/29/20	N.D.	ug/l	0.2	5
Naphthalene	05/29/20	N.D.	ug/l	1	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW59
Matrix: LIQUID

Fraction: Volatiles by GC/MS

5201481AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK572	104	80 - 120	95	80 - 120	100	80 - 120	98	80 - 120
LCS572	101	80 - 120	99	80 - 120	100	80 - 120	100	80 - 120
1318292	105	80 - 120	94	80 - 120	102	80 - 120	97	80 - 120
1318293	105	80 - 120	93	80 - 120	105	80 - 120	98	80 - 120
1318294	105	80 - 120	92	80 - 120	109	80 - 120	97	80 - 120
1318295	105	80 - 120	93	80 - 120	107	80 - 120	97	80 - 120
1318296	105	80 - 120	93	80 - 120	108	80 - 120	98	80 - 120
1318297	107	80 - 120	93	80 - 120	104	80 - 120	97	80 - 120
1318298	106	80 - 120	93	80 - 120	104	80 - 120	96	80 - 120
1318299	108	80 - 120	92	80 - 120	105	80 - 120	97	80 - 120
1318300	107	80 - 120	93	80 - 120	104	80 - 120	96	80 - 120
1318301	106	80 - 120	93	80 - 120	105	80 - 120	97	80 - 120
1318302	106	80 - 120	93	80 - 120	106	80 - 120	97	80 - 120
1318303	106	80 - 120	92	80 - 120	106	80 - 120	96	80 - 120

5201482AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK573	105	80 - 120	94	80 - 120	102	80 - 120	97	80 - 120
LCS573	104	80 - 120	100	80 - 120	102	80 - 120	99	80 - 120
LCD573	103	80 - 120	100	80 - 120	102	80 - 120	99	80 - 120
1318304	107	80 - 120	92	80 - 120	108	80 - 120	97	80 - 120
1318305	107	80 - 120	92	80 - 120	108	80 - 120	96	80 - 120
1318306	107	80 - 120	92	80 - 120	107	80 - 120	96	80 - 120

5201501AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLK578	103	80 - 120	96	80 - 120	100	80 - 120	98	80 - 120
LCS578	102	80 - 120	99	80 - 120	100	80 - 120	99	80 - 120
1318285	105	80 - 120	93	80 - 120	106	80 - 120	96	80 - 120
1318286 UNSPK	103	80 - 120	95	80 - 120	102	80 - 120	98	80 - 120
1318287 MS	103	80 - 120	99	80 - 120	101	80 - 120	99	80 - 120
1318288 MSD	101	80 - 120	99	80 - 120	101	80 - 120	99	80 - 120
1318289	107	80 - 120	93	80 - 120	107	80 - 120	96	80 - 120
1318290	106	80 - 120	93	80 - 120	107	80 - 120	96	80 - 120
1318291	106	80 - 120	92	80 - 120	107	80 - 120	95	80 - 120

GC/MS Volatiles

Fraction: Volatiles by GC/MS

UNSPK: 1318286 MS: 1318287 MSD: 1318288 **Analyte**	Batch: **5201501AA** (Sample number(s): 1318285-1318291)								
	Spike Added ug/l	**Unspiked Conc ug/l**	**MS Conc ug/l**	**MSD Conc ug/l**	**MS %Rec**	**MSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	N.D.	20.44	21.47	102	107	56-120	5	30
1,1-Dichloroethene	20	0.994 J	21.57	22.27	103	106	80-131	3	30
Acetone	150	N.D.	157.39	160.42	105	107	54-157	2	30
Freon 113	20	N.D.	19.69	20.41	98	102	73-139	4	30
Carbon Disulfide	20	N.D.	17.87	18.52	89	93	65-128	4	30
Methylene Chloride	20	N.D.	19.99	20.69	100	103	80-120	3	30
trans-1,2-Dichloroethene	20	N.D.	20.03	20.56	100	103	80-120	3	30
1,1-Dichloroethane	20	0.313 J	19.66	20.61	97	102	80-120	5	30
2-Butanone	150	N.D.	135.28	144.69	90	96	59-135	7	30
cis-1,2-Dichloroethene	20	N.D.	20.78	21.56	104	108	80-120	4	30
1,1,1-Trichloroethane	20	14.44	34.46	35.93	100	107	67-126	4	30
Chloroform	20	0.545 J	20.37	21.06	99	103	80-120	3	30
1,2-Dichloroethane	20	N.D.	19.59	20.26	98	101	73-124	3	30
Benzene	20	N.D.	19.26	20.01	96	100	80-120	4	30
Trichloroethene	20	31.44	51.48	53.36	100	110	80-120	4	30
1,4-Dioxane	500	N.D.	539.5	566.28	108	113	63-146	5	30
Toluene	20	N.D.	19.37	20.08	97	100	80-120	4	30
Tetrachloroethene	20	N.D.	21.26	21.98	106	110	80-120	3	30
Ethylbenzene	20	N.D.	20.09	20.89	100	104	80-120	4	30
Xylene (Total)	60	N.D.	60.28	62.74	100	105	80-120	4	30
1,2-Dichlorobenzene	20	N.D.	19.4	20.35	97	102	80-120	5	30
Naphthalene	20	N.D.	18.11	19.26	91	96	53-124	6	30

Comments:
(2) The unspiked sample result is greater than four times the spike added.
* = Out of Specification

Results are being reported on an as received basis.

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW59
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS572	Batch: **5201481AA** (Sample number(s): 1318292-1318303)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	20.45	NA	102	NA	56-120	NA	NA
1,1-Dichloroethene	20	19.04	NA	95	NA	80-131	NA	NA
Acetone	150	189.55	NA	126	NA	54-157	NA	NA
Freon 113	20	18.78	NA	94	NA	73-139	NA	NA
Carbon Disulfide	20	17.17	NA	86	NA	65-128	NA	NA
Methylene Chloride	20	20.66	NA	103	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	20.11	NA	101	NA	80-126	NA	NA
1,1-Dichloroethane	20	19.84	NA	99	NA	80-120	NA	NA
2-Butanone	150	149.85	NA	100	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	21.18	NA	106	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.56	NA	98	NA	67-126	NA	NA
Chloroform	20	20.28	NA	101	NA	80-120	NA	NA
1,2-Dichloroethane	20	20.45	NA	102	NA	73-124	NA	NA
Benzene	20	19.95	NA	100	NA	80-120	NA	NA
Trichloroethene	20	20.44	NA	102	NA	80-120	NA	NA
1,4-Dioxane	500	657.59	NA	132	NA	63-146	NA	NA
Toluene	20	20.2	NA	101	NA	80-120	NA	NA
Tetrachloroethene	20	21.59	NA	108	NA	80-120	NA	NA
Ethylbenzene	20	20.95	NA	105	NA	80-120	NA	NA
Xylene (Total)	60	63.37	NA	106	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	20.66	NA	103	NA	80-120	NA	NA
Naphthalene	20	20.32	NA	102	NA	53-124	NA	NA

LCS: LCS573 LCSD: LCD573	Batch: **5201482AA** (Sample number(s): 1318294, 1318304-1318306)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	21.69	19.82	108	99	56-120	9	30
1,1-Dichloroethene	20	21.03	18.67	105	93	80-131	12	30
Acetone	150	189.6	211.41	126	141	54-157	11	30
Freon 113	20	19.3	17.46	97	87	73-139	10	30
Carbon Disulfide	20	18.22	16.57	91	83	65-128	10	30
Methylene Chloride	20	21.27	20.11	106	101	80-120	6	30
trans-1,2-Dichloroethene	20	21.16	19.34	106	97	80-126	9	30
1,1-Dichloroethane	20	20.44	18.85	102	94	80-120	8	30
2-Butanone	150	152.63	155.57	102	104	59-135	2	30
cis-1,2-Dichloroethene	20	22	20.41	110	102	80-125	7	30
1,1,1-Trichloroethane	20	21.12	19.19	106	96	67-126	10	30
Chloroform	20	21.45	19.84	107	99	80-120	8	30
1,2-Dichloroethane	20	21.97	20.68	110	103	73-124	6	30
Benzene	20	20.53	18.78	103	94	80-120	9	30
Trichloroethene	20	21.29	19.57	106	98	80-120	8	30

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW59
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCS573 LCSD: LCD573	Batch: **5201482AA** (Sample number(s): 1318294, 1318304-1318306)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
1,4-Dioxane	500	644.82	669.47	129	134	63-146	4	30
Toluene	20	20.29	19.04	101	95	80-120	6	30
Tetrachloroethene	20	22.37	20.66	112	103	80-120	8	30
Ethylbenzene	20	21.01	19.54	105	98	80-120	7	30
Xylene (Total)	60	63.72	59.42	106	99	80-120	7	30
1,2-Dichlorobenzene	20	21.54	20.16	108	101	80-120	7	30
Naphthalene	20	20.85	19.71	104	99	53-124	6	30

LCS: LCS578	Batch: **5201501AA** (Sample number(s): 1318285-1318291)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	17.22	NA	86	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.85	NA	94	NA	80-131	NA	NA
Acetone	150	147.91	NA	99	NA	54-157	NA	NA
Freon 113	20	16.92	NA	85	NA	73-139	NA	NA
Carbon Disulfide	20	17.23	NA	86	NA	65-128	NA	NA
Methylene Chloride	20	19.62	NA	98	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	18.99	NA	95	NA	80-126	NA	NA
1,1-Dichloroethane	20	18.89	NA	94	NA	80-120	NA	NA
2-Butanone	150	140.9	NA	94	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	19.98	NA	100	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	18.4	NA	92	NA	67-126	NA	NA
Chloroform	20	19.13	NA	96	NA	80-120	NA	NA
1,2-Dichloroethane	20	19.26	NA	96	NA	73-124	NA	NA
Benzene	20	18.63	NA	93	NA	80-120	NA	NA
Trichloroethene	20	19.12	NA	96	NA	80-120	NA	NA
1,4-Dioxane	500	534.9	NA	107	NA	63-146	NA	NA
Toluene	20	18.81	NA	94	NA	80-120	NA	NA
Tetrachloroethene	20	20.28	NA	101	NA	80-120	NA	NA
Ethylbenzene	20	19.42	NA	97	NA	80-120	NA	NA
Xylene (Total)	60	58.45	NA	97	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	19.31	NA	97	NA	80-120	NA	NA
Naphthalene	20	18.43	NA	92	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5a21t01.d BFB Injection Date: 04/21/20

Instrument ID: HP26285 BFB Injection Time: 20:36

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.28
75	30.0 - 60.0% of mass 95	45.20
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.67
173	Less than 2.0% of mass 174	0.52 (0.67)1
174	Greater than 50.0% of mass 95	77.82
175	5.0 - 9.0% of mass 174	5.61 (7.21)1
176	Greater than 95.0%, but less than 101.0% of mass 174	75.39 (96.88)1
177	5.0 - 9.0% of mass 176	4.85 (6.43)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	5a21i01.d	04/21/20	21:19
02	VSTD100	5a21i02.d	04/21/20	21:40
03	VSTD50	5a21i03.d	04/21/20	22:00
04	VSTD20	5a21i04.d	04/21/20	22:21
05	VSTD10	5a21i05.d	04/21/20	22:42
06	VSTD4	5a21i06.d	04/21/20	23:02
07	VSTD1	5a21i07.d	04/21/20	23:23
08	LG5ICV	5a21v01.d	04/22/20	00:05

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t01.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 07:59

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.22
75	30.0 - 60.0% of mass 95	44.93
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.50 (0.61)1
174	Greater than 50.0% of mass 95	82.33
175	5.0 - 9.0% of mass 174	5.82 (7.07)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.04 (97.22)1
177	5.0 - 9.0% of mass 176	5.25 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y27c01.d	05/27/20	08:46
02	LCS572	5y27s01.d	05/27/20	09:27
03	VBLK572	5y27b01.d	05/27/20	10:08
04	1319246	5y27s02.d	05/27/20	10:29
05	1319248	5y27s03.d	05/27/20	10:50
06	1319229	5y27s04.d	05/27/20	11:10
07	1319230MS	5y27s05.d	05/27/20	11:31
08	1319231MSD	5y27s06.d	05/27/20	11:52
09	1319239	5y27s07.d	05/27/20	12:12
10	1319242	5y27s08.d	05/27/20	12:33
11	1319251	5y27s09.d	05/27/20	12:53
12	1318263	5y27s11.d	05/27/20	13:34
13	1318277	5y27s12.d	05/27/20	13:55
14	1318292	5y27s13.d	05/27/20	14:16
15	1318293	5y27s14.d	05/27/20	14:36
16	1318293DL	5y27s15.d	05/27/20	14:57
17	1318295	5y27s16.d	05/27/20	15:17
18	1318295DL	5y27s17.d	05/27/20	15:38
19	1318296	5y27s18.d	05/27/20	15:58
20	1318296DL	5y27s19.d	05/27/20	16:19
21	1318297	5y27s20.d	05/27/20	16:40
22	1318298	5y27s21.d	05/27/20	17:01

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t01.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 07:59

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.22
75	30.0 - 60.0% of mass 95	44.93
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.84
173	Less than 2.0% of mass 174	0.50 (0.61)1
174	Greater than 50.0% of mass 95	82.33
175	5.0 - 9.0% of mass 174	5.82 (7.07)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.04 (97.22)1
177	5.0 - 9.0% of mass 176	5.25 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318299	5y27s22.d	05/27/20	17:21
24	1318300	5y27s23.d	05/27/20	17:42
25	1318301	5y27s24.d	05/27/20	18:03
26	1318302	5y27s25.d	05/27/20	18:23
27	1318303	5y27s26.d	05/27/20	18:44
28	1318294	5y27s27.d	05/27/20	19:05

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t51.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 19:39

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.38
75	30.0 - 60.0% of mass 95	46.34
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.61 (0.73)1
174	Greater than 50.0% of mass 95	83.26
175	5.0 - 9.0% of mass 174	6.04 (7.25)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.92 (95.99)1
177	5.0 - 9.0% of mass 176	5.23 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y27c50.d	05/27/20	20:12
02	LCS573	5y27150.d	05/27/20	20:33
03	LCS574	5y27170.d	05/27/20	20:33
04	LCD573	5y27151.d	05/27/20	20:53
05	LCD574	5y27171.d	05/27/20	20:53
06	VBLK573	5y27b50.d	05/27/20	21:35
07	VBLK574	5y27b70.d	05/27/20	21:35
08	1319994	5y27s51.d	05/27/20	22:00
09	1319996	5y27s52.d	05/27/20	22:20
10	1318278	5y27s53.d	05/27/20	22:41
11	1318280	5y27s54.d	05/27/20	23:02
12	1318281	5y27s55.d	05/27/20	23:22
13	1318282	5y27s56.d	05/27/20	23:43
14	1318284	5y27s57.d	05/28/20	00:03
15	1318304	5y27s58.d	05/28/20	00:24
16	1318305	5y27s59.d	05/28/20	00:44
17	1318306	5y27s60.d	05/28/20	01:05
18	1319980	5y27s61.d	05/28/20	01:26
19	1319981MS	5y27s62.d	05/28/20	01:46
20	1319982MSD	5y27s63.d	05/28/20	02:07
21	1319990	5y27s64.d	05/28/20	02:28
22	1318294DL	5y27s65.d	05/28/20	02:48

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y27t51.d BFB Injection Date: 05/27/20

Instrument ID: HP26285 BFB Injection Time: 19:39

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	17.38
75	30.0 - 60.0% of mass 95	46.34
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.99
173	Less than 2.0% of mass 174	0.61 (0.73)1
174	Greater than 50.0% of mass 95	83.26
175	5.0 - 9.0% of mass 174	6.04 (7.25)1
176	Greater than 95.0%, but less than 101.0% of mass 174	79.92 (95.99)1
177	5.0 - 9.0% of mass 176	5.23 (6.55)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318279	5y27s66.d	05/28/20	03:09
24	1318283	5y27s67.d	05/28/20	03:29
25	1314747	5y27s69.d	05/28/20	04:10
26	1314747MS	5y27s70.d	05/28/20	04:31
27	1316625	5y27s71.d	05/28/20	04:52
28	1317516DL2	5y27s80.d	05/28/20	05:33
29	1320777	5y27s81.d	05/28/20	05:54

FORM V VOA

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y29t01.d BFB Injection Date: 05/29/20

Instrument ID: HP26285 BFB Injection Time: 09:29

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.62
75	30.0 - 60.0% of mass 95	46.02
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	0.53 (0.66)1
174	Greater than 50.0% of mass 95	80.20
175	5.0 - 9.0% of mass 174	5.69 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.44 (96.57)1
177	5.0 - 9.0% of mass 176	4.99 (6.44)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	5y29c01.d	05/29/20	10:11
02	LCS578	5y29s01.d	05/29/20	10:52
03	VBLK578	5y29b01.d	05/29/20	11:33
04	1318262	5y29s02.d	05/29/20	12:12
05	1318286	5y29s03.d	05/29/20	12:33
06	1318287MS	5y29s04.d	05/29/20	12:53
07	1318288MSD	5y29s05.d	05/29/20	13:14
08	1318260	5y29s06.d	05/29/20	13:35
09	1318261	5y29s07.d	05/29/20	13:55
10	1318264	5y29s08.d	05/29/20	14:16
11	1318265	5y29s09.d	05/29/20	14:36
12	1318266	5y29s10.d	05/29/20	14:57
13	1318267	5y29s11.d	05/29/20	15:17
14	1318268	5y29s12.d	05/29/20	15:38
15	1318269	5y29s13.d	05/29/20	15:59
16	1318270	5y29s14.d	05/29/20	16:19
17	1318271	5y29s15.d	05/29/20	16:40
18	1318272	5y29s16.d	05/29/20	17:00
19	1318273	5y29s17.d	05/29/20	17:21
20	1318274	5y29s18.d	05/29/20	17:42
21	1318275	5y29s19.d	05/29/20	18:02
22	1318276	5y29s20.d	05/29/20	18:23

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: 5y29t01.d BFB Injection Date: 05/29/20

Instrument ID: HP26285 BFB Injection Time: 09:29

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.62
75	30.0 - 60.0% of mass 95	46.02
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.77
173	Less than 2.0% of mass 174	0.53 (0.66)1
174	Greater than 50.0% of mass 95	80.20
175	5.0 - 9.0% of mass 174	5.69 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	77.44 (96.57)1
177	5.0 - 9.0% of mass 176	4.99 (6.44)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1318285	5y29s21.d	05/29/20	18:44
24	1318289	5y29s22.d	05/29/20	19:04
25	1318290	5y29s23.d	05/29/20	19:25
26	1318291	5y29s24.d	05/29/20	19:46

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Dichlorodifluoromethane	#0.3250	0.4265	0.4232	0.4095	0.4323	0.4213	0.3967	0.4049	9	AVG #
Chloromethane	#0.3082	0.3704	0.3357	0.3196	0.3179	0.3164	0.2807	0.3212	8	AVG #
1,3-Butadiene	0.7671	0.6878	0.4049	0.3888	0.3035	0.3064	0.2670	0.4465	45	AVG
Vinyl Chloride	#0.2589	0.3027	0.2926	0.2862	0.2988	0.2915	0.2580	0.2841	6	AVG #
Bromomethane	#0.1819	0.2061	0.2013	0.1930	0.1997	0.1910	0.1622	0.1907	8	AVG #
Chloroethane	#0.1175	0.1445	0.1421	0.1380	0.1400	0.1397	0.1198	0.1345	8	AVG #
Dichlorofluoromethane	0.4299	0.4707	0.4598	0.4373	0.4435	0.4467	0.3805	0.4383	7	AVG
n-Pentane	0.3856	0.3626	0.3195	0.3100	0.3069	0.3142	0.2685	0.3239	12	AVG
Trichlorofluoromethane	#0.2945	0.3766	0.3675	0.3543	0.3695	0.3627	0.3104	0.3480	9	AVG #
Ethyl ether	0.2225	0.2597	0.2463	0.2366	0.2477	0.2533	0.2131	0.2399	7	AVG
Freon 123a	0.3357	0.3986	0.3711	0.3740	0.3618	0.3725	0.3287	0.3632	7	AVG
Acrolein	1.6475	1.6888	1.7109	1.5312	1.6360	1.6208	1.2455	1.5830	10	AVG
1,1-Dichloroethene	#0.2392	0.2870	0.2721	0.2744	0.2734	0.2812	0.2650	0.2703	6	AVG #
1,1-Dichloroethene(2)	#0.1060	0.1486	0.1379	0.1399	0.1395	0.1429	0.1337	0.1355	10	AVG #
Acetone	#0.6455	0.7888	0.8532	0.7662	0.8282	0.8438	0.7394	0.7807	9	AVG #
Freon 113	#0.2477	0.3139	0.3071	0.3153	0.3201	0.3291	0.3087	0.3060	9	AVG #
2-Propanol	0.6044	0.6226	0.6414	0.6403	0.6679	0.6685	0.6021	0.6353	4	AVG
Methyl Iodide	0.4576	0.5393	0.5160	0.5273	0.5199	0.5367	0.5118	0.5155	5	AVG
Carbon Disulfide	#0.8669	0.9807	0.9312	0.9538	0.9571	0.9982	0.9687	0.9510	4	AVG #
Allyl Chloride	0.4072	0.4819	0.4628	0.4509	0.4561	0.4712	0.4376	0.4525	5	AVG
Methyl Acetate	#0.4003	0.4289	0.3845	0.3806	0.3802	0.3897	0.3641	0.3898	5	AVG #
Methylene Chloride	#0.2762	0.3184	0.3048	0.3097	0.3068	0.3164	0.3008	0.3047	5	AVG #
t-Butyl alcohol	1.1173	1.1779	1.1695	1.2069	1.2245	1.2107	1.1360	1.1775	3	AVG
Acrylonitrile	0.1791	0.2084	0.2208	0.2009	0.2186	0.2159	0.1963	0.2057	7	AVG
trans-1,2-Dichloroethene	#0.2727	0.3192	0.3027	0.3102	0.3069	0.3129	0.2929	0.3025	5	AVG #
Methyl Tertiary Butyl Ether	#0.7410	0.8407	0.8123	0.8215	0.8126	0.8267	0.7460	0.8001	5	AVG #
n-Hexane	0.3797	0.4640	0.4451	0.4668	0.4628	0.4761	0.4453	0.4485	7	AVG
1,1-Dichloroethane	#0.4868	0.5677	0.5516	0.5604	0.5577	0.5707	0.5384	0.5476	5	AVG #
di-Isopropyl ether	0.9194	1.0171	0.9833	1.0016	0.9910	1.0151	0.9190	0.9781	4	AVG
2-Chloro-1,3-butadiene	0.3849	0.4781	0.4622	0.4769	0.4846	0.4988	0.4710	0.4652	8	AVG
Ethyl t-butyl ether	0.8271	0.9189	0.8794	0.8951	0.8763	0.8852	0.7961	0.8683	5	AVG
cis-1,2-Dichloroethene	#0.3076	0.3563	0.3454	0.3525	0.3469	0.3563	0.3301	0.3422	5	AVG #
2-Butanone	#0.3011	0.3009	0.3154	0.2879	0.3088	0.3054	0.2767	0.2994	4	AVG #
2,2-Dichloropropane	0.4139	0.4790	0.4571	0.4703	0.4707	0.4848	0.4586	0.4620	5	AVG
Propionitrile	1.1954	1.2956	1.2810	1.2795	1.2867	1.3607	1.2742	1.2819	4	AVG
Methacrylonitrile	0.1908	0.2081	0.2069	0.2084	0.2086	0.2150	0.1965	0.2049	4	AVG
Bromochloromethane	0.1419	0.1671	0.1601	0.1594	0.1560	0.1628	0.1497	0.1567	5	AVG
Tetrahydrofuran	1.0611	1.1764	1.2109	1.0939	1.2096	1.2535	1.1044	1.1586	6	AVG
Chloroform	#0.4885	0.5732	0.5473	0.5597	0.5579	0.5732	0.5450	0.5493	5	AVG #
1,1,1-Trichloroethane	#0.4198	0.5074	0.4874	0.5066	0.5068	0.5254	0.5080	0.4945	7	AVG #
Cyclohexane	#0.4921	0.5816	0.5699	0.5913	0.5947	0.6153	0.5866	0.5759	7	AVG #
Cyclohexane(2)	#0.4033	0.4847	0.4798	0.4846	0.4909	0.5071	0.4846	0.4764	7	AVG #
Cyclohexane(3)	#0.1431	0.1860	0.1783	0.1818	0.1857	0.1915	0.1841	0.1786	9	AVG #
1,1-Dichloropropene	0.3913	0.4688	0.4469	0.4558	0.4544	0.4717	0.4469	0.4480	6	AVG
Carbon Tetrachloride	#0.3546	0.4308	0.4193	0.4424	0.4508	0.4702	0.4521	0.4315	9	AVG #
Isobutyl Alcohol	0.3629	0.3875	0.3900	0.3957	0.4136	0.4118	0.3861	0.3925	4	AVG
Benzene	#1.2062	1.3955	1.3439	1.3671	1.3518	1.3834	1.2764	1.3320	5	AVG #
1,2-Dichloroethane	#0.4318	0.4233	0.3988	0.4055	0.4000	0.4145	0.3899	0.4091	4	AVG #
1,2-Dichloroethane(2)	#0.0203	0.0381	0.0357	0.0369	0.0367	0.0383	0.0362	0.0346	18	AVG #<-
t-Amyl methyl ether	0.8162	0.9187	0.8895	0.9005	0.8865	0.8848	0.7688	0.8664	6	AVG
n-Heptane	0.4147	0.4545	0.4202	0.4352	0.4366	0.4554	0.4163	0.4333	4	AVG
n-Butanol	0.2899	0.3287	0.3321	0.3439	0.3681	0.3593	0.3489	0.3387	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.3148	0.3610	0.3482	0.3568	0.3543	0.3658	0.3459	0.3496	5	AVG #
Methylcyclohexane	#0.4850	0.5833	0.5508	0.5607	0.5606	0.5935	0.5549	0.5555	6	AVG #
Methylcyclohexane(2)	#0.2002	0.2512	0.2335	0.2360	0.2367	0.2524	0.2364	0.2352	7	AVG #
1,2-Dichloropropane	#0.2979	0.3424	0.3349	0.3433	0.3407	0.3503	0.3247	0.3334	5	AVG #
Dibromomethane	0.1841	0.2141	0.2088	0.2146	0.2151	0.2235	0.2095	0.2100	6	AVG
1,4-Dioxane	0.0563	0.0855	0.0866	0.0887	0.0879	0.0903	0.0928	0.0840	15	AVG
Methyl Methacrylate	0.2661	0.3033	0.3036	0.3174	0.3274	0.3429	0.3232	0.3120	8	AVG
Bromodichloromethane	#0.3346	0.3947	0.3946	0.4157	0.4242	0.4494	0.4367	0.4071	9	AVG #
2-Nitropropane	0.1216	0.1315	0.1444	0.1356	0.1535	0.1555	0.1450	0.1410	9	AVG
2-Chloroethyl Vinyl Ether	0.2203	0.2544	0.2513	0.2615	0.2688	0.2827	0.2674	0.2580	8	AVG
cis-1,3-Dichloropropene	#0.4197	0.4998	0.4976	0.5297	0.5421	0.5682	0.5444	0.5145	9	AVG #
4-Methyl-2-pentanone	#0.5069	0.5701	0.6119	0.5613	0.6248	0.6191	0.5461	0.5771	8	AVG #
Toluene	#0.9992	1.1475	1.1077	1.1178	1.1041	1.1109	0.9973	1.0835	6	AVG #
trans-1,3-Dichloropropene	#0.4674	0.5542	0.5670	0.6006	0.6195	0.6492	0.6115	0.5813	10	AVG #
Ethyl Methacrylate	0.5576	0.6389	0.6557	0.6810	0.7019	0.7241	0.6681	0.6610	8	AVG
1,1,2-Trichloroethane	#0.3543	0.3972	0.3886	0.3964	0.3956	0.4054	0.3741	0.3873	5	AVG #
Tetrachloroethene	#0.4109	0.4840	0.4786	0.4692	0.4630	0.4723	0.4388	0.4595	6	AVG #
1,3-Dichloropropane	0.5970	0.6581	0.6478	0.6532	0.6524	0.6703	0.6234	0.6431	4	AVG
2-Hexanone	#0.5011	0.5634	0.6203	0.5644	0.6306	0.6156	0.5343	0.5757	8	AVG #
Dibromochloromethane	#0.3212	0.3871	0.4003	0.4234	0.4392	0.4622	0.4358	0.4099	11	AVG #
1,2-Dibromoethane	#0.3768	0.4263	0.4302	0.4362	0.4418	0.4541	0.4237	0.4270	6	AVG #
1-Chlorohexane	0.6263	0.6562	0.6327	0.6409	0.6455	0.6521	0.5571	0.6301	5	AVG
Chlorobenzene	#1.1108	1.2413	1.1993	1.2163	1.2047	1.2245	1.0345	1.1759	6	AVG #
1,1,1,2-Tetrachloroethane	0.3424	0.4080	0.4082	0.4271	0.4339	0.4417	0.3785	0.4057	9	AVG
Ethylbenzene	#1.8868	2.1933	2.1574	2.2097	2.1969	2.2103	1.8107	2.0950	8	AVG #
m+p-Xylene	#0.7422	0.8509	0.8358	0.8499	0.8426	0.8385	0.6667	0.8038	9	AVG #
o-Xylene	#0.7151	0.8184	0.8078	0.8256	0.8250	0.8292	0.6861	0.7867	8	AVG #
Styrene	#1.0386	1.2698	1.2980	1.3570	1.3724	1.3858	1.1539	1.2679	10	AVG #
Bromoform	#0.2026	0.2648	0.2822	0.3055	0.3313	0.3509	0.3387	0.2966	17	AVG #
Isopropylbenzene	#1.8530	2.1682	2.1334	2.1676	2.1562	2.1677	1.8060	2.0646	8	AVG #
Cyclohexanone	0.3346	0.3785	0.3793	0.3871	0.3974	0.4159	0.4085	0.3859	7	AVG
Bromobenzene	0.8858	0.9950	0.9675	0.9859	0.9790	1.0004	0.8588	0.9532	6	AVG
1,1,2,2-Tetrachloroethane	#1.1337	1.3479	1.2939	1.3302	1.3550	1.3978	1.1960	1.2935	7	AVG #
1,2,3-Trichloropropane	0.3613	0.3946	0.3823	0.3915	0.3964	0.3965	0.3437	0.3809	5	AVG
trans-1,4-Dichloro-2-butene	0.1124	0.1725	0.1974	0.2289	0.2572	0.2866	0.2862	0.2202	29	1STDEG
n-Propylbenzene	4.1377	5.0093	4.8710	4.9942	4.9587	4.9680	3.8666	4.6865	10	AVG
2-Chlorotoluene	0.8693	0.9996	0.9755	0.9958	0.9816	1.0025	0.9001	0.9606	6	AVG
4-Chlorotoluene	0.8631	1.0032	0.9905	1.0103	1.0063	1.0201	0.8991	0.9704	6	AVG
1,3,5-Trimethylbenzene	2.8614	3.4243	3.3941	3.5011	3.4757	3.5301	2.8741	3.2944	9	AVG
tert-Butylbenzene	0.5925	0.6731	0.6511	0.6755	0.6863	0.6975	0.6072	0.6547	6	AVG
Pentachloroethane	0.4145	0.5395	0.5220	0.5646	0.5756	0.6025	0.5438	0.5375	11	AVG
1,2,4-Trimethylbenzene	2.9495	3.5118	3.4920	3.6093	3.5933	3.6435	2.9484	3.3925	9	AVG
sec-Butylbenzene	3.6416	4.3450	4.1870	4.3216	4.2930	4.3534	3.4501	4.0845	9	AVG
1,3-Dichlorobenzene	#1.6682	1.8837	1.8318	1.8444	1.8396	1.8724	1.6104	1.7929	6	AVG #
p-Isopropyltoluene	2.9264	3.5689	3.5105	3.6001	3.6197	3.6510	2.9665	3.4062	9	AVG
1,4-Dichlorobenzene	#1.7510	1.9001	1.8617	1.8814	1.8653	1.8798	1.5978	1.8196	6	AVG #
1,2,3-Trimethylbenzene	2.9599	3.5124	3.3584	3.3686	3.3577	3.4363	2.8016	3.2564	8	AVG
Benzyl Chloride	1.7319	2.2549	2.4434	2.6619	2.7965	2.8961	2.5863	2.4816	16	AVG
1,3-Diethylbenzene	1.6804	2.1026	2.0355	2.0417	2.0306	2.1028	1.7829	1.9681	8	AVG
1,4-Diethylbenzene	1.7348	2.2168	2.1064	2.1157	2.1084	2.1731	1.7942	2.0356	9	AVG
1,2-Dichlorobenzene	#1.6224	1.7896	1.7522	1.7851	1.7633	1.7935	1.5494	1.7222	6	AVG #
n-Butylbenzene	1.5438	1.7996	1.7385	1.7993	1.7969	1.8465	1.5022	1.7181	8	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date(s): 04/21/20 04/21/20

Heated Purge: (Y/N) Y Calibration Times: 21:19 23:23

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

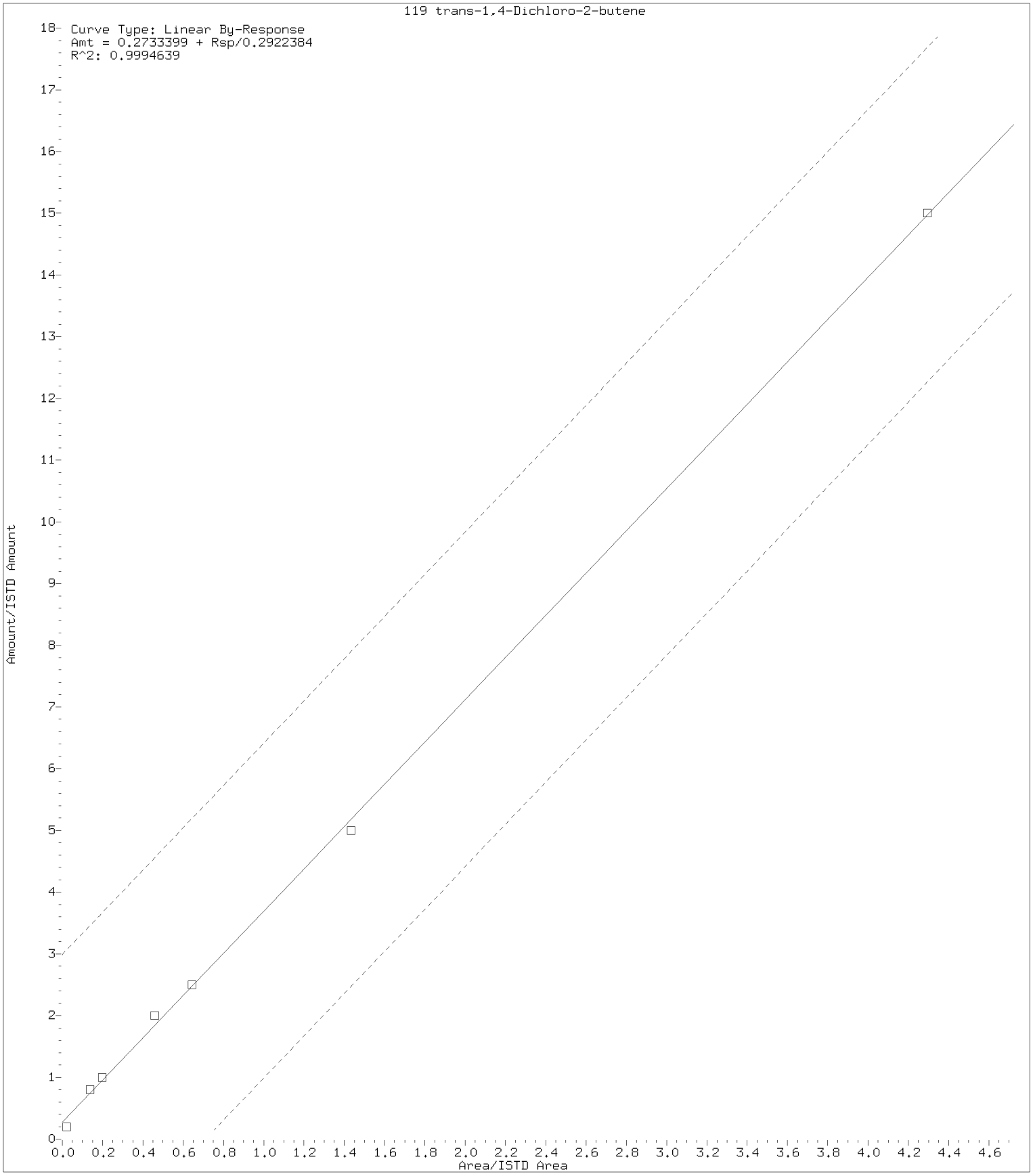
LAB FILE ID: RRF 1 = 5a21i07.d RRF 4 = 5a21i06.d RRF 10= 5a21i05.d
RRF 20= 5a21i04.d RRF 50= 5a21i03.d RRF100= 5a21i02.d RRF300= 5a21i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.4953	1.7921	1.7091	1.7222	1.6962	1.7516	1.4848	1.6645	7	AVG
1,2-Dibromo-3-chloropropane	#0.2592	0.3074	0.3150	0.3362	0.3563	0.3626	0.3492	0.3266	11	AVG #
1,3,5-Trichlorobenzene	1.0599	1.1510	1.1311	1.1715	1.1685	1.2021	1.0786	1.1375	5	AVG
1,2,4-Trichlorobenzene	#0.9677	1.0946	1.0697	1.0907	1.1027	1.1358	1.0195	1.0687	5	AVG #
Hexachlorobutadiene	0.3727	0.4147	0.4034	0.4211	0.4201	0.4361	0.4089	0.4110	5	AVG
Naphthalene	3.8142	4.3363	4.3353	4.4846	4.5265	4.5548	3.5723	4.2320	9	AVG
1,2,3-Trichlorobenzene	0.9804	1.0849	1.0540	1.0824	1.0902	1.1186	0.9921	1.0575	5	AVG
2-Methylnaphthalene	1.7785	2.1215	2.2024	2.3299	2.3869	2.4989	2.0727	2.1987	11	AVG
Dibromofluoromethane	0.2469	0.2479	0.2481	0.2493	0.2492	0.2505	0.2513	0.2490	1	AVG
Dibromofluoromethane(2)	0.2540	0.2552	0.2541	0.2543	0.2544	0.2560	0.2569	0.2550	0	AVG
1,2-Dichloroethane-d4	0.0557	0.0560	0.0558	0.0557	0.0559	0.0557	0.0550	0.0557	1	AVG
1,2-Dichloroethane-d4(2)	0.2726	0.2732	0.2713	0.2715	0.2725	0.2728	0.2723	0.2723	0	AVG
1,2-Dichloroethane-d4(3)	0.0358	0.0359	0.0355	0.0360	0.0357	0.0359	0.0349	0.0357	1	AVG
Toluene-d8	1.2511	1.2382	1.2417	1.2273	1.2232	1.2188	1.2010	1.2288	1	AVG
Toluene-d8(2)	0.8221	0.8125	0.8162	0.8056	0.8064	0.8044	0.7964	0.8091	1	AVG
4-Bromofluorobenzene	0.5144	0.5106	0.5128	0.5125	0.5201	0.5209	0.5328	0.5177	1	AVG
4-Bromofluorobenzene(2)	0.4030	0.4031	0.4002	0.3999	0.4030	0.4027	0.4153	0.4039	1	AVG

Average %RSD 7

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:37.
Target 3.5 esignature user ID: clm27445

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i01.d	VSTD300
/chem2/HP26285.i/20apr21a.b/5a21i02.d	VSTD100
/chem2/HP26285.i/20apr21a.b/5a21i03.d	VSTD050
/chem2/HP26285.i/20apr21a.b/5a21i04.d	VSTD020
/chem2/HP26285.i/20apr21a.b/5a21i05.d	VSTD010
/chem2/HP26285.i/20apr21a.b/5a21i06.d	VSTD004
/chem2/HP26285.i/20apr21a.b/5a21i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	363110	347877	370304	374444	368547	345244	361518	361578	3	Yes
Fluorobenzene	1056605	1036304	1062743	1075151	1065691	1010545	1067423	1053495	2	Yes
Chlorobenzene-d5	869195	831366	842446	845669	825598	782414	814804	830213	3	Yes
1,4-Dichlorobenzene-d4	462526	432195	435155	434870	424651	399968	420878	430035	4	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	5a21i01.d	5a21i02.d	5a21i03.d	5a21i04.d	5a21i05.d	5a21i06.d	5a21i07.d	Avg. RT
t-Butyl alcohol-d10	3.490	3.472	3.478	3.484	3.478	3.490	3.484	3.482
Fluorobenzene	6.928	6.928	6.934	6.929	6.928	6.928	6.928	6.929
Chlorobenzene-d5	10.684	10.684	10.684	10.684	10.684	10.678	10.678	10.682
1,4-Dichlorobenzene-d4	12.671	12.671	12.671	12.671	12.671	12.671	12.671	12.671

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 04/23/2020 at 07:23.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.3713	18.34	20	-8	#
# Chloromethane	0.3212	0.3445	21.45	20	7	#
1,3-Butadiene	0.4465	0.4229	18.94	20	-5	
# Vinyl Chloride	0.2841	0.3123	21.98	20	10	#
# Bromomethane	0.1907	0.1598	16.75	20	-16	#
# Chloroethane	0.1345	0.1449	21.55	20	8	#
Dichlorofluoromethane	0.4383	0.4574	20.87	20	4	
n-Pentane	0.3239	0.3319	20.49	20	2	
# Trichlorofluoromethane	0.3480	0.4090	23.51	20	18	#
Ethyl ether	0.2399	0.2386	19.89	20	-1	
Freon 123a	0.3632	0.3784	20.84	20	4	
Acrolein	1.5830	1.4407	136.52	150	-9	
# 1,1-Dichloroethene	0.2703	0.2871	21.24	20	6	#
# Acetone	0.7807	0.8193	157.42	150	5	#
# Freon 113	0.3060	0.3265	21.34	20	7	#
2-Propanol	0.6353	0.6615	156.18	150	4	
Methyl Iodide	0.5155	0.5107	19.81	20	-1	
# Carbon Disulfide	0.9510	0.9385	19.74	20	-1	#
Allyl Chloride	0.4525	0.5034	22.25	20	11	
# Methyl Acetate	0.3898	0.4209	21.60	20	8	#
# Methylene Chloride	0.3047	0.3159	20.73	20	4	#
t-Butyl alcohol	1.1775	1.2466	211.73	200	6	
Acrylonitrile	0.2057	0.1993	96.88	100	-3	
# trans-1,2-Dichloroethene	0.3025	0.3064	20.26	20	1	#
# Methyl Tertiary Butyl Ether	0.8001	0.8076	20.19	20	1	#
n-Hexane	0.4485	0.4757	21.21	20	6	
# 1,1-Dichloroethane	0.5476	0.5553	20.28	20	1	#
di-Isopropyl ether	0.9781	0.9871	20.18	20	1	
2-Chloro-1,3-butadiene	0.4652	0.4709	20.25	20	1	
Ethyl t-butyl ether	0.8683	0.8738	20.13	20	1	
# cis-1,2-Dichloroethene	0.3422	0.3657	21.38	20	7	#
# 2-Butanone	0.2994	0.2977	149.12	150	-1	#
2,2-Dichloropropane	0.4620	0.4617	19.98	20	0	
Propionitrile	1.2819	1.2758	149.29	150	0	
Methacrylonitrile	0.2049	0.2061	150.90	150	1	
Bromochloromethane	0.1567	0.1675	21.38	20	7	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.1347	97.94	100	-2	
# Chloroform	0.5493	0.5516	20.09	20	0	#
# 1,1,1-Trichloroethane	0.4945	0.4942	19.99	20	0	#
# Cyclohexane	0.5759	0.5737	19.92	20	0	#
1,1-Dichloropropene	0.4480	0.4474	19.98	20	0	
# Carbon Tetrachloride	0.4315	0.4376	20.28	20	1	#
Isobutyl Alcohol	0.3925	0.3866	492.46	500	-2	
# Benzene	1.3320	1.3247	19.89	20	-1	#
# 1,2-Dichloroethane	0.4091	0.3995	19.53	20	-2	#
t-Amyl methyl ether	0.8664	0.8773	20.25	20	1	
n-Heptane	0.4333	0.4133	19.08	20	-5	
n-Butanol	0.3387	0.3329	982.85	1000	-2	
# Trichloroethene	0.3496	0.3489	19.96	20	0	#
# Methylcyclohexane	0.5555	0.5947	21.41	20	7	#
# 1,2-Dichloropropane	0.3334	0.3403	20.41	20	2	#
Dibromomethane	0.2100	0.2116	20.16	20	1	
1,4-Dioxane	0.0840	0.0874	520.44	500	4	
Methyl Methacrylate	0.3120	0.3249	20.83	20	4	
# Bromodichloromethane	0.4071	0.4063	19.96	20	0	#
2-Nitropropane	0.1410	0.1305	18.51	20	-7	
2-Chloroethyl Vinyl Ether	0.2580	0.2595	20.11	20	1	
# cis-1,3-Dichloropropene	0.5145	0.5055	19.65	20	-2	#
# 4-Methyl-2-pentanone	0.5771	0.5701	98.77	100	-1	#
# Toluene	1.0835	1.1093	20.48	20	2	#
# trans-1,3-Dichloropropene	0.5813	0.5787	19.91	20	0	#
Ethyl Methacrylate	0.6610	0.6319	19.12	20	-4	
# 1,1,2-Trichloroethane	0.3873	0.4031	20.81	20	4	#
# Tetrachloroethene	0.4595	0.4869	21.19	20	6	#
1,3-Dichloropropane	0.6431	0.6389	19.87	20	-1	
# 2-Hexanone	0.5757	0.5977	103.83	100	4	#
# Dibromochloromethane	0.4099	0.4280	20.88	20	4	#
# 1,2-Dibromoethane	0.4270	0.4344	20.35	20	2	#
1-Chlorohexane	0.6301	0.6259	19.87	20	-1	
# Chlorobenzene	1.1759	1.2141	20.65	20	3	#
1,1,1,2-Tetrachloroethane	0.4057	0.4181	20.61	20	3	
# Ethylbenzene	2.0950	2.1694	20.71	20	4	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 ICV Date: 04/22/20 Time: 00:05

Lab File ID: 5a21v01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# m+p-Xylene	0.8038	0.8477	42.18	40	5	#
# o-Xylene	0.7867	0.8195	20.83	20	4	#
# Styrene	1.2679	1.3376	21.10	20	5	#
# Bromoform	0.2966	0.2946	19.87	20	-1	#
# Isopropylbenzene	2.0646	2.1743	21.06	20	5	#
Cyclohexanone	0.3859	0.3679	476.66	500	-5	
Bromobenzene	0.9532	0.9905	20.78	20	4	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3483	20.85	20	4	#
1,2,3-Trichloropropane	0.3809	0.3947	20.73	20	4	
trans-1,4-Dichloro-2-butene	0.2202	0.2397	95.68	100	-4	
n-Propylbenzene	4.6865	4.9784	21.25	20	6	
2-Chlorotoluene	0.9606	0.9849	20.51	20	3	
4-Chlorotoluene	0.9704	1.0028	20.67	20	3	
1,3,5-Trimethylbenzene	3.2944	3.4482	20.93	20	5	
tert-Butylbenzene	0.6547	0.6841	20.90	20	4	
Pentachloroethane	0.5375	0.5838	21.72	20	9	
1,2,4-Trimethylbenzene	3.3925	3.5071	20.68	20	3	
sec-Butylbenzene	4.0845	4.2601	20.86	20	4	
# 1,3-Dichlorobenzene	1.7929	1.8468	20.60	20	3	#
p-Isopropyltoluene	3.4062	3.5759	21.00	20	5	
# 1,4-Dichlorobenzene	1.8196	1.8946	20.82	20	4	#
1,2,3-Trimethylbenzene	3.2564	3.6816	22.61	20	13	
Benzyl Chloride	2.4816	2.2494	18.13	20	-9	
1,3-Diethylbenzene	1.9681	2.1587	21.94	20	10	
1,4-Diethylbenzene	2.0356	2.2309	21.92	20	10	
# 1,2-Dichlorobenzene	1.7222	1.7928	20.82	20	4	#
n-Butylbenzene	1.7181	1.7634	20.53	20	3	
1,2-Diethylbenzene	1.6645	1.8071	21.71	20	9	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3324	20.36	20	2	#
1,3,5-Trichlorobenzene	1.1375	1.1537	20.28	20	1	
# 1,2,4-Trichlorobenzene	1.0687	1.0982	20.55	20	3	#
Hexachlorobutadiene	0.4110	0.4030	19.61	20	-2	
Naphthalene	4.2320	4.3798	20.70	20	3	
1,2,3-Trichlorobenzene	1.0575	1.0700	20.24	20	1	
2-Methylnaphthalene	2.1987	2.3281	21.18	20	6	
			Average %Drift		4	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may27a.b/5y27c01.d

RT Summary

Internal Standard Name	File ID: 5y27c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.417	3.478	Yes
Fluorobenzene	6.874	6.934	Yes
Chlorobenzene-d5	10.678	10.684	Yes
1,4-Dichlorobenzene-d4	12.696	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y27c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	297333	370304	185152	740608	Yes
Fluorobenzene	1014821	1062743	531372	2125486	Yes
Chlorobenzene-d5	807296	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	434682	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/27/2020 at 09:26

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4626	57.13	50	14	#
# Chloromethane	0.3212	0.3130	48.72	50	-3	#
1,3-Butadiene	0.4465	0.3169	35.49	50	-29	<-
# Vinyl Chloride	0.2841	0.3140	55.27	50	11	#
# Bromomethane	0.1907	0.2286	59.92	50	20	#
# Chloroethane	0.1345	0.1531	56.89	50	14	#
n-Pentane	0.3239	0.3420	52.80	50	6	
# Trichlorofluoromethane	0.3480	0.4174	59.97	50	20	#
Freon 123a	0.3632	0.3610	49.70	50	-1	
Acrolein	1.5830	1.7364	548.45	500	10	
# 1,1-Dichloroethene	0.2703	0.2807	51.92	50	4	#
# 1,1-Dichloroethene(2)	0.1355	0.1431	52.81	50	6	#
# Acetone	0.7807	0.9474	121.35	100	21	#<-
# Freon 113	0.3060	0.3258	53.24	50	6	#
2-Propanol	0.6353	0.4630	182.20	250	-27	<-
Methyl Iodide	0.5155	0.5476	53.12	50	6	
# Carbon Disulfide	0.9510	0.9097	47.83	50	-4	#
Allyl Chloride	0.4525	0.4183	46.21	50	-8	
# Methyl Acetate	0.3898	0.3795	48.69	50	-3	#
# Methylene Chloride	0.3047	0.3107	50.98	50	2	#
t-Butyl alcohol	1.1775	1.0040	213.15	250	-15	
Acrylonitrile	0.2057	0.2071	50.34	50	1	
# trans-1,2-Dichloroethene	0.3025	0.3078	50.88	50	2	#
# Methyl Tertiary Butyl Ether	0.8001	0.7908	49.42	50	-1	#
n-Hexane	0.4485	0.4610	51.38	50	3	
# 1,1-Dichloroethane	0.5476	0.5389	49.20	50	-2	#
di-Isopropyl ether	0.9781	0.9046	46.24	50	-8	
2-Chloro-1,3-butadiene	0.4652	0.4654	50.02	50	0	
Ethyl t-butyl ether	0.8683	0.7906	45.53	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3438	50.24	50	0	#
# 2-Butanone	0.2994	0.2893	96.61	100	-3	#
2,2-Dichloropropane	0.4620	0.4339	46.96	50	-6	
Propionitrile	1.2819	1.4843	289.48	250	16	
Methacrylonitrile	0.2049	0.2053	125.25	125	0	
Bromochloromethane	0.1567	0.1639	52.30	50	5	
Tetrahydrofuran	1.1586	1.3597	117.36	100	17	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chloroform	0.5493	0.5538	50.42	50	1	#
# 1,1,1-Trichloroethane	0.4945	0.5013	50.69	50	1	#
# Cyclohexane	0.5759	0.5527	47.98	50	-4	#
# Cyclohexane(2)	0.4764	0.4740	49.75	50	-1	#
# Cyclohexane(3)	0.1786	0.1744	48.82	50	-2	#
1,1-Dichloropropene	0.4480	0.4455	49.72	50	-1	
# Carbon Tetrachloride	0.4315	0.4405	51.04	50	2	#
Isobutyl Alcohol	0.3925	0.4248	676.39	625	8	
# Benzene	1.3320	1.3154	49.37	50	-1	#
# 1,2-Dichloroethane	0.4091	0.4099	50.10	50	0	#
# 1,2-Dichloroethane(2)	0.0346	0.0370	53.52	50	7	#<-
t-Amyl methyl ether	0.8664	0.8046	46.43	50	-7	
n-Heptane	0.4333	0.4541	52.41	50	5	
n-Butanol	0.3387	0.3636	1341.96	1250	7	
# Trichloroethene	0.3496	0.3543	50.67	50	1	#
# Methylcyclohexane	0.5555	0.5508	49.57	50	-1	#
# Methylcyclohexane(2)	0.2352	0.2350	49.96	50	0	#
# 1,2-Dichloropropane	0.3334	0.3263	48.92	50	-2	#
Dibromomethane	0.2100	0.2149	51.18	50	2	
1,4-Dioxane	0.0840	0.1012	752.80	625	20	
Methyl Methacrylate	0.3120	0.3150	50.48	50	1	
# Bromodichloromethane	0.4071	0.4061	49.88	50	0	#
2-Nitropropane	0.1410	0.1431	101.47	100	1	
2-Chloroethyl Vinyl Ether	0.2580	0.2551	49.42	50	-1	
# cis-1,3-Dichloropropene	0.5145	0.5090	49.47	50	-1	#
# 4-Methyl-2-pentanone	0.5771	0.5798	100.45	100	0	#
# Toluene	1.0835	1.0763	49.67	50	-1	#
# trans-1,3-Dichloropropene	0.5813	0.5917	50.89	50	2	#
Ethyl Methacrylate	0.6610	0.6472	48.95	50	-2	
# 1,1,2-Trichloroethane	0.3873	0.3979	51.36	50	3	#
# Tetrachloroethene	0.4595	0.4859	52.87	50	6	#
1,3-Dichloropropane	0.6431	0.6414	49.87	50	0	
# 2-Hexanone	0.5757	0.5988	104.01	100	4	#
# Dibromochloromethane	0.4099	0.4215	51.41	50	3	#
# 1,2-Dibromoethane	0.4270	0.4409	51.63	50	3	#
1-Chlorohexane	0.6301	0.6292	49.93	50	0	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A
VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Chlorobenzene	1.1759	1.2153	51.67	50	3	#
1,1,1,2-Tetrachloroethane	0.4057	0.4297	52.96	50	6	
# Ethylbenzene	2.0950	2.1660	51.69	50	3	#
# m+p-Xylene	0.8038	0.8363	104.04	100	4	#
# o-Xylene	0.7867	0.8119	51.60	50	3	#
# Styrene	1.2679	1.3390	52.80	50	6	#
# Bromoform	0.2966	0.3157	53.23	50	6	#
# Isopropylbenzene	2.0646	2.1612	52.34	50	5	#
Cyclohexanone	0.3859	0.3950	639.78	625	2	
Bromobenzene	0.9532	0.9745	51.12	50	2	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3269	51.29	50	3	#
1,2,3-Trichloropropane	0.3809	0.3914	51.39	50	3	
trans-1,4-Dichloro-2-butene	0.2202	0.2998	141.89	125	14	
n-Propylbenzene	4.6865	4.8019	51.23	50	2	
2-Chlorotoluene	0.9606	0.9634	50.15	50	0	
4-Chlorotoluene	0.9704	0.9862	50.81	50	2	
1,3,5-Trimethylbenzene	3.2944	3.3782	51.27	50	3	
tert-Butylbenzene	0.6547	0.7298	55.74	50	11	
Pentachloroethane	0.5375	0.5708	53.09	50	6	
1,2,4-Trimethylbenzene	3.3925	3.5159	51.82	50	4	
sec-Butylbenzene	4.0845	4.2598	52.15	50	4	
# 1,3-Dichlorobenzene	1.7929	1.8514	51.63	50	3	#
p-Isopropyltoluene	3.4062	3.6025	52.88	50	6	
# 1,4-Dichlorobenzene	1.8196	1.8669	51.30	50	3	#
1,2,3-Trimethylbenzene	3.2564	3.3413	51.30	50	3	
Benzyl Chloride	2.4816	2.4976	50.32	50	1	
1,3-Diethylbenzene	1.9681	2.0505	52.09	50	4	
1,4-Diethylbenzene	2.0356	2.1177	52.02	50	4	
# 1,2-Dichlorobenzene	1.7222	1.7617	51.15	50	2	#
n-Butylbenzene	1.7181	1.7921	52.15	50	4	
1,2-Diethylbenzene	1.6645	1.6962	50.95	50	2	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3389	51.88	50	4	#
1,3,5-Trichlorobenzene	1.1375	1.2128	53.31	50	7	
# 1,2,4-Trichlorobenzene	1.0687	1.1232	52.55	50	5	#
Hexachlorobutadiene	0.4110	0.4422	53.79	50	8	
Naphthalene	4.2320	4.4717	52.83	50	6	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 08:46

Lab File ID: 5y27c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
1,2,3-Trichlorobenzene	1.0575	1.1153	52.73	50	5
2-Methylnaphthalene	2.1987	2.3282	52.95	50	6
Dibromofluoromethane	0.2490	0.2521	50.62	50	1
Dibromofluoromethane(2)	0.2550	0.2579	50.58	50	1
1,2-Dichloroethane-d4	0.0557	0.0565	50.76	50	2
1,2-Dichloroethane-d4(2)	0.2723	0.2825	51.88	50	4
1,2-Dichloroethane-d4(3)	0.0357	0.0362	50.71	50	1
Toluene-d8	1.2288	1.2198	49.64	50	-1
Toluene-d8(2)	0.8091	0.7961	49.20	50	-2
4-Bromofluorobenzene	0.5177	0.5107	49.32	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4196	51.95	50	4

Average %Drift 5

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories

Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may27b.b/5y27c50.d

RT Summary

Internal Standard Name	File ID: 5y27c50.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.423	3.478	Yes
Fluorobenzene	6.880	6.934	Yes
Chlorobenzene-d5	10.678	10.684	Yes
1,4-Dichlorobenzene-d4	12.702	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y27c50.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	230837	370304	185152	740608	Yes
Fluorobenzene	817966	1062743	531372	2125486	Yes
Chlorobenzene-d5	662490	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	373763	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/27/2020 at 20:39

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4799	59.26	50	19	#
# Chloromethane	0.3212	0.3253	50.63	50	1	#
1,3-Butadiene	0.4465	0.2799	31.34	50	-37	<-
# Vinyl Chloride	0.2841	0.3239	57.01	50	14	#
# Bromomethane	0.1907	0.2527	66.23	50	32	#<-
# Chloroethane	0.1345	0.1655	61.52	50	23	#<-
n-Pentane	0.3239	0.2891	44.64	50	-11	
# Trichlorofluoromethane	0.3480	0.4832	69.43	50	39	#<-
Ethyl ether	0.2399	0.2232	46.52	50	-7	
Freon 123a	0.3632	0.3701	50.94	50	2	
Acrolein	1.5830	2.0736	654.97	500	31	<-
# 1,1-Dichloroethene	0.2703	0.2743	50.74	50	1	#
# 1,1-Dichloroethene(2)	0.1355	0.1424	52.56	50	5	#
# Acetone	0.7807	1.0252	131.31	100	31	#<-
# Freon 113	0.3060	0.3121	51.00	50	2	#
2-Propanol	0.6353	0.5140	202.25	250	-19	
Methyl Iodide	0.5155	0.5526	53.60	50	7	
# Carbon Disulfide	0.9510	0.8455	44.46	50	-11	#
Allyl Chloride	0.4525	0.4257	47.03	50	-6	
# Methyl Acetate	0.3898	0.3928	50.39	50	1	#
# Methylene Chloride	0.3047	0.3133	51.41	50	3	#
t-Butyl alcohol	1.1775	1.0792	229.13	250	-8	
Acrylonitrile	0.2057	0.2212	53.76	50	8	
# trans-1,2-Dichloroethene	0.3025	0.3125	51.65	50	3	#
# Methyl Tertiary Butyl Ether	0.8001	0.8143	50.88	50	2	#
n-Hexane	0.4485	0.3819	42.57	50	-15	
# 1,1-Dichloroethane	0.5476	0.5463	49.88	50	0	#
di-Isopropyl ether	0.9781	0.8884	45.42	50	-9	
2-Chloro-1,3-butadiene	0.4652	0.4706	50.58	50	1	
Ethyl t-butyl ether	0.8683	0.7897	45.47	50	-9	
# cis-1,2-Dichloroethene	0.3422	0.3543	51.77	50	4	#
# 2-Butanone	0.2994	0.3059	102.17	100	2	#
2,2-Dichloropropane	0.4620	0.4552	49.26	50	-1	
Propionitrile	1.2819	1.5479	301.88	250	21	<-
Methacrylonitrile	0.2049	0.2103	128.31	125	3	
Bromochloromethane	0.1567	0.1769	56.44	50	13	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1586	1.5112	130.44	100	30	<-
# Chloroform	0.5493	0.5962	54.27	50	9	#
# 1,1,1-Trichloroethane	0.4945	0.5406	54.66	50	9	#
# Cyclohexane	0.5759	0.5008	43.47	50	-13	#
# Cyclohexane(2)	0.4764	0.4395	46.13	50	-8	#
# Cyclohexane(3)	0.1786	0.1578	44.15	50	-12	#
1,1-Dichloropropene	0.4480	0.4517	50.42	50	1	
# Carbon Tetrachloride	0.4315	0.4800	55.63	50	11	#
Isobutyl Alcohol	0.3925	0.5145	819.30	625	31	<-
# Benzene	1.3320	1.3521	50.76	50	2	#
# 1,2-Dichloroethane	0.4091	0.4636	56.66	50	13	#
# 1,2-Dichloroethane(2)	0.0346	0.0390	56.30	50	13	#<-
t-Amyl methyl ether	0.8664	0.8321	48.02	50	-4	
n-Heptane	0.4333	0.3931	45.37	50	-9	
n-Butanol	0.3387	0.4231	1561.36	1250	25	<-
# Trichloroethene	0.3496	0.3726	53.29	50	7	#
# Methylcyclohexane	0.5555	0.5370	48.33	50	-3	#
# Methylcyclohexane(2)	0.2352	0.2320	49.32	50	-1	#
# 1,2-Dichloropropane	0.3334	0.3375	50.61	50	1	#
Dibromomethane	0.2100	0.2346	55.87	50	12	
1,4-Dioxane	0.0840	0.1155	859.50	625	38	<-
Methyl Methacrylate	0.3120	0.3281	52.59	50	5	
# Bromodichloromethane	0.4071	0.4420	54.28	50	9	#
2-Nitropropane	0.1410	0.1681	119.23	100	19	
2-Chloroethyl Vinyl Ether	0.2580	0.2596	50.31	50	1	
# cis-1,3-Dichloropropene	0.5145	0.5288	51.39	50	3	#
# 4-Methyl-2-pentanone	0.5771	0.6389	110.71	100	11	#
# Toluene	1.0835	1.1092	51.19	50	2	#
# trans-1,3-Dichloropropene	0.5813	0.6205	53.37	50	7	#
Ethyl Methacrylate	0.6610	0.6783	51.31	50	3	
# 1,1,2-Trichloroethane	0.3873	0.4281	55.26	50	11	#
# Tetrachloroethene	0.4595	0.5202	56.60	50	13	#
1,3-Dichloropropane	0.6431	0.6832	53.11	50	6	
# 2-Hexanone	0.5757	0.6755	117.34	100	17	#
# Dibromochloromethane	0.4099	0.4576	55.82	50	12	#
# 1,2-Dibromoethane	0.4270	0.4684	54.85	50	10	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
1-Chlorohexane	0.6301	0.6303	50.02	50	0	
# Chlorobenzene	1.1759	1.3055	55.51	50	11	#
1,1,1,2-Tetrachloroethane	0.4057	0.4733	58.33	50	17	
# Ethylbenzene	2.0950	2.2950	54.77	50	10	#
# m+p-Xylene	0.8038	0.8908	110.82	100	11	#
# o-Xylene	0.7867	0.8623	54.80	50	10	#
# Styrene	1.2679	1.4423	56.88	50	14	#
# Bromoform	0.2966	0.3510	59.19	50	18	#
# Isopropylbenzene	2.0646	2.2835	55.30	50	11	#
Cyclohexanone	0.3859	0.4437	718.67	625	15	
Bromobenzene	0.9532	1.0348	54.28	50	9	
# 1,1,2,2-Tetrachloroethane	1.2935	1.3984	54.05	50	8	#
1,2,3-Trichloropropane	0.3809	0.4333	56.88	50	14	
trans-1,4-Dichloro-2-butene	0.2202	0.3502	163.46	125	31	<-
n-Propylbenzene	4.6865	4.8886	52.16	50	4	
2-Chlorotoluene	0.9606	1.0061	52.37	50	5	
4-Chlorotoluene	0.9704	1.0314	53.15	50	6	
1,3,5-Trimethylbenzene	3.2944	3.4935	53.02	50	6	
tert-Butylbenzene	0.6547	0.7414	56.62	50	13	
Pentachloroethane	0.5375	0.5874	54.64	50	9	
1,2,4-Trimethylbenzene	3.3925	3.6556	53.88	50	8	
sec-Butylbenzene	4.0845	4.2868	52.48	50	5	
# 1,3-Dichlorobenzene	1.7929	1.9670	54.86	50	10	#
p-Isopropyltoluene	3.4062	3.7024	54.35	50	9	
# 1,4-Dichlorobenzene	1.8196	2.0082	55.18	50	10	#
1,2,3-Trimethylbenzene	3.2564	3.4102	52.36	50	5	
Benzyl Chloride	2.4816	2.6836	54.07	50	8	
1,3-Diethylbenzene	1.9681	2.0794	52.83	50	6	
1,4-Diethylbenzene	2.0356	2.1630	53.13	50	6	
# 1,2-Dichlorobenzene	1.7222	1.9071	55.37	50	11	#
n-Butylbenzene	1.7181	1.8235	53.07	50	6	
1,2-Diethylbenzene	1.6645	1.7361	52.15	50	4	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3762	57.60	50	15	#
1,3,5-Trichlorobenzene	1.1375	1.2971	57.01	50	14	
# 1,2,4-Trichlorobenzene	1.0687	1.2012	56.20	50	12	#
Hexachlorobutadiene	0.4110	0.4549	55.34	50	11	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/27/20 Time: 20:12

Lab File ID: 5y27c50.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Naphthalene	4.2320	4.9030	57.93	50	16
1,2,3-Trichlorobenzene	1.0575	1.2160	57.49	50	15
2-Methylnaphthalene	2.1987	2.4324	55.31	50	11
Dibromofluoromethane	0.2490	0.2583	51.86	50	4
Dibromofluoromethane(2)	0.2550	0.2650	51.96	50	4
1,2-Dichloroethane-d4	0.0557	0.0573	51.45	50	3
1,2-Dichloroethane-d4(2)	0.2723	0.3004	55.15	50	10
1,2-Dichloroethane-d4(3)	0.0357	0.0360	50.40	50	1
Toluene-d8	1.2288	1.2132	49.37	50	-1
Toluene-d8(2)	0.8091	0.7916	48.92	50	-2
4-Bromofluorobenzene	0.5177	0.5178	50.00	50	0
4-Bromofluorobenzene(2)	0.4039	0.4390	54.35	50	9

Average %Drift 10

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem2/HP26285.i/20apr21a.b/5a21i07.d
/chem2/HP26285.i/20apr21a.b/5a21i06.d
/chem2/HP26285.i/20apr21a.b/5a21i05.d
/chem2/HP26285.i/20apr21a.b/5a21i04.d
/chem2/HP26285.i/20apr21a.b/5a21i03.d
/chem2/HP26285.i/20apr21a.b/5a21i02.d
/chem2/HP26285.i/20apr21a.b/5a21i01.d

File /chem2/HP26285.i/20apr21a.b/5a21i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem2/HP26285.i/20may29a.b/5y29c01.d

RT Summary

Internal Standard Name	File ID: 5y29c01.d	ICAL RT	In Spec
t-Butyl alcohol-d10	3.429	3.478	Yes
Fluorobenzene	6.892	6.934	Yes
Chlorobenzene-d5	10.690	10.684	Yes
1,4-Dichlorobenzene-d4	12.708	12.671	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: 5y29c01.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	346604	370304	185152	740608	Yes
Fluorobenzene	1014999	1062743	531372	2125486	Yes
Chlorobenzene-d5	809407	842446	421223	1684892	Yes
1,4-Dichlorobenzene-d4	437870	435155	217578	870310	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 05/29/2020 at 10:42

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.4049	0.4205	51.93	50	4	#
# Chloromethane	0.3212	0.3159	49.17	50	-2	#
1,3-Butadiene	0.4465	0.3261	36.51	50	-27	<-
# Vinyl Chloride	0.2841	0.3092	54.42	50	9	#
# Bromomethane	0.1907	0.2240	58.72	50	17	#
# Chloroethane	0.1345	0.1517	56.39	50	13	#
Dichlorofluoromethane	0.4383	0.4193	47.83	50	-4	
n-Pentane	0.3239	0.2982	46.03	50	-8	
# Trichlorofluoromethane	0.3480	0.3961	56.92	50	14	#
Ethyl ether	0.2399	0.2033	42.38	50	-15	
Freon 123a	0.3632	0.3380	46.53	50	-7	
Acrolein	1.5830	1.3509	426.70	500	-15	
# 1,1-Dichloroethene	0.2703	0.2570	47.52	50	-5	#
# 1,1-Dichloroethene(2)	0.1355	0.1311	48.38	50	-3	#
# Acetone	0.7807	0.7642	97.89	100	-2	#
# Freon 113	0.3060	0.2894	47.29	50	-5	#
2-Propanol	0.6353	0.4041	159.03	250	-36	<-
Methyl Iodide	0.5155	0.5174	50.19	50	0	
# Carbon Disulfide	0.9510	0.8859	46.58	50	-7	#
Allyl Chloride	0.4525	0.4073	45.01	50	-10	
# Methyl Acetate	0.3898	0.3713	47.63	50	-5	#
# Methylene Chloride	0.3047	0.2920	47.91	50	-4	#
t-Butyl alcohol	1.1775	0.8817	187.19	250	-25	<-
Acrylonitrile	0.2057	0.1899	46.16	50	-8	
# trans-1,2-Dichloroethene	0.3025	0.2909	48.08	50	-4	#
# Methyl Tertiary Butyl Ether	0.8001	0.7689	48.05	50	-4	#
n-Hexane	0.4485	0.3973	44.29	50	-11	
# 1,1-Dichloroethane	0.5476	0.5193	47.42	50	-5	#
di-Isopropyl ether	0.9781	0.8803	45.00	50	-10	
2-Chloro-1,3-butadiene	0.4652	0.4488	48.24	50	-4	
Ethyl t-butyl ether	0.8683	0.7746	44.60	50	-11	
# cis-1,2-Dichloroethene	0.3422	0.3287	48.04	50	-4	#
# 2-Butanone	0.2994	0.2606	87.03	100	-13	#
2,2-Dichloropropane	0.4620	0.4140	44.80	50	-10	
Propionitrile	1.2819	1.2229	238.50	250	-5	
Methacrylonitrile	0.2049	0.1962	119.70	125	-4	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Bromochloromethane	0.1567	0.1572	50.15	50	0	
Tetrahydrofuran	1.1586	1.0585	91.37	100	-9	
# Chloroform	0.5493	0.5339	48.60	50	-3	#
# 1,1,1-Trichloroethane	0.4945	0.4746	47.98	50	-4	#
# Cyclohexane	0.5759	0.4965	43.10	50	-14	#
# Cyclohexane(2)	0.4764	0.4235	44.44	50	-11	#
# Cyclohexane(3)	0.1786	0.1548	43.34	50	-13	#
1,1-Dichloropropene	0.4480	0.4244	47.37	50	-5	
# Carbon Tetrachloride	0.4315	0.4163	48.24	50	-4	#
Isobutyl Alcohol	0.3925	0.3543	564.08	625	-10	
# Benzene	1.3320	1.2615	47.35	50	-5	#
# 1,2-Dichloroethane	0.4091	0.3970	48.52	50	-3	#
# 1,2-Dichloroethane(2)	0.0346	0.0354	51.22	50	2	#<-
t-Amyl methyl ether	0.8664	0.7866	45.40	50	-9	
n-Heptane	0.4333	0.3946	45.53	50	-9	
n-Butanol	0.3387	0.2969	1095.85	1250	-12	
# Trichloroethene	0.3496	0.3407	48.74	50	-3	#
# Methylcyclohexane	0.5555	0.5007	45.06	50	-10	#
# Methylcyclohexane(2)	0.2352	0.2110	44.86	50	-10	#
# 1,2-Dichloropropane	0.3334	0.3151	47.25	50	-5	#
Dibromomethane	0.2100	0.2058	49.01	50	-2	
1,4-Dioxane	0.0840	0.0845	628.39	625	1	
Methyl Methacrylate	0.3120	0.3003	48.13	50	-4	
# Bromodichloromethane	0.4071	0.3940	48.39	50	-3	#
2-Nitropropane	0.1410	0.1319	93.53	100	-6	
2-Chloroethyl Vinyl Ether	0.2580	0.2366	45.85	50	-8	
# cis-1,3-Dichloropropene	0.5145	0.4920	47.81	50	-4	#
# 4-Methyl-2-pentanone	0.5771	0.5212	90.31	100	-10	#
# Toluene	1.0835	1.0313	47.59	50	-5	#
# trans-1,3-Dichloropropene	0.5813	0.5551	47.74	50	-5	#
Ethyl Methacrylate	0.6610	0.6206	46.94	50	-6	
# 1,1,2-Trichloroethane	0.3873	0.3754	48.45	50	-3	#
# Tetrachloroethene	0.4595	0.4645	50.54	50	1	#
1,3-Dichloropropane	0.6431	0.6129	47.64	50	-5	
# 2-Hexanone	0.5757	0.5358	93.07	100	-7	#
# Dibromochloromethane	0.4099	0.4012	48.94	50	-2	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# 1,2-Dibromoethane	0.4270	0.4215	49.36	50	-1	#
1-Chlorohexane	0.6301	0.5832	46.27	50	-7	
# Chlorobenzene	1.1759	1.1593	49.30	50	-1	#
1,1,1,2-Tetrachloroethane	0.4057	0.4104	50.58	50	1	
# Ethylbenzene	2.0950	2.0786	49.61	50	-1	#
# m+p-Xylene	0.8038	0.8017	99.73	100	0	#
# o-Xylene	0.7867	0.7723	49.09	50	-2	#
# Styrene	1.2679	1.2871	50.76	50	2	#
# Bromoform	0.2966	0.2979	50.23	50	0	#
# Isopropylbenzene	2.0646	2.0530	49.72	50	-1	#
Cyclohexanone	0.3859	0.3296	533.78	625	-15	
Bromobenzene	0.9532	0.9316	48.86	50	-2	
# 1,1,2,2-Tetrachloroethane	1.2935	1.2210	47.20	50	-6	#
1,2,3-Trichloropropane	0.3809	0.3706	48.65	50	-3	
trans-1,4-Dichloro-2-butene	0.2202	0.2237	109.33	125	-13	
n-Propylbenzene	4.6865	4.5259	48.29	50	-3	
2-Chlorotoluene	0.9606	0.9138	47.56	50	-5	
4-Chlorotoluene	0.9704	0.9451	48.70	50	-3	
1,3,5-Trimethylbenzene	3.2944	3.1967	48.52	50	-3	
tert-Butylbenzene	0.6547	0.6465	49.37	50	-1	
Pentachloroethane	0.5375	0.5350	49.76	50	0	
1,2,4-Trimethylbenzene	3.3925	3.3206	48.94	50	-2	
sec-Butylbenzene	4.0845	3.9650	48.54	50	-3	
# 1,3-Dichlorobenzene	1.7929	1.7580	49.03	50	-2	#
p-Isopropyltoluene	3.4062	3.3722	49.50	50	-1	
# 1,4-Dichlorobenzene	1.8196	1.7800	48.91	50	-2	#
1,2,3-Trimethylbenzene	3.2564	3.1970	49.09	50	-2	
Benzyl Chloride	2.4816	2.3073	46.49	50	-7	
1,3-Diethylbenzene	1.9681	1.9792	50.28	50	1	
1,4-Diethylbenzene	2.0356	2.0627	50.66	50	1	
# 1,2-Dichlorobenzene	1.7222	1.6806	48.79	50	-2	#
n-Butylbenzene	1.7181	1.6711	48.63	50	-3	
1,2-Diethylbenzene	1.6645	1.6417	49.32	50	-1	
# 1,2-Dibromo-3-chloropropane	0.3266	0.3245	49.68	50	-1	#
1,3,5-Trichlorobenzene	1.1375	1.1378	50.01	50	0	
# 1,2,4-Trichlorobenzene	1.0687	1.0509	49.17	50	-2	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP26285 Calibration Date: 05/29/20 Time: 10:11

Lab File ID: 5y29c01.d Init. Calib. Date(s): 04/21/20 04/21/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT
Hexachlorobutadiene	0.4110	0.4132	50.27	50	1
Naphthalene	4.2320	4.1875	49.47	50	-1
1,2,3-Trichlorobenzene	1.0575	1.0348	48.93	50	-2
2-Methylnaphthalene	2.1987	2.1351	48.55	50	-3
Dibromofluoromethane	0.2490	0.2538	50.95	50	2
Dibromofluoromethane(2)	0.2550	0.2587	50.73	50	1
1,2-Dichloroethane-d4	0.0557	0.0569	51.05	50	2
1,2-Dichloroethane-d4(2)	0.2723	0.2851	52.35	50	5
1,2-Dichloroethane-d4(3)	0.0357	0.0359	50.31	50	1
Toluene-d8	1.2288	1.2183	49.57	50	-1
Toluene-d8(2)	0.8091	0.7951	49.14	50	-2
4-Bromofluorobenzene	0.5177	0.5127	49.51	50	-1
4-Bromofluorobenzene(2)	0.4039	0.4220	52.24	50	4

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c01.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 08:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	297333	3.417	1014821	6.874	807296	10.678	434682	12.696
UPPER LIMIT	594666	3.917	2029642	7.374	1614592	11.178	869364	13.196
LOWER LIMIT	148666	2.917	507410	6.374	403648	10.178	217341	12.196
LAB SAMPLE ID								
01 LCS572	289246	3.423	1001983	6.873	789314	10.678	428224	12.695
02 VBLK572	281319	3.447	970263	6.874	761606	10.678	402762	12.696
03 1319246	281700	3.441	958804	6.873	753005	10.678	399336	12.696
04 1319248	283289	3.441	994490	6.880	782745	10.678	417126	12.696
05 1319229	305748	3.453	988667	6.880	779998	10.678	413652	12.695
06 1319230MS	291912	3.423	1010634	6.873	807844	10.677	438087	12.695
07 1319231MSD	291027	3.435	986009	6.880	779960	10.678	424089	12.696
08 1319239	325262	3.454	1033132	6.880	812564	10.678	430325	12.696
09 1319242	303052	3.447	951764	6.873	747381	10.678	397807	12.695
10 1319251	277060	3.466	1001424	6.880	785028	10.678	413998	12.696
11 1318263	293382	3.453	990357	6.880	782876	10.678	417243	12.696
12 1318277	279389	3.447	922948	6.880	731808	10.678	388333	12.696
13 1318292	275342	3.447	965832	6.880	769733	10.678	411388	12.696
14 1318293	278434	3.441	955750	6.880	758931	10.678	406015	12.702
15 1318293DL	267433	3.441	921355	6.880	732948	10.678	391786	12.696
16 1318295	290875	3.454	921268	6.880	731738	10.678	390321	12.702
17 1318295DL	268213	3.447	927542	6.880	742100	10.684	398207	12.702
18 1318296	251940	3.454	858830	6.880	685656	10.678	366449	12.702
19 1318296DL	247000	3.453	859564	6.886	687059	10.684	366454	12.702
20 1318297	246948	3.447	837828	6.880	670444	10.684	361591	12.702
21 1318298	258042	3.460	848033	6.880	679412	10.684	362982	12.702
22 1318299	235000	3.454	808277	6.880	644338	10.684	344655	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c01.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 08:46

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	297333	3.417	1014821	6.874	807296	10.678	434682	12.696
UPPER LIMIT	594666	3.917	2029642	7.374	1614592	11.178	869364	13.196
LOWER LIMIT	148666	2.917	507410	6.374	403648	10.178	217341	12.196
LAB SAMPLE ID								
23 1318300	241821	3.454	836181	6.886	669595	10.684	358407	12.702
24 1318301	248340	3.447	831011	6.880	665659	10.684	358031	12.702
25 1318302	232925	3.453	798815	6.886	641775	10.684	346160	12.702
26 1318303	224853	3.447	785113	6.880	631620	10.684	338918	12.702
27 1318294	239550	3.447	839998	6.880	673144	10.684	359411	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c50.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 20:12

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	230837	3.423	817966	6.880	662490	10.678	373763	12.702
UPPER LIMIT	461674	3.923	1635932	7.380	1324980	11.178	747526	13.202
LOWER LIMIT	115418	2.923	408983	6.380	331245	10.178	186882	12.202
LAB SAMPLE ID								
01 LCS573	267518	3.453	870740	6.880	701085	10.684	384631	12.702
02 LCS574	267518	3.453	870740	6.880	701085	10.684	384631	12.702
03 LCD573	275661	3.429	915629	6.880	730532	10.684	400844	12.702
04 LCD574	275661	3.429	915629	6.880	730532	10.684	400844	12.702
05 VBLK573	275498	3.460	906238	6.886	721241	10.684	385606	12.702
06 VBLK574	275498	3.460	906238	6.886	721241	10.684	385606	12.702
07 1319994	267862	3.453	865866	6.879	693901	10.684	373334	12.702
08 1319996	253591	3.454	853682	6.880	684661	10.678	370097	12.702
09 1318278	261150	3.447	866487	6.880	697043	10.678	376345	12.702
10 1318280	250333	3.447	859721	6.880	695861	10.678	373335	12.702
11 1318281	241259	3.441	796387	6.880	641305	10.678	345880	12.696
12 1318282	227224	3.453	782859	6.880	631677	10.678	341004	12.702
13 1318284	223177	3.441	775324	6.874	625965	10.678	337025	12.702
14 1318304	240652	3.447	799287	6.880	647188	10.678	348923	12.702
15 1318305	231576	3.460	767912	6.880	620116	10.684	334758	12.702
16 1318306	225980	3.453	764757	6.880	617283	10.678	335174	12.702
17 1319980	229441	3.441	807964	6.880	655068	10.678	353501	12.702
18 1319981MS	247887	3.435	821381	6.880	664722	10.684	379898	12.702
19 1319982MSD	258873	3.447	836496	6.880	675915	10.684	377771	12.702
20 1319990	269099	3.447	827257	6.880	667849	10.684	358138	12.702
21 1318294DL	241419	3.454	813558	6.886	655869	10.684	350721	12.702
22 1318279	255502	3.454	846571	6.880	682422	10.684	367914	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y27c50.d Date Analyzed: 05/27/20

Instrument ID: HP26285 Time Analyzed: 20:12

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	230837	3.423	817966	6.880	662490	10.678	373763	12.702
UPPER LIMIT	461674	3.923	1635932	7.380	1324980	11.178	747526	13.202
LOWER LIMIT	115418	2.923	408983	6.380	331245	10.178	186882	12.202
LAB SAMPLE ID								
23 1318283	226090	3.453	764271	6.880	616470	10.684	331388	12.702
24 1314747	179681	3.441	785049	6.880	630052	10.684	346591	12.702
25 1314747MS	202781	3.459	848691	6.880	689254	10.684	389096	12.702
26 1316625	261810	3.460	834982	6.880	673663	10.684	362957	12.702
27 1317516DL2	240873	3.460	797617	6.880	645212	10.684	346390	12.702
28 1320777	237772	3.466	772392	6.886	625674	10.684	338367	12.702

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y29c01.d Date Analyzed: 05/29/20

Instrument ID: HP26285 Time Analyzed: 10:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	346604	3.429	1014999	6.892	809407	10.690	437870	12.708
UPPER LIMIT	693208	3.929	2029998	7.392	1618814	11.190	875740	13.208
LOWER LIMIT	173302	2.929	507500	6.392	404704	10.190	218935	12.208
LAB SAMPLE ID								
01 LCS578	350785	3.441	1006881	6.892	801216	10.690	433991	12.708
02 VBLK578	316522	3.460	982866	6.892	775701	10.690	414789	12.708
03 1318262	333772	3.460	1026061	6.898	810183	10.696	431198	12.708
04 1318286	302011	3.472	979977	6.898	778035	10.690	415472	12.708
05 1318287MS	321317	3.447	1008110	6.898	805354	10.690	442974	12.708
06 1318288MSD	319065	3.453	966491	6.898	769934	10.690	417150	12.708
07 1318260	279322	3.460	913731	6.898	721928	10.690	382631	12.708
08 1318261	278573	3.466	919108	6.898	727889	10.690	389747	12.708
09 1318264	270856	3.454	887285	6.898	702913	10.696	376381	12.708
10 1318265	268209	3.466	910434	6.898	726642	10.696	388532	12.708
11 1318266	285897	3.472	918843	6.904	730964	10.696	389958	12.708
12 1318267	270383	3.466	891719	6.898	714630	10.696	383483	12.708
13 1318268	272514	3.478	918853	6.904	733798	10.696	396078	12.708
14 1318269	267987	3.466	911963	6.898	733689	10.696	396307	12.708
15 1318270	253371	3.460	868259	6.898	695788	10.696	377766	12.708
16 1318271	252383	3.466	860432	6.898	693221	10.690	375733	12.708
17 1318272	255843	3.460	838863	6.898	677086	10.690	365155	12.708
18 1318273	234537	3.454	825368	6.898	667387	10.690	363695	12.708
19 1318274	235452	3.459	814853	6.898	661986	10.696	357369	12.708
20 1318275	234276	3.466	787039	6.904	640011	10.696	346605	12.708
21 1318276	234405	3.472	791893	6.904	647201	10.696	352242	12.708
22 1318285	216283	3.460	758959	6.898	616400	10.696	333736	12.708

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): 5y29c01.d Date Analyzed: 05/29/20

Instrument ID: HP26285 Time Analyzed: 10:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	346604	3.429	1014999	6.892	809407	10.690	437870	12.708
UPPER LIMIT	693208	3.929	2029998	7.392	1618814	11.190	875740	13.208
LOWER LIMIT	173302	2.929	507500	6.392	404704	10.190	218935	12.208
	LAB SAMPLE ID							
23	1318289	219847	3.460	746594	6.898	607500	10.696	330237	12.708
24	1318290	222843	3.472	749911	6.904	613343	10.696	332957	12.708
25	1318291	217944	3.459	739166	6.898	607713	10.696	328476	12.708

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5901

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318285

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s21.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5901 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318285

Data file: /chem2/HP26285.i/20may29a.b/5y29s21.d Injection date and time: **29-MAY-2020 18:44**
Data file Sample Info. Line: W5901;1318285;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	216283	(-38)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	758959	(-25)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	616400	(-24)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	333736	(-24)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	200110	52.936	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447	(0.000)	102	44495	52.628	105%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	725280	47.878	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	296789	46.500	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.350	(0.001)	63	3631	0.437	0.44		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.965	(-0.000)	97	7617	1.015	1.01			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s21.d Injection date and time: **29-MAY-2020 18:44**
Data file Sample Info. Line: W5901;1318285;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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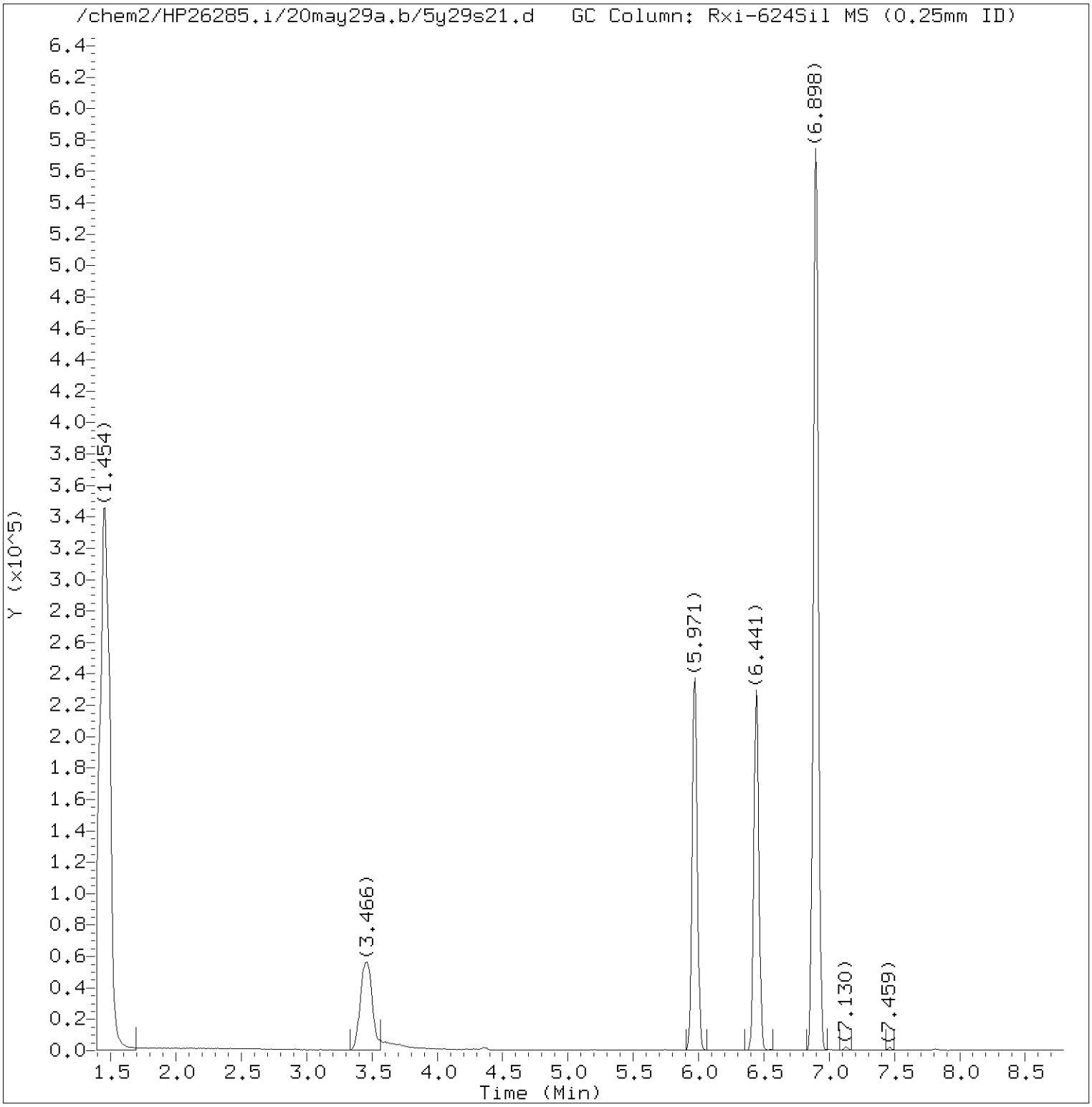
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

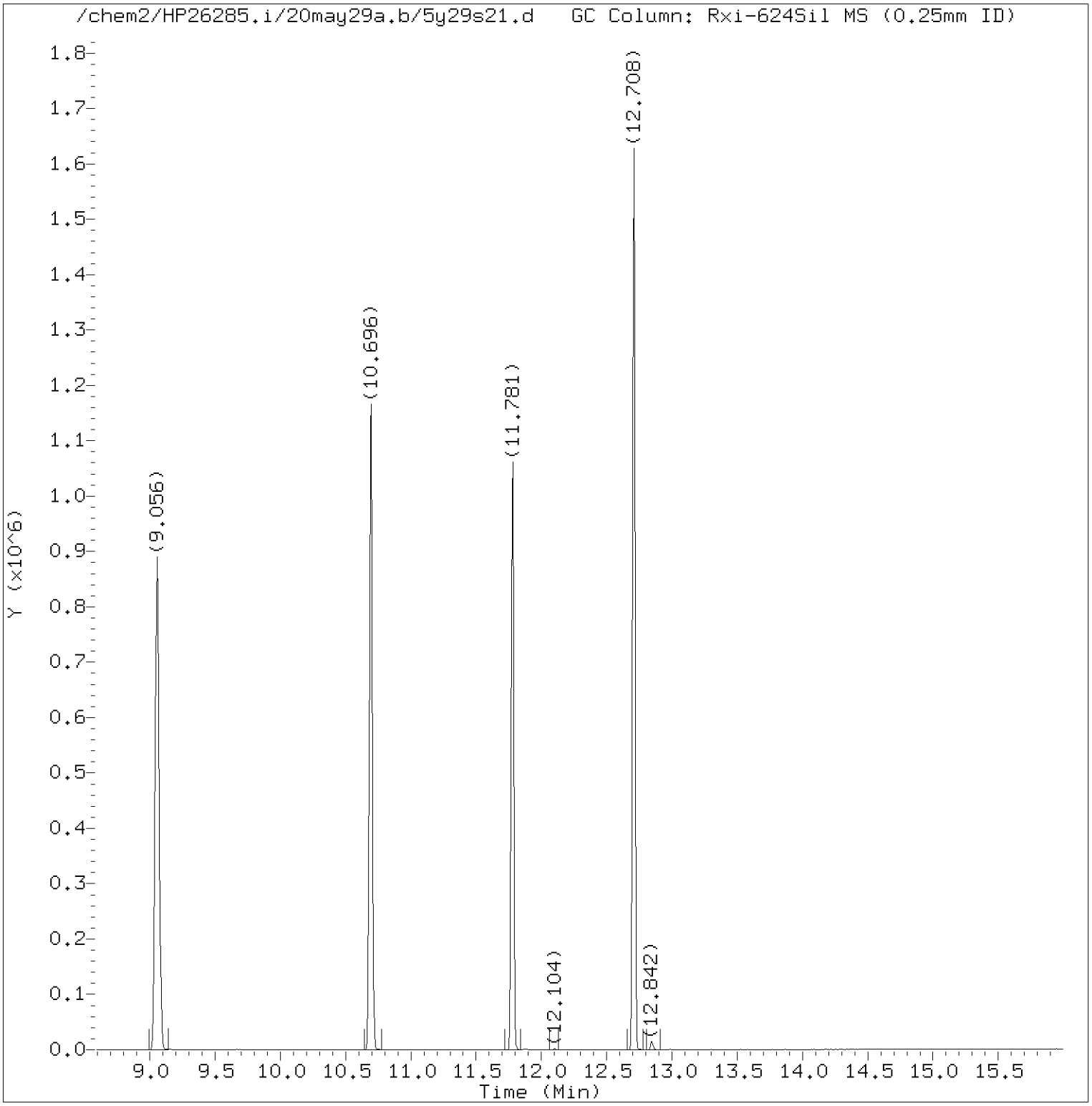
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s21.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:44 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Sample Name: W5901 Lab Sample ID: 1318285

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s21.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:44 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Sample Name: W5901 Lab Sample ID: 1318285

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s21.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:44 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

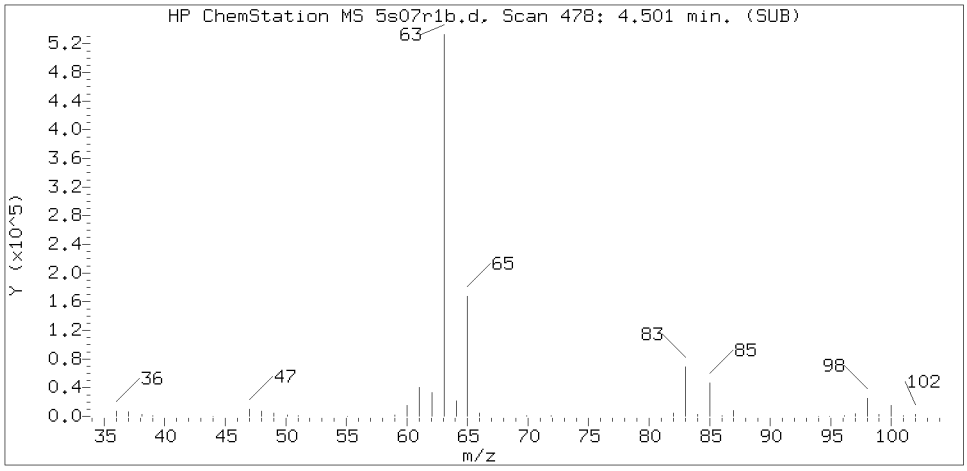
Sample Name: W5901 Lab Sample ID: 1318285

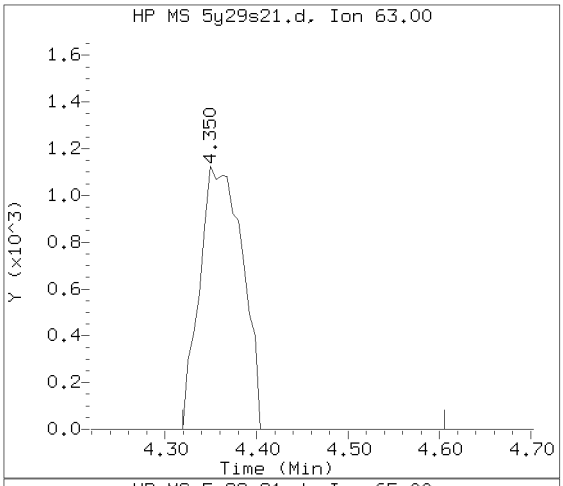
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	216283	250.000
36) 1,1-Dichloroethane	(2)	4.350	63	3631	0.437
53) 1,1,1-Trichloroethane	(2)	5.965	97	7617	1.015
52)$Dibromofluoromethane	(2)	5.971	113	200110	52.936
57)$1,2-Dichloroethane-d4	(2)	6.447	102	44495	52.628
66)*Fluorobenzene	(2)	6.898	96	758959	50.000
84)$Toluene-d8	(3)	9.056	98	725280	47.878
101)*Chlorobenzene-d5	(3)	10.696	117	616400	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	296789	46.500
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	333736	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

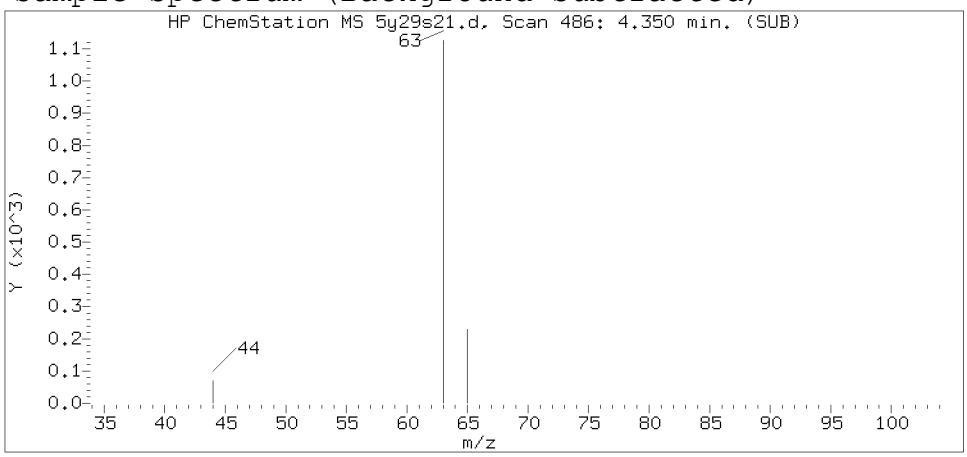
Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

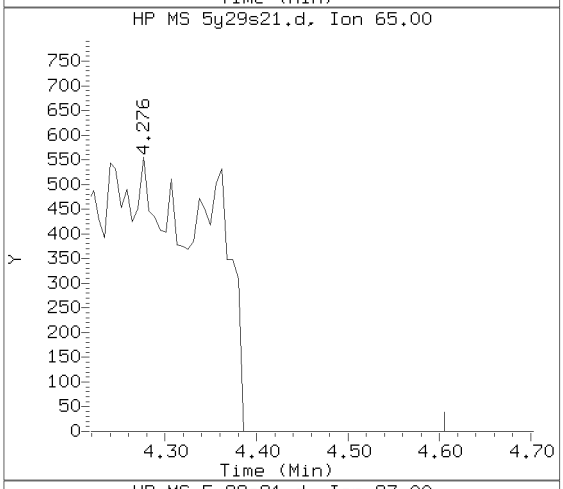
Reference Standard Spectrum for 1,1-Dichloroethane



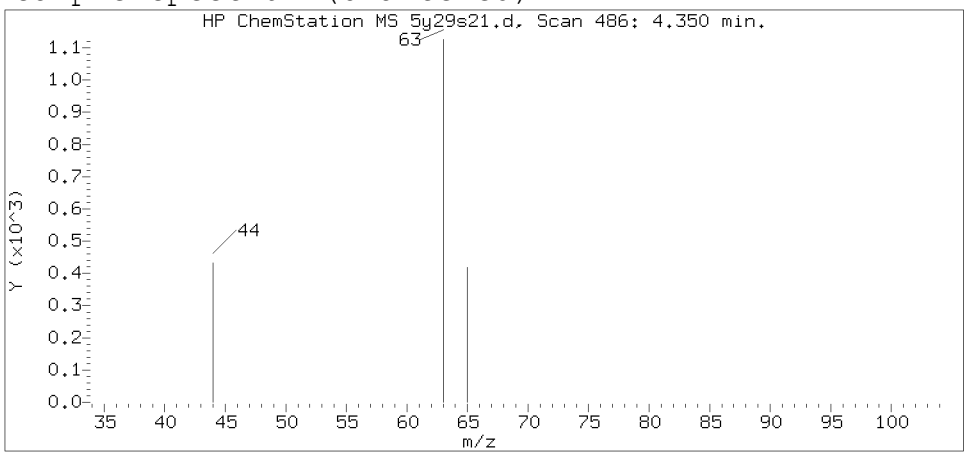


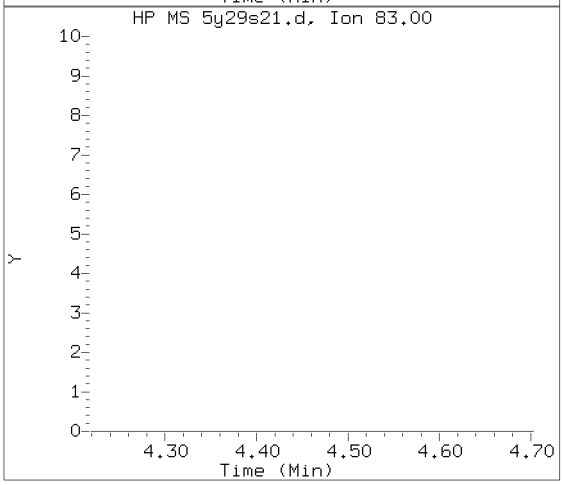
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s21.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:44 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Sample Name: W5901 Lab Sample ID: 1318285

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 486
Retention Time (minutes): 4.350
Relative Retention Time : 0.00145
Quant Ion : 63.00
Area (flag) : 3631
On-Column Amount (ng) : 0.4369

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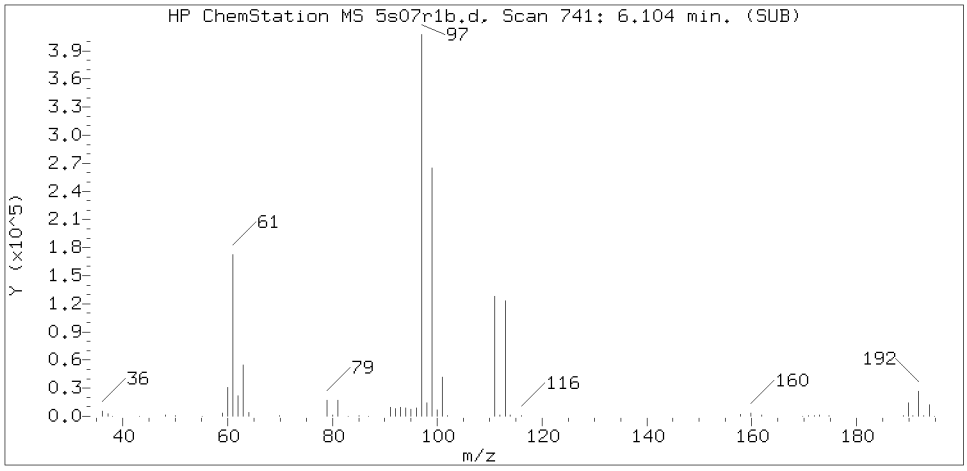
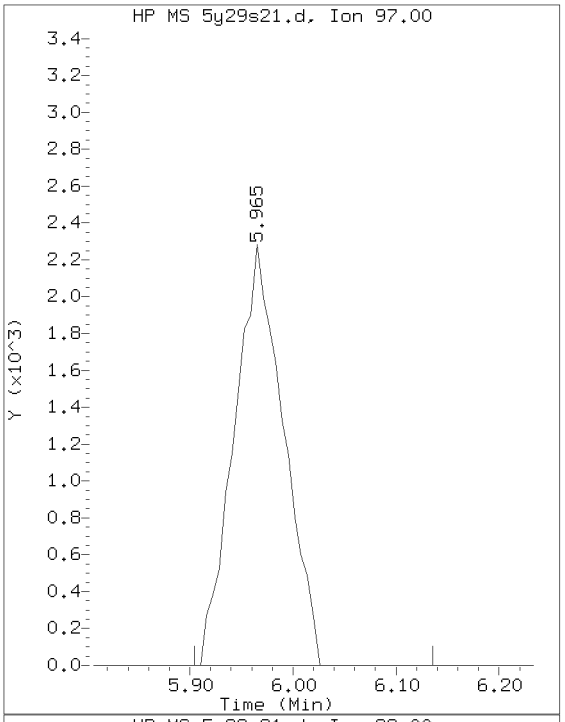
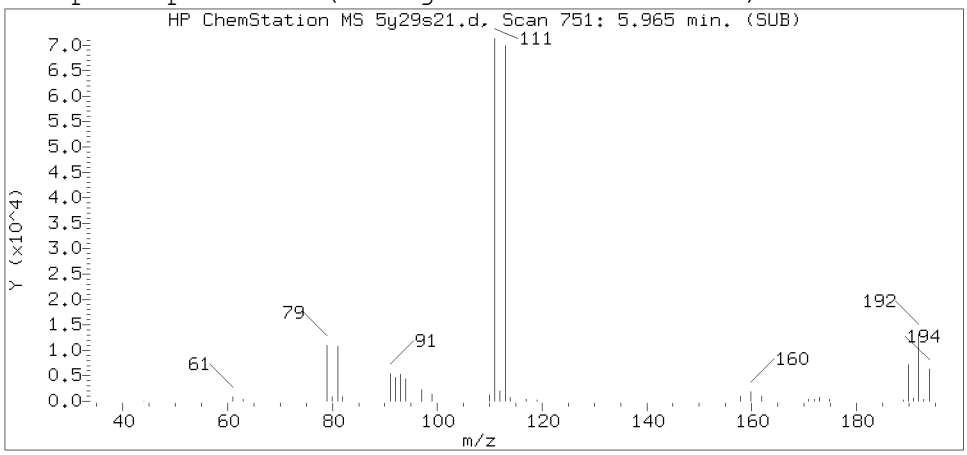
Target 3.5 esignature user ID: ljg30941

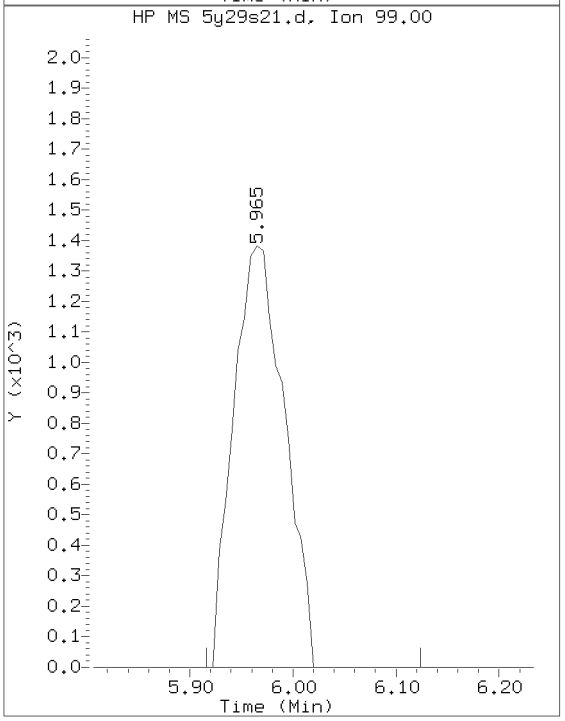
Reference Standard Spectrum for 1,1,1-Trichloroethane



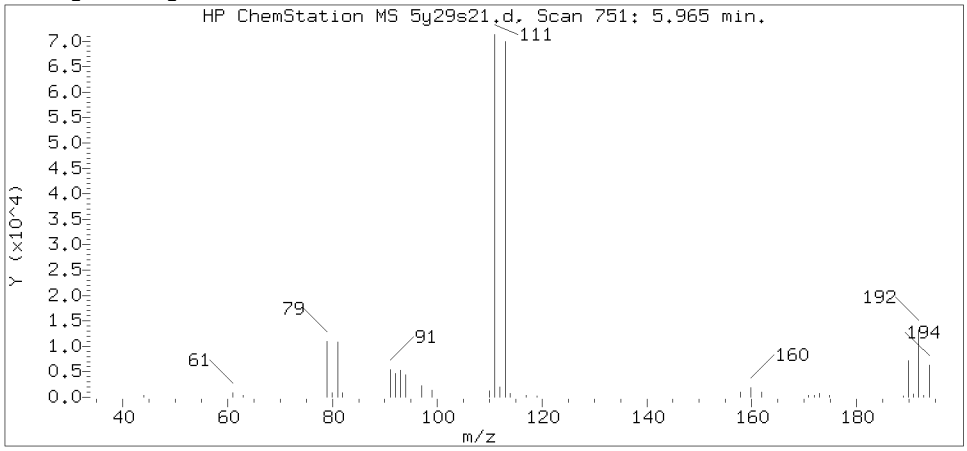


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s21.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 18:44 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:02 chemist

Sample Name: W5901 Lab Sample ID: 1318285

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 751
Retention Time (minutes)	: 5.965
Relative Retention Time	:-0.00012
Quant Ion	: 97.00
Area (flag)	: 7617
On-Column Amount (ng)	: 1.0148

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5902

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318286

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s03.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.3	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.5	J
71-55-6	1,1,1-Trichloroethane	14	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	31	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5902 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318286

Data file: /chem2/HP26285.i/20may29a.b/5y29s03.d Injection date and time: **29-MAY-2020 12:33**
Data file Sample Info. Line: W5902;1318286;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.472(-0.043)	342	65	302011 (-13)	250.00	
66) Fluorobenzene	6.898(-0.006)	904	96	979977 (-3)	50.00	
101) Chlorobenzene-d5	10.690(0.000)	1526	117	778035 (-4)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708(0.000)	1857	152	415472 (-5)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.965(0.000)	113	249228	51.060	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441(0.001)	102	56466	51.724	103%		80 - 120
84) Toluene-d8	(3)	9.056(-0.001)	98	932246	48.756	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775(0.000)	95	384665	47.747	95%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.886(-0.000)	96	5269	0.994	0.99		J	0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.368(-0.001)	63	3360	0.313	0.31		J	0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)	5.740(0.000)	83	5871	0.545	0.55		J	0.2	1
53) 1,1,1-Trichloroethane	(2)	5.965(-0.000)	97	140003	14.445	14.44			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.398(0.000)	95	215403	31.441	31.44			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s03.d Injection date and time: **29-MAY-2020 12:33**
Data file Sample Info. Line: W5902;1318286;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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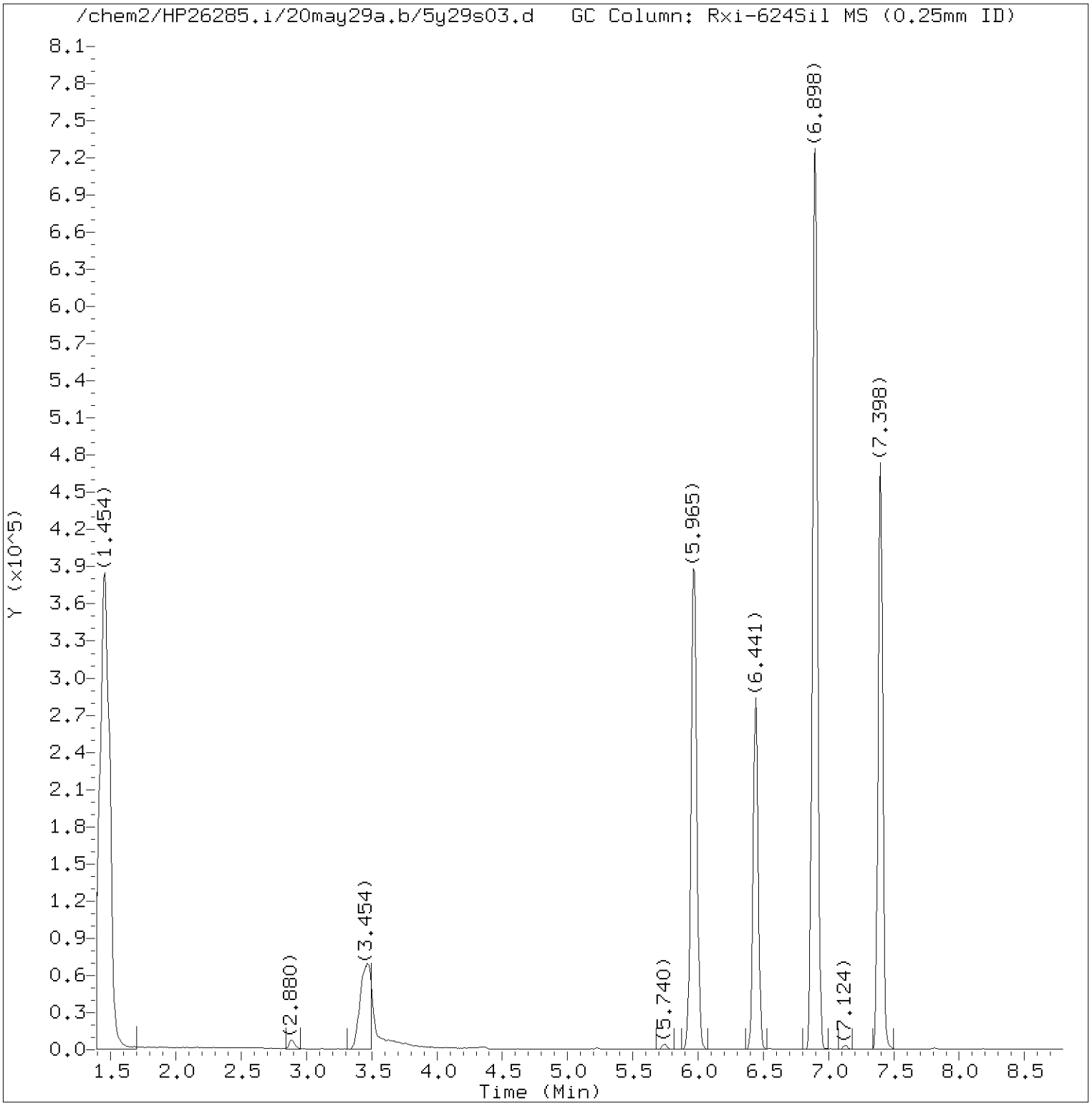
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:47. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

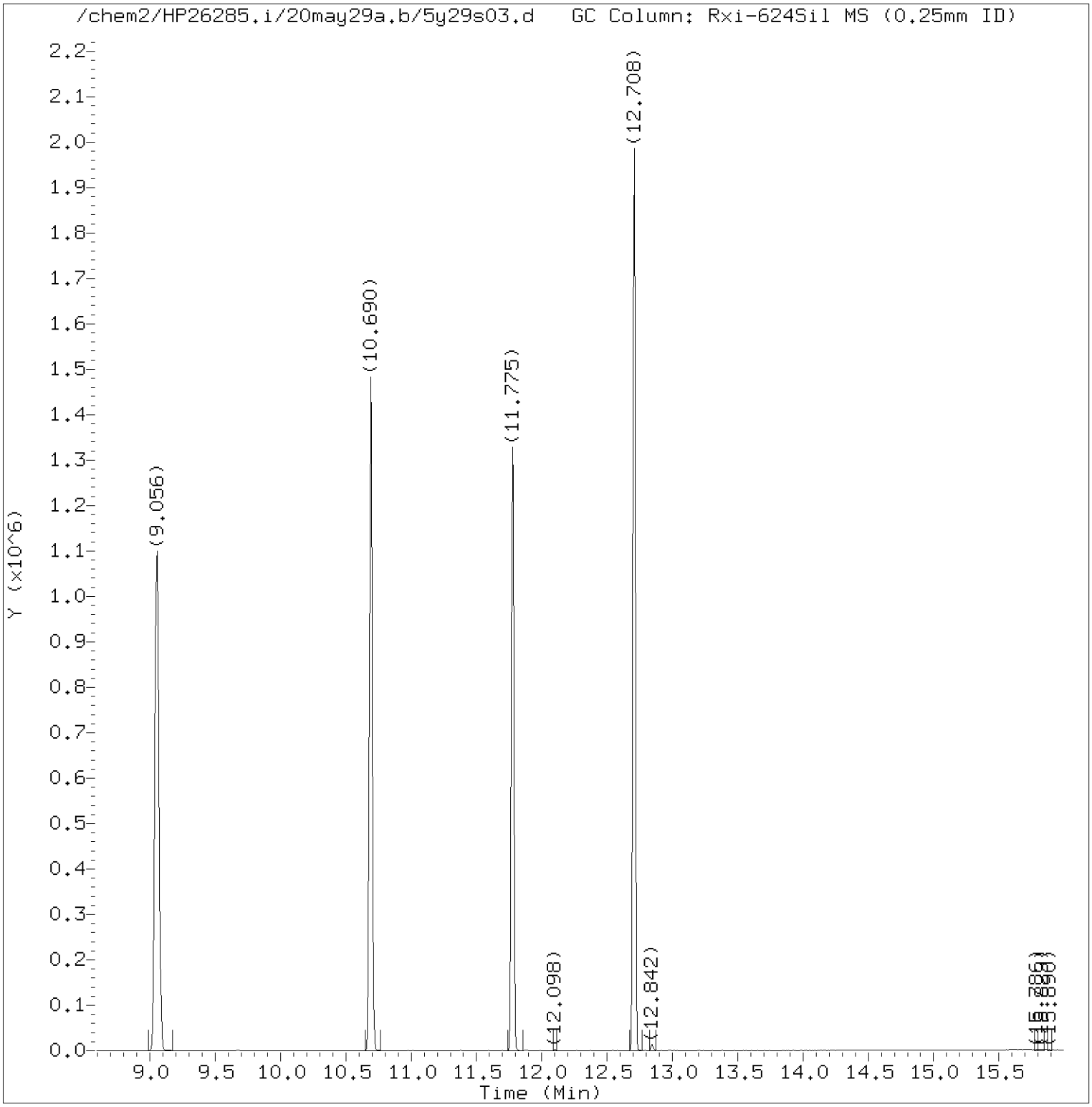
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Sample Name: W5902 Lab Sample ID: 1318286

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Sample Name: W5902 Lab Sample ID: 1318286

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Sample Name: W5902 Lab Sample ID: 1318286

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.887	96	5269	0.994
29)*t-Butyl alcohol-d10	(1)	3.472	65	302011	250.000
36) 1,1-Dichloroethane	(2)	4.368	63	3360	0.313
51) Chloroform	(2)	5.740	83	5871	0.545
53) 1,1,1-Trichloroethane	(2)	5.965	97	140003	14.445
52)$Dibromofluoromethane	(2)	5.965	113	249228	51.060
57)$1,2-Dichloroethane-d4	(2)	6.441	102	56466	51.724
66)*Fluorobenzene	(2)	6.898	96	979977	50.000
71) Trichloroethene	(2)	7.398	95	215403	31.441
84)$Toluene-d8	(3)	9.056	98	932246	48.756
101)*Chlorobenzene-d5	(3)	10.690	117	778035	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	384665	47.747
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	415472	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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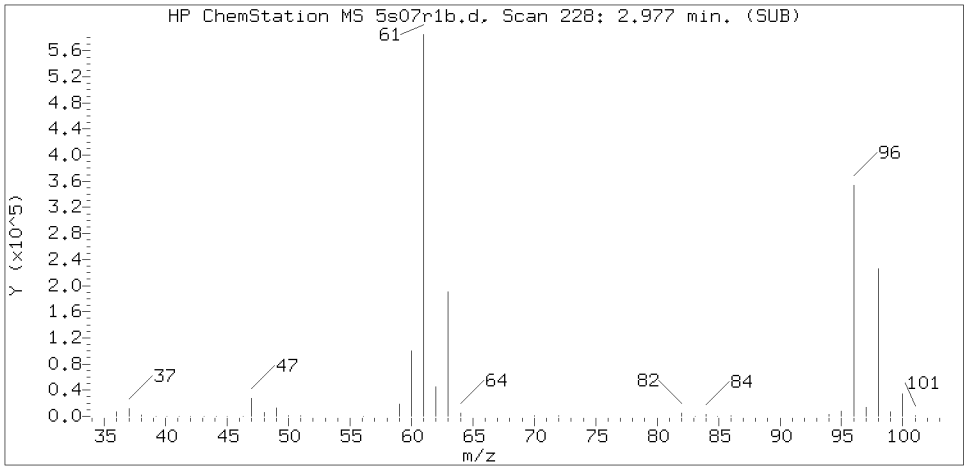
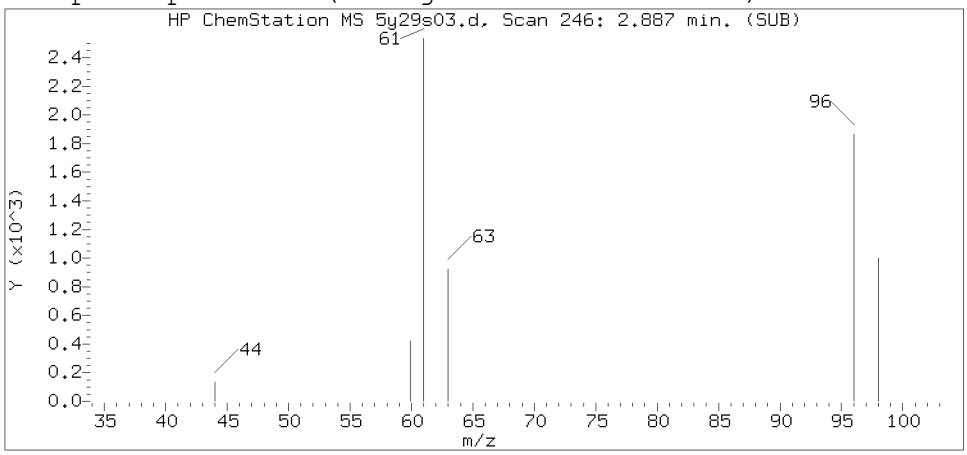
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

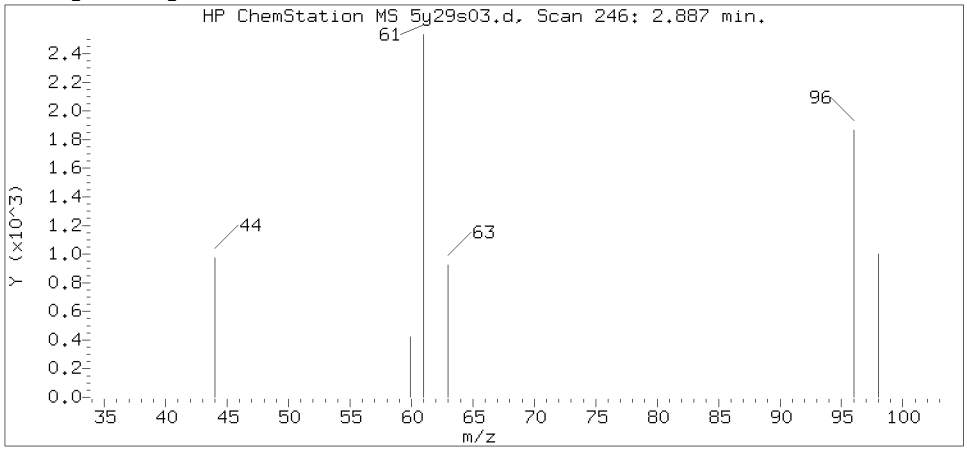
Reference Standard Spectrum for 1,1-Dichloroethene

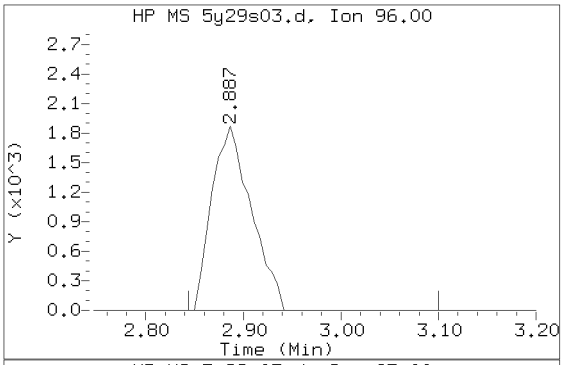


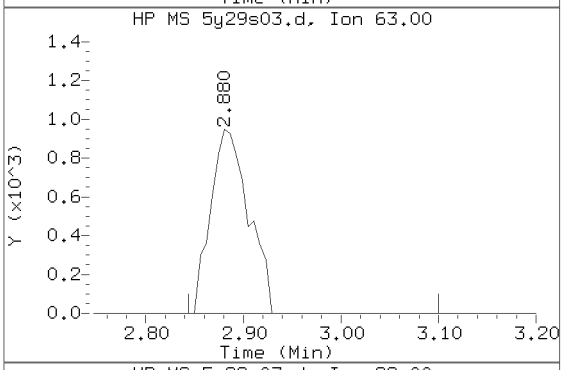
Sample Spectrum (Background Subtracted)

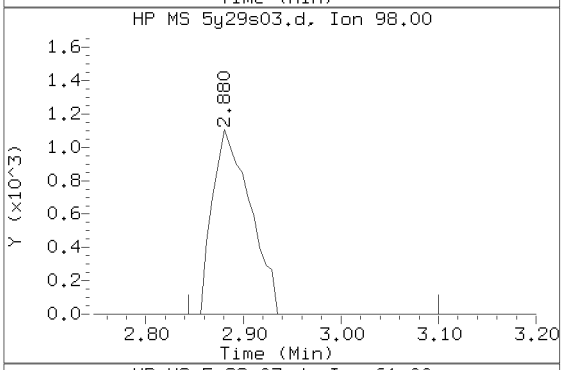


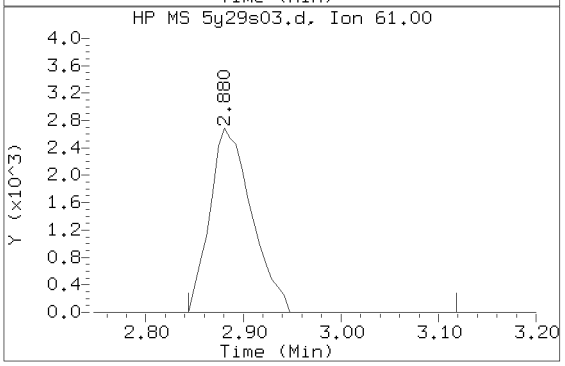
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

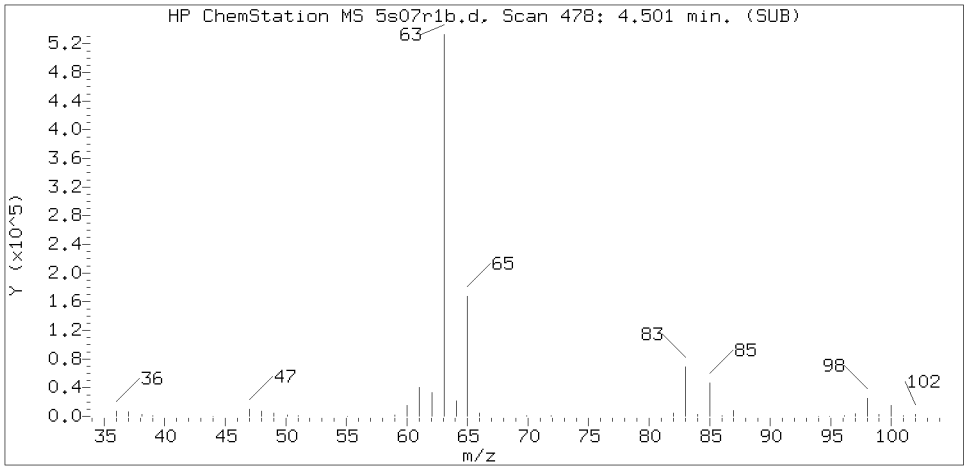
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

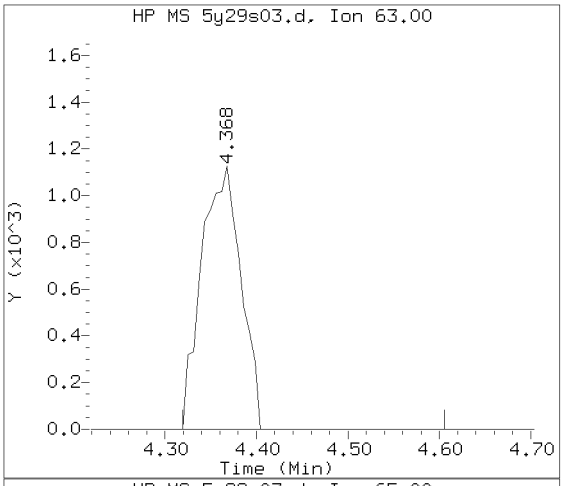
Sample Name: W5902 Lab Sample ID: 1318286

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 246
Retention Time (minutes): 2.887
Relative Retention Time :-0.00051
Quant Ion : 96.00
Area (flag) : 5269
On-Column Amount (ng) : 0.9944

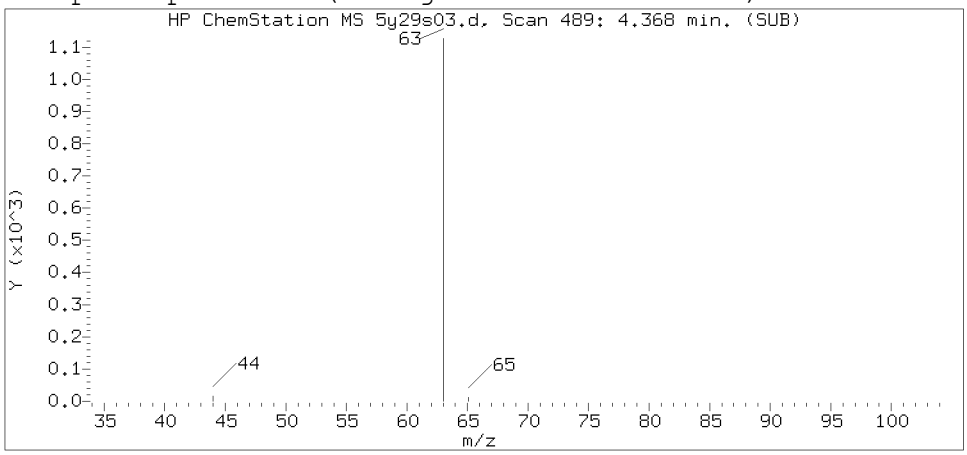
Digitally signed by Laura J. Green on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

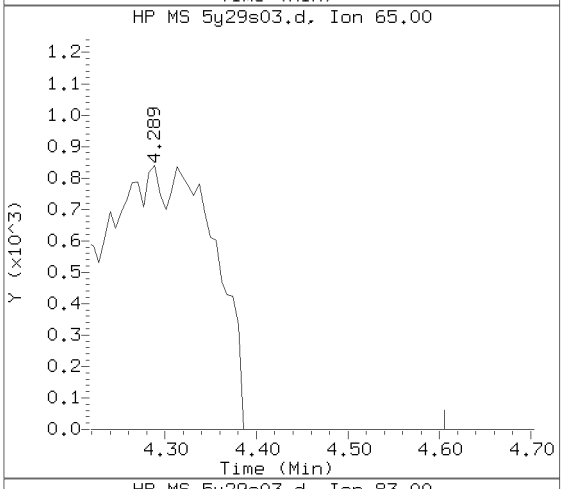
Reference Standard Spectrum for 1,1-Dichloroethane



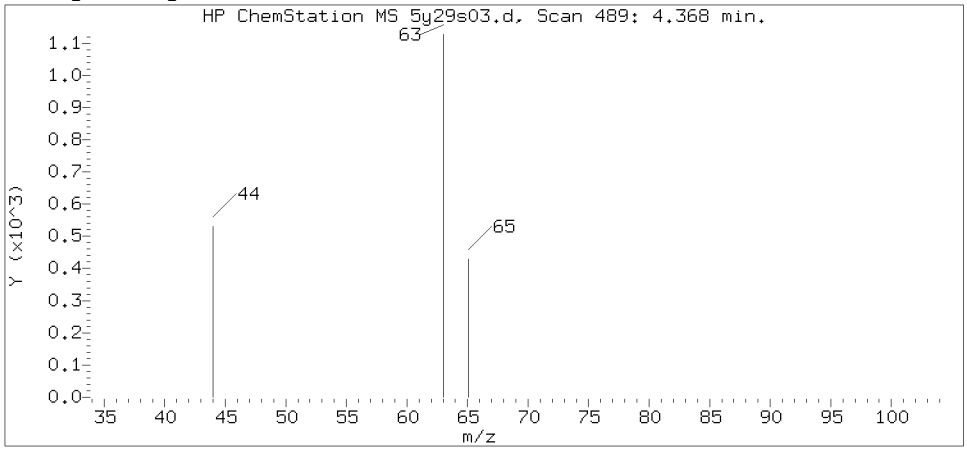


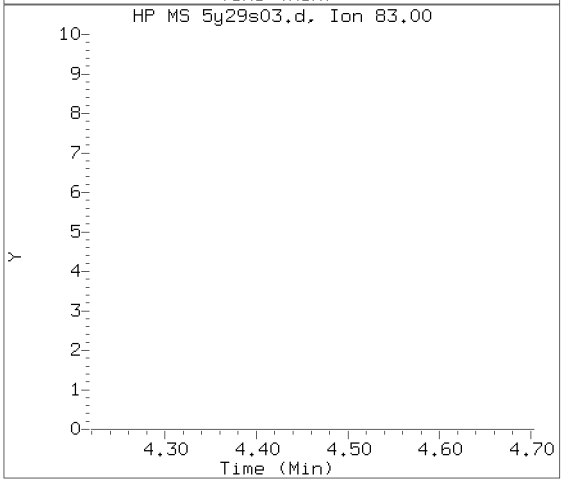
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

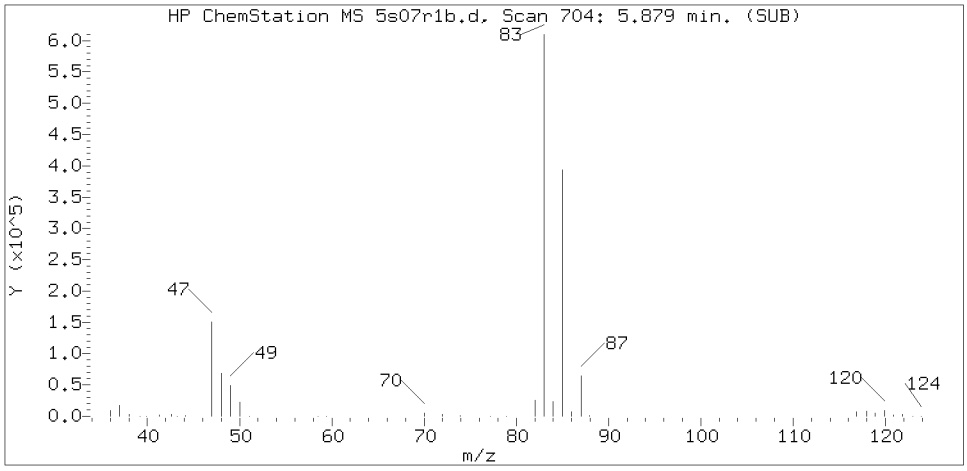
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

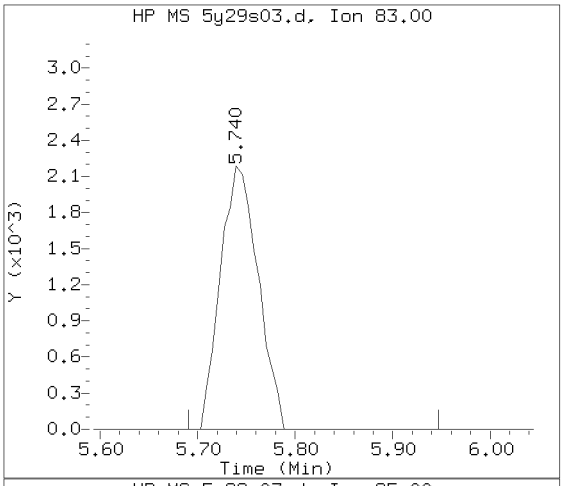
Sample Name: W5902 Lab Sample ID: 1318286

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 489
Retention Time (minutes): 4.368
Relative Retention Time :-0.00121
Quant Ion : 63.00
Area (flag) : 3360
On-Column Amount (ng) : 0.3131

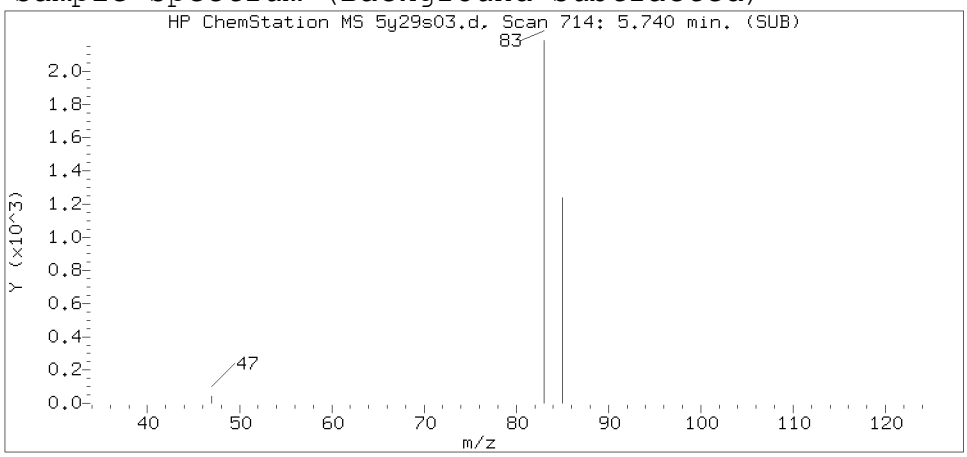
Digitally signed by Laura J. Green on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

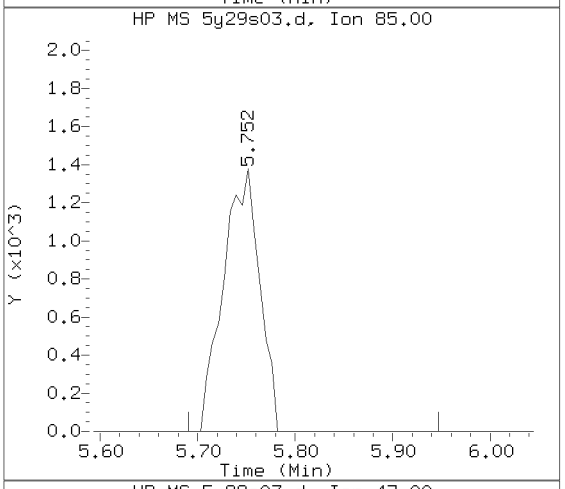
Reference Standard Spectrum for Chloroform



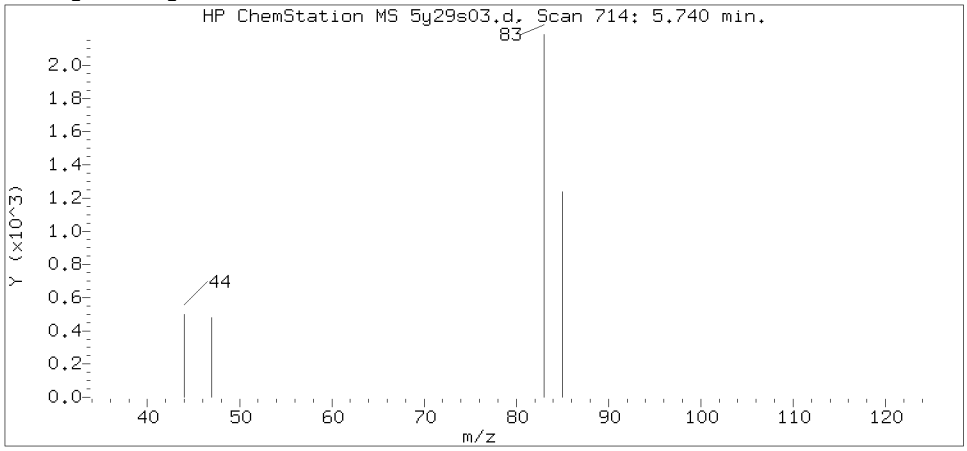


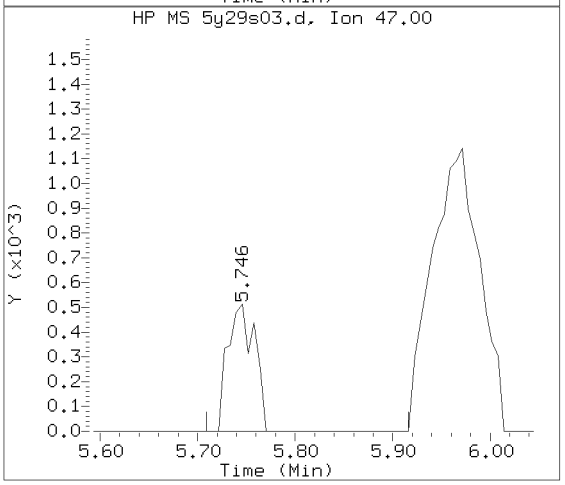
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

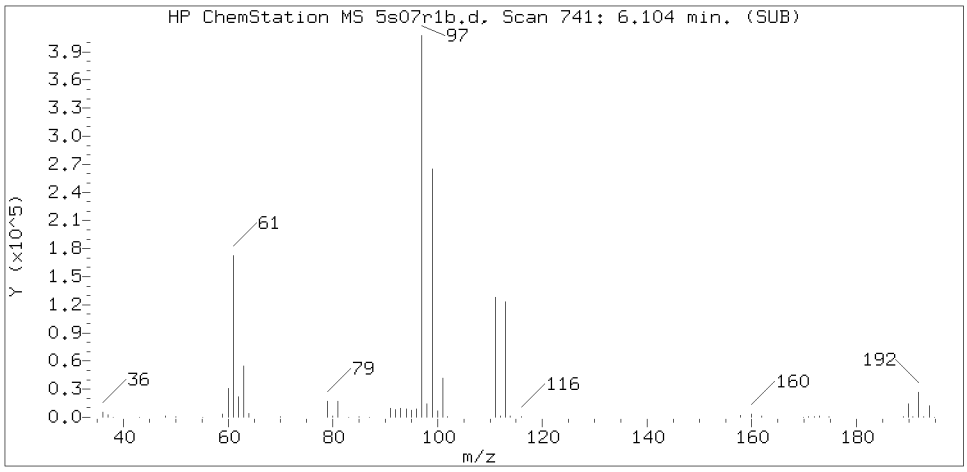
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

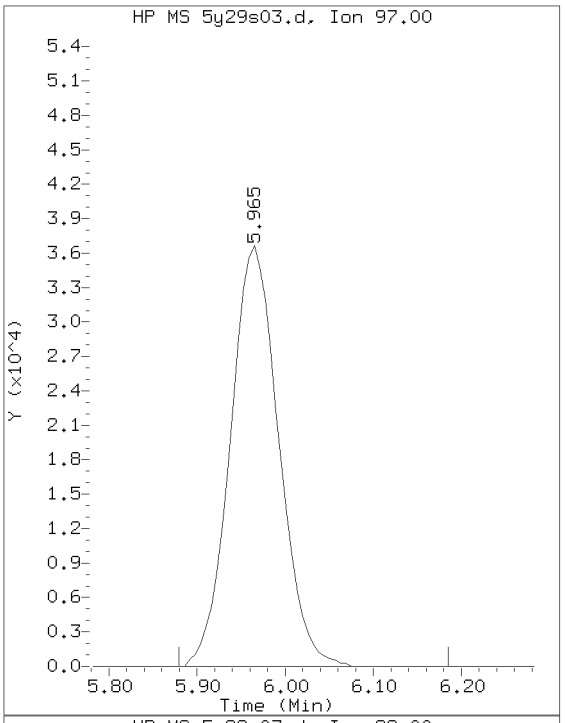
Sample Name: W5902 Lab Sample ID: 1318286

Compound Number : 51
Compound Name : Chloroform
Scan Number : 714
Retention Time (minutes): 5.740
Relative Retention Time : 0.00073
Quant Ion : 83.00
Area (flag) : 5871
On-Column Amount (ng) : 0.5454

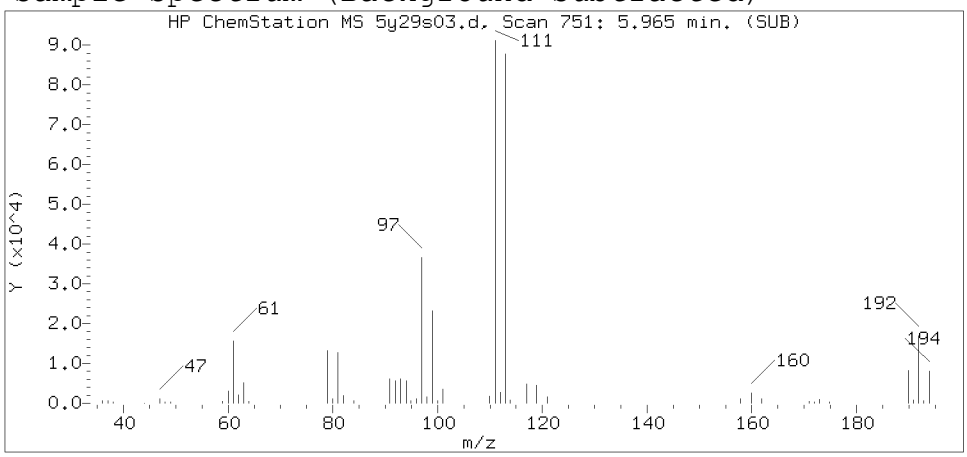
Digitally signed by Laura J. Green on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

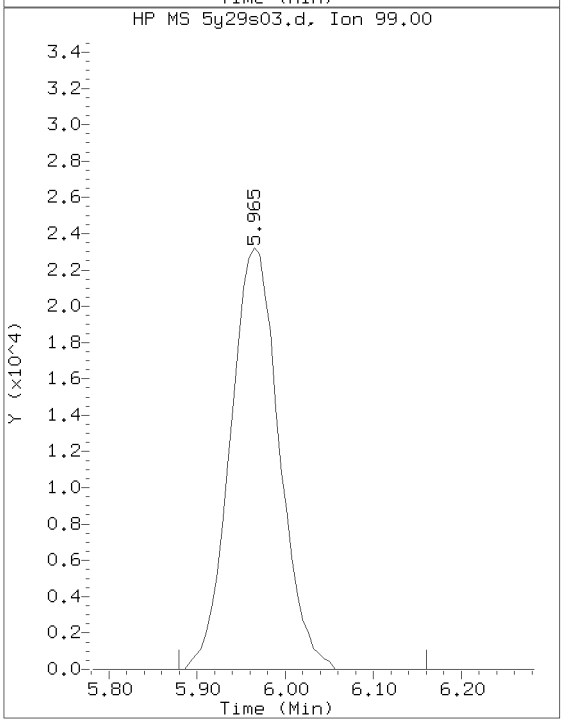
Reference Standard Spectrum for 1,1,1-Trichloroethane



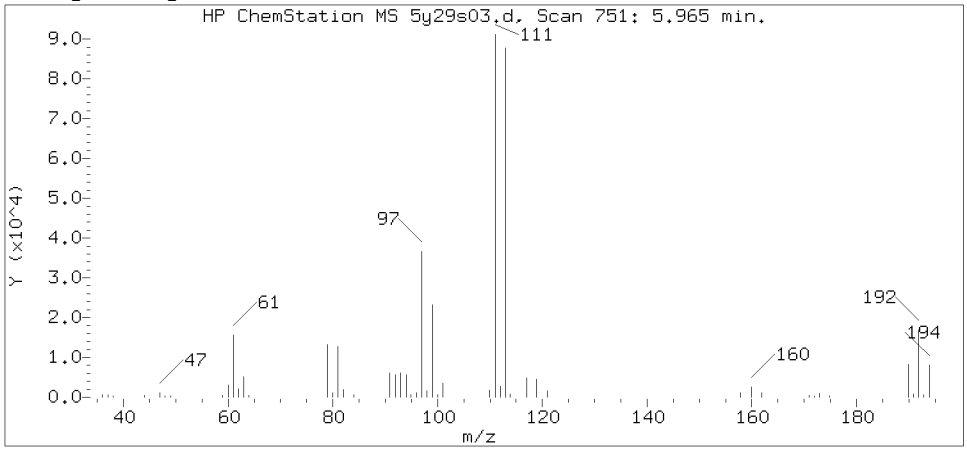


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Sample Name: W5902 Lab Sample ID: 1318286

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 751
Retention Time (minutes): 5.965
Relative Retention Time :-0.00012
Quant Ion : 97.00
Area (flag) : 140003
On-Column Amount (ng) : 14.4447

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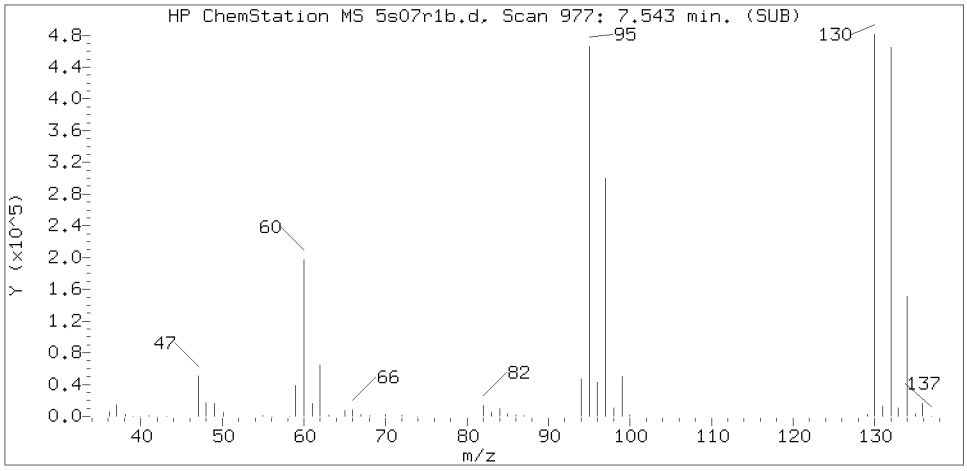
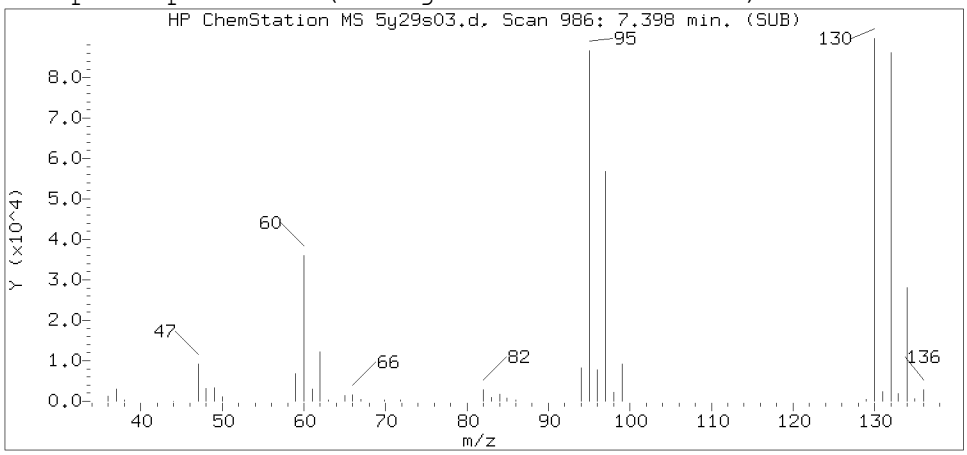
Target 3.5 esignature user ID: ljg30941

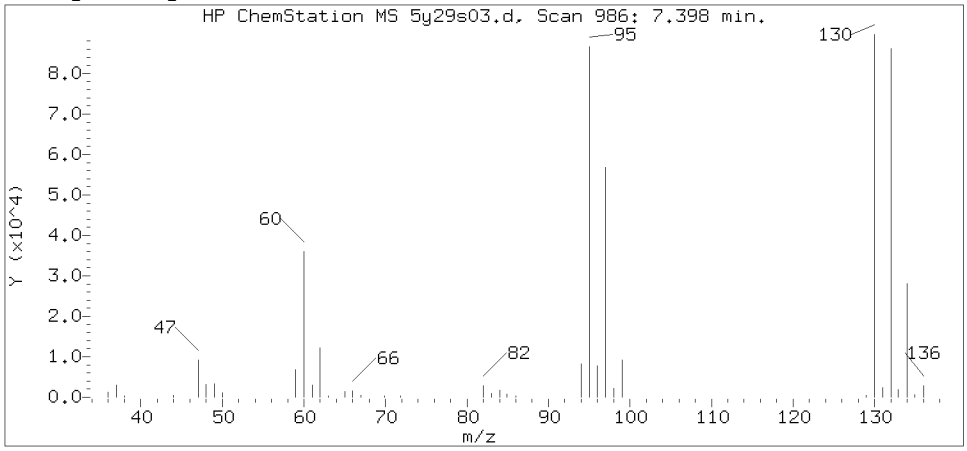
Reference Standard Spectrum for Trichloroethene

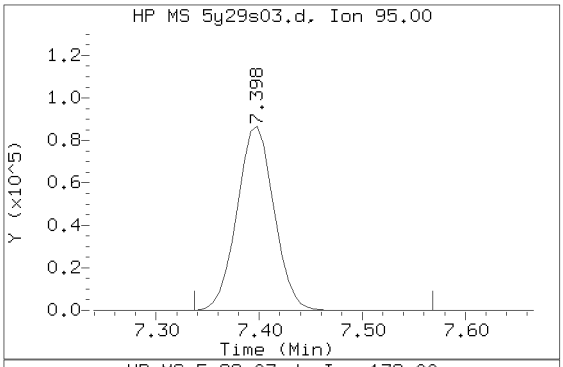


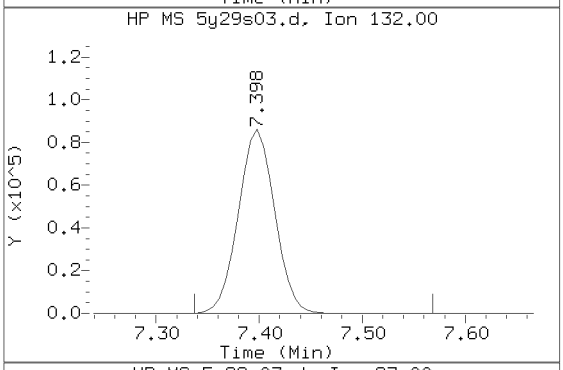
Sample Spectrum (Background Subtracted)

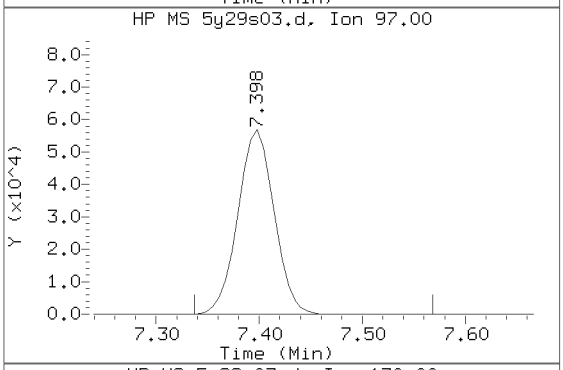


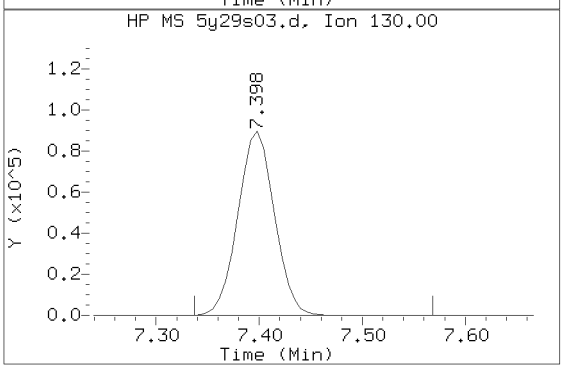
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may29a.b/5y29s03.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:45 ljg30941

Sample Name: W5902 Lab Sample ID: 1318286

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 986
Retention Time (minutes)	: 7.398
Relative Retention Time	: 0.00006
Quant Ion	: 95.00
Area (flag)	: 215403
On-Column Amount (ng)	: 31.4405

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5903

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318289

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s22.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5903 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318289

Data file: /chem2/HP26285.i/20may29a.b/5y29s22.d Injection date and time: **29-MAY-2020 19:04**
Data file Sample Info. Line: W5903;1318289;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:22 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	219847	(-37)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	746594	(-26)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	607500	(-25)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	330237	(-25)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	198774	53.453	107%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	44337	53.310	107%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	716763	48.009	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.001)	95	291234	46.298	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may29a.b/5y29s22.d Injection date and time: **29-MAY-2020 19:04**
Data file Sample Info. Line: W5903;1318289;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:22 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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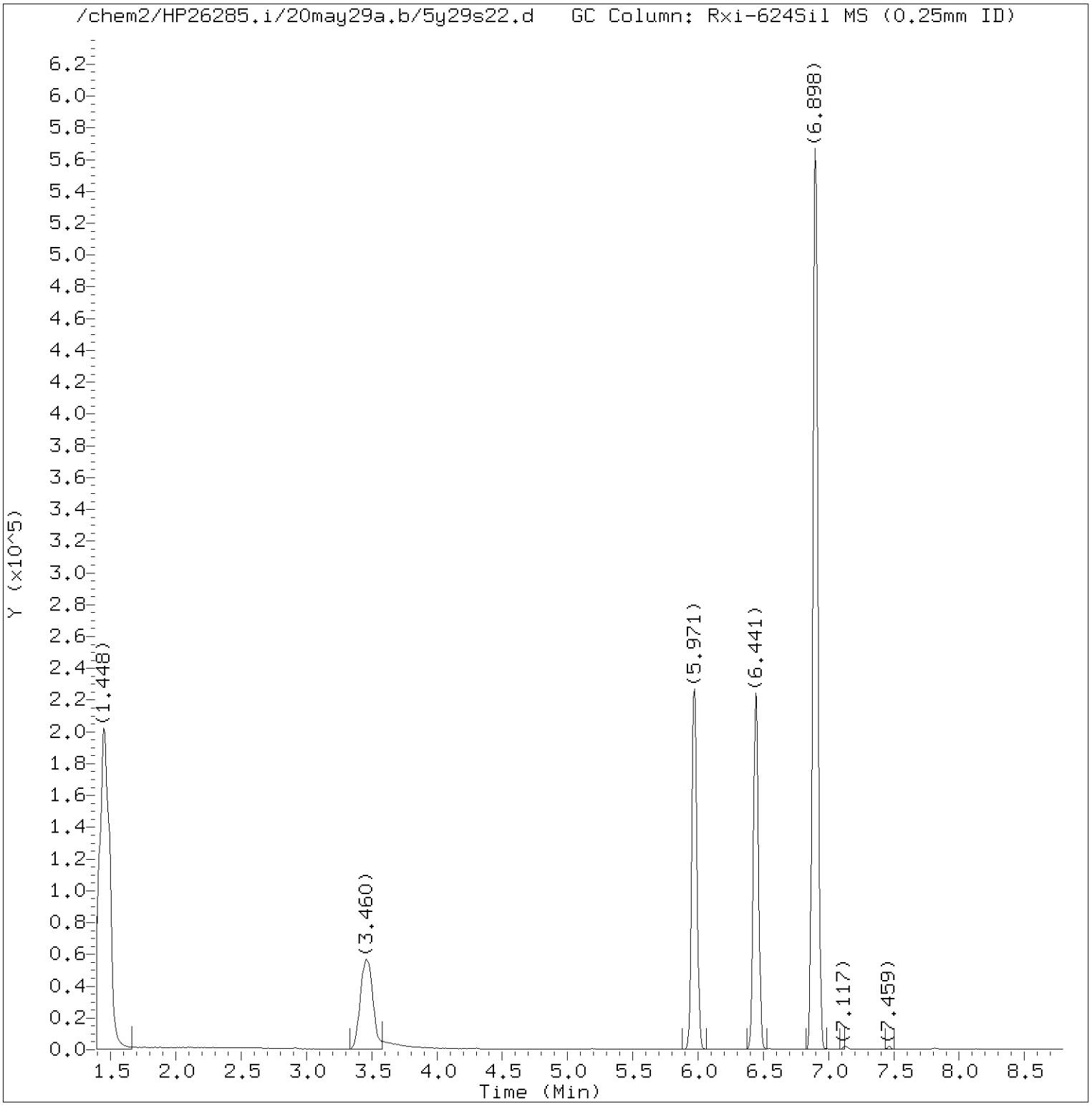
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

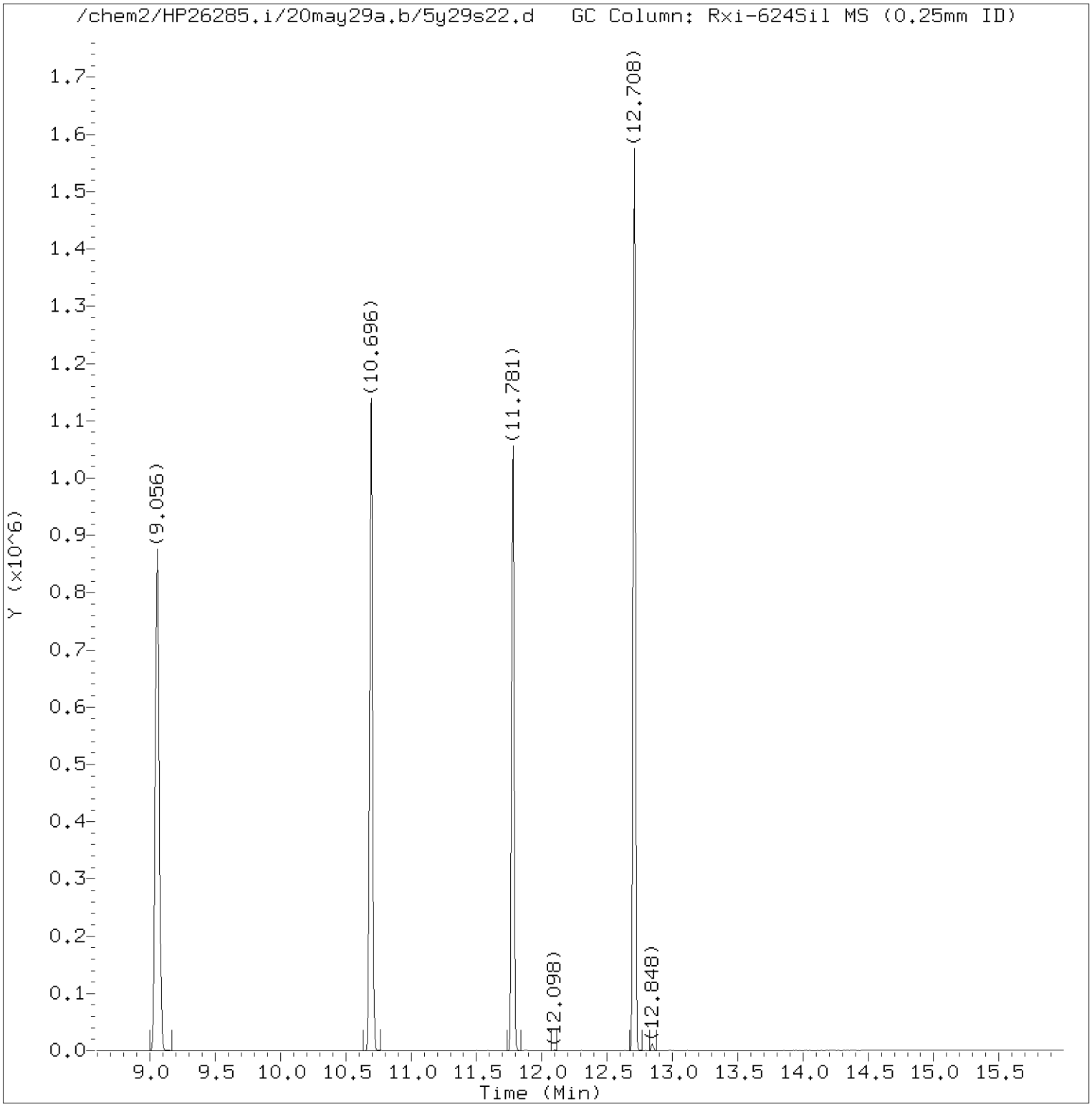
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s22.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:04 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:22 chemist

Sample Name: W5903 Lab Sample ID: 1318289

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s22.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:04 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:22 chemist

Sample Name: W5903 Lab Sample ID: 1318289

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s22.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:04 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:22 chemist

Sample Name: W5903 Lab Sample ID: 1318289

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	219847	250.000
52)$Dibromofluoromethane	(2)	5.971	113	198774	53.453
57)$1,2-Dichloroethane-d4	(2)	6.441	102	44337	53.310
66)*Fluorobenzene	(2)	6.898	96	746594	50.000
84)$Toluene-d8	(3)	9.056	98	716763	48.009
101)*Chlorobenzene-d5	(3)	10.696	117	607500	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	291234	46.298
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	330237	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5904

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318290

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s23.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5904 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318290

Data file: /chem2/HP26285.i/20may29a.b/5y29s23.d Injection date and time: **29-MAY-2020 19:25**
Data file Sample Info. Line: W5904;1318290;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:43 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.472 (-0.043)	342	65	222843 (-36)	250.00	
66) Fluorobenzene	6.904 (-0.012)	905	96	749911 (-26)	50.00	
101) Chlorobenzene-d5	10.696 (-0.006)	1527	117	613343 (-24)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708 (0.000)	1857	152	332957 (-24)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.977 (-0.001)	113	200359	53.641	107%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447 (0.001)	102	44461	53.223	106%		80 - 120
84) Toluene-d8	(3)	9.056 (0.000)	98	722168	47.911	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781 (0.000)	95	294757	46.411	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s23.d Injection date and time: **29-MAY-2020 19:25**
Data file Sample Info. Line: W5904;1318290;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 19:43 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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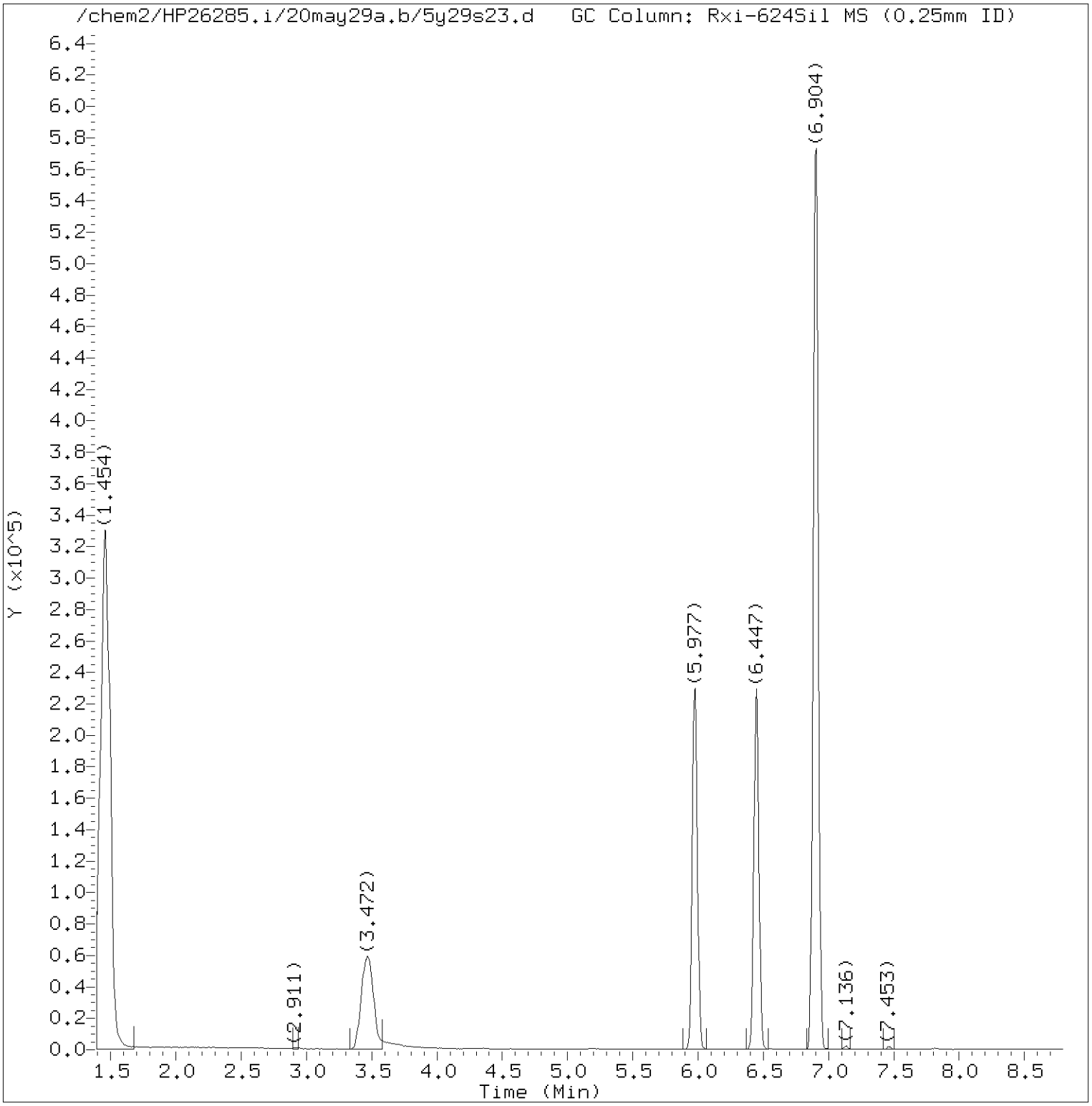
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

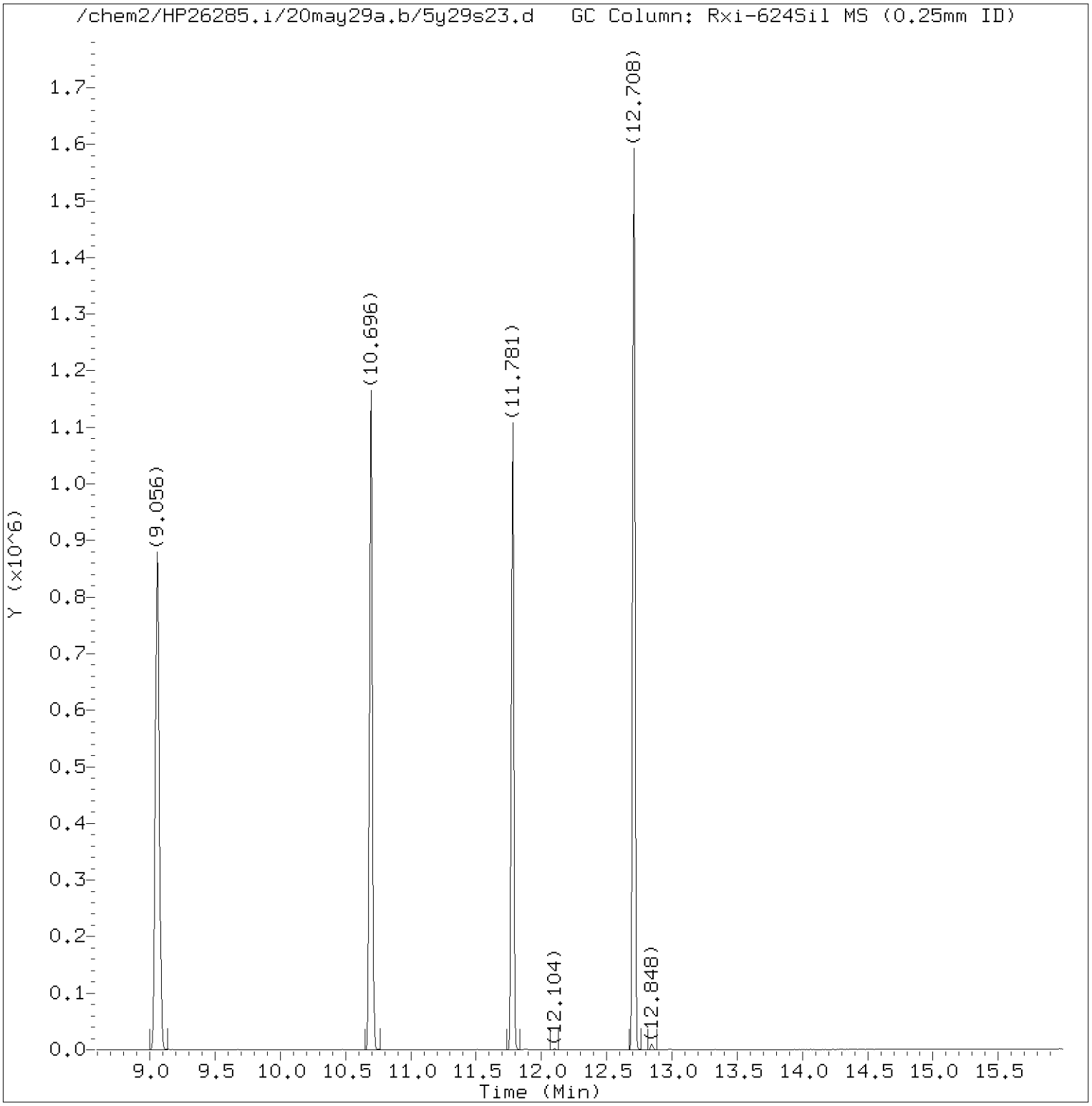
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s23.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:25 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:43 chemist

Sample Name: W5904 Lab Sample ID: 1318290

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s23.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:25 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:43 chemist

Sample Name: W5904 Lab Sample ID: 1318290

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s23.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:25 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 19:43 chemist

Sample Name: W5904 Lab Sample ID: 1318290

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.472	65	222843	250.000
52)$Dibromofluoromethane	(2)	5.977	113	200359	53.641
57)$1,2-Dichloroethane-d4	(2)	6.447	102	44461	53.223
66)*Fluorobenzene	(2)	6.904	96	749911	50.000
84)$Toluene-d8	(3)	9.056	98	722168	47.911
101)*Chlorobenzene-d5	(3)	10.696	117	613343	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	294757	46.411
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	332957	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5905

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318291

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s24.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5905 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318291

Data file: /chem2/HP26285.i/20may29a.b/5y29s24.d Injection date and time: **29-MAY-2020 19:46**
Data file Sample Info. Line: W5905;1318291;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.459	(-0.030)	340	65	217944	(-37)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	739166	(-27)	50.00	
101) Chlorobenzene-d5	10.696	(-0.006)	1527	117	607713	(-25)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	328476	(-25)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	196380	53.340	107%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.447	(0.000)	102	43725	53.103	106%		80 - 120
84) Toluene-d8	(3)	9.056	(0.000)	98	709939	47.536	95%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.781	(0.000)	95	290238	46.123	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.398	(0.000)	95	6813	1.318	1.32			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

W5905 Lancaster Laboratories 1318291
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s24.d Injection date and time: **29-MAY-2020 19:46**
Data file Sample Info. Line: W5905;1318291;1;0;;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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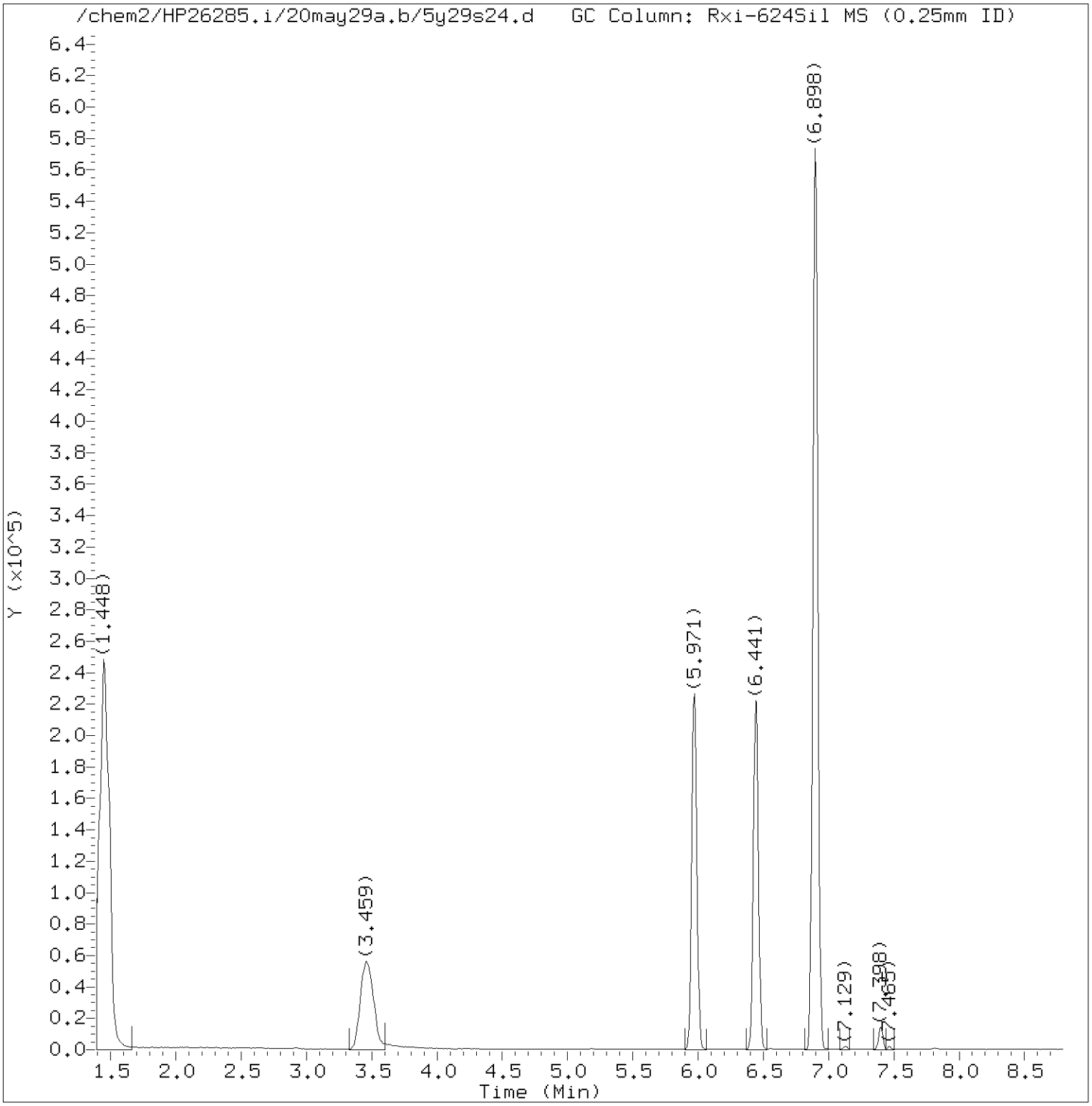
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 21:56. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:45. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

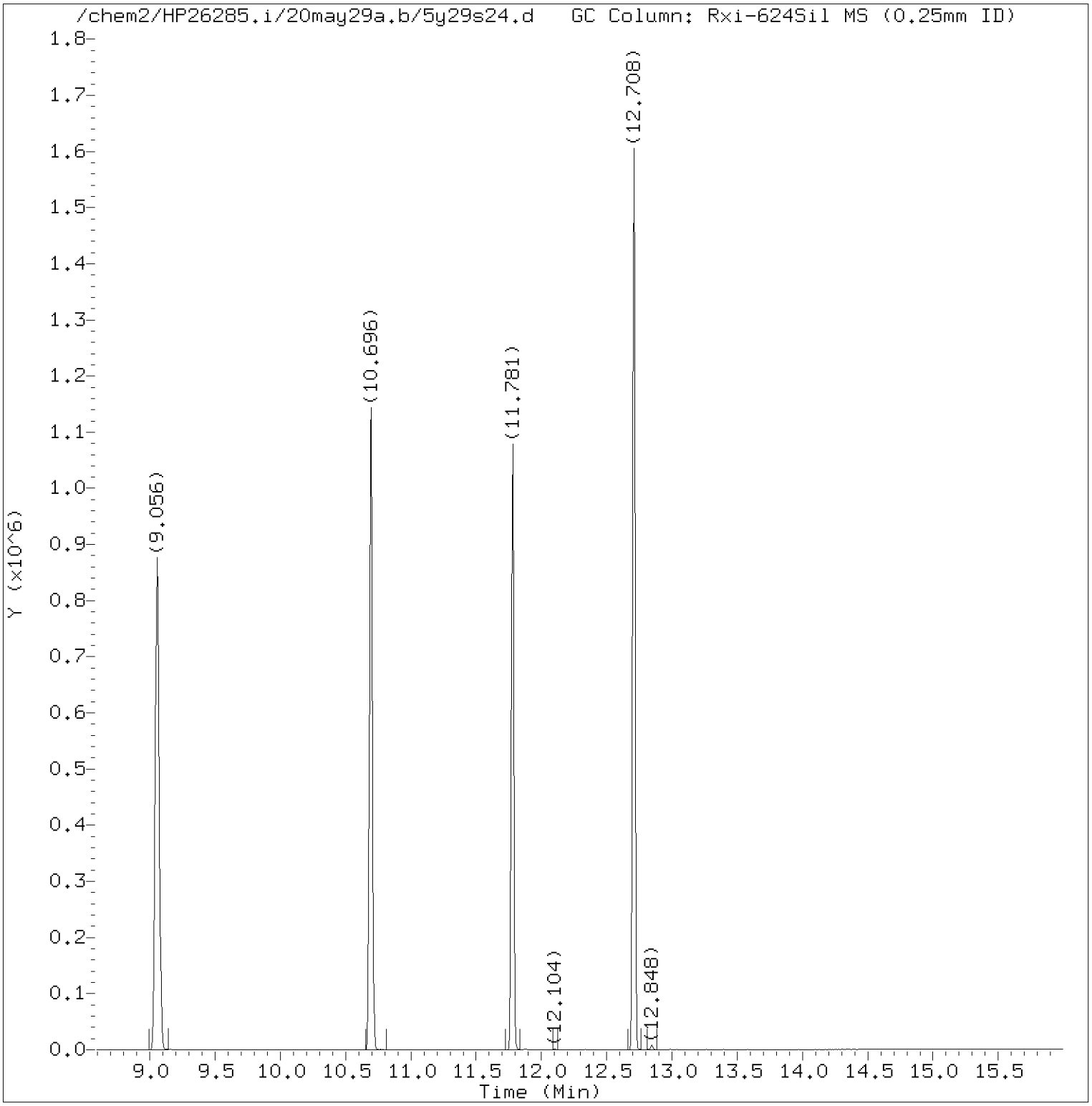
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s24.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:46 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Sample Name: W5905 Lab Sample ID: 1318291

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s24.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:46 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Sample Name: W5905 Lab Sample ID: 1318291

Digitally signed by Laura J. Green
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s24.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:46 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Sample Name: W5905 Lab Sample ID: 1318291

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.459	65	217944	250.000
52)$Dibromofluoromethane	(2)	5.971	113	196380	53.340
57)$1,2-Dichloroethane-d4	(2)	6.447	102	43725	53.103
66)*Fluorobenzene	(2)	6.898	96	739166	50.000
71) Trichloroethene	(2)	7.398	95	6813	1.318
84)$Toluene-d8	(3)	9.056	98	709939	47.536
101)*Chlorobenzene-d5	(3)	10.696	117	607713	50.000
115)$4-Bromofluorobenzene	(3)	11.781	95	290238	46.123
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	328476	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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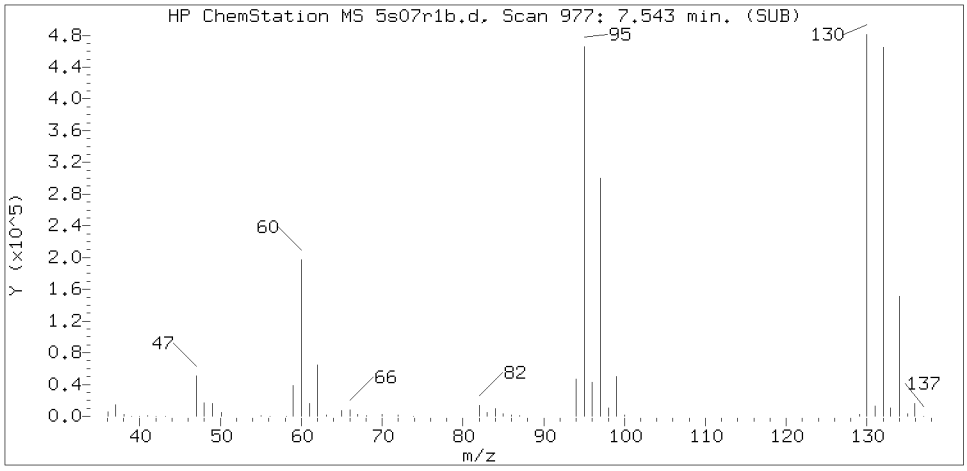
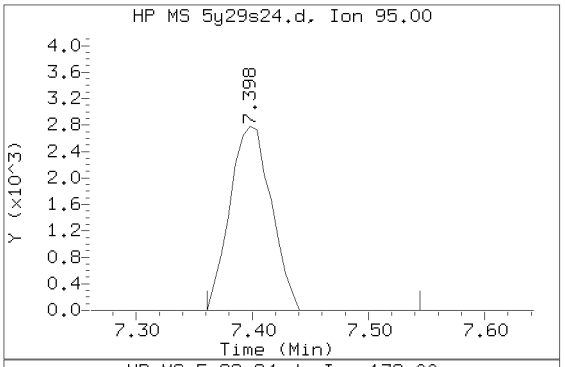
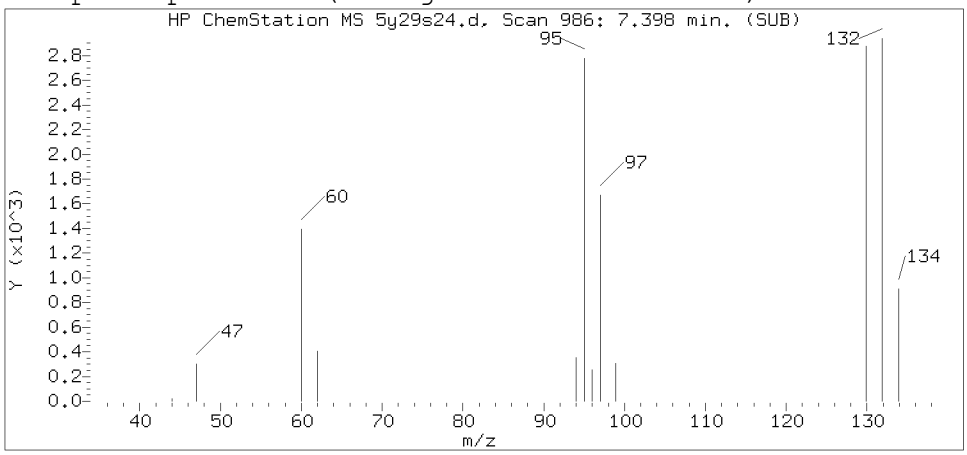
on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

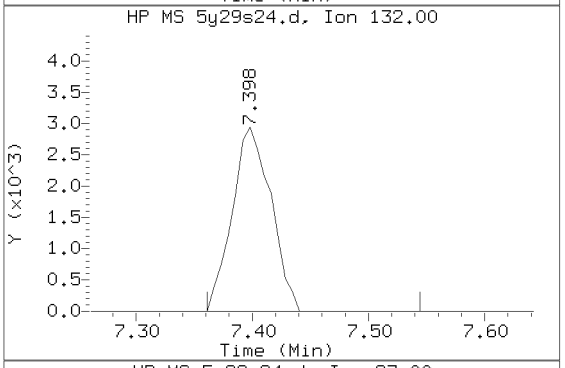
Reference Standard Spectrum for Trichloroethene

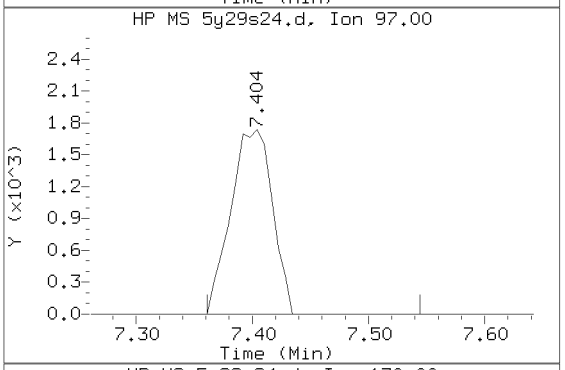




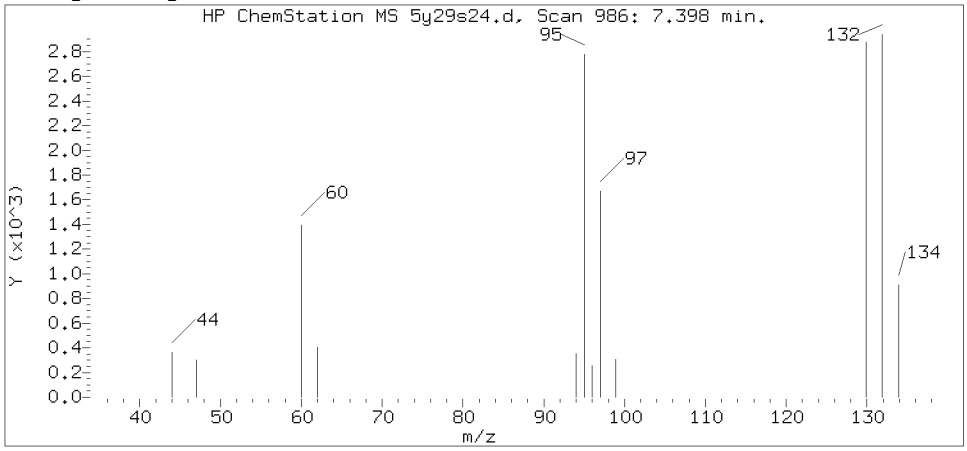
Sample Spectrum (Background Subtracted)

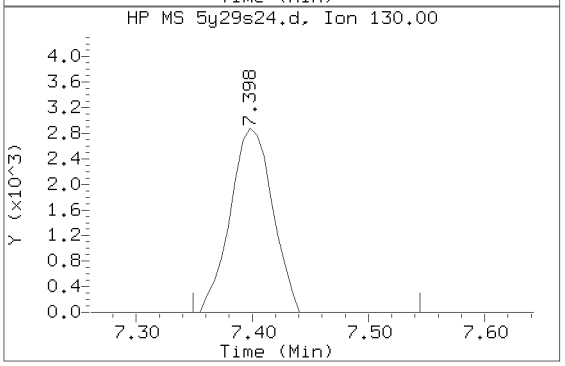






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may29a.b/5y29s24.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 19:46 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 20:04 chemist

Sample Name: W5905 Lab Sample ID: 1318291

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 986
Retention Time (minutes): 7.398
Relative Retention Time : 0.00006
Quant Ion : 95.00
Area (flag) : 6813
On-Column Amount (ng) : 1.3185

Digitally signed by Laura J. Green on 05/29/2020 at 21:56.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5906

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318292

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s13.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	0.3	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	3	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5906 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318292

Data file: /chem2/HP26285.i/20may27a.b/5y27s13.d Injection date and time: **27-MAY-2020 14:16**
Data file Sample Info. Line: W5906;1318292;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.030)	338	65	275342	(-7)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	965832	(-5)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	769733	(-5)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696	(0.000)	1855	152	411388	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(0.000)	113	246088	51.155	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429	(-0.001)	102	56419	52.438	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	921051	48.690	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(-0.001)	95	375587	47.123	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)	5.222	(-0.001)	96	2082	0.315	0.32		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(0.000)	95	22461	3.327	3.33			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

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Data file: /chem2/HP26285.i/20may27a.b/5y27s13.d Injection date and time: **27-MAY-2020 14:16**
Data file Sample Info. Line: W5906;1318292;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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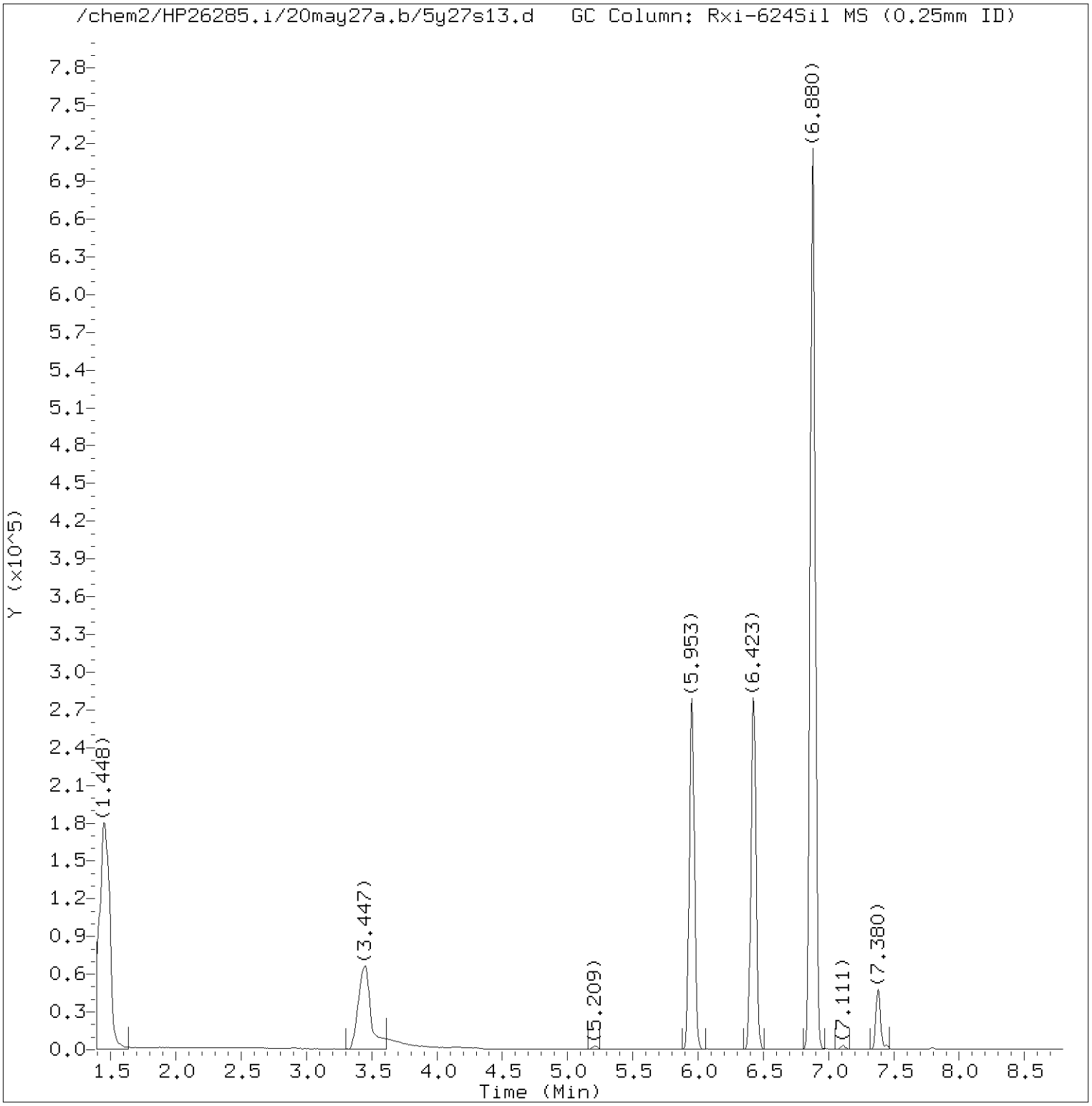
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

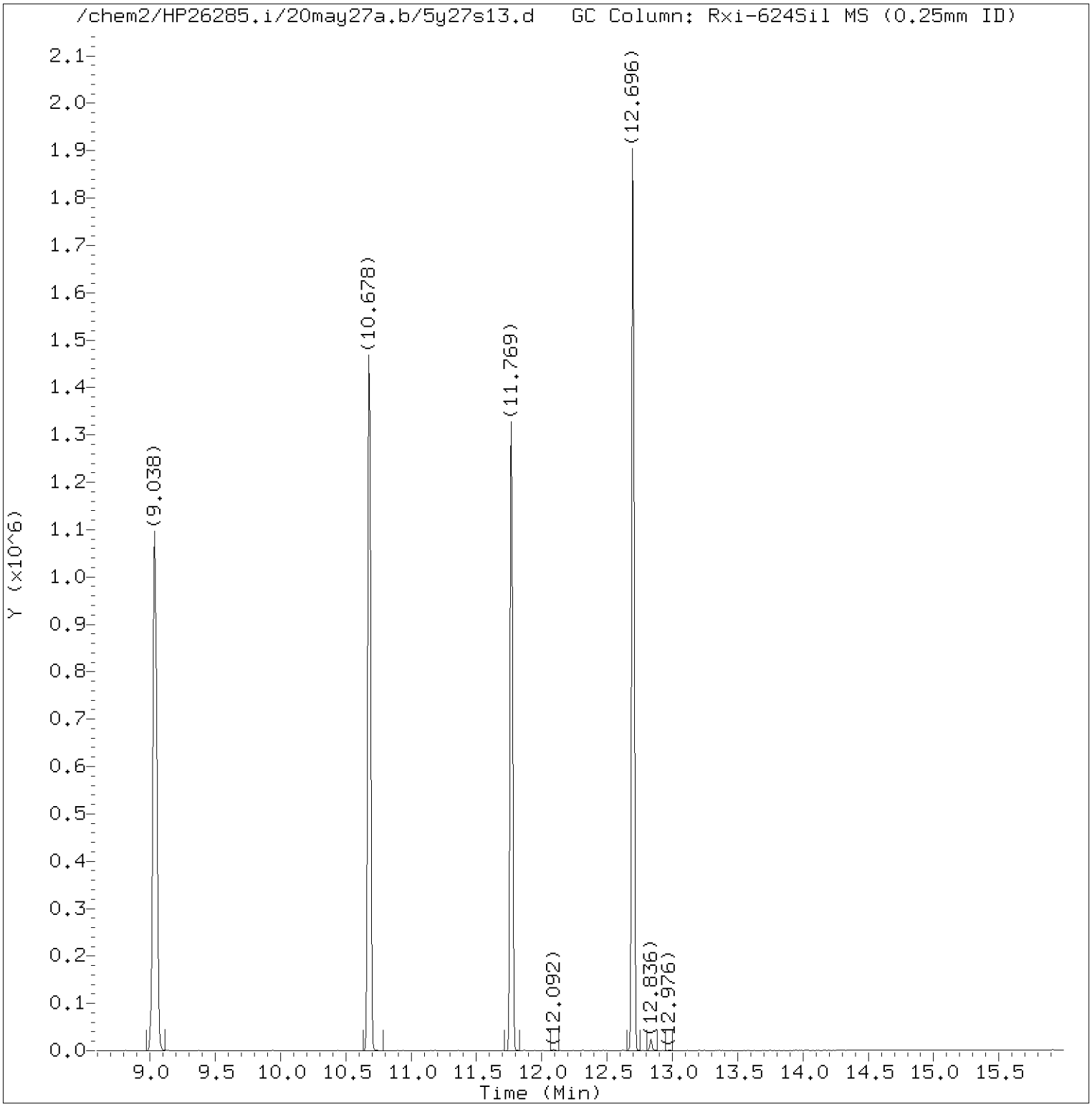
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s13.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:16 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Sample Name: W5906 Lab Sample ID: 1318292

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s13.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:16 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Sample Name: W5906 Lab Sample ID: 1318292

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s13.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:16 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

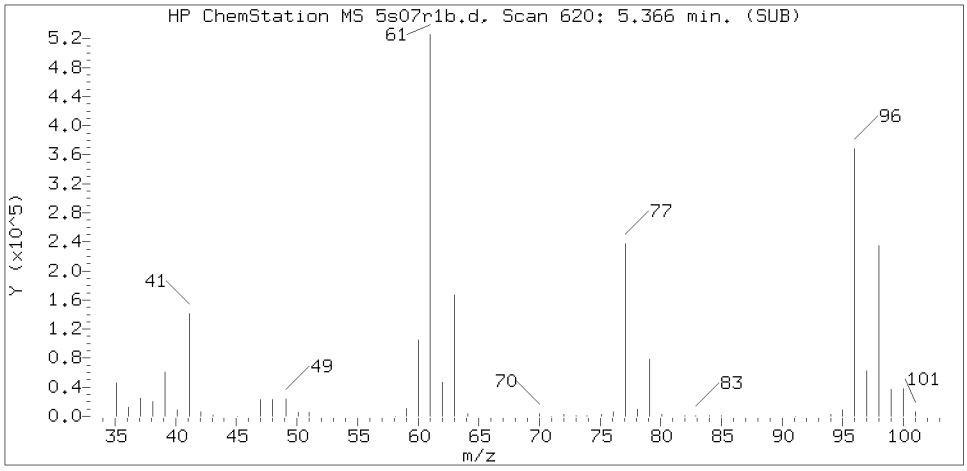
Sample Name: W5906 Lab Sample ID: 1318292

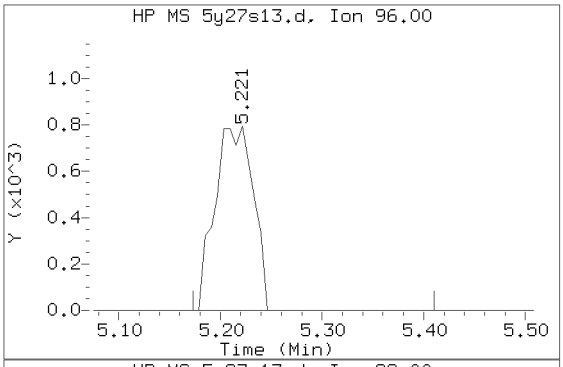
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	275342	250.000
42) cis-1,2-Dichloroethene	(2)	5.221	96	2082	0.315
52)$Dibromofluoromethane	(2)	5.953	113	246088	51.155
57)$1,2-Dichloroethane-d4	(2)	6.429	102	56419	52.438
66)*Fluorobenzene	(2)	6.880	96	965832	50.000
71) Trichloroethene	(2)	7.380	95	22461	3.327
84)$Toluene-d8	(3)	9.038	98	921051	48.690
101)*Chlorobenzene-d5	(3)	10.678	117	769733	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	375587	47.123
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	411388	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

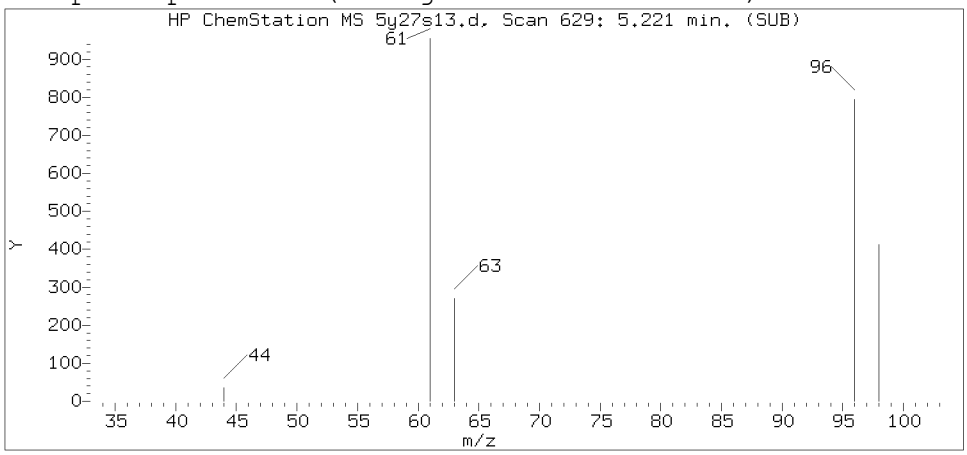
Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

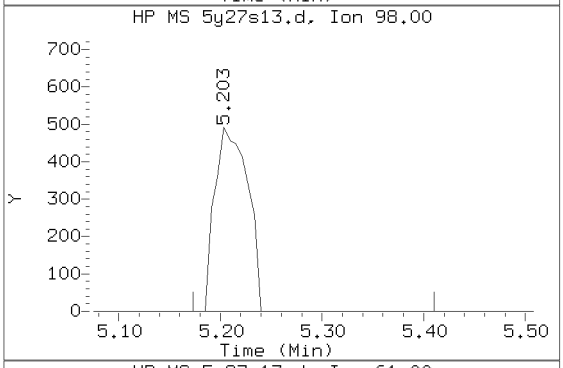
Reference Standard Spectrum for cis-1,2-Dichloroethene

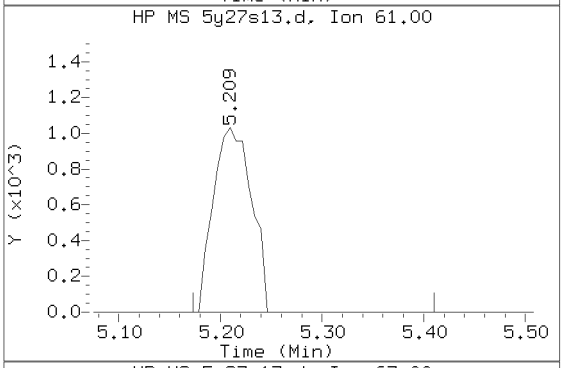




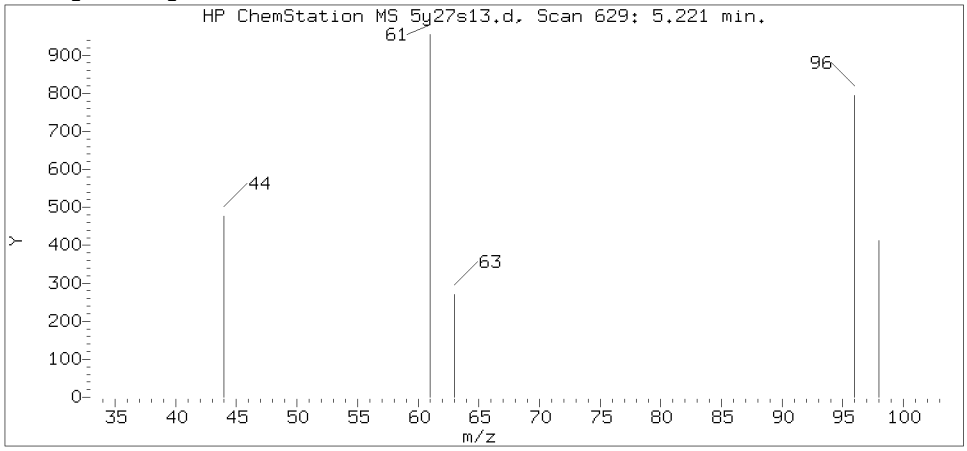
Sample Spectrum (Background Subtracted)

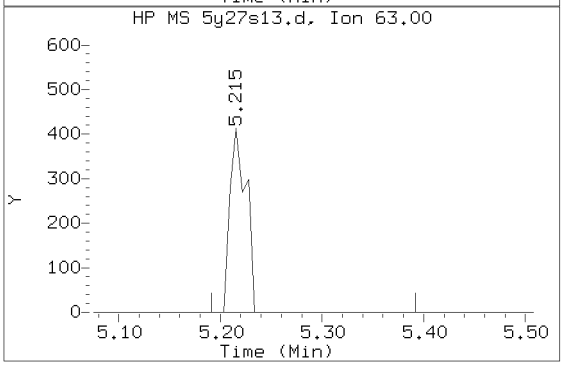






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s13.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:16 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Sample Name: W5906 Lab Sample ID: 1318292

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 629
Retention Time (minutes): 5.221
Relative Retention Time :-0.00198
Quant Ion : 96.00
Area (flag) : 2082
On-Column Amount (ng) : 0.3151

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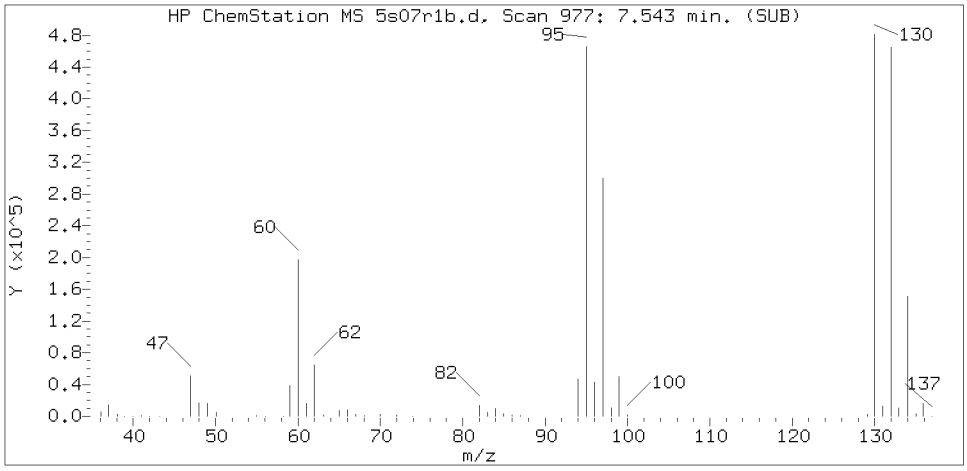
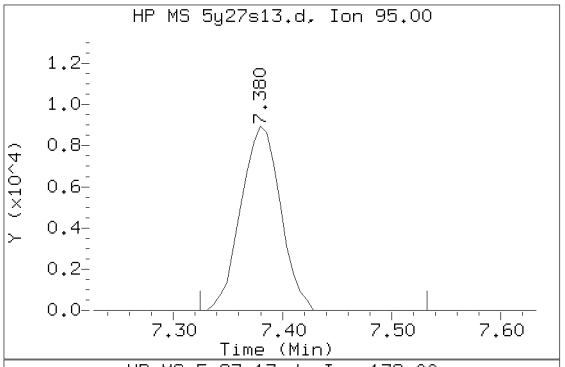
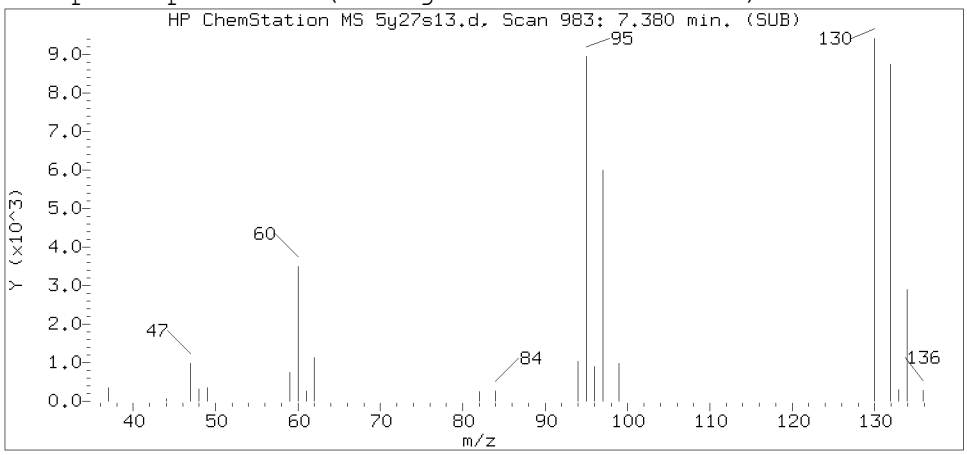
Target 3.5 esignature user ID: ljg30941

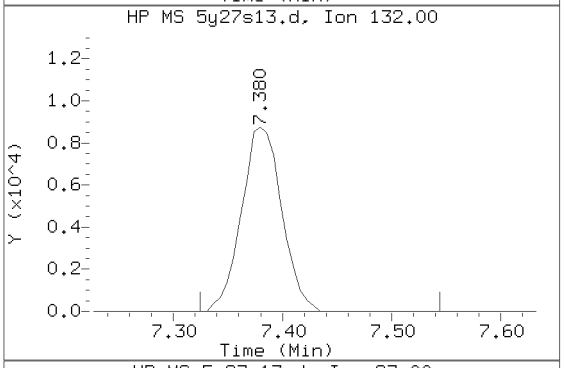
Reference Standard Spectrum for Trichloroethene

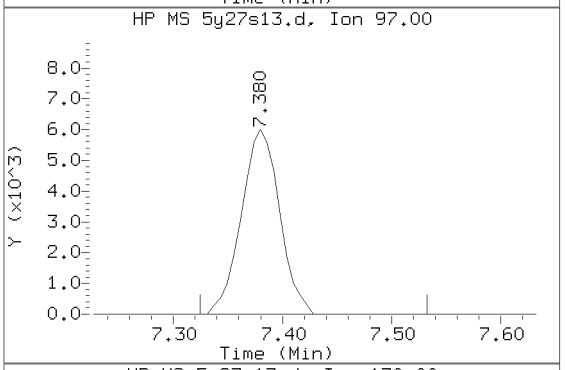




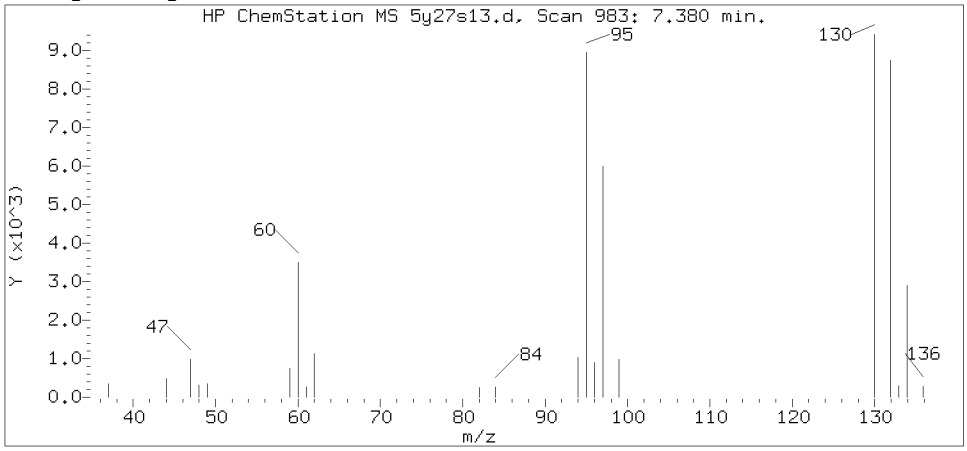
Sample Spectrum (Background Subtracted)

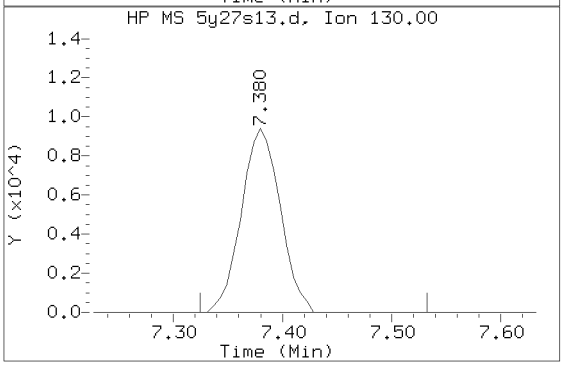






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s13.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:16 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:34 chemist

Sample Name: W5906 Lab Sample ID: 1318292

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 983
Retention Time (minutes)	: 7.380
Relative Retention Time	: 0.00095
Quant Ion	: 95.00
Area (flag)	: 22461
On-Column Amount (ng)	: 3.3265

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5907

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318293

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s14.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	6	
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.9	J
156-59-2	cis-1,2-Dichloroethene	9	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	45	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	360	E
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	3	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5907 Lancaster Laboratories
Analysis Summary for GC/MS Volatiles 1318293

Data file: /chem2/HP26285.i/20may27a.b/5y27s14.d Injection date and time: **27-MAY-2020 14:36**
Data file Sample Info. Line: W5907;1318293;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441(-0.024)	337	65	278434 (-6)	250.00	
66) Fluorobenzene	6.880(-0.006)	901	96	955750 (-6)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	758931 (-6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(-0.006)	1856	152	406015 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(0.000)	113	249915	52.499	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422(0.000)	102	55729	52.343	105%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	910560	48.821	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(-0.001)	95	367031	46.705	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.868(-0.000)	96	29004	5.613	5.61			0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.338(-0.000)	63	9830	0.939	0.94		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.209(-0.000)	96	61782	9.447	9.45			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.941(0.000)	97	424216	44.878	44.88			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.380(0.000)	95	2390360	357.744	357.74		E	0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	17720	2.540	2.54			0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

E = Compound concentration above calibration range.

Digitally signed by Laura J. Green on 05/27/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s14.d Injection date and time: **27-MAY-2020 14:36**
Data file Sample Info. Line: W5907;1318293;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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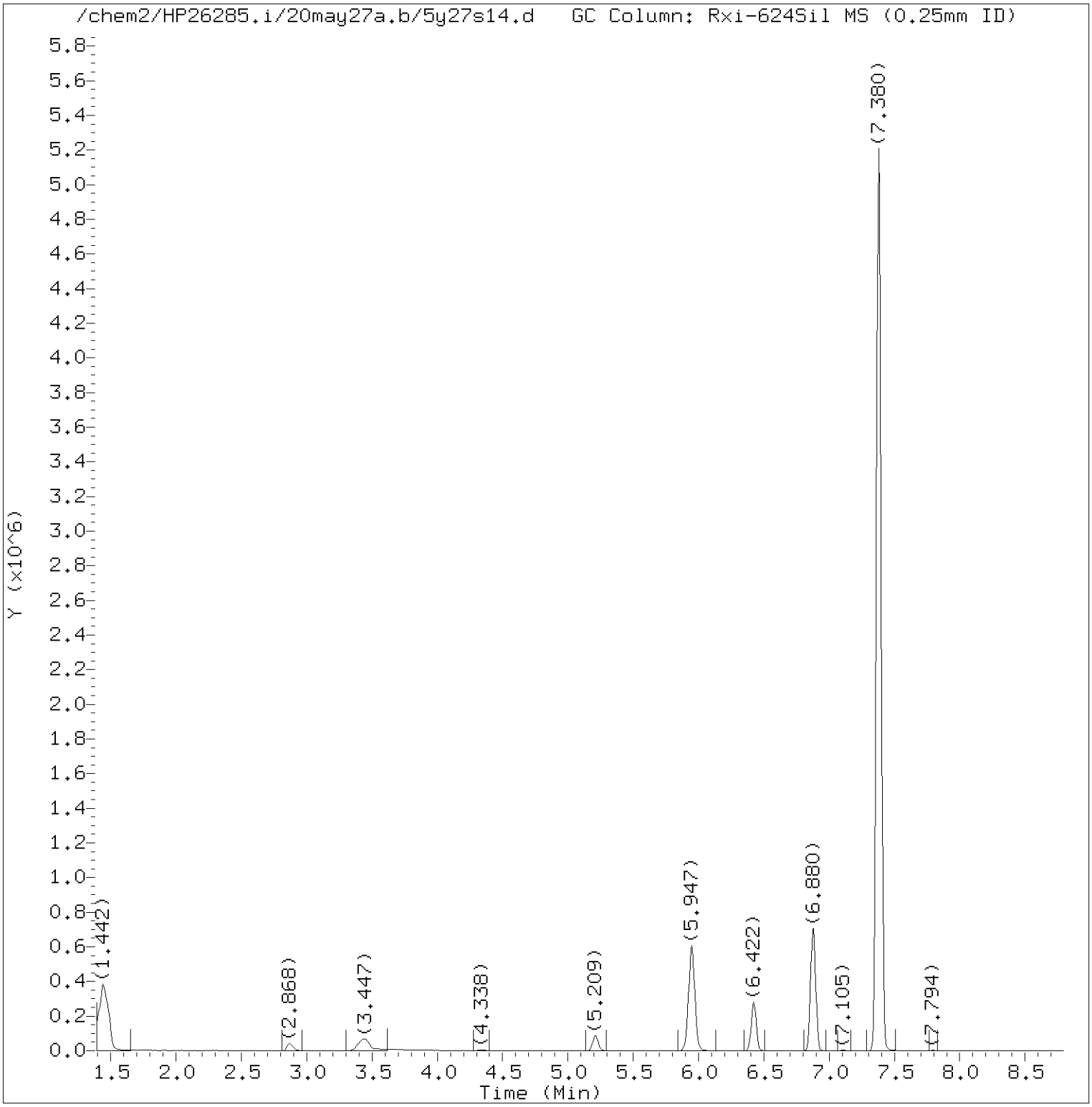
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

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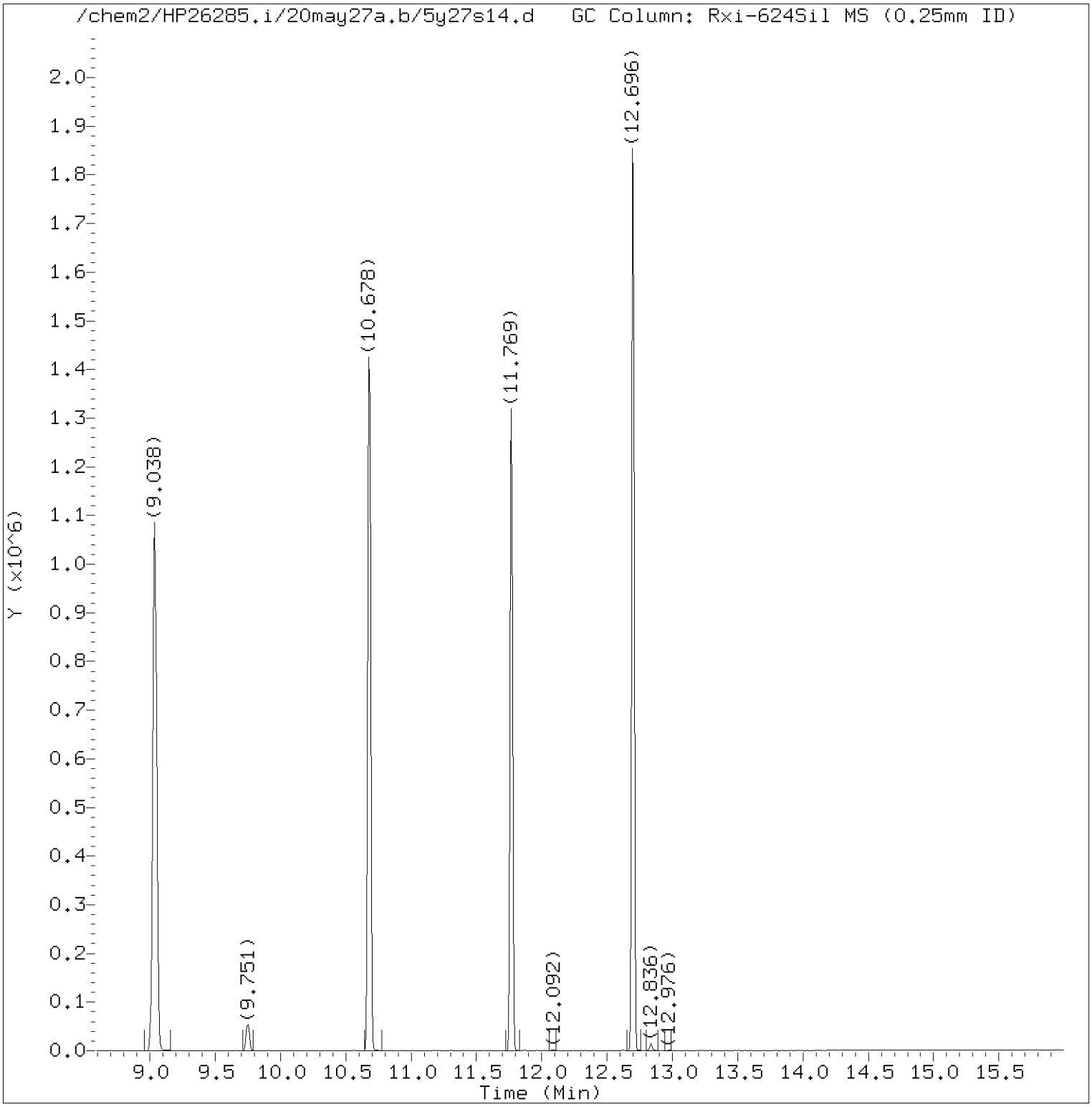
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

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on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.868	96	29004	5.613
29)*t-Butyl alcohol-d10	(1)	3.441	65	278434	250.000
36) 1,1-Dichloroethane	(2)	4.338	63	9830	0.939
42) cis-1,2-Dichloroethene	(2)	5.209	96	61782	9.447
53) 1,1,1-Trichloroethane	(2)	5.941	97	424216	44.878
52)$Dibromofluoromethane	(2)	5.953	113	249915	52.499
57)$1,2-Dichloroethane-d4	(2)	6.422	102	55729	52.343
66)*Fluorobenzene	(2)	6.880	96	955750	50.000
71) Trichloroethene	(2)	7.380	95	2390360	357.744
84)$Toluene-d8	(3)	9.038	98	910560	48.821
94) Tetrachloroethene	(3)	9.751	166	17720	2.540
101)*Chlorobenzene-d5	(3)	10.678	117	758931	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	367031	46.705
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	406015	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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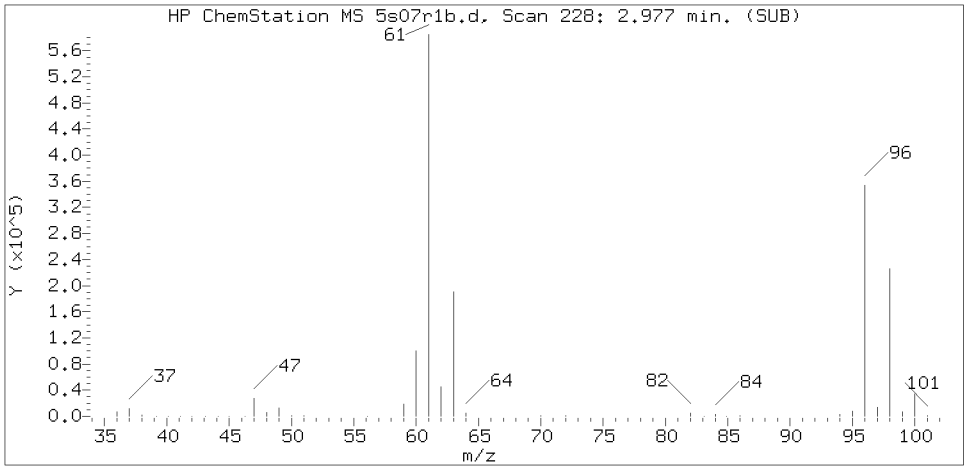
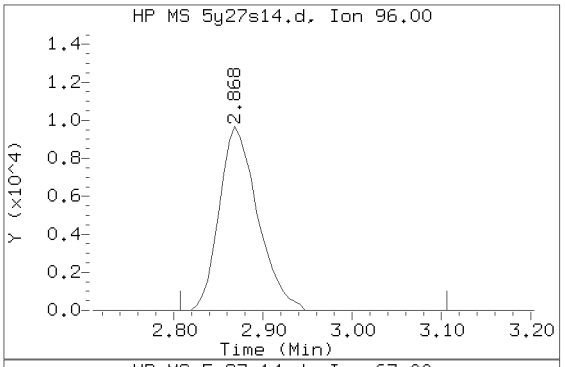
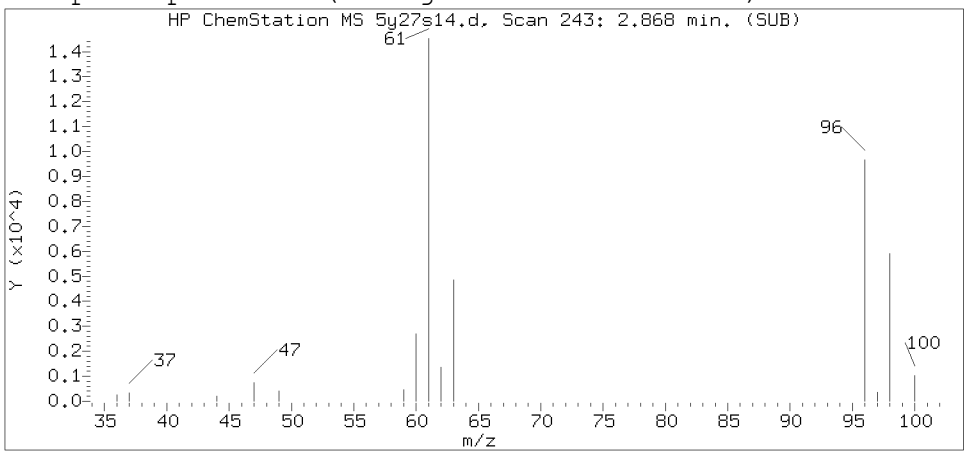
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

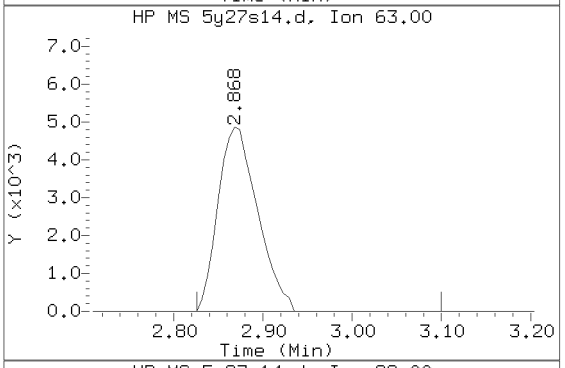
Reference Standard Spectrum for 1,1-Dichloroethene

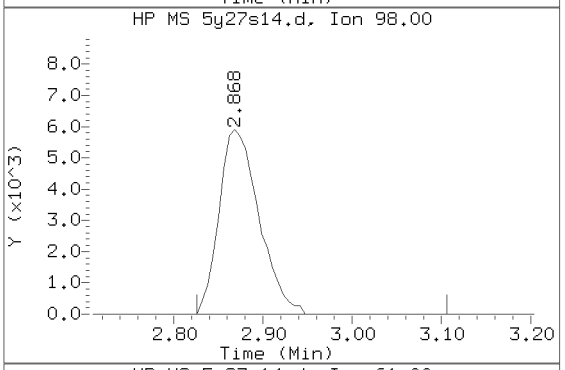




Sample Spectrum (Background Subtracted)







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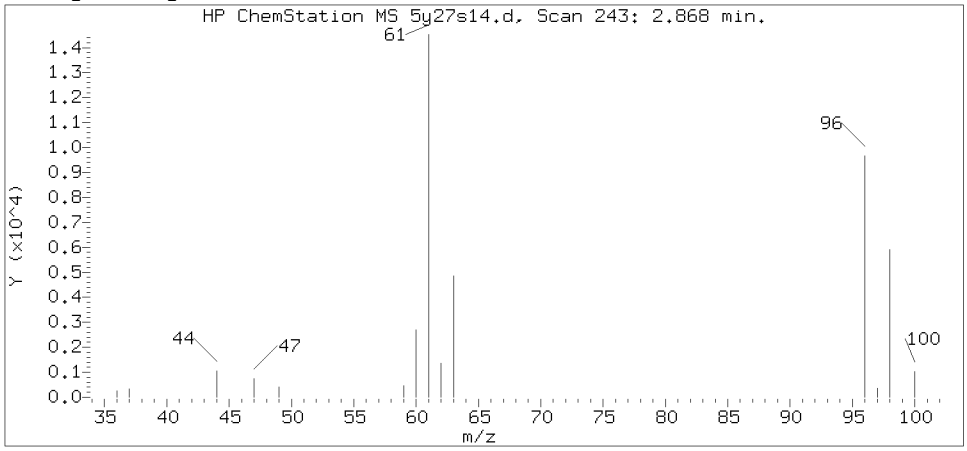

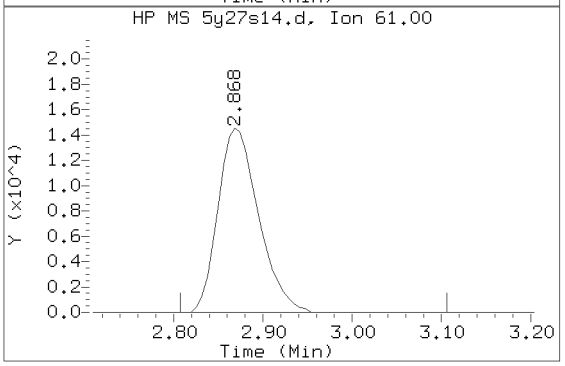

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Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 243
Retention Time (minutes): 2.868
Relative Retention Time :-0.00051
Quant Ion : 96.00
Area (flag) : 29004
On-Column Amount (ng) : 5.6127

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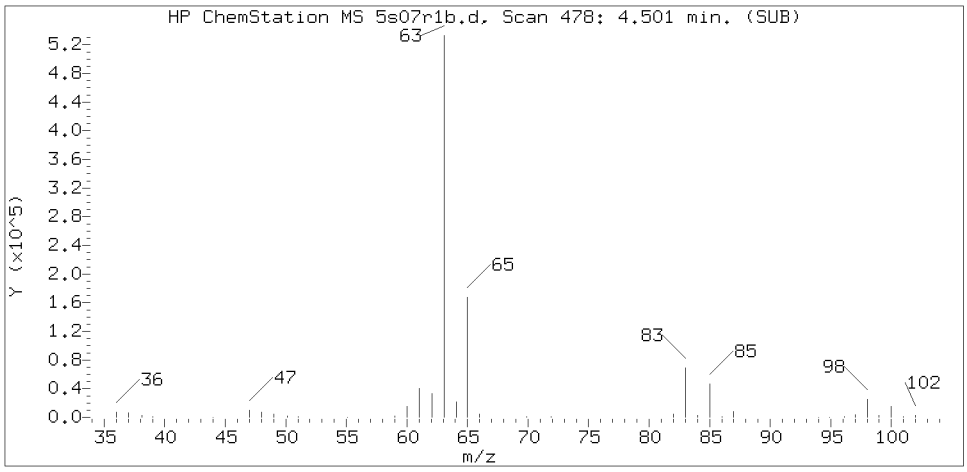
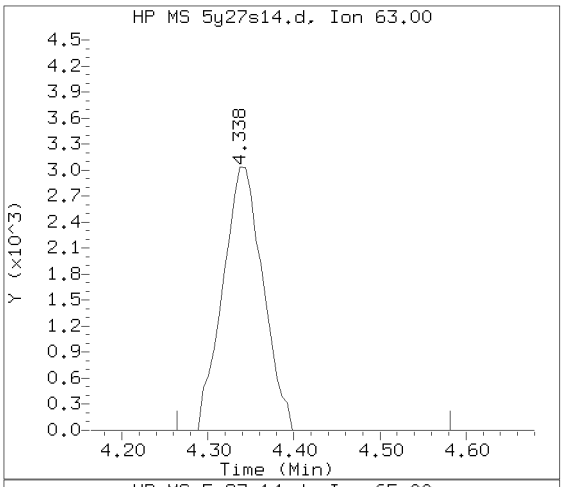
Reference Standard Spectrum for 1,1-Dichloroethane





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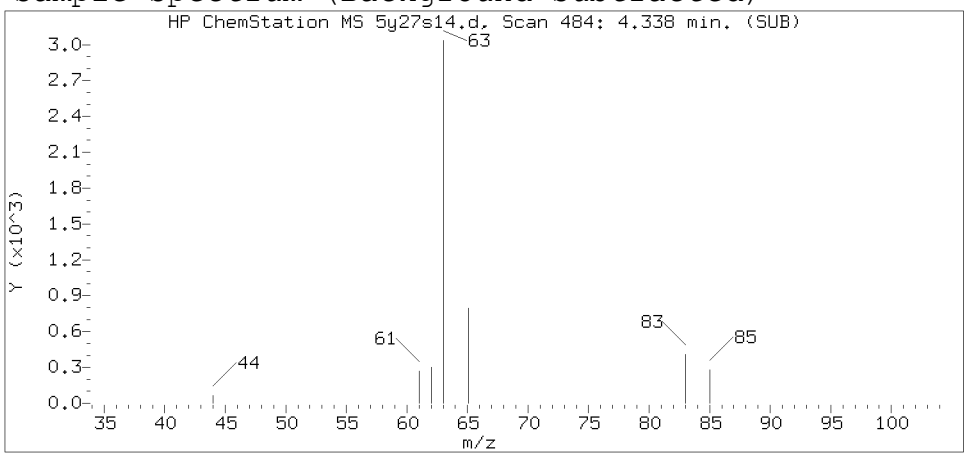

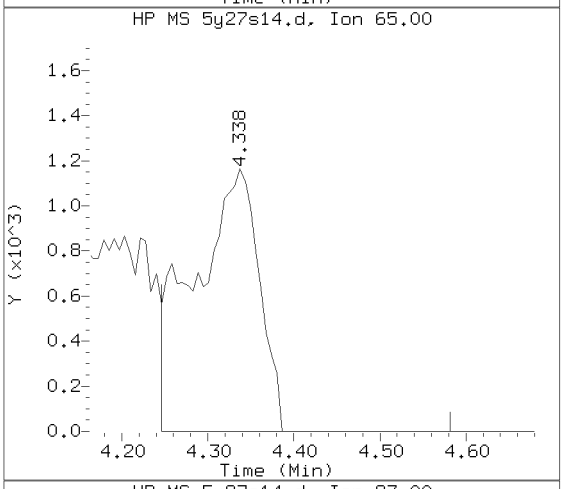

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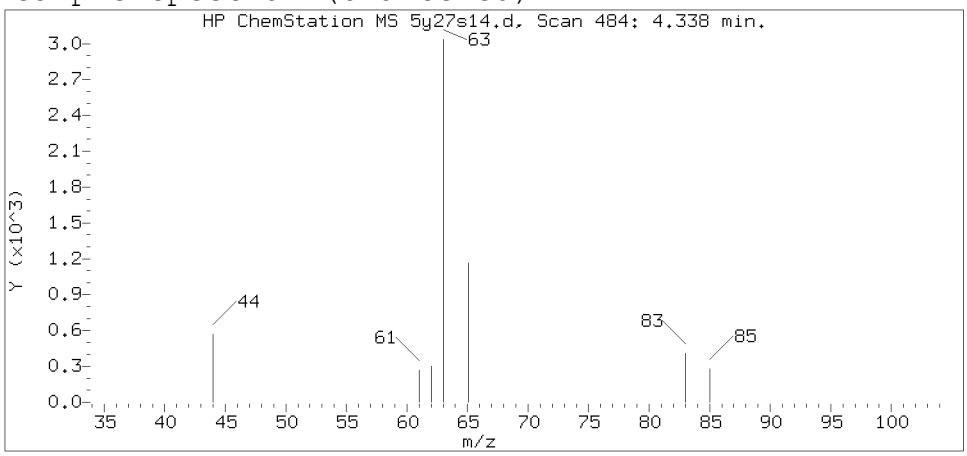

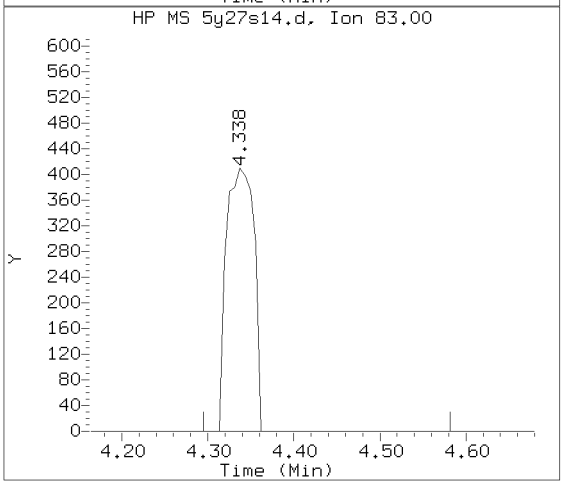

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Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 484
Retention Time (minutes): 4.338
Relative Retention Time :-0.00032
Quant Ion : 63.00
Area (flag) : 9830
On-Column Amount (ng) : 0.9392

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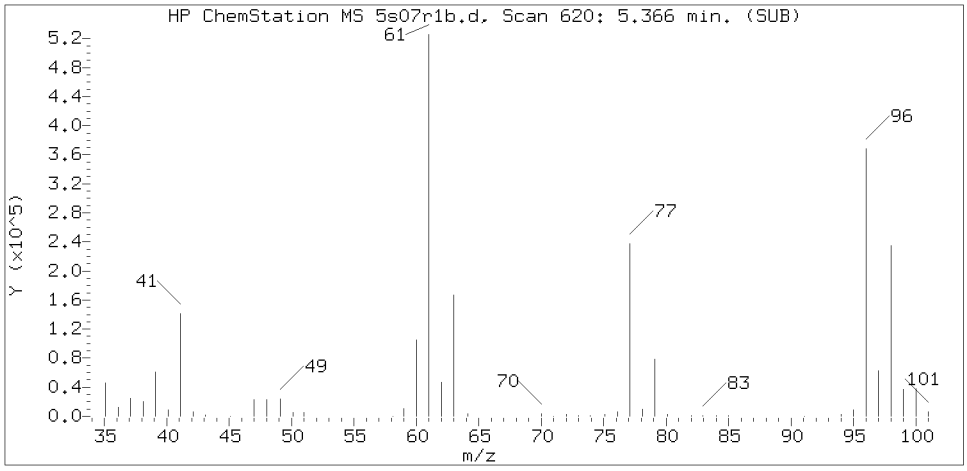
Target 3.5 esignature user ID: ljg30941

Reference Standard Spectrum for cis-1,2-Dichloroethene



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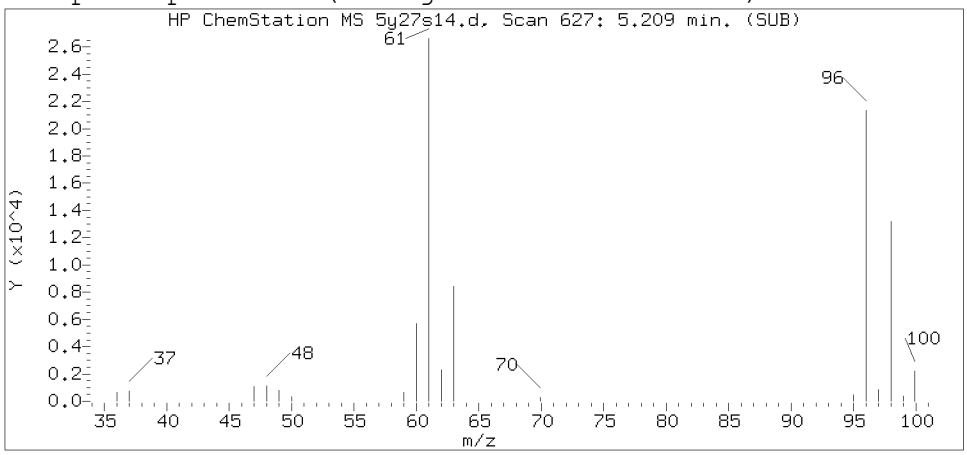

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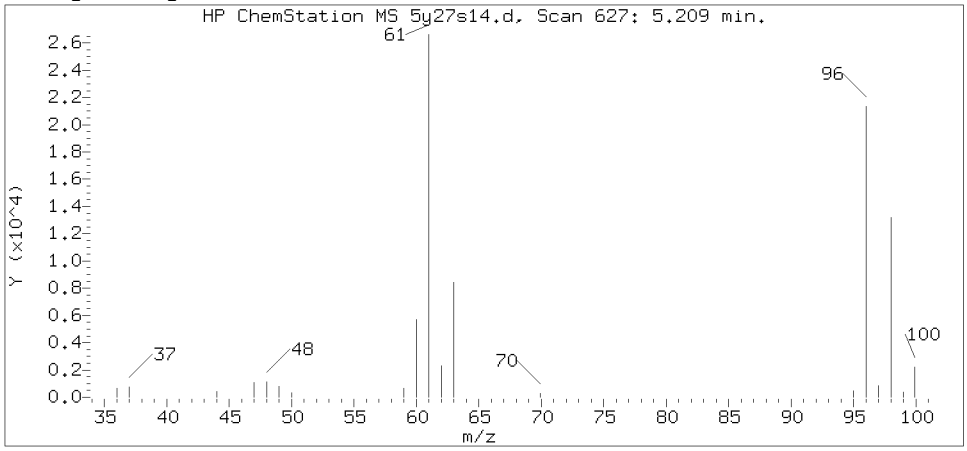

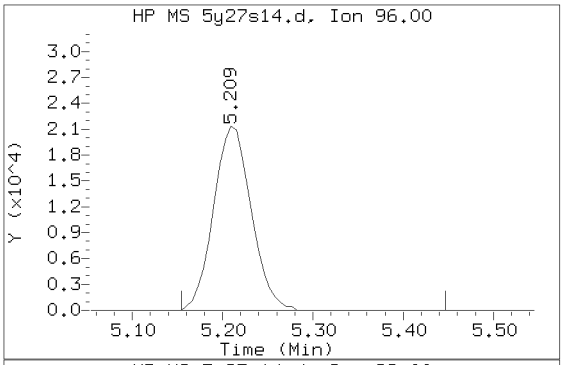

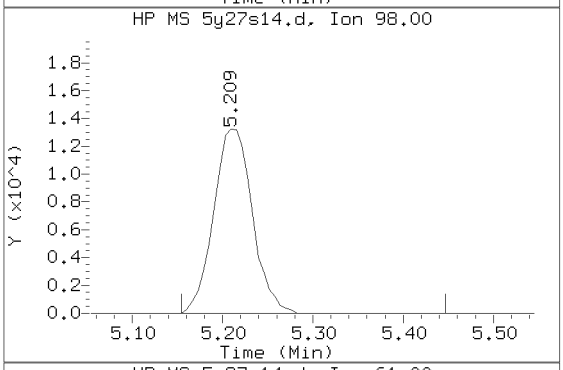

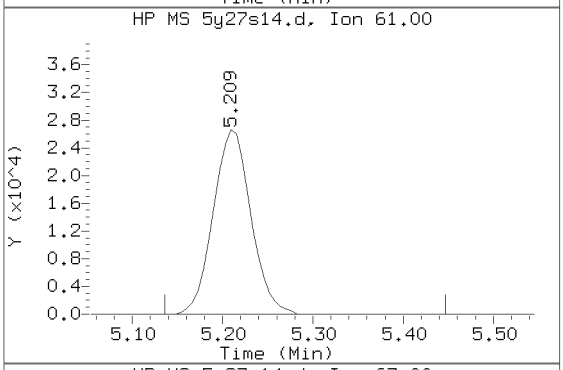

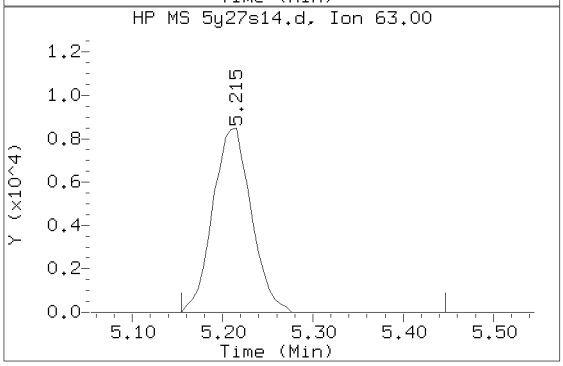

Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 627
Retention Time (minutes): 5.209
Relative Retention Time :-0.00021
Quant Ion : 96.00
Area (flag) : 61782
On-Column Amount (ng) : 9.4466

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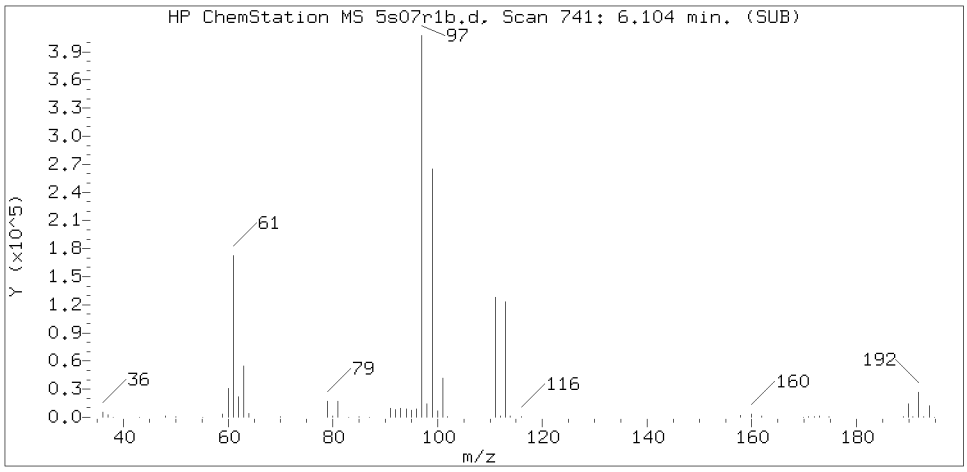
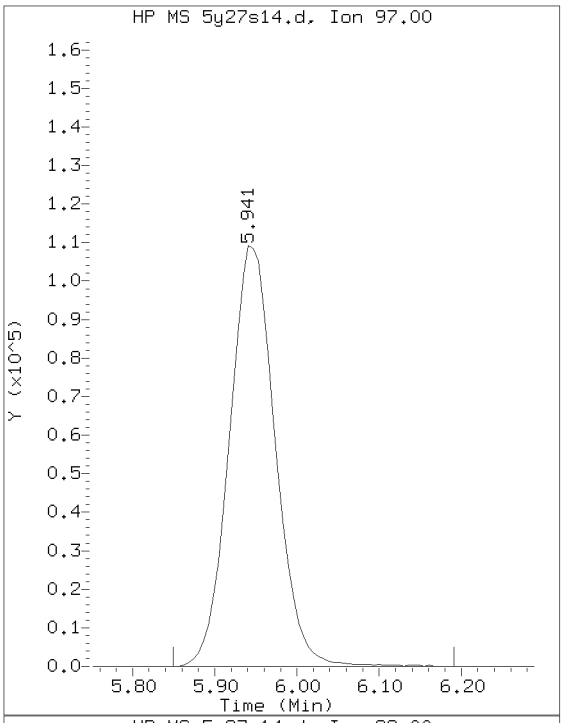
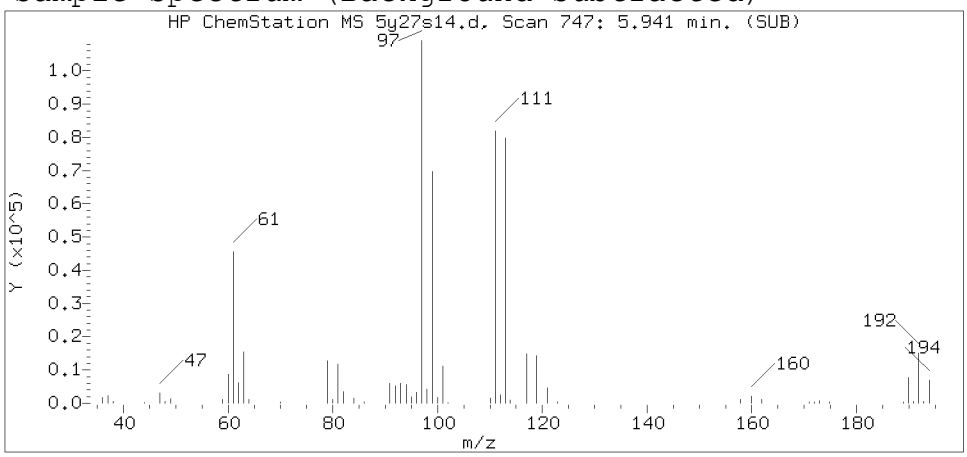
Target 3.5 esignature user ID: ljg30941

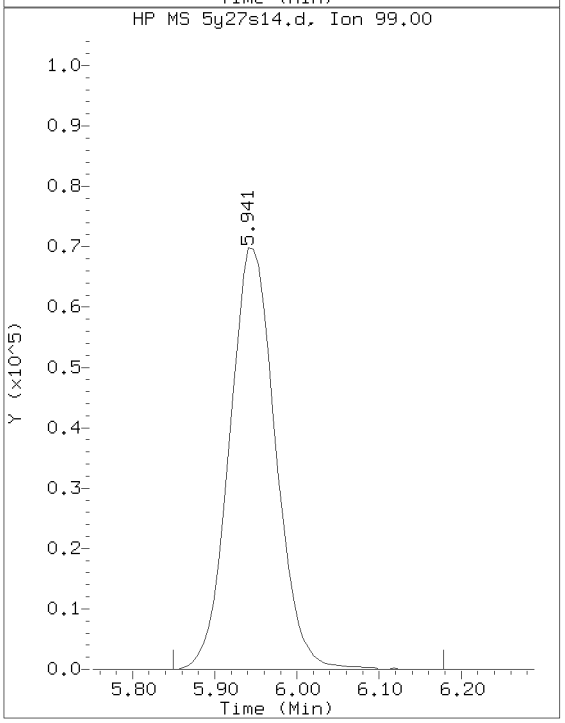
Reference Standard Spectrum for 1,1,1-Trichloroethane



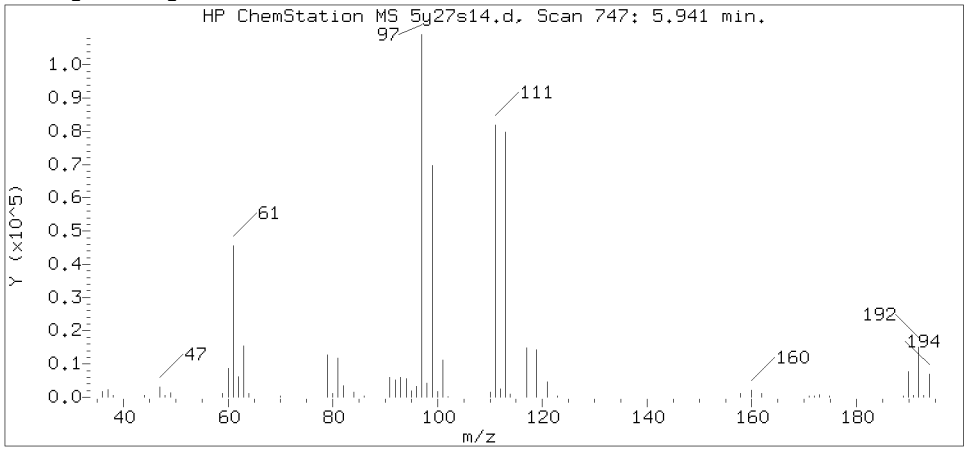


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 747
Retention Time (minutes)	: 5.941
Relative Retention Time	: 0.00077
Quant Ion	: 97.00
Area (flag)	: 424216
On-Column Amount (ng)	: 44.8775

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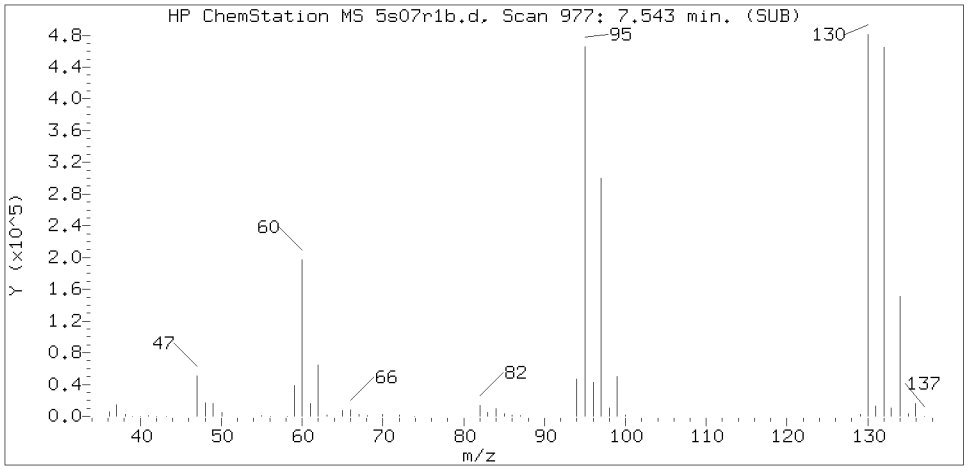
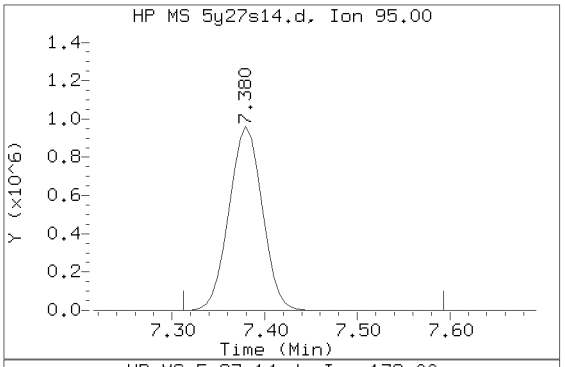
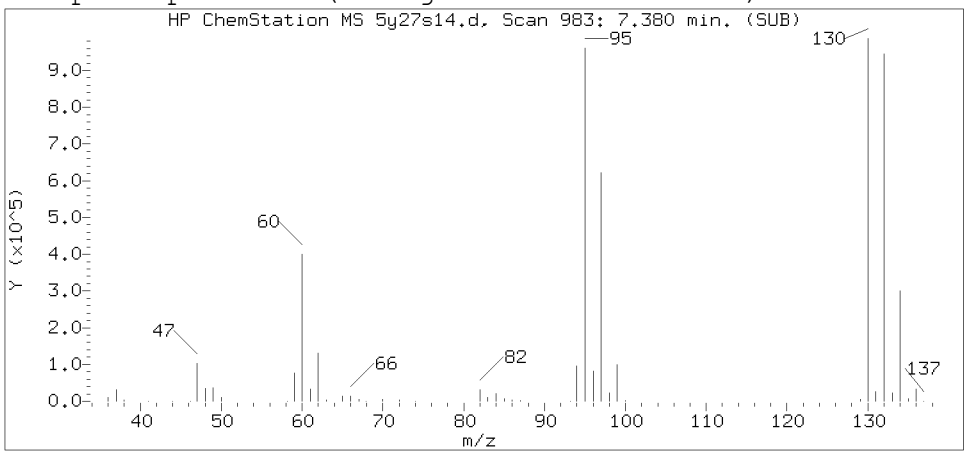
Target 3.5 esignature user ID: ljg30941

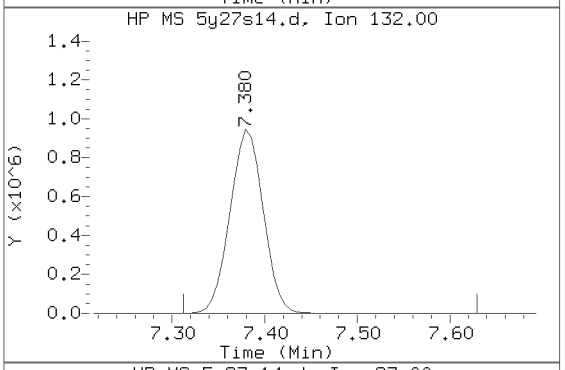
Reference Standard Spectrum for Trichloroethene

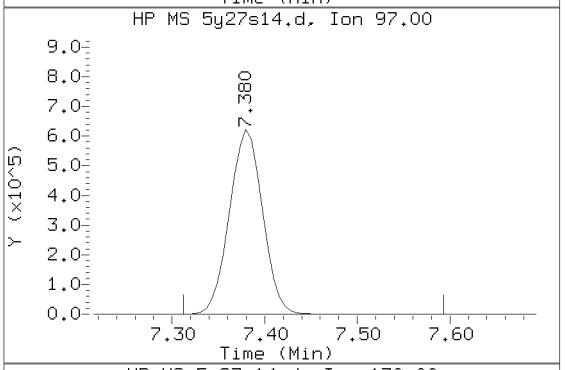




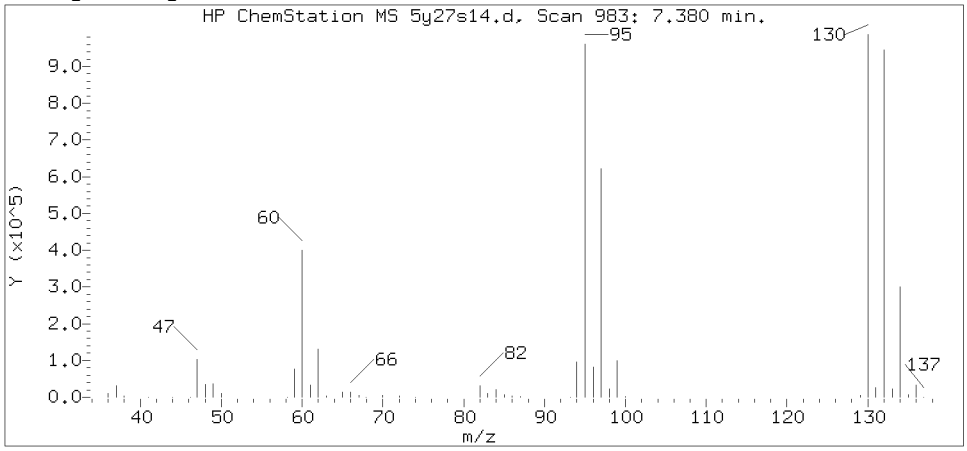
Sample Spectrum (Background Subtracted)

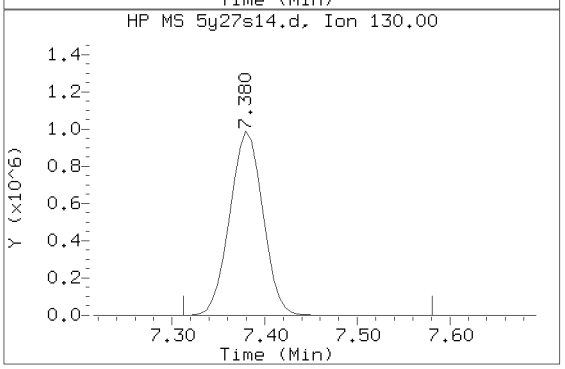






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 983
Retention Time (minutes)	: 7.380
Relative Retention Time	: 0.00095
Quant Ion	: 95.00
Area (flag)	: 2390360
On-Column Amount (ng)	: 357.7440

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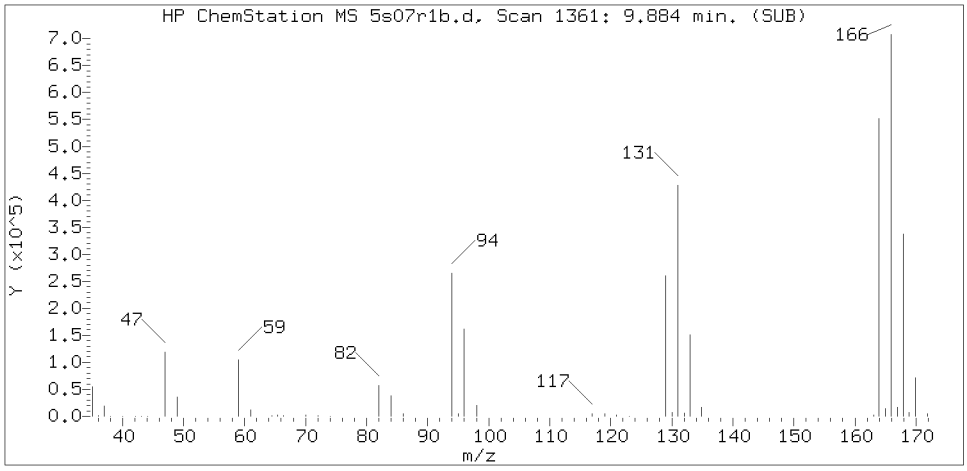
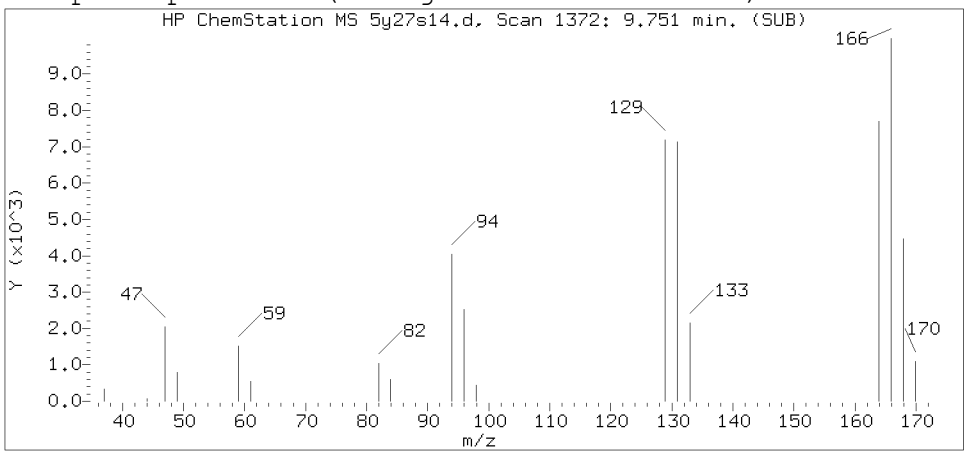
Target 3.5 esignature user ID: ljg30941

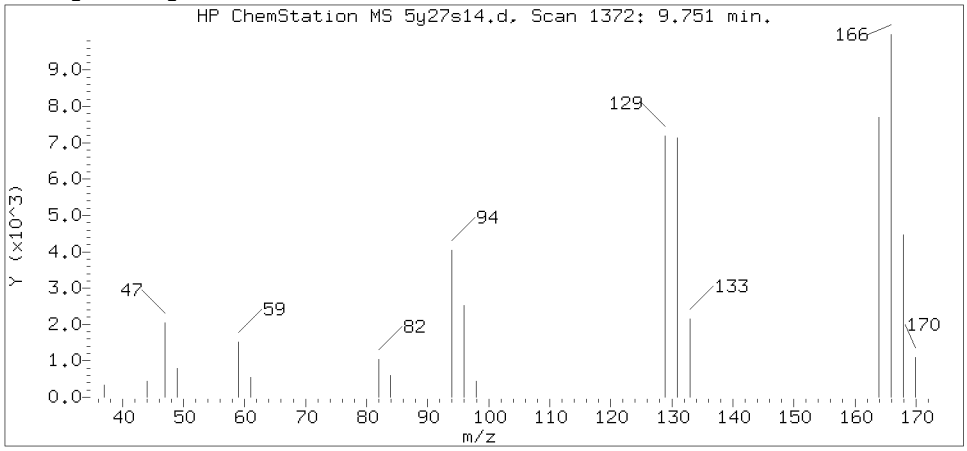
Reference Standard Spectrum for Tetrachloroethene

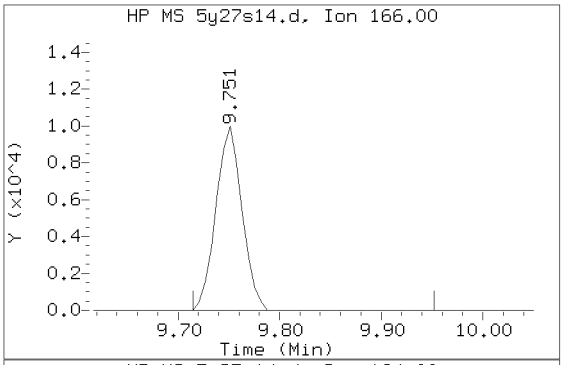


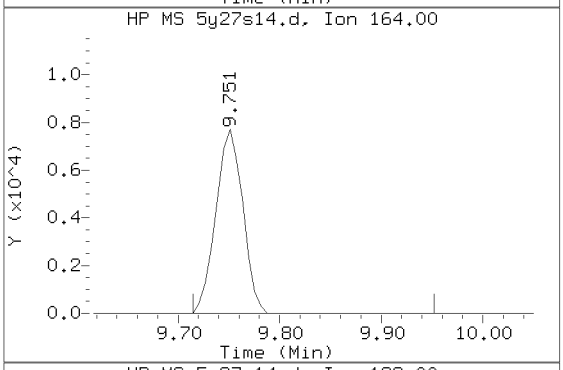
Sample Spectrum (Background Subtracted)

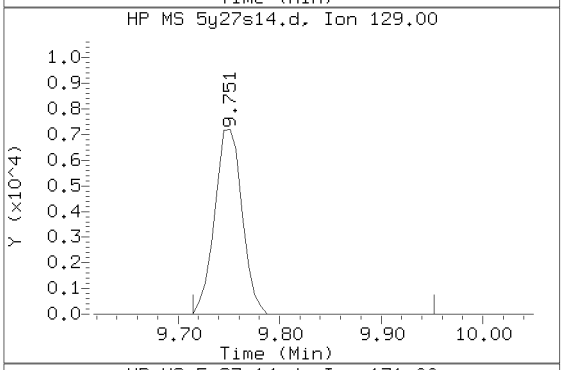


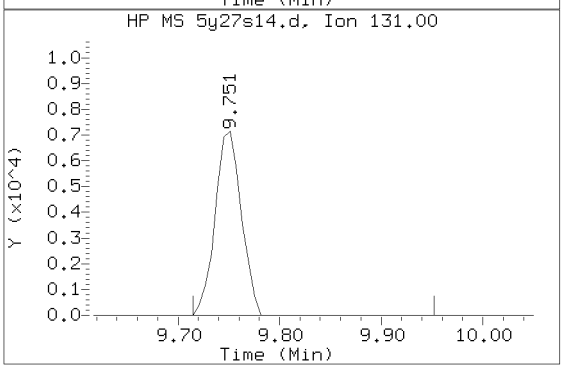
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s14.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:36 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 14:55 chemist

Sample Name: W5907 Lab Sample ID: 1318293

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 17720
On-Column Amount (ng) : 2.5405

Digitally signed by Laura J. Green on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5907DL

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318293

Sample wt/vol: 0.50 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s15.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	J D
67-64-1	Acetone	200	U
76-13-1	Freon 113	100	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	8	J D
78-93-3	2-Butanone	100	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	41	D
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	330	D
123-91-1	1,4-Dioxane	2500	U
108-88-3	Toluene	10	U
127-18-4	Tetrachloroethene	2	J D
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (Total)	60	U
95-50-1	1,2-Dichlorobenzene	50	U
91-20-3	Naphthalene	50	U

FORM I VOA

^

W5907DL

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318293DL

Data file: /chem2/HP26285.i/20may27a.b/5y27s15.d Injection date and time: **27-MAY-2020 14:57**
Data file Sample Info. Line: W5907DL;1318293DL;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441	(-0.024)	337	65	267433	(-10)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	921355	(-9)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	732948	(-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696	(0.000)	1855	152	391786	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947	(0.001)	113	236583	51.553	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(0.000)	102	54004	52.617	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	880872	48.903	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(-0.001)	95	356591	46.985	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					2	10
17) 1,1-Dichloroethene	(2)	2.868	(-0.000)	96	2538	0.509	5.09		J	2	10
18) Acetone	(1)				Not Detected					7	200
19) Freon 113	(2)				Not Detected					2	100
23) Carbon Disulfide	(2)				Not Detected					2	50
28) Methylene Chloride	(2)				Not Detected					3	10
32) trans-1,2-Dichloroethene	(2)				Not Detected					2	10
36) 1,1-Dichloroethane	(2)				Not Detected					2	10
42) cis-1,2-Dichloroethene	(2)	5.209	(-0.000)	96	5137	0.815	8.15		J	2	10
44) 2-Butanone	(2)				Not Detected					3	100
51) Chloroform	(2)				Not Detected					2	10
53) 1,1,1-Trichloroethane	(2)	5.947	(-0.000)	97	37369	4.101	41.01			3	10
60) Benzene	(2)				Not Detected					2	10
61) 1,2-Dichloroethane	(2)				Not Detected					3	10
71) Trichloroethene	(2)	7.380	(0.000)	95	214220	33.257	332.57			2	10
76) 1,4-Dioxane	(1)				Not Detected					290	2500
89) Toluene	(3)				Not Detected					2	10
94) Tetrachloroethene	(3)	9.751	(0.000)	166	1370	0.204	2.04		J	2	10
105) Ethylbenzene	(3)				Not Detected					4	10
107) m+p-Xylene	(3)				Not Detected					10	50
108) o-Xylene	(3)				Not Detected					4	10
109) Xylene (Total)	(3)				Not Detected					14	60
139) 1,2-Dichlorobenzene	(4)				Not Detected					2	50
149) Naphthalene	(4)				Not Detected					10	50

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Data file: /chem2/HP26285.i/20may27a.b/5y27s15.d Injection date and time: **27-MAY-2020 14:57**
Data file Sample Info. Line: W5907DL;1318293DL;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

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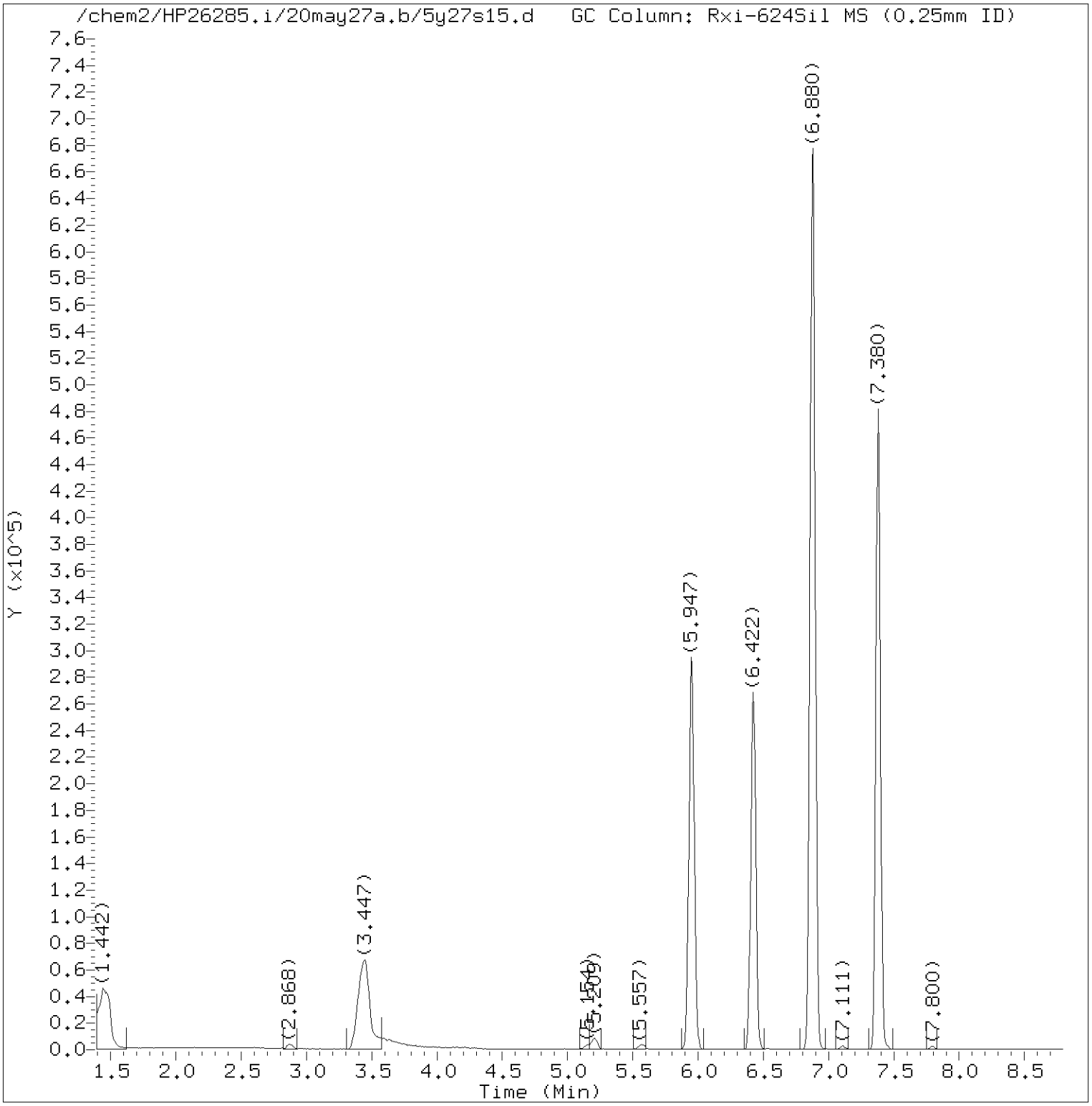
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:52. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

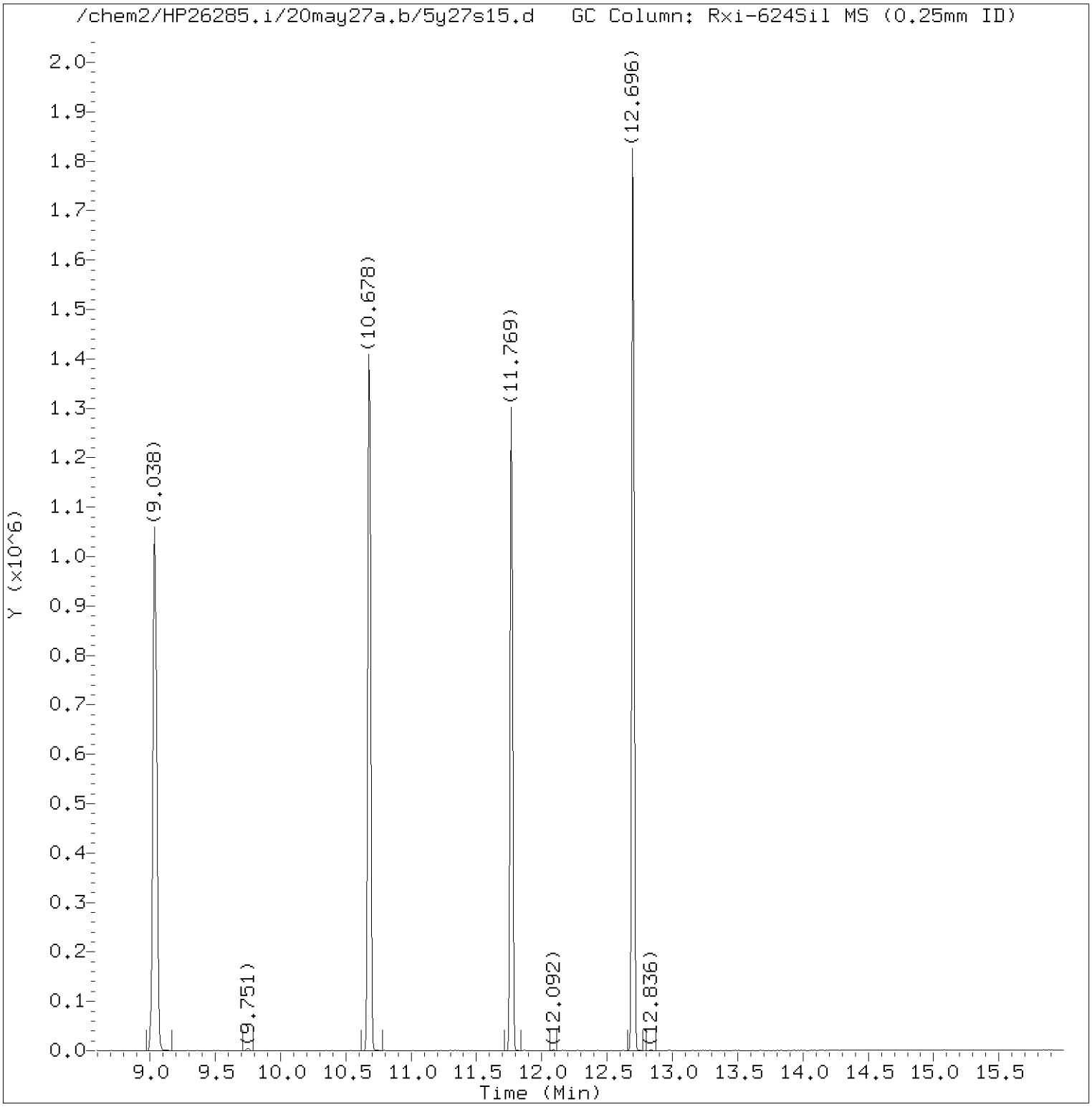
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.868	96	2538	0.509
29)*t-Butyl alcohol-d10	(1)	3.441	65	267433	250.000
42) cis-1,2-Dichloroethene	(2)	5.209	96	5137	0.815
53) 1,1,1-Trichloroethane	(2)	5.947	97	37369	4.101
52)$Dibromofluoromethane	(2)	5.947	113	236583	51.553
57)$1,2-Dichloroethane-d4	(2)	6.422	102	54004	52.617
66)*Fluorobenzene	(2)	6.880	96	921355	50.000
71) Trichloroethene	(2)	7.380	95	214220	33.257
84)$Toluene-d8	(3)	9.038	98	880872	48.903
94) Tetrachloroethene	(3)	9.751	166	1370	0.204
101)*Chlorobenzene-d5	(3)	10.678	117	732948	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	356591	46.985
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	391786	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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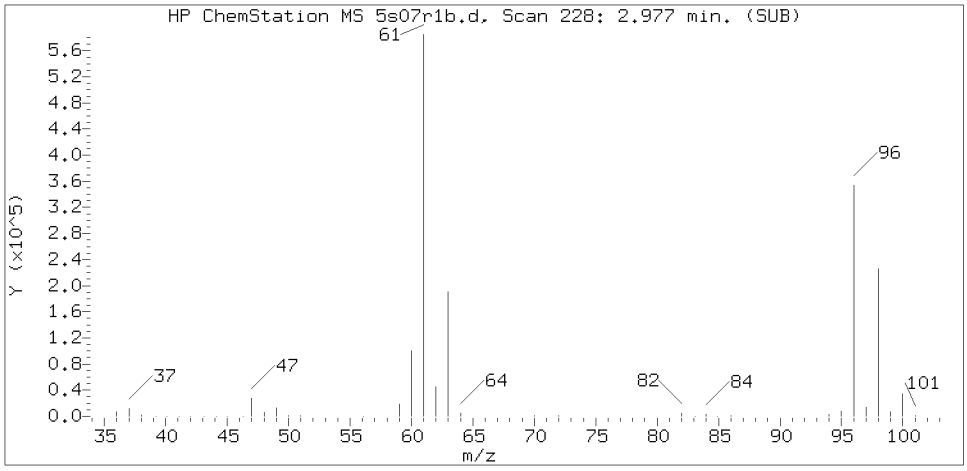
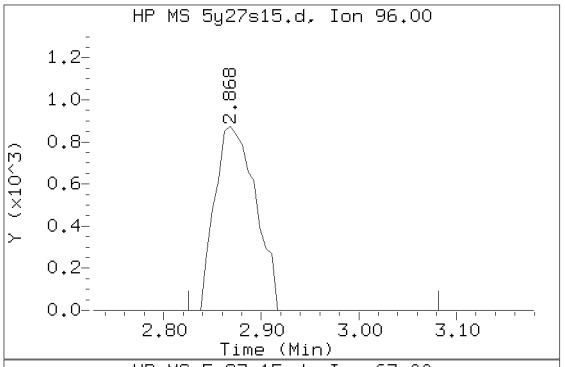
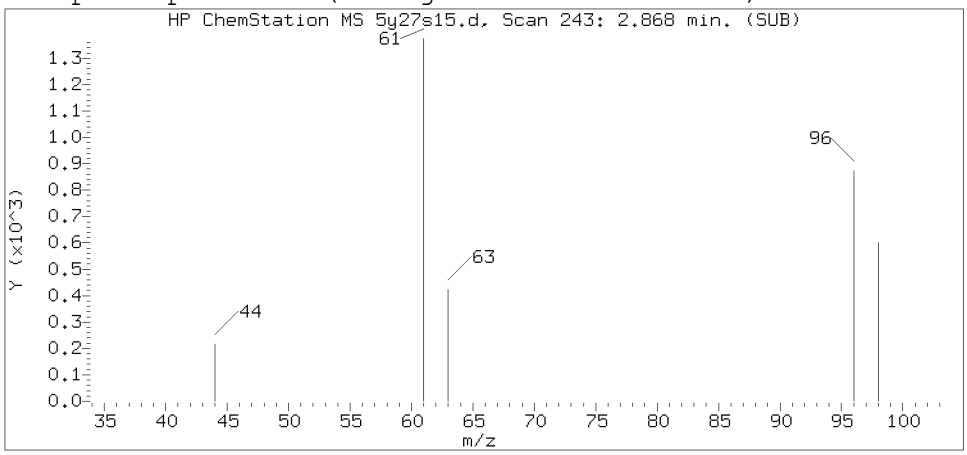
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

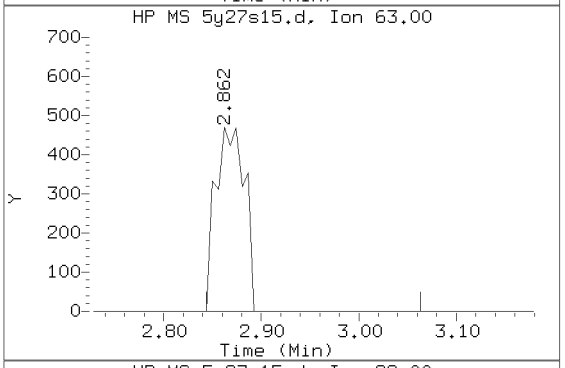
Reference Standard Spectrum for 1,1-Dichloroethene

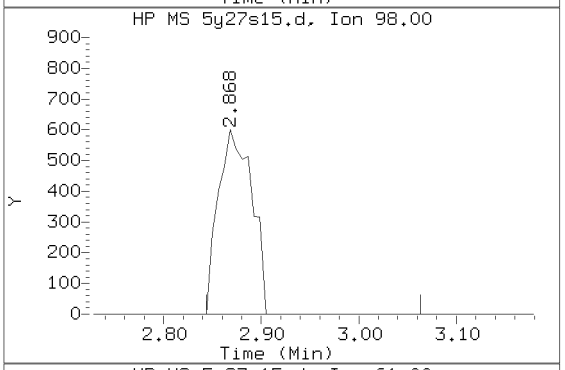




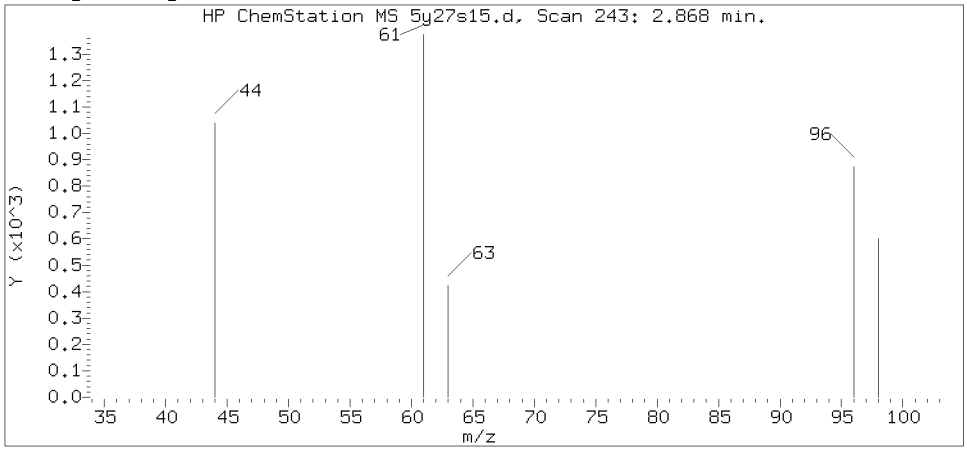
Sample Spectrum (Background Subtracted)

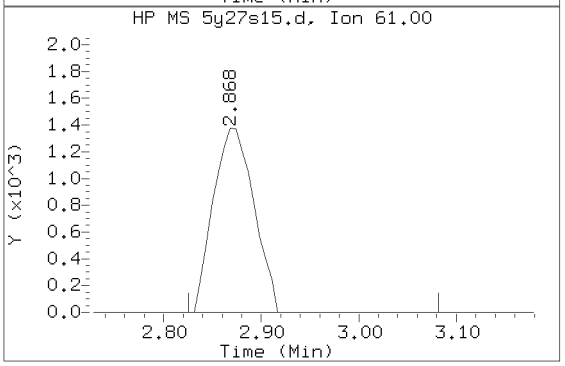






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 243
Retention Time (minutes): 2.868
Relative Retention Time :-0.00051
Quant Ion : 96.00
Area (flag) : 2538
On-Column Amount (ng) : 0.5095

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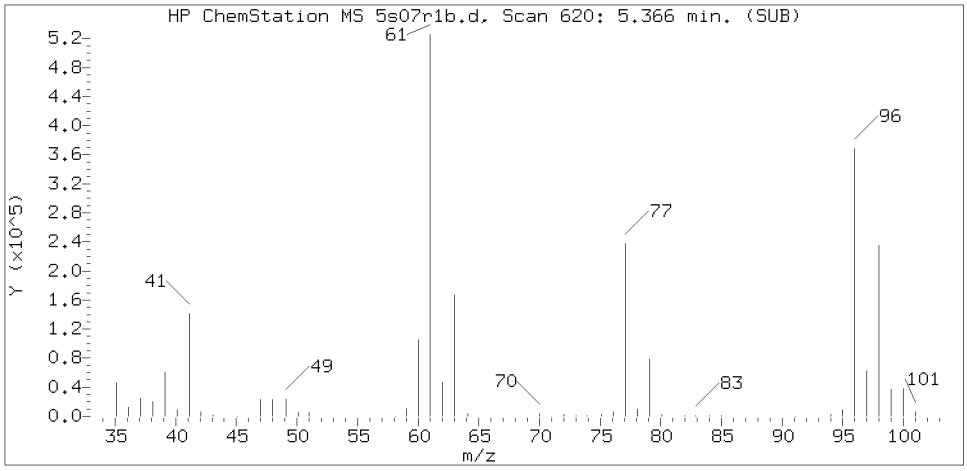
Target 3.5 esignature user ID: ljg30941

Reference Standard Spectrum for cis-1,2-Dichloroethene



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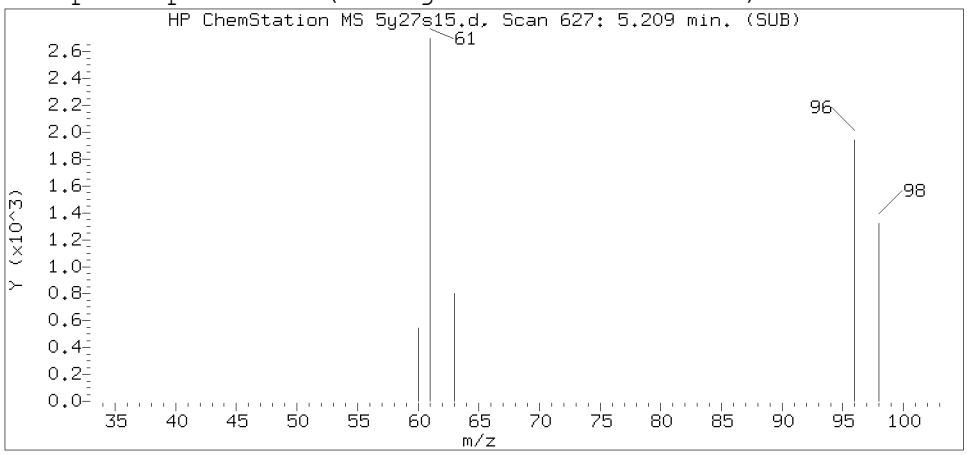
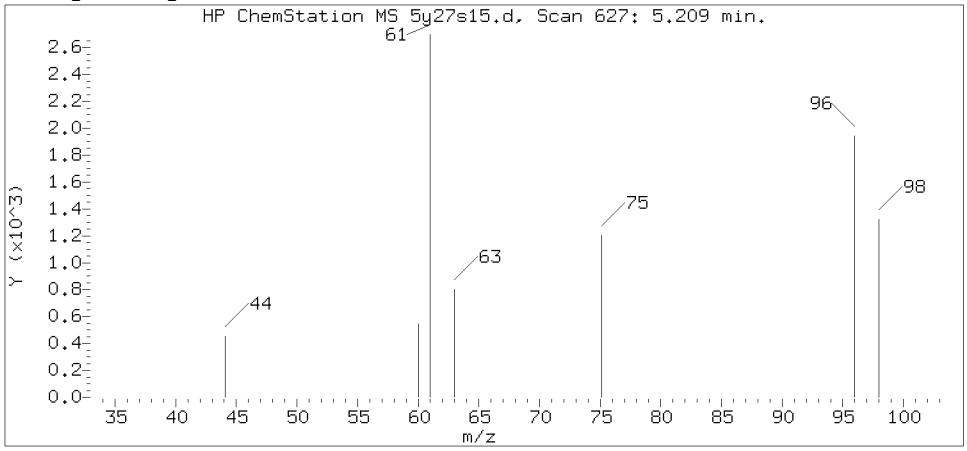
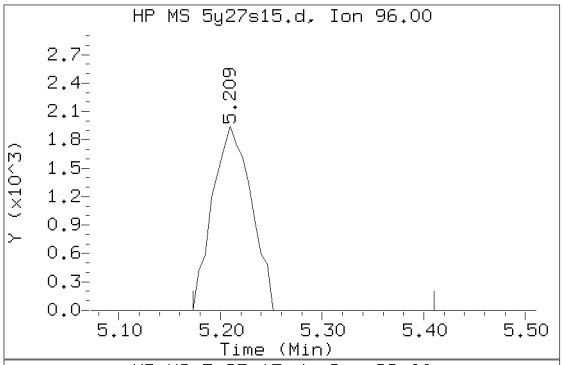
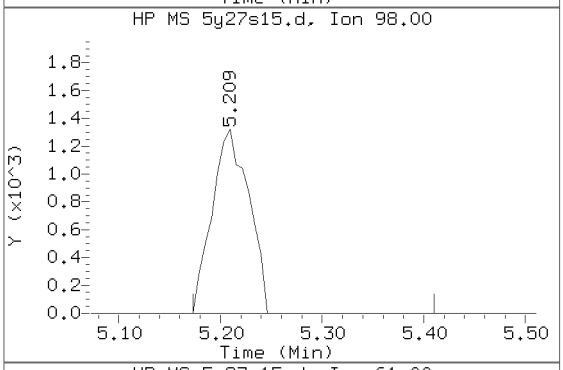
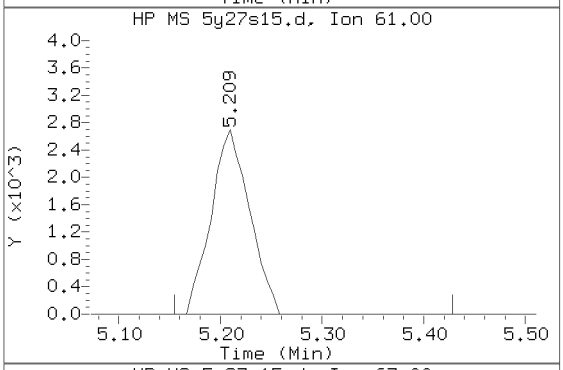


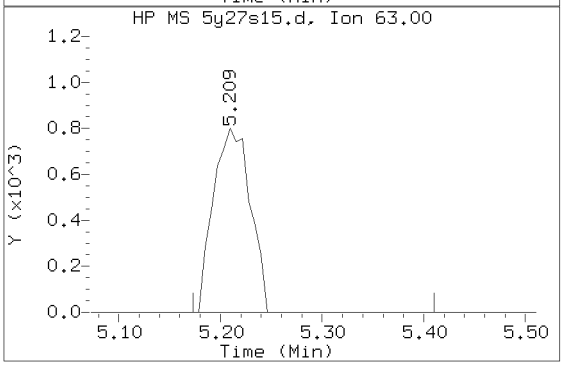
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 627
Retention Time (minutes): 5.209
Relative Retention Time :-0.00021
Quant Ion : 96.00
Area (flag) : 5137
On-Column Amount (ng) : 0.8149

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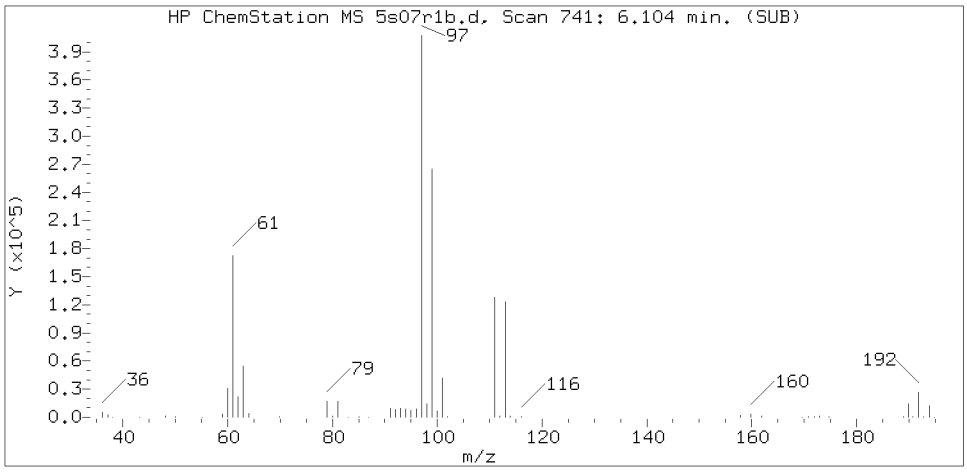
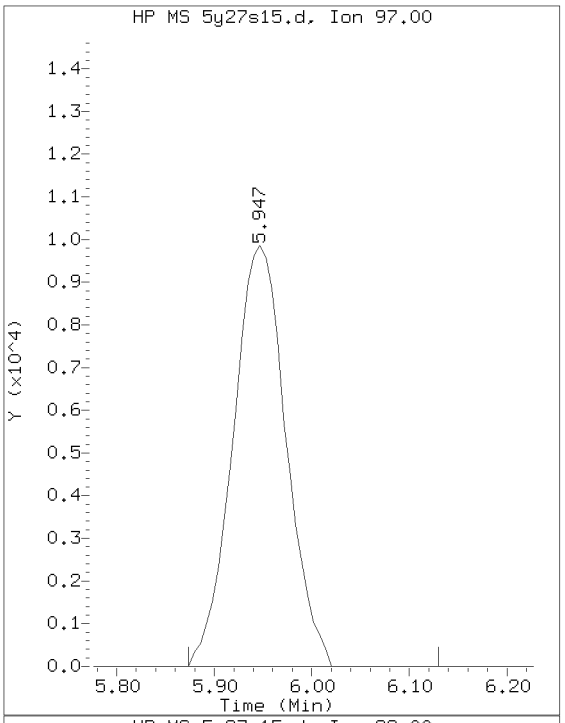
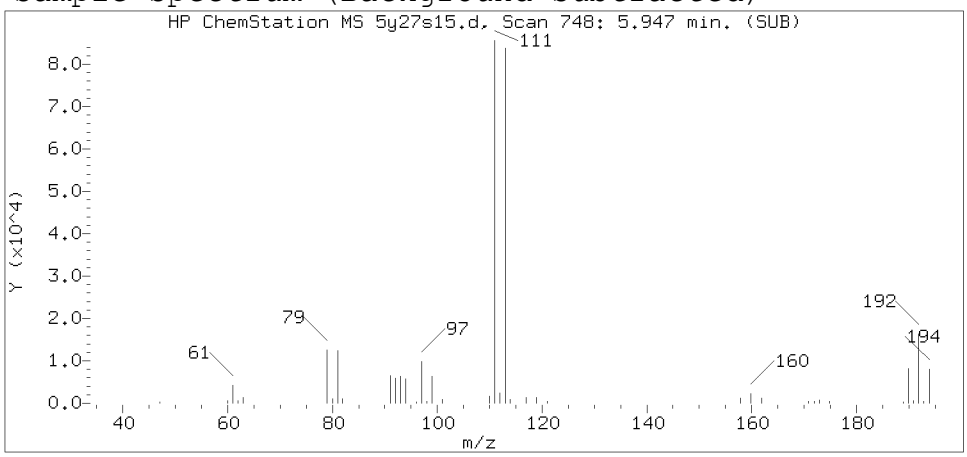
Target 3.5 esignature user ID: ljg30941

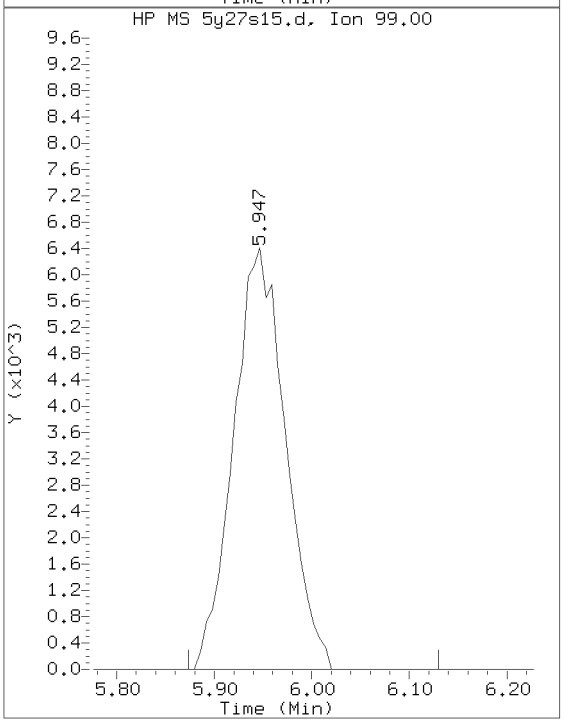
Reference Standard Spectrum for 1,1,1-Trichloroethane



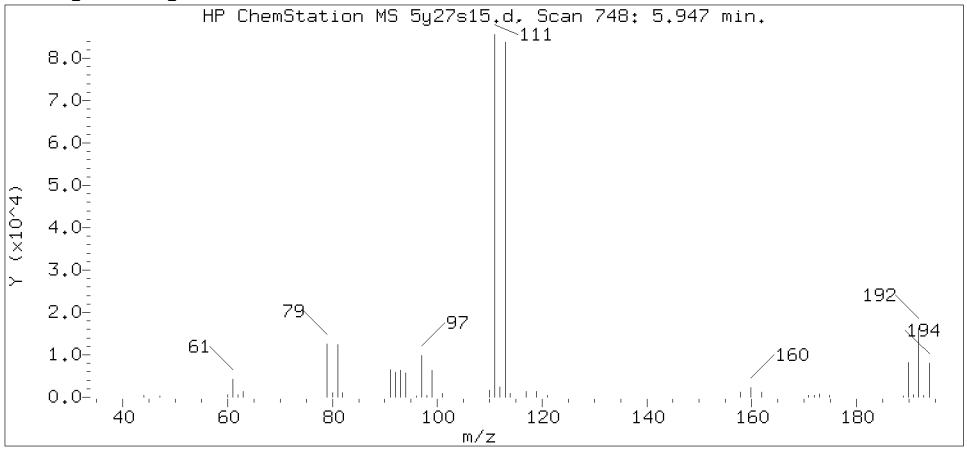


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

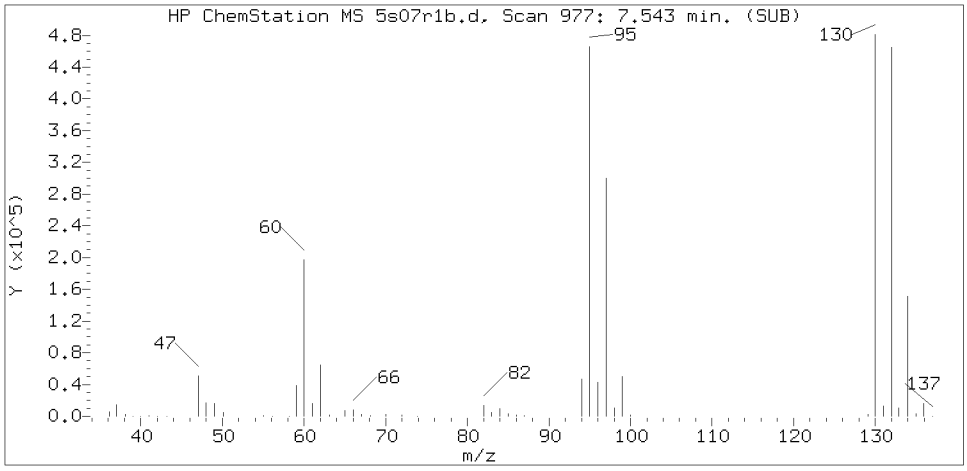
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

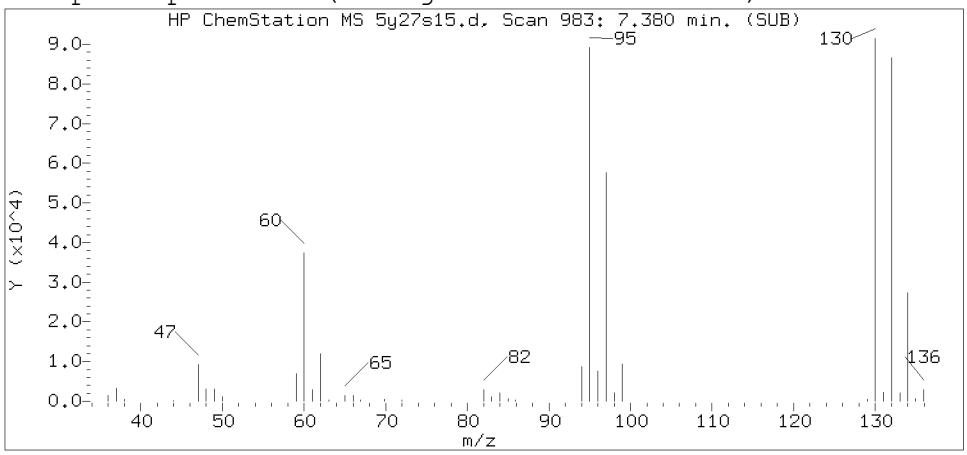
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 748
Retention Time (minutes): 5.947
Relative Retention Time :-0.00012
Quant Ion : 97.00
Area (flag) : 37369
On-Column Amount (ng) : 4.1008

Digitally signed by Laura J. Green on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

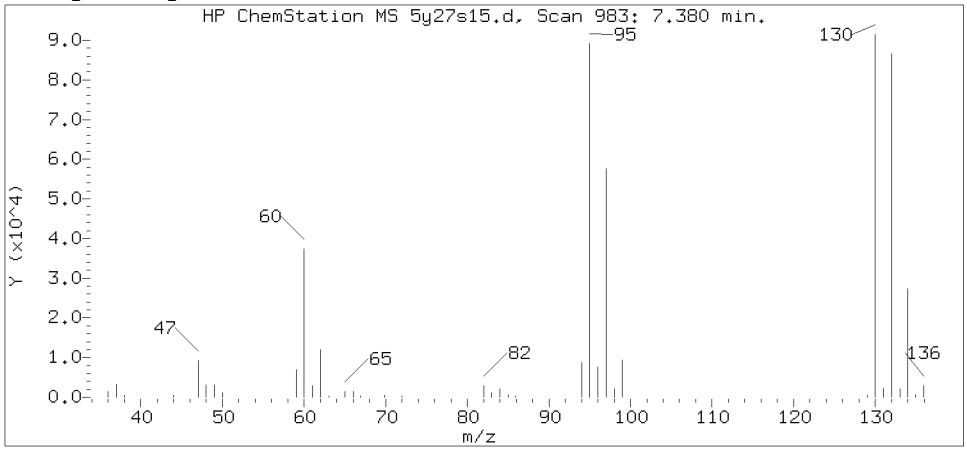
Reference Standard Spectrum for Trichloroethene

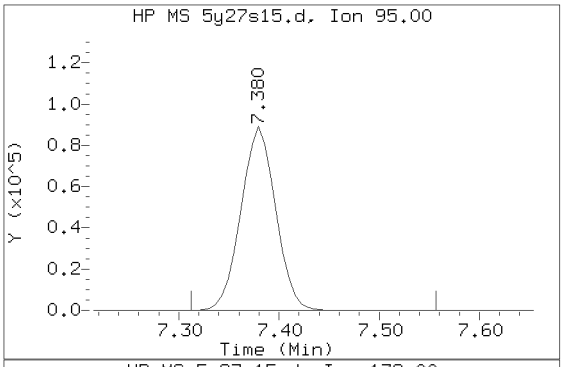


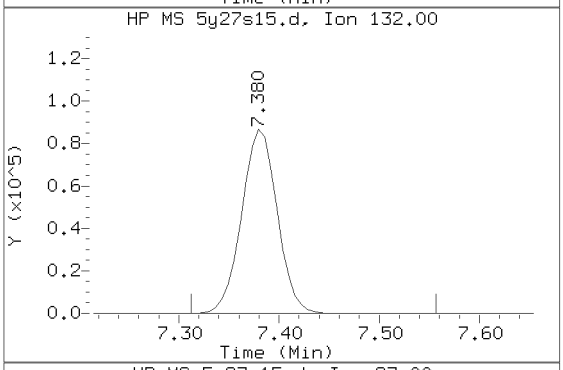
Sample Spectrum (Background Subtracted)

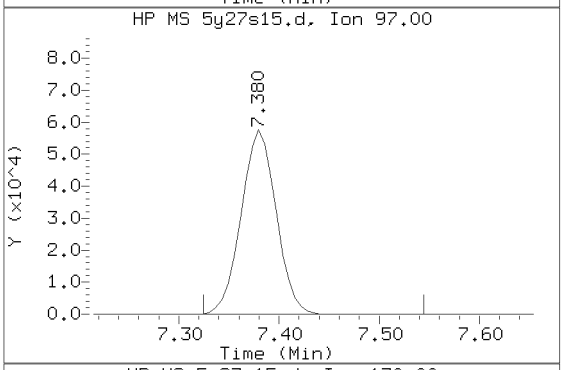


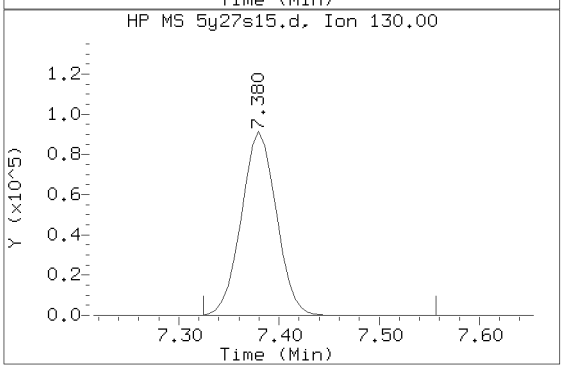
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time : 0.00095
Quant Ion : 95.00
Area (flag) : 214220
On-Column Amount (ng) : 33.2573

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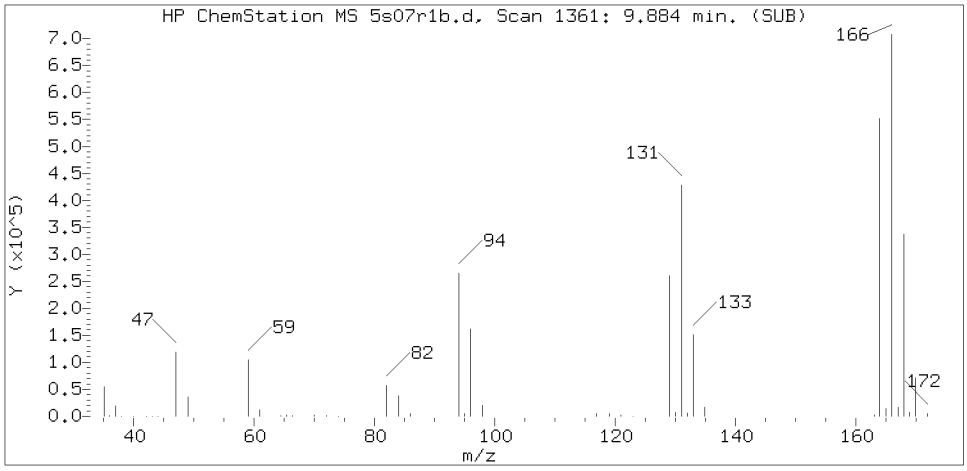
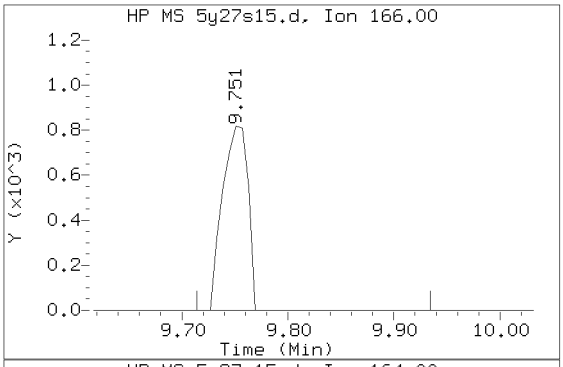
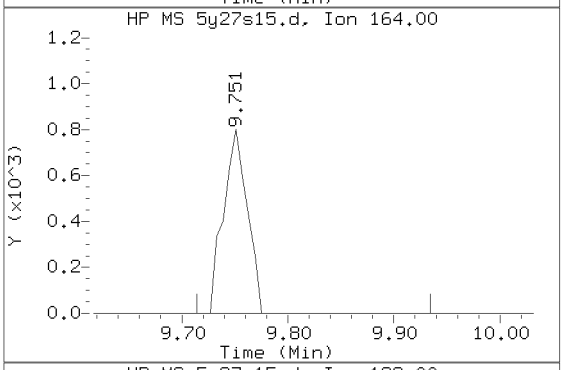
Target 3.5 esignature user ID: ljg30941

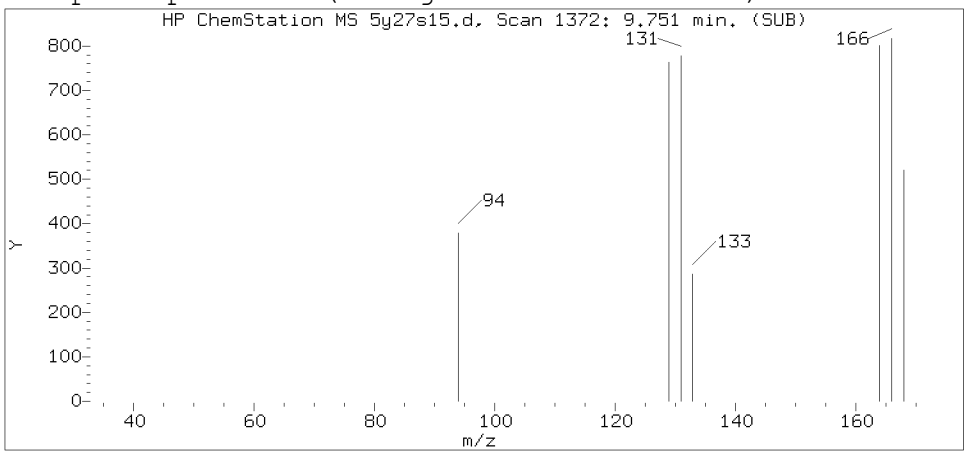
Reference Standard Spectrum for Tetrachloroethene

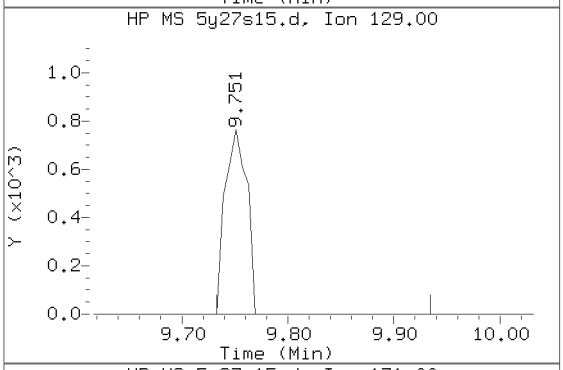




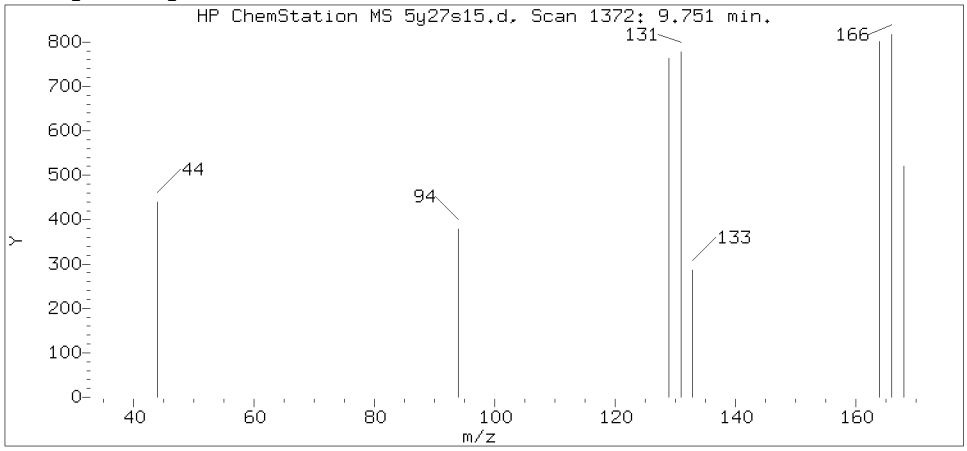


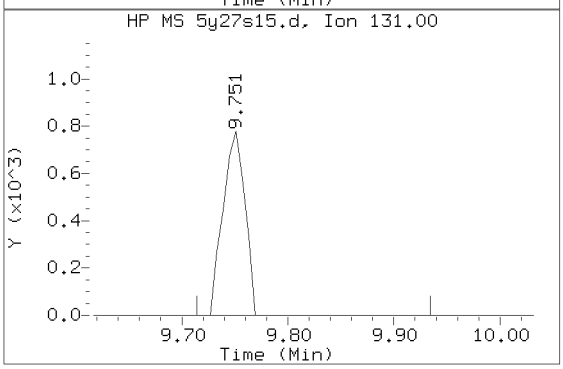
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s15.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 14:57 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:16 chemist

Sample Name: W5907DL Lab Sample ID: 1318293DL

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 1370
On-Column Amount (ng) : 0.2035

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5908

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318294

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s27.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	6	
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.9	J
156-59-2	cis-1,2-Dichloroethene	9	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	46	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	360	E
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	3	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5908 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318294

Data file: /chem2/HP26285.i/20may27a.b/5y27s27.d Injection date and time: **27-MAY-2020 19:05**
Data file Sample Info. Line: W5908;1318294;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447(-0.030)	338	65	239550 (-19)	250.00	
66) Fluorobenzene	6.880(-0.006)	901	96	839998 (-17)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	673144 (-17)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(-0.006)	1856	152	359411 (-17)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(0.000)	113	227578	54.394	109%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429(-0.001)	102	49139	52.514	105%		80 - 120
84) Toluene-d8	(3)	9.038(0.001)	98	803647	48.580	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	322109	46.212	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.874(-0.001)	96	25156	5.539	5.54			0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.350(-0.002)	63	8536	0.928	0.93		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215(-0.001)	96	53471	9.302	9.30			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953(-0.001)	97	381655	45.939	45.94			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.386(0.000)	95	2112189	359.673	359.67		E	0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	15927	2.575	2.57			0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

E = Compound concentration above calibration range.

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Data file: /chem2/HP26285.i/20may27a.b/5y27s27.d Injection date and time: **27-MAY-2020 19:05**
Data file Sample Info. Line: W5908;1318294;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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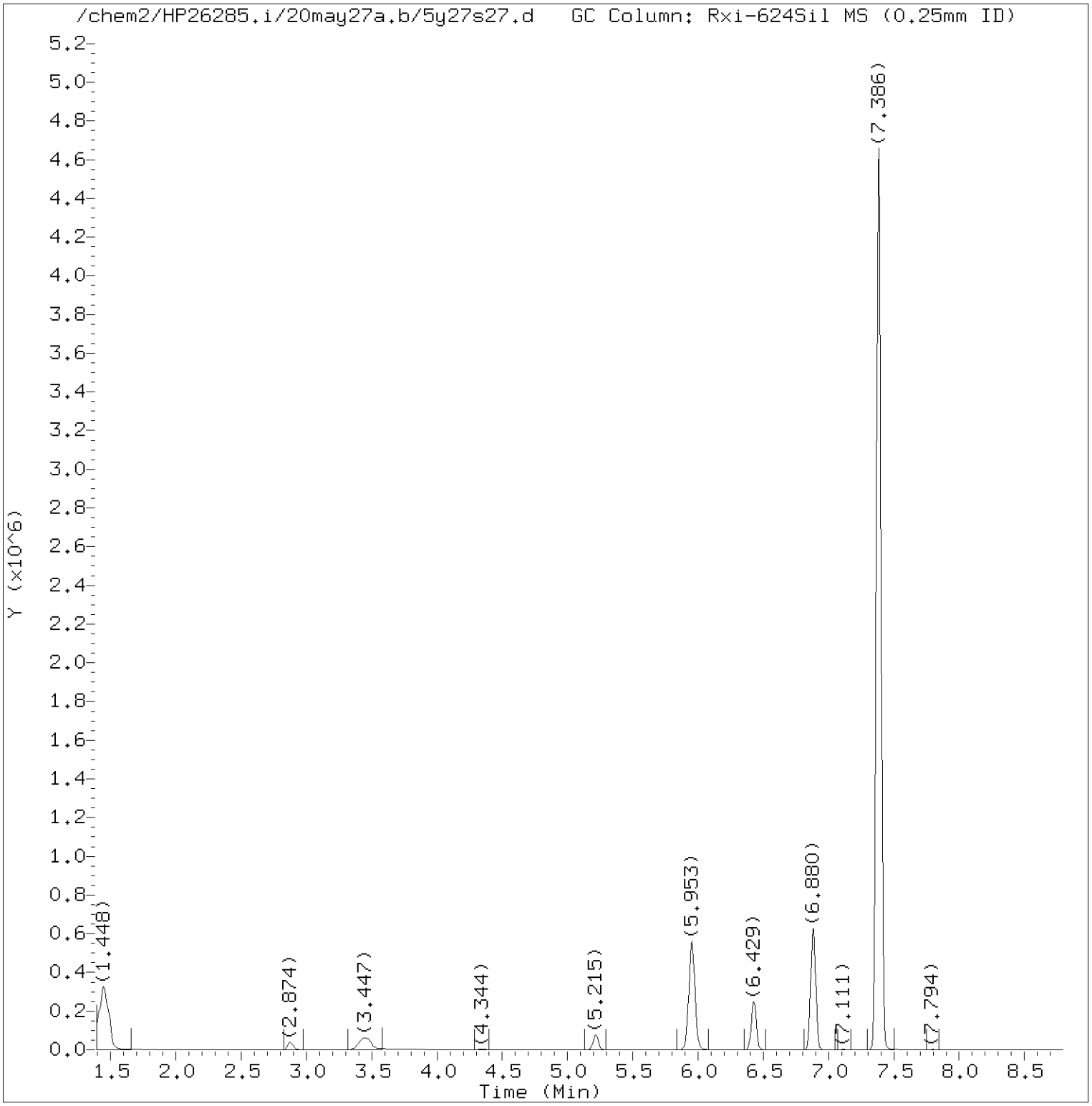
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 19:35. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

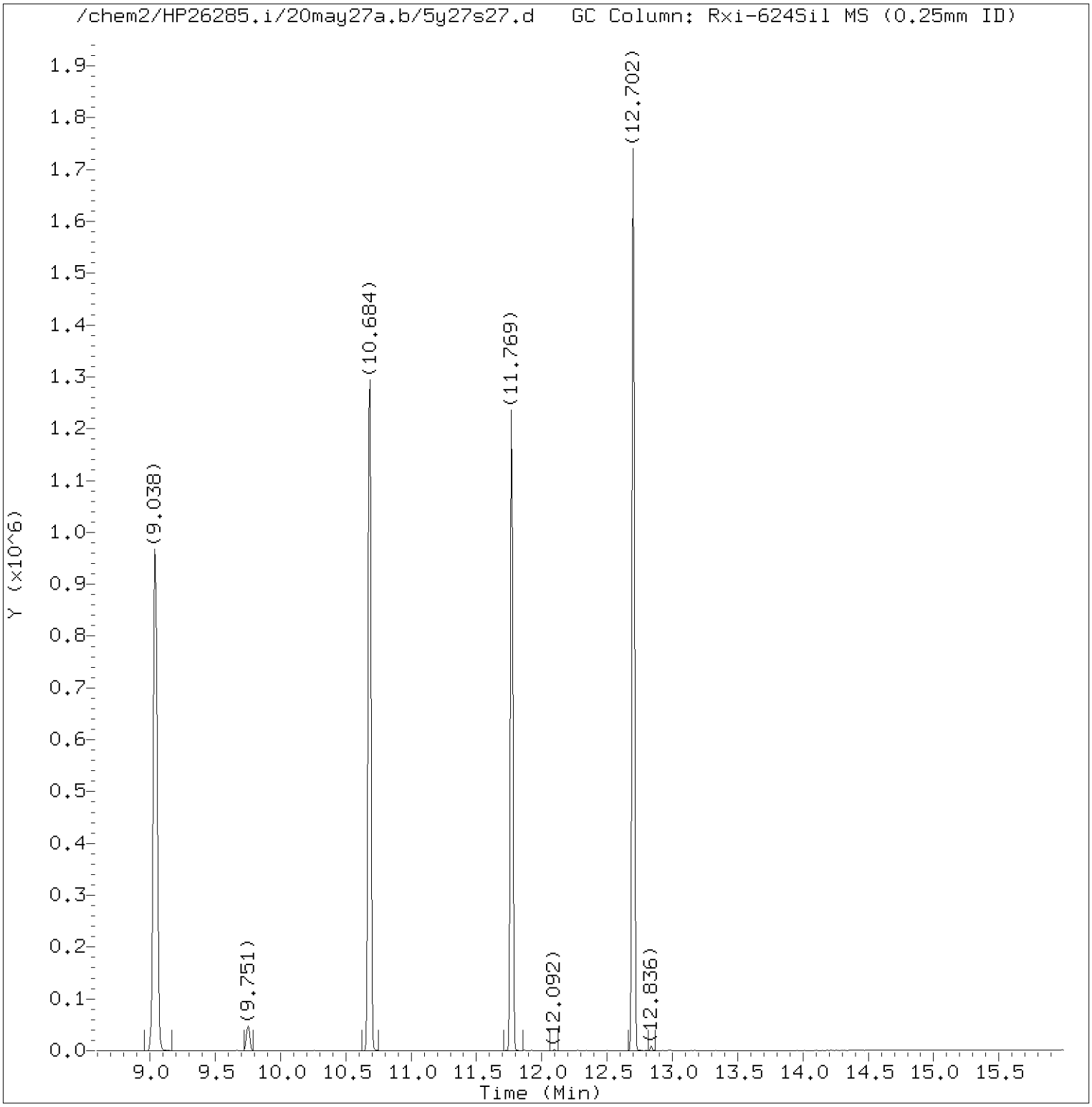
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Digitally signed by Laura J. Green
on 05/27/2020 at 19:35.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Digitally signed by Laura J. Green
on 05/27/2020 at 19:35.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

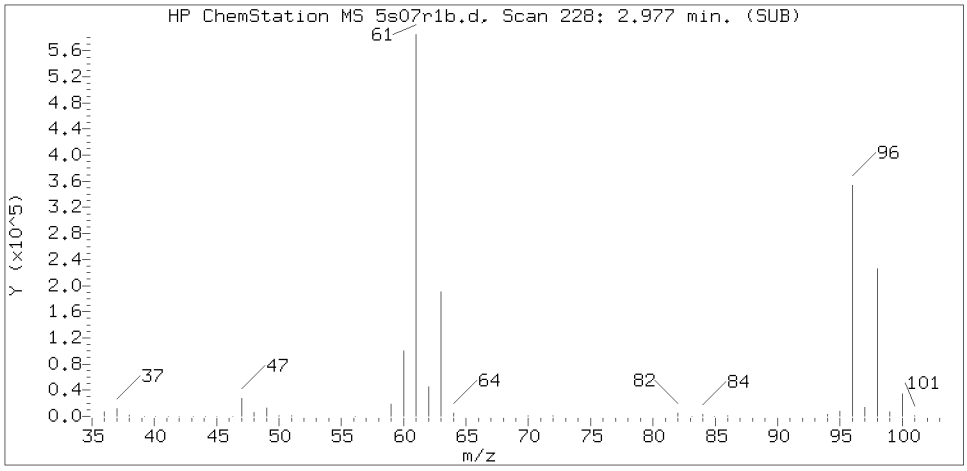
Sample Name: W5908 Lab Sample ID: 1318294

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.874	96	25156	5.539
29)*t-Butyl alcohol-d10	(1)	3.447	65	239550	250.000
36) 1,1-Dichloroethane	(2)	4.350	63	8536	0.928
42) cis-1,2-Dichloroethene	(2)	5.215	96	53471	9.302
53) 1,1,1-Trichloroethane	(2)	5.953	97	381655	45.939
52)$Dibromofluoromethane	(2)	5.953	113	227578	54.394
57)$1,2-Dichloroethane-d4	(2)	6.429	102	49139	52.514
66)*Fluorobenzene	(2)	6.880	96	839998	50.000
71) Trichloroethene	(2)	7.386	95	2112189	359.673
84)$Toluene-d8	(3)	9.038	98	803647	48.580
94) Tetrachloroethene	(3)	9.751	166	15927	2.575
101)*Chlorobenzene-d5	(3)	10.684	117	673144	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	322109	46.212
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	359411	50.000

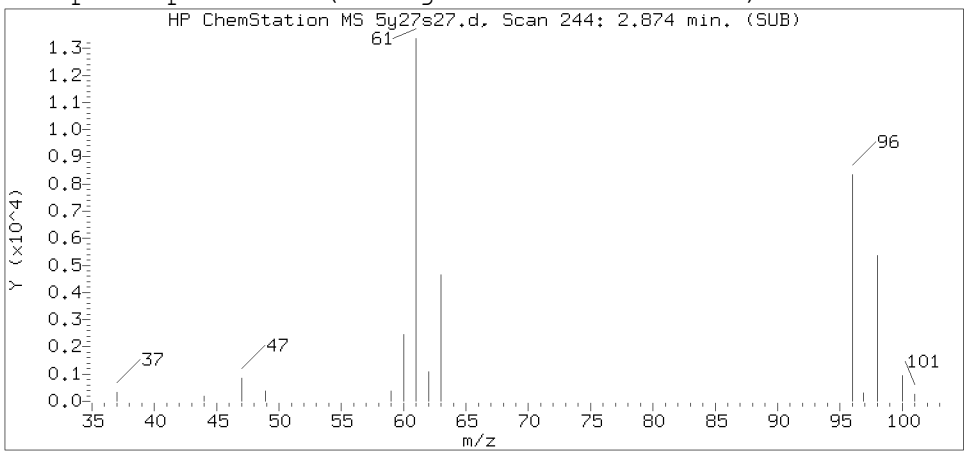
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 19:35.
Target 3.5 esignature user ID: ljg30941

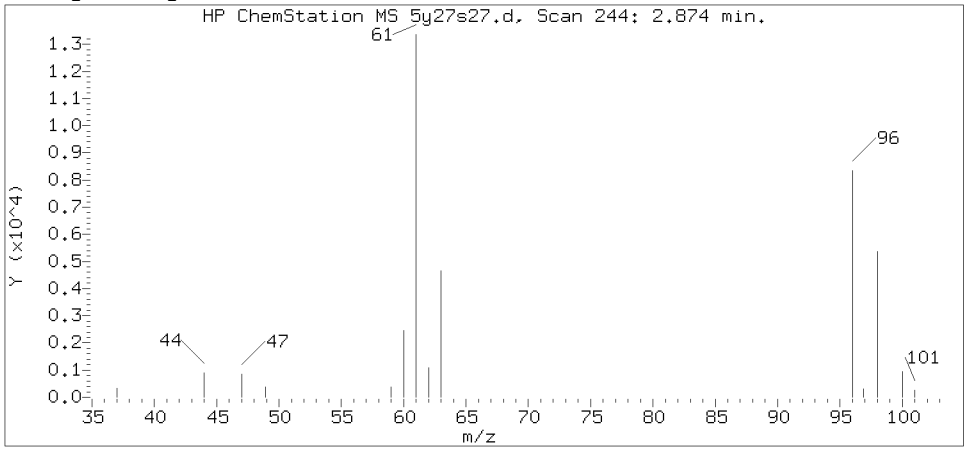
Reference Standard Spectrum for 1,1-Dichloroethene

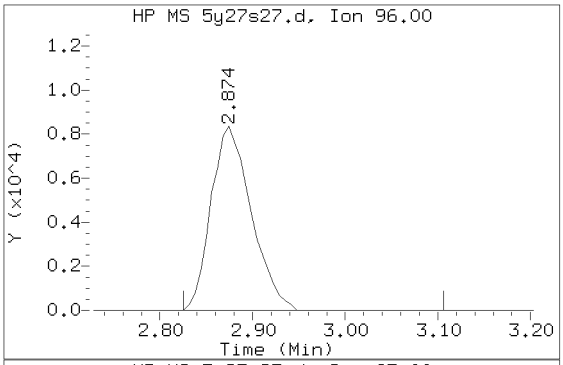


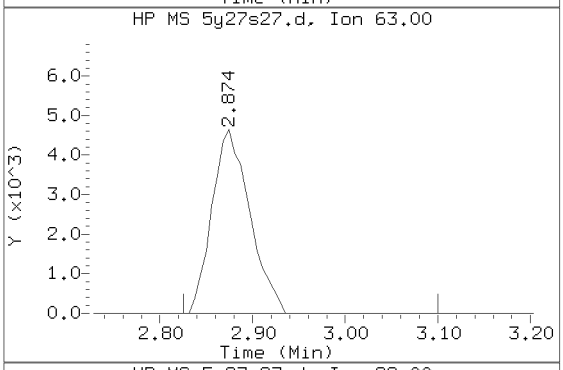
Sample Spectrum (Background Subtracted)

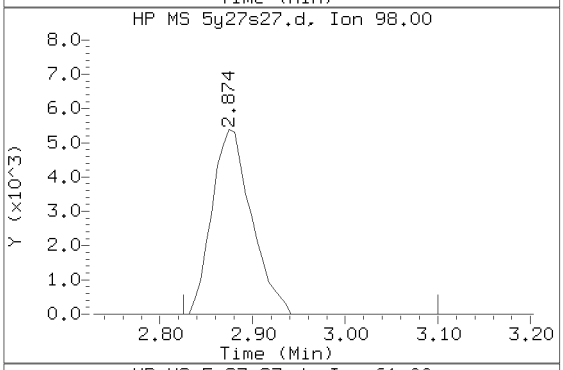


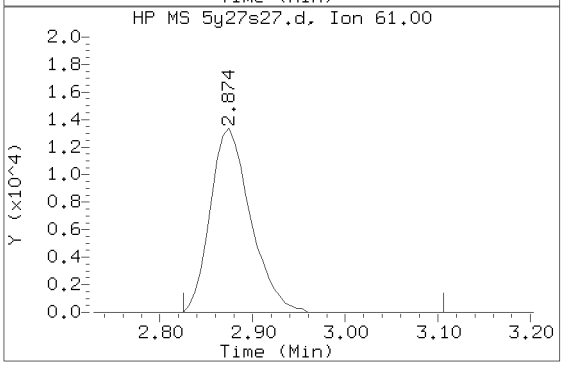
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

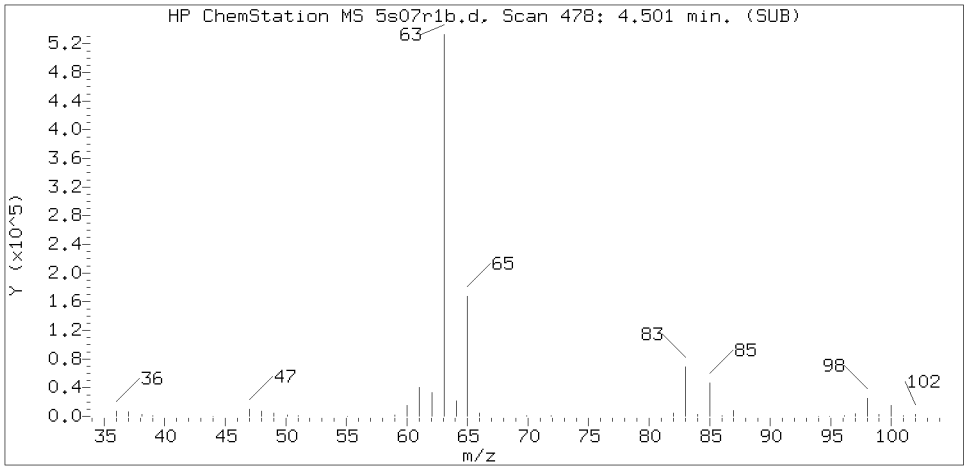
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

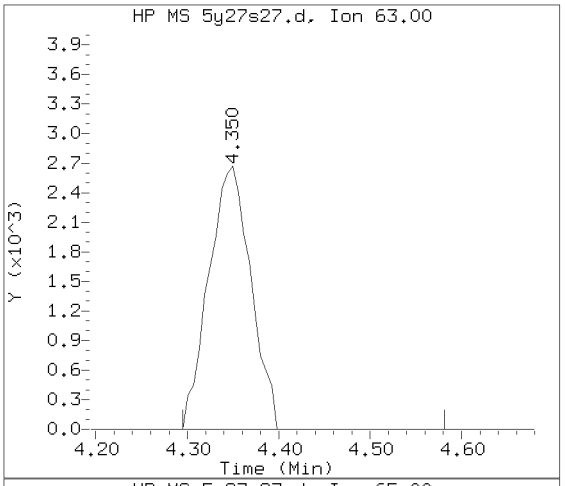
Sample Name: W5908 Lab Sample ID: 1318294

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 244
Retention Time (minutes): 2.874
Relative Retention Time :-0.00140
Quant Ion : 96.00
Area (flag) : 25156
On-Column Amount (ng) : 5.5388

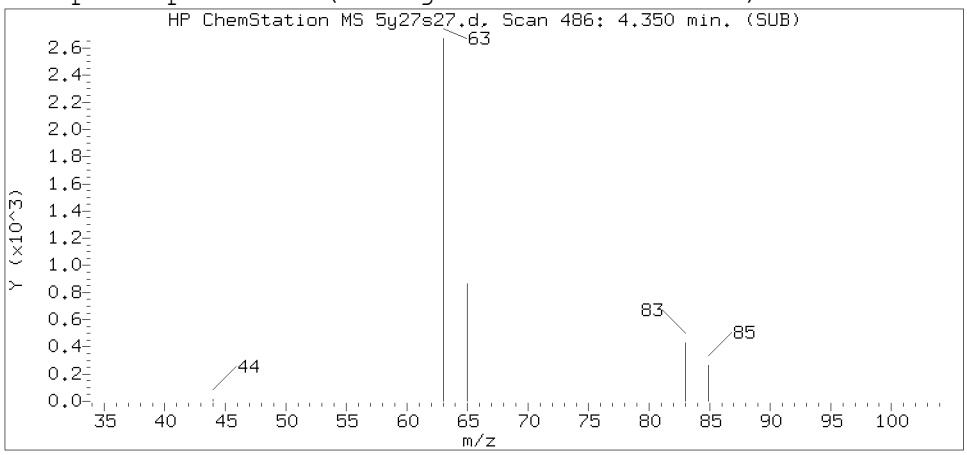
Digitally signed by Laura J. Green on 05/27/2020 at 19:35.
Target 3.5 esignature user ID: ljg30941

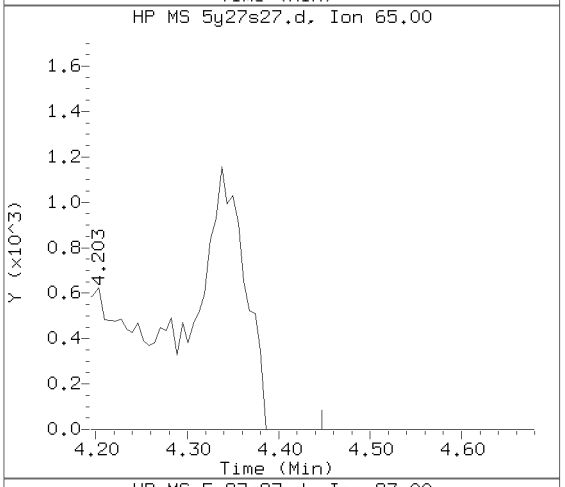
Reference Standard Spectrum for 1,1-Dichloroethane



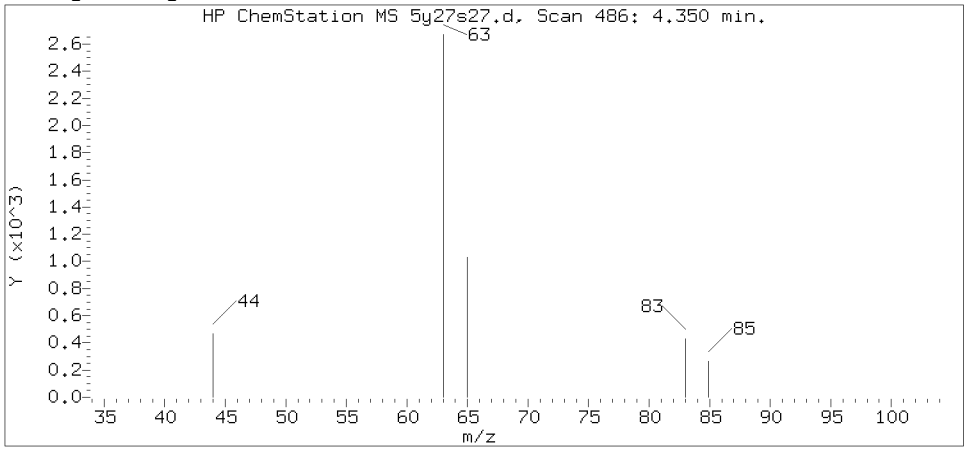


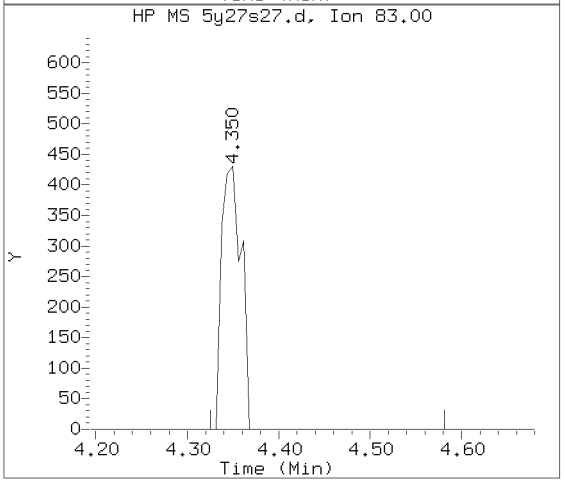
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 486
Retention Time (minutes): 4.350
Relative Retention Time :-0.00210
Quant Ion : 63.00
Area (flag) : 8536
On-Column Amount (ng) : 0.9280

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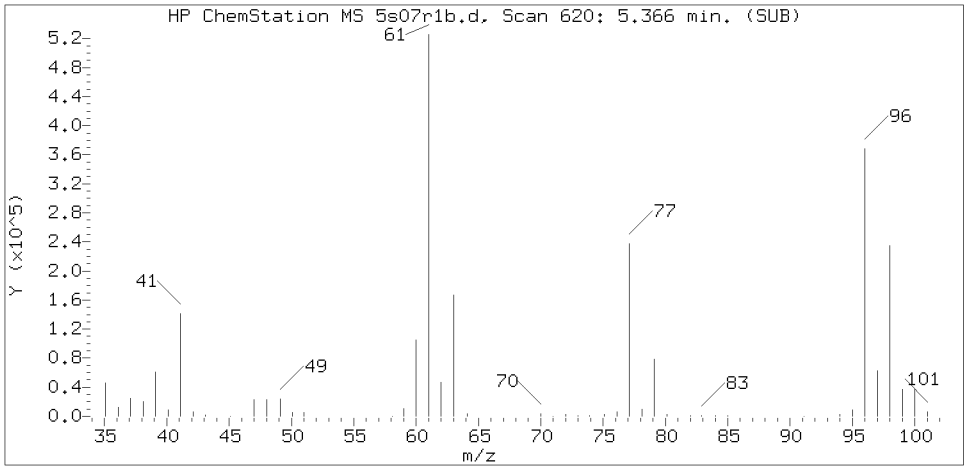
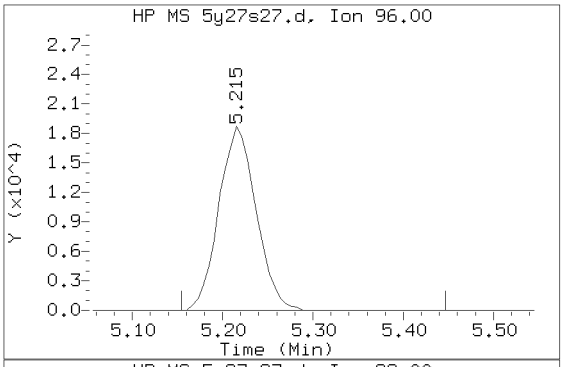
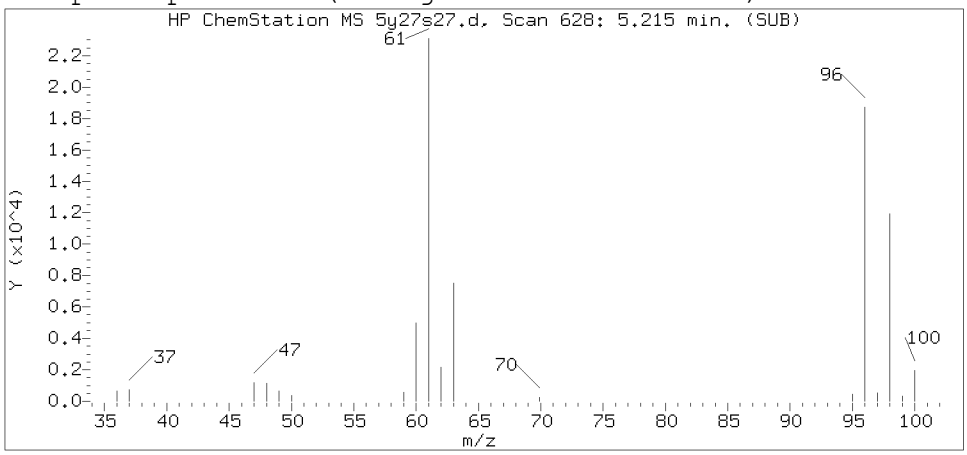
Target 3.5 esignature user ID: ljg30941

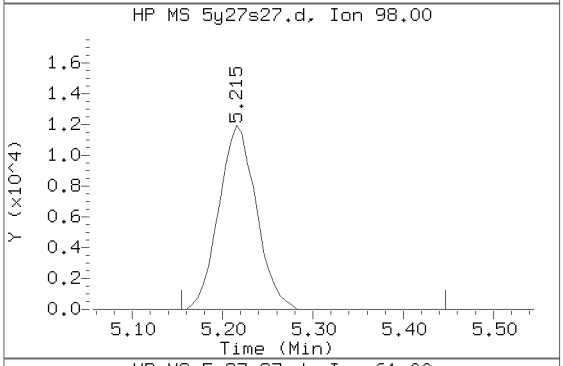
Reference Standard Spectrum for cis-1,2-Dichloroethene

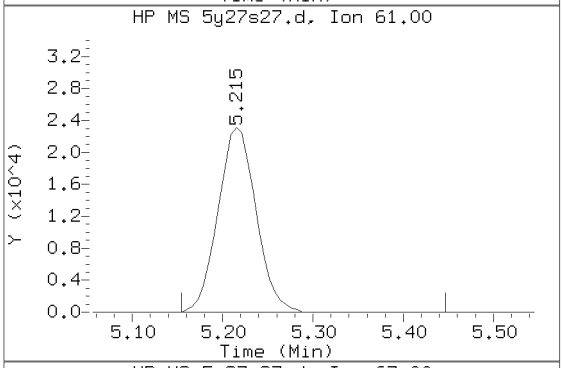




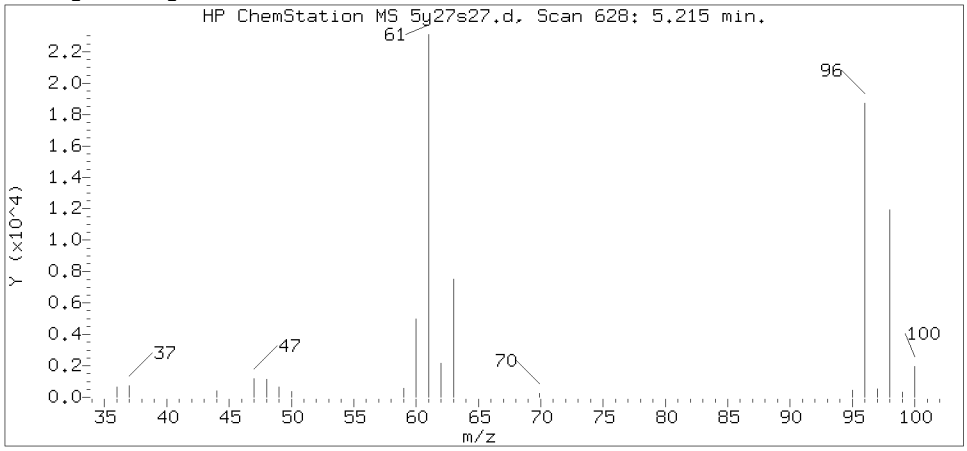
Sample Spectrum (Background Subtracted)

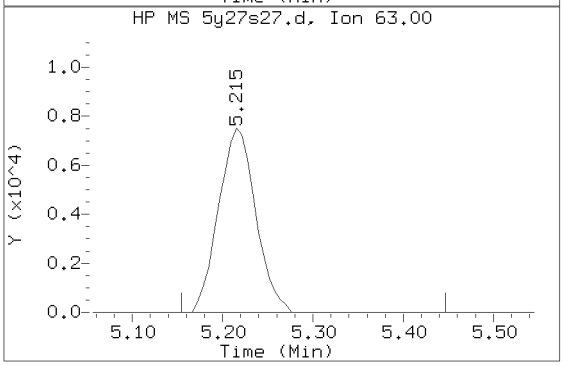






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 628
Retention Time (minutes): 5.215
Relative Retention Time :-0.00110
Quant Ion : 96.00
Area (flag) : 53471
On-Column Amount (ng) : 9.3025

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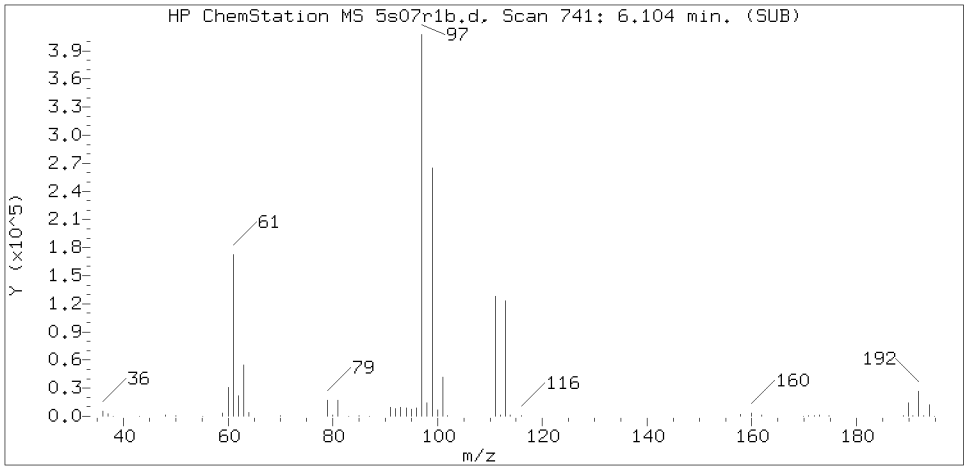
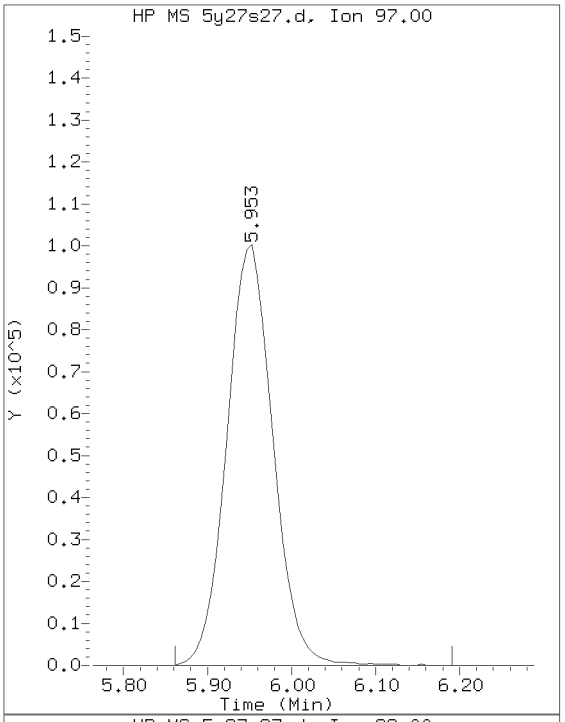
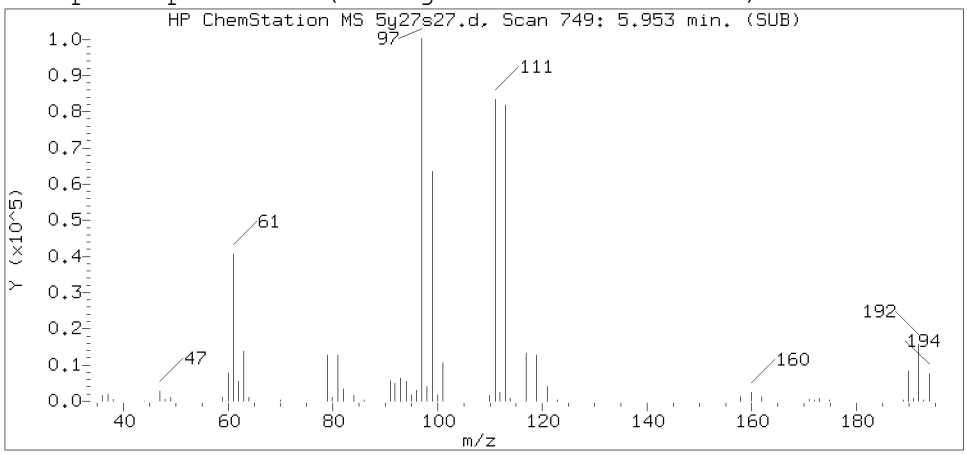
Target 3.5 esignature user ID: ljg30941

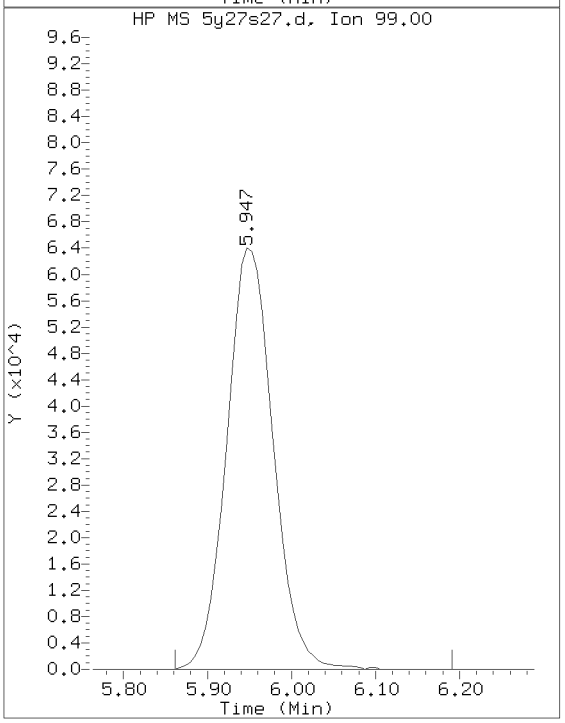
Reference Standard Spectrum for 1,1,1-Trichloroethane



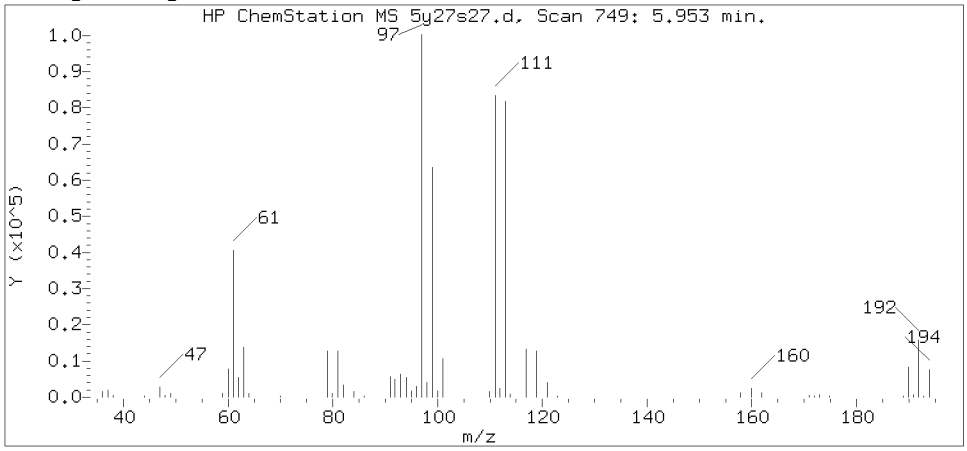


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 749
Retention Time (minutes): 5.953
Relative Retention Time :-0.00101
Quant Ion : 97.00
Area (flag) : 381655
On-Column Amount (ng) : 45.9387

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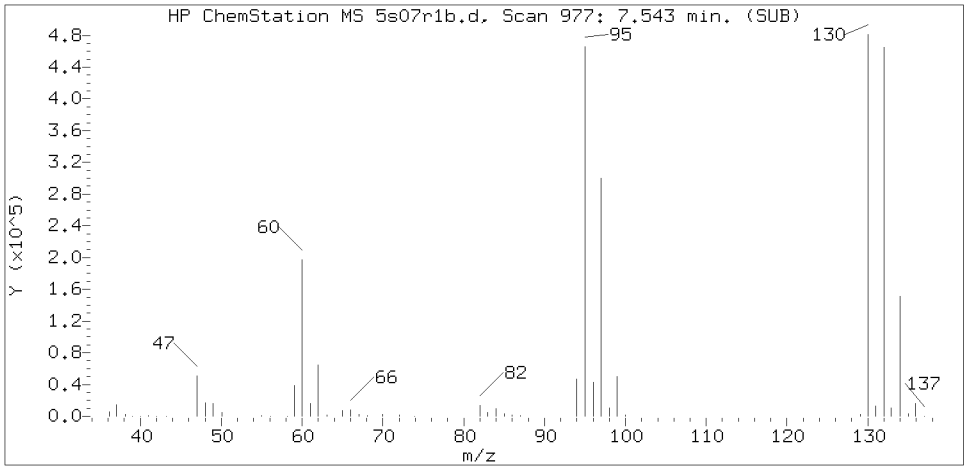
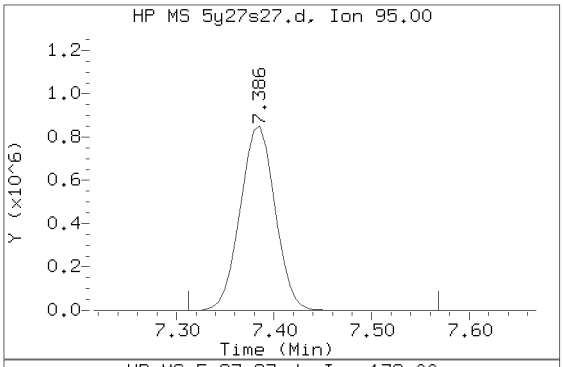
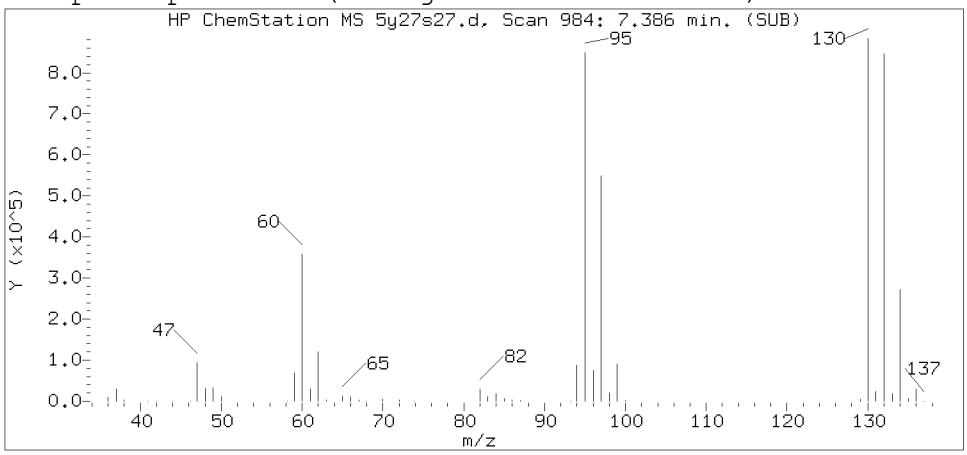
Target 3.5 esignature user ID: ljg30941

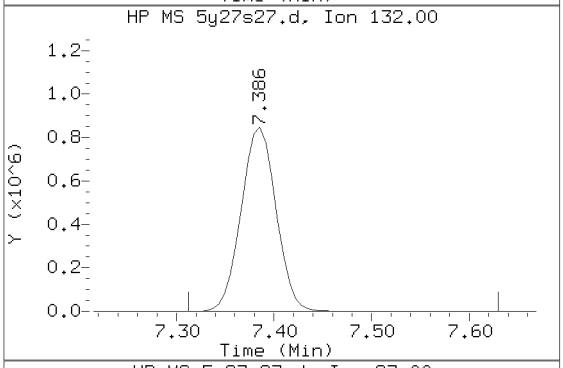
Reference Standard Spectrum for Trichloroethene

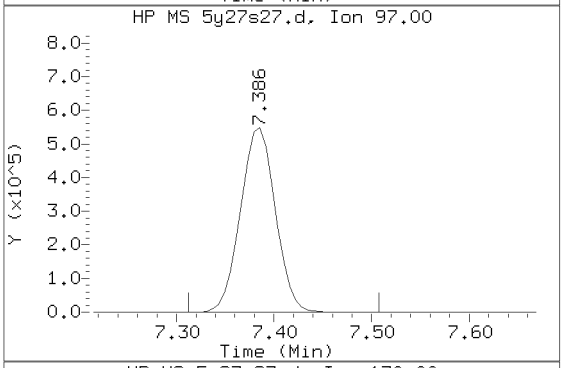




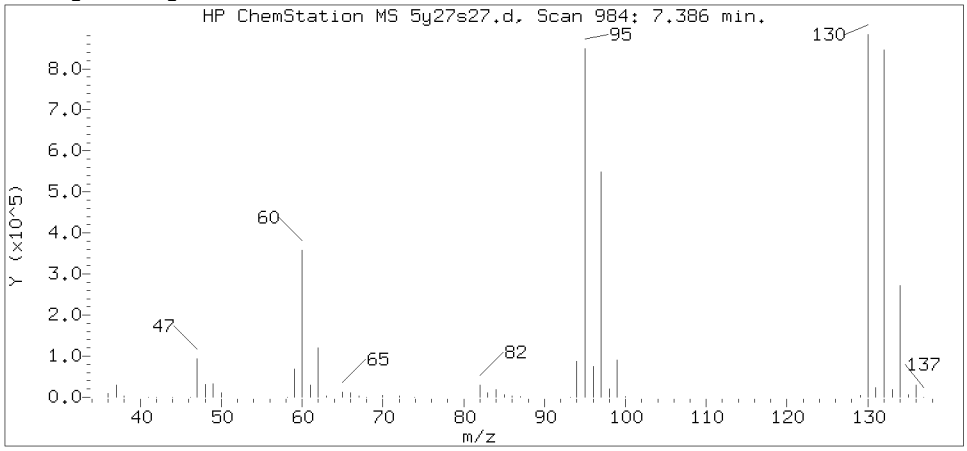
Sample Spectrum (Background Subtracted)

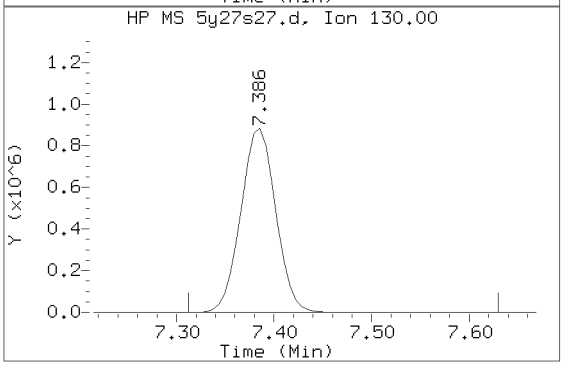






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 984
Retention Time (minutes)	: 7.386
Relative Retention Time	: 0.00006
Quant Ion	: 95.00
Area (flag)	: 2112189
On-Column Amount (ng)	: 359.6729

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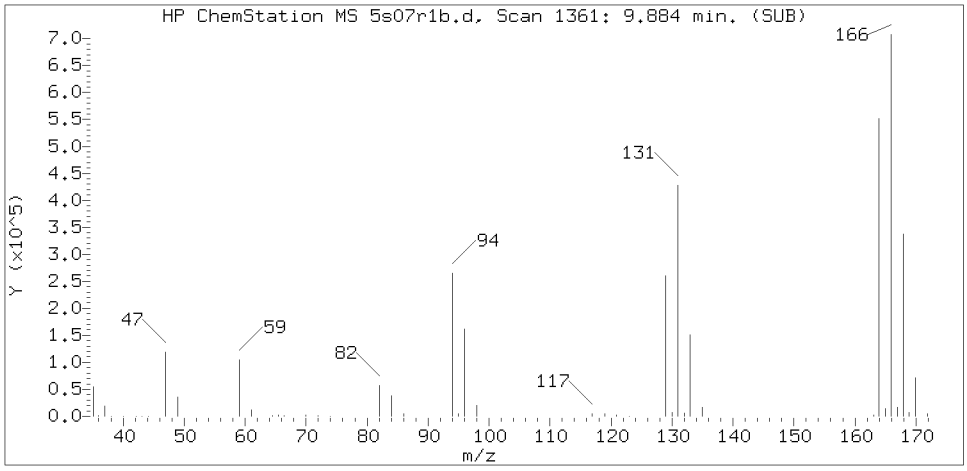
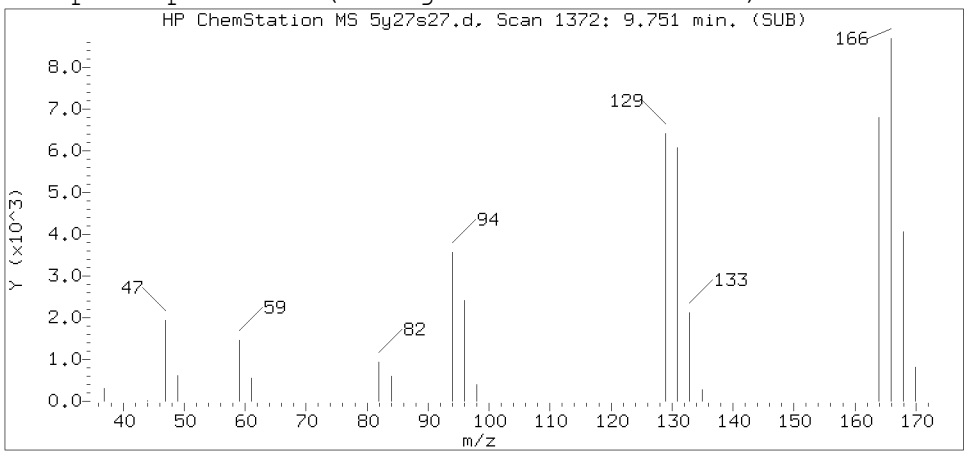
Target 3.5 esignature user ID: ljg30941

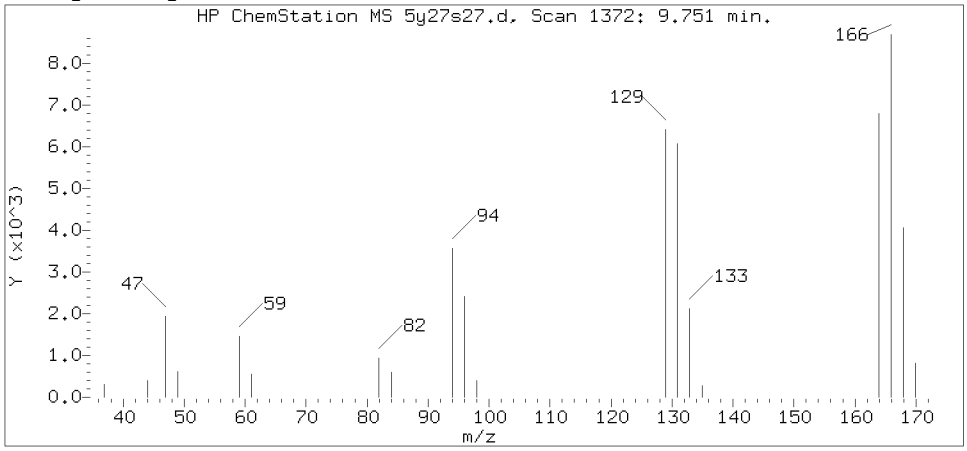
Reference Standard Spectrum for Tetrachloroethene

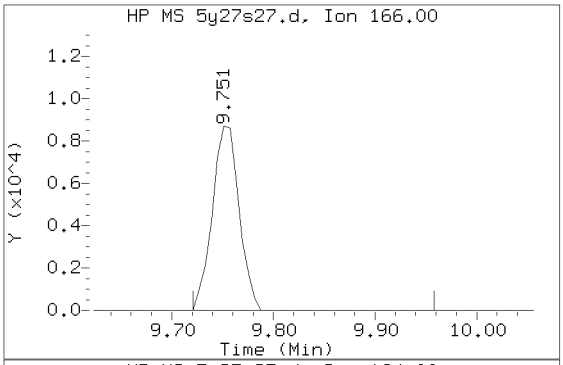


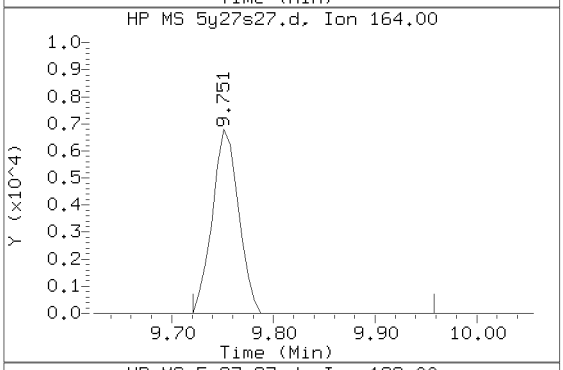
Sample Spectrum (Background Subtracted)

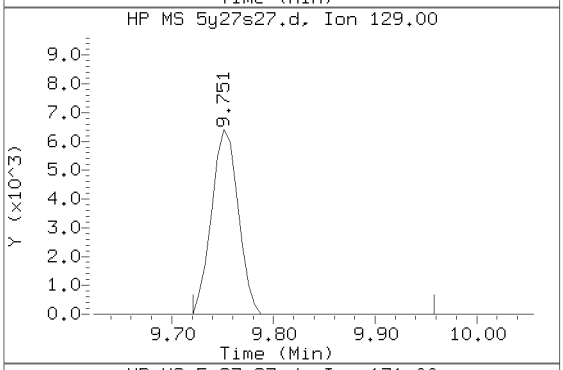


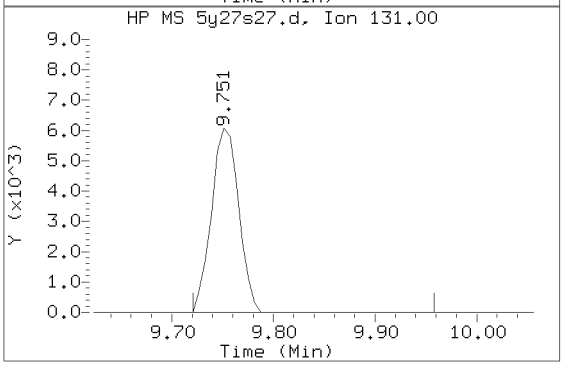
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s27.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 19:05 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:24 chemist

Sample Name: W5908 Lab Sample ID: 1318294

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00052
Quant Ion : 166.00
Area (flag) : 15927
On-Column Amount (ng) : 2.5745

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5908DL

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318294

Sample wt/vol: 0.50 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s65.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	5	J D
67-64-1	Acetone	200	U
76-13-1	Freon 113	100	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	9	J D
78-93-3	2-Butanone	100	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	39	D
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	320	D
123-91-1	1,4-Dioxane	2500	U
108-88-3	Toluene	10	U
127-18-4	Tetrachloroethene	2	J D
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (Total)	60	U
95-50-1	1,2-Dichlorobenzene	50	U
91-20-3	Naphthalene	50	U

FORM I VOA

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W5908DL

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318294DL

Data file: /chem2/HP26285.i/20may27b.b/5y27s65.d Injection date and time: **28-MAY-2020 02:48**
Data file Sample Info. Line: W5908DL;1318294DL;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454(-0.030)	339	65	241419 (5)	250.00	
66) Fluorobenzene	6.886(-0.006)	902	96	813558 (-1)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	655869 (-1)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	350721 (-6)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(0.000)	113	214057	52.825	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429(0.001)	102	47735	52.671	105%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	774949	48.079	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.001)	95	315051	46.390	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					2	10
17) 1,1-Dichloroethene	(2)	2.880(-0.001)	96	1983	0.451	4.51		J	2	10
18) Acetone	(1)			Not Detected					7	200
19) Freon 113	(2)			Not Detected					2	100
23) Carbon Disulfide	(2)			Not Detected					2	50
28) Methylene Chloride	(2)			Not Detected					3	10
32) trans-1,2-Dichloroethene	(2)			Not Detected					2	10
36) 1,1-Dichloroethane	(2)			Not Detected					2	10
42) cis-1,2-Dichloroethene	(2)	5.209(0.000)	96	5095	0.915	9.15		J	2	10
44) 2-Butanone	(2)			Not Detected					3	100
51) Chloroform	(2)			Not Detected					2	10
53) 1,1,1-Trichloroethane	(2)	5.953(-0.000)	97	31719	3.942	39.42			3	10
60) Benzene	(2)			Not Detected					2	10
61) 1,2-Dichloroethane	(2)			Not Detected					3	10
71) Trichloroethene	(2)	7.386(0.000)	95	182206	32.035	320.35			2	10
76) 1,4-Dioxane	(1)			Not Detected					290	2500
89) Toluene	(3)			Not Detected					2	10
94) Tetrachloroethene	(3)	9.751(0.000)	166	1339	0.222	2.22		J	2	10
105) Ethylbenzene	(3)			Not Detected					4	10
107) m+p-Xylene	(3)			Not Detected					10	50
108) o-Xylene	(3)			Not Detected					4	10
109) Xylene (Total)	(3)			Not Detected					14	60
139) 1,2-Dichlorobenzene	(4)			Not Detected					2	50
149) Naphthalene	(4)			Not Detected					10	50

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s65.d Injection date and time: **28-MAY-2020 02:48**
Data file Sample Info. Line: W5908DL;1318294DL;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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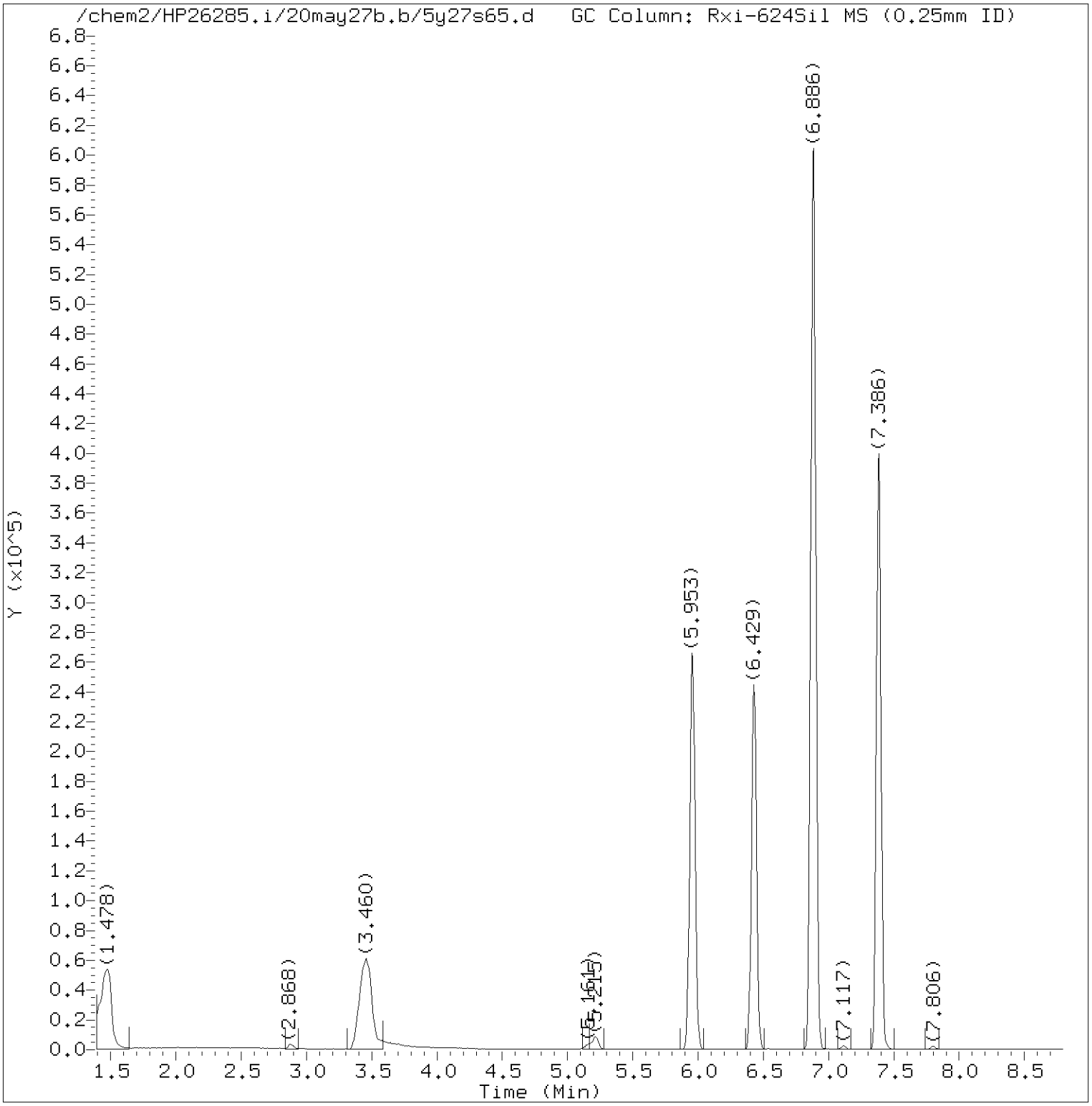
Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

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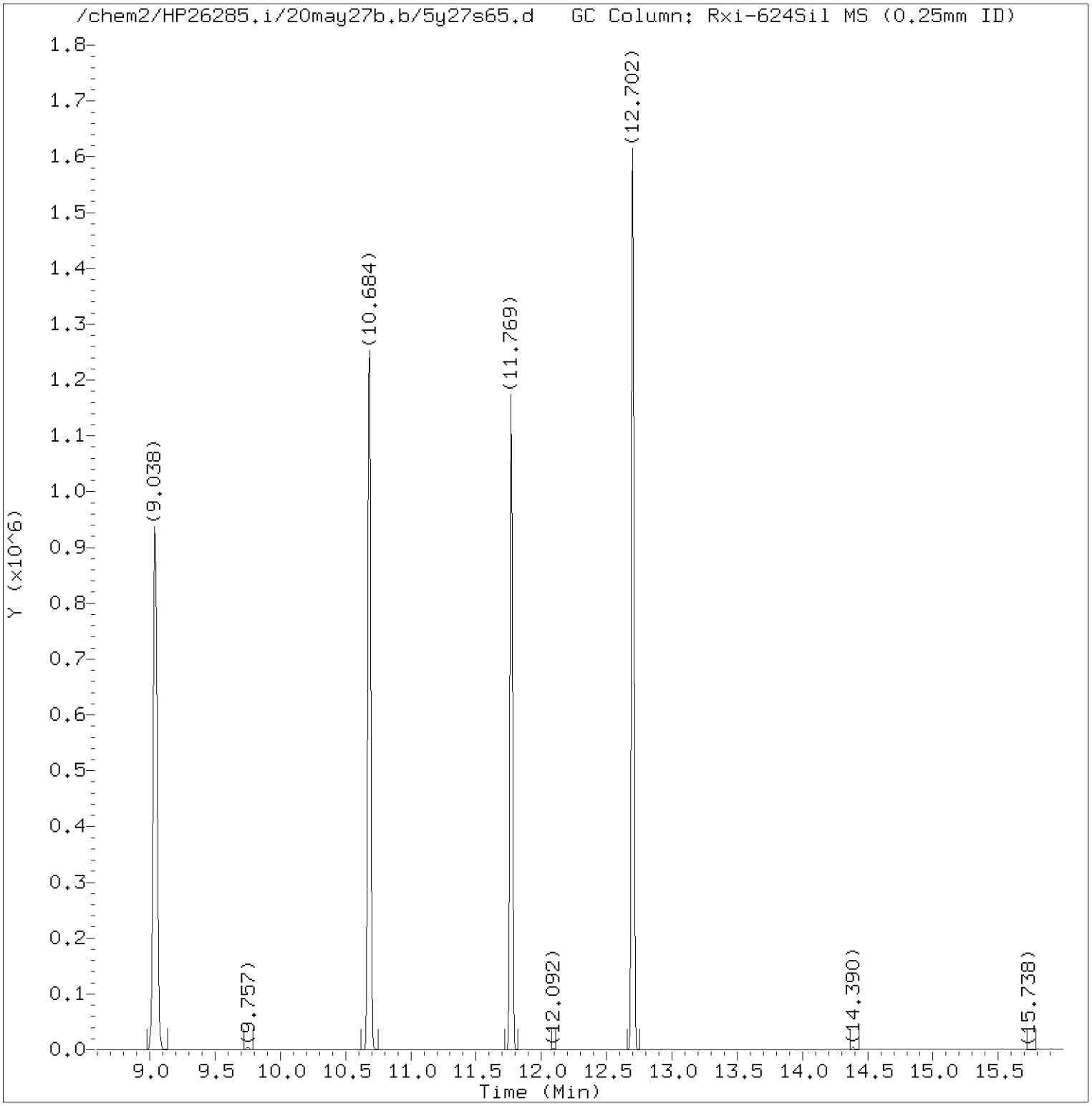
on 05/28/2020 at 12:53.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

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on 05/28/2020 at 12:53.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.880	96	1983	0.451
29)*t-Butyl alcohol-d10	(1)	3.454	65	241419	250.000
42) cis-1,2-Dichloroethene	(2)	5.209	96	5095	0.915
53) 1,1,1-Trichloroethane	(2)	5.953	97	31719	3.942
52)$Dibromofluoromethane	(2)	5.953	113	214057	52.825
57)$1,2-Dichloroethane-d4	(2)	6.429	102	47735	52.671
66)*Fluorobenzene	(2)	6.886	96	813558	50.000
71) Trichloroethene	(2)	7.386	95	182206	32.035
84)$Toluene-d8	(3)	9.038	98	774949	48.079
94) Tetrachloroethene	(3)	9.751	166	1339	0.222
101)*Chlorobenzene-d5	(3)	10.684	117	655869	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	315051	46.390
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	350721	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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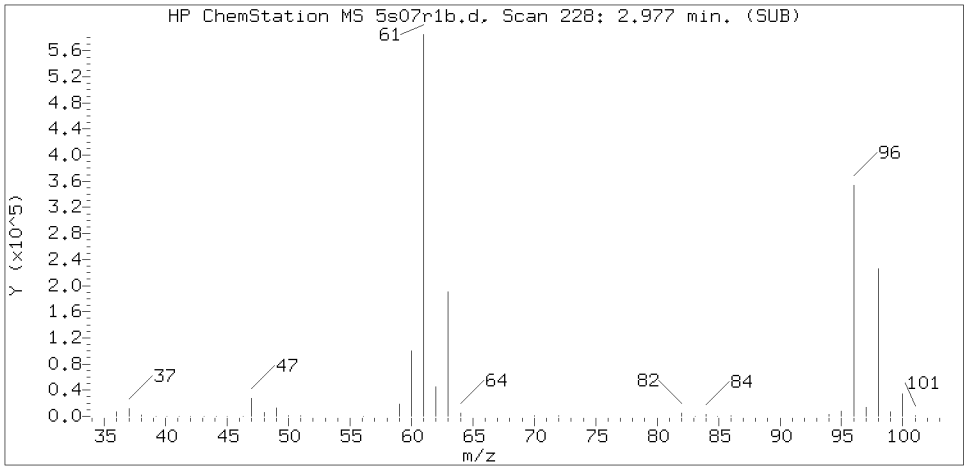
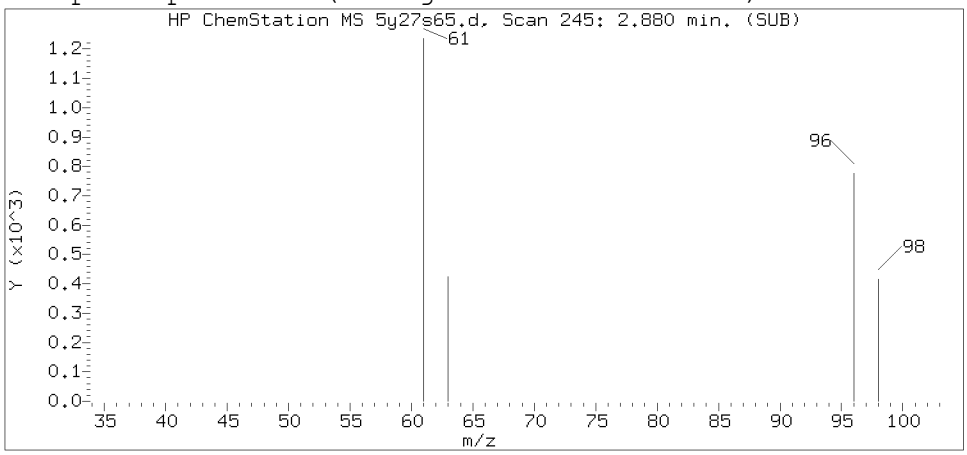
Target 3.5 esignature user ID: lcp00895

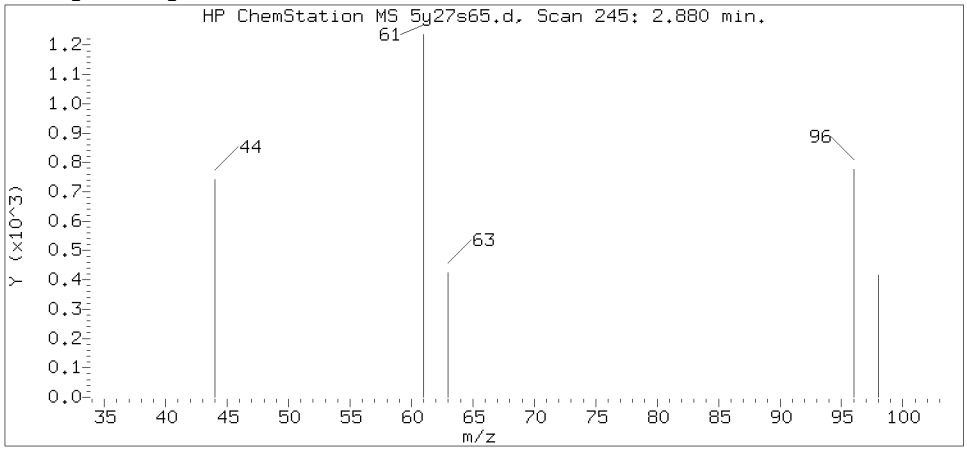
Reference Standard Spectrum for 1,1-Dichloroethene

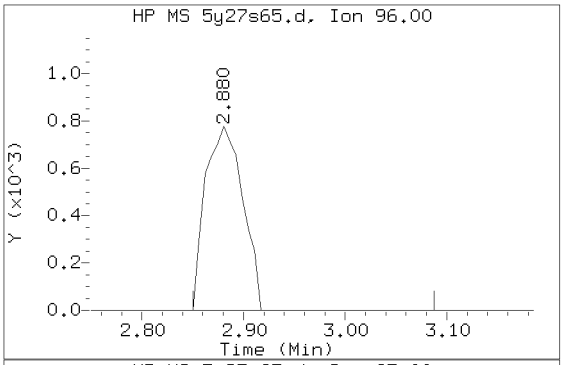


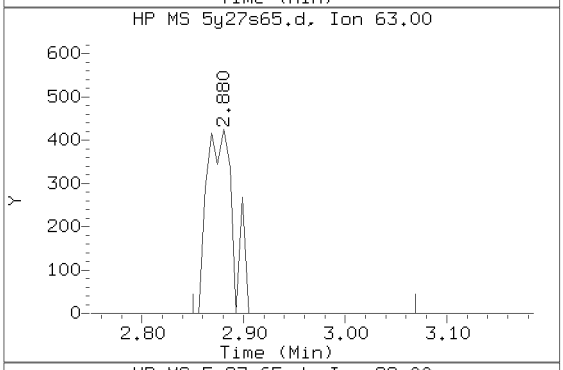
Sample Spectrum (Background Subtracted)

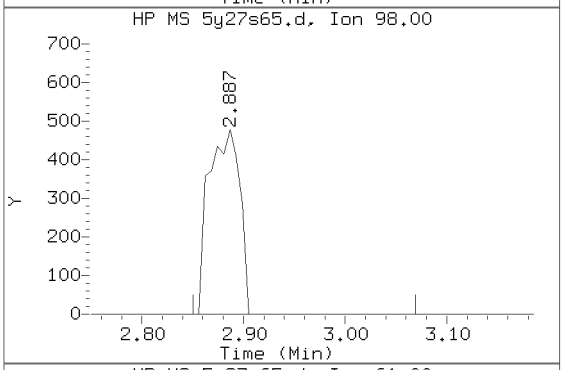


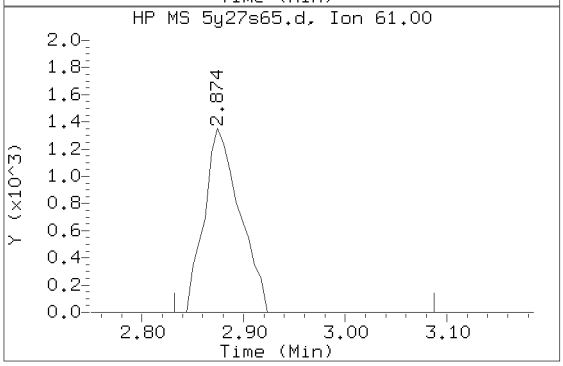
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 245
Retention Time (minutes): 2.880
Relative Retention Time :-0.00140
Quant Ion : 96.00
Area (flag) : 1983
On-Column Amount (ng) : 0.4508

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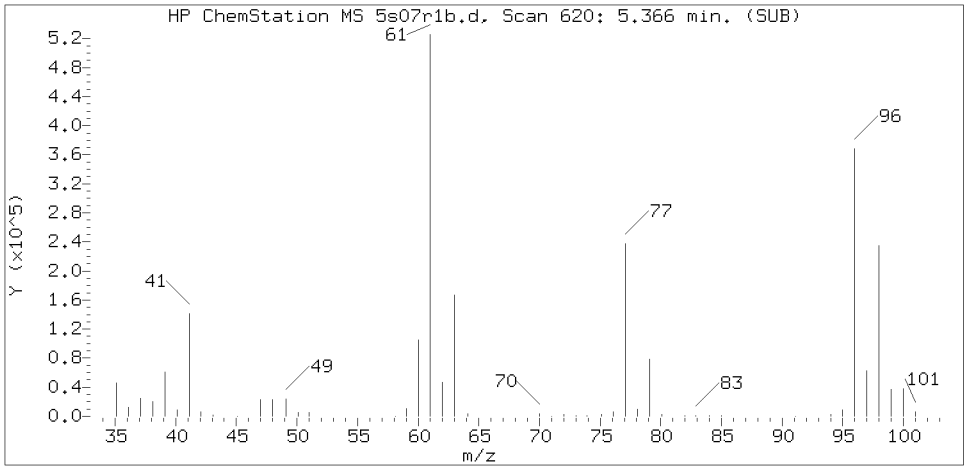
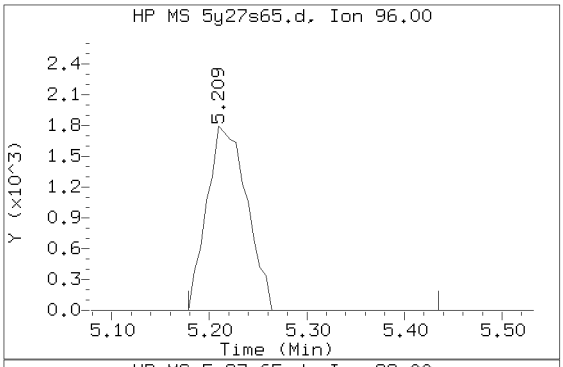
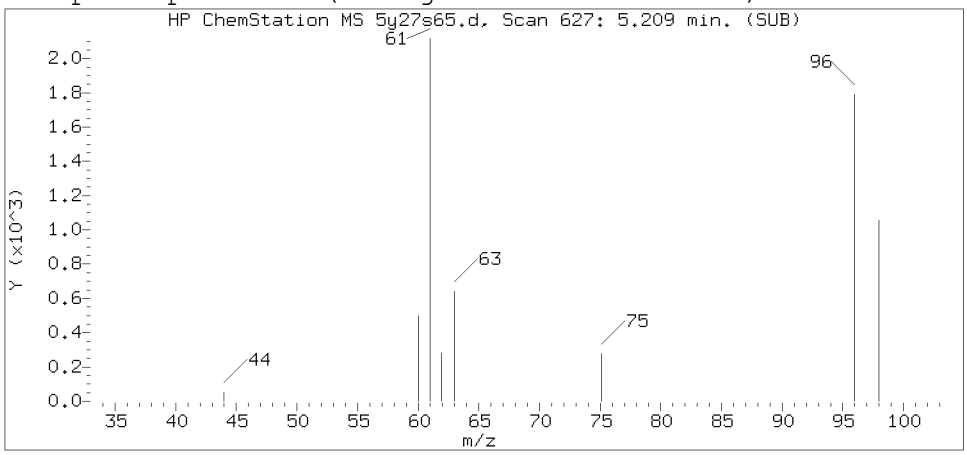
Target 3.5 esignature user ID: lcp00895

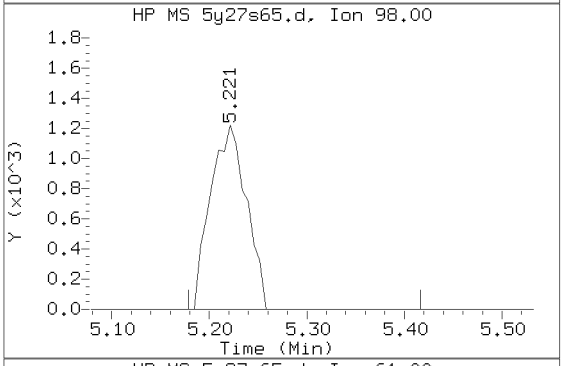
Reference Standard Spectrum for cis-1,2-Dichloroethene

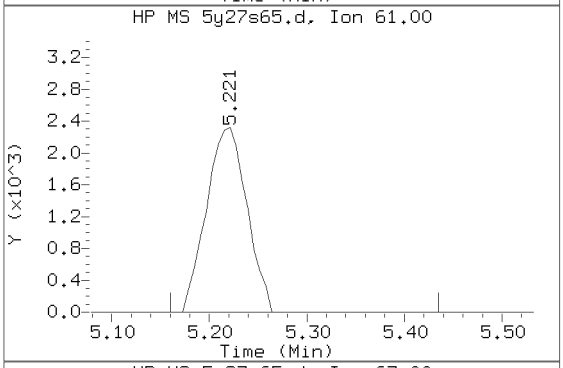




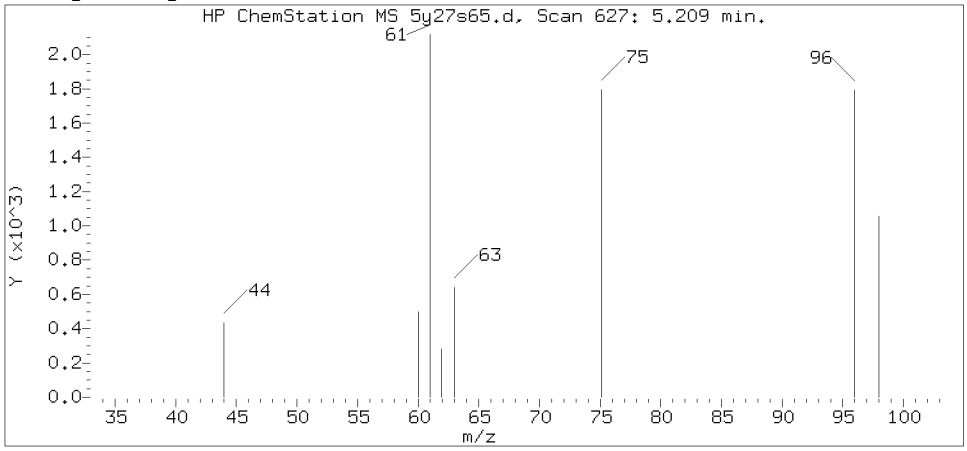
Sample Spectrum (Background Subtracted)

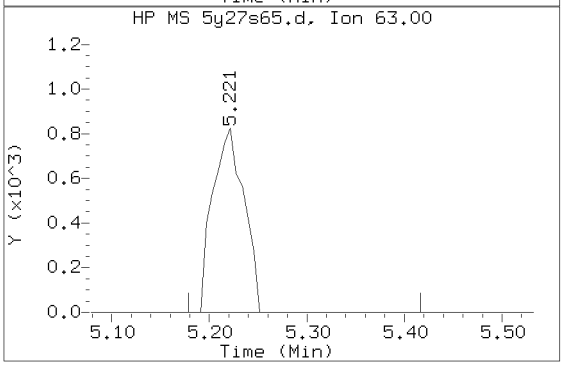






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 627
Retention Time (minutes): 5.209
Relative Retention Time : 0.00067
Quant Ion : 96.00
Area (flag) : 5095
On-Column Amount (ng) : 0.9152

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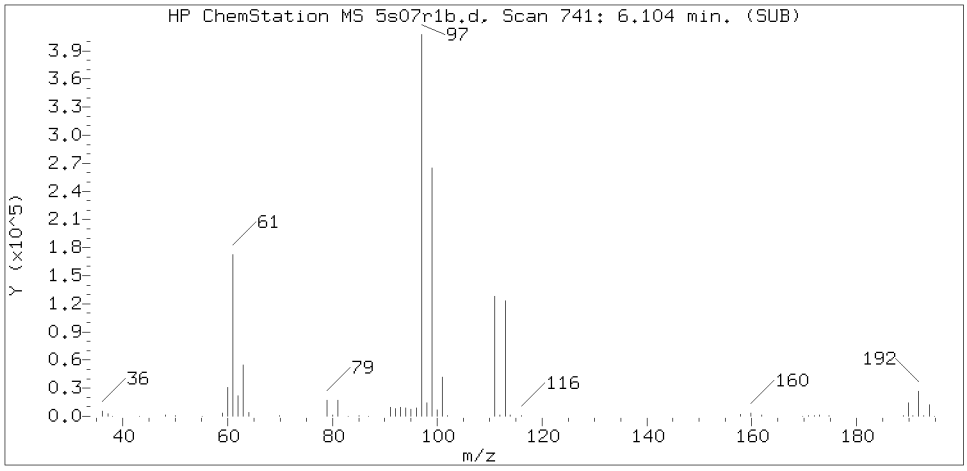
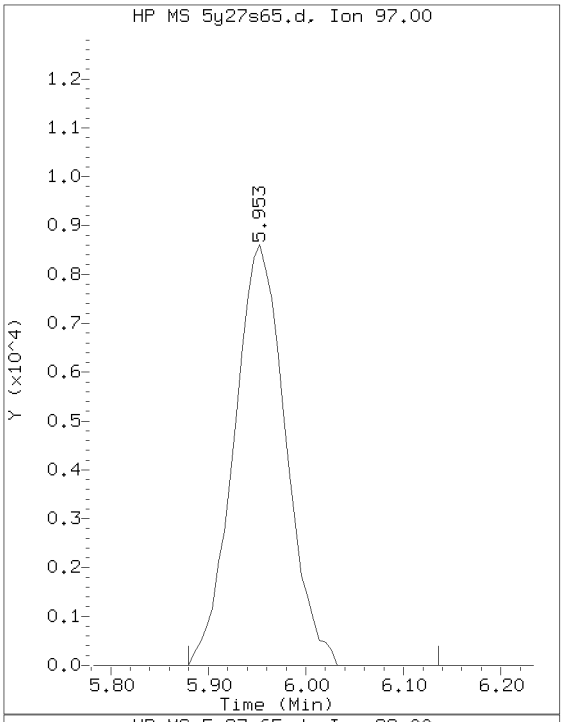
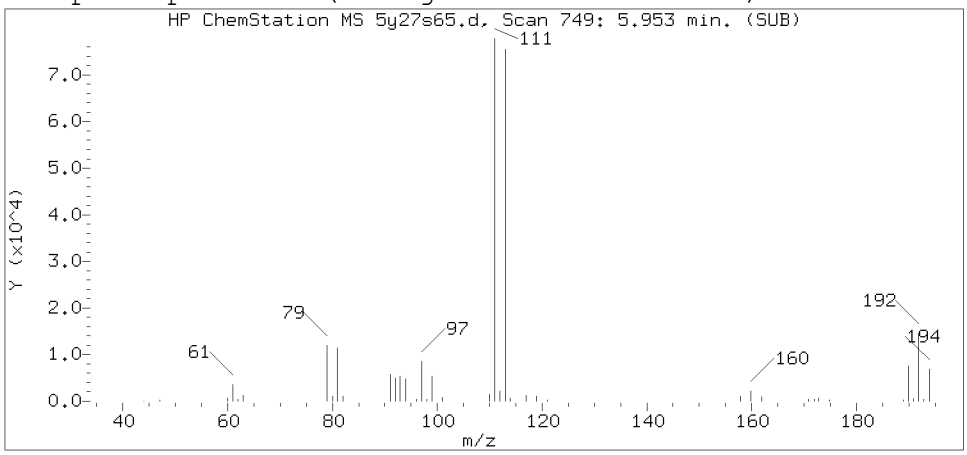
Target 3.5 esignature user ID: lcp00895

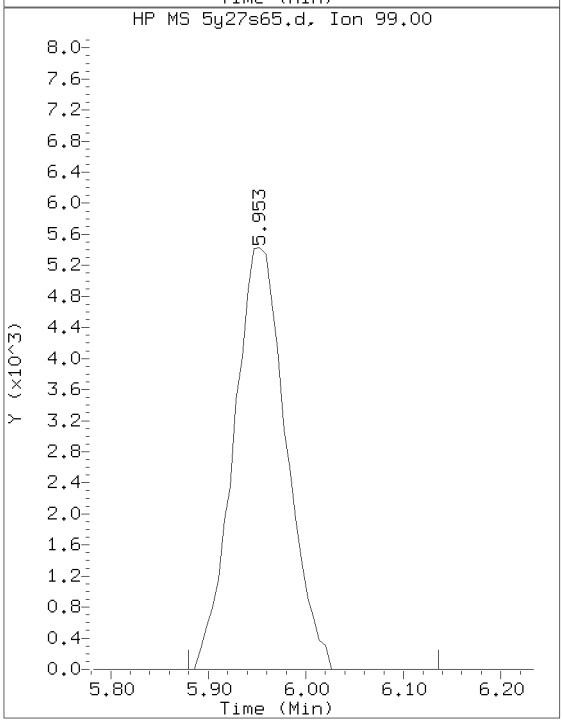
Reference Standard Spectrum for 1,1,1-Trichloroethane



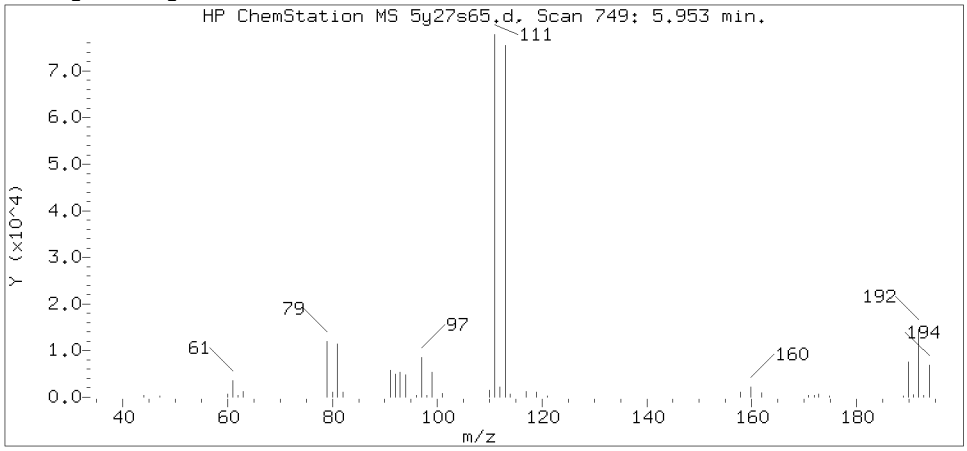


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 749
Retention Time (minutes): 5.953
Relative Retention Time :-0.00012
Quant Ion : 97.00
Area (flag) : 31719
On-Column Amount (ng) : 3.9420

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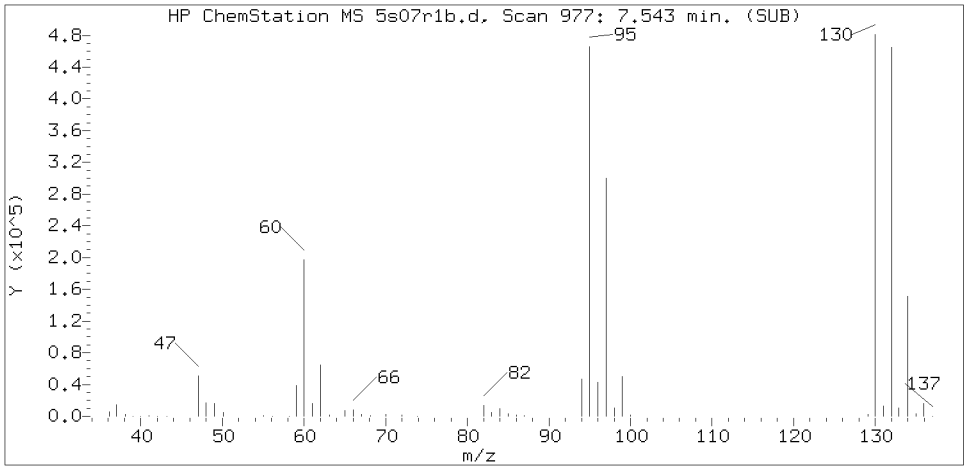
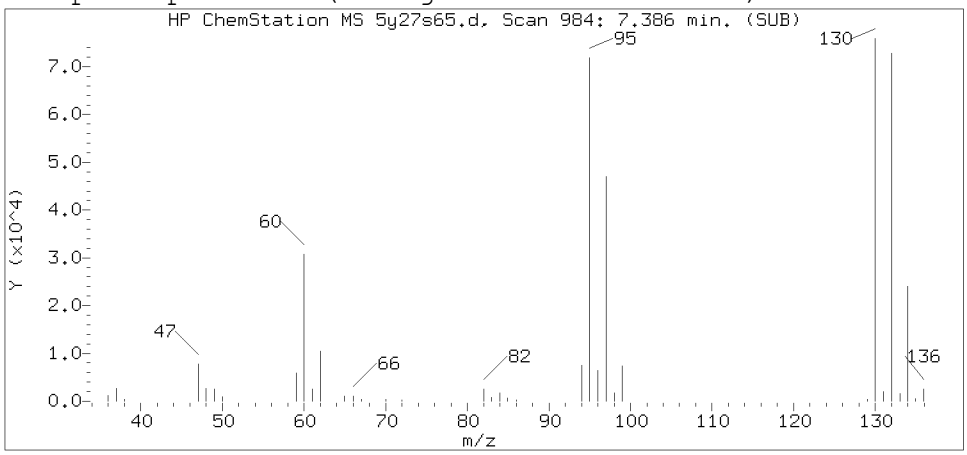
Target 3.5 esignature user ID: lcp00895

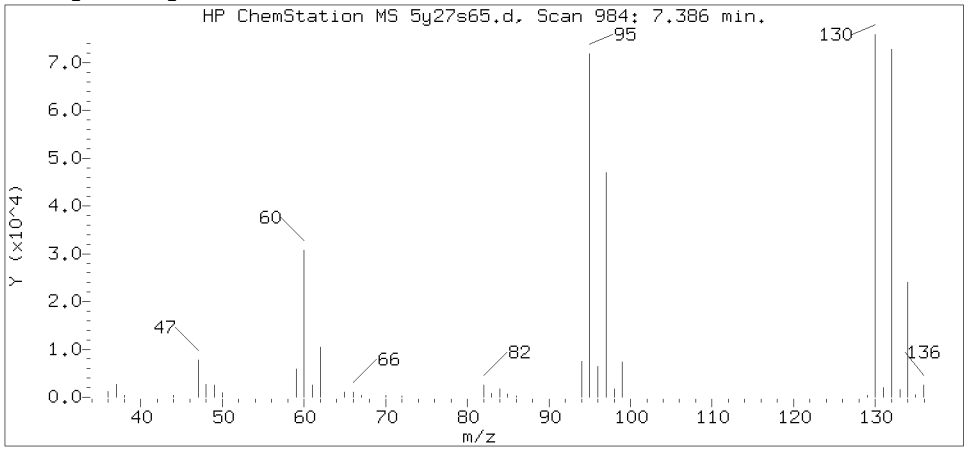
Reference Standard Spectrum for Trichloroethene

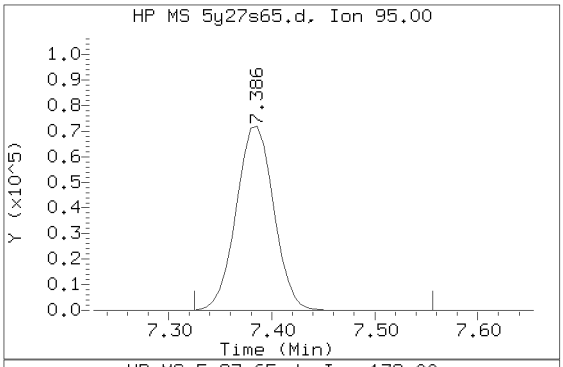


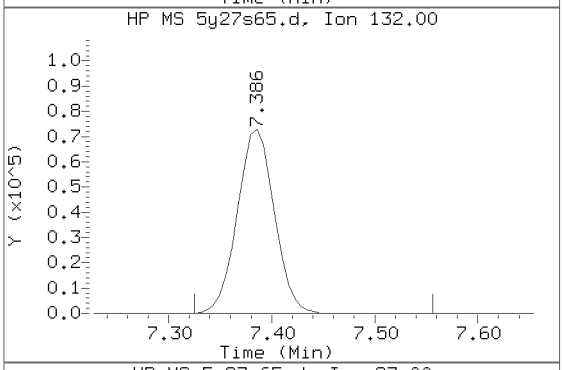
Sample Spectrum (Background Subtracted)

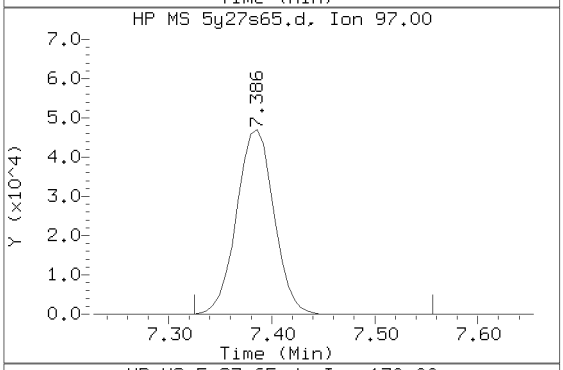


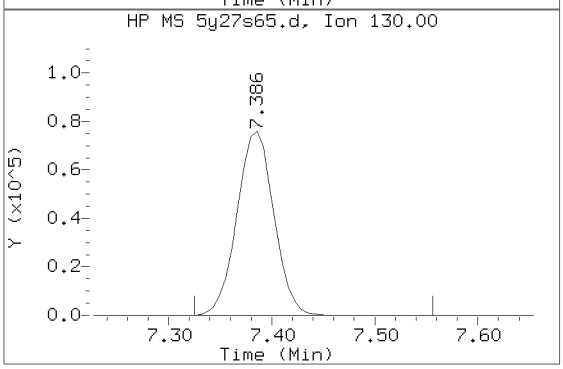
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 984
Retention Time (minutes): 7.386
Relative Retention Time : 0.00006
Quant Ion : 95.00
Area (flag) : 182206
On-Column Amount (ng) : 32.0352

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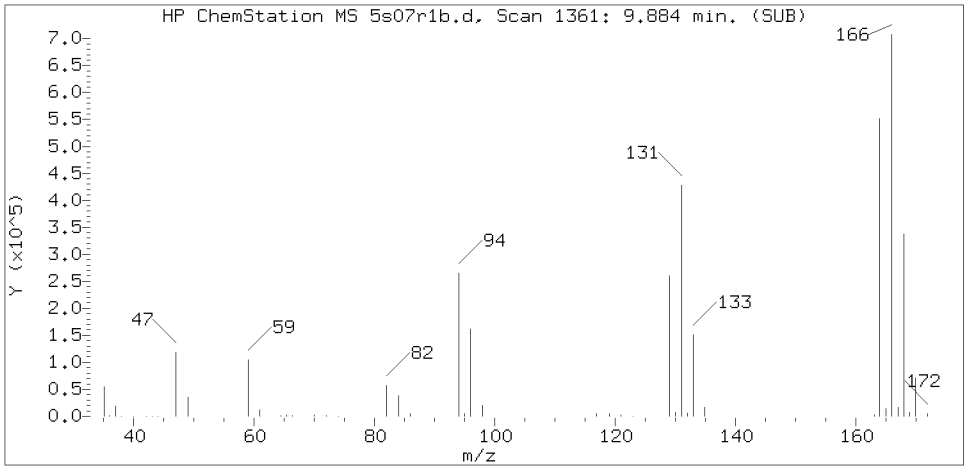
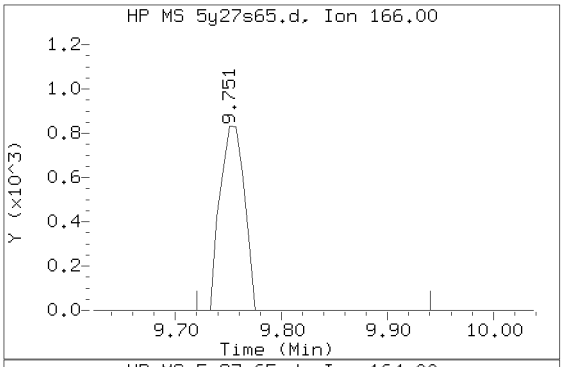
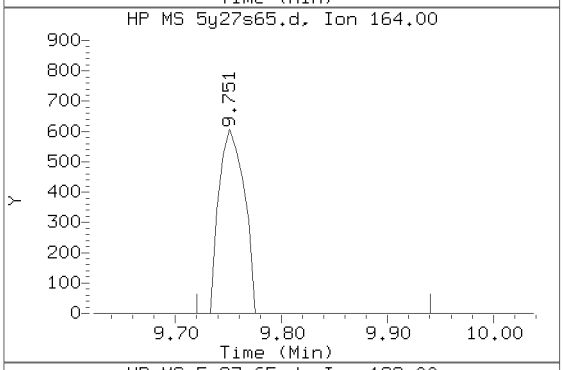
Target 3.5 esignature user ID: lcp00895

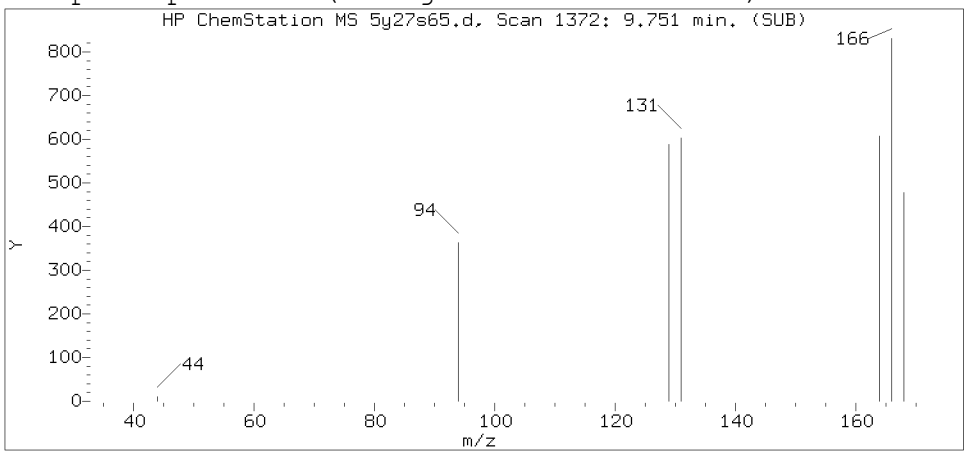
Reference Standard Spectrum for Tetrachloroethene

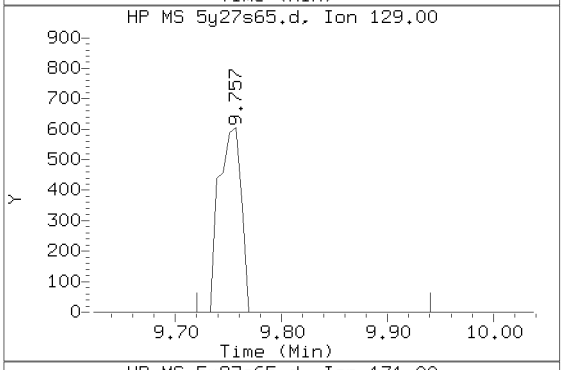




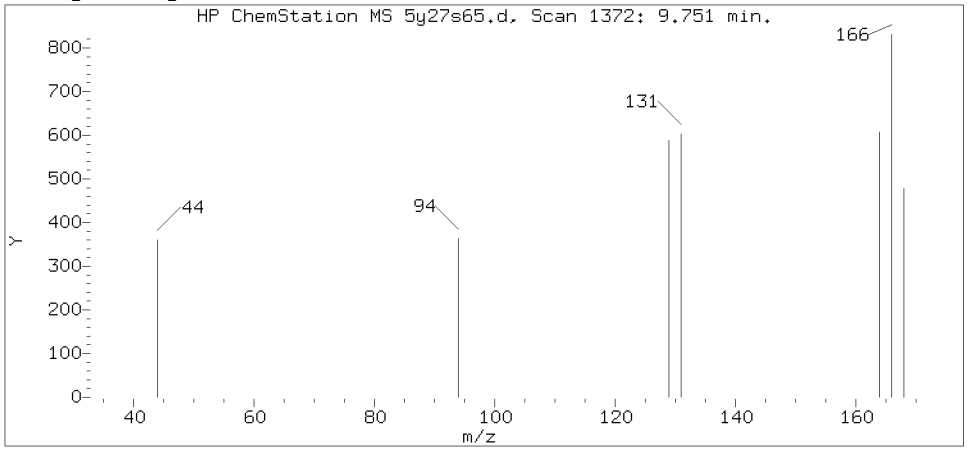


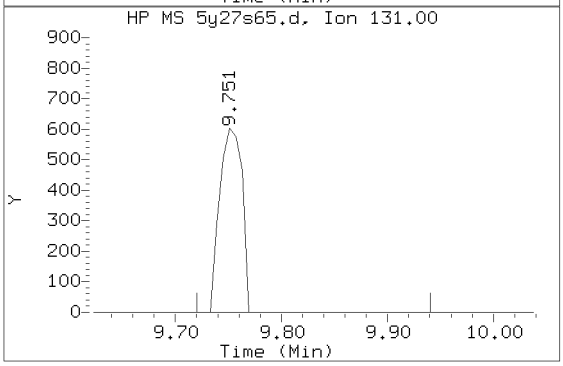
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s65.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 02:48 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 12:49 lcp00895

Sample Name: W5908DL Lab Sample ID: 1318294DL

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00052
Quant Ion : 166.00
Area (flag) : 1339
On-Column Amount (ng) : 0.2221

Digitally signed by Linda C. Pape on 05/28/2020 at 12:53.
Target 3.5 esignature user ID: lcp00895

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5909

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318295

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s16.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	13	
67-64-1	Acetone	20	U
76-13-1	Freon 113	0.6	J
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.7	J
156-59-2	cis-1,2-Dichloroethene	1	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	170	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	400	E
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	3	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5909 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318295

Data file: /chem2/HP26285.i/20may27a.b/5y27s16.d Injection date and time: **27-MAY-2020 15:17**
Data file Sample Info. Line: W5909;1318295;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454 (-0.036)	339	65	290875 (-2)	250.00	
66) Fluorobenzene	6.880 (-0.006)	901	96	921268 (-9)	50.00	
101) Chlorobenzene-d5	10.678 (0.000)	1524	117	731738 (-9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (-0.006)	1856	152	390321 (-10)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	245097	53.413	107%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429 (-0.001)	102	53715	52.340	105%		80 - 120
84) Toluene-d8	(3)	9.038 (0.000)	98	875735	48.698	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (-0.001)	95	353514	46.657	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.880 (-0.002)	96	65922	13.234	13.23			0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)	2.899 (-0.000)	101	3635	0.645	0.64		J	0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.344 (-0.001)	63	6695	0.664	0.66		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.221 (-0.001)	96	7640	1.212	1.21			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953 (-0.001)	97	1517196	166.511	166.51			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.386 (0.000)	95	2589105	401.992	401.99		E	0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.751 (0.000)	166	23025	3.424	3.42			0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

E = Compound concentration above calibration range.

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Data file: /chem2/HP26285.i/20may27a.b/5y27s16.d Injection date and time: **27-MAY-2020 15:17**
Data file Sample Info. Line: W5909;1318295;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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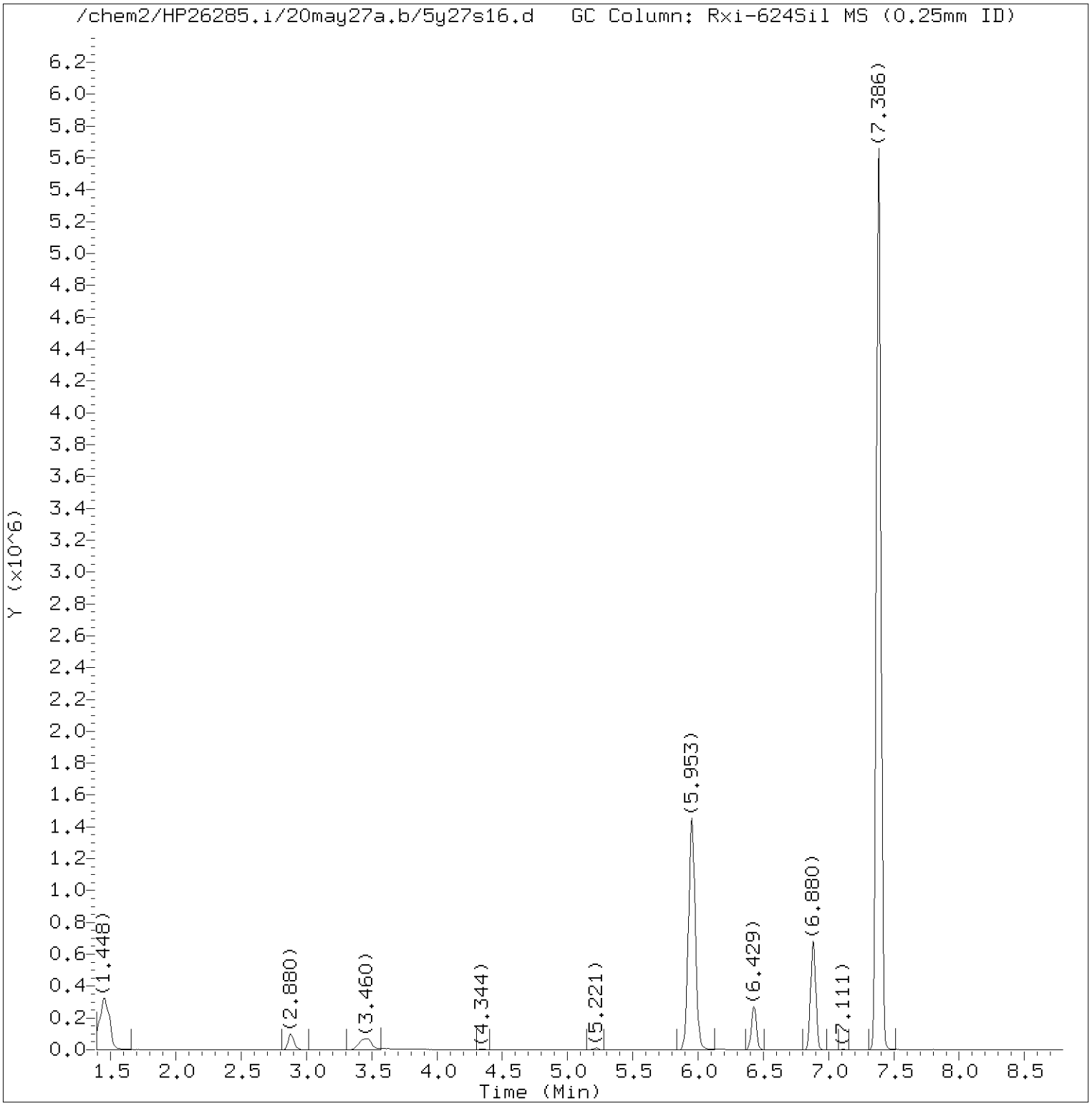
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

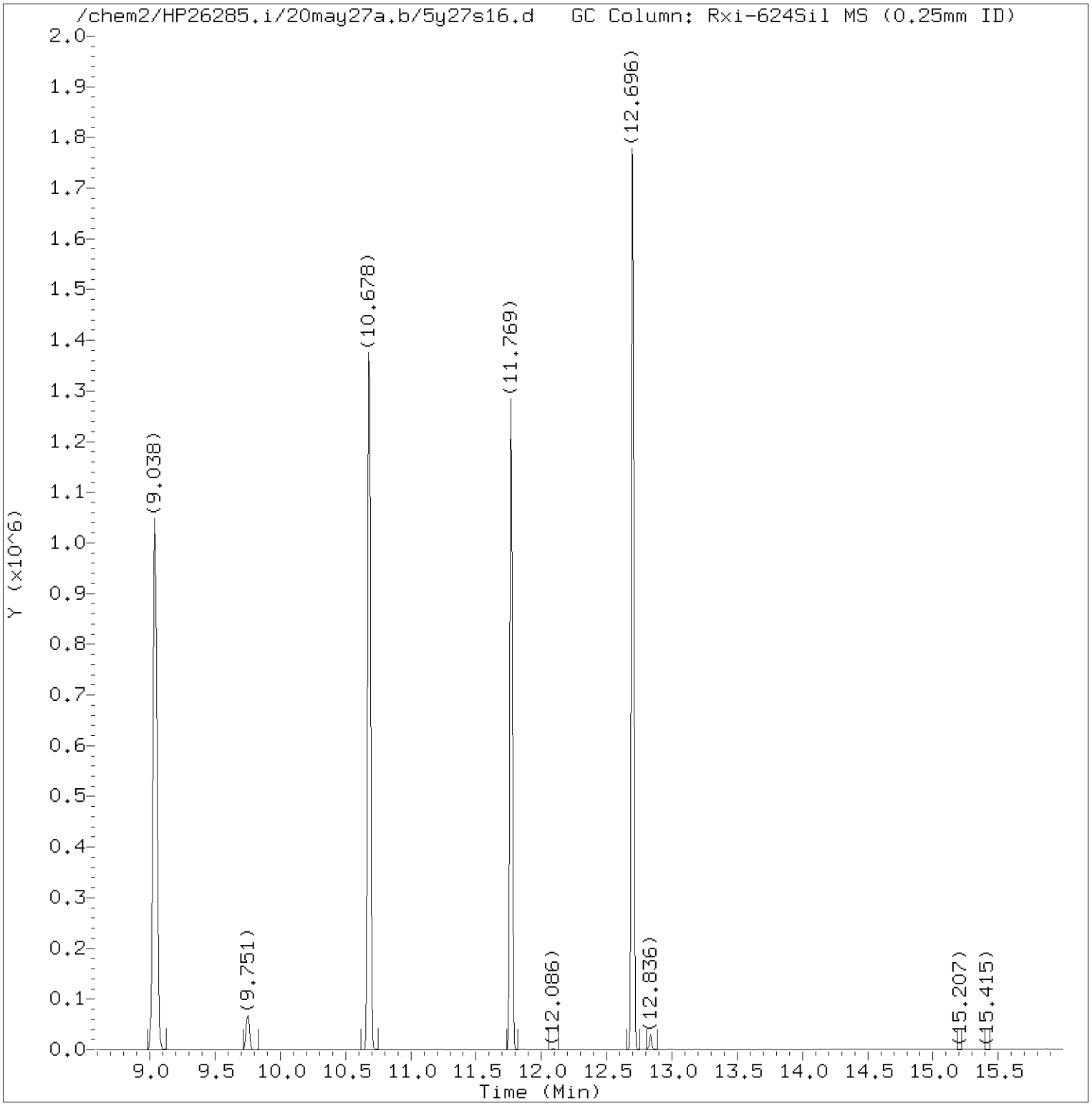
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Digitally signed by Laura J. Green
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

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on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.880	96	65922	13.234
19) Freon 113	(2)	2.899	101	3635	0.645
29)*t-Butyl alcohol-d10	(1)	3.454	65	290875	250.000
36) 1,1-Dichloroethane	(2)	4.344	63	6695	0.664
42) cis-1,2-Dichloroethene	(2)	5.221	96	7640	1.212
53) 1,1,1-Trichloroethane	(2)	5.953	97	1517196	166.511
52)$Dibromofluoromethane	(2)	5.953	113	245097	53.413
57)$1,2-Dichloroethane-d4	(2)	6.429	102	53715	52.340
66)*Fluorobenzene	(2)	6.880	96	921268	50.000
71) Trichloroethene	(2)	7.386	95	2589105	401.992
84)$Toluene-d8	(3)	9.038	98	875735	48.698
94) Tetrachloroethene	(3)	9.751	166	23025	3.424
101)*Chlorobenzene-d5	(3)	10.678	117	731738	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	353514	46.657
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	390321	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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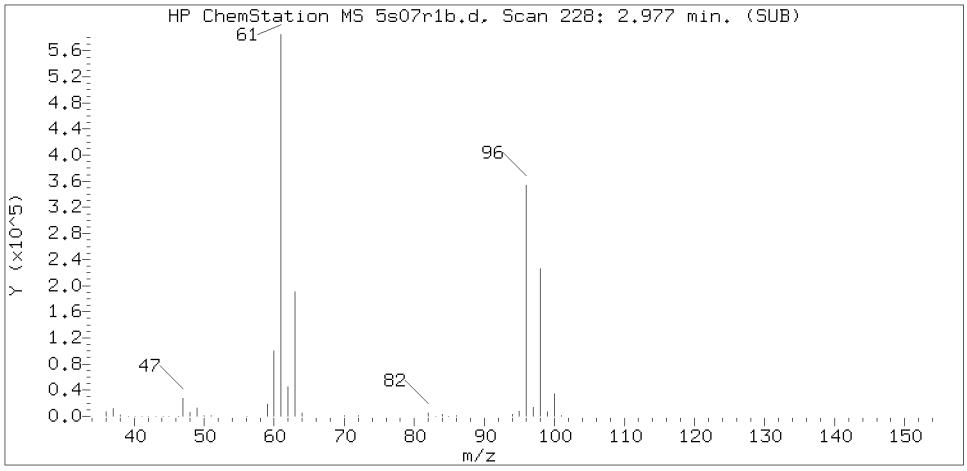
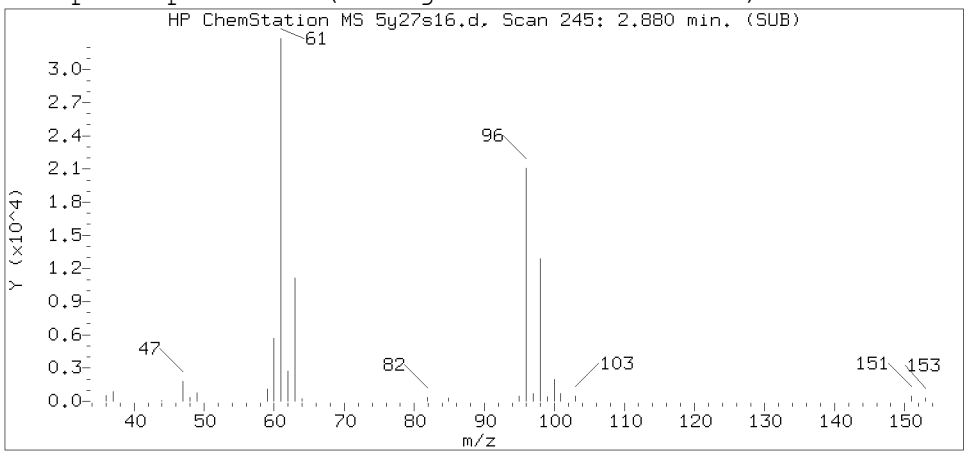
on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

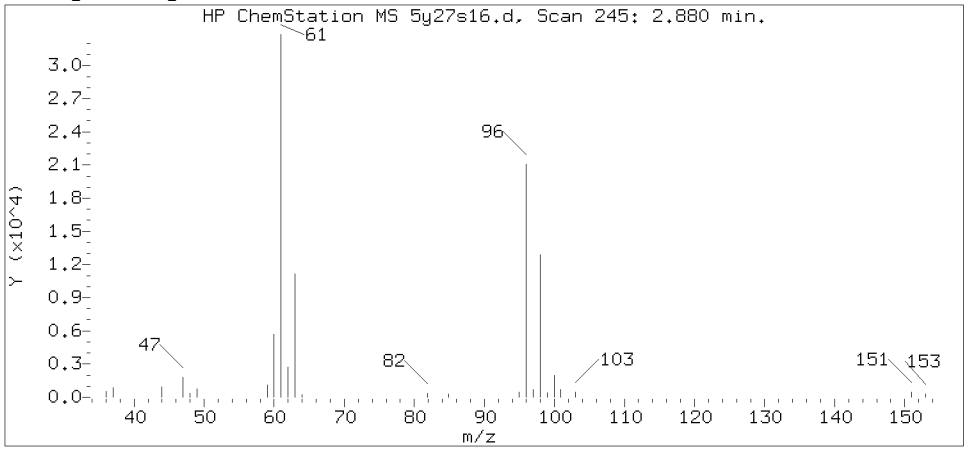
Reference Standard Spectrum for 1,1-Dichloroethene

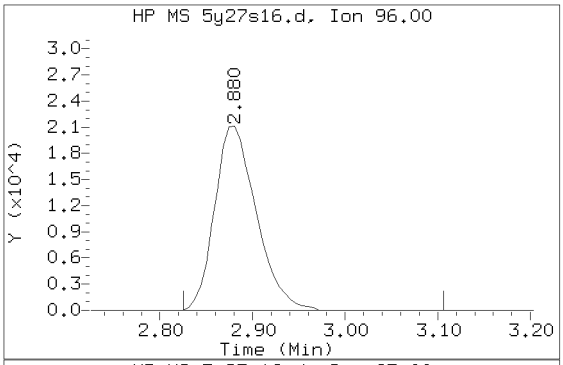


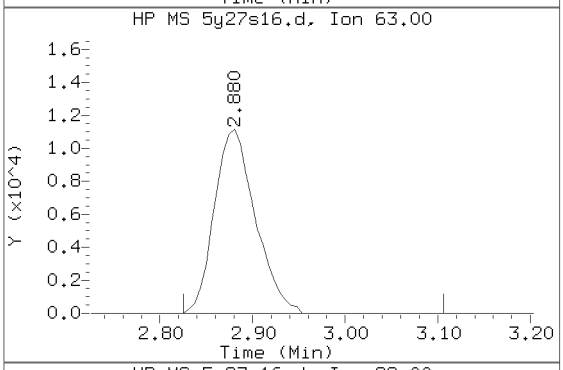
Sample Spectrum (Background Subtracted)

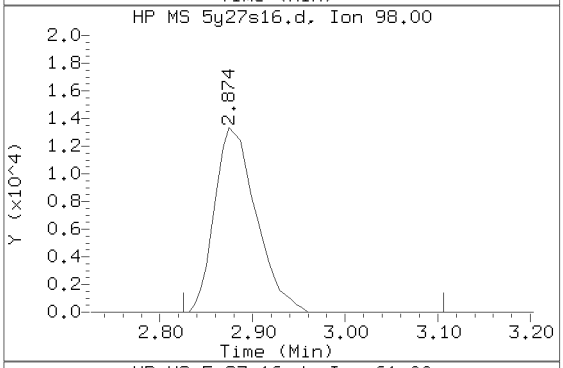


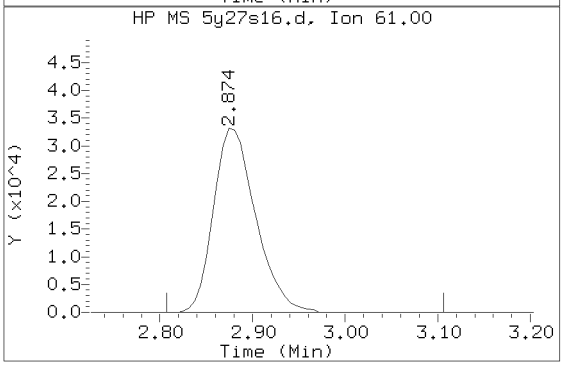
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 245
Retention Time (minutes): 2.880
Relative Retention Time :-0.00229
Quant Ion : 96.00
Area (flag) : 65922
On-Column Amount (ng) : 13.2342

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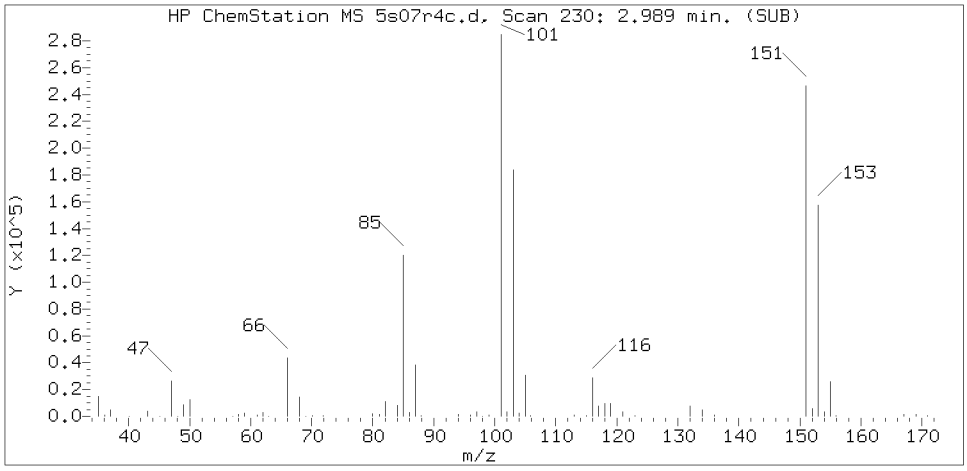
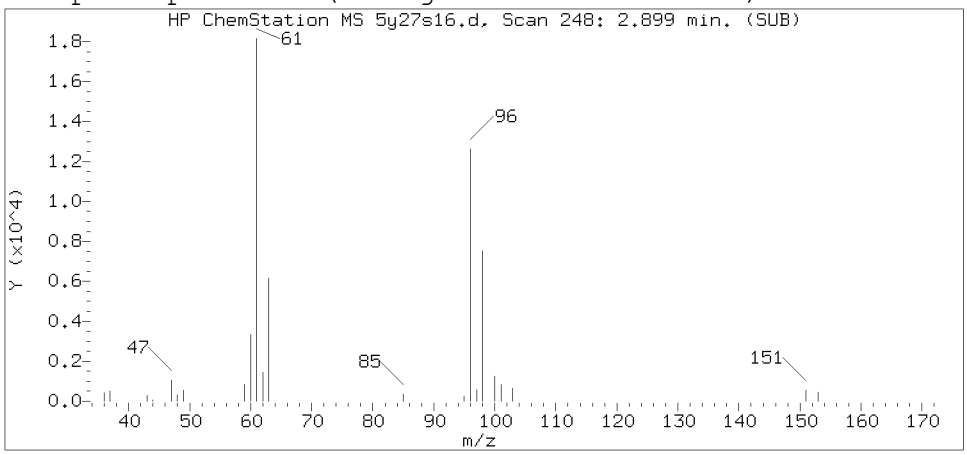
Target 3.5 esignature user ID: ljg30941

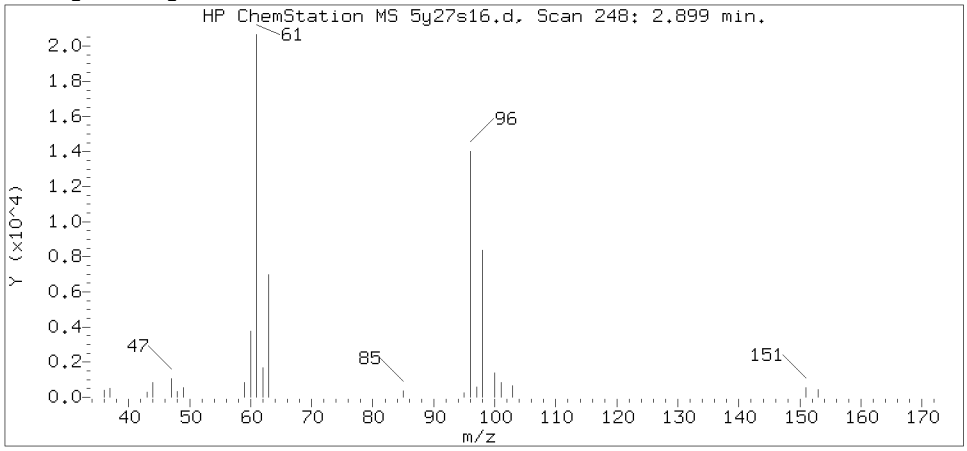
Reference Standard Spectrum for Freon 113

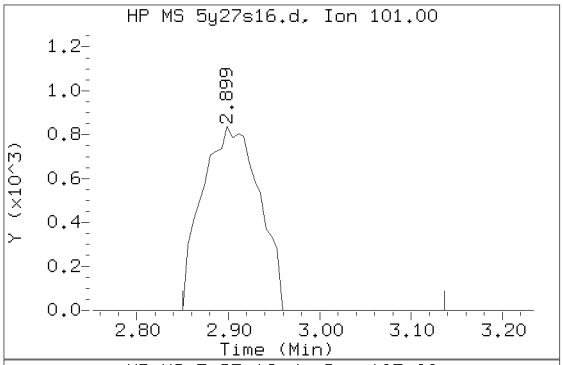


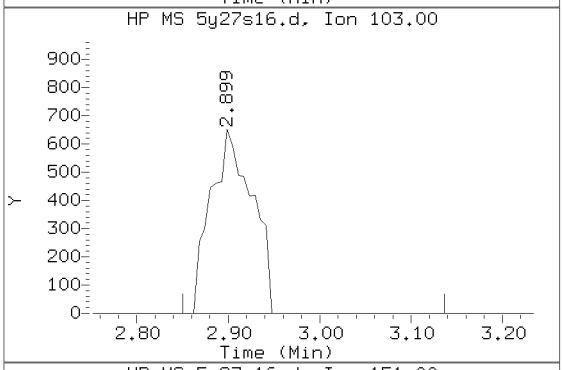
Sample Spectrum (Background Subtracted)

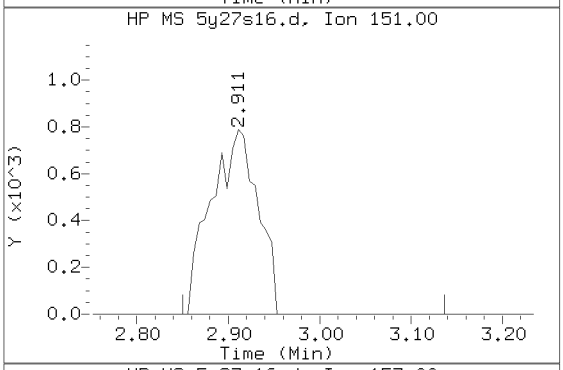


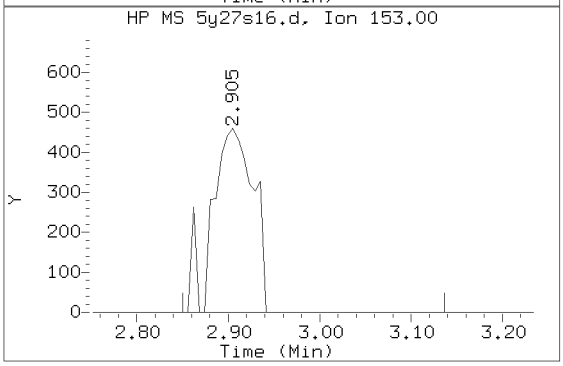
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compound Number	: 19
Compound Name	: Freon 113
Scan Number	: 248
Retention Time (minutes)	: 2.899
Relative Retention Time	:-0.00051
Quant Ion	: 101.00
Area (flag)	: 3635
On-Column Amount (ng)	: 0.6447

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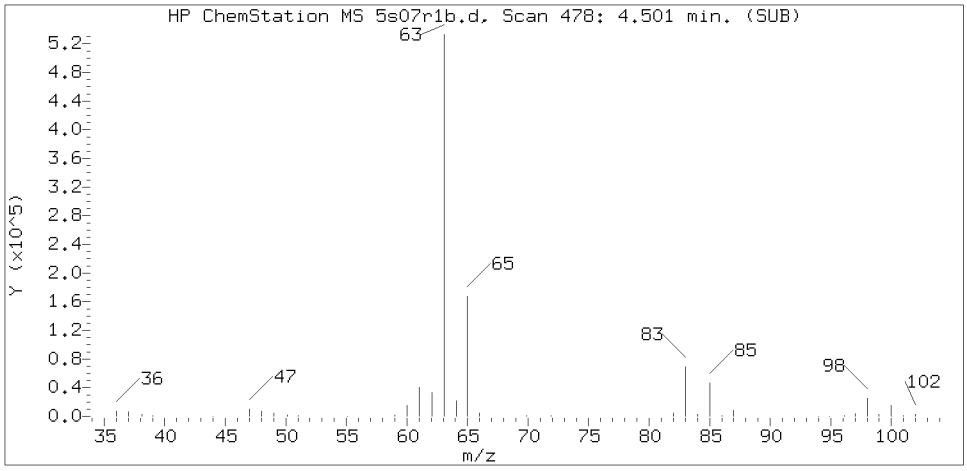
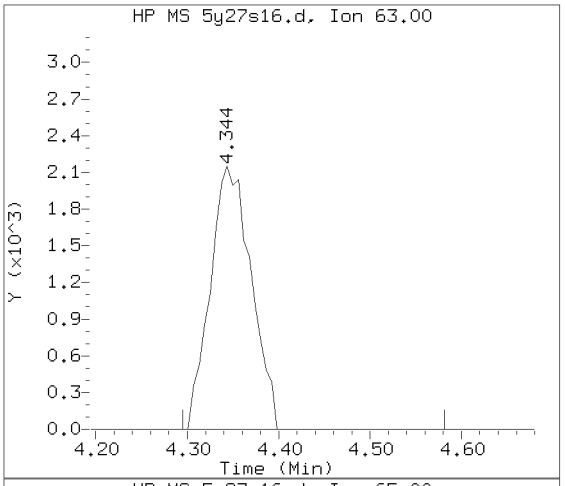
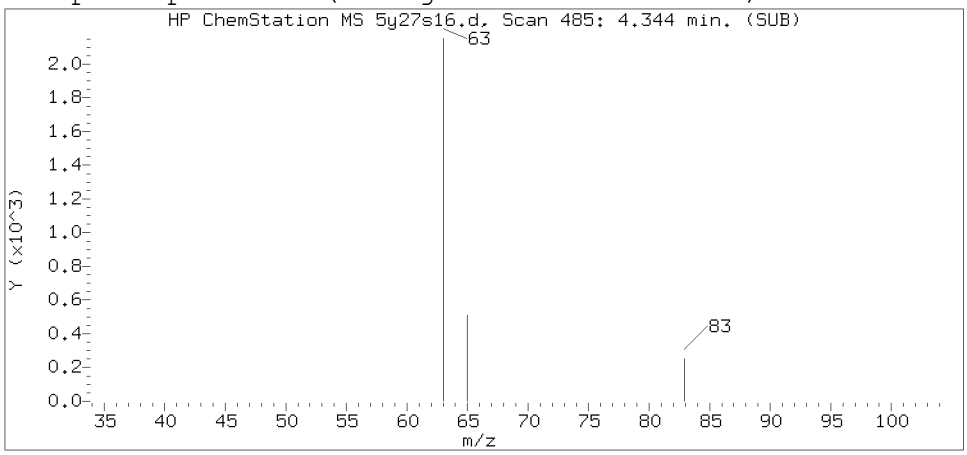
Target 3.5 esignature user ID: ljg30941

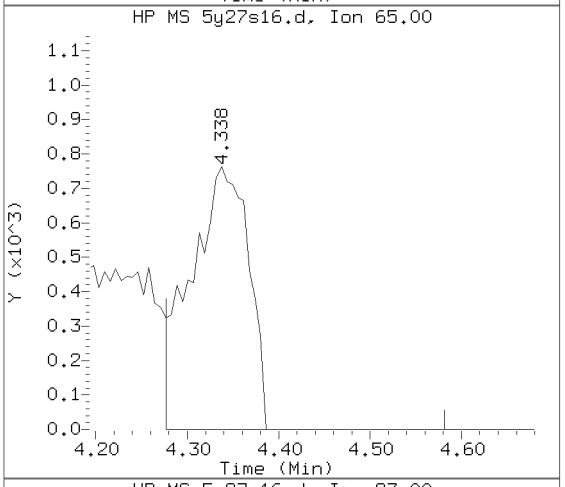
Reference Standard Spectrum for 1,1-Dichloroethane



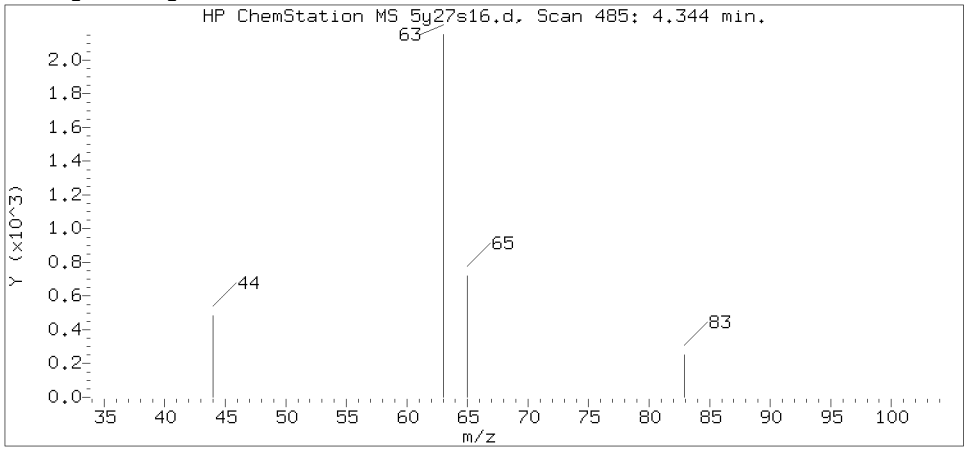


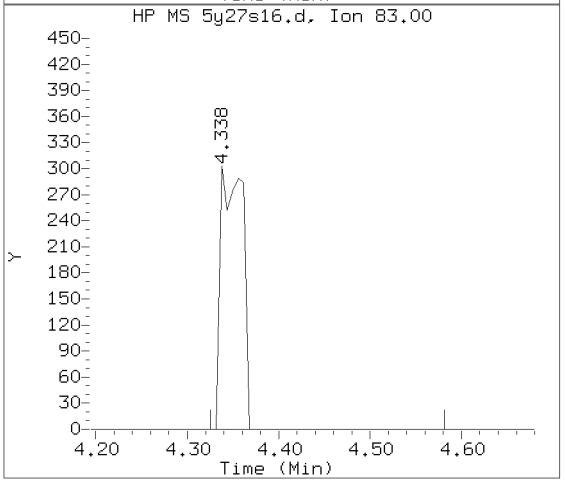
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

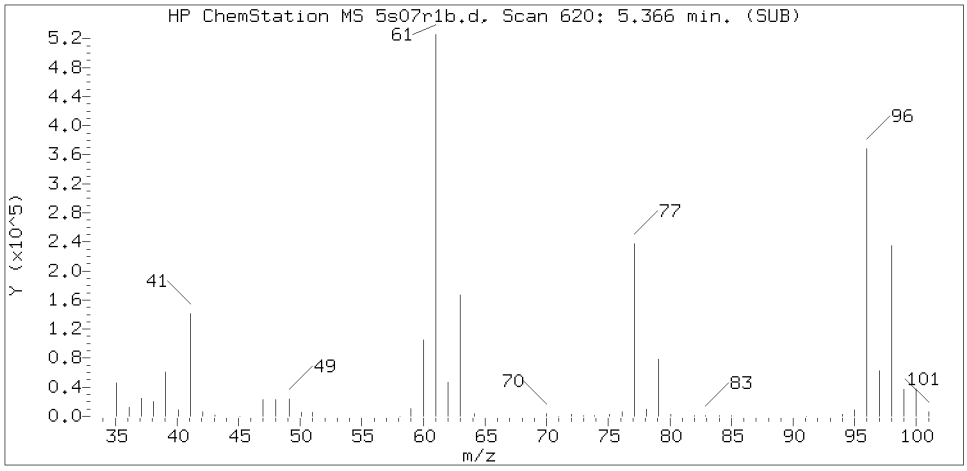
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

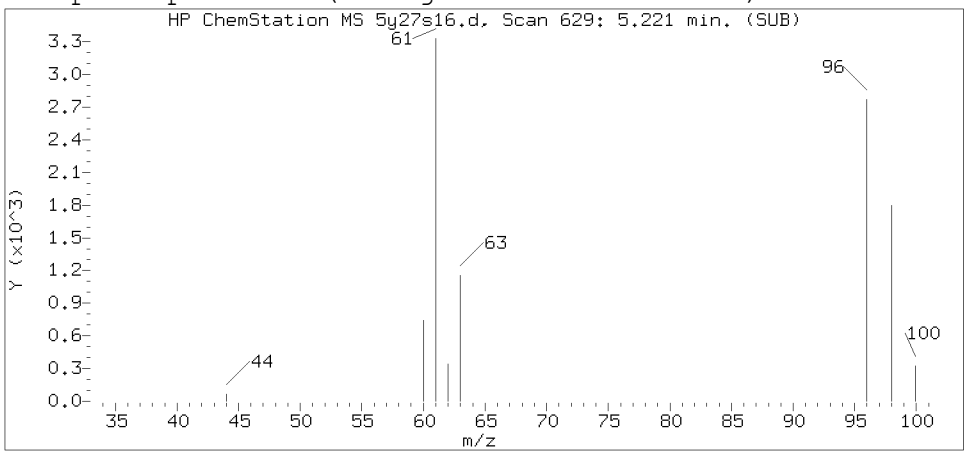
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 485
Retention Time (minutes): 4.344
Relative Retention Time :-0.00121
Quant Ion : 63.00
Area (flag) : 6695
On-Column Amount (ng) : 0.6636

Digitally signed by Laura J. Green on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

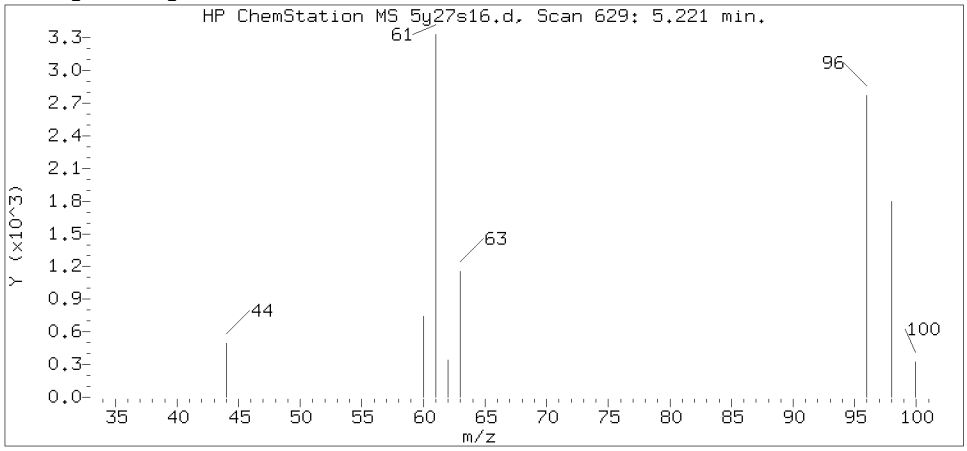
Reference Standard Spectrum for cis-1,2-Dichloroethene

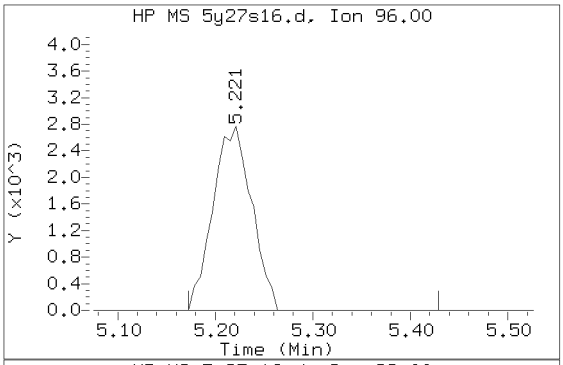


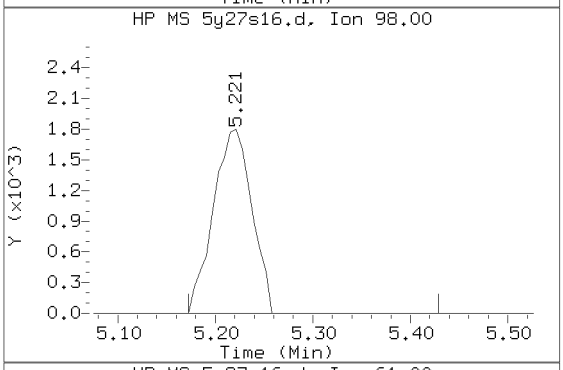
Sample Spectrum (Background Subtracted)

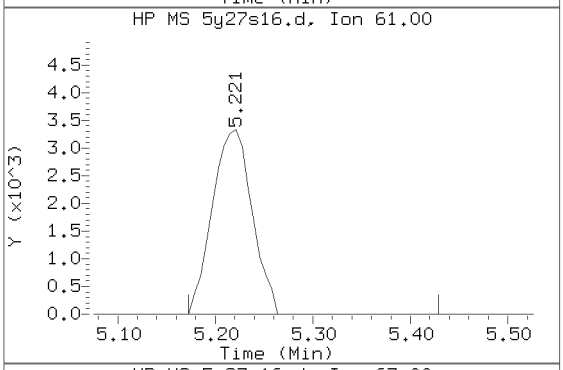


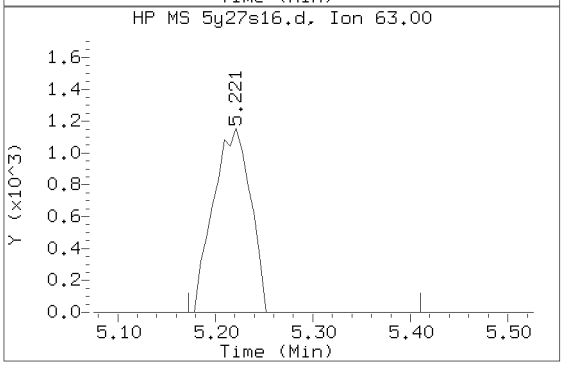
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

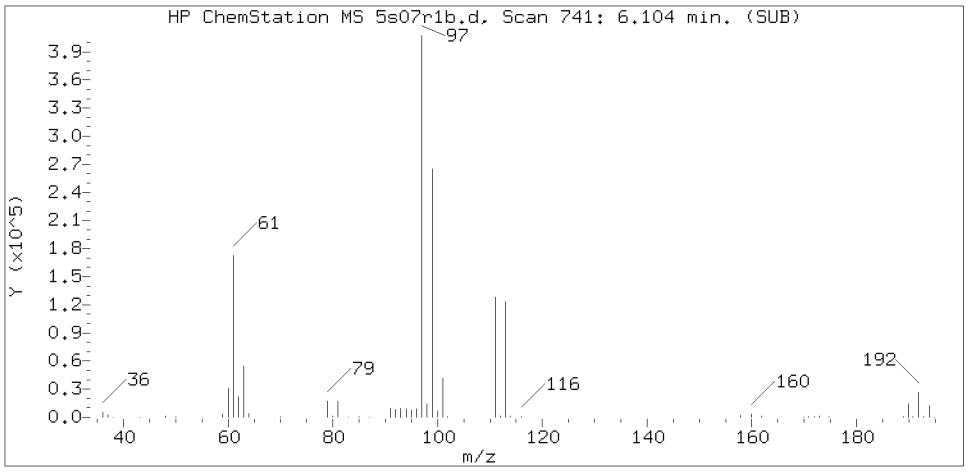
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

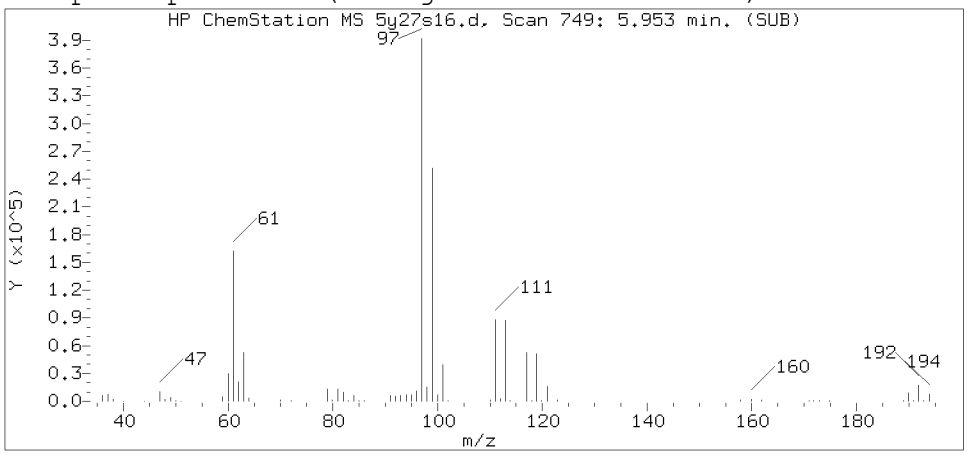
Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 629
Retention Time (minutes): 5.221
Relative Retention Time :-0.00198
Quant Ion : 96.00
Area (flag) : 7640
On-Column Amount (ng) : 1.2120

Digitally signed by Laura J. Green on 05/27/2020 at 17:52.
Target 3.5 esignature user ID: ljg30941

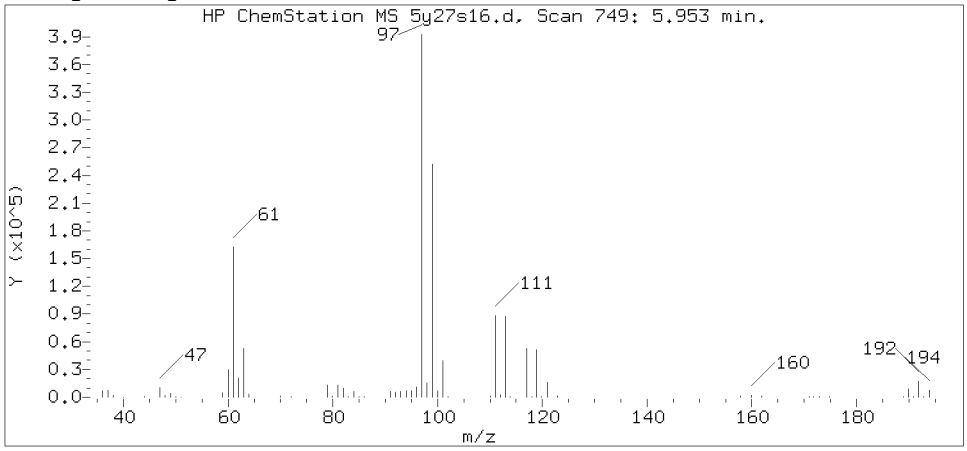
Reference Standard Spectrum for 1,1,1-Trichloroethane

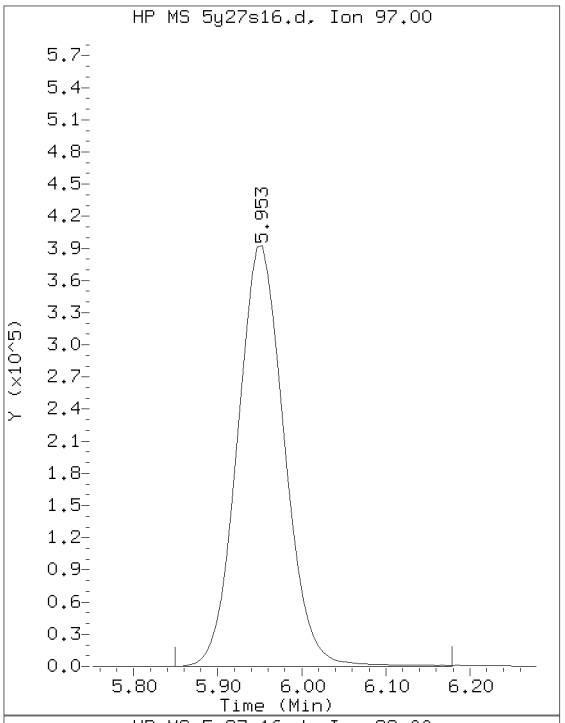


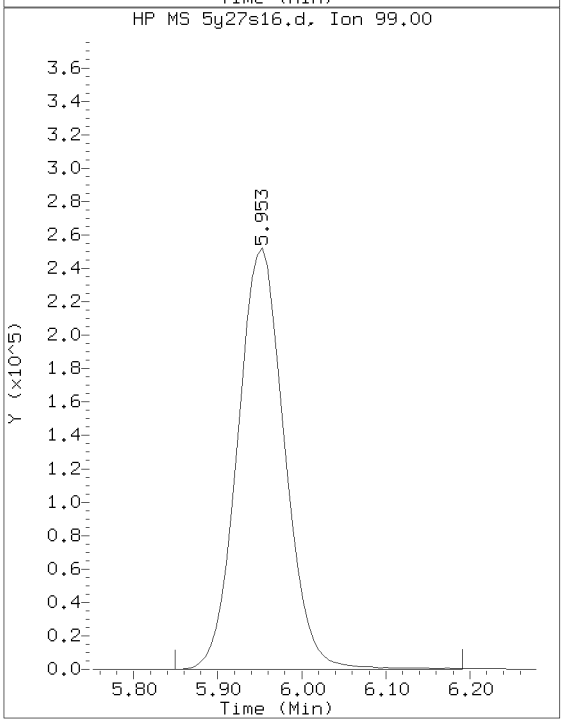
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







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Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 749
Retention Time (minutes): 5.953
Relative Retention Time :-0.00101
Quant Ion : 97.00
Area (flag) : 1517196
On-Column Amount (ng) : 166.5106

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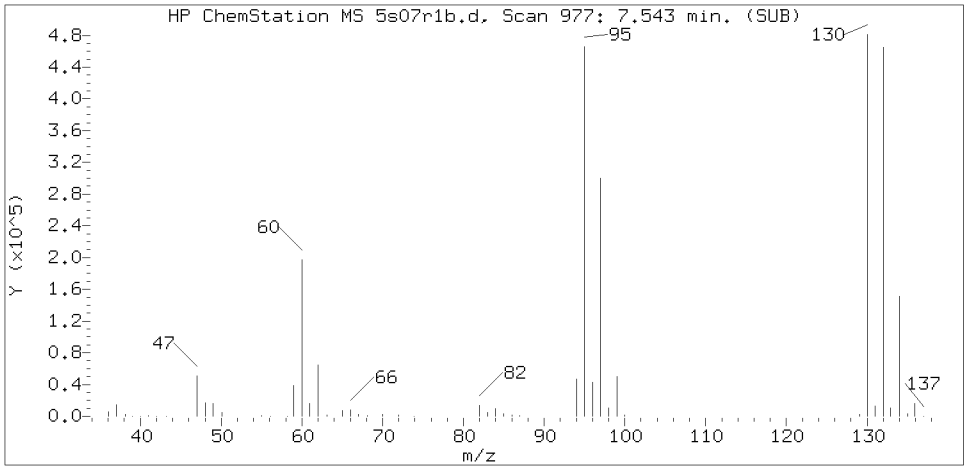
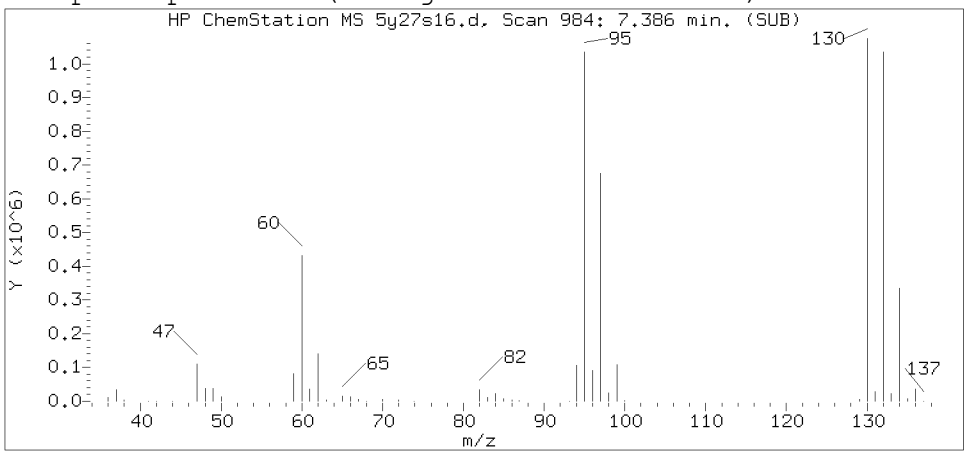
Target 3.5 esignature user ID: ljg30941

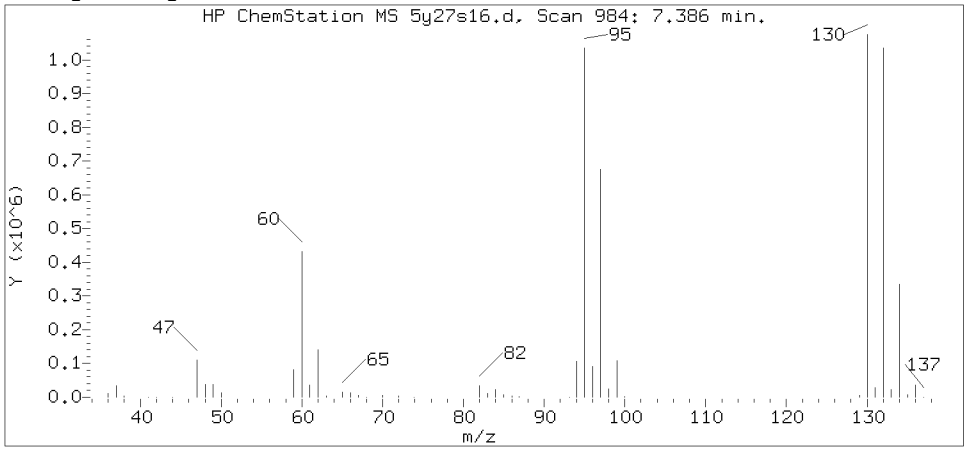
Reference Standard Spectrum for Trichloroethene

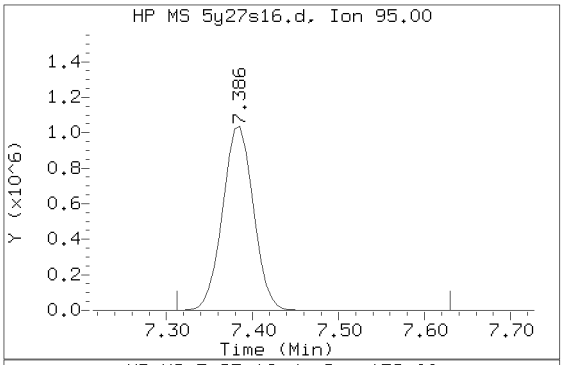


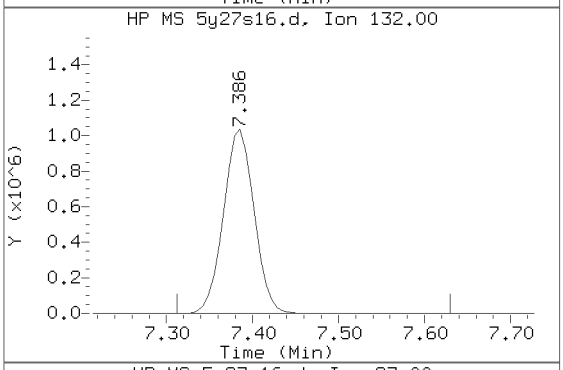
Sample Spectrum (Background Subtracted)

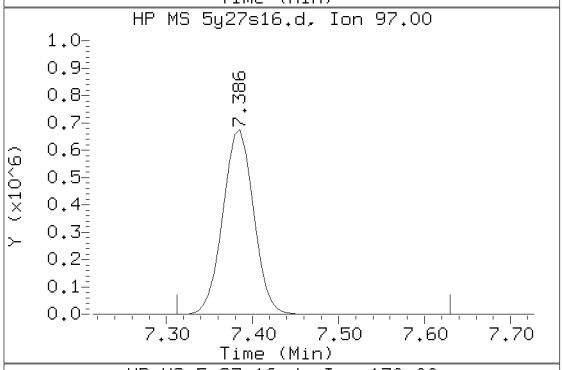


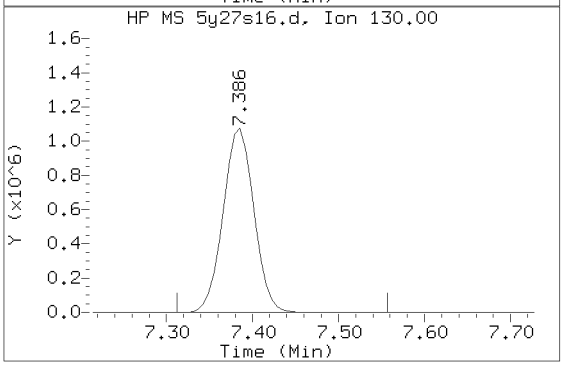
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 984
Retention Time (minutes): 7.386
Relative Retention Time : 0.00006
Quant Ion : 95.00
Area (flag) : 2589105
On-Column Amount (ng) : 401.9918

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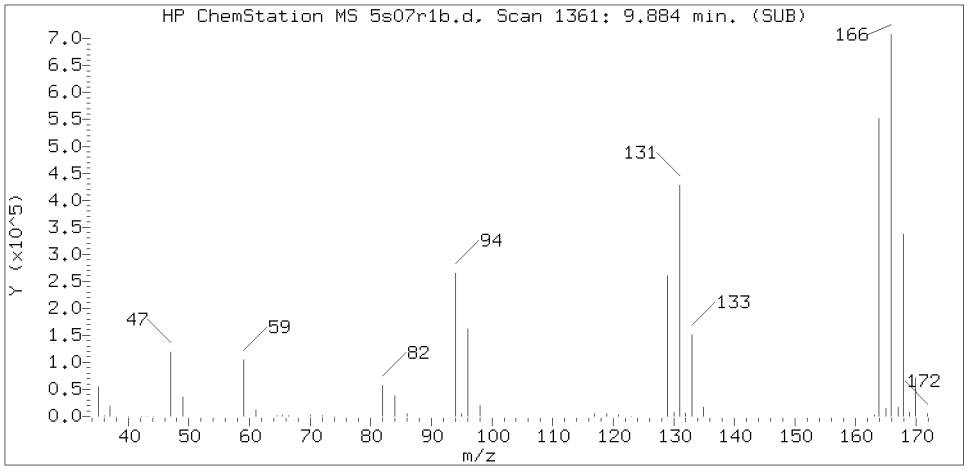
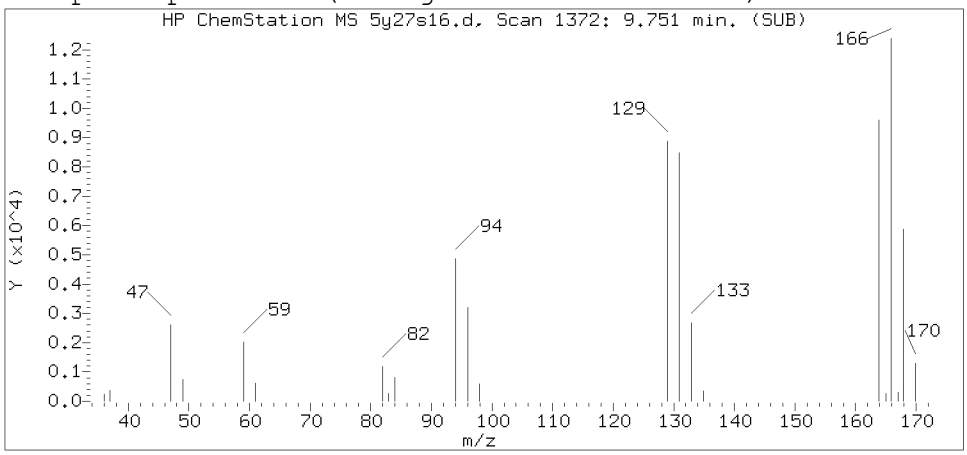
Target 3.5 esignature user ID: ljg3041

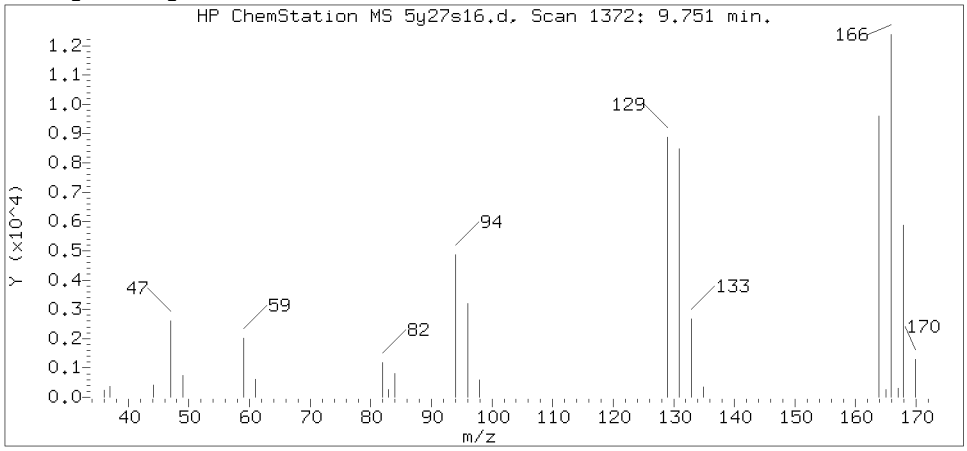
Reference Standard Spectrum for Tetrachloroethene

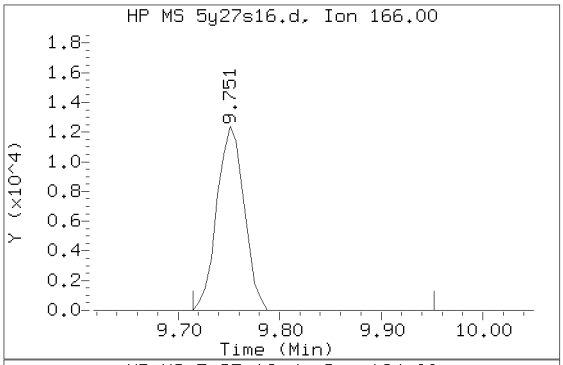


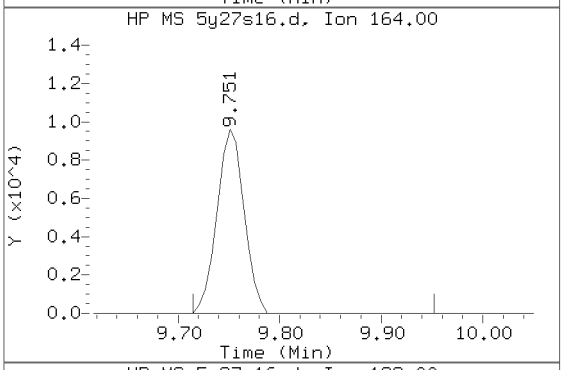
Sample Spectrum (Background Subtracted)

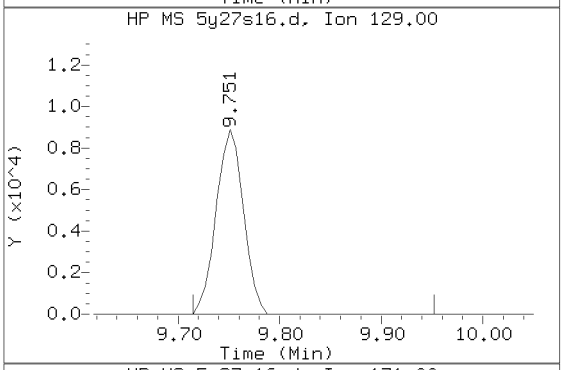


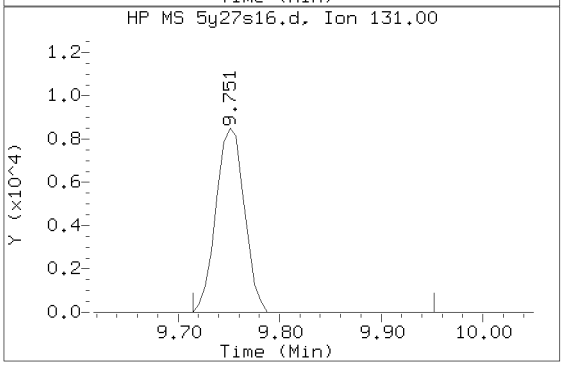
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s16.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:17 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:36 chemist

Sample Name: W5909 Lab Sample ID: 1318295

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 23025
On-Column Amount (ng) : 3.4237

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5909DL

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318295

Sample wt/vol: 0.50 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s17.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L		Q
75-01-4	Vinyl Chloride		10	U
75-35-4	1,1-Dichloroethene		11	D
67-64-1	Acetone		200	U
76-13-1	Freon 113		100	U
75-15-0	Carbon Disulfide		50	U
75-09-2	Methylene Chloride		10	U
156-60-5	trans-1,2-Dichloroethene		10	U
75-34-3	1,1-Dichloroethane		10	U
156-59-2	cis-1,2-Dichloroethene		10	U
78-93-3	2-Butanone		100	U
67-66-3	Chloroform		10	U
71-55-6	1,1,1-Trichloroethane		140	D
71-43-2	Benzene		10	U
107-06-2	1,2-Dichloroethane		10	U
79-01-6	Trichloroethene		340	D
123-91-1	1,4-Dioxane		2500	U
108-88-3	Toluene		10	U
127-18-4	Tetrachloroethene		3	J D
100-41-4	Ethylbenzene		10	U
1330-20-7	Xylene (Total)		60	U
95-50-1	1,2-Dichlorobenzene		50	U
91-20-3	Naphthalene		50	U

FORM I VOA

^

W5909DL

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318295DL

Data file: /chem2/HP26285.i/20may27a.b/5y27s17.d
Data file Sample Info. Line: W5909DL;1318295DL;1;0;;JCW59;;;5y27b01;
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Injection date and time: **27-MAY-2020 15:38**
Instrument ID: **HP26285.i** Batch: **5201481AA**

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447 (-0.030)	338	65	268213 (-10)	250.00	
66) Fluorobenzene	6.880 (-0.006)	901	96	927542 (-9)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	742100 (-8)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (-0.006)	1856	152	398207 (-8)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	240862	52.136	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428 (-0.001)	102	54419	52.668	105%		80 - 120
84) Toluene-d8	(3)	9.038 (0.001)	98	886853	48.628	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.000)	95	359053	46.726	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)			Not Detected					2	10
17) 1,1-Dichloroethene	(2)	2.880 (-0.002)	96	5730	1.143	11.43			2	10
18) Acetone	(1)			Not Detected					7	200
19) Freon 113	(2)			Not Detected					2	100
23) Carbon Disulfide	(2)			Not Detected					2	50
28) Methylene Chloride	(2)			Not Detected					3	10
32) trans-1,2-Dichloroethene	(2)			Not Detected					2	10
36) 1,1-Dichloroethane	(2)			Not Detected					2	10
42) cis-1,2-Dichloroethene	(2)			Not Detected					2	10
44) 2-Butanone	(2)			Not Detected					3	100
51) Chloroform	(2)			Not Detected					2	10
53) 1,1,1-Trichloroethane	(2)	5.953 (-0.001)	97	126242	13.761	137.61			3	10
60) Benzene	(2)			Not Detected					2	10
61) 1,2-Dichloroethane	(2)			Not Detected					3	10
71) Trichloroethene	(2)	7.386 (0.000)	95	222593	34.327	343.27			2	10
76) 1,4-Dioxane	(1)			Not Detected					290	2500
89) Toluene	(3)			Not Detected					2	10
94) Tetrachloroethene	(3)	9.751 (0.000)	166	1777	0.261	2.61		J	2	10
105) Ethylbenzene	(3)			Not Detected					4	10
107) m+p-Xylene	(3)			Not Detected					10	50
108) o-Xylene	(3)			Not Detected					4	10
109) Xylene (Total)	(3)			Not Detected					14	60
139) 1,2-Dichlorobenzene	(4)			Not Detected					2	50
149) Naphthalene	(4)			Not Detected					10	50

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s17.d Injection date and time: **27-MAY-2020 15:38**
Data file Sample Info. Line: W5909DL;1318295DL;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

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Total number of targets = 24

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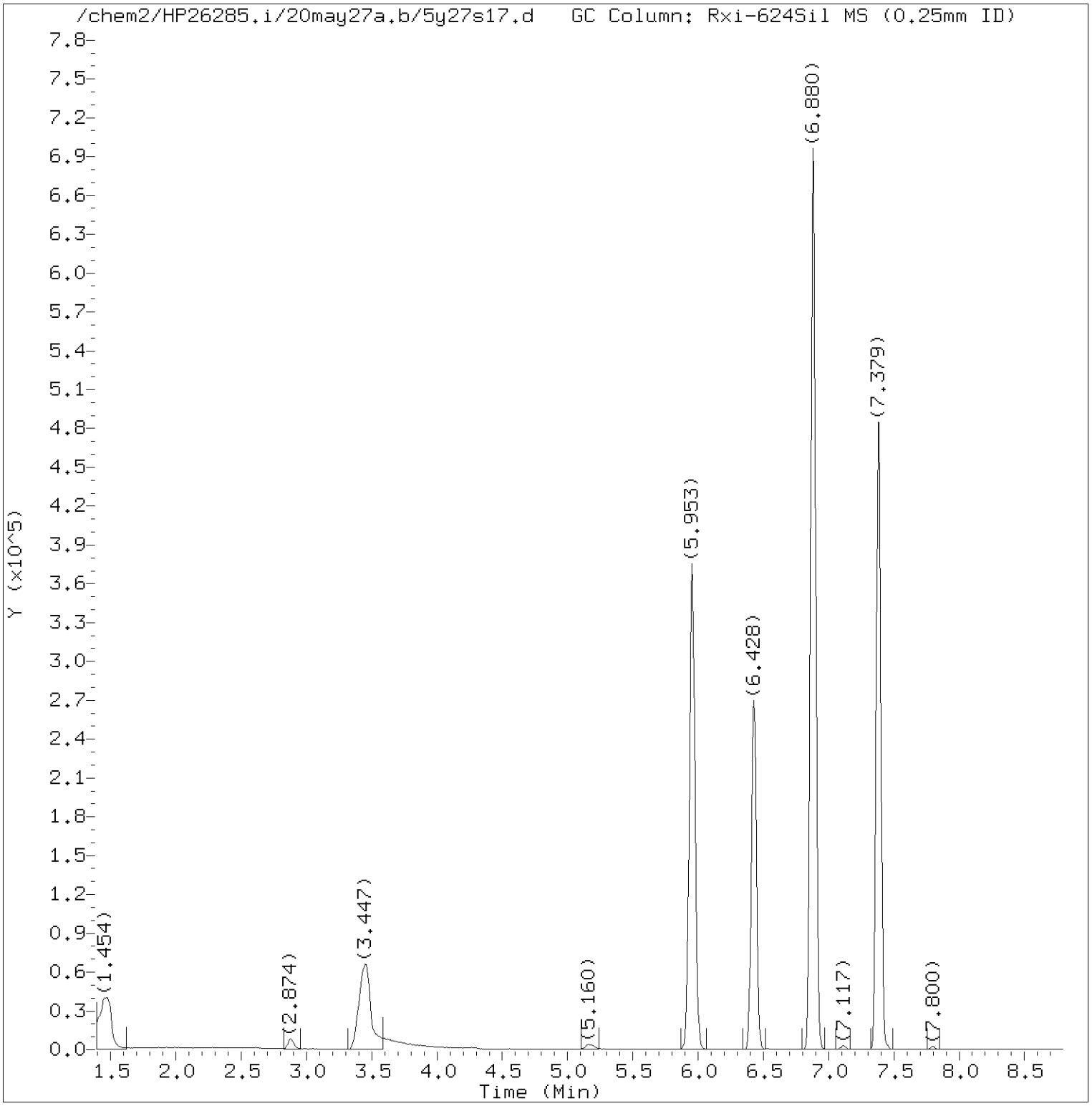
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

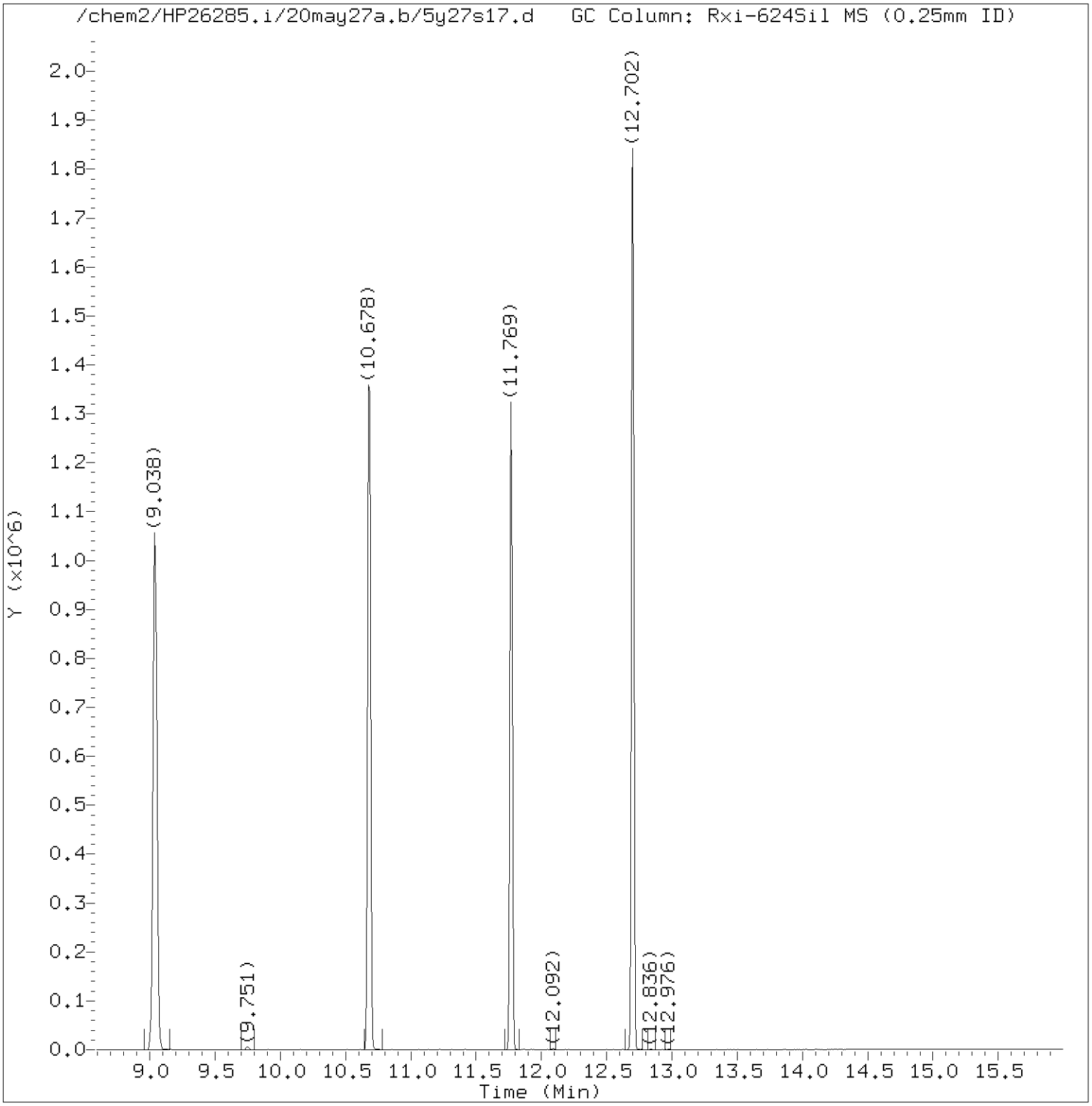
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Digitally signed by Laura J. Green
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Digitally signed by Laura J. Green
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.880	96	5730	1.143
29)*t-Butyl alcohol-d10	(1)	3.447	65	268213	250.000
53) 1,1,1-Trichloroethane	(2)	5.953	97	126242	13.761
52)$Dibromofluoromethane	(2)	5.953	113	240862	52.136
57)$1,2-Dichloroethane-d4	(2)	6.428	102	54419	52.668
66)*Fluorobenzene	(2)	6.880	96	927542	50.000
71) Trichloroethene	(2)	7.386	95	222593	34.327
84)$Toluene-d8	(3)	9.038	98	886853	48.628
94) Tetrachloroethene	(3)	9.751	166	1777	0.261
101)*Chlorobenzene-d5	(3)	10.684	117	742100	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	359053	46.726
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	398207	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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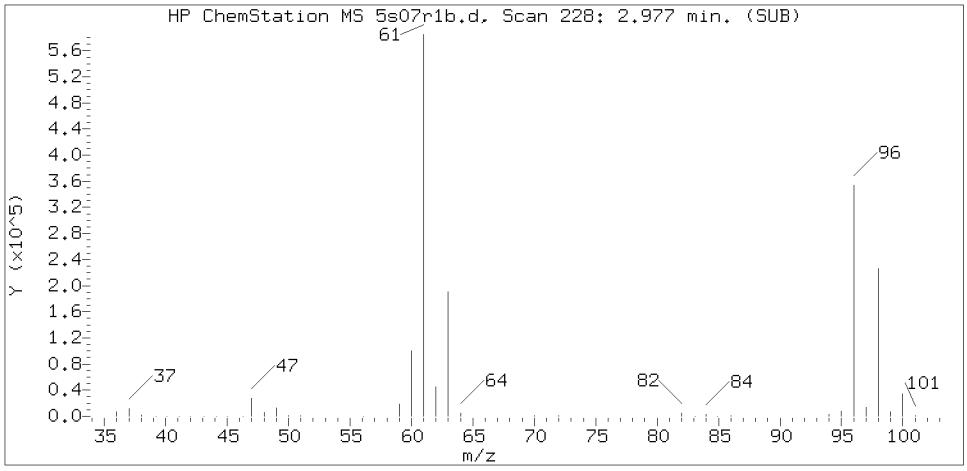
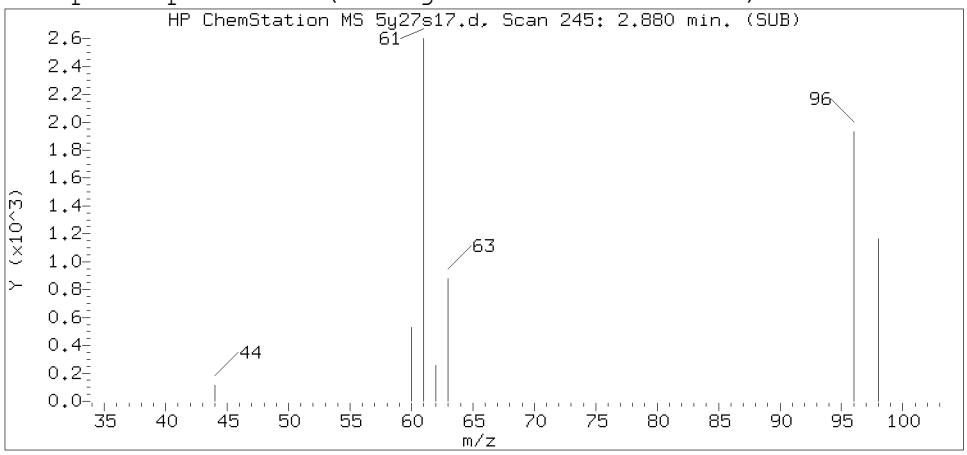
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

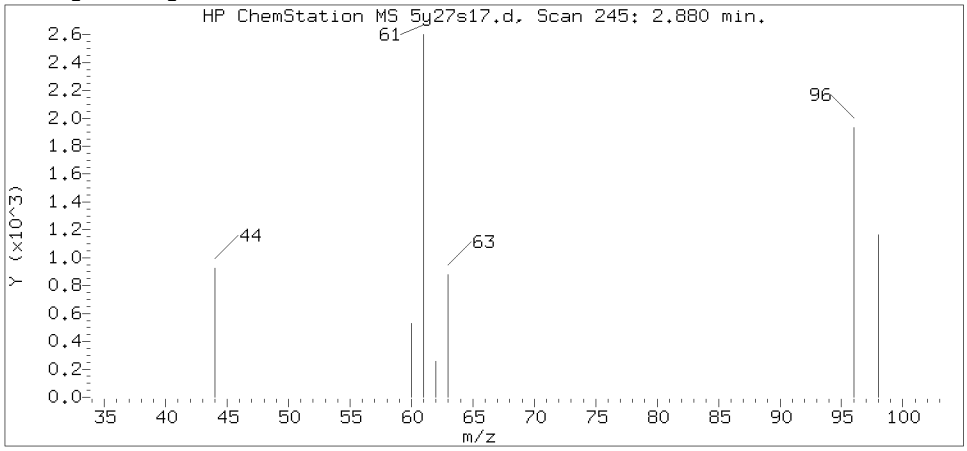
Reference Standard Spectrum for 1,1-Dichloroethene

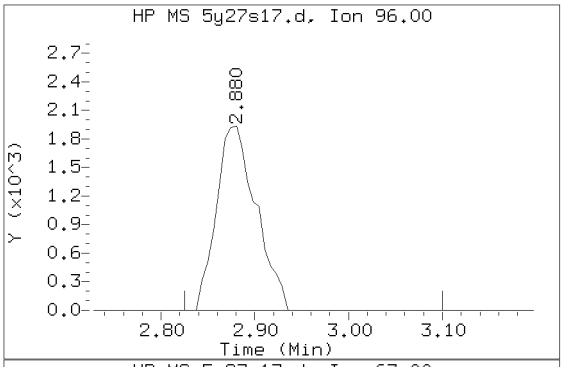


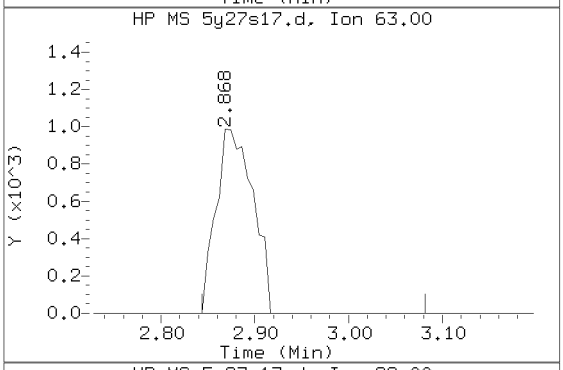
Sample Spectrum (Background Subtracted)

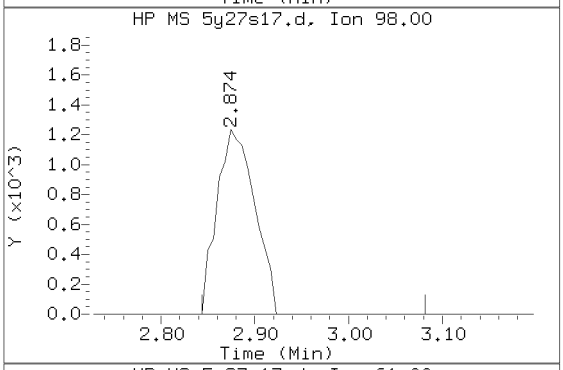


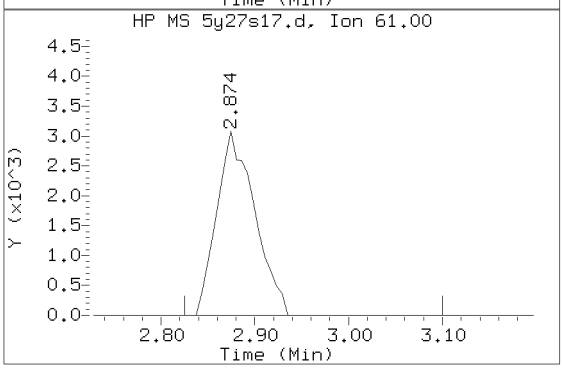
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 245
Retention Time (minutes): 2.880
Relative Retention Time :-0.00227
Quant Ion : 96.00
Area (flag) : 5730
On-Column Amount (ng) : 1.1426

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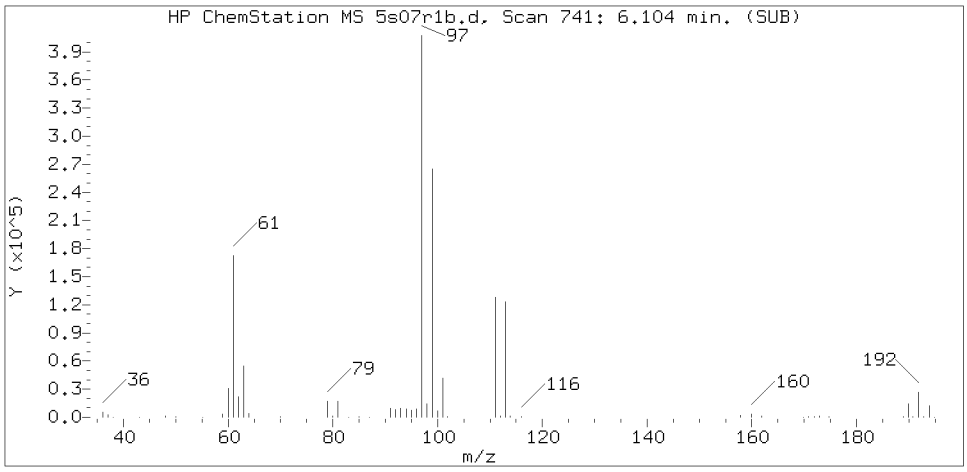
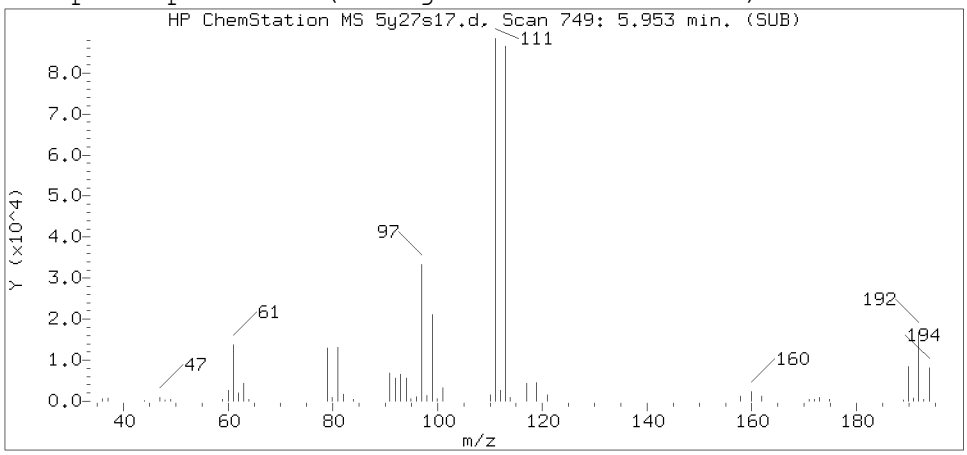
Target 3.5 esignature user ID: ljg30941

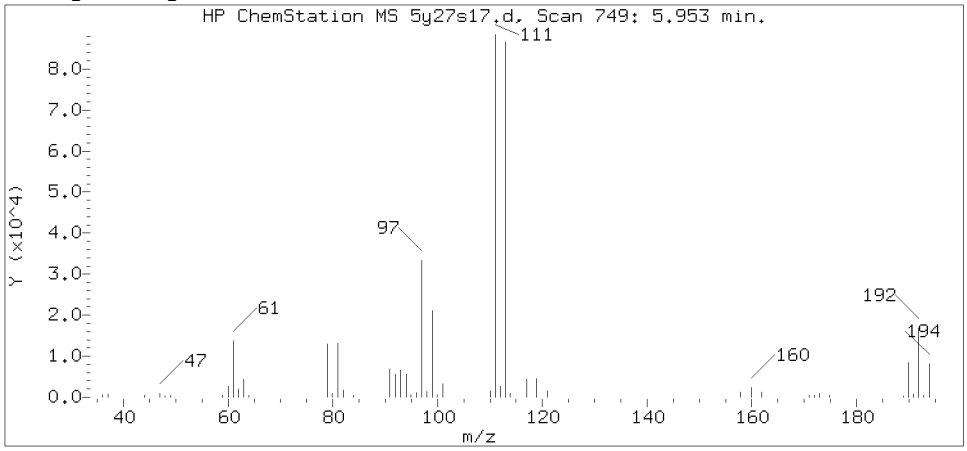
Reference Standard Spectrum for 1,1,1-Trichloroethane

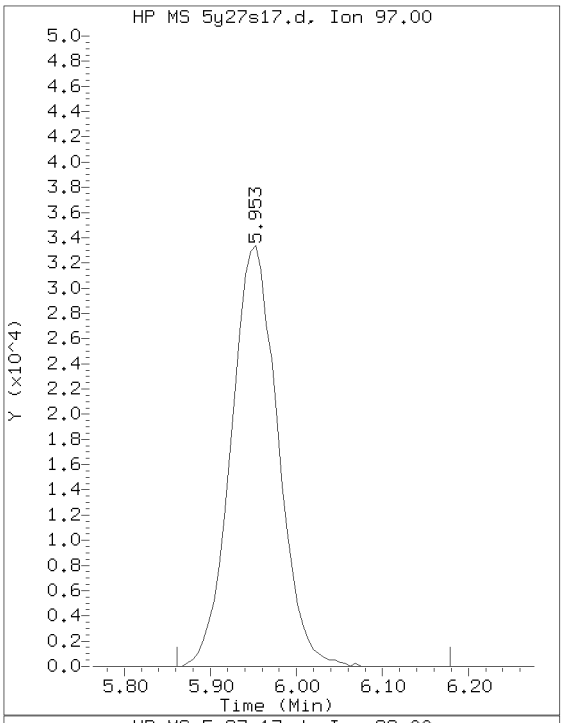


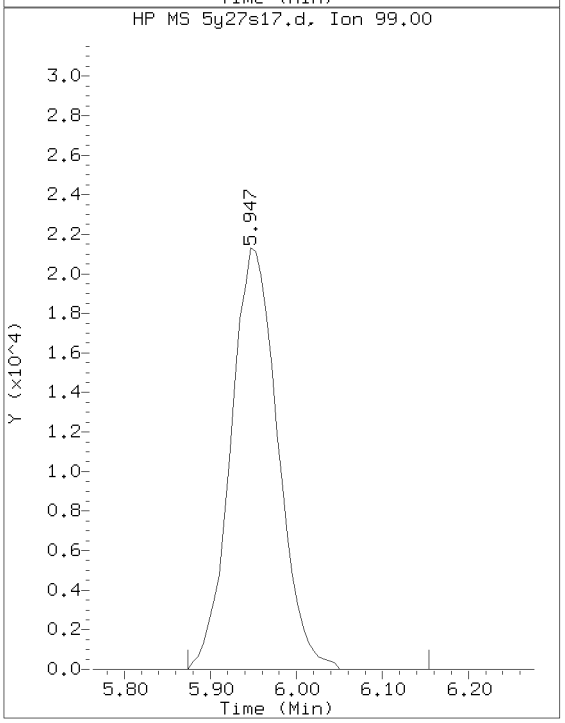
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

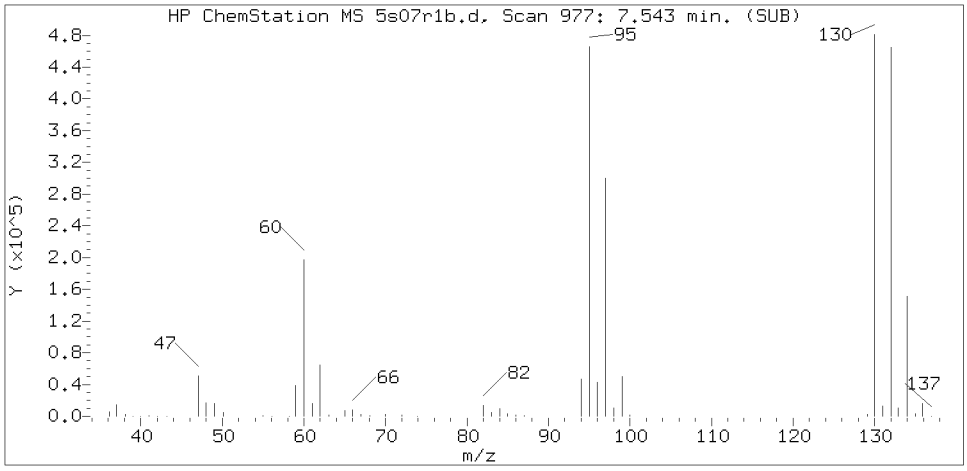
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

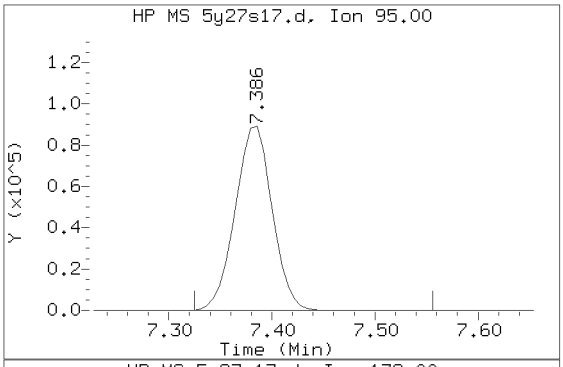
Sample Name: W5909DL Lab Sample ID: 1318295DL

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 749
Retention Time (minutes): 5.953
Relative Retention Time :-0.00100
Quant Ion : 97.00
Area (flag) : 126242
On-Column Amount (ng) : 13.7613

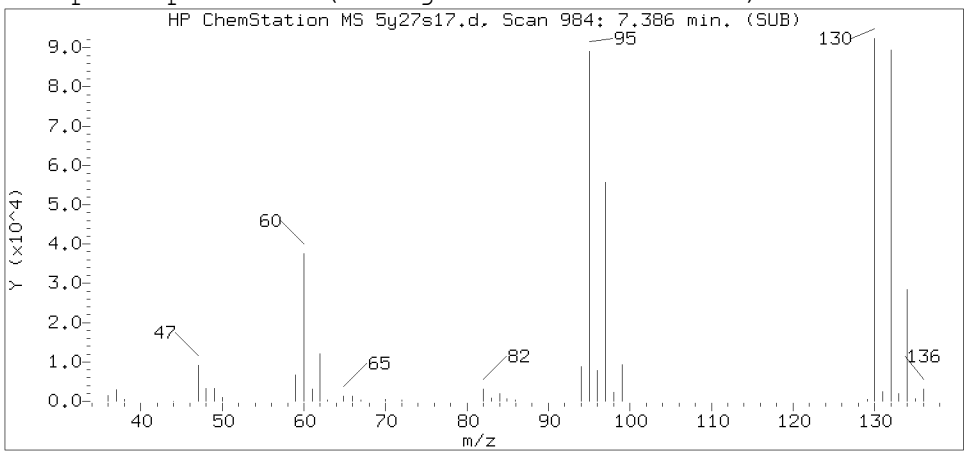
Digitally signed by Laura J. Green on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

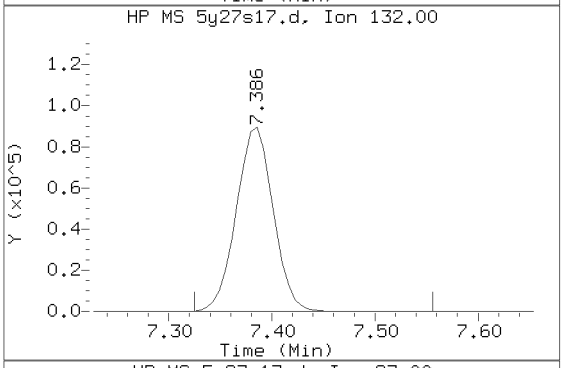
Reference Standard Spectrum for Trichloroethene

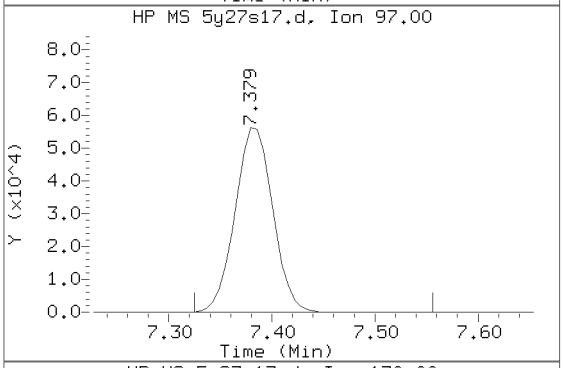




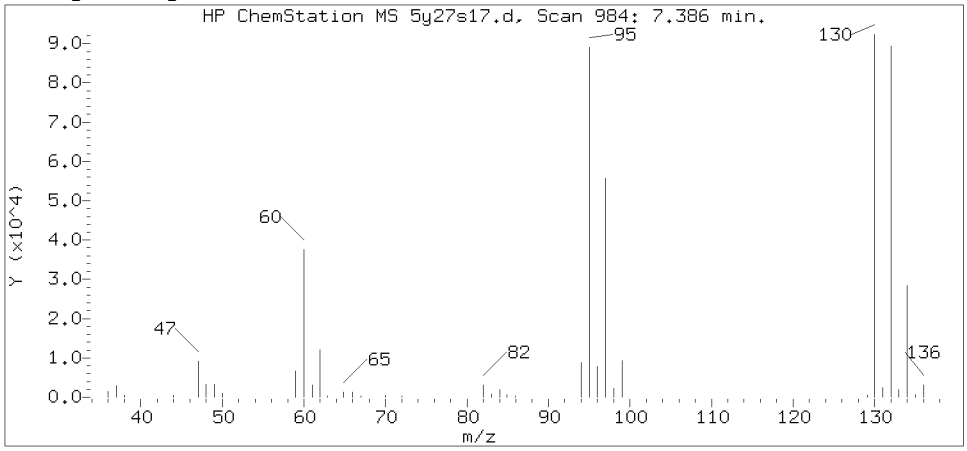
Sample Spectrum (Background Subtracted)

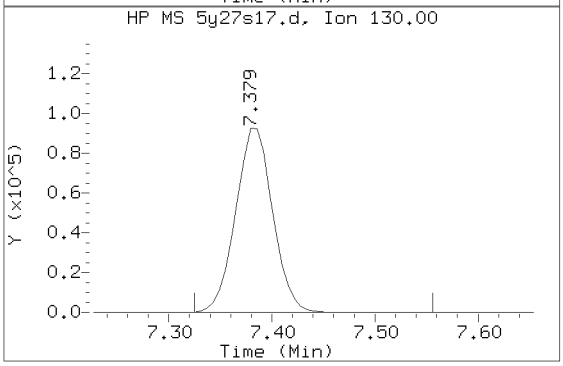






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 984
Retention Time (minutes): 7.386
Relative Retention Time : 0.00006
Quant Ion : 95.00
Area (flag) : 222593
On-Column Amount (ng) : 34.3267

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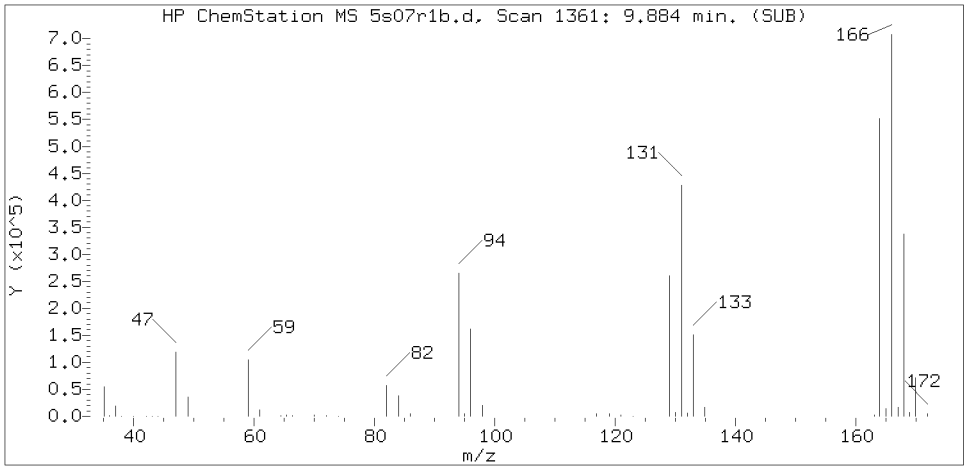
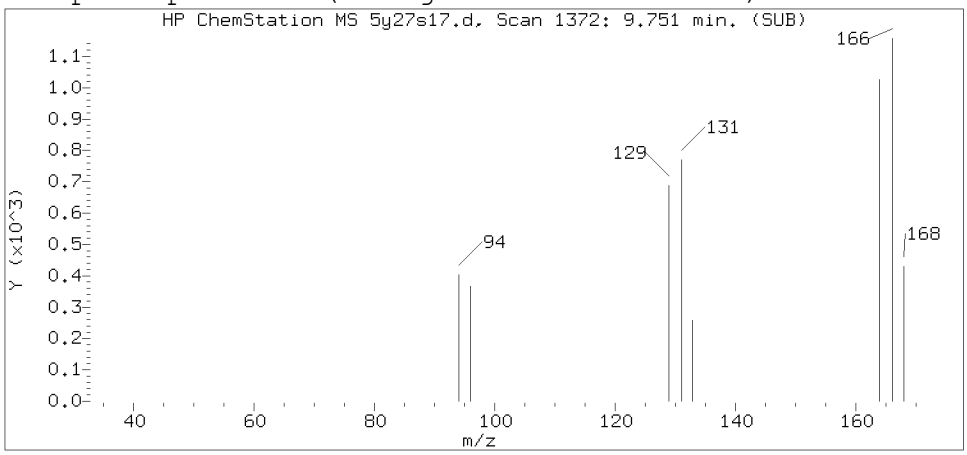
Target 3.5 esignature user ID: ljg30941

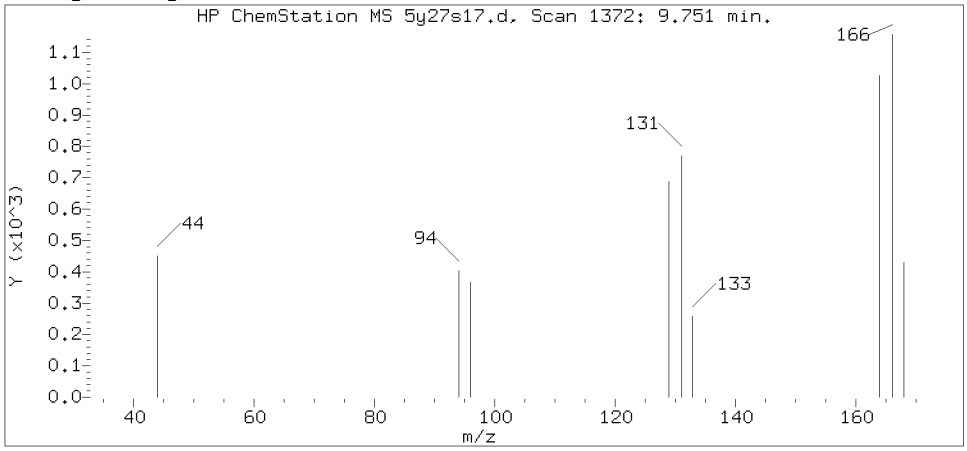
Reference Standard Spectrum for Tetrachloroethene

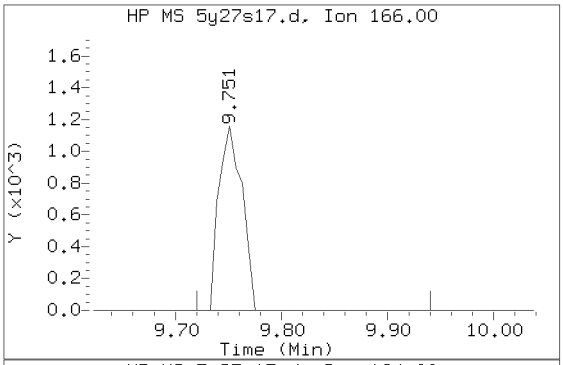


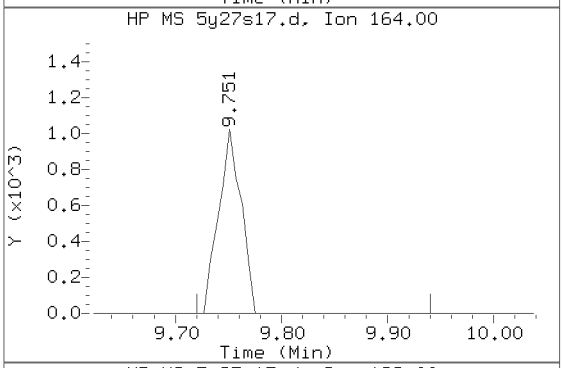
Sample Spectrum (Background Subtracted)

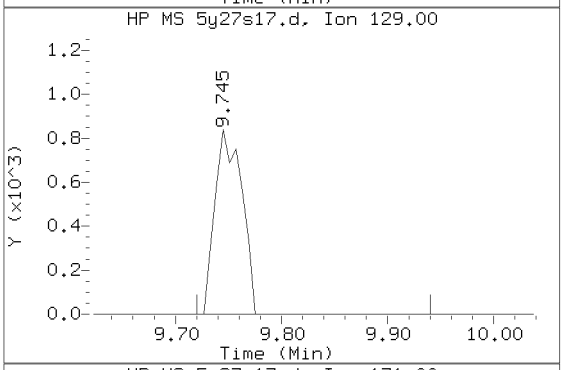


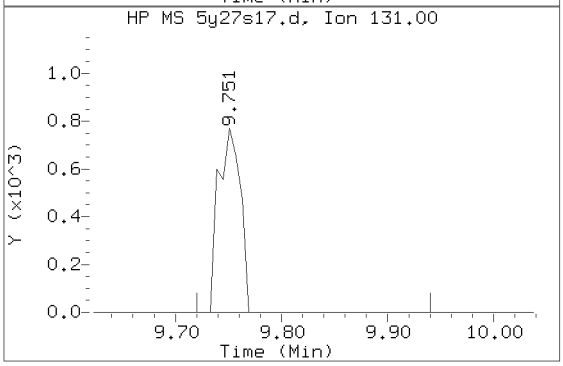
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s17.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:38 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 15:57 chemist

Sample Name: W5909DL Lab Sample ID: 1318295DL

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00052
Quant Ion : 166.00
Area (flag) : 1777
On-Column Amount (ng) : 0.2606

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5910

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318296

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s18.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	8	
67-64-1	Acetone	20	U
76-13-1	Freon 113	0.4	J
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	0.6	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	120	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	570	E
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	5	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5910 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318296

Data file: /chem2/HP26285.i/20may27a.b/5y27s18.d Injection date and time: **27-MAY-2020 15:58**
Data file Sample Info. Line: W5910;1318296;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454	(-0.037)	339	65	251940	(-15)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	858830	(-15)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	685656	(-15)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(-0.006)	1856	152	366449	(-16)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(0.000)	113	231604	54.143	108%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.423	(0.000)	102	50126	52.394	105%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	822359	48.804	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(-0.001)	95	329629	46.428	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.874	(-0.001)	96	35954	7.743	7.74			0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)	2.887	(0.001)	101	2069	0.394	0.39		J	0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)	5.222	(-0.001)	96	3751	0.638	0.64		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947	(-0.000)	97	1018311	119.884	119.88			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(0.000)	95	3412811	568.406	568.41		E	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.751	(0.000)	166	28444	4.514	4.51			0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

E = Compound concentration above calibration range.

Digitally signed by Laura J. Green on 05/27/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s18.d Injection date and time: **27-MAY-2020 15:58**
Data file Sample Info. Line: W5910;1318296;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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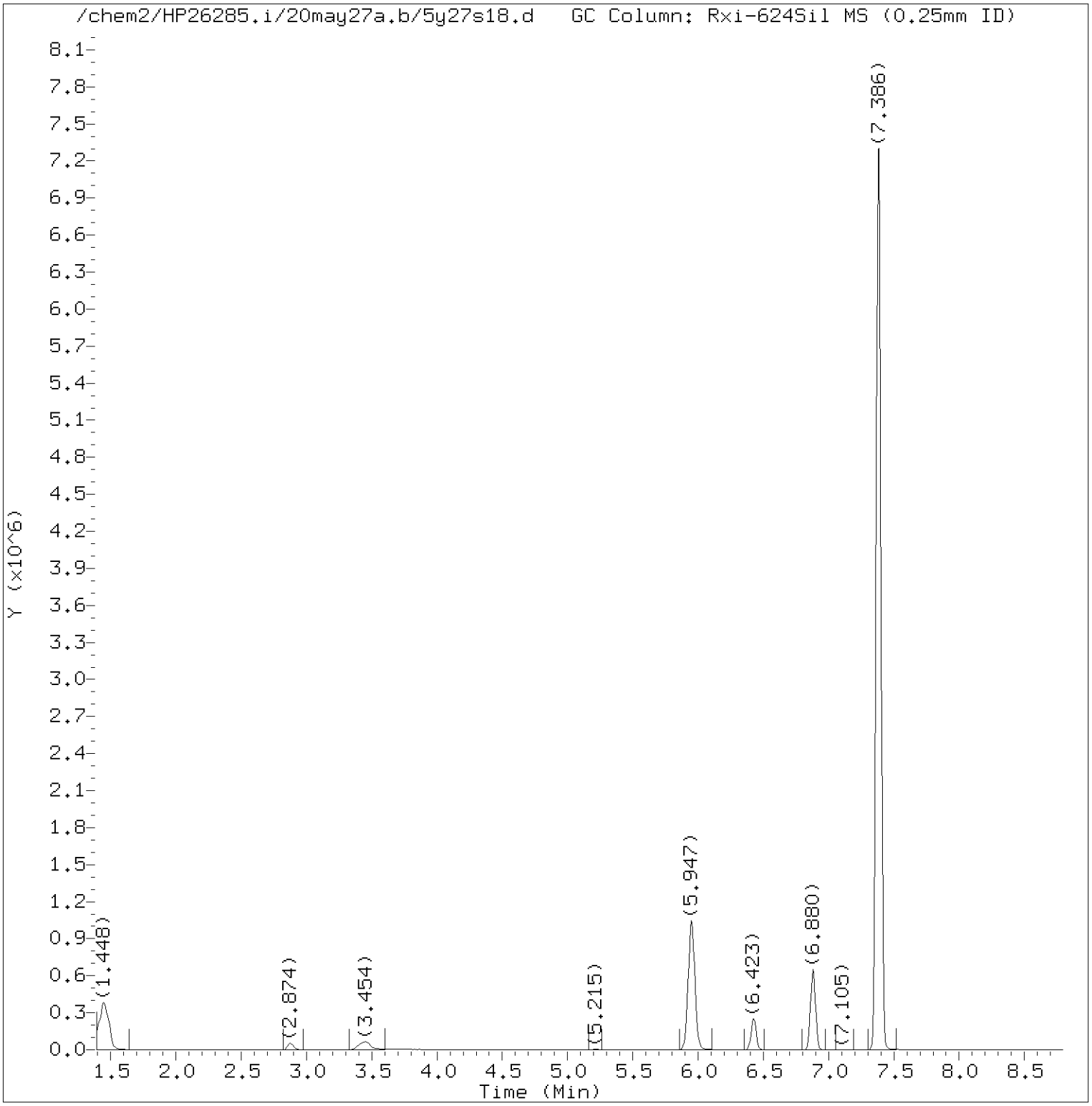
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:53. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

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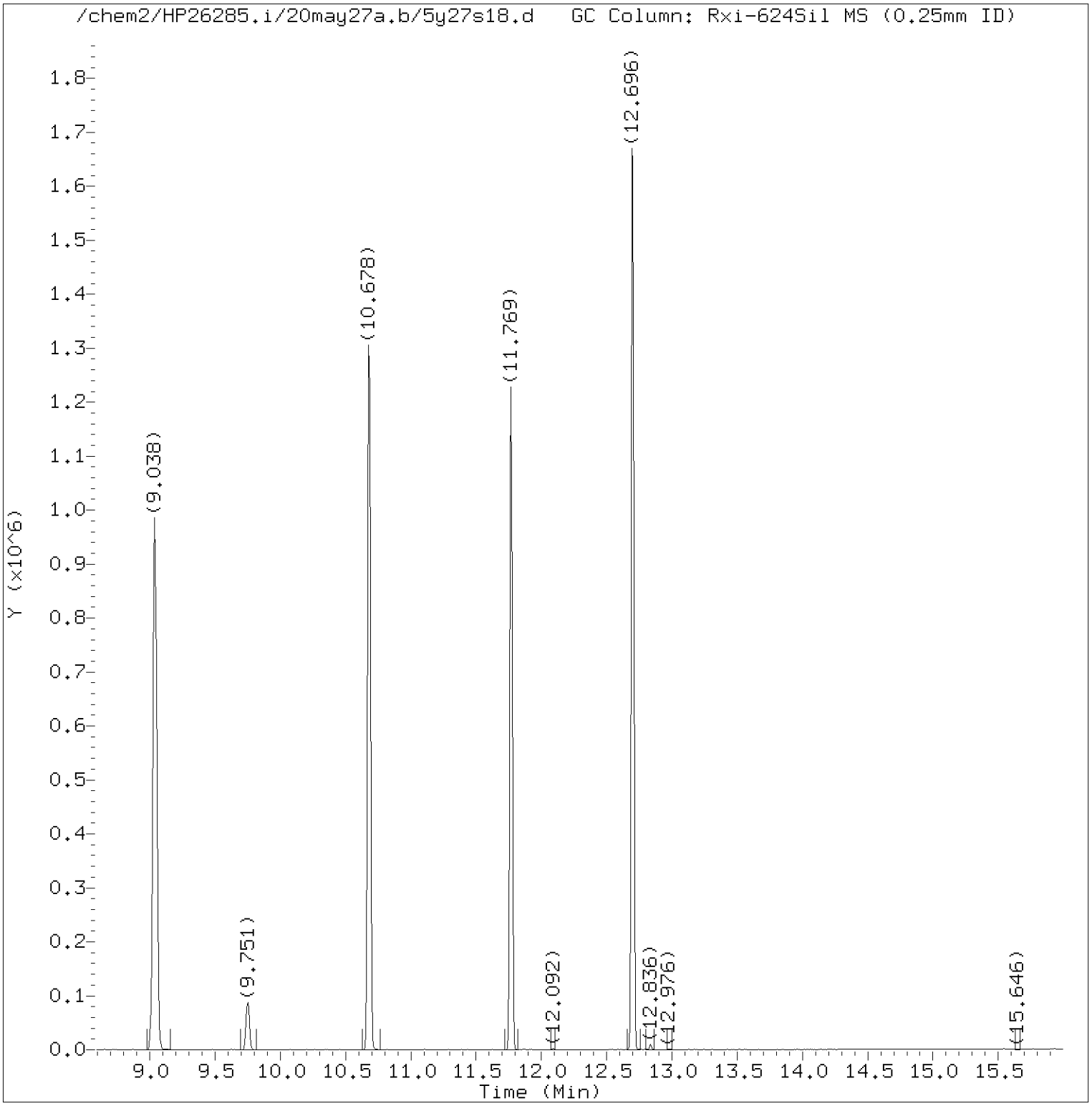
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

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Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.874	96	35954	7.743
19) Freon 113	(2)	2.887	101	2069	0.394
29)*t-Butyl alcohol-d10	(1)	3.454	65	251940	250.000
42) cis-1,2-Dichloroethene	(2)	5.222	96	3751	0.638
53) 1,1,1-Trichloroethane	(2)	5.947	97	1018311	119.884
52)$Dibromofluoromethane	(2)	5.953	113	231604	54.143
57)$1,2-Dichloroethane-d4	(2)	6.423	102	50126	52.394
66)*Fluorobenzene	(2)	6.880	96	858830	50.000
71) Trichloroethene	(2)	7.380	95	3412811	568.406
84)$Toluene-d8	(3)	9.038	98	822359	48.804
94) Tetrachloroethene	(3)	9.751	166	28444	4.514
101)*Chlorobenzene-d5	(3)	10.678	117	685656	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	329629	46.428
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	366449	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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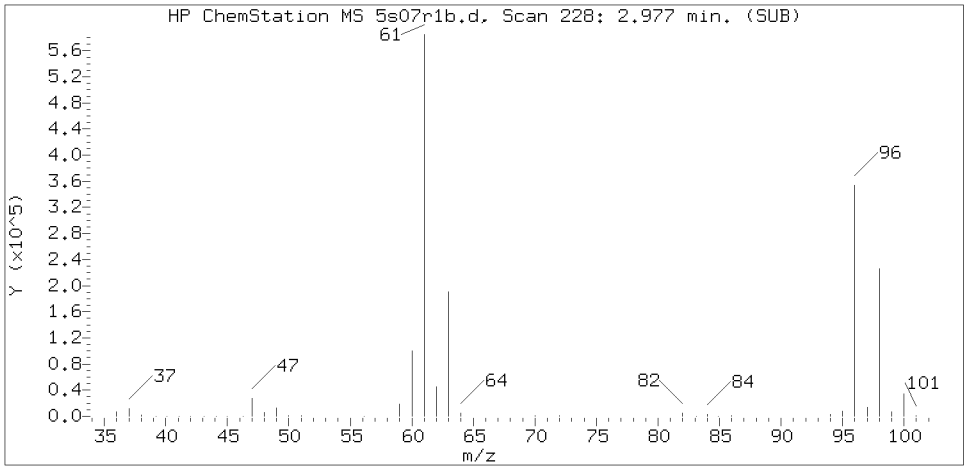
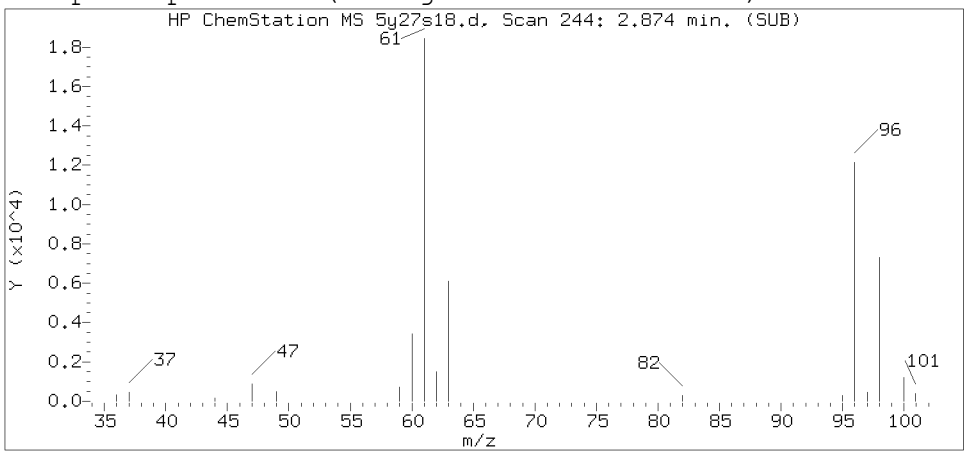
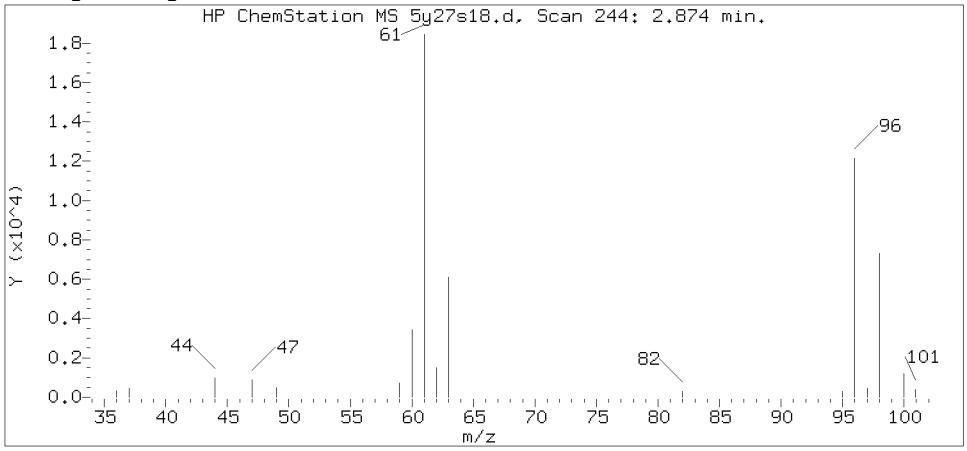
Reference Standard Spectrum for 1,1-Dichloroethene

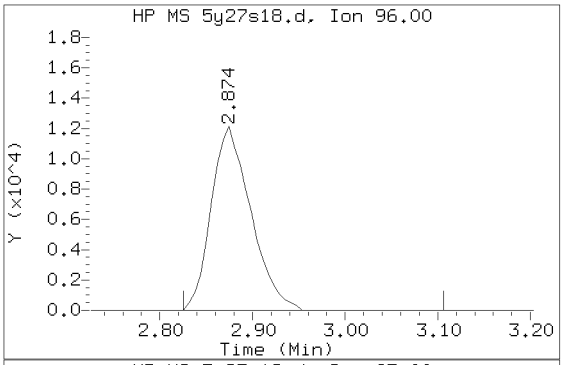


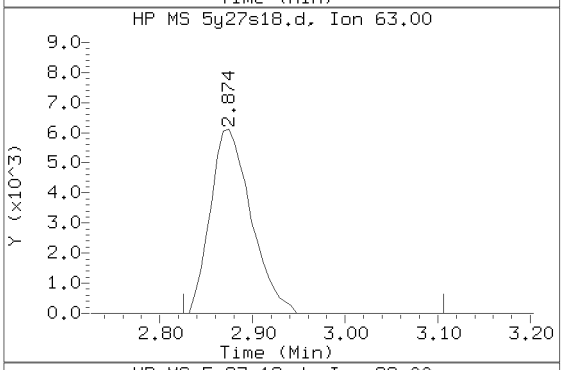
Sample Spectrum (Background Subtracted)

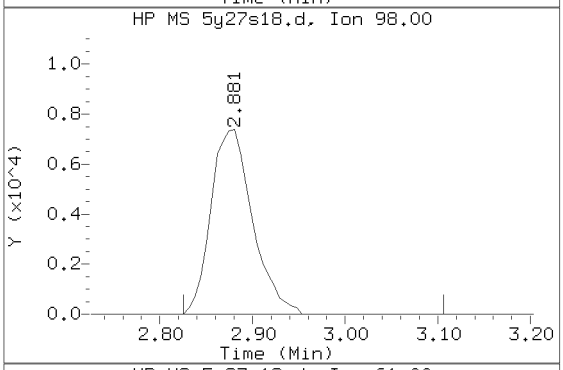


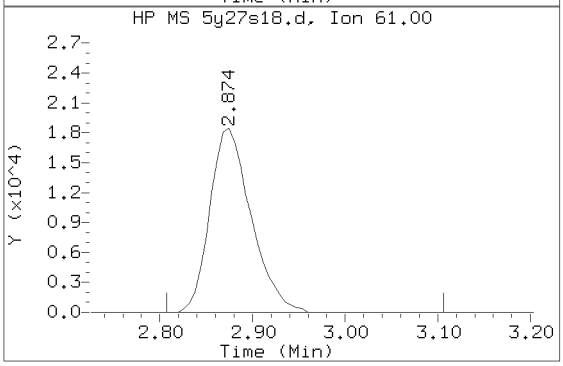
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 244
Retention Time (minutes): 2.874
Relative Retention Time :-0.00140
Quant Ion : 96.00
Area (flag) : 35954
On-Column Amount (ng) : 7.7426

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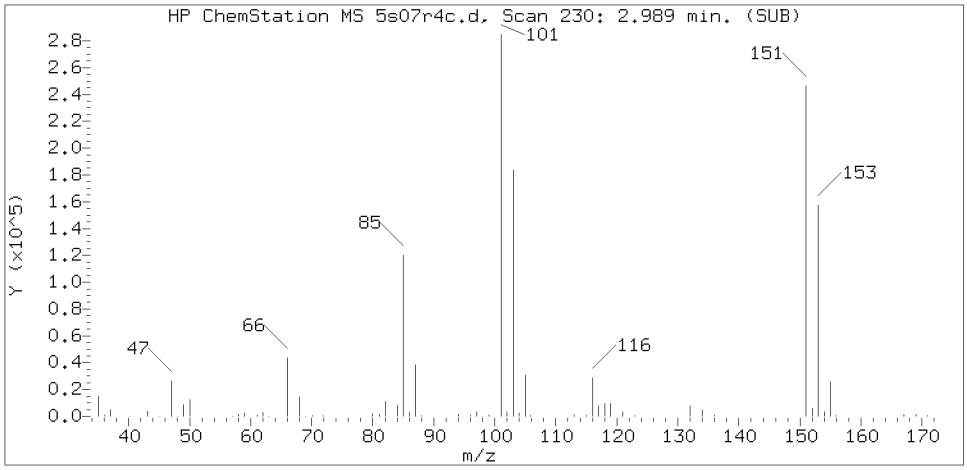
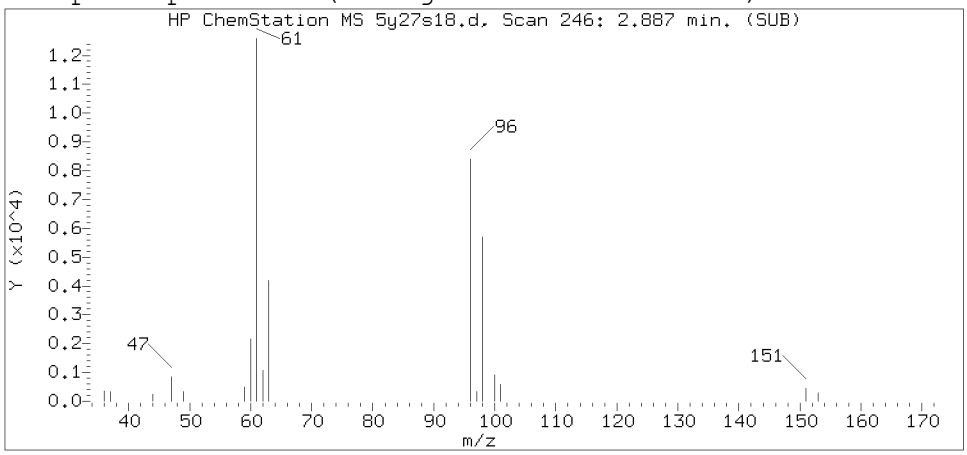
Target 3.5 esignature user ID: ljg30941

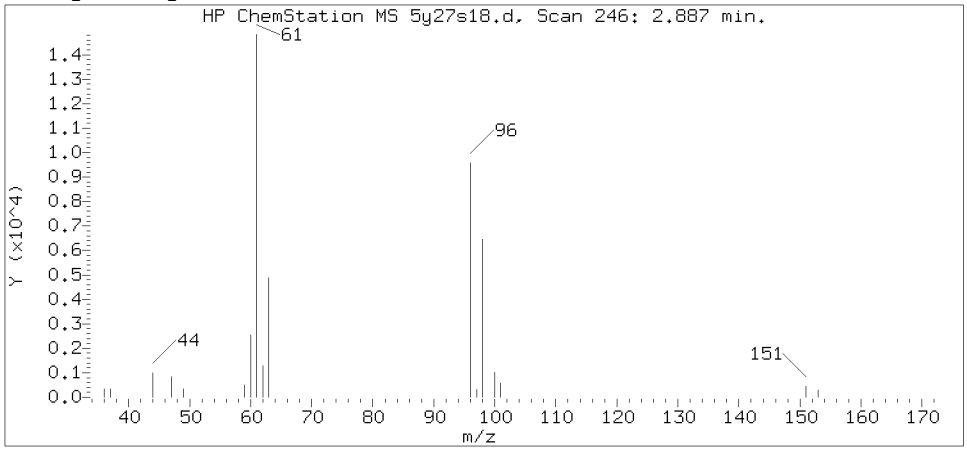
Reference Standard Spectrum for Freon 113

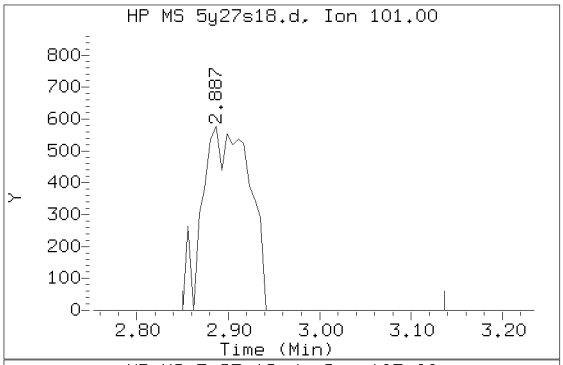


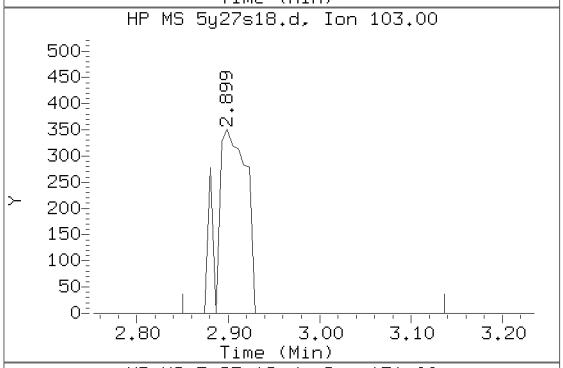
Sample Spectrum (Background Subtracted)

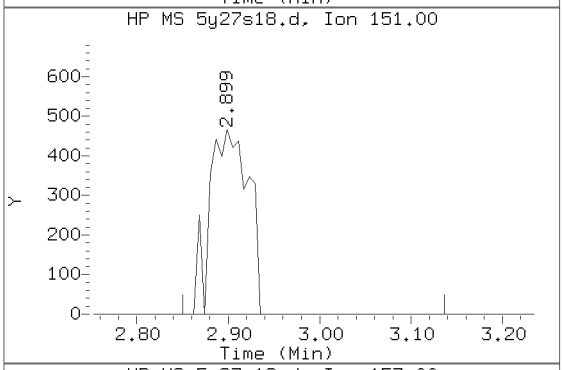


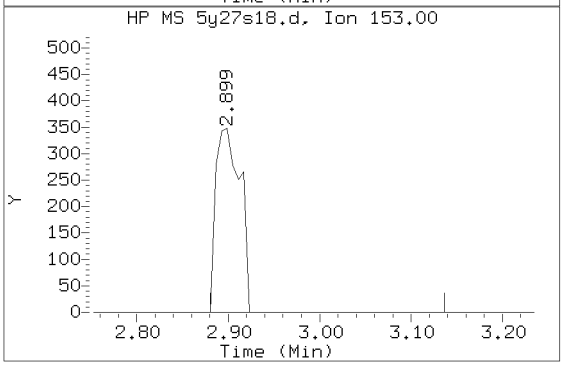
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number	: 19
Compound Name	: Freon 113
Scan Number	: 246
Retention Time (minutes)	: 2.887
Relative Retention Time	: 0.00126
Quant Ion	: 101.00
Area (flag)	: 2069
On-Column Amount (ng)	: 0.3938

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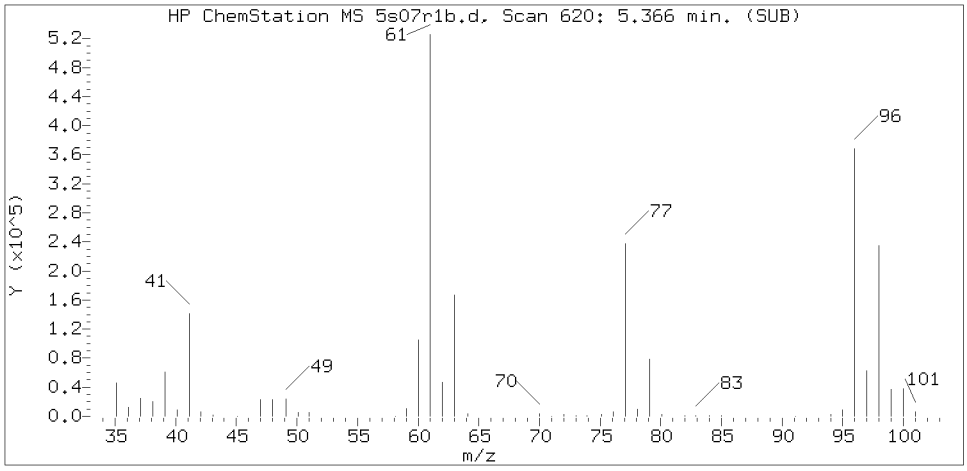
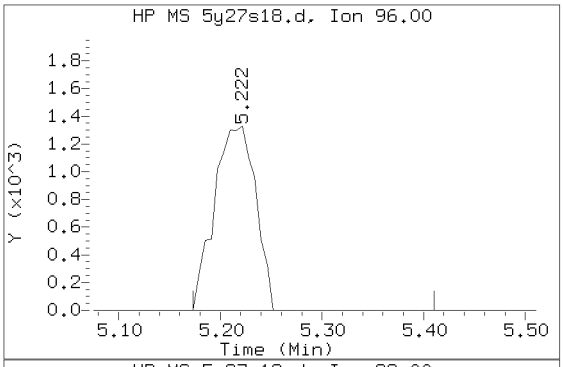
Target 3.5 esignature user ID: ljg30941

Reference Standard Spectrum for cis-1,2-Dichloroethene





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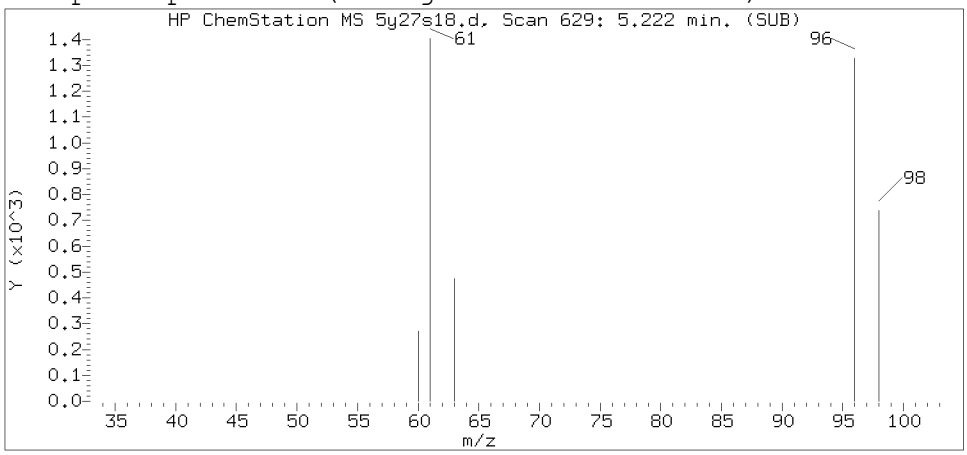
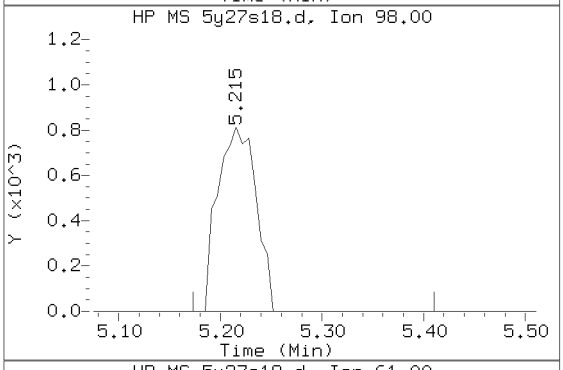
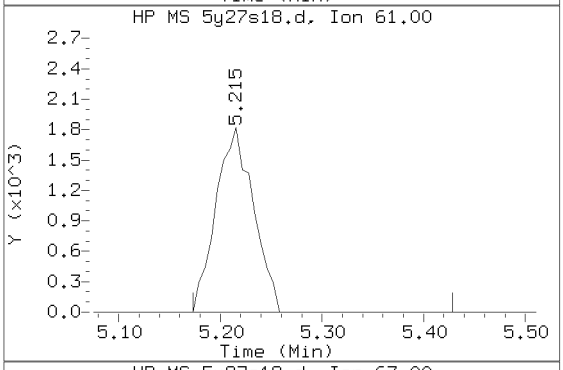
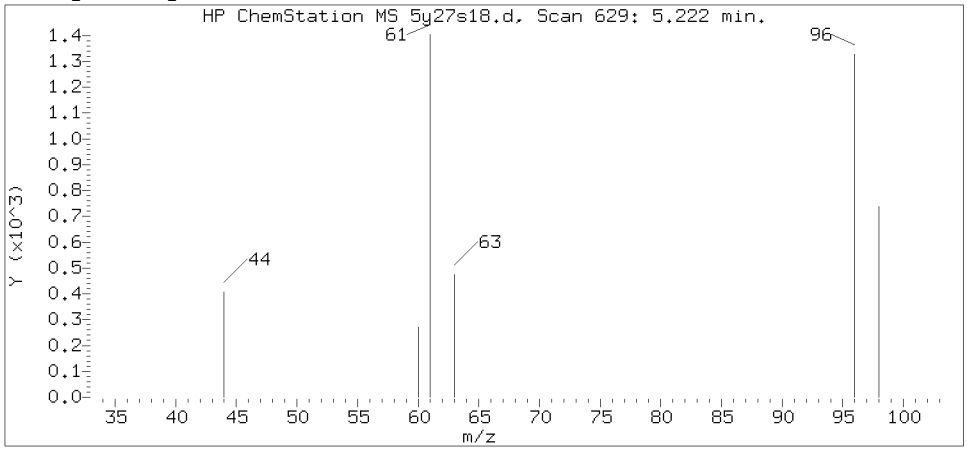
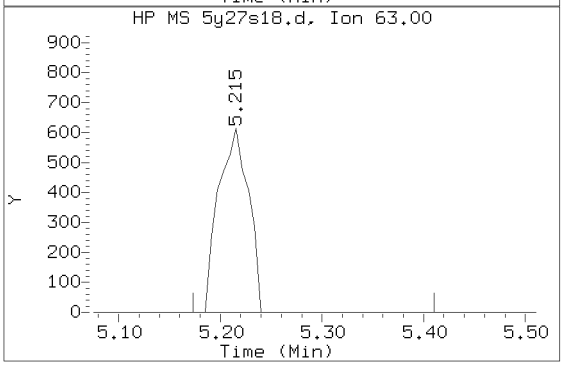






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 629
Retention Time (minutes): 5.222
Relative Retention Time :-0.00199
Quant Ion : 96.00
Area (flag) : 3751
On-Column Amount (ng) : 0.6383

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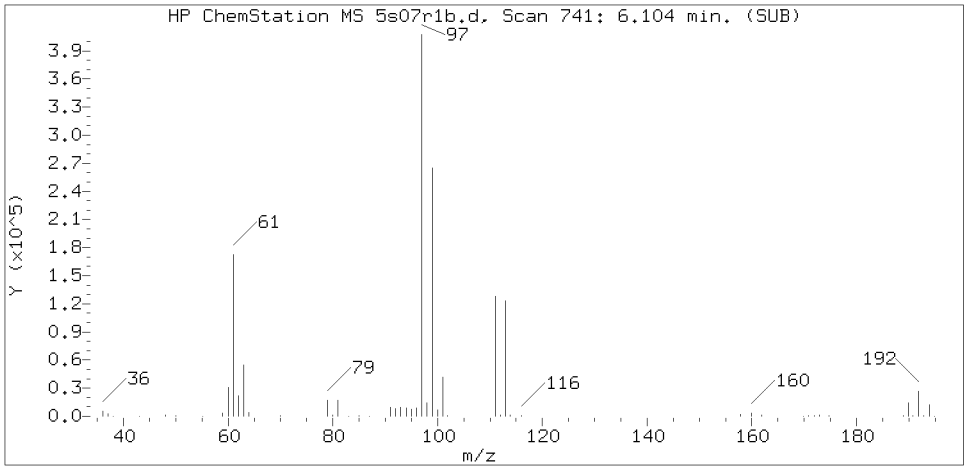
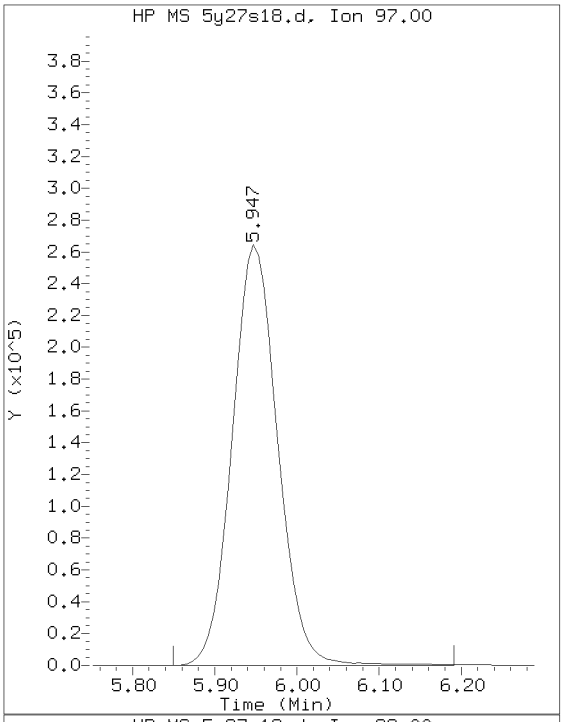
Target 3.5 esignature user ID: ljg30941

Reference Standard Spectrum for 1,1,1-Trichloroethane





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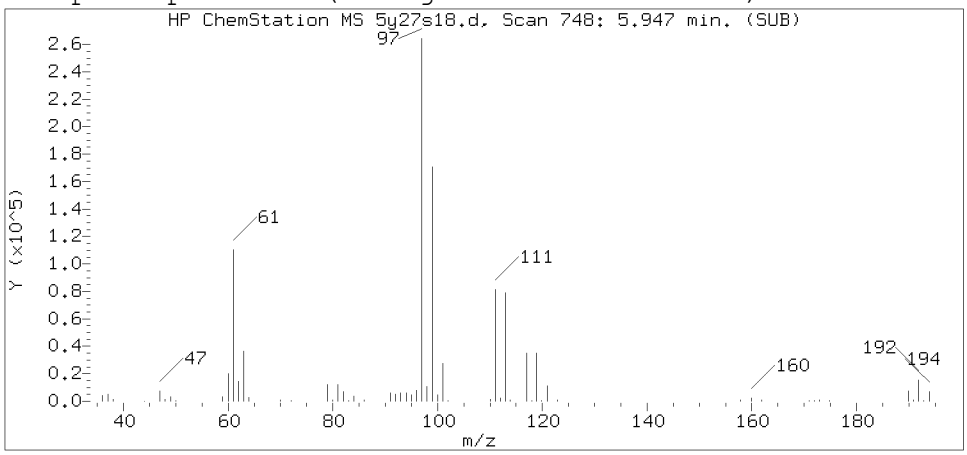
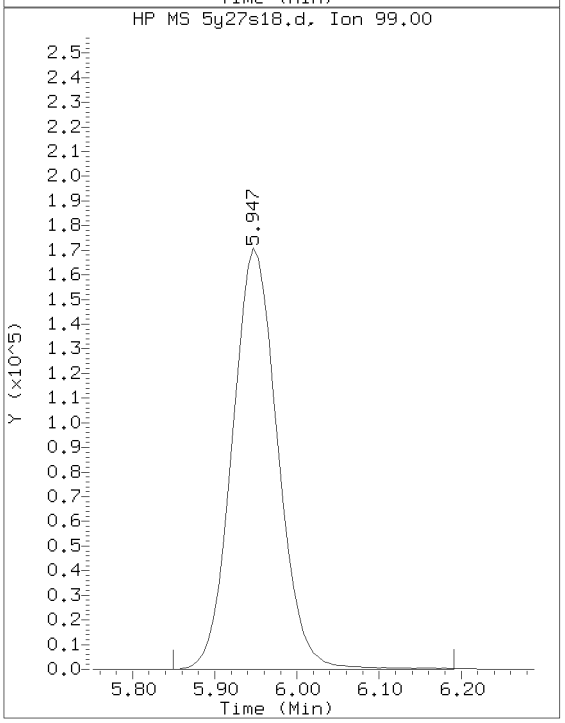
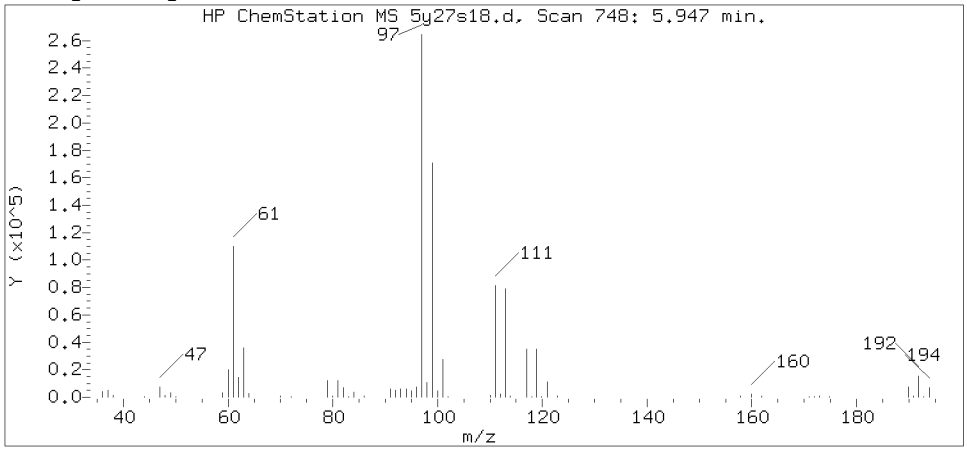




Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 748
Retention Time (minutes): 5.947
Relative Retention Time :-0.00012
Quant Ion : 97.00
Area (flag) : 1018311
On-Column Amount (ng) : 119.8835

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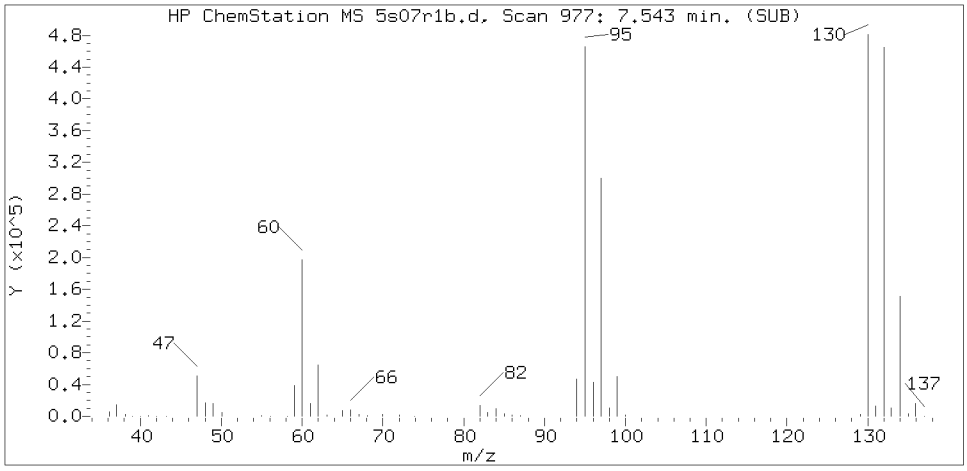
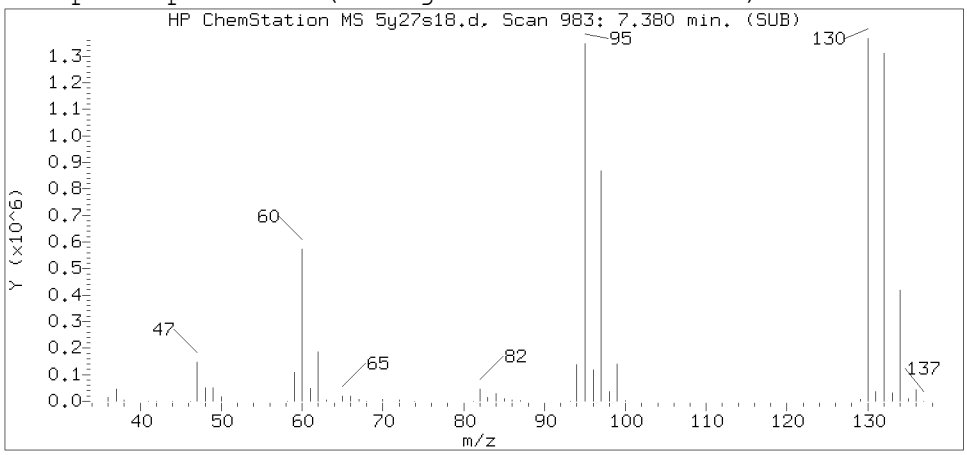
Target 3.5 esignature user ID: ljg30941

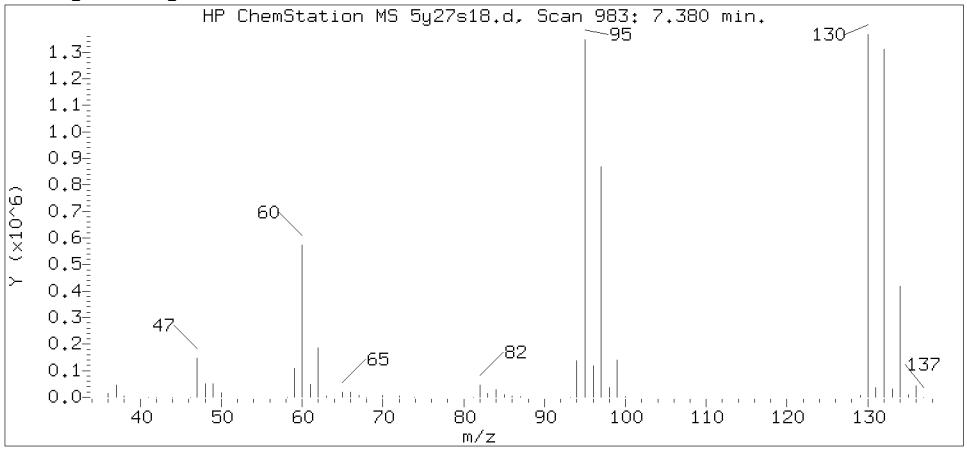
Reference Standard Spectrum for Trichloroethene

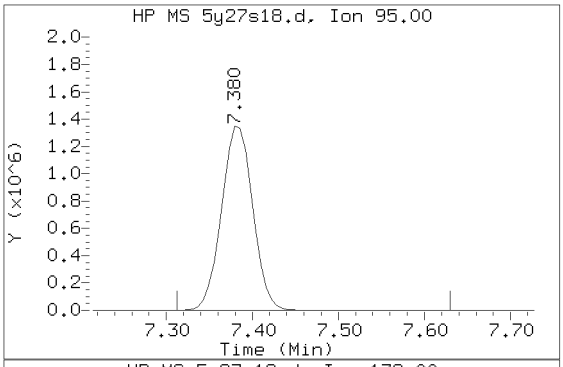


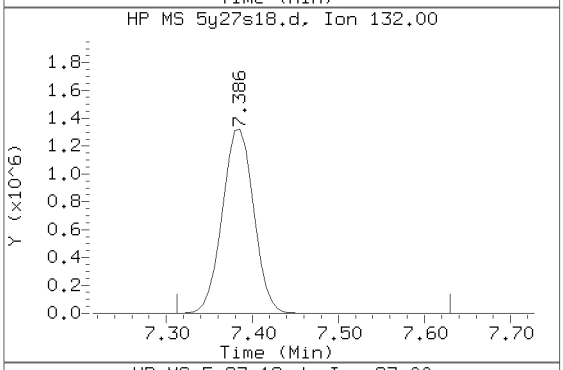
Sample Spectrum (Background Subtracted)

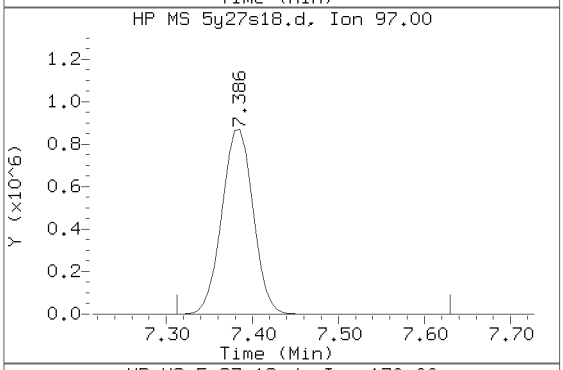


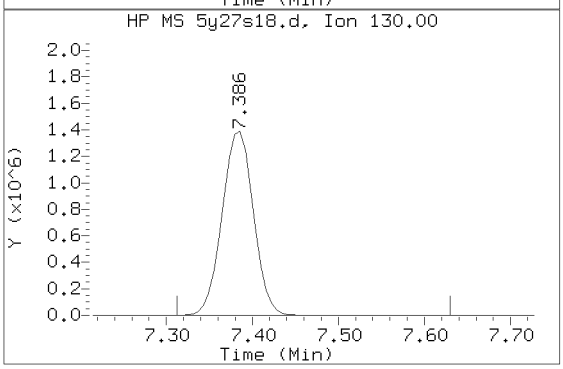
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 983
Retention Time (minutes)	: 7.380
Relative Retention Time	: 0.00095
Quant Ion	: 95.00
Area (flag)	: 3412811
On-Column Amount (ng)	: 568.4057

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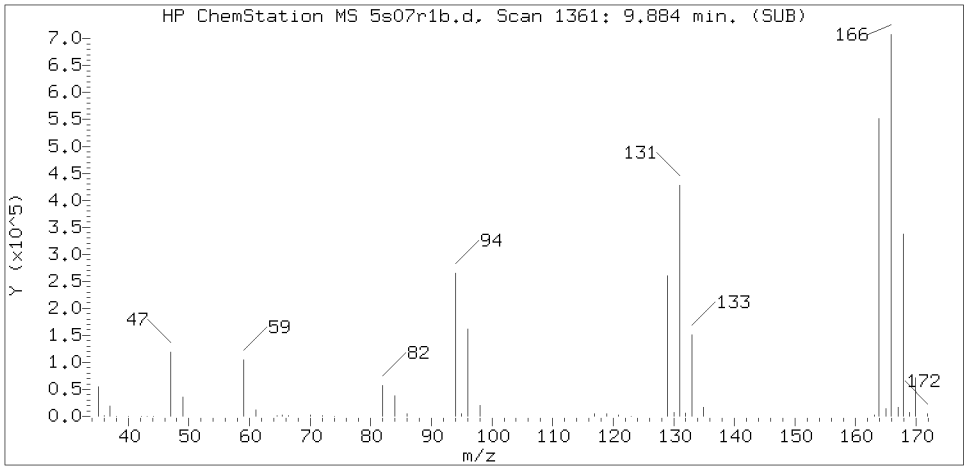
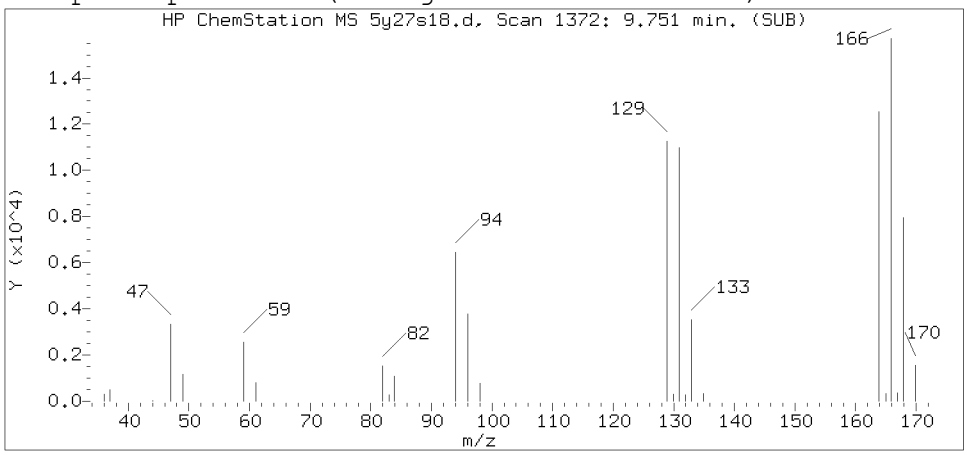
Target 3.5 esignature user ID: ljg30941

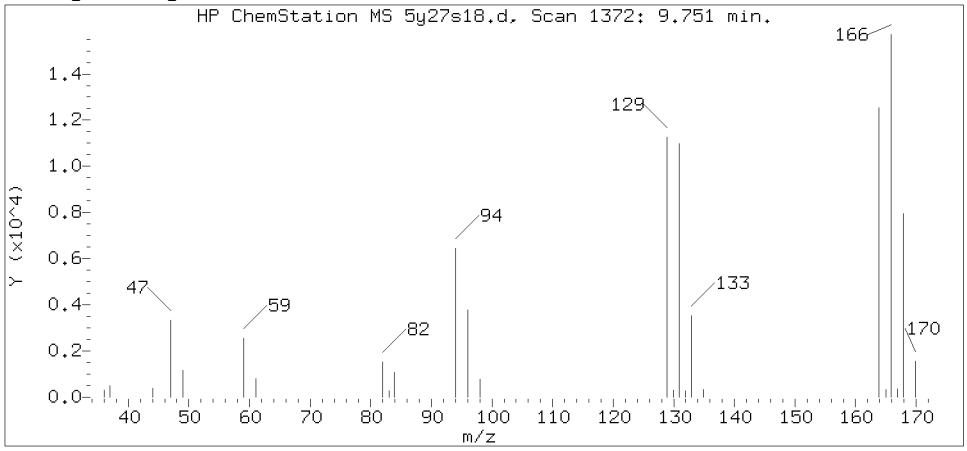
Reference Standard Spectrum for Tetrachloroethene

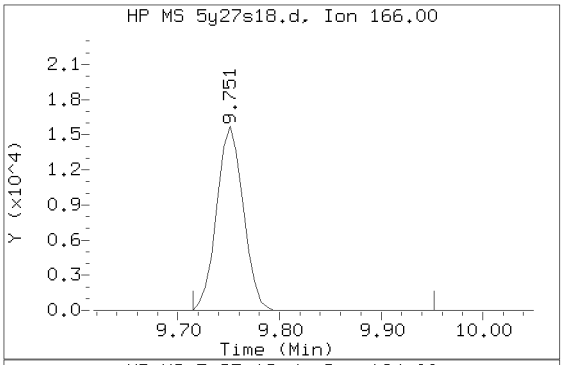


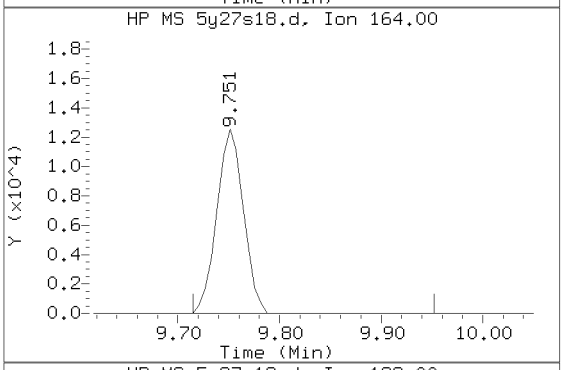
Sample Spectrum (Background Subtracted)

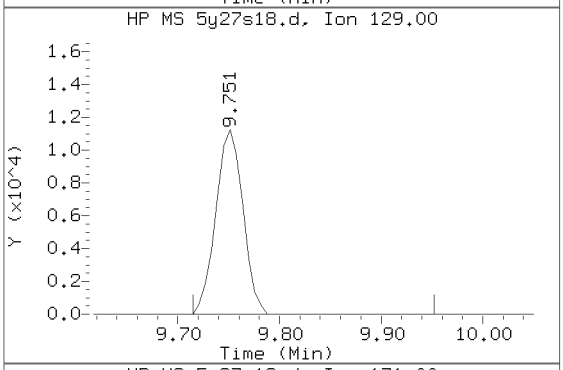


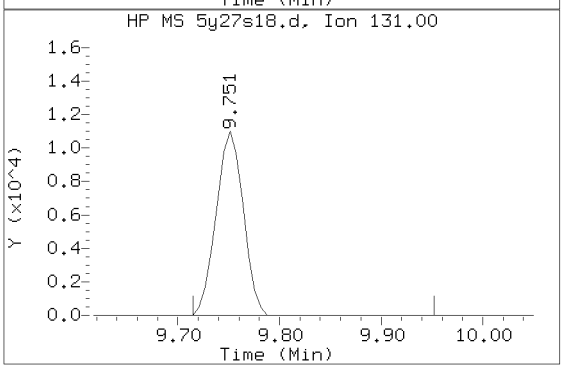
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s18.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 15:58 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:17 chemist

Sample Name: W5910 Lab Sample ID: 1318296

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1372
Retention Time (minutes): 9.751
Relative Retention Time : 0.00000
Quant Ion : 166.00
Area (flag) : 28444
On-Column Amount (ng) : 4.5137

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5910DL

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318296

Sample wt/vol: 0.50 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s19.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 10.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	10	U
75-35-4	1,1-Dichloroethene	7	J D
67-64-1	Acetone	200	U
76-13-1	Freon 113	100	U
75-15-0	Carbon Disulfide	50	U
75-09-2	Methylene Chloride	10	U
156-60-5	trans-1,2-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
156-59-2	cis-1,2-Dichloroethene	10	U
78-93-3	2-Butanone	100	U
67-66-3	Chloroform	10	U
71-55-6	1,1,1-Trichloroethane	100	D
71-43-2	Benzene	10	U
107-06-2	1,2-Dichloroethane	10	U
79-01-6	Trichloroethene	520	D
123-91-1	1,4-Dioxane	2500	U
108-88-3	Toluene	10	U
127-18-4	Tetrachloroethene	4	J D
100-41-4	Ethylbenzene	10	U
1330-20-7	Xylene (Total)	60	U
95-50-1	1,2-Dichlorobenzene	50	U
91-20-3	Naphthalene	50	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s19.d Injection date and time: **27-MAY-2020 16:19**
Data file Sample Info. Line: W5910DL;1318296DL;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453(-0.036)	339	65	247000 (-17)	250.00	
66) Fluorobenzene	6.886(-0.012)	902	96	859564 (-15)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	687059 (-15)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(-0.006)	1856	152	366454 (-16)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.959(0.000)	113	224179	52.362	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(0.000)	102	50340	52.573	105%		80 - 120
84) Toluene-d8	(3)	9.044(0.000)	98	821882	48.676	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	328779	46.214	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					2	10
17) 1,1-Dichloroethene	(2)	2.874(-0.001)	96	3135	0.675	6.75		J	2	10
18) Acetone	(1)			Not Detected					7	200
19) Freon 113	(2)			Not Detected					2	100
23) Carbon Disulfide	(2)			Not Detected					2	50
28) Methylene Chloride	(2)			Not Detected					3	10
32) trans-1,2-Dichloroethene	(2)			Not Detected					2	10
36) 1,1-Dichloroethane	(2)			Not Detected					2	10
42) cis-1,2-Dichloroethene	(2)			Not Detected					2	10
44) 2-Butanone	(2)			Not Detected					3	100
51) Chloroform	(2)			Not Detected					2	10
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	88619	10.424	104.24			3	10
60) Benzene	(2)			Not Detected					2	10
61) 1,2-Dichloroethane	(2)			Not Detected					3	10
71) Trichloroethene	(2)	7.386(0.001)	95	313620	52.189	521.89			2	10
76) 1,4-Dioxane	(1)			Not Detected					290	2500
89) Toluene	(3)			Not Detected					2	10
94) Tetrachloroethene	(3)	9.757(-0.000)	166	2324	0.368	3.68		J	2	10
105) Ethylbenzene	(3)			Not Detected					4	10
107) m+p-Xylene	(3)			Not Detected					10	50
108) o-Xylene	(3)			Not Detected					4	10
109) Xylene (Total)	(3)			Not Detected					14	60
139) 1,2-Dichlorobenzene	(4)			Not Detected					2	50
149) Naphthalene	(4)			Not Detected					10	50

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s19.d Injection date and time: **27-MAY-2020 16:19**
Data file Sample Info. Line: W5910DL;1318296DL;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038B** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **10.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 0.5 ml

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BLANK INTENTIONALLY

Total number of targets = 24

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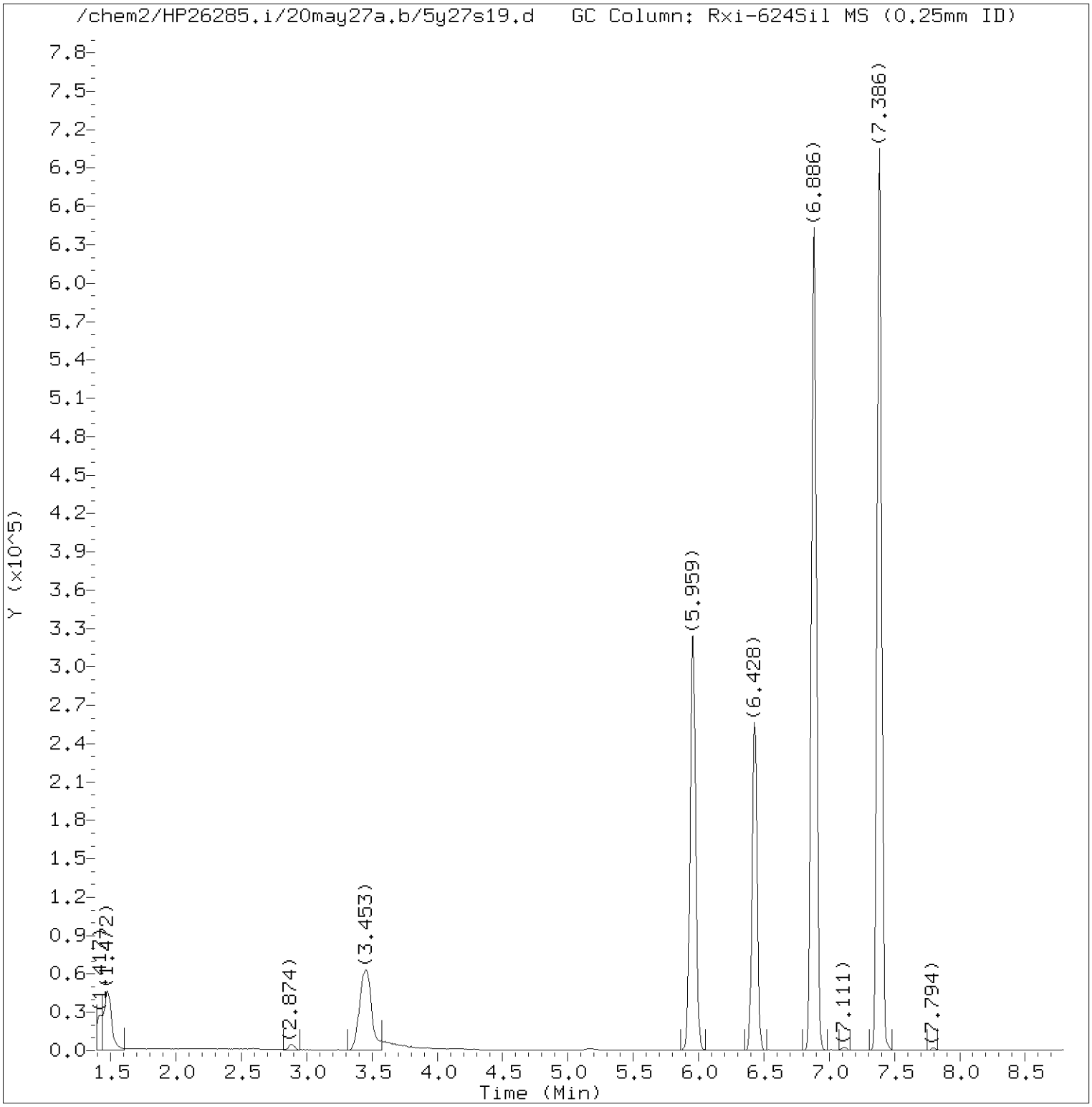
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

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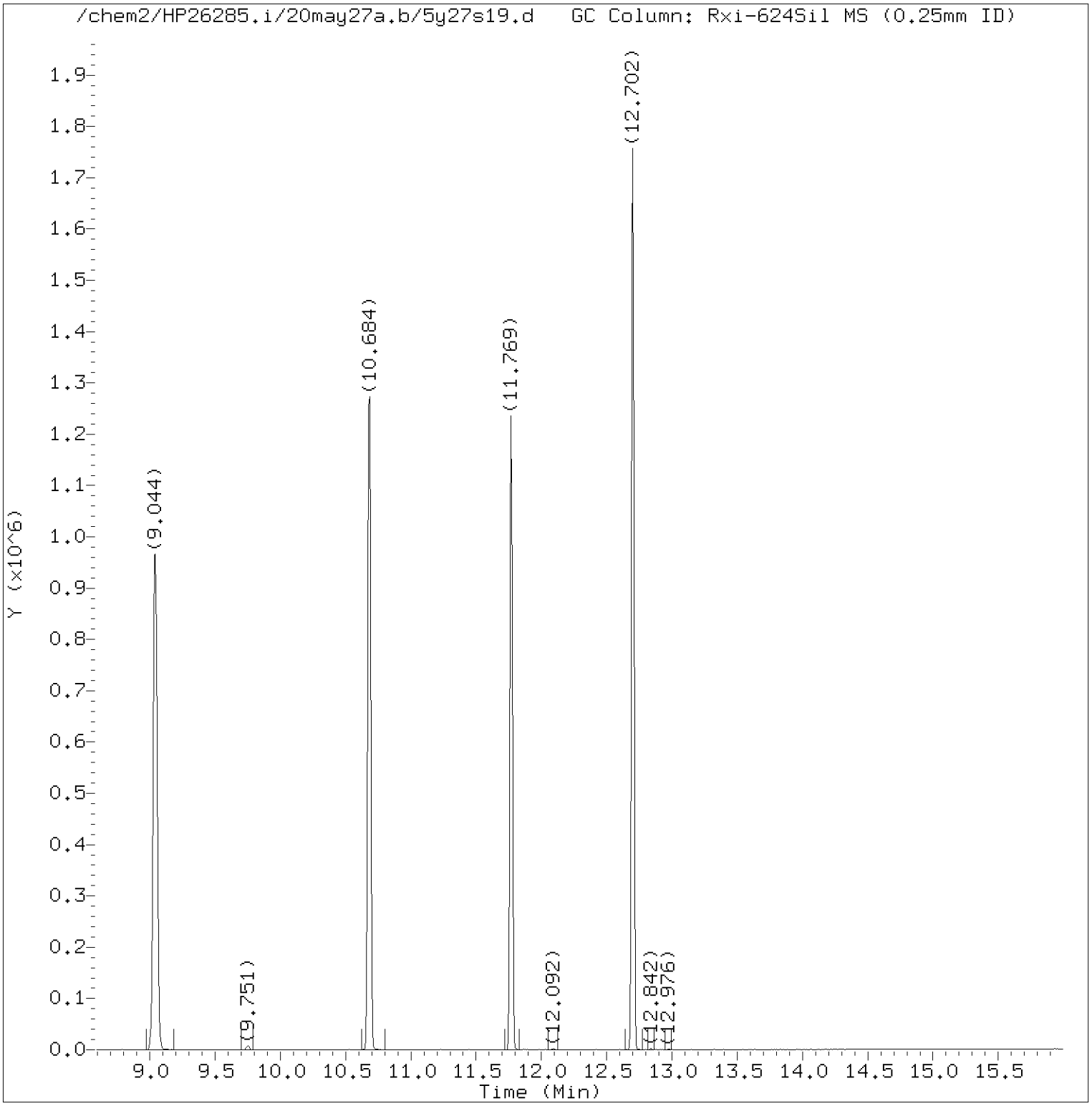
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

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on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.874	96	3135	0.675
29)*t-Butyl alcohol-d10	(1)	3.453	65	247000	250.000
53) 1,1,1-Trichloroethane	(2)	5.947	97	88619	10.424
52)$Dibromofluoromethane	(2)	5.959	113	224179	52.362
57)$1,2-Dichloroethane-d4	(2)	6.428	102	50340	52.573
66)*Fluorobenzene	(2)	6.886	96	859564	50.000
71) Trichloroethene	(2)	7.386	95	313620	52.189
84)$Toluene-d8	(3)	9.044	98	821882	48.676
94) Tetrachloroethene	(3)	9.757	166	2324	0.368
101)*Chlorobenzene-d5	(3)	10.684	117	687059	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	328779	46.214
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	366454	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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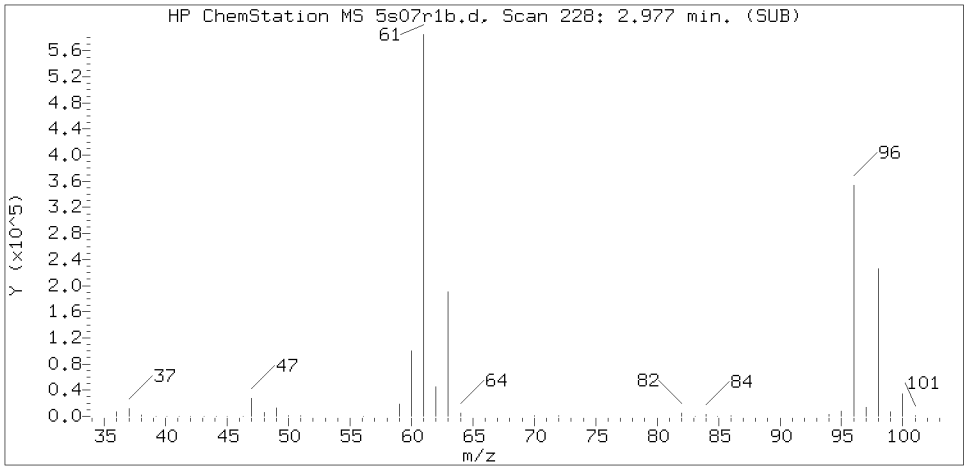
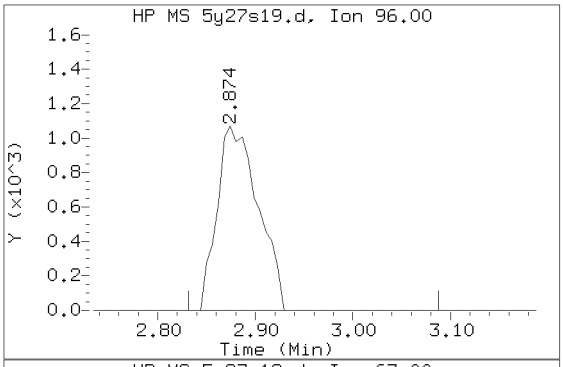
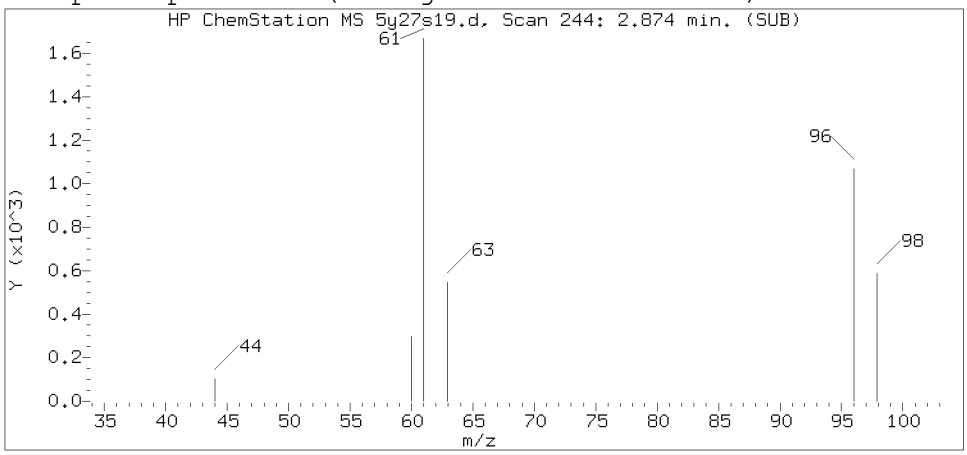
on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

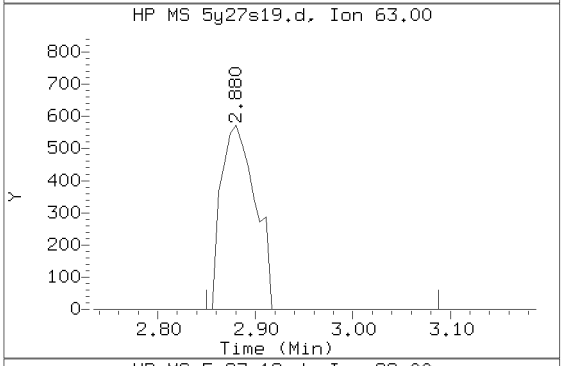
Reference Standard Spectrum for 1,1-Dichloroethene

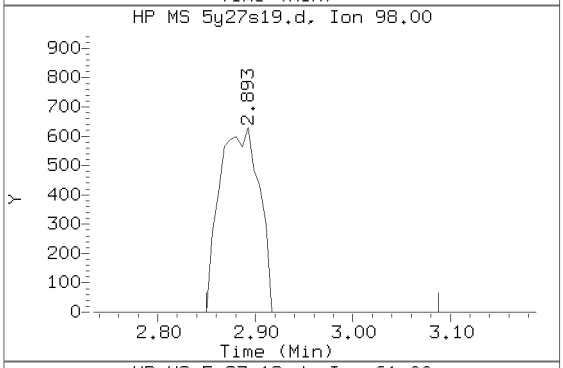




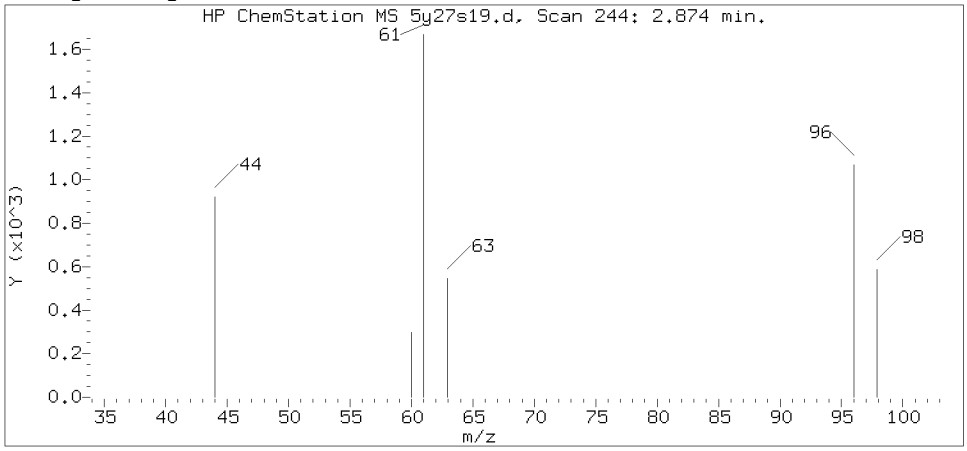
Sample Spectrum (Background Subtracted)

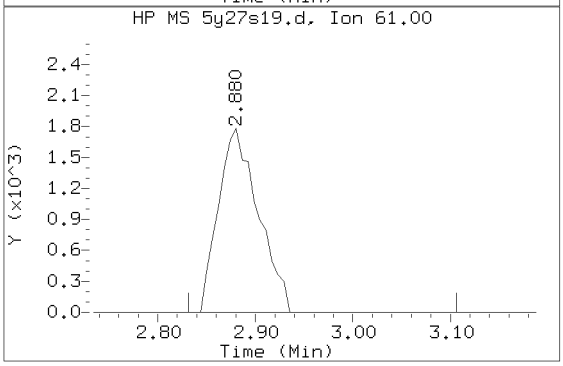






Sample Spectrum (Unaltered)





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Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 244
Retention Time (minutes): 2.874
Relative Retention Time :-0.00102
Quant Ion : 96.00
Area (flag) : 3135
On-Column Amount (ng) : 0.6747

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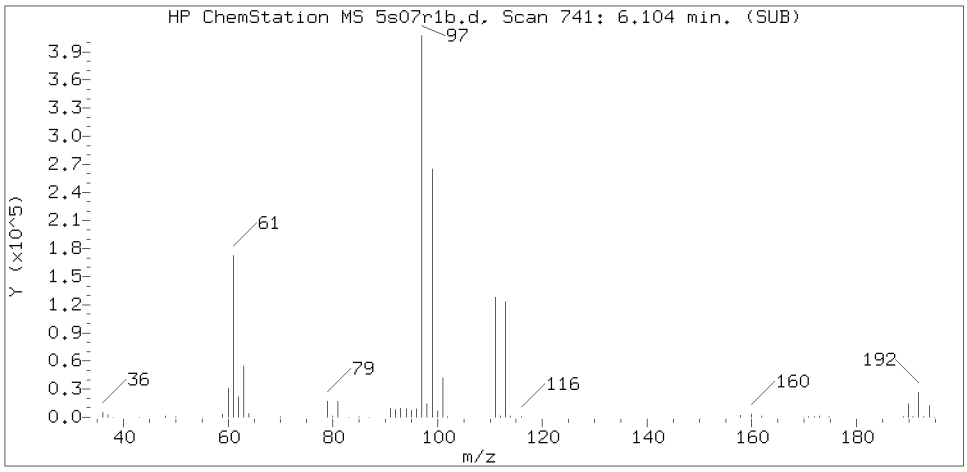
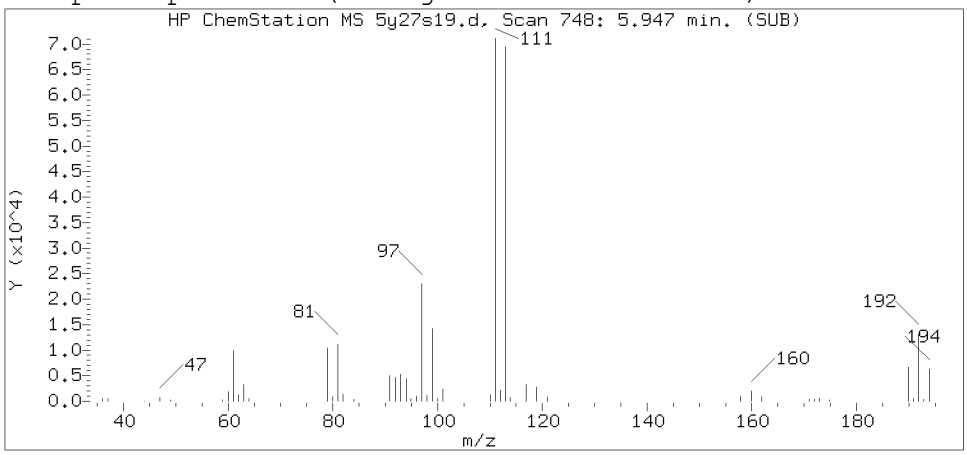
Target 3.5 esignature user ID: ljg30941

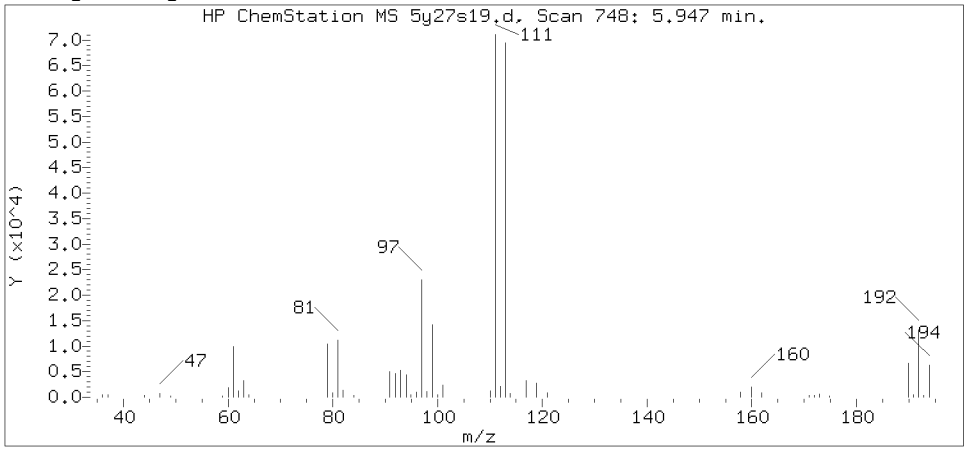
Reference Standard Spectrum for 1,1,1-Trichloroethane

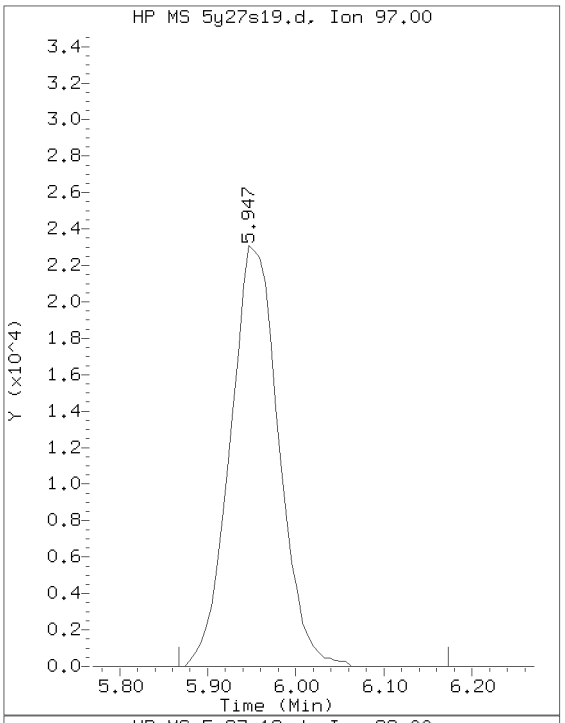


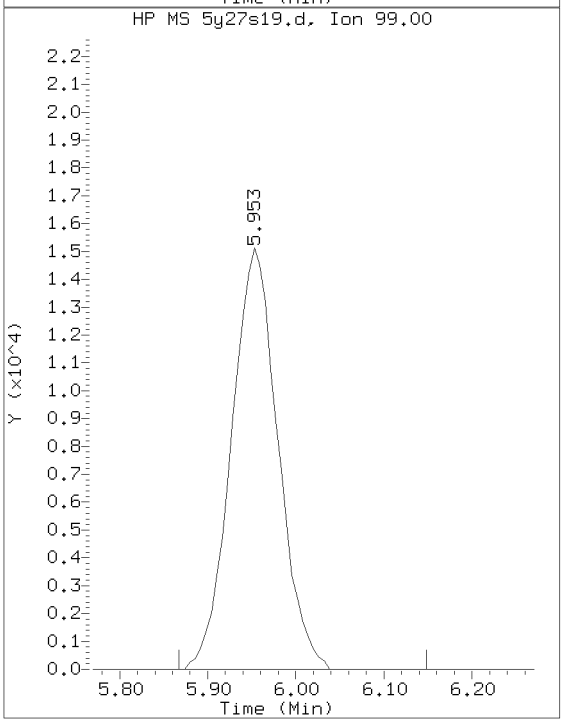
Sample Spectrum (Background Subtracted)



Sample Spectrum (Unaltered)







Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 748
Retention Time (minutes): 5.947
Relative Retention Time : 0.00065
Quant Ion : 97.00
Area (flag) : 88619
On-Column Amount (ng) : 10.4240

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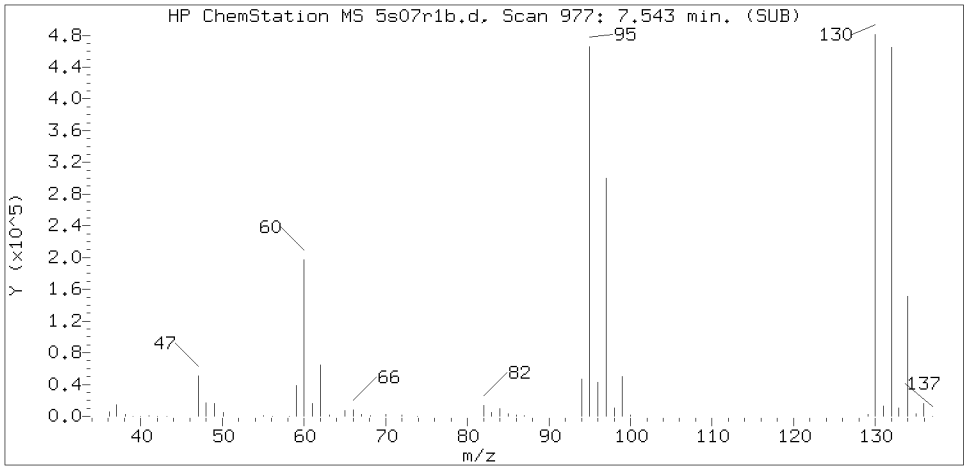
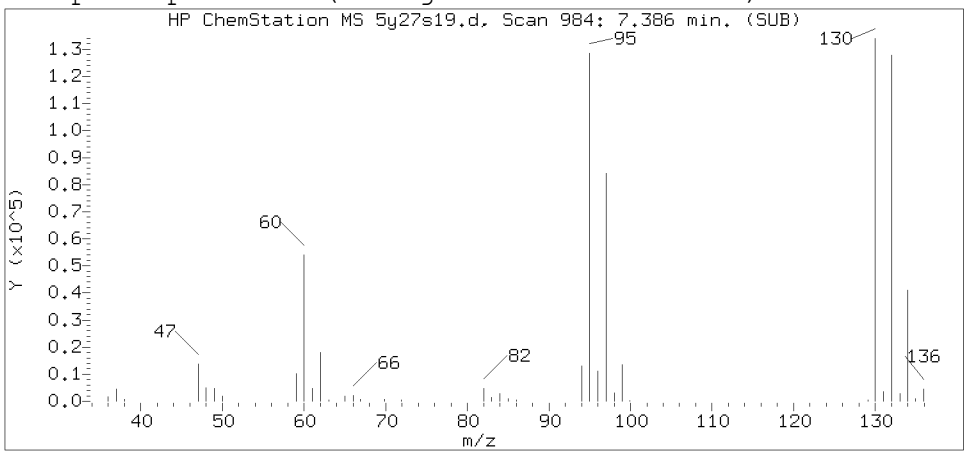
Target 3.5 esignature user ID: ljg30941

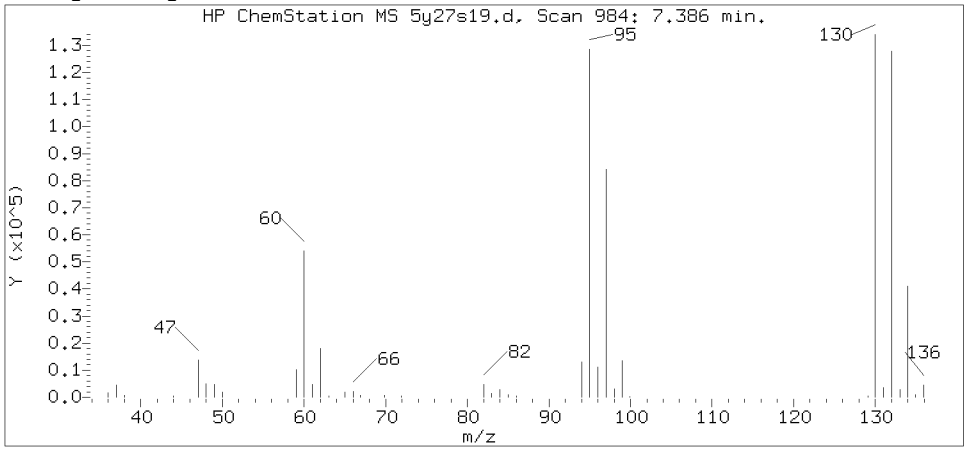
Reference Standard Spectrum for Trichloroethene

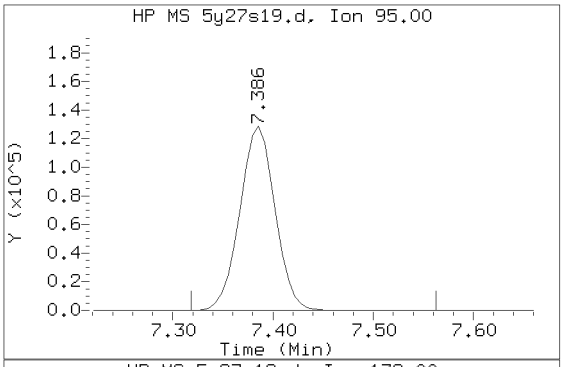


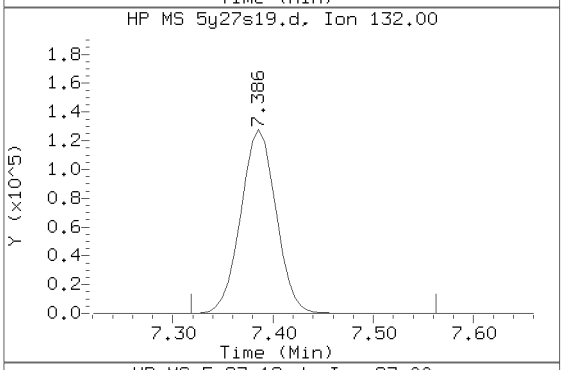
Sample Spectrum (Background Subtracted)

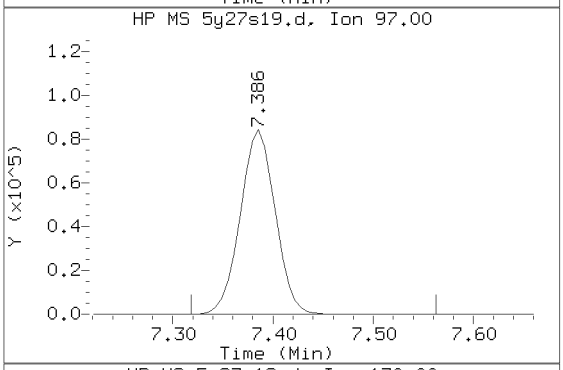


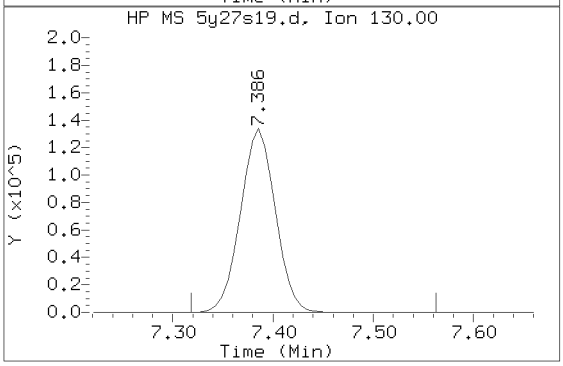
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 984
Retention Time (minutes)	: 7.386
Relative Retention Time	: 0.00101
Quant Ion	: 95.00
Area (flag)	: 313620
On-Column Amount (ng)	: 52.1891

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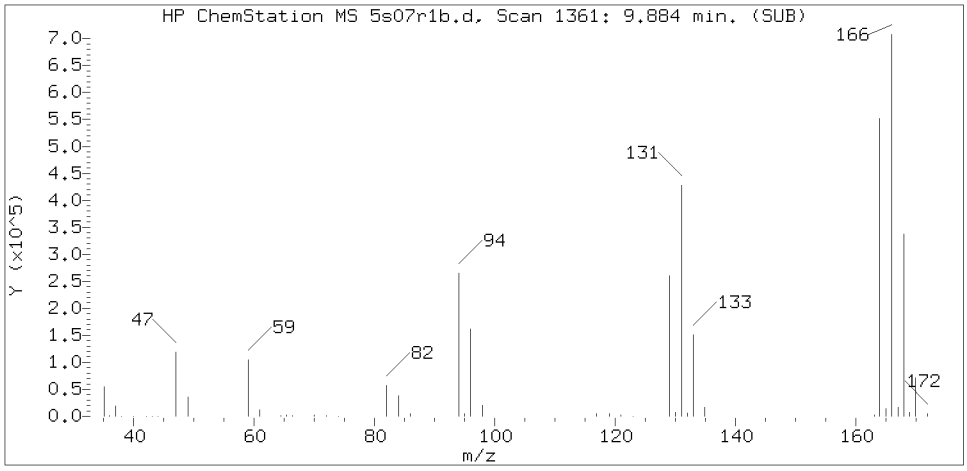
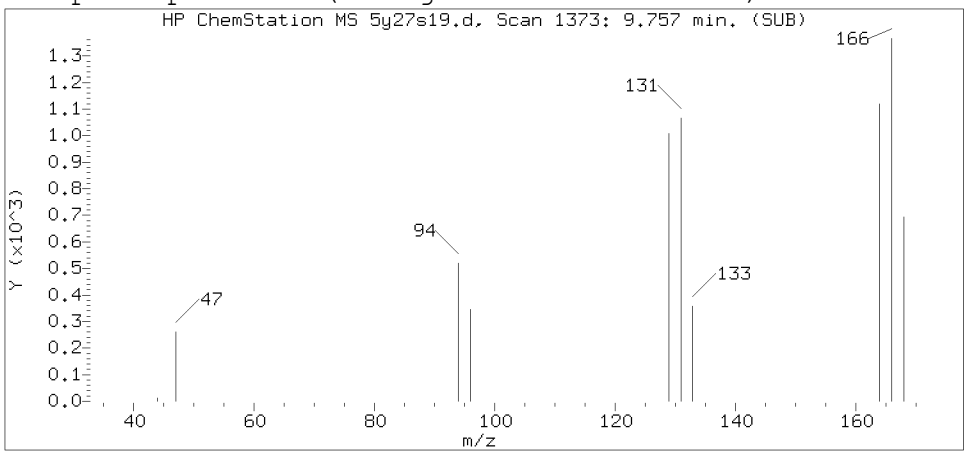
Target 3.5 esignature user ID: ljg30941

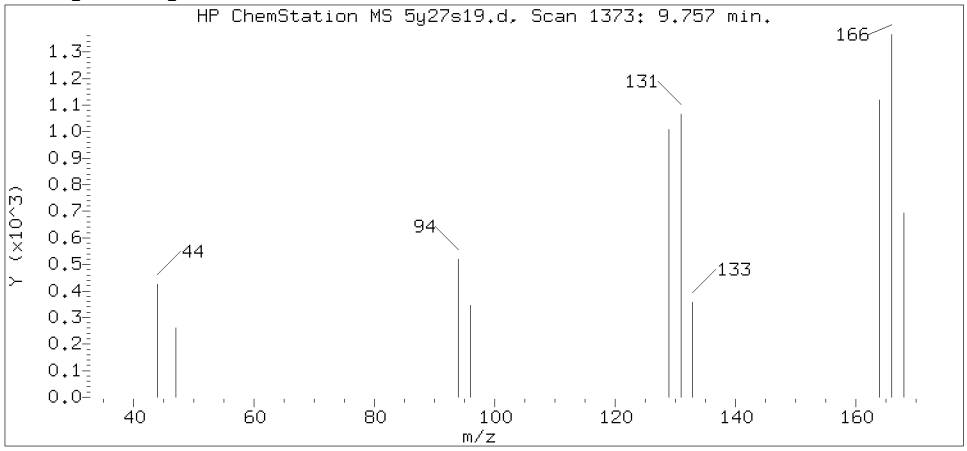
Reference Standard Spectrum for Tetrachloroethene

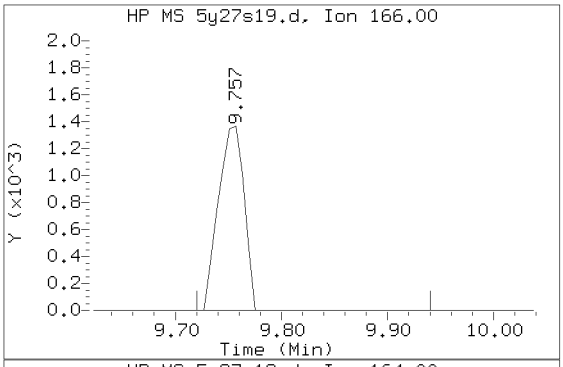


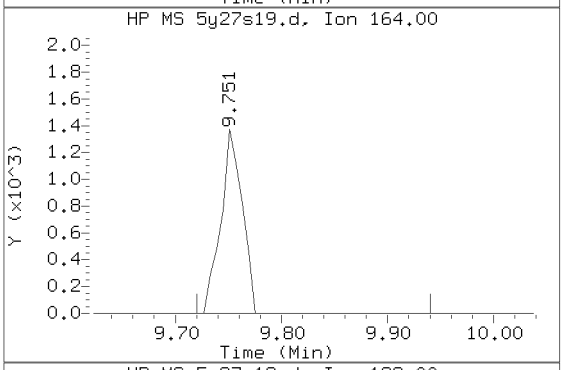
Sample Spectrum (Background Subtracted)

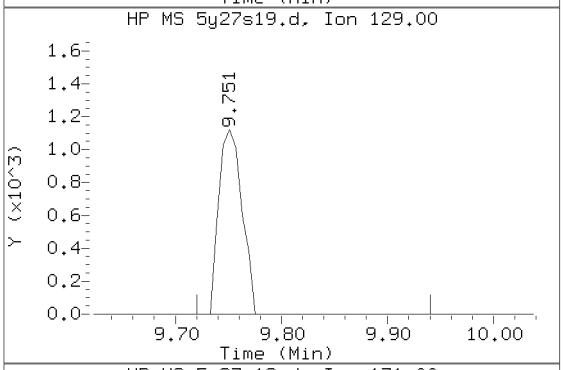


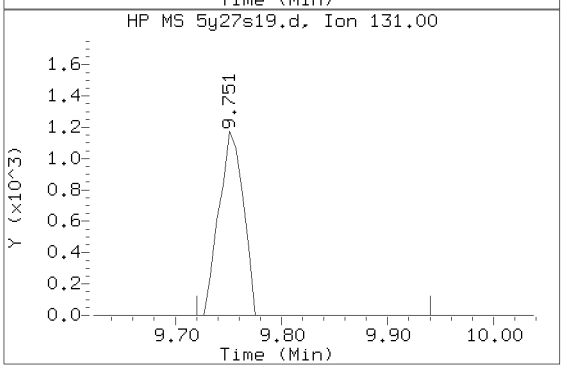
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s19.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:19 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:38 chemist

Sample Name: W5910DL Lab Sample ID: 1318296DL

Compound Number : 94
Compound Name : Tetrachloroethene
Scan Number : 1373
Retention Time (minutes): 9.757
Relative Retention Time :-0.00005
Quant Ion : 166.00
Area (flag) : 2324
On-Column Amount (ng) : 0.3681

Digitally signed by Laura J. Green on 05/27/2020 at 17:53.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5911

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318297

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s20.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.5	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5911 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318297

Data file: /chem2/HP26285.i/20may27a.b/5y27s20.d Injection date and time: **27-MAY-2020 16:40**
Data file Sample Info. Line: W5911;1318297;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.030)	338	65	246948	(-17)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	837828	(-17)	50.00	
101) Chlorobenzene-d5	10.684	(-0.006)	1525	117	670444	(-17)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(-0.006)	1856	152	361591	(-17)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(0.000)	113	217350	52.084	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428	(-0.001)	102	49981	53.552	107%		80 - 120
84) Toluene-d8	(3)	9.038	(0.001)	98	798865	48.485	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	322548	46.462	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.379	(0.000)	95	2692	0.460	0.46		J	0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 17:54. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s20.d Injection date and time: **27-MAY-2020 16:40**
Data file Sample Info. Line: W5911;1318297;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

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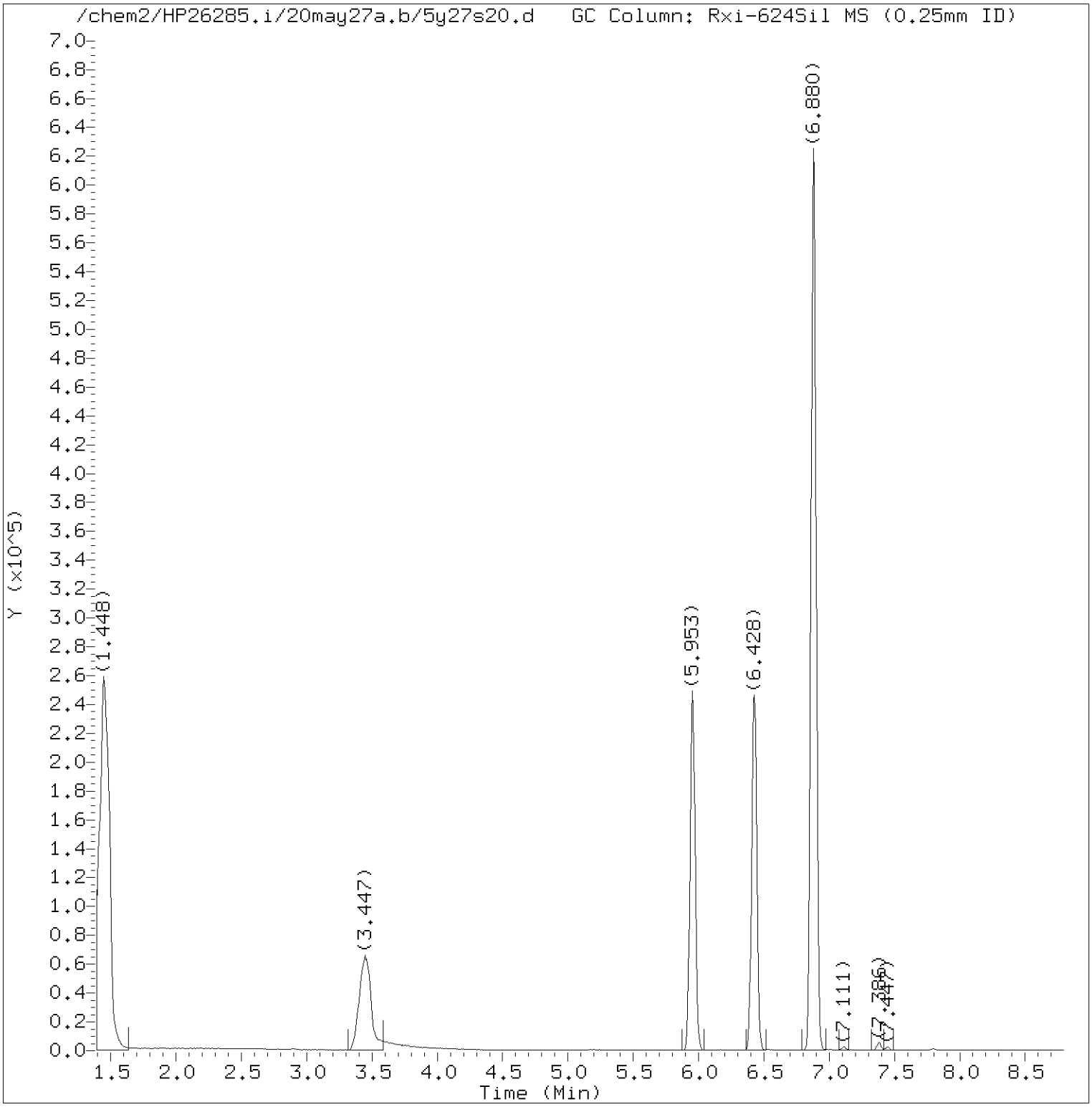
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

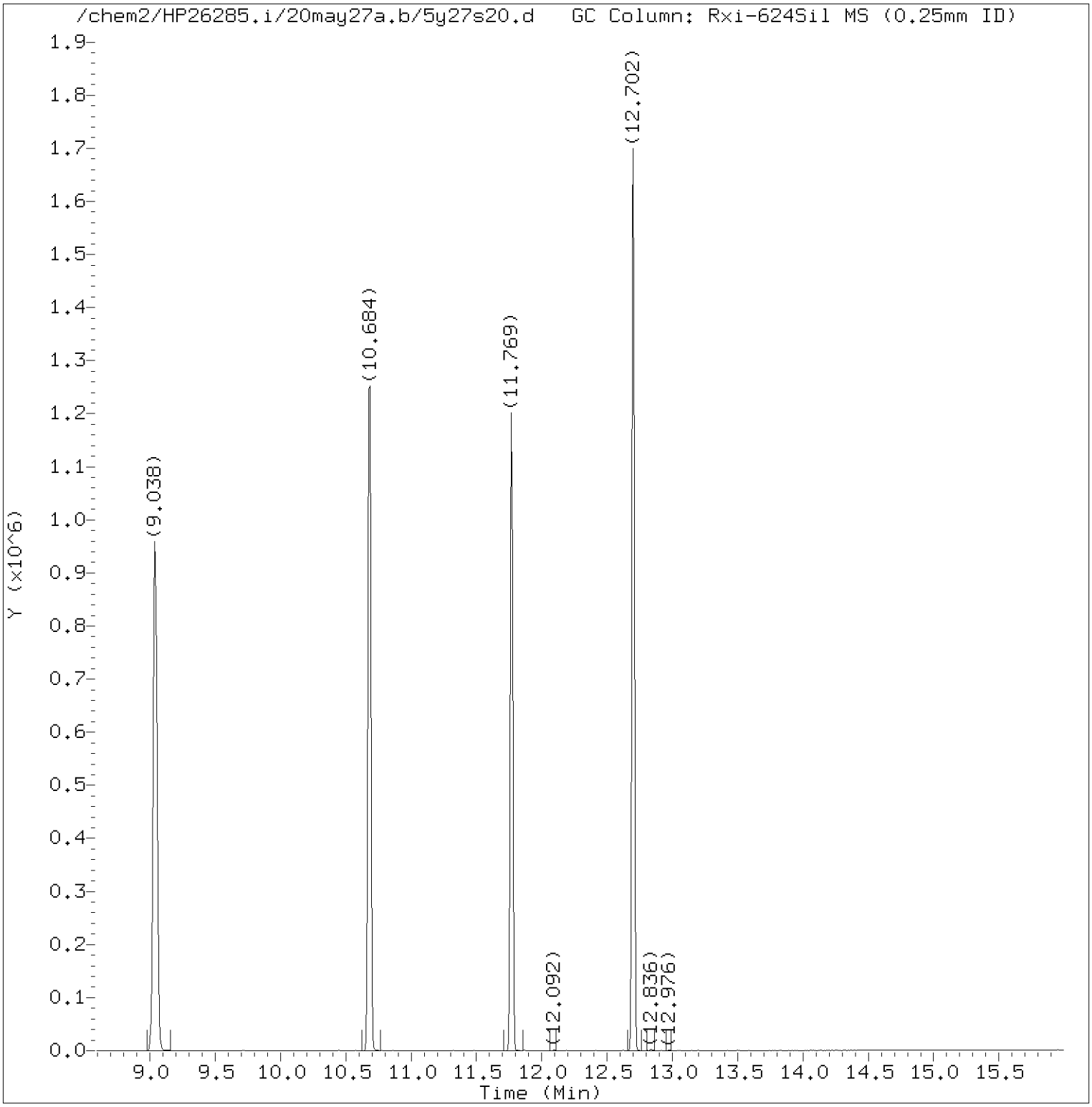
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s20.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:40 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

Sample Name: W5911 Lab Sample ID: 1318297

Digitally signed by Laura J. Green
on 05/27/2020 at 17:54.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s20.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:40 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

Sample Name: W5911 Lab Sample ID: 1318297

Digitally signed by Laura J. Green
on 05/27/2020 at 17:54.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s20.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:40 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

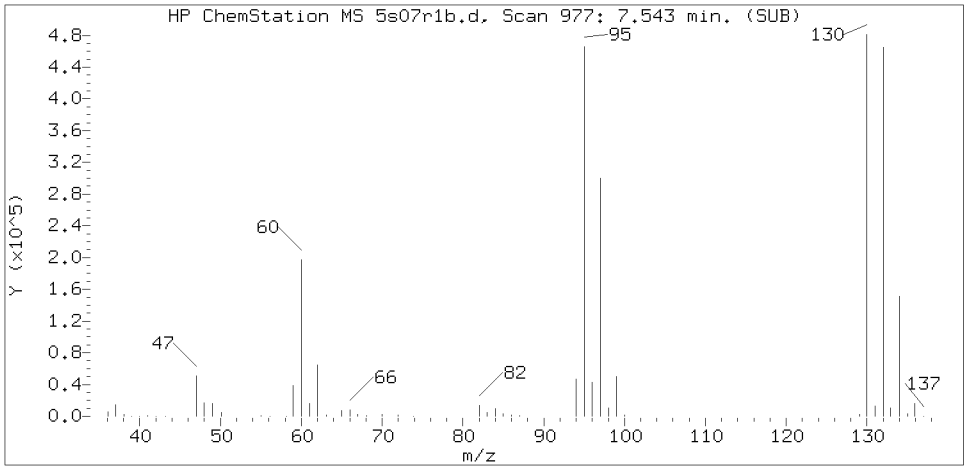
Sample Name: W5911 Lab Sample ID: 1318297

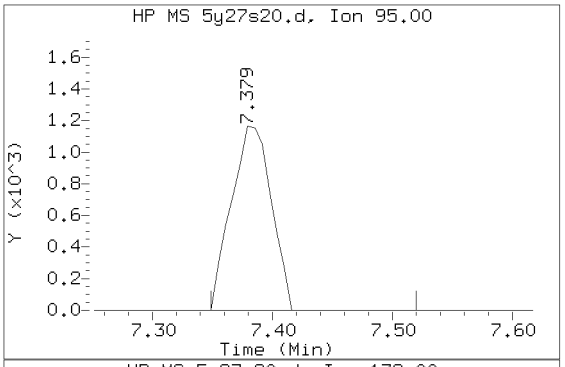
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	246948	250.000
52)$Dibromofluoromethane	(2)	5.953	113	217350	52.084
57)$1,2-Dichloroethane-d4	(2)	6.428	102	49981	53.552
66)*Fluorobenzene	(2)	6.880	96	837828	50.000
71) Trichloroethene	(2)	7.379	95	2692	0.460
84)$Toluene-d8	(3)	9.038	98	798865	48.485
101)*Chlorobenzene-d5	(3)	10.684	117	670444	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	322548	46.462
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	361591	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

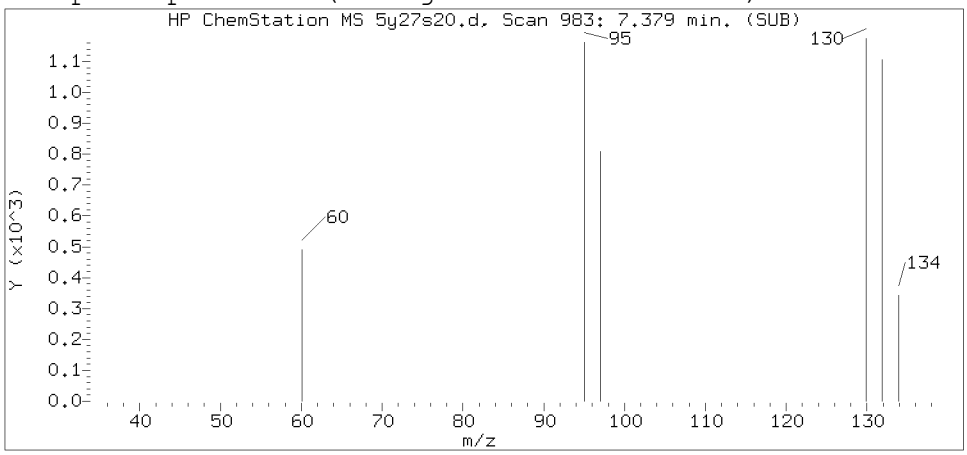
Digitally signed by Laura J. Green
on 05/27/2020 at 17:54.
Target 3.5 esignature user ID: ljg30941

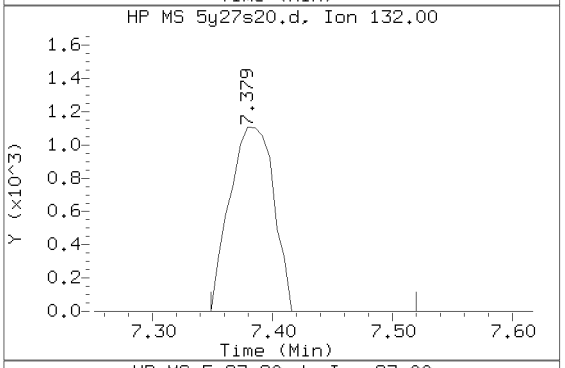
Reference Standard Spectrum for Trichloroethene

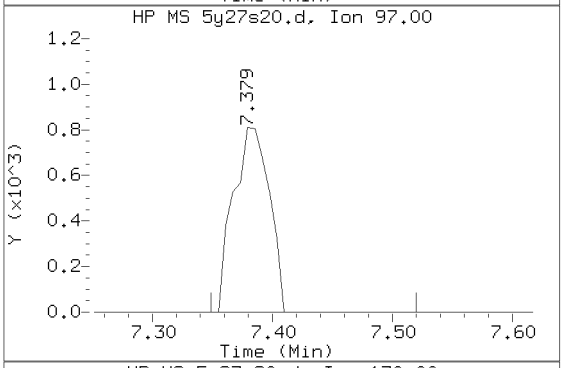




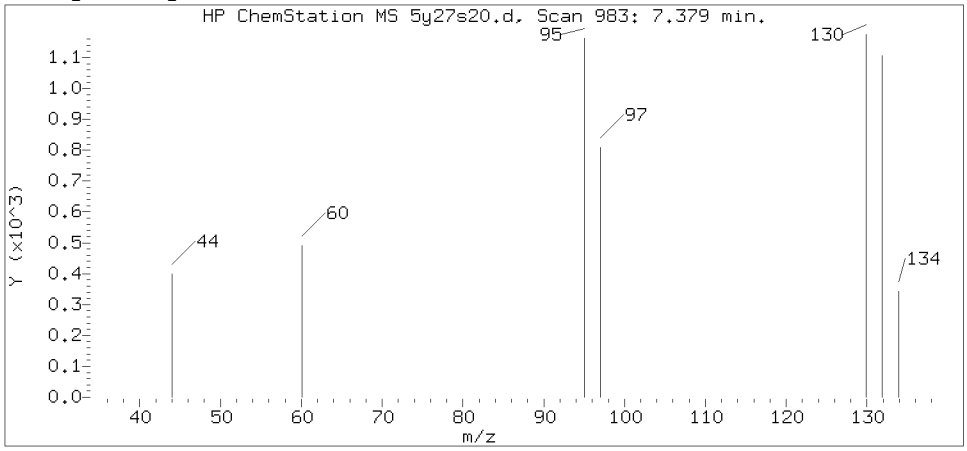
Sample Spectrum (Background Subtracted)

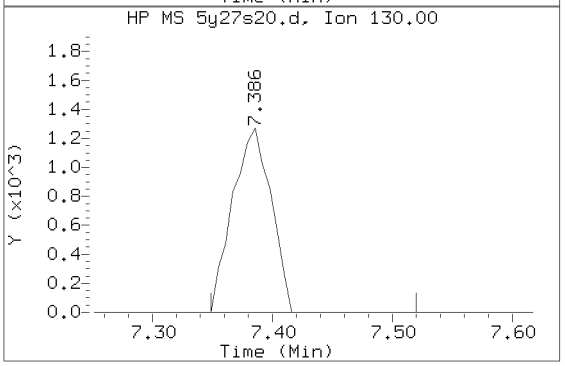






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s20.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 16:40 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 16:59 chemist

Sample Name: W5911 Lab Sample ID: 1318297

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.379
Relative Retention Time : 0.00095
Quant Ion : 95.00
Area (flag) : 2692
On-Column Amount (ng) : 0.4597

Digitally signed by Laura J. Green on 05/27/2020 at 17:54.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5912

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318298

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s21.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5912 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318298

Data file: /chem2/HP26285.i/20may27a.b/5y27s21.d Injection date and time: **27-MAY-2020 17:01**
Data file Sample Info. Line: W5912;1318298;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 17:19 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460 (-0.043)	340	65	258042 (-13)	250.00	
66) Fluorobenzene	6.880 (-0.006)	901	96	848033 (-16)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	679412 (-16)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (-0.006)	1856	152	362982 (-16)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	219856	52.050	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429 (-0.001)	102	49908	52.830	106%		80 - 120
84) Toluene-d8	(3)	9.038 (0.000)	98	804994	48.212	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.000)	95	327060	46.490	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 17:55. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s21.d Injection date and time: **27-MAY-2020 17:01**
Data file Sample Info. Line: W5912;1318298;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 17:19 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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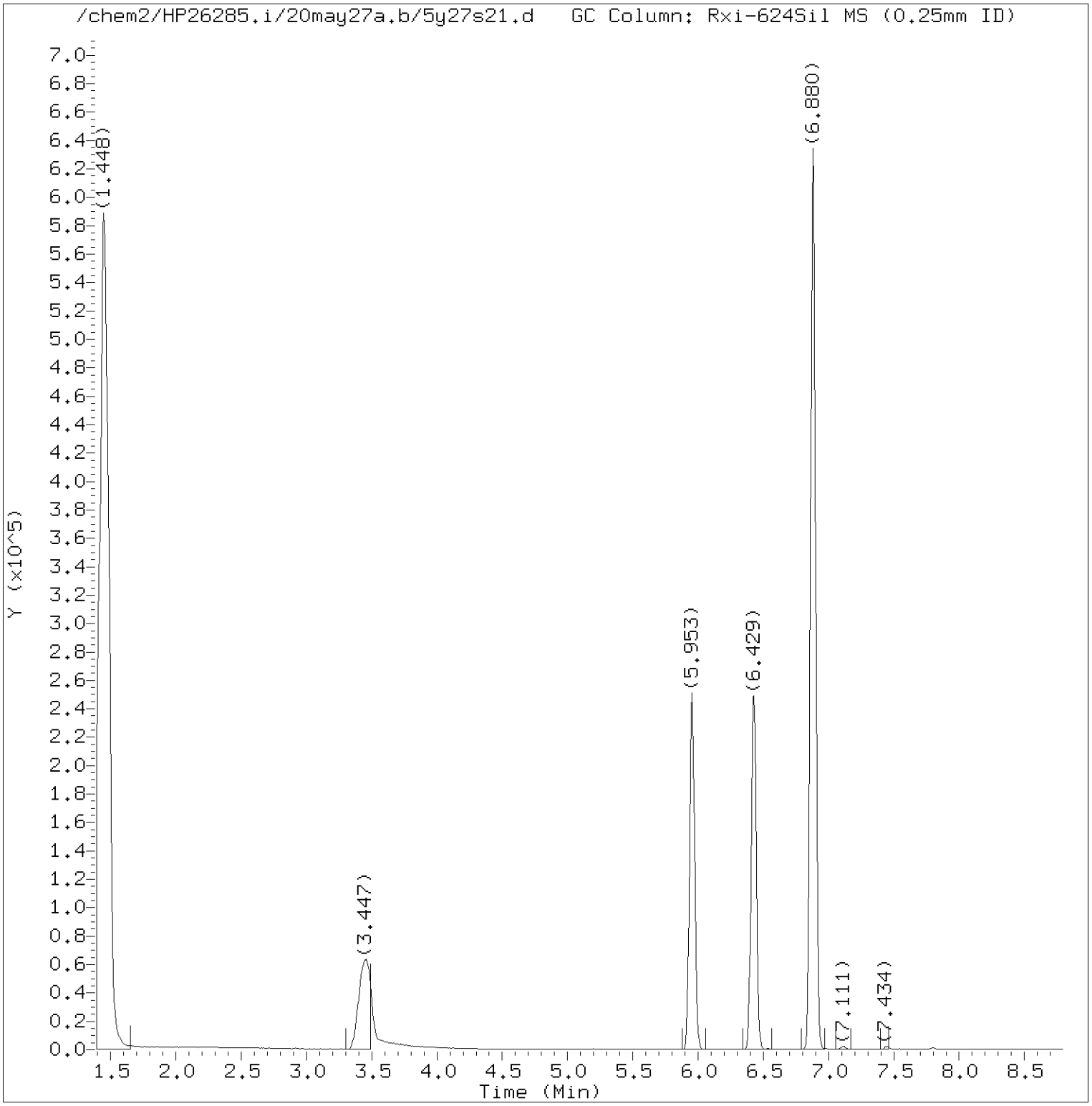
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:55. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

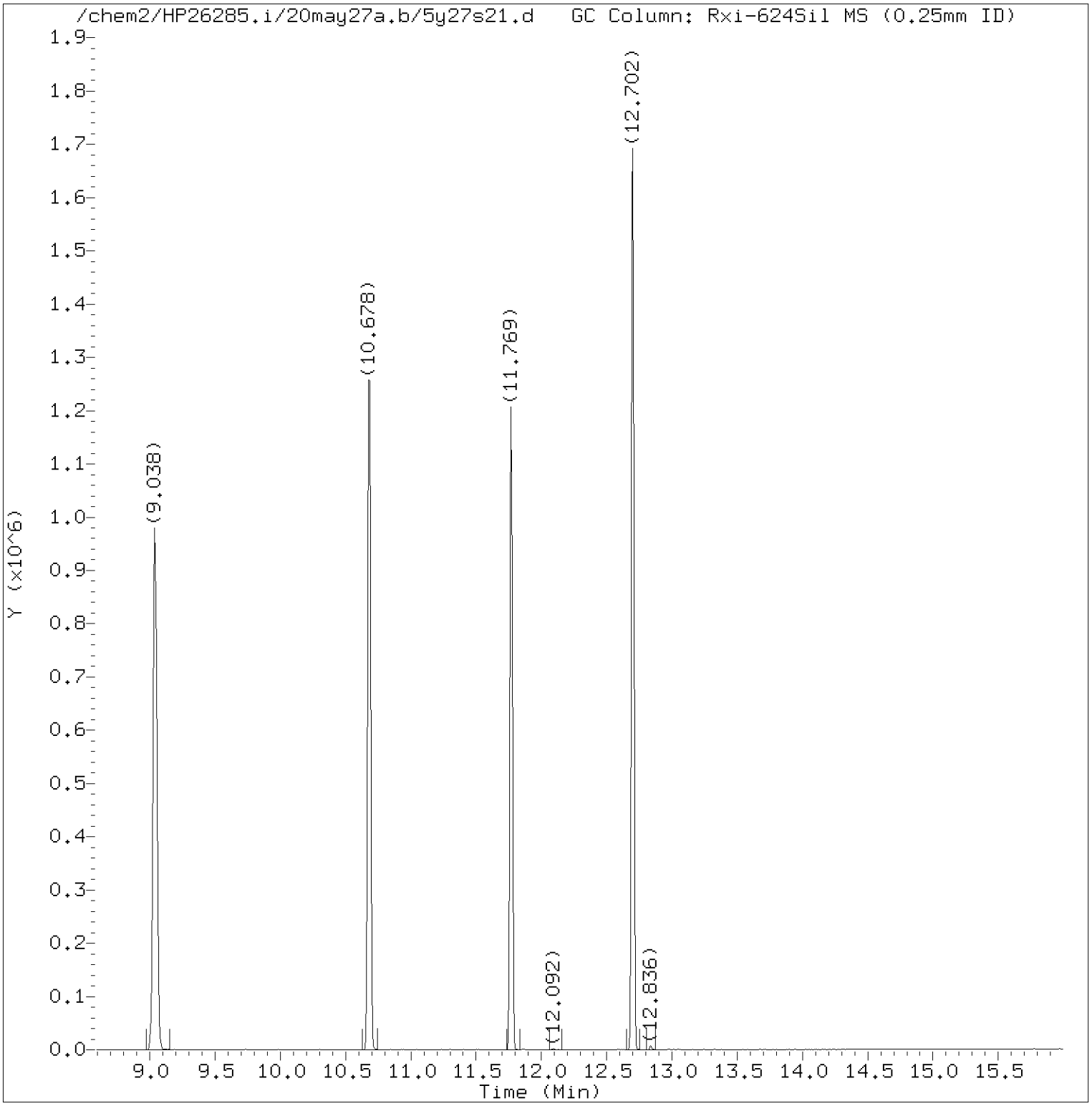
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s21.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:01 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:19 chemist

Sample Name: W5912 Lab Sample ID: 1318298

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s21.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:01 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:19 chemist

Sample Name: W5912 Lab Sample ID: 1318298

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s21.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:01 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:19 chemist

Sample Name: W5912 Lab Sample ID: 1318298

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	258042	250.000
52)$Dibromofluoromethane	(2)	5.953	113	219856	52.050
57)$1,2-Dichloroethane-d4	(2)	6.429	102	49908	52.830
66)*Fluorobenzene	(2)	6.880	96	848033	50.000
84)$Toluene-d8	(3)	9.038	98	804994	48.212
101)*Chlorobenzene-d5	(3)	10.684	117	679412	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	327060	46.490
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	362982	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5913

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318299

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s22.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5913 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318299

Data file: /chem2/HP26285.i/20may27a.b/5y27s22.d Injection date and time: **27-MAY-2020 17:21**
Data file Sample Info. Line: W5913;1318299;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 17:40 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454	(-0.036)	339	65	235000	(-21)	250.00	
66) Fluorobenzene	6.880	(-0.006)	901	96	808277	(-20)	50.00	
101) Chlorobenzene-d5	10.684	(-0.006)	1525	117	644338	(-20)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(-0.006)	1856	152	344655	(-21)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(0.000)	113	211842	52.620	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429	(-0.001)	102	48400	53.754	108%		80 - 120
84) Toluene-d8	(3)	9.038	(0.001)	98	767368	48.460	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	308135	46.184	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 17:55. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s22.d Injection date and time: **27-MAY-2020 17:21**
Data file Sample Info. Line: W5913;1318299;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 17:40 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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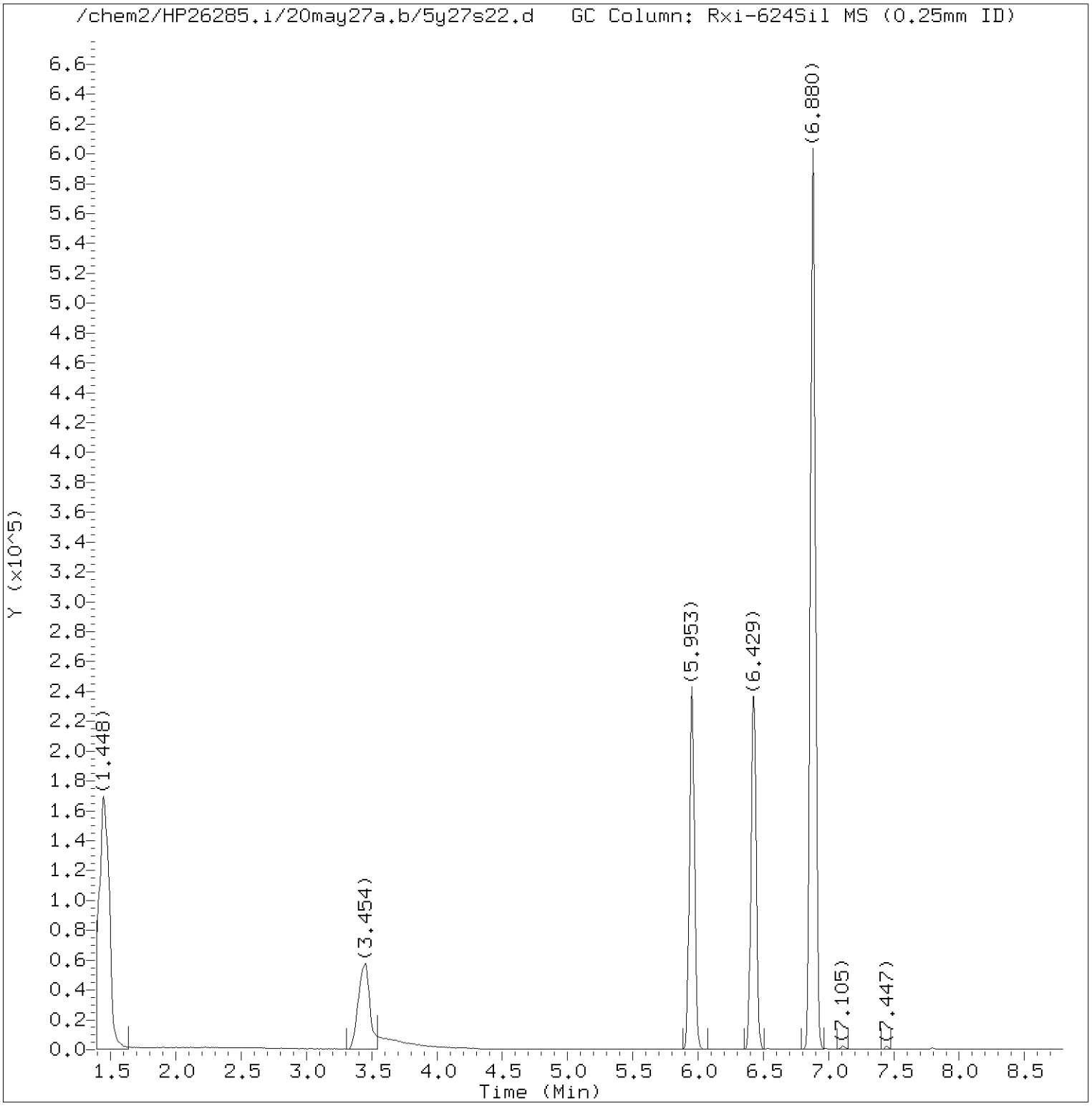
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 17:55. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

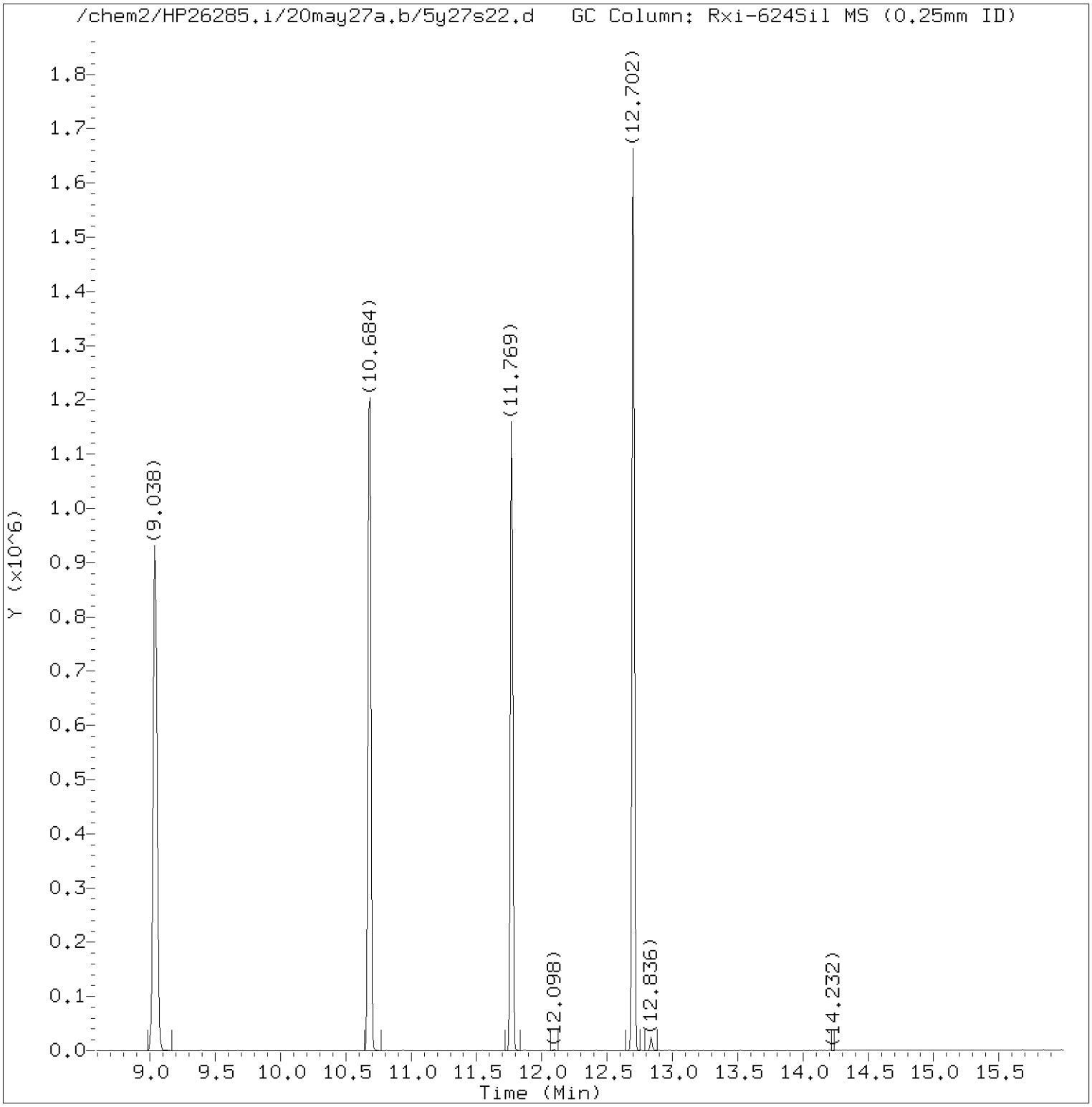
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s22.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:21 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:40 chemist

Sample Name: W5913 Lab Sample ID: 1318299

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s22.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:21 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:40 chemist

Sample Name: W5913 Lab Sample ID: 1318299

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s22.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:21 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 17:40 chemist

Sample Name: W5913 Lab Sample ID: 1318299

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.454	65	235000	250.000
52)$Dibromofluoromethane	(2)	5.953	113	211842	52.620
57)$1,2-Dichloroethane-d4	(2)	6.429	102	48400	53.754
66)*Fluorobenzene	(2)	6.880	96	808277	50.000
84)$Toluene-d8	(3)	9.038	98	767368	48.460
101)*Chlorobenzene-d5	(3)	10.684	117	644338	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	308135	46.184
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	344655	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 17:55.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5914

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318300

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s23.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5914 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318300

Data file: /chem2/HP26285.i/20may27a.b/5y27s23.d Injection date and time: **27-MAY-2020 17:42**
Data file Sample Info. Line: W5914;1318300;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:01 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.454 (-0.037)	339	65	241821 (-19)	250.00	
66) Fluorobenzene	6.886 (-0.012)	902	96	836181 (-18)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	669595 (-17)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (-0.006)	1856	152	358407 (-18)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.959 (0.000)	113	216951	52.091	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429 (0.000)	102	50007	53.686	107%		80 - 120
84) Toluene-d8	(3)	9.044 (0.000)	98	792446	48.156	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.000)	95	322116	46.458	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 18:45. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s23.d Injection date and time: **27-MAY-2020 17:42**
Data file Sample Info. Line: W5914;1318300;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:01 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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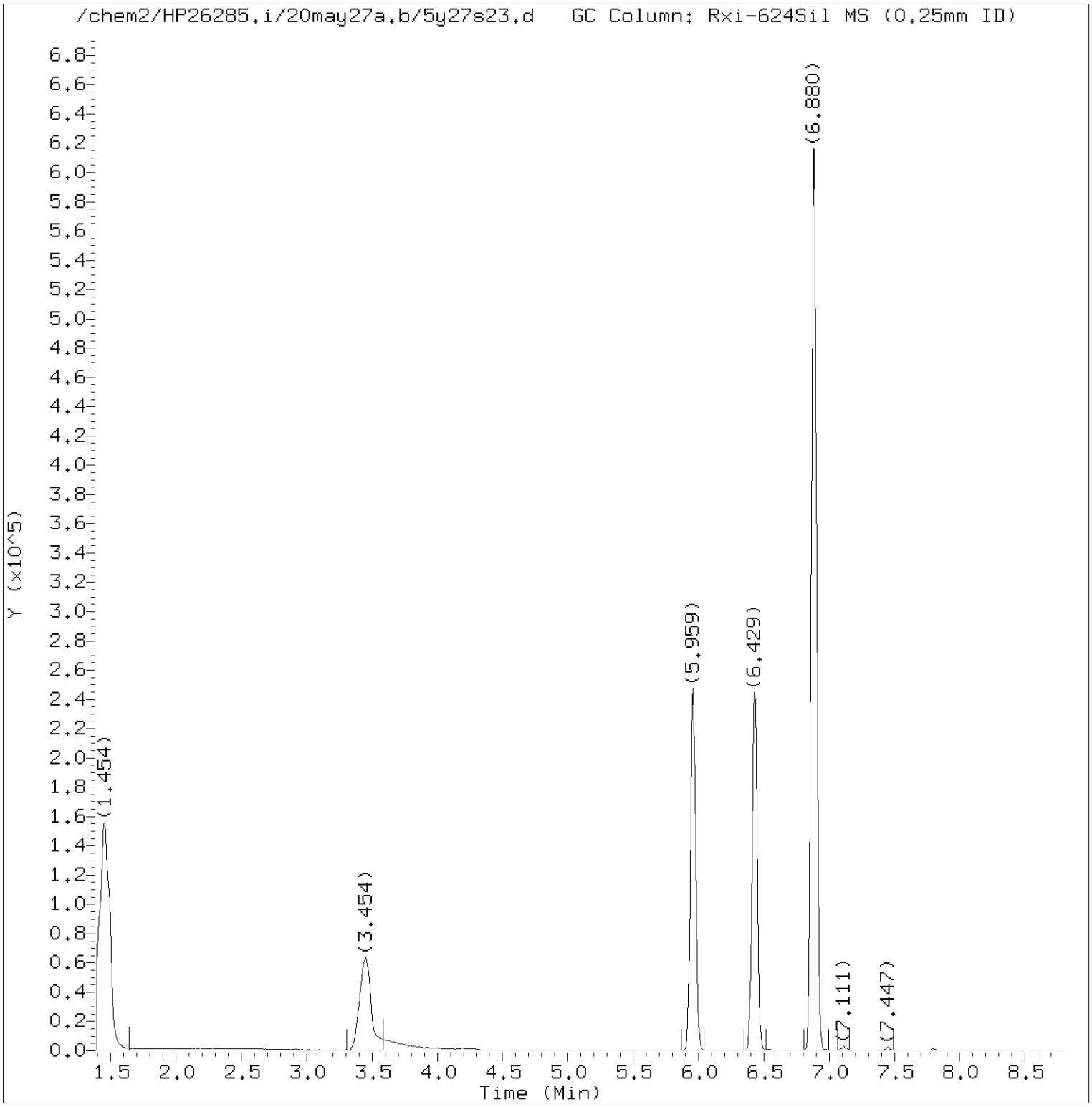
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 18:45. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

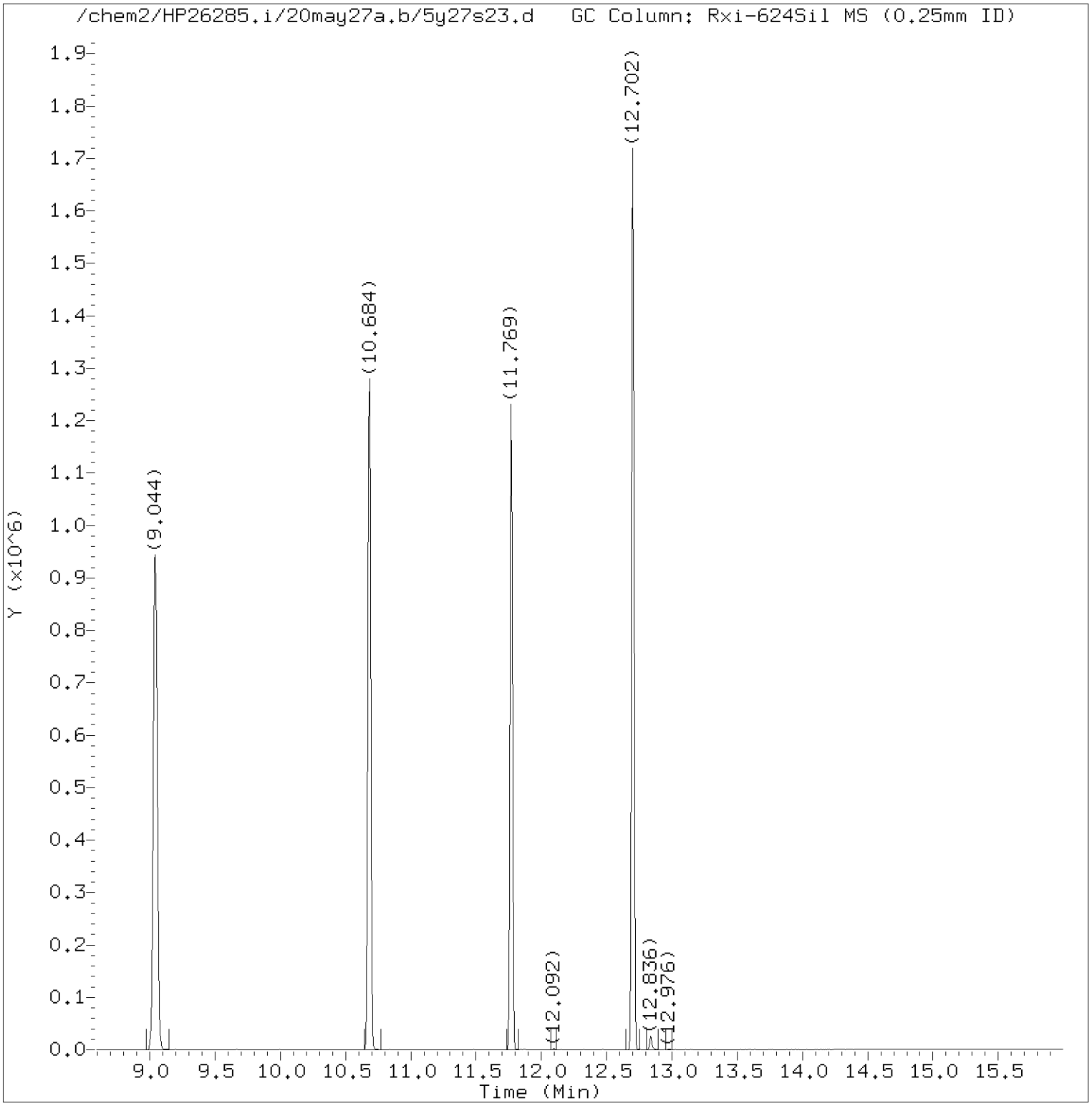
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s23.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:42 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:01 chemist

Sample Name: W5914 Lab Sample ID: 1318300

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s23.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:42 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:01 chemist

Sample Name: W5914 Lab Sample ID: 1318300

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s23.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 17:42 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:01 chemist

Sample Name: W5914 Lab Sample ID: 1318300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.454	65	241821	250.000
52)$Dibromofluoromethane	(2)	5.959	113	216951	52.091
57)$1,2-Dichloroethane-d4	(2)	6.429	102	50007	53.686
66)*Fluorobenzene	(2)	6.886	96	836181	50.000
84)$Toluene-d8	(3)	9.044	98	792446	48.156
101)*Chlorobenzene-d5	(3)	10.684	117	669595	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	322116	46.458
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	358407	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5915

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318301

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s24.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.2	J
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5915 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318301

Data file: /chem2/HP26285.i/20may27a.b/5y27s24.d Injection date and time: **27-MAY-2020 18:03**
Data file Sample Info. Line: W5915;1318301;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447 (-0.030)	338	65	248340 (-16)	250.00	
66) Fluorobenzene	6.880 (-0.006)	901	96	831011 (-18)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	665659 (-18)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (-0.006)	1856	152	358031 (-18)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	216631	52.338	105%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428 (-0.001)	102	49073	53.011	106%		80 - 120
84) Toluene-d8	(3)	9.038 (0.001)	98	789671	48.272	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.000)	95	319711	46.384	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)	5.727 (-0.000)	83	2252	0.247	0.25		J	0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)			Not Detected					0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 18:45. Target 3.5 esignature user ID: ljg30941

W5915 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318301

Data file: /chem2/HP26285.i/20may27a.b/5y27s24.d Injection date and time: **27-MAY-2020 18:03**
Data file Sample Info. Line: W5915;1318301;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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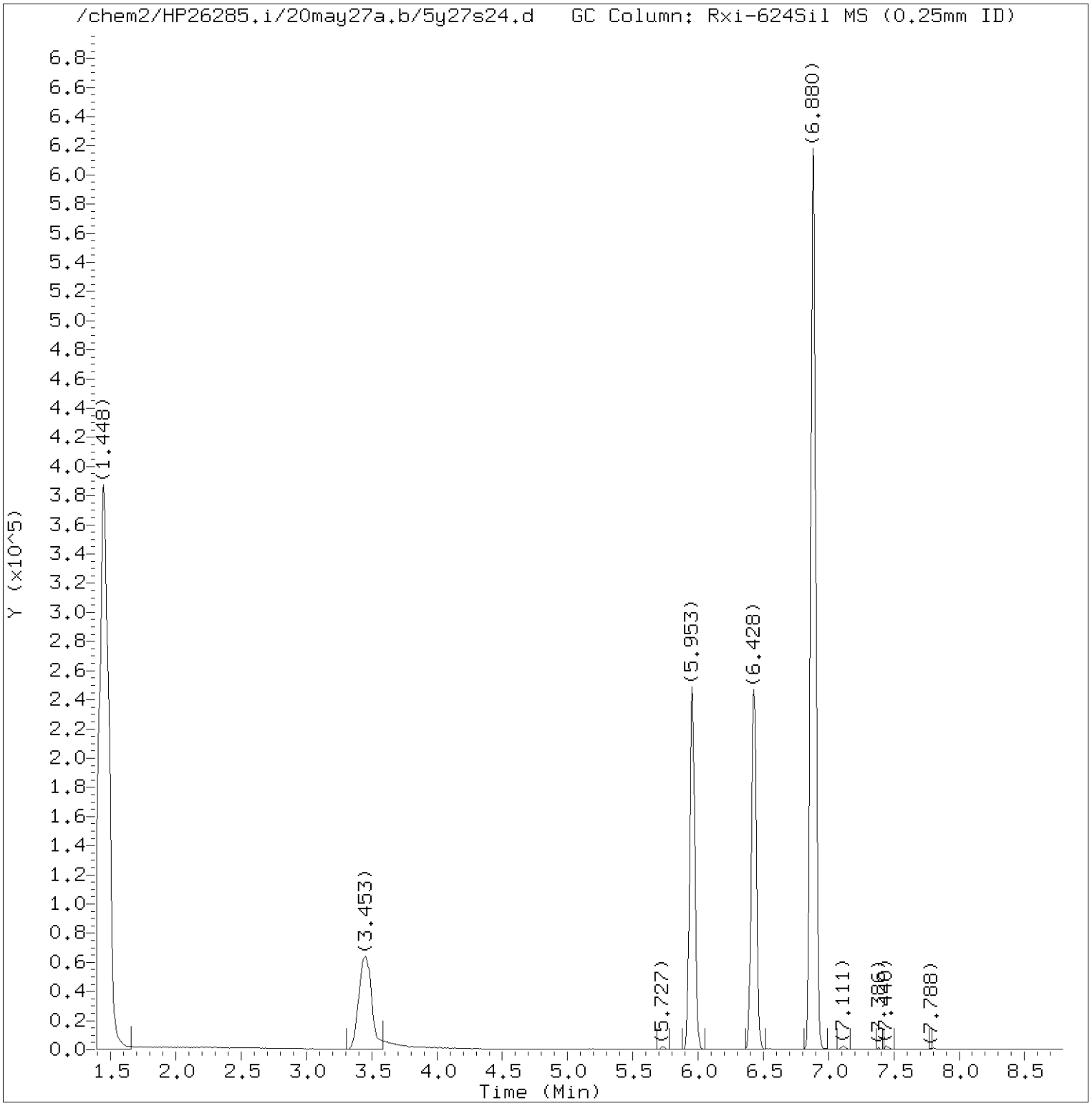
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 18:45. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

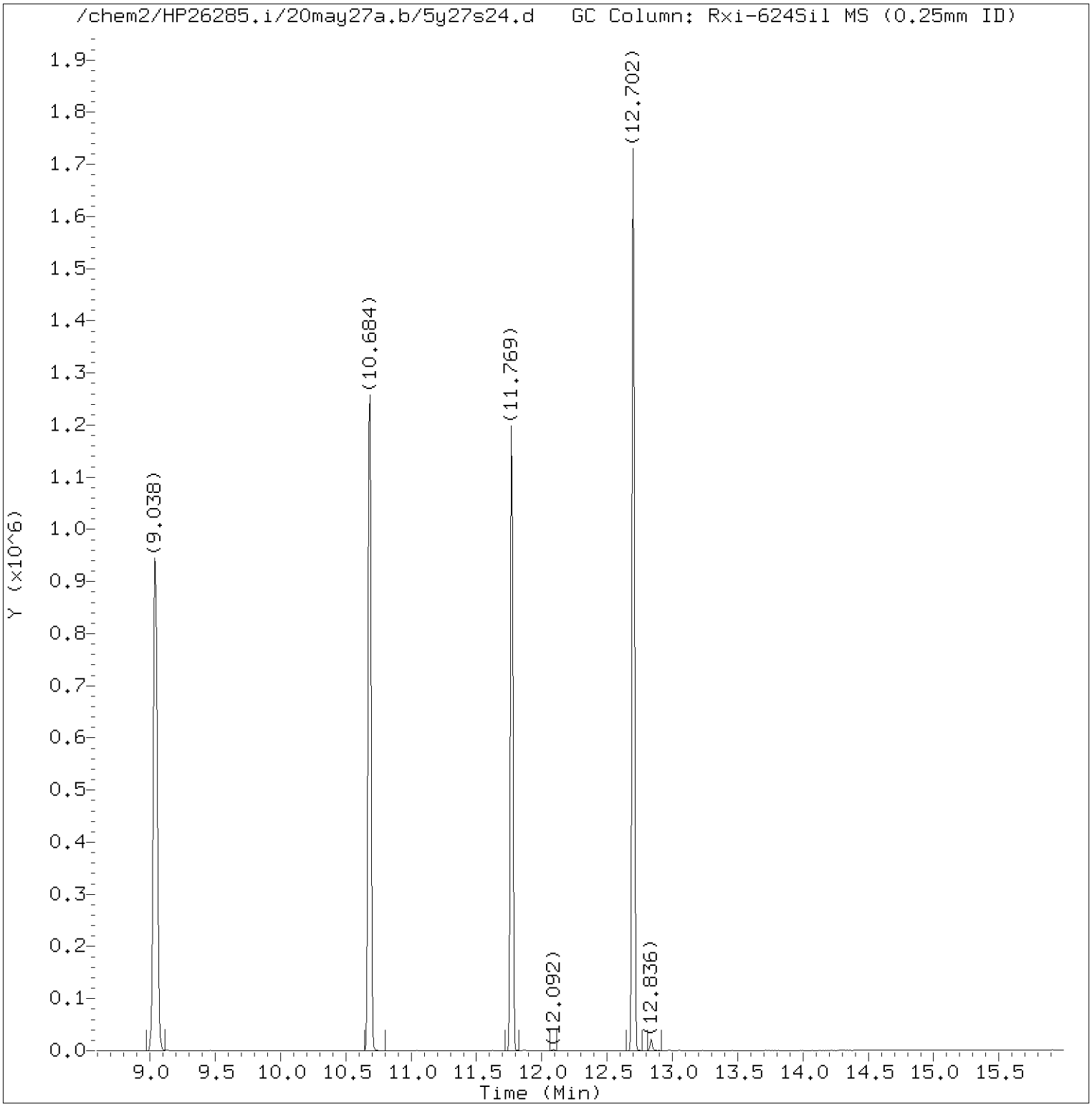
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s24.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:03 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Sample Name: W5915 Lab Sample ID: 1318301

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s24.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:03 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Sample Name: W5915 Lab Sample ID: 1318301

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s24.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:03 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Sample Name: W5915 Lab Sample ID: 1318301

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	248340	250.000
51) Chloroform	(2)	5.727	83	2252	0.247
52)$Dibromofluoromethane	(2)	5.953	113	216631	52.338
57)$1,2-Dichloroethane-d4	(2)	6.428	102	49073	53.011
66)*Fluorobenzene	(2)	6.880	96	831011	50.000
84)$Toluene-d8	(3)	9.038	98	789671	48.272
101)*Chlorobenzene-d5	(3)	10.684	117	665659	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	319711	46.384
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	358031	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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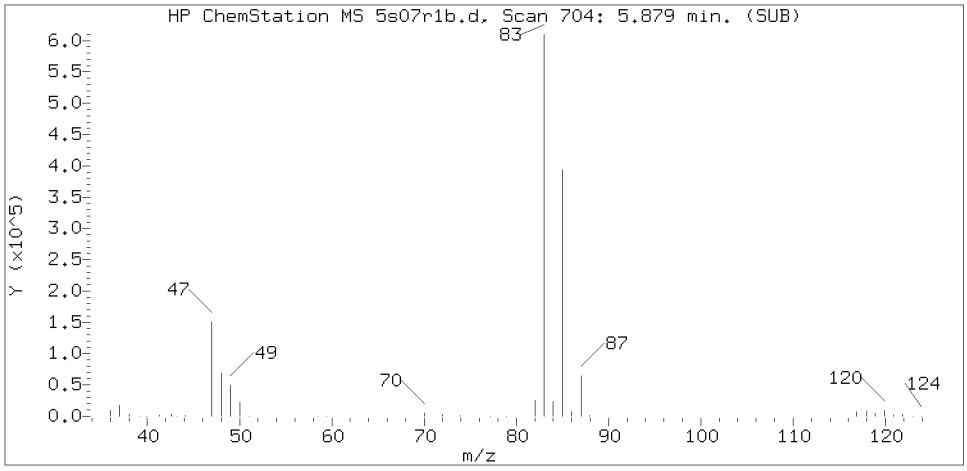
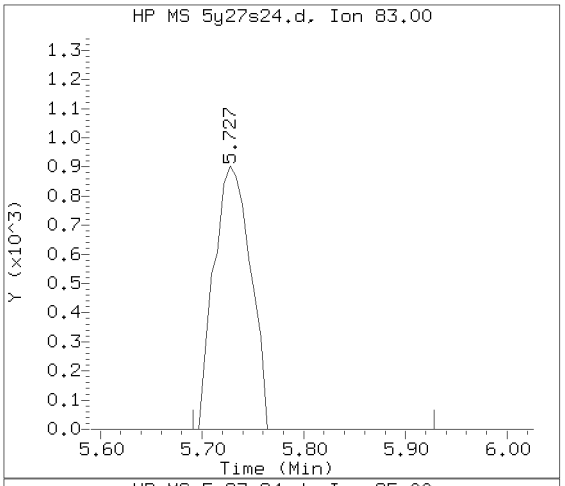
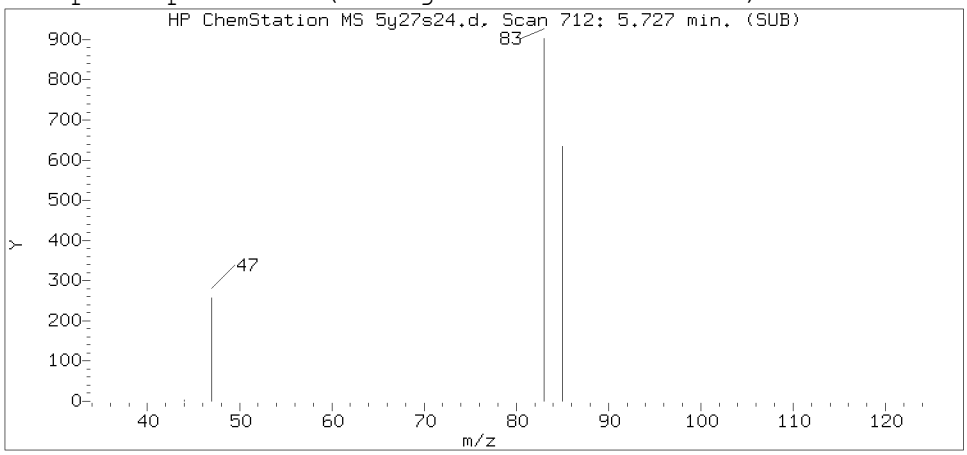
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

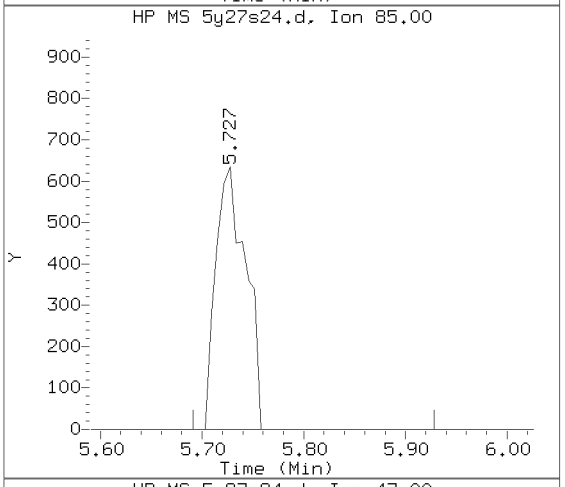
Reference Standard Spectrum for Chloroform



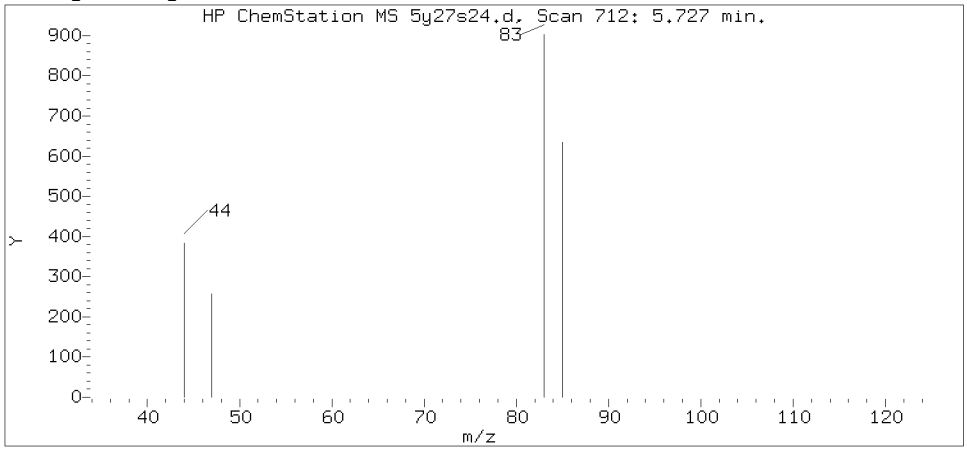


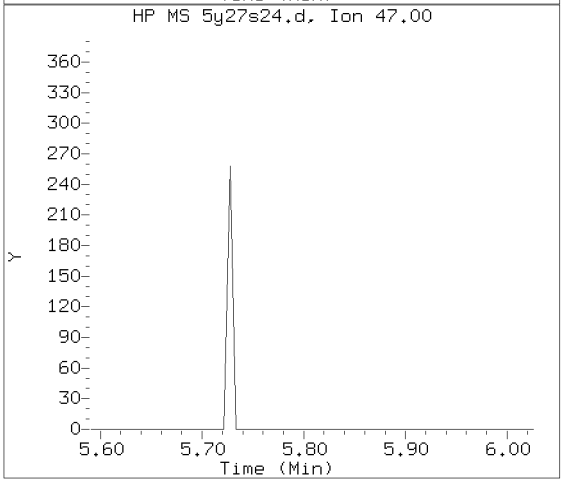
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s24.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:03 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:20 chemist

Sample Name: W5915 Lab Sample ID: 1318301

Compound Number : 51
Compound Name : Chloroform
Scan Number : 712
Retention Time (minutes): 5.727
Relative Retention Time :-0.00015
Quant Ion : 83.00
Area (flag) : 2252
On-Column Amount (ng) : 0.2467

Digitally signed by Laura J. Green on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5916

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318302

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s25.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.2	J
71-55-6	1,1,1-Trichloroethane	0.8	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.7	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5916 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318302

Data file: /chem2/HP26285.i/20may27a.b/5y27s25.d Injection date and time: **27-MAY-2020 18:23**
Data file Sample Info. Line: W5916;1318302;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453(-0.036)	339	65	232925 (-22)	250.00	
66) Fluorobenzene	6.886(-0.012)	902	96	798815 (-21)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	641775 (-21)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(-0.006)	1856	152	346160 (-20)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.959(0.000)	113	210488	52.903	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(0.000)	102	47333	53.192	106%		80 - 120
84) Toluene-d8	(3)	9.044(0.000)	98	762346	48.336	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	307400	46.258	93%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)	5.733(-0.000)	83	1813	0.207	0.21		J	0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	6618	0.838	0.84		J	0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.386(0.001)	95	3955	0.708	0.71		J	0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

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Data file: /chem2/HP26285.i/20may27a.b/5y27s25.d Injection date and time: **27-MAY-2020 18:23**
Data file Sample Info. Line: W5916;1318302;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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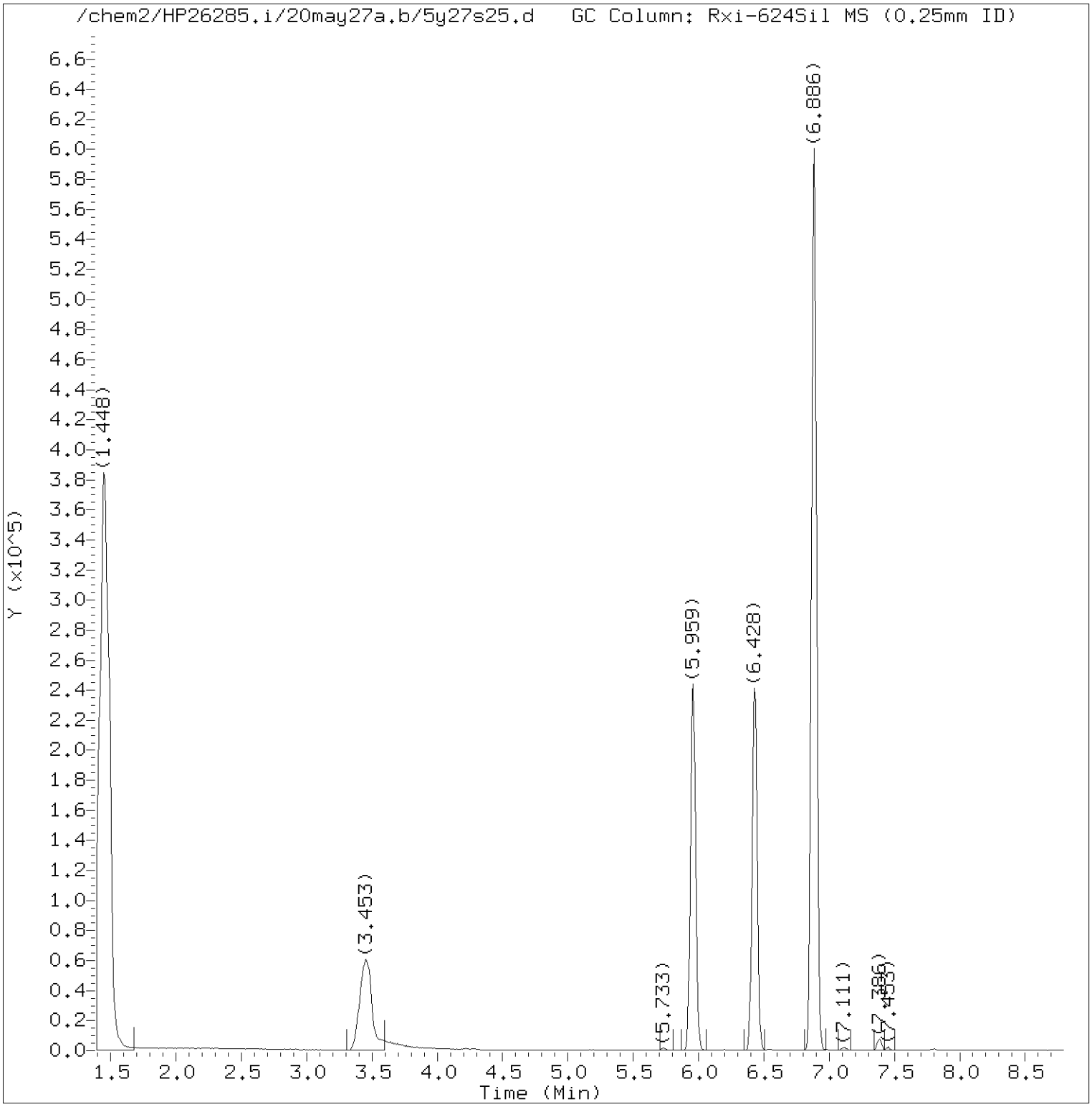
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 18:45. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

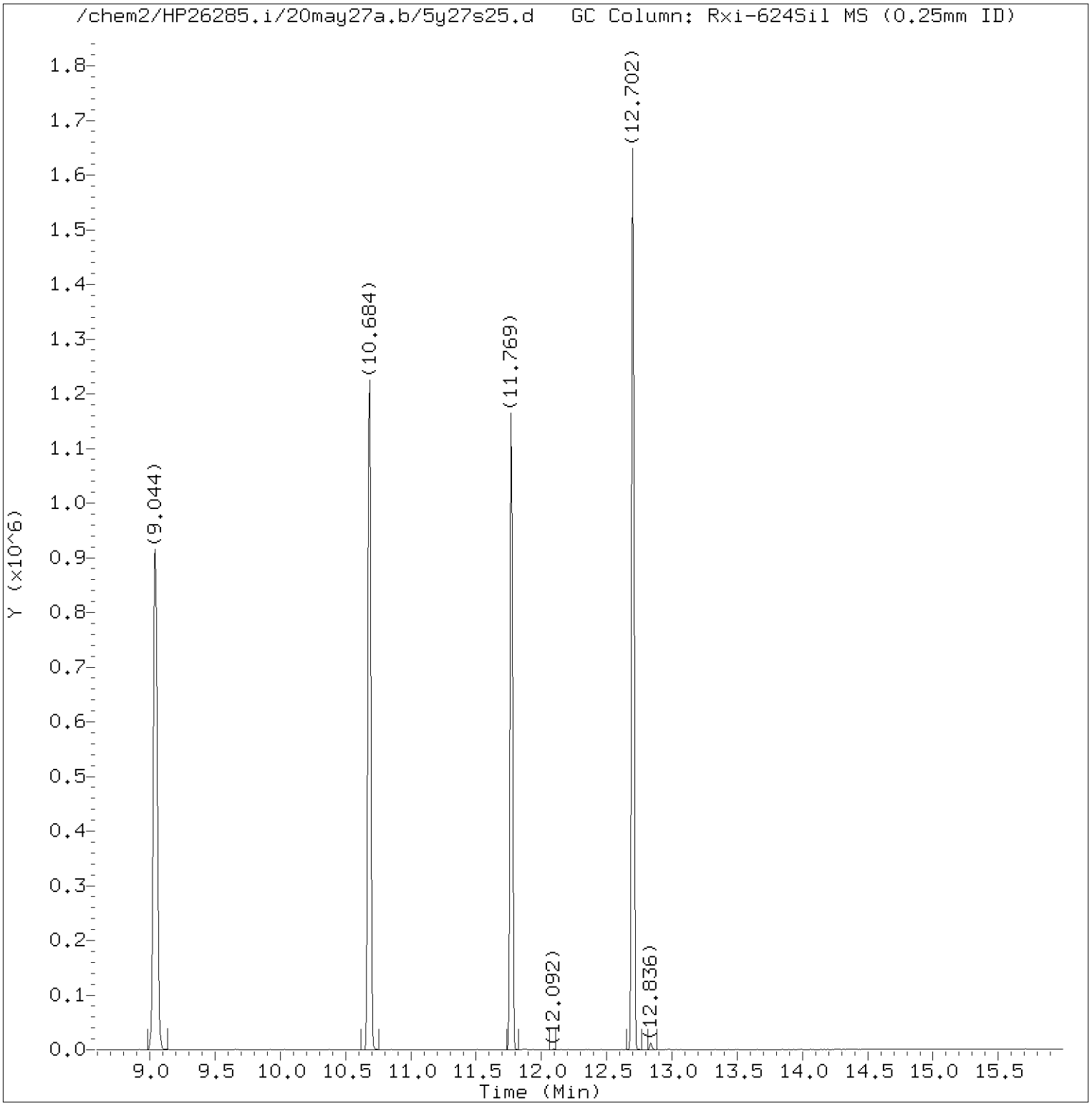
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

Digitally signed by Laura J. Green
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

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on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.453	65	232925	250.000
51) Chloroform	(2)	5.733	83	1813	0.207
53) 1,1,1-Trichloroethane	(2)	5.947	97	6618	0.838
52)$Dibromofluoromethane	(2)	5.959	113	210488	52.903
57)$1,2-Dichloroethane-d4	(2)	6.428	102	47333	53.192
66)*Fluorobenzene	(2)	6.886	96	798815	50.000
71) Trichloroethene	(2)	7.386	95	3955	0.708
84)$Toluene-d8	(3)	9.044	98	762346	48.336
101)*Chlorobenzene-d5	(3)	10.684	117	641775	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	307400	46.258
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	346160	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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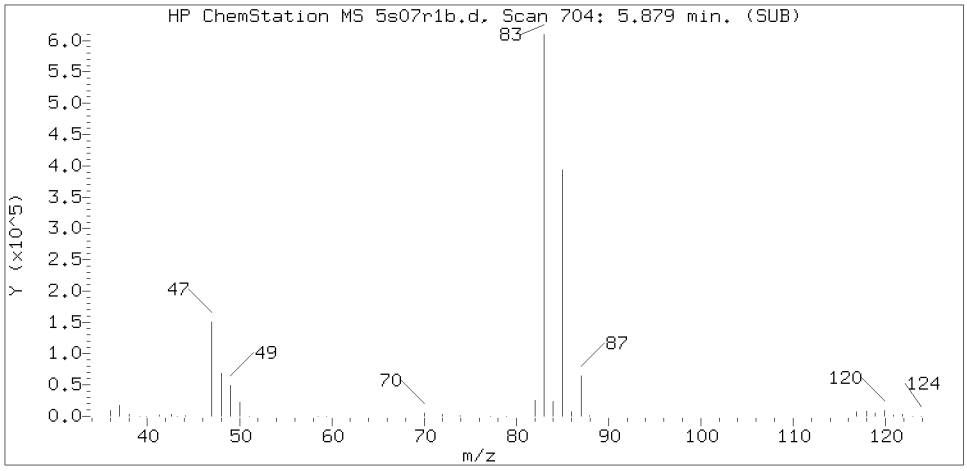
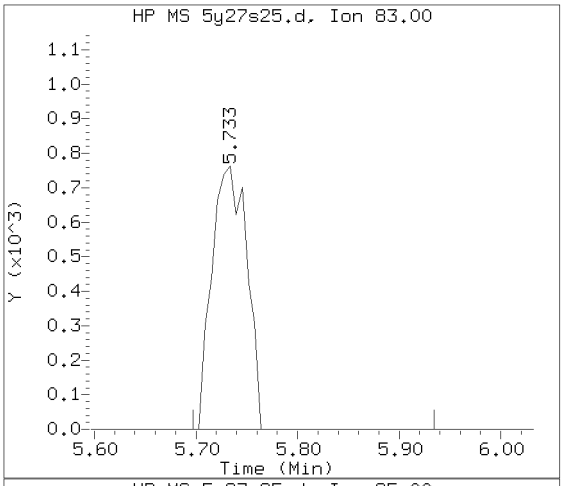
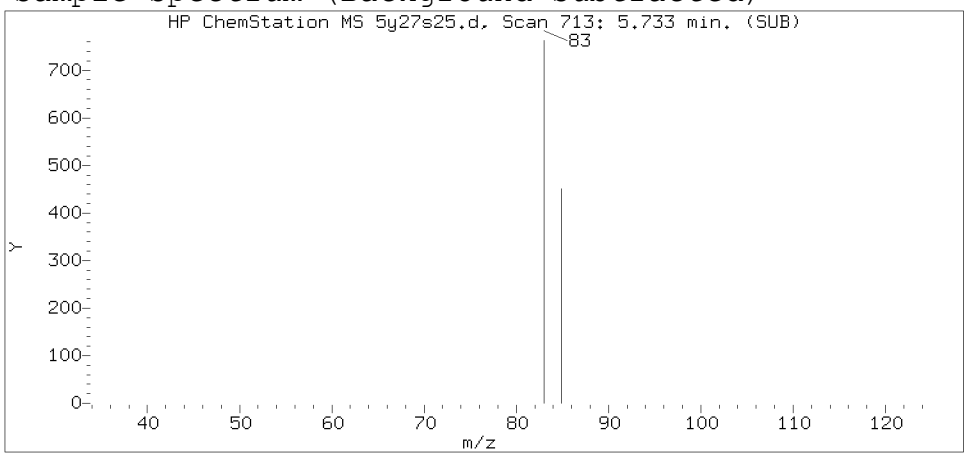
on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

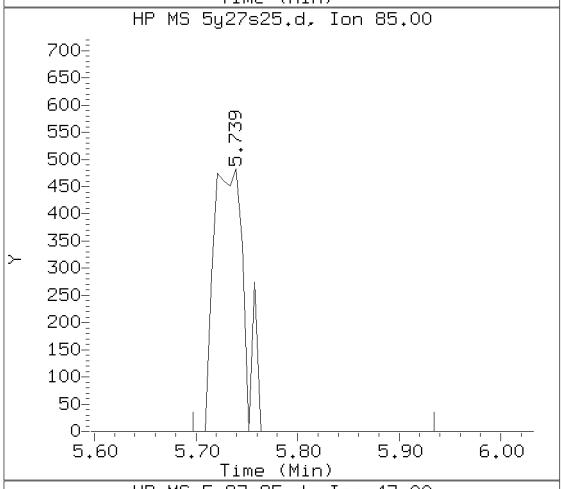
Reference Standard Spectrum for Chloroform



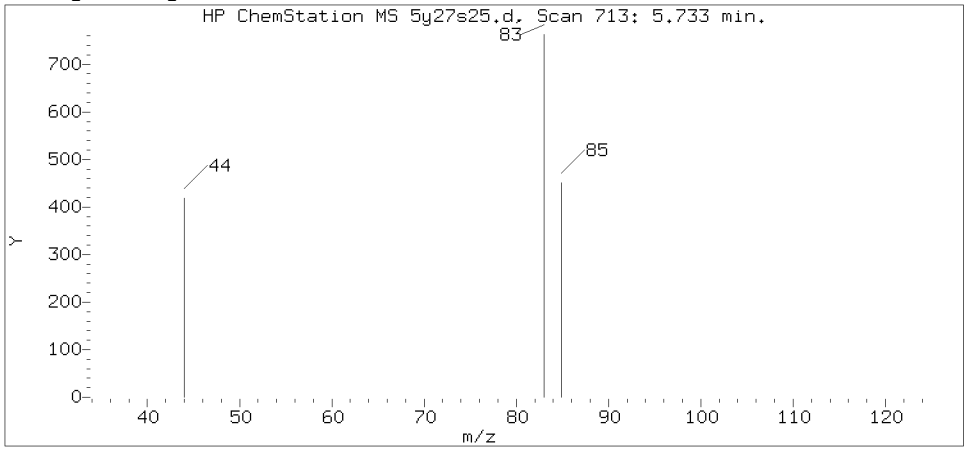


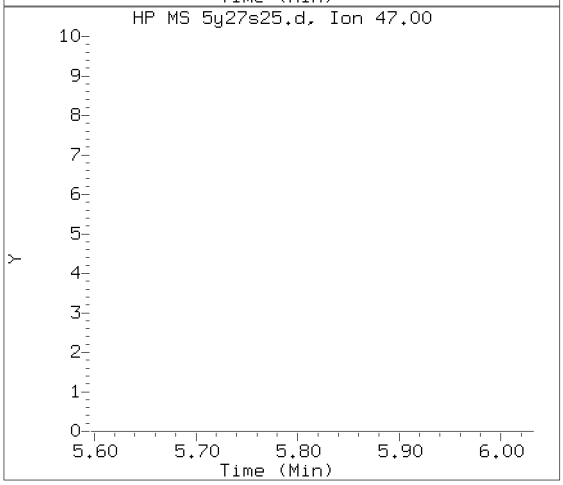
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

Compound Number : 51
Compound Name : Chloroform
Scan Number : 713
Retention Time (minutes): 5.733
Relative Retention Time :-0.00029
Quant Ion : 83.00
Area (flag) : 1813
On-Column Amount (ng) : 0.2067

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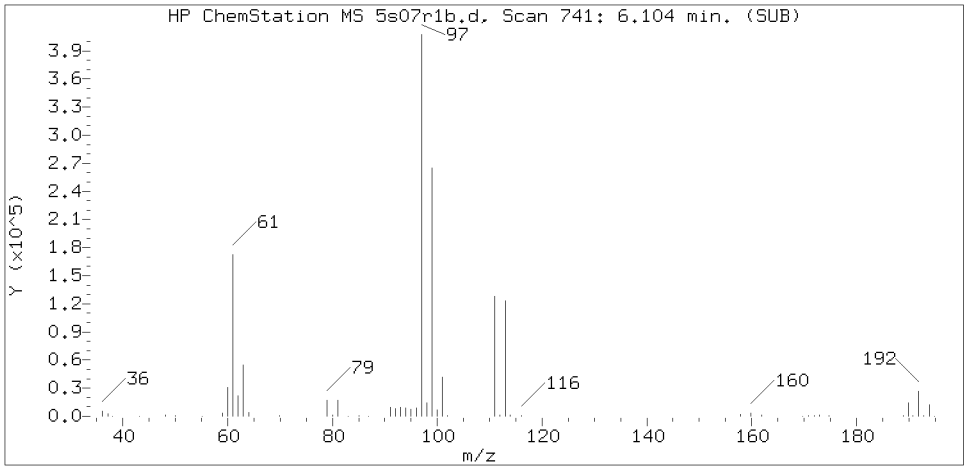
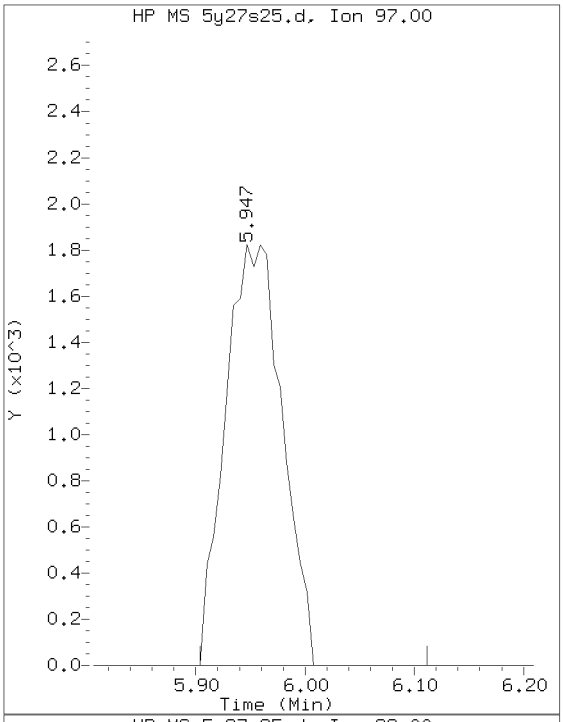
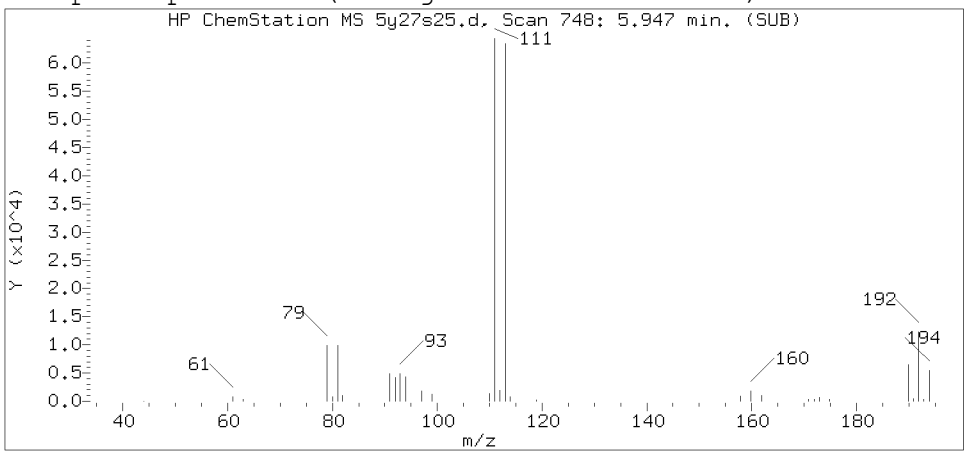
Target 3.5 esignature user ID: ljg30941

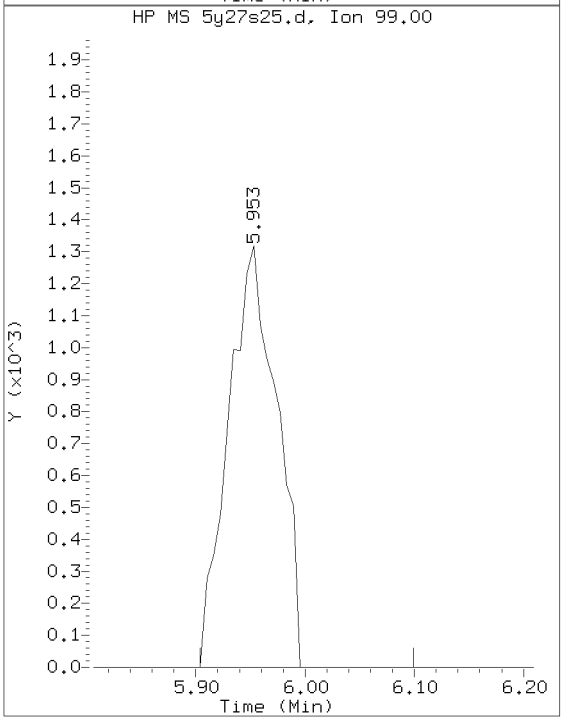
Reference Standard Spectrum for 1,1,1-Trichloroethane



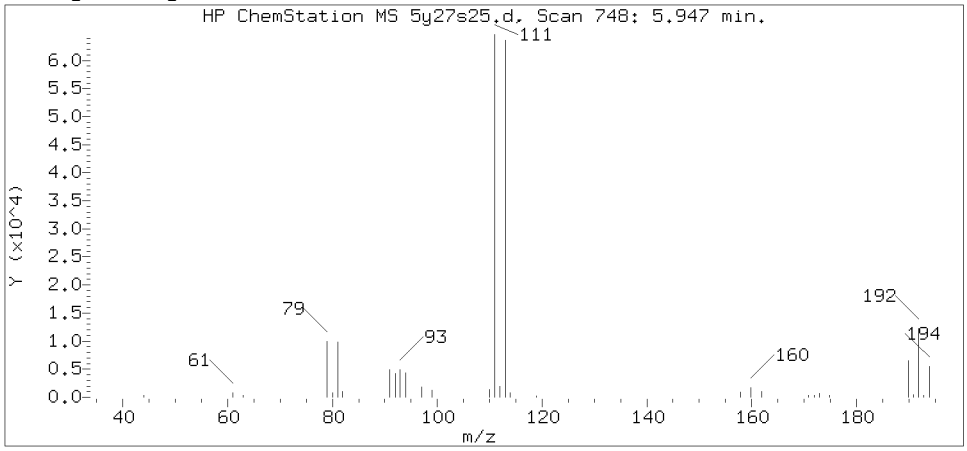


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

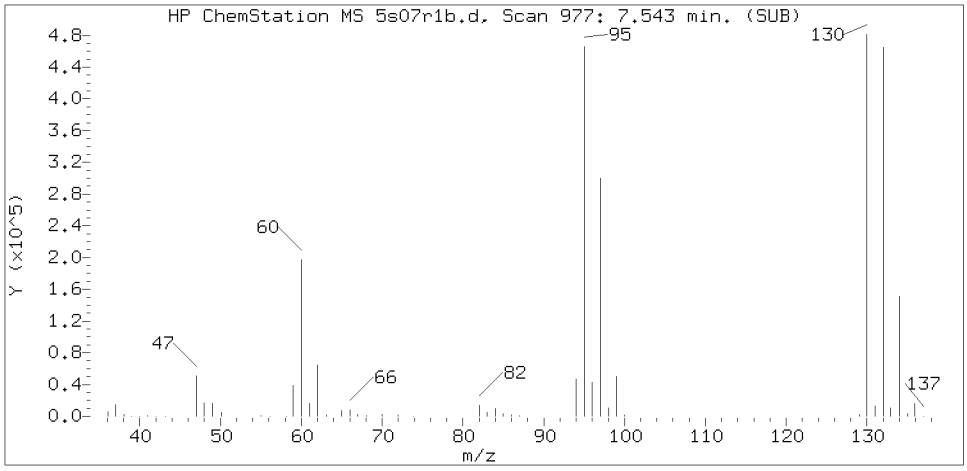
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

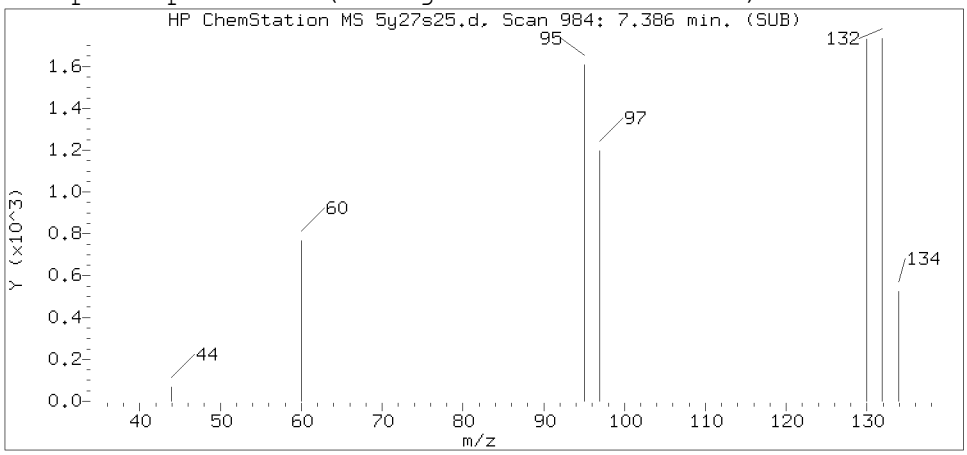
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 748
Retention Time (minutes)	: 5.947
Relative Retention Time	: 0.00065
Quant Ion	: 97.00
Area (flag)	: 6618
On-Column Amount (ng)	: 0.8377

Digitally signed by Laura J. Green on 05/27/2020 at 18:45.
Target 3.5 esignature user ID: ljg30941

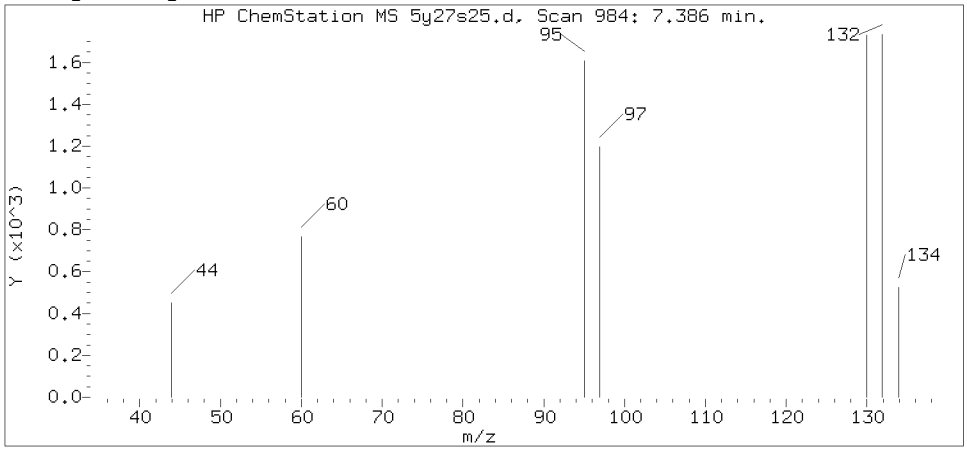
Reference Standard Spectrum for Trichloroethene

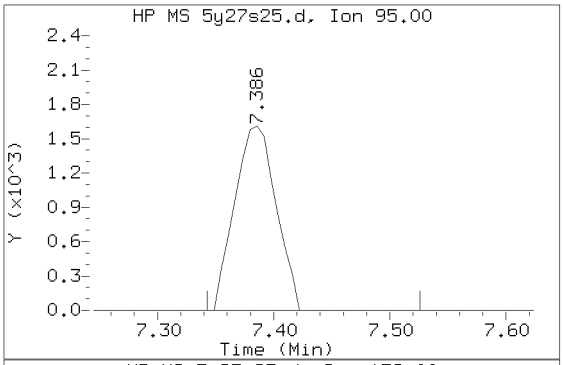


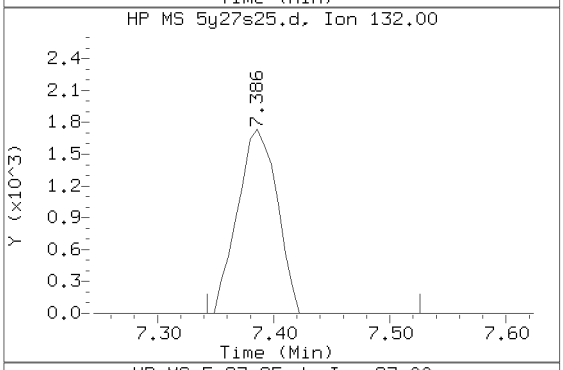
Sample Spectrum (Background Subtracted)

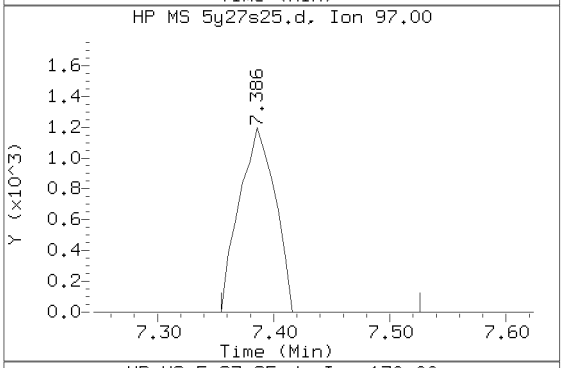


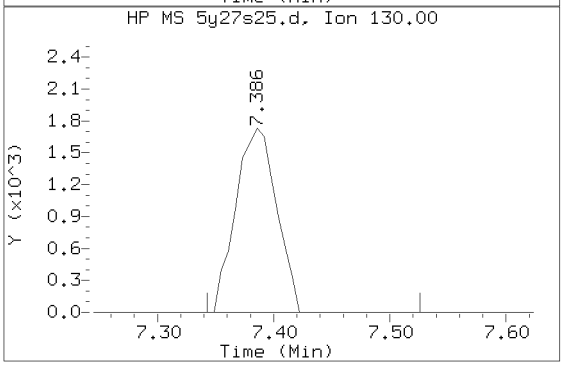
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s25.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:23 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 18:42 chemist

Sample Name: W5916 Lab Sample ID: 1318302

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 984
Retention Time (minutes): 7.386
Relative Retention Time : 0.00101
Quant Ion : 95.00
Area (flag) : 3955
On-Column Amount (ng) : 0.7084

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Target 3.5 esignature user ID: ljg30941

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5917

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318303

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s26.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.7	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	0.5	J
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

W5917 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318303

Data file: /chem2/HP26285.i/20may27a.b/5y27s26.d Injection date and time: **27-MAY-2020 18:44**
Data file Sample Info. Line: W5917;1318303;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447(-0.030)	338	65	224853 (-24)	250.00	
66) Fluorobenzene	6.880(-0.006)	901	96	785113 (-23)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	631620 (-22)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(-0.006)	1856	152	338918 (-22)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(0.000)	113	207221	52.991	106%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(-0.001)	102	46346	52.992	106%		80 - 120
84) Toluene-d8	(3)	9.038(0.001)	98	745983	48.058	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.000)	95	301179	46.050	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.379(0.000)	95	4007	0.730	0.73		J	0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	3029	0.522	0.52		J	0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Laura J. Green on 05/27/2020 at 19:23. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may27a.b/5y27s26.d Injection date and time: **27-MAY-2020 18:44**
Data file Sample Info. Line: W5917;1318303;1;0;;JCW59;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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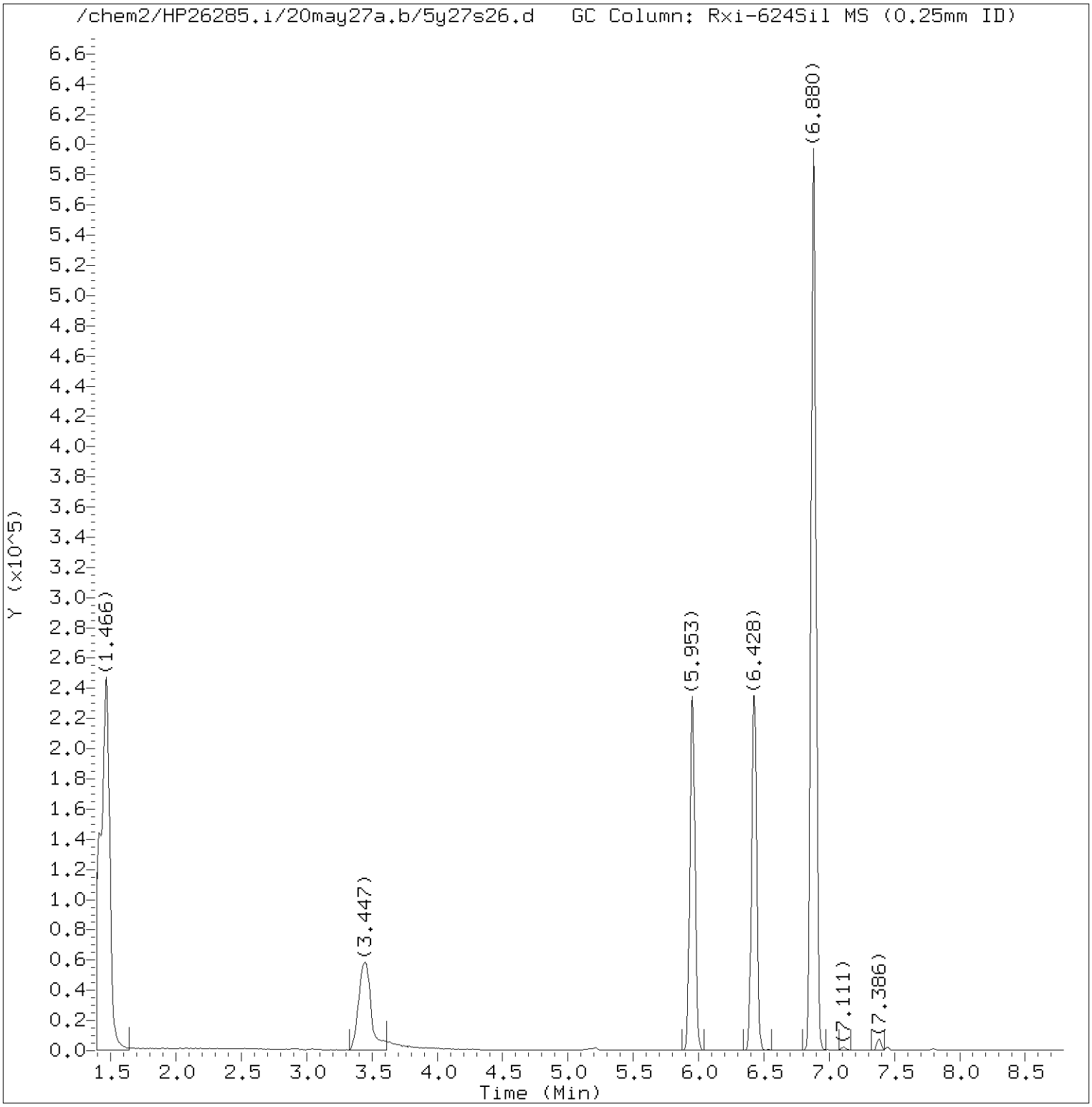
Total number of targets = 24

Digitally signed by Laura J. Green on 05/27/2020 at 19:23. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:18. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

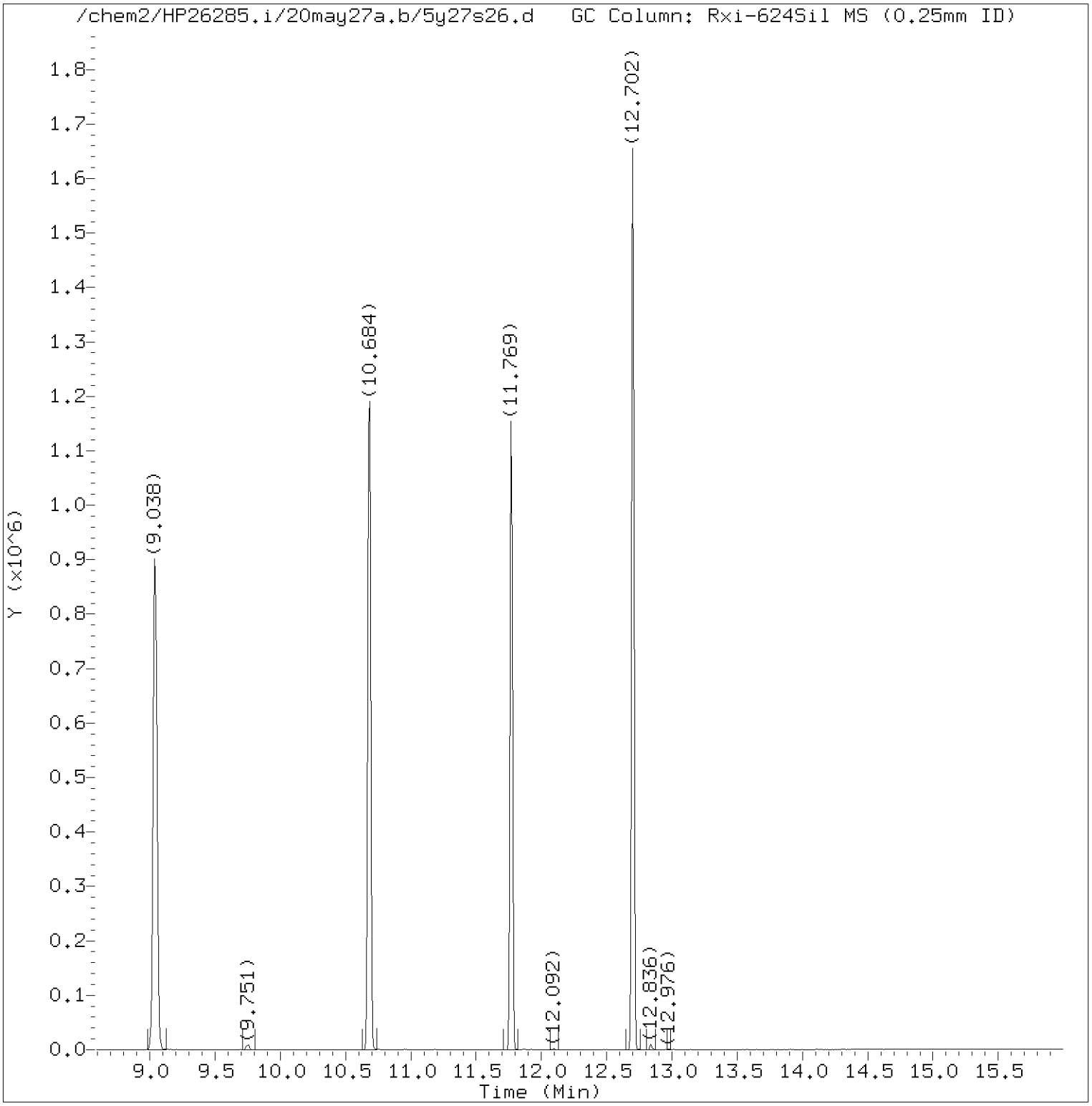
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s26.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:44 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Sample Name: W5917 Lab Sample ID: 1318303

Digitally signed by Laura J. Green
on 05/27/2020 at 19:23.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s26.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:44 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Sample Name: W5917 Lab Sample ID: 1318303

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on 05/27/2020 at 19:23.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s26.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:44 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Sample Name: W5917 Lab Sample ID: 1318303

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	224853	250.000
52)$Dibromofluoromethane	(2)	5.953	113	207221	52.991
57)$1,2-Dichloroethane-d4	(2)	6.428	102	46346	52.992
66)*Fluorobenzene	(2)	6.880	96	785113	50.000
71) Trichloroethene	(2)	7.379	95	4007	0.730
84)$Toluene-d8	(3)	9.038	98	745983	48.058
94) Tetrachloroethene	(3)	9.751	166	3029	0.522
101)*Chlorobenzene-d5	(3)	10.684	117	631620	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	301179	46.050
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	338918	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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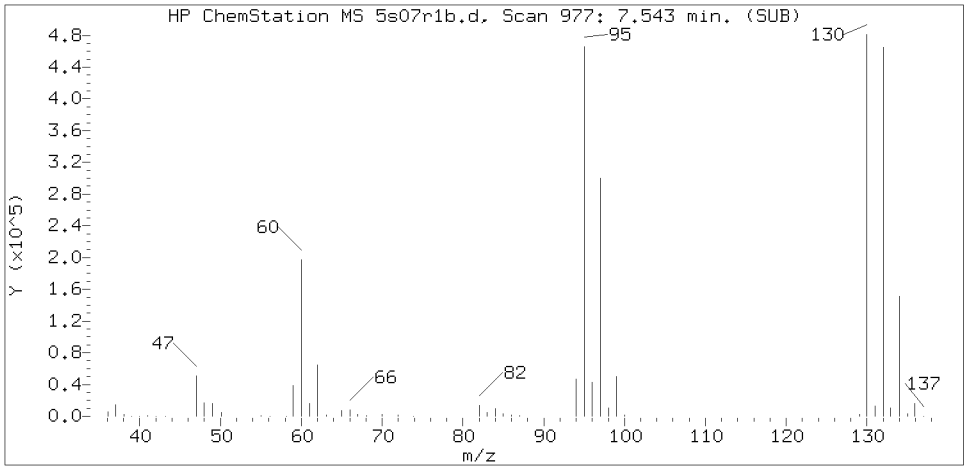
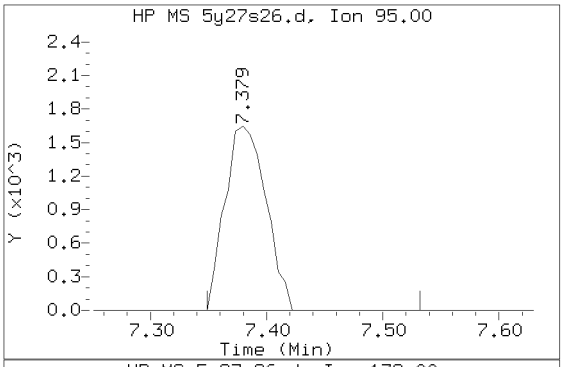
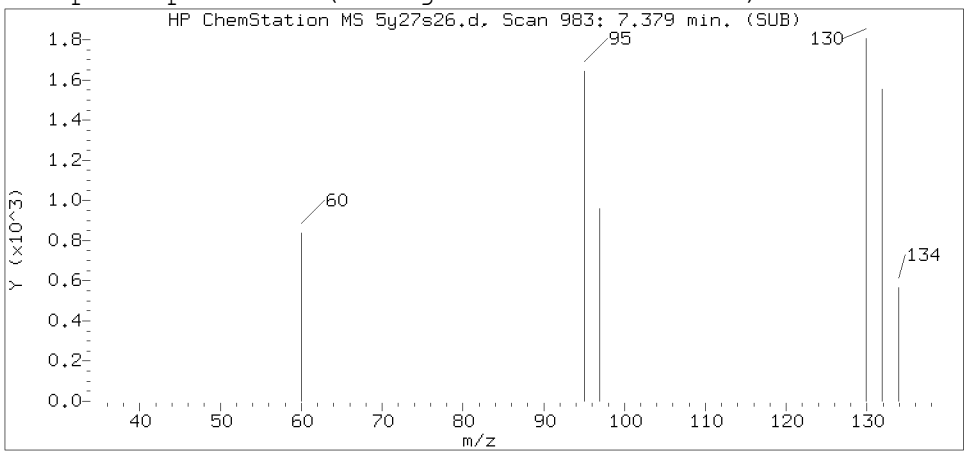
on 05/27/2020 at 19:23.
Target 3.5 esignature user ID: ljg30941

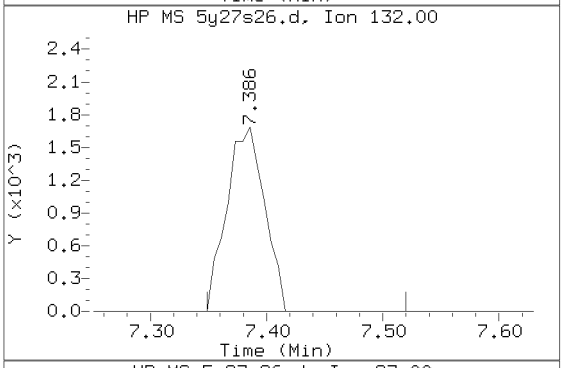
Reference Standard Spectrum for Trichloroethene

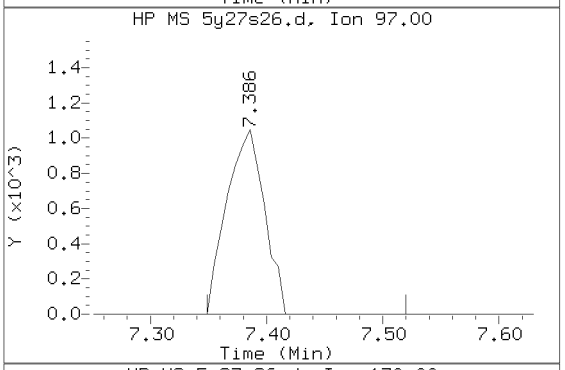




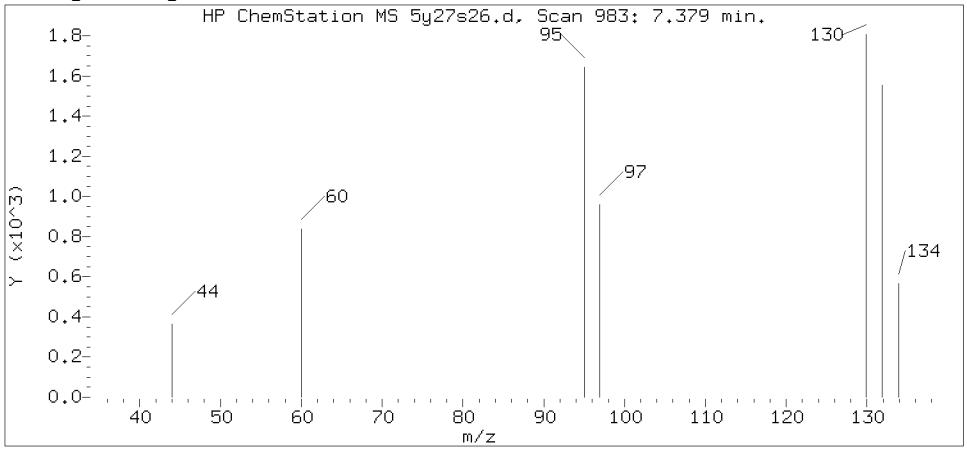
Sample Spectrum (Background Subtracted)

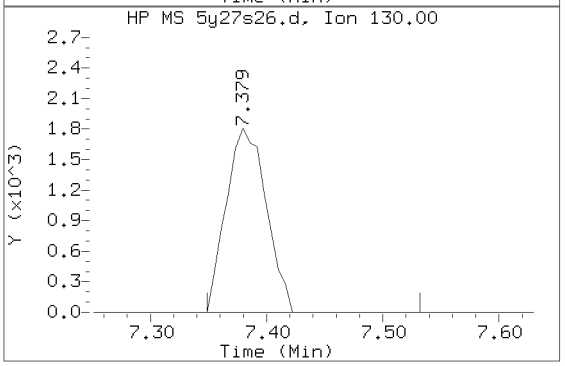






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27a.b/5y27s26.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:44 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Sample Name: W5917 Lab Sample ID: 1318303

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.379
Relative Retention Time : 0.00095
Quant Ion : 95.00
Area (flag) : 4007
On-Column Amount (ng) : 0.7302

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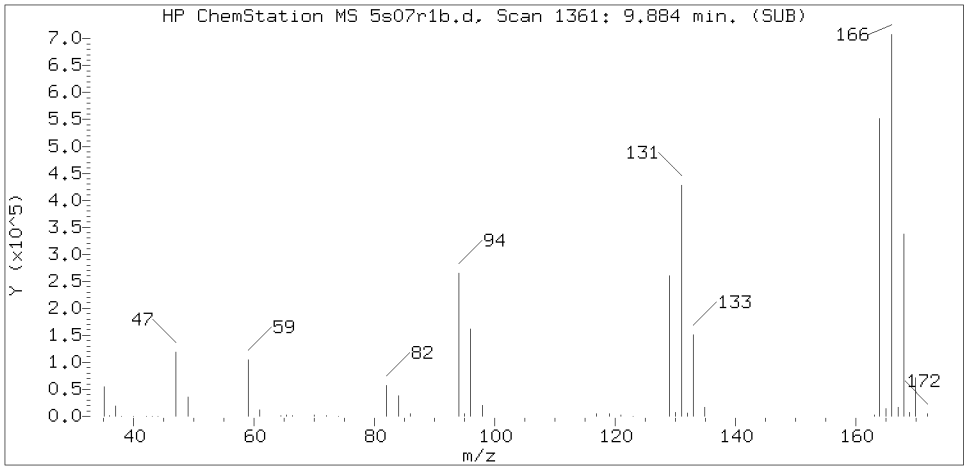
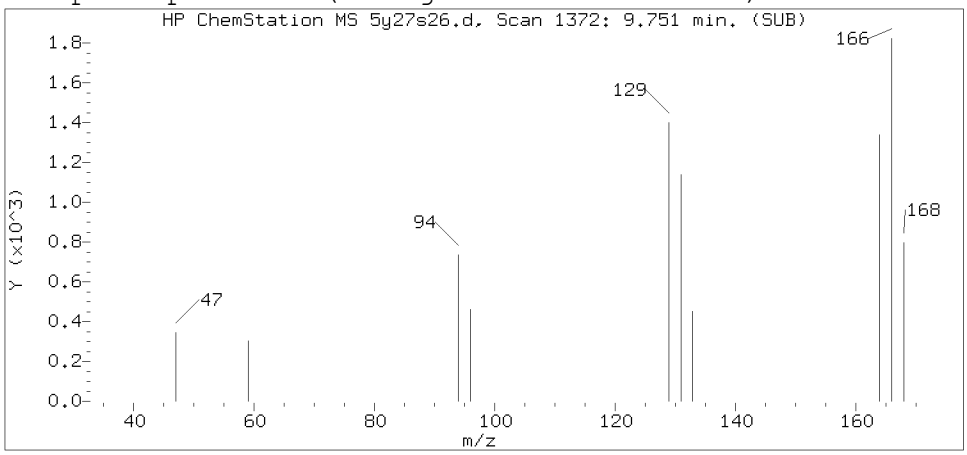
Target 3.5 esignature user ID: ljg30941

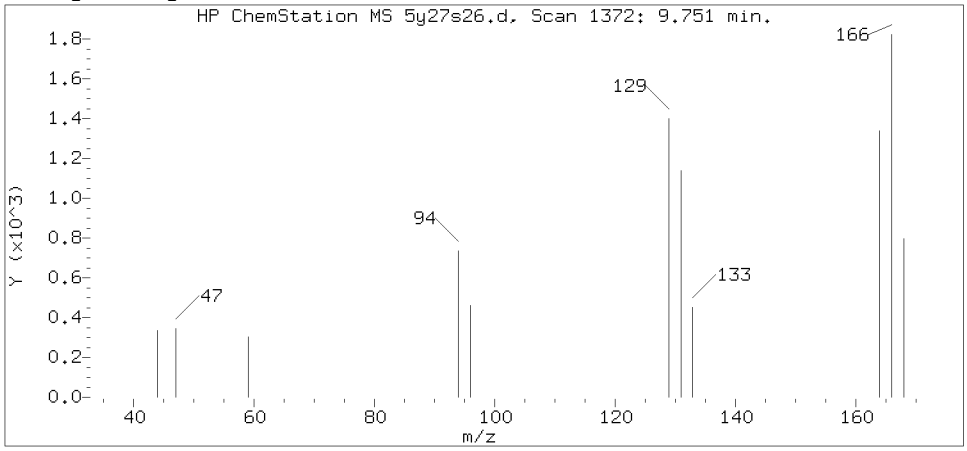
Reference Standard Spectrum for Tetrachloroethene

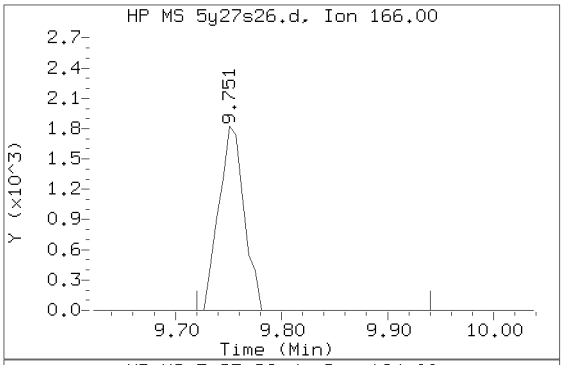


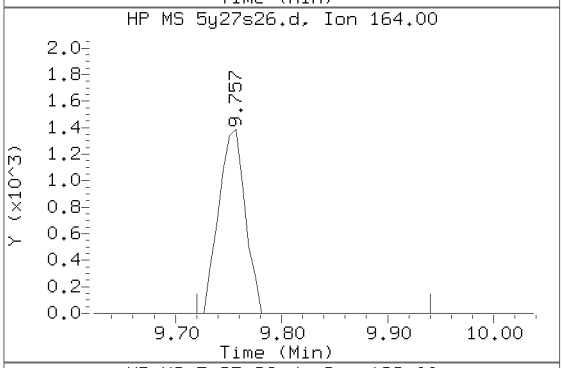
Sample Spectrum (Background Subtracted)

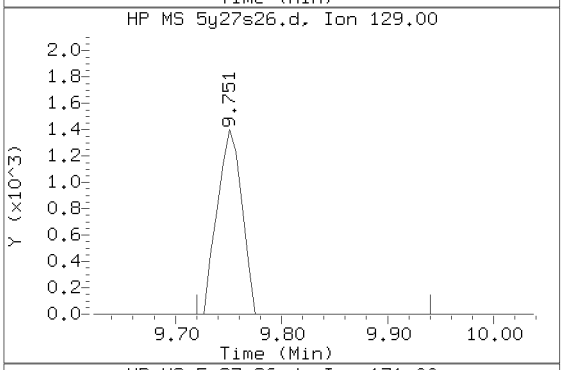


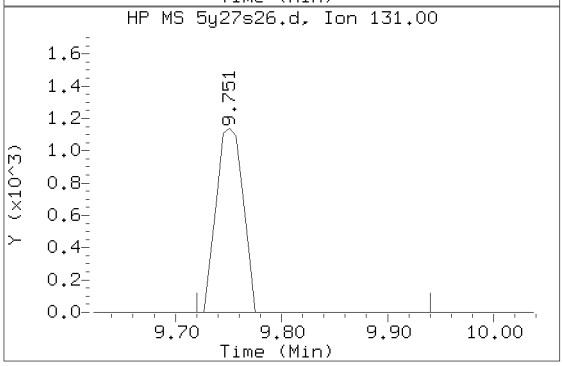
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27a.b/5y27s26.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 18:44 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 19:03 chemist

Sample Name: W5917 Lab Sample ID: 1318303

Compound Number	: 94
Compound Name	: Tetrachloroethene
Scan Number	: 1372
Retention Time (minutes)	: 9.751
Relative Retention Time	: 0.00052
Quant Ion	: 166.00
Area (flag)	: 3029
On-Column Amount (ng)	: 0.5219

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Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5918

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318304

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s58.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.8	J
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.7	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.4	J
71-55-6	1,1,1-Trichloroethane	10	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	36	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s58.d Injection date and time: **28-MAY-2020 00:24**
Data file Sample Info. Line: W5918;1318304;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.024)	338	65	240652	(4)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	799287	(-2)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	647188	(-2)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	348923	(-7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	214130	53.787	108%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.429	(0.000)	102	47551	53.405	107%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	768558	48.322	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	309111	46.126	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.880	(-0.001)	96	3427	0.793	0.79		J	0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.344	(0.000)	63	5754	0.657	0.66		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)	5.727	(0.000)	83	3860	0.440	0.44		J	0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947	(0.000)	97	81018	10.249	10.25			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	7.380	(-0.000)	95	201710	36.098	36.10			0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Linda C. Pape on 05/28/2020 at 12:34. Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27s58.d Injection date and time: **28-MAY-2020 00:24**
Data file Sample Info. Line: W5918;1318304;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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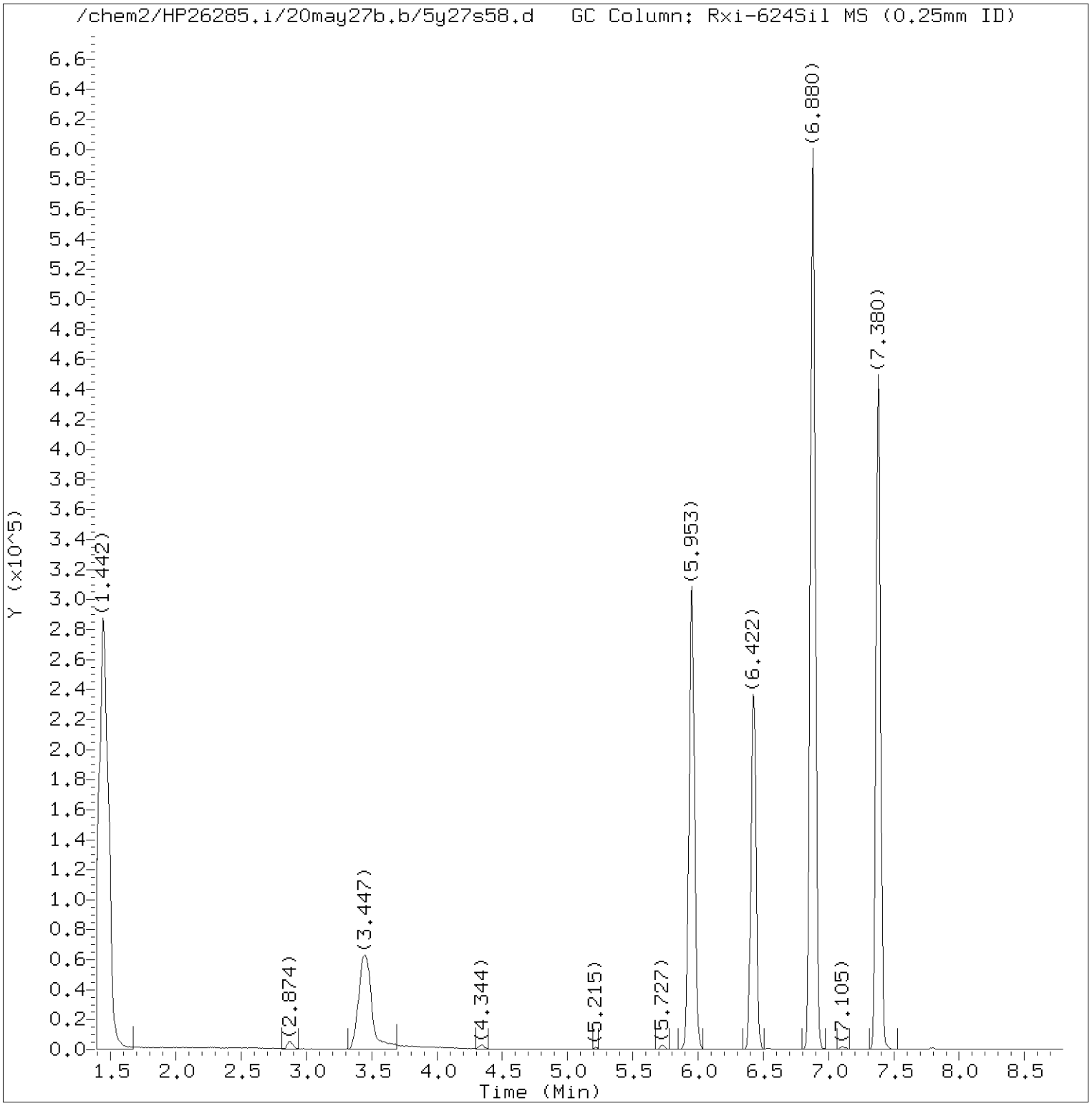
Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:34. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

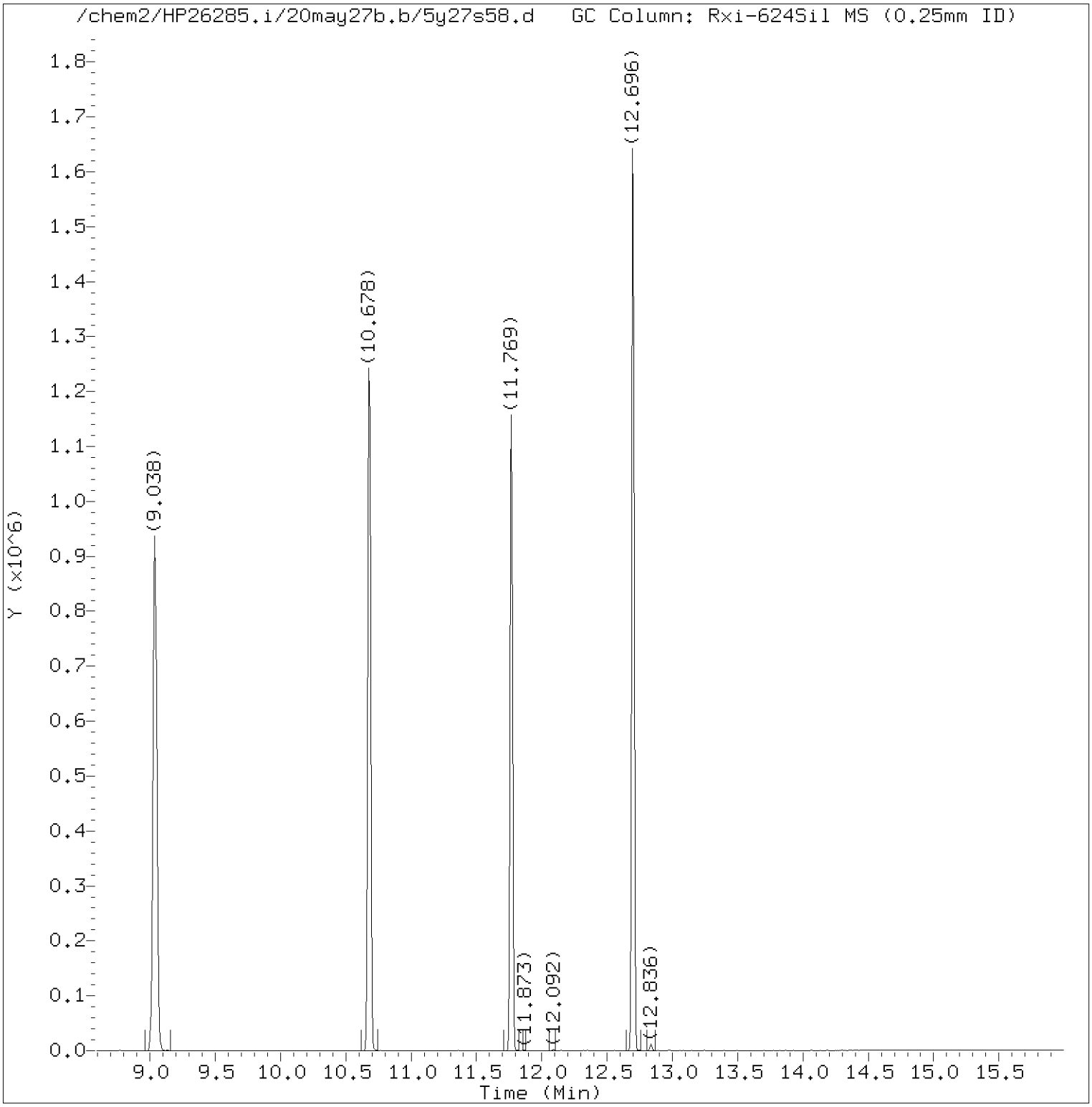
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:34.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:34.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

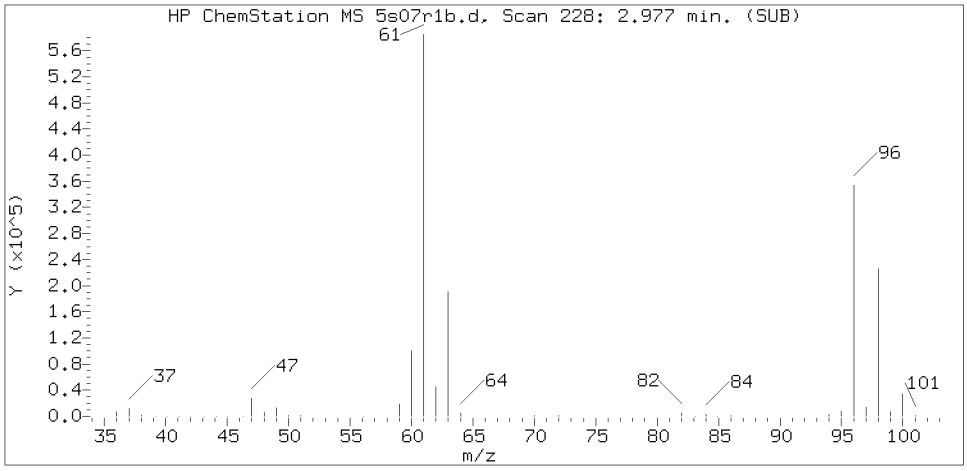
Sample Name: W5918 Lab Sample ID: 1318304

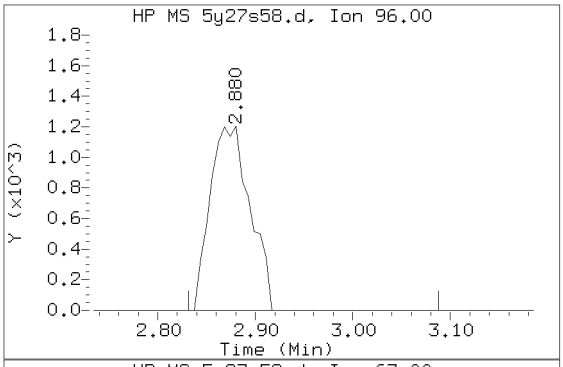
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.880	96	3427	0.793
29)*t-Butyl alcohol-d10	(1)	3.447	65	240652	250.000
36) 1,1-Dichloroethane	(2)	4.344	63	5754	0.657
51) Chloroform	(2)	5.727	83	3860	0.440
53) 1,1,1-Trichloroethane	(2)	5.947	97	81018	10.249
52)$Dibromofluoromethane	(2)	5.953	113	214130	53.787
57)$1,2-Dichloroethane-d4	(2)	6.429	102	47551	53.405
66)*Fluorobenzene	(2)	6.880	96	799287	50.000
71) Trichloroethene	(2)	7.380	95	201710	36.098
84)$Toluene-d8	(3)	9.038	98	768558	48.322
101)*Chlorobenzene-d5	(3)	10.678	117	647188	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	309111	46.126
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	348923	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

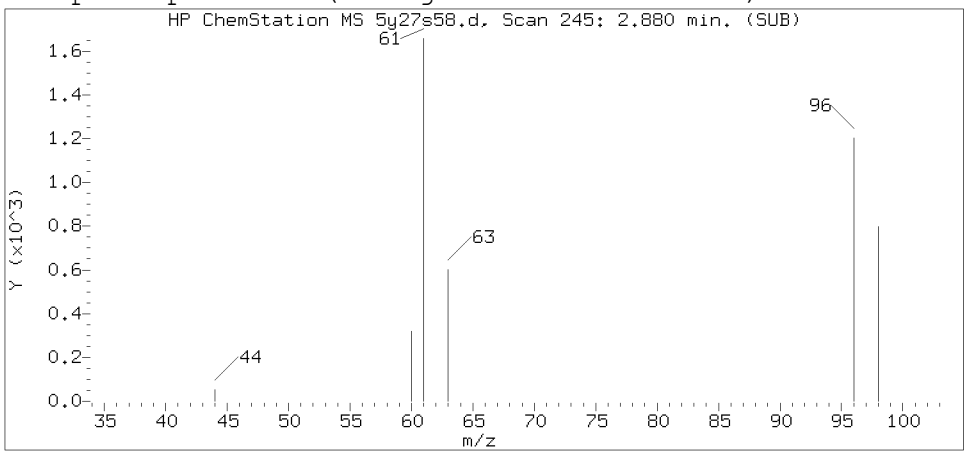
Digitally signed by Linda C. Pape
on 05/28/2020 at 12:34.
Target 3.5 esignature user ID: lcp00895

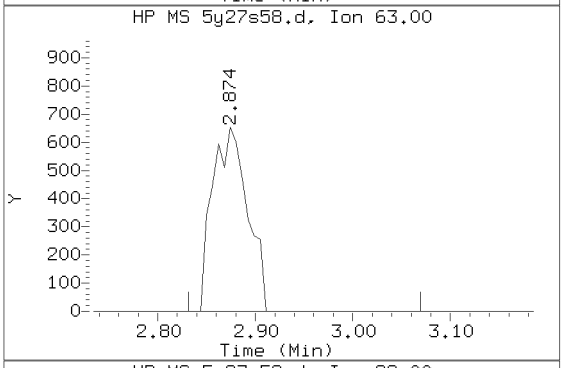
Reference Standard Spectrum for 1,1-Dichloroethene

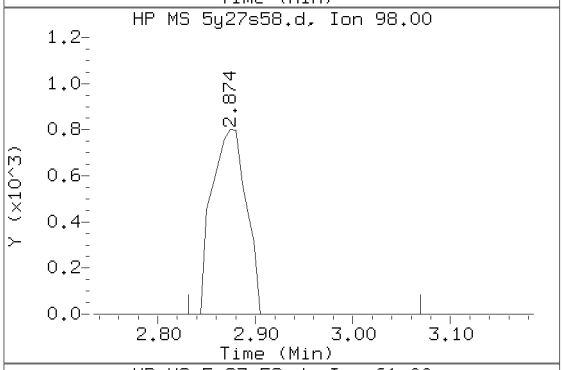




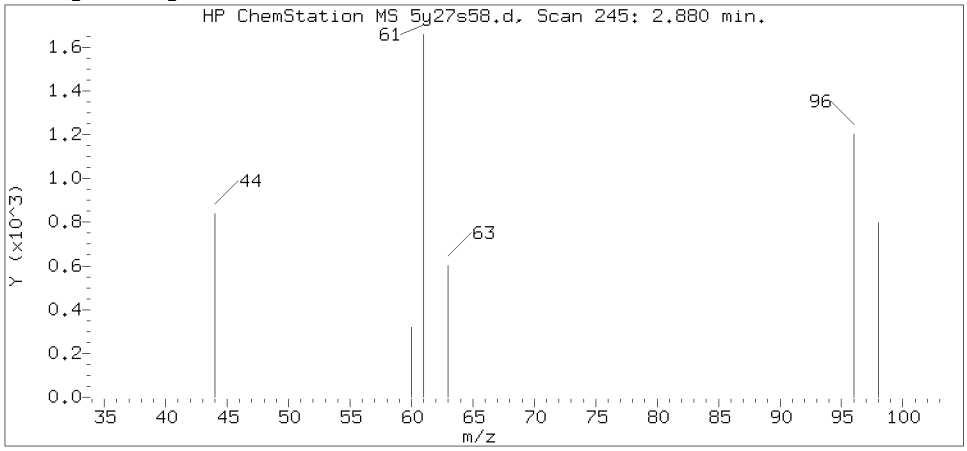
Sample Spectrum (Background Subtracted)

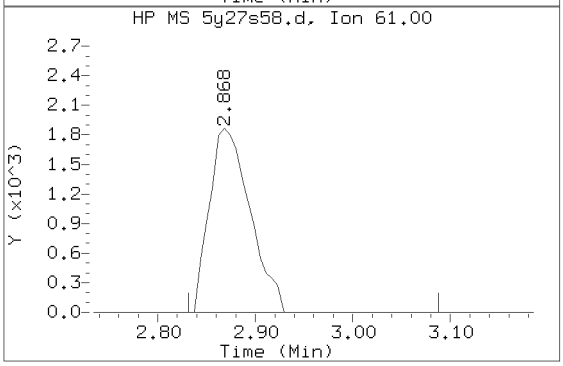






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 245
Retention Time (minutes): 2.880
Relative Retention Time :-0.00177
Quant Ion : 96.00
Area (flag) : 3427
On-Column Amount (ng) : 0.7931

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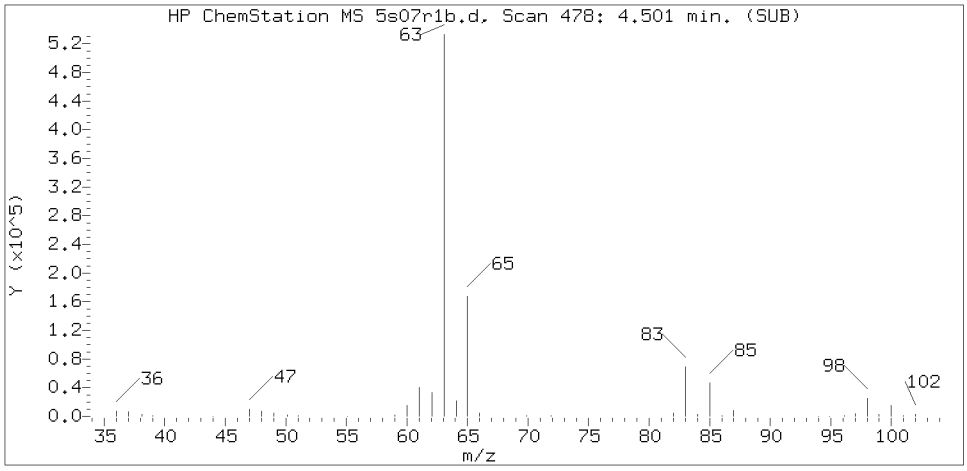
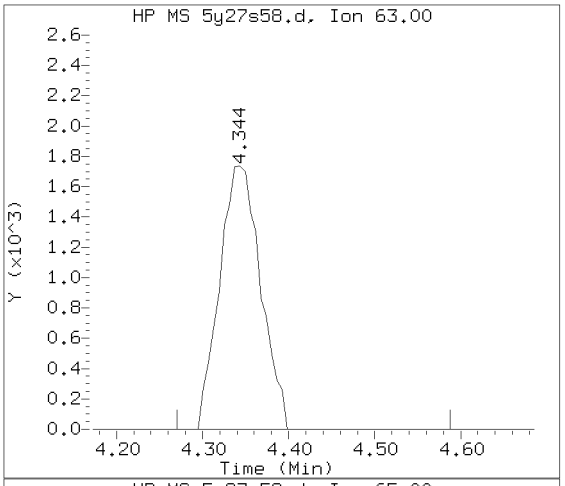
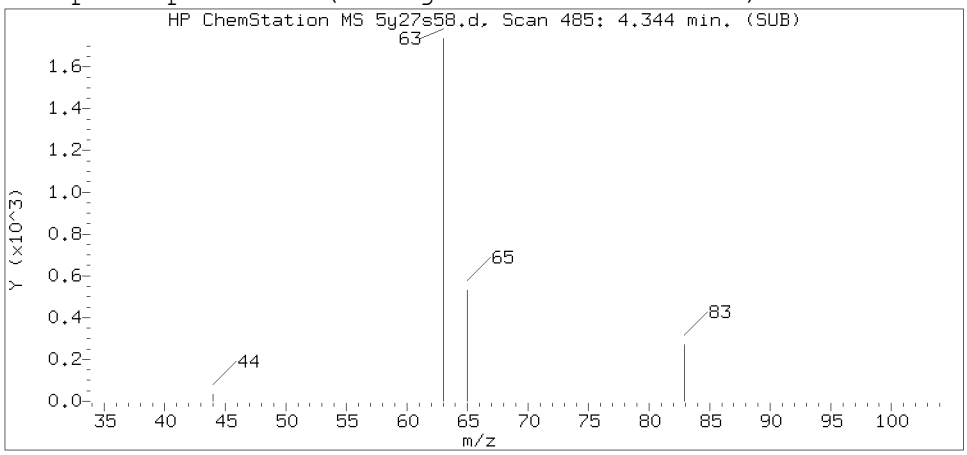
Target 3.5 esignature user ID: lcp00895

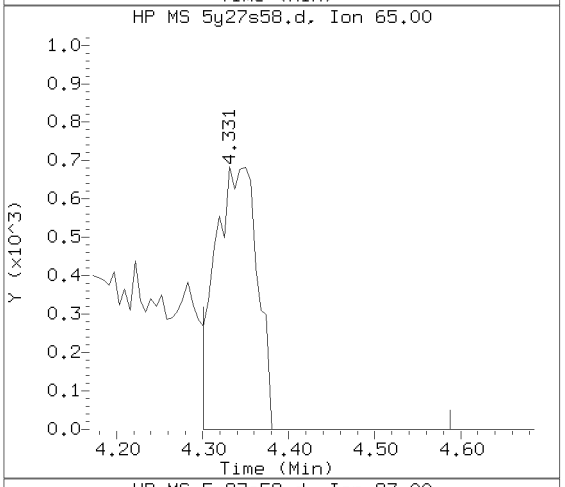
Reference Standard Spectrum for 1,1-Dichloroethane



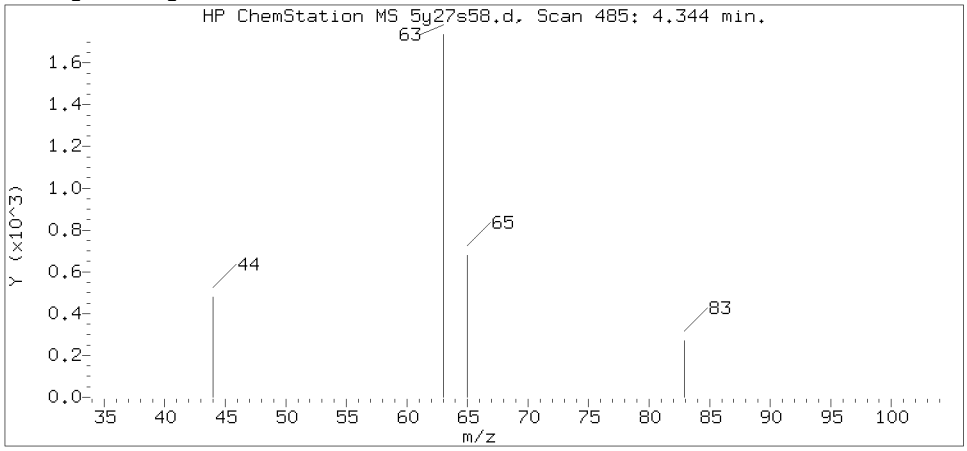


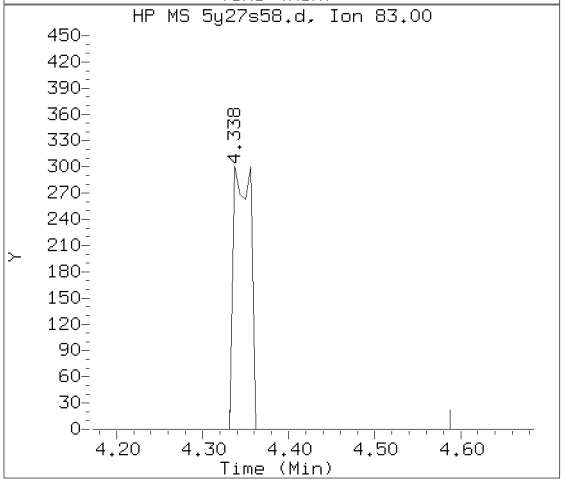
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 485
Retention Time (minutes): 4.344
Relative Retention Time : 0.00000
Quant Ion : 63.00
Area (flag) : 5754
On-Column Amount (ng) : 0.6573

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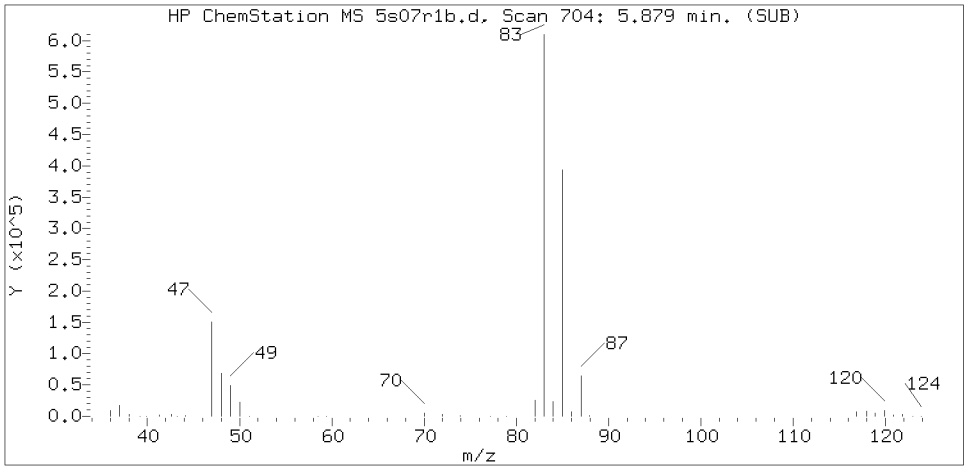
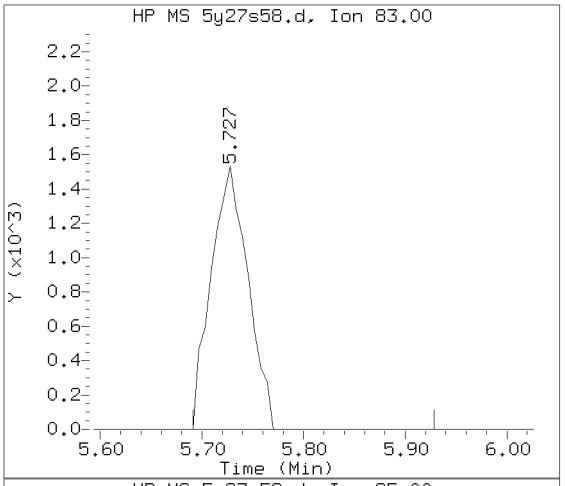
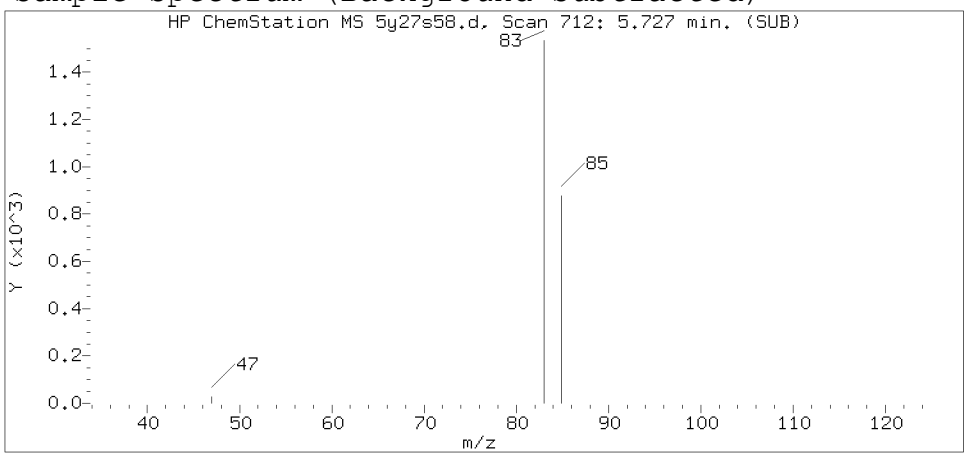
Target 3.5 esignature user ID: lcp00895

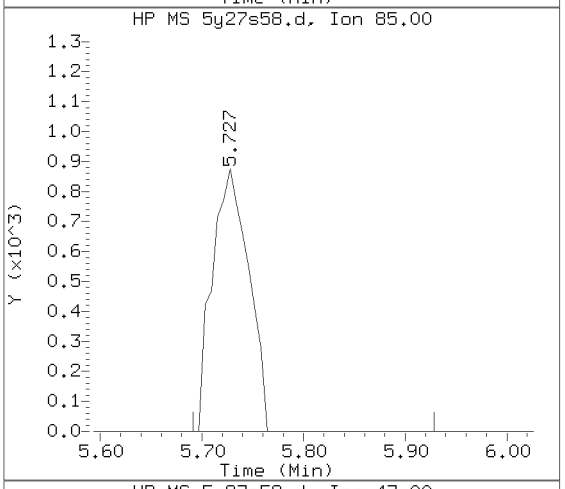
Reference Standard Spectrum for Chloroform



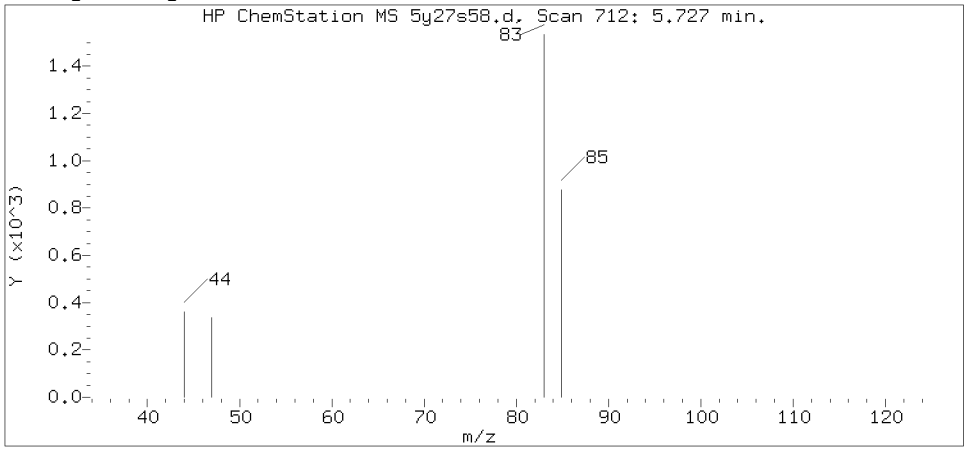


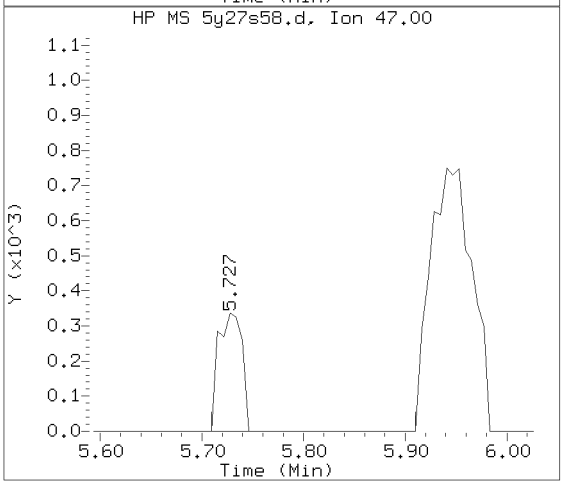
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Compound Number : 51
Compound Name : Chloroform
Scan Number : 712
Retention Time (minutes): 5.727
Relative Retention Time : 0.00000
Quant Ion : 83.00
Area (flag) : 3860
On-Column Amount (ng) : 0.4396

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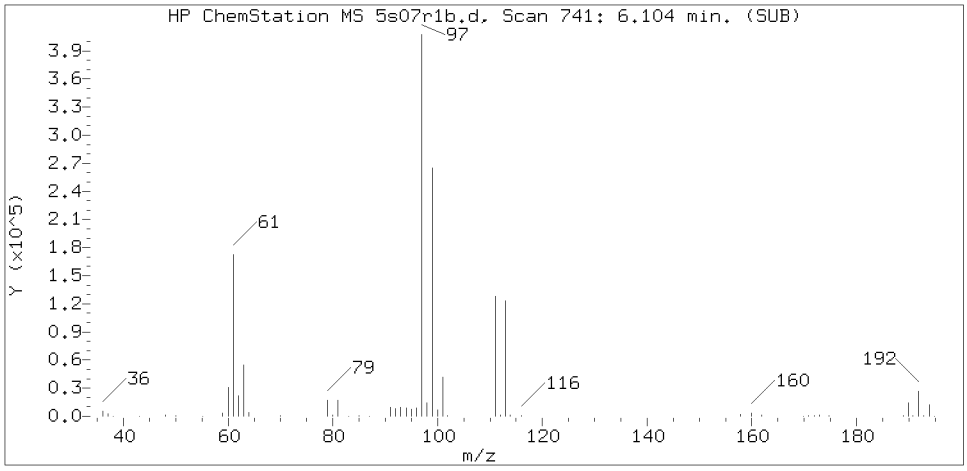
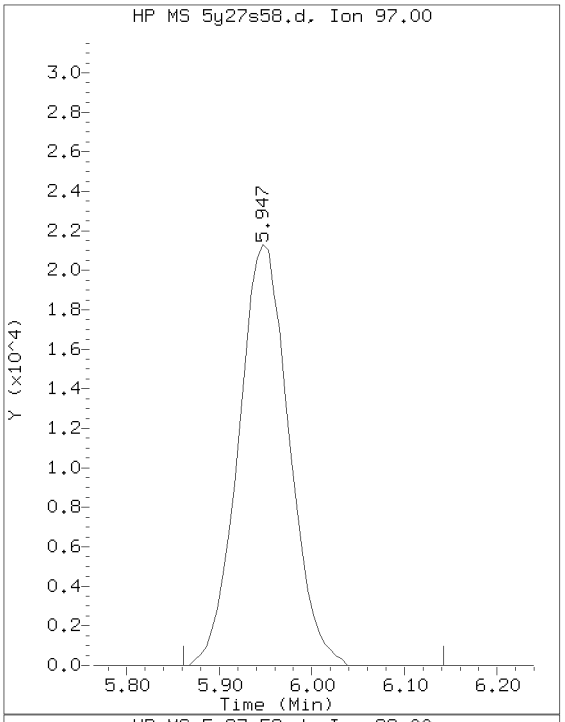
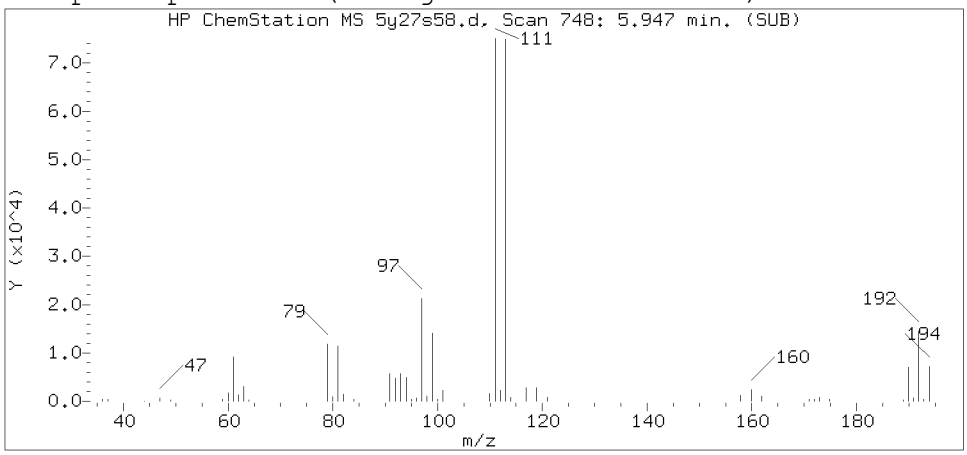
Target 3.5 esignature user ID: lcp00895

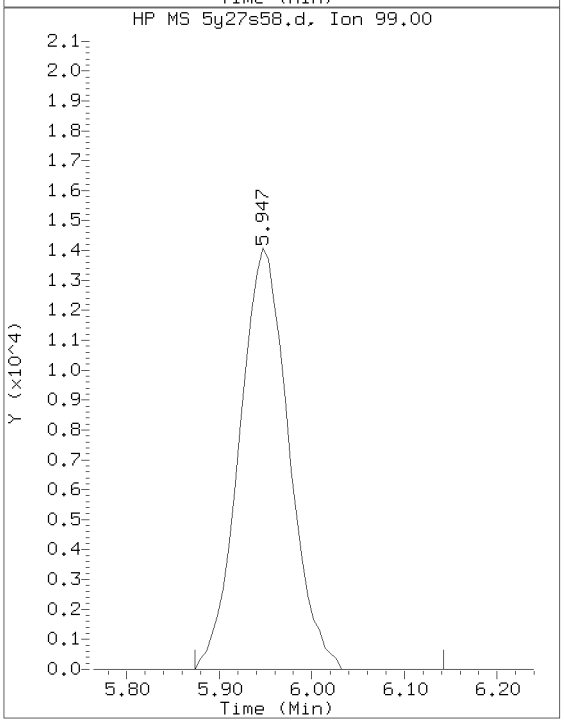
Reference Standard Spectrum for 1,1,1-Trichloroethane



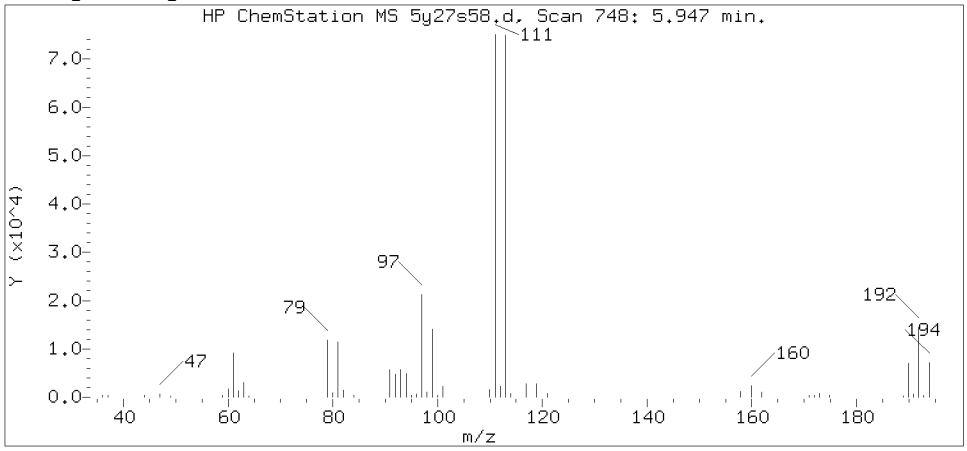


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 748
Retention Time (minutes): 5.947
Relative Retention Time : 0.00000
Quant Ion : 97.00
Area (flag) : 81018
On-Column Amount (ng) : 10.2487

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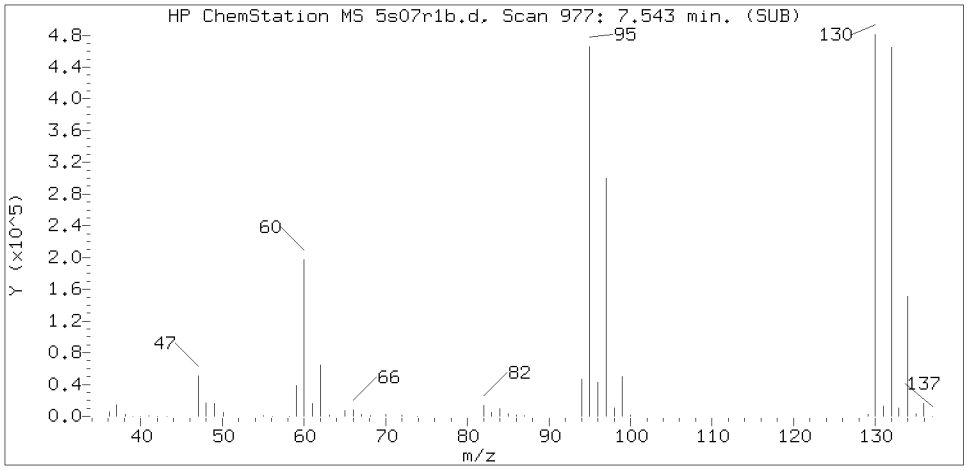
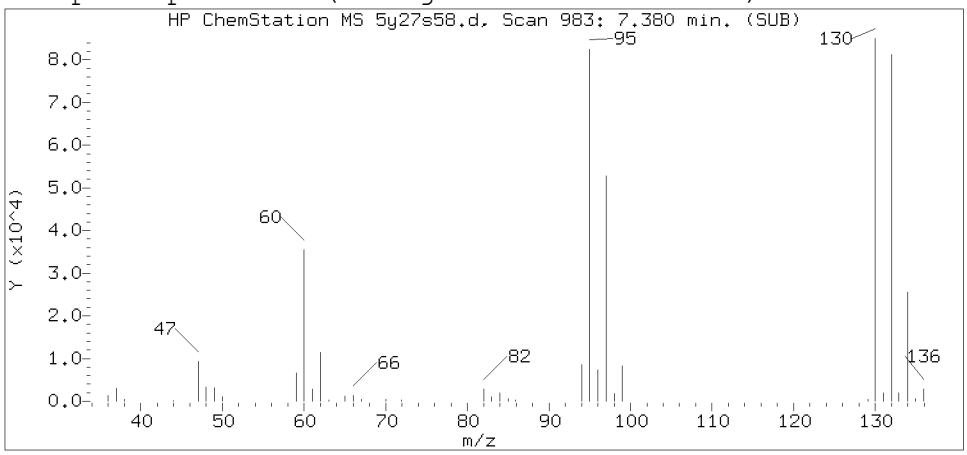
Target 3.5 esignature user ID: lcp00895

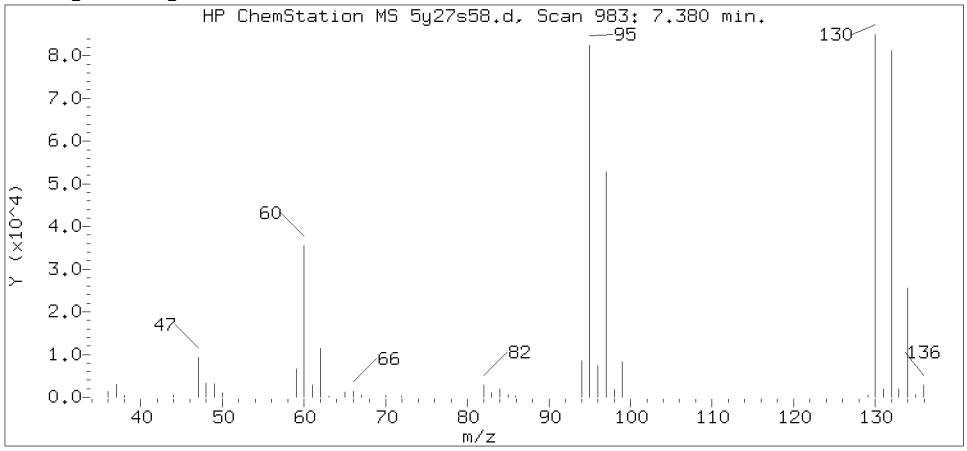
Reference Standard Spectrum for Trichloroethene

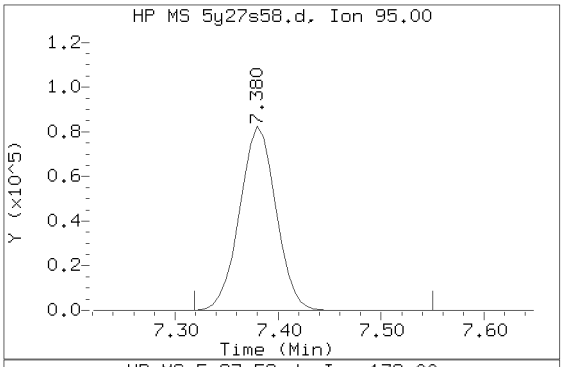


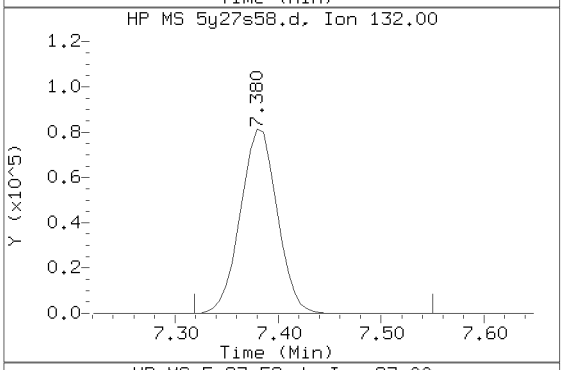
Sample Spectrum (Background Subtracted)

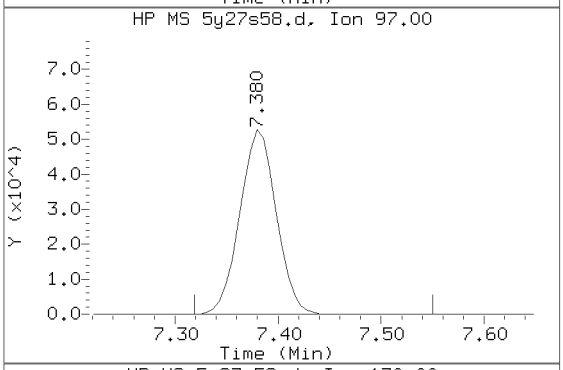


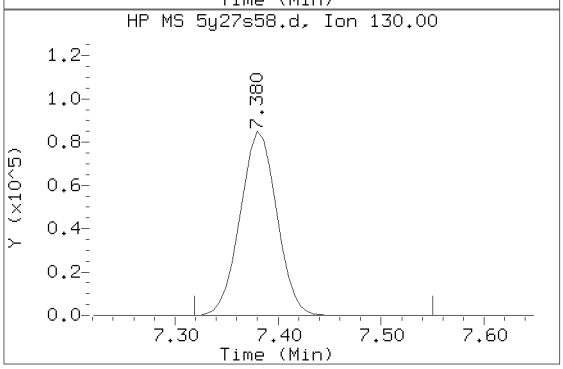
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s58.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:24 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:43 chemist

Sample Name: W5918 Lab Sample ID: 1318304

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 201710
On-Column Amount (ng) : 36.0977

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Target 3.5 esignature user ID: lcp00895

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5919

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318305

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s59.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.5	J
156-59-2	cis-1,2-Dichloroethene	0.5	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.6	J
71-55-6	1,1,1-Trichloroethane	15	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	33	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27s59.d Injection date and time: **28-MAY-2020 00:44**
Data file Sample Info. Line: W5919;1318305;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460(-0.036)	340	65	231576 (0)	250.00	
66) Fluorobenzene	6.880(0.000)	901	96	767912 (-6)	50.00	
101) Chlorobenzene-d5	10.684(-0.006)	1525	117	620116 (-6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702(0.000)	1856	152	334758 (-10)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953(-0.001)	113	207176	54.166	108%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428(0.000)	102	45705	53.429	107%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	735292	48.248	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769(0.001)	95	295582	46.033	92%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	2.874(-0.000)	96	5424	1.307	1.31			0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	4.350(-0.000)	63	3895	0.463	0.46		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	5.209(0.000)	96	2845	0.541	0.54		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)	5.727(0.000)	83	5141	0.609	0.61		J	0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	112352	14.793	14.79			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	7.380(-0.000)	95	175705	32.729	32.73			0.2	1
76) 1,4-Dioxane	(1)			Not Detected					29	250
89) Toluene	(3)			Not Detected					0.2	1
94) Tetrachloroethene	(3)			Not Detected					0.2	1
105) Ethylbenzene	(3)			Not Detected					0.4	1
107) m+p-Xylene	(3)			Not Detected					1	5
108) o-Xylene	(3)			Not Detected					0.4	1
109) Xylene (Total)	(3)			Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
149) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Linda C. Pape on 05/28/2020 at 12:36. Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27s59.d Injection date and time: **28-MAY-2020 00:44**
Data file Sample Info. Line: W5919;1318305;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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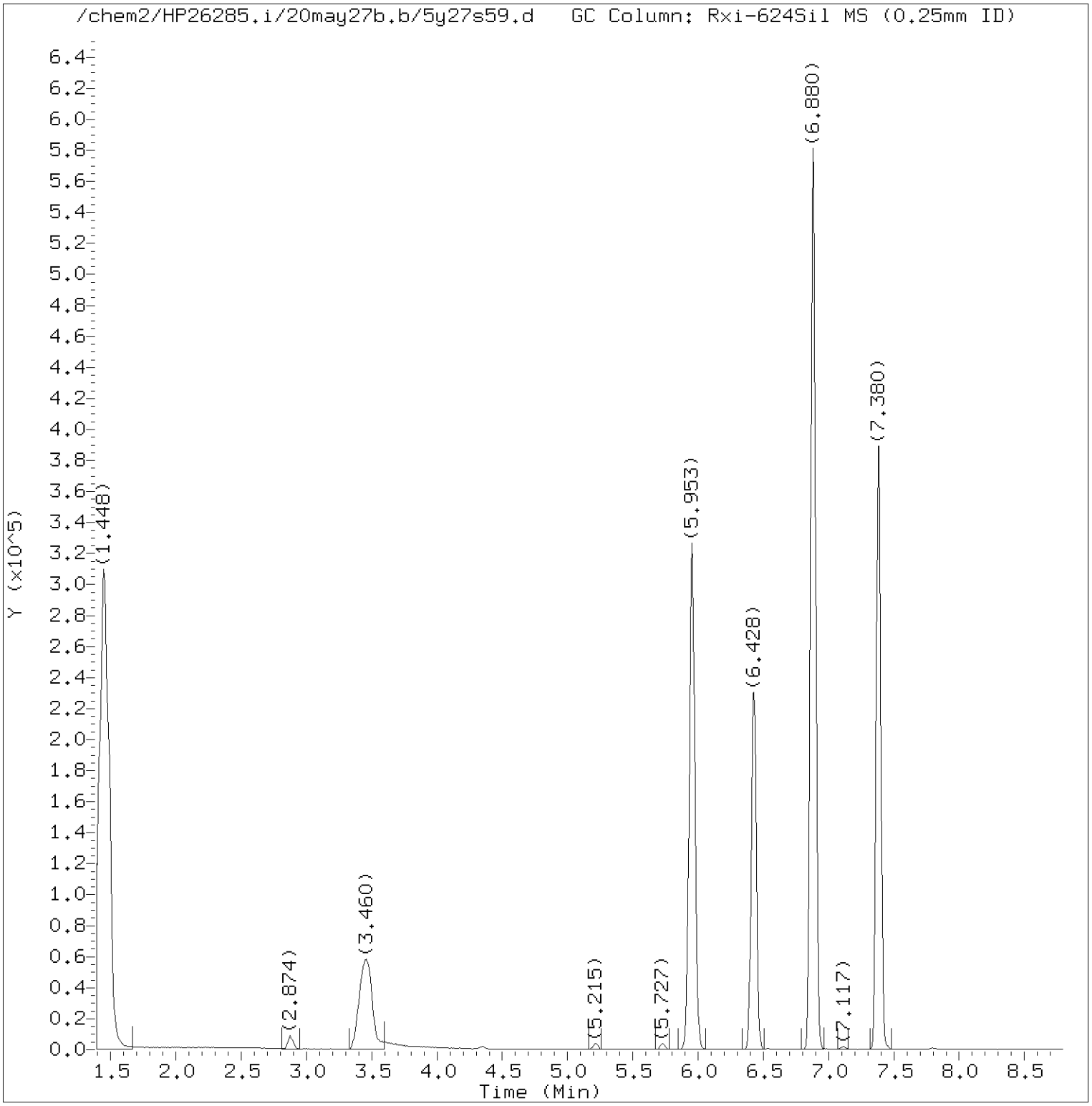
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:36. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:36.
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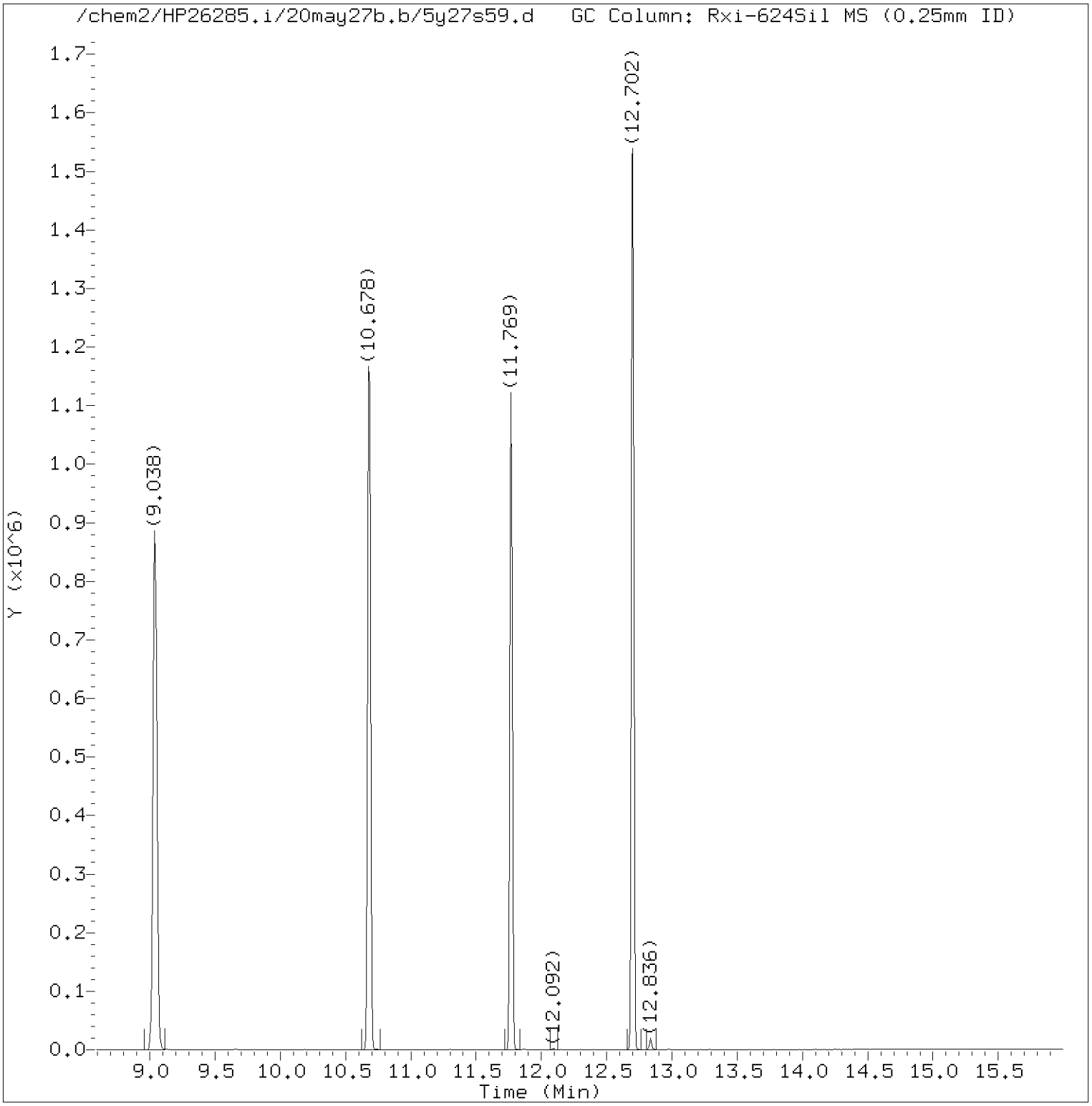

Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

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Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	2.874	96	5424	1.307
29)*t-Butyl alcohol-d10	(1)	3.460	65	231576	250.000
36) 1,1-Dichloroethane	(2)	4.350	63	3895	0.463
42) cis-1,2-Dichloroethene	(2)	5.209	96	2845	0.541
51) Chloroform	(2)	5.727	83	5141	0.609
53) 1,1,1-Trichloroethane	(2)	5.947	97	112352	14.793
52)$Dibromofluoromethane	(2)	5.953	113	207176	54.166
57)$1,2-Dichloroethane-d4	(2)	6.428	102	45705	53.429
66)*Fluorobenzene	(2)	6.880	96	767912	50.000
71) Trichloroethene	(2)	7.380	95	175705	32.729
84)$Toluene-d8	(3)	9.038	98	735292	48.248
101)*Chlorobenzene-d5	(3)	10.684	117	620116	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	295582	46.033
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	334758	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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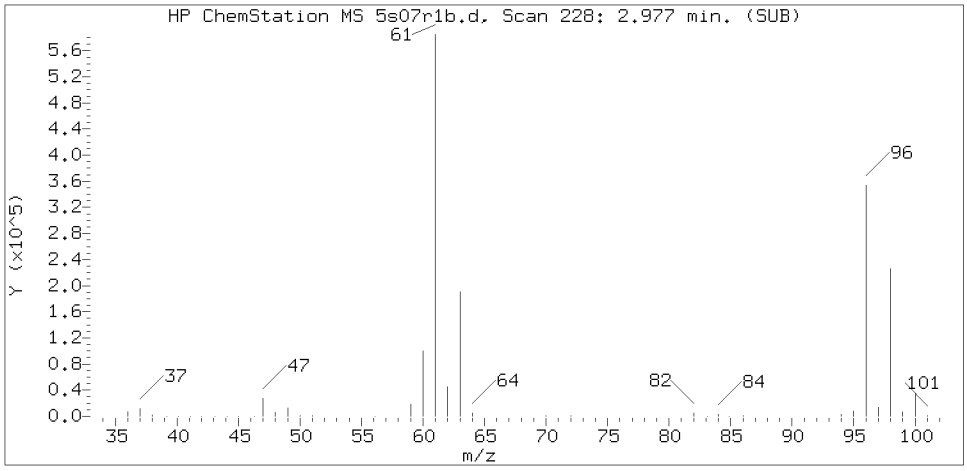
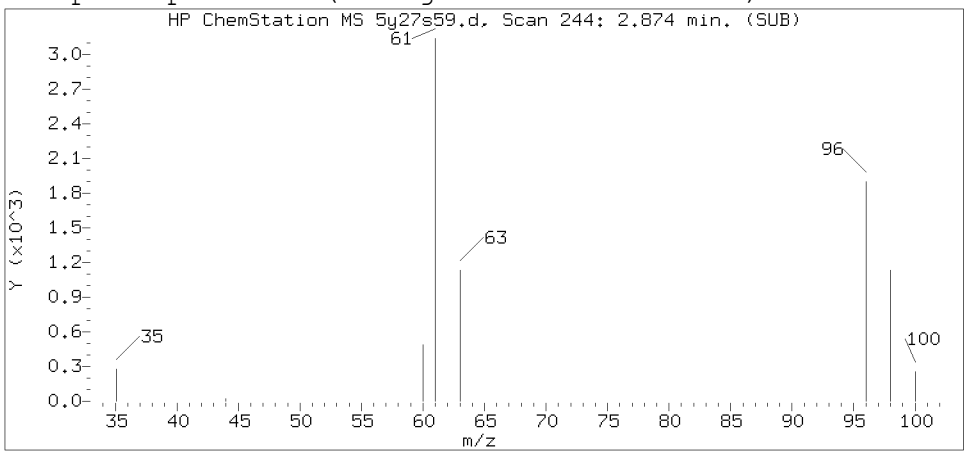
Target 3.5 esignature user ID: lcp00895

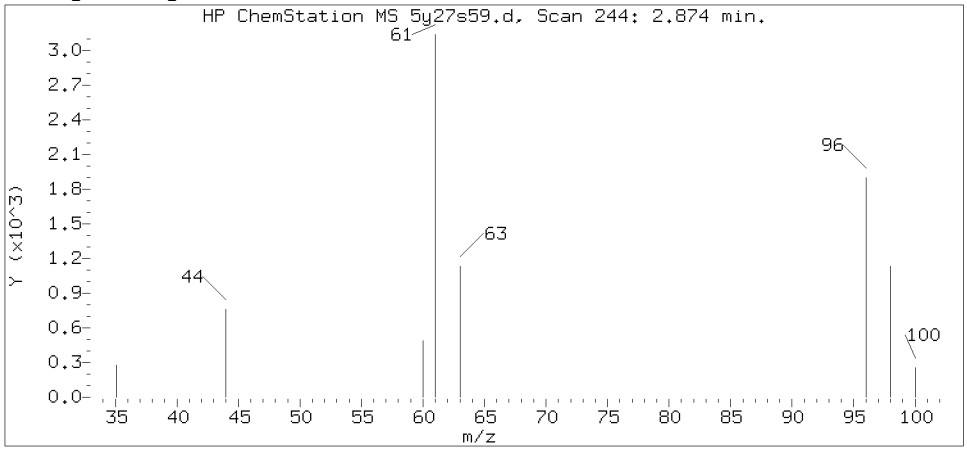
Reference Standard Spectrum for 1,1-Dichloroethene

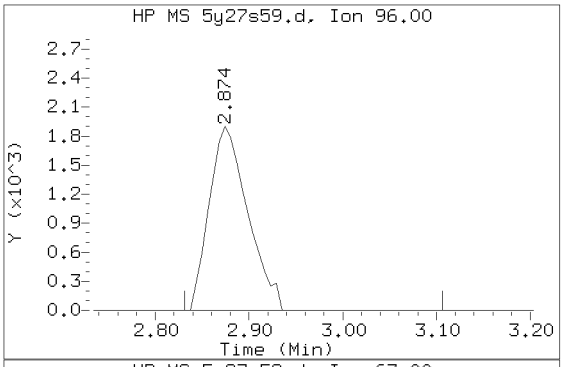


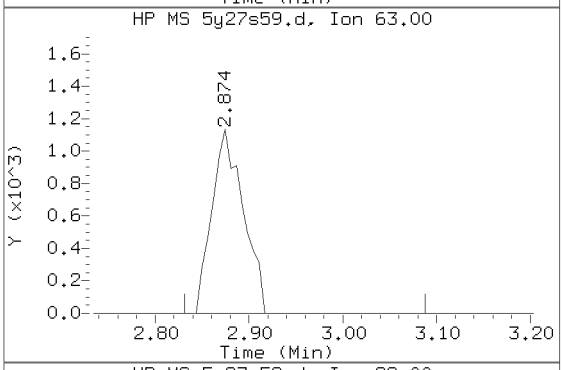
Sample Spectrum (Background Subtracted)

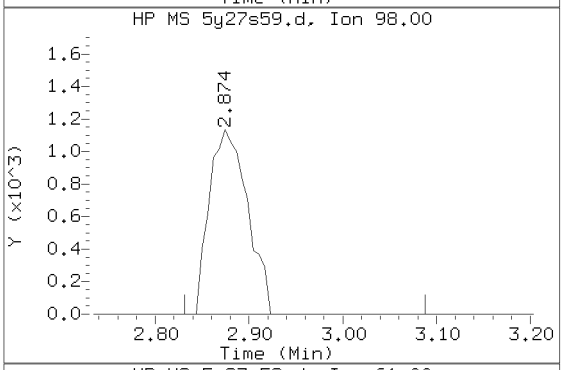


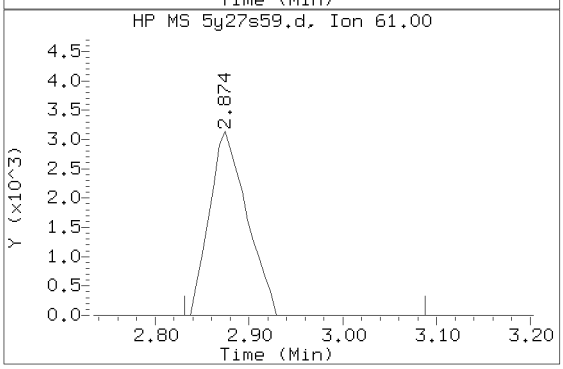
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 244
Retention Time (minutes): 2.874
Relative Retention Time :-0.00087
Quant Ion : 96.00
Area (flag) : 5424
On-Column Amount (ng) : 1.3066

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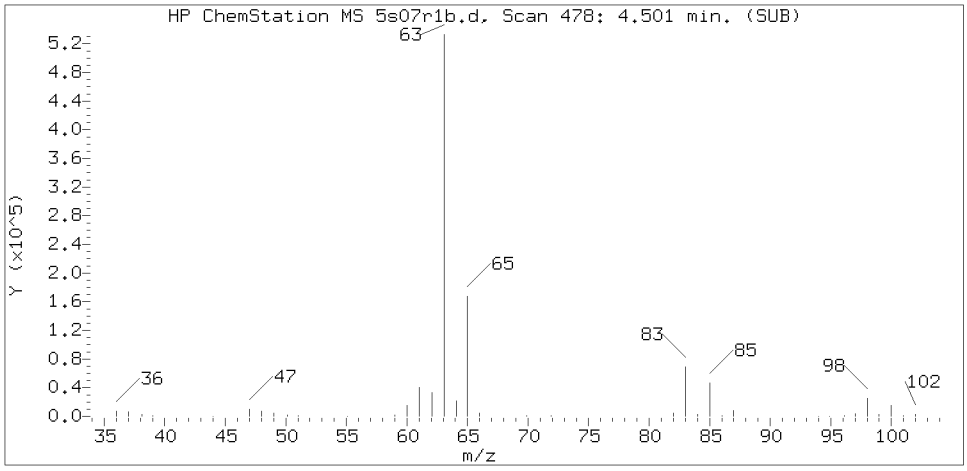
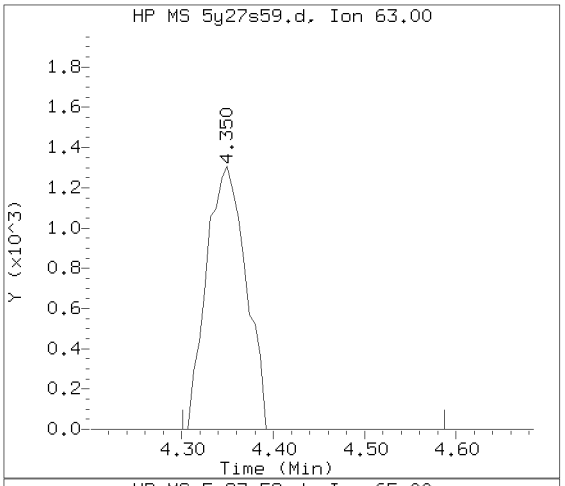
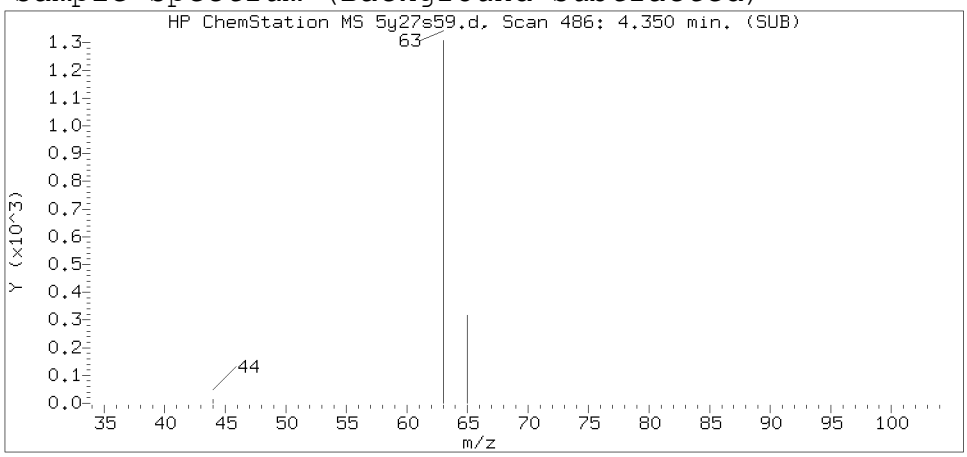
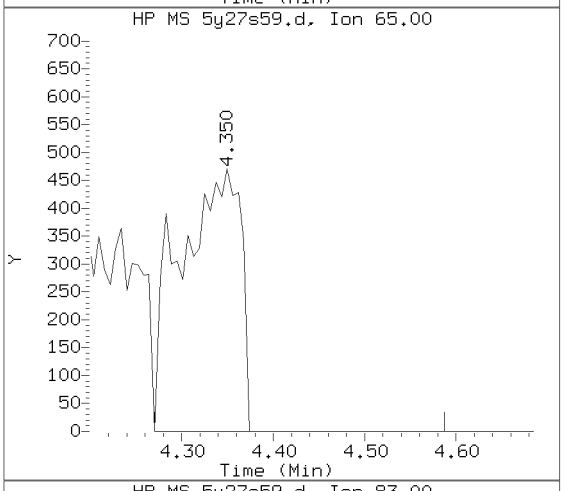
Reference Standard Spectrum for 1,1-Dichloroethane



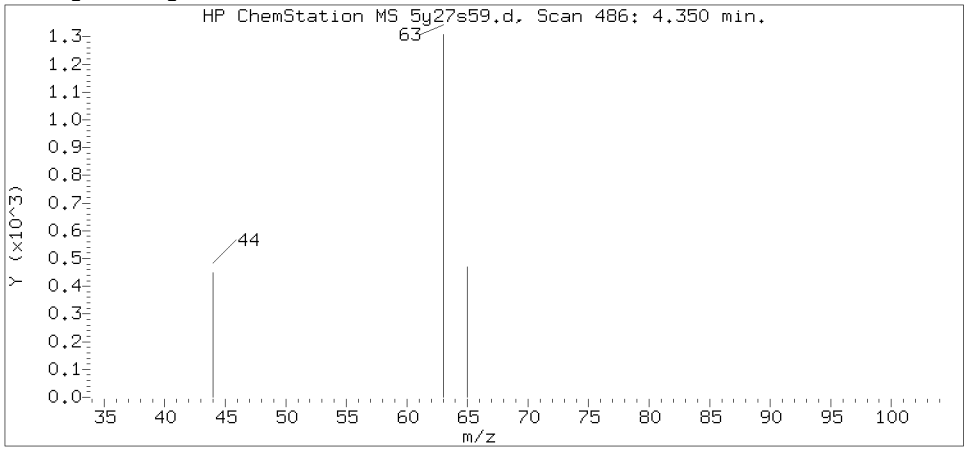


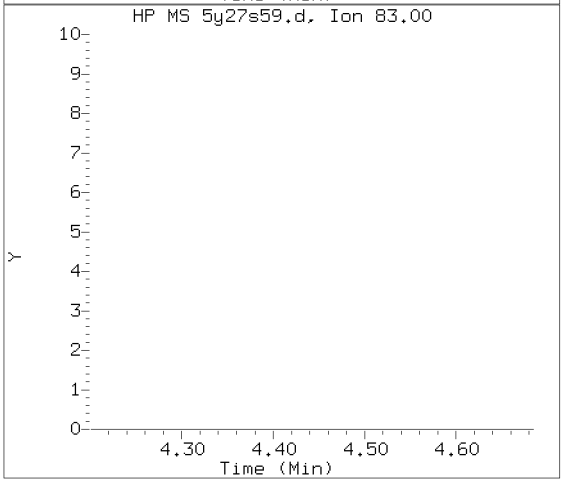
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 486
Retention Time (minutes): 4.350
Relative Retention Time :-0.00088
Quant Ion : 63.00
Area (flag) : 3895
On-Column Amount (ng) : 0.4631

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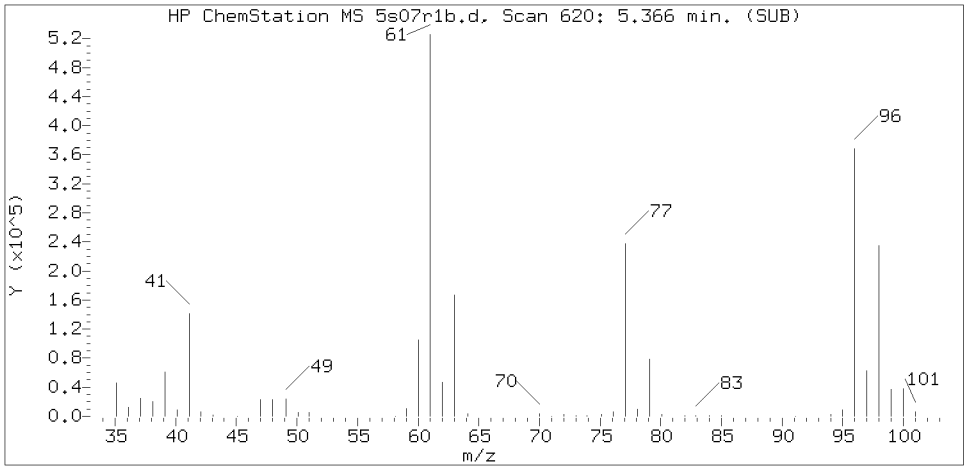
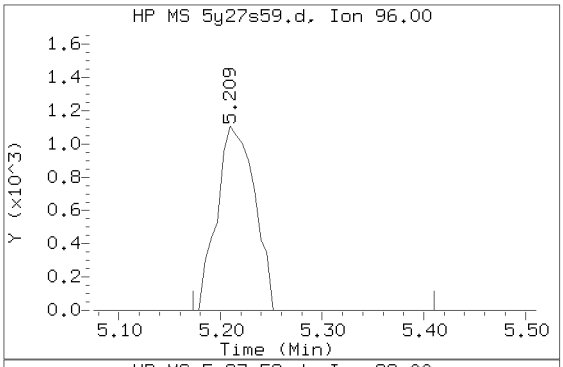
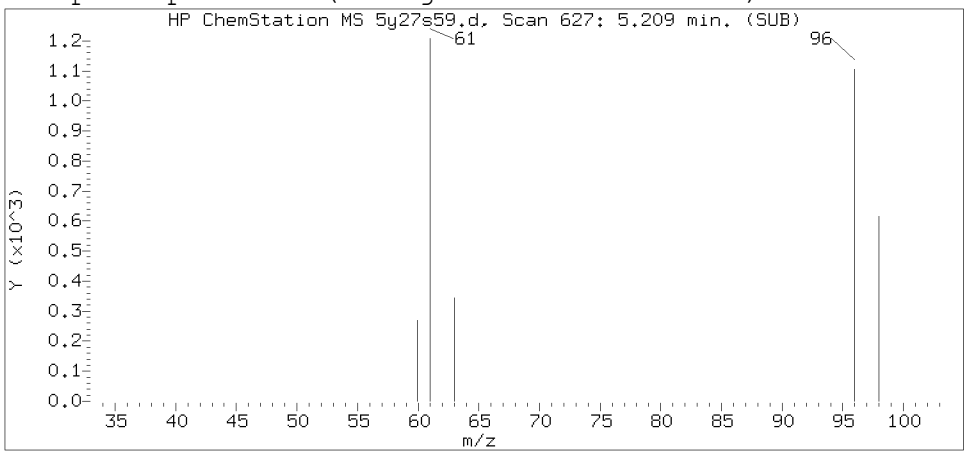
Target 3.5 esignature user ID: lcp00895

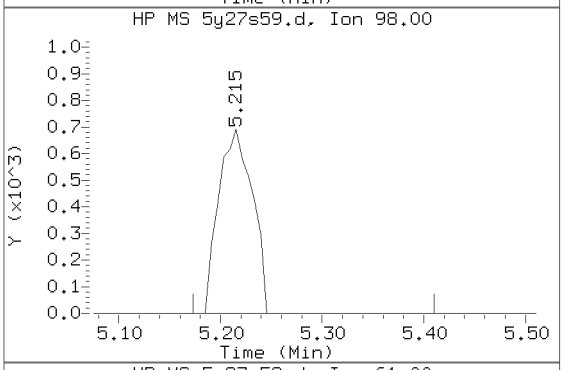
Reference Standard Spectrum for cis-1,2-Dichloroethene

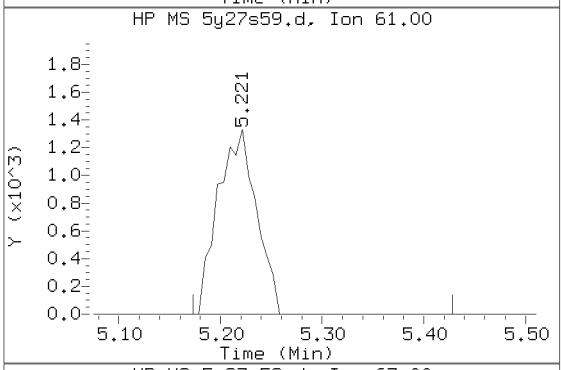




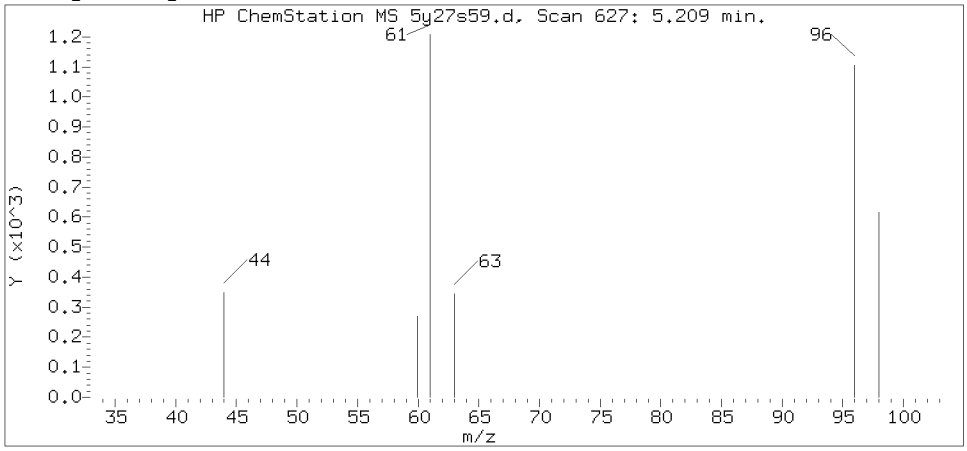
Sample Spectrum (Background Subtracted)

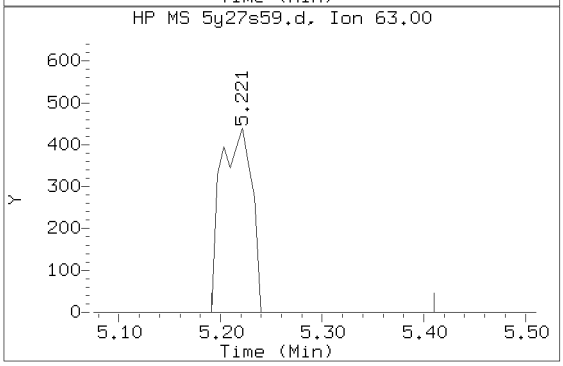






Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 627
Retention Time (minutes): 5.209
Relative Retention Time : 0.00000
Quant Ion : 96.00
Area (flag) : 2845
On-Column Amount (ng) : 0.5415

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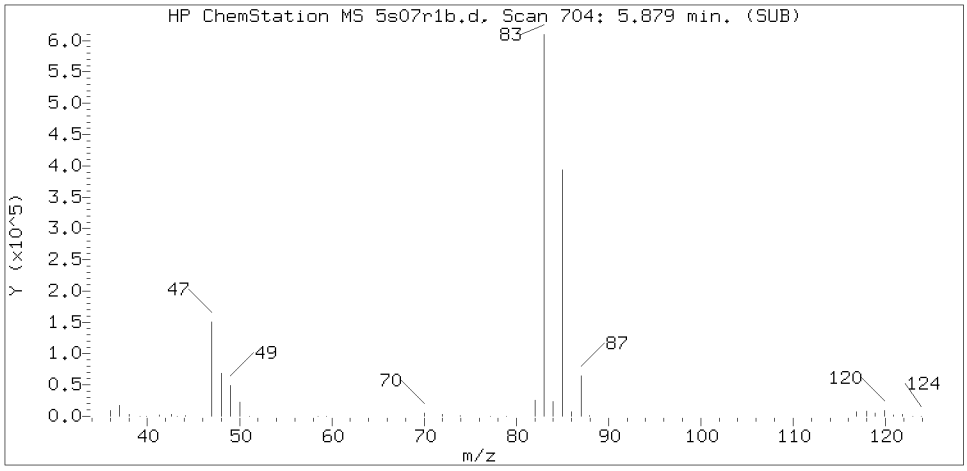
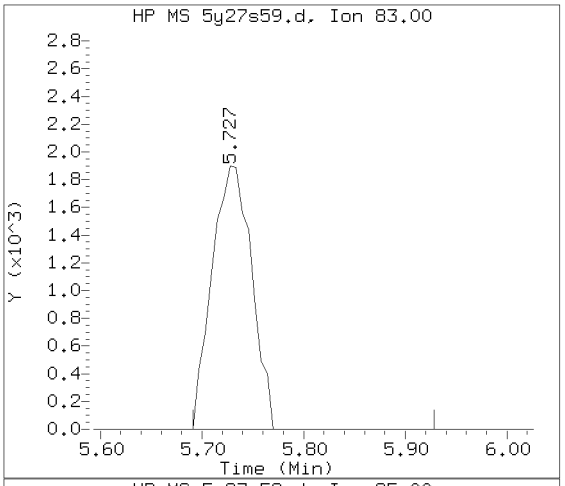
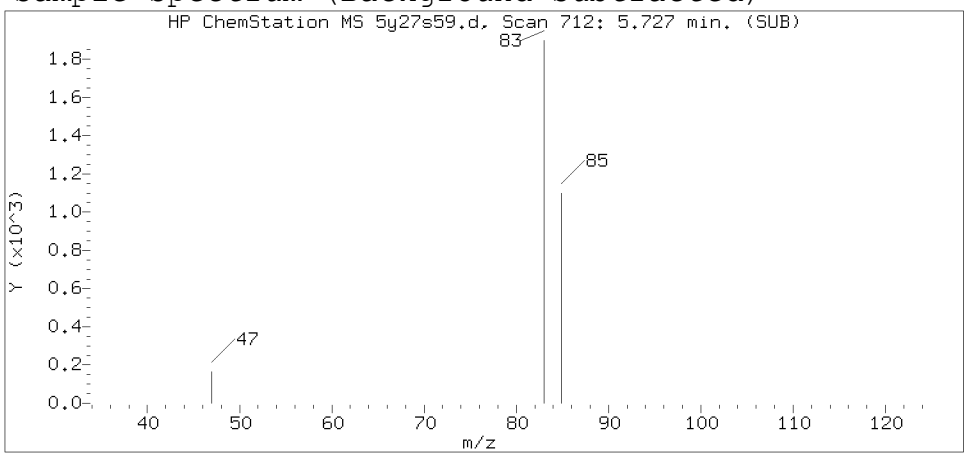
Target 3.5 esignature user ID: lcp00895

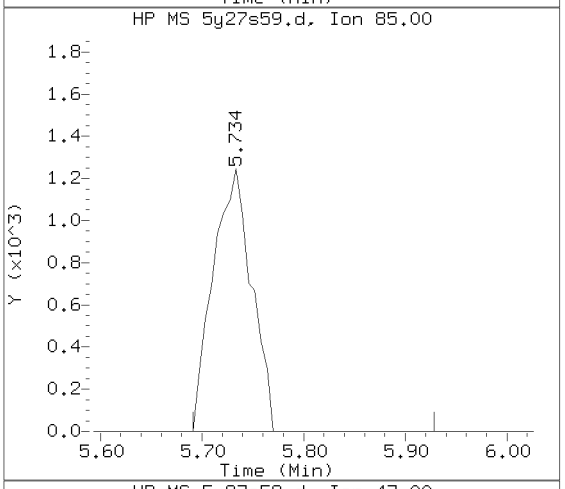
Reference Standard Spectrum for Chloroform



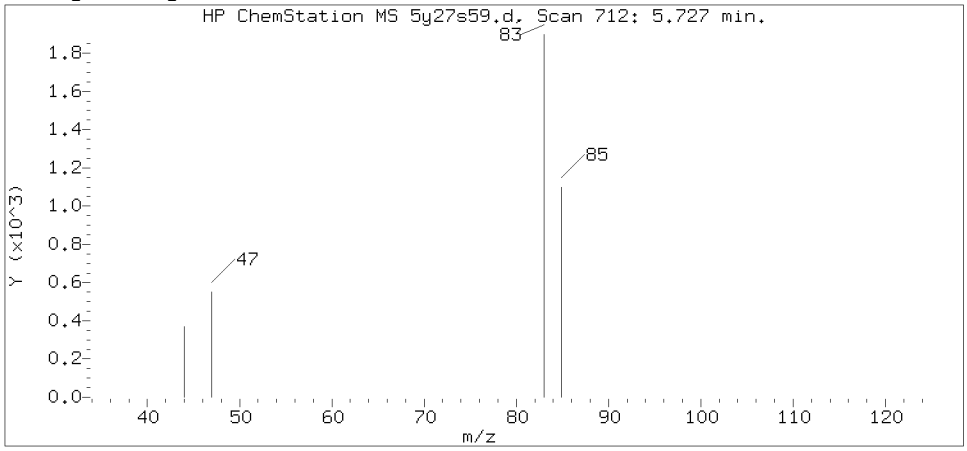


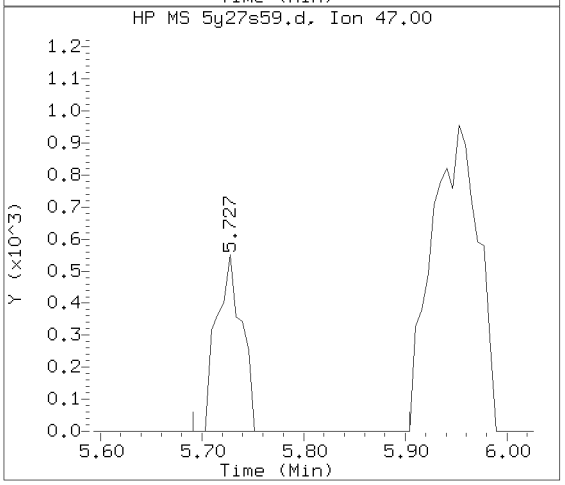
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number	: 51
Compound Name	: Chloroform
Scan Number	: 712
Retention Time (minutes)	: 5.727
Relative Retention Time	: 0.00000
Quant Ion	: 83.00
Area (flag)	: 5141
On-Column Amount (ng)	: 0.6095

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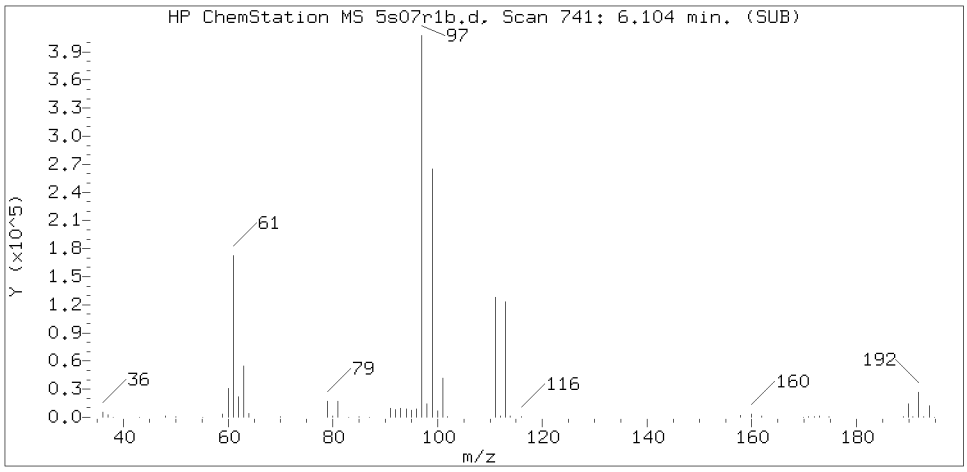
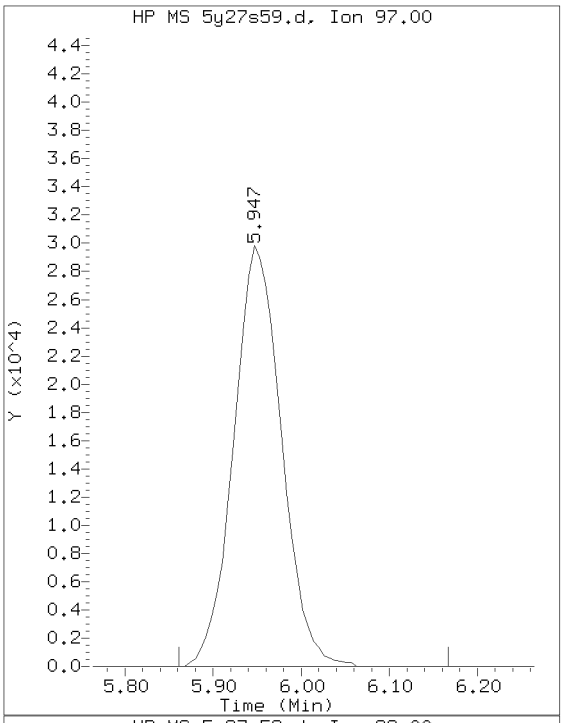
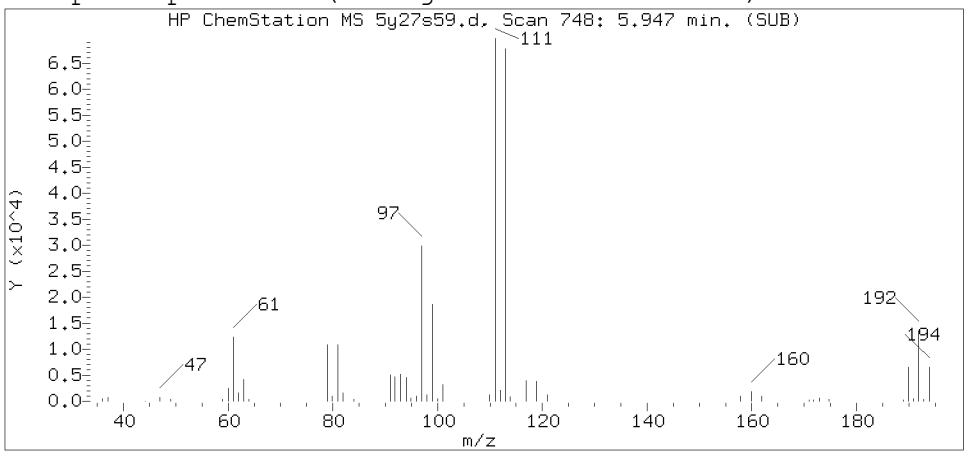
Target 3.5 esignature user ID: lcp00895

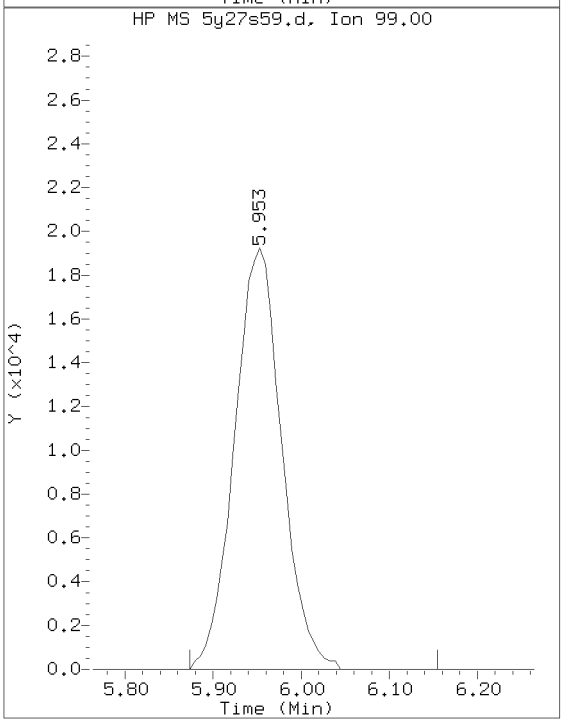
Reference Standard Spectrum for 1,1,1-Trichloroethane



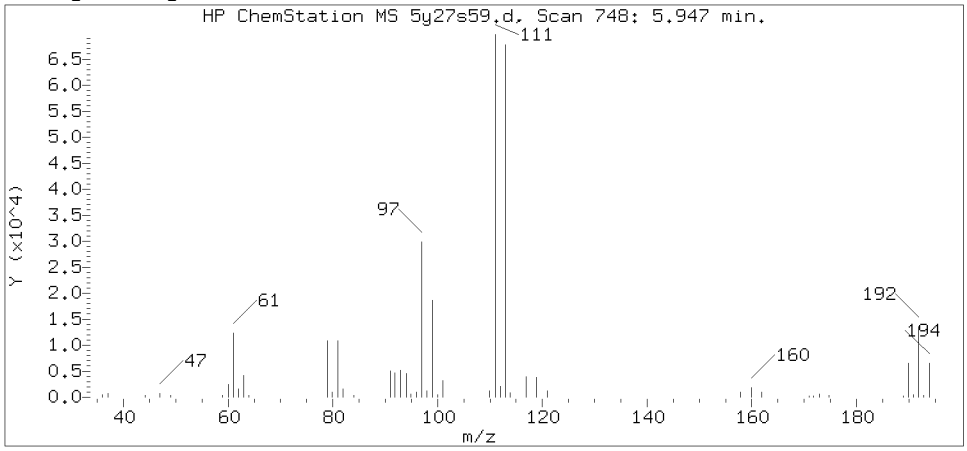


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 748
Retention Time (minutes)	: 5.947
Relative Retention Time	: 0.00001
Quant Ion	: 97.00
Area (flag)	: 112352
On-Column Amount (ng)	: 14.7930

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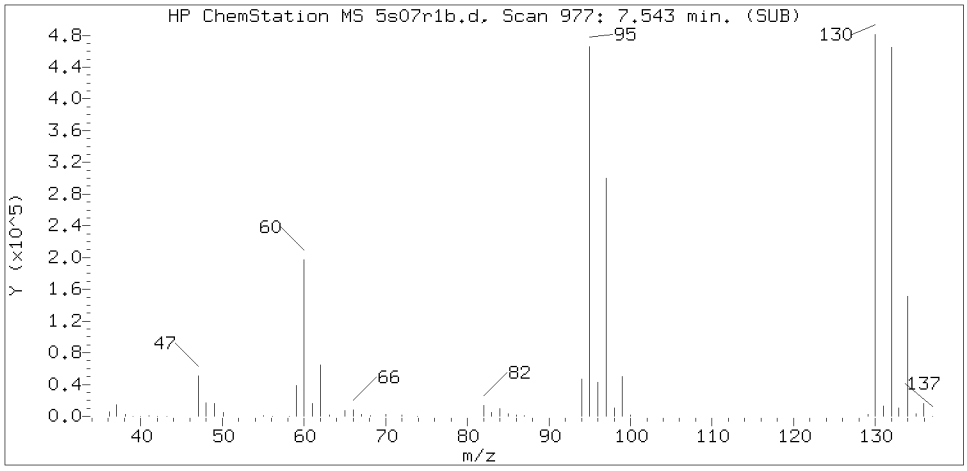
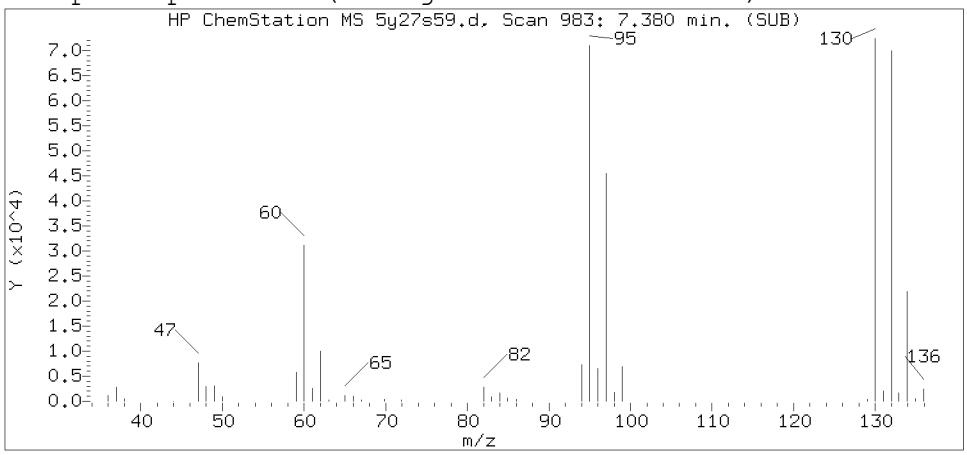
Target 3.5 esignature user ID: lcp00895

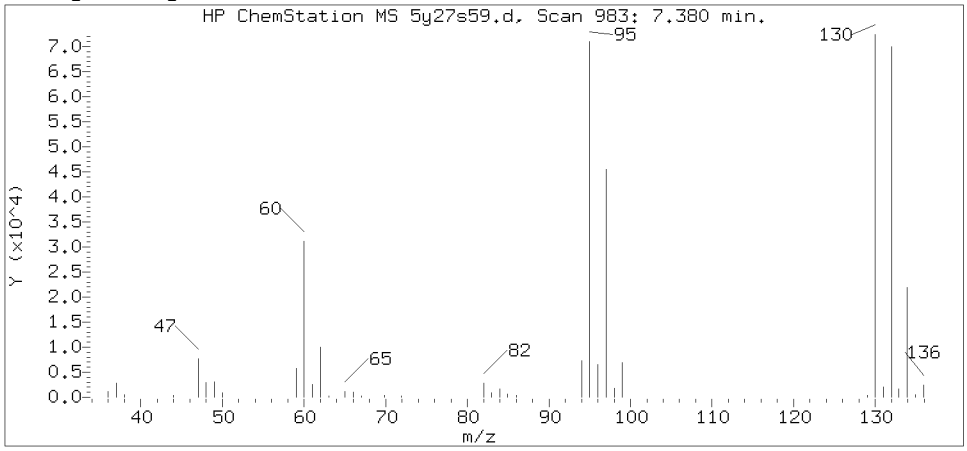
Reference Standard Spectrum for Trichloroethene

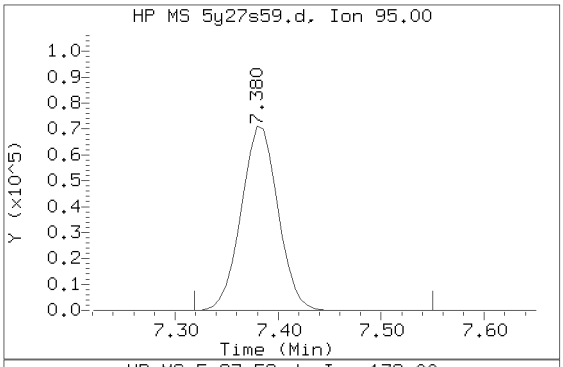


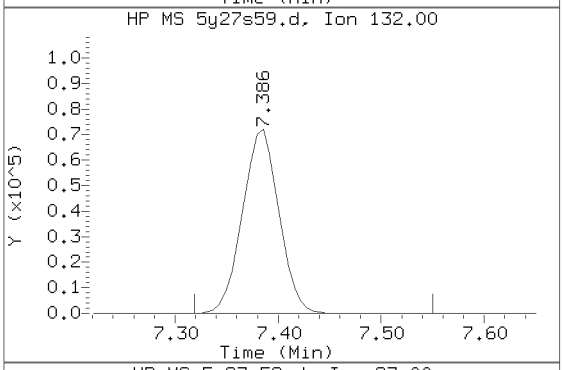
Sample Spectrum (Background Subtracted)

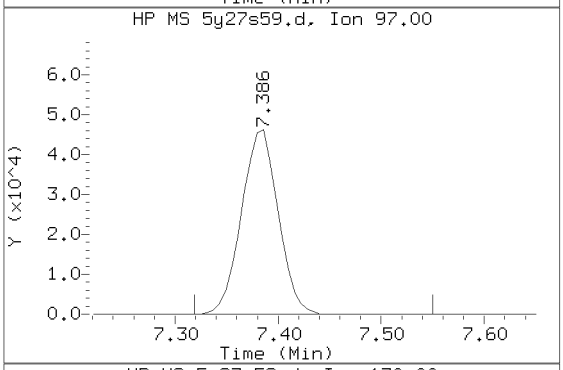


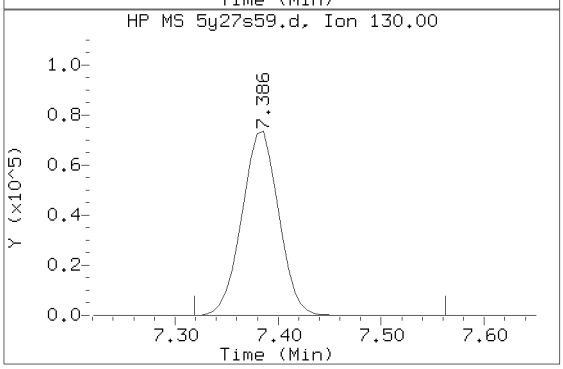
Sample Spectrum (Unaltered)











Data File: /chem2/HP26285.i/20may27b.b/5y27s59.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 00:44 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:03 chemist

Sample Name: W5919 Lab Sample ID: 1318305

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 983
Retention Time (minutes): 7.380
Relative Retention Time :-0.00000
Quant Ion : 95.00
Area (flag) : 175705
On-Column Amount (ng) : 32.7285

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Target 3.5 esignature user ID: lcp00895

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
W5920

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318306

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27s60.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/28/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	J
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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W5920 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1318306

Data file: /chem2/HP26285.i/20may27b.b/5y27s60.d Injection date and time: **28-MAY-2020 01:05**
Data file Sample Info. Line: W5920;1318306;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453	(-0.030)	339	65	225980	(-2)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	764757	(-7)	50.00	
101) Chlorobenzene-d5	10.678	(0.000)	1524	117	617283	(-7)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	335174	(-10)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947	(0.000)	113	203618	53.456	107%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422	(0.001)	102	45751	53.704	107%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	728906	48.049	96%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.000)	95	295242	46.191	92%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)	5.727	(0.000)	83	8341	0.993	0.99		J	0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
89) Toluene	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
149) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Linda C. Pape on 05/28/2020 at 12:37. Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27s60.d Injection date and time: **28-MAY-2020 01:05**
Data file Sample Info. Line: W5920;1318306;1;0;;JCW59;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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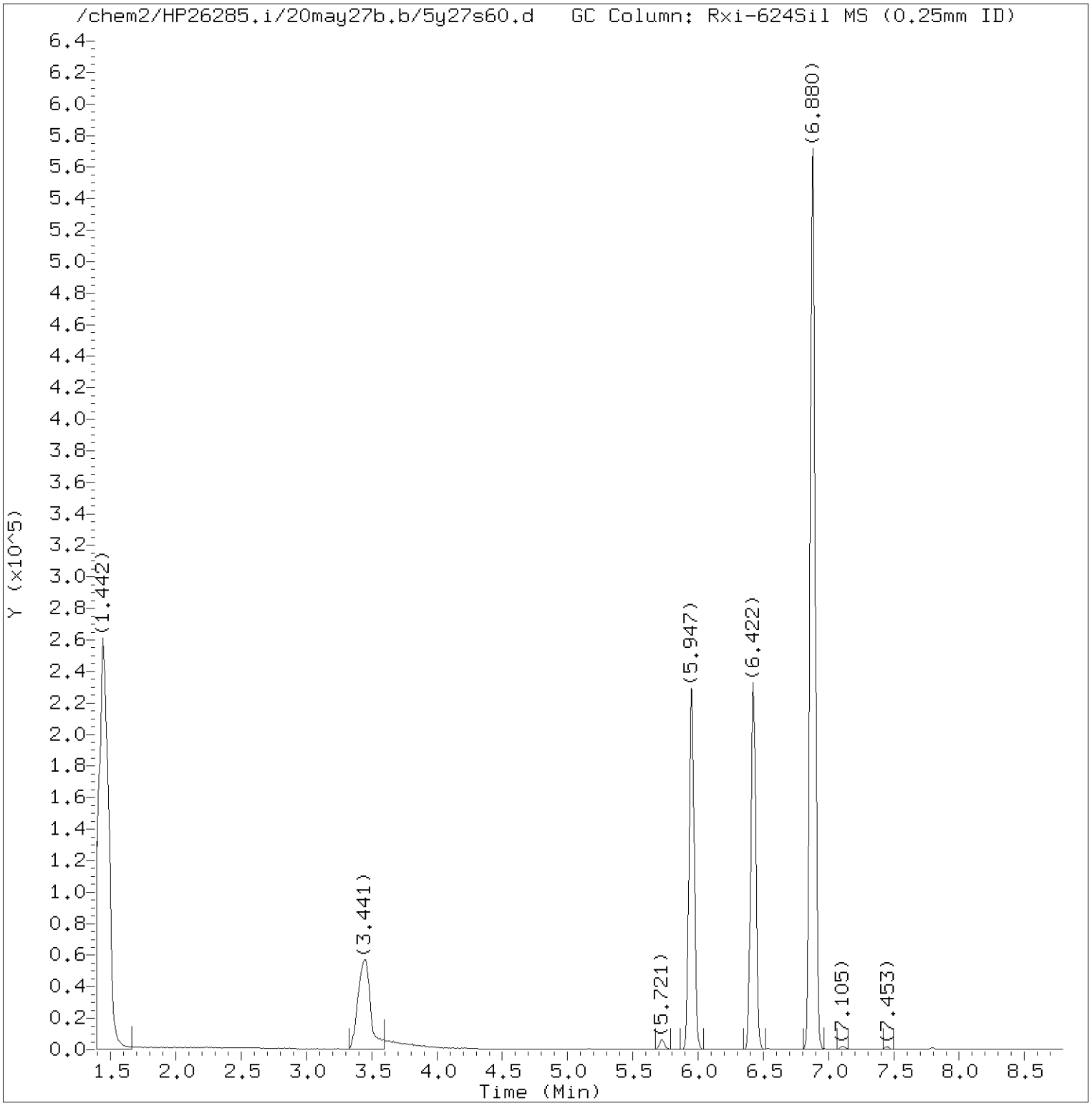
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Linda C. Pape on 05/28/2020 at 12:37. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:33. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

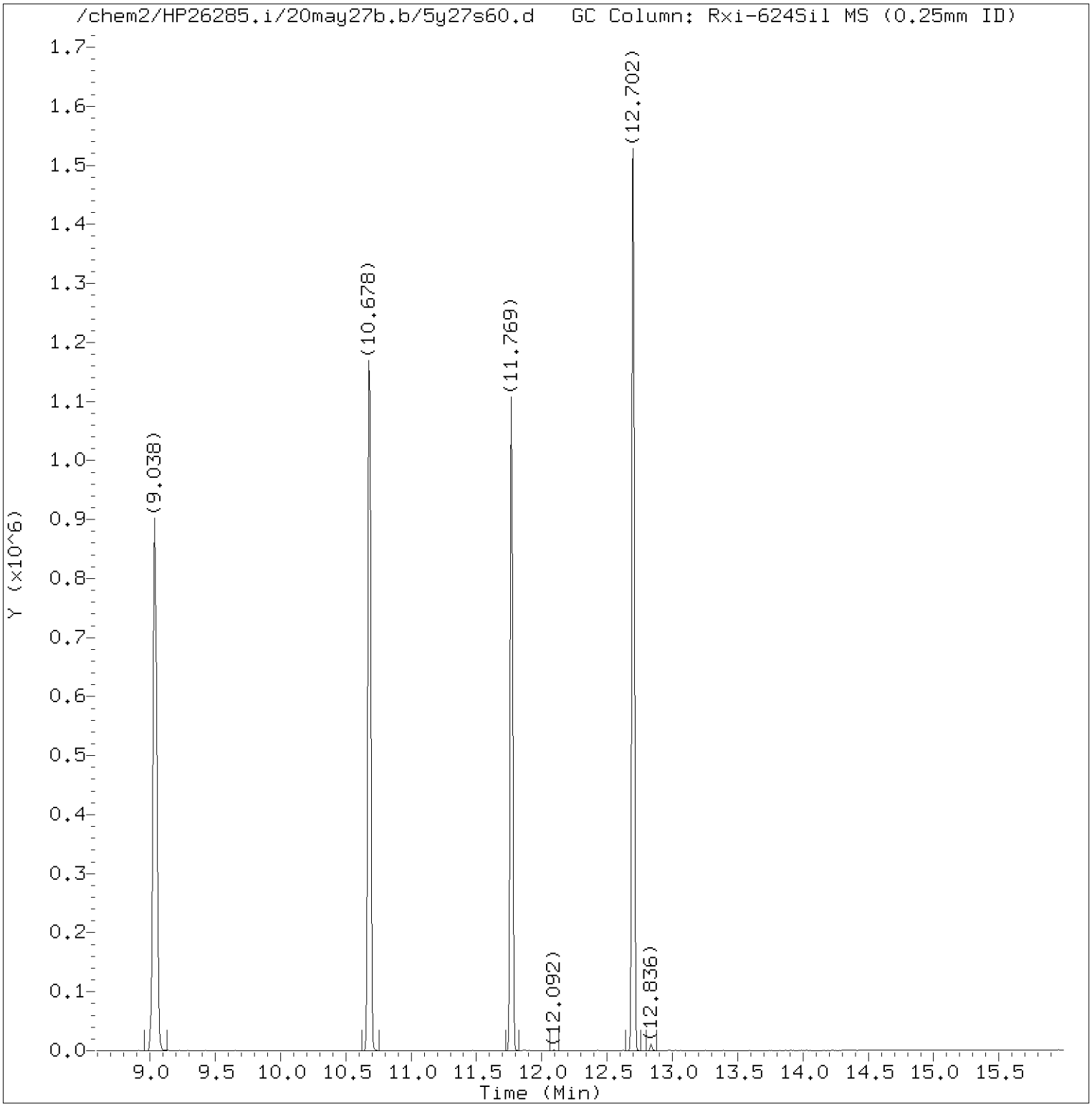
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s60.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 01:05 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Sample Name: W5920 Lab Sample ID: 1318306

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:37.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s60.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 01:05 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Sample Name: W5920 Lab Sample ID: 1318306

Digitally signed by Linda C. Pape
on 05/28/2020 at 12:37.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27s60.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 01:05 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Sample Name: W5920 Lab Sample ID: 1318306

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.453	65	225980	250.000
51) Chloroform	(2)	5.727	83	8341	0.993
52)$Dibromofluoromethane	(2)	5.947	113	203618	53.456
57)$1,2-Dichloroethane-d4	(2)	6.422	102	45751	53.704
66)*Fluorobenzene	(2)	6.880	96	764757	50.000
84)$Toluene-d8	(3)	9.038	98	728906	48.049
101)*Chlorobenzene-d5	(3)	10.678	117	617283	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	295242	46.191
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	335174	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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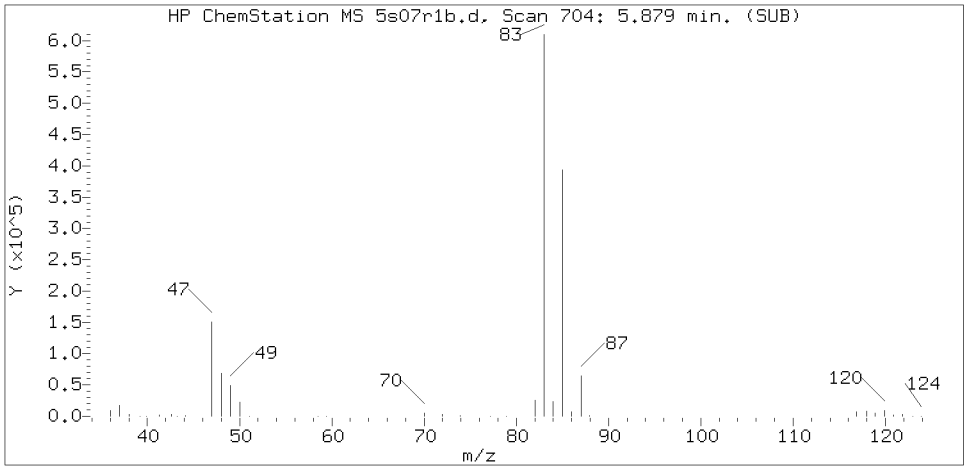
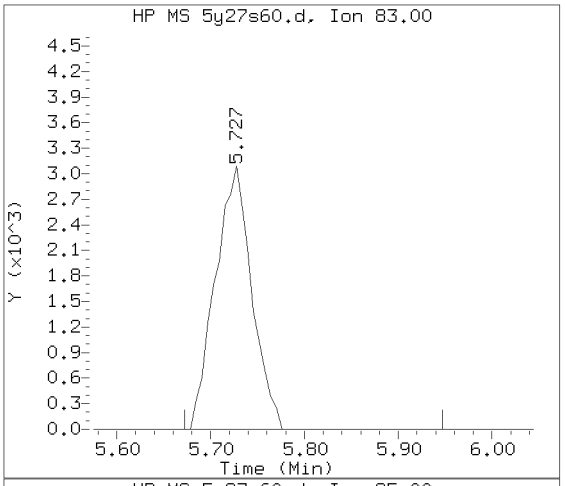
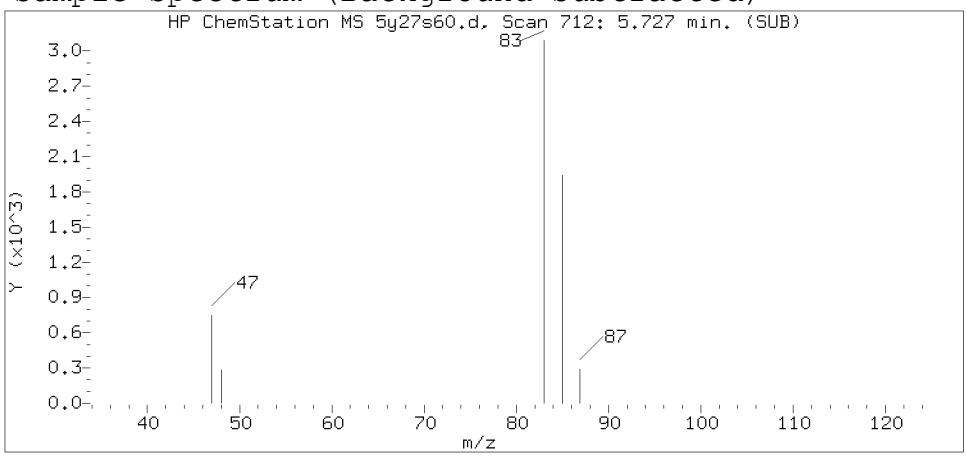
on 05/28/2020 at 12:37.
Target 3.5 esignature user ID: lcp00895

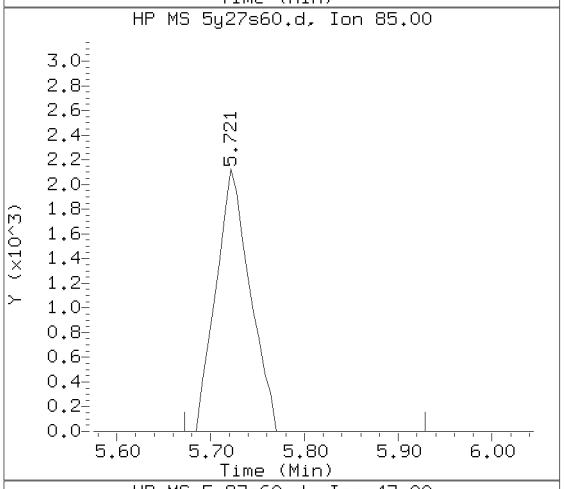
Reference Standard Spectrum for Chloroform



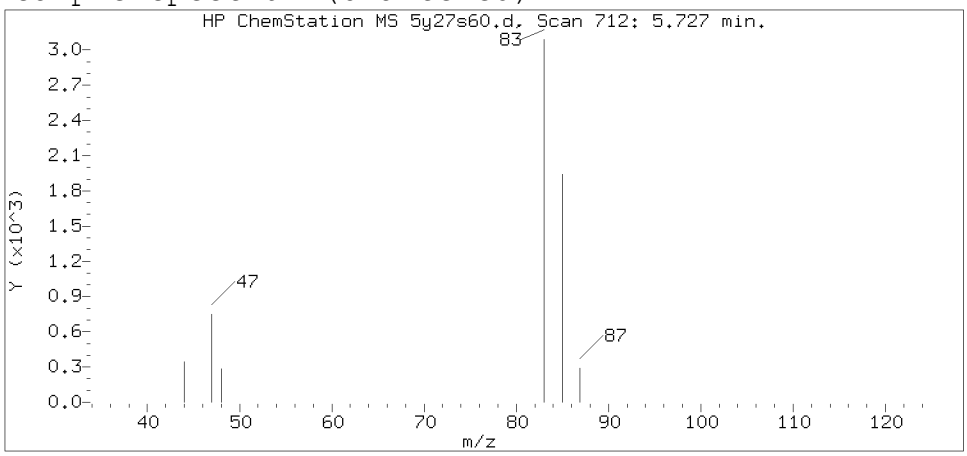


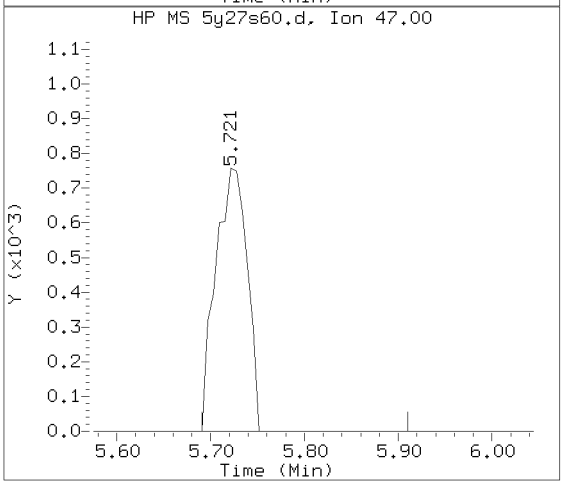
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem2/HP26285.i/20may27b.b/5y27s60.d Instrument ID: HP26285.i
Injection date and time: 28-MAY-2020 01:05 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 01:23 chemist

Sample Name: W5920 Lab Sample ID: 1318306

Compound Number : 51
Compound Name : Chloroform
Scan Number : 712
Retention Time (minutes): 5.727
Relative Retention Time : 0.00000
Quant Ion : 83.00
Area (flag) : 8341
On-Column Amount (ng) : 0.9929

Digitally signed by Linda C. Pape on 05/28/2020 at 12:37.
Target 3.5 esignature user ID: lcp00895

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20APR21A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
KAS02648	5A21T01.D	50 ng BFB	04/21/2020	20:36		
KAS02648	5A21X01.D	BLK	04/21/2020	20:59		
KAS02648	5A21I01.D	VSTD300	04/21/2020	21:19		
KAS02648	5A21I02.D	VSTD100	04/21/2020	21:40		
KAS02648	5A21I03.D	VSTD050	04/21/2020	22:00		
KAS02648	5A21I04.D	VSTD020	04/21/2020	22:21		
KAS02648	5A21I05.D	VSTD010	04/21/2020	22:42		
KAS02648	5A21I06.D	VSTD004	04/21/2020	23:02		
KAS02648	5A21I07.D	VSTD001	04/21/2020	23:23		
KAS02648	5A21X02.D	BLK	04/21/2020	23:44		
KAS02648	5A21V01.D	LG5ICV	04/22/2020	00:05		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20MAY27A\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	5Y27T01.D	50 ng BFB	05/27/2020	07:59		
LCP00895	5Y27X00.D	CBLK	05/27/2020	08:26	5201481AA	
LCP00895	5Y27C01.D	VSTD050	05/27/2020	08:46	5201481AA	
LCP00895	5Y27X01.D	CBLK	05/27/2020	09:07	5201481AA	
LCP00895	5Y27S01.D	LCS572	05/27/2020	09:27	5201481AA	
LCP00895	5Y27R01.D	RLV572	05/27/2020	09:48	5201481AA	
LCP00895	5Y27B01.D	VBLK572	05/27/2020	10:08	5201481AA	
LCP00895	5Y27S02.D	1319246	05/27/2020	10:29	5201481AA	
LCP00895	5Y27S03.D	1319248	05/27/2020	10:50	5201481AA	
LCP00895	5Y27S04.D	1319229	05/27/2020	11:10	5201481AA	
LCP00895	5Y27S05.D	1319230MS	05/27/2020	11:31	5201481AA	
LCP00895	5Y27S06.D	1319231MSD	05/27/2020	11:52	5201481AA	
LCP00895	5Y27S07.D	1319239	05/27/2020	12:12	5201481AA	
LCP00895	5Y27S08.D	1319242	05/27/2020	12:33	5201481AA	
LCP00895	5Y27S09.D	1319251	05/27/2020	12:53	5201481AA	
LCP00895	5Y27S10.D	1319251DL	05/27/2020	13:14	5201481AA	10
LCP00895	5Y27S11.D	1318263	05/27/2020	13:34	5201481AA	
LCP00895	5Y27S12.D	1318277	05/27/2020	13:55	5201481AA	
LCP00895	5Y27S13.D	1318292	05/27/2020	14:16	5201481AA	
LCP00895	5Y27S14.D	1318293	05/27/2020	14:36	5201481AA	
LCP00895	5Y27S15.D	1318293DL	05/27/2020	14:57	5201481AA	10
LCP00895	5Y27S16.D	1318295	05/27/2020	15:17	5201481AA	
LCP00895	5Y27S17.D	1318295DL	05/27/2020	15:38	5201481AA	10
LCP00895	5Y27S18.D	1318296	05/27/2020	15:58	5201481AA	
LCP00895	5Y27S19.D	1318296DL	05/27/2020	16:19	5201481AA	10
LCP00895	5Y27S20.D	1318297	05/27/2020	16:40	5201481AA	
LCP00895	5Y27S21.D	1318298	05/27/2020	17:01	5201481AA	
LCP00895	5Y27S22.D	1318299	05/27/2020	17:21	5201481AA	
LCP00895	5Y27S23.D	1318300	05/27/2020	17:42	5201481AA	
LCP00895	5Y27S24.D	1318301	05/27/2020	18:03	5201481AA	
LCP00895	5Y27S25.D	1318302	05/27/2020	18:23	5201481AA	
LCP00895	5Y27S26.D	1318303	05/27/2020	18:44	5201481AA	
LCP00895	5Y27S27.D	1318294	05/27/2020	19:05	5201481AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20MAY27B\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LJG30941	5Y27T50.D	50 ng BFB	05/27/2020	19:29		
LJG30941	5Y27T51.D	50 ng BFB	05/27/2020	19:39		
LJG30941	5Y27X50.D	BLK	05/27/2020	19:52	5201482AA	
LJG30941	5Y27C50.D	VSTD050	05/27/2020	20:12	5201482AA	
LJG30941	5Y27L50.D	LCS573	05/27/2020	20:33	5201482AA	
LJG30941	5Y27L51.D	LCD573	05/27/2020	20:53	5201482AA	
LJG30941	5Y27R50.D	RLV573	05/27/2020	21:14	5201482AA	
LJG30941	5Y27B50.D	VBLK573	05/27/2020	21:35	5201482AA	
LJG30941	5Y27S51.D	1319994	05/27/2020	22:00	5201482AA	
LJG30941	5Y27S52.D	1319996	05/27/2020	22:20	5201482AA	
LJG30941	5Y27S53.D	1318278	05/27/2020	22:41	5201482AA	
LJG30941	5Y27S54.D	1318280	05/27/2020	23:02	5201482AA	
LJG30941	5Y27S55.D	1318281	05/27/2020	23:22	5201482AA	
LJG30941	5Y27S56.D	1318282	05/27/2020	23:43	5201482AA	
LJG30941	5Y27S57.D	1318284	05/28/2020	00:03	5201482AA	
LJG30941	5Y27S58.D	1318304	05/28/2020	00:24	5201482AA	
LJG30941	5Y27S59.D	1318305	05/28/2020	00:44	5201482AA	
LJG30941	5Y27S60.D	1318306	05/28/2020	01:05	5201482AA	
LJG30941	5Y27S61.D	1319980	05/28/2020	01:26	5201482AA	
LJG30941	5Y27S62.D	1319981MS	05/28/2020	01:46	5201482AA	
LJG30941	5Y27S63.D	1319982MSD	05/28/2020	02:07	5201482AA	
LJG30941	5Y27S64.D	1319990	05/28/2020	02:28	5201482AA	
LJG30941	5Y27S65.D	1318294DL	05/28/2020	02:48	5201482AA	10
LJG30941	5Y27S66.D	1318279	05/28/2020	03:09	5201482AA	
LJG30941	5Y27S67.D	1318283	05/28/2020	03:29	5201482AA	
LJG30941	5Y27S68.D	1319251DL2	05/28/2020	03:50	5201482AA	100
LJG30941	5Y27S69.D	1314747	05/28/2020	04:10	5201482AA	20
LJG30941	5Y27S70.D	1314747MS	05/28/2020	04:31	5201482AA	20
LJG30941	5Y27S71.D	1316625	05/28/2020	04:52	5201482AA	20
LJG30941	5Y27X81.D	BLK	05/28/2020	05:12	5201484AA	
LJG30941	5Y27S80.D	1317516DL2	05/28/2020	05:33	5201484AA	20
LJG30941	5Y27S81.D	1320777	05/28/2020	05:54	5201484AA	

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP26285 **HP #05**

Data Directory Path is - C:\DATA\20may29a\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
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CLM27445	5Y29X00.D	VBLK578	05/29/2020	09:50	5201501AA	
CLM27445	5Y29C01.D	VSTD050	05/29/2020	10:11	5201501AA	
CLM27445	5Y29X01.D	VBLK578	05/29/2020	10:31	5201501AA	
CLM27445	5Y29S01.D	LCS578	05/29/2020	10:52	5201501AA	
CLM27445	5Y29R01.D	RLV578	05/29/2020	11:12	5201501AA	
CLM27445	5Y29B01.D	VBLK578	05/29/2020	11:33	5201501AA	
CLM27445	5Y29S02.D	1318262	05/29/2020	12:12	5201501AA	
CLM27445	5Y29S03.D	1318286	05/29/2020	12:33	5201501AA	
CLM27445	5Y29S04.D	1318287MS	05/29/2020	12:53	5201501AA	
CLM27445	5Y29S05.D	1318288MSD	05/29/2020	13:14	5201501AA	
CLM27445	5Y29S06.D	1318260	05/29/2020	13:35	5201501AA	
CLM27445	5Y29S07.D	1318261	05/29/2020	13:55	5201501AA	
CLM27445	5Y29S08.D	1318264	05/29/2020	14:16	5201501AA	
CLM27445	5Y29S09.D	1318265	05/29/2020	14:36	5201501AA	
CLM27445	5Y29S10.D	1318266	05/29/2020	14:57	5201501AA	
CLM27445	5Y29S11.D	1318267	05/29/2020	15:17	5201501AA	
CLM27445	5Y29S12.D	1318268	05/29/2020	15:38	5201501AA	
CLM27445	5Y29S13.D	1318269	05/29/2020	15:59	5201501AA	
CLM27445	5Y29S14.D	1318270	05/29/2020	16:19	5201501AA	
CLM27445	5Y29S15.D	1318271	05/29/2020	16:40	5201501AA	
CLM27445	5Y29S16.D	1318272	05/29/2020	17:00	5201501AA	
CLM27445	5Y29S17.D	1318273	05/29/2020	17:21	5201501AA	
CLM27445	5Y29S18.D	1318274	05/29/2020	17:42	5201501AA	
CLM27445	5Y29S19.D	1318275	05/29/2020	18:02	5201501AA	
CLM27445	5Y29S20.D	1318276	05/29/2020	18:23	5201501AA	
CLM27445	5Y29S21.D	1318285	05/29/2020	18:44	5201501AA	
CLM27445	5Y29S22.D	1318289	05/29/2020	19:04	5201501AA	
CLM27445	5Y29S23.D	1318290	05/29/2020	19:25	5201501AA	
CLM27445	5Y29S24.D	1318291	05/29/2020	19:46	5201501AA	

Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

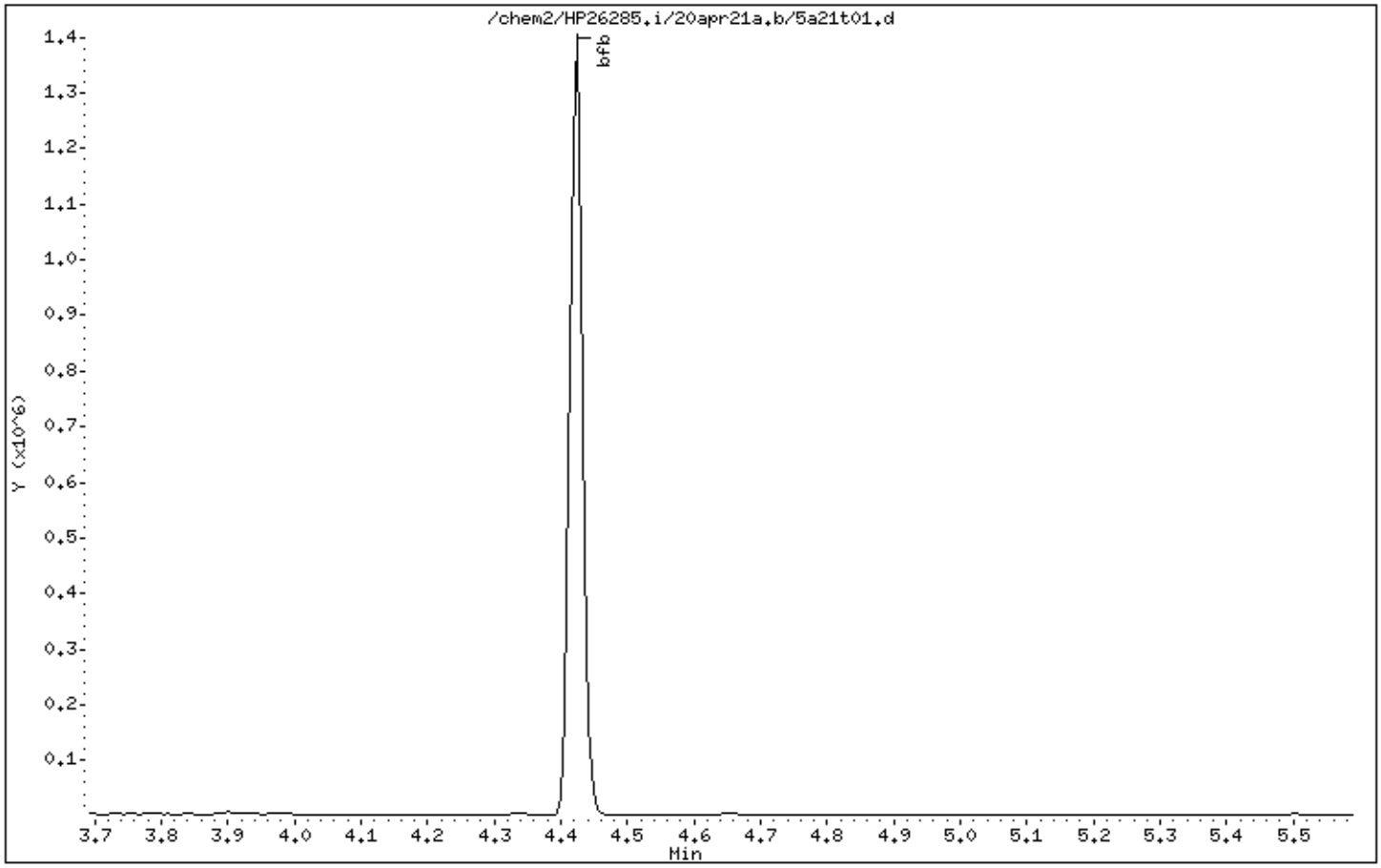
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20apr21a.b/5a21t01.d

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20

Instrument: HP26285.i

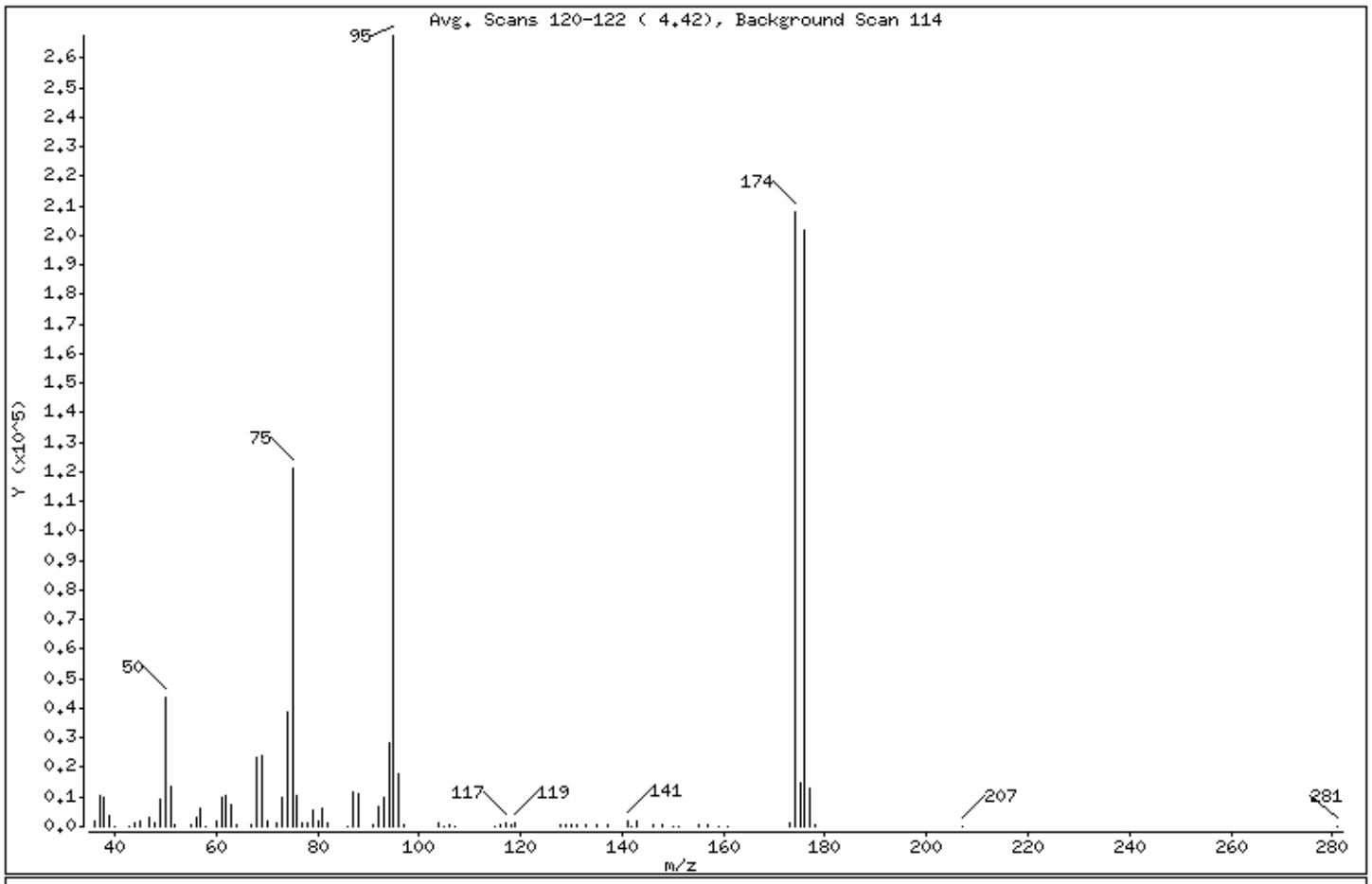
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.28
75	30.00 - 60.00% of mass 95	45.20
96	5.00 - 9.00% of mass 95	6.67
173	Less than 2.00% of mass 174	0.52 (0.67)
174	50.00 - 100.00% of mass 95	77.82
175	5.00 - 9.00% of mass 174	5.61 (7.21)
176	95.00 - 101.00% of mass 174	75.39 (96.88)
177	5.00 - 9.00% of mass 176	4.85 (6.43)

Date : 21-APR-2020 20:36

Client ID: BFB JAN28-20 Instrument: HP26285.i

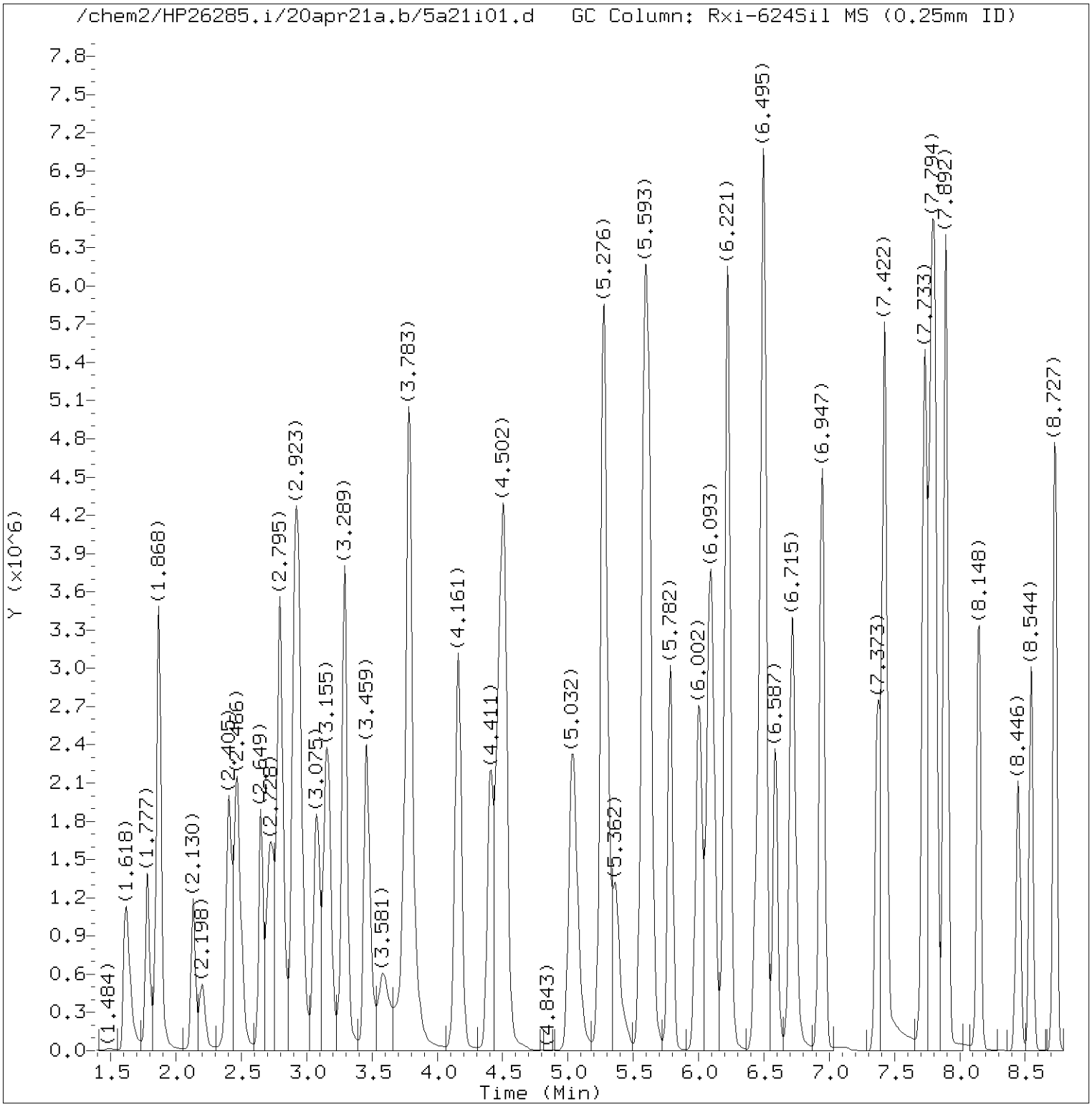
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: KAS02648

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5a21t01.d
Spectrum: Avg. Scans 120-122 (4.42), Background Scan 114
Location of Maximum: 95.00
Number of points: 83

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1859	63.00	7563	92.00	6626	137.00	416
37.00	10659	64.00	691	93.00	9904	141.00	2114
38.00	9637	67.00	643	94.00	28296	142.00	170
39.00	3822	68.00	23688	95.00	267648	143.00	1976
40.00	46	69.00	23744	96.00	17848	146.00	317
43.00	89	70.00	1883	97.00	561	148.00	581
44.00	1347	72.00	1214	104.00	985	150.00	114
45.00	2117	73.00	10018	105.00	287	151.00	104
47.00	3360	74.00	38552	106.00	920	155.00	650
48.00	1250	75.00	120968	107.00	94	157.00	358
49.00	9060	76.00	10309	115.00	188	159.00	114
50.00	43568	77.00	1497	116.00	721	161.00	189
51.00	13630	78.00	1072	117.00	1379	173.00	1394
52.00	611	79.00	5472	118.00	834	174.00	208256
55.00	676	80.00	1787	119.00	1226	175.00	15026
56.00	3306	81.00	5890	128.00	862	176.00	201728
57.00	5865	82.00	1362	129.00	418	177.00	12981
58.00	201	86.00	188	130.00	914	178.00	386
60.00	1989	87.00	11389	131.00	328	207.00	75
61.00	10148	88.00	11066	133.00	345	281.00	206
62.00	10316	91.00	818	135.00	469		



Total Ion Chromatogram (TIC)

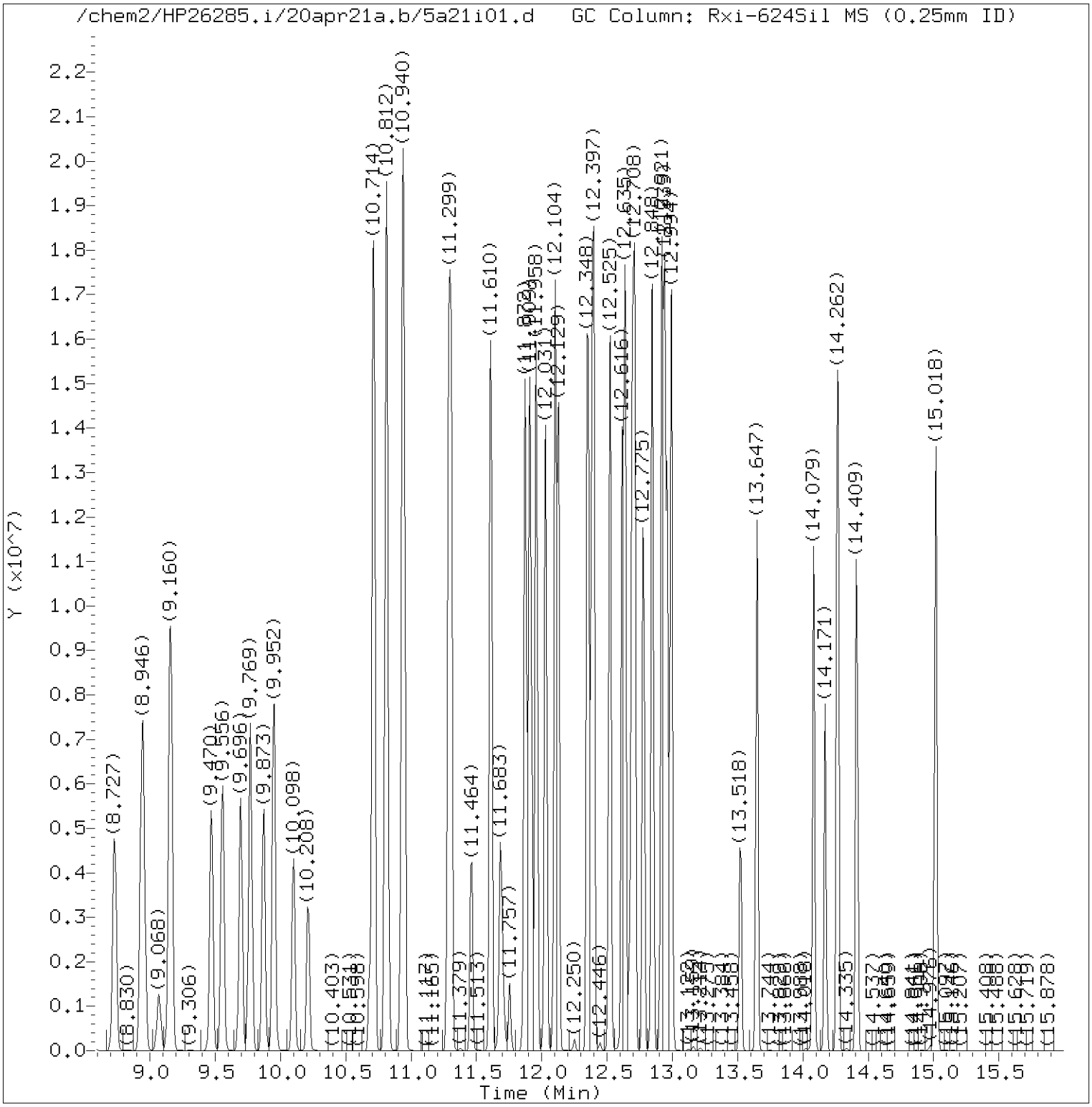
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	2514781	293.886
4) Chloromethane	(2)	1.777	50	1779525	260.361
5) 1,3-Butadiene	(2)	1.862	39	1692569	179.387
6) Vinyl Chloride	(2)	1.868	62	1635639	272.442
8) Bromomethane	(2)	2.130	94	1028216	255.090
9) Chloroethane	(2)	2.198	64	759321	267.130
10) Dichlorofluoromethane	(2)	2.405	67	2412071	260.399
12) Trichlorofluoromethane	(2)	2.441	101	1968139	267.668
11) n-Pentane	(2)	2.472	43	1702407	248.729
14) Ethyl ether	(2)	2.649	59	1350690	266.456
15) Freon 123a	(2)	2.722	67	2083785	271.498
16) Acrolein	(1)	2.795	56	5427011	2360.411
17) 1,1-Dichloroethene	(2)	2.905	96	1680210	294.103
17) 1,1-Dichloroethene	(2)	2.905	63	847789	296.090
19) Freon 113	(2)	2.935	101	1957046	302.645
18) Acetone	(1)	2.941	58	644334	568.222
22) Methyl Iodide	(2)	3.075	142	3244772	297.857
21) 2-Propanol	(1)	3.088	45	1311806	1421.652
23) Carbon Disulfide	(2)	3.155	76	6141301	305.602
27) Methyl Acetate	(2)	3.277	43	2308362	280.248
25) Allyl Chloride	(2)	3.295	41	2774449	290.117
28) Methylene Chloride	(2)	3.459	84	1906798	296.101
29)*t-Butyl alcohol-d10	(1)	3.490	65	363110M	250.000
30) t-Butyl alcohol	(1)	3.581	59	2474869M	1447.019
31) Acrylonitrile	(2)	3.740	53	1244590	286.266
32) trans-1,2-Dichloroethene	(2)	3.783	96	1856699	290.450
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	4729659	279.720
34) n-Hexane	(2)	4.161	57	2823354	297.858
36) 1,1-Dichloroethane	(2)	4.404	63	3413350	294.965
38) di-Isopropyl ether	(2)	4.471	45	5826089	281.879
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	2986113	303.744
40) Ethyl t-butyl ether	(2)	5.032	59	5047239	275.067
42) cis-1,2-Dichloroethene	(2)	5.270	96	2092441	289.396
44) 2-Butanone	(2)	5.270	43	3508151	554.406
45) 2,2-Dichloropropane	(2)	5.288	77	2907210	297.741
47) Propionitrile	(1)	5.368	54	2776028	1491.001
48) Methacrylonitrile	(2)	5.587	67	3113931	719.149
49) Bromochloromethane	(2)	5.618	128	949029	286.579

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	962421	571.941
51) Chloroform	(2)	5.782	83	3454950	297.665
53) 1,1,1-Trichloroethane	(2)	6.002	97	3220555	308.180
52)$Dibromofluoromethane	(2)	6.008	113	265501	50.449
52)$Dibromofluoromethane	(2)	6.008	111	271428	50.372
54) Cyclohexane	(2)	6.093	56	3718949	305.559
54) Cyclohexane	(2)	6.093	84	3072191	305.152
54) Cyclohexane	(2)	6.093	69	1167415	309.242
43) 1,2-Dichloroethene (Total)	(2)		96	3949140	579.846
56) Carbon Tetrachloride	(2)	6.215	117	2866099	314.348
55) 1,1-Dichloropropene	(2)	6.227	75	2833013	299.261
58) Isobutyl Alcohol	(1)	6.459	41	2102817	3688.520
57)$1,2-Dichloroethane-d4	(2)	6.477	102	58127	49.384
57)$1,2-Dichloroethane-d4	(2)	6.477	65	287760	50.004
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36918	48.985
60) Benzene	(2)	6.502	78	8091915	287.471
61) 1,2-Dichloroethane	(2)	6.587	62	2471700	285.891
61) 1,2-Dichloroethane	(2)	6.587	98	229468	313.856
65) t-Amyl methyl ether	(2)	6.715	73	4873975	266.199
66)*Fluorobenzene	(2)	6.928	96	1056605	50.000
67) n-Heptane	(2)	6.947	43	2638875	288.213
69) n-Butanol	(1)	7.373	56	3800976	7726.750
71) Trichloroethene	(2)	7.428	95	2193082	296.890
73) Methylcyclohexane	(2)	7.733	83	3517963	299.657
73) Methylcyclohexane	(2)	7.733	98	1498995	301.607
74) 1,2-Dichloropropane	(2)	7.776	63	2058190	292.092
76) 1,4-Dioxane	(1)	7.879	88	505646M	4143.915
75) Dibromomethane	(2)	7.885	93	1328443	299.400
77) Methyl Methacrylate	(2)	7.898	69	2048784	310.762
79) Bromodichloromethane	(2)	8.148	83	2768802	321.810
80) 2-Nitropropane	(2)	8.446	41	1838471	616.936
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	1695315	310.886
82) cis-1,3-Dichloropropene	(2)	8.727	75	3451312	317.433
83) 4-Methyl-2-pentanone	(2)	8.946	43	6923514	567.670
84)$Toluene-d8	(3)	9.068	98	1043925	48.871
84)$Toluene-d8	(3)	9.068	100	692193	49.214
89) Toluene	(3)	9.160	92	5200843	276.121
90) trans-1,3-Dichloropropene	(3)	9.470	75	3189196	315.576

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$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	3484392	303.213
93) 1,1,2-Trichloroethane	(3)	9.696	97	1950775	289.700
94) Tetrachloroethene	(3)	9.769	166	2288562	286.479
95) 1,3-Dichloropropane	(3)	9.873	76	3251231	290.792
97) 2-Hexanone	(3)	9.946	43	5572720	556.867
91) 1,3-Dichloropropene (total)	(3)		100	6640508	633.008
98) Dibromochloromethane	(3)	10.098	129	2272719	318.957
100) 1,2-Dibromoethane	(3)	10.208	107	2209467	297.643
101)*Chlorobenzene-d5	(3)	10.684	117	869195	50.000
103) Chlorobenzene	(3)	10.714	112	5394866	263.916
102) 1-Chlorohexane	(3)	10.714	91	2905458	265.245
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	1973861	279.894
105) Ethylbenzene	(3)	10.812	91	9442911	259.282
107) m+p-Xylene	(3)	10.940	106	6954208	497.686
108) o-Xylene	(3)	11.287	106	3578067	261.618
110) Styrene	(3)	11.306	104	6017910	273.026
111) Bromoform	(3)	11.464	173	1766291	342.616
112) Isopropylbenzene	(3)	11.610	105	9418520	262.423
113) Cyclohexanone	(1)	11.683	55	2225130	3970.108
115)$4-Bromofluorobenzene	(3)	11.757	95	463125	51.457
115)$4-Bromofluorobenzene	(3)	11.757	174	360966	51.412
109) Xylene (Total)	(3)		106	10532275	759.304
116) Bromobenzene	(4)	11.872	156	2383355	270.294
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	3318957	277.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	1985915	748.278
118) 1,2,3-Trichloropropane	(4)	11.921	110	953780	270.703
120) n-Propylbenzene	(4)	11.958	91	10730524	247.518
121) 2-Chlorotoluene	(4)	12.031	126	2497956	281.107
123) 1,3,5-Trimethylbenzene	(4)	12.104	105	7976165	261.729
122) 4-Chlorotoluene	(4)	12.129	126	2495146	277.968
125) tert-Butylbenzene	(4)	12.354	134	1685066M	278.218
126) Pentachloroethane	(4)	12.378	167	1509123	303.509
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	8182264	260.724
128) sec-Butylbenzene	(4)	12.525	105	9574539	253.403
130) 1,3-Dichlorobenzene	(4)	12.616	146	4469009	269.455
131) p-Isopropyltoluene	(4)	12.641	119	8232580	261.279
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	462526	50.000
134) 1,4-Dichlorobenzene	(4)	12.695	146	4434033	263.430

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

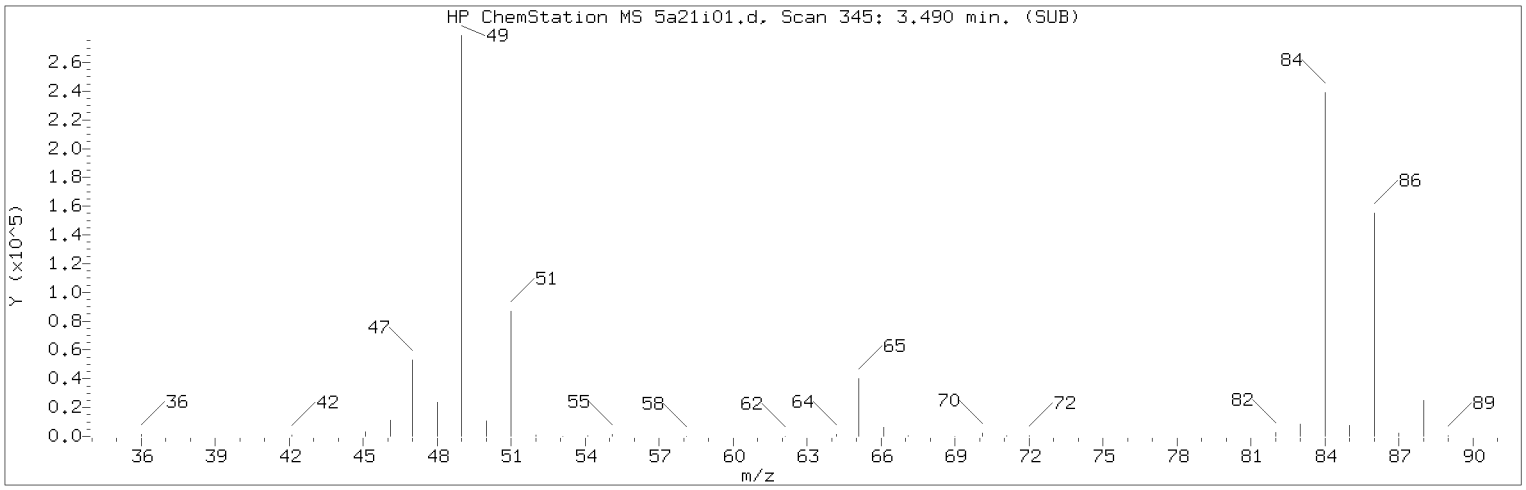
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

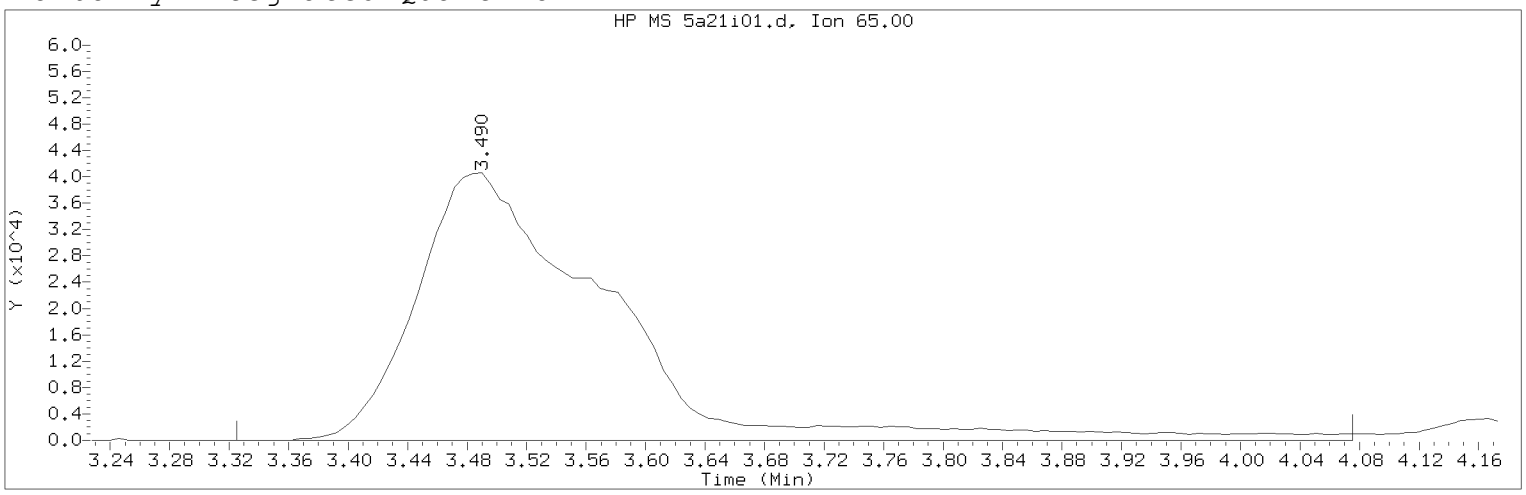
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	7774791	258.098
136)	Benzyl Chloride	(4)	12.775	91	7177348	312.660
137)	1,3-Diethylbenzene	(4)	12.848	119	4947733	271.768
138)	1,4-Diethylbenzene	(4)	12.921	119	4979240	264.422
140)	n-Butylbenzene	(4)	12.939	92	4168841	262.298
139)	1,2-Dichlorobenzene	(4)	12.964	146	4299940	269.902
141)	1,2-Diethylbenzene	(4)	12.994	119	4120446	267.611
142)	Diethylbenzene (total)	(4)		100	14047419	803.801
143)	1,2-Dibromo-3-chloropropane	(4)	13.518	75	969124	320.802
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	2993247	284.456
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	2829365	286.205
148)	Hexachlorobutadiene	(4)	14.171	225	1134842	298.493
149)	Naphthalene	(4)	14.268	128	9913701	253.236
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	2753131	281.432
151)	2-Methylnaphthalene	(4)	15.018	142	5752055	282.809

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

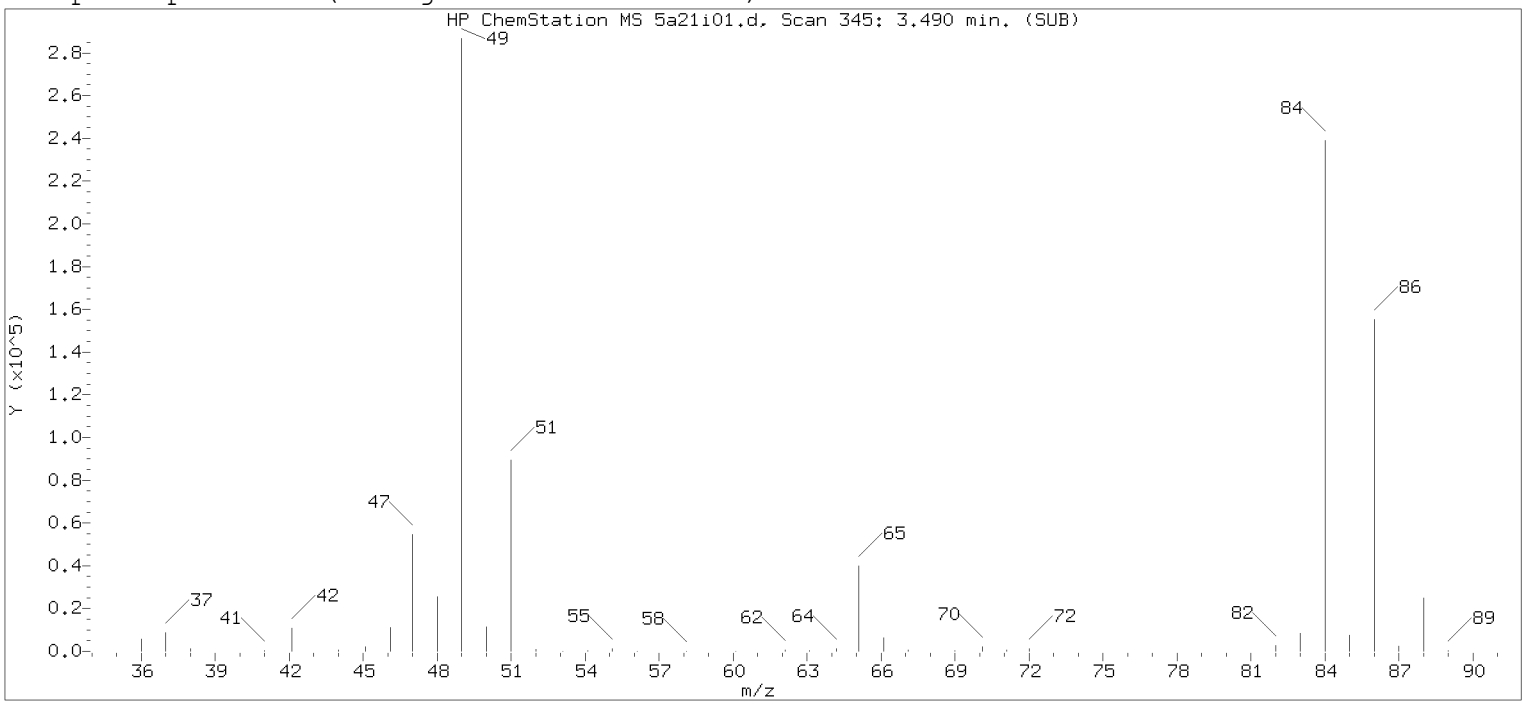
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 363110M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 440
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

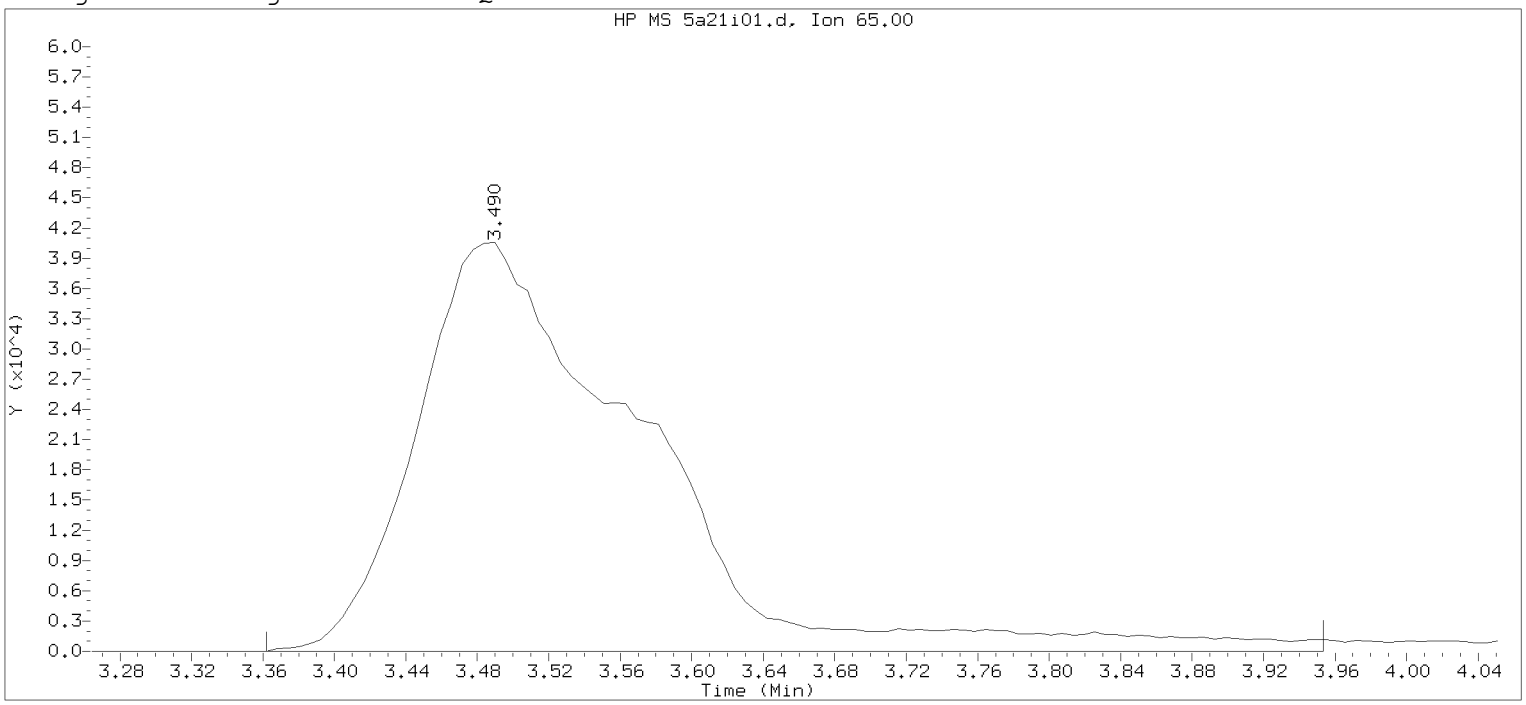
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

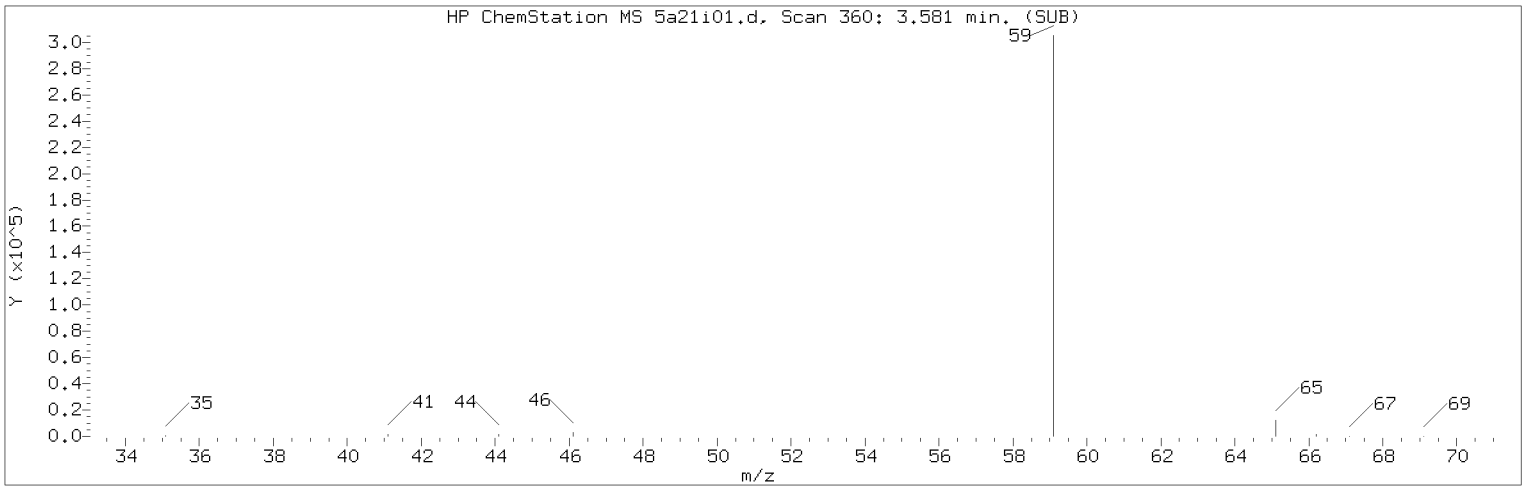
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

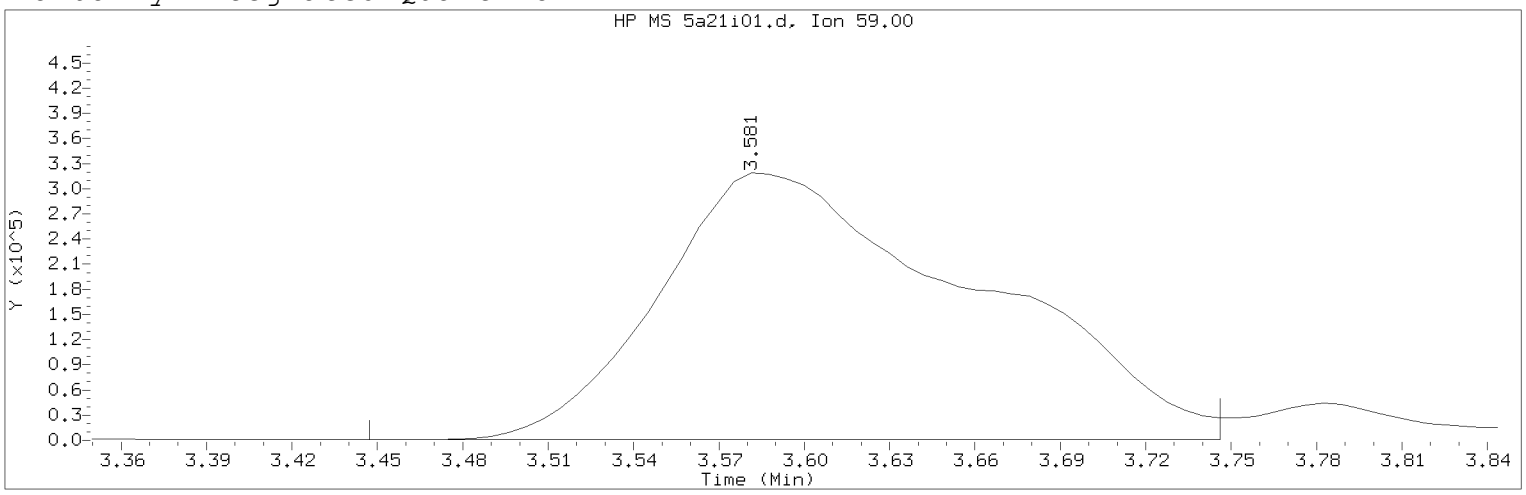
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 355812
On-column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

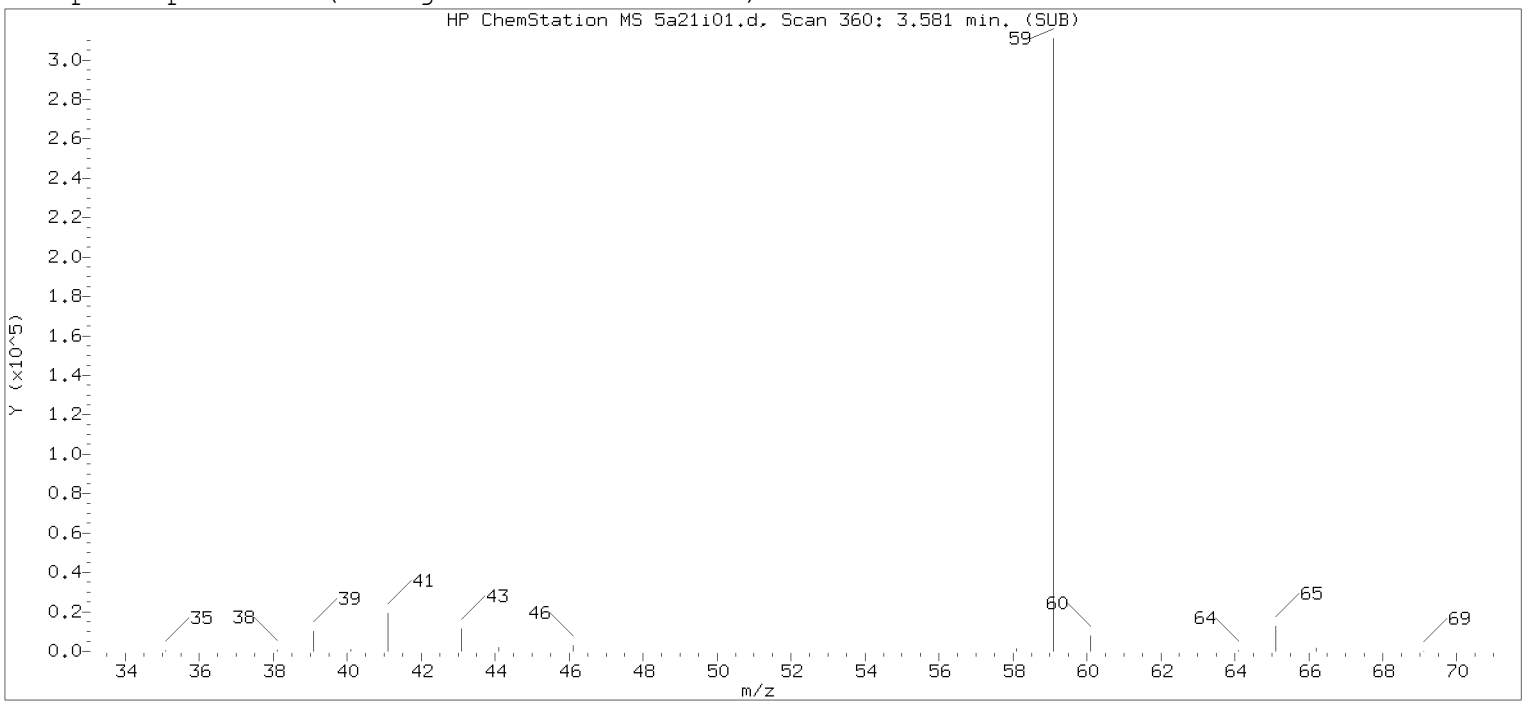
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area (flag) : 2474869M
On-Column Amount (ng) : 1447.0190
Integration start scan : 337 Integration stop scan: 386
Y at integration start : 427 Y at integration end: 427

Reason for manual integration: improper integration

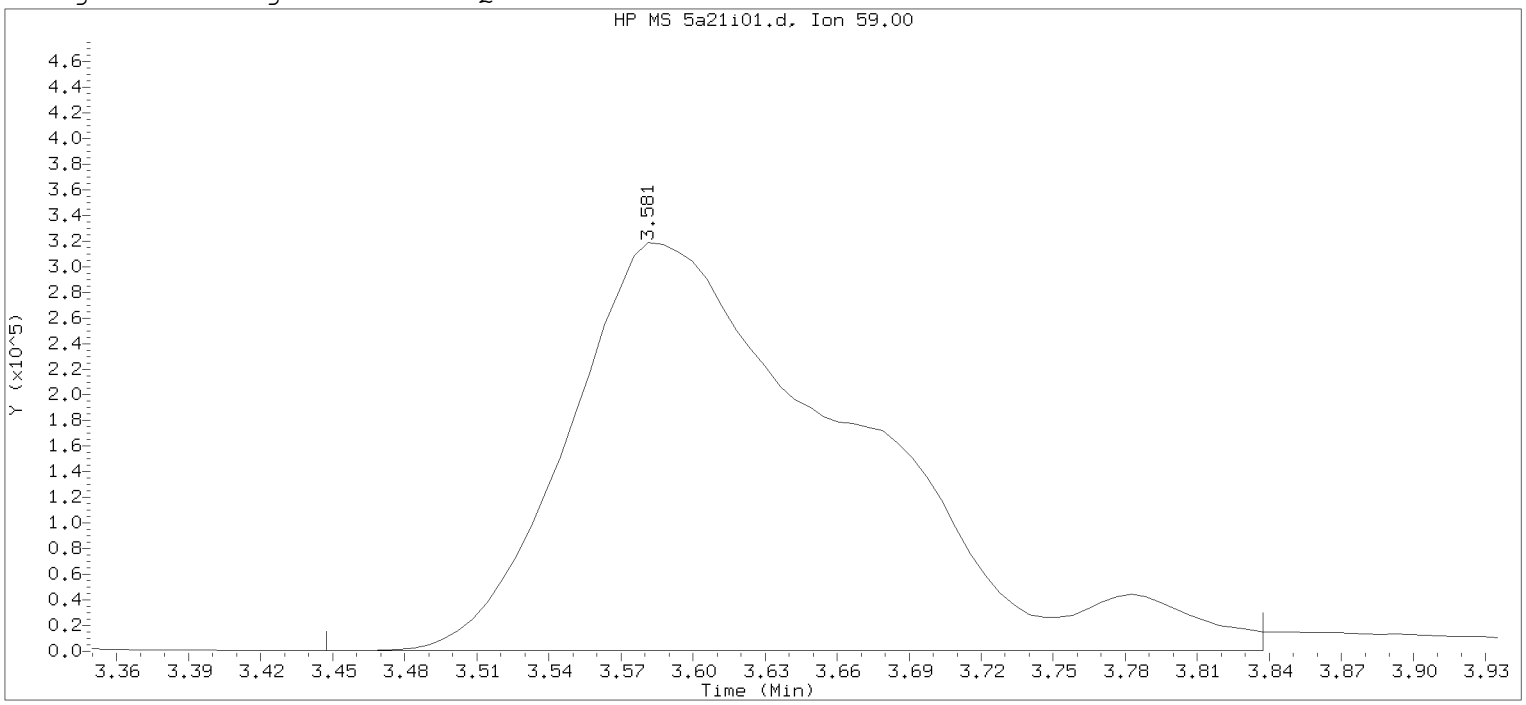
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

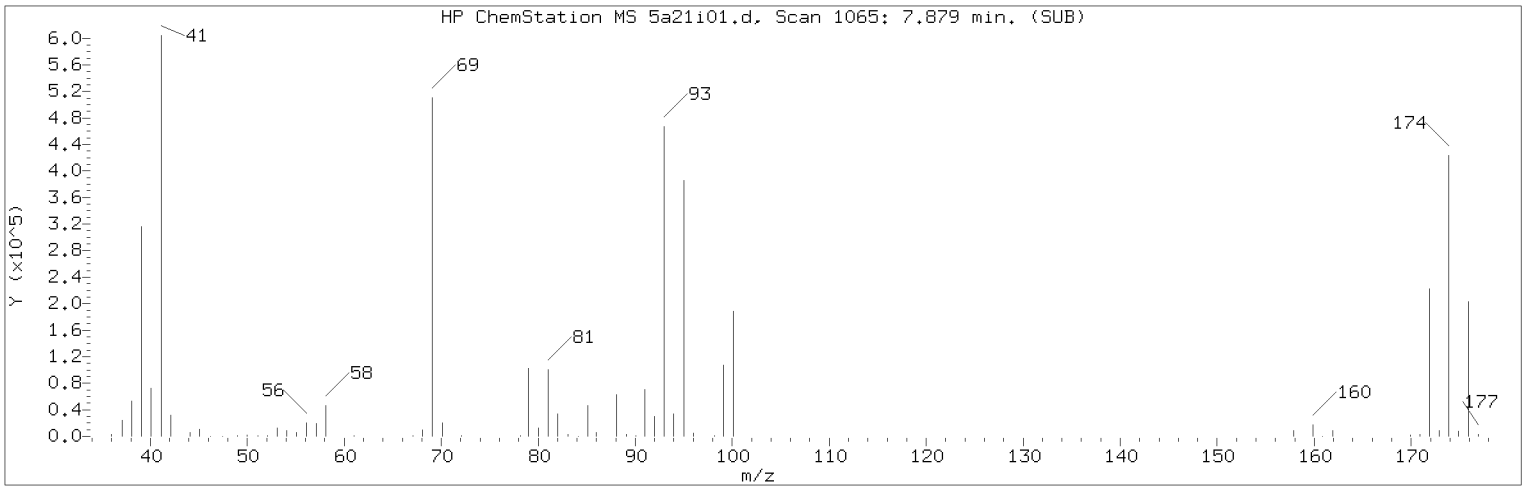
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

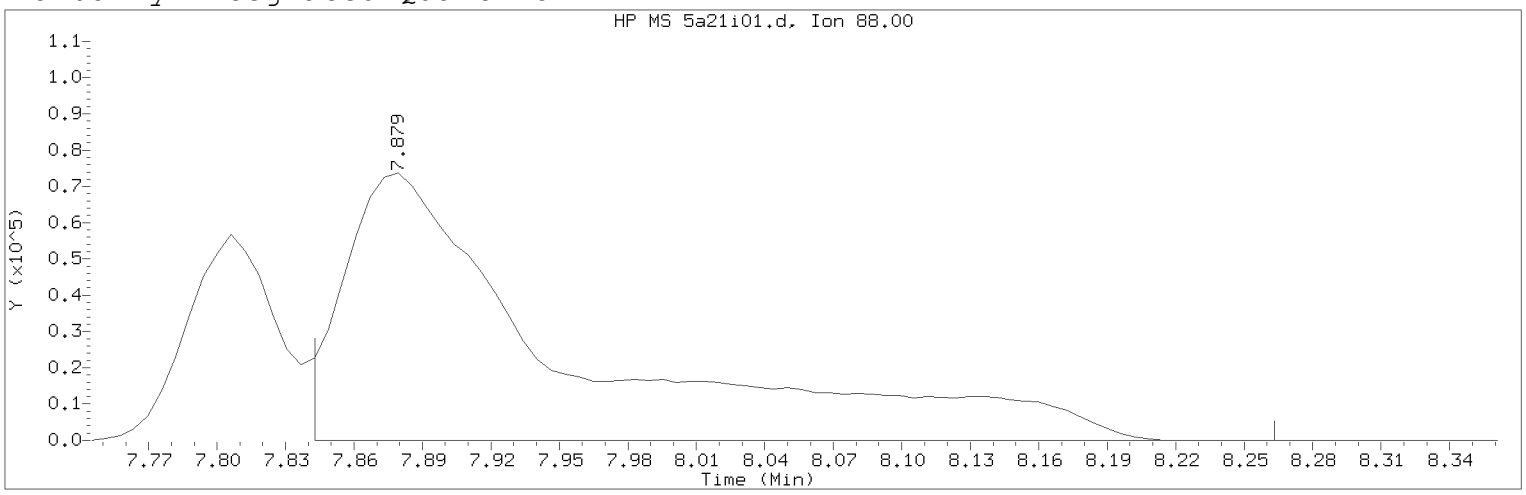
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 360
Retention Time (minutes): 3.581
Quant Ion : 59.00
Area : 2634322
On-column Amount (ng) : 1505.7364
Integration start scan : 337 Integration stop scan: 401
Y at integration start : 427 Y at integration end: 427

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

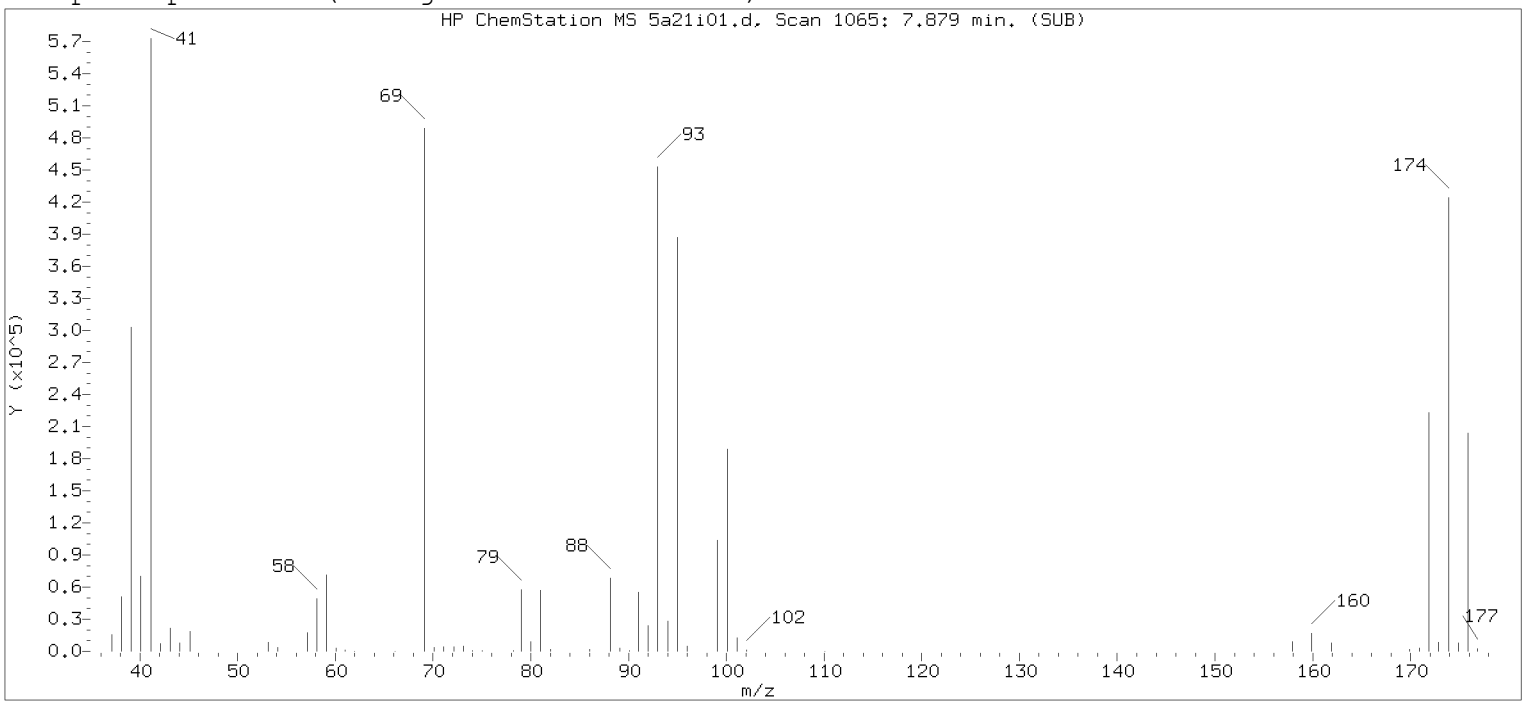
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 505646M
On-Column Amount (ng) : 4143.9152
Integration start scan : 1058 Integration stop scan: 1127
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

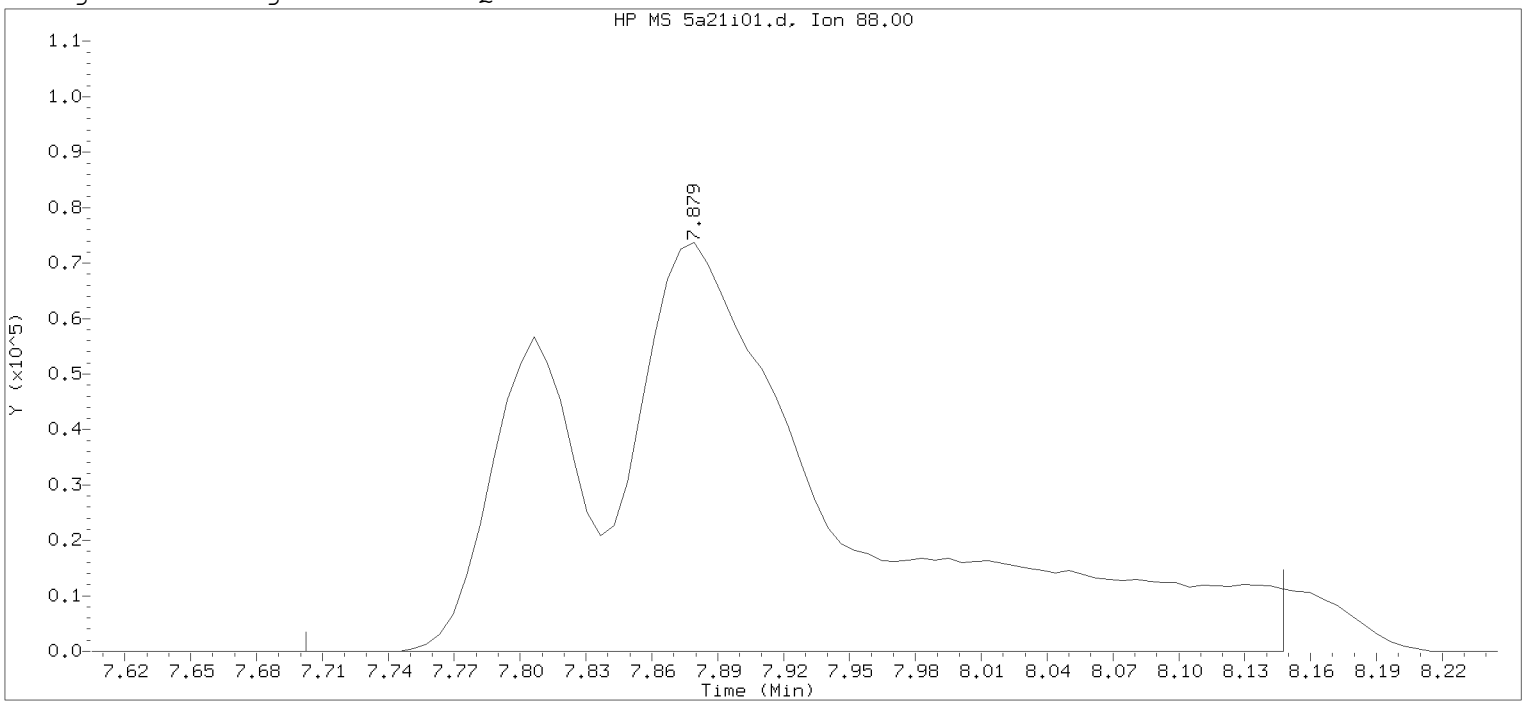
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

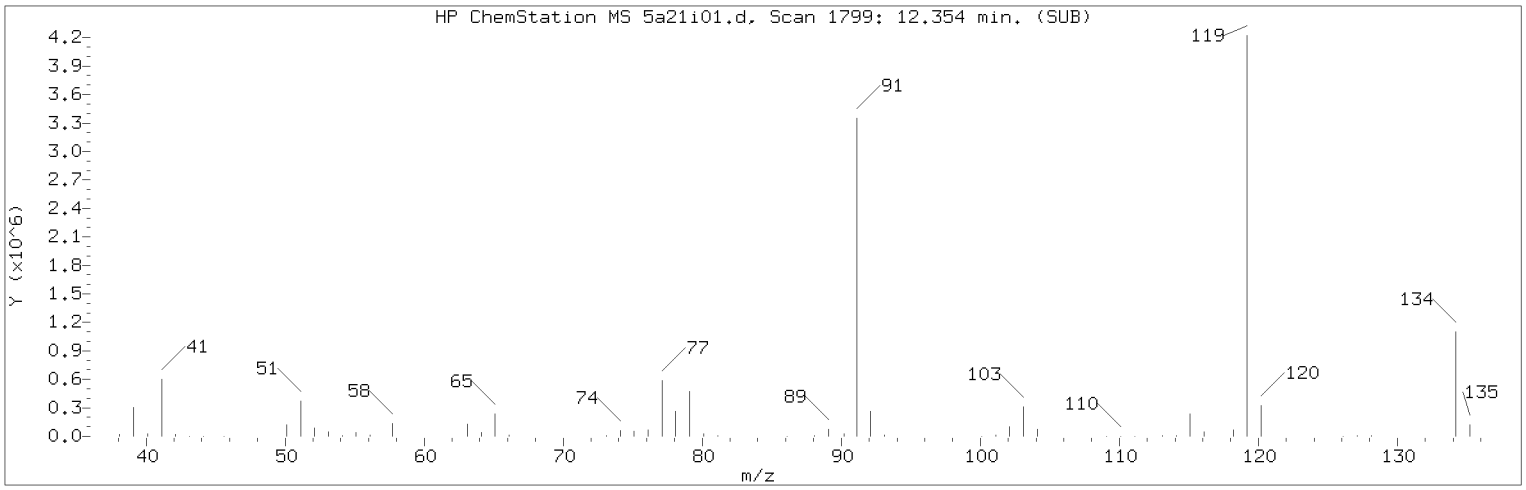
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

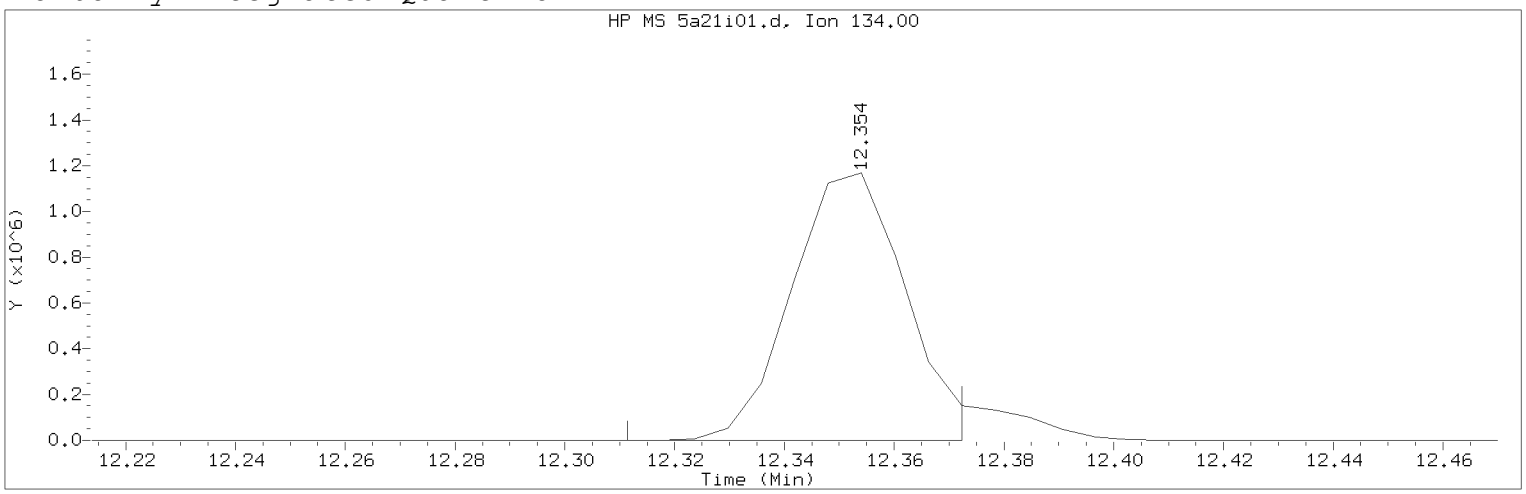
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area : 634455
On-column Amount (ng) : 4311.6616
Integration start scan : 1035 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

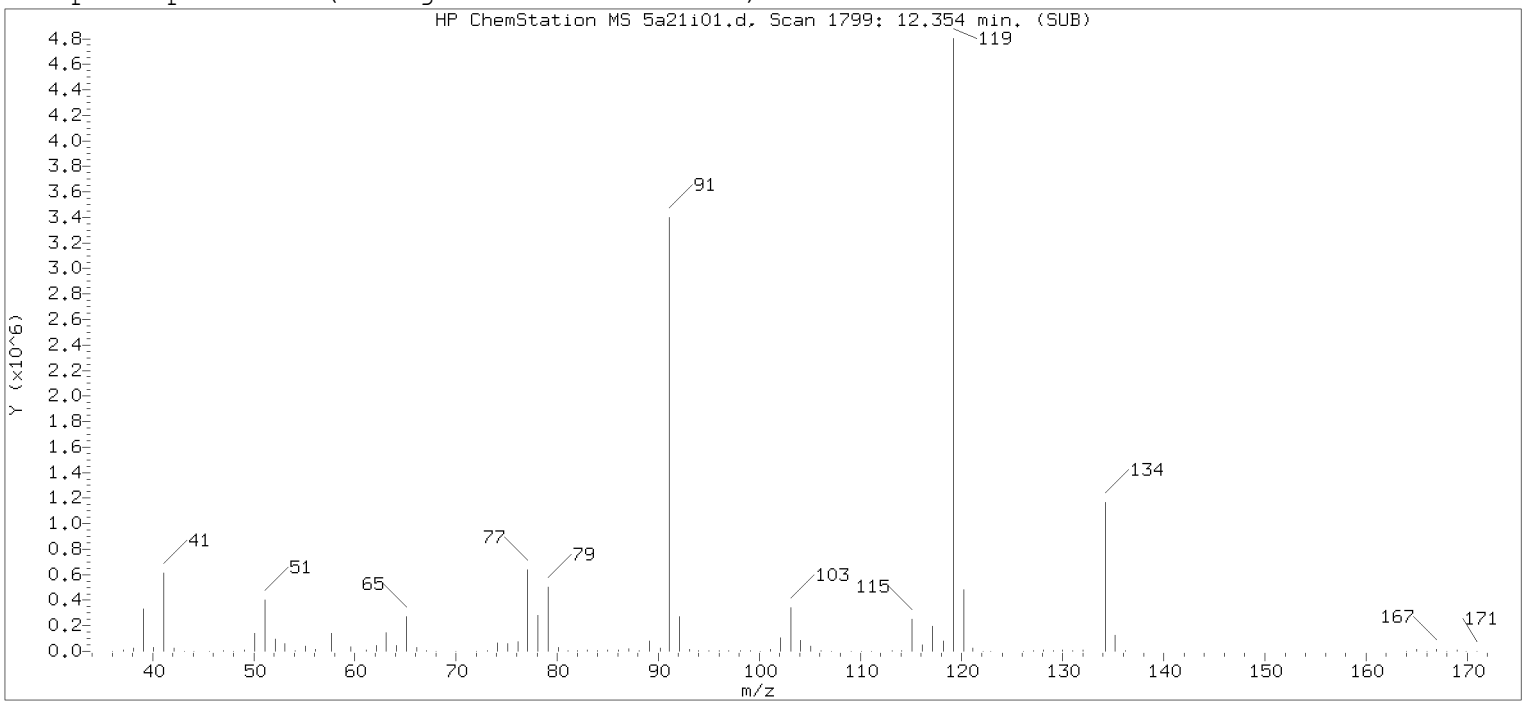
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area (flag) : 1685066M
On-Column Amount (ng) : 278.2183
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

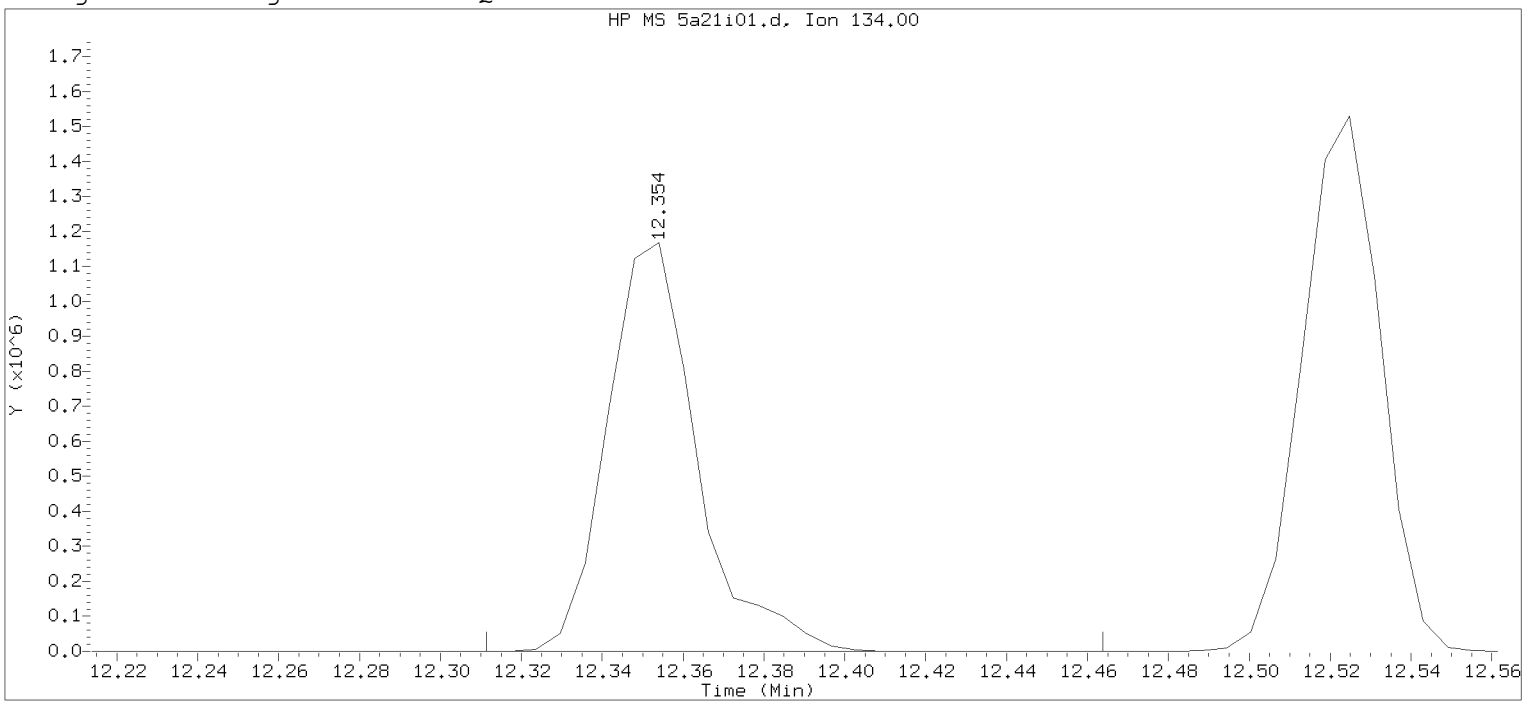
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



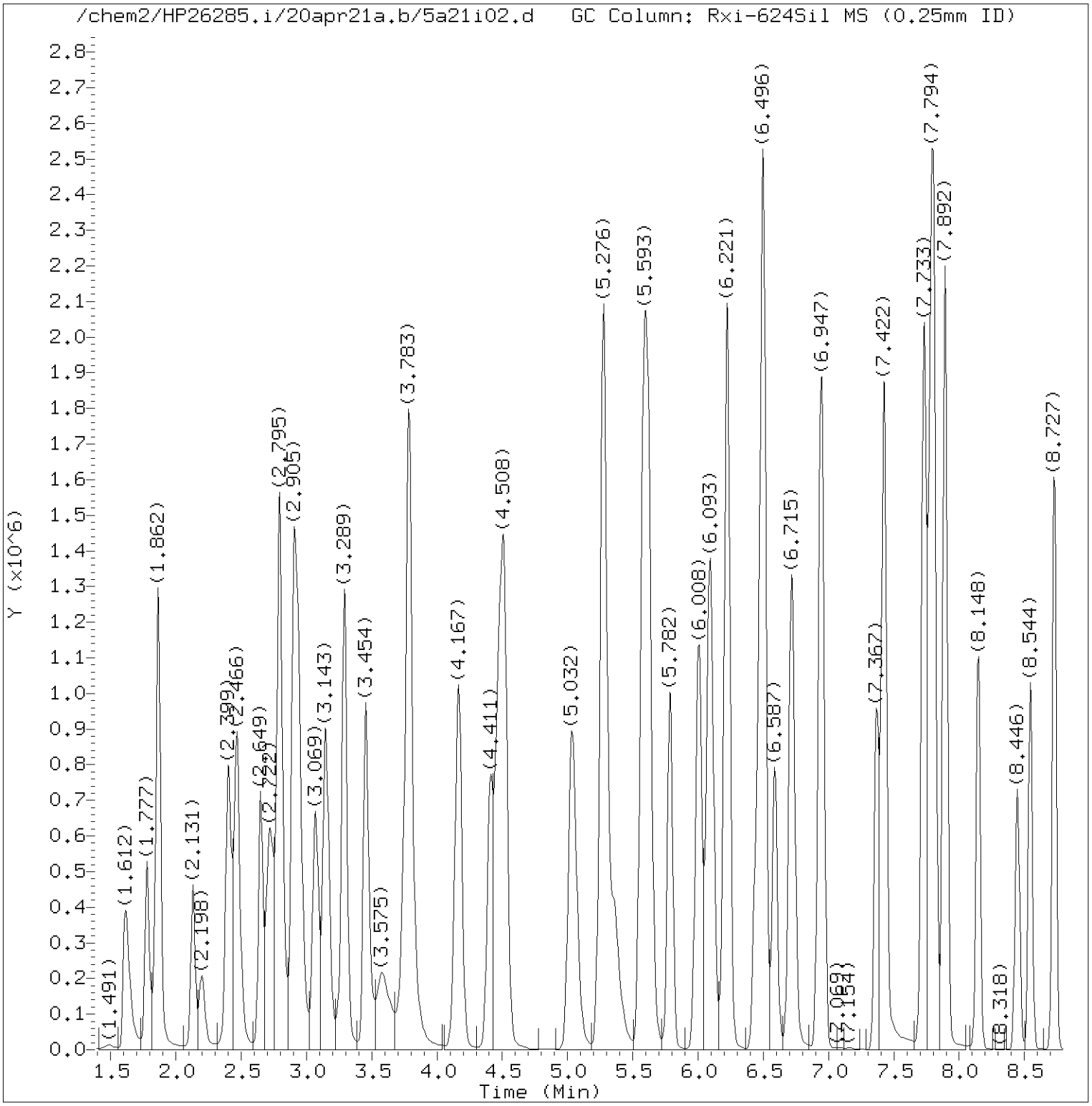
Data File: /chem2/HP26285.i/20apr21a.b/5a21i01.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:19 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:39
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1799
Retention Time (minutes): 12.354
Quant Ion : 134.00
Area : 1795576
On-column Amount (ng) : 291.1602
Integration start scan : 1791 Integration stop scan: 1816
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

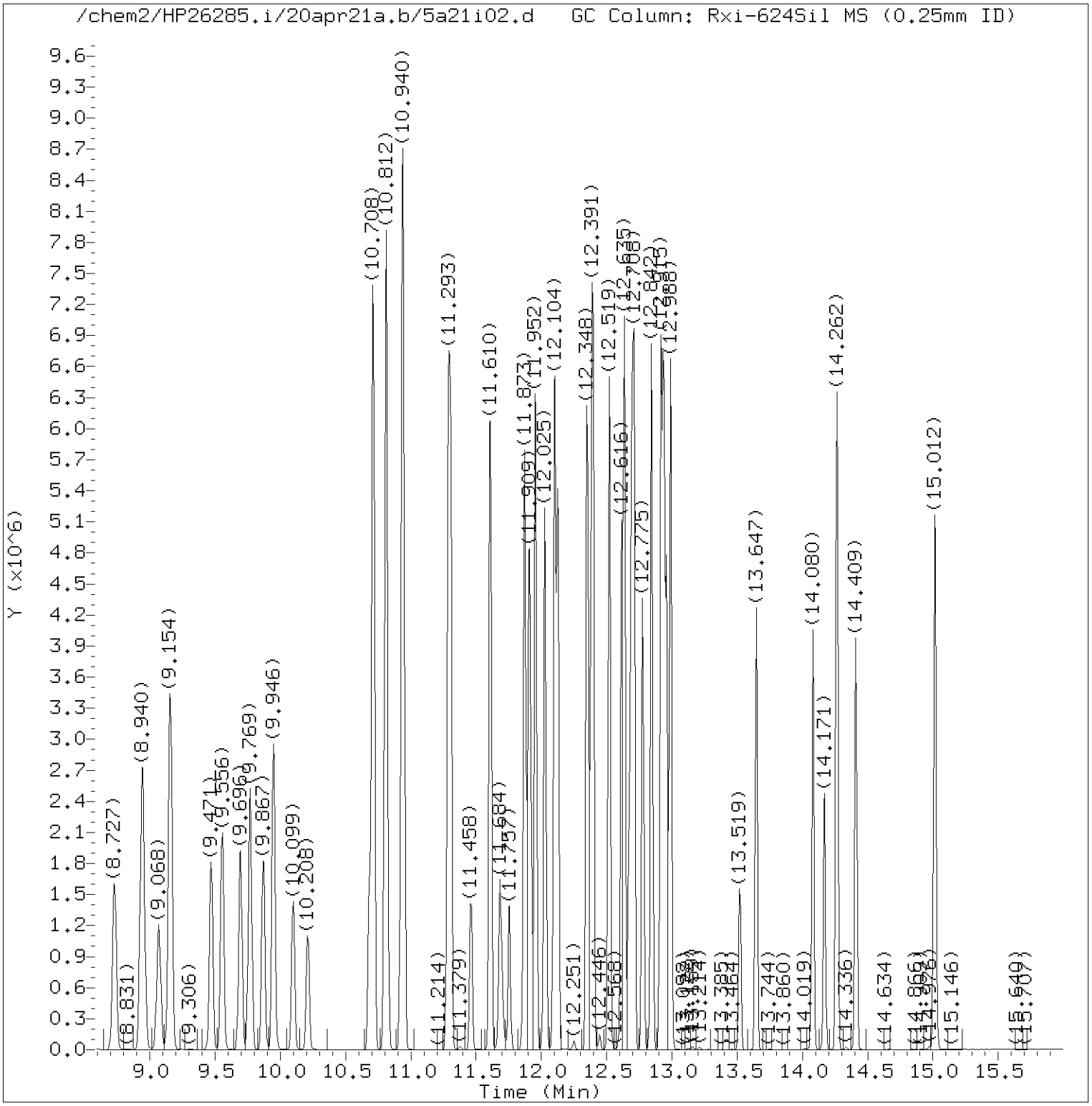
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	873226	104.047
4) Chloromethane	(2)	1.777	50	655841	97.836
5) 1,3-Butadiene	(2)	1.862	39	634972	68.616
6) Vinyl Chloride	(2)	1.868	62	604184	102.608
8) Bromomethane	(2)	2.131	94	395793	100.116
9) Chloroethane	(2)	2.198	64	289634	103.890
10) Dichlorofluoromethane	(2)	2.399	67	925922	101.918
12) Trichlorofluoromethane	(2)	2.442	101	751734	104.239
11) n-Pentane	(2)	2.472	43	651119	96.995
14) Ethyl ether	(2)	2.649	59	525058	105.609
15) Freon 123a	(2)	2.716	67	771972	102.551
16) Acrolein	(1)	2.795	56	2255420	1023.922
17) 1,1-Dichloroethene	(2)	2.899	96	582916	104.032
17) 1,1-Dichloroethene	(2)	2.899	63	296111	105.443
19) Freon 113	(2)	2.929	101	682149	107.557
18) Acetone	(1)	2.935	58	234830	216.159
22) Methyl Iodide	(2)	3.069	142	1112268	104.102
21) 2-Propanol	(1)	3.082	45	465082	526.097
23) Carbon Disulfide	(2)	3.143	76	2068953	104.972
27) Methyl Acetate	(2)	3.277	43	807702	99.981
25) Allyl Chloride	(2)	3.295	41	976677	104.129
28) Methylene Chloride	(2)	3.454	84	655842	103.839
29)*t-Butyl alcohol-d10	(1)	3.472	65	347877M	250.000
30) t-Butyl alcohol	(1)	3.588	59	842379	514.093
31) Acrylonitrile	(2)	3.740	53	447540	104.954
32) trans-1,2-Dichloroethene	(2)	3.783	96	648552	103.443
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	1713425	103.320
34) n-Hexane	(2)	4.167	57	986803	106.145
36) 1,1-Dichloroethane	(2)	4.405	63	1182811	104.215
38) di-Isopropyl ether	(2)	4.472	45	2103879	103.784
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	1033766	107.213
40) Ethyl t-butyl ether	(2)	5.032	59	1834635	101.944
44) 2-Butanone	(2)	5.264	43	1265905	203.974
42) cis-1,2-Dichloroethene	(2)	5.276	96	738513	104.141
45) 2,2-Dichloropropane	(2)	5.282	77	1004742	104.916
47) Propionitrile	(1)	5.362	54	946715	530.745
48) Methacrylonitrile	(2)	5.581	67	1113996	262.312
49) Bromochloromethane	(2)	5.618	128	337485	103.907

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	348863	216.398
51) Chloroform	(2)	5.782	83	1188040	104.362
53) 1,1,1-Trichloroethane	(2)	6.002	97	1089021	106.252
52)$Dibromofluoromethane	(2)	6.008	113	259630	50.300
52)$Dibromofluoromethane	(2)	6.008	111	265266	50.193
54) Cyclohexane	(2)	6.093	56	1275315	106.836
54) Cyclohexane	(2)	6.093	84	1050963	106.434
54) Cyclohexane	(2)	6.093	69	396926	107.203
43) 1,2-Dichloroethene (Total)	(2)		96	1387065	207.584
56) Carbon Tetrachloride	(2)	6.215	117	974553	108.981
55) 1,1-Dichloropropene	(2)	6.227	75	977668	105.297
58) Isobutyl Alcohol	(1)	6.453	41	716282	1311.436
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57676	49.961
57)$1,2-Dichloroethane-d4	(2)	6.477	65	282752	50.096
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37247	50.390
60) Benzene	(2)	6.502	78	2867187	103.854
61) 1,2-Dichloroethane	(2)	6.587	62	859134	101.319
61) 1,2-Dichloroethane	(2)	6.587	98	79345	110.650
65) t-Amyl methyl ether	(2)	6.715	73	1833906	102.124
66)*Fluorobenzene	(2)	6.928	96	1036304	50.000
67) n-Heptane	(2)	6.953	43	943779	105.097
69) n-Butanol	(1)	7.367	56	1249826	2651.941
71) Trichloroethene	(2)	7.428	95	758145	104.645
73) Methylcyclohexane	(2)	7.727	83	1230133	106.834
73) Methylcyclohexane	(2)	7.733	98	523046	107.302
74) 1,2-Dichloropropane	(2)	7.776	63	725959	105.044
76) 1,4-Dioxane	(1)	7.873	88	157068M	1343.583
75) Dibromomethane	(2)	7.892	93	463304	106.463
77) Methyl Methacrylate	(2)	7.898	69	710702	109.912
79) Bromodichloromethane	(2)	8.148	83	931524	110.389
80) 2-Nitropropane	(2)	8.446	41	644513	220.516
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	585861	109.539
82) cis-1,3-Dichloropropene	(2)	8.727	75	1177656	110.436
83) 4-Methyl-2-pentanone	(2)	8.940	43	2566204	214.529
84)$Toluene-d8	(3)	9.068	98	1013239	49.593
84)$Toluene-d8	(3)	9.068	100	668715	49.709
89) Toluene	(3)	9.154	92	1847083	102.527
90) trans-1,3-Dichloropropene	(3)	9.471	75	1079462	111.675

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	1204012	109.541
93) 1,1,2-Trichloroethane	(3)	9.696	97	674136	104.668
94) Tetrachloroethene	(3)	9.769	166	785305	102.776
95) 1,3-Dichloropropane	(3)	9.867	76	1114528	104.220
97) 2-Hexanone	(3)	9.946	43	2047052	213.864
91) 1,3-Dichloropropene (total)	(3)		100	2257118	222.111
98) Dibromochloromethane	(3)	10.099	129	768472	112.756
100) 1,2-Dibromoethane	(3)	10.208	107	755002	106.336
101)*Chlorobenzene-d5	(3)	10.684	117	831366	50.000
102) 1-Chlorohexane	(3)	10.708	91	1084300	103.492
103) Chlorobenzene	(3)	10.714	112	2035939	104.130
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	734441	108.883
105) Ethylbenzene	(3)	10.812	91	3675216	105.505
107) m+p-Xylene	(3)	10.940	106	2788515	208.644
108) o-Xylene	(3)	11.287	106	1378774	105.399
110) Styrene	(3)	11.306	104	2304191	109.295
111) Bromoform	(3)	11.464	173	583396	118.313
112) Isopropylbenzene	(3)	11.610	105	3604265	104.993
113) Cyclohexanone	(1)	11.684	55	723334	1347.095
115)$4-Bromofluorobenzene	(3)	11.751	95	433090	50.309
115)$4-Bromofluorobenzene	(3)	11.757	174	334791	49.854
109) Xylene (Total)	(3)		106	4167289	314.043
116) Bromobenzene	(4)	11.867	156	864771	104.955
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	1208260	108.065
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	619236	258.804
118) 1,2,3-Trichloropropane	(4)	11.915	110	342708	104.094
120) n-Propylbenzene	(4)	11.952	91	4294298	106.007
121) 2-Chlorotoluene	(4)	12.025	126	866539	104.359
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	3051340	107.153
122) 4-Chlorotoluene	(4)	12.129	126	881743	105.123
125) tert-Butylbenzene	(4)	12.348	134	602948M	106.538
126) Pentachloroethane	(4)	12.379	167	520795	112.091
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	3149431	107.398
128) sec-Butylbenzene	(4)	12.519	105	3763052	106.584
130) 1,3-Dichlorobenzene	(4)	12.616	146	1618478	104.433
131) p-Isopropyltoluene	(4)	12.635	119	3155925	107.189
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	432195	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	1624875	103.310

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

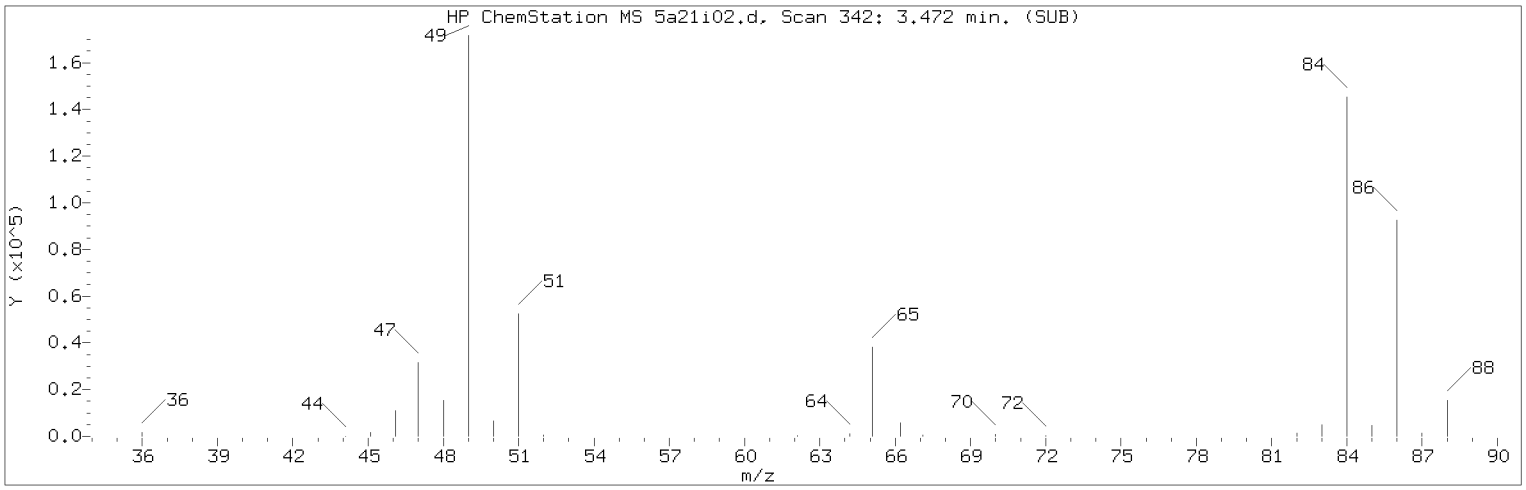
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

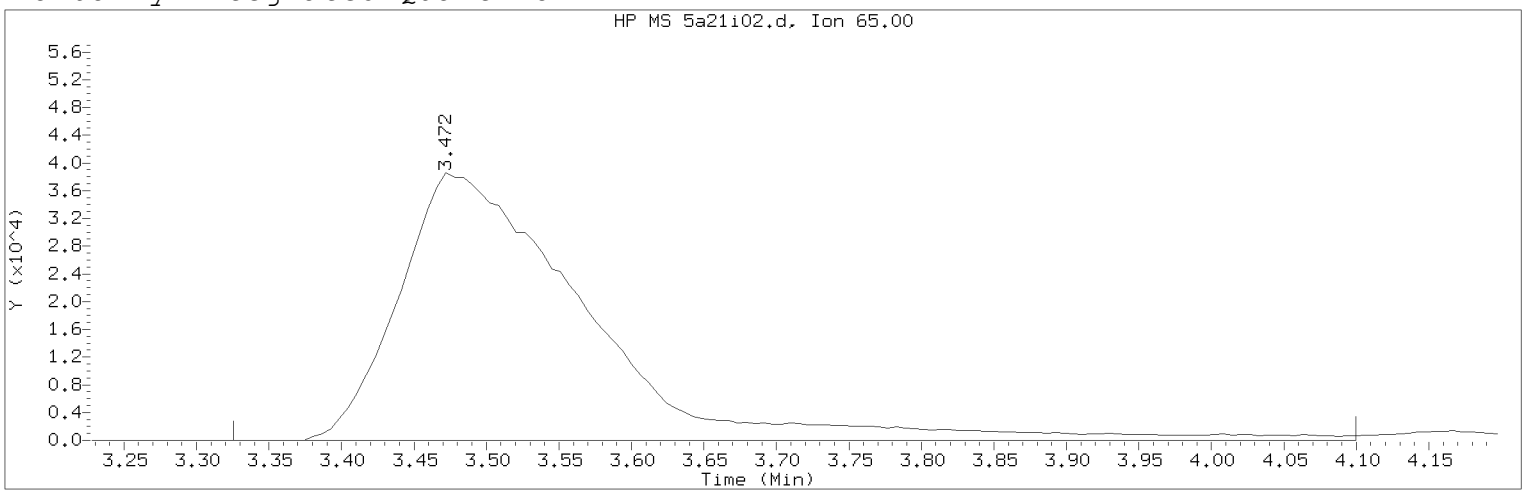
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	2970272	105.523
136) Benzyl Chloride	(4)	12.775	91	2503346	116.704
137) 1,3-Diethylbenzene	(4)	12.842	119	1817627	106.845
138) 1,4-Diethylbenzene	(4)	12.915	119	1878412	106.754
140) n-Butylbenzene	(4)	12.933	92	1596134	107.475
139) 1,2-Dichlorobenzene	(4)	12.958	146	1550292	104.139
141) 1,2-Diethylbenzene	(4)	12.988	119	1514030	105.233
142) Diethylbenzene (total)	(4)		100	5210069	318.831
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	313410	111.027
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	1039095	105.678
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	981755	106.279
148) Hexachlorobutadiene	(4)	14.171	225	376946	106.105
149) Naphthalene	(4)	14.262	128	3937085	107.627
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	966916	105.777
151) 2-Methylnaphthalene	(4)	15.012	142	2160027	113.654

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

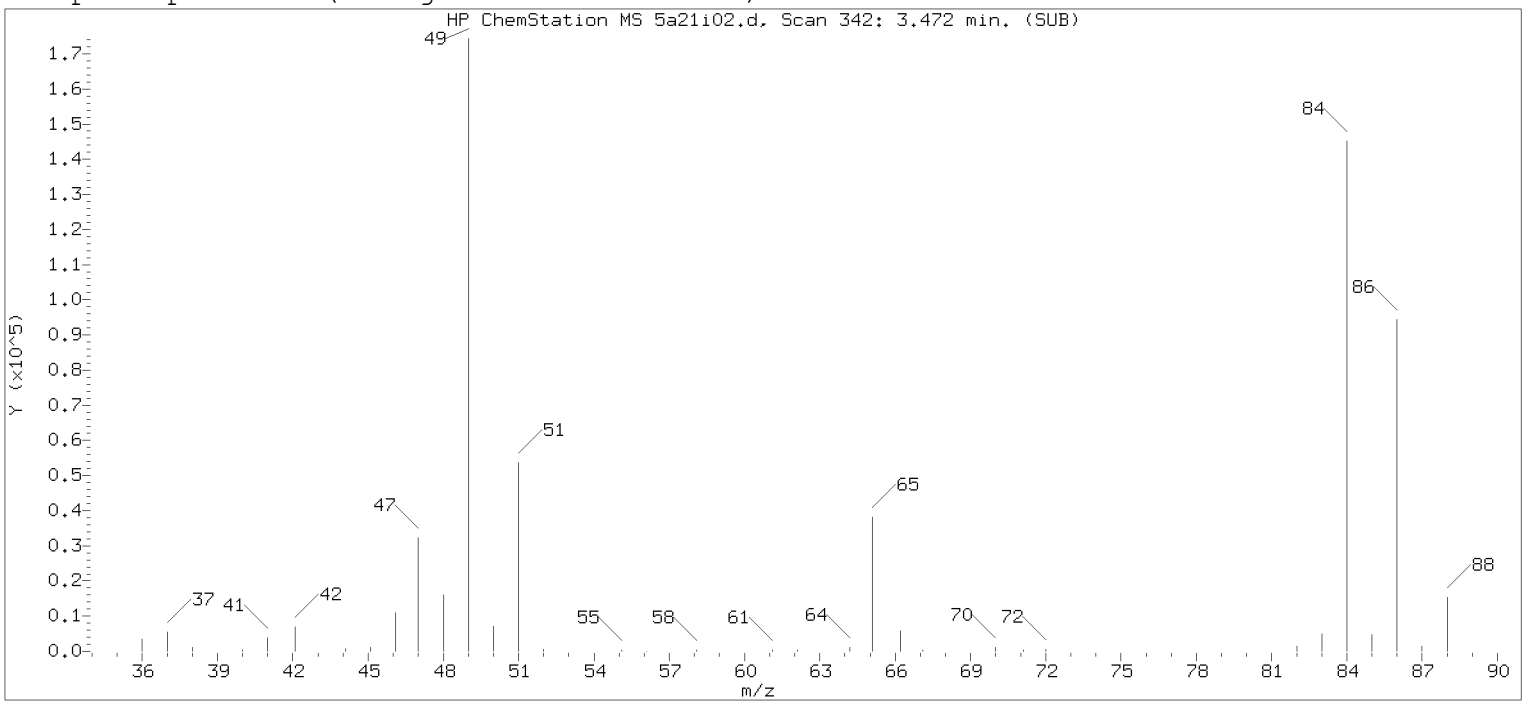
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area (flag) : 347877M
On-Column Amount (ng) : 250.0000
Integration start scan : 317 Integration stop scan: 444
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

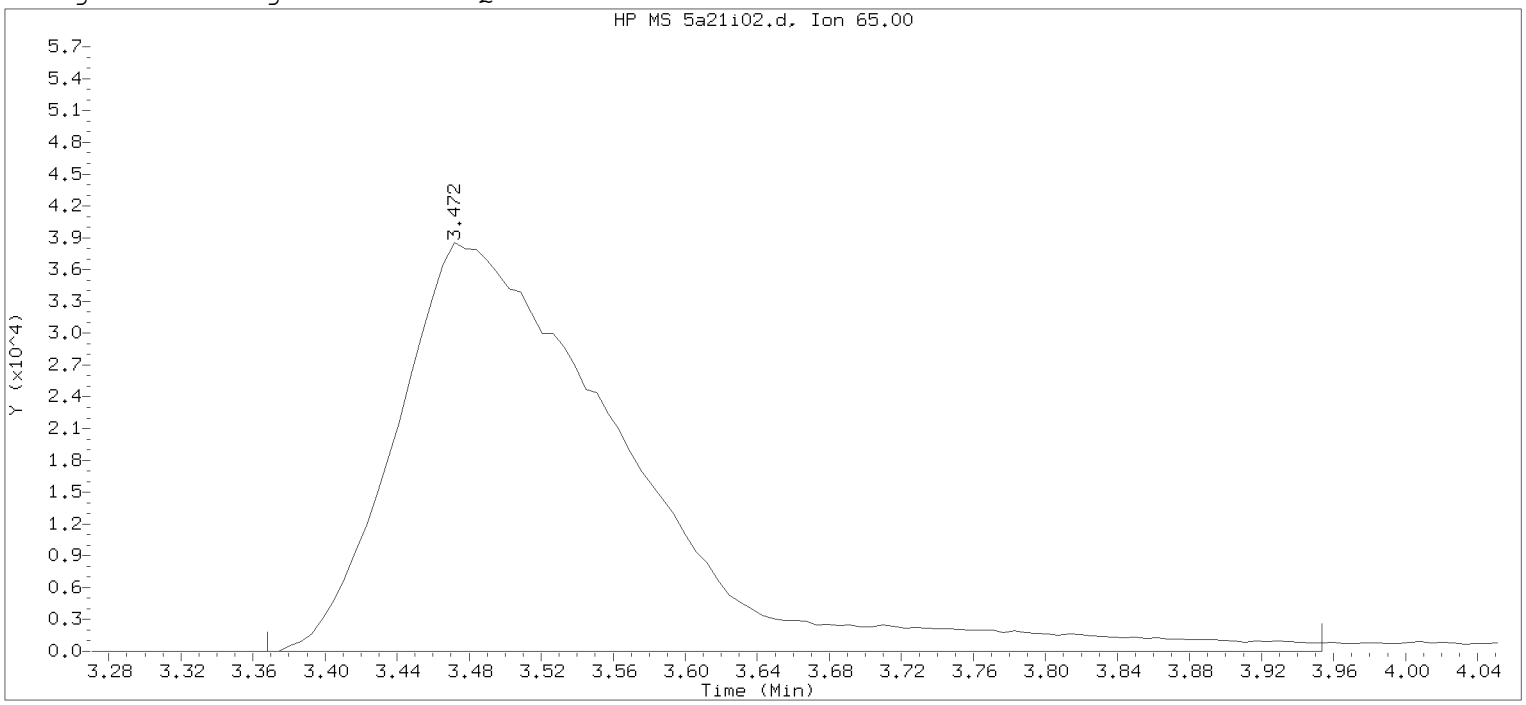
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

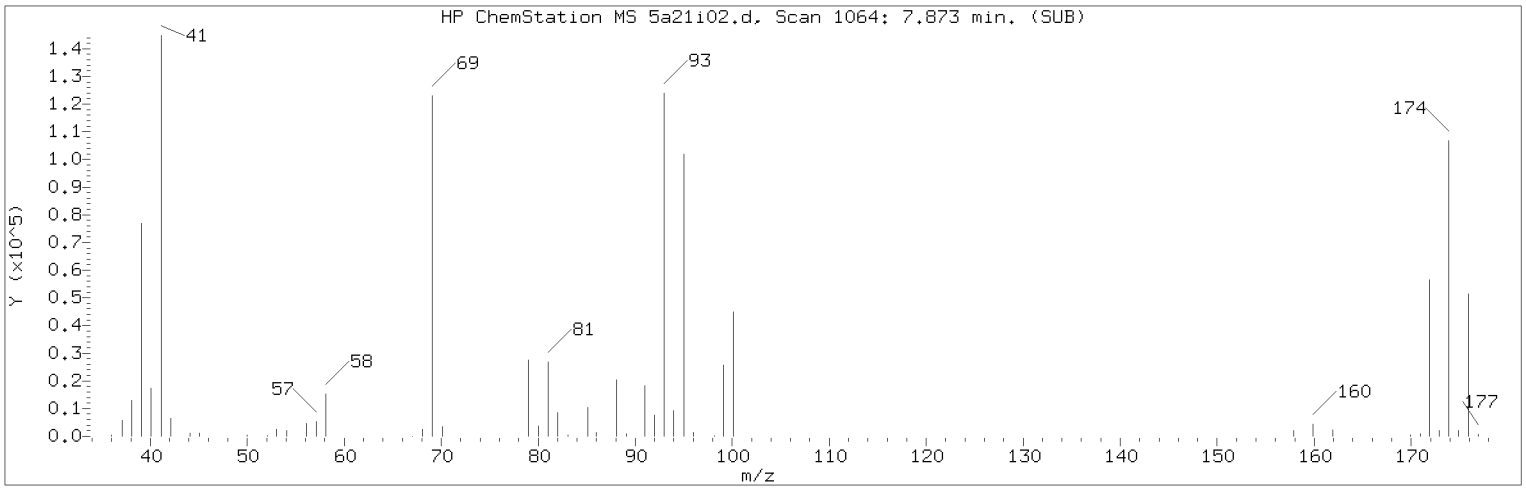
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

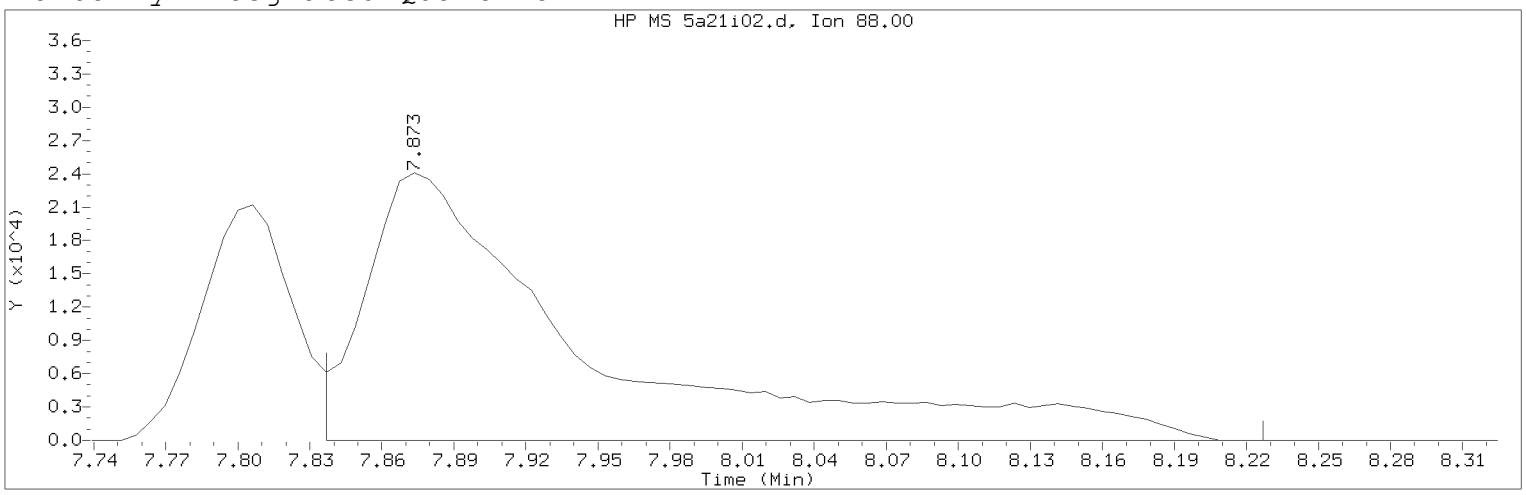
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 342
Retention Time (minutes): 3.472
Quant Ion : 65.00
Area : 341170
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

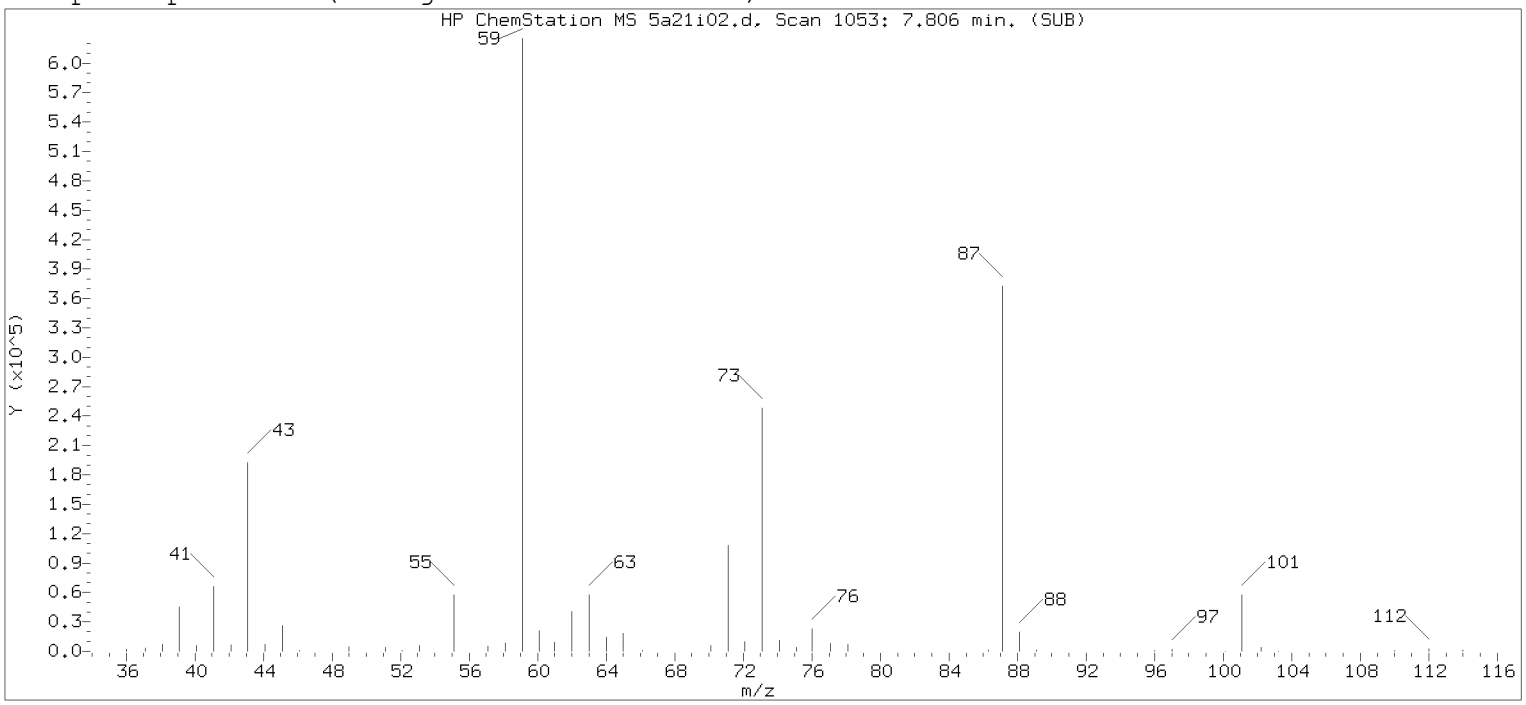
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 157068M
On-Column Amount (ng) : 1343.5830
Integration start scan : 1057 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

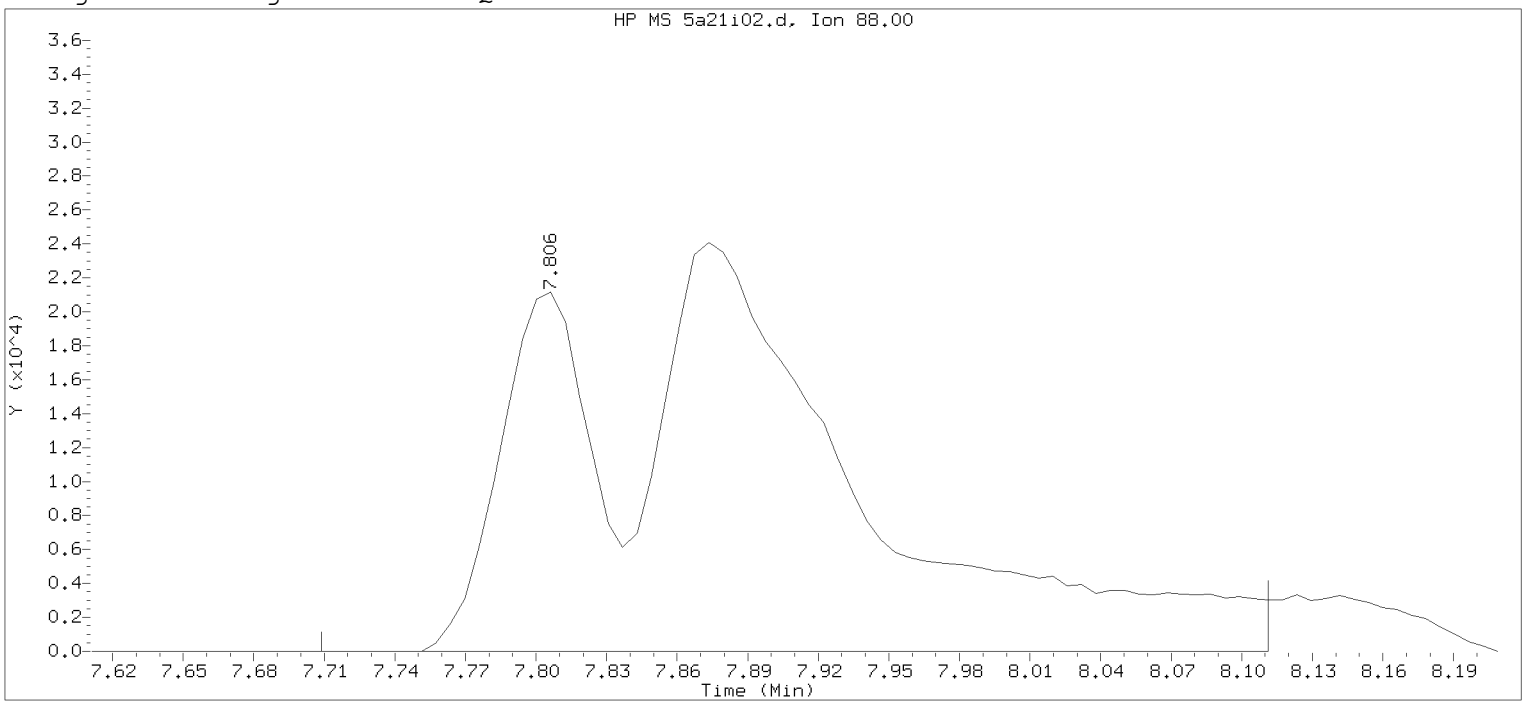
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1053
Retention Time (minutes): 7.806
Quant Ion : 88.00
Area : 198541
On-column Amount (ng) : 1350.5622
Integration start scan : 1036 Integration stop scan: 1102
Y at integration start : 0 Y at integration end: 0

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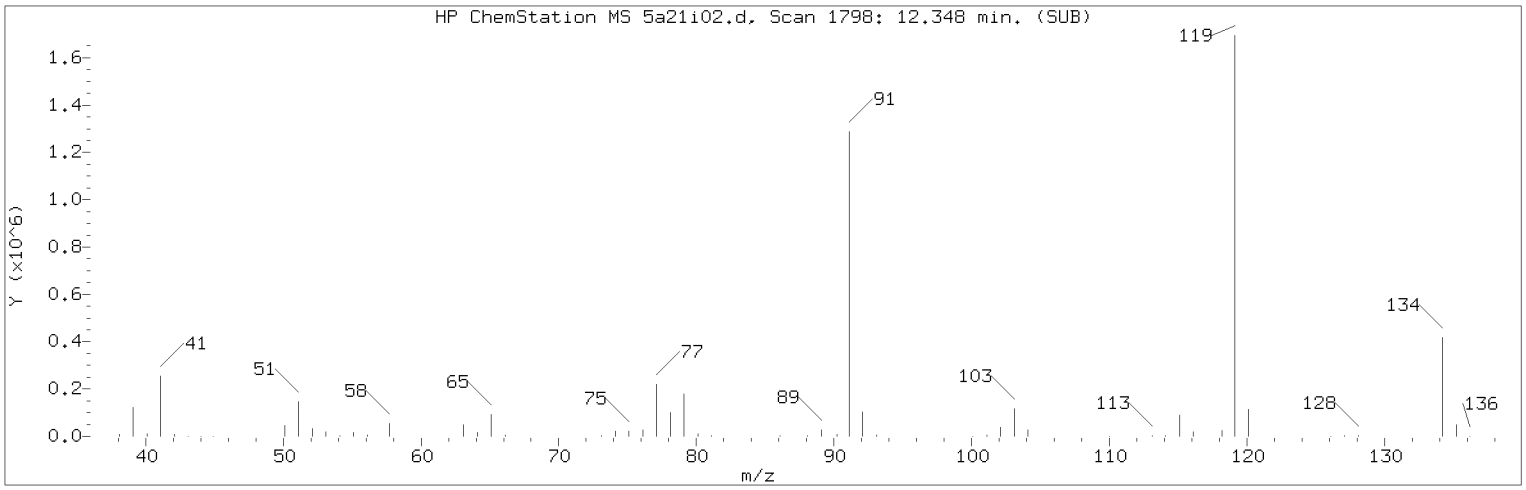
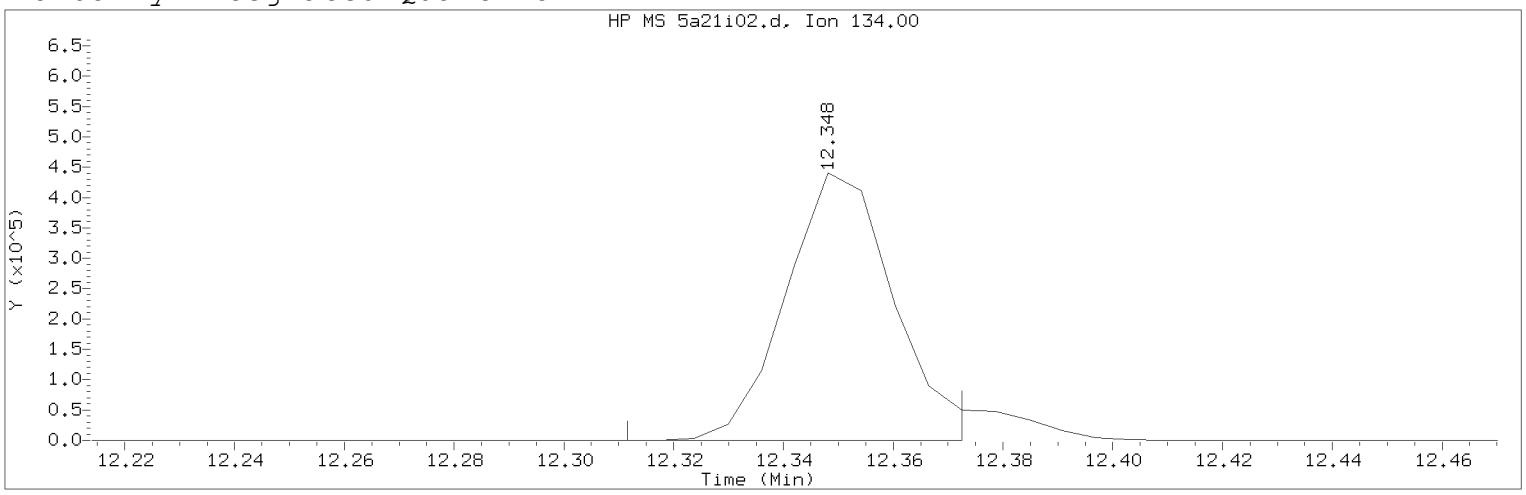
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

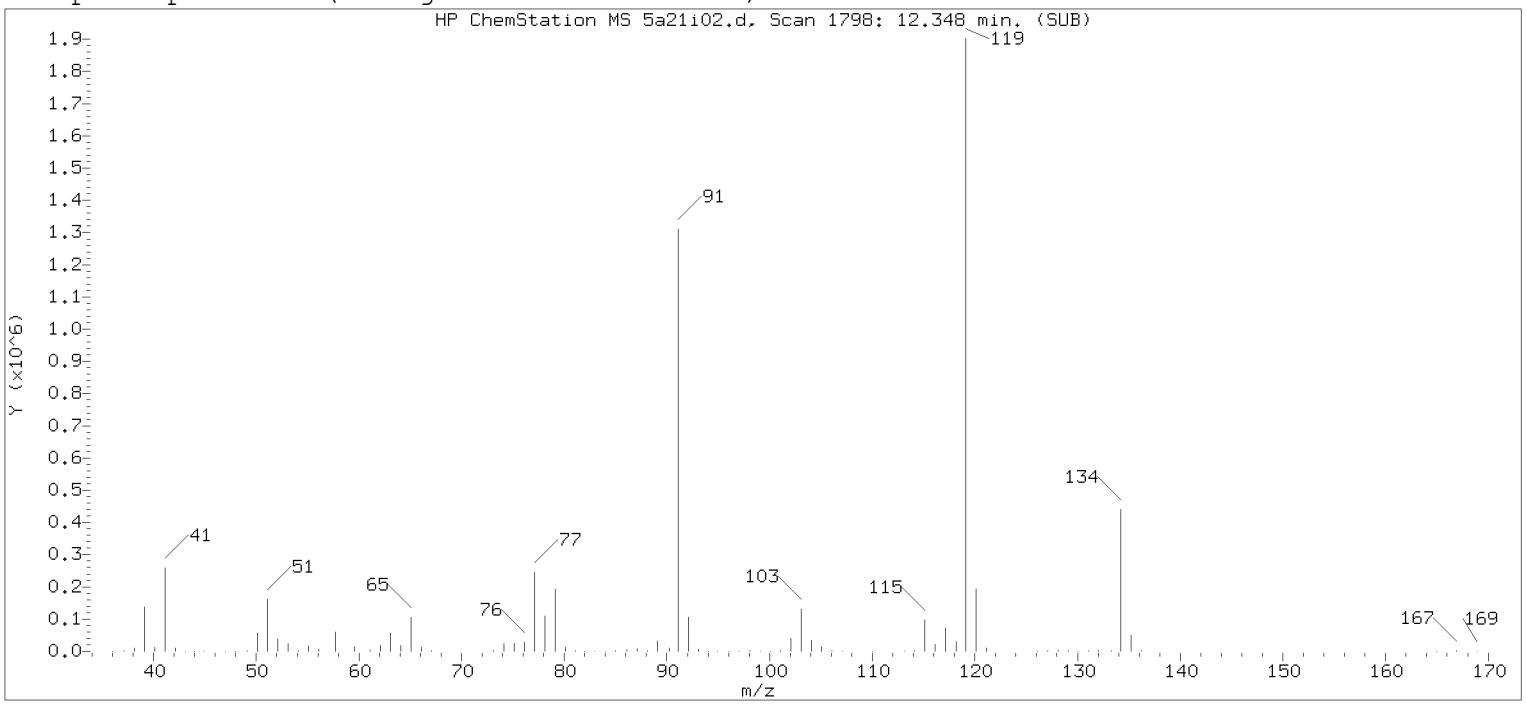
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 602948M
On-Column Amount (ng) : 106.5381
Integration start scan : 1791 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

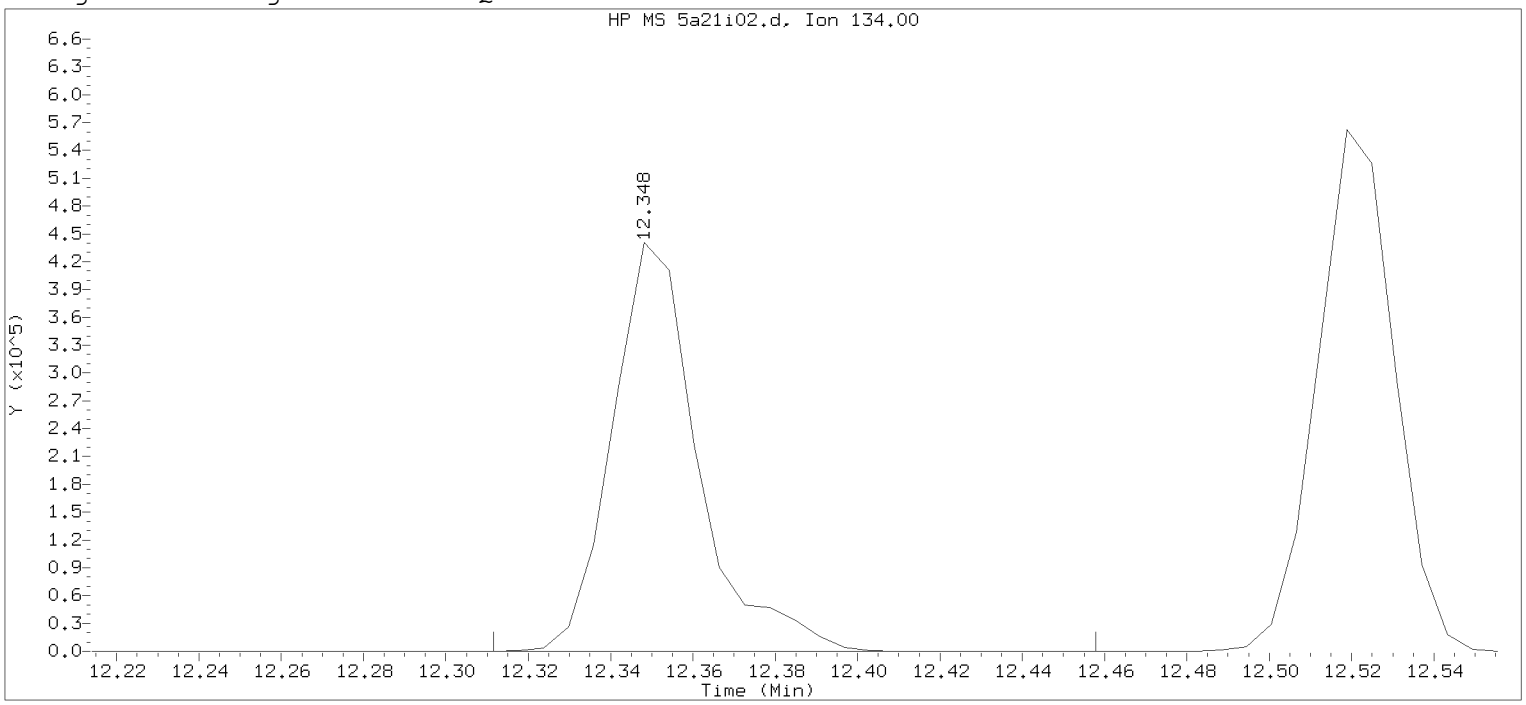
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



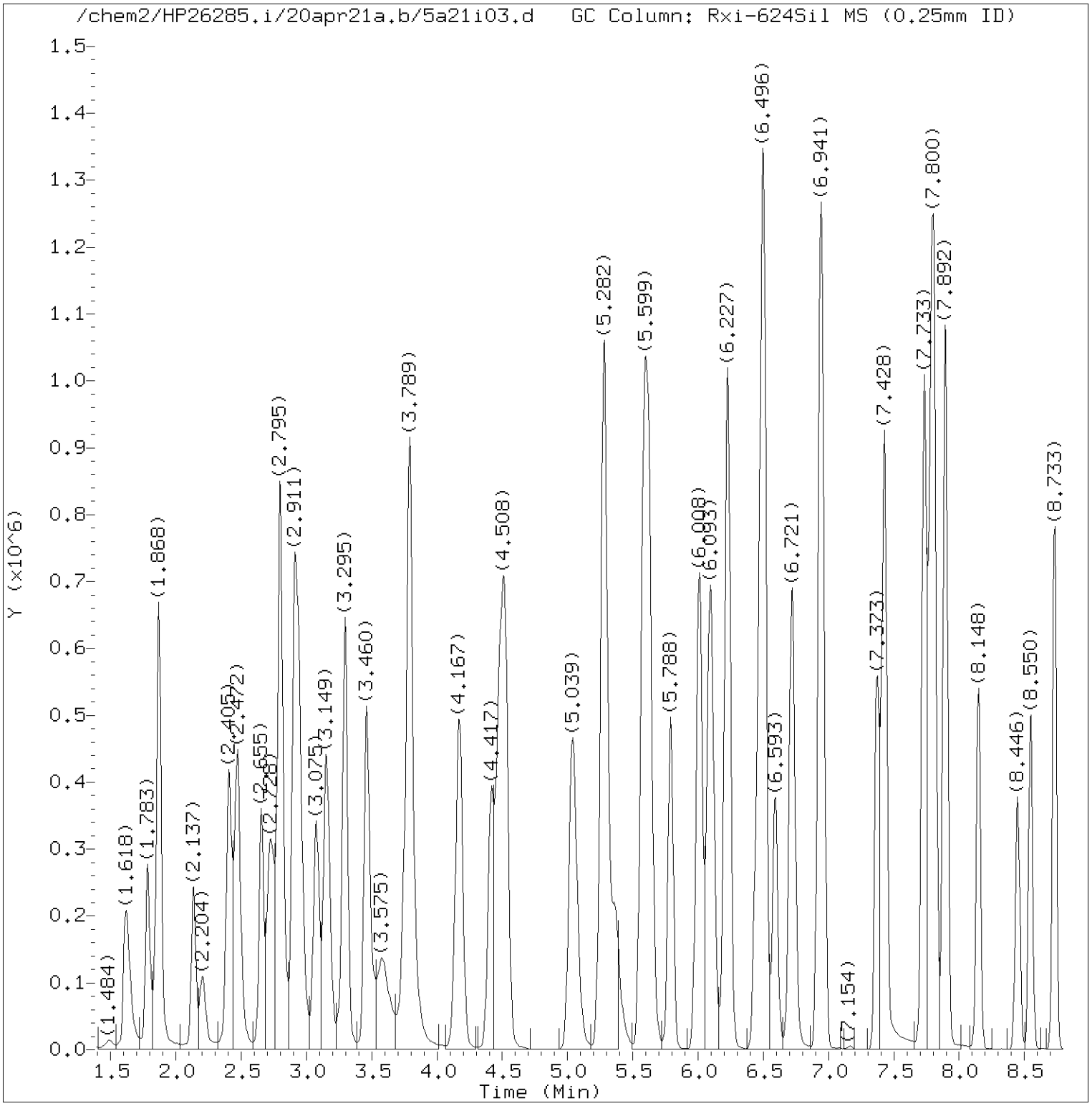
Data File: /chem2/HP26285.i/20apr21a.b/5a21i02.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 21:40 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 640336
On-column Amount (ng) : 107.1483
Integration start scan : 1791 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

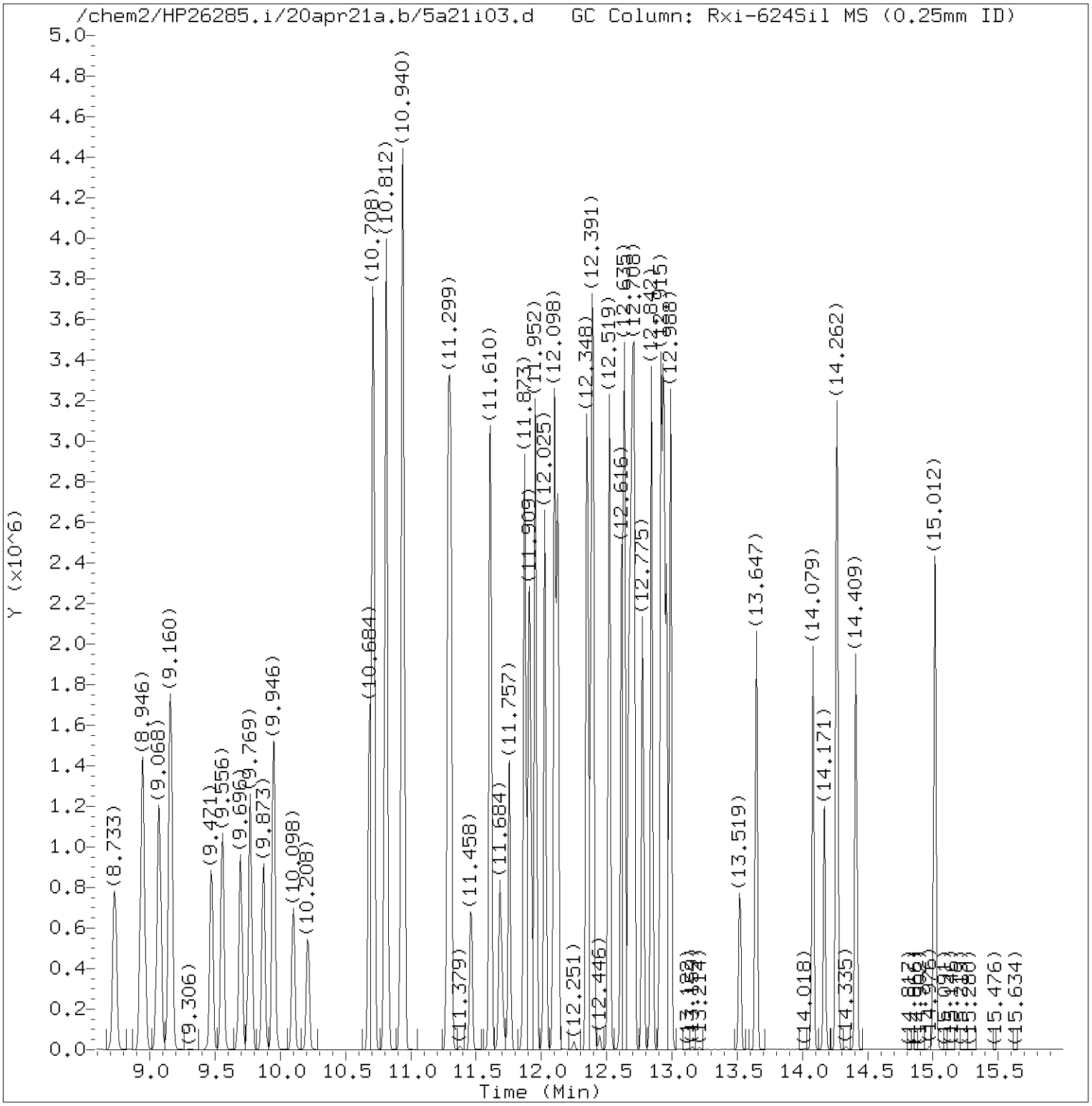
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	459427	53.380
4) Chloromethane	(2)	1.777	50	337795	49.137
5) 1,3-Butadiene	(2)	1.868	39	322506	33.983
6) Vinyl Chloride	(2)	1.874	62	317567	52.590
8) Bromomethane	(2)	2.137	94	212217	52.345
9) Chloroethane	(2)	2.204	64	148764	52.033
10) Dichlorofluoromethane	(2)	2.405	67	471274	50.583
12) Trichlorofluoromethane	(2)	2.448	101	392697	53.099
11) n-Pentane	(2)	2.478	43	326134	47.374
14) Ethyl ether	(2)	2.655	59	263214	51.625
15) Freon 123a	(2)	2.728	67	384551	49.814
16) Acrolein	(1)	2.801	56	1211648	516.753
17) 1,1-Dichloroethene	(2)	2.905	96	290561	50.566
17) 1,1-Dichloroethene	(2)	2.905	63	148228	51.470
18) Acetone	(1)	2.941	58	122675	106.082
19) Freon 113	(2)	2.941	101	340156	52.299
22) Methyl Iodide	(2)	3.075	142	552548	50.429
21) 2-Propanol	(1)	3.088	45	247311	262.813
23) Carbon Disulfide	(2)	3.149	76	1017161	50.323
27) Methyl Acetate	(2)	3.283	43	404064	48.772
25) Allyl Chloride	(2)	3.301	41	484707	50.392
28) Methylene Chloride	(2)	3.460	84	326045	50.338
29)*t-Butyl alcohol-d10	(1)	3.478	65	370304M	250.000
30) t-Butyl alcohol	(1)	3.588	59	453454	259.977
31) Acrylonitrile	(2)	3.746	53	232307	53.124
32) trans-1,2-Dichloroethene	(2)	3.789	96	326138	50.724
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	863622	50.781
34) n-Hexane	(2)	4.173	57	491875	51.592
36) 1,1-Dichloroethane	(2)	4.411	63	592688	50.921
38) di-Isopropyl ether	(2)	4.478	45	1053201	50.662
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	515013	52.084
40) Ethyl t-butyl ether	(2)	5.039	59	931255	50.459
44) 2-Butanone	(2)	5.270	43	656308	103.120
42) cis-1,2-Dichloroethene	(2)	5.282	96	368640	50.690
45) 2,2-Dichloropropane	(2)	5.288	77	500185	50.930
47) Propionitrile	(1)	5.368	54	476475	250.942
48) Methacrylonitrile	(2)	5.587	67	554277	127.268
49) Bromochloromethane	(2)	5.624	128	165738	49.759

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	179161	104.402
51) Chloroform	(2)	5.788	83	592887	50.786
53) 1,1,1-Trichloroethane	(2)	6.008	97	538643	51.246
52)$Dibromofluoromethane	(2)	6.014	113	264881	50.040
52)$Dibromofluoromethane	(2)	6.014	111	270386	49.889
54) Cyclohexane	(2)	6.093	56	632036	51.630
54) Cyclohexane	(2)	6.093	84	521687	51.518
54) Cyclohexane	(2)	6.093	69	197405	51.990
43) 1,2-Dichloroethene (Total)	(2)		96	694778	101.415
56) Carbon Tetrachloride	(2)	6.215	117	479110	52.244
55) 1,1-Dichloropropene	(2)	6.233	75	482899	50.716
58) Isobutyl Alcohol	(1)	6.453	41	382857	658.517
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59422	50.193
57)$1,2-Dichloroethane-d4	(2)	6.483	65	289602	50.033
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37924	50.029
60) Benzene	(2)	6.502	78	1436583	50.741
61) 1,2-Dichloroethane	(2)	6.593	62	425067	48.882
61) 1,2-Dichloroethane	(2)	6.593	98	38969	52.992
65) t-Amyl methyl ether	(2)	6.721	73	942139	51.159
66)*Fluorobenzene	(2)	6.934	96	1062743	50.000
67) n-Heptane	(2)	6.953	43	463995	50.384
69) n-Butanol	(1)	7.373	56	681476	1358.414
71) Trichloroethene	(2)	7.428	95	376563	50.683
73) Methylcyclohexane	(2)	7.733	83	595748	50.452
73) Methylcyclohexane	(2)	7.733	98	251504	50.312
74) 1,2-Dichloropropane	(2)	7.776	63	362077	51.088
76) 1,4-Dioxane	(1)	7.879	88	81378M	653.960
75) Dibromomethane	(2)	7.892	93	228623	51.229
77) Methyl Methacrylate	(2)	7.898	69	347950	52.473
79) Bromodichloromethane	(2)	8.148	83	450848	52.098
80) 2-Nitropropane	(2)	8.446	41	326295	108.862
81) 2-Chloroethyl Vinyl Ether	(2)	8.550	63	285666	52.083
82) cis-1,3-Dichloropropene	(2)	8.733	75	576071	52.678
83) 4-Methyl-2-pentanone	(2)	8.946	43	1327912	108.249
84)$Toluene-d8	(3)	9.068	98	1030482	49.773
84)$Toluene-d8	(3)	9.068	100	679337	49.834
89) Toluene	(3)	9.160	92	930169	50.952
90) trans-1,3-Dichloropropene	(3)	9.471	75	521871	53.280

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	591279	53.087
93) 1,1,2-Trichloroethane	(3)	9.696	97	333288	51.066
94) Tetrachloroethene	(3)	9.769	166	390028	50.373
95) 1,3-Dichloropropane	(3)	9.873	76	549584	50.716
97) 2-Hexanone	(3)	9.946	43	1062422	109.536
91) 1,3-Dichloropropene (total)	(3)		100	1097942	105.957
98) Dibromochloromethane	(3)	10.098	129	370040	53.581
100) 1,2-Dibromoethane	(3)	10.208	107	372185	51.730
101)*Chlorobenzene-d5	(3)	10.684	117	842446	50.000
102) 1-Chlorohexane	(3)	10.708	91	543784	51.219
103) Chlorobenzene	(3)	10.714	112	1014909	51.226
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	365528	53.478
105) Ethylbenzene	(3)	10.812	91	1850788	52.432
107) m+p-Xylene	(3)	10.940	106	1419617	104.822
108) o-Xylene	(3)	11.287	106	695047	52.433
110) Styrene	(3)	11.306	104	1156203	54.121
111) Bromoform	(3)	11.458	173	279092	55.856
112) Isopropylbenzene	(3)	11.610	105	1816493	52.219
113) Cyclohexanone	(1)	11.684	55	367855	643.581
115)$4-Bromofluorobenzene	(3)	11.751	95	438187	50.232
115)$4-Bromofluorobenzene	(3)	11.757	174	339512	49.892
109) Xylene (Total)	(3)		106	2114664	157.256
116) Bromobenzene	(4)	11.866	156	426024	51.354
117) 1,1,2,2-Tetrachloroethane	(4)	11.879	83	589637	52.378
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	279818	123.685
118) 1,2,3-Trichloropropane	(4)	11.915	110	172477	52.032
120) n-Propylbenzene	(4)	11.952	91	2157784	52.904
121) 2-Chlorotoluene	(4)	12.025	126	427135	51.091
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	1512463	52.751
122) 4-Chlorotoluene	(4)	12.123	126	437883	51.850
125) tert-Butylbenzene	(4)	12.348	134	298649M	52.411
126) Pentachloroethane	(4)	12.379	167	250481	53.544
127) 1,2,4-Trimethylbenzene	(4)	12.397	105	1563641	52.959
128) sec-Butylbenzene	(4)	12.519	105	1868106	52.552
130) 1,3-Dichlorobenzene	(4)	12.616	146	800517	51.302
131) p-Isopropyltoluene	(4)	12.635	119	1575115	53.134
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	435155	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	811678	51.256

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

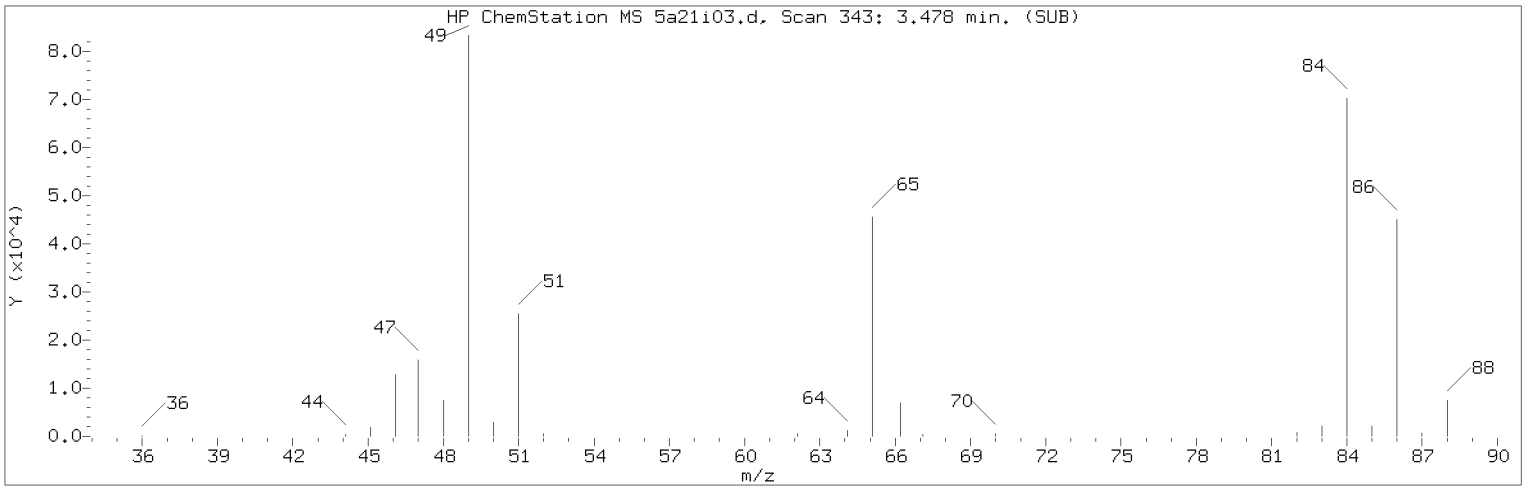
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

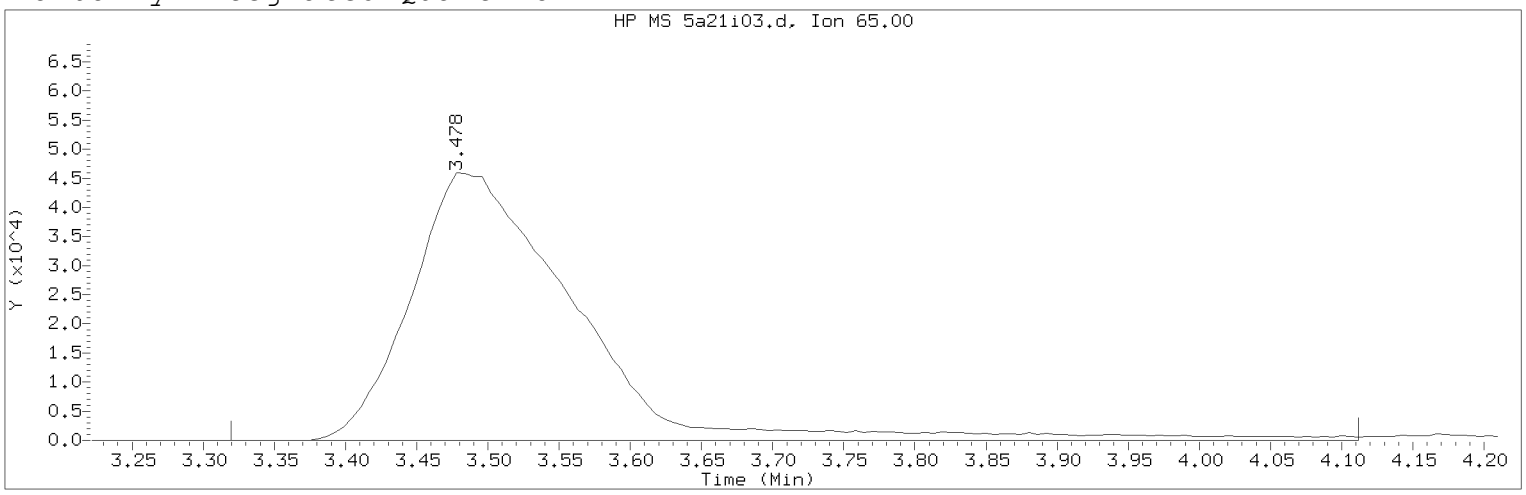
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	1461119	51.555
136)	Benzyl Chloride	(4)	12.775	91	1216929	56.346
137)	1,3-Diethylbenzene	(4)	12.842	119	883628	51.589
138)	1,4-Diethylbenzene	(4)	12.915	119	917465	51.787
140)	n-Butylbenzene	(4)	12.933	92	781919	52.292
139)	1,2-Dichlorobenzene	(4)	12.958	146	767329	51.194
141)	1,2-Diethylbenzene	(4)	12.988	119	738126	50.954
142)	Diethylbenzene (total)	(4)		100	2539219	154.330
143)	1,2-Dibromo-3-chloropropane	(4)	13.519	75	155063	54.558
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	508462	51.360
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	479860	51.593
148)	Hexachlorobutadiene	(4)	14.171	225	182815	51.110
149)	Naphthalene	(4)	14.262	128	1969712	53.479
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	474408	51.546
151)	2-Methylnaphthalene	(4)	15.018	142	1038673	54.280

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

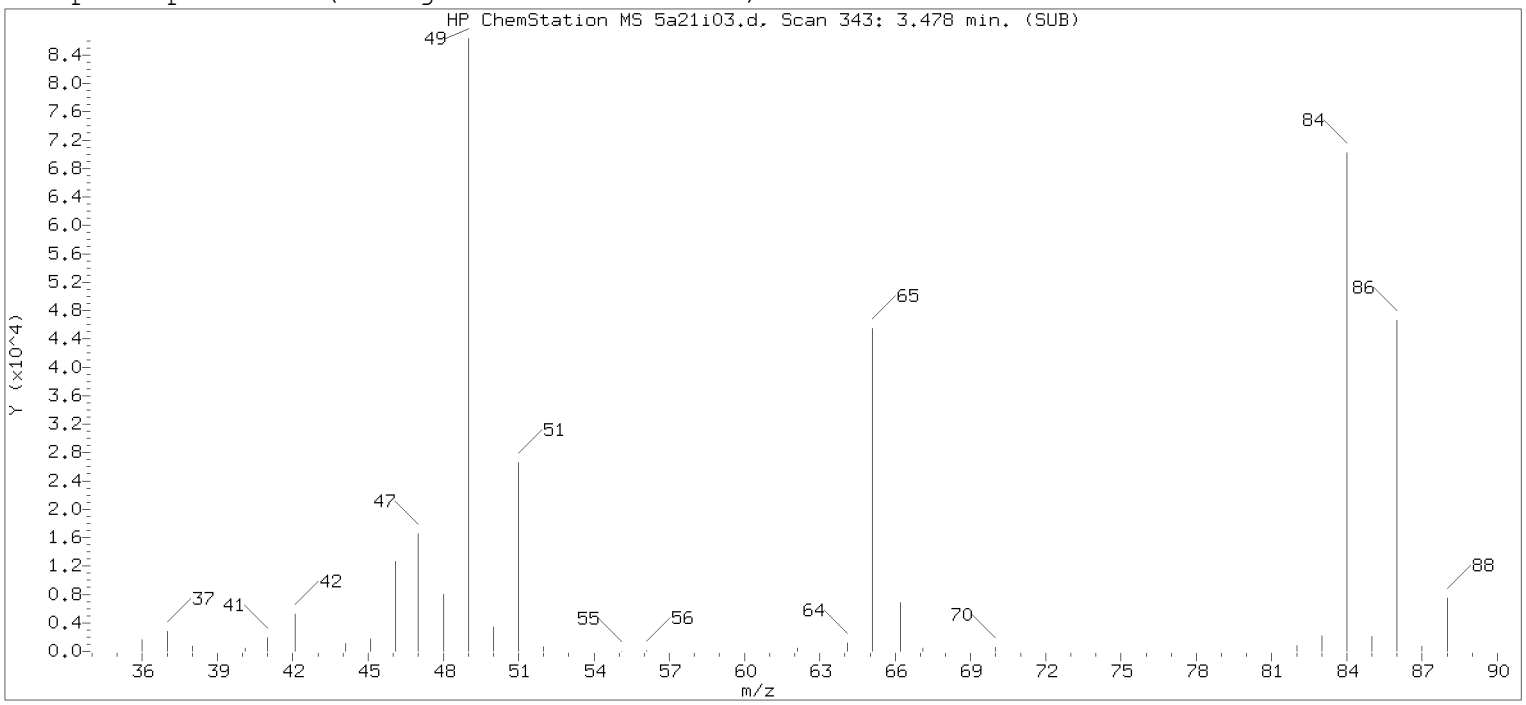
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 370304M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 446
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

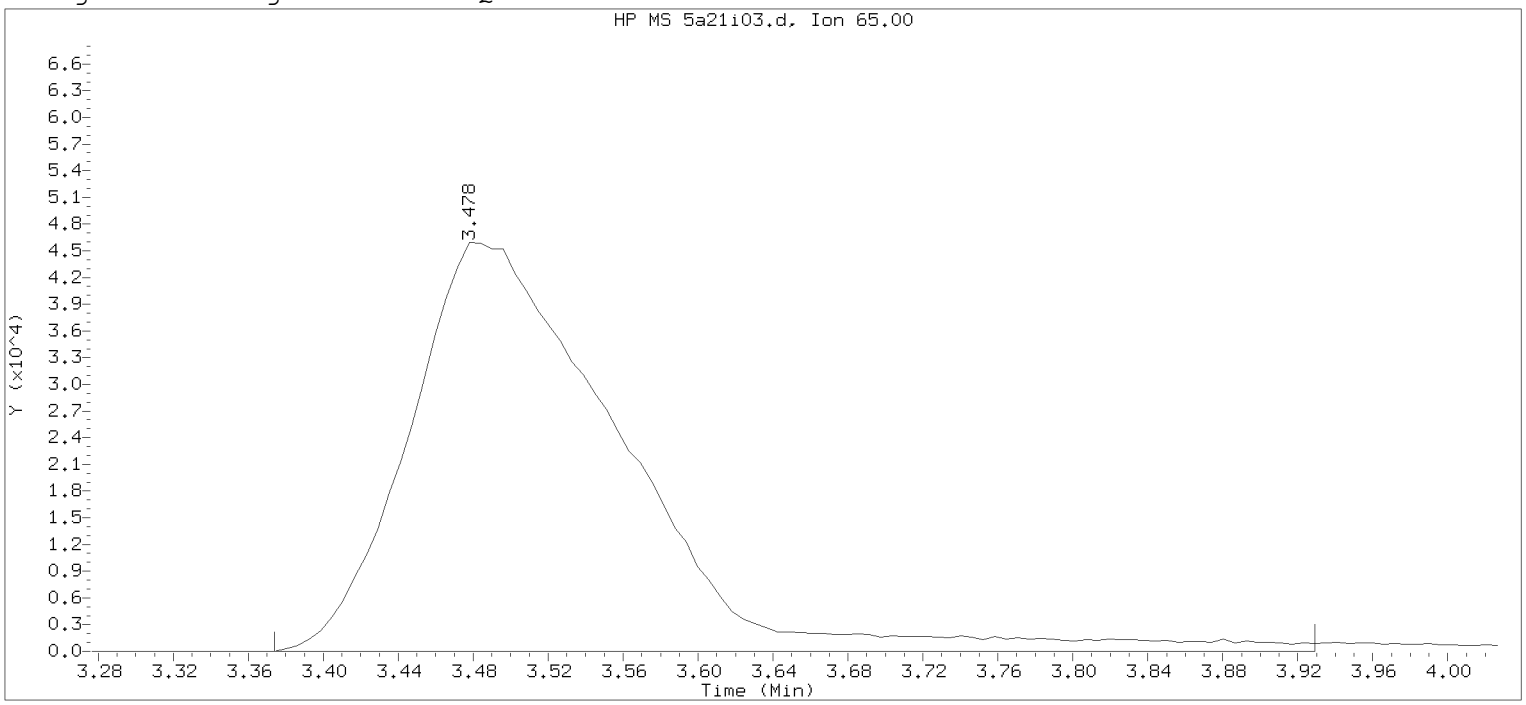
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

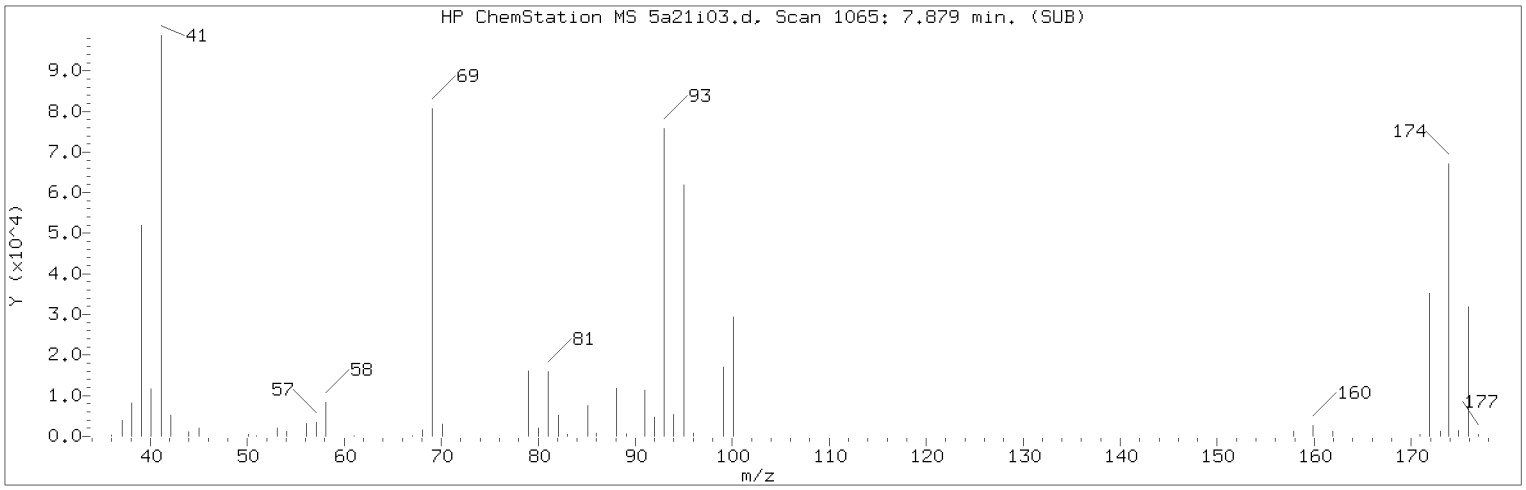
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

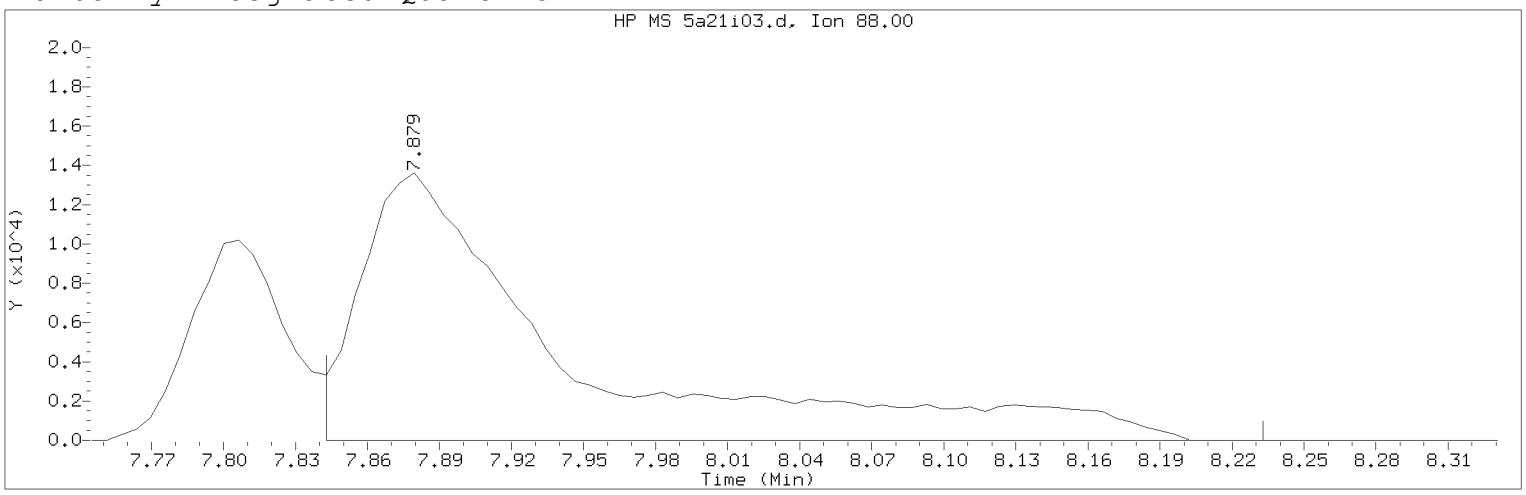
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 362266
On-column Amount (ng) : 250.0000
Integration start scan : 325 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

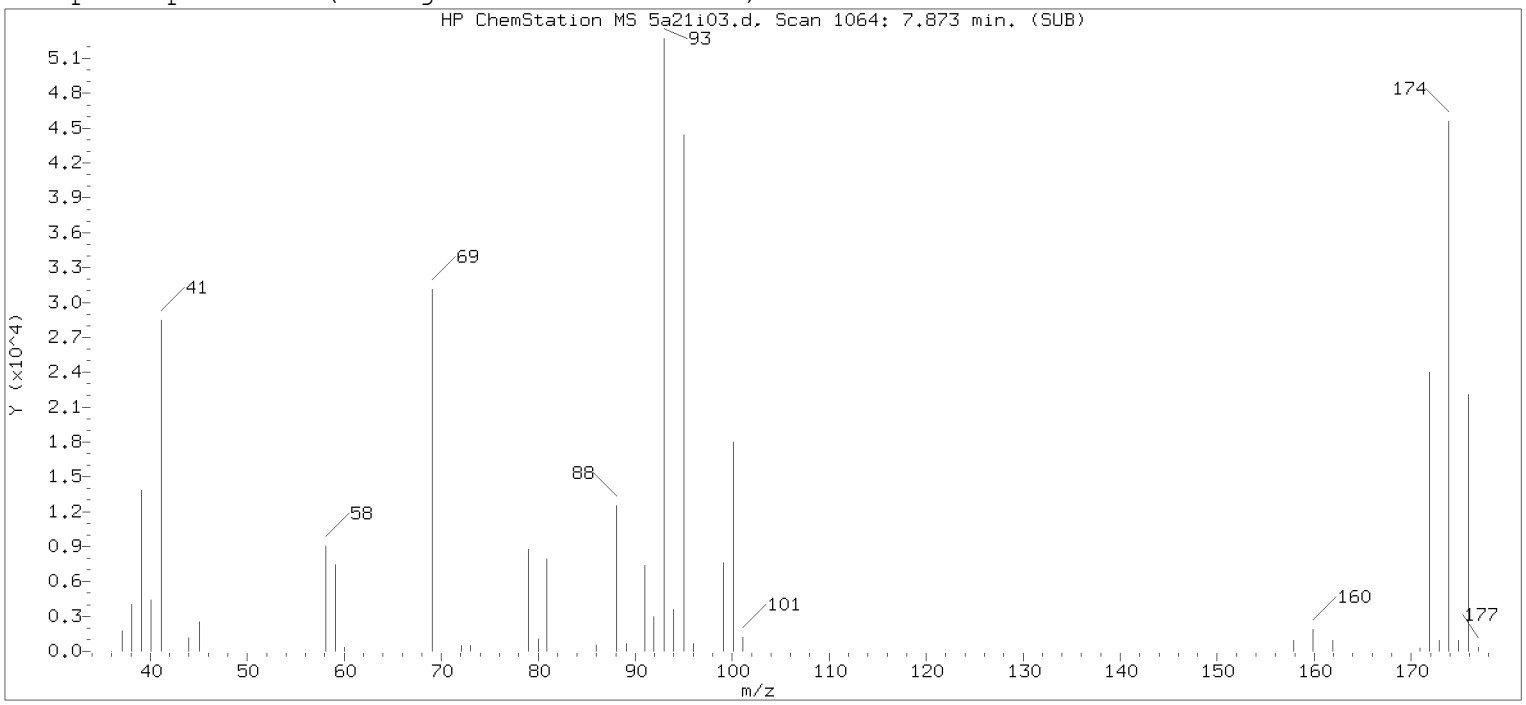
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.879
Quant Ion : 88.00
Area (flag) : 81378M
On-Column Amount (ng) : 653.9599
Integration start scan : 1058 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

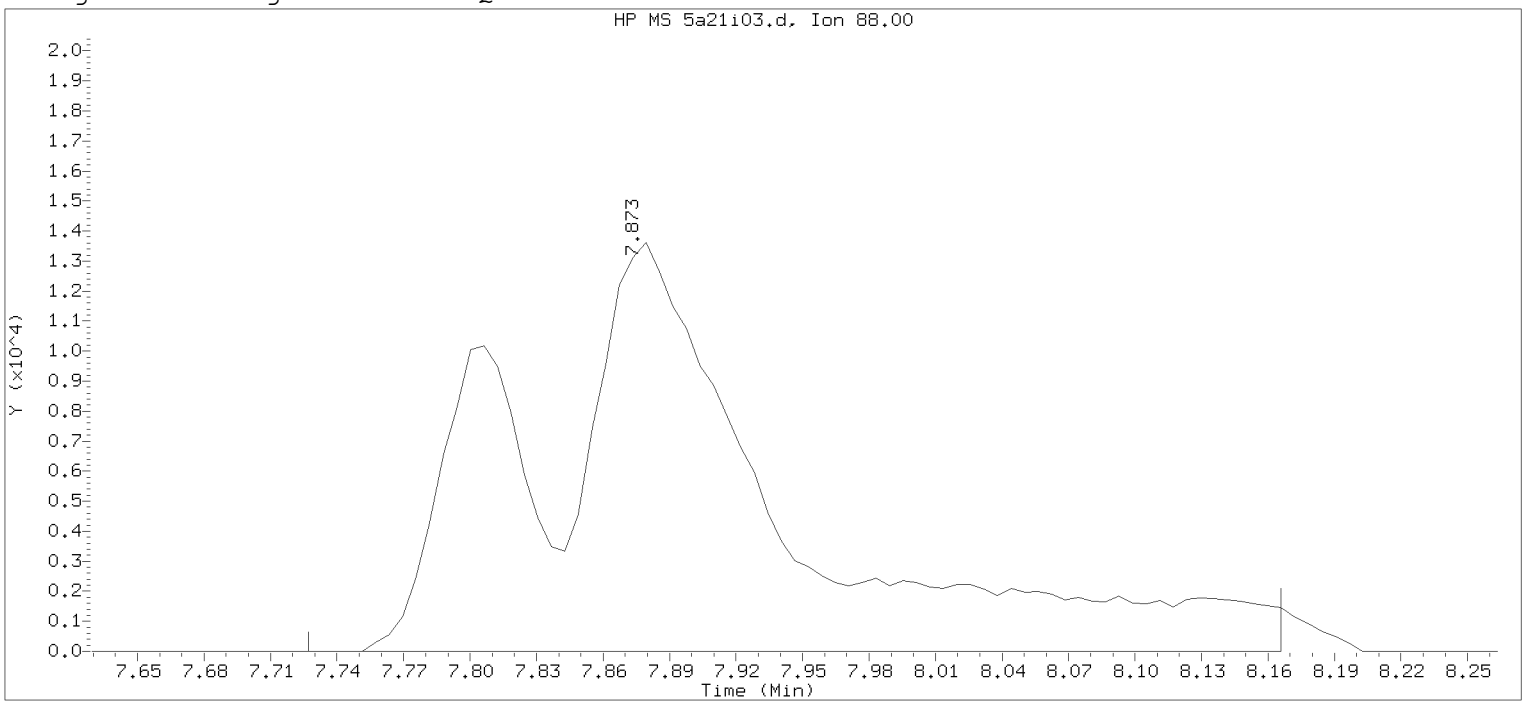
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

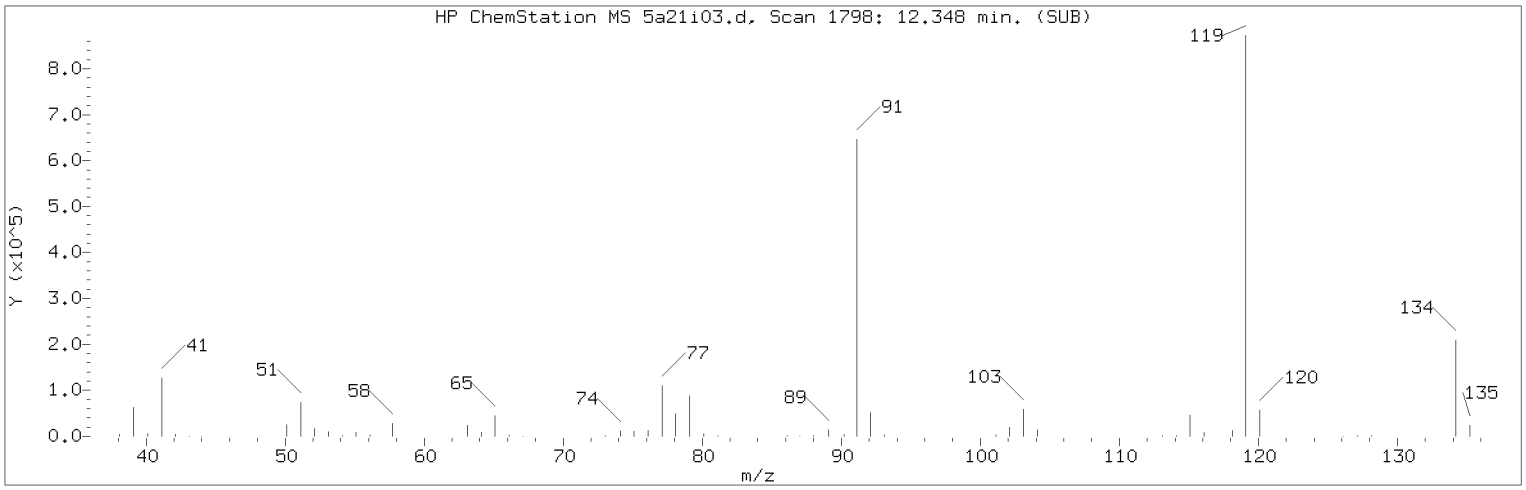
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

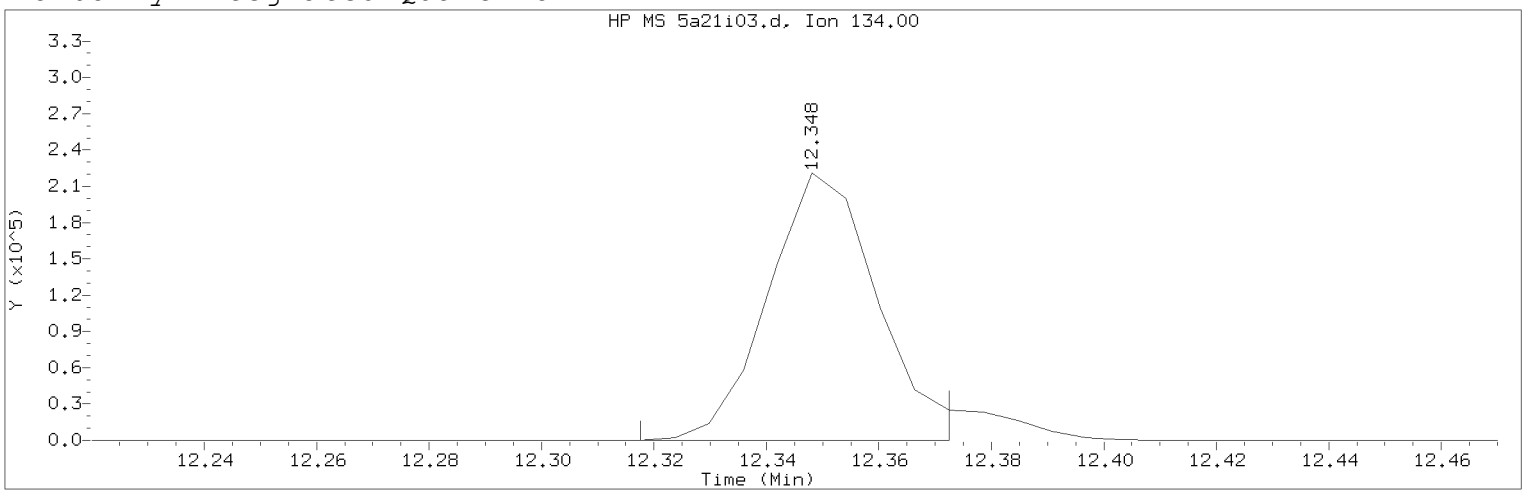
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 107258
On-column Amount (ng) : 750.0099
Integration start scan : 1039 Integration stop scan: 1111
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:24 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

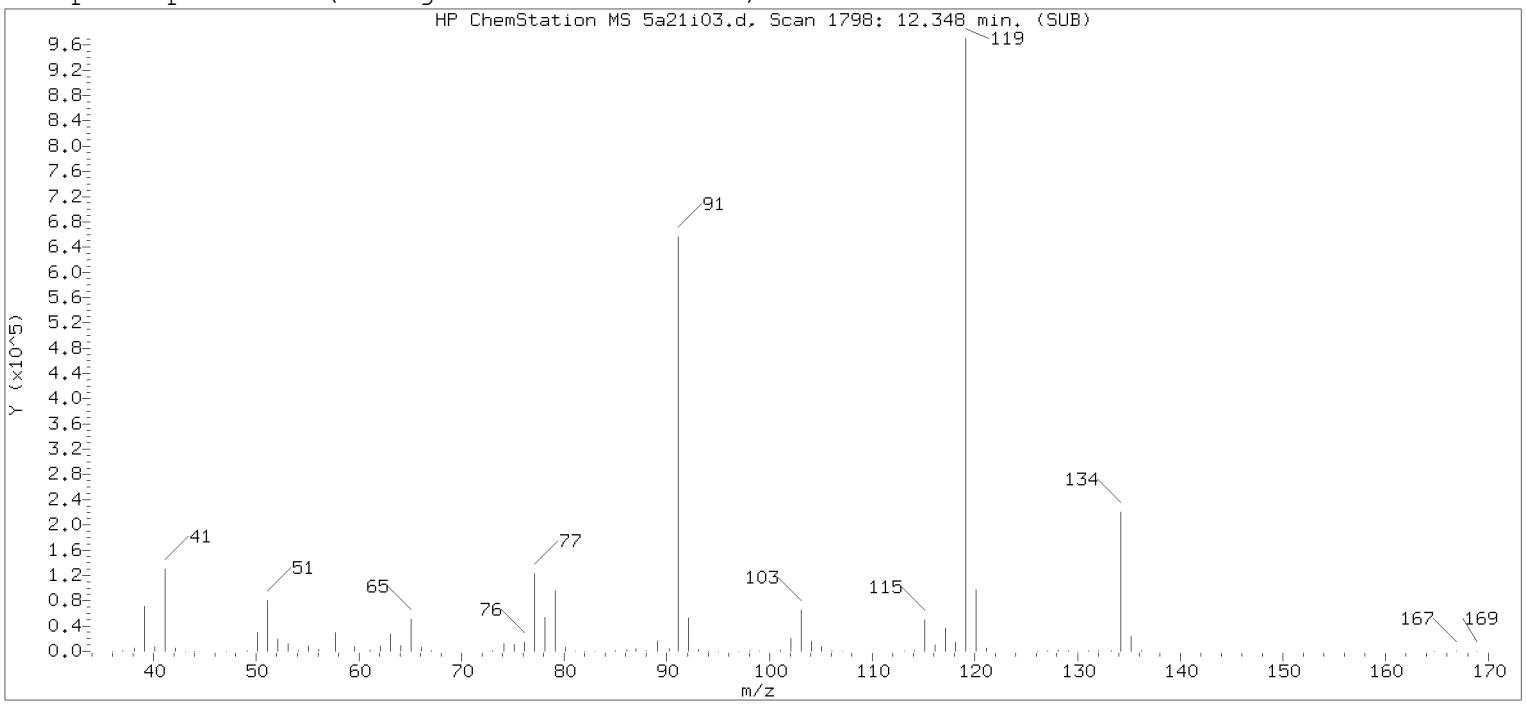
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 298649M
On-Column Amount (ng) : 52.4110
Integration start scan : 1792 Integration stop scan: 1801
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

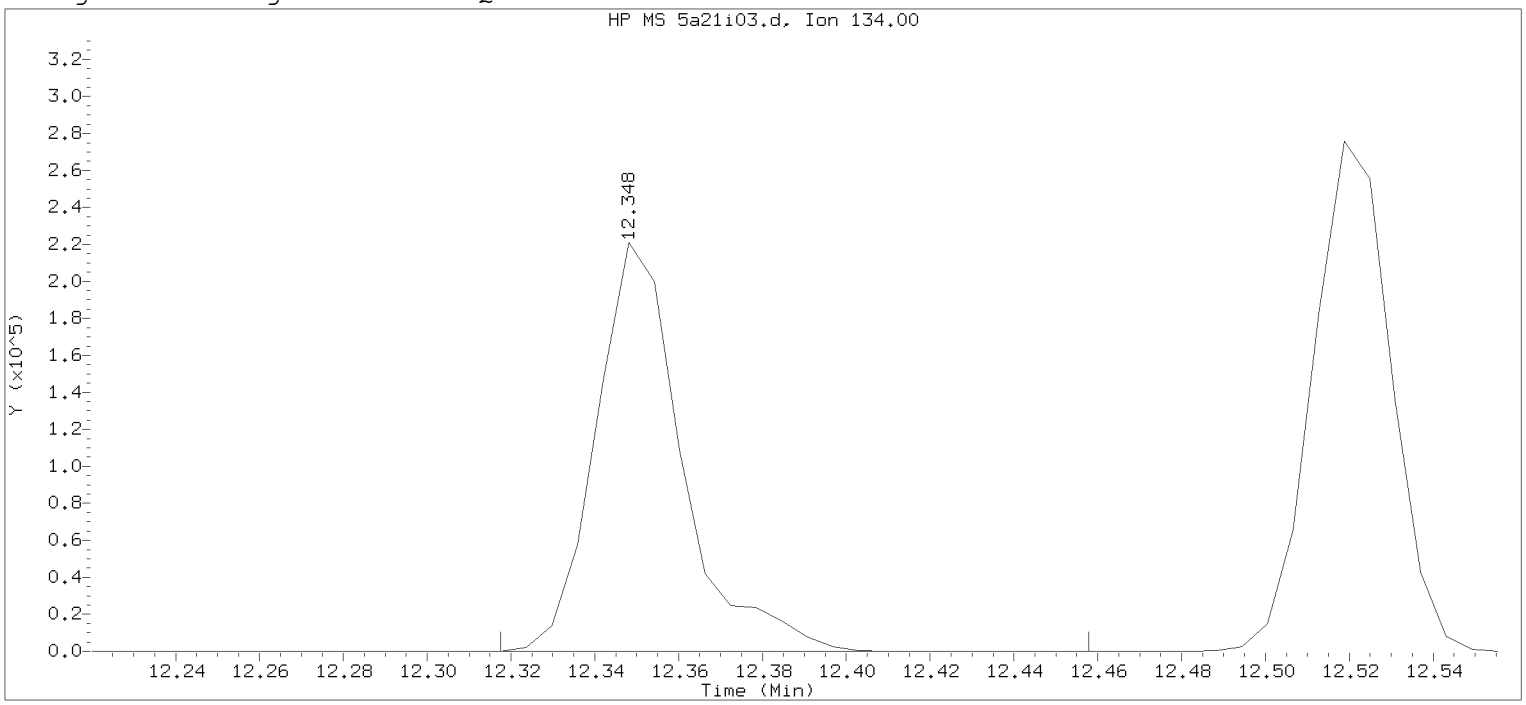
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



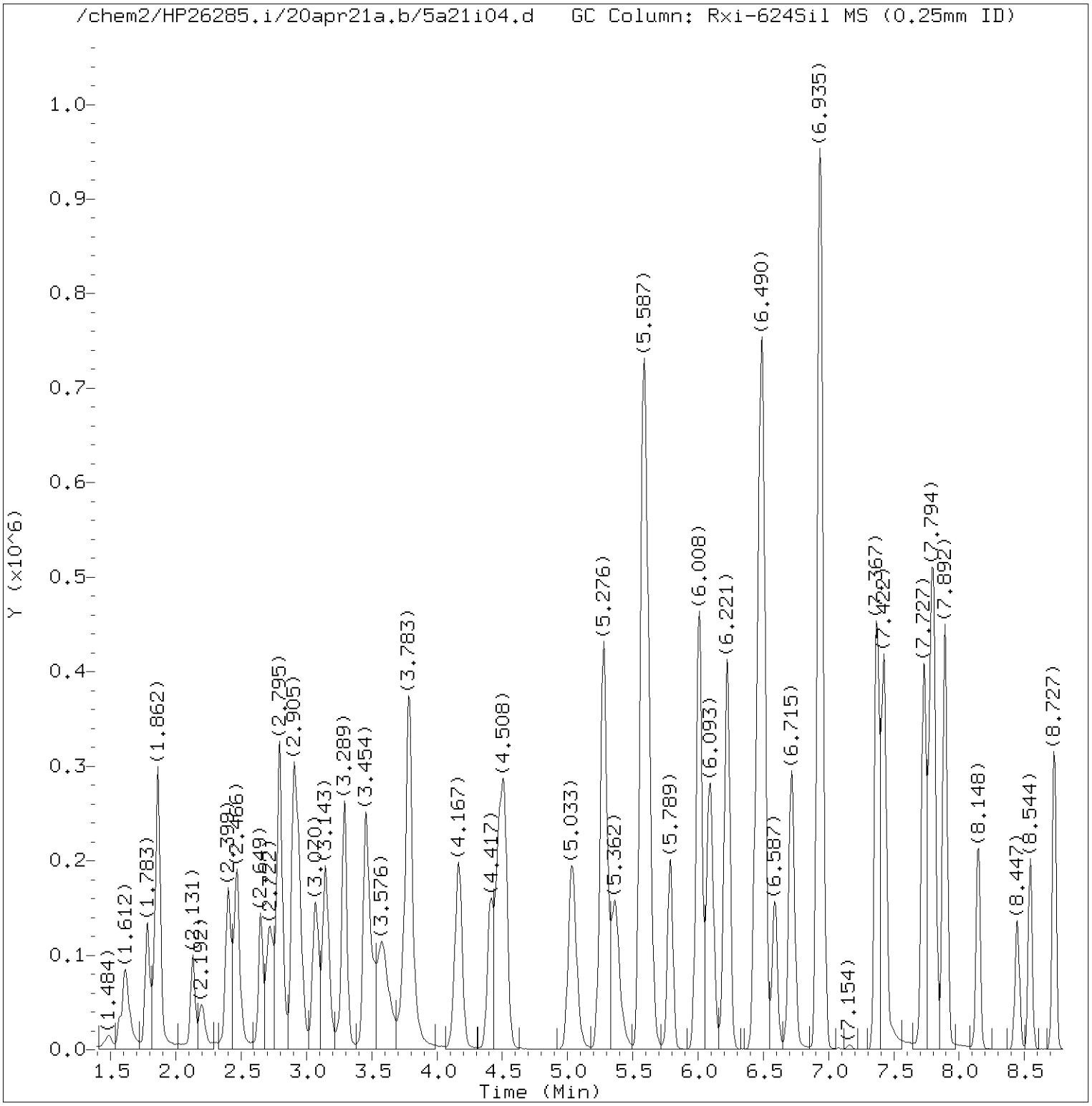
Data File: /chem2/HP26285.i/20apr21a.b/5a21i03.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:00 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 21-APR-2020 22:19
Date, time and analyst ID of latest file update: 21-Apr-2020 22:19 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 316930
On-column Amount (ng) : 49.2990
Integration start scan : 1792 Integration stop scan: 1815
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLMellinger



Total Ion Chromatogram (TIC)

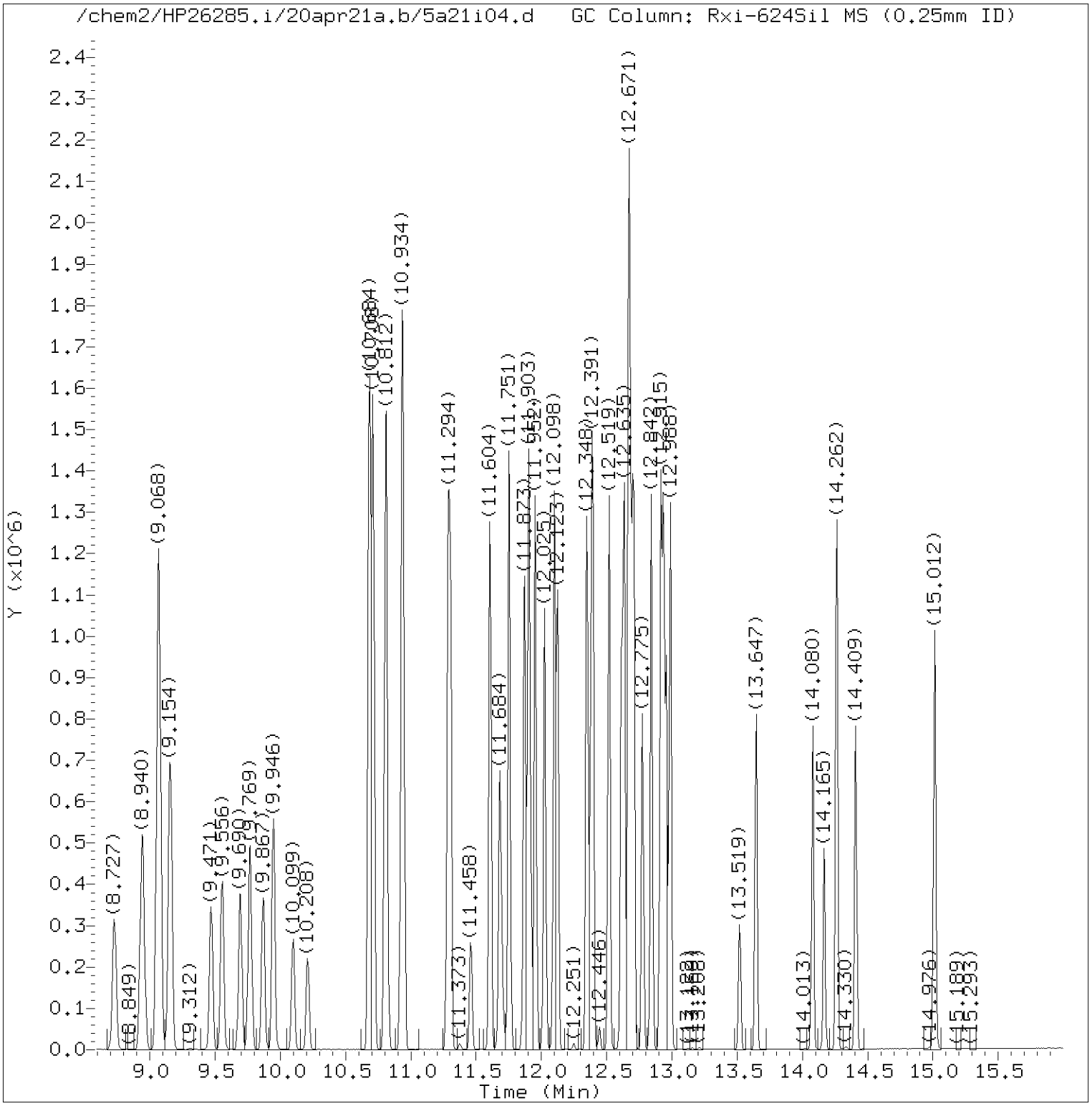
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	176107	20.225
4) Chloromethane	(2)	1.777	50	137441	19.762
5) 1,3-Butadiene	(2)	1.856	39	167227	17.418
6) Vinyl Chloride	(2)	1.869	62	123095	20.150
8) Bromomethane	(2)	2.131	94	83021	20.241
9) Chloroethane	(2)	2.198	64	59332	20.513
10) Dichlorofluoromethane	(2)	2.399	67	188045	19.951
12) Trichlorofluoromethane	(2)	2.442	101	152369	20.365
11) n-Pentane	(2)	2.466	43	133320	19.143
14) Ethyl ether	(2)	2.649	59	101749	19.726
15) Freon 123a	(2)	2.716	67	160831	20.593
16) Acrolein	(1)	2.795	56	458690	193.463
17) 1,1-Dichloroethene	(2)	2.899	96	118012	20.300
17) 1,1-Dichloroethene	(2)	2.899	63	60161	20.649
19) Freon 113	(2)	2.929	101	135617	20.611
18) Acetone	(1)	2.935	58	45901	39.254
22) Methyl Iodide	(2)	3.063	142	226771	20.458
21) 2-Propanol	(1)	3.088	45	191798	201.567
23) Carbon Disulfide	(2)	3.149	76	410208	20.061
27) Methyl Acetate	(2)	3.277	43	163698	19.531
25) Allyl Chloride	(2)	3.295	41	193933	19.929
28) Methylene Chloride	(2)	3.454	84	133170	20.323
29)*t-Butyl alcohol-d10	(1)	3.484	65	374444M	250.000
30) t-Butyl alcohol	(1)	3.588	59	361536	204.986
31) Acrylonitrile	(2)	3.740	53	86420	19.534
32) trans-1,2-Dichloroethene	(2)	3.789	96	133401	20.508
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	353312	20.535
34) n-Hexane	(2)	4.167	57	200748	20.813
36) 1,1-Dichloroethane	(2)	4.405	63	240987	20.466
38) di-Isopropyl ether	(2)	4.478	45	430753	20.481
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	205108	20.503
40) Ethyl t-butyl ether	(2)	5.033	59	384962	20.618
44) 2-Butanone	(2)	5.264	43	247601	38.454
42) cis-1,2-Dichloroethene	(2)	5.276	96	151588	20.604
45) 2,2-Dichloropropane	(2)	5.289	77	202238	20.355
47) Propionitrile	(1)	5.368	54	383292	199.634
48) Methacrylonitrile	(2)	5.581	67	448172	101.718
49) Bromochloromethane	(2)	5.618	128	68545	20.342

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	65537	37.768
51) Chloroform	(2)	5.789	83	240712	20.381
53) 1,1,1-Trichloroethane	(2)	6.002	97	217888	20.490
52)$Dibromofluoromethane	(2)	6.014	113	268044	50.054
52)$Dibromofluoromethane	(2)	6.008	111	273439	49.870
54) Cyclohexane	(2)	6.093	56	254296	20.533
54) Cyclohexane	(2)	6.087	84	208410	20.344
54) Cyclohexane	(2)	6.087	69	78176	20.351
43) 1,2-Dichloroethene (Total)	(2)		96	284989	41.112
56) Carbon Tetrachloride	(2)	6.215	117	190269	20.508
55) 1,1-Dichloropropene	(2)	6.227	75	196038	20.351
58) Isobutyl Alcohol	(1)	6.453	41	296319	504.036
57)$1,2-Dichloroethane-d4	(2)	6.484	102	59913	50.023
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291867	49.843
57)$1,2-Dichloroethane-d4	(2)	6.477	104	38655	50.405
60) Benzene	(2)	6.502	78	587925	20.526
61) 1,2-Dichloroethane	(2)	6.587	62	174387	19.823
61) 1,2-Dichloroethane	(2)	6.587	98	15862	21.321
65) t-Amyl methyl ether	(2)	6.715	73	387268	20.786
66)*Fluorobenzene	(2)	6.929	96	1075151	50.000
67) n-Heptane	(2)	6.953	43	187178	20.091
69) n-Butanol	(1)	7.367	56	515020	1015.260
71) Trichloroethene	(2)	7.428	95	153449	20.415
73) Methylcyclohexane	(2)	7.727	83	241143	20.186
73) Methylcyclohexane	(2)	7.727	98	101510	20.072
74) 1,2-Dichloropropane	(2)	7.776	63	147620	20.588
76) 1,4-Dioxane	(1)	7.873	88	66419M	527.847
75) Dibromomethane	(2)	7.886	93	92310	20.446
77) Methyl Methacrylate	(2)	7.892	69	136501	20.348
79) Bromodichloromethane	(2)	8.148	83	178766	20.419
80) 2-Nitropropane	(2)	8.447	41	116656	38.471
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	112482	20.271
82) cis-1,3-Dichloropropene	(2)	8.727	75	227783	20.589
83) 4-Methyl-2-pentanone	(2)	8.940	43	482790	38.902
84)$Toluene-d8	(3)	9.068	98	1037913	49.941
84)$Toluene-d8	(3)	9.068	100	681258	49.784
89) Toluene	(3)	9.160	92	378117	20.633
90) trans-1,3-Dichloropropene	(3)	9.471	75	203161	20.662

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	230361	20.604
93) 1,1,2-Trichloroethane	(3)	9.696	97	134083	20.466
94) Tetrachloroethene	(3)	9.769	166	158715	20.420
95) 1,3-Dichloropropane	(3)	9.867	76	220946	20.311
97) 2-Hexanone	(3)	9.946	43	381856	39.219
91) 1,3-Dichloropropene (total)	(3)		100	430944	41.251
98) Dibromochloromethane	(3)	10.099	129	143238	20.662
100) 1,2-Dibromoethane	(3)	10.208	107	147552	20.430
101)*Chlorobenzene-d5	(3)	10.684	117	845669	50.000
103) Chlorobenzene	(3)	10.708	112	411422	20.687
102) 1-Chlorohexane	(3)	10.708	91	216785	20.341
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	144477	21.057
105) Ethylbenzene	(3)	10.812	91	747467	21.095
107) m+p-Xylene	(3)	10.934	106	574961	42.292
108) o-Xylene	(3)	11.287	106	279276	20.988
110) Styrene	(3)	11.306	104	459033	21.405
111) Bromoform	(3)	11.458	173	103338	20.603
112) Isopropylbenzene	(3)	11.604	105	733240	20.998
113) Cyclohexanone	(1)	11.684	55	289862	501.521
115)$4-Bromofluorobenzene	(3)	11.751	95	433370	49.490
115)$4-Bromofluorobenzene	(3)	11.757	174	338199	49.509
109) Xylene (Total)	(3)		106	854237	63.280
116) Bromobenzene	(4)	11.867	156	171502	20.687
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	231383	20.567
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	199102	92.001
118) 1,2,3-Trichloropropane	(4)	11.915	110	68108	20.560
120) n-Propylbenzene	(4)	11.952	91	868732	21.313
121) 2-Chlorotoluene	(4)	12.025	126	173212	20.732
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	609013	21.255
122) 4-Chlorotoluene	(4)	12.123	126	175742	20.823
125) tert-Butylbenzene	(4)	12.348	134	117503M	20.635
126) Pentachloroethane	(4)	12.379	167	98208	21.007
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	627833	21.278
128) sec-Butylbenzene	(4)	12.519	105	751728	21.161
130) 1,3-Dichlorobenzene	(4)	12.610	146	320824	20.574
131) p-Isopropyltoluene	(4)	12.635	119	626227	21.139
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	434870	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	327263	20.679

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* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.708	105	585964	20.689
136) Benzyl Chloride	(4)	12.775	91	463026	21.453
137) 1,3-Diethylbenzene	(4)	12.842	119	355157	20.749
138) 1,4-Diethylbenzene	(4)	12.915	119	368021	20.787
140) n-Butylbenzene	(4)	12.933	92	312980	20.945
139) 1,2-Dichlorobenzene	(4)	12.958	146	310508	20.730
141) 1,2-Diethylbenzene	(4)	12.988	119	299568	20.693
142) Diethylbenzene (total)	(4)		100	1022746	62.229
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	58485	20.591
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	203775	20.597
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	189717	20.411
148) Hexachlorobutadiene	(4)	14.171	225	73242	20.490
149) Naphthalene	(4)	14.262	128	780086	21.194
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	188286	20.471
151) 2-Methylnaphthalene	(4)	15.012	142	405277	21.193

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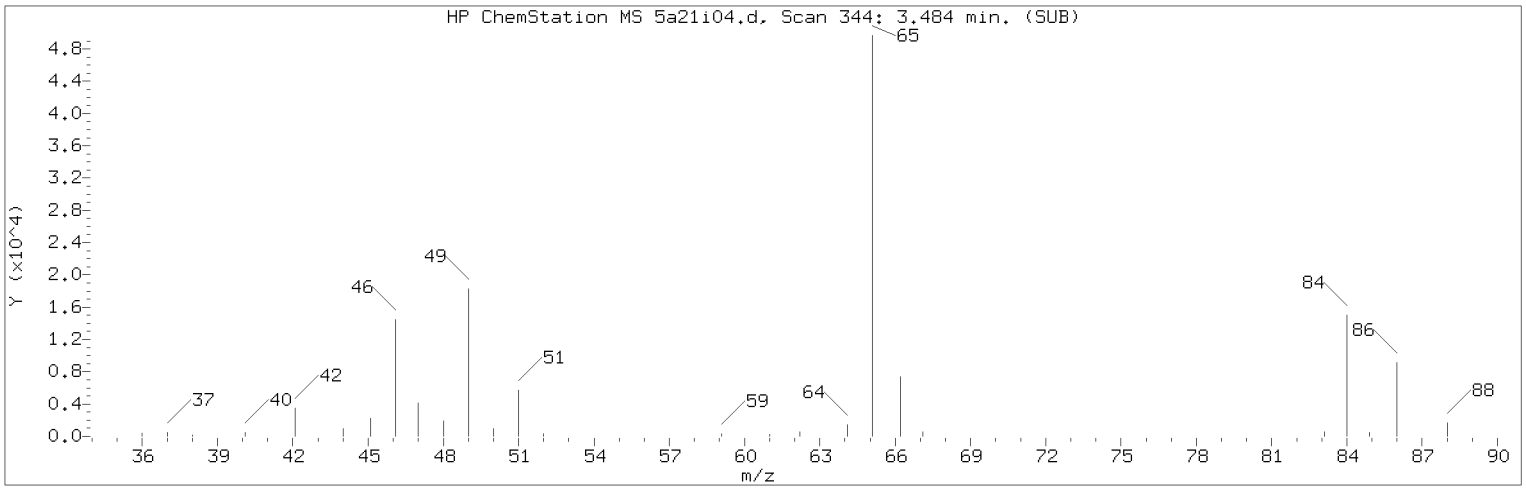
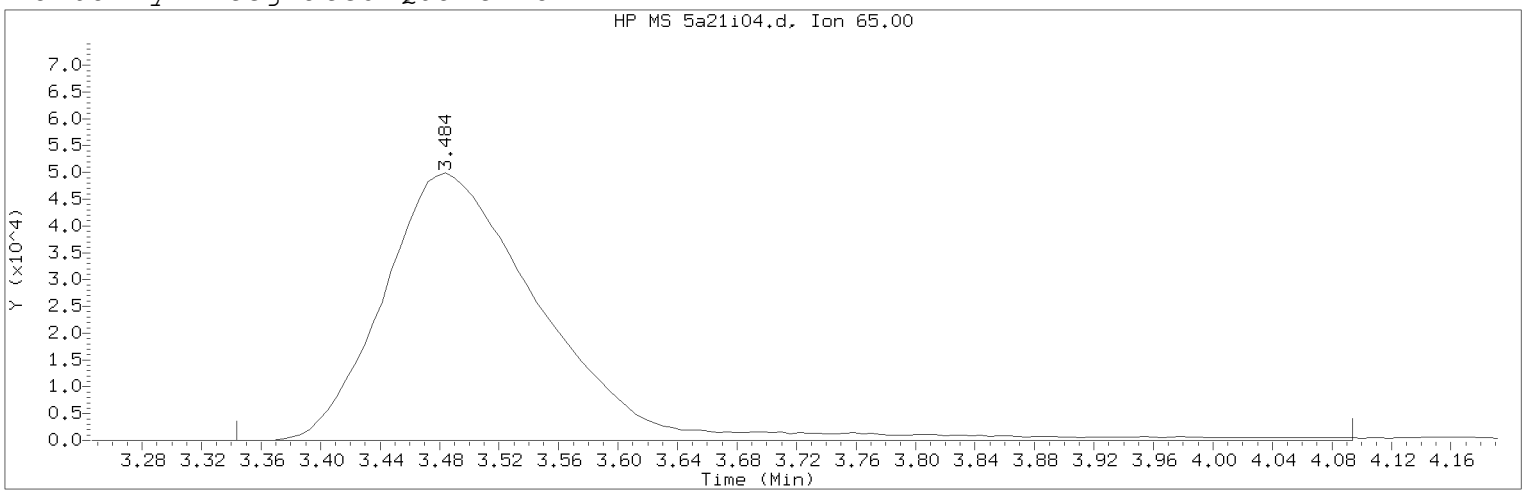
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

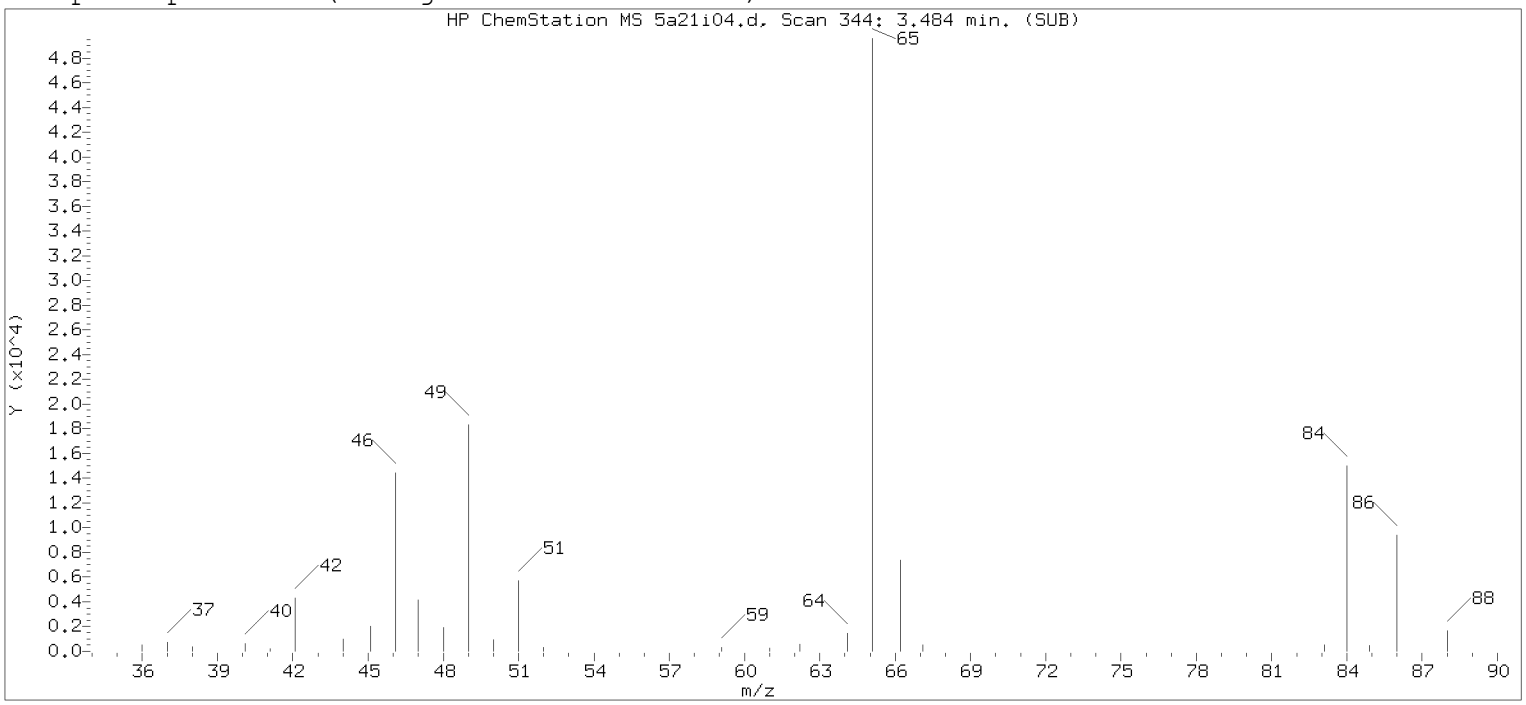
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 374444M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 443
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

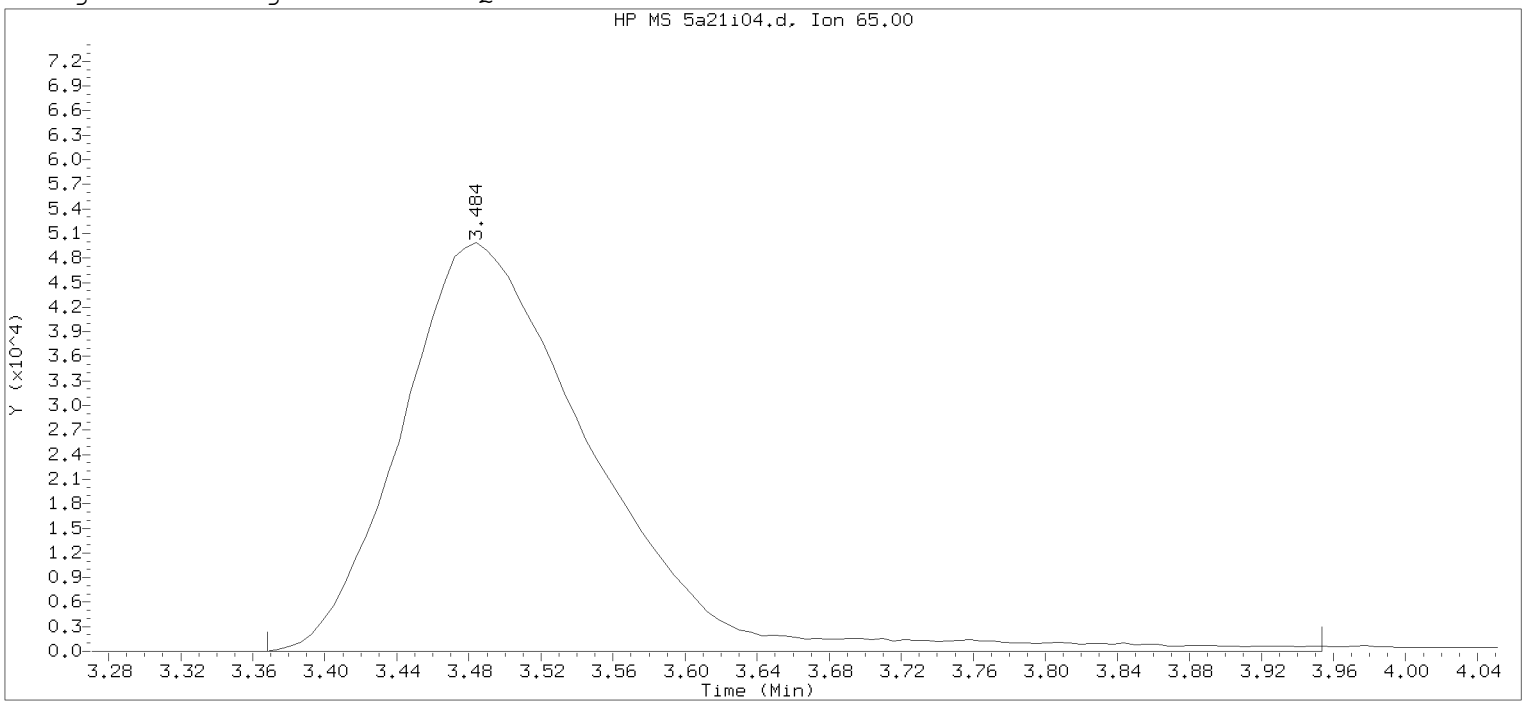
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

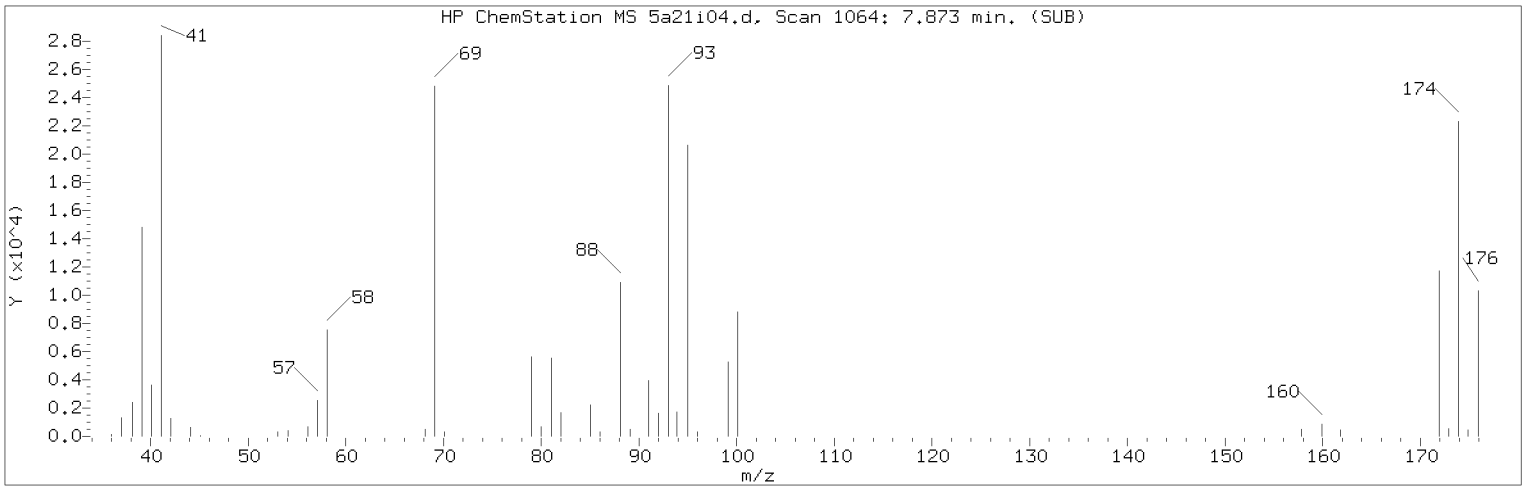
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

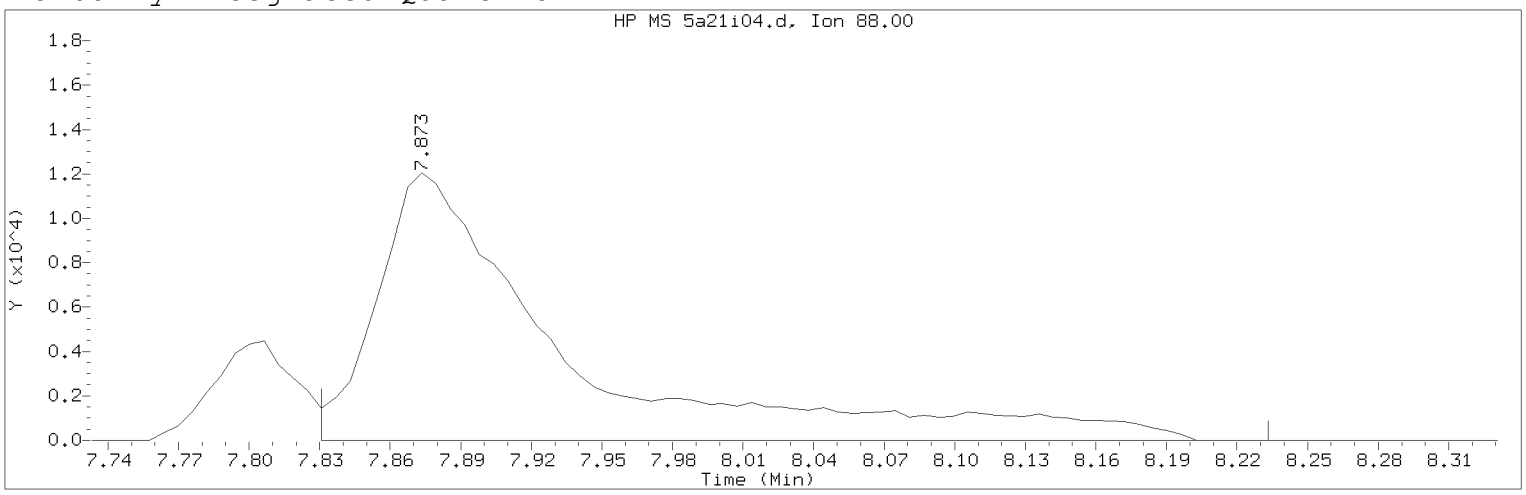
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 370124
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

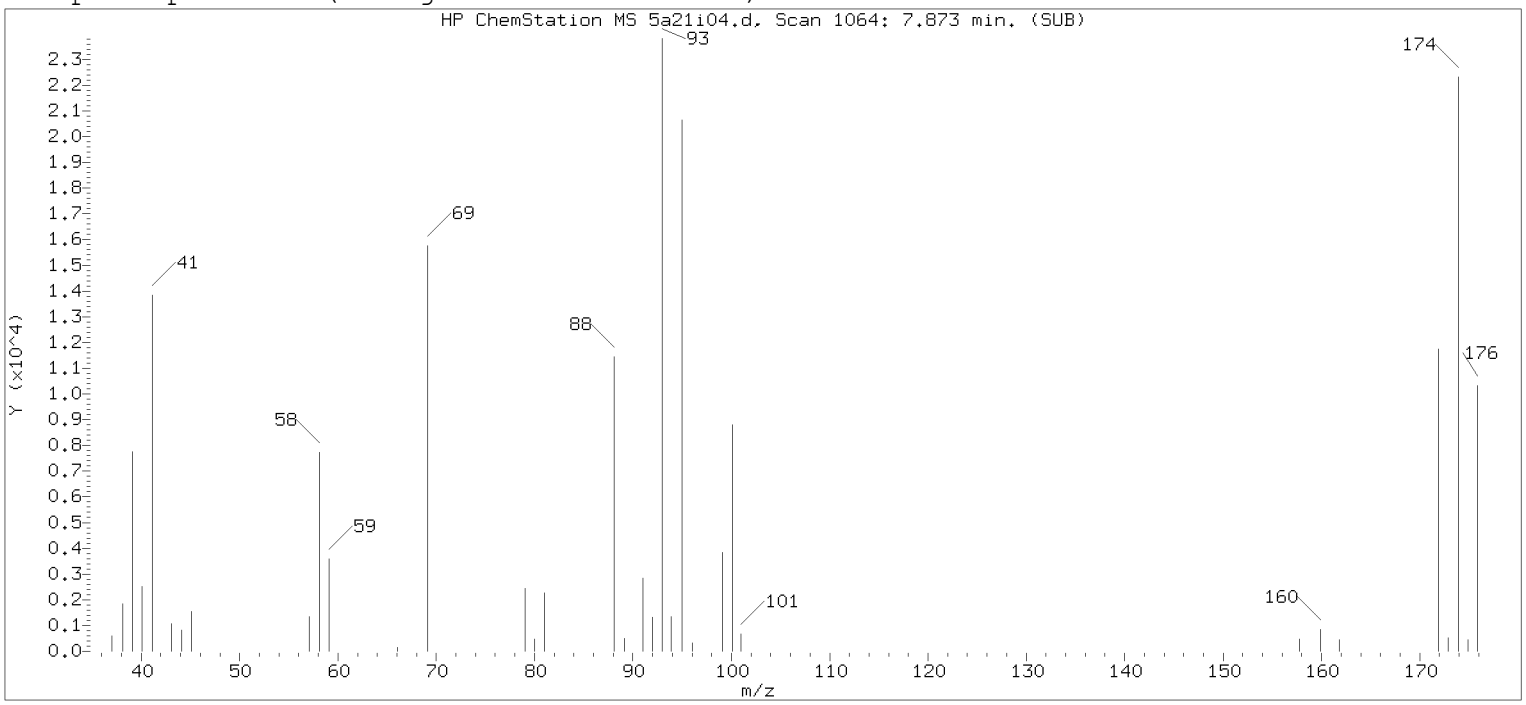
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 66419M
On-Column Amount (ng) : 527.8469
Integration start scan : 1056 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

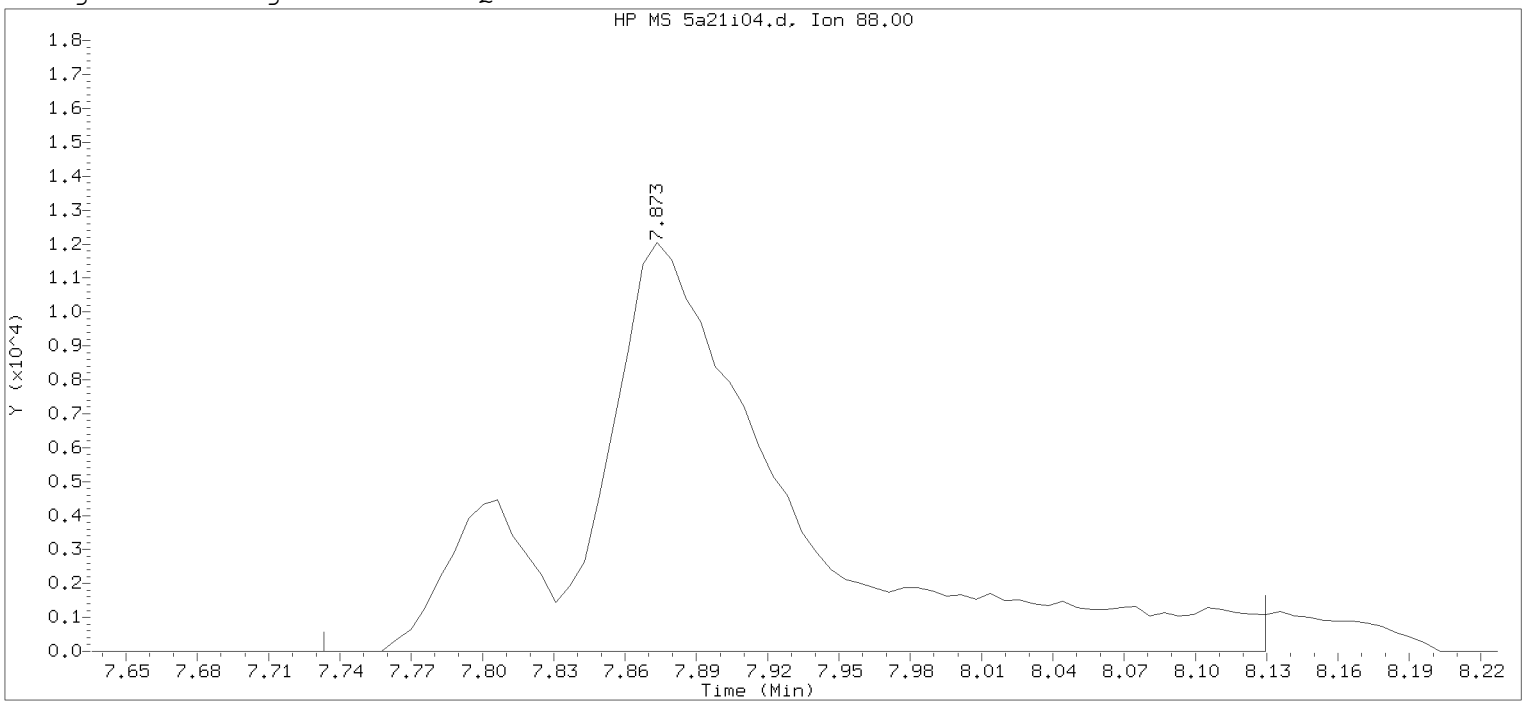
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

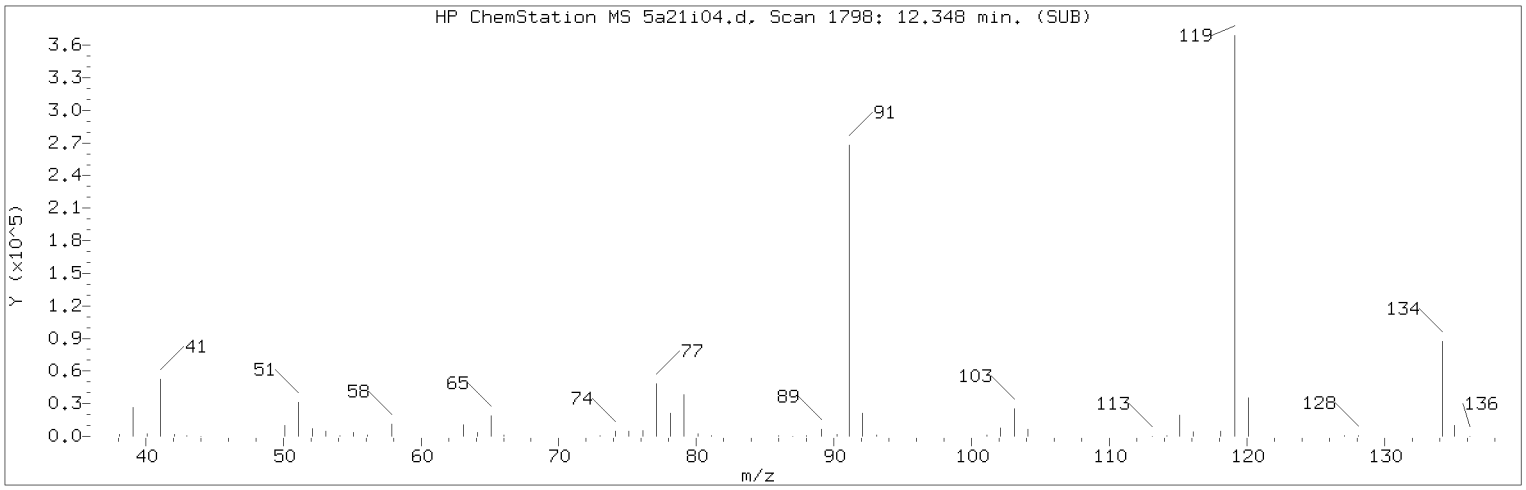
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

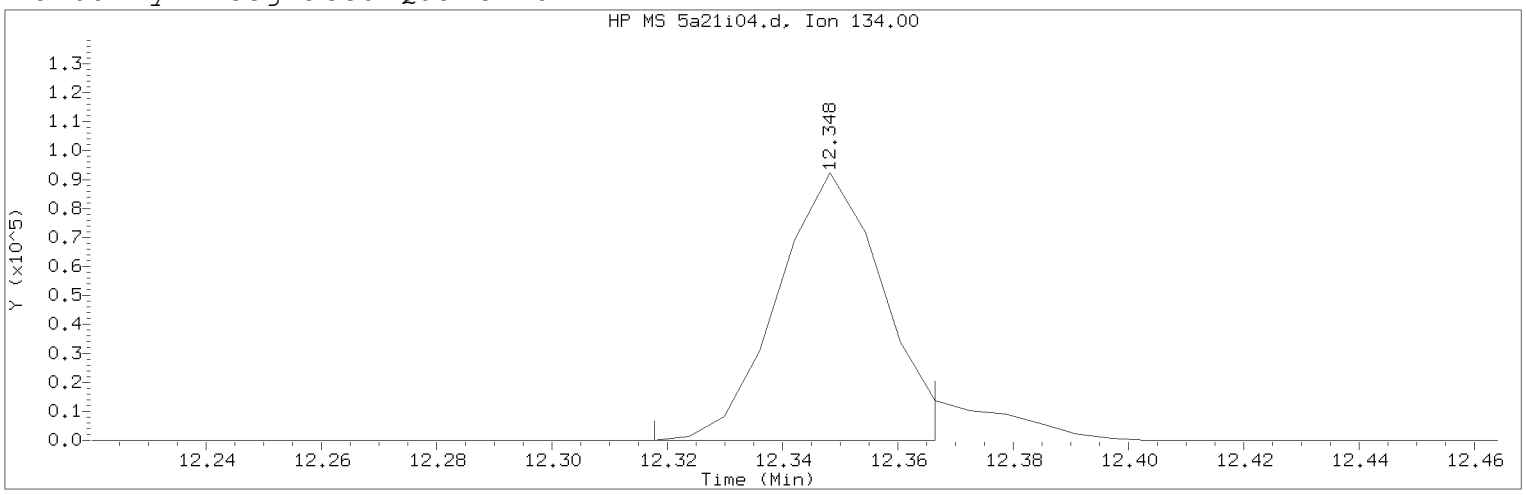
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 73501
On-column Amount (ng) : 470.0717
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:24
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

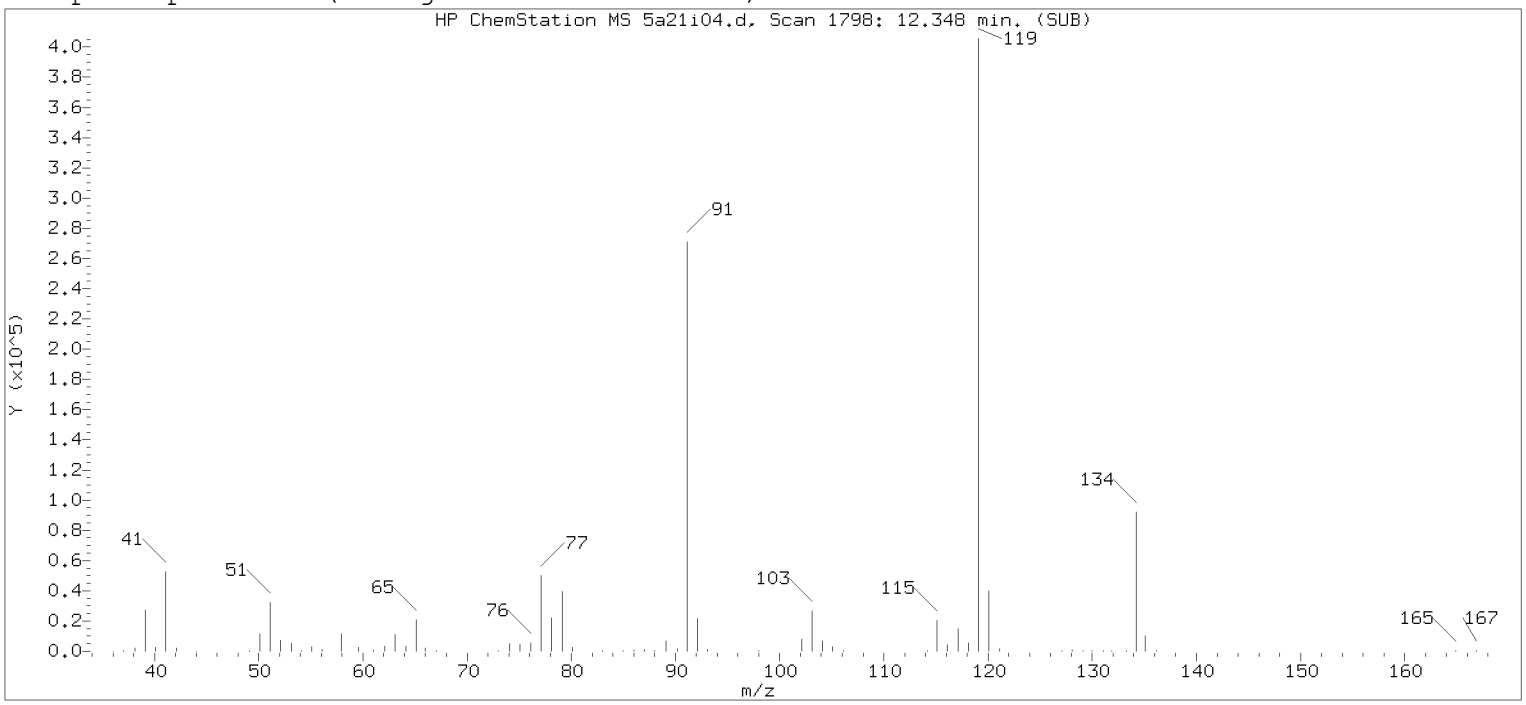
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 117503M
On-Column Amount (ng) : 20.6345
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

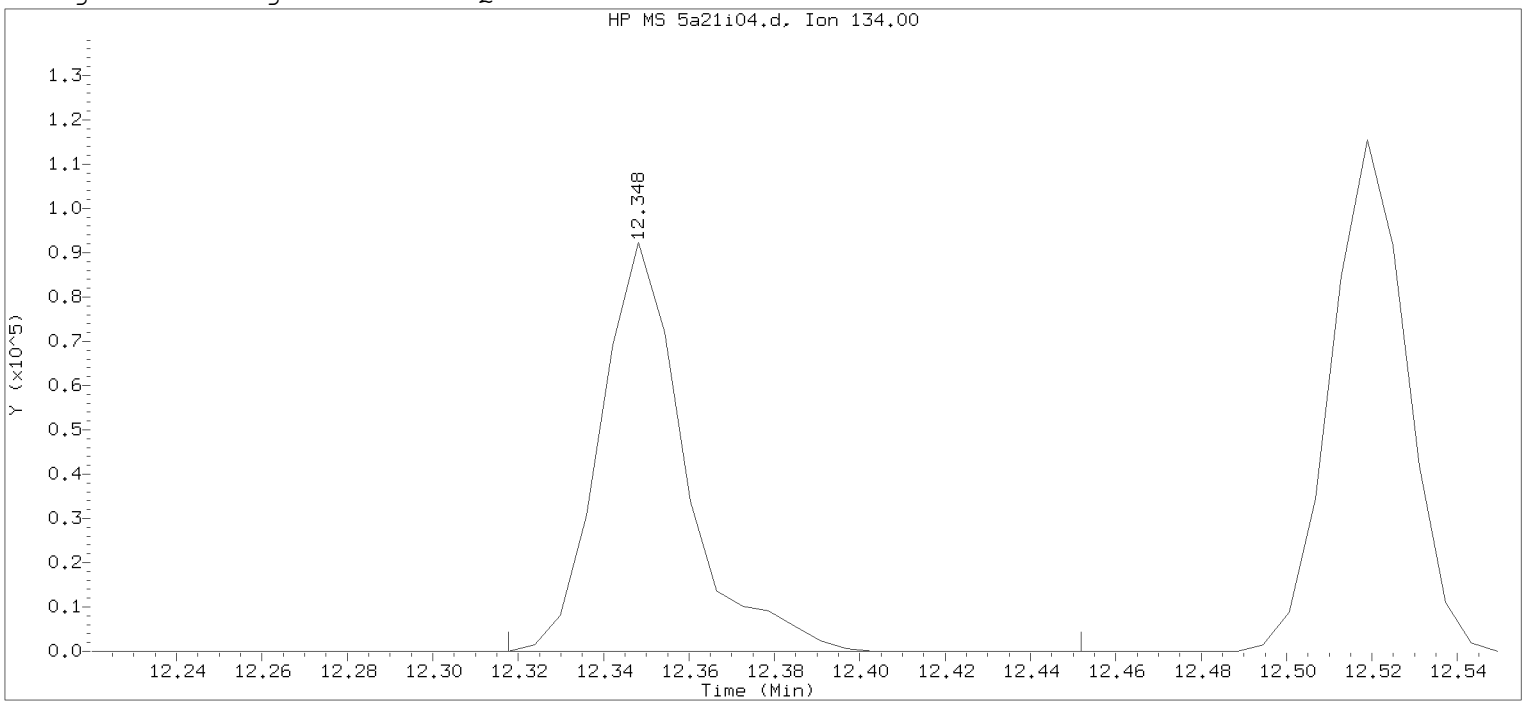
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



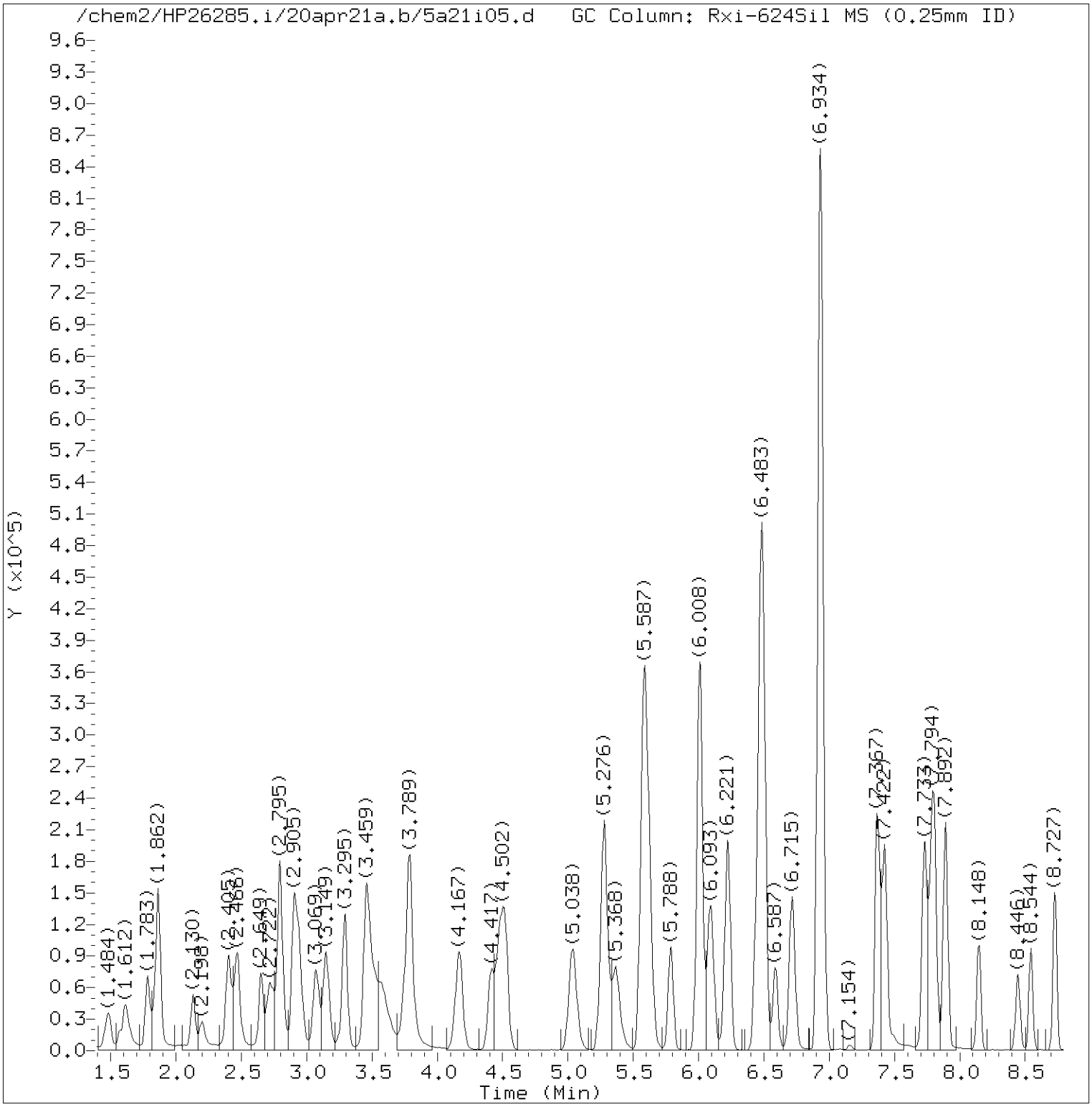
Data File: /chem2/HP26285.i/20apr21a.b/5a21i04.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:21 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 127683
On-column Amount (ng) : 20.9115
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

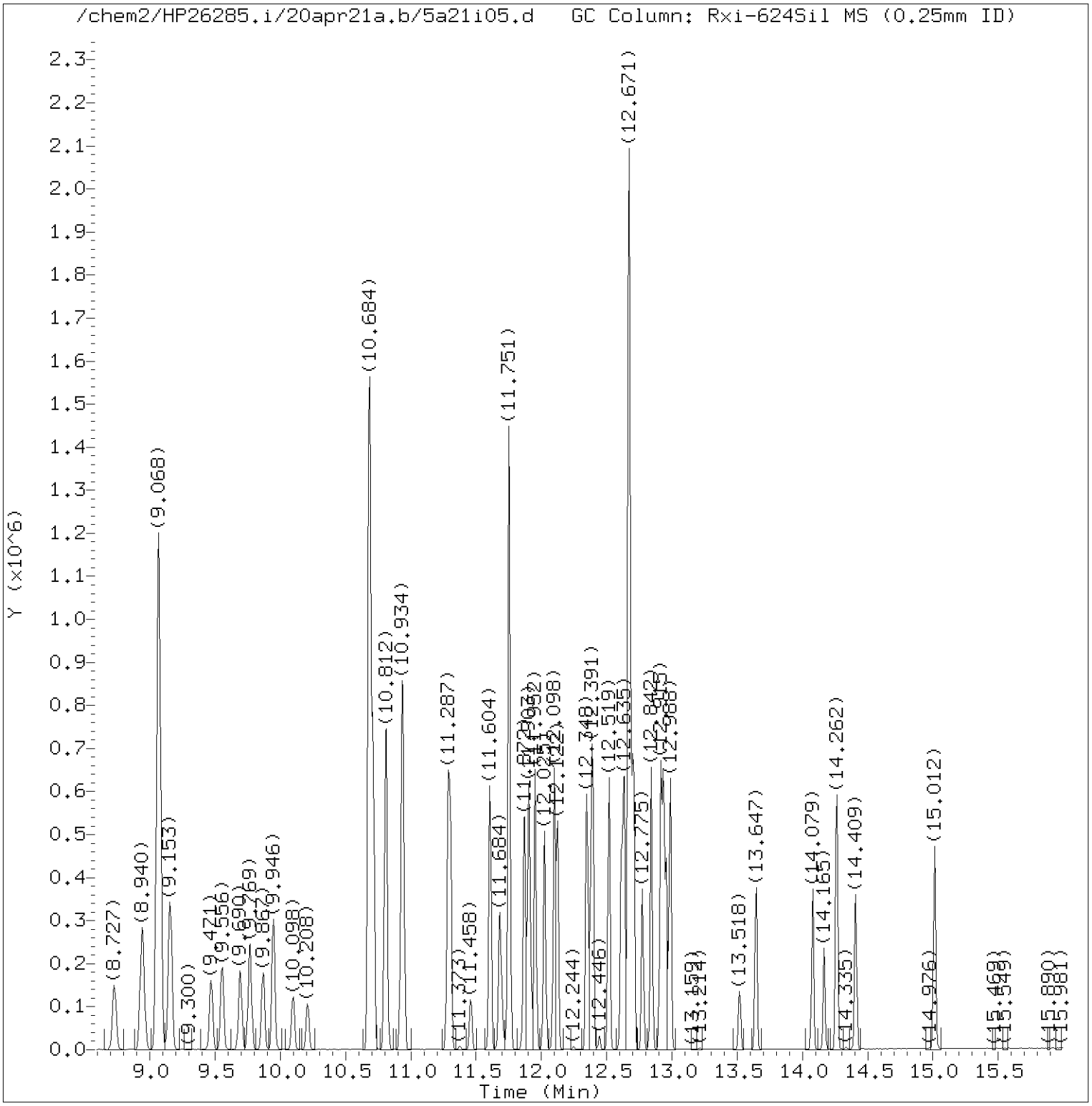
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	90205	10.452
4) Chloromethane	(2)	1.777	50	71545	10.378
5) 1,3-Butadiene	(2)	1.856	39	86291	9.068
6) Vinyl Chloride	(2)	1.868	62	62356	10.298
8) Bromomethane	(2)	2.130	94	42903	10.553
9) Chloroethane	(2)	2.198	64	30296	10.567
10) Dichlorofluoromethane	(2)	2.405	67	97996	10.489
12) Trichlorofluoromethane	(2)	2.441	101	78339	10.563
11) n-Pentane	(2)	2.472	43	68099	9.865
14) Ethyl ether	(2)	2.649	59	52497	10.268
15) Freon 123a	(2)	2.722	67	79096	10.218
16) Acrolein	(1)	2.795	56	252226	108.084
17) 1,1-Dichloroethene	(2)	2.899	96	57993	10.065
17) 1,1-Dichloroethene	(2)	2.899	63	29384	10.175
18) Acetone	(1)	2.941	58	25156	21.857
19) Freon 113	(2)	2.941	101	65457	10.036
22) Methyl Iodide	(2)	3.069	142	109970	10.009
21) 2-Propanol	(1)	3.088	45	94551	100.957
23) Carbon Disulfide	(2)	3.149	76	198468	9.792
27) Methyl Acetate	(2)	3.283	43	81962	9.866
25) Allyl Chloride	(2)	3.295	41	98639	10.226
28) Methylene Chloride	(2)	3.453	84	64974	10.004
29)*t-Butyl alcohol-d10	(1)	3.478	65	368547M	250.000
30) t-Butyl alcohol	(1)	3.588	59	172401	99.313
31) Acrylonitrile	(2)	3.746	53	47066	10.733
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	173129	10.152
32) trans-1,2-Dichloroethene	(2)	3.789	96	64527	10.008
34) n-Hexane	(2)	4.167	57	94872	9.923
36) 1,1-Dichloroethane	(2)	4.411	63	117563	10.073
38) di-Isopropyl ether	(2)	4.471	45	209578	10.053
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	98506	9.934
40) Ethyl t-butyl ether	(2)	5.038	59	187431	10.128
44) 2-Butanone	(2)	5.270	43	134437	21.064
42) cis-1,2-Dichloroethene	(2)	5.276	96	73625	10.096
45) 2,2-Dichloropropane	(2)	5.282	77	97436	9.894
47) Propionitrile	(1)	5.368	54	188839	99.929
48) Methacrylonitrile	(2)	5.581	67	220510	50.492
49) Bromochloromethane	(2)	5.624	128	34123	10.216

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	35702	20.904
51) Chloroform	(2)	5.788	83	116640	9.964
52)$Dibromofluoromethane	(2)	6.008	113	264399	49.811
52)$Dibromofluoromethane	(2)	6.014	111	270750	49.818
53) 1,1,1-Trichloroethane	(2)	6.008	97	103888	9.856
54) Cyclohexane	(2)	6.093	56	121473	9.895
54) Cyclohexane	(2)	6.093	84	102260	10.071
54) Cyclohexane	(2)	6.093	69	38003	9.981
43) 1,2-Dichloroethene (Total)	(2)		96	138152	20.104
56) Carbon Tetrachloride	(2)	6.215	117	89359	9.717
55) 1,1-Dichloropropene	(2)	6.227	75	95259	9.977
58) Isobutyl Alcohol	(1)	6.453	41	143748	248.426
57)$1,2-Dichloroethane-d4	(2)	6.477	102	59505M	50.124
57)$1,2-Dichloroethane-d4	(2)	6.477	65	289071	49.804
57)$1,2-Dichloroethane-d4	(2)	6.483	104	37791	49.716
60) Benzene	(2)	6.502	78	286428	10.089
61) 1,2-Dichloroethane	(2)	6.587	62	85001	9.748
61) 1,2-Dichloroethane	(2)	6.593	98	7607	10.316
65) t-Amyl methyl ether	(2)	6.715	73	189587	10.266
66)*Fluorobenzene	(2)	6.928	96	1065691	50.000
67) n-Heptane	(2)	6.953	43	89571	9.699
69) n-Butanol	(1)	7.367	56	244784	490.264
71) Trichloroethene	(2)	7.428	95	74216	9.961
73) Methylcyclohexane	(2)	7.733	83	117405	9.915
73) Methylcyclohexane	(2)	7.733	98	49758	9.926
74) 1,2-Dichloropropane	(2)	7.776	63	71376	10.043
76) 1,4-Dioxane	(1)	7.873	88	31904M	257.605
75) Dibromomethane	(2)	7.885	93	44493	9.942
77) Methyl Methacrylate	(2)	7.892	69	64708	9.731
79) Bromodichloromethane	(2)	8.148	83	84113	9.693
80) 2-Nitropropane	(2)	8.446	41	61555	20.480
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	53554	9.737
82) cis-1,3-Dichloropropene	(2)	8.727	75	106067	9.672
83) 4-Methyl-2-pentanone	(2)	8.940	43	260820	21.203
84)$Toluene-d8	(3)	9.068	98	1025182	50.528
84)$Toluene-d8	(3)	9.068	100	673846	50.440
89) Toluene	(3)	9.153	92	182907	10.224
90) trans-1,3-Dichloropropene	(3)	9.471	75	93619	9.753

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$ = Compound is a surrogate standard.

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	108268	9.919
93) 1,1,2-Trichloroethane	(3)	9.690	97	64165	10.032
94) Tetrachloroethene	(3)	9.769	166	79032	10.416
95) 1,3-Dichloropropane	(3)	9.867	76	106961	10.072
97) 2-Hexanone	(3)	9.946	43	204853	21.551
91) 1,3-Dichloropropene (total)	(3)		100	199686	19.425
98) Dibromochloromethane	(3)	10.098	129	66102	9.767
100) 1,2-Dibromoethane	(3)	10.208	107	71037	10.075
101)*Chlorobenzene-d5	(3)	10.684	117	825598	50.000
103) Chlorobenzene	(3)	10.708	112	198021	10.199
102) 1-Chlorohexane	(3)	10.708	91	104471	10.041
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	67396	10.061
105) Ethylbenzene	(3)	10.812	91	356222	10.298
107) m+p-Xylene	(3)	10.940	106	276013	20.796
108) o-Xylene	(3)	11.287	106	133376	10.267
110) Styrene	(3)	11.306	104	214319	10.237
111) Bromoform	(3)	11.458	173	46594	9.515
112) Isopropylbenzene	(3)	11.604	105	352266	10.333
113) Cyclohexanone	(1)	11.684	55	139805	245.762
115)$4-Bromofluorobenzene	(3)	11.751	95	423376	49.525
115)$4-Bromofluorobenzene	(3)	11.751	174	330390	49.542
109) Xylene (Total)	(3)		106	409389	31.063
116) Bromobenzene	(4)	11.866	156	82170	10.150
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	109894	10.003
119) trans-1,4-Dichloro-2-butene	(4)	11.903	53	83843	47.448
118) 1,2,3-Trichloropropane	(4)	11.915	110	32467	10.037
120) n-Propylbenzene	(4)	11.952	91	413695	10.394
121) 2-Chlorotoluene	(4)	12.025	126	82850	10.155
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	288261	10.303
122) 4-Chlorotoluene	(4)	12.122	126	84124	10.208
125) tert-Butylbenzene	(4)	12.348	134	55294M	9.944
126) Pentachloroethane	(4)	12.378	167	44337	9.712
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	296576	10.293
128) sec-Butylbenzene	(4)	12.519	105	355600	10.251
130) 1,3-Dichlorobenzene	(4)	12.610	146	155576	10.217
131) p-Isopropyltoluene	(4)	12.635	119	298147	10.306
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	424651	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	158115	10.232

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135)	1,2,3-Trimethylbenzene	(4)	12.708	105	285226	10.313
136)	Benzyl Chloride	(4)	12.775	91	207519	9.846
137)	1,3-Diethylbenzene	(4)	12.842	119	172875	10.343
138)	1,4-Diethylbenzene	(4)	12.915	119	178899	10.348
140)	n-Butylbenzene	(4)	12.933	92	147655	10.119
139)	1,2-Dichlorobenzene	(4)	12.958	146	148814	10.174
141)	1,2-Diethylbenzene	(4)	12.988	119	145158	10.268
142)	Diethylbenzene (total)	(4)		100	496932	30.959
143)	1,2-Dibromo-3-chloropropane	(4)	13.518	75	26754	9.646
145)	1,3,5-Trichlorobenzene	(4)	13.647	180	96065	9.944
147)	1,2,4-Trichlorobenzene	(4)	14.079	180	90853	10.010
148)	Hexachlorobutadiene	(4)	14.165	225	34259	9.815
149)	Naphthalene	(4)	14.262	128	368201	10.244
150)	1,2,3-Trichlorobenzene	(4)	14.409	180	89515	9.967
151)	2-Methylnaphthalene	(4)	15.012	142	187053	10.017

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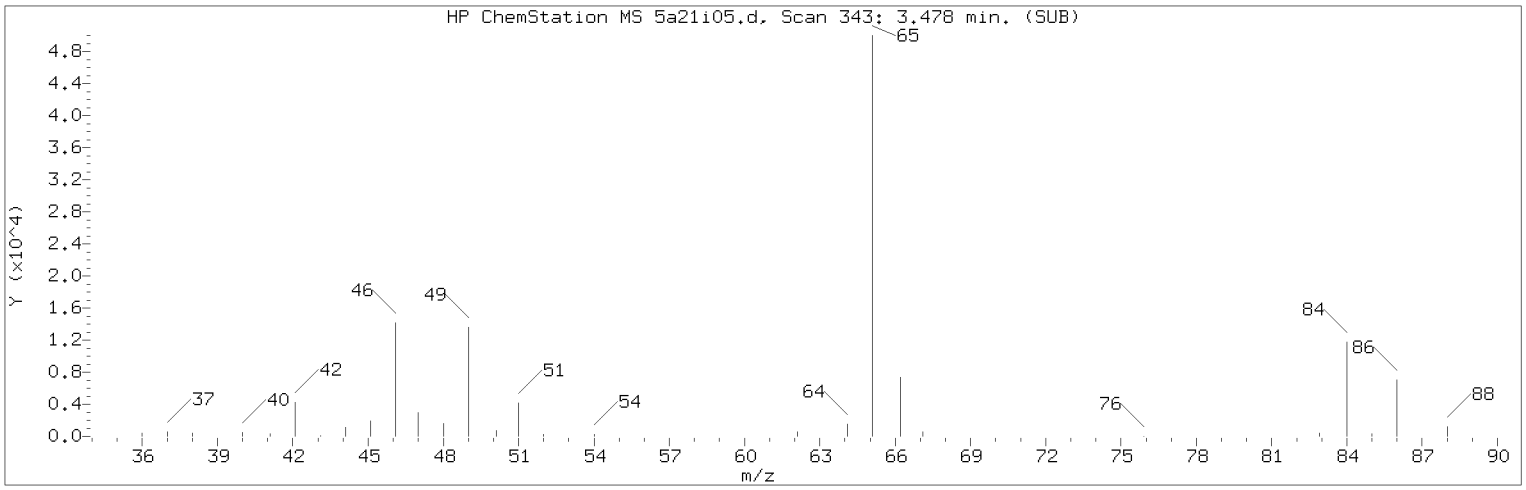
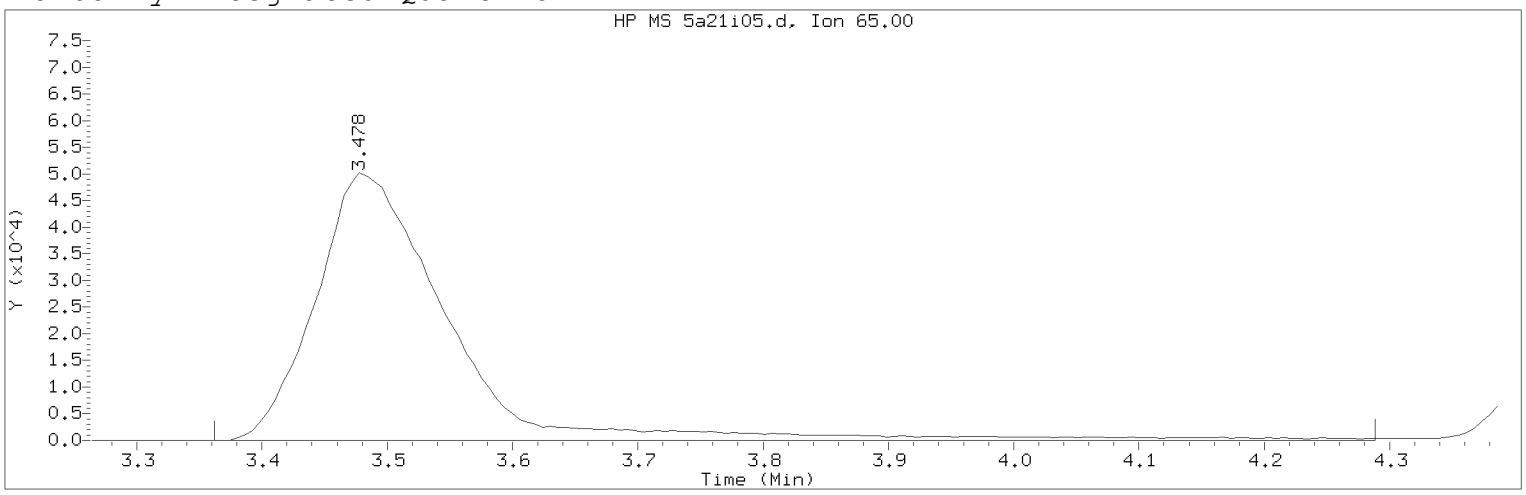
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

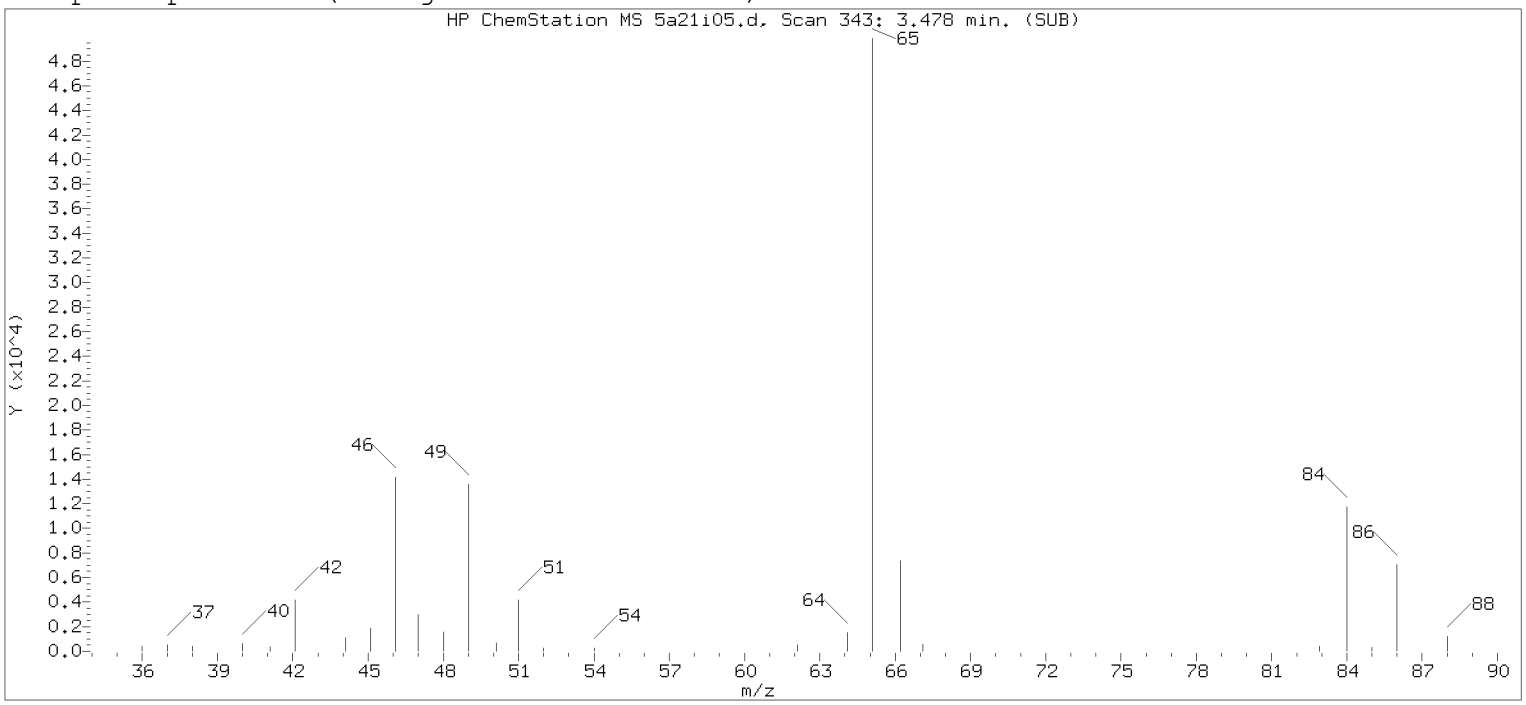
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area (flag) : 368547M
On-Column Amount (ng) : 250.0000
Integration start scan : 323 Integration stop scan: 475
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

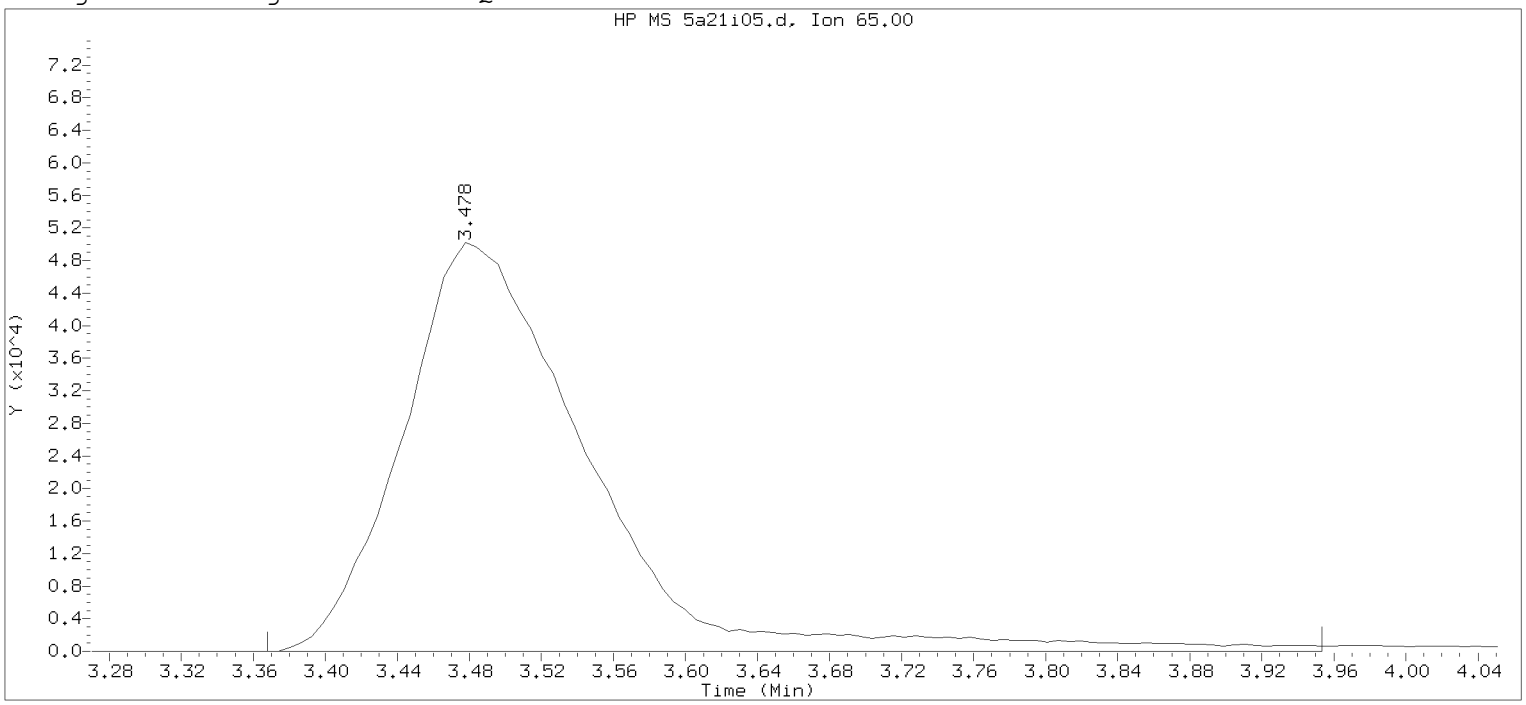
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

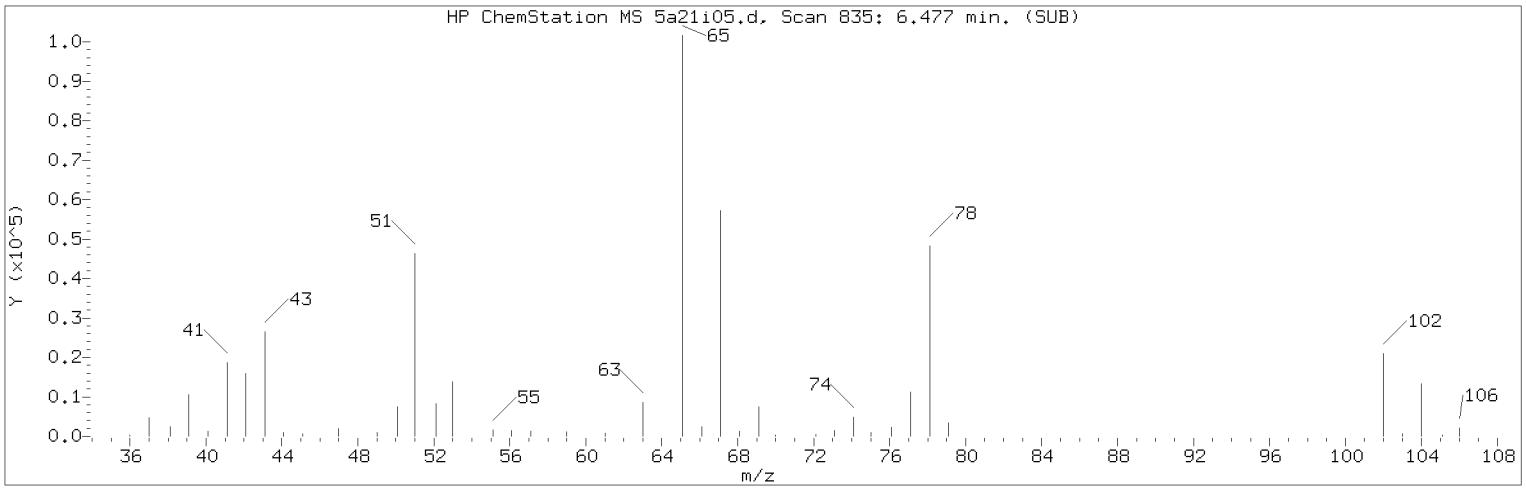
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

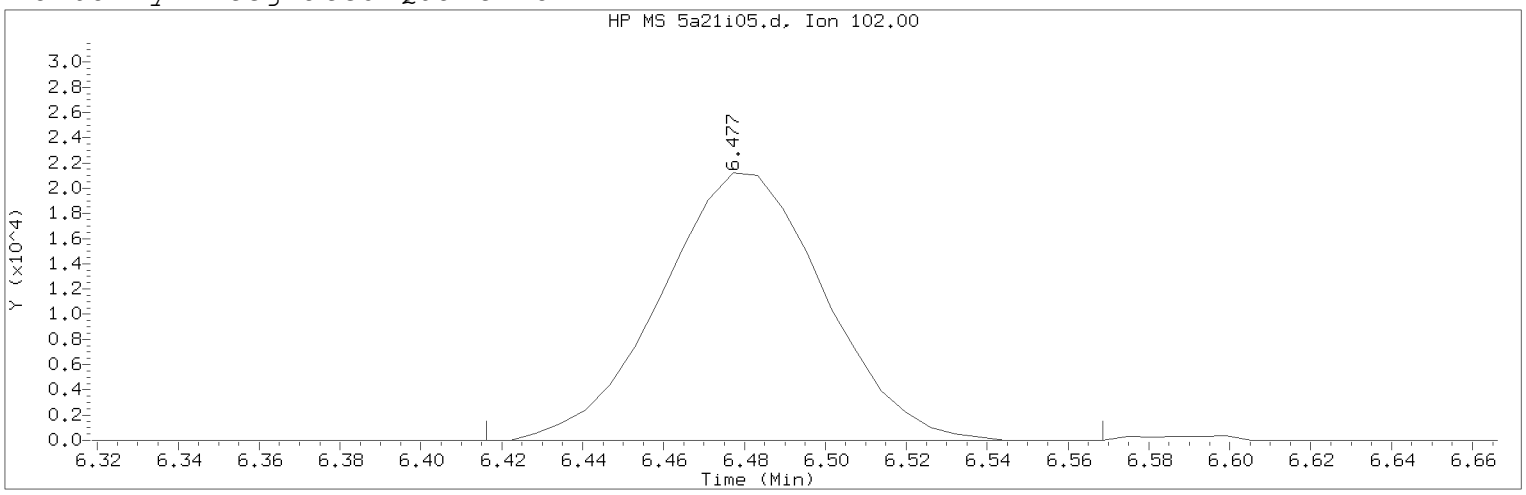
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 343
Retention Time (minutes): 3.478
Quant Ion : 65.00
Area : 358381
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

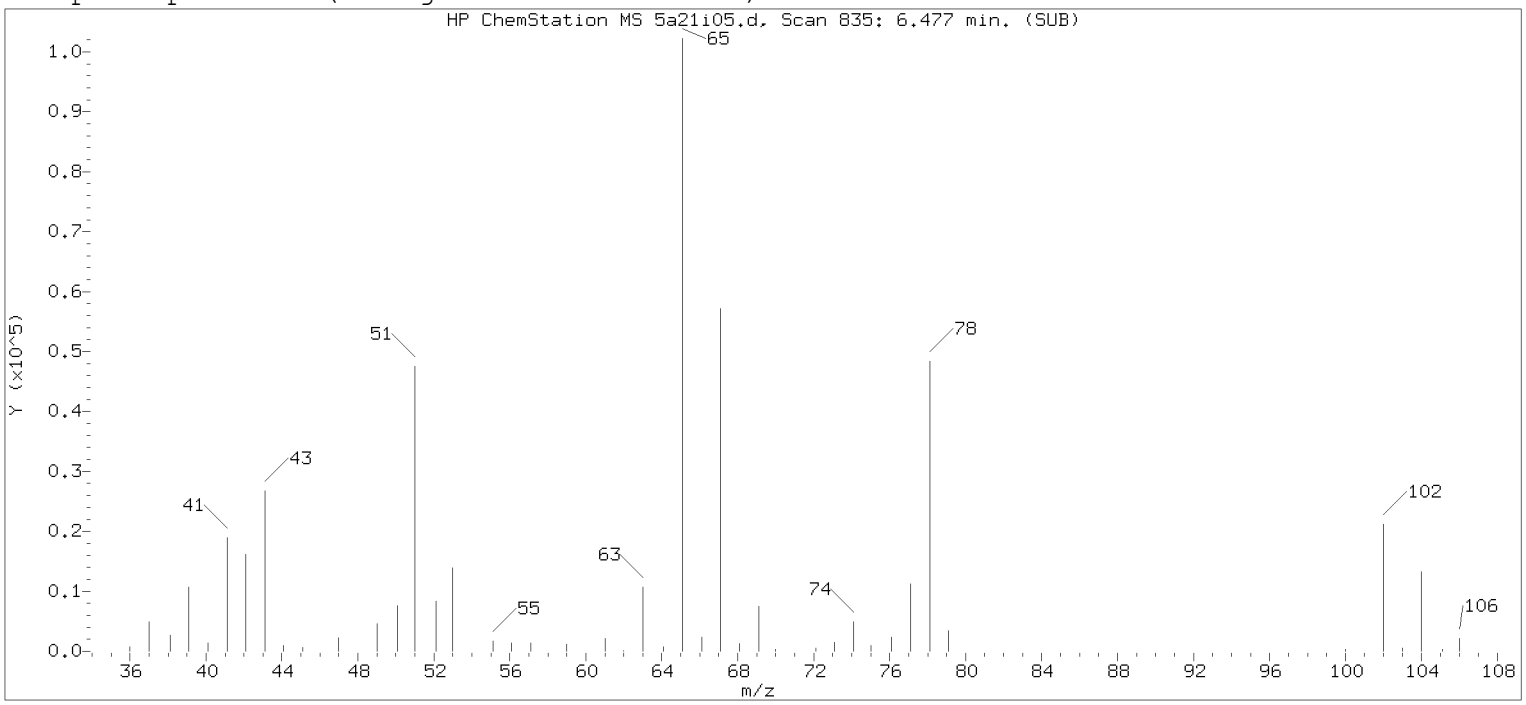
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area (flag) : 59505M
On-Column Amount (ng) : 50.1238
Integration start scan : 824 Integration stop scan: 849
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

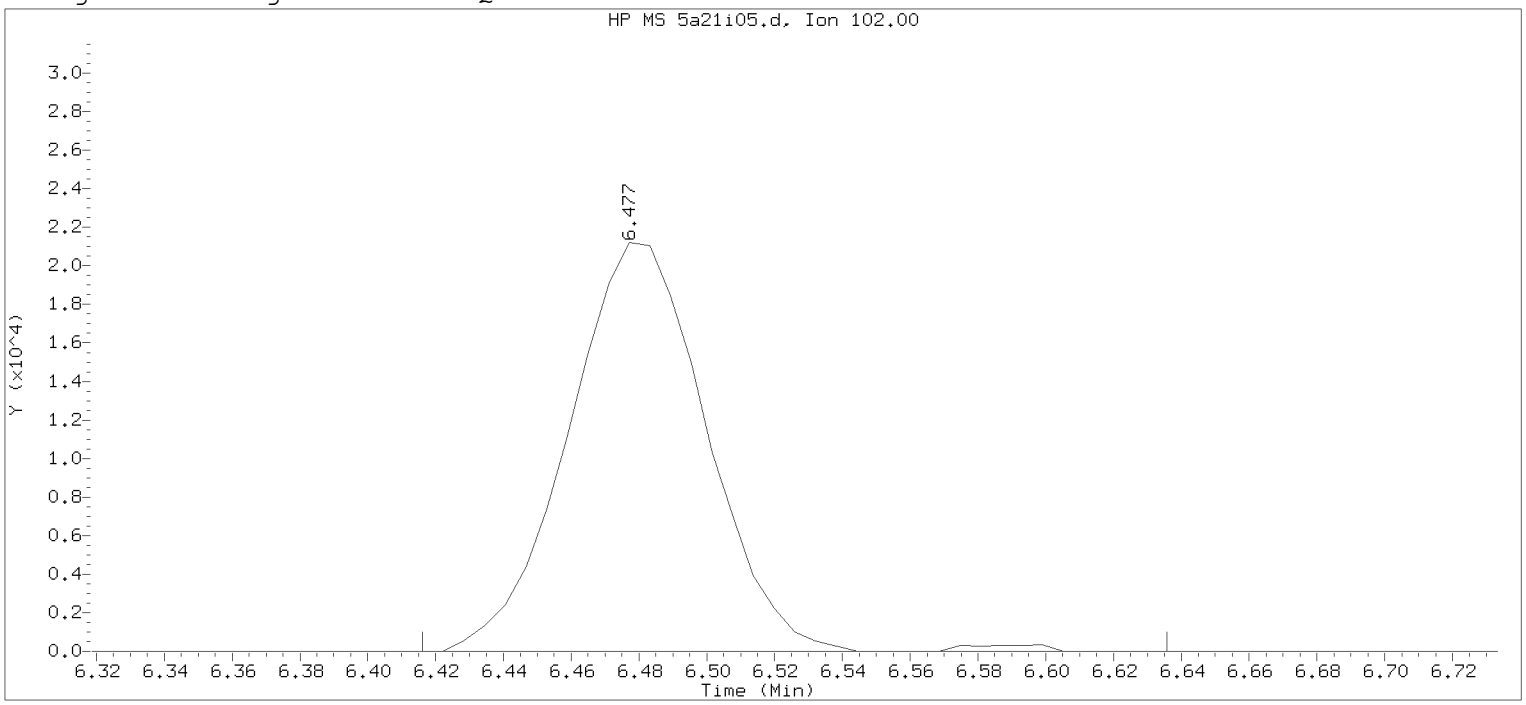
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

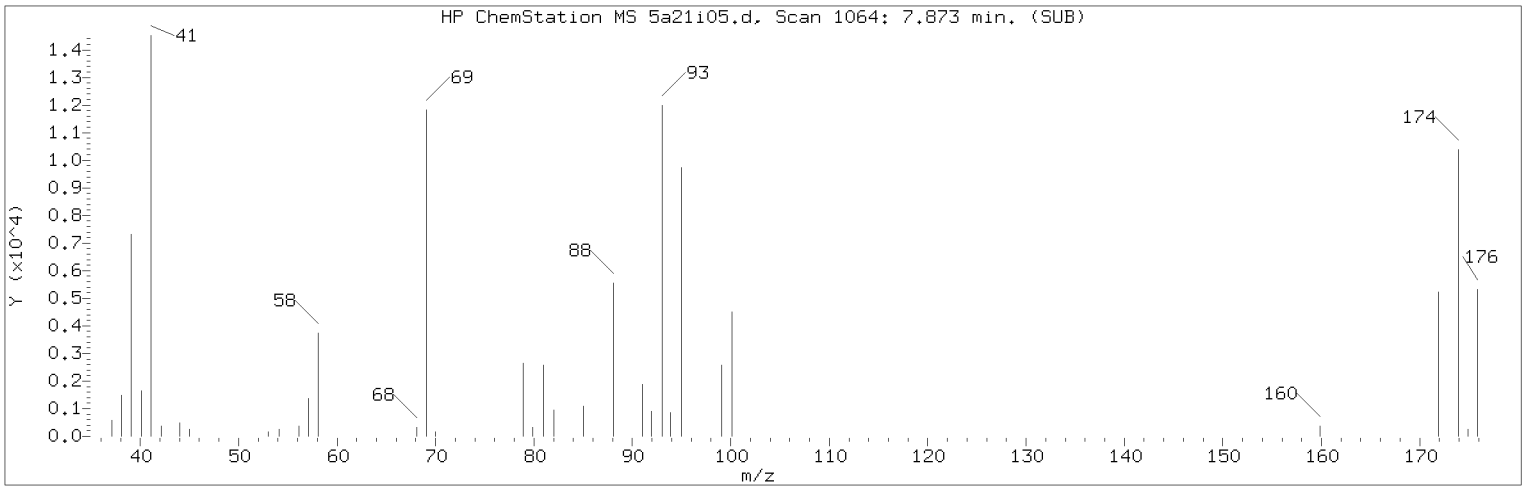
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

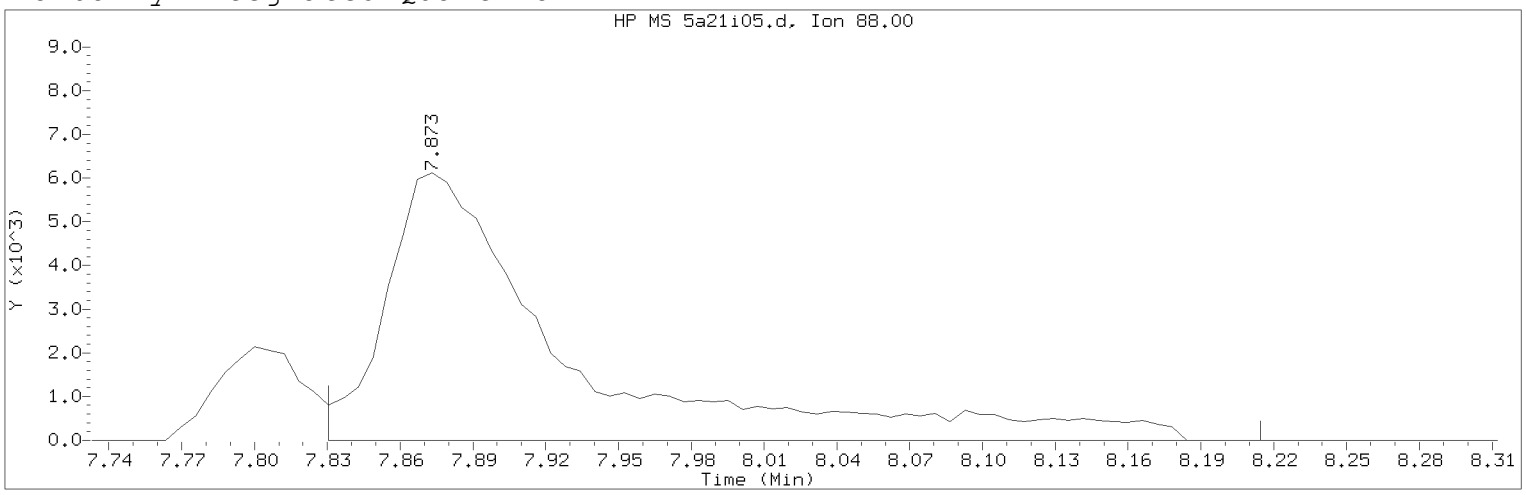
Compound Number : 57
Compound Name : 1,2-Dichloroethane-d4
Scan Number : 835
Retention Time (minutes): 6.477
Quant Ion : 102.00
Area : 60057
On-column Amount (ng) : 50.5589
Integration start scan : 824 Integration stop scan: 860
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

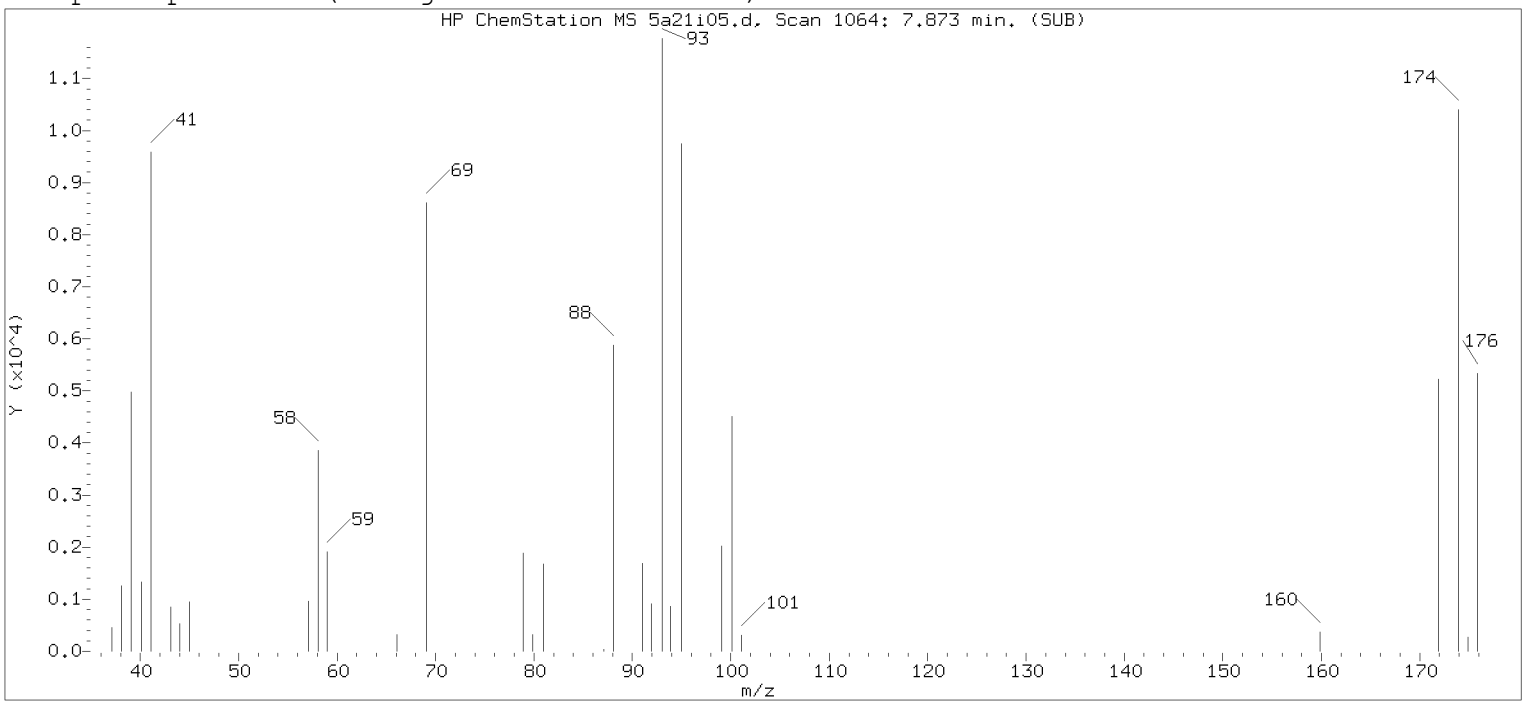
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area (flag) : 31904M
On-Column Amount (ng) : 257.6053
Integration start scan : 1056 Integration stop scan: 1119
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

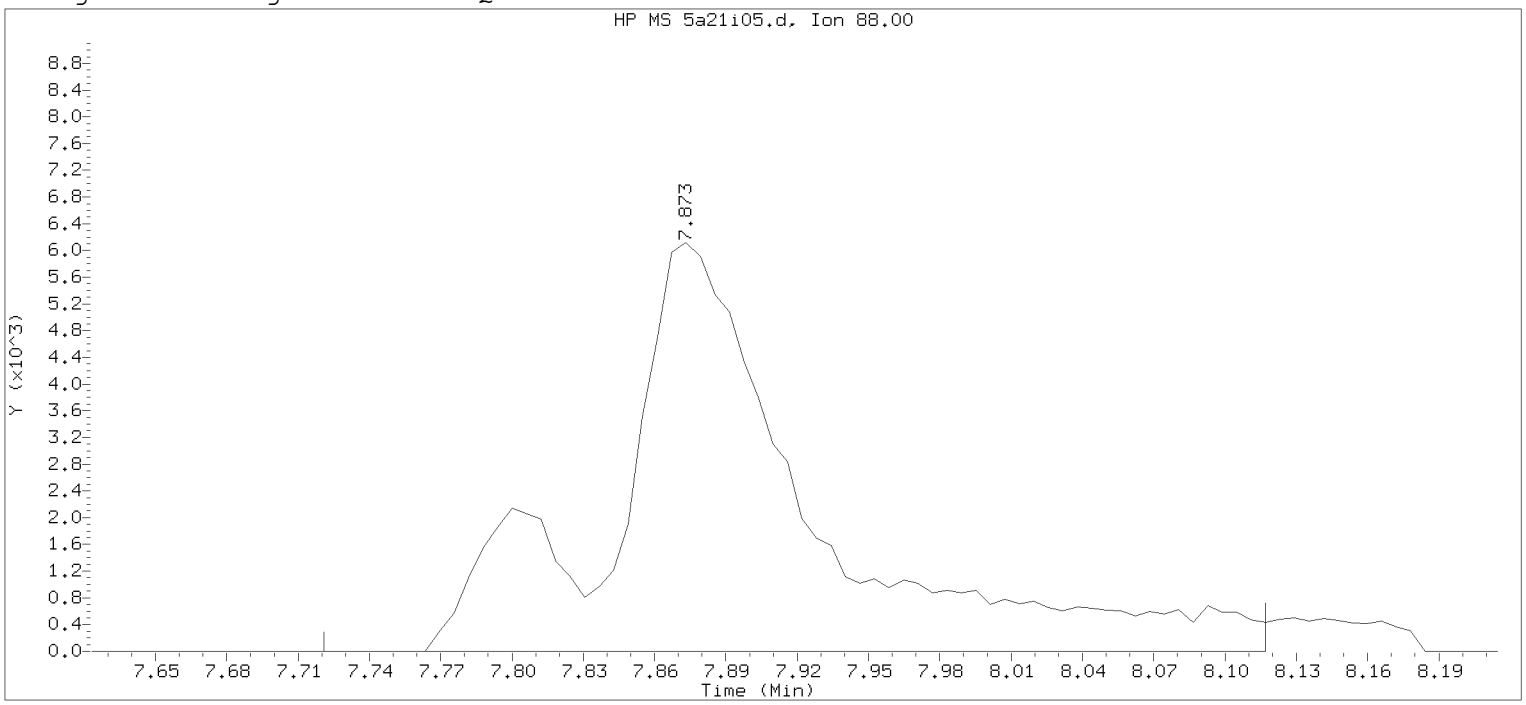
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

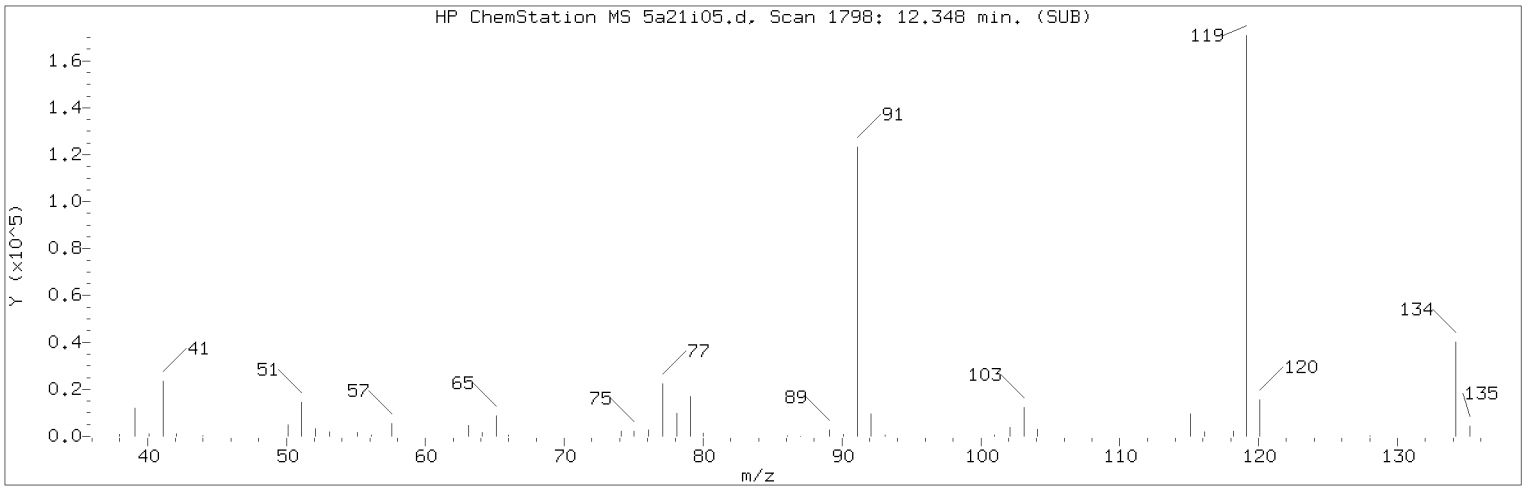
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

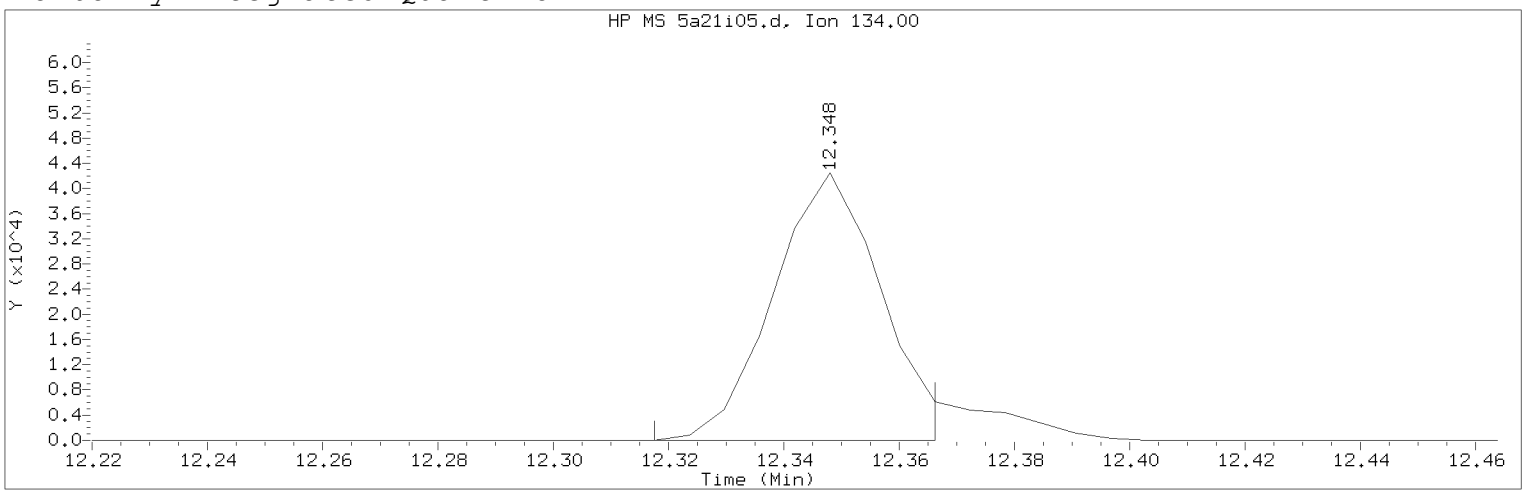
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1064
Retention Time (minutes): 7.873
Quant Ion : 88.00
Area : 35370
On-column Amount (ng) : 236.7248
Integration start scan : 1038 Integration stop scan: 1103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

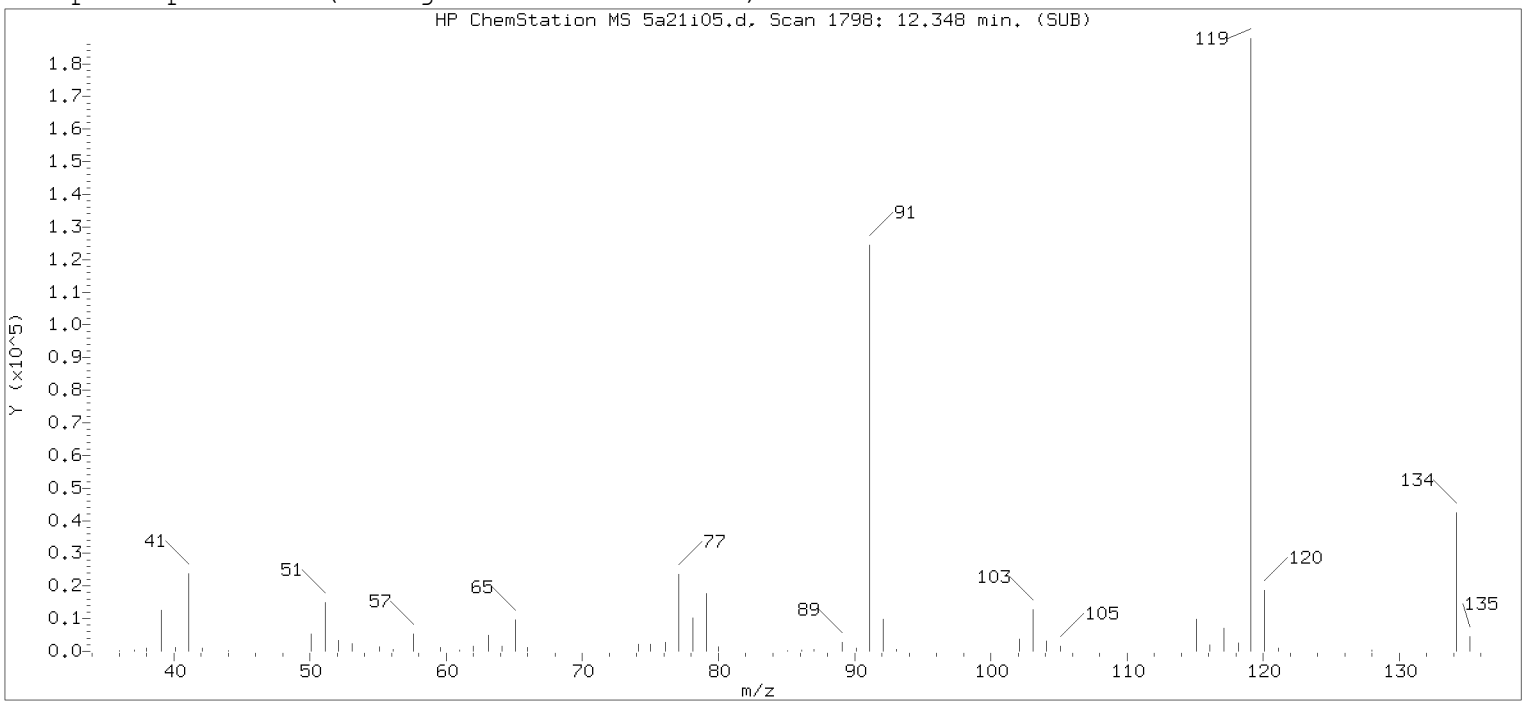
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 55294M
On-Column Amount (ng) : 9.9438
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

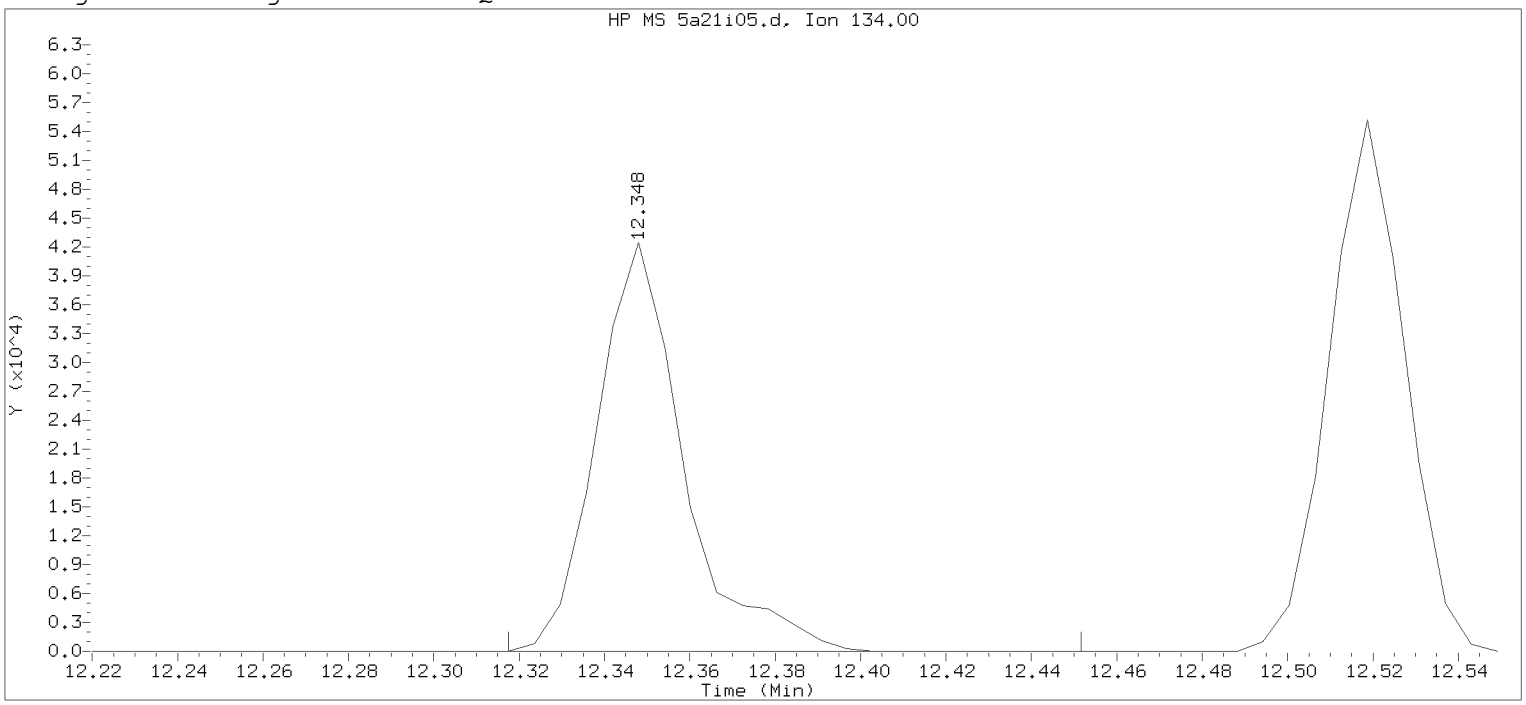
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



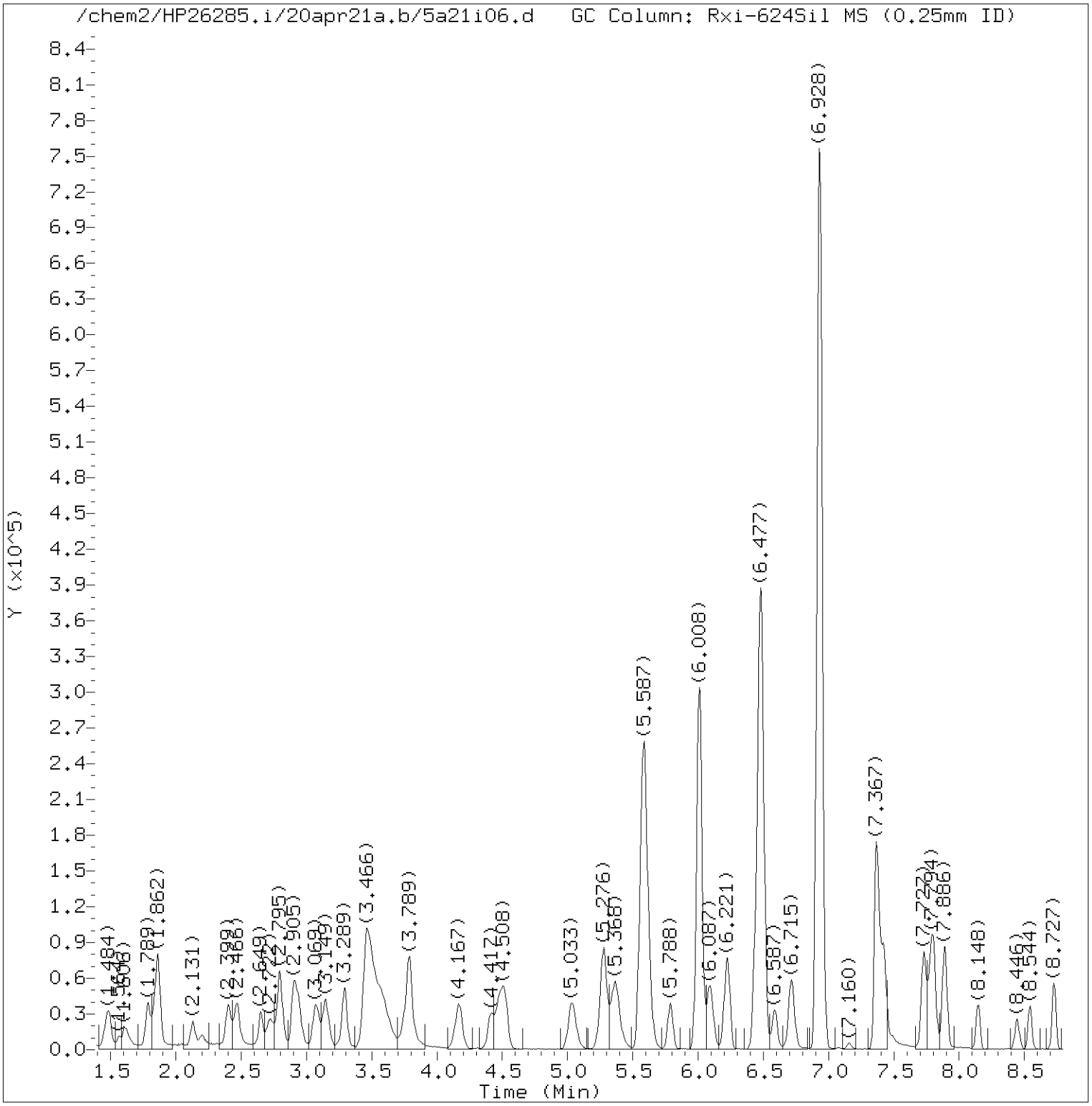
Data File: /chem2/HP26285.i/20apr21a.b/5a21i05.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 22:42 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 60150
On-column Amount (ng) : 10.0705
Integration start scan : 1792 Integration stop scan: 1814
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

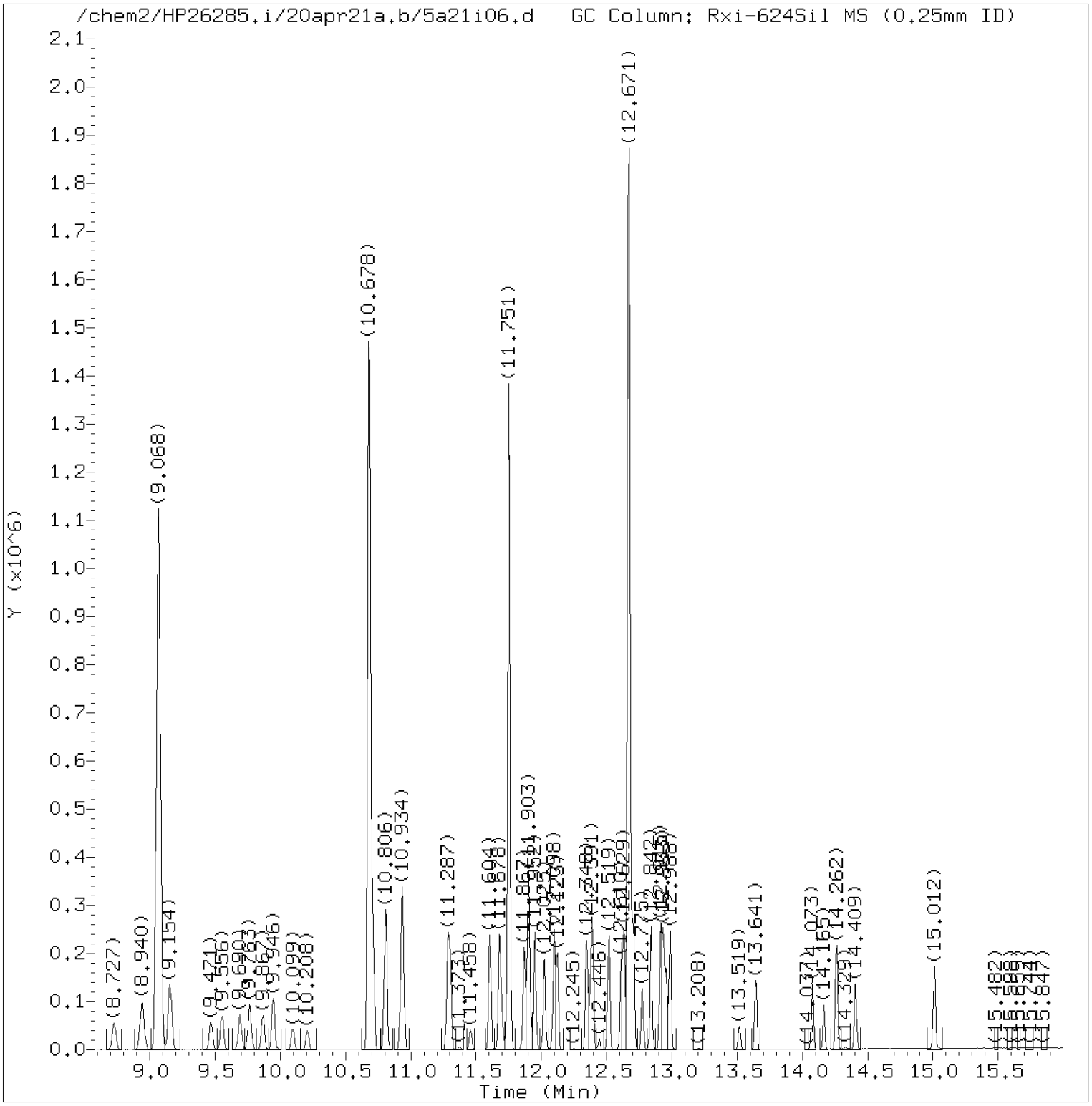
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.619	85	34476	4.213
4) Chloromethane	(2)	1.777	50	29941	4.580
5) 1,3-Butadiene	(2)	1.856	39	55604	6.162
6) Vinyl Chloride	(2)	1.868	62	24470	4.262
8) Bromomethane	(2)	2.131	94	16661	4.322
9) Chloroethane	(2)	2.198	64	11678	4.296
10) Dichlorofluoromethane	(2)	2.399	67	38057	4.296
12) Trichlorofluoromethane	(2)	2.442	101	30449	4.330
11) n-Pentane	(2)	2.472	43	29312	4.478
14) Ethyl ether	(2)	2.655	59	20997	4.331
15) Freon 123a	(2)	2.722	67	32224	4.390
16) Acrolein	(1)	2.801	56	93288	42.674
17) 1,1-Dichloroethene	(2)	2.899	96	23204	4.247
17) 1,1-Dichloroethene	(2)	2.899	63	12012	4.386
19) Freon 113	(2)	2.929	101	25378	4.103
18) Acetone	(1)	2.941	58	8714	8.082
22) Methyl Iodide	(2)	3.063	142	43602	4.185
21) 2-Propanol	(1)	3.082	45	68781	78.398
23) Carbon Disulfide	(2)	3.149	76	79286	4.125
27) Methyl Acetate	(2)	3.283	43	34676	4.402
25) Allyl Chloride	(2)	3.295	41	38956	4.259
28) Methylene Chloride	(2)	3.460	84	25742	4.180
29)*t-Butyl alcohol-d10	(1)	3.490	65	345244M	250.000
30) t-Butyl alcohol	(1)	3.588	59	130136	80.026
31) Acrylonitrile	(2)	3.740	53	16850	4.052
32) trans-1,2-Dichloroethene	(2)	3.789	96	25808	4.221
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	67965	4.203
34) n-Hexane	(2)	4.167	57	37512	4.138
36) 1,1-Dichloroethane	(2)	4.411	63	45897	4.147
38) di-Isopropyl ether	(2)	4.472	45	82225	4.160
39) 2-Chloro-1,3-butadiene	(2)	4.514	53	38653	4.111
40) Ethyl t-butyl ether	(2)	5.033	59	74286	4.233
44) 2-Butanone	(2)	5.264	43	48644	8.038
42) cis-1,2-Dichloroethene	(2)	5.276	96	28807	4.166
45) 2,2-Dichloropropane	(2)	5.289	77	38728	4.147
47) Propionitrile	(1)	5.368	54	143140	80.859
48) Methacrylonitrile	(2)	5.587	67	168253	40.628
49) Bromochloromethane	(2)	5.618	128	13506	4.264

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	12997	8.123
51) Chloroform	(2)	5.788	83	46340	4.174
53) 1,1,1-Trichloroethane	(2)	6.002	97	41024	4.105
52)$Dibromofluoromethane	(2)	6.008	113	250494	49.767
52)$Dibromofluoromethane	(2)	6.014	111	257903	50.044
54) Cyclohexane	(2)	6.093	56	47020	4.039
54) Cyclohexane	(2)	6.093	84	39183	4.069
54) Cyclohexane	(2)	6.087	69	15033	4.164
43) 1,2-Dichloroethene (Total)	(2)		96	54615	8.387
56) Carbon Tetrachloride	(2)	6.215	117	34824	3.994
55) 1,1-Dichloropropene	(2)	6.227	75	37898	4.186
58) Isobutyl Alcohol	(1)	6.453	41	107038	197.470
57)$1,2-Dichloroethane-d4	(2)	6.477	102	56616	50.293
57)$1,2-Dichloroethane-d4	(2)	6.477	65	276097	50.164
57)$1,2-Dichloroethane-d4	(2)	6.483	104	36268	50.316
60) Benzene	(2)	6.502	78	112819	4.191
61) 1,2-Dichloroethane	(2)	6.587	62	34225	4.139
61) 1,2-Dichloroethane	(2)	6.587	98	3083	4.409
65) t-Amyl methyl ether	(2)	6.715	73	74270	4.241
66)*Fluorobenzene	(2)	6.928	96	1010545	50.000
67) n-Heptane	(2)	6.953	43	36742	4.196
69) n-Butanol	(1)	7.367	56	181564	388.189
71) Trichloroethene	(2)	7.422	95	29188	4.131
73) Methylcyclohexane	(2)	7.727	83	47155	4.200
73) Methylcyclohexane	(2)	7.727	98	20305	4.272
74) 1,2-Dichloropropane	(2)	7.776	63	27684	4.108
76) 1,4-Dioxane	(1)	7.880	88	23612M	203.521
75) Dibromomethane	(2)	7.886	93	17306	4.078
77) Methyl Methacrylate	(2)	7.892	69	24521	3.889
79) Bromodichloromethane	(2)	8.148	83	31908	3.878
80) 2-Nitropropane	(2)	8.446	41	21269	7.463
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	20564	3.943
82) cis-1,3-Dichloropropene	(2)	8.727	75	40408	3.886
83) 4-Methyl-2-pentanone	(2)	8.940	43	92185	7.903
84)$Toluene-d8	(3)	9.068	98	968812	50.385
84)$Toluene-d8	(3)	9.068	100	635718	50.212
89) Toluene	(3)	9.154	92	71824	4.236
90) trans-1,3-Dichloropropene	(3)	9.465	75	34689	3.813

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	39991	3.866
93) 1,1,2-Trichloroethane	(3)	9.690	97	24859	4.101
94) Tetrachloroethene	(3)	9.763	166	30292	4.212
95) 1,3-Dichloropropane	(3)	9.867	76	41190	4.093
97) 2-Hexanone	(3)	9.946	43	70525	7.829
91) 1,3-Dichloropropene (total)	(3)		100	75097	7.699
98) Dibromochloromethane	(3)	10.093	129	24227	3.777
100) 1,2-Dibromoethane	(3)	10.208	107	26686	3.994
101)*Chlorobenzene-d5	(3)	10.678	117	782414	50.000
103) Chlorobenzene	(3)	10.708	112	77695	4.222
102) 1-Chlorohexane	(3)	10.708	91	41072	4.165
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	25538	4.023
105) Ethylbenzene	(3)	10.812	91	137287	4.188
107) m+p-Xylene	(3)	10.934	106	106522	8.469
108) o-Xylene	(3)	11.281	106	51224	4.161
110) Styrene	(3)	11.300	104	79480	4.006
111) Bromoform	(3)	11.458	173	16572	3.571
112) Isopropylbenzene	(3)	11.604	105	135714	4.201
113) Cyclohexanone	(1)	11.678	55	104529	196.153
115)$4-Bromofluorobenzene	(3)	11.751	95	399475	49.308
115)$4-Bromofluorobenzene	(3)	11.751	174	315416	49.907
109) Xylene (Total)	(3)		106	157746	12.630
116) Bromobenzene	(4)	11.867	156	31836	4.175
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	43128	4.168
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	55180	37.271
118) 1,2,3-Trichloropropane	(4)	11.915	110	12625	4.144
120) n-Propylbenzene	(4)	11.952	91	160284	4.276
121) 2-Chlorotoluene	(4)	12.025	126	31984	4.162
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	109570	4.158
122) 4-Chlorotoluene	(4)	12.123	126	32100	4.135
125) tert-Butylbenzene	(4)	12.348	134	21537M	4.112
126) Pentachloroethane	(4)	12.379	167	17264	4.015
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	112369	4.141
128) sec-Butylbenzene	(4)	12.519	105	139030	4.255
130) 1,3-Dichlorobenzene	(4)	12.610	146	60272	4.202
131) p-Isopropyltoluene	(4)	12.629	119	114197	4.191
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	399968	50.000
134) 1,4-Dichlorobenzene	(4)	12.690	146	60798	4.177

M = Compound was manually integrated.
* = Compound is an internal standard.
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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

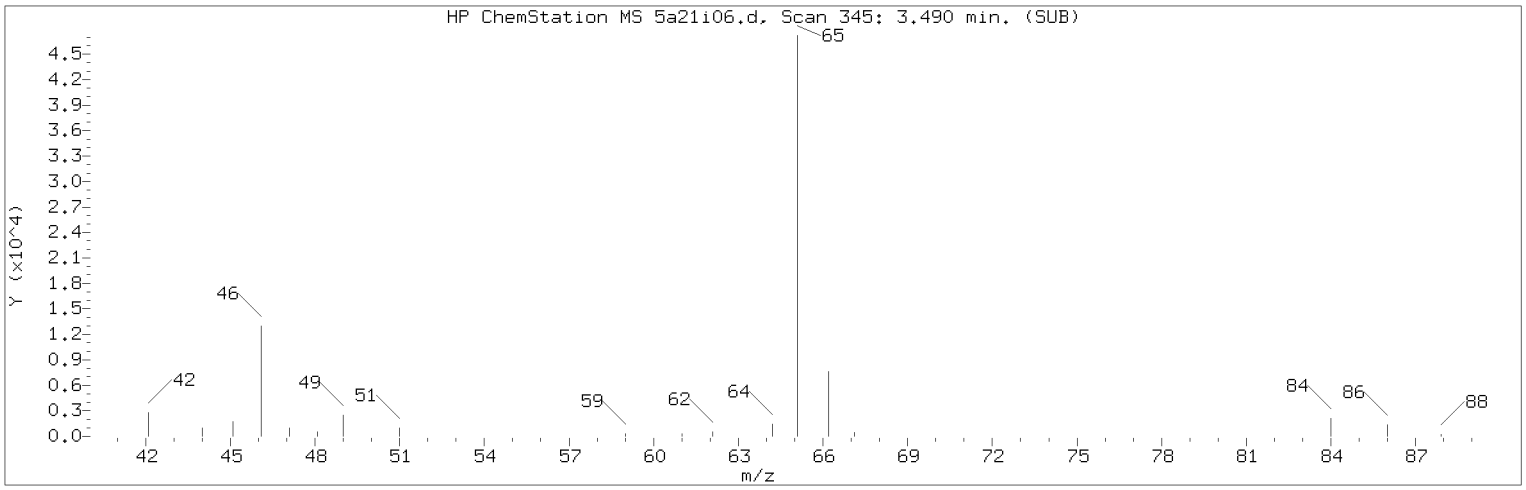
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

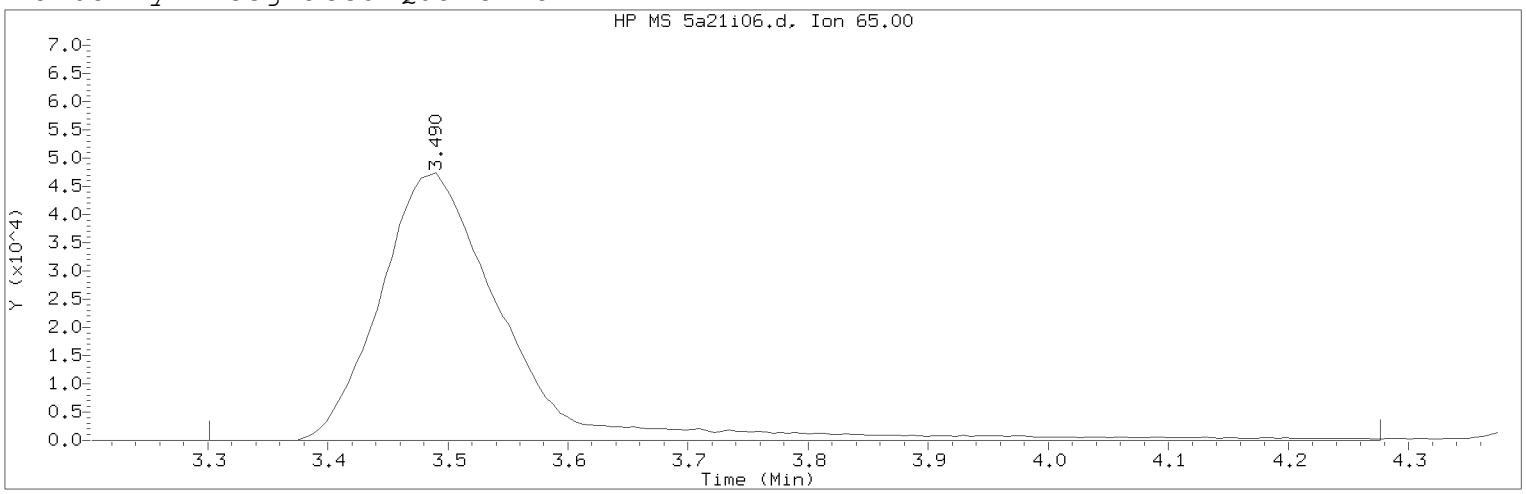
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	112388	4.314
136) Benzyl Chloride	(4)	12.775	91	72151	3.635
137) 1,3-Diethylbenzene	(4)	12.842	119	67279	4.273
138) 1,4-Diethylbenzene	(4)	12.915	119	70931	4.356
140) n-Butylbenzene	(4)	12.933	92	57583	4.190
139) 1,2-Dichlorobenzene	(4)	12.958	146	57262	4.156
141) 1,2-Diethylbenzene	(4)	12.988	119	57341	4.307
142) Diethylbenzene (total)	(4)		100	195551	12.936
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	9836	3.765
145) 1,3,5-Trichlorobenzene	(4)	13.647	180	36830	4.047
147) 1,2,4-Trichlorobenzene	(4)	14.080	180	35023	4.097
148) Hexachlorobutadiene	(4)	14.165	225	13270	4.036
149) Naphthalene	(4)	14.262	128	138750	4.099
150) 1,2,3-Trichlorobenzene	(4)	14.409	180	34713	4.103
151) 2-Methylnaphthalene	(4)	15.012	142	67881	3.859

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

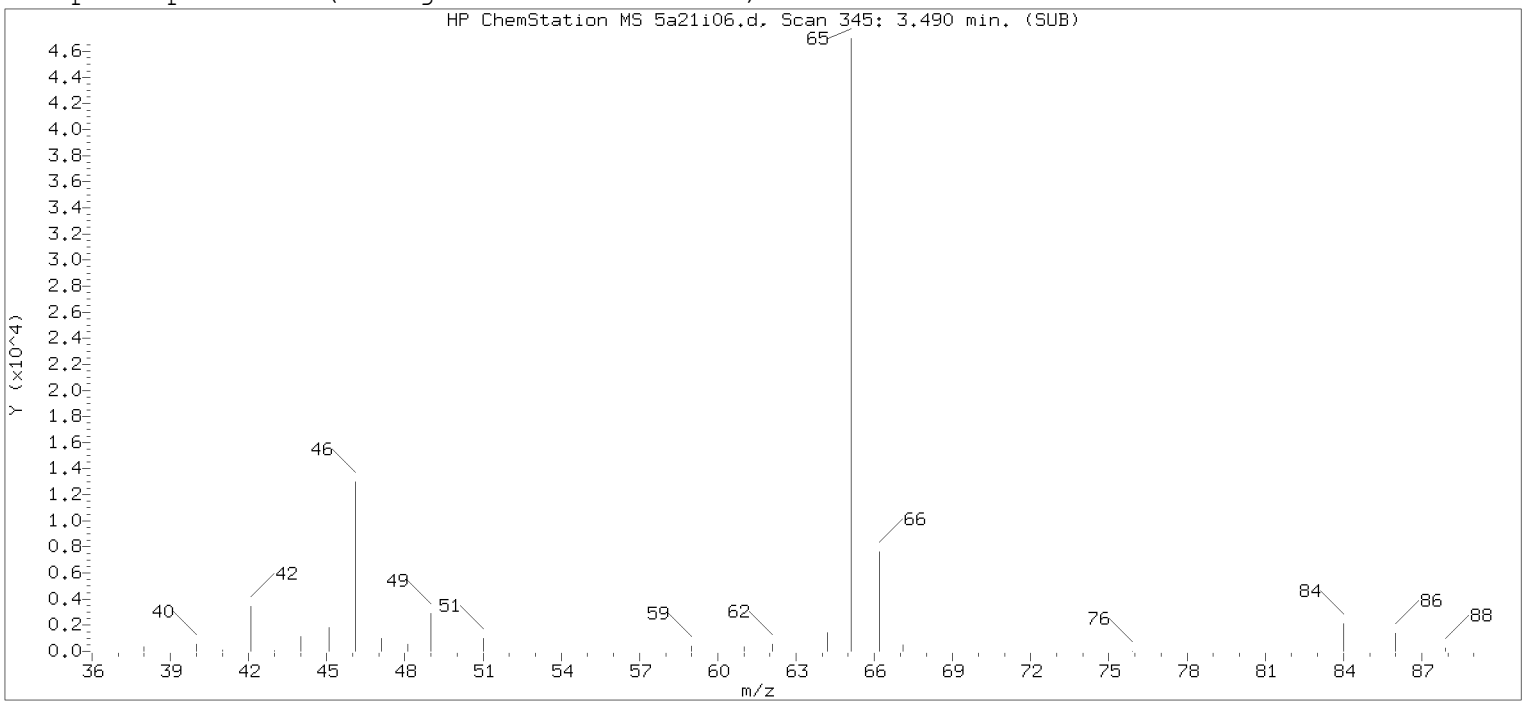
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area (flag) : 345244M
On-Column Amount (ng) : 250.0000
Integration start scan : 313 Integration stop scan: 473
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

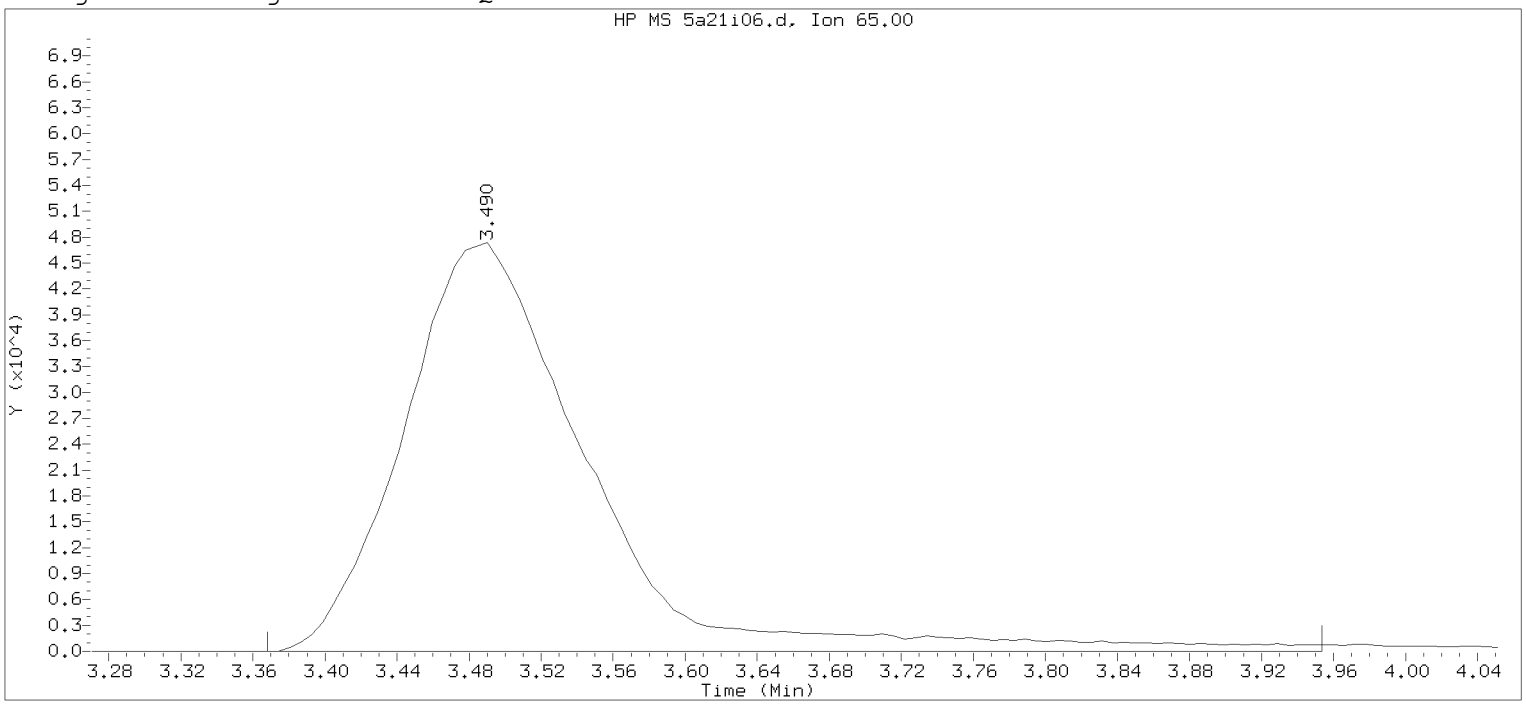
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 345
Retention Time (minutes): 3.490
Quant Ion : 65.00
Area : 335904
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

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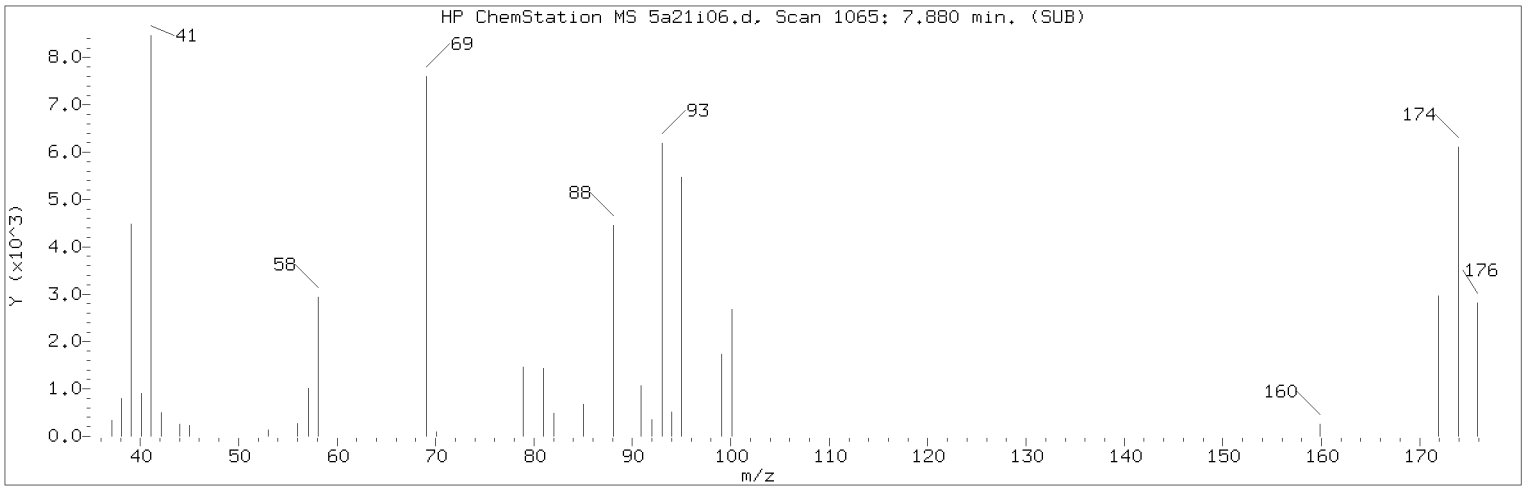
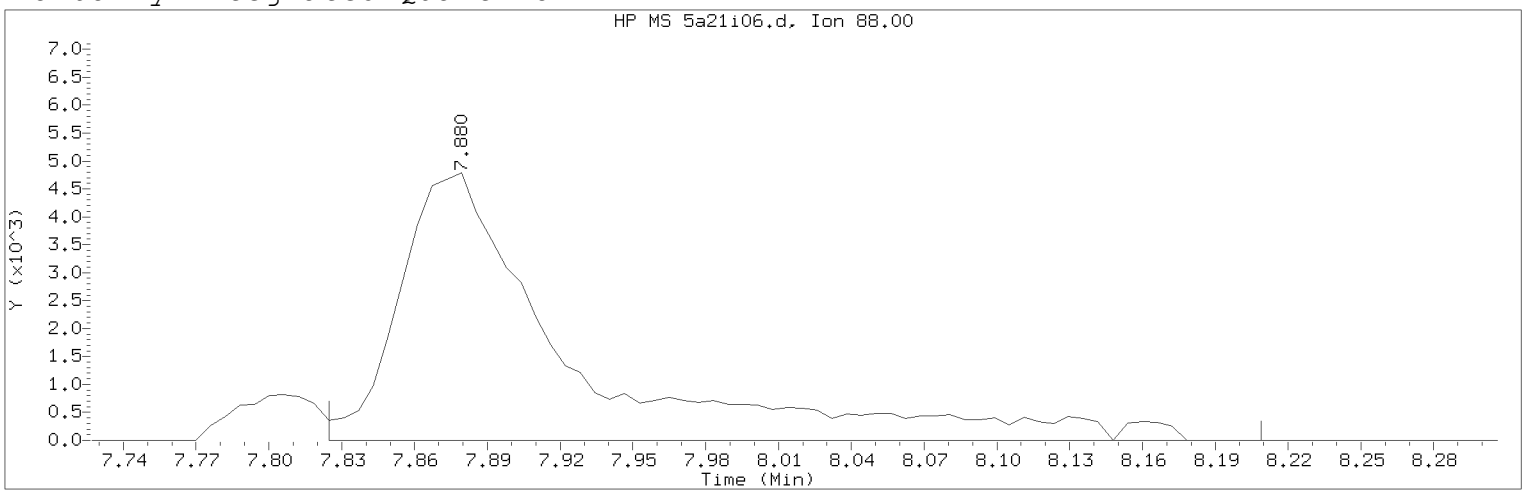
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

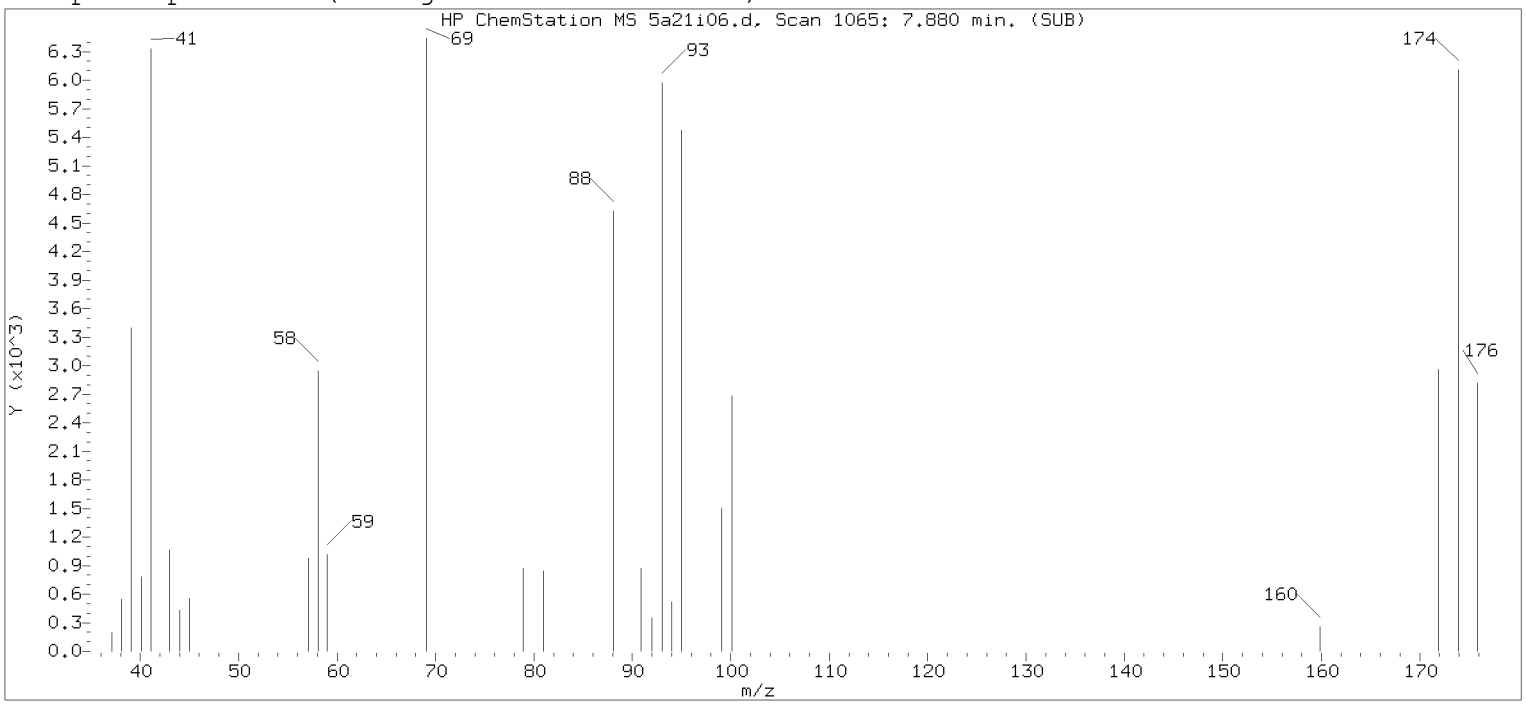
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area (flag) : 23612M
On-Column Amount (ng) : 203.5210
Integration start scan : 1055 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

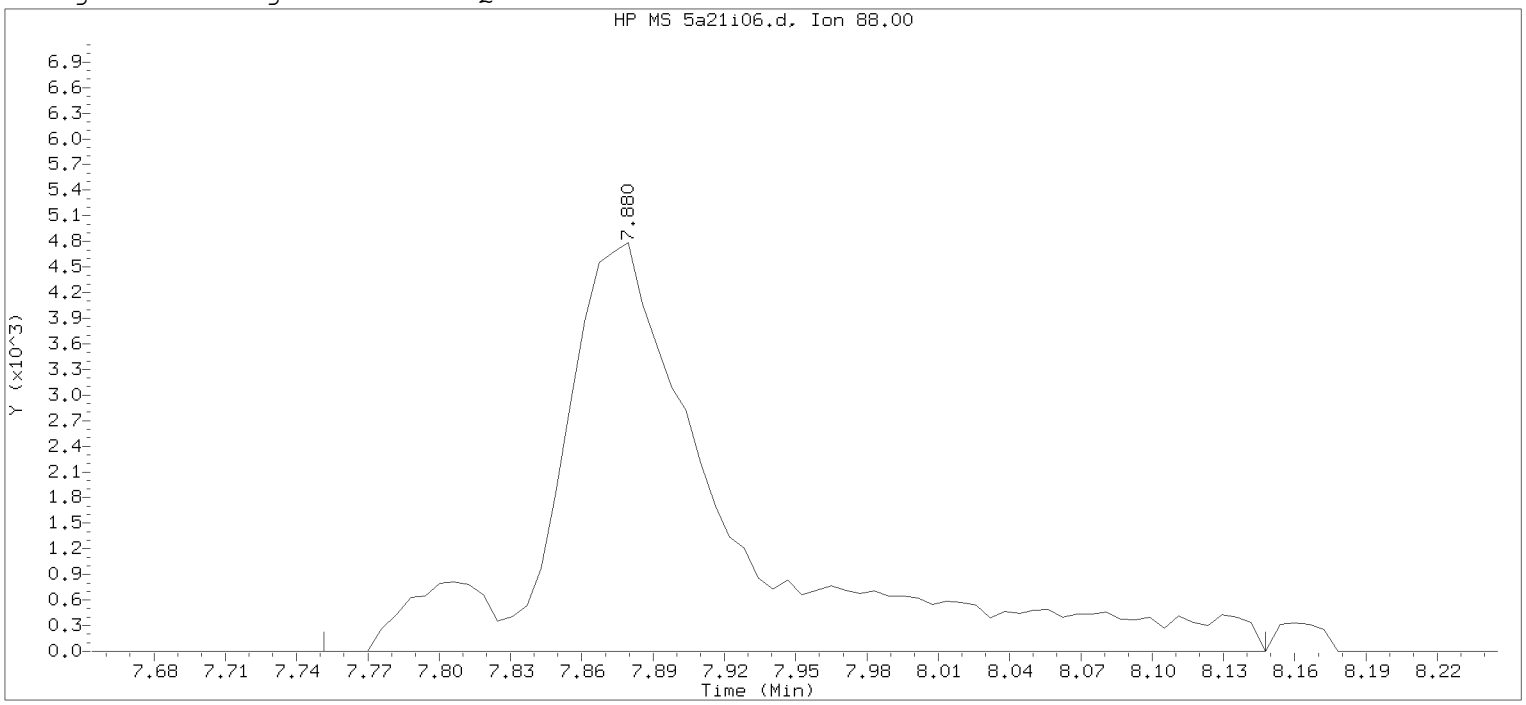
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

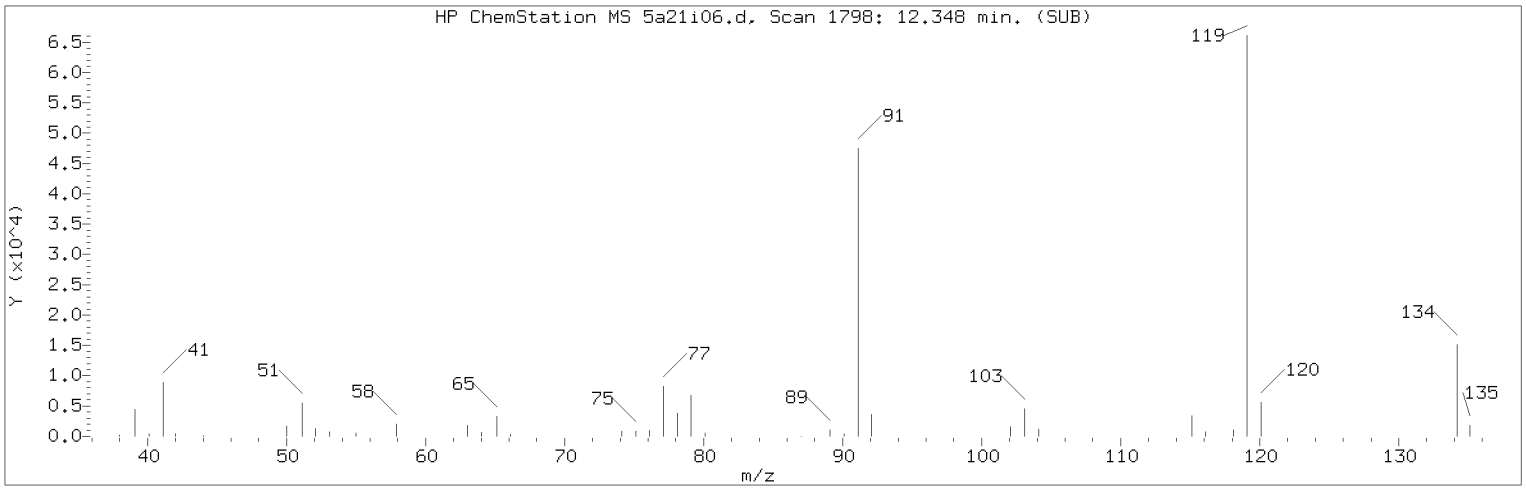
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

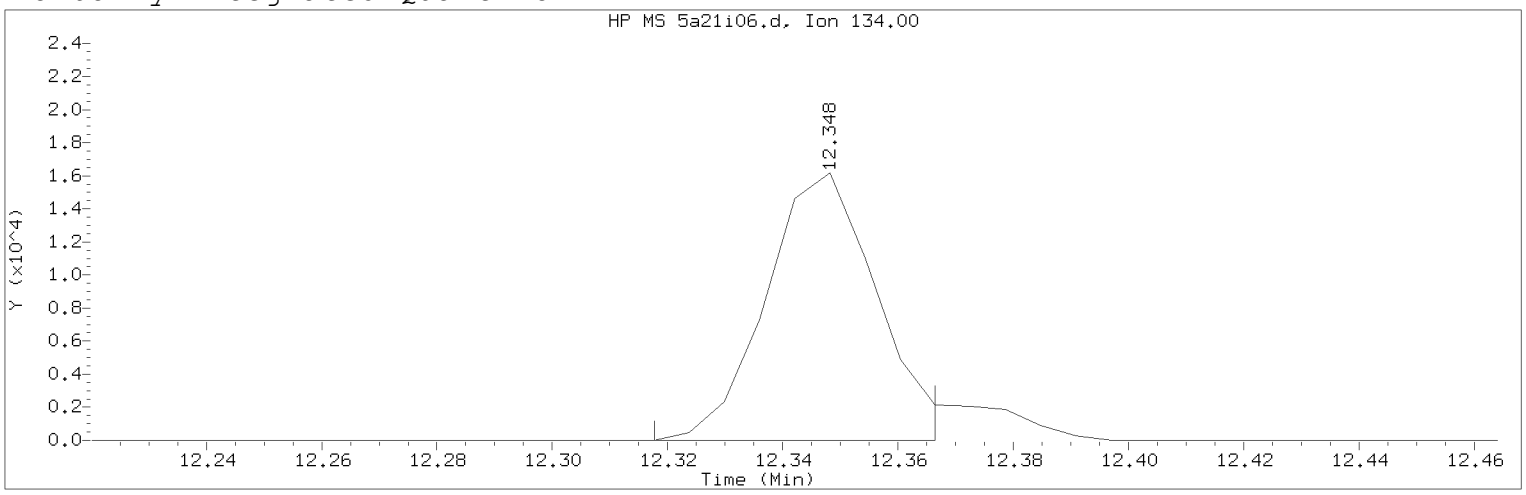
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1065
Retention Time (minutes): 7.880
Quant Ion : 88.00
Area : 25003
On-column Amount (ng) : 181.7905
Integration start scan : 1043 Integration stop scan: 1108
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

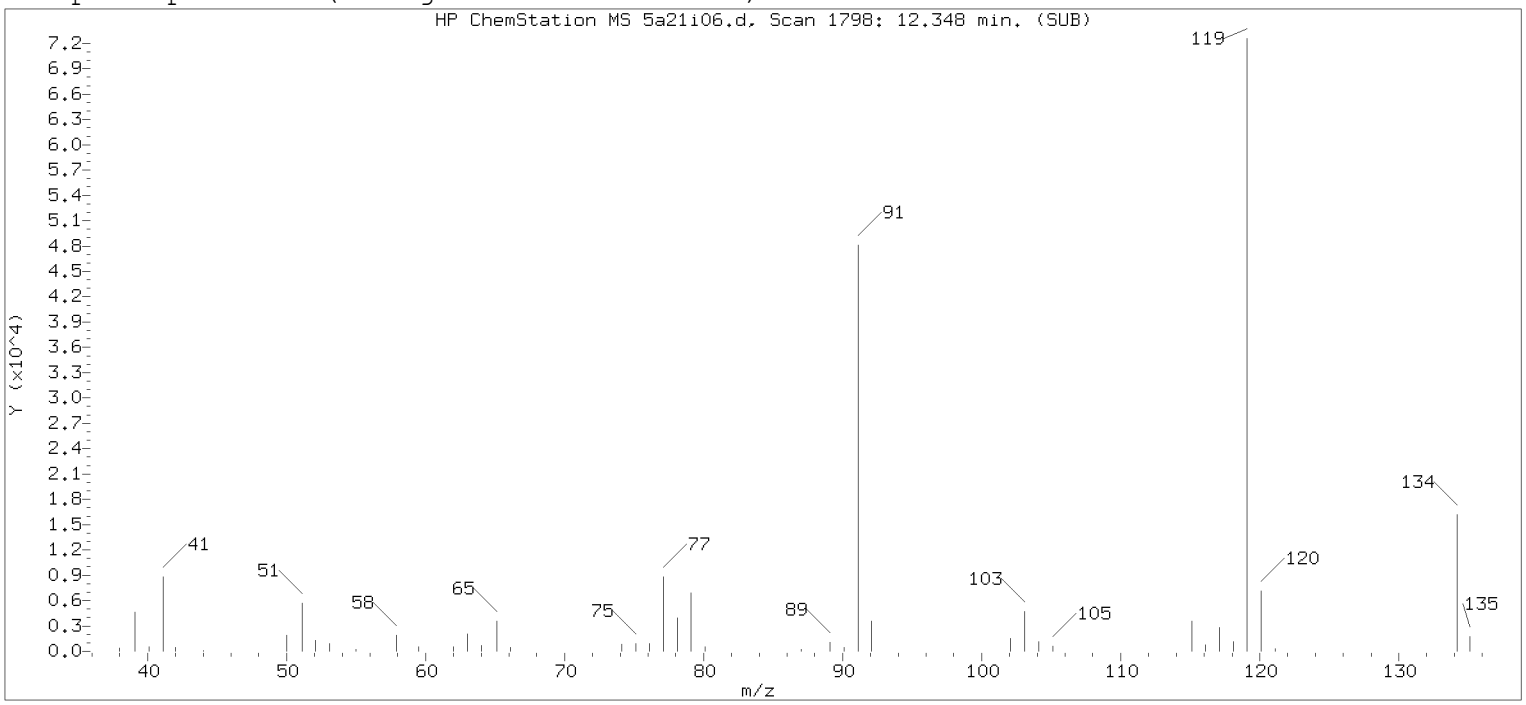
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 21537M
On-Column Amount (ng) : 4.1121
Integration start scan : 1792 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

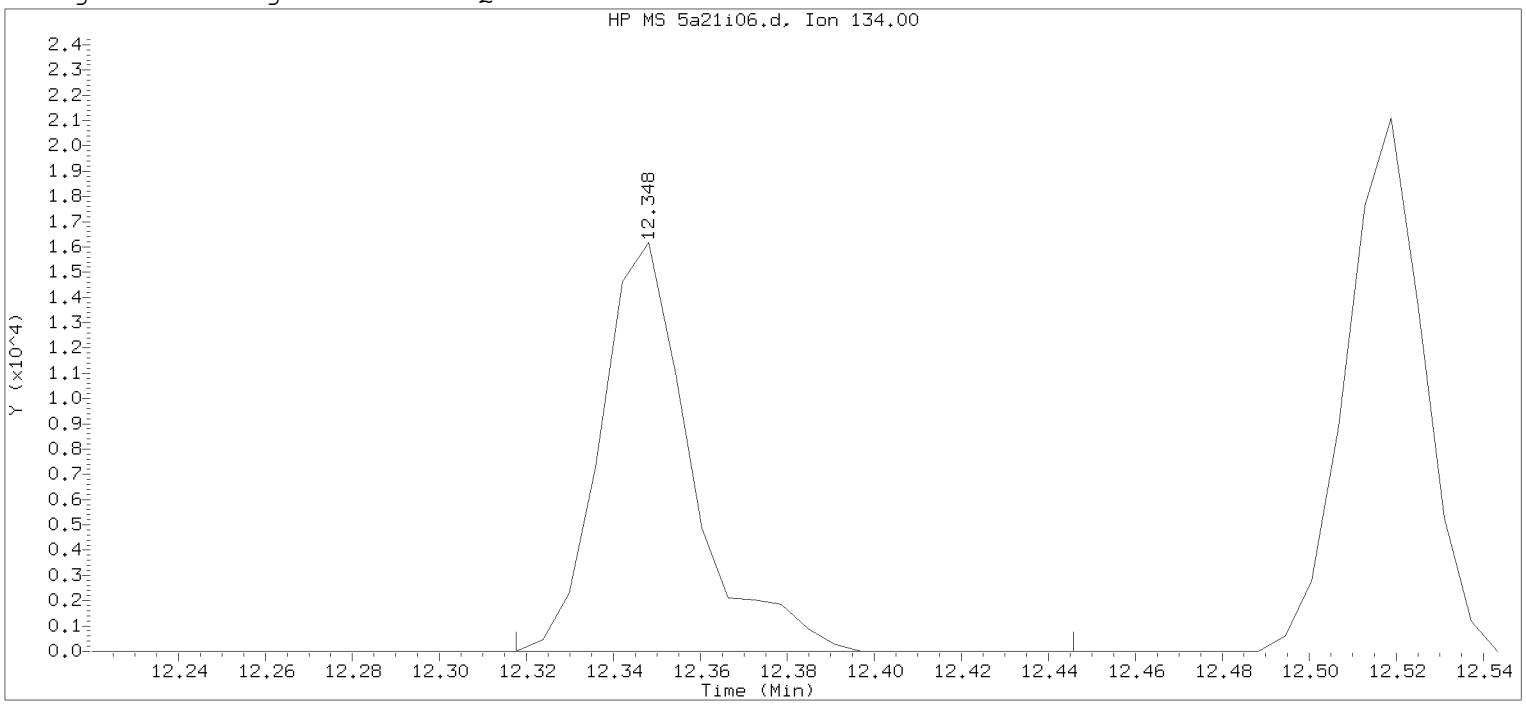
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



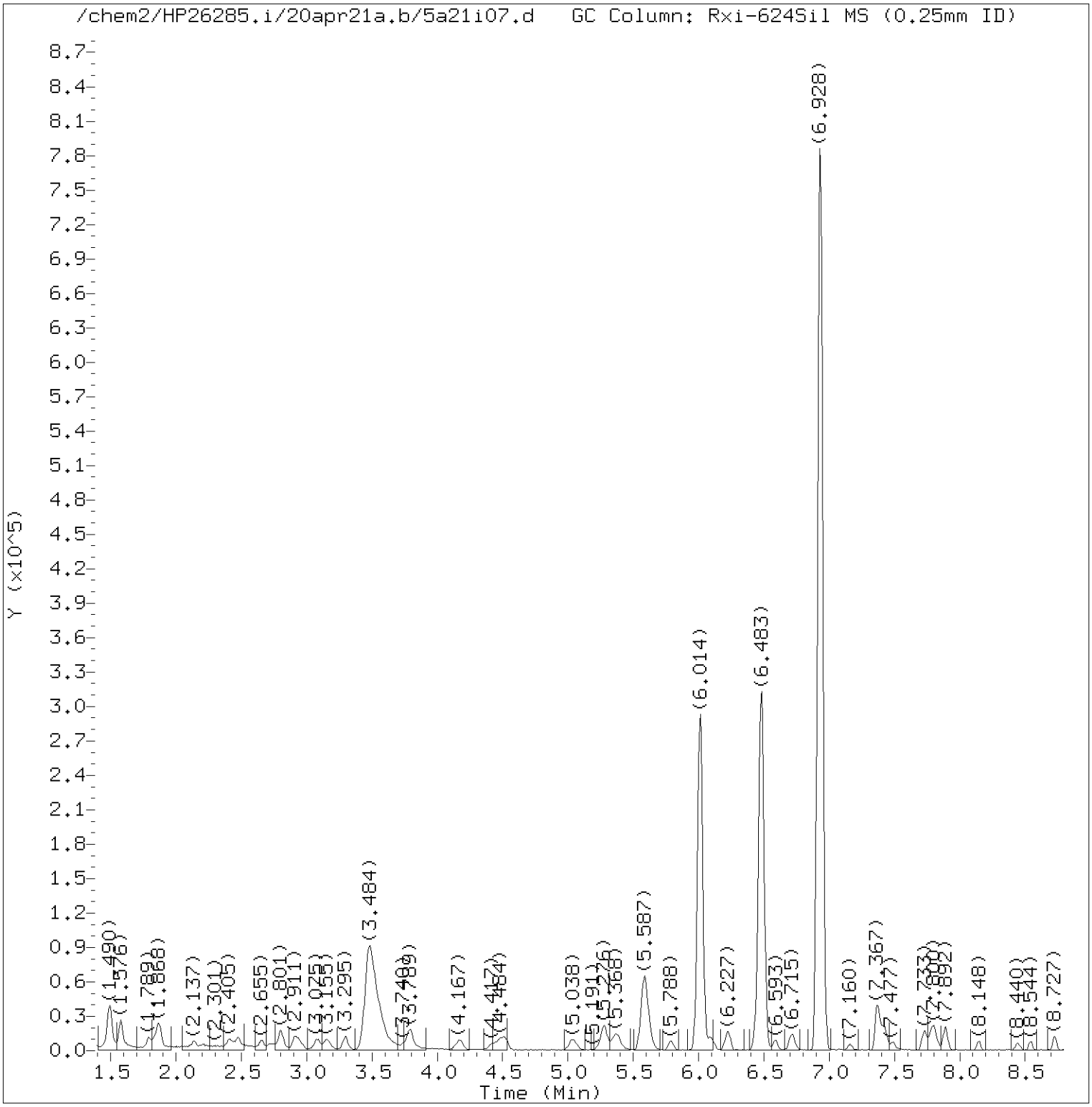
Data File: /chem2/HP26285.i/20apr21a.b/5a21i06.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:02 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 23385
On-column Amount (ng) : 4.1298
Integration start scan : 1792 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

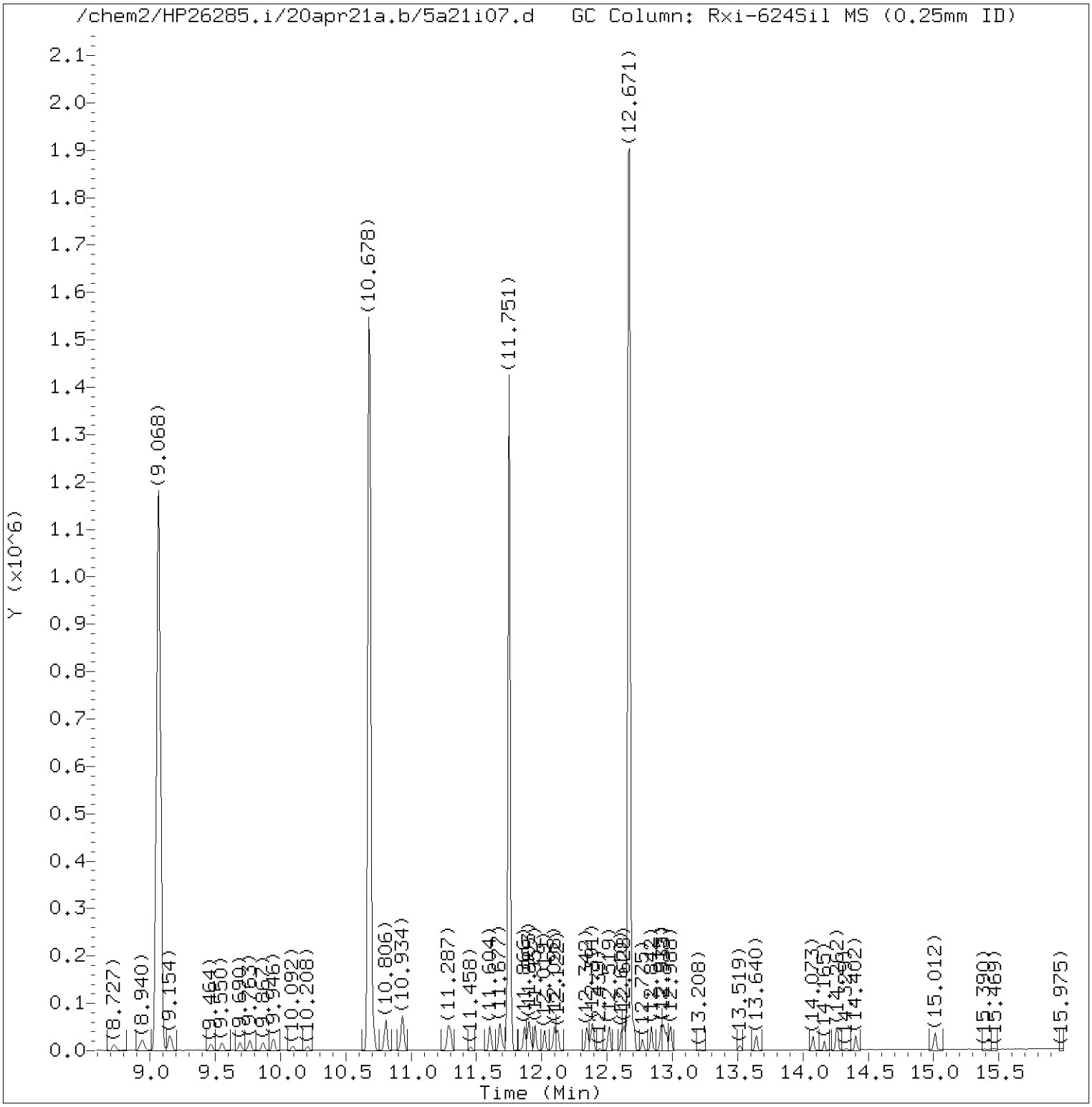
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.618	85	6939	0.803
4) Chloromethane	(2)	1.789	50	6579M	0.953
5) 1,3-Butadiene	(2)	1.868	39	16377	1.718
6) Vinyl Chloride	(2)	1.874	62	5527	0.911
8) Bromomethane	(2)	2.137	94	3884	0.954
9) Chloroethane	(2)	2.204	64	2509	0.874
10) Dichlorofluoromethane	(2)	2.411	67	9178	0.981
12) Trichlorofluoromethane	(2)	2.448	101	6287	0.846
11) n-Pentane	(2)	2.478	43	8231	1.190
14) Ethyl ether	(2)	2.655	59	4749	0.927
15) Freon 123a	(2)	2.734	67	7167	0.924
16) Acrolein	(1)	2.801	56	23824	10.408
17) 1,1-Dichloroethene	(2)	2.911	96	5107	0.885
17) 1,1-Dichloroethene	(2)	2.905	63	2264	0.783
19) Freon 113	(2)	2.923	101	5289	0.810
18) Acetone	(1)	2.947	58	1867	1.654
22) Methyl Iodide	(2)	3.075	142	9768	0.888
21) 2-Propanol	(1)	3.088	45	17481	19.028
23) Carbon Disulfide	(2)	3.149	76	18507M	0.912
27) Methyl Acetate	(2)	3.283	43	8546	1.027
25) Allyl Chloride	(2)	3.301	41	8694M	0.900
28) Methylene Chloride	(2)	3.460	84	5897	0.906
29)*t-Butyl alcohol-d10	(1)	3.484	65	361518M	250.000
30) t-Butyl alcohol	(1)	3.600	59	32314M	18.977
31) Acrylonitrile	(2)	3.740	53	3824	0.871
32) trans-1,2-Dichloroethene	(2)	3.789	96	5821	0.901
33) Methyl Tertiary Butyl Ether	(2)	3.789	73	15820M	0.926
34) n-Hexane	(2)	4.179	57	8105	0.846
36) 1,1-Dichloroethane	(2)	4.417	63	10392	0.889
38) di-Isopropyl ether	(2)	4.478	45	19628	0.940
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	8217	0.827
40) Ethyl t-butyl ether	(2)	5.038	59	17658	0.953
44) 2-Butanone	(2)	5.270	43	12857	2.011
42) cis-1,2-Dichloroethene	(2)	5.276	96	6566	0.899
45) 2,2-Dichloropropane	(2)	5.282	77	8837	0.896
47) Propionitrile	(1)	5.368	54	34573	18.651
48) Methacrylonitrile	(2)	5.587	67	40726	9.310
49) Bromochloromethane	(2)	5.618	128	3030	0.906

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.630	71	3069	1.832
51) Chloroform	(2)	5.788	83	10429	0.889
53) 1,1,1-Trichloroethane	(2)	6.002	97	8963	0.849
52)$Dibromofluoromethane	(2)	6.014	113	263595	49.579
52)$Dibromofluoromethane	(2)	6.014	111	271166	49.814
54) Cyclohexane	(2)	6.087	56	10506	0.854
54) Cyclohexane	(2)	6.093	84	8610	0.847
54) Cyclohexane	(2)	6.087	69	3054	0.801
43) 1,2-Dichloroethene (Total)	(2)		96	12387	1.800
56) Carbon Tetrachloride	(2)	6.215	117	7571	0.822
55) 1,1-Dichloropropene	(2)	6.227	75	8354	0.874
58) Isobutyl Alcohol	(1)	6.453	41	26237M	46.225
57)$1,2-Dichloroethane-d4	(2)	6.483	102	59481	50.022
57)$1,2-Dichloroethane-d4	(2)	6.477	65	291006	50.056
57)$1,2-Dichloroethane-d4	(2)	6.483	104	38189	50.158
60) Benzene	(2)	6.502	78	25751	0.906
61) 1,2-Dichloroethane	(2)	6.587	62	9219	1.056
61) 1,2-Dichloroethane	(2)	6.587	98	434	0.588
65) t-Amyl methyl ether	(2)	6.721	73	17424	0.942
66)*Fluorobenzene	(2)	6.928	96	1067423	50.000
67) n-Heptane	(2)	6.953	43	8854	0.957
69) n-Butanol	(1)	7.367	56	41924	85.600
71) Trichloroethene	(2)	7.422	95	6720	0.901
73) Methylcyclohexane	(2)	7.727	83	10354	0.873
73) Methylcyclohexane	(2)	7.733	98	4274	0.851
74) 1,2-Dichloropropane	(2)	7.770	63	6360	0.893
76) 1,4-Dioxane	(1)	7.879	88	4070	33.502
77) Methyl Methacrylate	(2)	7.892	69	5680	0.853
75) Dibromomethane	(2)	7.892	93	3930	0.877
79) Bromodichloromethane	(2)	8.148	83	7143	0.822
80) 2-Nitropropane	(2)	8.440	41	5190	1.724
81) 2-Chloroethyl Vinyl Ether	(2)	8.544	63	4703	0.854
82) cis-1,3-Dichloropropene	(2)	8.727	75	8961	0.816
83) 4-Methyl-2-pentanone	(2)	8.940	43	21641	1.756
84)$Toluene-d8	(3)	9.068	98	1019435	50.910
84)$Toluene-d8	(3)	9.068	100	669873	50.807
89) Toluene	(3)	9.154	92	16283	0.922
90) trans-1,3-Dichloropropene	(3)	9.471	75	7617	0.804

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Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.556	69	9087	0.844
93) 1,1,2-Trichloroethane	(3)	9.690	97	5773	0.915
94) Tetrachloroethene	(3)	9.763	166	6696	0.894
95) 1,3-Dichloropropane	(3)	9.867	76	9729	0.928
97) 2-Hexanone	(3)	9.946	43	16333	1.741
91) 1,3-Dichloropropene (total)	(3)		100	16578	1.620
98) Dibromochloromethane	(3)	10.098	129	5234	0.784
100) 1,2-Dibromoethane	(3)	10.208	107	6141	0.882
101)*Chlorobenzene-d5	(3)	10.678	117	814804	50.000
103) Chlorobenzene	(3)	10.708	112	18102	0.945
102) 1-Chlorohexane	(3)	10.708	91	10207	0.994
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	5579	0.844
105) Ethylbenzene	(3)	10.806	91	30747	0.901
107) m+p-Xylene	(3)	10.934	106	24189	1.847
108) o-Xylene	(3)	11.281	106	11654	0.909
110) Styrene	(3)	11.299	104	16925	0.819
111) Bromoform	(3)	11.458	173	3302	0.683
112) Isopropylbenzene	(3)	11.604	105	30197	0.898
113) Cyclohexanone	(1)	11.677	55	24191M	43.352
115)$4-Bromofluorobenzene	(3)	11.751	95	419145	49.679
115)$4-Bromofluorobenzene	(3)	11.751	174	328326	49.885
109) Xylene (Total)	(3)		106	35843	2.756
116) Bromobenzene	(4)	11.866	156	7456	0.929
117) 1,1,2,2-Tetrachloroethane	(4)	11.873	83	9543	0.876
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	9462	17.513
118) 1,2,3-Trichloropropane	(4)	11.915	110	3041	0.949
120) n-Propylbenzene	(4)	11.952	91	34829	0.883
121) 2-Chlorotoluene	(4)	12.025	126	7317	0.905
123) 1,3,5-Trimethylbenzene	(4)	12.098	105	24086	0.869
122) 4-Chlorotoluene	(4)	12.122	126	7265	0.889
125) tert-Butylbenzene	(4)	12.348	134	4987M	0.905
126) Pentachloroethane	(4)	12.372	167	3489	0.771
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	24828	0.869
128) sec-Butylbenzene	(4)	12.519	105	30653	0.892
130) 1,3-Dichlorobenzene	(4)	12.610	146	14042	0.930
131) p-Isopropyltoluene	(4)	12.628	119	24633	0.859
132)*1,4-Dichlorobenzene-d4	(4)	12.671	152	420878	50.000
134) 1,4-Dichlorobenzene	(4)	12.689	146	14739	0.962

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on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	24915	0.909
136) Benzyl Chloride	(4)	12.775	91	14578	0.698
137) 1,3-Diethylbenzene	(4)	12.842	119	14145	0.854
138) 1,4-Diethylbenzene	(4)	12.915	119	14603	0.852
140) n-Butylbenzene	(4)	12.933	92	12995M	0.899
139) 1,2-Dichlorobenzene	(4)	12.958	146	13657	0.942
141) 1,2-Diethylbenzene	(4)	12.988	119	12587	0.898
142) Diethylbenzene (total)	(4)		100	41335	2.604
143) 1,2-Dibromo-3-chloropropane	(4)	13.519	75	2182	0.794
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	8922	0.932
147) 1,2,4-Trichlorobenzene	(4)	14.079	180	8146	0.906
148) Hexachlorobutadiene	(4)	14.165	225	3137	0.907
149) Naphthalene	(4)	14.262	128	32106	0.901
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	8253	0.927
151) 2-Methylnaphthalene	(4)	15.012	142	14971	0.809

M = Compound was manually integrated.

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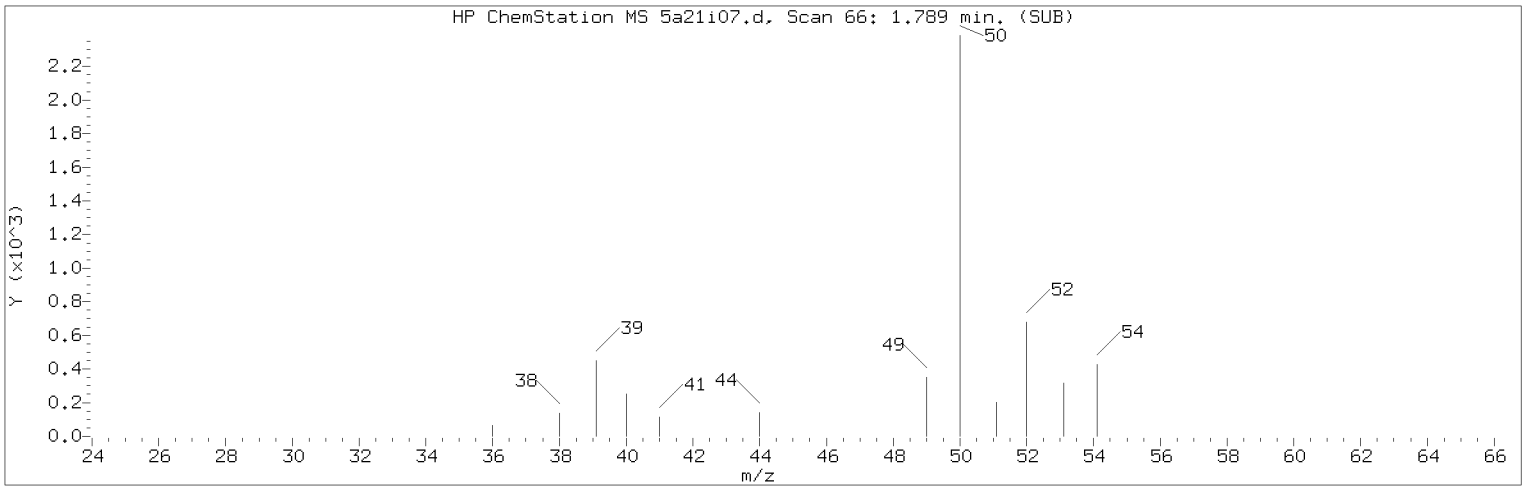
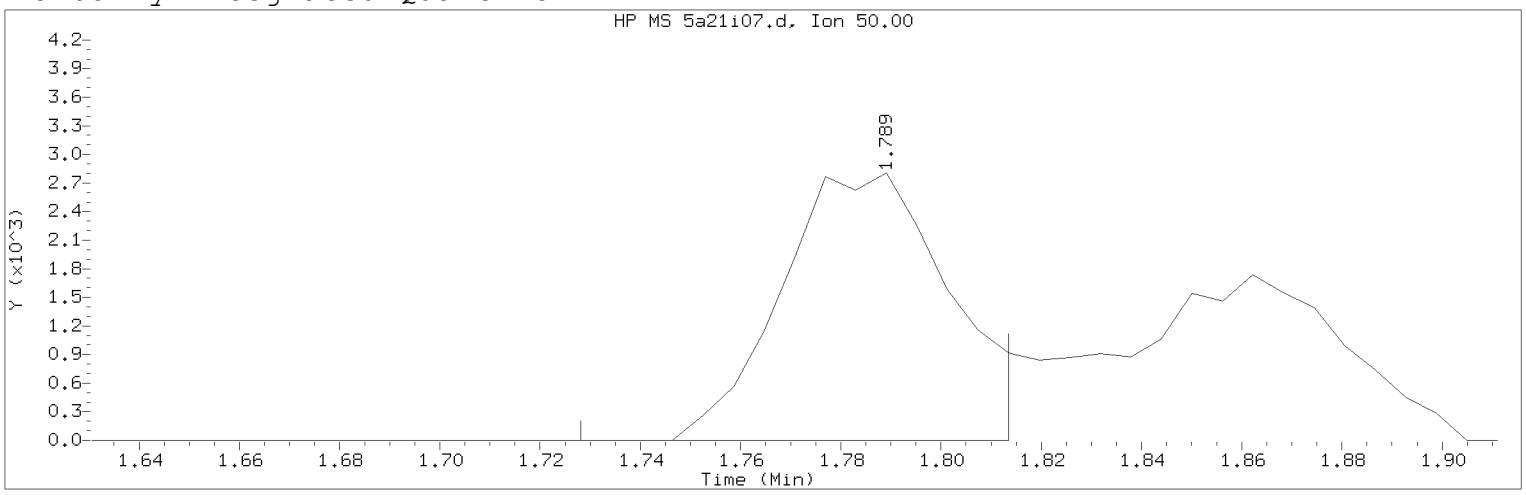
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

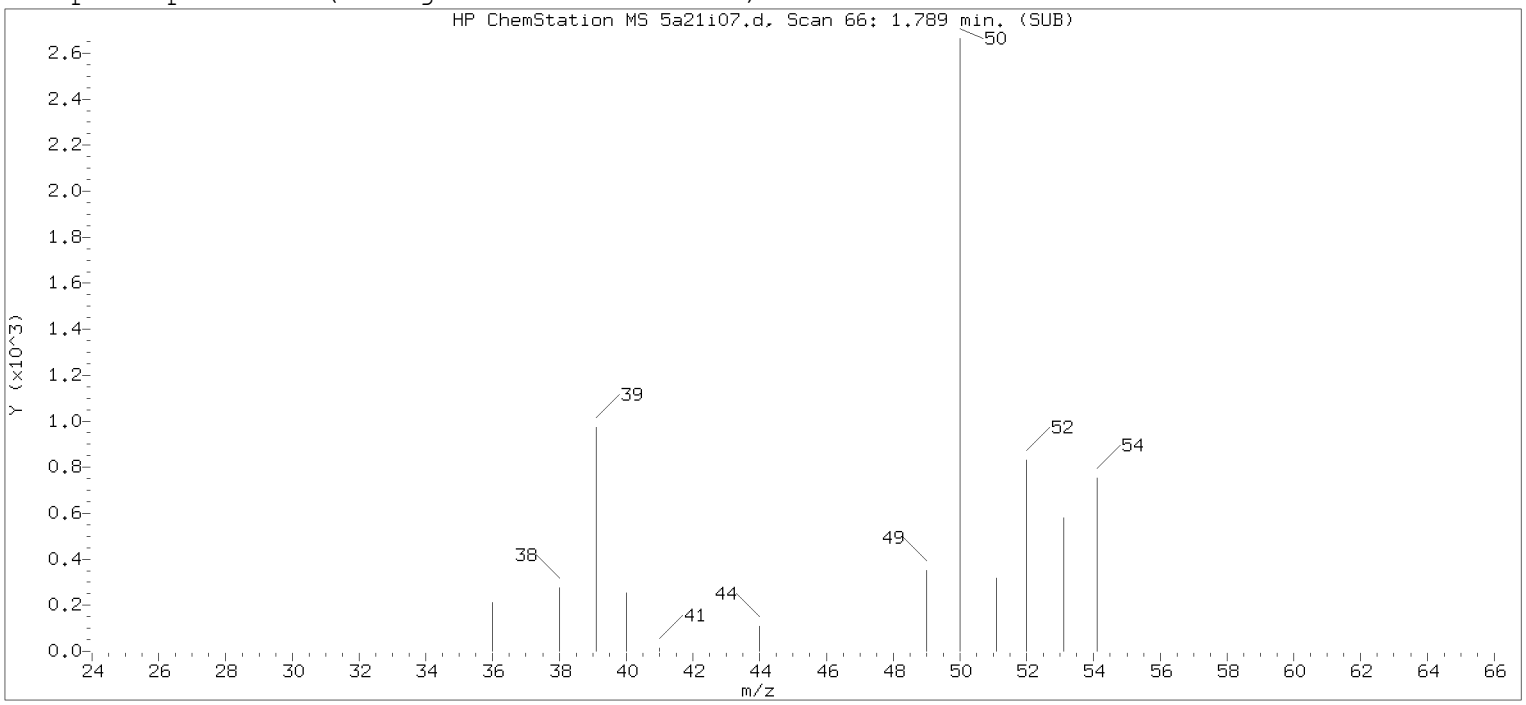
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area (flag) : 6579M
On-Column Amount (ng) : 0.9528
Integration start scan : 55 Integration stop scan: 69
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

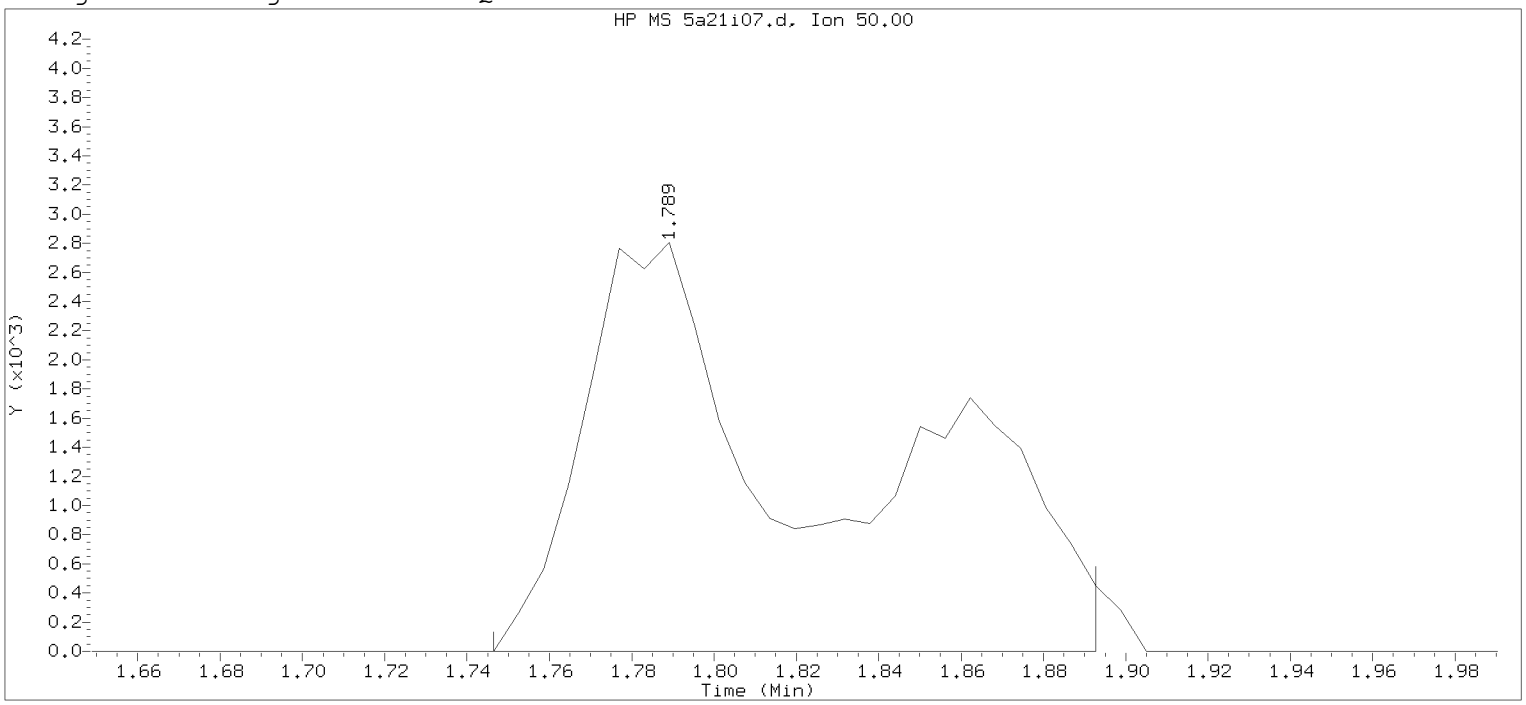
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

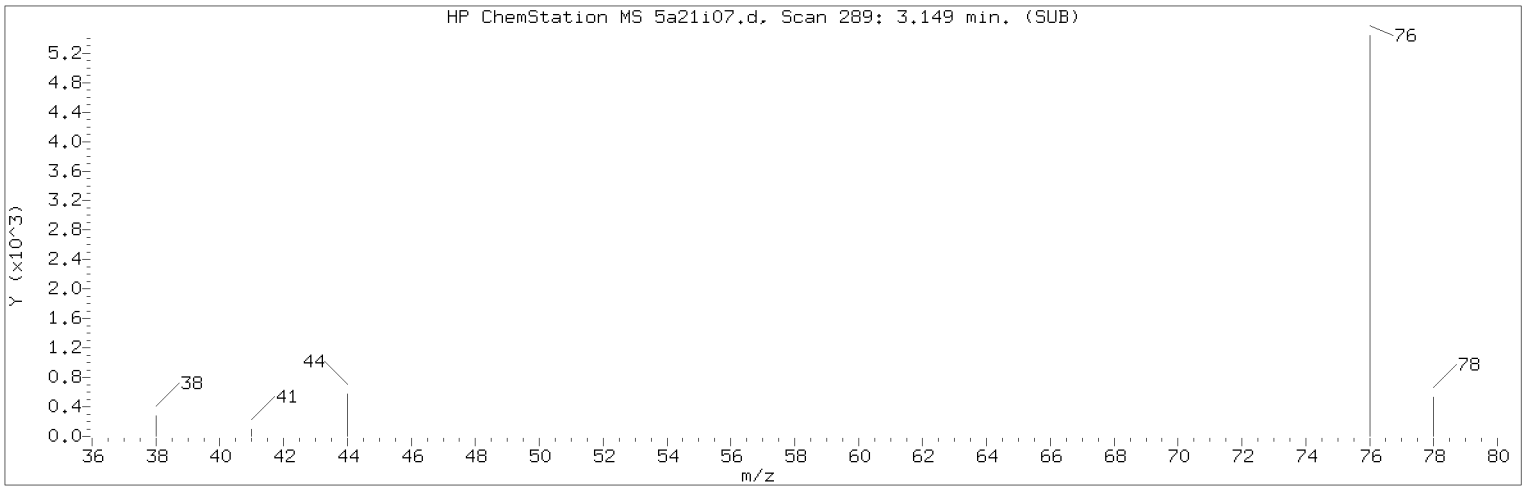
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

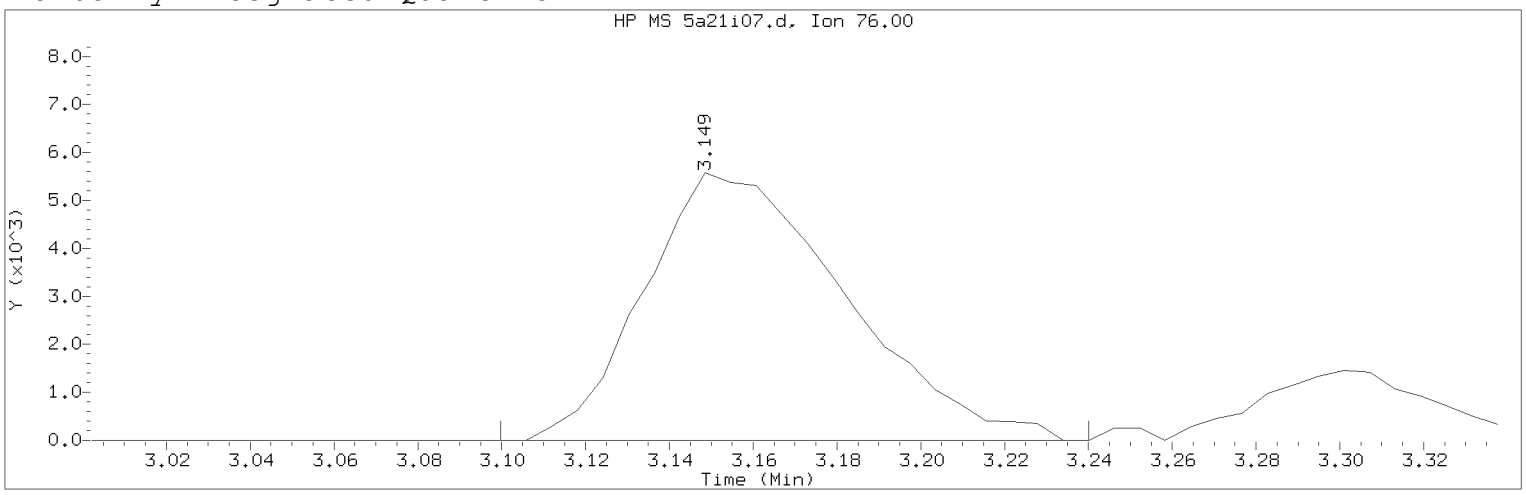
Compound Number : 4
Compound Name : Chloromethane
Scan Number : 66
Retention Time (minutes): 1.789
Quant Ion : 50.00
Area : 11768
On-column Amount (ng) : 1.5486
Integration start scan : 58 Integration stop scan: 82
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

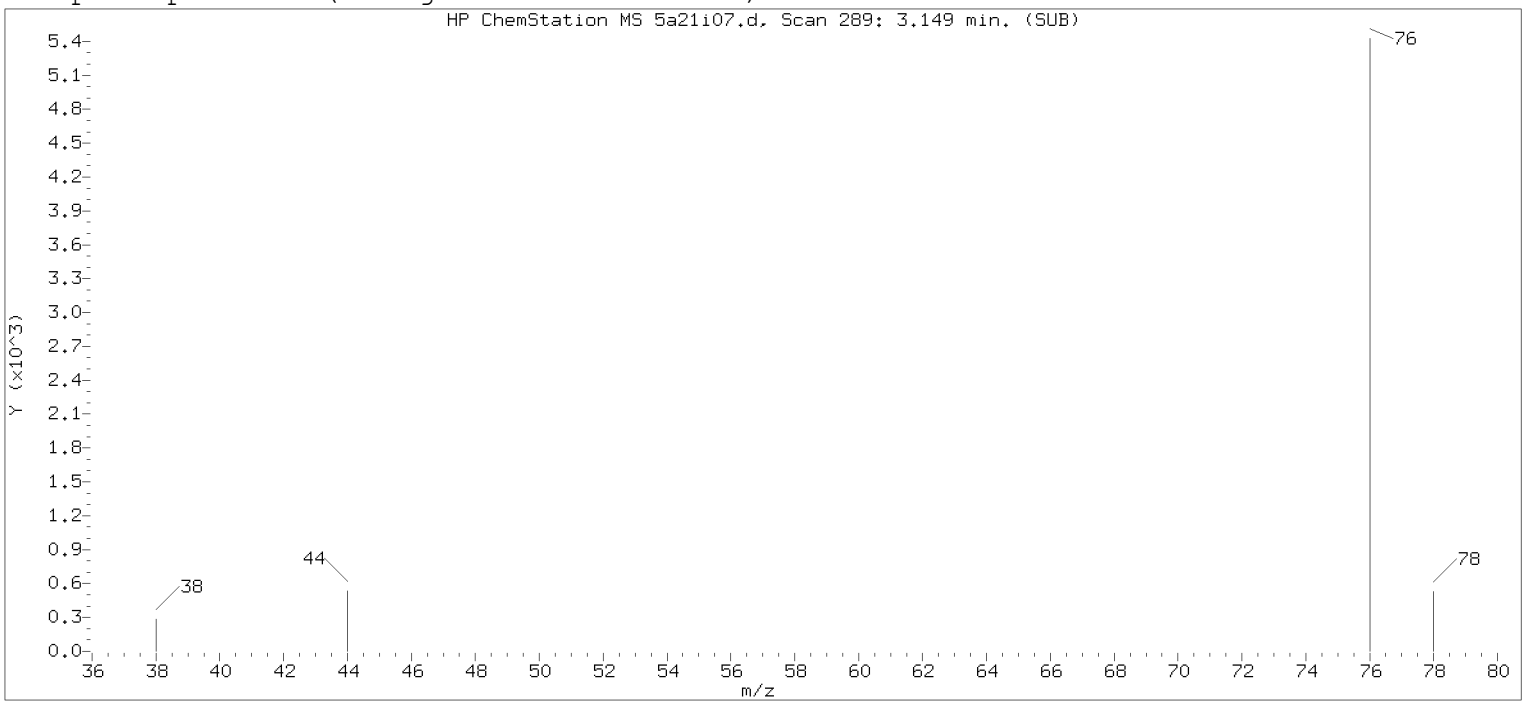
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area (flag) : 18507M
On-Column Amount (ng) : 0.9116
Integration start scan : 280 Integration stop scan: 303
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

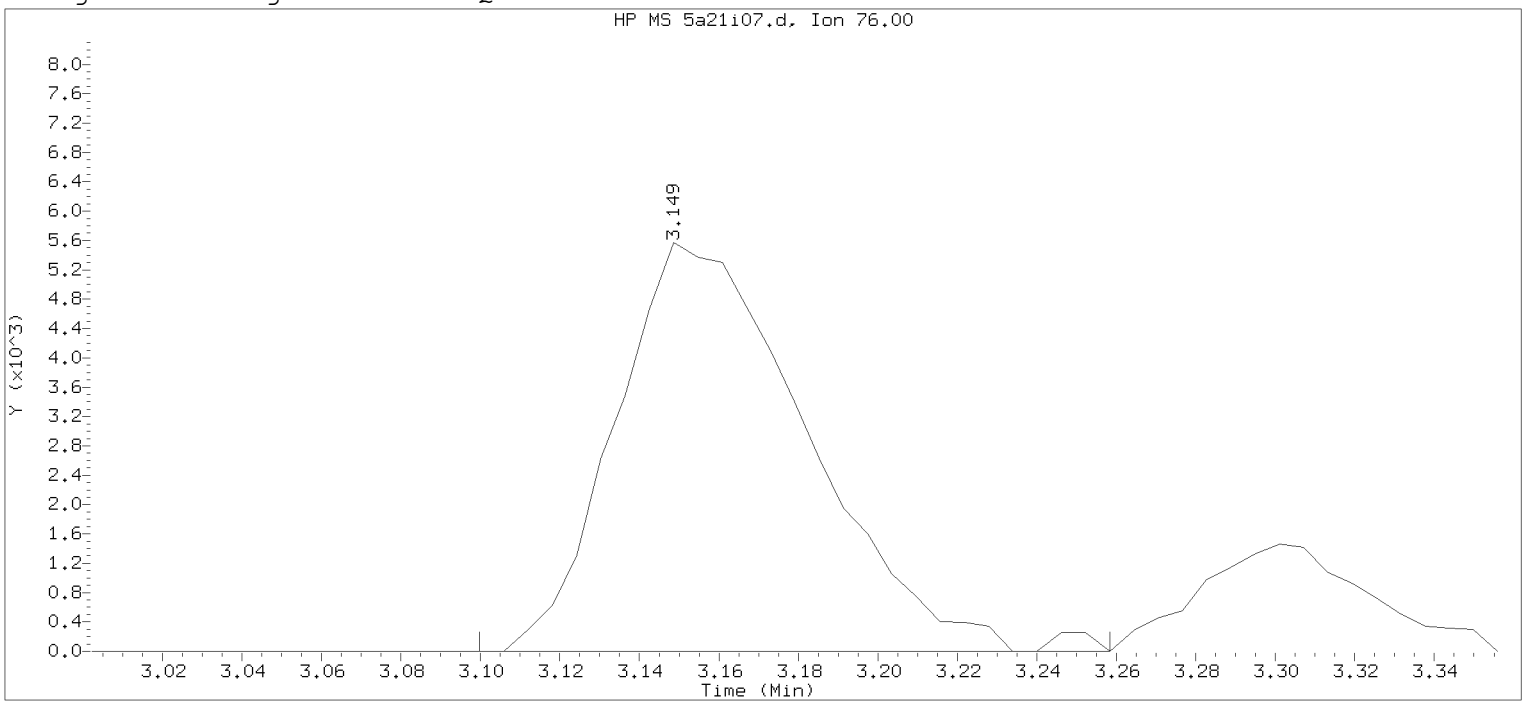
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

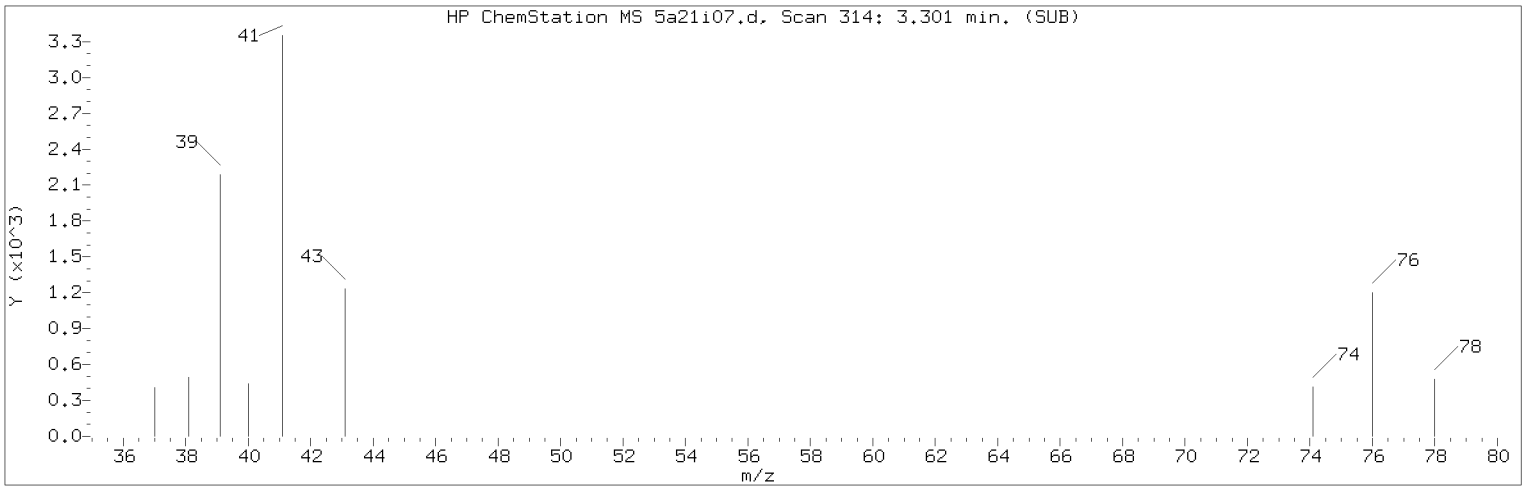
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

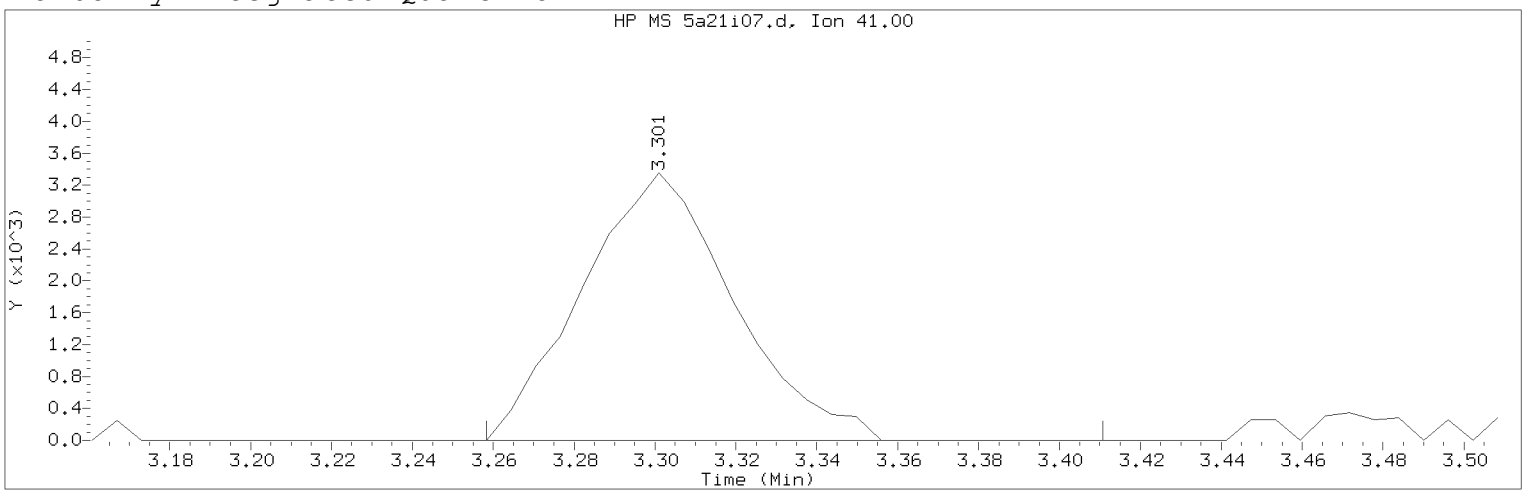
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 289
Retention Time (minutes): 3.149
Quant Ion : 76.00
Area : 18694
On-column Amount (ng) : 0.9196
Integration start scan : 280 Integration stop scan: 306
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

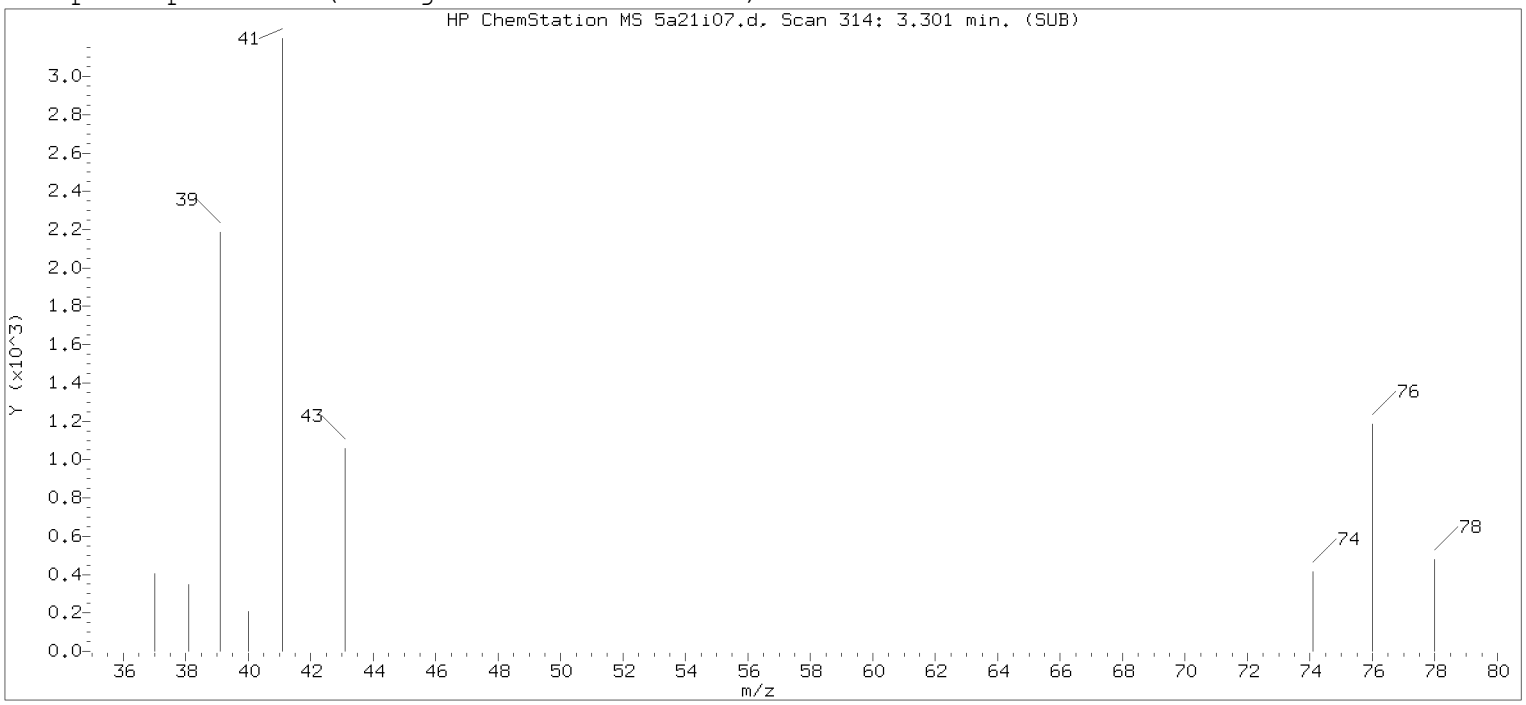
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area (flag) : 8694M
On-Column Amount (ng) : 0.8999
Integration start scan : 306 Integration stop scan: 331
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

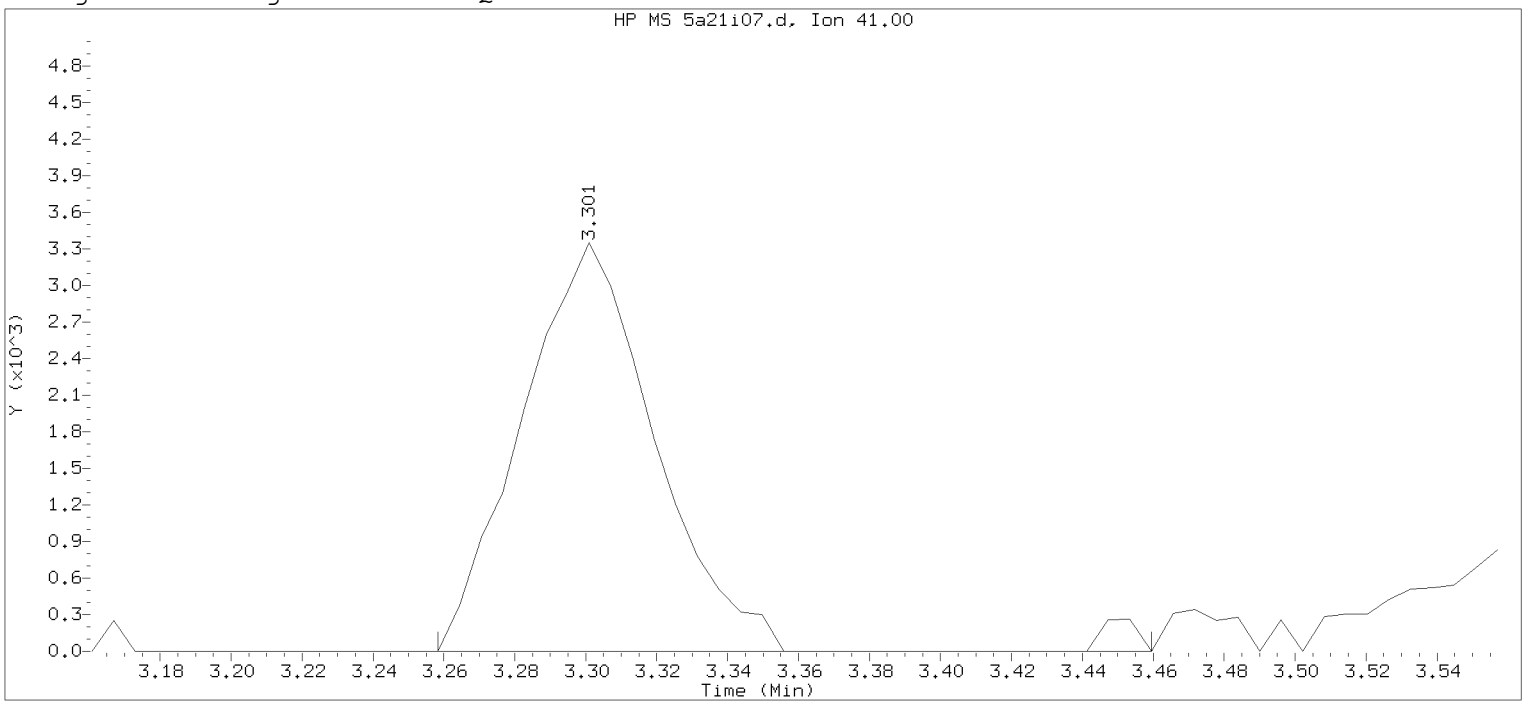
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

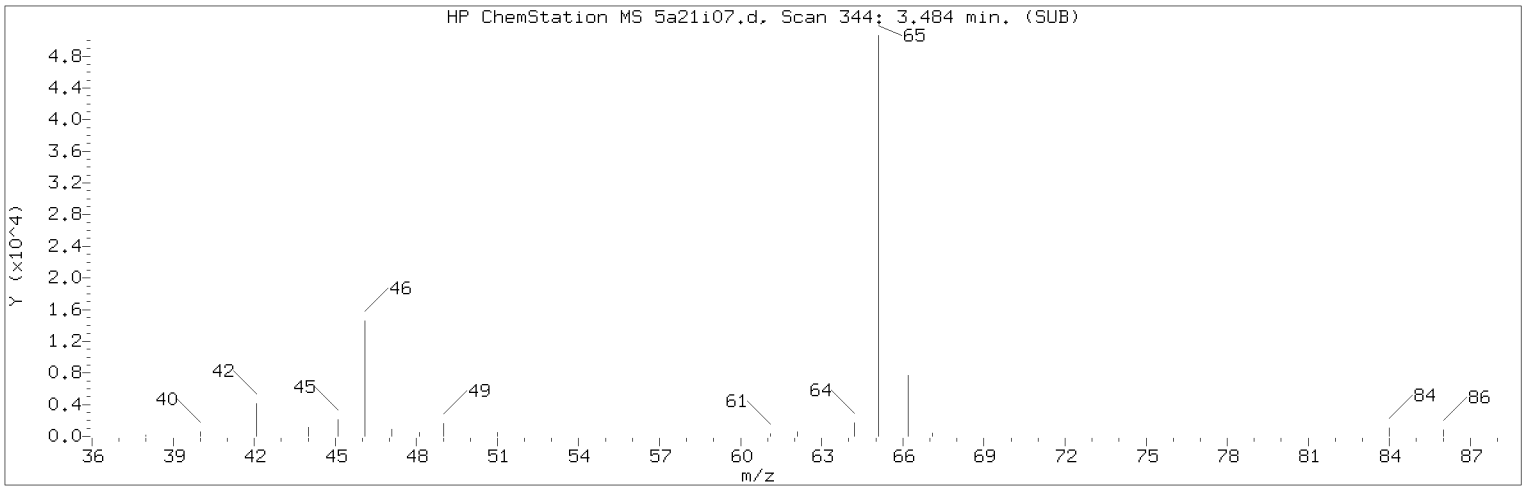
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

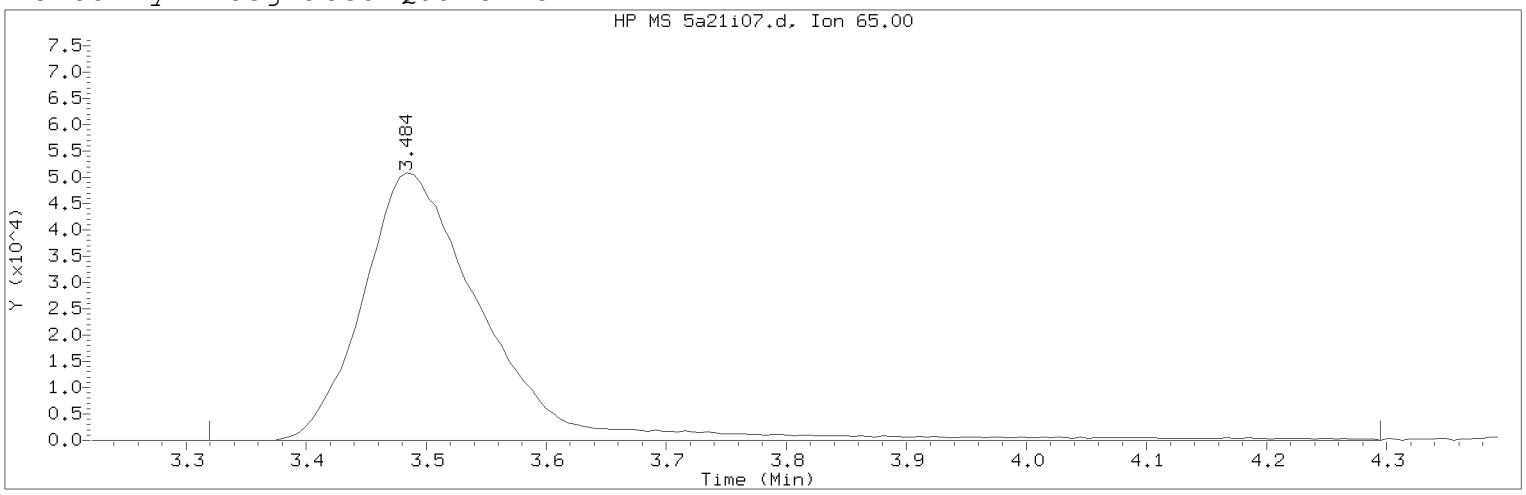
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 314
Retention Time (minutes): 3.301
Quant Ion : 41.00
Area : 8884
On-column Amount (ng) : 0.9170
Integration start scan : 306 Integration stop scan: 339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

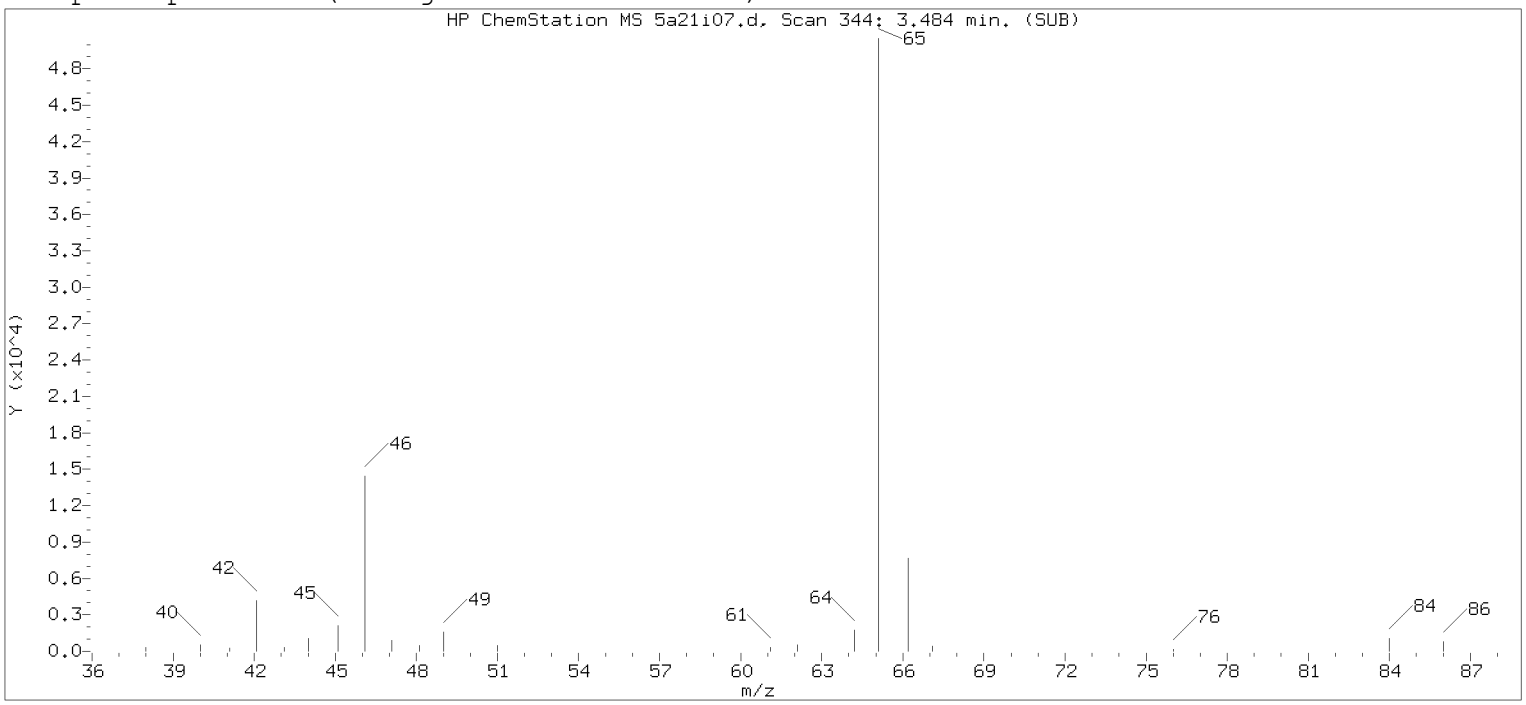
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 361518M
On-Column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 476
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

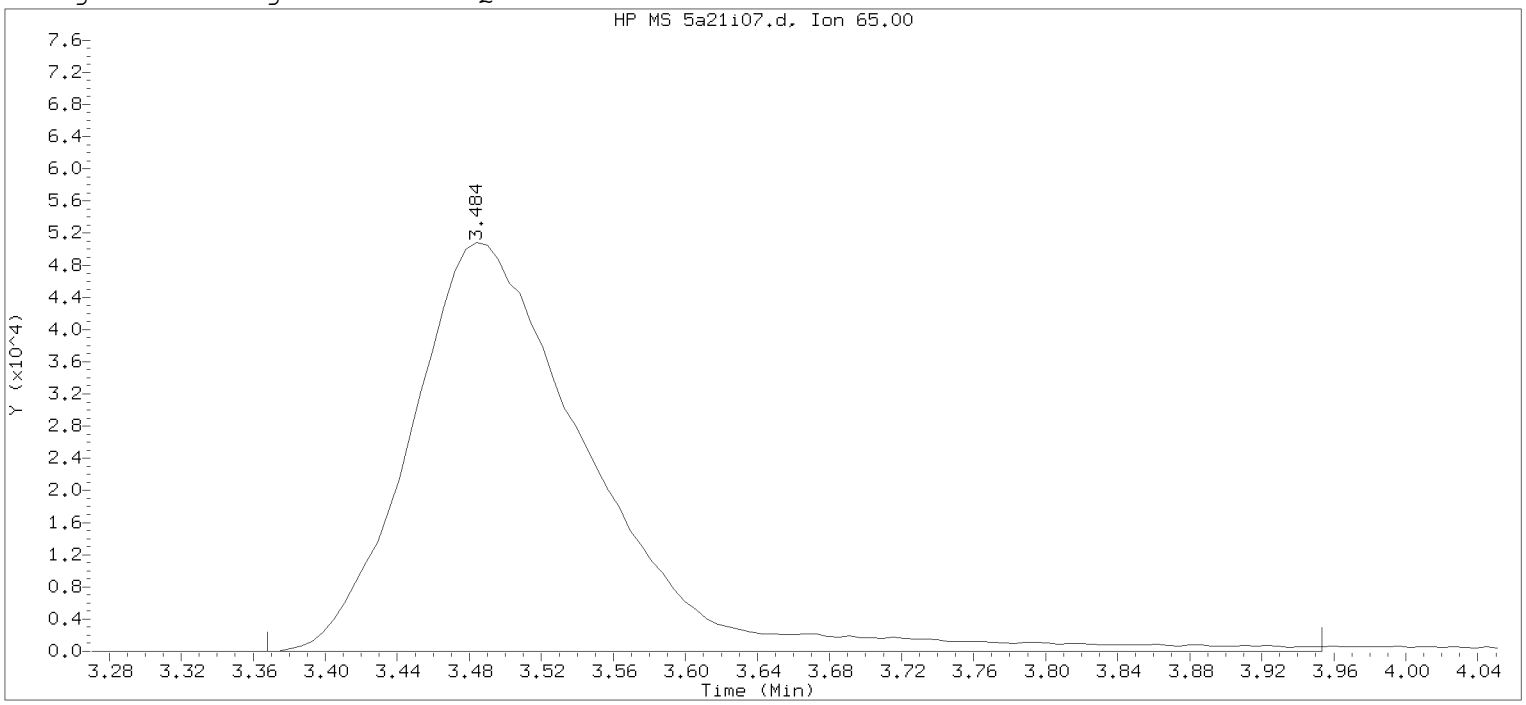
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

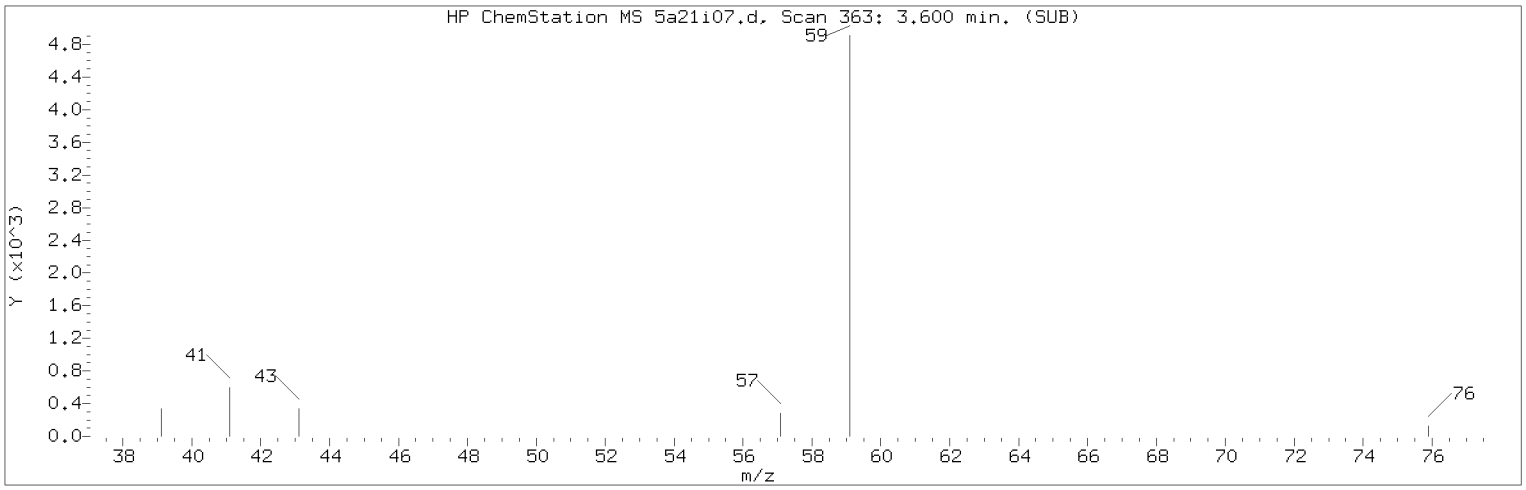
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

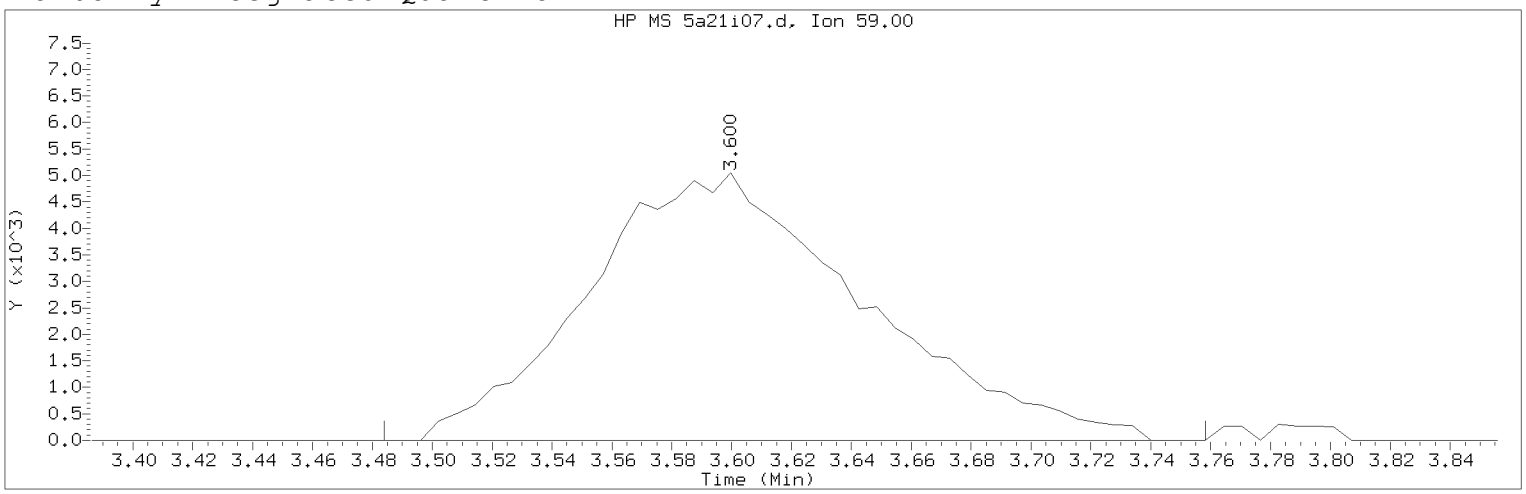
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 352847
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

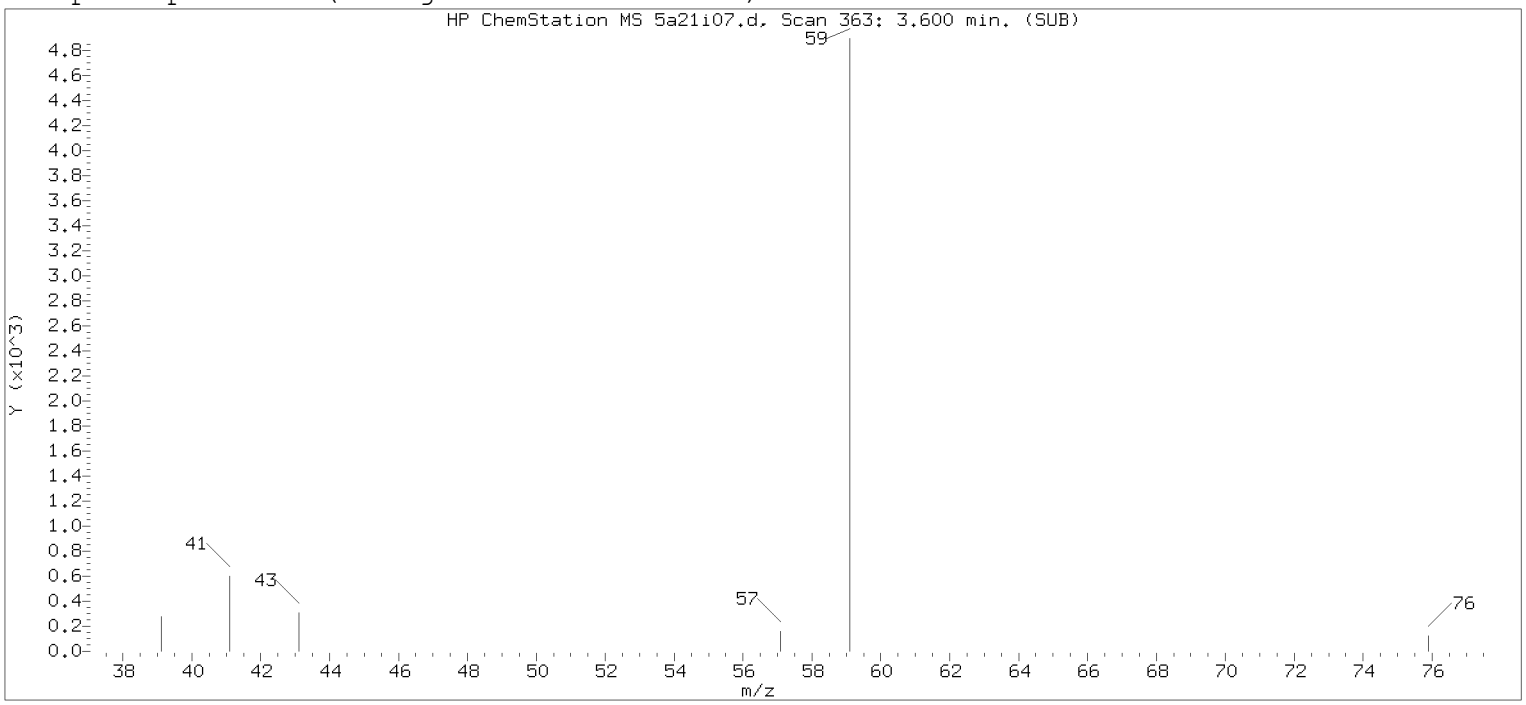
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area (flag) : 32314M
On-Column Amount (ng) : 18.9767
Integration start scan : 343 Integration stop scan: 388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

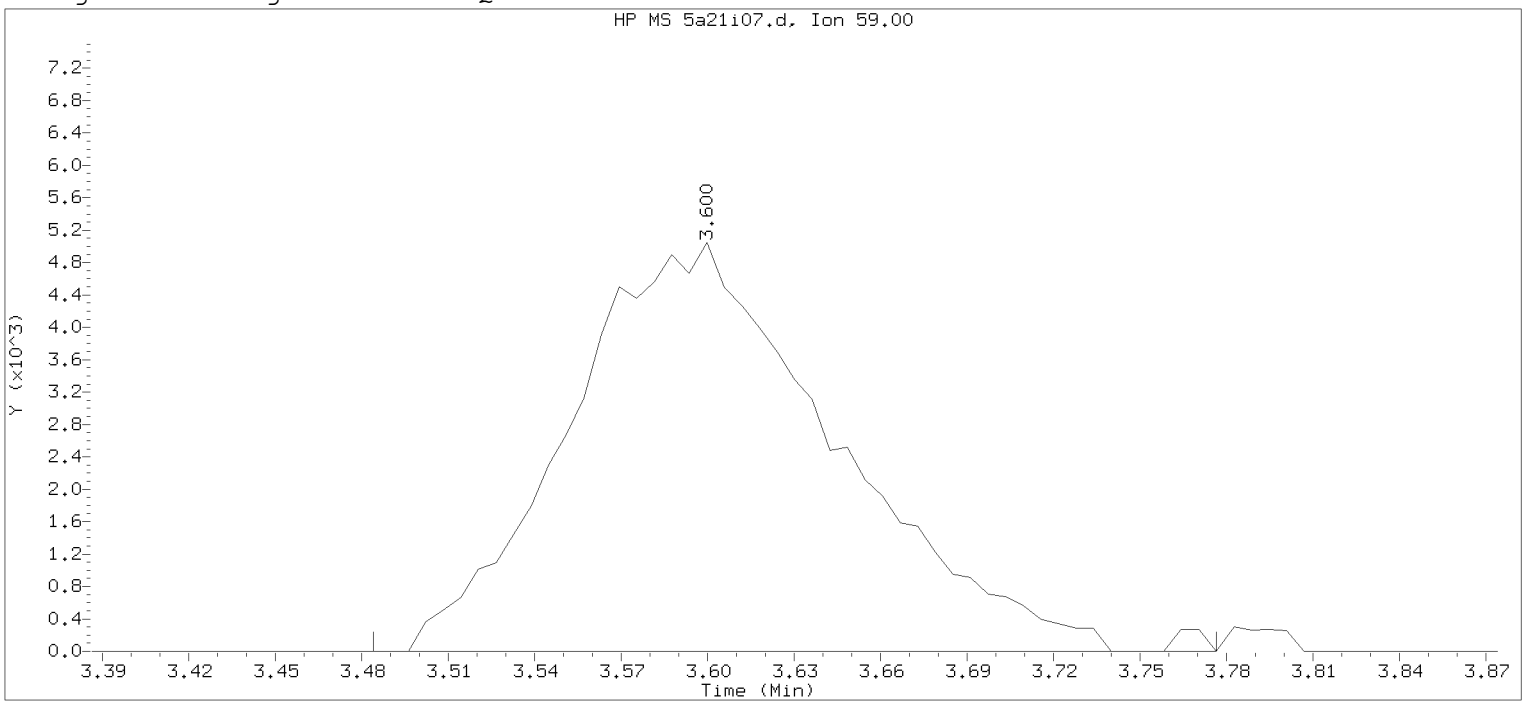
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

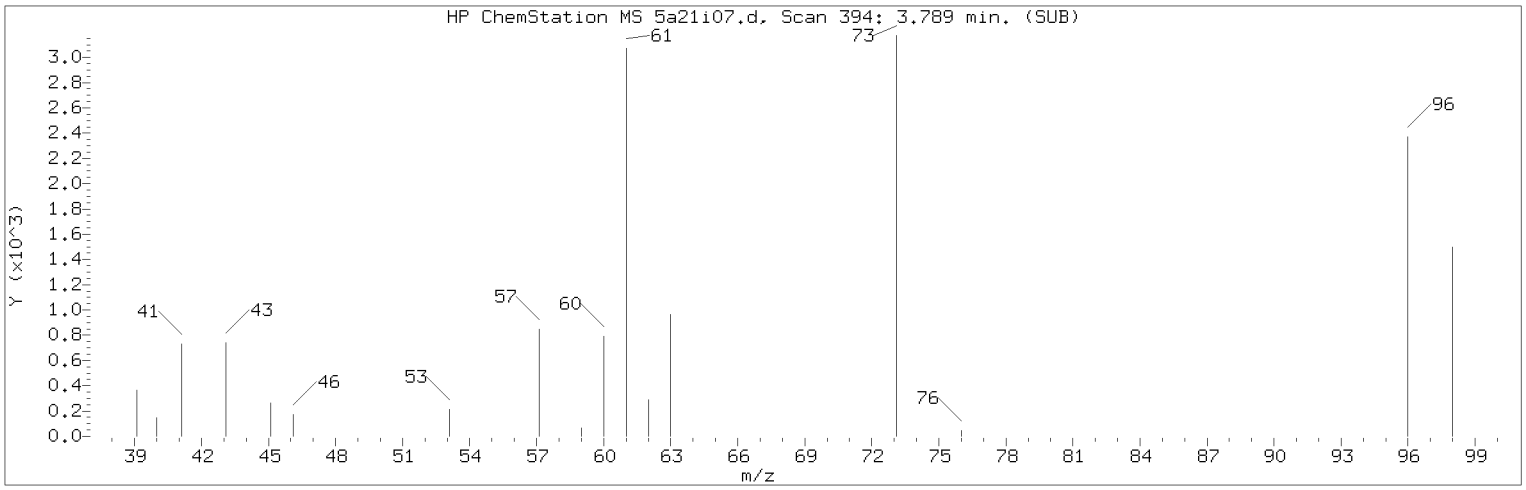
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

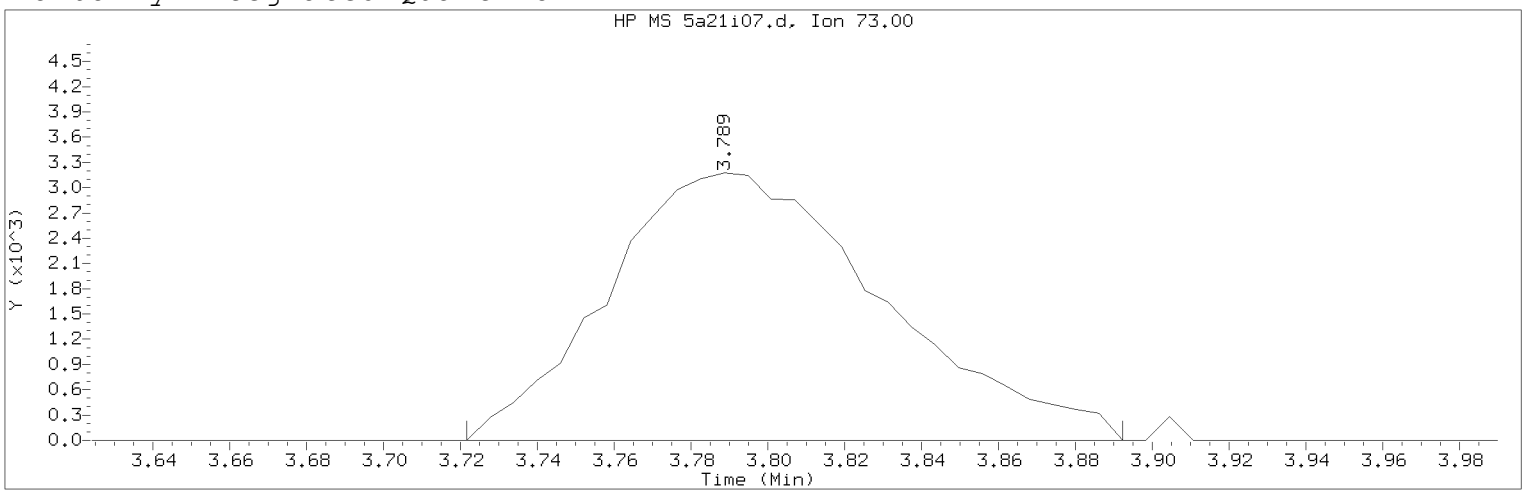
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 363
Retention Time (minutes): 3.600
Quant Ion : 59.00
Area : 32510
On-column Amount (ng) : 19.0163
Integration start scan : 343 Integration stop scan: 391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

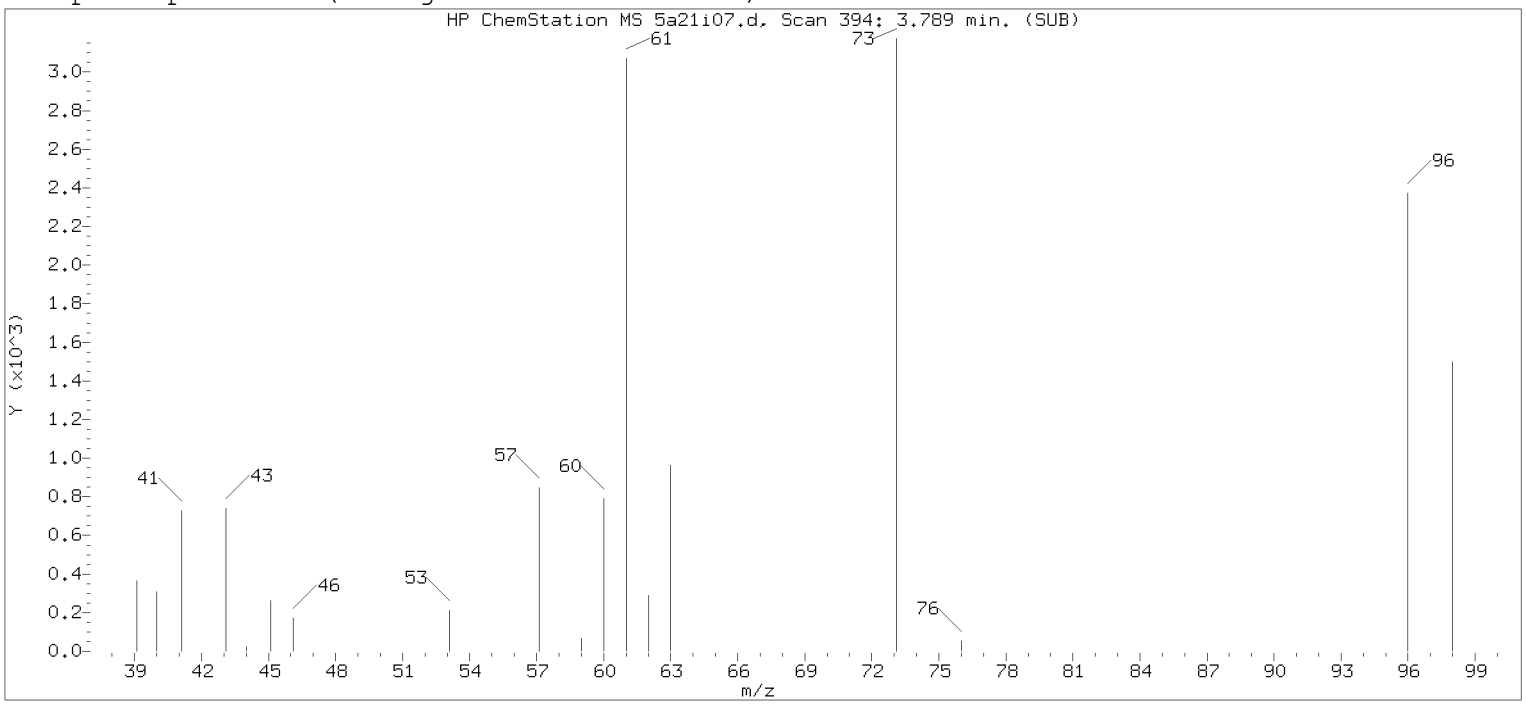
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area (flag) : 15820M
On-Column Amount (ng) : 0.9261
Integration start scan : 382 Integration stop scan: 410
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

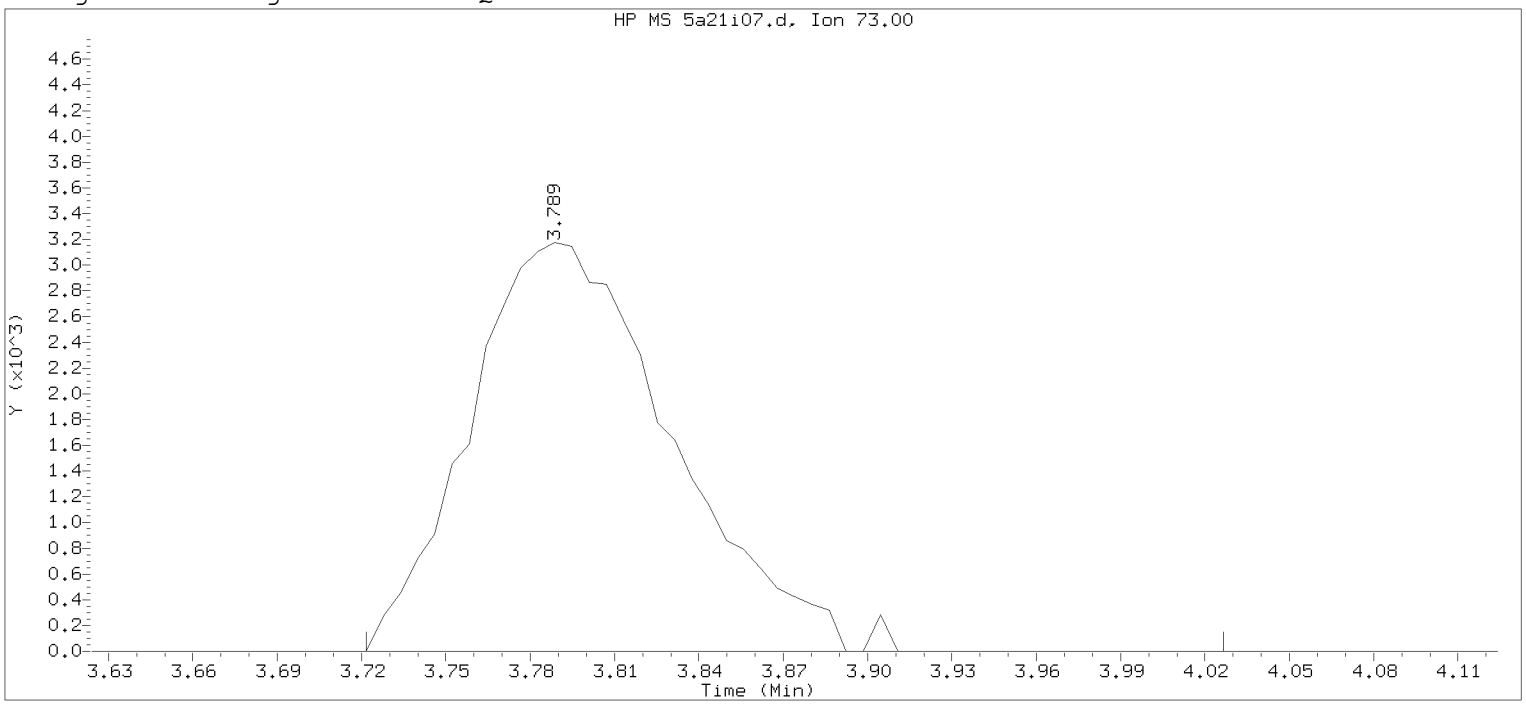
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

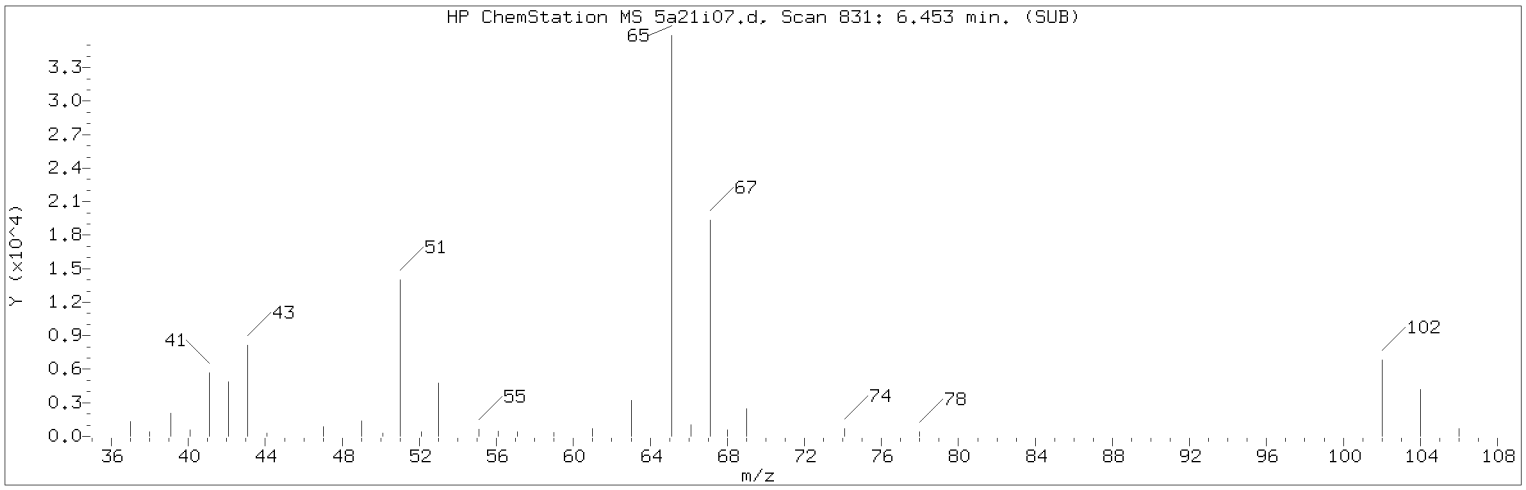
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

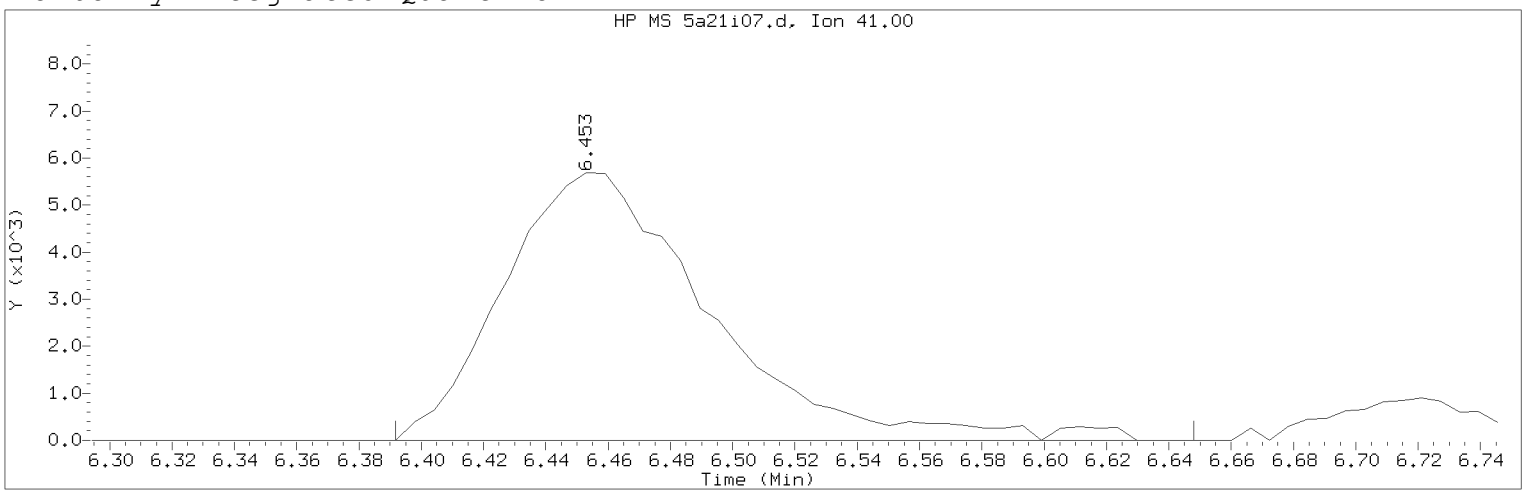
Compound Number : 33
Compound Name : Methyl Tertiary Butyl Ether
Scan Number : 394
Retention Time (minutes): 3.789
Quant Ion : 73.00
Area : 15924
On-column Amount (ng) : 0.9314
Integration start scan : 382 Integration stop scan: 432
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

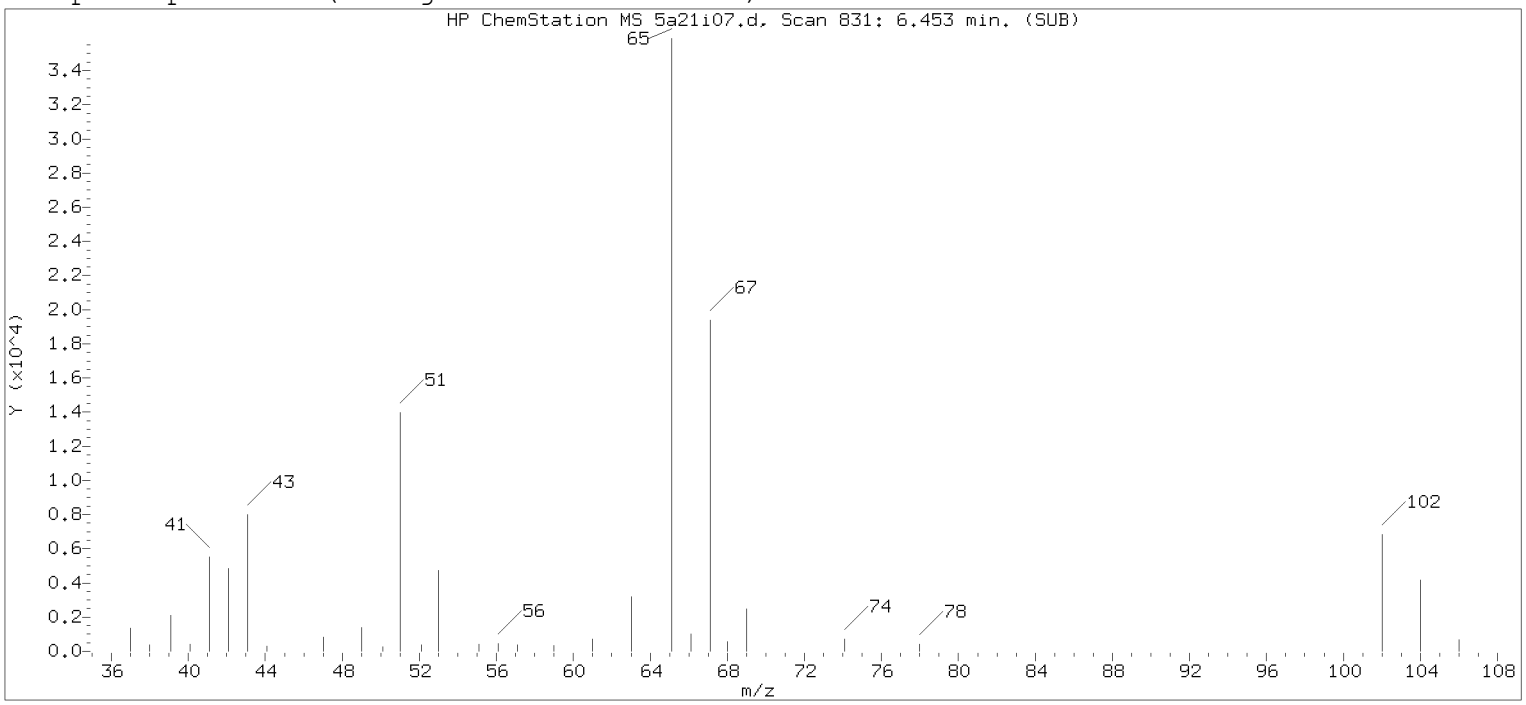
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area (flag) : 26237M
On-Column Amount (ng) : 46.2246
Integration start scan : 820 Integration stop scan: 862
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

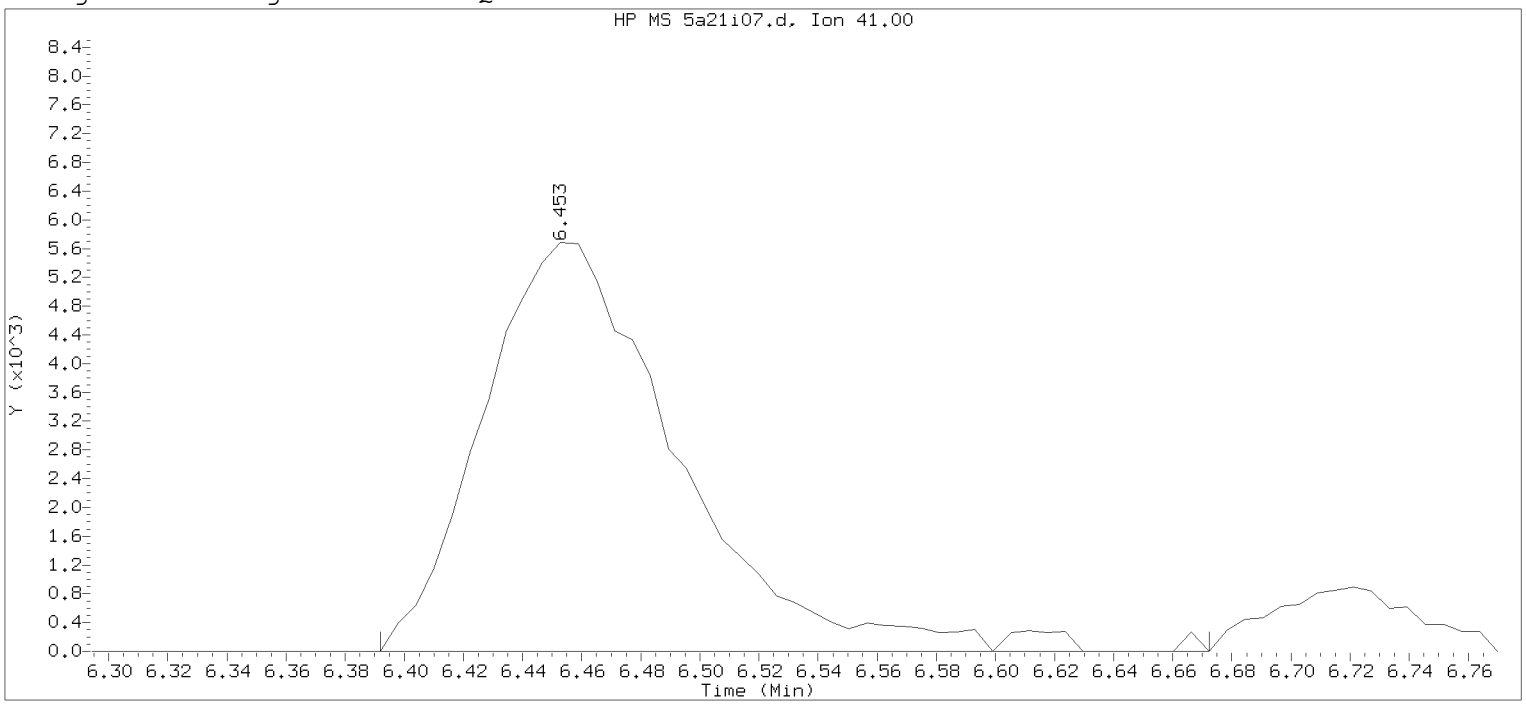
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

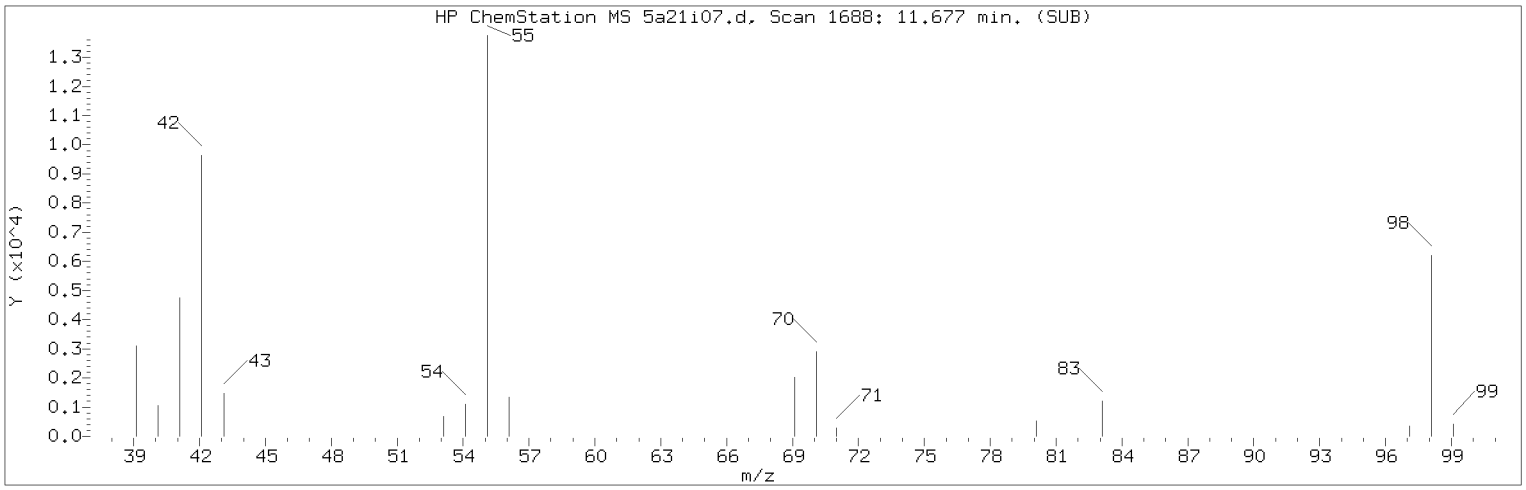
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

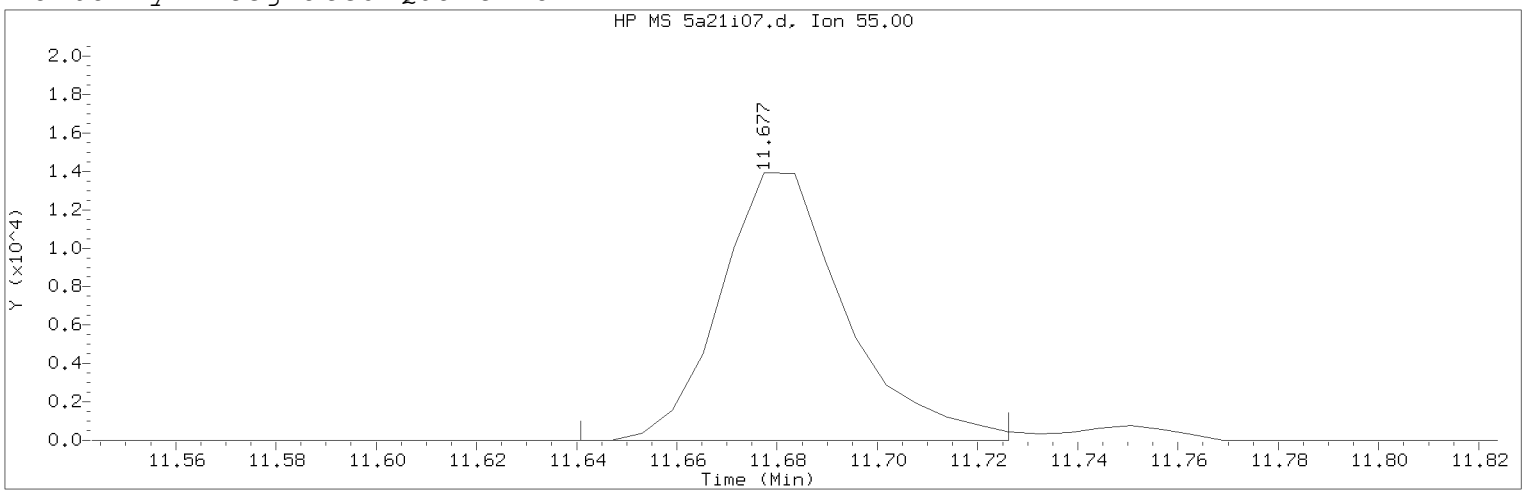
Compound Number : 58
Compound Name : Isobutyl Alcohol
Scan Number : 831
Retention Time (minutes): 6.453
Quant Ion : 41.00
Area : 26334
On-column Amount (ng) : 46.6405
Integration start scan : 820 Integration stop scan: 866
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

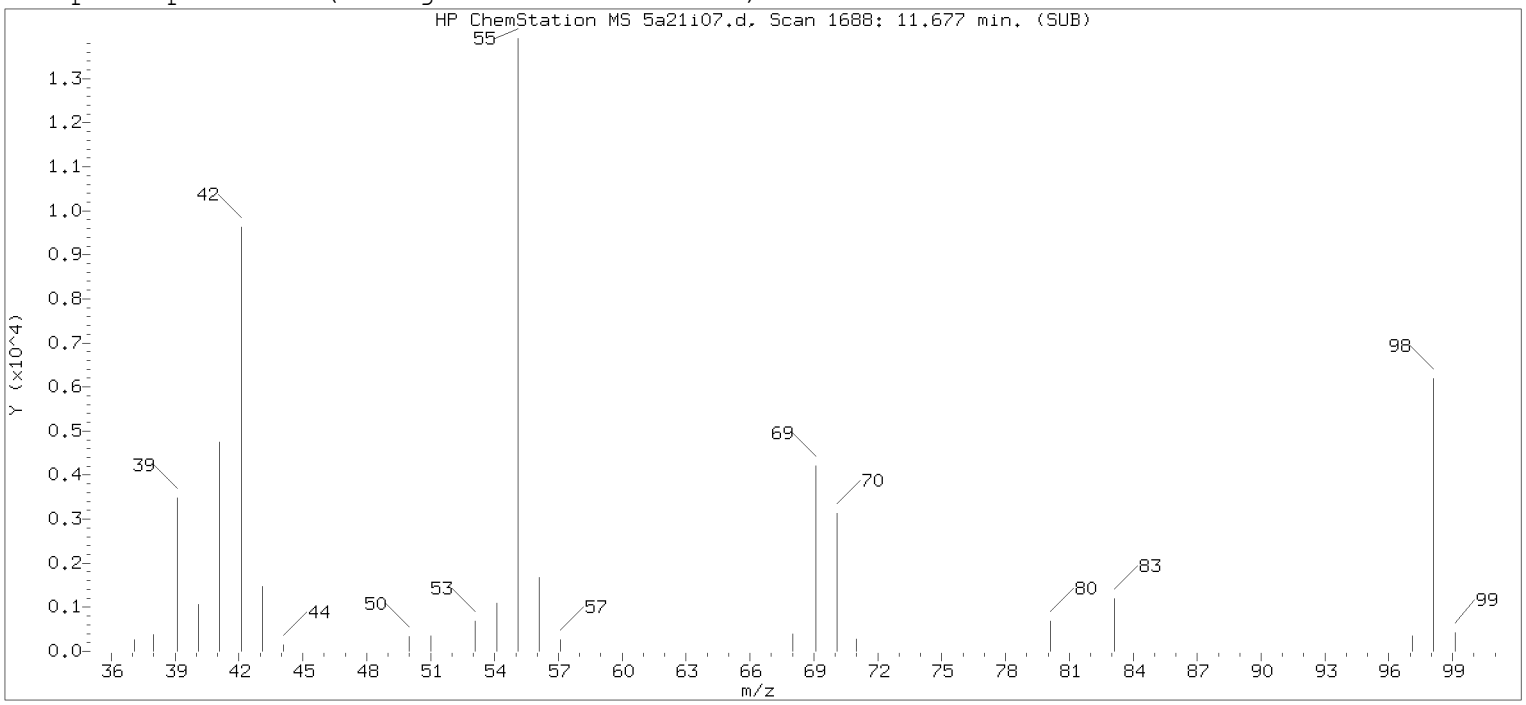
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area (flag) : 24191M
On-Column Amount (ng) : 43.3520
Integration start scan : 1681 Integration stop scan: 1695
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

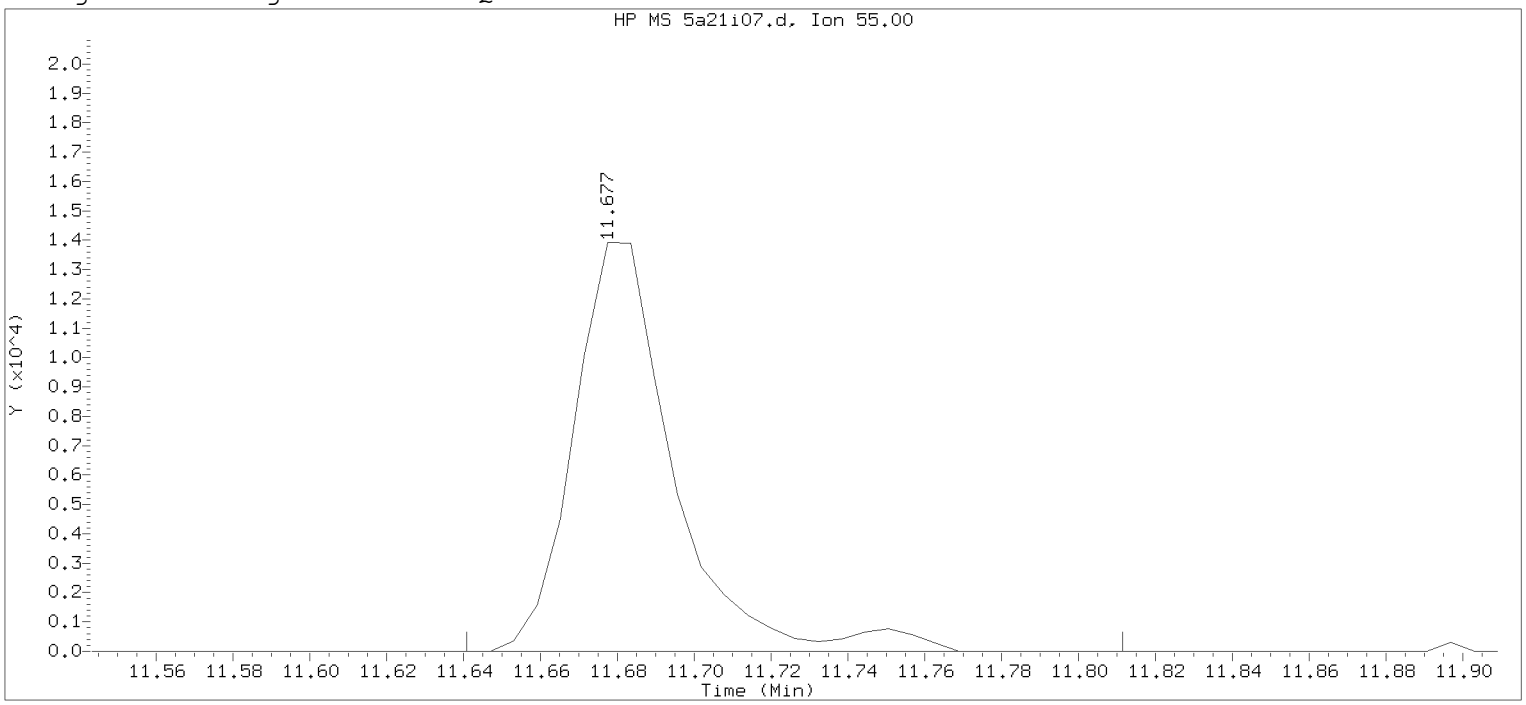
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

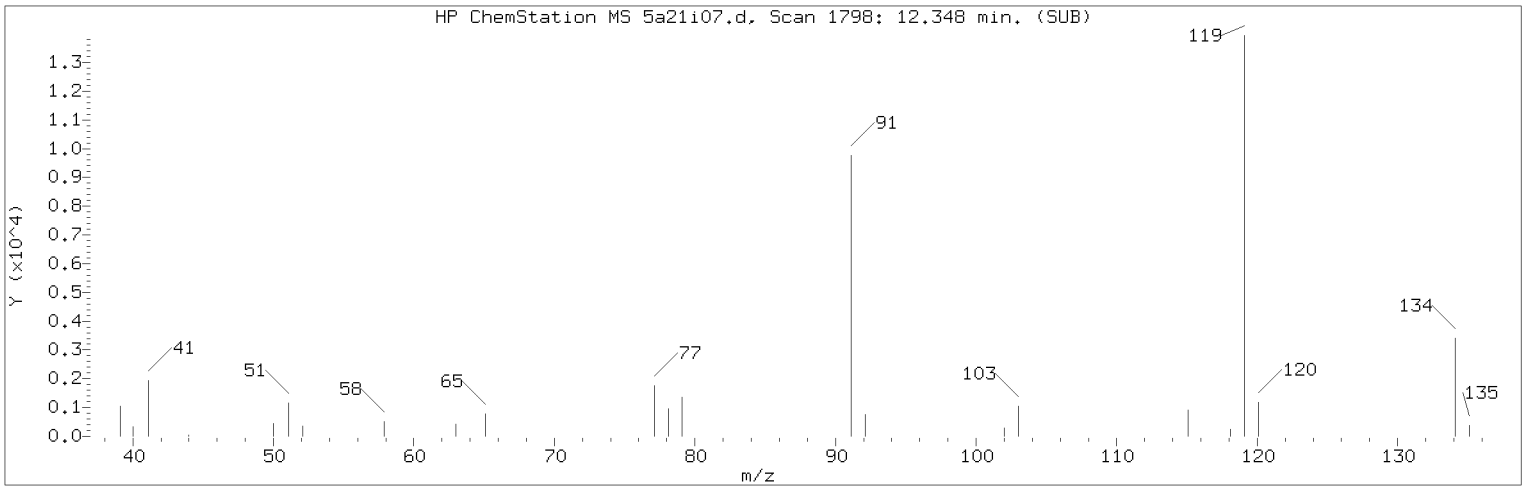
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

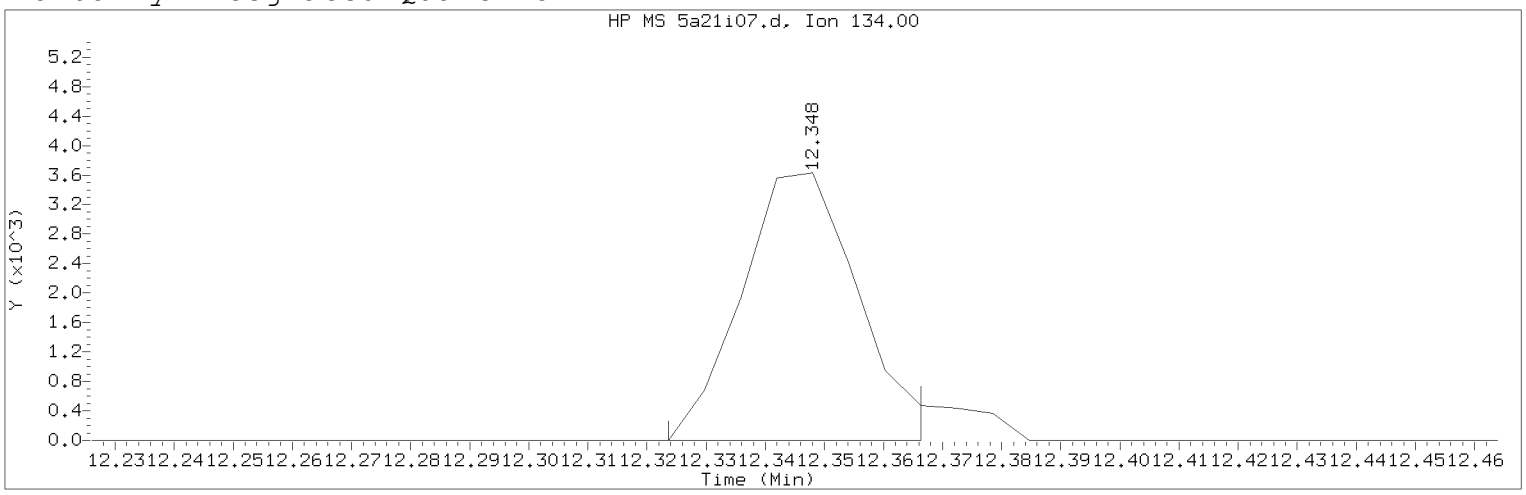
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1688
Retention Time (minutes): 11.677
Quant Ion : 55.00
Area : 25283
On-column Amount (ng) : 45.3144
Integration start scan : 1681 Integration stop scan: 1709
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

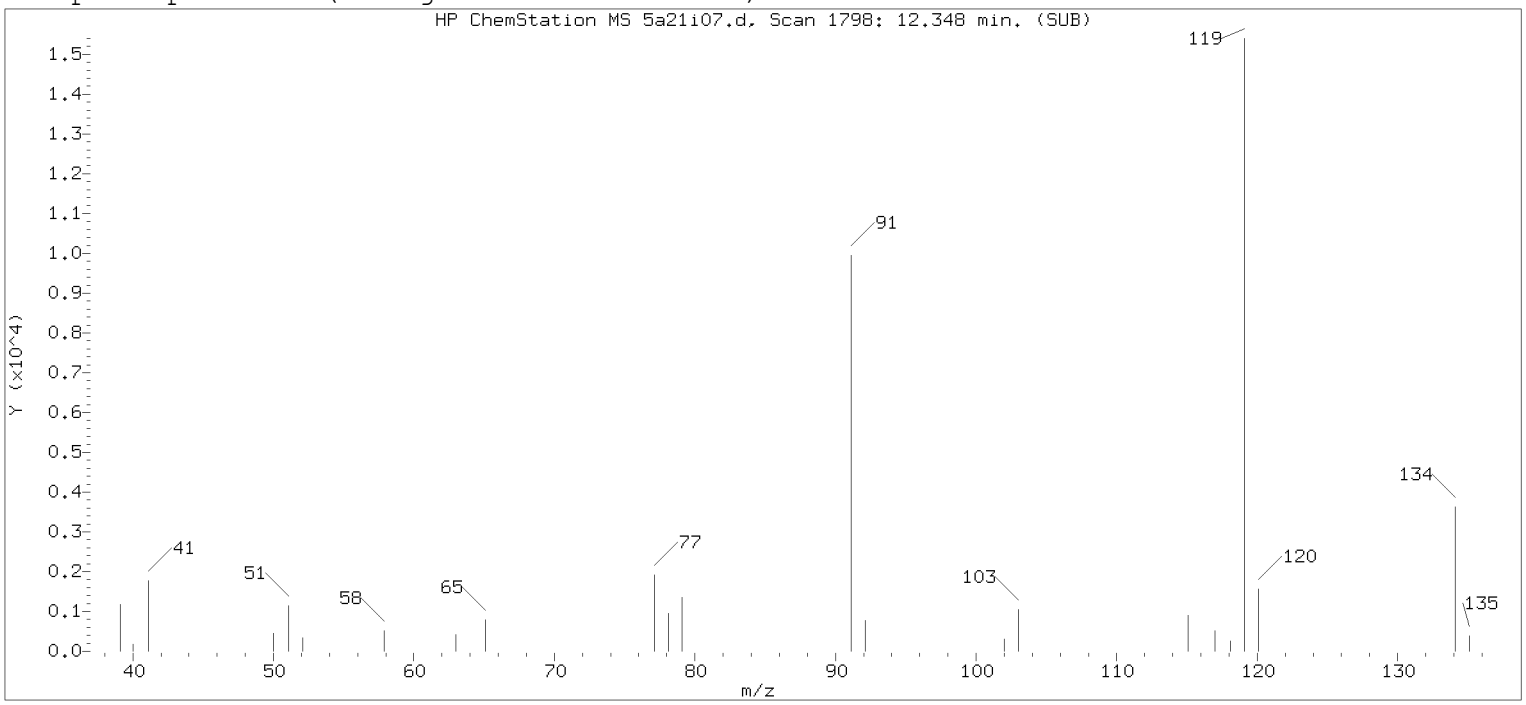
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area (flag) : 4987M
On-Column Amount (ng) : 0.9049
Integration start scan : 1793 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

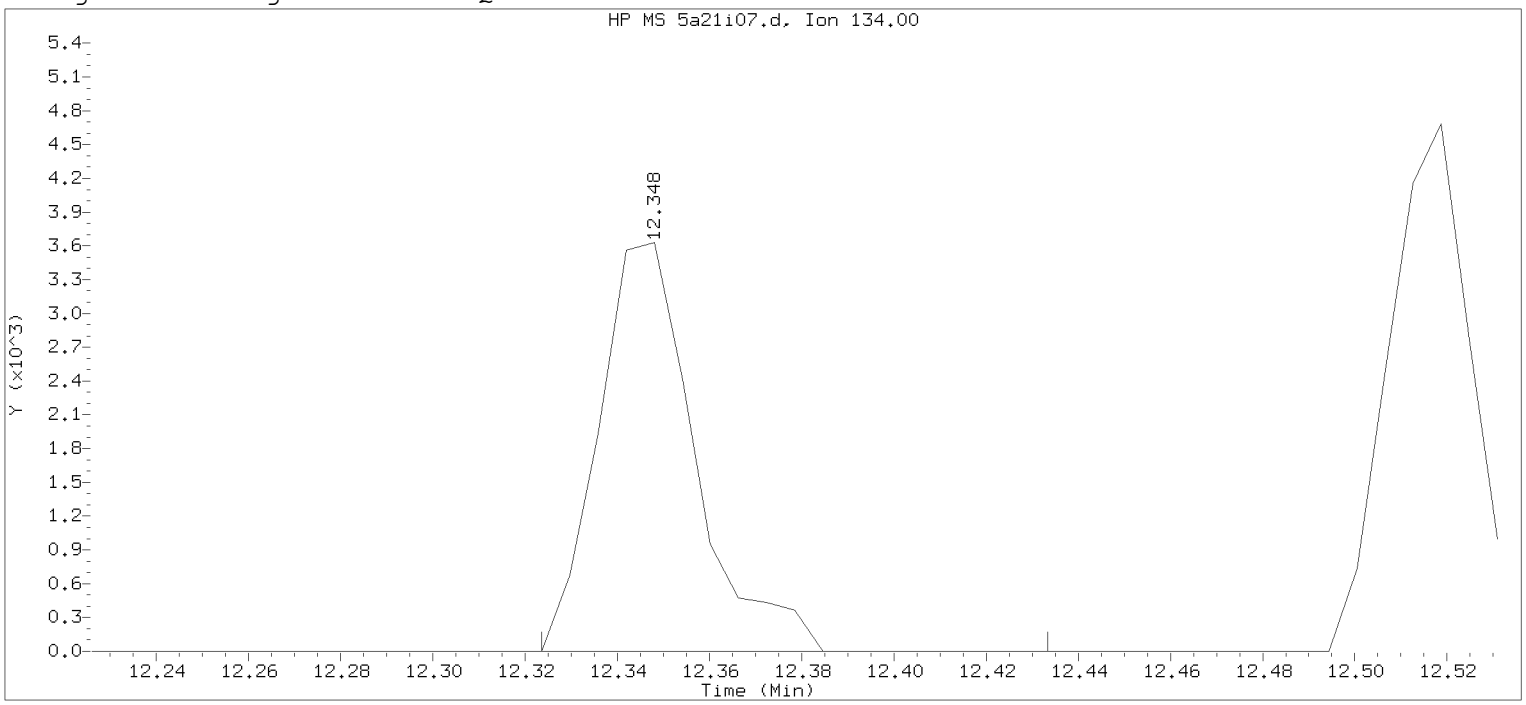
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

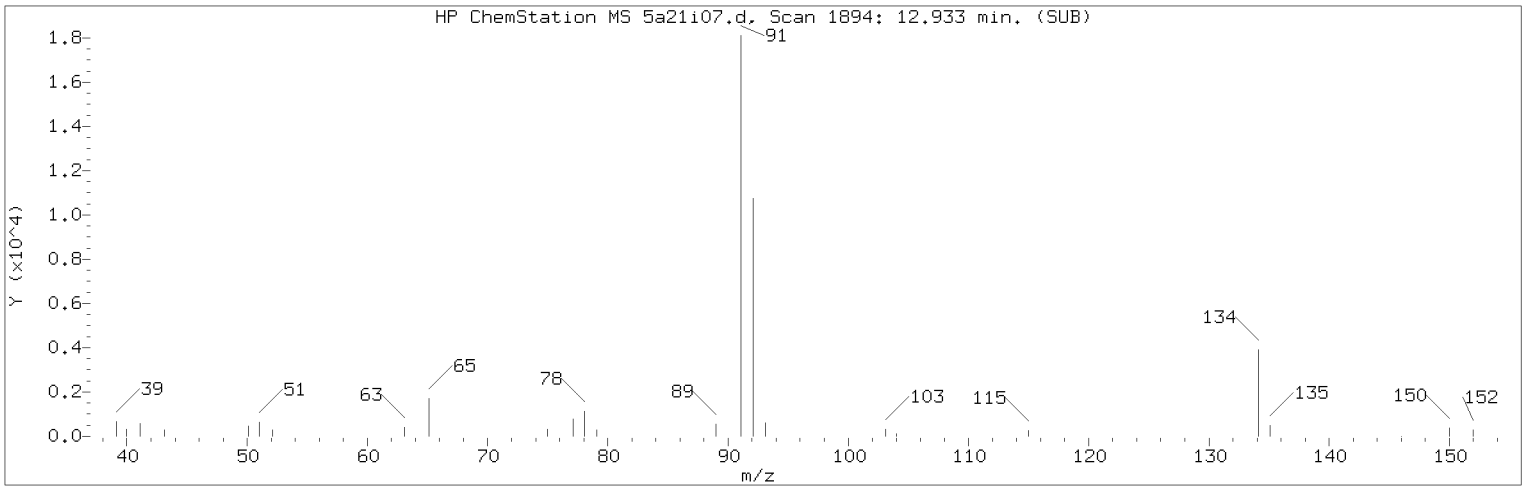
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

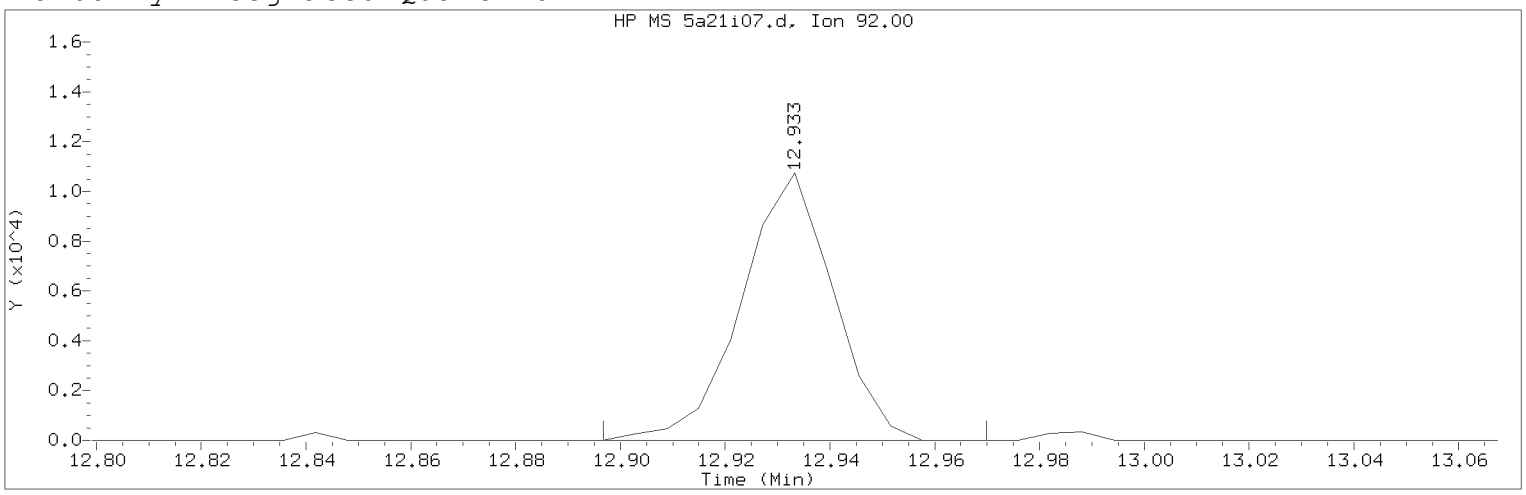
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1798
Retention Time (minutes): 12.348
Quant Ion : 134.00
Area : 5280
On-column Amount (ng) : 0.9008
Integration start scan : 1793 Integration stop scan: 1811
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:25 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

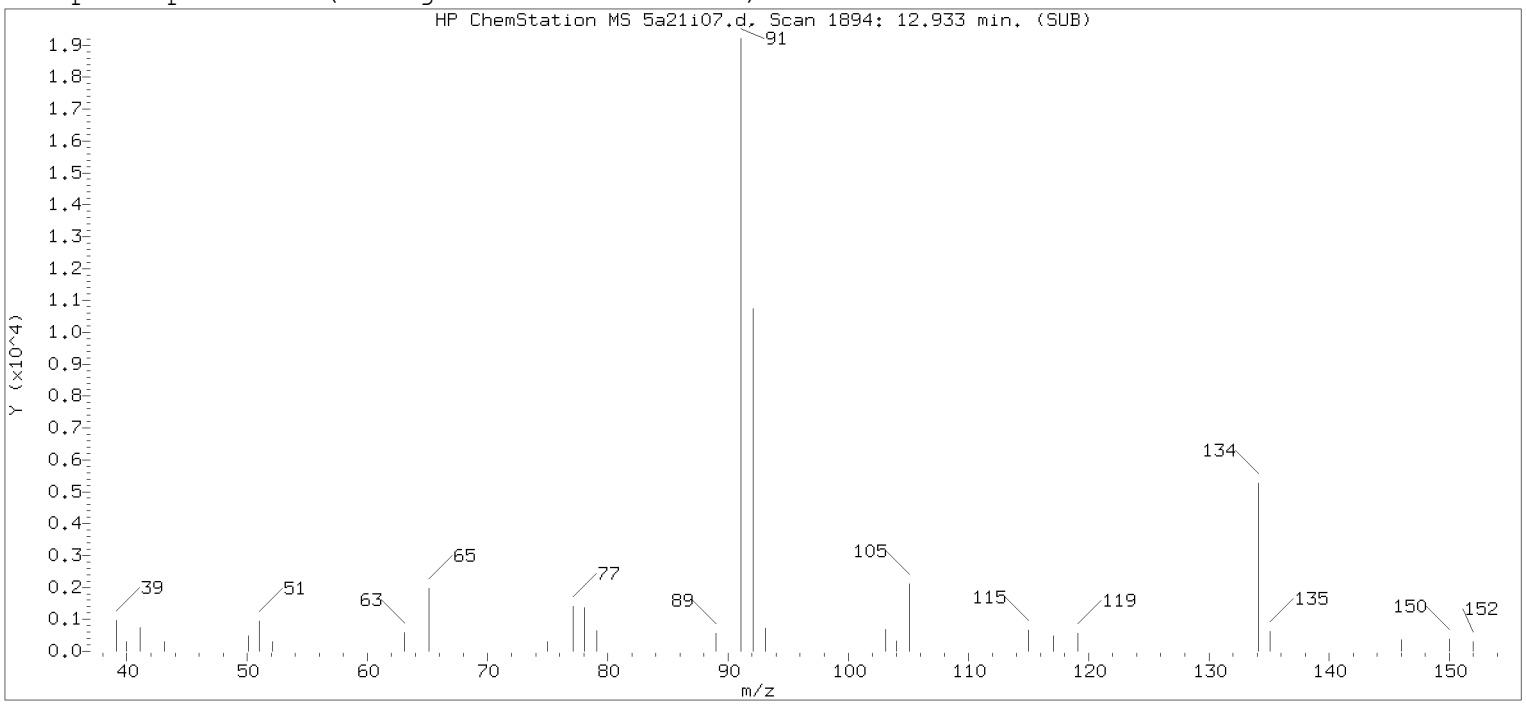
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area (flag) : 12995M
On-Column Amount (ng) : 0.8985
Integration start scan : 1887 Integration stop scan: 1899
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

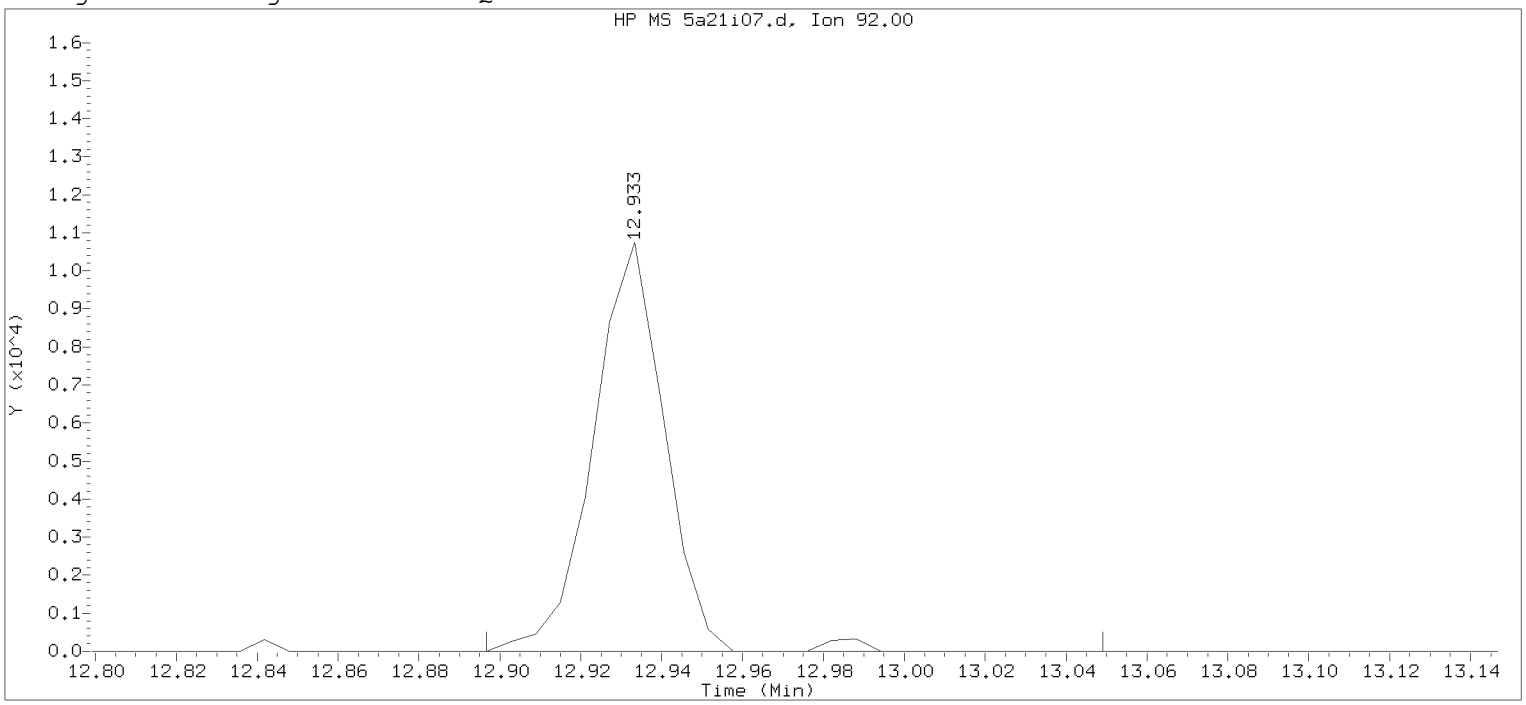
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



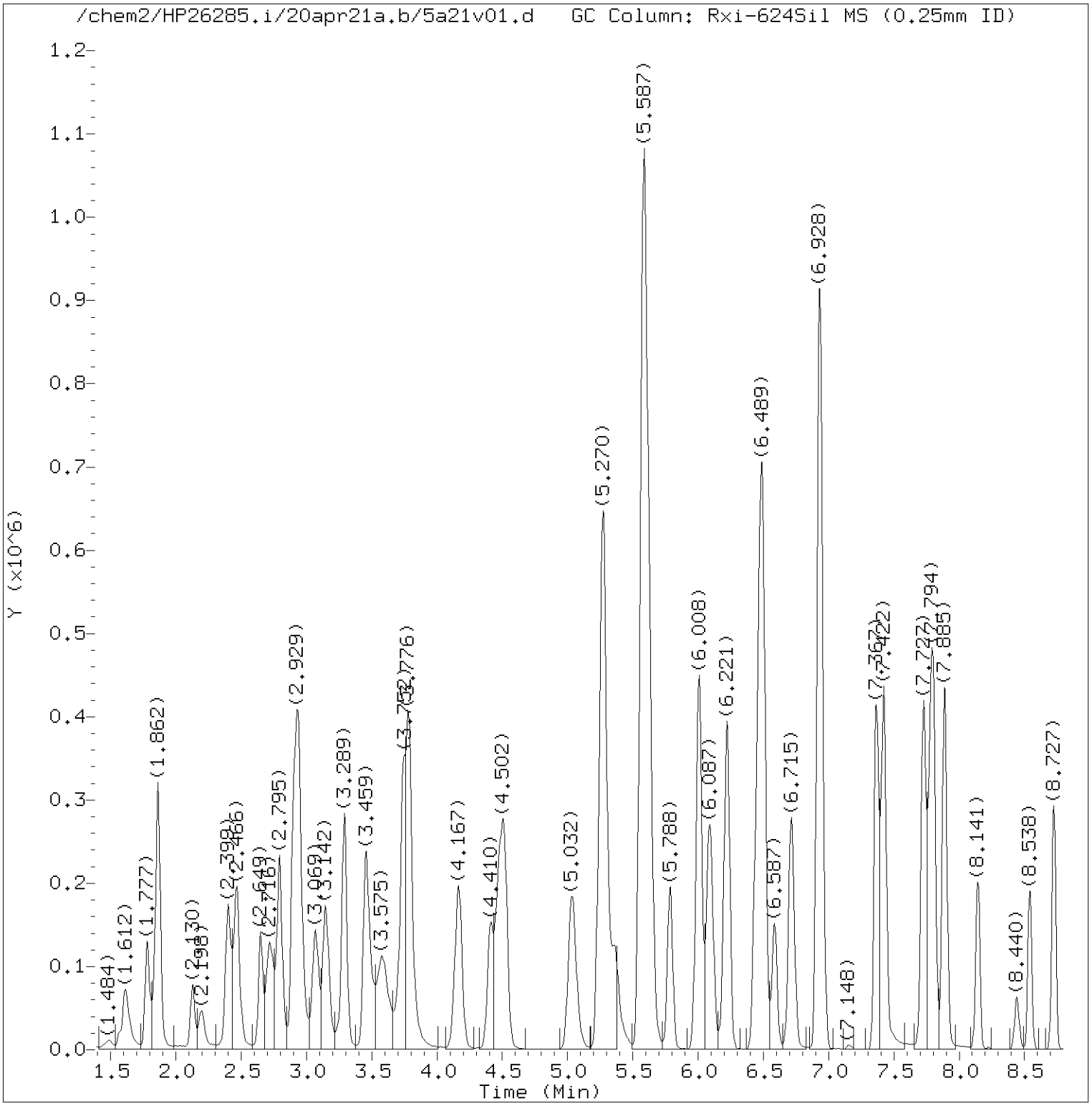
Data File: /chem2/HP26285.i/20apr21a.b/5a21i07.d Instrument ID: HP26285.i
Injection date and time: 21-APR-2020 23:23 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 06:40
Date, time and analyst ID of latest file update: 23-Apr-2020 06:40 clm27445

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1894
Retention Time (minutes): 12.933
Quant Ion : 92.00
Area : 13218
On-column Amount (ng) : 0.9120
Integration start scan : 1887 Integration stop scan: 1912
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 04/23/2020 at 07:26.
Target 3.5 esignature user: CLM27445



Total Ion Chromatogram (TIC)

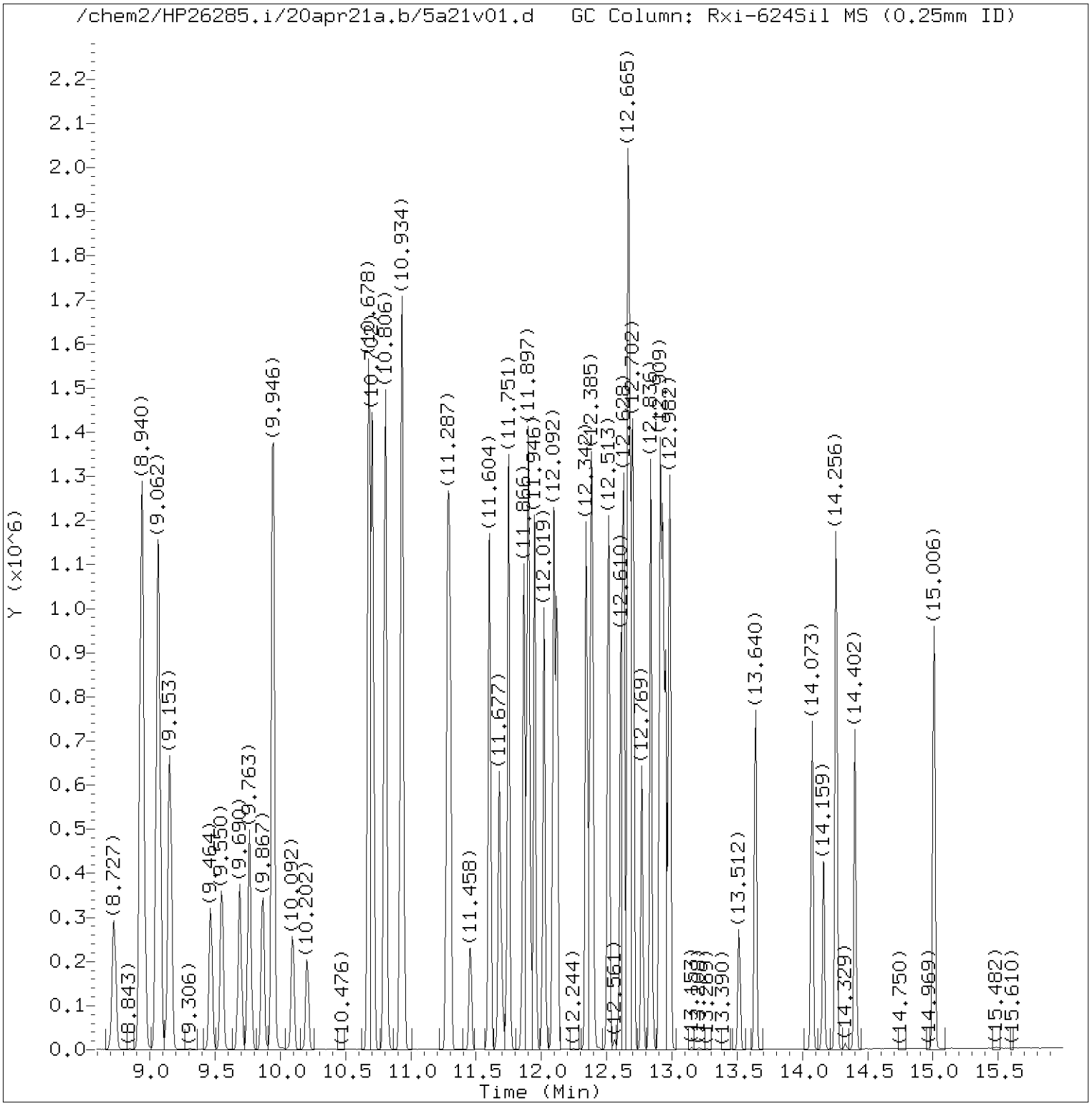
Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	153929	18.338
4) Chloromethane	(2)	1.777	50	142840	21.449
5) 1,3-Butadiene	(2)	1.856	39	175348	18.945
6) Vinyl Chloride	(2)	1.868	62	129473	21.984
8) Bromomethane	(2)	2.130	94	66235	16.751
9) Chloroethane	(2)	2.198	64	60087	21.549
10) Dichlorofluoromethane	(2)	2.399	67	189640	20.870
12) Trichlorofluoromethane	(2)	2.441	101	169578	23.510
11) n-Pentane	(2)	2.472	43	137590	20.493
14) Ethyl ether	(2)	2.649	59	98927	19.894
15) Freon 123a	(2)	2.716	67	156875	20.836
16) Acrolein	(1)	2.795	56	315459	136.518
17) 1,1-Dichloroethene	(2)	2.905	96	119026	21.239
18) Acetone	(1)	2.935	58	179400	157.417
19) Freon 113	(2)	2.935	101	135384	21.343
22) Methyl Iodide	(2)	3.069	142	211731	19.813
21) 2-Propanol	(1)	3.081	45	144837	156.180
23) Carbon Disulfide	(2)	3.142	76	389090	19.738
27) Methyl Acetate	(2)	3.277	43	174516	21.598
25) Allyl Chloride	(2)	3.295	41	208700	22.247
28) Methylene Chloride	(2)	3.453	84	130962	20.731
29)*t-Butyl alcohol-d10	(1)	3.484	65	364936M	250.000
30) t-Butyl alcohol	(1)	3.587	59	363942	211.727
31) Acrylonitrile	(2)	3.740	53	413194	96.882
33) Methyl Tertiary Butyl Ether	(2)	3.783	73	334830	20.187
32) trans-1,2-Dichloroethene	(2)	3.789	96	127049	20.260
34) n-Hexane	(2)	4.167	57	197244	21.213
36) 1,1-Dichloroethane	(2)	4.410	63	230235	20.282
38) di-Isopropyl ether	(2)	4.478	45	409230	20.184
39) 2-Chloro-1,3-butadiene	(2)	4.520	53	195245	20.245
40) Ethyl t-butyl ether	(2)	5.038	59	362275	20.127
44) 2-Butanone	(2)	5.264	43	925621	149.118
42) cis-1,2-Dichloroethene	(2)	5.276	96	151628	21.378
45) 2,2-Dichloropropane	(2)	5.282	77	191399	19.982
47) Propionitrile	(1)	5.368	54	279353	149.289
48) Methacrylonitrile	(2)	5.581	67	640971	150.902
49) Bromochloromethane	(2)	5.618	128	69450	21.379
50) Tetrahydrofuran	(1)	5.630	71	165640	97.943

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.788	83	228695	20.086
53) 1,1,1-Trichloroethane	(2)	6.002	97	204895	19.987
52)$Dibromofluoromethane	(2)	6.008	113	258345	50.042
54) Cyclohexane	(2)	6.087	56	237837	19.921
43) 1,2-Dichloroethene (Total)	(2)		96	278677	41.638
56) Carbon Tetrachloride	(2)	6.215	117	181425	20.284
55) 1,1-Dichloropropene	(2)	6.227	75	185502	19.975
58) Isobutyl Alcohol	(1)	6.453	41	282165	492.465
57)$1,2-Dichloroethane-d4	(2)	6.477	102	57776	50.038
60) Benzene	(2)	6.502	78	549206	19.890
61) 1,2-Dichloroethane	(2)	6.587	62	165650	19.532
65) t-Amyl methyl ether	(2)	6.715	73	363717	20.250
66)*Fluorobenzene	(2)	6.928	96	1036492	50.000
67) n-Heptane	(2)	6.947	43	171340	19.077
69) n-Butanol	(1)	7.367	56	485921	982.854
71) Trichloroethene	(2)	7.422	95	144668	19.965
73) Methylcyclohexane	(2)	7.727	83	246562	21.409
74) 1,2-Dichloropropane	(2)	7.776	63	141108	20.414
76) 1,4-Dioxane	(1)	7.867	88	63824M	520.439
75) Dibromomethane	(2)	7.885	93	87732	20.156
77) Methyl Methacrylate	(2)	7.892	69	134720	20.831
79) Bromodichloromethane	(2)	8.141	83	168466	19.960
80) 2-Nitropropane	(2)	8.440	41	54115	18.512
81) 2-Chloroethyl Vinyl Ether	(2)	8.538	63	107594	20.113
82) cis-1,3-Dichloropropene	(2)	8.727	75	209585	19.651
83) 4-Methyl-2-pentanone	(2)	8.940	43	1181742	98.773
84)$Toluene-d8	(3)	9.062	98	996070	50.667
89) Toluene	(3)	9.153	92	354959	20.477
90) trans-1,3-Dichloropropene	(3)	9.464	75	185163	19.908
92) Ethyl Methacrylate	(3)	9.550	69	202199	19.119
93) 1,1,2-Trichloroethane	(3)	9.690	97	128978	20.812
94) Tetrachloroethene	(3)	9.763	166	155797	21.191
95) 1,3-Dichloropropane	(3)	9.867	76	204418	19.866
97) 2-Hexanone	(3)	9.940	43	956228	103.826
91) 1,3-Dichloropropene (total)	(3)		100	394748	39.559
98) Dibromochloromethane	(3)	10.092	129	136958	20.885
100) 1,2-Dibromoethane	(3)	10.202	107	139008	20.347
101)*Chlorobenzene-d5	(3)	10.678	117	799942	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	388499	20.651
102) 1-Chlorohexane	(3)	10.708	91	200269	19.866
104) 1,1,1,2-Tetrachloroethane	(3)	10.800	131	133789	20.614
105) Ethylbenzene	(3)	10.806	91	694156	20.710
107) m+p-Xylene	(3)	10.934	106	542472	42.184
108) o-Xylene	(3)	11.281	106	262207	20.832
110) Styrene	(3)	11.299	104	428010	21.099
111) Bromoform	(3)	11.458	173	94256	19.866
112) Isopropylbenzene	(3)	11.604	105	695740	21.063
113) Cyclohexanone	(1)	11.677	55	268497	476.659
115)$4-Bromofluorobenzene	(3)	11.751	95	406882	49.122
109) Xylene (Total)	(3)		106	804679	63.015
116) Bromobenzene	(4)	11.866	156	162891	20.782
117) 1,1,2,2-Tetrachloroethane	(4)	11.872	83	221731	20.847
119) trans-1,4-Dichloro-2-butene	(4)	11.897	53	197086	95.682
118) 1,2,3-Trichloropropane	(4)	11.909	110	64916	20.727
120) n-Propylbenzene	(4)	11.946	91	818744	21.246
121) 2-Chlorotoluene	(4)	12.019	126	161976	20.506
123) 1,3,5-Trimethylbenzene	(4)	12.092	105	567082	20.934
122) 4-Chlorotoluene	(4)	12.116	126	164921	20.669
125) tert-Butylbenzene	(4)	12.342	134	112503M	20.897
126) Pentachloroethane	(4)	12.372	167	96008	21.722
127) 1,2,4-Trimethylbenzene	(4)	12.391	105	576776	20.675
128) sec-Butylbenzene	(4)	12.513	105	700610	20.860
130) 1,3-Dichlorobenzene	(4)	12.610	146	303723	20.601
131) p-Isopropyltoluene	(4)	12.628	119	588086	20.997
132)*1,4-Dichlorobenzene-d4	(4)	12.665	152	411145	50.000
134) 1,4-Dichlorobenzene	(4)	12.683	146	311579	20.825
135) 1,2,3-Trimethylbenzene	(4)	12.702	105	605473	22.612
136) Benzyl Chloride	(4)	12.769	91	369928	18.129
137) 1,3-Diethylbenzene	(4)	12.836	119	355013	21.937
138) 1,4-Diethylbenzene	(4)	12.909	119	366890	21.919
140) n-Butylbenzene	(4)	12.927	92	289999	20.527
139) 1,2-Dichlorobenzene	(4)	12.952	146	294834	20.819
141) 1,2-Diethylbenzene	(4)	12.982	119	297190	21.714
142) Diethylbenzene (total)	(4)		100	1019093	65.569
143) 1,2-Dibromo-3-chloropropane	(4)	13.512	75	54669	20.358
145) 1,3,5-Trichlorobenzene	(4)	13.640	180	189738	20.285

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

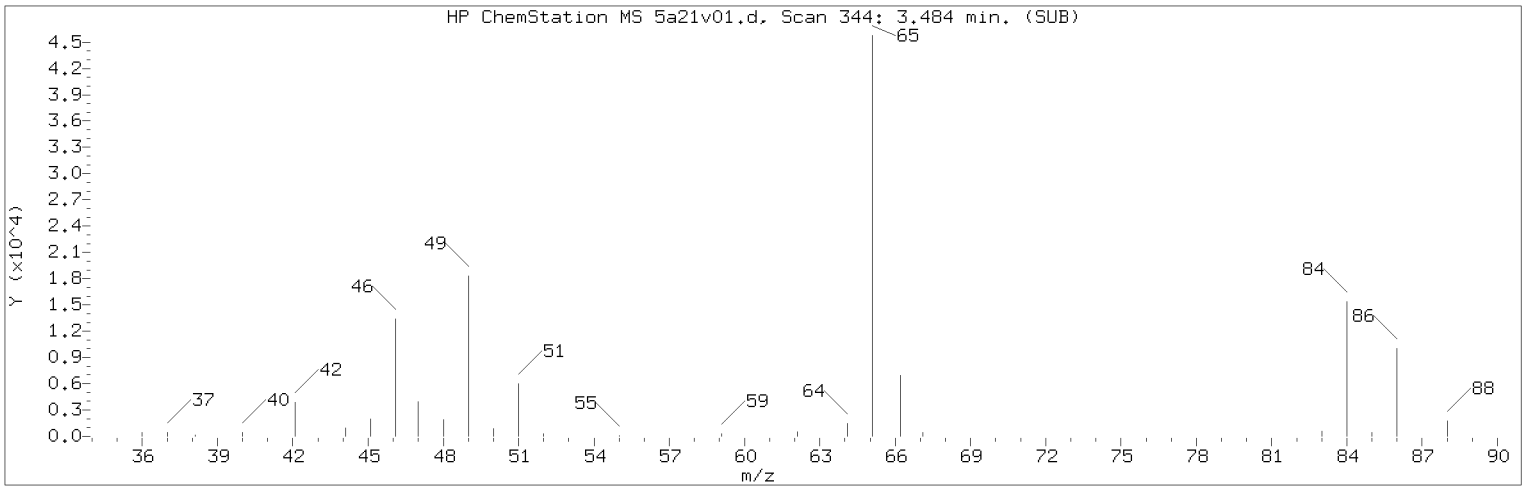
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

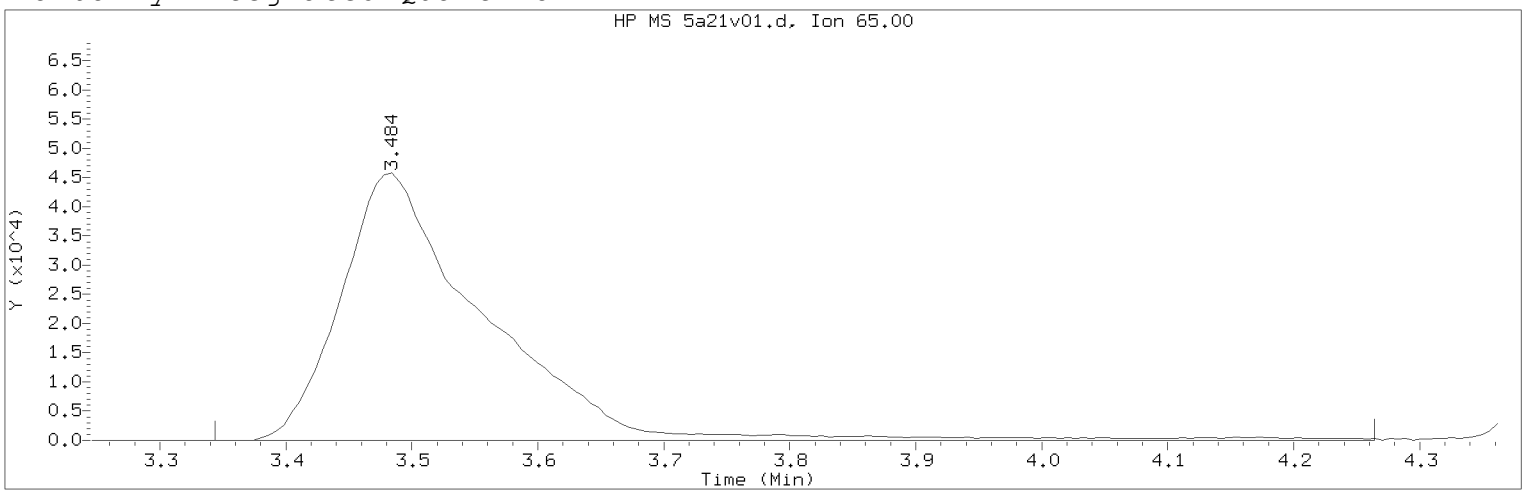
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) 1,2,4-Trichlorobenzene	(4)	14.073	180	180603	20.552
148) Hexachlorobutadiene	(4)	14.165	225	66276	19.611
149) Naphthalene	(4)	14.256	128	720292	20.699
150) 1,2,3-Trichlorobenzene	(4)	14.402	180	175964	20.235
151) 2-Methylnaphthalene	(4)	15.006	142	382869	21.177

Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

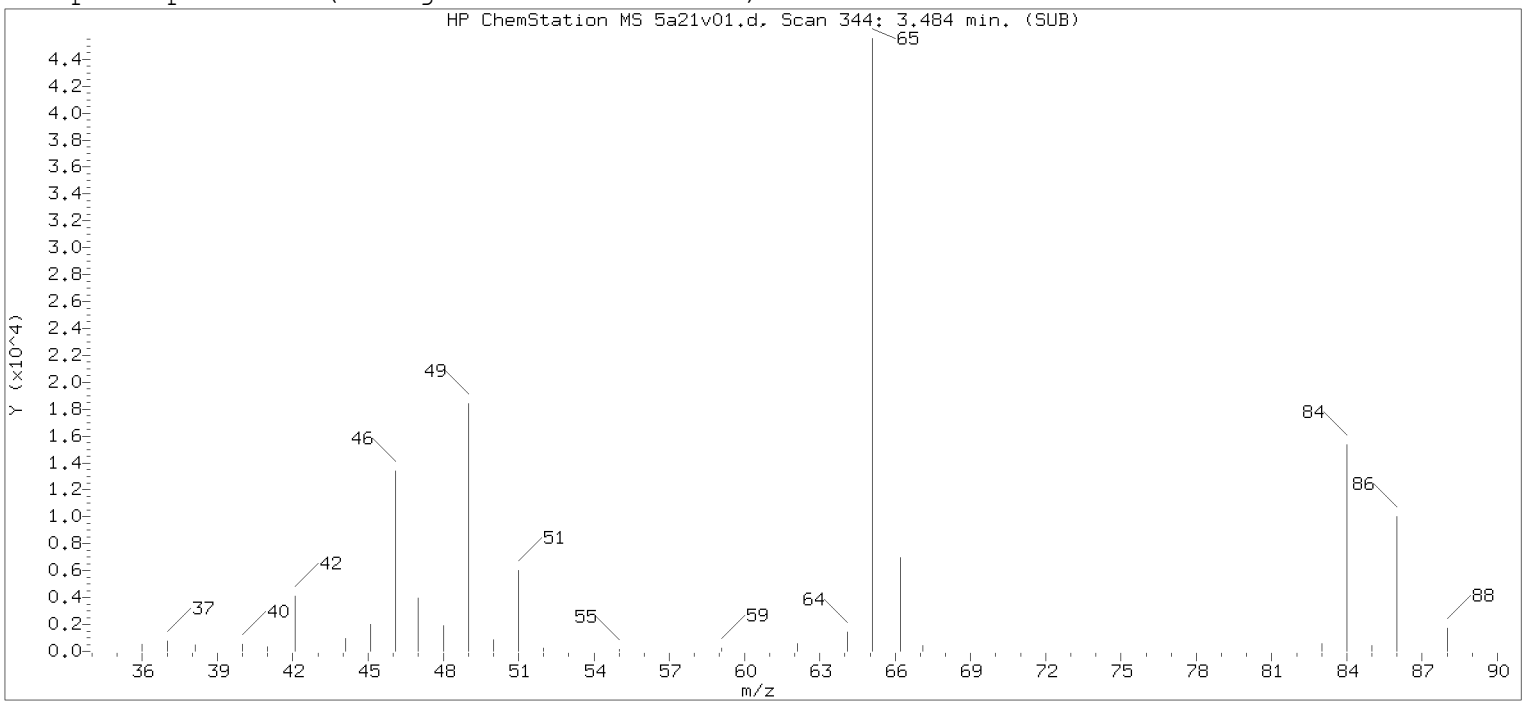
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area (flag) : 364936M
On-Column Amount (ng) : 250.0000
Integration start scan : 320 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

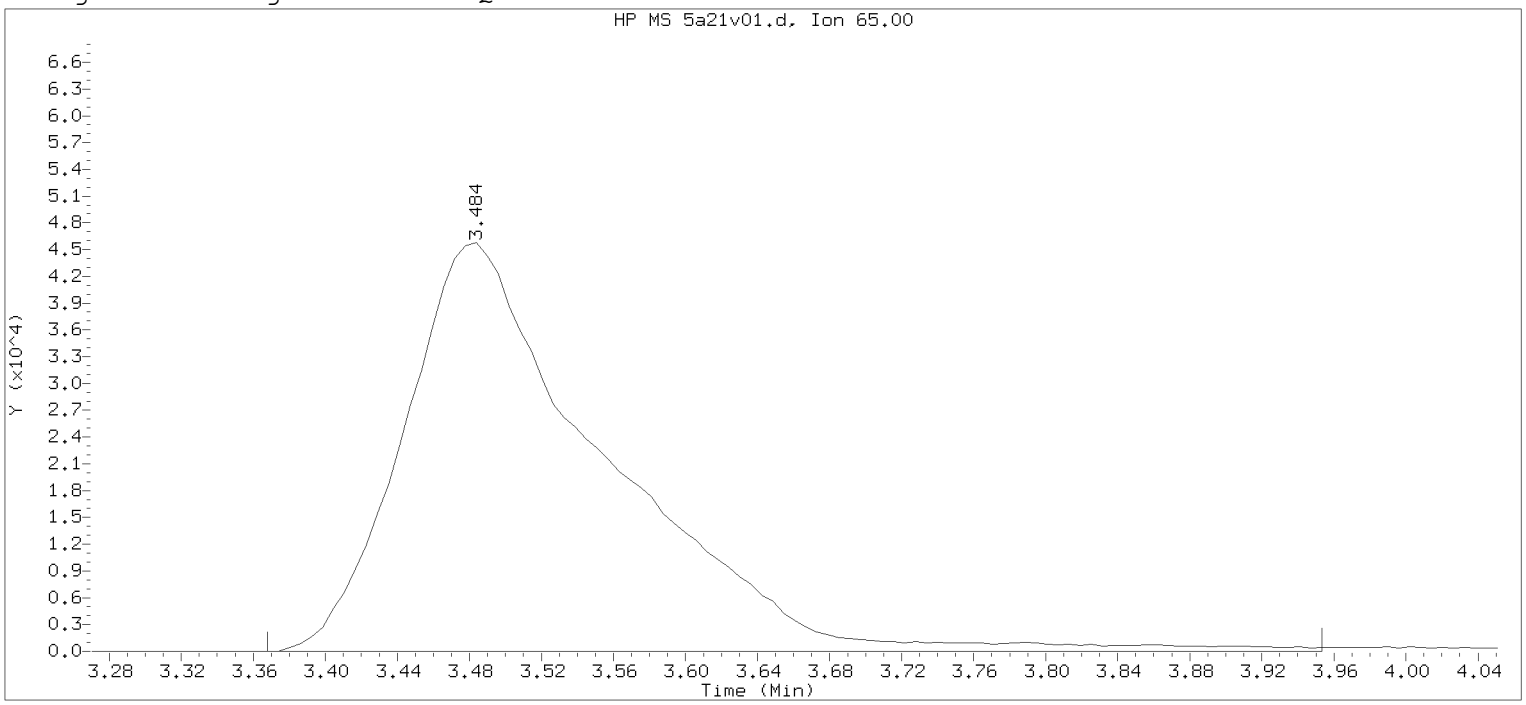
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

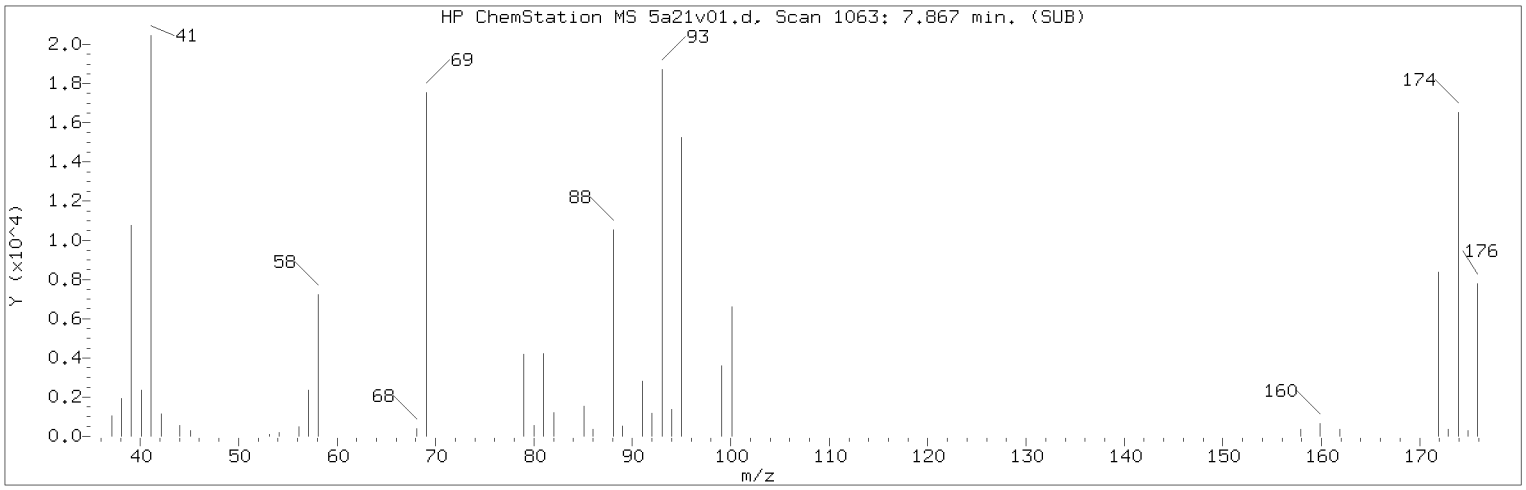
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

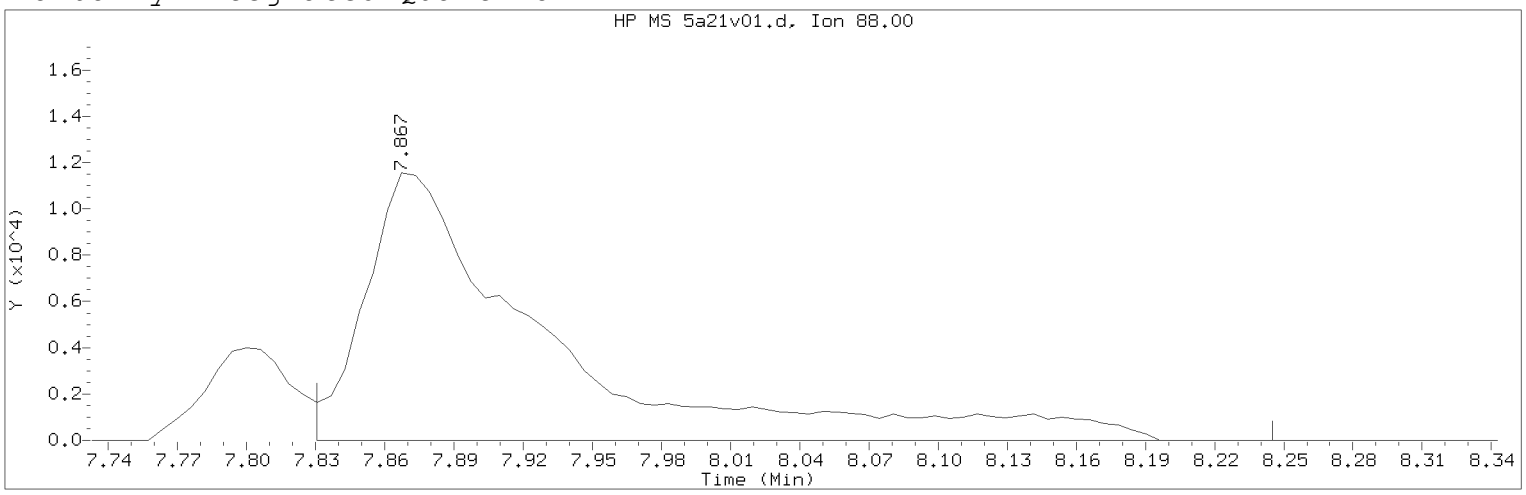
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 344
Retention Time (minutes): 3.484
Quant Ion : 65.00
Area : 357592
On-column Amount (ng) : 250.0000
Integration start scan : 324 Integration stop scan: 420
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user: KAS02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

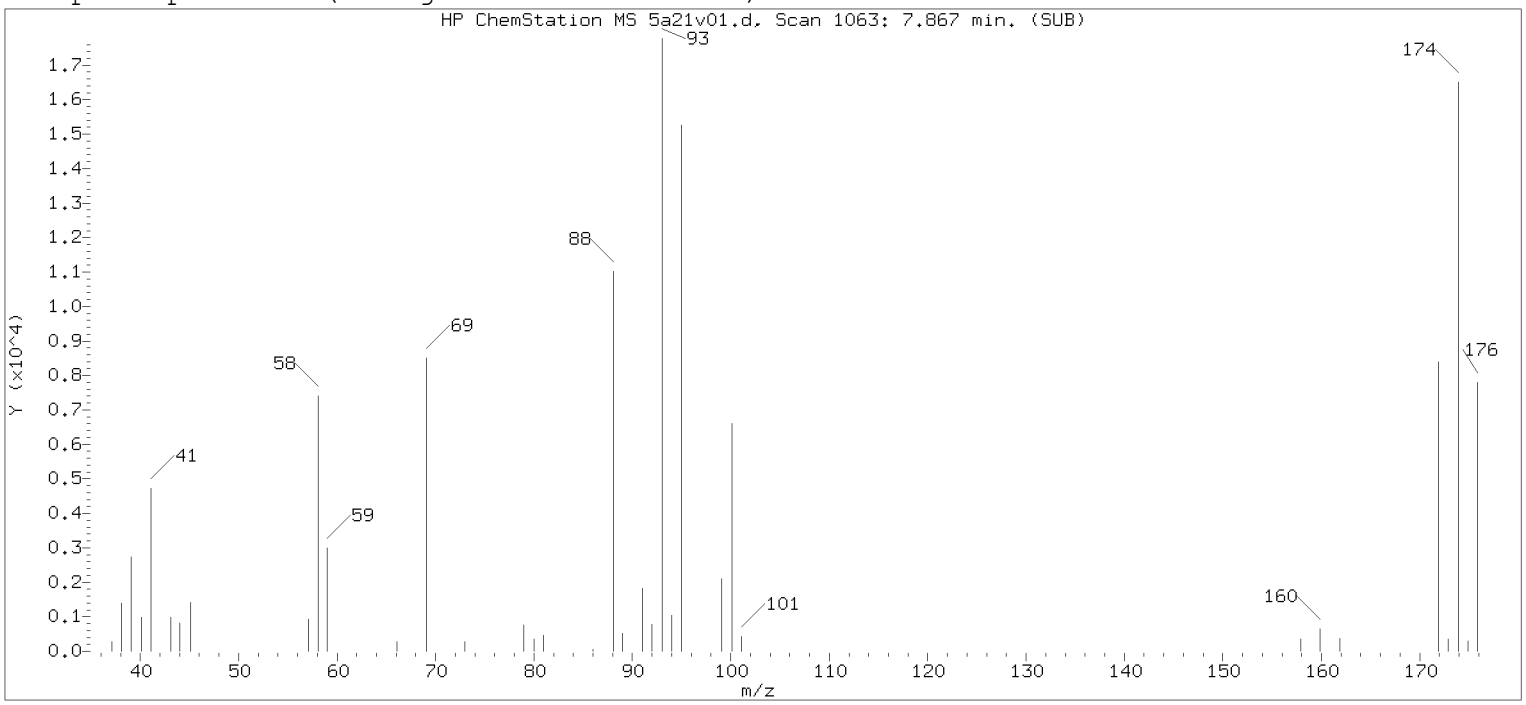
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area (flag) : 63824M
On-Column Amount (ng) : 520.4390
Integration start scan : 1056 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

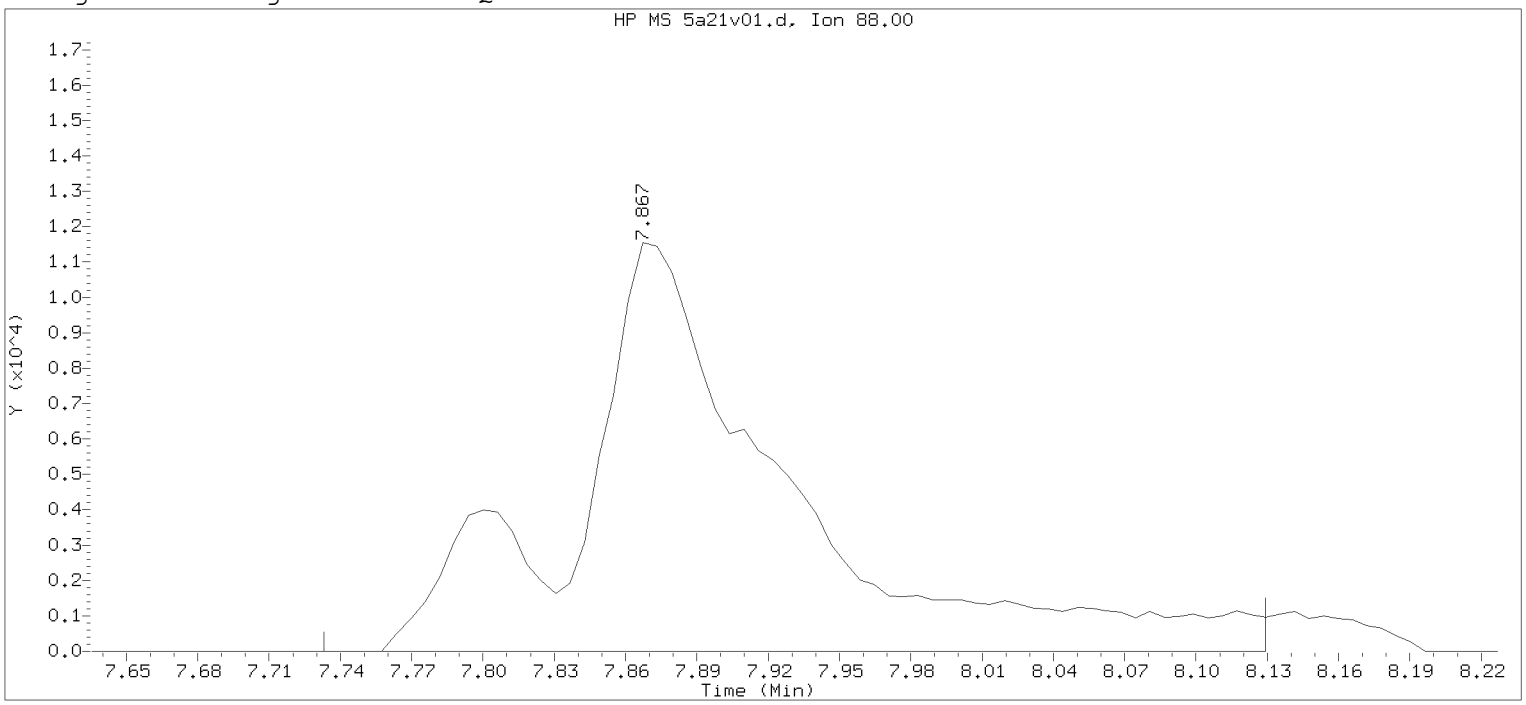
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

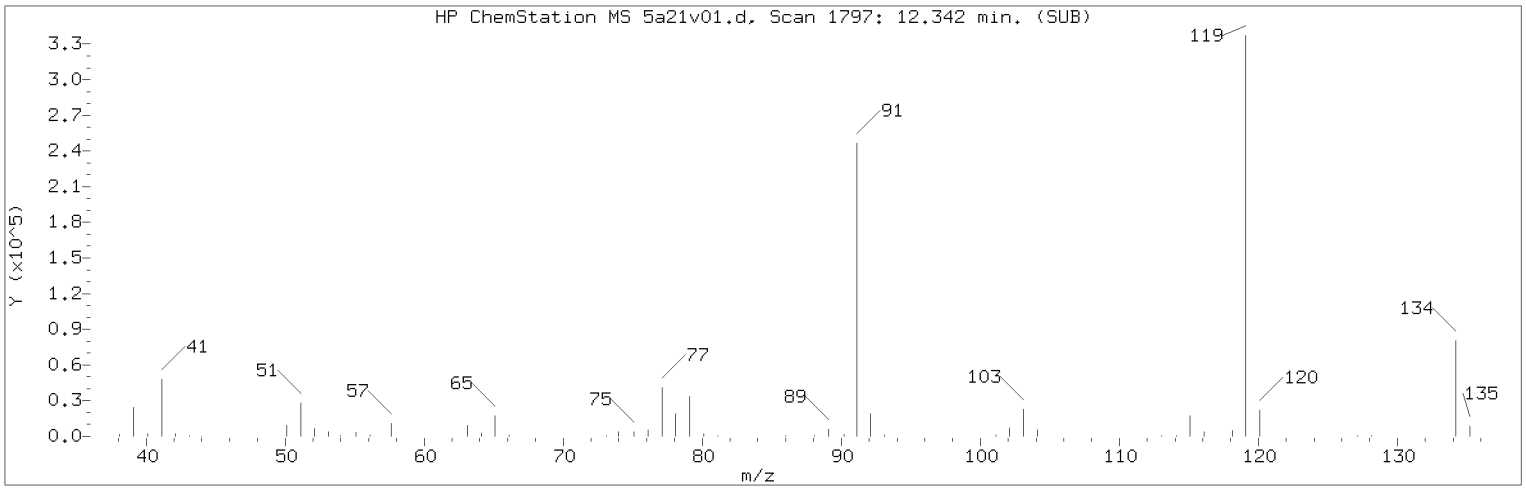
Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

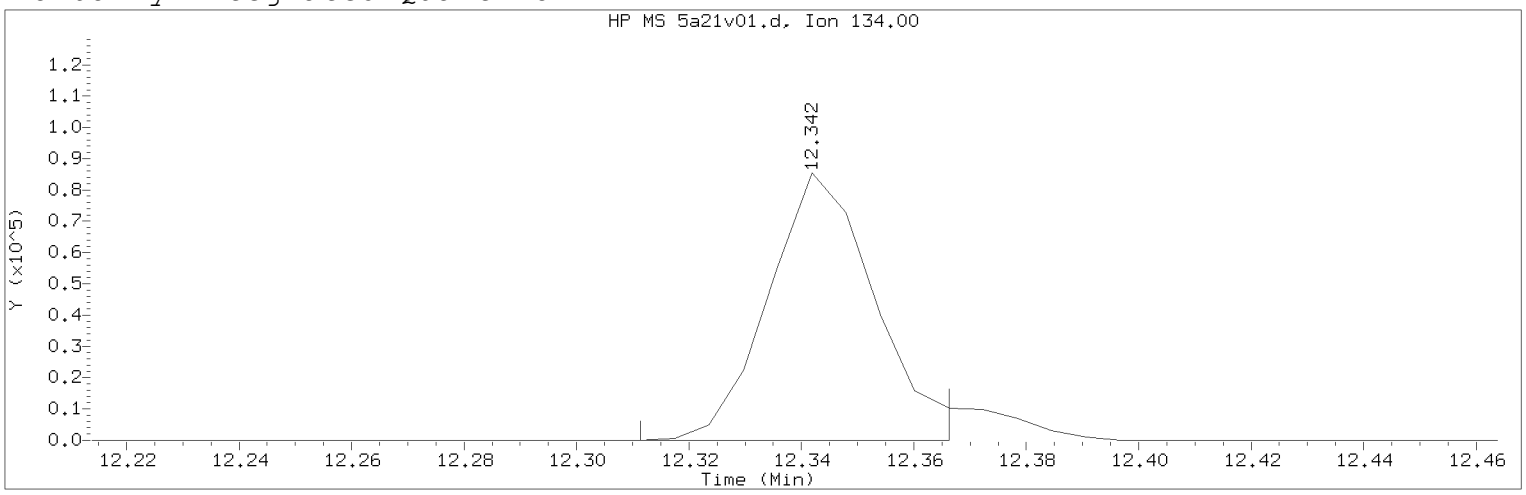
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1063
Retention Time (minutes): 7.867
Quant Ion : 88.00
Area : 70811
On-column Amount (ng) : 589.2768
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 27-APR-2020 09:55
Date, time and analyst ID of latest file update: 27-Apr-2020 10:21 cbs01947

Sample Name: LG5ICV Lab Sample ID: LG5ICV

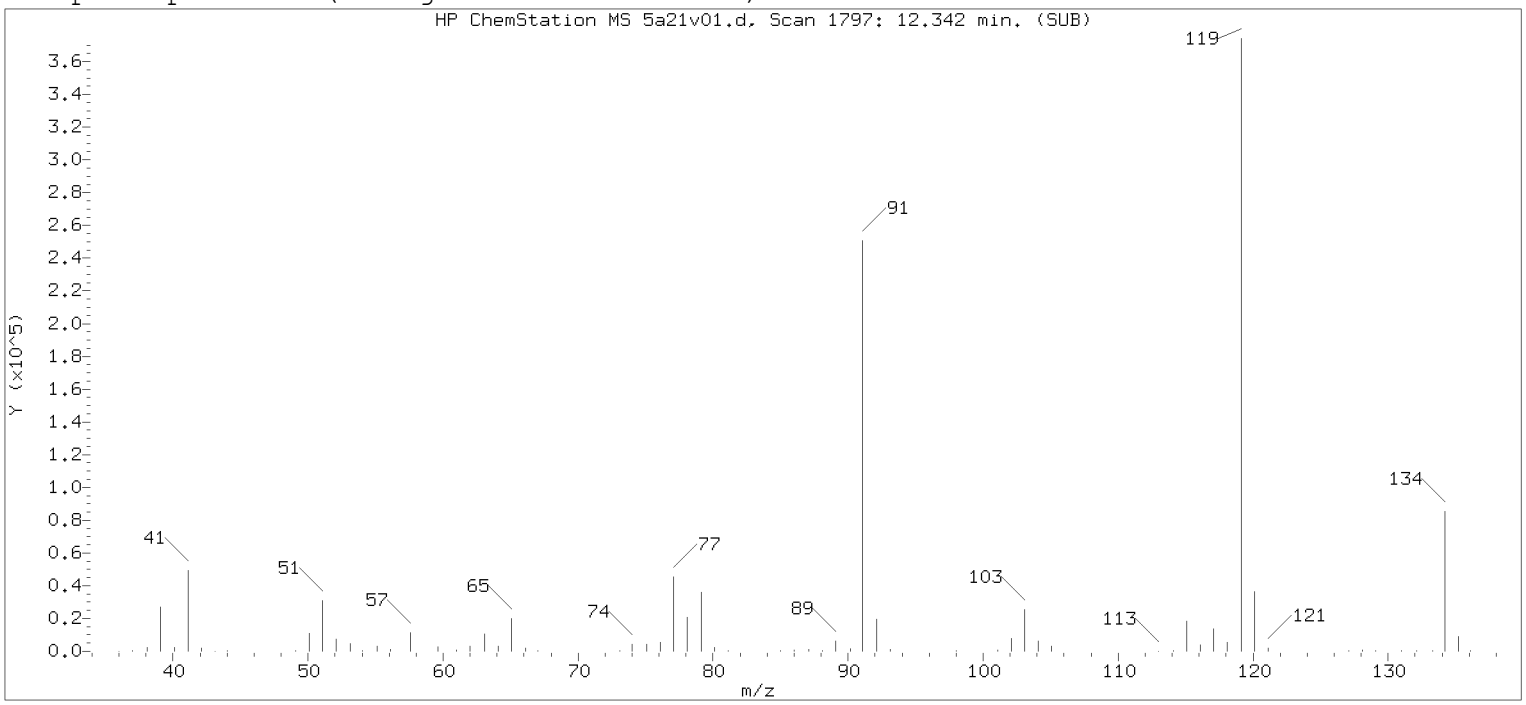
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area (flag) : 112503M
On-Column Amount (ng) : 20.8965
Integration start scan : 1791 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

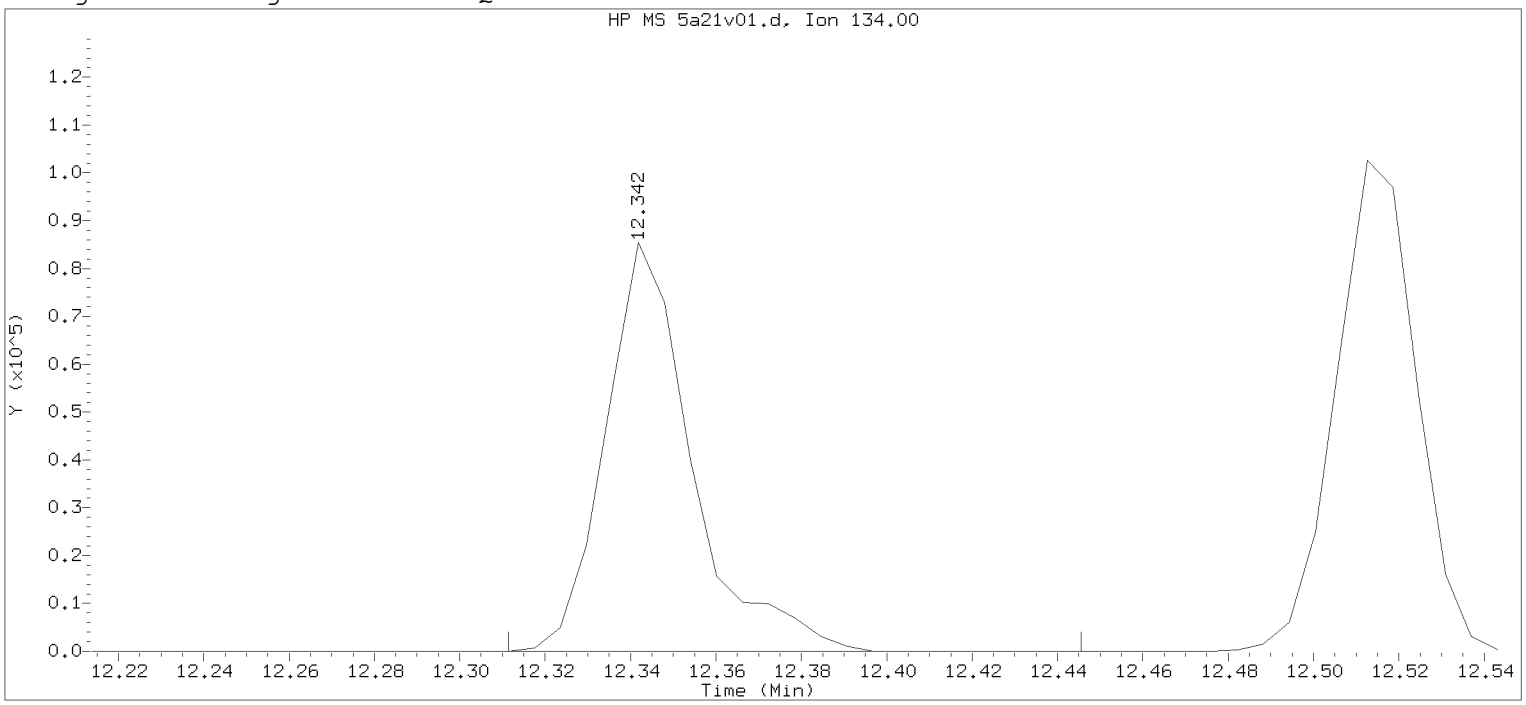
Analyst responsible for change: Digitally signed by Kevin A. Sposito
on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: kas02648

Secondary review performed and digitally signed by Chelsea B. Riehl on 04/27/2020 at 10:38.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20apr21a.b/5a21v01.d Instrument ID: HP26285.i
Injection date and time: 22-APR-2020 00:05 Analyst ID: KAS02648

Method used: /chem2/HP26285.i/20apr21a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 23-APR-2020 07:25
Date, time and analyst ID of latest file update: 23-Apr-2020 07:30 clm27445

Sample Name: LG5ICV Lab Sample ID: LG5ICV

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1797
Retention Time (minutes): 12.342
Quant Ion : 134.00
Area : 120170
On-column Amount (ng) : 22.3208
Integration start scan : 1791 Integration stop scan: 1813
Y at integration start : 0 Y at integration end: 0

Digitally signed by Kevin A. Sposito on 04/27/2020 at 10:36.
Target 3.5 esignature user ID: KAS02648

Data File: /chem2/HP26285.i/20may27a.b/5y27t01.d

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20

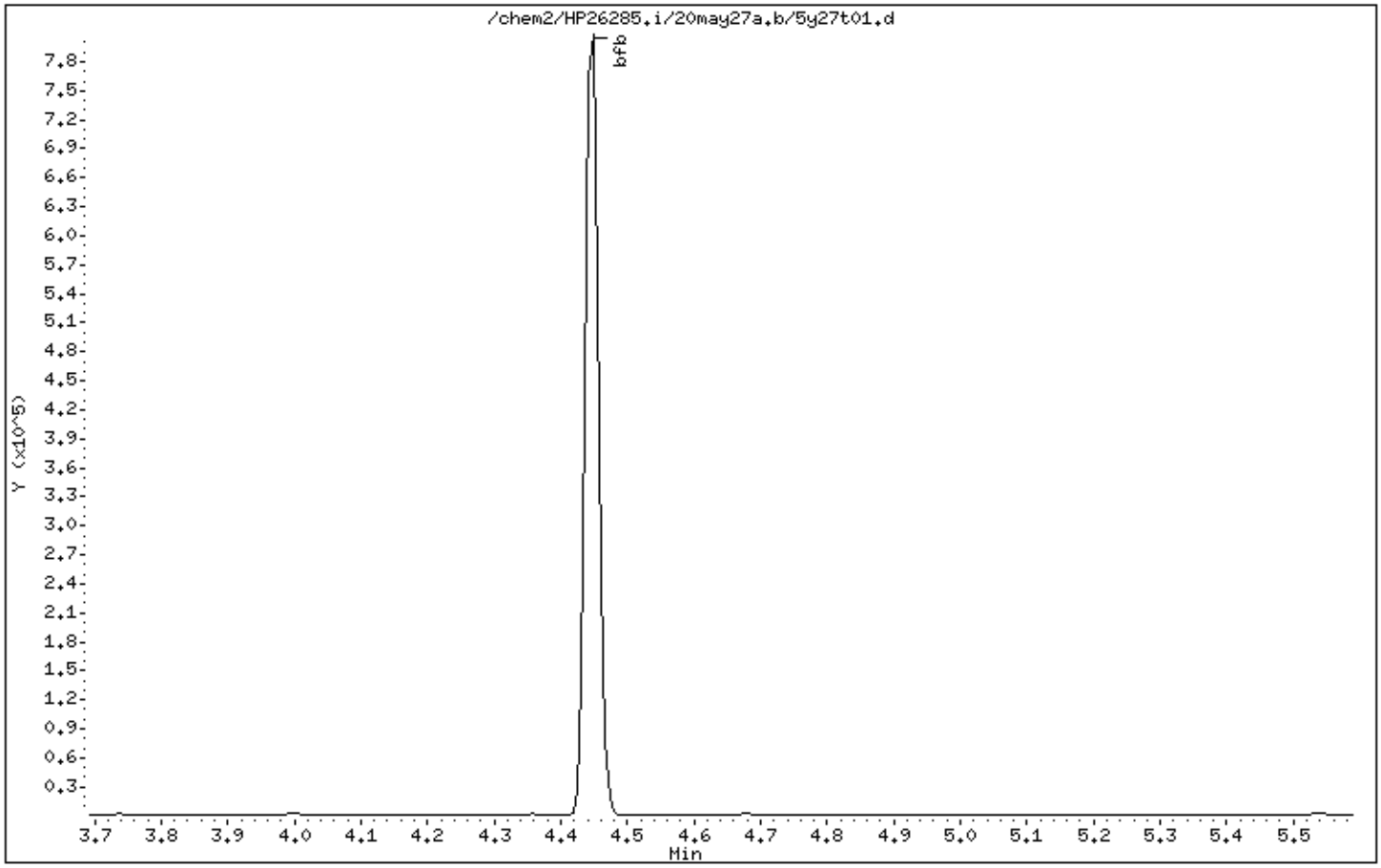
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may27a.b/5y27t01.d

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20

Instrument: HP26285.i

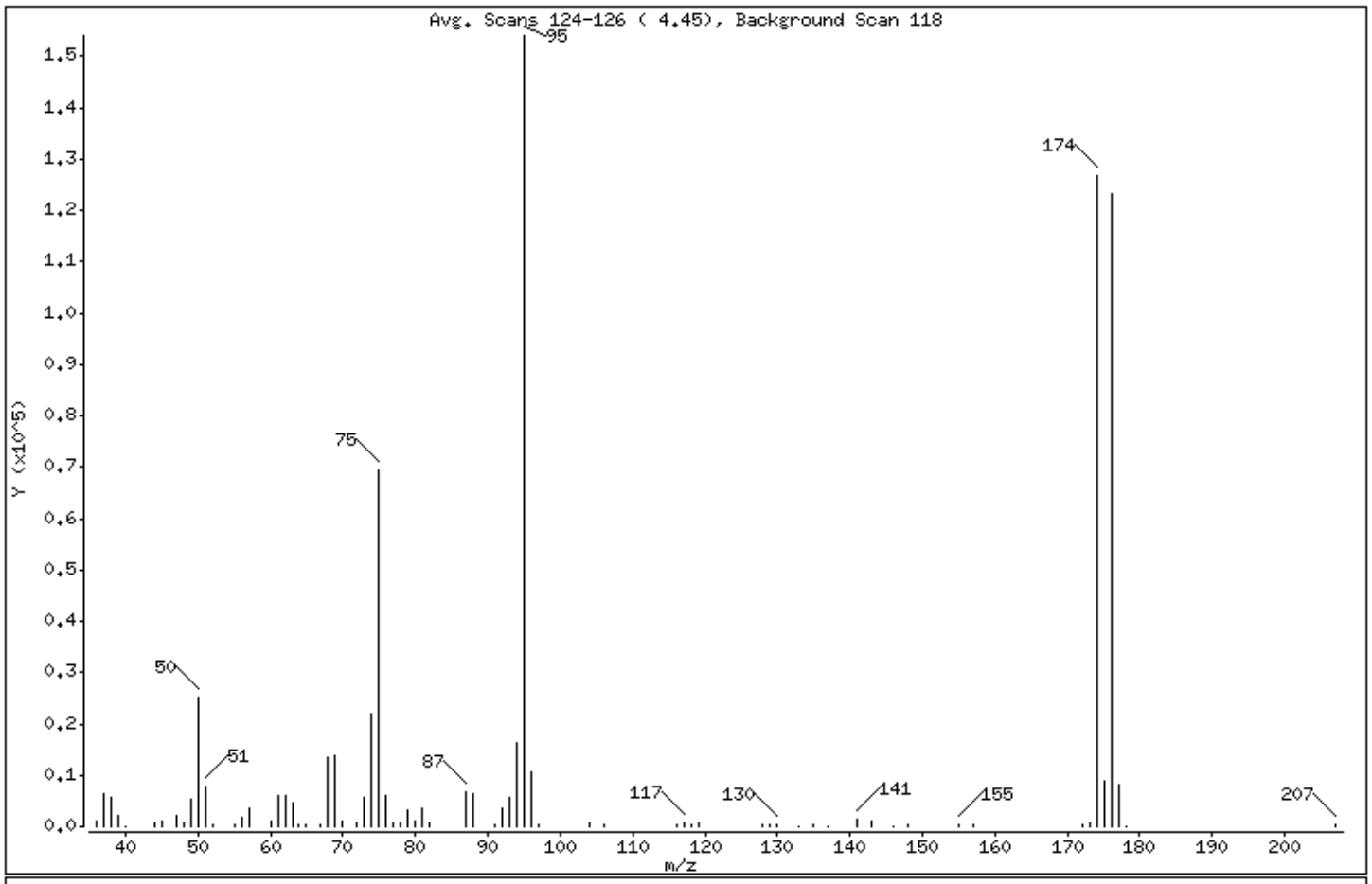
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.22
75	30.00 - 60.00% of mass 95	44.93
96	5.00 - 9.00% of mass 95	6.84
173	Less than 2.00% of mass 174	0.50 (0.61)
174	50.00 - 100.00% of mass 95	82.33
175	5.00 - 9.00% of mass 174	5.82 (7.07)
176	95.00 - 101.00% of mass 174	80.04 (97.22)
177	5.00 - 9.00% of mass 176	5.25 (6.55)

Data File: /chem2/HP26285.i/20may27a.b/5y27t01.d

Date : 27-MAY-2020 07:59

Client ID: BFB JAN28-20 Instrument: HP26285.i

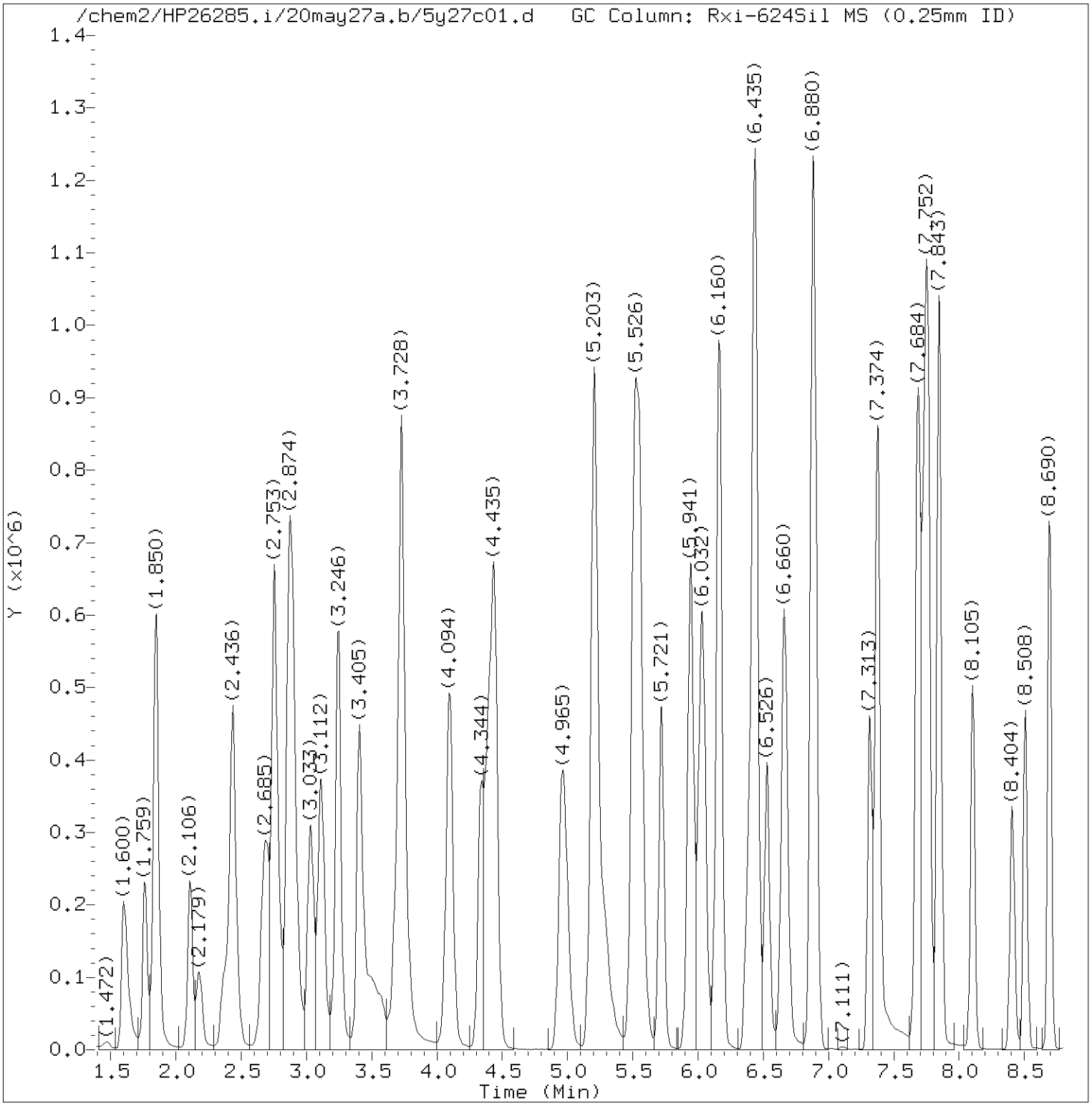
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y27t01.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1167	63.00	4474	88.00	6345	137.00	170
37.00	6207	64.00	466	91.00	485	141.00	1240
38.00	5540	65.00	243	92.00	3686	143.00	1181
39.00	2278	67.00	394	93.00	5841	146.00	86
40.00	15	68.00	13402	94.00	16234	148.00	206
44.00	753	69.00	13652	95.00	154048	155.00	349
45.00	1067	70.00	1062	96.00	10543	157.00	199
47.00	2115	72.00	656	97.00	226	172.00	442
48.00	771	73.00	5798	104.00	555	173.00	778
49.00	5253	74.00	21872	106.00	495	174.00	126872
50.00	24992	75.00	69248	116.00	424	175.00	8974
51.00	7728	76.00	6154	117.00	837	176.00	123344
52.00	347	77.00	881	118.00	423	177.00	8085
55.00	238	78.00	535	119.00	689	178.00	84
56.00	1852	79.00	3206	128.00	474	207.00	184
57.00	3365	80.00	949	129.00	193		
60.00	1106	81.00	3468	130.00	496		
61.00	5871	82.00	735	133.00	90		
62.00	5870	87.00	6828	135.00	206		



Total Ion Chromatogram (TIC)

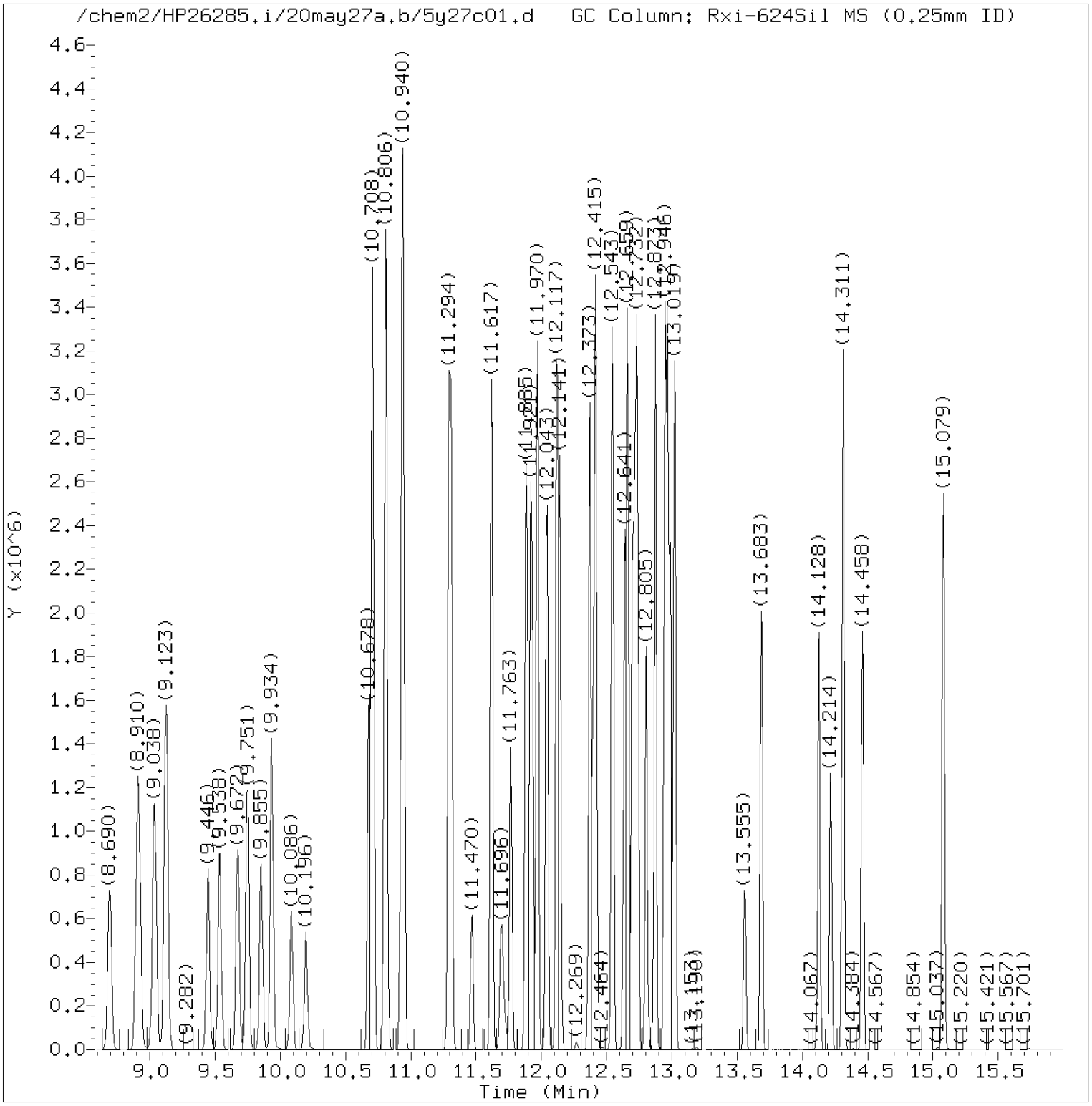
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.600	85	469502	57.127
4) Chloromethane	(2)	1.759	50	317679	48.722
5) 1,3-Butadiene	(2)	1.844	39	321646	35.493
6) Vinyl Chloride	(2)	1.850	62	318674	55.266
8) Bromomethane	(2)	2.106	94	231962	59.917
9) Chloroethane	(2)	2.179	64	155319	56.891
12) Trichlorofluoromethane	(2)	2.417	101	423537	59.973
11) n-Pentane	(2)	2.442	43	347114	52.803
15) Freon 123a	(2)	2.685	67	366339	49.696
16) Acrolein	(1)	2.753	56	1032562	548.451
17) 1,1-Dichloroethene	(2)	2.862	96	284892	51.921
17) 1,1-Dichloroethene	(2)	2.868	63	145237	52.812
18) Acetone	(1)	2.893	58	112681	121.354
19) Freon 113	(2)	2.893	101	330672	53.242
21) 2-Propanol	(1)	3.027	45	137669M	182.204
22) Methyl Iodide	(2)	3.033	142	555746	53.116
23) Carbon Disulfide	(2)	3.112	76	923219	47.833
27) Methyl Acetate	(2)	3.222	43	385163	48.686
25) Allyl Chloride	(2)	3.246	41	424474M	46.214
28) Methylene Chloride	(2)	3.405	84	315315	50.980
29)*t-Butyl alcohol-d10	(1)	3.417	65	297333	250.000
30) t-Butyl alcohol	(1)	3.521	59	298512	213.147
31) Acrylonitrile	(2)	3.679	53	210198	50.338
32) trans-1,2-Dichloroethene	(2)	3.728	96	312390	50.880
33) Methyl Tertiary Butyl Ether	(2)	3.728	73	802565	49.419
34) n-Hexane	(2)	4.094	57	467807	51.385
36) 1,1-Dichloroethane	(2)	4.331	63	546868	49.203
38) di-Isopropyl ether	(2)	4.399	45	918024	46.245
39) 2-Chloro-1,3-butadiene	(2)	4.441	53	472311	50.021
40) Ethyl t-butyl ether	(2)	4.965	59	802339	45.527
44) 2-Butanone	(2)	5.191	43	587127	96.606
42) cis-1,2-Dichloroethene	(2)	5.203	96	348859	50.236
45) 2,2-Dichloropropane	(2)	5.215	77	440376	46.958
47) Propionitrile	(1)	5.295	54	441329	289.475
48) Methacrylonitrile	(2)	5.514	67	520901	125.253
49) Bromochloromethane	(2)	5.551	128	166338	52.297
50) Tetrahydrofuran	(1)	5.557	71	161715	117.363
51) Chloroform	(2)	5.721	83	562027	50.416

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.941	97	508735	50.686
52)$Dibromofluoromethane	(2)	5.947	113	255883	50.623
52)$Dibromofluoromethane	(2)	5.947	111	261771	50.580
54) Cyclohexane	(2)	6.032	56	560878	47.981
54) Cyclohexane	(2)	6.032	84	481021	49.746
54) Cyclohexane	(2)	6.032	69	177025	48.824
56) Carbon Tetrachloride	(2)	6.154	117	446980	51.042
43) 1,2-Dichloroethene (Total)	(2)		96	661249	101.116
55) 1,1-Dichloropropene	(2)	6.166	75	452069	49.720
58) Isobutyl Alcohol	(1)	6.380	41	315755	676.388
57)$1,2-Dichloroethane-d4	(2)	6.416	102	57387	50.763
57)$1,2-Dichloroethane-d4	(2)	6.416	65	286731	51.877
57)$1,2-Dichloroethane-d4	(2)	6.423	104	36707	50.711
60) Benzene	(2)	6.441	78	1334871	49.375
61) 1,2-Dichloroethane	(2)	6.526	62	415975	50.095
61) 1,2-Dichloroethane	(2)	6.532	98	37581	53.518
65) t-Amyl methyl ether	(2)	6.660	73	816529	46.432
66)*Fluorobenzene	(2)	6.874	96	1014821	50.000
67) n-Heptane	(2)	6.892	43	460863	52.407
69) n-Butanol	(1)	7.313	56	540557	1341.956
71) Trichloroethene	(2)	7.380	95	359524	50.675
73) Methylcyclohexane	(2)	7.684	83	558921	49.569
73) Methylcyclohexane	(2)	7.684	98	238469	49.957
74) 1,2-Dichloropropane	(2)	7.727	63	331108	48.925
76) 1,4-Dioxane	(1)	7.825	88	75217M	752.798
75) Dibromomethane	(2)	7.843	93	218104	51.179
77) Methyl Methacrylate	(2)	7.849	69	319648	50.481
79) Bromodichloromethane	(2)	8.105	83	412154	49.876
80) 2-Nitropropane	(2)	8.404	41	290429	101.472
81) 2-Chloroethyl Vinyl Ether	(2)	8.508	63	258850	49.422
82) cis-1,3-Dichloropropene	(2)	8.690	75	516573	49.468
83) 4-Methyl-2-pentanone	(2)	8.910	43	1176695	100.452
84)$Toluene-d8	(3)	9.038	98	984748	49.635
84)$Toluene-d8	(3)	9.038	100	642726	49.201
89) Toluene	(3)	9.123	92	868865	49.666
90) trans-1,3-Dichloropropene	(3)	9.446	75	477676	50.891
92) Ethyl Methacrylate	(3)	9.538	69	522446	48.949
93) 1,1,2-Trichloroethane	(3)	9.672	97	321207	51.358

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
94) Tetrachloroethene	(3)	9.751	166	392266	52.868
95) 1,3-Dichloropropane	(3)	9.855	76	517837	49.867
97) 2-Hexanone	(3)	9.934	43	966767	104.014
98) Dibromochloromethane	(3)	10.086	129	340261	51.414
91) 1,3-Dichloropropene (total)	(3)		100	994249	100.359
100) 1,2-Dibromoethane	(3)	10.196	107	355962	51.629
101)*Chlorobenzene-d5	(3)	10.678	117	807296	50.000
102) 1-Chlorohexane	(3)	10.708	91	507990	49.931
103) Chlorobenzene	(3)	10.708	112	981089	51.675
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	346880	52.959
105) Ethylbenzene	(3)	10.812	91	1748620	51.695
107) m+p-Xylene	(3)	10.940	106	1350232	104.040
108) o-Xylene	(3)	11.294	106	655445	51.599
110) Styrene	(3)	11.312	104	1080996	52.804
111) Bromoform	(3)	11.470	173	254865	53.228
112) Isopropylbenzene	(3)	11.617	105	1744689	52.339
113) Cyclohexanone	(1)	11.696	55	293624	639.784
115)$4-Bromofluorobenzene	(3)	11.763	95	412302	49.323
115)$4-Bromofluorobenzene	(3)	11.769	174	338740	51.946
109) Xylene (Total)	(3)		106	2005677	155.639
116) Bromobenzene	(4)	11.885	156	423596	51.117
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	576758	51.289
119) trans-1,4-Dichloro-2-butene	(4)	11.915	53	325762	141.889
118) 1,2,3-Trichloropropane	(4)	11.934	110	170150	51.386
120) n-Propylbenzene	(4)	11.970	91	2087297	51.231
121) 2-Chlorotoluene	(4)	12.043	126	418775	50.145
123) 1,3,5-Trimethylbenzene	(4)	12.117	105	1468448	51.272
122) 4-Chlorotoluene	(4)	12.141	126	428669	50.814
125) tert-Butylbenzene	(4)	12.373	134	317245	55.735
126) Pentachloroethane	(4)	12.397	167	248095	53.092
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	1528315	51.818
128) sec-Butylbenzene	(4)	12.543	105	1851676	52.146
130) 1,3-Dichlorobenzene	(4)	12.641	146	804761	51.631
131) p-Isopropyltoluene	(4)	12.659	119	1565921	52.881
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	434682	50.000
134) 1,4-Dichlorobenzene	(4)	12.714	146	811496	51.300
135) 1,2,3-Trimethylbenzene	(4)	12.732	105	1452410	51.304
136) Benzyl Chloride	(4)	12.805	91	1085660	50.323

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$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

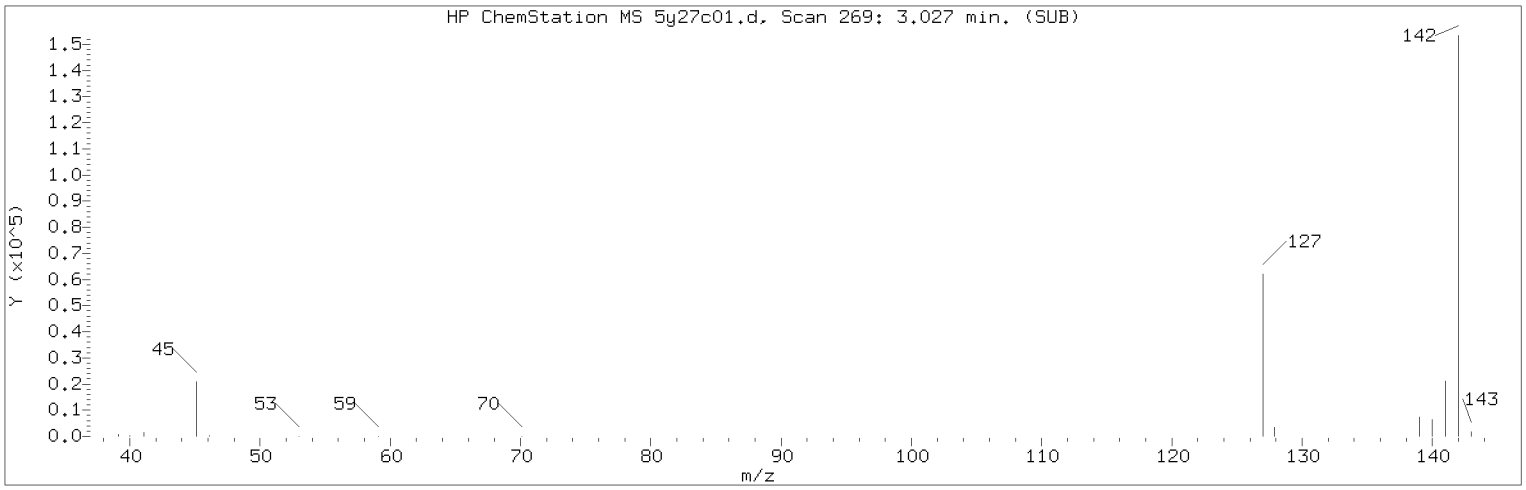
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

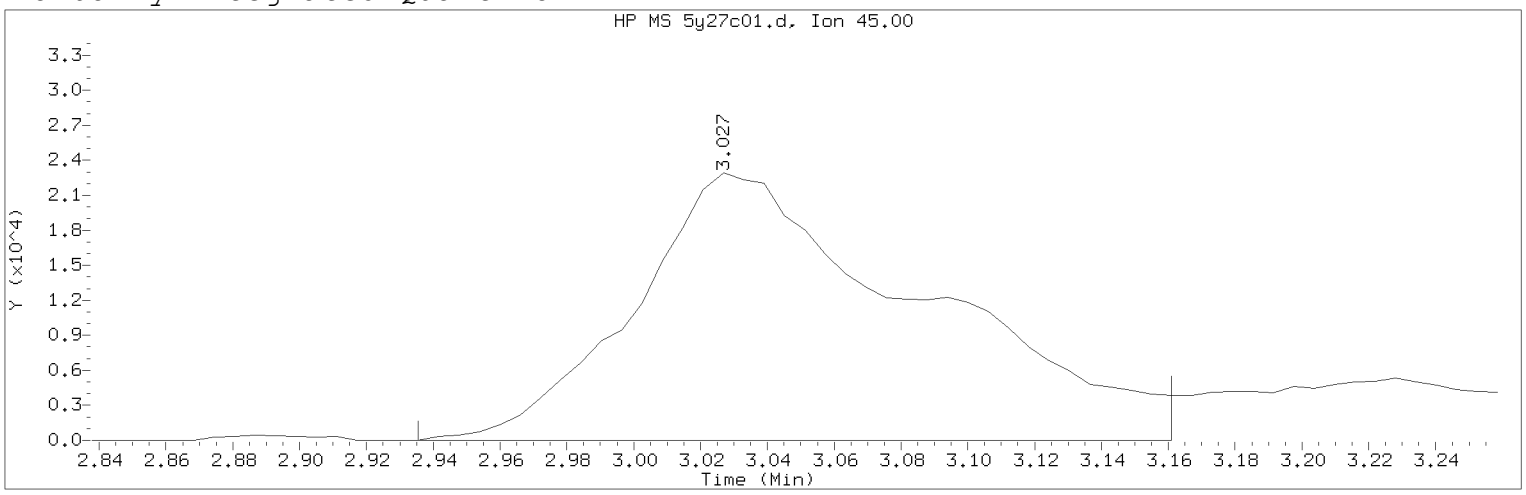
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
137) 1,3-Diethylbenzene	(4)	12.873	119	891303	52.093
138) 1,4-Diethylbenzene	(4)	12.946	119	920524	52.016
140) n-Butylbenzene	(4)	12.964	92	779006	52.154
139) 1,2-Dichlorobenzene	(4)	12.988	146	765778	51.146
141) 1,2-Diethylbenzene	(4)	13.019	119	737295	50.952
142) Diethylbenzene (total)	(4)		100	2549122	155.061
143) 1,2-Dibromo-3-chloropropane	(4)	13.555	75	147294	51.881
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	527198	53.310
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	488215	52.549
148) Hexachlorobutadiene	(4)	14.220	225	192211	53.795
149) Naphthalene	(4)	14.311	128	1943749	52.832
150) 1,2,3-Trichlorobenzene	(4)	14.458	180	484780	52.730
151) 2-Methylnaphthalene	(4)	15.079	142	1012047	52.946

Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

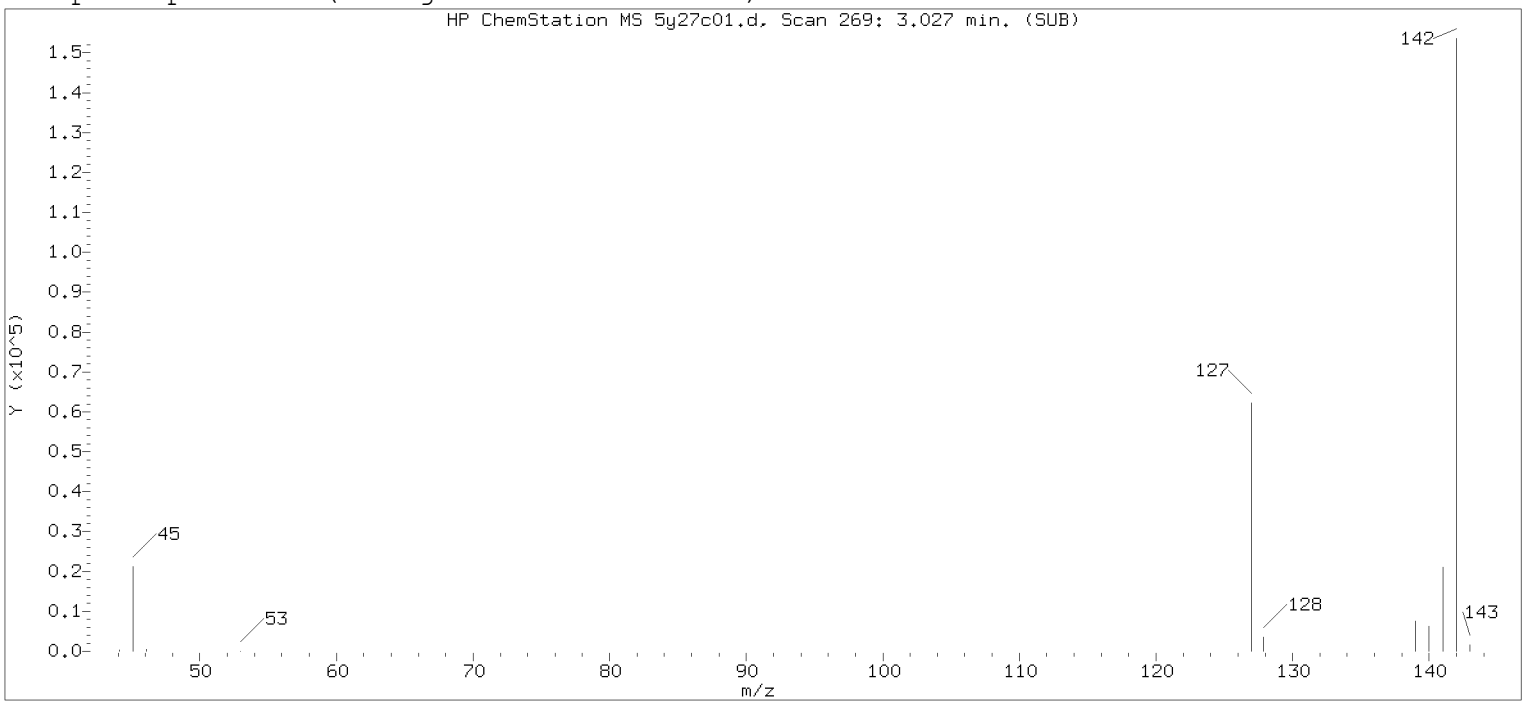
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 269
Retention Time (minutes): 3.027
Quant Ion : 45.00
Area (flag) : 137669M
On-Column Amount (ng) : 182.2039
Integration start scan : 253 Integration stop scan: 290
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

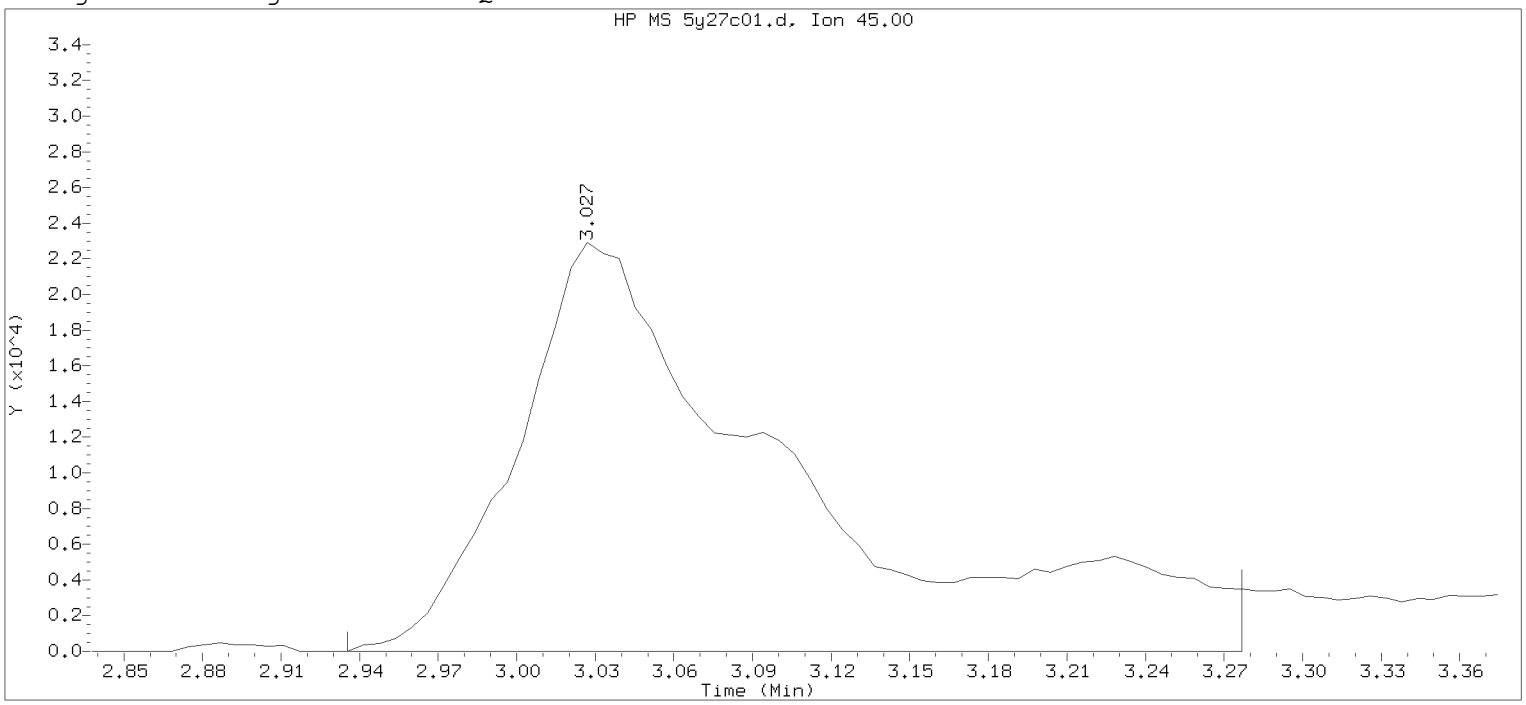
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

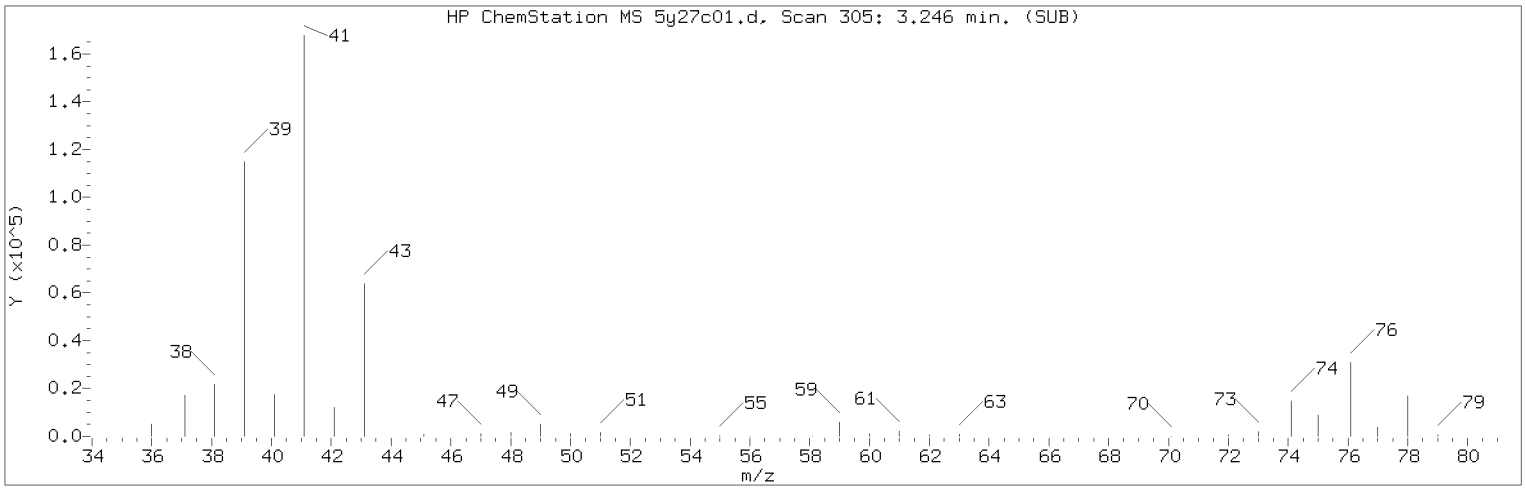
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

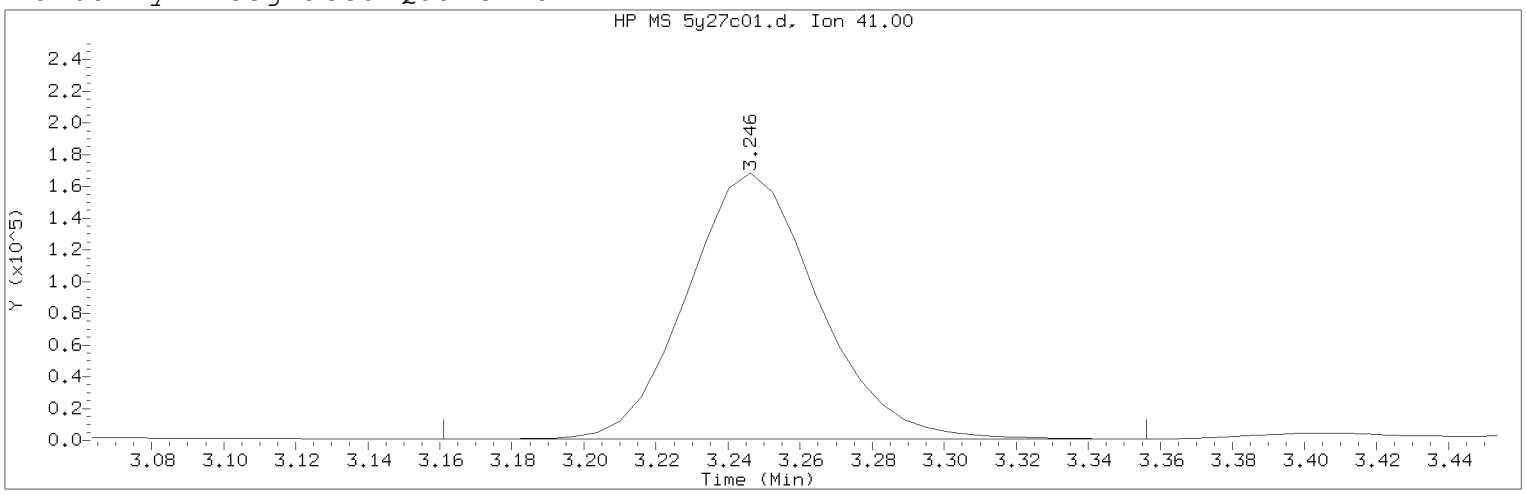
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 269
Retention Time (minutes): 3.027
Quant Ion : 45.00
Area : 167210
On-column Amount (ng) : 221.3008
Integration start scan : 253 Integration stop scan: 309
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

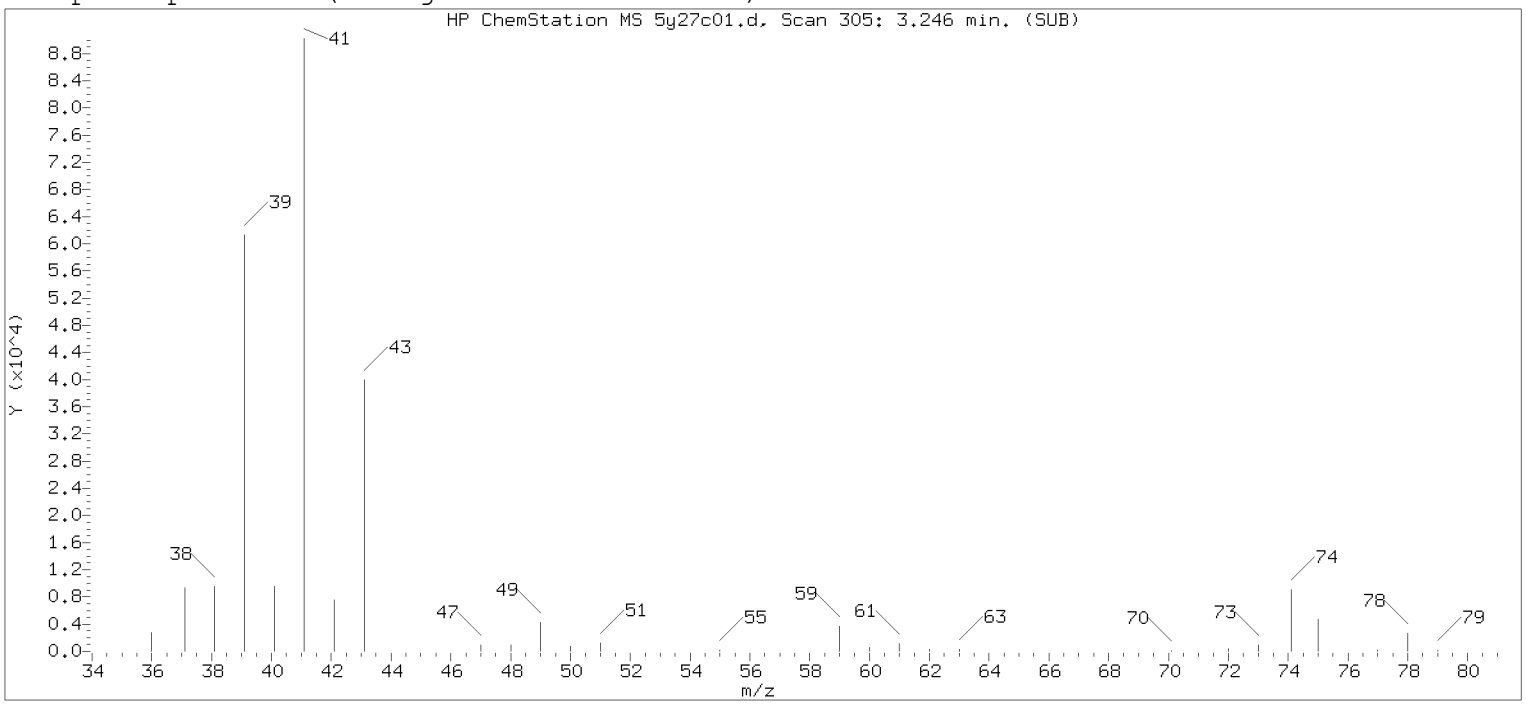
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 305
Retention Time (minutes): 3.246
Quant Ion : 41.00
Area (flag) : 424474M
On-Column Amount (ng) : 46.2138
Integration start scan : 290 Integration stop scan: 322
Y at integration start : 684 Y at integration end: 684

Reason for manual integration: improper integration

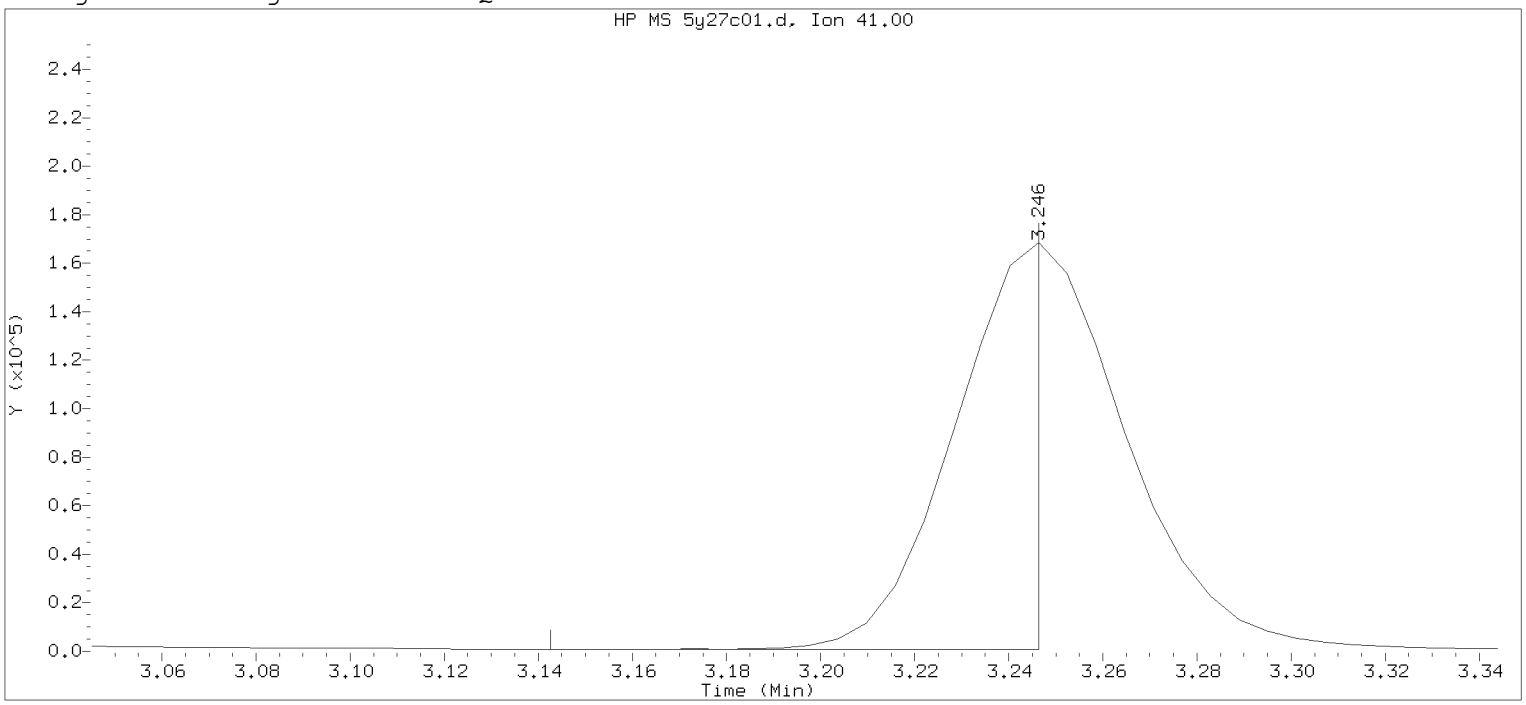
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

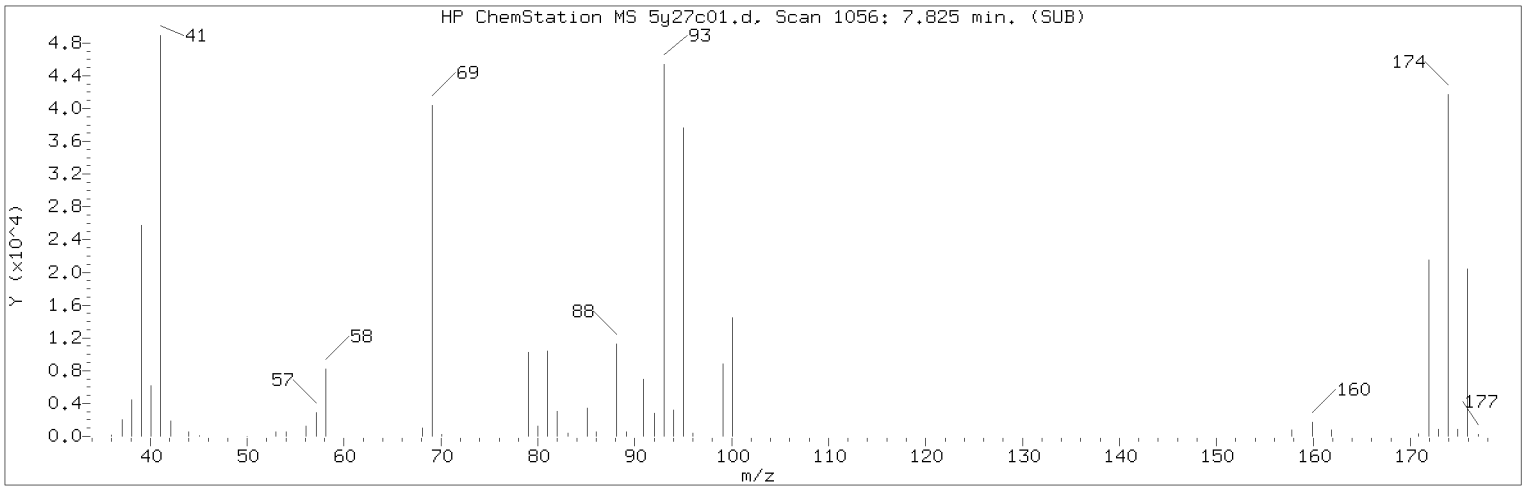
Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

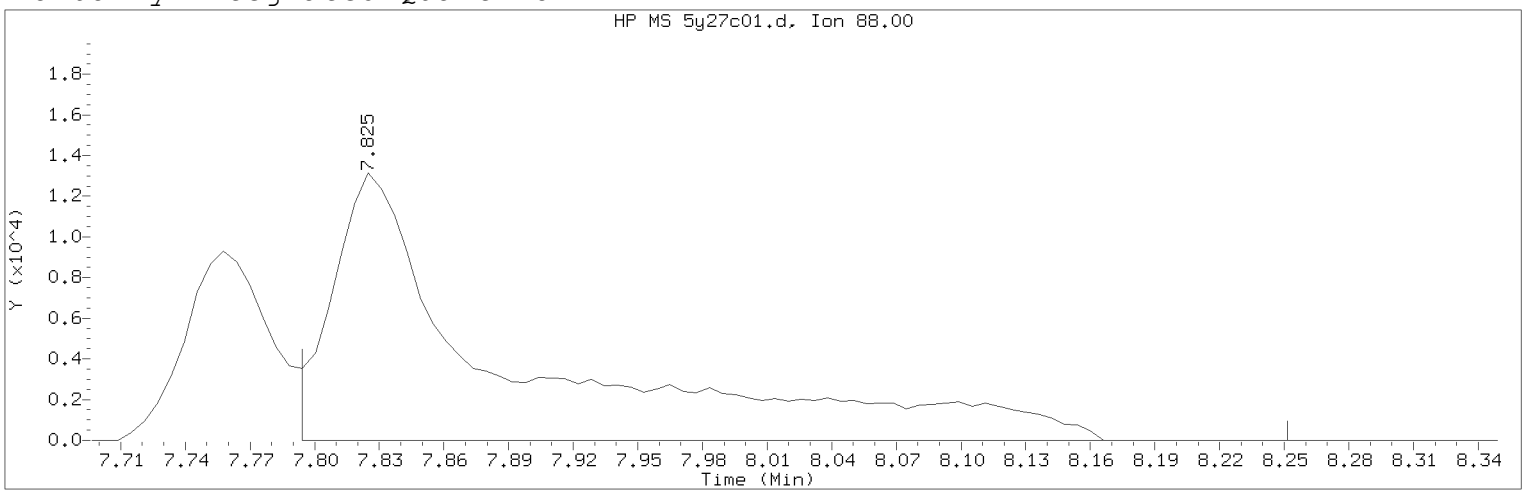
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 305
Retention Time (minutes): 3.246
Quant Ion : 41.00
Area : 202896
On-column Amount (ng) : 22.0899
Integration start scan : 287 Integration stop scan: 304
Y at integration start : 705 Y at integration end: 705

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00895

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:25 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

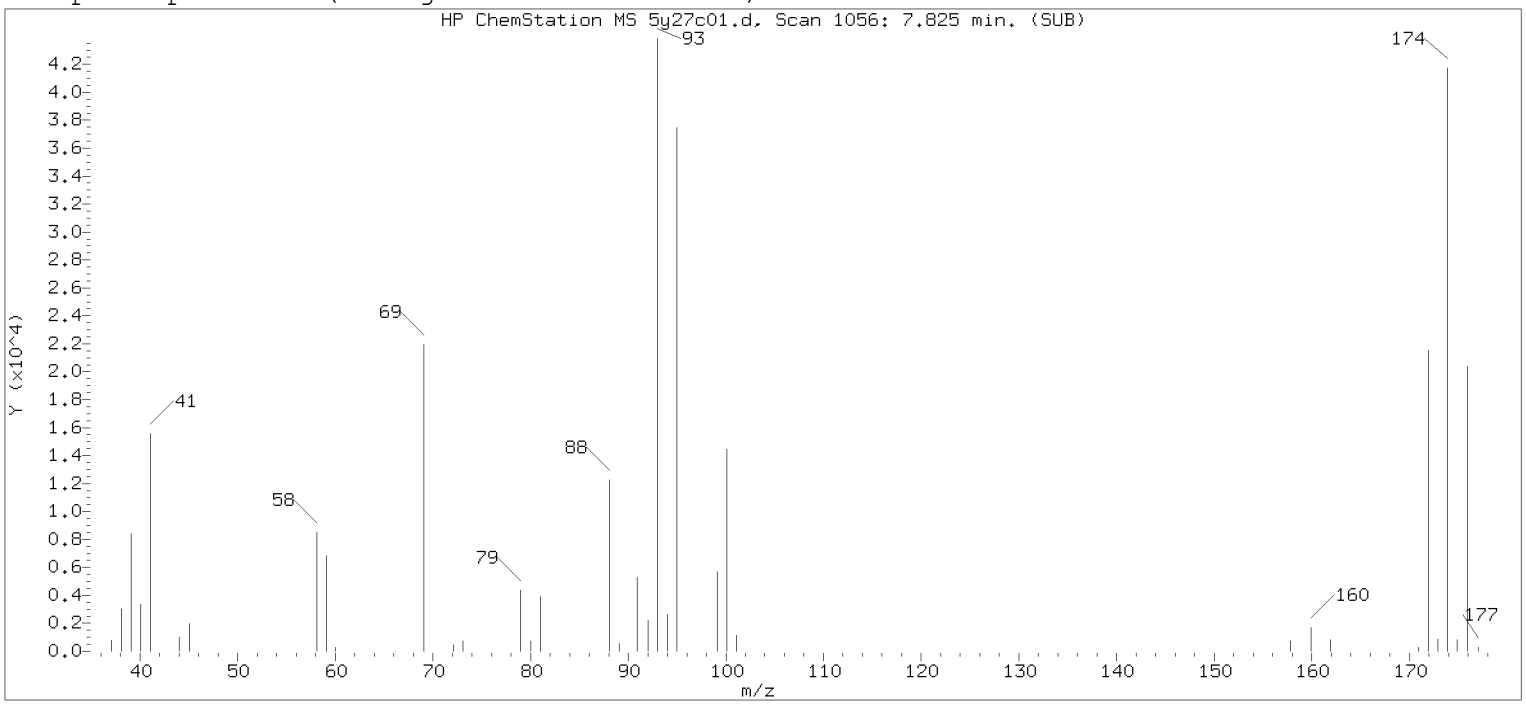
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1056
Retention Time (minutes): 7.825
Quant Ion : 88.00
Area (flag) : 75217M
On-Column Amount (ng) : 752.7979
Integration start scan : 1050 Integration stop scan: 1125
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

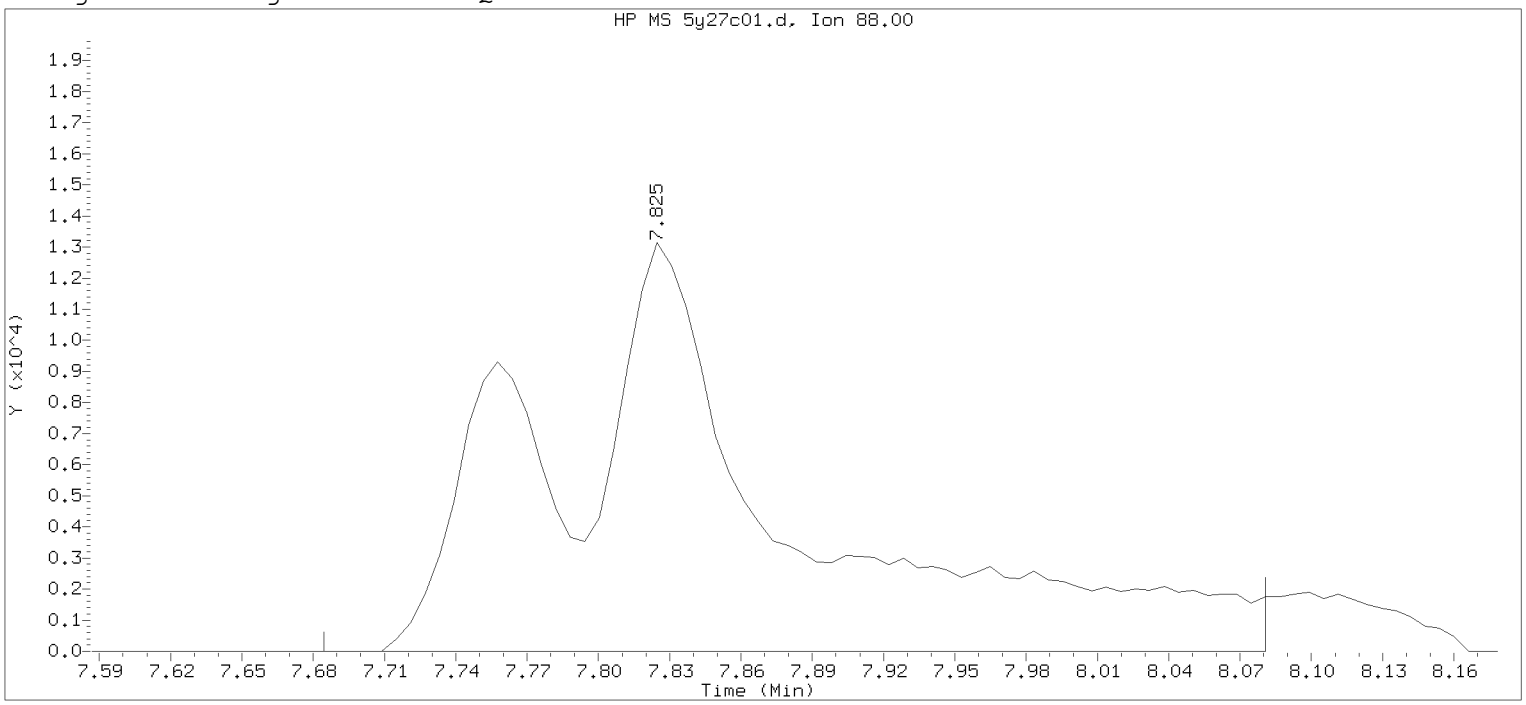
Analyst responsible for change: Digitally signed by Linda C. Pape
on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27c01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 08:46 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:22
Date, time and analyst ID of latest file update: 27-May-2020 09:23 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1056
Retention Time (minutes): 7.825
Quant Ion : 88.00
Area : 92859
On-column Amount (ng) : 929.3582
Integration start scan : 1032 Integration stop scan: 1097
Y at integration start : 0 Y at integration end: 0

Digitally signed by Linda C. Pape on 05/27/2020 at 09:25.
Target 3.5 esignature user ID: LCP00895

Data File: /chem2/HP26285.i/20may27b.b/5y27t51.d

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20

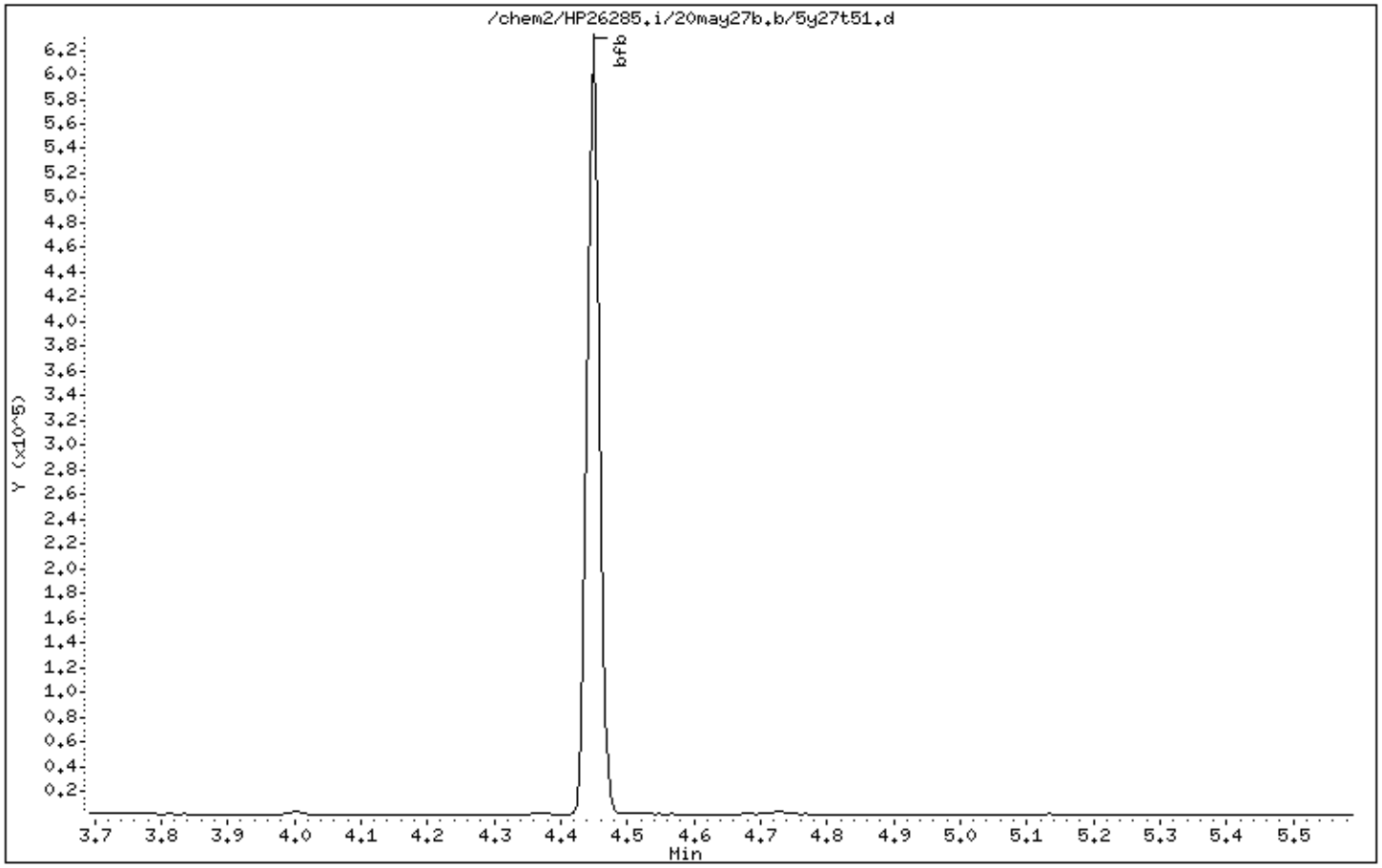
Instrument: HP26285.i

Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may27b.b/5y27t51.d

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20

Instrument: HP26285.i

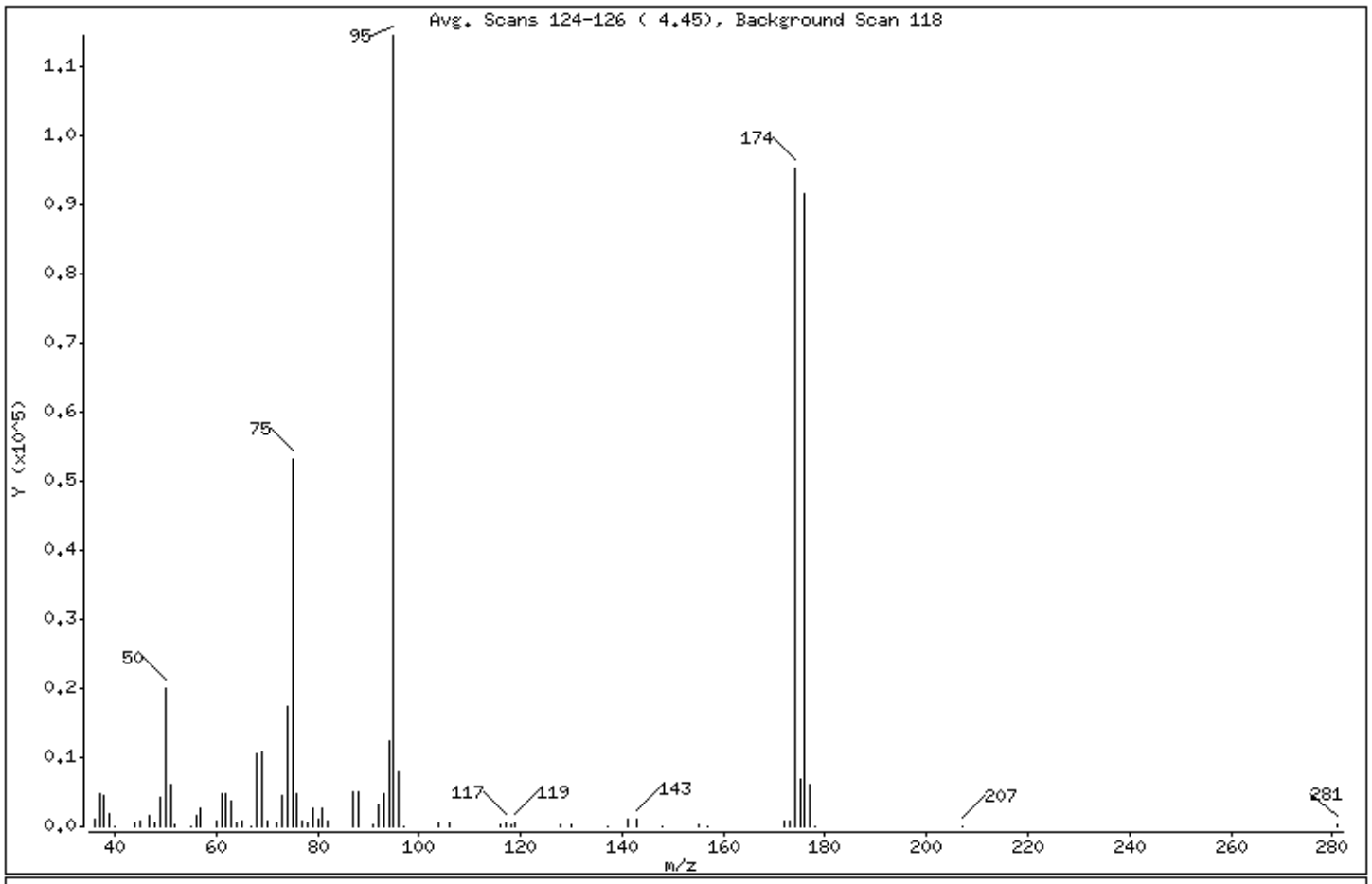
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	17.38
75	30.00 - 60.00% of mass 95	46.34
96	5.00 - 9.00% of mass 95	6.99
173	Less than 2.00% of mass 174	0.61 (0.73)
174	50.00 - 100.00% of mass 95	83.26
175	5.00 - 9.00% of mass 174	6.04 (7.25)
176	95.00 - 101.00% of mass 174	79.92 (95.99)
177	5.00 - 9.00% of mass 176	5.23 (6.55)

Date : 27-MAY-2020 19:39

Client ID: BFB JAN28-20 Instrument: HP26285.i

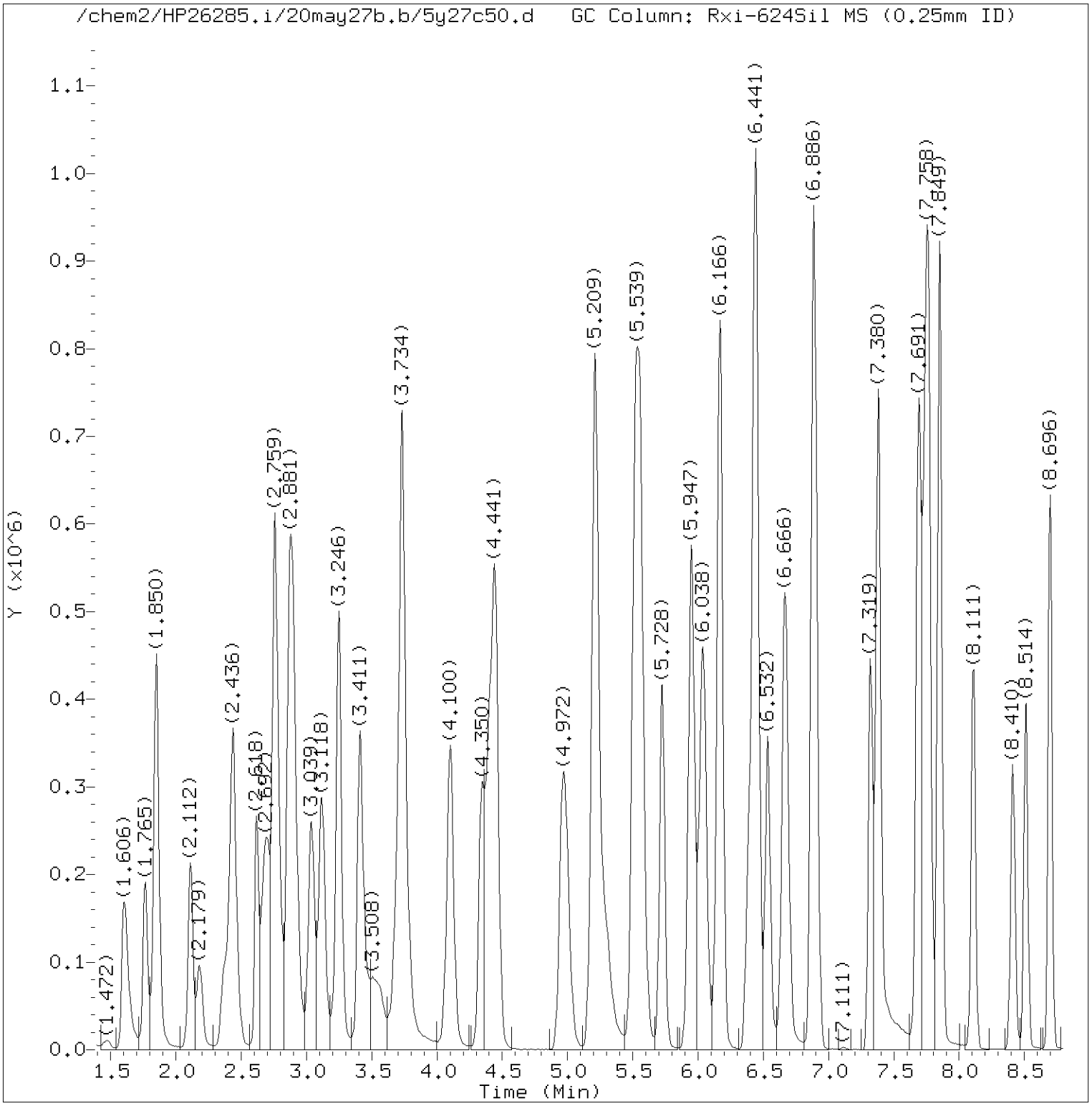
Sample Info: BFB JAN28-20;50 ng BFB;1;3;;;;;;

Operator: LJG30941

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y27t51.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 69

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	929	62.00	4670	82.00	773	137.00	85
37.00	4795	63.00	3724	87.00	4940	141.00	953
38.00	4353	64.00	448	88.00	4899	143.00	1059
39.00	1921	65.00	663	91.00	371	148.00	98
40.00	116	67.00	111	92.00	3084	155.00	172
44.00	525	68.00	10628	93.00	4620	157.00	102
45.00	921	69.00	10698	94.00	12330	172.00	897
47.00	1459	70.00	824	95.00	114488	173.00	693
48.00	577	72.00	534	96.00	7999	174.00	95320
49.00	4083	73.00	4525	97.00	98	175.00	6915
50.00	19896	74.00	17312	104.00	461	176.00	91496
51.00	6109	75.00	53056	106.00	423	177.00	5993
52.00	311	76.00	4652	116.00	372	178.00	93
55.00	106	77.00	682	117.00	601	207.00	129
56.00	1579	78.00	477	118.00	387	281.00	276
57.00	2628	79.00	2654	119.00	560		
60.00	875	80.00	953	128.00	364		
61.00	4786	81.00	2762	130.00	348		



Total Ion Chromatogram (TIC)

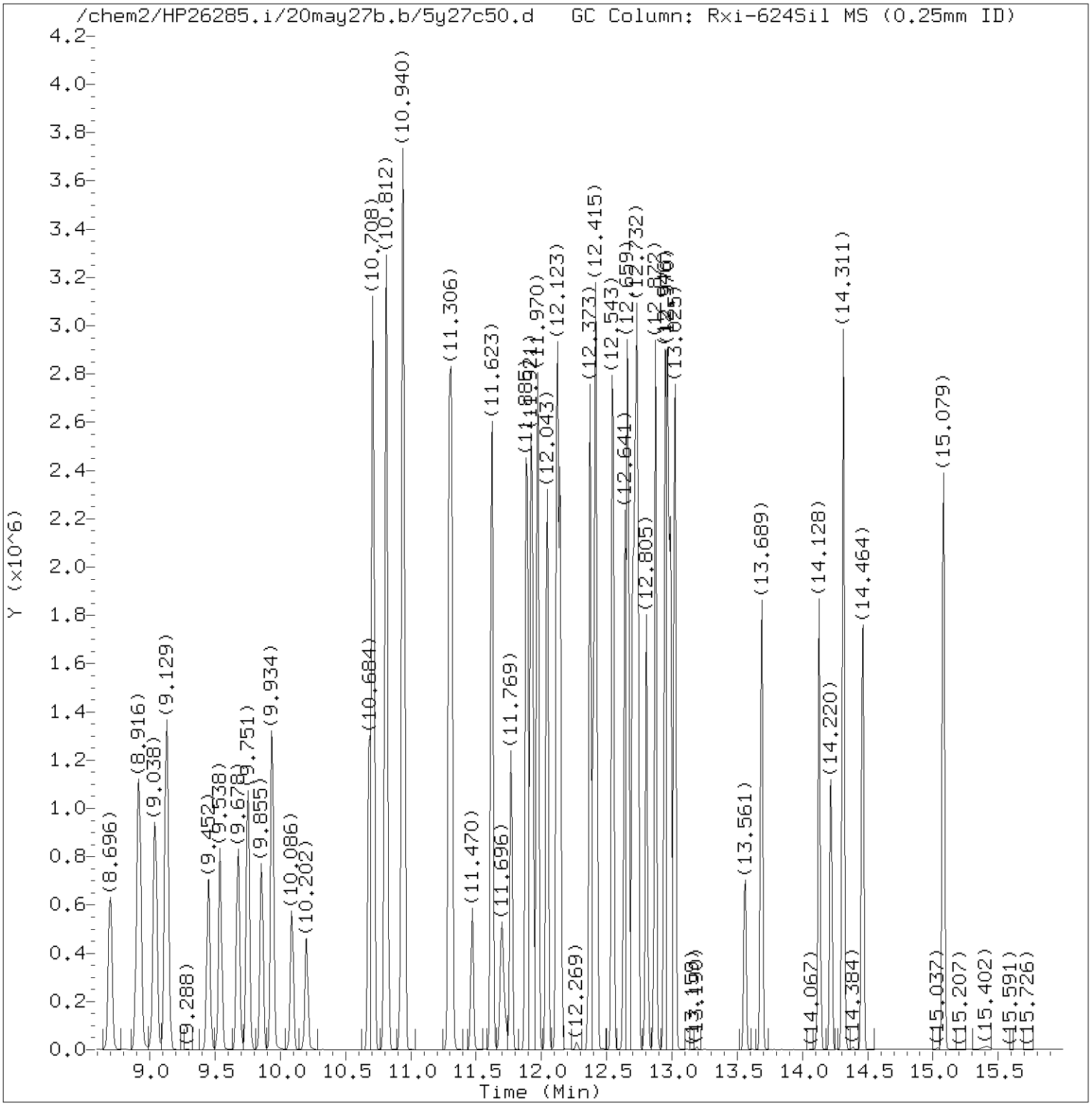
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	392577	59.263
4) Chloromethane	(2)	1.765	50	266064	50.626
5) 1,3-Butadiene	(2)	1.844	39	228951	31.345
6) Vinyl Chloride	(2)	1.856	62	264961	57.009
8) Bromomethane	(2)	2.112	94	206664	66.229
9) Chloroethane	(2)	2.179	64	135372	61.518
12) Trichlorofluoromethane	(2)	2.417	101	395227	69.433
11) n-Pentane	(2)	2.442	43	236502	44.635
14) Ethyl ether	(2)	2.618	59	182544	46.517
15) Freon 123a	(2)	2.692	67	302695	50.944
16) Acrolein	(1)	2.759	56	957323	654.965
17) 1,1-Dichloroethene	(2)	2.868	96	224403	50.739
17) 1,1-Dichloroethene	(2)	2.868	63	116500	52.558
18) Acetone	(1)	2.899	58	94658	131.310
19) Freon 113	(2)	2.899	101	255291	50.997
21) 2-Propanol	(1)	3.033	45	118639	202.248
22) Methyl Iodide	(2)	3.039	142	451993	53.596
23) Carbon Disulfide	(2)	3.118	76	691627	44.458
27) Methyl Acetate	(2)	3.228	43	321301	50.388
25) Allyl Chloride	(2)	3.252	41	348207	47.034
28) Methylene Chloride	(2)	3.411	84	256308	51.413
29)*t-Butyl alcohol-d10	(1)	3.423	65	230837	250.000
30) t-Butyl alcohol	(1)	3.527	59	249129	229.128
31) Acrylonitrile	(2)	3.685	53	180939	53.759
32) trans-1,2-Dichloroethene	(2)	3.734	96	255616	51.653
33) Methyl Tertiary Butyl Ether	(2)	3.740	73	666062	50.885
34) n-Hexane	(2)	4.100	57	312393	42.572
36) 1,1-Dichloroethane	(2)	4.344	63	446826	49.878
38) di-Isopropyl ether	(2)	4.405	45	726668	45.415
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	384933	50.578
40) Ethyl t-butyl ether	(2)	4.972	59	645922	45.472
44) 2-Butanone	(2)	5.197	43	500501	102.172
42) cis-1,2-Dichloroethene	(2)	5.209	96	289801	51.775
45) 2,2-Dichloropropane	(2)	5.228	77	372338	49.258
47) Propionitrile	(1)	5.295	54	357312	301.880
48) Methacrylonitrile	(2)	5.520	67	430113	128.313
49) Bromochloromethane	(2)	5.557	128	144703	56.444
50) Tetrahydrofuran	(1)	5.569	71	139537	130.439

* = Compound is an internal standard.

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on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	5.728	83	487674	54.274
52)$Dibromofluoromethane	(2)	5.947	113	211289	51.861
52)$Dibromofluoromethane	(2)	5.947	111	216754	51.961
53) 1,1,1-Trichloroethane	(2)	5.947	97	442160	54.655
54) Cyclohexane	(2)	6.038	56	409606	43.473
54) Cyclohexane	(2)	6.038	84	359525	46.129
54) Cyclohexane	(2)	6.032	69	129040	44.155
43) 1,2-Dichloroethene (Total)	(2)		96	545417	103.428
56) Carbon Tetrachloride	(2)	6.160	117	392658	55.630
55) 1,1-Dichloropropene	(2)	6.173	75	369512	50.420
58) Isobutyl Alcohol	(1)	6.386	41	296932	819.295
57)$1,2-Dichloroethane-d4	(2)	6.429	102	46883	51.452
57)$1,2-Dichloroethane-d4	(2)	6.423	65	245705	55.153
57)$1,2-Dichloroethane-d4	(2)	6.429	104	29407	50.403
60) Benzene	(2)	6.447	78	1106013	50.755
61) 1,2-Dichloroethane	(2)	6.532	62	379243	56.663
61) 1,2-Dichloroethane	(2)	6.538	98	31868	56.304
65) t-Amyl methyl ether	(2)	6.666	73	680590	48.016
66)*Fluorobenzene	(2)	6.880	96	817966	50.000
67) n-Heptane	(2)	6.898	43	321579	45.369
69) n-Butanol	(1)	7.319	56	488279	1561.358
71) Trichloroethene	(2)	7.380	95	304765	53.295
73) Methylcyclohexane	(2)	7.691	83	439236	48.329
73) Methylcyclohexane	(2)	7.691	98	189749	49.317
74) 1,2-Dichloropropane	(2)	7.733	63	276078	50.611
76) 1,4-Dioxane	(1)	7.831	88	66673M	859.504
75) Dibromomethane	(2)	7.849	93	191896	55.867
77) Methyl Methacrylate	(2)	7.849	69	268391	52.587
79) Bromodichloromethane	(2)	8.111	83	361515	54.276
80) 2-Nitropropane	(2)	8.410	41	275062	119.232
81) 2-Chloroethyl Vinyl Ether	(2)	8.514	63	212375	50.307
82) cis-1,3-Dichloropropene	(2)	8.696	75	432527	51.388
83) 4-Methyl-2-pentanone	(2)	8.916	43	1045267	110.707
84)$Toluene-d8	(3)	9.038	98	803747	49.367
84)$Toluene-d8	(3)	9.038	100	524448	48.922
89) Toluene	(3)	9.129	92	734849	51.187
90) trans-1,3-Dichloropropene	(3)	9.452	75	411082	53.369
92) Ethyl Methacrylate	(3)	9.538	69	449368	51.305

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
93) 1,1,2-Trichloroethane	(3)	9.678	97	283638	55.264
94) Tetrachloroethene	(3)	9.751	166	344645	56.603
95) 1,3-Dichloropropane	(3)	9.855	76	452607	53.112
97) 2-Hexanone	(3)	9.934	43	895024	117.343
98) Dibromochloromethane	(3)	10.086	129	303128	55.815
91) 1,3-Dichloropropene (total)	(3)		100	843609	104.756
100) 1,2-Dibromoethane	(3)	10.202	107	310336	54.850
101)*Chlorobenzene-d5	(3)	10.678	117	662490	50.000
102) 1-Chlorohexane	(3)	10.708	91	417597	50.018
103) Chlorobenzene	(3)	10.708	112	864904	55.513
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	313534	58.331
105) Ethylbenzene	(3)	10.812	91	1520417	54.773
107) m+p-Xylene	(3)	10.940	106	1180250	110.820
108) o-Xylene	(3)	11.294	106	571248	54.800
110) Styrene	(3)	11.312	104	955499	56.876
111) Bromoform	(3)	11.470	173	232566	59.187
112) Isopropylbenzene	(3)	11.623	105	1512794	55.301
113) Cyclohexanone	(1)	11.696	55	256066A	718.674
115)$4-Bromofluorobenzene	(3)	11.769	95	343011	50.002
115)$4-Bromofluorobenzene	(3)	11.769	174	290845	54.350
109) Xylene (Total)	(3)		106	1751498	165.621
116) Bromobenzene	(4)	11.885	156	386778	54.281
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	522665	54.055
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	327231	163.460
118) 1,2,3-Trichloropropane	(4)	11.934	110	161937	56.876
120) n-Propylbenzene	(4)	11.970	91	1827176	52.156
121) 2-Chlorotoluene	(4)	12.043	126	376044	52.368
123) 1,3,5-Trimethylbenzene	(4)	12.123	105	1305727	53.021
122) 4-Chlorotoluene	(4)	12.147	126	385509	53.146
125) tert-Butylbenzene	(4)	12.373	134	277102	56.617
126) Pentachloroethane	(4)	12.403	167	219545	54.640
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	1366342	53.877
128) sec-Butylbenzene	(4)	12.543	105	1602254	52.476
130) 1,3-Dichlorobenzene	(4)	12.641	146	735209	54.856
131) p-Isopropyltoluene	(4)	12.665	119	1383833	54.349
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	373763	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	750595	55.184
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	1274625	52.362

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

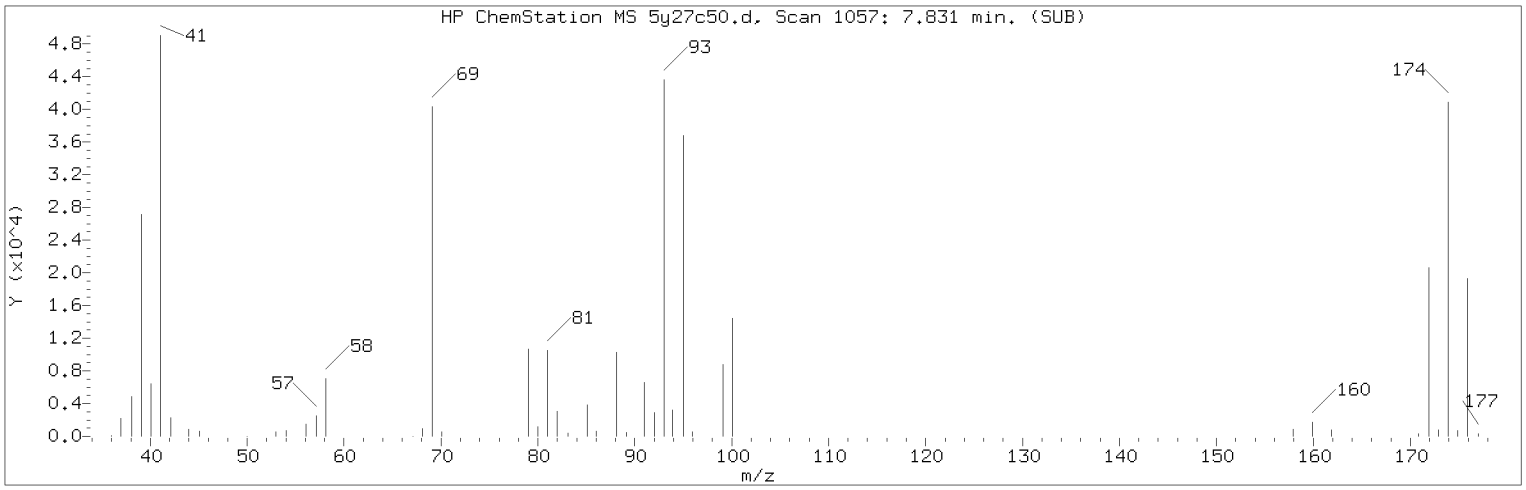
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

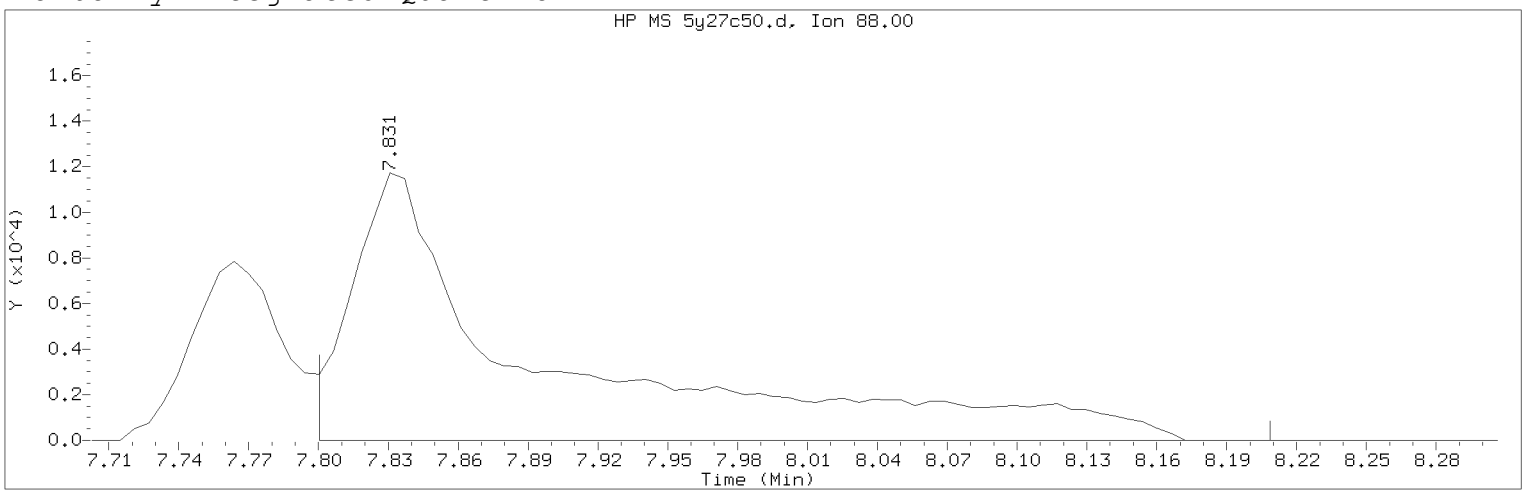
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
136) Benzyl Chloride	(4)	12.805	91	1003029	54.071
137) 1,3-Diethylbenzene	(4)	12.872	119	777197	52.828
138) 1,4-Diethylbenzene	(4)	12.946	119	808433	53.127
140) n-Butylbenzene	(4)	12.970	92	681548	53.066
139) 1,2-Dichlorobenzene	(4)	12.988	146	712818	55.368
141) 1,2-Diethylbenzene	(4)	13.025	119	648902	52.153
142) Diethylbenzene (total)	(4)		100	2234532	158.108
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	140608	57.598
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	484806	57.014
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	448949	56.198
148) Hexachlorobutadiene	(4)	14.220	225	170008	55.336
149) Naphthalene	(4)	14.311	128	1832563	57.928
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	454488	57.492
151) 2-Methylnaphthalene	(4)	15.079	142	909131	55.314

Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

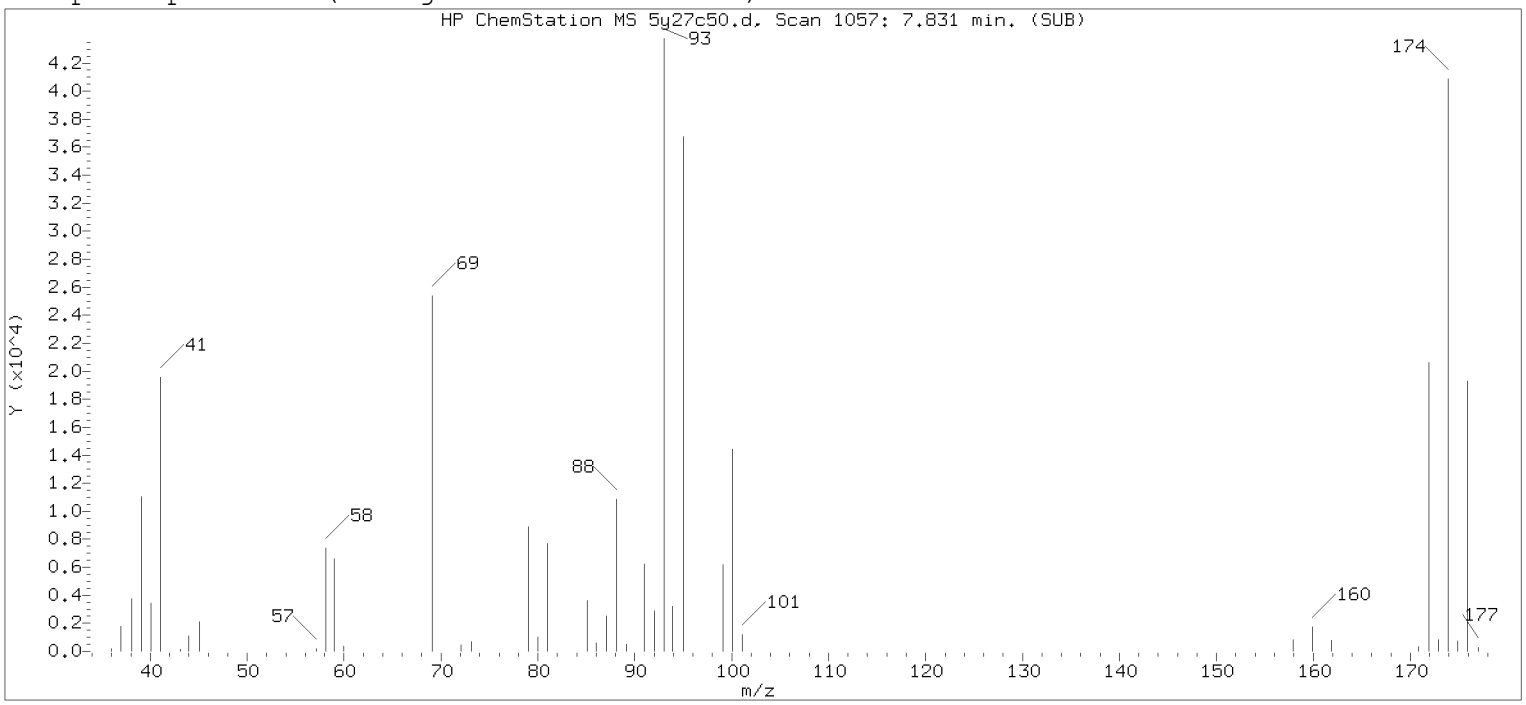
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 66673M
On-Column Amount (ng) : 859.5042
Integration start scan : 1051 Integration stop scan: 1118
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

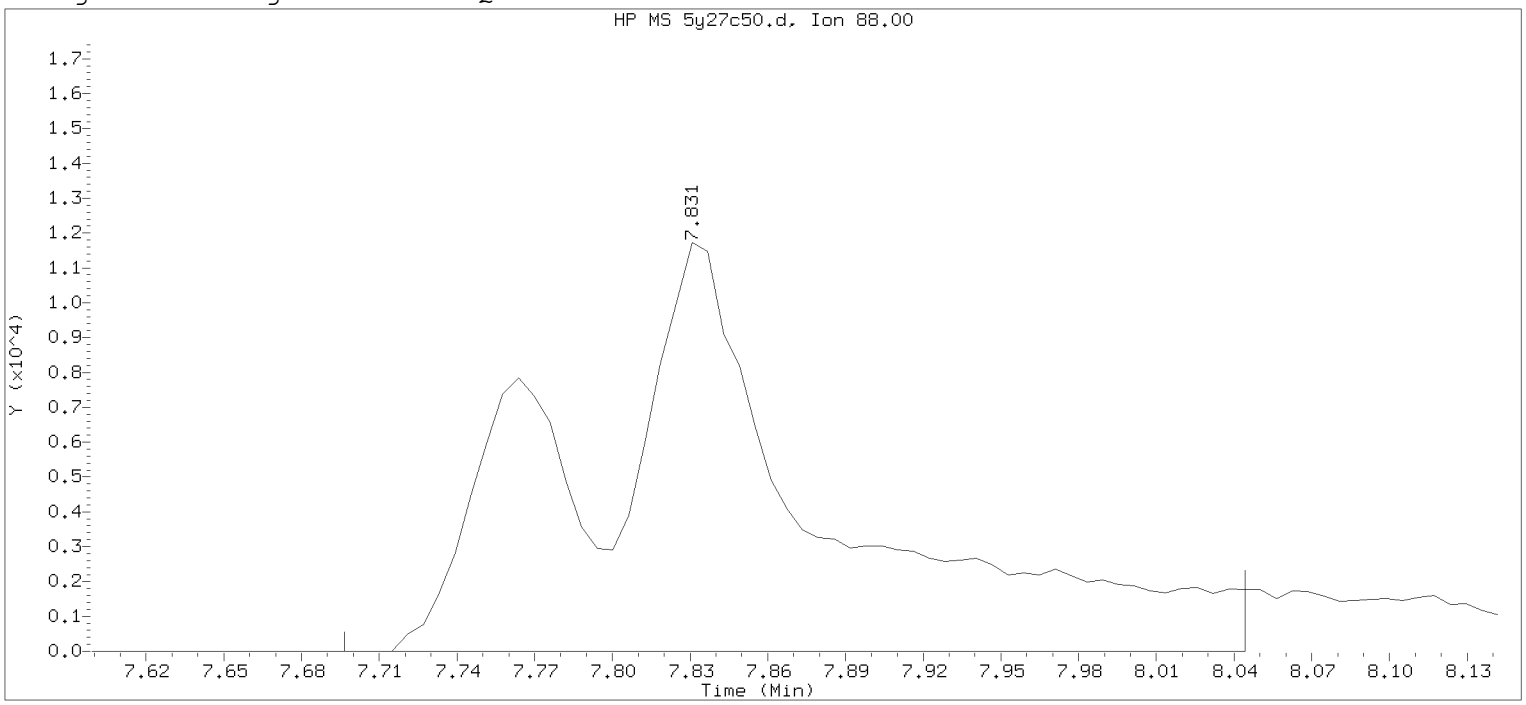
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

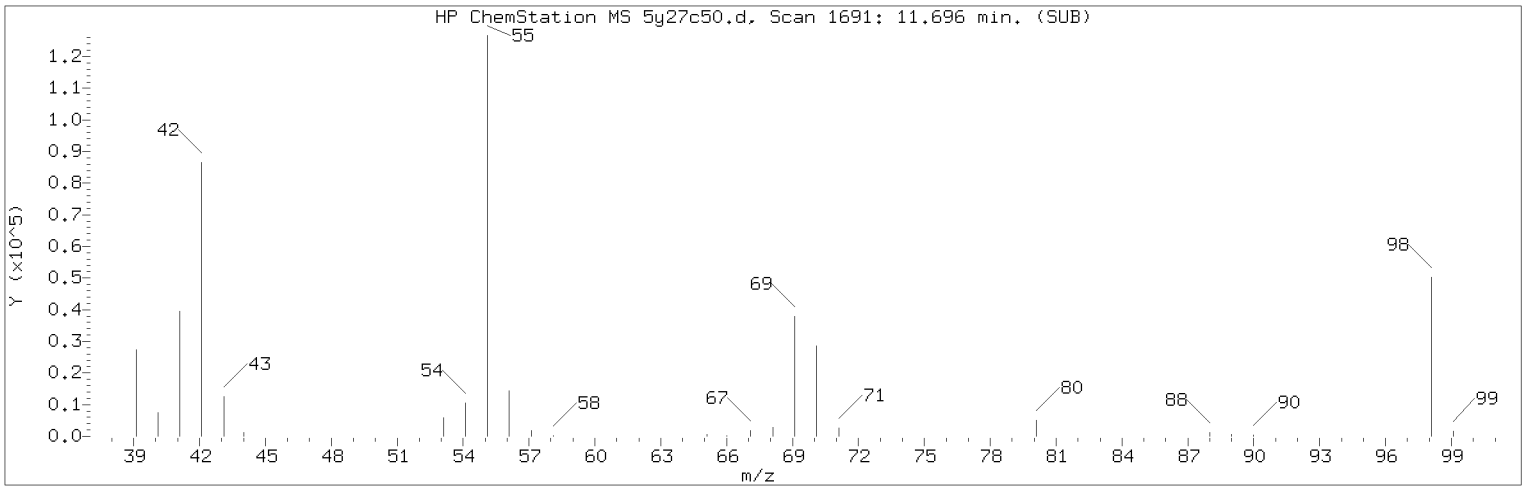
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

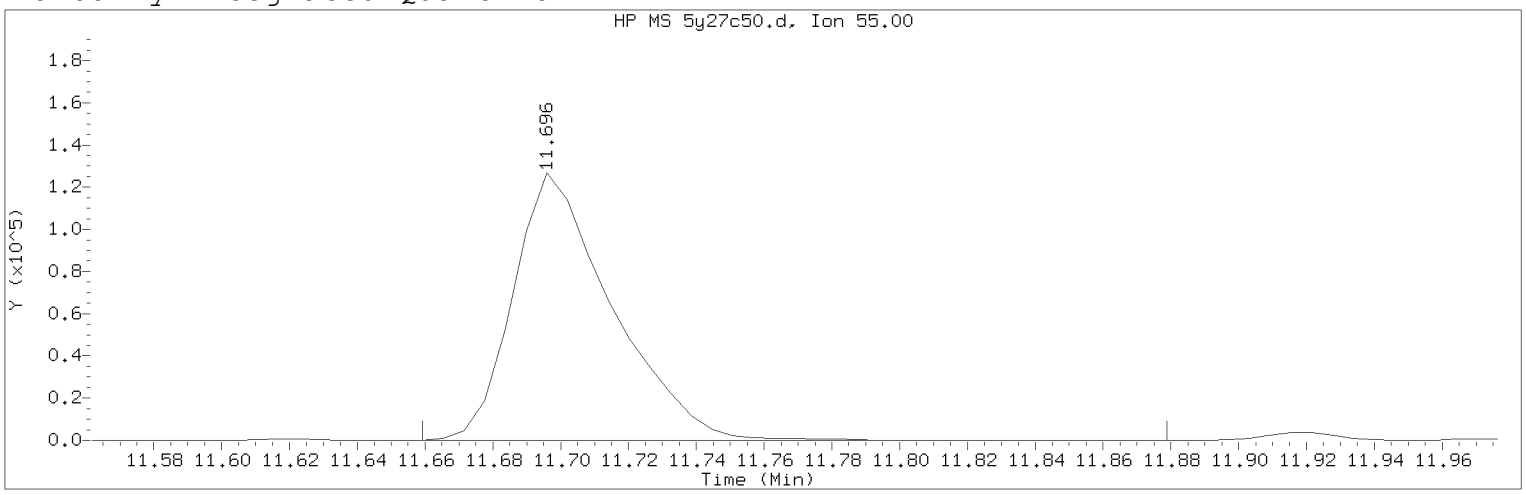
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 77495
On-column Amount (ng) : 999.0106
Integration start scan : 1034 Integration stop scan: 1091
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:38 ljg30941

Sample Name: VSTD050 Lab Sample ID: VSTD050

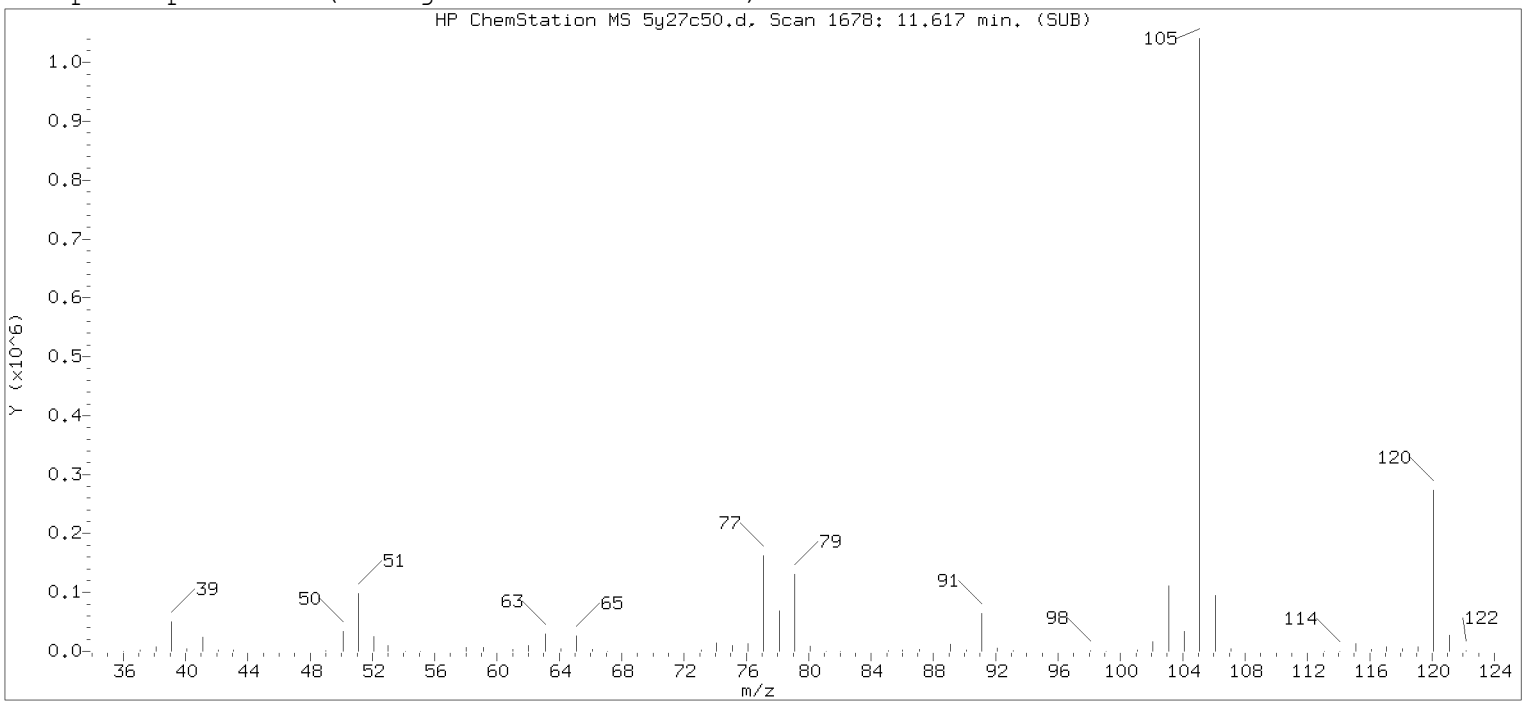
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1691
Retention Time (minutes): 11.696
Quant Ion : 55.00
Area (flag) : 256066A
On-Column Amount (ng) : 718.6735
Integration start scan : 1684 Integration stop scan: 1720
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

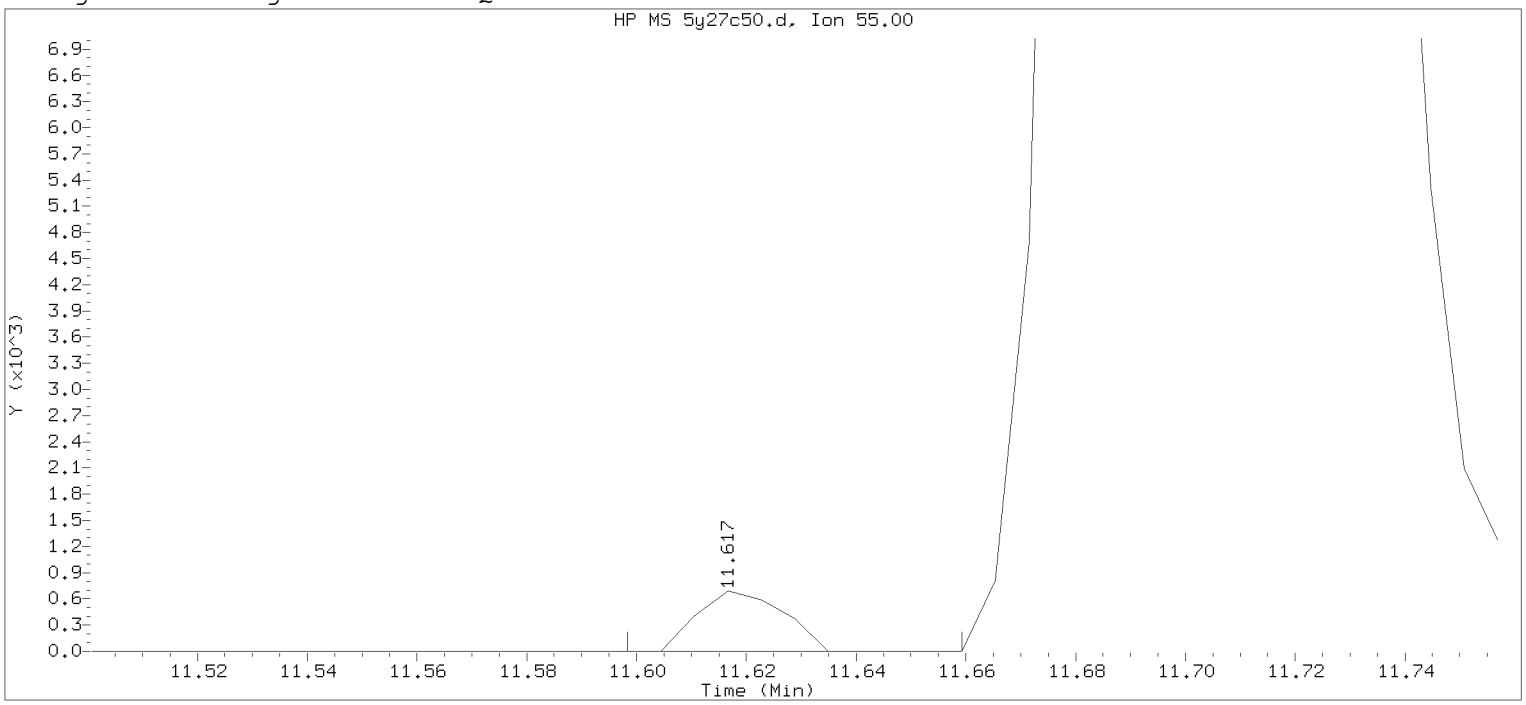
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27c50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:12 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1678
Retention Time (minutes): 11.617
Quant Ion : 55.00
Area : 752
On-column Amount (ng) : 2.1107
Integration start scan : 1674 Integration stop scan: 1684
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/27/2020 at 20:38.
Target 3.5 esignature user ID: LJG30941

Data File: /chem2/HP26285.i/20may29a.b/5y29t01.d

Date : 29-MAY-2020 09:29

Client ID: jan28-20

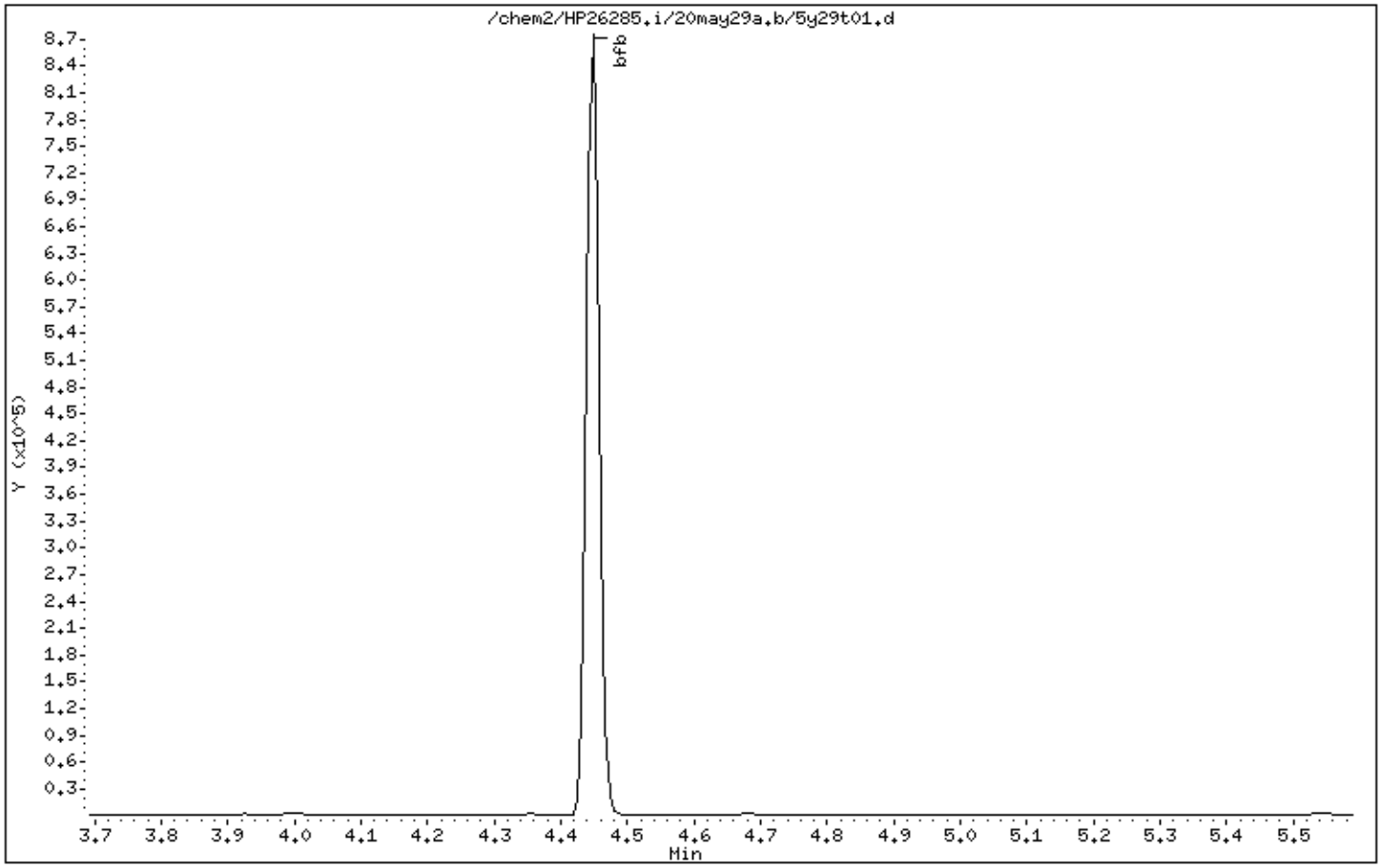
Instrument: HP26285.i

Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem2/HP26285.i/20may29a.b/5y29t01.d

Date : 29-MAY-2020 09:29

Client ID: jan28-20

Instrument: HP26285.i

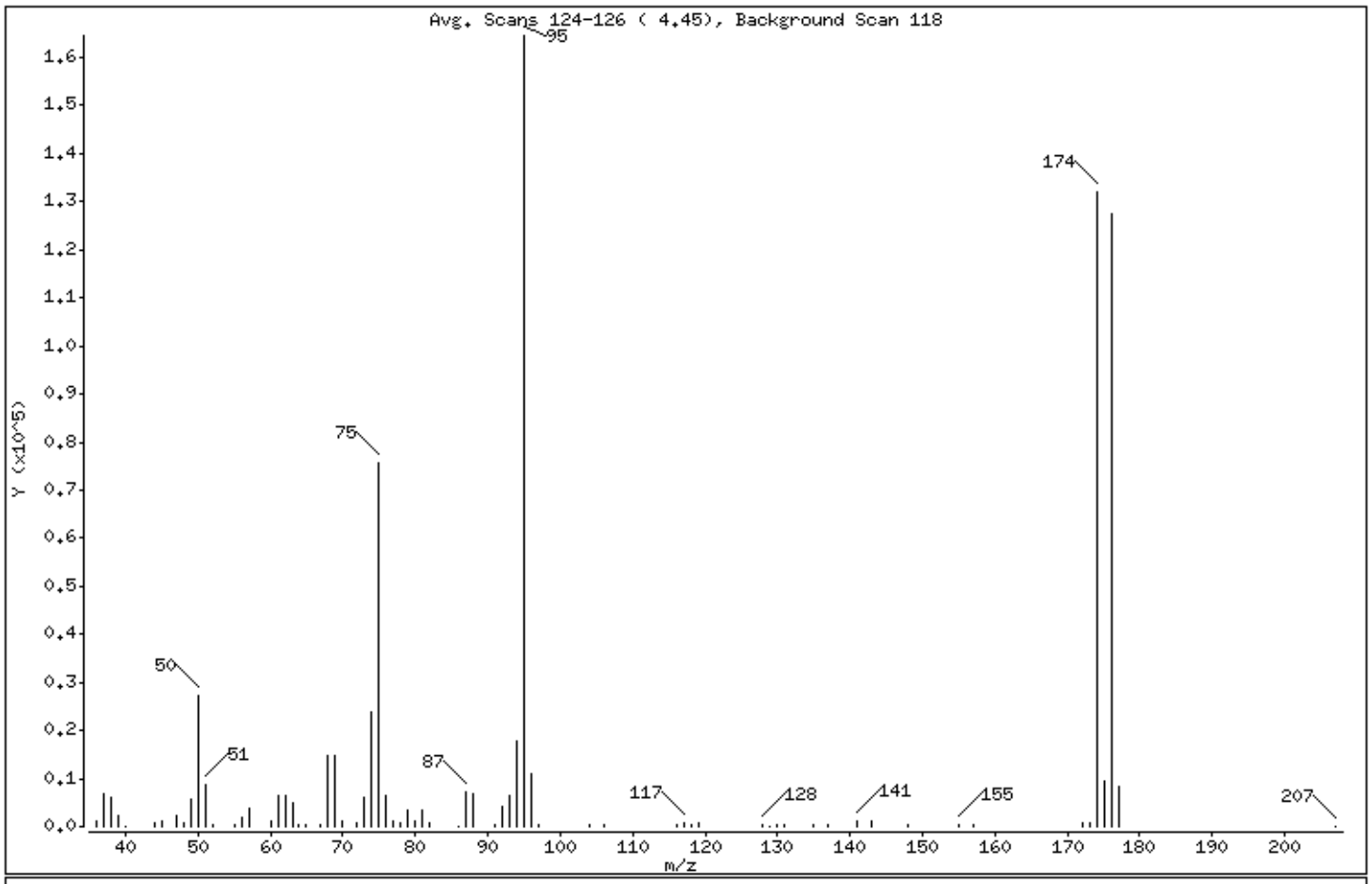
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.62
75	30.00 - 60.00% of mass 95	46.02
96	5.00 - 9.00% of mass 95	6.77
173	Less than 2.00% of mass 174	0.53 (0.66)
174	50.00 - 100.00% of mass 95	80.20
175	5.00 - 9.00% of mass 174	5.69 (7.09)
176	95.00 - 101.00% of mass 174	77.44 (96.57)
177	5.00 - 9.00% of mass 176	4.99 (6.44)

Date : 29-MAY-2020 09:29

Client ID: jan28-20 Instrument: HP26285.i

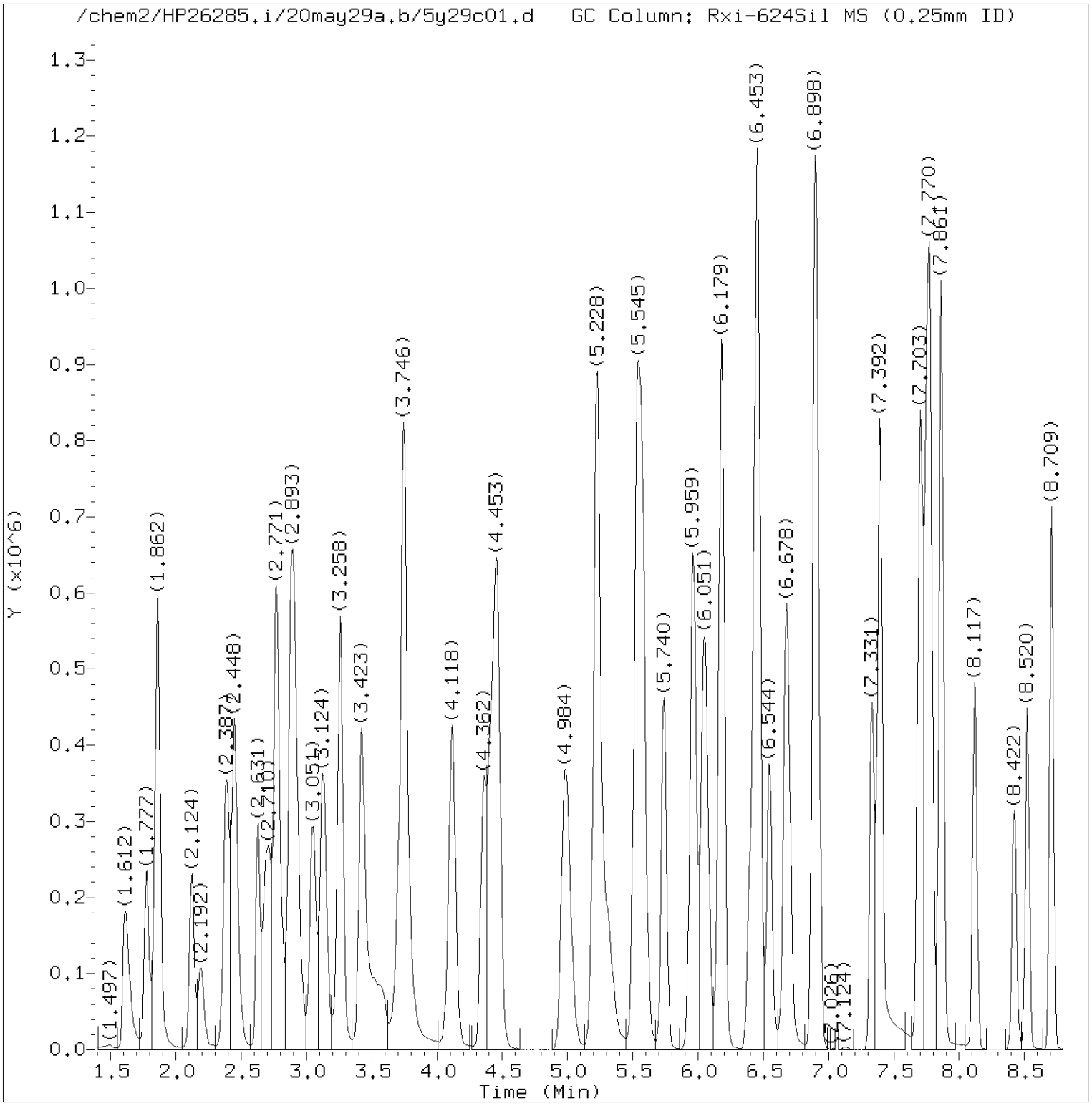
Sample Info: jan28-20;50NGBFB;1;3;;;;;;

Operator: CLM27445

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: 5y29t01.d
Spectrum: Avg. Scans 124-126 (4.45), Background Scan 118
Location of Maximum: 95.00
Number of points: 71

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1307	62.00	6249	82.00	761	129.00	97
37.00	6787	63.00	4761	86.00	98	130.00	489
38.00	6119	64.00	478	87.00	7298	131.00	194
39.00	2302	65.00	293	88.00	6644	135.00	284
40.00	125	67.00	422	91.00	498	137.00	191
44.00	661	68.00	14890	92.00	4092	141.00	1297
45.00	1170	69.00	14758	93.00	6357	143.00	1293
47.00	2298	70.00	1069	94.00	17864	148.00	343
48.00	896	72.00	765	95.00	164544	155.00	426
49.00	5732	73.00	6232	96.00	11137	157.00	209
50.00	27352	74.00	23832	97.00	357	172.00	576
51.00	8537	75.00	75728	104.00	552	173.00	872
52.00	375	76.00	6463	106.00	536	174.00	131904
55.00	375	77.00	951	116.00	456	175.00	9356
56.00	1983	78.00	670	117.00	815	176.00	127424
57.00	3743	79.00	3287	118.00	490	177.00	8208
60.00	1276	80.00	1088	119.00	677	207.00	95
61.00	6559	81.00	3428	128.00	518		



Total Ion Chromatogram (TIC)

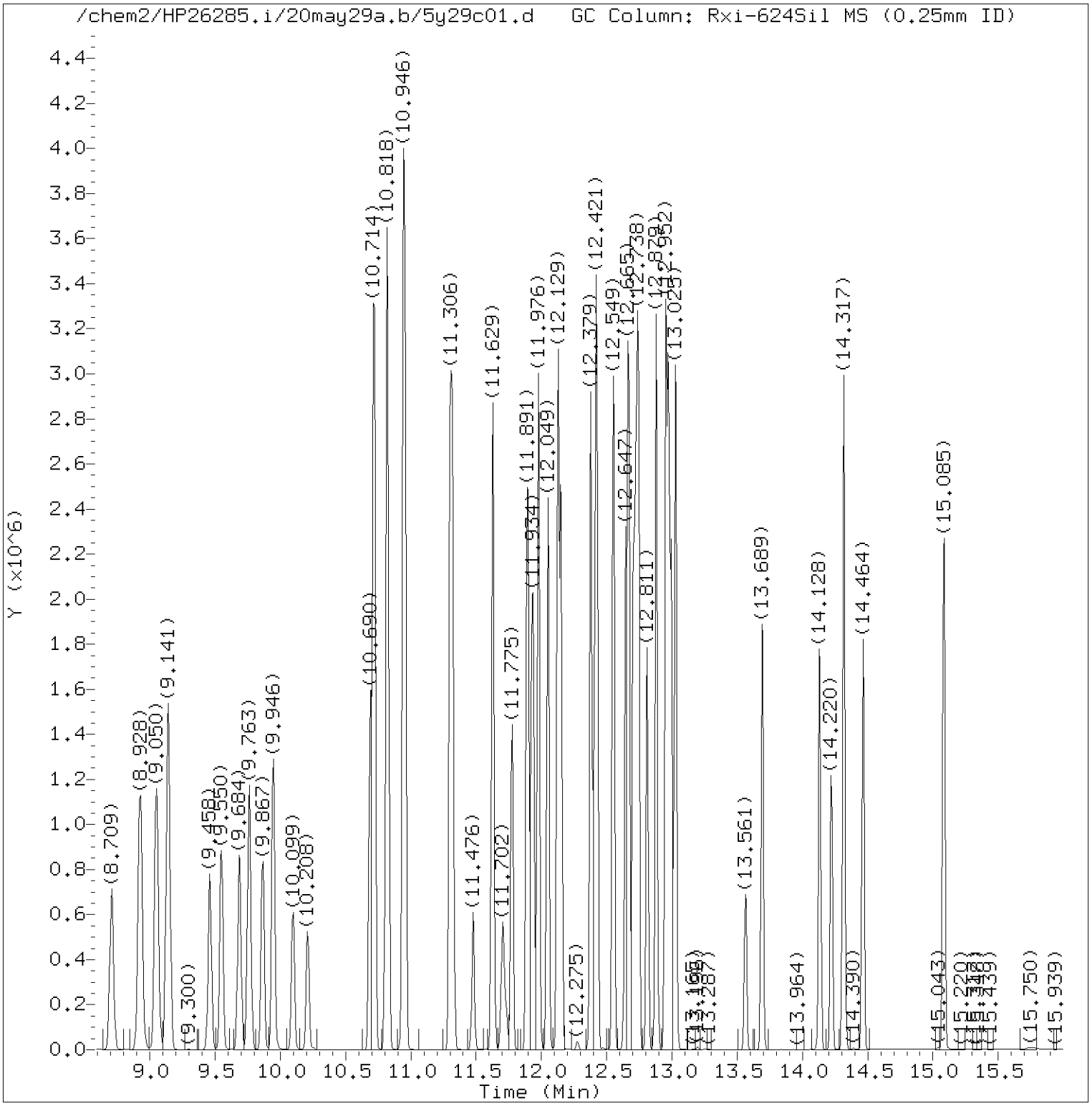
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	426826	51.925
4) Chloromethane	(2)	1.771	50	320676	49.173
5) 1,3-Butadiene	(2)	1.856	39	330948	36.513
6) Vinyl Chloride	(2)	1.862	62	313855	54.421
8) Bromomethane	(2)	2.124	94	227386	58.725
9) Chloroethane	(2)	2.192	64	153968	56.387
10) Dichlorofluoromethane	(2)	2.387	67	425597	47.829
12) Trichlorofluoromethane	(2)	2.429	101	402070	56.923
11) n-Pentane	(2)	2.454	43	302650	46.031
14) Ethyl ether	(2)	2.624	59	206380	42.382
15) Freon 123a	(2)	2.704	67	343058	46.529
16) Acrolein	(1)	2.771	56	936460	426.698
17) 1,1-Dichloroethene	(2)	2.880	96	260809	47.523
17) 1,1-Dichloroethene	(2)	2.880	63	133057	48.375
18) Acetone	(1)	2.905	58	105952	97.886
19) Freon 113	(2)	2.911	101	293757	47.290
21) 2-Propanol	(1)	3.045	45	140068	159.026
22) Methyl Iodide	(2)	3.051	142	525203	50.188
23) Carbon Disulfide	(2)	3.130	76	899190	46.579
27) Methyl Acetate	(2)	3.240	43	376882	47.631
25) Allyl Chloride	(2)	3.265	41	413451	45.006
28) Methylene Chloride	(2)	3.423	84	296395	47.913
29)*t-Butyl alcohol-d10	(1)	3.429	65	346604M	250.000
30) t-Butyl alcohol	(1)	3.539	59	305594	187.185
31) Acrylonitrile	(2)	3.697	53	192768	46.156
32) trans-1,2-Dichloroethene	(2)	3.746	96	295257	48.081
33) Methyl Tertiary Butyl Ether	(2)	3.752	73	780438	48.048
34) n-Hexane	(2)	4.118	57	403308	44.292
36) 1,1-Dichloroethane	(2)	4.356	63	527110	47.417
38) di-Isopropyl ether	(2)	4.417	45	893526	45.003
39) 2-Chloro-1,3-butadiene	(2)	4.465	53	455536	48.236
40) Ethyl t-butyl ether	(2)	4.990	59	786199	44.603
44) 2-Butanone	(2)	5.209	43	529046	87.034
42) cis-1,2-Dichloroethene	(2)	5.228	96	333640	48.036
45) 2,2-Dichloropropane	(2)	5.240	77	420214	44.800
47) Propionitrile	(1)	5.313	54	423862	238.497
48) Methacrylonitrile	(2)	5.532	67	497888	119.698
49) Bromochloromethane	(2)	5.569	128	159528	50.147

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	5.581	71	146755	91.366
51) Chloroform	(2)	5.740	83	541896	48.601
52)$Dibromofluoromethane	(2)	5.959	113	257586	50.951
52)$Dibromofluoromethane	(2)	5.965	111	262609	50.733
53) 1,1,1-Trichloroethane	(2)	5.959	97	481690	47.983
54) Cyclohexane	(2)	6.051	56	503909	43.100
54) Cyclohexane	(2)	6.051	84	429828	44.444
54) Cyclohexane	(2)	6.051	69	157155	43.336
43) 1,2-Dichloroethene (Total)	(2)		96	628897	96.117
56) Carbon Tetrachloride	(2)	6.172	117	422542	48.243
55) 1,1-Dichloropropene	(2)	6.185	75	430742	47.366
58) Isobutyl Alcohol	(1)	6.404	41	306963	564.081
57)$1,2-Dichloroethane-d4	(2)	6.441	102	57719	51.048
57)$1,2-Dichloroethane-d4	(2)	6.435	65	289399	52.350
57)$1,2-Dichloroethane-d4	(2)	6.441	104	36423	50.309
60) Benzene	(2)	6.459	78	1280466	47.354
61) 1,2-Dichloroethane	(2)	6.544	62	402983	48.522
61) 1,2-Dichloroethane	(2)	6.544	98	35977	51.225
65) t-Amyl methyl ether	(2)	6.678	73	798441	45.396
66)*Fluorobenzene	(2)	6.892	96	1014999	50.000
67) n-Heptane	(2)	6.910	43	400484	45.533
69) n-Butanol	(1)	7.331	56	514572	1095.854
71) Trichloroethene	(2)	7.392	95	345841	48.738
73) Methylcyclohexane	(2)	7.703	83	508226	45.065
73) Methylcyclohexane	(2)	7.703	98	214157	44.856
74) 1,2-Dichloropropane	(2)	7.745	63	319860	47.254
76) 1,4-Dioxane	(1)	7.849	88	73192M	628.395
75) Dibromomethane	(2)	7.861	93	208893	49.009
77) Methyl Methacrylate	(2)	7.867	69	304785	48.125
79) Bromodichloromethane	(2)	8.117	83	399922	48.387
80) 2-Nitropropane	(2)	8.422	41	267732	93.526
81) 2-Chloroethyl Vinyl Ether	(2)	8.520	63	240168	45.847
82) cis-1,3-Dichloropropene	(2)	8.709	75	499340	47.809
83) 4-Methyl-2-pentanone	(2)	8.928	43	1058090	90.311
84)$Toluene-d8	(3)	9.050	98	986094	49.573
84)$Toluene-d8	(3)	9.050	100	643588	49.139
89) Toluene	(3)	9.141	92	834731	47.591
90) trans-1,3-Dichloropropene	(3)	9.458	75	449313	47.744

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
92) Ethyl Methacrylate	(3)	9.550	69	502334	46.942
93) 1,1,2-Trichloroethane	(3)	9.684	97	303814	48.451
94) Tetrachloroethene	(3)	9.763	166	375975	50.540
95) 1,3-Dichloropropane	(3)	9.867	76	496049	47.644
97) 2-Hexanone	(3)	9.946	43	867333	93.072
91) 1,3-Dichloropropene (total)	(3)		100	948653	95.553
98) Dibromochloromethane	(3)	10.099	129	324718	48.938
100) 1,2-Dibromoethane	(3)	10.208	107	341195	49.358
101)*Chlorobenzene-d5	(3)	10.690	117	809407	50.000
103) Chlorobenzene	(3)	10.720	112	938358	49.295
102) 1-Chlorohexane	(3)	10.720	91	472022	46.275
104) 1,1,1,2-Tetrachloroethane	(3)	10.812	131	332146	50.577
105) Ethylbenzene	(3)	10.818	91	1682449	49.609
107) m+p-Xylene	(3)	10.946	106	1297724	99.733
108) o-Xylene	(3)	11.300	106	625145	49.085
110) Styrene	(3)	11.318	104	1041809	50.757
111) Bromoform	(3)	11.476	173	241121	50.226
112) Isopropylbenzene	(3)	11.629	105	1661691	49.719
113) Cyclohexanone	(1)	11.702	55	285567A	533.777
109) Xylene (Total)	(3)		106	1922869	148.819
115)$4-Bromofluorobenzene	(3)	11.775	95	414976	49.513
115)$4-Bromofluorobenzene	(3)	11.775	174	341533	52.237
116) Bromobenzene	(4)	11.891	156	407904	48.865
117) 1,1,2,2-Tetrachloroethane	(4)	11.897	83	534623	47.196
119) trans-1,4-Dichloro-2-butene	(4)	11.927	53	244831	109.332
118) 1,2,3-Trichloropropane	(4)	11.940	110	162283	48.653
120) n-Propylbenzene	(4)	11.976	91	1981752	48.287
121) 2-Chlorotoluene	(4)	12.049	126	400130	47.564
123) 1,3,5-Trimethylbenzene	(4)	12.129	105	1399747	48.517
122) 4-Chlorotoluene	(4)	12.153	126	413828	48.698
125) tert-Butylbenzene	(4)	12.379	134	283095M	49.373
126) Pentachloroethane	(4)	12.409	167	234246	49.763
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	1453988	48.939
128) sec-Butylbenzene	(4)	12.549	105	1736169	48.537
130) 1,3-Dichlorobenzene	(4)	12.647	146	769754	49.025
131) p-Isopropyltoluene	(4)	12.665	119	1476572	49.501
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	437870	50.000
134) 1,4-Dichlorobenzene	(4)	12.726	146	779411	48.913

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

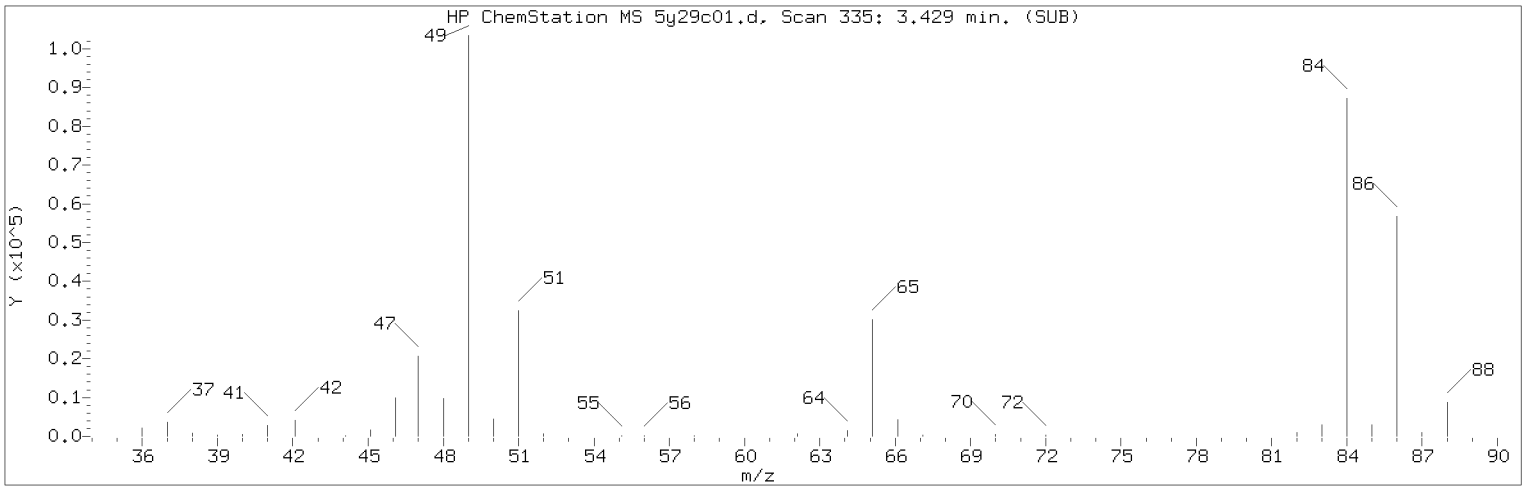
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

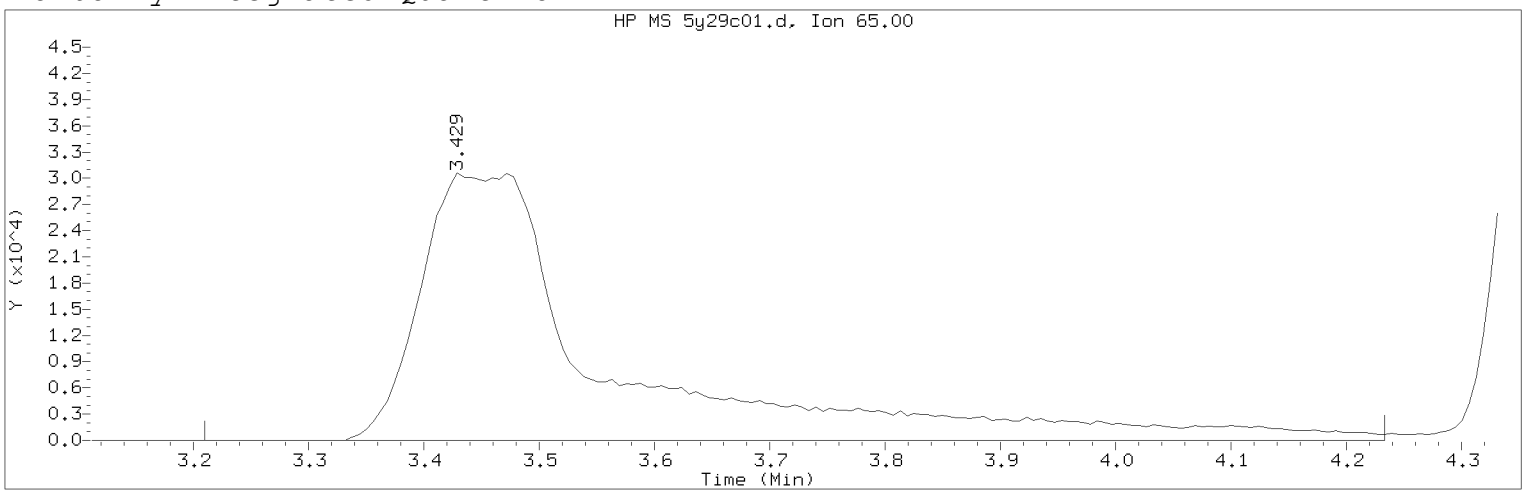
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) 1,2,3-Trimethylbenzene	(4)	12.744	105	1399870	49.088
136) Benzyl Chloride	(4)	12.811	91	1010308	46.489
137) 1,3-Diethylbenzene	(4)	12.879	119	866612	50.281
138) 1,4-Diethylbenzene	(4)	12.952	119	903175	50.664
140) n-Butylbenzene	(4)	12.970	92	731742	48.633
139) 1,2-Dichlorobenzene	(4)	12.994	146	735895	48.792
141) 1,2-Diethylbenzene	(4)	13.025	119	718867	49.317
142) Diethylbenzene (total)	(4)		100	2488654	150.262
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	142085	49.682
145) 1,3,5-Trichlorobenzene	(4)	13.695	180	498198	50.011
147) 1,2,4-Trichlorobenzene	(4)	14.134	180	460166	49.169
148) Hexachlorobutadiene	(4)	14.220	225	180917	50.265
149) Naphthalene	(4)	14.317	128	1833566	49.474
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	453105	48.926
151) 2-Methylnaphthalene	(4)	15.085	142	934907	48.555

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

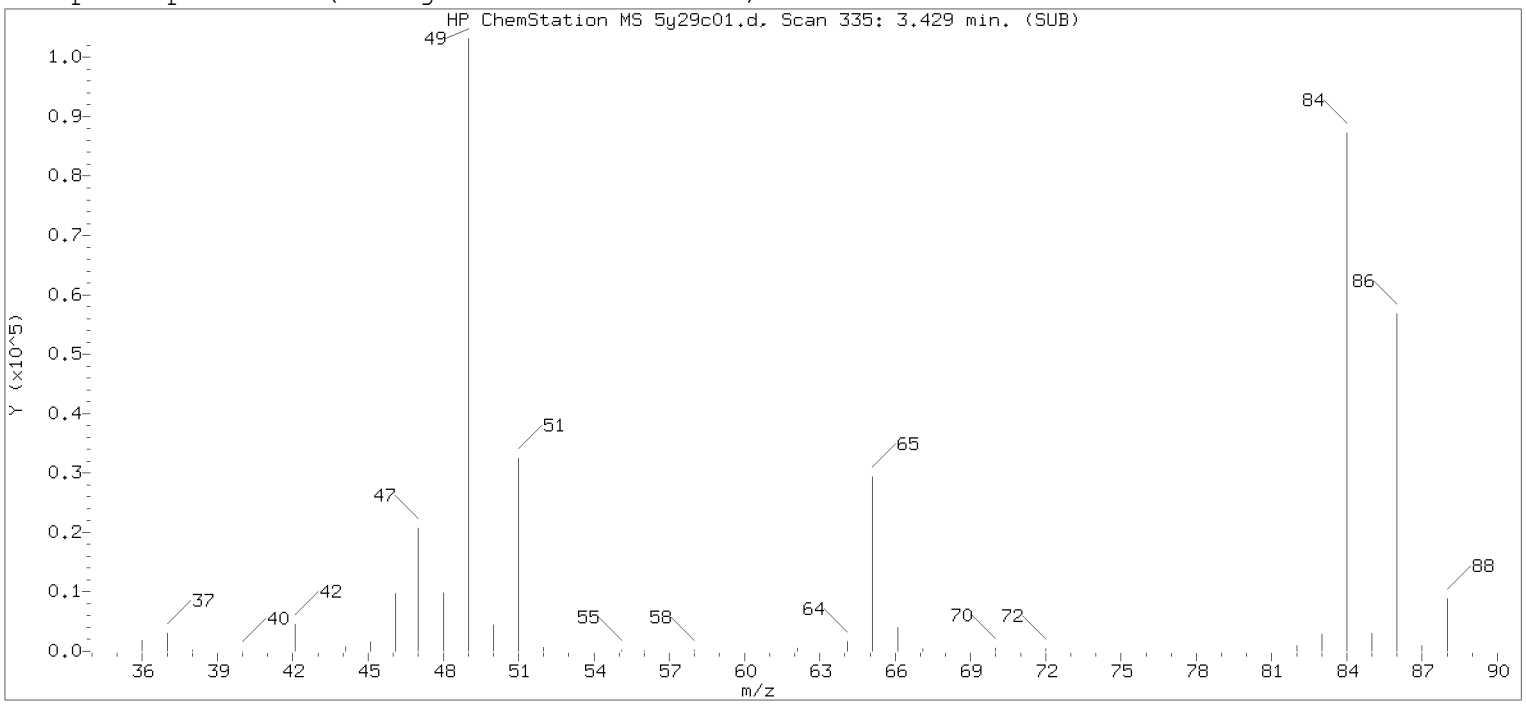
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 335
Retention Time (minutes): 3.429
Quant Ion : 65.00
Area (flag) : 346604M
On-Column Amount (ng) : 250.0000
Integration start scan : 298 Integration stop scan: 466
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

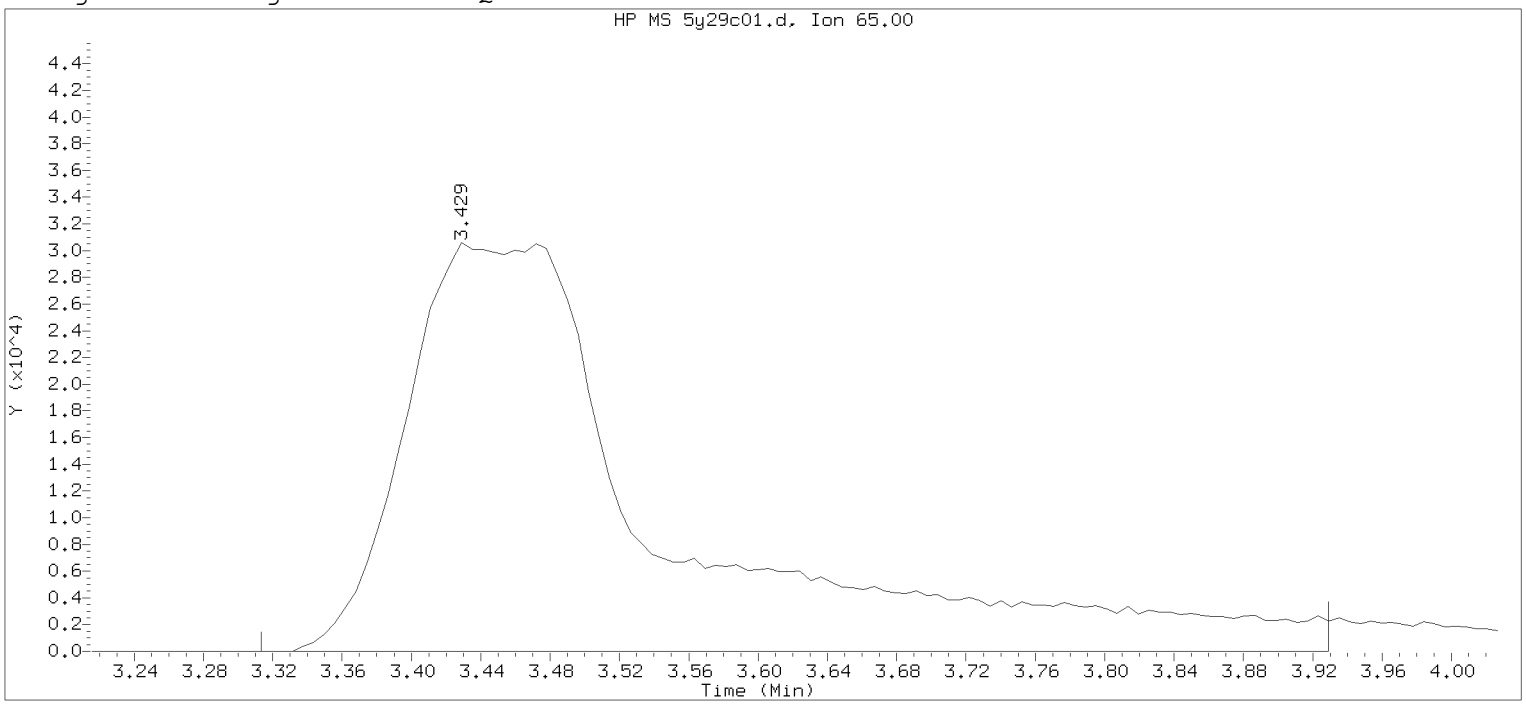
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

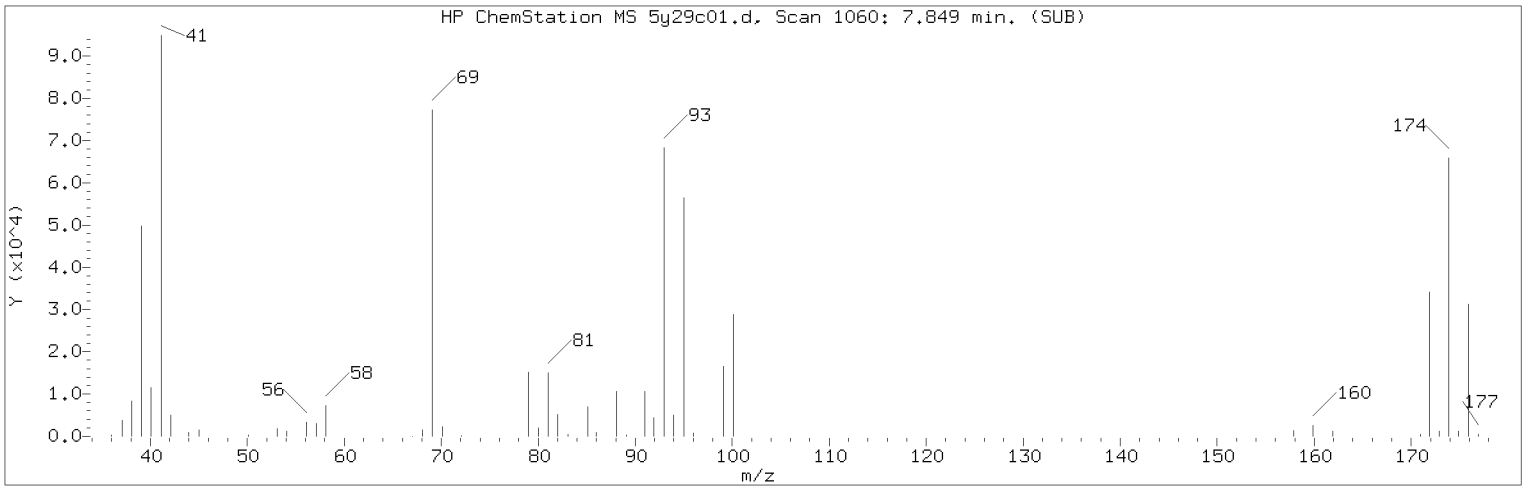
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

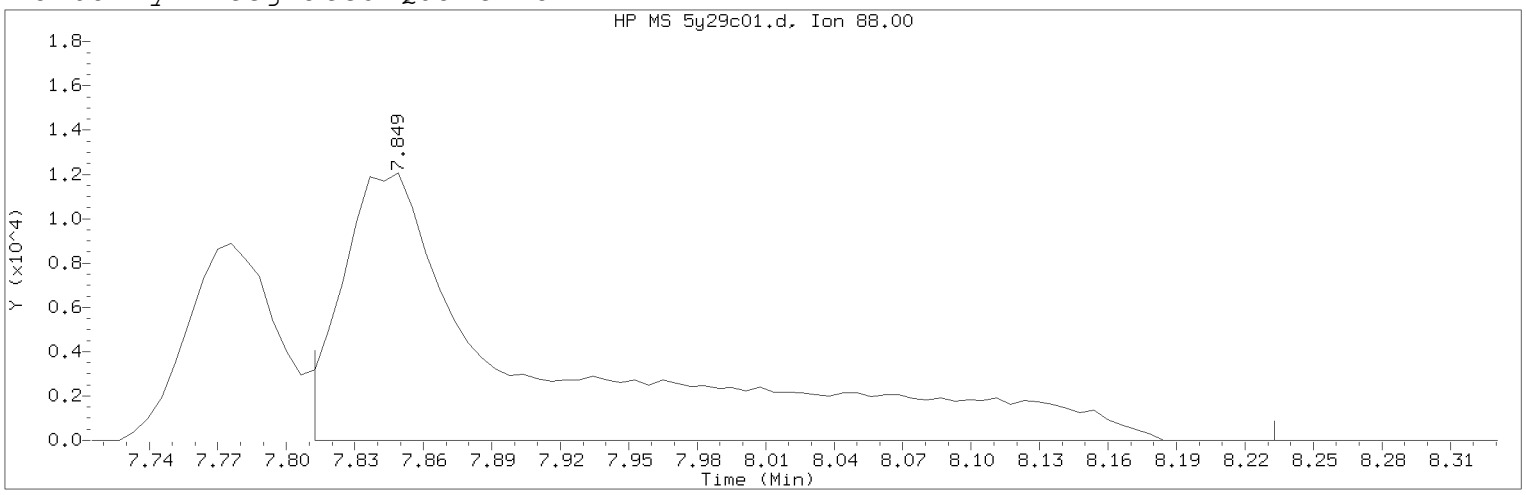
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 335
Retention Time (minutes): 3.429
Quant Ion : 65.00
Area : 318561
On-column Amount (ng) : 250.0000
Integration start scan : 315 Integration stop scan: 416
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

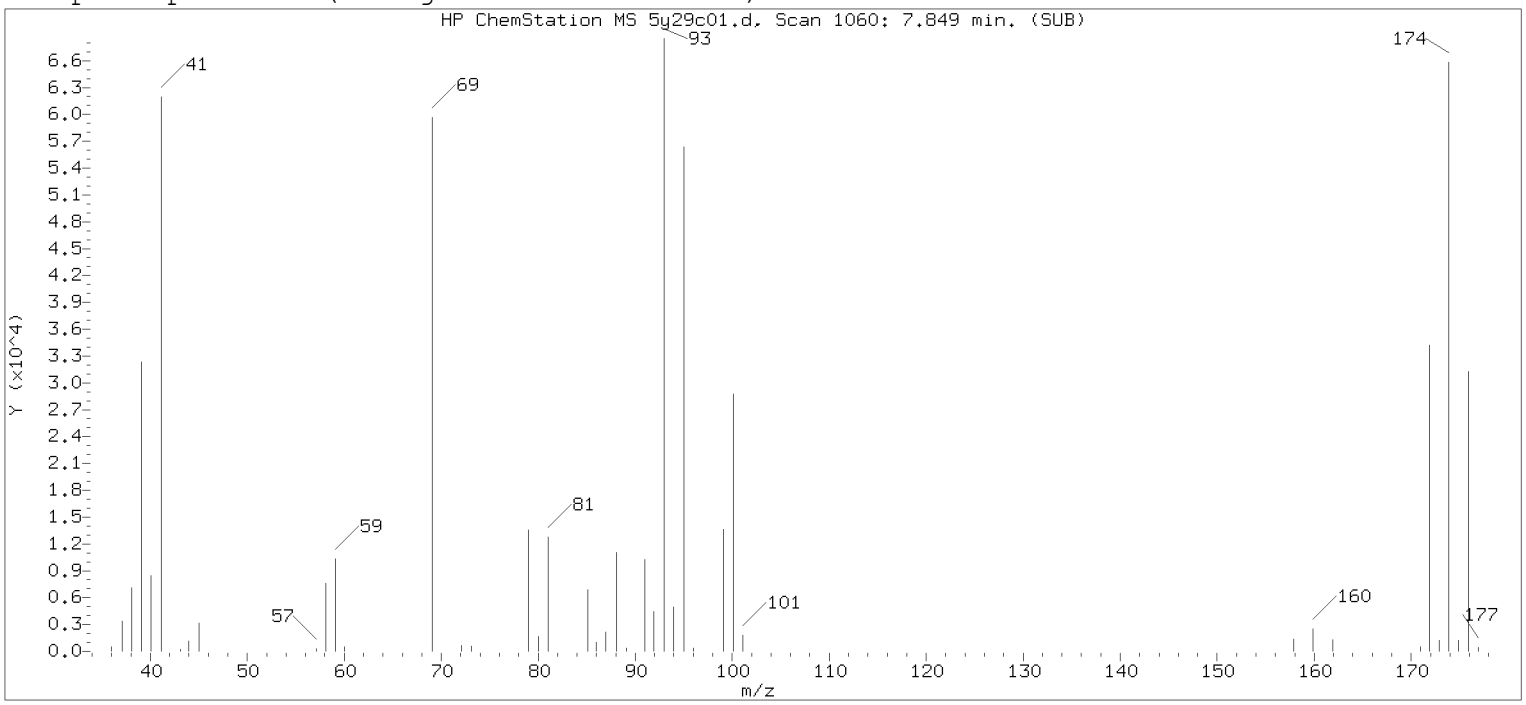
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 73192M
On-Column Amount (ng) : 628.3947
Integration start scan : 1053 Integration stop scan: 1122
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

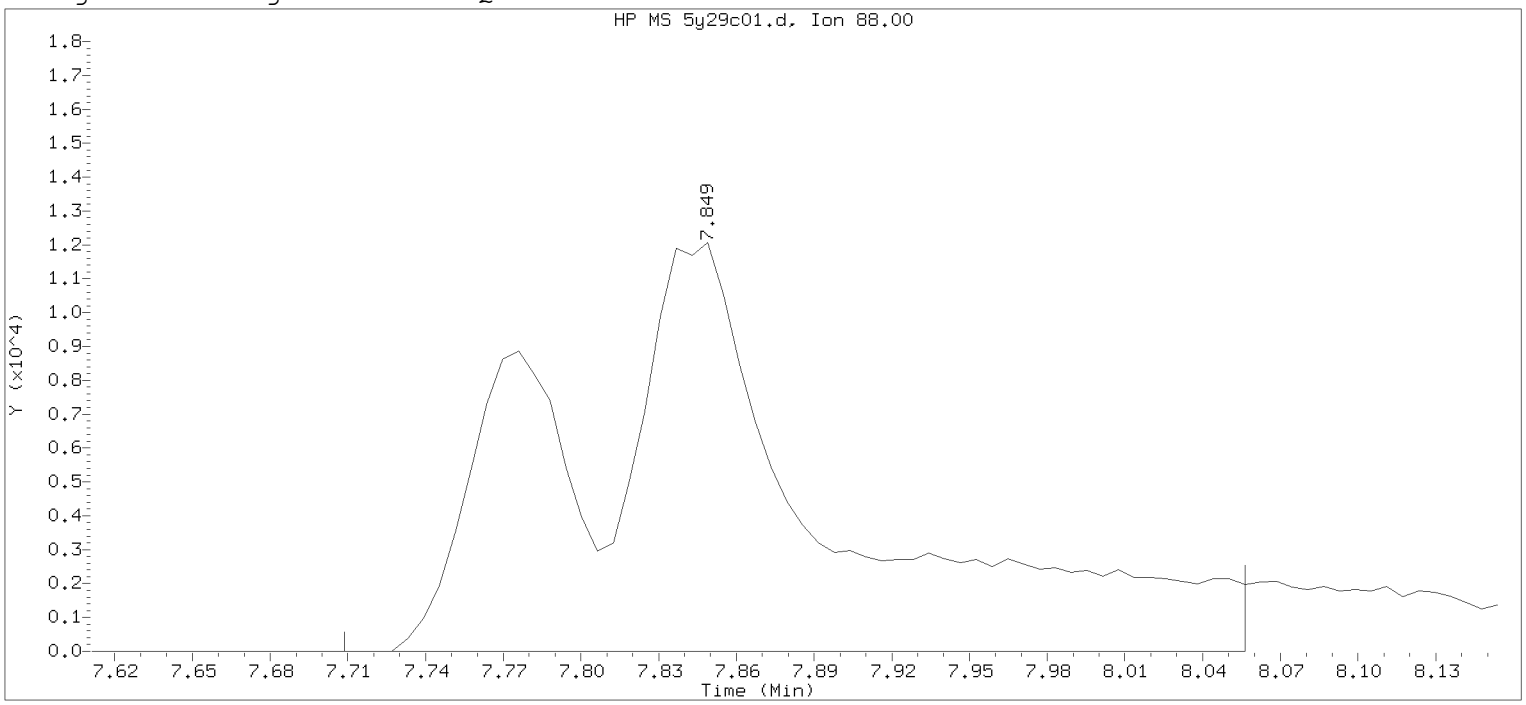
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

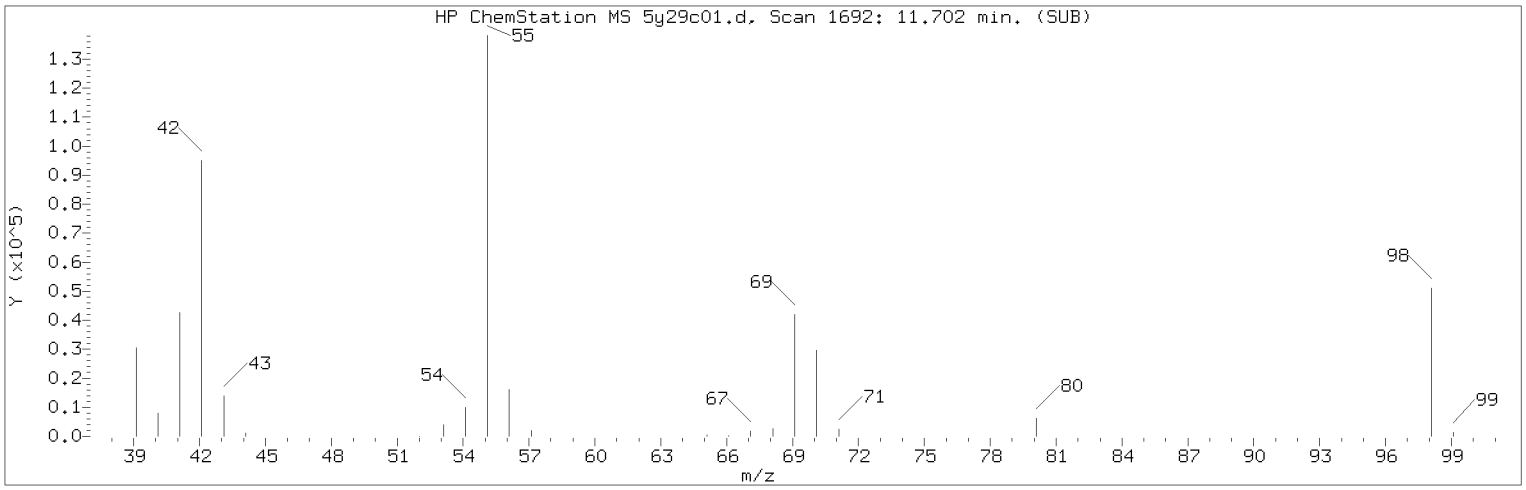
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

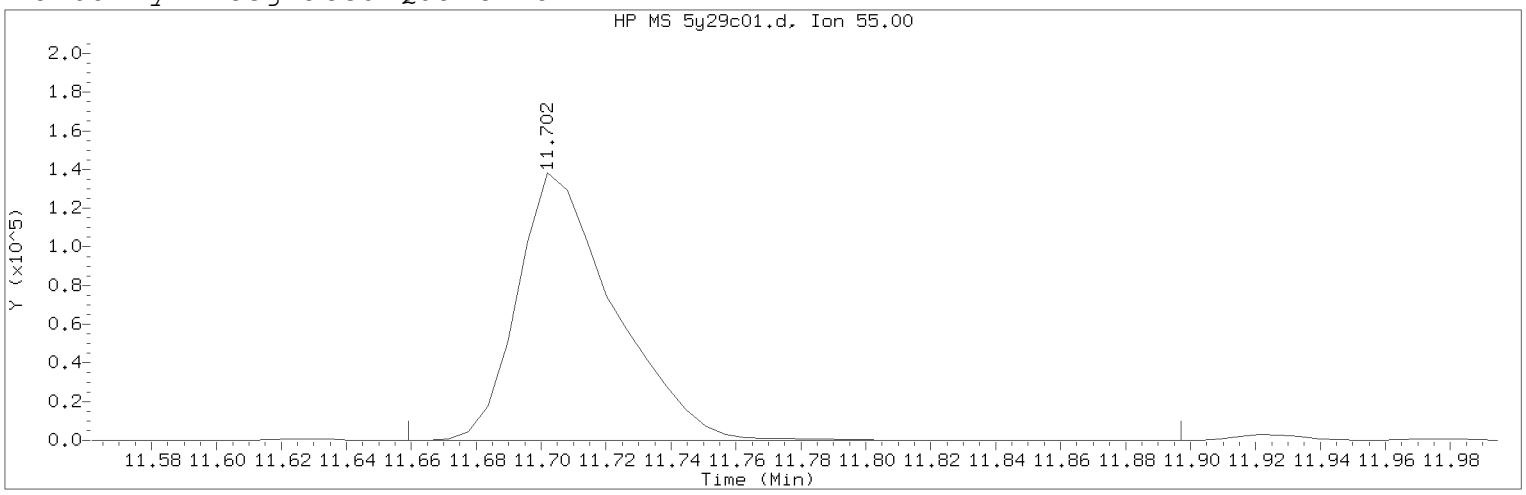
Compound Number	: 76		
Compound Name	: 1,4-Dioxane		
Scan Number	: 1060		
Retention Time (minutes)	: 7.849		
Quant Ion	: 88.00		
Area	: 85521		
On-column Amount (ng)	: 798.8831		
Integration start scan	: 1036	Integration stop scan:	1093
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

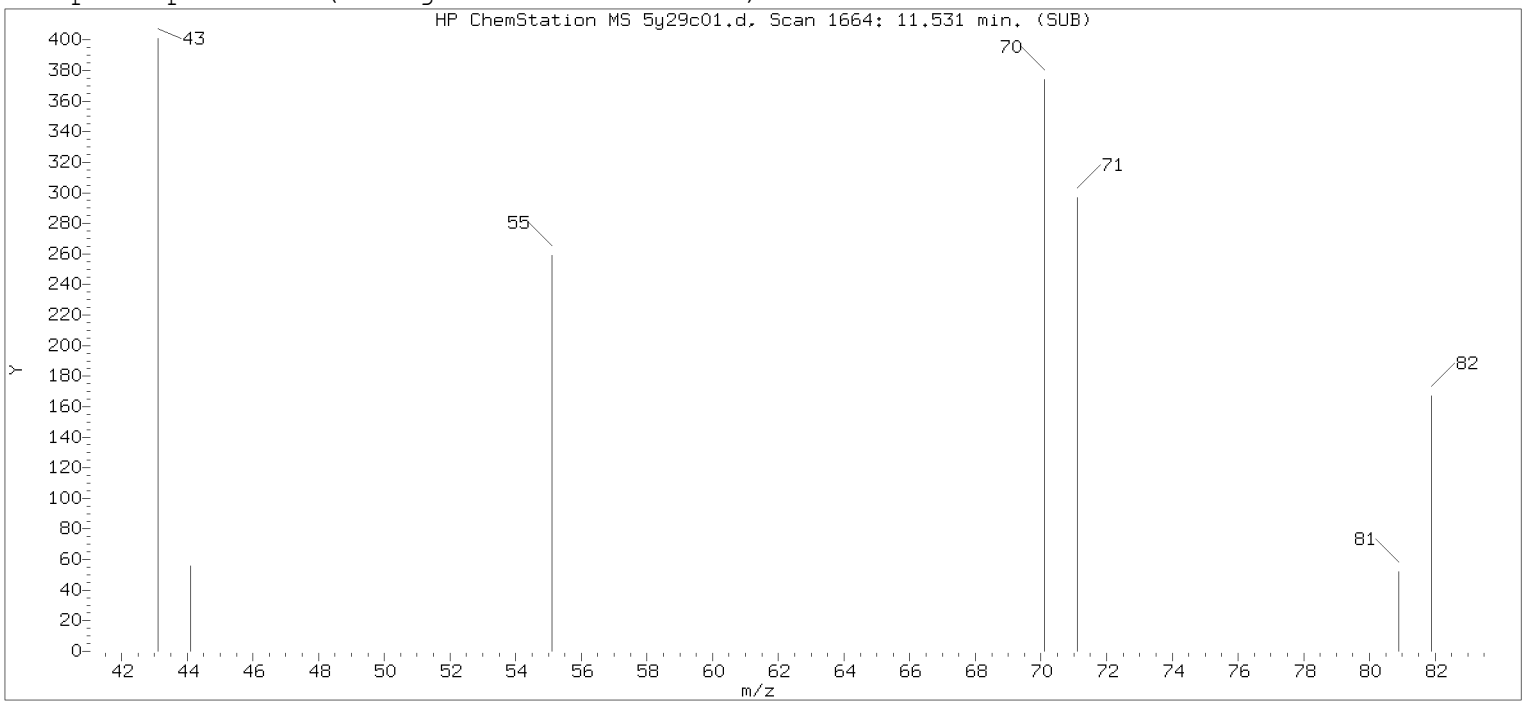
Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1692
Retention Time (minutes): 11.702
Quant Ion : 55.00
Area (flag) : 285567A
On-Column Amount (ng) : 533.7767
Integration start scan : 1684 Integration stop scan: 1723
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

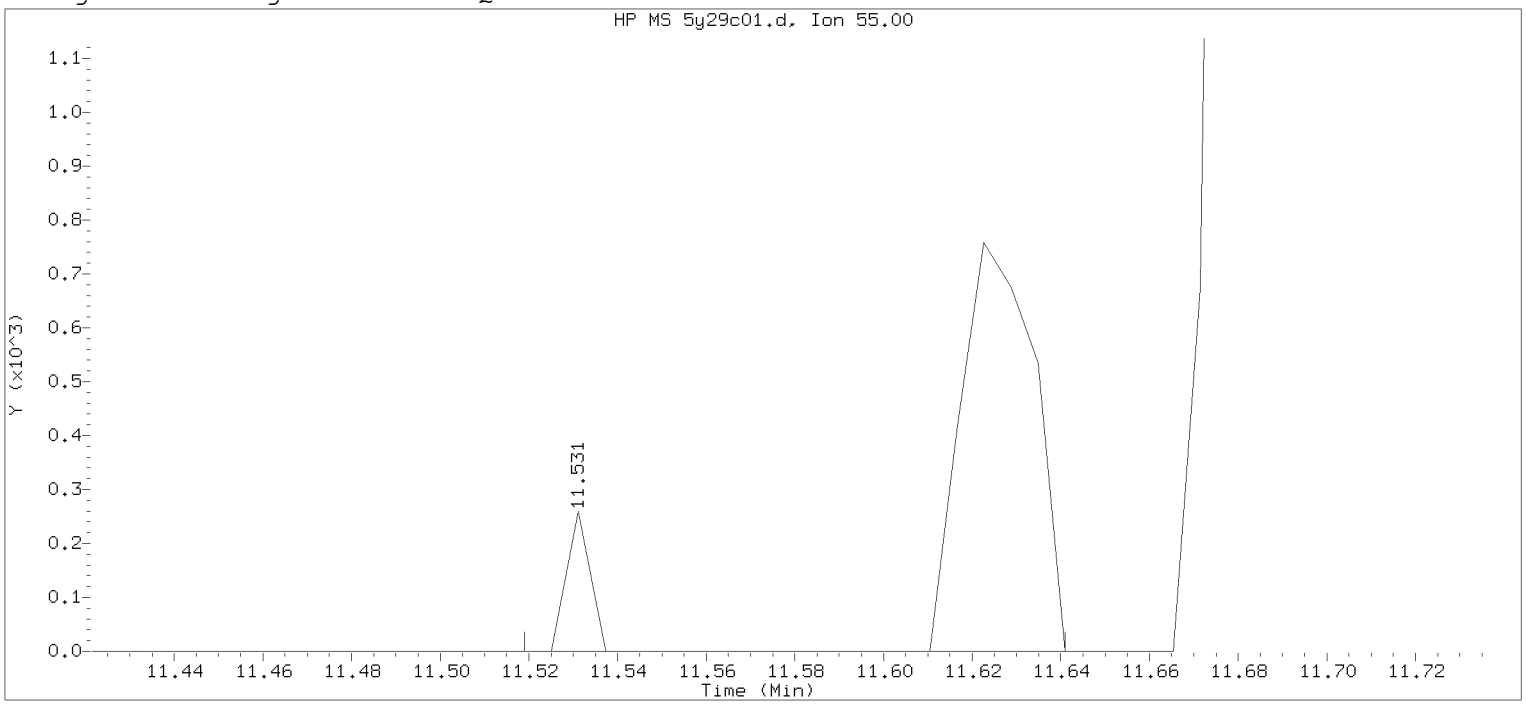
Analyst responsible for change: Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 113
Compound Name : Cyclohexanone
Scan Number : 1664
Retention Time (minutes): 11.531
Quant Ion : 55.00
Area : 964
On-column Amount (ng) : 1.9617
Integration start scan : 1661 Integration stop scan: 1681
Y at integration start : 0 Y at integration end: 0

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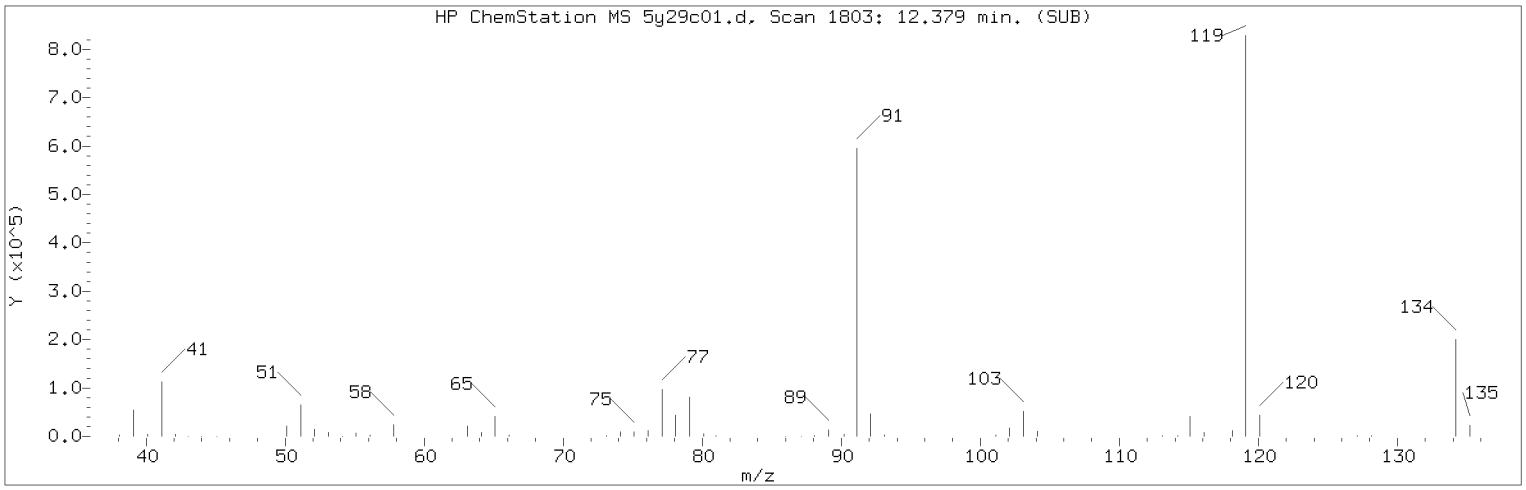
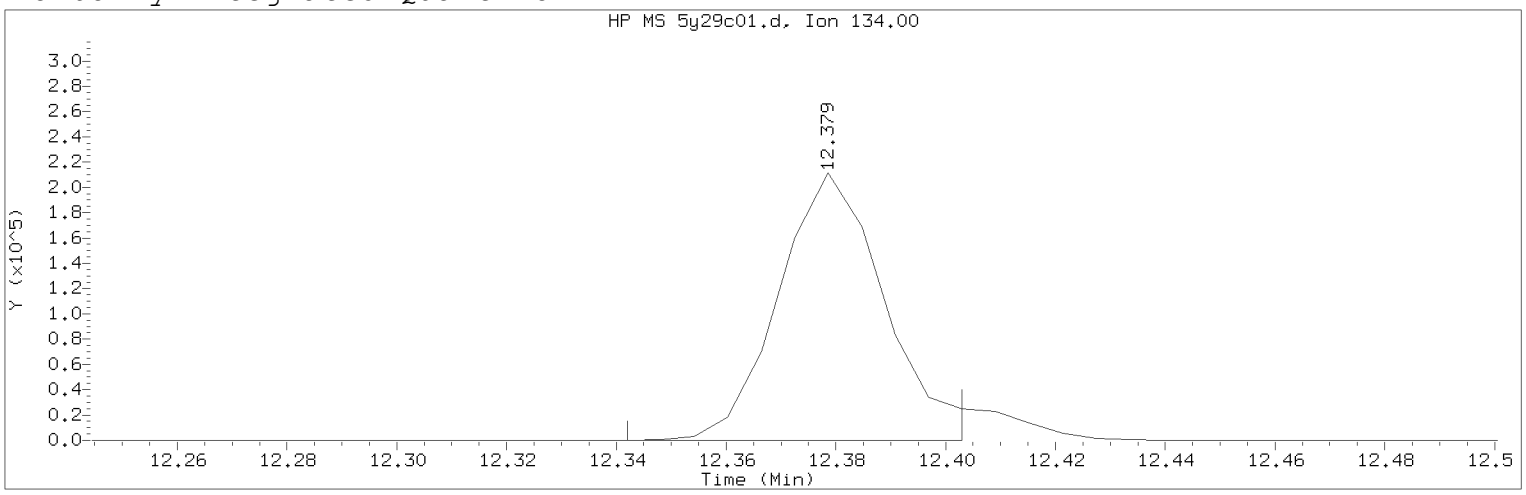
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 10:41 clm27445

Sample Name: VSTD050 Lab Sample ID: VSTD050

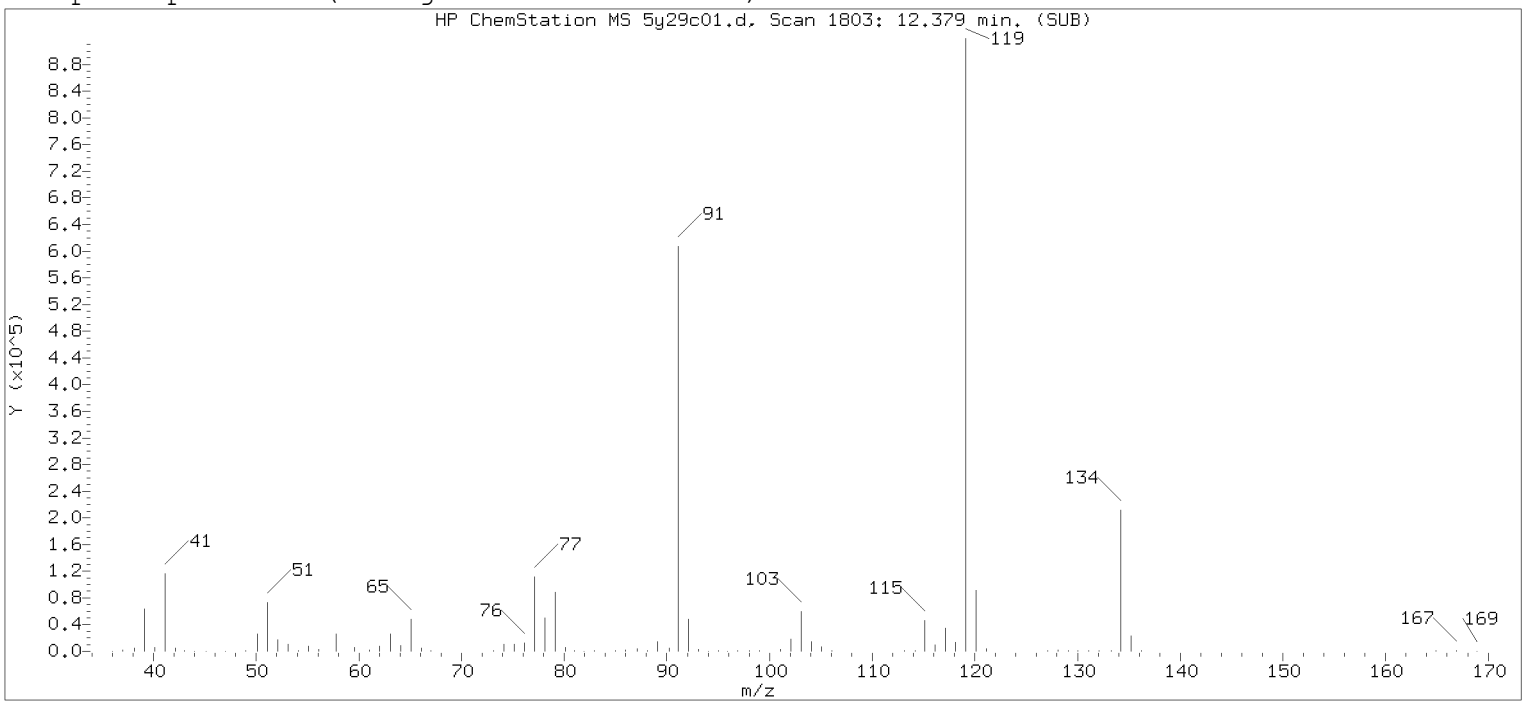
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area (flag) : 283095M
On-Column Amount (ng) : 49.3733
Integration start scan : 1796 Integration stop scan: 1806
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

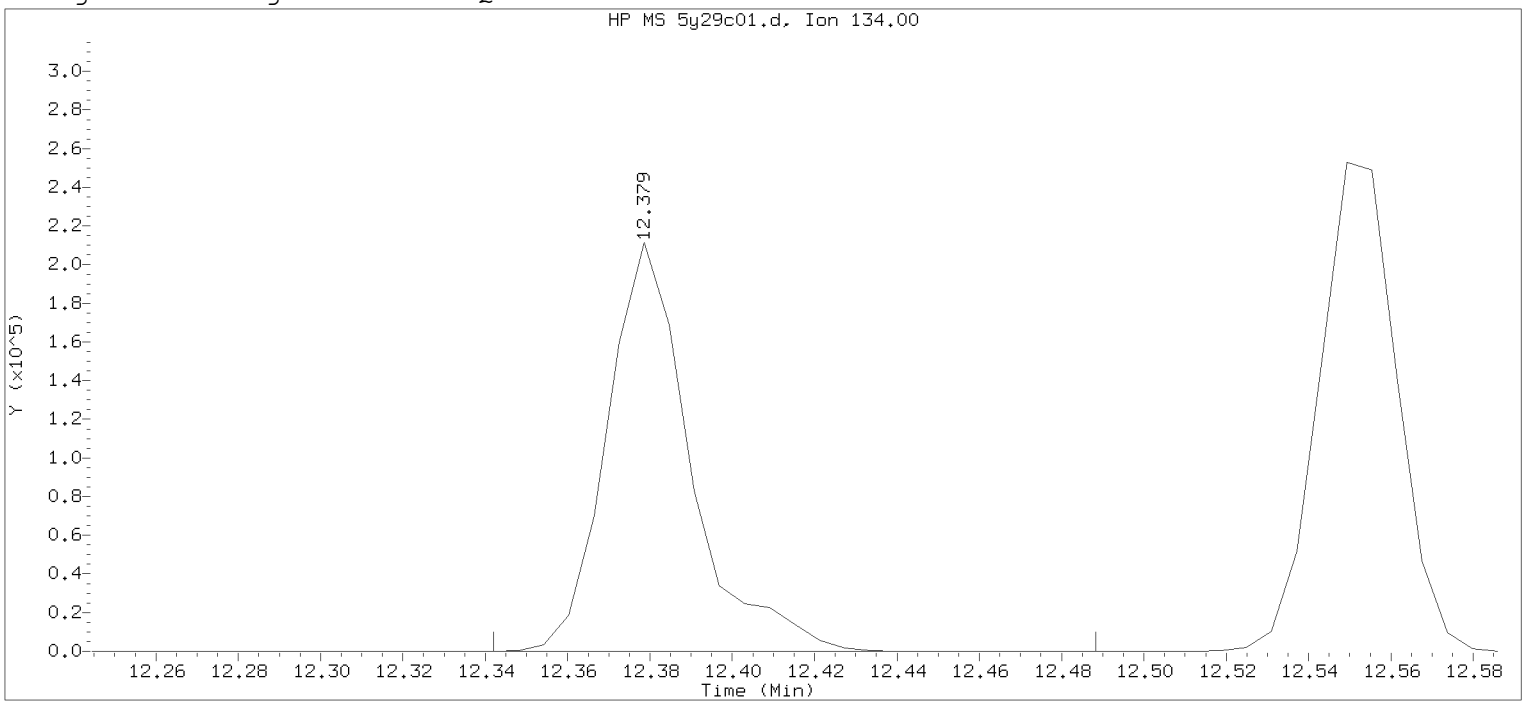
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 10:42.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29c01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:11 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 29-MAY-2020 10:30
Date, time and analyst ID of latest file update: 29-May-2020 10:30 chemist

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area : 299233
On-column Amount (ng) : 52.1878
Integration start scan : 1796 Integration stop scan: 1820
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 10:42.
Target 3.5 esignature user: CLM27445

Raw QC Data

Volatiles by GC/MS

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;;
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Injection date and time: **27-MAY-2020 10:08**
Instrument ID: **HP26285.i** Batch: **5201481AA**

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447(-0.030)	338	65	281319 (-5)	250.00	
66) Fluorobenzene	6.874(0.000)	900	96	970263 (-4)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	761606 (-6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.696(0.000)	1855	152	402762 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947(0.000)	113	240697	49.806	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.423(-0.001)	102	56071	51.877	104%		80 - 120
84) Toluene-d8	(3)	9.032(0.001)	98	918744	49.086	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.763(0.000)	95	374434	47.480	95%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)			Not Detected					0.4	2
44) 2-Butanone	(2)			Not Detected					0.3	10

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d Injection date and time: **27-MAY-2020 10:08**
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5

Digitally signed by Linda C. Pape on 05/27/2020 at 10:42. Target 3.5 esignature user ID: lcp00895

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27b01.d Injection date and time: **27-MAY-2020 10:08**
Data file Sample Info. Line: VBLK572;VBLK572;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

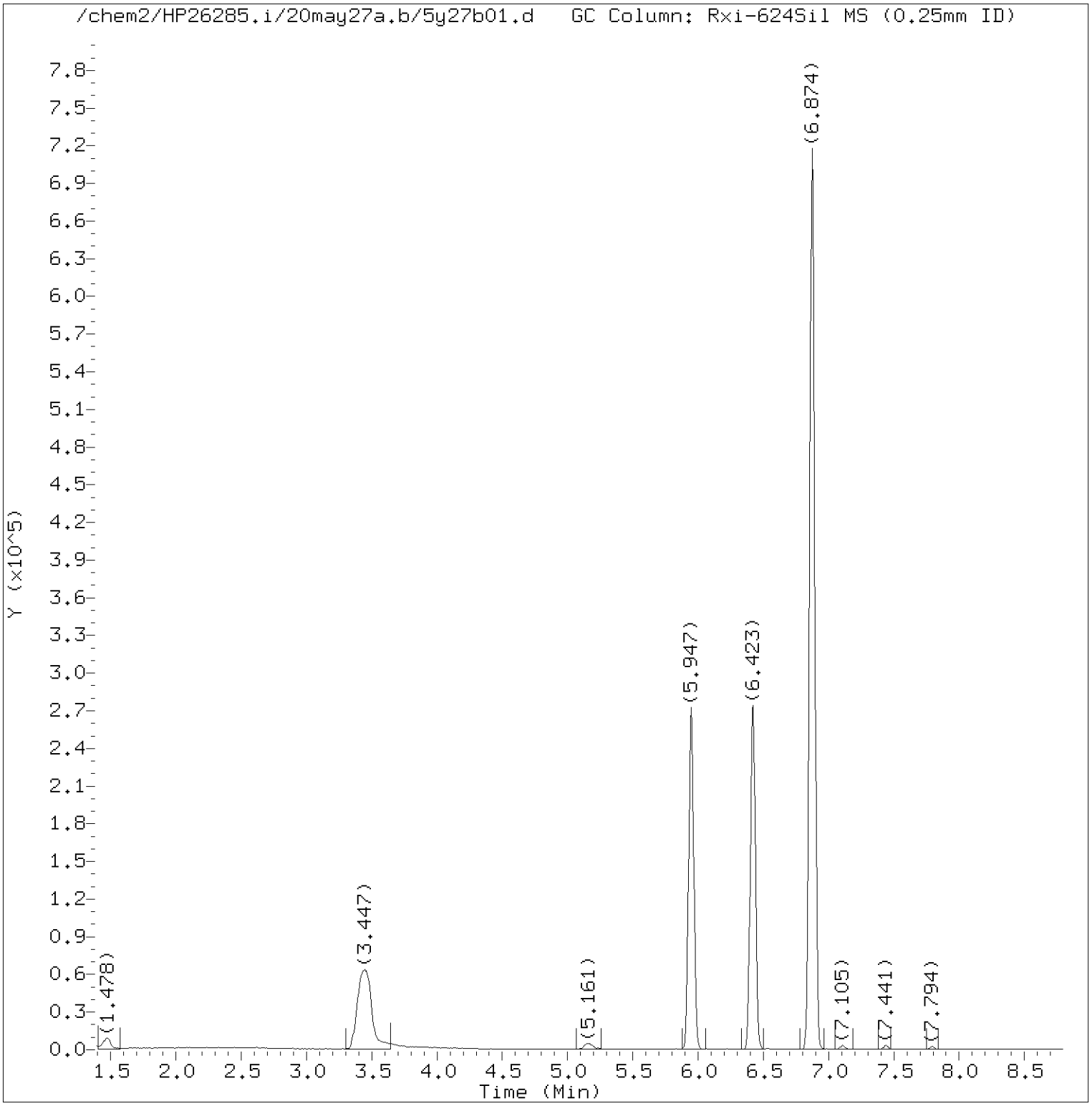
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 109

Digitally signed by Linda C. Pape on 05/27/2020 at 10:42. Target 3.5 esignature user ID: lcp00895

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

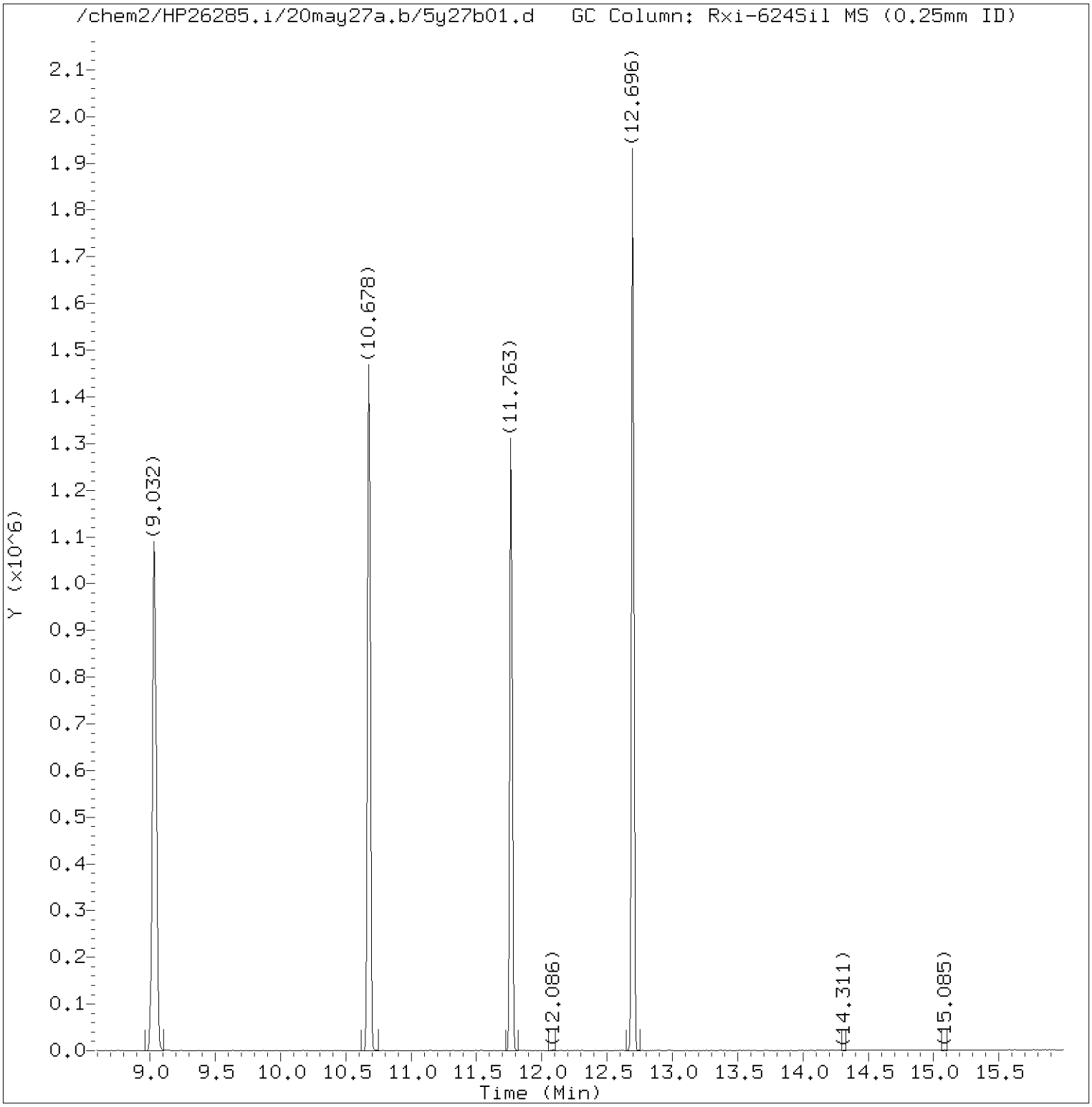
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

Digitally signed by Linda C. Pape
on 05/27/2020 at 10:42.
Target 3.5 esignature user ID: lcp00895



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

Digitally signed by Linda C. Pape
on 05/27/2020 at 10:42.
Target 3.5 esignature user ID: lcp00895

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27b01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 10:08 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:27 chemist

Sample Name: VBLK572 Lab Sample ID: VBLK572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.447	65	281319	250.000
52)$Dibromofluoromethane	(2)	5.947	113	240697	49.806
57)$1,2-Dichloroethane-d4	(2)	6.423	102	56071	51.877
66)*Fluorobenzene	(2)	6.874	96	970263	50.000
84)$Toluene-d8	(3)	9.032	98	918744	49.086
101)*Chlorobenzene-d5	(3)	10.678	117	761606	50.000
115)$4-Bromofluorobenzene	(3)	11.763	95	374434	47.480
132)*1,4-Dichlorobenzene-d4	(4)	12.696	152	402762	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Linda C. Pape
on 05/27/2020 at 10:42.
Target 3.5 esignature user ID: lcp00895

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d Injection date and time: **27-MAY-2020 21:35**
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460 (-0.036)	340	65	275498 (19)	250.00	
66) Fluorobenzene	6.886 (-0.006)	902	96	906238 (11)	50.00	
101) Chlorobenzene-d5	10.684 (-0.006)	1525	117	721241 (9)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702 (0.000)	1856	152	385606 (3)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953 (0.000)	113	231277	51.238	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428 (0.001)	102	52825	52.326	105%		80 - 120
84) Toluene-d8	(3)	9.038 (0.000)	98	858102	48.412	97%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769 (0.001)	95	350161	46.887	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)			Not Detected					0.2	1
4) Chloromethane	(2)			Not Detected					0.2	1
5) 1,3-Butadiene	(2)			Not Detected					1	3
6) Vinyl Chloride	(2)			Not Detected					0.2	1
8) Bromomethane	(2)			Not Detected					0.3	1
9) Chloroethane	(2)			Not Detected					0.2	1
11) n-Pentane	(2)			Not Detected					0.4	10
12) Trichlorofluoromethane	(2)			Not Detected					0.2	1
14) Ethyl ether	(2)			Not Detected					0.2	5
15) Freon 123a	(2)			Not Detected					0.4	5
16) Acrolein	(1)			Not Detected					2	100
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)			Not Detected					0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
21) 2-Propanol	(1)			Not Detected					18	100
22) Methyl Iodide	(2)			Not Detected					0.2	1
23) Carbon Disulfide	(2)			Not Detected					0.2	5
25) Allyl Chloride	(2)			Not Detected					0.3	5
27) Methyl Acetate	(2)			Not Detected					0.3	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
30) t-Butyl alcohol	(1)			Not Detected					12	50
31) Acrylonitrile	(2)			Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)			Not Detected					0.2	1
34) n-Hexane	(2)			Not Detected					2	5
36) 1,1-Dichloroethane	(2)			Not Detected					0.2	1
38) di-Isopropyl ether	(2)			Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)			Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)			Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)			Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)			Not Detected					0.4	2

Digitally signed by Laura J. Green on 05/28/2020 at 00:02. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d Injection date and time: **27-MAY-2020 21:35**
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

Digitally signed by Laura J. Green on 05/28/2020 at 00:02. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27b50.d Injection date and time: **27-MAY-2020 21:35**
Data file Sample Info. Line: VBLK573;VBLK573;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

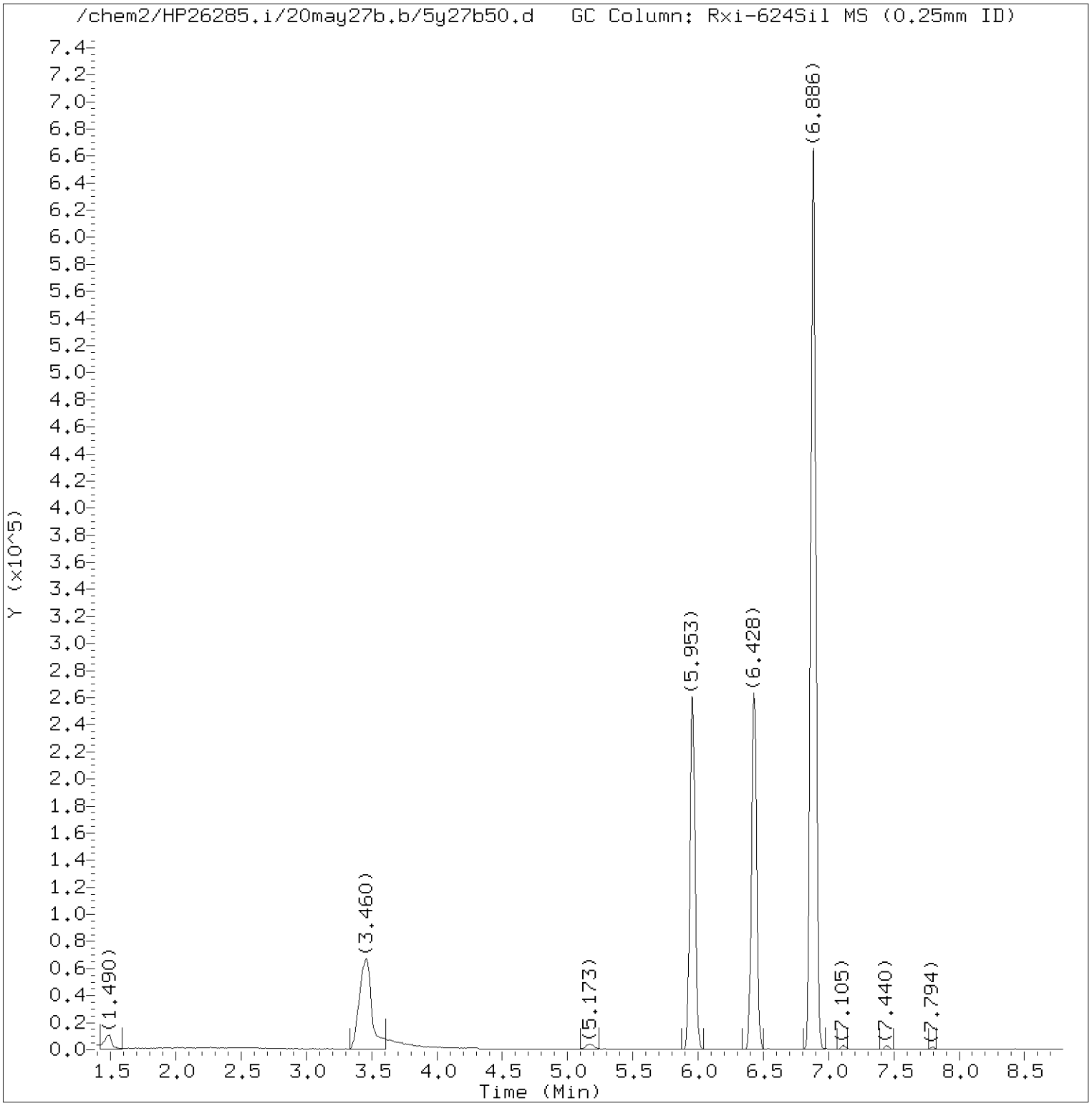
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Laura J. Green on 05/28/2020 at 00:02. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

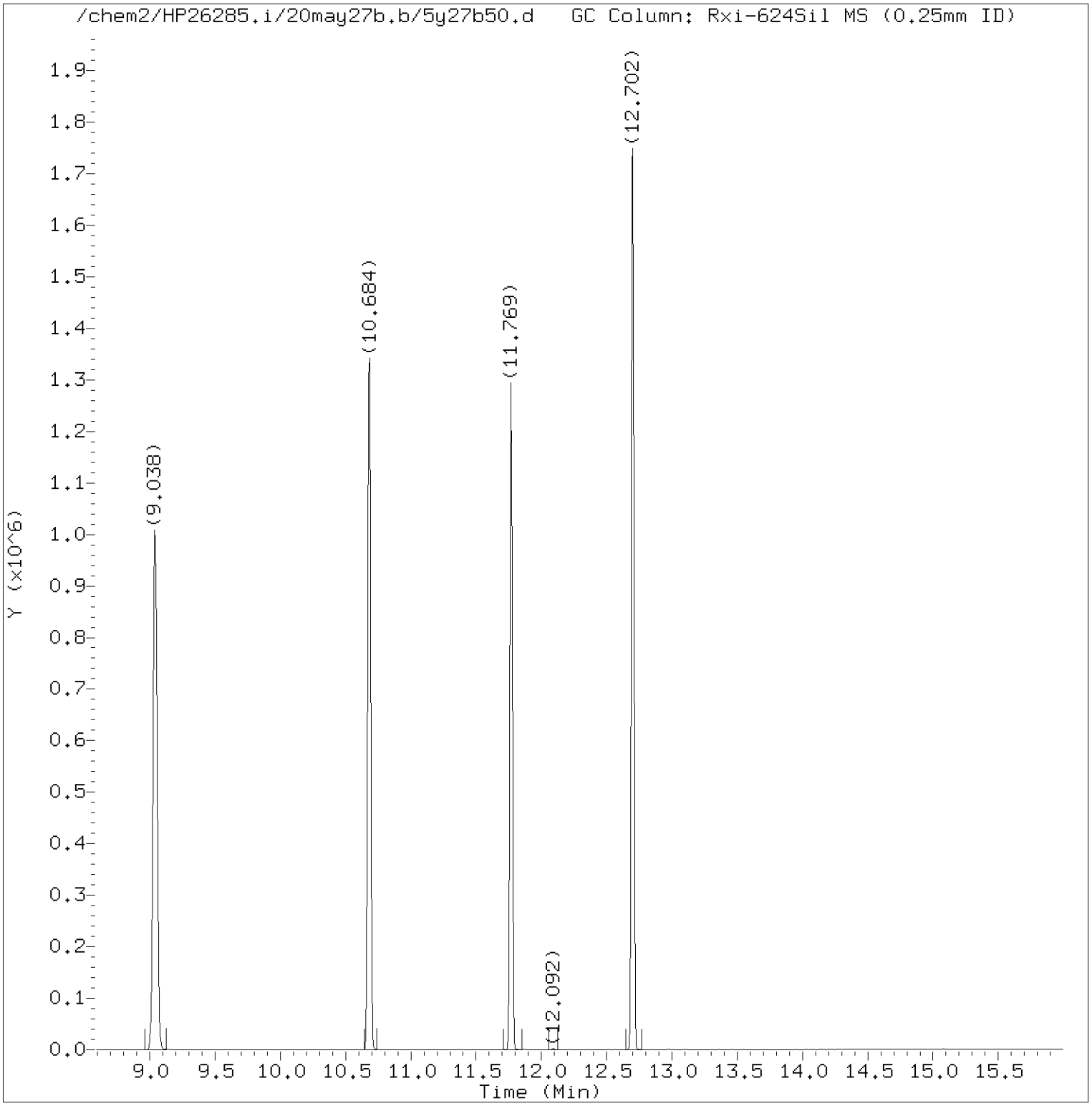
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27b50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 21:35 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:53 chemist

Sample Name: VBLK573 Lab Sample ID: VBLK573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	275498	250.000
52)$Dibromofluoromethane	(2)	5.953	113	231277	51.238
57)$1,2-Dichloroethane-d4	(2)	6.428	102	52825	52.326
66)*Fluorobenzene	(2)	6.886	96	906238	50.000
84)$Toluene-d8	(3)	9.038	98	858102	48.412
101)*Chlorobenzene-d5	(3)	10.684	117	721241	50.000
115)$4-Bromofluorobenzene	(3)	11.769	95	350161	46.887
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	385606	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:02.
Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d Injection date and time: **29-MAY-2020 11:33**
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.460	(-0.030)	340	65	316522	(-9)	250.00	
66) Fluorobenzene	6.892	(0.000)	903	96	982866	(-3)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	775701	(-4)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	414789	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.965	(-0.001)	113	244754	49.996	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.000)	102	56193	51.323	103%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	929643	48.766	98%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	385597	48.007	96%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

Digitally signed by Laura J. Green on 05/31/2020 at 19:33. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d Injection date and time: **29-MAY-2020 11:33**
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
73) Methylcyclohexane	(2)				Not Detected					0.5	5
74) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
75) Dibromomethane	(2)				Not Detected					0.2	1
76) 1,4-Dioxane	(1)				Not Detected					29	250
77) Methyl Methacrylate	(2)				Not Detected					0.2	5
79) Bromodichloromethane	(2)				Not Detected					0.2	1
80) 2-Nitropropane	(2)				Not Detected					0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
82) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
83) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
89) Toluene	(3)				Not Detected					0.2	1
90) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
91) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
92) Ethyl Methacrylate	(3)				Not Detected					0.2	5
93) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
94) Tetrachloroethene	(3)				Not Detected					0.2	1
95) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
97) 2-Hexanone	(3)				Not Detected					0.3	10
98) Dibromochloromethane	(3)				Not Detected					0.2	1
100) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
102) 1-Chlorohexane	(3)				Not Detected					0.3	5
103) Chlorobenzene	(3)				Not Detected					0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
105) Ethylbenzene	(3)				Not Detected					0.4	1
107) m+p-Xylene	(3)				Not Detected					1	5
108) o-Xylene	(3)				Not Detected					0.4	1
109) Xylene (Total)	(3)				Not Detected					1	6
110) Styrene	(3)				Not Detected					0.2	5
111) Bromoform	(3)				Not Detected					1	4
112) Isopropylbenzene	(3)				Not Detected					0.2	5
113) Cyclohexanone	(1)				Not Detected					25	100
116) Bromobenzene	(4)				Not Detected					0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
118) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
119) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
120) n-Propylbenzene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29b01.d Injection date and time: **29-MAY-2020 11:33**
Data file Sample Info. Line: VBLK578;VBLK578;1;3;;;;;; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

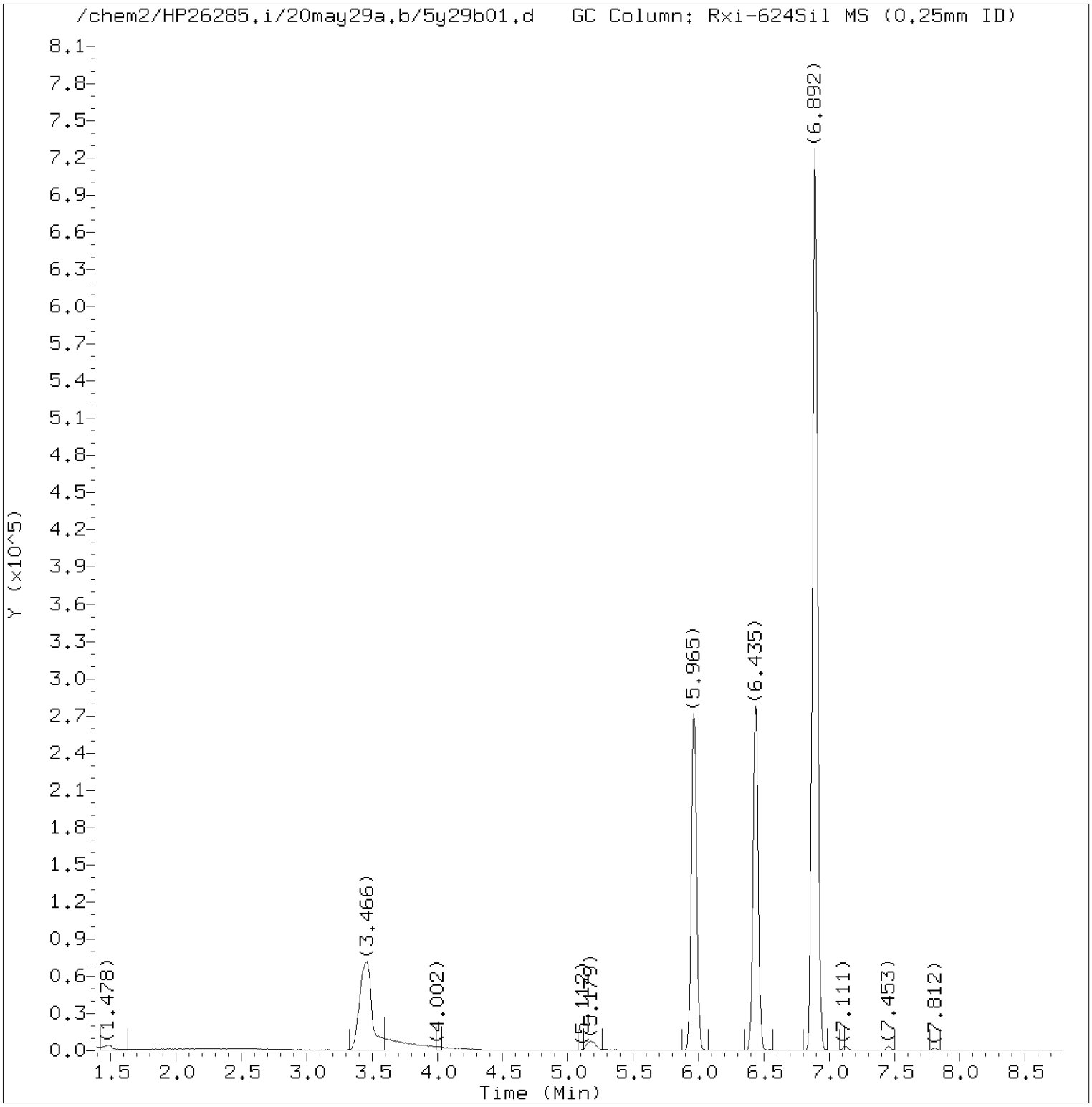
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)				Not Detected					0.2	5
122) 4-Chlorotoluene	(4)				Not Detected					0.2	5
123) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
125) tert-Butylbenzene	(4)				Not Detected					0.3	5
126) Pentachloroethane	(4)				Not Detected					0.2	5
127) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
128) sec-Butylbenzene	(4)				Not Detected					0.2	5
130) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
131) p-Isopropyltoluene	(4)				Not Detected					0.2	5
134) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
135) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
136) Benzyl Chloride	(4)				Not Detected					1	5
137) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
139) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
140) n-Butylbenzene	(4)				Not Detected					0.2	5
141) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
142) Diethylbenzene (total)	(4)				Not Detected					0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
145) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
147) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
148) Hexachlorobutadiene	(4)				Not Detected					2	5
149) Naphthalene	(4)				Not Detected					1	5
150) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
151) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

Digitally signed by Laura J. Green on 05/31/2020 at 19:33. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Marla S. Brewer on 05/31/2020 at 22:55. PARALLAX ID: msl01251



Total Ion Chromatogram (TIC)

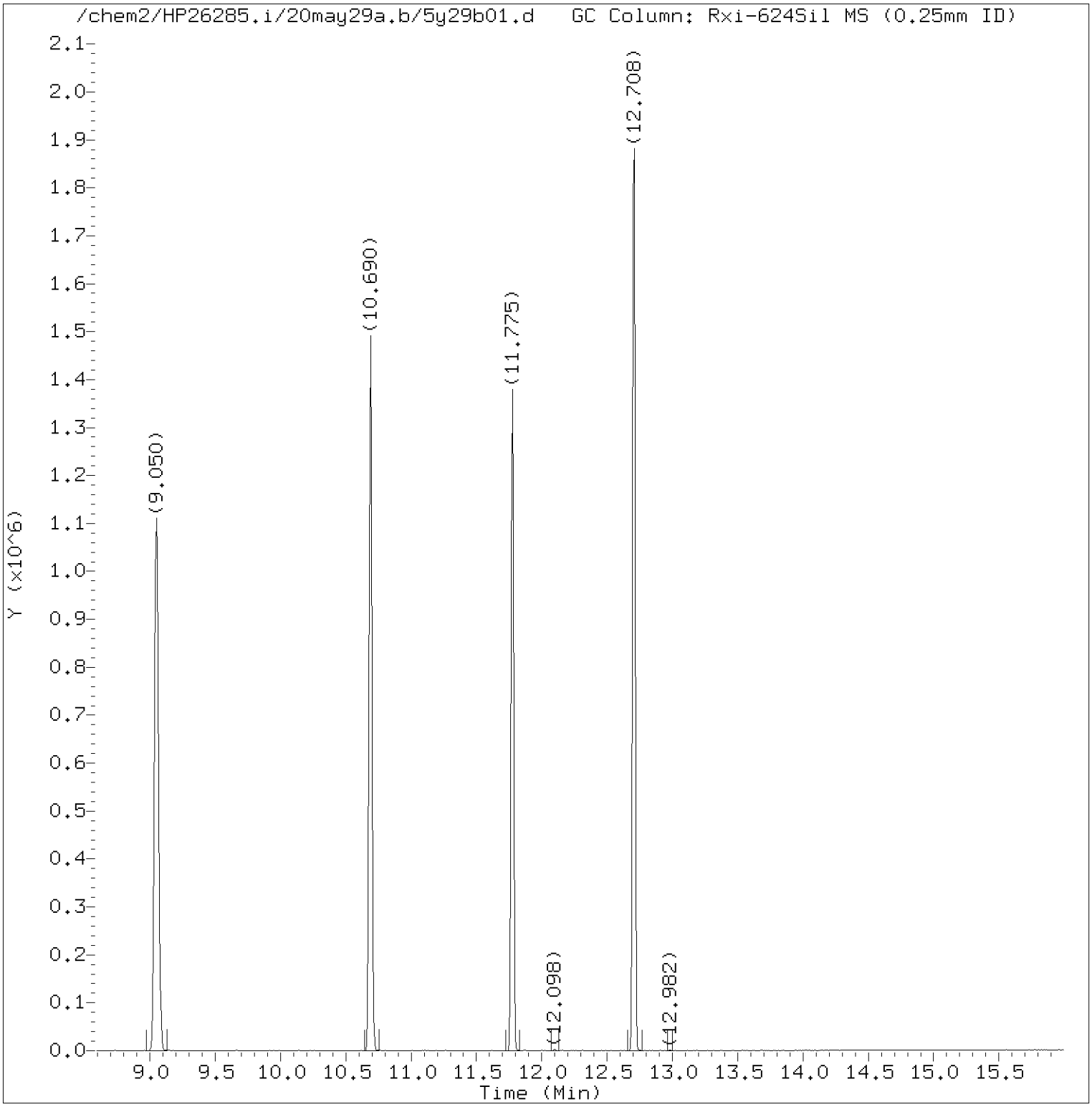
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29b01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 11:33 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:51 chemist

Sample Name: VBLK578 Lab Sample ID: VBLK578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	3.460	65	316522	250.000
52)$Dibromofluoromethane	(2)	5.965	113	244754	49.996
57)$1,2-Dichloroethane-d4	(2)	6.441	102	56193	51.323
66)*Fluorobenzene	(2)	6.892	96	982866	50.000
84)$Toluene-d8	(3)	9.050	98	929643	48.766
101)*Chlorobenzene-d5	(3)	10.690	117	775701	50.000
115)$4-Bromofluorobenzene	(3)	11.775	95	385597	48.007
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	414789	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/31/2020 at 19:33.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5902MS

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318287

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s04.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	20	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	160	
76-13-1	Freon 113	20	
75-15-0	Carbon Disulfide	18	
75-09-2	Methylene Chloride	20	
156-60-5	trans-1,2-Dichloroethene	20	
75-34-3	1,1-Dichloroethane	20	
156-59-2	cis-1,2-Dichloroethene	21	
78-93-3	2-Butanone	140	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	34	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	51	
123-91-1	1,4-Dioxane	540	
108-88-3	Toluene	19	
127-18-4	Tetrachloroethene	21	
100-41-4	Ethylbenzene	20	
1330-20-7	Xylene (Total)	60	
95-50-1	1,2-Dichlorobenzene	19	
91-20-3	Naphthalene	18	

FORM I VOA

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W5902MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318287MS

Data file: /chem2/HP26285.i/20may29a.b/5y29s04.d Injection date and time: **29-MAY-2020 12:53**
Data file Sample Info. Line: W5902MS;1318287MS;1;3;MS;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.447	(-0.018)	338	65	321317	(-7)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	1008110	(-1)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	805354	(-1)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	442974	(1)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	254823	50.749	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	57562	51.257	103%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	980277	49.529	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	414159	49.664	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	117097	20.443	20.44			0.2	1
17) 1,1-Dichloroethene	(2)	2.887	(-0.000)	96	117575	21.570	21.57			0.2	1
18) Acetone	(1)	2.917	(0.000)	58	157930	157.390	157.39			0.7	20
19) Freon 113	(2)	2.905	(0.001)	101	121493	19.692	19.69			0.2	10
23) Carbon Disulfide	(2)	3.136	(-0.000)	76	342580	17.867	17.87			0.2	5
28) Methylene Chloride	(2)	3.429	(-0.000)	84	122798	19.986	19.99			0.3	1
32) trans-1,2-Dichloroethene	(2)	3.752	(-0.000)	96	122193	20.035	20.03			0.2	1
36) 1,1-Dichloroethane	(2)	4.362	(-0.000)	63	217101	19.663	19.66			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.234	(-0.000)	96	143349	20.780	20.78			0.2	1
44) 2-Butanone	(2)	5.222	(-0.001)	43	816751	135.283	135.28			0.3	10
51) Chloroform	(2)	5.746	(-0.000)	83	225611	20.373	20.37			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.965	(-0.000)	97	343582	34.459	34.46			0.3	1
60) Benzene	(2)	6.465	(-0.000)	78	517291	19.261	19.26			0.2	1
61) 1,2-Dichloroethane	(2)	6.550	(-0.000)	62	161566	19.587	19.59			0.3	1
71) Trichloroethene	(2)	7.398	(0.000)	95	362854	51.485	51.48			0.2	1
76) 1,4-Dioxane	(1)	7.849	(0.012)	88	58253M	539.495	539.49			29	250
89) Toluene	(3)	9.141	(-0.000)	92	338076	19.372	19.37			0.2	1
94) Tetrachloroethene	(3)	9.763	(-0.000)	166	157334	21.256	21.26			0.2	1
105) Ethylbenzene	(3)	10.824	(-0.000)	91	678089	20.095	20.09			0.4	1
107) m+p-Xylene	(3)	10.952	(-0.000)	106	526738	40.685	40.68			1	5
108) o-Xylene	(3)	11.306	(-0.000)	106	248362	19.599	19.60			0.4	1
109) Xylene (Total)	(3)			106	775100	60.284	60.28			1	6
139) 1,2-Dichlorobenzene	(4)	12.994	(0.000)	146	296002	19.400	19.40			0.2	5
149) Naphthalene	(4)	14.317	(0.000)	128	678928	18.108	18.11			1	5

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/29/2020 at 17:47. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s04.d Injection date and time: **29-MAY-2020 12:53**
Data file Sample Info. Line: W5902MS;1318287MS;1;3;MS;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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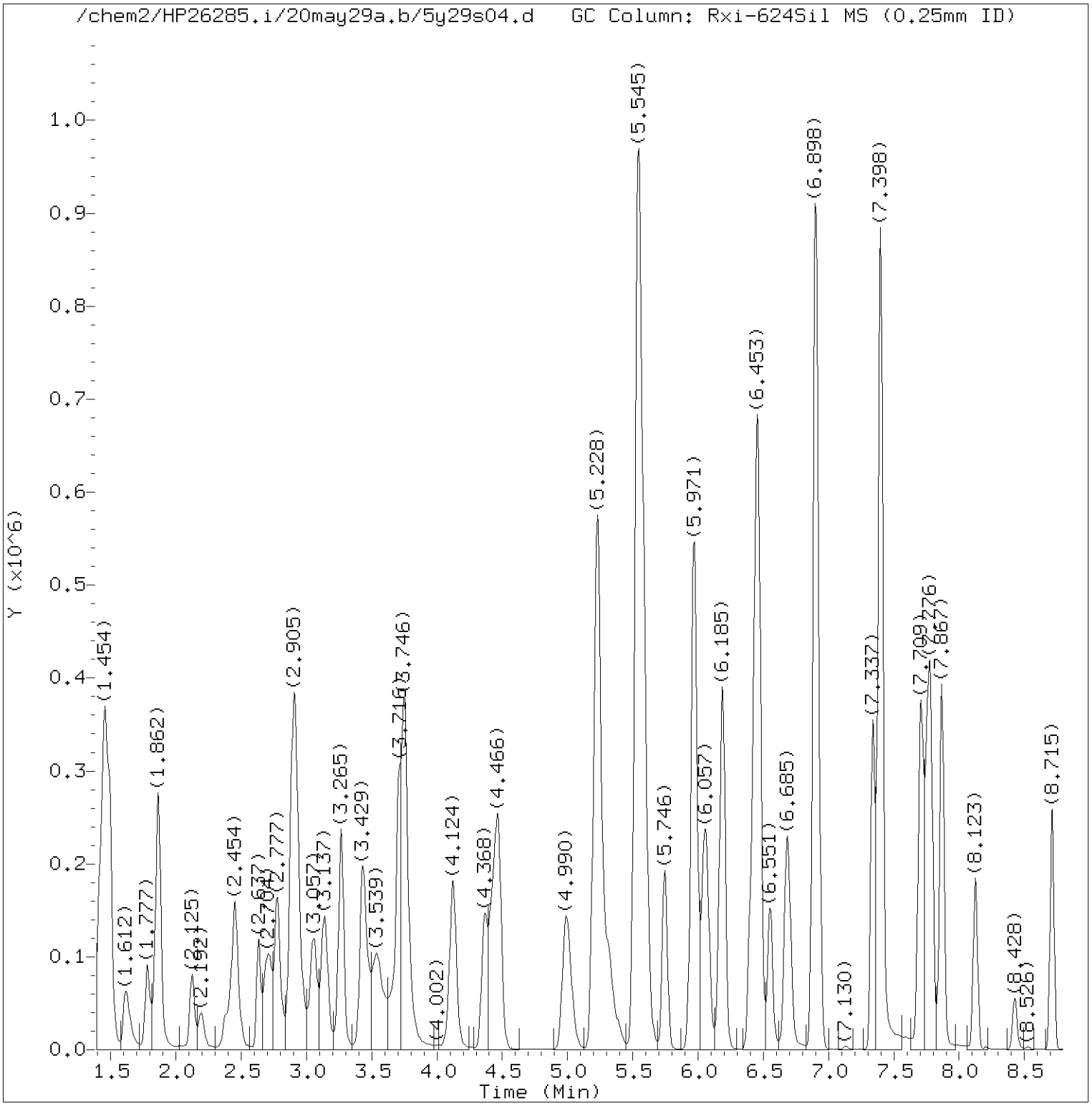
Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:47. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

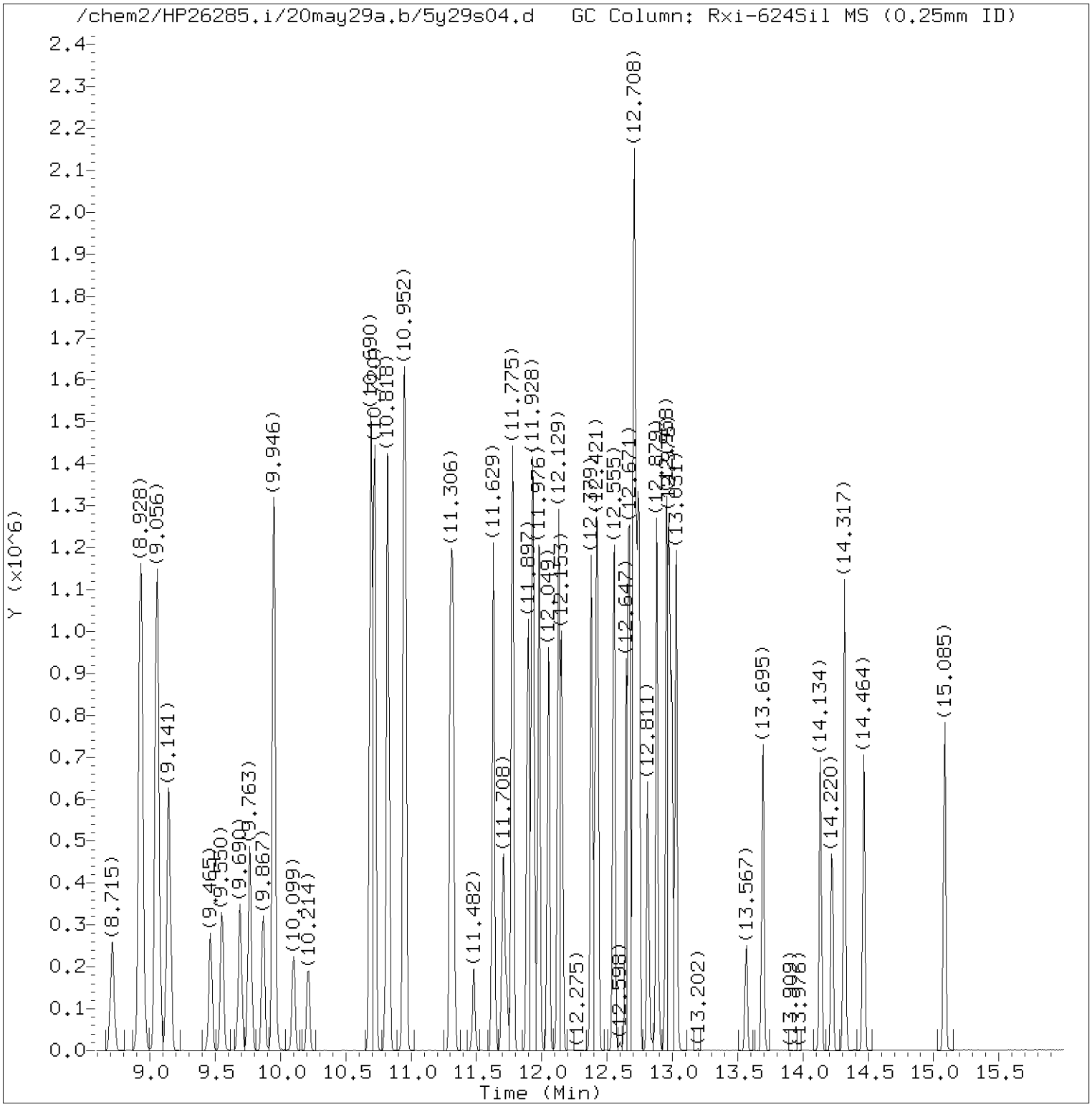
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s04.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:53 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MS Lab Sample ID: 1318287MS

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s04.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:53 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MS Lab Sample ID: 1318287MS

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s04.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:53 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

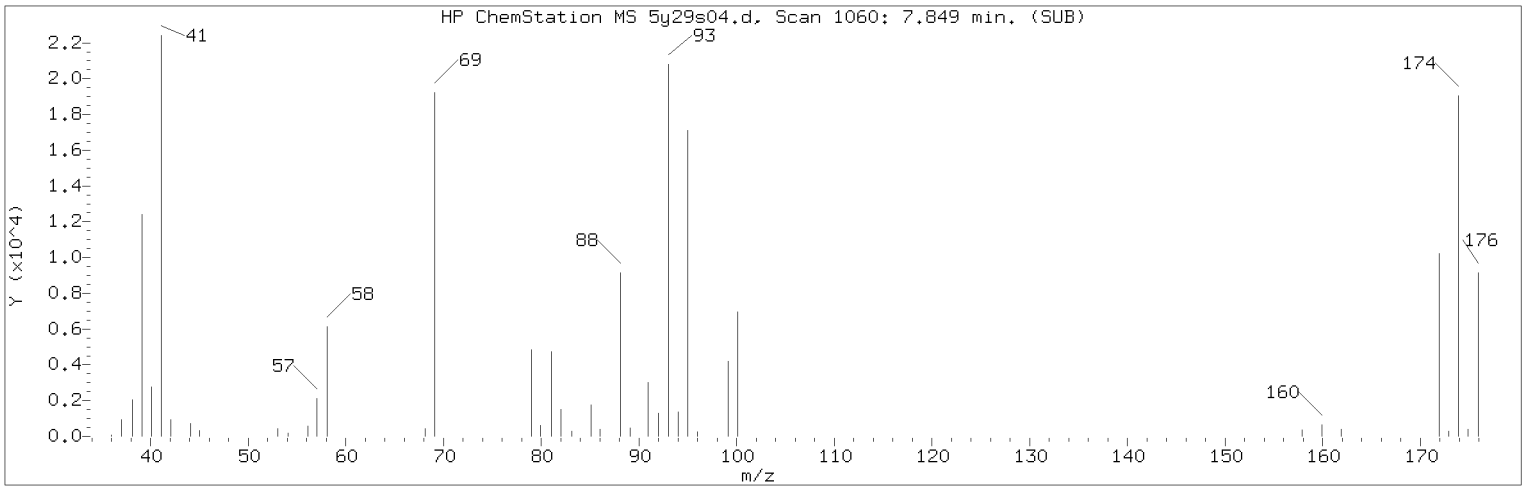
Sample Name: W5902MS Lab Sample ID: 1318287MS

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	1.868	62	117097	20.443
17) 1,1-Dichloroethene	(2)	2.887	96	117575	21.570
19) Freon 113	(2)	2.905	101	121493	19.692
18) Acetone	(1)	2.917	58	157930	157.390
23) Carbon Disulfide	(2)	3.137	76	342580	17.867
28) Methylene Chloride	(2)	3.429	84	122798	19.986
29)*t-Butyl alcohol-d10	(1)	3.447	65	321317	250.000
32) trans-1,2-Dichloroethene	(2)	3.752	96	122193	20.035
36) 1,1-Dichloroethane	(2)	4.362	63	217101	19.663
44) 2-Butanone	(2)	5.221	43	816751	135.283
42) cis-1,2-Dichloroethene	(2)	5.234	96	143349	20.780
51) Chloroform	(2)	5.746	83	225611	20.373
53) 1,1,1-Trichloroethane	(2)	5.965	97	343582	34.459
52)$Dibromofluoromethane	(2)	5.971	113	254823	50.749
57)$1,2-Dichloroethane-d4	(2)	6.441	102	57562	51.257
60) Benzene	(2)	6.465	78	517291	19.261
61) 1,2-Dichloroethane	(2)	6.551	62	161566	19.587
66)*Fluorobenzene	(2)	6.898	96	1008110	50.000
71) Trichloroethene	(2)	7.398	95	362854	51.485
76) 1,4-Dioxane	(1)	7.849	88	58253M	539.495
84)$Toluene-d8	(3)	9.056	98	980277	49.529
89) Toluene	(3)	9.141	92	338076	19.372
94) Tetrachloroethene	(3)	9.763	166	157334	21.256
101)*Chlorobenzene-d5	(3)	10.690	117	805354	50.000
105) Ethylbenzene	(3)	10.824	91	678089	20.095
107) m+p-Xylene	(3)	10.952	106	526738	40.685
108) o-Xylene	(3)	11.306	106	248362	19.599
109) Xylene (Total)	(3)		106	775100	60.284
115)$4-Bromofluorobenzene	(3)	11.775	95	414159	49.664
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	442974	50.000
139) 1,2-Dichlorobenzene	(4)	12.994	146	296002	19.400
149) Naphthalene	(4)	14.317	128	678928	18.108

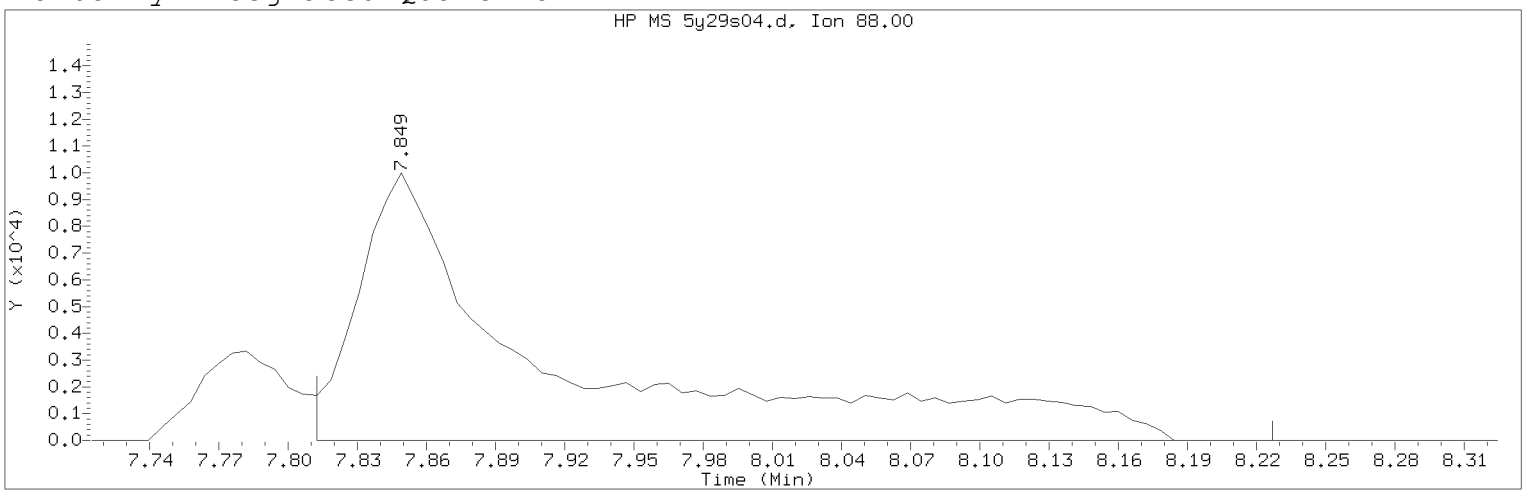
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s04.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:53 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MS Lab Sample ID: 1318287MS

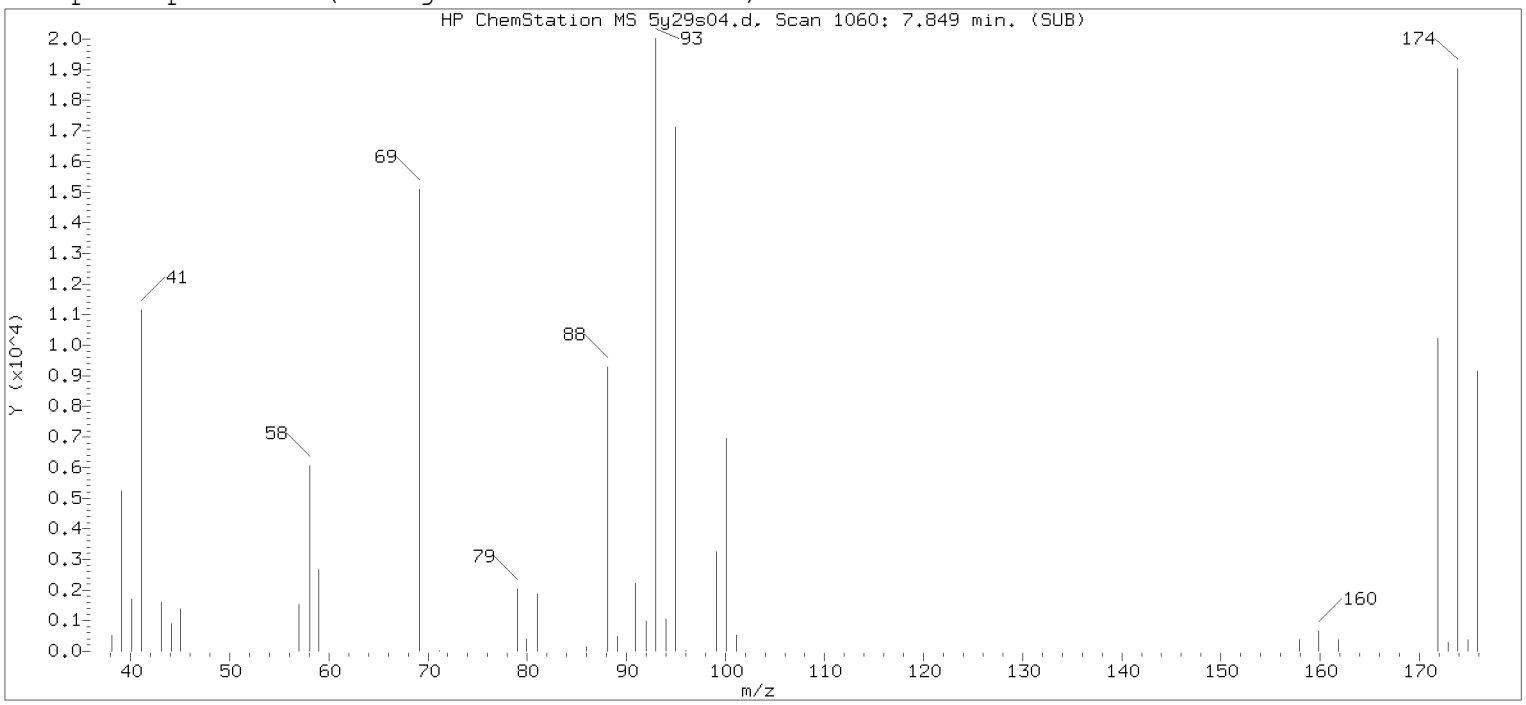
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 58253M
On-Column Amount (ng) : 539.4946
Integration start scan : 1053 Integration stop scan: 1121
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

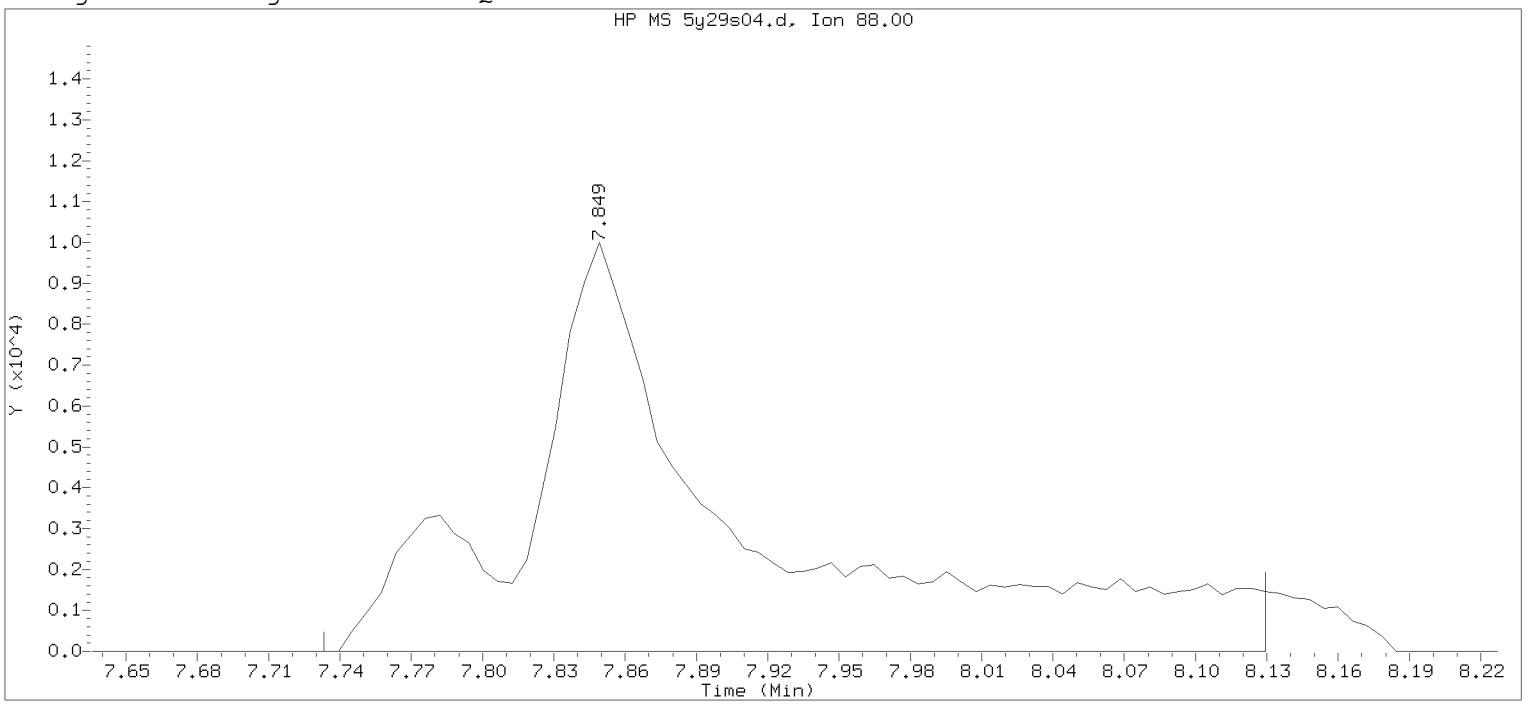
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s04.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 12:53 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:40 ljg30941

Sample Name: W5902MS Lab Sample ID: 1318287MS

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area : 63891
On-column Amount (ng) : 591.7096
Integration start scan : 1040 Integration stop scan: 1105
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

W5902MSD

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1318288

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s05.d

Level: (low/med) LOW Date Received: 05/20/20

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	21	
75-35-4	1,1-Dichloroethene	22	
67-64-1	Acetone	160	
76-13-1	Freon 113	20	
75-15-0	Carbon Disulfide	19	
75-09-2	Methylene Chloride	21	
156-60-5	trans-1,2-Dichloroethene	21	
75-34-3	1,1-Dichloroethane	21	
156-59-2	cis-1,2-Dichloroethene	22	
78-93-3	2-Butanone	140	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	36	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
79-01-6	Trichloroethene	53	
123-91-1	1,4-Dioxane	570	
108-88-3	Toluene	20	
127-18-4	Tetrachloroethene	22	
100-41-4	Ethylbenzene	21	
1330-20-7	Xylene (Total)	63	
95-50-1	1,2-Dichlorobenzene	20	
91-20-3	Naphthalene	19	

FORM I VOA

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W5902MSD

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

1318288MSD

Data file: /chem2/HP26285.i/20may29a.b/5y29s05.d Injection date and time: **29-MAY-2020 13:14**
Data file Sample Info. Line: W5902MSD;1318288MSD;1;3;MSD;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453	(-0.024)	339	65	319065	(-8)	250.00	
66) Fluorobenzene	6.898	(-0.006)	904	96	966491	(-5)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	769934	(-5)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	417150	(-5)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.971	(-0.001)	113	242737	50.424	101%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.001)	102	54544	50.661	101%		80 - 120
84) Toluene-d8	(3)	9.056	(-0.001)	98	937129	49.527	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	395968	49.667	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	117887	21.467	21.47			0.2	1
17) 1,1-Dichloroethene	(2)	2.886	(-0.000)	96	116396	22.273	22.27			0.2	1
18) Acetone	(1)	2.917	(0.002)	58	159840	160.417	160.42			0.7	20
19) Freon 113	(2)	2.911	(0.000)	101	120715	20.408	20.41			0.2	10
23) Carbon Disulfide	(2)	3.136	(-0.000)	76	340449	18.521	18.52			0.2	5
28) Methylene Chloride	(2)	3.429	(-0.000)	84	121894	20.693	20.69			0.3	1
32) trans-1,2-Dichloroethene	(2)	3.752	(-0.000)	96	120211	20.558	20.56			0.2	1
36) 1,1-Dichloroethane	(2)	4.362	(-0.000)	63	218206	20.614	20.61			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.234	(-0.000)	96	142620	21.564	21.56			0.2	1
44) 2-Butanone	(2)	5.221	(-0.001)	43	837460	144.687	144.69			0.3	10
51) Chloroform	(2)	5.746	(-0.000)	83	223631	21.064	21.06			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.965	(-0.000)	97	343445	35.929	35.93			0.3	1
60) Benzene	(2)	6.465	(-0.000)	78	515164	20.008	20.01			0.2	1
61) 1,2-Dichloroethane	(2)	6.550	(-0.000)	62	160220	20.260	20.26			0.3	1
71) Trichloroethene	(2)	7.398	(0.000)	95	360563	53.363	53.36			0.2	1
76) 1,4-Dioxane	(1)	7.849	(0.016)	88	60716M	566.274	566.27			29	250
89) Toluene	(3)	9.147	(-0.000)	92	335083	20.084	20.08			0.2	1
94) Tetrachloroethene	(3)	9.763	(0.000)	166	155556	21.983	21.98			0.2	1
105) Ethylbenzene	(3)	10.824	(-0.000)	91	673832	20.887	20.89			0.4	1
107) m+p-Xylene	(3)	10.952	(-0.000)	106	523386	42.286	42.29			1	5
108) o-Xylene	(3)	11.306	(-0.000)	106	247847	20.458	20.46			0.4	1
109) Xylene (Total)	(3)			106	771233	62.744	62.74			1	6
139) 1,2-Dichlorobenzene	(4)	13.000	(-0.000)	146	292405	20.350	20.35			0.2	5
149) Naphthalene	(4)	14.317	(0.000)	128	679884	19.256	19.26			1	5

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/29/2020 at 17:47. Target 3.5 esignature user ID: ljg30941

Data file: /chem2/HP26285.i/20may29a.b/5y29s05.d Injection date and time: **29-MAY-2020 13:14**
Data file Sample Info. Line: W5902MSD;1318288MSD;1;3;MSD;JCW59;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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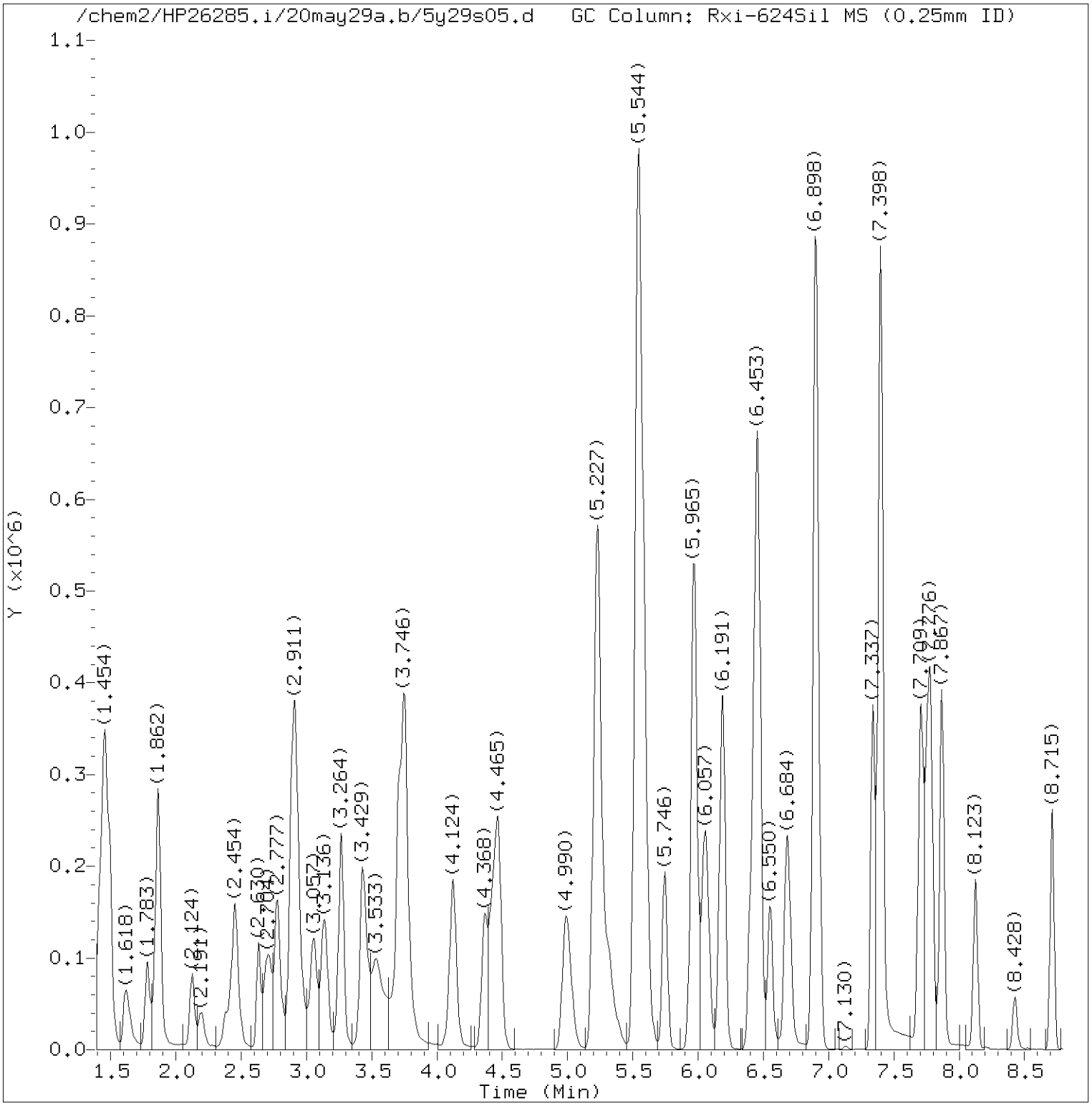
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Laura J. Green on 05/29/2020 at 17:47. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

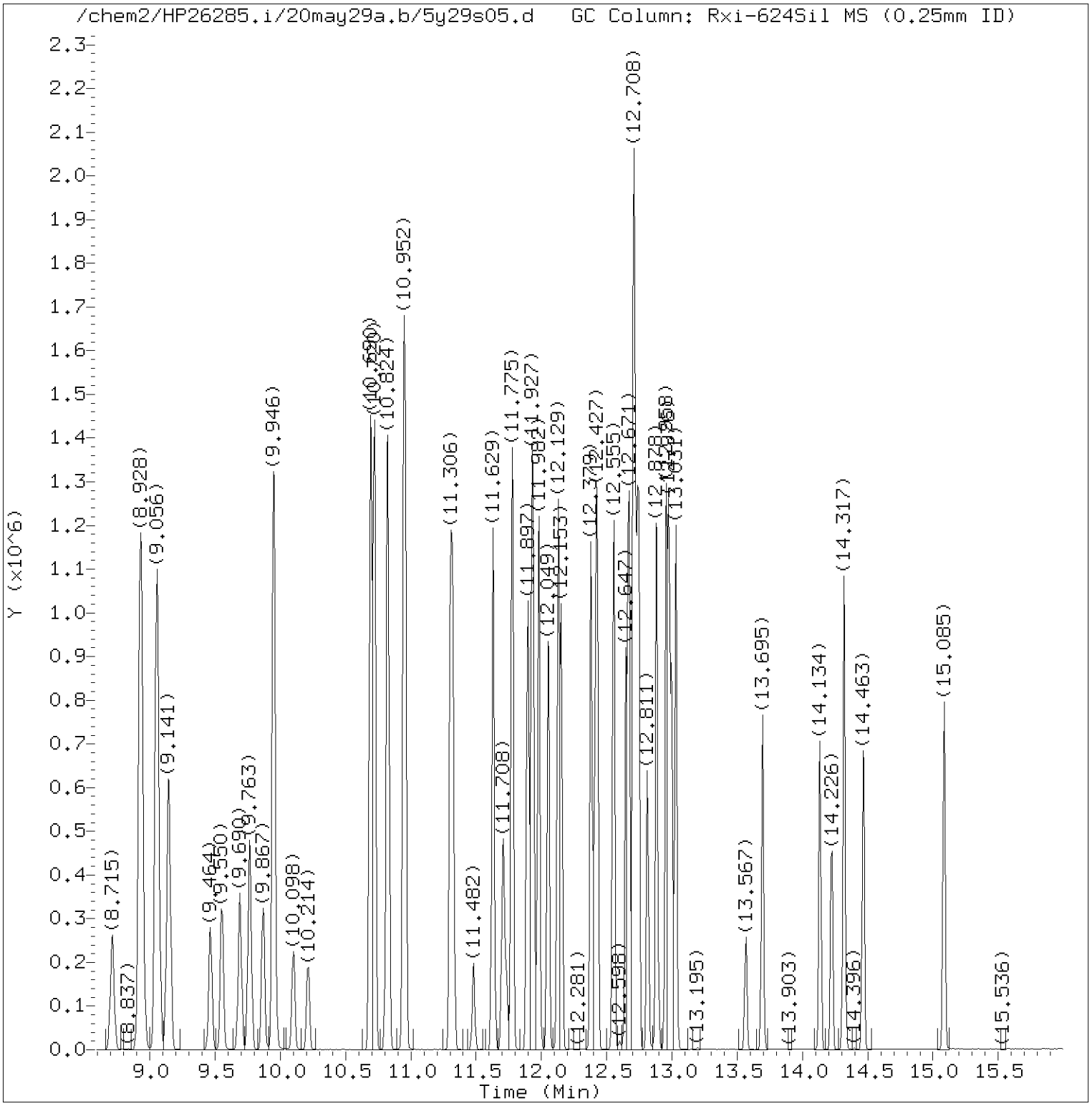
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s05.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:14 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MSD Lab Sample ID: 1318288MSD

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s05.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:14 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MSD Lab Sample ID: 1318288MSD

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s05.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:14 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

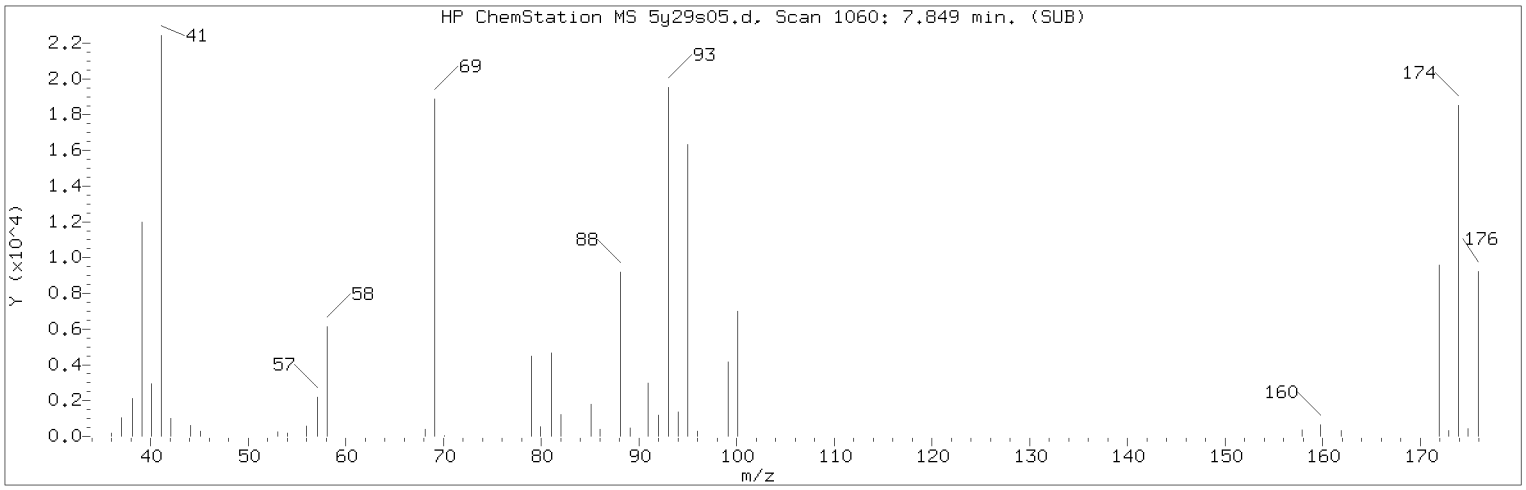
Sample Name: W5902MSD Lab Sample ID: 1318288MSD

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
6) Vinyl Chloride	(2)	1.868	62	117887	21.467
17) 1,1-Dichloroethene	(2)	2.886	96	116396	22.273
19) Freon 113	(2)	2.911	101	120715	20.408
18) Acetone	(1)	2.917	58	159840	160.417
23) Carbon Disulfide	(2)	3.136	76	340449	18.521
28) Methylene Chloride	(2)	3.429	84	121894	20.693
29)*t-Butyl alcohol-d10	(1)	3.453	65	319065	250.000
32) trans-1,2-Dichloroethene	(2)	3.752	96	120211	20.558
36) 1,1-Dichloroethane	(2)	4.362	63	218206	20.614
44) 2-Butanone	(2)	5.221	43	837460	144.687
42) cis-1,2-Dichloroethene	(2)	5.234	96	142620	21.564
51) Chloroform	(2)	5.746	83	223631	21.064
53) 1,1,1-Trichloroethane	(2)	5.965	97	343445	35.929
52)$Dibromofluoromethane	(2)	5.971	113	242737	50.424
57)$1,2-Dichloroethane-d4	(2)	6.441	102	54544	50.661
60) Benzene	(2)	6.465	78	515164	20.008
61) 1,2-Dichloroethane	(2)	6.550	62	160220	20.260
66)*Fluorobenzene	(2)	6.898	96	966491	50.000
71) Trichloroethene	(2)	7.398	95	360563	53.363
76) 1,4-Dioxane	(1)	7.849	88	60716M	566.274
84)$Toluene-d8	(3)	9.056	98	937129	49.527
89) Toluene	(3)	9.147	92	335083	20.084
94) Tetrachloroethene	(3)	9.763	166	155556	21.983
101)*Chlorobenzene-d5	(3)	10.690	117	769934	50.000
105) Ethylbenzene	(3)	10.824	91	673832	20.887
107) m+p-Xylene	(3)	10.952	106	523386	42.286
108) o-Xylene	(3)	11.306	106	247847	20.458
109) Xylene (Total)	(3)		106	771233	62.744
115)$4-Bromofluorobenzene	(3)	11.775	95	395968	49.667
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	417150	50.000
139) 1,2-Dichlorobenzene	(4)	13.000	146	292405	20.350
149) Naphthalene	(4)	14.317	128	679884	19.256

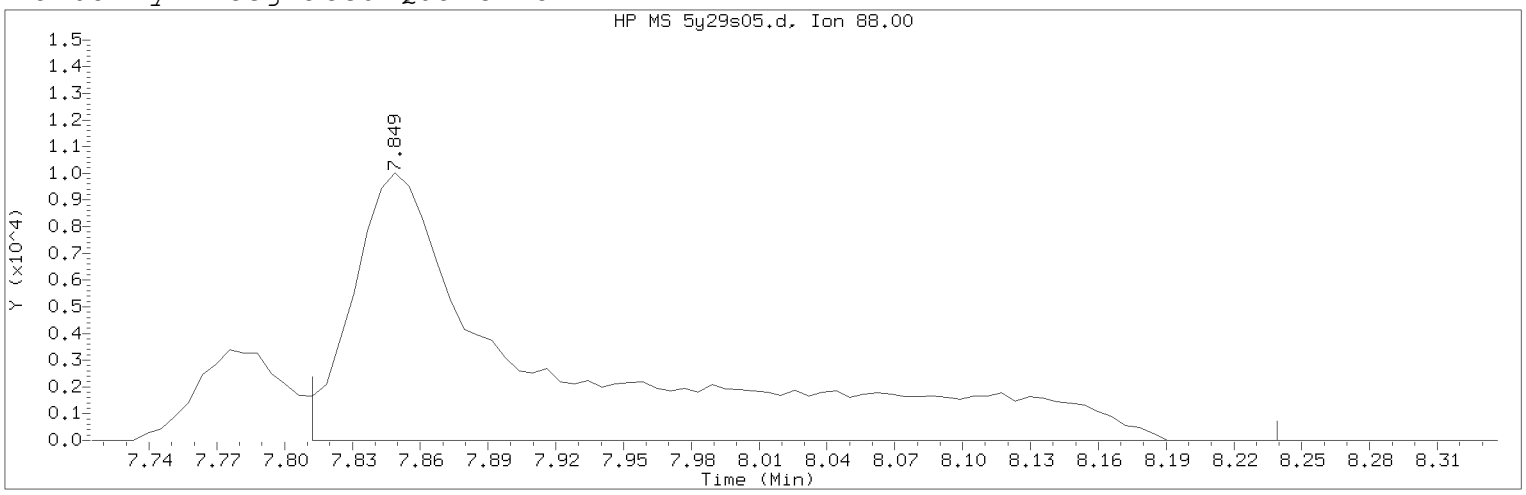
M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s05.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:14 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 27374
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:46 ljg30941

Sample Name: W5902MSD Lab Sample ID: 1318288MSD

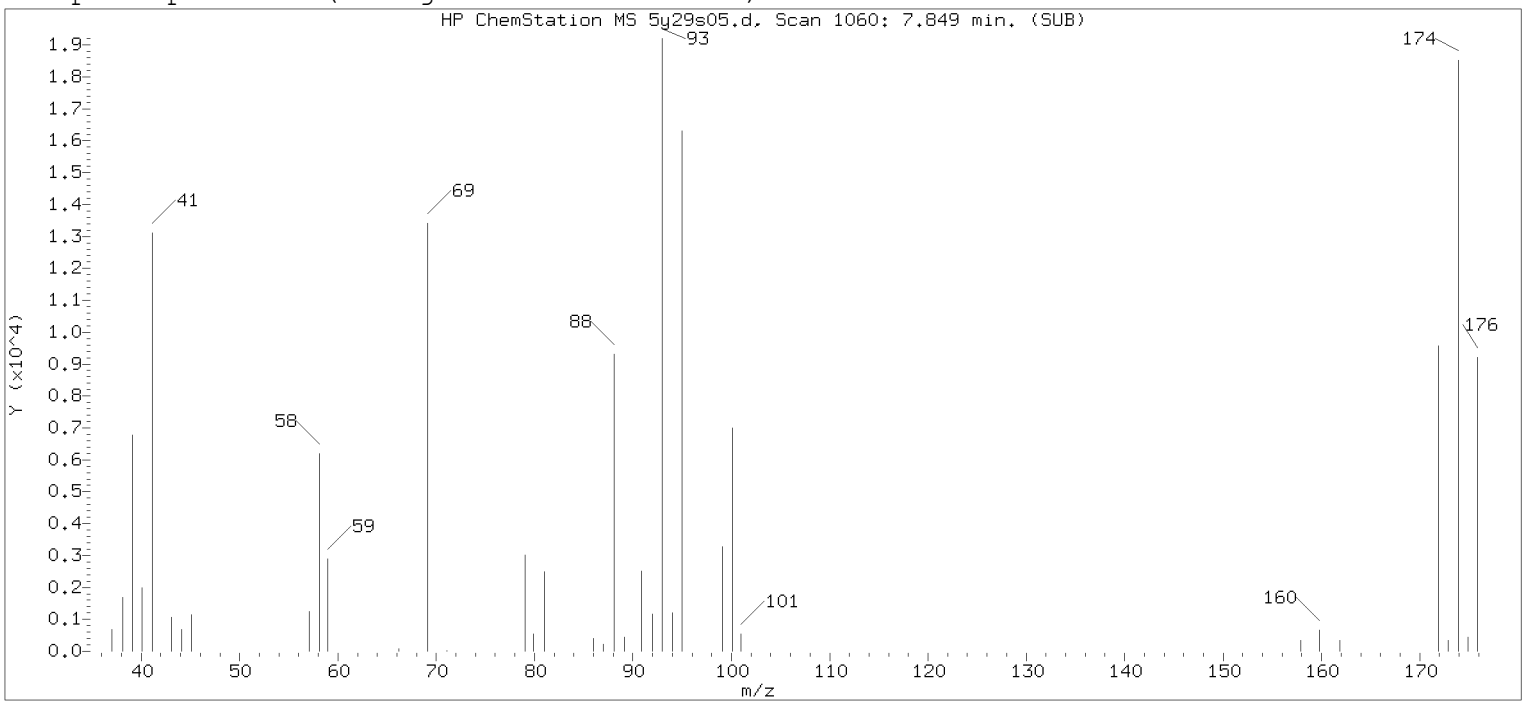
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 60716M
On-Column Amount (ng) : 566.2738
Integration start scan : 1053 Integration stop scan: 1123
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

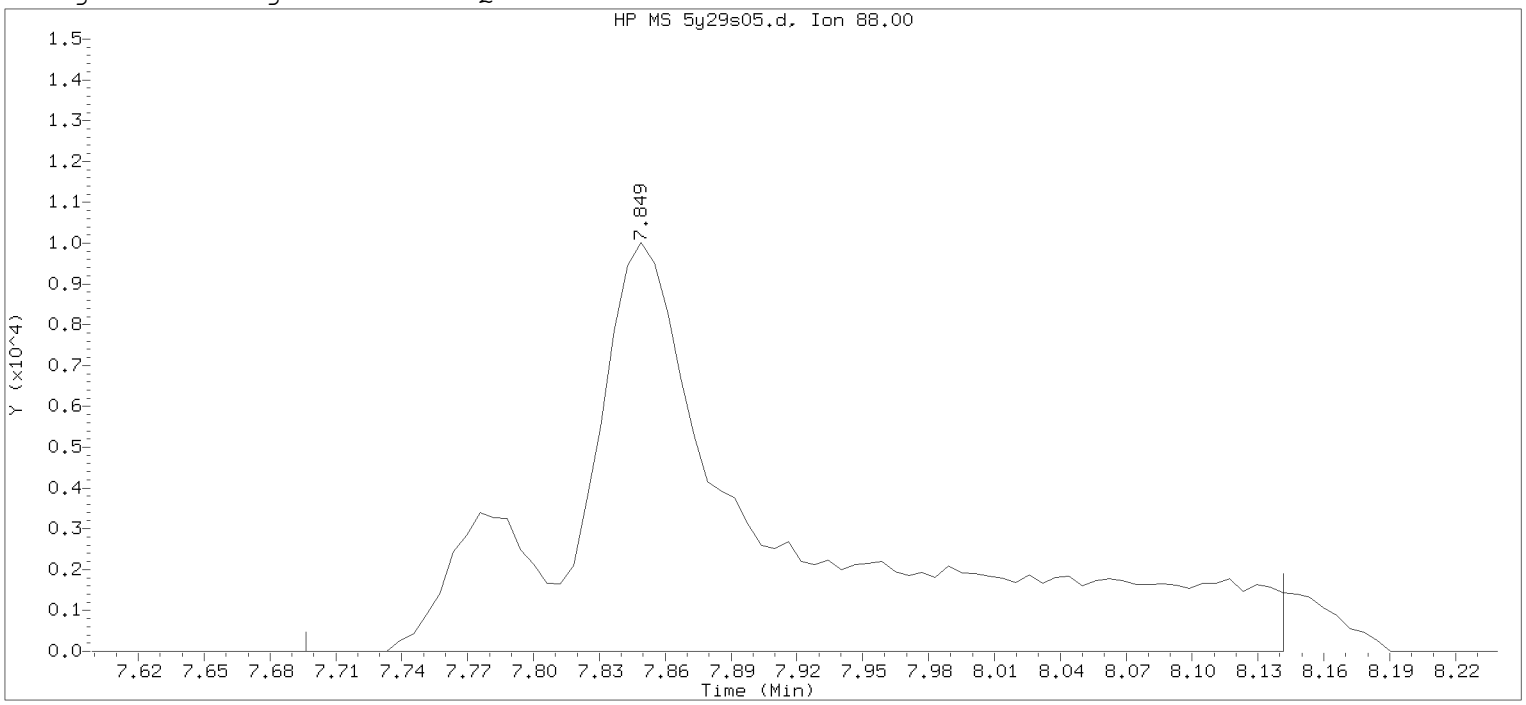
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:39.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s05.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 13:14 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 17:40 ljg30941

Sample Name: W5902MSD Lab Sample ID: 1318288MSD

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area : 67234
On-column Amount (ng) : 627.0713
Integration start scan : 1034 Integration stop scan: 1107
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/29/2020 at 17:47.
Target 3.5 esignature user ID: ljg30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	17	
74-87-3	Chloromethane	18	
106-99-0	1,3-Butadiene	18	
75-01-4	Vinyl Chloride	20	
74-83-9	Bromomethane	20	
75-00-3	Chloroethane	20	
109-66-0	n-Pentane	16	
75-69-4	Trichlorofluoromethane	22	
354-23-4	Freon 123a	17	
107-02-8	Acrolein	150	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	190	
76-13-1	Freon 113	19	
67-63-0	2-Propanol	120	
74-88-4	Methyl Iodide	20	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	22	
75-09-2	Methylene Chloride	21	
75-65-0	t-Butyl alcohol	190	
107-13-1	Acrylonitrile	100	
156-60-5	trans-1,2-Dichloroethene	20	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	19	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	18	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	18	
156-59-2	cis-1,2-Dichloroethene	21	
540-59-0	1,2-Dichloroethene (Total)	41	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	19	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	22	
109-99-9	Tetrahydrofuran	120	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	20	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	20	
56-23-5	Carbon Tetrachloride	20	
78-83-1	Isobutyl Alcohol	540	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	20	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	19	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	20	
108-87-2	Methylcyclohexane	20	
78-87-5	1,2-Dichloropropane	20	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	660	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	19	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	20	
10061-02-6	trans-1,3-Dichloropropene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
542-75-6	1,3-Dichloropropene (total)	38	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	22	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	19	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	19	
108-90-7	Chlorobenzene	21	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	43	
95-47-6	o-Xylene	21	
1330-20-7	Xylene (Total)	63	
100-42-5	Styrene	21	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	21	
108-94-1	Cyclohexanone	550	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	110	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	20	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	21	
76-01-7	Pentachloroethane	22	
95-63-6	1,2,4-Trimethylbenzene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS572

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS572

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27a.b/5y27s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	20	
106-46-7	1,4-Dichlorobenzene	21	
526-73-8	1,2,3-Trimethylbenzene	22	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	22	
105-05-5	1,4-Diethylbenzene	22	
95-50-1	1,2-Dichlorobenzene	21	
104-51-8	n-Butylbenzene	20	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	65	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	20	
87-68-3	Hexachlorobutadiene	20	
91-20-3	Naphthalene	20	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	20	

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCS572

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.423(-0.006)	334	65	289246 (-3)	250.00	
66) Fluorobenzene	6.873(0.000)	900	96	1001983 (-1)	50.00	
101) Chlorobenzene-d5	10.678(0.000)	1524	117	789314 (-2)	50.00	
132) 1,4-Dichlorobenzene-d4	12.695(0.000)	1855	152	428224 (-1)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.947(0.000)	113	249320	49.957	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.422(-0.001)	102	56538	50.653	101%		80 - 120
84) Toluene-d8	(3)	9.038(0.000)	98	965489	49.773	100%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.763(0.000)	95	405339	49.594	99%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ (in sample)
3) Dichlorodifluoromethane	(2)	1.606(-0.000)	85	138282	17.041	17.04			0.2	1
4) Chloromethane	(2)	1.765(-0.000)	50	116835	18.148	18.15			0.2	1
5) 1,3-Butadiene	(2)	1.844(0.000)	39	159144	17.786	17.79			1	3
6) Vinyl Chloride	(2)	1.856(-0.000)	62	116402	20.446	20.45			0.2	1
8) Bromomethane	(2)	2.112(-0.000)	94	78128	20.439	20.44			0.3	1
9) Chloroethane	(2)	2.179(0.000)	64	53656	19.905	19.91			0.2	1
11) n-Pentane	(2)	2.441(0.000)	43	102558	15.801	15.80			0.4	10
12) Trichlorofluoromethane	(2)	2.417(0.000)	101	150798	21.627	21.63			0.2	1
15) Freon 123a	(2)	2.691(-0.000)	67	126835	17.426	17.43			0.4	5
16) Acrolein	(1)	2.758(-0.000)	56	272788	148.944	148.94			2	100
17) 1,1-Dichloroethene	(2)	2.868(-0.000)	96	103163	19.042	19.04			0.2	1
18) Acetone	(1)	2.899(-0.000)	58	171214	189.547	189.55			0.7	20
19) Freon 113	(2)	2.892(0.000)	101	115186	18.784	18.78			0.2	10
21) 2-Propanol	(1)	3.039(-0.001)	45	85913	116.884	116.88			18	100
22) Methyl Iodide	(2)	3.033(0.000)	142	202650	19.617	19.62			0.2	1
23) Carbon Disulfide	(2)	3.112(0.000)	76	327205	17.170	17.17			0.2	5
25) Allyl Chloride	(2)	3.246(0.000)	41	172128	18.980	18.98			0.3	5
27) Methyl Acetate	(2)	3.228(-0.000)	43	173778	22.248	22.25			0.3	5
28) Methylene Chloride	(2)	3.405(0.000)	84	126172	20.661	20.66			0.3	1
30) t-Butyl alcohol	(1)	3.533(-0.001)	59	254289	186.647	186.65			12	50
31) Acrylonitrile	(2)	3.685(-0.000)	53	415551	100.791	100.79			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734(-0.000)	96	121906	20.110	20.11			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.734(-0.000)	73	305520	19.054	19.05			0.2	1
34) n-Hexane	(2)	4.100(-0.000)	57	168988	18.800	18.80			2	5
36) 1,1-Dichloroethane	(2)	4.337(-0.000)	63	217712	19.839	19.84			0.2	1
38) di-Isopropyl ether	(2)	4.404(-0.000)	45	356035	18.165	18.16			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.447(-0.000)	53	176173	18.897	18.90			0.2	5
40) Ethyl t-butyl ether	(2)	4.965(0.000)	59	309249	17.772	17.77			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.209(-0.000)	96	145241	21.183	21.18			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	267147	41.292	41.29			0.4	2
44) 2-Butanone	(2)	5.197(-0.000)	43	899209	149.852	149.85			0.3	10

Digitally signed by Laura J. Green on 05/28/2020 at 00:55. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
45) 2,2-Dichloropropane	(2)	5.221(-0.000)	77	173129	18.698	18.70			0.3	1
47) Propionitrile	(1)	5.294(0.002)	54	264800	178.543	178.54			14	100
48) Methacrylonitrile	(2)	5.520(-0.000)	67	625084	152.230	152.23			6	50
49) Bromochloromethane	(2)	5.557(-0.000)	128	68220	21.723	21.72			0.2	5
50) Tetrahydrofuran	(1)	5.569(-0.000)	71	163888	122.266	122.27			0.7	10
51) Chloroform	(2)	5.721(0.000)	83	223240	20.282	20.28			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.941(0.000)	97	193840	19.560	19.56			0.3	1
54) Cyclohexane	(2)	6.032(0.000)	56	210507	18.239	18.24			1	5
55) 1,1-Dichloropropene	(2)	6.166(0.000)	75	175444	19.543	19.54			0.2	5
56) Carbon Tetrachloride	(2)	6.154(0.000)	117	169910	19.651	19.65			0.2	1
58) Isobutyl Alcohol	(1)	6.392(-0.000)	41	243302	535.756	535.76			36	250
60) Benzene	(2)	6.440(0.000)	78	532659	19.955	19.95			0.2	1
61) 1,2-Dichloroethane	(2)	6.532(-0.000)	62	167697	20.454	20.45			0.3	1
65) t-Amyl methyl ether	(2)	6.660(0.000)	73	326269	18.791	18.79			0.8	5
67) n-Heptane	(2)	6.898(-0.000)	43	166266	19.149	19.15			2	5
69) n-Butanol	(1)	7.318(0.001)	56	422108	1077.200	1077.20			61	250
71) Trichloroethene	(2)	7.373(0.000)	95	143209	20.444	20.44			0.2	1
73) Methylcyclohexane	(2)	7.684(-0.000)	83	223870	20.109	20.11			0.5	5
74) 1,2-Dichloropropane	(2)	7.727(-0.000)	63	134598	20.143	20.14			0.2	1
75) Dibromomethane	(2)	7.843(-0.000)	93	85719	20.372	20.37			0.2	1
76) 1,4-Dioxane	(1)	7.830(0.002)	88	63917M	657.584	657.58			29	250
77) Methyl Methacrylate	(2)	7.849(-0.000)	69	120829	19.327	19.33			0.2	5
79) Bromodichloromethane	(2)	8.105(-0.000)	83	155639	19.076	19.08			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	48947	17.321	17.32			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.507(-0.000)	63	98449	19.038	19.04			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.690(-0.000)	75	195315	18.943	18.94			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.910(-0.000)	43	1172372	101.365	101.36			0.5	10
89) Toluene	(3)	9.123(0.000)	92	345468	20.198	20.20			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.446(0.000)	75	170749	18.606	18.61			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	366064	37.549	37.55			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	194031	18.593	18.59			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.672(0.000)	97	128842	21.070	21.07			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	156590	21.585	21.59			0.2	1
95) 1,3-Dichloropropane	(3)	9.854(0.000)	76	203349	20.028	20.03			0.2	1
97) 2-Hexanone	(3)	9.934(0.000)	43	977373	107.550	107.55			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	125375	19.376	19.38			0.2	1
100) 1,2-Dibromoethane	(3)	10.196(0.000)	107	136874	20.305	20.30			0.2	1
102) 1-Chlorohexane	(3)	10.708(-0.000)	91	192770	19.379	19.38			0.3	5
103) Chlorobenzene	(3)	10.708(-0.000)	112	390610	21.042	21.04			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	131065	20.466	20.47			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	693001	20.954	20.95			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	539524	42.519	42.52			1	5
108) o-Xylene	(3)	11.293(-0.000)	106	258963	20.851	20.85			0.4	1
109) Xylene (Total)	(3)		106	798487	63.370	63.37			1	6
110) Styrene	(3)	11.312(0.000)	104	415542	20.761	20.76			0.2	5
111) Bromoform	(3)	11.470(-0.000)	173	86047	18.380	18.38			1	4
112) Isopropylbenzene	(3)	11.616(-0.000)	105	684450	21.000	21.00			0.2	5
113) Cyclohexanone	(1)	11.696(0.005)	55	245560	550.016	550.02			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	166489	20.394	20.39			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	231704	20.916	20.92			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.933(0.000)	110	68044	20.859	20.86			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.915(0.000)	53	247051	112.374	112.37			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	825963	20.578	20.58			0.2	5
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	164681	20.017	20.02			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27a.b/5y27s01.d Injection date and time: **27-MAY-2020 09:27**
Data file Sample Info. Line: LCS572;LCS572;1;3;LCS;;;;5y27b01; Instrument ID: **HP26285.i** Batch: **5201481AA**
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Blank Data file reference: **/chem2/HP26285.i/20may27a.b/5y27b01.d**

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: **8260W-DE**
Calibration date and time (Last Method Edit): 27-MAY-2020 09:50
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27a.b/5y27c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
122) 4-Chlorotoluene	(4)	12.141(0.000)	126	167182	20.117	20.12			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.116(0.000)	105	568831	20.161	20.16			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	120559	21.500	21.50			0.3	5
126) Pentachloroethane	(4)	12.397(0.000)	167	100122	21.749	21.75			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.415(0.000)	105	580980	19.996	20.00			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	702956	20.095	20.09			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.634(0.000)	146	314267	20.466	20.47			0.2	5
131) p-Isopropyltoluene	(4)	12.659(0.000)	119	590549	20.244	20.24			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.714(0.000)	146	324144	20.800	20.80			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.732(0.000)	105	622799	22.331	22.33			0.3	5
136) Benzyl Chloride	(4)	12.805(-0.000)	91	388424	18.276	18.28			1	5
137) 1,3-Diethylbenzene	(4)	12.872(0.000)	119	364420	21.620	21.62			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(-0.000)	119	382146	21.919	21.92			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(0.000)	146	304664	20.655	20.66			0.2	5
140) n-Butylbenzene	(4)	12.964(0.000)	92	295496	20.082	20.08			0.2	5
141) 1,2-Diethylbenzene	(4)	13.018(0.000)	119	304847	21.385	21.38			0.2	5
142) Diethylbenzene (total)	(4)		100	1051413	64.924	64.92			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.555(0.000)	75	54310	19.418	19.42			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	198472	20.372	20.37			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	186080	20.331	20.33			0.3	5
148) Hexachlorobutadiene	(4)	14.213(0.000)	225	71672	20.362	20.36			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	736320	20.315	20.32			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.457(-0.000)	180	184692	20.392	20.39			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	385507	20.472	20.47			2	4

Total number of targets = 109

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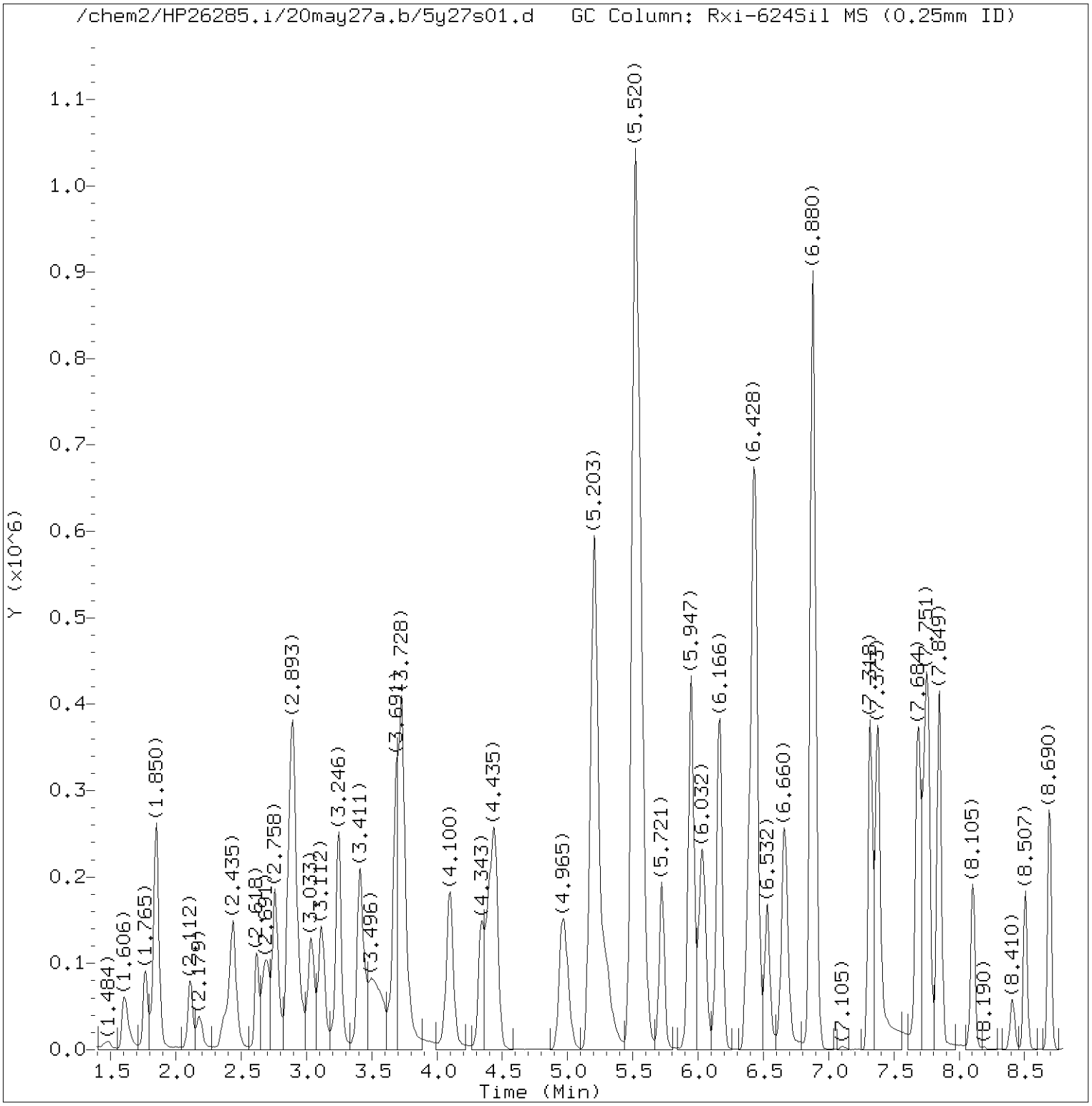
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

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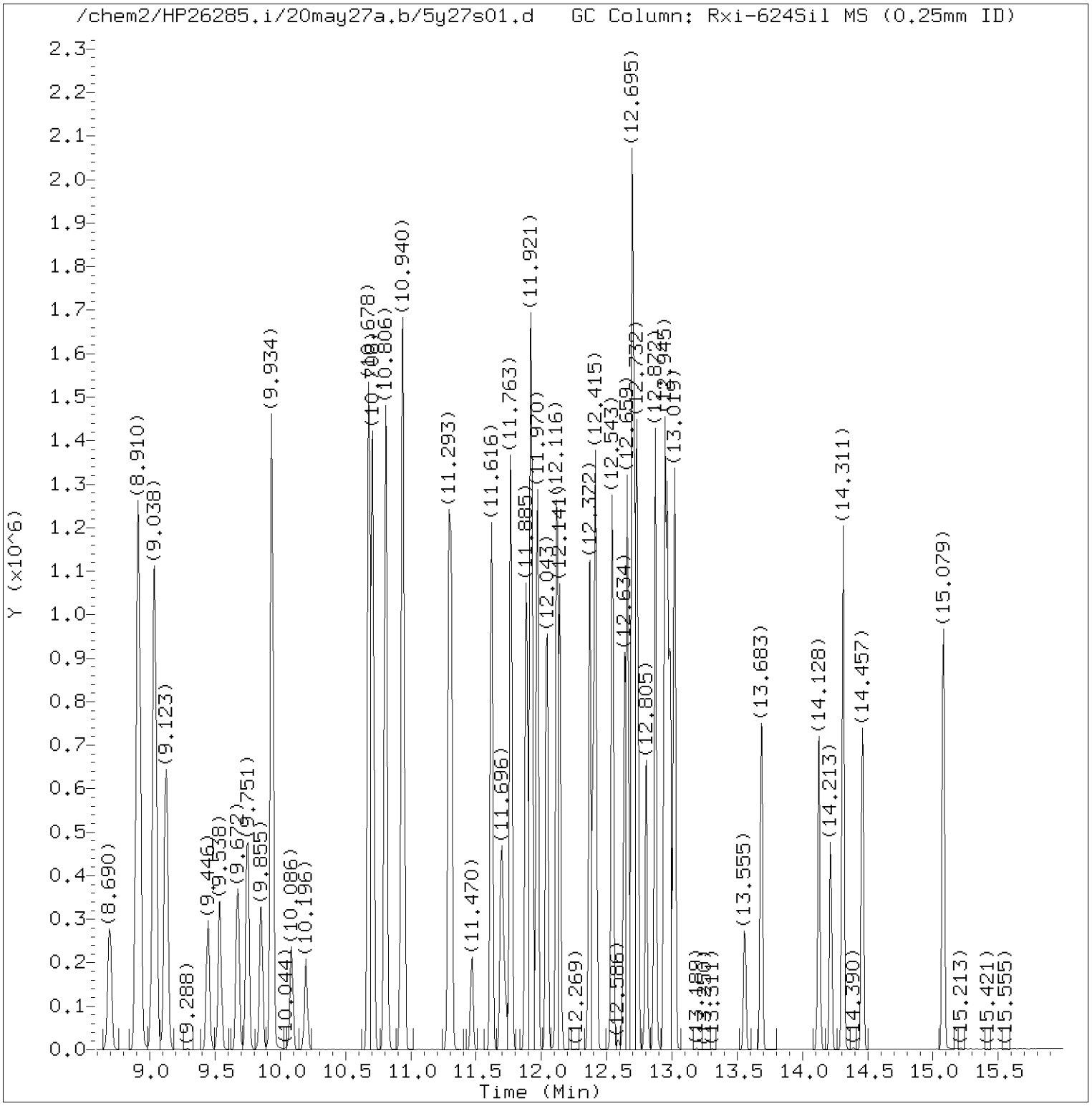
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	138282	17.041
4) Chloromethane	(2)	1.765	50	116835	18.148
5) 1,3-Butadiene	(2)	1.844	39	159144	17.786
6) Vinyl Chloride	(2)	1.856	62	116402	20.446
8) Bromomethane	(2)	2.112	94	78128	20.439
9) Chloroethane	(2)	2.179	64	53656	19.905
12) Trichlorofluoromethane	(2)	2.417	101	150798	21.627
11) n-Pentane	(2)	2.441	43	102558	15.801
15) Freon 123a	(2)	2.691	67	126835	17.426
16) Acrolein	(1)	2.758	56	272788	148.944
17) 1,1-Dichloroethene	(2)	2.868	96	103163	19.042
19) Freon 113	(2)	2.893	101	115186	18.784
18) Acetone	(1)	2.899	58	171214	189.547
22) Methyl Iodide	(2)	3.033	142	202650	19.617
21) 2-Propanol	(1)	3.039	45	85913	116.884
23) Carbon Disulfide	(2)	3.112	76	327205	17.170
27) Methyl Acetate	(2)	3.228	43	173778	22.248
25) Allyl Chloride	(2)	3.246	41	172128	18.980
28) Methylene Chloride	(2)	3.405	84	126172	20.661
29)*t-Butyl alcohol-d10	(1)	3.423	65	289246	250.000
30) t-Butyl alcohol	(1)	3.533	59	254289	186.647
31) Acrylonitrile	(2)	3.685	53	415551	100.791
32) trans-1,2-Dichloroethene	(2)	3.734	96	121906	20.110
33) Methyl Tertiary Butyl Ether	(2)	3.734	73	305520	19.054
34) n-Hexane	(2)	4.100	57	168988	18.800
36) 1,1-Dichloroethane	(2)	4.337	63	217712	19.839
38) di-Isopropyl ether	(2)	4.404	45	356035	18.165
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	176173	18.897
40) Ethyl t-butyl ether	(2)	4.965	59	309249	17.772
44) 2-Butanone	(2)	5.197	43	899209	149.852
42) cis-1,2-Dichloroethene	(2)	5.209	96	145241	21.183
45) 2,2-Dichloropropane	(2)	5.221	77	173129	18.698
47) Propionitrile	(1)	5.294	54	264800	178.543
48) Methacrylonitrile	(2)	5.520	67	625084	152.230
49) Bromochloromethane	(2)	5.557	128	68220	21.723
50) Tetrahydrofuran	(1)	5.569	71	163888	122.266
51) Chloroform	(2)	5.721	83	223240	20.282
53) 1,1,1-Trichloroethane	(2)	5.941	97	193840	19.560

* = Compound is an internal standard.

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on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52)$Dibromofluoromethane	(2)	5.947	113	249320	49.957
54) Cyclohexane	(2)	6.032	56	210507	18.239
56) Carbon Tetrachloride	(2)	6.154	117	169910	19.651
43) 1,2-Dichloroethene (Total)	(2)		96	267147	41.292
55) 1,1-Dichloropropene	(2)	6.166	75	175444	19.543
58) Isobutyl Alcohol	(1)	6.392	41	243302	535.756
57)$1,2-Dichloroethane-d4	(2)	6.422	102	56538	50.653
60) Benzene	(2)	6.441	78	532659	19.955
61) 1,2-Dichloroethane	(2)	6.532	62	167697	20.454
65) t-Amyl methyl ether	(2)	6.660	73	326269	18.791
66)*Fluorobenzene	(2)	6.873	96	1001983	50.000
67) n-Heptane	(2)	6.898	43	166266	19.149
69) n-Butanol	(1)	7.318	56	422108	1077.200
71) Trichloroethene	(2)	7.373	95	143209	20.444
73) Methylcyclohexane	(2)	7.684	83	223870	20.109
74) 1,2-Dichloropropane	(2)	7.727	63	134598	20.143
76) 1,4-Dioxane	(1)	7.831	88	63917M	657.584
75) Dibromomethane	(2)	7.843	93	85719	20.372
77) Methyl Methacrylate	(2)	7.849	69	120829	19.327
79) Bromodichloromethane	(2)	8.105	83	155639	19.076
80) 2-Nitropropane	(2)	8.410	41	48947	17.321
81) 2-Chloroethyl Vinyl Ether	(2)	8.507	63	98449	19.038
82) cis-1,3-Dichloropropene	(2)	8.690	75	195315	18.943
83) 4-Methyl-2-pentanone	(2)	8.910	43	1172372	101.365
84)$Toluene-d8	(3)	9.038	98	965489	49.773
89) Toluene	(3)	9.123	92	345468	20.198
90) trans-1,3-Dichloropropene	(3)	9.446	75	170749	18.606
92) Ethyl Methacrylate	(3)	9.538	69	194031	18.593
93) 1,1,2-Trichloroethane	(3)	9.672	97	128842	21.070
94) Tetrachloroethene	(3)	9.751	166	156590	21.585
95) 1,3-Dichloropropane	(3)	9.855	76	203349	20.028
97) 2-Hexanone	(3)	9.934	43	977373	107.550
98) Dibromochloromethane	(3)	10.086	129	125375	19.376
91) 1,3-Dichloropropene (total)	(3)		100	366064	37.549
100) 1,2-Dibromoethane	(3)	10.196	107	136874	20.305
101)*Chlorobenzene-d5	(3)	10.678	117	789314	50.000
102) 1-Chlorohexane	(3)	10.708	91	192770	19.379
103) Chlorobenzene	(3)	10.708	112	390610	21.042

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	131065	20.466
105) Ethylbenzene	(3)	10.812	91	693001	20.954
107) m+p-Xylene	(3)	10.940	106	539524	42.519
108) o-Xylene	(3)	11.293	106	258963	20.851
110) Styrene	(3)	11.312	104	415542	20.761
111) Bromoform	(3)	11.470	173	86047	18.380
112) Isopropylbenzene	(3)	11.616	105	684450	21.000
113) Cyclohexanone	(1)	11.696	55	245560	550.016
115)$4-Bromofluorobenzene	(3)	11.763	95	405339	49.594
109) Xylene (Total)	(3)		106	798487	63.370
116) Bromobenzene	(4)	11.885	156	166489	20.394
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	231704	20.916
119) trans-1,4-Dichloro-2-butene	(4)	11.915	53	247051	112.374
118) 1,2,3-Trichloropropane	(4)	11.933	110	68044	20.859
120) n-Propylbenzene	(4)	11.970	91	825963	20.578
121) 2-Chlorotoluene	(4)	12.043	126	164681	20.017
123) 1,3,5-Trimethylbenzene	(4)	12.116	105	568831	20.161
122) 4-Chlorotoluene	(4)	12.141	126	167182	20.117
125) tert-Butylbenzene	(4)	12.372	134	120559	21.500
126) Pentachloroethane	(4)	12.397	167	100122	21.749
127) 1,2,4-Trimethylbenzene	(4)	12.415	105	580980	19.996
128) sec-Butylbenzene	(4)	12.543	105	702956	20.095
130) 1,3-Dichlorobenzene	(4)	12.634	146	314267	20.466
131) p-Isopropyltoluene	(4)	12.659	119	590549	20.244
132)*1,4-Dichlorobenzene-d4	(4)	12.695	152	428224	50.000
134) 1,4-Dichlorobenzene	(4)	12.714	146	324144	20.800
135) 1,2,3-Trimethylbenzene	(4)	12.732	105	622799	22.331
136) Benzyl Chloride	(4)	12.805	91	388424	18.276
137) 1,3-Diethylbenzene	(4)	12.872	119	364420	21.620
138) 1,4-Diethylbenzene	(4)	12.945	119	382146	21.919
140) n-Butylbenzene	(4)	12.964	92	295496	20.082
139) 1,2-Dichlorobenzene	(4)	12.988	146	304664	20.655
141) 1,2-Diethylbenzene	(4)	13.019	119	304847	21.385
142) Diethylbenzene (total)	(4)		100	1051413	64.924
143) 1,2-Dibromo-3-chloropropane	(4)	13.555	75	54310	19.418
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	198472	20.372
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	186080	20.331
148) Hexachlorobutadiene	(4)	14.213	225	71672	20.362

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
149) Naphthalene	(4)	14.311	128	736320	20.315
150) 1,2,3-Trichlorobenzene	(4)	14.457	180	184692	20.392
151) 2-Methylnaphthalene	(4)	15.079	142	385507	20.472

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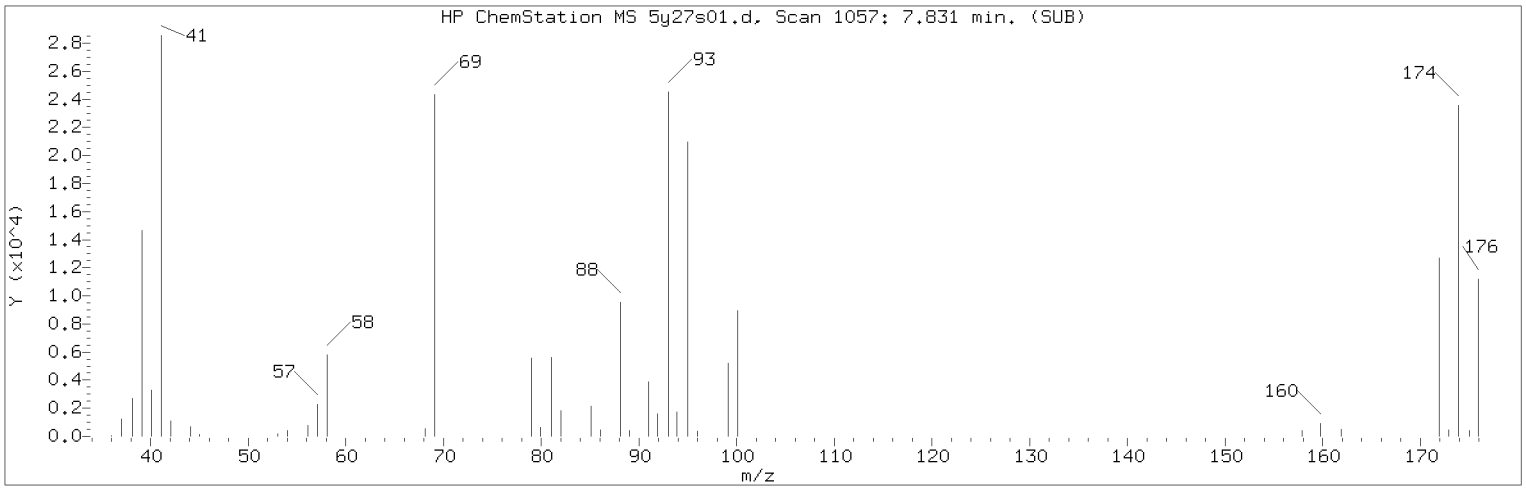
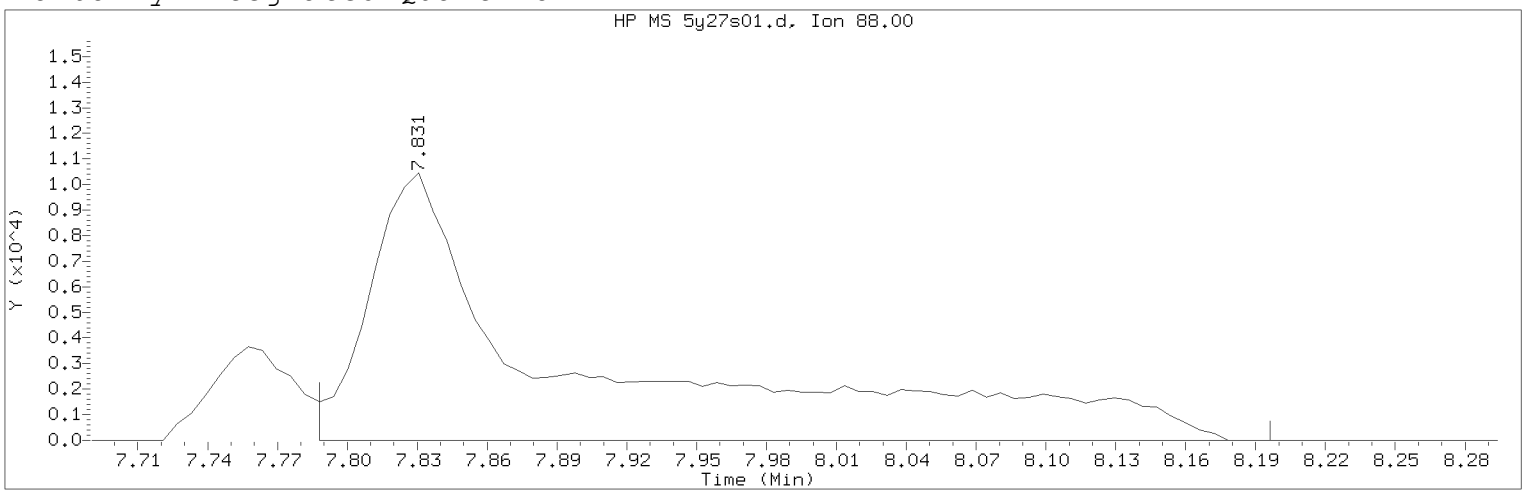
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:50
Date, time and analyst ID of latest file update: 27-May-2020 10:42 lcp00895

Sample Name: LCS572 Lab Sample ID: LCS572

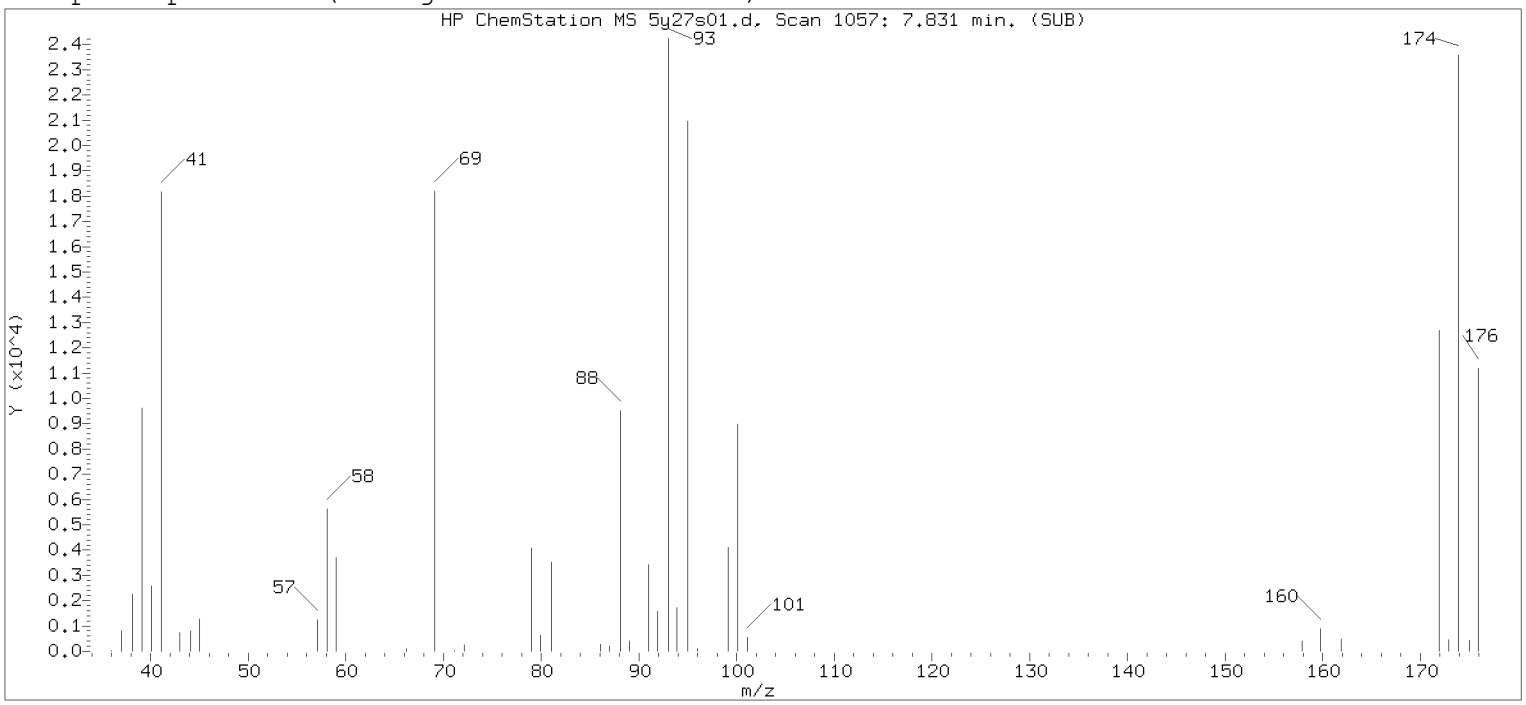
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 63917M
On-Column Amount (ng) : 657.5844
Integration start scan : 1049 Integration stop scan: 1116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

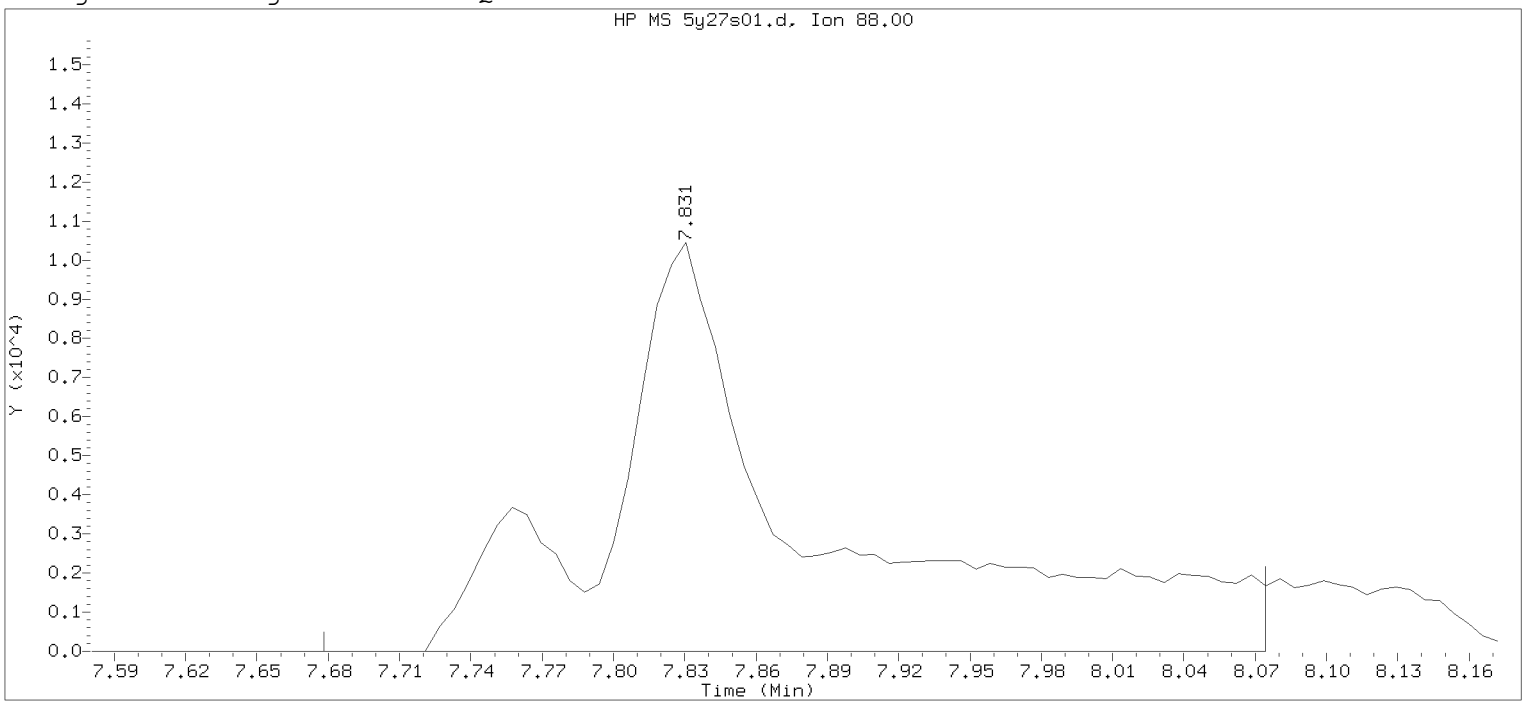
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 13:03.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27a.b/5y27s01.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 09:27 Analyst ID: LCP00895

Method used: /chem2/HP26285.i/20may27a.b/m8260c5.m Sublist used: 8260W-DE
Calibration date and time: 27-MAY-2020 09:25
Date, time and analyst ID of latest file update: 27-May-2020 09:46 chemist

Sample Name: LCS572 Lab Sample ID: LCS572

Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 64339
On-column Amount (ng) : 661.9332
Integration start scan : 1031 Integration stop scan: 1096
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:55.
Target 3.5 esignature user ID: LJGreen

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	19	
74-87-3	Chloromethane	20	
106-99-0	1,3-Butadiene	17	
75-01-4	Vinyl Chloride	22	
74-83-9	Bromomethane	23	
75-00-3	Chloroethane	22	
109-66-0	n-Pentane	18	
75-69-4	Trichlorofluoromethane	24	
60-29-7	Ethyl ether	17	
354-23-4	Freon 123a	18	
107-02-8	Acrolein	140	
75-35-4	1,1-Dichloroethene	21	
67-64-1	Acetone	190	
76-13-1	Freon 113	19	
67-63-0	2-Propanol	120	
74-88-4	Methyl Iodide	21	
75-15-0	Carbon Disulfide	18	
107-05-1	Allyl Chloride	19	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	21	
75-65-0	t-Butyl alcohol	200	
107-13-1	Acrylonitrile	99	
156-60-5	trans-1,2-Dichloroethene	21	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	18	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	18	
126-99-8	2-Chloro-1,3-butadiene	20	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	22	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	43	
78-93-3	2-Butanone	150	
594-20-7	2,2-Dichloropropane	20	
107-12-0	Propionitrile	170	
126-98-7	Methacrylonitrile	150	
74-97-5	Bromochloromethane	21	
109-99-9	Tetrahydrofuran	120	
67-66-3	Chloroform	21	
71-55-6	1,1,1-Trichloroethane	21	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	20	
56-23-5	Carbon Tetrachloride	21	
78-83-1	Isobutyl Alcohol	550	
71-43-2	Benzene	21	
107-06-2	1,2-Dichloroethane	22	
994-05-8	t-Amyl methyl ether	19	
142-82-5	n-Heptane	18	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	21	
108-87-2	Methylcyclohexane	19	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	21	
123-91-1	1,4-Dioxane	640	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	20	
79-46-9	2-Nitropropane	18	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	19	
108-10-1	4-Methyl-2-pentanone	100	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	38	
97-63-2	Ethyl Methacrylate	18	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	22	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	19	
108-90-7	Chlorobenzene	22	
630-20-6	1,1,1,2-Tetrachloroethane	21	
100-41-4	Ethylbenzene	21	
179601-23-1	m+p-Xylene	43	
95-47-6	o-Xylene	21	
1330-20-7	Xylene (Total)	64	
100-42-5	Styrene	21	
75-25-2	Bromoform	19	
98-82-8	Isopropylbenzene	21	
108-94-1	Cyclohexanone	600	
108-86-1	Bromobenzene	21	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	22	
110-57-6	trans-1,4-Dichloro-2-butene	120	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	20	
98-06-6	tert-Butylbenzene	22	
76-01-7	Pentachloroethane	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l50.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	20	
135-98-8	sec-Butylbenzene	20	
541-73-1	1,3-Dichlorobenzene	21	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	22	
526-73-8	1,2,3-Trimethylbenzene	21	
100-44-7	Benzyl Chloride	19	
141-93-5	1,3-Diethylbenzene	21	
105-05-5	1,4-Diethylbenzene	21	
95-50-1	1,2-Dichlorobenzene	22	
104-51-8	n-Butylbenzene	21	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	64	
96-12-8	1,2-Dibromo-3-chloropropane	20	
108-70-3	1,3,5-Trichlorobenzene	21	
120-82-1	1,2,4-Trichlorobenzene	21	
87-68-3	Hexachlorobutadiene	22	
91-20-3	Naphthalene	21	
87-61-6	1,2,3-Trichlorobenzene	21	
91-57-6	2-Methylnaphthalene	20	

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

LCS573

Data file: /chem2/HP26285.i/20may27b.b/5y27l50.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.453	(-0.030)	339	65	267518	(16)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	870740	(6)	50.00	
101) Chlorobenzene-d5	10.684	(-0.006)	1525	117	701085	(6)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	384631	(3)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	222217	51.237	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428	(0.000)	102	50233	51.787	104%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	849987	49.333	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.001)	95	361853	49.845	100%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.606	(0.000)	85	132460	18.784	18.78			0.2	1
4) Chloromethane	(2)	1.765	(0.000)	50	111024	19.845	19.84			0.2	1
5) 1,3-Butadiene	(2)	1.856	(-0.001)	39	135300	17.401	17.40			1	3
6) Vinyl Chloride	(2)	1.862	(-0.000)	62	107290	21.686	21.69			0.2	1
8) Bromomethane	(2)	2.112	(0.000)	94	75178	22.632	22.63			0.3	1
9) Chloroethane	(2)	2.179	(0.000)	64	51475	21.974	21.97			0.2	1
11) n-Pentane	(2)	2.448	(-0.000)	43	99906	17.712	17.71			0.4	10
12) Trichlorofluoromethane	(2)	2.423	(-0.000)	101	147767	24.386	24.39			0.2	1
14) Ethyl ether	(2)	2.624	(-0.000)	59	70304	16.830	16.83			0.2	5
15) Freon 123a	(2)	2.697	(-0.000)	67	116132	18.361	18.36			0.4	5
16) Acrolein	(1)	2.764	(0.005)	56	234448	138.407	138.41			2	100
17) 1,1-Dichloroethene	(2)	2.874	(-0.000)	96	99025	21.033	21.03			0.2	1
18) Acetone	(1)	2.905	(0.005)	58	158393	189.596	189.60			0.7	20
19) Freon 113	(2)	2.892	(0.000)	101	102864	19.303	19.30			0.2	10
21) 2-Propanol	(1)	3.045	(0.004)	45	83781	123.241	123.24			18	100
22) Methyl Iodide	(2)	3.039	(0.000)	142	190513	21.221	21.22			0.2	1
23) Carbon Disulfide	(2)	3.124	(-0.000)	76	301807	18.224	18.22			0.2	5
25) Allyl Chloride	(2)	3.258	(-0.000)	41	149208	18.933	18.93			0.3	5
27) Methyl Acetate	(2)	3.240	(-0.001)	43	140046	20.632	20.63			0.3	5
28) Methylene Chloride	(2)	3.417	(-0.000)	84	112878	21.270	21.27			0.3	1
30) t-Butyl alcohol	(1)	3.551	(0.002)	59	250975M	199.176	199.18			12	50
31) Acrylonitrile	(2)	3.691	(-0.000)	53	353532	98.673	98.67			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734	(0.000)	96	111483	21.162	21.16			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.746	(-0.000)	73	269809	19.363	19.36			0.2	1
34) n-Hexane	(2)	4.106	(-0.000)	57	140432	17.978	17.98			2	5
36) 1,1-Dichloroethane	(2)	4.344	(0.000)	63	194913	20.439	20.44			0.2	1
38) di-Isopropyl ether	(2)	4.410	(-0.000)	45	300753	17.657	17.66			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.453	(-0.000)	53	159094	19.637	19.64			0.2	5
40) Ethyl t-butyl ether	(2)	4.978	(-0.000)	59	261338	17.283	17.28			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215	(-0.000)	96	131059	21.995	22.00			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	242542	43.158	43.16			0.4	2

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/28/2020 at 00:04. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27150.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.203(-0.000)	43	795912	152.630	152.63			0.3	10
45) 2,2-Dichloropropane	(2)	5.227(0.000)	77	160761	19.979	19.98			0.3	1
47) Propionitrile	(1)	5.307(0.010)	54	230326	167.912	167.91			14	100
48) Methacrylonitrile	(2)	5.520(0.000)	67	537965	150.761	150.76			6	50
49) Bromochloromethane	(2)	5.563(-0.000)	128	58202	21.327	21.33			0.2	5
50) Tetrahydrofuran	(1)	5.575(0.012)	71	143113	115.439	115.44			0.7	10
51) Chloroform	(2)	5.727(0.000)	83	205142	21.447	21.45			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.953(-0.000)	97	181908	21.123	21.12			0.3	1
54) Cyclohexane	(2)	6.038(0.000)	56	175562	17.504	17.50			1	5
55) 1,1-Dichloropropene	(2)	6.172(0.000)	75	157280	20.160	20.16			0.2	5
56) Carbon Tetrachloride	(2)	6.166(-0.000)	117	159050	21.168	21.17			0.2	1
58) Isobutyl Alcohol	(1)	6.392(0.014)	41	228934	545.062	545.06			36	250
60) Benzene	(2)	6.447(0.000)	78	476173	20.527	20.53			0.2	1
61) 1,2-Dichloroethane	(2)	6.538(-0.000)	62	156554	21.973	21.97			0.3	1
65) t-Amyl methyl ether	(2)	6.666(0.000)	73	280528	18.592	18.59			0.8	5
67) n-Heptane	(2)	6.904(-0.000)	43	139403	18.475	18.48			2	5
69) n-Butanol	(1)	7.325(0.017)	56	403857	1114.332	1114.33			61	250
71) Trichloroethene	(2)	7.386(-0.000)	95	129609	21.291	21.29			0.2	1
73) Methylcyclohexane	(2)	7.690(-0.000)	83	184529	19.073	19.07			0.5	5
74) 1,2-Dichloropropane	(2)	7.733(-0.000)	63	119593	20.595	20.60			0.2	1
75) Dibromomethane	(2)	7.849(-0.000)	93	77800	21.277	21.28			0.2	1
76) 1,4-Dioxane	(1)	7.837(0.018)	88	57968M	644.819	644.82			29	250
77) Methyl Methacrylate	(2)	7.855(-0.000)	69	102848	18.930	18.93			0.2	5
79) Bromodichloromethane	(2)	8.111(-0.000)	83	141485	19.955	19.95			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	44858	18.266	18.27			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.513(-0.000)	63	81809	18.204	18.20			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.696(-0.000)	75	171211	19.108	19.11			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.916(-0.000)	43	1026461	102.126	102.13			0.5	10
89) Toluene	(3)	9.129(0.000)	92	308266	20.291	20.29			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.452(0.000)	75	150355	18.445	18.45			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	321566	37.554	37.55			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	165627	17.869	17.87			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(0.000)	97	115365	21.240	21.24			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	144138	22.369	22.37			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(0.000)	76	178018	19.740	19.74			0.2	1
97) 2-Hexanone	(3)	9.940(-0.000)	43	873003	108.155	108.15			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	113301	19.714	19.71			0.2	1
100) 1,2-Dibromoethane	(3)	10.202(0.000)	107	122559	20.469	20.47			0.2	1
102) 1-Chlorohexane	(3)	10.708(0.000)	91	170657	19.315	19.32			0.3	5
103) Chlorobenzene	(3)	10.708(0.000)	112	357704	21.695	21.69			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	121496	21.359	21.36			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	617308	21.014	21.01			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	483929	42.937	42.94			1	5
108) o-Xylene	(3)	11.293(0.000)	106	229210	20.778	20.78			0.4	1
109) Xylene (Total)	(3)		106	713139	63.715	63.72			1	6
110) Styrene	(3)	11.312(0.000)	104	374168	21.046	21.05			0.2	5
111) Bromoform	(3)	11.470(0.000)	173	77120	18.546	18.55			1	4
112) Isopropylbenzene	(3)	11.622(0.000)	105	607901	20.999	21.00			0.2	5
113) Cyclohexanone	(1)	11.696(0.030)	55	247745	599.980	599.98			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	153777	20.972	20.97			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	208372	20.941	20.94			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.934(0.000)	110	63443	21.653	21.65			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.921(0.000)	53	248394	124.159	124.16			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	754701	20.934	20.93			0.2	5

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/28/2020 at 00:04. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27150.d Injection date and time: **27-MAY-2020 20:33**
Data file Sample Info. Line: LCS573;LCS573;1;3;LCS;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

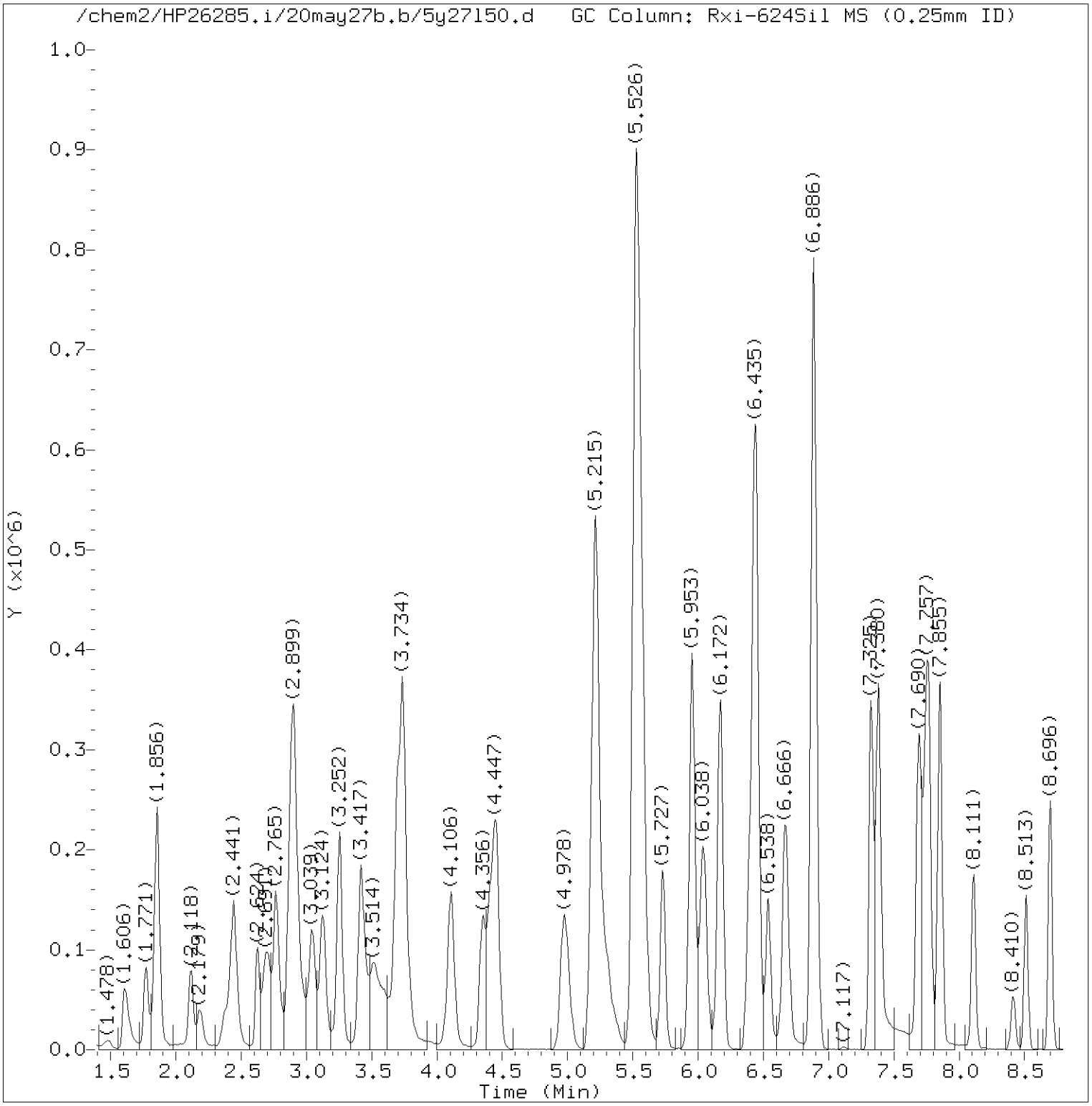
Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	149047	20.170	20.17			0.2	5
122) 4-Chlorotoluene	(4)	12.147(0.000)	126	154487	20.696	20.70			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.122(0.000)	105	517536	20.422	20.42			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	109760	21.792	21.79			0.3	5
126) Pentachloroethane	(4)	12.403(0.000)	167	87172	21.082	21.08			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.421(-0.000)	105	531095	20.350	20.35			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	638938	20.335	20.33			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.641(0.000)	146	292726	21.224	21.22			0.2	5
131) p-Isopropyltoluene	(4)	12.665(0.000)	119	545965	20.837	20.84			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.720(-0.000)	146	302574	21.617	21.62			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.738(-0.000)	105	536779	21.428	21.43			0.3	5
136) Benzyl Chloride	(4)	12.805(0.000)	91	355883	18.643	18.64			1	5
137) 1,3-Diethylbenzene	(4)	12.872(-0.000)	119	320153	21.147	21.15			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(0.000)	119	335008	21.394	21.39			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(-0.000)	146	285433	21.545	21.54			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	272423M	20.612	20.61			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	270031	21.089	21.09			0.2	5
142) Diethylbenzene (total)	(4)		100	925192	63.630	63.63			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(0.000)	75	50514	20.108	20.11			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	184938	21.134	21.13			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	172597	20.995	20.99			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	68746	21.744	21.74			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	678894	20.854	20.85			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.463(-0.000)	180	174408	21.439	21.44			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	331515	19.600	19.60			2	4

M = Compound was manually integrated.

Total number of targets = 110

Digitally signed by Laura J. Green on 05/28/2020 at 00:04. Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

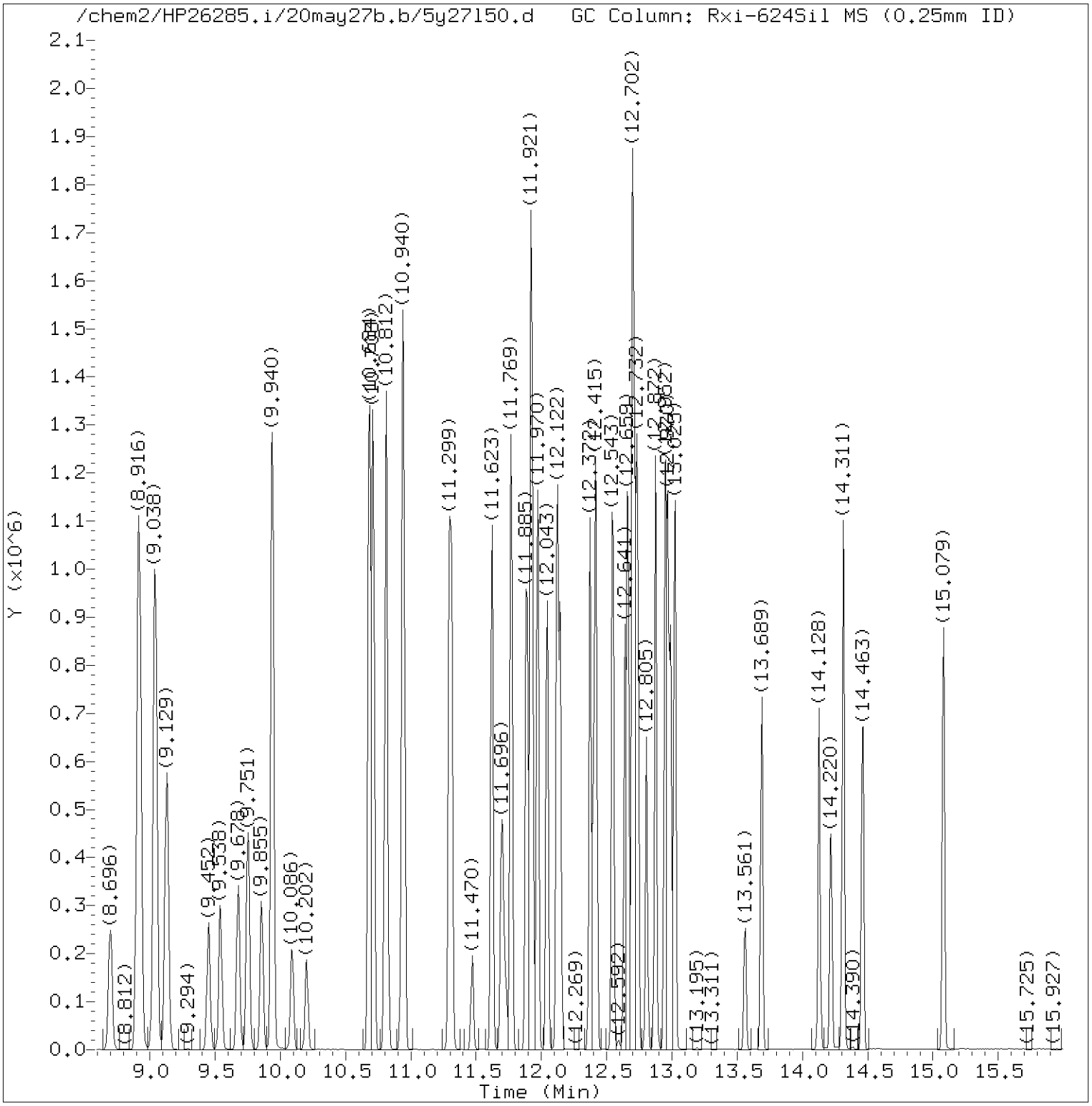
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	132460	18.784
4) Chloromethane	(2)	1.765	50	111024	19.845
5) 1,3-Butadiene	(2)	1.856	39	135300	17.401
6) Vinyl Chloride	(2)	1.862	62	107290	21.686
8) Bromomethane	(2)	2.112	94	75178	22.632
9) Chloroethane	(2)	2.179	64	51475	21.974
12) Trichlorofluoromethane	(2)	2.423	101	147767	24.386
11) n-Pentane	(2)	2.448	43	99906	17.712
14) Ethyl ether	(2)	2.624	59	70304	16.830
15) Freon 123a	(2)	2.697	67	116132	18.361
16) Acrolein	(1)	2.765	56	234448	138.407
17) 1,1-Dichloroethene	(2)	2.874	96	99025	21.033
19) Freon 113	(2)	2.893	101	102864	19.303
18) Acetone	(1)	2.905	58	158393	189.596
22) Methyl Iodide	(2)	3.039	142	190513	21.221
21) 2-Propanol	(1)	3.045	45	83781	123.241
23) Carbon Disulfide	(2)	3.124	76	301807	18.224
27) Methyl Acetate	(2)	3.240	43	140046	20.632
25) Allyl Chloride	(2)	3.258	41	149208	18.933
28) Methylene Chloride	(2)	3.417	84	112878	21.270
29)*t-Butyl alcohol-d10	(1)	3.453	65	267518	250.000
30) t-Butyl alcohol	(1)	3.551	59	250975M	199.176
31) Acrylonitrile	(2)	3.691	53	353532	98.673
32) trans-1,2-Dichloroethene	(2)	3.734	96	111483	21.162
33) Methyl Tertiary Butyl Ether	(2)	3.746	73	269809	19.363
34) n-Hexane	(2)	4.106	57	140432	17.978
36) 1,1-Dichloroethane	(2)	4.344	63	194913	20.439
38) di-Isopropyl ether	(2)	4.411	45	300753	17.657
39) 2-Chloro-1,3-butadiene	(2)	4.453	53	159094	19.637
40) Ethyl t-butyl ether	(2)	4.978	59	261338	17.283
44) 2-Butanone	(2)	5.203	43	795912	152.630
42) cis-1,2-Dichloroethene	(2)	5.215	96	131059	21.995
45) 2,2-Dichloropropane	(2)	5.227	77	160761	19.979
47) Propionitrile	(1)	5.307	54	230326	167.912
48) Methacrylonitrile	(2)	5.520	67	537965	150.761
49) Bromochloromethane	(2)	5.563	128	58202	21.327
50) Tetrahydrofuran	(1)	5.575	71	143113	115.439
51) Chloroform	(2)	5.727	83	205142	21.447

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
52)$Dibromofluoromethane	(2)	5.953	113	222217	51.237
53) 1,1,1-Trichloroethane	(2)	5.953	97	181908	21.123
54) Cyclohexane	(2)	6.038	56	175562	17.504
43) 1,2-Dichloroethene (Total)	(2)		96	242542	43.158
56) Carbon Tetrachloride	(2)	6.166	117	159050	21.168
55) 1,1-Dichloropropene	(2)	6.172	75	157280	20.160
58) Isobutyl Alcohol	(1)	6.392	41	228934	545.062
57)$1,2-Dichloroethane-d4	(2)	6.428	102	50233	51.787
60) Benzene	(2)	6.447	78	476173	20.527
61) 1,2-Dichloroethane	(2)	6.538	62	156554	21.973
65) t-Amyl methyl ether	(2)	6.666	73	280528	18.592
66)*Fluorobenzene	(2)	6.880	96	870740	50.000
67) n-Heptane	(2)	6.904	43	139403	18.475
69) n-Butanol	(1)	7.325	56	403857	1114.332
71) Trichloroethene	(2)	7.386	95	129609	21.291
73) Methylcyclohexane	(2)	7.690	83	184529	19.073
74) 1,2-Dichloropropane	(2)	7.733	63	119593	20.595
76) 1,4-Dioxane	(1)	7.837	88	57968M	644.819
75) Dibromomethane	(2)	7.849	93	77800	21.277
77) Methyl Methacrylate	(2)	7.855	69	102848	18.930
79) Bromodichloromethane	(2)	8.111	83	141485	19.955
80) 2-Nitropropane	(2)	8.410	41	44858	18.266
81) 2-Chloroethyl Vinyl Ether	(2)	8.513	63	81809	18.204
82) cis-1,3-Dichloropropene	(2)	8.696	75	171211	19.108
83) 4-Methyl-2-pentanone	(2)	8.916	43	1026461	102.126
84)$Toluene-d8	(3)	9.038	98	849987	49.333
89) Toluene	(3)	9.129	92	308266	20.291
90) trans-1,3-Dichloropropene	(3)	9.452	75	150355	18.445
92) Ethyl Methacrylate	(3)	9.538	69	165627	17.869
93) 1,1,2-Trichloroethane	(3)	9.678	97	115365	21.240
94) Tetrachloroethene	(3)	9.751	166	144138	22.369
95) 1,3-Dichloropropane	(3)	9.855	76	178018	19.740
97) 2-Hexanone	(3)	9.940	43	873003	108.155
98) Dibromochloromethane	(3)	10.086	129	113301	19.714
91) 1,3-Dichloropropene (total)	(3)		100	321566	37.554
100) 1,2-Dibromoethane	(3)	10.202	107	122559	20.469
101)*Chlorobenzene-d5	(3)	10.684	117	701085	50.000
102) 1-Chlorohexane	(3)	10.708	91	170657	19.315

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	357704	21.695
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	121496	21.359
105) Ethylbenzene	(3)	10.812	91	617308	21.014
107) m+p-Xylene	(3)	10.940	106	483929	42.937
108) o-Xylene	(3)	11.293	106	229210	20.778
110) Styrene	(3)	11.312	104	374168	21.046
111) Bromoform	(3)	11.470	173	77120	18.546
112) Isopropylbenzene	(3)	11.623	105	607901	20.999
113) Cyclohexanone	(1)	11.696	55	247745	599.980
115)$4-Bromofluorobenzene	(3)	11.769	95	361853	49.845
109) Xylene (Total)	(3)		106	713139	63.715
116) Bromobenzene	(4)	11.885	156	153777	20.972
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	208372	20.941
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	248394	124.159
118) 1,2,3-Trichloropropane	(4)	11.934	110	63443	21.653
120) n-Propylbenzene	(4)	11.970	91	754701	20.934
121) 2-Chlorotoluene	(4)	12.043	126	149047	20.170
123) 1,3,5-Trimethylbenzene	(4)	12.122	105	517536	20.422
122) 4-Chlorotoluene	(4)	12.147	126	154487	20.696
125) tert-Butylbenzene	(4)	12.372	134	109760	21.792
126) Pentachloroethane	(4)	12.403	167	87172	21.082
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	531095	20.350
128) sec-Butylbenzene	(4)	12.543	105	638938	20.335
130) 1,3-Dichlorobenzene	(4)	12.641	146	292726	21.224
131) p-Isopropyltoluene	(4)	12.665	119	545965	20.837
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	384631	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	302574	21.617
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	536779	21.428
136) Benzyl Chloride	(4)	12.805	91	355883	18.643
137) 1,3-Diethylbenzene	(4)	12.872	119	320153	21.147
138) 1,4-Diethylbenzene	(4)	12.945	119	335008	21.394
140) n-Butylbenzene	(4)	12.970	92	272423M	20.612
139) 1,2-Dichlorobenzene	(4)	12.988	146	285433	21.545
141) 1,2-Diethylbenzene	(4)	13.025	119	270031	21.089
142) Diethylbenzene (total)	(4)		100	925192	63.630
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	50514	20.108
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	184938	21.134
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	172597	20.995

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l50.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

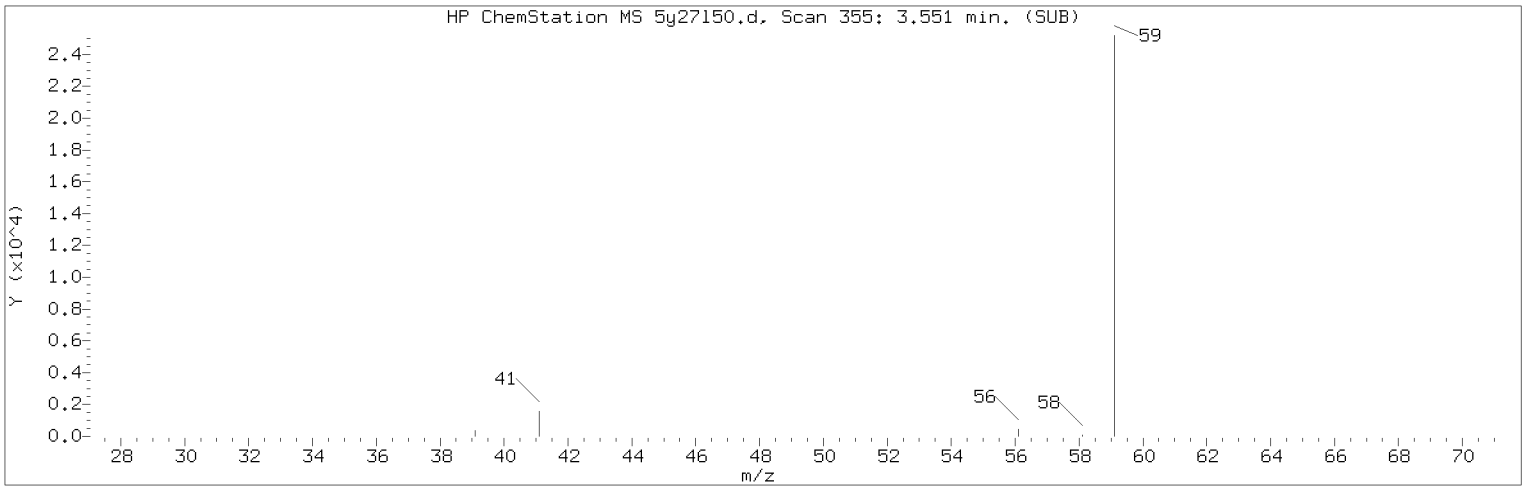
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

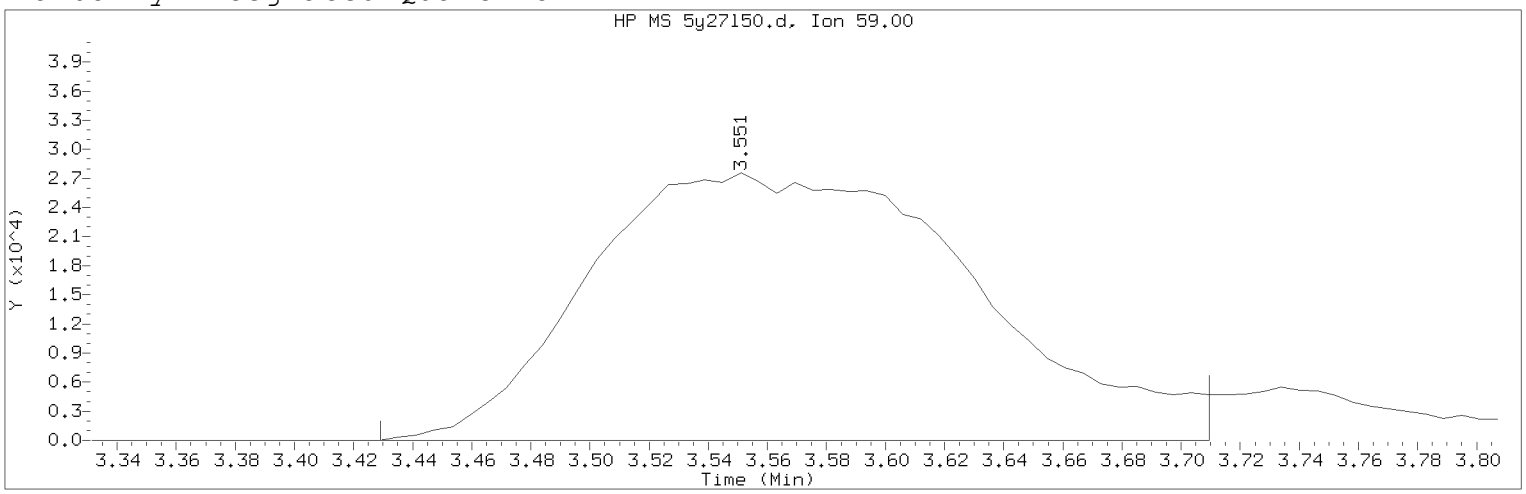
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	68746	21.744
149) Naphthalene	(4)	14.311	128	678894	20.854
150) 1,2,3-Trichlorobenzene	(4)	14.463	180	174408	21.439
151) 2-Methylnaphthalene	(4)	15.079	142	331515	19.600

Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

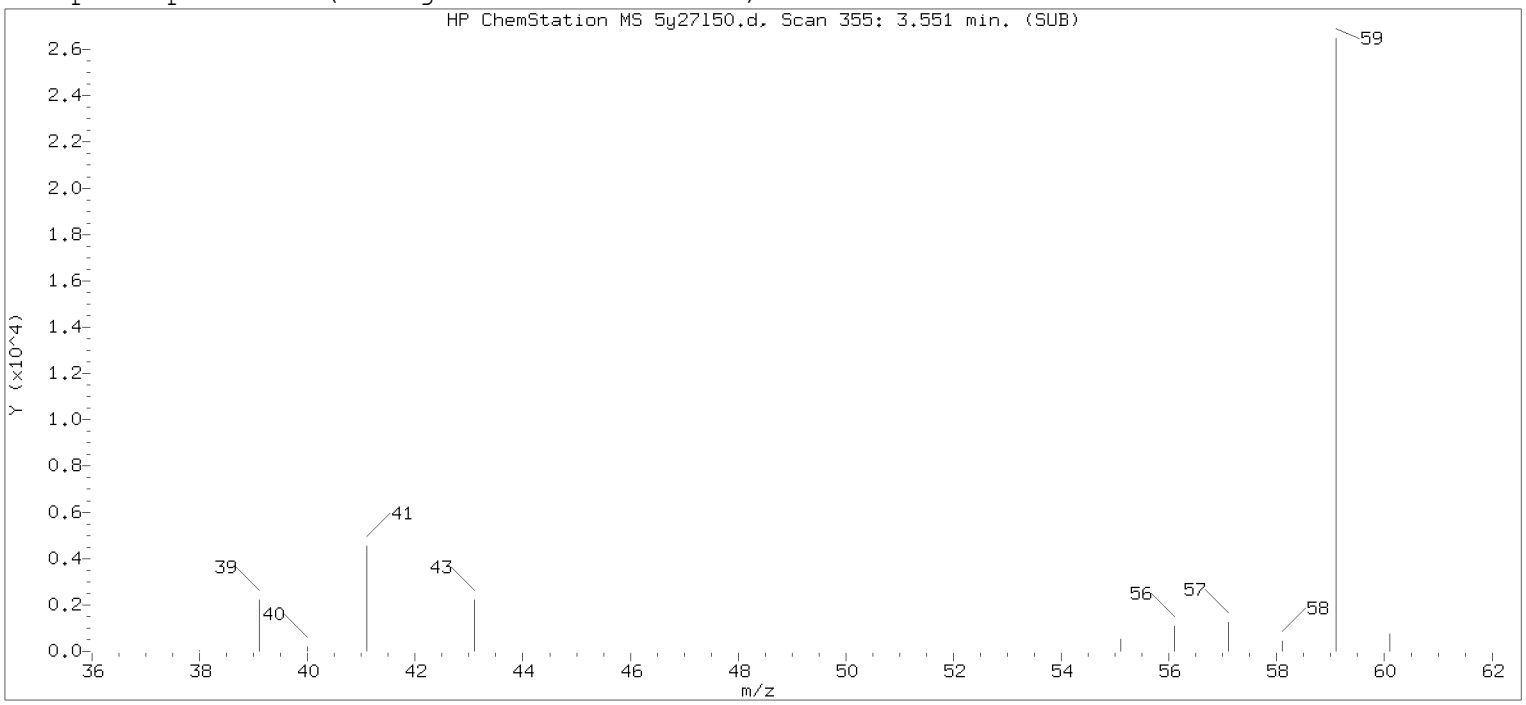
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 355
Retention Time (minutes): 3.551
Quant Ion : 59.00
Area (flag) : 250975M
On-Column Amount (ng) : 199.1763
Integration start scan : 334 Integration stop scan: 380
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

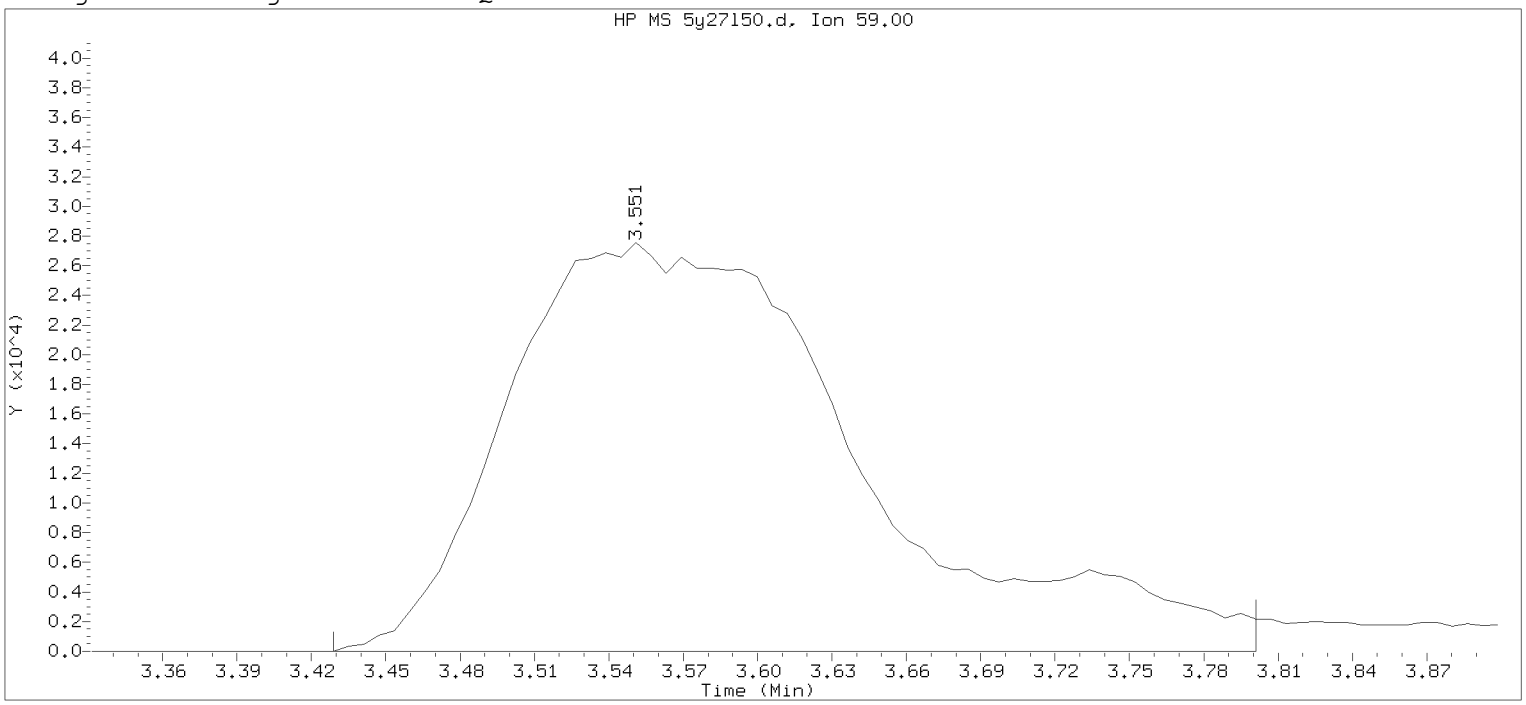
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

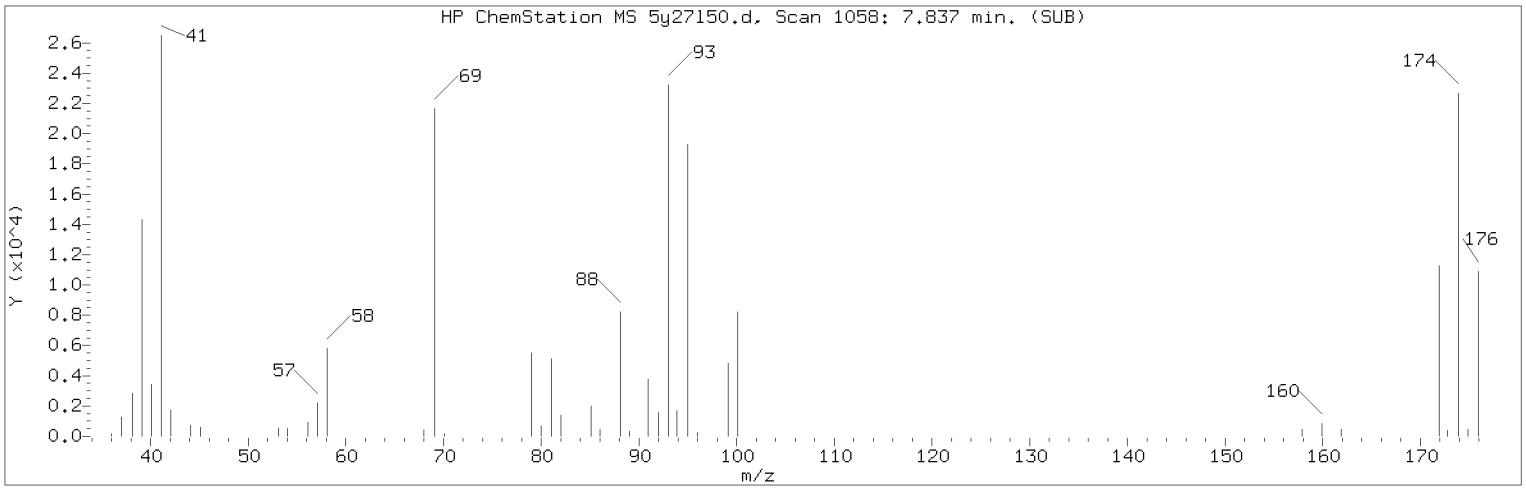
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

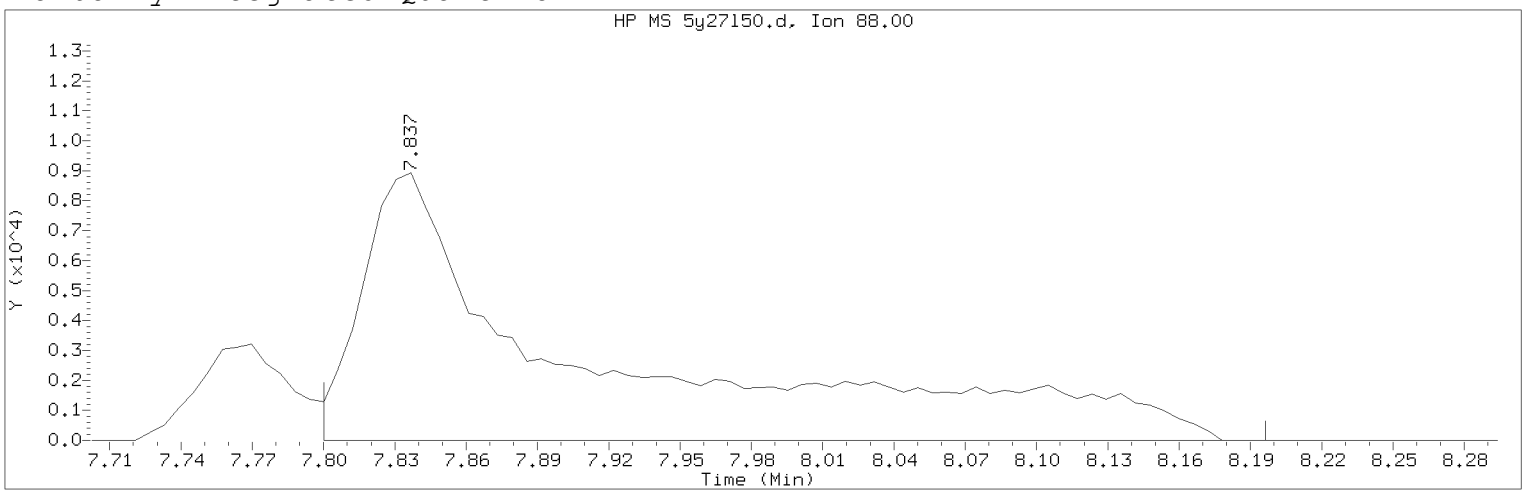
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 355
Retention Time (minutes): 3.551
Quant Ion : 59.00
Area : 271881
On-column Amount (ng) : 215.7676
Integration start scan : 334 Integration stop scan: 395
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

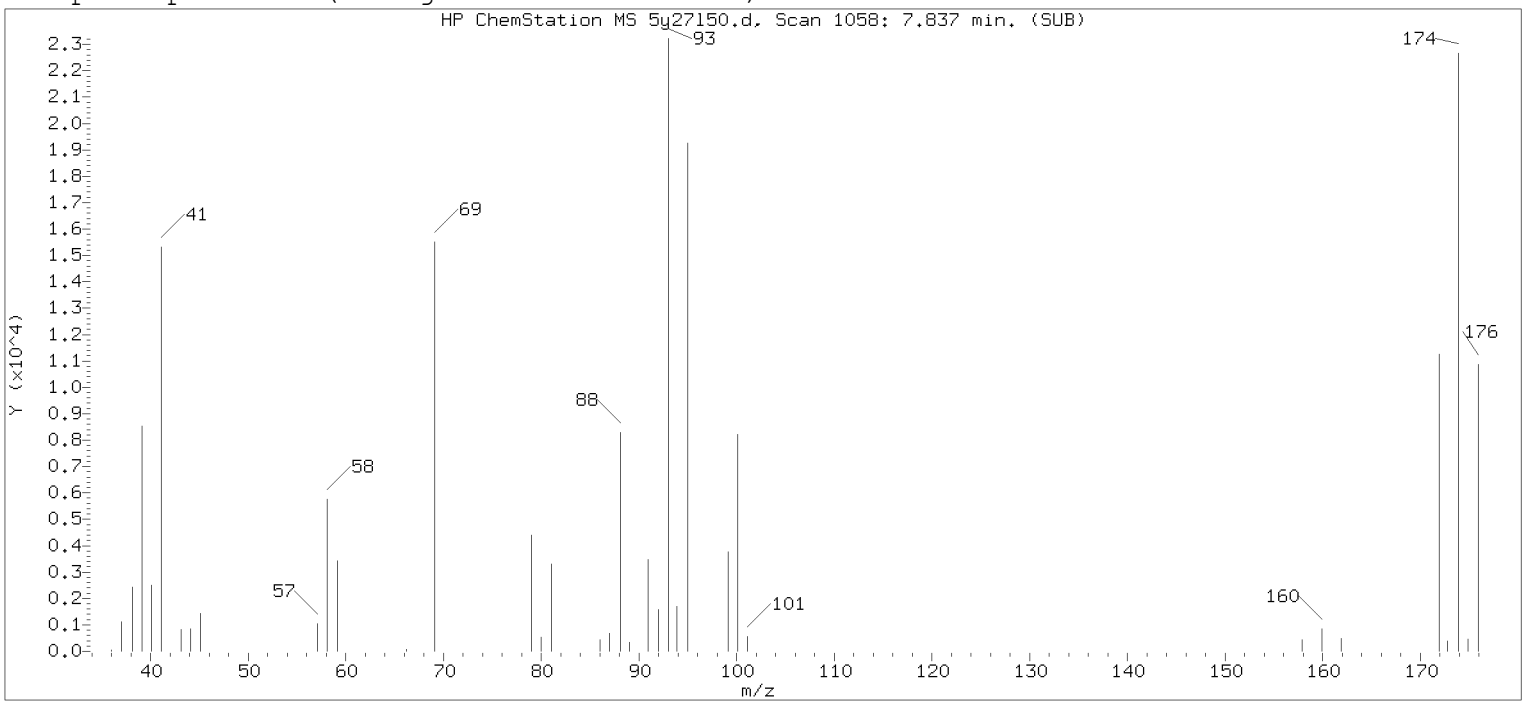
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1058
Retention Time (minutes): 7.837
Quant Ion : 88.00
Area (flag) : 57968M
On-Column Amount (ng) : 644.8190
Integration start scan : 1051 Integration stop scan: 1116
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

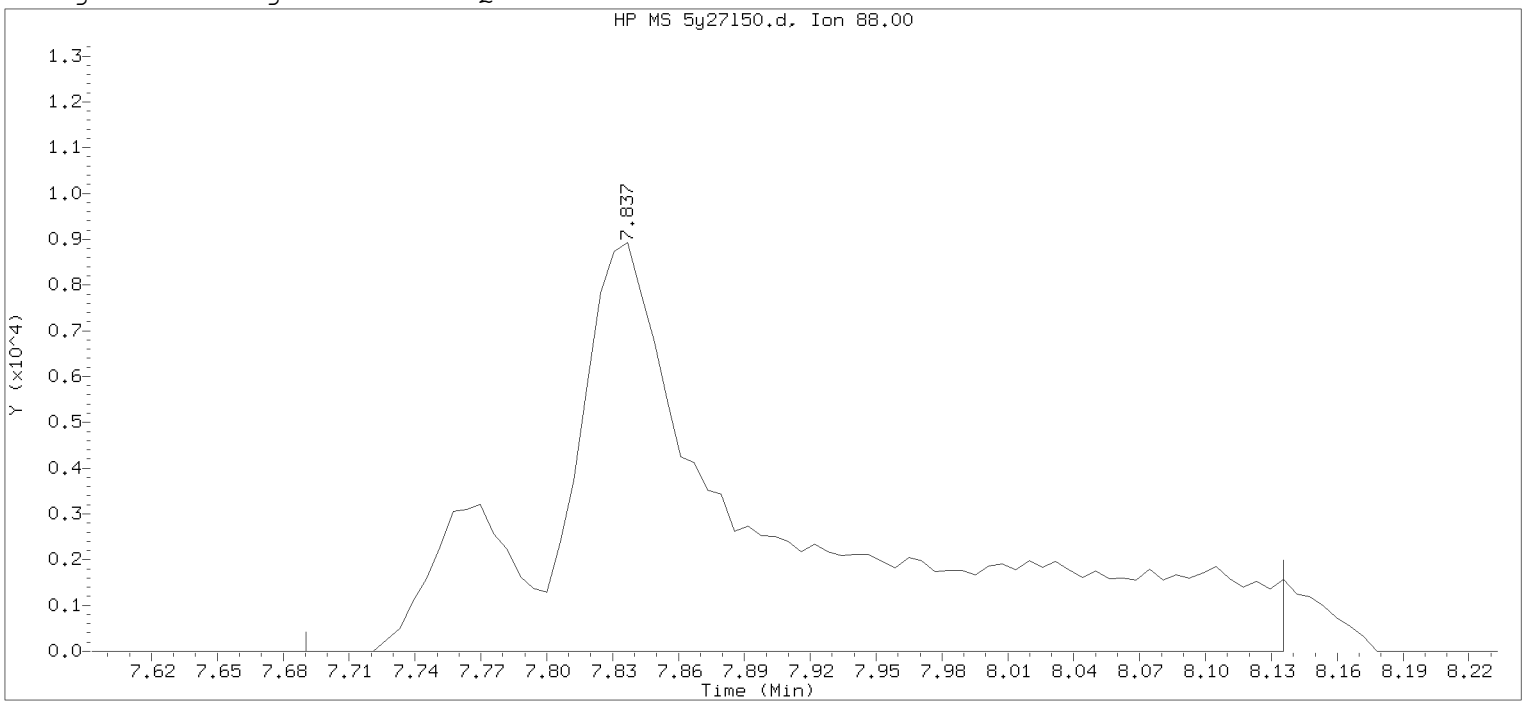
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

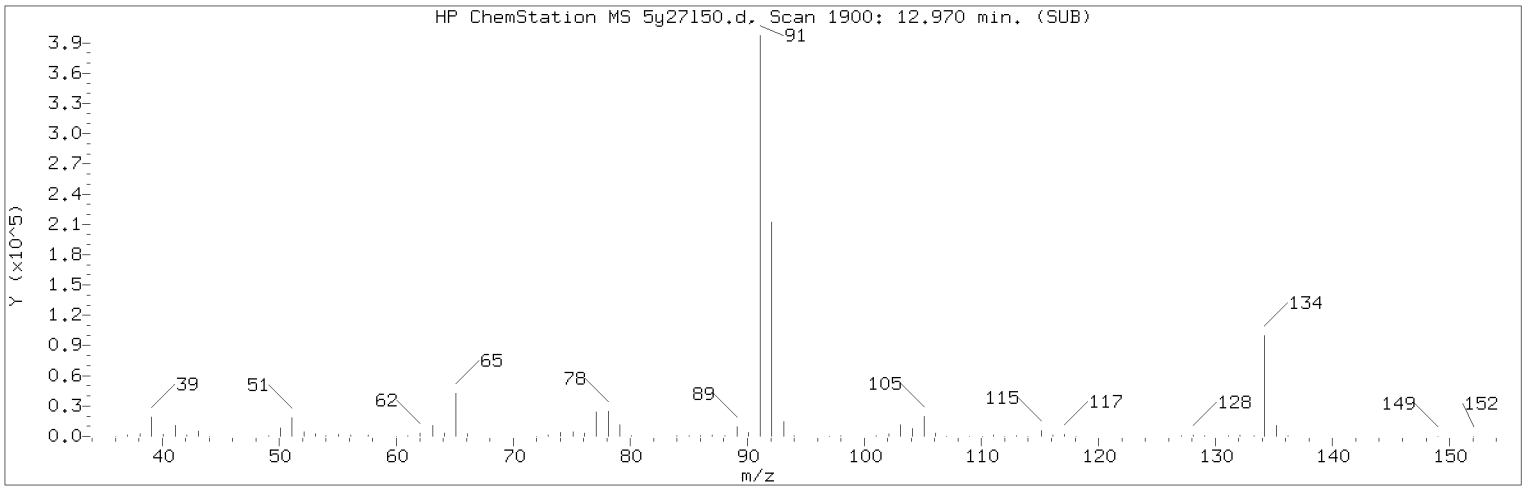
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

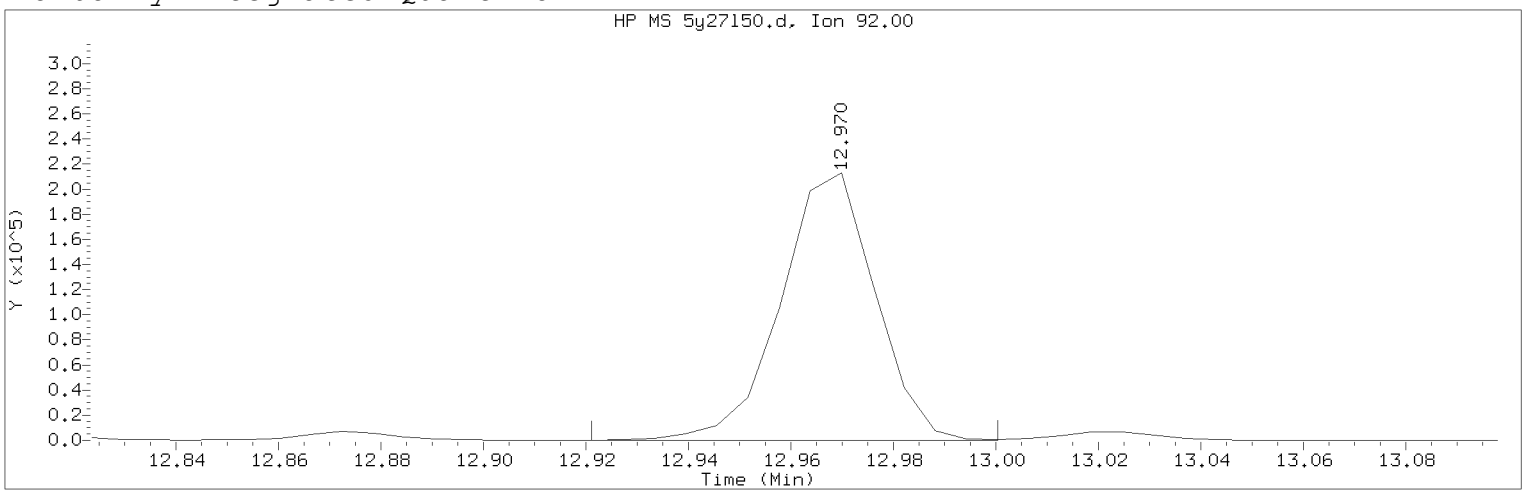
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1058
Retention Time (minutes): 7.837
Quant Ion : 88.00
Area : 64212
On-column Amount (ng) : 714.2854
Integration start scan : 1033 Integration stop scan: 1106
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCS573 Lab Sample ID: LCS573

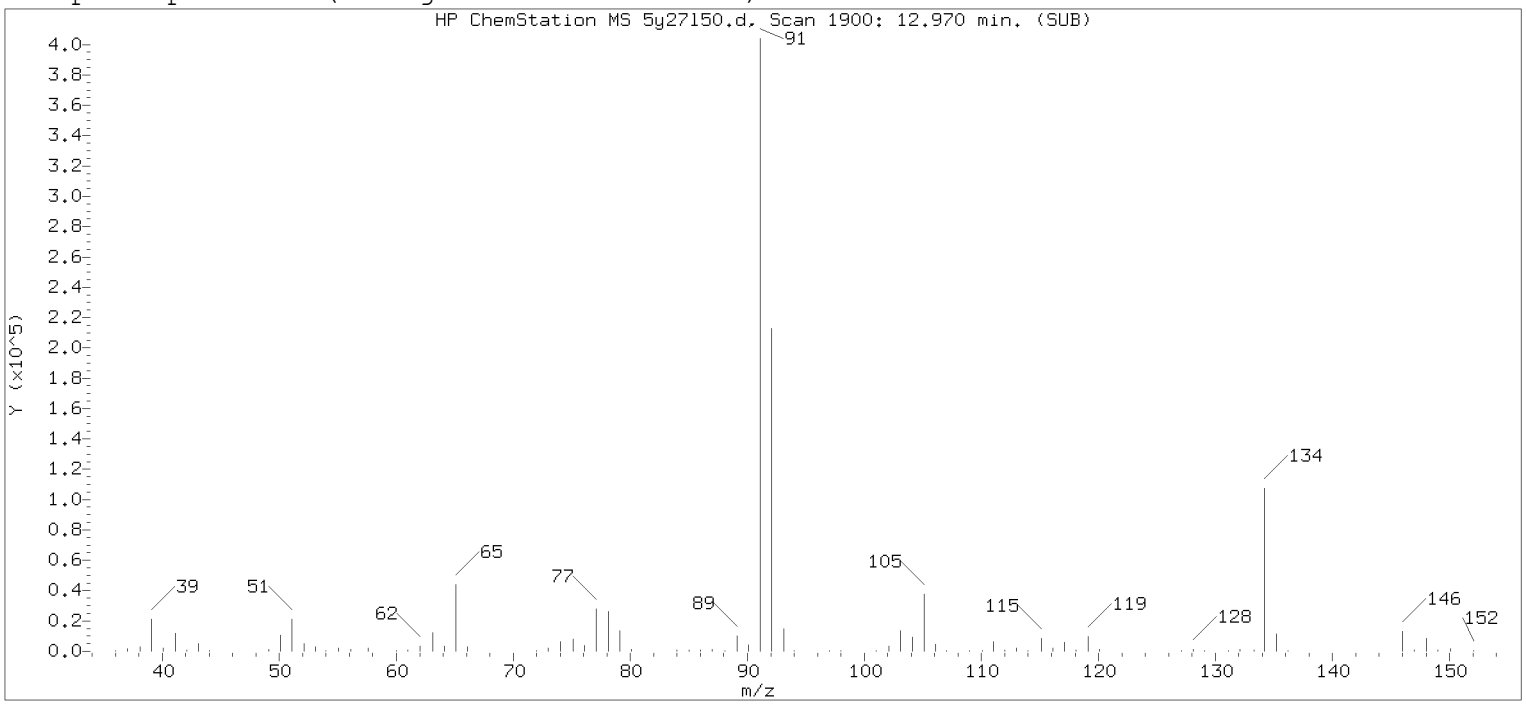
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area (flag) : 272423M
On-Column Amount (ng) : 20.6118
Integration start scan : 1891 Integration stop scan: 1904
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

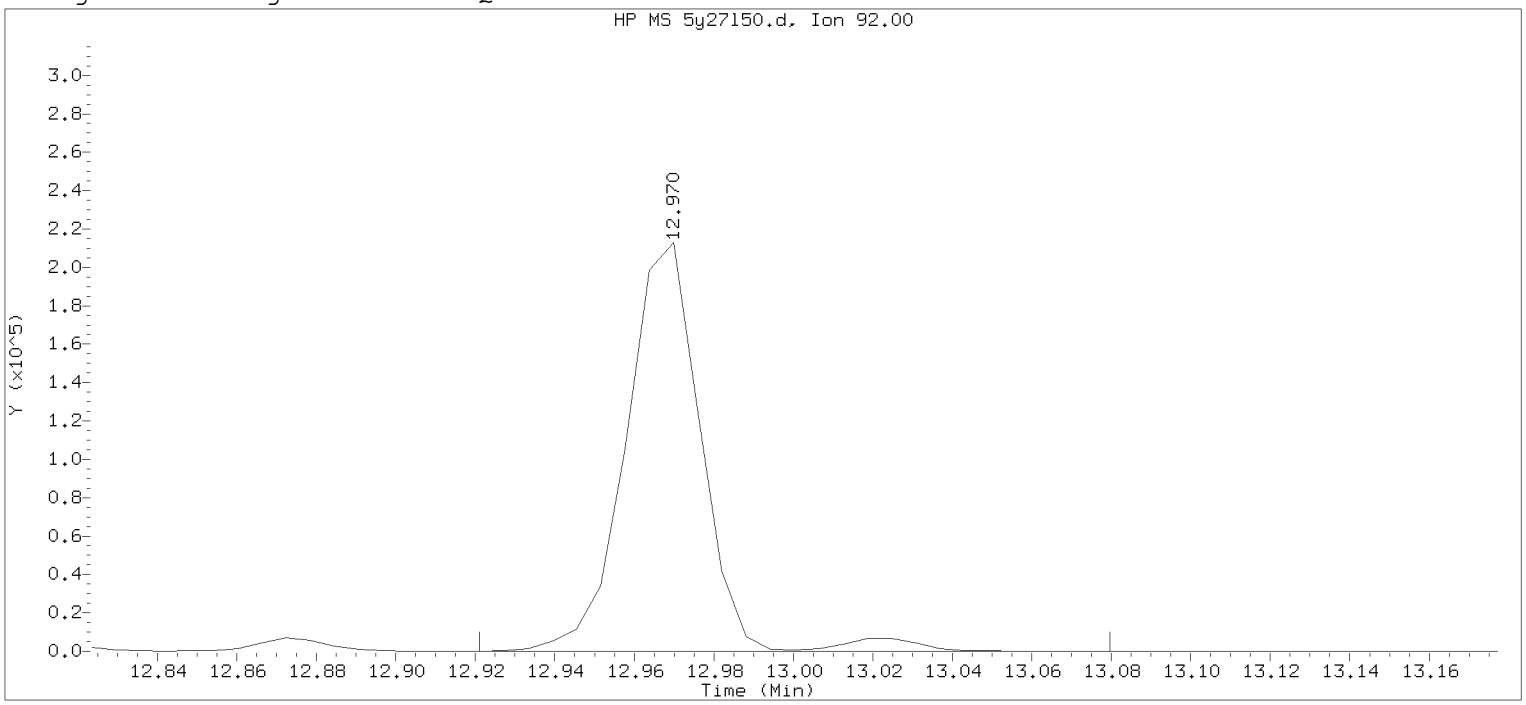
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27150.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:33 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 20:52 chemist

Sample Name: LCS573 Lab Sample ID: LCS573

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area : 281506
On-column Amount (ng) : 21.2991
Integration start scan : 1891 Integration stop scan: 1917
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:04.
Target 3.5 esignature user ID: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	17	
74-87-3	Chloromethane	18	
106-99-0	1,3-Butadiene	17	
75-01-4	Vinyl Chloride	20	
74-83-9	Bromomethane	20	
75-00-3	Chloroethane	20	
109-66-0	n-Pentane	16	
75-69-4	Trichlorofluoromethane	21	
60-29-7	Ethyl ether	16	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	130	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	210	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	130	
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	17	
79-20-9	Methyl Acetate	21	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	180	
107-13-1	Acrylonitrile	95	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	19	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	40	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	18	
107-12-0	Propionitrile	170	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	20	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	530	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	21	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	20	
108-87-2	Methylcyclohexane	17	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	670	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	19	
79-46-9	2-Nitropropane	18	
110-75-8	2-Chloroethyl Vinyl Ether	18	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	98	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	18	
542-75-6	1,3-Dichloropropene (total)	36	
97-63-2	Ethyl Methacrylate	17	
79-00-5	1,1,2-Trichloroethane	20	
127-18-4	Tetrachloroethene	21	
142-28-9	1,3-Dichloropropane	19	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	19	
106-93-4	1,2-Dibromoethane	20	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	40	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	59	
100-42-5	Styrene	20	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	620	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	20	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	120	
103-65-1	n-Propylbenzene	19	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	20	
76-01-7	Pentachloroethane	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCD573

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCD573

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may27b.b/5y27l51.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/27/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	20	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	20	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	18	
141-93-5	1,3-Diethylbenzene	20	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	20	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	59	
96-12-8	1,2-Dibromo-3-chloropropane	19	
108-70-3	1,3,5-Trichlorobenzene	20	
120-82-1	1,2,4-Trichlorobenzene	20	
87-68-3	Hexachlorobutadiene	20	
91-20-3	Naphthalene	20	
87-61-6	1,2,3-Trichlorobenzene	20	
91-57-6	2-Methylnaphthalene	19	

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27l51.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.429	(-0.006)	335	65	275661	(19)	250.00	
66) Fluorobenzene	6.880	(0.000)	901	96	915629	(12)	50.00	
101) Chlorobenzene-d5	10.684	(-0.006)	1525	117	730532	(10)	50.00	
132) 1,4-Dichlorobenzene-d4	12.702	(0.000)	1856	152	400844	(7)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.953	(-0.001)	113	232090	50.890	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.428	(0.000)	102	52308	51.283	103%		80 - 120
84) Toluene-d8	(3)	9.038	(0.000)	98	890593	49.606	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.769	(0.001)	95	376817	49.814	100%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.606	(0.000)	85	124668	16.812	16.81			0.2	1
4) Chloromethane	(2)	1.765	(0.000)	50	106278	18.065	18.07			0.2	1
5) 1,3-Butadiene	(2)	1.850	(-0.000)	39	138580	16.949	16.95			1	3
6) Vinyl Chloride	(2)	1.856	(0.000)	62	103126	19.822	19.82			0.2	1
8) Bromomethane	(2)	2.112	(0.000)	94	71278	20.406	20.41			0.3	1
9) Chloroethane	(2)	2.179	(0.000)	64	48523	19.699	19.70			0.2	1
11) n-Pentane	(2)	2.441	(0.000)	43	92841	15.653	15.65			0.4	10
12) Trichlorofluoromethane	(2)	2.423	(-0.000)	101	134305	21.078	21.08			0.2	1
14) Ethyl ether	(2)	2.618	(0.000)	59	68678	15.634	15.63			0.2	5
15) Freon 123a	(2)	2.697	(-0.000)	67	109309	16.435	16.43			0.4	5
16) Acrolein	(1)	2.764	(-0.000)	56	234608	134.410	134.41			2	100
17) 1,1-Dichloroethene	(2)	2.868	(0.000)	96	92440	18.672	18.67			0.2	1
18) Acetone	(1)	2.905	(-0.000)	58	181997	211.414	211.41			0.7	20
19) Freon 113	(2)	2.899	(0.000)	101	97822	17.457	17.46			0.2	10
21) 2-Propanol	(1)	3.045	(-0.001)	45	94201	134.475	134.48			18	100
22) Methyl Iodide	(2)	3.039	(0.000)	142	183602	19.449	19.45			0.2	1
23) Carbon Disulfide	(2)	3.124	(-0.000)	76	288498	16.567	16.57			0.2	5
25) Allyl Chloride	(2)	3.252	(0.000)	41	144044	17.381	17.38			0.3	5
27) Methyl Acetate	(2)	3.234	(-0.000)	43	149696	20.972	20.97			0.3	5
28) Methylene Chloride	(2)	3.411	(0.000)	84	112233	20.112	20.11			0.3	1
30) t-Butyl alcohol	(1)	3.533	(0.000)	59	234997M	180.987	180.99			12	50
31) Acrylonitrile	(2)	3.691	(-0.000)	53	359464	95.410	95.41			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.734	(0.000)	96	107130	19.339	19.34			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.740	(0.000)	73	271491	18.529	18.53			0.2	1
34) n-Hexane	(2)	4.106	(-0.000)	57	137045	16.684	16.68			2	5
36) 1,1-Dichloroethane	(2)	4.344	(0.000)	63	189043	18.851	18.85			0.2	1
38) di-Isopropyl ether	(2)	4.404	(0.000)	45	301300	16.822	16.82			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.447	(0.000)	53	153967	18.073	18.07			0.2	5
40) Ethyl t-butyl ether	(2)	4.971	(0.000)	59	265767	16.714	16.71			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.215	(-0.000)	96	127888	20.411	20.41			0.2	1
43) 1,2-Dichloroethene (Total)	(2)			96	235018	39.750	39.75			0.4	2

M = Compound was manually integrated.

Digitally signed by Laura J. Green on 05/28/2020 at 00:03. Target 3.5 esignature user ID: ljg30941

Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27151.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	5.203(-0.000)	43	853091	155.574	155.57			0.3	10
45) 2,2-Dichloropropane	(2)	5.227(0.000)	77	154066	18.208	18.21			0.3	1
47) Propionitrile	(1)	5.301(0.000)	54	233228	165.005	165.01			14	100
48) Methacrylonitrile	(2)	5.520(0.000)	67	543604	144.872	144.87			6	50
49) Bromochloromethane	(2)	5.563(-0.000)	128	58386	20.345	20.35			0.2	5
50) Tetrahydrofuran	(1)	5.575(0.001)	71	144410	113.044	113.04			0.7	10
51) Chloroform	(2)	5.727(0.000)	83	199516	19.836	19.84			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.947(0.000)	97	173826	19.195	19.19			0.3	1
54) Cyclohexane	(2)	6.032(0.000)	56	169274	16.049	16.05			1	5
55) 1,1-Dichloropropene	(2)	6.172(0.000)	75	151690	18.491	18.49			0.2	5
56) Carbon Tetrachloride	(2)	6.160(0.000)	117	151275	19.146	19.15			0.2	1
58) Isobutyl Alcohol	(1)	6.392(0.001)	41	227732	526.184	526.18			36	250
60) Benzene	(2)	6.447(0.000)	78	458074	18.779	18.78			0.2	1
61) 1,2-Dichloroethane	(2)	6.538(-0.000)	62	154919	20.678	20.68			0.3	1
65) t-Amyl methyl ether	(2)	6.666(0.000)	73	285267	17.979	17.98			0.8	5
67) n-Heptane	(2)	6.898(0.000)	43	135852	17.122	17.12			2	5
69) n-Butanol	(1)	7.325(0.001)	56	397740	1065.035	1065.04			61	250
71) Trichloroethene	(2)	7.379(-0.000)	95	125247	19.566	19.57			0.2	1
73) Methylcyclohexane	(2)	7.690(-0.000)	83	175929	17.293	17.29			0.5	5
74) 1,2-Dichloropropane	(2)	7.733(-0.000)	63	115798	18.964	18.96			0.2	1
75) Dibromomethane	(2)	7.849(-0.000)	93	76735	19.957	19.96			0.2	1
76) 1,4-Dioxane	(1)	7.831(0.003)	88	62016M	669.470	669.47			29	250
77) Methyl Methacrylate	(2)	7.855(-0.000)	69	105023	18.383	18.38			0.2	5
79) Bromodichloromethane	(2)	8.111(-0.000)	83	138880	18.627	18.63			0.2	1
80) 2-Nitropropane	(2)	8.410(-0.000)	41	45371	17.569	17.57			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.513(-0.000)	63	83844	17.743	17.74			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.696(-0.000)	75	170744	18.122	18.12			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.916(-0.000)	43	1039545	98.357	98.36			0.5	10
89) Toluene	(3)	9.129(0.000)	92	301338	19.035	19.04			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.452(0.000)	75	149918	17.650	17.65			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	320662	35.772	35.77			0.4	2
92) Ethyl Methacrylate	(3)	9.538(0.000)	69	167797	17.373	17.37			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.678(0.000)	97	114855	20.294	20.29			0.2	1
94) Tetrachloroethene	(3)	9.751(0.000)	166	138714	20.660	20.66			0.2	1
95) 1,3-Dichloropropane	(3)	9.855(0.000)	76	179173	19.067	19.07			0.2	1
97) 2-Hexanone	(3)	9.934(0.000)	43	900185	107.027	107.03			0.3	10
98) Dibromochloromethane	(3)	10.086(0.000)	129	112383	18.766	18.77			0.2	1
100) 1,2-Dibromoethane	(3)	10.202(0.000)	107	123485	19.792	19.79			0.2	1
102) 1-Chlorohexane	(3)	10.708(0.000)	91	163486	17.758	17.76			0.3	5
103) Chlorobenzene	(3)	10.708(0.000)	112	344486	20.051	20.05			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.806(0.000)	131	117705	19.859	19.86			0.2	1
105) Ethylbenzene	(3)	10.812(0.000)	91	597958	19.535	19.54			0.4	1
107) m+p-Xylene	(3)	10.940(0.000)	106	469349	39.965	39.97			1	5
108) o-Xylene	(3)	11.293(0.000)	106	223642	19.456	19.46			0.4	1
109) Xylene (Total)	(3)		106	692991	59.421	59.42			1	6
110) Styrene	(3)	11.312(0.000)	104	362754	19.582	19.58			0.2	5
111) Bromoform	(3)	11.470(0.000)	173	77388	17.861	17.86			1	4
112) Isopropylbenzene	(3)	11.622(0.000)	105	592169	19.631	19.63			0.2	5
113) Cyclohexanone	(1)	11.696(0.005)	55	262683	617.365	617.36			25	100
116) Bromobenzene	(4)	11.885(0.000)	156	149508	19.565	19.56			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.891(0.000)	83	208050	20.063	20.06			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.933(0.000)	110	62856	20.585	20.59			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.921(0.000)	53	244539	118.044	118.04			6	50
120) n-Propylbenzene	(4)	11.970(0.000)	91	726196	19.329	19.33			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may27b.b/5y27151.d Injection date and time: **27-MAY-2020 20:53**
Data file Sample Info. Line: LCD573;LCD573;1;3;LCSD;;;;5y27b50; Instrument ID: **HP26285.i** Batch: **5201482AA**
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Blank Data file reference: **/chem2/HP26285.i/20may27b.b/5y27b50.d**

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 27-MAY-2020 20:30
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may27b.b/5y27c50.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
121) 2-Chlorotoluene	(4)	12.043(0.000)	126	144637	18.781	18.78			0.2	5
122) 4-Chlorotoluene	(4)	12.147(0.000)	126	148915	19.142	19.14			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.122(0.000)	105	500174	18.938	18.94			0.3	5
125) tert-Butylbenzene	(4)	12.372(0.000)	134	104928	19.990	19.99			0.3	5
126) Pentachloroethane	(4)	12.403(0.000)	167	84488	19.607	19.61			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.421(-0.000)	105	512894	18.858	18.86			1	5
128) sec-Butylbenzene	(4)	12.543(0.000)	105	611179	18.665	18.66			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.641(0.000)	146	283162	19.700	19.70			0.2	5
131) p-Isopropyltoluene	(4)	12.665(0.000)	119	522412	19.131	19.13			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.720(0.000)	146	293208	20.100	20.10			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.738(-0.000)	105	526460	20.166	20.17			0.3	5
136) Benzyl Chloride	(4)	12.805(0.000)	91	356134	17.901	17.90			1	5
137) 1,3-Diethylbenzene	(4)	12.872(-0.000)	119	307952	19.518	19.52			0.2	5
138) 1,4-Diethylbenzene	(4)	12.945(0.000)	119	321070	19.674	19.67			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.988(-0.000)	146	278353	20.160	20.16			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	260485M	18.911	18.91			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	258589	19.379	19.38			0.2	5
142) Diethylbenzene (total)	(4)		100	887611	58.571	58.57			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(0.000)	75	50829	19.415	19.41			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.689(-0.000)	180	180530	19.796	19.80			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.128(-0.000)	180	167443	19.544	19.54			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	65793	19.968	19.97			2	5
149) Naphthalene	(4)	14.311(-0.000)	128	668872	19.715	19.71			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.463(-0.000)	180	170486	20.109	20.11			0.4	5
151) 2-Methylnaphthalene	(4)	15.079(-0.000)	142	331023	18.780	18.78			2	4

M = Compound was manually integrated.

Total number of targets = 110

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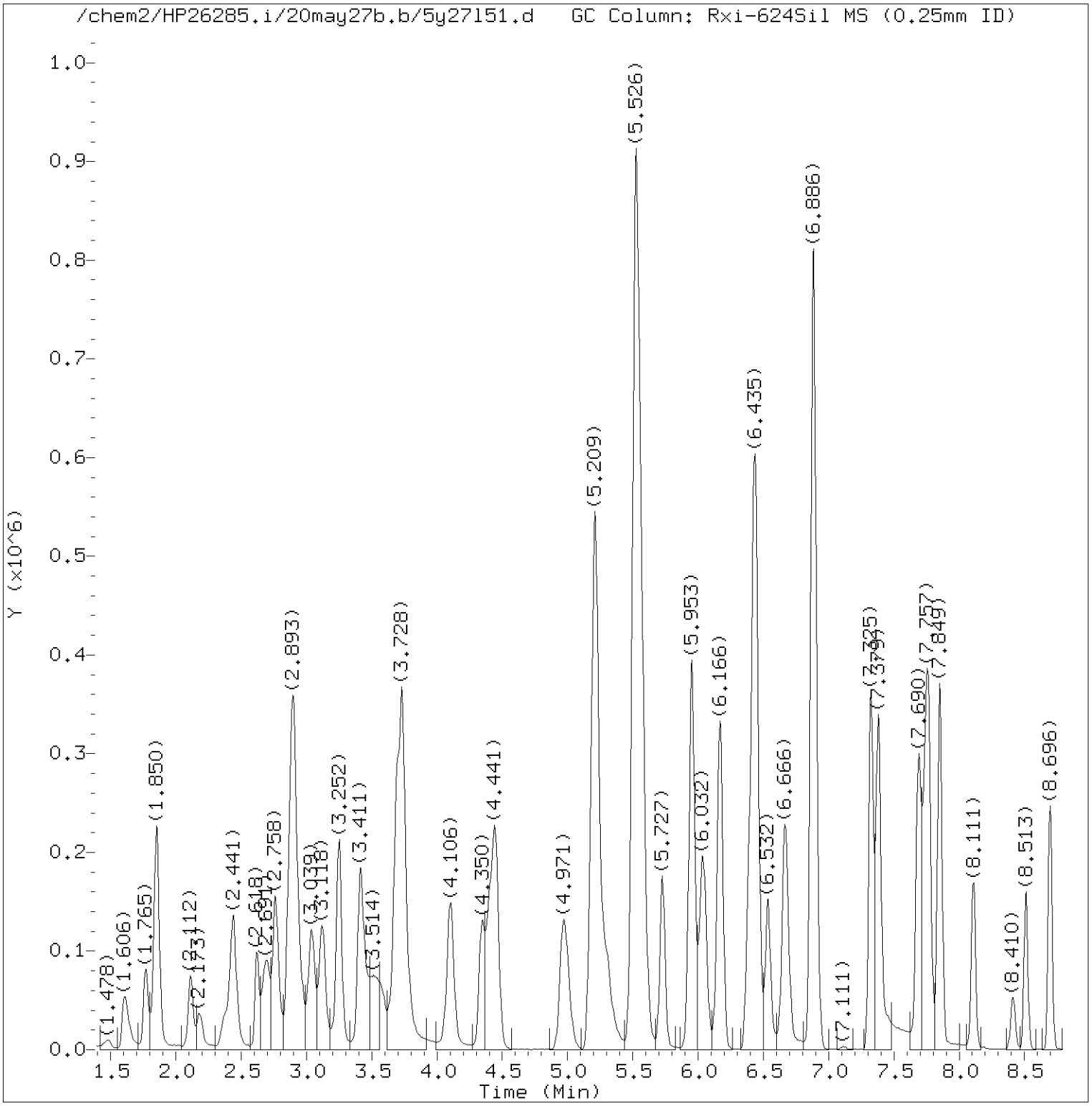
Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12. PARALLAX ID: kmb29664



Total Ion Chromatogram (TIC)

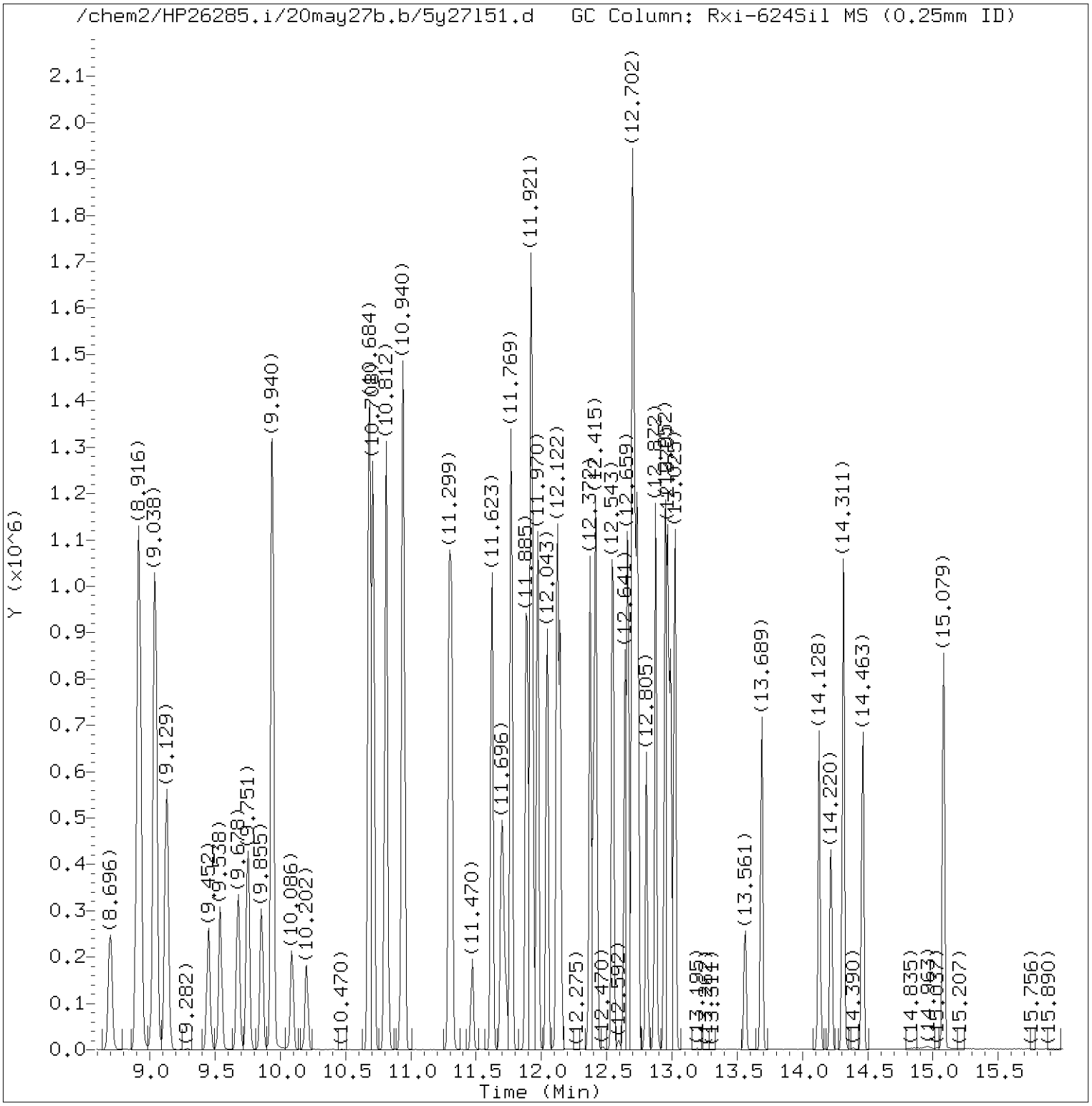
Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.606	85	124668	16.812
4) Chloromethane	(2)	1.765	50	106278	18.065
5) 1,3-Butadiene	(2)	1.850	39	138580	16.949
6) Vinyl Chloride	(2)	1.856	62	103126	19.822
8) Bromomethane	(2)	2.112	94	71278	20.406
9) Chloroethane	(2)	2.179	64	48523	19.699
12) Trichlorofluoromethane	(2)	2.423	101	134305	21.078
11) n-Pentane	(2)	2.441	43	92841	15.653
14) Ethyl ether	(2)	2.618	59	68678	15.634
15) Freon 123a	(2)	2.697	67	109309	16.435
16) Acrolein	(1)	2.765	56	234608	134.410
17) 1,1-Dichloroethene	(2)	2.868	96	92440	18.672
19) Freon 113	(2)	2.899	101	97822	17.457
18) Acetone	(1)	2.905	58	181997	211.414
22) Methyl Iodide	(2)	3.039	142	183602	19.449
21) 2-Propanol	(1)	3.045	45	94201	134.475
23) Carbon Disulfide	(2)	3.124	76	288498	16.567
27) Methyl Acetate	(2)	3.234	43	149696	20.972
25) Allyl Chloride	(2)	3.252	41	144044	17.381
28) Methylene Chloride	(2)	3.411	84	112233	20.112
29)*t-Butyl alcohol-d10	(1)	3.429	65	275661	250.000
30) t-Butyl alcohol	(1)	3.533	59	234997M	180.987
31) Acrylonitrile	(2)	3.691	53	359464	95.410
32) trans-1,2-Dichloroethene	(2)	3.734	96	107130	19.339
33) Methyl Tertiary Butyl Ether	(2)	3.740	73	271491	18.529
34) n-Hexane	(2)	4.106	57	137045	16.684
36) 1,1-Dichloroethane	(2)	4.343	63	189043	18.851
38) di-Isopropyl ether	(2)	4.404	45	301300	16.822
39) 2-Chloro-1,3-butadiene	(2)	4.447	53	153967	18.073
40) Ethyl t-butyl ether	(2)	4.971	59	265767	16.714
44) 2-Butanone	(2)	5.203	43	853091	155.574
42) cis-1,2-Dichloroethene	(2)	5.215	96	127888	20.411
45) 2,2-Dichloropropane	(2)	5.227	77	154066	18.208
47) Propionitrile	(1)	5.301	54	233228	165.005
48) Methacrylonitrile	(2)	5.520	67	543604	144.872
49) Bromochloromethane	(2)	5.563	128	58386	20.345
50) Tetrahydrofuran	(1)	5.575	71	144410	113.044
51) Chloroform	(2)	5.727	83	199516	19.836

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.947	97	173826	19.195
52)$Dibromofluoromethane	(2)	5.953	113	232090	50.890
54) Cyclohexane	(2)	6.032	56	169274	16.049
43) 1,2-Dichloroethene (Total)	(2)		96	235018	39.750
56) Carbon Tetrachloride	(2)	6.160	117	151275	19.146
55) 1,1-Dichloropropene	(2)	6.172	75	151690	18.491
58) Isobutyl Alcohol	(1)	6.392	41	227732	526.184
57)$1,2-Dichloroethane-d4	(2)	6.428	102	52308	51.283
60) Benzene	(2)	6.447	78	458074	18.779
61) 1,2-Dichloroethane	(2)	6.538	62	154919	20.678
65) t-Amyl methyl ether	(2)	6.666	73	285267	17.979
66)*Fluorobenzene	(2)	6.880	96	915629	50.000
67) n-Heptane	(2)	6.898	43	135852	17.122
69) n-Butanol	(1)	7.325	56	397740	1065.035
71) Trichloroethene	(2)	7.379	95	125247	19.566
73) Methylcyclohexane	(2)	7.690	83	175929	17.293
74) 1,2-Dichloropropane	(2)	7.733	63	115798	18.964
76) 1,4-Dioxane	(1)	7.831	88	62016M	669.470
75) Dibromomethane	(2)	7.849	93	76735	19.957
77) Methyl Methacrylate	(2)	7.855	69	105023	18.383
79) Bromodichloromethane	(2)	8.111	83	138880	18.627
80) 2-Nitropropane	(2)	8.410	41	45371	17.569
81) 2-Chloroethyl Vinyl Ether	(2)	8.513	63	83844	17.743
82) cis-1,3-Dichloropropene	(2)	8.696	75	170744	18.122
83) 4-Methyl-2-pentanone	(2)	8.916	43	1039545	98.357
84)$Toluene-d8	(3)	9.038	98	890593	49.606
89) Toluene	(3)	9.129	92	301338	19.035
90) trans-1,3-Dichloropropene	(3)	9.452	75	149918	17.650
92) Ethyl Methacrylate	(3)	9.538	69	167797	17.373
93) 1,1,2-Trichloroethane	(3)	9.678	97	114855	20.294
94) Tetrachloroethene	(3)	9.751	166	138714	20.660
95) 1,3-Dichloropropane	(3)	9.855	76	179173	19.067
97) 2-Hexanone	(3)	9.934	43	900185	107.027
98) Dibromochloromethane	(3)	10.086	129	112383	18.766
91) 1,3-Dichloropropene (total)	(3)		100	320662	35.772
100) 1,2-Dibromoethane	(3)	10.202	107	123485	19.792
101)*Chlorobenzene-d5	(3)	10.684	117	730532	50.000
102) 1-Chlorohexane	(3)	10.708	91	163486	17.758

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.708	112	344486	20.051
104) 1,1,1,2-Tetrachloroethane	(3)	10.806	131	117705	19.859
105) Ethylbenzene	(3)	10.812	91	597958	19.535
107) m+p-Xylene	(3)	10.940	106	469349	39.965
108) o-Xylene	(3)	11.293	106	223642	19.456
110) Styrene	(3)	11.312	104	362754	19.582
111) Bromoform	(3)	11.470	173	77388	17.861
112) Isopropylbenzene	(3)	11.623	105	592169	19.631
113) Cyclohexanone	(1)	11.696	55	262683	617.365
115)$4-Bromofluorobenzene	(3)	11.769	95	376817	49.814
109) Xylene (Total)	(3)		106	692991	59.421
116) Bromobenzene	(4)	11.885	156	149508	19.565
117) 1,1,2,2-Tetrachloroethane	(4)	11.891	83	208050	20.063
119) trans-1,4-Dichloro-2-butene	(4)	11.921	53	244539	118.044
118) 1,2,3-Trichloropropane	(4)	11.933	110	62856	20.585
120) n-Propylbenzene	(4)	11.970	91	726196	19.329
121) 2-Chlorotoluene	(4)	12.043	126	144637	18.781
123) 1,3,5-Trimethylbenzene	(4)	12.122	105	500174	18.938
122) 4-Chlorotoluene	(4)	12.147	126	148915	19.142
125) tert-Butylbenzene	(4)	12.372	134	104928	19.990
126) Pentachloroethane	(4)	12.403	167	84488	19.607
127) 1,2,4-Trimethylbenzene	(4)	12.421	105	512894	18.858
128) sec-Butylbenzene	(4)	12.543	105	611179	18.665
130) 1,3-Dichlorobenzene	(4)	12.641	146	283162	19.700
131) p-Isopropyltoluene	(4)	12.665	119	522412	19.131
132)*1,4-Dichlorobenzene-d4	(4)	12.702	152	400844	50.000
134) 1,4-Dichlorobenzene	(4)	12.720	146	293208	20.100
135) 1,2,3-Trimethylbenzene	(4)	12.738	105	526460	20.166
136) Benzyl Chloride	(4)	12.805	91	356134	17.901
137) 1,3-Diethylbenzene	(4)	12.872	119	307952	19.518
138) 1,4-Diethylbenzene	(4)	12.945	119	321070	19.674
140) n-Butylbenzene	(4)	12.970	92	260485M	18.911
139) 1,2-Dichlorobenzene	(4)	12.988	146	278353	20.160
141) 1,2-Diethylbenzene	(4)	13.025	119	258589	19.379
142) Diethylbenzene (total)	(4)		100	887611	58.571
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	50829	19.415
145) 1,3,5-Trichlorobenzene	(4)	13.689	180	180530	19.796
147) 1,2,4-Trichlorobenzene	(4)	14.128	180	167443	19.544

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may27b.b/5y27l51.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

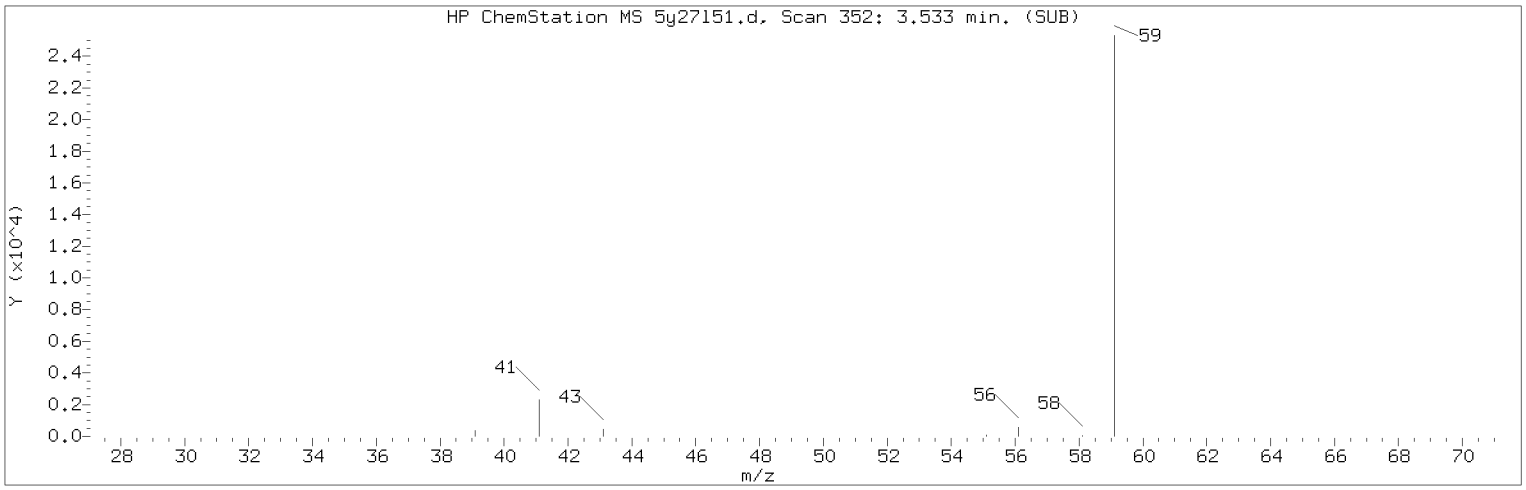
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

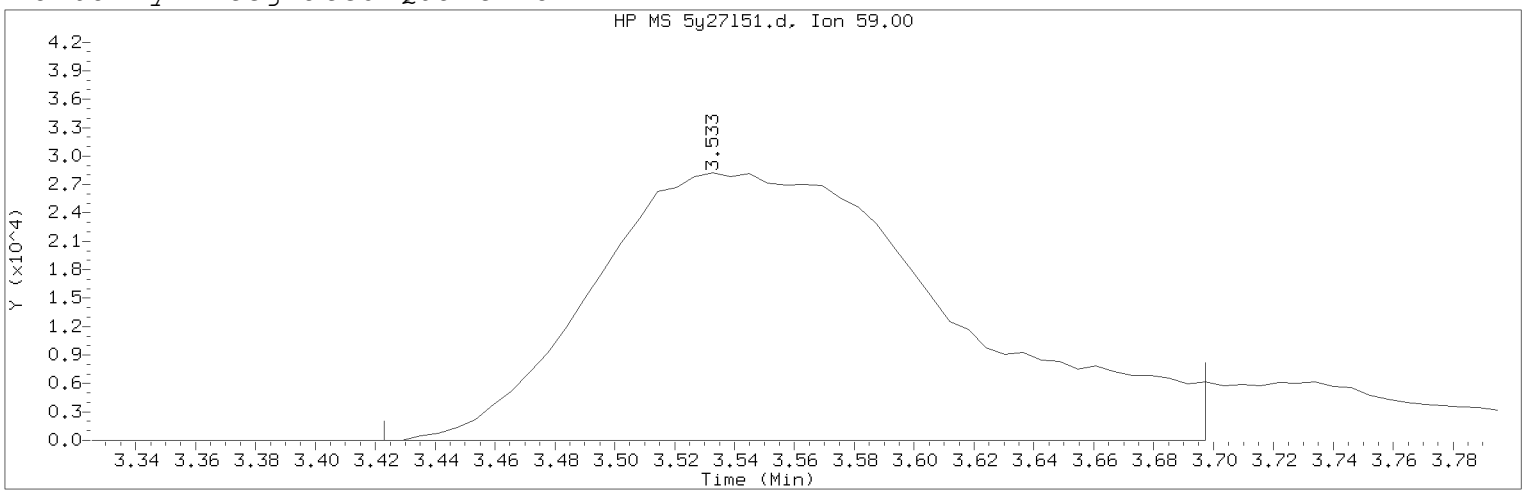
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	65793	19.968
149) Naphthalene	(4)	14.311	128	668872	19.715
150) 1,2,3-Trichlorobenzene	(4)	14.463	180	170486	20.109
151) 2-Methylnaphthalene	(4)	15.079	142	331023	18.780

Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

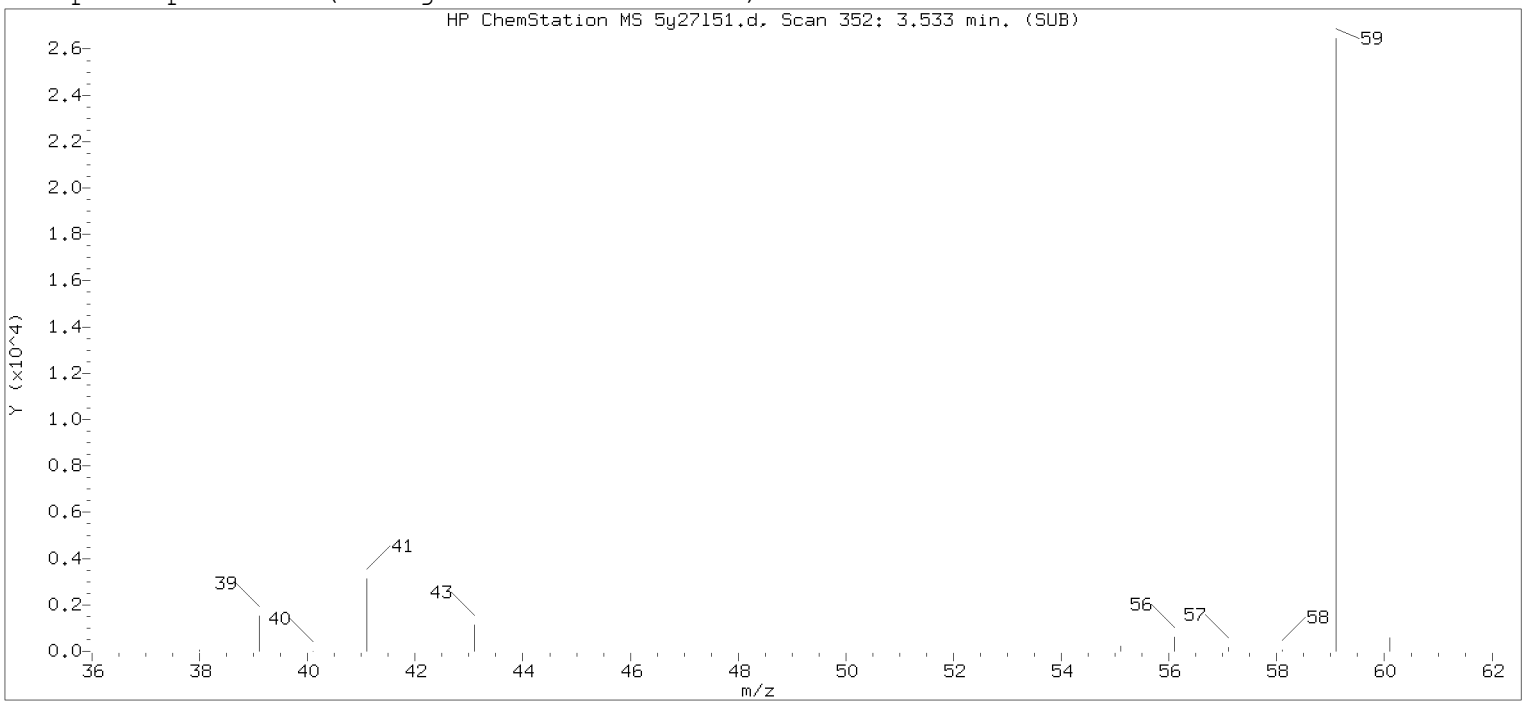
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 352
Retention Time (minutes): 3.533
Quant Ion : 59.00
Area (flag) : 234997M
On-Column Amount (ng) : 180.9869
Integration start scan : 333 Integration stop scan: 378
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

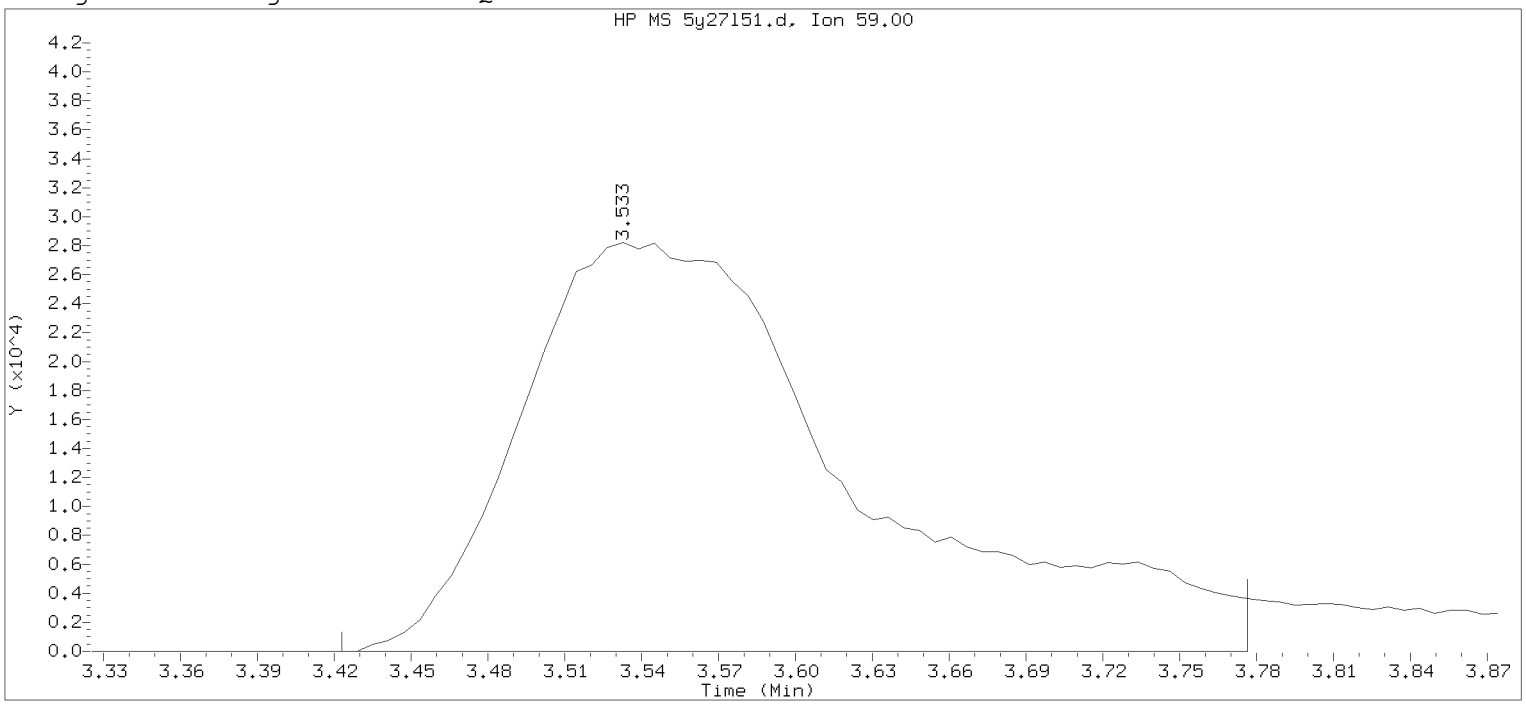
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

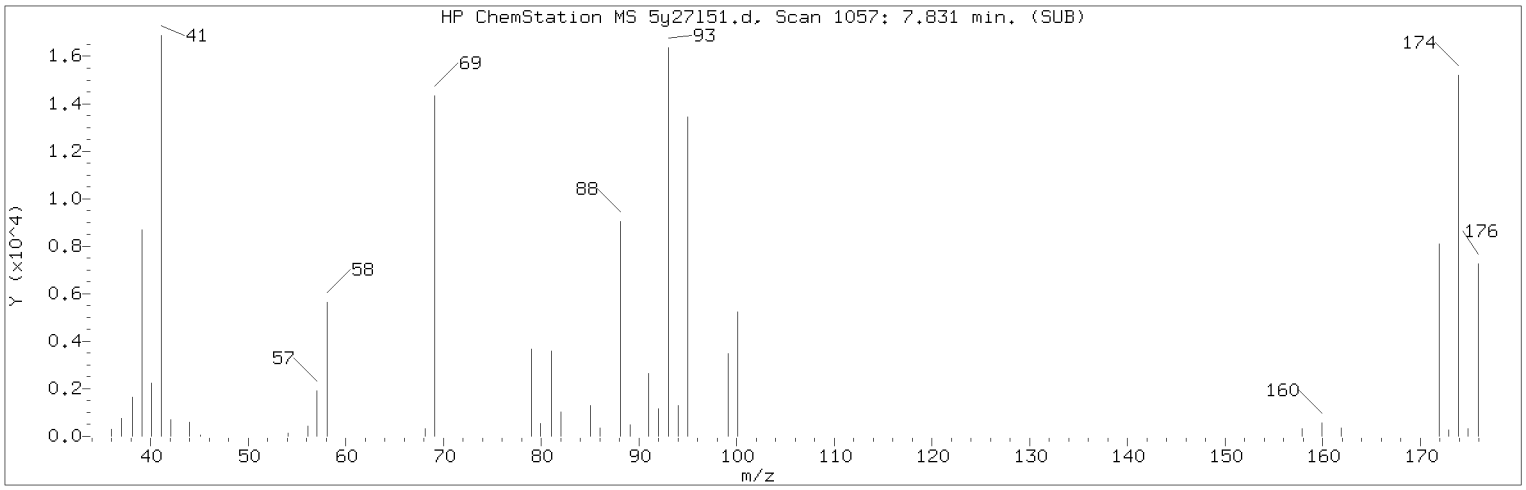
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

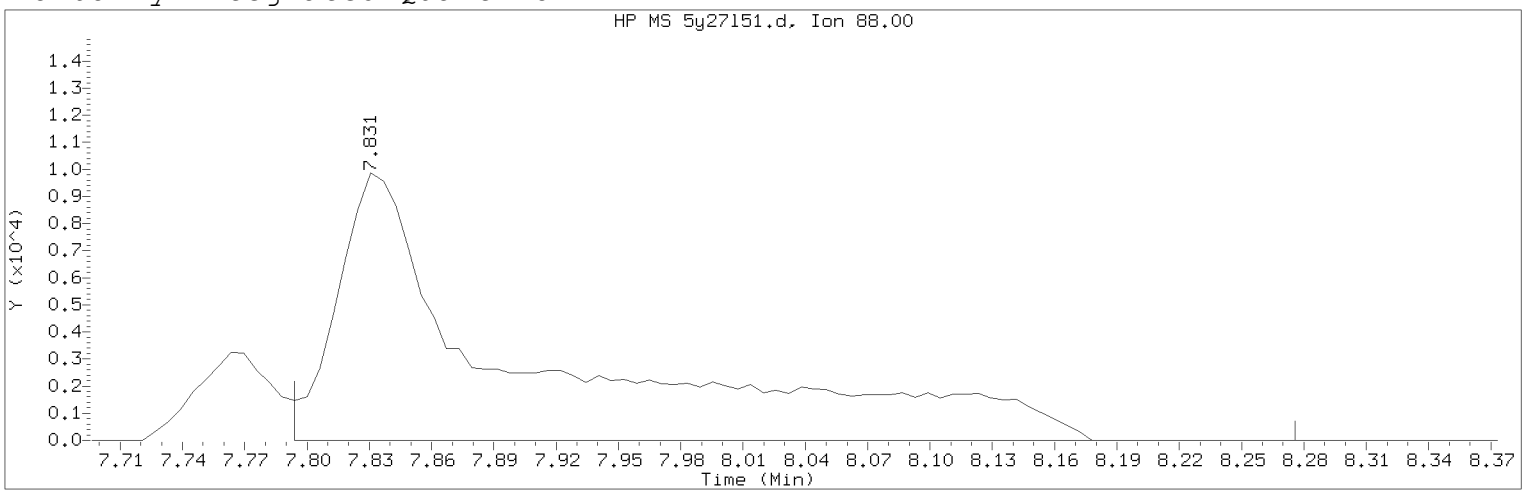
Compound Number : 30
Compound Name : t-Butyl alcohol
Scan Number : 352
Retention Time (minutes): 3.533
Quant Ion : 59.00
Area : 259053
On-column Amount (ng) : 199.5140
Integration start scan : 333 Integration stop scan: 391
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: lj30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

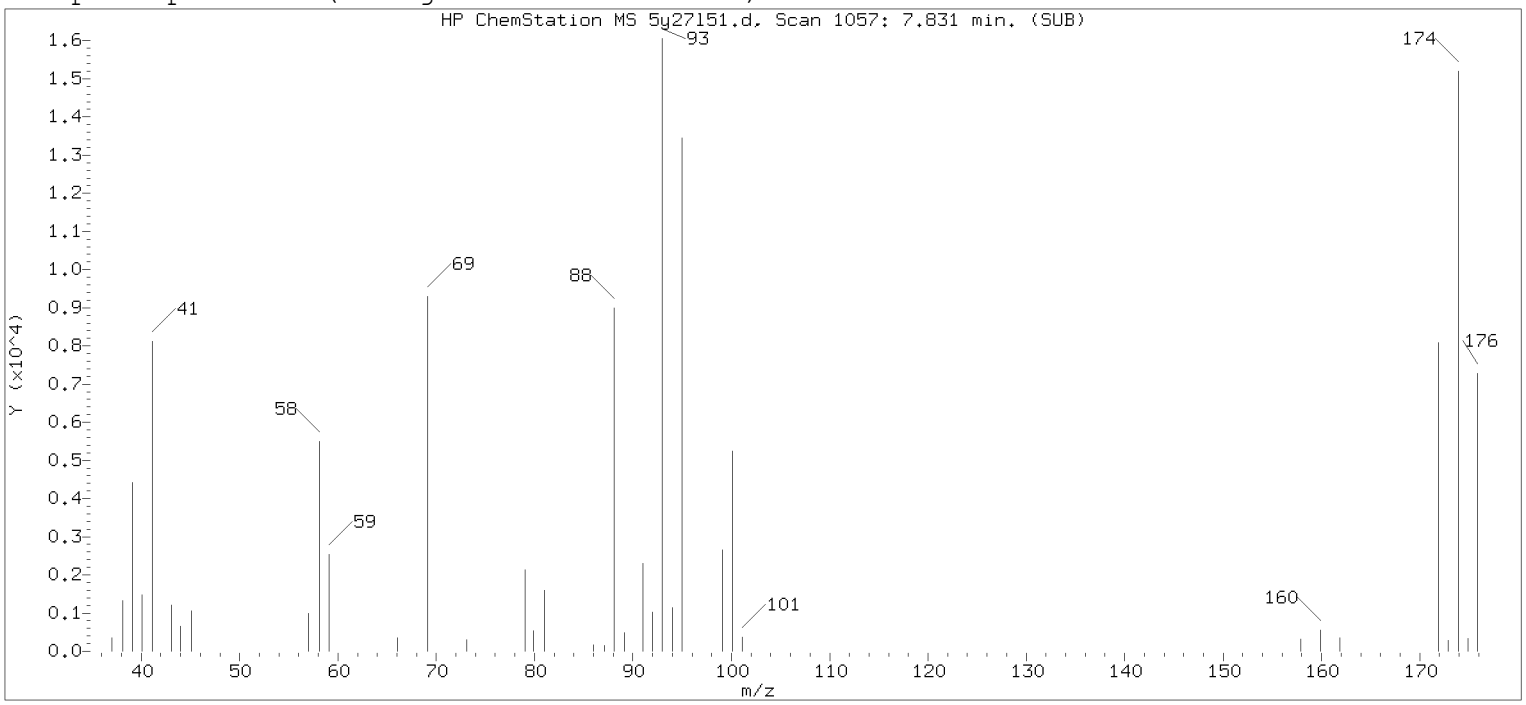
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area (flag) : 62016M
On-Column Amount (ng) : 669.4697
Integration start scan : 1050 Integration stop scan: 1129
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

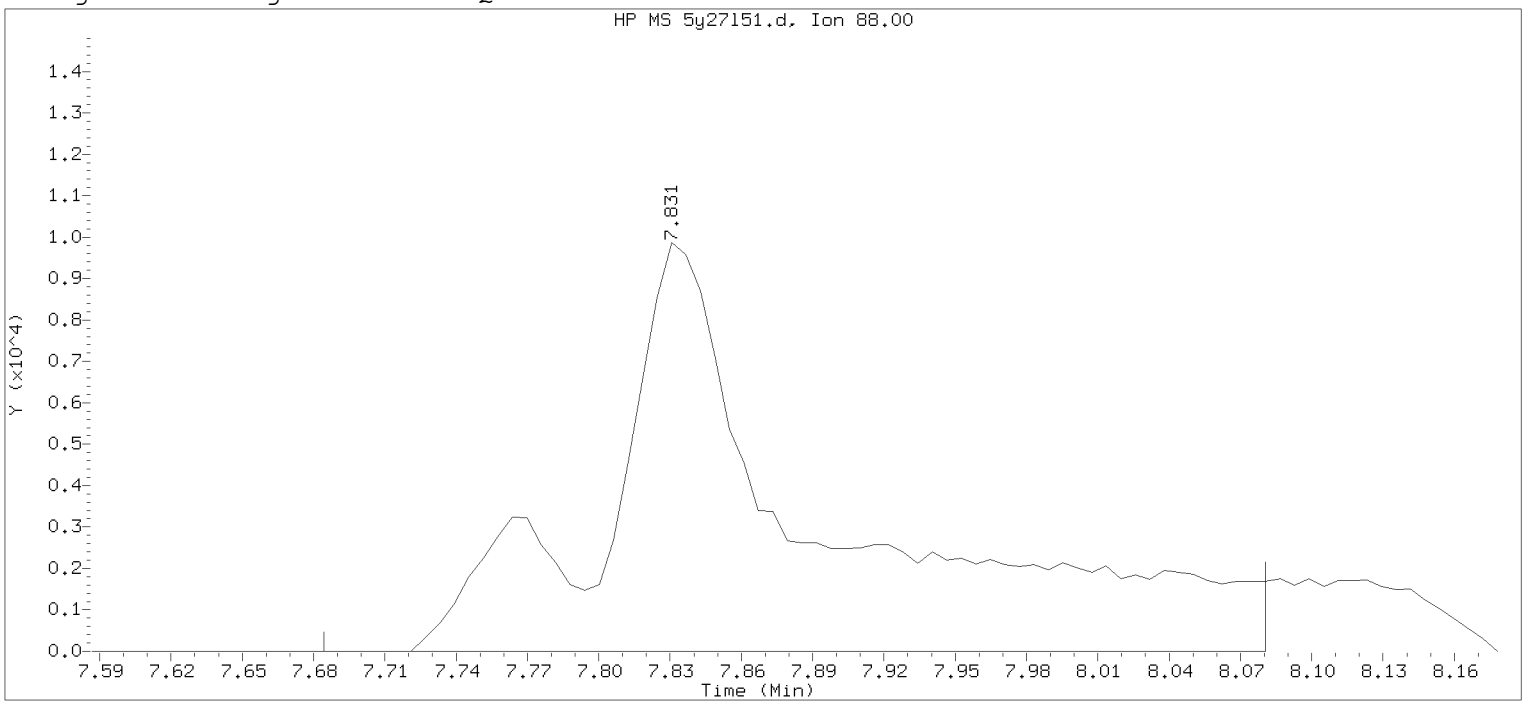
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

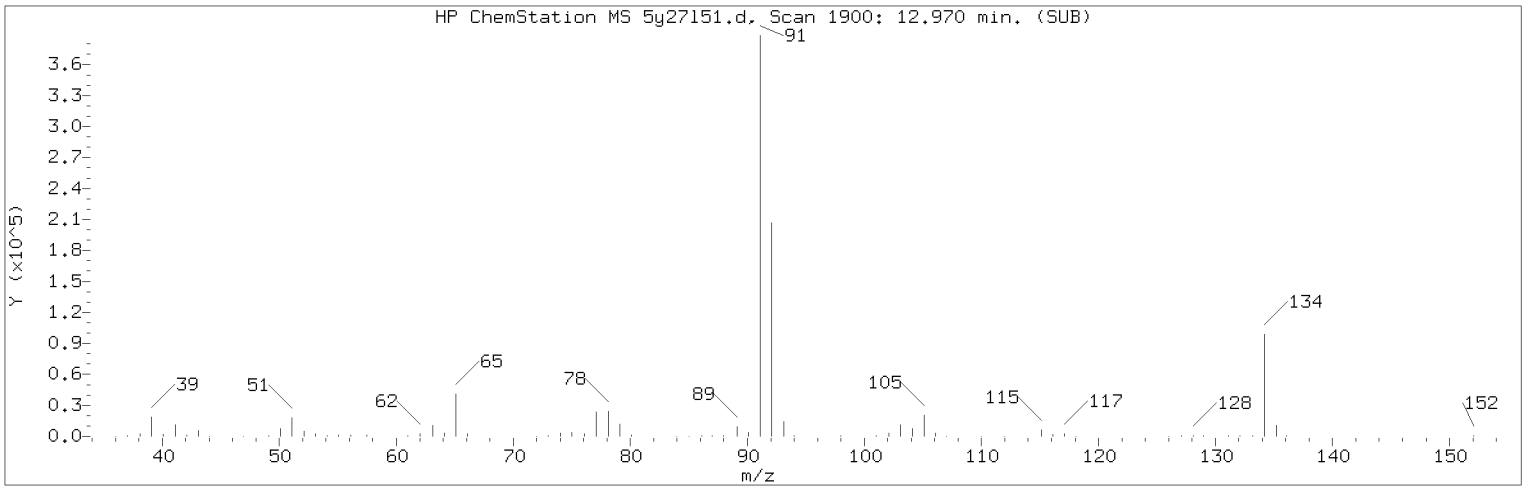
Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

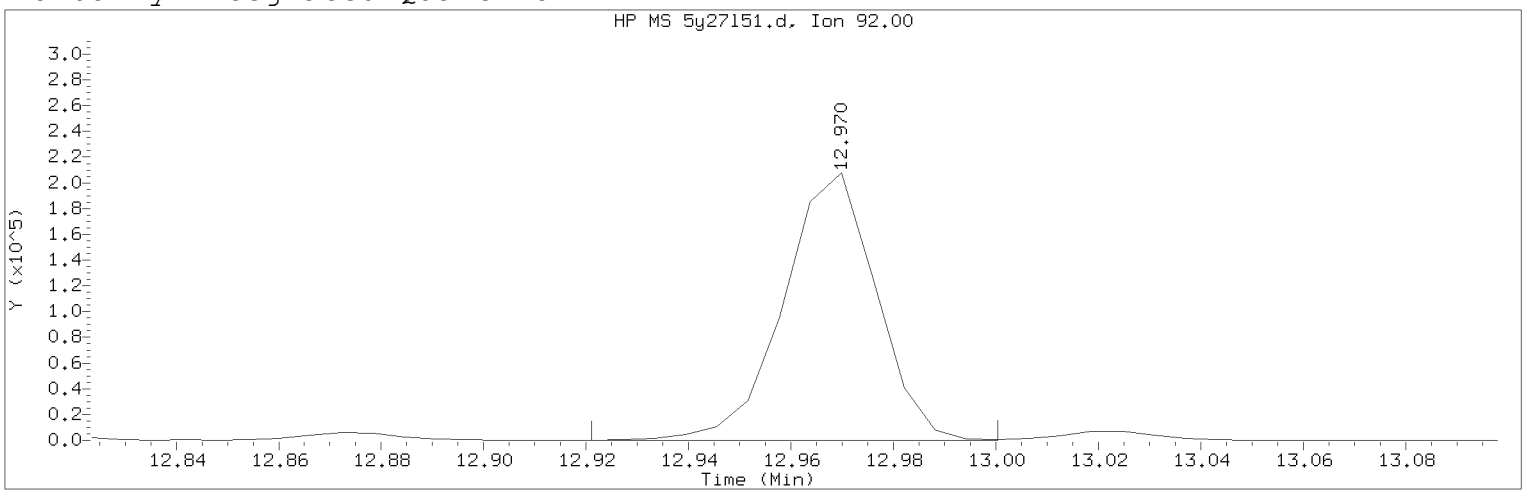
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1057
Retention Time (minutes): 7.831
Quant Ion : 88.00
Area : 62249
On-column Amount (ng) : 671.9840
Integration start scan : 1032 Integration stop scan: 1097
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: LJG30941

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 28-May-2020 00:02 ljg30941

Sample Name: LCD573 Lab Sample ID: LCD573

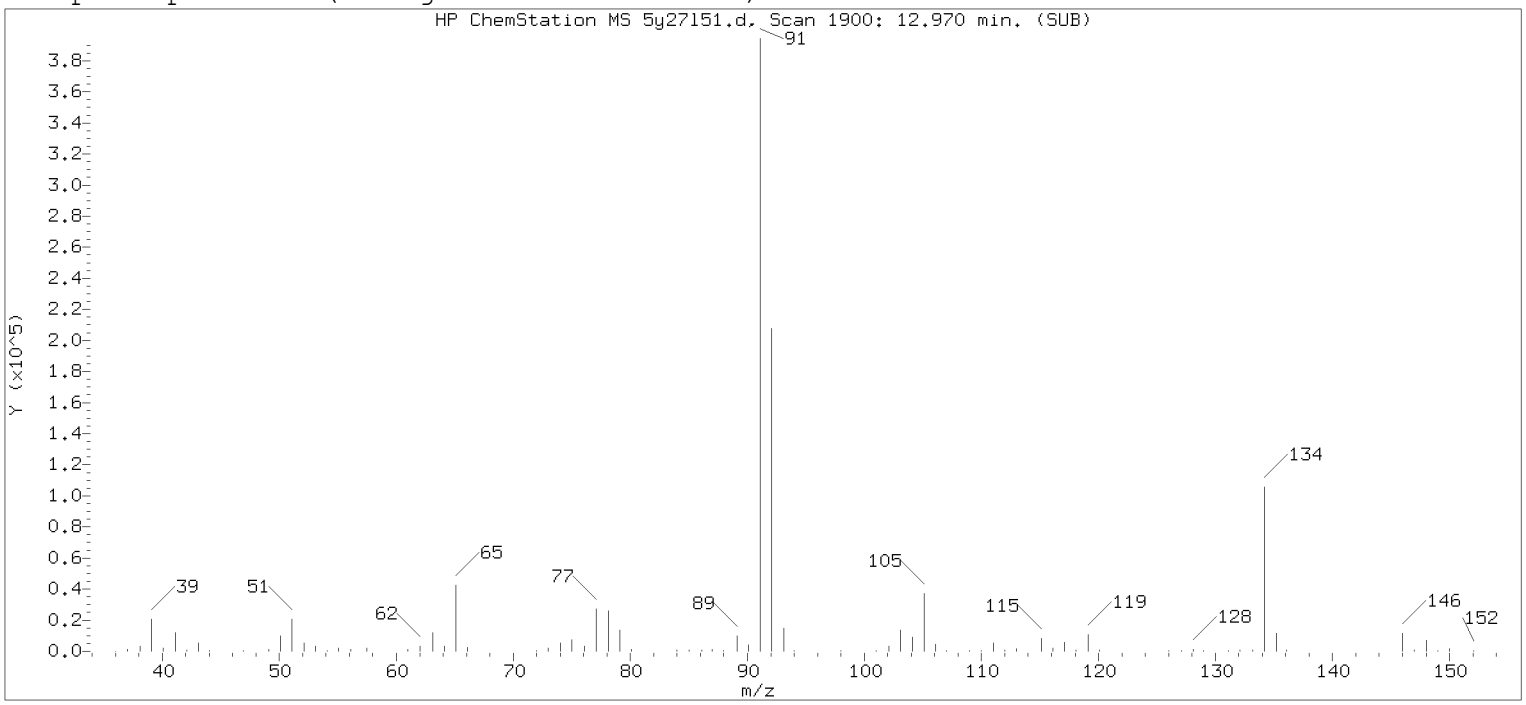
Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area (flag) : 260485M
On-Column Amount (ng) : 18.9114
Integration start scan : 1891 Integration stop scan: 1904
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

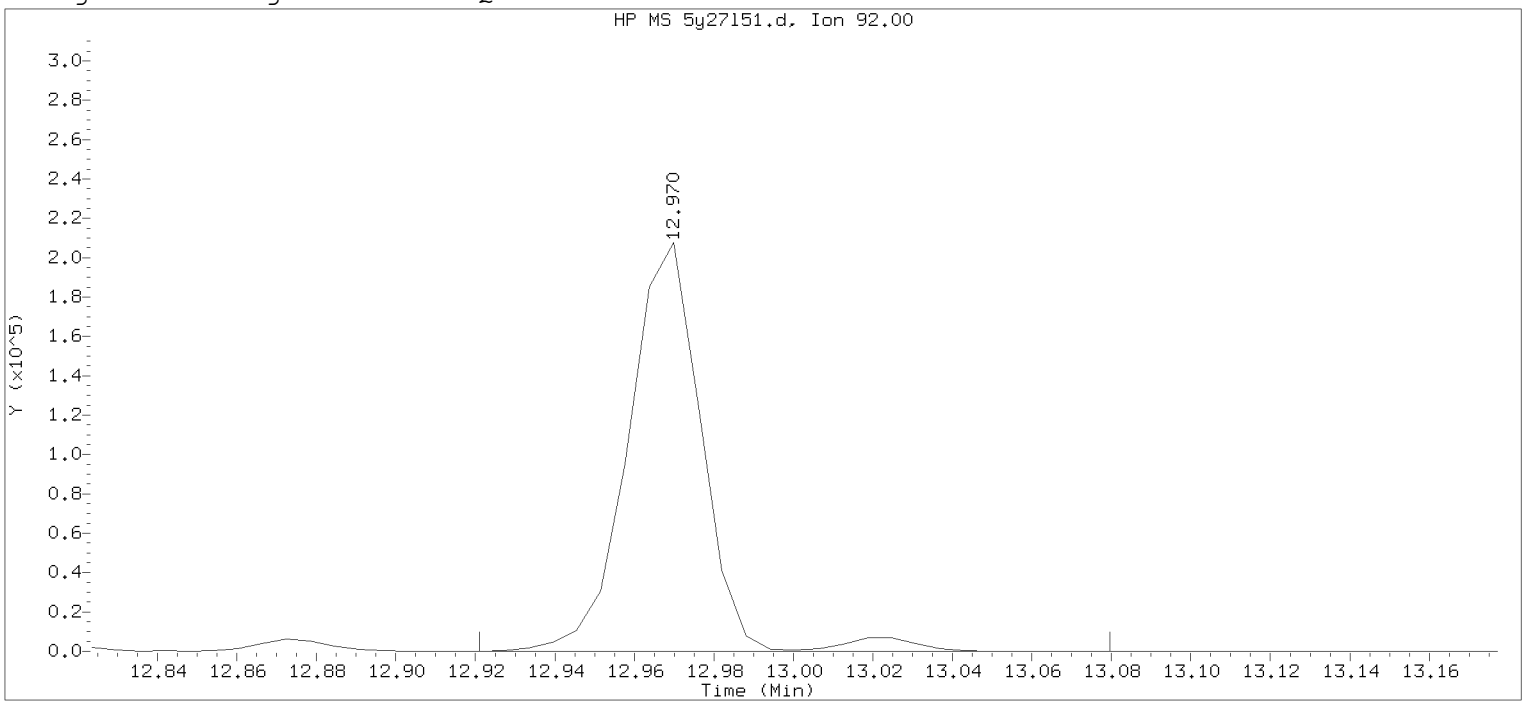
Analyst responsible for change: Digitally signed by Laura J. Green
on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: ljg30941

Secondary review performed and digitally signed by Kari Becker on 05/28/2020 at 17:12.
PARALLAX ID: kmb29664

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may27b.b/5y27151.d Instrument ID: HP26285.i
Injection date and time: 27-MAY-2020 20:53 Analyst ID: LJG30941

Method used: /chem2/HP26285.i/20may27b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 27-MAY-2020 20:30
Date, time and analyst ID of latest file update: 27-May-2020 21:12 chemist

Sample Name: LCD573 Lab Sample ID: LCD573

Compound Number : 140
Compound Name : n-Butylbenzene
Scan Number : 1900
Retention Time (minutes): 12.970
Quant Ion : 92.00
Area : 269365
On-column Amount (ng) : 19.5561
Integration start scan : 1891 Integration stop scan: 1917
Y at integration start : 0 Y at integration end: 0

Digitally signed by Laura J. Green on 05/28/2020 at 00:03.
Target 3.5 esignature user ID: LJG30941

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	12	
74-87-3	Chloromethane	16	
106-99-0	1,3-Butadiene	19	
75-01-4	Vinyl Chloride	17	
74-83-9	Bromomethane	18	
75-00-3	Chloroethane	18	
109-66-0	n-Pentane	14	
75-69-4	Trichlorofluoromethane	18	
60-29-7	Ethyl ether	16	
354-23-4	Freon 123a	16	
107-02-8	Acrolein	110	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	150	
76-13-1	Freon 113	17	
67-63-0	2-Propanol	99	J
74-88-4	Methyl Iodide	19	
75-15-0	Carbon Disulfide	17	
107-05-1	Allyl Chloride	18	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	160	
107-13-1	Acrylonitrile	93	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	18	
110-54-3	n-Hexane	17	
75-34-3	1,1-Dichloroethane	19	
108-20-3	di-Isopropyl ether	17	
126-99-8	2-Chloro-1,3-butadiene	18	
637-92-3	Ethyl t-butyl ether	17	
156-59-2	cis-1,2-Dichloroethene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	39	
78-93-3	2-Butanone	140	
594-20-7	2,2-Dichloropropane	17	
107-12-0	Propionitrile	140	
126-98-7	Methacrylonitrile	140	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	95	
67-66-3	Chloroform	19	
71-55-6	1,1,1-Trichloroethane	18	
110-82-7	Cyclohexane	16	
563-58-6	1,1-Dichloropropene	18	
56-23-5	Carbon Tetrachloride	18	
78-83-1	Isobutyl Alcohol	440	
71-43-2	Benzene	19	
107-06-2	1,2-Dichloroethane	19	
994-05-8	t-Amyl methyl ether	18	
142-82-5	n-Heptane	17	
71-36-3	n-Butanol	880	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	19	
74-95-3	Dibromomethane	19	
123-91-1	1,4-Dioxane	530	
80-62-6	Methyl Methacrylate	18	
75-27-4	Bromodichloromethane	18	
79-46-9	2-Nitropropane	17	
110-75-8	2-Chloroethyl Vinyl Ether	16	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	95	
108-88-3	Toluene	19	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	17	
542-75-6	1,3-Dichloropropene (total)	35	
97-63-2	Ethyl Methacrylate	17	
79-00-5	1,1,2-Trichloroethane	19	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	18	
591-78-6	2-Hexanone	99	
124-48-1	Dibromochloromethane	18	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	19	
100-41-4	Ethylbenzene	19	
179601-23-1	m+p-Xylene	39	
95-47-6	o-Xylene	19	
1330-20-7	Xylene (Total)	58	
100-42-5	Styrene	19	
75-25-2	Bromoform	17	
98-82-8	Isopropylbenzene	19	
108-94-1	Cyclohexanone	480	
108-86-1	Bromobenzene	19	
79-34-5	1,1,2,2-Tetrachloroethane	18	
96-18-4	1,2,3-Trichloropropane	19	
110-57-6	trans-1,4-Dichloro-2-butene	85	
103-65-1	n-Propylbenzene	19	
95-49-8	2-Chlorotoluene	19	
106-43-4	4-Chlorotoluene	19	
108-67-8	1,3,5-Trimethylbenzene	19	
98-06-6	tert-Butylbenzene	19	
76-01-7	Pentachloroethane	18	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCS578

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCS578

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP26285.i/20may29a.b/5y29s01.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 05/29/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	19	
135-98-8	sec-Butylbenzene	19	
541-73-1	1,3-Dichlorobenzene	19	
99-87-6	p-Isopropyltoluene	19	
106-46-7	1,4-Dichlorobenzene	19	
526-73-8	1,2,3-Trimethylbenzene	20	
100-44-7	Benzyl Chloride	16	
141-93-5	1,3-Diethylbenzene	19	
105-05-5	1,4-Diethylbenzene	20	
95-50-1	1,2-Dichlorobenzene	19	
104-51-8	n-Butylbenzene	19	
135-01-3	1,2-Diethylbenzene	19	
25340-17-4	Diethylbenzene (total)	58	
96-12-8	1,2-Dibromo-3-chloropropane	18	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	19	
87-68-3	Hexachlorobutadiene	19	
91-20-3	Naphthalene	18	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	17	

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	3.441	(-0.012)	337	65	350785M	(1)	250.00	
66) Fluorobenzene	6.892	(0.000)	903	96	1006881	(-1)	50.00	
101) Chlorobenzene-d5	10.690	(0.000)	1526	117	801216	(-1)	50.00	
132) 1,4-Dichlorobenzene-d4	12.708	(0.000)	1857	152	433991	(-1)	50.00	

M = Internal Standard was manually integrated

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	5.965	(-0.001)	113	251445	50.138	100%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	6.441	(0.000)	102	57104	50.911	102%		80 - 120
84) Toluene-d8	(3)	9.050	(0.000)	98	978183	49.678	99%		80 - 120
115) 4-Bromofluorobenzene	(3)	11.775	(0.000)	95	412738	49.749	99%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	1.612	(0.000)	85	100007	12.264	12.26			0.2	1
4) Chloromethane	(2)	1.777	(-0.000)	50	101998	15.767	15.77			0.2	1
5) 1,3-Butadiene	(2)	1.856	(0.000)	39	169471	18.848	18.85			1	3
6) Vinyl Chloride	(2)	1.868	(-0.000)	62	98527	17.222	17.22			0.2	1
8) Bromomethane	(2)	2.124	(0.000)	94	67910	17.680	17.68			0.3	1
9) Chloroethane	(2)	2.192	(0.000)	64	47839	17.661	17.66			0.2	1
11) n-Pentane	(2)	2.454	(0.000)	43	92668	14.208	14.21			0.4	10
12) Trichlorofluoromethane	(2)	2.429	(0.000)	101	126722	18.085	18.09			0.2	1
14) Ethyl ether	(2)	2.630	(-0.000)	59	79573	16.473	16.47			0.2	5
15) Freon 123a	(2)	2.710	(-0.000)	67	118575	16.212	16.21			0.4	5
16) Acrolein	(1)	2.777	(0.001)	56	240781	108.404	108.40			2	100
17) 1,1-Dichloroethene	(2)	2.886	(-0.000)	96	102620	18.850	18.85			0.2	1
18) Acetone	(1)	2.917	(-0.000)	58	162029	147.910	147.91			0.7	20
19) Freon 113	(2)	2.911	(0.000)	101	104251	16.918	16.92			0.2	10
21) 2-Propanol	(1)	3.051	(0.001)	45	88618	99.413	99.41		J	18	100
22) Methyl Iodide	(2)	3.051	(0.000)	142	193325	18.623	18.62			0.2	1
23) Carbon Disulfide	(2)	3.130	(0.000)	76	329906	17.227	17.23			0.2	5
25) Allyl Chloride	(2)	3.264	(0.000)	41	164117	18.009	18.01			0.3	5
27) Methyl Acetate	(2)	3.246	(-0.000)	43	153518	19.558	19.56			0.3	5
28) Methylene Chloride	(2)	3.429	(-0.000)	84	120395	19.619	19.62			0.3	1
30) t-Butyl alcohol	(1)	3.539	(0.003)	59	262227	158.707	158.71			12	50
31) Acrylonitrile	(2)	3.703	(-0.000)	53	386318	93.244	93.24			0.3	20
32) trans-1,2-Dichloroethene	(2)	3.752	(-0.000)	96	115697	18.993	18.99			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	3.752	(0.000)	73	291078	18.065	18.07			0.2	1
34) n-Hexane	(2)	4.118	(0.000)	57	149557	16.557	16.56			2	5
36) 1,1-Dichloroethane	(2)	4.356	(-0.000)	63	208313	18.890	18.89			0.2	1
38) di-Isopropyl ether	(2)	4.423	(-0.000)	45	336808	17.100	17.10			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	4.465	(-0.000)	53	168252	17.960	17.96			0.2	5
40) Ethyl t-butyl ether	(2)	4.990	(0.000)	59	293557	16.788	16.79			0.2	1
42) cis-1,2-Dichloroethene	(2)	5.228	(0.000)	96	137651	19.978	19.98			0.2	1

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
43) 1,2-Dichloroethene (Total)	(2)		96	253348	38.971	38.97			0.4	2
44) 2-Butanone	(2)	5.215(-0.000)	43	849648	140.904	140.90			0.3	10
45) 2,2-Dichloropropane	(2)	5.246(-0.000)	77	162593	17.474	17.47			0.3	1
47) Propionitrile	(1)	5.319(0.003)	54	253227	140.787	140.79			14	100
48) Methacrylonitrile	(2)	5.538(-0.000)	67	581969	141.041	141.04			6	50
49) Bromochloromethane	(2)	5.575(-0.000)	128	60420	19.146	19.15			0.2	5
50) Tetrahydrofuran	(1)	5.587(0.003)	71	154555	95.075	95.08			0.7	10
51) Chloroform	(2)	5.740(0.000)	83	211552	19.127	19.13			0.2	1
53) 1,1,1-Trichloroethane	(2)	5.959(0.000)	97	183265	18.403	18.40			0.3	1
54) Cyclohexane	(2)	6.050(0.000)	56	190363	16.413	16.41			1	5
55) 1,1-Dichloropropene	(2)	6.185(0.000)	75	165942	18.395	18.39			0.2	5
56) Carbon Tetrachloride	(2)	6.178(-0.000)	117	159250	18.329	18.33			0.2	1
58) Isobutyl Alcohol	(1)	6.410(0.004)	41	239576	435.002	435.00			36	250
60) Benzene	(2)	6.459(0.000)	78	499811	18.633	18.63			0.2	1
61) 1,2-Dichloroethane	(2)	6.550(-0.000)	62	158693	19.262	19.26			0.3	1
65) t-Amyl methyl ether	(2)	6.678(-0.000)	73	306283	17.554	17.55			0.8	5
67) n-Heptane	(2)	6.910(-0.000)	43	148300	16.997	17.00			2	5
69) n-Butanol	(1)	7.337(0.005)	56	419928	883.637	883.64			61	250
71) Trichloroethene	(2)	7.398(-0.000)	95	134584	19.119	19.12			0.2	1
73) Methylcyclohexane	(2)	7.703(-0.000)	83	200873	17.955	17.96			0.5	5
74) 1,2-Dichloropropane	(2)	7.745(-0.000)	63	125849	18.742	18.74			0.2	1
75) Dibromomethane	(2)	7.861(-0.000)	93	79796	18.872	18.87			0.2	1
76) 1,4-Dioxane	(1)	7.849(0.008)	88	63053M	534.893	534.89			29	250
77) Methyl Methacrylate	(2)	7.867(-0.000)	69	112175	17.855	17.86			0.2	5
79) Bromodichloromethane	(2)	8.123(-0.000)	83	148544	18.117	18.12			0.2	1
80) 2-Nitropropane	(2)	8.422(-0.000)	41	48350	17.026	17.03			0.8	10
81) 2-Chloroethyl Vinyl Ether	(2)	8.526(-0.000)	63	85657	16.483	16.48			0.2	10
82) cis-1,3-Dichloropropene	(2)	8.708(-0.000)	75	183194	17.681	17.68			0.2	1
83) 4-Methyl-2-pentanone	(2)	8.928(-0.000)	43	1100755	94.710	94.71			0.5	10
89) Toluene	(3)	9.141(-0.000)	92	326595	18.811	18.81			0.2	1
90) trans-1,3-Dichloropropene	(3)	9.458(0.000)	75	158588	17.024	17.02			0.2	1
91) 1,3-Dichloropropene (total)	(3)		100	341782	34.705	34.71			0.4	2
92) Ethyl Methacrylate	(3)	9.550(0.000)	69	181117	17.098	17.10			0.2	5
93) 1,1,2-Trichloroethane	(3)	9.690(-0.000)	97	120646	19.437	19.44			0.2	1
94) Tetrachloroethene	(3)	9.763(0.000)	166	149304	20.275	20.28			0.2	1
95) 1,3-Dichloropropane	(3)	9.867(-0.000)	76	188932	18.332	18.33			0.2	1
97) 2-Hexanone	(3)	9.946(0.000)	43	916824	99.389	99.39			0.3	10
98) Dibromochloromethane	(3)	10.098(-0.000)	129	119064	18.127	18.13			0.2	1
100) 1,2-Dibromoethane	(3)	10.208(-0.000)	107	128465	18.774	18.77			0.2	1
102) 1-Chlorohexane	(3)	10.720(-0.000)	91	179871	17.814	17.81			0.3	5
103) Chlorobenzene	(3)	10.720(-0.000)	112	369554	19.612	19.61			0.2	1
104) 1,1,1,2-Tetrachloroethane	(3)	10.818(-0.000)	131	123772	19.040	19.04			0.2	1
105) Ethylbenzene	(3)	10.824(-0.000)	91	652076	19.424	19.42			0.4	1
107) m+p-Xylene	(3)	10.952(-0.000)	106	505109	39.216	39.22			1	5
108) o-Xylene	(3)	11.300(-0.000)	106	242537	19.238	19.24			0.4	1
109) Xylene (Total)	(3)		106	747646	58.454	58.45			1	6
110) Styrene	(3)	11.318(-0.000)	104	392722	19.329	19.33			0.2	5
111) Bromoform	(3)	11.476(-0.000)	173	80725	16.987	16.99			1	4
112) Isopropylbenzene	(3)	11.629(-0.000)	105	640570	19.362	19.36			0.2	5
113) Cyclohexanone	(1)	11.702(0.012)	55	258110	476.704	476.70			25	100
116) Bromobenzene	(4)	11.891(-0.000)	156	157218	19.002	19.00			0.2	5
117) 1,1,2,2-Tetrachloroethane	(4)	11.897(0.000)	83	207559	18.487	18.49			0.2	1
118) 1,2,3-Trichloropropane	(4)	11.940(-0.000)	110	63472	19.199	19.20			0.2	5
119) trans-1,4-Dichloro-2-butene	(4)	11.927(0.000)	53	181802	85.339	85.34			6	50

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem2/HP26285.i/20may29a.b/5y29s01.d Injection date and time: **29-MAY-2020 10:52**
Data file Sample Info. Line: LCS578;LCS578;1;3;LCS;;;;5y29b01; Instrument ID: **HP26285.i** Batch: **5201501AA**
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Blank Data file reference: **/chem2/HP26285.i/20may29a.b/5y29b01.d**

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 29-MAY-2020 10:41
Mid Level Daily Calibration Standard Reference: **/chem2/HP26285.i/20may29a.b/5y29c01.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) n-Propylbenzene	(4)	11.976(0.000)	91	781460	19.211	19.21			0.2	5
121) 2-Chlorotoluene	(4)	12.049(0.000)	126	154796	18.565	18.57			0.2	5
122) 4-Chlorotoluene	(4)	12.153(0.000)	126	157979	18.757	18.76			0.2	5
123) 1,3,5-Trimethylbenzene	(4)	12.129(0.000)	105	536605	18.766	18.77			0.3	5
125) tert-Butylbenzene	(4)	12.378(0.000)	134	107069M	18.840	18.84			0.3	5
126) Pentachloroethane	(4)	12.409(0.000)	167	83560	17.910	17.91			0.2	5
127) 1,2,4-Trimethylbenzene	(4)	12.427(-0.000)	105	550986	18.711	18.71			1	5
128) sec-Butylbenzene	(4)	12.549(0.000)	105	665000	18.757	18.76			0.2	5
130) 1,3-Dichlorobenzene	(4)	12.647(-0.000)	146	299160	19.224	19.22			0.2	5
131) p-Isopropyltoluene	(4)	12.671(-0.000)	119	570097	19.283	19.28			0.2	5
134) 1,4-Dichlorobenzene	(4)	12.726(-0.000)	146	305810	19.363	19.36			0.2	5
135) 1,2,3-Trimethylbenzene	(4)	12.744(-0.000)	105	564462	19.970	19.97			0.3	5
136) Benzyl Chloride	(4)	12.811(-0.000)	91	347447	16.131	16.13			1	5
137) 1,3-Diethylbenzene	(4)	12.878(-0.000)	119	327986	19.200	19.20			0.2	5
138) 1,4-Diethylbenzene	(4)	12.952(-0.000)	119	344609	19.504	19.50			0.2	5
139) 1,2-Dichlorobenzene	(4)	12.994(-0.000)	146	288638	19.309	19.31			0.2	5
140) n-Butylbenzene	(4)	12.970(-0.000)	92	282145	18.919	18.92			0.2	5
141) 1,2-Diethylbenzene	(4)	13.025(-0.000)	119	273659	18.942	18.94			0.2	5
142) Diethylbenzene (total)	(4)		100	946254	57.646	57.65			0.6	15
143) 1,2-Dibromo-3-chloropropane	(4)	13.561(-0.000)	75	51132	18.039	18.04			0.3	5
145) 1,3,5-Trichlorobenzene	(4)	13.695(-0.000)	180	188528	19.094	19.09			0.2	5
147) 1,2,4-Trichlorobenzene	(4)	14.134(-0.000)	180	175218	18.890	18.89			0.3	5
148) Hexachlorobutadiene	(4)	14.220(-0.000)	225	69554	19.497	19.50			2	5
149) Naphthalene	(4)	14.317(-0.000)	128	676840	18.426	18.43			1	5
150) 1,2,3-Trichlorobenzene	(4)	14.464(-0.000)	180	174719	19.035	19.03			0.4	5
151) 2-Methylnaphthalene	(4)	15.085(-0.000)	142	317431	16.633	16.63			2	4

M = Compound was manually integrated.

Total number of targets = 110

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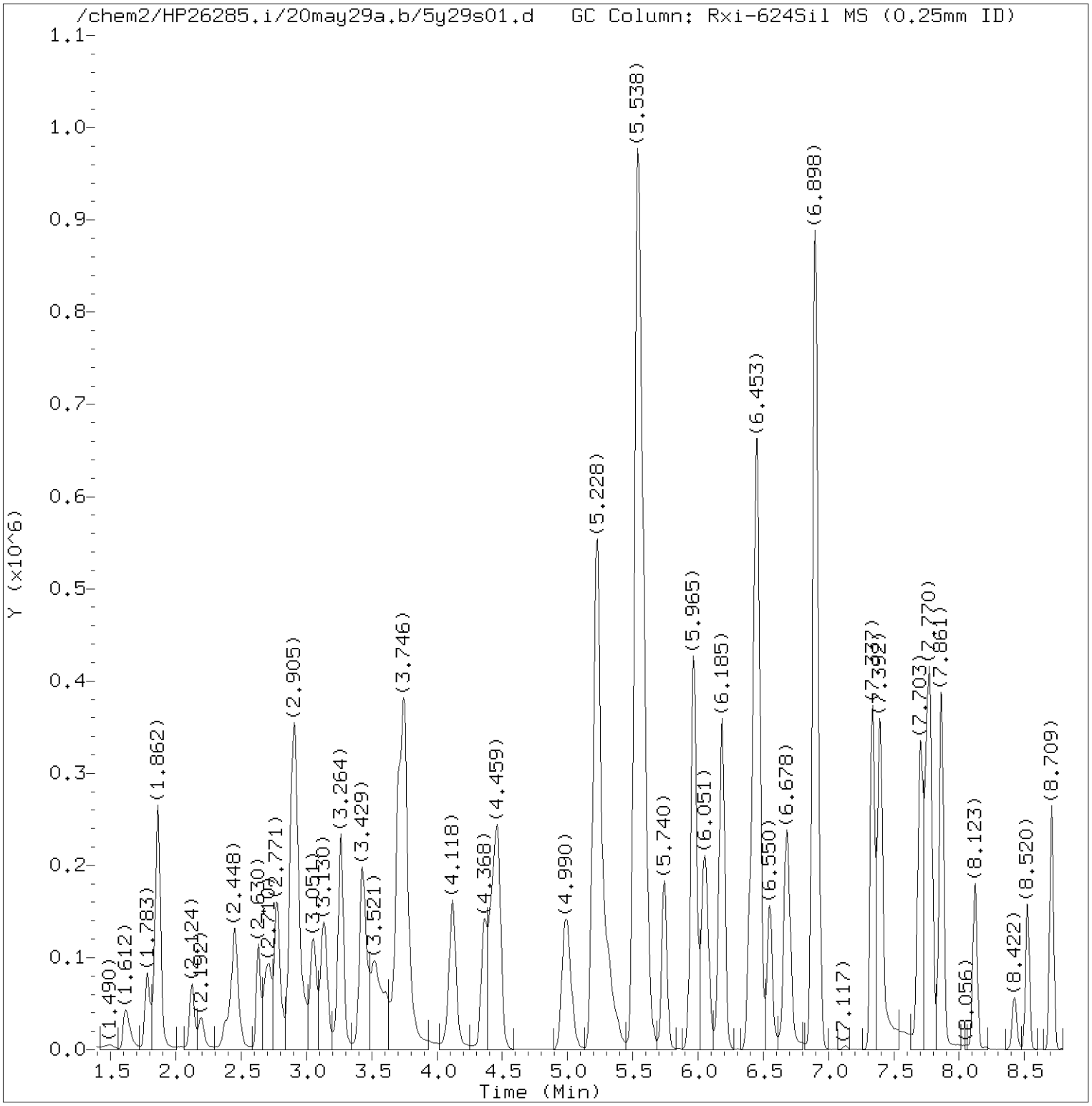
Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34. PARALLAX ID: cbs01947



Total Ion Chromatogram (TIC)

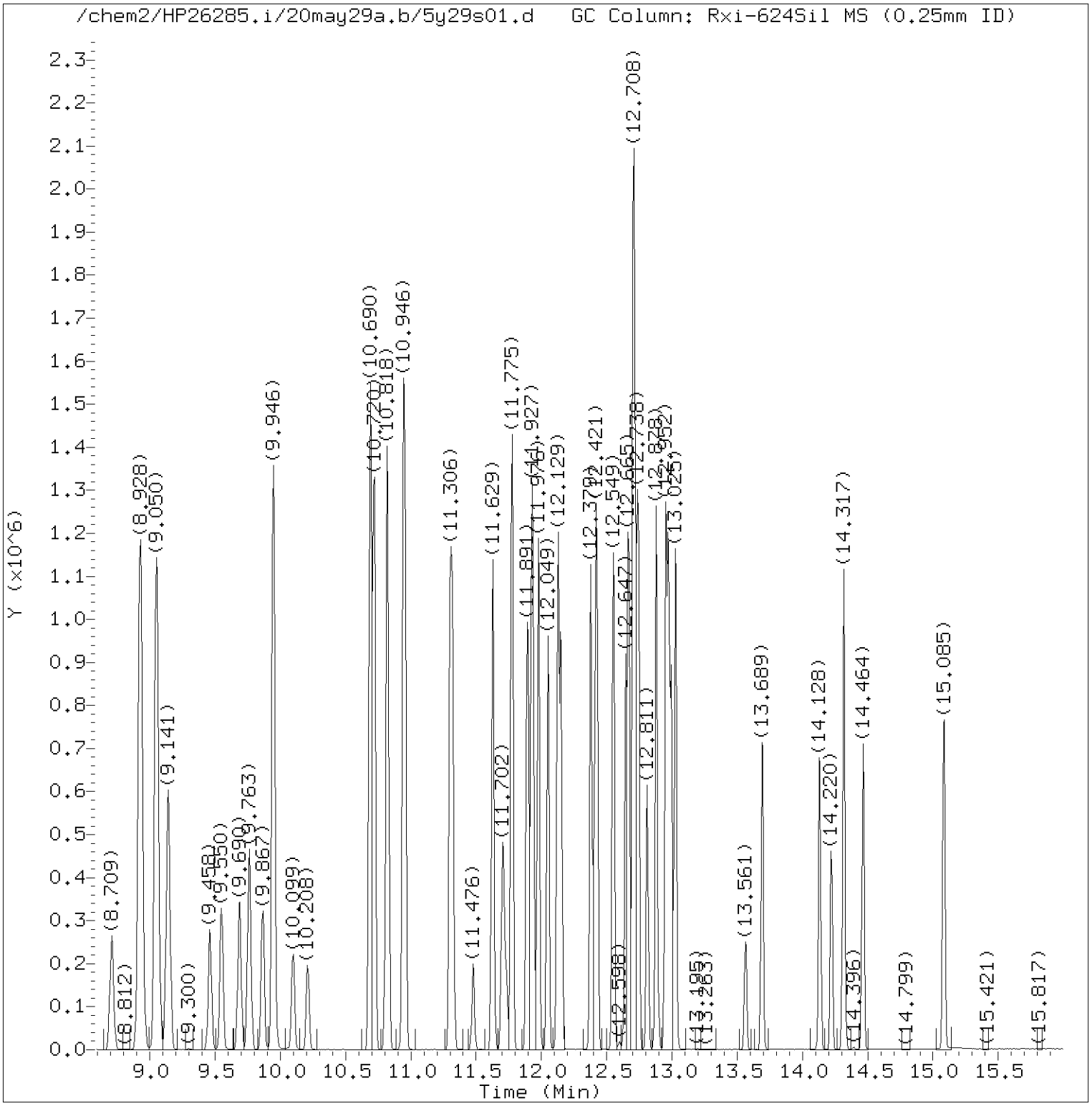
Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	1.612	85	100007	12.264
4) Chloromethane	(2)	1.777	50	101998	15.767
5) 1,3-Butadiene	(2)	1.856	39	169471	18.848
6) Vinyl Chloride	(2)	1.868	62	98527	17.222
8) Bromomethane	(2)	2.124	94	67910	17.680
9) Chloroethane	(2)	2.192	64	47839	17.661
12) Trichlorofluoromethane	(2)	2.429	101	126722	18.085
11) n-Pentane	(2)	2.454	43	92668	14.208
14) Ethyl ether	(2)	2.630	59	79573	16.473
15) Freon 123a	(2)	2.710	67	118575	16.212
16) Acrolein	(1)	2.777	56	240781	108.404
17) 1,1-Dichloroethene	(2)	2.887	96	102620	18.850
19) Freon 113	(2)	2.911	101	104251	16.918
18) Acetone	(1)	2.917	58	162029	147.910
21) 2-Propanol	(1)	3.051	45	88618	99.413
22) Methyl Iodide	(2)	3.051	142	193325	18.623
23) Carbon Disulfide	(2)	3.130	76	329906	17.227
27) Methyl Acetate	(2)	3.246	43	153518	19.558
25) Allyl Chloride	(2)	3.264	41	164117	18.009
28) Methylene Chloride	(2)	3.429	84	120395	19.619
29)*t-Butyl alcohol-d10	(1)	3.441	65	350785M	250.000
30) t-Butyl alcohol	(1)	3.539	59	262227	158.707
31) Acrylonitrile	(2)	3.703	53	386318	93.244
32) trans-1,2-Dichloroethene	(2)	3.752	96	115697	18.993
33) Methyl Tertiary Butyl Ether	(2)	3.752	73	291078	18.065
34) n-Hexane	(2)	4.118	57	149557	16.557
36) 1,1-Dichloroethane	(2)	4.356	63	208313	18.890
38) di-Isopropyl ether	(2)	4.423	45	336808	17.100
39) 2-Chloro-1,3-butadiene	(2)	4.465	53	168252	17.960
40) Ethyl t-butyl ether	(2)	4.990	59	293557	16.788
44) 2-Butanone	(2)	5.215	43	849648	140.904
42) cis-1,2-Dichloroethene	(2)	5.228	96	137651	19.978
45) 2,2-Dichloropropane	(2)	5.246	77	162593	17.474
47) Propionitrile	(1)	5.319	54	253227	140.787
48) Methacrylonitrile	(2)	5.538	67	581969	141.041
49) Bromochloromethane	(2)	5.575	128	60420	19.146
50) Tetrahydrofuran	(1)	5.587	71	154555	95.075
51) Chloroform	(2)	5.740	83	211552	19.127

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
53) 1,1,1-Trichloroethane	(2)	5.959	97	183265	18.403
52)$Dibromofluoromethane	(2)	5.965	113	251445	50.138
54) Cyclohexane	(2)	6.051	56	190363	16.413
43) 1,2-Dichloroethene (Total)	(2)		96	253348	38.971
56) Carbon Tetrachloride	(2)	6.179	117	159250	18.329
55) 1,1-Dichloropropene	(2)	6.185	75	165942	18.395
58) Isobutyl Alcohol	(1)	6.410	41	239576	435.002
57)$1,2-Dichloroethane-d4	(2)	6.441	102	57104	50.911
60) Benzene	(2)	6.459	78	499811	18.633
61) 1,2-Dichloroethane	(2)	6.550	62	158693	19.262
65) t-Amyl methyl ether	(2)	6.678	73	306283	17.554
66)*Fluorobenzene	(2)	6.892	96	1006881	50.000
67) n-Heptane	(2)	6.910	43	148300	16.997
69) n-Butanol	(1)	7.337	56	419928	883.637
71) Trichloroethene	(2)	7.398	95	134584	19.119
73) Methylcyclohexane	(2)	7.703	83	200873	17.955
74) 1,2-Dichloropropane	(2)	7.745	63	125849	18.742
76) 1,4-Dioxane	(1)	7.849	88	63053M	534.893
75) Dibromomethane	(2)	7.861	93	79796	18.872
77) Methyl Methacrylate	(2)	7.867	69	112175	17.855
79) Bromodichloromethane	(2)	8.123	83	148544	18.117
80) 2-Nitropropane	(2)	8.422	41	48350	17.026
81) 2-Chloroethyl Vinyl Ether	(2)	8.526	63	85657	16.483
82) cis-1,3-Dichloropropene	(2)	8.709	75	183194	17.681
83) 4-Methyl-2-pentanone	(2)	8.928	43	1100755	94.710
84)$Toluene-d8	(3)	9.050	98	978183	49.678
89) Toluene	(3)	9.141	92	326595	18.811
90) trans-1,3-Dichloropropene	(3)	9.458	75	158588	17.024
92) Ethyl Methacrylate	(3)	9.550	69	181117	17.098
93) 1,1,2-Trichloroethane	(3)	9.690	97	120646	19.437
94) Tetrachloroethene	(3)	9.763	166	149304	20.275
95) 1,3-Dichloropropane	(3)	9.867	76	188932	18.332
97) 2-Hexanone	(3)	9.946	43	916824	99.389
91) 1,3-Dichloropropene (total)	(3)		100	341782	34.705
98) Dibromochloromethane	(3)	10.099	129	119064	18.127
100) 1,2-Dibromoethane	(3)	10.208	107	128465	18.774
101)*Chlorobenzene-d5	(3)	10.690	117	801216	50.000
102) 1-Chlorohexane	(3)	10.720	91	179871	17.814

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
103) Chlorobenzene	(3)	10.720	112	369554	19.612
104) 1,1,1,2-Tetrachloroethane	(3)	10.818	131	123772	19.040
105) Ethylbenzene	(3)	10.824	91	652076	19.424
107) m+p-Xylene	(3)	10.952	106	505109	39.216
108) o-Xylene	(3)	11.300	106	242537	19.238
110) Styrene	(3)	11.318	104	392722	19.329
111) Bromoform	(3)	11.476	173	80725	16.987
112) Isopropylbenzene	(3)	11.629	105	640570	19.362
113) Cyclohexanone	(1)	11.702	55	258110	476.704
109) Xylene (Total)	(3)		106	747646	58.454
115)$4-Bromofluorobenzene	(3)	11.775	95	412738	49.749
116) Bromobenzene	(4)	11.891	156	157218	19.002
117) 1,1,2,2-Tetrachloroethane	(4)	11.897	83	207559	18.487
119) trans-1,4-Dichloro-2-butene	(4)	11.927	53	181802	85.339
118) 1,2,3-Trichloropropane	(4)	11.940	110	63472	19.199
120) n-Propylbenzene	(4)	11.976	91	781460	19.211
121) 2-Chlorotoluene	(4)	12.049	126	154796	18.565
123) 1,3,5-Trimethylbenzene	(4)	12.129	105	536605	18.766
122) 4-Chlorotoluene	(4)	12.153	126	157979	18.757
125) tert-Butylbenzene	(4)	12.379	134	107069M	18.840
126) Pentachloroethane	(4)	12.409	167	83560	17.910
127) 1,2,4-Trimethylbenzene	(4)	12.427	105	550986	18.711
128) sec-Butylbenzene	(4)	12.549	105	665000	18.757
130) 1,3-Dichlorobenzene	(4)	12.647	146	299160	19.224
131) p-Isopropyltoluene	(4)	12.671	119	570097	19.283
132)*1,4-Dichlorobenzene-d4	(4)	12.708	152	433991	50.000
134) 1,4-Dichlorobenzene	(4)	12.726	146	305810	19.363
135) 1,2,3-Trimethylbenzene	(4)	12.744	105	564462	19.970
136) Benzyl Chloride	(4)	12.811	91	347447	16.131
137) 1,3-Diethylbenzene	(4)	12.878	119	327986	19.200
138) 1,4-Diethylbenzene	(4)	12.952	119	344609	19.504
140) n-Butylbenzene	(4)	12.970	92	282145	18.919
139) 1,2-Dichlorobenzene	(4)	12.994	146	288638	19.309
141) 1,2-Diethylbenzene	(4)	13.025	119	273659	18.942
142) Diethylbenzene (total)	(4)		100	946254	57.646
143) 1,2-Dibromo-3-chloropropane	(4)	13.561	75	51132	18.039
145) 1,3,5-Trichlorobenzene	(4)	13.695	180	188528	19.094
147) 1,2,4-Trichlorobenzene	(4)	14.134	180	175218	18.890

M = Compound was manually integrated.
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$ = Compound is a surrogate standard.

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on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
148) Hexachlorobutadiene	(4)	14.220	225	69554	19.497
149) Naphthalene	(4)	14.317	128	676840	18.426
150) 1,2,3-Trichlorobenzene	(4)	14.464	180	174719	19.035
151) 2-Methylnaphthalene	(4)	15.085	142	317431	16.633

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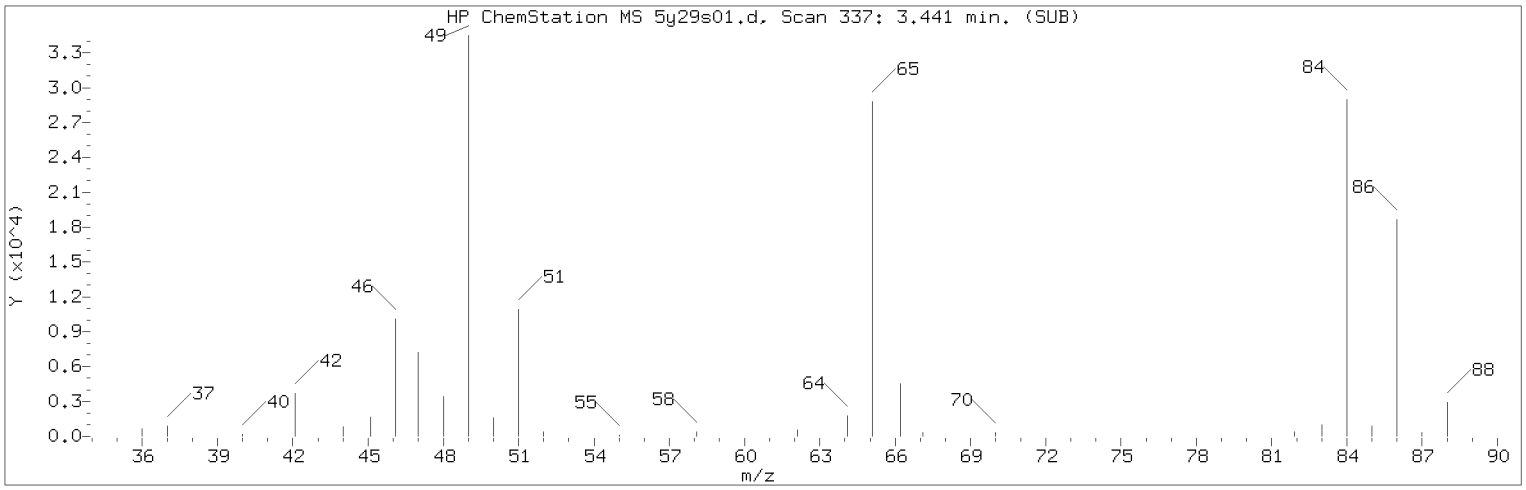
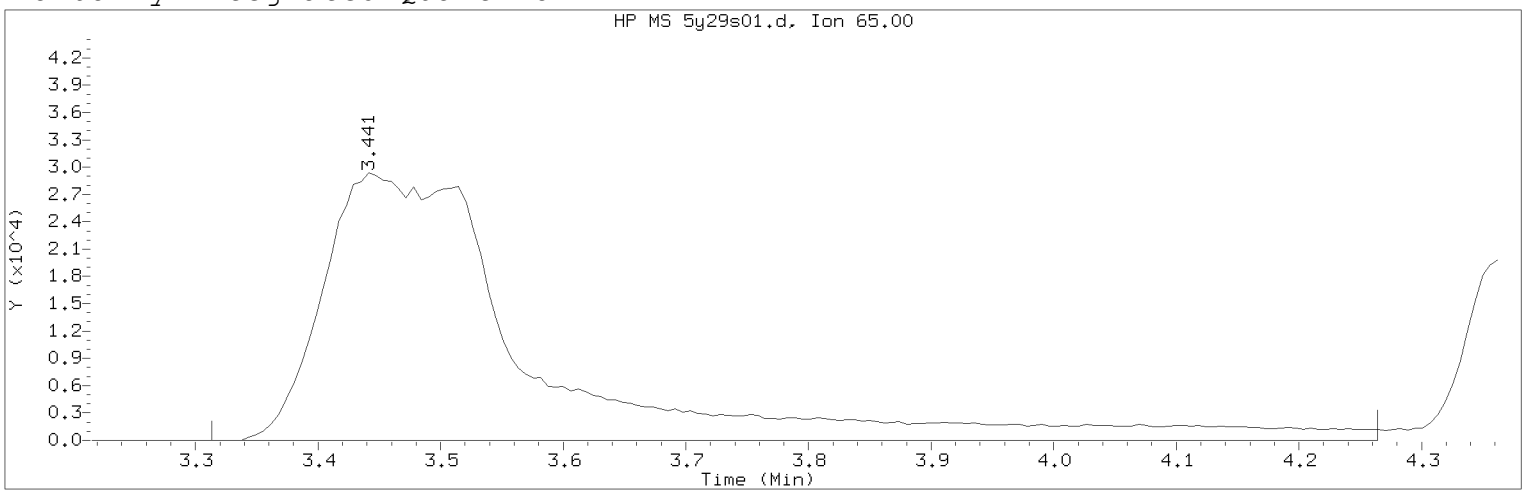
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

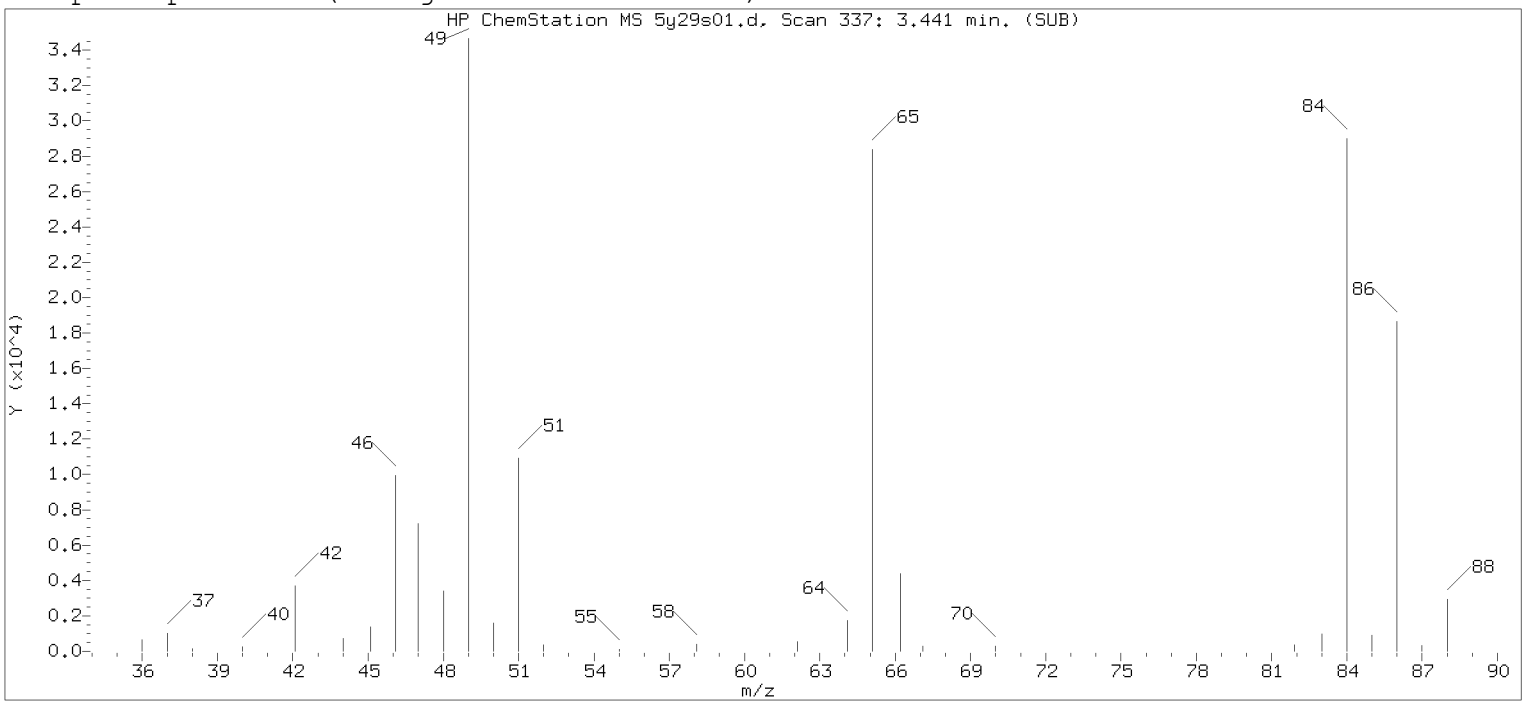
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 337
Retention Time (minutes): 3.441
Quant Ion : 65.00
Area (flag) : 350785M
On-Column Amount (ng) : 250.0000
Integration start scan : 315 Integration stop scan: 471
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

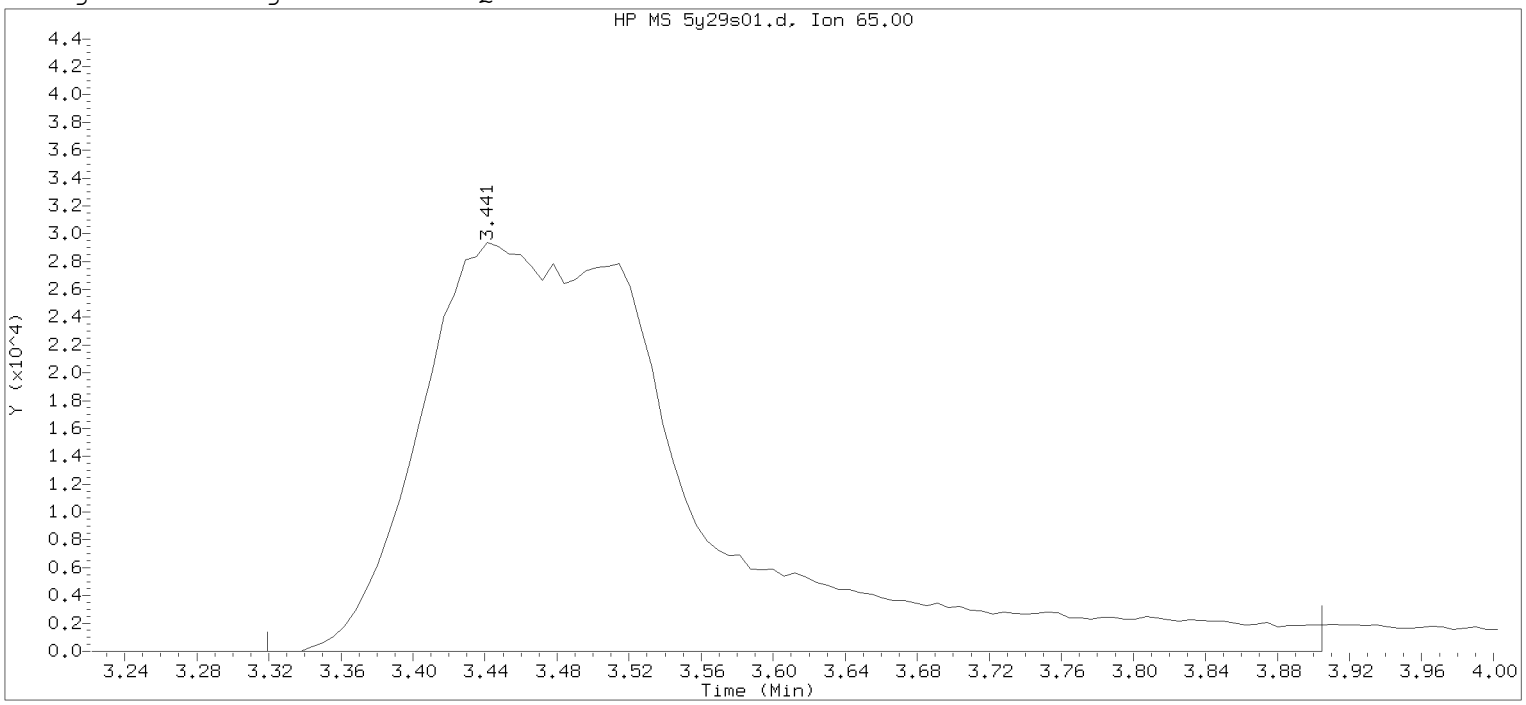
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

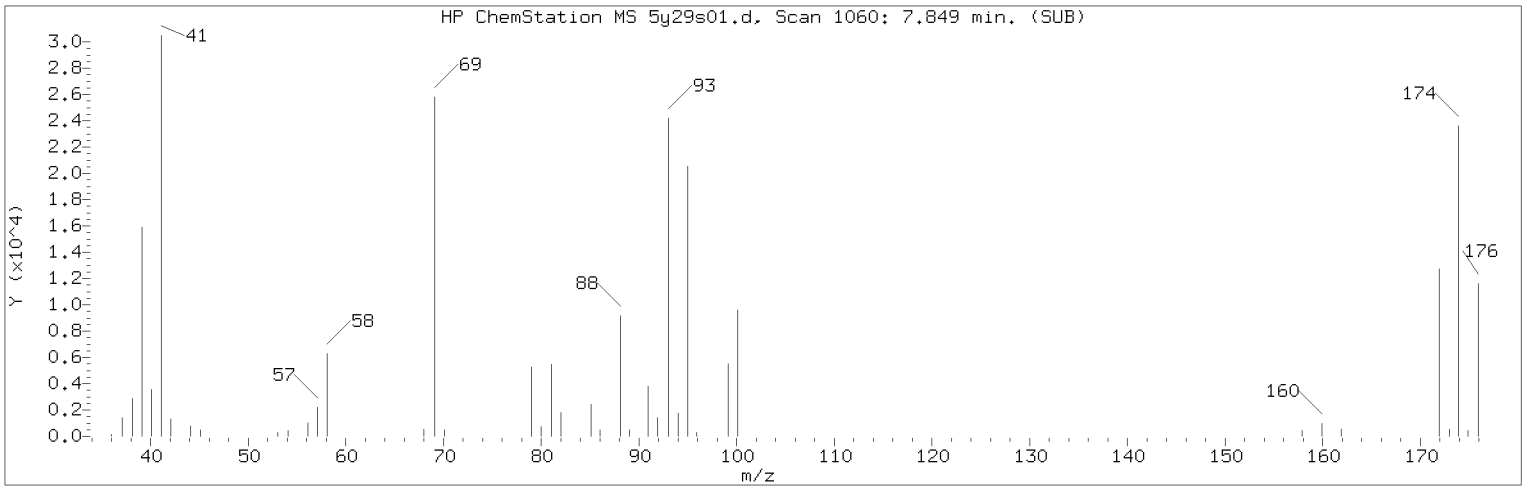
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

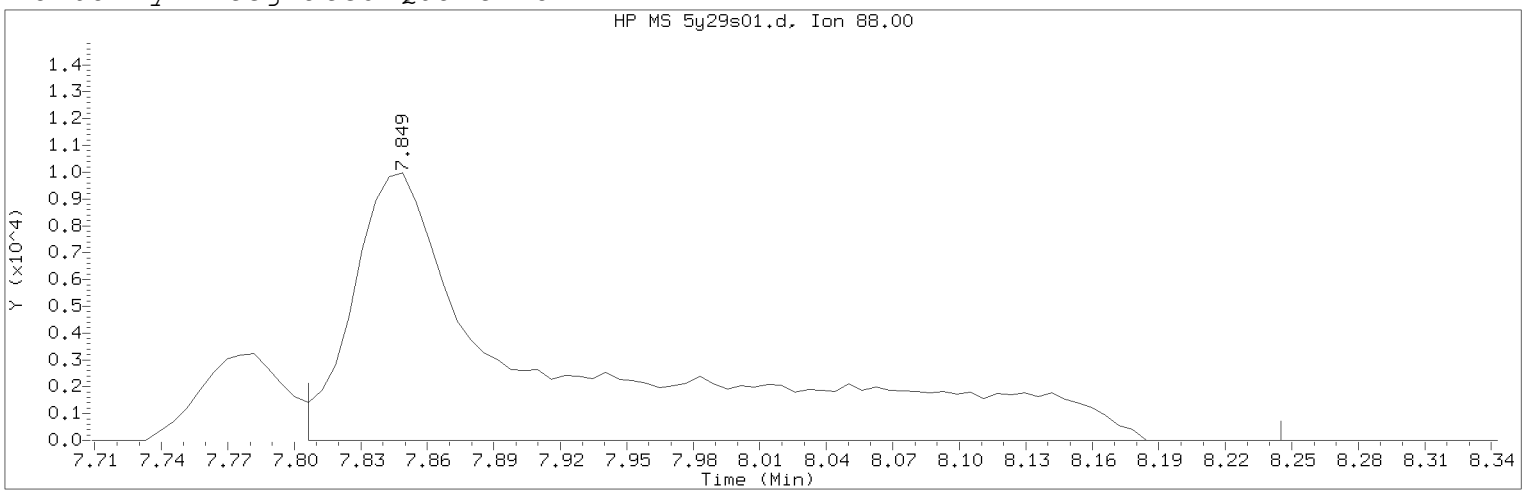
Compound Number : 29
Compound Name : t-Butyl alcohol-d10
Scan Number : 337
Retention Time (minutes): 3.441
Quant Ion : 65.00
Area : 317487
On-column Amount (ng) : 250.0000
Integration start scan : 316 Integration stop scan: 412
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

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Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

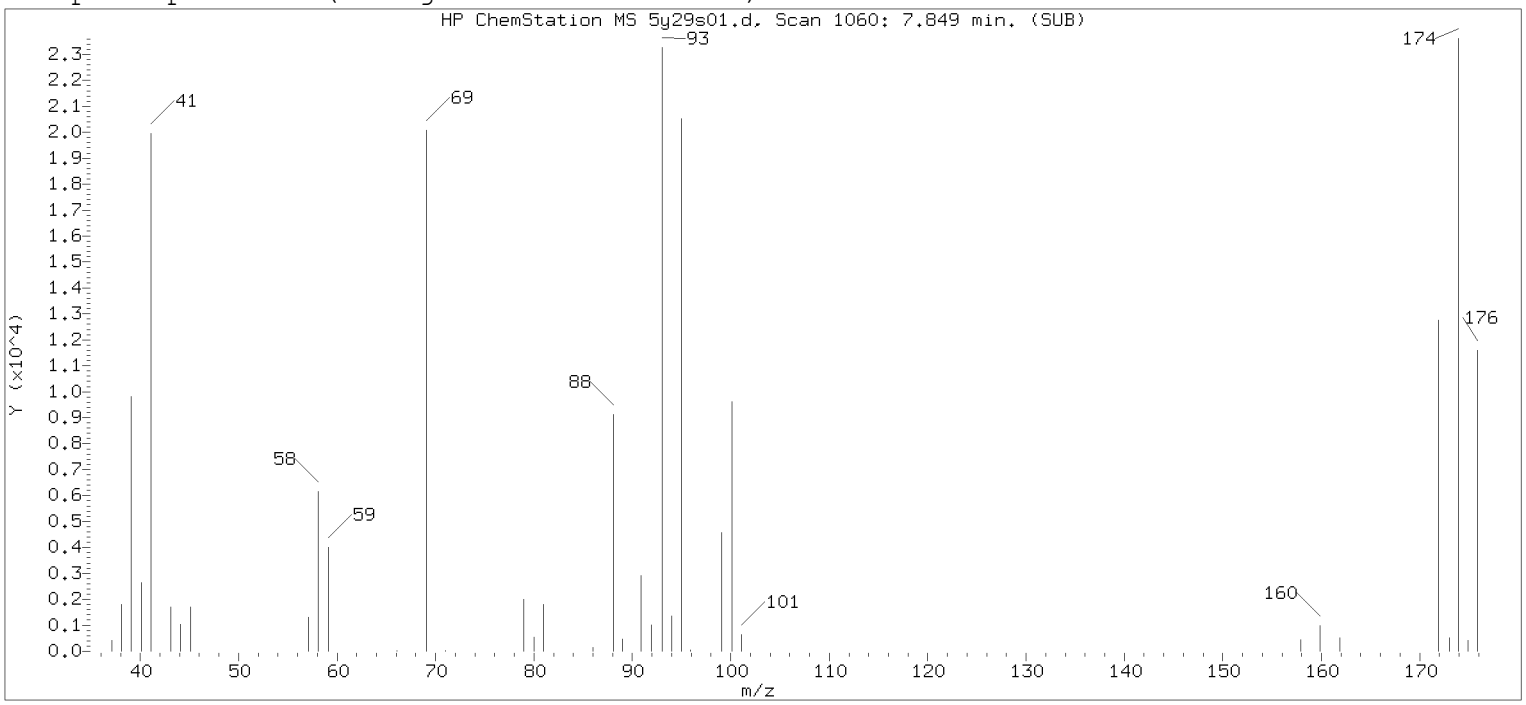
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area (flag) : 63053M
On-Column Amount (ng) : 534.8934
Integration start scan : 1052 Integration stop scan: 1124
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

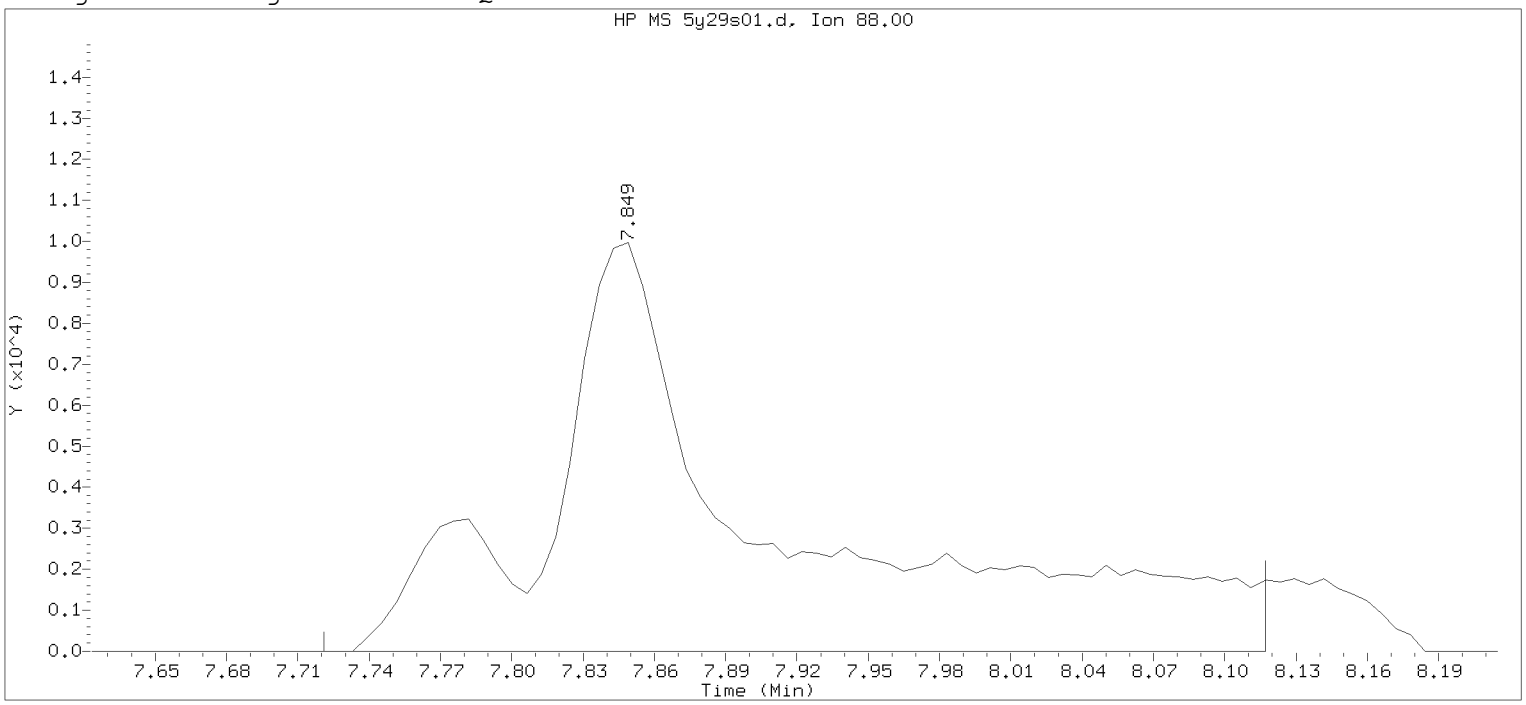
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



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Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

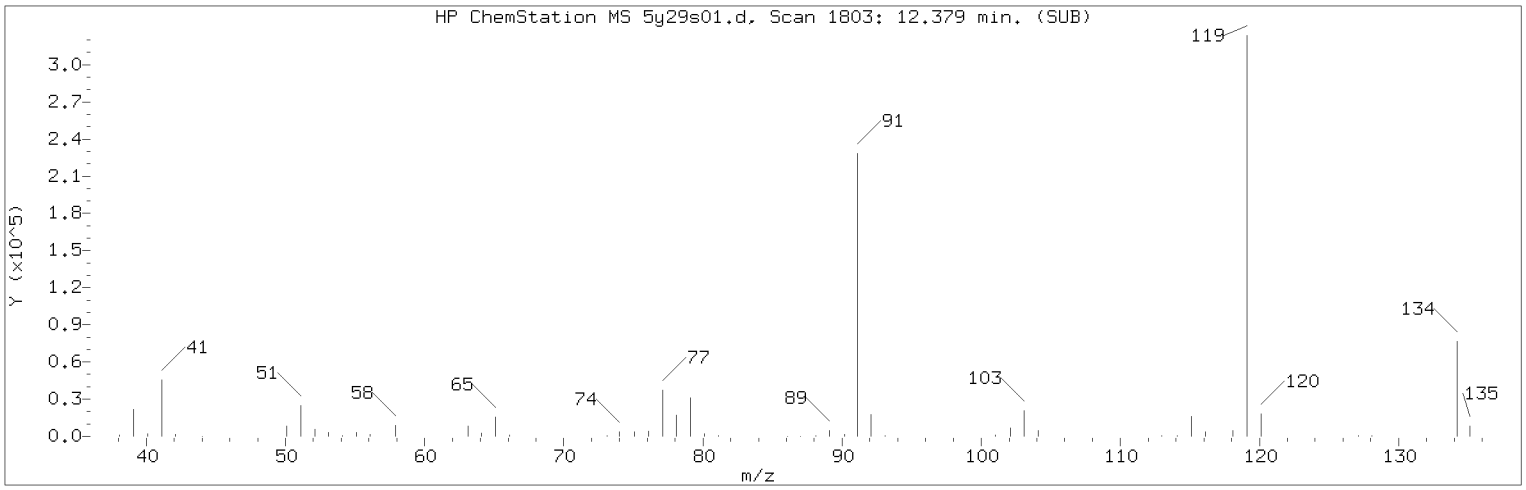
Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

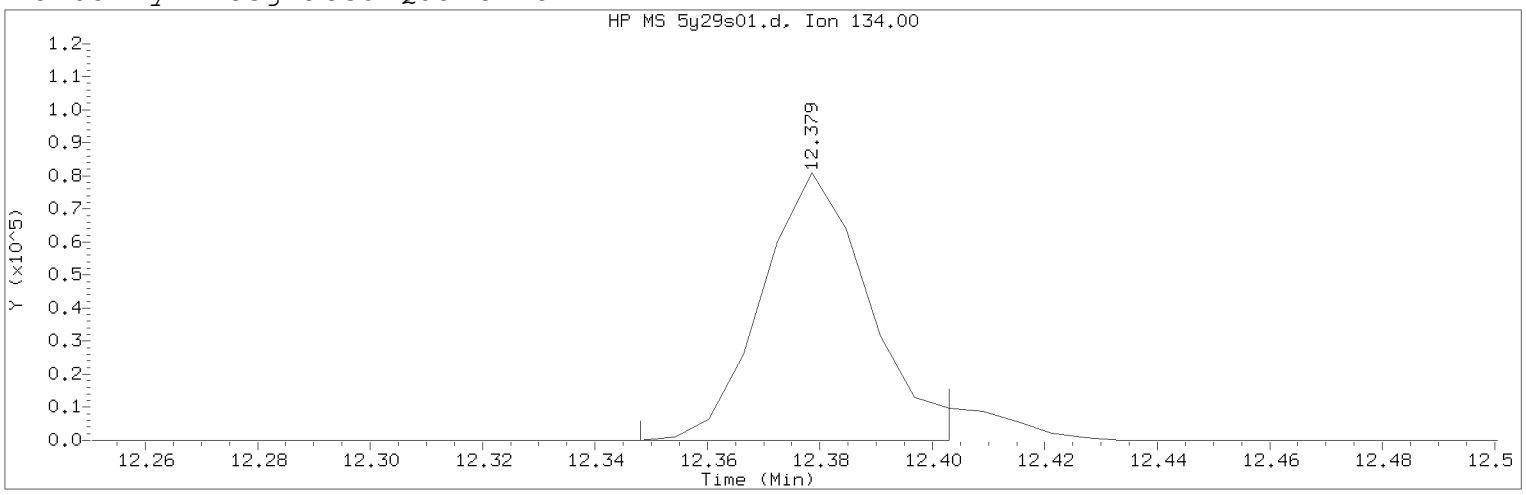
Compound Number : 76
Compound Name : 1,4-Dioxane
Scan Number : 1060
Retention Time (minutes): 7.849
Quant Ion : 88.00
Area : 66277
On-column Amount (ng) : 621.2134
Integration start scan : 1038 Integration stop scan: 1103
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 05/29/2020 at 11:54.
Target 3.5 esignature user: CLM27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



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Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

Method used: /chem2/HP26285.i/20may29a.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:53 clm27445

Sample Name: LCS578 Lab Sample ID: LCS578

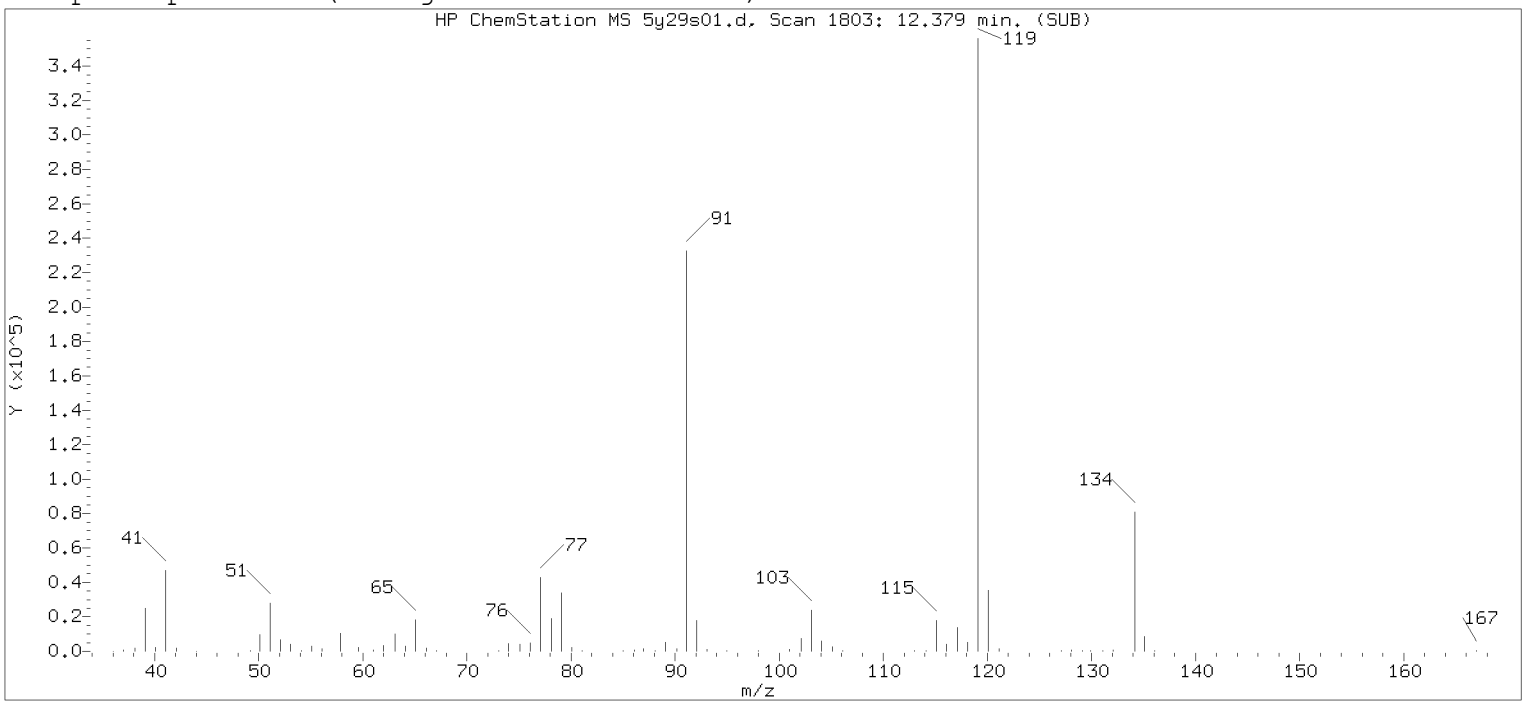
Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area (flag) : 107069M
On-Column Amount (ng) : 18.8403
Integration start scan : 1797 Integration stop scan: 1806
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

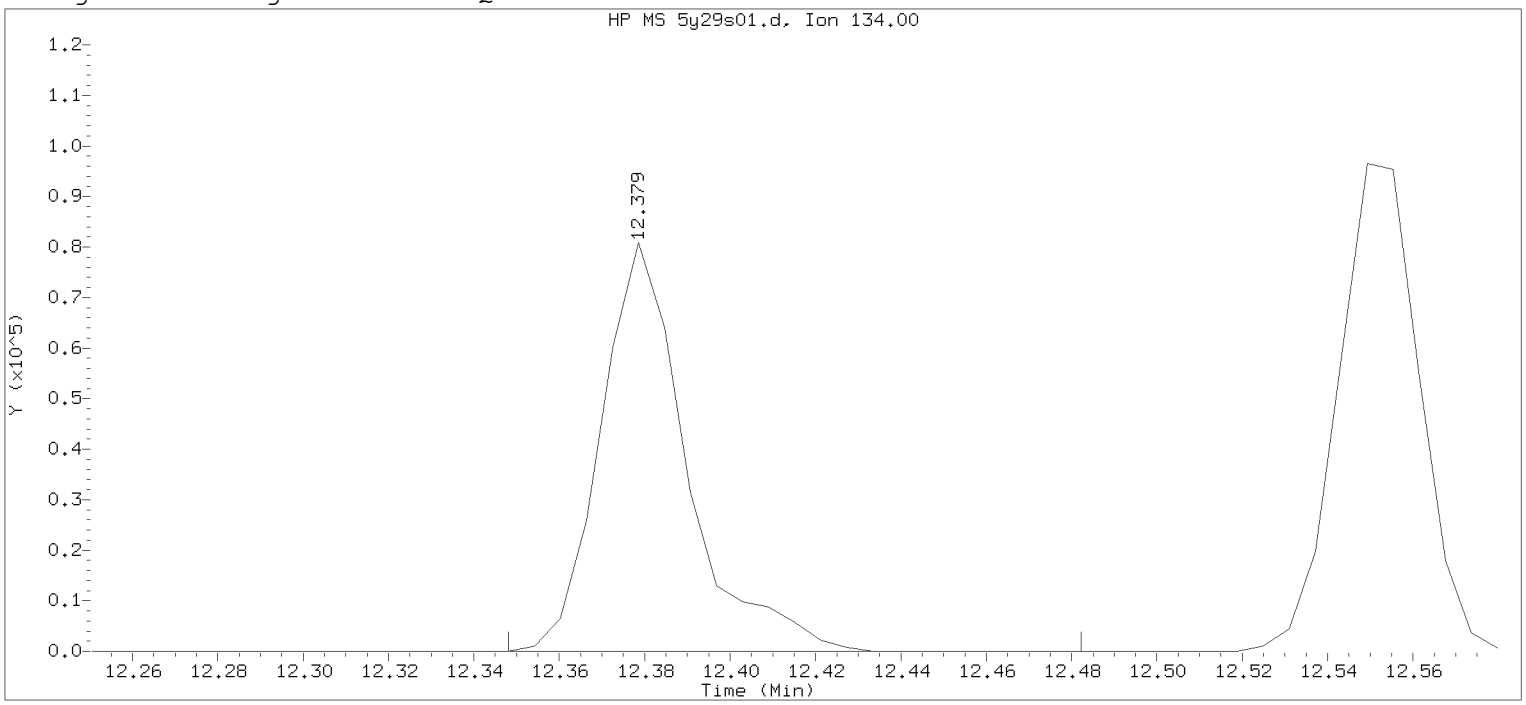
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 05/29/2020 at 11:54.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/31/2020 at 12:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem2/HP26285.i/20may29a.b/5y29s01.d Instrument ID: HP26285.i
Injection date and time: 29-MAY-2020 10:52 Analyst ID: CLM27445

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Calibration date and time: 29-MAY-2020 10:41
Date, time and analyst ID of latest file update: 29-May-2020 11:10 chemist

Sample Name: LCS578 Lab Sample ID: LCS578

Compound Number : 125
Compound Name : tert-Butylbenzene
Scan Number : 1803
Retention Time (minutes): 12.379
Quant Ion : 134.00
Area : 113451
On-column Amount (ng) : 19.9633
Integration start scan : 1797 Integration stop scan: 1819
Y at integration start : 0 Y at integration end: 0

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Target 3.5 esignature user: CLM27445

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NYSDEC ASP Category B Data Package

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Project: AD-New Windsor, NY
Groundwater and Water Samples
Collected on 05/26/20

SDG# JCW62-V.2

GROUP	SAMPLE NUMBERS
2100720	1320950-1320958

PA Cert. # 36-00037
NY Cert. # 10670
NJ Cert. # PA011
NC Cert. # 521
TX Cert. # T104704194-20-35
AZ Cert. # AZ0780

Through our technical processes and second person review of data, we have established that our data/deliverables are in compliance with the methods and project requirements unless otherwise noted or previously resolved with the client.

Authorized by: Dana M Kauffman **Date:** **07/02/2020**

Dana M. Kauffman
Manager

Any questions or concerns you might have regarding this data package should be directed to your client representative, Katherine Klinefelter at (717) 556-7256.

2425 New Holland Pike, Lancaster, PA 17601 | 717-656-2300 | Fax: 717-656-2681 | www.LancasterLabs.com

Table of Contents for SDG# JCW62

1. Sample Reference List 3
2. Preservation Data 4
3. Methodology Summary/Reference 5
4. Analysis Reports / Field Chain of Custody 6
5. Volatiles by GC/MS Data 24
   a. Case Narrative/Conformance Summary 25
   b. Quality Control and Calibration Summary Forms 30
   c. Sample Data 55
   d. Standards Data 152
   e. Raw QC Data 307

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Sample Reference List for SDG Number JCW62
with a Data Package Type of NYSDEC B

06556 - VHB

Project: AD-New Windsor, NY

Lab Sample Number	Client Sample ID	Collection Date	Date Received	Lab Sample Code
1320950	Diff-Dup	05/26/2020 15:30	05/27/2020 10:52	62J01
1320951	Diff-01	05/26/2020 15:00	05/27/2020 10:52	62J02
1320952	Diff-02	05/26/2020 14:50	05/27/2020 10:52	62J03
1320953	Diff-03	05/26/2020 14:40	05/27/2020 10:52	62J04
1320954	Diff-04	05/26/2020 14:30	05/27/2020 10:52	62J05
1320955	Diff-05	05/26/2020 14:20	05/27/2020 10:52	62J06
1320956	Diff-06	05/26/2020 14:10	05/27/2020 10:52	62J07
1320957	Diff-07	05/26/2020 14:00	05/27/2020 10:52	62J08
1320958	TB052620	05/26/2020 00:00	05/27/2020 10:52	62J09

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Sample pH Log

SDG: JCW62

LLI Sample Number	Bottle Code	Actual pH	Exp. pH	*pH Check Code	Adj. pH	Adjusted Date	Adjusted Time	Preservative Added	Preservative Lot #	LLI Supplied Bottle?	Sulfide Present?	Corrective Substance	CS Lot #	**Chlorine Present?	Corrective Substance	CS Lot #	Record Date	Employee
1320950	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320951	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320952	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320953	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320954	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320955	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320956	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320957	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445
1320958	038A	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/5/2020 5:13:33PM	1027
1320958	038C	<2	<2	NA	NA	NA	NA	NA	NA	Y	NA	NA	NA	N	NA	NA	6/3/2020 12:42:16PM	27445

*pH Check Code Key
PK = Original container checked - pH is within the correct range. (No preservative was added)
PA = Original container checked - pH adjusted to correct range. (Preservative was added)
PV = Volatile container checked
PC = pH checked (unpreserved container)
SPK = Subsampled from an original container. Original container checked - pH is within correct range
SPA = Subsampled from an original container. Subsample container checked - pH adjusted to correct range.
SPC = Subsampled from an original container. pH checked (unpreserved container).
SUP = Subsampled from original container. Unable to be preserved due to the matrix of the sample.
UP = Unable to preserve due to matrix of the sample.
NA = Not applicable

**Chlorine Present Code Key
NA = Chlorine Not Checked
Y = Chlorine Present
N = Chlorine Not Present

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 · 717-656-2300 Fax: 717-656-2681 · www.lancasterlabs.com

01163 GC/MS VOA Water Prep

An undiluted aliquot of the water sample or a dilution of the sample is purged with an inert gas and the volatiles are collected on an adsorbent trap that is subsequently desorbed onto a gas chromatographic column.

Reference: Test Methods for Evaluating Solid Wastes, SW-846 Method 5030C, May 2003.

11997 VOCs- 5ml Water by 8260C/D

The water sample is purged and the volatile compounds are collected on a sorbent trap that is subsequently desorbed onto the GC/MS system for chromatographic and mass spectral analysis.

Reference: Volatile Organic Compounds by Gas Chromatography/ Mass Spectrometry (GC/MS), SW-846 Method 8260C, August 2006.

Analysis Reports / Field Chain of Custody

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ANALYSIS REPORT

Prepared by:

Eurofins Lancaster Laboratories Environmental
2425 New Holland Pike
Lancaster, PA 17601

Prepared for:

VHB
Suite 600
100 State Street
Montpelier VT 05602

Report Date: June 06, 2020 20:47

Project: AD-New Windsor, NY

Account #: 06556
Group Number: 2100720
SDG: JCW62
PO Number: 1-0145-05
Release Number: 58300.00
State of Sample Origin: NY

Electronic Copy To	VHB	Attn: Tristan Hardy
Electronic Copy To	VHB	Attn: George Lester
Electronic Copy To	VHB	Attn: Nicole Saitta
Electronic Copy To	New Environment Horizons	Attn: Nancy Rothman
Electronic Copy To	VHB	Attn: Quinn Ledak
Electronic Copy To	New Environment Horizons	Attn: Susan Chapnick

Respectfully Submitted,

Katherine A. Klinefelter

Katherine A. Klinefelter
Principal Specialist

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To view our laboratory's current scopes of accreditation please go to https://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/certifications-and-accreditations-eurofins-lancaster-laboratories-environmental/ . Historical copies may be requested through your project manager.



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SAMPLE INFORMATION

Client Sample Description	Sample Collection Date/Time	ELLE#
Diff-Dup Grab Groundwater	05/26/2020 15:30	1320950
Diff-01 Grab Groundwater	05/26/2020 15:00	1320951
Diff-02 Grab Groundwater	05/26/2020 14:50	1320952
Diff-03 Grab Groundwater	05/26/2020 14:40	1320953
Diff-04 Grab Groundwater	05/26/2020 14:30	1320954
Diff-05 Grab Groundwater	05/26/2020 14:20	1320955
Diff-06 Grab Groundwater	05/26/2020 14:10	1320956
Diff-07 Grab Groundwater	05/26/2020 14:00	1320957
TB052620 Water	05/26/2020	1320958

The specific methodologies used in obtaining the enclosed analytical results are indicated on the Laboratory Sample Analysis Record.

Sample Description: **Diff-Dup Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 15:30
SDG#: JCW62-01FD

VHB
ELLE Sample #: GW 1320950
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.7 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.4 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.2 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 02:32	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 02:31	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-01 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 15:00
SDG#: JCW62-02

VHB
ELLE Sample #: GW 1320951
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.7 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.5 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.3 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 02:54	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 02:53	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-02 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:50
SDG#: JCW62-03

VHB
ELLE Sample #: GW 1320952
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	0.8 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	1	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	0.4 J	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	1	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	2	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	5	0.3	1	1
11997	Trichloroethene	79-01-6	15	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 03:16	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 03:15	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-03 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:40
SDG#: JCW62-04

VHB
ELLE Sample #: GW 1320953
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.3 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 03:38	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 03:37	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-04 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:30
SDG#: JCW62-05

VHB
ELLE Sample #: GW 1320954
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	6 J	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	2	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	0.5 J	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	0.6 J	0.3	1	1
11997	Trichloroethene	79-01-6	0.2 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 04:00	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 03:59	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-05 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:20
SDG#: JCW62-06

VHB
ELLE Sample #: GW 1320955
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.6 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	0.3 J	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 04:22	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 04:21	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-06 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:10
SDG#: JCW62-07

VHB
ELLE Sample #: GW 1320956
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	0.3 J	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.4 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	3	0.3	1	1
11997	Trichloroethene	79-01-6	1	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 04:44	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 04:43	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **Diff-07 Grab Groundwater**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020 14:00
SDG#: JCW62-08

VHB
ELLE Sample #: GW 1320957
ELLE Group #: 2100720
Matrix: Groundwater

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	1 J	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	0.7 J	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	0.4 J	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/03/2020 05:06	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/03/2020 05:05	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Sample Description: **TB052620 Water**
New Windsor, NY

Project Name: **AD-New Windsor, NY**

Submittal Date/Time: 05/27/2020 10:52
Collection Date/Time: 05/26/2020
SDG#: JCW62-09TB

VHB
ELLE Sample #: GW 1320958
ELLE Group #: 2100720
Matrix: Water

CAT No.	Analysis Name	CAS Number	Result	Method Detection Limit*	Limit of Quantitation	Dilution Factor
GC/MS Volatiles	**SW-846 8260C**		**ug/l**	**ug/l**	**ug/l**	
11997	Acetone	67-64-1	N.D.	0.7	20	1
11997	Benzene	71-43-2	N.D.	0.2	1	1
11997	2-Butanone	78-93-3	N.D.	0.3	10	1
11997	Carbon Disulfide	75-15-0	N.D.	0.2	5	1
11997	Chloroform	67-66-3	N.D.	0.2	1	1
11997	1,2-Dichlorobenzene	95-50-1	N.D.	0.2	5	1
11997	1,1-Dichloroethane	75-34-3	N.D.	0.2	1	1
11997	1,2-Dichloroethane	107-06-2	N.D.	0.3	1	1
11997	1,1-Dichloroethene	75-35-4	N.D.	0.2	1	1
11997	cis-1,2-Dichloroethene	156-59-2	N.D.	0.2	1	1
11997	trans-1,2-Dichloroethene	156-60-5	N.D.	0.2	1	1
11997	1,4-Dioxane	123-91-1	N.D.	29	250	1
11997	Ethylbenzene	100-41-4	N.D.	0.4	1	1
11997	Freon 113	76-13-1	N.D.	0.2	10	1
11997	Methylene Chloride	75-09-2	N.D.	0.3	1	1
11997	Naphthalene	91-20-3	N.D.	1	5	1
11997	Tetrachloroethene	127-18-4	N.D.	0.2	1	1
11997	Toluene	108-88-3	N.D.	0.2	1	1
11997	1,1,1-Trichloroethane	71-55-6	N.D.	0.3	1	1
11997	Trichloroethene	79-01-6	N.D.	0.2	1	1
11997	Vinyl Chloride	75-01-4	N.D.	0.2	1	1
11997	Xylene (Total)	1330-20-7	N.D.	1	6	1

Sample Comments

State of New York Certification No. 10670

Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
11997	VOCs- 5ml Water by 8260C/D	SW-846 8260C	1	L201542AA	06/02/2020 23:14	Sara E Johnson	1
01163	GC/MS VOA Water Prep	SW-846 5030C	1	L201542AA	06/02/2020 23:13	Sara E Johnson	1

*=This limit was used in the evaluation of the final result

Quality Control Summary

Client Name: VHB
Reported: 06/06/2020 20:47

Group Number: 2100720

Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD was performed, unless otherwise specified in the method.

All Inorganic Initial Calibration and Continuing Calibration Blanks met acceptable method criteria unless otherwise noted on the Analysis Report.

Method Blank

Analysis Name	Result	MDL**	LOQ
	ug/l	ug/l	ug/l
Batch number: L201542AA	Sample number(s): 1320950-1320958		
Acetone	N.D.	0.7	20
Benzene	N.D.	0.2	1
2-Butanone	N.D.	0.3	10
Carbon Disulfide	N.D.	0.2	5
Chloroform	N.D.	0.2	1
1,2-Dichlorobenzene	N.D.	0.2	5
1,1-Dichloroethane	N.D.	0.2	1
1,2-Dichloroethane	N.D.	0.3	1
1,1-Dichloroethene	N.D.	0.2	1
cis-1,2-Dichloroethene	N.D.	0.2	1
trans-1,2-Dichloroethene	N.D.	0.2	1
1,4-Dioxane	N.D.	29	250
Ethylbenzene	N.D.	0.4	1
Freon 113	N.D.	0.2	10
Methylene Chloride	N.D.	0.3	1
Naphthalene	N.D.	1	5
Tetrachloroethene	N.D.	0.2	1
Toluene	N.D.	0.2	1
1,1,1-Trichloroethane	N.D.	0.3	1
Trichloroethene	N.D.	0.2	1
Vinyl Chloride	N.D.	0.2	1
Xylene (Total)	N.D.	1	6

LCS/LCSD

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: L201542AA	Sample number(s): 1320950-1320958								
Acetone	150	156.5			104		54-157		
Benzene	20	20.16			101		80-120		
2-Butanone	150	157.64			105		59-135		
Carbon Disulfide	20	19.82			99		65-128		
Chloroform	20	20.06			100		80-120		
1,2-Dichlorobenzene	20	20.87			104		80-120		
1,1-Dichloroethane	20	20.26			101		80-120		

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: VHB
Reported: 06/06/2020 20:47

Group Number: 2100720

LCS/LCSD (continued)

Analysis Name	LCS Spike Added ug/l	LCS Conc ug/l	LCSD Spike Added ug/l	LCSD Conc ug/l	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,2-Dichloroethane	20	20.59			103		73-124		
1,1-Dichloroethene	20	18.56			93		80-131		
cis-1,2-Dichloroethene	20	20.49			102		80-125		
trans-1,2-Dichloroethene	20	19.39			97		80-126		
1,4-Dioxane	500	582.48			116		63-146		
Ethylbenzene	20	20.37			102		80-120		
Freon 113	20	17.59			88		73-139		
Methylene Chloride	20	20.11			101		80-120		
Naphthalene	20	18.78			94		53-124		
Tetrachloroethene	20	19.58			98		80-120		
Toluene	20	20.15			101		80-120		
1,1,1-Trichloroethane	20	19.06			95		67-126		
Trichloroethene	20	19.33			97		80-120		
Vinyl Chloride	20	19.32			97		56-120		
Xylene (Total)	60	61.72			103		80-120		

Surrogate Quality Control

Surrogate recoveries which are outside of the QC window are confirmed unless attributed to dilution or otherwise noted on the Analysis Report.

Analysis Name: VOCs- 5ml Water by 8260C/D
Batch number: L201542AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
1320950	102	103	100	94
1320951	103	106	99	94
1320952	102	102	101	94
1320953	102	105	100	93
1320954	103	105	100	93
1320955	104	104	99	93
1320956	104	104	100	93
1320957	104	104	100	94
1320958	103	105	100	93
Blank	103	104	101	93
LCS	98	102	103	102
Limits:	80-120	80-120	80-120	80-120

*- Outside of specification
**-This limit was used in the evaluation of the final result for the blank
(1) The result for one or both determinations was less than five times the LOQ.
(2) The unspiked result was more than four times the spike added.

Environmental Analysis Request/Chain of Custody

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For Eurofins Lancaster Laboratories Environmental use only

Acct. # 06556 Group # 2100720 Sample # 1320950-58

COC # 596354

Client Information

Client: VHB	Acct. #: 06556
Project Name/#: AD-New Windsor / 58300	PWSID #:
Project Manager: George Lester	P.O. #:
Sampler: Adam Rodzy	Quote #:

State where samples were collected: NY

For Compliance: Yes ☐ No ☒

Matrix: Soil ☐ Sediment ☐ Tissue ☐ | Water: Potable ☐ Ground ☒ NPDES ☐ Surface ☐ | Other: ____

Analysis Requested — Preservation and Filtration Codes: H

For Lab Use Only

FSC: ____

SCR#: ____

Preservation Codes

H=HCl T=Thiosulfate
N=HNO_3 B=NaOH
S=H_2SO_4 P=H_3PO_4
F=Field Filtered O=Other

Sample Identification	Collected Date	Collected Time	Grab	Composite	Total # of Containers	8260 - VOCs	Remarks
Diff-Dup	5/26/20	1530	X		3	X	
Diff-01		1500	X		3	X	
Diff-02		1450	X		3	X	
Diff-03		1440	X		3	X	
Diff-04		1430	X		3	X	
Diff-05		1420	X		3	X	
Diff-06		1410	X		3	X	
Diff-07	↓	1400	X		3	X	
TB052620	—	—	—		2	X	TRIP BLANK

Turnaround Time (TAT) Requested (please circle)

Standard Rush

(Rush TAT is subject to laboratory approval and surcharge.)

Requested TAT in business days: ____

E-mail address: Glester@vhb.com

Data Package Options (circle if required)

Type I (EPA Level 3 Equivalent/non-CLP) Type VI (Raw Data Only)

Type III (Reduced non-CLP) NJ DKQP TX TRRP-13

NYSDEC Category A or B MA MCP CT RCP

Relinquished by	Date	Time	Received by	Date	Time
	5/26/20	1530			
			Chi Wed	5/27/20	10:52

EDD Required? Yes No

If yes, format: Excel

Site-Specific QC (MS/MSD/Dup)? Yes No

(If yes, indicate QC sample and submit triplicate sample volume.)

Relinquished by Commercial Carrier: UPS ____ FedEx ____ Other ____

Temperature upon receipt 1.2 °C

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Sample Administration Receipt Documentation Log

Doc Log ID: 285501

Group Number(s): 2100720

Client: VHB

Delivery and Receipt Information

Delivery Method:	Fed Ex	Arrival Date:	05/27/2020
Number of Packages:	1	Number of Projects:	1
State/Province of Origin:	New Jersey		

Arrival Condition Summary

Shipping Container Sealed:	Yes	Sample IDs on COC match Containers:	Yes
Custody Seal Present:	Yes	Sample Date/Times match COC:	Yes
Custody Seal Intact:	Yes	Total Trip Blank Qty:	2
Samples Chilled:	Yes	Trip Blank Type:	HCl
Paperwork Enclosed:	Yes	Air Quality Samples Present:	No
Samples Intact:	Yes		
Missing Samples:	No		
Extra Samples:	No		
Discrepancy in Container Qty on COC:	No		

Unpacked by Julissa Rivera-Santa

Samples Chilled Details

Thermometer Types: DT = Digital (Temp. Bottle) IR = Infrared (Surface Temp) All Temperatures in °C.

Cooler #	Thermometer ID	Corrected Temp	Therm. Type	Ice Type	Ice Present?	Ice Container	Elevated Temp?
1	46730060WS	1.2	IR	Wet	Y	Bagged	N

2425 New Holland Pike
Lancaster, PA 17601-2425
T | 717-656-2300
F | 717-656-2681
www.LancasterLabs.com

Explanation of Symbols and Abbreviations

The following defines common symbols and abbreviations used in reporting technical data:

BMQL	Below Minimum Quantitation Level	**mL**	milliliter(s)
C	degrees Celsius	**MPN**	Most Probable Number
cfu	colony forming units	**N.D.**	non-detect
CP Units	cobalt-chloroplatinate units	**ng**	nanogram(s)
F	degrees Fahrenheit	**NTU**	nephelometric turbidity units
g	gram(s)	**pg/L**	picogram/liter
IU	International Units	**RL**	Reporting Limit
kg	kilogram(s)	**TNTC**	Too Numerous To Count
L	liter(s)	**µg**	microgram(s)
lb.	pound(s)	**µL**	microliter(s)
m3	cubic meter(s)	**umhos/cm**	micromhos/cm
meq	milliequivalents	**MCL**	Maximum Contamination Limit
mg	milligram(s)		

<	less than
>	greater than
ppm	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg) or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter per liter of gas.
ppb	parts per billion
Dry weight basis	Results printed under this heading have been adjusted for moisture content. This increases the analyte weight concentration to approximate the value present in a similar sample without moisture. All other results are reported on an as-received basis.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Measurement uncertainty values, as applicable, are available upon request.

Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff.

This report shall not be reproduced except in full, without the written approval of the laboratory.

Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as “analyze immediately” are not performed within 15 minutes.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. THE FOREGOING EXPRESS WARRANTY IS EXCLUSIVE AND IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. WE DISCLAIM ANY OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING A WARRANTY OF FITNESS FOR PARTICULAR PURPOSE AND WARRANTY OF MERCHANTABILITY. IN NO EVENT SHALL EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL, LLC BE LIABLE FOR INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF PROFIT OR GOODWILL REGARDLESS OF (A) THE NEGLIGENCE (EITHER SOLE OR CONCURRENT) OF EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL AND (B) WHETHER EUROFINS LANCASTER LABORATORIES ENVIRONMENTAL HAS BEEN INFORMED OF THE POSSIBILITY OF SUCH DAMAGES. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Data Qualifiers

Qualifier	Definition
C	Result confirmed by reanalysis
D1	Indicates for dual column analyses that the result is reported from column 1
D2	Indicates for dual column analyses that the result is reported from column 2
E	Concentration exceeds the calibration range
K1	Initial Calibration Blank is above the QC limit and the sample result is less than the LOQ
K2	Continuing Calibration Blank is above the QC limit and the sample result is less than the LOQ
K3	Initial Calibration Verification is above the QC limit and the sample result is less than the LOQ
K4	Continuing Calibration Verification is above the QC limit and the sample result is less than the LOQ
J (or G, I, X)	Estimated value >= the Method Detection Limit (MDL or DL) and < the Limit of Quantitation (LOQ or RL)
P	Concentration difference between the primary and confirmation column >40%. The lower result is reported.
P^	Concentration difference between the primary and confirmation column > 40%. The higher result is reported.
U	Analyte was not detected at the value indicated
V	Concentration difference between the primary and confirmation column >100%. The reporting limit is raised due to this disparity and evident interference.
W	The dissolved oxygen uptake for the unseeded blank is greater than 0.20 mg/L.
Z	Laboratory Defined - see analysis report

Additional Organic and Inorganic CLP qualifiers may be used with Form 1 reports as defined by the CLP methods.
Qualifiers specific to Dioxin/Furans and PCB Congeners are detailed on the individual Analysis Report.

Volatiles by GC/MS Data

Case Narrative/Conformance Summary

Volatiles by GC/MS

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW62

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Sample #	Client ID	Matrix Liquid	Solid	DF	Comments
1320950	Diff-Dup	X		1	Field Duplicate Sample
1320951	Diff-01	X		1	
1320952	Diff-02	X		1	
1320953	Diff-03	X		1	
1320954	Diff-04	X		1	
1320955	Diff-05	X		1	
1320956	Diff-06	X		1	
1320957	Diff-07	X		1	
1320958	TB052620	X		1	Trip Blank

See QC Reference List for Associated Batch QC Samples

SAMPLE RECEIPT:

Samples were received in good condition and within temperature requirements.

HOLDING TIME:

All holding times were met.

PREPARATION/EXTRACTION/DIGESTION:

No problems were encountered.

CALIBRATION/STANDARDIZATION:

All criteria were met.

QUALITY CONTROL AND NONCONFORMANCE SUMMARY:

MS/MSD

Matrix QC may not be included if site-specific QC were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, laboratory spike data (LCS) are provided.

SAMPLE ANALYSIS:

No problems were encountered with the analysis of the samples.

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Case Narrative/Conformance Summary

CLIENT: VHB
SDG: JCW62

GC/MS Volatiles

Fraction: Volatiles by GC/MS

Abbreviation Key

UNSPK = Unspiked (for MS/MSD)	LOQ = Limit of Quantitation
+MS = Matrix Spike	MDL = Method Detection Limit
MSD = Matrix Spike Duplicate	ND = Not Detected
BKG = Background (for Duplicate)	J = Estimated Value
D = Duplicate (DUP)	E= out of calibration range
LCS = Lab Control Sample	RE = Repreparation/Reanalysis
LCSD = Lab Control Sample Duplicate	* = Out of Specification

1. Relative Response Factor (RRF)

$$RRF = \frac{AX}{Ais} \times \frac{Cis}{Cx}$$

Where:

Ax = Area of the characteristic ion for the compound to be measured
Ais = Area of the characteristic ion for the specific internal standard to be measured
Cis = Concentration of the internal standard
Cx = Concentration of the compound to be measured

2. % Relative Standard Deviation (%RSD)

$$\%RSD = \frac{standard\ deviation}{Mean} \times 100$$

3. % Difference

$$\%D = \frac{RRFc - RRFi}{RRFi} \times 100$$

Where:

RRFc = Relative response factor from the continuing calibration standard
RRFi = Mean relative response factor from the initial calibration

4. Concentration

$$Concentration\ (\mu g / L) = \frac{(Ax)(Is)(Df)}{(Ais)(RRF)}$$

Where:

Ax, Ais, and RRF are as given in 1. above
Is = Amount of internal standard added in parts per billion (µg/L)
Df = Dilution factor

5. % Recovery (% Rec)

$$\%Rec = \frac{SSR - SR}{SA} \times 100$$

Where:

SSR = Spiked sample result
SR = Sample result
SA = Spike added

6. Relative Percent Difference (RPD)

$$RPD = \frac{(MSR - MSRD)}{(1/2)(MSR + MSRD)} \times 100$$

Where:

MSR = Matrix spike recovery
MSRD = Matrix spike recovery duplicate

Quality Control and Calibration Summary Forms

Volatiles by GC/MS

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Quality Control Reference List
GC/MS Volatiles

CLIENT: VHB
SDG: JCW62

Fraction: Volatiles by GC/MS

Analysis	Batch Number	Sample Number	Analysis Date
VOCs- 5ml Water by 8260C/D	L201542AA	VBLKL17	06/02/2020 21:27
		LCSL17	06/02/2020 21:49
		1320950	06/03/2020 02:32
		1320951	06/03/2020 02:54
		1320952	06/03/2020 03:16
		1320953	06/03/2020 03:38
		1320954	06/03/2020 04:00
		1320955	06/03/2020 04:22
		1320956	06/03/2020 04:44
		1320957	06/03/2020 05:06
		1320958	06/02/2020 23:14

Quality Control Summary
Method Blank
GC/MS Volatiles
SDG: JCW62
Matrix: LIQUID

Fraction: Volatiles by GC/MS

L201542AA / VBLKL17 Analyte	Analysis Date	Blank Results	Units	MDL	LOQ
Vinyl Chloride	06/02/20	N.D.	ug/l	0.2	1
1,1-Dichloroethene	06/02/20	N.D.	ug/l	0.2	1
Acetone	06/02/20	N.D.	ug/l	0.7	20
Freon 113	06/02/20	N.D.	ug/l	0.2	10
Carbon Disulfide	06/02/20	N.D.	ug/l	0.2	5
Methylene Chloride	06/02/20	N.D.	ug/l	0.3	1
trans-1,2-Dichloroethene	06/02/20	N.D.	ug/l	0.2	1
1,1-Dichloroethane	06/02/20	N.D.	ug/l	0.2	1
2-Butanone	06/02/20	N.D.	ug/l	0.3	10
cis-1,2-Dichloroethene	06/02/20	N.D.	ug/l	0.2	1
Chloroform	06/02/20	N.D.	ug/l	0.2	1
1,1,1-Trichloroethane	06/02/20	N.D.	ug/l	0.3	1
Benzene	06/02/20	N.D.	ug/l	0.2	1
1,2-Dichloroethane	06/02/20	N.D.	ug/l	0.3	1
Trichloroethene	06/02/20	N.D.	ug/l	0.2	1
1,4-Dioxane	06/02/20	N.D.	ug/l	29	250
Toluene	06/02/20	N.D.	ug/l	0.2	1
Tetrachloroethene	06/02/20	N.D.	ug/l	0.2	1
Ethylbenzene	06/02/20	N.D.	ug/l	0.4	1
Xylene (Total)	06/02/20	N.D.	ug/l	1	6
1,2-Dichlorobenzene	06/02/20	N.D.	ug/l	0.2	5
Naphthalene	06/02/20	N.D.	ug/l	1	5

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Quality Control Summary
Surrogates
GC/MS Volatiles
SDG: JCW62
Matrix: LIQUID

Fraction: Volatiles by GC/MS

L201542AA	1,2-Dichloroethane-d4		4-Bromofluorobenzene		Dibromofluoromethane		Toluene-d8	
	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l	Spike Added	50 ug/l
Sample	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits	% Recovery	Limits
VBLKL17	104	80 - 120	93	80 - 120	103	80 - 120	101	80 - 120
LCSL17	102	80 - 120	102	80 - 120	98	80 - 120	103	80 - 120
1320950	103	80 - 120	94	80 - 120	102	80 - 120	100	80 - 120
1320951	106	80 - 120	94	80 - 120	103	80 - 120	99	80 - 120
1320952	102	80 - 120	94	80 - 120	102	80 - 120	101	80 - 120
1320953	105	80 - 120	93	80 - 120	102	80 - 120	100	80 - 120
1320954	105	80 - 120	93	80 - 120	103	80 - 120	100	80 - 120
1320955	104	80 - 120	93	80 - 120	104	80 - 120	99	80 - 120
1320956	104	80 - 120	93	80 - 120	104	80 - 120	100	80 - 120
1320957	104	80 - 120	94	80 - 120	104	80 - 120	100	80 - 120
1320958	105	80 - 120	93	80 - 120	103	80 - 120	100	80 - 120

Quality Control Summary
Laboratory Control Standard (LCS)
Laboratory Control Standard Duplicate(LCSD)

SDG: JCW62
Matrix: LIQUID

GC/MS Volatiles

Fraction: Volatiles by GC/MS

LCS: LCSL17	Batch: **L201542AA** (Sample number(s): 1320950-1320958)							
Analyte	**Spike Added ug/l**	**LCS Conc ug/l**	**LCSD Conc ug/l**	**LCS %Rec**	**LCSD %Rec**	**%Rec Limits**	**%RPD**	**%RPD Limits**
Vinyl Chloride	20	19.32	NA	97	NA	56-120	NA	NA
1,1-Dichloroethene	20	18.56	NA	93	NA	80-131	NA	NA
Acetone	150	156.5	NA	104	NA	54-157	NA	NA
Freon 113	20	17.59	NA	88	NA	73-139	NA	NA
Carbon Disulfide	20	19.82	NA	99	NA	65-128	NA	NA
Methylene Chloride	20	20.11	NA	101	NA	80-120	NA	NA
trans-1,2-Dichloroethene	20	19.39	NA	97	NA	80-126	NA	NA
1,1-Dichloroethane	20	20.26	NA	101	NA	80-120	NA	NA
2-Butanone	150	157.64	NA	105	NA	59-135	NA	NA
cis-1,2-Dichloroethene	20	20.49	NA	102	NA	80-125	NA	NA
1,1,1-Trichloroethane	20	19.06	NA	95	NA	67-126	NA	NA
Chloroform	20	20.06	NA	100	NA	80-120	NA	NA
1,2-Dichloroethane	20	20.59	NA	103	NA	73-124	NA	NA
Benzene	20	20.16	NA	101	NA	80-120	NA	NA
Trichloroethene	20	19.33	NA	97	NA	80-120	NA	NA
1,4-Dioxane	500	582.48	NA	116	NA	63-146	NA	NA
Toluene	20	20.15	NA	101	NA	80-120	NA	NA
Tetrachloroethene	20	19.58	NA	98	NA	80-120	NA	NA
Ethylbenzene	20	20.37	NA	102	NA	80-120	NA	NA
Xylene (Total)	60	61.72	NA	103	NA	80-120	NA	NA
1,2-Dichlorobenzene	20	20.87	NA	104	NA	80-120	NA	NA
Naphthalene	20	18.78	NA	94	NA	53-124	NA	NA

Fraction: Volatiles by GC/MS

11997: VOCs- 5ml Water by 8260C/D Analyte Name	Default MDL	Default LOQ	Units
Vinyl Chloride	0.2	1	ug/l
1,1-Dichloroethene	0.2	1	ug/l
Acetone	0.7	20	ug/l
Freon 113	0.2	10	ug/l
Carbon Disulfide	0.2	5	ug/l
Methylene Chloride	0.3	1	ug/l
trans-1,2-Dichloroethene	0.2	1	ug/l
1,1-Dichloroethane	0.2	1	ug/l
2-Butanone	0.3	10	ug/l
cis-1,2-Dichloroethene	0.2	1	ug/l
Chloroform	0.2	1	ug/l
1,1,1-Trichloroethane	0.3	1	ug/l
Benzene	0.2	1	ug/l
1,2-Dichloroethane	0.3	1	ug/l
Trichloroethene	0.2	1	ug/l
1,4-Dioxane	29	250	ug/l
Toluene	0.2	1	ug/l
Tetrachloroethene	0.2	1	ug/l
Ethylbenzene	0.4	1	ug/l
Xylene (Total)	1	6	ug/l
1,2-Dichlorobenzene	0.2	5	ug/l
Naphthalene	1	5	ug/l

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: ly04t02.d BFB Injection Date: 05/04/20

Instrument ID: HP09915 BFB Injection Time: 11:11

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.11
75	30.0 - 60.0% of mass 95	45.65
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.86
173	Less than 2.0% of mass 174	0.62 (0.72)1
174	Greater than 50.0% of mass 95	86.35
175	5.0 - 9.0% of mass 174	6.12 (7.09)1
176	Greater than 95.0%, but less than 101.0% of mass 174	83.51 (96.71)1
177	5.0 - 9.0% of mass 176	5.61 (6.72)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD300	ly04i01.d	05/04/20	12:18
02	VSTD100	ly04i02.d	05/04/20	12:40
03	VSTD50	ly04i03.d	05/04/20	13:02
04	VSTD20	ly04i04.d	05/04/20	13:24
05	VSTD10	ly04i05.d	05/04/20	13:46
06	VSTD4	ly04i06.d	05/04/20	14:08
07	VSTD1	ly04i07.d	05/04/20	14:30
08	ICVLLG	ly04v01.d	05/04/20	14:52

FORM V VOA

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5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: lu02t06.d BFB Injection Date: 06/02/20

Instrument ID: HP09915 BFB Injection Time: 20:09

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.81
75	30.0 - 60.0% of mass 95	46.08
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.96
173	Less than 2.0% of mass 174	0.72 (0.86)1
174	Greater than 50.0% of mass 95	83.16
175	5.0 - 9.0% of mass 174	5.63 (6.77)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.26 (96.52)1
177	5.0 - 9.0% of mass 176	5.39 (6.71)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD50	lu02c41.d	06/02/20	20:43
02	VBLKL17	lu02b41.d	06/02/20	21:27
03	LCSL17	lu02s41.d	06/02/20	21:49
04	1321063	lu02s42.d	06/02/20	22:30
05	1321065	lu02s43.d	06/02/20	22:52
06	1320958	lu02s44.d	06/02/20	23:14
07	1321018	lu02s45.d	06/02/20	23:36
08	1321307	lu02s46.d	06/02/20	23:58
09	1320620	lu02s47.d	06/03/20	00:20
10	1320621	lu02s48.d	06/03/20	00:42
11	1320622	lu02s49.d	06/03/20	01:04
12	1320622MS	lu02s50.d	06/03/20	01:26
13	1320622MSD	lu02s51.d	06/03/20	01:48
14	1320950	lu02s52.d	06/03/20	02:32
15	1320951	lu02s53.d	06/03/20	02:54
16	1320952	lu02s54.d	06/03/20	03:16
17	1320953	lu02s55.d	06/03/20	03:38
18	1320954	lu02s56.d	06/03/20	04:00
19	1320955	lu02s57.d	06/03/20	04:22
20	1320956	lu02s58.d	06/03/20	04:44
21	1320957	lu02s59.d	06/03/20	05:06
22	1321016	lu02s60.d	06/03/20	05:28

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID: lu02t06.d BFB Injection Date: 06/02/20

Instrument ID: HP09915 BFB Injection Time: 20:09

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15.0 - 40.0% of mass 95	16.81
75	30.0 - 60.0% of mass 95	46.08
95	Base peak, 100% relative abundance	100.00
96	5.0 - 9.0% of mass 95	6.96
173	Less than 2.0% of mass 174	0.72 (0.86)1
174	Greater than 50.0% of mass 95	83.16
175	5.0 - 9.0% of mass 174	5.63 (6.77)1
176	Greater than 95.0%, but less than 101.0% of mass 174	80.26 (96.52)1
177	5.0 - 9.0% of mass 176	5.39 (6.71)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
23	1321057	lu02s61.d	06/03/20	05:50
24	1321059	lu02s62.d	06/03/20	06:12
25	1321061	lu02s63.d	06/03/20	06:34

FORM V VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD	
Dichlorodifluoromethane	#0.3072	0.3749	0.3447	0.3545	0.3366	0.3268	0.3554	0.3429	6	AVG	#
Chloromethane	#0.3484	0.3928	0.3004	0.3118	0.2810	0.3014	0.3050	0.3201	12	AVG	#
1,3-Butadiene	0.2177	0.2159	0.2035	0.1909	0.2017	0.1994	0.2084	0.2054	5	AVG	
Vinyl Chloride	#0.3345	0.3722	0.2898	0.3057	0.2850	0.2851	0.2901	0.3089	11	AVG	#
Bromomethane	#0.2618	0.2776	0.2081	0.2164	0.1931	0.1989	0.2031	0.2227	15	AVG	#
Chloroethane	#0.2082	0.2129	0.1636	0.1659	0.1543	0.1485	0.1539	0.1725	15	AVG	#
Dichlorofluoromethane	0.3912	0.4483	0.3730	0.3566	0.3471	0.3369	0.3514	0.3720	10	AVG	
n-Pentane	0.2913	0.3255	0.3315	0.2814	0.3331	0.3148	0.3399	0.3168	7	AVG	
Trichlorofluoromethane	#0.3223	0.3834	0.3290	0.3363	0.3305	0.3177	0.3426	0.3374	6	AVG	#
Ethyl ether	0.2085	0.2298	0.2403	0.2495	0.2468	0.2508	0.2432	0.2384	6	AVG	
Freon 123a	0.2397	0.2803	0.2761	0.2695	0.2834	0.2757	0.2886	0.2733	6	AVG	
Acrolein	1.9675	1.9584	2.3526	2.1490	1.9219	2.0204	2.0271	2.0567	7	AVG	
1,1-Dichloroethene	#0.2125	0.2244	0.2165	0.2075	0.2164	0.2106	0.2183	0.2152	3	AVG	#
1,1-Dichloroethene(2)	#0.0844	0.1075	0.1050	0.1016	0.1063	0.1046	0.1078	0.1025	8	AVG	#
Acetone	#1.1737	0.9368	0.9557	0.9252	0.8233	0.8652	0.8872	0.9381	12	AVG	#
Freon 113	#0.1875	0.2308	0.2325	0.2037	0.2359	0.2271	0.2451	0.2232	9	AVG	#
2-Propanol	0.6343	0.5939	0.5852	0.6111	0.5714	0.5851	0.6045	0.5979	3	AVG	
Methyl Iodide	0.3705	0.4177	0.4125	0.4203	0.4260	0.4199	0.4356	0.4147	5	AVG	
Carbon Disulfide	#0.6293	0.7190	0.7287	0.7248	0.7533	0.7429	0.7734	0.7245	6	AVG	#
Allyl Chloride	0.3126	0.3330	0.3401	0.3598	0.3560	0.3714	0.3682	0.3487	6	AVG	
Methyl Acetate	#0.2838	0.2818	0.2652	0.2744	0.2660	0.2745	0.2753	0.2744	3	AVG	#
Methylene Chloride	#0.2407	0.2611	0.2575	0.2576	0.2599	0.2554	0.2595	0.2560	3	AVG	#
t-Butyl alcohol	0.9840	1.0154	0.9988	1.0451	0.9821	1.0222	1.0175	1.0093	2	AVG	
Acrylonitrile	0.1469	0.1480	0.1588	0.1591	0.1521	0.1474	0.1518	0.1520	3	AVG	
trans-1,2-Dichloroethene	#0.2340	0.2526	0.2491	0.2486	0.2501	0.2467	0.2517	0.2475	3	AVG	#
Methyl Tertiary Butyl Ether	#0.6899	0.7176	0.7259	0.7729	0.7641	0.7564	0.7387	0.7379	4	AVG	#
n-Hexane	0.2488	0.2975	0.3616	0.3141	0.4006	0.3755	0.4285	0.3467	18	AVG	
1,1-Dichloroethane	#0.3917	0.4392	0.4377	0.4425	0.4471	0.4408	0.4399	0.4342	4	AVG	#
di-Isopropyl ether	0.6250	0.7167	0.7581	0.8043	0.8200	0.8181	0.8027	0.7635	9	AVG	
2-Chloro-1,3-butadiene	0.2504	0.3270	0.3433	0.3538	0.3803	0.3769	0.3919	0.3462	14	AVG	
Ethyl t-butyl ether	0.5831	0.6749	0.7049	0.7549	0.7669	0.7555	0.7257	0.7094	9	AVG	
cis-1,2-Dichloroethene	#0.2571	0.2721	0.2797	0.2848	0.2857	0.2816	0.2821	0.2776	4	AVG	#
2-Butanone	#0.1740	0.1778	0.1902	0.1929	0.1856	0.1830	0.1882	0.1845	4	AVG	#
2,2-Dichloropropane	0.2884	0.3383	0.3276	0.3395	0.3534	0.3473	0.3544	0.3355	7	AVG	
Propionitrile	1.2708	1.3533	1.3265	1.3974	1.3327	1.4224	1.4415	1.3635	4	AVG	
Methacrylonitrile	0.1325	0.1512	0.1492	0.1614	0.1576	0.1581	0.1568	0.1524	6	AVG	
Bromochloromethane	0.1268	0.1457	0.1435	0.1473	0.1449	0.1483	0.1461	0.1432	5	AVG	
Tetrahydrofuran	1.0939	1.2175	1.2309	1.2069	1.1339	1.2158	1.2522	1.1930	5	AVG	
Chloroform	#0.3949	0.4255	0.4186	0.4310	0.4353	0.4288	0.4350	0.4241	3	AVG	#
1,1,1-Trichloroethane	#0.3205	0.3731	0.3563	0.3608	0.3789	0.3703	0.3873	0.3639	6	AVG	#
Cyclohexane	#0.2724	0.3861	0.4199	0.3788	0.4671	0.4459	0.4812	0.4073	17	AVG	#
Cyclohexane(2)	#0.2623	0.3387	0.3613	0.3246	0.3996	0.3831	0.4193	0.3555	15	AVG	#
Cyclohexane(3)	#0.0911	0.1232	0.1295	0.1156	0.1414	0.1371	0.1483	0.1266	15	AVG	#
1,1-Dichloropropene	0.2663	0.3431	0.3356	0.3313	0.3539	0.3450	0.3597	0.3336	9	AVG	
Carbon Tetrachloride	#0.2381	0.3157	0.3037	0.2960	0.3275	0.3180	0.3351	0.3049	11	AVG	#
Isobutyl Alcohol	0.3260	0.3424	0.3330	0.3489	0.3302	0.3507	0.3655	0.3424	4	AVG	
Benzene	#0.9337	1.0554	1.0404	1.0552	1.0612	1.0432	1.0391	1.0326	4	AVG	#
1,2-Dichloroethane	#0.3641	0.3511	0.3344	0.3464	0.3428	0.3380	0.3462	0.3461	3	AVG	#
1,2-Dichloroethane(2)	#0.0281	0.0355	0.0337	0.0352	0.0346	0.0342	0.0349	0.0337	8	AVG	#<-
t-Amyl methyl ether	0.6250	0.6922	0.7120	0.7698	0.7825	0.7707	0.7211	0.7247	8	AVG	
n-Heptane	0.2919	0.2979	0.3961	0.3092	0.4230	0.3738	0.4314	0.3605	17	AVG	
n-Butanol	0.2186	0.2666	0.2596	0.2947	0.2827	0.3159	0.3160	0.2792	12	AVG	

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
Trichloroethene	#0.2314	0.2738	0.2568	0.2636	0.2685	0.2638	0.2713	0.2613	5	AVG #
Methylcyclohexane	#0.2885	0.3775	0.4342	0.4256	0.4691	0.4913	0.4880	0.4249	17	AVG #
Methylcyclohexane(2)	#0.1299	0.1713	0.1982	0.1902	0.2105	0.2220	0.2232	0.1922	17	AVG #
1,2-Dichloropropane	#0.2481	0.2664	0.2633	0.2760	0.2761	0.2709	0.2616	0.2661	4	AVG #
Dibromomethane	0.1562	0.1741	0.1704	0.1795	0.1796	0.1784	0.1799	0.1740	5	AVG
1,4-Dioxane	0.0712	0.0836	0.0835	0.0860	0.0869	0.0895	0.0867	0.0839	7	AVG
Methyl Methacrylate	0.1827	0.2123	0.2140	0.2362	0.2458	0.2529	0.2576	0.2288	12	AVG
Bromodichloromethane	#0.2641	0.2941	0.2982	0.3169	0.3295	0.3343	0.3465	0.3119	9	AVG #
2-Nitropropane	0.0743	0.0857	0.0951	0.0979	0.0980	0.0986	0.1052	0.0935	11	AVG
2-Chloroethyl Vinyl Ether	0.1183	0.1448	0.1627	0.1947	0.1994	0.2086	0.2116	0.1771	20	AVG
cis-1,3-Dichloropropene	#0.3089	0.3747	0.3951	0.4279	0.4420	0.4496	0.4555	0.4077	13	AVG #
4-Methyl-2-pentanone	#0.2810	0.3388	0.4261	0.4030	0.3910	0.3859	0.3899	0.3737	13	AVG #
Toluene	#0.7145	0.8626	0.8222	0.8465	0.8374	0.8251	0.8229	0.8187	6	AVG #
trans-1,3-Dichloropropene	#0.3772	0.4265	0.4447	0.4869	0.5027	0.5193	0.5309	0.4697	12	AVG #
Ethyl Methacrylate	0.3211	0.3977	0.4423	0.5102	0.5309	0.5517	0.5549	0.4727	19	AVG
1,1,2-Trichloroethane	#0.2982	0.3188	0.3085	0.3275	0.3213	0.3234	0.3261	0.3177	3	AVG #
Tetrachloroethene	#0.2723	0.3673	0.3559	0.3466	0.3684	0.3573	0.3745	0.3489	10	AVG #
1,3-Dichloropropane	0.4791	0.5230	0.5157	0.5502	0.5434	0.5534	0.5541	0.5313	5	AVG
2-Hexanone	#0.2485	0.3013	0.4213	0.3640	0.3525	0.3516	0.3639	0.3433	16	AVG #
Dibromochloromethane	#0.2440	0.3047	0.3124	0.3453	0.3551	0.3686	0.3831	0.3305	14	AVG #
1,2-Dibromoethane	#0.2855	0.3244	0.3336	0.3554	0.3560	0.3632	0.3719	0.3414	9	AVG #
1-Chlorohexane	0.3851	0.3832	0.4200	0.4024	0.4558	0.4290	0.4575	0.4190	7	AVG
Chlorobenzene	#0.8366	0.9889	0.9494	0.9763	0.9558	0.9470	0.9273	0.9402	5	AVG #
1,1,1,2-Tetrachloroethane	0.2628	0.3249	0.3142	0.3374	0.3359	0.3349	0.3210	0.3187	8	AVG
Ethylbenzene	#1.1980	1.5354	1.5535	1.5949	1.6192	1.5836	1.5237	1.5155	10	AVG #
m+p-Xylene	#0.4460	0.6043	0.6194	0.6385	0.6437	0.6277	0.5885	0.5954	12	AVG #
o-Xylene	#0.4117	0.5682	0.6009	0.6270	0.6275	0.6156	0.5799	0.5758	13	AVG #
Styrene	#0.6016	0.8862	0.9556	1.0324	1.0459	1.0431	0.9904	0.9365	17	AVG #
Bromoform	#0.1799	0.2110	0.2189	0.2495	0.2599	0.2759	0.2890	0.2406	16	AVG #
Isopropylbenzene	#0.9358	1.3619	1.5410	1.5672	1.6596	1.5754	1.5876	1.4612	17	AVG #
Cyclohexanone	0.2577	0.3055	0.3001	0.3389	0.3302	0.3416	0.3126	0.3124	9	AVG
Bromobenzene	0.6587	0.7746	0.7359	0.7664	0.7519	0.7500	0.6841	0.7317	6	AVG
1,1,2,2-Tetrachloroethane	#0.8524	0.9494	0.8835	0.9572	0.9208	0.9383	0.8790	0.9115	4	AVG #
1,2,3-Trichloropropane	0.2443	0.2882	0.2764	0.2890	0.2829	0.2899	0.2781	0.2784	6	AVG
trans-1,4-Dichloro-2-butene	0.2199	0.2612	0.2636	0.2848	0.2749	0.2847	0.2669	0.2652	8	AVG
n-Propylbenzene	2.4687	3.0300	3.3092	3.3293	3.4486	3.2920	3.2581	3.1622	10	AVG
2-Chlorotoluene	0.5357	0.6720	0.6927	0.7089	0.7183	0.7016	0.6998	0.6756	9	AVG
4-Chlorotoluene	0.5634	0.6918	0.7282	0.7444	0.7361	0.7276	0.7169	0.7012	9	AVG
1,3,5-Trimethylbenzene	1.5451	2.0898	2.4017	2.4957	2.5571	2.4536	2.4519	2.2850	16	AVG
tert-Butylbenzene	0.3304	0.4041	0.4839	0.4974	0.5371	0.5101	0.5247	0.4697	16	AVG
Pentachloroethane	0.3408	0.3819	0.4075	0.4439	0.4444	0.4739	0.4277	0.4171	11	AVG
1,2,4-Trimethylbenzene	1.5205	2.1963	2.5099	2.6437	2.6613	2.5628	2.4430	2.3625	17	AVG
sec-Butylbenzene	1.7497	2.4116	3.0315	2.9653	3.2861	3.0004	3.0298	2.7821	19	AVG
1,3-Dichlorobenzene	#1.1765	1.3970	1.4310	1.4819	1.4327	1.3931	1.2318	1.3634	8	AVG #
p-Isopropyltoluene	1.4601	2.0907	2.5969	2.6277	2.8513	2.5939	2.4662	2.3838	20	AVG
1,4-Dichlorobenzene	#1.2907	1.4922	1.4894	1.5270	1.4774	1.4358	1.3041	1.4309	7	AVG #
1,2,3-Trimethylbenzene	2.0761	2.3800	2.5083	2.6252	2.5574	2.6533	2.3826	2.4547	8	AVG
Benzyl Chloride	1.3247	1.7290	1.7424	2.0110	2.0302	2.1027	2.0613	1.8573	15	AVG
1,3-Diethylbenzene	1.1591	1.4712	1.5631	1.6678	1.6283	1.6909	1.5713	1.5359	12	AVG
1,4-Diethylbenzene	1.1634	1.5982	1.6598	1.7486	1.7167	1.7645	1.6027	1.6077	13	AVG
1,2-Dichlorobenzene	#1.2166	1.4364	1.4175	1.4718	1.4157	1.3811	1.2672	1.3723	7	AVG #
n-Butylbenzene	0.8915	1.0844	1.3461	1.2989	1.4058	1.2740	1.2726	1.2248	14	AVG

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

6A

VOLATILE ORGANICS INITIAL CALIBRATION DATA

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date(s): 05/04/20 05/04/20

Heated Purge: (Y/N) Y Calibration Times: 12:18 14:30

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

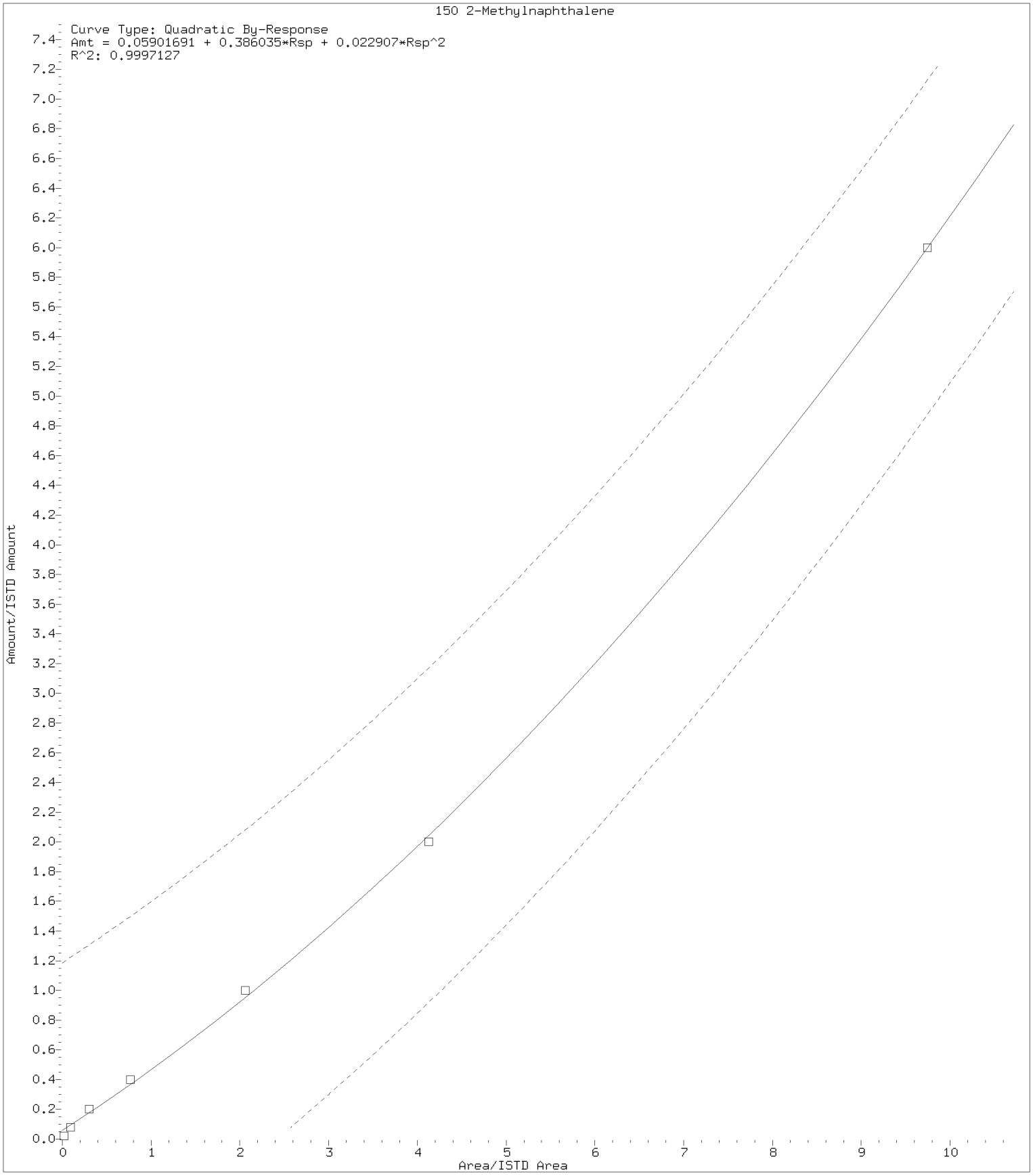
LAB FILE ID: RRF 1 = ly04i07.d RRF 4 = ly04i06.d RRF 10= ly04i05.d
RRF 20= ly04i04.d RRF 50= ly04i03.d RRF100= ly04i02.d RRF300= ly04i01.d

COMPOUND	RRF 1	RRF 4	RRF 10	RRF 20	RRF 50	RRF100	RRF300	RRF	% RSD	CAL. METHOD
1,2-Diethylbenzene	1.0295	1.2919	1.3577	1.4248	1.3730	1.4224	1.2789	1.3112	10	AVG
1,2-Dibromo-3-chloropropane	#0.1650	0.1952	0.1877	0.2082	0.2117	0.2210	0.2234	0.2017	10	AVG #
1,3,5-Trichlorobenzene	0.9105	0.9328	1.0642	1.1130	1.1344	1.0562	1.0255	1.0338	8	AVG
1,2,4-Trichlorobenzene	#0.8186	0.8601	0.9774	1.0647	1.0739	1.0166	0.9515	0.9661	10	AVG #
Hexachlorobutadiene	0.4642	0.3762	0.4840	0.4490	0.4958	0.4333	0.4173	0.4457	9	AVG
Naphthalene	2.1271	2.7842	3.1577	3.6036	3.5783	3.5111	3.1283	3.1272	17	AVG
1,2,3-Trichlorobenzene	0.8188	0.9091	0.9941	1.0776	1.0567	0.9828	0.8808	0.9600	10	AVG
2-Methylnaphthalene	0.9957	1.1581	1.5261	1.9196	2.0622	2.0644	1.6238	1.6214	26	2NDDEG
Dibromofluoromethane	0.2505	0.2508	0.2465	0.2524	0.2528	0.2526	0.2576	0.2519	1	AVG
Dibromofluoromethane(2)	0.2560	0.2558	0.2540	0.2570	0.2584	0.2581	0.2631	0.2575	1	AVG
1,2-Dichloroethane-d4	0.0639	0.0649	0.0632	0.0643	0.0637	0.0634	0.0641	0.0639	1	AVG
1,2-Dichloroethane-d4(2)	0.2831	0.2821	0.2786	0.2841	0.2859	0.2832	0.2889	0.2837	1	AVG
1,2-Dichloroethane-d4(3)	0.0411	0.0407	0.0405	0.0403	0.0412	0.0403	0.0409	0.0407	1	AVG
Toluene-d8	1.2649	1.2749	1.2826	1.2779	1.2796	1.2921	1.3194	1.2845	1	AVG
Toluene-d8(2)	0.8203	0.8238	0.8322	0.8288	0.8303	0.8382	0.8615	0.8336	2	AVG
4-Bromofluorobenzene	0.4907	0.4958	0.4937	0.4907	0.4880	0.4920	0.5088	0.4942	1	AVG
4-Bromofluorobenzene(2)	0.4227	0.4258	0.4239	0.4223	0.4176	0.4192	0.4346	0.4237	1	AVG

Average %RSD 9

Compounds with required minimum RRF.
All compounds must meet a maximum %RSD of 20.

FORM VI VOA



Digitally signed by Don V. Viray on 05/06/2020 at 08:01.
Target 3.5 esignature user ID: dvv10203

Internal Standard Area and Retention Time Summary

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i01.d	VSTD300
/chem/HP09915.i/20may04i.b/ly04i02.d	VSTD100
/chem/HP09915.i/20may04i.b/ly04i03.d	VSTD050
/chem/HP09915.i/20may04i.b/ly04i04.d	VSTD020
/chem/HP09915.i/20may04i.b/ly04i05.d	VSTD010
/chem/HP09915.i/20may04i.b/ly04i06.d	VSTD004
/chem/HP09915.i/20may04i.b/ly04i07.d	VSTD001

Area Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. Area	%RSD	In Spec
t-Butyl alcohol-d10	276925	272479	302938	286065	282164	285792	294363	285818	4	Yes
Fluorobenzene	1336369	1305159	1335958	1286965	1307193	1299562	1305845	1311007	1	Yes
Chlorobenzene-d5	1059501	1042614	1078517	1031952	1036265	1041559	1044326	1047819	2	Yes
1,4-Dichlorobenzene-d4	596140	579781	608929	580388	588728	598089	599351	593058	2	Yes

%RSD of internal standard area is flagged out of spec if greater than 30.

RT Summary

File ID:

Internal Standard Name	ly04i01.d	ly04i02.d	ly04i03.d	ly04i04.d	ly04i05.d	ly04i06.d	ly04i07.d	Avg. RT
t-Butyl alcohol-d10	4.493	4.490	4.487	4.500	4.480	4.490	4.487	4.489
Fluorobenzene	7.956	7.950	7.950	7.950	7.946	7.950	7.949	7.950
Chlorobenzene-d5	11.355	11.351	11.355	11.352	11.351	11.351	11.351	11.352
1,4-Dichlorobenzene-d4	13.220	13.216	13.216	13.216	13.216	13.216	13.216	13.217

* indicates the retention time is greater than 30 seconds from the average RT.

Report generated on 05/04/2020 at 20:24.

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	$\overline{RRF}$	RRF	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.3214	18.75	20	-6	#
# Chloromethane	0.3201	0.3356	20.96	20	5	#
1,3-Butadiene	0.2054	0.2400	23.37	20	17	
# Vinyl Chloride	0.3089	0.3258	21.09	20	5	#
# Bromomethane	0.2227	0.2138	19.20	20	-4	#
# Chloroethane	0.1725	0.1685	19.54	20	-2	#
Dichlorofluoromethane	0.3720	0.3467	18.64	20	-7	
n-Pentane	0.3168	0.2920	18.44	20	-8	
# Trichlorofluoromethane	0.3374	0.3815	22.62	20	13	#
Ethyl ether	0.2384	0.2427	20.36	20	2	
Freon 123a	0.2733	0.2842	20.79	20	4	
Acrolein	2.0567	1.9145	139.63	150	-7	
# 1,1-Dichloroethene	0.2152	0.2238	20.81	20	4	#
# Acetone	0.9381	1.2084	193.20	150	29	#
# Freon 113	0.2232	0.2160	19.35	20	-3	#
2-Propanol	0.5979	0.5997	150.46	150	0	
Methyl Iodide	0.4147	0.4128	19.91	20	0	
# Carbon Disulfide	0.7245	0.7565	20.88	20	4	#
Allyl Chloride	0.3487	0.3386	19.42	20	-3	
# Methyl Acetate	0.2744	0.2632	19.19	20	-4	#
# Methylene Chloride	0.2560	0.2627	20.53	20	3	#
t-Butyl alcohol	1.0093	1.0232	202.75	200	1	
Acrylonitrile	0.1520	0.1437	94.53	100	-5	
# trans-1,2-Dichloroethene	0.2475	0.2522	20.38	20	2	#
# Methyl Tertiary Butyl Ether	0.7379	0.7082	19.19	20	-4	#
n-Hexane	0.3467	0.3630	20.94	20	5	
# 1,1-Dichloroethane	0.4342	0.4377	20.16	20	1	#
di-Isopropyl ether	0.7635	0.7617	19.95	20	0	
2-Chloro-1,3-butadiene	0.3462	0.3545	20.48	20	2	
Ethyl t-butyl ether	0.7094	0.7036	19.83	20	-1	
# cis-1,2-Dichloroethene	0.2776	0.2992	21.56	20	8	#
# 2-Butanone	0.1845	0.2032	165.20	150	10	#
2,2-Dichloropropane	0.3355	0.3414	20.35	20	2	
Propionitrile	1.3635	1.3708	150.80	150	1	
Methacrylonitrile	0.1524	0.1558	153.33	150	2	
Bromochloromethane	0.1432	0.1393	19.46	20	-3	

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	Tetrahydrofuran	1.1930	1.1661	97.74	100	-2	
#	Chloroform	0.4241	0.4279	20.17	20	1	#
#	1,1,1-Trichloroethane	0.3639	0.3607	19.82	20	-1	#
#	Cyclohexane	0.4073	0.4374	21.47	20	7	#
	1,1-Dichloropropene	0.3336	0.3395	20.36	20	2	
#	Carbon Tetrachloride	0.3049	0.3112	20.41	20	2	#
	Isobutyl Alcohol	0.3424	0.3394	495.65	500	-1	
#	Benzene	1.0326	1.0345	20.04	20	0	#
#	1,2-Dichloroethane	0.3461	0.3416	19.74	20	-1	#
	t-Amyl methyl ether	0.7247	0.7311	20.18	20	1	
	n-Heptane	0.3605	0.3680	20.42	20	2	
	n-Butanol	0.2792	0.2785	997.61	1000	0	
#	Trichloroethene	0.2613	0.2612	19.99	20	0	#
#	Methylcyclohexane	0.4249	0.4329	20.38	20	2	#
#	1,2-Dichloropropane	0.2661	0.2707	20.35	20	2	#
	Dibromomethane	0.1740	0.1735	19.95	20	0	
	1,4-Dioxane	0.0839	0.0858	511.19	500	2	
	Methyl Methacrylate	0.2288	0.2242	19.60	20	-2	
#	Bromodichloromethane	0.3119	0.3091	19.82	20	-1	#
	2-Nitropropane	0.0935	0.0827	17.68	20	-12	
	2-Chloroethyl Vinyl Ether	0.1771	0.1812	20.46	20	2	
#	cis-1,3-Dichloropropene	0.4077	0.4095	20.09	20	0	#
#	4-Methyl-2-pentanone	0.3737	0.3719	99.52	100	0	#
#	Toluene	0.8187	0.8182	19.99	20	0	#
#	trans-1,3-Dichloropropene	0.4697	0.4640	19.75	20	-1	#
	Ethyl Methacrylate	0.4727	0.4884	20.67	20	3	
#	1,1,2-Trichloroethane	0.3177	0.3265	20.55	20	3	#
#	Tetrachloroethene	0.3489	0.3623	20.77	20	4	#
	1,3-Dichloropropane	0.5313	0.5263	19.81	20	-1	
#	2-Hexanone	0.3433	0.3688	107.42	100	7	#
#	Dibromochloromethane	0.3305	0.3353	20.29	20	1	#
#	1,2-Dibromoethane	0.3414	0.3377	19.78	20	-1	#
	1-Chlorohexane	0.4190	0.4185	19.98	20	0	
#	Chlorobenzene	0.9402	0.9522	20.25	20	1	#
	1,1,1,2-Tetrachloroethane	0.3187	0.3157	19.81	20	-1	
#	Ethylbenzene	1.5155	1.5683	20.70	20	3	#

Compounds with required minimum RRF.
Maximum % Drift = 30 %

INITIAL CALIBRATION VERIFICATION

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 ICV Date: 05/04/20 Time: 14:52

Lab File ID: ly04v01.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	$\overline{RRF}$	RRF	ACTUAL CONC.	TRUE CONC.	% DRIFT	
#	m+p-Xylene	0.5954	0.6363	42.74	40	7	#
#	o-Xylene	0.5758	0.6111	21.22	20	6	#
#	Styrene	0.9365	1.0037	21.44	20	7	#
#	Bromoform	0.2406	0.2327	19.35	20	-3	#
#	Isopropylbenzene	1.4612	1.5847	21.69	20	8	#
	Cyclohexanone	0.3124	0.3038	486.31	500	-3	
	Bromobenzene	0.7317	0.7299	19.95	20	0	
#	1,1,2,2-Tetrachloroethane	0.9115	0.8947	19.63	20	-2	#
	1,2,3-Trichloropropane	0.2784	0.2733	19.63	20	-2	
	trans-1,4-Dichloro-2-butene	0.2652	0.2704	101.96	100	2	
	n-Propylbenzene	3.1622	3.3324	21.08	20	5	
	2-Chlorotoluene	0.6756	0.6871	20.34	20	2	
	4-Chlorotoluene	0.7012	0.7093	20.23	20	1	
	1,3,5-Trimethylbenzene	2.2850	2.4203	21.18	20	6	
	tert-Butylbenzene	0.4697	0.4987	21.23	20	6	
	Pentachloroethane	0.4171	0.4280	20.52	20	3	
	1,2,4-Trimethylbenzene	2.3625	2.4992	21.16	20	6	
	sec-Butylbenzene	2.7821	3.0192	21.70	20	9	
#	1,3-Dichlorobenzene	1.3634	1.4139	20.74	20	4	#
	p-Isopropyltoluene	2.3838	2.6505	22.24	20	11	
#	1,4-Dichlorobenzene	1.4309	1.4574	20.37	20	2	#
	1,2,3-Trimethylbenzene	2.4547	2.6124	21.28	20	6	
	Benzyl Chloride	1.8573	1.8061	19.45	20	-3	
	1,3-Diethylbenzene	1.5359	1.6082	20.94	20	5	
	1,4-Diethylbenzene	1.6077	1.6862	20.98	20	5	
#	1,2-Dichlorobenzene	1.3723	1.3876	20.22	20	1	#
	n-Butylbenzene	1.2248	1.2895	21.06	20	5	
	1,2-Diethylbenzene	1.3112	1.3708	20.91	20	5	
#	1,2-Dibromo-3-chloropropane	0.2017	0.1875	18.58	20	-7	#
	1,3,5-Trichlorobenzene	1.0338	1.0450	20.22	20	1	
#	1,2,4-Trichlorobenzene	0.9661	0.9908	20.51	20	3	#
	Hexachlorobutadiene	0.4457	0.4238	19.02	20	-5	
	Naphthalene	3.1272	3.2483	20.77	20	4	
	1,2,3-Trichlorobenzene	0.9600	0.9906	20.64	20	3	
	2-Methylnaphthalene	1.6214	1.6341	16.06	20	-20	

Average %Drift 4

Compounds with required minimum RRF.
Maximum % Drift = 30 %

^

Lancaster Laboratories
Continuing Calibration Internal Standard Check

Initial Calibration Standards:

/chem/HP09915.i/20may04i.b/ly04i07.d
/chem/HP09915.i/20may04i.b/ly04i06.d
/chem/HP09915.i/20may04i.b/ly04i05.d
/chem/HP09915.i/20may04i.b/ly04i04.d
/chem/HP09915.i/20may04i.b/ly04i03.d
/chem/HP09915.i/20may04i.b/ly04i02.d
/chem/HP09915.i/20may04i.b/ly04i01.d

File /chem/HP09915.i/20may04i.b/ly04i03.d is Mid Level Calibration Standard used for comparison.

Current Continuing Calibration Standard:

/chem/HP09915.i/20jun02b.b/lu02c41.d

RT Summary

Internal Standard Name	File ID: lu02c41.d	ICAL RT	In Spec
t-Butyl alcohol-d10	4.496	4.487	Yes
Fluorobenzene	7.950	7.950	Yes
Chlorobenzene-d5	11.351	11.355	Yes
1,4-Dichlorobenzene-d4	13.213	13.216	Yes

A "No" indicates the retention time is greater than 10 seconds from the referenced ICAL standard.

Area Summary

Internal Standard Name	File ID: lu02c41.d	ICAL Area	Low Limit	High Limit	In Spec
t-Butyl alcohol-d10	271269	302938	151469	605876	Yes
Fluorobenzene	1428558	1335958	667979	2671916	Yes
Chlorobenzene-d5	1112967	1078517	539258	2157034	Yes
1,4-Dichlorobenzene-d4	624240	608929	304464	1217858	Yes

A "No" indicates the internal standard area is outside acceptable QC limits.

Comments: _____

report generated on 06/02/2020 at 21:30

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 06/02/20 Time: 20:43

Lab File ID: lu02c41.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
# Dichlorodifluoromethane	0.3429	0.3114	45.40	50	-9	#
# Chloromethane	0.3201	0.3295	51.47	50	3	#
1,3-Butadiene	0.2054	0.3025	73.66	50	47	<-
# Vinyl Chloride	0.3089	0.3123	50.54	50	1	#
# Bromomethane	0.2227	0.2102	47.20	50	-6	#
# Chloroethane	0.1725	0.1731	50.18	50	0	#
n-Pentane	0.3168	0.3689	58.23	50	16	
# Trichlorofluoromethane	0.3374	0.3384	50.15	50	0	#
Ethyl ether	0.2384	0.2077	43.56	50	-13	
Freon 123a	0.2733	0.2691	49.22	50	-2	
Acrolein	2.0567	2.2413	544.89	500	9	
# 1,1-Dichloroethene	0.2152	0.1838	42.71	50	-15	#
# 1,1-Dichloroethene(2)	0.1025	0.0961	46.90	50	-6	#<-
# Acetone	0.9381	0.9998	106.57	100	7	#
# Freon 113	0.2232	0.2027	45.39	50	-9	#
2-Propanol	0.5979	0.6546	273.70	250	9	
Methyl Iodide	0.4147	0.3473	41.87	50	-16	
# Carbon Disulfide	0.7245	0.6876	47.46	50	-5	#
Allyl Chloride	0.3487	0.3306	47.41	50	-5	
# Methyl Acetate	0.2744	0.2639	48.07	50	-4	#
# Methylene Chloride	0.2560	0.2335	45.61	50	-9	#
t-Butyl alcohol	1.0093	1.0104	250.29	250	0	
Acrylonitrile	0.1520	0.1483	48.79	50	-2	
# trans-1,2-Dichloroethene	0.2475	0.2248	45.41	50	-9	#
# Methyl Tertiary Butyl Ether	0.7379	0.6041	40.93	50	-18	#
n-Hexane	0.3467	0.3280	47.30	50	-5	
# 1,1-Dichloroethane	0.4342	0.4124	47.50	50	-5	#
di-Isopropyl ether	0.7635	0.7345	48.10	50	-4	
2-Chloro-1,3-butadiene	0.3462	0.3503	50.59	50	1	
Ethyl t-butyl ether	0.7094	0.6065	42.75	50	-15	
# cis-1,2-Dichloroethene	0.2776	0.2548	45.89	50	-8	#
# 2-Butanone	0.1845	0.1912	103.60	100	4	#
2,2-Dichloropropane	0.3355	0.3099	46.18	50	-8	
Propionitrile	1.3635	1.6084	294.89	250	18	
Methacrylonitrile	0.1524	0.1537	126.04	125	1	
Bromochloromethane	0.1432	0.1335	46.61	50	-7	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 06/02/20 Time: 20:43

Lab File ID: lu02c41.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

			ACTUAL	TRUE	%	
COMPOUND	RRF	RRF50	CONC.	CONC.	DRIFT	
Tetrahydrofuran	1.1930	1.2970	108.72	100	9	
# Chloroform	0.4241	0.4046	47.69	50	-5	#
# 1,1,1-Trichloroethane	0.3639	0.3347	45.99	50	-8	#
# Cyclohexane	0.4073	0.3993	49.01	50	-2	#
# Cyclohexane(2)	0.3555	0.3272	46.01	50	-8	#
# Cyclohexane(3)	0.1266	0.1180	46.60	50	-7	#
1,1-Dichloropropene	0.3336	0.3171	47.53	50	-5	
# Carbon Tetrachloride	0.3049	0.2945	48.30	50	-3	#
Isobutyl Alcohol	0.3424	0.4433	809.16	625	29	<-
# Benzene	1.0326	0.9894	47.91	50	-4	#
# 1,2-Dichloroethane	0.3461	0.3329	48.08	50	-4	#
# 1,2-Dichloroethane(2)	0.0337	0.0308	45.64	50	-9	#<-
t-Amyl methyl ether	0.7247	0.6403	44.17	50	-12	
n-Heptane	0.3605	0.3873	53.71	50	7	
n-Butanol	0.2792	0.3502	1567.95	1250	25	<-
# Trichloroethene	0.2613	0.2418	46.27	50	-7	#
# Methylcyclohexane	0.4249	0.4029	47.41	50	-5	#
# Methylcyclohexane(2)	0.1922	0.1816	47.25	50	-6	#
# 1,2-Dichloropropane	0.2661	0.2696	50.66	50	1	#
Dibromomethane	0.1740	0.1686	48.45	50	-3	
1,4-Dioxane	0.0839	0.0950	707.27	625	13	
Methyl Methacrylate	0.2288	0.2288	50.00	50	0	
# Bromodichloromethane	0.3119	0.3038	48.70	50	-3	#
2-Nitropropane	0.0935	0.1050	112.28	100	12	
2-Chloroethyl Vinyl Ether	0.1771	0.1723	48.64	50	-3	
# cis-1,3-Dichloropropene	0.4077	0.3890	47.71	50	-5	#
# 4-Methyl-2-pentanone	0.3737	0.4286	114.70	100	15	#
# Toluene	0.8187	0.7939	48.49	50	-3	#
# trans-1,3-Dichloropropene	0.4697	0.4677	49.78	50	0	#
Ethyl Methacrylate	0.4727	0.5018	53.09	50	6	
# 1,1,2-Trichloroethane	0.3177	0.3079	48.46	50	-3	#
# Tetrachloroethene	0.3489	0.3285	47.07	50	-6	#
1,3-Dichloropropane	0.5313	0.5286	49.75	50	-1	
# 2-Hexanone	0.3433	0.4228	123.16	100	23	#<-
# Dibromochloromethane	0.3305	0.3249	49.16	50	-2	#
# 1,2-Dibromoethane	0.3414	0.3247	47.55	50	-5	#

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 06/02/20 Time: 20:43

Lab File ID: lu02c41.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

	COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
	1-Chlorohexane	0.4190	0.4011	47.86	50	-4	
#	Chlorobenzene	0.9402	0.9178	48.81	50	-2	#
	1,1,1,2-Tetrachloroethane	0.3187	0.3157	49.53	50	-1	
#	Ethylbenzene	1.5155	1.5363	50.69	50	1	#
#	m+p-Xylene	0.5954	0.6093	102.33	100	2	#
#	o-Xylene	0.5758	0.5778	50.17	50	0	#
#	Styrene	0.9365	0.9965	53.21	50	6	#
#	Bromoform	0.2406	0.2323	48.28	50	-3	#
#	Isopropylbenzene	1.4612	1.4970	51.22	50	2	#
	Cyclohexanone	0.3124	0.2917	583.67	625	-7	
	Bromobenzene	0.7317	0.7175	49.03	50	-2	
#	1,1,2,2-Tetrachloroethane	0.9115	0.9438	51.77	50	4	#
	1,2,3-Trichloropropane	0.2784	0.2877	51.67	50	3	
	trans-1,4-Dichloro-2-butene	0.2652	0.2242	105.70	125	-15	
	n-Propylbenzene	3.1622	3.2904	52.03	50	4	
	2-Chlorotoluene	0.6756	0.6600	48.85	50	-2	
	4-Chlorotoluene	0.7012	0.7013	50.01	50	0	
	1,3,5-Trimethylbenzene	2.2850	2.4055	52.64	50	5	
	tert-Butylbenzene	0.4697	0.4872	51.86	50	4	
	Pentachloroethane	0.4171	0.4321	51.79	50	4	
	1,2,4-Trimethylbenzene	2.3625	2.5368	53.69	50	7	
	sec-Butylbenzene	2.7821	2.9847	53.64	50	7	
#	1,3-Dichlorobenzene	1.3634	1.3757	50.45	50	1	#
	p-Isopropyltoluene	2.3838	2.5985	54.50	50	9	
#	1,4-Dichlorobenzene	1.4309	1.4194	49.60	50	-1	#
	1,2,3-Trimethylbenzene	2.4547	2.5684	52.32	50	5	
	Benzyl Chloride	1.8573	1.9723	53.09	50	6	
	1,3-Diethylbenzene	1.5359	1.5956	51.94	50	4	
	1,4-Diethylbenzene	1.6077	1.6795	52.23	50	4	
#	1,2-Dichlorobenzene	1.3723	1.3631	49.66	50	-1	#
	n-Butylbenzene	1.2248	1.3353	54.51	50	9	
	1,2-Diethylbenzene	1.3112	1.3736	52.38	50	5	
#	1,2-Dibromo-3-chloropropane	0.2017	0.2062	51.11	50	2	#
	1,3,5-Trichlorobenzene	1.0338	0.9500	45.95	50	-8	
#	1,2,4-Trichlorobenzene	0.9661	0.8619	44.61	50	-11	#
	Hexachlorobutadiene	0.4457	0.3690	41.40	50	-17	

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

7A

VOLATILE CONTINUING CALIBRATION CHECK

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Instrument ID: HP09915 Calibration Date: 06/02/20 Time: 20:43

Lab File ID: lu02c41.d Init. Calib. Date(s): 05/04/20 05/04/20

Matrix: (soil/water) WATER Level: (low/med) LOW GC Column: Rxi-624Sil .25

COMPOUND	RRF	RRF50	ACTUAL CONC.	TRUE CONC.	% DRIFT	
Naphthalene	3.1272	3.1569	50.47	50	1	
1,2,3-Trichlorobenzene	0.9600	0.8817	45.92	50	-8	
2-Methylnaphthalene	1.6214	1.6644	38.25	50	-24	<-
Dibromofluoromethane	0.2519	0.2441	48.46	50	-3	
Dibromofluoromethane(2)	0.2575	0.2515	48.83	50	-2	
1,2-Dichloroethane-d4	0.0639	0.0636	49.76	50	0	
1,2-Dichloroethane-d4(2)	0.2837	0.3040	53.58	50	7	
1,2-Dichloroethane-d4(3)	0.0407	0.0401	49.28	50	-1	
Toluene-d8	1.2845	1.3001	50.61	50	1	
Toluene-d8(2)	0.8336	0.8406	50.42	50	1	
4-Bromofluorobenzene	0.4942	0.4979	50.37	50	1	
4-Bromofluorobenzene(2)	0.4237	0.4028	47.54	50	-5	

Average %Drift 6

Compounds with required minimum RRF.
All compounds must meet a maximum % Drift of 20.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): lu02c41.d Date Analyzed: 06/02/20

Instrument ID: HP09915 Time Analyzed: 20:43

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA)		IS2(FBZ)		IS3(CBZ)		IS4(DCB)	
	AREA #	RT #	AREA #	RT #	AREA #	RT #	AREA #	RT #
12 HOUR STD	271269	4.496	1428558	7.950	1112967	11.351	624240	13.213
UPPER LIMIT	542538	4.996	2857116	8.450	2225934	11.851	1248480	13.713
LOWER LIMIT	135634	3.996	714279	7.450	556484	10.851	312120	12.713
LAB SAMPLE ID								
01 VBLKL17	237636	4.493	1243231	7.946	948560	11.351	502994	13.216
02 LCSL17	261331	4.496	1325126	7.949	1025210	11.351	580328	13.216
03 1321063	269834	4.499	1313585	7.946	1006484	11.351	543186	13.216
04 1321065	231449	4.493	1213561	7.946	926753	11.351	489030	13.216
05 1320958	231388	4.506	1219401	7.950	932436	11.351	503177	13.216
06 1321018	226175	4.490	1197491	7.946	927235	11.351	497018	13.216
07 1321307	213774	4.477	1288455	7.946	1015962	11.348	571829	13.216
08 1320620	110600 *	4.516	1224766	7.946	951304	11.351	517081	13.216
09 1320621	118921 *	4.516	1351129	7.946	1024641	11.351	541474	13.216
10 1320622	148861	4.490	1338238	7.946	1013523	11.351	535266	13.216
11 1320622MS	96933 *	4.519	1380897	7.950	1055092	11.351	594953	13.216
12 1320622MSD	113708 *	4.500	1384688	7.946	1065933	11.351	585064	13.216
13 1320950	254914	4.486	1297880	7.946	995681	11.351	533971	13.216
14 1320951	238917	4.487	1242521	7.946	968000	11.351	520979	13.216
15 1320952	235221	4.496	1246712	7.950	954007	11.351	514216	13.216
16 1320953	231265	4.490	1210737	7.946	922937	11.351	502526	13.216
17 1320954	227729	4.490	1214639	7.953	927336	11.351	500735	13.216
18 1320955	220350	4.487	1179751	7.950	913083	11.351	489524	13.216
19 1320956	219550	4.493	1188487	7.953	907514	11.351	486192	13.216
20 1320957	236407	4.493	1189356	7.950	914133	11.351	494491	13.216
21 1321016	283605	4.509	1324522	7.949	1020626	11.351	561386	13.216
22 1321057	235627	4.484	1240941	7.946	940658	11.351	510080	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____

Lab File ID (Standard): lu02c41.d Date Analyzed: 06/02/20

Instrument ID: HP09915 Time Analyzed: 20:43

Matrix: (soil/water) WATER Level: (low/med) LOW Column: (pack/cap) CAP

	IS1(TBA) AREA #	RT #	IS2(FBZ) AREA #	RT #	IS3(CBZ) AREA #	RT #	IS4(DCB) AREA #	RT #
12 HOUR STD	271269	4.496	1428558	7.950	1112967	11.351	624240	13.213
UPPER LIMIT	542538	4.996	2857116	8.450	2225934	11.851	1248480	13.713
LOWER LIMIT	135634	3.996	714279	7.450	556484	10.851	312120	12.713
	LAB SAMPLE ID							
23	1321059	239408	4.490	1249862	7.950	967169	11.351	525583	13.216
24	1321061	160750	4.483	1214997	7.953	940991	11.351	520349	13.216

IS1 (TBA)=t-Butyl alcohol-d10
IS2 (FBZ)=Fluorobenzene
IS3 (CBZ)=Chlorobenzene-d5
IS4 (DCB)=1,4-Dichlorobenzene-d4

UPPER LIMIT = + 100%
of internal standard area.
LOWER LIMIT = - 50%
of internal standard area.

Column used to flag values outside QC limits with an asterisk
* Values outside of QC limits.

FORM VIII VOA

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Sample Data

Volatiles by GC/MS

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
62J01

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320950

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s52.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.7	J
156-59-2	cis-1,2-Dichloroethene	0.4	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.2	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s52.d Injection date and time: **03-JUN-2020 02:32**
Data file Sample Info. Line: 62J01;1320950;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487(0.010)	934	65	254914	(-6)	250.00	
66) Fluorobenzene	7.946(0.003)	2010	96	1297880	(-9)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	995681	(-11)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(-0.003)	3649	152	533971	(-14)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065(0.000)	113	332153	50.800	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519(0.000)	102	85806	51.719	103%		80 - 120
83) Toluene-d8	(3)	9.924(0.000)	98	1282375	50.134	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338(0.000)	95	464584	47.204	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)			Not Detected					0.2	1
18) Acetone	(1)	3.802(0.000)	58	1098	1.149	1.15		J	0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.538(0.001)	63	8011	0.711	0.71		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.371(0.000)	96	3143	0.436	0.44		J	0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)			Not Detected					0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	8.412(0.000)	95	1427	0.210	0.21		J	0.2	1
75) 1,4-Dioxane	(1)			Not Detected					29	250
88) Toluene	(3)			Not Detected					0.2	1
93) Tetrachloroethene	(3)			Not Detected					0.2	1
104) Ethylbenzene	(3)			Not Detected					0.4	1
106) m+p-Xylene	(3)			Not Detected					1	5
107) o-Xylene	(3)			Not Detected					0.4	1
108) Xylene (Total)	(3)			Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
148) Naphthalene	(4)			Not Detected					1	5

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:25. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s52.d Injection date and time: **03-JUN-2020 02:32**
Data file Sample Info. Line: 62J01;1320950;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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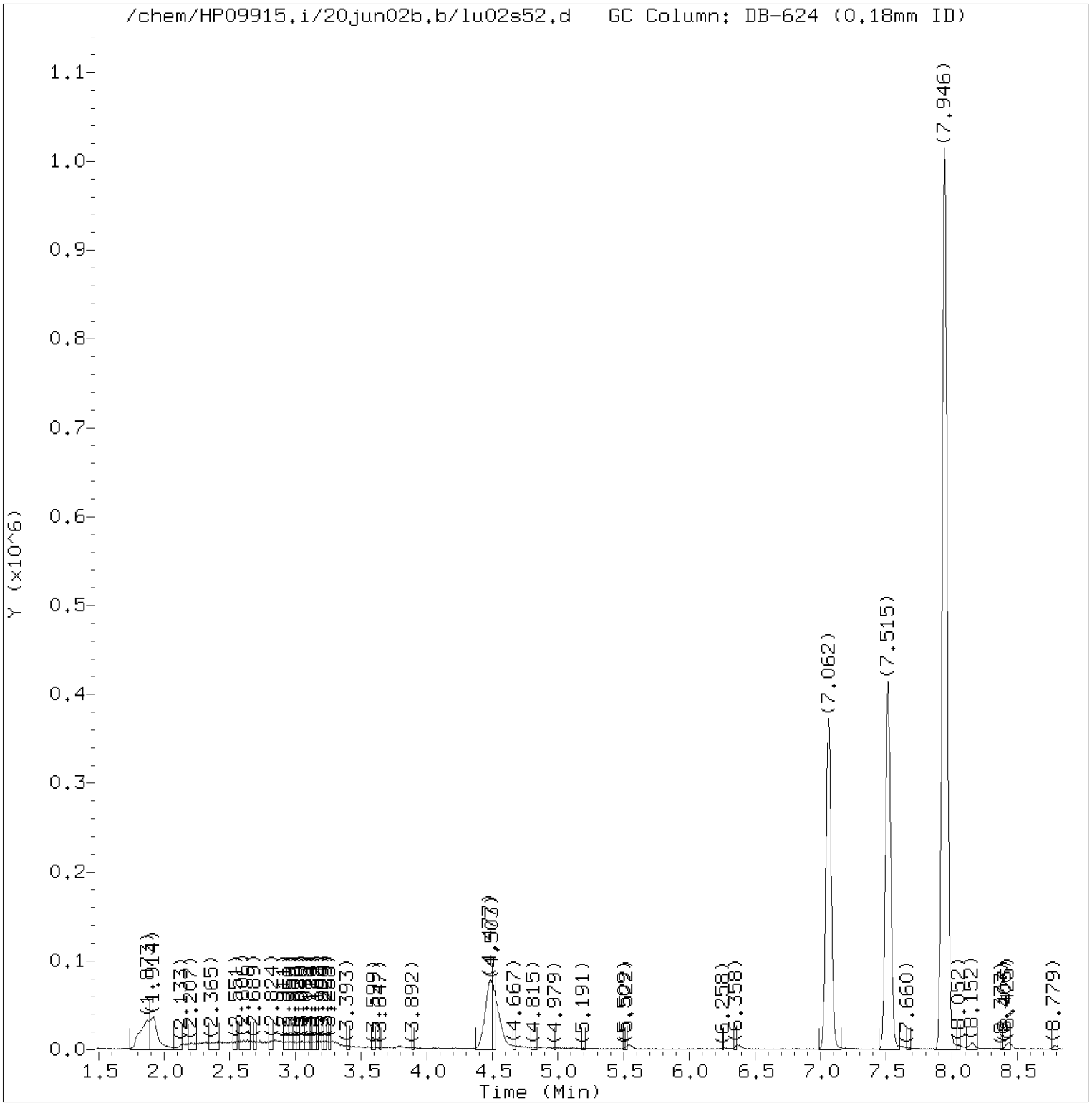
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:25. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

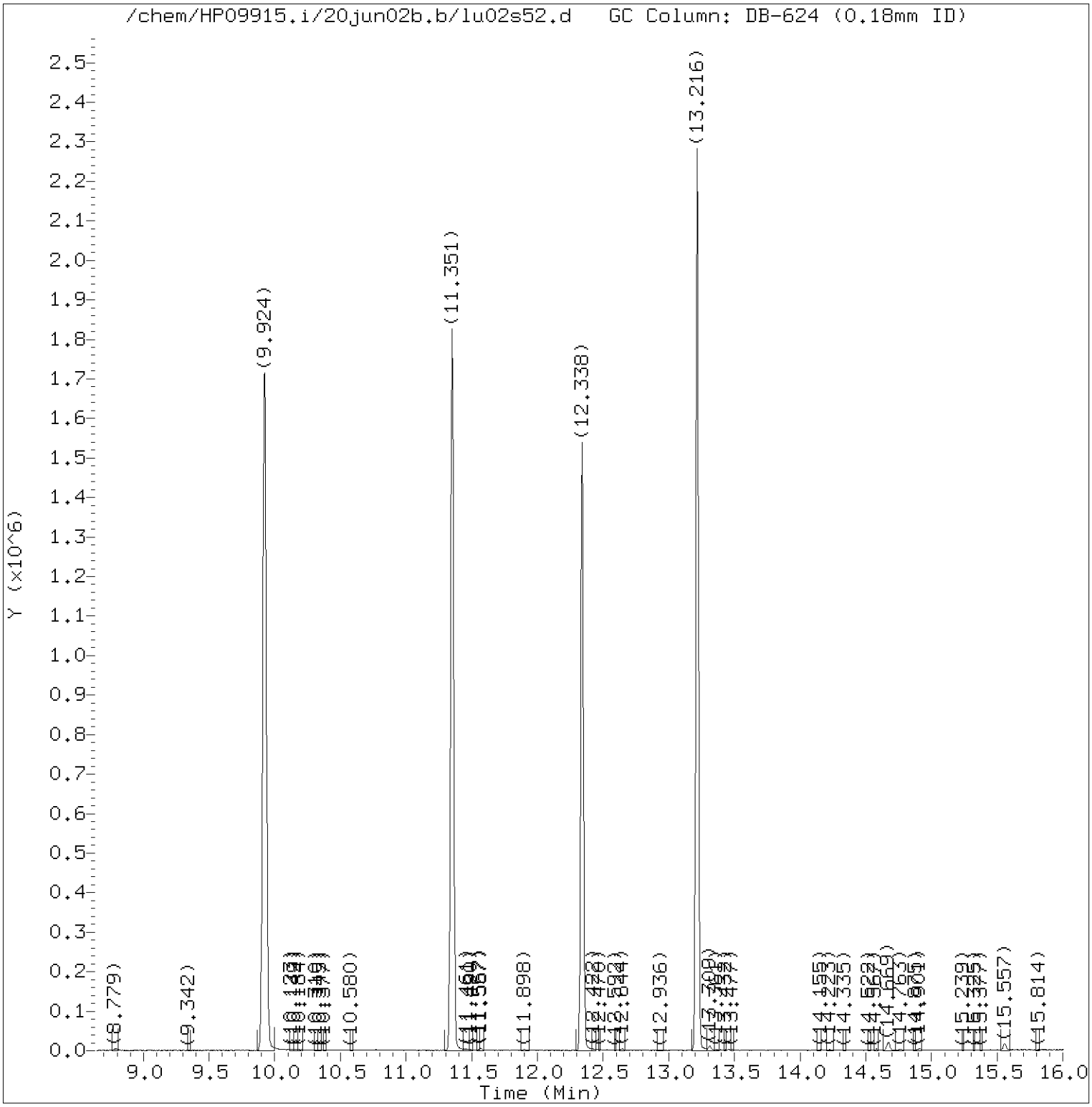
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Sample Name: 62J01 Lab Sample ID: 1320950

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Sample Name: 62J01 Lab Sample ID: 1320950

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

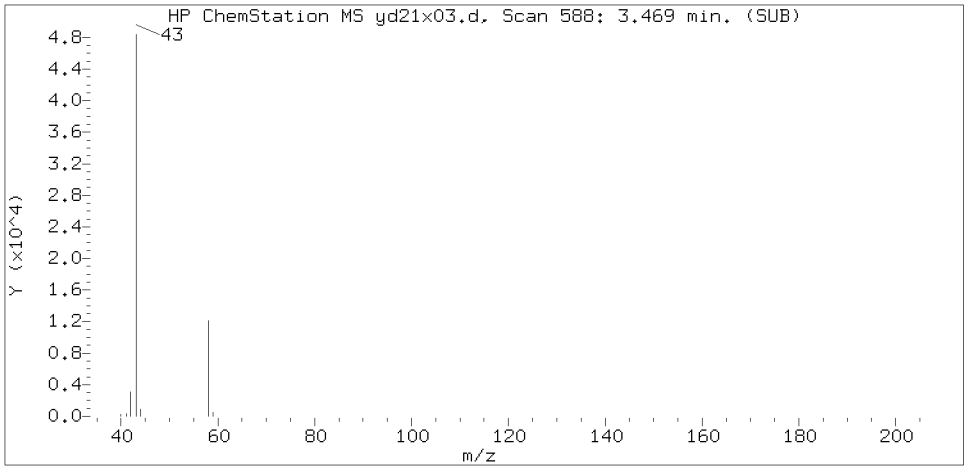
Sample Name: 62J01 Lab Sample ID: 1320950

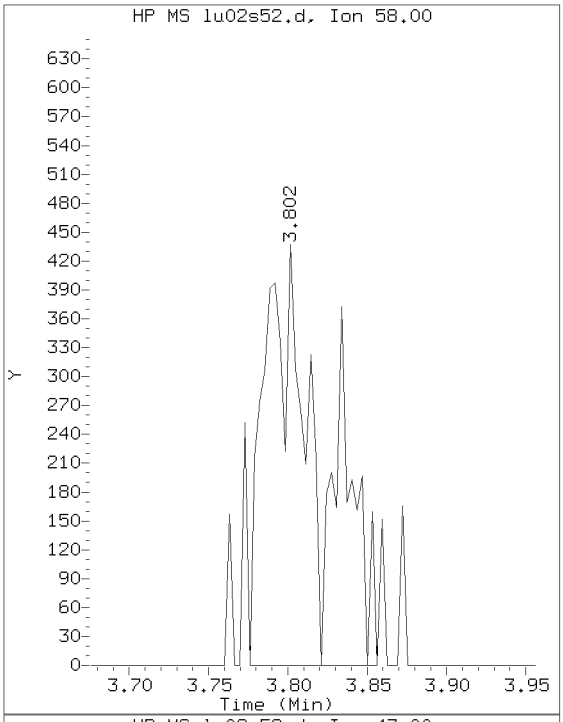
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.802	58	1098	1.149
29)*t-Butyl alcohol-d10	(1)	4.487	65	254914	250.000
36) 1,1-Dichloroethane	(2)	5.538	63	8011	0.711
42) cis-1,2-Dichloroethene	(2)	6.371	96	3143	0.436
52)$Dibromofluoromethane	(2)	7.065	113	332153	50.800
57)$1,2-Dichloroethane-d4	(2)	7.519	102	85806	51.719
66)*Fluorobenzene	(2)	7.946	96	1297880	50.000
71) Trichloroethene	(2)	8.412	95	1427	0.210
83)$Toluene-d8	(3)	9.924	98	1282375	50.134
100)*Chlorobenzene-d5	(3)	11.351	117	995681	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	464584	47.204
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	533971	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

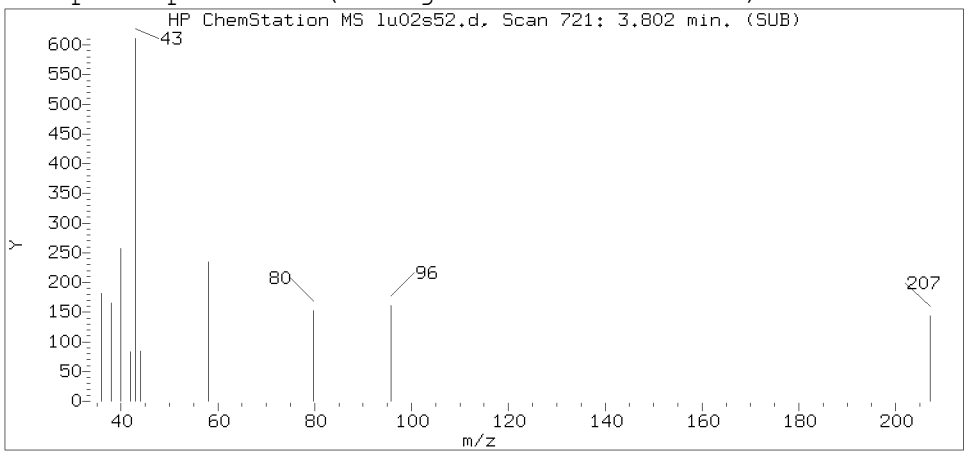
Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

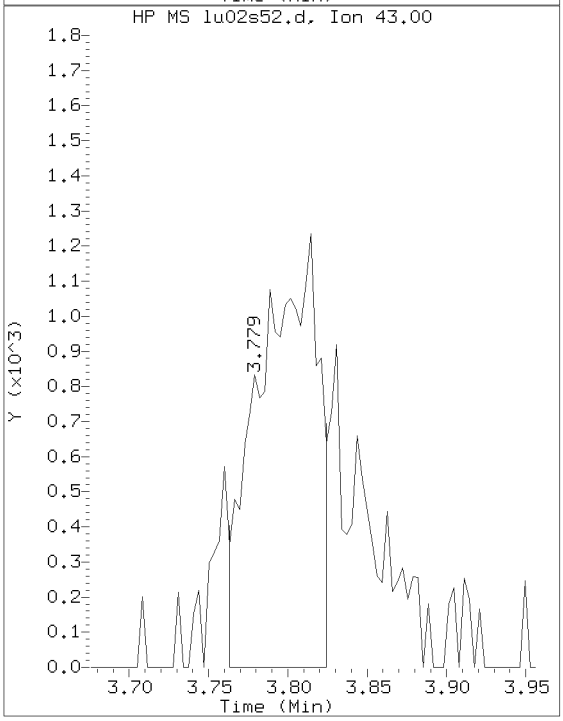
Reference Standard Spectrum for Acetone



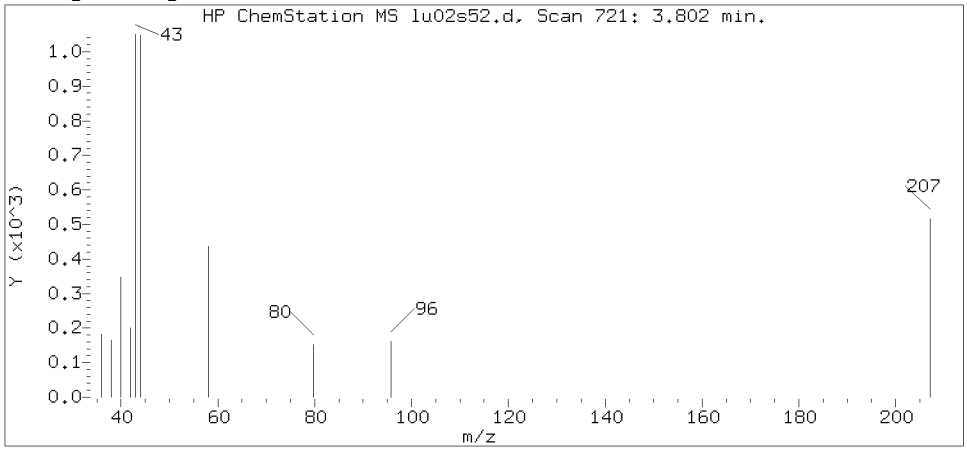


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

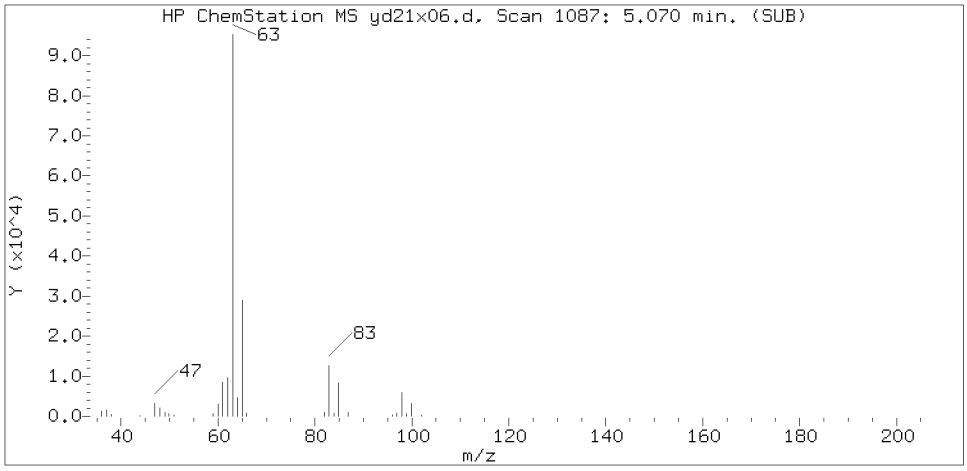
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

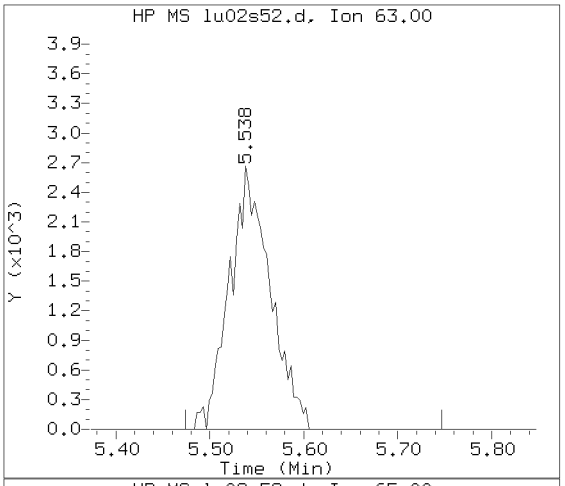
Sample Name: 62J01 Lab Sample ID: 1320950

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 721
Retention Time (minutes)	: 3.802
Relative Retention Time	: 0.00033
Quant Ion	: 58.00
Area (flag)	: 1098
On-Column Amount (ng)	: 1.1487

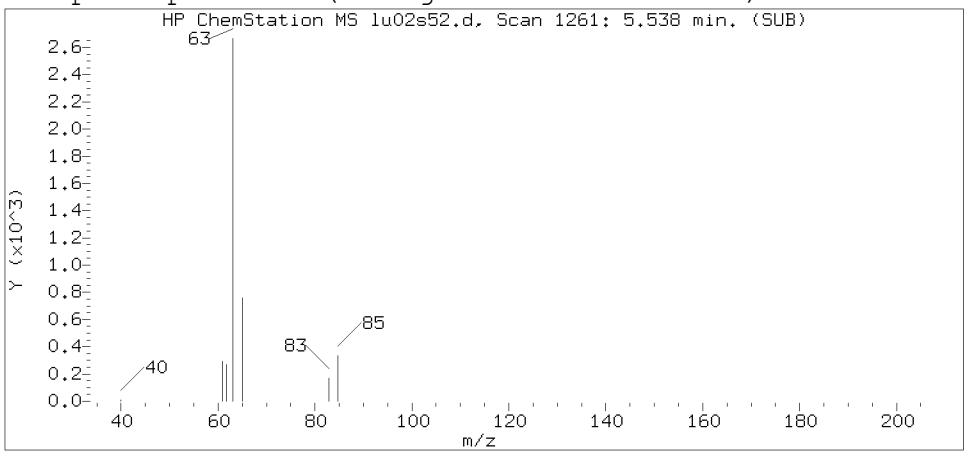
Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

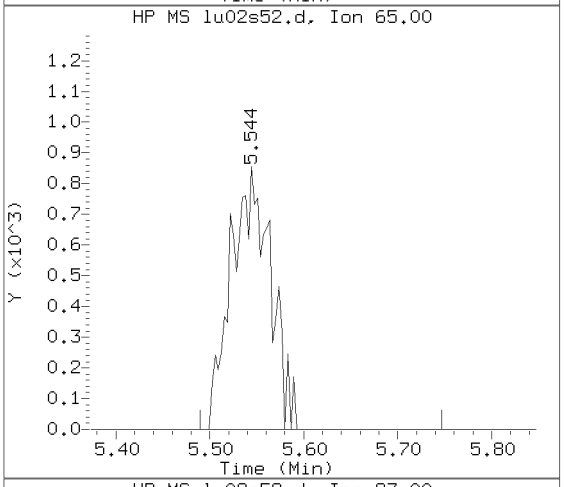
Reference Standard Spectrum for 1,1-Dichloroethane



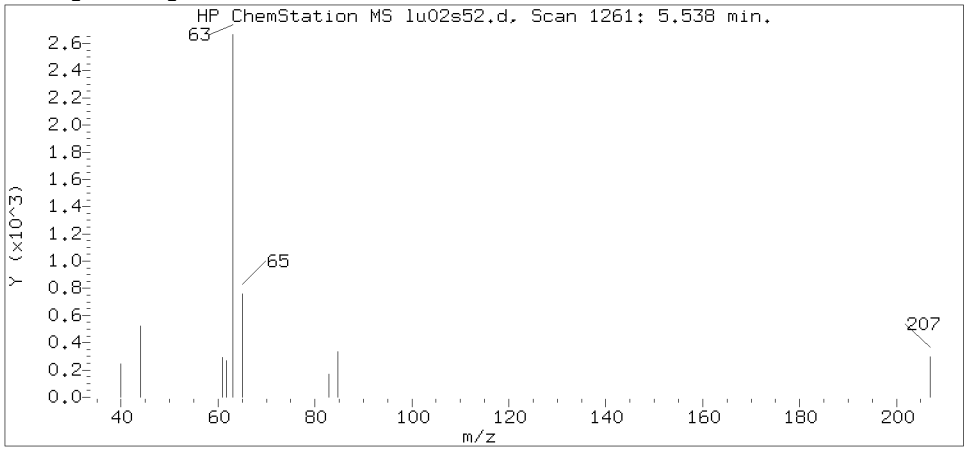


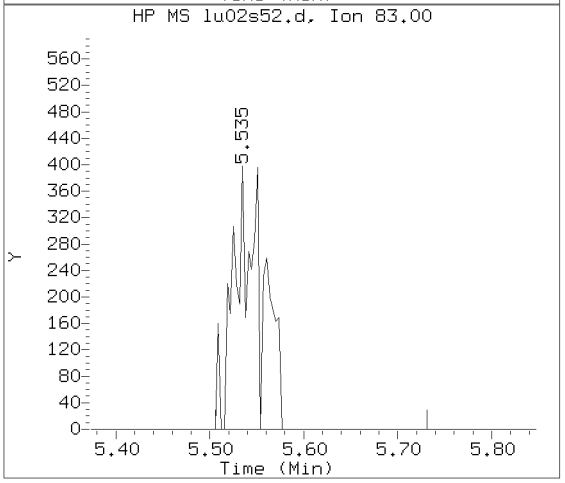
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Sample Name: 62J01 Lab Sample ID: 1320950

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 1261
Retention Time (minutes)	: 5.538
Relative Retention Time	: 0.00134
Quant Ion	: 63.00
Area (flag)	: 8011
On-Column Amount (ng)	: 0.7109

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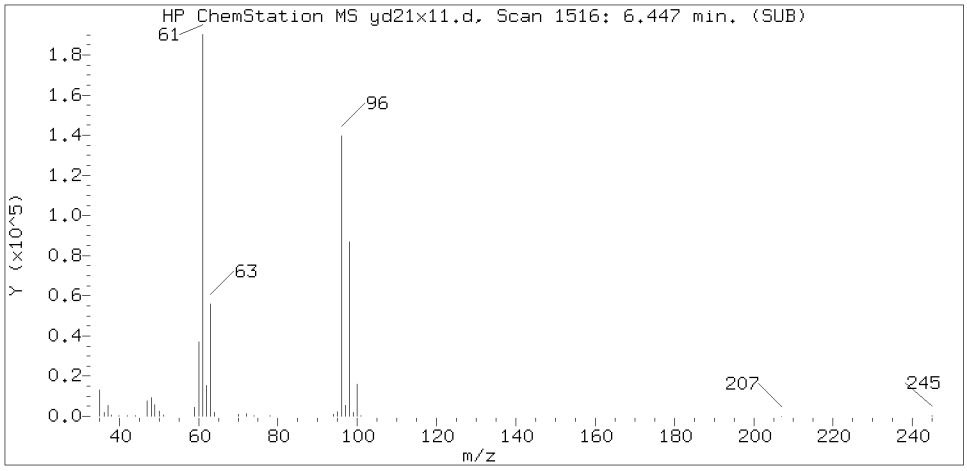
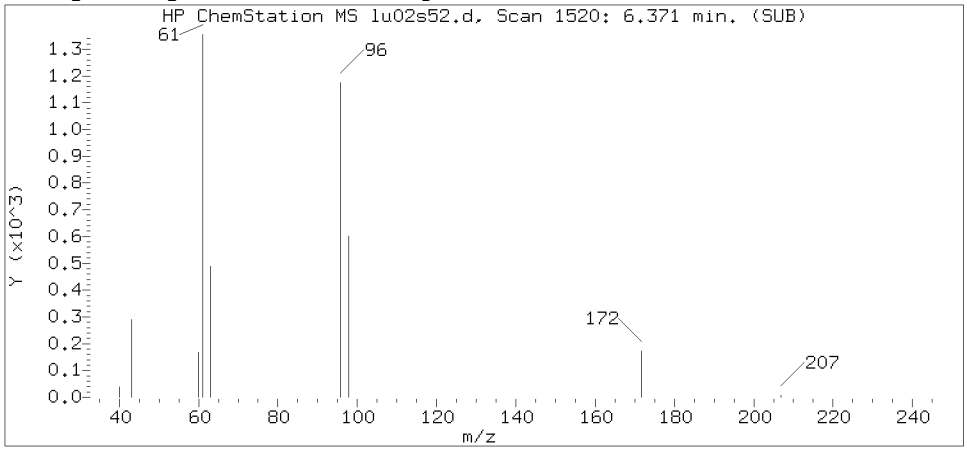
Target 3.5 esignature user ID: clm27445

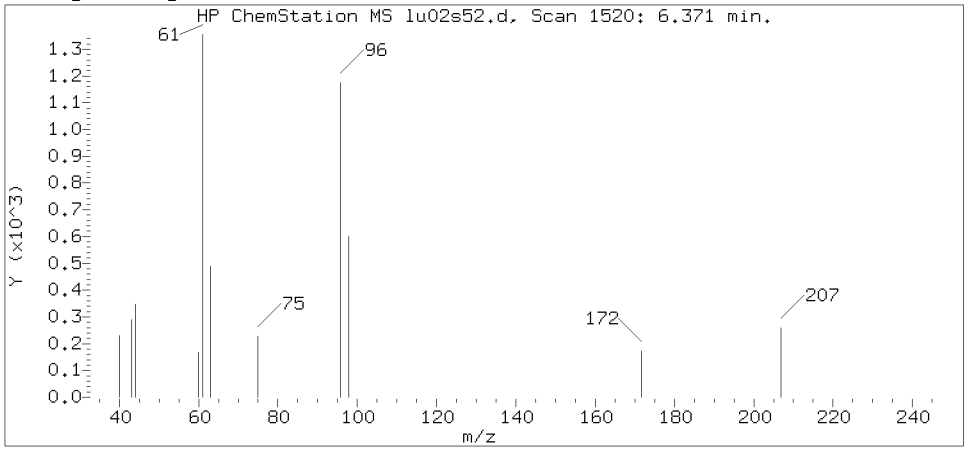
Reference Standard Spectrum for cis-1,2-Dichloroethene

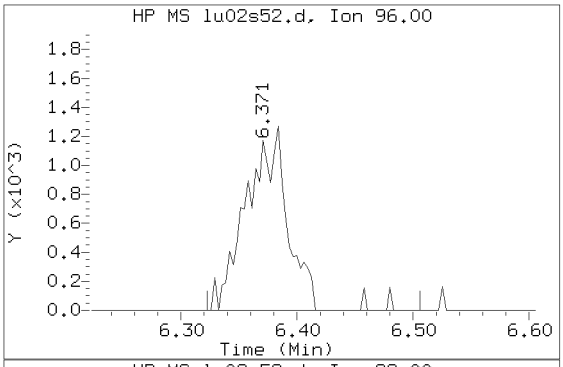


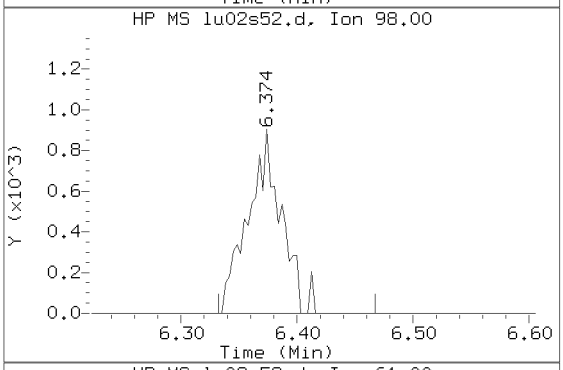
Sample Spectrum (Background Subtracted)

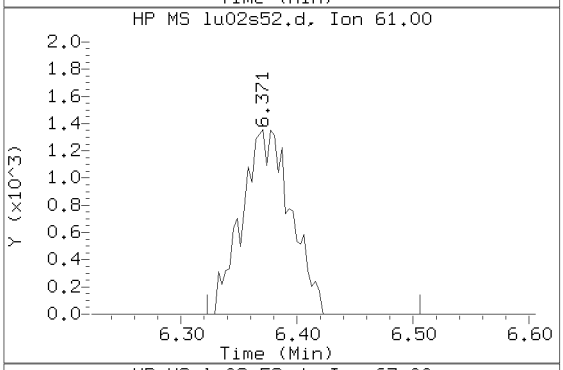


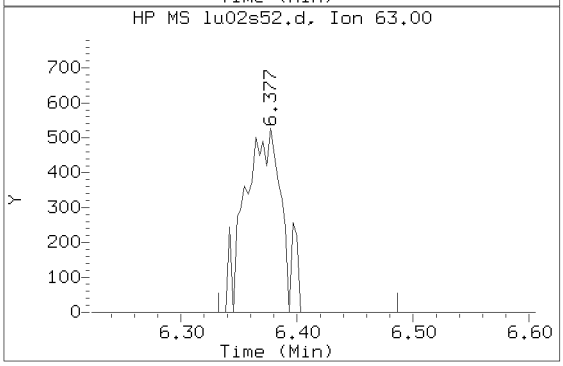
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

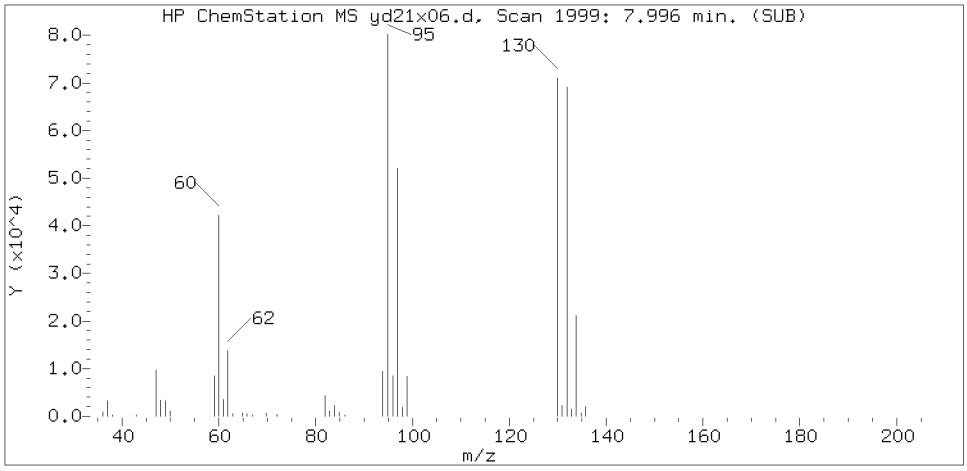
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

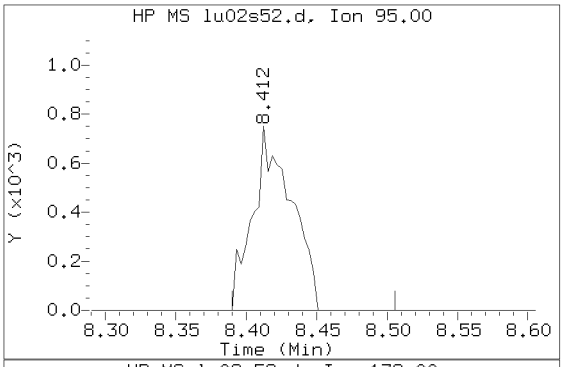
Sample Name: 62J01 Lab Sample ID: 1320950

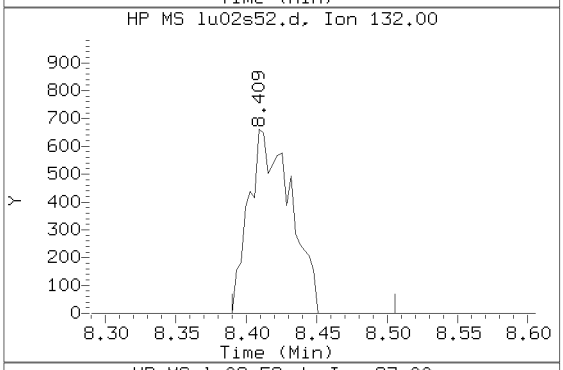
Compound Number	: 42
Compound Name	: cis-1,2-Dichloroethene
Scan Number	: 1520
Retention Time (minutes)	: 6.371
Relative Retention Time	: 0.00048
Quant Ion	: 96.00
Area (flag)	: 3143
On-Column Amount (ng)	: 0.4362

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

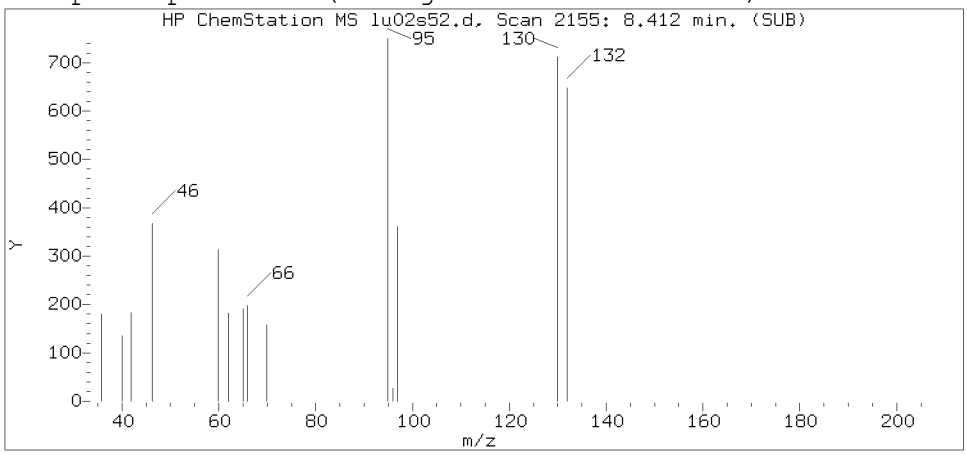
Reference Standard Spectrum for Trichloroethene

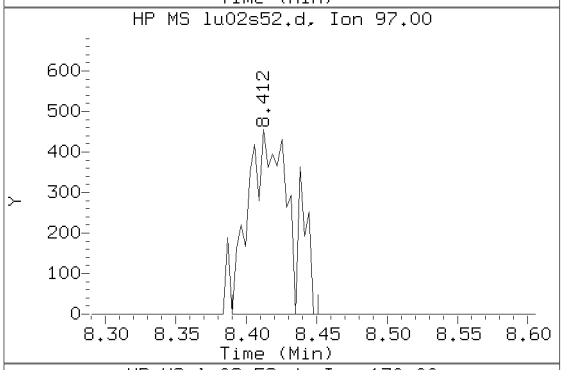




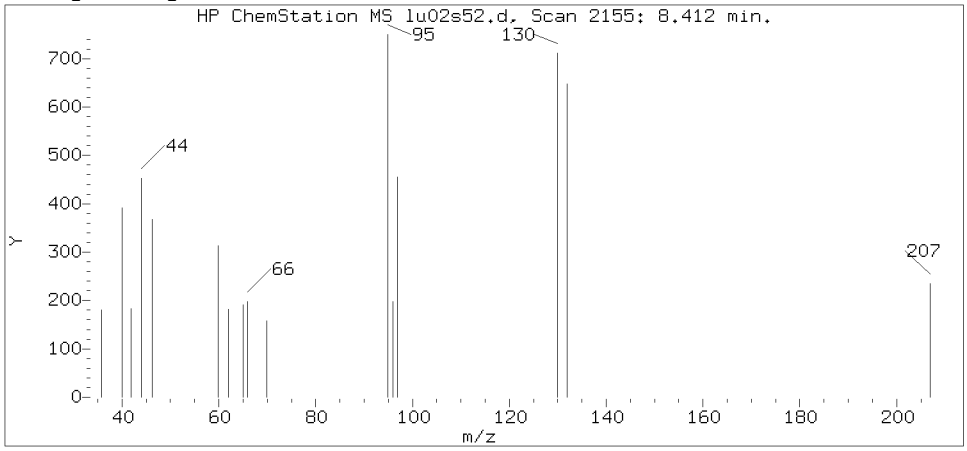


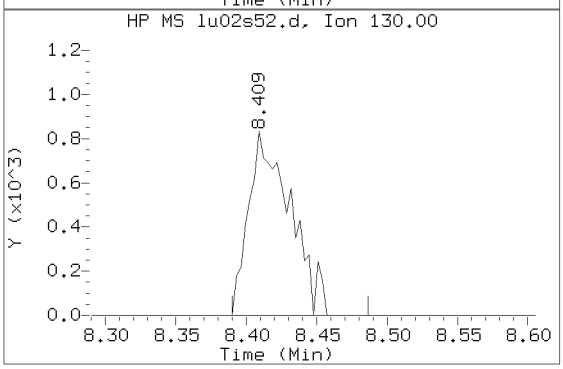
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s52.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:32 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 12:24 clm27445

Sample Name: 62J01 Lab Sample ID: 1320950

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 2155
Retention Time (minutes)	: 8.412
Relative Retention Time	: 0.00078
Quant Ion	: 95.00
Area (flag)	: 1427
On-Column Amount (ng)	: 0.2105

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:25.
Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J02

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320951

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s53.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.7	J
156-59-2	cis-1,2-Dichloroethene	0.5	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.3	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

^

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s53.d Injection date and time: **03-JUN-2020 02:54**
Data file Sample Info. Line: 62J02;1320951;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487	(0.010)	934	65	238917	(-12)	250.00	
66) Fluorobenzene	7.946	(0.003)	2010	96	1242521	(-13)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	968000	(-13)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	520979	(-17)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065	(0.000)	113	322865	51.579	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.512	(0.000)	102	83864	52.800	106%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1231785	49.534	99%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	448712	46.895	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.802	(0.000)	58	1049	1.170	1.17		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.548	(0.000)	63	7975	0.739	0.74		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.380	(-0.000)	96	3311	0.480	0.48		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.416	(0.000)	95	1652	0.254	0.25		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s53.d Injection date and time: **03-JUN-2020 02:54**
Data file Sample Info. Line: 62J02;1320951;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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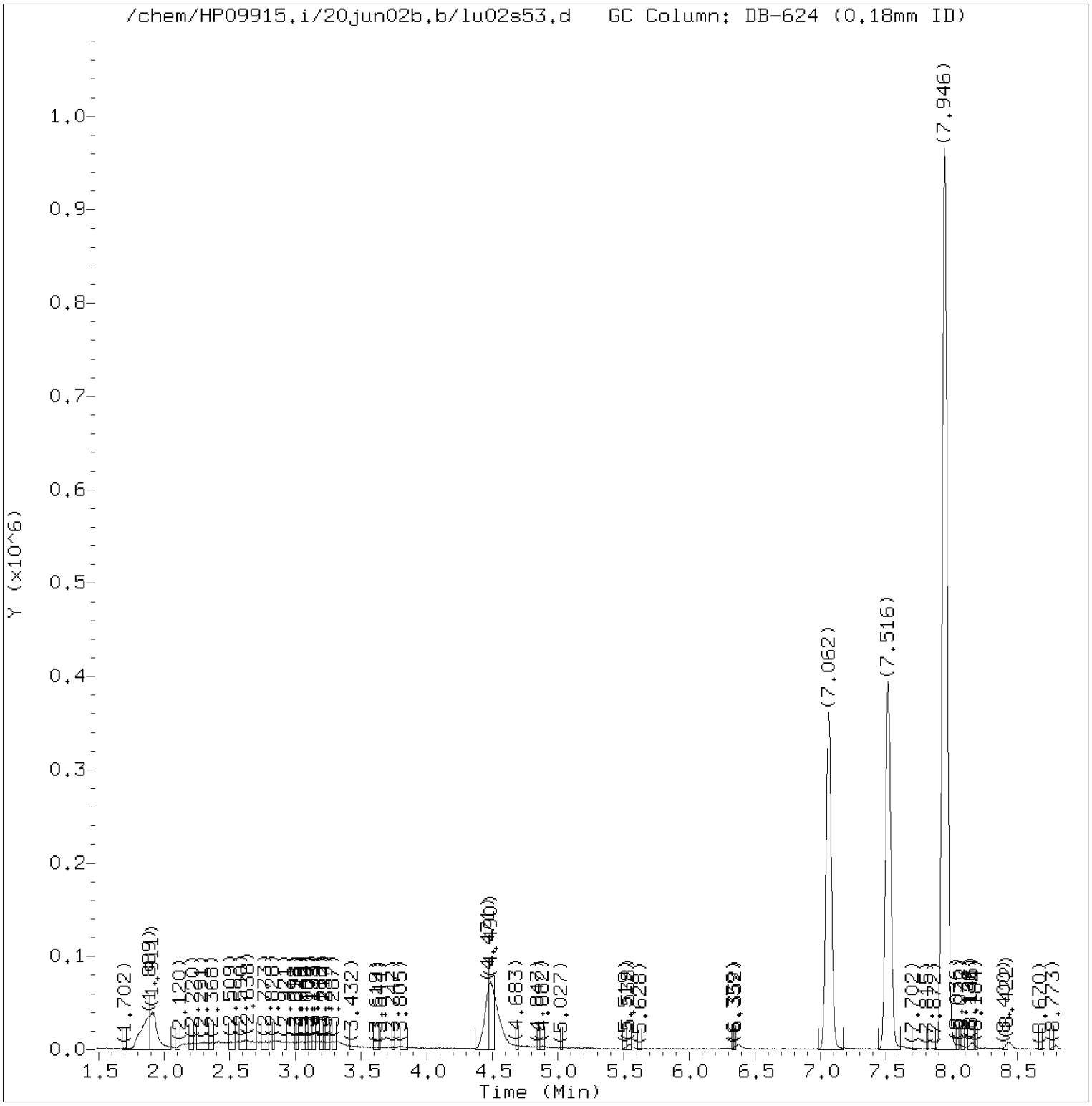
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:26. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

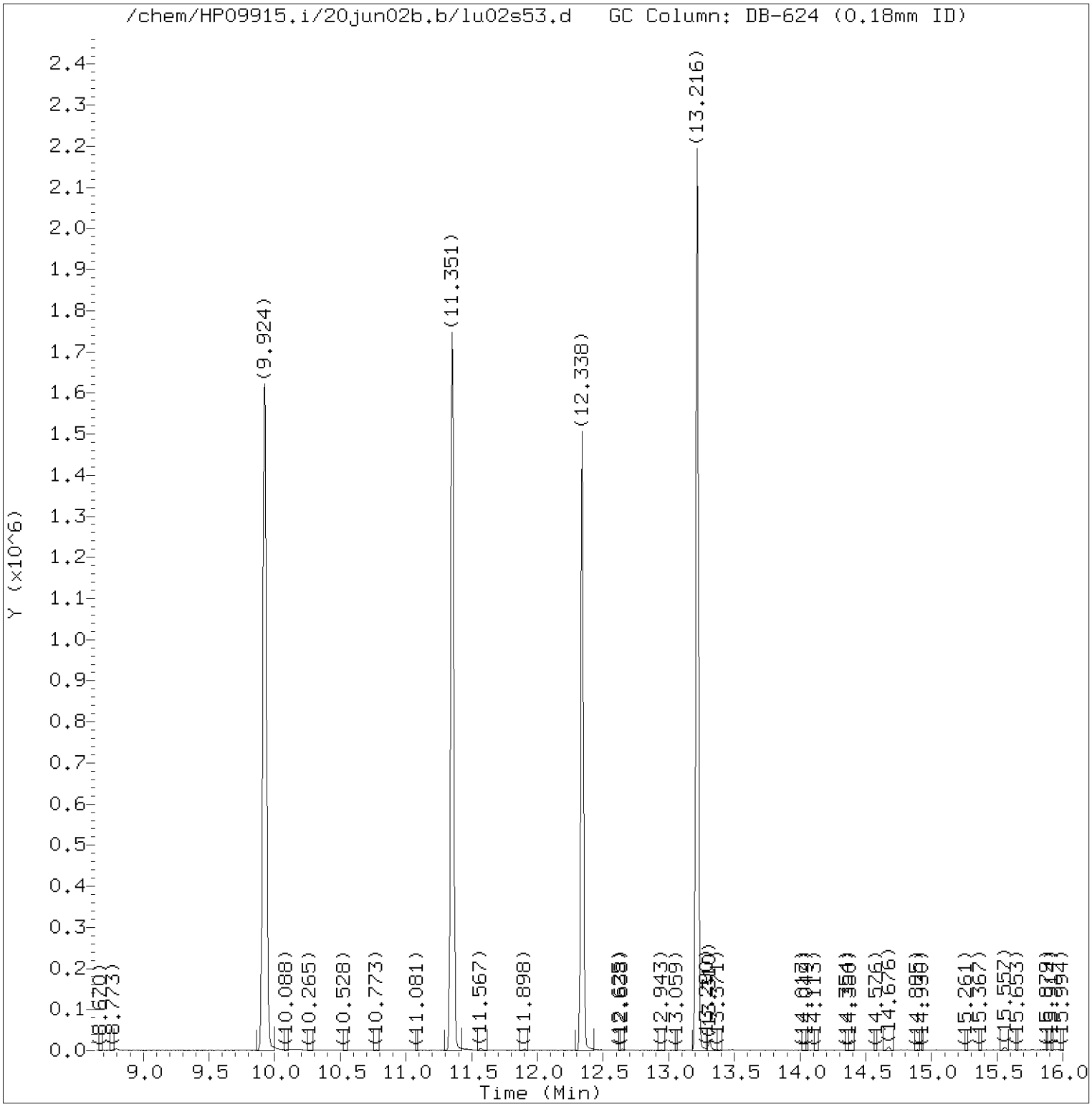
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:26.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:26.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.802	58	1049	1.170
29)*t-Butyl alcohol-d10	(1)	4.487	65	238917	250.000
36) 1,1-Dichloroethane	(2)	5.548	63	7975	0.739
42) cis-1,2-Dichloroethene	(2)	6.381	96	3311	0.480
52)$Dibromofluoromethane	(2)	7.065	113	322865	51.579
57)$1,2-Dichloroethane-d4	(2)	7.512	102	83864	52.800
66)*Fluorobenzene	(2)	7.946	96	1242521	50.000
71) Trichloroethene	(2)	8.416	95	1652	0.254
83)$Toluene-d8	(3)	9.924	98	1231785	49.534
100)*Chlorobenzene-d5	(3)	11.351	117	968000	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	448712	46.895
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	520979	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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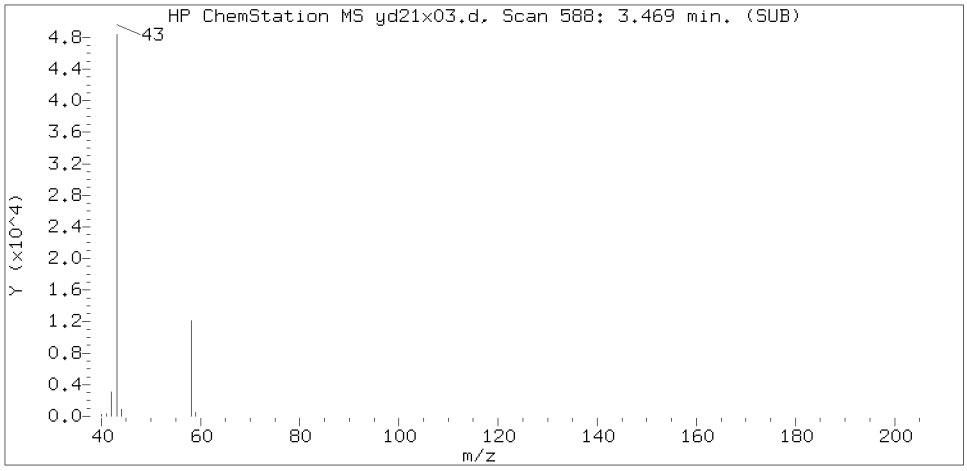
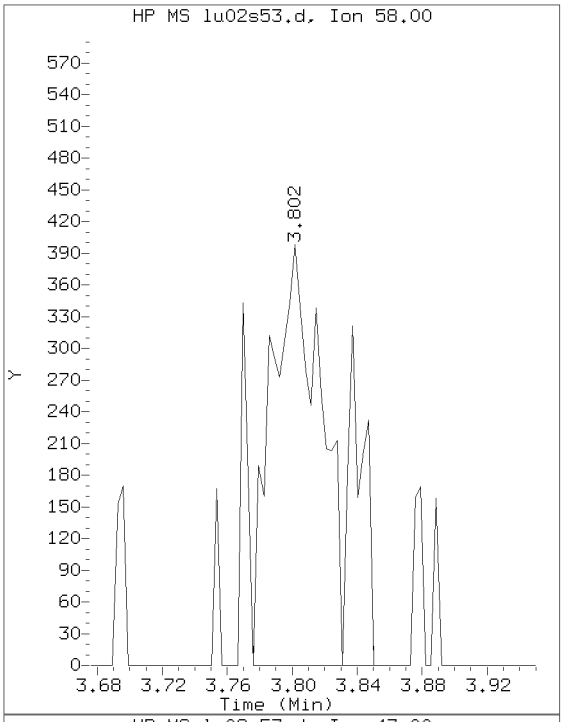
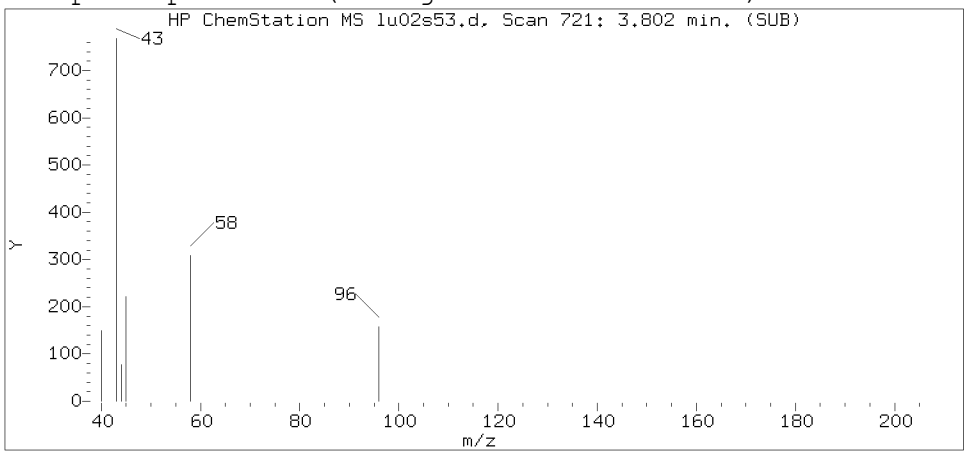
on 06/03/2020 at 12:26.
Target 3.5 esignature user ID: clm27445

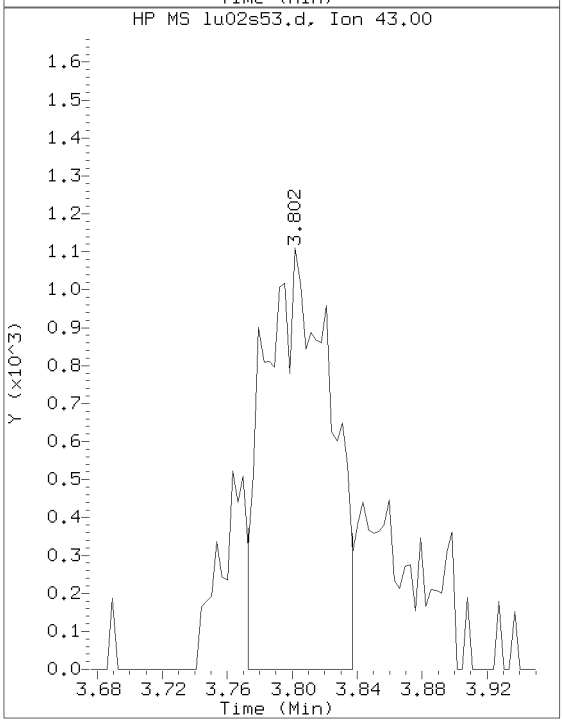
Reference Standard Spectrum for Acetone



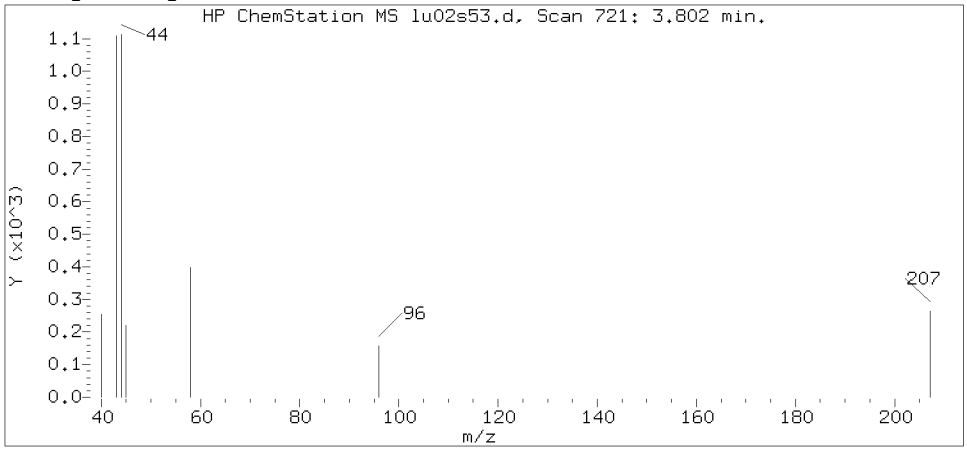


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 721
Retention Time (minutes)	: 3.802
Relative Retention Time	: 0.00033
Quant Ion	: 58.00
Area (flag)	: 1049
On-Column Amount (ng)	: 1.1702

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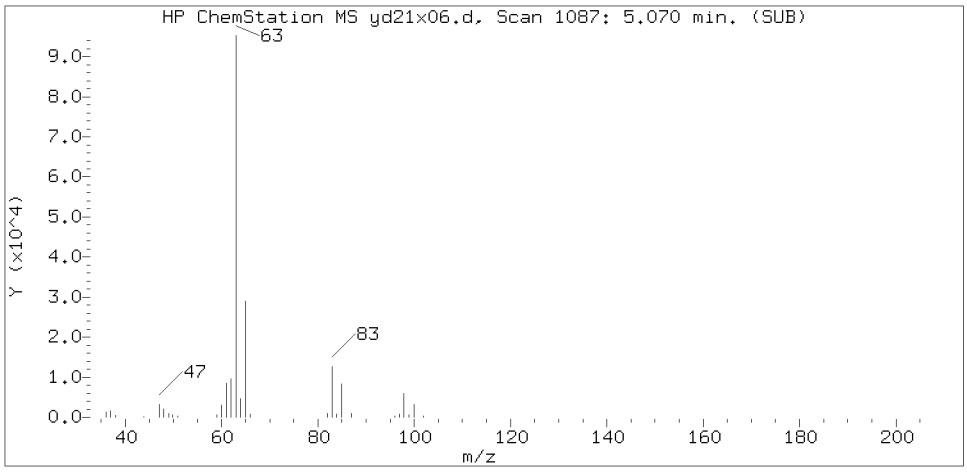
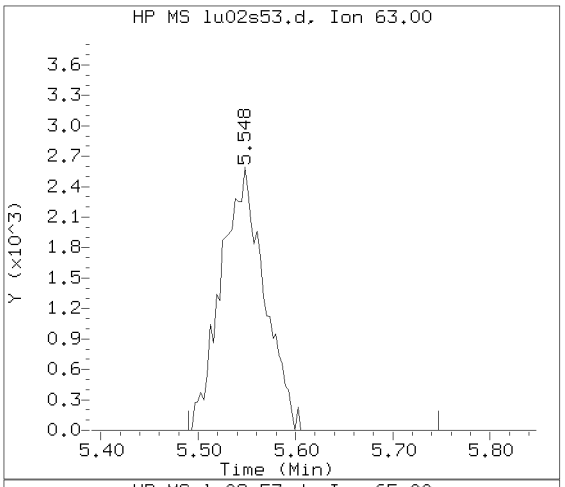
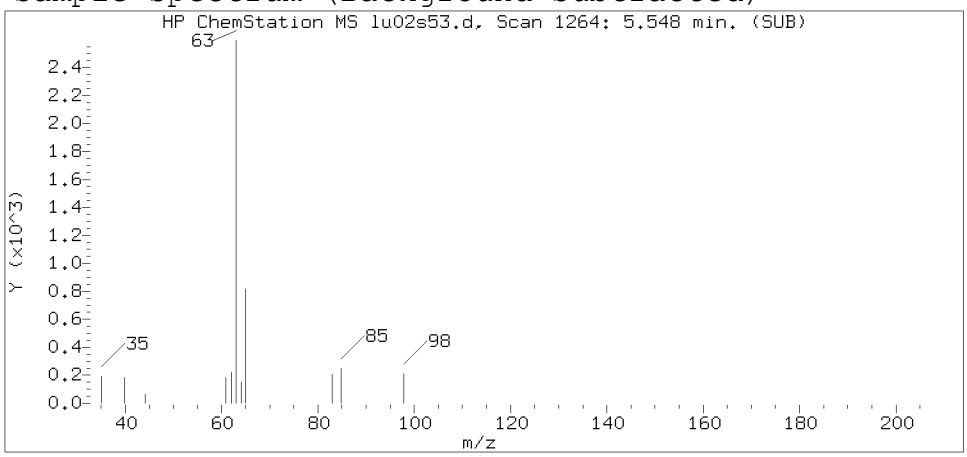
Target 3.5 esignature user ID: clm27445

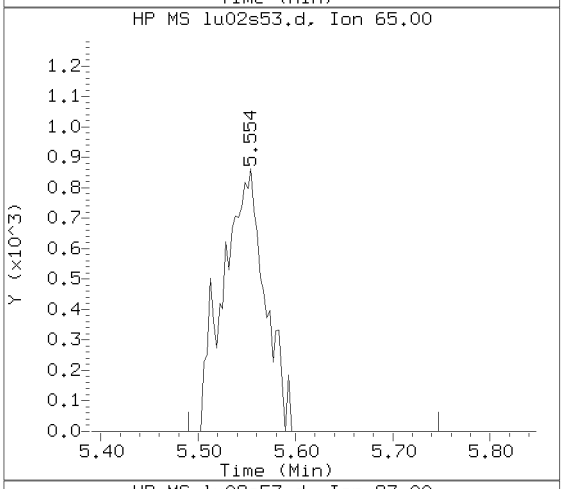
Reference Standard Spectrum for 1,1-Dichloroethane



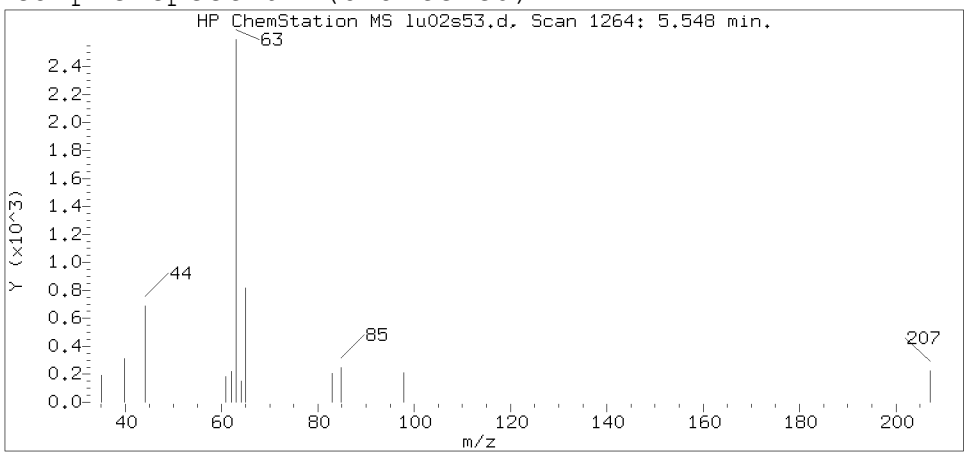


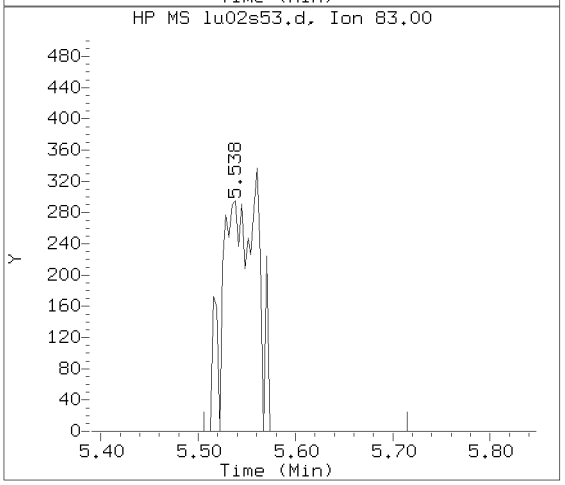
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 1264
Retention Time (minutes)	: 5.548
Relative Retention Time	: 0.00012
Quant Ion	: 63.00
Area (flag)	: 7975
On-Column Amount (ng)	: 0.7392

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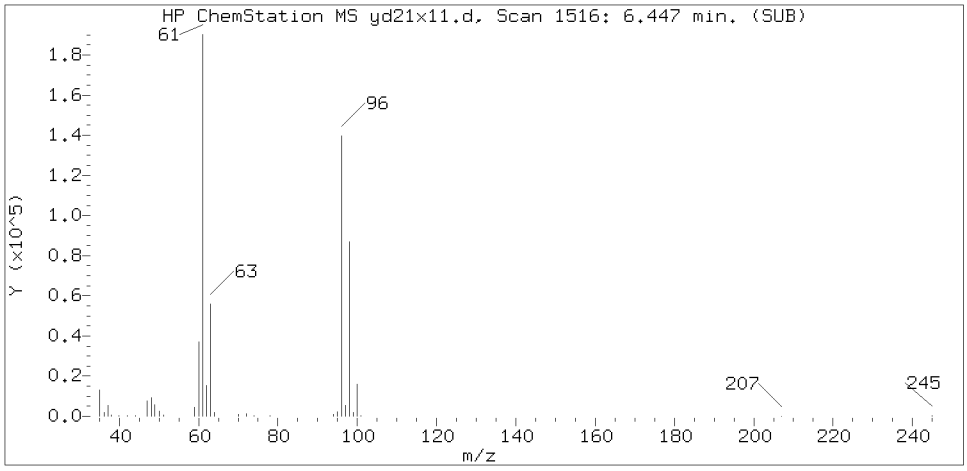
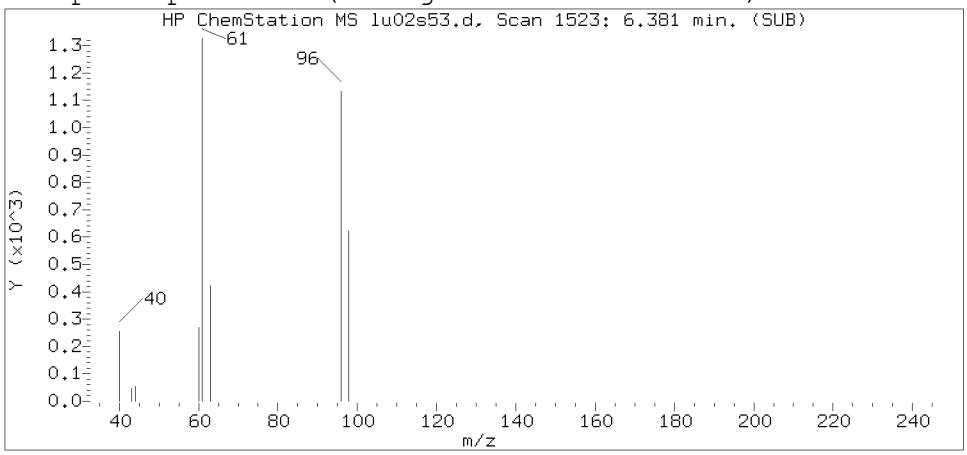
Target 3.5 esignature user ID: clm27445

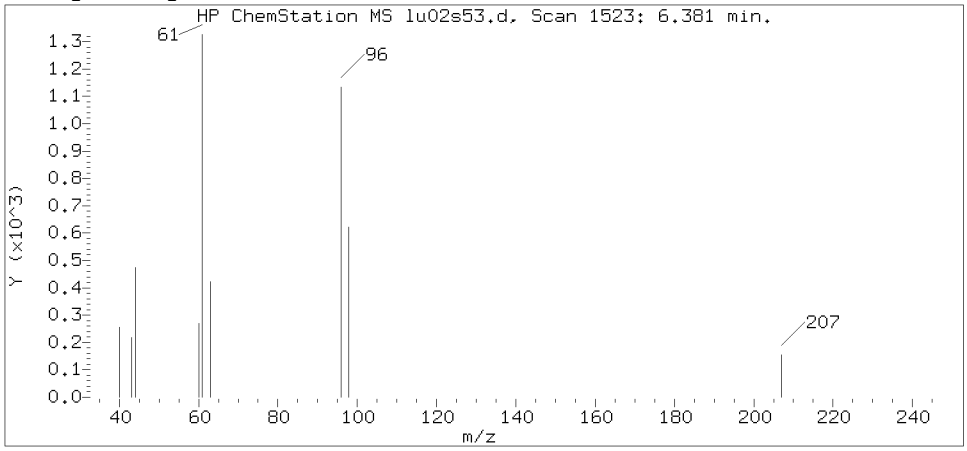
Reference Standard Spectrum for cis-1,2-Dichloroethene

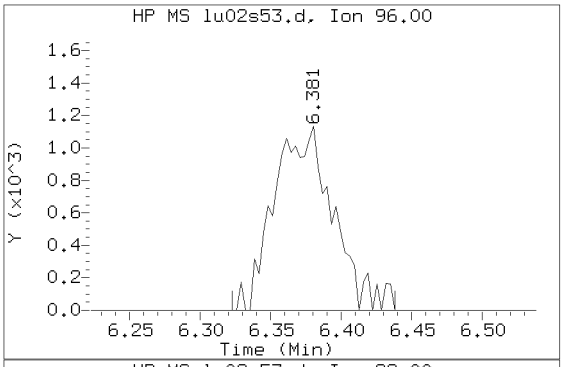


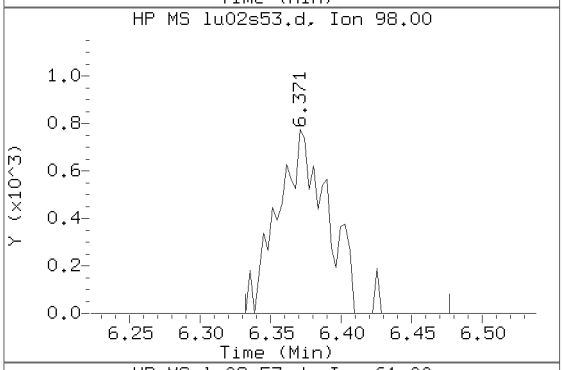
Sample Spectrum (Background Subtracted)

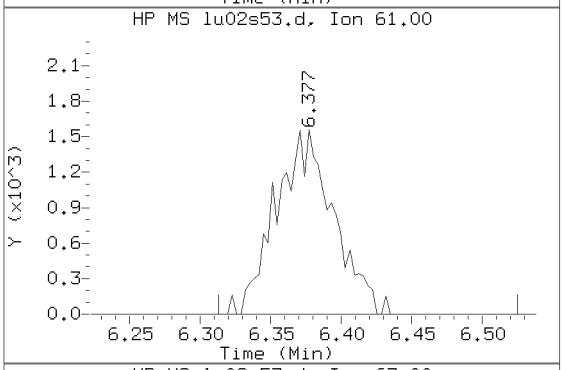


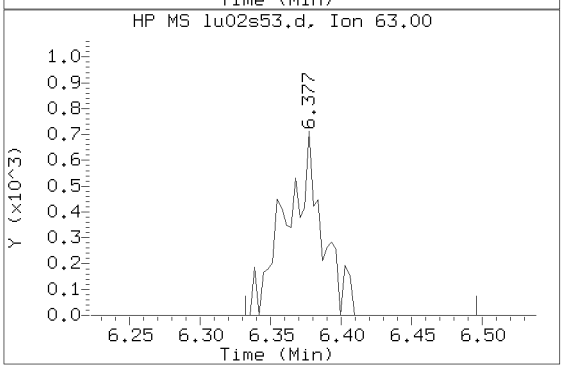
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1523
Retention Time (minutes): 6.381
Relative Retention Time :-0.00073
Quant Ion : 96.00
Area (flag) : 3311
On-Column Amount (ng) : 0.4800

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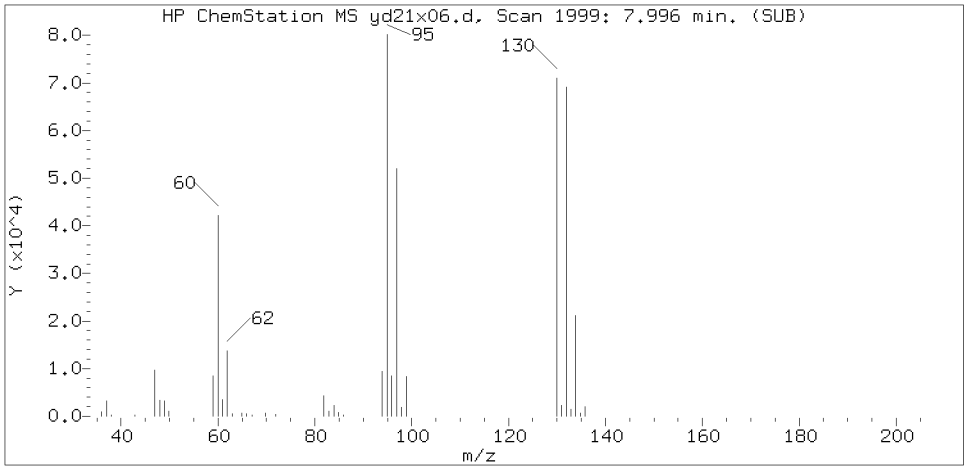
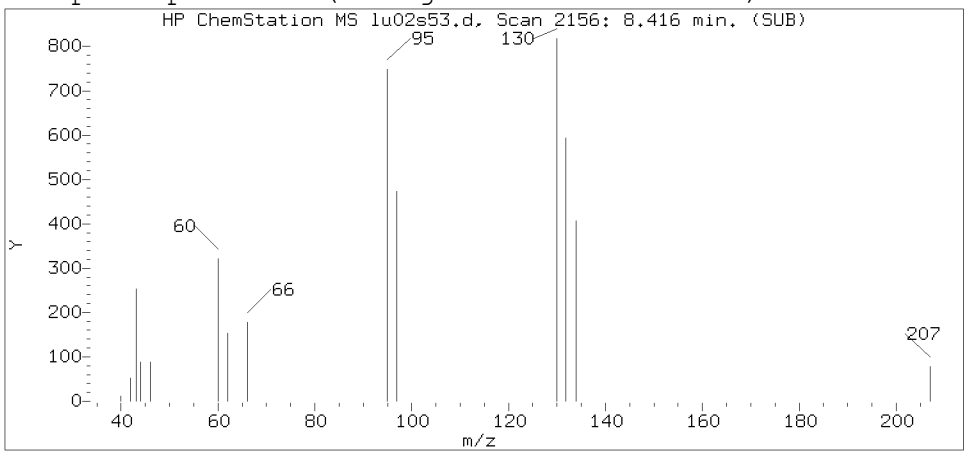
Target 3.5 esignature user ID: clm27445

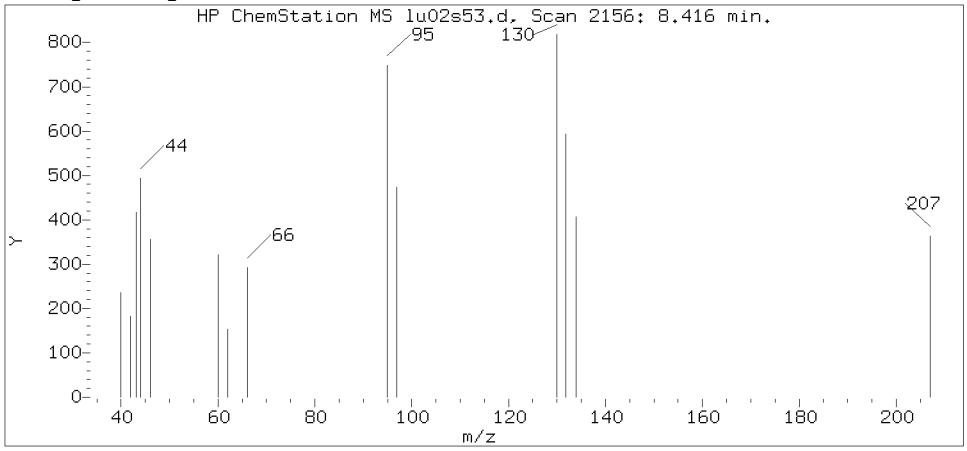
Reference Standard Spectrum for Trichloroethene

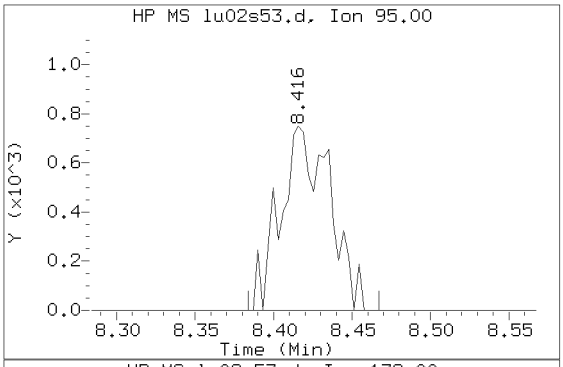


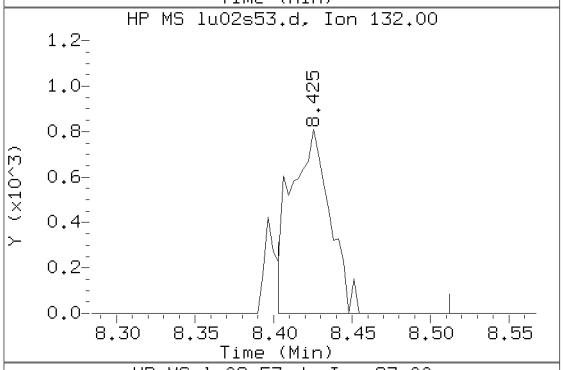
Sample Spectrum (Background Subtracted)

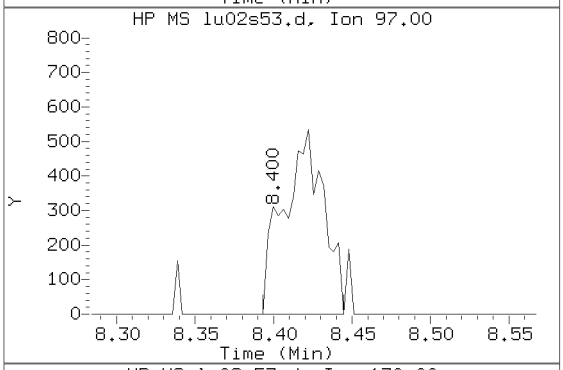


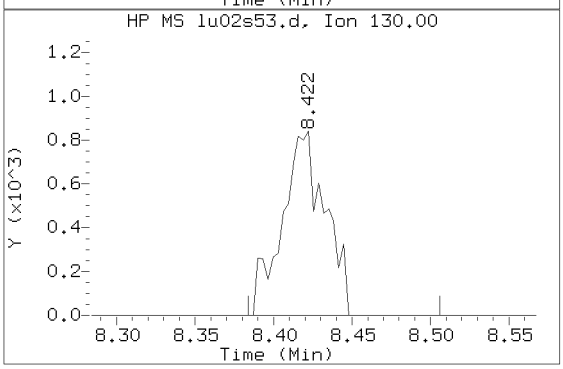
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s53.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 02:54 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:12 Automation

Sample Name: 62J02 Lab Sample ID: 1320951

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 2156
Retention Time (minutes): 8.416
Relative Retention Time : 0.00038
Quant Ion : 95.00
Area (flag) : 1652
On-Column Amount (ng) : 0.2544

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:26.
Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J03

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320952

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s54.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	0.4	J
67-64-1	Acetone	0.8	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	
156-59-2	cis-1,2-Dichloroethene	1	
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	5	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	15	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	2	
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s54.d
Injection date and time: **03-JUN-2020 03:16**
Data file Sample Info. Line: 62J03;1320952;1;0;;JCW62;;;lu02b41;
Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.496(0.000)	937	65	235221 (-13)	250.00	
66) Fluorobenzene	7.950(0.000)	2011	96	1246712 (-13)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	954007 (-14)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(-0.003)	3649	152	514216 (-18)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.069(0.000)	113	318892	50.773	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.519(0.000)	102	81141	50.914	102%		80 - 120
83) Toluene-d8	(3)	9.924(0.000)	98	1241630	50.662	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.339(0.000)	95	444476	47.134	94%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)			Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)	3.770(-0.000)	96	2221	0.414	0.41		J	0.2	1
18) Acetone	(1)	3.792(0.004)	58	736A	0.834	0.83		J	0.7	20
19) Freon 113	(2)			Not Detected					0.2	10
23) Carbon Disulfide	(2)			Not Detected					0.2	5
28) Methylene Chloride	(2)			Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)			Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.545(0.000)	63	12775	1.180	1.18			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.381(-0.000)	96	9525	1.376	1.38			0.2	1
44) 2-Butanone	(2)			Not Detected					0.3	10
51) Chloroform	(2)			Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.078(-0.000)	97	40906A	4.508	4.51			0.3	1
60) Benzene	(2)			Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)			Not Detected					0.3	1
71) Trichloroethene	(2)	8.422(0.000)	95	97887	15.024	15.02			0.2	1
75) 1,4-Dioxane	(1)			Not Detected					29	250
88) Toluene	(3)			Not Detected					0.2	1
93) Tetrachloroethene	(3)	10.532(-0.000)	166	11293	1.696	1.70			0.2	1
104) Ethylbenzene	(3)			Not Detected					0.4	1
106) m+p-Xylene	(3)			Not Detected					1	5
107) o-Xylene	(3)			Not Detected					0.4	1
108) Xylene (Total)	(3)			Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)			Not Detected					0.2	5
148) Naphthalene	(4)			Not Detected					1	5

A = User selected an alternate peak.

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20jun02b.b/lu02s54.d Injection date and time: **03-JUN-2020 03:16**
Data file Sample Info. Line: 62J03;1320952;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

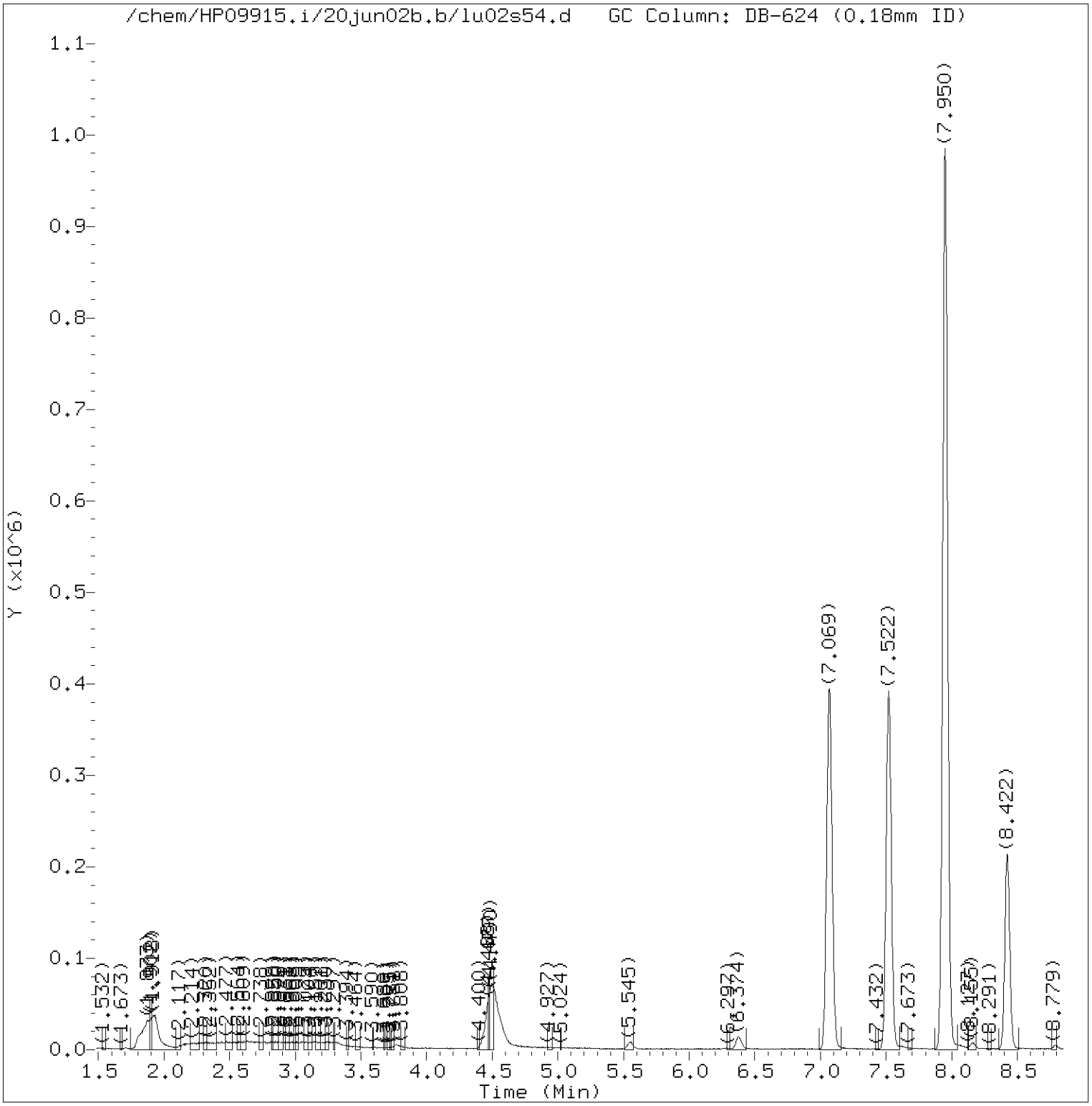
Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

THIS SPACE
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

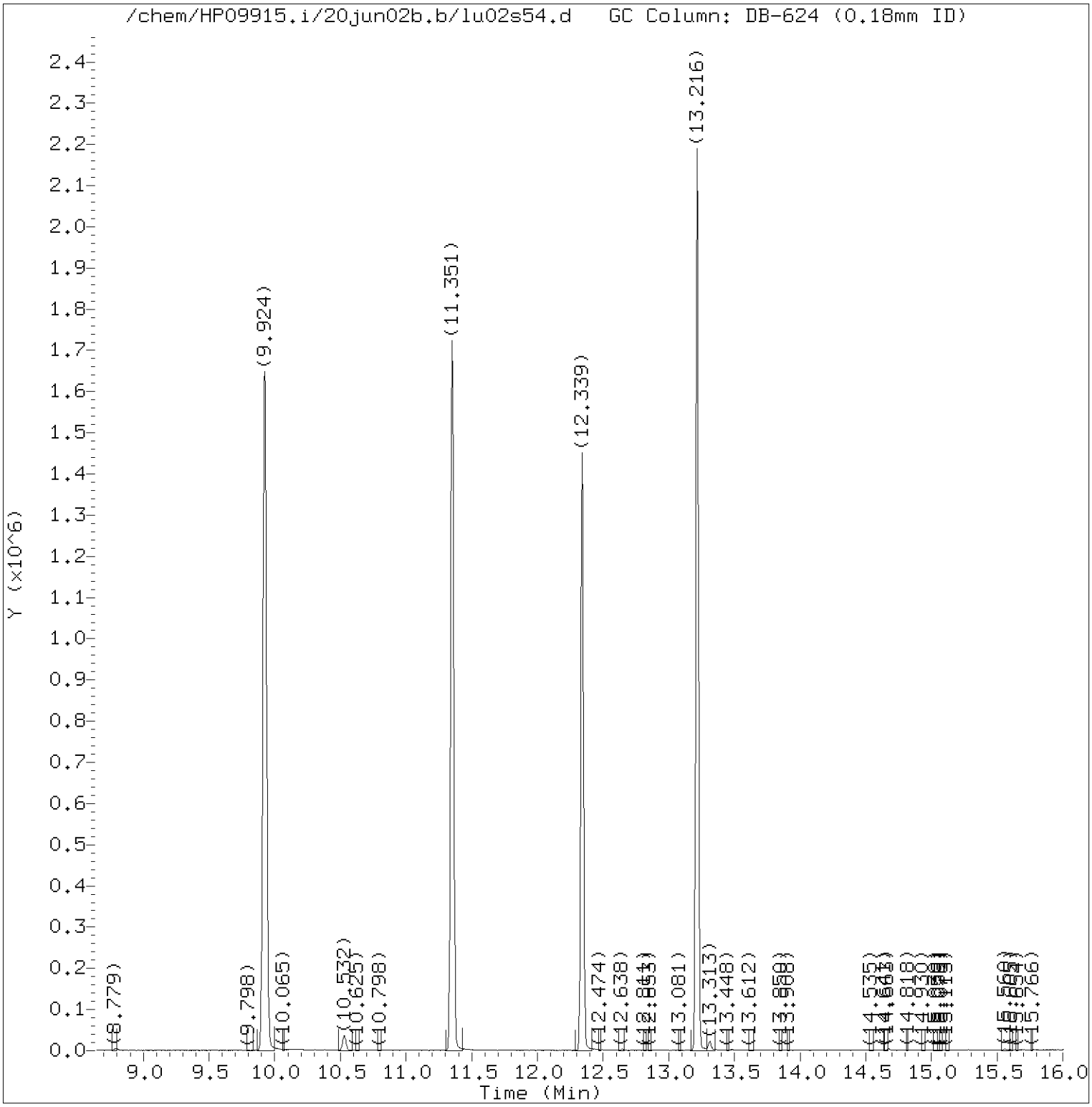
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

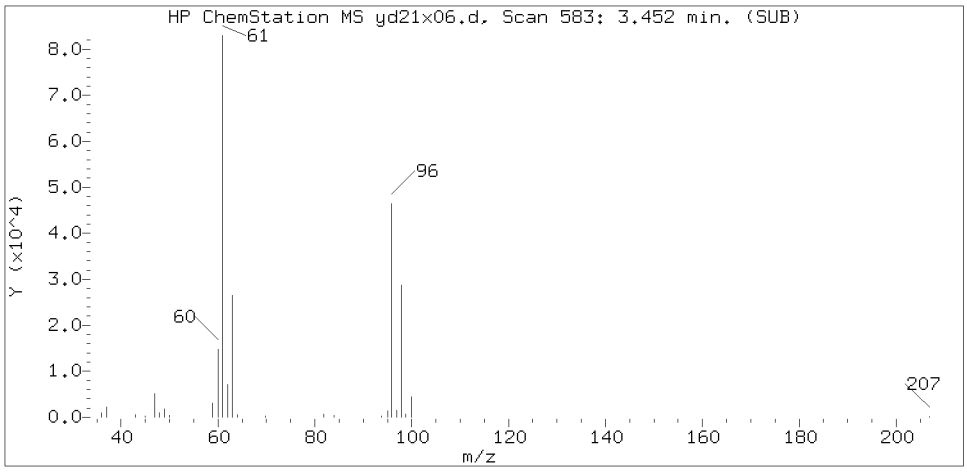
Sample Name: 62J03 Lab Sample ID: 1320952

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
17) 1,1-Dichloroethene	(2)	3.770	96	2221	0.414
18) Acetone	(1)	3.792	58	736A	0.834
29)*t-Butyl alcohol-d10	(1)	4.496	65	235221	250.000
36) 1,1-Dichloroethane	(2)	5.545	63	12775	1.180
42) cis-1,2-Dichloroethene	(2)	6.381	96	9525	1.376
52)$Dibromofluoromethane	(2)	7.069	113	318892	50.773
53) 1,1,1-Trichloroethane	(2)	7.078	97	40906A	4.508
57)$1,2-Dichloroethane-d4	(2)	7.519	102	81141	50.914
66)*Fluorobenzene	(2)	7.950	96	1246712	50.000
71) Trichloroethene	(2)	8.422	95	97887	15.024
83)$Toluene-d8	(3)	9.924	98	1241630	50.662
93) Tetrachloroethene	(3)	10.532	166	11293	1.696
100)*Chlorobenzene-d5	(3)	11.351	117	954007	50.000
114)$4-Bromofluorobenzene	(3)	12.339	95	444476	47.134
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	514216	50.000

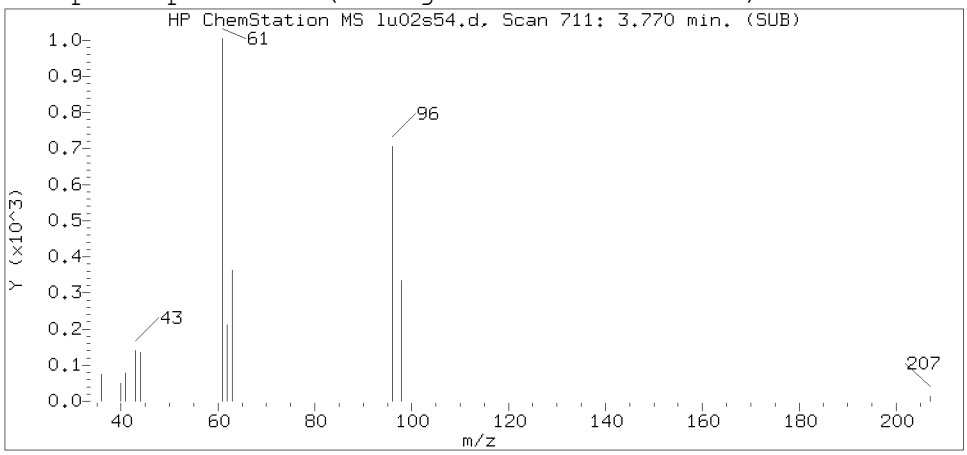
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

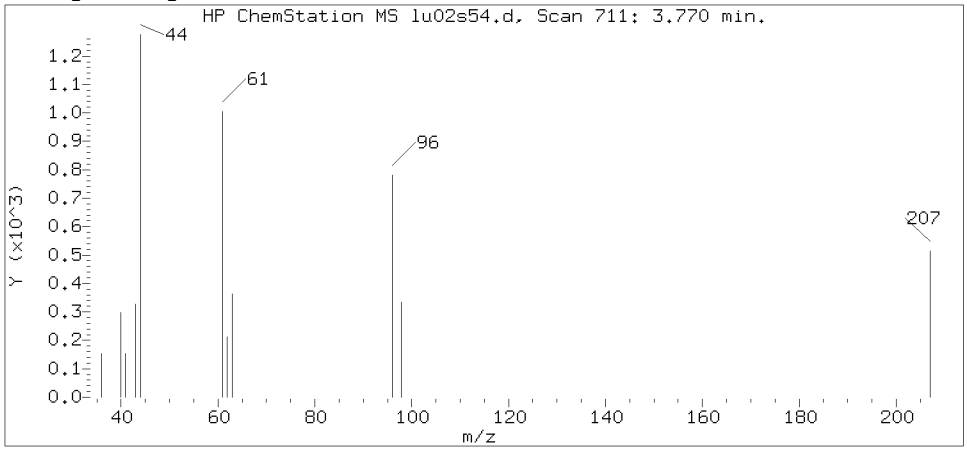
Reference Standard Spectrum for 1,1-Dichloroethene

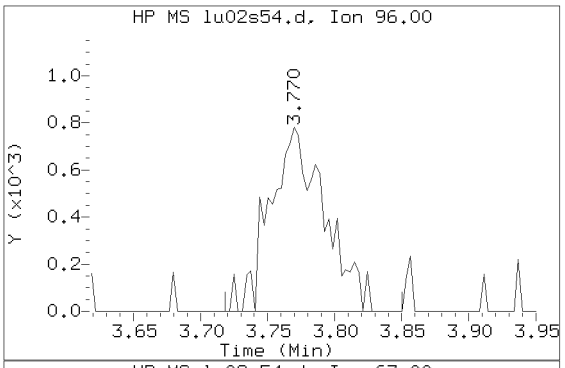


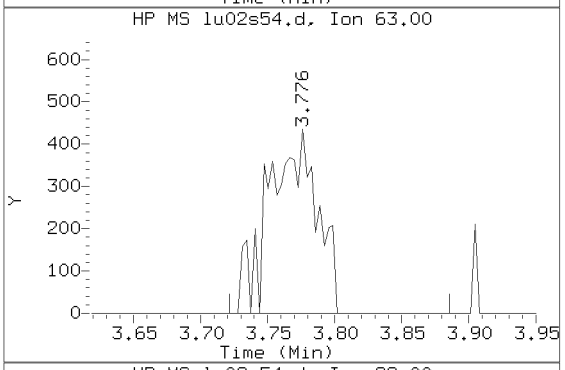
Sample Spectrum (Background Subtracted)

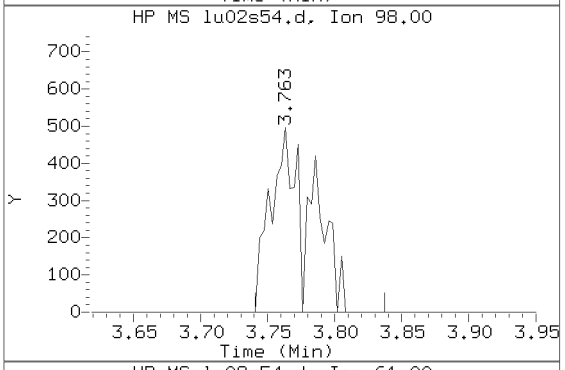


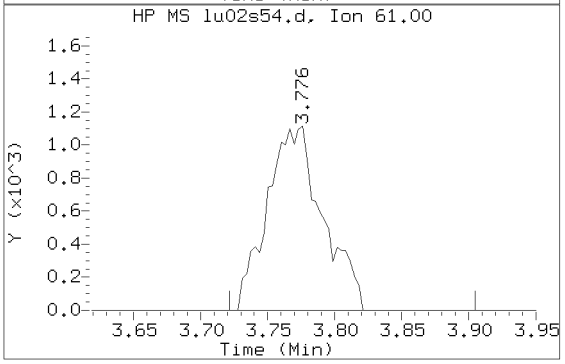
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

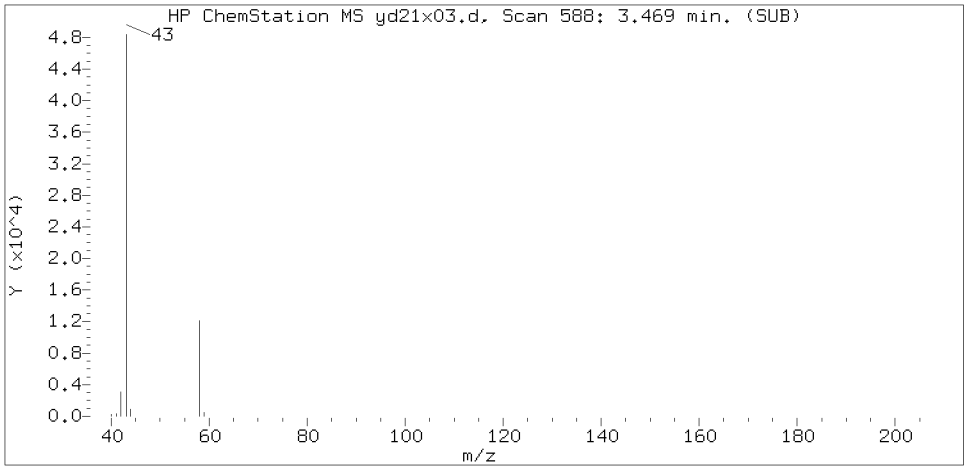
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

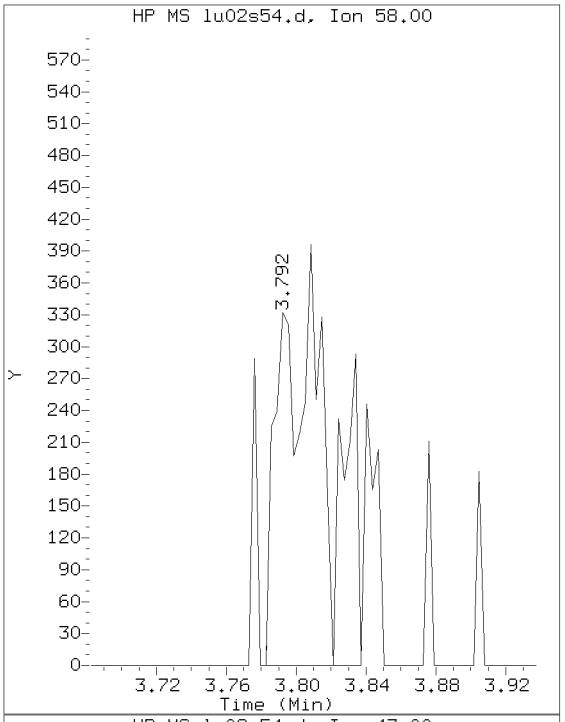
Sample Name: 62J03 Lab Sample ID: 1320952

Compound Number : 17
Compound Name : 1,1-Dichloroethene
Scan Number : 711
Retention Time (minutes): 3.770
Relative Retention Time :-0.00082
Quant Ion : 96.00
Area (flag) : 2221
On-Column Amount (ng) : 0.4140

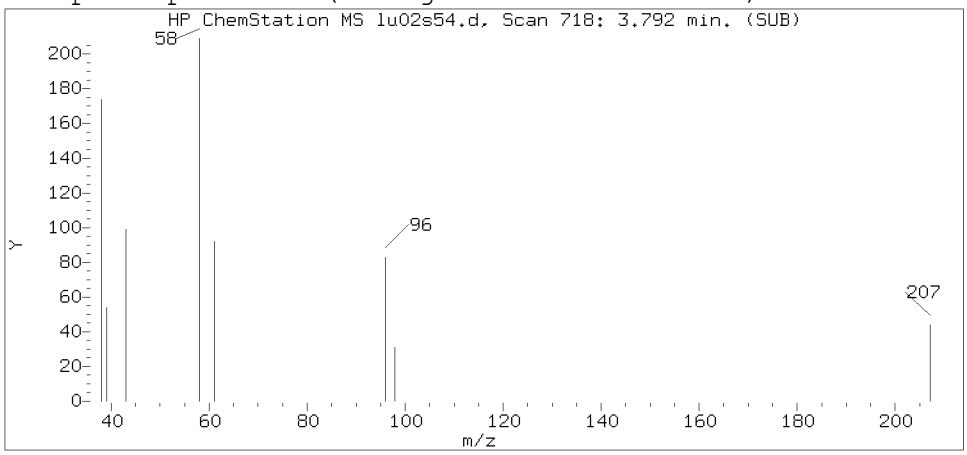
Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

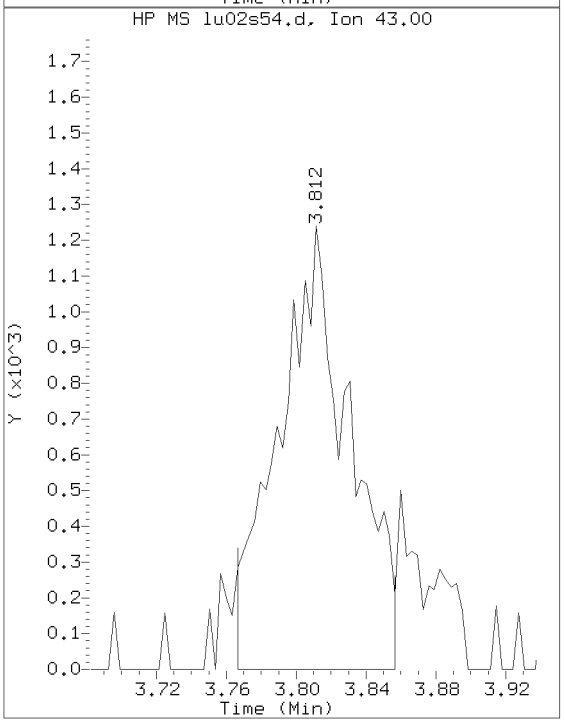
Reference Standard Spectrum for Acetone



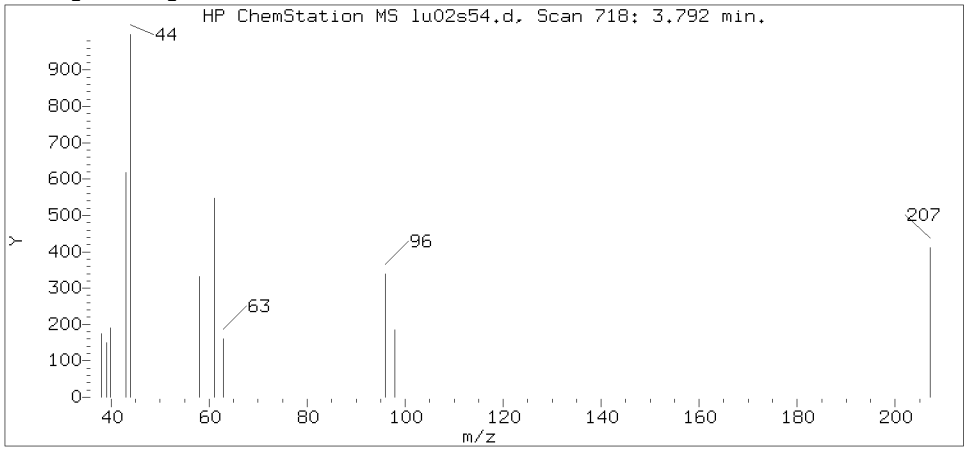


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

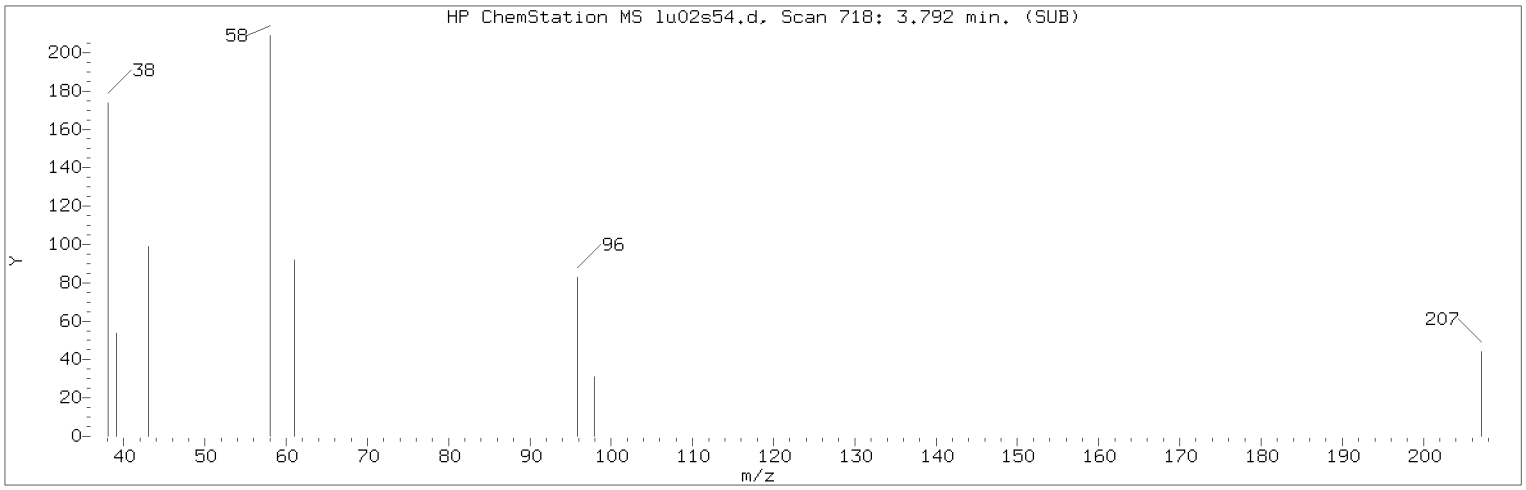
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

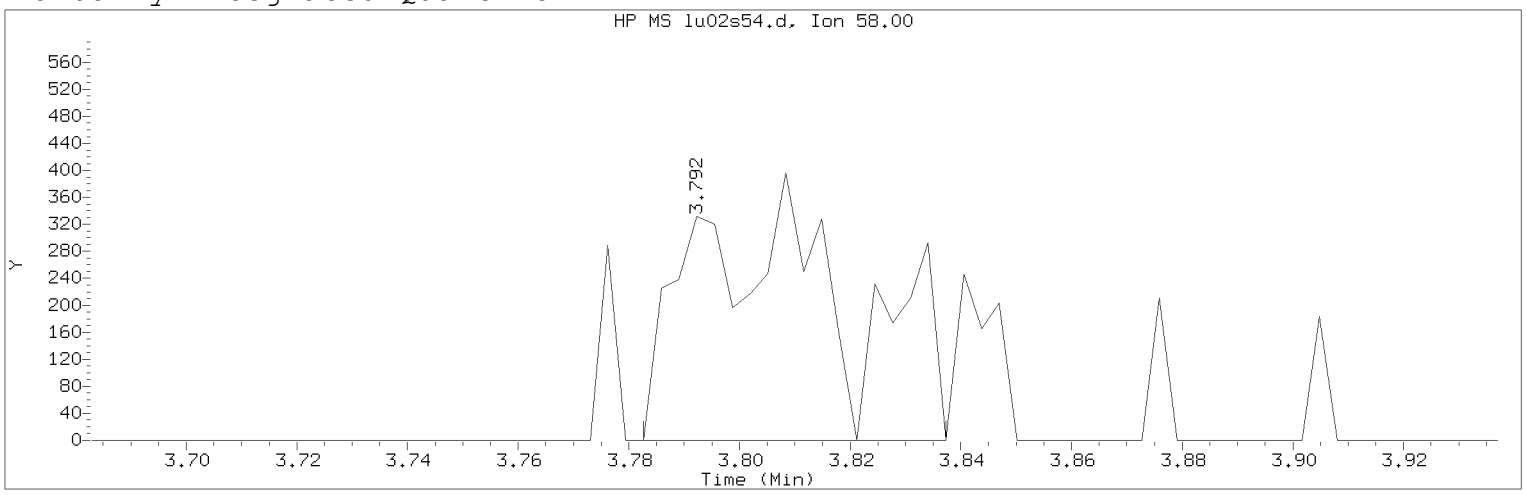
Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 718
Retention Time (minutes)	: 3.792
Relative Retention Time	: 0.00428
Quant Ion	: 58.00
Area (flag)	: 736A
On-Column Amount (ng)	: 0.8338

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

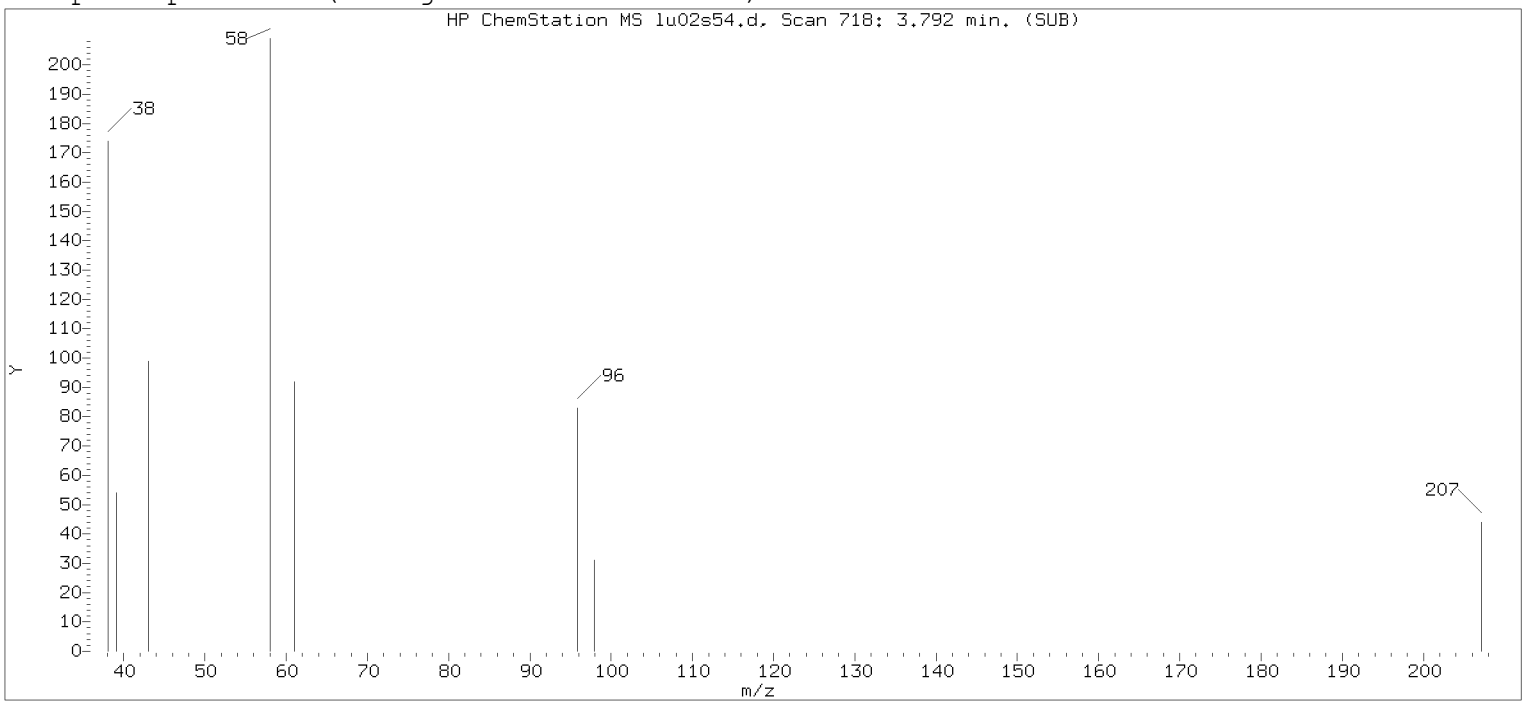
Compound Number : 18
Compound Name : Acetone
Scan Number : 718
Retention Time (minutes): 3.792
Quant Ion : 58.00
Area (flag) : 736A
On-Column Amount (ng) : 0.8338
Integration start scan : 714 Integration stop scan: 731
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

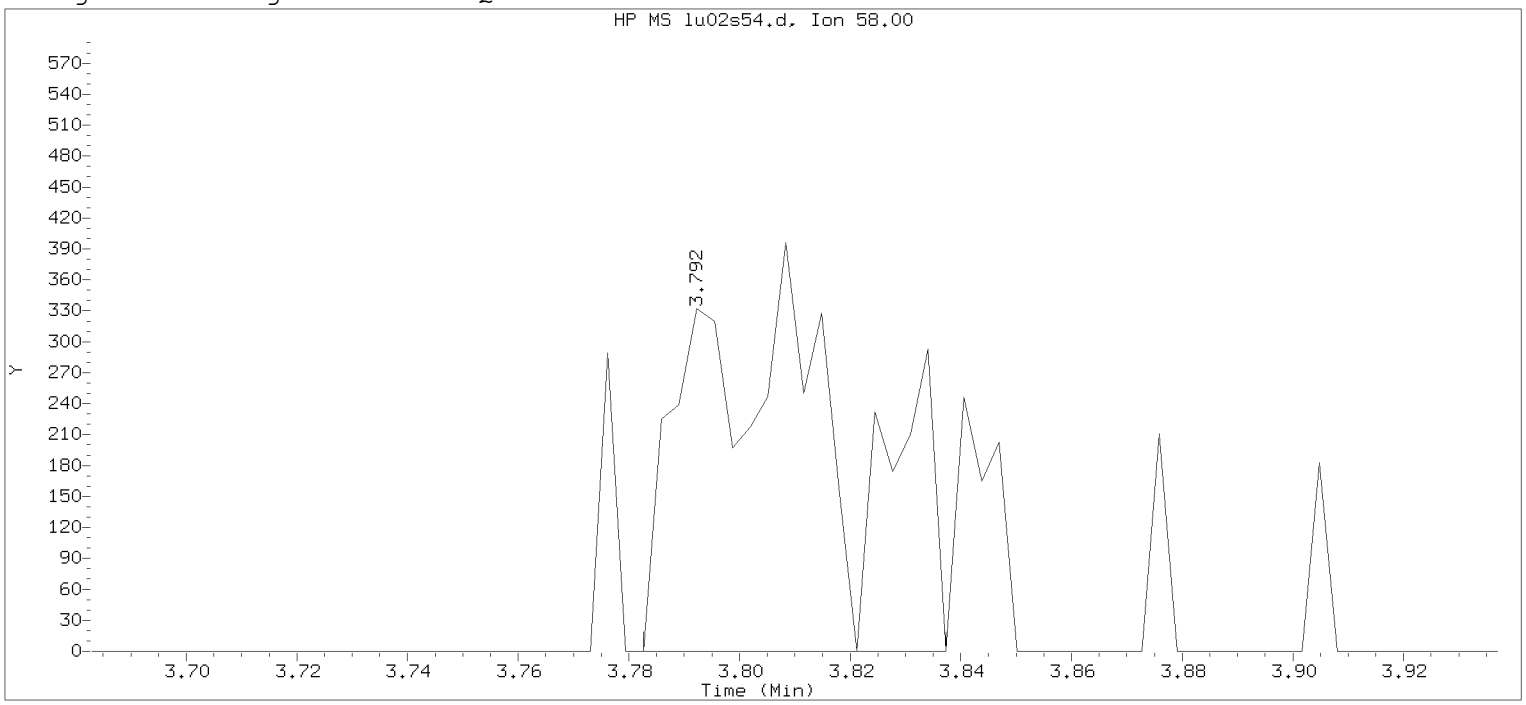
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

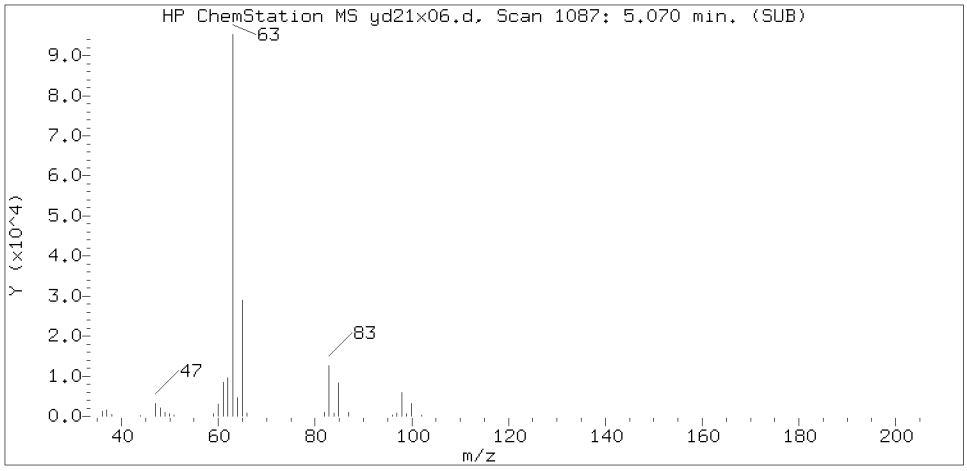
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:34 Automation

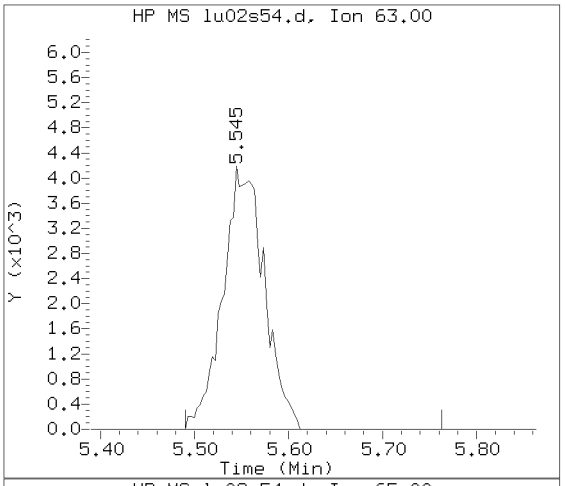
Sample Name: 62J03 Lab Sample ID: 1320952

Compound Number : 18
Compound Name : Acetone
Scan Number : 718
Retention Time (minutes): 3.792
Quant Ion : 58.00
Area : 736
On-column Amount (ng) : 0.8349
Integration start scan : 714 Integration stop scan: 731
Y at integration start : 0 Y at integration end: 0

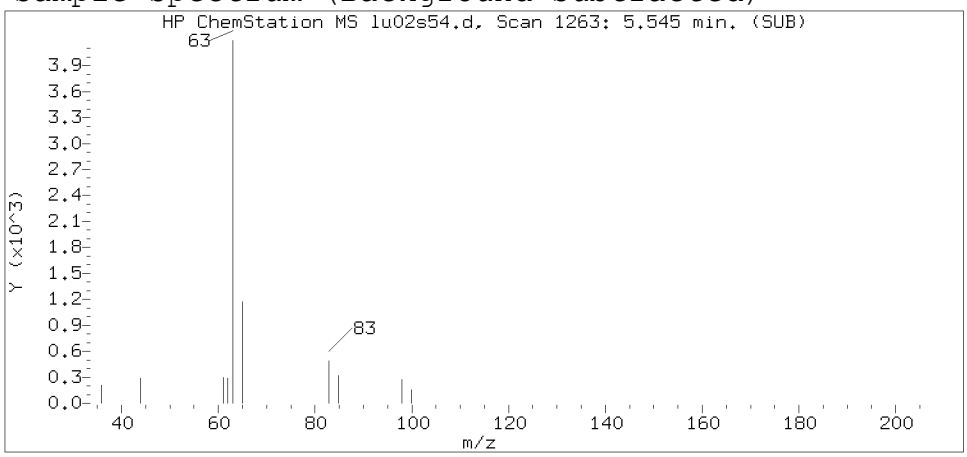
Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27485

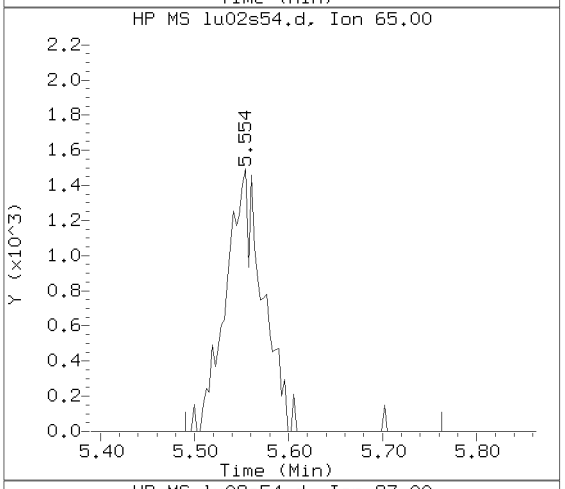
Reference Standard Spectrum for 1,1-Dichloroethane



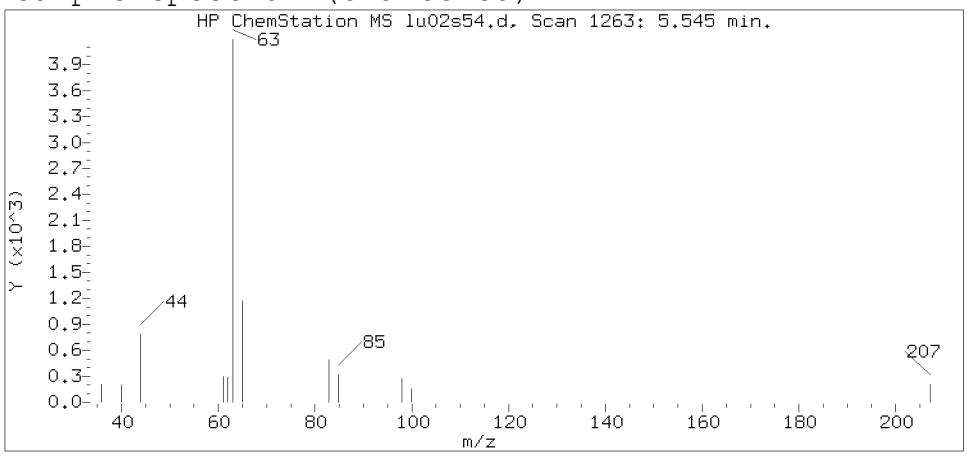


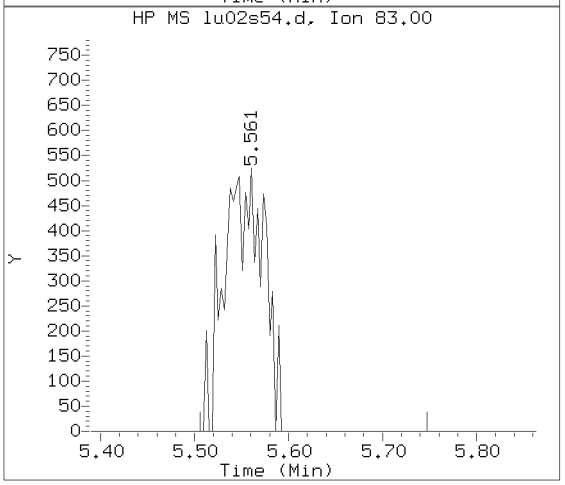
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

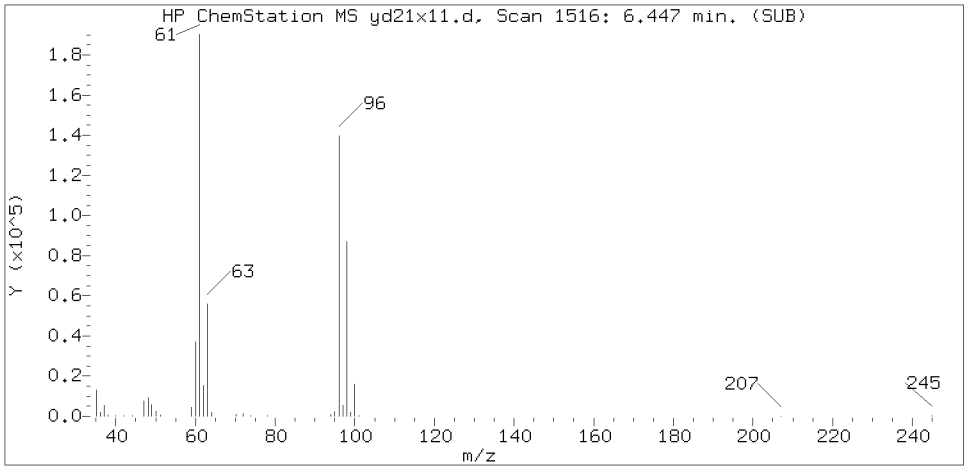
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

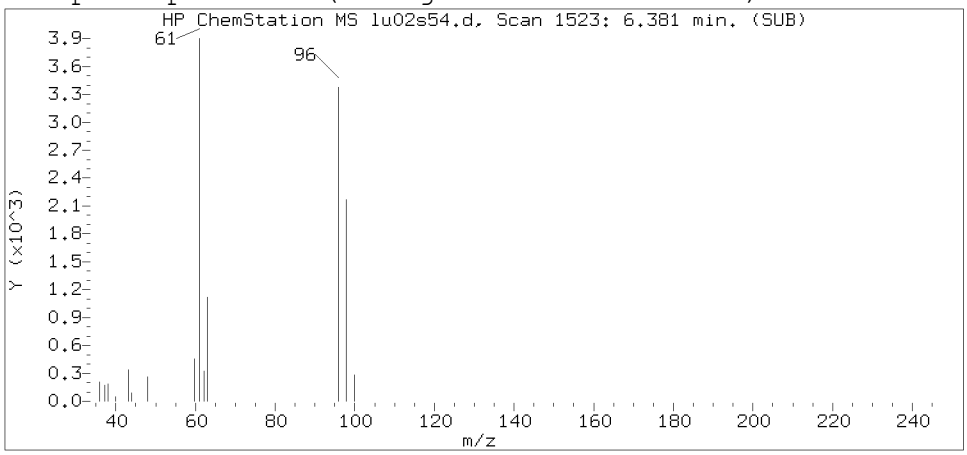
Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 1263
Retention Time (minutes)	: 5.545
Relative Retention Time	: 0.00080
Quant Ion	: 63.00
Area (flag)	: 12775
On-Column Amount (ng)	: 1.1801

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

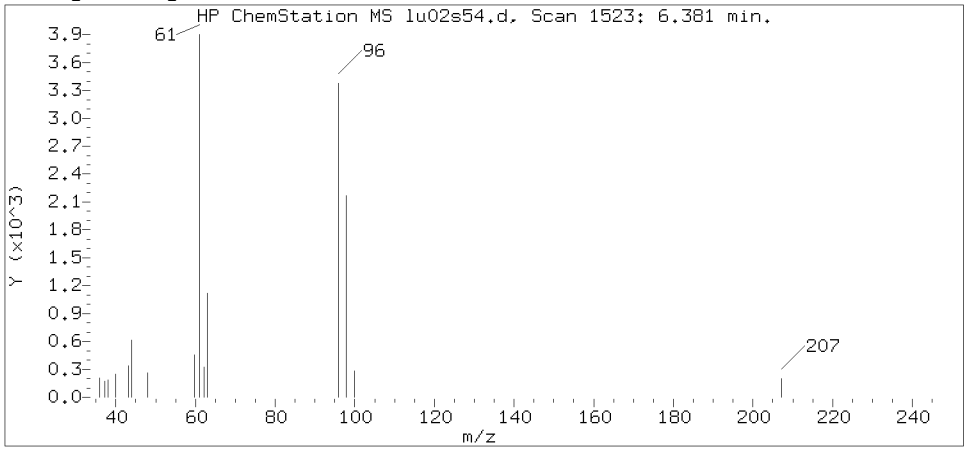
Reference Standard Spectrum for cis-1,2-Dichloroethene

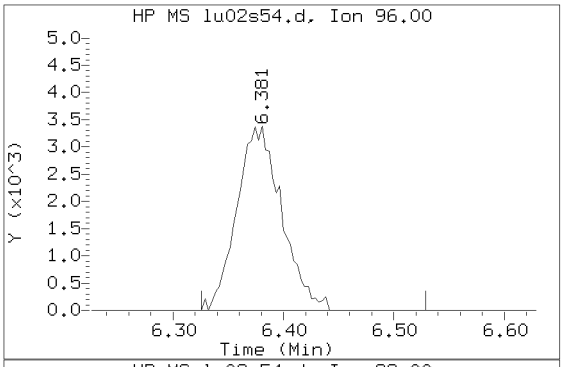


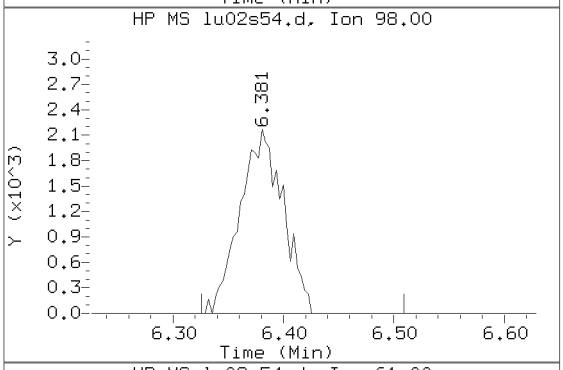
Sample Spectrum (Background Subtracted)

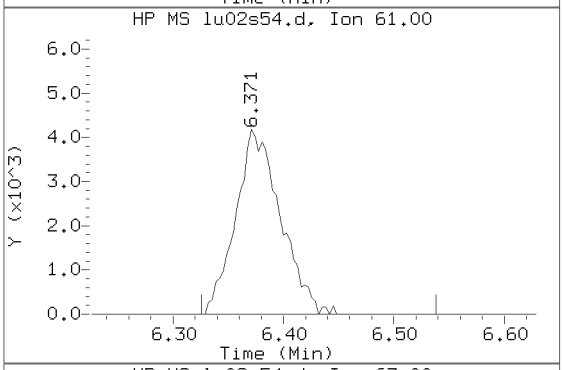


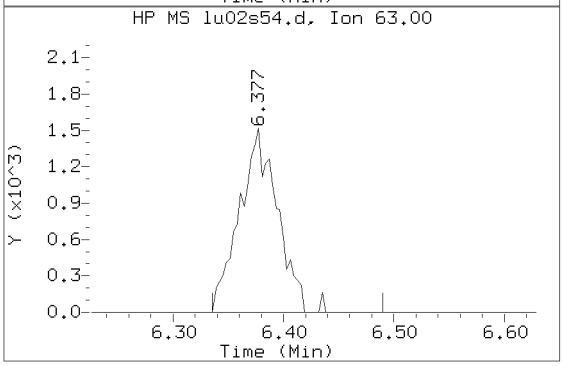
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

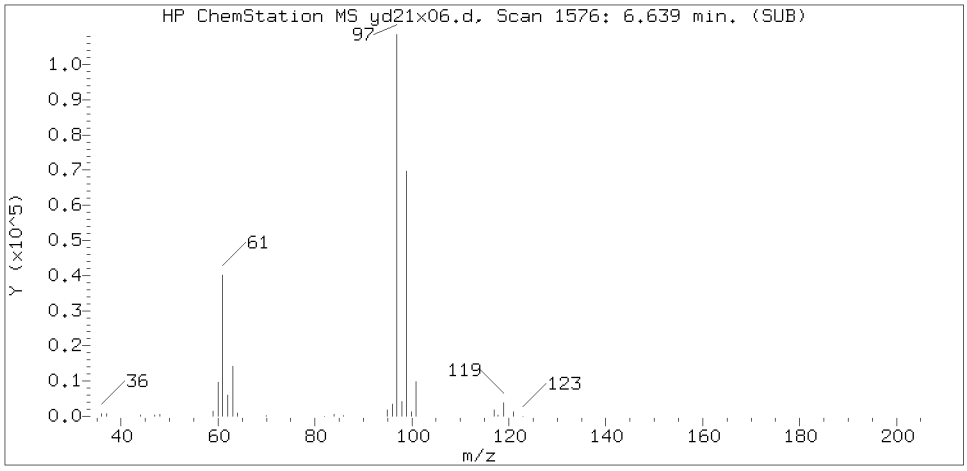
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

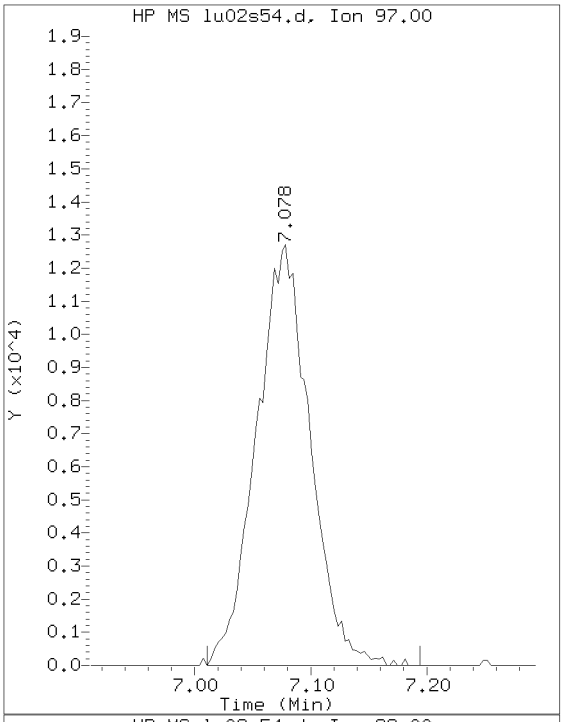
Sample Name: 62J03 Lab Sample ID: 1320952

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1523
Retention Time (minutes): 6.381
Relative Retention Time :-0.00041
Quant Ion : 96.00
Area (flag) : 9525
On-Column Amount (ng) : 1.3761

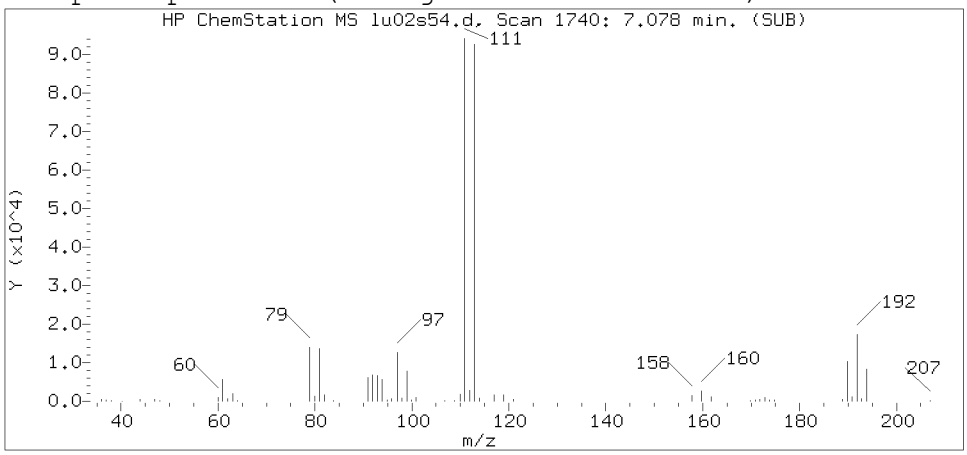
Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

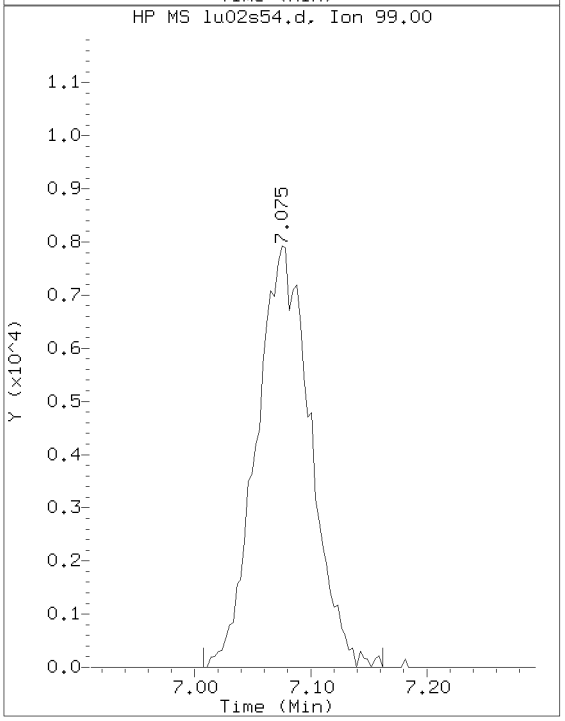
Reference Standard Spectrum for 1,1,1-Trichloroethane



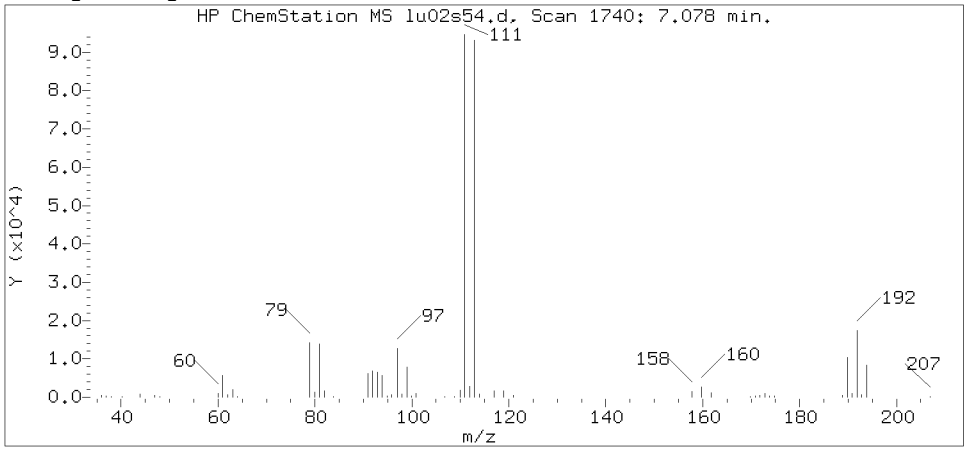


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

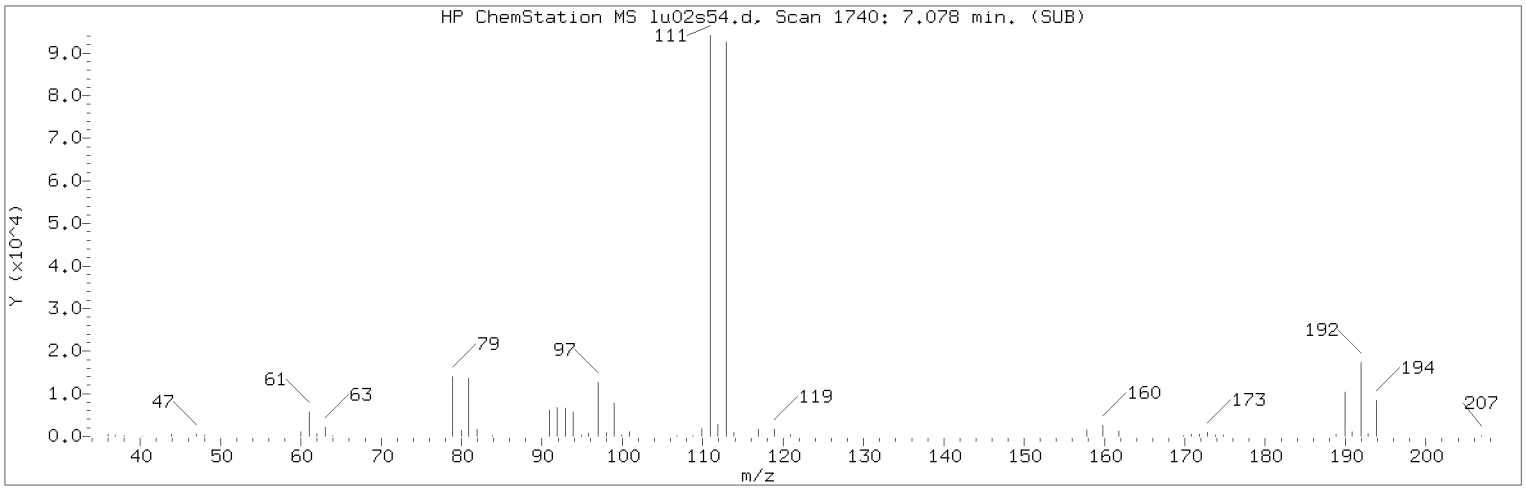
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

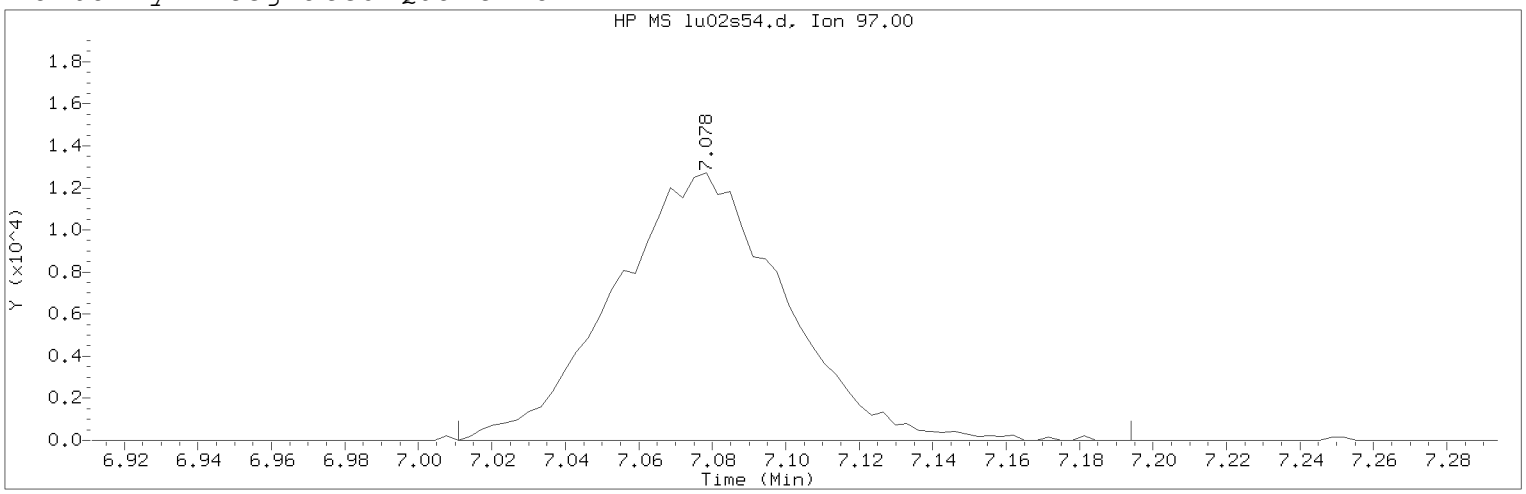
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 1740
Retention Time (minutes)	: 7.078
Relative Retention Time	:-0.00041
Quant Ion	: 97.00
Area (flag)	: 40906A
On-Column Amount (ng)	: 4.5085

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

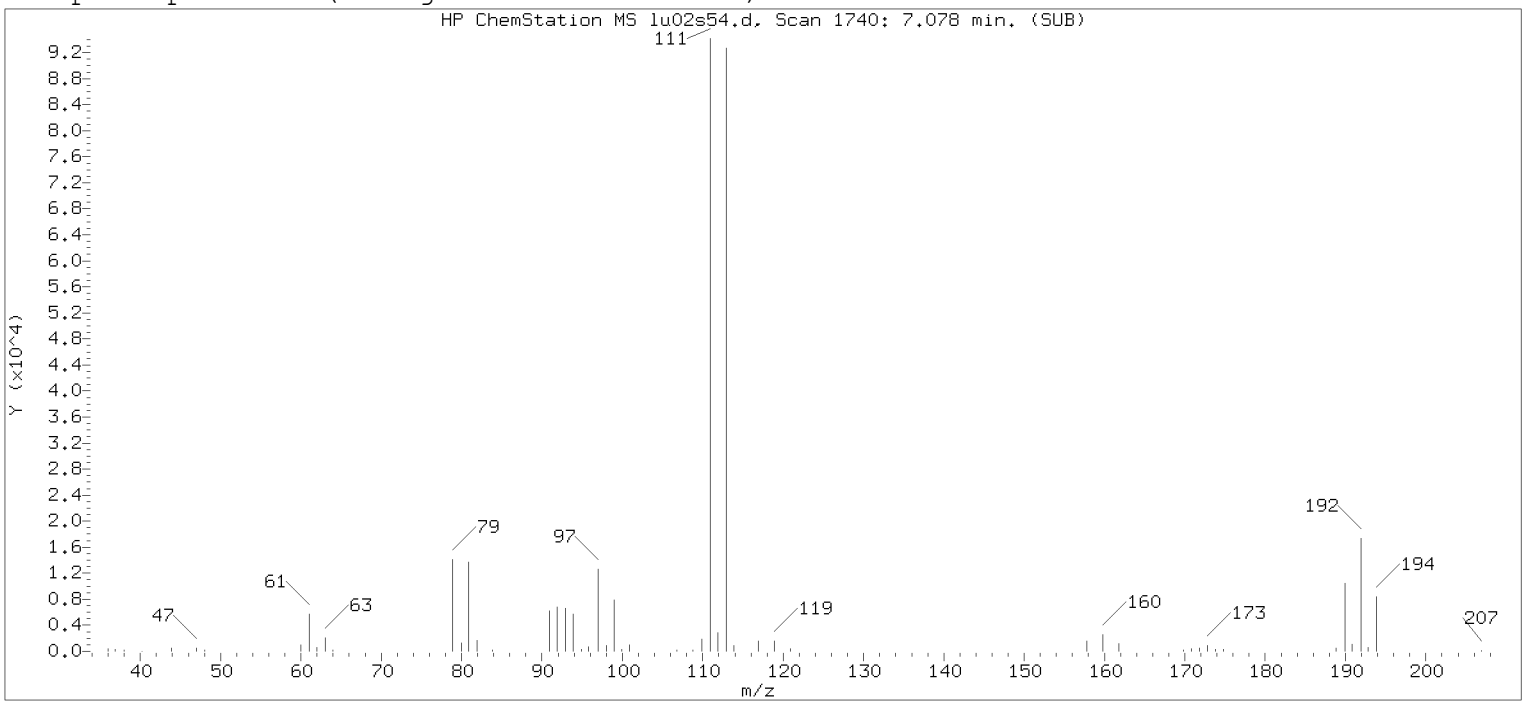
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1740
Retention Time (minutes): 7.078
Quant Ion : 97.00
Area (flag) : 40906A
On-Column Amount (ng) : 4.5085
Integration start scan : 1718 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

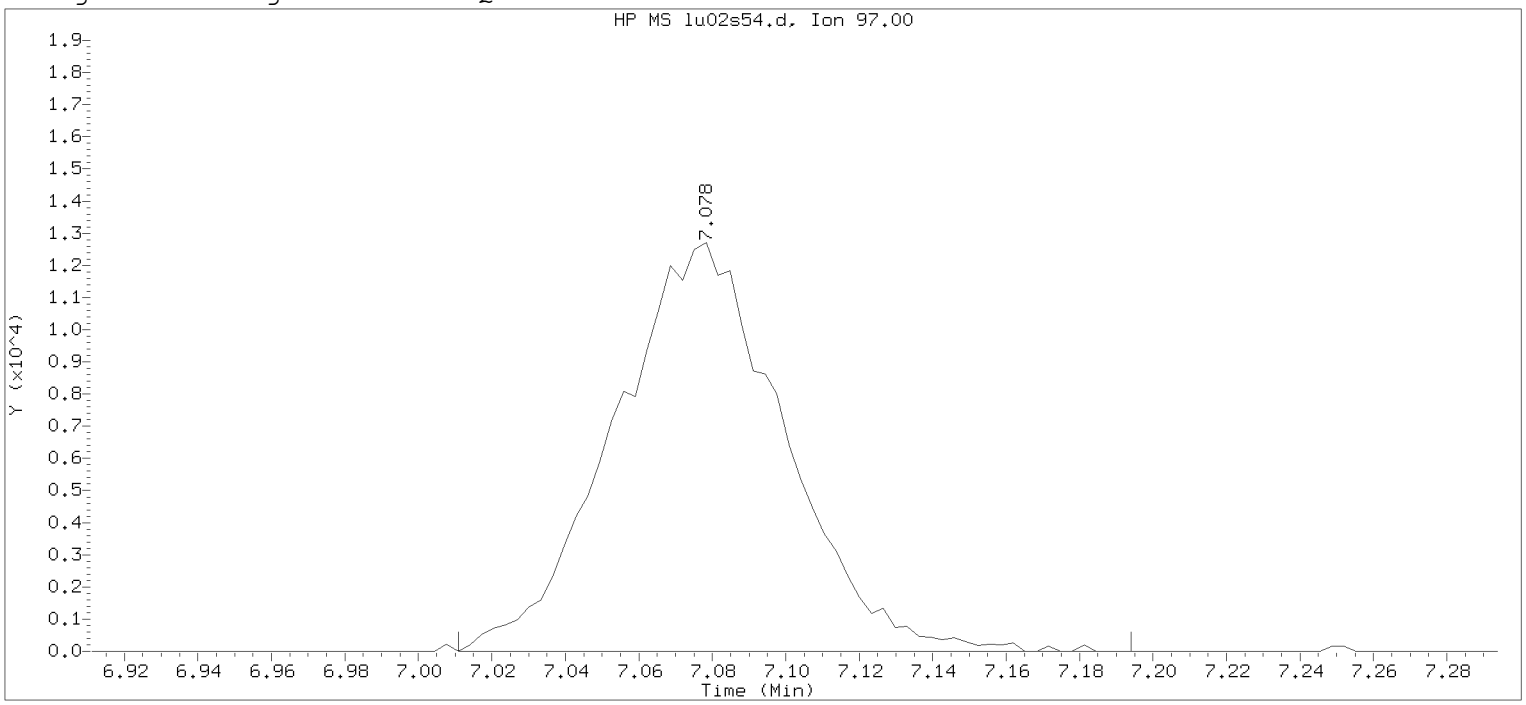
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

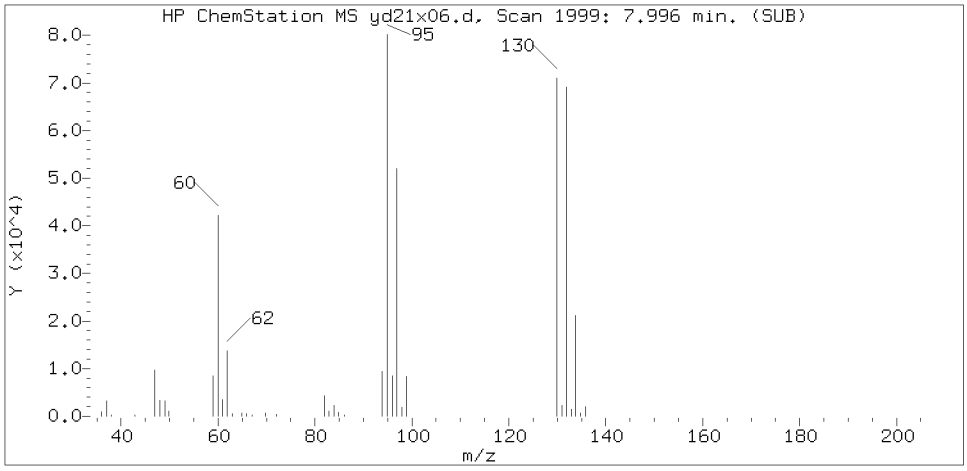
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:34 Automation

Sample Name: 62J03 Lab Sample ID: 1320952

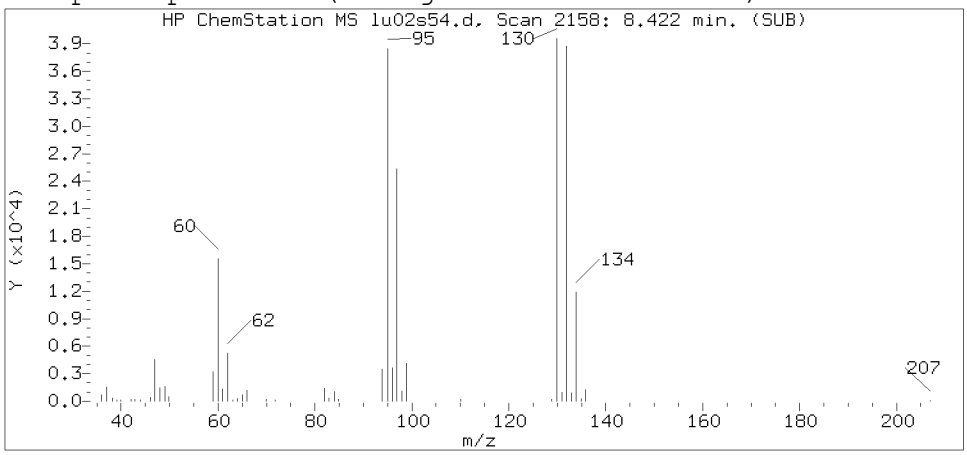
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1740
Retention Time (minutes): 7.078
Quant Ion : 97.00
Area : 40906
On-column Amount (ng) : 4.5086
Integration start scan : 1718 Integration stop scan: 1775
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: CMELLING

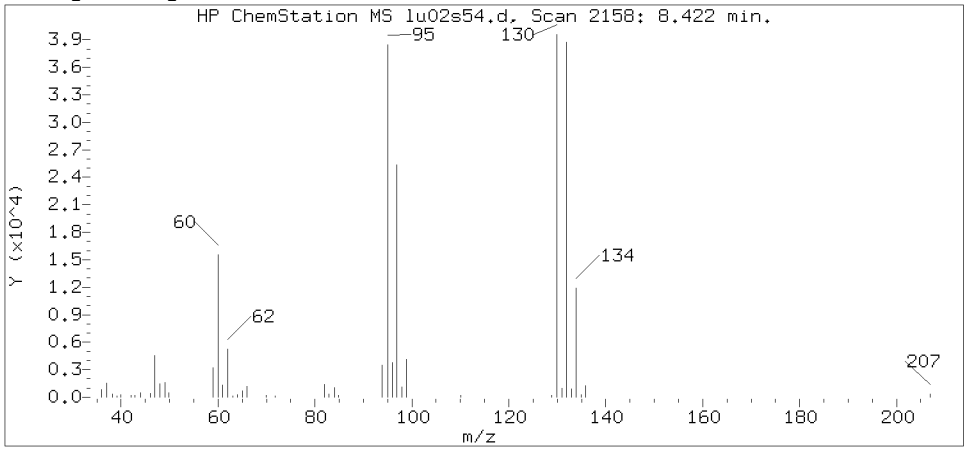
Reference Standard Spectrum for Trichloroethene

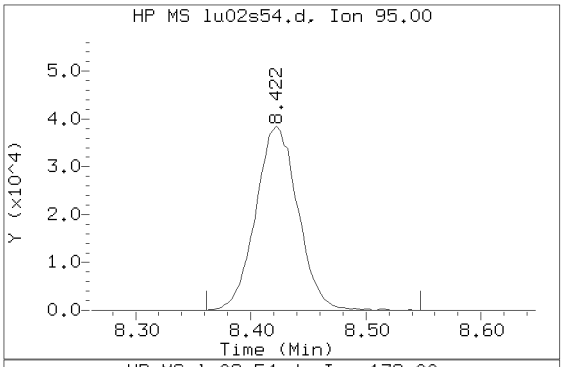


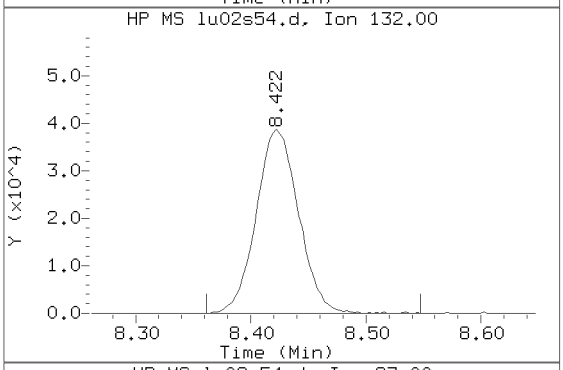
Sample Spectrum (Background Subtracted)

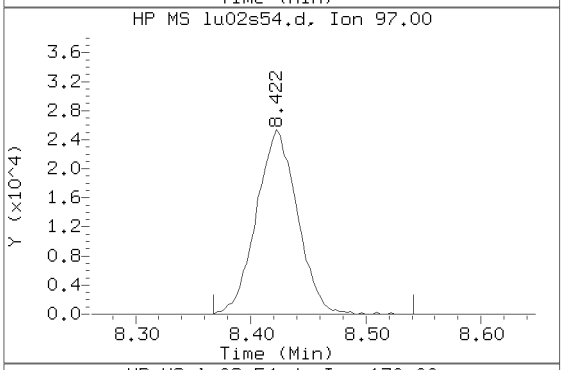


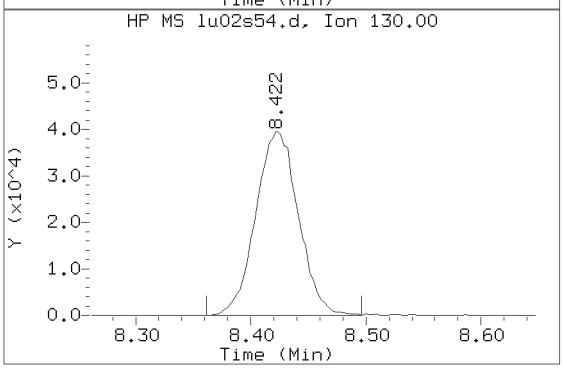
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

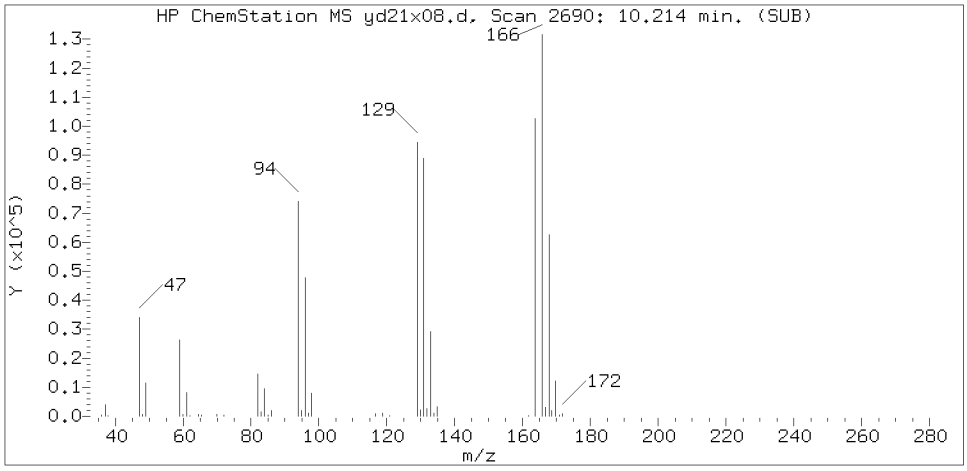
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

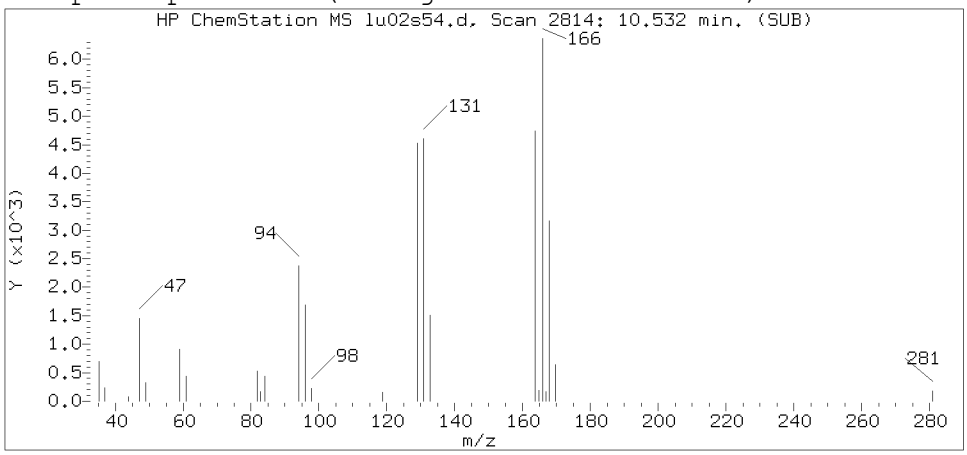
Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 2158
Retention Time (minutes)	: 8.422
Relative Retention Time	: 0.00000
Quant Ion	: 95.00
Area (flag)	: 97887
On-Column Amount (ng)	: 15.0238

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

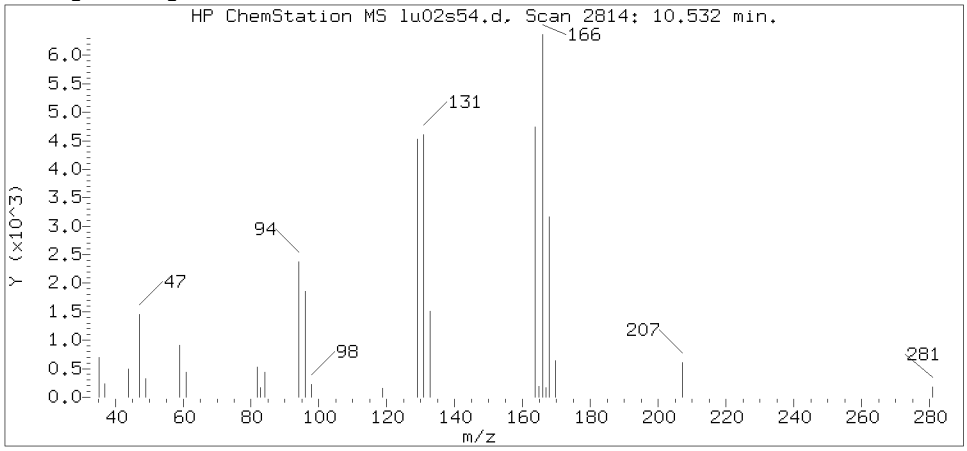
Reference Standard Spectrum for Tetrachloroethene

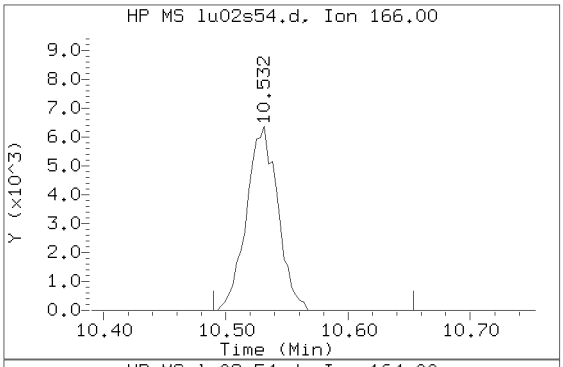


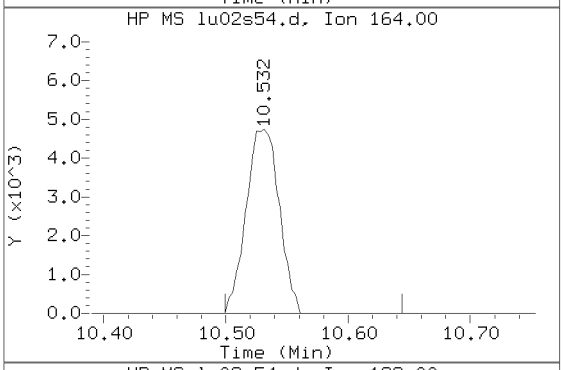
Sample Spectrum (Background Subtracted)

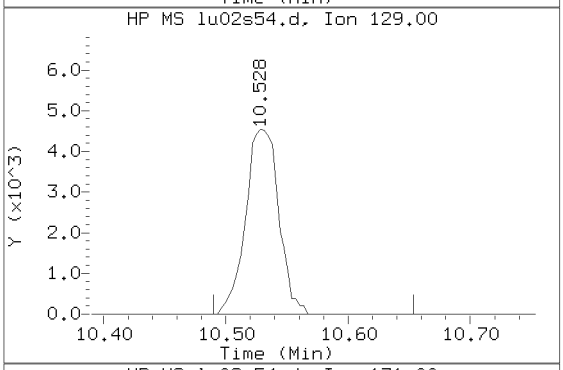


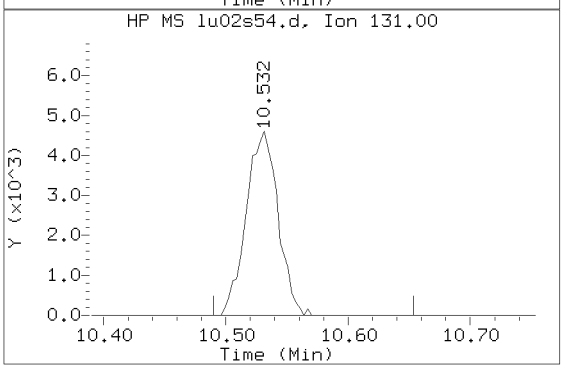
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s54.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:16 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J03 Lab Sample ID: 1320952

Compound Number : 93
Compound Name : Tetrachloroethene
Scan Number : 2814
Retention Time (minutes): 10.532
Relative Retention Time :-0.00000
Quant Ion : 166.00
Area (flag) : 11293
On-Column Amount (ng) : 1.6963

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:00.
Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J04

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320953

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s55.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.3	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

62J04 Lancaster Laboratories Analysis Summary for GC/MS Volatiles 1320953

Data file: /chem/HP09915.i/20jun02b.b/lu02s55.d Injection date and time: **03-JUN-2020 03:38**
Data file Sample Info. Line: 62J04;1320953;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.490	(0.006)	935	65	231265	(-15)	250.00	
66) Fluorobenzene	7.946	(0.003)	2010	96	1210737	(-15)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	922937	(-17)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	502526	(-19)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.000)	113	312332	51.206	102%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.515	(0.000)	102	80999	52.335	105%		80 - 120
83) Toluene-d8	(3)	9.920	(0.000)	98	1187522	50.085	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	425142	46.601	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.802	(0.000)	58	853	0.983	0.98		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.544	(0.000)	63	3075	0.293	0.29		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:28. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s55.d Injection date and time: **03-JUN-2020 03:38**
Data file Sample Info. Line: 62J04;1320953;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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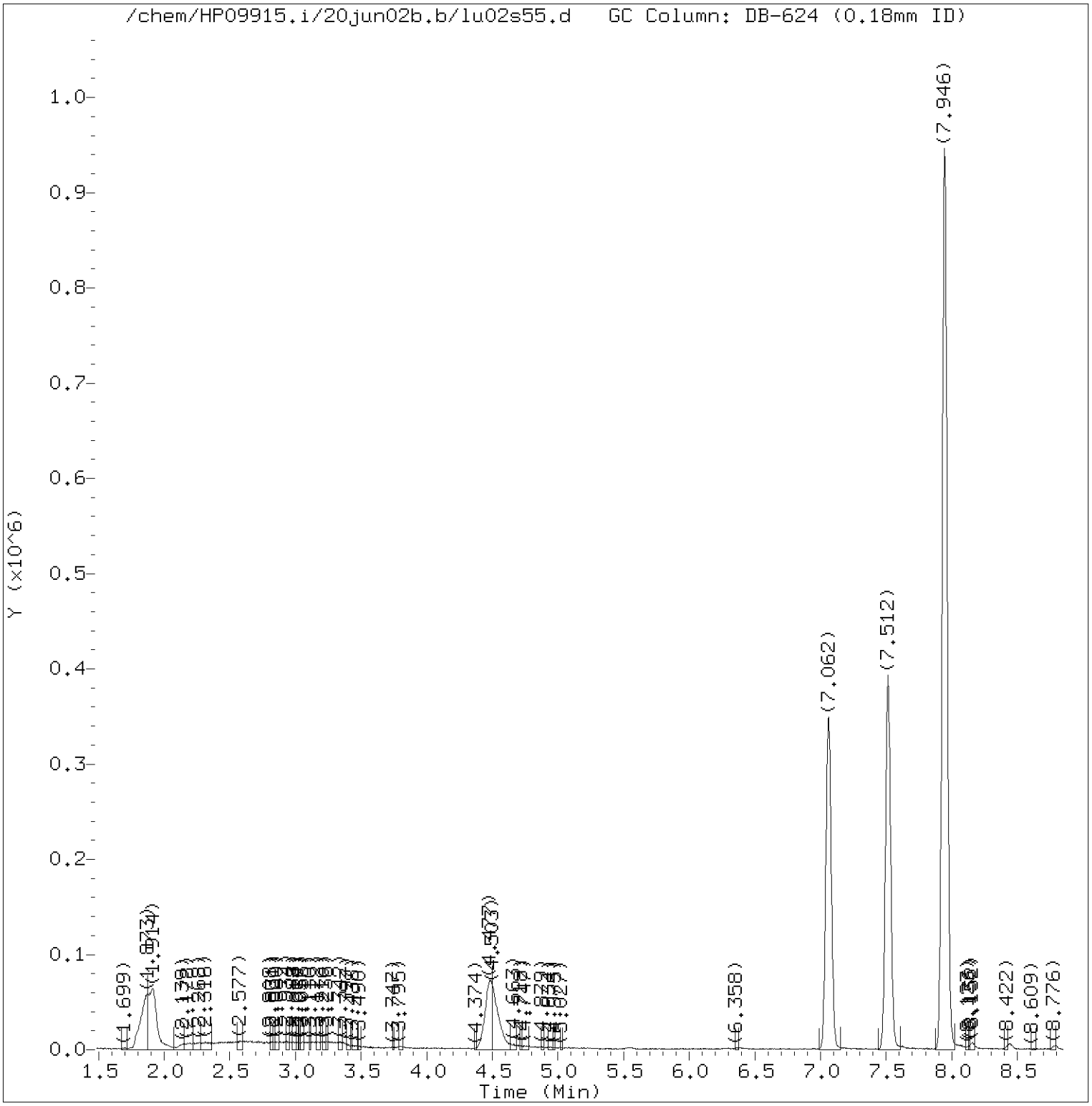
Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:28. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

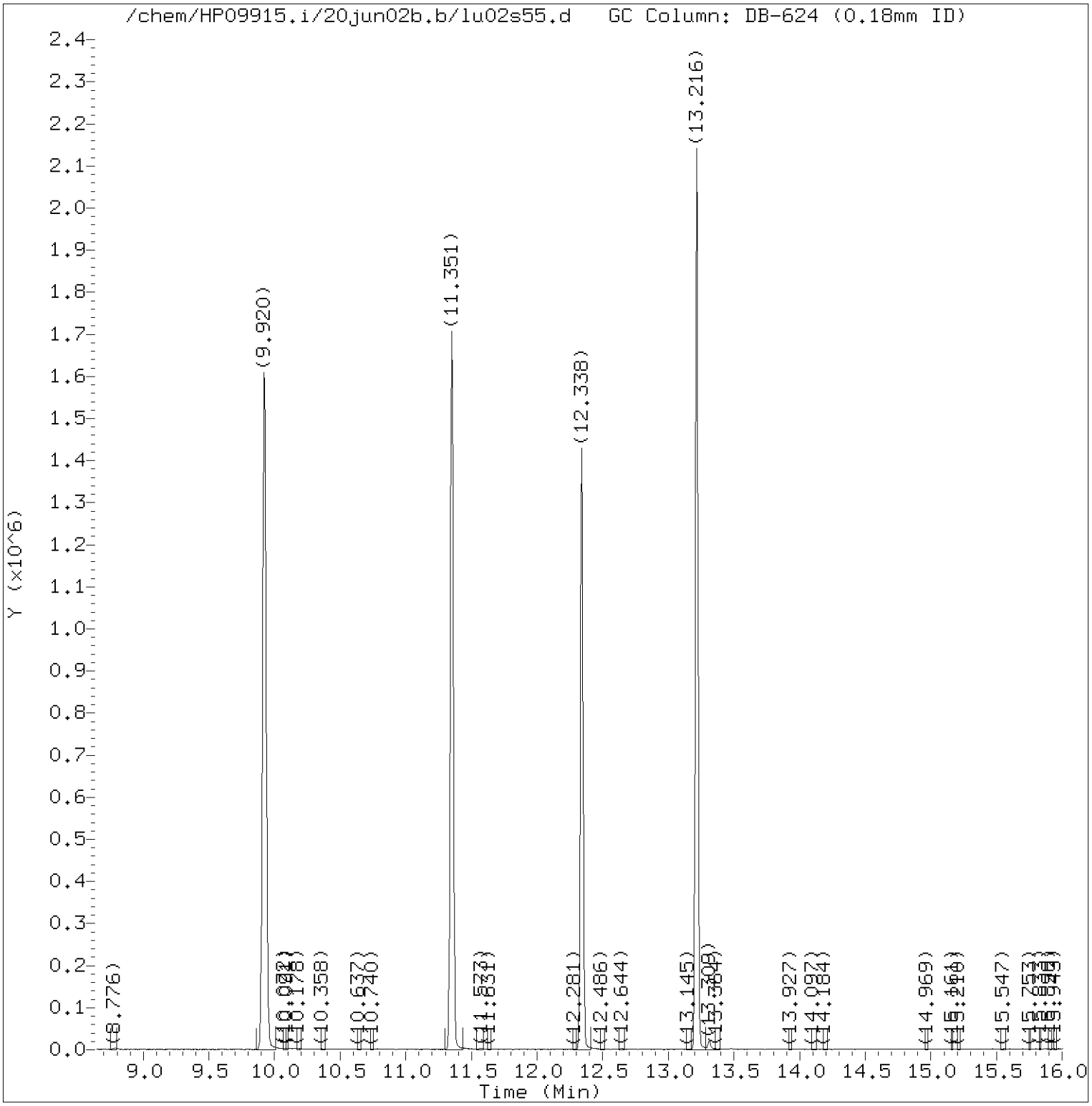
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s55.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:38 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

Sample Name: 62J04 Lab Sample ID: 1320953

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:28.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s55.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:38 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

Sample Name: 62J04 Lab Sample ID: 1320953

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:28.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s55.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:38 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

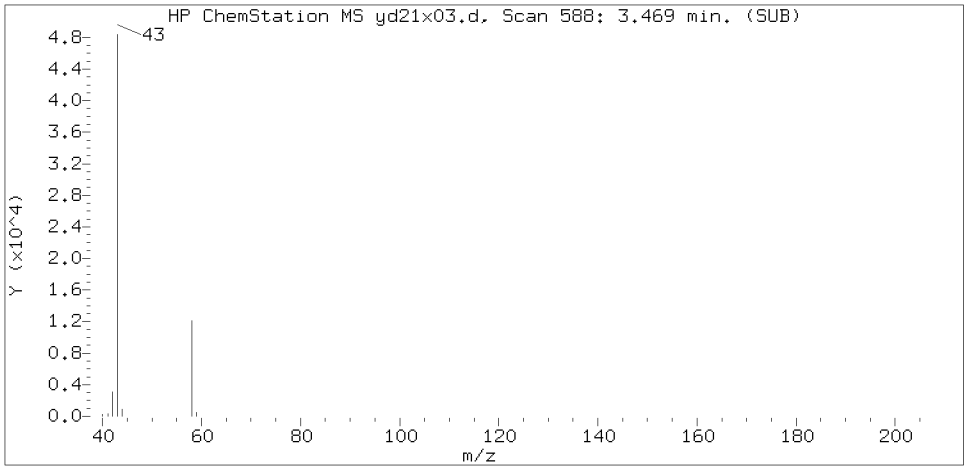
Sample Name: 62J04 Lab Sample ID: 1320953

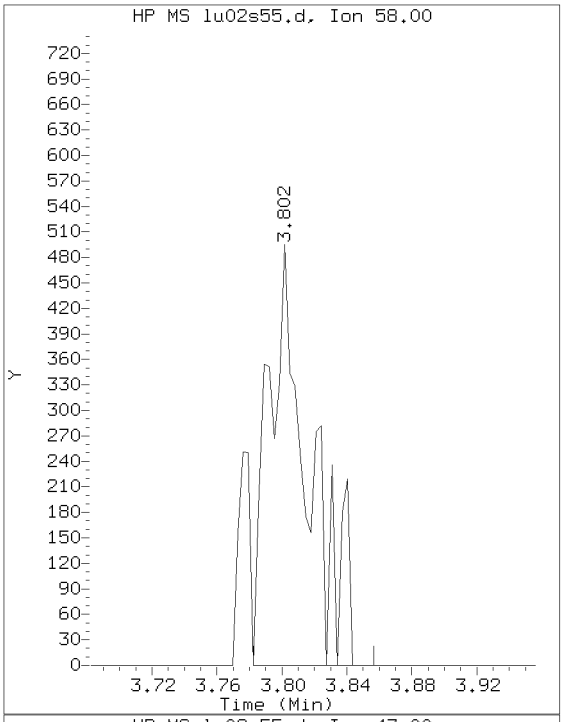
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.802	58	853	0.983
29)*t-Butyl alcohol-d10	(1)	4.490	65	231265	250.000
36) 1,1-Dichloroethane	(2)	5.544	63	3075	0.293
52)$Dibromofluoromethane	(2)	7.062	113	312332	51.206
57)$1,2-Dichloroethane-d4	(2)	7.515	102	80999	52.335
66)*Fluorobenzene	(2)	7.946	96	1210737	50.000
83)$Toluene-d8	(3)	9.920	98	1187522	50.085
100)*Chlorobenzene-d5	(3)	11.351	117	922937	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	425142	46.601
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	502526	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

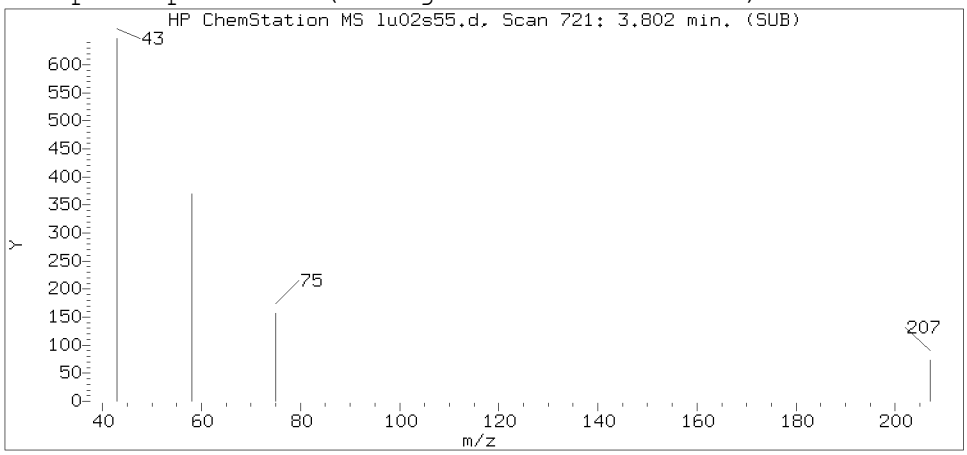
Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:28.
Target 3.5 esignature user ID: clm27445

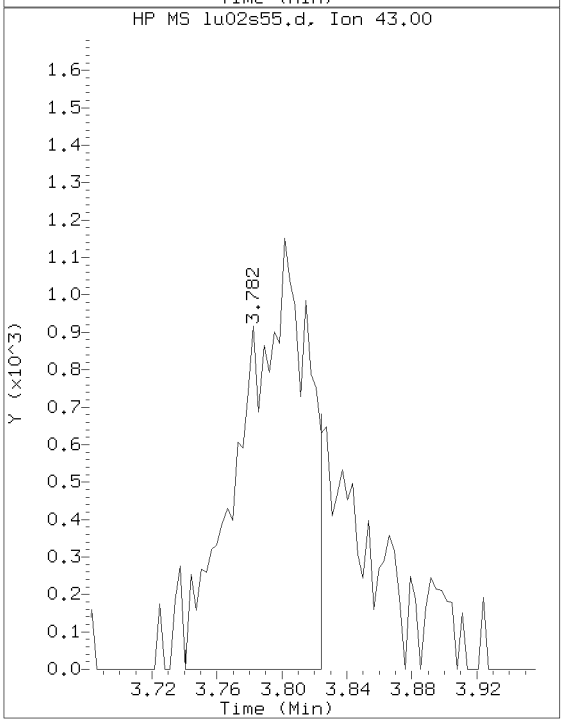
Reference Standard Spectrum for Acetone



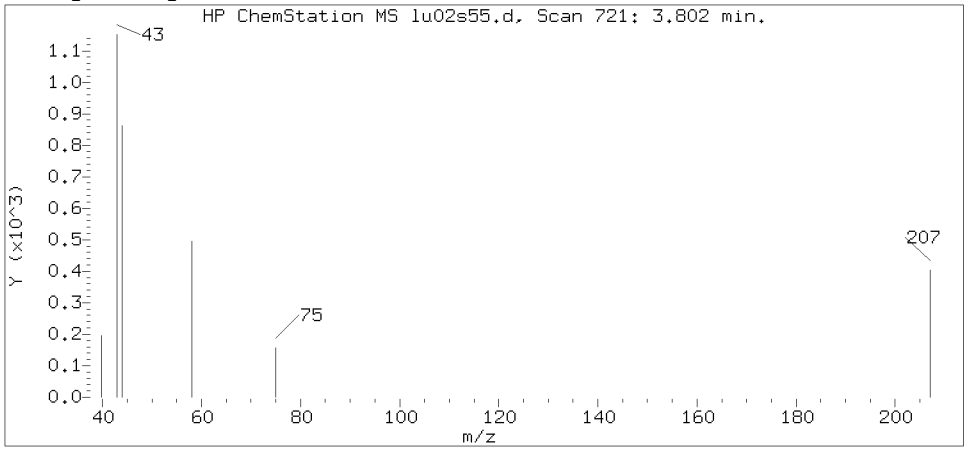


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s55.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:38 Analyst ID: sej02002

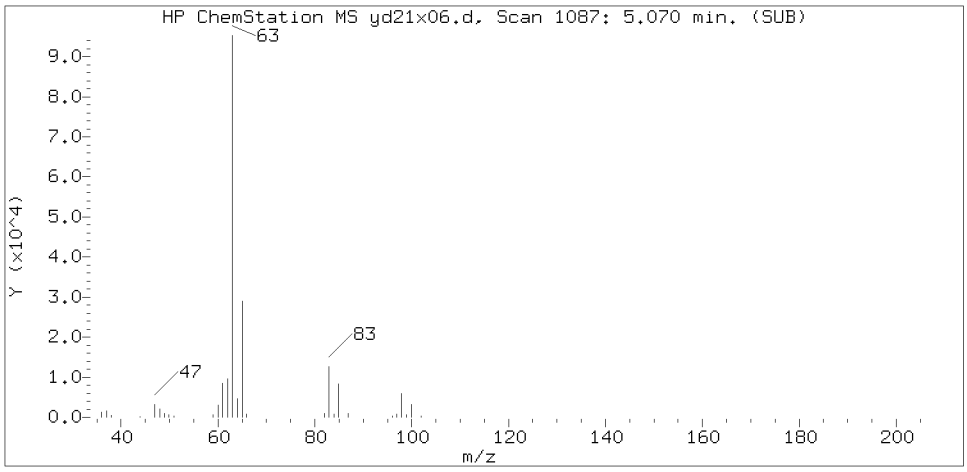
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

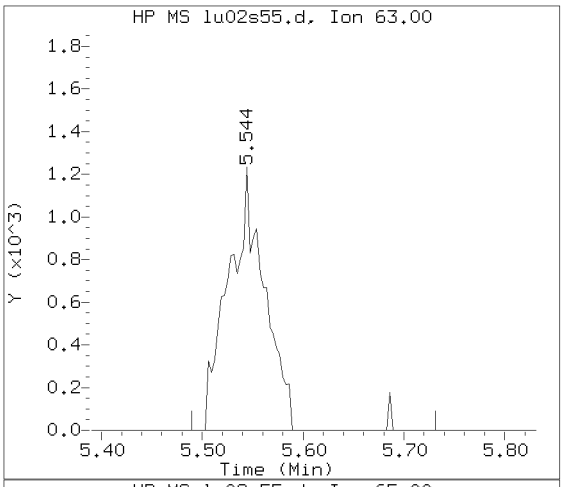
Sample Name: 62J04 Lab Sample ID: 1320953

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 721
Retention Time (minutes)	: 3.802
Relative Retention Time	: 0.00094
Quant Ion	: 58.00
Area (flag)	: 853
On-Column Amount (ng)	: 0.9830

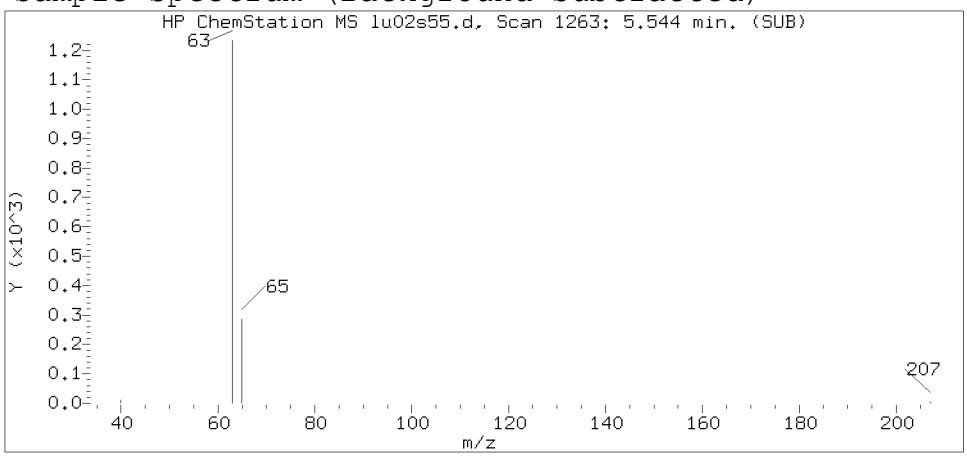
Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:28.
Target 3.5 esignature user ID: clm27445

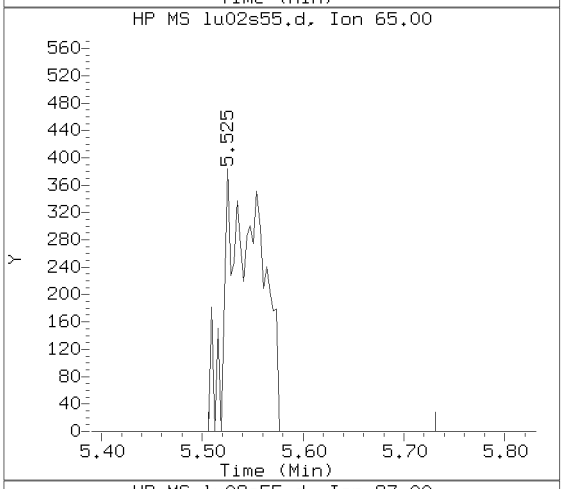
Reference Standard Spectrum for 1,1-Dichloroethane



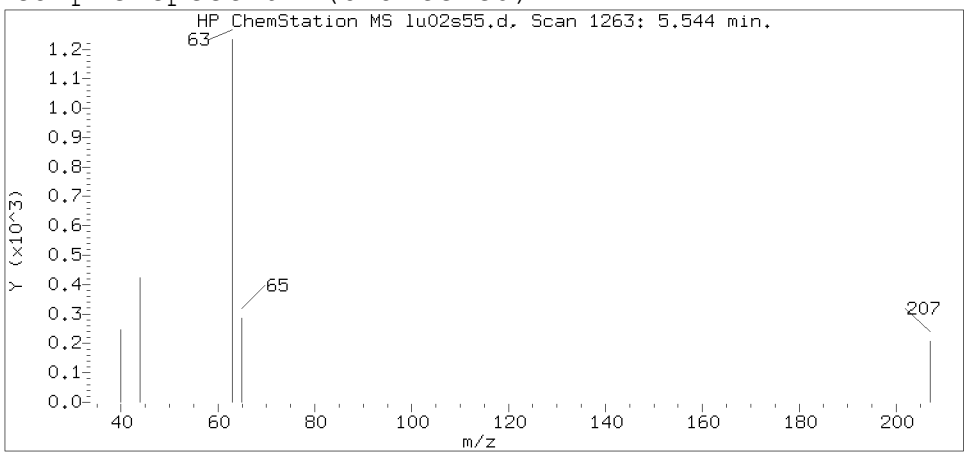


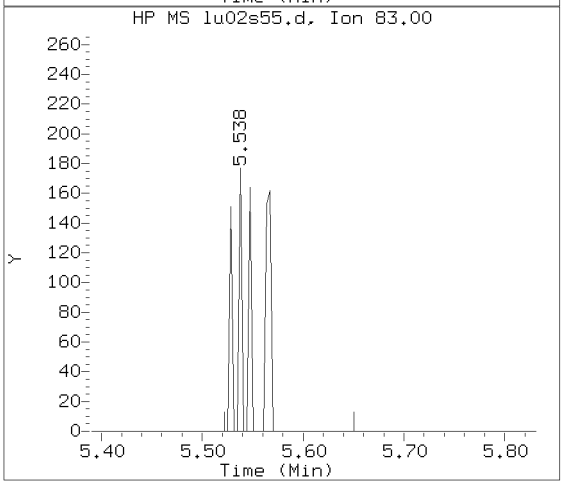
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s55.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 03:38 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 03:56 Automation

Sample Name: 62J04 Lab Sample ID: 1320953

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 1263
Retention Time (minutes): 5.544
Relative Retention Time : 0.00053
Quant Ion : 63.00
Area (flag) : 3075
On-Column Amount (ng) : 0.2925

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Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J05

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320954

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s56.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	2	
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	6	J
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	0.6	J
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.2	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	0.5	J
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s56.d
Injection date and time: **03-JUN-2020 04:00**
Data file Sample Info. Line: 62J05;1320954;1;0;;JCW62;;;lu02b41;
Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.490	(0.006)	935	65	227729	(-16)	250.00	
66) Fluorobenzene	7.953	(-0.003)	2012	96	1214639	(-15)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	927336	(-17)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	500735	(-20)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065	(0.000)	113	315692	51.591	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	81323	52.375	105%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1193792	50.111	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342	(0.000)	95	427089	46.593	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.805	(0.000)	58	1131	1.323	1.32		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.551	(0.000)	63	22347	2.119	2.12			0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)	6.352	(0.000)	43	28052	6.258	6.26		J	0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.075	(0.000)	97	5436MA	0.615	0.62		J	0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.426	(0.000)	95	1527	0.241	0.24		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)	9.995	(0.000)	92	8284	0.546	0.55		J	0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

M = Compound was manually integrated. A = User selected an alternate peak.

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20jun02b.b/lu02s56.d Injection date and time: **03-JUN-2020 04:00**
Data file Sample Info. Line: 62J05;1320954;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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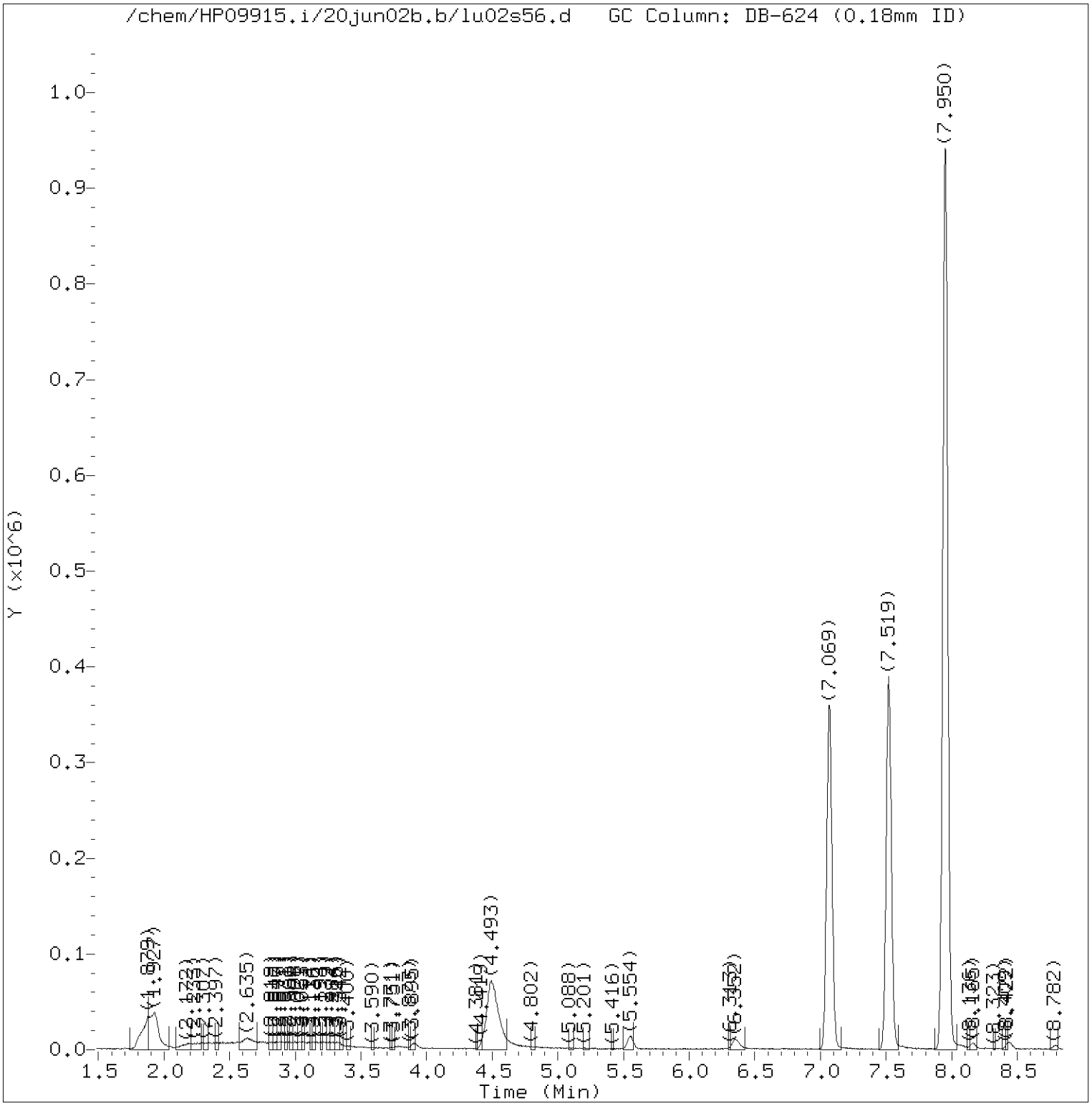
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

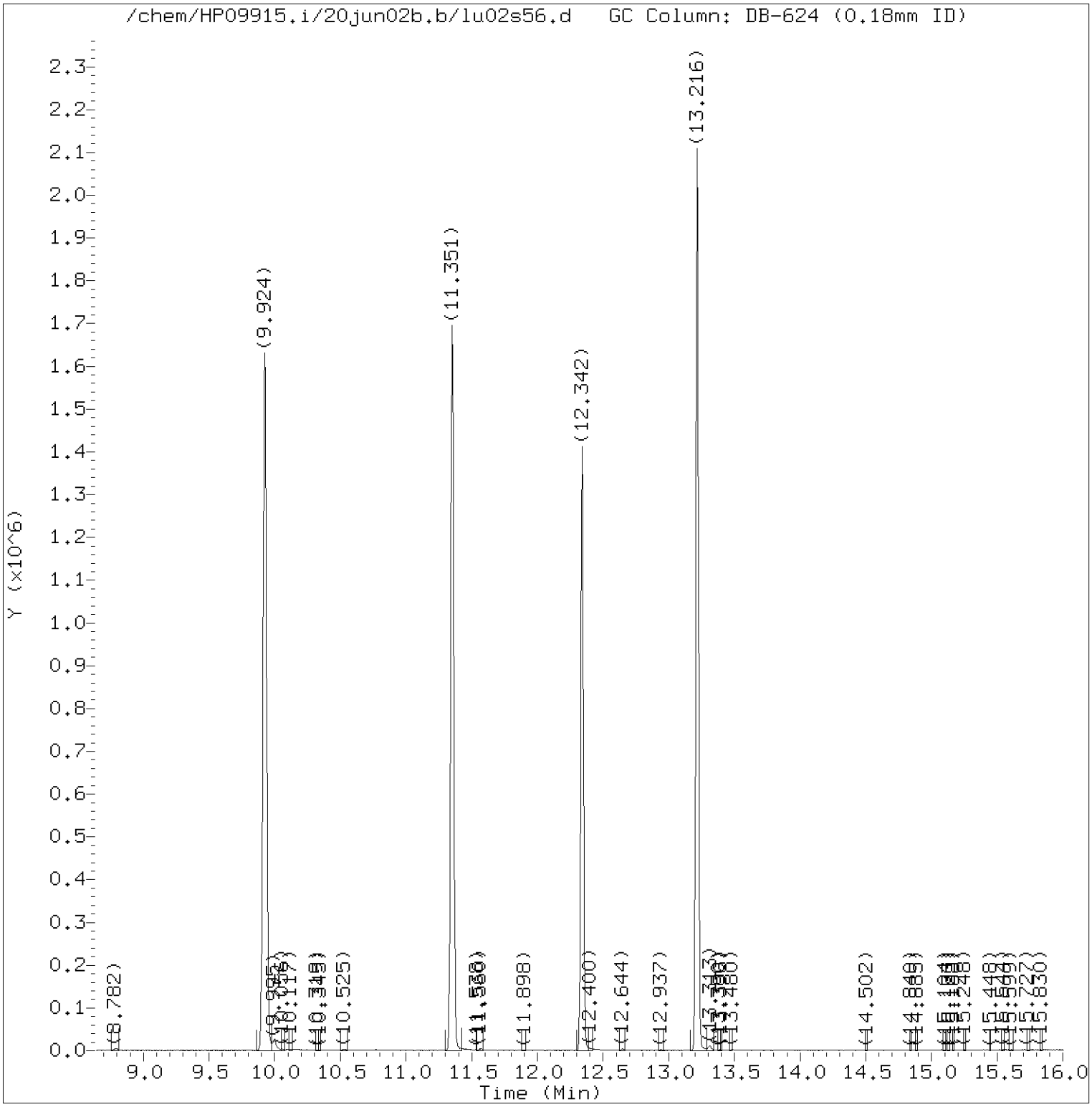
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

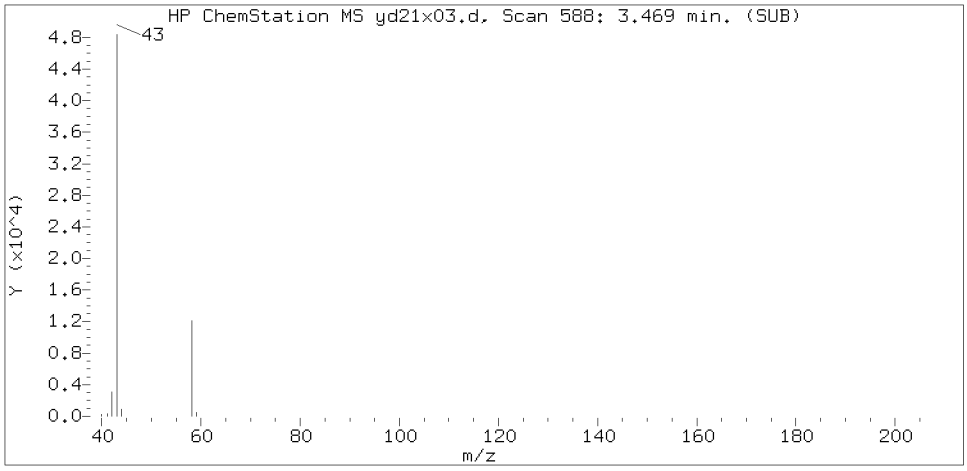
Sample Name: 62J05 Lab Sample ID: 1320954

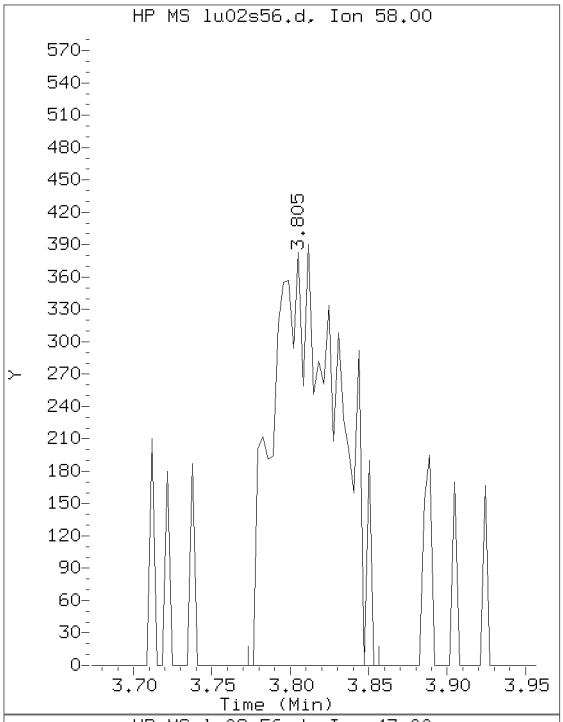
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.805	58	1131	1.323
29)*t-Butyl alcohol-d10	(1)	4.490	65	227729	250.000
36) 1,1-Dichloroethane	(2)	5.551	63	22347	2.119
44) 2-Butanone	(2)	6.352	43	28052	6.258
52)$Dibromofluoromethane	(2)	7.065	113	315692	51.591
53) 1,1,1-Trichloroethane	(2)	7.075	97	5436MA	0.615
57)$1,2-Dichloroethane-d4	(2)	7.522	102	81323	52.375
66)*Fluorobenzene	(2)	7.953	96	1214639	50.000
71) Trichloroethene	(2)	8.426	95	1527	0.241
83)$Toluene-d8	(3)	9.924	98	1193792	50.111
88) Toluene	(3)	9.995	92	8284	0.546
100)*Chlorobenzene-d5	(3)	11.351	117	927336	50.000
114)$4-Bromofluorobenzene	(3)	12.342	95	427089	46.593
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	500735	50.000

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

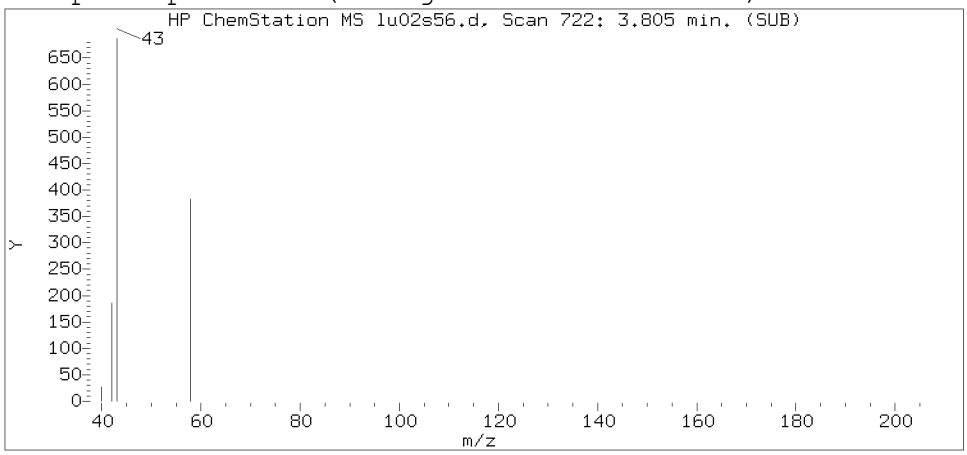
Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

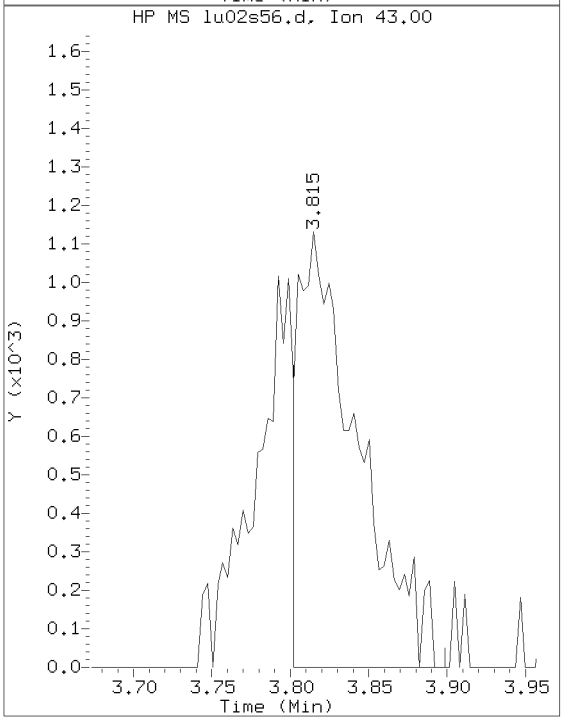
Reference Standard Spectrum for Acetone



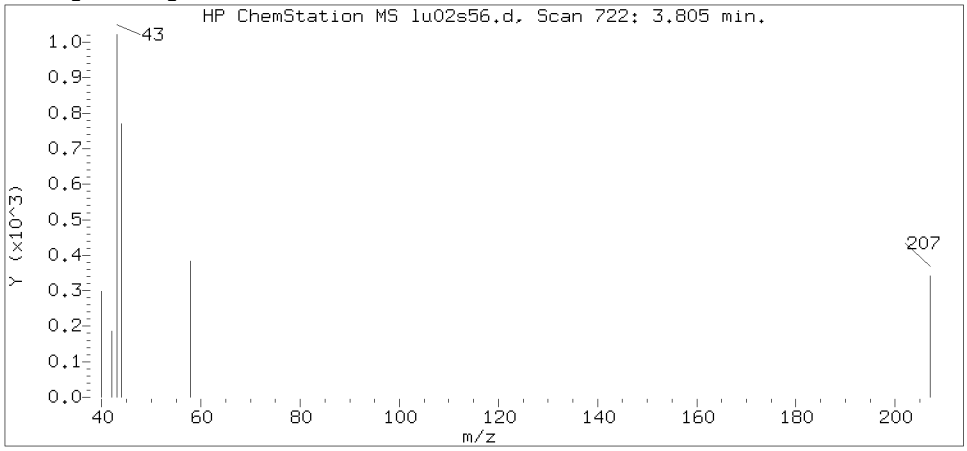


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

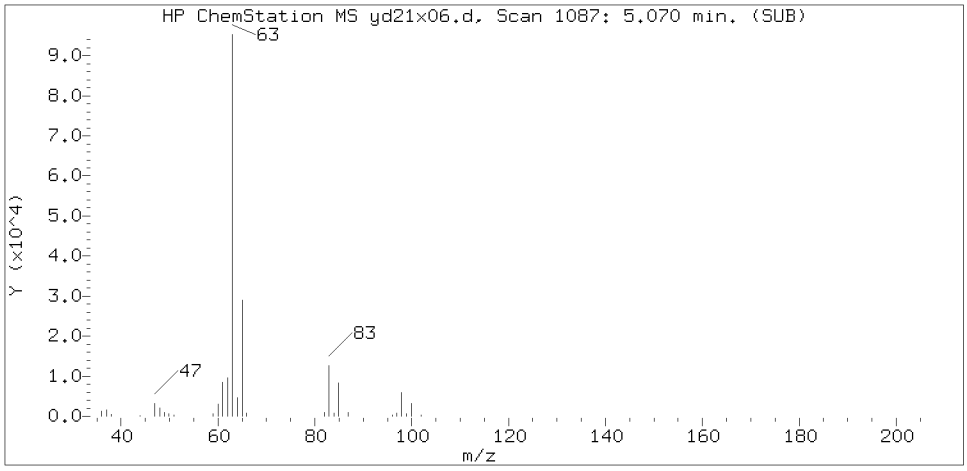
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

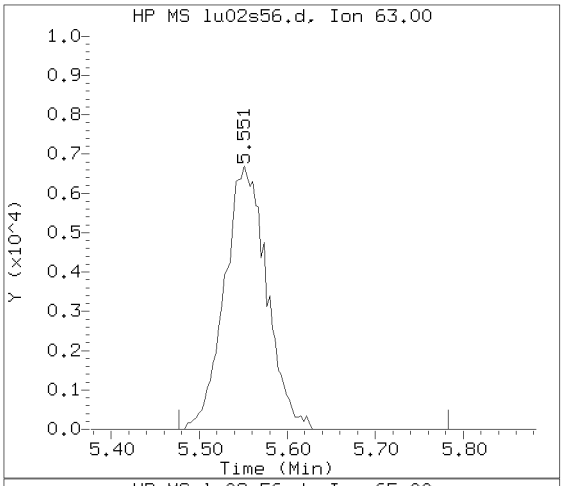
Sample Name: 62J05 Lab Sample ID: 1320954

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 722
Retention Time (minutes)	: 3.805
Relative Retention Time	: 0.00021
Quant Ion	: 58.00
Area (flag)	: 1131
On-Column Amount (ng)	: 1.3235

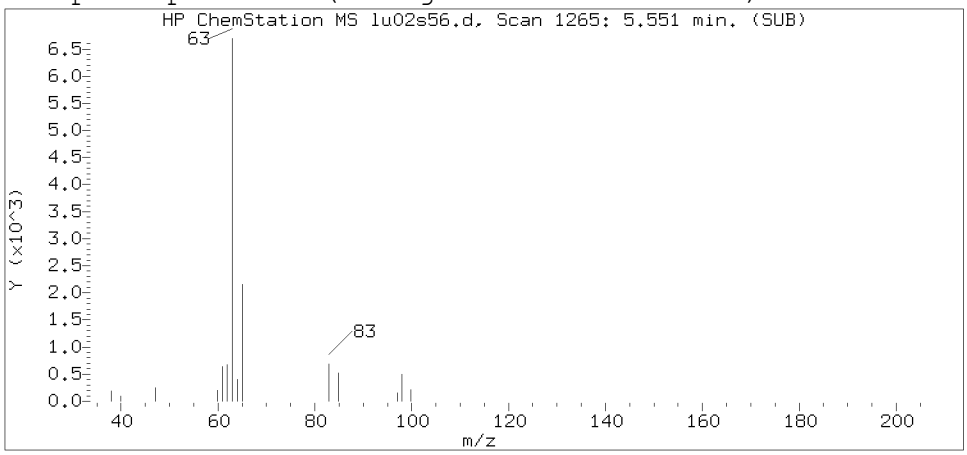
Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

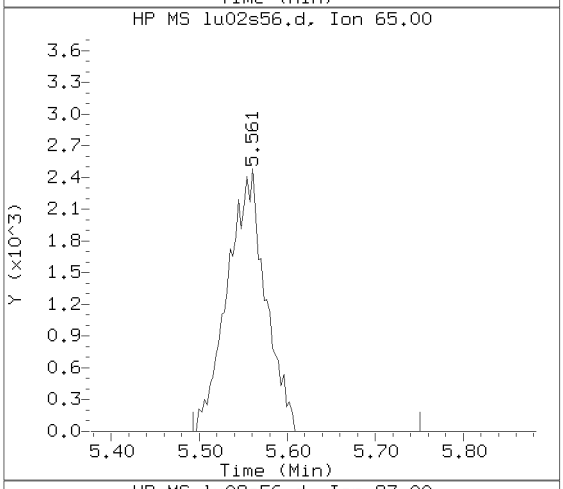
Reference Standard Spectrum for 1,1-Dichloroethane



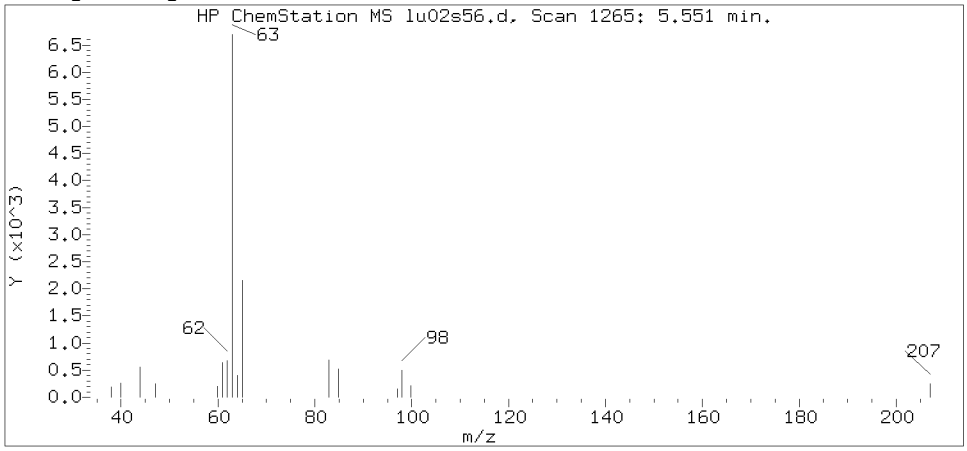


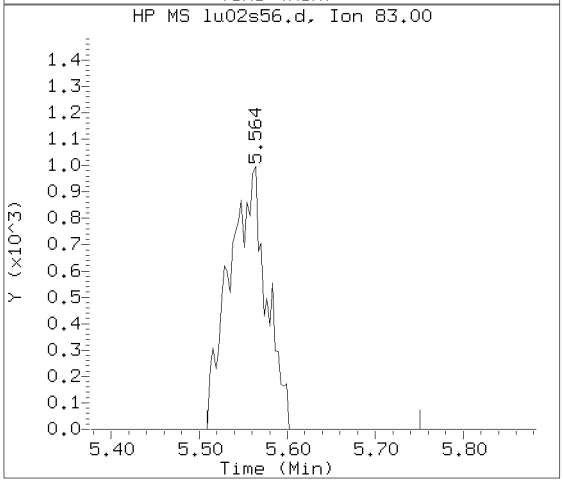
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 1265
Retention Time (minutes): 5.551
Relative Retention Time : 0.00028
Quant Ion : 63.00
Area (flag) : 22347
On-Column Amount (ng) : 2.1189

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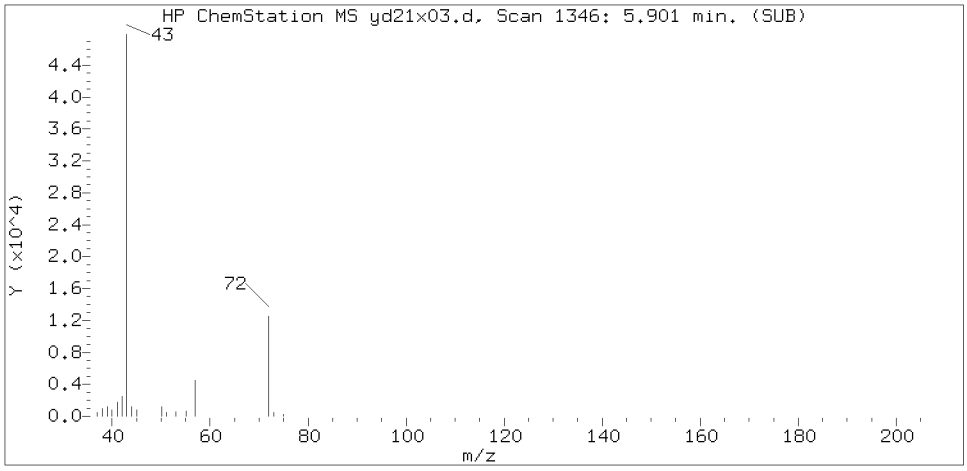
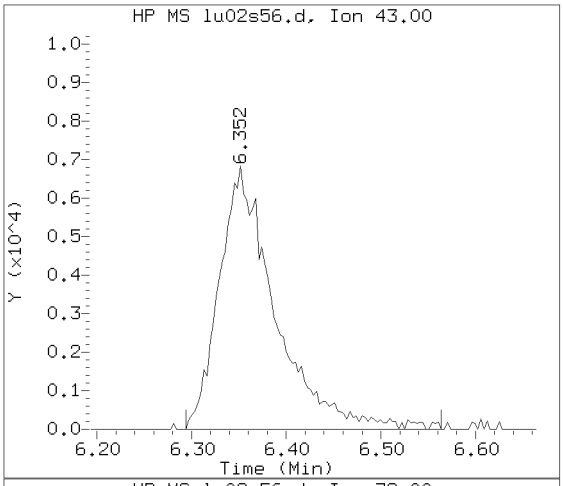
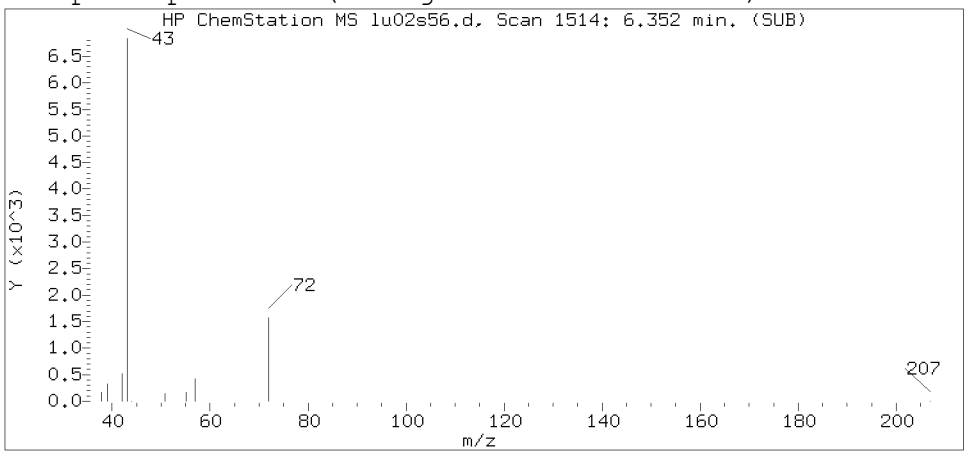
Target 3.5 esignature user ID: clm27445

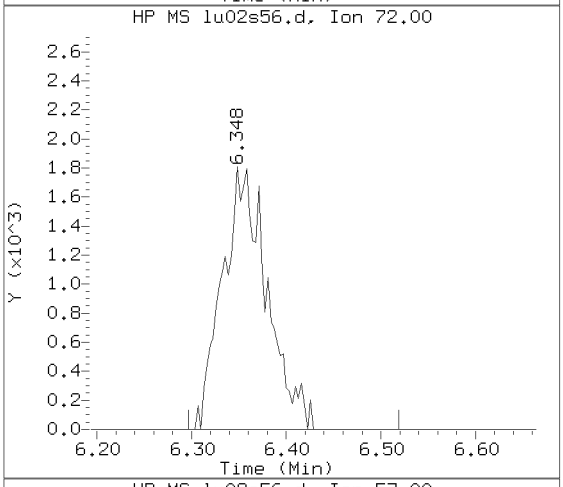
Reference Standard Spectrum for 2-Butanone



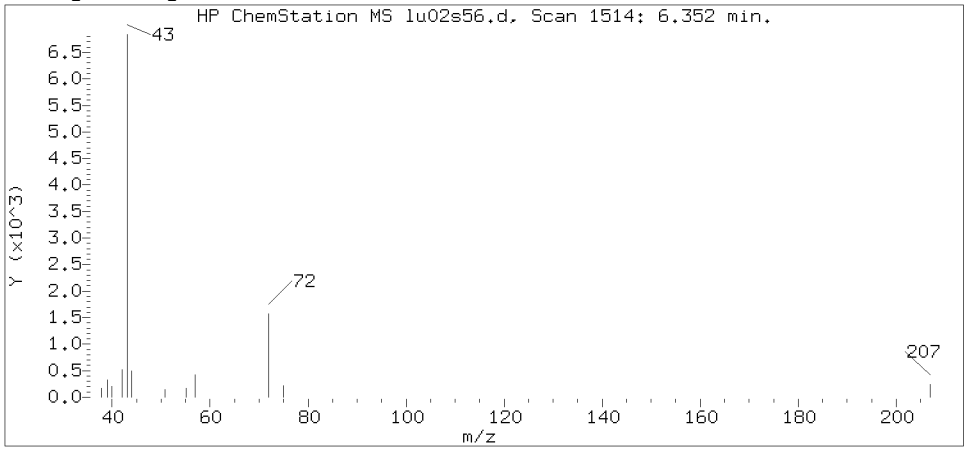


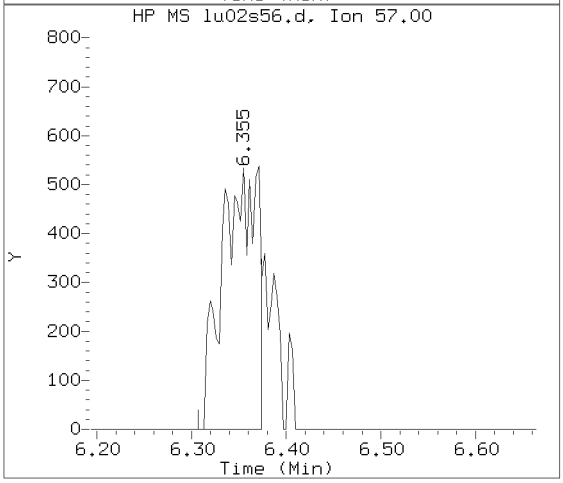
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Compound Number : 44
Compound Name : 2-Butanone
Scan Number : 1514
Retention Time (minutes): 6.352
Relative Retention Time : 0.00072
Quant Ion : 43.00
Area (flag) : 28052
On-Column Amount (ng) : 6.2579

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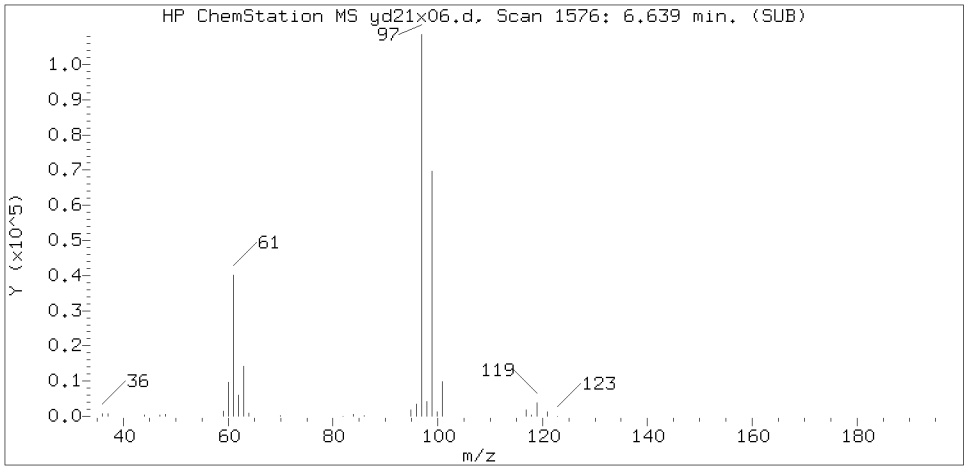
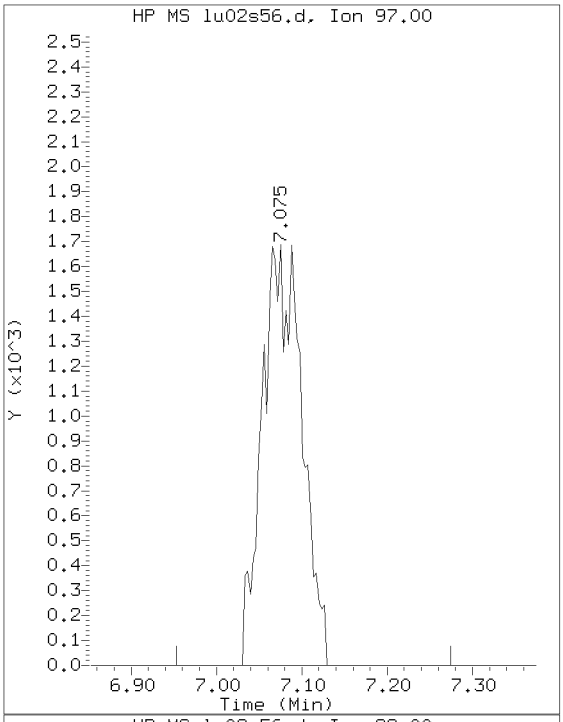
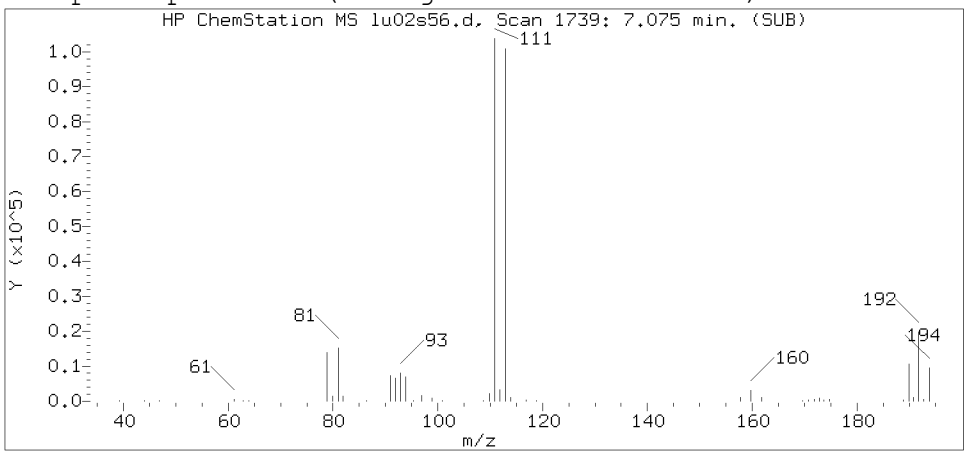
Target 3.5 esignature user ID: clm27445

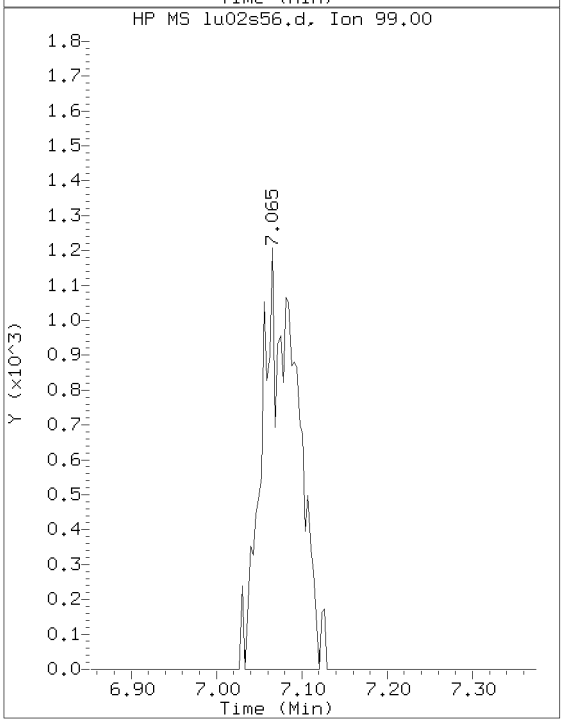
Reference Standard Spectrum for 1,1,1-Trichloroethane



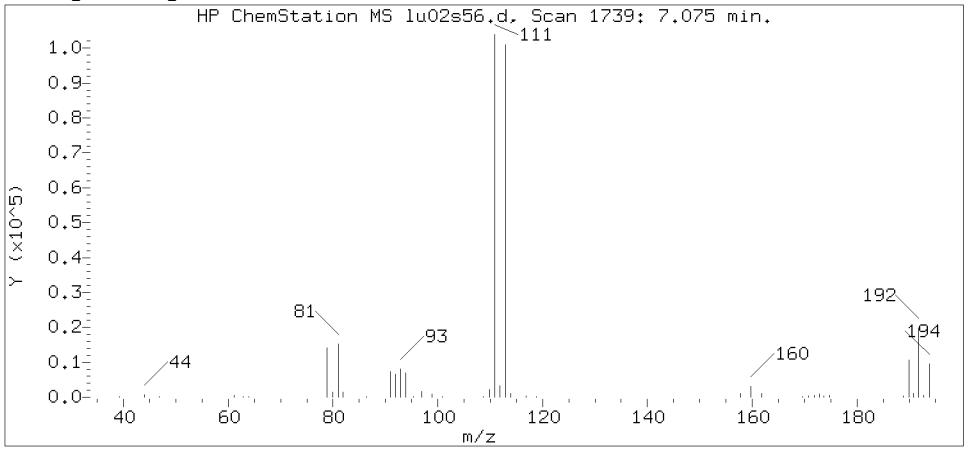


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

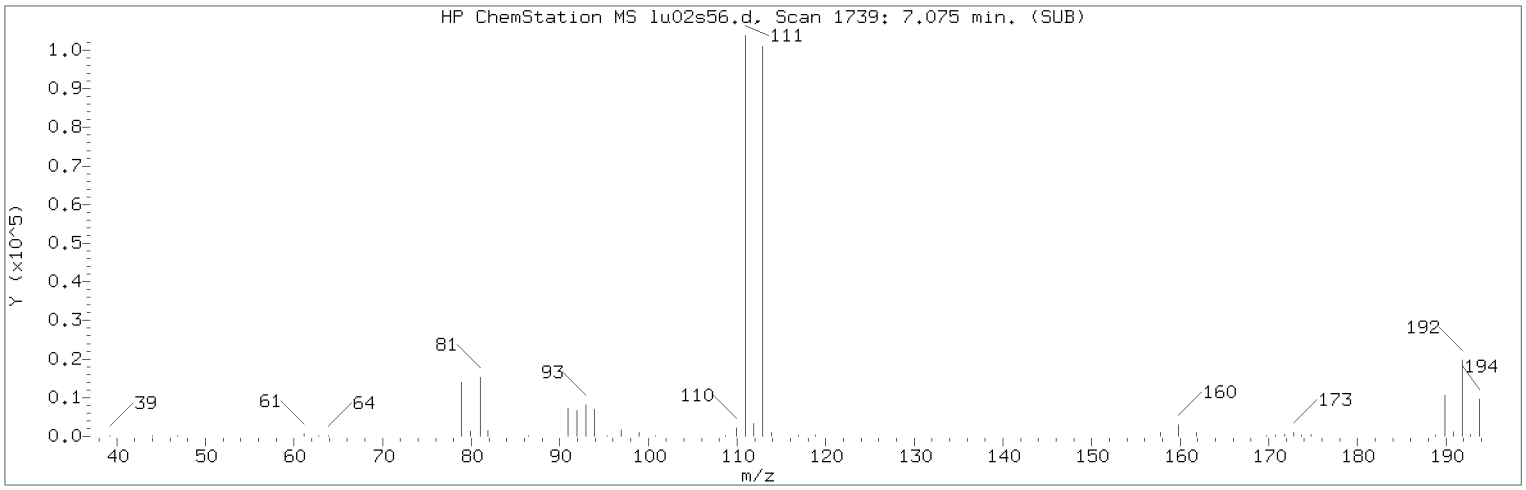
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

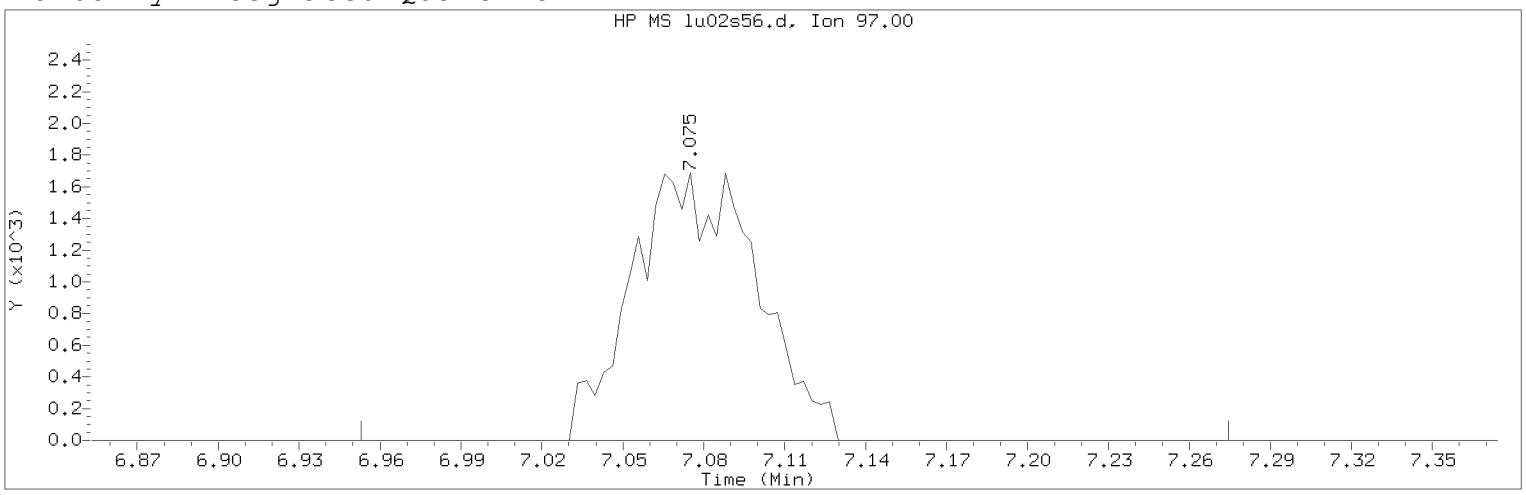
Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 1739
Retention Time (minutes)	: 7.075
Relative Retention Time	: 0.00036
Quant Ion	: 97.00
Area (flag)	: 5436AM
On-Column Amount (ng)	: 0.6150

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

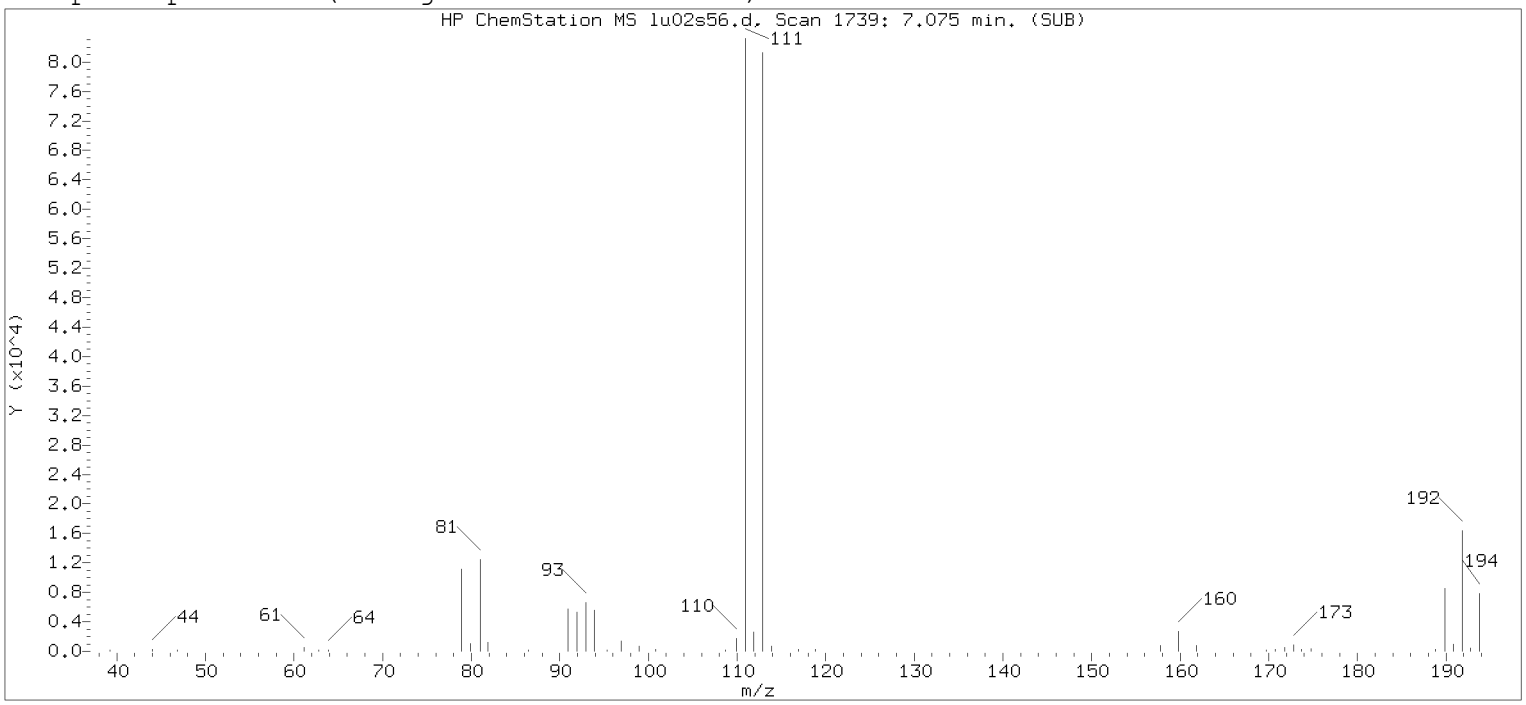
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1739
Retention Time (minutes): 7.075
Quant Ion : 97.00
Area (flag) : 5436AM
On-Column Amount (ng) : 0.6150
Integration start scan : 1700 Integration stop scan: 1800
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

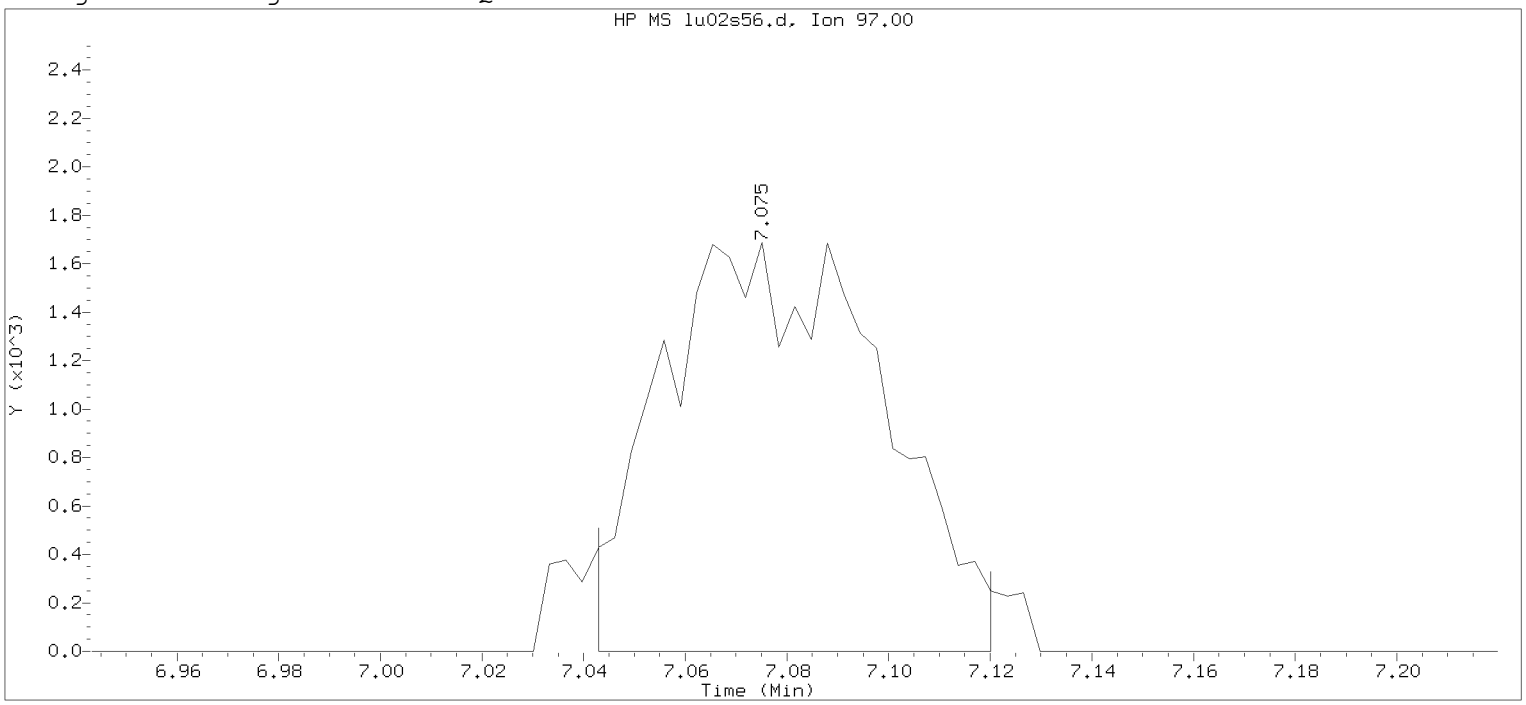
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

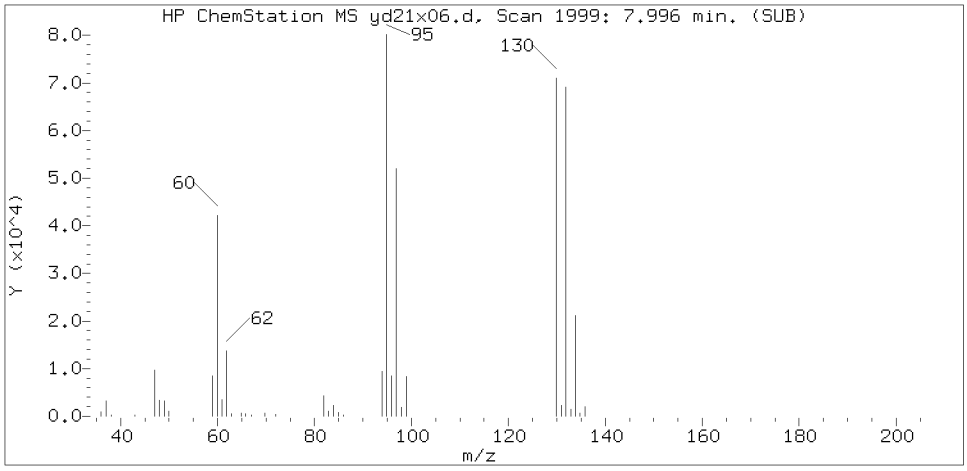
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 04:18 Automation

Sample Name: 62J05 Lab Sample ID: 1320954

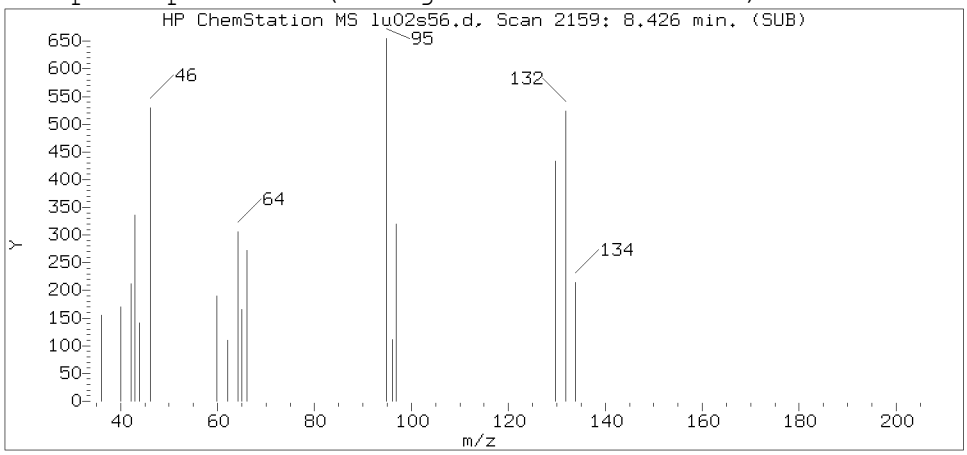
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1739
Retention Time (minutes): 7.075
Quant Ion : 97.00
Area : 5084
On-column Amount (ng) : 0.5751
Integration start scan : 1728 Integration stop scan: 1752
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user: CLMellinger

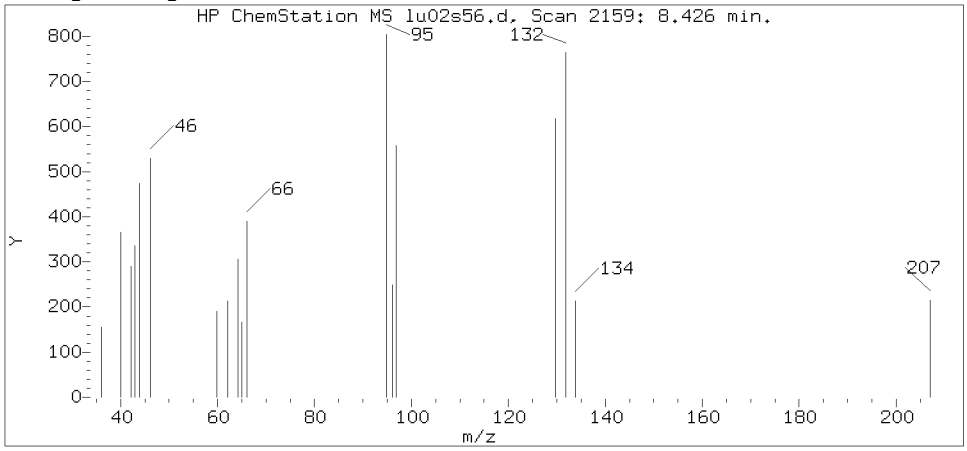
Reference Standard Spectrum for Trichloroethene

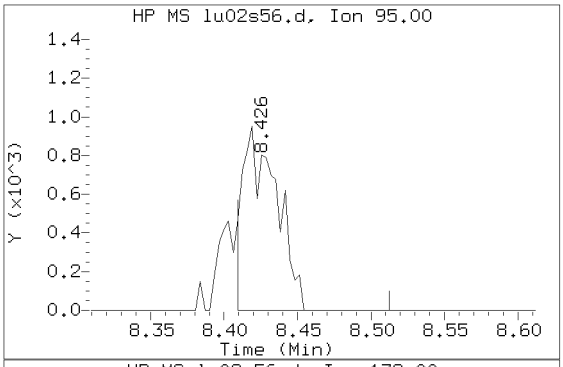


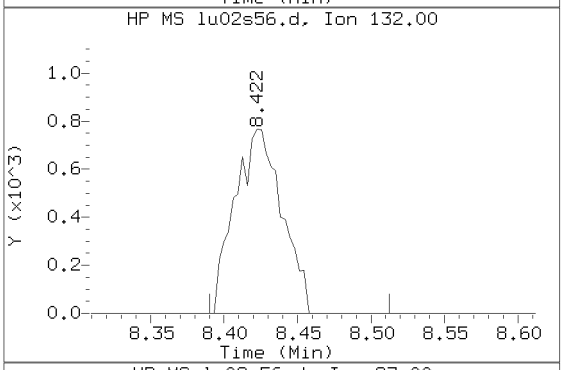
Sample Spectrum (Background Subtracted)

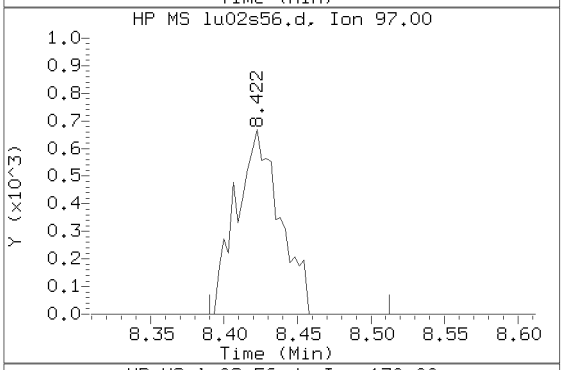


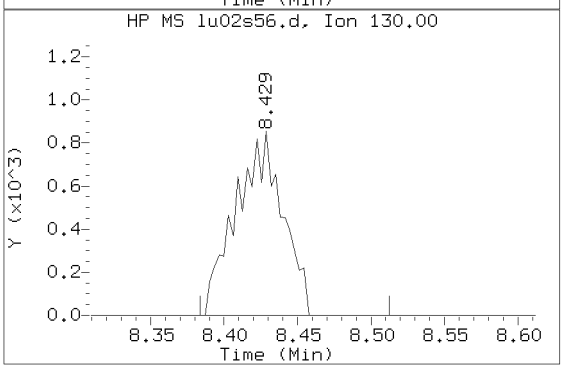
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 2159
Retention Time (minutes)	: 8.426
Relative Retention Time	: 0.00003
Quant Ion	: 95.00
Area (flag)	: 1527
On-Column Amount (ng)	: 0.2406

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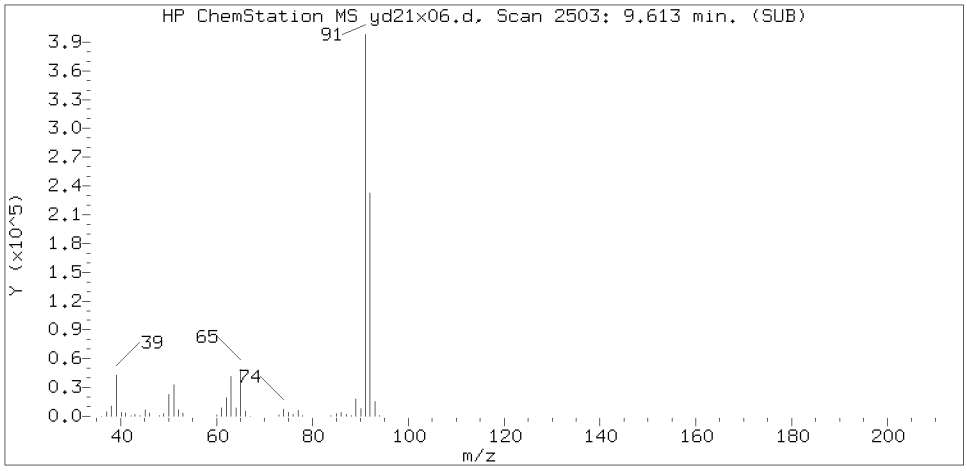
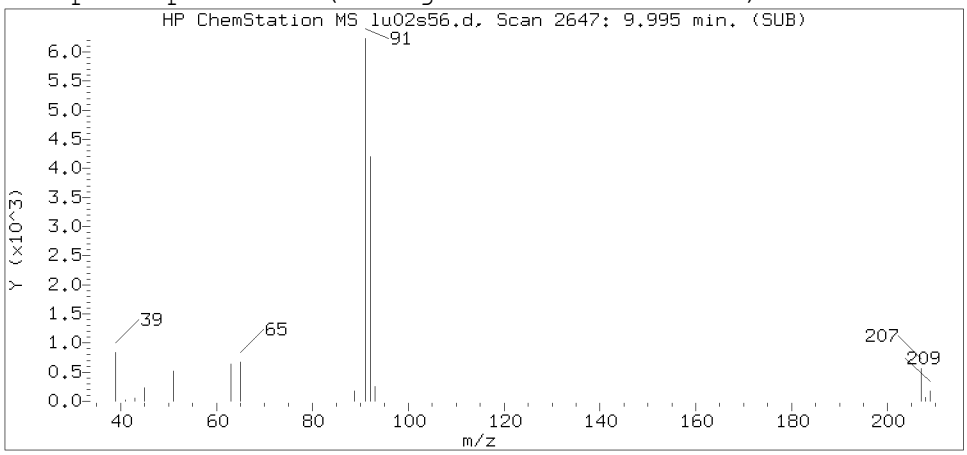
Target 3.5 esignature user ID: clm27445

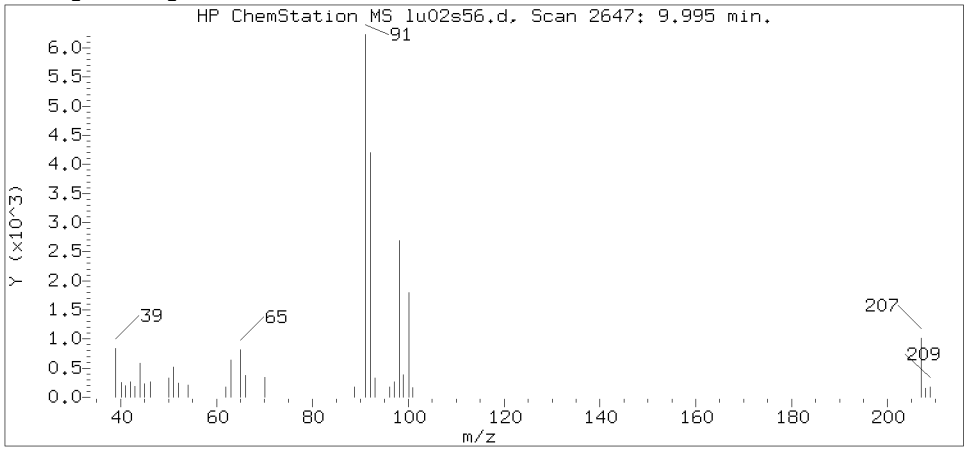
Reference Standard Spectrum for Toluene

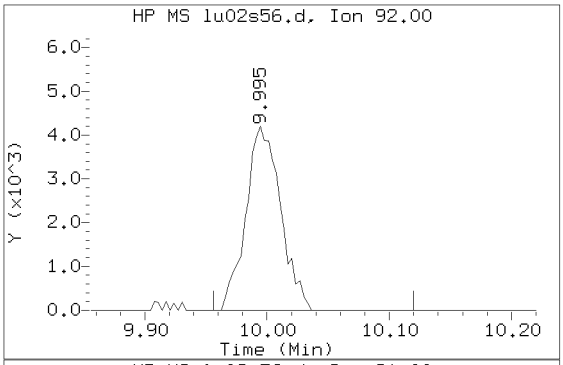


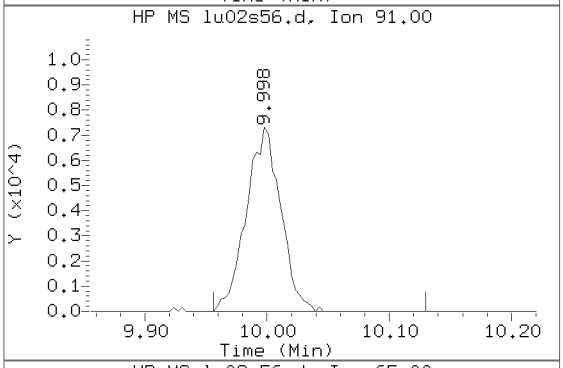
Sample Spectrum (Background Subtracted)

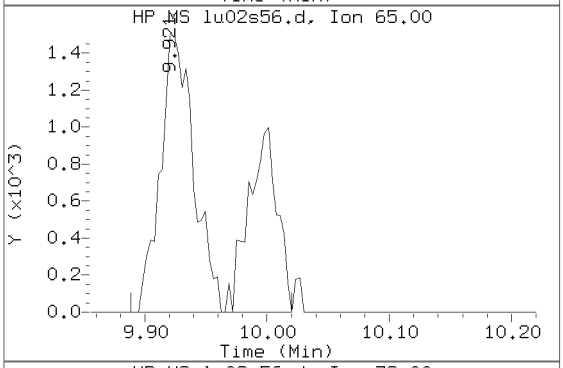


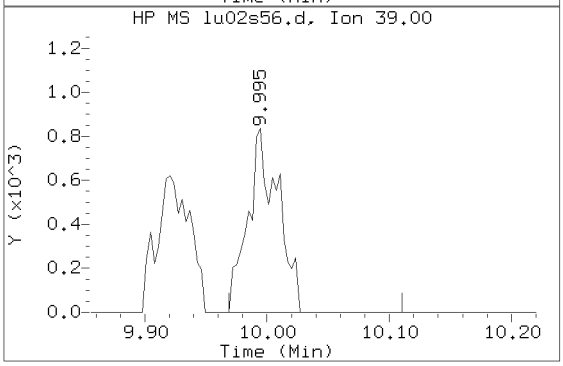
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s56.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:00 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:00 clm27445

Sample Name: 62J05 Lab Sample ID: 1320954

Compound Number	: 88
Compound Name	: Toluene
Scan Number	: 2647
Retention Time (minutes)	: 9.995
Relative Retention Time	: 0.00028
Quant Ion	: 92.00
Area (flag)	: 8284
On-Column Amount (ng)	: 0.5455

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J06

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320955

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s57.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.6	J
156-59-2	cis-1,2-Dichloroethene	0.3	J
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s57.d Injection date and time: **03-JUN-2020 04:22**
Data file Sample Info. Line: 62J06;1320955;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.487	(0.010)	934	65	220350	(-19)	250.00	
66) Fluorobenzene	7.950	(0.000)	2011	96	1179751	(-17)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	913083	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	489524	(-22)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.000)	113	308412	51.892	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.516	(0.000)	102	78609	52.125	104%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1164025	49.624	99%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.339	(0.000)	95	418601	46.380	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit	LOQ (in sample)
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.545	(0.000)	63	6597	0.644	0.64		J	0.2	1
42) cis-1,2-Dichloroethene	(2)	6.377	(-0.000)	96	1778	0.271	0.27		J	0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)	7.072	(0.000)	97	23855A	2.778	2.78			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.419	(0.000)	95	8127	1.318	1.32			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

A = User selected an alternate peak.

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01. Target 3.5 esignature user ID: clm27445

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s57.d Injection date and time: **03-JUN-2020 04:22**
Data file Sample Info. Line: 62J06;1320955;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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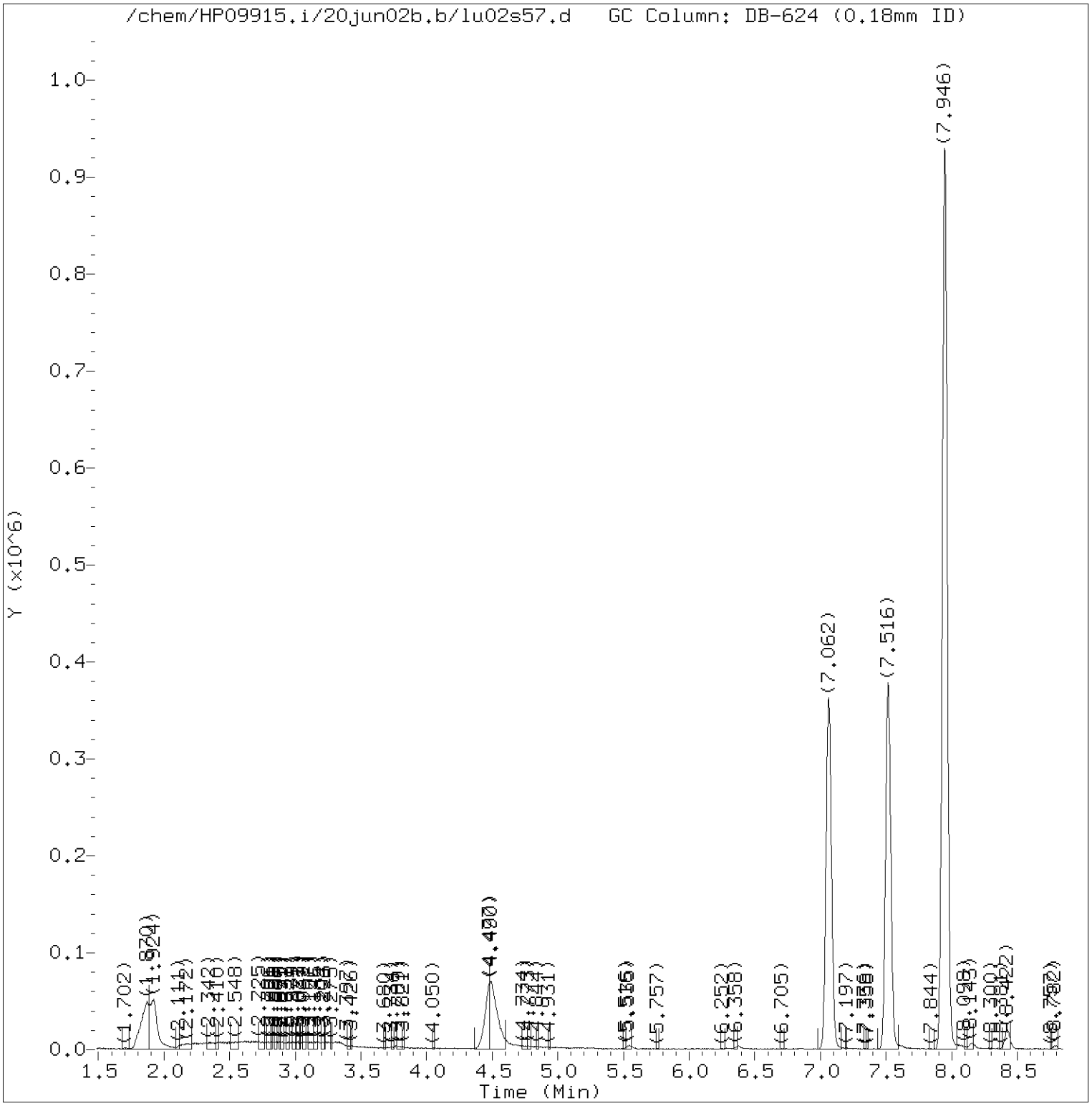
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

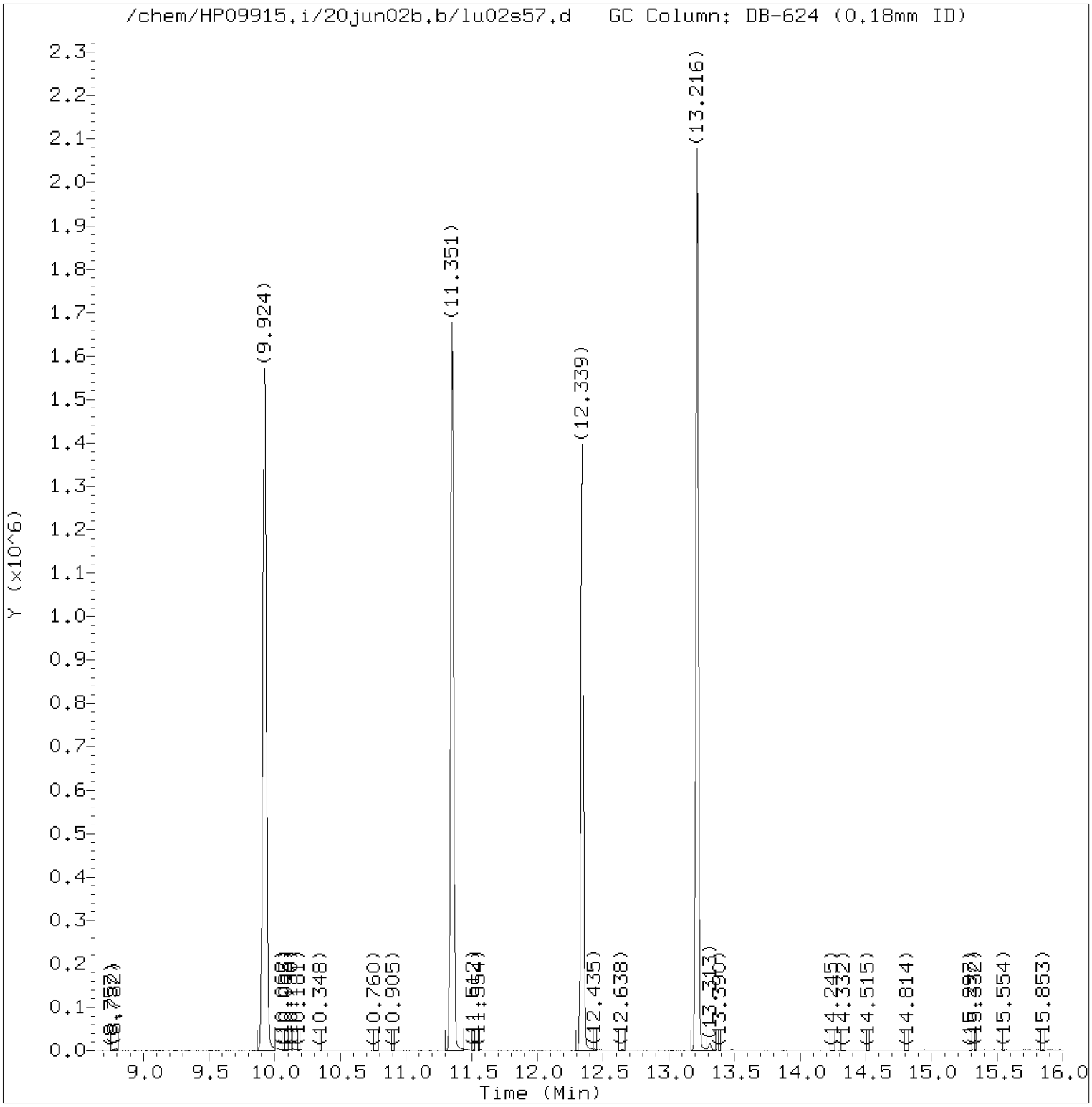
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Sample Name: 62J06 Lab Sample ID: 1320955

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Sample Name: 62J06 Lab Sample ID: 1320955

Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

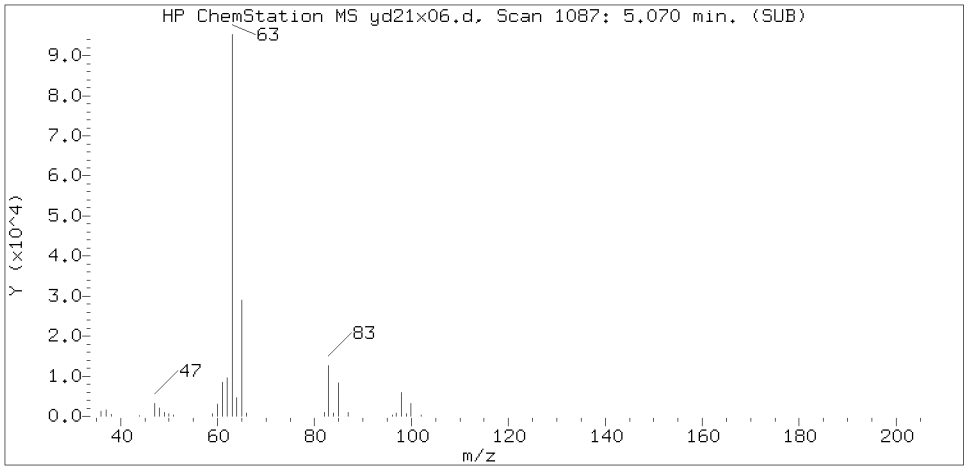
Sample Name: 62J06 Lab Sample ID: 1320955

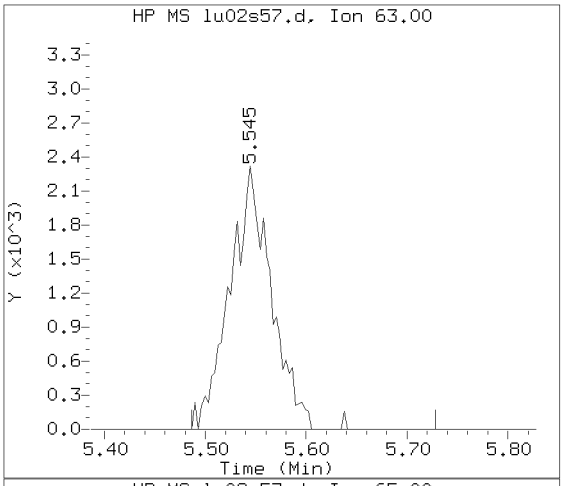
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.487	65	220350	250.000
36) 1,1-Dichloroethane	(2)	5.545	63	6597	0.644
42) cis-1,2-Dichloroethene	(2)	6.377	96	1778	0.271
52)$Dibromofluoromethane	(2)	7.062	113	308412	51.892
53) 1,1,1-Trichloroethane	(2)	7.072	97	23855A	2.778
57)$1,2-Dichloroethane-d4	(2)	7.516	102	78609	52.125
66)*Fluorobenzene	(2)	7.950	96	1179751	50.000
71) Trichloroethene	(2)	8.419	95	8127	1.318
83)$Toluene-d8	(3)	9.924	98	1164025	49.624
100)*Chlorobenzene-d5	(3)	11.351	117	913083	50.000
114)$4-Bromofluorobenzene	(3)	12.339	95	418601	46.380
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	489524	50.000

A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

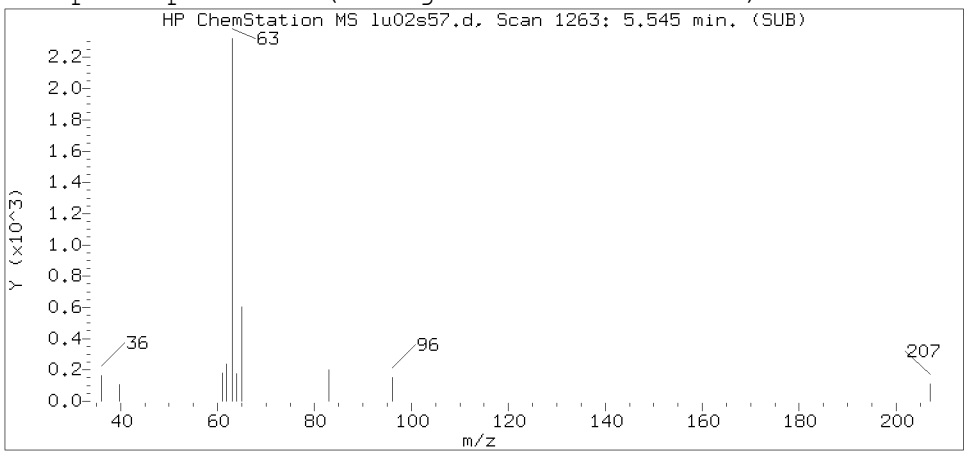
Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

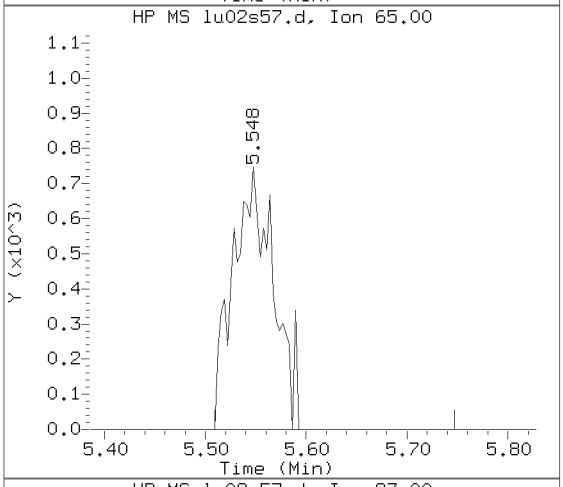
Reference Standard Spectrum for 1,1-Dichloroethane



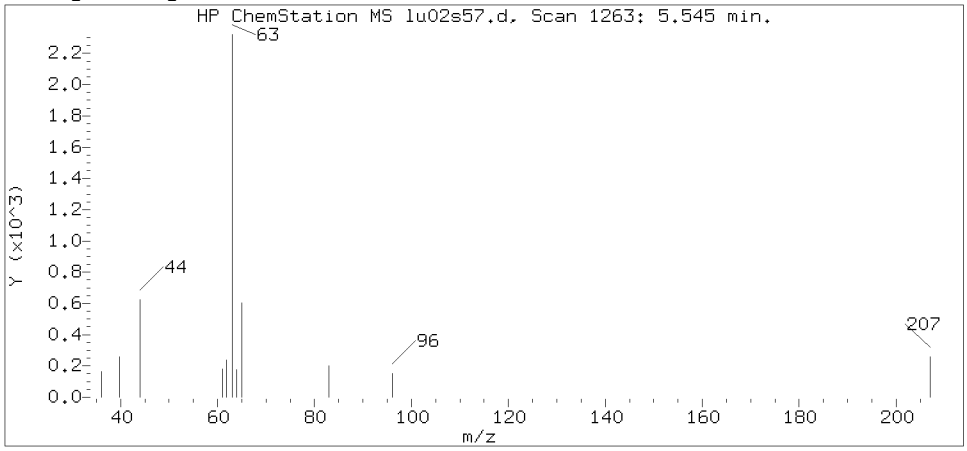


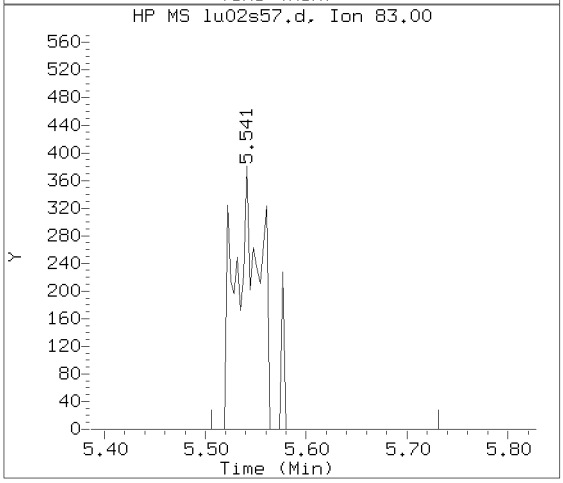
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

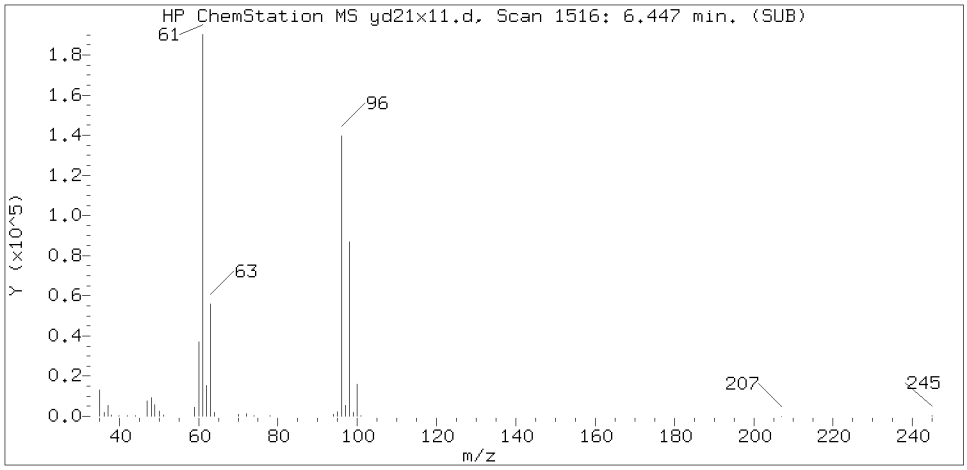
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

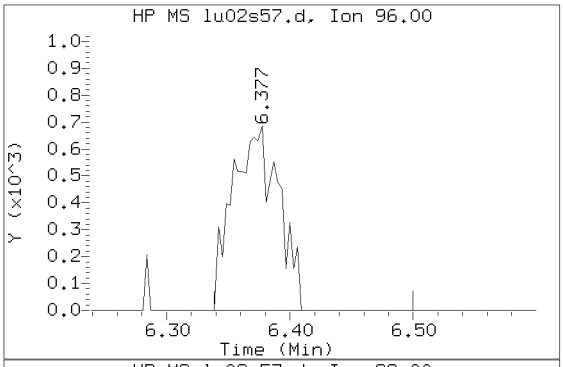
Sample Name: 62J06 Lab Sample ID: 1320955

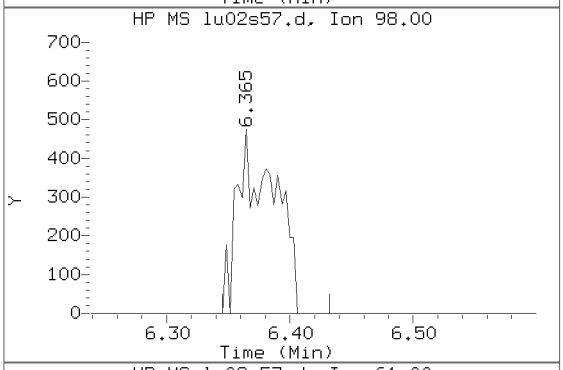
Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 1263
Retention Time (minutes): 5.545
Relative Retention Time : 0.00080
Quant Ion : 63.00
Area (flag) : 6597
On-Column Amount (ng) : 0.6440

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

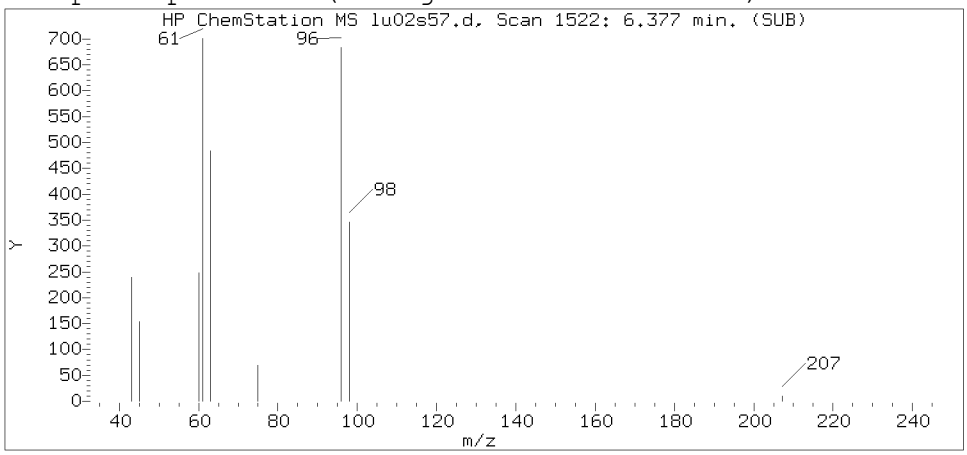
Reference Standard Spectrum for cis-1,2-Dichloroethene

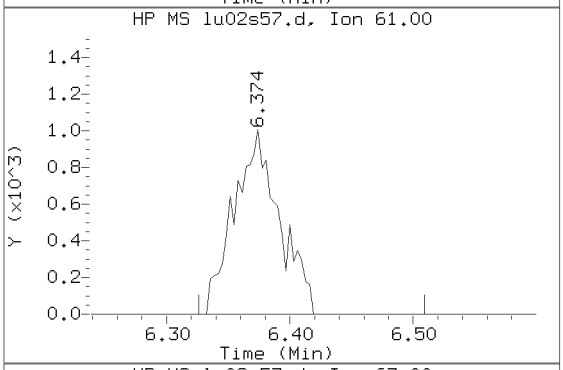




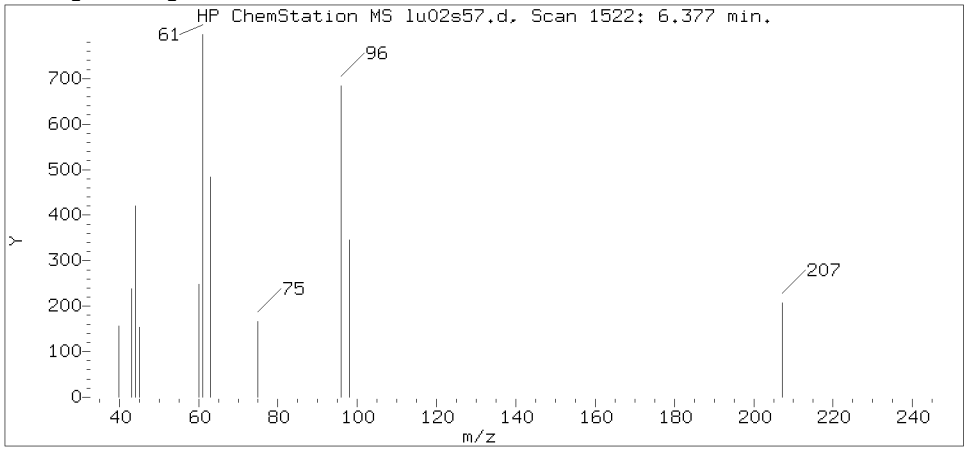


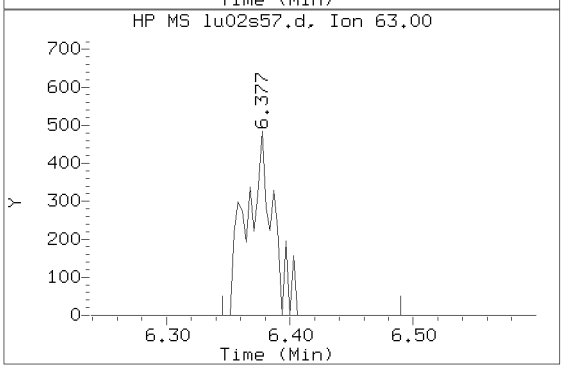
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

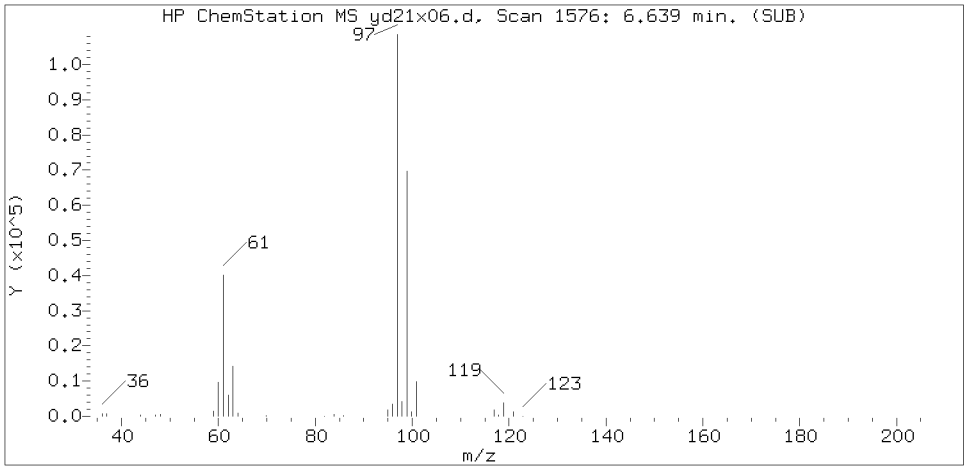
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

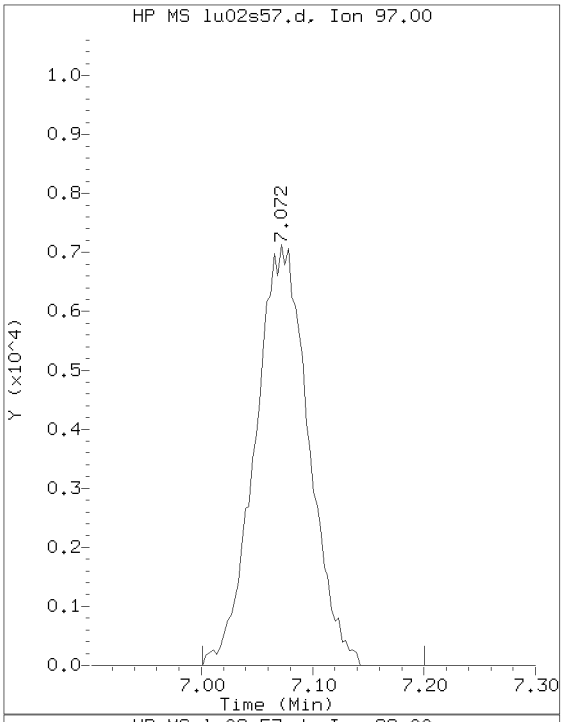
Sample Name: 62J06 Lab Sample ID: 1320955

Compound Number : 42
Compound Name : cis-1,2-Dichloroethene
Scan Number : 1522
Retention Time (minutes): 6.377
Relative Retention Time :-0.00000
Quant Ion : 96.00
Area (flag) : 1778
On-Column Amount (ng) : 0.2715

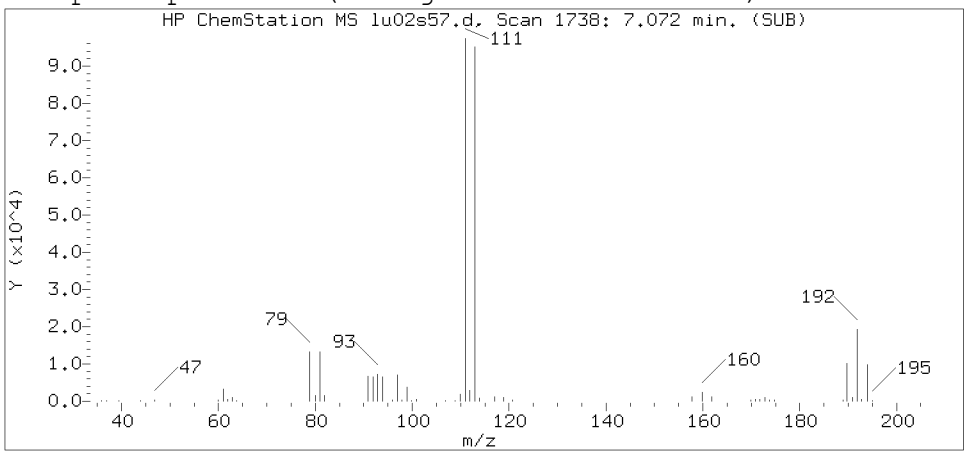
Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

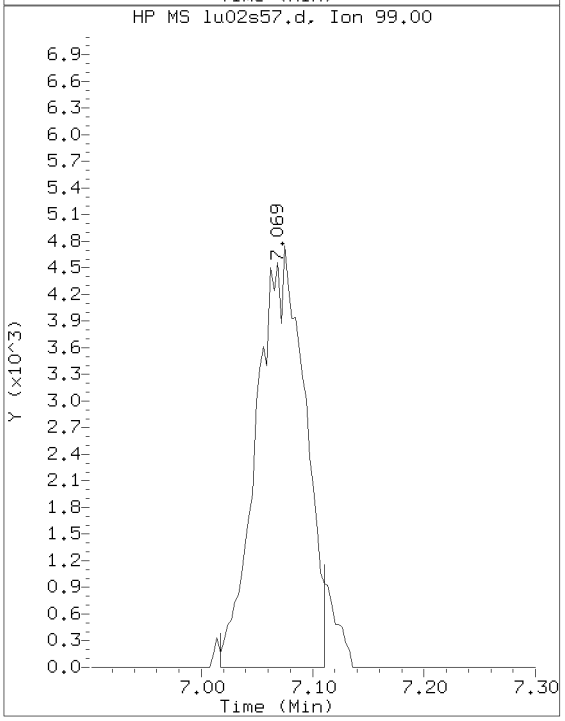
Reference Standard Spectrum for 1,1,1-Trichloroethane



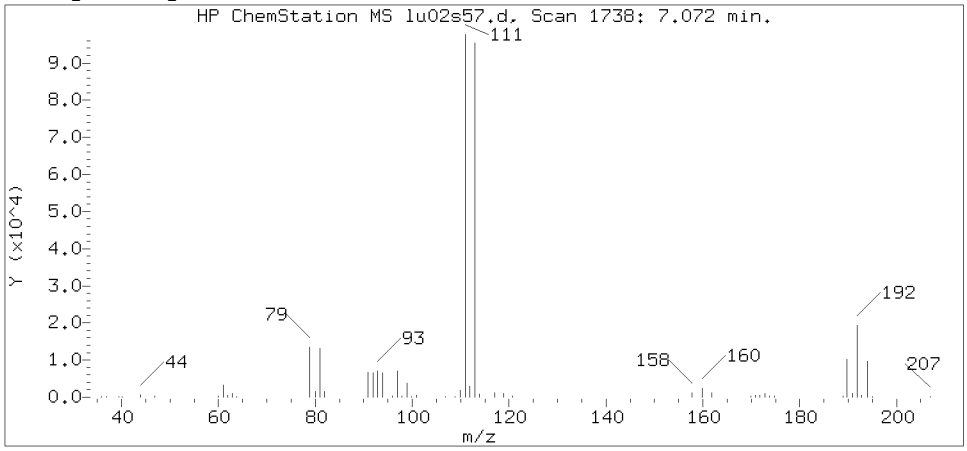


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

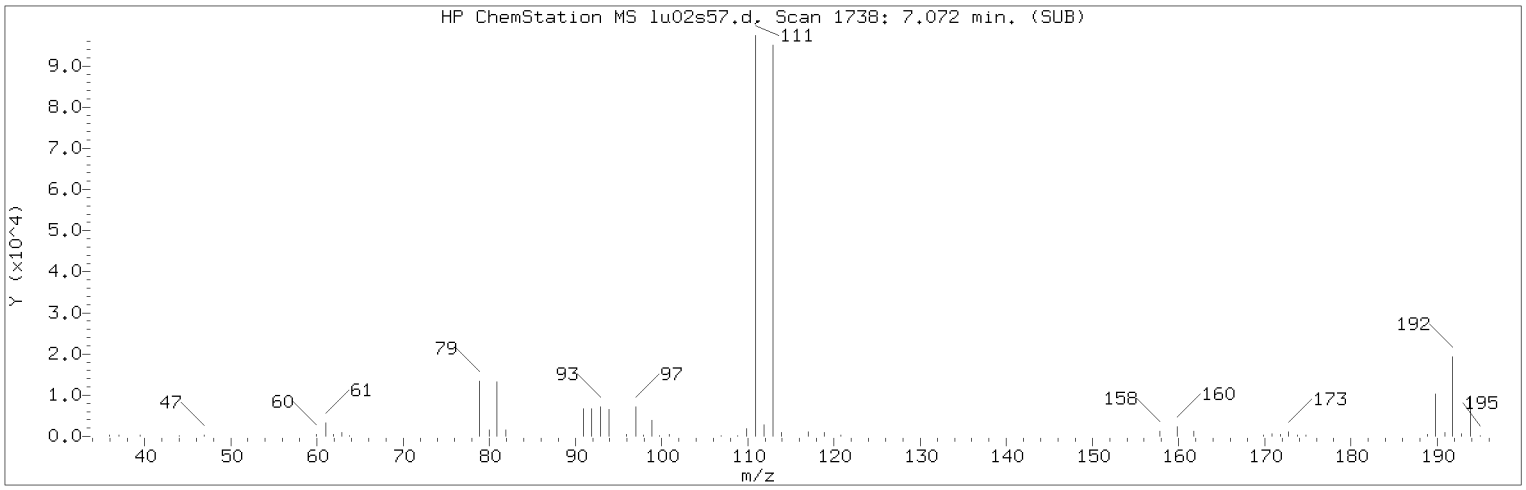
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Sample Name: 62J06 Lab Sample ID: 1320955

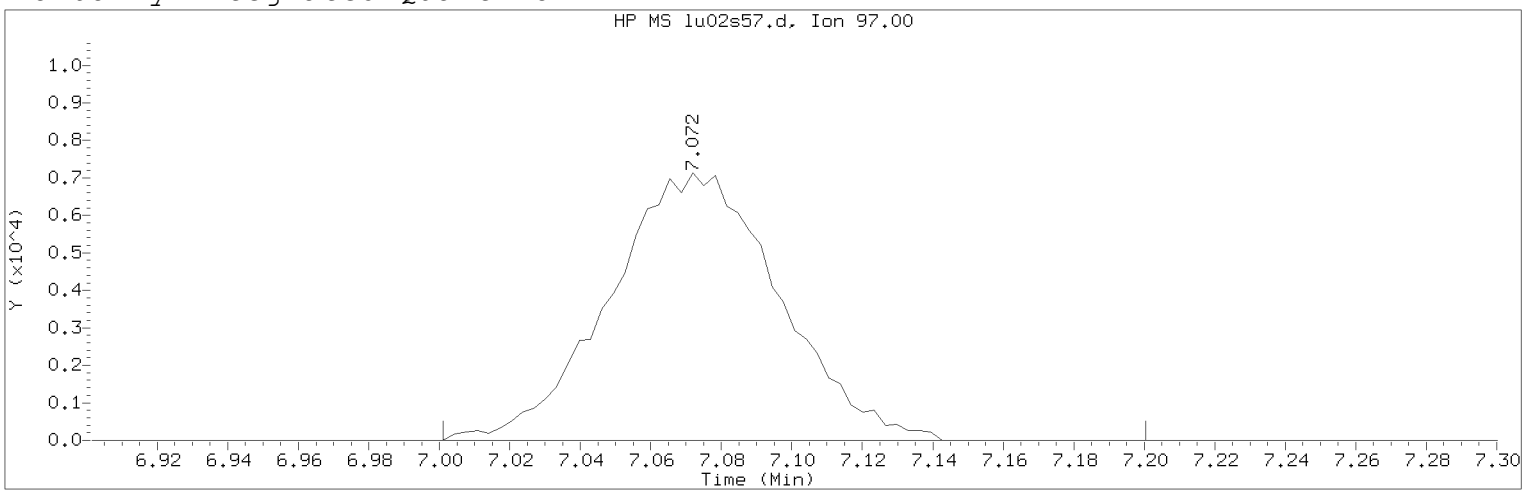
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1738
Retention Time (minutes): 7.072
Relative Retention Time : 0.00040
Quant Ion : 97.00
Area (flag) : 23855A
On-Column Amount (ng) : 2.7784

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Sample Name: 62J06 Lab Sample ID: 1320955

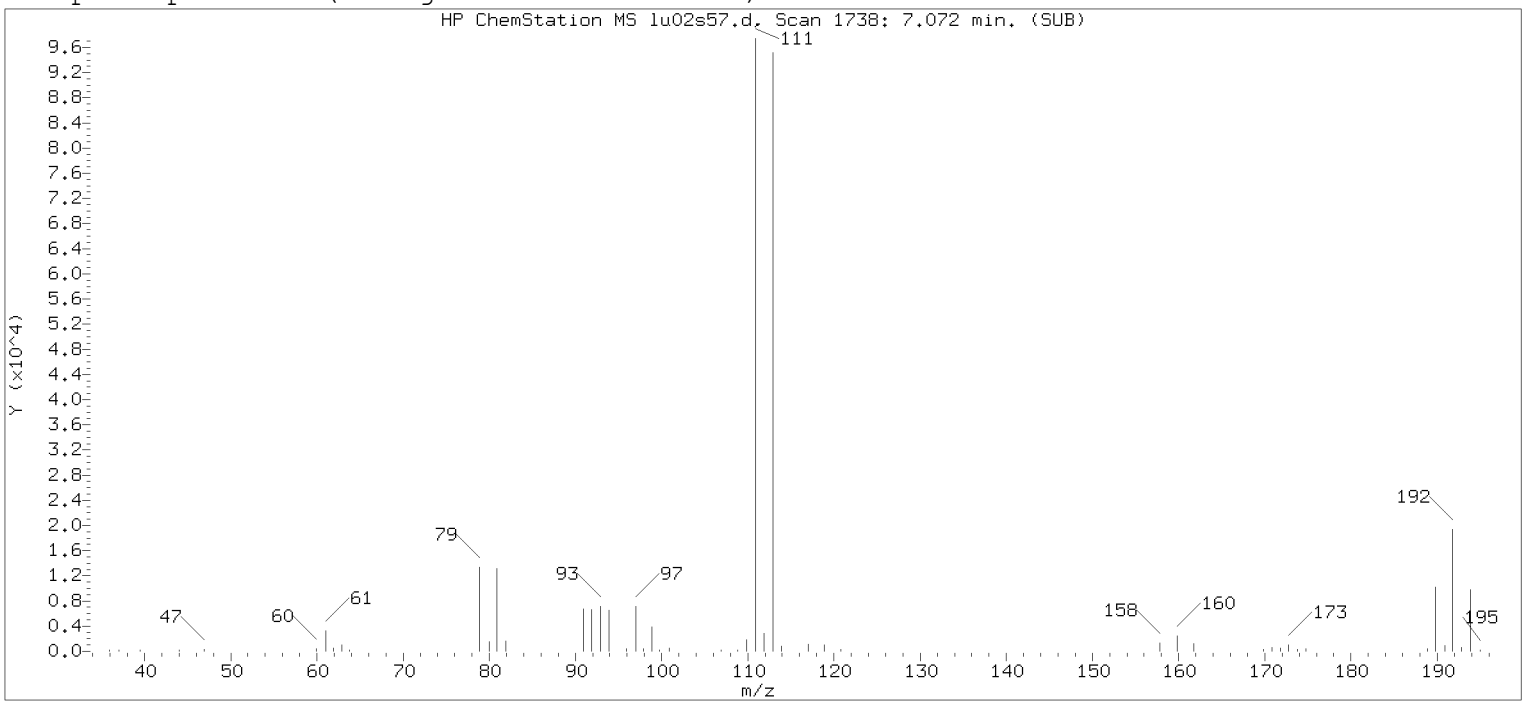
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1738
Retention Time (minutes): 7.072
Quant Ion : 97.00
Area (flag) : 23855A
On-Column Amount (ng) : 2.7784
Integration start scan : 1715 Integration stop scan: 1777
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

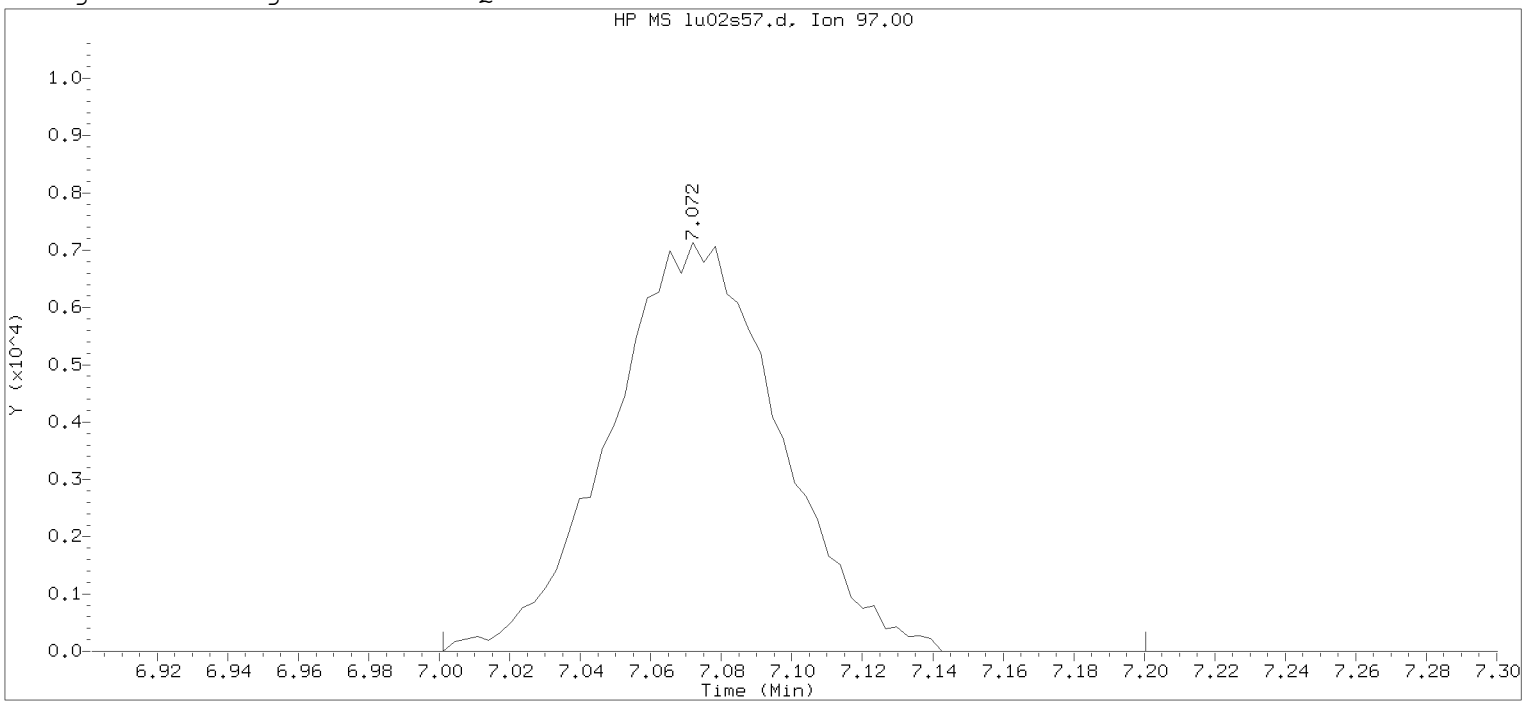
Analyst responsible for change: Digitally signed by Corie L. Mellinger
on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 17:55.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

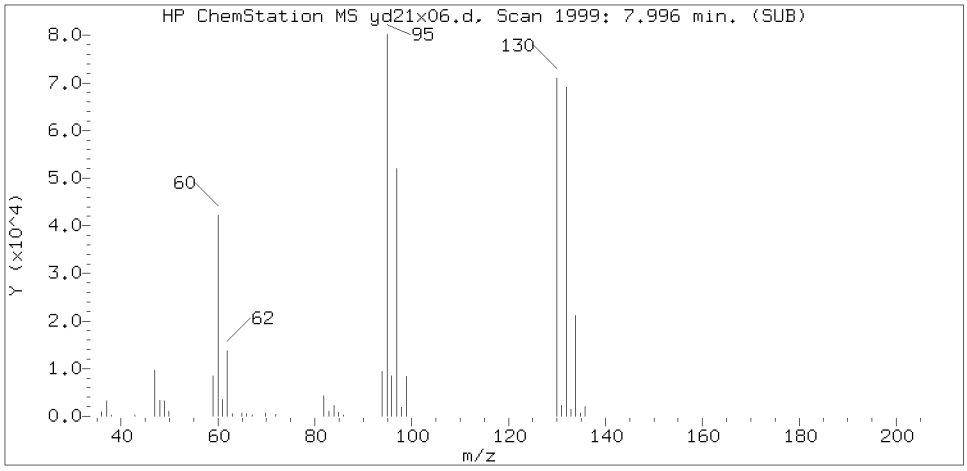
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 04:40 Automation

Sample Name: 62J06 Lab Sample ID: 1320955

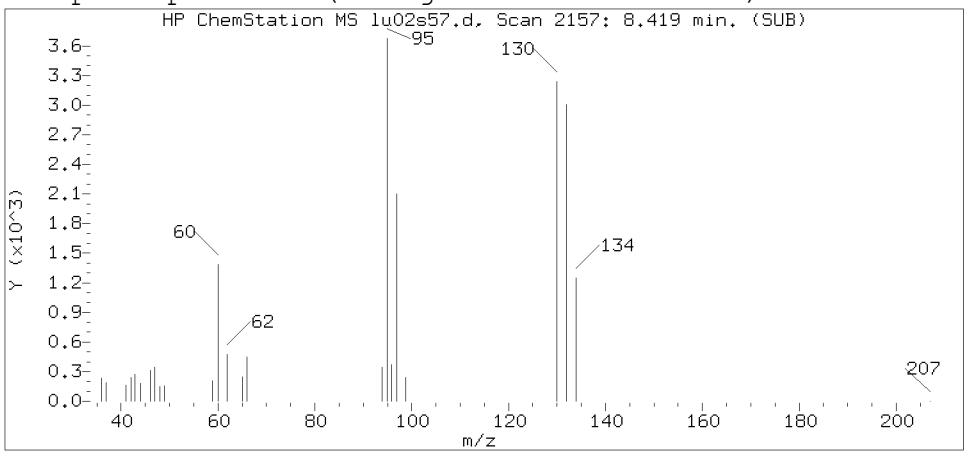
Compound Number : 53
Compound Name : 1,1,1-Trichloroethane
Scan Number : 1738
Retention Time (minutes): 7.072
Quant Ion : 97.00
Area : 23855
On-column Amount (ng) : 2.7785
Integration start scan : 1715 Integration stop scan: 1777
Y at integration start : 0 Y at integration end: 0

Digitally signed by Corie L. Mellinger on 06/04/2020 at 06:01.
Target 3.5 esignature user ID: cm27425

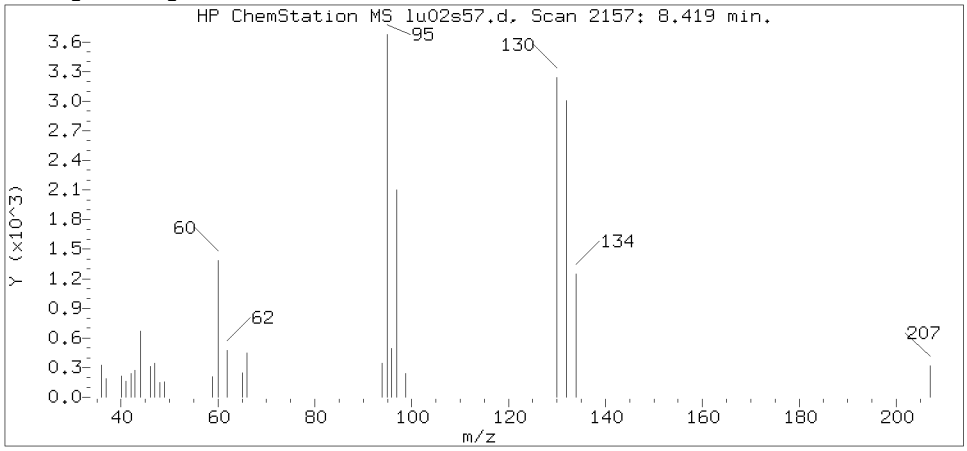
Reference Standard Spectrum for Trichloroethene

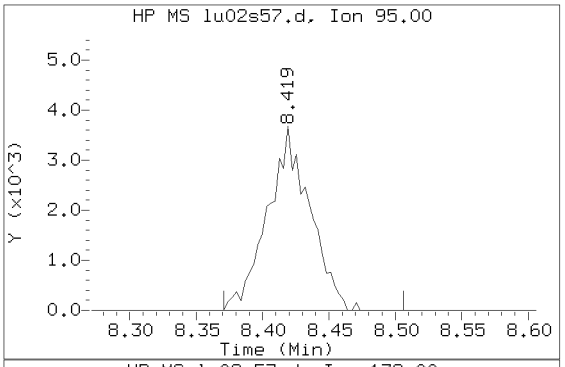


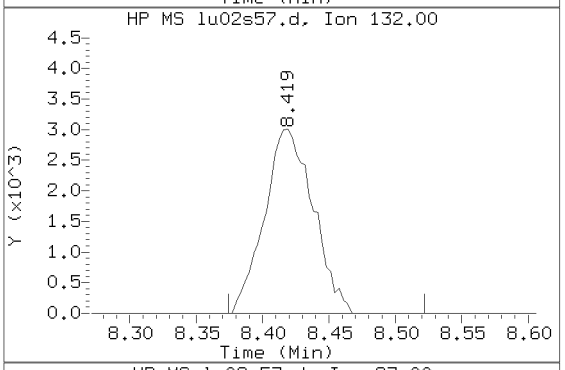
Sample Spectrum (Background Subtracted)

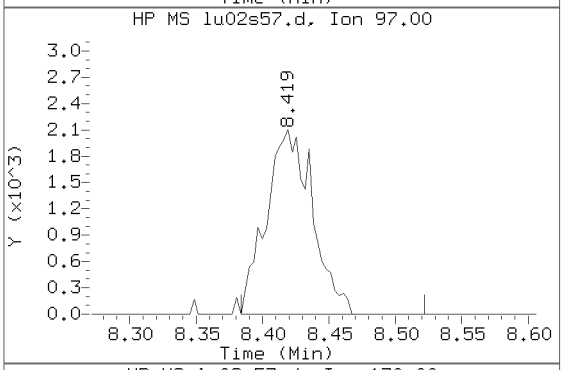


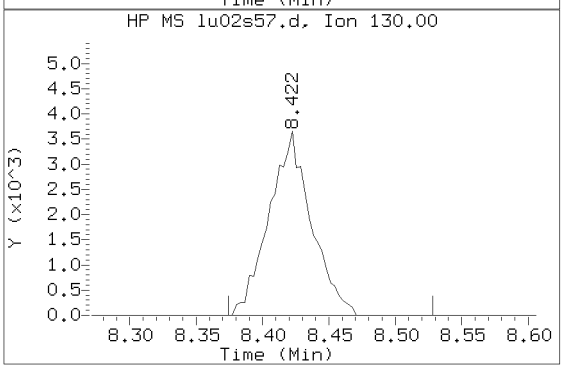
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s57.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:22 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 04-Jun-2020 06:01 clm27445

Sample Name: 62J06 Lab Sample ID: 1320955

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 2157
Retention Time (minutes)	: 8.419
Relative Retention Time	: 0.00041
Quant Ion	: 95.00
Area (flag)	: 8127
On-Column Amount (ng)	: 1.3181

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Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J07

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320956

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s58.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.4	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	0.3	J
71-55-6	1,1,1-Trichloroethane	3	
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s58.d Injection date and time: **03-JUN-2020 04:44**
Data file Sample Info. Line: 62J07;1320956;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.493	(0.003)	936	65	219550	(-19)	250.00	
66) Fluorobenzene	7.953	(-0.003)	2012	96	1188487	(-17)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	907514	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	486192	(-22)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.069	(0.000)	113	310420	51.846	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	78639	51.761	104%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1170322	50.199	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342	(0.000)	95	415620	46.332	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.541	(0.001)	63	3636	0.352	0.35		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)	6.863	(-0.000)	83	3124	0.310	0.31		J	0.2	1
53) 1,1,1-Trichloroethane	(2)	7.072	(0.000)	97	28444	3.289	3.29			0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.429	(-0.000)	95	6445	1.038	1.04			0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:31. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20jun02b.b/lu02s58.d Injection date and time: **03-JUN-2020 04:44**
Data file Sample Info. Line: 62J07;1320956;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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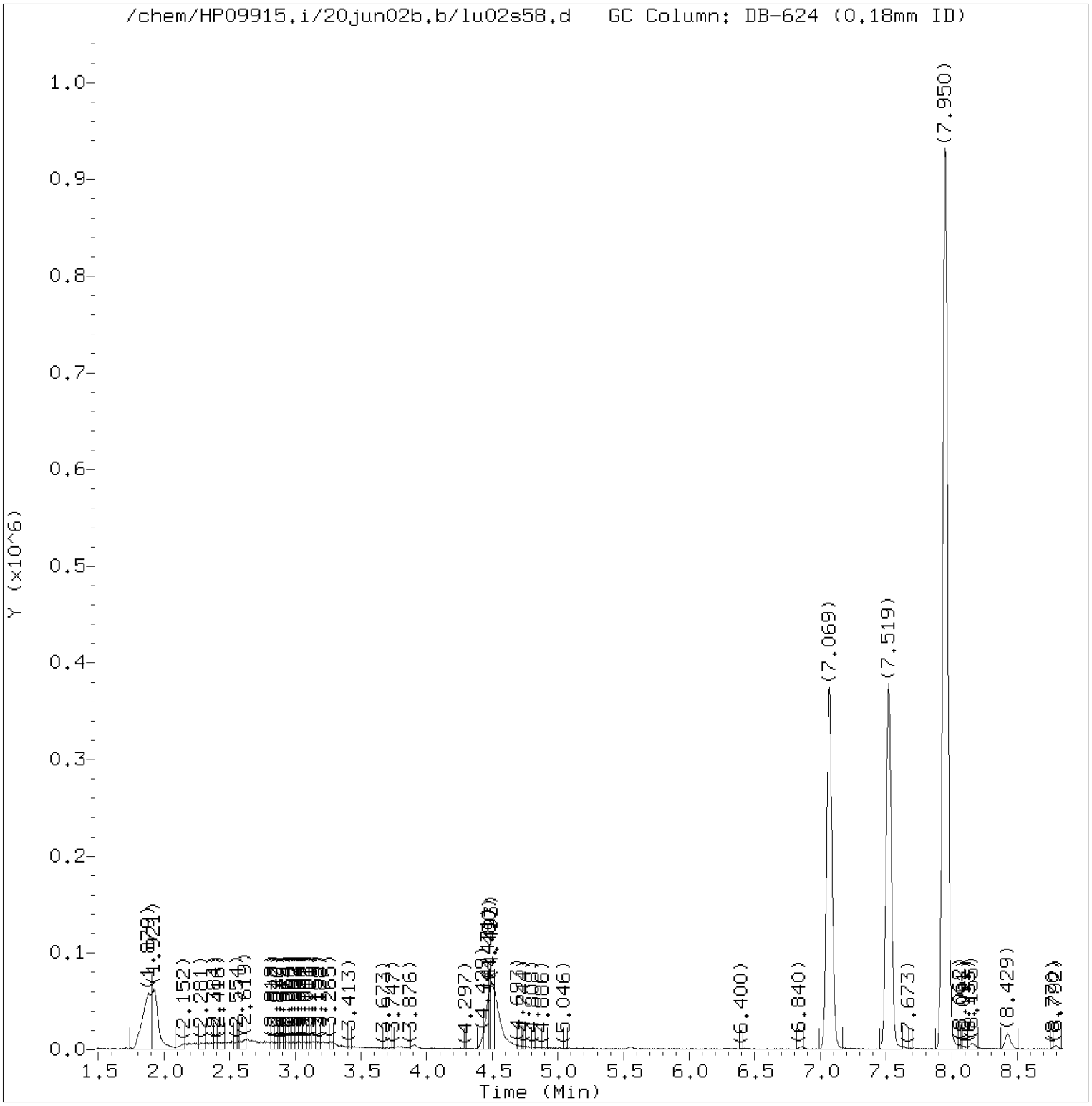
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:31. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

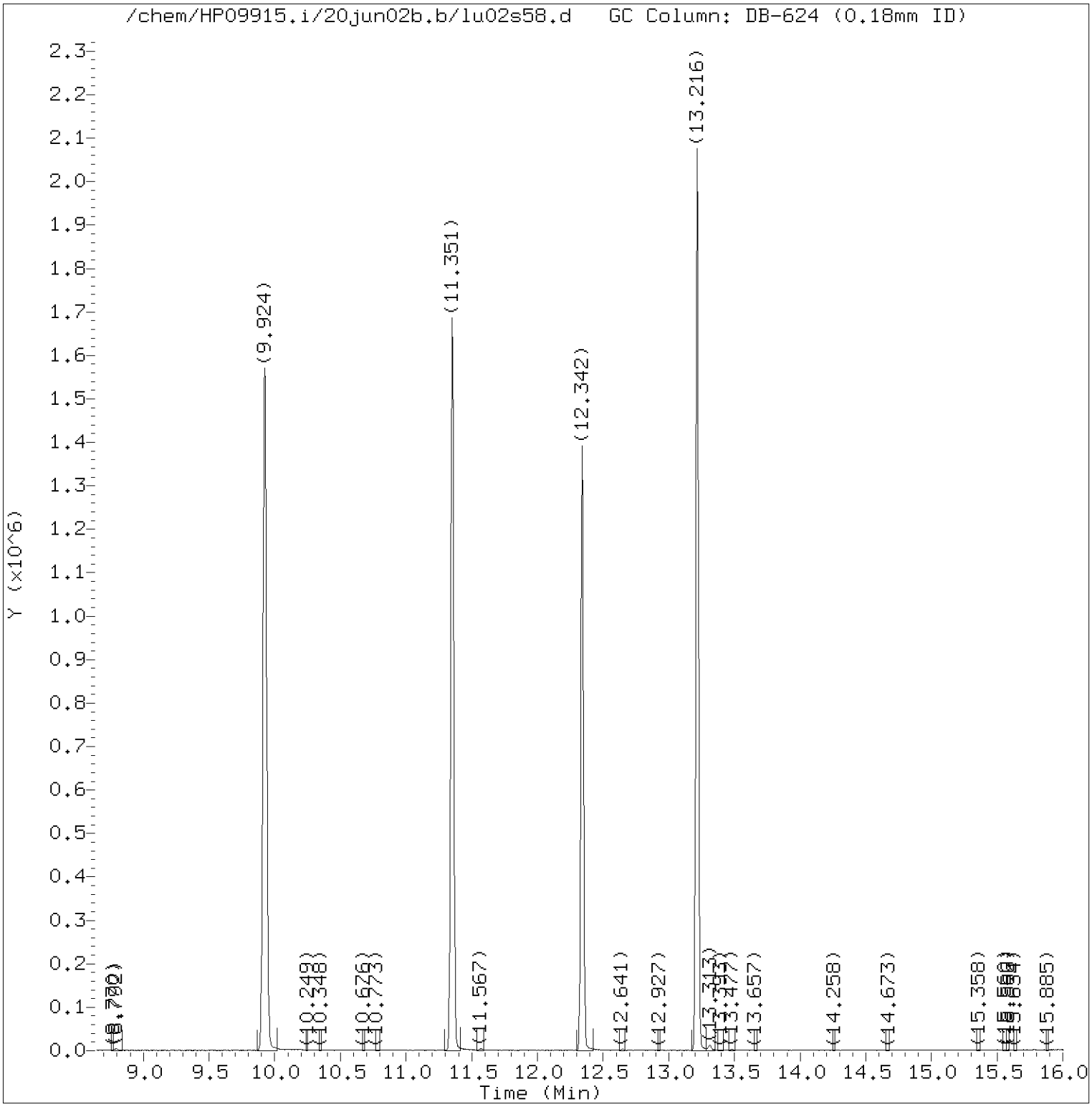
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Sample Name: 62J07 Lab Sample ID: 1320956

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:31.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Sample Name: 62J07 Lab Sample ID: 1320956

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:31.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

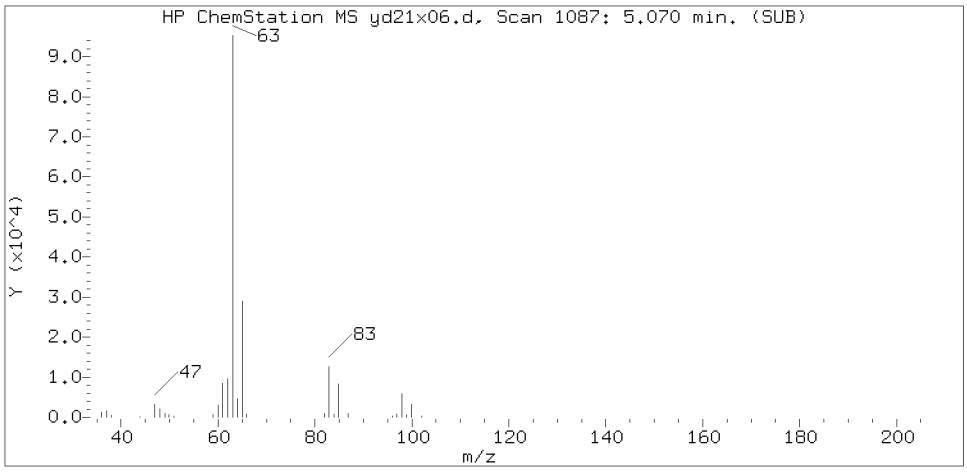
Sample Name: 62J07 Lab Sample ID: 1320956

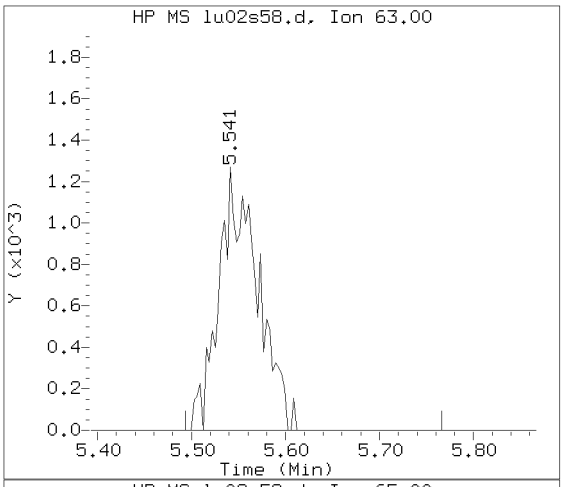
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.493	65	219550	250.000
36) 1,1-Dichloroethane	(2)	5.541	63	3636	0.352
51) Chloroform	(2)	6.863	83	3124	0.310
52)$Dibromofluoromethane	(2)	7.069	113	310420	51.846
53) 1,1,1-Trichloroethane	(2)	7.072	97	28444	3.289
57)$1,2-Dichloroethane-d4	(2)	7.522	102	78639	51.761
66)*Fluorobenzene	(2)	7.953	96	1188487	50.000
71) Trichloroethene	(2)	8.429	95	6445	1.038
83)$Toluene-d8	(3)	9.924	98	1170322	50.199
100)*Chlorobenzene-d5	(3)	11.351	117	907514	50.000
114)$4-Bromofluorobenzene	(3)	12.342	95	415620	46.332
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	486192	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

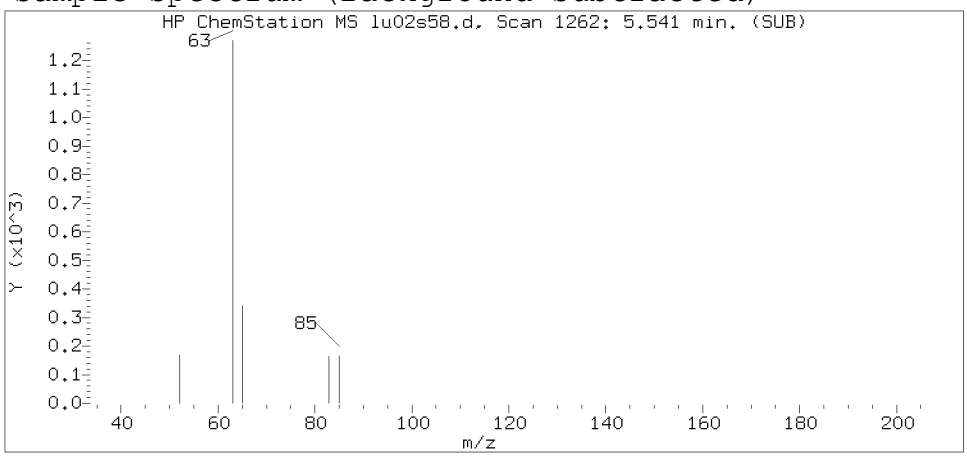
Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:31.
Target 3.5 esignature user ID: clm27445

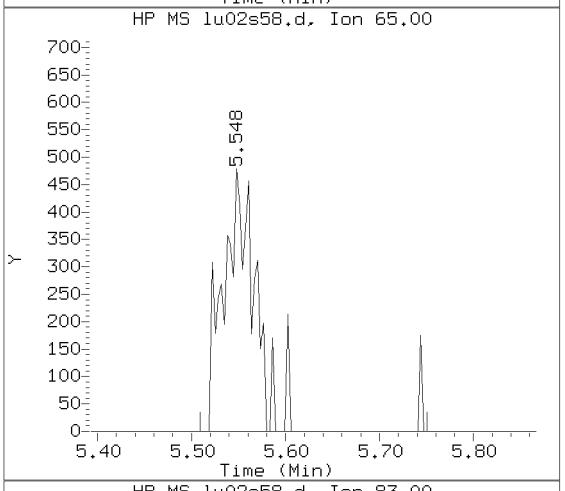
Reference Standard Spectrum for 1,1-Dichloroethane



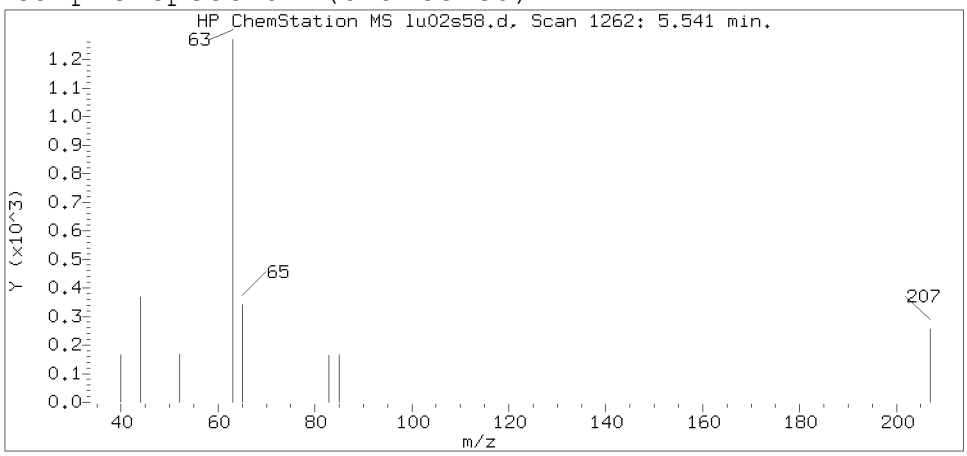


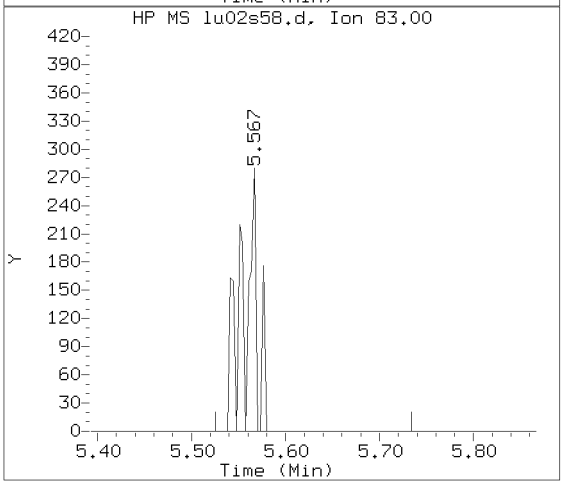
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

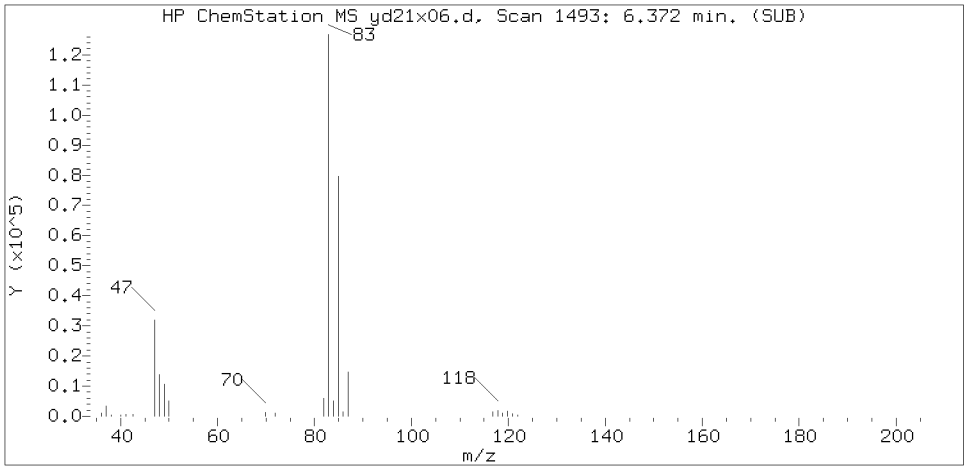
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

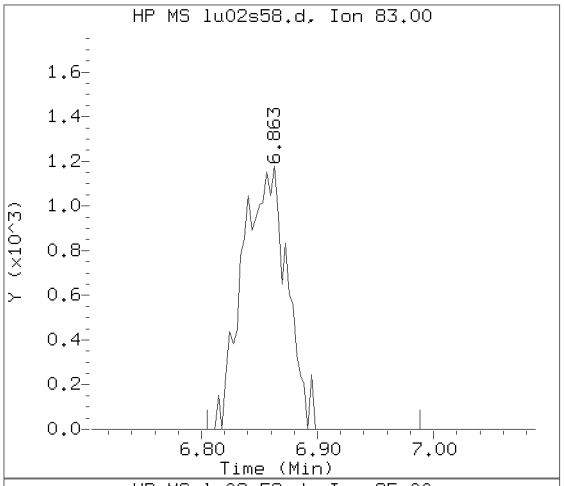
Sample Name: 62J07 Lab Sample ID: 1320956

Compound Number : 36
Compound Name : 1,1-Dichloroethane
Scan Number : 1262
Retention Time (minutes): 5.541
Relative Retention Time : 0.00149
Quant Ion : 63.00
Area (flag) : 3636
On-Column Amount (ng) : 0.3524

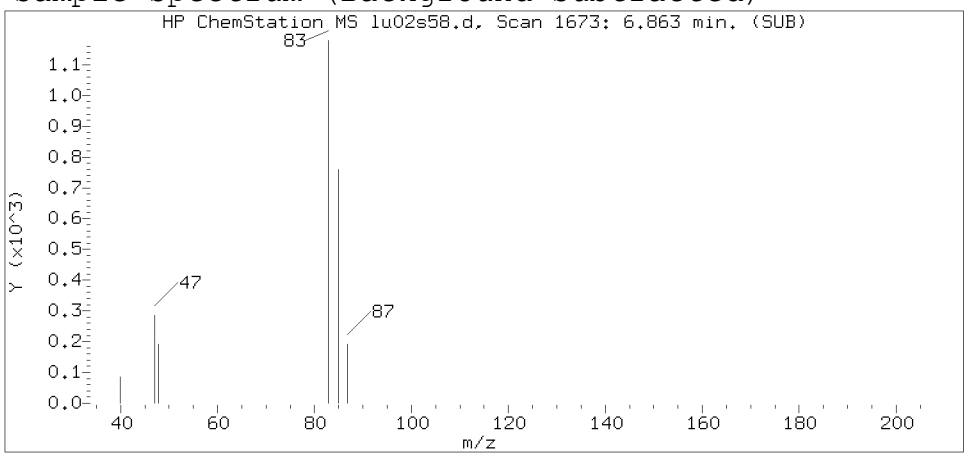
Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:31.
Target 3.5 esignature user ID: clm27445

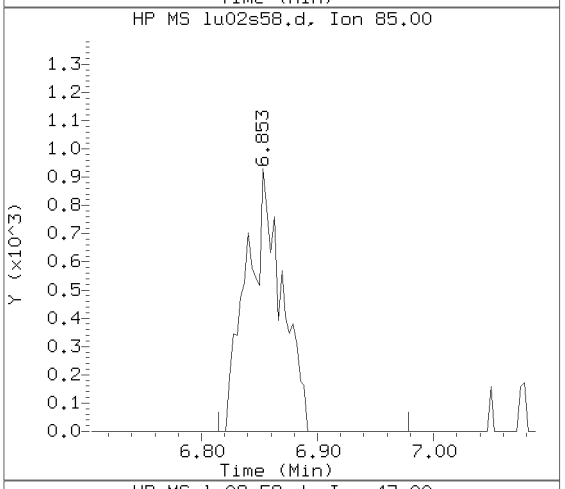
Reference Standard Spectrum for Chloroform



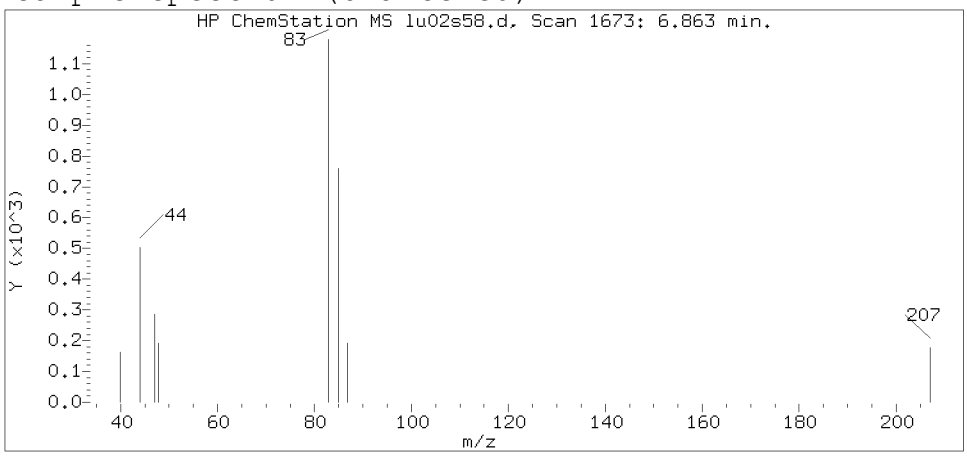


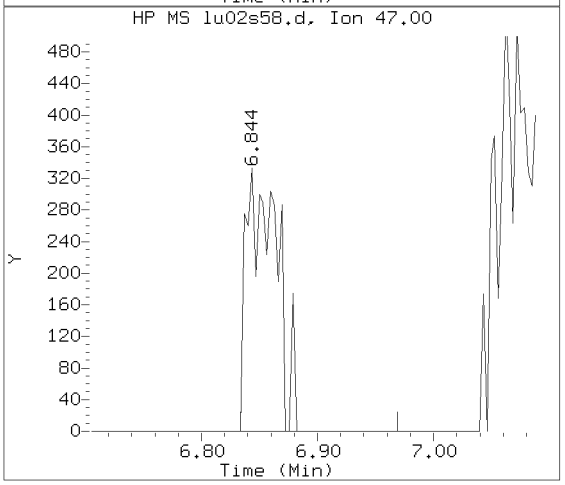
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

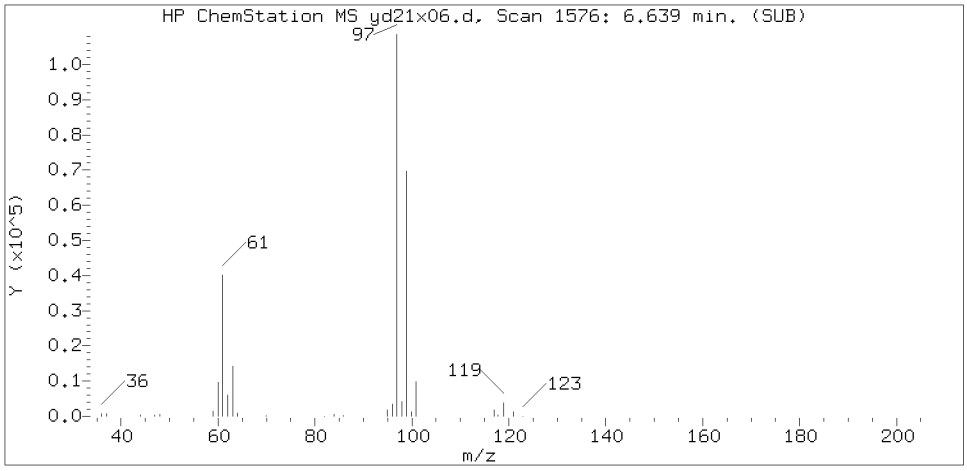
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

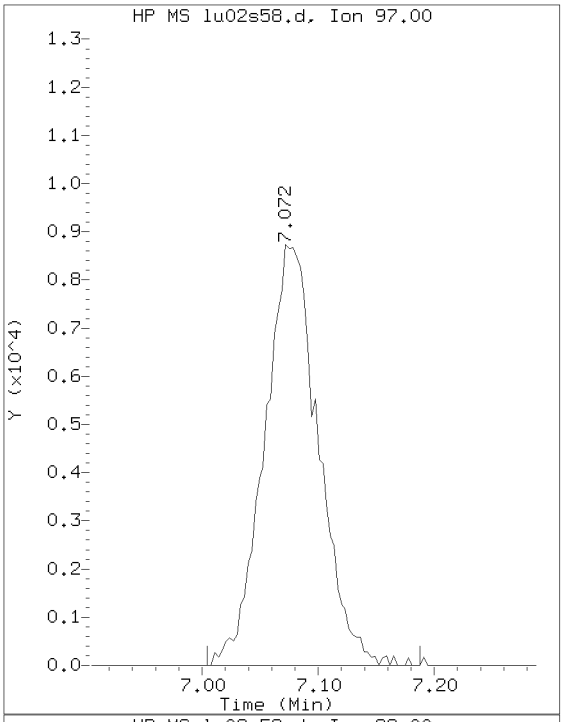
Sample Name: 62J07 Lab Sample ID: 1320956

Compound Number : 51
Compound Name : Chloroform
Scan Number : 1673
Retention Time (minutes): 6.863
Relative Retention Time :-0.00087
Quant Ion : 83.00
Area (flag) : 3124
On-Column Amount (ng) : 0.3099

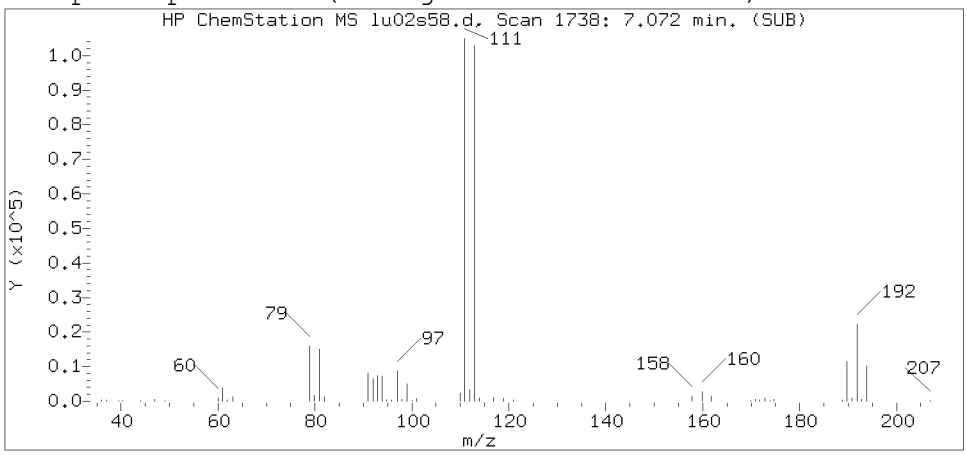
Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:31.
Target 3.5 esignature user ID: clm27445

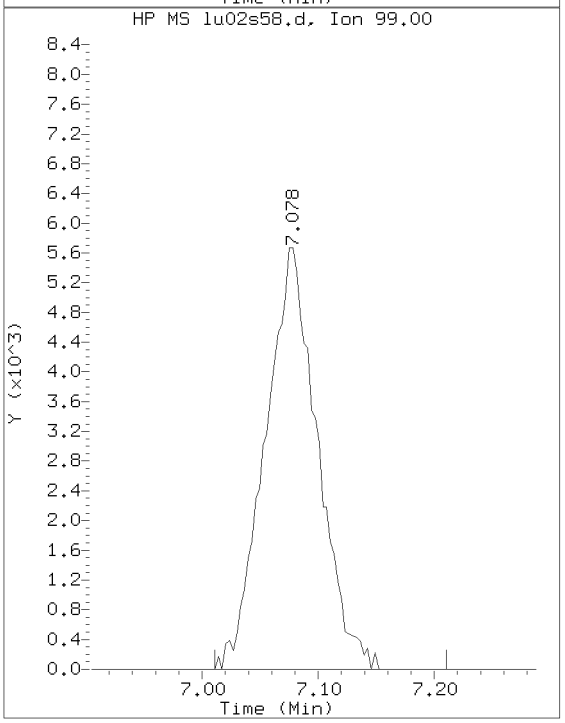
Reference Standard Spectrum for 1,1,1-Trichloroethane



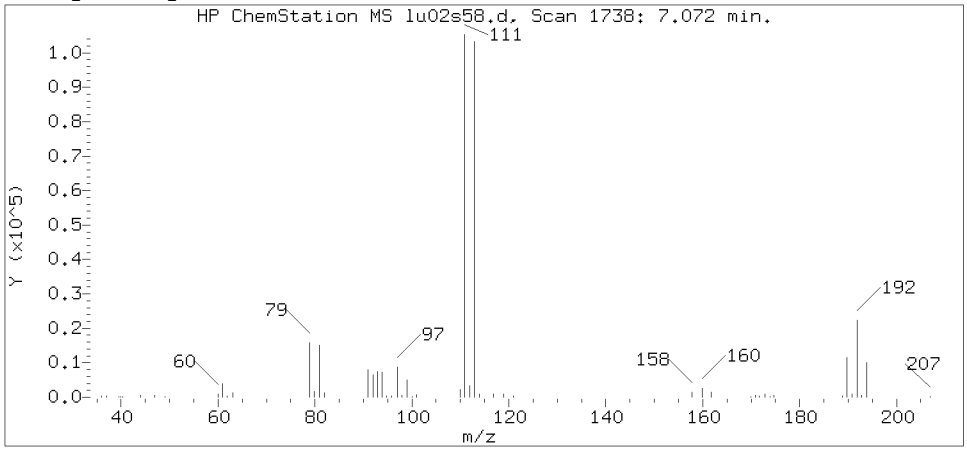


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Sample Name: 62J07 Lab Sample ID: 1320956

Compound Number	: 53
Compound Name	: 1,1,1-Trichloroethane
Scan Number	: 1738
Retention Time (minutes)	: 7.072
Relative Retention Time	: 0.00076
Quant Ion	: 97.00
Area (flag)	: 28444
On-Column Amount (ng)	: 3.2885

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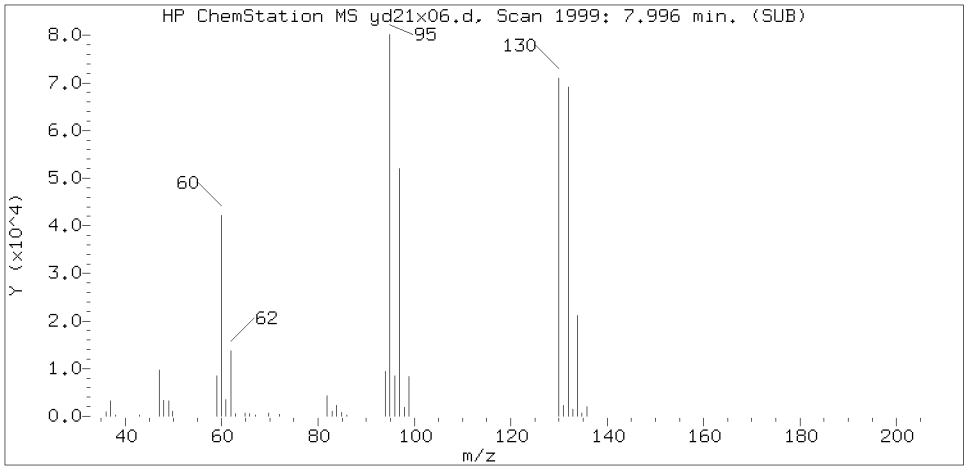
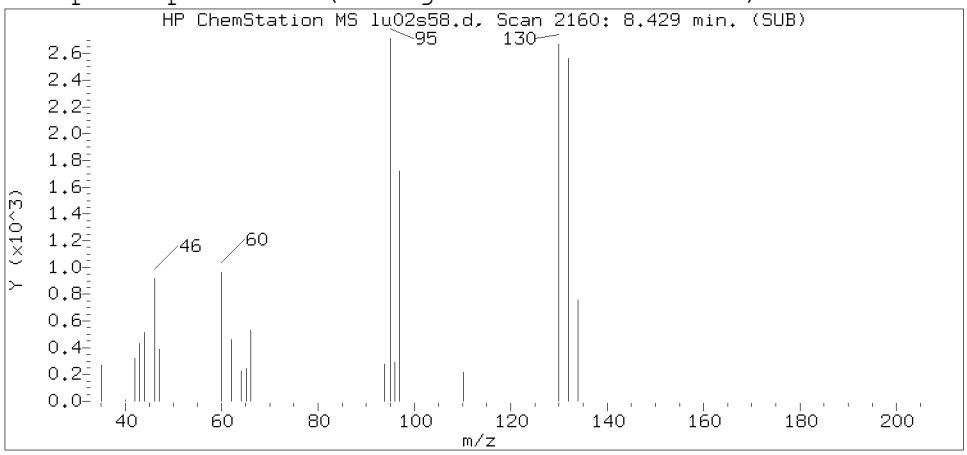
Target 3.5 esignature user ID: clm27445

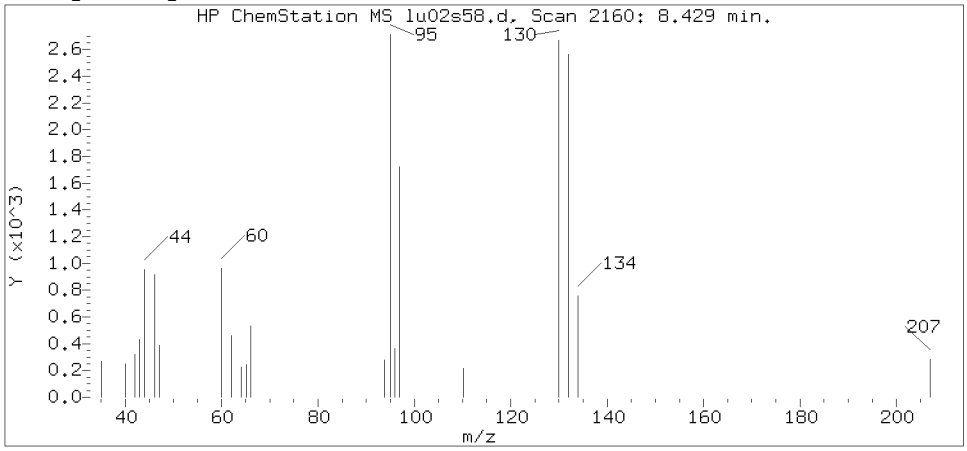
Reference Standard Spectrum for Trichloroethene

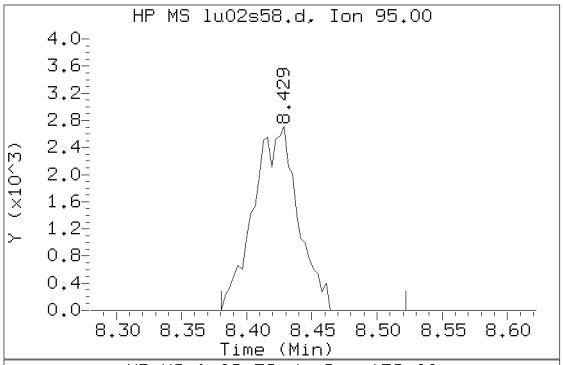


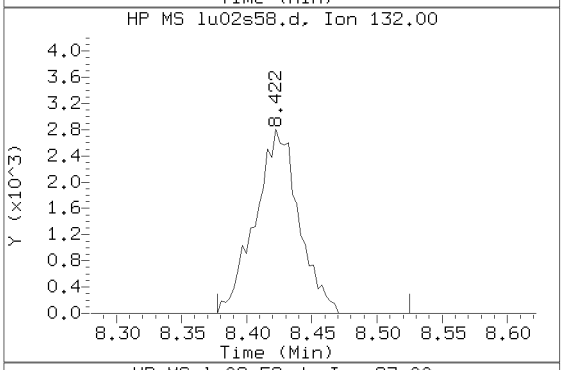
Sample Spectrum (Background Subtracted)

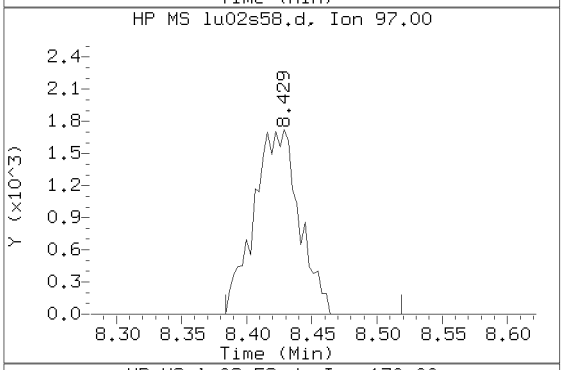


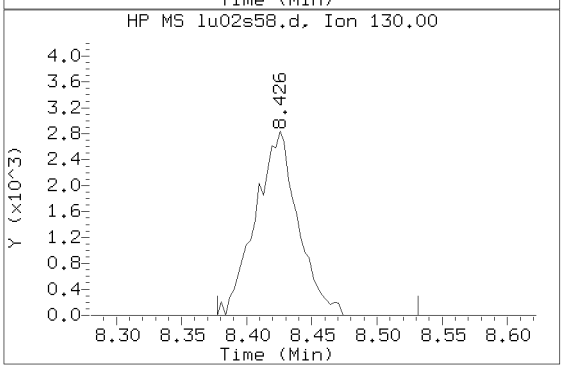
Sample Spectrum (Unaltered)











Data File: /chem/HP09915.i/20jun02b.b/lu02s58.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 04:44 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:02 Automation

Sample Name: 62J07 Lab Sample ID: 1320956

Compound Number : 71
Compound Name : Trichloroethene
Scan Number : 2160
Retention Time (minutes): 8.429
Relative Retention Time :-0.00038
Quant Ion : 95.00
Area (flag) : 6445
On-Column Amount (ng) : 1.0378

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Target 3.5 esignature user ID: clm27445

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
62J08

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320957

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s59.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/03/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	1	J
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	0.7	J
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	0.4	J
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s59.d
Injection date and time: **03-JUN-2020 05:06**
Data file Sample Info. Line: 62J08;1320957;1;0;;JCW62;;;lu02b41;
Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.493	(0.003)	936	65	236407	(-13)	250.00	
66) Fluorobenzene	7.950	(0.000)	2011	96	1189356	(-17)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	914133	(-18)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	494491	(-21)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.059	(0.001)	113	310294	51.787	104%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	79010	51.968	104%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1179723	50.236	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.342	(0.000)	95	422910	46.803	94%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)	3.789	(0.004)	58	845	0.953	0.95		J	0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)	5.541	(0.001)	63	6992	0.677	0.68		J	0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)	8.426	(-0.000)	95	2209	0.355	0.36		J	0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s59.d Injection date and time: **03-JUN-2020 05:06**
Data file Sample Info. Line: 62J08;1320957;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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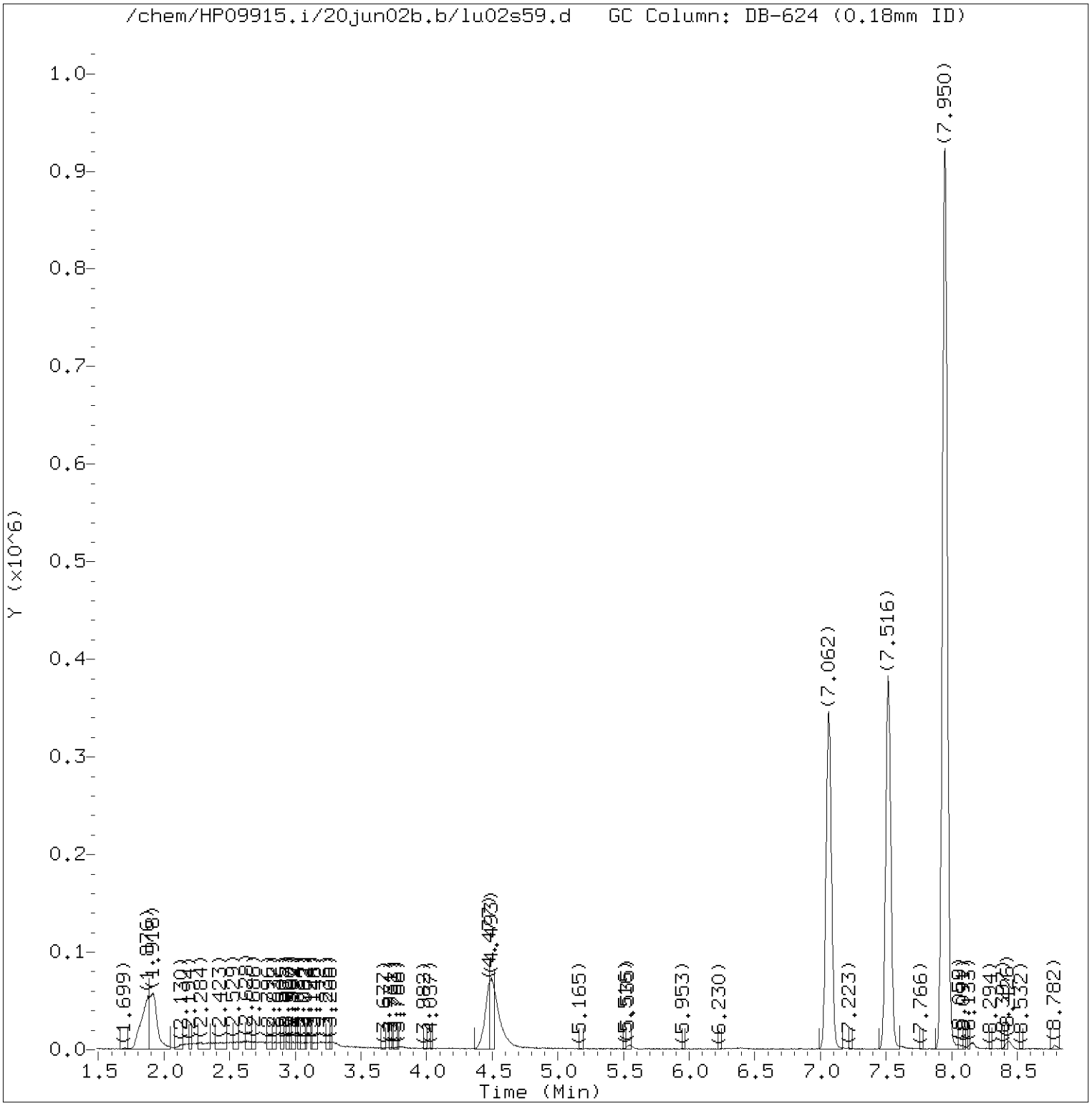
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:32. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

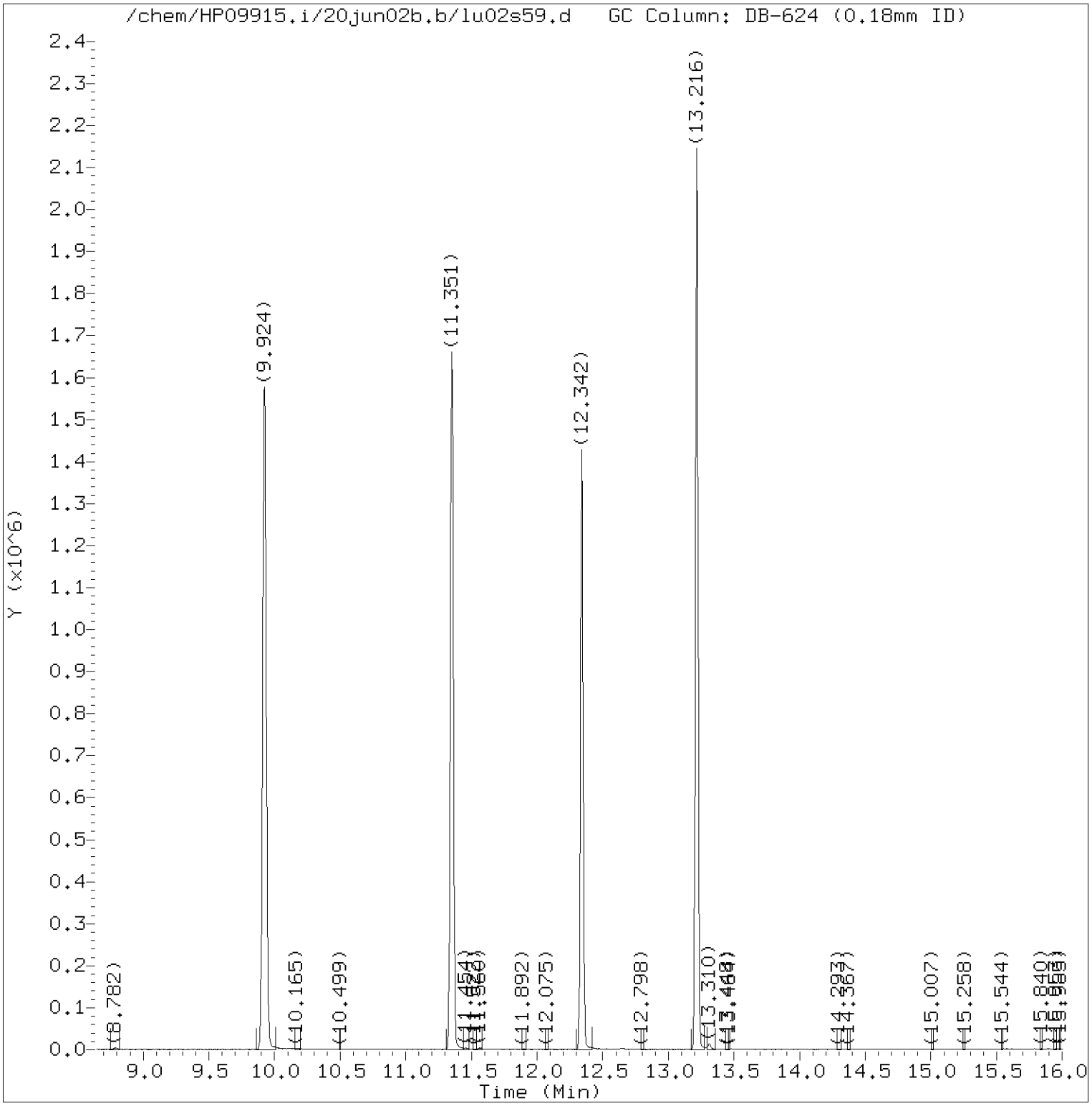
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Sample Name: 62J08 Lab Sample ID: 1320957

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:32.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Sample Name: 62J08 Lab Sample ID: 1320957

Digitally signed by Corie L. Mellinger
on 06/03/2020 at 12:32.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Sample Name: 62J08 Lab Sample ID: 1320957

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
18) Acetone	(1)	3.789	58	845	0.953
29)*t-Butyl alcohol-d10	(1)	4.493	65	236407	250.000
36) 1,1-Dichloroethane	(2)	5.541	63	6992	0.677
52)$Dibromofluoromethane	(2)	7.059	113	310294	51.787
57)$1,2-Dichloroethane-d4	(2)	7.522	102	79010	51.968
66)*Fluorobenzene	(2)	7.950	96	1189356	50.000
71) Trichloroethene	(2)	8.426	95	2209	0.355
83)$Toluene-d8	(3)	9.924	98	1179723	50.236
100)*Chlorobenzene-d5	(3)	11.351	117	914133	50.000
114)$4-Bromofluorobenzene	(3)	12.342	95	422910	46.803
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	494491	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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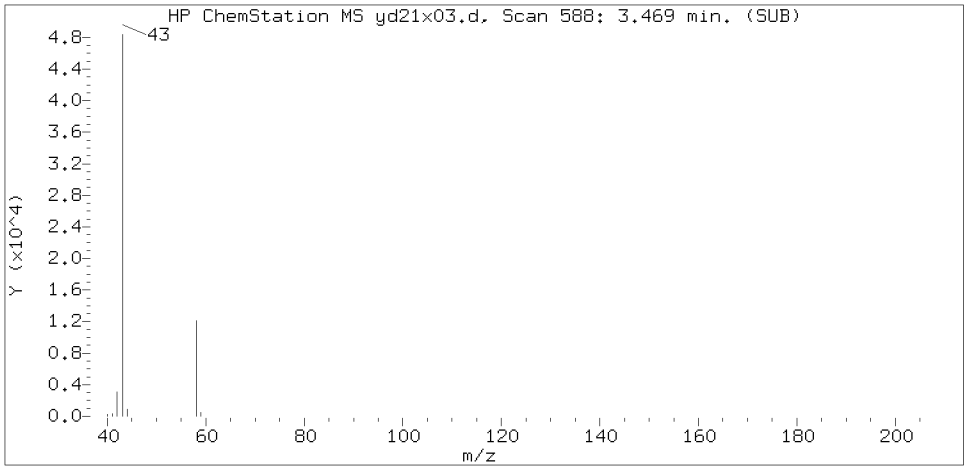
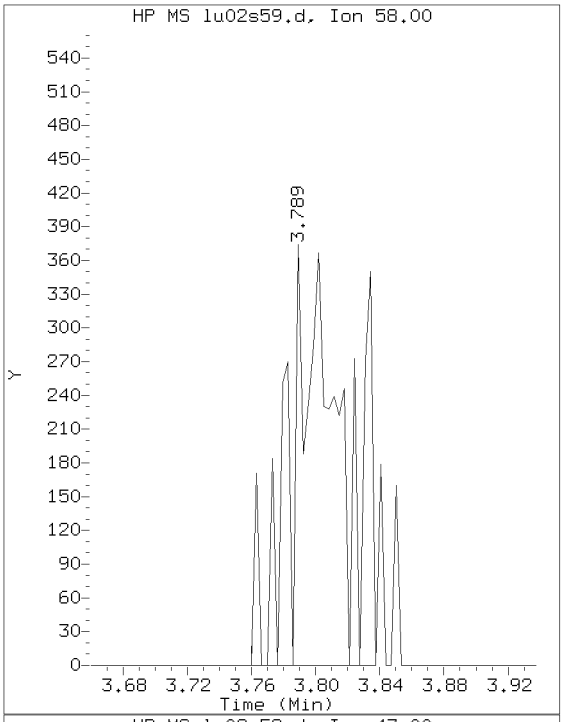
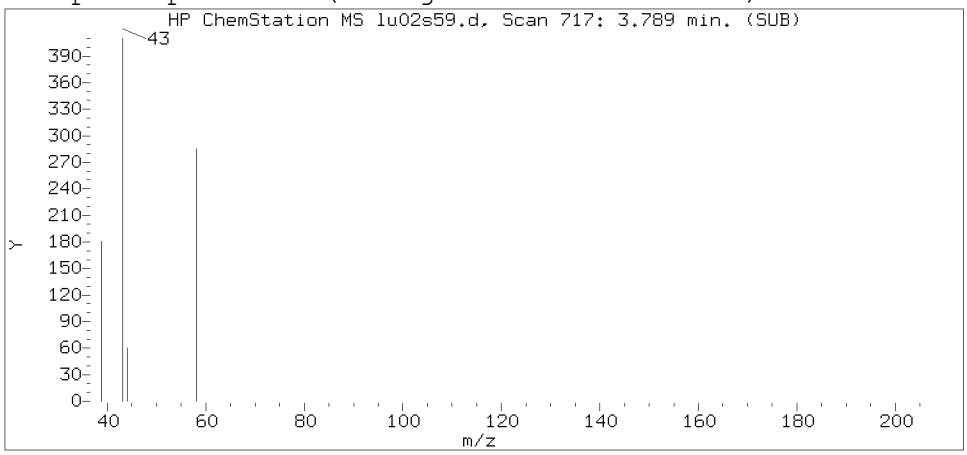
on 06/03/2020 at 12:32.
Target 3.5 esignature user ID: clm27445

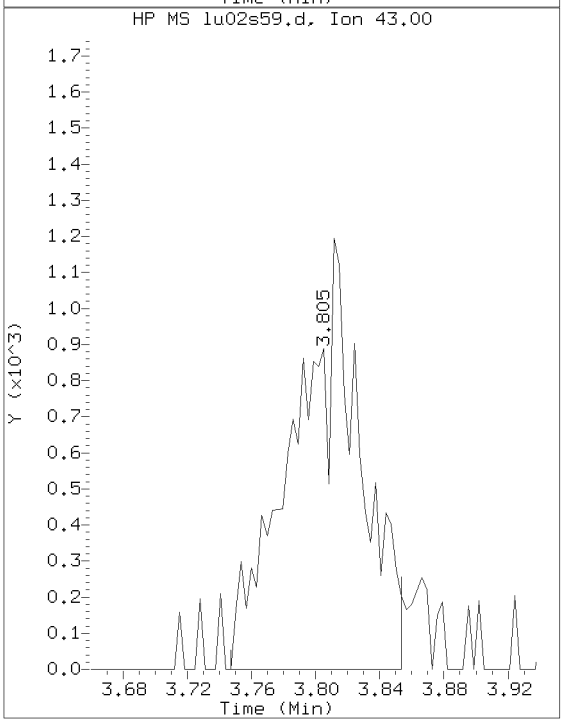
Reference Standard Spectrum for Acetone



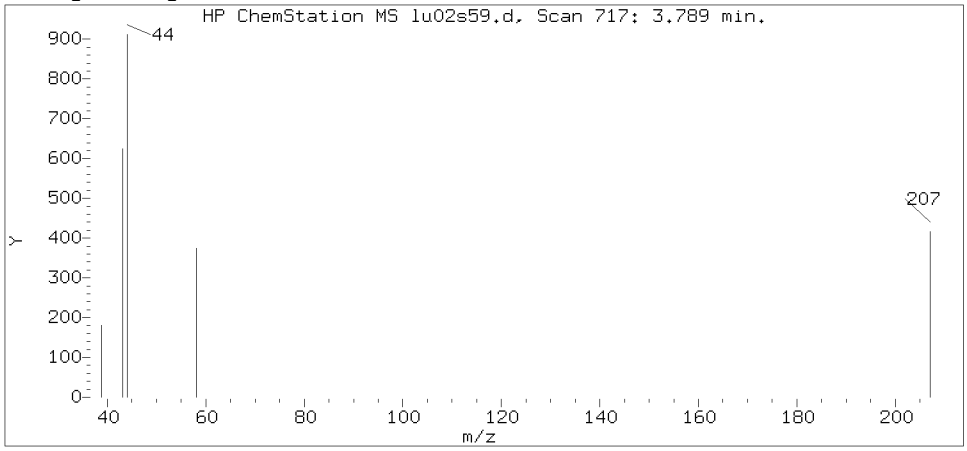


Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)



Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Sample Name: 62J08 Lab Sample ID: 1320957

Compound Number	: 18
Compound Name	: Acetone
Scan Number	: 717
Retention Time (minutes)	: 3.789
Relative Retention Time	: 0.00440
Quant Ion	: 58.00
Area (flag)	: 845
On-Column Amount (ng)	: 0.9527

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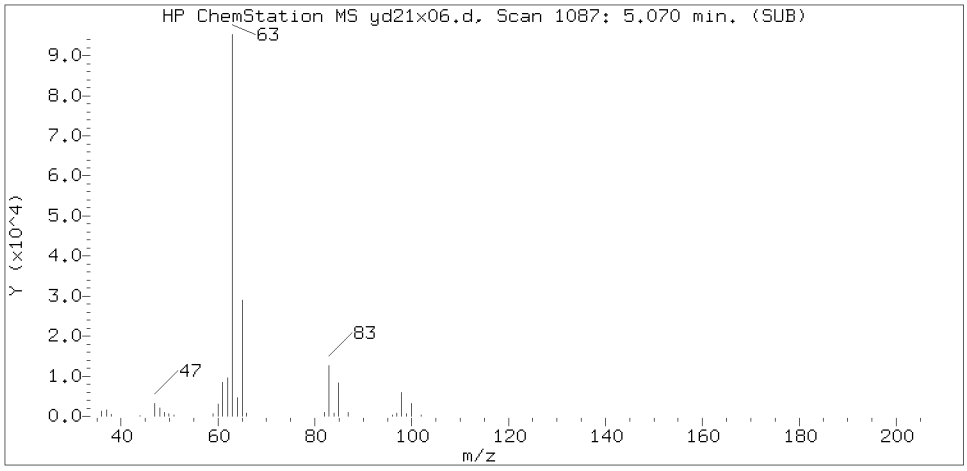
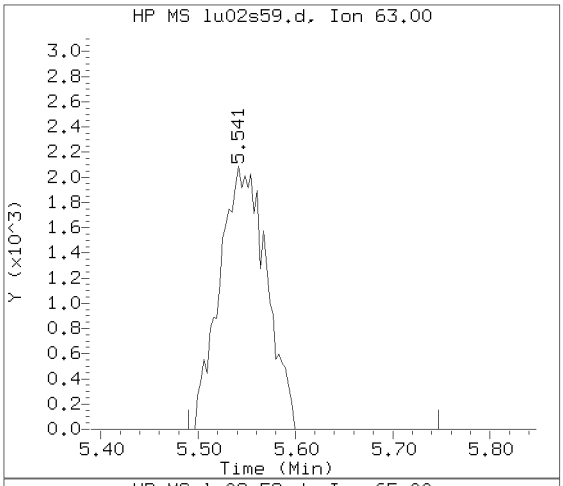
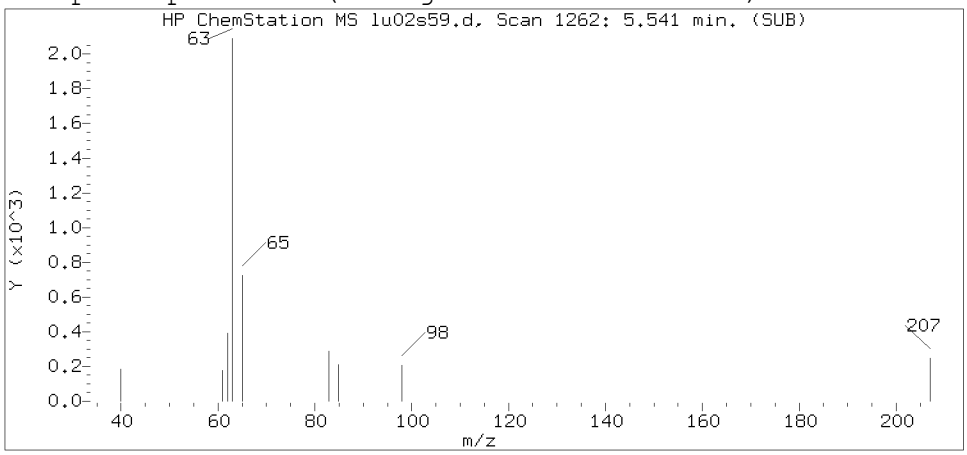
Target 3.5 esignature user ID: clm27445

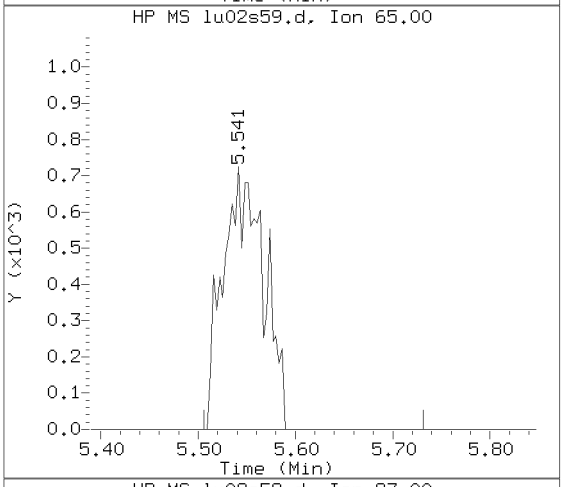
Reference Standard Spectrum for 1,1-Dichloroethane



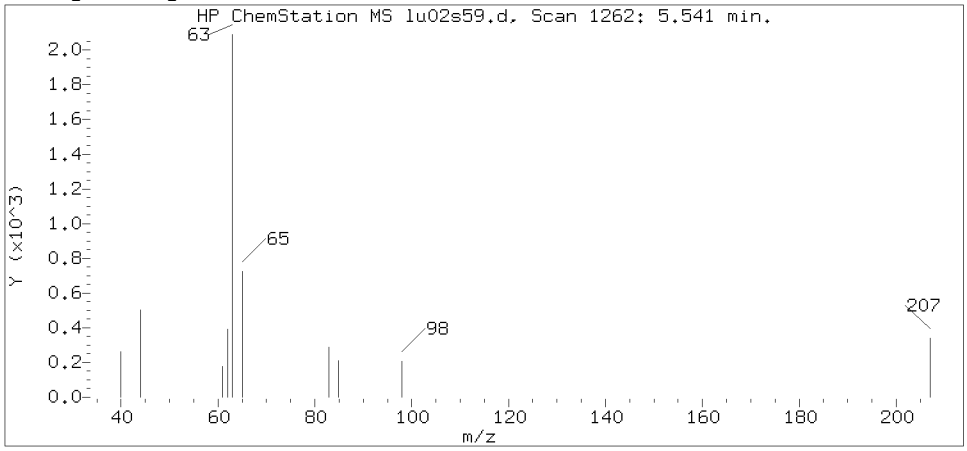


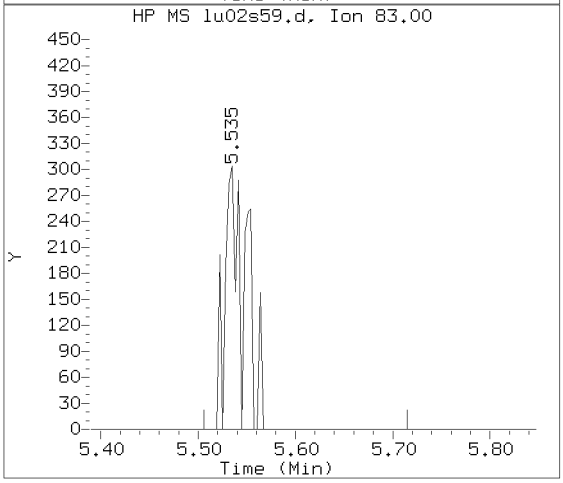
Sample Spectrum (Background Subtracted)





Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

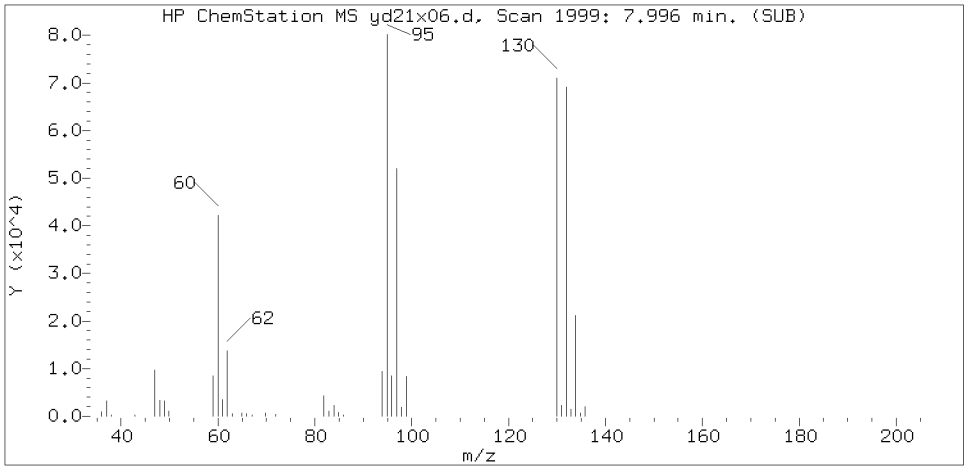
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

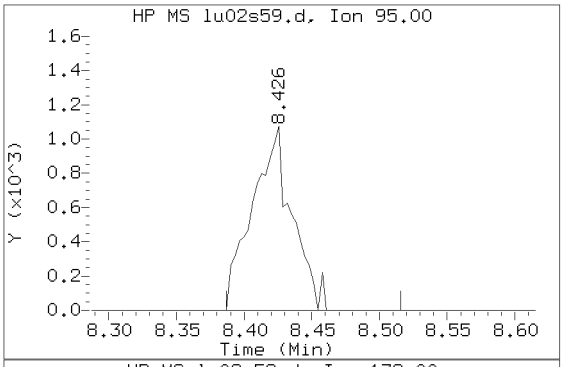
Sample Name: 62J08 Lab Sample ID: 1320957

Compound Number	: 36
Compound Name	: 1,1-Dichloroethane
Scan Number	: 1262
Retention Time (minutes)	: 5.541
Relative Retention Time	: 0.00121
Quant Ion	: 63.00
Area (flag)	: 6992
On-Column Amount (ng)	: 0.6771

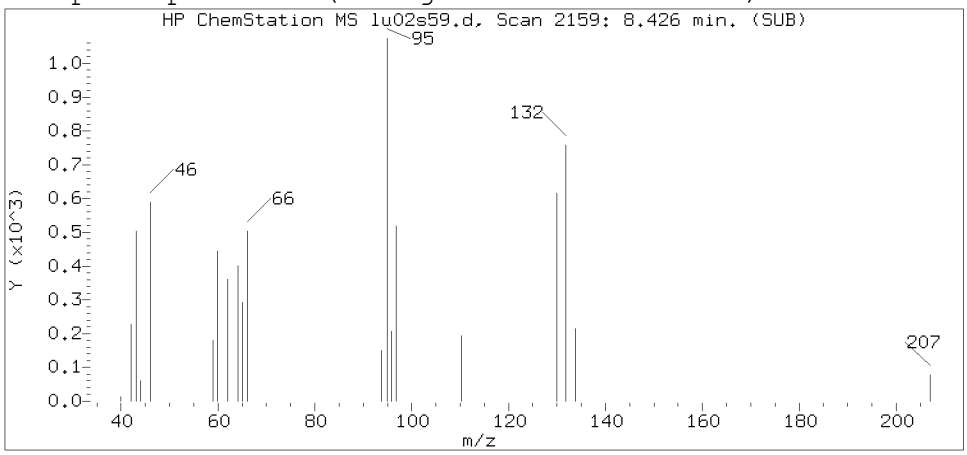
Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:32.
Target 3.5 esignature user ID: clm27445

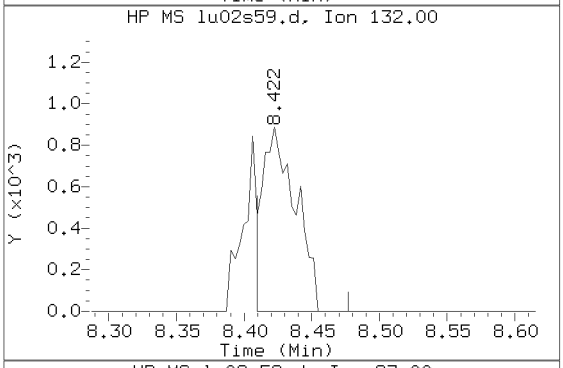
Reference Standard Spectrum for Trichloroethene

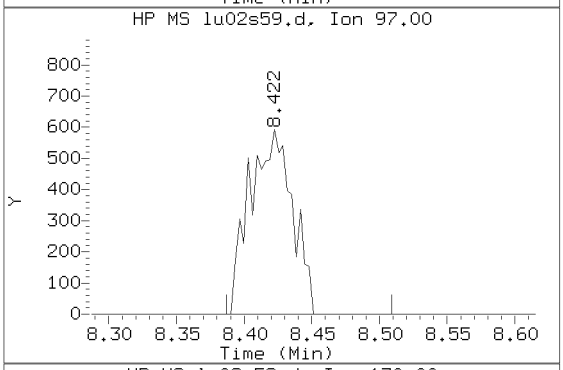




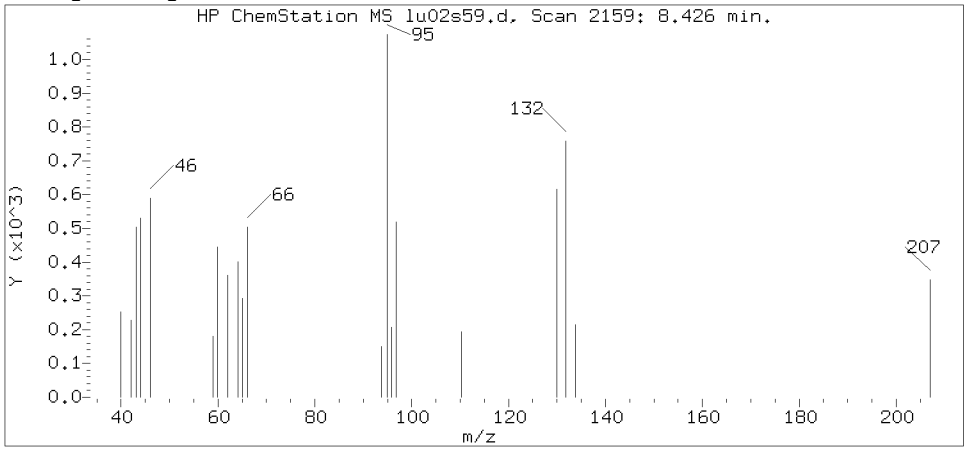
Sample Spectrum (Background Subtracted)

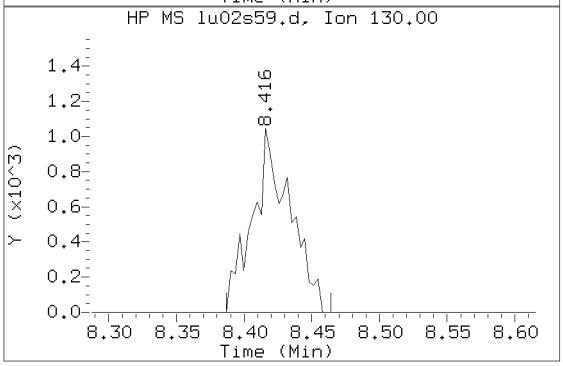






Sample Spectrum (Unaltered)





Data File: /chem/HP09915.i/20jun02b.b/lu02s59.d Instrument ID: HP09915.i
Injection date and time: 03-JUN-2020 05:06 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 03-Jun-2020 05:24 Automation

Sample Name: 62J08 Lab Sample ID: 1320957

Compound Number	: 71
Compound Name	: Trichloroethene
Scan Number	: 2159
Retention Time (minutes)	: 8.426
Relative Retention Time	:-0.00040
Quant Ion	: 95.00
Area (flag)	: 2209
On-Column Amount (ng)	: 0.3554

Digitally signed by Corie L. Mellinger on 06/03/2020 at 12:32.
Target 3.5 esignature user ID: clm27445

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

62J09

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: 1320958

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s44.d

Level: (low/med) LOW Date Received: 05/27/20

Moisture: not dec. _____ Date Analyzed: 06/02/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-01-4	Vinyl Chloride	1	U
75-35-4	1,1-Dichloroethene	1	U
67-64-1	Acetone	20	U
76-13-1	Freon 113	10	U
75-15-0	Carbon Disulfide	5	U
75-09-2	Methylene Chloride	1	U
156-60-5	trans-1,2-Dichloroethene	1	U
75-34-3	1,1-Dichloroethane	1	U
156-59-2	cis-1,2-Dichloroethene	1	U
78-93-3	2-Butanone	10	U
67-66-3	Chloroform	1	U
71-55-6	1,1,1-Trichloroethane	1	U
71-43-2	Benzene	1	U
107-06-2	1,2-Dichloroethane	1	U
79-01-6	Trichloroethene	1	U
123-91-1	1,4-Dioxane	250	U
108-88-3	Toluene	1	U
127-18-4	Tetrachloroethene	1	U
100-41-4	Ethylbenzene	1	U
1330-20-7	Xylene (Total)	6	U
95-50-1	1,2-Dichlorobenzene	5	U
91-20-3	Naphthalene	5	U

FORM I VOA

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Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s44.d
Injection date and time: **02-JUN-2020 23:14**
Data file Sample Info. Line: 62J09;1320958;1;0;;JCW62;;;lu02b41;
Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 05-Jun-2020 11:42 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.506	(-0.010)	940	65	231388	(-15)	250.00	
66) Fluorobenzene	7.950	(0.000)	2011	96	1219401	(-15)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	932436	(-16)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	503177	(-19)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.069	(0.000)	113	316838	51.576	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522	(0.000)	102	81544	52.313	105%		80 - 120
83) Toluene-d8	(3)	9.924	(0.000)	98	1195621	49.913	100%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	429831	46.635	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
6) Vinyl Chloride	(2)				Not Detected					0.2	1
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
23) Carbon Disulfide	(2)				Not Detected					0.2	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
44) 2-Butanone	(2)				Not Detected					0.3	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
71) Trichloroethene	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
88) Toluene	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
148) Naphthalene	(4)				Not Detected					1	5

Digitally signed by Corie L. Mellinger on 06/05/2020 at 11:42. Target 3.5 esignature user ID: clm27445

Data file: /chem/HP09915.i/20jun02b.b/lu02s44.d Injection date and time: **02-JUN-2020 23:14**
Data file Sample Info. Line: 62J09;1320958;1;0;;JCW62;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 05-Jun-2020 11:42 clm27445

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **27374**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: **038A** Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

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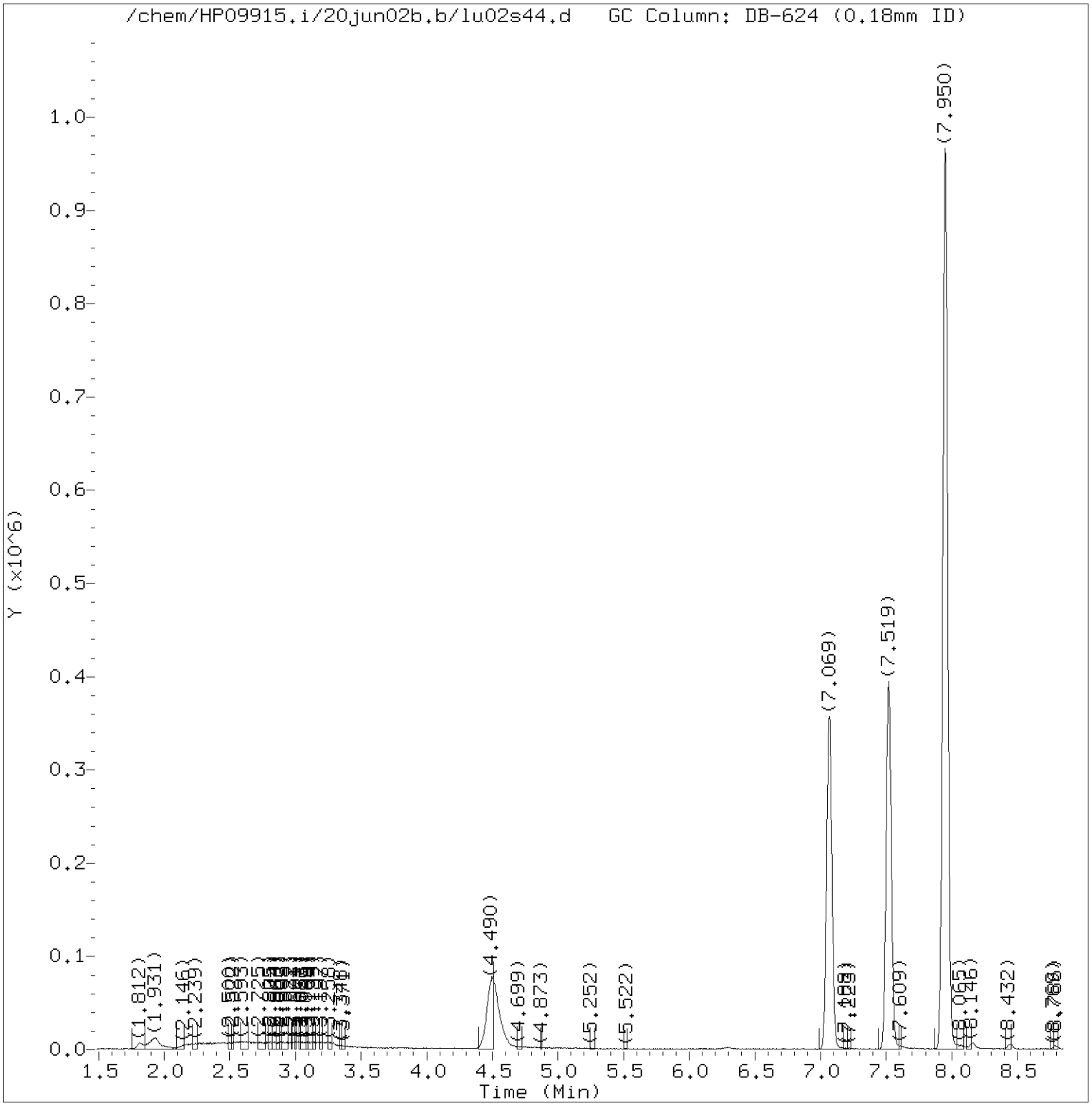
WAS LEFT
BLANK INTENTIONALLY

Total number of targets = 24

Digitally signed by Corie L. Mellinger on 06/05/2020 at 11:42. Target 3.5 esignature user ID: clm27445

Secondary review performed and digitally signed by Rachel Krueger on 06/05/2020 at 16:59. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

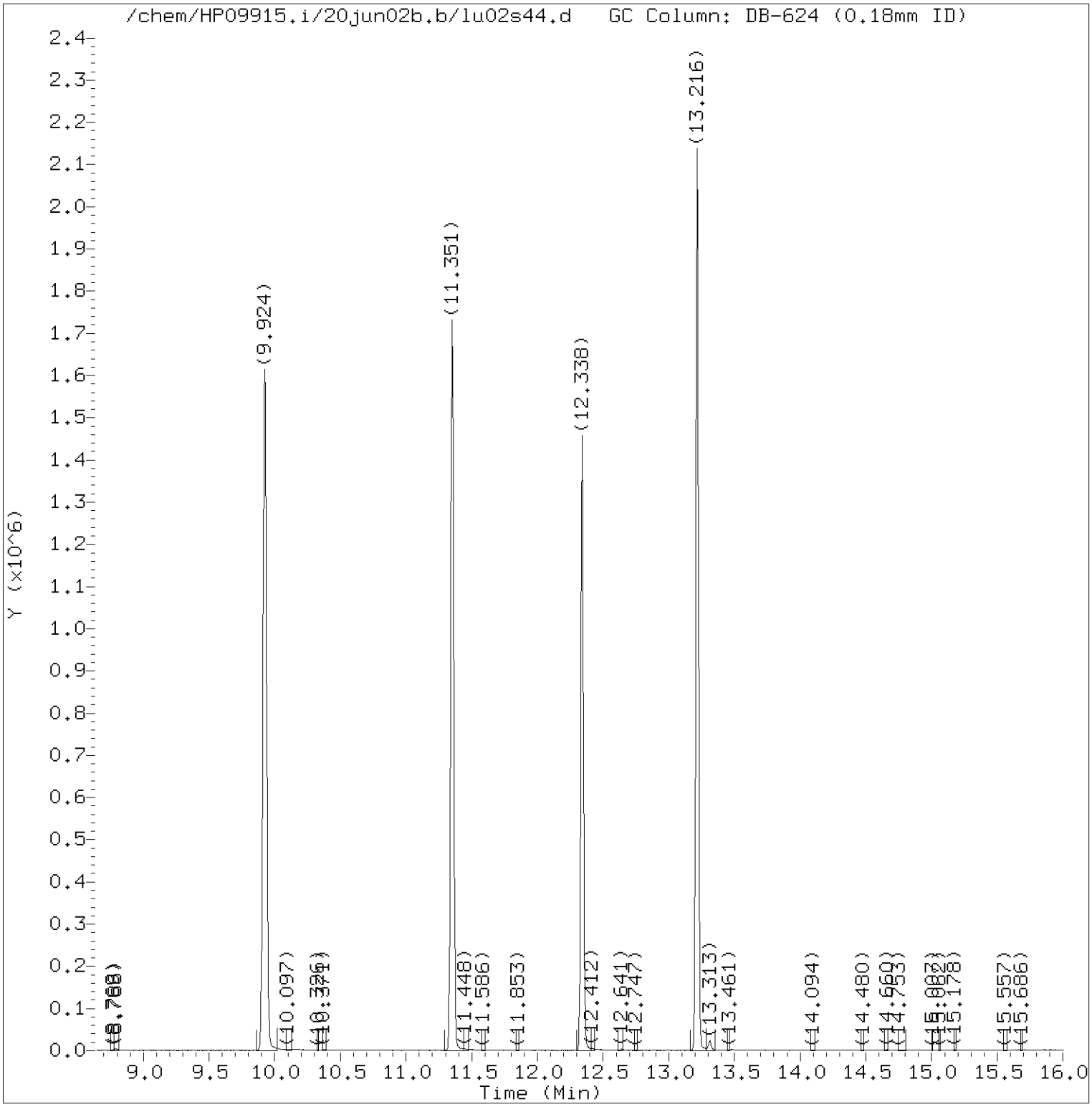
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s44.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 23:14 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 05-Jun-2020 11:42 clm27445

Sample Name: 62J09 Lab Sample ID: 1320958

Digitally signed by Corie L. Mellinger
on 06/05/2020 at 11:42.
Target 3.5 esignature user ID: clm27445



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s44.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 23:14 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 05-Jun-2020 11:42 clm27445

Sample Name: 62J09 Lab Sample ID: 1320958

Digitally signed by Corie L. Mellinger
on 06/05/2020 at 11:42.
Target 3.5 esignature user ID: clm27445

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s44.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 23:14 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 27374
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 05-Jun-2020 11:42 clm27445

Sample Name: 62J09 Lab Sample ID: 1320958

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.506	65	231388	250.000
52)$Dibromofluoromethane	(2)	7.069	113	316838	51.576
57)$1,2-Dichloroethane-d4	(2)	7.522	102	81544	52.313
66)*Fluorobenzene	(2)	7.950	96	1219401	50.000
83)$Toluene-d8	(3)	9.924	98	1195621	49.913
100)*Chlorobenzene-d5	(3)	11.351	117	932436	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	429831	46.635
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	503177	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Corie L. Mellinger
on 06/05/2020 at 11:42.
Target 3.5 esignature user ID: clm27445

Standards Data

Volatiles by GC/MS

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20may04I\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
LCP00895	LY04T02.D	50NGBFB	05/04/2020	11:11		
lcp00895	LY04X01.D	CLNBLK	05/04/2020	11:56		
lcp00895	LY04I01.D	VSTD300	05/04/2020	12:18		
lcp00895	LY04I02.D	VSTD100	05/04/2020	12:40		
lcp00895	LY04I03.D	VSTD050	05/04/2020	13:02		
lcp00895	LY04I04.D	VSTD020	05/04/2020	13:24		
lcp00895	LY04I05.D	VSTD010	05/04/2020	13:46		
lcp00895	LY04I06.D	VSTD004	05/04/2020	14:08		
lcp00895	LY04I07.D	VSTD001	05/04/2020	14:30		
lcp00895	LY04V01.D	ICVLLG	05/04/2020	14:52		

Lancaster Laboratories
Volatiles
Runlog for Agilent GC/MS System HP09915 **HP #23**

Data Directory Path is - D:\DATA\20jun02b\

OPERATOR	FILE	LLI#	DATE	TIME	BATCH	DILUTION FACTOR
sej02002	LU02T05.D	50NGBFB	06/02/2020	19:58	L201542AA	
sej02002	LU02T06.D	50NGBFB	06/02/2020	20:09	L201542AA	
sej02002	LU02X41.D	BLK	06/02/2020	20:21	L201542AA	
sej02002	LU02C41.D	VSTD050	06/02/2020	20:43	L201542AA	
sej02002	LU02B40.D	VBLKL17	06/02/2020	21:05	L201542AA	
sej02002	LU02B41.D	VBLKL17	06/02/2020	21:27	L201542AA	
sej02002	LU02S41.D	LCSL17	06/02/2020	21:49	L201542AA	
sej02002	LU02S42.D	1321063	06/02/2020	22:30	L201542AA	
sej02002	LU02S43.D	1321065	06/02/2020	22:52	L201542AA	
sej02002	LU02S44.D	1320958	06/02/2020	23:14	L201542AA	
sej02002	LU02S45.D	1321018	06/02/2020	23:36	L201542AA	
sej02002	LU02S46.D	1321307	06/02/2020	23:58	L201542AA	
sej02002	LU02S47.D	1320620	06/03/2020	00:20	L201542AA	
sej02002	LU02S48.D	1320621	06/03/2020	00:42	L201542AA	
sej02002	LU02S49.D	1320622	06/03/2020	01:04	L201542AA	
sej02002	LU02S50.D	1320622MS	06/03/2020	01:26	L201542AA	
sej02002	LU02S51.D	1320622MSD	06/03/2020	01:48	L201542AA	
sej02002	LU02X42.D	BLK	06/03/2020	02:10	L201542AA	
sej02002	LU02S52.D	1320950	06/03/2020	02:32	L201542AA	
sej02002	LU02S53.D	1320951	06/03/2020	02:54	L201542AA	
sej02002	LU02S54.D	1320952	06/03/2020	03:16	L201542AA	
sej02002	LU02S55.D	1320953	06/03/2020	03:38	L201542AA	
sej02002	LU02S56.D	1320954	06/03/2020	04:00	L201542AA	
sej02002	LU02S57.D	1320955	06/03/2020	04:22	L201542AA	
sej02002	LU02S58.D	1320956	06/03/2020	04:44	L201542AA	
sej02002	LU02S59.D	1320957	06/03/2020	05:06	L201542AA	
sej02002	LU02S60.D	1321016	06/03/2020	05:28	L201542AA	
sej02002	LU02S61.D	1321057	06/03/2020	05:50	L201542AA	
sej02002	LU02S62.D	1321059	06/03/2020	06:12	L201542AA	
sej02002	LU02S63.D	1321061	06/03/2020	06:34	L201542AA	
sej02002	LU02S64.D	1321307	06/03/2020	06:56	L201542AA	20

Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Page 1

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

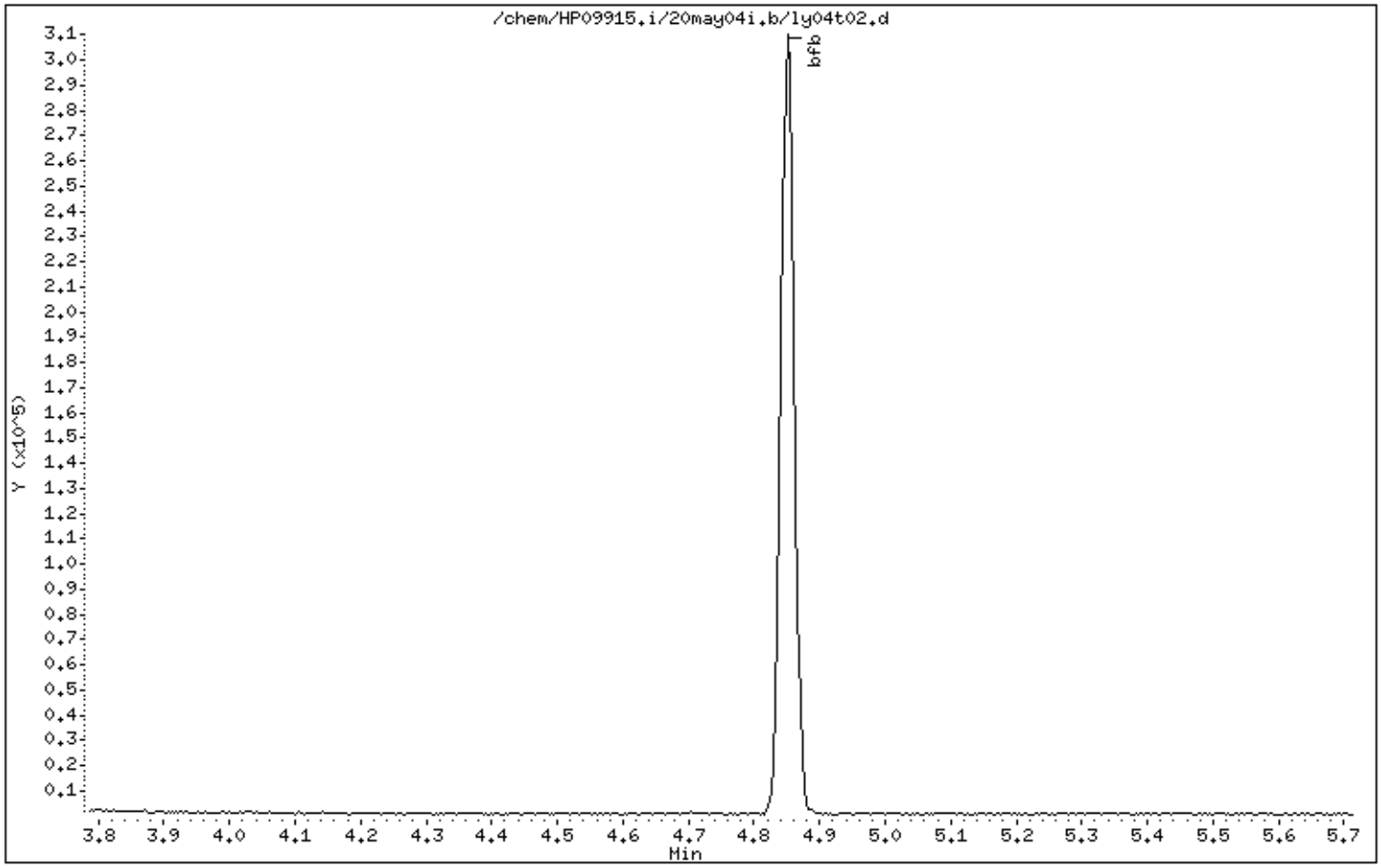
Instrument: HP09915.i

Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20may04i.b/ly04t02.d

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020

Instrument: HP09915.i

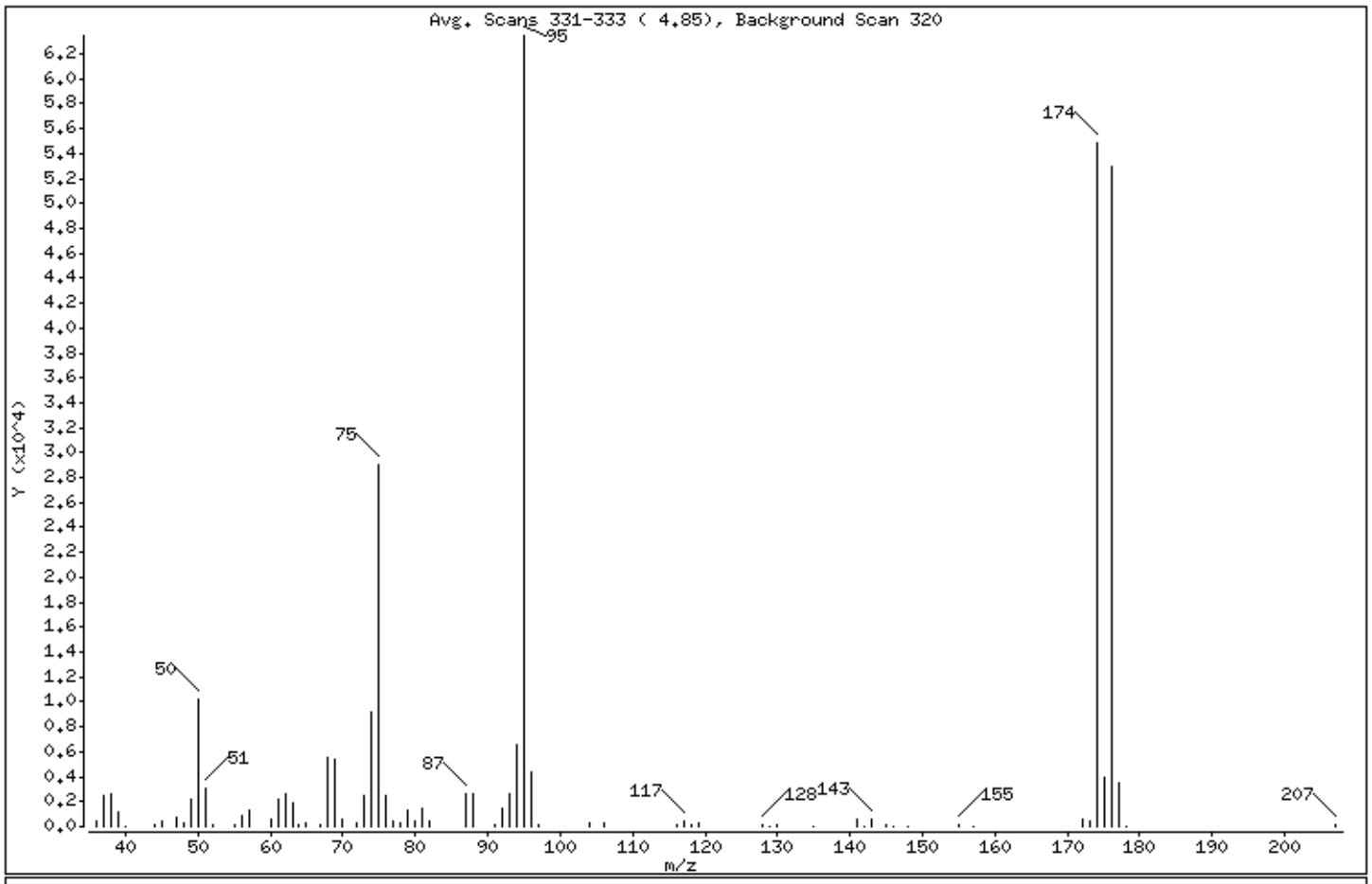
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.11
75	30.00 - 60.00% of mass 95	45.65
96	5.00 - 9.00% of mass 95	6.86
173	Less than 2.00% of mass 174	0.62 (0.72)
174	50.00 - 100.00% of mass 95	86.35
175	5.00 - 9.00% of mass 174	6.12 (7.09)
176	95.00 - 101.00% of mass 174	83.51 (96.71)
177	5.00 - 9.00% of mass 176	5.61 (6.72)

Date : 04-MAY-2020 11:11

Client ID: JAN28-2020 Instrument: HP09915.i

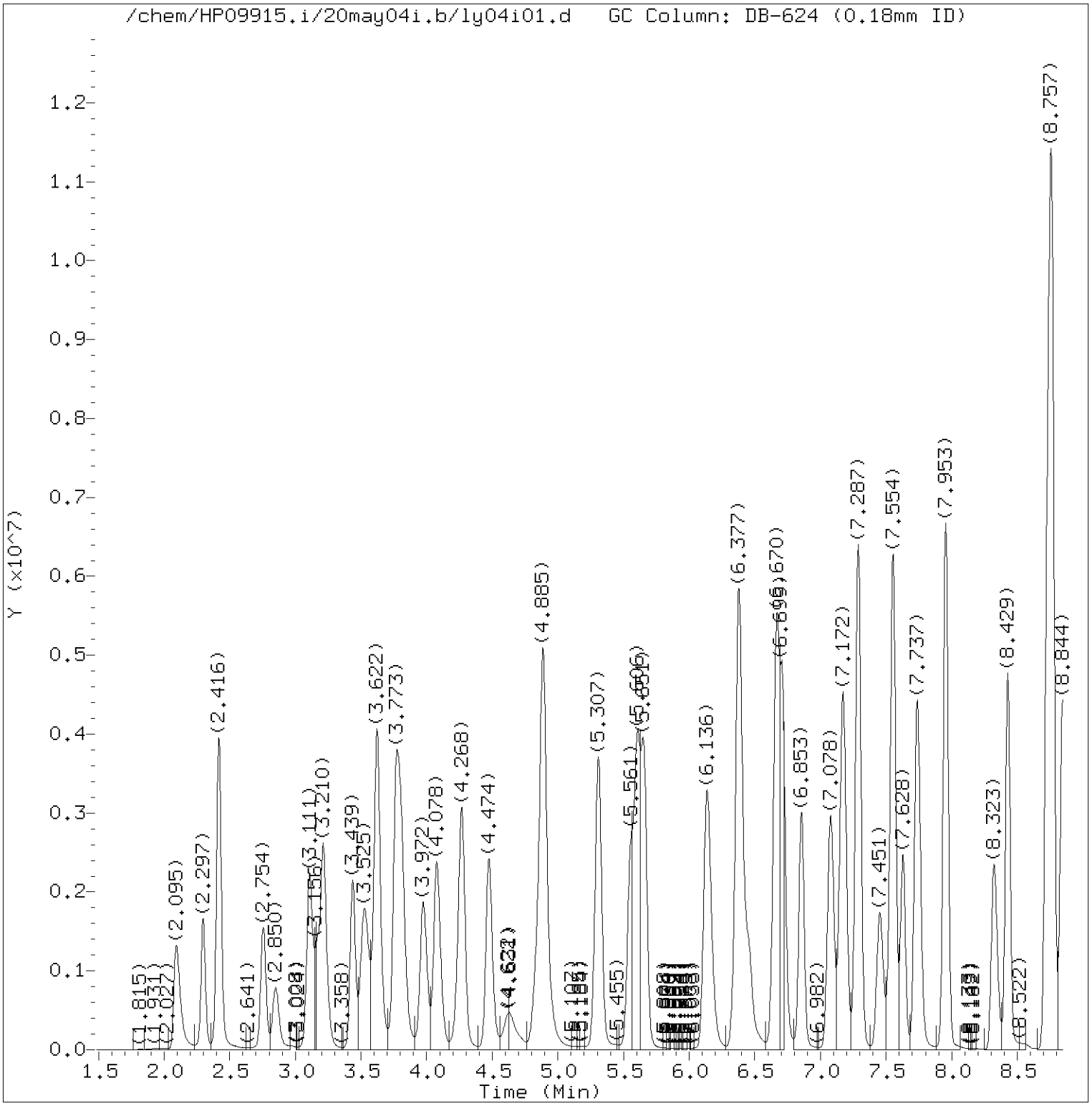
Sample Info: JAN28-2020;50NGBFB;1;3;;;;;;

Operator: LCP00895

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: ly04t02.d
Spectrum: Avg. Scans 331-333 (4.85), Background Scan 320
Location of Maximum: 95.00
Number of points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	476	63.00	1957	88.00	2668	142.00	52
37.00	2534	64.00	142	91.00	204	143.00	605
38.00	2595	65.00	303	92.00	1519	145.00	111
39.00	1106	67.00	129	93.00	2560	146.00	66
40.00	24	68.00	5558	94.00	6611	148.00	64
44.00	212	69.00	5470	95.00	63464	155.00	179
45.00	424	70.00	517	96.00	4356	157.00	66
47.00	782	72.00	336	97.00	161	172.00	534
48.00	340	73.00	2550	104.00	267	173.00	394
49.00	2157	74.00	9180	106.00	245	174.00	54800
50.00	10227	75.00	28968	116.00	144	175.00	3885
51.00	3113	76.00	2532	117.00	442	176.00	53000
52.00	116	77.00	409	118.00	140	177.00	3561
55.00	141	78.00	281	119.00	290	178.00	53
56.00	824	79.00	1307	128.00	211	207.00	80
57.00	1289	80.00	480	129.00	61		
60.00	558	81.00	1409	130.00	177		
61.00	2232	82.00	376	135.00	50		
62.00	2640	87.00	2697	141.00	604		



Total Ion Chromatogram (TIC)

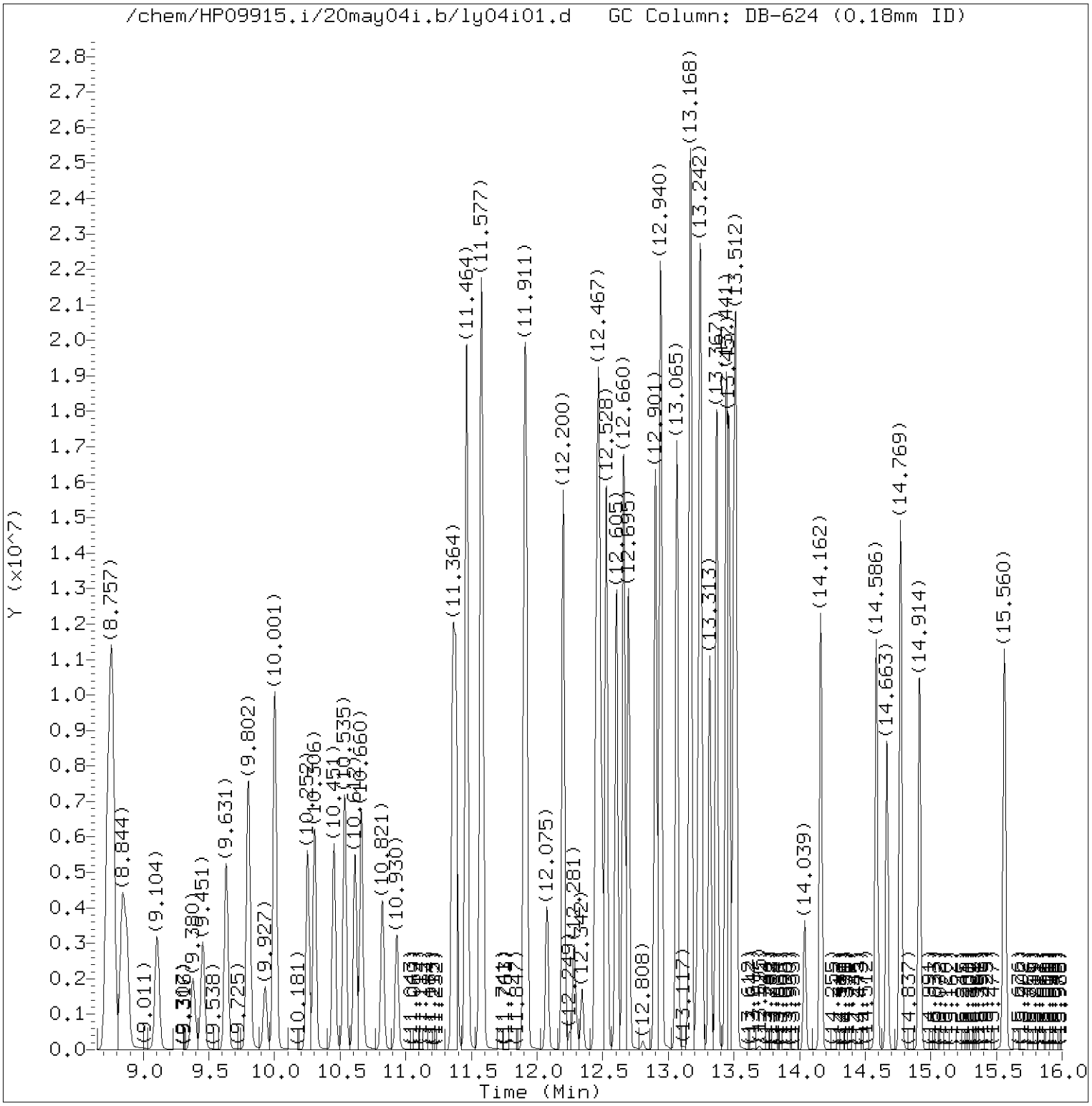
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	2849449	310.933
4) Chloromethane	(2)	2.297	50	2445659	285.835
5) 1,3-Butadiene	(2)	2.416	39	1671151	304.456
6) Vinyl Chloride	(2)	2.419	62	2326215	281.733
8) Bromomethane	(2)	2.757	94	1628456	273.549
9) Chloroethane	(2)	2.847	64	1234318	267.749
10) Dichlorofluoromethane	(2)	3.107	67	2817375	283.327
12) Trichlorofluoromethane	(2)	3.165	101	2746924	304.613
11) n-Pentane	(2)	3.213	43	2725741	321.927
14) Ethyl ether	(2)	3.439	59	1949746	305.988
15) Freon 123a	(2)	3.525	67	2314368	316.788
16) Acrolein	(1)	3.622	56	6736298	2956.857
17) 1,1-Dichloroethene	(2)	3.763	96	1750450	304.377
17) 1,1-Dichloroethene	(2)	3.763	63	864563	315.653
19) Freon 113	(2)	3.799	101	1965220M	329.366
18) Acetone	(1)	3.808	58	589621	567.388
22) Methyl Iodide	(2)	3.972	142	3492933	315.159
21) 2-Propanol	(1)	3.998	45	1004357	1516.417
23) Carbon Disulfide	(2)	4.078	76	6201547	320.266
27) Methyl Acetate	(2)	4.242	43	2207320	300.940
25) Allyl Chloride	(2)	4.271	41	2951991M	316.747
28) Methylene Chloride	(2)	4.474	84	2081076	304.203
29)*t-Butyl alcohol-d10	(1)	4.493	65	276925	250.000
30) t-Butyl alcohol	(1)	4.631	59	1690701	1512.274
31) Acrylonitrile	(2)	4.831	53	1217218	299.575
33) Methyl Tertiary Butyl Ether	(2)	4.885	73	5922996	300.305
32) trans-1,2-Dichloroethene	(2)	4.889	96	2018303	305.069
34) n-Hexane	(2)	5.307	57	3435497	370.798
36) 1,1-Dichloroethane	(2)	5.551	63	3527467	303.995
38) di-Isopropyl ether	(2)	5.606	45	6436416	315.389
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	3142519	339.593
40) Ethyl t-butyl ether	(2)	6.136	59	5819054	306.888
43) 1,2-Dichloroethene (Total)	(2)		96	4280297	609.947
44) 2-Butanone	(2)	6.358	43	3017645	611.860
42) cis-1,2-Dichloroethene	(2)	6.377	96	2261994	304.878
45) 2,2-Dichloropropane	(2)	6.393	77	2841421	316.832
47) Propionitrile	(1)	6.458	54	2395140	1585.804
48) Methacrylonitrile	(2)	6.667	67	3143939	771.811

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	1171429	306.006
50) Tetrahydrofuran	(1)	6.718	71	832254	629.784
51) Chloroform	(2)	6.853	83	3487929	307.674
52)$Dibromofluoromethane	(2)	7.069	113	344246	51.133
52)$Dibromofluoromethane	(2)	7.065	111	351617	51.092
53) 1,1,1-Trichloroethane	(2)	7.078	97	3105225	319.282
54) Cyclohexane	(2)	7.172	56	3858125	354.379
54) Cyclohexane	(2)	7.172	84	3361998	353.780
54) Cyclohexane	(2)	7.175	69	1189358	351.544
56) Carbon Tetrachloride	(2)	7.284	117	2686794	329.725
55) 1,1-Dichloropropene	(2)	7.291	75	2884427	323.528
58) Isobutyl Alcohol	(1)	7.451	41	1518165	4002.966
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85616	50.117
57)$1,2-Dichloroethane-d4	(2)	7.522	65	386104	50.918
57)$1,2-Dichloroethane-d4	(2)	7.528	104	54697	50.282
60) Benzene	(2)	7.554	78	8331618	301.883
61) 1,2-Dichloroethane	(2)	7.628	62	2775900	300.052
61) 1,2-Dichloroethane	(2)	7.628	98	279550	310.087
65) t-Amyl methyl ether	(2)	7.737	73	5782061	298.496
67) n-Heptane	(2)	7.953	43	3459353	359.052
66)*Fluorobenzene	(2)	7.956	96	1336369	50.000
69) n-Butanol	(1)	8.323	56	2625257	8489.394
71) Trichloroethene	(2)	8.429	95	2175307	311.470
72) Methylcyclohexane	(2)	8.728	83	3912993	344.571
72) Methylcyclohexane	(2)	8.728	98	1789837	348.458
73) 1,2-Dichloropropane	(2)	8.763	63	2097702	294.997
76) Methyl Methacrylate	(2)	8.840	69	2065513	337.817
75) 1,4-Dioxane	(1)	8.847	88	360140M	3874.180
74) Dibromomethane	(2)	8.872	93	1442276	310.134
78) Bromodichloromethane	(2)	9.104	83	2778142	333.221
79) 2-Nitropropane	(2)	9.380	41	1686406	674.629
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	1696782	358.355
81) cis-1,3-Dichloropropene	(2)	9.631	75	3652268	335.198
82) 4-Methyl-2-pentanone	(2)	9.798	43	6253254	626.102
83)$Toluene-d8	(3)	9.927	98	1397873	51.358
83)$Toluene-d8	(3)	9.927	100	912756	51.674
88) Toluene	(3)	10.001	92	5231241	301.533
90) 1,3-Dichloropropene (total)	(3)		100	7027137	674.241

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.252	75	3374869	339.043
91) Ethyl Methacrylate	(3)	10.306	69	3527262	352.166
92) 1,1,2-Trichloroethane	(3)	10.454	97	2073298	307.981
93) Tetrachloroethene	(3)	10.535	166	2380389	321.959
94) 1,3-Dichloropropane	(3)	10.615	76	3522161	312.866
96) 2-Hexanone	(3)	10.660	43	4626222	635.941
97) Dibromochloromethane	(3)	10.821	129	2435189	347.755
99) 1,2-Dibromoethane	(3)	10.930	107	2364461	326.815
100)*Chlorobenzene-d5	(3)	11.355	117	1059501	50.000
101) 1-Chlorohexane	(3)	11.358	91	2908408	327.586
102) Chlorobenzene	(3)	11.380	112	5895135	295.899
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	2040552	302.127
104) Ethylbenzene	(3)	11.464	91	9686310	301.633
106) m+p-Xylene	(3)	11.577	106	7482333	593.004
108) Xylene (Total)	(3)		106	11168702	895.120
107) o-Xylene	(3)	11.901	106	3686369	302.116
109) Styrene	(3)	11.917	104	6296133	317.282
110) Bromoform	(3)	12.075	173	1837073	360.361
111) Isopropylbenzene	(3)	12.200	105	10092328	325.945
112) Cyclohexanone	(1)	12.281	55	1298373A	3752.287
114)$4-Bromofluorobenzene	(3)	12.342	95	539077	51.474
114)$4-Bromofluorobenzene	(3)	12.345	174	460451	51.282
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	3144189	289.308
115) Bromobenzene	(4)	12.461	156	2447059	280.512
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	2386999	755.035
117) 1,2,3-Trichloropropane	(4)	12.493	110	994731	299.689
119) n-Propylbenzene	(4)	12.528	91	11653592	309.091
120) 2-Chlorotoluene	(4)	12.605	126	2503021	310.746
122) 1,3,5-Trimethylbenzene	(4)	12.660	105	8770052	321.916
121) 4-Chlorotoluene	(4)	12.695	126	2564262	306.721
124) tert-Butylbenzene	(4)	12.901	134	1876803M	335.139
125) Pentachloroethane	(4)	12.933	167	1529691	307.565
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	8738342	310.227
127) sec-Butylbenzene	(4)	13.065	105	10837099	326.714
129) 1,3-Dichlorobenzene	(4)	13.162	146	4405889	271.032
130) p-Isopropyltoluene	(4)	13.171	119	8821149	310.365
131)*1,4-Dichlorobenzene-d4	(4)	13.220	152	596140	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	4664438	273.400

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.248	105	8522094	291.186
135)	Benzyl Chloride	(4)	13.313	91	7372827	332.941
136)	1,3-Diethylbenzene	(4)	13.367	119	5620297	306.903
141)	Diethylbenzene (total)	(4)		100	15927292	898.580
137)	1,4-Diethylbenzene	(4)	13.441	119	5732746	299.071
139)	n-Butylbenzene	(4)	13.461	92	4551903	311.717
138)	1,2-Dichlorobenzene	(4)	13.496	146	4532401	277.010
140)	1,2-Diethylbenzene	(4)	13.515	119	4574249	292.606
142)	1,2-Dibromo-3-chloropropane	(4)	14.039	75	799123	332.209
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	3668043	297.595
146)	1,2,4-Trichlorobenzene	(4)	14.586	180	3403261	295.460
147)	Hexachlorobutadiene	(4)	14.666	225	1492448	280.870
148)	Naphthalene	(4)	14.769	128	11189563	300.110
149)	1,2,3-Trichlorobenzene	(4)	14.914	180	3150450	275.252
150)	2-Methylnaphthalene	(4)	15.560	142	5808143	299.728

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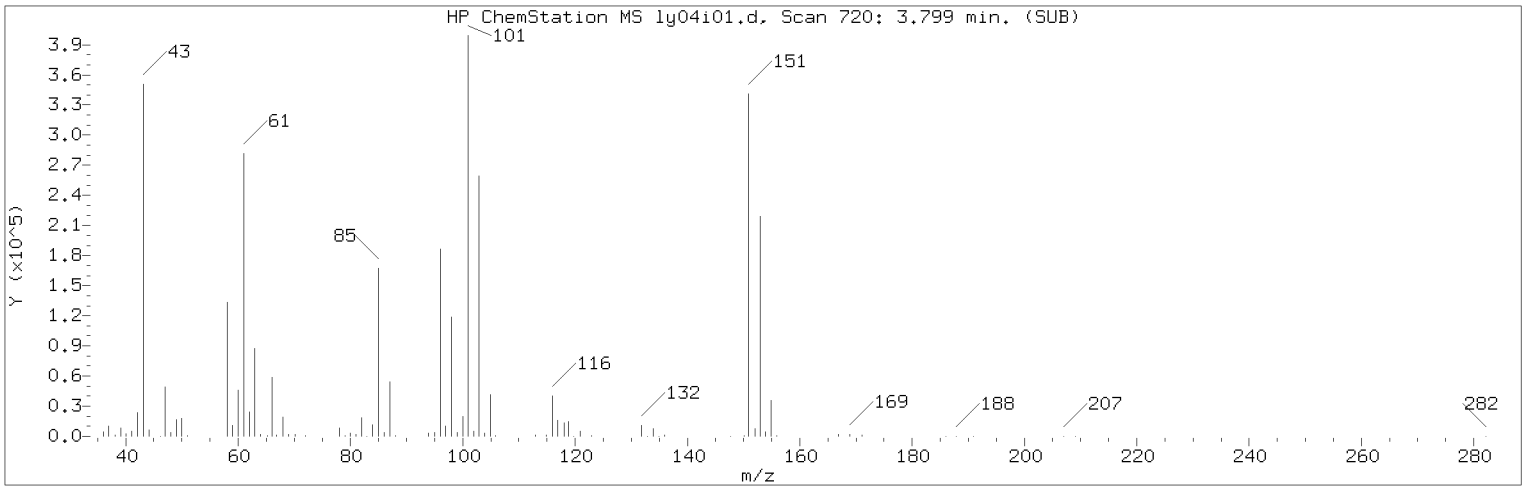
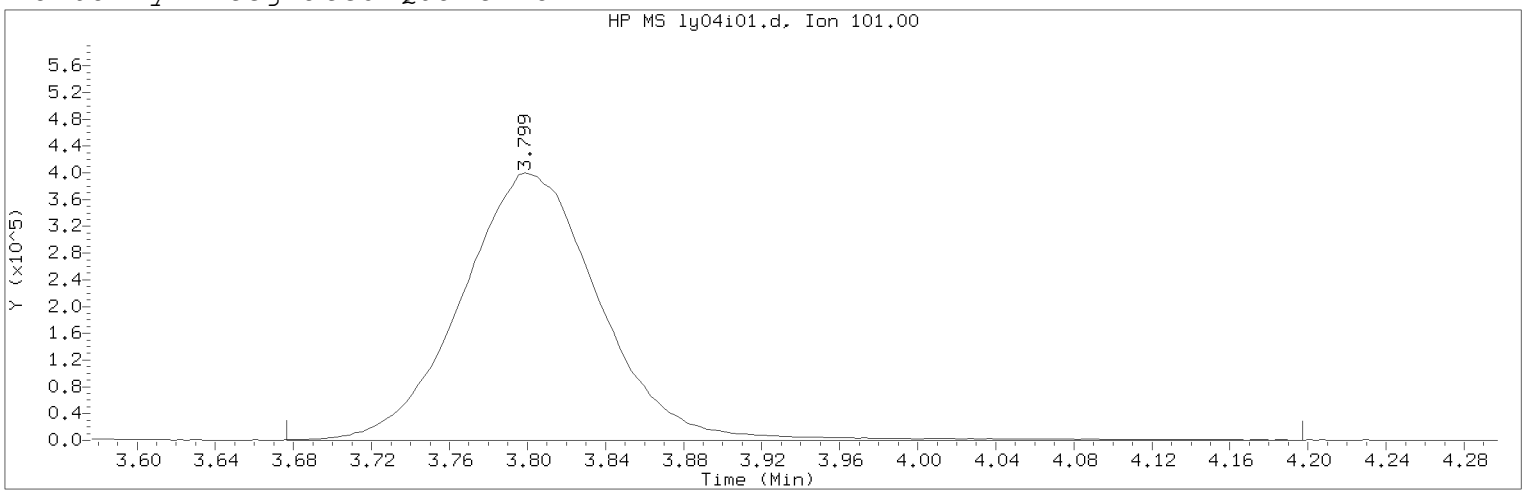
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

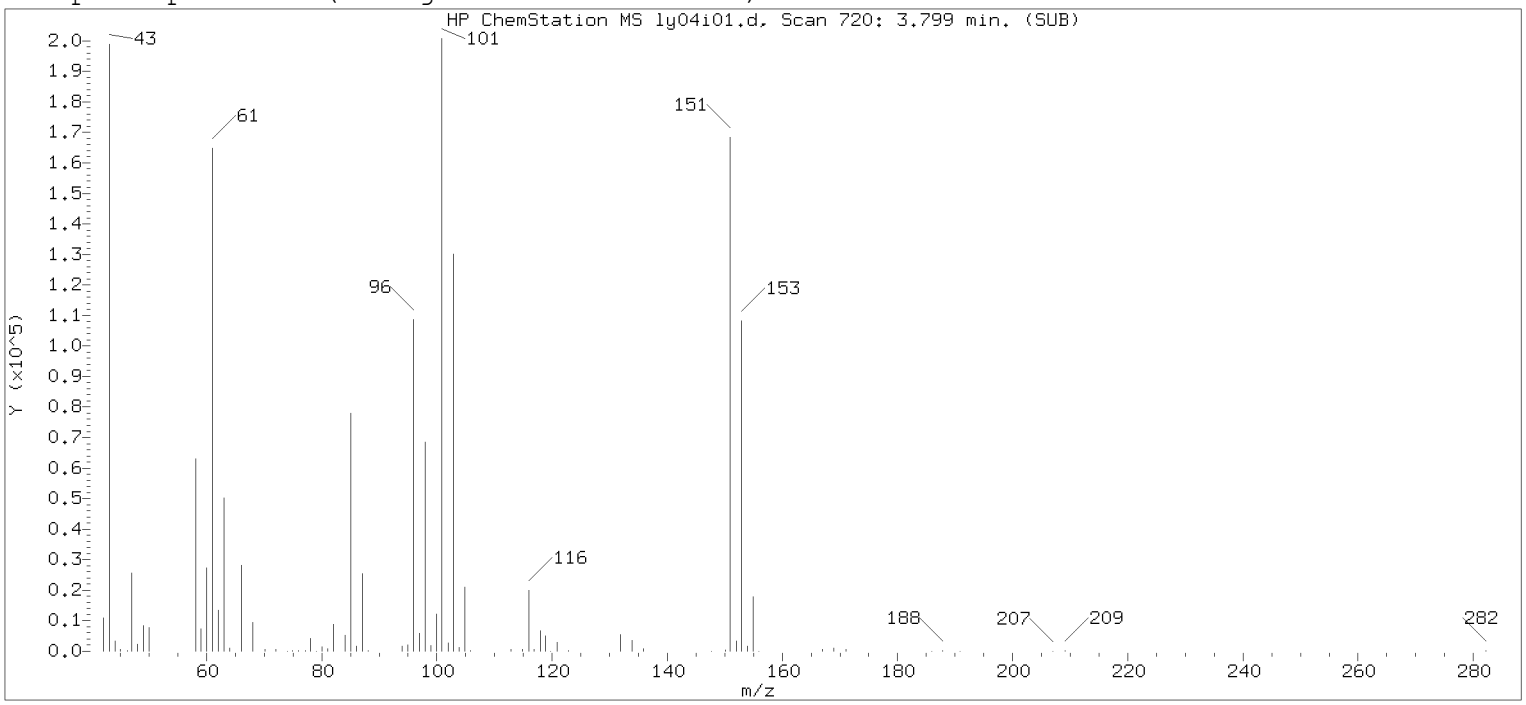
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area (flag) : 1965220M
On-Column Amount (ng) : 329.3664
Integration start scan : 681 Integration stop scan: 843
Y at integration start : 276 Y at integration end: 276

Reason for manual integration: improper integration

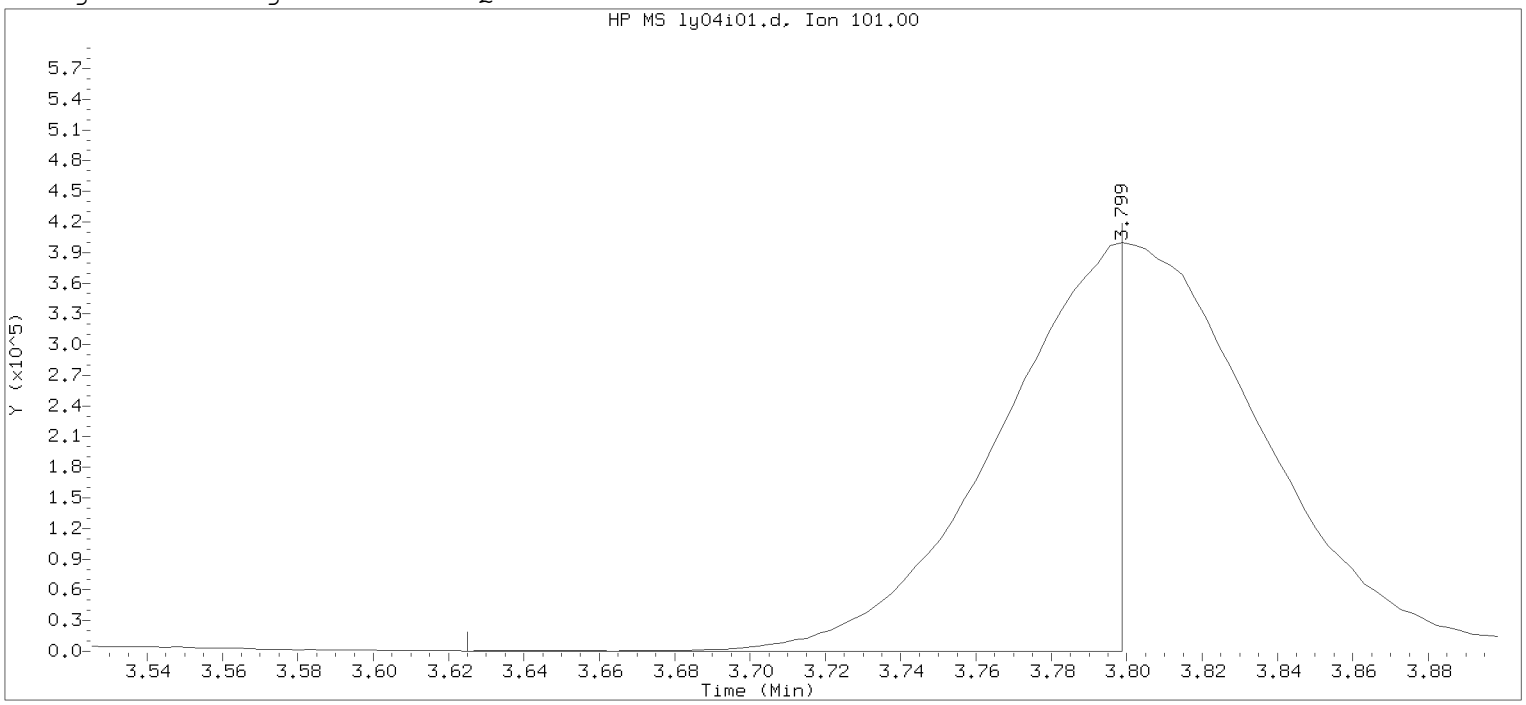
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

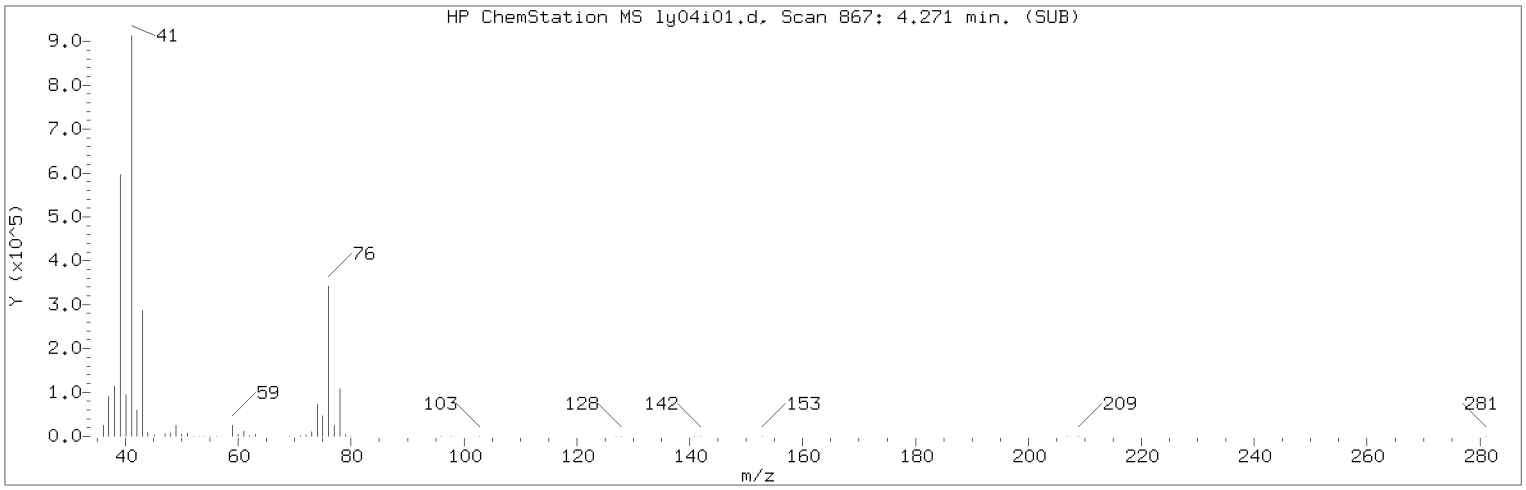
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

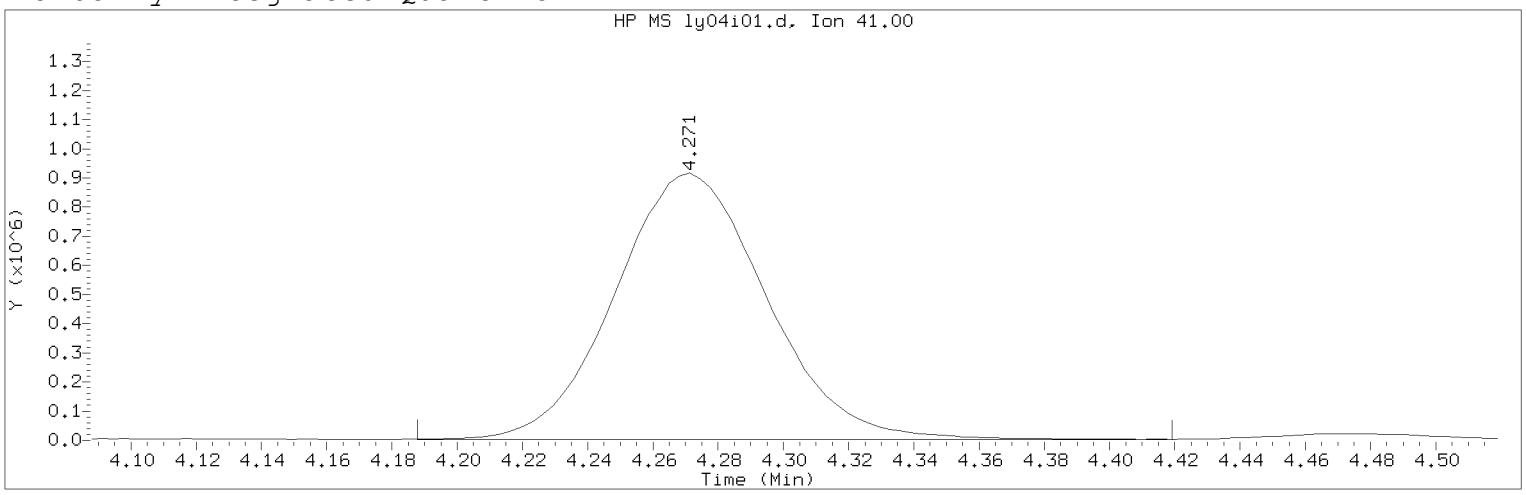
Compound Number : 19
Compound Name : Freon 113
Scan Number : 720
Retention Time (minutes): 3.799
Quant Ion : 101.00
Area : 893647
On-column Amount (ng) : 300.0000
Integration start scan : 665 Integration stop scan: 719
Y at integration start : 308 Y at integration end: 308

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0065

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

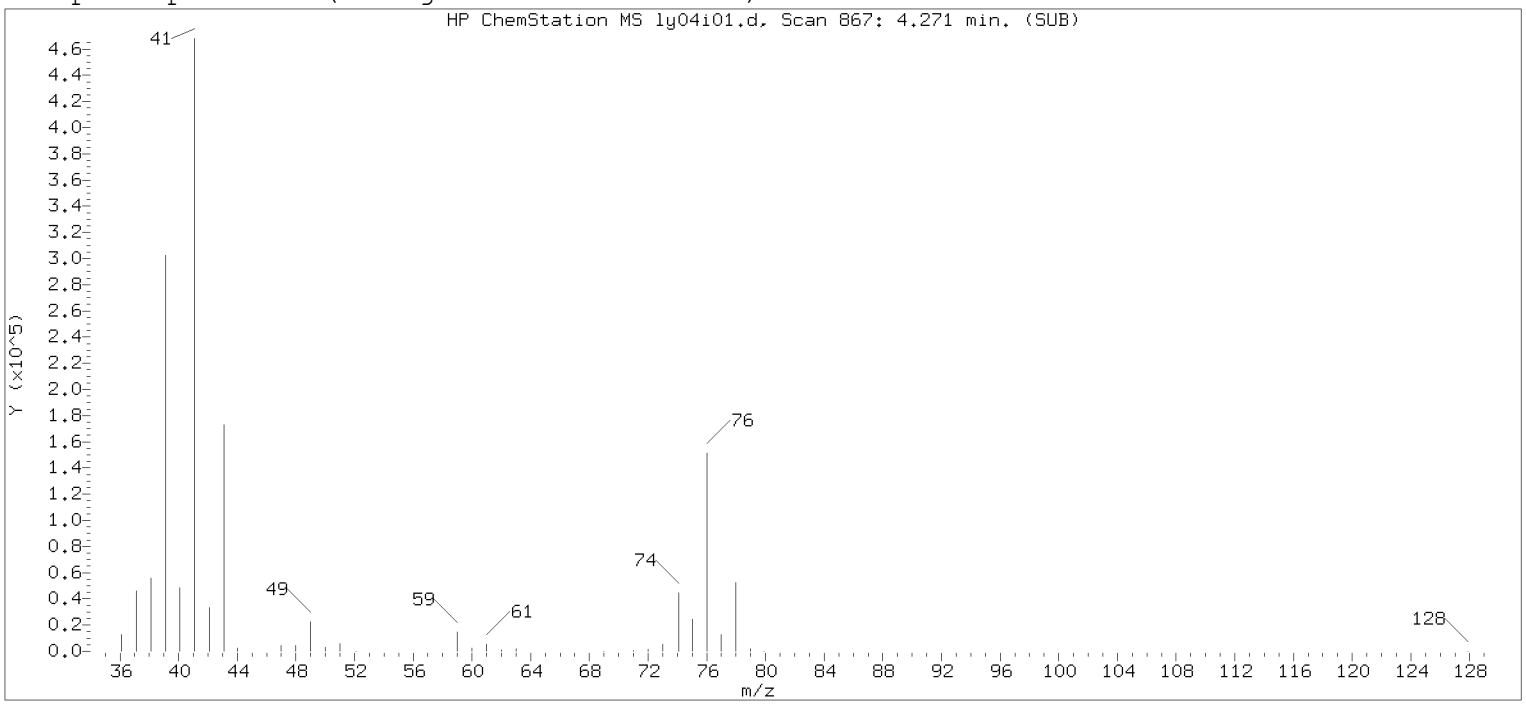
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area (flag) : 2951991M
On-Column Amount (ng) : 316.7471
Integration start scan : 840 Integration stop scan: 912
Y at integration start : 2551 Y at integration end: 2551

Reason for manual integration: improper integration

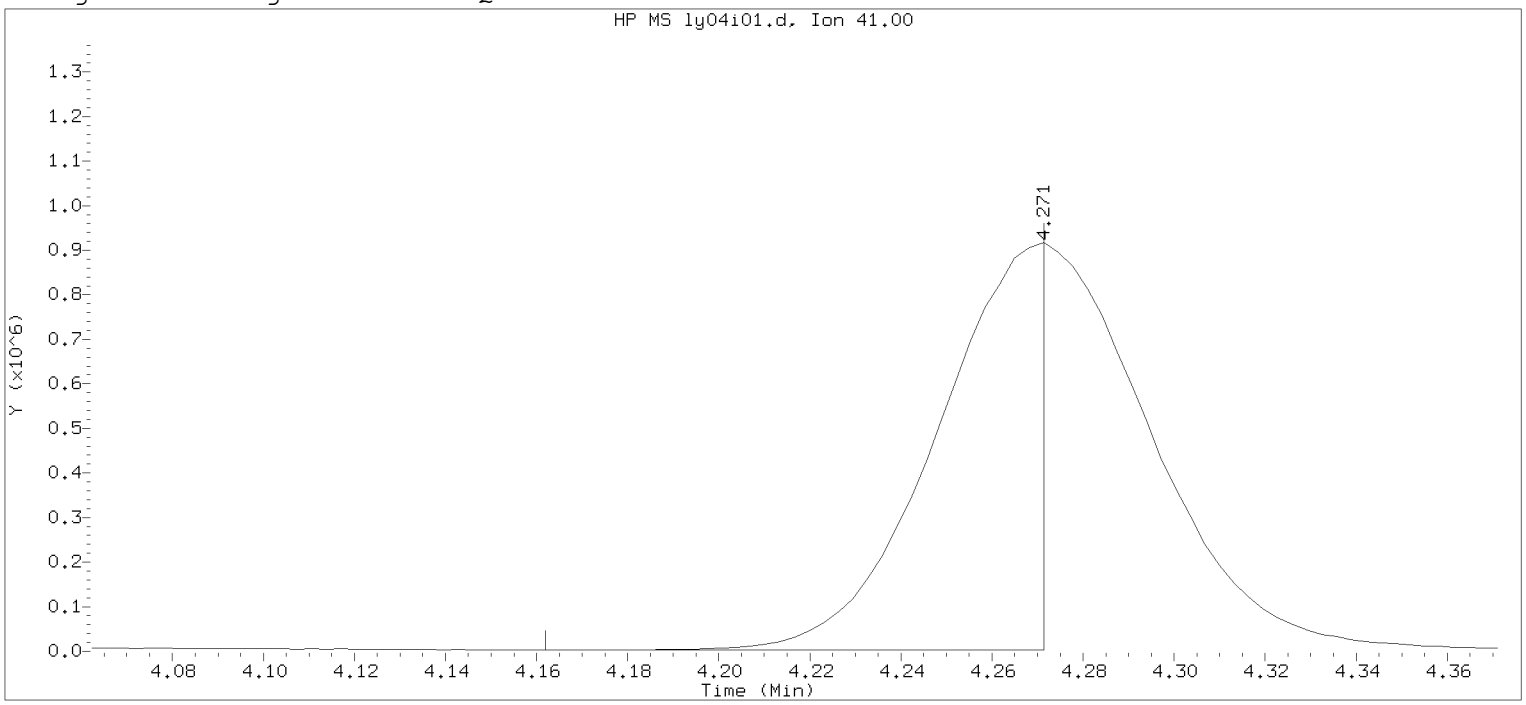
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

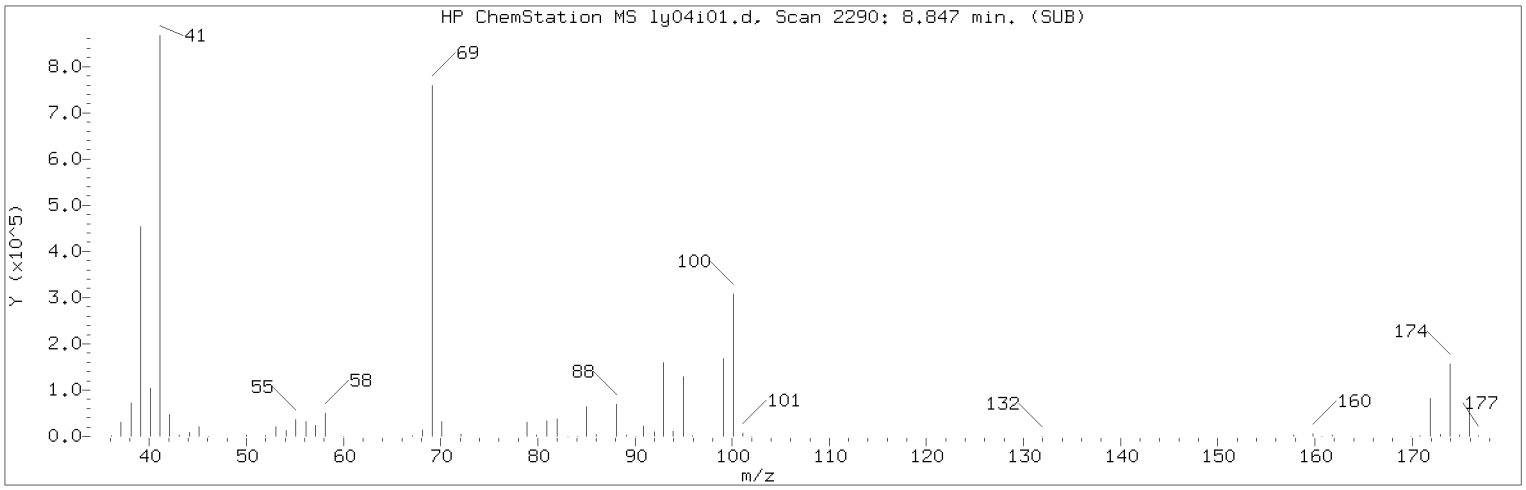
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

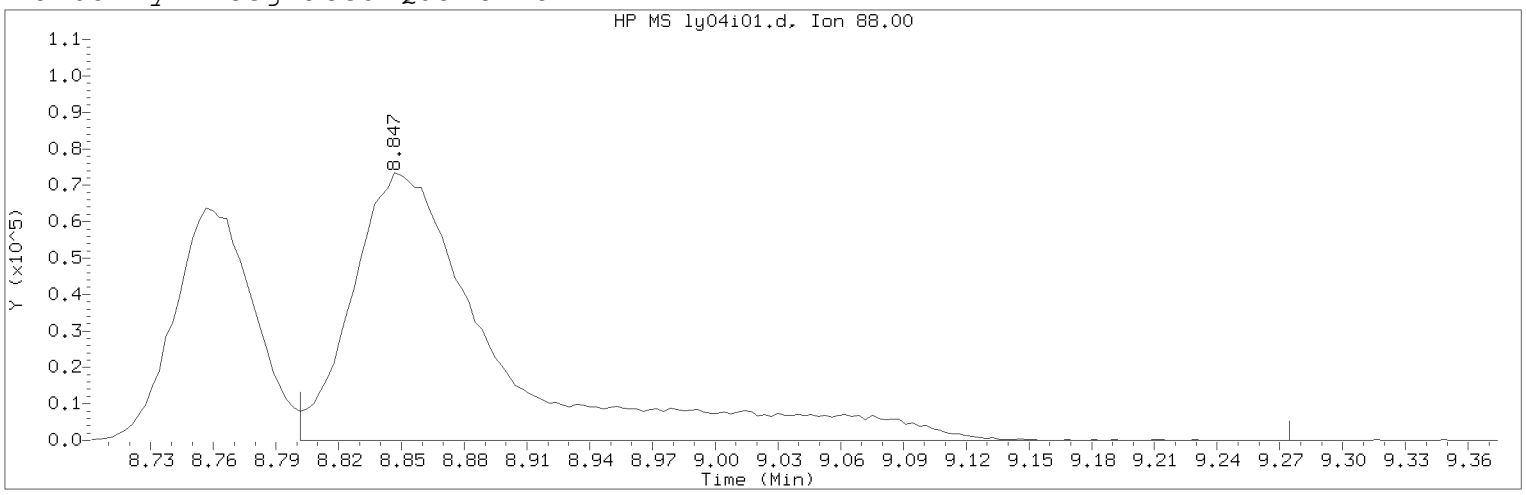
Compound Number : 25
Compound Name : Allyl Chloride
Scan Number : 867
Retention Time (minutes): 4.271
Quant Ion : 41.00
Area : 1439953
On-column Amount (ng) : 300.0000
Integration start scan : 832 Integration stop scan: 866
Y at integration start : 2601 Y at integration end: 2601

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0067

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

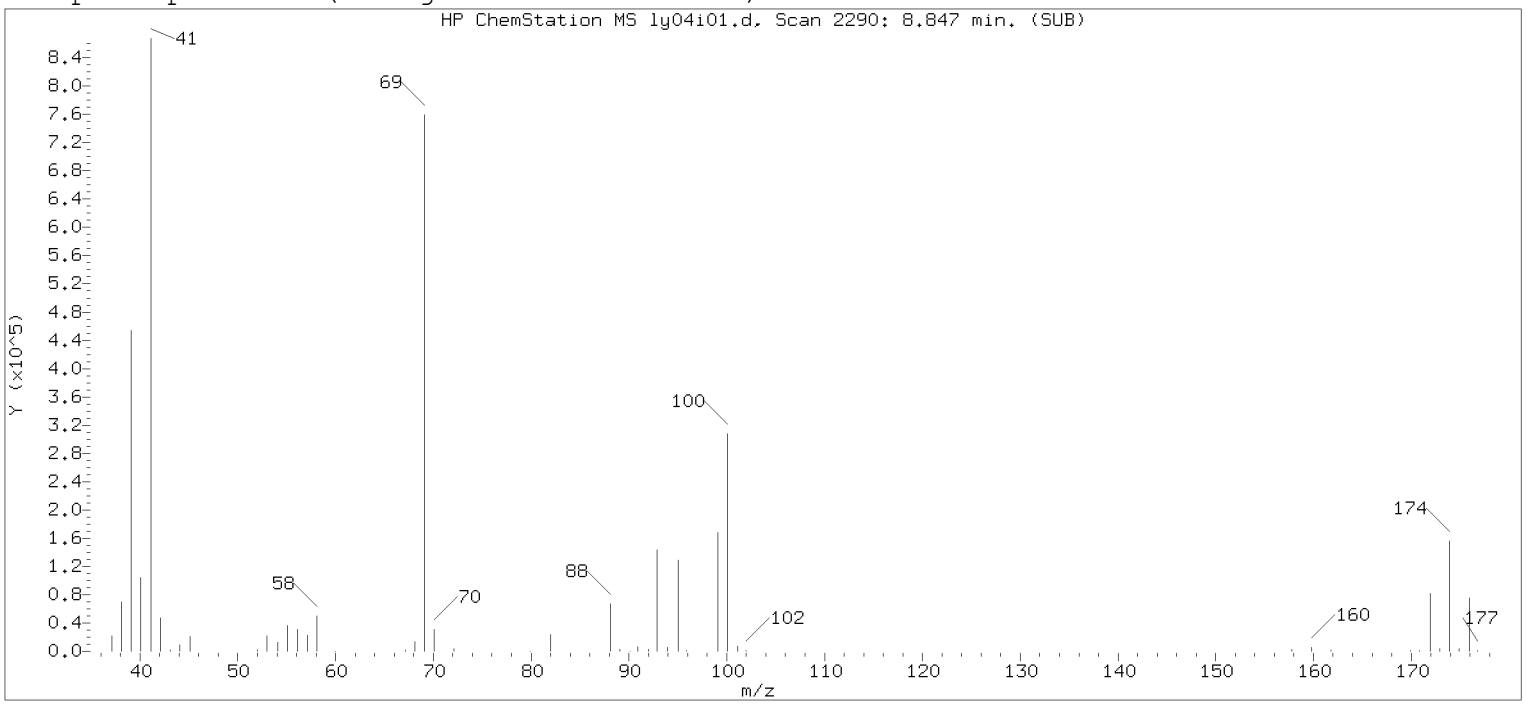
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 360140M
On-Column Amount (ng) : 3874.1804
Integration start scan : 2275 Integration stop scan: 2422
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

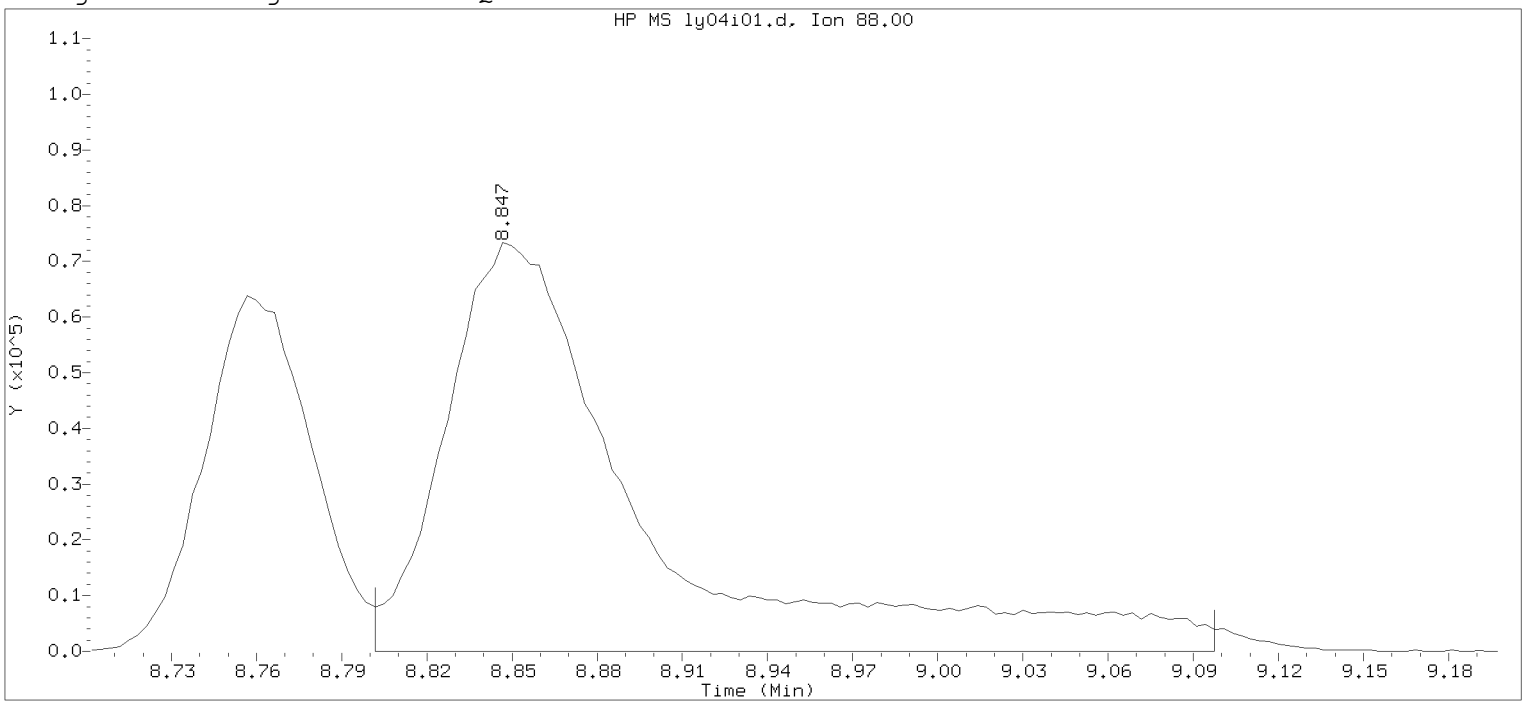
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

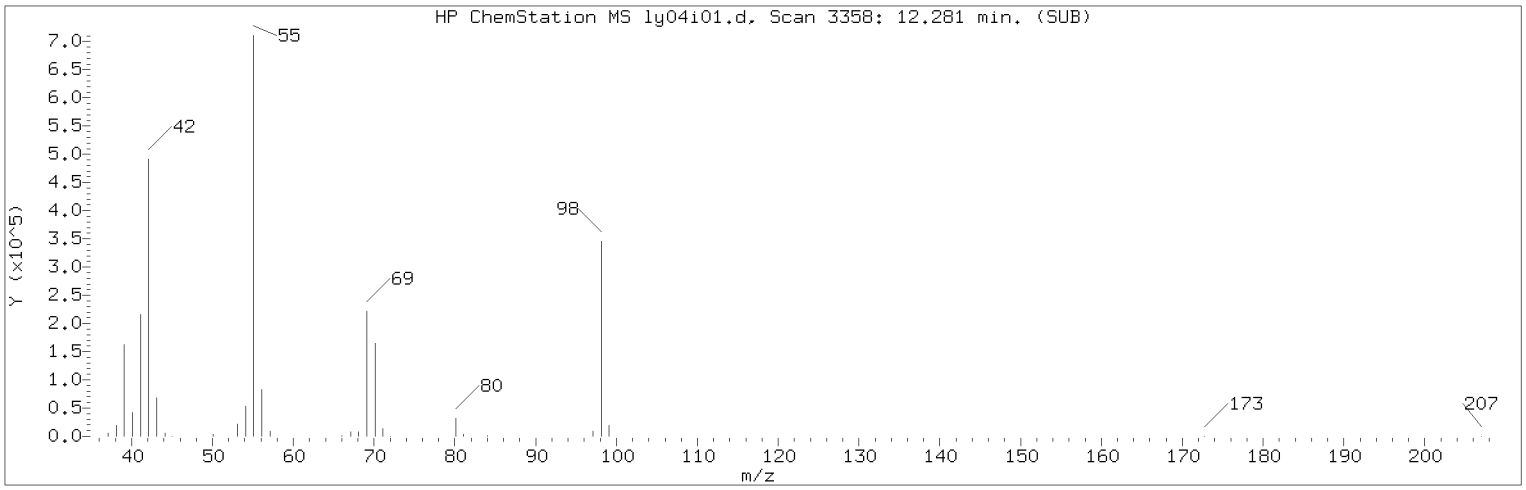
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

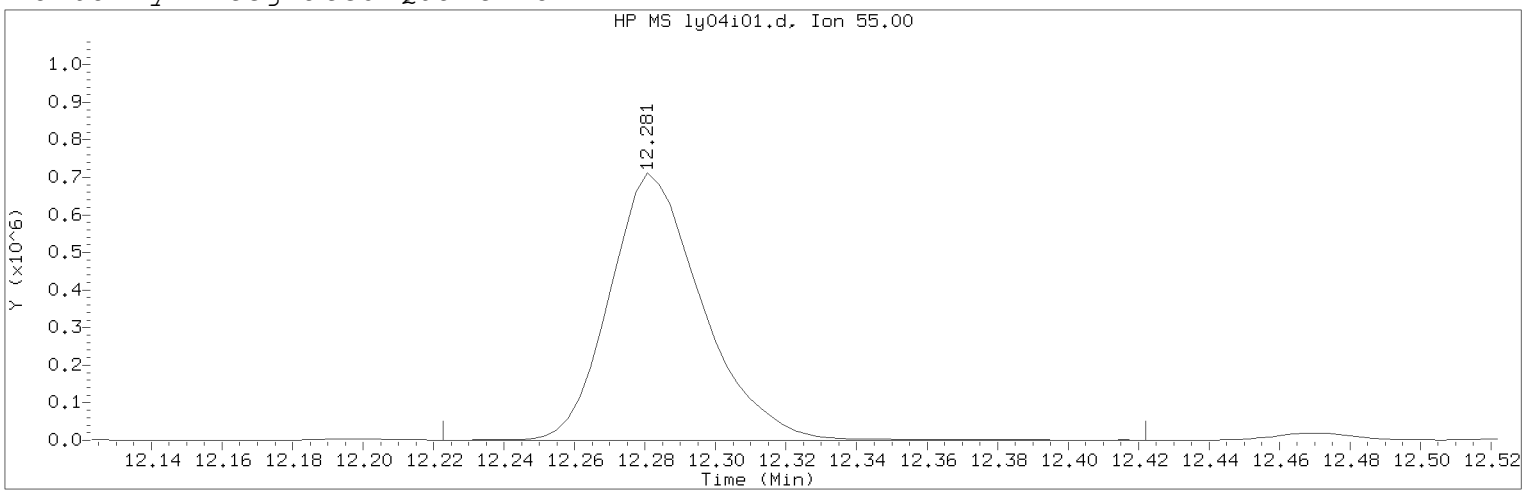
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 354631
On-column Amount (ng) : 3750.0000
Integration start scan : 2275 Integration stop scan: 2367
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo2019

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

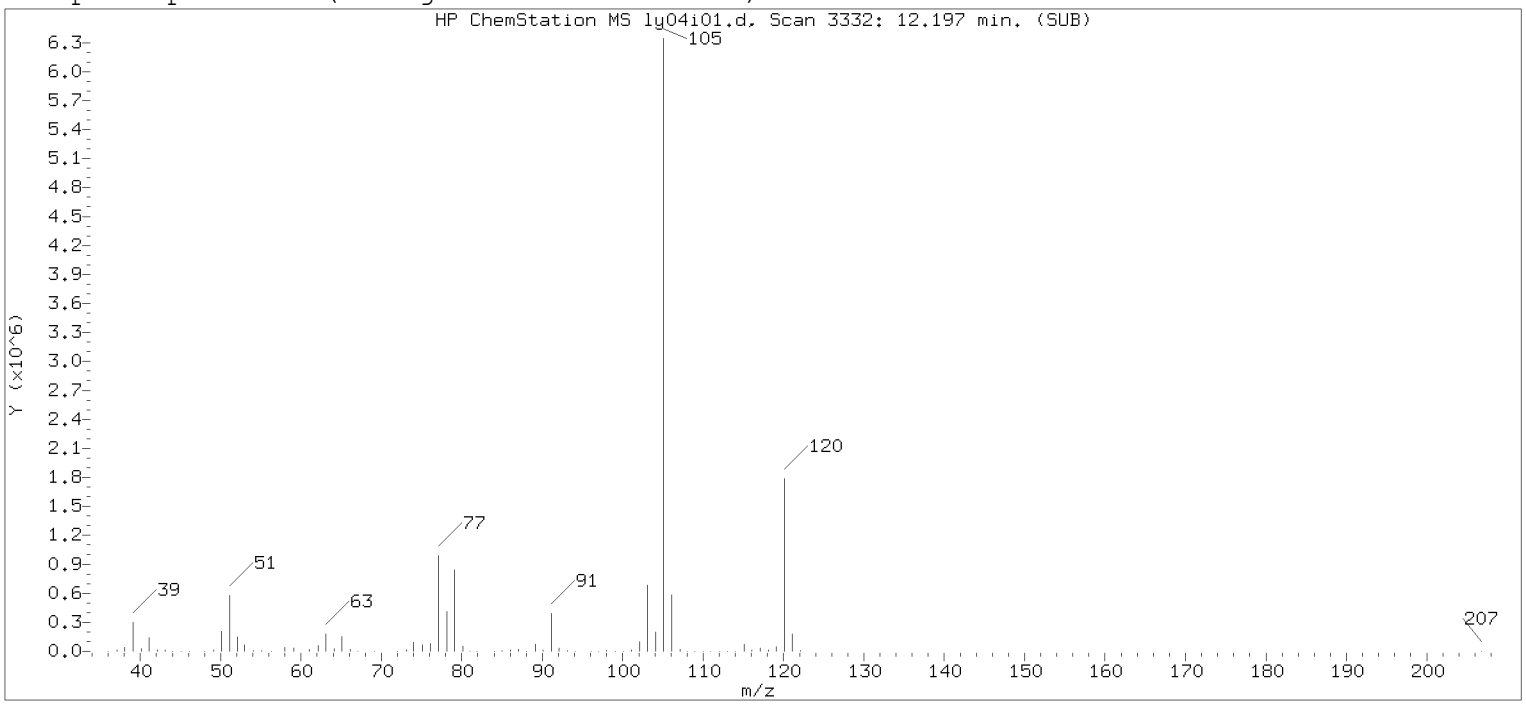
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 1298373A
On-Column Amount (ng) : 3752.2869
Integration start scan : 3339 Integration stop scan: 3401
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

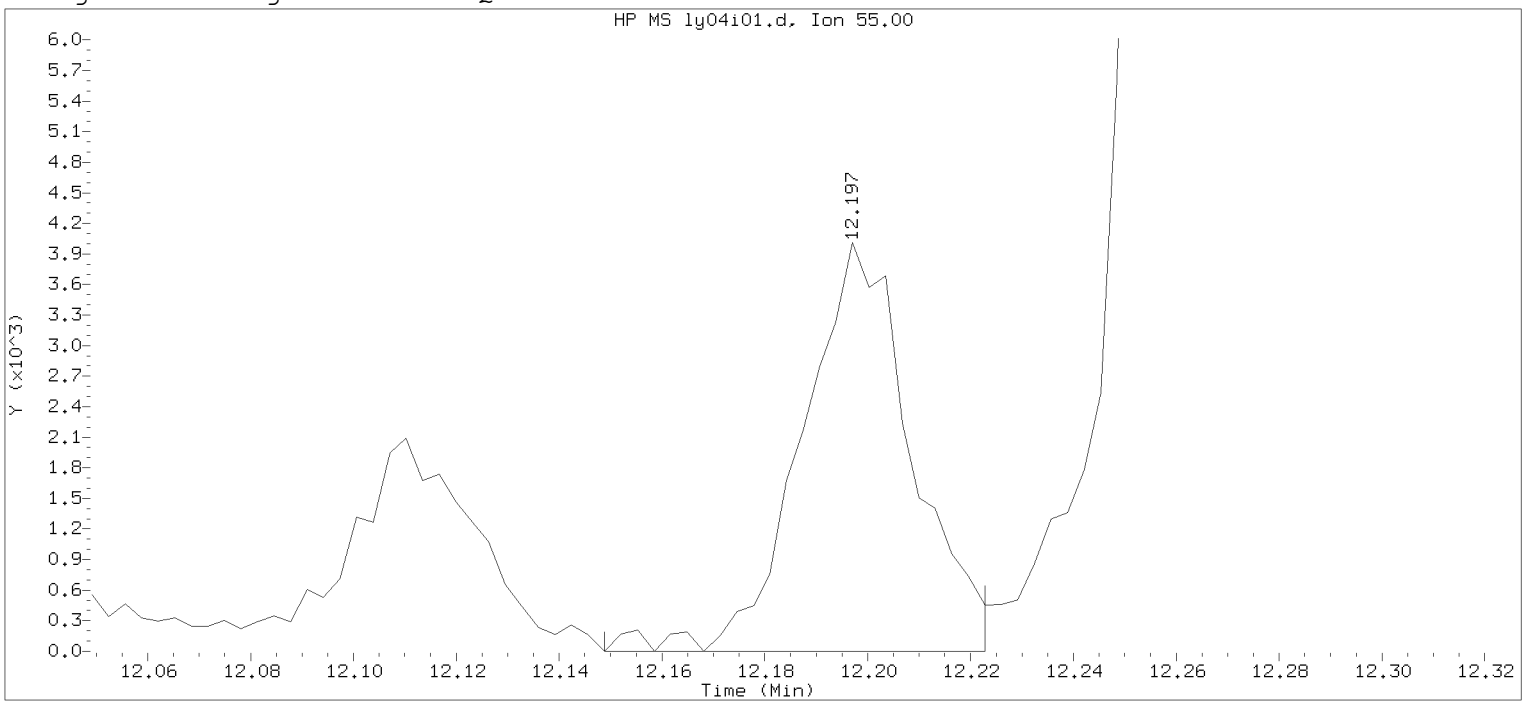
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

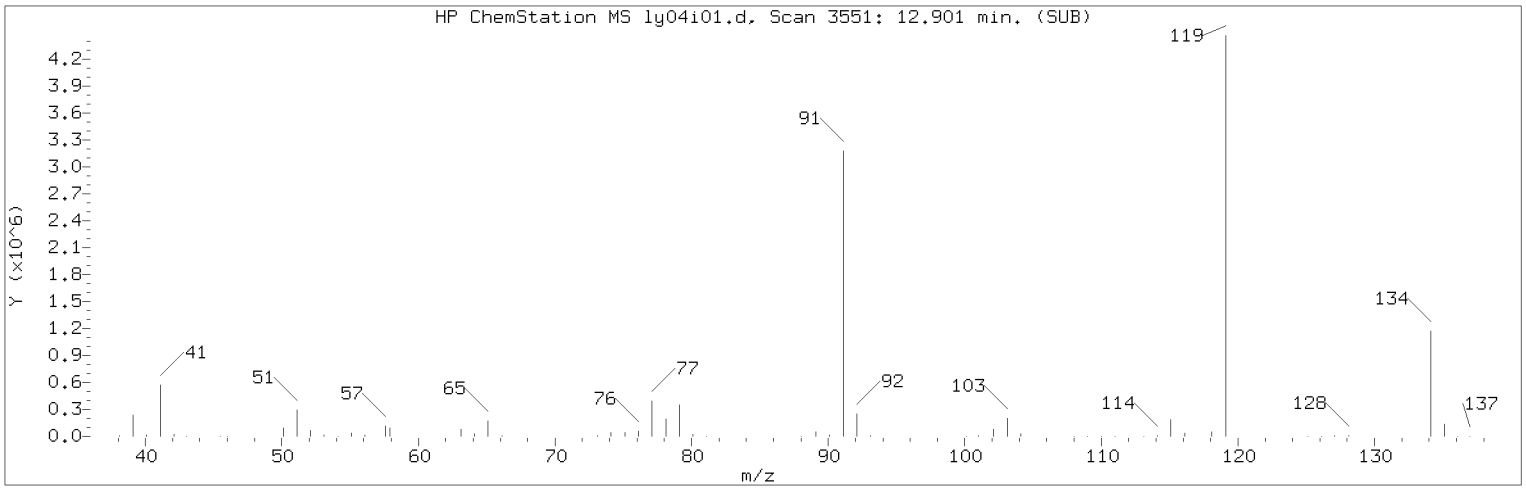
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

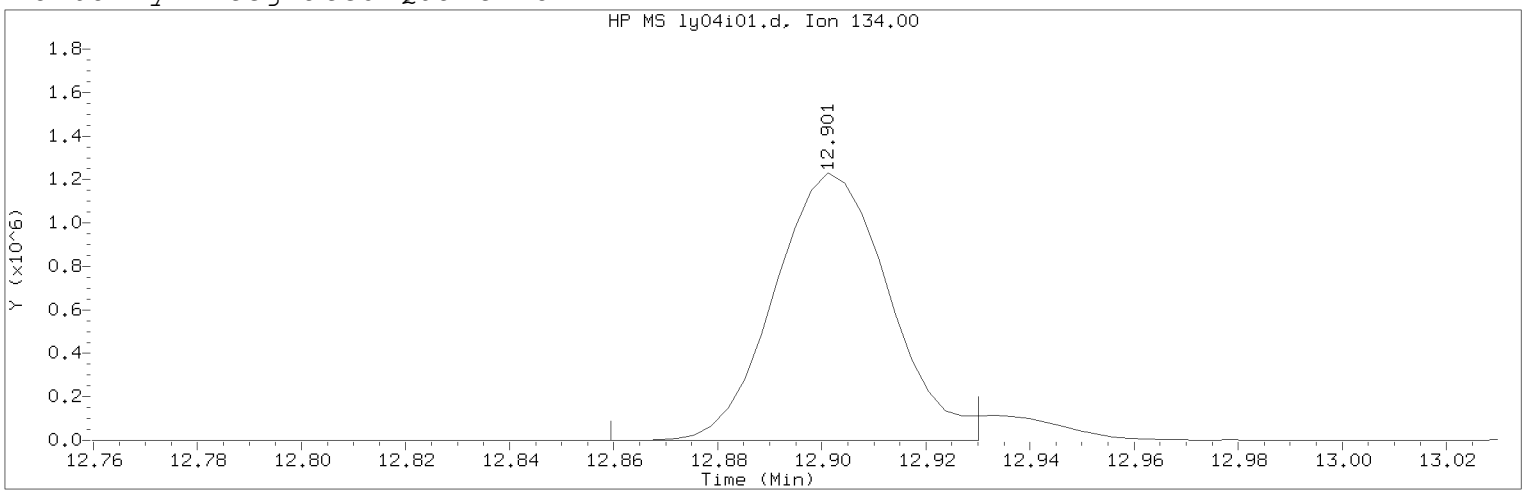
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3332
Retention Time (minutes): 12.197
Quant Ion : 55.00
Area : 5922
On-column Amount (ng) : 3750.0000
Integration start scan : 3316 Integration stop scan: 3339
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejo0071

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD300 Lab Sample ID: VSTD300

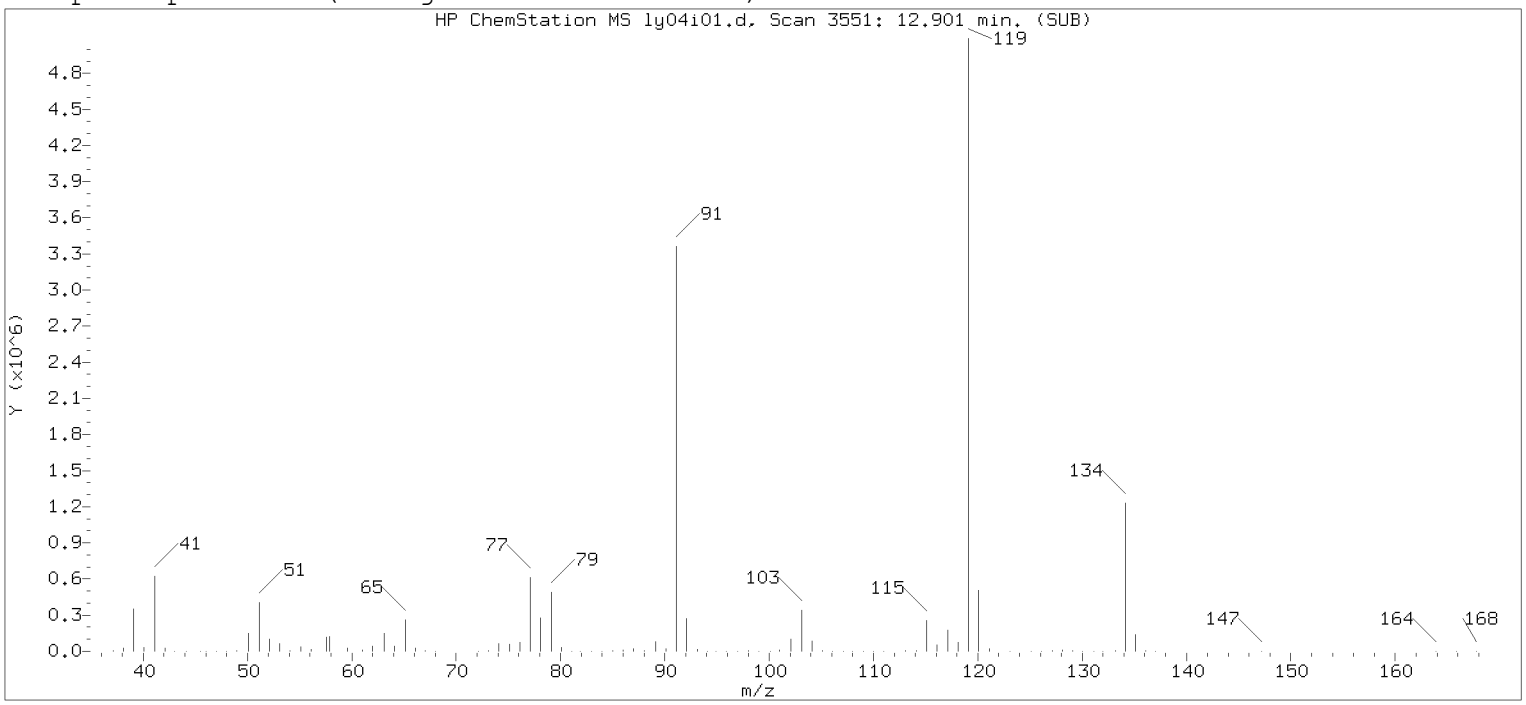
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 1876803M
On-Column Amount (ng) : 335.1392
Integration start scan : 3537 Integration stop scan: 3559
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

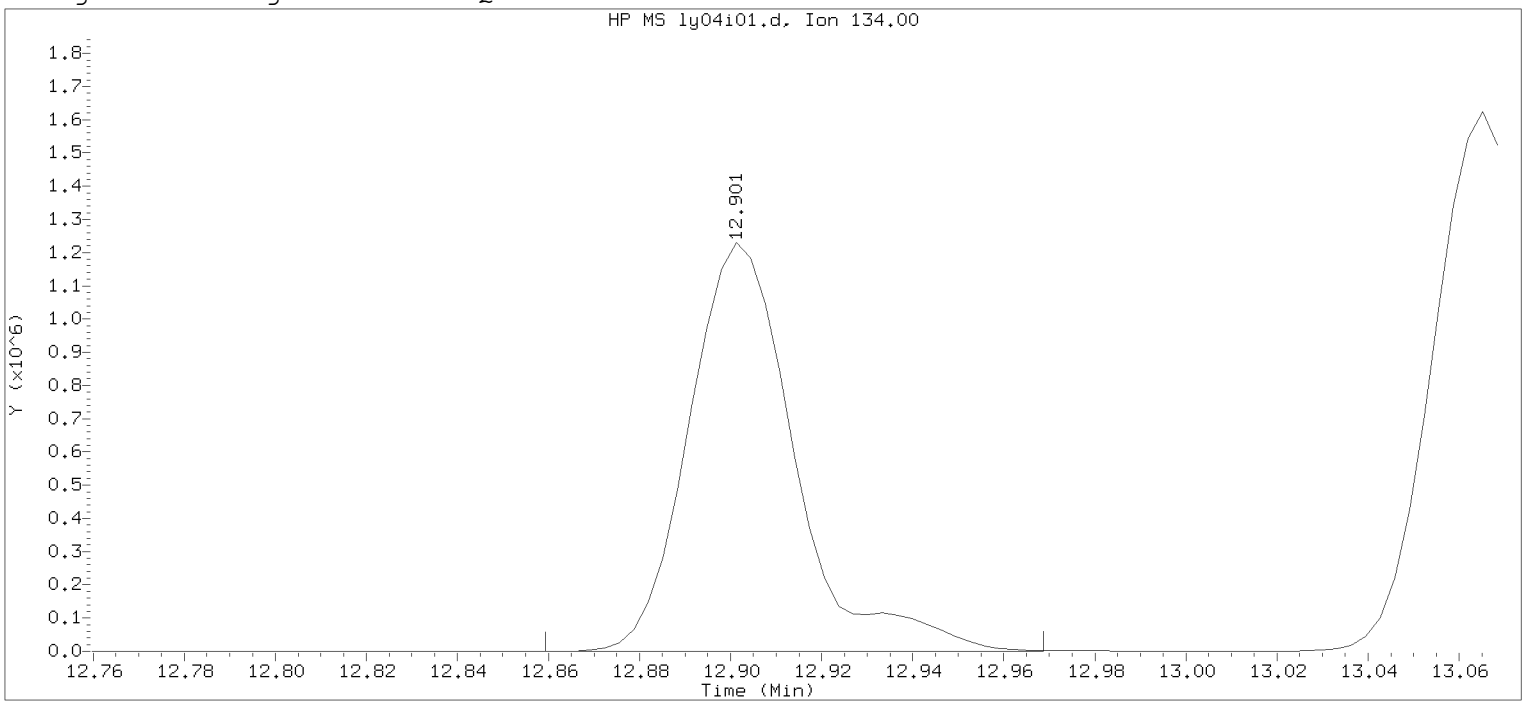
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



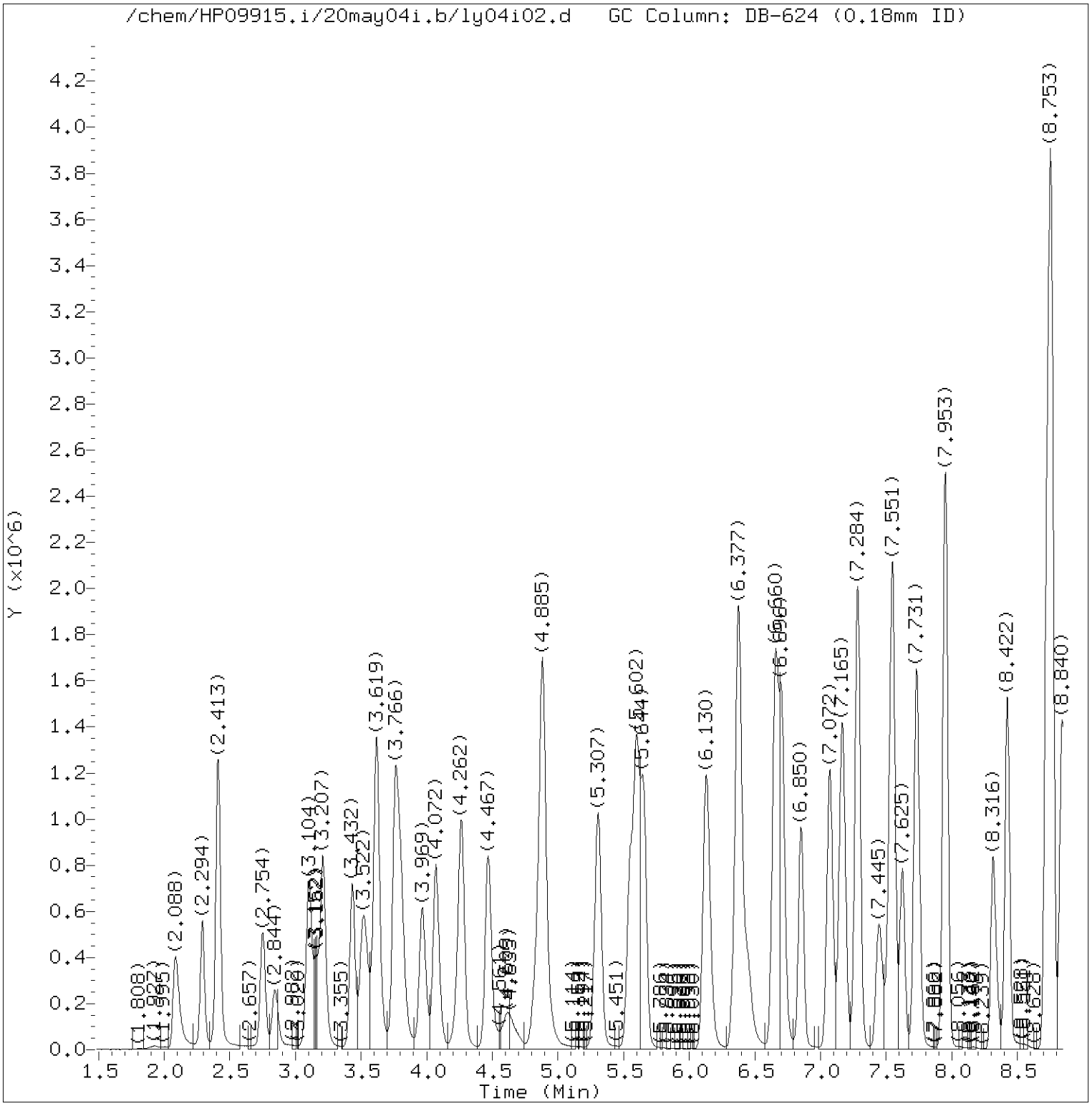
Data File: /chem/HP09915.i/20may04i.b/ly04i01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:18 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD300 Lab Sample ID: VSTD300

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 1987823
On-column Amount (ng) : 300.0000
Integration start scan : 3537 Integration stop scan: 3571
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:29.
Target 3.5 esignature user ID: sejoh0172



Total Ion Chromatogram (TIC)

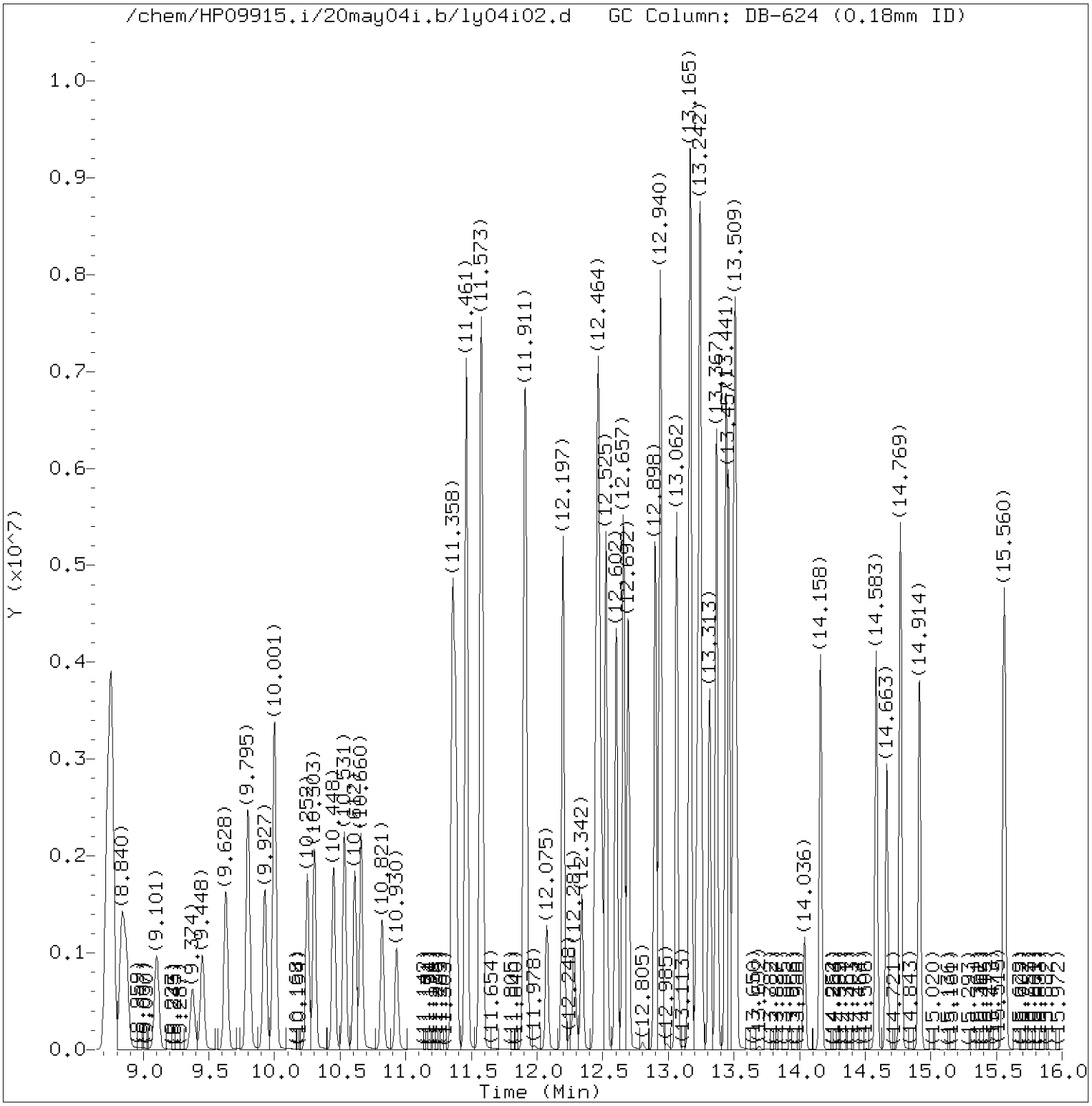
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	853077	95.314
4) Chloromethane	(2)	2.291	50	786838	94.160
5) 1,3-Butadiene	(2)	2.410	39	520508	97.096
6) Vinyl Chloride	(2)	2.413	62	744105	92.275
8) Bromomethane	(2)	2.754	94	519305	89.319
9) Chloroethane	(2)	2.844	64	387582	86.085
10) Dichlorofluoromethane	(2)	3.101	67	879288	90.539
12) Trichlorofluoromethane	(2)	3.162	101	829326	94.165
11) n-Pentane	(2)	3.210	43	821828	99.384
14) Ethyl ether	(2)	3.432	59	654590	105.186
15) Freon 123a	(2)	3.522	67	719785	100.879
16) Acrolein	(1)	3.619	56	2202055	982.350
17) 1,1-Dichloroethene	(2)	3.760	96	549714	97.873
17) 1,1-Dichloroethene	(2)	3.760	63	273099	102.093
19) Freon 113	(2)	3.795	101	592843	101.735
18) Acetone	(1)	3.802	58	188610	184.460
22) Methyl Iodide	(2)	3.969	142	1096160	101.269
21) 2-Propanol	(1)	3.985	45	318831	489.238
23) Carbon Disulfide	(2)	4.072	76	1939244	102.543
27) Methyl Acetate	(2)	4.239	43	716612	100.037
25) Allyl Chloride	(2)	4.268	41	969396	106.503
28) Methylene Chloride	(2)	4.471	84	666610	99.772
29)*t-Butyl alcohol-d10	(1)	4.490	65	272479	250.000
30) t-Butyl alcohol	(1)	4.622	59	557035	506.379
31) Acrylonitrile	(2)	4.827	53	384725	96.951
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	1974492	102.504
32) trans-1,2-Dichloroethene	(2)	4.885	96	643936	99.659
34) n-Hexane	(2)	5.307	57	980157	108.319
36) 1,1-Dichloroethane	(2)	5.548	63	1150743	101.542
38) di-Isopropyl ether	(2)	5.599	45	2135393	107.138
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	983912	108.868
40) Ethyl t-butyl ether	(2)	6.130	59	1972223	106.499
43) 1,2-Dichloroethene (Total)	(2)		96	1379003	201.103
44) 2-Butanone	(2)	6.348	43	955566	198.384
42) cis-1,2-Dichloroethene	(2)	6.377	96	735067	101.444
45) 2,2-Dichloropropane	(2)	6.384	77	906496	103.496
47) Propionitrile	(1)	6.448	54	775173	521.611
48) Methacrylonitrile	(2)	6.657	67	1032016	259.410

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	387109	103.541
50) Tetrahydrofuran	(1)	6.715	71	265025	203.822
51) Chloroform	(2)	6.850	83	1119265	101.093
52)$Dibromofluoromethane	(2)	7.069	113	329675	50.139
52)$Dibromofluoromethane	(2)	7.069	111	336828	50.113
53) 1,1,1-Trichloroethane	(2)	7.075	97	966703	101.774
54) Cyclohexane	(2)	7.165	56	1163895	109.463
54) Cyclohexane	(2)	7.168	84	1000103	107.756
54) Cyclohexane	(2)	7.165	69	357764	108.275
56) Carbon Tetrachloride	(2)	7.278	117	830197	104.318
55) 1,1-Dichloropropene	(2)	7.287	75	900576	103.427
58) Isobutyl Alcohol	(1)	7.445	41	477848	1280.506
57)$1,2-Dichloroethane-d4	(2)	7.522	102	82703	49.570
57)$1,2-Dichloroethane-d4	(2)	7.522	65	369652	49.914
57)$1,2-Dichloroethane-d4	(2)	7.519	104	52535	49.449
60) Benzene	(2)	7.551	78	2723134	101.028
61) 1,2-Dichloroethane	(2)	7.625	62	882324	97.653
61) 1,2-Dichloroethane	(2)	7.625	98	89171	101.277
65) t-Amyl methyl ether	(2)	7.731	73	2011782	106.341
66)*Fluorobenzene	(2)	7.950	96	1305159	50.000
67) n-Heptane	(2)	7.956	43	975825	103.704
69) n-Butanol	(1)	8.316	56	860676	2828.614
71) Trichloroethene	(2)	8.425	95	688560	100.949
72) Methylcyclohexane	(2)	8.728	83	1282390	115.625
72) Methylcyclohexane	(2)	8.728	98	579444	115.508
73) 1,2-Dichloropropane	(2)	8.760	63	707167	101.826
76) Methyl Methacrylate	(2)	8.837	69	660132	110.547
75) 1,4-Dioxane	(1)	8.843	88	121991M	1333.722
74) Dibromomethane	(2)	8.869	93	465649	102.523
78) Bromodichloromethane	(2)	9.101	83	872696	107.177
79) 2-Nitropropane	(2)	9.374	41	514618	210.790
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	544528	117.753
81) cis-1,3-Dichloropropene	(2)	9.628	75	1173507	110.278
82) 4-Methyl-2-pentanone	(2)	9.795	43	2014827M	206.557
83)$Toluene-d8	(3)	9.927	98	1347192	50.298
83)$Toluene-d8	(3)	9.927	100	873877	50.274
88) Toluene	(3)	10.001	92	1720446	100.774
90) 1,3-Dichloropropene (total)	(3)		100	2256338	220.822

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	1082831	110.544
91) Ethyl Methacrylate	(3)	10.303	69	1150351	116.713
92) 1,1,2-Trichloroethane	(3)	10.448	97	674393	101.801
93) Tetrachloroethene	(3)	10.531	166	745147	102.417
94) 1,3-Dichloropropane	(3)	10.612	76	1153873	104.156
96) 2-Hexanone	(3)	10.660	43	1466416	204.845
97) Dibromochloromethane	(3)	10.821	129	768603	111.537
99) 1,2-Dibromoethane	(3)	10.930	107	757251	106.362
100)*Chlorobenzene-d5	(3)	11.351	117	1042614	50.000
101) 1-Chlorohexane	(3)	11.358	91	894543	102.388
102) Chlorobenzene	(3)	11.380	112	1974796	100.728
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	698262	105.060
104) Ethylbenzene	(3)	11.461	91	3302145	104.495
106) m+p-Xylene	(3)	11.573	106	2617893	210.839
108) Xylene (Total)	(3)		106	3901521	317.742
107) o-Xylene	(3)	11.901	106	1283628	106.904
109) Styrene	(3)	11.917	104	2175134	111.387
110) Bromoform	(3)	12.075	173	575326	114.684
111) Isopropylbenzene	(3)	12.197	105	3285092	107.815
112) Cyclohexanone	(1)	12.281	55	465460A	1367.124
114)$4-Bromofluorobenzene	(3)	12.342	95	512925	49.770
114)$4-Bromofluorobenzene	(3)	12.342	174	437104	49.470
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	1088037	102.939
115) Bromobenzene	(4)	12.461	156	869682	102.507
118) trans-1,4-Dichloro-2-butene	(4)	12.470	53	825411	268.454
117) 1,2,3-Trichloropropane	(4)	12.490	110	336139	104.128
119) n-Propylbenzene	(4)	12.525	91	3817261	104.103
120) 2-Chlorotoluene	(4)	12.602	126	813495	103.844
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	2845054	107.378
121) 4-Chlorotoluene	(4)	12.692	126	843646	103.759
124) tert-Butylbenzene	(4)	12.898	134	591495M	108.603
125) Pentachloroethane	(4)	12.933	167	549570	113.616
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	2971690	108.477
127) sec-Butylbenzene	(4)	13.062	105	3479126	107.847
129) 1,3-Dichlorobenzene	(4)	13.162	146	1615369	102.175
130) p-Isopropyltoluene	(4)	13.168	119	3007783	108.812
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	579781	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	1664879	100.338

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	3076651	108.090
135) Benzyl Chloride	(4)	13.313	91	2438204	113.211
136) 1,3-Diethylbenzene	(4)	13.367	119	1960676	110.086
141) Diethylbenzene (total)	(4)		100	5656125	328.324
137) 1,4-Diethylbenzene	(4)	13.438	119	2046082	109.754
139) n-Butylbenzene	(4)	13.457	92	1477265	104.018
138) 1,2-Dichlorobenzene	(4)	13.496	146	1601420	100.637
140) 1,2-Diethylbenzene	(4)	13.512	119	1649367	108.484
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	256247	109.532
144) 1,3,5-Trichlorobenzene	(4)	14.162	180	1224679	102.164
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	1178758	105.224
147) Hexachlorobutadiene	(4)	14.663	225	502383	97.213
148) Naphthalene	(4)	14.769	128	4071339	112.277
149) 1,2,3-Trichlorobenzene	(4)	14.914	180	1139574	102.373
150) 2-Methylnaphthalene	(4)	15.560	142	2393759	102.167

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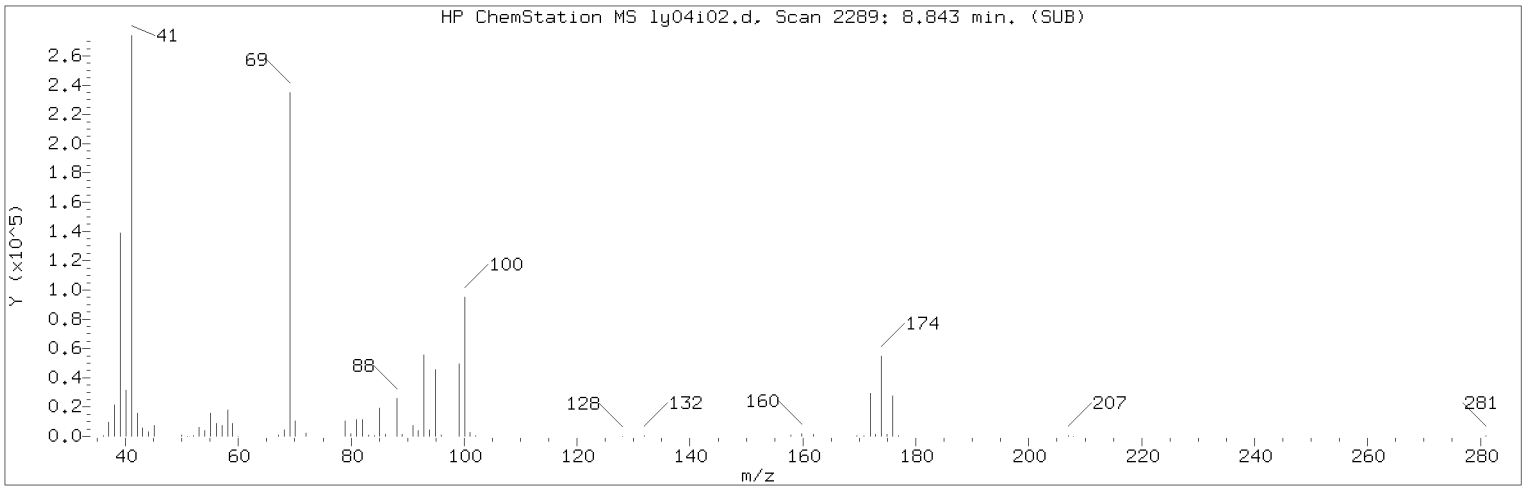
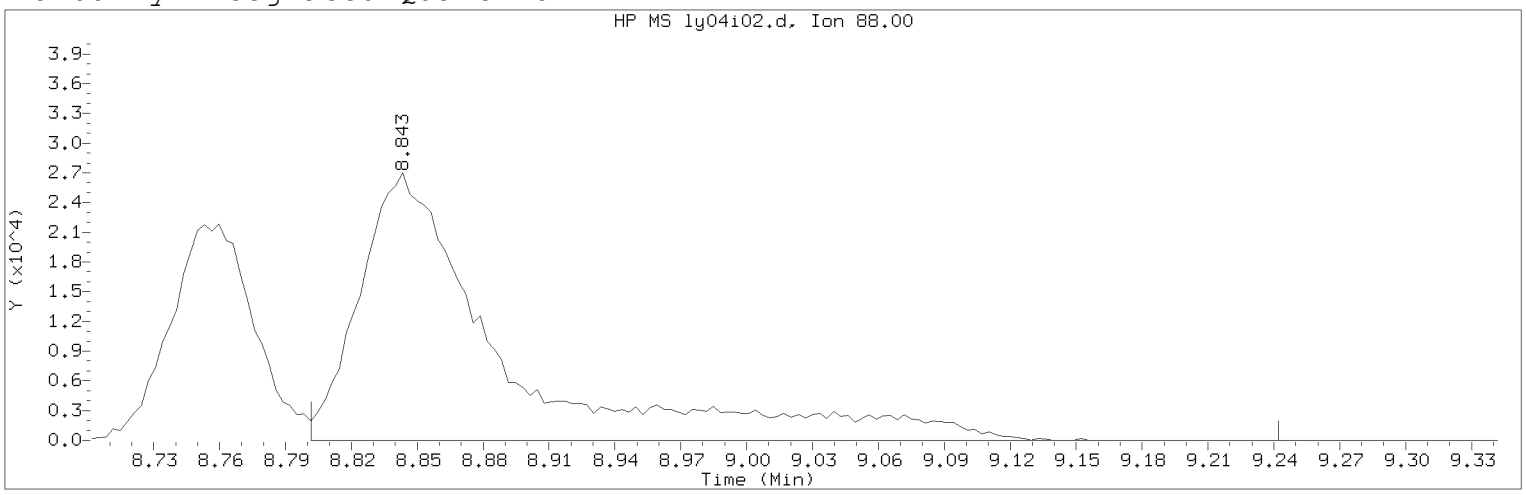
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

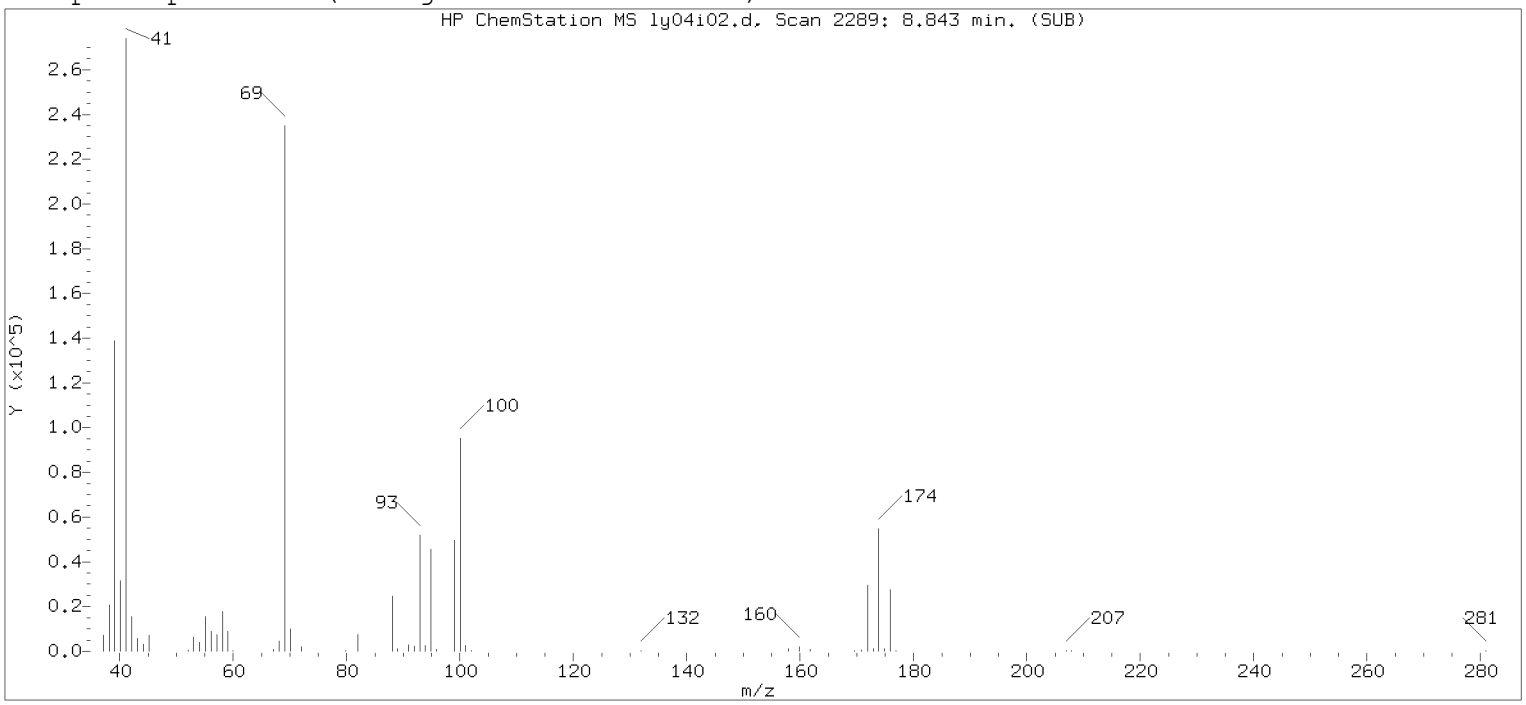
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area (flag) : 121991M
On-Column Amount (ng) : 1333.7223
Integration start scan : 2275 Integration stop scan: 2412
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

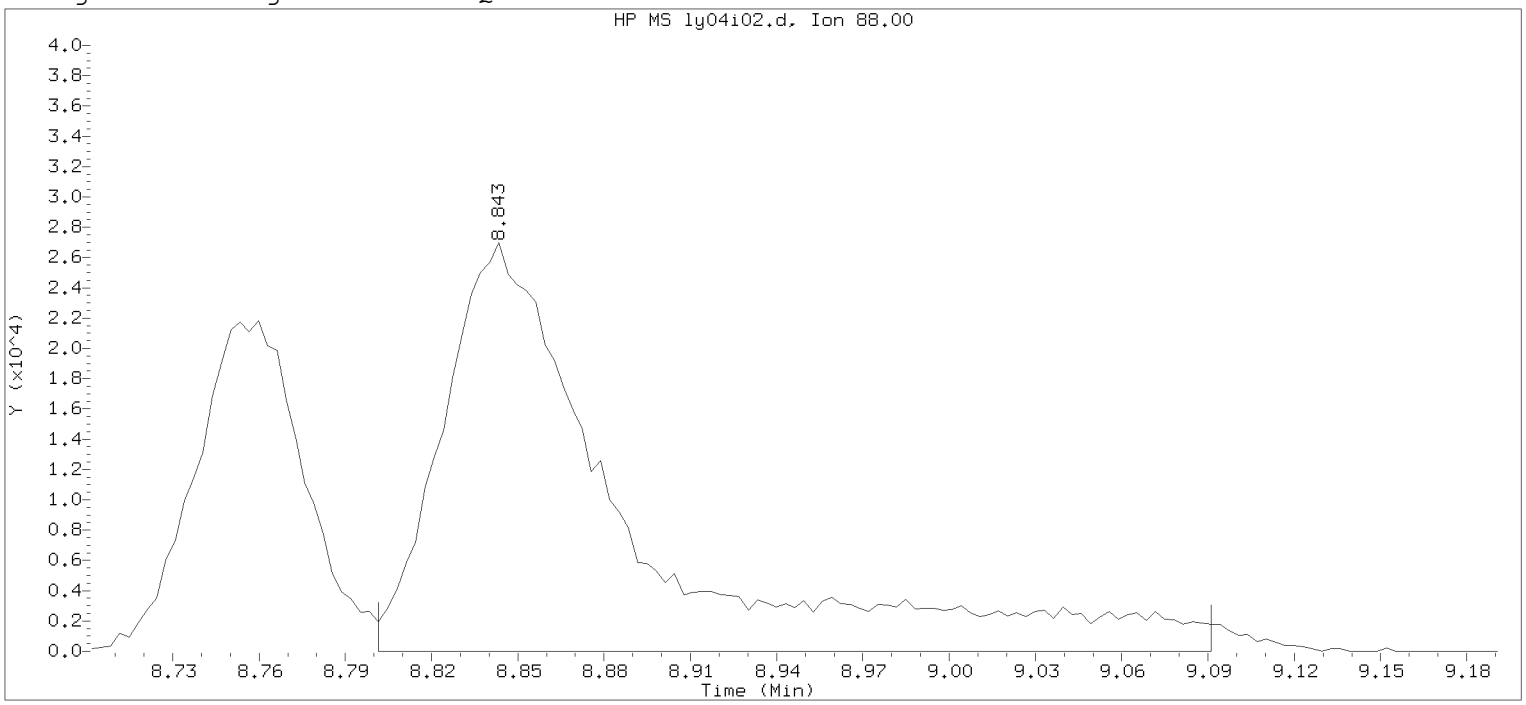
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2289
Retention Time (minutes): 8.843
Quant Ion : 88.00
Area : 119871
On-column Amount (ng) : 1268.8357
Integration start scan : 2275 Integration stop scan: 2365
Y at integration start : 0 Y at integration end: 0

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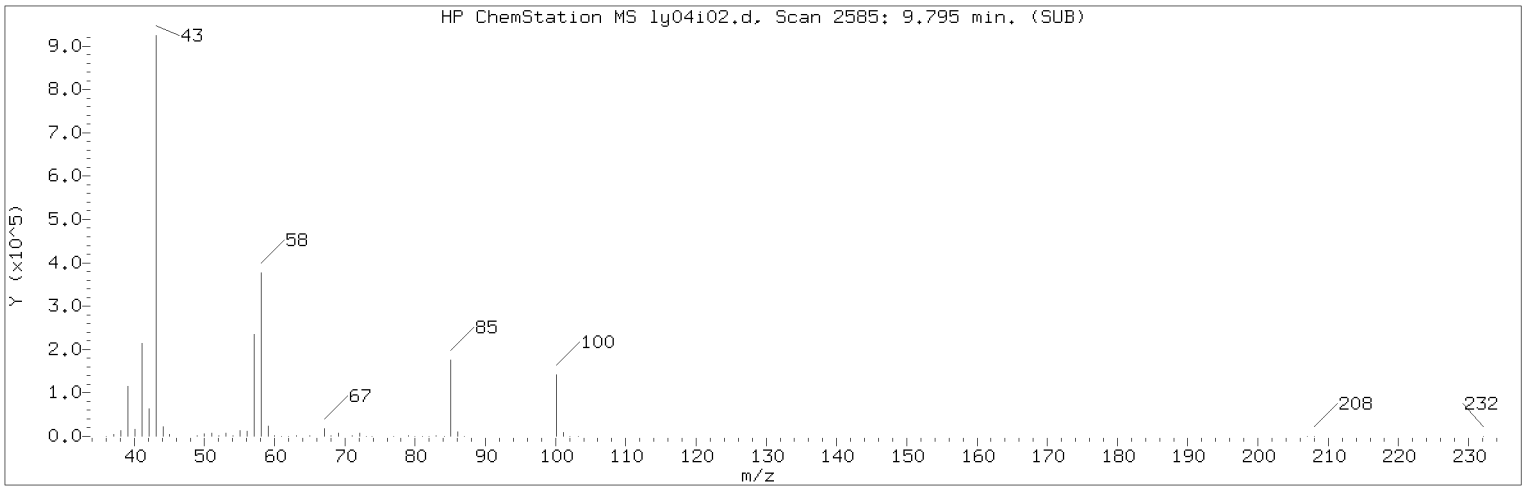
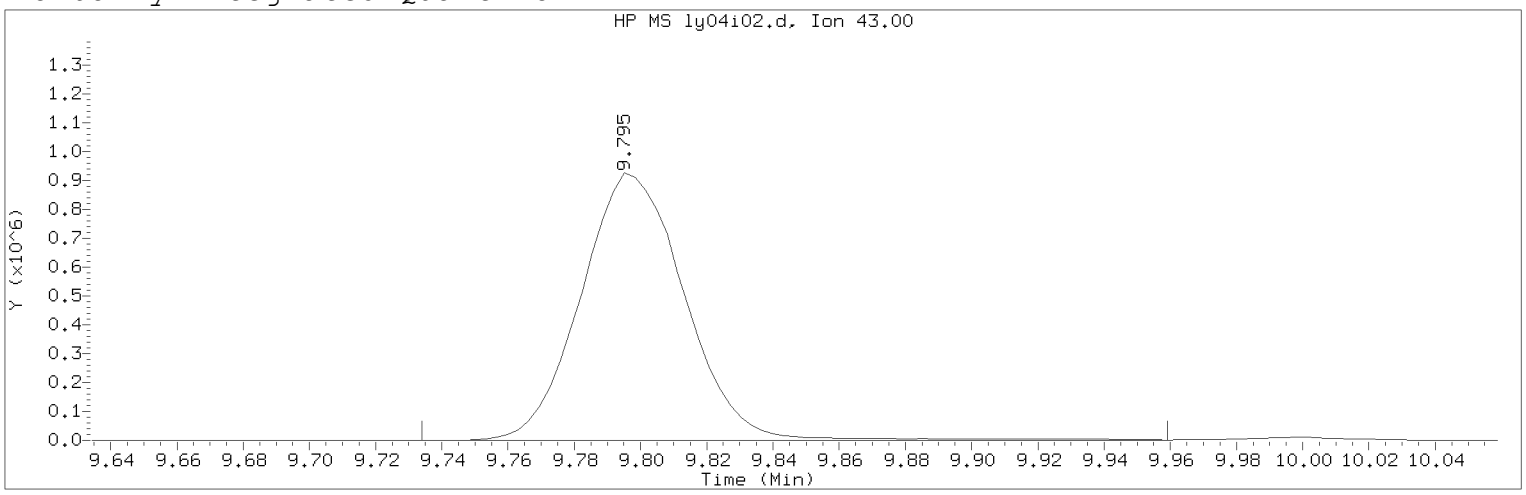
Target 3.5 esignature user ID: sejoh0181

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

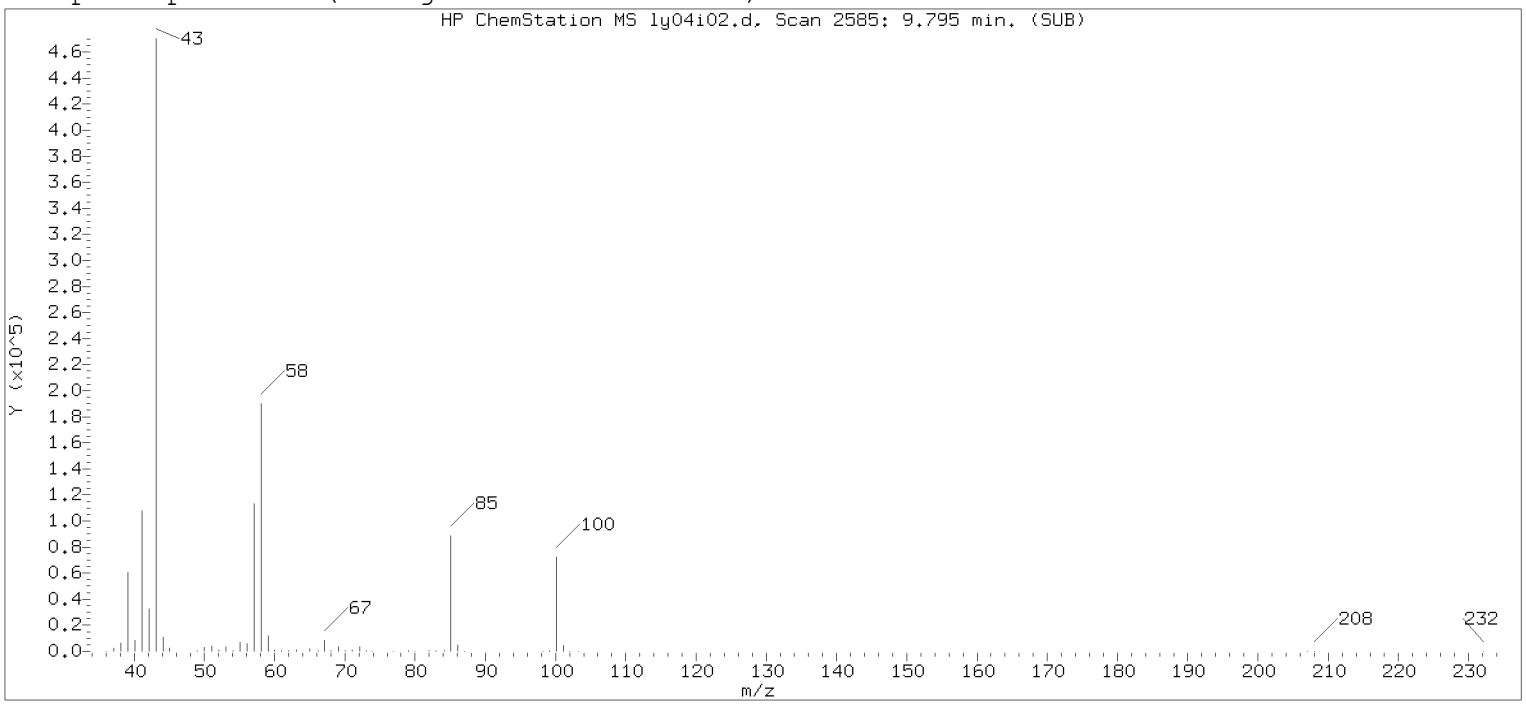
Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area (flag) : 2014827M
On-Column Amount (ng) : 206.5570
Integration start scan : 2565 Integration stop scan: 2635
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

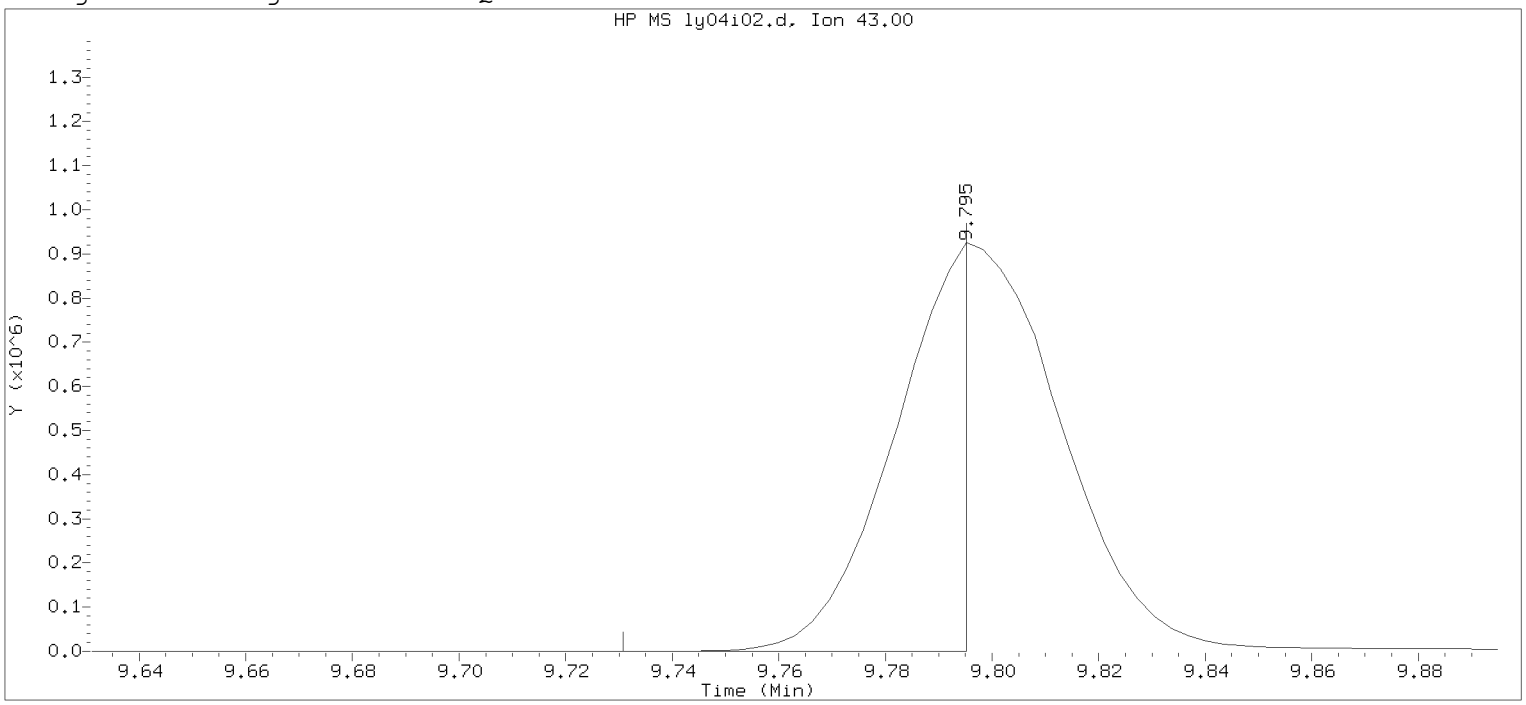
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 82
Compound Name : 4-Methyl-2-pentanone
Scan Number : 2585
Retention Time (minutes): 9.795
Quant Ion : 43.00
Area : 841283
On-column Amount (ng) : 116.9659
Integration start scan : 2564 Integration stop scan: 2584
Y at integration start : 188 Y at integration end: 188

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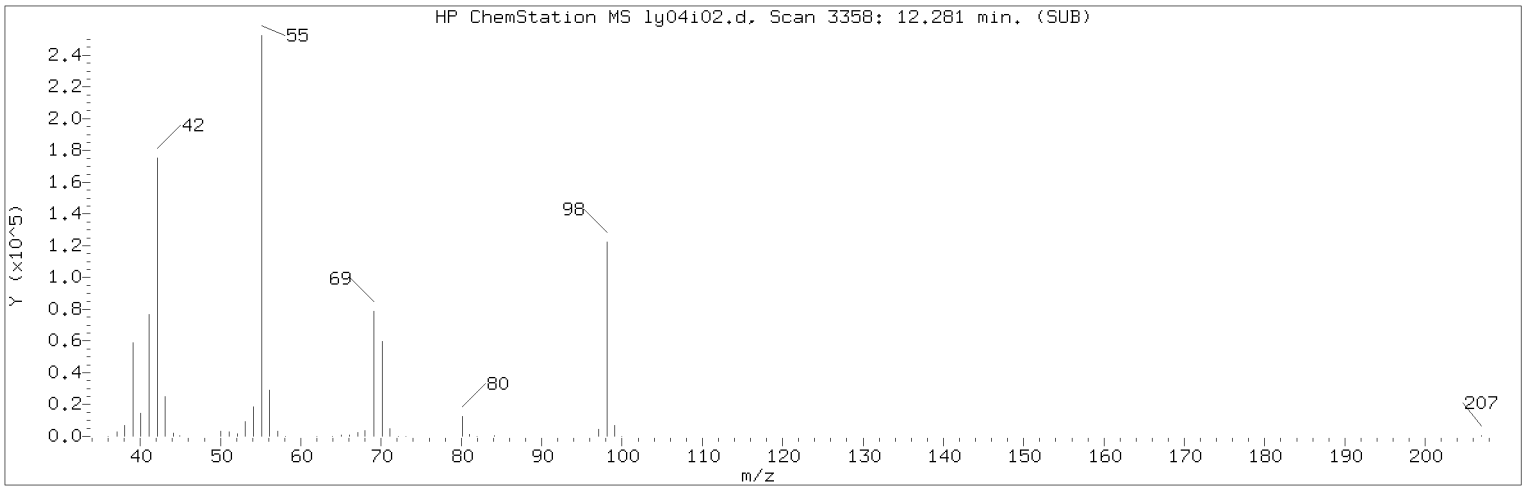
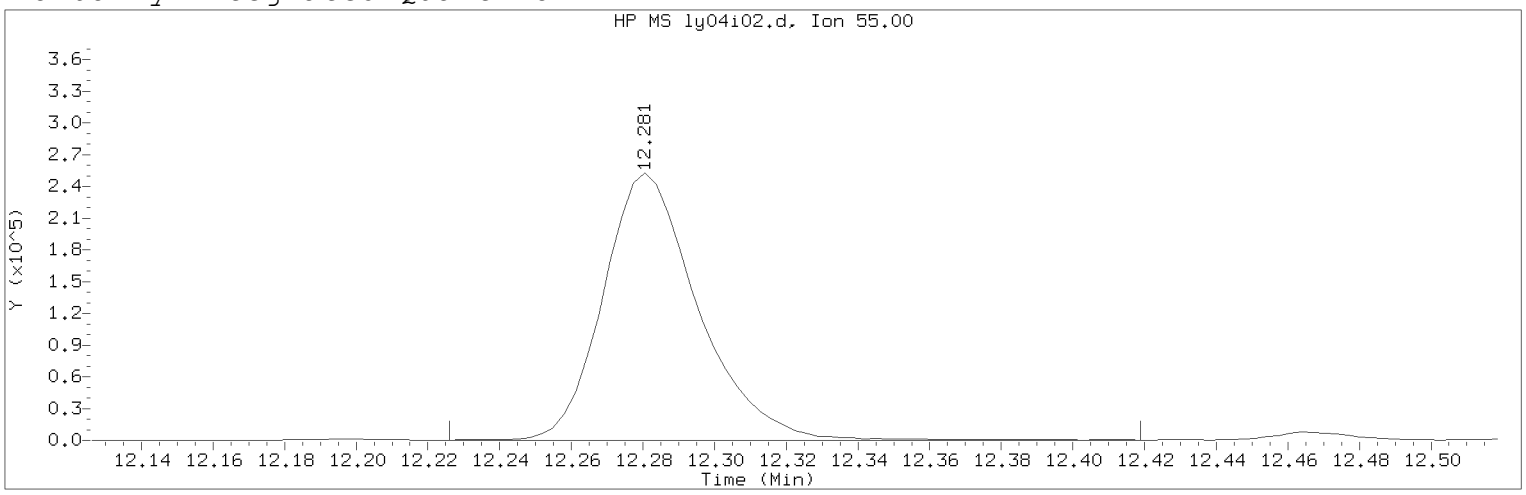
Target 3.5 esignature user ID: sejo0082

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

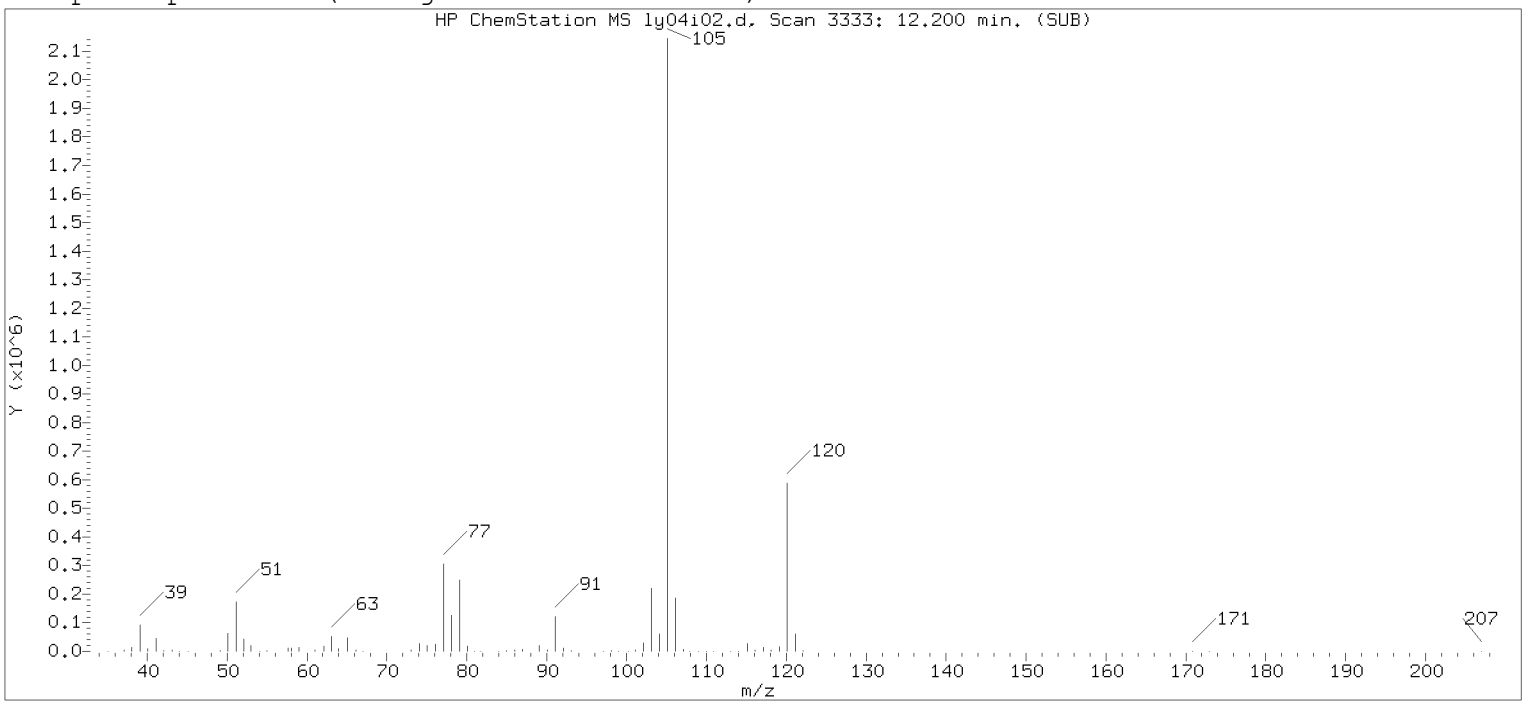
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 465460A
On-Column Amount (ng) : 1367.1245
Integration start scan : 3340 Integration stop scan: 3400
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

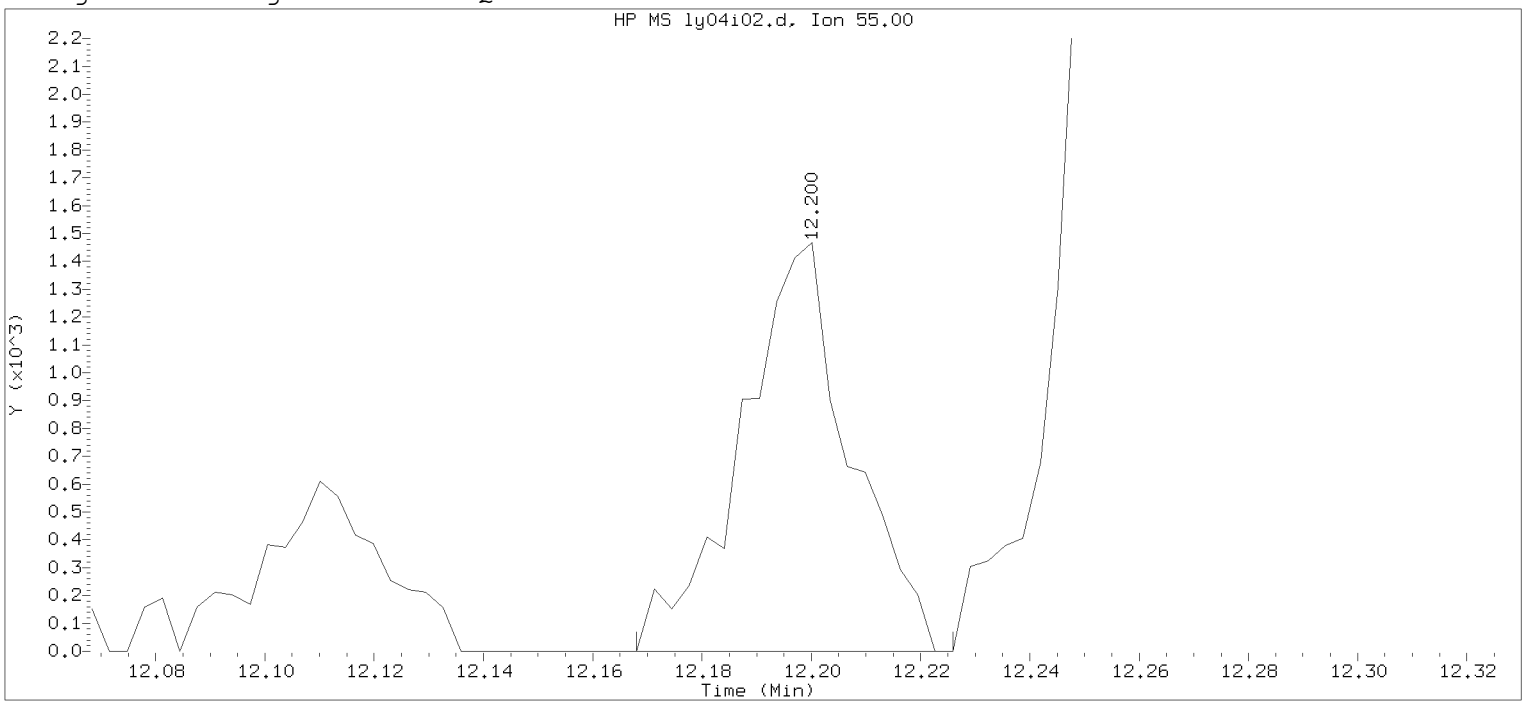
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3333
Retention Time (minutes): 12.200
Quant Ion : 55.00
Area : 2031
On-column Amount (ng) : 1278.2054
Integration start scan : 3322 Integration stop scan: 3340
Y at integration start : 0 Y at integration end: 0

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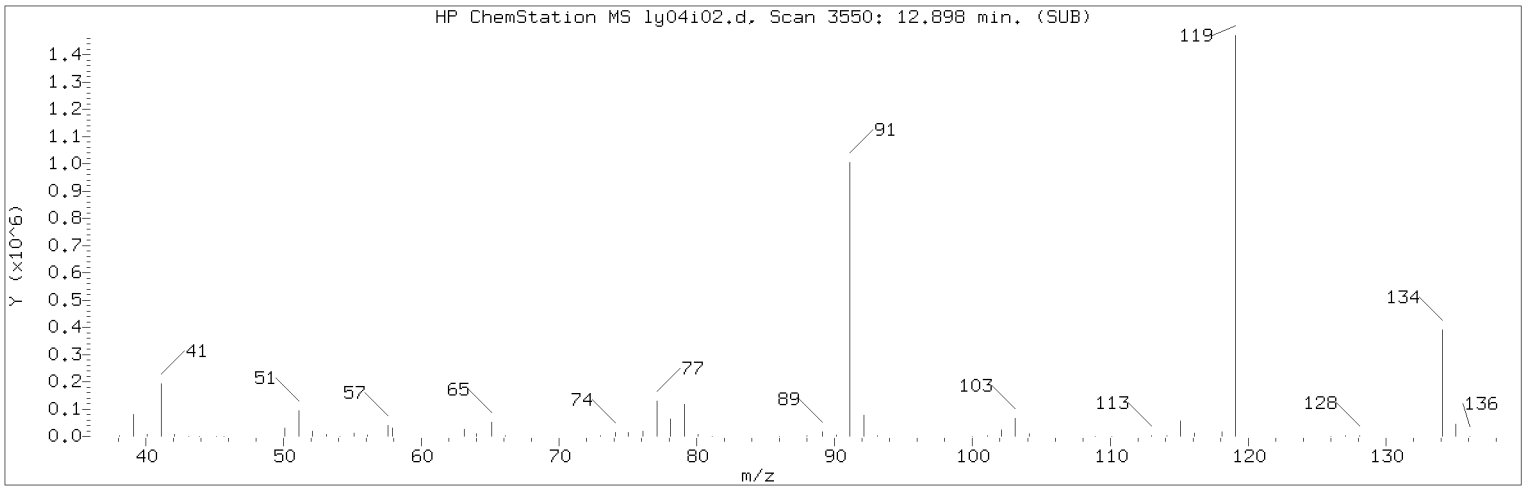
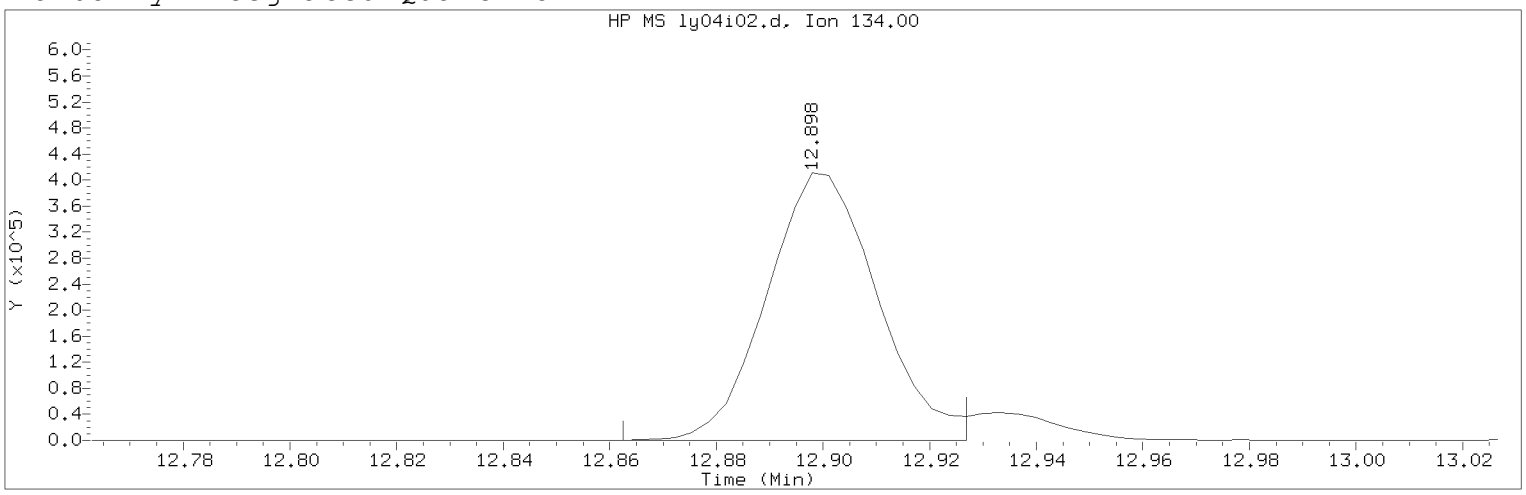
Target 3.5 esignature user ID: sejo0085

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD100 Lab Sample ID: VSTD100

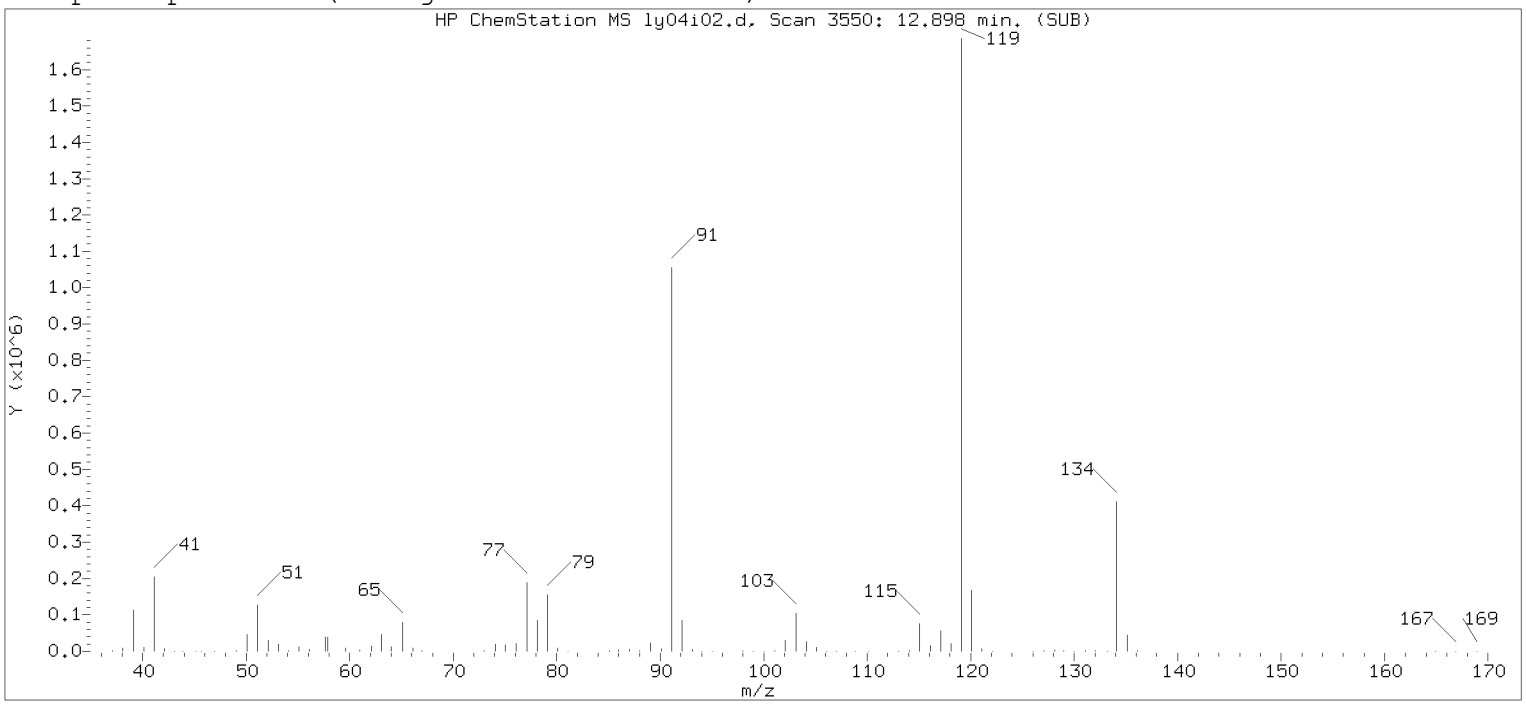
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 591495M
On-Column Amount (ng) : 108.6030
Integration start scan : 3538 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

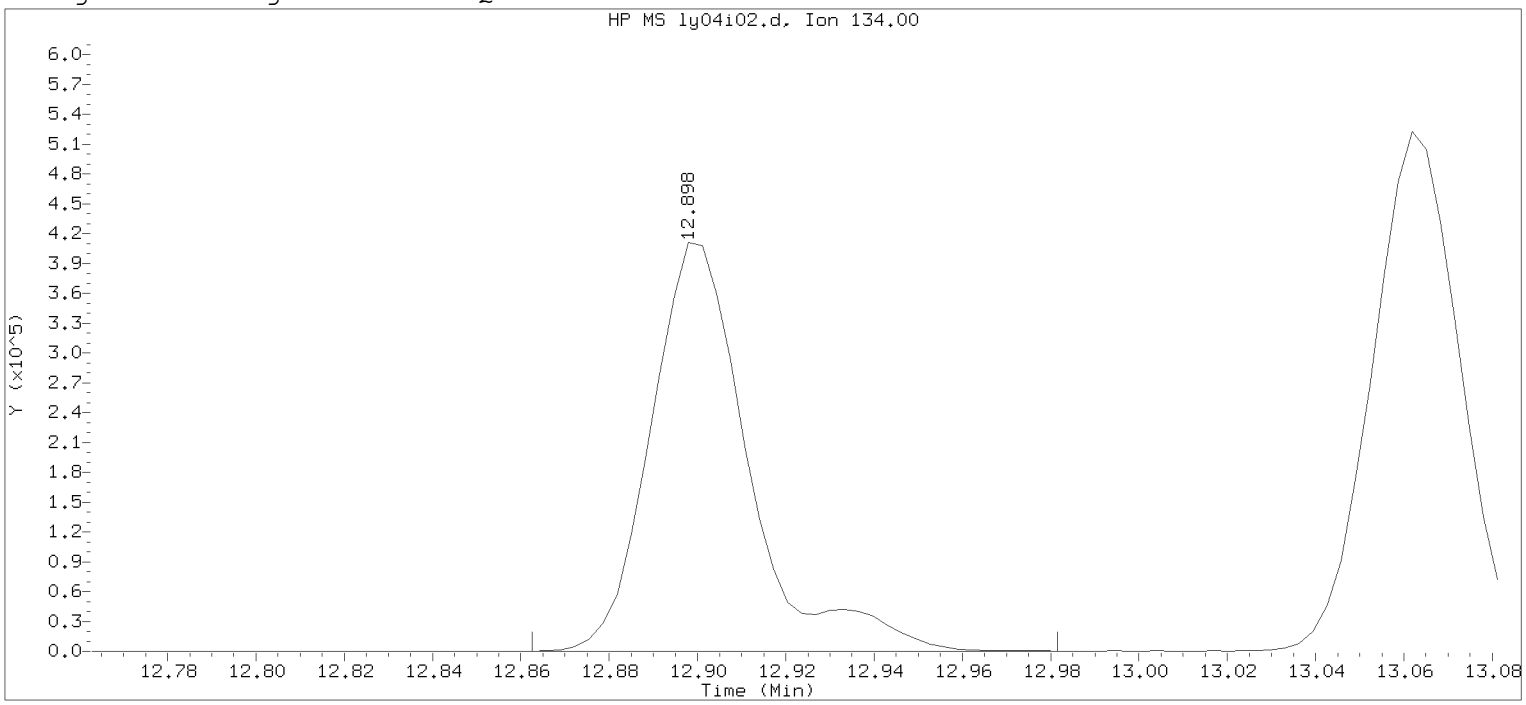
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i02.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 12:40 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD100 Lab Sample ID: VSTD100

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 636568
On-column Amount (ng) : 99.3867
Integration start scan : 3538 Integration stop scan: 3575
Y at integration start : 0 Y at integration end: 0

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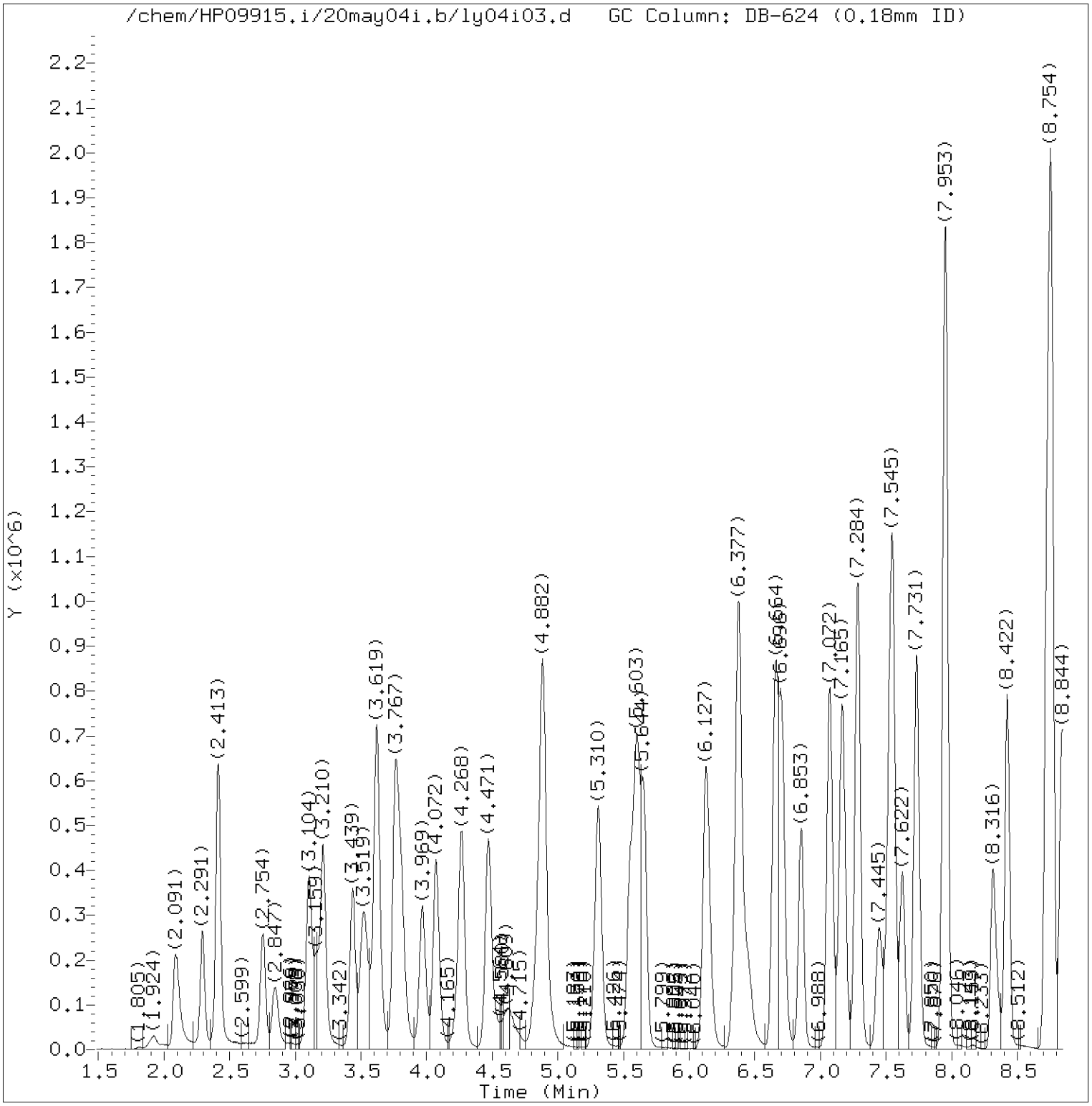
Target 3.5 esignature user ID: sejo0087



Total Ion Chromatogram (TIC)

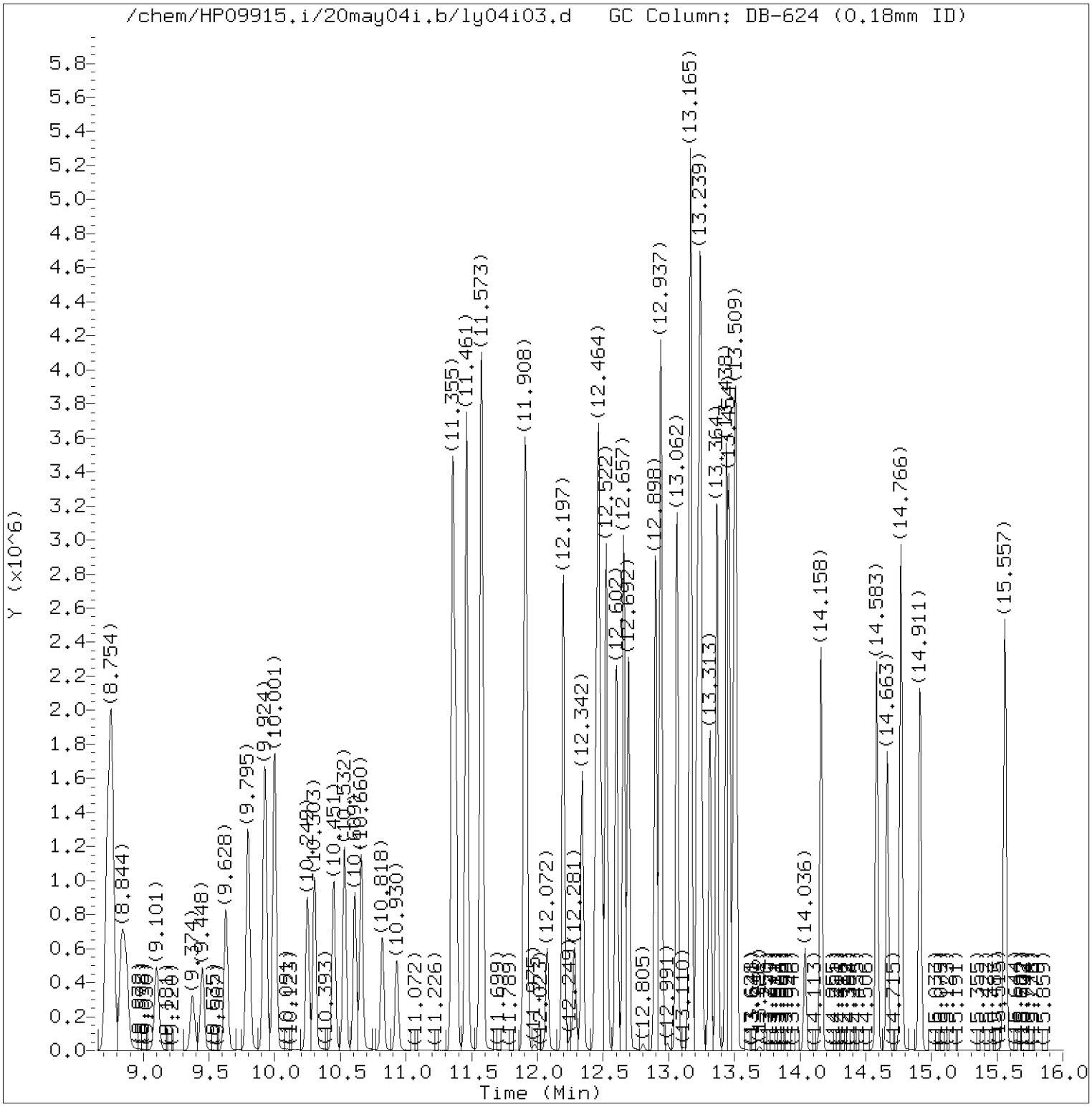
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	449709	49.088
4) Chloromethane	(2)	2.291	50	375424	43.891
5) 1,3-Butadiene	(2)	2.413	39	269470	49.108
6) Vinyl Chloride	(2)	2.416	62	380784	46.132
8) Bromomethane	(2)	2.754	94	257980	43.349
9) Chloroethane	(2)	2.847	64	206201	44.743
10) Dichlorofluoromethane	(2)	3.104	67	463748	46.651
12) Trichlorofluoromethane	(2)	3.159	101	441482	48.972
11) n-Pentane	(2)	3.214	43	444974	52.570
14) Ethyl ether	(2)	3.439	59	329703	51.759
15) Freon 123a	(2)	3.525	67	378614	51.840
16) Acrolein	(1)	3.622	56	1164434	467.232
17) 1,1-Dichloroethene	(2)	3.760	96	289094	50.285
17) 1,1-Dichloroethene	(2)	3.760	63	142043	51.876
19) Freon 113	(2)	3.796	101	315184	52.840
18) Acetone	(1)	3.799	58	99761	87.756
22) Methyl Iodide	(2)	3.966	142	569177	51.371
21) 2-Propanol	(1)	3.988	45	173097	238.907
23) Carbon Disulfide	(2)	4.072	76	1006416	51.990
27) Methyl Acetate	(2)	4.239	43	355334	48.460
25) Allyl Chloride	(2)	4.271	41	475545	51.041
28) Methylene Chloride	(2)	4.471	84	347199	50.768
29)*t-Butyl alcohol-d10	(1)	4.487	65	302938	250.000
30) t-Butyl alcohol	(1)	4.625	59	297512	243.263
31) Acrylonitrile	(2)	4.831	53	203235	50.035
33) Methyl Tertiary Butyl Ether	(2)	4.873	73	1020841	51.774
32) trans-1,2-Dichloroethene	(2)	4.889	96	334114	50.517
34) n-Hexane	(2)	5.307	57	535246	57.788
36) 1,1-Dichloroethane	(2)	5.548	63	597370	51.497
38) di-Isopropyl ether	(2)	5.603	45	1095502	53.697
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	508071	54.921
40) Ethyl t-butyl ether	(2)	6.127	59	1024536	54.049
43) 1,2-Dichloroethene (Total)	(2)		96	715832	101.982
44) 2-Butanone	(2)	6.358	43	495815	100.563
42) cis-1,2-Dichloroethene	(2)	6.374	96	381718	51.465
45) 2,2-Dichloropropane	(2)	6.387	77	472103	52.658
47) Propionitrile	(1)	6.448	54	403723	244.349
48) Methacrylonitrile	(2)	6.657	67	526393	129.265

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	193620	50.594
50) Tetrahydrofuran	(1)	6.718	71	137401	95.046
51) Chloroform	(2)	6.853	83	581531	51.313
52)$Dibromofluoromethane	(2)	7.065	113	337742	50.182
52)$Dibromofluoromethane	(2)	7.065	111	345243	50.181
53) 1,1,1-Trichloroethane	(2)	7.078	97	506155	52.059
54) Cyclohexane	(2)	7.168	56	624004	57.334
54) Cyclohexane	(2)	7.165	84	533866	56.195
54) Cyclohexane	(2)	7.165	69	188877	55.844
56) Carbon Tetrachloride	(2)	7.281	117	437519	53.709
55) 1,1-Dichloropropene	(2)	7.287	75	472822	53.050
58) Isobutyl Alcohol	(1)	7.451	41	250108	602.836
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85148	49.859
57)$1,2-Dichloroethane-d4	(2)	7.522	65	382006	50.393
57)$1,2-Dichloroethane-d4	(2)	7.519	104	54993	50.569
60) Benzene	(2)	7.551	78	1417699	51.384
61) 1,2-Dichloroethane	(2)	7.625	62	457945	49.515
61) 1,2-Dichloroethane	(2)	7.625	98	46267	51.337
65) t-Amyl methyl ether	(2)	7.731	73	1045355	53.982
66)*Fluorobenzene	(2)	7.950	96	1335958	50.000
67) n-Heptane	(2)	7.956	43	565094	58.670
69) n-Butanol	(1)	8.316	56	428273	1266.001
71) Trichloroethene	(2)	8.422	95	358732	51.381
72) Methylcyclohexane	(2)	8.725	83	626729	55.206
72) Methylcyclohexane	(2)	8.728	98	281181	54.759
73) 1,2-Dichloropropane	(2)	8.760	63	368890	51.892
76) Methyl Methacrylate	(2)	8.837	69	328320	53.714
75) 1,4-Dioxane	(1)	8.847	88	65798M	647.038
74) Dibromomethane	(2)	8.869	93	239968	51.616
78) Bromodichloromethane	(2)	9.098	83	440131	52.807
79) 2-Nitropropane	(2)	9.374	41	261718	104.730
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	266380	56.276
81) cis-1,3-Dichloropropene	(2)	9.628	75	590475	54.209
82) 4-Methyl-2-pentanone	(2)	9.795	43	1044729	104.635
83)$Toluene-d8	(3)	9.924	98	1380023	49.808
83)$Toluene-d8	(3)	9.924	100	895486	49.802
88) Toluene	(3)	10.001	92	903135	51.140
90) 1,3-Dichloropropene (total)	(3)		100	1132692	107.721

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	542217	53.511
91) Ethyl Methacrylate	(3)	10.303	69	572533	56.155
92) 1,1,2-Trichloroethane	(3)	10.451	97	346501	50.564
93) Tetrachloroethene	(3)	10.532	166	397309	52.791
94) 1,3-Dichloropropane	(3)	10.609	76	586078	51.142
96) 2-Hexanone	(3)	10.660	43	760412	102.687
97) Dibromochloromethane	(3)	10.818	129	383013	53.731
99) 1,2-Dibromoethane	(3)	10.930	107	383959	52.135
100)*Chlorobenzene-d5	(3)	11.355	117	1078517	50.000
101) 1-Chlorohexane	(3)	11.358	91	491546	54.389
102) Chlorobenzene	(3)	11.377	112	1030814	50.828
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	362258	52.691
104) Ethylbenzene	(3)	11.461	91	1746331	53.422
106) m+p-Xylene	(3)	11.573	106	1388438	108.099
108) Xylene (Total)	(3)		106	2065199	162.585
107) o-Xylene	(3)	11.901	106	676761	54.486
109) Styrene	(3)	11.917	104	1128029	55.843
110) Bromoform	(3)	12.075	173	280294	54.013
111) Isopropylbenzene	(3)	12.197	105	1789947	56.789
112) Cyclohexanone	(1)	12.281	55	250083A	660.677
114)$4-Bromofluorobenzene	(3)	12.342	95	526272	49.365
114)$4-Bromofluorobenzene	(3)	12.342	174	450419	49.280
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	560714M	50.510
115) Bromobenzene	(4)	12.461	156	457863	51.384
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	418508	129.599
117) 1,2,3-Trichloropropane	(4)	12.490	110	172280	50.814
119) n-Propylbenzene	(4)	12.522	91	2099925	54.527
120) 2-Chlorotoluene	(4)	12.602	126	437402	53.162
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	1557090	55.955
121) 4-Chlorotoluene	(4)	12.692	126	448224	52.488
124) tert-Butylbenzene	(4)	12.898	134	327078M	57.179
125) Pentachloroethane	(4)	12.933	167	270606	53.266
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1620529	56.323
127) sec-Butylbenzene	(4)	13.062	105	2000977	59.058
129) 1,3-Dichlorobenzene	(4)	13.162	146	872418	52.540
130) p-Isopropyltoluene	(4)	13.168	119	1736247	59.805
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	608929	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	899651	51.624

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	1557265	52.092
135)	Benzyl Chloride	(4)	13.313	91	1236236	54.653
136)	1,3-Diethylbenzene	(4)	13.367	119	991545	53.007
141)	Diethylbenzene (total)	(4)		100	2872948	158.754
137)	1,4-Diethylbenzene	(4)	13.438	119	1045337	53.389
139)	n-Butylbenzene	(4)	13.458	92	856054	57.392
138)	1,2-Dichlorobenzene	(4)	13.496	146	862079	51.582
140)	1,2-Diethylbenzene	(4)	13.512	119	836066	52.358
142)	1,2-Dibromo-3-chloropropane	(4)	14.036	75	128904	52.462
144)	1,3,5-Trichlorobenzene	(4)	14.158	180	690748	54.865
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	653918	55.579
147)	Hexachlorobutadiene	(4)	14.663	225	301933	55.629
148)	Naphthalene	(4)	14.766	128	2178912	57.212
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	643443	55.036
150)	2-Methylnaphthalene	(4)	15.560	142	1255729	47.626

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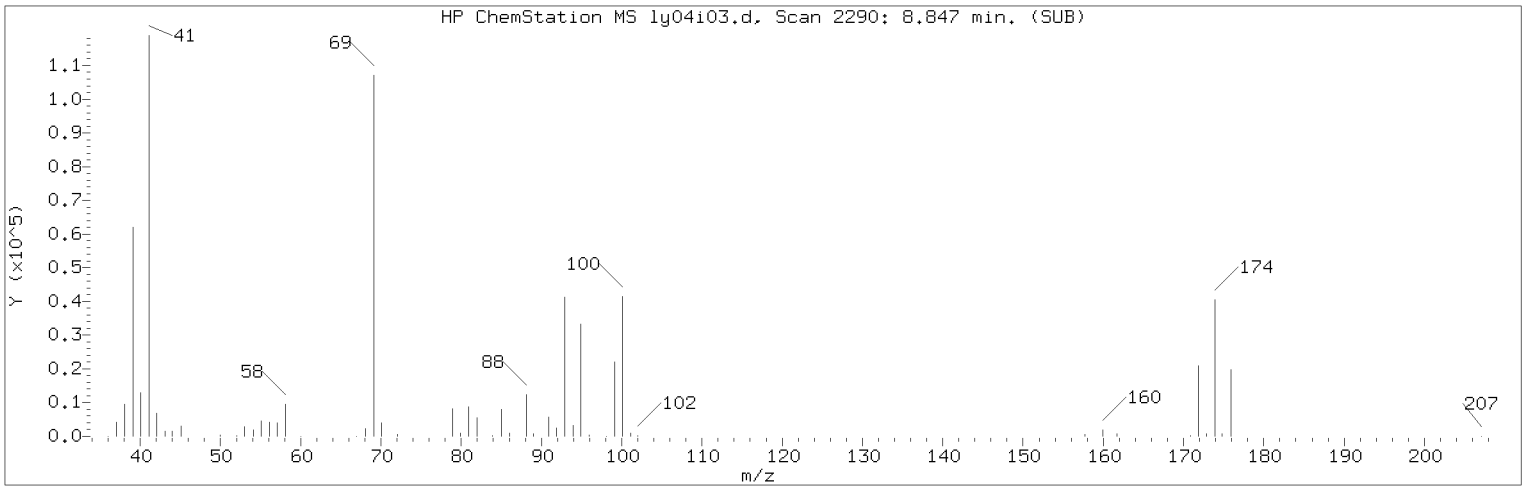
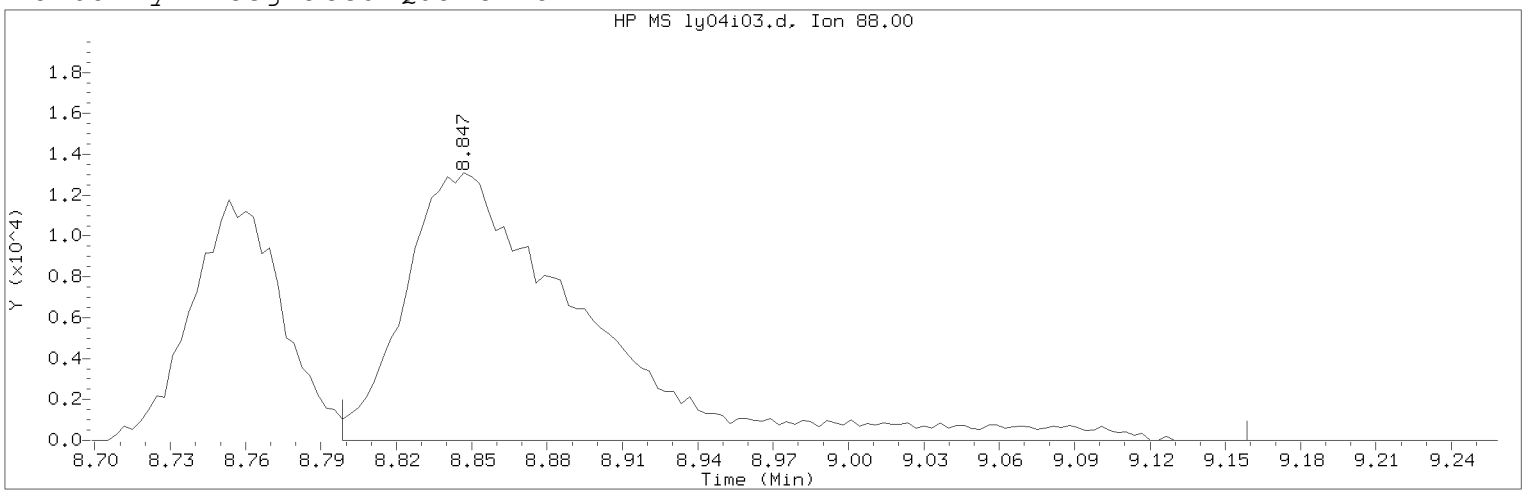
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

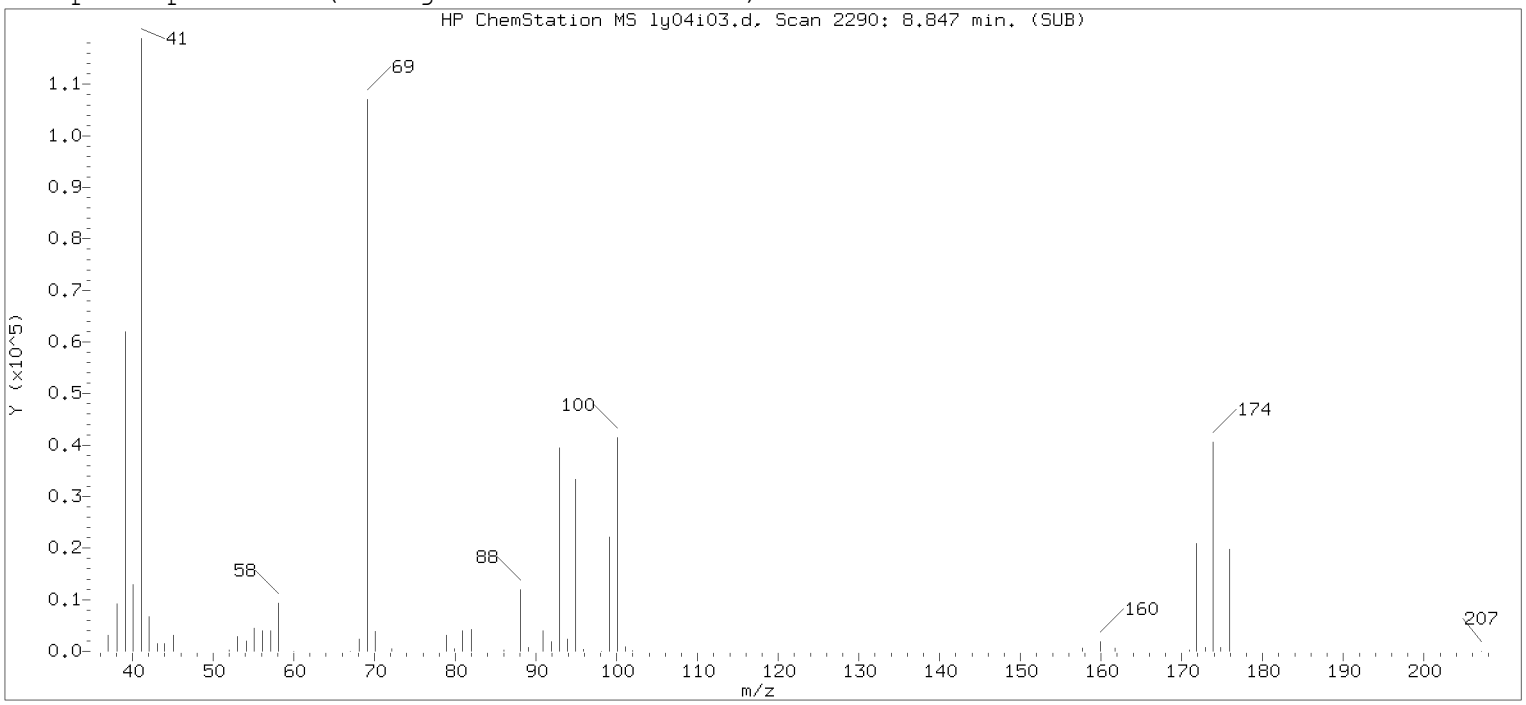
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area (flag) : 65798M
On-Column Amount (ng) : 647.0377
Integration start scan : 2274 Integration stop scan: 2386
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

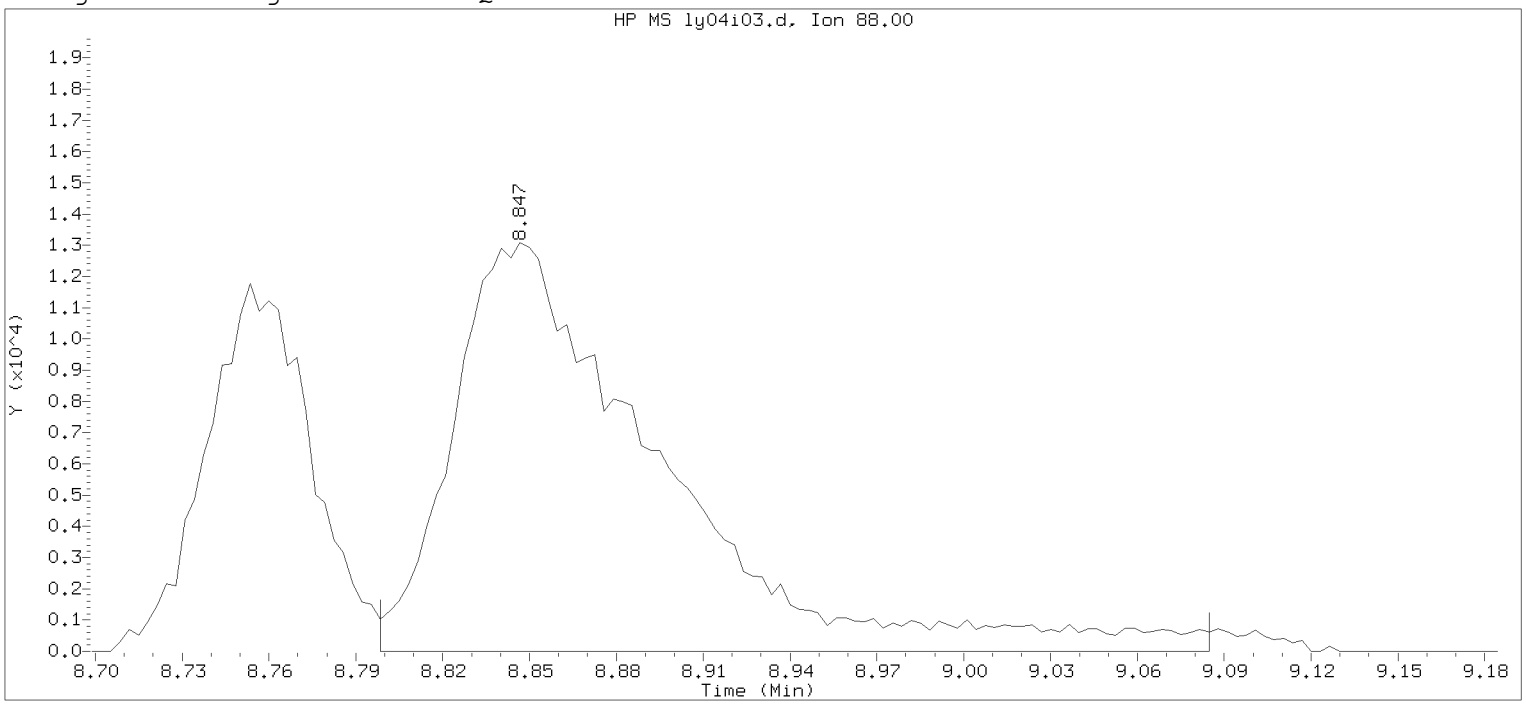
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

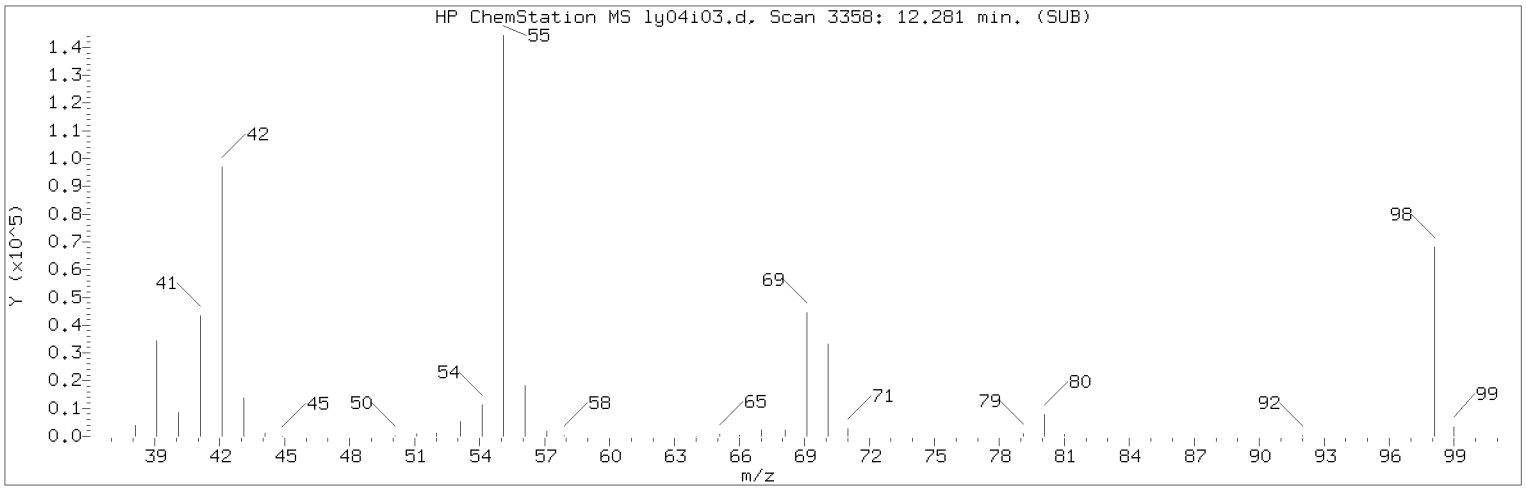
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

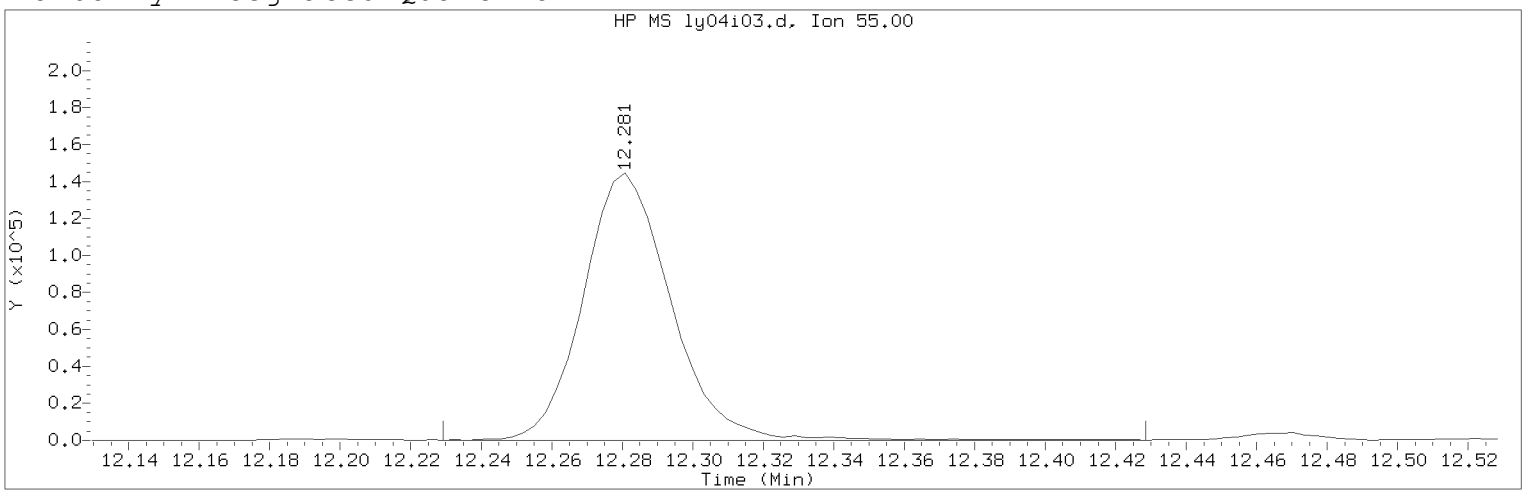
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2290
Retention Time (minutes): 8.847
Quant Ion : 88.00
Area : 64664
On-column Amount (ng) : 618.7368
Integration start scan : 2274 Integration stop scan: 2363
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0095

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

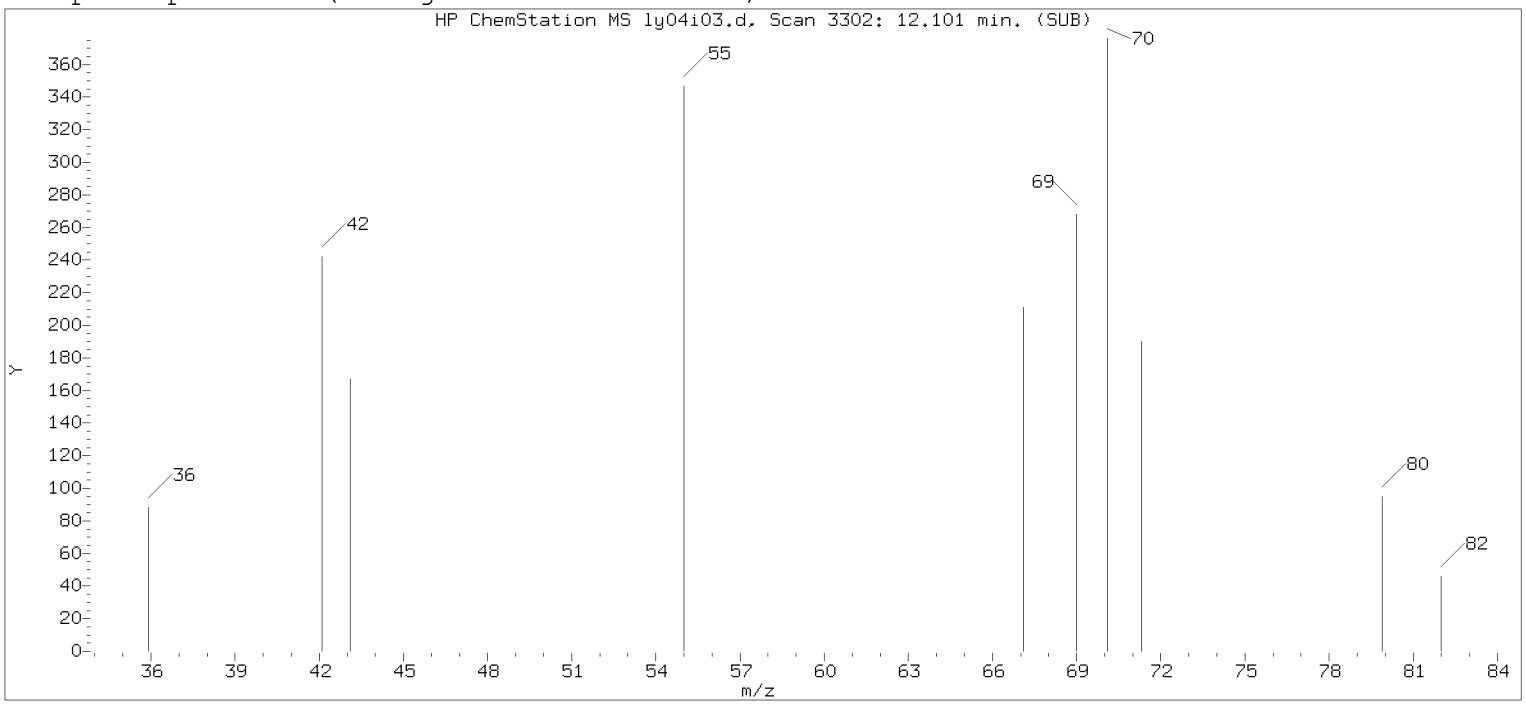
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 250083A
On-Column Amount (ng) : 660.6769
Integration start scan : 3341 Integration stop scan: 3403
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

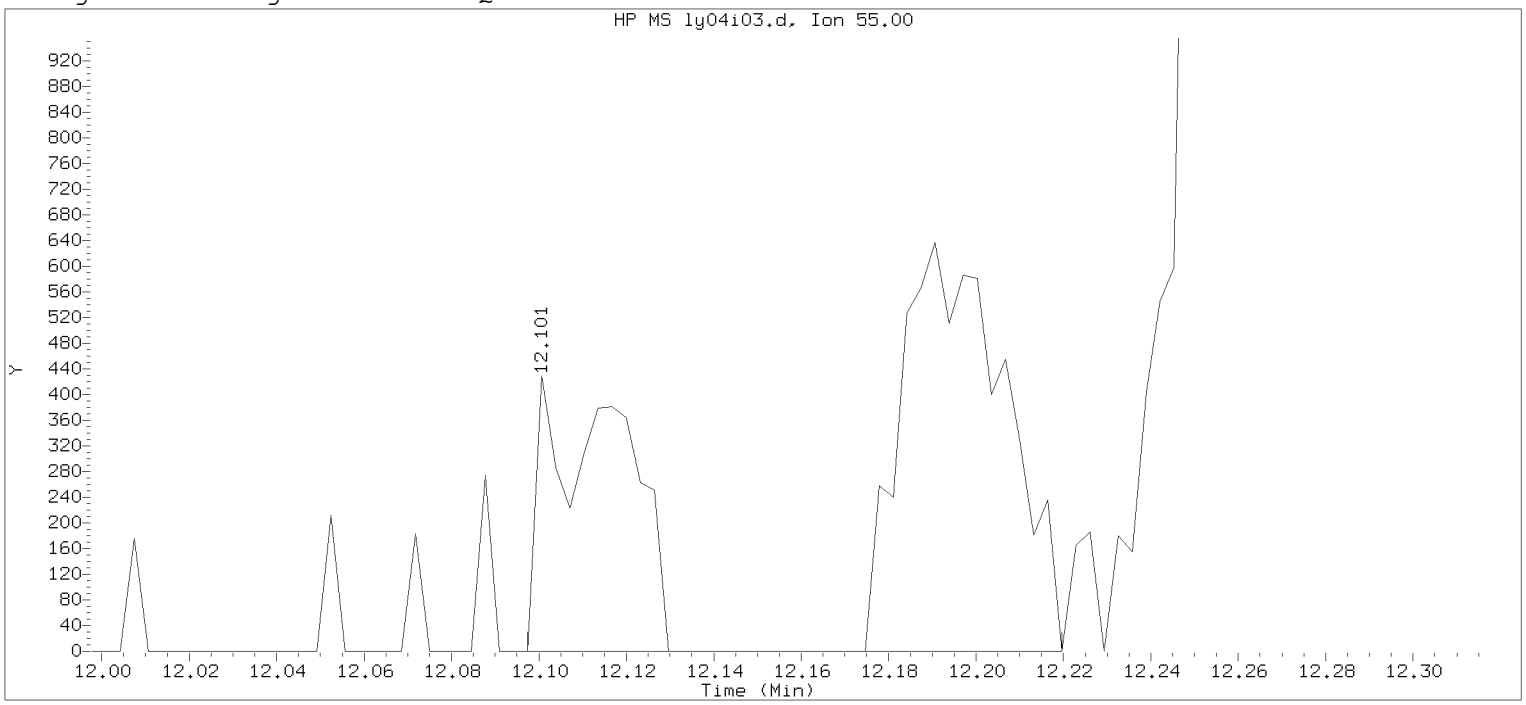
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3302
Retention Time (minutes): 12.101
Quant Ion : 55.00
Area : 1618
On-column Amount (ng) : 793.0477
Integration start scan : 3300 Integration stop scan: 3338
Y at integration start : 0 Y at integration end: 0

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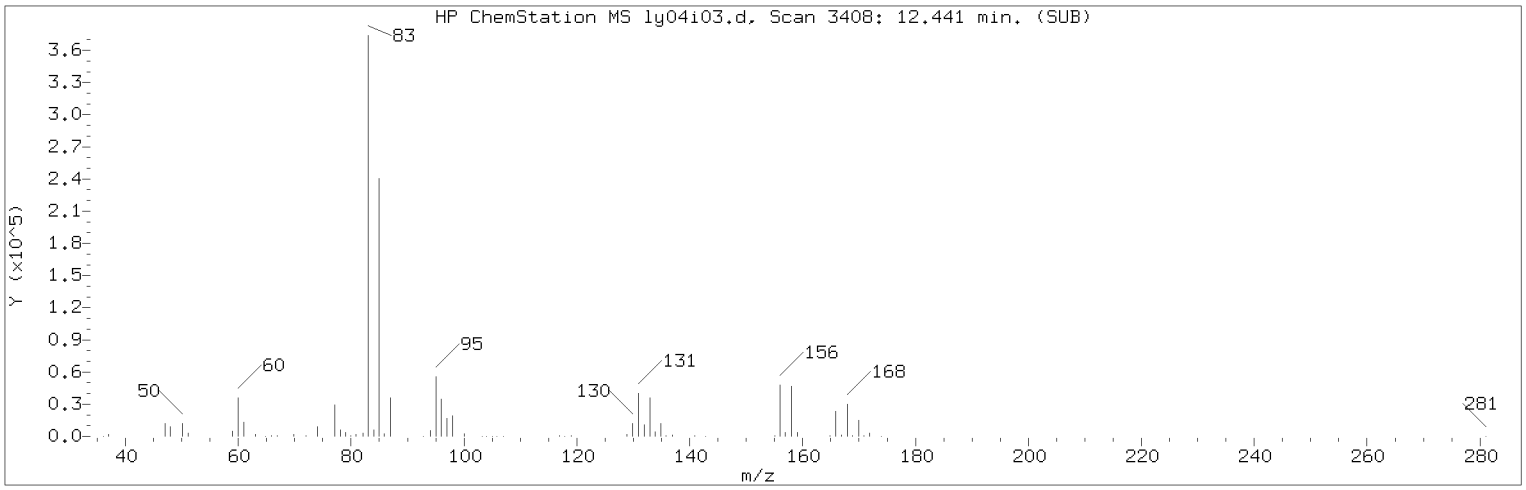
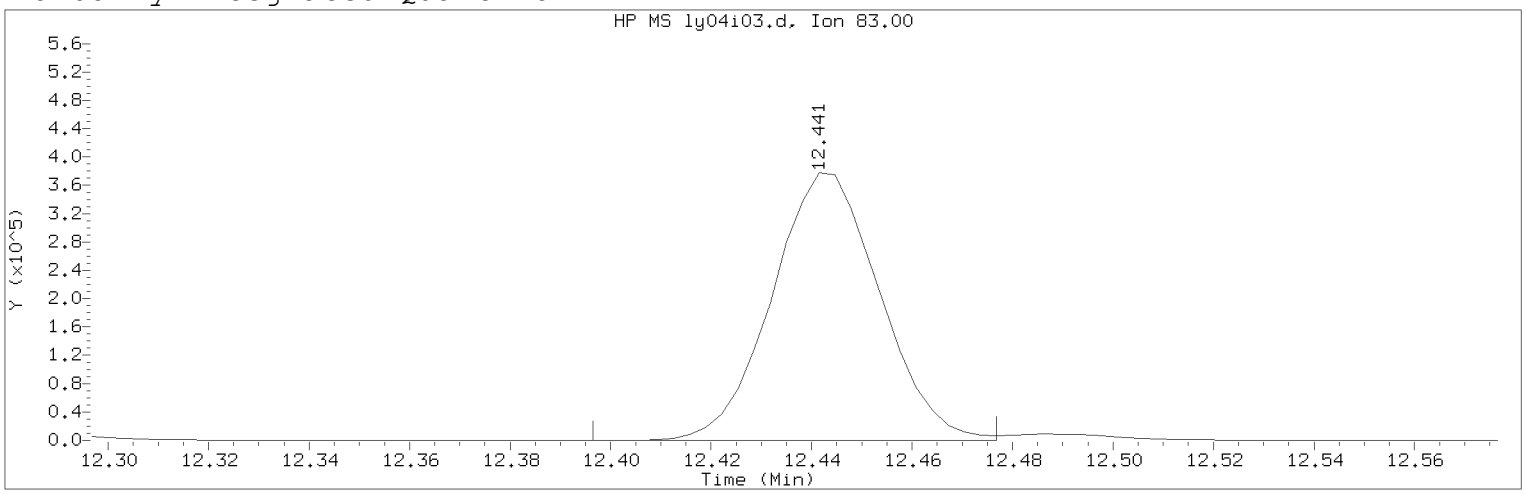
Target 3.5 esignature user ID: sejo0097

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

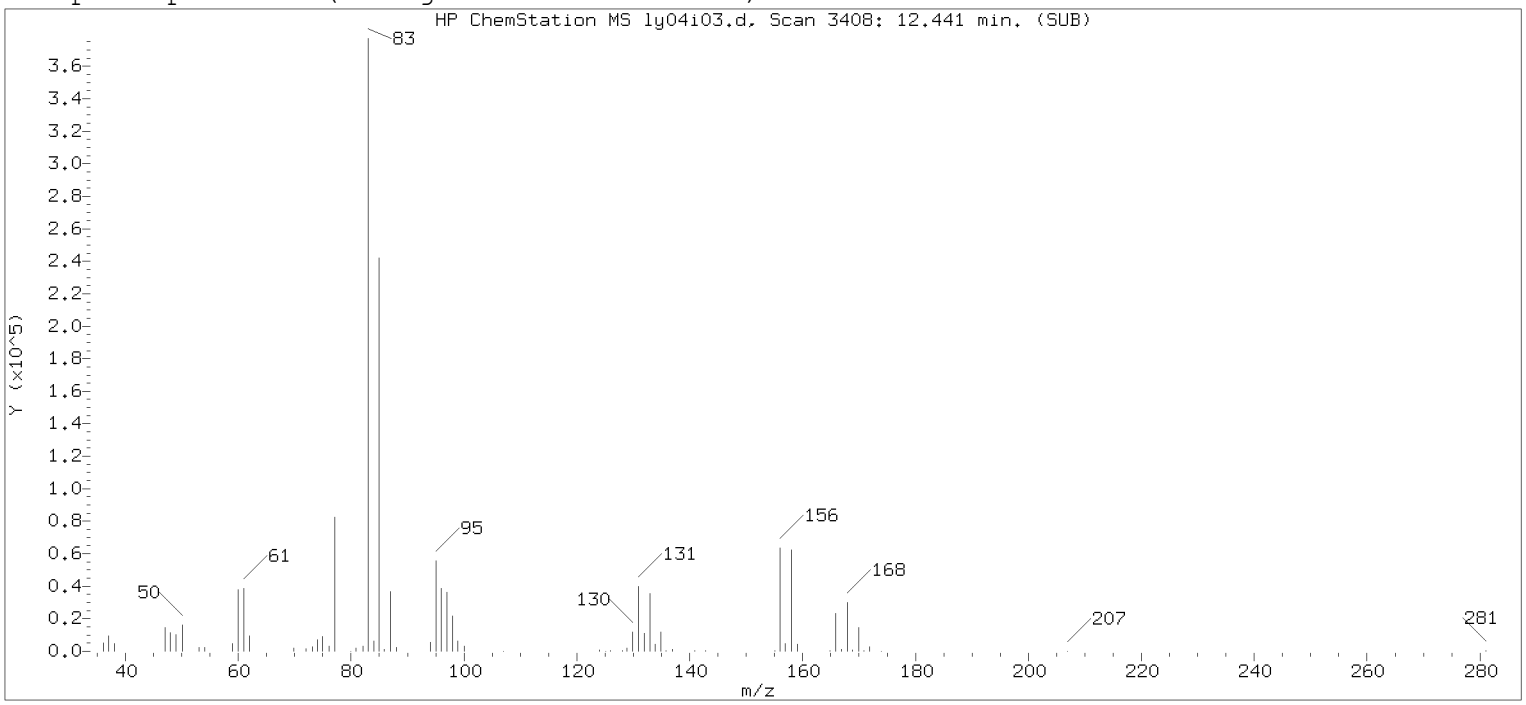
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 560714M
On-Column Amount (ng) : 50.5096
Integration start scan : 3393 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

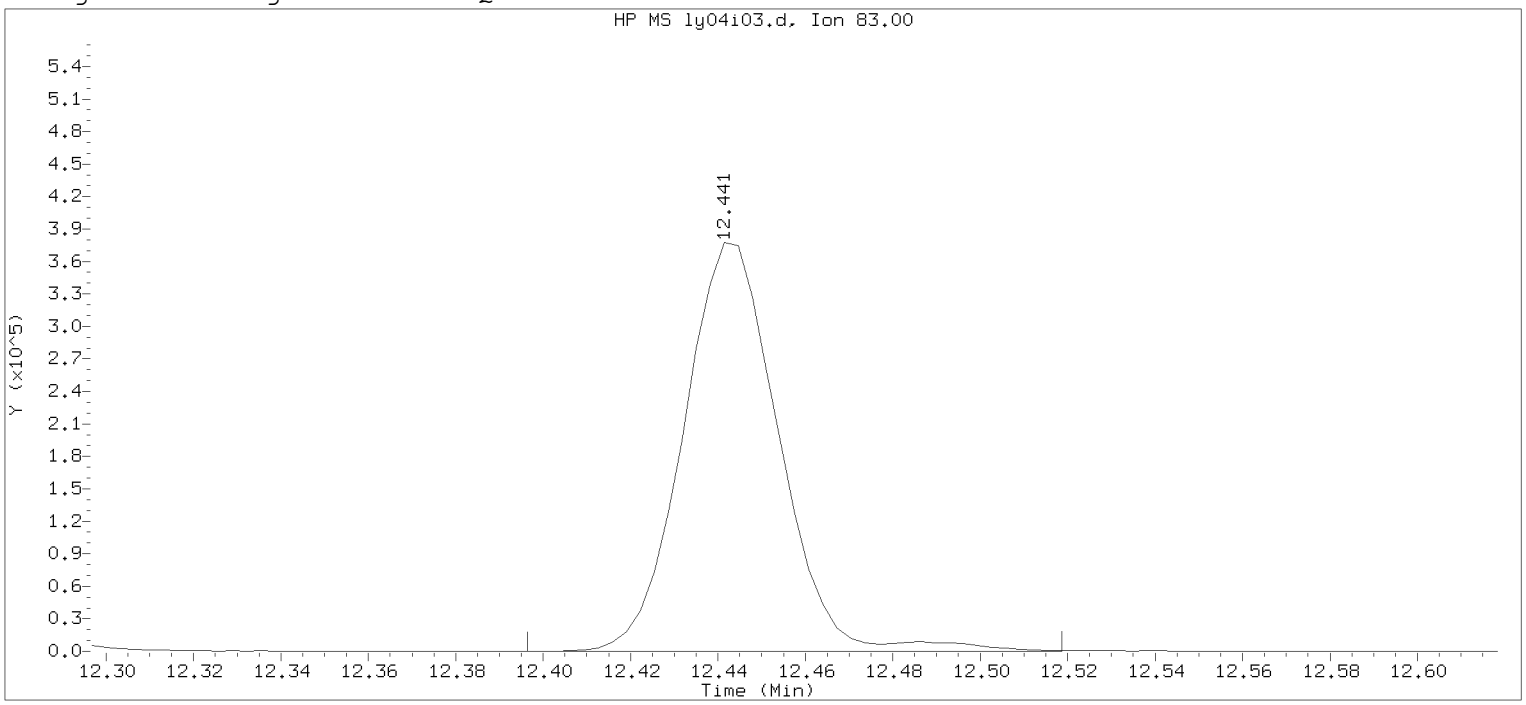
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 572715
On-column Amount (ng) : 51.1549
Integration start scan : 3393 Integration stop scan: 3431
Y at integration start : 0 Y at integration end: 0

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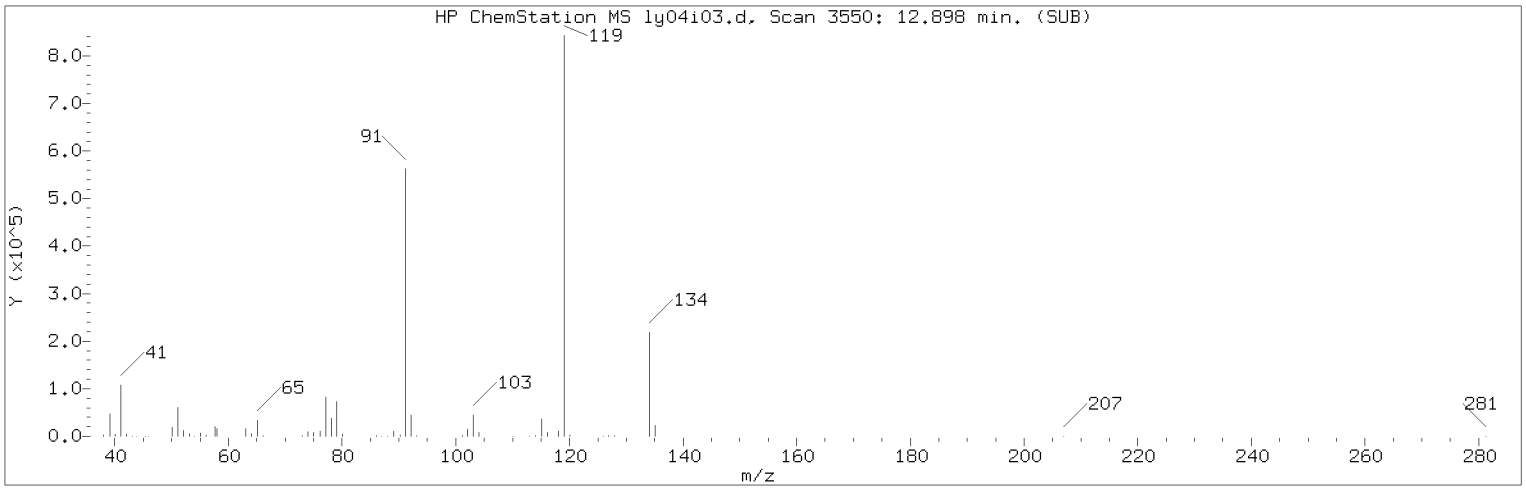
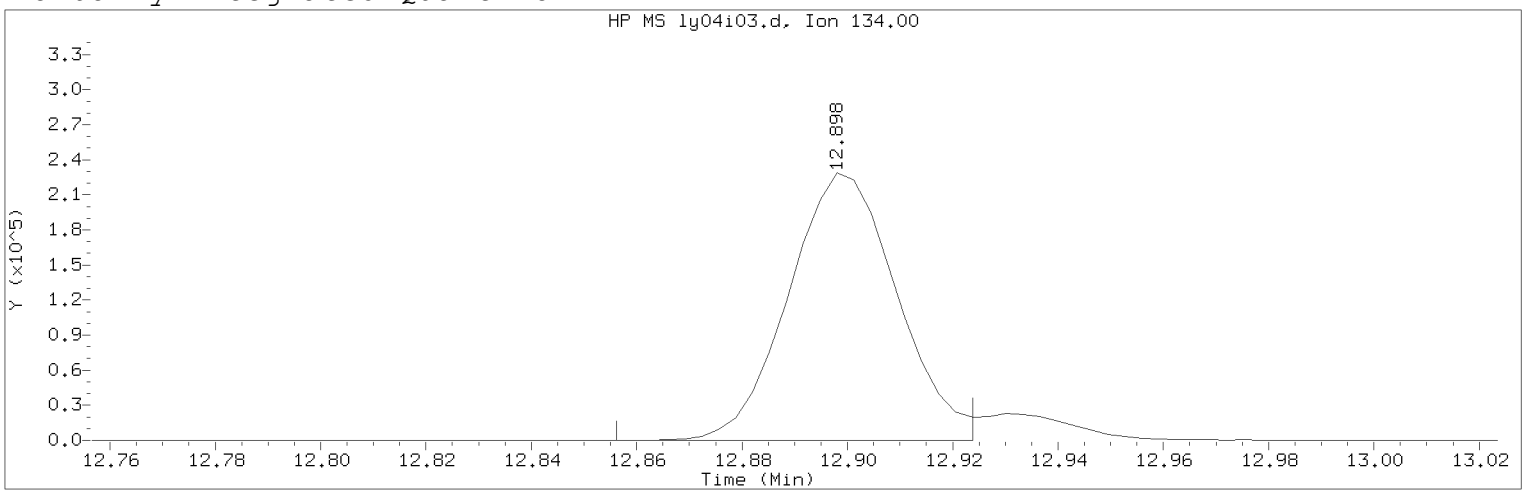
Target 3.5 esignature user ID: sejoh2020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

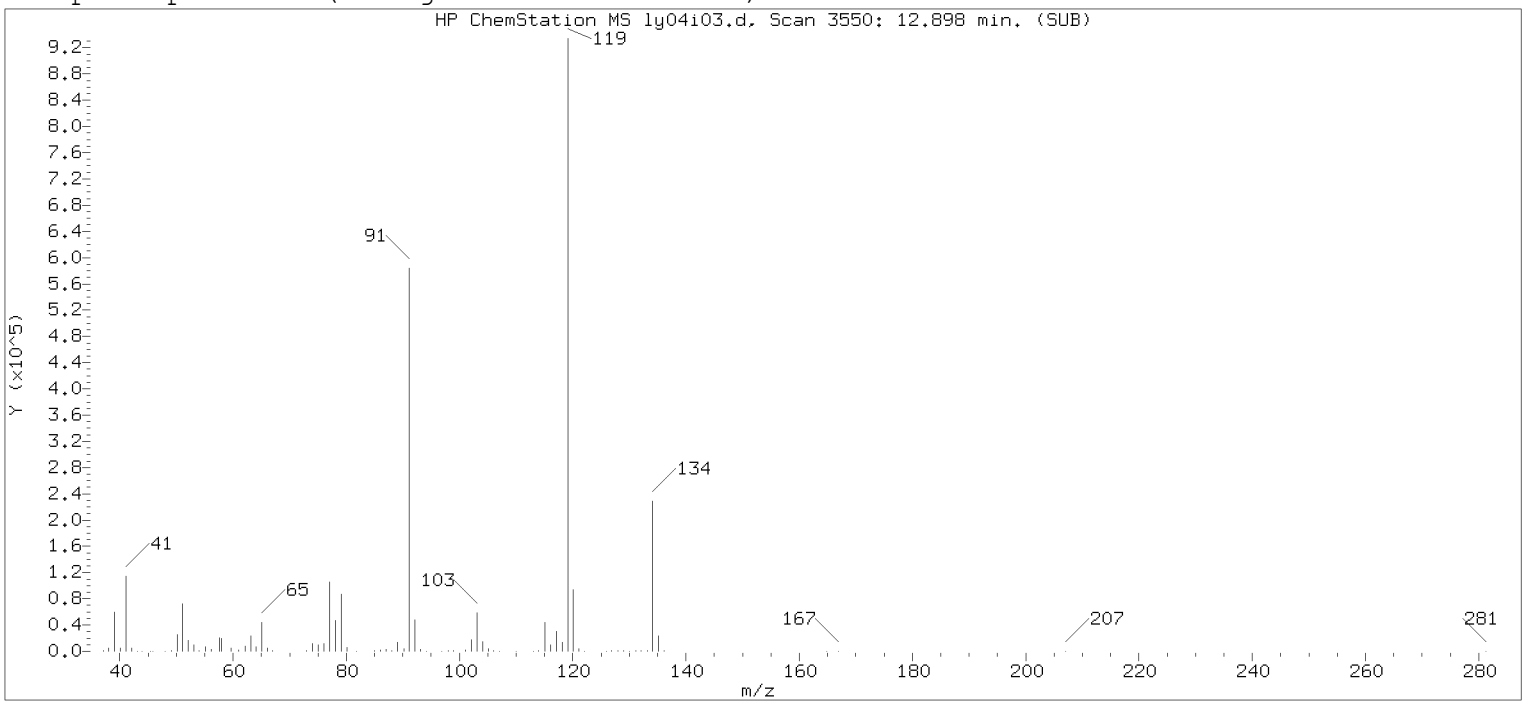
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 327078M
On-Column Amount (ng) : 57.1794
Integration start scan : 3536 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

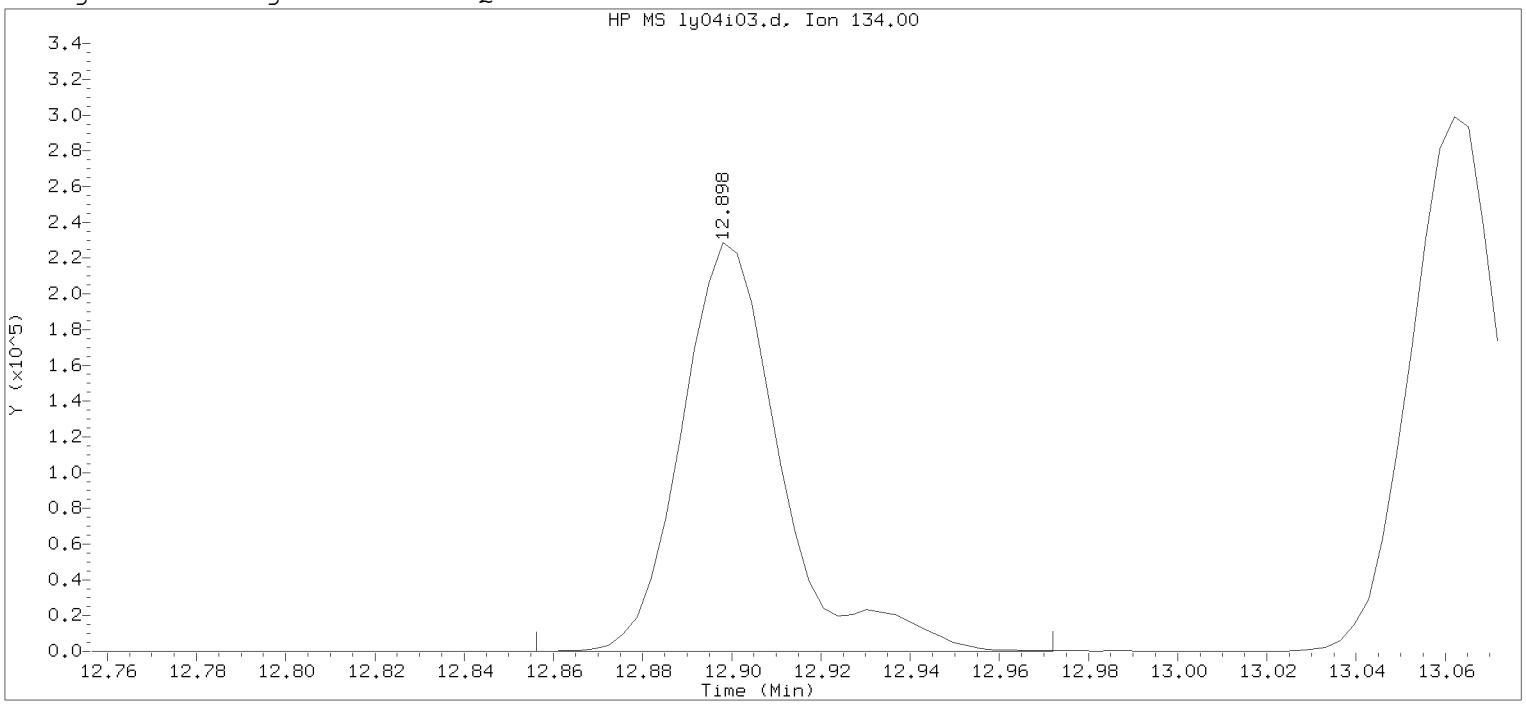
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



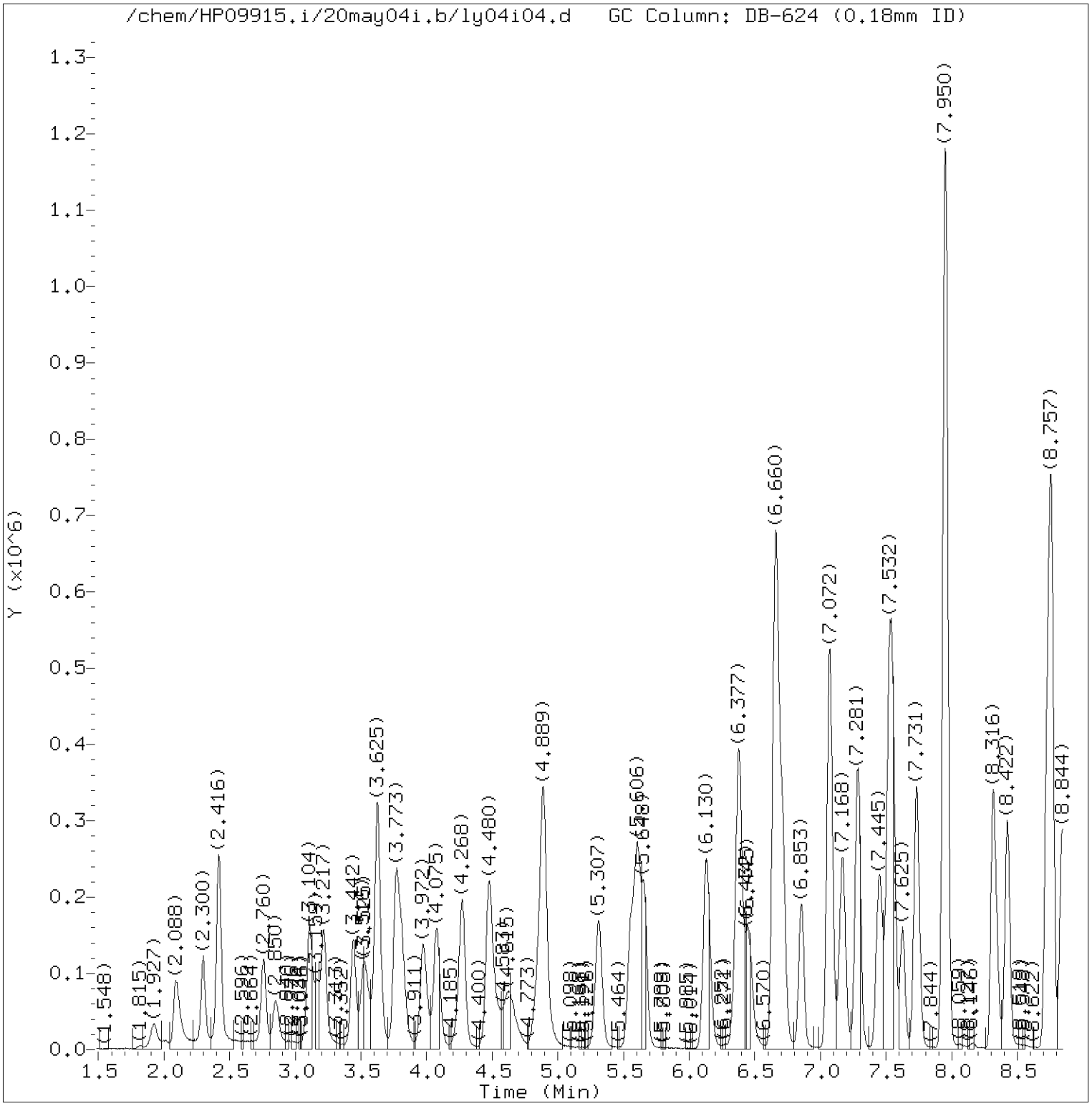
Data File: /chem/HP09915.i/20may04i.b/ly04i03.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:02 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:31
Date, time and analyst ID of latest file update: 04-May-2020 13:31 lcp00895

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 353406
On-column Amount (ng) : 51.6624
Integration start scan : 3536 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002



Total Ion Chromatogram (TIC)

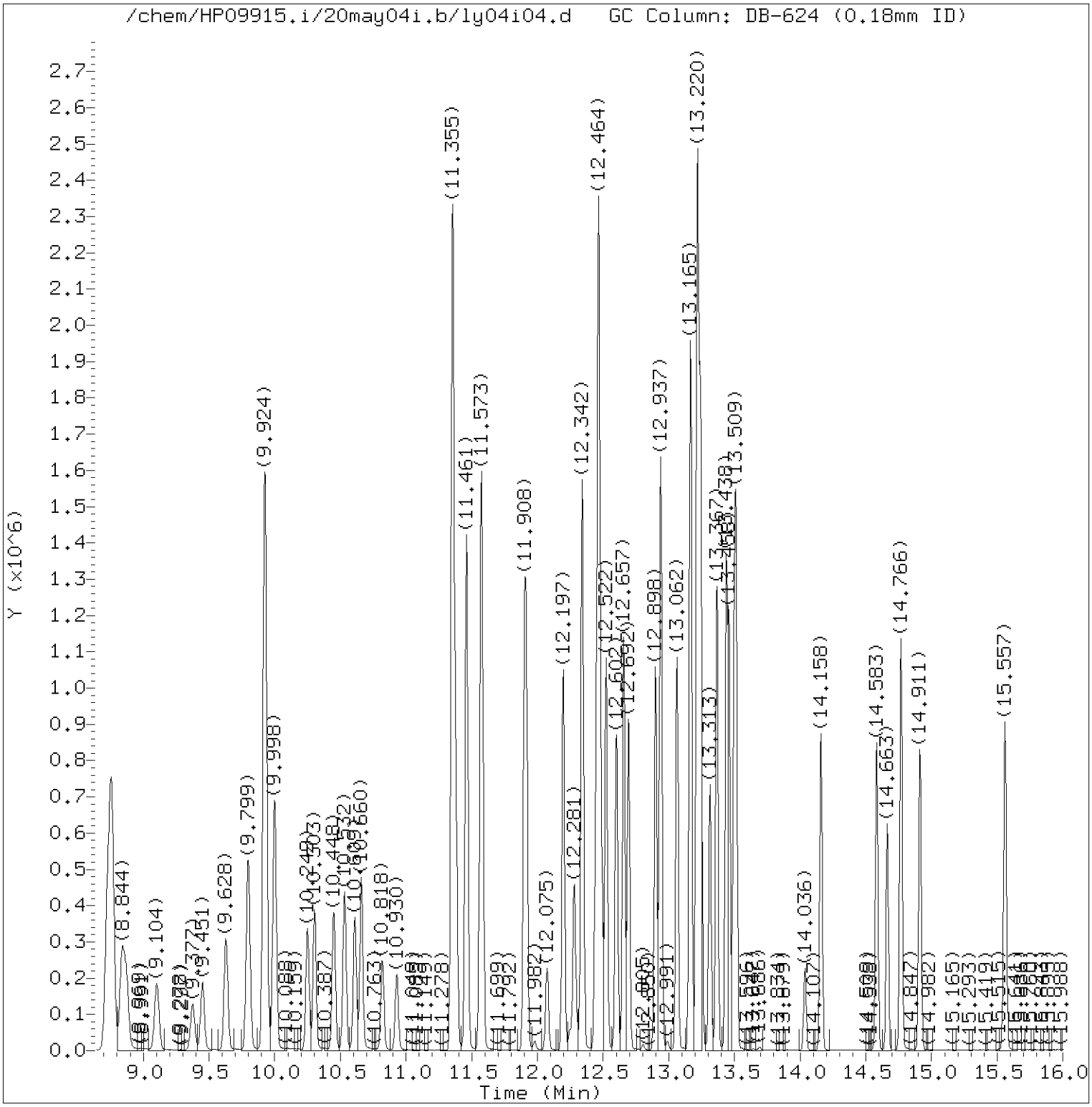
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.098	85	182493	20.678
4) Chloromethane	(2)	2.297	50	160528	19.482
5) 1,3-Butadiene	(2)	2.413	39	98295	18.595
6) Vinyl Chloride	(2)	2.416	62	157383	19.793
8) Bromomethane	(2)	2.760	94	111396	19.431
9) Chloroethane	(2)	2.847	64	85384	19.233
10) Dichlorofluoromethane	(2)	3.104	67	183563	19.169
12) Trichlorofluoromethane	(2)	3.169	101	173142	19.937
11) n-Pentane	(2)	3.217	43	144840	17.763
14) Ethyl ether	(2)	3.445	59	128448	20.932
15) Freon 123a	(2)	3.525	67	138710	19.715
16) Acrolein	(1)	3.625	56	491814	208.981
17) 1,1-Dichloroethene	(2)	3.763	96	106805	19.285
17) 1,1-Dichloroethene	(2)	3.763	63	52324	19.837
19) Freon 113	(2)	3.792	101	104838	18.245
18) Acetone	(1)	3.808	58	42345	39.446
22) Methyl Iodide	(2)	3.972	142	216364	20.271
21) 2-Propanol	(1)	3.992	45	139861	204.421
23) Carbon Disulfide	(2)	4.075	76	373129	20.009
27) Methyl Acetate	(2)	4.246	43	141236	19.995
25) Allyl Chloride	(2)	4.275	41	185201	20.635
28) Methylene Chloride	(2)	4.477	84	132592	20.126
29)*t-Butyl alcohol-d10	(1)	4.500	65	286065	250.000
30) t-Butyl alcohol	(1)	4.625	59	239168	207.092
31) Acrylonitrile	(2)	4.841	53	81905	20.932
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	397874	20.947
32) trans-1,2-Dichloroethene	(2)	4.889	96	127981	20.087
34) n-Hexane	(2)	5.310	57	161671	18.119
36) 1,1-Dichloroethane	(2)	5.554	63	227789	20.384
38) di-Isopropyl ether	(2)	5.603	45	414045	21.067
39) 2-Chloro-1,3-butadiene	(2)	5.657	53	182122	20.436
40) Ethyl t-butyl ether	(2)	6.130	59	388621	21.282
43) 1,2-Dichloroethene (Total)	(2)		96	274584	40.605
44) 2-Butanone	(2)	6.358	43	198595	41.813
42) cis-1,2-Dichloroethene	(2)	6.374	96	146603	20.518
45) 2,2-Dichloropropane	(2)	6.394	77	174795	20.239
47) Propionitrile	(1)	6.451	54	319787	204.964
48) Methacrylonitrile	(2)	6.660	67	415491	105.915

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.705	128	75830	20.569
50) Tetrahydrofuran	(1)	6.709	71	55239	40.465
51) Chloroform	(2)	6.853	83	221887	20.324
52)$Dibromofluoromethane	(2)	7.069	113	324872	50.107
52)$Dibromofluoromethane	(2)	7.069	111	330761	49.906
53) 1,1,1-Trichloroethane	(2)	7.072	97	185712	19.828
54) Cyclohexane	(2)	7.168	56	195002	18.599
54) Cyclohexane	(2)	7.165	84	167123	18.261
54) Cyclohexane	(2)	7.168	69	59506	18.264
56) Carbon Tetrachloride	(2)	7.284	117	152394	19.420
55) 1,1-Dichloropropene	(2)	7.287	75	170572	19.866
58) Isobutyl Alcohol	(1)	7.451	41	199593	509.455
57)$1,2-Dichloroethane-d4	(2)	7.519	102	82752	50.300
57)$1,2-Dichloroethane-d4	(2)	7.519	65	365637	50.070
57)$1,2-Dichloroethane-d4	(2)	7.522	104	51858	49.502
60) Benzene	(2)	7.551	78	543226	20.439
61) 1,2-Dichloroethane	(2)	7.625	62	178307	20.013
61) 1,2-Dichloroethane	(2)	7.625	98	18135	20.888
65) t-Amyl methyl ether	(2)	7.734	73	396286	21.243
67) n-Heptane	(2)	7.950	43	159155	17.153
66)*Fluorobenzene	(2)	7.950	96	1286965	50.000
69) n-Butanol	(1)	8.319	56	337255	1055.749
71) Trichloroethene	(2)	8.422	95	135676	20.172
72) Methylcyclohexane	(2)	8.728	83	219111	20.035
72) Methylcyclohexane	(2)	8.731	98	97903	19.792
73) 1,2-Dichloropropane	(2)	8.763	63	142062	20.745
76) Methyl Methacrylate	(2)	8.834	69	121569	20.646
75) 1,4-Dioxane	(1)	8.847	88	49216	512.522
74) Dibromomethane	(2)	8.869	93	92385	20.628
78) Bromodichloromethane	(2)	9.104	83	163155	20.321
79) 2-Nitropropane	(2)	9.377	41	100789	41.867
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	100249	21.985
81) cis-1,3-Dichloropropene	(2)	9.628	75	220292	20.994
82) 4-Methyl-2-pentanone	(2)	9.799	43	414870	43.133
83)$Toluene-d8	(3)	9.924	98	1318781	49.746
83)$Toluene-d8	(3)	9.924	100	855298	49.713
88) Toluene	(3)	10.001	92	349405	20.678
90) 1,3-Dichloropropene (total)	(3)		100	421273	41.724

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.249	75	200981	20.730
91) Ethyl Methacrylate	(3)	10.303	69	210606	21.589
92) 1,1,2-Trichloroethane	(3)	10.448	97	135197	20.619
93) Tetrachloroethene	(3)	10.532	166	143073	19.868
94) 1,3-Dichloropropane	(3)	10.609	76	227131	20.714
96) 2-Hexanone	(3)	10.660	43	300504	42.411
97) Dibromochloromethane	(3)	10.818	129	142549	20.900
99) 1,2-Dibromoethane	(3)	10.930	107	146696	20.818
100)*Chlorobenzene-d5	(3)	11.352	117	1031952	50.000
101) 1-Chlorohexane	(3)	11.358	91	166099	19.208
102) Chlorobenzene	(3)	11.377	112	402991	20.768
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	139268	21.171
104) Ethylbenzene	(3)	11.461	91	658352	21.048
106) m+p-Xylene	(3)	11.573	106	527120	42.892
108) Xylene (Total)	(3)		106	785933	64.669
107) o-Xylene	(3)	11.901	106	258813	21.777
109) Styrene	(3)	11.917	104	426156	22.049
110) Bromoform	(3)	12.072	173	102983	20.740
111) Isopropylbenzene	(3)	12.197	105	646899	21.450
112) Cyclohexanone	(1)	12.281	55	193908A	542.487
114)$4-Bromofluorobenzene	(3)	12.342	95	506416	49.646
114)$4-Bromofluorobenzene	(3)	12.342	174	435782	49.830
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	222212M	21.001
115) Bromobenzene	(4)	12.461	156	177922	20.949
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	330551	107.395
117) 1,2,3-Trichloropropane	(4)	12.490	110	67089	20.761
119) n-Propylbenzene	(4)	12.522	91	772909	21.056
120) 2-Chlorotoluene	(4)	12.602	126	164580	20.987
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	579385	21.844
121) 4-Chlorotoluene	(4)	12.692	126	172819	21.233
124) tert-Butylbenzene	(4)	12.898	134	115481M	21.181
125) Pentachloroethane	(4)	12.933	167	103044	21.281
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	613752	22.381
127) sec-Butylbenzene	(4)	13.062	105	688409	21.317
129) 1,3-Dichlorobenzene	(4)	13.162	146	344035	21.738
130) p-Isopropyltoluene	(4)	13.168	119	610035	22.046
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	580388	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	354497	21.342

M = Compound was manually integrated.
A = User selected an alternate hit.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	609451	21.389
135) Benzyl Chloride	(4)	13.313	91	466875	21.655
136) 1,3-Diethylbenzene	(4)	13.367	119	387190	21.717
141) Diethylbenzene (total)	(4)		100	1123913	65.203
137) 1,4-Diethylbenzene	(4)	13.438	119	405953	21.753
139) n-Butylbenzene	(4)	13.458	92	301552	21.211
138) 1,2-Dichlorobenzene	(4)	13.496	146	341680	21.449
140) 1,2-Diethylbenzene	(4)	13.512	119	330770	21.733
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	48343	20.642
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	258381	21.532
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	247167	22.041
147) Hexachlorobutadiene	(4)	14.663	225	104234	20.149
148) Naphthalene	(4)	14.769	128	836600	23.047
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	250166	22.450
150) 2-Methylnaphthalene	(4)	15.560	142	445635	18.446

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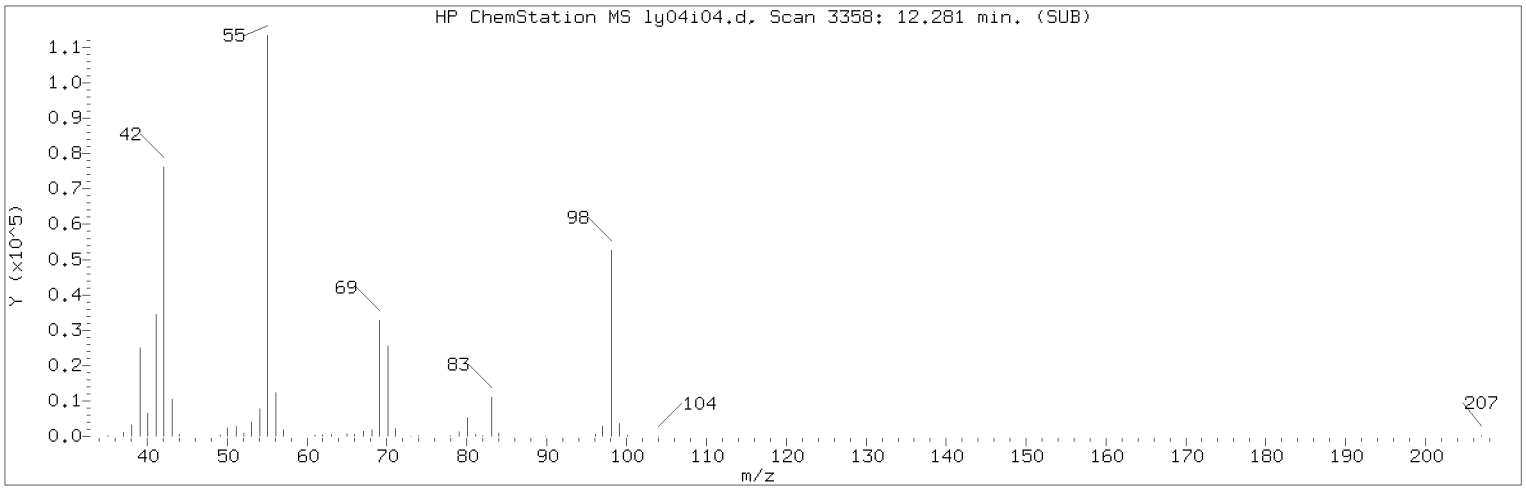
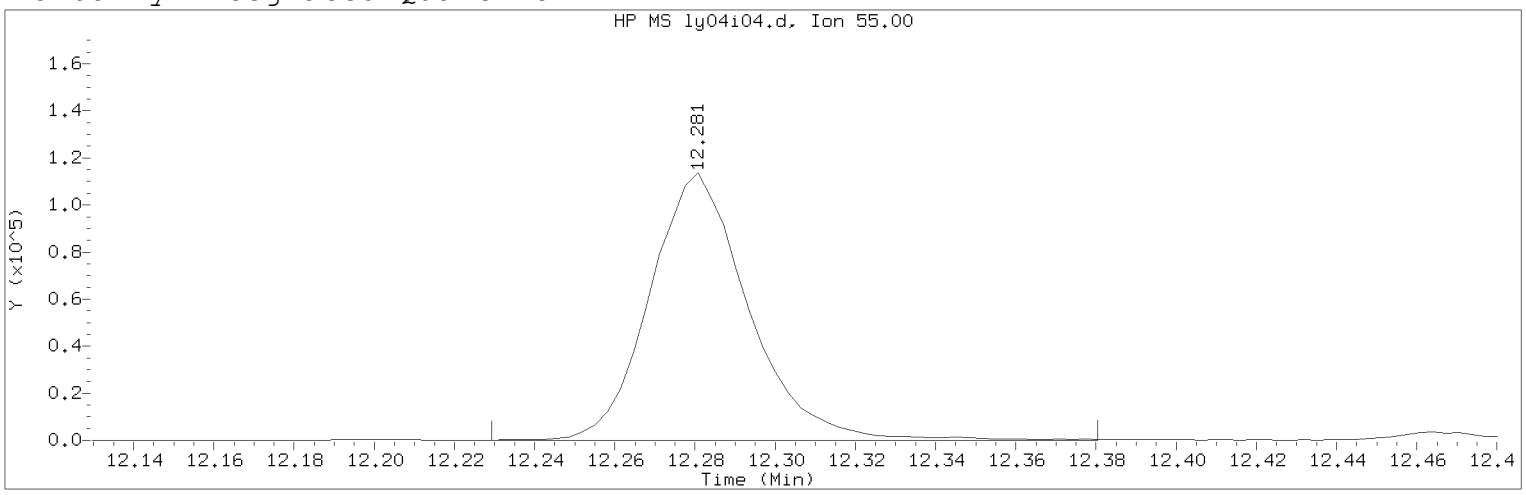
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

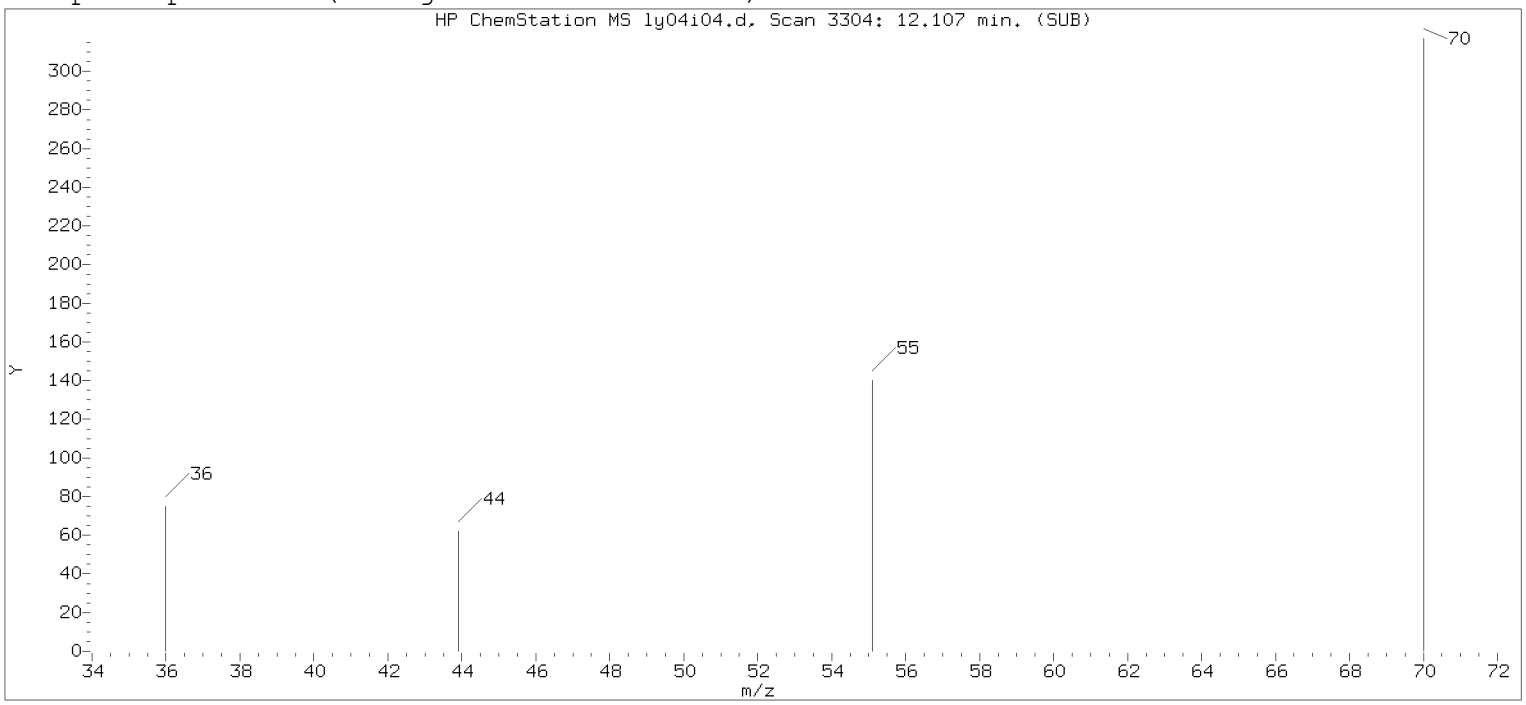
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.281
Quant Ion : 55.00
Area (flag) : 193908A
On-Column Amount (ng) : 542.4875
Integration start scan : 3341 Integration stop scan: 3388
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

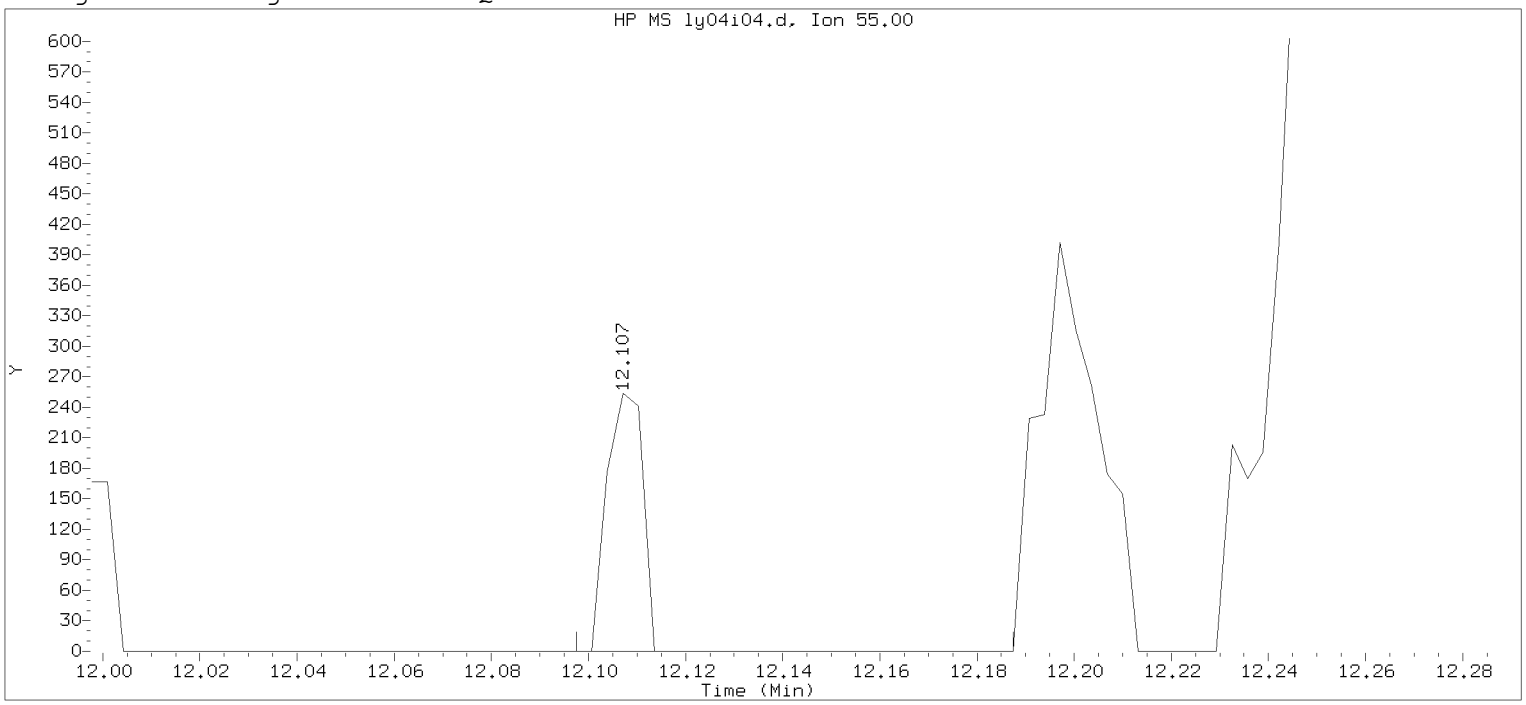
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

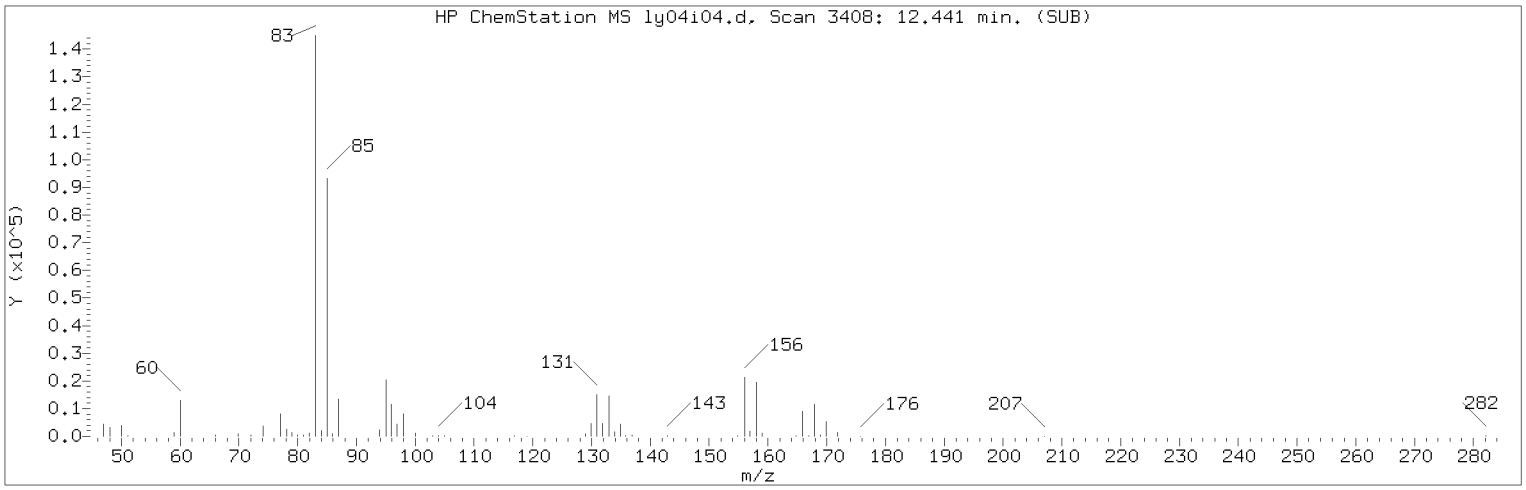
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

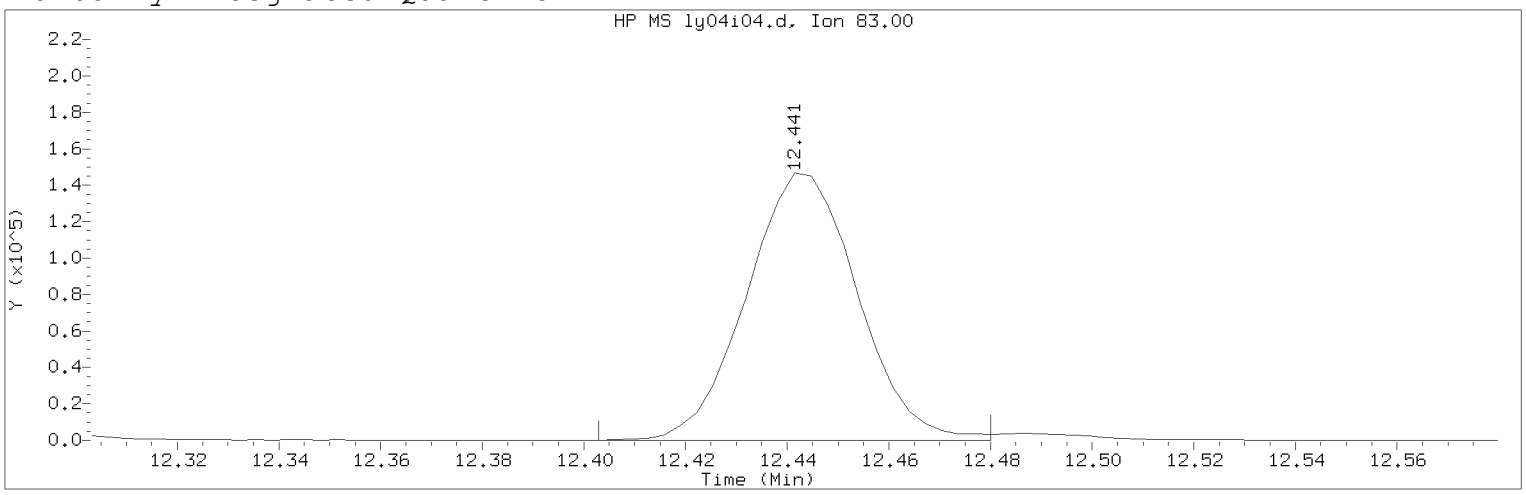
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3304
Retention Time (minutes): 12.107
Quant Ion : 55.00
Area : 129
On-column Amount (ng) : 85.7174
Integration start scan : 3300 Integration stop scan: 3328
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

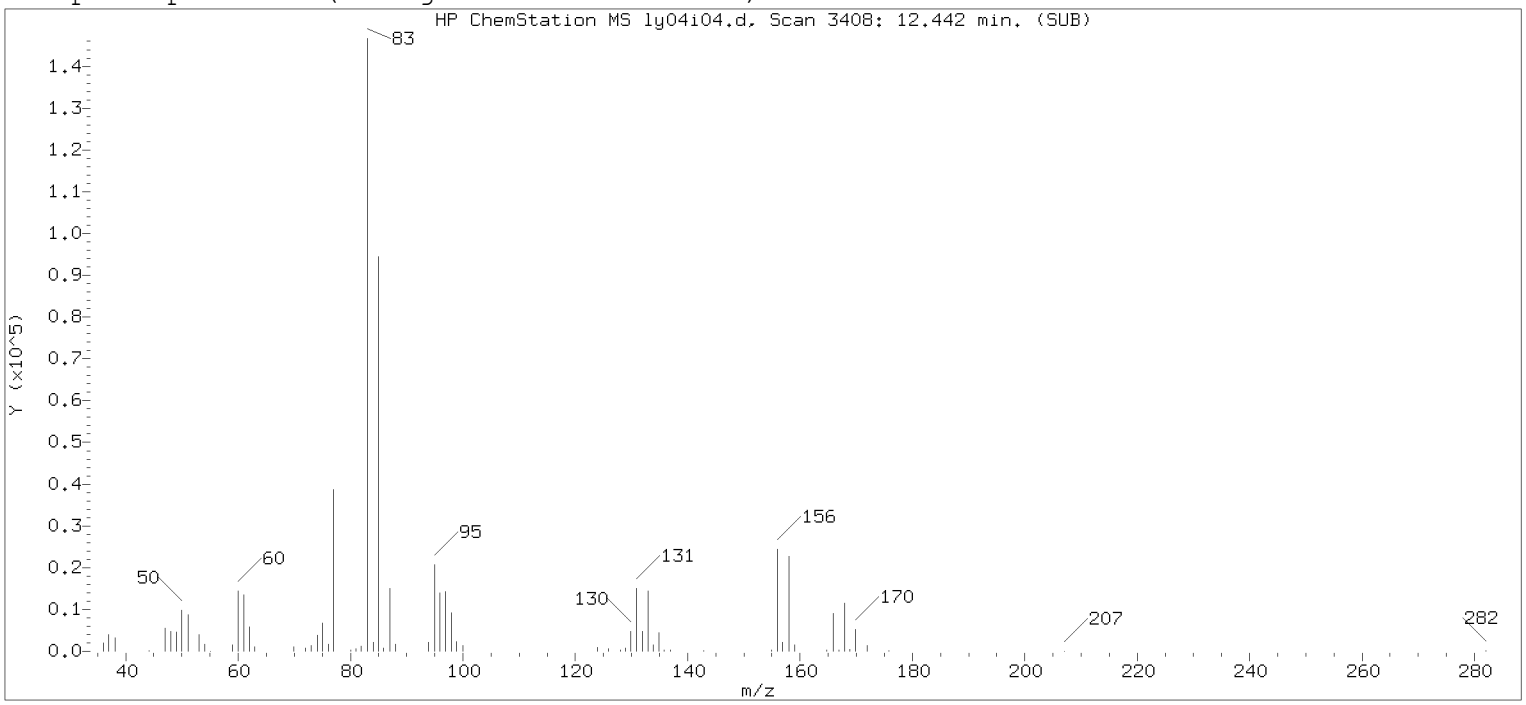
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 222212M
On-Column Amount (ng) : 21.0014
Integration start scan : 3395 Integration stop scan: 3419
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

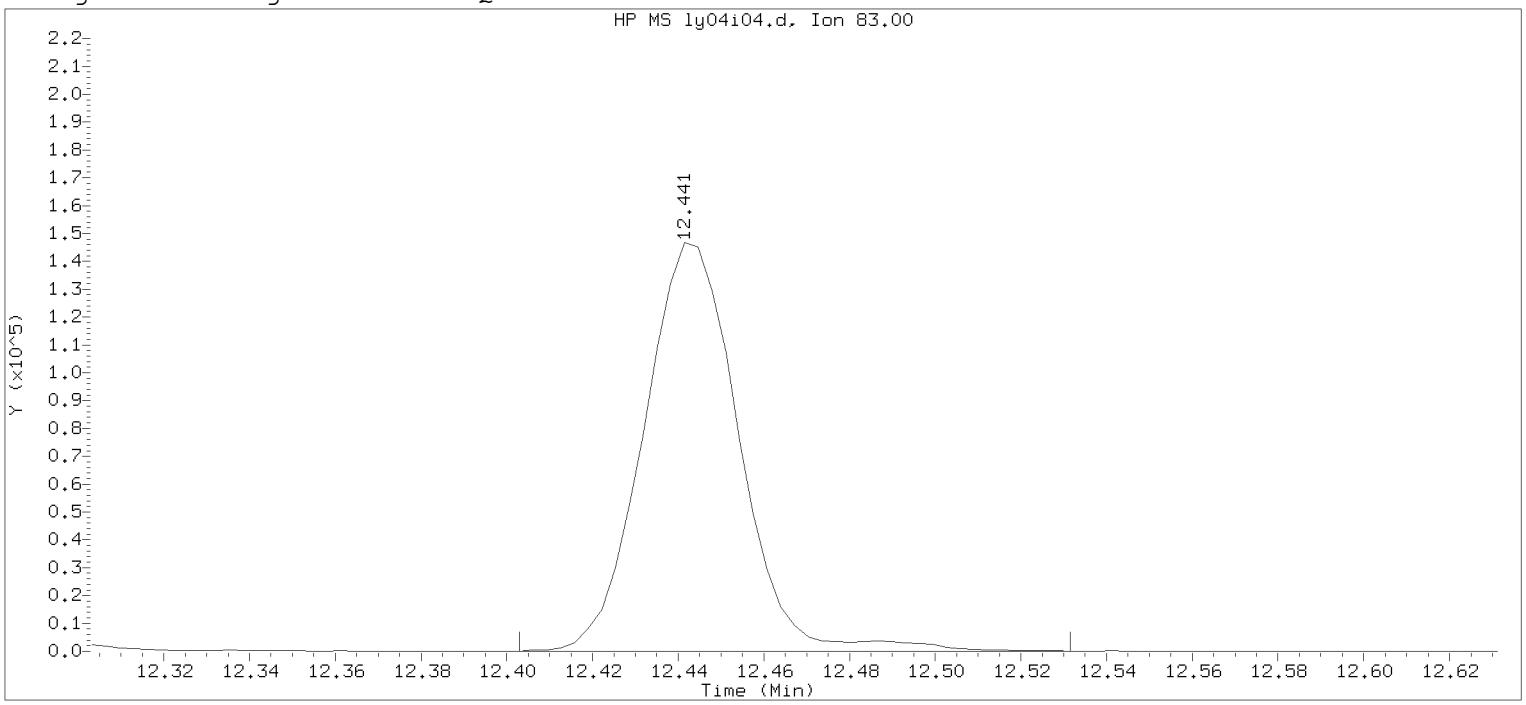
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

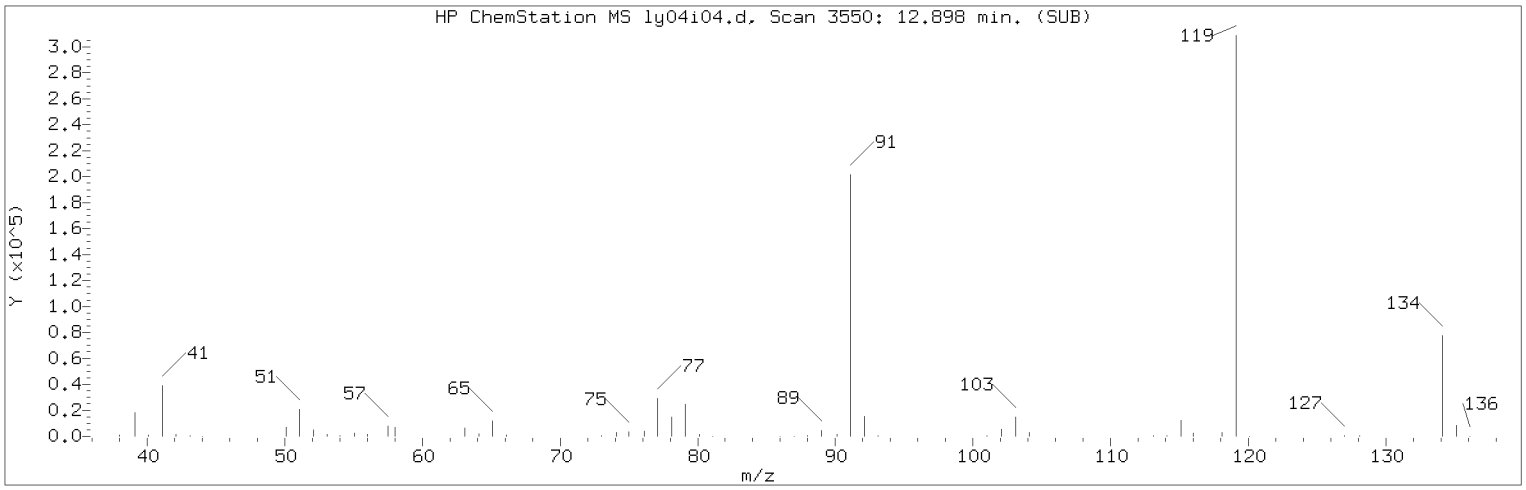
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

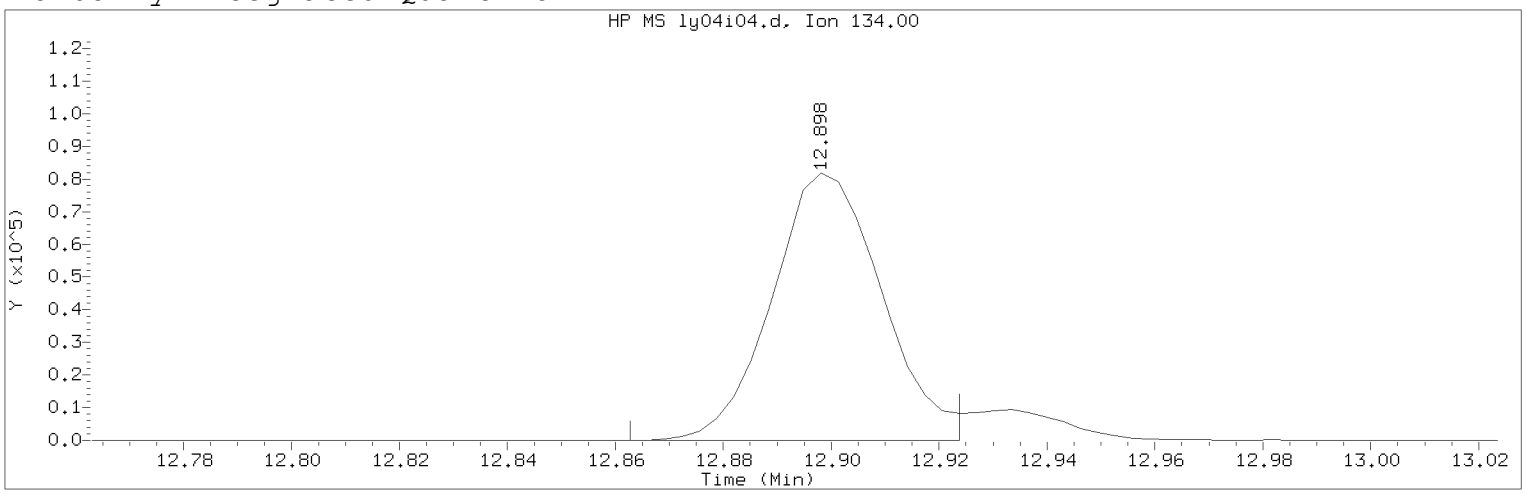
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 226818
On-column Amount (ng) : 20.9272
Integration start scan : 3395 Integration stop scan: 3435
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0011

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD020 Lab Sample ID: VSTD020

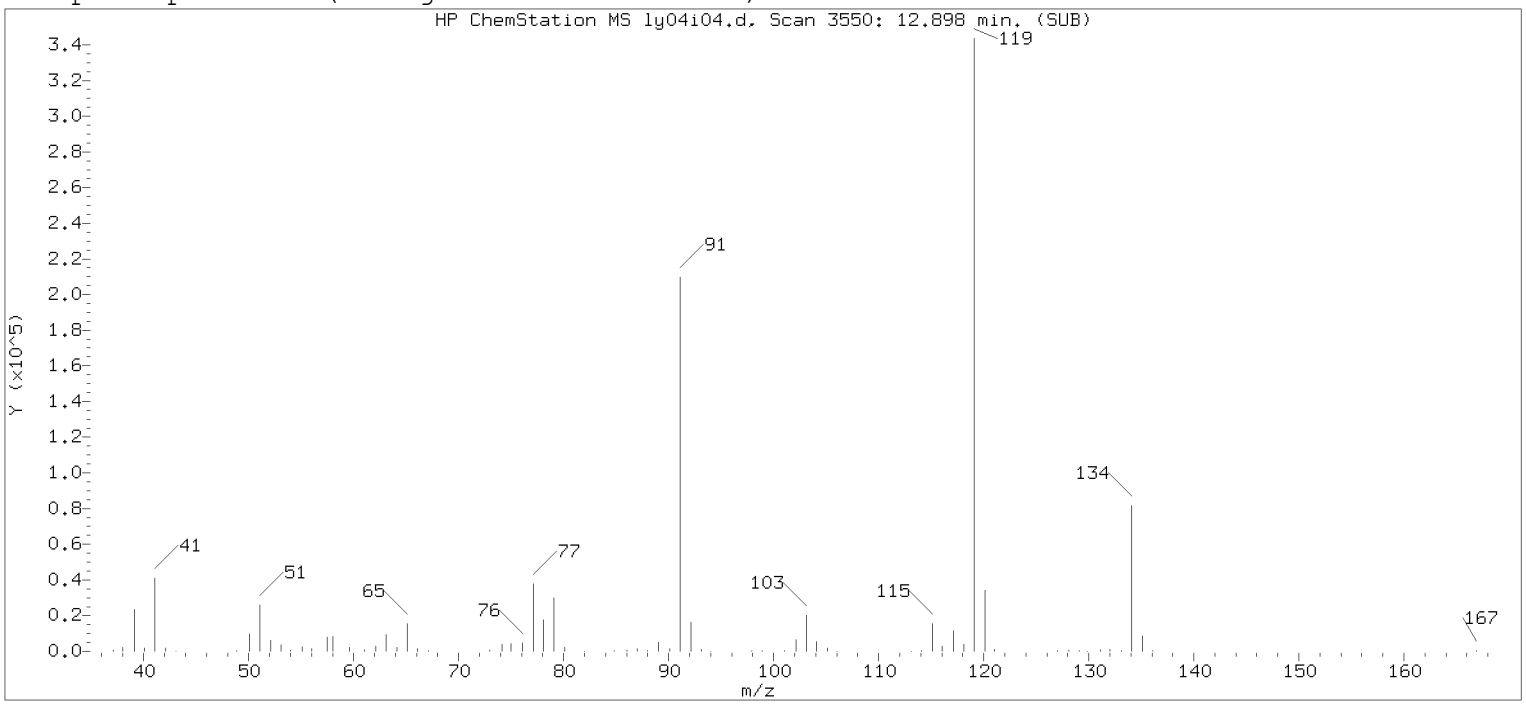
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 115481M
On-Column Amount (ng) : 21.1810
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

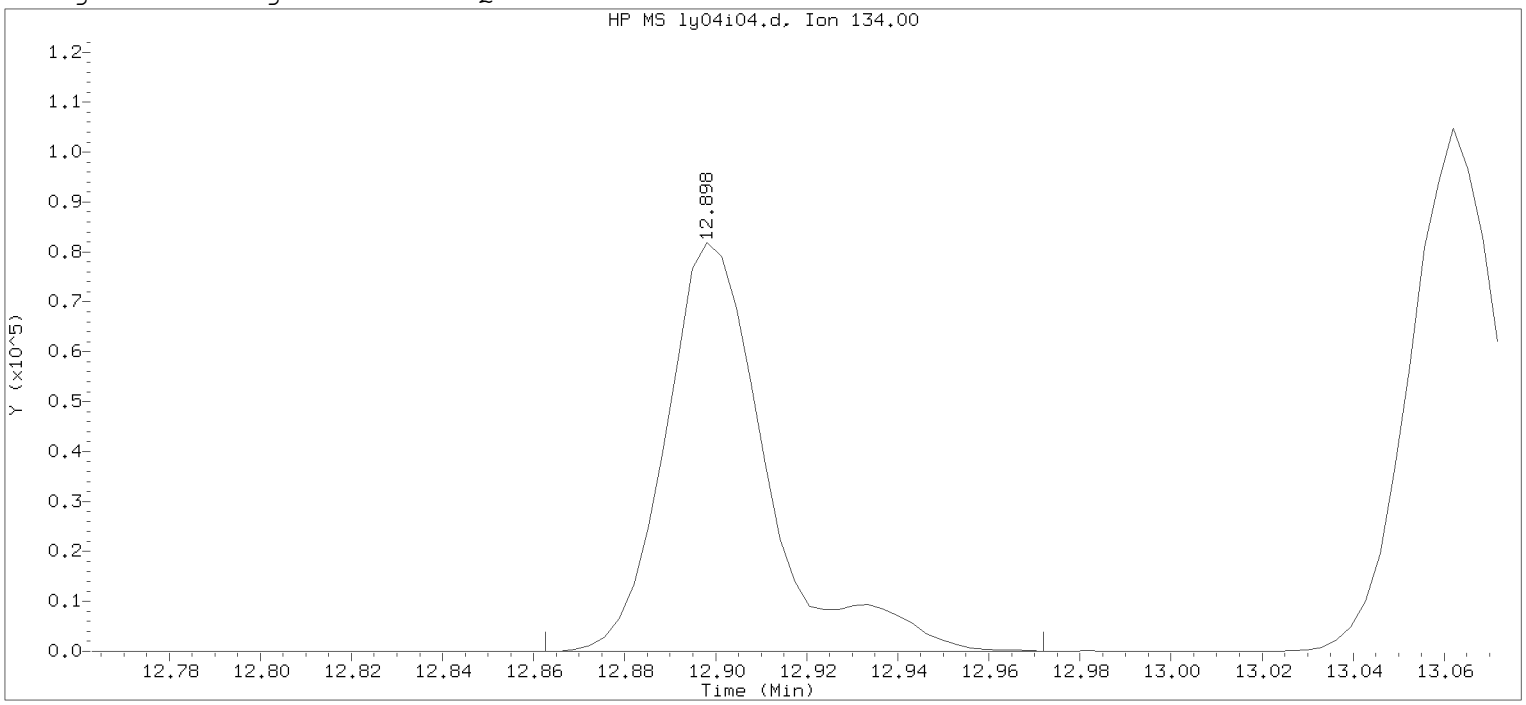
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



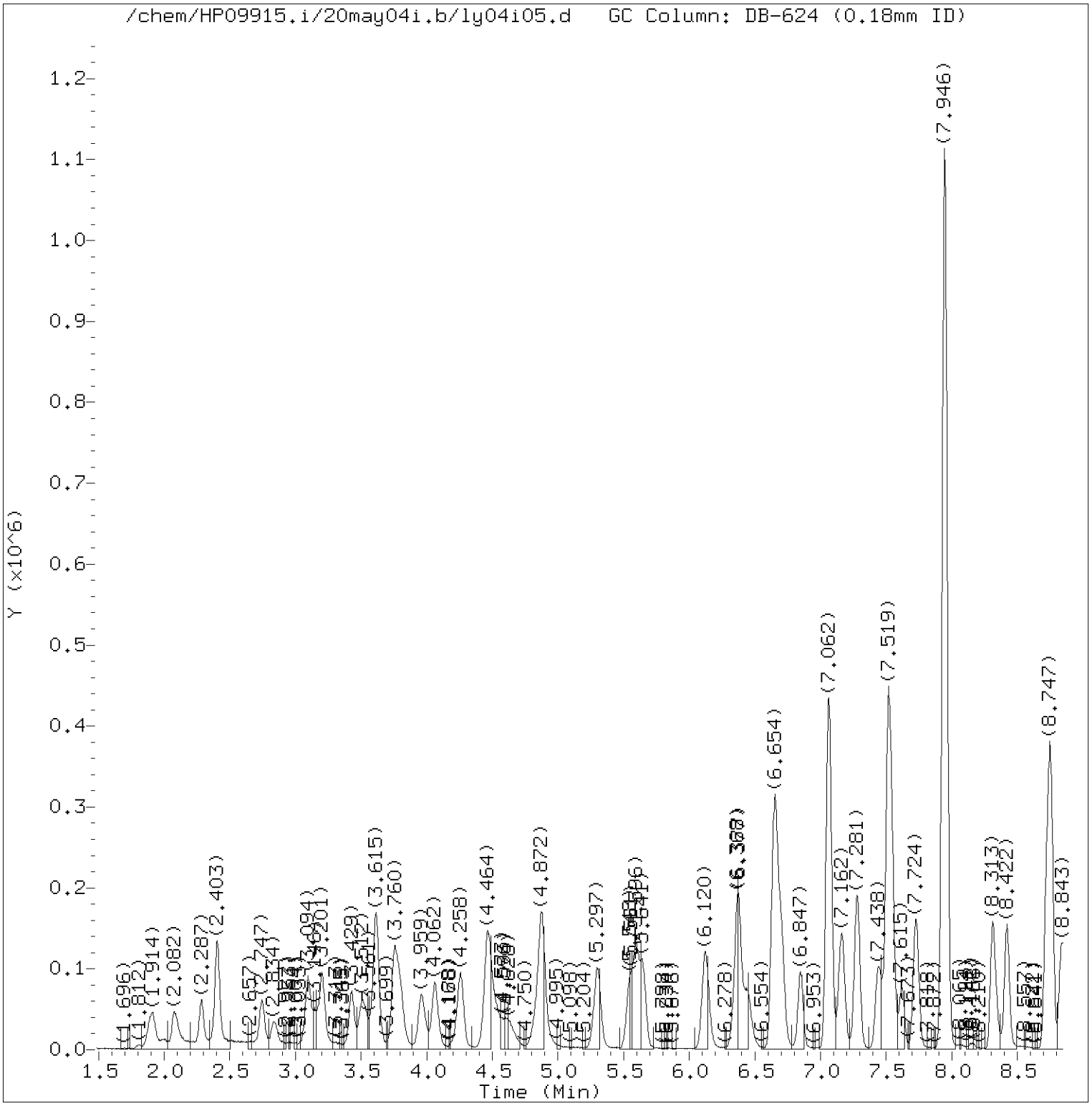
Data File: /chem/HP09915.i/20may04i.b/ly04i04.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:24 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 13:41
Date, time and analyst ID of latest file update: 04-May-2020 13:41 Automation

Sample Name: VSTD020 Lab Sample ID: VSTD020

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 126488
On-column Amount (ng) : 19.5466
Integration start scan : 3538 Integration stop scan: 3572
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0012



Total Ion Chromatogram (TIC)

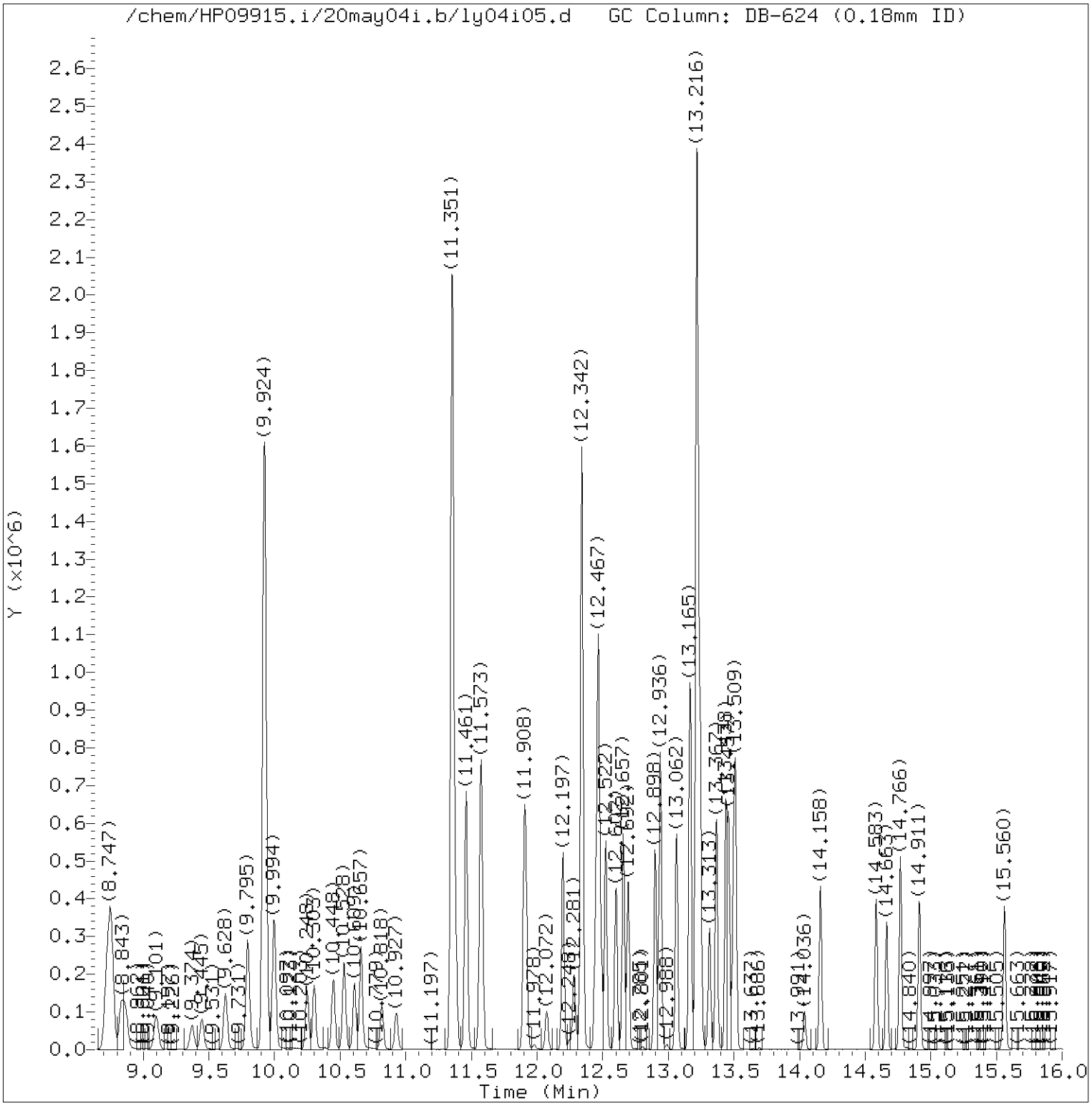
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.082	85	90118	10.053
4) Chloromethane	(2)	2.284	50	78549	9.385
5) 1,3-Butadiene	(2)	2.403	39	53204	9.909
6) Vinyl Chloride	(2)	2.406	62	75776	9.382
8) Bromomethane	(2)	2.747	94	54416	9.345
9) Chloroethane	(2)	2.844	64	42783	9.488
10) Dichlorofluoromethane	(2)	3.094	67	97511	10.025
12) Trichlorofluoromethane	(2)	3.149	101	86007	9.750
11) n-Pentane	(2)	3.201	43	86657	10.463
14) Ethyl ether	(2)	3.426	59	62820	10.079
15) Freon 123a	(2)	3.512	67	72194	10.102
16) Acrolein	(1)	3.615	56	265523	114.386
17) 1,1-Dichloroethene	(2)	3.750	96	56607	10.063
17) 1,1-Dichloroethene	(2)	3.757	63	27453	10.247
19) Freon 113	(2)	3.779	101	60789	10.415
18) Acetone	(1)	3.795	58	21573	20.374
22) Methyl Iodide	(2)	3.956	142	107855	9.949
21) 2-Propanol	(1)	3.979	45	66051	97.875
23) Carbon Disulfide	(2)	4.062	76	190505	10.058
27) Methyl Acetate	(2)	4.236	43	69346	9.665
25) Allyl Chloride	(2)	4.258	41	88910	9.753
28) Methylene Chloride	(2)	4.461	84	67332	10.062
29)*t-Butyl alcohol-d10	(1)	4.480	65	282164	250.000
30) t-Butyl alcohol	(1)	4.615	59	112728	98.959
31) Acrylonitrile	(2)	4.821	53	41519	10.447
33) Methyl Tertiary Butyl Ether	(2)	4.866	73	189790	9.837
32) trans-1,2-Dichloroethene	(2)	4.882	96	65119	10.062
34) n-Hexane	(2)	5.297	57	94542	10.432
36) 1,1-Dichloroethane	(2)	5.541	63	114433	10.082
38) di-Isopropyl ether	(2)	5.599	45	198191	9.928
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	89746	9.915
40) Ethyl t-butyl ether	(2)	6.126	59	184298	9.937
43) 1,2-Dichloroethene (Total)	(2)		96	138243	20.138
44) 2-Butanone	(2)	6.345	43	99442	20.613
42) cis-1,2-Dichloroethene	(2)	6.371	96	73124	10.076
45) 2,2-Dichloropropane	(2)	6.377	77	85647	9.763
47) Propionitrile	(1)	6.448	54	149718	97.287
48) Methacrylonitrile	(2)	6.654	67	195000	48.939

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.696	128	37514	10.018
50) Tetrahydrofuran	(1)	6.708	71	27785	20.635
51) Chloroform	(2)	6.850	83	109436	9.869
52)$Dibromofluoromethane	(2)	7.062	113	322240	48.932
52)$Dibromofluoromethane	(2)	7.059	111	332011	49.320
53) 1,1,1-Trichloroethane	(2)	7.069	97	93153	9.792
54) Cyclohexane	(2)	7.162	56	109782	10.309
54) Cyclohexane	(2)	7.162	84	94445	10.160
54) Cyclohexane	(2)	7.155	69	33849	10.228
56) Carbon Tetrachloride	(2)	7.278	117	79395	9.961
55) 1,1-Dichloropropene	(2)	7.284	75	87744	10.061
58) Isobutyl Alcohol	(1)	7.448	41	93954	243.130
57)$1,2-Dichloroethane-d4	(2)	7.512	102	82568	49.412
57)$1,2-Dichloroethane-d4	(2)	7.519	65	364177	49.098
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52909	49.724
60) Benzene	(2)	7.544	78	272006	10.076
61) 1,2-Dichloroethane	(2)	7.622	62	87436	9.662
61) 1,2-Dichloroethane	(2)	7.618	98	8802	9.981
65) t-Amyl methyl ether	(2)	7.724	73	186147	9.824
67) n-Heptane	(2)	7.946	43	103553	10.988
66)*Fluorobenzene	(2)	7.946	96	1307193	50.000
69) n-Butanol	(1)	8.313	56	146517	465.001
71) Trichloroethene	(2)	8.419	95	67138	9.828
72) Methylcyclohexane	(2)	8.724	83	113527	10.220
72) Methylcyclohexane	(2)	8.724	98	51823	10.314
73) 1,2-Dichloropropane	(2)	8.750	63	68836	9.896
76) Methyl Methacrylate	(2)	8.831	69	55947	9.354
75) 1,4-Dioxane	(1)	8.850	88	23550M	248.634
74) Dibromomethane	(2)	8.863	93	44545	9.792
78) Bromodichloromethane	(2)	9.101	83	77969	9.561
79) 2-Nitropropane	(2)	9.371	41	49747	20.345
80) 2-Chloroethyl Vinyl Ether	(2)	9.445	63	42539	9.185
81) cis-1,3-Dichloropropene	(2)	9.628	75	103288	9.691
82) 4-Methyl-2-pentanone	(2)	9.795	43	222795	22.805
83)$Toluene-d8	(3)	9.924	98	1329104	49.926
83)$Toluene-d8	(3)	9.924	100	862386	49.917
88) Toluene	(3)	9.994	92	170397	10.042
90) 1,3-Dichloropropene (total)	(3)		100	195460	19.158

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	92172	9.467
91) Ethyl Methacrylate	(3)	10.300	69	91658	9.356
92) 1,1,2-Trichloroethane	(3)	10.451	97	63938	9.711
93) Tetrachloroethene	(3)	10.528	166	73770	10.201
94) 1,3-Dichloropropane	(3)	10.612	76	106883	9.707
96) 2-Hexanone	(3)	10.657	43	174630	24.544
97) Dibromochloromethane	(3)	10.818	129	64751	9.454
99) 1,2-Dibromoethane	(3)	10.930	107	69131	9.770
100)*Chlorobenzene-d5	(3)	11.351	117	1036265	50.000
101) 1-Chlorohexane	(3)	11.355	91	87039	10.023
102) Chlorobenzene	(3)	11.377	112	196773	10.098
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	65125	9.859
104) Ethylbenzene	(3)	11.461	91	321971	10.251
106) m+p-Xylene	(3)	11.573	106	256765	20.806
108) Xylene (Total)	(3)		106	381311	31.242
107) o-Xylene	(3)	11.901	106	124546	10.436
109) Styrene	(3)	11.914	104	198052	10.204
110) Bromoform	(3)	12.072	173	45366	9.099
111) Isopropylbenzene	(3)	12.197	105	319386	10.546
112) Cyclohexanone	(1)	12.281	55	84690	240.209
114)$4-Bromofluorobenzene	(3)	12.342	95	511563	49.942
114)$4-Bromofluorobenzene	(3)	12.342	174	439236	50.016
116) 1,1,2,2-Tetrachloroethane	(4)	12.445	83	104030	9.693
115) Bromobenzene	(4)	12.457	156	86654	10.058
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	155211	49.713
117) 1,2,3-Trichloropropane	(4)	12.490	110	32547	9.929
119) n-Propylbenzene	(4)	12.522	91	389641	10.465
120) 2-Chlorotoluene	(4)	12.602	126	81568	10.254
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	282787	10.511
121) 4-Chlorotoluene	(4)	12.695	126	85740	10.385
124) tert-Butylbenzene	(4)	12.901	134	56977	10.302
125) Pentachloroethane	(4)	12.933	167	47983	9.769
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	295531	10.624
127) sec-Butylbenzene	(4)	13.062	105	356950	10.897
129) 1,3-Dichlorobenzene	(4)	13.162	146	168498	10.496
130) p-Isopropyltoluene	(4)	13.168	119	305773	10.894
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	588728	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	175369	10.408

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

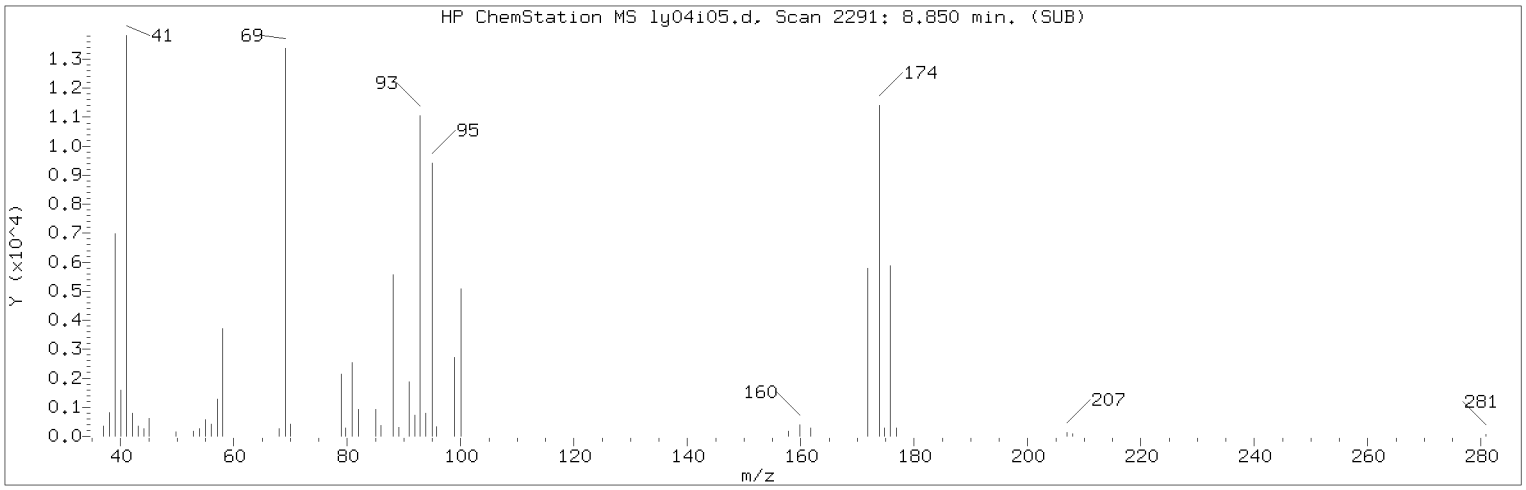
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

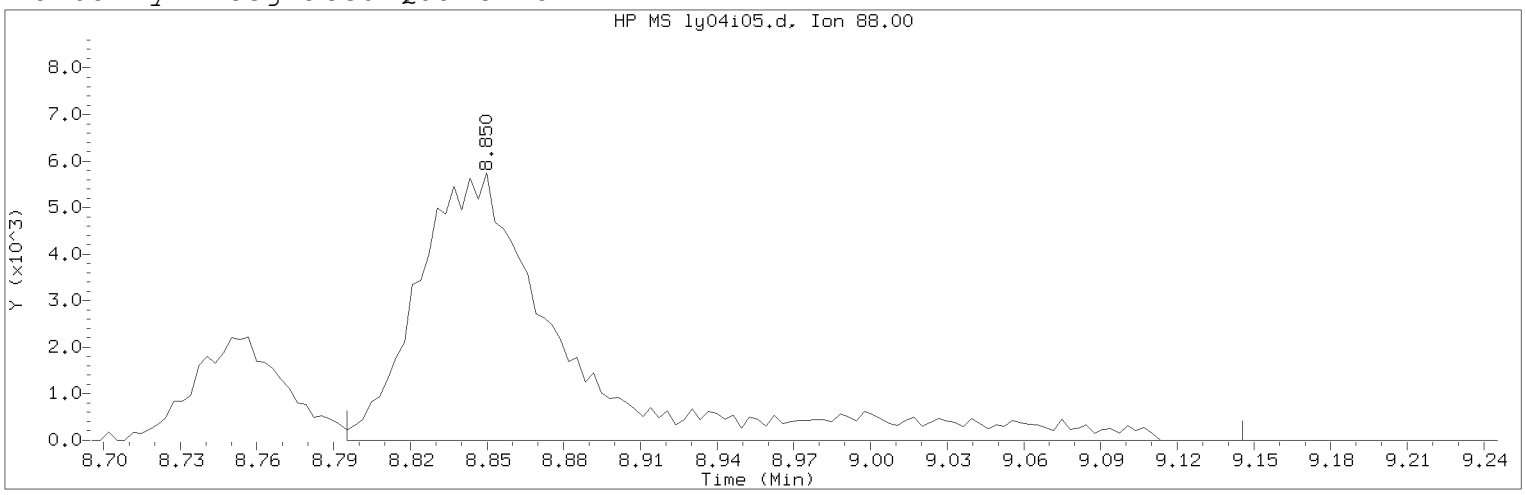
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	295346	10.219
135) Benzyl Chloride	(4)	13.313	91	205157	9.381
136) 1,3-Diethylbenzene	(4)	13.367	119	184043	10.176
141) Diethylbenzene (total)	(4)		100	539339	30.855
137) 1,4-Diethylbenzene	(4)	13.438	119	195436	10.324
139) n-Butylbenzene	(4)	13.457	92	158495	10.990
138) 1,2-Dichlorobenzene	(4)	13.499	146	166903	10.329
140) 1,2-Diethylbenzene	(4)	13.512	119	159860	10.355
142) 1,2-Dibromo-3-chloropropane	(4)	14.039	75	22103	9.304
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	125310	10.295
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	115079	10.117
147) Hexachlorobutadiene	(4)	14.663	225	56989	10.860
148) Naphthalene	(4)	14.769	128	371810	10.098
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	117053	10.356
150) 2-Methylnaphthalene	(4)	15.560	142	179694	8.949

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD010 Lab Sample ID: VSTD010

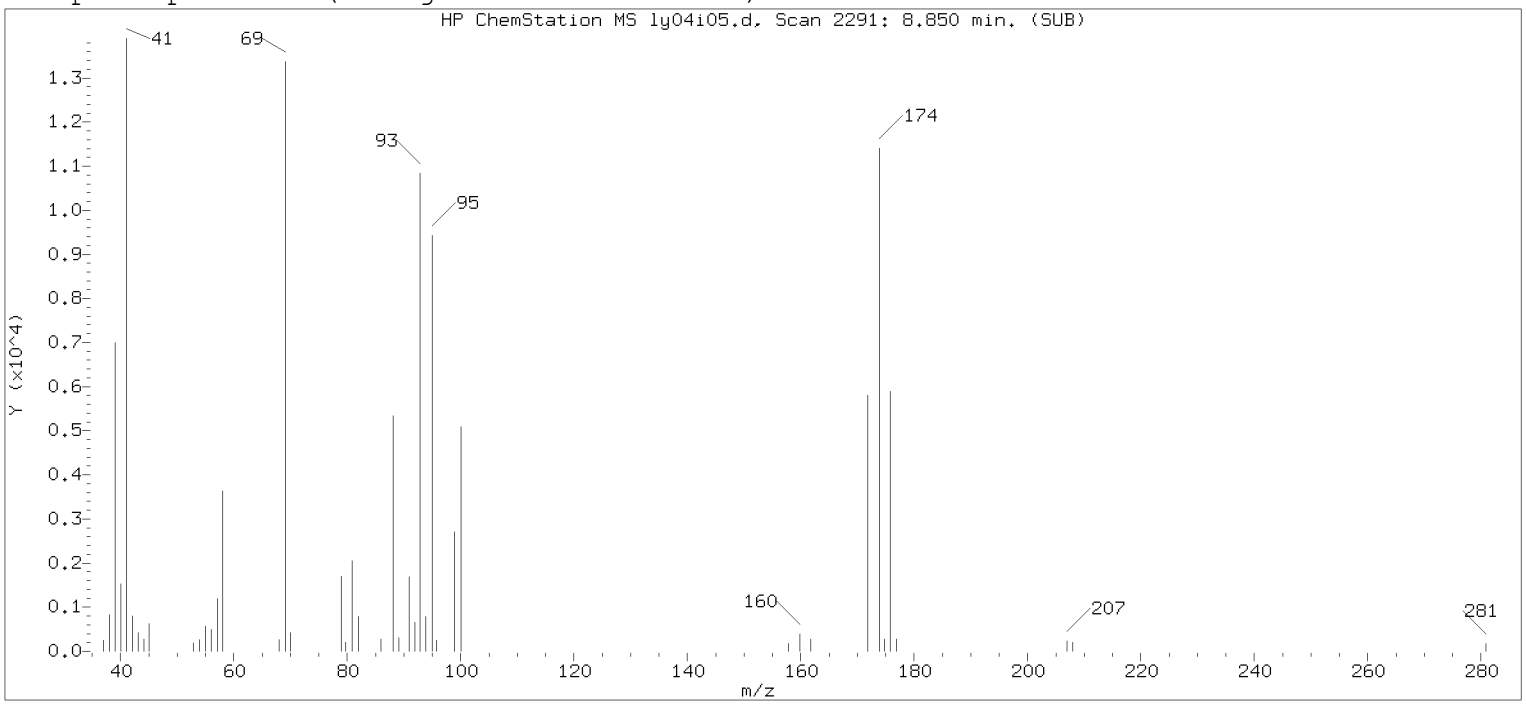
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area (flag) : 23550M
On-Column Amount (ng) : 248.6337
Integration start scan : 2273 Integration stop scan: 2382
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

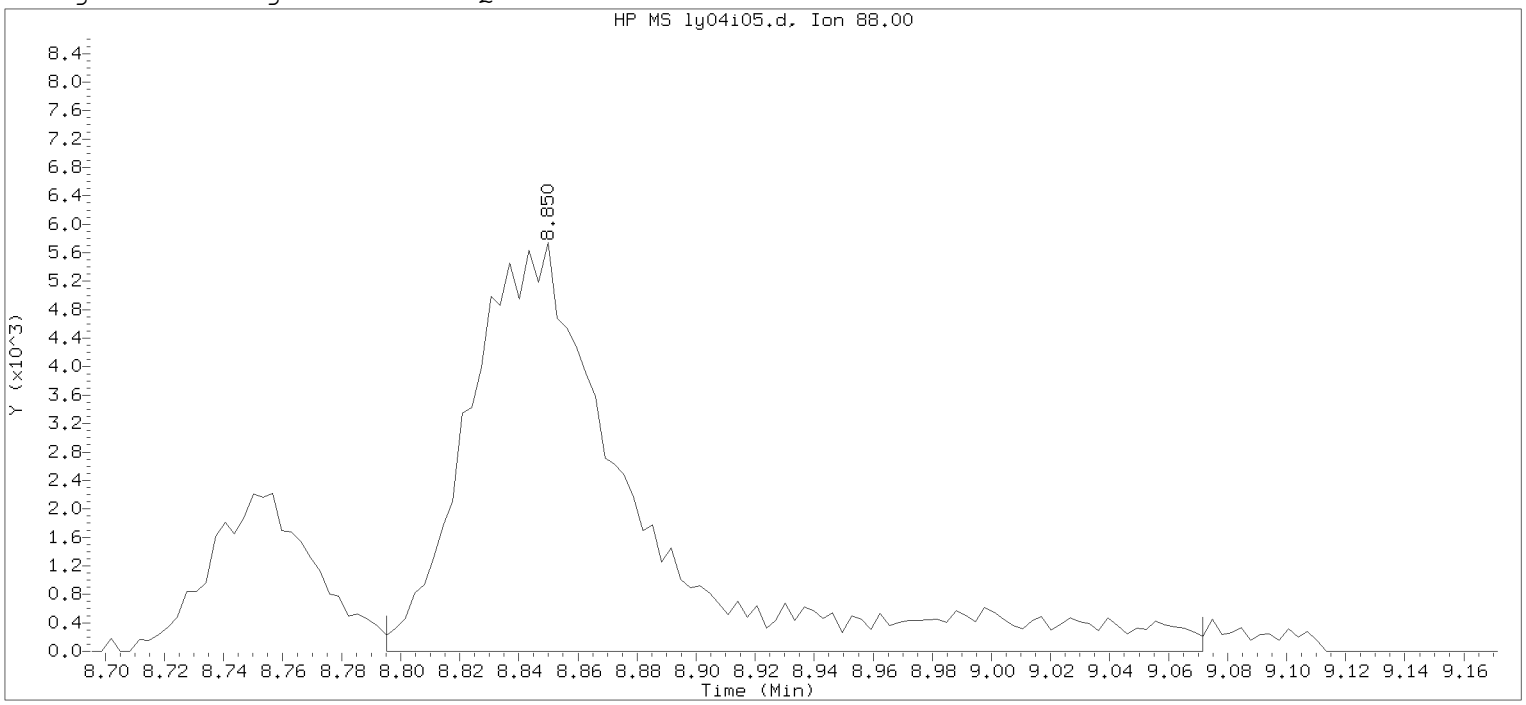
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



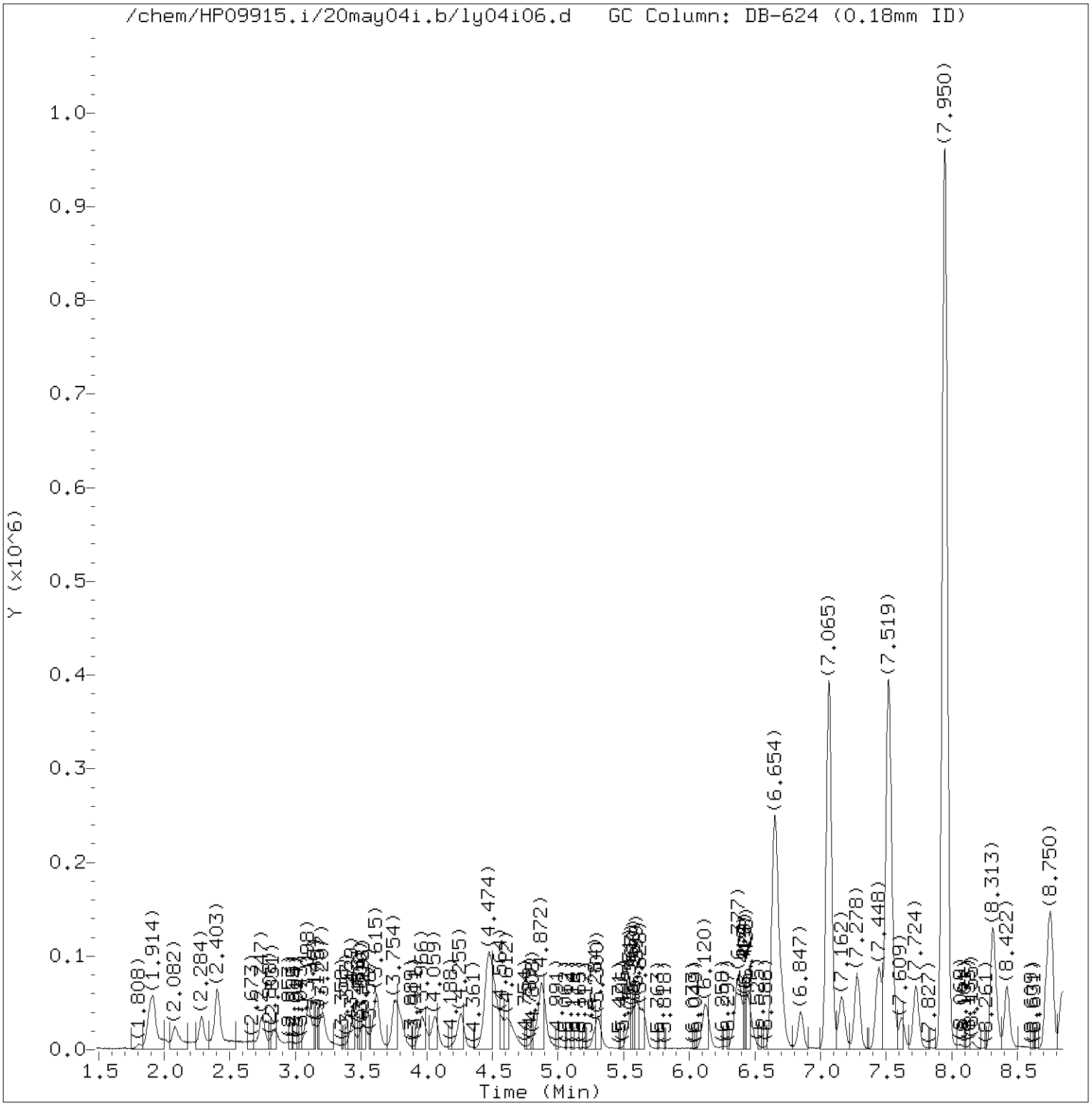
Data File: /chem/HP09915.i/20may04i.b/ly04i05.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 13:46 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:04
Date, time and analyst ID of latest file update: 04-May-2020 14:04 Automation

Sample Name: VSTD010 Lab Sample ID: VSTD010

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2291
Retention Time (minutes): 8.850
Quant Ion : 88.00
Area : 22923
On-column Amount (ng) : 235.9161
Integration start scan : 2273 Integration stop scan: 2359
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0022



Total Ion Chromatogram (TIC)

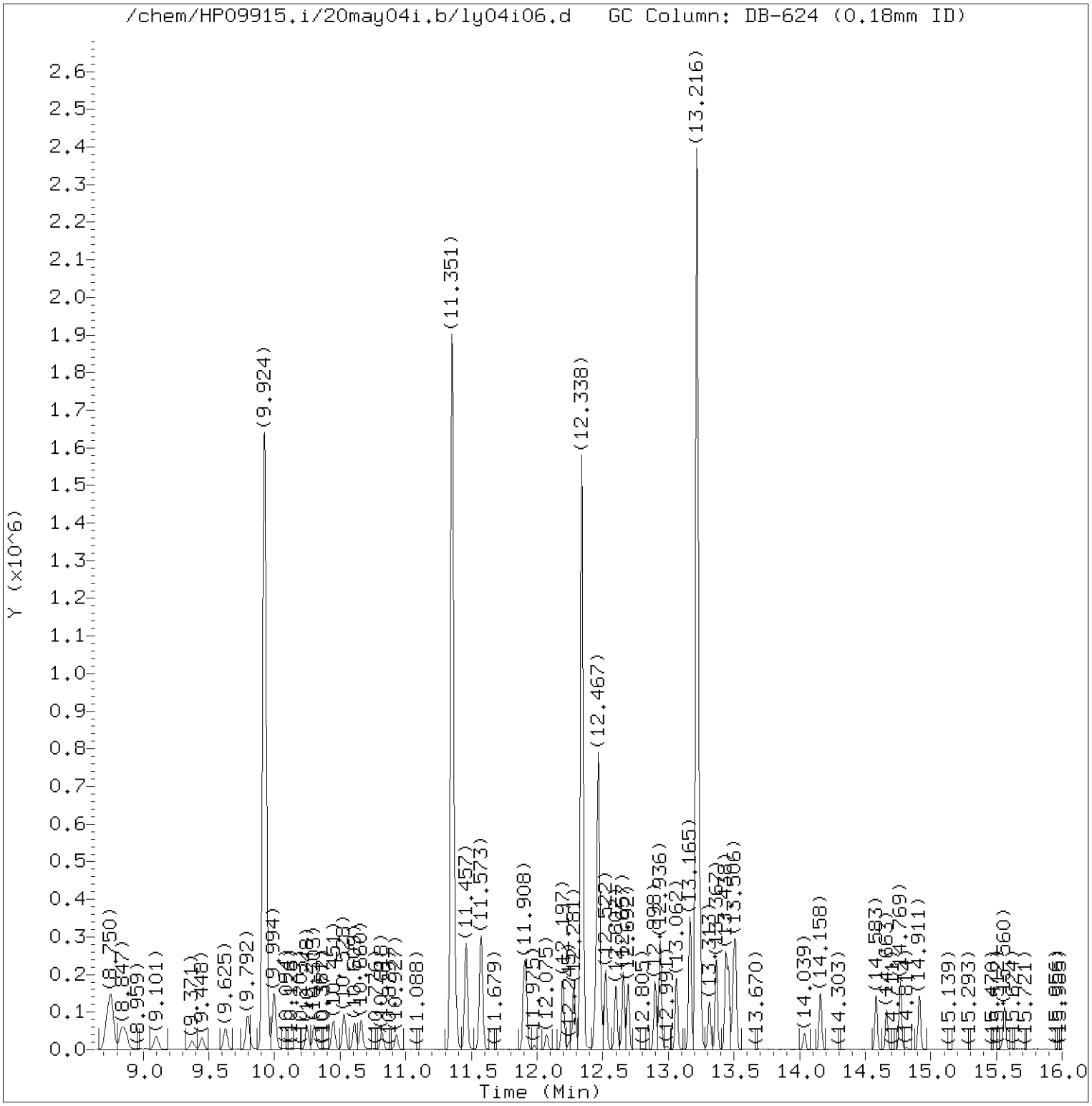
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	38980	4.374
4) Chloromethane	(2)	2.281	50	40837	4.908
5) 1,3-Butadiene	(2)	2.403	39	22445M	4.205
6) Vinyl Chloride	(2)	2.410	62	38694	4.819
8) Bromomethane	(2)	2.747	94	28864	4.986
9) Chloroethane	(2)	2.850	64	22132M	4.937
10) Dichlorofluoromethane	(2)	3.098	67	46604	4.819
12) Trichlorofluoromethane	(2)	3.149	101	39863	4.546
11) n-Pentane	(2)	3.207	43	33845	4.111
14) Ethyl ether	(2)	3.435	59	23890	3.855
15) Freon 123a	(2)	3.522	67	29140	4.102
16) Acrolein	(1)	3.615	56	89549	38.087
17) 1,1-Dichloroethene	(2)	3.754	96	23333	4.172
17) 1,1-Dichloroethene	(2)	3.754	63	11176	4.196
19) Freon 113	(2)	3.789	101	24000	4.136
18) Acetone	(1)	3.808	58	8567M	7.988
22) Methyl Iodide	(2)	3.959	142	43429	4.029
21) 2-Propanol	(1)	3.982	45	54311	79.457
23) Carbon Disulfide	(2)	4.065	76	74748	3.970
27) Methyl Acetate	(2)	4.239	43	29297	4.107
25) Allyl Chloride	(2)	4.262	41	34618	3.820
28) Methylene Chloride	(2)	4.458	84	27141	4.080
29)*t-Butyl alcohol-d10	(1)	4.490	65	285792	250.000
30) t-Butyl alcohol	(1)	4.622	59	92858	80.481
31) Acrylonitrile	(2)	4.821	53	15387	3.894
33) Methyl Tertiary Butyl Ether	(2)	4.872	73	74603	3.890
32) trans-1,2-Dichloroethene	(2)	4.879	96	26257	4.081
34) n-Hexane	(2)	5.307	57	30933	3.433
36) 1,1-Dichloroethane	(2)	5.545	63	45665	4.047
38) di-Isopropyl ether	(2)	5.599	45	74509	3.754
39) 2-Chloro-1,3-butadiene	(2)	5.651	53	33993	3.777
40) Ethyl t-butyl ether	(2)	6.130	59	70167	3.805
43) 1,2-Dichloroethene (Total)	(2)		96	54548	8.002
44) 2-Butanone	(2)	6.348	43	36969	7.708
42) cis-1,2-Dichloroethene	(2)	6.371	96	28291	3.921
45) 2,2-Dichloropropane	(2)	6.380	77	35169M	4.033
47) Propionitrile	(1)	6.445	54	123766	79.402
48) Methacrylonitrile	(2)	6.647	67	157154	39.673

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.702	128	15148	4.069
50) Tetrahydrofuran	(1)	6.702	71	11134	8.164
51) Chloroform	(2)	6.847	83	44235	4.013
52)$Dibromofluoromethane	(2)	7.065	113	325931	49.783
52)$Dibromofluoromethane	(2)	7.065	111	332442	49.674
53) 1,1,1-Trichloroethane	(2)	7.069	97	38791	4.101
54) Cyclohexane	(2)	7.159	56	40137	3.791
54) Cyclohexane	(2)	7.162	84	35210	3.810
54) Cyclohexane	(2)	7.159	69	12808	3.893
56) Carbon Tetrachloride	(2)	7.278	117	32820	4.142
55) 1,1-Dichloropropene	(2)	7.287	75	35669	4.114
58) Isobutyl Alcohol	(1)	7.448	41	78273	199.980
57)$1,2-Dichloroethane-d4	(2)	7.515	102	84287	50.737
57)$1,2-Dichloroethane-d4	(2)	7.519	65	366597	49.715
57)$1,2-Dichloroethane-d4	(2)	7.515	104	52842	49.952
60) Benzene	(2)	7.544	78	109723	4.088
61) 1,2-Dichloroethane	(2)	7.622	62	36503	4.057
61) 1,2-Dichloroethane	(2)	7.618	98	3686	4.204
65) t-Amyl methyl ether	(2)	7.731	73	71962	3.820
67) n-Heptane	(2)	7.946	43	30974	3.306
66)*Fluorobenzene	(2)	7.950	96	1299562	50.000
69) n-Butanol	(1)	8.313	56	121908	381.987
71) Trichloroethene	(2)	8.422	95	28461	4.191
72) Methylcyclohexane	(2)	8.718	83	39242	3.553
72) Methylcyclohexane	(2)	8.718	98	17809	3.565
73) 1,2-Dichloropropane	(2)	8.750	63	27695	4.005
76) Methyl Methacrylate	(2)	8.837	69	22069	3.712
75) 1,4-Dioxane	(1)	8.840	88	19114M	199.238
74) Dibromomethane	(2)	8.869	93	18097	4.002
78) Bromodichloromethane	(2)	9.101	83	30571	3.771
79) 2-Nitropropane	(2)	9.374	41	17814	7.328
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	15049	3.268
81) cis-1,3-Dichloropropene	(2)	9.628	75	38959	3.677
82) 4-Methyl-2-pentanone	(2)	9.798	43	70454	7.254
83)$Toluene-d8	(3)	9.924	98	1327920	49.628
83)$Toluene-d8	(3)	9.924	100	858083	49.415
88) Toluene	(3)	9.994	92	71873	4.214
90) 1,3-Dichloropropene (total)	(3)		100	74497	7.309

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$ = Compound is a surrogate standard.

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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	35538	3.632
91) Ethyl Methacrylate	(3)	10.303	69	33141	3.366
92) 1,1,2-Trichloroethane	(3)	10.451	97	26564	4.014
93) Tetrachloroethene	(3)	10.531	166	30607	4.211
94) 1,3-Dichloropropane	(3)	10.609	76	43581	3.938
96) 2-Hexanone	(3)	10.660	43	50212	7.021
97) Dibromochloromethane	(3)	10.821	129	25387	3.688
99) 1,2-Dibromoethane	(3)	10.927	107	27031	3.801
100)*Chlorobenzene-d5	(3)	11.351	117	1041559	50.000
101) 1-Chlorohexane	(3)	11.355	91	31930	3.658
102) Chlorobenzene	(3)	11.377	112	82399	4.207
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	27074	4.078
104) Ethylbenzene	(3)	11.461	91	127933	4.052
106) m+p-Xylene	(3)	11.570	106	100704	8.119
108) Xylene (Total)	(3)		106	148049	12.066
107) o-Xylene	(3)	11.901	106	47345	3.947
109) Styrene	(3)	11.917	104	73846	3.785
110) Bromoform	(3)	12.075	173	17579	3.508
111) Isopropylbenzene	(3)	12.197	105	113477	3.728
112) Cyclohexanone	(1)	12.281	55	69843	195.583
114)$4-Bromofluorobenzene	(3)	12.342	95	516427	50.161
114)$4-Bromofluorobenzene	(3)	12.342	174	443503	50.246
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	45427	4.166
115) Bromobenzene	(4)	12.457	156	37061	4.235
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	124994	39.408
117) 1,2,3-Trichloropropane	(4)	12.486	110	13788	4.140
119) n-Propylbenzene	(4)	12.522	91	144976	3.833
120) 2-Chlorotoluene	(4)	12.602	126	32155	3.979
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	99992	3.658
121) 4-Chlorotoluene	(4)	12.692	126	33101	3.946
124) tert-Butylbenzene	(4)	12.901	134	19337M	3.442
125) Pentachloroethane	(4)	12.930	167	18271	3.662
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	105087	3.719
127) sec-Butylbenzene	(4)	13.062	105	115390	3.467
129) 1,3-Dichlorobenzene	(4)	13.162	146	66842	4.098
130) p-Isopropyltoluene	(4)	13.165	119	100033	3.508
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	598089	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	71398	4.171

M = Compound was manually integrated.
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on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134)	1,2,3-Trimethylbenzene	(4)	13.245	105	113876	3.878
135)	Benzyl Chloride	(4)	13.313	91	82729	3.724
136)	1,3-Diethylbenzene	(4)	13.367	119	70395	3.831
141)	Diethylbenzene (total)	(4)		100	208679	11.749
137)	1,4-Diethylbenzene	(4)	13.438	119	76469	3.976
139)	n-Butylbenzene	(4)	13.457	92	51886	3.542
138)	1,2-Dichlorobenzene	(4)	13.496	146	68727	4.187
140)	1,2-Diethylbenzene	(4)	13.512	119	61815	3.941
142)	1,2-Dibromo-3-chloropropane	(4)	14.033	75	9341	3.871
144)	1,3,5-Trichlorobenzene	(4)	14.162	180	44631	3.609
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	41152	3.561
147)	Hexachlorobutadiene	(4)	14.663	225	18000	3.376
148)	Naphthalene	(4)	14.766	128	133216	3.561
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	43500	3.788
150)	2-Methylnaphthalene	(4)	15.560	142	55411	4.749

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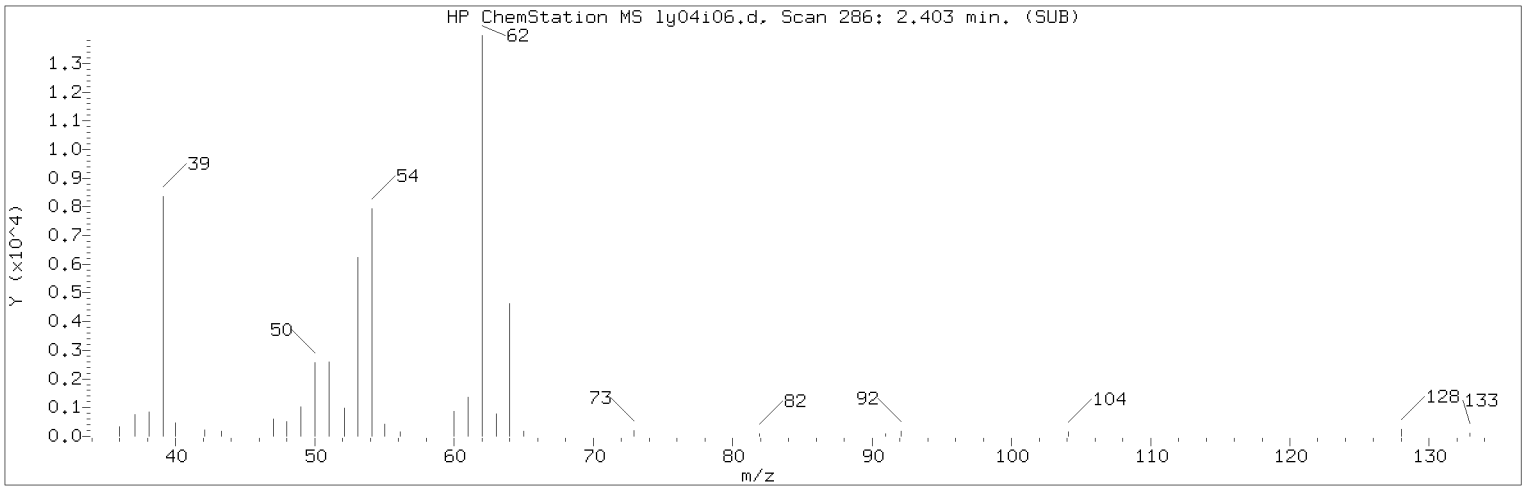
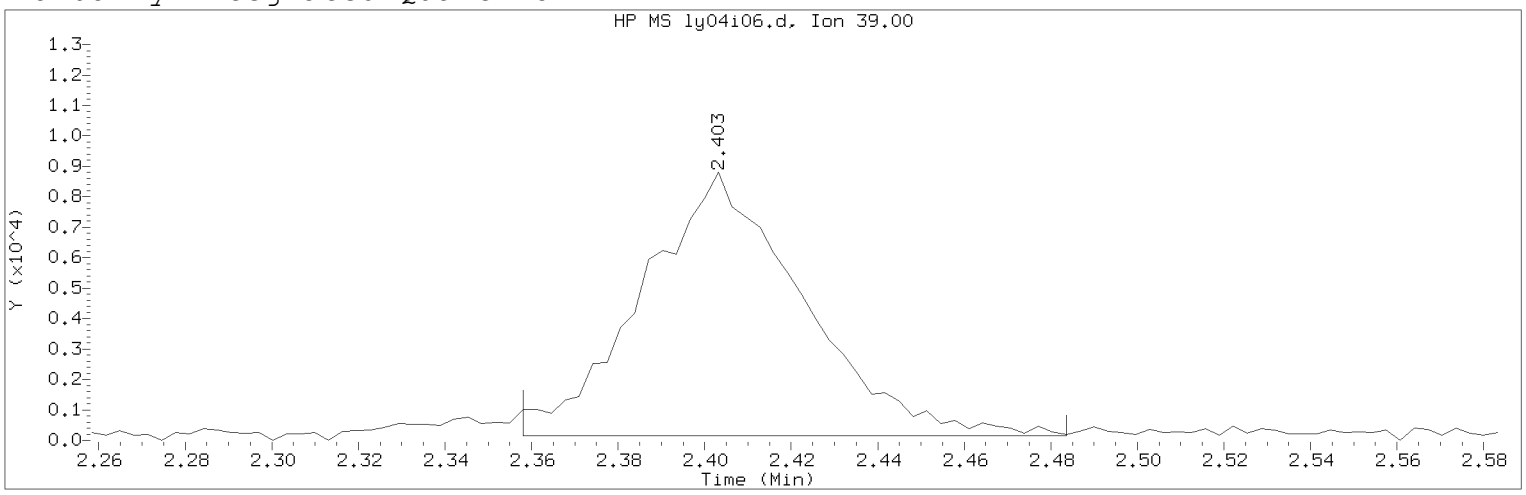
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

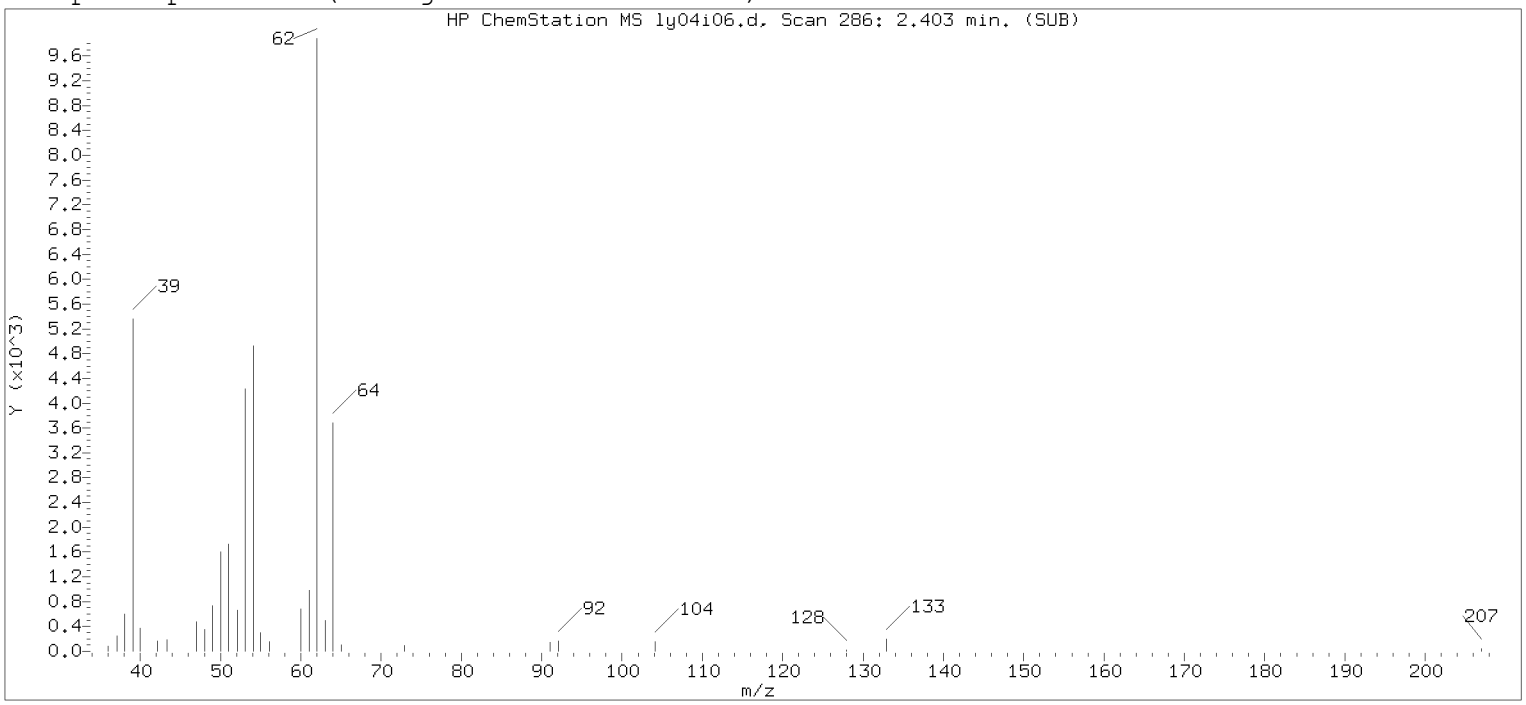
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area (flag) : 22445M
On-Column Amount (ng) : 4.2049
Integration start scan : 271 Integration stop scan: 310
Y at integration start : 140 Y at integration end: 140

Reason for manual integration: improper integration

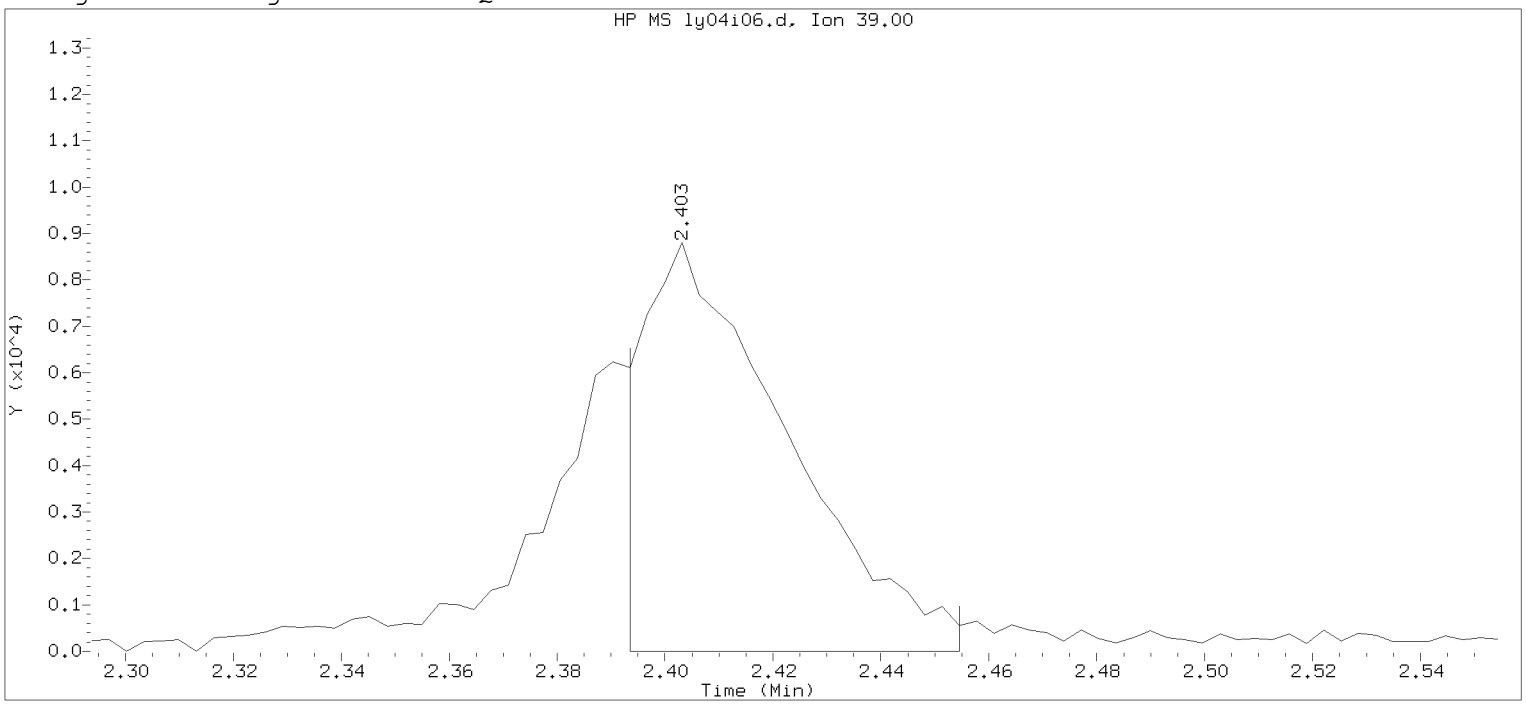
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

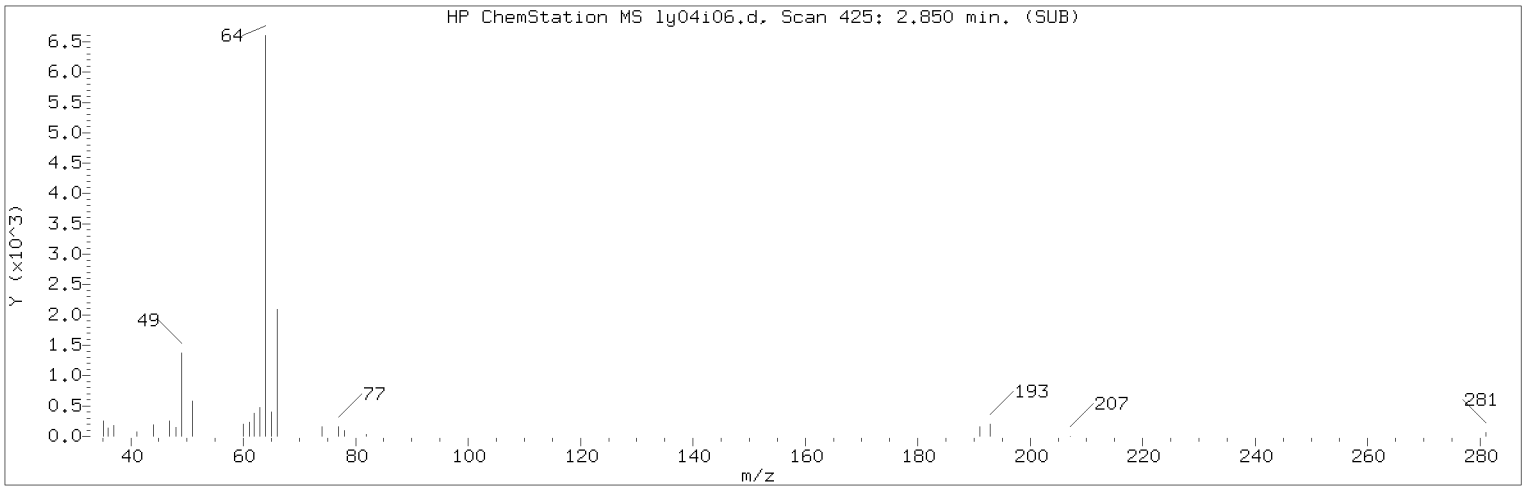
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

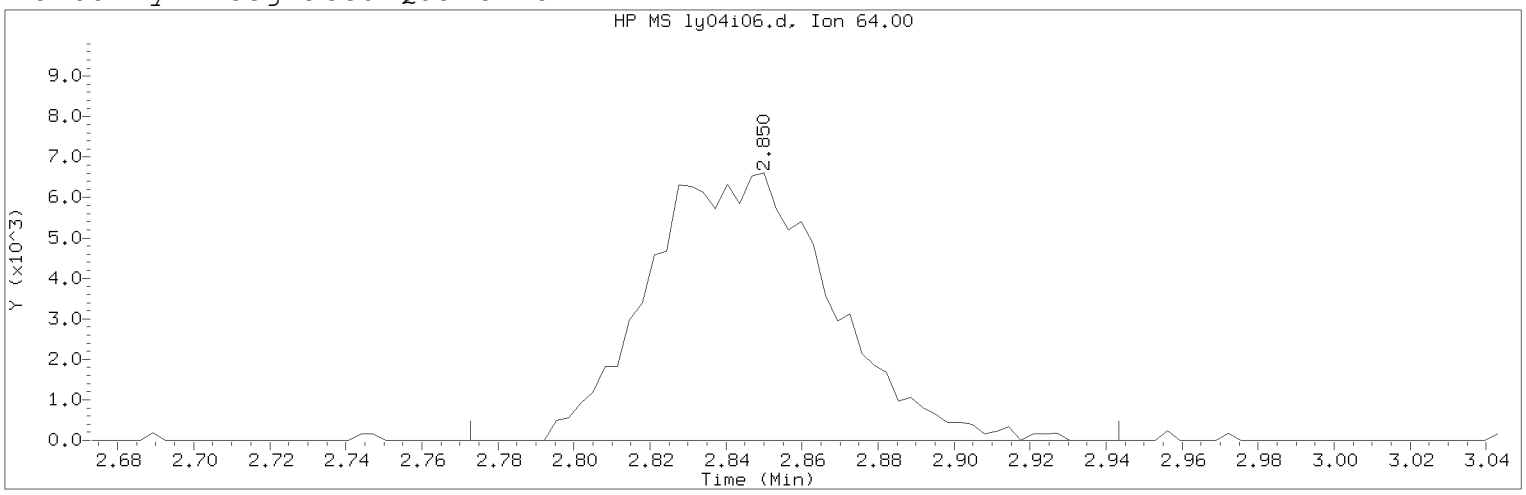
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 286
Retention Time (minutes): 2.403
Quant Ion : 39.00
Area : 16243
On-column Amount (ng) : 3.2238
Integration start scan : 282 Integration stop scan: 301
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

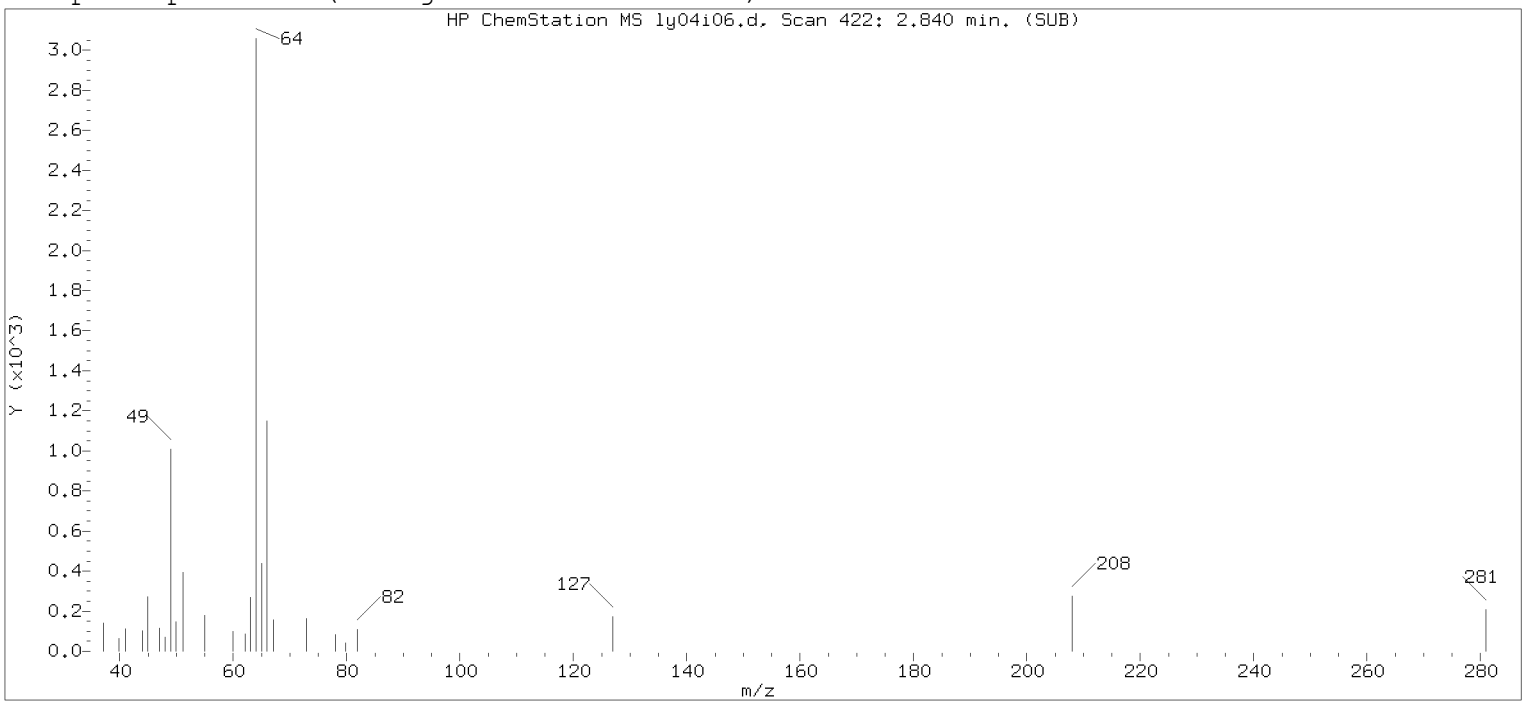
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 425
Retention Time (minutes): 2.850
Quant Ion : 64.00
Area (flag) : 22132M
On-Column Amount (ng) : 4.9369
Integration start scan : 400 Integration stop scan: 453
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

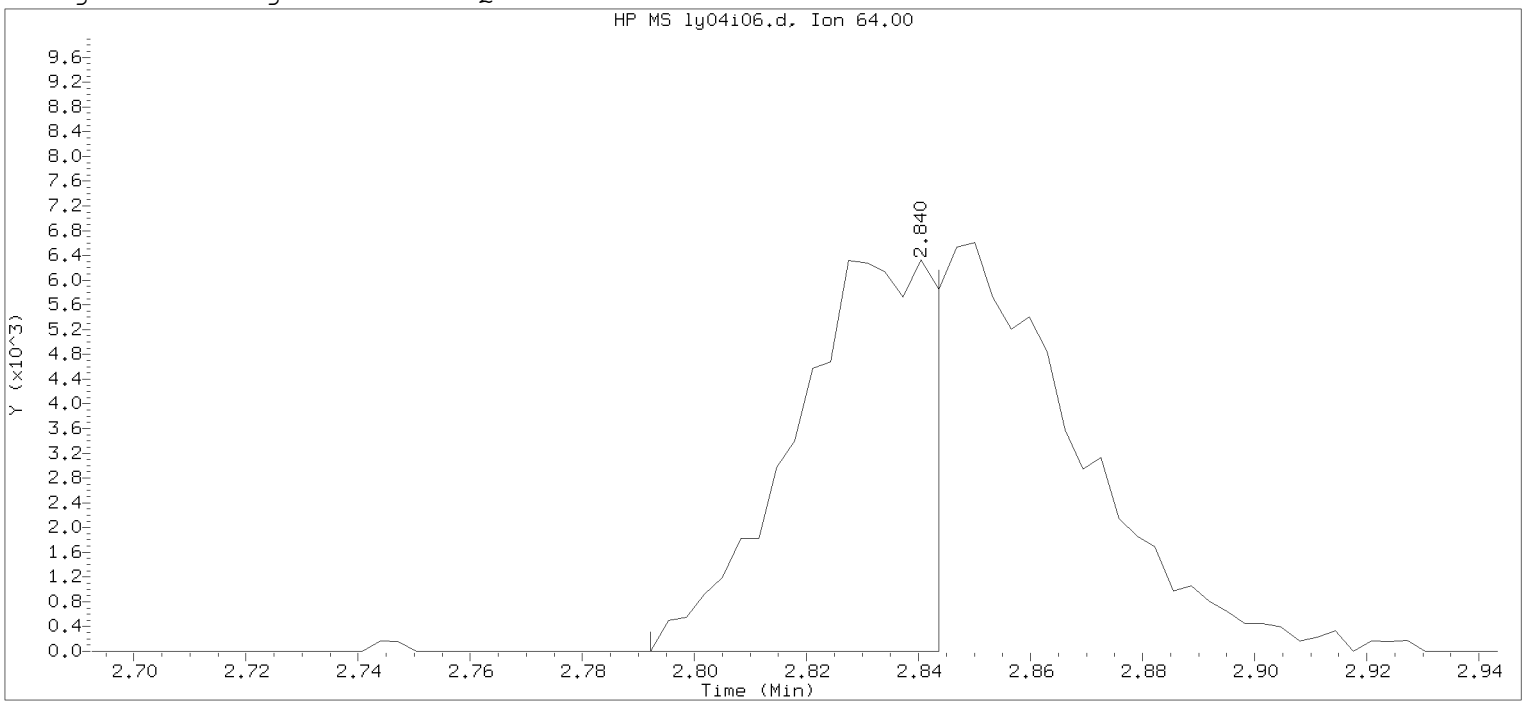
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 10831
On-column Amount (ng) : 2.8757
Integration start scan : 406 Integration stop scan: 422
Y at integration start : 0 Y at integration end: 0

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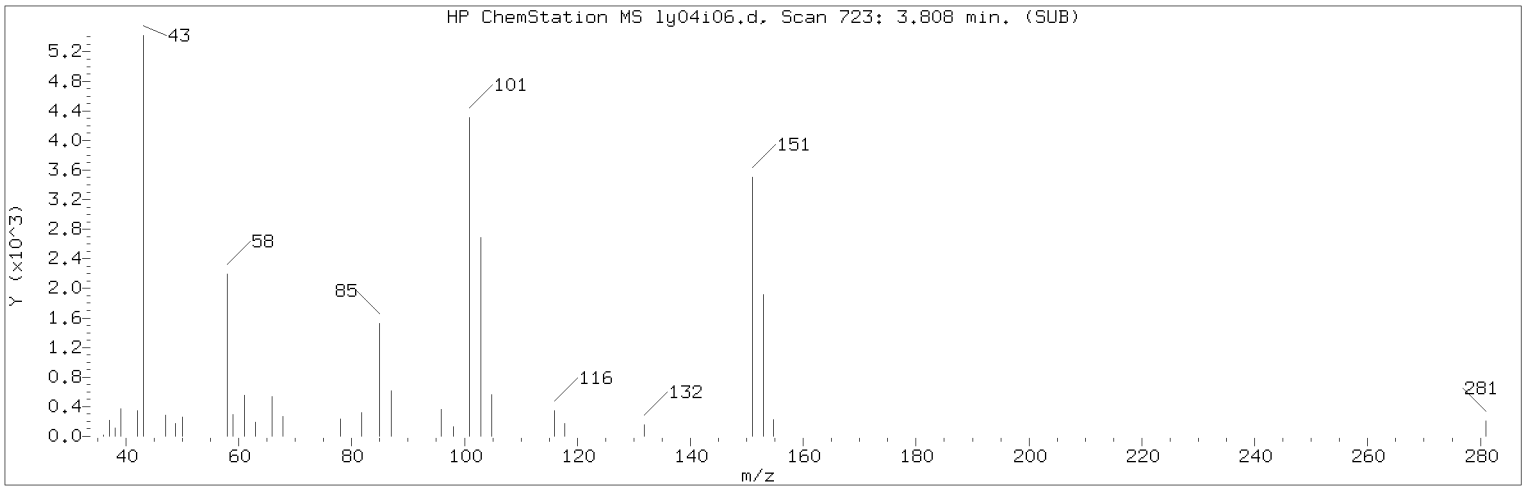
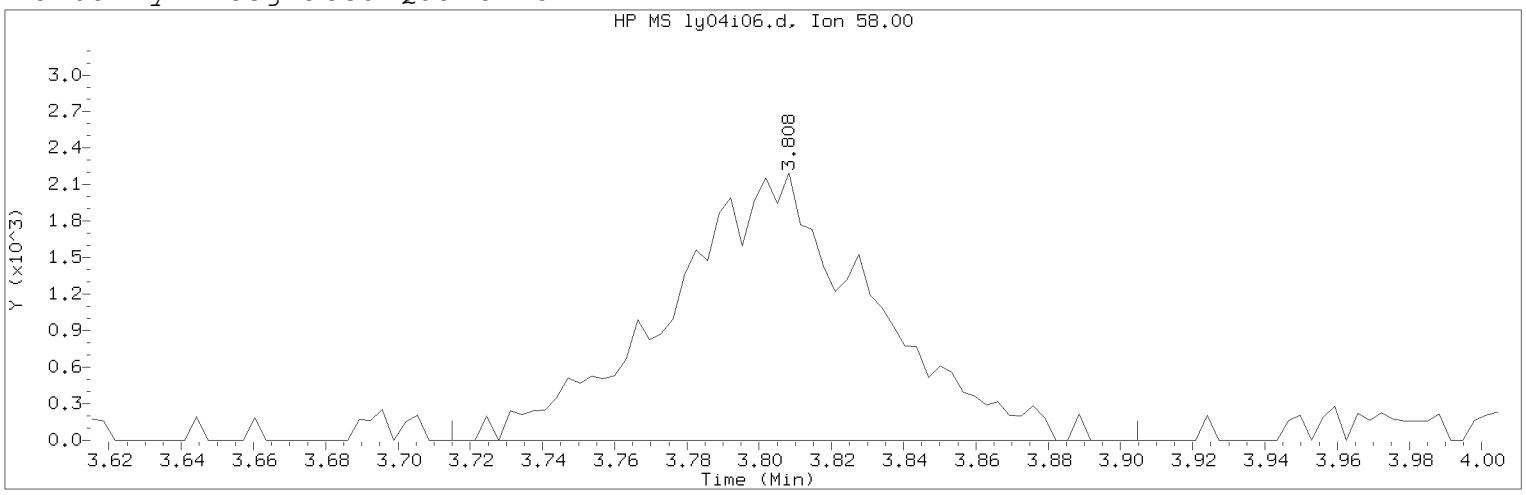
Target 3.5 esignature user ID: sejo0031

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

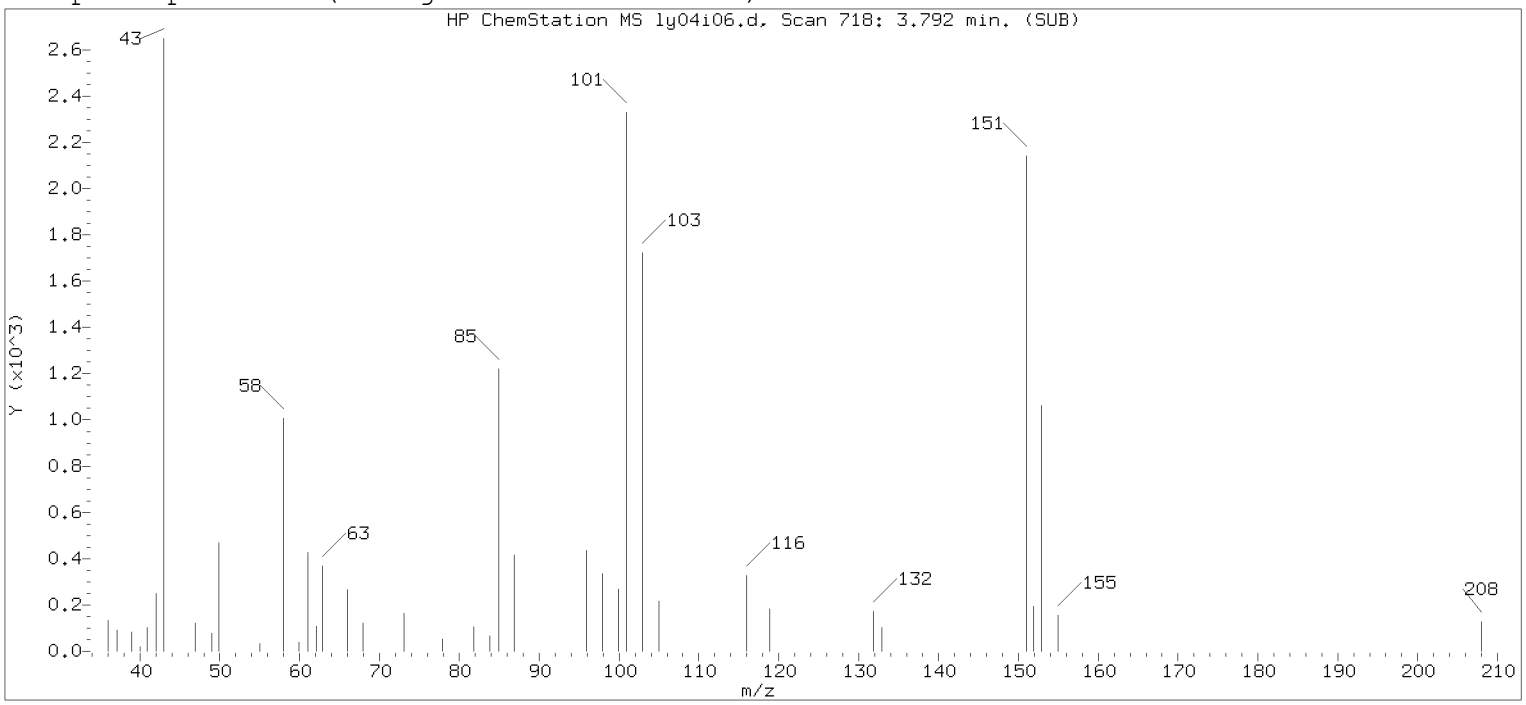
Compound Number : 18
Compound Name : Acetone
Scan Number : 723
Retention Time (minutes): 3.808
Quant Ion : 58.00
Area (flag) : 8567M
On-Column Amount (ng) : 7.9882
Integration start scan : 693 Integration stop scan: 752
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

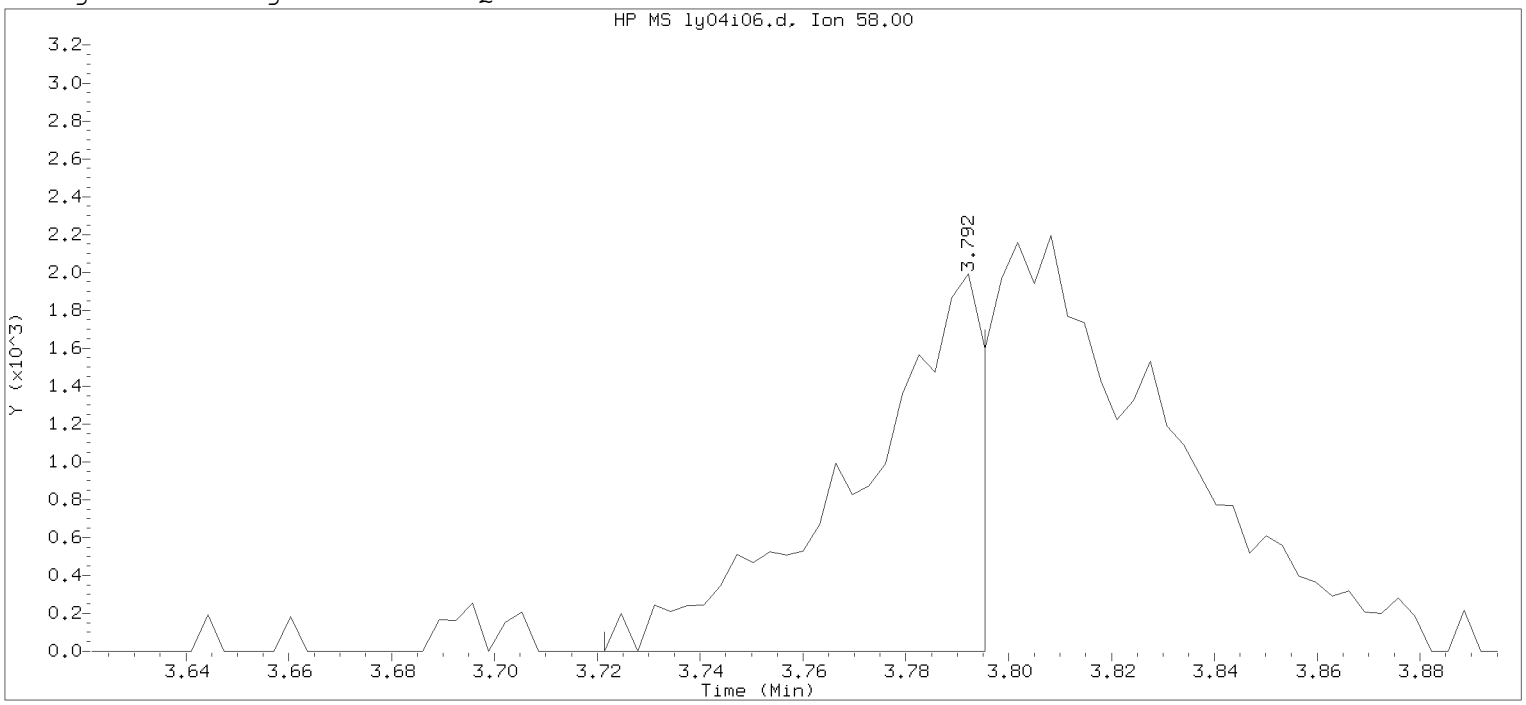
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

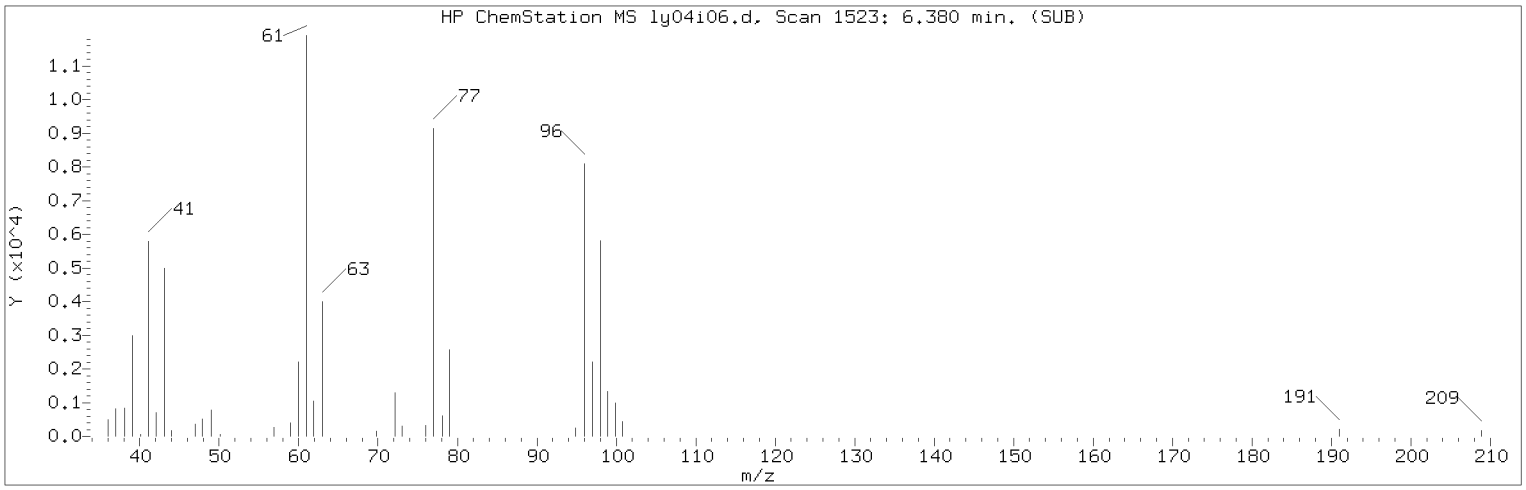
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

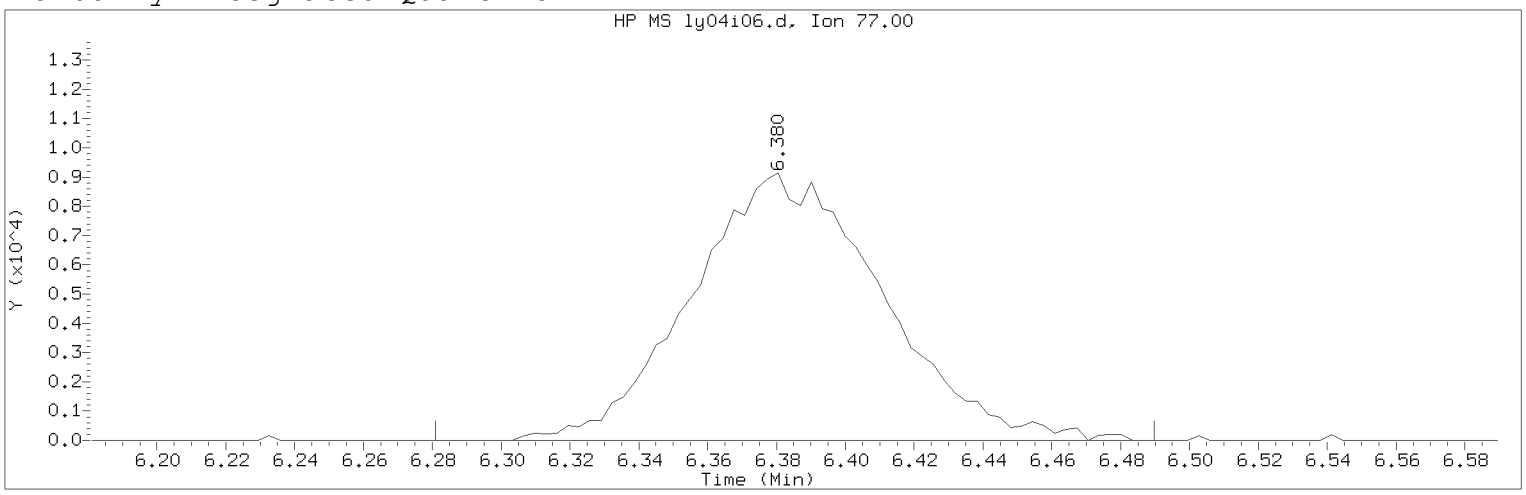
Compound Number : 18
Compound Name : Acetone
Scan Number : 718
Retention Time (minutes): 3.792
Quant Ion : 58.00
Area : 3364
On-column Amount (ng) : 3.7739
Integration start scan : 695 Integration stop scan: 718
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0032

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

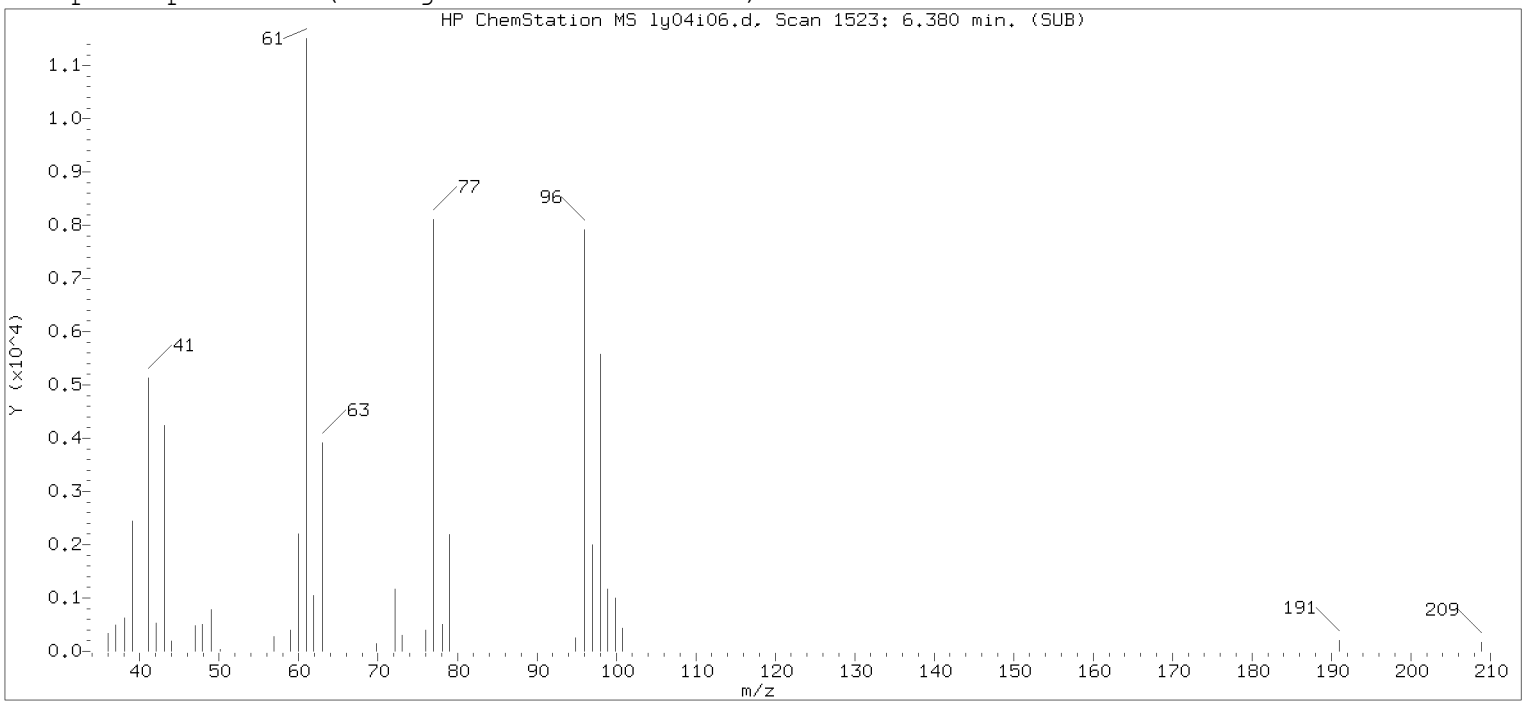
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area (flag) : 35169M
On-Column Amount (ng) : 4.0326
Integration start scan : 1491 Integration stop scan: 1556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

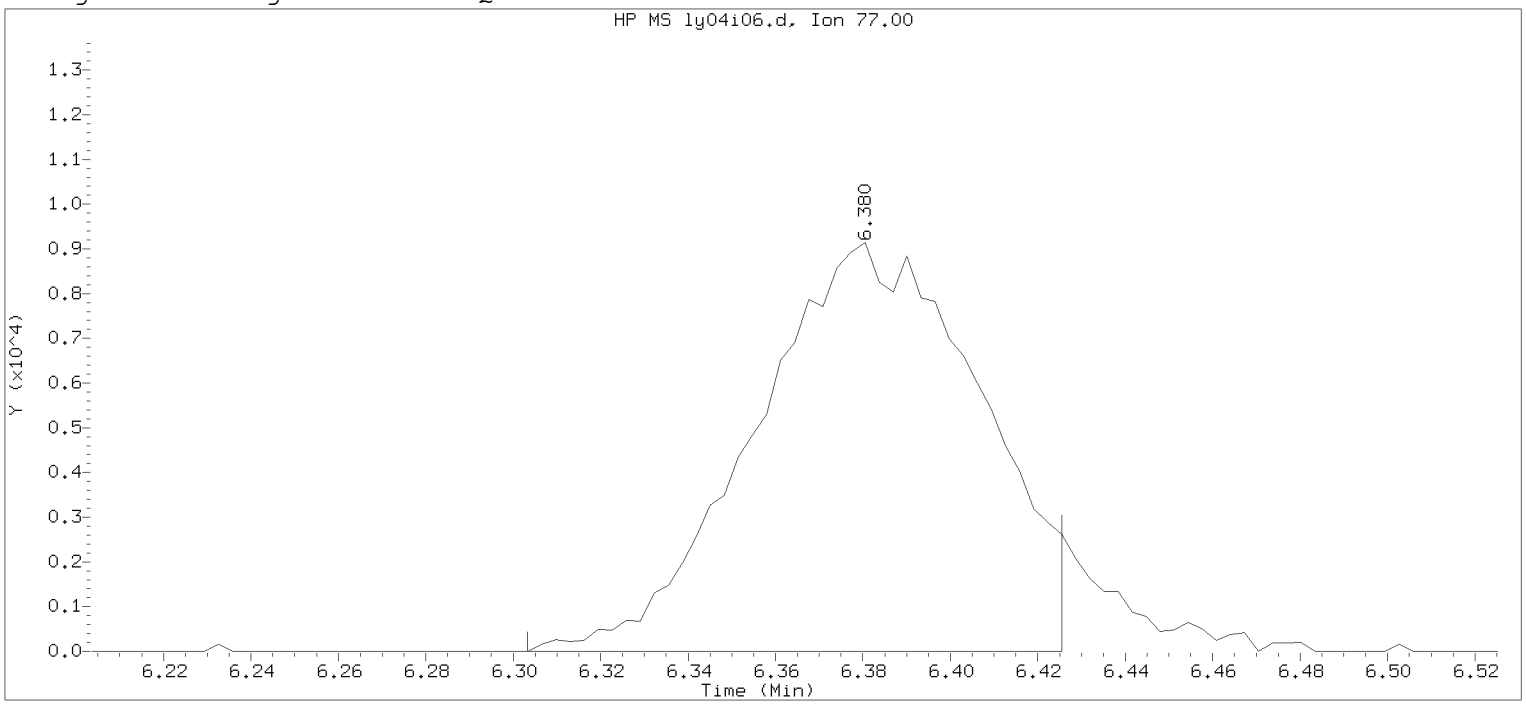
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1523
Retention Time (minutes): 6.380
Quant Ion : 77.00
Area : 32659
On-column Amount (ng) : 3.7028
Integration start scan : 1498 Integration stop scan: 1536
Y at integration start : 0 Y at integration end: 0

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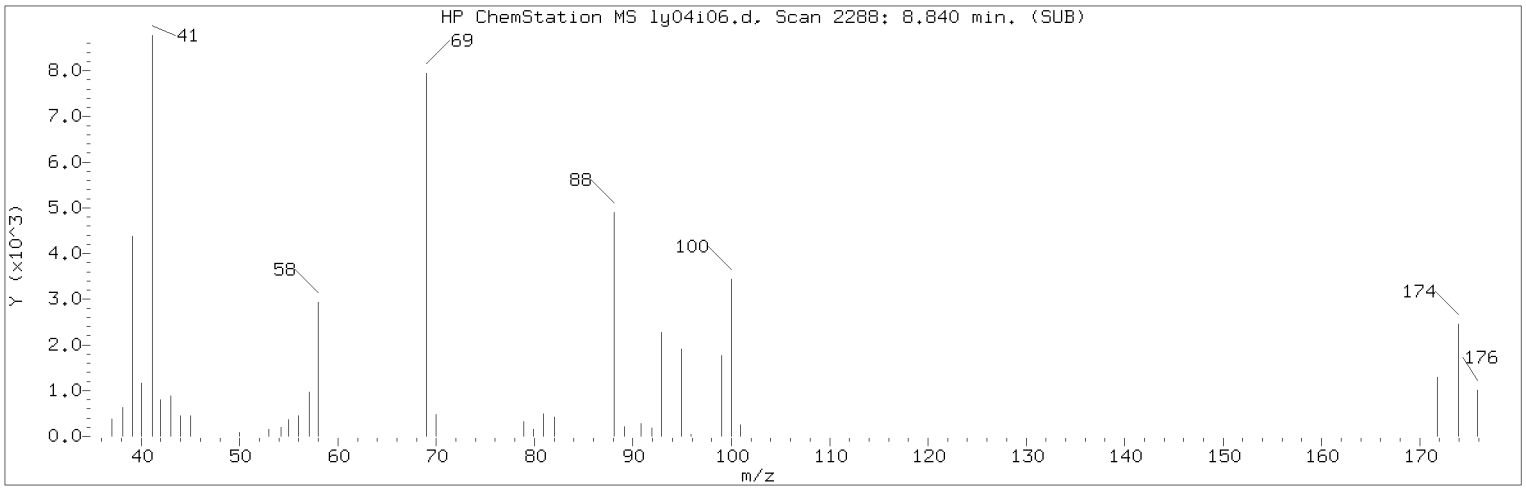
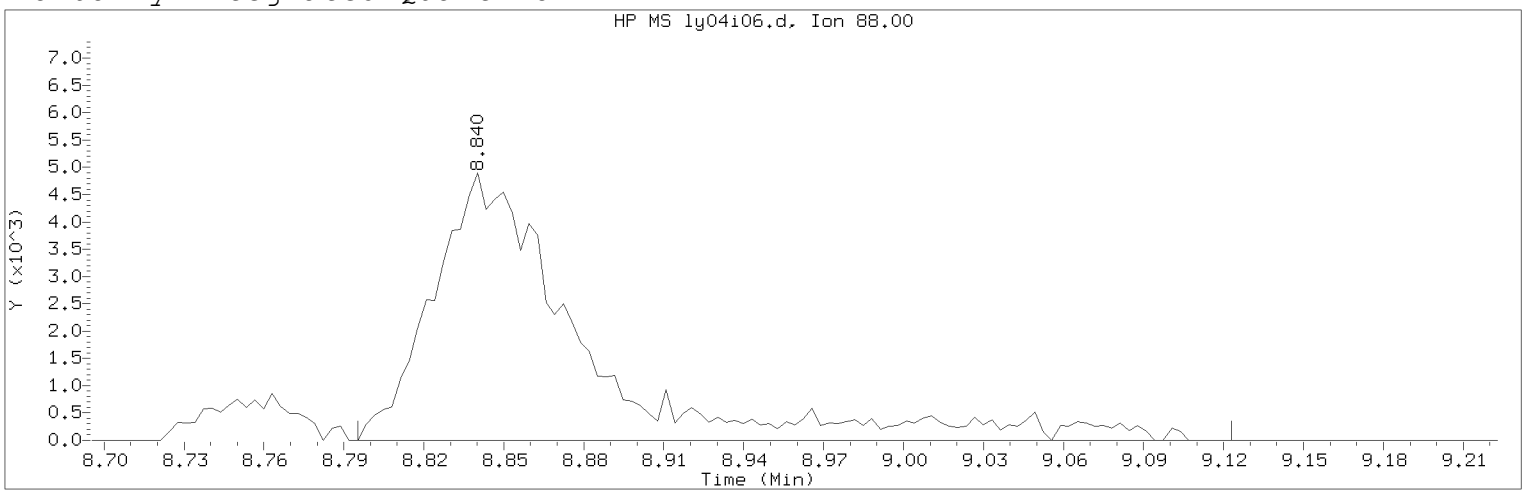
Target 3.5 esignature user JCW62 Page 235

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

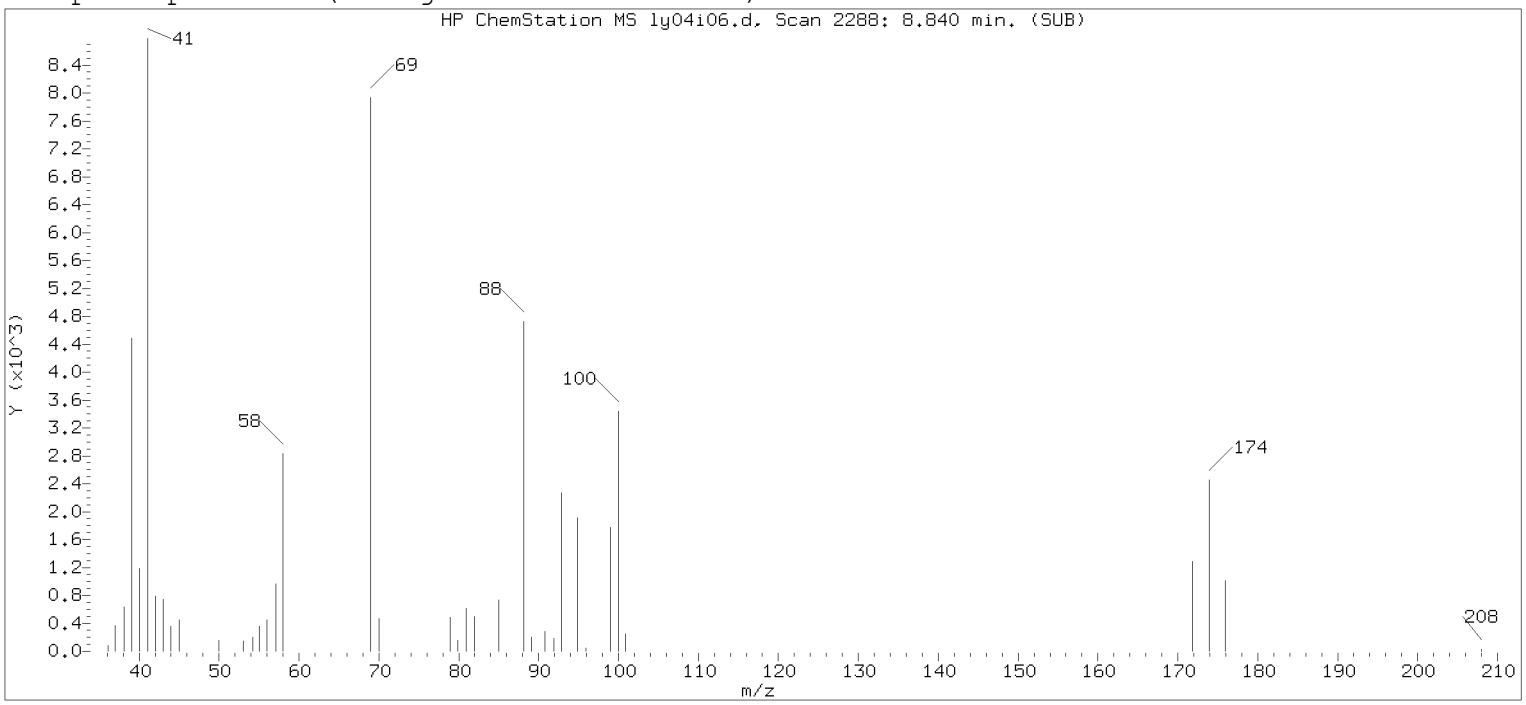
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 19114M
On-Column Amount (ng) : 199.2380
Integration start scan : 2273 Integration stop scan: 2375
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

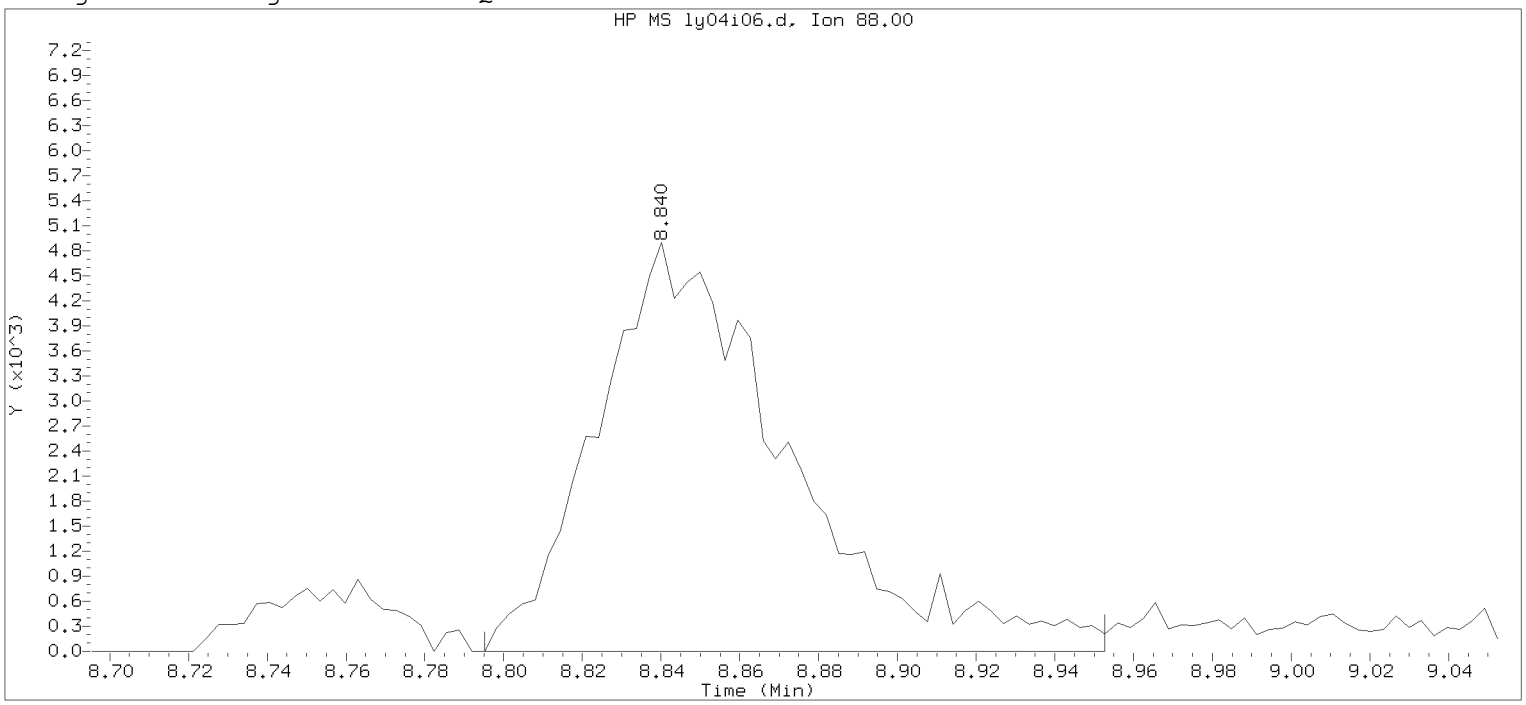
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area : 16526
On-column Amount (ng) : 173.4864
Integration start scan : 2273 Integration stop scan: 2322
Y at integration start : 0 Y at integration end: 0

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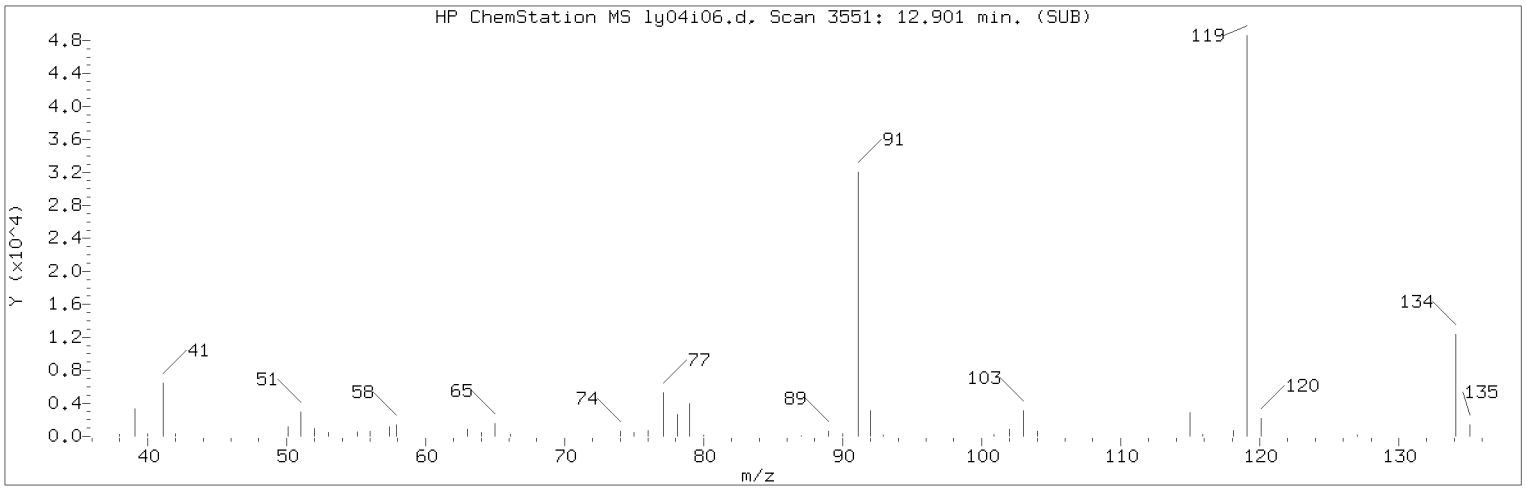
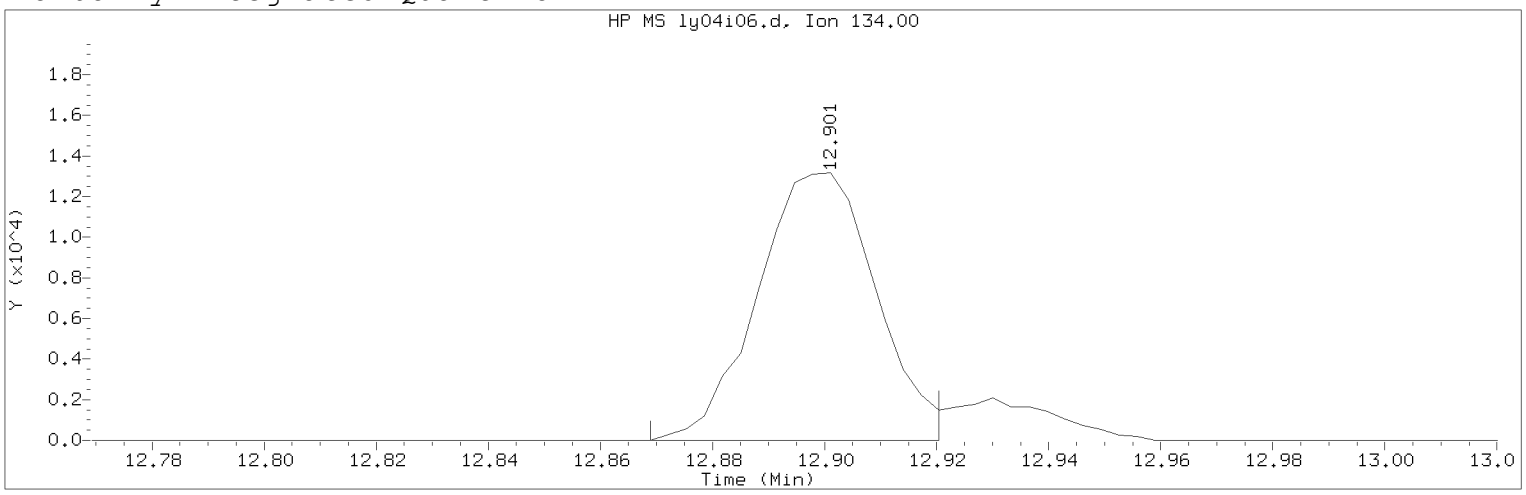
Target 3.5 esignature user ID: sej02037

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD004 Lab Sample ID: VSTD004

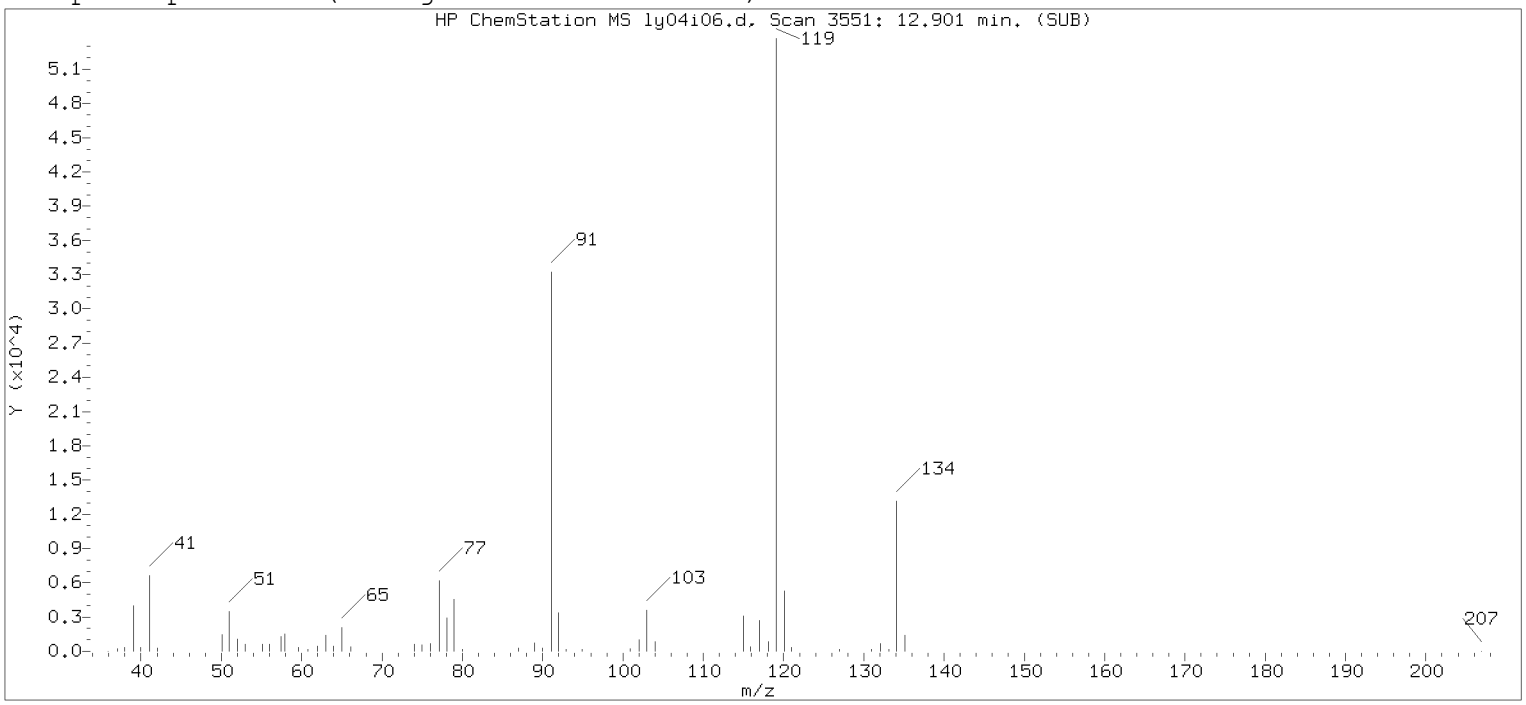
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 19337M
On-Column Amount (ng) : 3.4417
Integration start scan : 3540 Integration stop scan: 3556
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

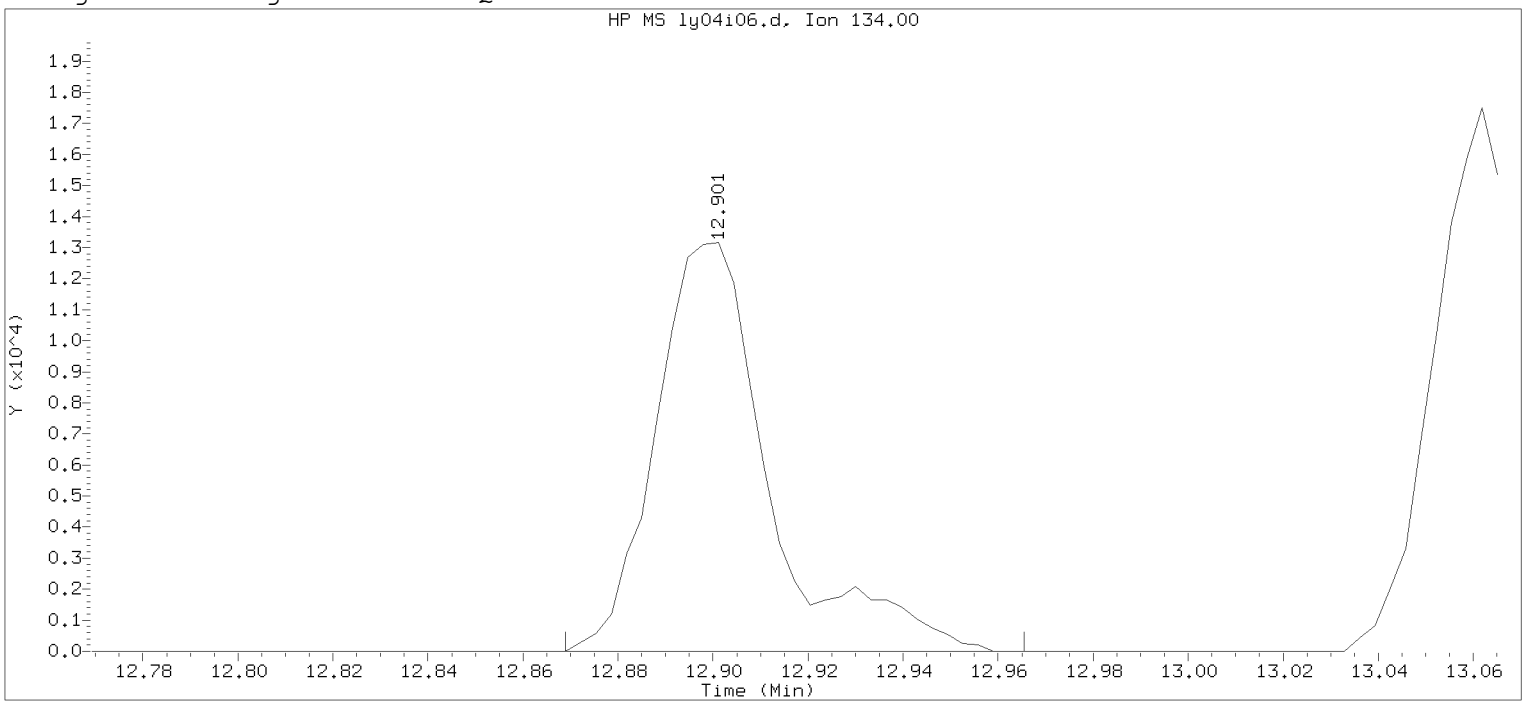
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i06.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:08 Analyst ID: lcp00895

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Calibration date and time: 04-MAY-2020 14:25
Date, time and analyst ID of latest file update: 04-May-2020 14:25 Automation

Sample Name: VSTD004 Lab Sample ID: VSTD004

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 21846
On-column Amount (ng) : 3.6346
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

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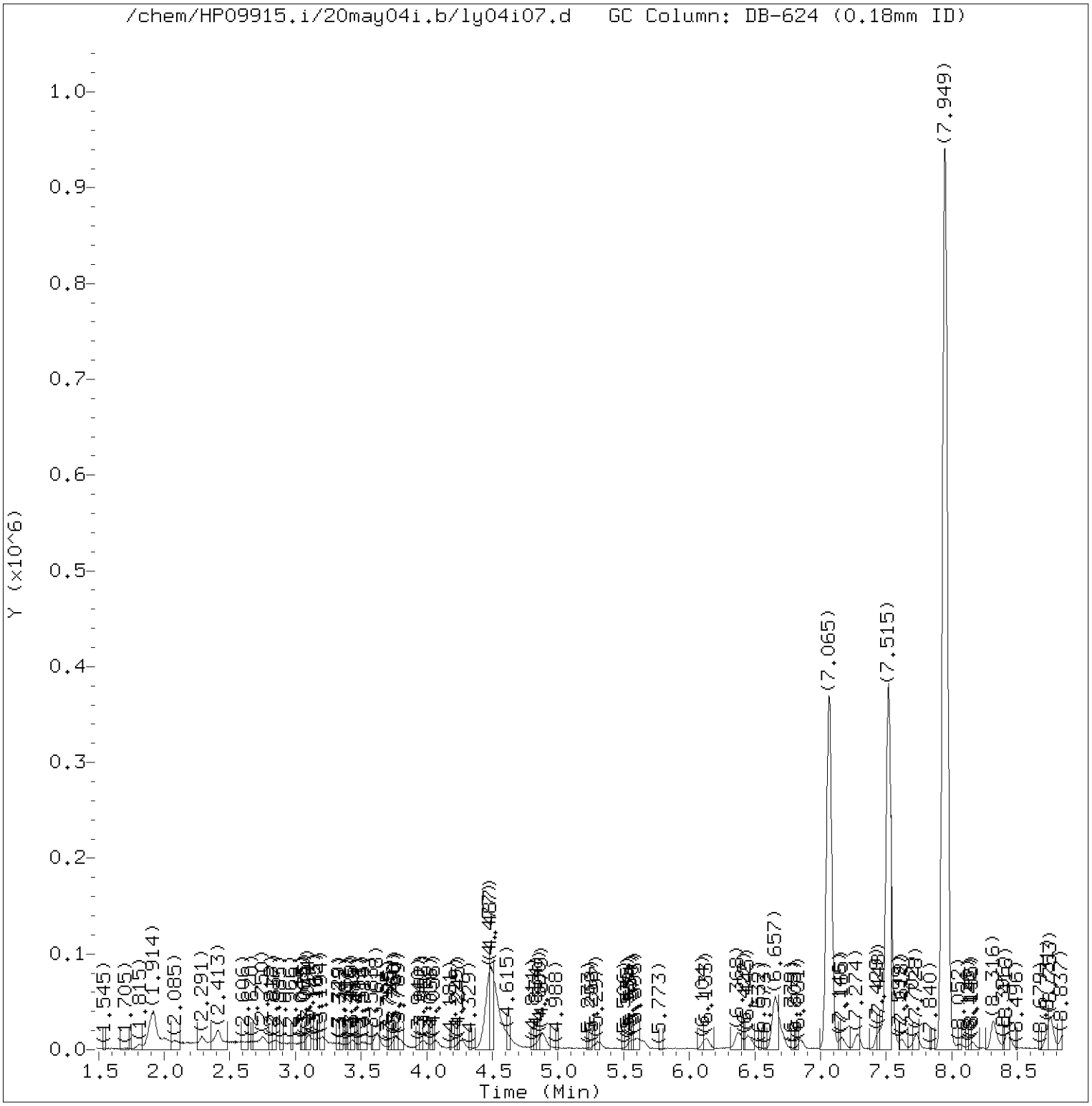
Target 3.5 esignature user ID: sejo0039



Total Ion Chromatogram (TIC)

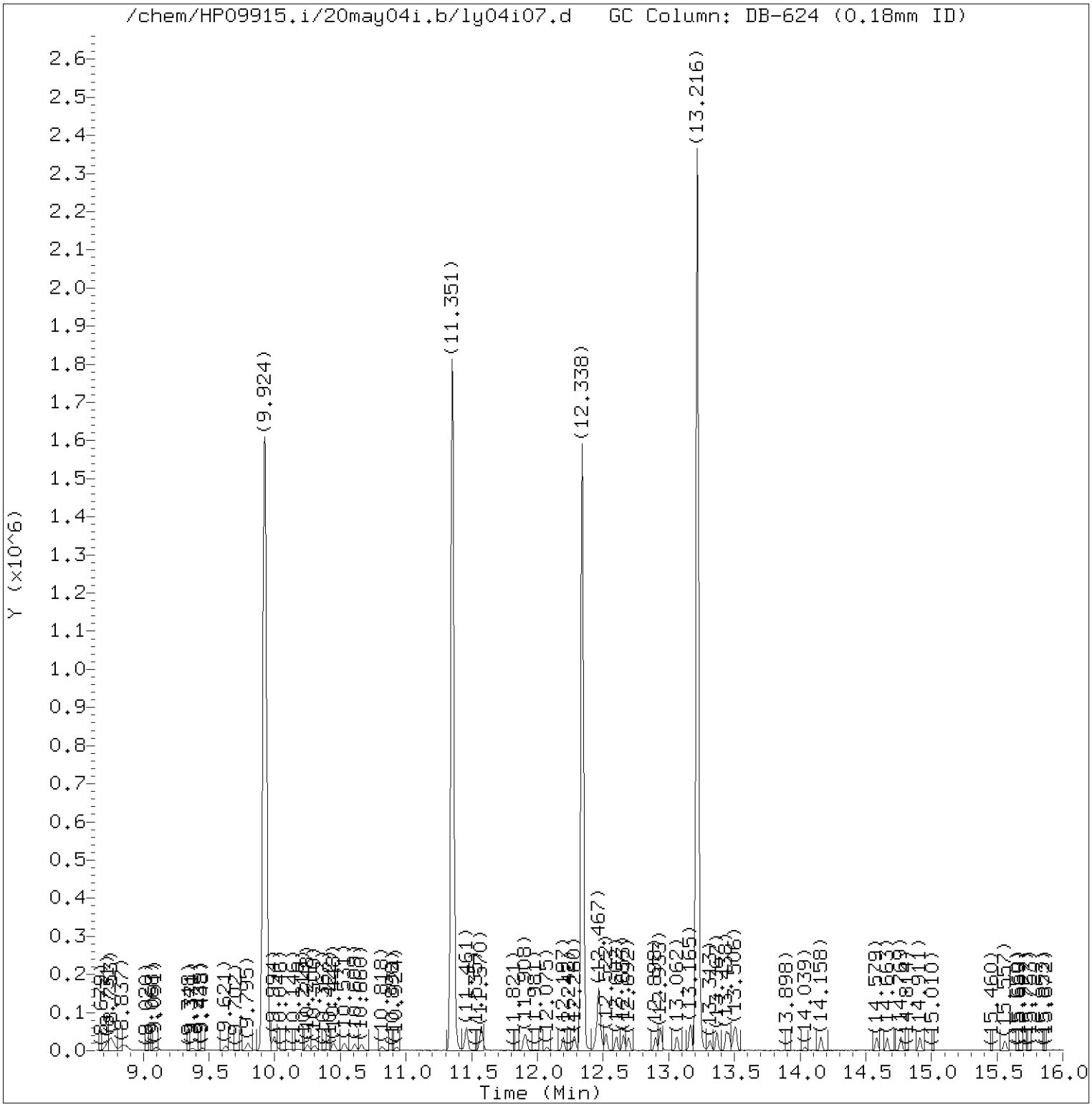
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.085	85	8023	0.896
4) Chloromethane	(2)	2.291	50	9098	1.088
5) 1,3-Butadiene	(2)	2.406	39	5686M	1.060
6) Vinyl Chloride	(2)	2.416	62	8737	1.083
8) Bromomethane	(2)	2.747	94	6838	1.176
9) Chloroethane	(2)	2.840	64	5438M	1.207
10) Dichlorofluoromethane	(2)	3.094	67	10216	1.051
12) Trichlorofluoromethane	(2)	3.168	101	8417	0.955
11) n-Pentane	(2)	3.210	43	7608M	0.920
14) Ethyl ether	(2)	3.432	59	5446	0.875
15) Freon 123a	(2)	3.516	67	6261	0.877
16) Acrolein	(1)	3.615	56	23166	9.566
17) 1,1-Dichloroethene	(2)	3.757	96	5549	0.987
17) 1,1-Dichloroethene	(2)	3.770	63	2205	0.824
19) Freon 113	(2)	3.799	101	4898	0.840
18) Acetone	(1)	3.821	58	2764M	2.502
22) Methyl Iodide	(2)	3.969	142	9677	0.894
21) 2-Propanol	(1)	3.985	45	14938M	21.218
23) Carbon Disulfide	(2)	4.062	76	16435M	0.869
27) Methyl Acetate	(2)	4.252	43	7412M	1.034
25) Allyl Chloride	(2)	4.271	41	8163	0.896
28) Methylene Chloride	(2)	4.471	84	6287	0.940
29)*t-Butyl alcohol-d10	(1)	4.487	65	294363	250.000
30) t-Butyl alcohol	(1)	4.615	59	23172	19.499
31) Acrylonitrile	(2)	4.834	53	3837	0.966
33) Methyl Tertiary Butyl Ether	(2)	4.876	73	18019	0.935
32) trans-1,2-Dichloroethene	(2)	4.888	96	6111M	0.945
34) n-Hexane	(2)	5.310	57	6497M	0.718
36) 1,1-Dichloroethane	(2)	5.548	63	10230	0.902
38) di-Isopropyl ether	(2)	5.596	45	16324	0.819
39) 2-Chloro-1,3-butadiene	(2)	5.663	53	6540	0.723
40) Ethyl t-butyl ether	(2)	6.130	59	15230	0.822
43) 1,2-Dichloroethene (Total)	(2)		96	12826	1.871
44) 2-Butanone	(2)	6.358	43	9091	1.886
42) cis-1,2-Dichloroethene	(2)	6.377	96	6715	0.926
45) 2,2-Dichloropropane	(2)	6.390	77	7531M	0.859
47) Propionitrile	(1)	6.448	54	29925	18.639
48) Methacrylonitrile	(2)	6.657	67	34606	8.694

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
49) Bromochloromethane	(2)	6.692	128	3311	0.885
50) Tetrahydrofuran	(1)	6.718	71	2576	1.834
51) Chloroform	(2)	6.856	83	10313	0.931
52)$Dibromofluoromethane	(2)	7.065	113	327107	49.723
52)$Dibromofluoromethane	(2)	7.065	111	334312	49.713
53) 1,1,1-Trichloroethane	(2)	7.075	97	8371	0.881
54) Cyclohexane	(2)	7.165	56	7115	0.669
54) Cyclohexane	(2)	7.165	84	6850	0.738
54) Cyclohexane	(2)	7.165	69	2378	0.719
56) Carbon Tetrachloride	(2)	7.281	117	6219	0.781
55) 1,1-Dichloropropene	(2)	7.287	75	6955M	0.798
58) Isobutyl Alcohol	(1)	7.448	41	19195	47.613
57)$1,2-Dichloroethane-d4	(2)	7.515	102	83472	50.005
57)$1,2-Dichloroethane-d4	(2)	7.519	65	369677	49.891
57)$1,2-Dichloroethane-d4	(2)	7.522	104	53704	50.523
60) Benzene	(2)	7.548	78	24385	0.904
61) 1,2-Dichloroethane	(2)	7.618	62	9508M	1.052
61) 1,2-Dichloroethane	(2)	7.615	98	734	0.833
65) t-Amyl methyl ether	(2)	7.734	73	16322	0.862
67) n-Heptane	(2)	7.946	43	7624	0.810
66)*Fluorobenzene	(2)	7.949	96	1305845	50.000
69) n-Butanol	(1)	8.313	56	25742	78.312
71) Trichloroethene	(2)	8.425	95	6044	0.886
72) Methylcyclohexane	(2)	8.731	83	7534	0.679
72) Methylcyclohexane	(2)	8.731	98	3392	0.676
73) 1,2-Dichloropropane	(2)	8.757	63	6479	0.932
76) Methyl Methacrylate	(2)	8.840	69	4771M	0.799
75) 1,4-Dioxane	(1)	8.850	88	4194	42.444
74) Dibromomethane	(2)	8.869	93	4079M	0.898
78) Bromodichloromethane	(2)	9.107	83	6897	0.847
79) 2-Nitropropane	(2)	9.374	41	3881	1.589
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	3089	0.668
81) cis-1,3-Dichloropropene	(2)	9.631	75	8067	0.758
82) 4-Methyl-2-pentanone	(2)	9.795	43	14679	1.504
83)$Toluene-d8	(3)	9.924	98	1320930	49.236
83)$Toluene-d8	(3)	9.924	100	856712	49.205
88) Toluene	(3)	9.991	92	14924	0.873
90) 1,3-Dichloropropene (total)	(3)		100	15946	1.561

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Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
89) trans-1,3-Dichloropropene	(3)	10.248	75	7879	0.803
91) Ethyl Methacrylate	(3)	10.306	69	6707	0.679
92) 1,1,2-Trichloroethane	(3)	10.448	97	6228	0.939
93) Tetrachloroethene	(3)	10.531	166	5688	0.781
94) 1,3-Dichloropropane	(3)	10.609	76	10007	0.902
96) 2-Hexanone	(3)	10.657	43	10381	1.448
97) Dibromochloromethane	(3)	10.818	129	5097	0.738
99) 1,2-Dibromoethane	(3)	10.924	107	5964	0.836
100)*Chlorobenzene-d5	(3)	11.351	117	1044326	50.000
101) 1-Chlorohexane	(3)	11.354	91	8043	0.919
102) Chlorobenzene	(3)	11.377	112	17474	0.890
103) 1,1,1,2-Tetrachloroethane	(3)	11.461	131	5490	0.825
104) Ethylbenzene	(3)	11.461	91	25022	0.791
106) m+p-Xylene	(3)	11.573	106	18632	1.498
108) Xylene (Total)	(3)		106	27231	2.213
107) o-Xylene	(3)	11.898	106	8599	0.715
109) Styrene	(3)	11.917	104	12566	0.642
110) Bromoform	(3)	12.075	173	3758	0.748
111) Isopropylbenzene	(3)	12.197	105	19546	0.640
112) Cyclohexanone	(1)	12.280	55	15170M	41.244
114)$4-Bromofluorobenzene	(3)	12.338	95	512453	49.643
114)$4-Bromofluorobenzene	(3)	12.342	174	441400	49.875
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	10218	0.935
115) Bromobenzene	(4)	12.457	156	7896	0.900
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	26358	8.293
117) 1,2,3-Trichloropropane	(4)	12.493	110	2928	0.877
119) n-Propylbenzene	(4)	12.525	91	29592	0.781
120) 2-Chlorotoluene	(4)	12.599	126	6422	0.793
122) 1,3,5-Trimethylbenzene	(4)	12.653	105	18521	0.676
121) 4-Chlorotoluene	(4)	12.692	126	6754	0.804
124) tert-Butylbenzene	(4)	12.901	134	3961M	0.704
125) Pentachloroethane	(4)	12.933	167	4085	0.817
126) 1,2,4-Trimethylbenzene	(4)	12.943	105	18226	0.644
127) sec-Butylbenzene	(4)	13.062	105	20974	0.629
130) p-Isopropyltoluene	(4)	13.165	119	17502	0.612
129) 1,3-Dichlorobenzene	(4)	13.165	146	14103	0.863
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	599351	50.000
133) 1,4-Dichlorobenzene	(4)	13.235	146	15472	0.902

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Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	24886	0.846
135) Benzyl Chloride	(4)	13.313	91	15879	0.713
136) 1,3-Diethylbenzene	(4)	13.364	119	13894	0.755
141) Diethylbenzene (total)	(4)		100	40181	2.263
137) 1,4-Diethylbenzene	(4)	13.435	119	13946	0.724
139) n-Butylbenzene	(4)	13.457	92	10687	0.728
138) 1,2-Dichlorobenzene	(4)	13.493	146	14584	0.887
140) 1,2-Diethylbenzene	(4)	13.512	119	12341	0.785
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	1978	0.818
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	10914	0.881
146) 1,2,4-Trichlorobenzene	(4)	14.579	180	9813	0.847
147) Hexachlorobutadiene	(4)	14.660	225	5564	1.042
148) Naphthalene	(4)	14.766	128	25497	0.680
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	9815	0.853
150) 2-Methylnaphthalene	(4)	15.557	142	11936M	3.336

M = Compound was manually integrated.

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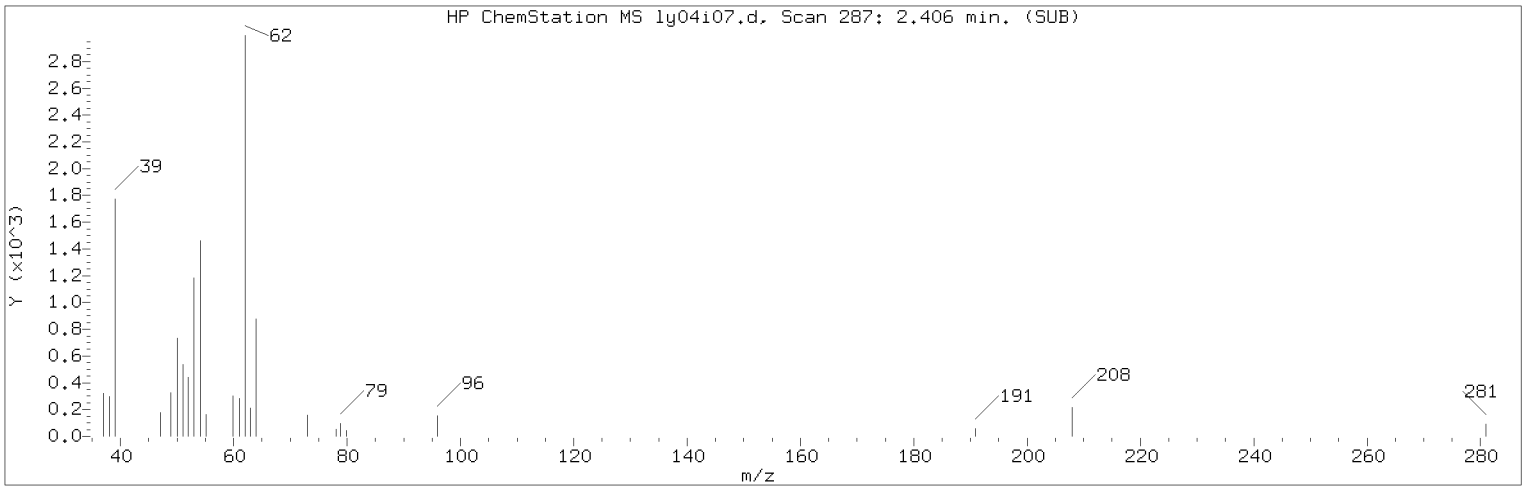
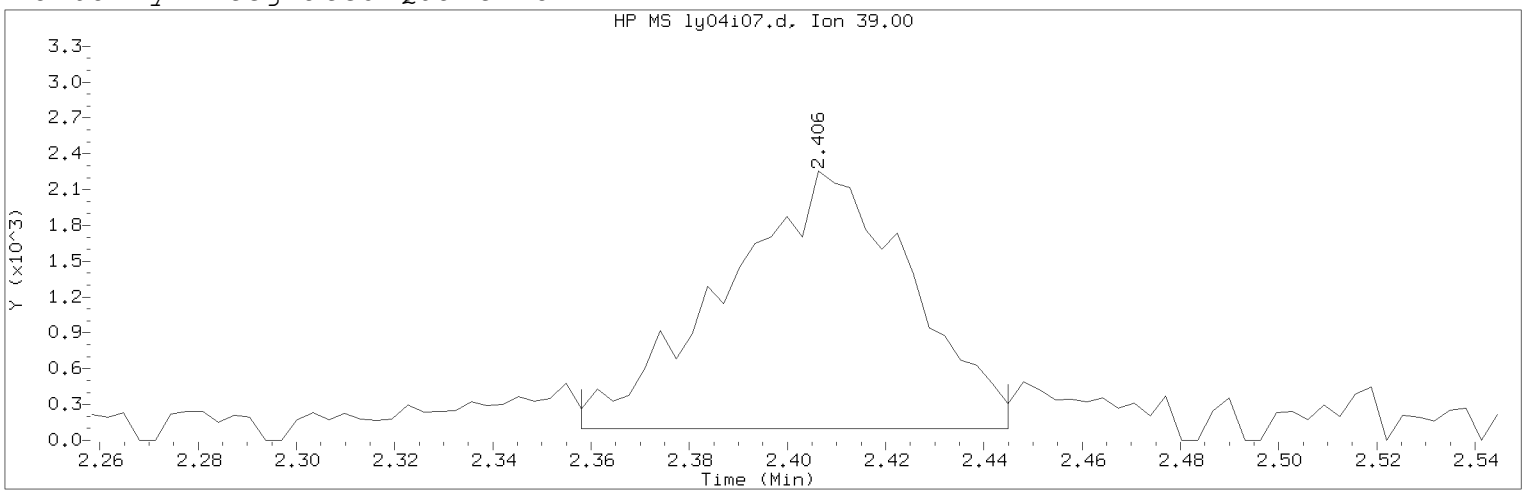
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

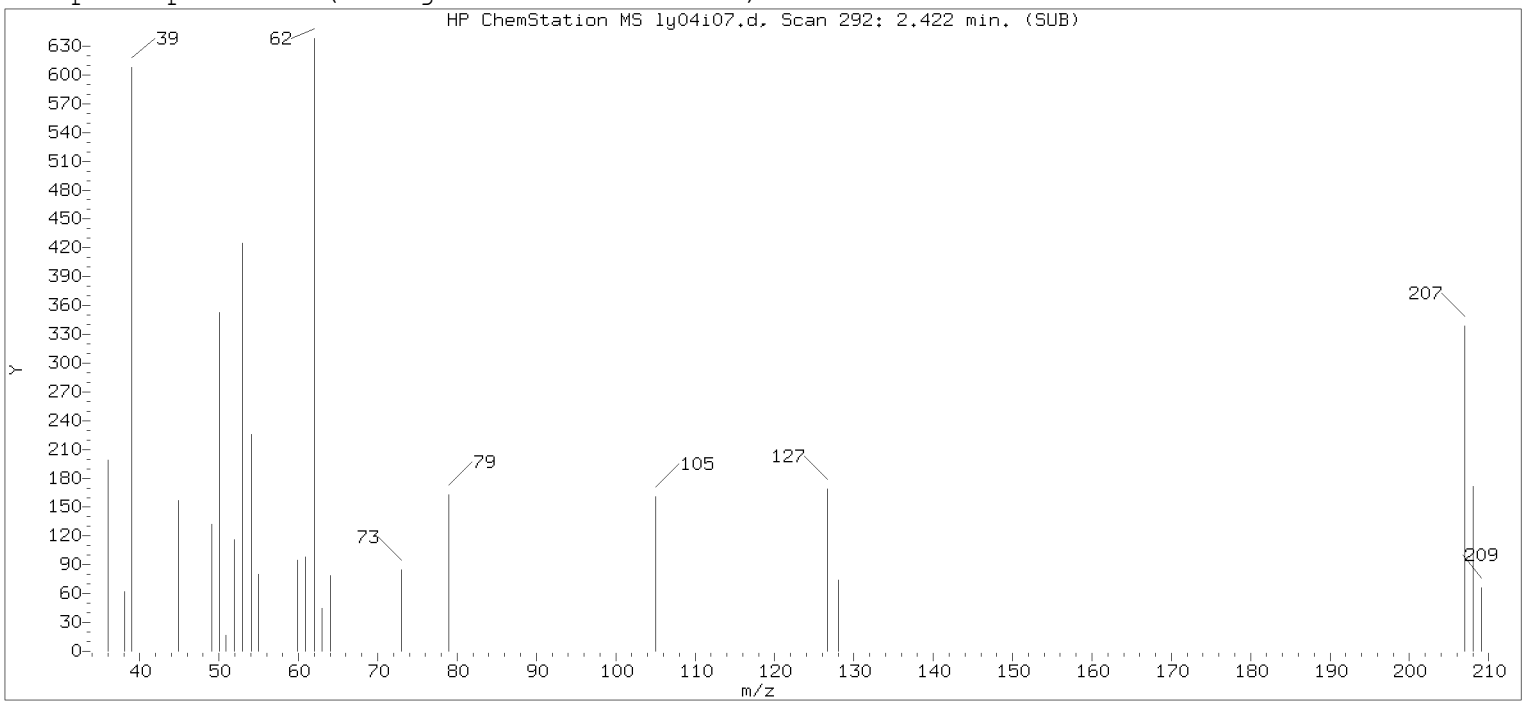
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 287
Retention Time (minutes): 2.406
Quant Ion : 39.00
Area (flag) : 5686M
On-Column Amount (ng) : 1.0601
Integration start scan : 271 Integration stop scan: 298
Y at integration start : 98 Y at integration end: 98

Reason for manual integration: improper integration

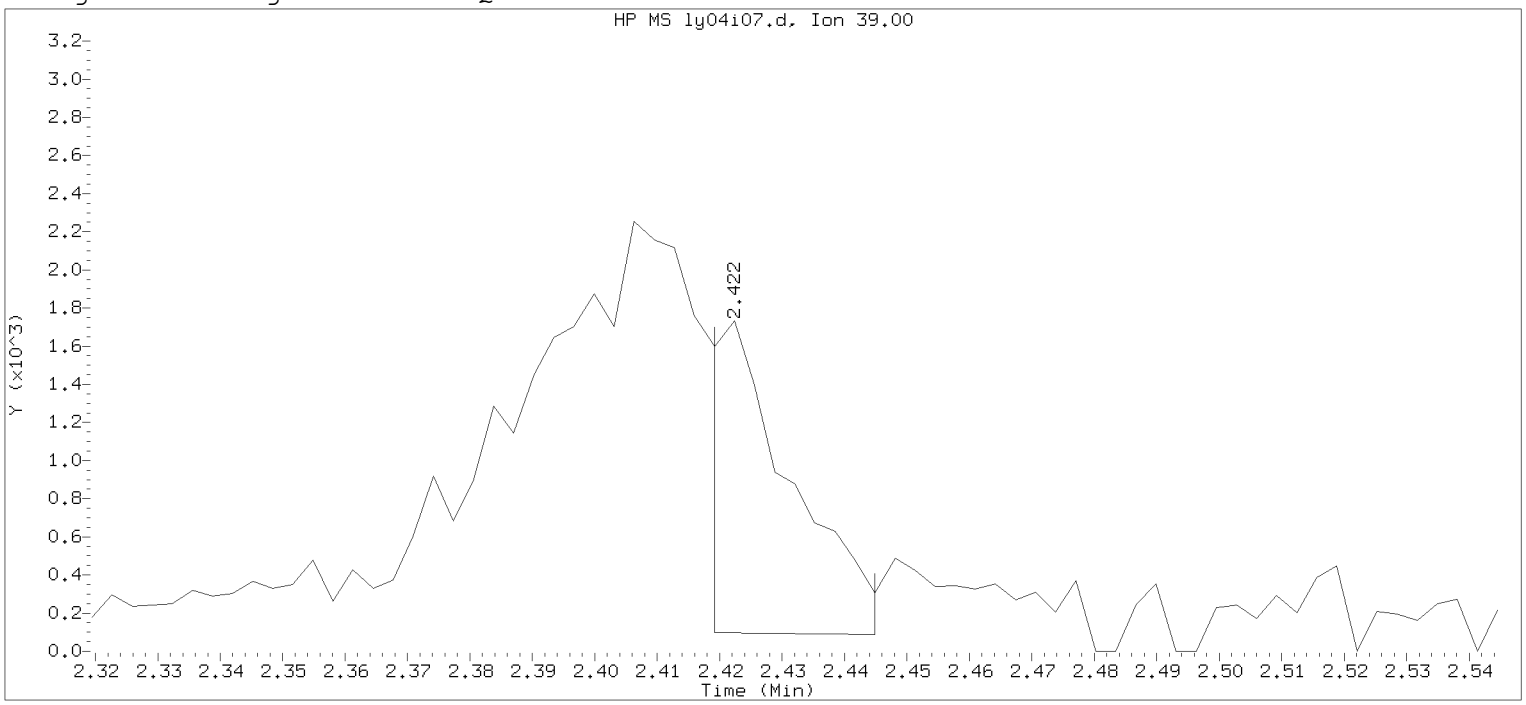
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 292
Retention Time (minutes): 2.422
Quant Ion : 39.00
Area : 1340
On-column Amount (ng) : 0.3017
Integration start scan : 290 Integration stop scan: 298
Y at integration start : 97 Y at integration end: 86

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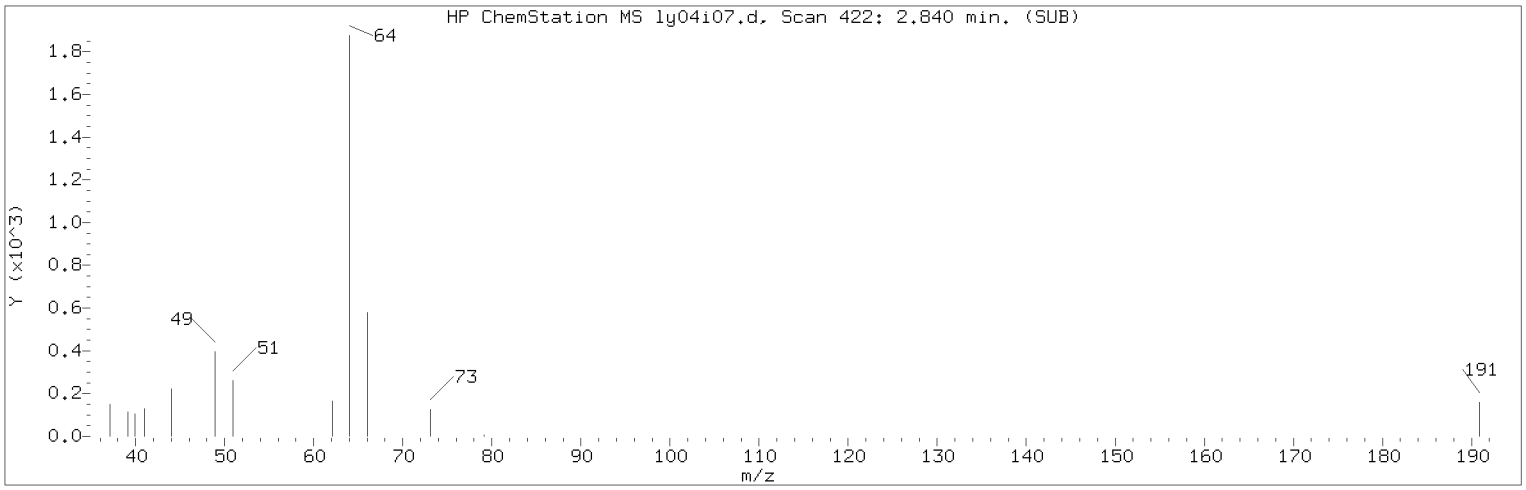
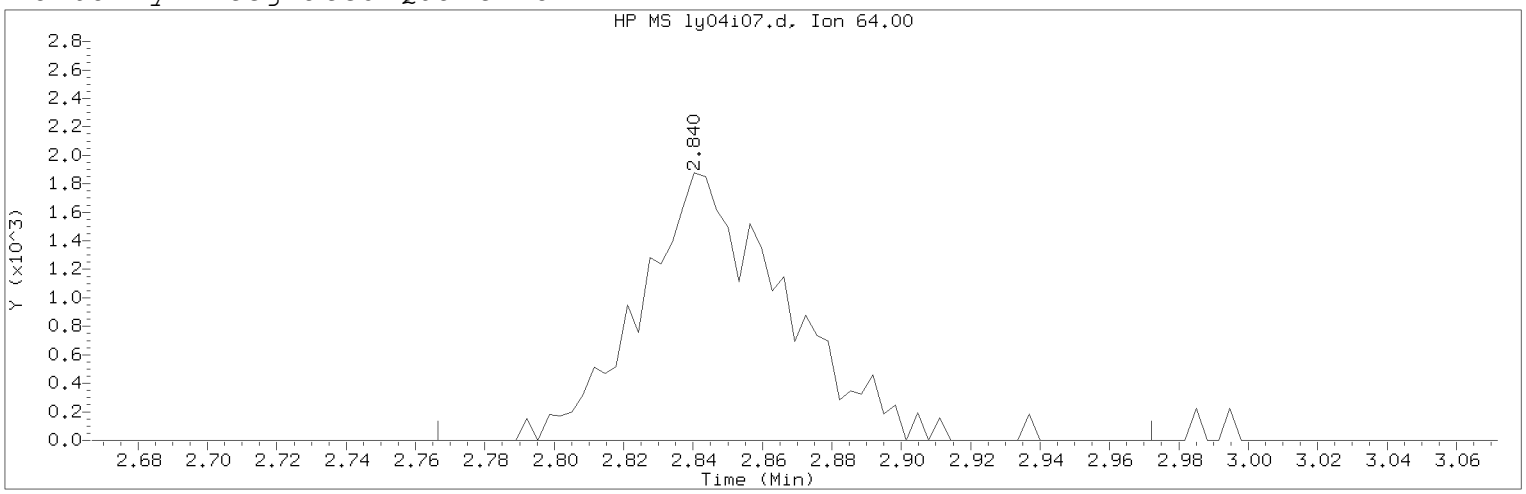
Target 3.5 esignature user review page 247

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

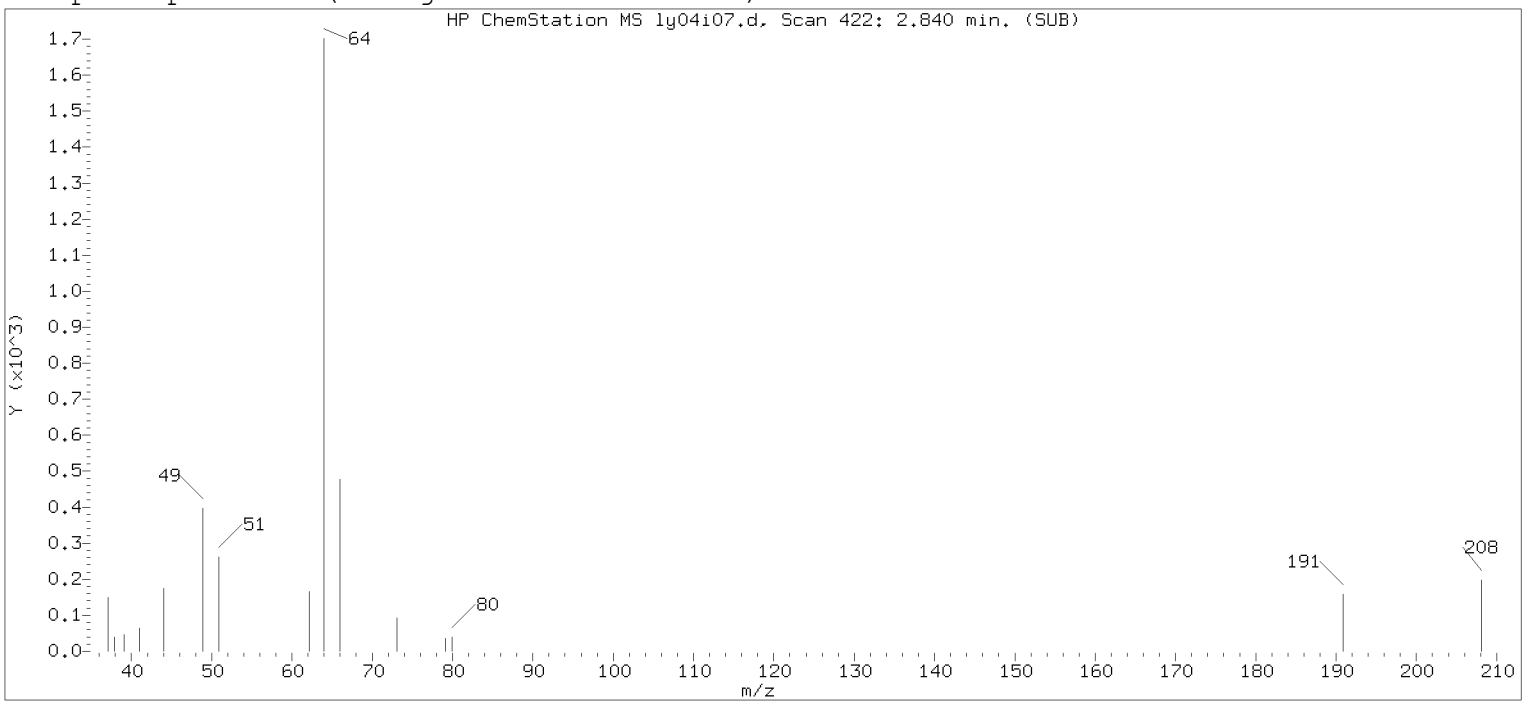
Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area (flag) : 5438M
On-Column Amount (ng) : 1.2072
Integration start scan : 398 Integration stop scan: 462
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

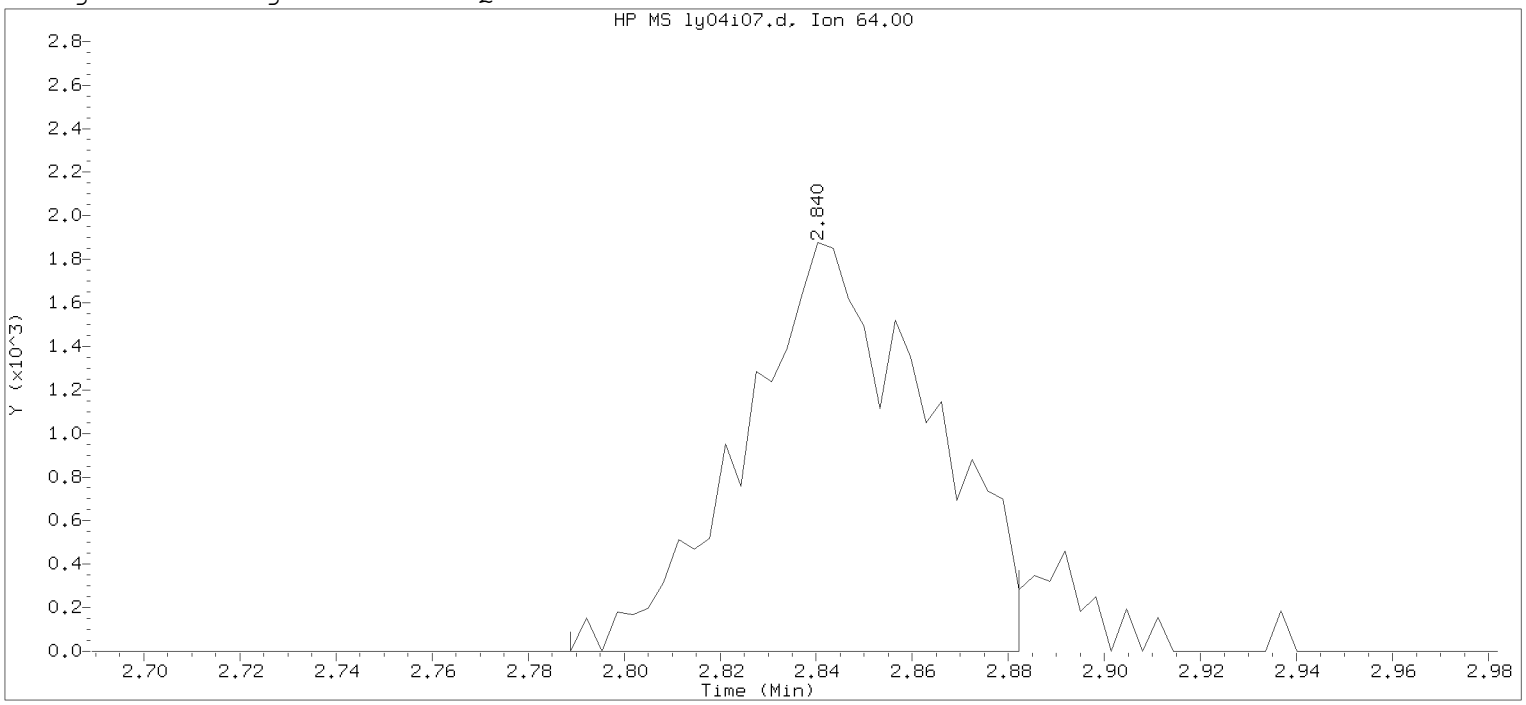
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 9
Compound Name : Chloroethane
Scan Number : 422
Retention Time (minutes): 2.840
Quant Ion : 64.00
Area : 5005
On-column Amount (ng) : 1.2551
Integration start scan : 405 Integration stop scan: 434
Y at integration start : 0 Y at integration end: 0

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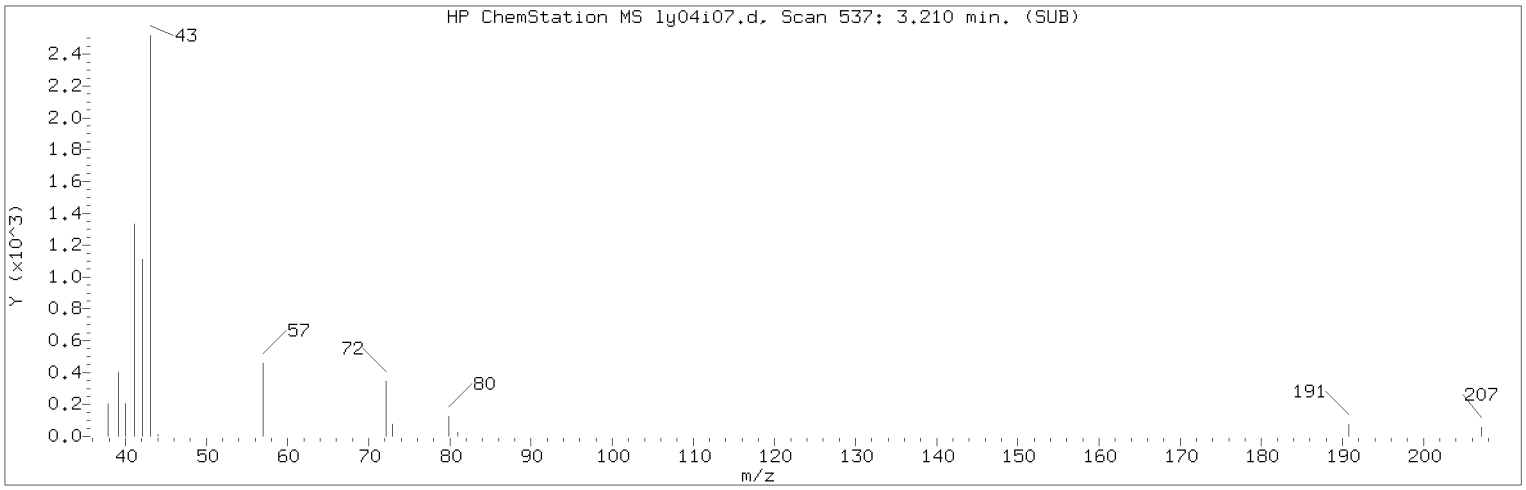
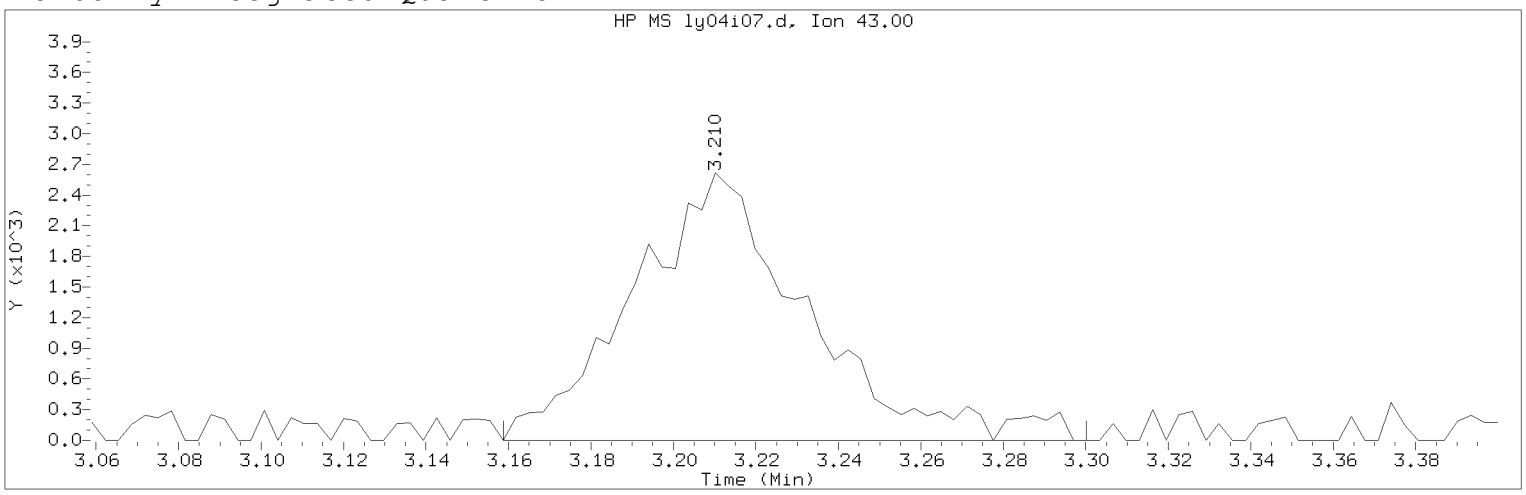
Target 3.5 esignature user ID: sejoh2020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

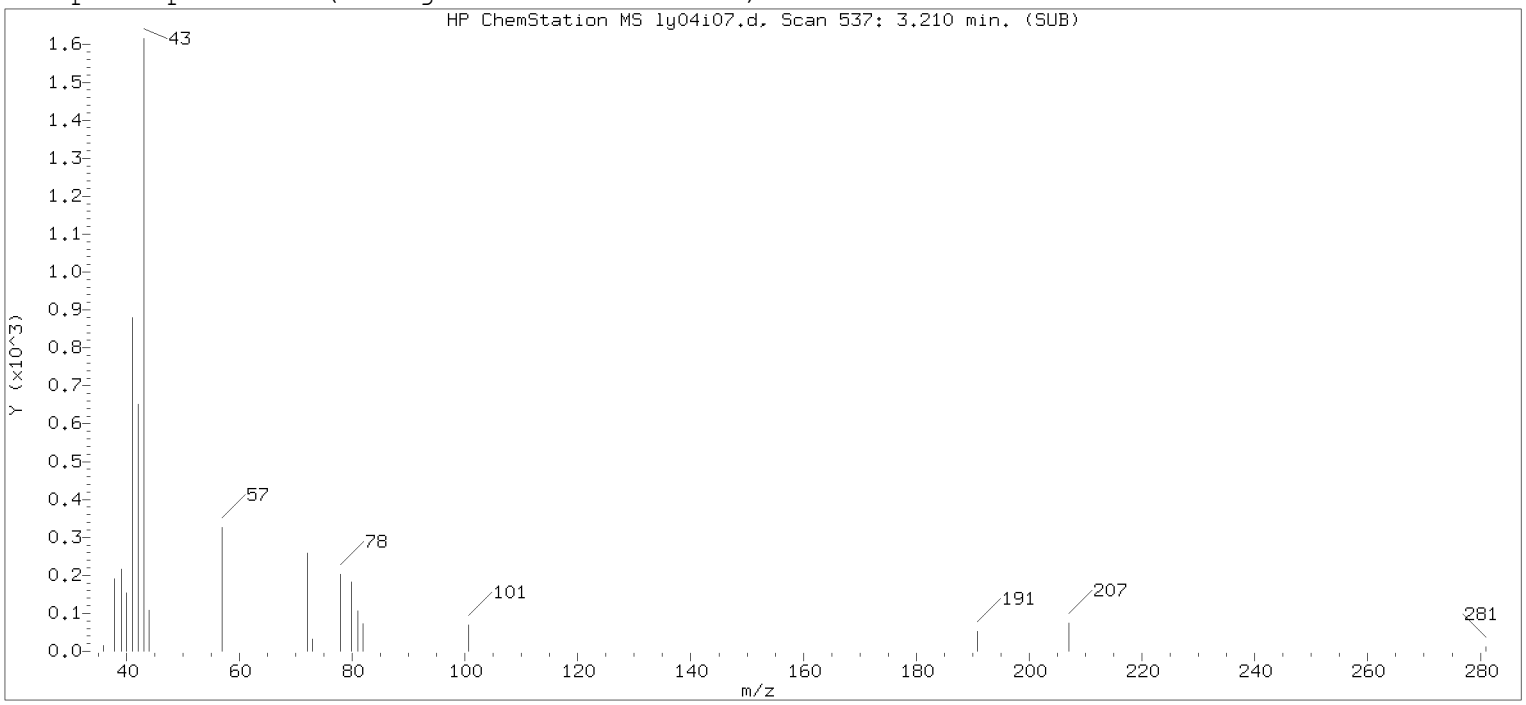
Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area (flag) : 7608M
On-Column Amount (ng) : 0.9196
Integration start scan : 520 Integration stop scan: 564
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

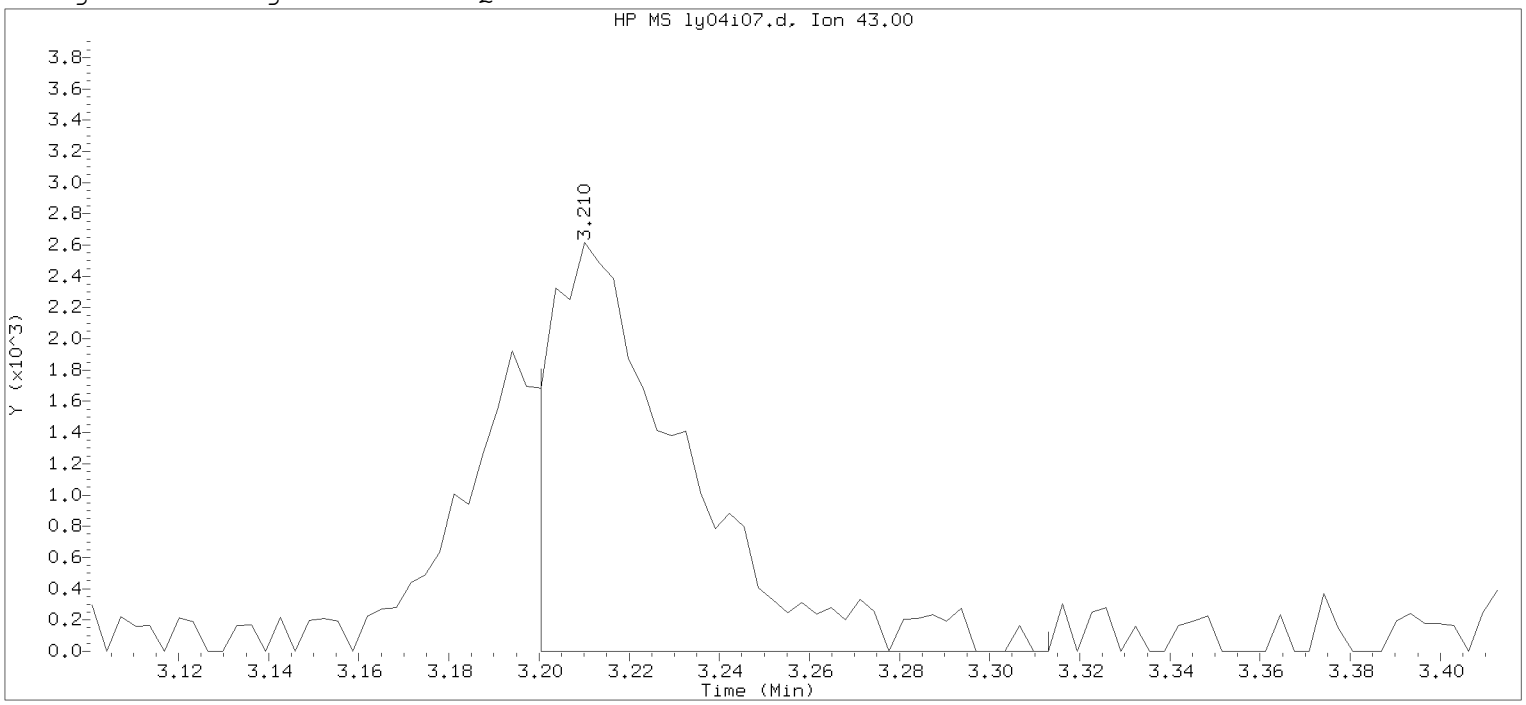
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 11
Compound Name : n-Pentane
Scan Number : 537
Retention Time (minutes): 3.210
Quant Ion : 43.00
Area : 5408
On-column Amount (ng) : 0.6709
Integration start scan : 533 Integration stop scan: 568
Y at integration start : 0 Y at integration end: 0

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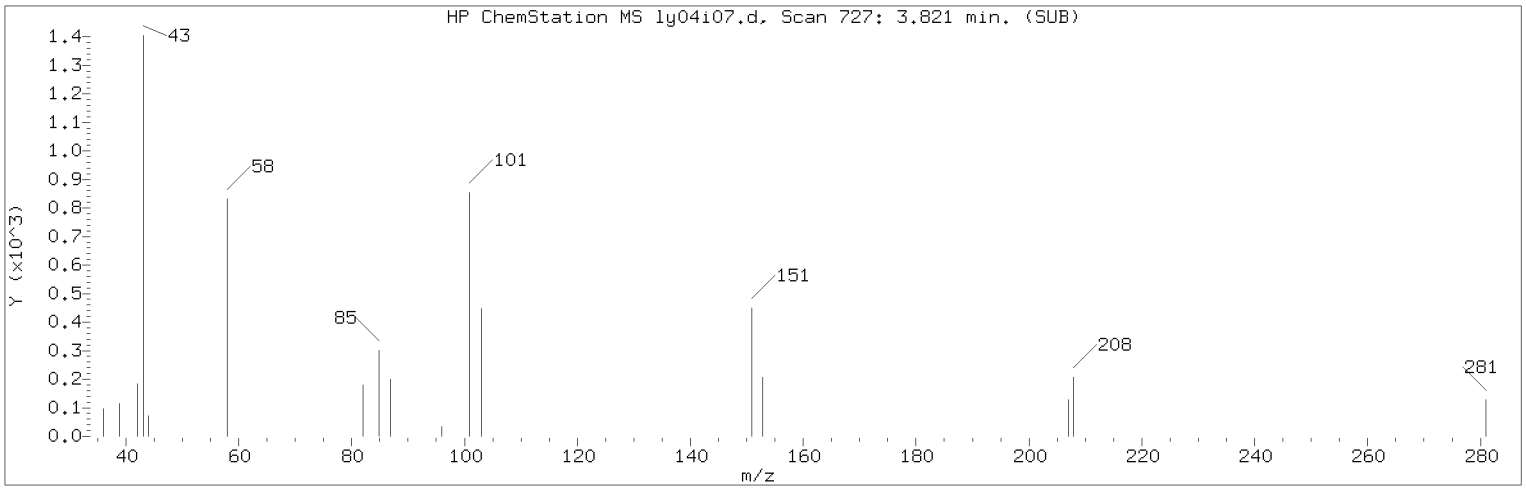
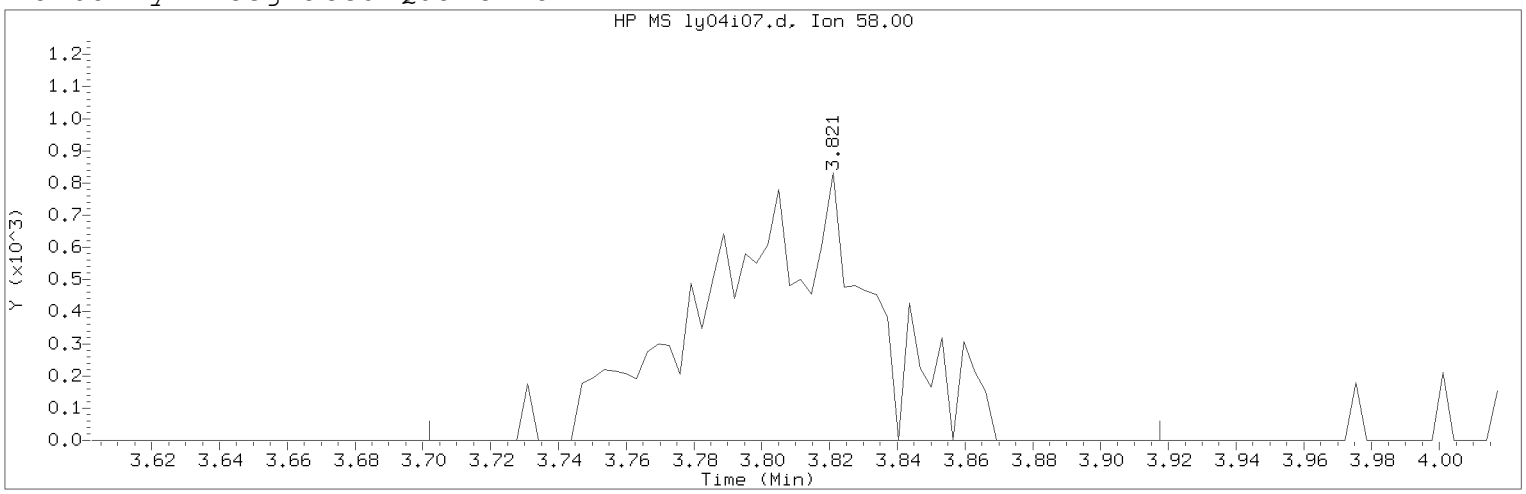
Target 3.5 esignature user ID: sejo0051

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

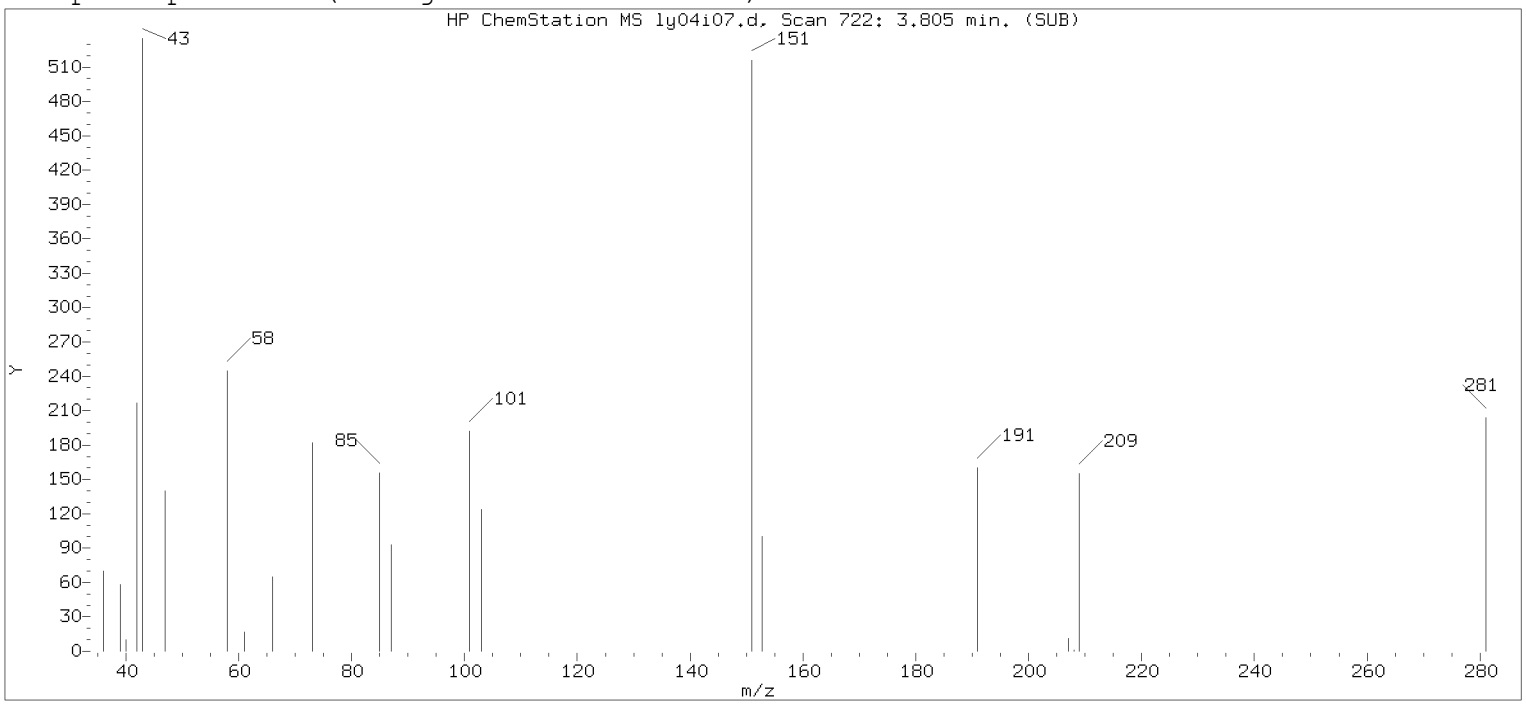
Compound Number : 18
Compound Name : Acetone
Scan Number : 727
Retention Time (minutes): 3.821
Quant Ion : 58.00
Area (flag) : 2764M
On-Column Amount (ng) : 2.5022
Integration start scan : 689 Integration stop scan: 756
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

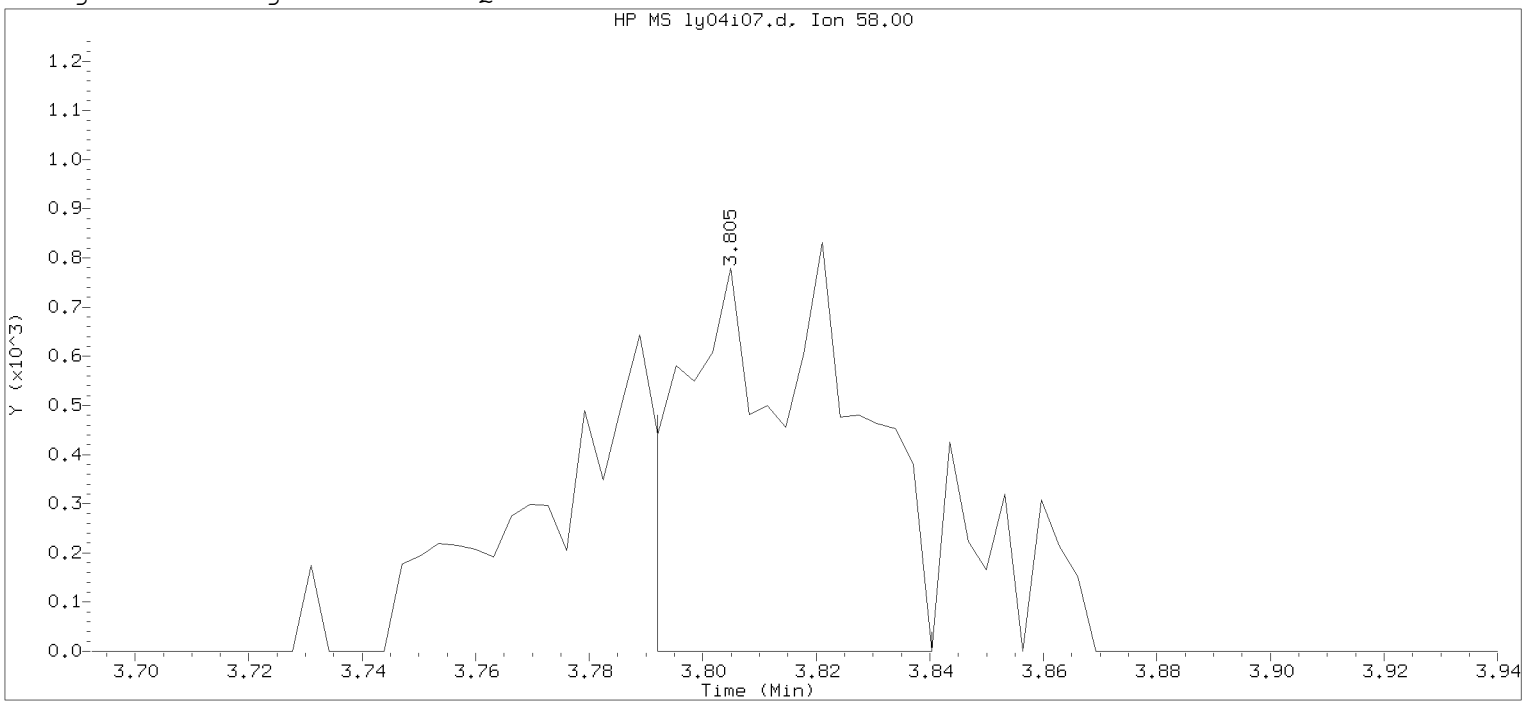
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 18
Compound Name : Acetone
Scan Number : 722
Retention Time (minutes): 3.805
Quant Ion : 58.00
Area : 1517
On-column Amount (ng) : 1.7017
Integration start scan : 717 Integration stop scan: 732
Y at integration start : 0 Y at integration end: 0

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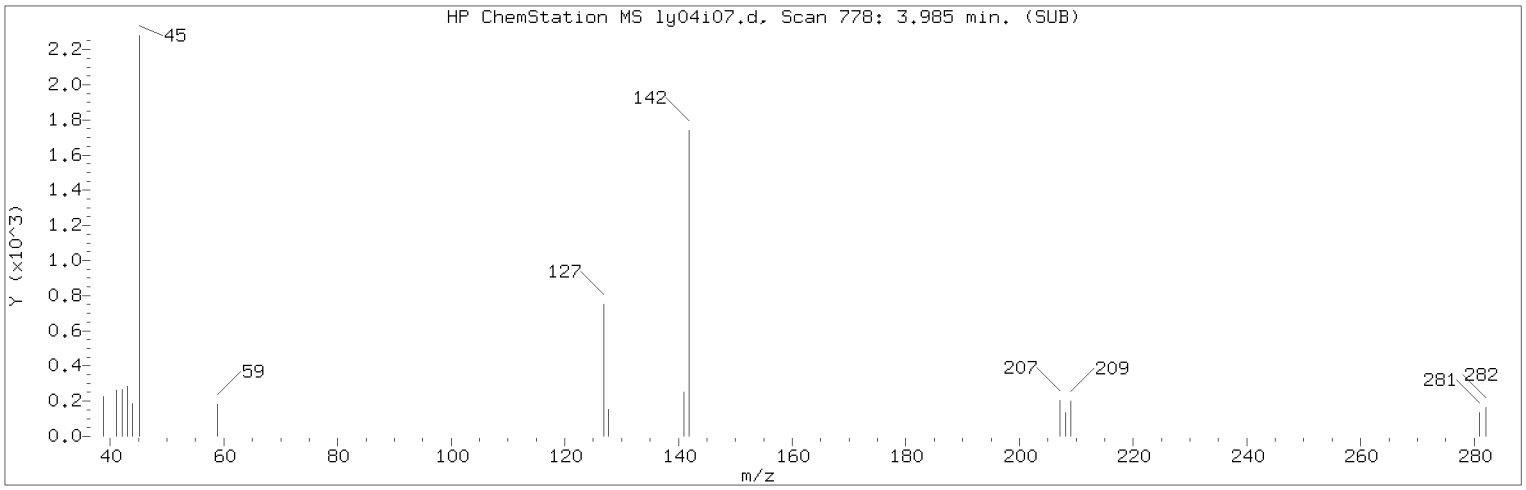
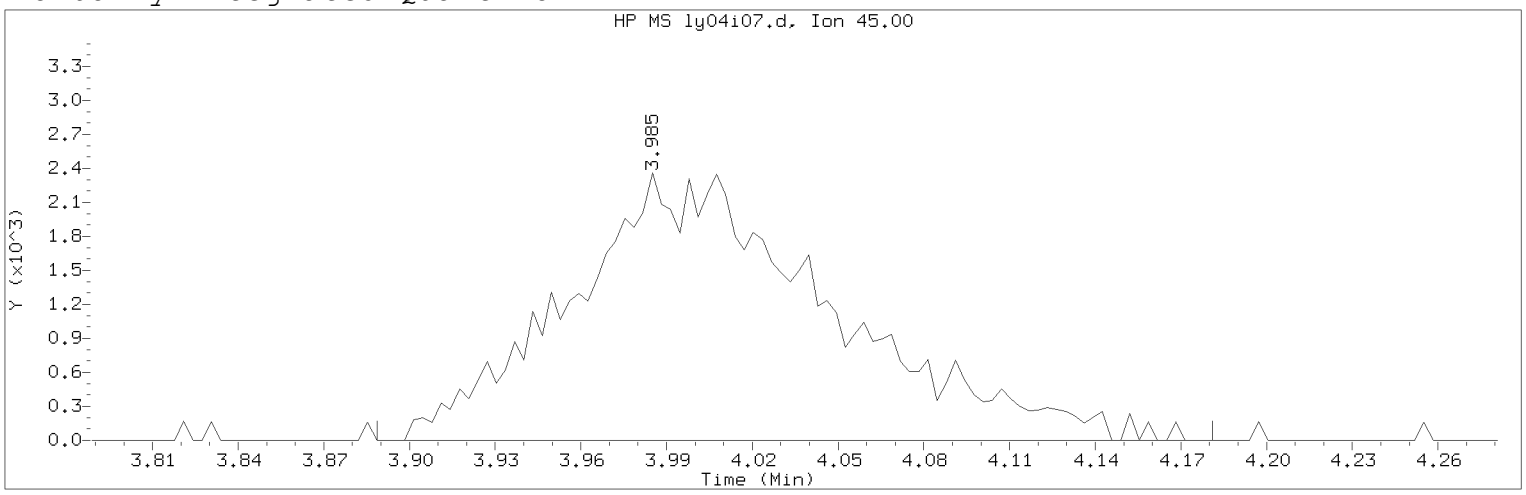
Target 3.5 esignature user ID: sejo0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

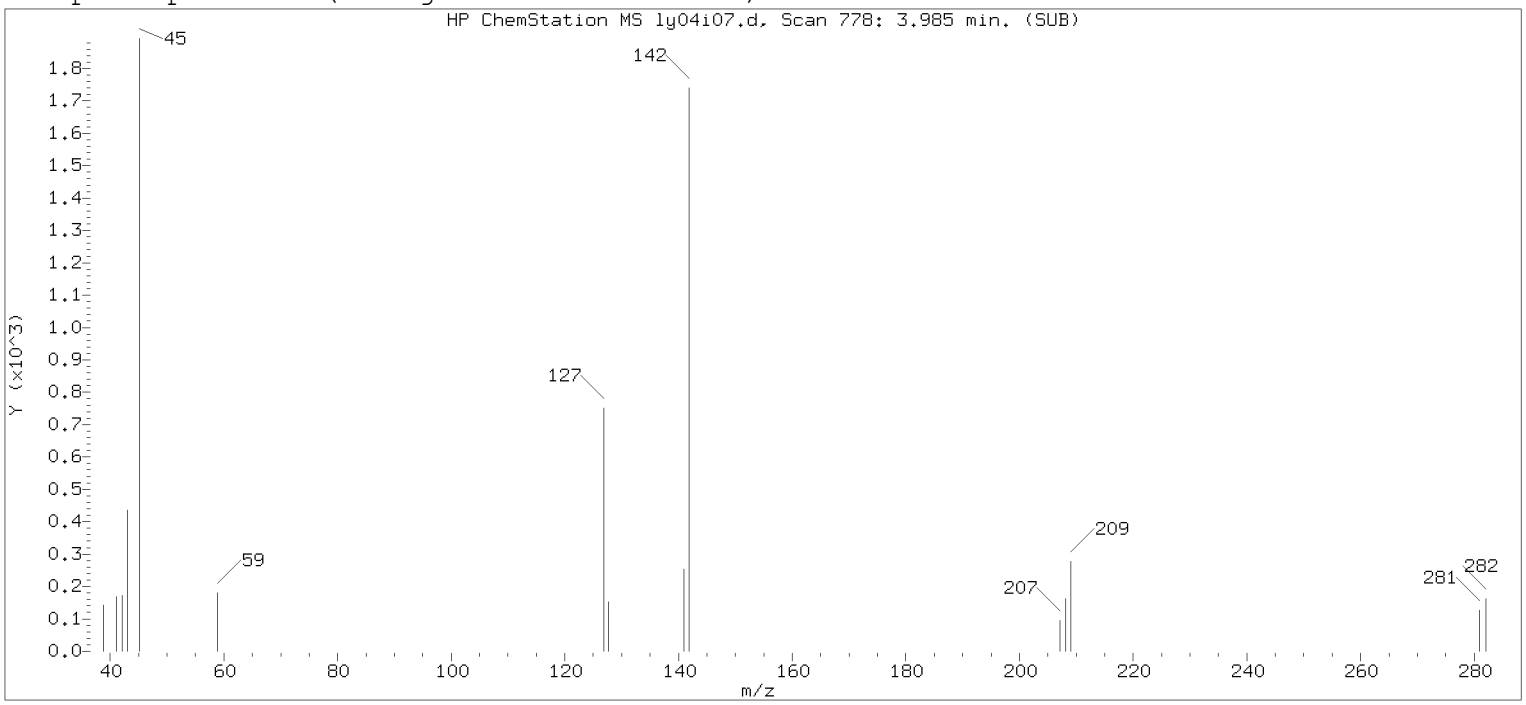
Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area (flag) : 14938M
On-Column Amount (ng) : 21.2179
Integration start scan : 747 Integration stop scan: 838
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

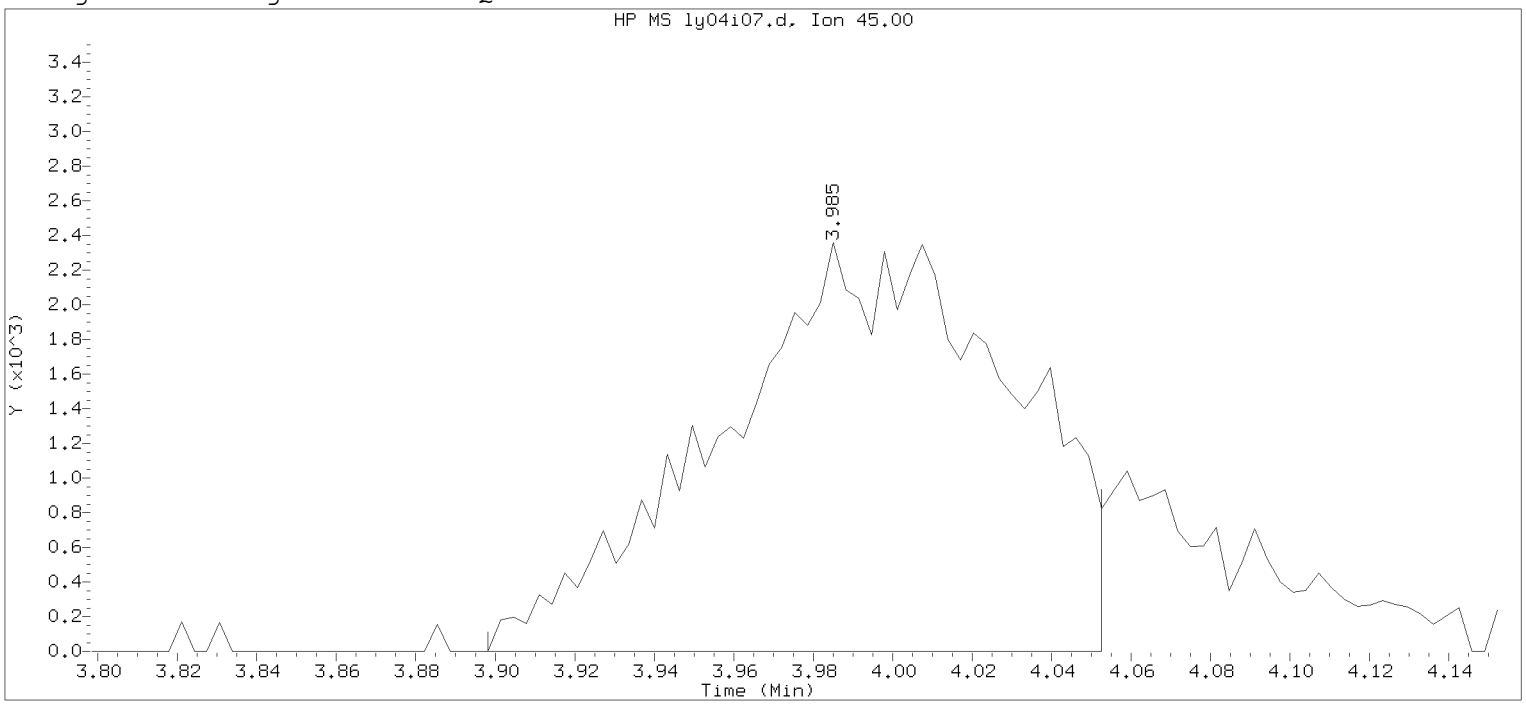
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 21
Compound Name : 2-Propanol
Scan Number : 778
Retention Time (minutes): 3.985
Quant Ion : 45.00
Area : 12094
On-column Amount (ng) : 17.8452
Integration start scan : 750 Integration stop scan: 798
Y at integration start : 0 Y at integration end: 0

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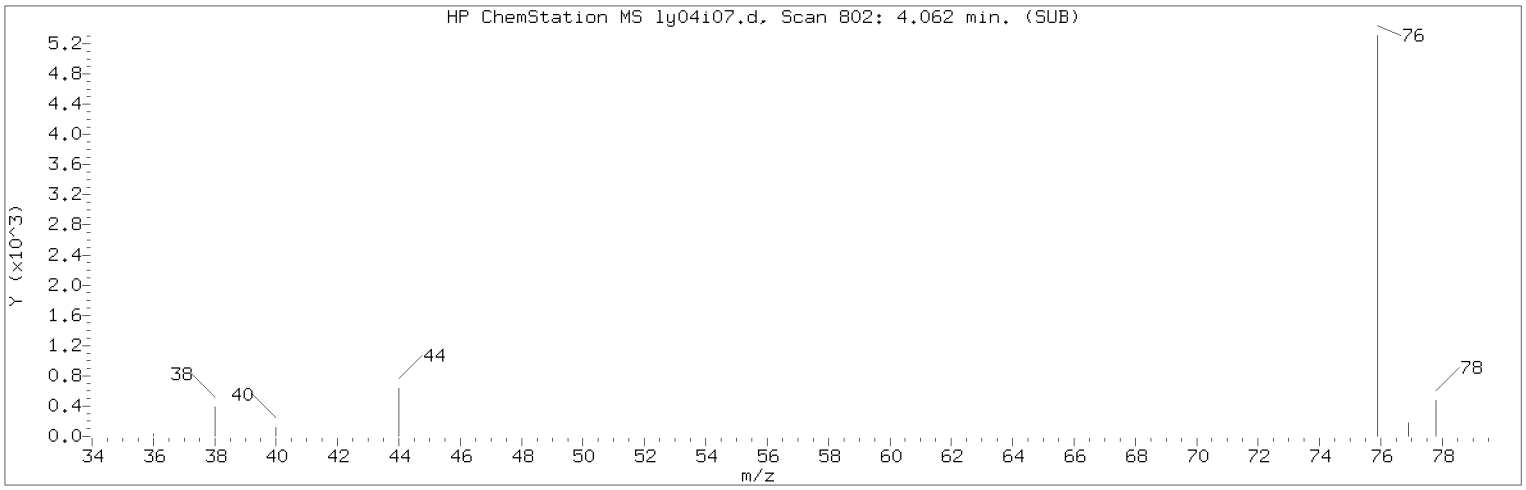
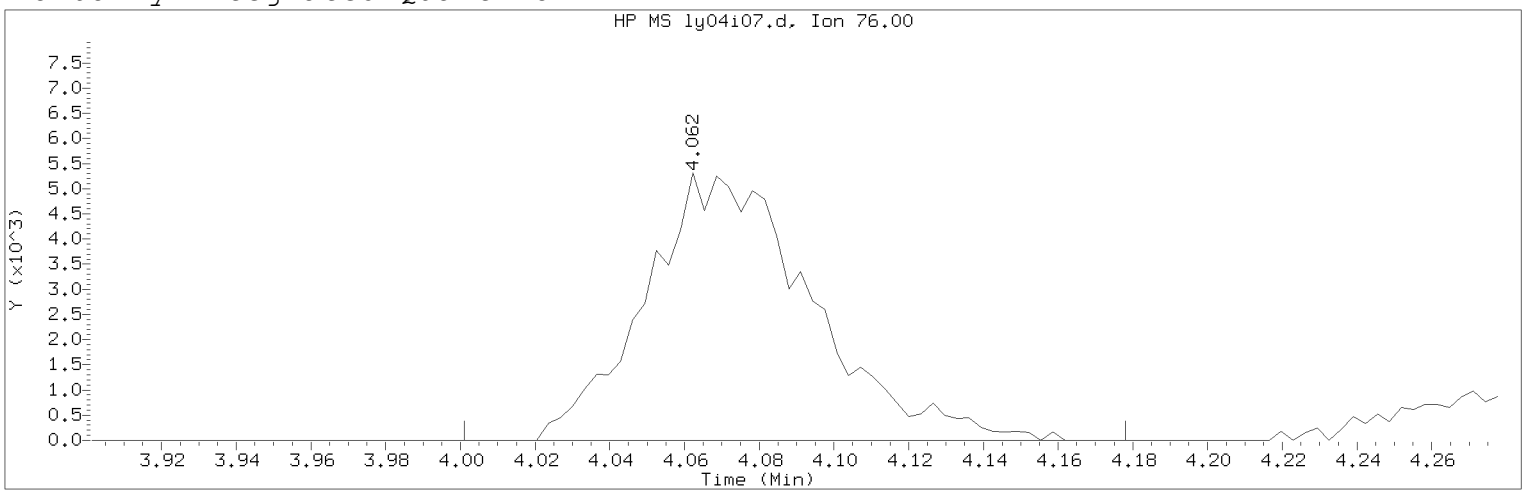
Target 3.5 esignature user ID: sejo0055

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

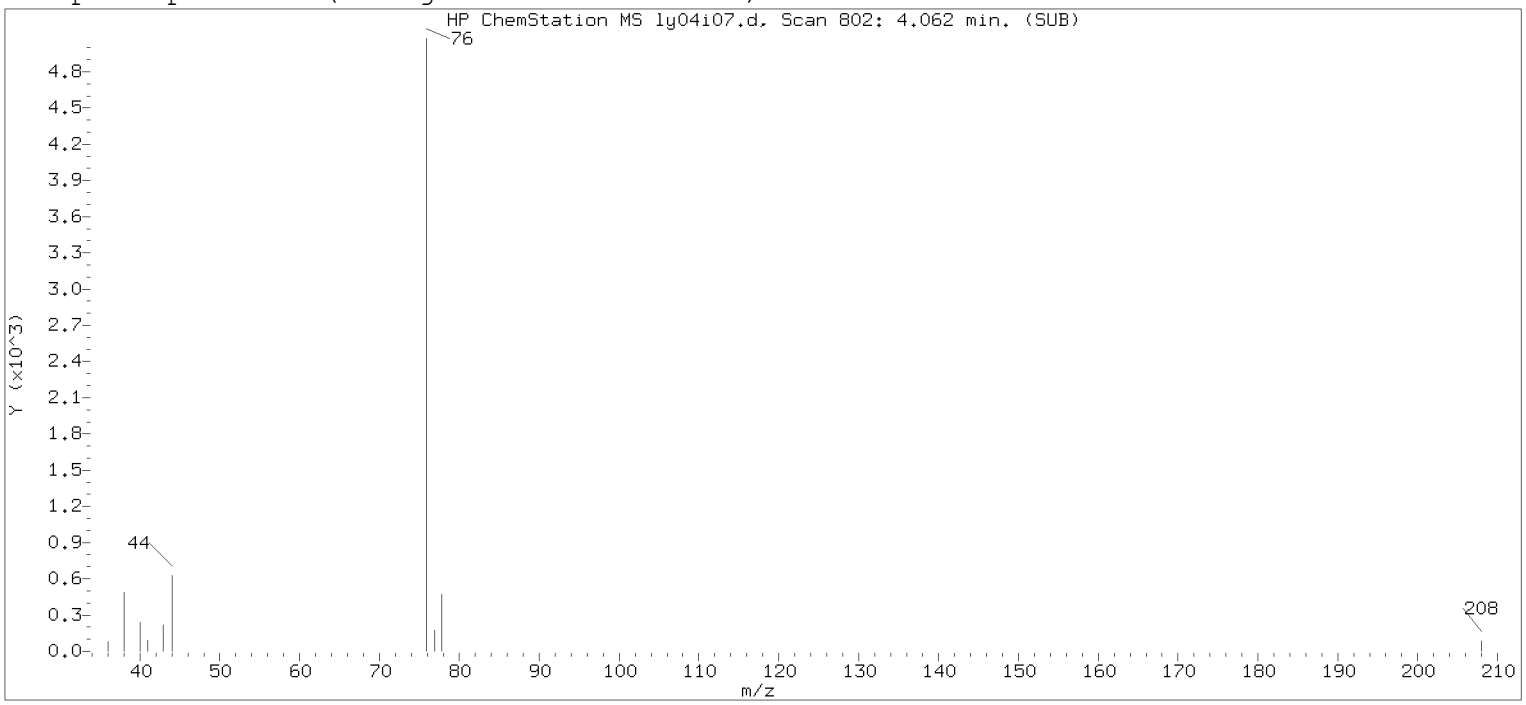
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area (flag) : 16435M
On-Column Amount (ng) : 0.8686
Integration start scan : 782 Integration stop scan: 837
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

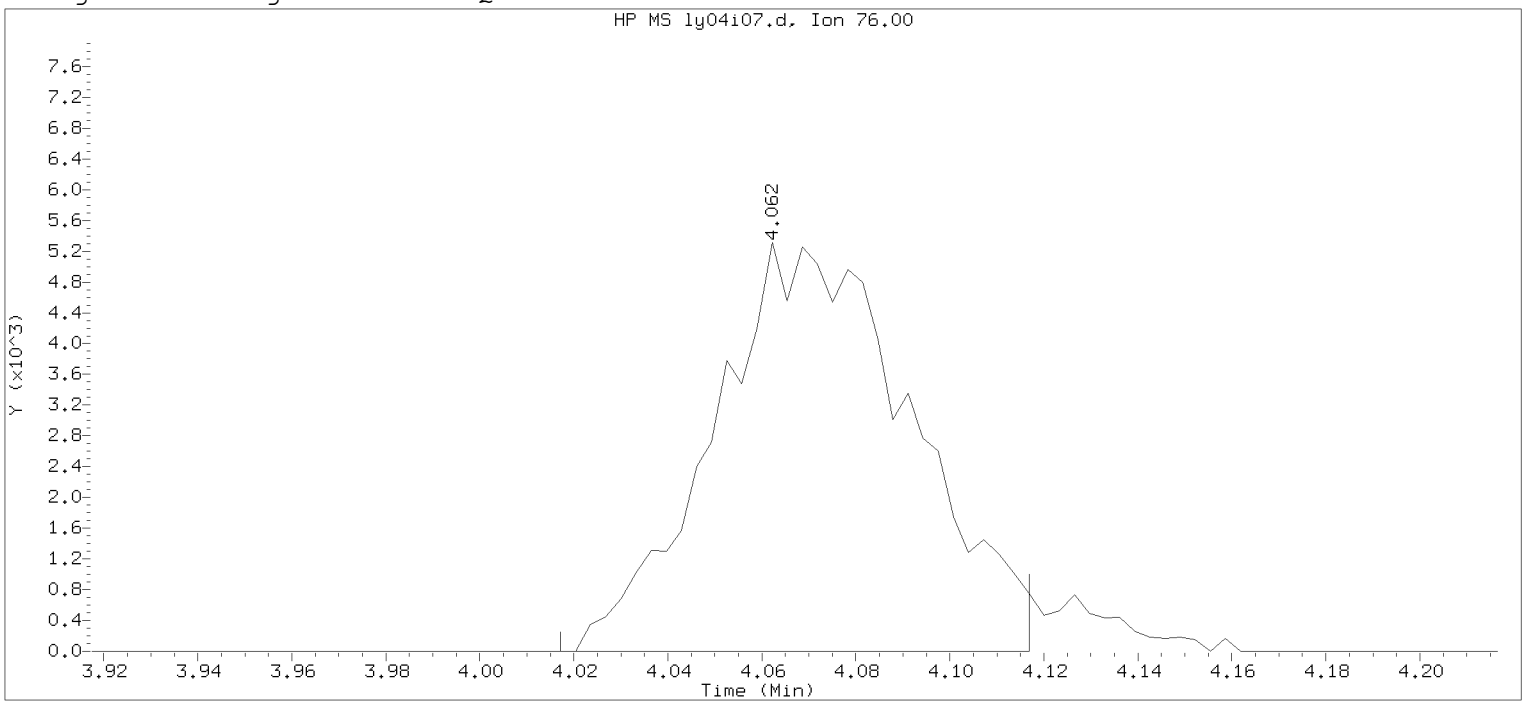
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

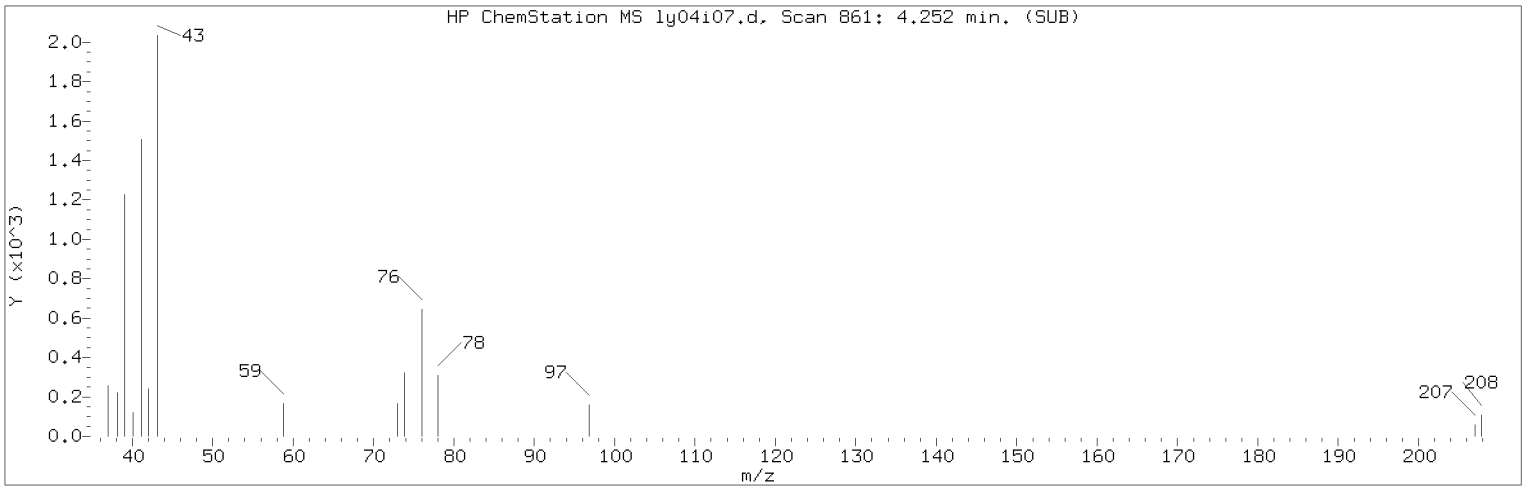
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

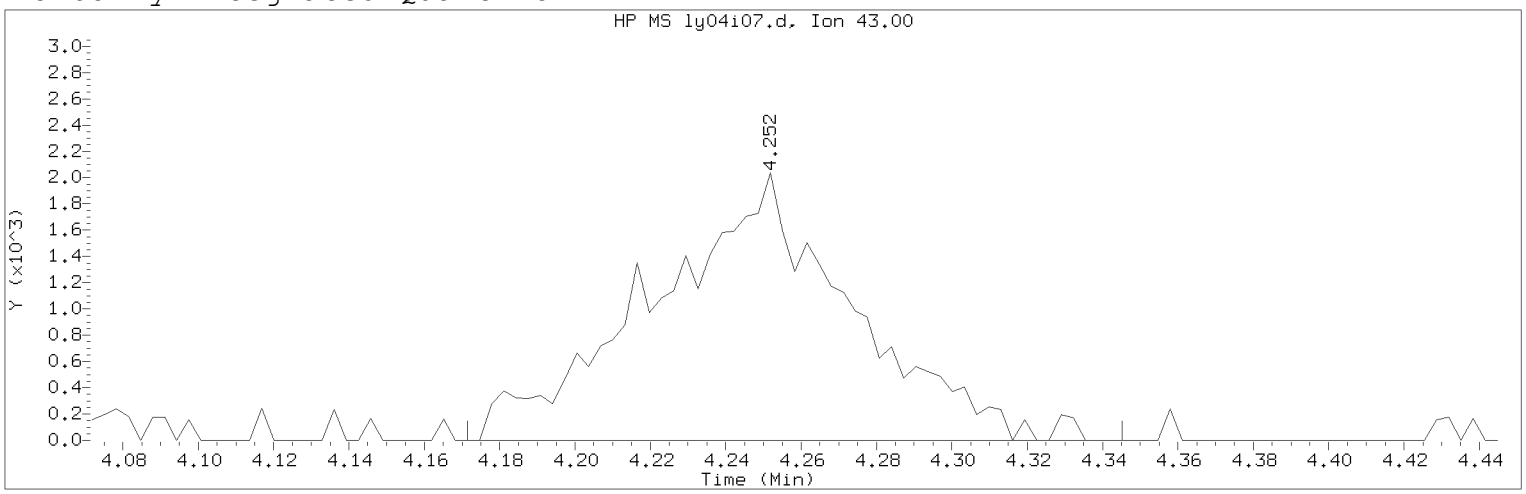
Compound Number : 23
Compound Name : Carbon Disulfide
Scan Number : 802
Retention Time (minutes): 4.062
Quant Ion : 76.00
Area : 15554
On-column Amount (ng) : 0.8286
Integration start scan : 787 Integration stop scan: 818
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0057

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

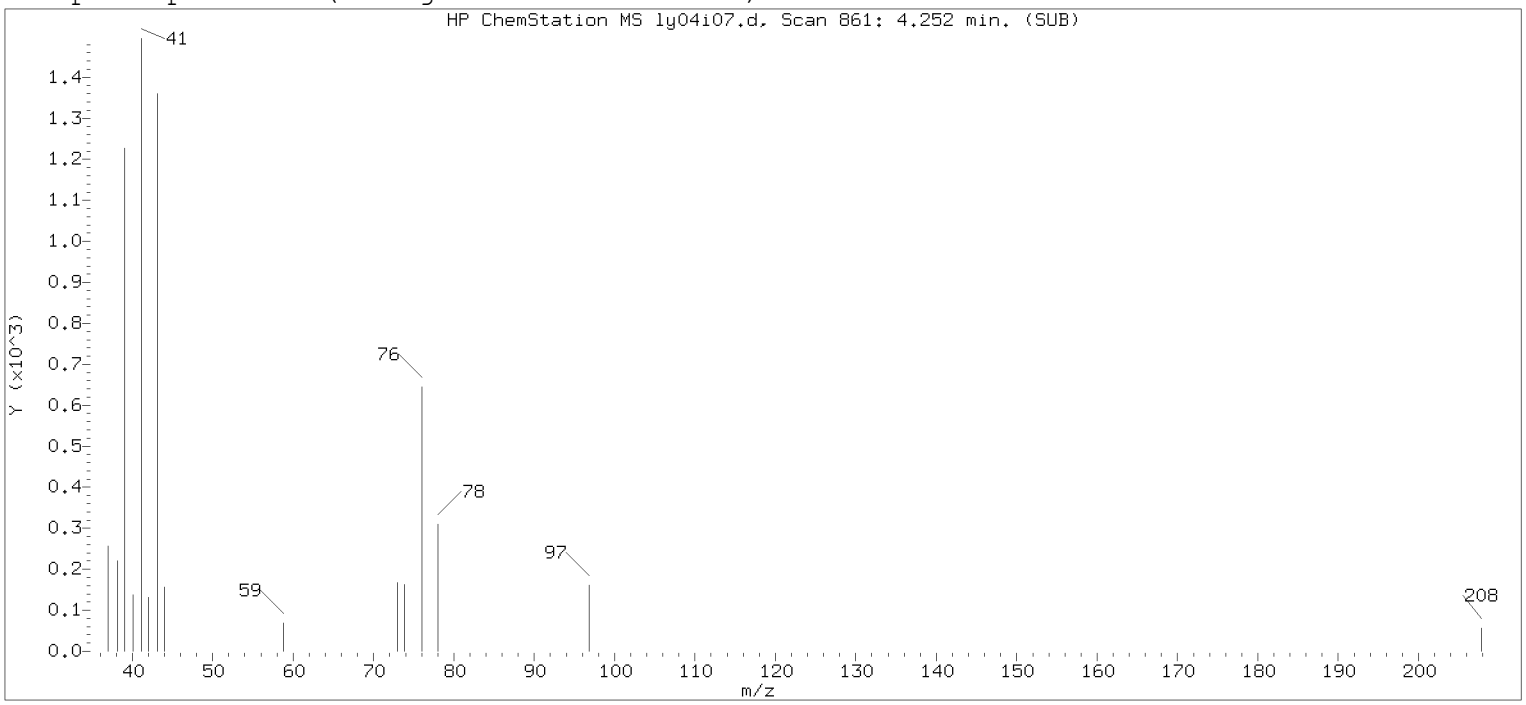
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area (flag) : 7412M
On-Column Amount (ng) : 1.0342
Integration start scan : 835 Integration stop scan: 889
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

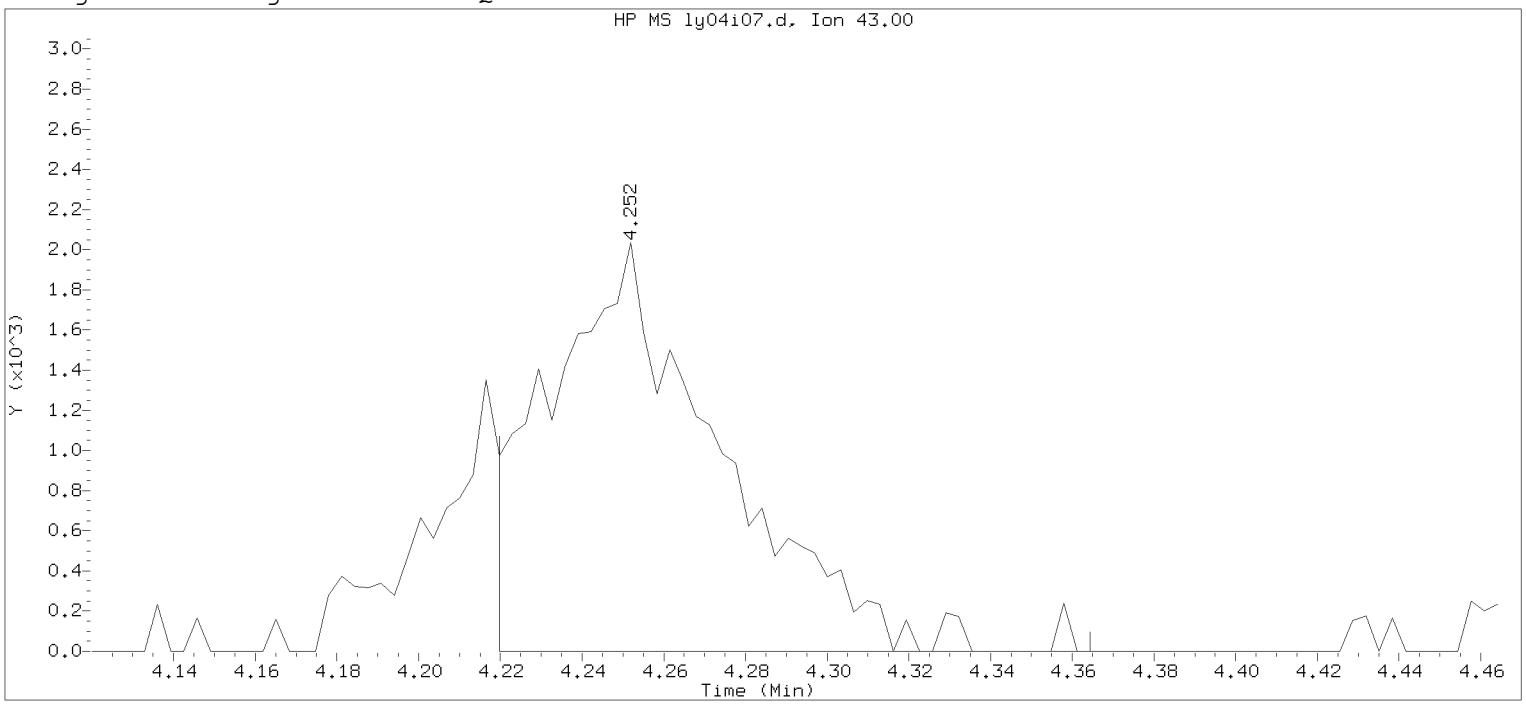
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

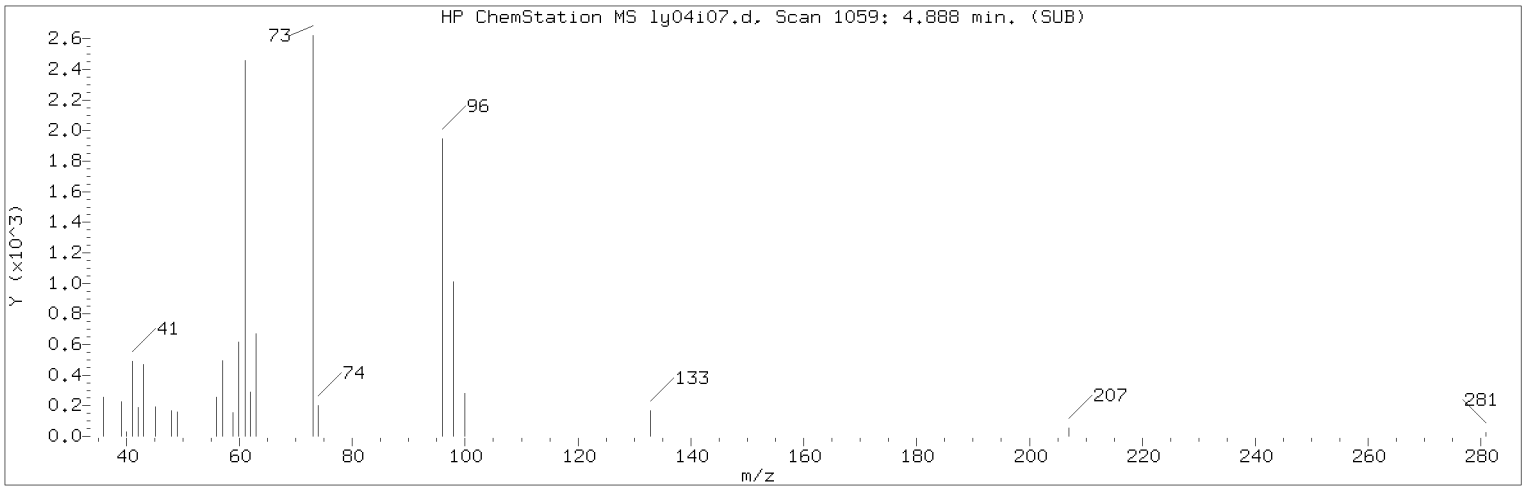
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

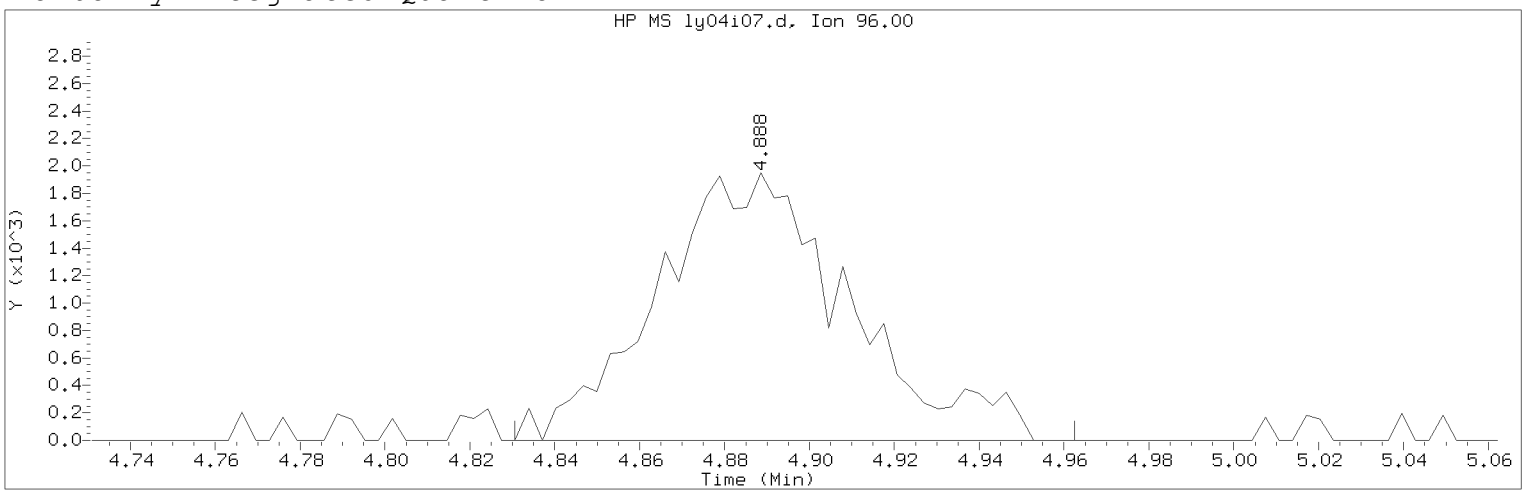
Compound Number : 27
Compound Name : Methyl Acetate
Scan Number : 861
Retention Time (minutes): 4.252
Quant Ion : 43.00
Area : 5953
On-column Amount (ng) : 0.8598
Integration start scan : 850 Integration stop scan: 895
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0052

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

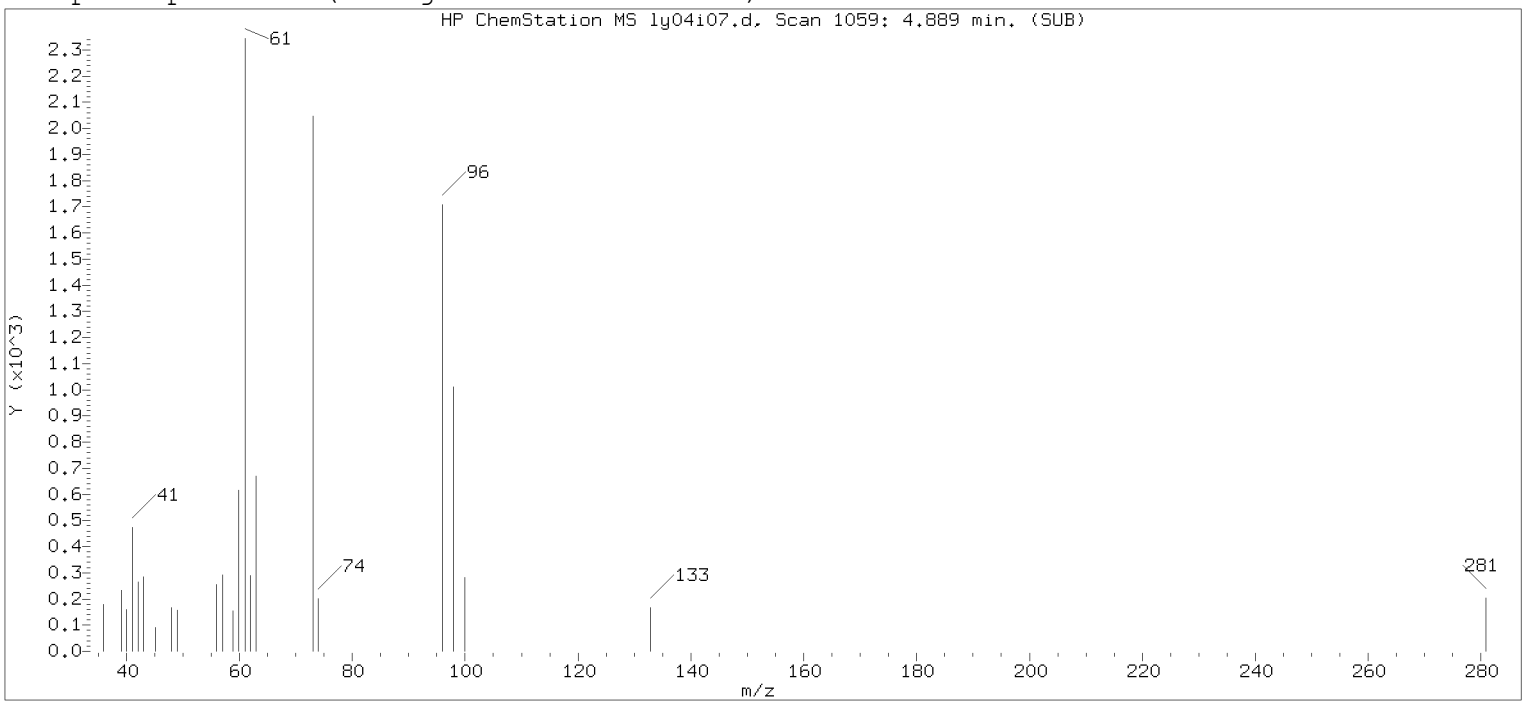
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area (flag) : 6111M
On-Column Amount (ng) : 0.9453
Integration start scan : 1040 Integration stop scan: 1081
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

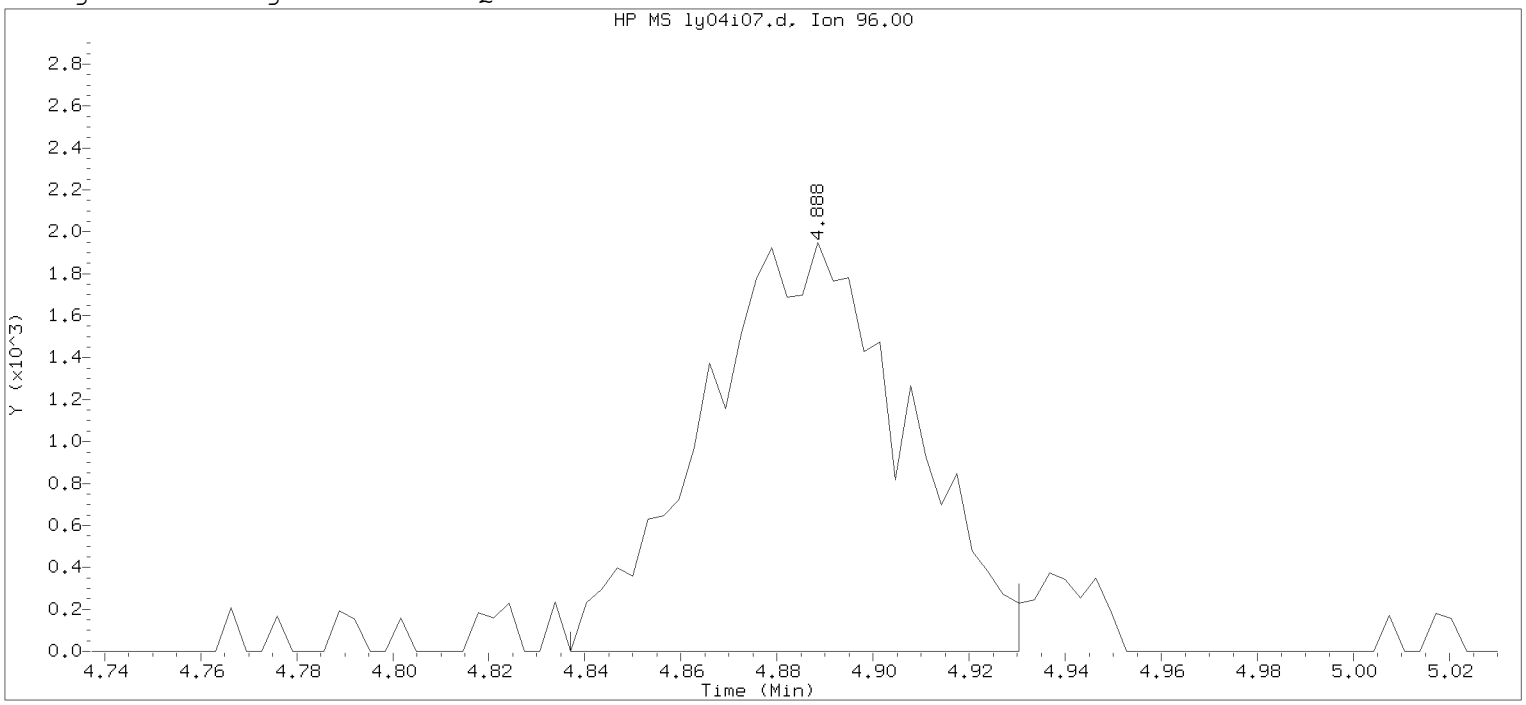
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

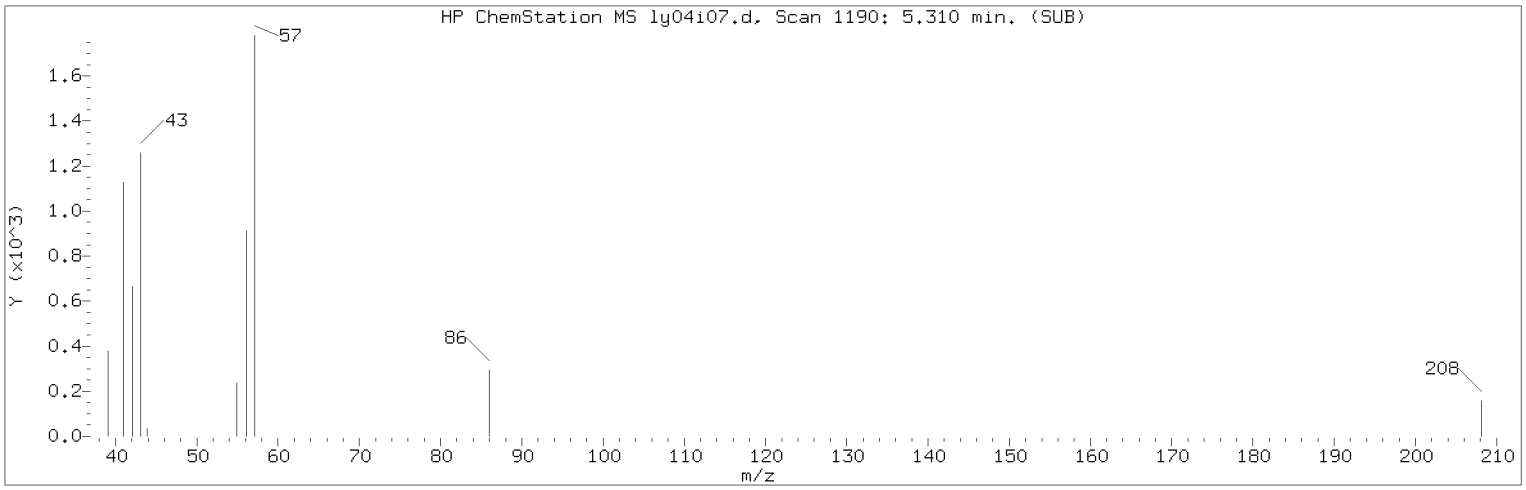
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

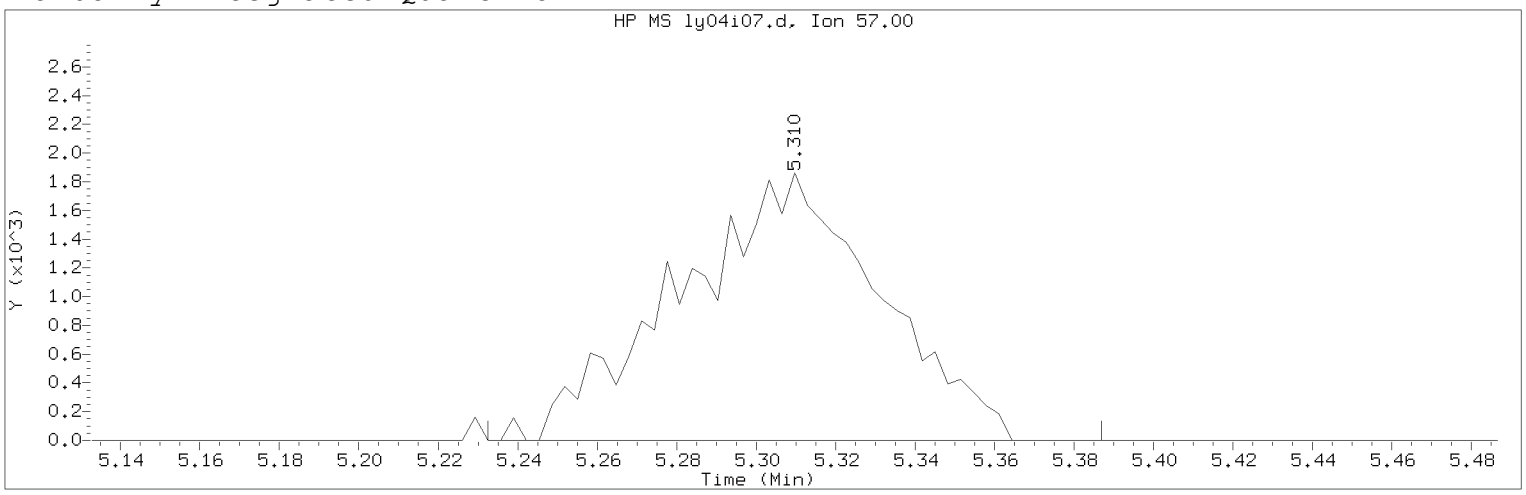
Compound Number : 32
Compound Name : trans-1,2-Dichloroethene
Scan Number : 1059
Retention Time (minutes): 4.888
Quant Ion : 96.00
Area : 5705
On-column Amount (ng) : 0.8926
Integration start scan : 1042 Integration stop scan: 1071
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user review complete.

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

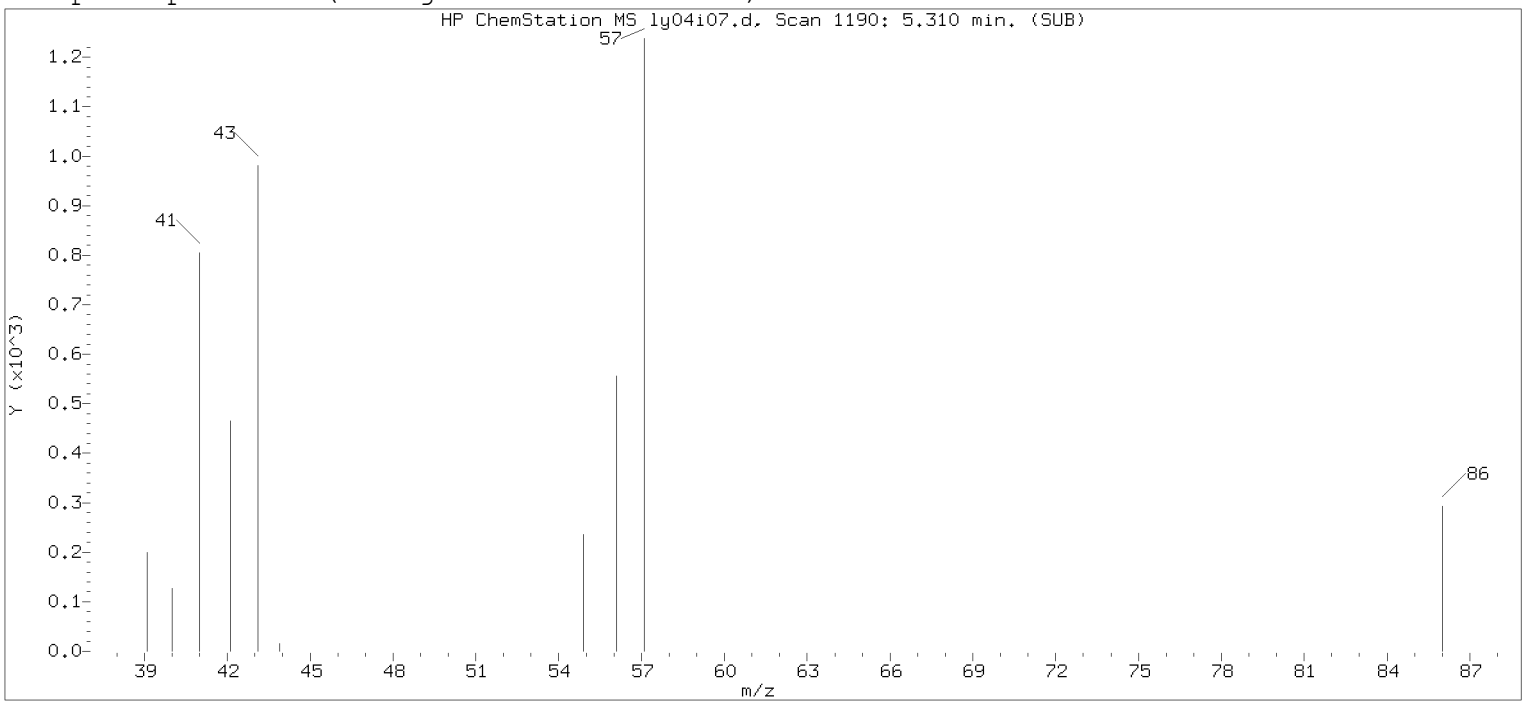
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area (flag) : 6497M
On-Column Amount (ng) : 0.7176
Integration start scan : 1165 Integration stop scan: 1213
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

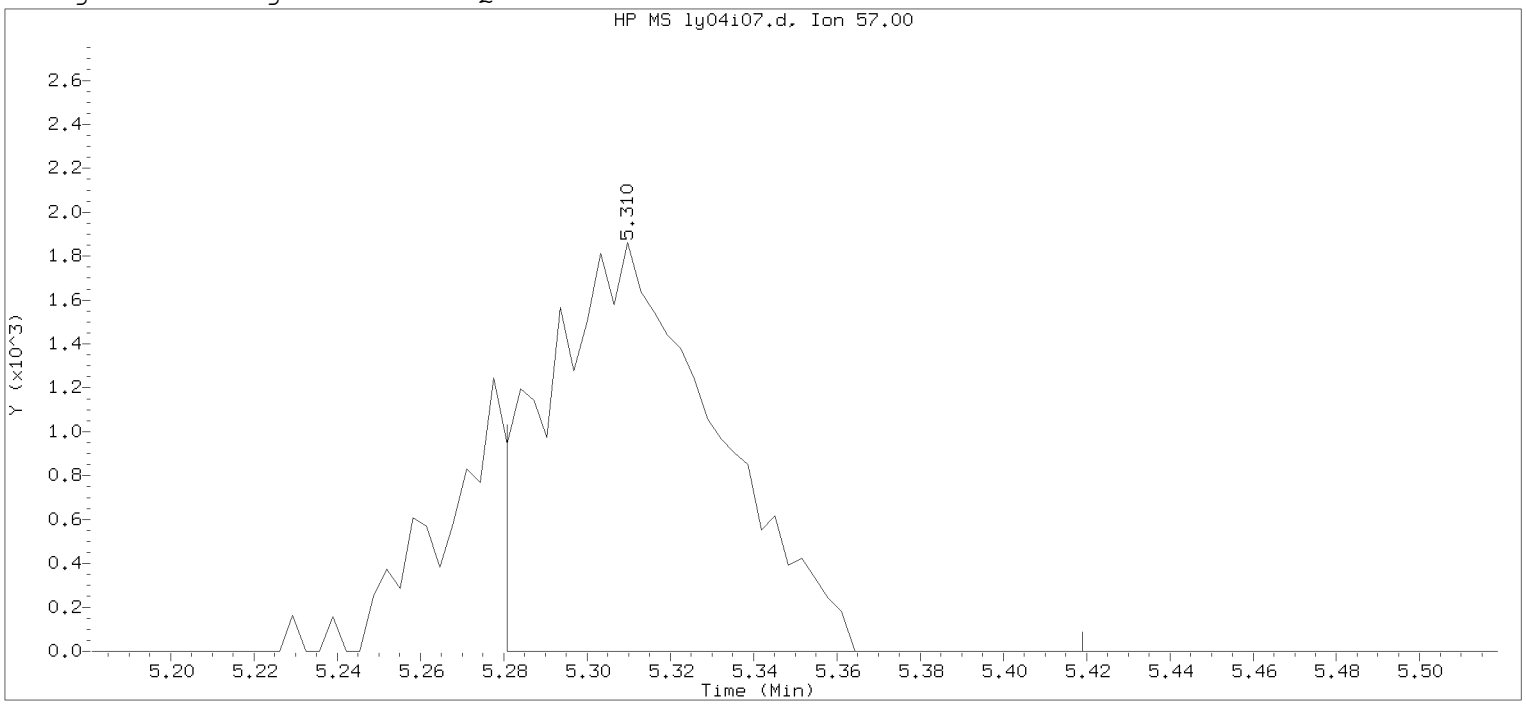
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

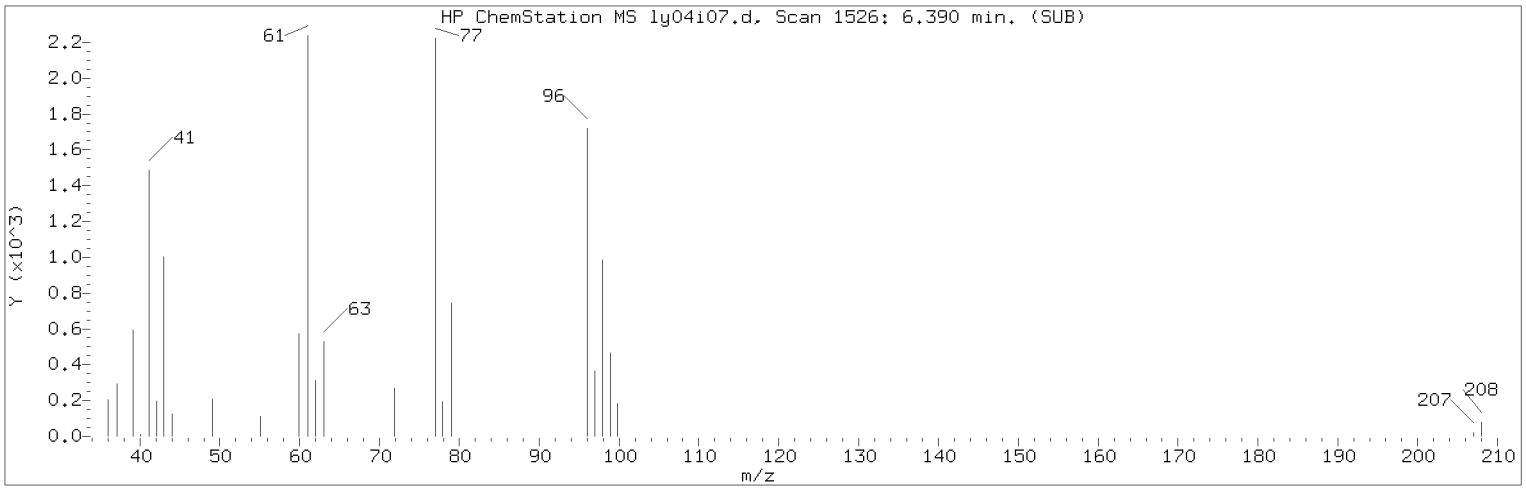
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

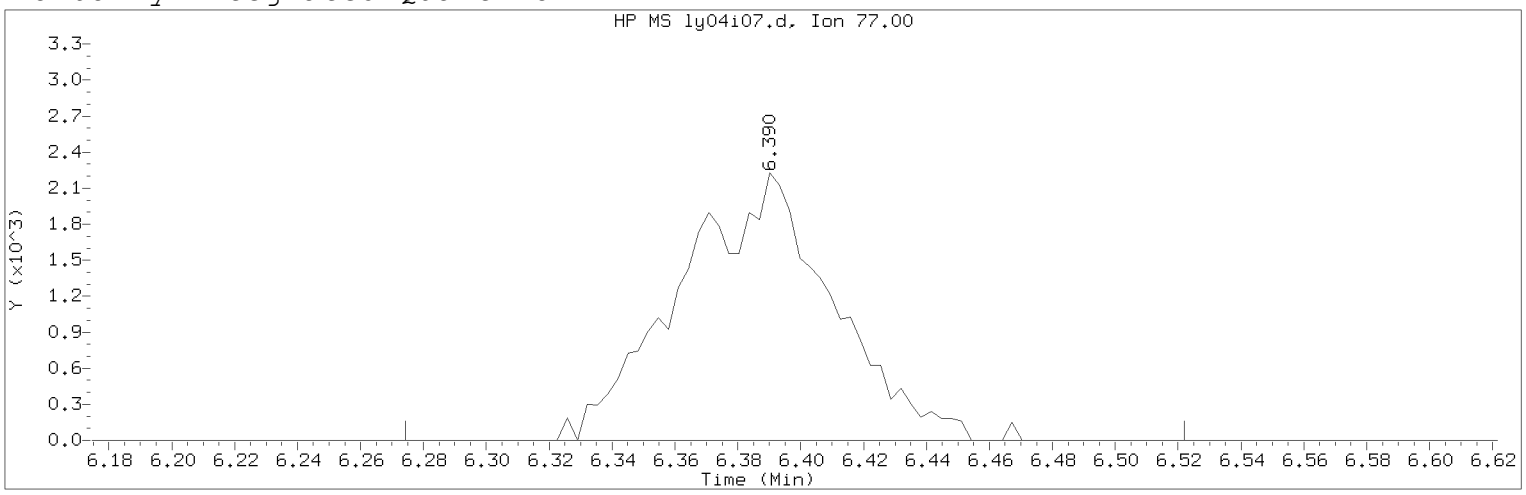
Compound Number : 34
Compound Name : n-Hexane
Scan Number : 1190
Retention Time (minutes): 5.310
Quant Ion : 57.00
Area : 5237
On-column Amount (ng) : 0.5829
Integration start scan : 1180 Integration stop scan: 1223
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh0262

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

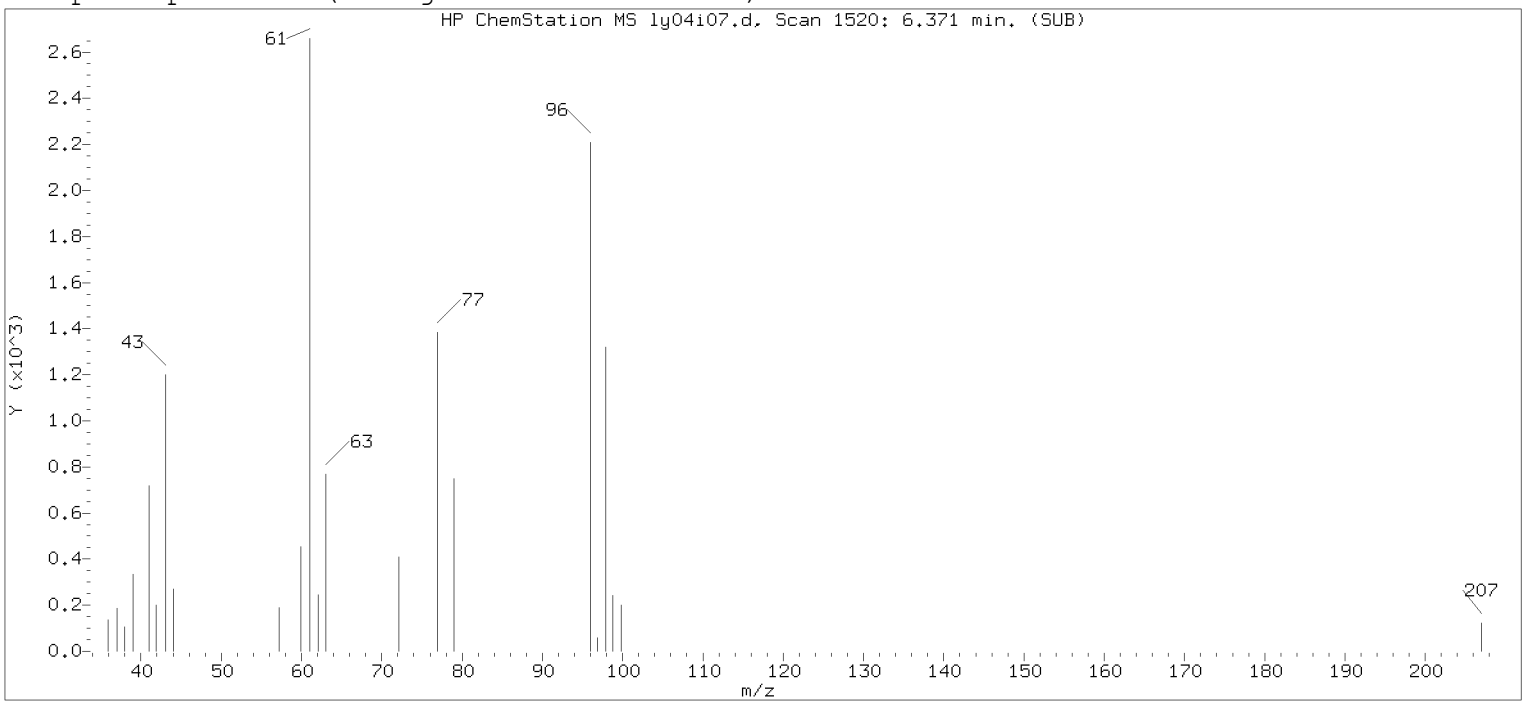
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1526
Retention Time (minutes): 6.390
Quant Ion : 77.00
Area (flag) : 7531M
On-Column Amount (ng) : 0.8594
Integration start scan : 1489 Integration stop scan: 1566
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

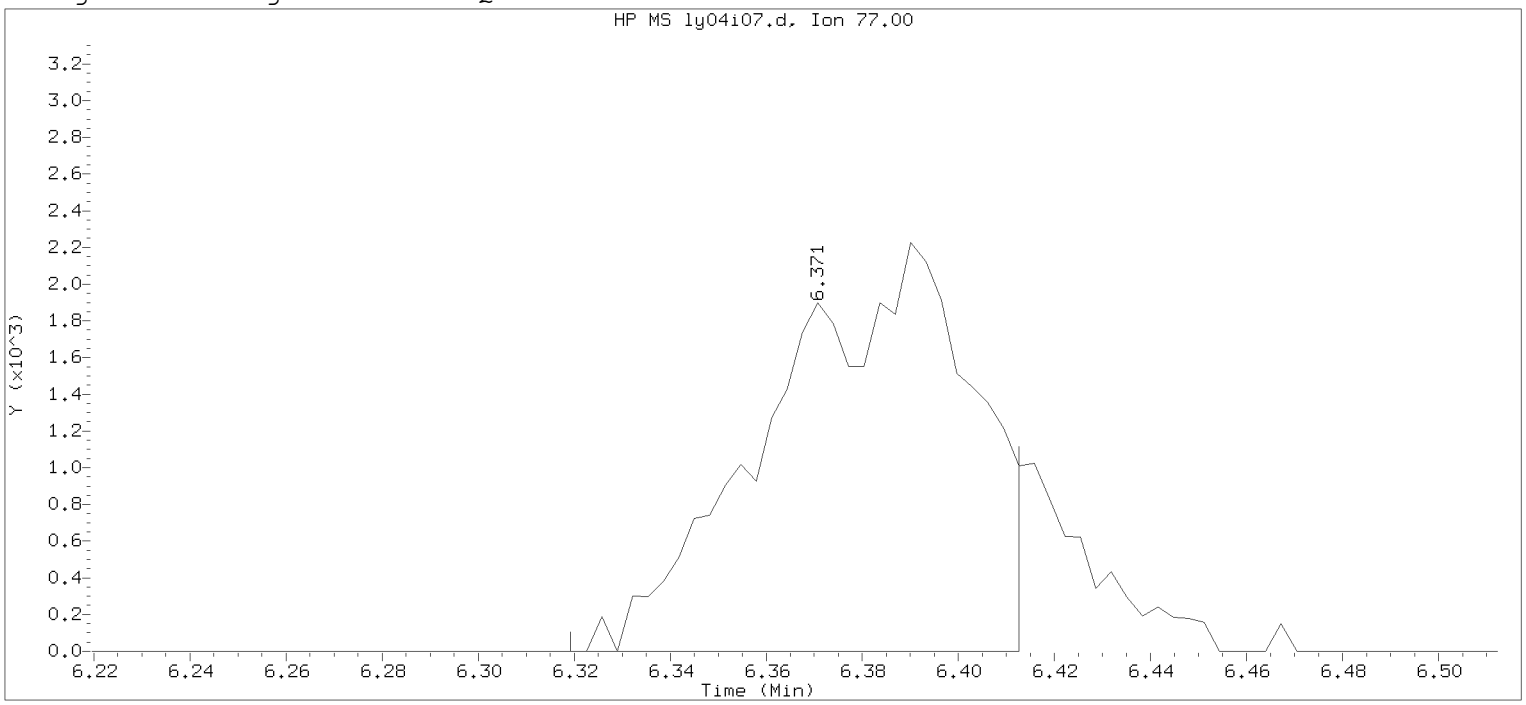
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

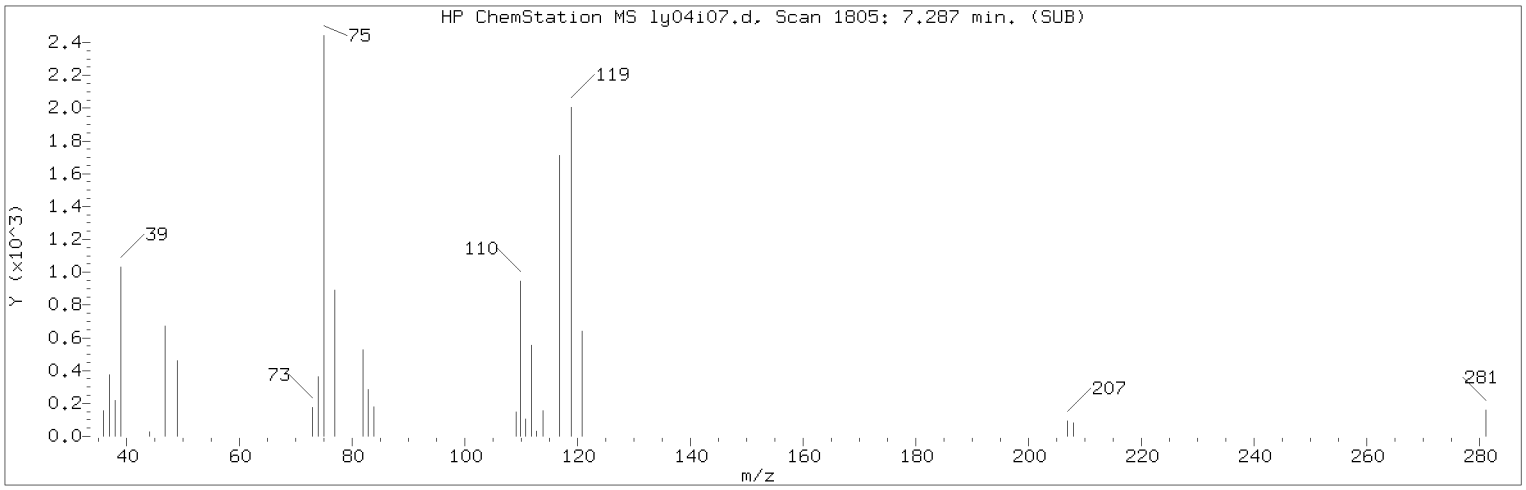
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

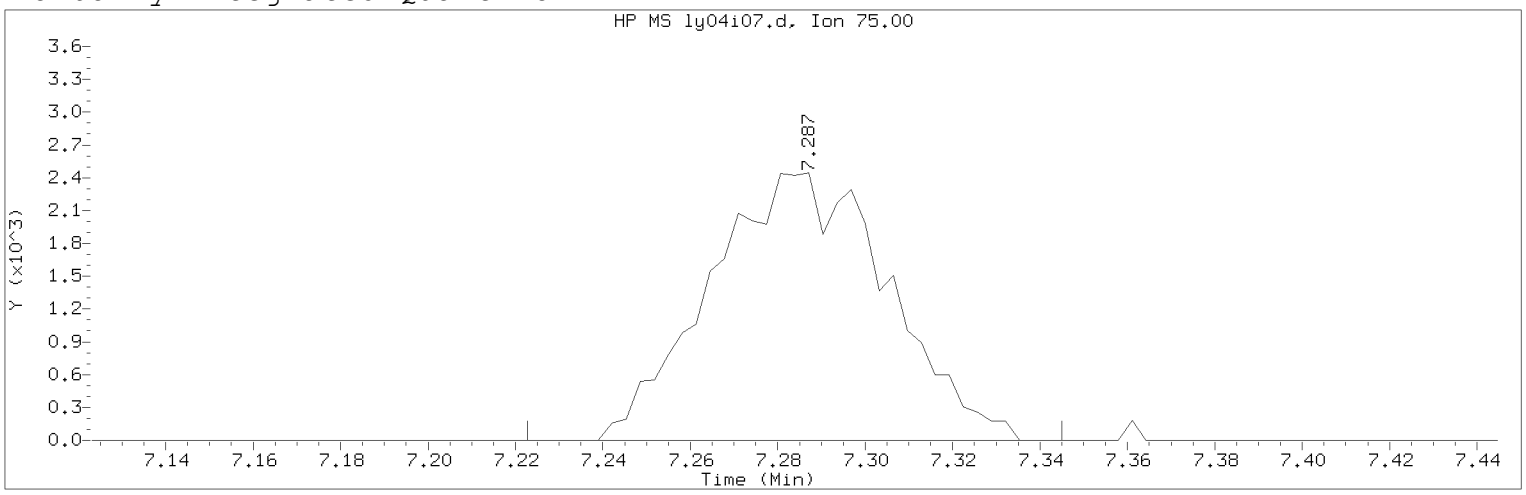
Compound Number : 45
Compound Name : 2,2-Dichloropropane
Scan Number : 1520
Retention Time (minutes): 6.371
Quant Ion : 77.00
Area : 6414
On-column Amount (ng) : 0.7586
Integration start scan : 1503 Integration stop scan: 1532
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0065

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

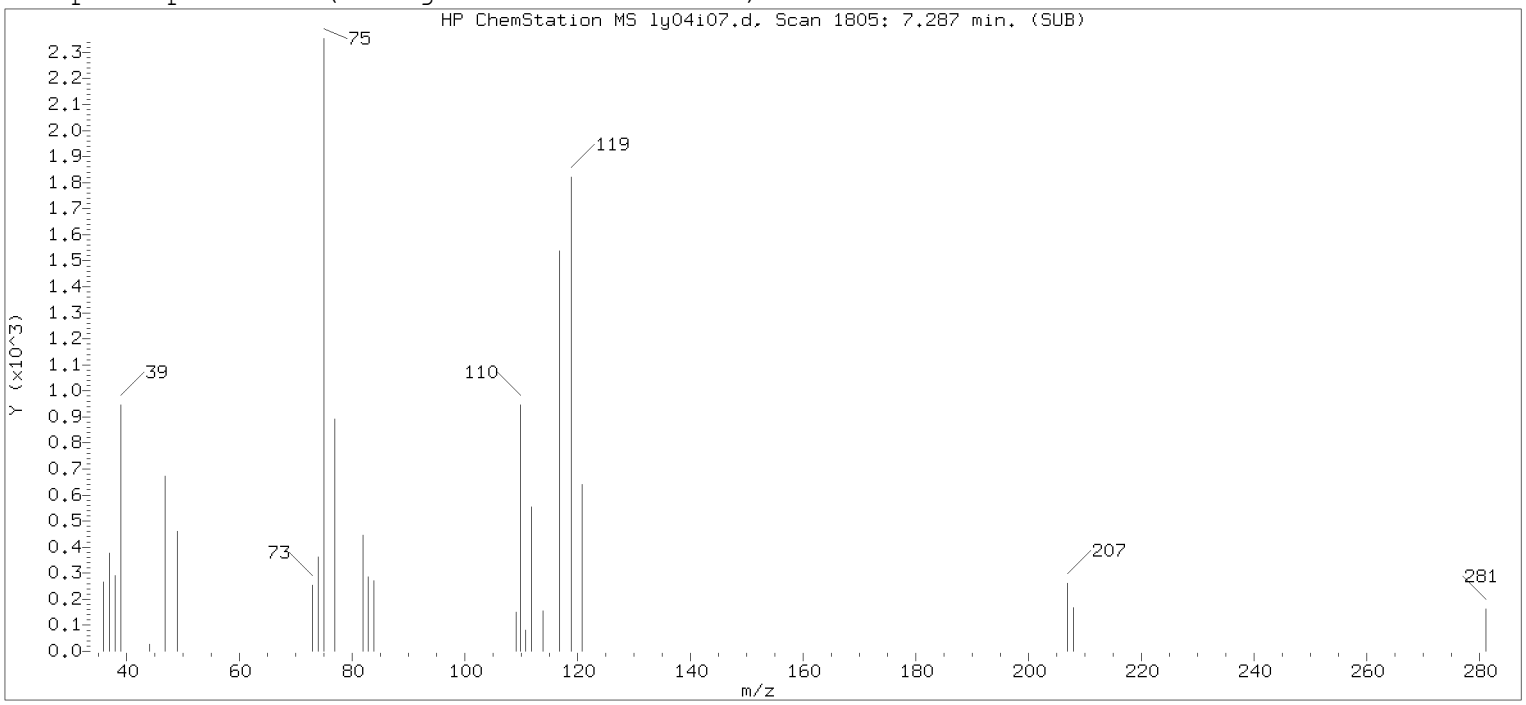
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area (flag) : 6955M
On-Column Amount (ng) : 0.7983
Integration start scan : 1784 Integration stop scan: 1822
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

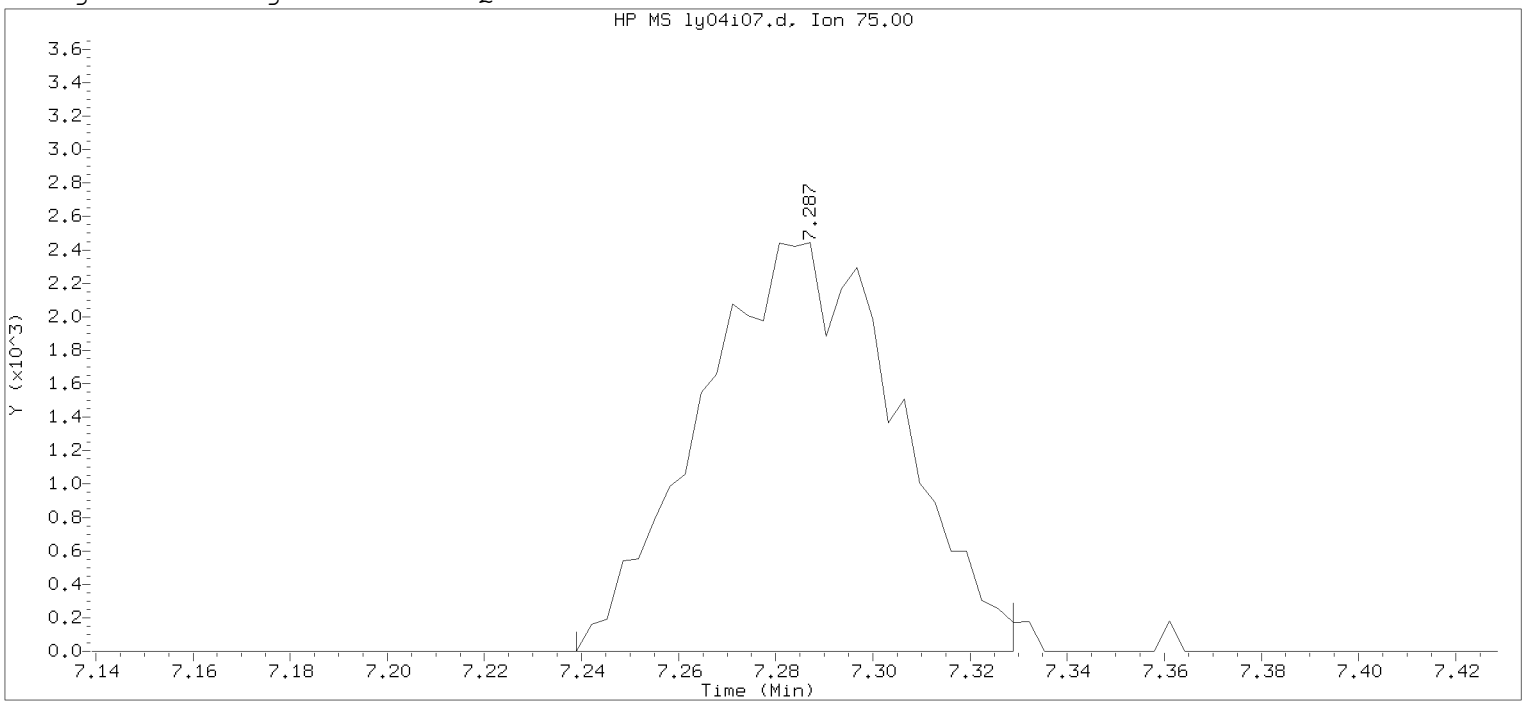
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

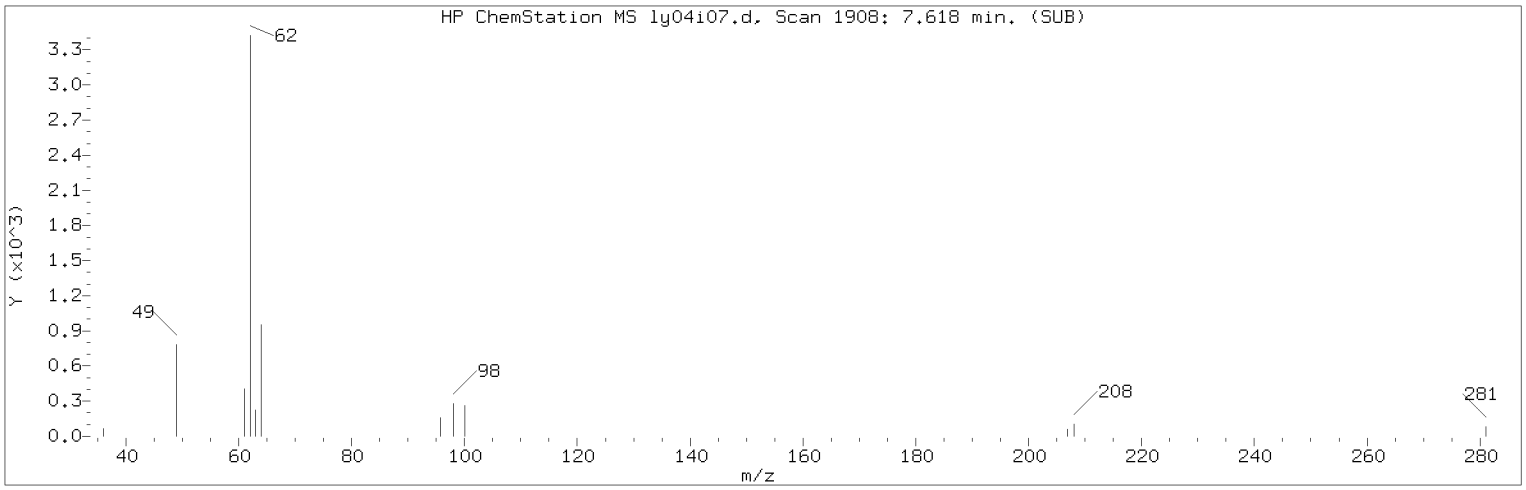
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

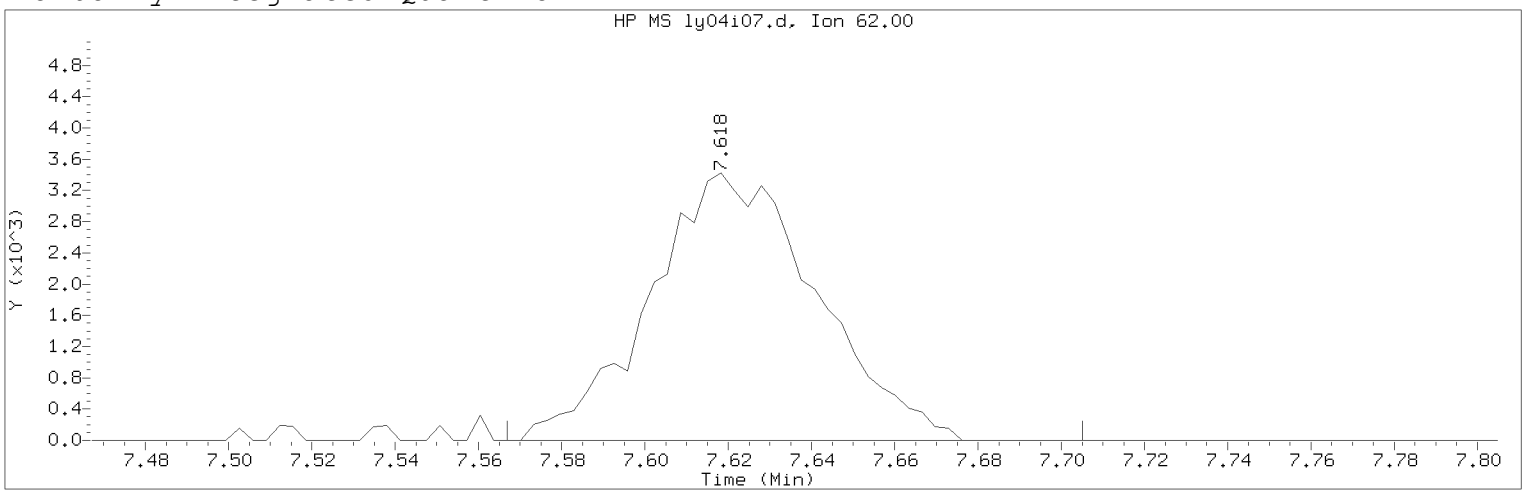
Compound Number : 55
Compound Name : 1,1-Dichloropropene
Scan Number : 1805
Retention Time (minutes): 7.287
Quant Ion : 75.00
Area : 6904
On-column Amount (ng) : 0.7924
Integration start scan : 1789 Integration stop scan: 1817
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0067

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

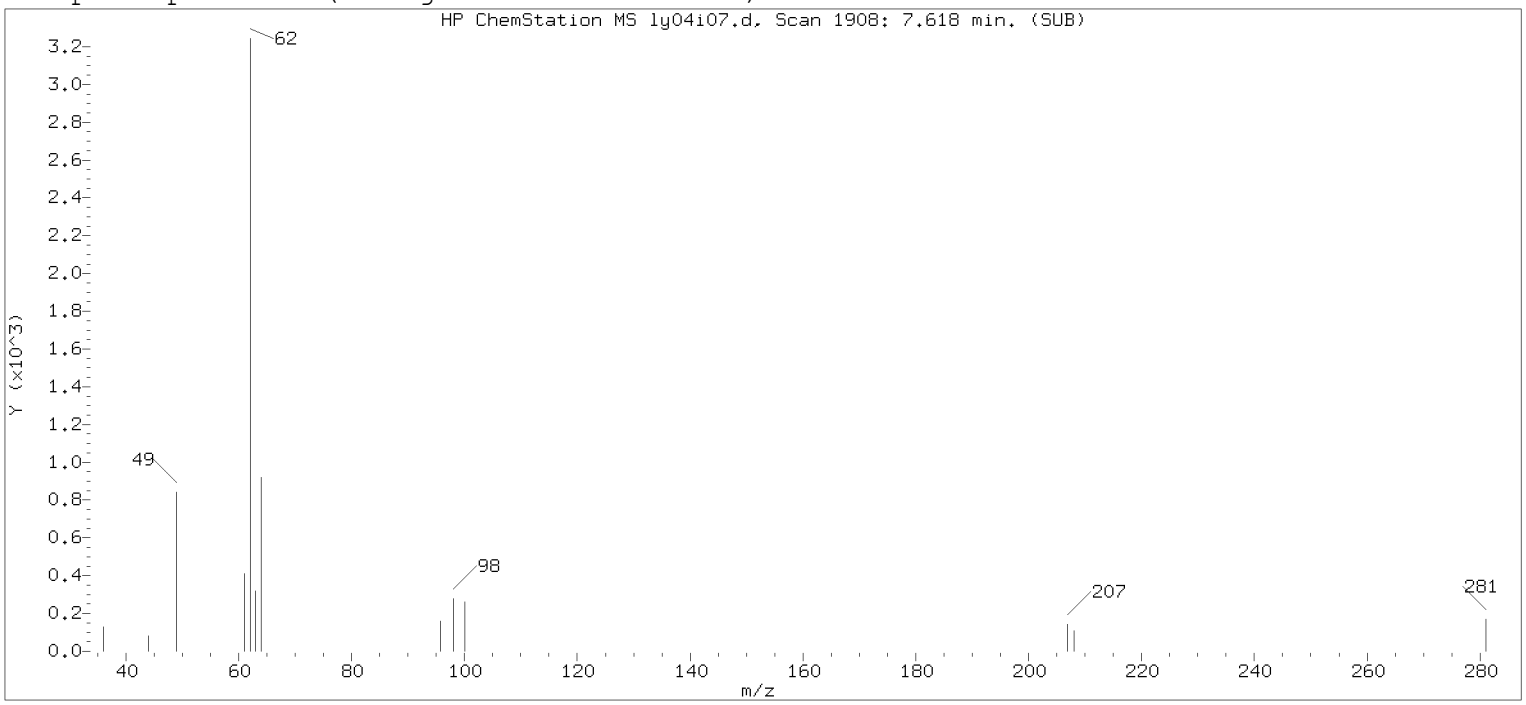
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area (flag) : 9508M
On-Column Amount (ng) : 1.0518
Integration start scan : 1891 Integration stop scan: 1934
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

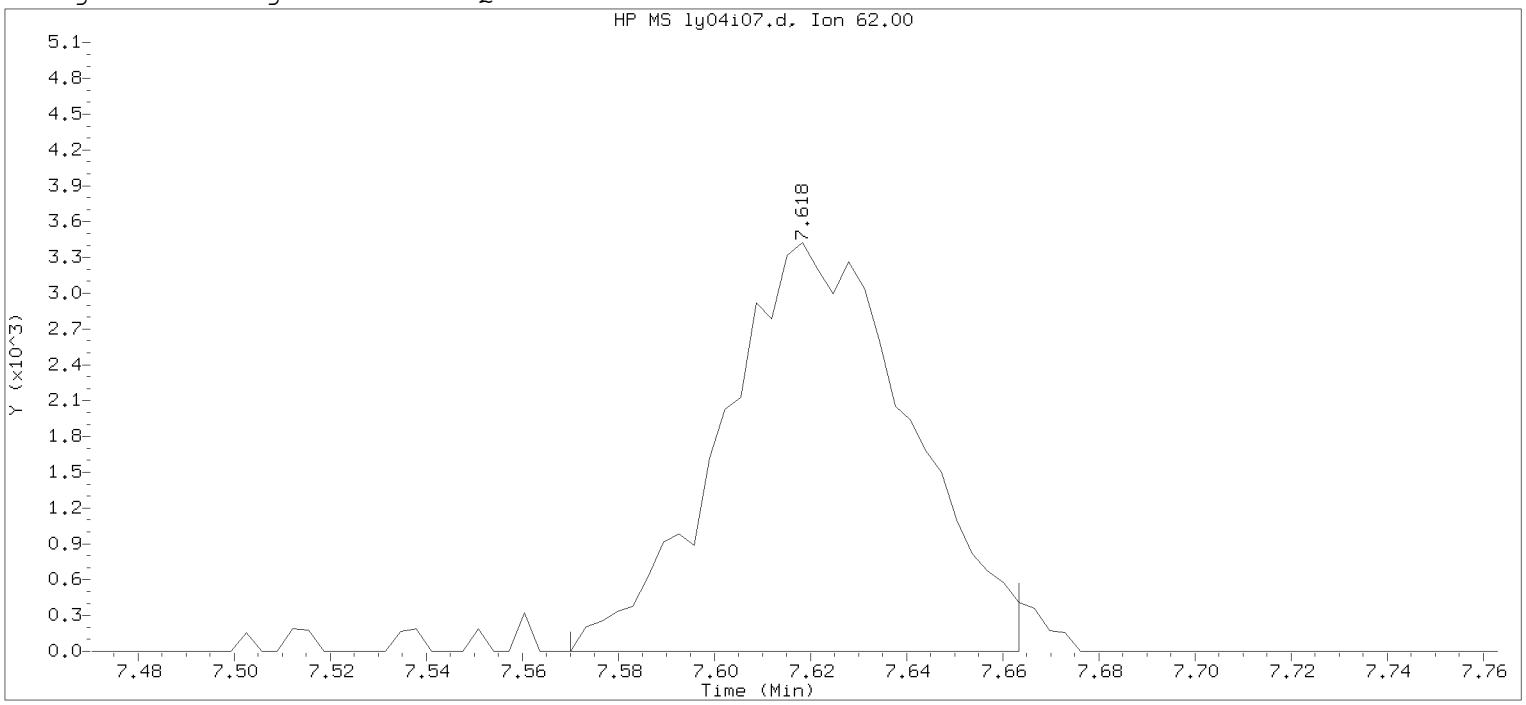
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

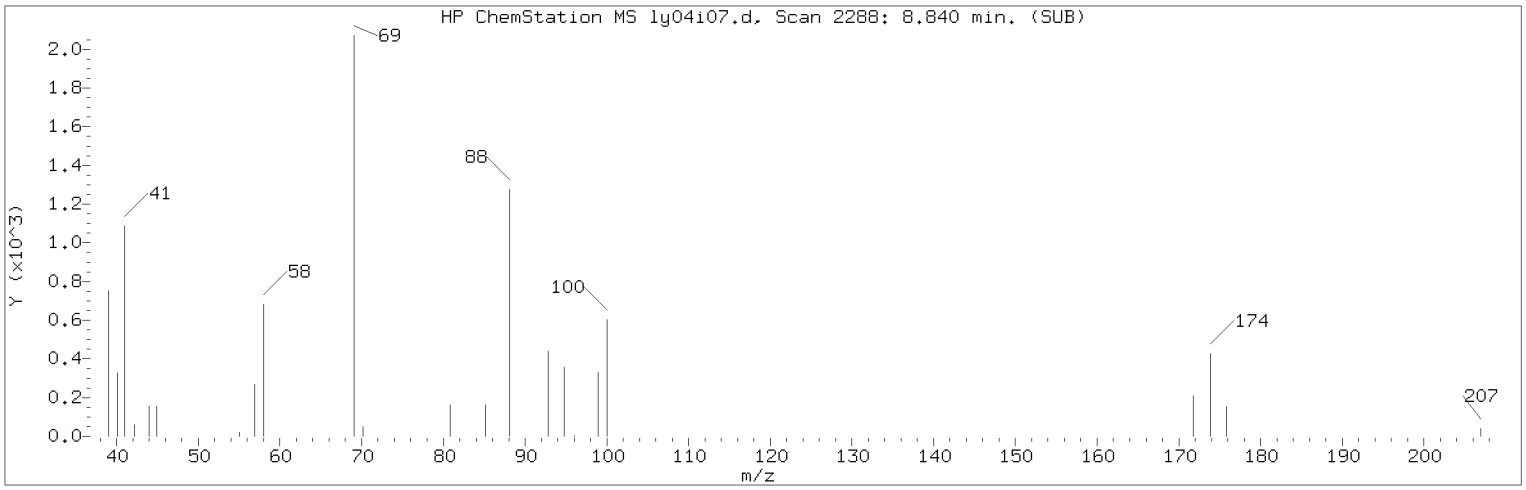
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

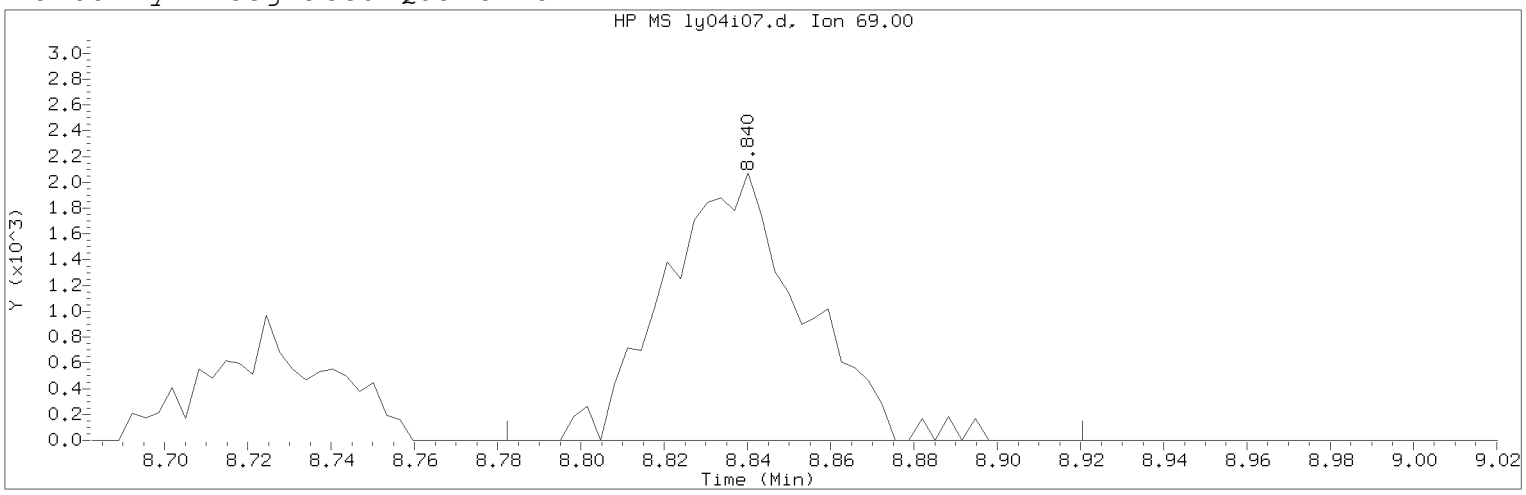
Compound Number : 61
Compound Name : 1,2-Dichloroethane
Scan Number : 1908
Retention Time (minutes): 7.618
Quant Ion : 62.00
Area : 9335
On-column Amount (ng) : 1.0361
Integration start scan : 1892 Integration stop scan: 1921
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2020

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

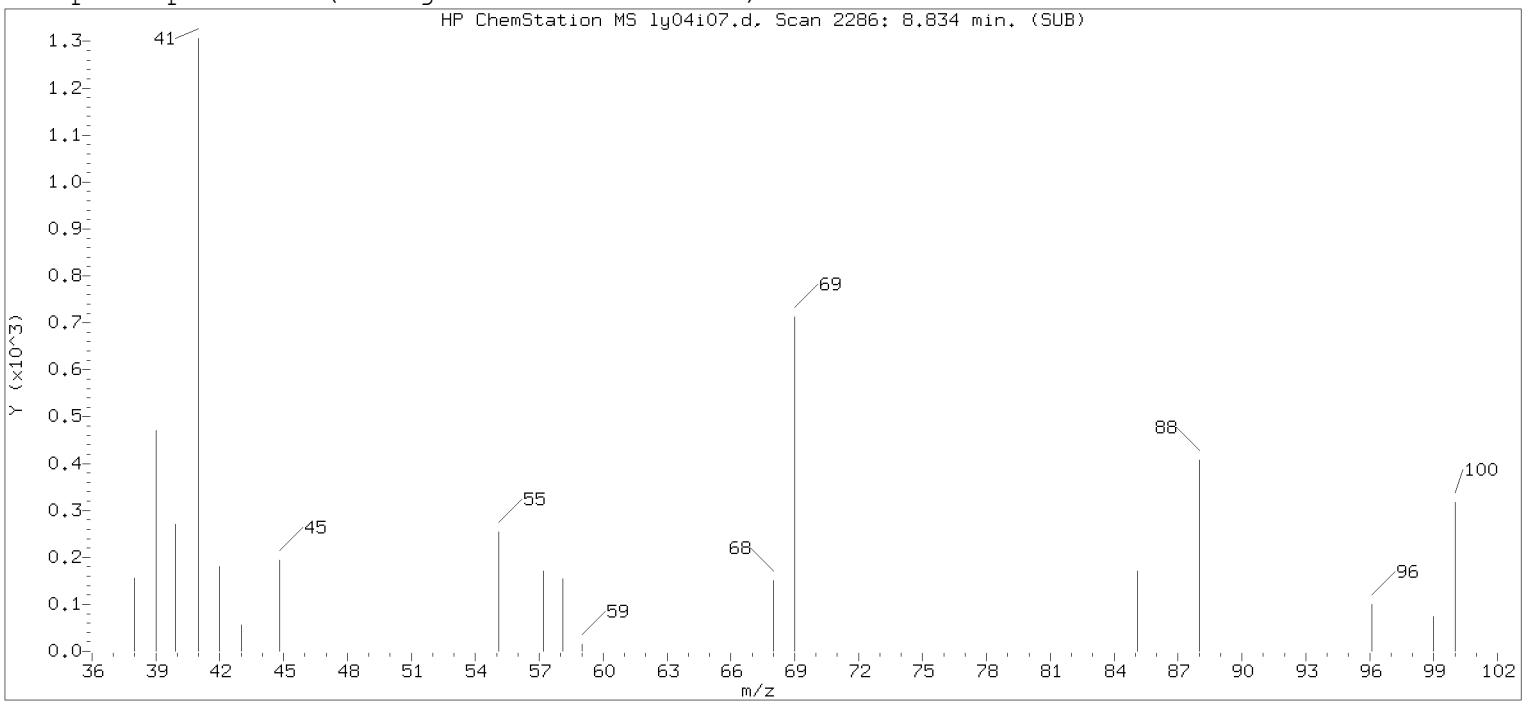
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 69.00
Area (flag) : 4771M
On-Column Amount (ng) : 0.7985
Integration start scan : 2269 Integration stop scan: 2312
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

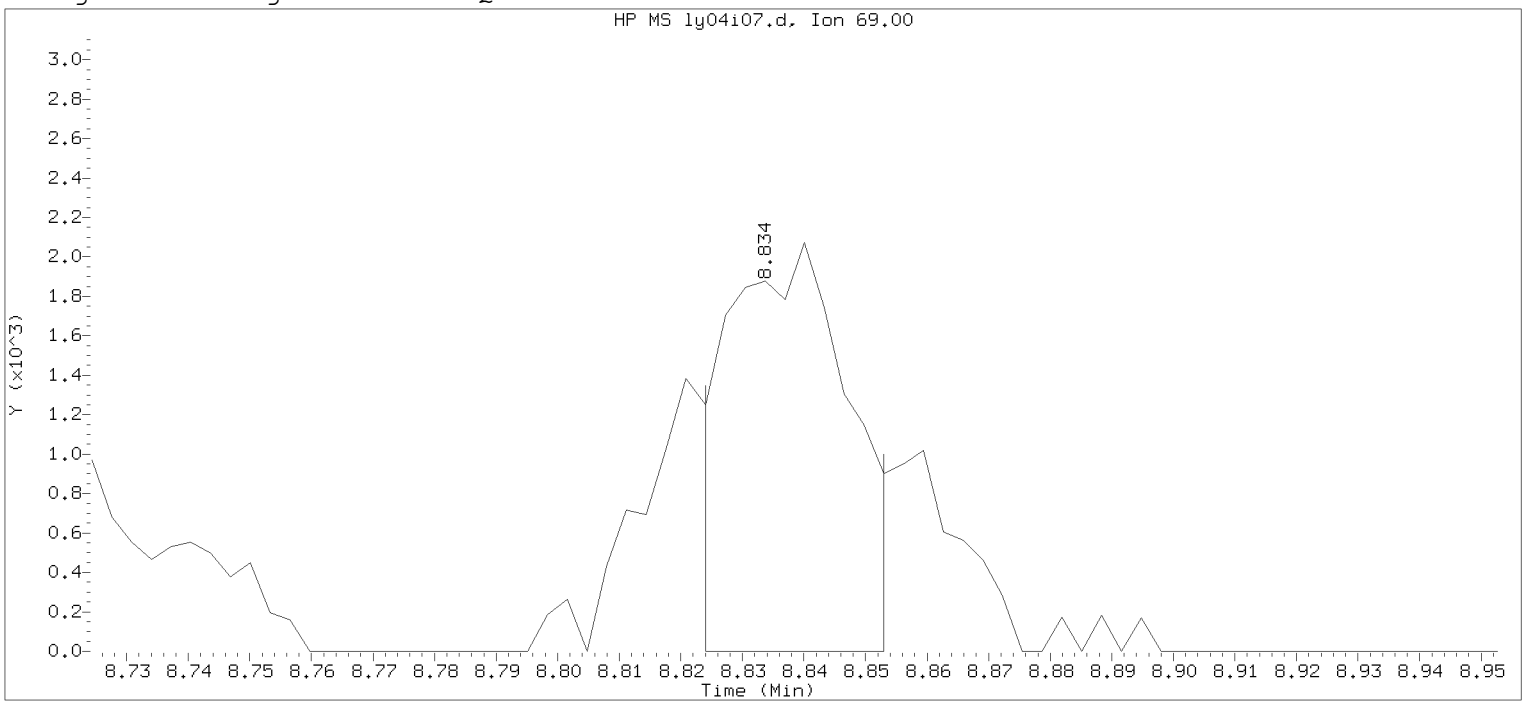
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

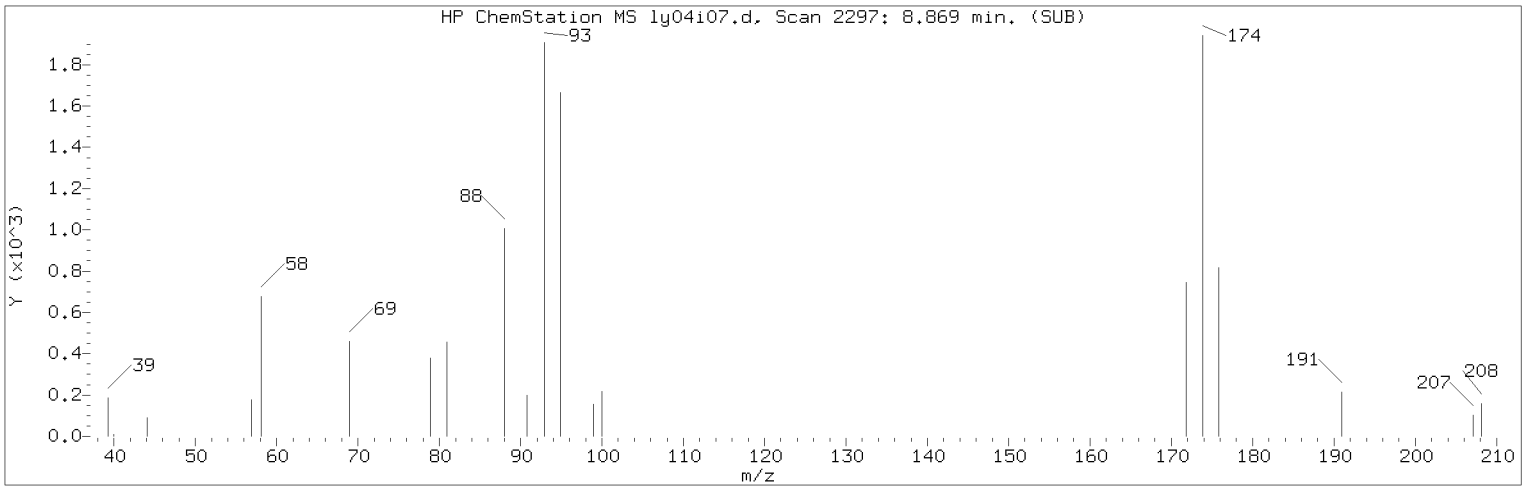
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

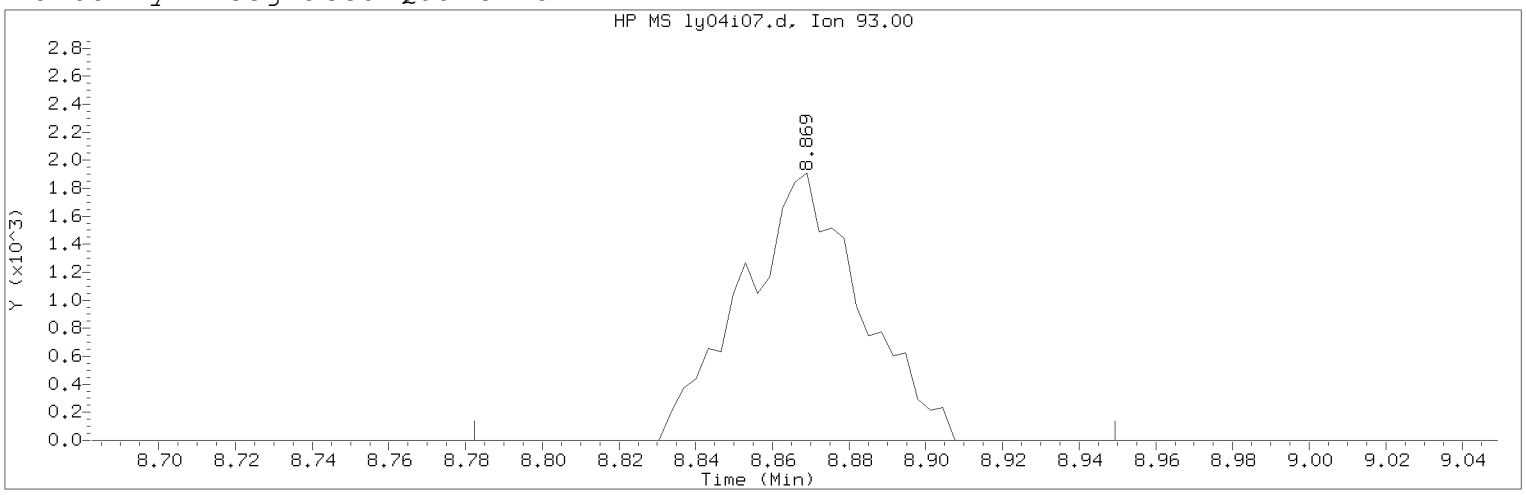
Compound Number : 76
Compound Name : Methyl Methacrylate
Scan Number : 2286
Retention Time (minutes): 8.834
Quant Ion : 69.00
Area : 2808
On-column Amount (ng) : 0.5001
Integration start scan : 2282 Integration stop scan: 2291
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

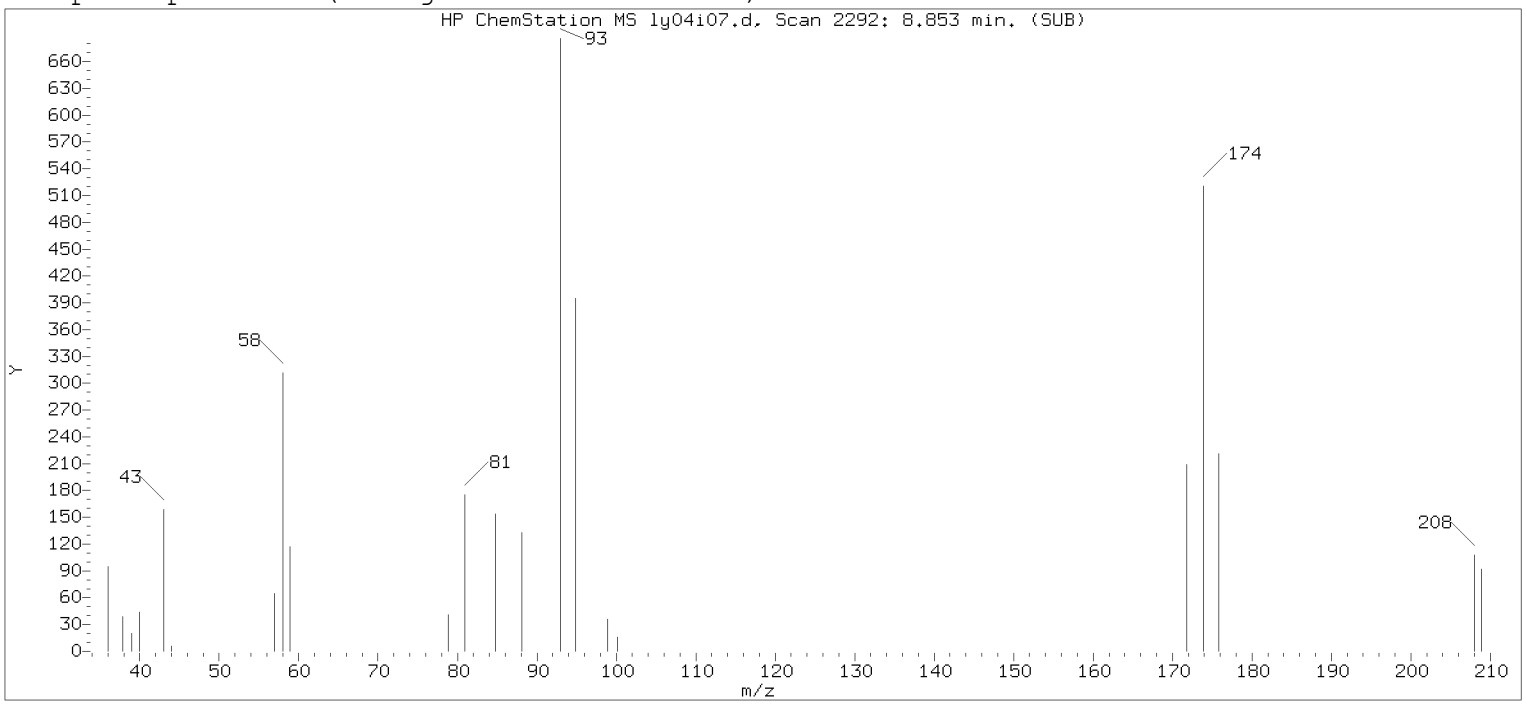
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2297
Retention Time (minutes): 8.869
Quant Ion : 93.00
Area (flag) : 4079M
On-Column Amount (ng) : 0.8976
Integration start scan : 2269 Integration stop scan: 2321
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

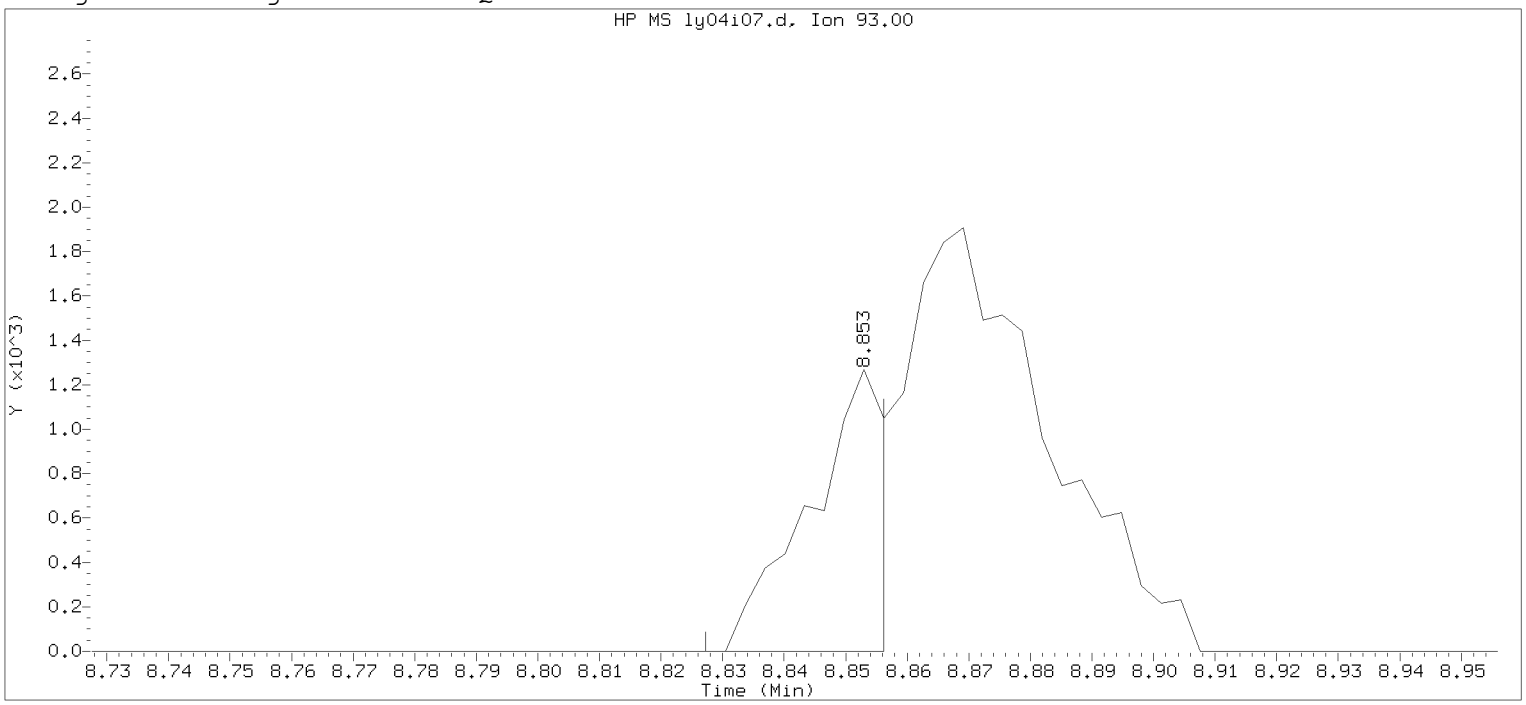
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

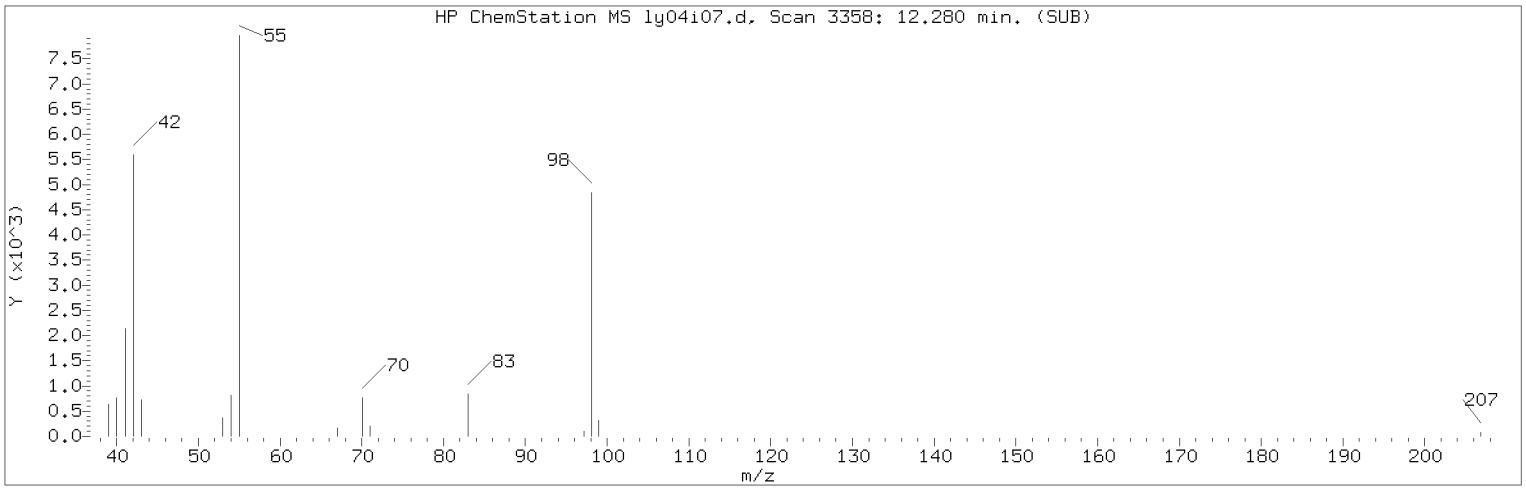
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

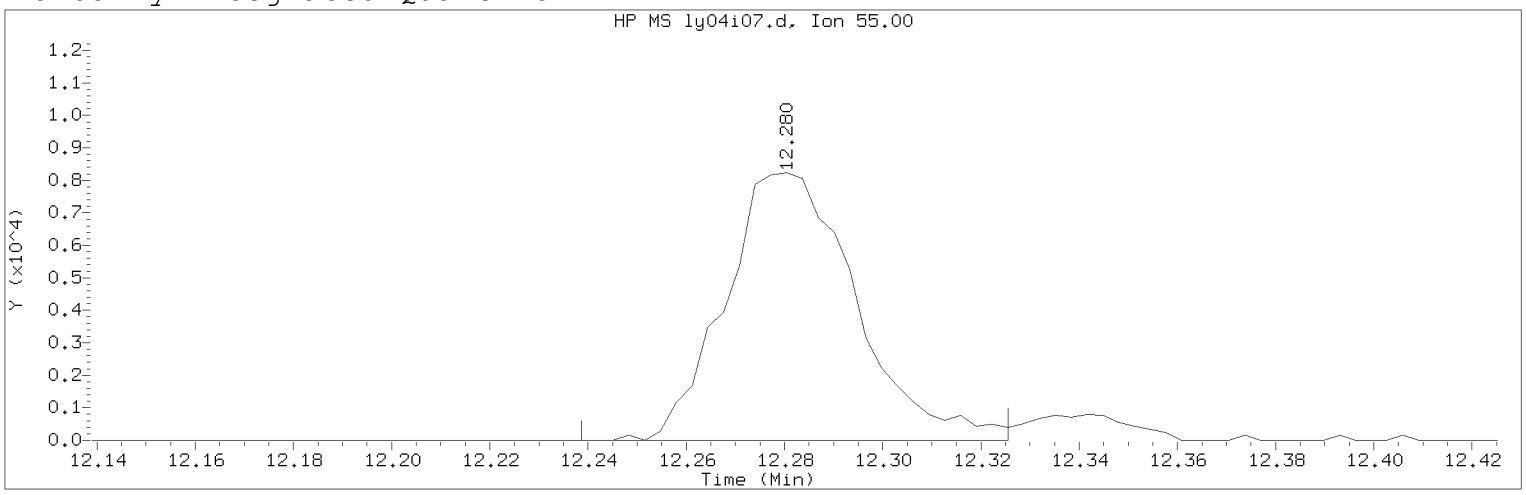
Compound Number : 74
Compound Name : Dibromomethane
Scan Number : 2292
Retention Time (minutes): 8.853
Quant Ion : 93.00
Area : 993
On-column Amount (ng) : 0.2481
Integration start scan : 2283 Integration stop scan: 2292
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2022

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

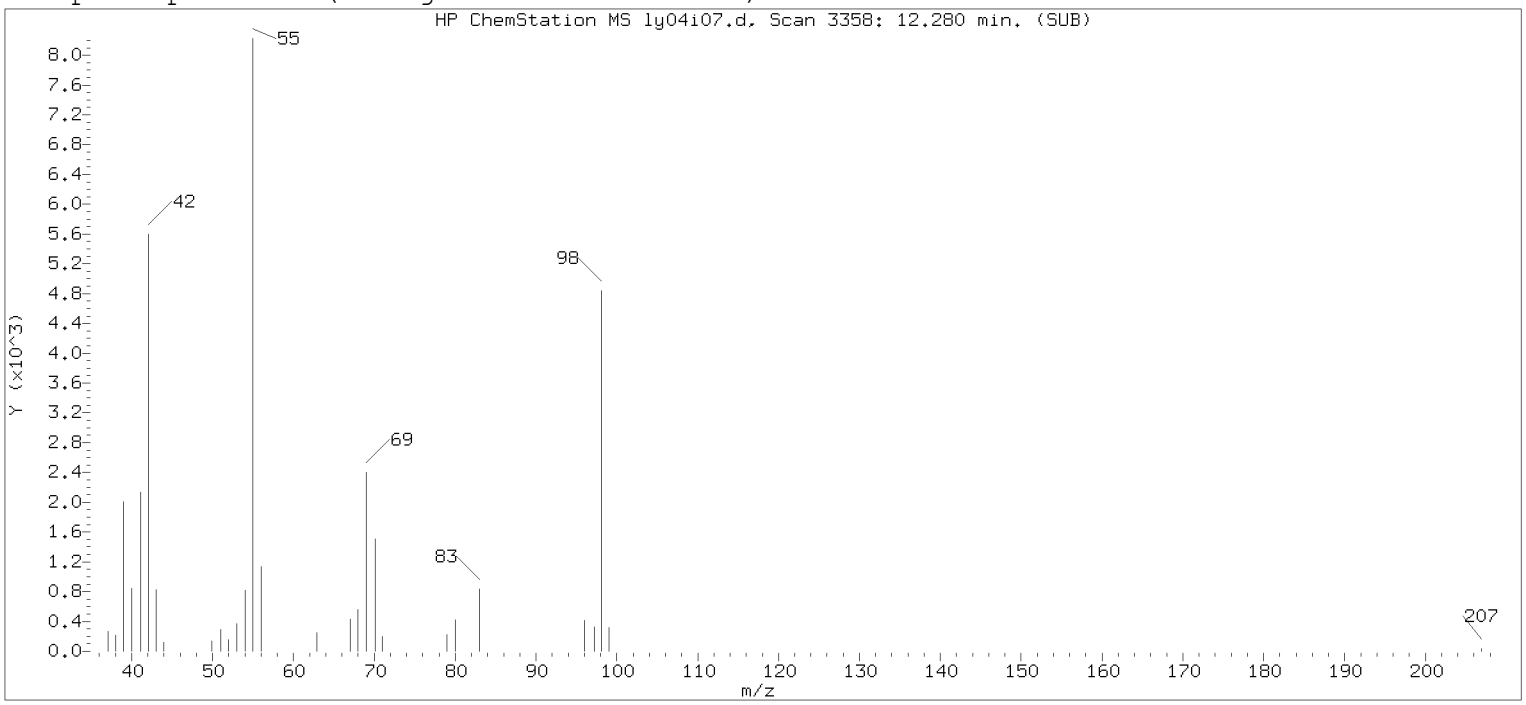
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area (flag) : 15170M
On-Column Amount (ng) : 41.2440
Integration start scan : 3344 Integration stop scan: 3371
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

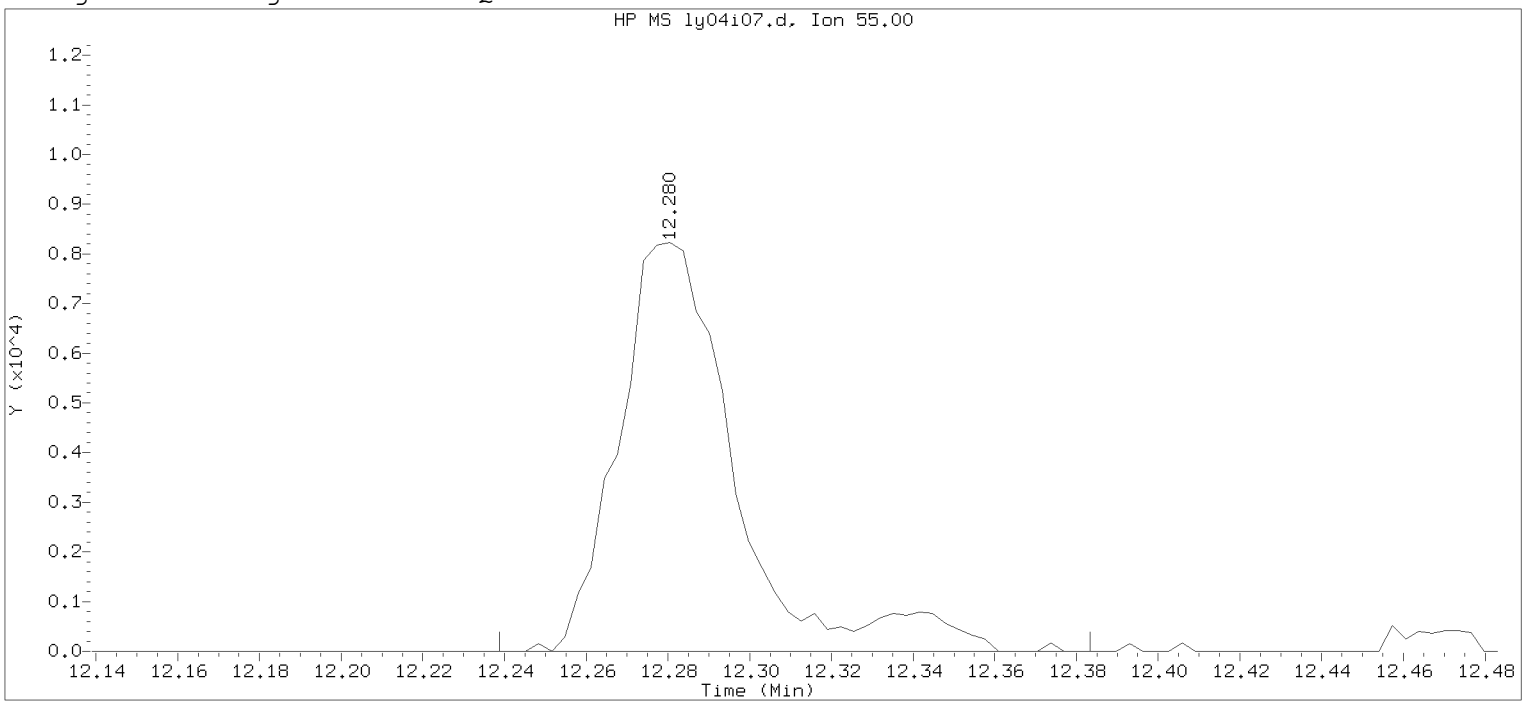
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

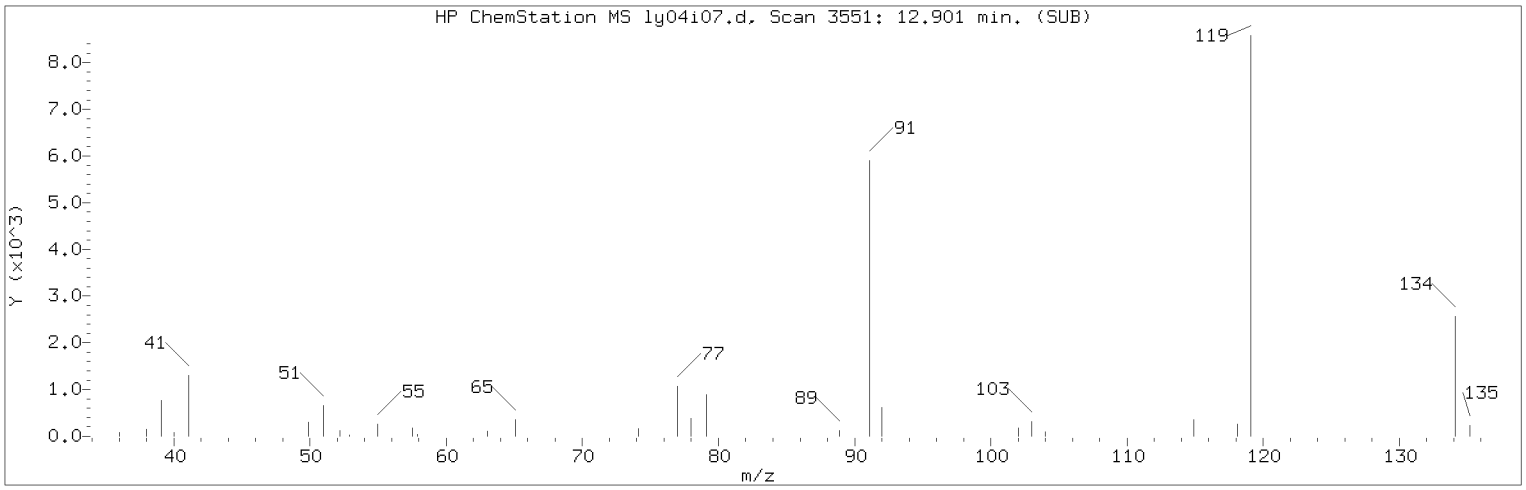
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

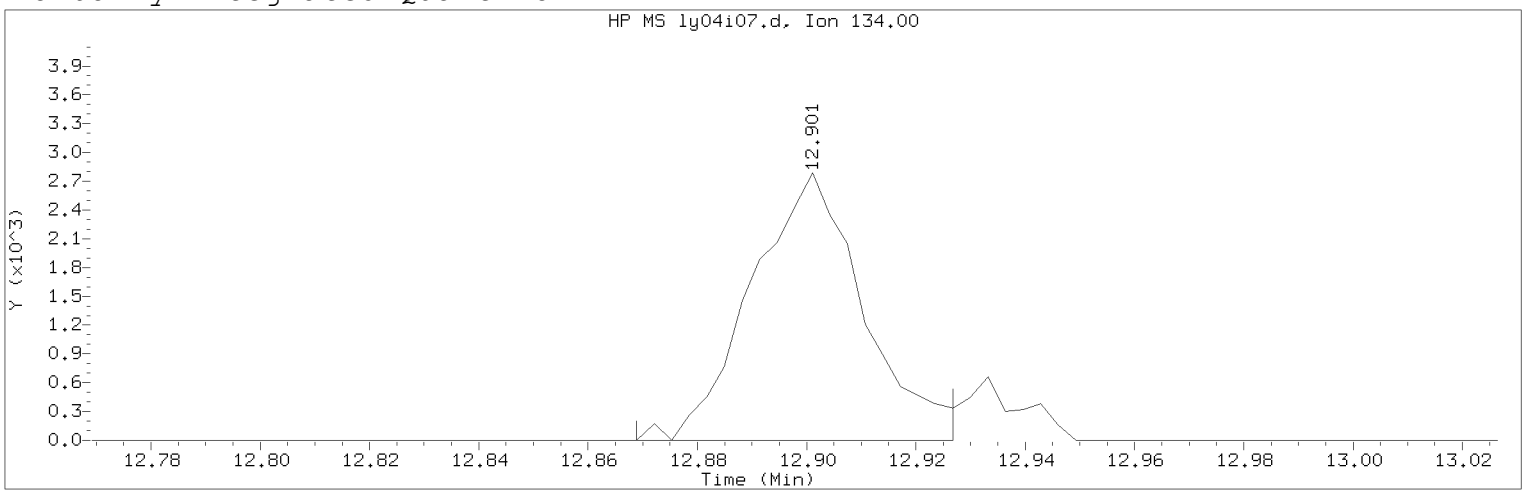
Compound Number : 112
Compound Name : Cyclohexanone
Scan Number : 3358
Retention Time (minutes): 12.280
Quant Ion : 55.00
Area : 16320
On-column Amount (ng) : 44.5393
Integration start scan : 3344 Integration stop scan: 3389
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2025

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

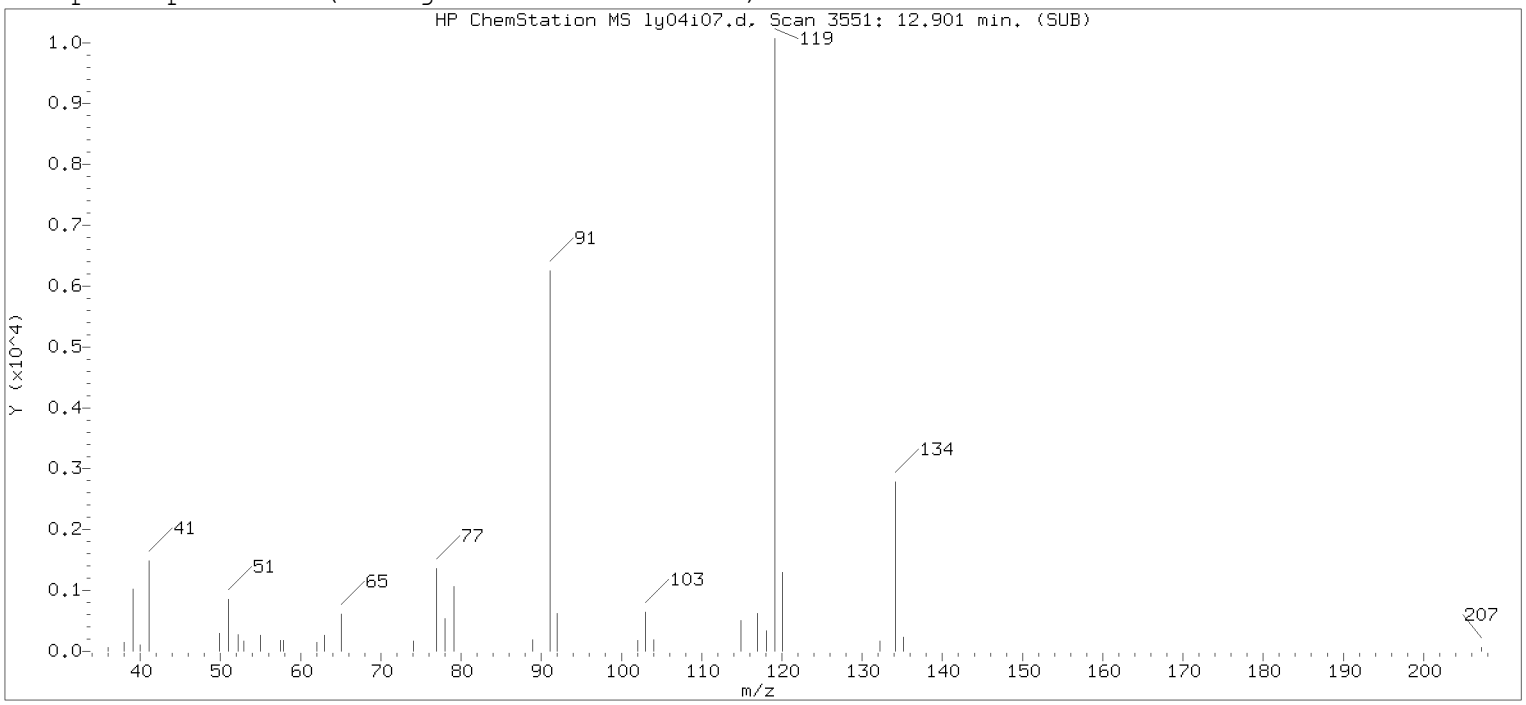
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area (flag) : 3961M
On-Column Amount (ng) : 0.7035
Integration start scan : 3540 Integration stop scan: 3558
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

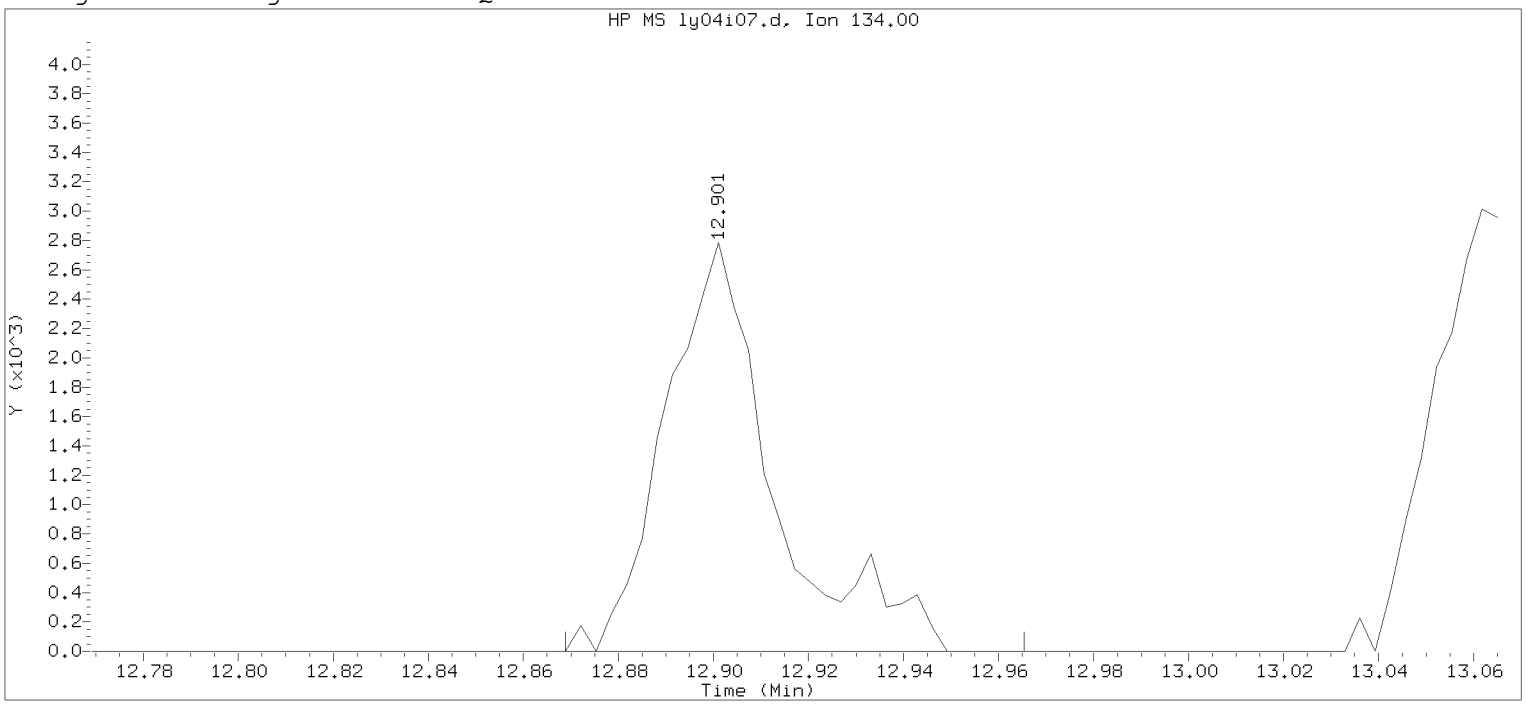
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

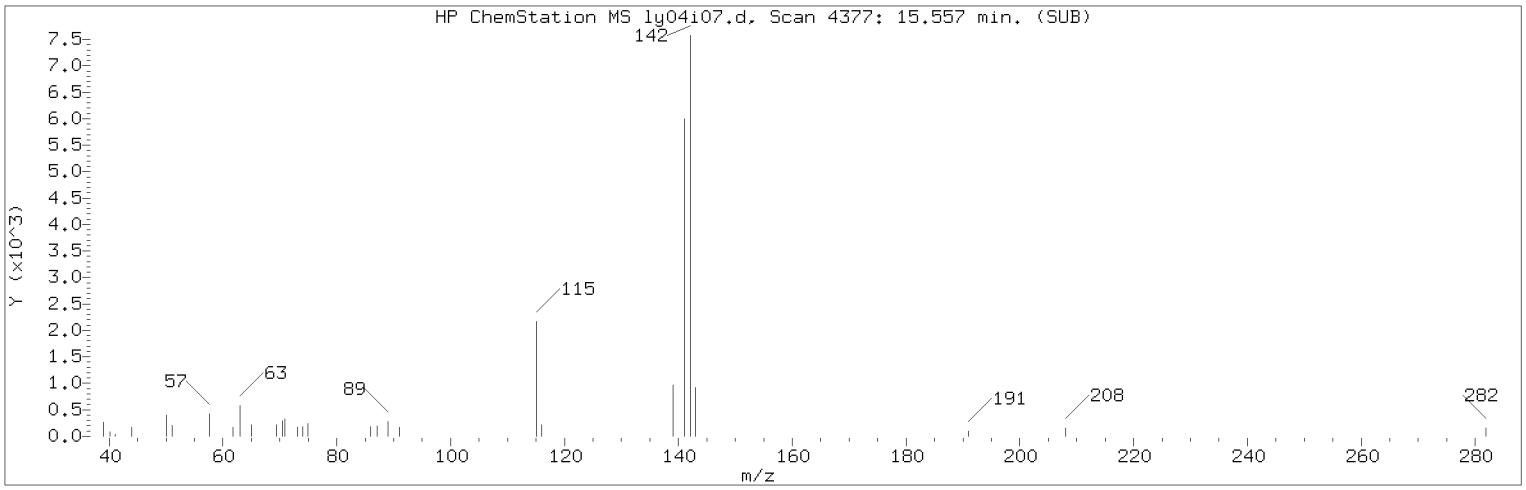
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

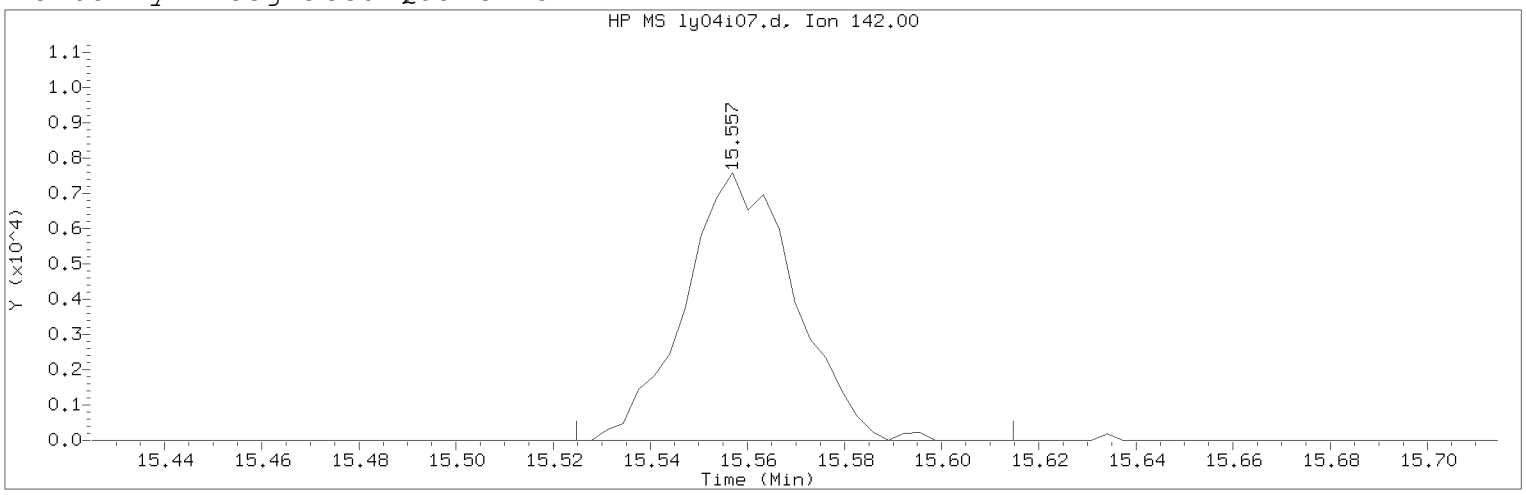
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3551
Retention Time (minutes): 12.901
Quant Ion : 134.00
Area : 4401
On-column Amount (ng) : 0.7650
Integration start scan : 3540 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejo0077

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 19:29 sej02002

Sample Name: VSTD001 Lab Sample ID: VSTD001

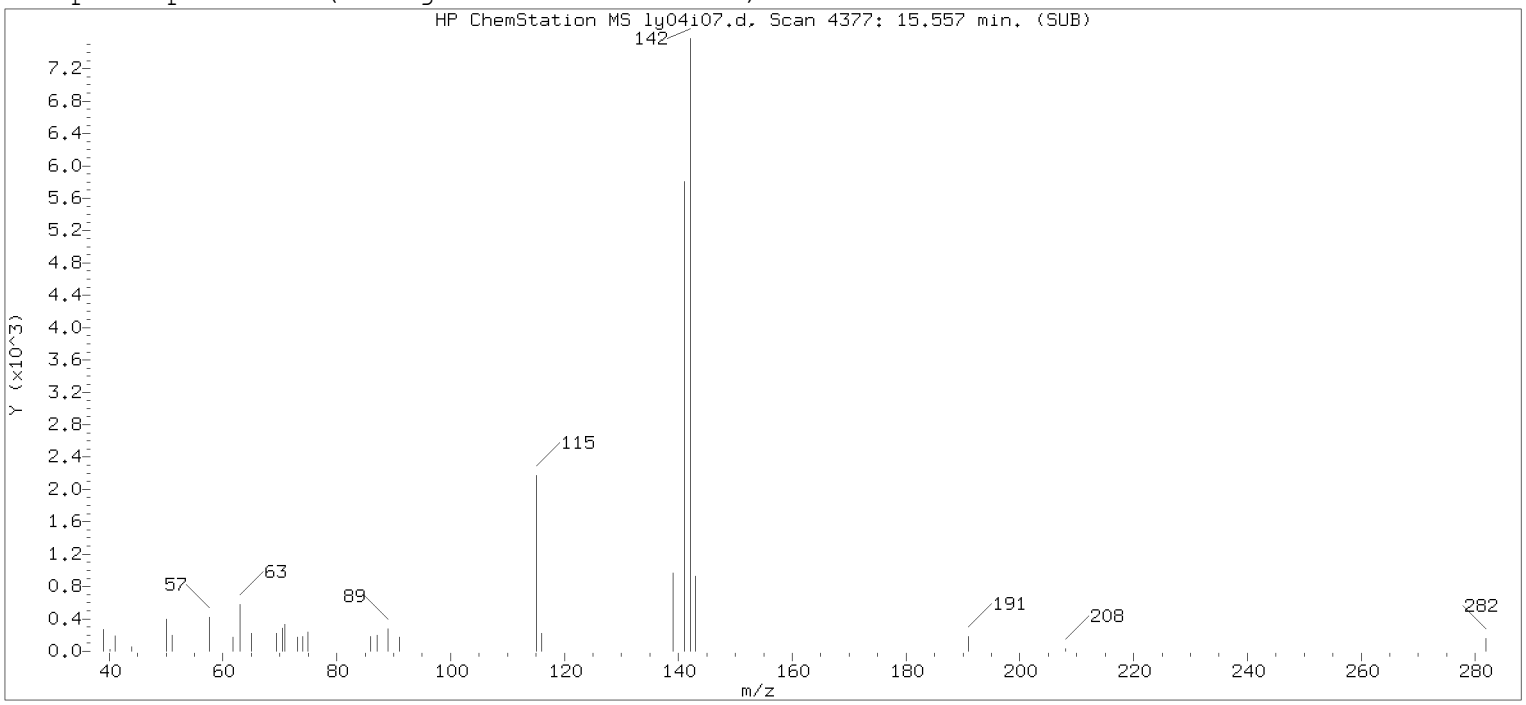
Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area (flag) : 11936M
On-Column Amount (ng) : 3.3357
Integration start scan : 4366 Integration stop scan: 4394
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

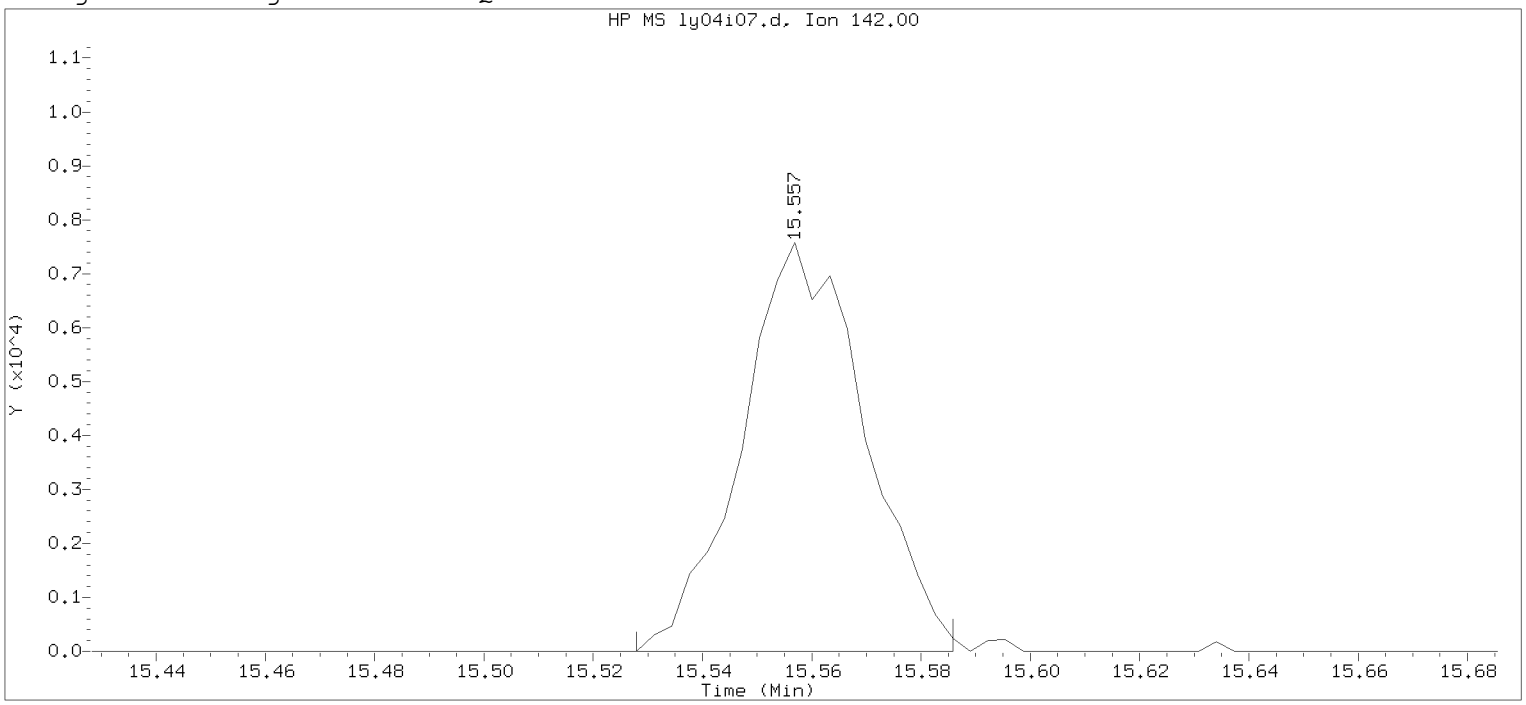
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



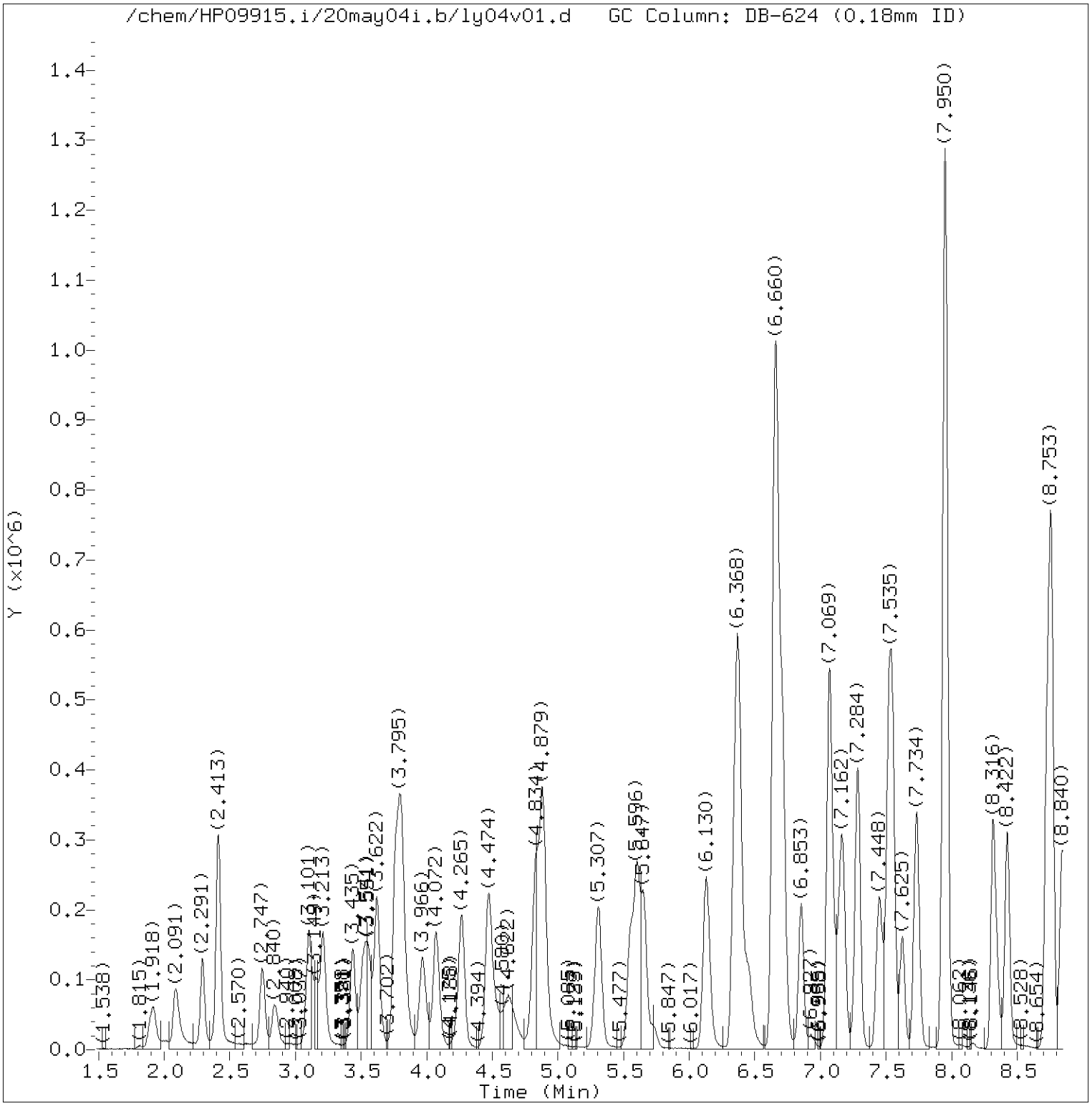
Data File: /chem/HP09915.i/20may04i.b/ly04i07.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:30 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 14:47 Automation

Sample Name: VSTD001 Lab Sample ID: VSTD001

Compound Number : 150
Compound Name : 2-Methylnaphthalene
Scan Number : 4377
Retention Time (minutes): 15.557
Quant Ion : 142.00
Area : 11832
On-column Amount (ng) : 0.6286
Integration start scan : 4367 Integration stop scan: 4385
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 05/04/2020 at 19:30.
Target 3.5 esignature user ID: sejoh2022



Total Ion Chromatogram (TIC)

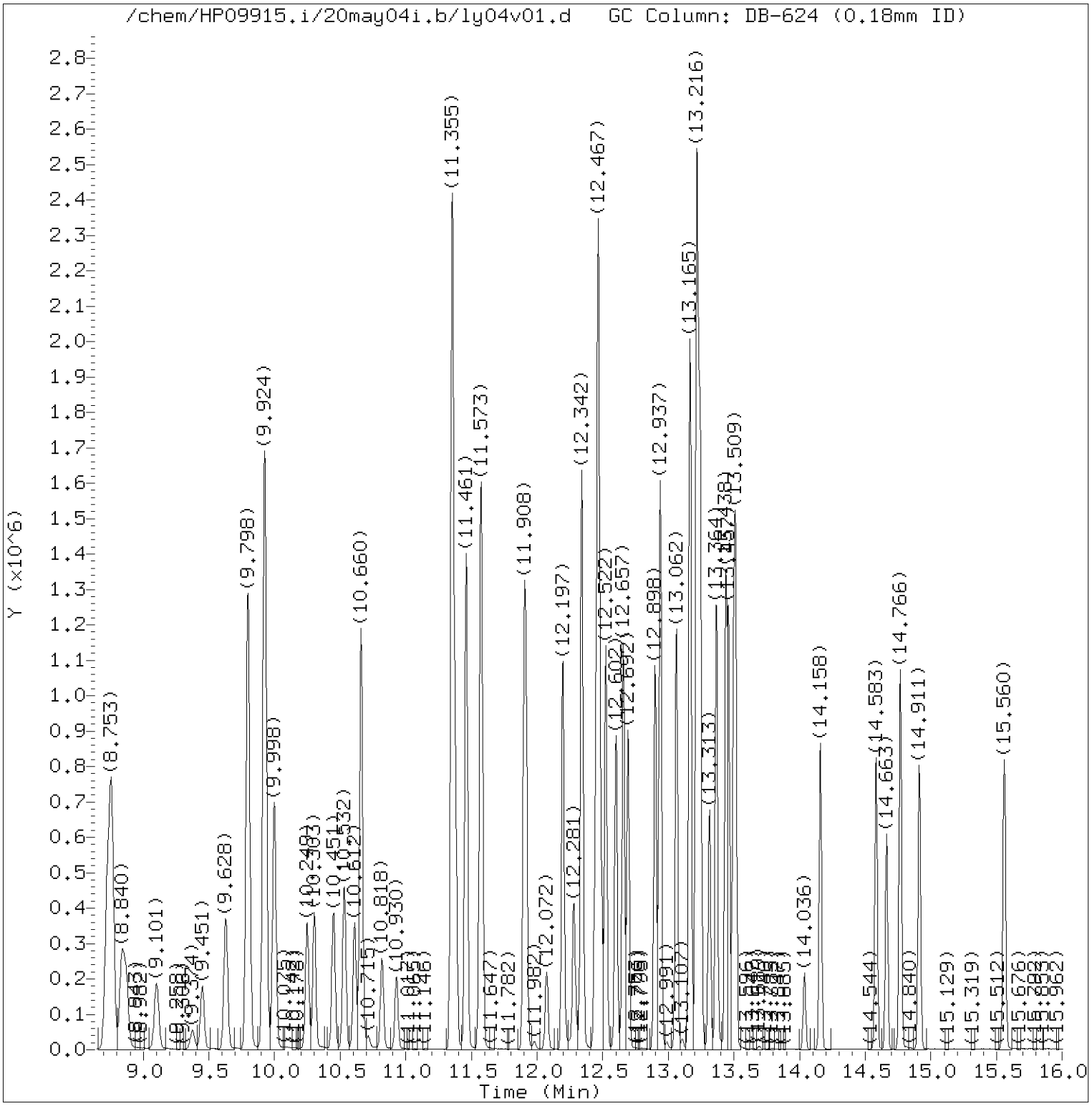
Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.091	85	170822	18.748
4) Chloromethane	(2)	2.294	50	178347	20.965
5) 1,3-Butadiene	(2)	2.410	39	127548M	23.372
6) Vinyl Chloride	(2)	2.413	62	173135	21.090
8) Bromomethane	(2)	2.747	94	113651	19.202
9) Chloroethane	(2)	2.837	64	89576	19.543
10) Dichlorofluoromethane	(2)	3.101	67	184252	18.636
12) Trichlorofluoromethane	(2)	3.156	101	202771	22.616
11) n-Pentane	(2)	3.213	43	155213	18.438
14) Ethyl ether	(2)	3.435	59	129003	20.363
15) Freon 123a	(2)	3.525	67	151026	20.792
16) Acrolein	(1)	3.622	56	329175	139.630
17) 1,1-Dichloroethene	(2)	3.760	96	118964	20.806
19) Freon 113	(2)	3.792	101	114815	19.354
18) Acetone	(1)	3.802	58	207762	193.204
22) Methyl Iodide	(2)	3.966	142	219377	19.908
21) 2-Propanol	(1)	3.985	45	103119	150.457
23) Carbon Disulfide	(2)	4.072	76	402072	20.884
27) Methyl Acetate	(2)	4.242	43	139909	19.185
25) Allyl Chloride	(2)	4.268	41	179935	19.419
28) Methylene Chloride	(2)	4.467	84	139636	20.530
29)*t-Butyl alcohol-d10	(1)	4.493	65	286563	250.000
30) t-Butyl alcohol	(1)	4.622	59	234564	202.753
31) Acrylonitrile	(2)	4.824	53	381896	94.534
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	376365	19.193
32) trans-1,2-Dichloroethene	(2)	4.889	96	134049	20.379
34) n-Hexane	(2)	5.310	57	192921	20.943
36) 1,1-Dichloroethane	(2)	5.548	63	232641	20.165
38) di-Isopropyl ether	(2)	5.602	45	404847	19.953
39) 2-Chloro-1,3-butadiene	(2)	5.654	53	188423	20.480
40) Ethyl t-butyl ether	(2)	6.130	59	373926	19.834
43) 1,2-Dichloroethene (Total)	(2)		96	293072	41.937
44) 2-Butanone	(2)	6.352	43	810086	165.204
42) cis-1,2-Dichloroethene	(2)	6.377	96	159023	21.558
45) 2,2-Dichloropropane	(2)	6.387	77	181449	20.350
47) Propionitrile	(1)	6.448	54	235686	150.798
48) Methacrylonitrile	(2)	6.657	67	620974	153.326
49) Bromochloromethane	(2)	6.705	128	74060	19.458

M = Compound was manually integrated.
* = Compound is an internal standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.712	71	133663	97.744
51) Chloroform	(2)	6.853	83	227394	20.175
52)$Dibromofluoromethane	(2)	7.069	113	330544	49.382
53) 1,1,1-Trichloroethane	(2)	7.072	97	191699	19.825
54) Cyclohexane	(2)	7.168	56	232443	21.474
56) Carbon Tetrachloride	(2)	7.281	117	165383	20.413
55) 1,1-Dichloropropene	(2)	7.284	75	180448	20.357
58) Isobutyl Alcohol	(1)	7.454	41	194524	495.653
57)$1,2-Dichloroethane-d4	(2)	7.519	102	84686	49.860
60) Benzene	(2)	7.551	78	549814	20.037
61) 1,2-Dichloroethane	(2)	7.625	62	181543	19.737
65) t-Amyl methyl ether	(2)	7.734	73	388580	20.176
66)*Fluorobenzene	(2)	7.950	96	1328679	50.000
67) n-Heptane	(2)	7.956	43	195566	20.416
69) n-Butanol	(1)	8.313	56	319239	997.615
71) Trichloroethene	(2)	8.422	95	138805	19.990
72) Methylcyclohexane	(2)	8.721	83	230091	20.379
73) 1,2-Dichloropropane	(2)	8.757	63	143846	20.346
76) Methyl Methacrylate	(2)	8.834	69	119148	19.600
75) 1,4-Dioxane	(1)	8.840	88	49173M	511.194
74) Dibromomethane	(2)	8.866	93	92229	19.947
78) Bromodichloromethane	(2)	9.104	83	164272	19.817
79) 2-Nitropropane	(2)	9.374	41	43949	17.683
80) 2-Chloroethyl Vinyl Ether	(2)	9.451	63	96311	20.458
81) cis-1,3-Dichloropropene	(2)	9.628	75	217653	20.091
82) 4-Methyl-2-pentanone	(2)	9.795	43	988209	99.516
83)$Toluene-d8	(3)	9.924	98	1360447	49.949
88) Toluene	(3)	9.998	92	346986	19.987
90) 1,3-Dichloropropene (total)	(3)		100	414410	39.844
89) trans-1,3-Dichloropropene	(3)	10.249	75	196757	19.753
91) Ethyl Methacrylate	(3)	10.303	69	207140	20.667
92) 1,1,2-Trichloroethane	(3)	10.451	97	138453	20.553
93) Tetrachloroethene	(3)	10.528	166	153665	20.770
94) 1,3-Dichloropropane	(3)	10.609	76	223187	19.812
96) 2-Hexanone	(3)	10.660	43	781980	107.421
97) Dibromochloromethane	(3)	10.818	129	142177	20.290
99) 1,2-Dibromoethane	(3)	10.930	107	143222	19.783
100)*Chlorobenzene-d5	(3)	11.351	117	1060223	50.000

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
101) 1-Chlorohexane	(3)	11.358	91	177481	19.977
102) Chlorobenzene	(3)	11.380	112	403802	20.255
103) 1,1,1,2-Tetrachloroethane	(3)	11.458	131	133891	19.811
104) Ethylbenzene	(3)	11.461	91	665092	20.697
106) m+p-Xylene	(3)	11.573	106	539656	42.741
108) Xylene (Total)	(3)		106	798814	63.966
107) o-Xylene	(3)	11.901	106	259158	21.225
109) Styrene	(3)	11.917	104	425651	21.435
110) Bromoform	(3)	12.072	173	98703	19.348
111) Isopropylbenzene	(3)	12.197	105	672074	21.691
112) Cyclohexanone	(1)	12.277	55	174130	486.309
114)$4-Bromofluorobenzene	(3)	12.342	95	522085	49.817
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	216158M	19.631
115) Bromobenzene	(4)	12.461	156	176337	19.952
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	326570	101.958
117) 1,2,3-Trichloropropane	(4)	12.490	110	66018	19.632
119) n-Propylbenzene	(4)	12.522	91	805085	21.076
120) 2-Chlorotoluene	(4)	12.602	126	165995	20.341
122) 1,3,5-Trimethylbenzene	(4)	12.657	105	584710	21.184
121) 4-Chlorotoluene	(4)	12.692	126	171352	20.230
124) tert-Butylbenzene	(4)	12.898	134	120476M	21.234
125) Pentachloroethane	(4)	12.933	167	103397	20.520
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	603784	21.157
127) sec-Butylbenzene	(4)	13.062	105	729406	21.705
129) 1,3-Dichlorobenzene	(4)	13.162	146	341577	20.740
130) p-Isopropyltoluene	(4)	13.165	119	640341	22.238
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	603976	50.000
133) 1,4-Dichlorobenzene	(4)	13.236	146	352089	20.370
134) 1,2,3-Trimethylbenzene	(4)	13.245	105	631126	21.285
135) Benzyl Chloride	(4)	13.313	91	436330	19.448
136) 1,3-Diethylbenzene	(4)	13.367	119	388528	20.941
141) Diethylbenzene (total)	(4)		100	1127079	62.827
137) 1,4-Diethylbenzene	(4)	13.438	119	407378	20.977
139) n-Butylbenzene	(4)	13.457	92	311525	21.057
138) 1,2-Dichlorobenzene	(4)	13.496	146	335221	20.222
140) 1,2-Diethylbenzene	(4)	13.512	119	331173	20.910
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	45288	18.583
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	252472	20.218

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

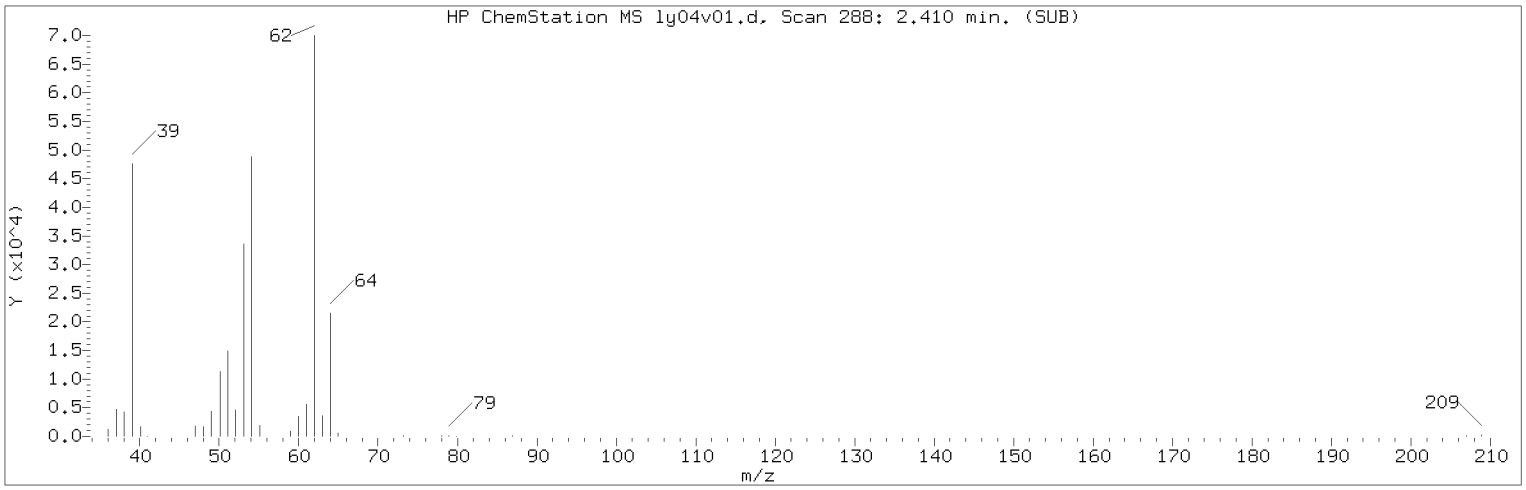
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

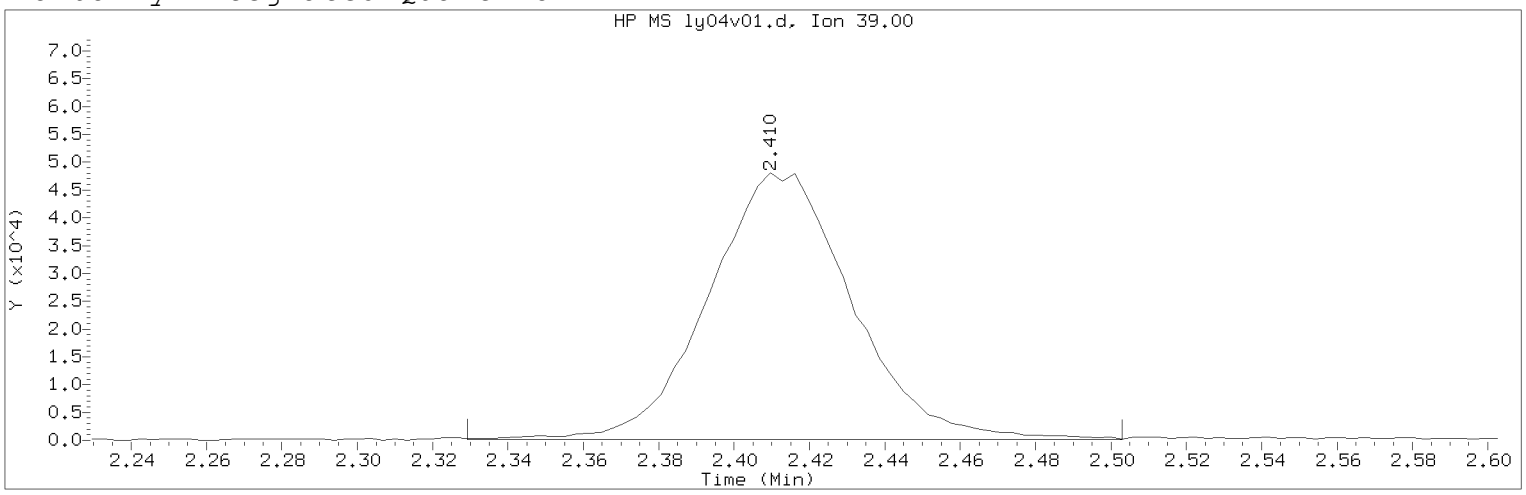
	Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
146)	1,2,4-Trichlorobenzene	(4)	14.583	180	239361	20.511
147)	Hexachlorobutadiene	(4)	14.663	225	102388	19.019
148)	Naphthalene	(4)	14.766	128	784765	20.775
149)	1,2,3-Trichlorobenzene	(4)	14.911	180	239315	20.637
150)	2-Methylnaphthalene	(4)	15.560	142	394789	16.057

Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

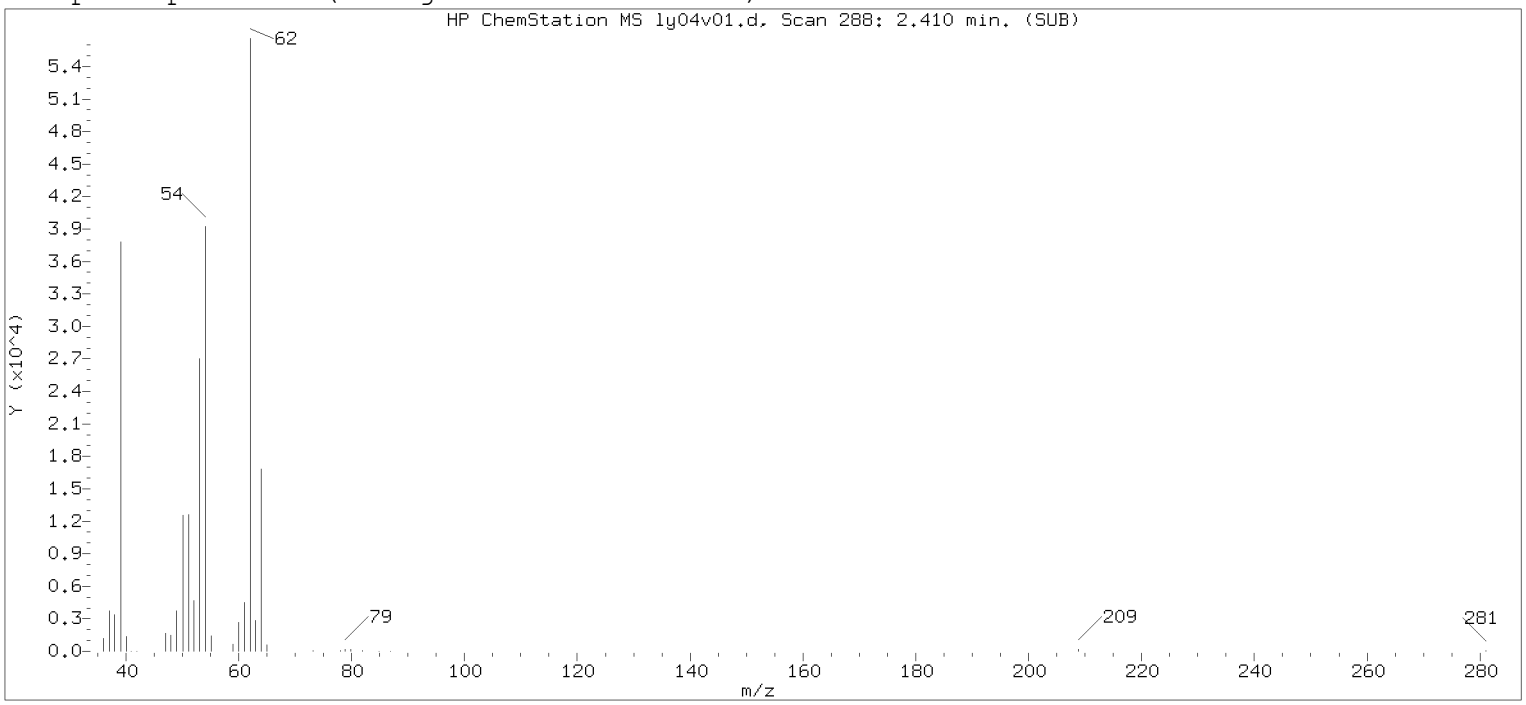
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area (flag) : 127548M
On-Column Amount (ng) : 23.3717
Integration start scan : 262 Integration stop scan: 316
Y at integration start : 100 Y at integration end: 100

Reason for manual integration: improper integration

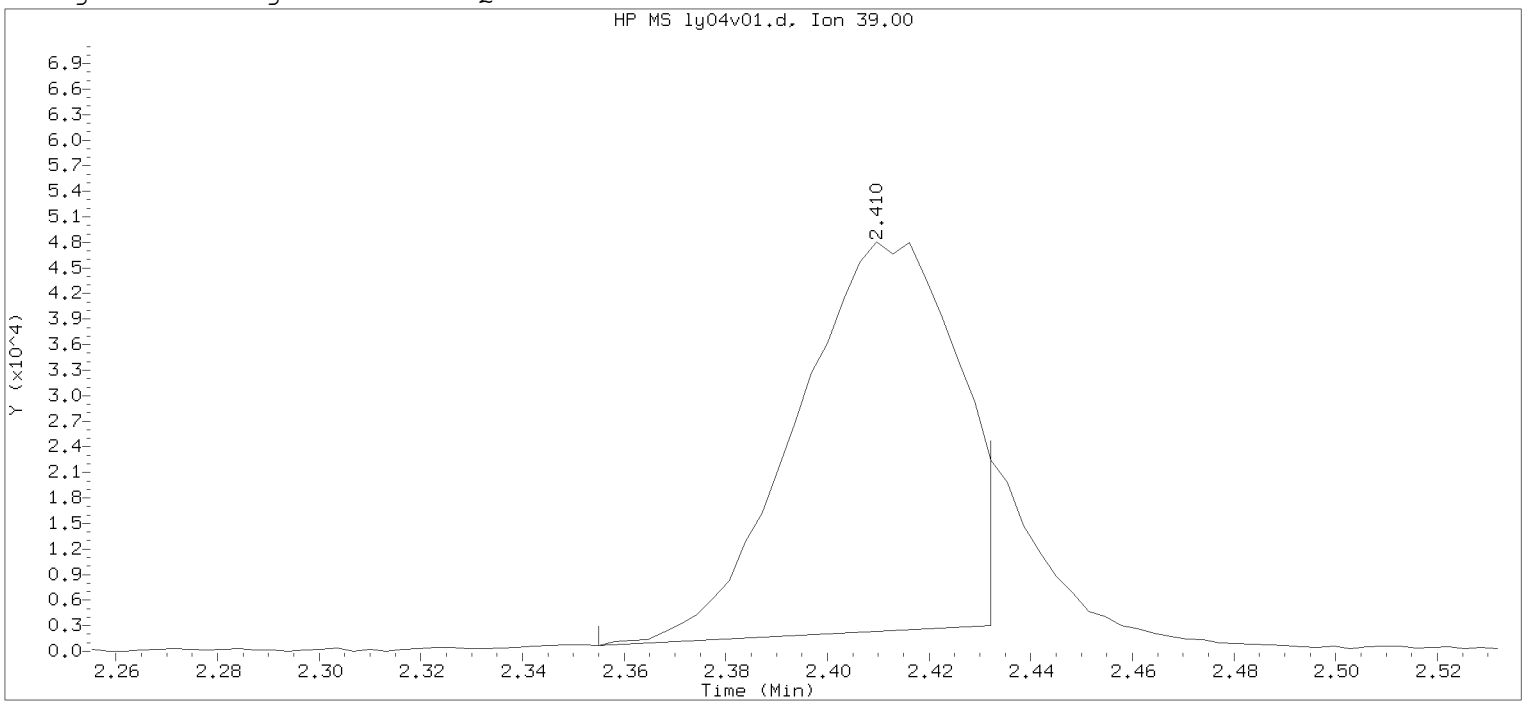
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

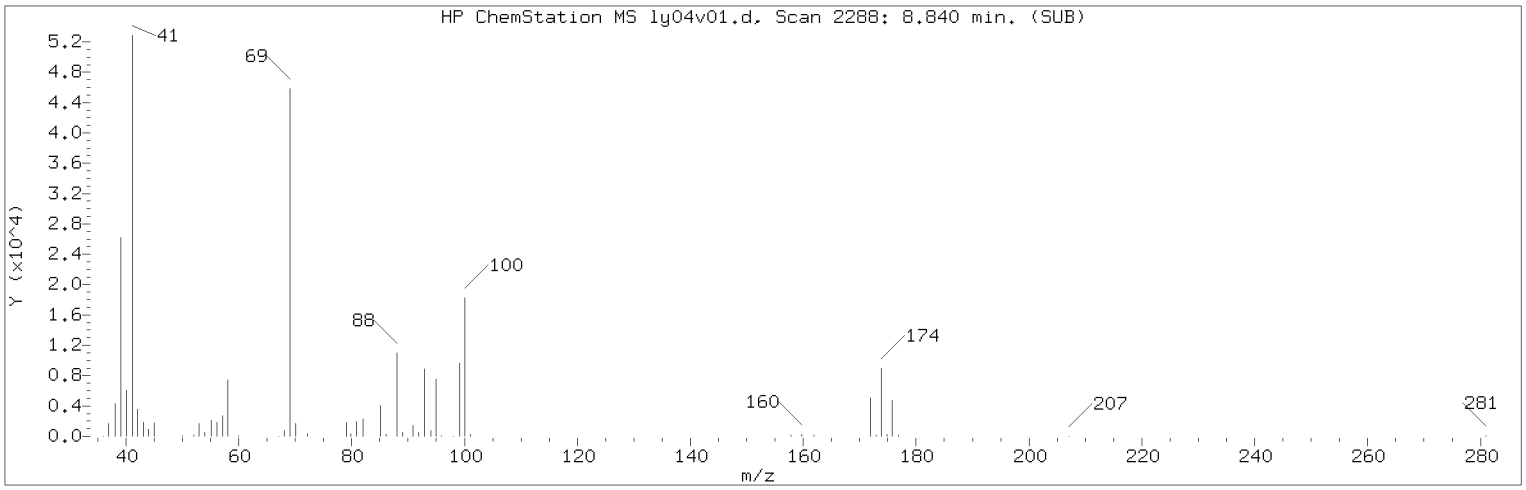
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

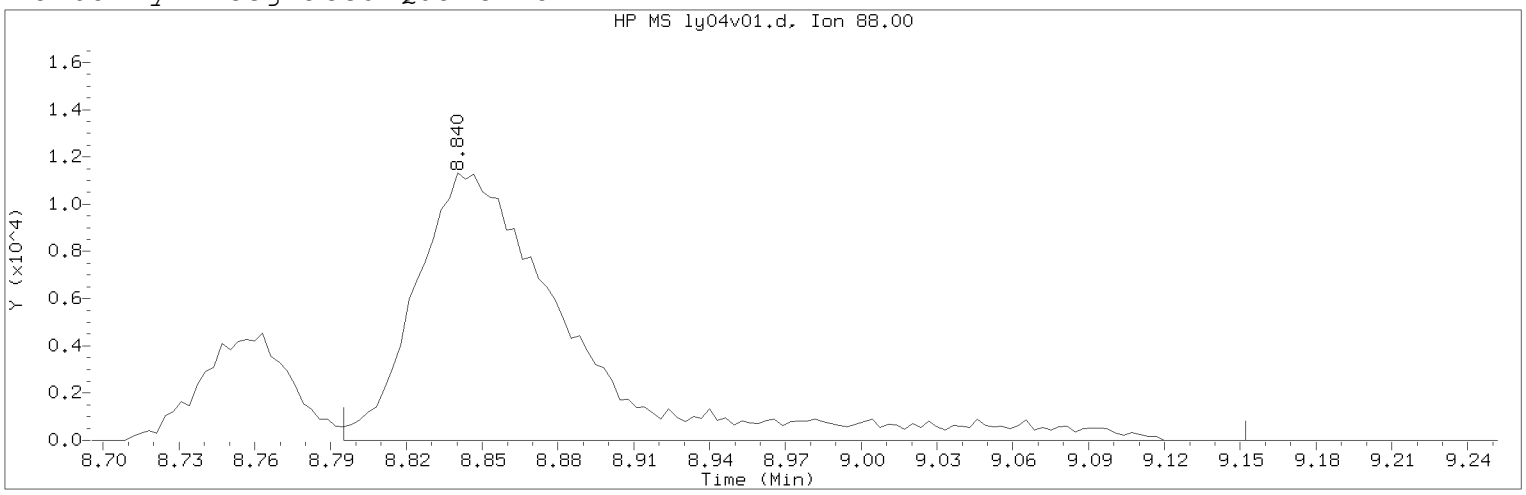
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 288
Retention Time (minutes): 2.410
Quant Ion : 39.00
Area : 99799
On-column Amount (ng) : 22.0790
Integration start scan : 270 Integration stop scan: 294
Y at integration start : 715 Y at integration end: 3016

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10283

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

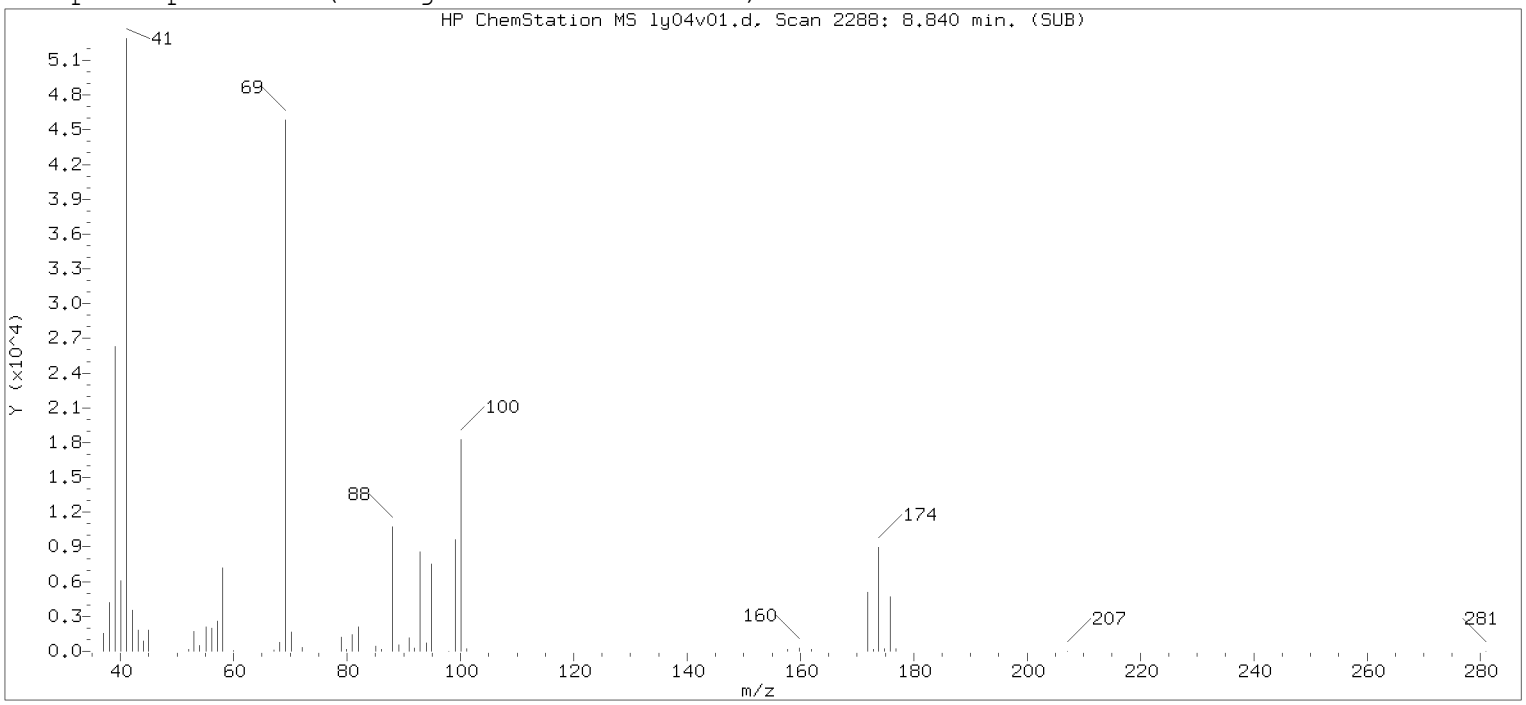
Compound Number : 75
Compound Name : 1,4-Dioxane
Scan Number : 2288
Retention Time (minutes): 8.840
Quant Ion : 88.00
Area (flag) : 49173M
On-Column Amount (ng) : 511.1942
Integration start scan : 2273 Integration stop scan: 2384
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

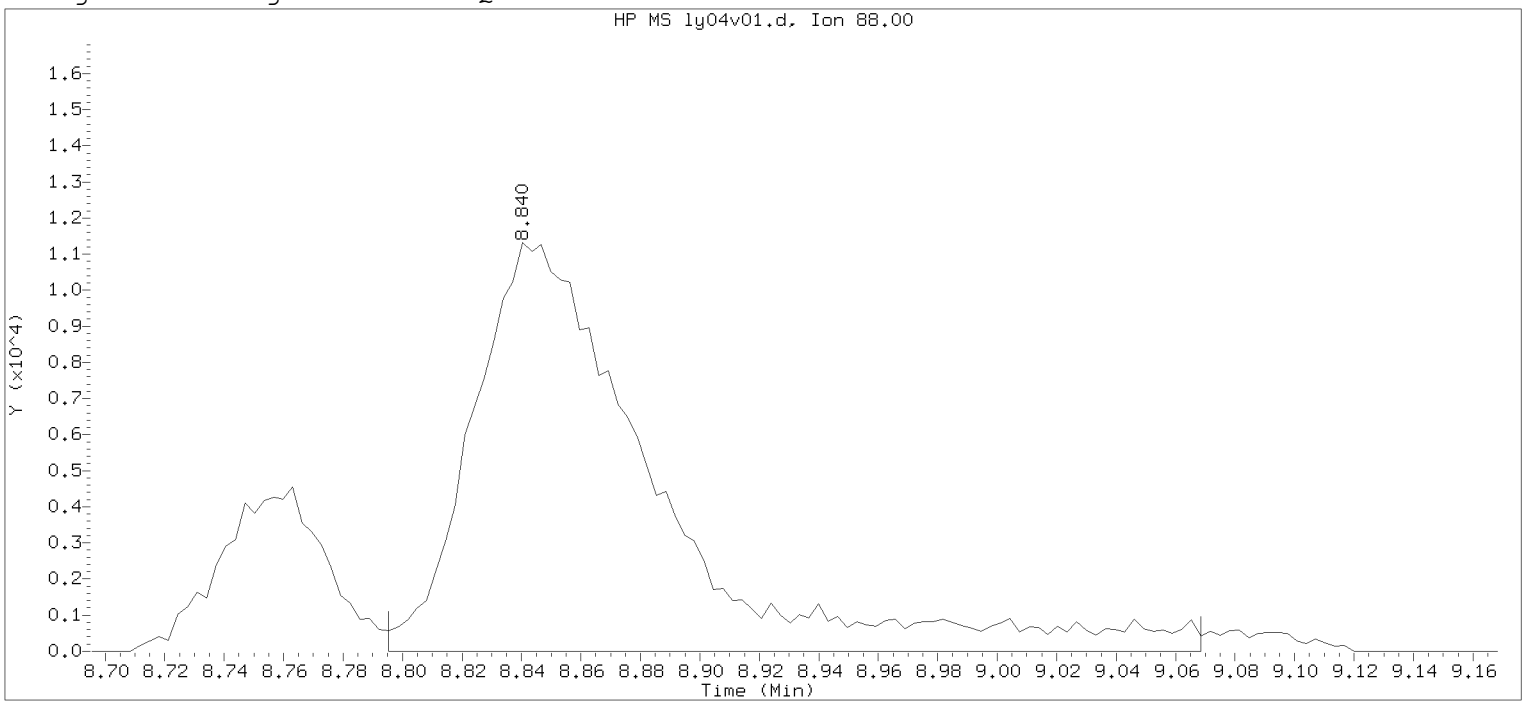
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

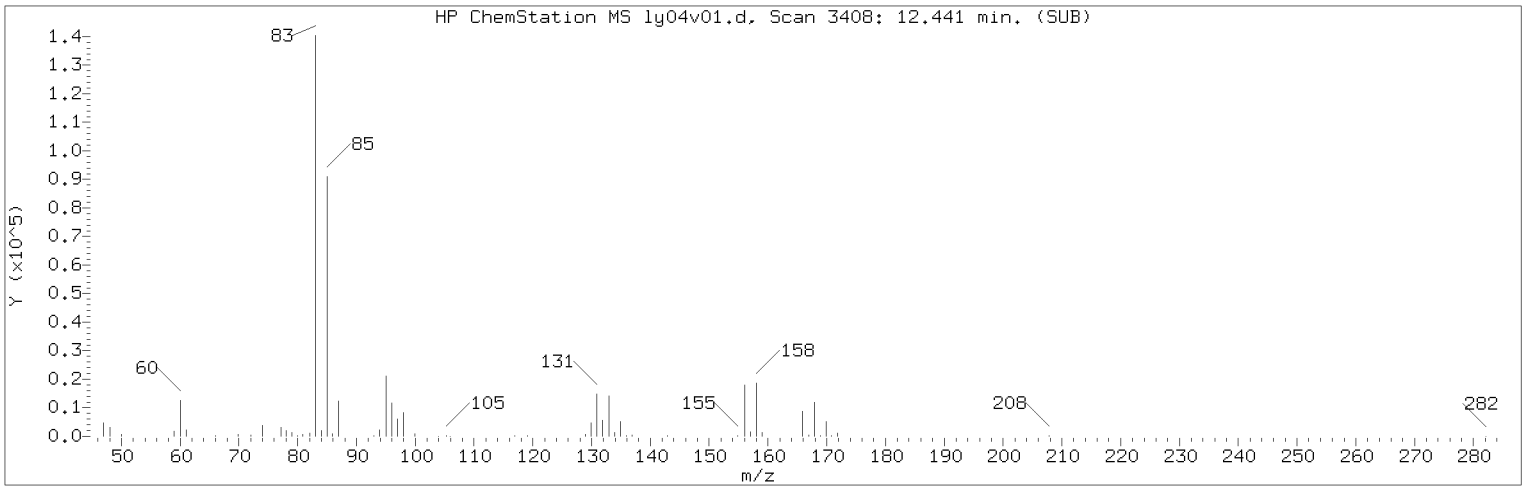
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

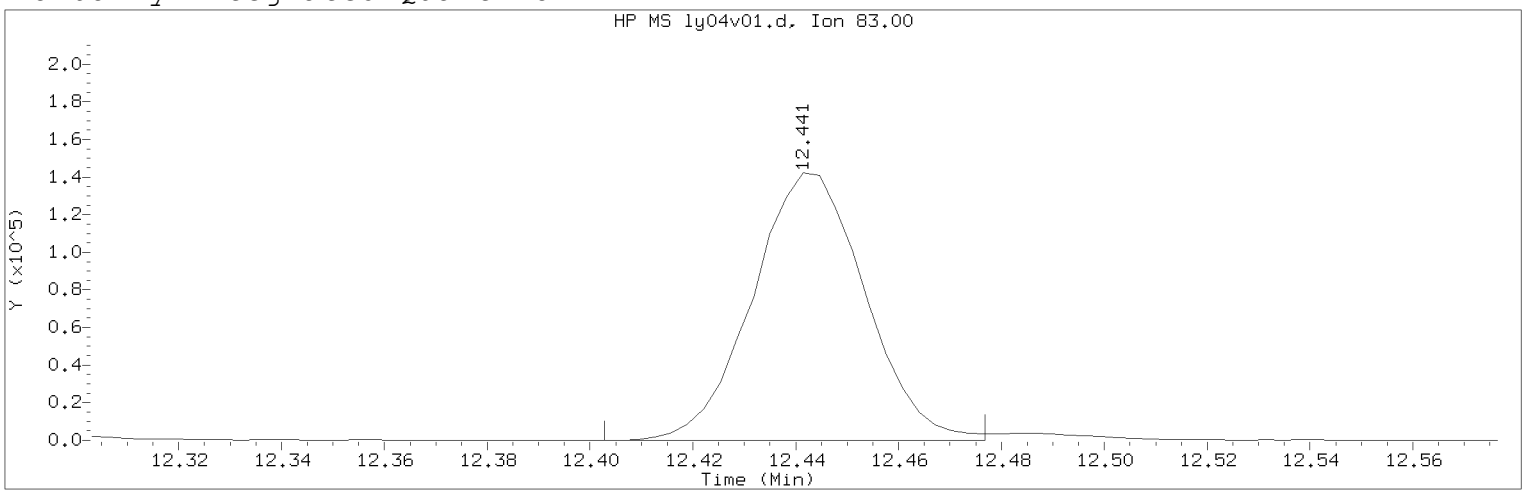
Compound Number	: 75		
Compound Name	: 1,4-Dioxane		
Scan Number	: 2288		
Retention Time (minutes)	: 8.840		
Quant Ion	: 88.00		
Area	: 47936		
On-column Amount (ng)	: 514.2935		
Integration start scan	: 2273	Integration stop scan:	2358
Y at integration start	: 0	Y at integration end:	0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dviray

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

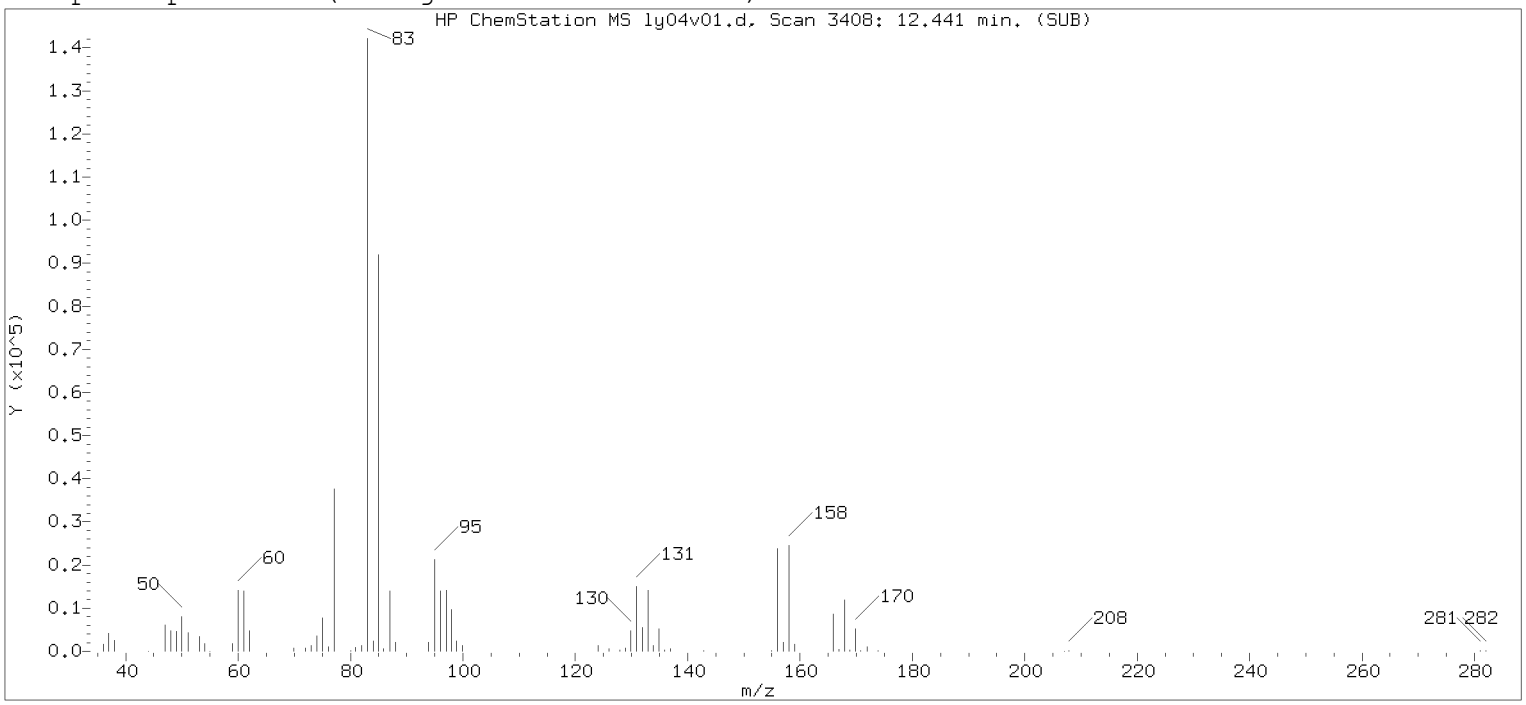
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 216158M
On-Column Amount (ng) : 19.6314
Integration start scan : 3395 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

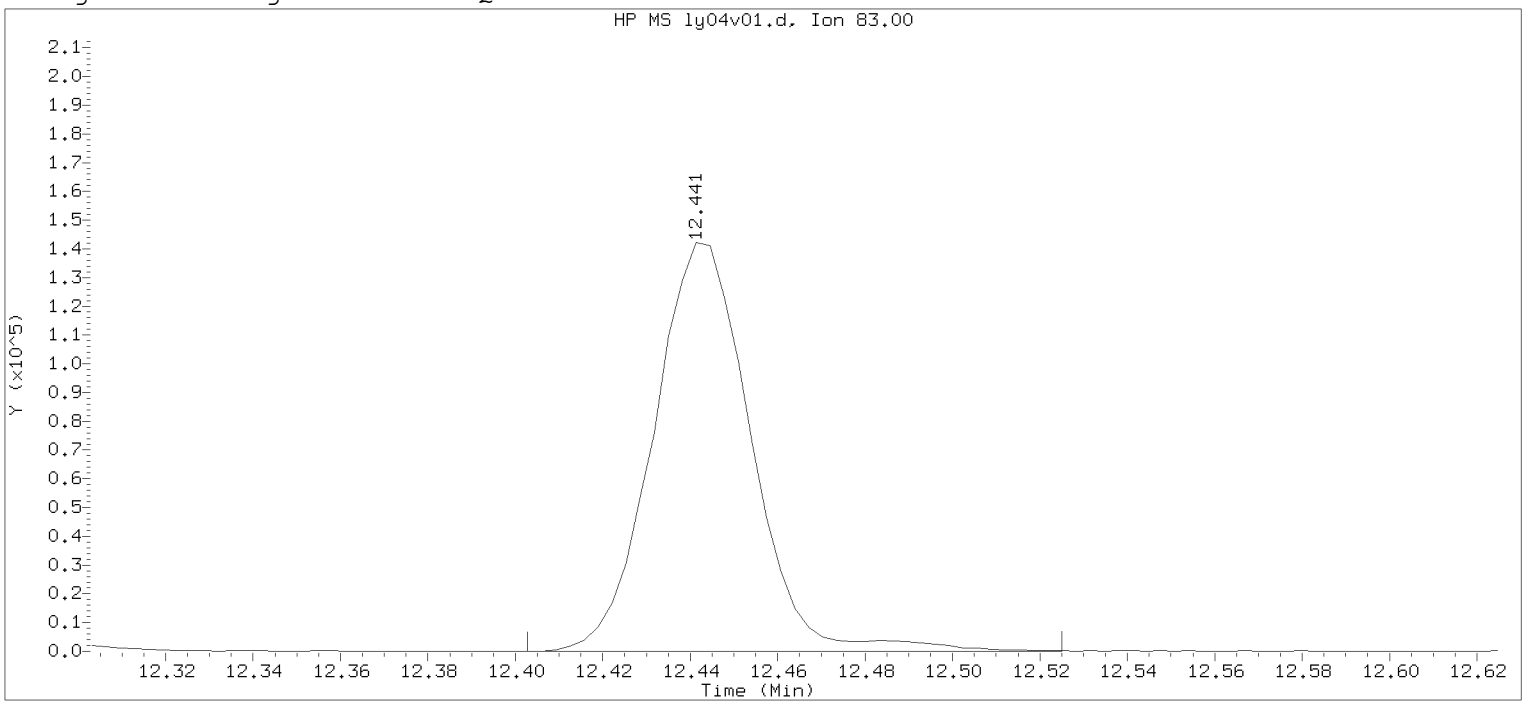
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

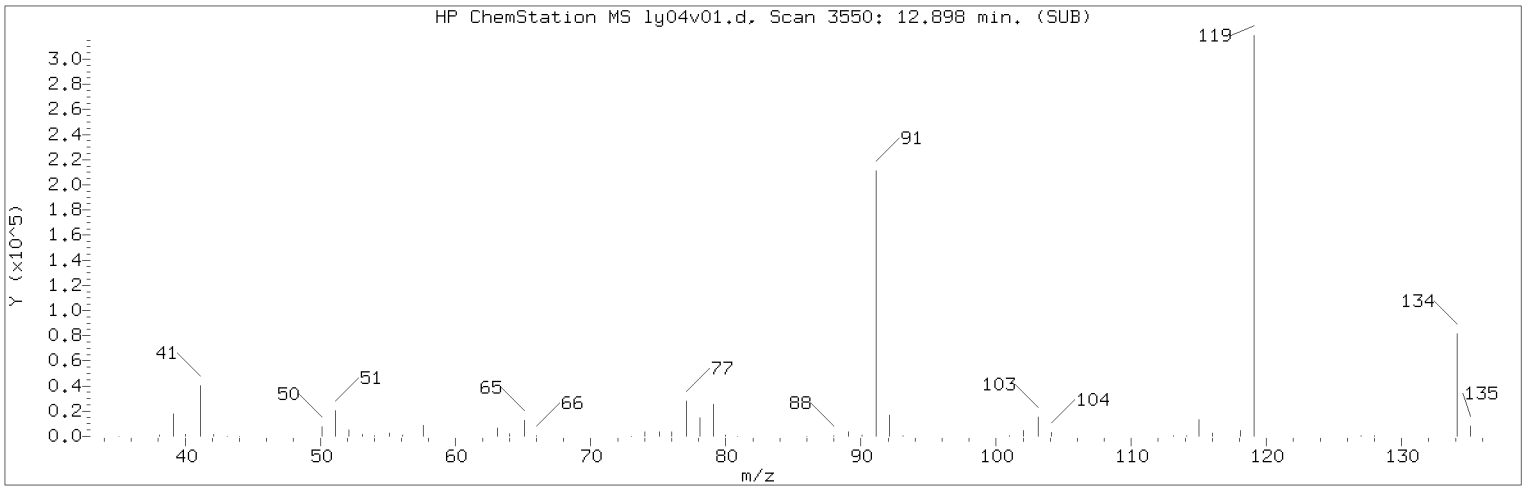
Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

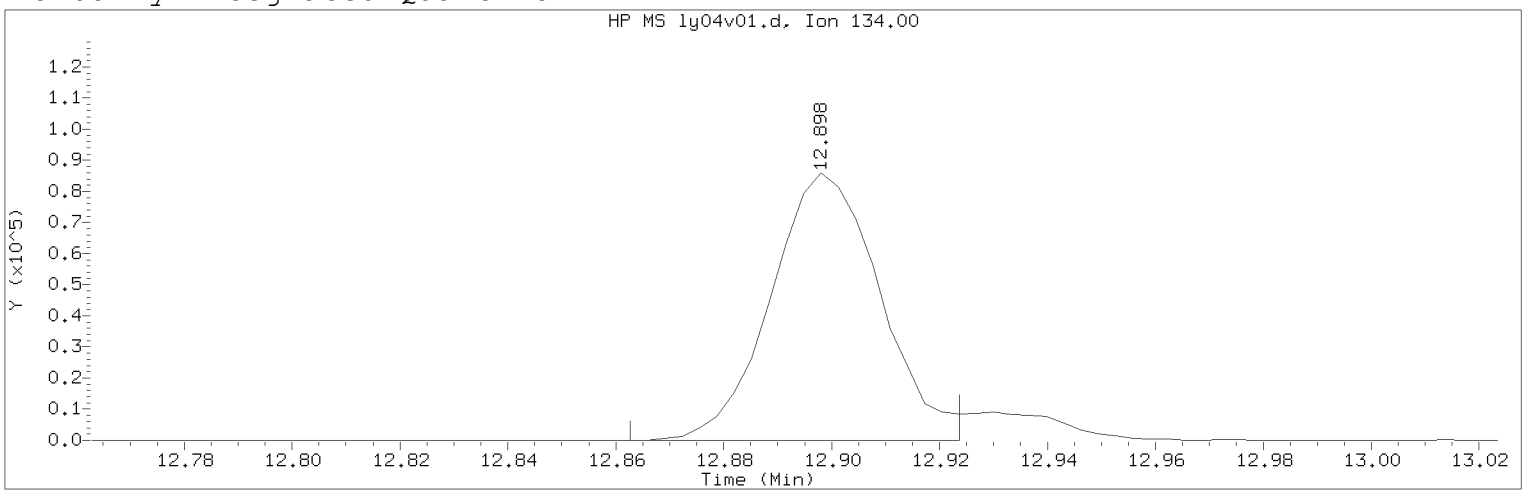
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 221202
On-column Amount (ng) : 20.1851
Integration start scan : 3395 Integration stop scan: 3433
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10293

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 19:29
Date, time and analyst ID of latest file update: 04-May-2020 20:11 sej02002

Sample Name: ICVLLG Lab Sample ID: ICVLLG

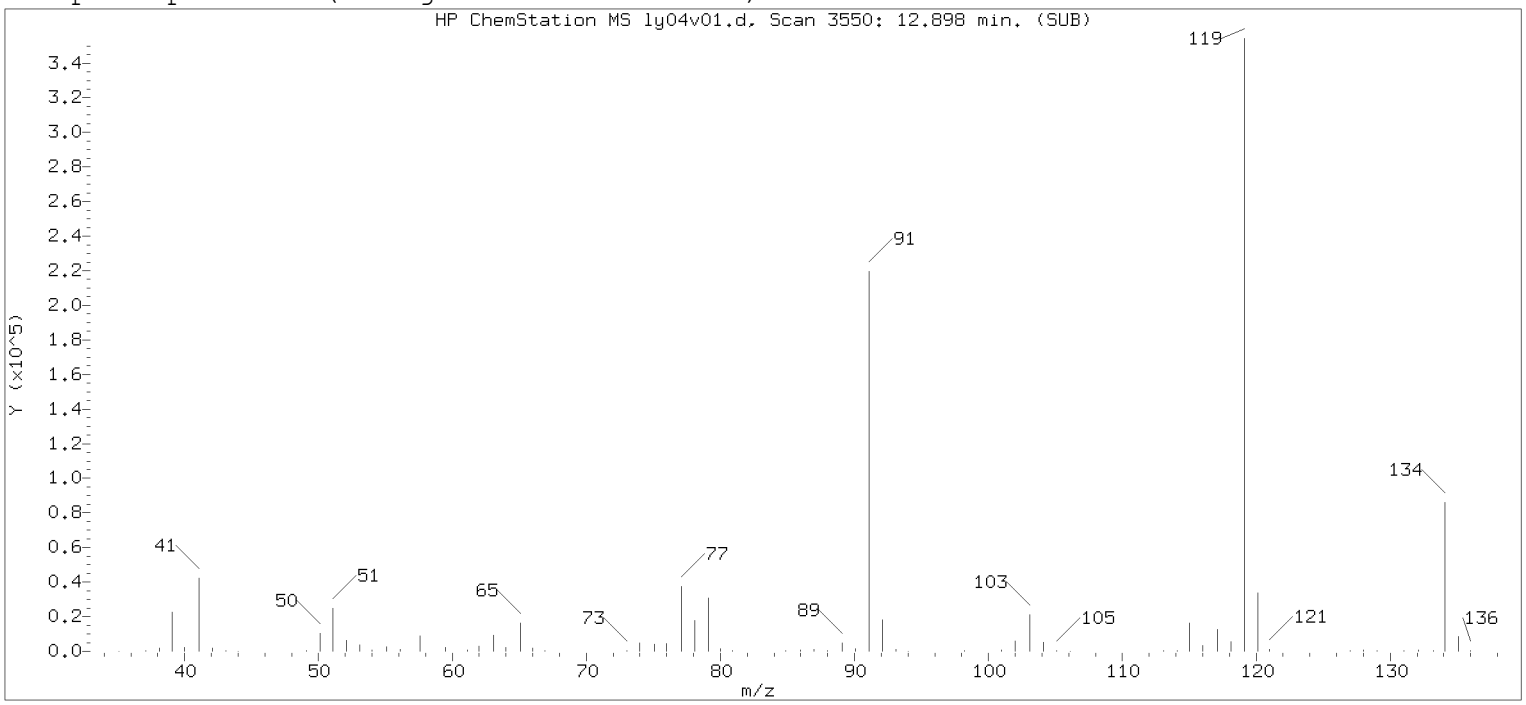
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 120476M
On-Column Amount (ng) : 21.2342
Integration start scan : 3538 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

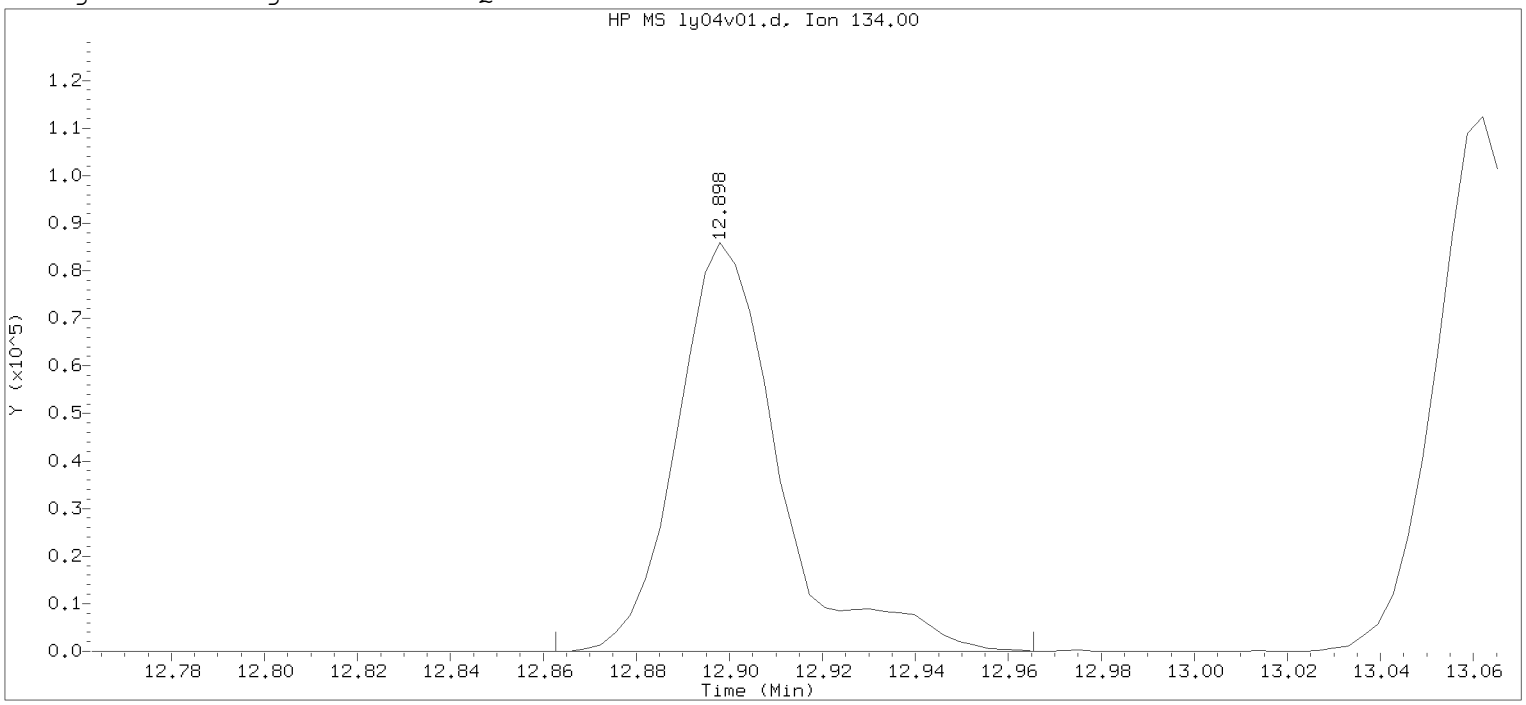
Analyst responsible for change: Digitally signed by Don V. Viray
on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv10203

Secondary review performed and digitally signed by Chelsea B. Riehl on 05/06/2020 at 08:34.
PARALLAX ID: cbs01947

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20may04i.b/ly04v01.d Instrument ID: HP09915.i
Injection date and time: 04-MAY-2020 14:52 Analyst ID: lcp00895

Method used: /chem/HP09915.i/20may04i.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 04-MAY-2020 14:47
Date, time and analyst ID of latest file update: 04-May-2020 15:09 Automation

Sample Name: ICVLLG Lab Sample ID: ICVLLG

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 131138
On-column Amount (ng) : 22.6204
Integration start scan : 3538 Integration stop scan: 3570
Y at integration start : 0 Y at integration end: 0

Digitally signed by Don V. Viray on 05/06/2020 at 08:00.
Target 3.5 esignature user ID: dvv1203

Data File: /chem/HP09915.i/20jun02b.b/lu02t06.d

Page 1

Date : 02-JUN-2020 20:09

Client ID: BFB jan28-20

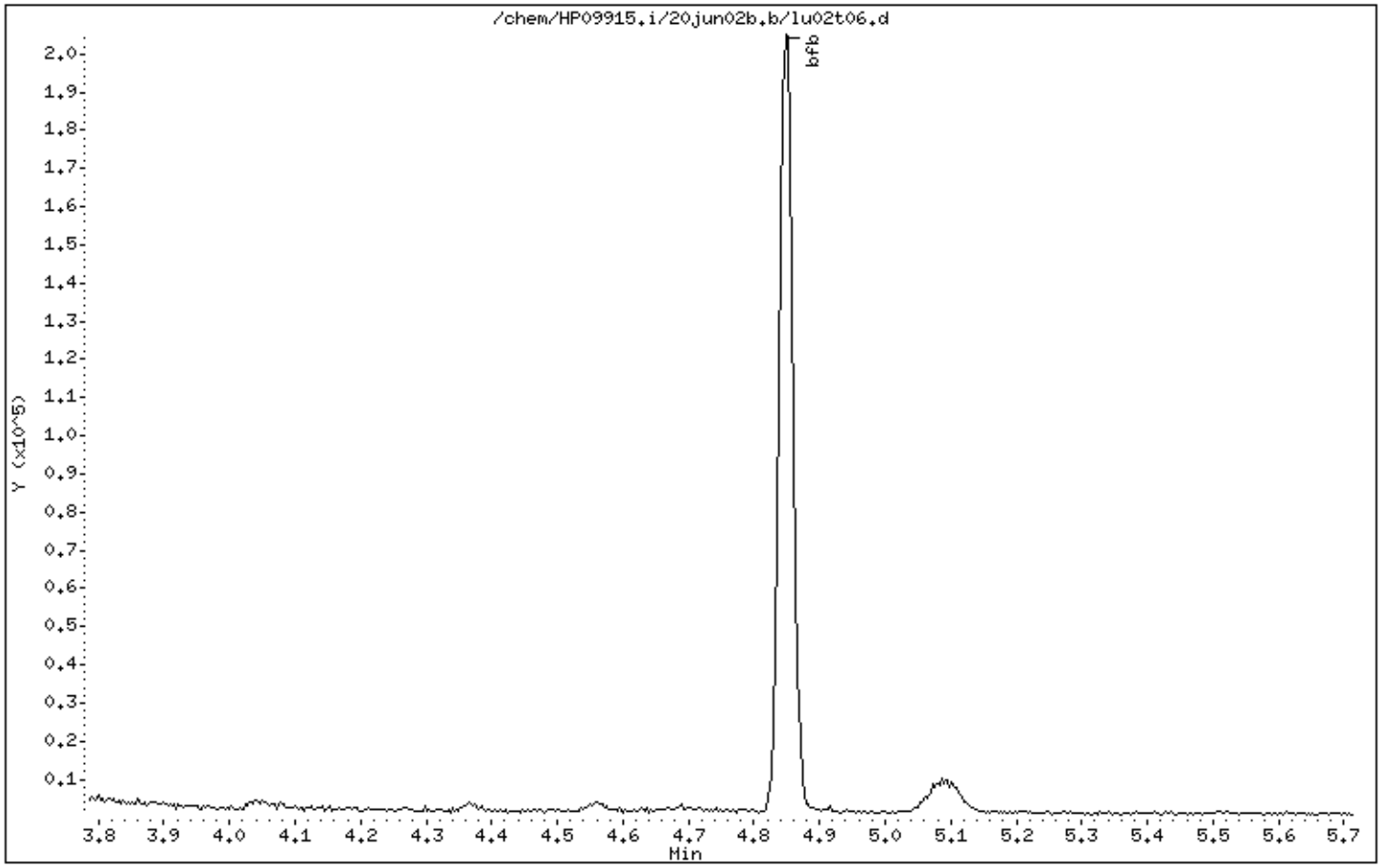
Instrument: HP09915.i

Sample Info: BFB jan28-20;50NGBFB;1;3;;;;;;

Operator: sej02002

Column phase: Rxi-624Sil MS

Column diameter: 0.25



Data File: /chem/HP09915.i/20jun02b.b/1u02t06.d

Date : 02-JUN-2020 20:09

Client ID: BFB jan28-20

Instrument: HP09915.i

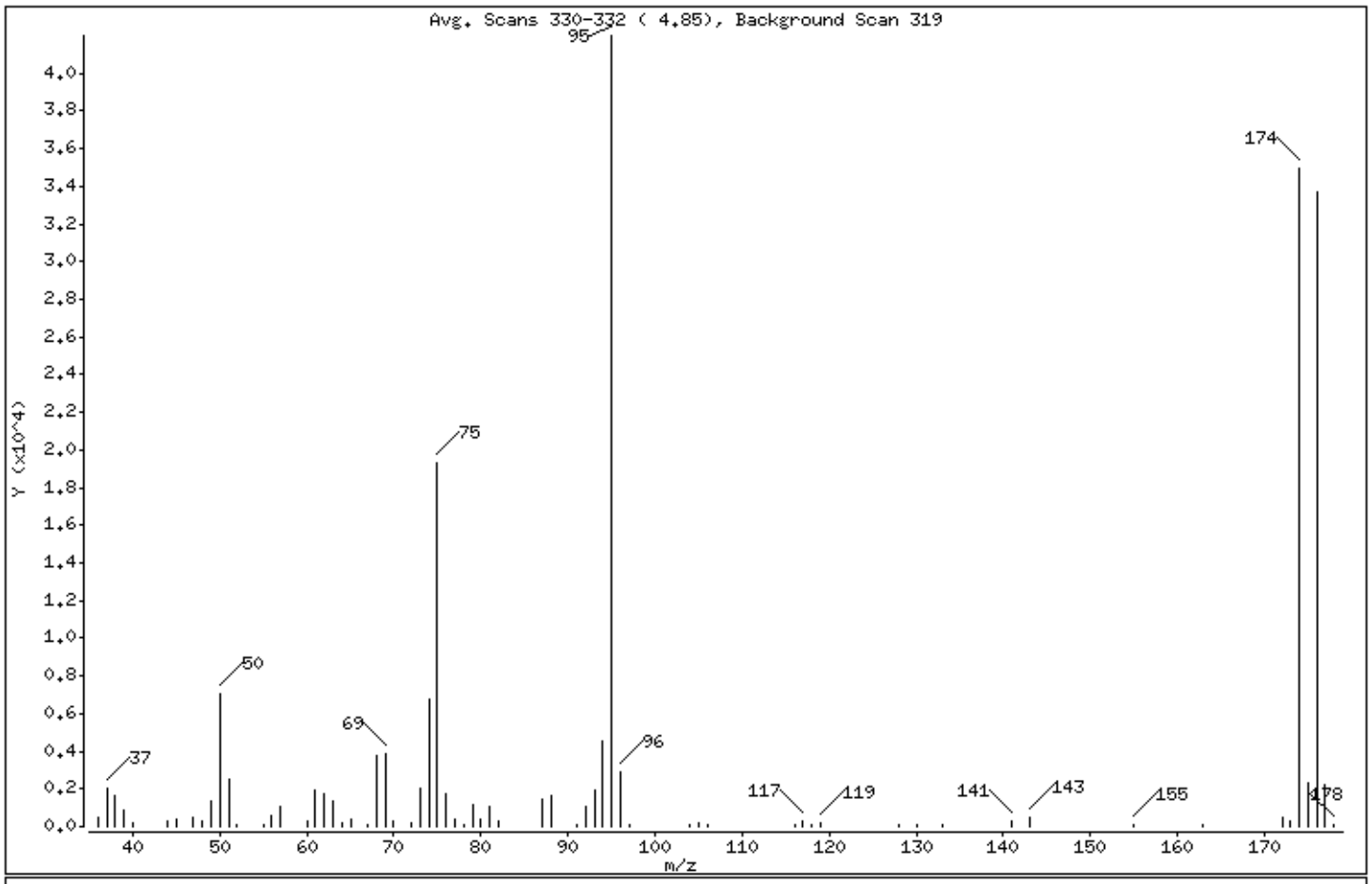
Sample Info: BFB jan28-20;50NGBFB;1;3;;;;;;

Operator: sej02002

Column phase: Rxi-624Sil MS

Column diameter: 0.25

1 bfb



m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
95	Base Peak, 100% relative abundance	100.00
50	15.00 - 40.00% of mass 95	16.81
75	30.00 - 60.00% of mass 95	46.08
96	5.00 - 9.00% of mass 95	6.96
173	Less than 2.00% of mass 174	0.72 (0.86)
174	50.00 - 100.00% of mass 95	83.16
175	5.00 - 9.00% of mass 174	5.63 (6.77)
176	95.00 - 101.00% of mass 174	80.26 (96.52)
177	5.00 - 9.00% of mass 176	5.39 (6.71)

Date : 02-JUN-2020 20:09

Client ID: BFB jan28-20 Instrument: HP09915.i

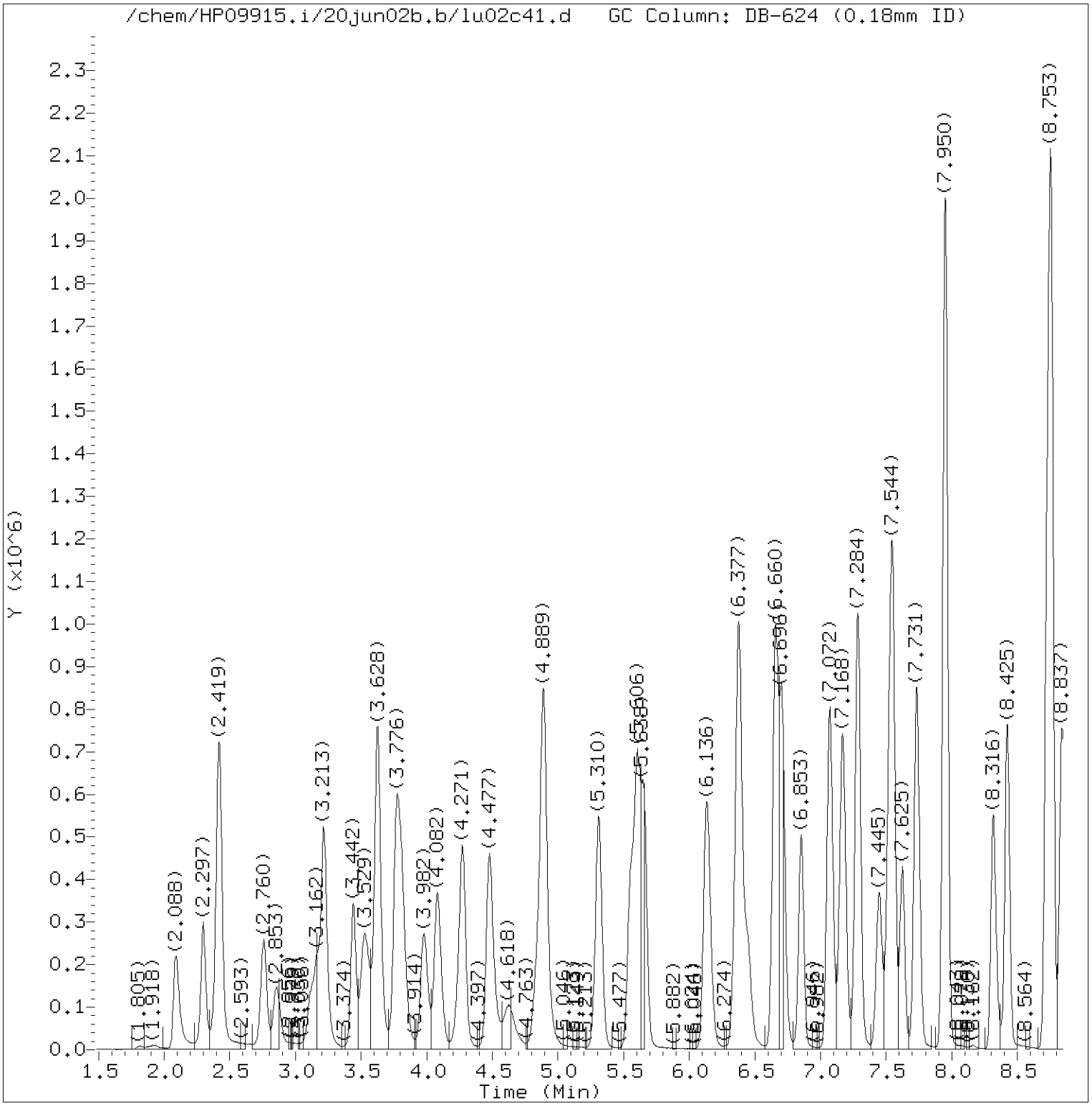
Sample Info: BFB jan28-20;50NGBFB;1;3;;;;;;

Operator: sej02002

Column phase: Rxi-624Sil MS Column diameter: 0.25

Data File: lu02t06.d
Spectrum: Avg. Scans 330-332 (4.85), Background Scan 319
Location of Maximum: 95.00
Number of points: 67

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	459	61.00	1925	80.00	374	118.00	60
37.00	2001	62.00	1721	81.00	1062	119.00	230
38.00	1613	63.00	1378	82.00	254	128.00	127
39.00	867	64.00	193	87.00	1492	130.00	51
40.00	230	65.00	368	88.00	1618	133.00	96
44.00	259	67.00	142	91.00	71	141.00	319
45.00	367	68.00	3788	92.00	1025	143.00	445
47.00	528	69.00	3865	93.00	1973	155.00	64
48.00	272	70.00	292	94.00	4529	163.00	56
49.00	1399	72.00	222	95.00	41992	172.00	442
50.00	7059	73.00	2003	96.00	2921	173.00	302
51.00	2468	74.00	6735	97.00	54	174.00	34920
52.00	61	75.00	19344	104.00	106	175.00	2364
55.00	63	76.00	1732	105.00	213	176.00	33704
56.00	600	77.00	367	106.00	60	177.00	2262
57.00	1047	78.00	141	116.00	52	178.00	69
60.00	287	79.00	1164	117.00	277		



Total Ion Chromatogram (TIC)

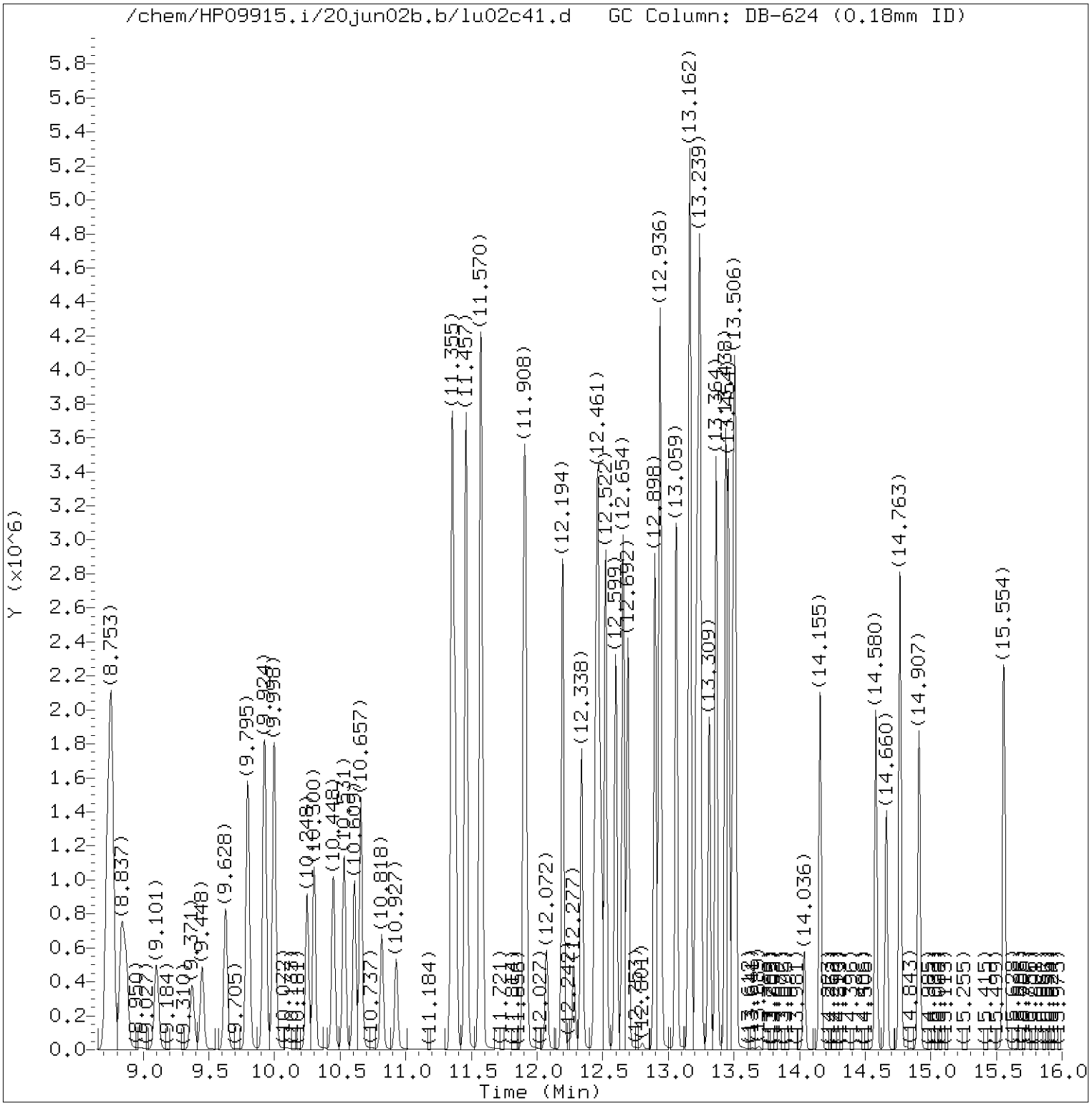
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	444799	45.404
4) Chloromethane	(2)	2.297	50	470740	51.467
5) 1,3-Butadiene	(2)	2.419	39	432194	73.657
6) Vinyl Chloride	(2)	2.422	62	446128	50.545
8) Bromomethane	(2)	2.760	94	300353	47.198
9) Chloroethane	(2)	2.857	64	247265	50.176
12) Trichlorofluoromethane	(2)	3.168	101	483466	50.153
11) n-Pentane	(2)	3.213	43	527015	58.227
14) Ethyl ether	(2)	3.442	59	296696	43.558
15) Freon 123a	(2)	3.532	67	384374	49.217
16) Acrolein	(1)	3.628	56	1216006	544.887
17) 1,1-Dichloroethene	(2)	3.763	96	262594	42.714
17) 1,1-Dichloroethene	(2)	3.770	63	137332	46.904
19) Freon 113	(2)	3.805	101	289540	45.395
18) Acetone	(1)	3.811	58	108484	106.570
22) Methyl Iodide	(2)	3.979	142	496107	41.874
21) 2-Propanol	(1)	3.992	45	177574	273.698
23) Carbon Disulfide	(2)	4.082	76	982324	47.456
27) Methyl Acetate	(2)	4.249	43	376933	48.074
25) Allyl Chloride	(2)	4.278	41	472349	47.412
28) Methylene Chloride	(2)	4.477	84	333567	45.613
29)*t-Butyl alcohol-d10	(1)	4.496	65	271269	250.000
30) t-Butyl alcohol	(1)	4.631	59	274103	250.288
31) Acrylonitrile	(2)	4.831	53	211912	48.789
33) Methyl Tertiary Butyl Ether	(2)	4.879	73	863039	40.934
32) trans-1,2-Dichloroethene	(2)	4.892	96	321134	45.407
34) n-Hexane	(2)	5.310	57	468520	47.305
36) 1,1-Dichloroethane	(2)	5.551	63	589185	47.499
38) di-Isopropyl ether	(2)	5.606	45	1049340	48.100
39) 2-Chloro-1,3-butadiene	(2)	5.660	53	500490	50.595
40) Ethyl t-butyl ether	(2)	6.133	59	866462	42.747
43) 1,2-Dichloroethene (Total)	(2)		96	685108	91.299
44) 2-Butanone	(2)	6.355	43	546216	103.604
42) cis-1,2-Dichloroethene	(2)	6.377	96	363974	45.892
45) 2,2-Dichloropropane	(2)	6.390	77	442749	46.183
47) Propionitrile	(1)	6.448	54	436297	294.892
48) Methacrylonitrile	(2)	6.657	67	548854	126.044
49) Bromochloromethane	(2)	6.705	128	190740	46.611

* = Compound is an internal standard.

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
50) Tetrahydrofuran	(1)	6.715	71	140735	108.718
51) Chloroform	(2)	6.853	83	577944	47.691
52)$Dibromofluoromethane	(2)	7.065	113	348736	48.457
52)$Dibromofluoromethane	(2)	7.065	111	359241	48.831
53) 1,1,1-Trichloroethane	(2)	7.075	97	478184	45.994
54) Cyclohexane	(2)	7.168	56	570354	49.008
54) Cyclohexane	(2)	7.168	84	467394	46.009
54) Cyclohexane	(2)	7.165	69	168552	46.605
55) 1,1-Dichloropropene	(2)	7.284	75	452948	47.526
56) Carbon Tetrachloride	(2)	7.284	117	420725	48.300
58) Isobutyl Alcohol	(1)	7.448	41	300613	809.157
57)$1,2-Dichloroethane-d4	(2)	7.519	102	90861	49.755
57)$1,2-Dichloroethane-d4	(2)	7.519	65	434282	53.576
57)$1,2-Dichloroethane-d4	(2)	7.522	104	57306	49.280
60) Benzene	(2)	7.551	78	1413461	47.910
61) 1,2-Dichloroethane	(2)	7.625	62	475533	48.084
61) 1,2-Dichloroethane	(2)	7.625	98	43985	45.641
65) t-Amyl methyl ether	(2)	7.731	73	914643	44.171
66)*Fluorobenzene	(2)	7.950	96	1428558	50.000
67) n-Heptane	(2)	7.953	43	553210	53.713
69) n-Butanol	(1)	8.316	56	474968	1567.946
71) Trichloroethene	(2)	8.422	95	345431	46.268
72) Methylcyclohexane	(2)	8.728	83	575503	47.407
72) Methylcyclohexane	(2)	8.728	98	259438	47.250
73) 1,2-Dichloropropane	(2)	8.757	63	385108	50.662
76) Methyl Methacrylate	(2)	8.837	69	326784	49.997
75) 1,4-Dioxane	(1)	8.850	88	64404	707.267
74) Dibromomethane	(2)	8.866	93	240873	48.453
78) Bromodichloromethane	(2)	9.101	83	434023	48.699
79) 2-Nitropropane	(2)	9.371	41	300039	112.282
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	246190	48.639
81) cis-1,3-Dichloropropene	(2)	9.628	75	555699	47.710
82) 4-Methyl-2-pentanone	(2)	9.795	43	1224629	114.702
83)$Toluene-d8	(3)	9.924	98	1446968	50.608
83)$Toluene-d8	(3)	9.924	100	935556	50.420
88) Toluene	(3)	9.998	92	883615	48.485
90) 1,3-Dichloropropene (total)	(3)		100	1076232	97.491
89) trans-1,3-Dichloropropene	(3)	10.248	75	520533	49.781

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
91) Ethyl Methacrylate	(3)	10.303	69	558531	53.086
92) 1,1,2-Trichloroethane	(3)	10.448	97	342678	48.458
93) Tetrachloroethene	(3)	10.531	166	365558	47.068
94) 1,3-Dichloropropane	(3)	10.609	76	588279	49.745
96) 2-Hexanone	(3)	10.657	43	941169	123.162
97) Dibromochloromethane	(3)	10.818	129	361625	49.161
99) 1,2-Dibromoethane	(3)	10.927	107	361375	47.550
100)*Chlorobenzene-d5	(3)	11.351	117	1112967	50.000
101) 1-Chlorohexane	(3)	11.355	91	446397	47.864
102) Chlorobenzene	(3)	11.377	112	1021468	48.808
103) 1,1,1,2-Tetrachloroethane	(3)	11.457	131	351409	49.531
104) Ethylbenzene	(3)	11.461	91	1709899	50.689
106) m+p-Xylene	(3)	11.570	106	1356274	102.326
108) Xylene (Total)	(3)		106	1999389	152.501
107) o-Xylene	(3)	11.898	106	643115	50.175
109) Styrene	(3)	11.914	104	1109086	53.205
110) Bromoform	(3)	12.072	173	258543	48.280
111) Isopropylbenzene	(3)	12.194	105	1666086	51.224
112) Cyclohexanone	(1)	12.277	55	197838	583.671
114)$4-Bromofluorobenzene	(3)	12.338	95	554101	50.367
114)$4-Bromofluorobenzene	(3)	12.338	174	448358	47.536
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	589166M	51.771
115) Bromobenzene	(4)	12.457	156	447903	49.033
118) trans-1,4-Dichloro-2-butene	(4)	12.464	53	349922	105.702
117) 1,2,3-Trichloropropane	(4)	12.486	110	179575	51.666
119) n-Propylbenzene	(4)	12.522	91	2054009	52.027
120) 2-Chlorotoluene	(4)	12.599	126	411994	48.846
122) 1,3,5-Trimethylbenzene	(4)	12.654	105	1501596	52.637
121) 4-Chlorotoluene	(4)	12.692	126	437795	50.009
124) tert-Butylbenzene	(4)	12.898	134	304103M	51.859
125) Pentachloroethane	(4)	12.930	167	269725	51.791
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	1583598	53.690
127) sec-Butylbenzene	(4)	13.059	105	1863142	53.641
129) 1,3-Dichlorobenzene	(4)	13.162	146	858750	50.449
130) p-Isopropyltoluene	(4)	13.165	119	1622077	54.502
131)*1,4-Dichlorobenzene-d4	(4)	13.213	152	624240	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	886017	49.595
134) 1,2,3-Trimethylbenzene	(4)	13.242	105	1603267	52.315

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

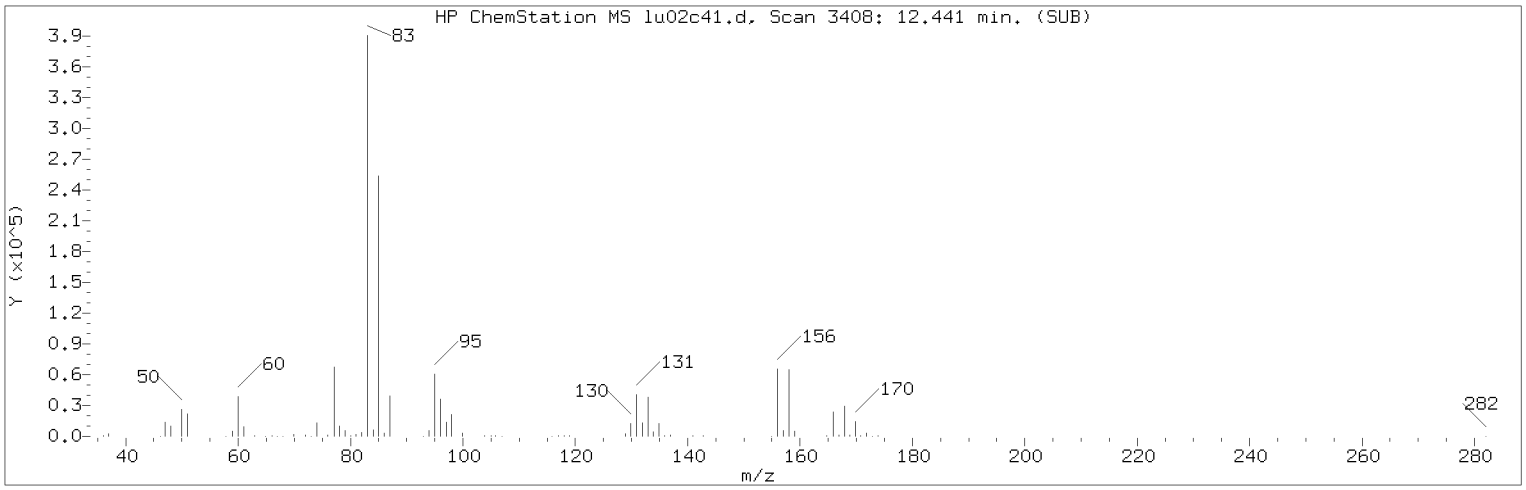
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

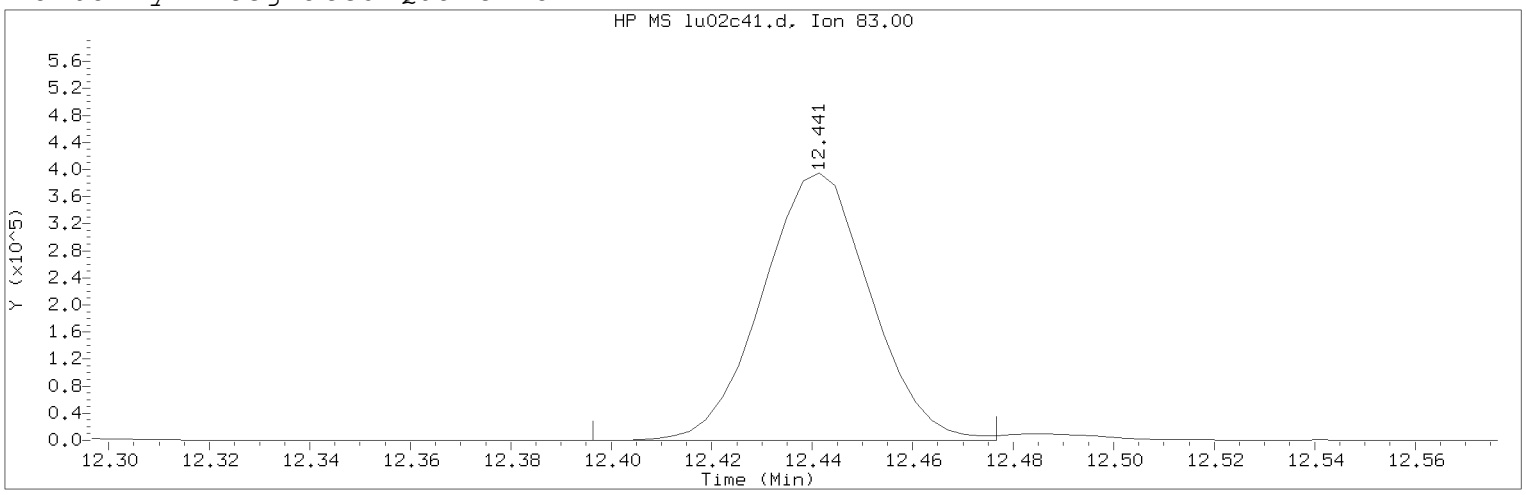
Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
135) Benzyl Chloride	(4)	13.309	91	1231182	53.095
136) 1,3-Diethylbenzene	(4)	13.364	119	996038	51.941
141) Diethylbenzene (total)	(4)		100	2901914	156.555
137) 1,4-Diethylbenzene	(4)	13.435	119	1048408	52.232
139) n-Butylbenzene	(4)	13.457	92	833542	54.512
138) 1,2-Dichlorobenzene	(4)	13.493	146	850906	49.664
140) 1,2-Diethylbenzene	(4)	13.509	119	857468	52.381
142) 1,2-Dibromo-3-chloropropane	(4)	14.036	75	128738	51.109
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	593057	45.950
146) 1,2,4-Trichlorobenzene	(4)	14.580	180	538057	44.610
147) Hexachlorobutadiene	(4)	14.663	225	230341	41.398
148) Naphthalene	(4)	14.763	128	1970656	50.475
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	550367	45.921
150) 2-Methylnaphthalene	(4)	15.557	142	1038984	38.250

Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

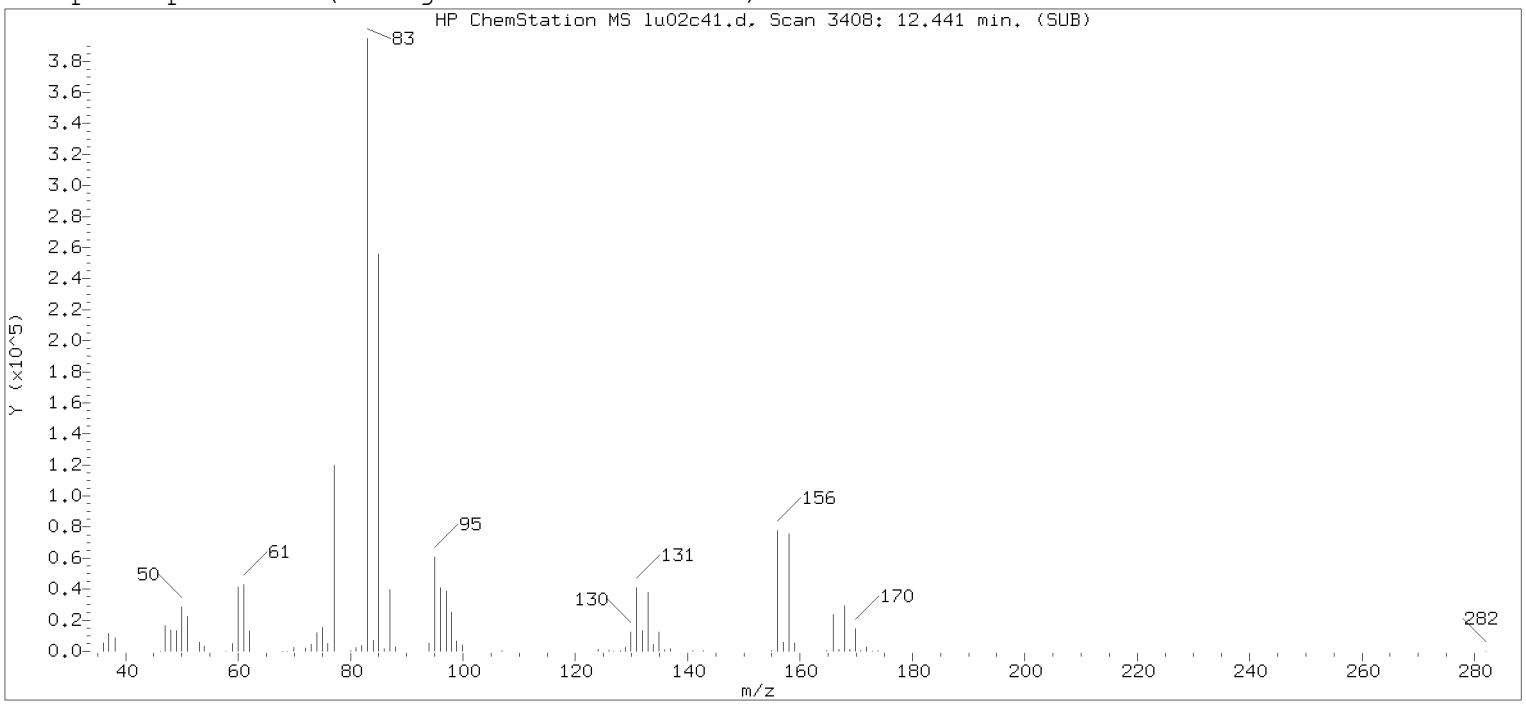
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 589166M
On-Column Amount (ng) : 51.7709
Integration start scan : 3393 Integration stop scan: 3418
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

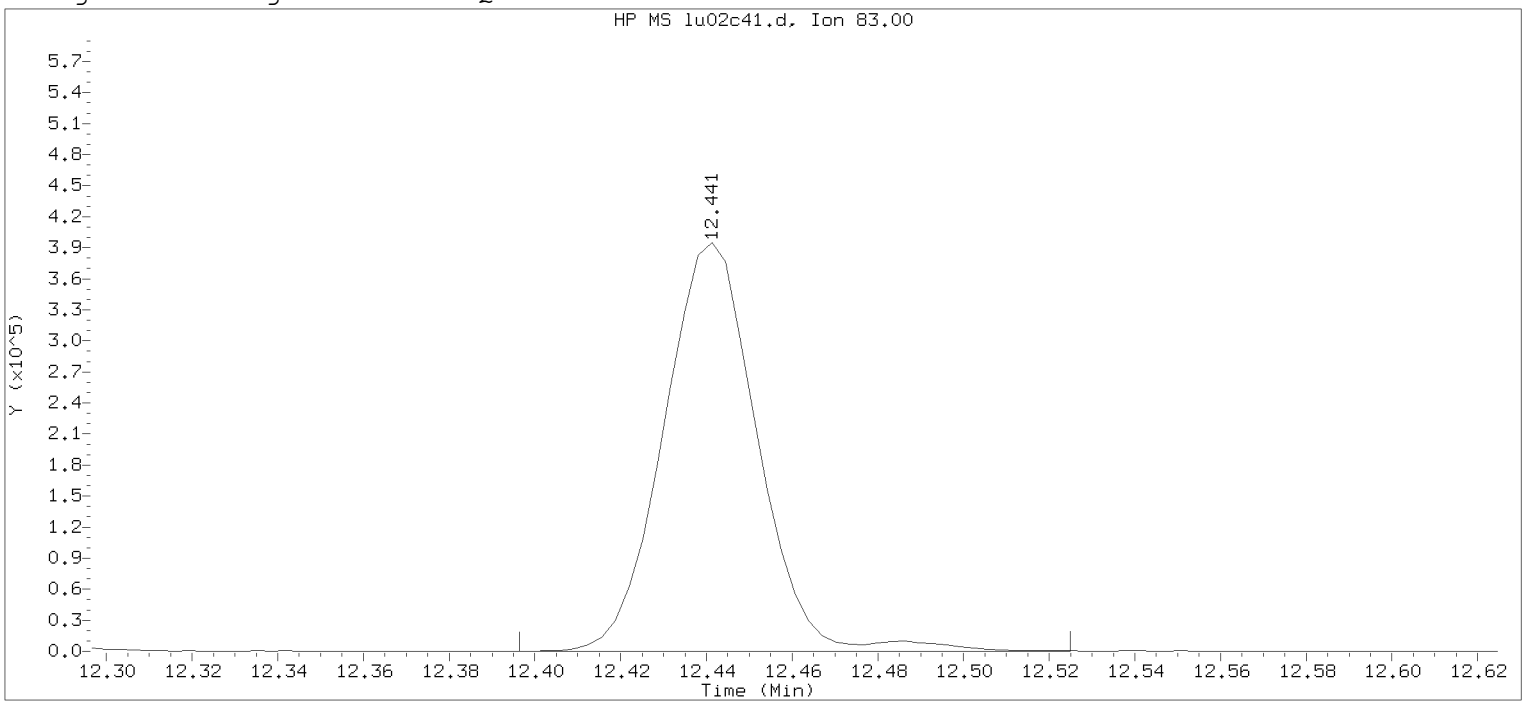
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

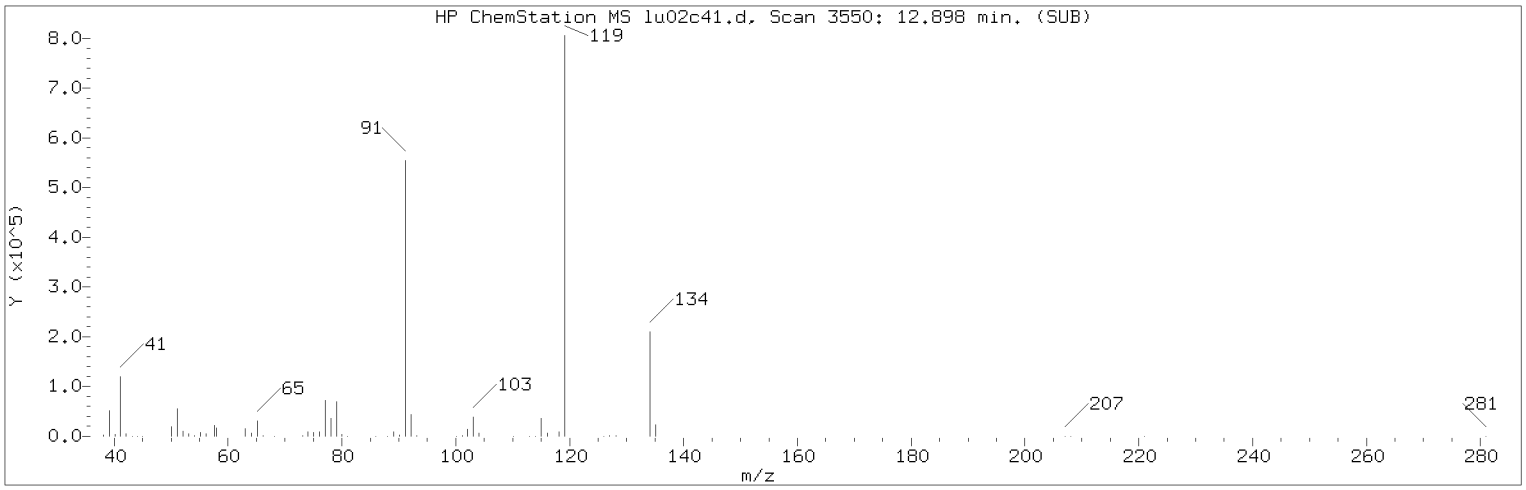
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:01 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

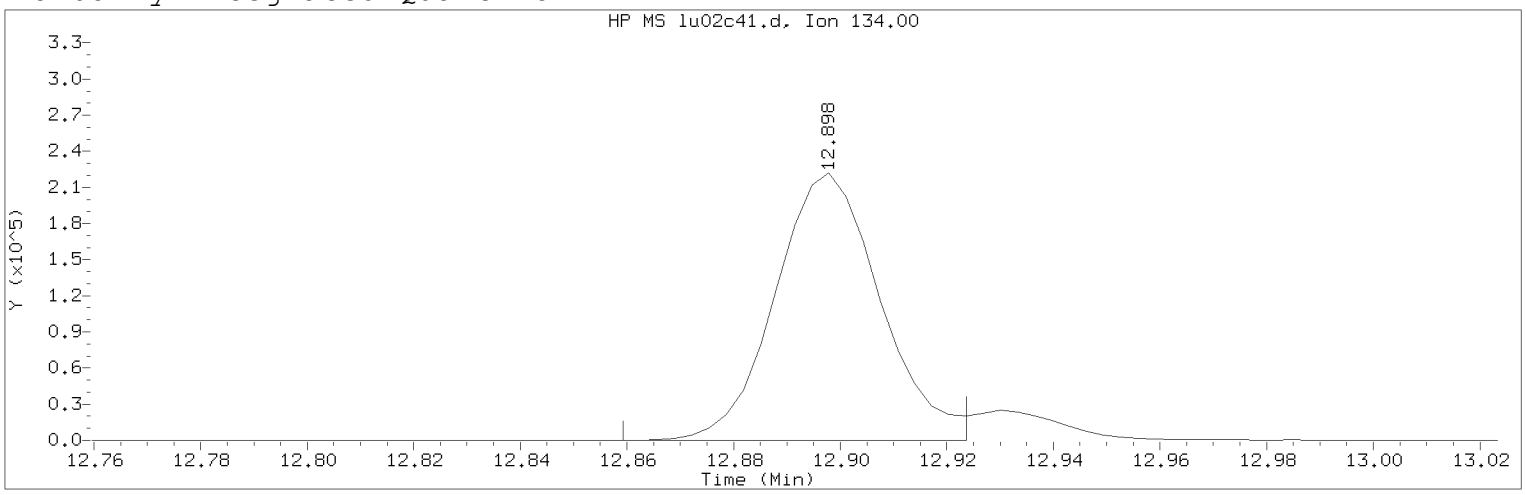
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 601165
On-column Amount (ng) : 52.8252
Integration start scan : 3393 Integration stop scan: 3433
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:29 sej02002

Sample Name: VSTD050 Lab Sample ID: VSTD050

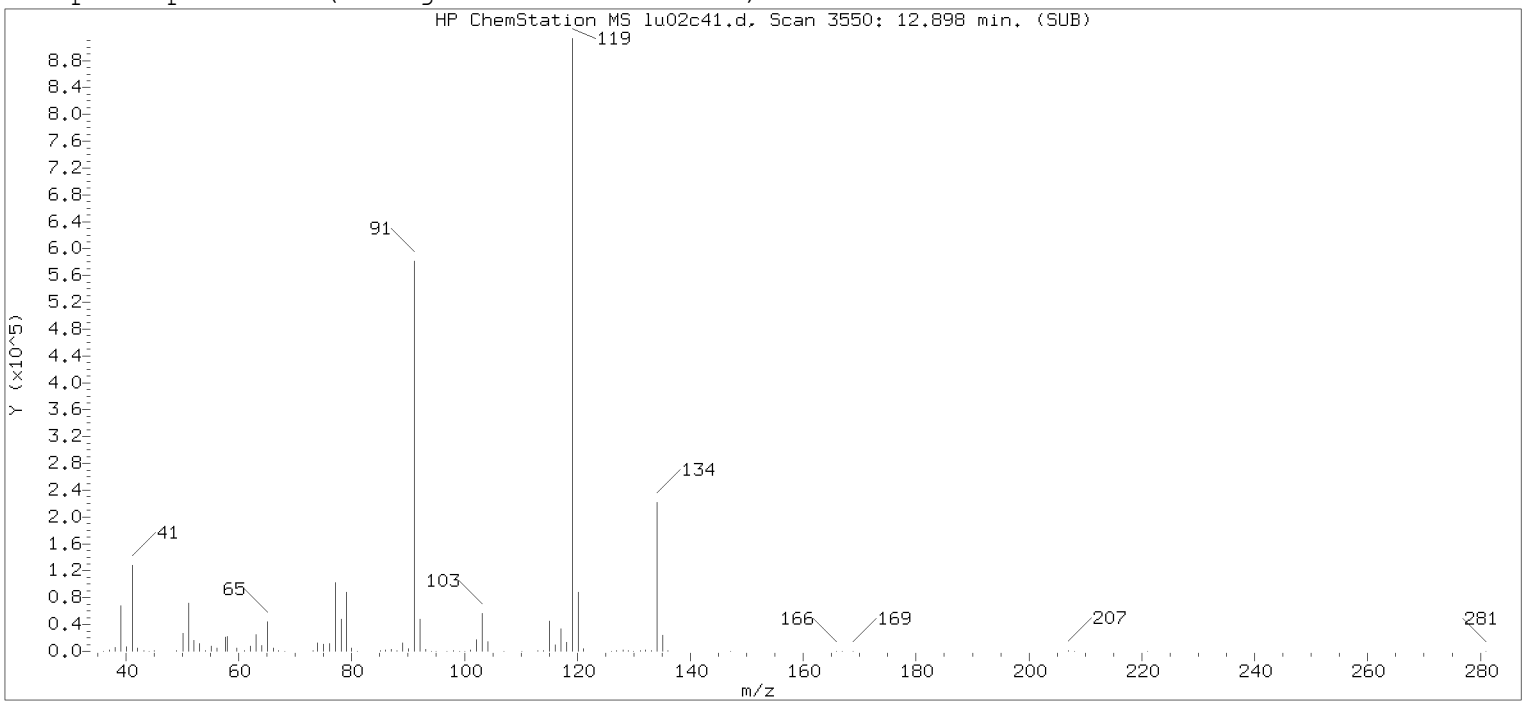
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 304103M
On-Column Amount (ng) : 51.8590
Integration start scan : 3537 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

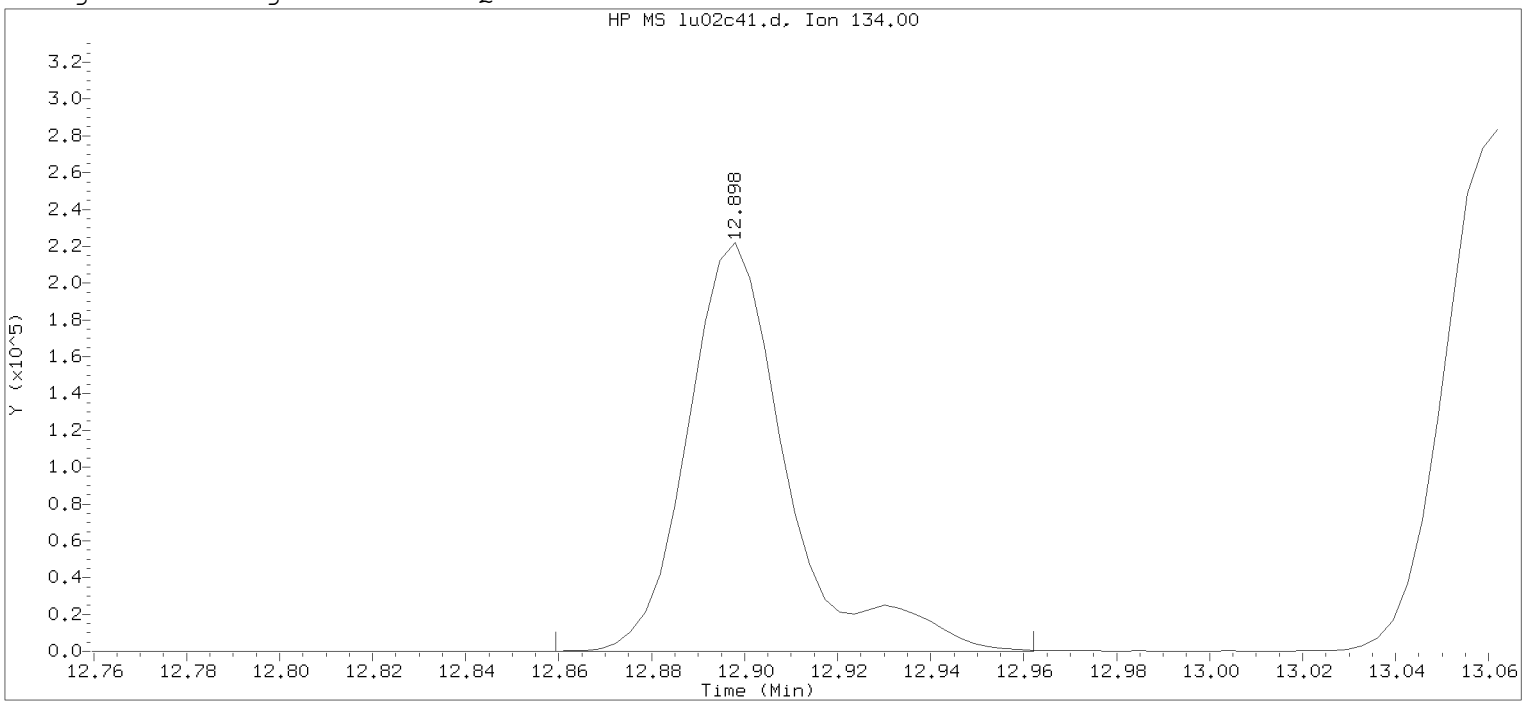
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02c41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 20:43 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 02-Jun-2020 21:01 Automation

Sample Name: VSTD050 Lab Sample ID: VSTD050

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 330416
On-column Amount (ng) : 56.3462
Integration start scan : 3537 Integration stop scan: 3569
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 06/02/2020 at 21:30.
Target 3.5 esignature user ID: sej02002

Raw QC Data

Volatiles by GC/MS

Lancaster Laboratories
Analysis Summary for GC/MS Volatiles

VBLKL17

Data file: /chem/HP09915.i/20jun02b.b/lu02b41.d
Data file Sample Info. Line: VBLKL17;VBLKL17;1;3;;;;;;
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Injection date and time: **02-JUN-2020 21:27**
Instrument ID: **HP09915.i** Batch: **L201542AA**

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:01
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT	(+/-RT)	Scan	QIon	Area	(+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.493	(0.003)	936	65	237636	(-12)	250.00	
66) Fluorobenzene	7.946	(0.003)	2010	96	1243231	(-13)	50.00	
100) Chlorobenzene-d5	11.351	(0.000)	3069	117	948560	(-15)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216	(-0.003)	3649	152	502994	(-19)	50.00	

Surrogate Standards	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.062	(0.000)	113	322533	51.497	103%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.515	(0.000)	102	82661	52.013	104%		80 - 120
83) Toluene-d8	(3)	9.920	(0.000)	98	1228801	50.426	101%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338	(0.000)	95	434592	46.350	93%		80 - 120

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)				Not Detected					0.2	1
4) Chloromethane	(2)				Not Detected					0.2	1
5) 1,3-Butadiene	(2)				Not Detected					1	3
6) Vinyl Chloride	(2)				Not Detected					0.2	1
8) Bromomethane	(2)				Not Detected					0.3	1
9) Chloroethane	(2)				Not Detected					0.2	1
11) n-Pentane	(2)				Not Detected					0.4	10
12) Trichlorofluoromethane	(2)				Not Detected					0.2	1
14) Ethyl ether	(2)				Not Detected					0.2	5
15) Freon 123a	(2)				Not Detected					0.4	5
16) Acrolein	(1)				Not Detected					2	100
17) 1,1-Dichloroethene	(2)				Not Detected					0.2	1
18) Acetone	(1)				Not Detected					0.7	20
19) Freon 113	(2)				Not Detected					0.2	10
21) 2-Propanol	(1)				Not Detected					18	100
22) Methyl Iodide	(2)				Not Detected					0.2	1
23) Carbon Disulfide	(2)				Not Detected					0.2	5
25) Allyl Chloride	(2)				Not Detected					0.3	5
27) Methyl Acetate	(2)				Not Detected					0.3	5
28) Methylene Chloride	(2)				Not Detected					0.3	1
30) t-Butyl alcohol	(1)				Not Detected					12	50
31) Acrylonitrile	(2)				Not Detected					0.3	20
32) trans-1,2-Dichloroethene	(2)				Not Detected					0.2	1
33) Methyl Tertiary Butyl Ether	(2)				Not Detected					0.2	1
34) n-Hexane	(2)				Not Detected					2	5
36) 1,1-Dichloroethane	(2)				Not Detected					0.2	1
38) di-Isopropyl ether	(2)				Not Detected					0.2	1
39) 2-Chloro-1,3-butadiene	(2)				Not Detected					0.2	5
40) Ethyl t-butyl ether	(2)				Not Detected					0.2	1
42) cis-1,2-Dichloroethene	(2)				Not Detected					0.2	1
43) 1,2-Dichloroethene (Total)	(2)				Not Detected					0.4	2

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02b41.d Injection date and time: **02-JUN-2020 21:27**
Data file Sample Info. Line: VBLKL17;VBLKL17;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:01
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)				Not Detected					0.3	10
45) 2,2-Dichloropropane	(2)				Not Detected					0.3	1
47) Propionitrile	(1)				Not Detected					14	100
48) Methacrylonitrile	(2)				Not Detected					6	50
49) Bromochloromethane	(2)				Not Detected					0.2	5
50) Tetrahydrofuran	(1)				Not Detected					0.7	10
51) Chloroform	(2)				Not Detected					0.2	1
53) 1,1,1-Trichloroethane	(2)				Not Detected					0.3	1
54) Cyclohexane	(2)				Not Detected					1	5
55) 1,1-Dichloropropene	(2)				Not Detected					0.2	5
56) Carbon Tetrachloride	(2)				Not Detected					0.2	1
58) Isobutyl Alcohol	(1)				Not Detected					36	250
60) Benzene	(2)				Not Detected					0.2	1
61) 1,2-Dichloroethane	(2)				Not Detected					0.3	1
65) t-Amyl methyl ether	(2)				Not Detected					0.8	5
67) n-Heptane	(2)				Not Detected					2	5
69) n-Butanol	(1)				Not Detected					61	250
71) Trichloroethene	(2)				Not Detected					0.2	1
72) Methylcyclohexane	(2)				Not Detected					0.5	5
73) 1,2-Dichloropropane	(2)				Not Detected					0.2	1
74) Dibromomethane	(2)				Not Detected					0.2	1
75) 1,4-Dioxane	(1)				Not Detected					29	250
76) Methyl Methacrylate	(2)				Not Detected					0.2	5
78) Bromodichloromethane	(2)				Not Detected					0.2	1
79) 2-Nitropropane	(2)				Not Detected					0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)				Not Detected					0.2	10
81) cis-1,3-Dichloropropene	(2)				Not Detected					0.2	1
82) 4-Methyl-2-pentanone	(2)				Not Detected					0.5	10
88) Toluene	(3)				Not Detected					0.2	1
89) trans-1,3-Dichloropropene	(3)				Not Detected					0.2	1
90) 1,3-Dichloropropene (total)	(3)				Not Detected					0.4	2
91) Ethyl Methacrylate	(3)				Not Detected					0.2	5
92) 1,1,2-Trichloroethane	(3)				Not Detected					0.2	1
93) Tetrachloroethene	(3)				Not Detected					0.2	1
94) 1,3-Dichloropropane	(3)				Not Detected					0.2	1
96) 2-Hexanone	(3)				Not Detected					0.3	10
97) Dibromochloromethane	(3)				Not Detected					0.2	1
99) 1,2-Dibromoethane	(3)				Not Detected					0.2	1
101) 1-Chlorohexane	(3)				Not Detected					0.3	5
102) Chlorobenzene	(3)				Not Detected					0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)				Not Detected					0.2	1
104) Ethylbenzene	(3)				Not Detected					0.4	1
106) m+p-Xylene	(3)				Not Detected					1	5
107) o-Xylene	(3)				Not Detected					0.4	1
108) Xylene (Total)	(3)				Not Detected					1	6
109) Styrene	(3)				Not Detected					0.2	5
110) Bromoform	(3)				Not Detected					1	4
111) Isopropylbenzene	(3)				Not Detected					0.2	5
112) Cyclohexanone	(1)				Not Detected					25	100
115) Bromobenzene	(4)				Not Detected					0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)				Not Detected					0.2	1
117) 1,2,3-Trichloropropane	(4)				Not Detected					0.2	5
118) trans-1,4-Dichloro-2-butene	(4)				Not Detected					6	50
119) n-Propylbenzene	(4)				Not Detected					0.2	5

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02b41.d Injection date and time: **02-JUN-2020 21:27**
Data file Sample Info. Line: VBLKL17;VBLKL17;1;3;;;;;; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:01
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT	(+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)				Not Detected					0.2	5
121) 4-Chlorotoluene	(4)				Not Detected					0.2	5
122) 1,3,5-Trimethylbenzene	(4)				Not Detected					0.3	5
124) tert-Butylbenzene	(4)				Not Detected					0.3	5
125) Pentachloroethane	(4)				Not Detected					0.2	5
126) 1,2,4-Trimethylbenzene	(4)				Not Detected					1	5
127) sec-Butylbenzene	(4)				Not Detected					0.2	5
129) 1,3-Dichlorobenzene	(4)				Not Detected					0.2	5
130) p-Isopropyltoluene	(4)				Not Detected					0.2	5
133) 1,4-Dichlorobenzene	(4)				Not Detected					0.2	5
134) 1,2,3-Trimethylbenzene	(4)				Not Detected					0.3	5
135) Benzyl Chloride	(4)				Not Detected					1	5
136) 1,3-Diethylbenzene	(4)				Not Detected					0.2	5
137) 1,4-Diethylbenzene	(4)				Not Detected					0.2	5
138) 1,2-Dichlorobenzene	(4)				Not Detected					0.2	5
139) n-Butylbenzene	(4)				Not Detected					0.2	5
140) 1,2-Diethylbenzene	(4)				Not Detected					0.2	5
141) Diethylbenzene (total)	(4)				Not Detected					0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)				Not Detected					0.3	5
144) 1,3,5-Trichlorobenzene	(4)				Not Detected					0.2	5
146) 1,2,4-Trichlorobenzene	(4)				Not Detected					0.3	5
147) Hexachlorobutadiene	(4)				Not Detected					2	5
148) Naphthalene	(4)				Not Detected					1	5
149) 1,2,3-Trichlorobenzene	(4)				Not Detected					0.4	5
150) 2-Methylnaphthalene	(4)				Not Detected					2	4

Total number of targets = 110

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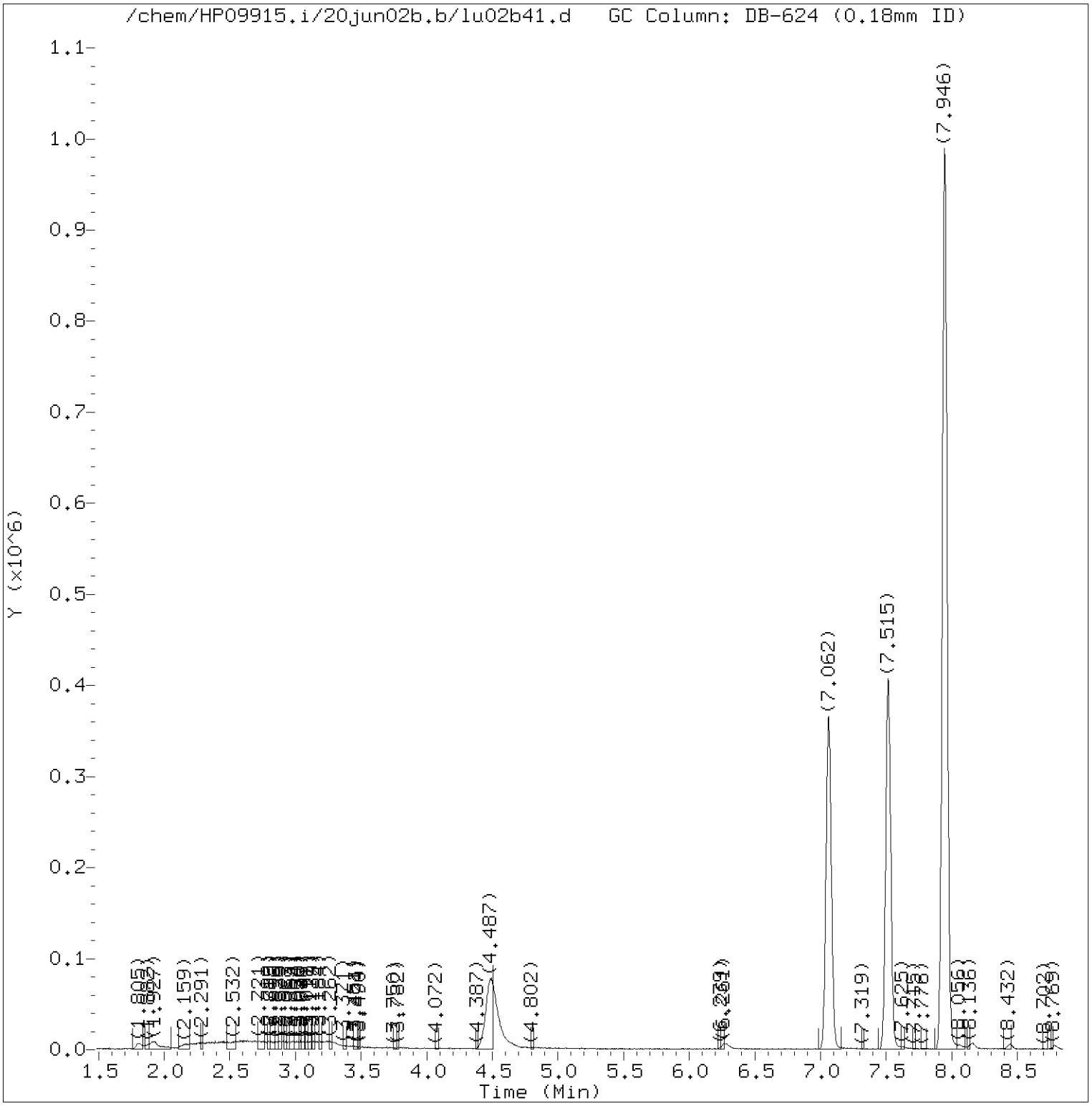
Secondary review performed and digitally signed by Rachel Krueger on 06/04/2020 at 21:59. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

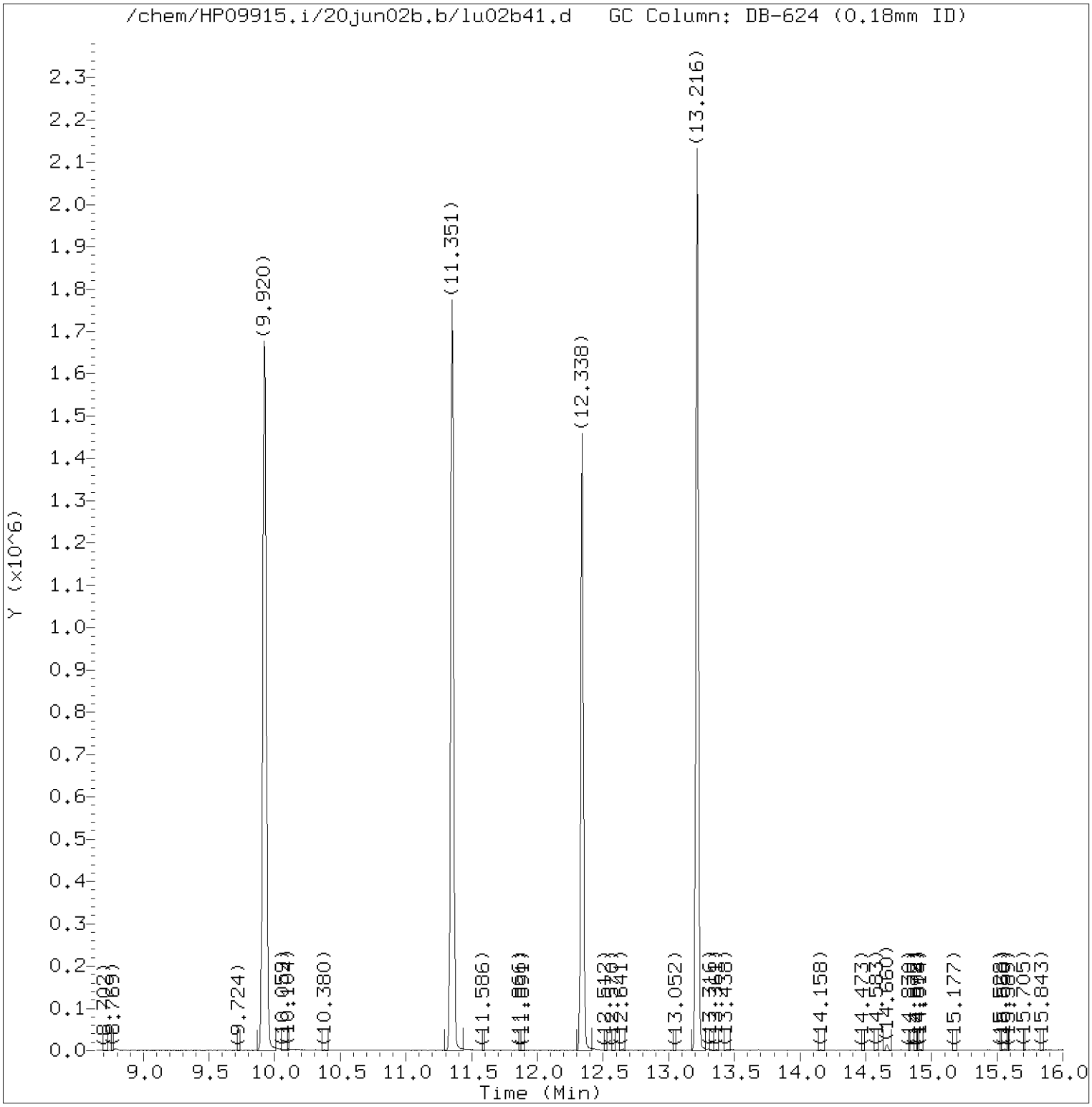
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02b41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:27 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Sample Name: VBLKL17 Lab Sample ID: VBLKL17

Digitally signed by Sara E. Johnson
on 06/04/2020 at 21:41.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02b41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:27 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Sample Name: VBLKL17 Lab Sample ID: VBLKL17

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on 06/04/2020 at 21:41.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02b41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:27 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:01
Date, time and analyst ID of latest file update: 04-Jun-2020 21:40 sej02002

Sample Name: VBLKL17 Lab Sample ID: VBLKL17

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
29)*t-Butyl alcohol-d10	(1)	4.493	65	237636	250.000
52)$Dibromofluoromethane	(2)	7.062	113	322533	51.497
57)$1,2-Dichloroethane-d4	(2)	7.515	102	82661	52.013
66)*Fluorobenzene	(2)	7.946	96	1243231	50.000
83)$Toluene-d8	(3)	9.920	98	1228801	50.426
100)*Chlorobenzene-d5	(3)	11.351	117	948560	50.000
114)$4-Bromofluorobenzene	(3)	12.338	95	434592	46.350
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	502994	50.000

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 06/04/2020 at 21:41.
Target 3.5 esignature user ID: sej02002

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.
LCSL17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL17

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s41.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/02/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
75-71-8	Dichlorodifluoromethane	14	
74-87-3	Chloromethane	20	
106-99-0	1,3-Butadiene	45	
75-01-4	Vinyl Chloride	19	
74-83-9	Bromomethane	19	
75-00-3	Chloroethane	21	
109-66-0	n-Pentane	22	
75-69-4	Trichlorofluoromethane	21	
60-29-7	Ethyl ether	21	
354-23-4	Freon 123a	21	
107-02-8	Acrolein	150	
75-35-4	1,1-Dichloroethene	19	
67-64-1	Acetone	160	
76-13-1	Freon 113	18	
67-63-0	2-Propanol	160	
74-88-4	Methyl Iodide	17	
75-15-0	Carbon Disulfide	20	
107-05-1	Allyl Chloride	20	
79-20-9	Methyl Acetate	20	
75-09-2	Methylene Chloride	20	
75-65-0	t-Butyl alcohol	200	
107-13-1	Acrylonitrile	100	
156-60-5	trans-1,2-Dichloroethene	19	
1634-04-4	Methyl Tertiary Butyl Ether	17	
110-54-3	n-Hexane	16	
75-34-3	1,1-Dichloroethane	20	
108-20-3	di-Isopropyl ether	18	
126-99-8	2-Chloro-1,3-butadiene	19	
637-92-3	Ethyl t-butyl ether	16	
156-59-2	cis-1,2-Dichloroethene	20	

FORM I VOA

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL17

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s41.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/02/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
540-59-0	1,2-Dichloroethene (Total)	40	
78-93-3	2-Butanone	160	
594-20-7	2,2-Dichloropropane	20	
107-12-0	Propionitrile	180	
126-98-7	Methacrylonitrile	160	
74-97-5	Bromochloromethane	19	
109-99-9	Tetrahydrofuran	110	
67-66-3	Chloroform	20	
71-55-6	1,1,1-Trichloroethane	19	
110-82-7	Cyclohexane	18	
563-58-6	1,1-Dichloropropene	19	
56-23-5	Carbon Tetrachloride	19	
78-83-1	Isobutyl Alcohol	620	
71-43-2	Benzene	20	
107-06-2	1,2-Dichloroethane	21	
994-05-8	t-Amyl methyl ether	17	
142-82-5	n-Heptane	19	
71-36-3	n-Butanol	1100	
79-01-6	Trichloroethene	19	
108-87-2	Methylcyclohexane	18	
78-87-5	1,2-Dichloropropane	21	
74-95-3	Dibromomethane	20	
123-91-1	1,4-Dioxane	580	
80-62-6	Methyl Methacrylate	19	
75-27-4	Bromodichloromethane	20	
79-46-9	2-Nitropropane	19	
110-75-8	2-Chloroethyl Vinyl Ether	17	
10061-01-5	cis-1,3-Dichloropropene	18	
108-10-1	4-Methyl-2-pentanone	110	
108-88-3	Toluene	20	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL17

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s41.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/02/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
10061-02-6	trans-1,3-Dichloropropene	19	
542-75-6	1,3-Dichloropropene (total)	37	
97-63-2	Ethyl Methacrylate	19	
79-00-5	1,1,2-Trichloroethane	21	
127-18-4	Tetrachloroethene	20	
142-28-9	1,3-Dichloropropane	20	
591-78-6	2-Hexanone	110	
124-48-1	Dibromochloromethane	20	
106-93-4	1,2-Dibromoethane	19	
544-10-5	1-Chlorohexane	18	
108-90-7	Chlorobenzene	20	
630-20-6	1,1,1,2-Tetrachloroethane	20	
100-41-4	Ethylbenzene	20	
179601-23-1	m+p-Xylene	42	
95-47-6	o-Xylene	20	
1330-20-7	Xylene (Total)	62	
100-42-5	Styrene	21	
75-25-2	Bromoform	18	
98-82-8	Isopropylbenzene	20	
108-94-1	Cyclohexanone	570	
108-86-1	Bromobenzene	20	
79-34-5	1,1,2,2-Tetrachloroethane	21	
96-18-4	1,2,3-Trichloropropane	21	
110-57-6	trans-1,4-Dichloro-2-butene	80	
103-65-1	n-Propylbenzene	21	
95-49-8	2-Chlorotoluene	20	
106-43-4	4-Chlorotoluene	21	
108-67-8	1,3,5-Trimethylbenzene	21	
98-06-6	tert-Butylbenzene	19	
76-01-7	Pentachloroethane	21	

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

LCSL17

Lab Name: Lancaster Laboratories Contract:_____

Lab Code: LANCAS Case No.:_____ SAS No.:_____ SDG No.:_____

Matrix: (soil/water) WATER Lab Sample ID: LCSL17

Sample wt/vol: 5.00 (g/mL) mL Lab File ID: HP09915.i/20jun02b.b/lu02s41.d

Level: (low/med) LOW Date Received:

Moisture: not dec. _____ Date Analyzed: 06/02/20

Column: (pack/cap) CAP Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) ug/L	Q
95-63-6	1,2,4-Trimethylbenzene	21	
135-98-8	sec-Butylbenzene	21	
541-73-1	1,3-Dichlorobenzene	21	
99-87-6	p-Isopropyltoluene	21	
106-46-7	1,4-Dichlorobenzene	21	
526-73-8	1,2,3-Trimethylbenzene	23	
100-44-7	Benzyl Chloride	20	
141-93-5	1,3-Diethylbenzene	21	
105-05-5	1,4-Diethylbenzene	21	
95-50-1	1,2-Dichlorobenzene	21	
104-51-8	n-Butylbenzene	22	
135-01-3	1,2-Diethylbenzene	21	
25340-17-4	Diethylbenzene (total)	63	
96-12-8	1,2-Dibromo-3-chloropropane	20	
108-70-3	1,3,5-Trichlorobenzene	19	
120-82-1	1,2,4-Trichlorobenzene	17	
87-68-3	Hexachlorobutadiene	17	
91-20-3	Naphthalene	19	
87-61-6	1,2,3-Trichlorobenzene	19	
91-57-6	2-Methylnaphthalene	14	B

Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s41.d Injection date and time: **02-JUN-2020 21:49**
Data file Sample Info. Line: LCSL17;LCSL17;1;3;LCS;;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Analysis Comments:

Internal Standards	RT (+/-RT)	Scan	QIon	Area (+/- %Change)	Conc. (on-column)	QC Flag
29) t-Butyl alcohol-d10	4.496(0.000)	937	65	261331 (-4)	250.00	
66) Fluorobenzene	7.949(0.000)	2011	96	1325126 (-7)	50.00	
100) Chlorobenzene-d5	11.351(0.000)	3069	117	1025210 (-8)	50.00	
131) 1,4-Dichlorobenzene-d4	13.216(-0.003)	3649	152	580328 (-7)	50.00	

Surrogate Standards	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	%Rec.	QC flags	QC Limits
52) Dibromofluoromethane	(2)	7.065(0.000)	113	328378	49.190	98%		80 - 120
57) 1,2-Dichloroethane-d4	(2)	7.522(0.000)	102	85968	50.750	102%		80 - 120
83) Toluene-d8	(3)	9.924(0.000)	98	1352065	51.336	103%		80 - 120
114) 4-Bromofluorobenzene	(3)	12.338(0.000)	95	518651	51.180	102%		80 - 120

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
3) Dichlorodifluoromethane	(2)	2.088(0.000)	85	127653	14.048	14.05			0.2	1
4) Chloromethane	(2)	2.297(0.000)	50	168418	19.851	19.85			0.2	1
5) 1,3-Butadiene	(2)	2.416(0.000)	39	242956M	44.638	44.64			1	3
6) Vinyl Chloride	(2)	2.419(0.000)	62	158176	19.320	19.32			0.2	1
8) Bromomethane	(2)	2.754(0.000)	94	113859	19.288	19.29			0.3	1
9) Chloroethane	(2)	2.853(0.000)	64	94122	20.590	20.59			0.2	1
11) n-Pentane	(2)	3.216(-0.000)	43	183342	21.838	21.84			0.4	10
12) Trichlorofluoromethane	(2)	3.162(0.000)	101	188591	21.091	21.09			0.2	1
14) Ethyl ether	(2)	3.438(0.000)	59	131027	20.737	20.74			0.2	5
15) Freon 123a	(2)	3.538(-0.000)	67	150959	20.838	20.84			0.4	5
16) Acrolein	(1)	3.625(0.000)	56	319373	148.552	148.55			2	100
17) 1,1-Dichloroethene	(2)	3.773(-0.001)	96	105838	18.560	18.56			0.2	1
18) Acetone	(1)	3.808(0.000)	58	153475	156.501	156.50			0.7	20
19) Freon 113	(2)	3.792(0.001)	101	104062	17.589	17.59			0.2	10
21) 2-Propanol	(1)	3.998(-0.001)	45	99111	158.571	158.57			18	100
22) Methyl Iodide	(2)	3.972(0.000)	142	185597	16.888	16.89			0.2	1
23) Carbon Disulfide	(2)	4.078(0.000)	76	380591	19.822	19.82			0.2	5
25) Allyl Chloride	(2)	4.274(0.000)	41	182914	19.793	19.79			0.3	5
27) Methyl Acetate	(2)	4.245(0.000)	43	148983	20.484	20.48			0.3	5
28) Methylene Chloride	(2)	4.474(0.000)	84	136438	20.113	20.11			0.3	1
30) t-Butyl alcohol	(1)	4.638(-0.001)	59	208112	197.257	197.26			12	50
31) Acrylonitrile	(2)	4.827(0.000)	53	405884	100.742	100.74			0.3	20
32) trans-1,2-Dichloroethene	(2)	4.892(0.000)	96	127235	19.395	19.39			0.2	1
33) Methyl Tertiary Butyl Ether	(2)	4.882(-0.000)	73	323279	16.530	16.53			0.2	1
34) n-Hexane	(2)	5.310(0.000)	57	151486	16.489	16.49			2	5
36) 1,1-Dichloroethane	(2)	5.554(-0.000)	63	233157	20.264	20.26			0.2	1
38) di-Isopropyl ether	(2)	5.612(-0.000)	45	372417	18.404	18.40			0.2	1
39) 2-Chloro-1,3-butadiene	(2)	5.660(0.000)	53	174457	19.012	19.01			0.2	5
40) Ethyl t-butyl ether	(2)	6.136(-0.000)	59	307404	16.350	16.35			0.2	1
42) cis-1,2-Dichloroethene	(2)	6.377(0.000)	96	150764	20.493	20.49			0.2	1
43) 1,2-Dichloroethene (Total)	(2)		96	277999	39.888	39.89			0.4	2

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s41.d Injection date and time: **02-JUN-2020 21:49**
Data file Sample Info. Line: LCSL17;LCSL17;1;3;LCS;;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
44) 2-Butanone	(2)	6.351(0.000)	43	770948	157.644	157.64			0.3	10
45) 2,2-Dichloropropane	(2)	6.390(0.000)	77	175347	19.718	19.72			0.3	1
47) Propionitrile	(1)	6.451(-0.000)	54	252797	177.362	177.36			14	100
48) Methacrylonitrile	(2)	6.660(-0.000)	67	645168	159.727	159.73			6	50
49) Bromochloromethane	(2)	6.705(0.000)	128	72865	19.196	19.20			0.2	5
50) Tetrahydrofuran	(1)	6.712(0.000)	71	136718	109.631	109.63			0.7	10
51) Chloroform	(2)	6.856(-0.000)	83	225533	20.063	20.06			0.2	1
53) 1,1,1-Trichloroethane	(2)	7.072(0.000)	97	183783	19.057	19.06			0.3	1
54) Cyclohexane	(2)	7.168(0.000)	56	192684	17.849	17.85			1	5
55) 1,1-Dichloropropene	(2)	7.287(-0.000)	75	166449	18.828	18.83			0.2	5
56) Carbon Tetrachloride	(2)	7.278(0.000)	117	157560	19.500	19.50			0.2	1
58) Isobutyl Alcohol	(1)	7.448(-0.000)	41	222930	622.877	622.88			36	250
60) Benzene	(2)	7.548(0.000)	78	551613	20.156	20.16			0.2	1
61) 1,2-Dichloroethane	(2)	7.622(0.000)	62	188923	20.594	20.59			0.3	1
65) t-Amyl methyl ether	(2)	7.731(0.000)	73	336097	17.498	17.50			0.8	5
67) n-Heptane	(2)	7.953(-0.000)	43	184970	19.361	19.36			2	5
69) n-Butanol	(1)	8.316(-0.000)	56	333770	1143.730	1143.73			61	250
71) Trichloroethene	(2)	8.422(-0.000)	95	133890	19.334	19.33			0.2	1
72) Methylcyclohexane	(2)	8.728(-0.000)	83	197471	17.536	17.54			0.5	5
73) 1,2-Dichloropropane	(2)	8.760(-0.000)	63	148441	21.052	21.05			0.2	1
74) Dibromomethane	(2)	8.869(-0.000)	93	93926	20.368	20.37			0.2	1
75) 1,4-Dioxane	(1)	8.843(0.001)	88	51098	582.483	582.48			29	250
76) Methyl Methacrylate	(2)	8.837(-0.000)	69	114418	18.872	18.87			0.2	5
78) Bromodichloromethane	(2)	9.097(0.000)	83	164897	19.946	19.95			0.2	1
79) 2-Nitropropane	(2)	9.374(-0.000)	41	47612	19.208	19.21			0.8	10
80) 2-Chloroethyl Vinyl Ether	(2)	9.448(-0.000)	63	79482	16.929	16.93			0.2	10
81) cis-1,3-Dichloropropene	(2)	9.625(0.000)	75	197851	18.312	18.31			0.2	1
82) 4-Methyl-2-pentanone	(2)	9.795(-0.000)	43	1055985	106.627	106.63			0.5	10
88) Toluene	(3)	9.998(0.000)	92	338300	20.152	20.15			0.2	1
89) trans-1,3-Dichloropropene	(3)	10.248(0.000)	75	183539	19.055	19.06			0.2	1
90) 1,3-Dichloropropene (total)	(3)		100	381390	37.368	37.37			0.4	2
91) Ethyl Methacrylate	(3)	10.303(-0.000)	69	185012	19.090	19.09			0.2	5
92) 1,1,2-Trichloroethane	(3)	10.448(0.000)	97	135514	20.803	20.80			0.2	1
93) Tetrachloroethene	(3)	10.528(0.000)	166	140049	19.576	19.58			0.2	1
94) 1,3-Dichloropropane	(3)	10.608(0.000)	76	217879	20.001	20.00			0.2	1
96) 2-Hexanone	(3)	10.657(-0.000)	43	793796	112.769	112.77			0.3	10
97) Dibromochloromethane	(3)	10.818(-0.000)	129	134455	19.843	19.84			0.2	1
99) 1,2-Dibromoethane	(3)	10.927(0.000)	107	134037	19.146	19.15			0.2	1
101) 1-Chlorohexane	(3)	11.358(-0.000)	91	154929	18.034	18.03			0.3	5
102) Chlorobenzene	(3)	11.377(-0.000)	112	395056	20.493	20.49			0.2	1
103) 1,1,1,2-Tetrachloroethane	(3)	11.454(0.000)	131	131099	20.060	20.06			0.2	1
104) Ethylbenzene	(3)	11.461(-0.000)	91	633049	20.373	20.37			0.4	1
106) m+p-Xylene	(3)	11.570(-0.000)	106	512022	41.937	41.94			1	5
107) o-Xylene	(3)	11.901(-0.000)	106	233536	19.780	19.78			0.4	1
108) Xylene (Total)	(3)		106	745558	61.717	61.72			1	6
109) Styrene	(3)	11.914(-0.000)	104	405520	21.119	21.12			0.2	5
110) Bromoform	(3)	12.068(0.000)	173	90809	18.409	18.41			1	4
111) Isopropylbenzene	(3)	12.197(-0.000)	105	592160	19.764	19.76			0.2	5
112) Cyclohexanone	(1)	12.277(-0.000)	55	186011	569.648	569.65			25	100
115) Bromobenzene	(4)	12.457(0.000)	156	172474	20.310	20.31			0.2	5
116) 1,1,2,2-Tetrachloroethane	(4)	12.441(0.000)	83	221673M	20.953	20.95			0.2	1
117) 1,2,3-Trichloropropane	(4)	12.486(0.000)	110	68250	21.122	21.12			0.2	5
118) trans-1,4-Dichloro-2-butene	(4)	12.467(-0.000)	53	246834	80.204	80.20			6	50
119) n-Propylbenzene	(4)	12.522(0.000)	91	781774	21.300	21.30			0.2	5

M = Compound was manually integrated.

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Analysis Summary for GC/MS Volatiles

Data file: /chem/HP09915.i/20jun02b.b/lu02s41.d Injection date and time: **02-JUN-2020 21:49**
Data file Sample Info. Line: LCSL17;LCSL17;1;3;LCS;;;;lu02b41; Instrument ID: **HP09915.i** Batch: **L201542AA**
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Blank Data file reference: **/chem/HP09915.i/20jun02b.b/lu02b41.d**

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: **8260W-D**
Calibration date and time (Last Method Edit): 02-JUN-2020 21:47
Mid Level Daily Calibration Standard Reference: **/chem/HP09915.i/20jun02b.b/lu02c41.d**

Bottle Code: Matrix: WATER Level: Low

On-Column Amount units: ng In Sample Concentration units: ug/L

Sample Concentration Formula: On-Column Amount * (Vt/Vo) VOA Prep Factor: **1.00**

Volume Purged (Vt): 5 ml Sample Volume (Vo): 5 ml

Target Compounds	I.S. Ref.	RT (+/-RRT)	QIon	Area	Conc. (on-column)	Conc. (in sample)	Blank Conc.	Qual.	Reporting Limit (in sample)	LOQ
120) 2-Chlorotoluene	(4)	12.602(-0.000)	126	155155	19.787	19.79			0.2	5
121) 4-Chlorotoluene	(4)	12.692(0.000)	126	166980	20.517	20.52			0.2	5
122) 1,3,5-Trimethylbenzene	(4)	12.653(0.000)	105	552097	20.818	20.82			0.3	5
124) tert-Butylbenzene	(4)	12.898(0.000)	134	106172M	19.476	19.48			0.3	5
125) Pentachloroethane	(4)	12.933(-0.000)	167	100335	20.723	20.72			0.2	5
126) 1,2,4-Trimethylbenzene	(4)	12.940(0.000)	105	576736	21.033	21.03			1	5
127) sec-Butylbenzene	(4)	13.059(0.000)	105	662516	20.518	20.52			0.2	5
129) 1,3-Dichlorobenzene	(4)	13.162(0.000)	146	333025	21.045	21.04			0.2	5
130) p-Isopropyltoluene	(4)	13.165(0.000)	119	588048	21.254	21.25			0.2	5
133) 1,4-Dichlorobenzene	(4)	13.232(0.000)	146	348296	20.971	20.97			0.2	5
134) 1,2,3-Trimethylbenzene	(4)	13.242(0.000)	105	641781	22.526	22.53			0.3	5
135) Benzyl Chloride	(4)	13.309(0.000)	91	435816	20.217	20.22			1	5
136) 1,3-Diethylbenzene	(4)	13.364(0.000)	119	368596	20.676	20.68			0.2	5
137) 1,4-Diethylbenzene	(4)	13.435(0.000)	119	393726	21.100	21.10			0.2	5
138) 1,2-Dichlorobenzene	(4)	13.496(0.000)	146	332372	20.867	20.87			0.2	5
139) n-Butylbenzene	(4)	13.457(0.000)	92	308363	21.692	21.69			0.2	5
140) 1,2-Diethylbenzene	(4)	13.509(0.000)	119	321673	21.137	21.14			0.2	5
141) Diethylbenzene (total)	(4)		100	1083995	62.913	62.91			0.6	15
142) 1,2-Dibromo-3-chloropropane	(4)	14.033(0.000)	75	46298	19.771	19.77			0.3	5
144) 1,3,5-Trichlorobenzene	(4)	14.158(0.000)	180	223165	18.599	18.60			0.2	5
146) 1,2,4-Trichlorobenzene	(4)	14.583(0.000)	180	193688	17.274	17.27			0.3	5
147) Hexachlorobutadiene	(4)	14.660(0.000)	225	86810	16.782	16.78			2	5
148) Naphthalene	(4)	14.766(0.000)	128	681597	18.779	18.78			1	5
149) 1,2,3-Trichlorobenzene	(4)	14.911(0.000)	180	209885	18.837	18.84			0.4	5
150) 2-Methylnaphthalene	(4)	15.557(0.000)	142	311519	13.642	13.64	3.003	B	2	4

M = Compound was manually integrated. B = Compound detected in referenced method blank.

Total number of targets = 110

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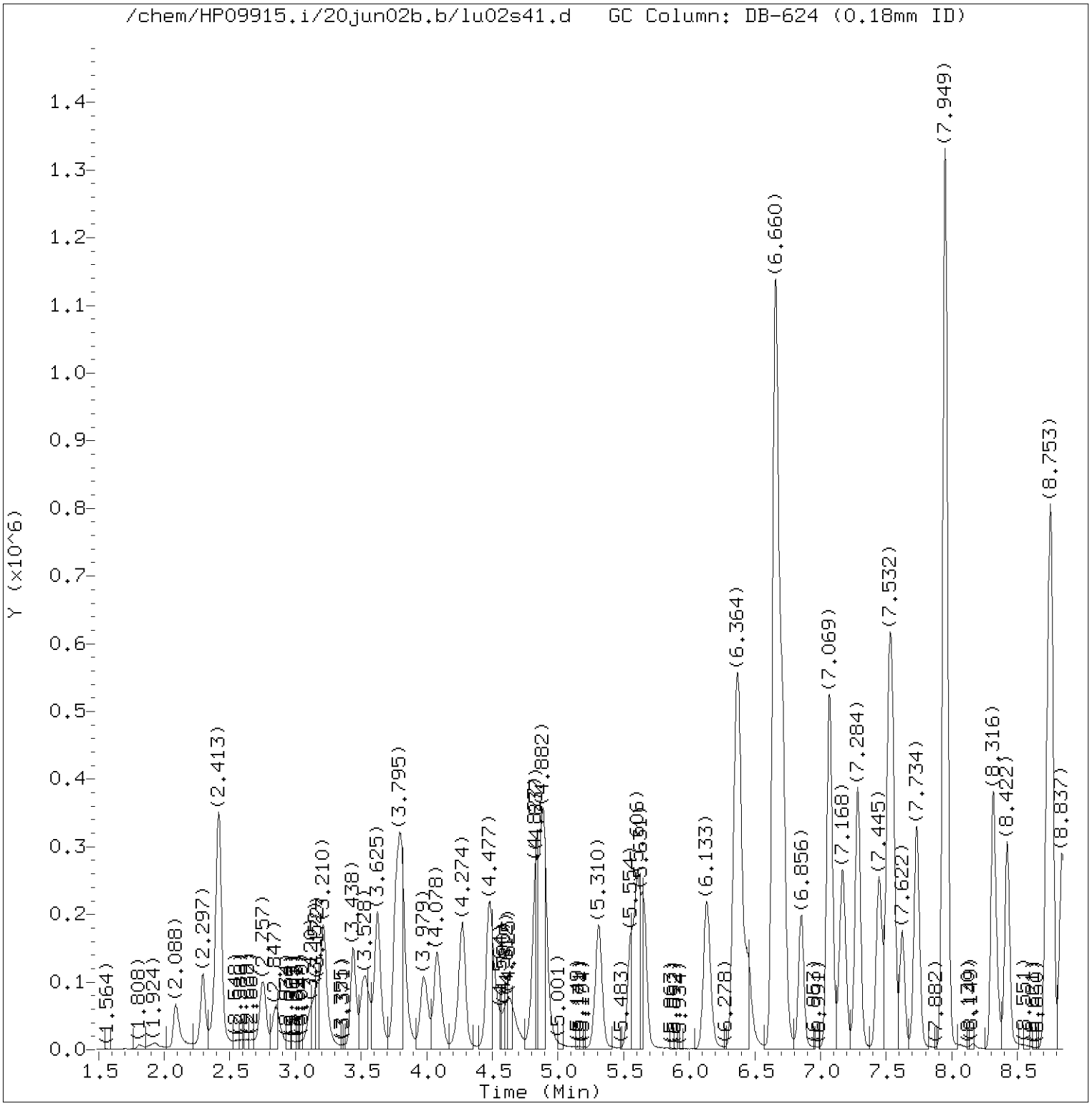
Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25. PARALLAX ID: rek30744



Total Ion Chromatogram (TIC)

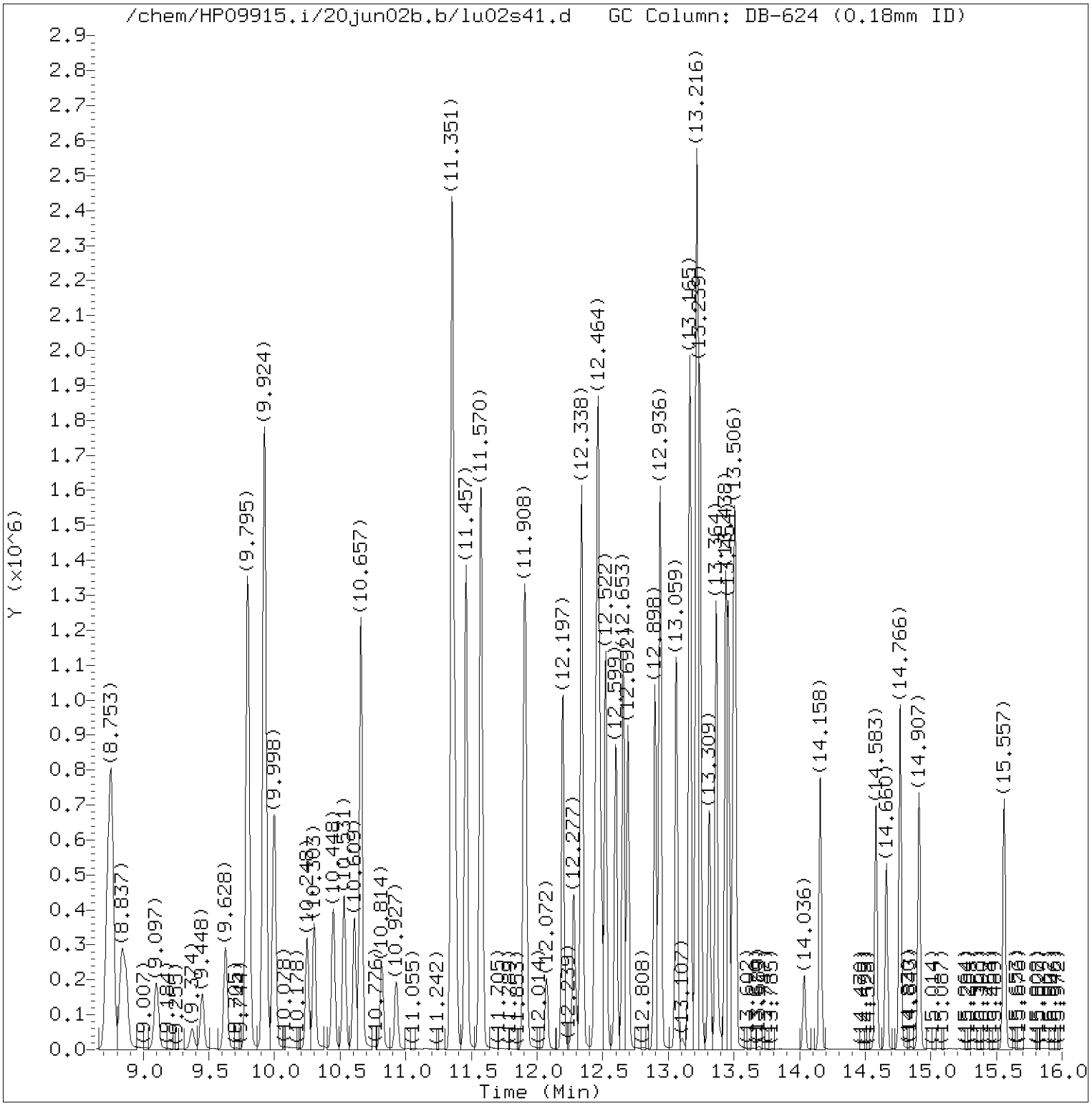
Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Digitally signed by Sara E. Johnson
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002



Total Ion Chromatogram (TIC)

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Digitally signed by Sara E. Johnson
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
3) Dichlorodifluoromethane	(2)	2.088	85	127653	14.048
4) Chloromethane	(2)	2.297	50	168418	19.851
5) 1,3-Butadiene	(2)	2.416	39	242956M	44.638
6) Vinyl Chloride	(2)	2.419	62	158176	19.320
8) Bromomethane	(2)	2.754	94	113859	19.288
9) Chloroethane	(2)	2.853	64	94122	20.590
12) Trichlorofluoromethane	(2)	3.162	101	188591	21.091
11) n-Pentane	(2)	3.217	43	183342	21.838
14) Ethyl ether	(2)	3.438	59	131027	20.737
15) Freon 123a	(2)	3.538	67	150959	20.838
16) Acrolein	(1)	3.625	56	319373	148.552
17) 1,1-Dichloroethene	(2)	3.773	96	105838	18.560
19) Freon 113	(2)	3.792	101	104062	17.589
18) Acetone	(1)	3.808	58	153475	156.501
22) Methyl Iodide	(2)	3.972	142	185597	16.888
21) 2-Propanol	(1)	3.998	45	99111	158.571
23) Carbon Disulfide	(2)	4.078	76	380591	19.822
27) Methyl Acetate	(2)	4.245	43	148983	20.484
25) Allyl Chloride	(2)	4.274	41	182914	19.793
28) Methylene Chloride	(2)	4.474	84	136438	20.113
29)*t-Butyl alcohol-d10	(1)	4.496	65	261331	250.000
30) t-Butyl alcohol	(1)	4.638	59	208112	197.257
31) Acrylonitrile	(2)	4.827	53	405884	100.742
33) Methyl Tertiary Butyl Ether	(2)	4.882	73	323279	16.530
32) trans-1,2-Dichloroethene	(2)	4.892	96	127235	19.395
34) n-Hexane	(2)	5.310	57	151486	16.489
36) 1,1-Dichloroethane	(2)	5.554	63	233157	20.264
38) di-Isopropyl ether	(2)	5.612	45	372417	18.404
39) 2-Chloro-1,3-butadiene	(2)	5.660	53	174457	19.012
40) Ethyl t-butyl ether	(2)	6.136	59	307404	16.350
43) 1,2-Dichloroethene (Total)	(2)		96	277999	39.888
44) 2-Butanone	(2)	6.351	43	770948	157.644
42) cis-1,2-Dichloroethene	(2)	6.377	96	150764	20.493
45) 2,2-Dichloropropane	(2)	6.390	77	175347	19.718
47) Propionitrile	(1)	6.451	54	252797	177.362
48) Methacrylonitrile	(2)	6.660	67	645168	159.727
49) Bromochloromethane	(2)	6.705	128	72865	19.196
50) Tetrahydrofuran	(1)	6.712	71	136718	109.631

M = Compound was manually integrated.
* = Compound is an internal standard.

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on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
51) Chloroform	(2)	6.856	83	225533	20.063
52)$Dibromofluoromethane	(2)	7.065	113	328378	49.190
53) 1,1,1-Trichloroethane	(2)	7.072	97	183783	19.057
54) Cyclohexane	(2)	7.168	56	192684	17.849
56) Carbon Tetrachloride	(2)	7.277	117	157560	19.500
55) 1,1-Dichloropropene	(2)	7.287	75	166449	18.828
58) Isobutyl Alcohol	(1)	7.448	41	222930	622.877
57)$1,2-Dichloroethane-d4	(2)	7.522	102	85968	50.750
60) Benzene	(2)	7.548	78	551613	20.156
61) 1,2-Dichloroethane	(2)	7.622	62	188923	20.594
65) t-Amyl methyl ether	(2)	7.731	73	336097	17.498
66)*Fluorobenzene	(2)	7.949	96	1325126	50.000
67) n-Heptane	(2)	7.953	43	184970	19.361
69) n-Butanol	(1)	8.316	56	333770	1143.730
71) Trichloroethene	(2)	8.422	95	133890	19.334
72) Methylcyclohexane	(2)	8.728	83	197471	17.536
73) 1,2-Dichloropropane	(2)	8.760	63	148441	21.052
76) Methyl Methacrylate	(2)	8.837	69	114418	18.872
75) 1,4-Dioxane	(1)	8.843	88	51098	582.483
74) Dibromomethane	(2)	8.869	93	93926	20.368
78) Bromodichloromethane	(2)	9.097	83	164897	19.946
79) 2-Nitropropane	(2)	9.374	41	47612	19.208
80) 2-Chloroethyl Vinyl Ether	(2)	9.448	63	79482	16.929
81) cis-1,3-Dichloropropene	(2)	9.625	75	197851	18.312
82) 4-Methyl-2-pentanone	(2)	9.795	43	1055985	106.627
83)$Toluene-d8	(3)	9.924	98	1352065	51.336
88) Toluene	(3)	9.998	92	338300	20.152
90) 1,3-Dichloropropene (total)	(3)		100	381390	37.368
89) trans-1,3-Dichloropropene	(3)	10.248	75	183539	19.055
91) Ethyl Methacrylate	(3)	10.303	69	185012	19.090
92) 1,1,2-Trichloroethane	(3)	10.448	97	135514	20.803
93) Tetrachloroethene	(3)	10.528	166	140049	19.576
94) 1,3-Dichloropropane	(3)	10.609	76	217879	20.001
96) 2-Hexanone	(3)	10.657	43	793796	112.769
97) Dibromochloromethane	(3)	10.818	129	134455	19.843
99) 1,2-Dibromoethane	(3)	10.927	107	134037	19.146
100)*Chlorobenzene-d5	(3)	11.351	117	1025210	50.000
101) 1-Chlorohexane	(3)	11.358	91	154929	18.034

* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
102) Chlorobenzene	(3)	11.377	112	395056	20.493
103) 1,1,1,2-Tetrachloroethane	(3)	11.454	131	131099	20.060
104) Ethylbenzene	(3)	11.461	91	633049	20.373
106) m+p-Xylene	(3)	11.570	106	512022	41.937
108) Xylene (Total)	(3)		106	745558	61.717
107) o-Xylene	(3)	11.901	106	233536	19.780
109) Styrene	(3)	11.914	104	405520	21.119
110) Bromoform	(3)	12.068	173	90809	18.409
111) Isopropylbenzene	(3)	12.197	105	592160	19.764
112) Cyclohexanone	(1)	12.277	55	186011	569.648
114)$4-Bromofluorobenzene	(3)	12.338	95	518651	51.180
116) 1,1,2,2-Tetrachloroethane	(4)	12.441	83	221673M	20.953
115) Bromobenzene	(4)	12.457	156	172474	20.310
118) trans-1,4-Dichloro-2-butene	(4)	12.467	53	246834	80.204
117) 1,2,3-Trichloropropane	(4)	12.486	110	68250	21.122
119) n-Propylbenzene	(4)	12.522	91	781774	21.300
120) 2-Chlorotoluene	(4)	12.602	126	155155	19.787
122) 1,3,5-Trimethylbenzene	(4)	12.653	105	552097	20.818
121) 4-Chlorotoluene	(4)	12.692	126	166980	20.517
124) tert-Butylbenzene	(4)	12.898	134	106172M	19.476
125) Pentachloroethane	(4)	12.933	167	100335	20.723
126) 1,2,4-Trimethylbenzene	(4)	12.940	105	576736	21.033
127) sec-Butylbenzene	(4)	13.059	105	662516	20.518
129) 1,3-Dichlorobenzene	(4)	13.162	146	333025	21.045
130) p-Isopropyltoluene	(4)	13.165	119	588048	21.254
131)*1,4-Dichlorobenzene-d4	(4)	13.216	152	580328	50.000
133) 1,4-Dichlorobenzene	(4)	13.232	146	348296	20.971
134) 1,2,3-Trimethylbenzene	(4)	13.242	105	641781	22.526
135) Benzyl Chloride	(4)	13.309	91	435816	20.217
136) 1,3-Diethylbenzene	(4)	13.364	119	368596	20.676
141) Diethylbenzene (total)	(4)		100	1083995	62.913
137) 1,4-Diethylbenzene	(4)	13.435	119	393726	21.100
139) n-Butylbenzene	(4)	13.457	92	308363	21.692
138) 1,2-Dichlorobenzene	(4)	13.496	146	332372	20.867
140) 1,2-Diethylbenzene	(4)	13.509	119	321673	21.137
142) 1,2-Dibromo-3-chloropropane	(4)	14.033	75	46298	19.771
144) 1,3,5-Trichlorobenzene	(4)	14.158	180	223165	18.599
146) 1,2,4-Trichlorobenzene	(4)	14.583	180	193688	17.274

M = Compound was manually integrated.
* = Compound is an internal standard.
$ = Compound is a surrogate standard.

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on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Quant Report

Target Revision 3.5

Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

Compounds	I.S. Ref.	RT	QIon	Area	On-Column Amount (ng)
147) Hexachlorobutadiene	(4)	14.660	225	86810	16.782
148) Naphthalene	(4)	14.766	128	681597	18.779
149) 1,2,3-Trichlorobenzene	(4)	14.911	180	209885	18.837
150) 2-Methylnaphthalene	(4)	15.557	142	311519	13.642

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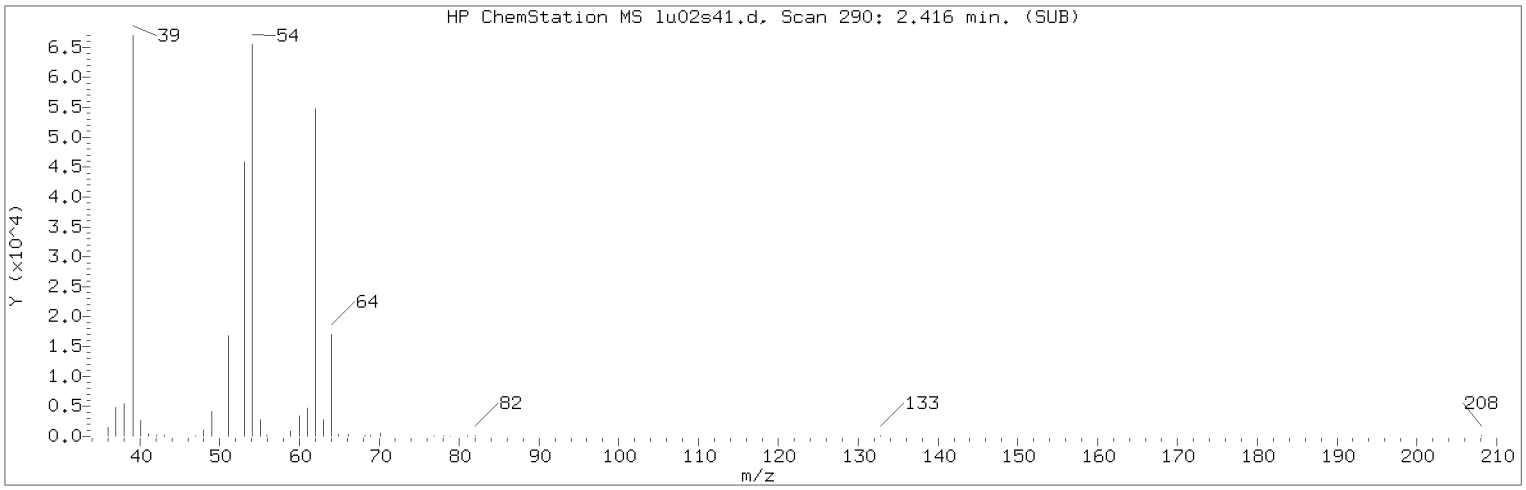
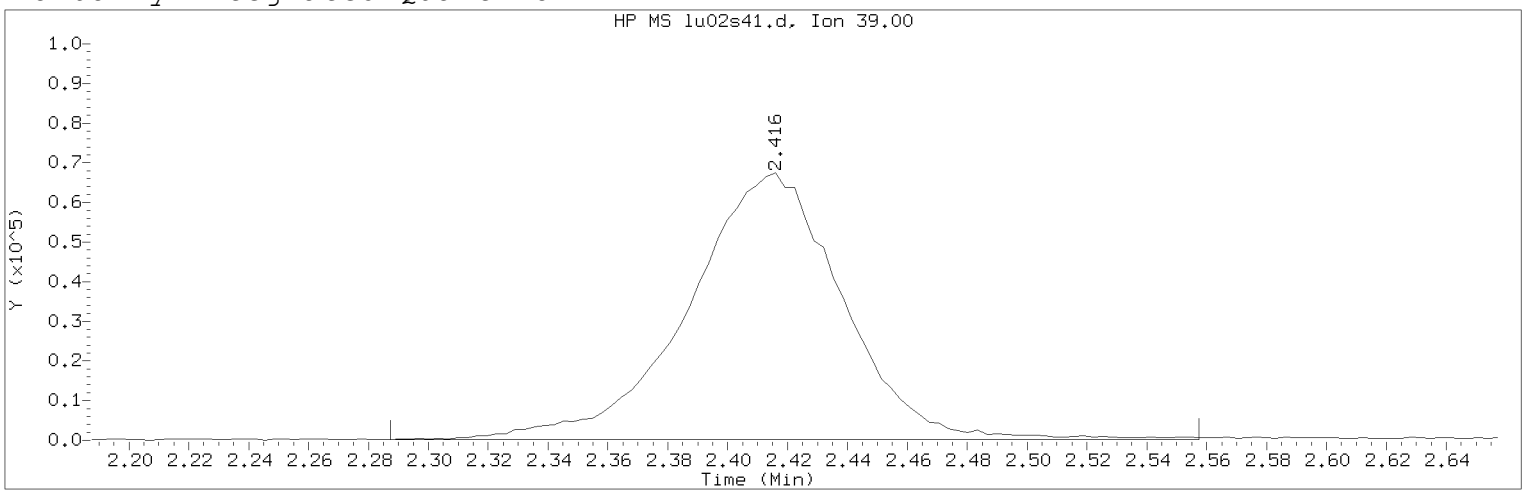
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

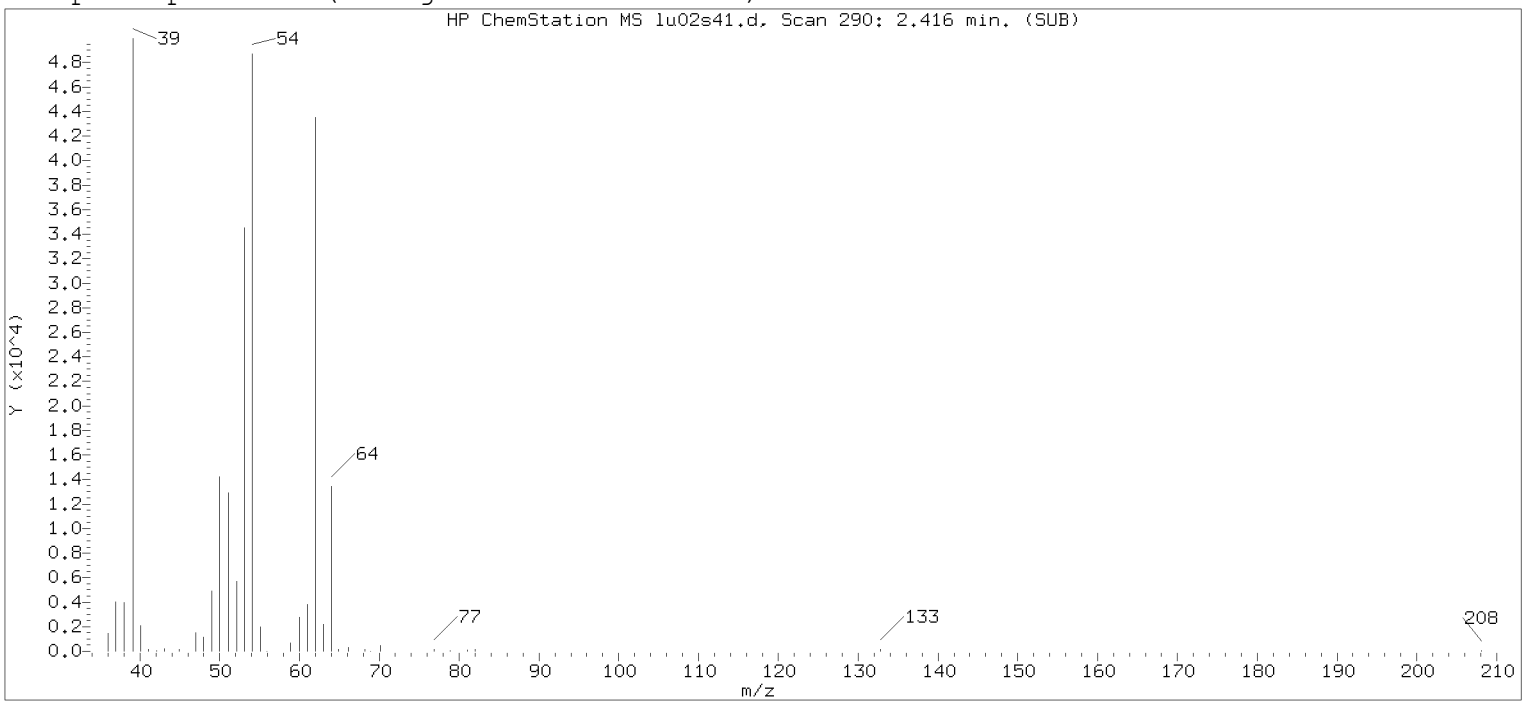
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 290
Retention Time (minutes): 2.416
Quant Ion : 39.00
Area (flag) : 242956M
On-Column Amount (ng) : 44.6382
Integration start scan : 249 Integration stop scan: 333
Y at integration start : 110 Y at integration end: 110

Reason for manual integration: improper integration

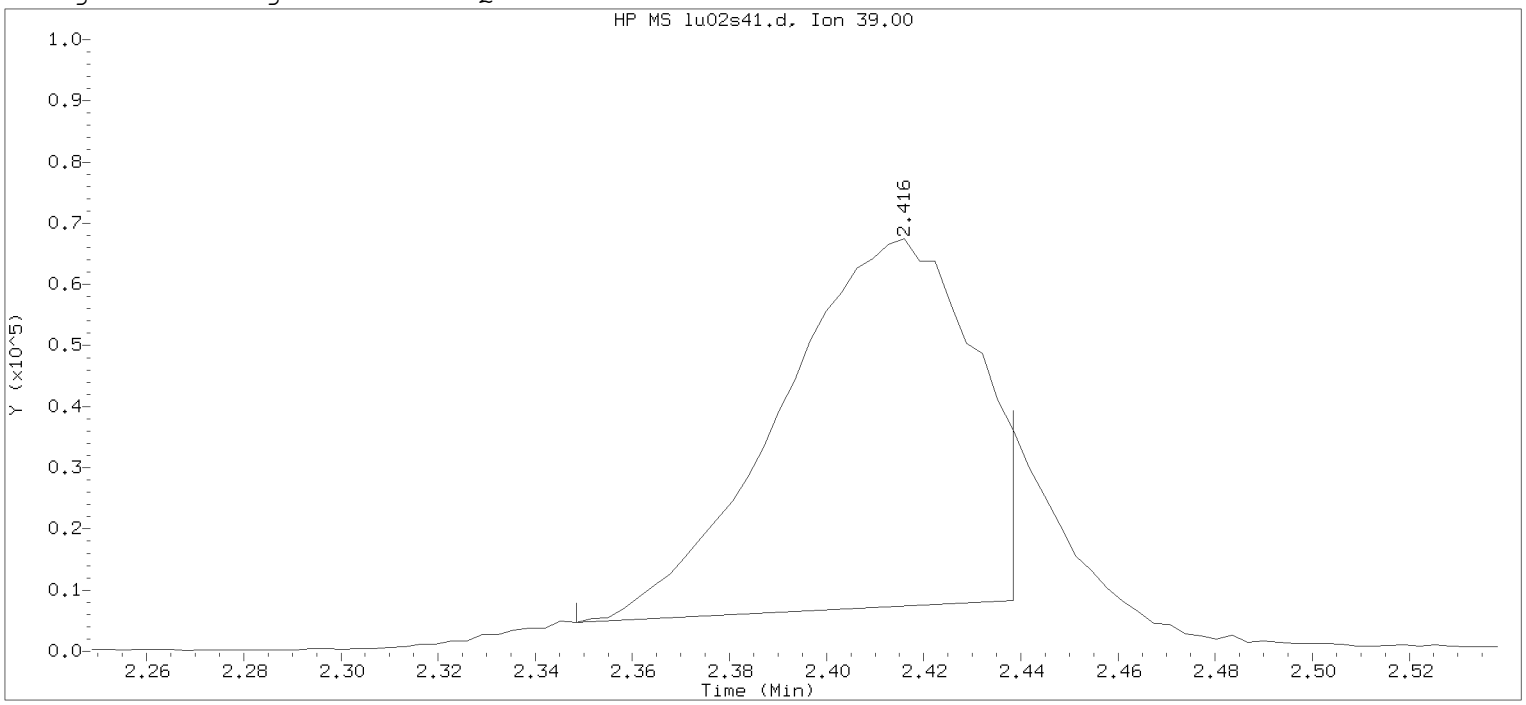
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

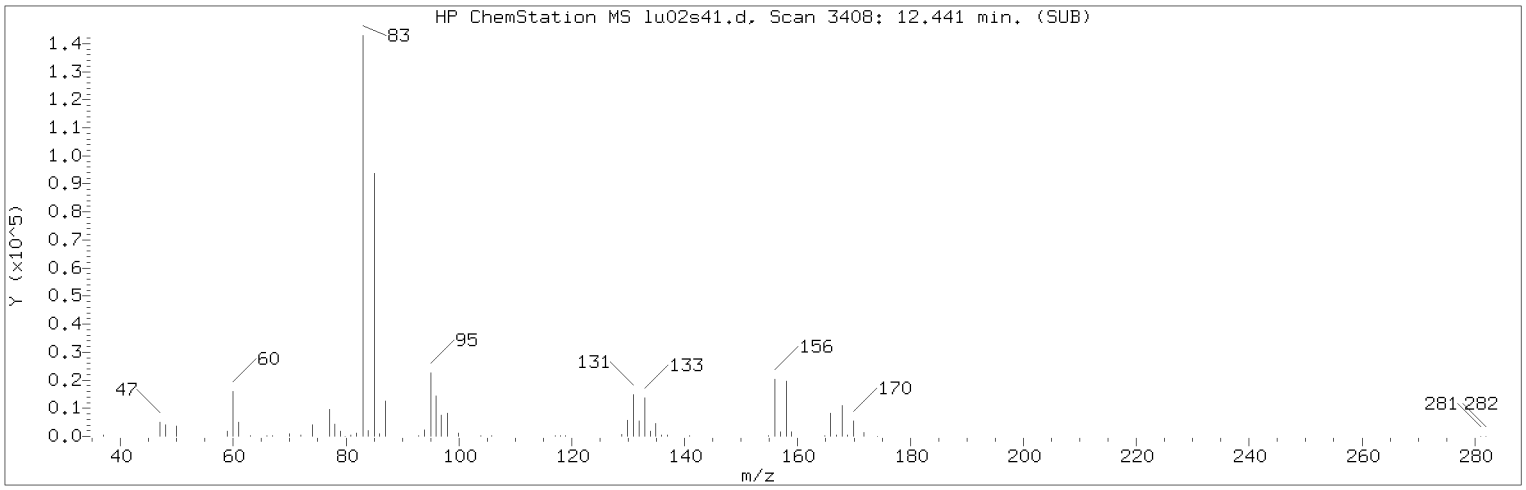
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:07 Automation

Sample Name: LCSL17 Lab Sample ID: LCSL17

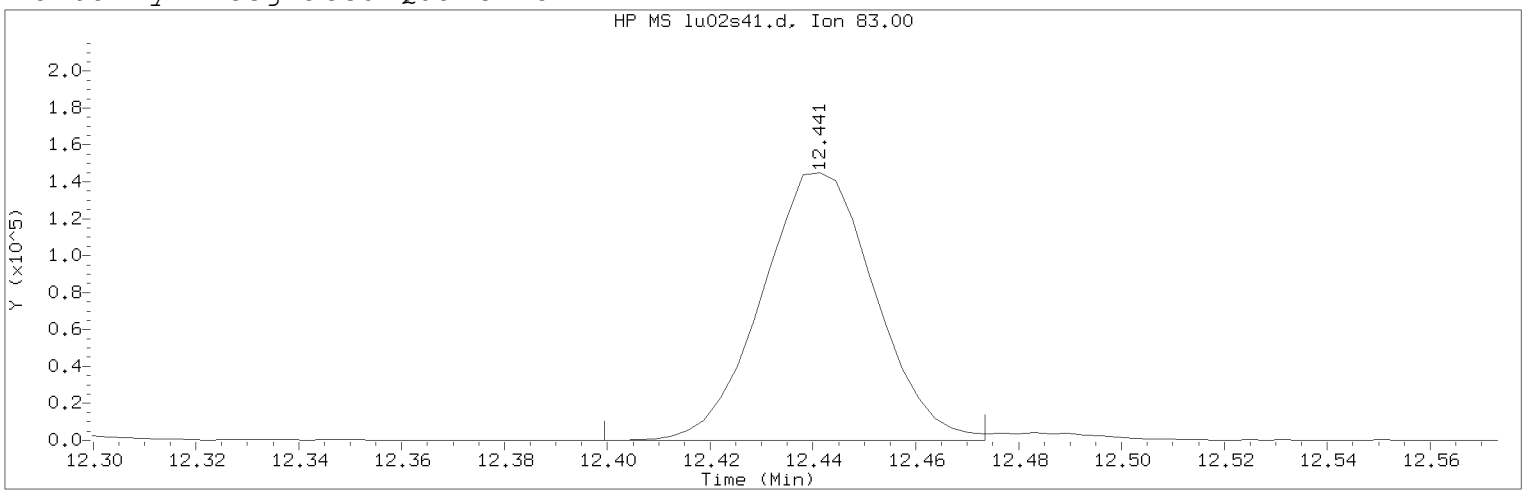
Compound Number : 5
Compound Name : 1,3-Butadiene
Scan Number : 290
Retention Time (minutes): 2.416
Quant Ion : 39.00
Area : 166907
On-column Amount (ng) : 30.6658
Integration start scan : 268 Integration stop scan: 296
Y at integration start : 4690 Y at integration end: 8240

Digitally signed by Sara E. Johnson on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

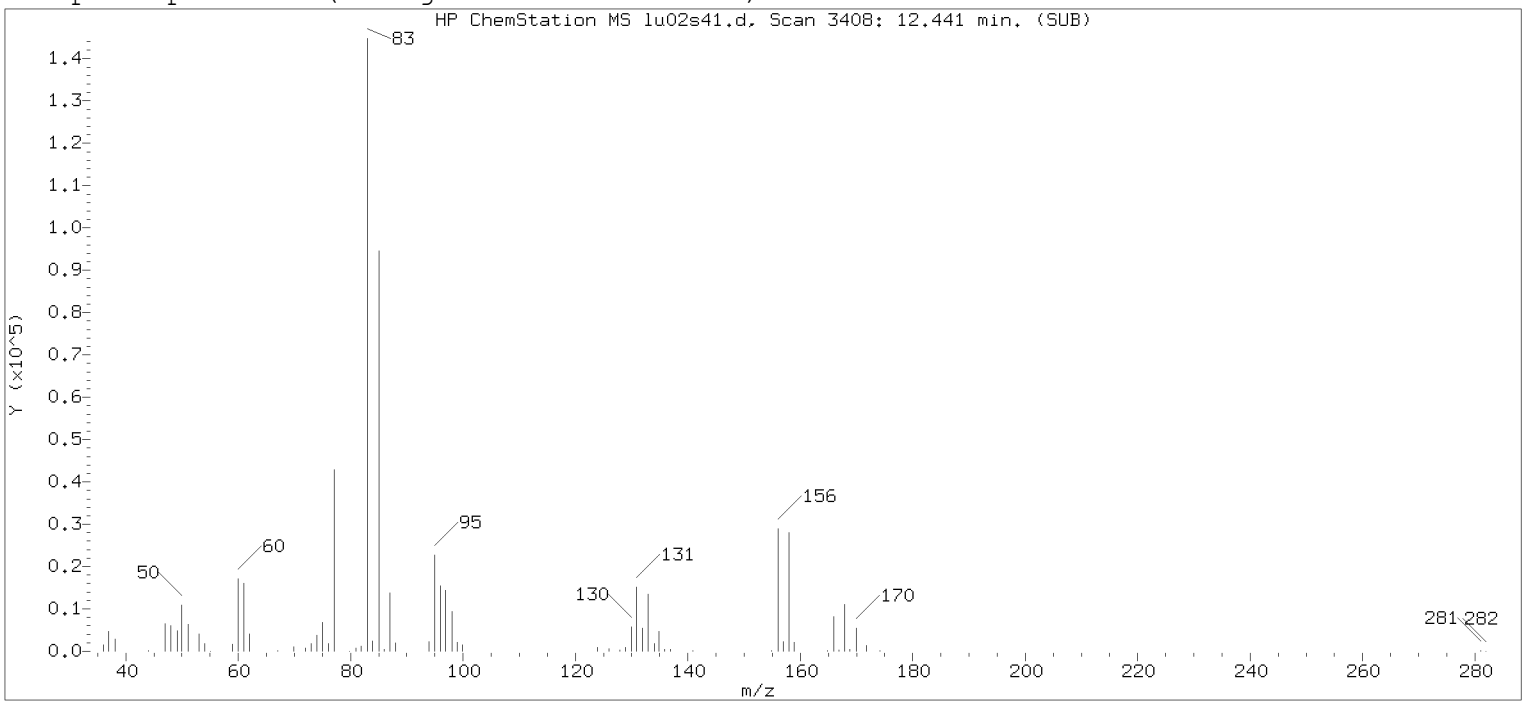
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area (flag) : 221673M
On-Column Amount (ng) : 20.9527
Integration start scan : 3394 Integration stop scan: 3417
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

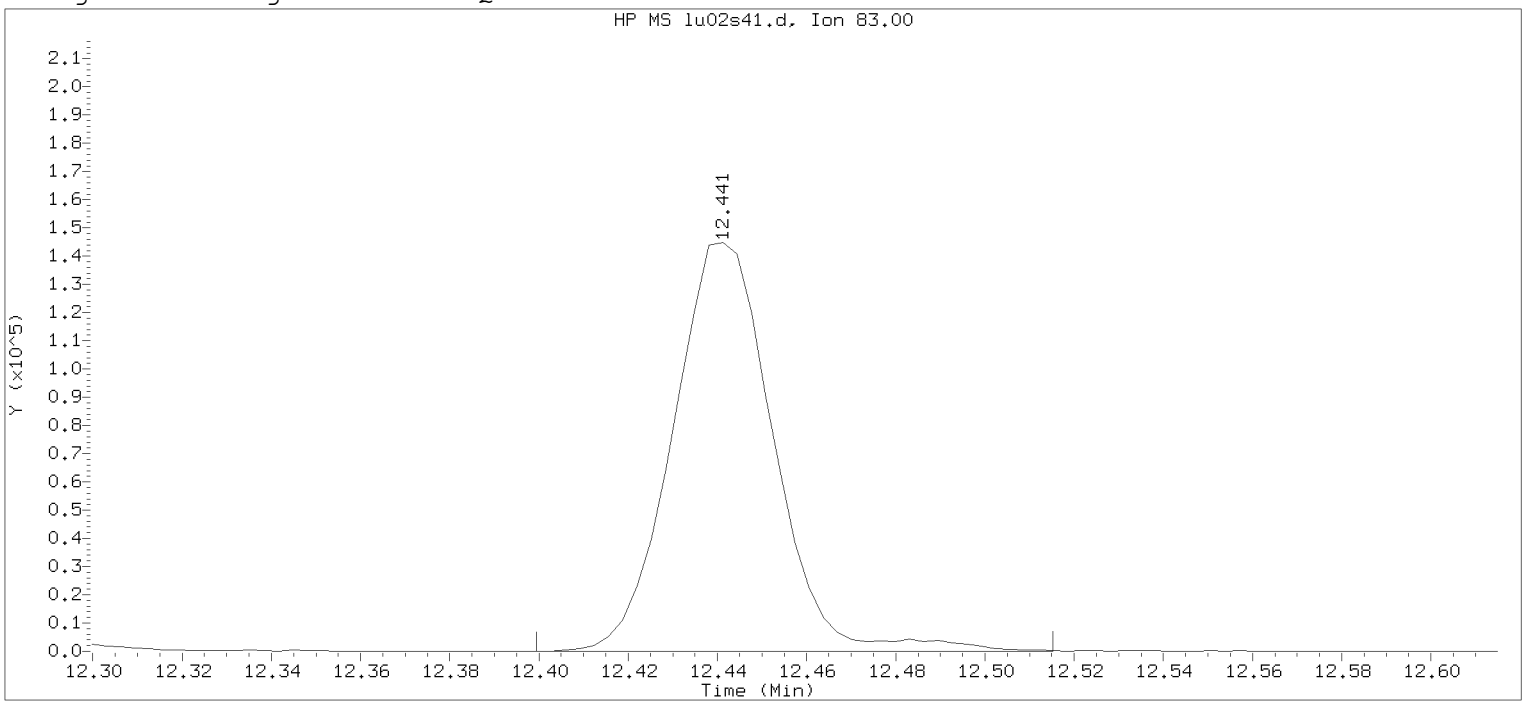
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

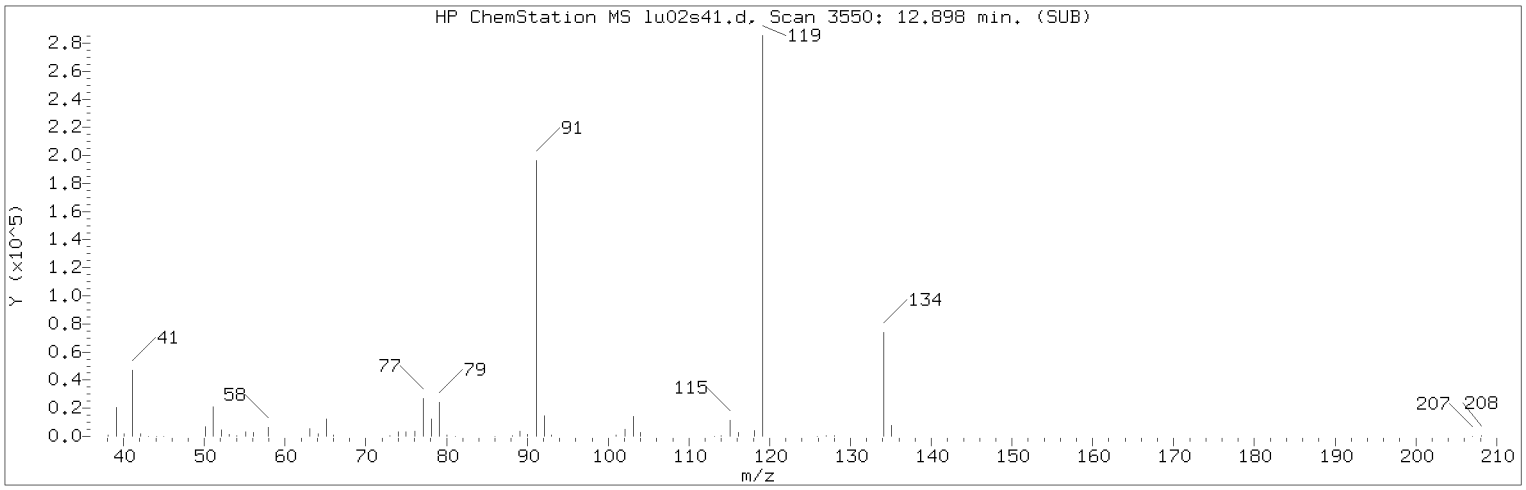
Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:07 Automation

Sample Name: LCSL17 Lab Sample ID: LCSL17

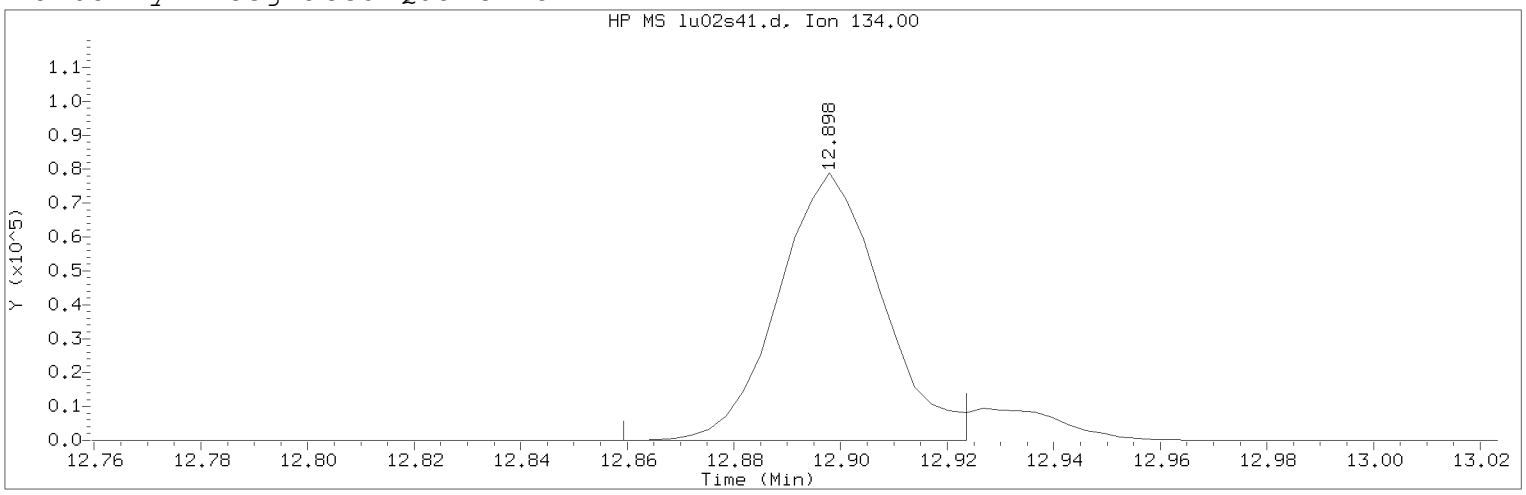
Compound Number : 116
Compound Name : 1,1,2,2-Tetrachloroethane
Scan Number : 3408
Retention Time (minutes): 12.441
Quant Ion : 83.00
Area : 227209
On-column Amount (ng) : 21.4759
Integration start scan : 3394 Integration stop scan: 3430
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Sample Spectrum (Background Subtracted)



Manually Integrated Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:09 sej02002

Sample Name: LCSL17 Lab Sample ID: LCSL17

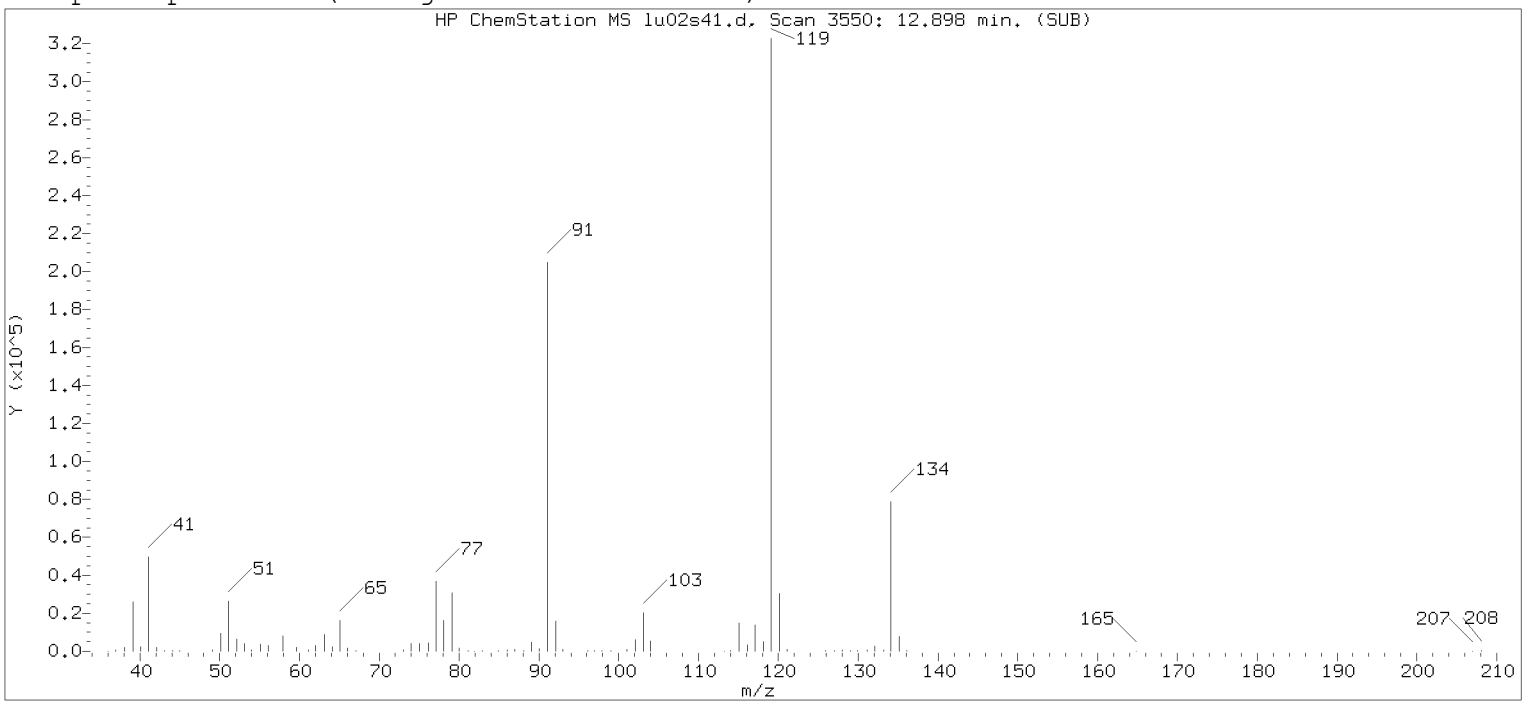
Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area (flag) : 106172M
On-Column Amount (ng) : 19.4757
Integration start scan : 3537 Integration stop scan: 3557
Y at integration start : 0 Y at integration end: 0

Reason for manual integration: improper integration

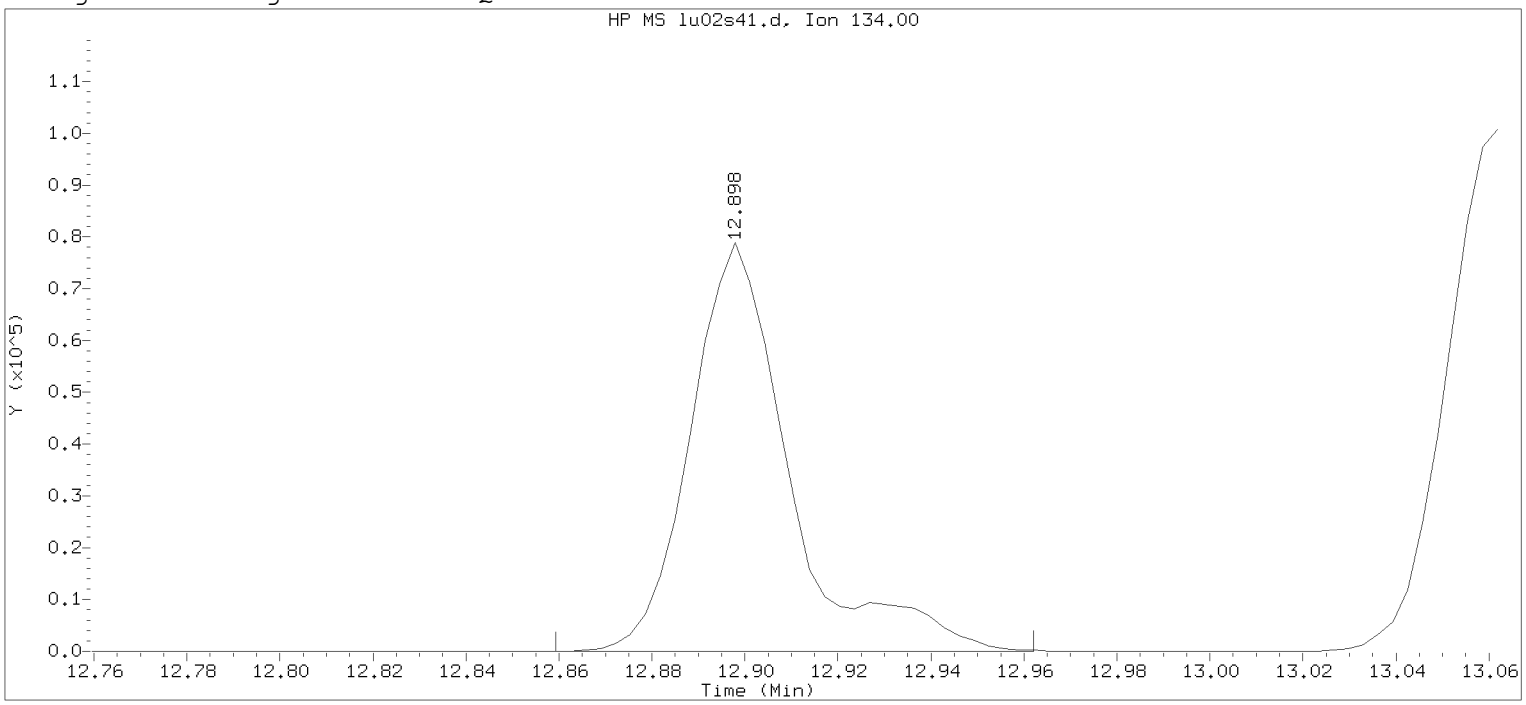
Analyst responsible for change: Digitally signed by Sara E. Johnson
on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Secondary review performed and digitally signed by Rachel Krueger on 06/03/2020 at 23:25.
PARALLAX ID: rek30744

Sample Spectrum (Background Subtracted)



Original Integration of Quant Ion



Data File: /chem/HP09915.i/20jun02b.b/lu02s41.d Instrument ID: HP09915.i
Injection date and time: 02-JUN-2020 21:49 Analyst ID: sej02002

Method used: /chem/HP09915.i/20jun02b.b/m8260c5.m Sublist used: 8260W-D
Calibration date and time: 02-JUN-2020 21:47
Date, time and analyst ID of latest file update: 02-Jun-2020 22:07 Automation

Sample Name: LCSL17 Lab Sample ID: LCSL17

Compound Number : 124
Compound Name : tert-Butylbenzene
Scan Number : 3550
Retention Time (minutes): 12.898
Quant Ion : 134.00
Area : 116508
On-column Amount (ng) : 21.3717
Integration start scan : 3537 Integration stop scan: 3569
Y at integration start : 0 Y at integration end: 0

Digitally signed by Sara E. Johnson on 06/02/2020 at 22:10.
Target 3.5 esignature user ID: sej02002

Appendix D: Laboratory Data Packages, Data Validation, and Data Usability Summary Reports – Fall 2020 Semi-Annual Monitoring

Data Usability Summary Report (DUSR)
NYSDEC ASP Category B

Client/Company:	VHB Engineering, Surveying, Landscape Architecture, & Geology, P.C., Albany, New York
Site/Project Name:	Former Dennison/Monarch Systems Site, New Windsor, New York Groundwater, Surface Water, and Sediment Pore Water Sampling November 2020
Laboratories:	Eurofins Lancaster Laboratories, Lancaster, Pennsylvania
SDGs/Lab Project #:	J20865, J21210, J21451, & J21939
Date(s) of Collection:	November 10, 2020 through November 18, 2020 & November 23, 2020
Samples & Analyses:	60 groundwater, 15 surface water, 8 pore water, 3 Equipment Blanks, and 4 Trip Blanks for 22 project-specific Volatile Organic Compounds (VOCs)
Senior Data Reviewers:	Nancy C. Rothman, Ph.D., New Environmental Horizons, Inc. Susan D. Chapnick, M.S., New Environmental Horizons, Inc.
Date Completed:	February 17, 2020

This Data Usability Summary Report (DUSR) is based on guidance developed by the New York State Department of Conservation (NYSDEC) for technical review of analytical data as defined in DER-10 "Technical Guidance for Site Investigation and Remediation" (May 2010 with updates through April 2019). The objective of the DUSR is to determine whether or not the data as presented meet NYSDEC ASP 2005 or EPA method QC acceptance criteria and site-specific criteria for data quality and use.

2 Farmers Circle, Arlington, Massachusetts 02474 781-643-4294 schapnick@neh-inc.com
34 Pheasant Run Drive, Skillman, New Jersey 08558 908-874-5686 nrothman@neh-inc.com

I. Required DUSR Questions

1. ***Is the data package complete as defined under the requirements for the most current NYSDEC ASP Category B or USEPA CLP deliverables?***

   Yes.

2. ***Have all holding times been met?***

   Yes.

3. ***Do all the QC data: blanks, instrument tunings, calibration standards, calibration verifications, surrogate recoveries, spike recoveries, replicate analyses, laboratory controls and sample data fall within the protocol required limits and specifications?***

   Yes. Some QC exceptions resulted in qualification of data as noted in the Data Validation Checklists (DV Checklists).

4. ***Have all of the data been generated using established and agreed upon analytical protocols?***

   Yes. Analytical data were generated using established EPA Methods (see analytical references in Section II below). Deviations from EPA and NYSDEC ASP 2005 QC protocols are discussed in the DV Checklists of this DUSR.

5. ***Does an evaluation of the raw data confirm the results provided in the data summary sheets and quality control verification forms?***

   Yes. The raw data were checked to verify that detected results met retention time and mass spectral criteria, where applicable, for qualitative identification. A spot check was performed to verify quantitative accuracy (calculation verification) for reporting of validated results (see the DV Checklists).

6. ***Have the correct data qualifiers been used and are they consistent with the most current NYSDEC ASP?***

   Yes. The laboratory used the correct data qualifiers in reporting of results. Data qualifiers were changed for some results during this review, as discussed in the DV Checklists and Table 2 of this DUSR.

7. ***Have any quality control (QC) exceedances been specifically noted in the DUSR and have the corresponding QC summary sheets from the data package been attached to the DUSR?***

   Yes. QC exceedances are specified in the DV Checklists. QC summary sheets from the data package have not been attached; however, all QC exceedances that required data qualification are summarized in Table 2 of the DUSR and flagged (qualified) in the validated electronic data deliverable (EDD).

II. Sample Descriptions and Analytical Parameters

The sample IDs, dates of sampling, identification of QC samples and the analytical parameters reviewed in this DUSR are listed below in Table 1. Any deviations noted for sample collection or receipt are documented in the DV Checklists.

Table 1. Sample Identification and Analytical Parameters Validated

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J01-UC01	410-20865-1	11/11/2020	GW	VOC	Field Sample [used for MS/MSD]
J01-UC02	410-20865-2	11/11/2020	GW	VOC	Field Sample
J04-BR02	410-20865-3	11/11/2020	GW	VOC	Field Sample
J05-BR02	410-20865-4	11/11/2020	GW	VOC	Field Sample
DUP-01	410-20865-5	11/11/2020	GW	VOC	Field Duplicate of J05-BR02
J13-BR02	410-20865-6	11/12/2020	GW	VOC	Field Sample
J13-BR01	410-20865-7	11/12/2020	GW	VOC	Field Sample
J13-UC03	410-20865-8	11/12/2020	GW	VOC	Field Sample
J13-UC02	410-20865-9	11/12/2020	GW	VOC	Field Sample
J08-UC02	410-20865-10	11/12/2020	GW	VOC	Field Sample
J12-BR02	410-20865-11	11/12/2020	GW	VOC	Field Sample
J21-UC02	410-20865-12	11/12/2020	GW	VOC	Field Sample
RS-05	410-20865-13	11/10/2020	SW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
RS-04	410-20865-14	11/10/2020	SW	VOC	Field Sample
RS-15	410-20865-15	11/10/2020	SW	VOC	Field Sample
RS-07	410-20865-16	11/10/2020	SW	VOC	Field Sample
RS-14	410-20865-17	11/10/2020	SW	VOC	Field Sample
RS-08	410-20865-18	11/10/2020	SW	VOC	Field Sample
J01-BR01	410-20865-19	11/10/2020	GW	VOC	Field Sample
J01-BR02	410-20865-20	11/10/2020	GW	VOC	Field Sample
J04-BR01	410-20865-21	11/11/2020	GW	VOC	Field Sample
J05-BR01	410-20865-22	11/11/2020	GW	VOC	Field Sample
J12-BR01	410-20865-23	11/12/2020	GW	VOC	Field Sample
PDB Blank	410-20865-24	11/10/2020	Water	VOC	Equipment Blank
RS-12A	410-20865-25	11/10/2020	SW	VOC	Field Sample
RS-01	410-20865-26	11/10/2020	SW	VOC	Field Sample
RS-09	410-20865-27	11/10/2020	SW	VOC	Field Sample
RS-10	410-20865-28	11/10/2020	SW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
RS-DUP	410-20865-29	11/10/2020	SW	VOC	Field Duplicate of RS-03
RS-03	410-20865-30	11/10/2020	SW	VOC	Field Sample [used for MS/MSD]
RS-13	410-20865-31	11/10/2020	SW	VOC	Field Sample
RS-02	410-20865-32	11/10/2020	SW	VOC	Field Sample
RS-11	410-20865-33	11/10/2020	SW	VOC	Field Sample
TB 111020	410-20865-34	11/10/2020	Water	VOC	Trip Blank
J16-UC01	410-21210-1	11/12/2020	GW	VOC	Field Sample
J21-UC01	410-21210-2	11/12/2020	GW	VOC	Field Sample
J16-UC02	410-21210-3	11/12/2020	GW	VOC	Field Sample
J14-UC01	410-21210-4	11/13/2020	GW	VOC	Field Sample
J14-BR01	410-21210-5	11/13/2020	GW	VOC	Field Sample [used for MS/MSD]
J14-UC02	410-21210-6	11/13/2020	GW	VOC	Field Sample
J14-BR02	410-21210-7	11/13/2020	GW	VOC	Field Sample
J17-UC01	410-21210-8	11/13/2020	GW	VOC	Field Sample
J17-BR01	410-21210-9	11/13/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
J17-UC02	410-21210-10	11/13/2020	GW	VOC	Field Sample
TB111320	410-21210-11	11/12/2020	Water	VOC	Trip Blank
J22-BR02	410-21210-12	11/15/2020	GW	VOC	Field Sample
J22-BR01	410-21210-13	11/15/2020	GW	VOC	Field Sample
J23-UC01	410-21210-14	11/15/2020	GW	VOC	Field Sample
J23-UC02	410-21210-15	11/15/2020	GW	VOC	Field Sample
J18-UC02	410-21210-16	11/16/2020	GW	VOC	Field Sample [used for MS/MSD]
J18-UC03	410-21210-17	11/16/2020	GW	VOC	Field Sample
J19-UC01	410-21210-18	11/16/2020	GW	VOC	Field Sample
J19-UC02	410-21210-19	11/16/2020	GW	VOC	Field Sample
J15-UC01	410-21210-20	11/16/2020	GW	VOC	Field Sample
J15-UC02	410-21210-21	11/16/2020	GW	VOC	Field Sample
J06-UC02	410-21210-22	11/16/2020	GW	VOC	Field Sample
MW-1S	410-21210-23	11/13/2020	GW	VOC	Field Sample
MW-1D	410-21210-24	11/13/2020	GW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
DUP-03	410-21210-25	11/13/2020	GW	VOC	Field Duplicate of MW-1S
J20-UC02	410-21210-26	11/14/2020	GW	VOC	Field Sample
J20-UC01	410-21210-27	11/14/2020	GW	VOC	Field Sample
J20-BR02	410-21210-28	11/14/2020	GW	VOC	Field Sample
J20-BR01	410-21210-29	11/14/2020	GW	VOC	Field Sample
J08-UC01	410-21210-30	11/14/2020	GW	VOC	Field Sample
J07-UC02	410-21210-31	11/14/2020	GW	VOC	Field Sample
RIZ-19	410-21210-32	11/15/2020	GW	VOC	Field Sample
EB111620	410-21210-33	11/16/2020	Water	VOC	Equipment Blank
J11-BR02	410-21451-1	11/17/2020	GW	VOC	Field Sample
J11-UC02	410-21451-2	11/17/2020	GW	VOC	Field Sample
J11-UC01	410-21451-3	11/17/2020	GW	VOC	Field Sample
J11-BR01	410-21451-4	11/17/2020	GW	VOC	Field Sample
MW-2	410-21451-5	11/17/2020	GW	VOC	Field Sample
Dup-02	410-21451-6	11/17/2020	GW	VOC	Field Duplicate of MW-2

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
MW-2I	410-21451-7	11/17/2020	GW	VOC	Field Sample
TB111720	410-21451-8	11/17/2020	Water	VOC	Trip Blank
J02-UC01	410-21451-9	11/18/2020	GW	VOC	Field Sample
J02-BR02	410-21451-10	11/18/2020	GW	VOC	Field Sample
J02-BR01	410-21451-11	11/18/2020	GW	VOC	Field Sample
RIZ-7	410-21451-12	11/18/2020	GW	VOC	Field Sample
J06-UC01	410-21451-13	11/18/2020	GW	VOC	Field Sample
EB111820	410-21451-14	11/18/2020	Water	VOC	Equipment Blank
Diff-07	410-21939-1	11/23/2020	PW	VOC	Field Sample
Diff-06	410-21939-2	11/23/2020	PW	VOC	Field Sample
Diff-05	410-21939-3	11/23/2020	PW	VOC	Field Sample
Diff-04	410-21939-4	11/23/2020	PW	VOC	Field Sample
Diff-03	410-21939-5	11/23/2020	PW	VOC	Field Sample
Diff-02	410-21939-6	11/23/2020	PW	VOC	Field Sample
Diff-01	410-21939-7	11/23/2020	PW	VOC	Field Sample

Table 1. Sample Identification and Analytical Parameters Validated - *continued*

Sample ID	Lab ID	Collection Date	Matrix	Analytical Parameters	Sample Type
Diff-Dup	410-21939-8	11/23/2020	PW	VOC	Field Duplicate of Diff-01
TB112320	410-21939-9	11/23/2020	Water	VOC	Trip Blank

GW = Groundwater
PW = Pore Water
SW = Surface Water

Analytical Method References:

VOC: EPA SW846 Method 8260C for 22 project-specific VOCs (acetone, benzene, 2-butanone, carbon disulfide, chloroform, 1,2-dichlorobenzene, 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, cis-1,2-dichloroethene, trans-1,2-dichloroethene, 1,4-dioxane, ethylbenzene, Freon 113, methylene chloride, naphthalene, tetrachloroethene, toluene, 1,1,1-trichloroethane, trichloroethene, xylenes (total), and vinyl chloride) identified in Table 3-2 of the *Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090* (SAP); prepared for Avery Dennison Corporation by The Johnson Company (currently VHB), November 2018.

III. Data Deficiencies, Analytical Protocol Deviations, and Quality Control Issues

The following QC elements, as applicable to the analytical methods, were reviewed during this DUSR:

- Data package completeness and reporting protocols
- Sample receipt, holding times, and preservation criteria
- Calibration criteria (instrument tuning, initial and continuing calibration verifications)
- Method and field blank results
- Laboratory Control Sample (LCS) recoveries
- Surrogate Recoveries
- Matrix Spike (MS) / Matrix Spike Duplicate (MSD) Recoveries
- MS/MSD, sample/Laboratory Duplicate (LD), or sample/Field Duplicate (FD) Relative Percent Differences (RPDs)
- Sample result reporting (including reporting limits and units)
- Other method-specific QC if applicable and reported (e.g., internal standard areas)
- Deficiencies or protocol deviations as noted in the Laboratory Narrative

During this review of the 22 project-specific VOCs, several results were estimated (J, J-, J+, or UJ) due to QC issues. Table 2 (attached) summarizes the actions taken during this review. NEH generated a validated electronic data deliverables (EDDs) based on the Eurofins Lancaster Laboratories EDDs received at NEH. All results were considered usable for project decisions, with the understanding of the potential uncertainty (bias) in the qualified results.

Sensitivity for all results was considered acceptable since the non-detect values were supported by the instrument initial calibrations. There were no Project Action Limits (PALs) identified in Table 3-2 of the SAP for the analysis of these 22 project-specific VOCs.

As required by the DUSR, the DV Checklists attached to this DUSR report, one for each SDG analyzed, document the QC reviewed and the issues that required action or affected the data certainty in terms of the project data quality objectives (DQO) of accuracy, precision, representativeness, comparability, and sensitivity. The DQO for completeness can be evaluated by VHB after all the data planned for this SAP have been collected.

DV Qualifiers:

U = analyte is non-detect at the sample-specific Quantitation Limit (usable)
UJ = non-detect is usable as an estimated value
J = result is usable as an estimated value with indeterminate bias
J+ = result is usable as an estimated value with possible high bias
J- = result is usable as an estimated value with possible low bias
JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias
R = result is rejected due to severe QC exceedance and unusable for project objectives

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY
November 2020 Sampling

Lab SDG	Field Sample ID	Lab Sample ID	Analytical Method	Analyte	DV Qualifer	DV Comment
J20865	J01-UC01-20201111	410-20865-1	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	J01-UC01-20201111	410-20865-1	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	J01-UC01-20201111	410-20865-1	SW8260C	TETRACHLOROETHYLENE(PCE)	J+	Bias High: High MS/MSD recoveries
J20865	J05-BR02-20201111	410-20865-4	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	J05-BR02-20201111	410-20865-4	SW8260C	VINYL CHLORIDE	J	Bias Indeterminate: Result < QL
J20865	DUP-01-20201111	410-20865-5	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	DUP-01-20201111	410-20865-5	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	DUP-01-20201111	410-20865-5	SW8260C	VINYL CHLORIDE	J	Bias Indeterminate: Result < QL
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,1,1-TRICHLOROETHANE	J-	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,1-DICHLOROETHANE	J-	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Headspace issue + Result < QL
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,2-DICHLOROBENZENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,2-DICHLOROETHANE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	1,4-DIOXANE (P-DIOXANE)	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	ACETONE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	BENZENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	CARBON DISULFIDE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	CHLOROFORM	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	Cis-1,2-Dichloroethylene	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	ETHYLBENZENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	METHYLENE CHLORIDE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	NAPHTHALENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	TETRACHLOROETHYLENE(PCE)	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	TOLUENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	TRANS-1,2-DICHLOROETHENE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	TRICHLOROETHYLENE (TCE)	J-	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	VINYL CHLORIDE	UJ	Bias Low: Headspace issue
J20865	J13-UC03-20201112	410-20865-8	SW8260C	Xylenes	UJ	Bias Low: Headspace issue
J20865	J13-UC02-20201112	410-20865-9	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-05-20201110	410-20865-13	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-05-20201110	410-20865-13	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	RS-05-20201110	410-20865-13	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-04-20201110	410-20865-14	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-04-20201110	410-20865-14	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	RS-04-20201110	410-20865-14	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-04-20201110	410-20865-14	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL
J20865	RS-04-20201110	410-20865-14	SW8260C	TETRACHLOROETHYLENE(PCE)	J	Bias Indeterminate: Result < QL
J20865	RS-15-20201110	410-20865-15	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-07-20201110	410-20865-16	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-07-20201110	410-20865-16	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-07-20201110	410-20865-16	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY
November 2020 Sampling

Lab SDG	Field Sample ID	Lab Sample ID	Analytical Method	Analyte	DV Qualifer	DV Comment
J20865	RS-07-20201110	410-20865-16	SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	J	Bias Indeterminate: Result < QL
J20865	RS-07-20201110	410-20865-16	SW8260C	TOLUENE	J	Bias Indeterminate: Result < QL
J20865	RS-07-20201110	410-20865-16	SW8260C	VINYL CHLORIDE	J	Bias Indeterminate: Result < QL
J20865	RS-14-20201110	410-20865-17	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-08-20201110	410-20865-18	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	J05-BR01-20201111	410-20865-22	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J20865	PDB Blank-20201110	410-20865-24	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-12A-20201110	410-20865-25	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-12A-20201110	410-20865-25	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J20865	RS-01-20201110	410-20865-26	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-01-20201110	410-20865-26	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J20865	RS-09-20201110	410-20865-27	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-09-20201110	410-20865-27	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-09-20201110	410-20865-27	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J20865	RS-10-20201110	410-20865-28	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-DUP-20201110	410-20865-29	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-DUP-20201110	410-20865-29	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	RS-DUP-20201110	410-20865-29	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-03-20201110	410-20865-30	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-03-20201110	410-20865-30	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	RS-03-20201110	410-20865-30	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-03-20201110	410-20865-30	SW8260C	TETRACHLOROETHYLENE(PCE)	J+	Bias High: High MS/MSD recoveries
J20865	RS-03-20201110	410-20865-30	SW8260C	VINYL CHLORIDE	UJ	Bias Indeterminate: MS/MSD imprecision
J20865	RS-13-20201110	410-20865-31	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J20865	RS-13-20201110	410-20865-31	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J20865	RS-13-20201110	410-20865-31	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-02-20201110	410-20865-32	SW8260C	ACETONE	J	Bias Indeterminate: Result < QL
J20865	RS-02-20201110	410-20865-32	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J20865	RS-11-20201110	410-20865-33	SW8260C	METHYL ETHYL KETONE (2-BUTANONE)	J	Bias Indeterminate: Result < QL
J21210	J16-UC01-20201112	410-21210-1	SW8260C	CHLOROFORM	J	Bias Indeterminate: Result < QL
J21210	J16-UC01-20201112	410-21210-1	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL
J21210	J21-UC01-20201112	410-21210-2	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21210	J16-UC02-20201112	410-21210-3	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21210	J16-UC02-20201112	410-21210-3	SW8260C	CHLOROFORM	J	Bias Indeterminate: Result < QL
J21210	J14-BR01-20201113	410-21210-5	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	J14-BR01-20201113	410-21210-5	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21210	J23-UC01-20201115	410-21210-14	SW8260C	TETRACHLOROETHYLENE(PCE)	J	Bias Indeterminate: Result < QL
J21210	J23-UC02-20201115	410-21210-15	SW8260C	1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE	J	Bias Indeterminate: Result < QL
J21210	J23-UC02-20201115	410-21210-15	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL
J21210	J18-UC02-20201116	410-21210-16	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	J18-UC02-20201116	410-21210-16	SW8260C	CHLOROFORM	J	Bias Indeterminate: Result < QL
J21210	J19-UC01-20201116	410-21210-18	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	J19-UC02-20201116	410-21210-19	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL

Table 2. Summary of Data Validation Actions
VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY
November 2020 Sampling

Lab SDG	Field Sample ID	Lab Sample ID	Analytical Method	Analyte	DV Qualifer	DV Comment
J21210	J19-UC02-20201116	410-21210-19	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	MW-1S-20201113	410-21210-23	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21210	MW-1D-20201113	410-21210-24	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	MW-1D-20201113	410-21210-24	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	DUP-03-20201113	410-21210-25	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21210	J20-UC02-20201114	410-21210-26	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21210	J20-UC02-20201114	410-21210-26	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL
J21210	J20-UC02-20201114	410-21210-26	SW8260C	TRANS-1,2-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21210	J20-UC02-20201114	410-21210-26	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21210	J20-UC01-20201114	410-21210-27	SW8260C	Cis-1,2-Dichloroethylene	J	Bias Indeterminate: Result < QL
J21210	J08-UC01-20201114	410-21210-30	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21210	RIZ-19-20201115	410-21210-32	SW8260C	TETRACHLOROETHYLENE(PCE)	J	Bias Indeterminate: Result < QL
J21210	RIZ-19-20201115	410-21210-32	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21451	MW-2I-20201117	410-21451-7	SW8260C	1,1,1-TRICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21451	MW-2I-20201117	410-21451-7	SW8260C	TRANS-1,2-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21451	J02-UC01-20201118	410-21451-9	SW8260C	TETRACHLOROETHYLENE(PCE)	J	Bias Indeterminate: Result < QL
J21451	J06-UC01-20201118	410-21451-13	SW8260C	TRICHLOROETHYLENE (TCE)	J	Bias Indeterminate: Result < QL
J21939	Diff-06-20201123	410-21939-2	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21939	Diff-06-20201123	410-21939-2	SW8260C	CHLOROFORM	J	Bias Indeterminate: Result < QL
J21939	Diff-05-20201123	410-21939-3	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21939	Diff-05-20201123	410-21939-3	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21939	Diff-04-20201123	410-21939-4	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL
J21939	Diff-03-20201123	410-21939-5	SW8260C	1,1-DICHLOROETHANE	J	Bias Indeterminate: Result < QL
J21939	Diff-02-20201123	410-21939-6	SW8260C	1,1-DICHLOROETHENE	J	Bias Indeterminate: Result < QL

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 11/10/2020-11/12/2020 & 11/18/2020-11/20/2020 No. Samples 30 + 2FD + 1EB + 1TB

Method of Analysis: 8260C Matrix: Groundwater & Surface Water

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes		√	√		√	√	√	√	NA	√
No	Estimate (J, J-, or UJ) all results for 1 sample			Estimate (J+ or UJ) 3 results and change 1 "UT" to "U"						None

Comments: ***Qualifier Action:*** 48 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes. The report was revised twice to correct sample IDs that were incorrectly reported because the handwritten COCs was unclear (e.g., corrected "VC" to "UC" and "R5" to "RS"). The sample IDs reported in the EDD are the IDs as they appear on the COC appended with the sample collection date (e.g., RS-05 reported in EDD as RS-05-20201110). NOTE: some of the forms (e.g. prep logs) still contain the sample IDs that were reported in the original data package.

Sample Receiving: Samples were received intact on 11/13/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no COC issues noted.

Date: ***2/12/2021***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: MB 410-67415/7, MB 410-68196/6, & MB 410-68468/7

Trip Blank: TB 111020; EB: EB111620 (reported in SDG J21210) & EB111820 (reported in SDG J21451)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
MB 410-67415/7	None	-	-	No Blank Action required	
MB 410-68196/6	None	-	-	No Blank Action required	
MB 410-68468/7	None	-	-	No Blank Action required	
TB 111020	None	-	-	No Blank Action required	
EB111620	None	-	-	No Blank Action required	
EB111820	None	-	-	No Blank Action required	

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples RS-05, RS-04, RS-15, RS-07, RS-14, RS-08, J01-BR01, J01-BR02, PDB Blank, RS-12A, RS-01, RS-09, RS-10, RS-DUP, RS-03, RS-03MS, RS-03MSD, RS-13, RS-02, RS-11, and TB 1111020 were analyzed on 11/18/2020 in QC Batch 410-67415; samples J01-UC01, J01-UC02, J04-BR02, J05-BR02, DUP-01, J13-BR02, J13-BR01, J13-UC03, J13-UC02, J08-UC02, J12-BR02, and J21-UC02 were analyzed on 11/19/2020 through 11/20/2020 in QC Batch 410-68196; and samples J04-BR01, J05-BR01, and J12-BR01 were analyzed on 11/20/2020 in QC Batch 410-68468. The narrative and sample prep log indicate sample J13-UC03 (410-20865-8) was received with headspace and analyzed with the headspace. Since headspace may cause loss of VOCs prior to analysis, the results for this sample may be biased low. All samples were analyzed within HT.

****ACTION: All 22 results for sample J13-UC03 estimated (UJ or J-) with possible low bias, unless other issues affect the data, due to headspace in the sample.(Note one low bias (J-) result changed to indeterminate bias (J) due to cumulative bias)***

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS 410-67415/5, LCS 410-68196/4 and LCSD 410-68196/56, & LCS 410-68468/5 - no LCSD performed for 2 of the QC Batches. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS & LCSD %Rec and LCS/LCSD RPDs were within lab criteria. Therefore, the lab demonstrated acceptable accuracy and precision for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

MS/MSD: two sets of MS/MSD performed: one set on J01-UC01 and on RS-03 as requested on the COC. The MS&MSD %Rec and MS/MSD RPDs were within criteria except:

- For J01-UC01 - Tetrachloroethene and vinyl chloride MS & MSD %Rec high
- For RS-03 - Tetrachloroethene MS & MSD %Rec high and vinyl chloride MS/MSD RPD high.

No action for high %Rec for vinyl chloride since this compound was non-detect in the unspiked sample.

****ACTION: Tetrachloroethene estimated (J+) in samples J01-UC01 and RS-03 with possible high bias, unless other issues affect the data, due to high MS/MSD recoveries and vinyl chloride estimated (UJ) in sample RS-03 with indeterminate bias due to MS/MSD imprecision. The lab qualified tetrachloroethene and vinyl chloride with a "T" or "UT", respectively, in these samples to indicate the issues with the MS/MSD analyses. These "T" and "UT" results were changed to "J+" or "UJ" except for vinyl chloride in J01-UC01 that didn't require action so the "T" was removed for association with the validator_qualifer (i.e., for vinyl chloride in J01-UC01, "UT" changed to "U").***

Tunes: Instrument 26285 9/9/2020 (ICAL), 11/18/2020, 11/19/2020 & 11/20/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICAL: Instrument 26285 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for Acetone, which was from 2 to 600 µg/L, and 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds. Valid ICAL - No Action required.

CCVs: Instrument 26285 11/18/2020, 11/19/2020 & 11/20/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except: 1,4-dioxane %D > 20% in the 11/19/2020 and 11/20/2020 CCVs due to increased sensitivity on the days of the CCV as compared to the sensitivity during the ICAL for this compound. Since 1,4-dioxane is non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no secondary dilution analyses required.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 48 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.

****ACTION: 48 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample J13-UC02 (lab sample ID 410-20865-9)

Response of Cpd = 605155; Response of IS (Fluorobenzene) = 1096388@ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.3042

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{605155 \times 50 \times 1}{1096388 \times 0.3042} = 90.7 = 91\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pairs were J05-BR02 / DUP-01 and RS-03 / RS-DUP. A comparison of detected results in each FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = J05-BR02 FD = DUP-01

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1,1-Trichloroethane	1	1	U	QL	0.51	J	< 2 x QL	NC	None
1,1-Dichloroethane	1	1.2		< 2 x QL	1.3		< 2 x QL	8.0%	None
1,1-Dichloroethene	1	0.26	J	< 2 x QL	0.26	J	< 2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	2.2		> 2 x QL	1.9		< 2 x QL	14.6%	None
Trichloroethene	1	5.4		> 2 x QL	5.9		> 2 x QL	8.8%	None
Vinyl Chloride	1	0.73	J	< 2 x QL	0.65	J	< 2 x QL	11.6%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

Field Duplicate Evaluation_ Sample IDs: Sample = RS-03 FD = RS-DUP

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1,1-Trichloroethane	1	2.6		>2 x QL	2.6		>2 x QL	0.0%	None
1,1-Dichloroethane	1	0.8	J	< 2 x QL	0.83	J	< 2 x QL	3.7%	None
1,1-Dichloroethene	1	0.2	J	< 2 x QL	0.25	J	< 2 x QL	22.2%	None
Acetone	20	3.1	J	< 2 x QL	2.6	J	< 2 x QL	17.5%	None
cis-1,2-Dichloroethene	1	1	U	QL	1.4		< 2 x QL	NC	None
Tetrachloroethene	1	1.3	J+	< 2 x QL	1.3		< 2 x QL	0.0%	None
Trichloroethene	1	11		> 2 x QL	11		> 2 x QL	0.0%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in both FD pairs J05-BR02 / DUP-01 and RS-03 / RS-DUP. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site locations - No Action required.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 11/12/2020 - 11/16/2020
Method of Analysis: 8260C

No. Samples: 30 + 1FD + 1EB + 1TB
Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	√	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 27 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes. The sample IDs reported in the EDD are the IDs as they appear on the COC appended with the sample collection date.

Sample Receiving: Samples were received intact on 11/17/2020 at < 6 °C. These are grab samples that were preserved with HCl. There was one discrepancy between the COC and Sample Labels: J21-UC01 COC time of collection was 12:02 while the vial labels listed time of collection as 12:40. The client was contacted and the lab was told to use the COC time of collection for reporting of results. There were no other sample receiving and COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples J14-BR01, J14-BR02, J14-UC01, J14-UC02, J16-UC01, J16-UC02, J17-BR01, J17-UC01, J17-UC02, J21-UC01, MW-1S, and TB111320 were analyzed on 11/20/2020 in QC Batch 410-68475; samples J06-UC02, J15-UC01, J15-UC02, J18-UC03, J19-UC01, and J19-UC02 were analyzed on 11/21/2020 in QC Batch 410-68801; samples DUP-03, J07-UC02, J08-UC01, J20-BR01, J20-BR02, J20-UC01, J20-UC02, J22-BR01, J22-BR02, J23-UC01, J23-UC02, MW-1D, and RIZ-19 were analyzed on 11/21/2020 in QC Batch 410-68925; and samples EB111620, J18-UC02, and J23-UC02 and the MS/MSD performed on sample J18-UC02 were analyzed on 11/23/2020 in QC Batch 410-69288. All samples were analyzed within HT - No Action required.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: MB 410-68475/7, MB 410-68801/6,MB 410-68925/9, & MB 410-69288/9

Trip Blank: TB111320; EB: EB111620 (reported in this SDG) & EB111820 (reported in SDG J21451)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
MB 410-68475/7	None	-	-	No Blank Action required	
MB 410-68801/6	None	-	-	No Blank Action required	
MB 410-68925/9	None	-	-	No Blank Action required	
MB 410-69288/9	None	-	-	No Blank Action required	
TB111320	None	-	-	No Blank Action required	
EB111620	None	-	-	No Blank Action required	
EB111820	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS 410-68475/5, LCS 410-68801/4, LCS 410-68925/6, and LCS 410-69288/6 - no LCSD performed for these QC Batches. The lab spiked all 22 project-specific VOCs into LCS as compared to NYSDEC ASP 2005 requirement of a subset of compounds. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: two sets of MS/MSD performed on sample J14-BR01 and J18-UC02, as requested on the COC. The MS & MSD %Rec and MS/MSD RPDs were within criteria for both sets of MS/MSD indicating acceptable accuracy and precision for the method of analysis of the 22 VOCs from the site matrices. No Action required.

Tunes: Instrument 9355 11/2/2020 (ICAL), 11/20/2020, second one on 11/20/2020, 11/21/2020, and 11/23/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

ICAL: Instrument 9355 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for Acetone, which was analyzed from 2 to 600 µg/L and 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds. Valid ICAL - No Action required.

CCVs: Instrument 9355 11/20/2020, second one on 11/20/2020, 11/21/2020, and 11/23/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs except: 1,4-dioxane %D > 20%second CCV on 11/20/2020 and on 11/21/2020 CCVs due to increased sensitivity to detection of 1,4-Dioxane on the days of the CCVs as compared to the sensitivity during the ICAL. Since 1,4-dioxane is non-detect in the associated samples, no action for high calibration verification. No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) except for sample J23-UC02, which was reanalyzed at DF=10 to report all the detects within the instrument calibration range.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 27 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 27 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample J23-UC02 (lab sample ID 410-21210-15)

Response of Cpd = 326906; Response of IS (Fluorobenzene) = 1055803 @ 50; 5-mL purge, DF = 10; RRF from ICAL = 0.3118

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 10 x 5/5 = 10 µg/L √

$$\text{Trichloroethene Conc.} = \frac{326906 \times 50 \times 10}{1055803 \times 0.3118} = 497 = 500\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pair was MW-1S / DUP-03. A comparison of detected results in each FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = MW-1S FD = DUP-03

Analyte Name	DF= 1 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
Trichloroethene	1	0.82	J	< 2 x QL	0.88	J	< 2 x QL	7.1%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in the FD pair MW-1S / DUP-03. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site locations - No Action required.

Date: ***2/12/2021***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***2/12/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 11/17/2020 - 11/18/2020
Method of Analysis: 8260C

No. Samples: 11 + 1FD + 1EB + 1TB
Matrix: Groundwater

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	NA	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 4 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes. The sample IDs reported in the EDD are the IDs as they appear on the COC appended with the sample collection date.

Sample Receiving: Samples were received intact on 11/19/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no sample receiving and COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples Dup-02, J02-BR02, J02-UC01, J11-BR01, J11-BR02, J11-UC01, J11-UC02, MW-2, MW-2I, and TB111720 were analyzed on 11/28/2020 in QC Batch 410-70709; samples EB111820, J02-BR01, J06-UC01, and RIZ-7 were analyzed on 11/30/2020 in QC Batch 410-70864; and samples DUP-02DL and MW-2DL were analyzed on 12/1/2020 in QC Batch 410-68925. All samples were analyzed within HT - No Action required.

Date: ***2/13/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: MB 410-70709/7, MB 410-70864/7, & MB 410-71112/6

Trip Blank: TB111720; EB: EB111620 (reported in SDG J21210) & EB111820 (reported in SDG J21451)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
MB 410-70709/7	None	-	-	No Blank Action required	
MB 410-70864/7	None	-	-	No Blank Action required	
MB 410-71112/6	None	-	-	No Blank Action required	
TB111720	None	-	-	No Blank Action required	
EB111620	None	-	-	No Blank Action required	
EB111820	None	-	-	No Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS 410-70709/4 & LCSD 410-70709/5, LCS 410-70864/4 & LCSD 410-70864/5, and LCS 410-71112/4- no LCSD performed for 1 QC Batch. The lab spiked all 22 project-specific VOCs except for LCS 410-71112/4, which was only had Trichloroethene reported since this LCS is associated with DF > 1 for DUP-02 and MW-2. All LCS & LCSD %Rec and LCS/LCSD RPDs were within lab criteria. Therefore, the lab demonstrated acceptable accuracy and precision for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: there were no MS/MSD associated with the samples in this SDG and none were requested on the COC

Tunes: Instrument 23297 9/1/2020 (ICAL), 11/28/2020, 11/30/2020, and a second tune 11/30/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

ICAL: Instrument 23297 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for Acetone, which was analyzed from 2 to 600 µg/L and 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds. Valid ICAL - No Action required.

CCVs: Instrument 23297 11/28/2020, 11/30/2020, and a second CCV 11/30/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs; therefore, valid calibration verifications - No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) except for sample DUP-02 and MW-02, which were reanalyzed at DF=10 to report Trichloroethene within the instrument calibration range.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 4 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 4 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample MW-2 (lab sample ID 410-21451-5)

Response of Cpd = 171935; Response of IS (Fluorobenzene) = 1270056 @ 50; 5-mL purge, DF = 10; RRF from ICAL = 0.2339

Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 10 x 5/5 = 10 µg/L √

$$\text{Trichloroethene Conc.} = \frac{171935 \times 50 \times 10}{1270056 \times 0.2339} = 289 = 290\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

FD evaluation: FD pair was MW-2 / DUP-02. A comparison of detected results in each FD pair is shown below

Field Duplicate Evaluation_ Sample IDs: Sample = MW-2 FD = DUP-02

Analyte Name	DF= 1 & 10 QL (µg/L)	Sample µg/L	Q	Sample Result Level	FD µg/L	Q	FD Result Level	RPD	Action *
1,1,1-Trichloroethane	1	40		> 2 x QL	40		> 2 x QL	0.0%	None
1,1-Dichloroethane	1	1.2		< 2 x QL	1.3		< 2 x QL	8.0%	None
1,1-Dichloroethene	1	5		>2 x QL	5		>2 x QL	0.0%	None
cis-1,2-Dichloroethene	1	15		>2 x QL	16		>2 x QL	6.5%	None
Tetrachloroethene	1	2.5		>2 x QL	2.5		>2 x QL	0.0%	None
Trichloroethene	10	290		>2 x QL	300		>2 x QL	3.4%	None

Q = Validation Qualifier; NC = Not Calculated

*Action only taken for RPD > 30% if one or both results are > 2 x QL

FD precision was acceptable for all VOCs in the FD pair MW-2 / DUP-02. These results indicate acceptable precision from sample collection through analysis for all 22 VOCs from the site locations - No Action required.

Date: ***2/13/2021***

Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***2/13/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

VHB: Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, NY

Date Sampled: 11/23/2020
Method of Analysis: 8260C

No. Samples: 7 + 1FD + 1TB
Matrix: Pore Water

Data Element Acceptable	Preservation & HT	Surrogates	LCS / Blank Spike	MS/MSD	FD	Tunes ICALs CCALs	IS'	QL & Quant. Correct	%Solids	Blank Action
Yes	√	√	√	NA	√	√	√	√	NA	√
No										None

Comments: ***Qualifier Action:*** 7 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL

The data package consisted of a NYDEC Category B deliverable.

Data Package Completeness:

1. Were all required forms (results, summary QC, COC), as required to validate the data in accordance with NYSDEC ASP 2005 and DUSR requirements present in the data package? *Yes.*

2. Were all result forms for all samples listed on the chain-of-custody present in data package? Yes. Samples were reported on summary forms using the laboratory IDs (ELLE#) and Lab Sample Code. A Sample Reference List in the data package cross references the COC Client ID to the ELLE Lab Sample Number and Lab Sample Codes. The sample IDs reported in the EDD are the IDs as they appear on the COC appended with the sample collection date.

Sample Receiving: Samples were received intact on 11/24/2020 at < 6 °C. These are grab samples that were preserved with HCl. There were no sample receiving and COC issues noted.

Holding Time: The samples were verified to be at pH < 2 at the time of analysis. Samples were all analyzed on 12/4/2020 in QC Batch 410-73048. All samples were analyzed within HT - No Action required.

Date: ***2/13/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

Blank Action: Blanks Reviewed: Method Blank: MB 410-73048/7

Trip Blank: TB112320; EB: PDB Blank (reported in SDG J20865)

Blank ID	Contaminant / Level	Matrix Related?	Action Level / Action	Sample and Reported Result	Corrected Result
MB 410-73048/7	None	-	-	No Blank Action required	
TB112320	None	-	-	No Blank Action required	
PDB Blank	Acetone 1.1 J µg/L	Y	20 µg/L	All Pore Water samples are non-detect for Acetone so no Field Blank Action required	

Surrogates: The lab used surrogate dibromofluoromethane and 1,2-dichloroethane-d4 in addition to toluene-d8 and 4-bromofluorobenzene, which are in ASP2005. Since SW-846 method used for analysis allows use of alternate surrogates, no action required. All surrogates are within NYSDEC ASP2005 or lab criteria (80-120%) - no action required.

LCS /LCSD: LCS 410-73048/5- no LCSD performed. The lab spiked all 22 project-specific VOCs. All LCS %Rec were within lab criteria. Therefore, the lab demonstrated acceptable accuracy for the analysis of the 22 project-specific VOCs in the absence of the site matrix. No Action required.

MS/MSD: there were no MS/MSD associated with the samples in this SDG and none were requested on the COC

FD evaluation: FD pair was Diff-01 / Diff-DUP. Both samples were non-detect for all 22 project-specific VOCs; therefore, while these results are consistent with each other, it is not possible to measure FD precision quantitatively. FD precision considered acceptable. No Action required.

Tunes: Instrument 7159 11/9/2020 (ICAL) & 12/4/2020. Verified that Method 8260C criteria used for Tune acceptance. All Abundances were acceptable and all samples were analyzed within 12 hours of tune. Average of scans across peak with background correction used to generate tunes - acceptable. No action required.

Date: ***2/13/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

ICAL: Instrument 7159 7-level ICAL from 1 to 300 µg/L for 22 project-specific VOCs except for Acetone, which was analyzed from 2 to 600 µg/L and 1,4-Dioxane, which was analyzed from 50 to 3000 µg/L plus many non-project required VOCs. Min. RRF given Tale 4 Method 8260C were achieved for all compounds in the ICALs and %RSD < 20%. ICV for each instrument analyzed at the end of the initial calibration reported %D < 20% for all 22 target compounds. Valid ICAL - No Action required.

CCV: Instrument 7159 12/4/2020. CCV min. RRF and maximum %D achieved for all target compounds in CCVs; therefore, valid calibration verifications - No Action required.

Internal Standards (IS): lab used four IS (t-butyl alcohol-d10, fluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) as compared to three IS' required by NYSDEC ASP2005 (1,4-difluorobenzene, chlorobenzene-d5, and 1,4-dichlorobenzene-d4) - this is acceptable based upon lab using SW-846 method for analysis. All 4 IS Areas and Retention Times were in criteria in all samples and QC - No Action required.

Compound Reporting: Lab reported results for all 22 project-specific VOCs requested in SAP Table 3-2.

Samples were all analyzed once without dilution (i.e., DF=1) - no dilution analyses necessary.

Sensitivity: All non-detects were reported at QL supported by the Initial Calibration. Since there are no Project Action Limits for this work (see SAP Table 3-2); sensitivity for these data was acceptable. No Action required.

Qualifier Action: there were 7 results reported at levels < QL and flagged "J" by the laboratory. All other data were either non-detect (flagged "U") at the QL or were detected and not qualified.
****ACTION: 7 J-qualified results reported by the laboratory accepted as estimated (J) data due to result < QL***

Calculation check: Trichloroethene in sample Diff-02 (lab sample ID 410-21939-6)

Response of Cpd = 202711; Response of IS (Fluorobenzene) = 1254230 @ 50; 5-mL purge, DF = 1; RRF from ICAL = 0.3053
Lowest Level ICAL std =1 µg/L for 5 mL purge

Sample-Specific QL: Sample-Specific QL based on 1 µg/L lowest std = 1 x 1 x 5/5 = 1 µg/L √

$$\text{Trichloroethene Conc.} = \frac{202711 \times 50 \times 1}{1254230 \times 0.3053} = 26.5 = 26\ \mu g/L$$ √

The sample chromatogram, mass spectra of detects and quantitation report was scanned and data appeared to have been reported correctly.

Narrative: the narrative did not mention any issues not already addressed in this DV checklist that would affect the sample data - No Action required

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS

Preservation:	Temperature upon receipt 4°±°2C; use judgment if outside criteria if Method 5035a not followed
HT:	waters- pH >2 or no HCl: 7d<HT; J- det/R NDs
	pH < 2, 14d <HT; J- det/R NDs
	low- or medium-level solid - 14d <HT< 28 d, J det/J NDs; HT > 28 days, J- det/R NDs
	unfrozen solid - 48 hrs < HT < 96 hrs, J det/J NDs; HT > 96hrs, J- det/R NDs
Surrogates:	Criteria per Table 11A of NYSDEC ASP2005 Exhibit E or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
LCS:	Lab limits accepted since LCS not required for NYSDEC ASP2005
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs.
Tunes:	Samples analyzed within 12-hrs and criteria met per Table 3, Method 8260C. If out, use professional judgment.
ICAL:	minimum 5-Level ; min. RRF and %RSD per Method 8260C criteria.
CCV:	min. RRF and %D per Method 8260C criteria.
Blanks:	If contamination in method blank or matrix-related blank(s) exist, comparison of the blank to the samples must take into consideration all sample-specific preparation and analysis factors (e.g., dilution used in analysis, dry weights analyzed, etc.). Blank Action Level (BAL) = Blank QL on a sample-equivalent basis (or 2x Blank QL for 2-butanone, acetone, and methylene chloride) if the result in blank < QL or the value of the Blank on a sample-equivalent basis if result in Blank is > QL. If the sample value is < sample-specific BAL, negate (U) at sample QL if sample result < QL or at the value found in the sample if this value is > sample QL but < sample-equivalent BAL. If sample value > sample-equivalent BAL, no action required.
	Non-Matrix-related Blank contamination: Blank Action taken the sample way as for matrix-related blanks except data are not negated but are estimated (J+ or J) depending on professional judgment.
MS/MSD:	Table 12 of Exhibit E, NYSDEC ASP2005 or lab limits as long as results within ± 10% of ASP limits
	%Rec<10%, J- det/ R NDs; 10% <%Rec<LCL, J- det/ J NDs; %Rec >UCL, J+ det/Accept NDs- Unspiked Sample only. RPD > Control limit, J det / J ND; %RSD of non-spiked > 50%, J det
FD:	Both Conc. > 2xQL, RPD >30% (water) 50% (soil), J det; One result ND, other >2 x QL, J det/J NDs; Both Conc. < 2xQL; RPD >criteria, LCS OK, Accept data
IS:	20% ≤ Area < 50% of IS in CCAL , J det/ J NDs; Area < 20% of CCAL, J det / R NDs; Area > 150% IS in CCAL, J det / Accept NDs. Overall bias for IS outside criteria considered indeterminate since a it is unclear whether low IS is a mis-spike of IS (causing low of high bias in results using the IS that's out of criteria) or whether entire region of GC/MS is affected causing IS and results to be equally affected so no bias in results. This action is taken based on professional judgment.
%solids	If %solids < 50%, J det/J NDs; if %solids <10%, J det/R NDs (Region II SOP). Not applicable to this SAP.

Date: ***2/13/2021***
Data Reviewer: ***Nancy C. Rothman, Ph.D.***

SW-846 Method 8260C, Region II DV SOP, and NYSDEC ASP2005 - ACTIONS *(continued)*

Compound List:	22 Compounds listed in Table 3-2 of SAP reported for all samples
QLs:	If result > upper calibration range, J result, if result < lowest calibration standard, J result. Verify all J data reported properly, if applicable. Verify QLs are sample specific and that all compounds requested were reported.
TICs:	If a VOC compound reported from another analysis or target VOC is reported as a TIC, the data are rejected (R). TICs that have no identification (i.e., reported as "Unknown") are estimated (J) and those TICs that are reported with a CAS#, are estimated with presumptive evidence for identification (JN). Professional judgment used to accept or reject TICs. Not required for this SAP.
DV Qualifier Definitions:	U = analyte is non-detect at the sample-specific Quantitation Limit (usable); UJ = non-detect is usable as an estimated value; J = result is usable as an estimated value with indeterminate bias; J+ = result is usable as an estimated value with possible high bias; J- = result is usable as an estimated value with possible low bias; JN = the analyte has been "tentatively identified" and the result is usable as an estimated value with indeterminate bias; R = result is rejected due to severe QC exceedance and unusable for project objectives. Bias: L = Low; H = High; I = Indeterminate.
Sensitivity:	QLs reported must be supported by the Initial Calibration. Table 3-2 of SAP indicates that there are no Project Action Limits for VOCs in Groundwater, Surface Water, and Pore Water samples; therefore, sensitivity is acceptable in QLs are properly reported.
References:	*Sampling and Analysis Plan Physical Containment with Groundwater Treatment, Former Dennison/Monarch Systems Site, Operable Unit 01, New Windsor, New York, NYSDEC Site No. 336090;* prepared for Avery Dennison Corporation by The Johnson Company (VHB), November 2018*;* NYSDEC *DER-10, Technical Guidance for Site Investigation and Remediation* (May 3, 2010 with updates through April 9, 2019); NYSDEC *6 NYCRR Part 375 (December 14, 2006);* SW-846 Method 8260B; and USEPA Region II, USEPA Hazardous Waste Support Branch Validating Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry SW-846 Methods 8260B & 8260C, SOP# HW-24; rev. 4 (October 2014).

ANALYTICAL REPORT

Job Number: 410-20865-1

Job Description: AD New Windsor

For:
VHB (Formerly The Johnson Co)
100 State Street
Suite 600
Montpelier, VT 05602

Attention: George Lester



Approved for release.
Elizabeth M Zanar
Project Manager
2/25/2021 1:51 PM

Elizabeth M Zanar, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7290
Elizabeth.Zanar@eurofinset.com
02/25/2021
Revision: 4

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 410-20865-1

Job Description: AD New Windsor

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Table of Contents

Cover Title Page 1

Data Summaries 5

- Report Narrative 5
- Sample Summary 6
- Detection Summary 7
- Method Summary 11
- Client Sample Results 12
- Surrogate Summary 35
- QC Sample Results 37
- Definitions 45
- QC Association 46
- Chronicle 47
- Certification Summary 52

Organic Sample Data 53

- GC/MS VOA 53
  - Method 8260C 53
    - Method 8260C QC Summary 54
    - Method 8260C Sample Data 79
    - Standards Data 338
      - Method 8260C ICAL Data 338
      - Method 8260C CCAL Data 400
    - Raw QC Data 435
      - Method 8260C Tune Data 435
      - Method 8260C Blank Data 451
      - Method 8260C LCS/LCSD Data 473
      - Method 8260C MS/MSD Data 497

Table of Contents

Method 8260C Run Logs 519
Method 8260C Prep Data 523
Shipping and Receiving Documents 535
Client Chain of Custody 536
Sample Receipt Checklist 539

Job Narrative
410-20865-1

Comments
No additional comments.

Revision
The report being provided is a revision of the original report sent on 11/23/2020. The report (revision 3) is being revised due to: sample IDs updated from "VC" to "UC" per COC.

Report revision history
Revision 1 - 11/24/2020 - Reason - Project name adjusted per COC..

Revision 2 - 11/24/2020 - Reason - sample IDs being revised from "R5" to "RS". Unclear writing on COC.

Receipt
The samples were received on 11/13/2020 10:36 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 3.5º C.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-68468 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-68196 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The method requirement for no headspace was not met. The following volatile sample was analyzed with headspace in the sample container(s): J13-UC03 (410-20865-8). The sample container was received with headspace.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-20865-1
Project/Site: AD New Windsor

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-20865-1	J01-UC01	Water	11/11/20 08:55	11/13/20 10:36	
410-20865-2	J01-UC02	Water	11/11/20 10:50	11/13/20 10:36	
410-20865-3	J04-BR02	Water	11/11/20 12:59	11/13/20 10:36	
410-20865-4	J05-BR02	Water	11/11/20 15:25	11/13/20 10:36	
410-20865-5	DUP-01	Water	11/11/20 14:35	11/13/20 10:36	
410-20865-6	J13-BR02	Water	11/12/20 09:20	11/13/20 10:36	
410-20865-7	J13-BR01	Water	11/12/20 11:05	11/13/20 10:36	
410-20865-8	J13-UC03	Water	11/12/20 13:05	11/13/20 10:36	
410-20865-9	J13-UC02	Water	11/12/20 14:30	11/13/20 10:36	
410-20865-10	J08-UC02	Water	11/12/20 16:35	11/13/20 10:36	
410-20865-11	J12-BR02	Water	11/12/20 10:44	11/13/20 10:36	
410-20865-12	J21-UC02	Water	11/12/20 12:02	11/13/20 10:36	
410-20865-13	RS-05	Water	11/10/20 14:13	11/13/20 10:36	
410-20865-14	RS-04	Water	11/10/20 14:18	11/13/20 10:36	
410-20865-15	RS-15	Water	11/10/20 14:23	11/13/20 10:36	
410-20865-16	RS-07	Water	11/10/20 14:30	11/13/20 10:36	
410-20865-17	RS-14	Water	11/10/20 14:44	11/13/20 10:36	
410-20865-18	RS-08	Water	11/10/20 15:00	11/13/20 10:36	
410-20865-19	J01-BR01	Water	11/10/20 13:50	11/13/20 10:36	
410-20865-20	J01-BR02	Water	11/10/20 15:15	11/13/20 10:36	
410-20865-21	J04-BR01	Water	11/11/20 12:48	11/13/20 10:36	
410-20865-22	J05-BR01	Water	11/11/20 15:52	11/13/20 10:36	
410-20865-23	J12-BR01	Water	11/12/20 09:26	11/13/20 10:36	
410-20865-24	PDB Blank	Water	11/10/20 10:20	11/13/20 10:36	
410-20865-25	RS-12A	Water	11/10/20 12:00	11/13/20 10:36	
410-20865-26	RS-01	Water	11/10/20 12:15	11/13/20 10:36	
410-20865-27	RS-09	Water	11/10/20 12:25	11/13/20 10:36	
410-20865-28	RS-10	Water	11/10/20 12:50	11/13/20 10:36	
410-20865-29	RS-DUP	Water	11/10/20 12:30	11/13/20 10:36	
410-20865-30	RS-03	Water	11/10/20 13:00	11/13/20 10:36	
410-20865-31	RS-13	Water	11/10/20 13:17	11/13/20 10:36	
410-20865-32	RS-02	Water	11/10/20 13:36	11/13/20 10:36	
410-20865-33	RS-11	Water	11/10/20 13:45	11/13/20 10:36	
410-20865-34	TB 111020	Water	11/10/20 00:00	11/13/20 10:36	

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-20865-1

Client Sample ID: J01-UC01 — Lab Sample ID: 410-20865-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.8		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.65	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.31	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.8		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	8.8	F1	1.0	0.20	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	1.1		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	3.9		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J01-UC02 — Lab Sample ID: 410-20865-2

No Detections.

Client Sample ID: J04-BR02 — Lab Sample ID: 410-20865-3

No Detections.

Client Sample ID: J05-BR02 — Lab Sample ID: 410-20865-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.2		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.26	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	2.2		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	5.4		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	0.73	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: DUP-01 — Lab Sample ID: 410-20865-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.51	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.3		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.26	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.9		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	5.9		1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	0.65	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J13-BR02 — Lab Sample ID: 410-20865-6

No Detections.

Client Sample ID: J13-BR01 — Lab Sample ID: 410-20865-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.2		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	3.3		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.0		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	4.5		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J13-UC03 — Lab Sample ID: 410-20865-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	5.9		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	3.2		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.63	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	1.8		1.0	0.20	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-20865-1

Client Sample ID: J13-UC02 — Lab Sample ID: 410-20865-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	8.8		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.84	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.1		1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.4		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	3.0		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	91		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J08-UC02 — Lab Sample ID: 410-20865-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.5		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J12-BR02 — Lab Sample ID: 410-20865-11

No Detections.

Client Sample ID: J21-UC02 — Lab Sample ID: 410-20865-12

No Detections.

Client Sample ID: RS-05 — Lab Sample ID: 410-20865-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.9		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.66	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.30	J	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	3.8	J	20	0.70	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.9		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.1		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	14		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-04 — Lab Sample ID: 410-20865-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.4		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.43	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.37	J	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	1.2	J	20	0.70	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.25	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.33	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	8.6		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-15 — Lab Sample ID: 410-20865-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.7		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.55	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-07 — Lab Sample ID: 410-20865-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.24	J	1.0	0.20	ug/L	1		8260C	Total/NA
2-Butanone	0.98	J	10	0.30	ug/L	1		8260C	Total/NA
Acetone	12	J	20	0.70	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.80	J	1.0	0.20	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RS-07 (Continued) — Lab Sample ID: 410-20865-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.24	J	1.0	0.20	ug/L	1		8260C	Total/NA
Vinyl chloride	0.45	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-14 — Lab Sample ID: 410-20865-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	7.2	J	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: RS-08 — Lab Sample ID: 410-20865-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.6	J	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: J01-BR01 — Lab Sample ID: 410-20865-19

No Detections.

Client Sample ID: J01-BR02 — Lab Sample ID: 410-20865-20

No Detections.

Client Sample ID: J04-BR01 — Lab Sample ID: 410-20865-21

No Detections.

Client Sample ID: J05-BR01 — Lab Sample ID: 410-20865-22

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.5		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	0.40	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J12-BR01 — Lab Sample ID: 410-20865-23

No Detections.

Client Sample ID: PDB Blank — Lab Sample ID: 410-20865-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.1	J	20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: RS-12A — Lab Sample ID: 410-20865-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.44	J	1.0	0.30	ug/L	1		8260C	Total/NA
Trichloroethene	0.31	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-01 — Lab Sample ID: 410-20865-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.53	J	1.0	0.30	ug/L	1		8260C	Total/NA
Trichloroethene	0.49	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-09 — Lab Sample ID: 410-20865-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.30	J	1.0	0.30	ug/L	1		8260C	Total/NA
Acetone	3.1	J	20	0.70	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: RS-09 (Continued) — Lab Sample ID: 410-20865-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.70	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-10 — Lab Sample ID: 410-20865-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.7	J	20	0.70	ug/L	1		8260C	Total/NA
Trichloroethene	1.2		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-DUP — Lab Sample ID: 410-20865-29

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.6		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.83	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.25	J	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	2.6	J	20	0.70	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.4		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.3		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-03 — Lab Sample ID: 410-20865-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.6		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.80	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.20	J	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	3.1	J	20	0.70	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.3	F1	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	11		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-13 — Lab Sample ID: 410-20865-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.8		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.53	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.27	J	1.0	0.20	ug/L	1		8260C	Total/NA
Acetone	2.9	J	20	0.70	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.5		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	1.5		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	13		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-02 — Lab Sample ID: 410-20865-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	1.2	J	20	0.70	ug/L	1		8260C	Total/NA
Trichloroethene	0.92	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RS-11 — Lab Sample ID: 410-20865-33

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	3.8	J	10	0.30	ug/L	1		8260C	Total/NA
Acetone	27		20	0.70	ug/L	1		8260C	Total/NA

Client Sample ID: TB 111020 — Lab Sample ID: 410-20865-34

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-20865-1
Project/Site: AD New Windsor

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample ID: J01-UC01
Lab Sample ID: 410-20865-1

Date Collected: 11/11/20 08:55
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.8**		1.0	0.30	ug/L			11/19/20 22:35	1
1,1-Dichloroethane	**0.65**	**J**	1.0	0.20	ug/L			11/19/20 22:35	1
1,1-Dichloroethene	**0.31**	**J**	1.0	0.20	ug/L			11/19/20 22:35	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/19/20 22:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/19/20 22:35	1
1,4-Dioxane	ND		250	29	ug/L			11/19/20 22:35	1
2-Butanone	ND		10	0.30	ug/L			11/19/20 22:35	1
Acetone	ND		20	0.70	ug/L			11/19/20 22:35	1
Benzene	ND		1.0	0.20	ug/L			11/19/20 22:35	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/19/20 22:35	1
Chloroform	ND		1.0	0.20	ug/L			11/19/20 22:35	1
cis-1,2-Dichloroethene	**1.8**		1.0	0.20	ug/L			11/19/20 22:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/19/20 22:35	1
Freon 113	ND		10	0.20	ug/L			11/19/20 22:35	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/19/20 22:35	1
Naphthalene	ND		5.0	1.0	ug/L			11/19/20 22:35	1
Tetrachloroethene	**8.8**	**F1**	1.0	0.20	ug/L			11/19/20 22:35	1
Toluene	ND		1.0	0.20	ug/L			11/19/20 22:35	1
trans-1,2-Dichloroethene	**1.1**		1.0	0.20	ug/L			11/19/20 22:35	1
Trichloroethene	**3.9**		1.0	0.20	ug/L			11/19/20 22:35	1
Vinyl chloride	ND	F1	1.0	0.20	ug/L			11/19/20 22:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/19/20 22:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/19/20 22:35*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/19/20 22:35*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/19/20 22:35*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/19/20 22:35*	*1*

Client Sample ID: J01-UC02
Lab Sample ID: 410-20865-2

Date Collected: 11/11/20 10:50
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 00:56	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 00:56	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 00:56	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 00:56	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 00:56	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 00:56	1
Acetone	ND		20	0.70	ug/L			11/20/20 00:56	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 00:56	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 00:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 00:56	1
Freon 113	ND		10	0.20	ug/L			11/20/20 00:56	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 00:56	1

Client Sample ID: J01-UC02
Lab Sample ID: 410-20865-2

Date Collected: 11/11/20 10:50
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 00:56	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 00:56	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 00:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/20/20 00:56*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/20/20 00:56*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 00:56*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/20/20 00:56*	*1*

Client Sample ID: J04-BR02
Lab Sample ID: 410-20865-3

Date Collected: 11/11/20 12:59
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 01:16	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 01:16	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 01:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 01:16	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 01:16	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 01:16	1
Acetone	ND		20	0.70	ug/L			11/20/20 01:16	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 01:16	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 01:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 01:16	1
Freon 113	ND		10	0.20	ug/L			11/20/20 01:16	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 01:16	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 01:16	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 01:16	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 01:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/20/20 01:16*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/20/20 01:16*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/20/20 01:16*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 01:16*	*1*

Client Sample ID: J05-BR02
Lab Sample ID: 410-20865-4

Date Collected: 11/11/20 15:25
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 01:37	1
1,1-Dichloroethane	**1.2**		1.0	0.20	ug/L			11/20/20 01:37	1
1,1-Dichloroethene	**0.26**	**J**	1.0	0.20	ug/L			11/20/20 01:37	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 01:37	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 01:37	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 01:37	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 01:37	1
Acetone	ND		20	0.70	ug/L			11/20/20 01:37	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 01:37	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 01:37	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 01:37	1
cis-1,2-Dichloroethene	**2.2**		1.0	0.20	ug/L			11/20/20 01:37	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 01:37	1
Freon 113	ND		10	0.20	ug/L			11/20/20 01:37	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 01:37	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 01:37	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 01:37	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 01:37	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:37	1
Trichloroethene	**5.4**		1.0	0.20	ug/L			11/20/20 01:37	1
Vinyl chloride	**0.73**	**J**	1.0	0.20	ug/L			11/20/20 01:37	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 01:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/20/20 01:37*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/20/20 01:37*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 01:37*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 01:37*	*1*

Client Sample ID: DUP-01
Lab Sample ID: 410-20865-5

Date Collected: 11/11/20 14:35
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.51**	**J**	1.0	0.30	ug/L			11/20/20 01:57	1
1,1-Dichloroethane	**1.3**		1.0	0.20	ug/L			11/20/20 01:57	1
1,1-Dichloroethene	**0.26**	**J**	1.0	0.20	ug/L			11/20/20 01:57	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 01:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 01:57	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 01:57	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 01:57	1
Acetone	ND		20	0.70	ug/L			11/20/20 01:57	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 01:57	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 01:57	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 01:57	1
cis-1,2-Dichloroethene	**1.9**		1.0	0.20	ug/L			11/20/20 01:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 01:57	1
Freon 113	ND		10	0.20	ug/L			11/20/20 01:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 01:57	1

Client Sample ID: DUP-01
Lab Sample ID: 410-20865-5

Date Collected: 11/11/20 14:35
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 01:57	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 01:57	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 01:57	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 01:57	1
Trichloroethene	**5.9**		1.0	0.20	ug/L			11/20/20 01:57	1
Vinyl chloride	**0.65**	**J**	1.0	0.20	ug/L			11/20/20 01:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 01:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/20/20 01:57*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 01:57*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 01:57*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 01:57*	*1*

Client Sample ID: J13-BR02
Lab Sample ID: 410-20865-6

Date Collected: 11/12/20 09:20
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 02:17	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 02:17	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 02:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 02:17	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 02:17	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 02:17	1
Acetone	ND		20	0.70	ug/L			11/20/20 02:17	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 02:17	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 02:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 02:17	1
Freon 113	ND		10	0.20	ug/L			11/20/20 02:17	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 02:17	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 02:17	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 02:17	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 02:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/20/20 02:17*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 02:17*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 02:17*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 02:17*	*1*

Client Sample ID: J13-BR01
Lab Sample ID: 410-20865-7
Date Collected: 11/12/20 11:05
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.2**		1.0	0.30	ug/L			11/20/20 02:38	1
1,1-Dichloroethane	**3.3**		1.0	0.20	ug/L			11/20/20 02:38	1
1,1-Dichloroethene	**1.0**		1.0	0.20	ug/L			11/20/20 02:38	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 02:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 02:38	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 02:38	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 02:38	1
Acetone	ND		20	0.70	ug/L			11/20/20 02:38	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 02:38	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 02:38	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 02:38	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 02:38	1
Freon 113	ND		10	0.20	ug/L			11/20/20 02:38	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 02:38	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 02:38	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 02:38	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 02:38	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:38	1
Trichloroethene	**4.5**		1.0	0.20	ug/L			11/20/20 02:38	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 02:38	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 02:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/20/20 02:38*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/20/20 02:38*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 02:38*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 02:38*	*1*

Client Sample ID: J13-UC03
Lab Sample ID: 410-20865-8
Date Collected: 11/12/20 13:05
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**5.9**		1.0	0.30	ug/L			11/20/20 02:58	1
1,1-Dichloroethane	**3.2**		1.0	0.20	ug/L			11/20/20 02:58	1
1,1-Dichloroethene	**0.63**	**J**	1.0	0.20	ug/L			11/20/20 02:58	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 02:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 02:58	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 02:58	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 02:58	1
Acetone	ND		20	0.70	ug/L			11/20/20 02:58	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 02:58	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 02:58	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 02:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 02:58	1
Freon 113	ND		10	0.20	ug/L			11/20/20 02:58	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 02:58	1

Client Sample ID: J13-UC03
Lab Sample ID: 410-20865-8

Date Collected: 11/12/20 13:05
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 02:58	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 02:58	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 02:58	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 02:58	1
Trichloroethene	**1.8**		1.0	0.20	ug/L			11/20/20 02:58	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 02:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 02:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/20/20 02:58*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 02:58*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 02:58*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 02:58*	*1*

Client Sample ID: J13-UC02
Lab Sample ID: 410-20865-9

Date Collected: 11/12/20 14:30
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**8.8**		1.0	0.30	ug/L			11/20/20 03:18	1
1,1-Dichloroethane	**0.84**	**J**	1.0	0.20	ug/L			11/20/20 03:18	1
1,1-Dichloroethene	**1.1**		1.0	0.20	ug/L			11/20/20 03:18	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 03:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 03:18	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 03:18	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 03:18	1
Acetone	ND		20	0.70	ug/L			11/20/20 03:18	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 03:18	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 03:18	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 03:18	1
cis-1,2-Dichloroethene	**1.4**		1.0	0.20	ug/L			11/20/20 03:18	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 03:18	1
Freon 113	ND		10	0.20	ug/L			11/20/20 03:18	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 03:18	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 03:18	1
Tetrachloroethene	**3.0**		1.0	0.20	ug/L			11/20/20 03:18	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 03:18	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:18	1
Trichloroethene	**91**		1.0	0.20	ug/L			11/20/20 03:18	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 03:18	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 03:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/20/20 03:18*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/20/20 03:18*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 03:18*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 03:18*	*1*

Client Sample ID: J08-UC02
Lab Sample ID: 410-20865-10

Date Collected: 11/12/20 16:35
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 03:39	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 03:39	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 03:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 03:39	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 03:39	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 03:39	1
Acetone	ND		20	0.70	ug/L			11/20/20 03:39	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 03:39	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 03:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 03:39	1
Freon 113	ND		10	0.20	ug/L			11/20/20 03:39	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 03:39	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 03:39	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:39	1
Trichloroethene	**1.5**		1.0	0.20	ug/L			11/20/20 03:39	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 03:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 03:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/20/20 03:39*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 03:39*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 03:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 03:39*	*1*

Client Sample ID: J12-BR02
Lab Sample ID: 410-20865-11

Date Collected: 11/12/20 10:44
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 03:59	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 03:59	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 03:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 03:59	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 03:59	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 03:59	1
Acetone	ND		20	0.70	ug/L			11/20/20 03:59	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 03:59	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 03:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 03:59	1
Freon 113	ND		10	0.20	ug/L			11/20/20 03:59	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 03:59	1

Client Sample ID: J12-BR02
Lab Sample ID: 410-20865-11
Date Collected: 11/12/20 10:44
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 03:59	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 03:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 03:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/20/20 03:59*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 03:59*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 03:59*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 03:59*	*1*

Client Sample ID: J21-UC02
Lab Sample ID: 410-20865-12
Date Collected: 11/12/20 12:02
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 04:19	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 04:19	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 04:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 04:19	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 04:19	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 04:19	1
Acetone	ND		20	0.70	ug/L			11/20/20 04:19	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 04:19	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 04:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 04:19	1
Freon 113	ND		10	0.20	ug/L			11/20/20 04:19	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 04:19	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 04:19	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 04:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 04:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/20/20 04:19*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 04:19*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/20/20 04:19*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 04:19*	*1*

Client Sample ID: RS-05
Lab Sample ID: 410-20865-13
Date Collected: 11/10/20 14:13
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.9**		1.0	0.30	ug/L			11/18/20 14:15	1
1,1-Dichloroethane	**0.66**	**J**	1.0	0.20	ug/L			11/18/20 14:15	1
1,1-Dichloroethene	**0.30**	**J**	1.0	0.20	ug/L			11/18/20 14:15	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 14:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 14:15	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 14:15	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 14:15	1
Acetone	**3.8**	**J**	20	0.70	ug/L			11/18/20 14:15	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 14:15	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 14:15	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 14:15	1
cis-1,2-Dichloroethene	**1.9**		1.0	0.20	ug/L			11/18/20 14:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 14:15	1
Freon 113	ND		10	0.20	ug/L			11/18/20 14:15	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 14:15	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 14:15	1
Tetrachloroethene	**2.1**		1.0	0.20	ug/L			11/18/20 14:15	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 14:15	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:15	1
Trichloroethene	**14**		1.0	0.20	ug/L			11/18/20 14:15	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 14:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 14:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 14:15*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 14:15*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 14:15*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 14:15*	*1*

Client Sample ID: RS-04
Lab Sample ID: 410-20865-14
Date Collected: 11/10/20 14:18
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**3.4**		1.0	0.30	ug/L			11/18/20 14:35	1
1,1-Dichloroethane	**0.43**	**J**	1.0	0.20	ug/L			11/18/20 14:35	1
1,1-Dichloroethene	**0.37**	**J**	1.0	0.20	ug/L			11/18/20 14:35	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 14:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 14:35	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 14:35	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 14:35	1
Acetone	**1.2**	**J**	20	0.70	ug/L			11/18/20 14:35	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 14:35	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 14:35	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 14:35	1
cis-1,2-Dichloroethene	**0.25**	**J**	1.0	0.20	ug/L			11/18/20 14:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 14:35	1
Freon 113	ND		10	0.20	ug/L			11/18/20 14:35	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 14:35	1

Client Sample ID: RS-04
Lab Sample ID: 410-20865-14
Date Collected: 11/10/20 14:18
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 14:35	1
Tetrachloroethene	**0.33**	**J**	1.0	0.20	ug/L			11/18/20 14:35	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 14:35	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:35	1
Trichloroethene	**8.6**		1.0	0.20	ug/L			11/18/20 14:35	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 14:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 14:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 14:35*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 14:35*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 14:35*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 14:35*	*1*

Client Sample ID: RS-15
Lab Sample ID: 410-20865-15
Date Collected: 11/10/20 14:23
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.7**		1.0	0.30	ug/L			11/18/20 14:55	1
1,1-Dichloroethane	**0.55**	**J**	1.0	0.20	ug/L			11/18/20 14:55	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 14:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 14:55	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 14:55	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 14:55	1
Acetone	ND		20	0.70	ug/L			11/18/20 14:55	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 14:55	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 14:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 14:55	1
Freon 113	ND		10	0.20	ug/L			11/18/20 14:55	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 14:55	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 14:55	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 14:55	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 14:55*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 14:55*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 14:55*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 14:55*	*1*

Client Sample ID: RS-07
Date Collected: 11/10/20 14:30
Date Received: 11/13/20 10:36

Lab Sample ID: 410-20865-16
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:15	1
1,1-Dichloroethane	**0.24**	**J**	1.0	0.20	ug/L			11/18/20 15:15	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:15	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 15:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:15	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 15:15	1
2-Butanone	**0.98**	**J**	10	0.30	ug/L			11/18/20 15:15	1
Acetone	**12**	**J**	20	0.70	ug/L			11/18/20 15:15	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 15:15	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 15:15	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 15:15	1
cis-1,2-Dichloroethene	**0.80**	**J**	1.0	0.20	ug/L			11/18/20 15:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 15:15	1
Freon 113	ND		10	0.20	ug/L			11/18/20 15:15	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 15:15	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 15:15	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 15:15	1
Toluene	**0.24**	**J**	1.0	0.20	ug/L			11/18/20 15:15	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:15	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:15	1
Vinyl chloride	**0.45**	**J**	1.0	0.20	ug/L			11/18/20 15:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 15:15*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*11/18/20 15:15*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 15:15*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 15:15*	*1*

Client Sample ID: RS-14
Date Collected: 11/10/20 14:44
Date Received: 11/13/20 10:36

Lab Sample ID: 410-20865-17
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:35	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 15:35	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 15:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:35	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 15:35	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 15:35	1
Acetone	**7.2**	**J**	20	0.70	ug/L			11/18/20 15:35	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 15:35	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 15:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 15:35	1
Freon 113	ND		10	0.20	ug/L			11/18/20 15:35	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 15:35	1

Client Sample ID: RS-14
Lab Sample ID: 410-20865-17

Date Collected: 11/10/20 14:44
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 15:35	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 15:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 15:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/18/20 15:35*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 15:35*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 15:35*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/18/20 15:35*	*1*

Client Sample ID: RS-08
Lab Sample ID: 410-20865-18

Date Collected: 11/10/20 15:00
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:55	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 15:55	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 15:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 15:55	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 15:55	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 15:55	1
Acetone	**3.6**	**J**	20	0.70	ug/L			11/18/20 15:55	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 15:55	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 15:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 15:55	1
Freon 113	ND		10	0.20	ug/L			11/18/20 15:55	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 15:55	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 15:55	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 15:55	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 15:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/18/20 15:55*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 15:55*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 15:55*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/18/20 15:55*	*1*

Client Sample ID: J01-BR01
Lab Sample ID: 410-20865-19

Date Collected: 11/10/20 13:50
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 16:16	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 16:16	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 16:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 16:16	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 16:16	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 16:16	1
Acetone	ND		20	0.70	ug/L			11/18/20 16:16	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 16:16	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 16:16	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 16:16	1
Freon 113	ND		10	0.20	ug/L			11/18/20 16:16	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 16:16	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 16:16	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 16:16	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 16:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 16:16*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 16:16*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 16:16*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 16:16*	*1*

Client Sample ID: J01-BR02
Lab Sample ID: 410-20865-20

Date Collected: 11/10/20 15:15
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 16:36	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 16:36	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 16:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 16:36	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 16:36	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 16:36	1
Acetone	ND		20	0.70	ug/L			11/18/20 16:36	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 16:36	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 16:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 16:36	1
Freon 113	ND		10	0.20	ug/L			11/18/20 16:36	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 16:36	1

Client Sample ID: J01-BR02
Lab Sample ID: 410-20865-20

Date Collected: 11/10/20 15:15
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 16:36	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 16:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 16:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 16:36*	*1*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*		*11/18/20 16:36*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/18/20 16:36*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/18/20 16:36*	*1*

Client Sample ID: J04-BR01
Lab Sample ID: 410-20865-21

Date Collected: 11/11/20 12:48
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:39	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 17:39	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 17:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:39	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 17:39	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 17:39	1
Acetone	ND		20	0.70	ug/L			11/20/20 17:39	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 17:39	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 17:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 17:39	1
Freon 113	ND		10	0.20	ug/L			11/20/20 17:39	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 17:39	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 17:39	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 17:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 17:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/20/20 17:39*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 17:39*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 17:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 17:39*	*1*

Client Sample ID: J05-BR01
Lab Sample ID: 410-20865-22

Date Collected: 11/11/20 15:52
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:59	1
1,1-Dichloroethane	**1.5**		1.0	0.20	ug/L			11/20/20 17:59	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 17:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:59	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 17:59	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 17:59	1
Acetone	ND		20	0.70	ug/L			11/20/20 17:59	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 17:59	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 17:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 17:59	1
Freon 113	ND		10	0.20	ug/L			11/20/20 17:59	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 17:59	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 17:59	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:59	1
Trichloroethene	**0.40**	**J**	1.0	0.20	ug/L			11/20/20 17:59	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 17:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 17:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/20/20 17:59*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 17:59*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/20/20 17:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 17:59*	*1*

Client Sample ID: J12-BR01
Lab Sample ID: 410-20865-23

Date Collected: 11/12/20 09:26
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:19	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 18:19	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 18:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:19	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 18:19	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 18:19	1
Acetone	ND		20	0.70	ug/L			11/20/20 18:19	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 18:19	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 18:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 18:19	1
Freon 113	ND		10	0.20	ug/L			11/20/20 18:19	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 18:19	1

Client Sample ID: J12-BR01
Lab Sample ID: 410-20865-23
Date Collected: 11/12/20 09:26
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 18:19	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 18:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 18:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/20/20 18:19*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 18:19*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 18:19*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 18:19*	*1*

Client Sample ID: PDB Blank
Lab Sample ID: 410-20865-24
Date Collected: 11/10/20 10:20
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 12:34	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 12:34	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 12:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 12:34	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 12:34	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 12:34	1
Acetone	**1.1**	**J**	20	0.70	ug/L			11/18/20 12:34	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 12:34	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 12:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 12:34	1
Freon 113	ND		10	0.20	ug/L			11/18/20 12:34	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 12:34	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 12:34	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 12:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 12:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 12:34*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 12:34*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 12:34*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 12:34*	*1*

Client Sample ID: RS-12A
Lab Sample ID: 410-20865-25
Date Collected: 11/10/20 12:00
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.44**	**J**	1.0	0.30	ug/L			11/18/20 16:57	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 16:57	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 16:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 16:57	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 16:57	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 16:57	1
Acetone	ND		20	0.70	ug/L			11/18/20 16:57	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 16:57	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 16:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 16:57	1
Freon 113	ND		10	0.20	ug/L			11/18/20 16:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 16:57	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 16:57	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 16:57	1
Trichloroethene	**0.31**	**J**	1.0	0.20	ug/L			11/18/20 16:57	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 16:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 16:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 16:57*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 16:57*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/18/20 16:57*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/18/20 16:57*	*1*

Client Sample ID: RS-01
Lab Sample ID: 410-20865-26
Date Collected: 11/10/20 12:15
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.53**	**J**	1.0	0.30	ug/L			11/18/20 17:17	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 17:17	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 17:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 17:17	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 17:17	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 17:17	1
Acetone	ND		20	0.70	ug/L			11/18/20 17:17	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 17:17	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 17:17	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 17:17	1
Freon 113	ND		10	0.20	ug/L			11/18/20 17:17	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 17:17	1

Client Sample ID: RS-01
Lab Sample ID: 410-20865-26
Date Collected: 11/10/20 12:15
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 17:17	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:17	1
Trichloroethene	**0.49**	**J**	1.0	0.20	ug/L			11/18/20 17:17	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 17:17	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 17:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 17:17*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 17:17*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 17:17*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/18/20 17:17*	*1*

Client Sample ID: RS-09
Lab Sample ID: 410-20865-27
Date Collected: 11/10/20 12:25
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.30**	**J**	1.0	0.30	ug/L			11/18/20 17:37	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 17:37	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 17:37	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 17:37	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 17:37	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 17:37	1
Acetone	**3.1**	**J**	20	0.70	ug/L			11/18/20 17:37	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 17:37	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 17:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 17:37	1
Freon 113	ND		10	0.20	ug/L			11/18/20 17:37	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 17:37	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 17:37	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:37	1
Trichloroethene	**0.70**	**J**	1.0	0.20	ug/L			11/18/20 17:37	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 17:37	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 17:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 17:37*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 17:37*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 17:37*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 17:37*	*1*

Client Sample ID: RS-10
Lab Sample ID: 410-20865-28
Date Collected: 11/10/20 12:50
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 17:58	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 17:58	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 17:58	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 17:58	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 17:58	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 17:58	1
Acetone	**1.7**	**J**	20	0.70	ug/L			11/18/20 17:58	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 17:58	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 17:58	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 17:58	1
Freon 113	ND		10	0.20	ug/L			11/18/20 17:58	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 17:58	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 17:58	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 17:58	1
Trichloroethene	**1.2**		1.0	0.20	ug/L			11/18/20 17:58	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 17:58	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 17:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 17:58*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 17:58*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/18/20 17:58*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 17:58*	*1*

Client Sample ID: RS-DUP
Lab Sample ID: 410-20865-29
Date Collected: 11/10/20 12:30
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.6**		1.0	0.30	ug/L			11/18/20 18:18	1
1,1-Dichloroethane	**0.83**	**J**	1.0	0.20	ug/L			11/18/20 18:18	1
1,1-Dichloroethene	**0.25**	**J**	1.0	0.20	ug/L			11/18/20 18:18	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 18:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 18:18	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 18:18	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 18:18	1
Acetone	**2.6**	**J**	20	0.70	ug/L			11/18/20 18:18	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 18:18	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 18:18	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 18:18	1
cis-1,2-Dichloroethene	**1.4**		1.0	0.20	ug/L			11/18/20 18:18	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 18:18	1
Freon 113	ND		10	0.20	ug/L			11/18/20 18:18	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 18:18	1

Client Sample ID: RS-DUP
Lab Sample ID: 410-20865-29
Date Collected: 11/10/20 12:30
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 18:18	1
Tetrachloroethene	**1.3**		1.0	0.20	ug/L			11/18/20 18:18	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 18:18	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 18:18	1
Trichloroethene	**11**		1.0	0.20	ug/L			11/18/20 18:18	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 18:18	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 18:18*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 18:18*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 18:18*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/18/20 18:18*	*1*

Client Sample ID: RS-03
Lab Sample ID: 410-20865-30
Date Collected: 11/10/20 13:00
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.6**		1.0	0.30	ug/L			11/18/20 13:15	1
1,1-Dichloroethane	**0.80**	**J**	1.0	0.20	ug/L			11/18/20 13:15	1
1,1-Dichloroethene	**0.20**	**J**	1.0	0.20	ug/L			11/18/20 13:15	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 13:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 13:15	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 13:15	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 13:15	1
Acetone	**3.1**	**J**	20	0.70	ug/L			11/18/20 13:15	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 13:15	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 13:15	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 13:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 13:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 13:15	1
Freon 113	ND		10	0.20	ug/L			11/18/20 13:15	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 13:15	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 13:15	1
Tetrachloroethene	**1.3**	**F1**	1.0	0.20	ug/L			11/18/20 13:15	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 13:15	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 13:15	1
Trichloroethene	**11**		1.0	0.20	ug/L			11/18/20 13:15	1
Vinyl chloride	ND	F2	1.0	0.20	ug/L			11/18/20 13:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 13:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/18/20 13:15*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 13:15*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 13:15*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/18/20 13:15*	*1*

Client Sample ID: RS-13
Lab Sample ID: 410-20865-31
Date Collected: 11/10/20 13:17
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.8**		1.0	0.30	ug/L			11/18/20 18:38	1
1,1-Dichloroethane	**0.53**	**J**	1.0	0.20	ug/L			11/18/20 18:38	1
1,1-Dichloroethene	**0.27**	**J**	1.0	0.20	ug/L			11/18/20 18:38	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 18:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 18:38	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 18:38	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 18:38	1
Acetone	**2.9**	**J**	20	0.70	ug/L			11/18/20 18:38	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 18:38	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 18:38	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 18:38	1
cis-1,2-Dichloroethene	**1.5**		1.0	0.20	ug/L			11/18/20 18:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 18:38	1
Freon 113	ND		10	0.20	ug/L			11/18/20 18:38	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 18:38	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 18:38	1
Tetrachloroethene	**1.5**		1.0	0.20	ug/L			11/18/20 18:38	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 18:38	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 18:38	1
Trichloroethene	**13**		1.0	0.20	ug/L			11/18/20 18:38	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 18:38	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 18:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 18:38*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/18/20 18:38*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 18:38*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 18:38*	*1*

Client Sample ID: RS-02
Lab Sample ID: 410-20865-32
Date Collected: 11/10/20 13:36
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 18:59	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 18:59	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 18:59	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 18:59	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 18:59	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 18:59	1
Acetone	**1.2**	**J**	20	0.70	ug/L			11/18/20 18:59	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 18:59	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 18:59	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 18:59	1
Freon 113	ND		10	0.20	ug/L			11/18/20 18:59	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 18:59	1

Client Sample ID: RS-02
Lab Sample ID: 410-20865-32
Date Collected: 11/10/20 13:36
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 18:59	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 18:59	1
Trichloroethene	**0.92**	**J**	1.0	0.20	ug/L			11/18/20 18:59	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 18:59	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 18:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/18/20 18:59*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/18/20 18:59*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 18:59*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/18/20 18:59*	*1*

Client Sample ID: RS-11
Lab Sample ID: 410-20865-33
Date Collected: 11/10/20 13:45
Matrix: Water
Date Received: 11/13/20 10:36

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 19:19	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 19:19	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 19:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 19:19	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 19:19	1
2-Butanone	**3.8**	**J**	10	0.30	ug/L			11/18/20 19:19	1
Acetone	**27**		20	0.70	ug/L			11/18/20 19:19	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 19:19	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 19:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 19:19	1
Freon 113	ND		10	0.20	ug/L			11/18/20 19:19	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 19:19	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 19:19	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 19:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*11/18/20 19:19*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 19:19*	*1*
Dibromofluoromethane (Surr)	*97*		*80 - 120*		*11/18/20 19:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/18/20 19:19*	*1*

Client Sample ID: TB 111020
Date Collected: 11/10/20 00:00
Date Received: 11/13/20 10:36

Lab Sample ID: 410-20865-34
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 12:55	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 12:55	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 12:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 12:55	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 12:55	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 12:55	1
Acetone	ND		20	0.70	ug/L			11/18/20 12:55	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 12:55	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 12:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 12:55	1
Freon 113	ND		10	0.20	ug/L			11/18/20 12:55	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 12:55	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 12:55	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 12:55	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 12:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/18/20 12:55*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/18/20 12:55*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/18/20 12:55*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/18/20 12:55*	*1*

Surrogate Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-20865-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-20865-1	J01-UC01	99	93	96	101
410-20865-1 MS	J01-UC01	101	93	96	100
410-20865-1 MSD	J01-UC01	100	94	96	101
410-20865-2	J01-UC02	101	94	97	102
410-20865-3	J04-BR02	101	92	95	100
410-20865-4	J05-BR02	100	94	96	101
410-20865-5	DUP-01	100	93	96	101
410-20865-6	J13-BR02	101	93	96	100
410-20865-7	J13-BR01	99	94	97	100
410-20865-8	J13-UC03	102	93	96	100
410-20865-9	J13-UC02	99	94	97	101
410-20865-10	J08-UC02	102	93	97	100
410-20865-11	J12-BR02	100	93	97	101
410-20865-12	J21-UC02	101	91	95	100
410-20865-13	RS-05	100	93	96	101
410-20865-14	RS-04	101	93	96	101
410-20865-15	RS-15	100	94	96	101
410-20865-16	RS-07	100	95	95	101
410-20865-17	RS-14	99	93	95	100
410-20865-18	RS-08	102	94	96	100
410-20865-19	J01-BR01	101	94	95	101
410-20865-20	J01-BR02	100	95	97	102
410-20865-21	J04-BR01	102	93	97	100
410-20865-22	J05-BR01	99	93	97	100
410-20865-23	J12-BR01	102	93	96	100
410-20865-24	PDB Blank	100	94	95	101
410-20865-25	RS-12A	100	93	97	99
410-20865-26	RS-01	100	93	96	102
410-20865-27	RS-09	101	93	96	101
410-20865-28	RS-10	100	94	97	101
410-20865-29	RS-DUP	101	94	96	102
410-20865-30	RS-03	99	94	95	100
410-20865-30 MS	RS-03	99	95	95	101
410-20865-30 MSD	RS-03	100	94	95	100
410-20865-31	RS-13	101	93	96	101
410-20865-32	RS-02	101	92	96	100
410-20865-33	RS-11	98	94	97	101
410-20865-34	TB 111020	100	94	96	102
LCS 410-67415/5	Lab Control Sample	99	94	95	100
LCS 410-68196/4	Lab Control Sample	100	93	96	101
LCS 410-68468/5	Lab Control Sample	101	94	97	101
LCSD 410-68196/56	Lab Control Sample Dup	99	94	96	101
MB 410-67415/7	Method Blank	99	96	95	103
MB 410-68196/6	Method Blank	102	93	95	101
MB 410-68468/7	Method Blank	100	93	96	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)

Surrogate Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-20865-1
Project/Site: AD New Windsor

TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-67415/7
Matrix: Water
Analysis Batch: 67415

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/18/20 11:45	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/18/20 11:45	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/18/20 11:45	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/18/20 11:45	1
1,4-Dioxane	ND		250	29	ug/L			11/18/20 11:45	1
2-Butanone	ND		10	0.30	ug/L			11/18/20 11:45	1
Acetone	ND		20	0.70	ug/L			11/18/20 11:45	1
Benzene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/18/20 11:45	1
Chloroform	ND		1.0	0.20	ug/L			11/18/20 11:45	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/18/20 11:45	1
Freon 113	ND		10	0.20	ug/L			11/18/20 11:45	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/18/20 11:45	1
Naphthalene	ND		5.0	1.0	ug/L			11/18/20 11:45	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Toluene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Trichloroethene	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/18/20 11:45	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/18/20 11:45	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/18/20 11:45*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*11/18/20 11:45*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/18/20 11:45*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*11/18/20 11:45*	*1*

Lab Sample ID: LCS 410-67415/5
Matrix: Water
Analysis Batch: 67415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.8		ug/L		89	67 - 126
1,1-Dichloroethane	20.0	19.6		ug/L		98	80 - 120
1,1-Dichloroethene	20.0	20.9		ug/L		104	80 - 131
1,2-Dichlorobenzene	20.0	19.9		ug/L		100	80 - 120
1,2-Dichloroethane	20.0	18.1		ug/L		90	73 - 124
1,4-Dioxane	500	493		ug/L		99	63 - 146
2-Butanone	150	157		ug/L		105	59 - 135
Acetone	150	190		ug/L		127	54 - 157
Benzene	20.0	19.7		ug/L		98	80 - 120
Carbon disulfide	20.0	19.2		ug/L		96	65 - 128
Chloroform	20.0	18.9		ug/L		94	80 - 120
cis-1,2-Dichloroethene	20.0	20.6		ug/L		103	80 - 125
Ethylbenzene	20.0	19.5		ug/L		97	80 - 120
Freon 113	20.0	18.8		ug/L		94	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-67415/5
Matrix: Water
Analysis Batch: 67415

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	20.7		ug/L		104	80 - 120		
Naphthalene			20.0	19.5		ug/L		97	53 - 124		
Tetrachloroethene			20.0	20.8		ug/L		104	80 - 120		
Toluene			20.0	19.9		ug/L		100	80 - 120		
trans-1,2-Dichloroethene			20.0	20.1		ug/L		101	80 - 126		
Trichloroethene			20.0	19.4		ug/L		97	80 - 120		
Vinyl chloride			20.0	18.5		ug/L		93	56 - 120		
Xylenes, Total			60.0	59.6		ug/L		99	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 410-20865-30 MS
Matrix: Water
Analysis Batch: 67415

Client Sample ID: RS-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1-Trichloroethane	2.6		20.0	23.7		ug/L		106	67 - 126		
1,1-Dichloroethane	0.80	J	20.0	22.5		ug/L		109	80 - 120		
1,1-Dichloroethene	0.20	J	20.0	24.6		ug/L		123	80 - 131		
1,2-Dichlorobenzene	ND		20.0	21.3		ug/L		106	80 - 120		
1,2-Dichloroethane	ND		20.0	19.1		ug/L		96	73 - 124		
1,4-Dioxane	ND		500	523		ug/L		105	63 - 146		
2-Butanone	ND		150	152		ug/L		101	59 - 135		
Acetone	3.1	J	150	170		ug/L		111	54 - 157		
Benzene	ND		20.0	22.3		ug/L		111	80 - 120		
Carbon disulfide	ND		20.0	22.6		ug/L		113	65 - 128		
Chloroform	ND		20.0	21.0		ug/L		105	80 - 120		
cis-1,2-Dichloroethene	ND		20.0	24.6		ug/L		123	80 - 125		
Ethylbenzene	ND		20.0	22.1		ug/L		111	80 - 120		
Freon 113	ND		20.0	24.5		ug/L		122	73 - 139		
Methylene Chloride	ND		20.0	22.3		ug/L		111	80 - 120		
Naphthalene	ND		20.0	19.8		ug/L		99	53 - 124		
Tetrachloroethene	1.3	F1	20.0	25.5	F1	ug/L		121	80 - 120		
Toluene	ND		20.0	22.6		ug/L		113	80 - 120		
trans-1,2-Dichloroethene	ND		20.0	23.0		ug/L		115	80 - 126		
Trichloroethene	11		20.0	33.5		ug/L		111	80 - 120		
Vinyl chloride	ND	F2	20.0	17.4		ug/L		87	56 - 120		
Xylenes, Total	ND		60.0	67.4		ug/L		112	80 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: 410-20865-30 MSD
Matrix: Water
Analysis Batch: 67415

Client Sample ID: RS-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	2.6		20.0	23.6		ug/L		105	67 - 126	0	30
1,1-Dichloroethane	0.80	J	20.0	23.0		ug/L		111	80 - 120	2	30
1,1-Dichloroethene	0.20	J	20.0	25.2		ug/L		126	80 - 131	2	30
1,2-Dichlorobenzene	ND		20.0	21.2		ug/L		106	80 - 120	0	30
1,2-Dichloroethane	ND		20.0	19.2		ug/L		96	73 - 124	1	30
1,4-Dioxane	ND		500	407		ug/L		81	63 - 146	25	30
2-Butanone	ND		150	156		ug/L		104	59 - 135	2	30
Acetone	3.1	J	150	167		ug/L		109	54 - 157	2	30
Benzene	ND		20.0	22.4		ug/L		112	80 - 120	1	30
Carbon disulfide	ND		20.0	23.2		ug/L		116	65 - 128	3	30
Chloroform	ND		20.0	21.1		ug/L		106	80 - 120	1	30
cis-1,2-Dichloroethene	ND		20.0	24.7		ug/L		123	80 - 125	0	30
Ethylbenzene	ND		20.0	22.1		ug/L		110	80 - 120	0	30
Freon 113	ND		20.0	24.9		ug/L		124	73 - 139	2	30
Methylene Chloride	ND		20.0	22.5		ug/L		113	80 - 120	1	30
Naphthalene	ND		20.0	19.9		ug/L		99	53 - 124	0	30
Tetrachloroethene	1.3	F1	20.0	25.4	F1	ug/L		121	80 - 120	0	30
Toluene	ND		20.0	22.6		ug/L		113	80 - 120	0	30
trans-1,2-Dichloroethene	ND		20.0	23.2		ug/L		116	80 - 126	1	30
Trichloroethene	11		20.0	34.2		ug/L		114	80 - 120	2	30
Vinyl chloride	ND	F2	20.0	23.7	F2	ug/L		119	56 - 120	31	30
Xylenes, Total	ND		60.0	66.6		ug/L		111	80 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*95*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: MB 410-68196/6
Matrix: Water
Analysis Batch: 68196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/19/20 21:25	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/19/20 21:25	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/19/20 21:25	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/19/20 21:25	1
1,4-Dioxane	ND		250	29	ug/L			11/19/20 21:25	1
2-Butanone	ND		10	0.30	ug/L			11/19/20 21:25	1
Acetone	ND		20	0.70	ug/L			11/19/20 21:25	1
Benzene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/19/20 21:25	1
Chloroform	ND		1.0	0.20	ug/L			11/19/20 21:25	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/19/20 21:25	1
Freon 113	ND		10	0.20	ug/L			11/19/20 21:25	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-68196/6
Matrix: Water
Analysis Batch: 68196

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.30	ug/L			11/19/20 21:25	1
Naphthalene	ND		5.0	1.0	ug/L			11/19/20 21:25	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Toluene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Trichloroethene	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/19/20 21:25	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/19/20 21:25	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/19/20 21:25*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/19/20 21:25*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*11/19/20 21:25*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/19/20 21:25*	*1*

Lab Sample ID: LCS 410-68196/4
Matrix: Water
Analysis Batch: 68196

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.2		ug/L		91	67 - 126
1,1-Dichloroethane	20.0	19.5		ug/L		98	80 - 120
1,1-Dichloroethene	20.0	20.4		ug/L		102	80 - 131
1,2-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120
1,2-Dichloroethane	20.0	18.5		ug/L		93	73 - 124
1,4-Dioxane	500	629		ug/L		126	63 - 146
2-Butanone	150	153		ug/L		102	59 - 135
Acetone	150	160		ug/L		107	54 - 157
Benzene	20.0	20.0		ug/L		100	80 - 120
Carbon disulfide	20.0	18.7		ug/L		94	65 - 128
Chloroform	20.0	19.5		ug/L		97	80 - 120
cis-1,2-Dichloroethene	20.0	21.3		ug/L		107	80 - 125
Ethylbenzene	20.0	19.8		ug/L		99	80 - 120
Freon 113	20.0	19.4		ug/L		97	73 - 139
Methylene Chloride	20.0	20.7		ug/L		104	80 - 120
Naphthalene	20.0	20.3		ug/L		101	53 - 124
Tetrachloroethene	20.0	21.2		ug/L		106	80 - 120
Toluene	20.0	20.4		ug/L		102	80 - 120
trans-1,2-Dichloroethene	20.0	20.3		ug/L		102	80 - 126
Trichloroethene	20.0	19.9		ug/L		99	80 - 120
Vinyl chloride	20.0	18.8		ug/L		94	56 - 120
Xylenes, Total	60.0	60.7		ug/L		101	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: LCSD 410-68196/56
Matrix: Water
Analysis Batch: 68196

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	18.2		ug/L		91	67 - 126	0	30
1,1-Dichloroethane			20.0	19.7		ug/L		99	80 - 120	1	30
1,1-Dichloroethene			20.0	20.4		ug/L		102	80 - 131	0	30
1,2-Dichlorobenzene			20.0	20.9		ug/L		105	80 - 120	2	30
1,2-Dichloroethane			20.0	18.3		ug/L		92	73 - 124	1	30
1,4-Dioxane			500	635		ug/L		127	63 - 146	1	30
2-Butanone			150	154		ug/L		102	59 - 135	0	30
Acetone			150	162		ug/L		108	54 - 157	1	30
Benzene			20.0	20.0		ug/L		100	80 - 120	0	30
Carbon disulfide			20.0	18.8		ug/L		94	65 - 128	0	30
Chloroform			20.0	19.4		ug/L		97	80 - 120	0	30
cis-1,2-Dichloroethene			20.0	21.3		ug/L		107	80 - 125	0	30
Ethylbenzene			20.0	20.0		ug/L		100	80 - 120	1	30
Freon 113			20.0	19.4		ug/L		97	73 - 139	0	30
Methylene Chloride			20.0	20.8		ug/L		104	80 - 120	0	30
Naphthalene			20.0	20.2		ug/L		101	53 - 124	1	30
Tetrachloroethene			20.0	21.4		ug/L		107	80 - 120	1	30
Toluene			20.0	20.6		ug/L		103	80 - 120	1	30
trans-1,2-Dichloroethene			20.0	20.3		ug/L		101	80 - 126	0	30
Trichloroethene			20.0	20.0		ug/L		100	80 - 120	1	30
Vinyl chloride			20.0	19.0		ug/L		95	56 - 120	1	30
Xylenes, Total			60.0	61.5		ug/L		103	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 410-20865-1 MS
Matrix: Water
Analysis Batch: 68196

Client Sample ID: J01-UC01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	1.8		20.0	24.0		ug/L		111	67 - 126
1,1-Dichloroethane	0.65	J	20.0	23.3		ug/L		113	80 - 120
1,1-Dichloroethene	0.31	J	20.0	26.1		ug/L		129	80 - 131
1,2-Dichlorobenzene	ND		20.0	22.7		ug/L		114	80 - 120
1,2-Dichloroethane	ND		20.0	20.0		ug/L		100	73 - 124
1,4-Dioxane	ND		500	633		ug/L		127	63 - 146
2-Butanone	ND		150	157		ug/L		105	59 - 135
Acetone	ND		150	176		ug/L		118	54 - 157
Benzene	ND		20.0	23.2		ug/L		116	80 - 120
Carbon disulfide	ND		20.0	23.0		ug/L		115	65 - 128
Chloroform	ND		20.0	22.1		ug/L		110	80 - 120
cis-1,2-Dichloroethene	1.8		20.0	25.9		ug/L		121	80 - 125
Ethylbenzene	ND		20.0	23.0		ug/L		115	80 - 120
Freon 113	ND		20.0	25.3		ug/L		126	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-20865-1 MS
Matrix: Water
Analysis Batch: 68196

Client Sample ID: J01-UC01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	ND		20.0	23.3		ug/L		117	80 - 120
Naphthalene	ND		20.0	21.5		ug/L		108	53 - 124
Tetrachloroethene	8.8	F1	20.0	33.8	F1	ug/L		125	80 - 120
Toluene	ND		20.0	23.7		ug/L		119	80 - 120
trans-1,2-Dichloroethene	1.1		20.0	25.2		ug/L		121	80 - 126
Trichloroethene	3.9		20.0	27.6		ug/L		118	80 - 120
Vinyl chloride	ND	F1	20.0	25.2	F1	ug/L		126	56 - 120
Xylenes, Total	ND		60.0	70.1		ug/L		117	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: 410-20865-1 MSD
Matrix: Water
Analysis Batch: 68196

Client Sample ID: J01-UC01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1.8		20.0	23.0		ug/L		106	67 - 126	4	30
1,1-Dichloroethane	0.65	J	20.0	22.8		ug/L		111	80 - 120	2	30
1,1-Dichloroethene	0.31	J	20.0	25.2		ug/L		124	80 - 131	3	30
1,2-Dichlorobenzene	ND		20.0	22.2		ug/L		111	80 - 120	3	30
1,2-Dichloroethane	ND		20.0	20.0		ug/L		100	73 - 124	0	30
1,4-Dioxane	ND		500	603		ug/L		121	63 - 146	5	30
2-Butanone	ND		150	156		ug/L		104	59 - 135	1	30
Acetone	ND		150	173		ug/L		115	54 - 157	2	30
Benzene	ND		20.0	22.8		ug/L		114	80 - 120	2	30
Carbon disulfide	ND		20.0	22.9		ug/L		114	65 - 128	0	30
Chloroform	ND		20.0	21.8		ug/L		109	80 - 120	1	30
cis-1,2-Dichloroethene	1.8		20.0	25.7		ug/L		119	80 - 125	1	30
Ethylbenzene	ND		20.0	22.6		ug/L		113	80 - 120	2	30
Freon 113	ND		20.0	24.8		ug/L		124	73 - 139	2	30
Methylene Chloride	ND		20.0	23.0		ug/L		115	80 - 120	1	30
Naphthalene	ND		20.0	21.0		ug/L		105	53 - 124	3	30
Tetrachloroethene	8.8	F1	20.0	33.1	F1	ug/L		121	80 - 120	2	30
Toluene	ND		20.0	23.5		ug/L		117	80 - 120	1	30
trans-1,2-Dichloroethene	1.1		20.0	24.7		ug/L		118	80 - 126	2	30
Trichloroethene	3.9		20.0	26.7		ug/L		114	80 - 120	3	30
Vinyl chloride	ND	F1	20.0	24.3	F1	ug/L		121	56 - 120	4	30
Xylenes, Total	ND		60.0	69.2		ug/L		115	80 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-68468/7
Matrix: Water
Analysis Batch: 68468

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 10:20	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 10:20	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 10:20	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 10:20	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 10:20	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 10:20	1
Acetone	ND		20	0.70	ug/L			11/20/20 10:20	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 10:20	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 10:20	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 10:20	1
Freon 113	ND		10	0.20	ug/L			11/20/20 10:20	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 10:20	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 10:20	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 10:20	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 10:20	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/20/20 10:20*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 10:20*	*1*
Dibromofluoromethane (Surr)	*96*		*80 - 120*		*11/20/20 10:20*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 10:20*	*1*

Lab Sample ID: LCS 410-68468/5
Matrix: Water
Analysis Batch: 68468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.8		ug/L		94	67 - 126
1,1-Dichloroethane	20.0	20.1		ug/L		100	80 - 120
1,1-Dichloroethene	20.0	21.3		ug/L		107	80 - 131
1,2-Dichlorobenzene	20.0	20.6		ug/L		103	80 - 120
1,2-Dichloroethane	20.0	19.0		ug/L		95	73 - 124
1,4-Dioxane	500	546		ug/L		109	63 - 146
2-Butanone	150	159		ug/L		106	59 - 135
Acetone	150	183		ug/L		122	54 - 157
Benzene	20.0	20.5		ug/L		103	80 - 120
Carbon disulfide	20.0	19.2		ug/L		96	65 - 128
Chloroform	20.0	20.0		ug/L		100	80 - 120
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	80 - 125
Ethylbenzene	20.0	20.6		ug/L		103	80 - 120
Freon 113	20.0	19.8		ug/L		99	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-68468/5
Matrix: Water
Analysis Batch: 68468

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	21.1		ug/L		106	80 - 120		
Naphthalene			20.0	20.2		ug/L		101	53 - 124		
Tetrachloroethene			20.0	22.2		ug/L		111	80 - 120		
Toluene			20.0	21.0		ug/L		105	80 - 120		
trans-1,2-Dichloroethene			20.0	20.7		ug/L		103	80 - 126		
Trichloroethene			20.0	20.3		ug/L		101	80 - 120		
Vinyl chloride			20.0	18.9		ug/L		95	56 - 120		
Xylenes, Total			60.0	62.8		ug/L		105	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F2	MS/MSD RPD exceeds control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Analysis Batch: 67415

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20865-13	RS-05	Total/NA	Water	8260C	
410-20865-14	RS-04	Total/NA	Water	8260C	
410-20865-15	RS-15	Total/NA	Water	8260C	
410-20865-16	RS-07	Total/NA	Water	8260C	
410-20865-17	RS-14	Total/NA	Water	8260C	
410-20865-18	RS-08	Total/NA	Water	8260C	
410-20865-19	J01-BR01	Total/NA	Water	8260C	
410-20865-20	J01-BR02	Total/NA	Water	8260C	
410-20865-24	PDB Blank	Total/NA	Water	8260C	
410-20865-25	RS-12A	Total/NA	Water	8260C	
410-20865-26	RS-01	Total/NA	Water	8260C	
410-20865-27	RS-09	Total/NA	Water	8260C	
410-20865-28	RS-10	Total/NA	Water	8260C	
410-20865-29	RS-DUP	Total/NA	Water	8260C	
410-20865-30	RS-03	Total/NA	Water	8260C	
410-20865-31	RS-13	Total/NA	Water	8260C	
410-20865-32	RS-02	Total/NA	Water	8260C	
410-20865-33	RS-11	Total/NA	Water	8260C	
410-20865-34	TB 111020	Total/NA	Water	8260C	
MB 410-67415/7	Method Blank	Total/NA	Water	8260C	
LCS 410-67415/5	Lab Control Sample	Total/NA	Water	8260C	
410-20865-30 MS	RS-03	Total/NA	Water	8260C	
410-20865-30 MSD	RS-03	Total/NA	Water	8260C	

Analysis Batch: 68196

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20865-1	J01-UC01	Total/NA	Water	8260C	
410-20865-2	J01-UC02	Total/NA	Water	8260C	
410-20865-3	J04-BR02	Total/NA	Water	8260C	
410-20865-4	J05-BR02	Total/NA	Water	8260C	
410-20865-5	DUP-01	Total/NA	Water	8260C	
410-20865-6	J13-BR02	Total/NA	Water	8260C	
410-20865-7	J13-BR01	Total/NA	Water	8260C	
410-20865-8	J13-UC03	Total/NA	Water	8260C	
410-20865-9	J13-UC02	Total/NA	Water	8260C	
410-20865-10	J08-UC02	Total/NA	Water	8260C	
410-20865-11	J12-BR02	Total/NA	Water	8260C	
410-20865-12	J21-UC02	Total/NA	Water	8260C	
MB 410-68196/6	Method Blank	Total/NA	Water	8260C	
LCS 410-68196/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-68196/56	Lab Control Sample Dup	Total/NA	Water	8260C	
410-20865-1 MS	J01-UC01	Total/NA	Water	8260C	
410-20865-1 MSD	J01-UC01	Total/NA	Water	8260C	

Analysis Batch: 68468

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-20865-21	J04-BR01	Total/NA	Water	8260C	
410-20865-22	J05-BR01	Total/NA	Water	8260C	
410-20865-23	J12-BR01	Total/NA	Water	8260C	
MB 410-68468/7	Method Blank	Total/NA	Water	8260C	
LCS 410-68468/5	Lab Control Sample	Total/NA	Water	8260C	

Client Sample ID: J01-UC01
Lab Sample ID: 410-20865-1
Date Collected: 11/11/20 08:55
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/19/20 22:35	TQ4J	ELLE

Client Sample ID: J01-UC02
Lab Sample ID: 410-20865-2
Date Collected: 11/11/20 10:50
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 00:56	TQ4J	ELLE

Client Sample ID: J04-BR02
Lab Sample ID: 410-20865-3
Date Collected: 11/11/20 12:59
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 01:16	TQ4J	ELLE

Client Sample ID: J05-BR02
Lab Sample ID: 410-20865-4
Date Collected: 11/11/20 15:25
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 01:37	TQ4J	ELLE

Client Sample ID: DUP-01
Lab Sample ID: 410-20865-5
Date Collected: 11/11/20 14:35
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 01:57	TQ4J	ELLE

Client Sample ID: J13-BR02
Lab Sample ID: 410-20865-6
Date Collected: 11/12/20 09:20
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 02:17	TQ4J	ELLE

Client Sample ID: J13-BR01
Lab Sample ID: 410-20865-7
Date Collected: 11/12/20 11:05
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 02:38	TQ4J	ELLE

Client Sample ID: J13-UC03
Lab Sample ID: 410-20865-8
Date Collected: 11/12/20 13:05
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 02:58	TQ4J	ELLE

Client Sample ID: J13-UC02
Lab Sample ID: 410-20865-9
Date Collected: 11/12/20 14:30
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 03:18	TQ4J	ELLE

Client Sample ID: J08-UC02
Lab Sample ID: 410-20865-10
Date Collected: 11/12/20 16:35
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 03:39	TQ4J	ELLE

Client Sample ID: J12-BR02
Lab Sample ID: 410-20865-11
Date Collected: 11/12/20 10:44
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 03:59	TQ4J	ELLE

Client Sample ID: J21-UC02
Lab Sample ID: 410-20865-12
Date Collected: 11/12/20 12:02
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68196	11/20/20 04:19	TQ4J	ELLE

Client Sample ID: RS-05
Lab Sample ID: 410-20865-13
Date Collected: 11/10/20 14:13
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 14:15	LCW8	ELLE

Client Sample ID: RS-04
Lab Sample ID: 410-20865-14
Date Collected: 11/10/20 14:18
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 14:35	LCW8	ELLE

Client Sample ID: RS-15
Lab Sample ID: 410-20865-15
Date Collected: 11/10/20 14:23
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 14:55	LCW8	ELLE

Client Sample ID: RS-07
Lab Sample ID: 410-20865-16
Date Collected: 11/10/20 14:30
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 15:15	LCW8	ELLE

Client Sample ID: RS-14
Lab Sample ID: 410-20865-17
Date Collected: 11/10/20 14:44
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 15:35	LCW8	ELLE

Client Sample ID: RS-08
Lab Sample ID: 410-20865-18
Date Collected: 11/10/20 15:00
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 15:55	LCW8	ELLE

Client Sample ID: J01-BR01
Lab Sample ID: 410-20865-19
Date Collected: 11/10/20 13:50
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 16:16	LCW8	ELLE

Client Sample ID: J01-BR02
Lab Sample ID: 410-20865-20
Date Collected: 11/10/20 15:15
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 16:36	LCW8	ELLE

Client Sample ID: J04-BR01
Lab Sample ID: 410-20865-21
Date Collected: 11/11/20 12:48
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68468	11/20/20 17:39	LCW8	ELLE

Client Sample ID: J05-BR01
Lab Sample ID: 410-20865-22
Date Collected: 11/11/20 15:52
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68468	11/20/20 17:59	LCW8	ELLE

Client Sample ID: J12-BR01
Lab Sample ID: 410-20865-23
Date Collected: 11/12/20 09:26
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68468	11/20/20 18:19	LCW8	ELLE

Client Sample ID: PDB Blank
Lab Sample ID: 410-20865-24
Date Collected: 11/10/20 10:20
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 12:34	LCW8	ELLE

Client Sample ID: RS-12A
Lab Sample ID: 410-20865-25
Date Collected: 11/10/20 12:00
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 16:57	LCW8	ELLE

Client Sample ID: RS-01
Lab Sample ID: 410-20865-26
Date Collected: 11/10/20 12:15
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 17:17	LCW8	ELLE

Client Sample ID: RS-09
Lab Sample ID: 410-20865-27
Date Collected: 11/10/20 12:25
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 17:37	LCW8	ELLE

Client Sample ID: RS-10
Lab Sample ID: 410-20865-28
Date Collected: 11/10/20 12:50
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 17:58	LCW8	ELLE

Client Sample ID: RS-DUP
Lab Sample ID: 410-20865-29
Date Collected: 11/10/20 12:30
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 18:18	LCW8	ELLE

Client Sample ID: RS-03
Lab Sample ID: 410-20865-30
Date Collected: 11/10/20 13:00
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 13:15	LCW8	ELLE

Client Sample ID: RS-13
Lab Sample ID: 410-20865-31
Date Collected: 11/10/20 13:17
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 18:38	LCW8	ELLE

Client Sample ID: RS-02
Lab Sample ID: 410-20865-32
Date Collected: 11/10/20 13:36
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 18:59	LCW8	ELLE

Client Sample ID: RS-11
Lab Sample ID: 410-20865-33
Date Collected: 11/10/20 13:45
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 19:19	LCW8	ELLE

Client Sample ID: TB 111020
Lab Sample ID: 410-20865-34
Date Collected: 11/10/20 00:00
Matrix: Water
Date Received: 11/13/20 10:36

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	67415	11/18/20 12:55	LCW8	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: VHB (Formerly The Johnson Co) Job ID: 410-20865-1
Project/Site: AD New Windsor

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-21

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
J01-UC01	410-20865-1	96	99	101	93
J01-UC02	410-20865-2	97	101	102	94
J04-BR02	410-20865-3	95	101	100	92
J05-BR02	410-20865-4	96	100	101	94
DUP-01	410-20865-5	96	100	101	93
J13-BR02	410-20865-6	96	101	100	93
J13-BR01	410-20865-7	97	99	100	94
J13-UC03	410-20865-8	96	102	100	93
J13-UC02	410-20865-9	97	99	101	94
J08-UC02	410-20865-10	97	102	100	93
J12-BR02	410-20865-11	97	100	101	93
J21-UC02	410-20865-12	95	101	100	91
RS-05	410-20865-13	96	100	101	93
RS-04	410-20865-14	96	101	101	93
RS-15	410-20865-15	96	100	101	94
RS-07	410-20865-16	95	100	101	95
RS-14	410-20865-17	95	99	100	93
RS-08	410-20865-18	96	102	100	94
J01-BR01	410-20865-19	95	101	101	94
J01-BR02	410-20865-20	97	100	102	95
J04-BR01	410-20865-21	97	102	100	93
J05-BR01	410-20865-22	97	99	100	93
J12-BR01	410-20865-23	96	102	100	93
PDB Blank	410-20865-24	95	100	101	94
RS-12A	410-20865-25	97	100	99	93
RS-01	410-20865-26	96	100	102	93
RS-09	410-20865-27	96	101	101	93
RS-10	410-20865-28	97	100	101	94
RS-DUP	410-20865-29	96	101	102	94
RS-03	410-20865-30	95	99	100	94
RS-13	410-20865-31	96	101	101	93
RS-02	410-20865-32	96	101	100	92
RS-11	410-20865-33	97	98	101	94
TB 111020	410-20865-34	96	100	102	94
	MB 410-67415/7	95	99	103	96

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	MB 410-68196/6	95	102	101	93
	MB 410-68468/7	96	100	101	93
	LCS 410-67415/5	95	99	100	94
	LCS 410-68196/4	96	100	101	93
	LCS 410-68468/5	97	101	101	94
	LCSD 410-68196/56	96	99	101	94
J01-UC01 MS	410-20865-1 MS	96	101	100	93
RS-03 MS	410-20865-30 MS	95	99	101	95
J01-UC01 MSD	410-20865-1 MSD	96	100	101	94
RS-03 MSD	410-20865-30 MSD	95	100	100	94

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N18L01.D

Lab ID: LCS 410-67415/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	17.8	89	67-126	
1,1-Dichloroethane	20.0	19.6	98	80-120	
1,1-Dichloroethene	20.0	20.9	104	80-131	
1,2-Dichlorobenzene	20.0	19.9	100	80-120	
1,2-Dichloroethane	20.0	18.1	90	73-124	
1,4-Dioxane	500	493	99	63-146	
2-Butanone	150	157	105	59-135	
Acetone	150	190	127	54-157	
Benzene	20.0	19.7	98	80-120	
Carbon disulfide	20.0	19.2	96	65-128	
Chloroform	20.0	18.9	94	80-120	
cis-1,2-Dichloroethene	20.0	20.6	103	80-125	
Ethylbenzene	20.0	19.5	97	80-120	
Freon 113	20.0	18.8	94	73-139	
Methylene Chloride	20.0	20.7	104	80-120	
Naphthalene	20.0	19.5	97	53-124	
Tetrachloroethene	20.0	20.8	104	80-120	
Toluene	20.0	19.9	100	80-120	
trans-1,2-Dichloroethene	20.0	20.1	101	80-126	
Trichloroethene	20.0	19.4	97	80-120	
Vinyl chloride	20.0	18.5	93	56-120	
Xylenes, Total	60.0	59.6	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N19L35.D

Lab ID: LCS 410-68196/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.2	91	67-126	
1,1-Dichloroethane	20.0	19.5	98	80-120	
1,1-Dichloroethene	20.0	20.4	102	80-131	
1,2-Dichlorobenzene	20.0	20.6	103	80-120	
1,2-Dichloroethane	20.0	18.5	93	73-124	
1,4-Dioxane	500	629	126	63-146	
2-Butanone	150	153	102	59-135	
Acetone	150	160	107	54-157	
Benzene	20.0	20.0	100	80-120	
Carbon disulfide	20.0	18.7	94	65-128	
Chloroform	20.0	19.5	97	80-120	
cis-1,2-Dichloroethene	20.0	21.3	107	80-125	
Ethylbenzene	20.0	19.8	99	80-120	
Freon 113	20.0	19.4	97	73-139	
Methylene Chloride	20.0	20.7	104	80-120	
Naphthalene	20.0	20.3	101	53-124	
Tetrachloroethene	20.0	21.2	106	80-120	
Toluene	20.0	20.4	102	80-120	
trans-1,2-Dichloroethene	20.0	20.3	102	80-126	
Trichloroethene	20.0	19.9	99	80-120	
Vinyl chloride	20.0	18.8	94	56-120	
Xylenes, Total	60.0	60.7	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N20L01.D

Lab ID: LCS 410-68468/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.8	94	67-126	
1,1-Dichloroethane	20.0	20.1	100	80-120	
1,1-Dichloroethene	20.0	21.3	107	80-131	
1,2-Dichlorobenzene	20.0	20.6	103	80-120	
1,2-Dichloroethane	20.0	19.0	95	73-124	
1,4-Dioxane	500	546	109	63-146	
2-Butanone	150	159	106	59-135	
Acetone	150	183	122	54-157	
Benzene	20.0	20.5	103	80-120	
Carbon disulfide	20.0	19.2	96	65-128	
Chloroform	20.0	20.0	100	80-120	
cis-1,2-Dichloroethene	20.0	21.8	109	80-125	
Ethylbenzene	20.0	20.6	103	80-120	
Freon 113	20.0	19.8	99	73-139	
Methylene Chloride	20.0	21.1	106	80-120	
Naphthalene	20.0	20.2	101	53-124	
Tetrachloroethene	20.0	22.2	111	80-120	
Toluene	20.0	21.0	105	80-120	
trans-1,2-Dichloroethene	20.0	20.7	103	80-126	
Trichloroethene	20.0	20.3	101	80-120	
Vinyl chloride	20.0	18.9	95	56-120	
Xylenes, Total	60.0	62.8	105	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N19L36.D

Lab ID: LCSD 410-68196/56 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.2	91	0	30	67-126	
1,1-Dichloroethane	20.0	19.7	99	1	30	80-120	
1,1-Dichloroethene	20.0	20.4	102	0	30	80-131	
1,2-Dichlorobenzene	20.0	20.9	105	2	30	80-120	
1,2-Dichloroethane	20.0	18.3	92	1	30	73-124	
1,4-Dioxane	500	635	127	1	30	63-146	
2-Butanone	150	154	102	0	30	59-135	
Acetone	150	162	108	1	30	54-157	
Benzene	20.0	20.0	100	0	30	80-120	
Carbon disulfide	20.0	18.8	94	0	30	65-128	
Chloroform	20.0	19.4	97	0	30	80-120	
cis-1,2-Dichloroethene	20.0	21.3	107	0	30	80-125	
Ethylbenzene	20.0	20.0	100	1	30	80-120	
Freon 113	20.0	19.4	97	0	30	73-139	
Methylene Chloride	20.0	20.8	104	0	30	80-120	
Naphthalene	20.0	20.2	101	1	30	53-124	
Tetrachloroethene	20.0	21.4	107	1	30	80-120	
Toluene	20.0	20.6	103	1	30	80-120	
trans-1,2-Dichloroethene	20.0	20.3	101	0	30	80-126	
Trichloroethene	20.0	20.0	100	1	30	80-120	
Vinyl chloride	20.0	19.0	95	1	30	56-120	
Xylenes, Total	60.0	61.5	103	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N19S39.D

Lab ID: 410-20865-1 MS Client ID: J01-UC01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	1.8	24.0	111	67-126	
1,1-Dichloroethane	20.0	0.65 J	23.3	113	80-120	
1,1-Dichloroethene	20.0	0.31 J	26.1	129	80-131	
1,2-Dichlorobenzene	20.0	ND	22.7	114	80-120	
1,2-Dichloroethane	20.0	ND	20.0	100	73-124	
1,4-Dioxane	500	ND	633	127	63-146	
2-Butanone	150	ND	157	105	59-135	
Acetone	150	ND	176	118	54-157	
Benzene	20.0	ND	23.2	116	80-120	
Carbon disulfide	20.0	ND	23.0	115	65-128	
Chloroform	20.0	ND	22.1	110	80-120	
cis-1,2-Dichloroethene	20.0	1.8	25.9	121	80-125	
Ethylbenzene	20.0	ND	23.0	115	80-120	
Freon 113	20.0	ND	25.3	126	73-139	
Methylene Chloride	20.0	ND	23.3	117	80-120	
Naphthalene	20.0	ND	21.5	108	53-124	
Tetrachloroethene	20.0	8.8	33.8	125	80-120	F1
Toluene	20.0	ND	23.7	119	80-120	
trans-1,2-Dichloroethene	20.0	1.1	25.2	121	80-126	
Trichloroethene	20.0	3.9	27.6	118	80-120	
Vinyl chloride	20.0	ND	25.2	126	56-120	F1
Xylenes, Total	60.0	ND	70.1	117	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N18S05.D

Lab ID: 410-20865-30 MS Client ID: RS-03 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	2.6	23.7	106	67-126	
1,1-Dichloroethane	20.0	0.80 J	22.5	109	80-120	
1,1-Dichloroethene	20.0	0.20 J	24.6	123	80-131	
1,2-Dichlorobenzene	20.0	ND	21.3	106	80-120	
1,2-Dichloroethane	20.0	ND	19.1	96	73-124	
1,4-Dioxane	500	ND	523	105	63-146	
2-Butanone	150	ND	152	101	59-135	
Acetone	150	3.1 J	170	111	54-157	
Benzene	20.0	ND	22.3	111	80-120	
Carbon disulfide	20.0	ND	22.6	113	65-128	
Chloroform	20.0	ND	21.0	105	80-120	
cis-1,2-Dichloroethene	20.0	ND	24.6	123	80-125	
Ethylbenzene	20.0	ND	22.1	111	80-120	
Freon 113	20.0	ND	24.5	122	73-139	
Methylene Chloride	20.0	ND	22.3	111	80-120	
Naphthalene	20.0	ND	19.8	99	53-124	
Tetrachloroethene	20.0	1.3	25.5	121	80-120	F1
Toluene	20.0	ND	22.6	113	80-120	
trans-1,2-Dichloroethene	20.0	ND	23.0	115	80-126	
Trichloroethene	20.0	11	33.5	111	80-120	
Vinyl chloride	20.0	ND	17.4	87	56-120	
Xylenes, Total	60.0	ND	67.4	112	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N19S40.D

Lab ID: 410-20865-1 MSD Client ID: J01-UC01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	23.0	106	4	30	67-126	
1,1-Dichloroethane	20.0	22.8	111	2	30	80-120	
1,1-Dichloroethene	20.0	25.2	124	3	30	80-131	
1,2-Dichlorobenzene	20.0	22.2	111	3	30	80-120	
1,2-Dichloroethane	20.0	20.0	100	0	30	73-124	
1,4-Dioxane	500	603	121	5	30	63-146	
2-Butanone	150	156	104	1	30	59-135	
Acetone	150	173	115	2	30	54-157	
Benzene	20.0	22.8	114	2	30	80-120	
Carbon disulfide	20.0	22.9	114	0	30	65-128	
Chloroform	20.0	21.8	109	1	30	80-120	
cis-1,2-Dichloroethene	20.0	25.7	119	1	30	80-125	
Ethylbenzene	20.0	22.6	113	2	30	80-120	
Freon 113	20.0	24.8	124	2	30	73-139	
Methylene Chloride	20.0	23.0	115	1	30	80-120	
Naphthalene	20.0	21.0	105	3	30	53-124	
Tetrachloroethene	20.0	33.1	121	2	30	80-120	F1
Toluene	20.0	23.5	117	1	30	80-120	
trans-1,2-Dichloroethene	20.0	24.7	118	2	30	80-126	
Trichloroethene	20.0	26.7	114	3	30	80-120	
Vinyl chloride	20.0	24.3	121	4	30	56-120	F1
Xylenes, Total	60.0	69.2	115	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 5N18S06.D

Lab ID: 410-20865-30 MSD Client ID: RS-03 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	23.6	105	0	30	67-126	
1,1-Dichloroethane	20.0	23.0	111	2	30	80-120	
1,1-Dichloroethene	20.0	25.2	126	2	30	80-131	
1,2-Dichlorobenzene	20.0	21.2	106	0	30	80-120	
1,2-Dichloroethane	20.0	19.2	96	1	30	73-124	
1,4-Dioxane	500	407	81	25	30	63-146	
2-Butanone	150	156	104	2	30	59-135	
Acetone	150	167	109	2	30	54-157	
Benzene	20.0	22.4	112	1	30	80-120	
Carbon disulfide	20.0	23.2	116	3	30	65-128	
Chloroform	20.0	21.1	106	1	30	80-120	
cis-1,2-Dichloroethene	20.0	24.7	123	0	30	80-125	
Ethylbenzene	20.0	22.1	110	0	30	80-120	
Freon 113	20.0	24.9	124	2	30	73-139	
Methylene Chloride	20.0	22.5	113	1	30	80-120	
Naphthalene	20.0	19.9	99	0	30	53-124	
Tetrachloroethene	20.0	25.4	121	0	30	80-120	F1
Toluene	20.0	22.6	113	0	30	80-120	
trans-1,2-Dichloroethene	20.0	23.2	116	1	30	80-126	
Trichloroethene	20.0	34.2	114	2	30	80-120	
Vinyl chloride	20.0	23.7	119	31	30	56-120	F2
Xylenes, Total	60.0	66.6	111	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N18B01.D Lab Sample ID: MB 410-67415/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 26285 Date Analyzed: 11/18/2020 11:45

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-67415/5	5N18L01.D	11/18/2020 11:05
PDB Blank	410-20865-24	5N18S02.D	11/18/2020 12:34
TB 111020	410-20865-34	5N18S03.D	11/18/2020 12:55
RS-03	410-20865-30	5N18S04.D	11/18/2020 13:15
RS-03 MS	410-20865-30 MS	5N18S05.D	11/18/2020 13:35
RS-03 MSD	410-20865-30 MSD	5N18S06.D	11/18/2020 13:55
RS-05	410-20865-13	5N18S07.D	11/18/2020 14:15
RS-04	410-20865-14	5N18S08.D	11/18/2020 14:35
RS-15	410-20865-15	5N18S09.D	11/18/2020 14:55
RS-07	410-20865-16	5N18S10.D	11/18/2020 15:15
RS-14	410-20865-17	5N18S11.D	11/18/2020 15:35
RS-08	410-20865-18	5N18S12.D	11/18/2020 15:55
J01-BR01	410-20865-19	5N18S13.D	11/18/2020 16:16
J01-BR02	410-20865-20	5N18S14.D	11/18/2020 16:36
RS-12A	410-20865-25	5N18S15.D	11/18/2020 16:57
RS-01	410-20865-26	5N18S16.D	11/18/2020 17:17
RS-09	410-20865-27	5N18S17.D	11/18/2020 17:37
RS-10	410-20865-28	5N18S18.D	11/18/2020 17:58
RS-DUP	410-20865-29	5N18S19.D	11/18/2020 18:18
RS-13	410-20865-31	5N18S20.D	11/18/2020 18:38
RS-02	410-20865-32	5N18S21.D	11/18/2020 18:59
RS-11	410-20865-33	5N18S22.D	11/18/2020 19:19

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N19B35.D Lab Sample ID: MB 410-68196/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 26285 Date Analyzed: 11/19/2020 21:25

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-68196/4	5N19L35.D	11/19/2020 20:24
	LCSD 410-68196/56	5N19L36.D	11/19/2020 21:05
J01-UC01	410-20865-1	5N19S38.D	11/19/2020 22:35
J01-UC01 MS	410-20865-1 MS	5N19S39.D	11/19/2020 22:55
J01-UC01 MSD	410-20865-1 MSD	5N19S40.D	11/19/2020 23:15
J01-UC02	410-20865-2	5N19S45.D	11/20/2020 00:56
J04-BR02	410-20865-3	5N19S46.D	11/20/2020 01:16
J05-BR02	410-20865-4	5N19S47.D	11/20/2020 01:37
DUP-01	410-20865-5	5N19S48.D	11/20/2020 01:57
J13-BR02	410-20865-6	5N19S49.D	11/20/2020 02:17
J13-BR01	410-20865-7	5N19S50.D	11/20/2020 02:38
J13-UC03	410-20865-8	5N19S51.D	11/20/2020 02:58
J13-UC02	410-20865-9	5N19S52.D	11/20/2020 03:18
J08-UC02	410-20865-10	5N19S53.D	11/20/2020 03:39
J12-BR02	410-20865-11	5N19S54.D	11/20/2020 03:59
J21-UC02	410-20865-12	5N19S55.D	11/20/2020 04:19

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N20B01.D Lab Sample ID: MB 410-68468/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 26285 Date Analyzed: 11/20/2020 10:20

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-68468/5	5N20L01.D	11/20/2020 09:40
J04-BR01	410-20865-21	5N20S20.D	11/20/2020 17:39
J05-BR01	410-20865-22	5N20S21.D	11/20/2020 17:59
J12-BR01	410-20865-23	5N20S22.D	11/20/2020 18:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Lab File ID: 5S09T01.D BFB Injection Date: 09/09/2020

Instrument ID: 26285 BFB Injection Time: 13:58

Analysis Batch No.: 42091

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.3	
75	30.0 - 60.0 % of mass 95	44.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.8	(1.0) 1
174	Greater than 50% of mass 95	84.5	
175	5.0 - 9.0 % of mass 174	6.3	(7.4) 1
176	95.0 - 101.0 % of mass 174	81.8	(96.8) 1
177	5.0 - 9.0 % of mass 176	5.3	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-42091/3	5S09I01.D	09/09/2020	14:51
	IC 410-42091/4	5S09I02.D	09/09/2020	15:11
	ICIS 410-42091/5	5S09I03.D	09/09/2020	15:31
	IC 410-42091/6	5S09I04.D	09/09/2020	15:51
	IC 410-42091/7	5S09I05.D	09/09/2020	16:12
	IC 410-42091/8	5S09I06.D	09/09/2020	16:33
	IC 410-42091/9	5S09I07.D	09/09/2020	16:53
	ICV 410-42091/10	5S09V01.D	09/09/2020	17:14

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N18T01.D BFB Injection Date: 11/18/2020

Instrument ID: 26285 BFB Injection Time: 09:39

Analysis Batch No.: 67415

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	43.8	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.8	(0.9) 1
174	Greater than 50% of mass 95	89.2	
175	5.0 - 9.0 % of mass 174	6.9	(7.7) 1
176	95.0 - 101.0 % of mass 174	86.7	(97.2) 1
177	5.0 - 9.0 % of mass 176	5.8	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-67415/3	5N18C01.D	11/18/2020	10:25
	LCS 410-67415/5	5N18L01.D	11/18/2020	11:05
	MB 410-67415/7	5N18B01.D	11/18/2020	11:45
PDB Blank	410-20865-24	5N18S02.D	11/18/2020	12:34
TB 111020	410-20865-34	5N18S03.D	11/18/2020	12:55
RS-03	410-20865-30	5N18S04.D	11/18/2020	13:15
RS-03 MS	410-20865-30 MS	5N18S05.D	11/18/2020	13:35
RS-03 MSD	410-20865-30 MSD	5N18S06.D	11/18/2020	13:55
RS-05	410-20865-13	5N18S07.D	11/18/2020	14:15
RS-04	410-20865-14	5N18S08.D	11/18/2020	14:35
RS-15	410-20865-15	5N18S09.D	11/18/2020	14:55
RS-07	410-20865-16	5N18S10.D	11/18/2020	15:15
RS-14	410-20865-17	5N18S11.D	11/18/2020	15:35
RS-08	410-20865-18	5N18S12.D	11/18/2020	15:55
J01-BR01	410-20865-19	5N18S13.D	11/18/2020	16:16
J01-BR02	410-20865-20	5N18S14.D	11/18/2020	16:36
RS-12A	410-20865-25	5N18S15.D	11/18/2020	16:57
RS-01	410-20865-26	5N18S16.D	11/18/2020	17:17
RS-09	410-20865-27	5N18S17.D	11/18/2020	17:37
RS-10	410-20865-28	5N18S18.D	11/18/2020	17:58
RS-DUP	410-20865-29	5N18S19.D	11/18/2020	18:18
RS-13	410-20865-31	5N18S20.D	11/18/2020	18:38
RS-02	410-20865-32	5N18S21.D	11/18/2020	18:59
RS-11	410-20865-33	5N18S22.D	11/18/2020	19:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N19T35.D BFB Injection Date: 11/19/2020

Instrument ID: 26285 BFB Injection Time: 19:29

Analysis Batch No.: 68196

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.7	
75	30.0 - 60.0 % of mass 95	43.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.6	(0.6) 1
174	Greater than 50% of mass 95	93.7	
175	5.0 - 9.0 % of mass 174	6.9	(7.4) 1
176	95.0 - 101.0 % of mass 174	91.1	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.1	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-68196/3	5N19C35.D	11/19/2020	20:04
	LCS 410-68196/4	5N19L35.D	11/19/2020	20:24
	LCSD 410-68196/56	5N19L36.D	11/19/2020	21:05
	MB 410-68196/6	5N19B35.D	11/19/2020	21:25
J01-UC01	410-20865-1	5N19S38.D	11/19/2020	22:35
J01-UC01 MS	410-20865-1 MS	5N19S39.D	11/19/2020	22:55
J01-UC01 MSD	410-20865-1 MSD	5N19S40.D	11/19/2020	23:15
J01-UC02	410-20865-2	5N19S45.D	11/20/2020	0:56
J04-BR02	410-20865-3	5N19S46.D	11/20/2020	1:16
J05-BR02	410-20865-4	5N19S47.D	11/20/2020	1:37
DUP-01	410-20865-5	5N19S48.D	11/20/2020	1:57
J13-BR02	410-20865-6	5N19S49.D	11/20/2020	2:17
J13-BR01	410-20865-7	5N19S50.D	11/20/2020	2:38
J13-UC03	410-20865-8	5N19S51.D	11/20/2020	2:58
J13-UC02	410-20865-9	5N19S52.D	11/20/2020	3:18
J08-UC02	410-20865-10	5N19S53.D	11/20/2020	3:39
J12-BR02	410-20865-11	5N19S54.D	11/20/2020	3:59
J21-UC02	410-20865-12	5N19S55.D	11/20/2020	4:19

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Lab File ID: 5N20T01.D BFB Injection Date: 11/20/2020

Instrument ID: 26285 BFB Injection Time: 08:14

Analysis Batch No.: 68468

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	44.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	1.1	(1.1) 1
174	Greater than 50% of mass 95	93.1	
175	5.0 - 9.0 % of mass 174	6.7	(7.2) 1
176	95.0 - 101.0 % of mass 174	89.8	(96.5) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-68468/3	5N20C01.D	11/20/2020	9:00
	LCS 410-68468/5	5N20L01.D	11/20/2020	9:40
	MB 410-68468/7	5N20B01.D	11/20/2020	10:20
J04-BR01	410-20865-21	5N20S20.D	11/20/2020	17:39
J05-BR01	410-20865-22	5N20S21.D	11/20/2020	17:59
J12-BR01	410-20865-23	5N20S22.D	11/20/2020	18:19

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: ICIS 410-42091/5 Date Analyzed: 09/09/2020 15:31

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5S09I03.D Heated Purge: (Y/N) N

Calibration ID: 10794

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		410336	3.45	1181993	6.89	896578	10.65
UPPER LIMIT		820672	3.95	2363986	7.39	1793156	11.15
LOWER LIMIT		205168	2.95	590997	6.39	448289	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-42091/10		365219	3.45	1156653	6.89	888064	10.64
CCVIS 410-67415/3		337998	3.39	1126537	6.83	848189	10.67
CCVIS 410-68196/3		378867	3.42	1117424	6.86	836697	10.66
CCVIS 410-68468/3		356242	3.42	1097033	6.86	830451	10.65

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: ICIS 410-42091/5 Date Analyzed: 09/09/2020 15:31

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5S09I03.D Heated Purge: (Y/N) N

Calibration ID: 10794

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		489549	12.64				
UPPER LIMIT		979098	13.14				
LOWER LIMIT		244775	12.14				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-42091/10		483822	12.64				
CCVIS 410-67415/3		455409	12.70				
CCVIS 410-68196/3		444789	12.68				
CCVIS 410-68468/3		448683	12.67				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-67415/3 Date Analyzed: 11/18/2020 10:25

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N18C01.D Heated Purge: (Y/N) N

Calibration ID: 10797

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		337998	3.39	1126537	6.83	848189	10.67
UPPER LIMIT		675996	3.89	2253074	7.33	1696378	11.17
LOWER LIMIT		168999	2.89	563269	6.33	424095	10.17
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-67415/5		337478	3.39	1125469	6.83	852806	10.67
MB 410-67415/7		341465	3.41	1117145	6.84	812823	10.67
410-20865-24	PDB Blank	362060	3.39	1132284	6.85	851597	10.68
410-20865-34	TB 111020	331890	3.39	1113577	6.83	831898	10.67
410-20865-30	RS-03	370750	3.39	1116272	6.84	838995	10.67
410-20865-30 MS	RS-03 MS	360955	3.40	1109047	6.84	834971	10.67
410-20865-30 MSD	RS-03 MSD	374002	3.41	1113066	6.83	848460	10.67
410-20865-13	RS-05	350361	3.39	1107036	6.84	820420	10.67
410-20865-14	RS-04	345661	3.40	1109667	6.84	832140	10.67
410-20865-15	RS-15	347741	3.39	1110503	6.84	823745	10.67
410-20865-16	RS-07	327327	3.40	1119837	6.84	838117	10.67
410-20865-17	RS-14	353629	3.39	1115823	6.83	838965	10.67
410-20865-18	RS-08	364165	3.39	1094871	6.84	830677	10.67
410-20865-19	J01-BR01	344236	3.39	1102135	6.84	828210	10.67
410-20865-20	J01-BR02	323798	3.39	1080450	6.84	801858	10.67
410-20865-25	RS-12A	374491	3.40	1100483	6.84	839167	10.67
410-20865-26	RS-01	341184	3.39	1088411	6.83	810680	10.67
410-20865-27	RS-09	350460	3.39	1087519	6.84	800685	10.67
410-20865-28	RS-10	340989	3.39	1076792	6.84	800211	10.66
410-20865-29	RS-DUP	359921	3.40	1080453	6.83	801381	10.66
410-20865-31	RS-13	353280	3.39	1079276	6.83	803133	10.67
410-20865-32	RS-02	355563	3.39	1074204	6.84	806489	10.66
410-20865-33	RS-11	333819	3.39	1091029	6.84	806056	10.66

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-67415/3 Date Analyzed: 11/18/2020 10:25

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N18C01.D Heated Purge: (Y/N) N

Calibration ID: 10797

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		455409	12.70				
UPPER LIMIT		910818	13.20				
LOWER LIMIT		227705	12.20				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-67415/5		456390	12.70				
MB 410-67415/7		439112	12.70				
410-20865-24	PDB Blank	452711	12.71				
410-20865-34	TB 111020	444612	12.70				
410-20865-30	RS-03	445861	12.70				
410-20865-30 MS	RS-03 MS	451299	12.70				
410-20865-30 MSD	RS-03 MSD	454690	12.70				
410-20865-13	RS-05	436389	12.70				
410-20865-14	RS-04	443165	12.70				
410-20865-15	RS-15	434280	12.70				
410-20865-16	RS-07	448145	12.70				
410-20865-17	RS-14	447504	12.70				
410-20865-18	RS-08	438404	12.70				
410-20865-19	J01-BR01	450146	12.70				
410-20865-20	J01-BR02	428681	12.70				
410-20865-25	RS-12A	446963	12.70				
410-20865-26	RS-01	433057	12.70				
410-20865-27	RS-09	426423	12.70				
410-20865-28	RS-10	433333	12.70				
410-20865-29	RS-DUP	429702	12.70				
410-20865-31	RS-13	424904	12.70				
410-20865-32	RS-02	425150	12.69				
410-20865-33	RS-11	434954	12.69				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-68196/3 Date Analyzed: 11/19/2020 20:04

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N19C35.D Heated Purge: (Y/N) N

Calibration ID: 10794

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		378867	3.42	1117424	6.86	836697	10.66
UPPER LIMIT		757734	3.92	2234848	7.36	1673394	11.16
LOWER LIMIT		189434	2.92	558712	6.36	418349	10.16
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68196/4		367739	3.41	1110583	6.86	841090	10.66
LCSD 410-68196/56		370922	3.42	1122282	6.86	839044	10.66
MB 410-68196/6		365707	3.42	1130836	6.86	845823	10.66
410-20865-1	J01-UC01	362198	3.42	1108993	6.87	824403	10.66
410-20865-1 MS	J01-UC01 MS	356537	3.42	1079109	6.86	820009	10.66
410-20865-1 MSD	J01-UC01 MSD	374464	3.42	1116758	6.87	836698	10.66
410-20865-2	J01-UC02	325177	3.42	1112843	6.87	820184	10.66
410-20865-3	J04-BR02	335989	3.42	1112236	6.86	834810	10.66
410-20865-4	J05-BR02	335878	3.41	1099616	6.86	822192	10.66
410-20865-5	DUP-01	341131	3.42	1117779	6.86	830948	10.66
410-20865-6	J13-BR02	334701	3.42	1104637	6.87	822322	10.66
410-20865-7	J13-BR01	343107	3.42	1097096	6.87	818725	10.66
410-20865-8	J13-UC03	328903	3.43	1088092	6.87	814289	10.66
410-20865-9	J13-UC02	340285	3.41	1096388	6.87	817833	10.65
410-20865-10	J08-UC02	327899	3.42	1102687	6.87	824737	10.66
410-20865-11	J12-BR02	330479	3.44	1095162	6.87	809842	10.66
410-20865-12	J21-UC02	341707	3.42	1100400	6.87	821997	10.65

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-68196/3 Date Analyzed: 11/19/2020 20:04

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N19C35.D Heated Purge: (Y/N) N

Calibration ID: 10794

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		444789	12.68				
UPPER LIMIT		889578	13.18				
LOWER LIMIT		222395	12.18				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68196/4		450581	12.68				
LCSD 410-68196/56		447500	12.67				
MB 410-68196/6		453943	12.67				
410-20865-1	J01-UC01	443011	12.67				
410-20865-1 MS	J01-UC01 MS	433051	12.67				
410-20865-1 MSD	J01-UC01 MSD	449859	12.67				
410-20865-2	J01-UC02	439588	12.67				
410-20865-3	J04-BR02	445119	12.67				
410-20865-4	J05-BR02	440188	12.67				
410-20865-5	DUP-01	450577	12.67				
410-20865-6	J13-BR02	443400	12.67				
410-20865-7	J13-BR01	437178	12.67				
410-20865-8	J13-UC03	436151	12.67				
410-20865-9	J13-UC02	438164	12.67				
410-20865-10	J08-UC02	437527	12.67				
410-20865-11	J12-BR02	436816	12.67				
410-20865-12	J21-UC02	438657	12.67				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-68468/3 Date Analyzed: 11/20/2020 09:00

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N20C01.D Heated Purge: (Y/N) N

Calibration ID: 10794

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		356242	3.42	1097033	6.86	830451	10.65
UPPER LIMIT		712484	3.92	2194066	7.36	1660902	11.15
LOWER LIMIT		178121	2.92	548517	6.36	415226	10.15
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68468/5		366270	3.43	1114569	6.87	832249	10.65
MB 410-68468/7		337702	3.44	1099909	6.87	817456	10.65
410-20865-21	J04-BR01	314911	3.43	1109496	6.87	838260	10.65
410-20865-22	J05-BR01	348969	3.44	1098714	6.88	826599	10.65
410-20865-23	J12-BR01	337705	3.44	1092504	6.88	825295	10.65

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Sample No.: CCVIS 410-68468/3 Date Analyzed: 11/20/2020 09:00

Instrument ID: 26285 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 5N20C01.D Heated Purge: (Y/N) N

Calibration ID: 10794

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		448683	12.67				
UPPER LIMIT		897366	13.17				
LOWER LIMIT		224342	12.17				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68468/5		458034	12.67				
MB 410-68468/7		440517	12.67				
410-20865-21	J04-BR01	448124	12.66				
410-20865-22	J05-BR01	446748	12.66				
410-20865-23	J12-BR01	441918	12.66				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-UC01 Lab Sample ID: 410-20865-1

Matrix: Water Lab File ID: 5N19S38.D

Analysis Method: 8260C Date Collected: 11/11/2020 08:55

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 22:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.8		1.0	0.30
75-34-3	1,1-Dichloroethane	0.65	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.31	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.8		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	8.8	F1	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	1.1		1.0	0.20
79-01-6	Trichloroethene	3.9		1.0	0.20
75-01-4	Vinyl chloride	ND	F1	1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D
Lims ID: 410-20865-A-1
Client ID: J01-VC01
Sample Type: Client
Inject. Date: 19-Nov-2020 22:35:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-009
Misc. Info.: 410-20865-A-1
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 09:48:27

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.582				ND	
2	Dichlorodifluoromethane	85		1.594				ND	
6	Chlorodifluoromethane	51		1.624				ND	
3	Chloromethane	50		1.759				ND	
4	Butadiene	39		1.850				ND	
5	Vinyl chloride	62		1.850				ND	7
7	2-Chloro-1,1,1-Trifluoroethane	118		1.917				ND	
8	Bromomethane	94		2.112				ND	
9	Chloroethane	64		2.179				ND	
10	Dichlorofluoromethane	67		2.362				ND	
11	Trichlorofluoromethane	101		2.423				ND	
12	Pentane	43		2.448				ND	
13	Ethanol	45		2.545				ND	
14	Ethyl ether	59		2.618				ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		2.692				ND	
16	Acrolein	56		2.759				ND	
19	1,1-Dichloroethene	96	2.874	2.868	0.006	93	1575	0.3085	M
17	Acetone	58		2.899				ND	
18	112TCTFE	101		2.905				ND	
20	Iodomethane	142		3.033				ND	
21	Isopropyl alcohol	45		3.033				ND	
22	Carbon disulfide	76		3.112				ND	
24	Acetonitrile	41		3.222				ND	
23	Methyl acetate	43		3.228				ND	
25	3-Chloro-1-propene	41		3.246				ND	
26	Methylene Chloride	84		3.405				ND	
* 27	t-Butyl alcohol-d10 (IS)	65	3.417	3.423	-0.006	97	362198	250.0	
28	2-Methyl-2-propanol	59		3.515				ND	
29	Acrylonitrile	53		3.673				ND	
30	Methyl tert-butyl ether	73		3.728				ND	
31	trans-1,2-Dichloroethene	96	3.740	3.734	0.006	96	6531	1.11	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
32 Hexane	57		4.106				ND	
33 1,1-Dichloroethane	63	4.337	4.338	-0.001	92	7112	0.6537	M
34 Vinyl acetate	43		4.368				ND	
35 Isopropyl ether	45		4.399				ND	
36 2-Chloro-1,3-butadiene	53		4.447				ND	
37 Tert-butyl ethyl ether	59		4.959				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96	5.203	5.203	0.000	78	12381	1.82	
40 2,2-Dichloropropane	77		5.215				ND	
42 Ethyl acetate	43		5.270				ND	
41 Propionitrile	54		5.282				ND	
43 Methacrylonitrile	67		5.502				ND	
44 Chlorobromomethane	128		5.539				ND	
45 Tetrahydrofuran	71		5.551				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	44	16883	1.78	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	276230	47.8	
49 Cyclohexane	56		6.020				ND	
51 Carbon tetrachloride	117		6.142				ND	
50 1,1-Dichloropropene	75		6.154				ND	
S 74 1,2-Dichloroethene, Total	100				0		2.93	
52 Isobutyl alcohol	41		6.374				ND	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	97	62584	49.6	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
57 Isopropyl acetate	43		6.587				ND	
58 Tert-amyl methyl ether	73		6.648				ND	
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1108993	50.0	
60 n-Heptane	43		6.886				ND	
61 n-Butanol	56		7.294				ND	
62 Trichloroethene	95	7.361	7.361	0.000	98	26587	3.94	
63 Methylcyclohexane	83		7.672				ND	
64 1,2-Dichloropropane	63		7.715				ND	
65 2-ethoxy-2-methyl butane	87		7.739				ND	
68 1,4-Dioxane	88		7.806				ND	
66 Dibromomethane	93		7.825				ND	
67 Methyl methacrylate	69		7.831				ND	
89 t-Amyl alcohol	73		7.842				ND	
69 n-Propyl acetate	61		7.953				ND	
70 Dichlorobromomethane	83		8.087				ND	
72 2-Nitropropane	41		8.386				ND	
71 2-Chloroethyl vinyl ether	63		8.489				ND	
73 cis-1,3-Dichloropropene	75		8.672				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.885				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1044438	50.3	
77 Toluene	92		9.105				ND	
78 trans-1,3-Dichloropropene	75		9.428				ND	
79 Ethyl methacrylate	69		9.513				ND	
80 1,1,2-Trichloroethane	97		9.654				ND	
81 Tetrachloroethene	166	9.733	9.733	0.000	97	62263	8.84	
82 1,3-Dichloropropane	76		9.836				ND	
83 3,4-Dichloro-1-butene	75		9.903				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 2-Hexanone	43		9.910				ND	
T 183 Hexachloroethane TIC	117	9.733	10.000	-0.267	0	442	0.0199	
S 123 1,3-Dichloropropene, Total	100		10.060				ND	7
85 Chlorodibromomethane	129		10.068				ND	
86 n-Butyl acetate	43		10.080				ND	
87 Ethylene Dibromide	107		10.178				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	824403	50.0	
88 Chlorobenzene	112		10.690				ND	
91 1-Chlorohexane	91		10.690				ND	U
92 1,1,1,2-Tetrachloroethane	131		10.788				ND	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
96 Styrene	104		11.294				ND	
97 Bromoform	173		11.446				ND	
98 Isopropylbenzene	105		11.598				ND	
100 Cyclohexanone	55		11.671				ND	
99 cis-1,4-Dichloro-2-butene	88	11.744	11.677	0.067	35	18785	4.72	
$ 101 4-Bromofluorobenzene (Surr)	95	11.744	11.745	-0.001	96	389346	46.5	
102 Bromobenzene	156		11.860				ND	
105 1,1,2,2-Tetrachloroethane	83		11.867				ND	
104 trans-1,4-Dichloro-2-butene	53		11.897				ND	
103 1,2,3-Trichloropropane	110		11.909				ND	
106 N-Propylbenzene	91		11.946				ND	
107 2-Chlorotoluene	126		12.025				ND	
108 1,3,5-Trimethylbenzene	105		12.098				ND	
109 4-Chlorotoluene	126		12.123				ND	
110 2,3,4-Trichlorobutene	109		12.171				ND	
111 tert-Butylbenzene	134		12.348				ND	
112 Pentachloroethane	167		12.379				ND	
113 1,2,4-Trimethylbenzene	105		12.397				ND	
114 sec-Butylbenzene	105		12.519				ND	
115 1,3-Dichlorobenzene	146		12.616				ND	
116 4-Isopropyltoluene	119		12.641				ND	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	443011	50.0	
118 1,4-Dichlorobenzene	146		12.696				ND	
119 1,2,3-Trimethylbenzene	105		12.714				ND	
120 Benzyl chloride	91		12.781				ND	
121 1,3-Diethylbenzene	119		12.848				ND	
122 p-Diethylbenzene	119		12.921				ND	
124 n-Butylbenzene	92		12.940				ND	
125 1,2-Dichlorobenzene	146		12.964				ND	
126 o-diethylbenzene	119		12.994				ND	
127 1,2-Dibromo-3-Chloropropane	75		13.531				ND	
135 Hexachloroethane	201		13.560				ND	
128 1,3,5-Trichlorobenzene	180		13.659				ND	
129 1,2,4-Trichlorobenzene	180		14.098				ND	
131 Hexachlorobutadiene	225		14.189				ND	
132 Naphthalene	128		14.281				ND	
133 1,2,3-Trichlorobenzene	180		14.427				ND	
134 2-Methylnaphthalene	142		15.043				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
136 C4-C10	1		0.000				ND	
161 Chloroacetonitrile	1		0.000				ND	
160 Ethyl bromide	1		0.000				ND	
159 1,3-Divinylbenzene	1		0.000				ND	
158 tert-Butyl Formate	1		0.000				ND	
157 Methyl acrylate	1		0.000				ND	
209 Ethyl acrylate TIC	1		0.000				ND	
202 Bromoacetone (TIC)	1		0.000				ND	
195 1-Bromopropane TIC	1		0.000				ND	
152 C6-C12	1		0.000				ND	
151 1-Bromo-2-chloroethane	1		0.000				ND	
150 C5-C12	1		0.000				ND	
148 Diethoxymethane	1		0.000				ND	
146 2,3-Dichloro-1,3-butadiene	1		0.000				ND	
196 Epichlorohydrin TIC	1		0.000				ND	
208 Pentachloroethane TIC	1		0.000				ND	
143 trans-1,2,3-Trichlorobutene-2	1		0.000				ND	
144 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
210 Ethanol TIC	1		0.000				ND	
203 2,3-Dibromopropene TIC	1		0.000				ND	
201 Paraldehyde TIC	1		0.000				ND	
200 Ethylene oxide TIC	1		0.000				ND	
199 Bis(2-chloroethyl)sulfide (TIC)	1		0.000				ND	
198 2-Bromo-3-chloropropene TIC	1		0.000				ND	
197 Pentafluorobenzene TIC	1		0.000				ND	
137 1,3-Dichlorobutene-2(total)	1		0.000				ND	
S 162 divinyl benzene	1		0.000				ND	7
163 Methylal	1		0.000				ND	
165 n-Decane	57		0.000				ND	
145 cis-1,2,3-Trichlorobutene-2	1		0.000				ND	
155 3-chloro-1-Butene	1		0.000				ND	
S 154 Total Diethylbenzene	1		0.000				ND	7
156 C6-C10	1		0.000				ND	
174 1-Methyl-2-pyrrilidinone TIC	1		0.000				ND	
175 n-Propylamine (TIC)	1		0.000				ND	
176 beta-Propiolactone TIC	1		0.000				ND	
172 2,3-Dibromo-1-propanol TIC	1		0.000				ND	
178 Propargyl alcohol TIC	1		0.000				ND	
179 Monochloroacetic acid TIC	1		0.000				ND	
180 Propanol TIC	1		0.000				ND	
181 Acetonitrile TIC	1		0.000				ND	
182 2-Chloroethanol TIC	1		0.000				ND	
140 C4-C12	1		0.000				ND	
142 1,4-Divinylbenzene	1		0.000				ND	
141 1-Chlorobutane	1		0.000				ND	
187 2-Pentanone (TIC)	1		0.000				ND	
188 Malononitrile (TIC)	1		0.000				ND	
189 Epibromohydrin TIC	1		0.000				ND	
190 2-Picoline (TIC)	1		0.000				ND	
191 Chloroacetaldehyde TIC	1		0.000				ND	
173 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
138 Propene oxide	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
194 Vinyl bromide TIC	1		0.000				ND	
193 Allyl Alcohol TIC	1		0.000				ND	
186 Bromoethane TIC	1		0.000				ND	
185 Nitrobenzene TIC	1		0.000				ND	
192 Vinyl acetate (TIC)	1		0.000				ND	
177 2-Bromoethanol TIC	1		0.000				ND	
204 Methanol TIC	1		0.000				ND	
205 Chloral hydrate (TIC)	1		0.000				ND	
184 1,3-Dichlorobutene-2(total) TIC	1		0.000				ND	
206 3-Chloro-1,2-propanediol TIC	1		0.000				ND	
171 N-Nitrosodi-n-butylamine TIC	1		0.000				ND	
170 1,2,3,4-Diepoxybutane (TIC)	1		0.000				ND	
169 Ethyl acrylate	55		0.000				ND	
168 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000				ND	
167 Butane	1		0.000				ND	
166 Dodecane	57		0.000				ND	
207 1-Bromo-2-chloroethane TIC	1		0.000				ND	
211 o-toluidine TIC	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
M - Manually Integrated
U - Marked Undetected

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

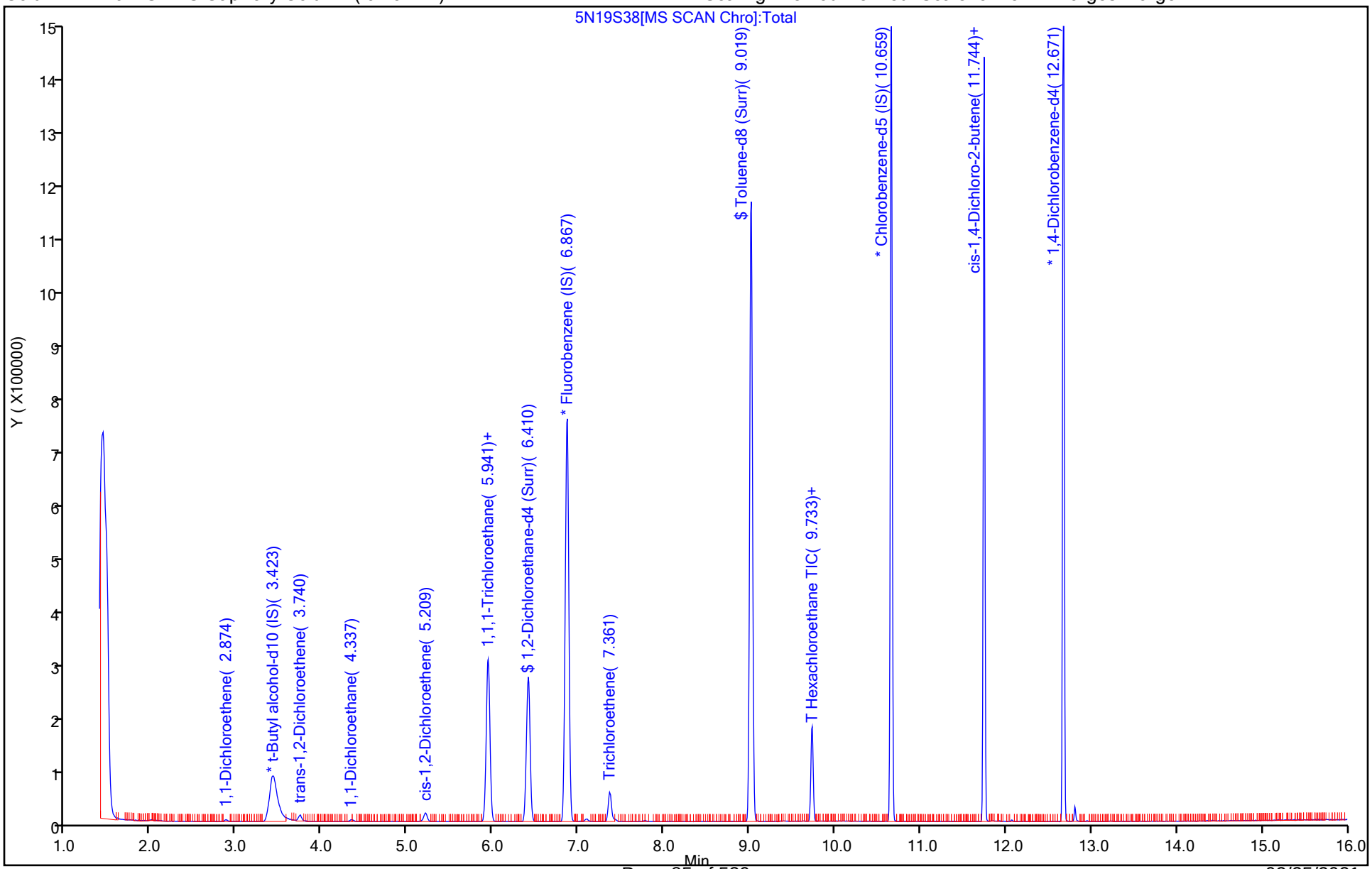
Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D

Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1	Worklist Smp#:	9
Client ID:	J01-VC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

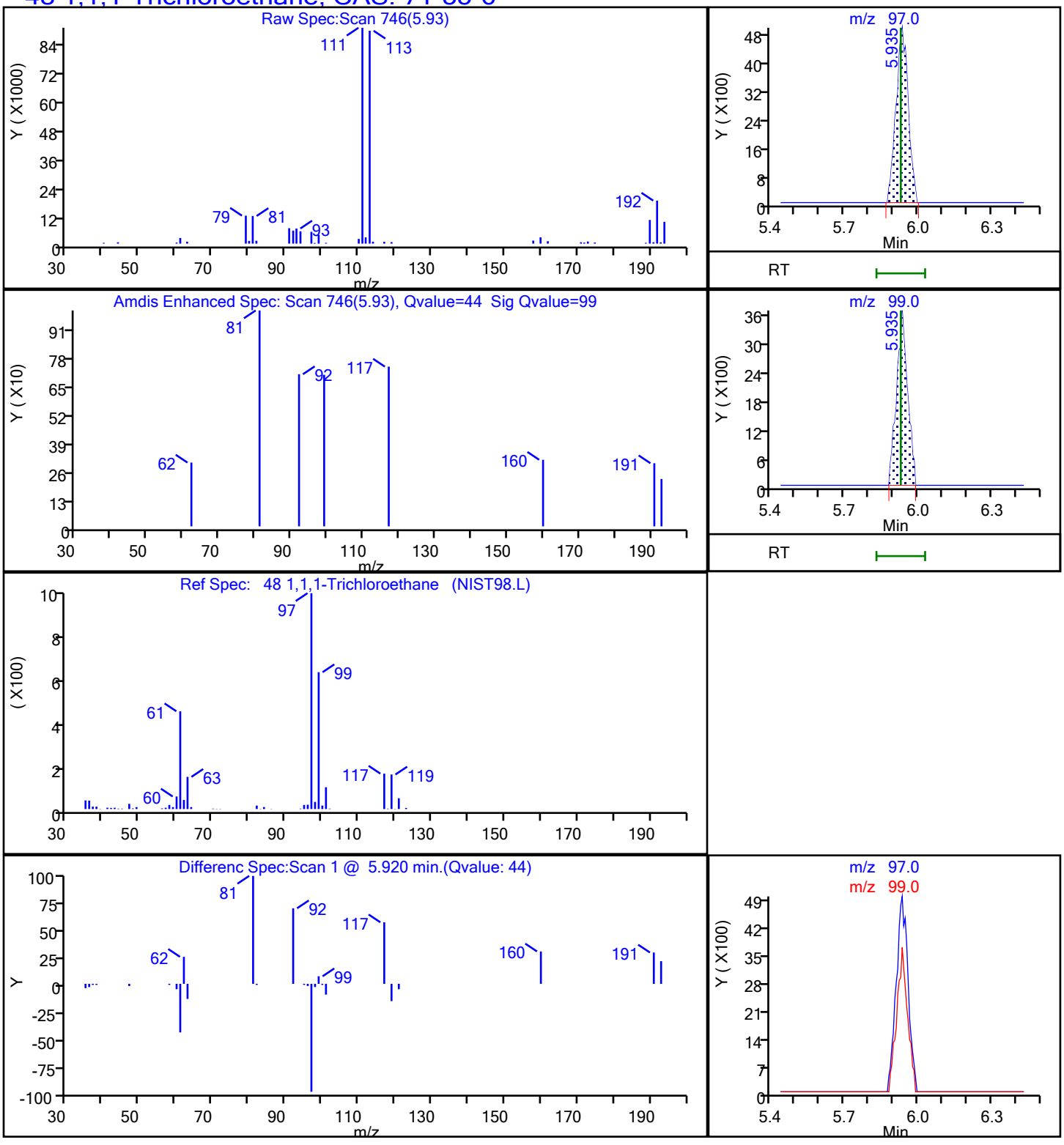
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

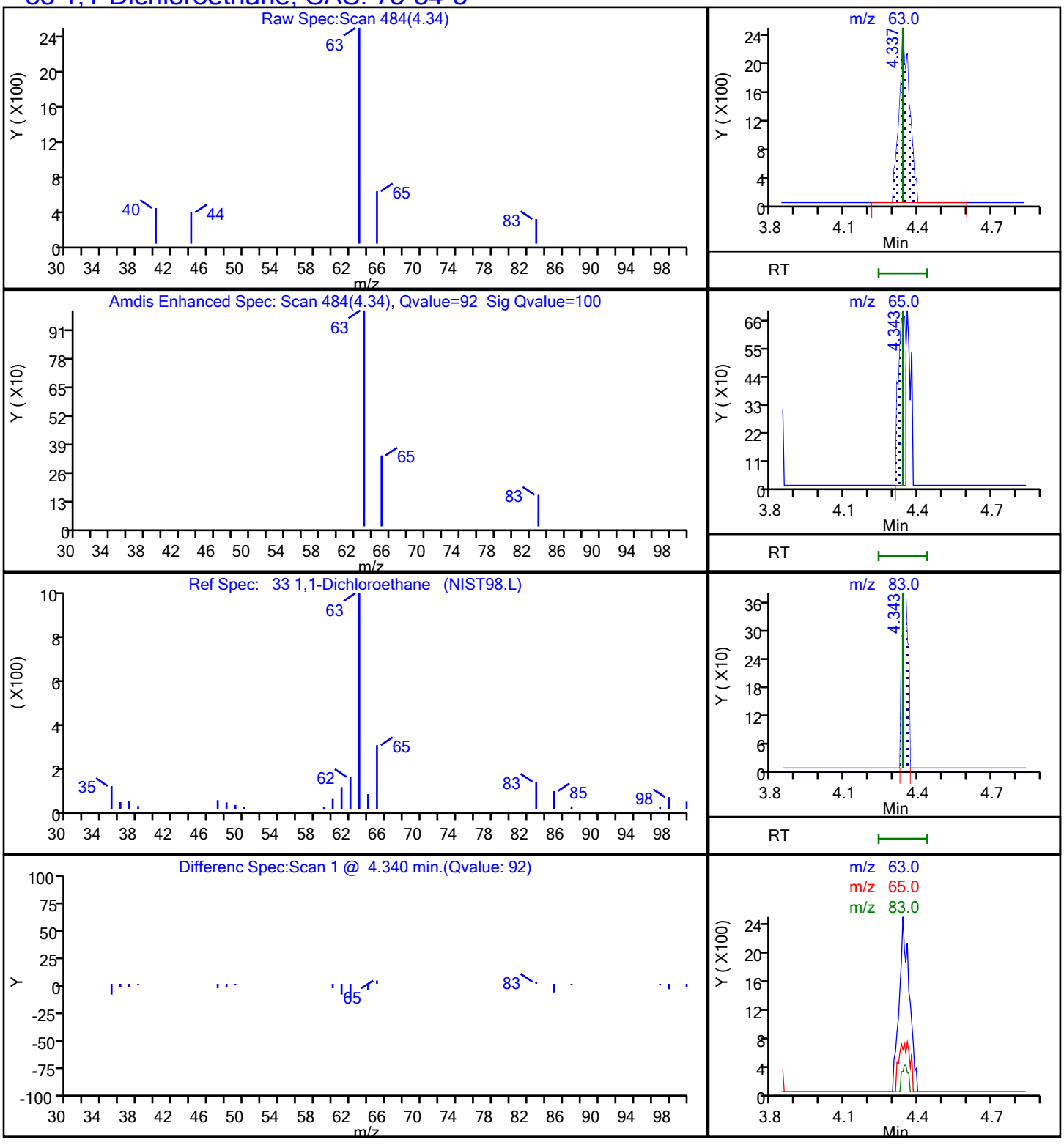
48 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



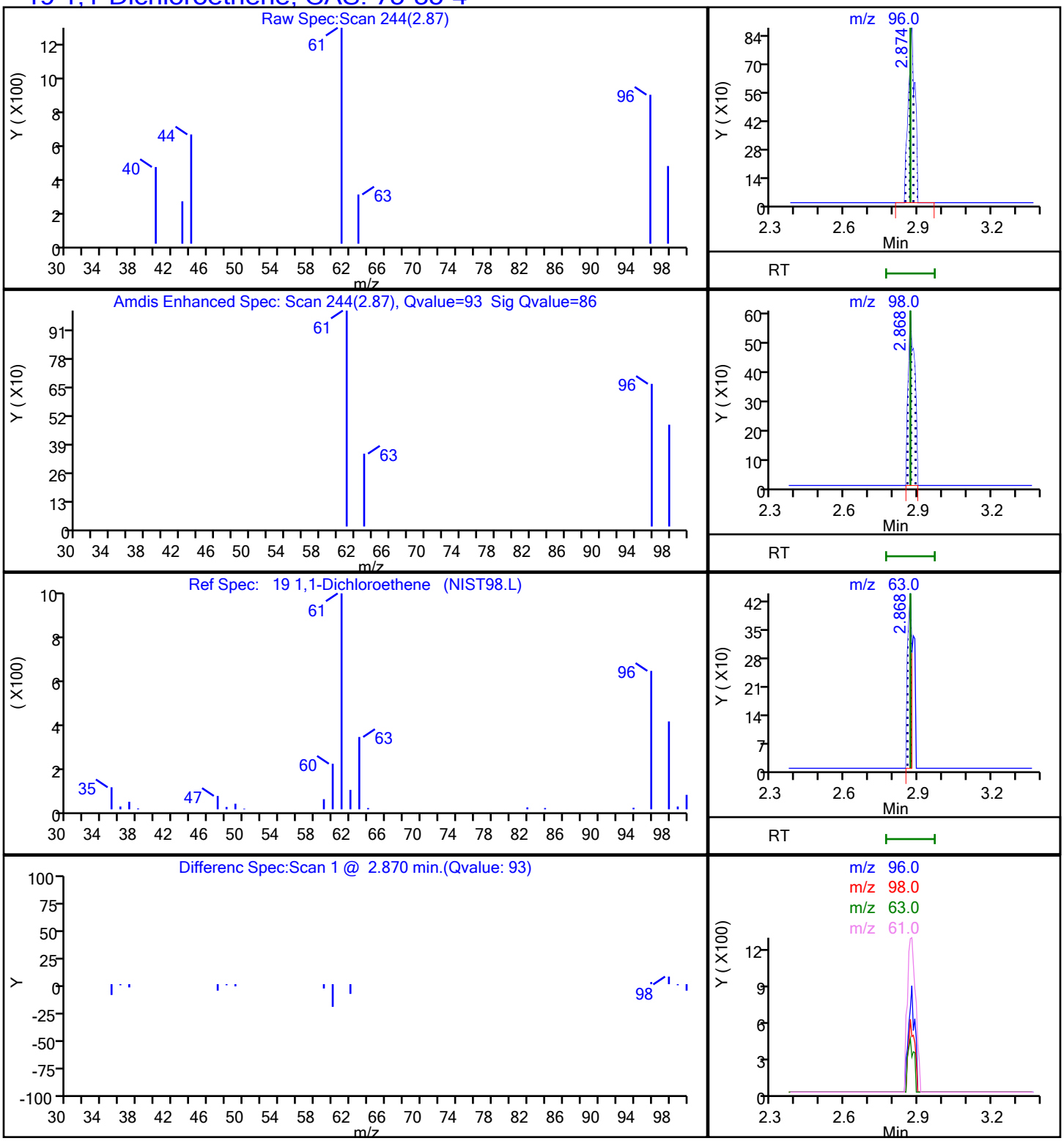
Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D

Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4

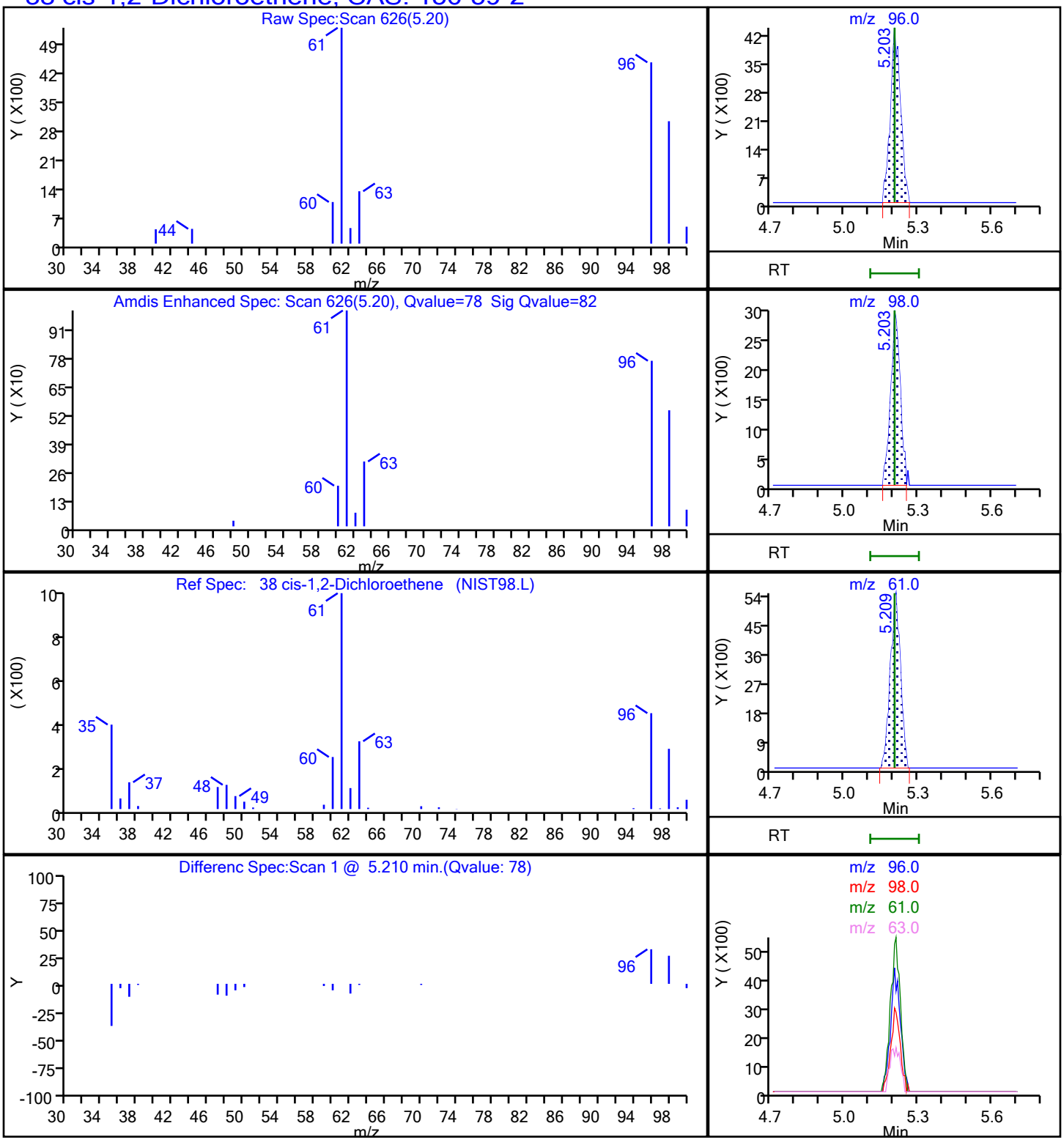


Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

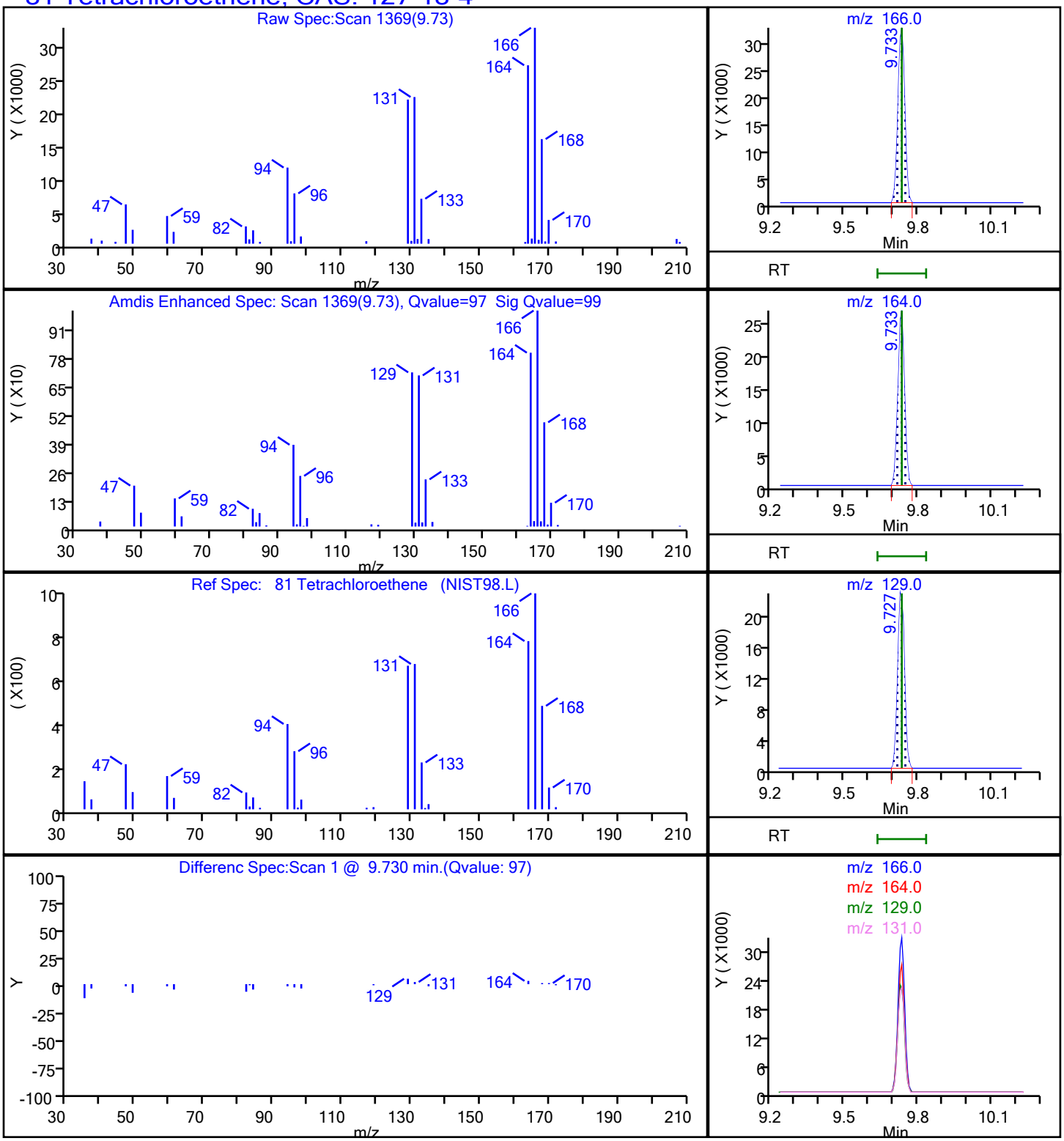


Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

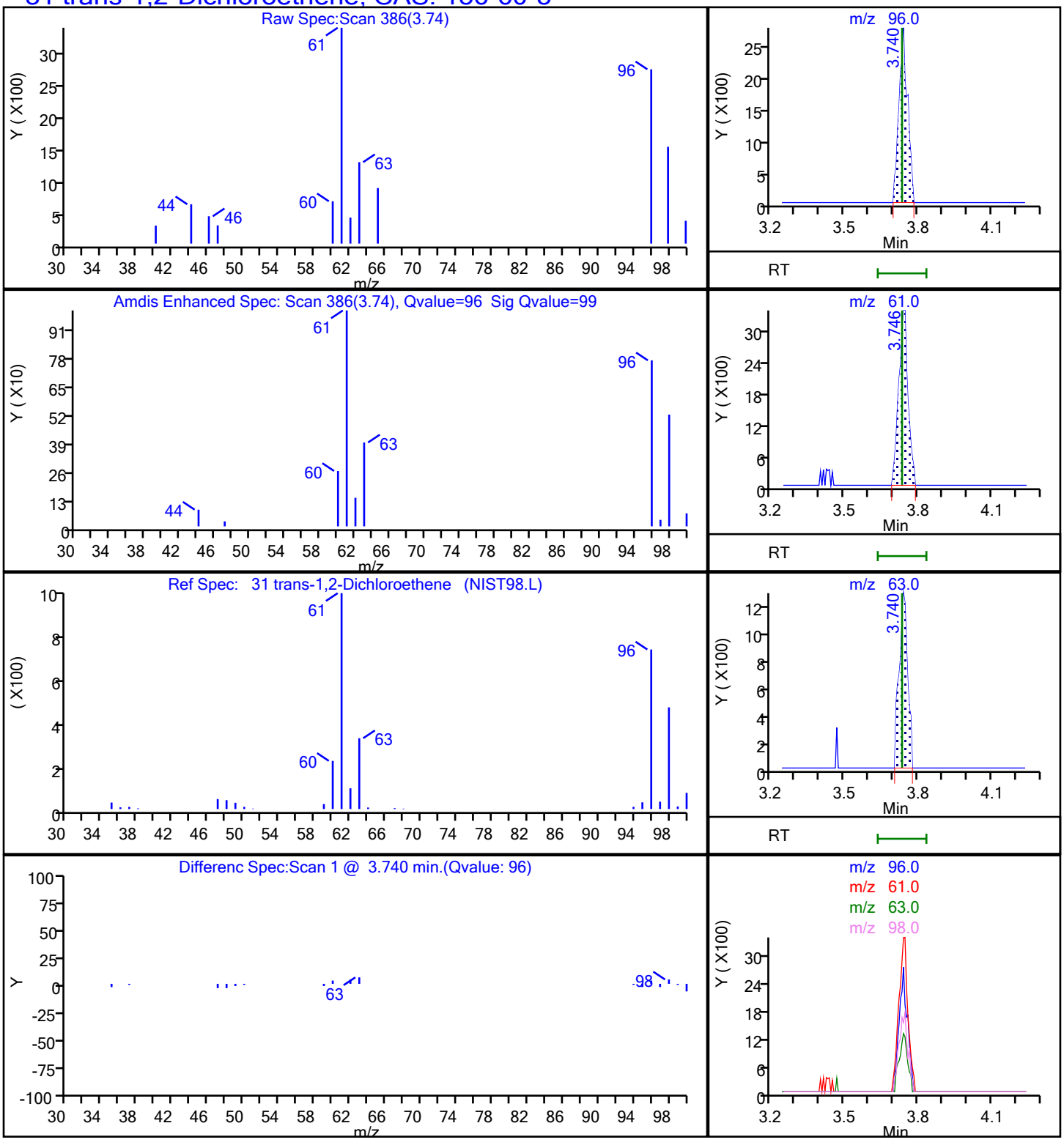


Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

31 trans-1,2-Dichloroethene, CAS: 156-60-5



Report Date: 20-Nov-2020 10:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D

Injection Date: 19-Nov-2020 22:35:30 Instrument ID: 26285

Lims ID: 410-20865-A-1 Lab Sample ID: 410-20865-1

Client ID: J01-VC01

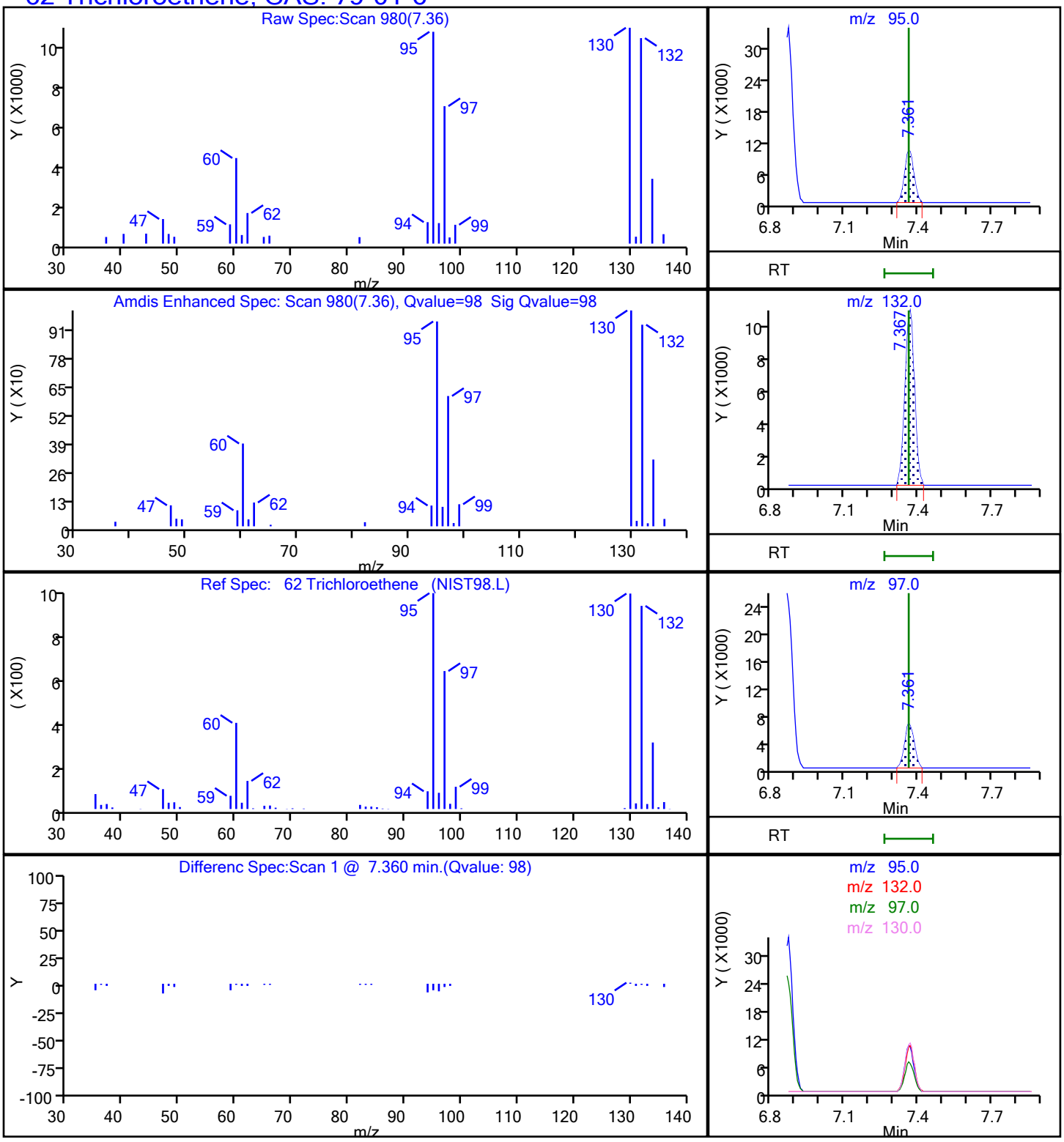
Operator ID: etp33087 ALS Bottle#: 9 Worklist Smp#: 9

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

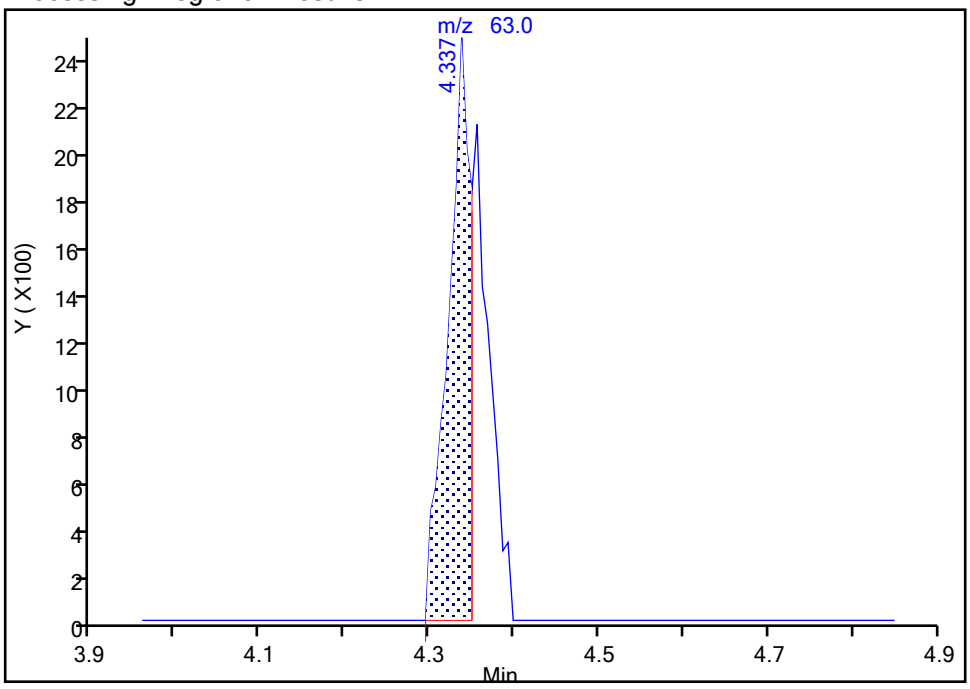
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

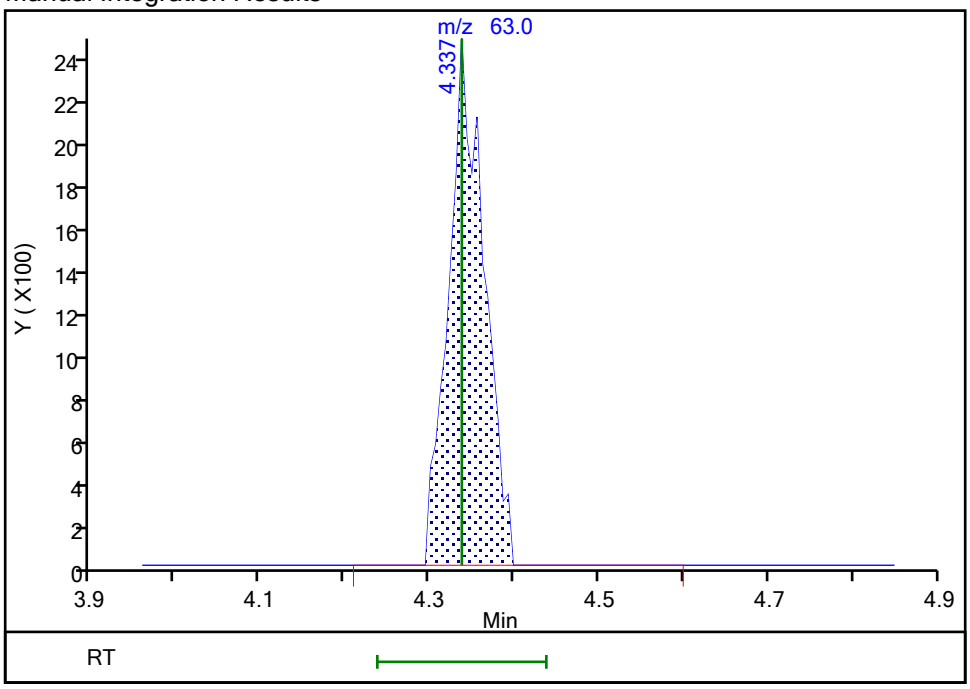
Processing Integration Results

RT: 4.34
Area: 4545
Amount: 0.417758
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 7112
Amount: 0.653707
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 09:47:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

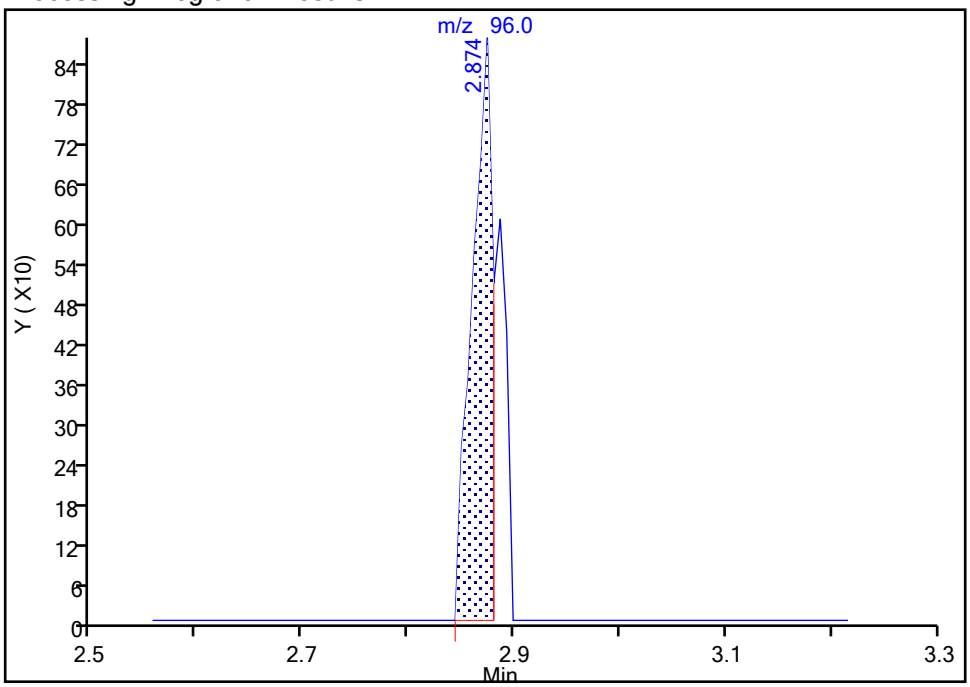
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S38.D				
Injection Date:	19-Nov-2020 22:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1	Lab Sample ID:	410-20865-1		
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	9	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

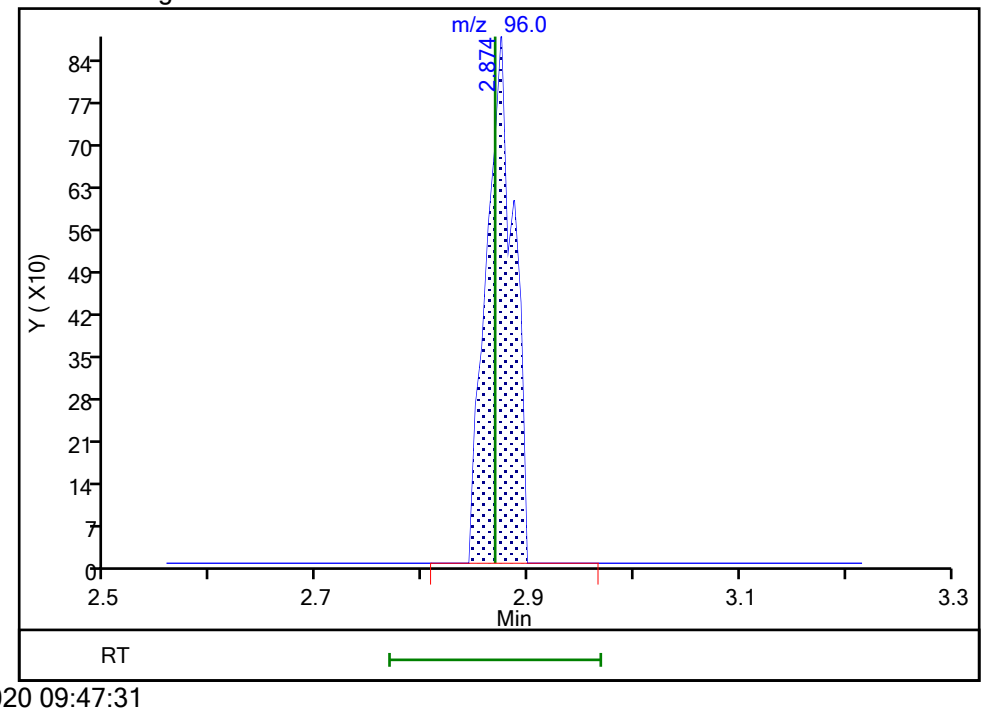
Processing Integration Results

RT: 2.87
Area: 1195
Amount: 0.234038
Amount Units: ug/l



Manual Integration Results

RT: 2.87
Area: 1575
Amount: 0.308460
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 09:47:31
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-UC02 Lab Sample ID: 410-20865-2

Matrix: Water Lab File ID: 5N19S45.D

Analysis Method: 8260C Date Collected: 11/11/2020 10:50

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 00:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S45.D
Lims ID: 410-20865-A-2
Client ID: J01-VC02
Sample Type: Client
Inject. Date: 20-Nov-2020 00:56:30 ALS Bottle#: 16 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-016
Misc. Info.: 410-20865-A-2
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:11:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	97	325177	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	279649	48.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	97	64012	50.6	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1112843	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1047794	50.8	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	820184	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.744	11.745	-0.001	97	390918	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	439588	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

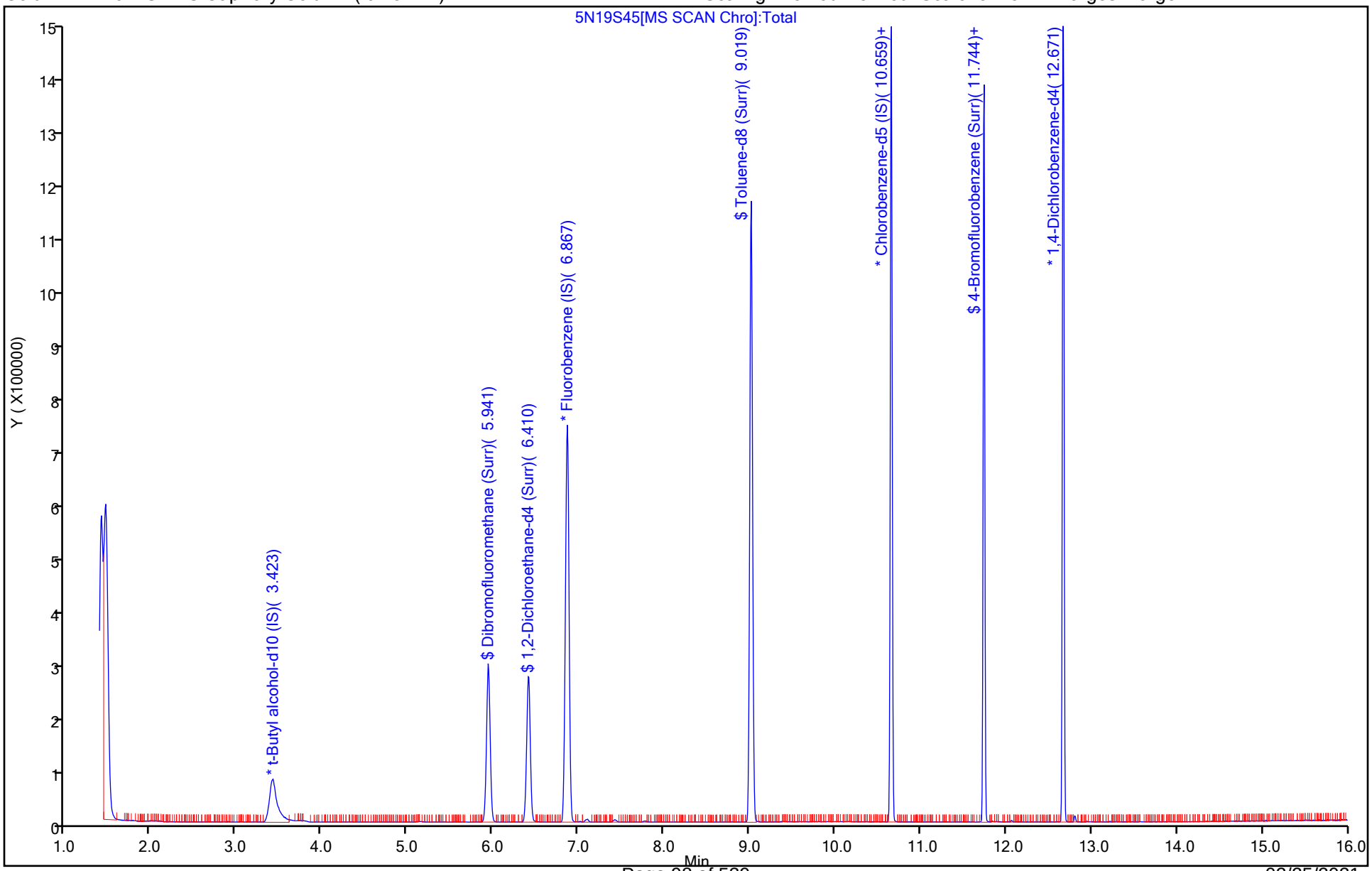
Report Date: 20-Nov-2020 10:21:07 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S45.D

Injection Date:	20-Nov-2020 00:56:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-2	Lab Sample ID:	410-20865-2	Worklist Smp#:	16
Client ID:	J01-VC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

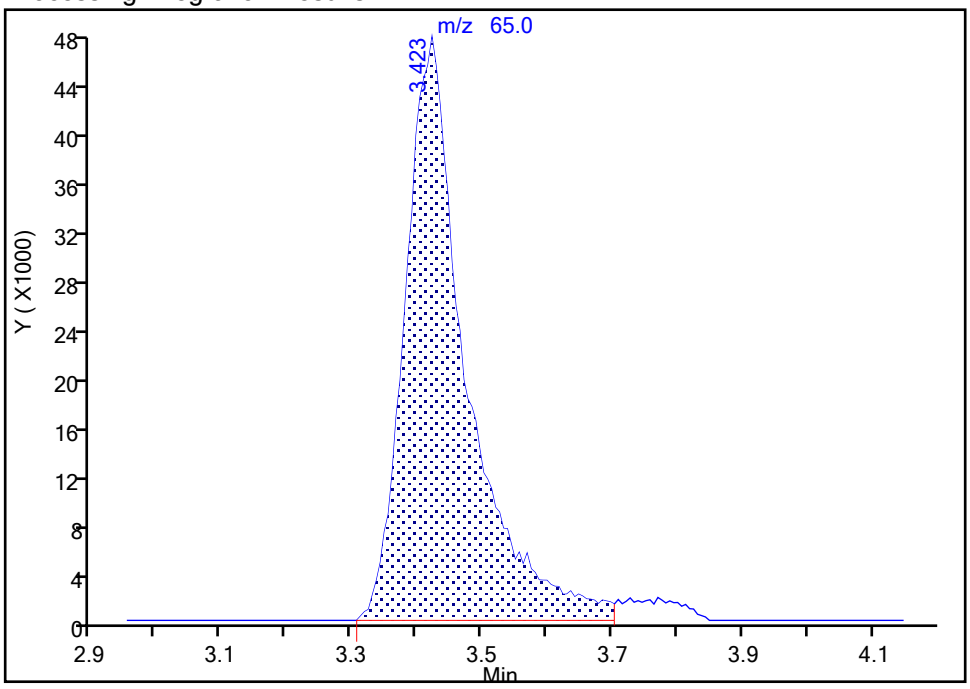
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S45.D				
Injection Date:	20-Nov-2020 00:56:30	Instrument ID:	26285		
Lims ID:	410-20865-A-2	Lab Sample ID:	410-20865-2		
Client ID:	J01-VC02				
Operator ID:	etp33087	ALS Bottle#:	16	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

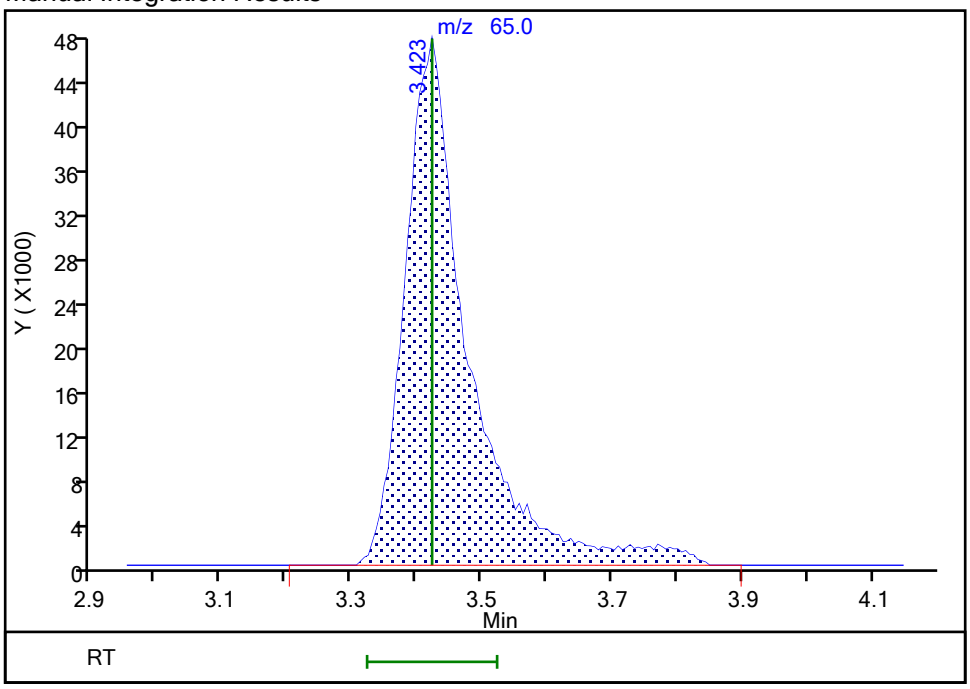
Processing Integration Results

RT: 3.42
Area: 313915
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.42
Area: 325177
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:11:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J04-BR02 Lab Sample ID: 410-20865-3

Matrix: Water Lab File ID: 5N19S46.D

Analysis Method: 8260C Date Collected: 11/11/2020 12:59

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 01:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S46.D
Lims ID: 410-20865-A-3
Client ID: J04-BR02
Sample Type: Client
Inject. Date: 20-Nov-2020 01:16:30 ALS Bottle#: 17 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-017
Misc. Info.: 410-20865-A-3
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:11:51

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	7
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	98	335989	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	276260	47.7	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.404	6.410	-0.006	97	63901	50.5	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1112236	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1049042	49.9	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	834810	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	95	392380	46.2	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	445119	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

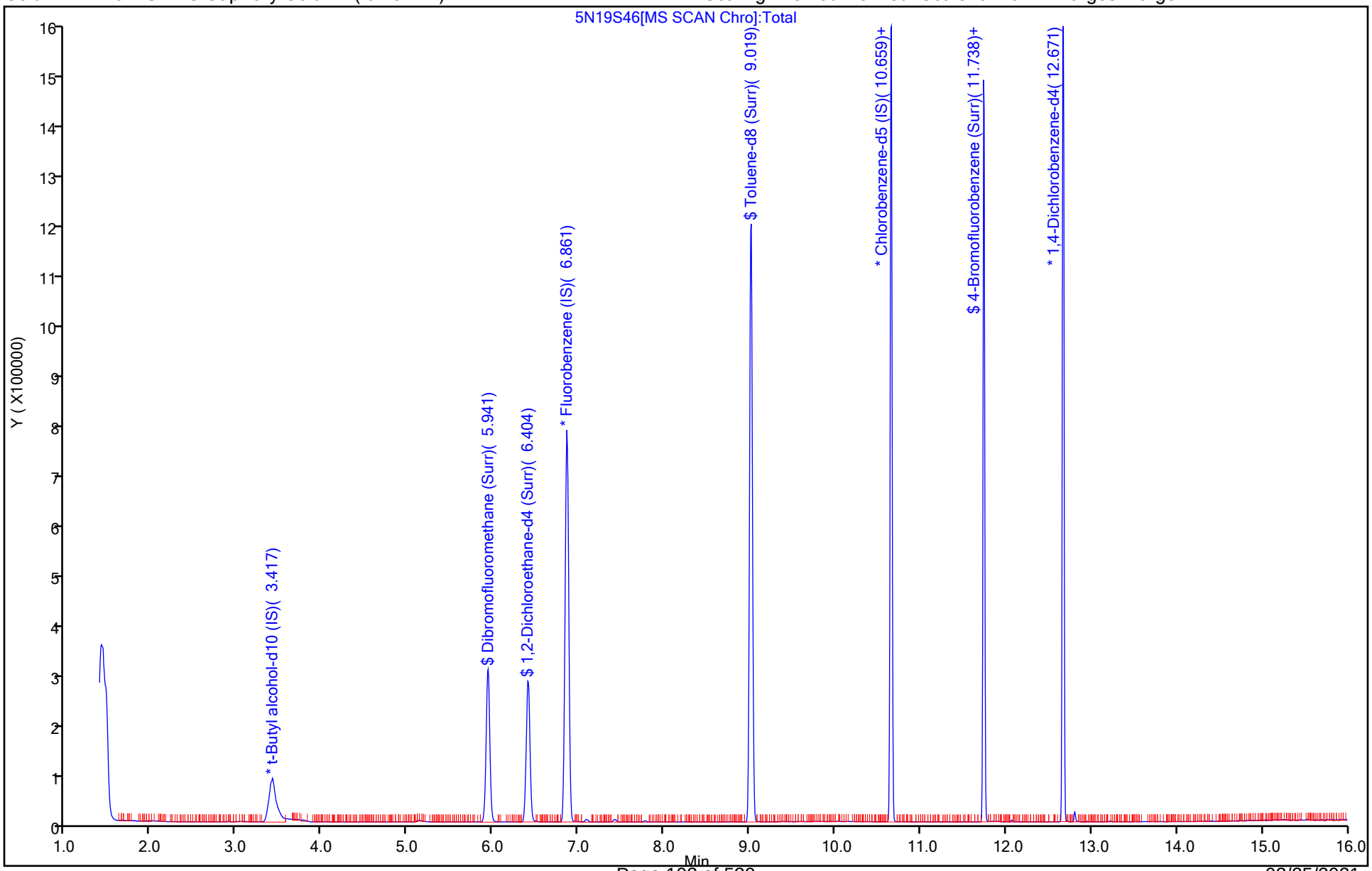
MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 20-Nov-2020 10:21:09 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S46.D				
Injection Date:	20-Nov-2020 01:16:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-3	Lab Sample ID:	410-20865-3	Worklist Smp#:	17
Client ID:	J04-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J05-BR02 Lab Sample ID: 410-20865-4

Matrix: Water Lab File ID: 5N19S47.D

Analysis Method: 8260C Date Collected: 11/11/2020 15:25

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 01:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	1.2		1.0	0.20
75-35-4	1,1-Dichloroethene	0.26	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	2.2		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	5.4		1.0	0.20
75-01-4	Vinyl chloride	0.73	J	1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D
Lims ID: 410-20865-A-4
Client ID: J05-BR02
Sample Type: Client
Inject. Date: 20-Nov-2020 01:37:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-018
Misc. Info.: 410-20865-A-4
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:12:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62	1.856	1.850	0.006	95	5942	0.7333	M
19 1,1-Dichloroethene	96	2.862	2.868	-0.006	91	1329	0.2625	M
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	7
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.411	3.423	-0.012	97	335878	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.344	4.338	0.006	93	12581	1.17	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96	5.209	5.203	0.006	76	15071	2.23	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	275590	48.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	98	62569	50.0	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1099616	50.0	
62 Trichloroethene	95	7.367	7.361	0.006	99	36437	5.45	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.013	9.020	-0.007	94	1047081	50.6	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	822192	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	96	394933	47.2	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	440188	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

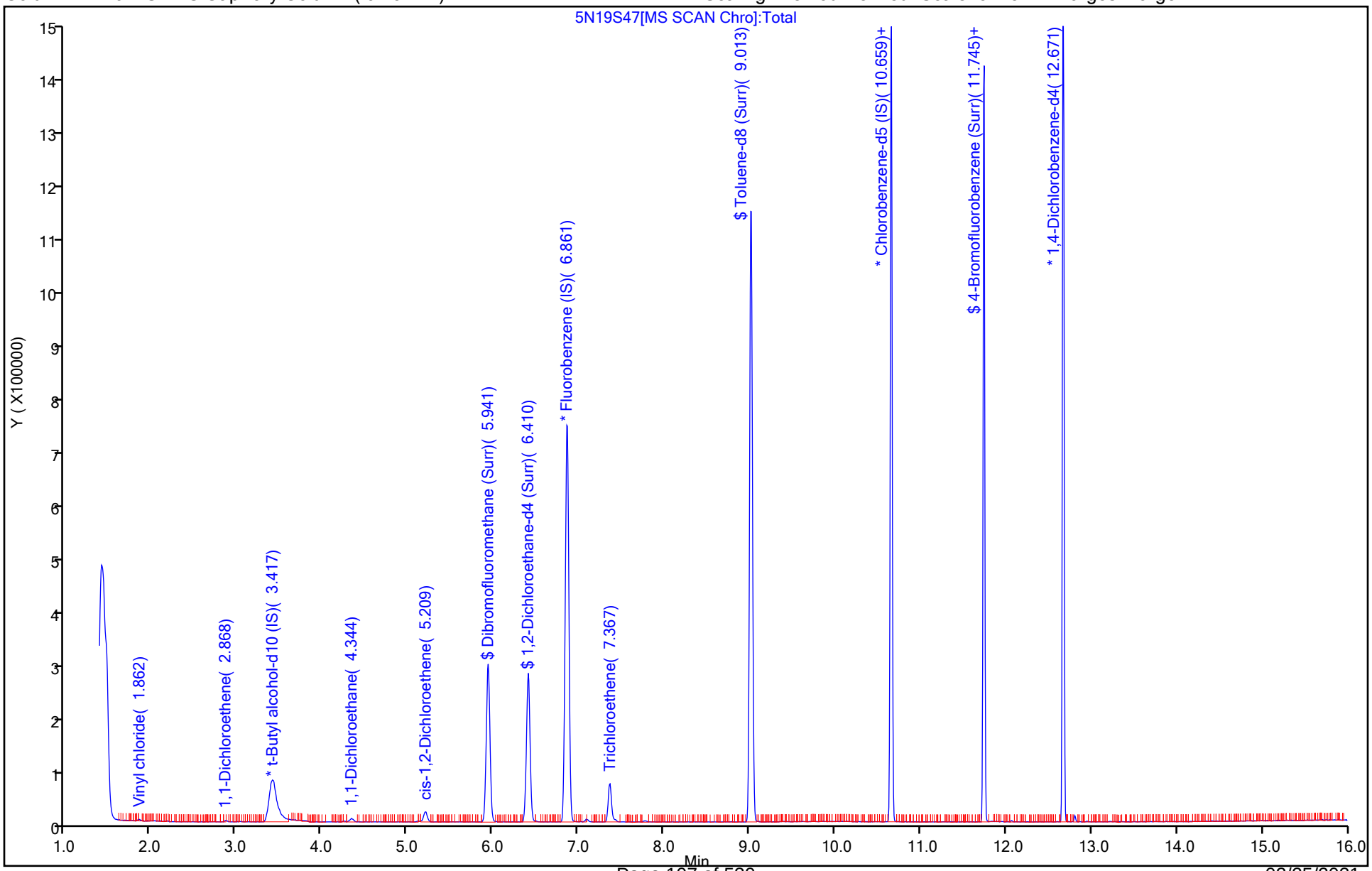
Report Date: 20-Nov-2020 10:21:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D

Injection Date:	20-Nov-2020 01:37:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-4	Lab Sample ID:	410-20865-4	Worklist Smp#:	18
Client ID:	J05-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

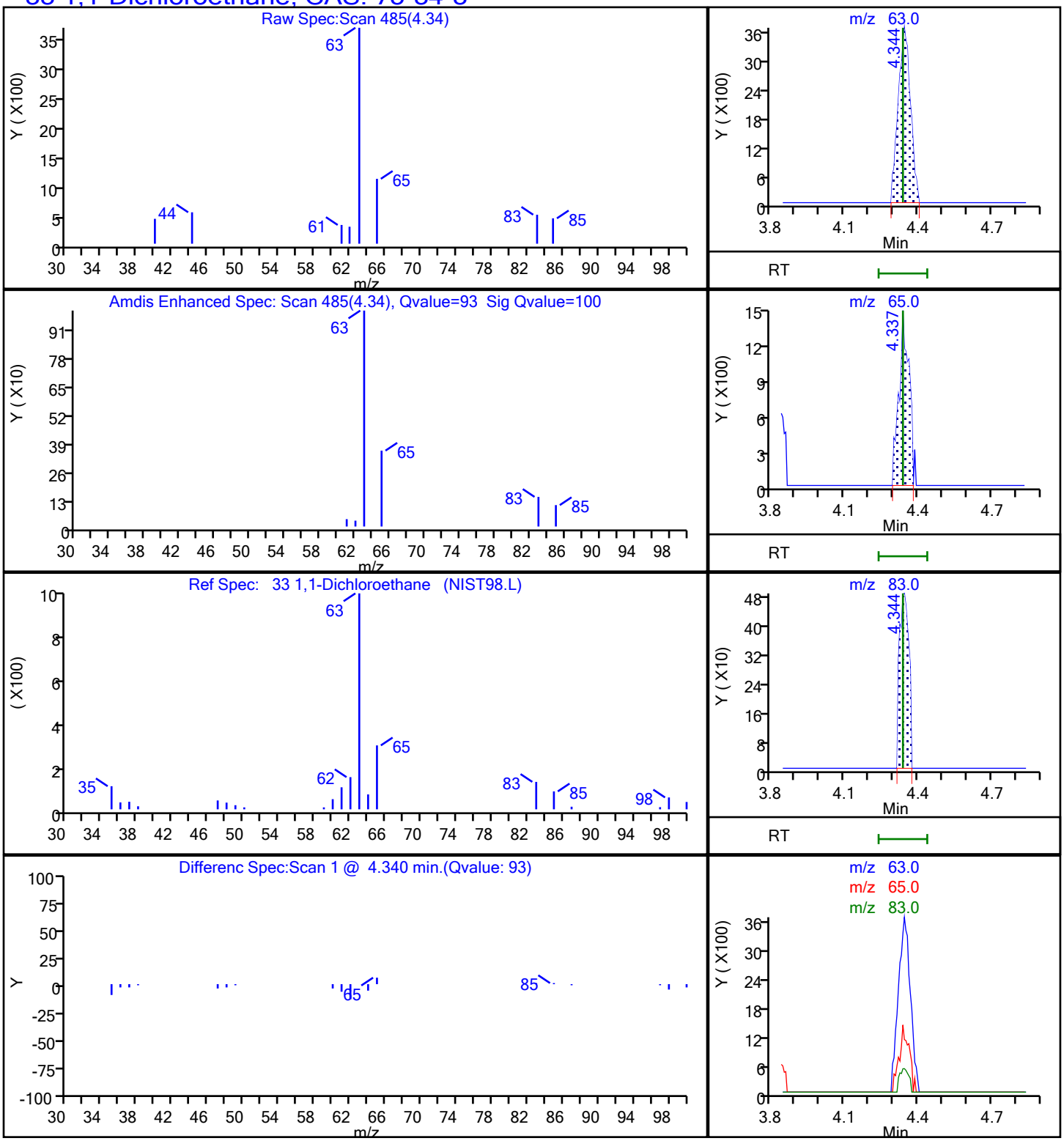
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D				
Injection Date:	20-Nov-2020 01:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-4	Lab Sample ID:	410-20865-4		
Client ID:	J05-BR02				
Operator ID:	etp33087	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 20-Nov-2020 10:21:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D

Injection Date: 20-Nov-2020 01:37:30 Instrument ID: 26285

Lims ID: 410-20865-A-4 Lab Sample ID: 410-20865-4

Client ID: J05-BR02

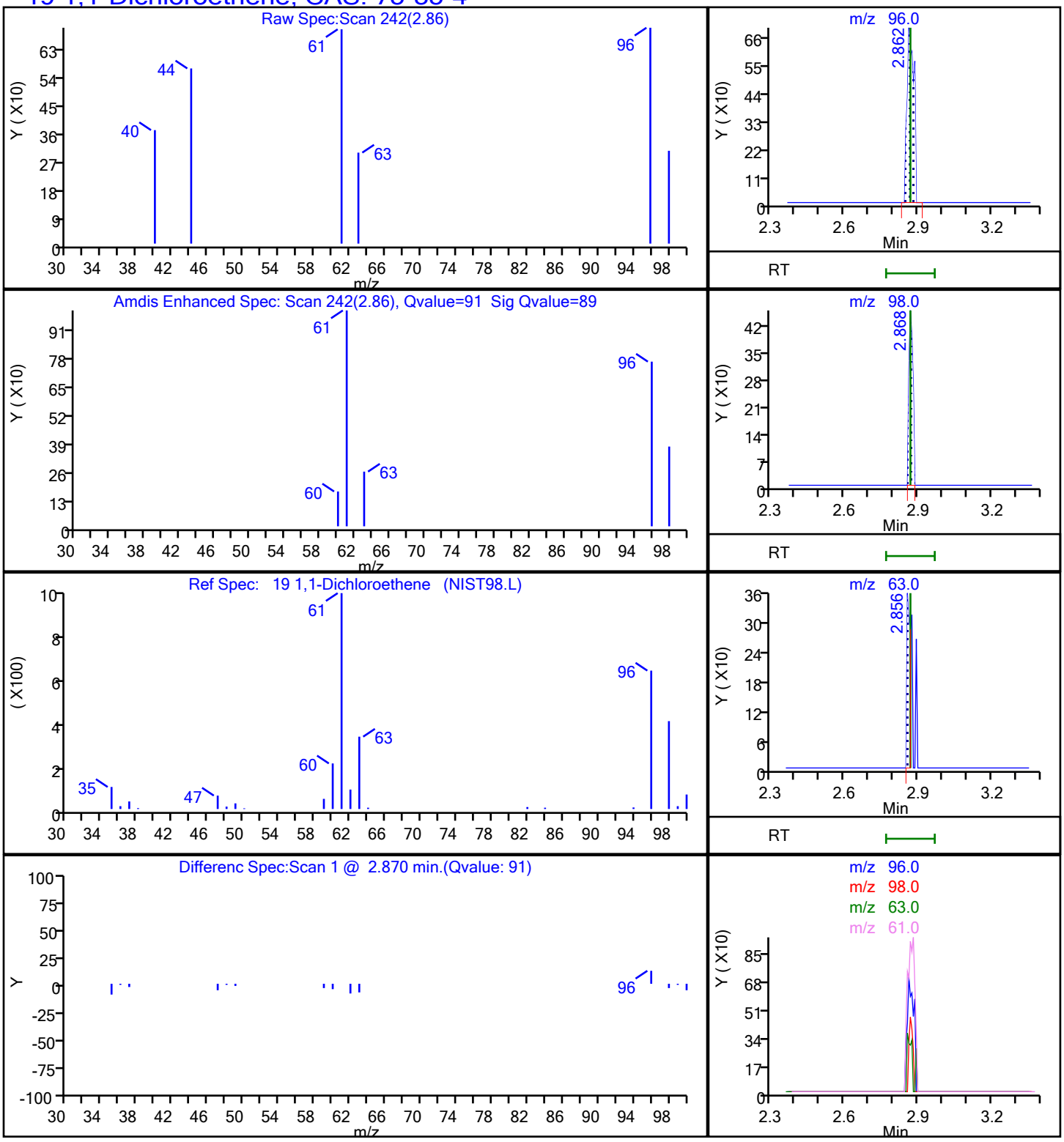
Operator ID: etp33087 ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 20-Nov-2020 10:21:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D

Injection Date: 20-Nov-2020 01:37:30 Instrument ID: 26285

Lims ID: 410-20865-A-4 Lab Sample ID: 410-20865-4

Client ID: J05-BR02

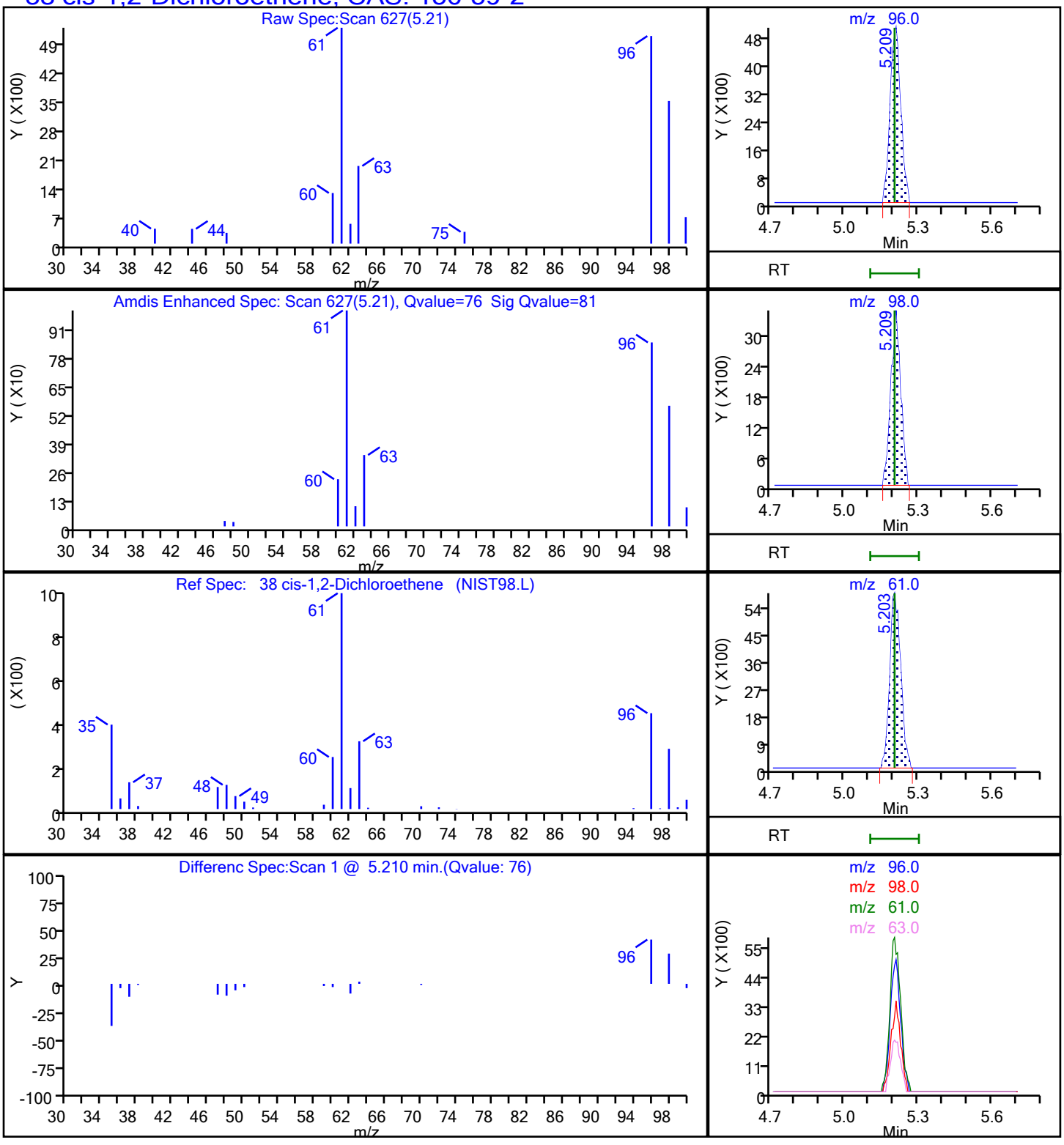
Operator ID: etp33087 ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

38 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 20-Nov-2020 10:21:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D

Injection Date: 20-Nov-2020 01:37:30 Instrument ID: 26285

Lims ID: 410-20865-A-4 Lab Sample ID: 410-20865-4

Client ID: J05-BR02

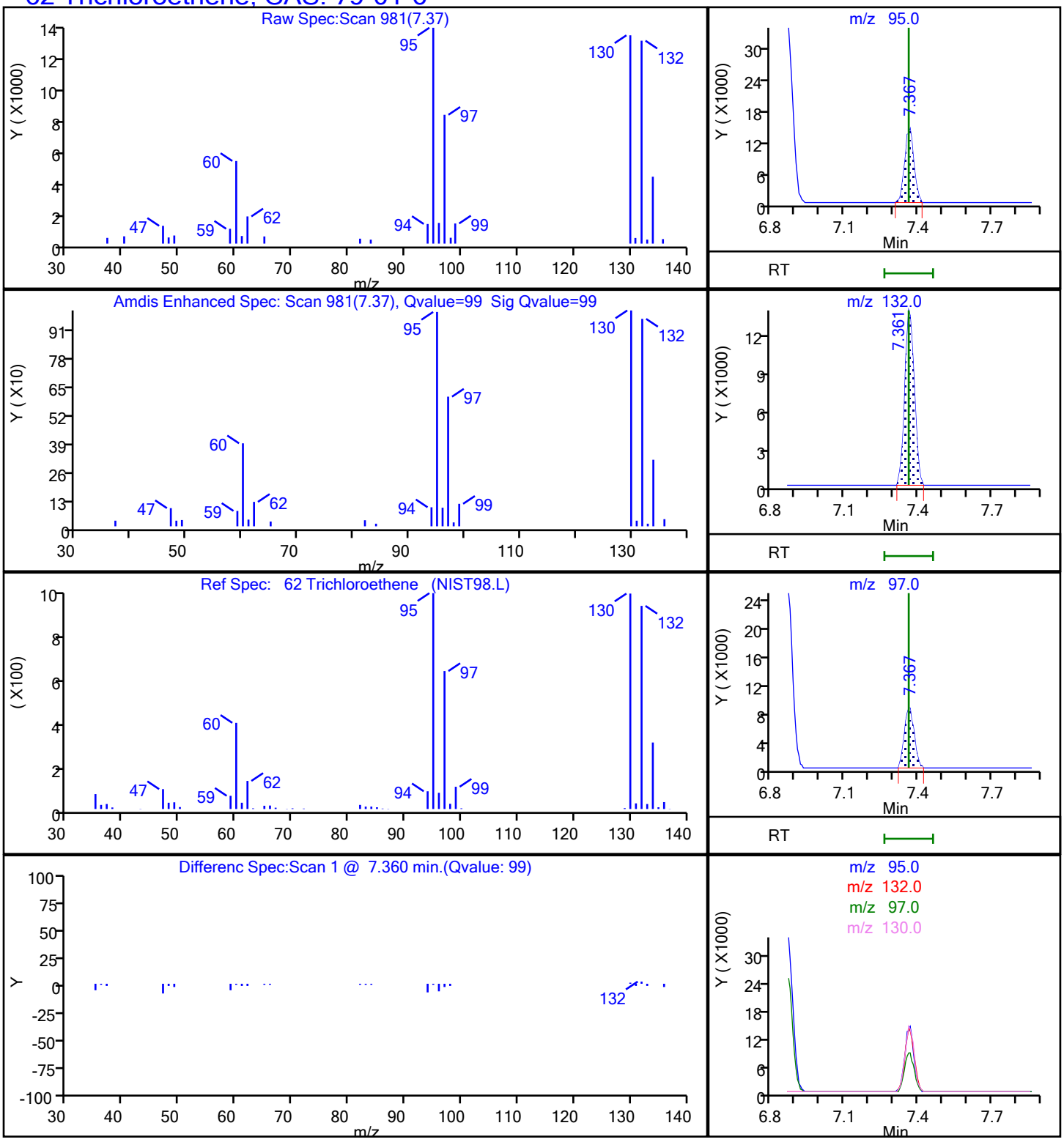
Operator ID: etp33087 ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Report Date: 20-Nov-2020 10:21:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D

Injection Date: 20-Nov-2020 01:37:30 Instrument ID: 26285

Lims ID: 410-20865-A-4 Lab Sample ID: 410-20865-4

Client ID: J05-BR02

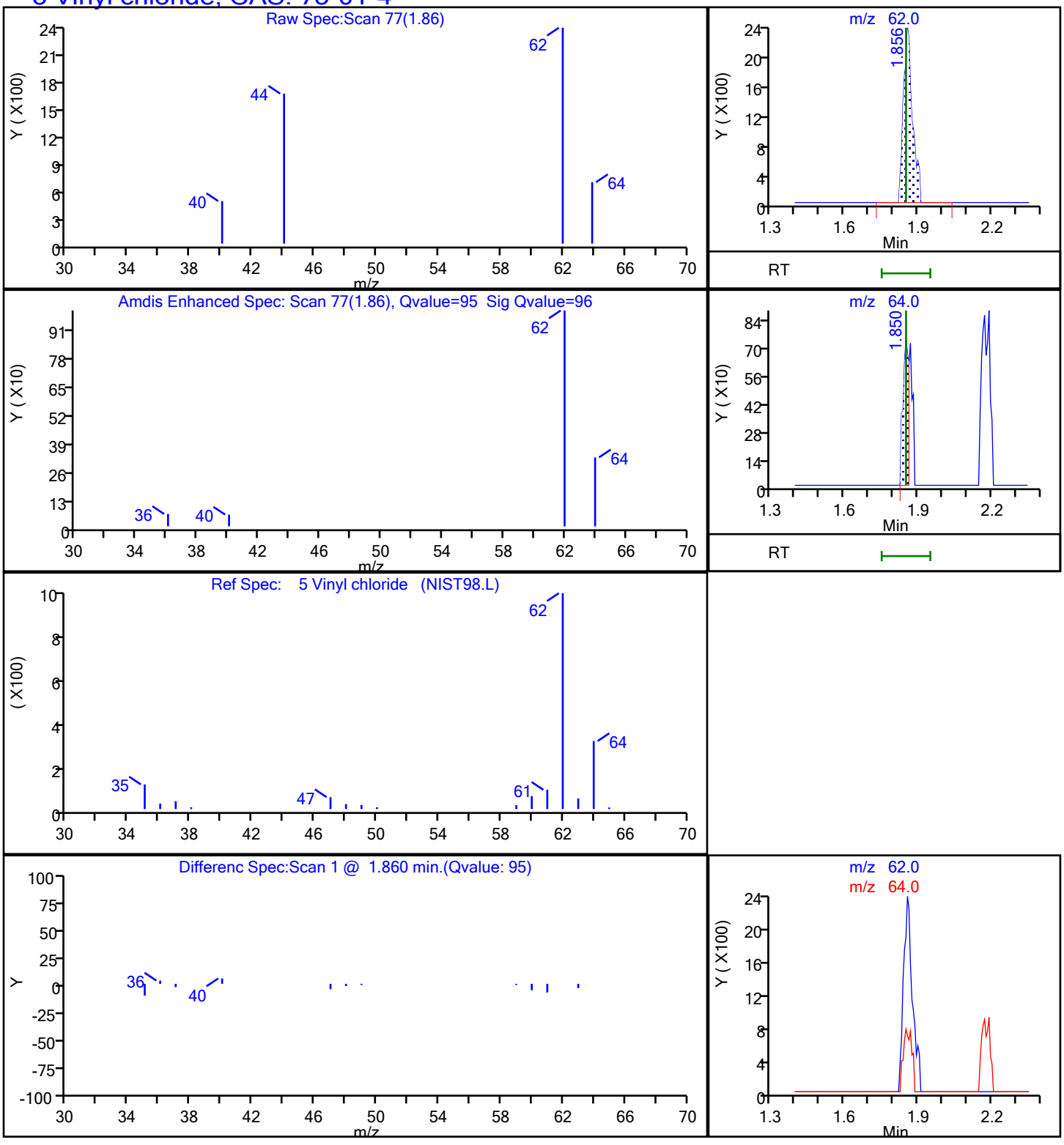
Operator ID: etp33087 ALS Bottle#: 18 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Vinyl chloride, CAS: 75-01-4



Eurofins Lancaster Laboratories Env, LLC

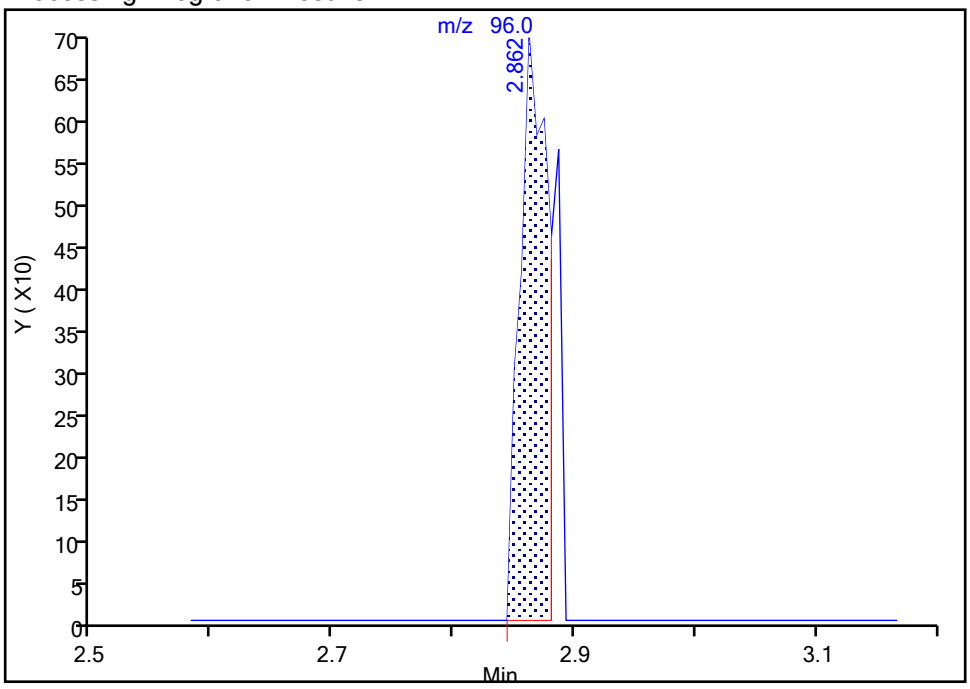
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D				
Injection Date:	20-Nov-2020 01:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-4	Lab Sample ID:	410-20865-4		
Client ID:	J05-BR02				
Operator ID:	etp33087	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

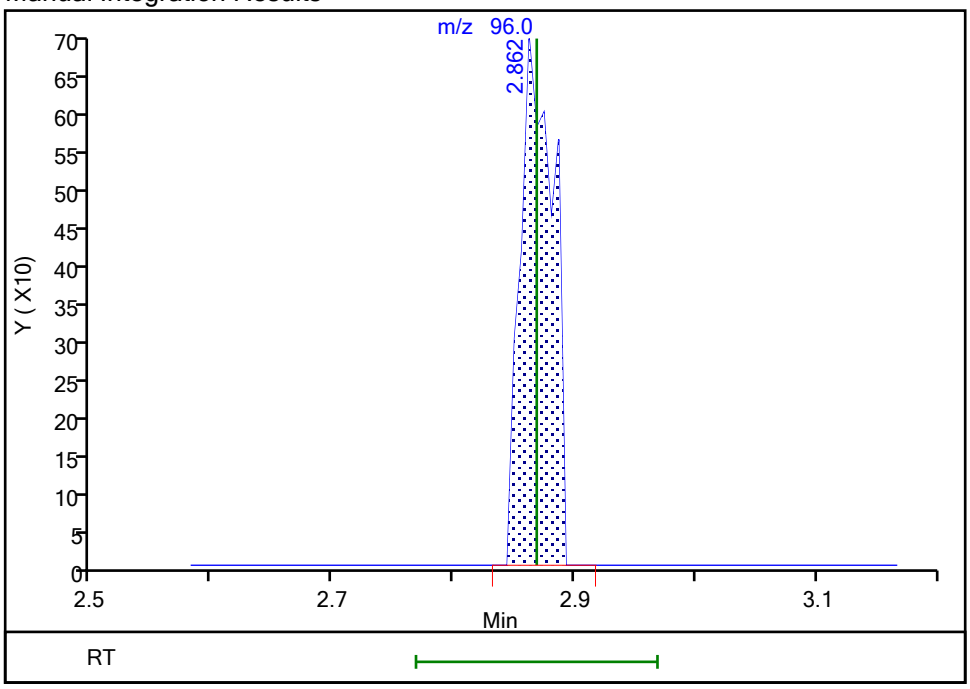
Processing Integration Results

RT: 2.86
Area: 1122
Amount: 0.221615
Amount Units: ug/l



Manual Integration Results

RT: 2.86
Area: 1329
Amount: 0.262501
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:12:19
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

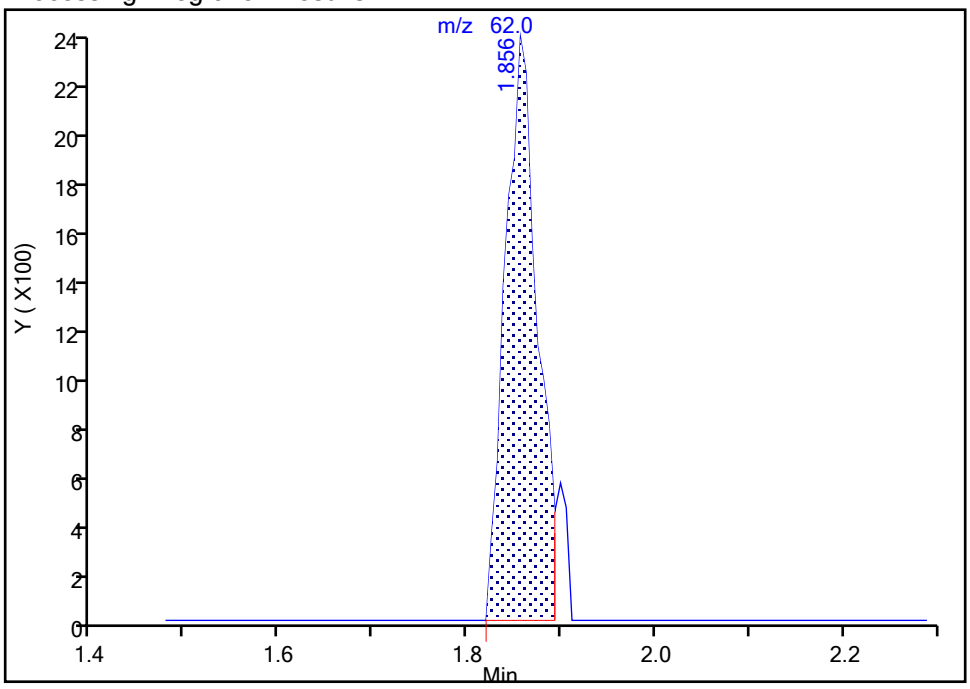
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S47.D				
Injection Date:	20-Nov-2020 01:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-4	Lab Sample ID:	410-20865-4		
Client ID:	J05-BR02				
Operator ID:	etp33087	ALS Bottle#:	18	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

5 Vinyl chloride, CAS: 75-01-4

Signal: 1

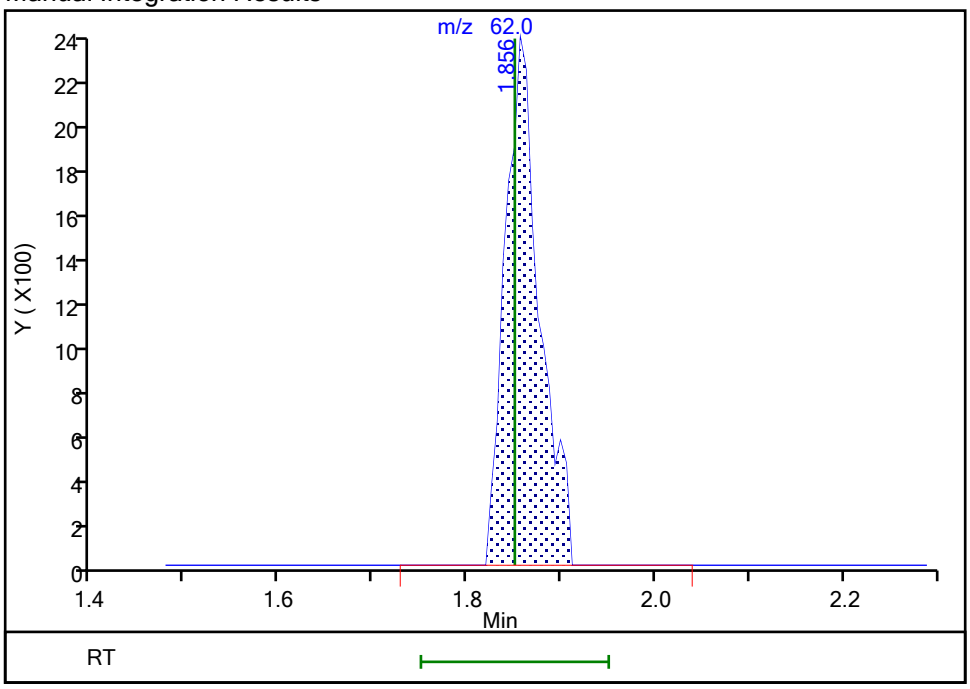
Processing Integration Results

RT: 1.86
Area: 5575
Amount: 0.687986
Amount Units: ug/l



Manual Integration Results

RT: 1.86
Area: 5942
Amount: 0.733276
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:12:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: DUP-01 Lab Sample ID: 410-20865-5

Matrix: Water Lab File ID: 5N19S48.D

Analysis Method: 8260C Date Collected: 11/11/2020 14:35

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 01:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.51	J	1.0	0.30
75-34-3	1,1-Dichloroethane	1.3		1.0	0.20
75-35-4	1,1-Dichloroethene	0.26	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.9		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	5.9		1.0	0.20
75-01-4	Vinyl chloride	0.65	J	1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D
Lims ID: 410-20865-A-5
Client ID: DUP-01
Sample Type: Client
Inject. Date: 20-Nov-2020 01:57:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-019
Misc. Info.: 410-20865-A-5
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:13:16

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62	1.850	1.850	0.000	94	5339	0.6482	M
19 1,1-Dichloroethene	96	2.868	2.868	0.000	88	1322	0.2569	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	7
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.417	3.423	-0.006	97	341131	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.337	4.338	-0.001	93	14023	1.28	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96	5.209	5.203	0.006	79	13094	1.91	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	36	4882	0.5120	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	278941	47.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	97	63536	50.0	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1117779	50.0	
62 Trichloroethene	95	7.361	7.361	0.000	97	39870	5.86	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.013	9.020	-0.007	93	1054871	50.4	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	830948	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	96	394873	46.7	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	450577	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

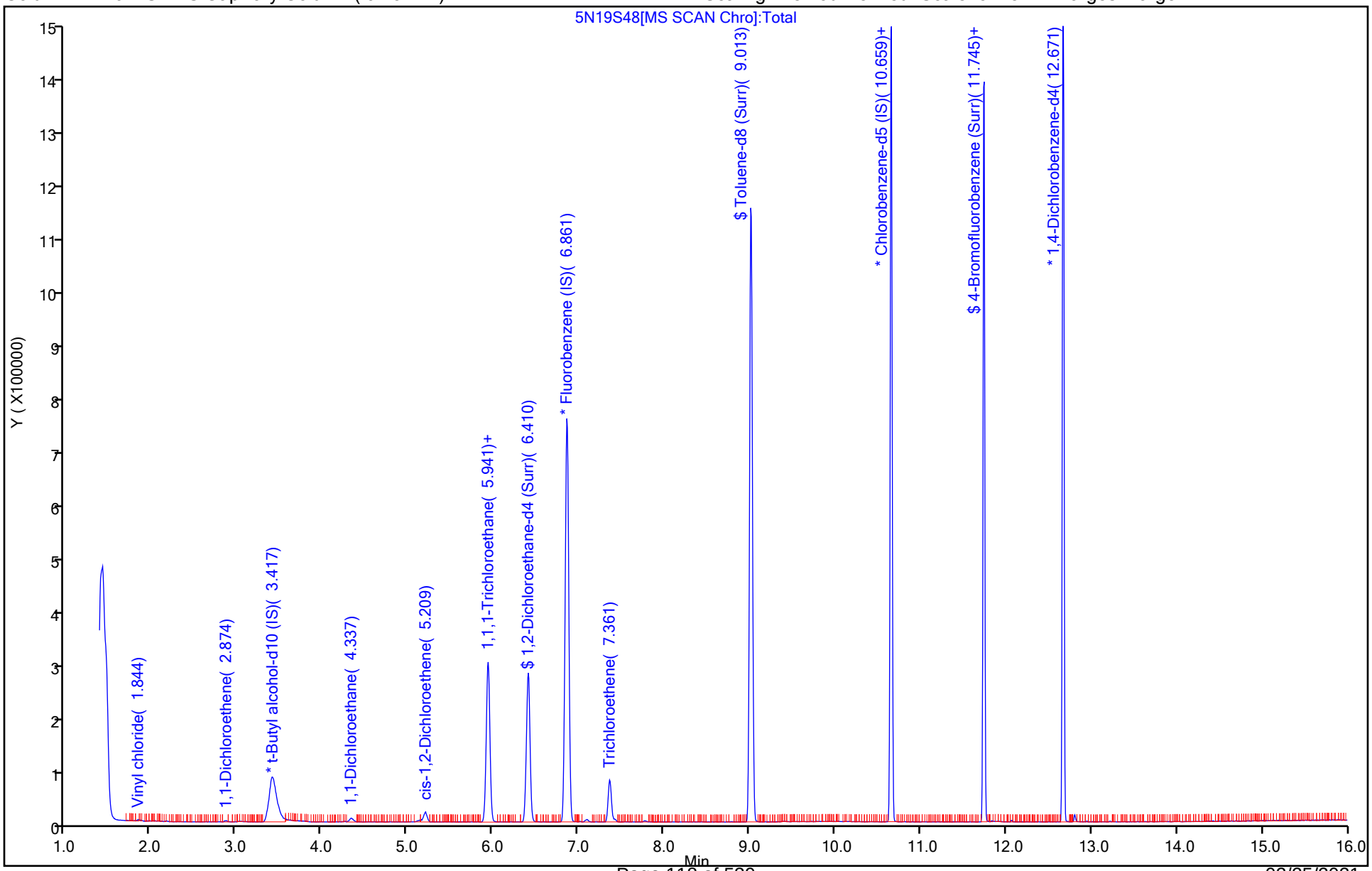
MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 20-Nov-2020 10:21:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D				
Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5	Worklist Smp#:	19
Client ID:	DUP-01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

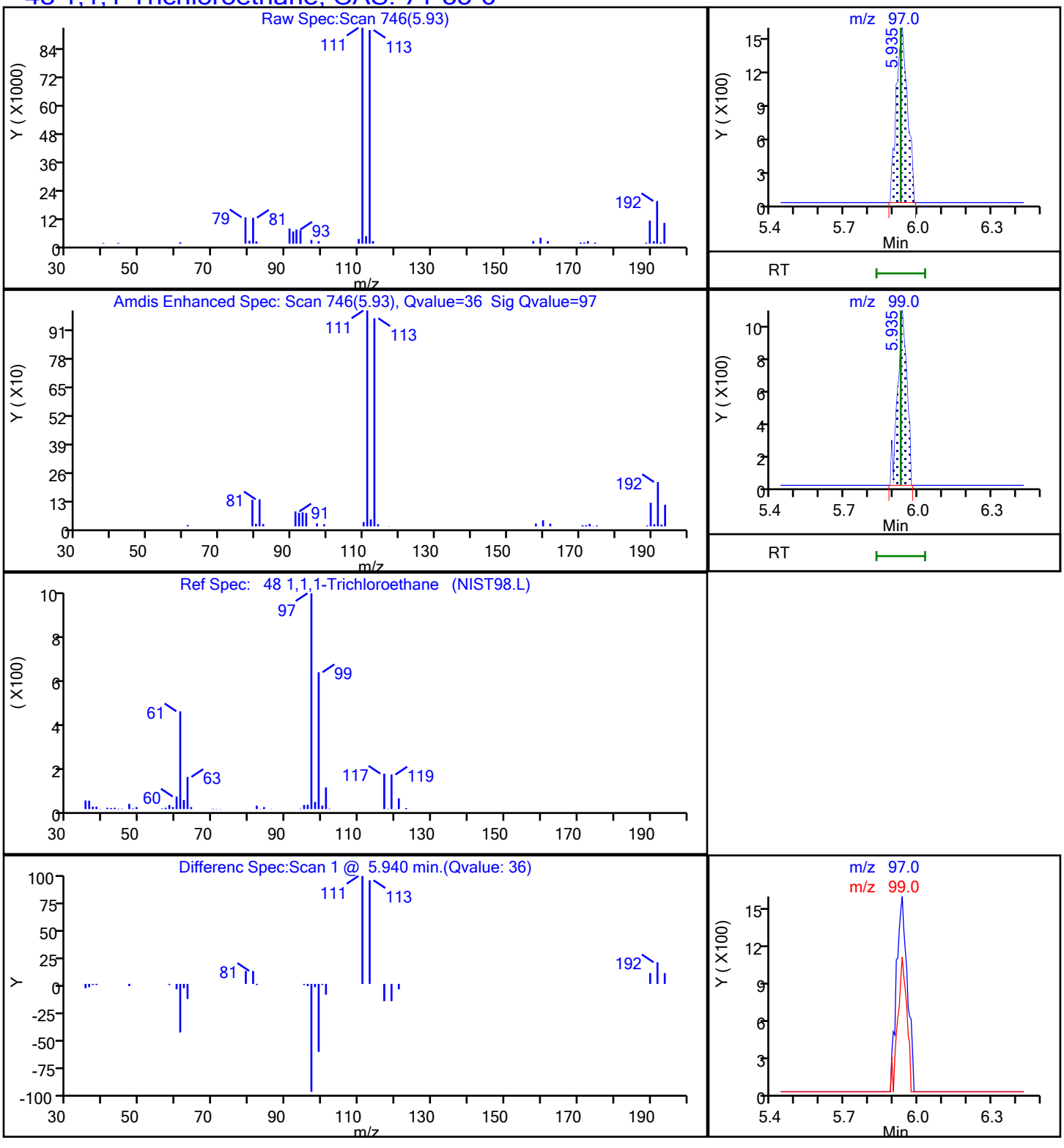
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D				
Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5		
Client ID:	DUP-01				
Operator ID:	etp33087	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

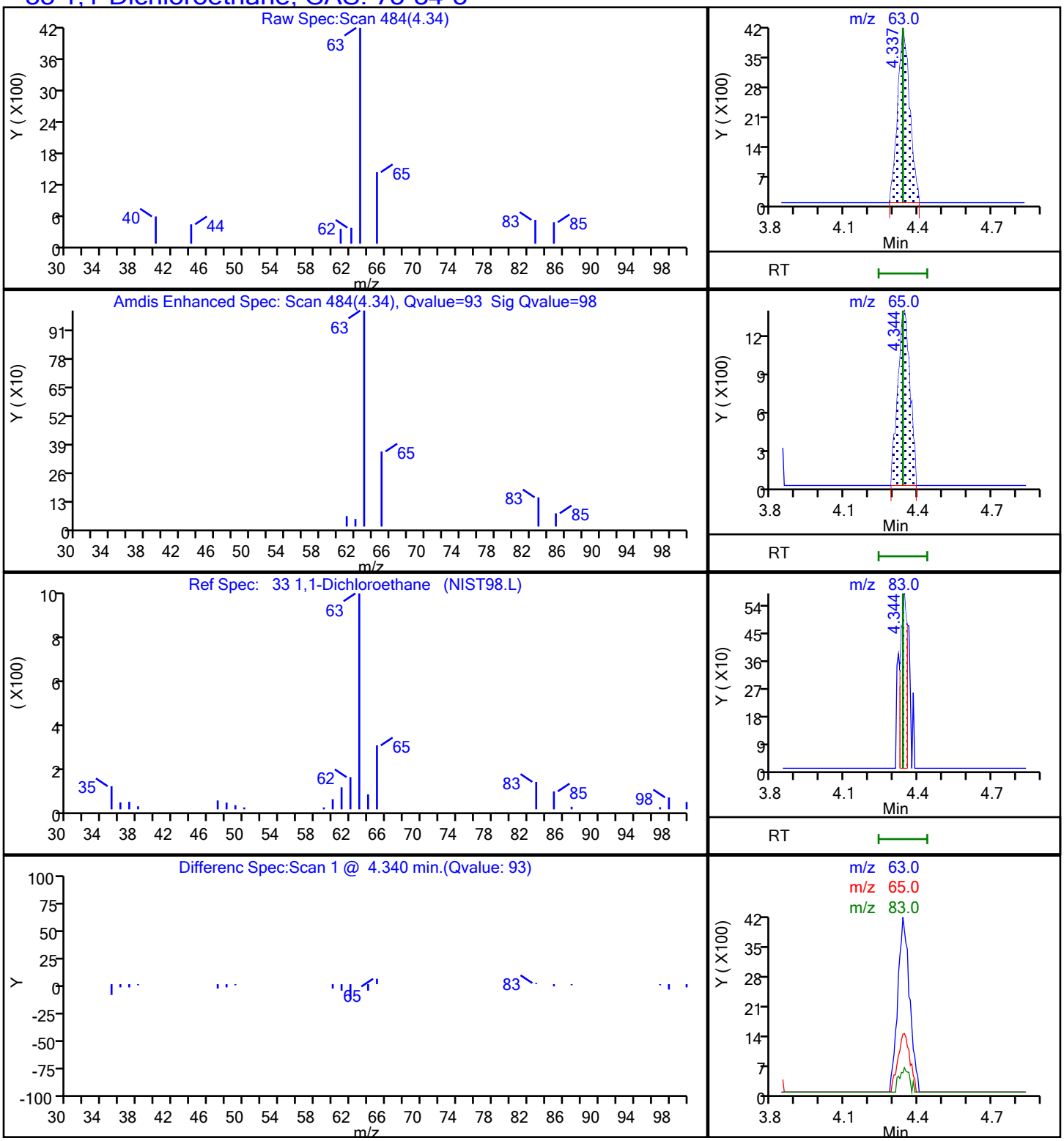
48 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D				
Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5		
Client ID:	DUP-01				
Operator ID:	etp33087	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



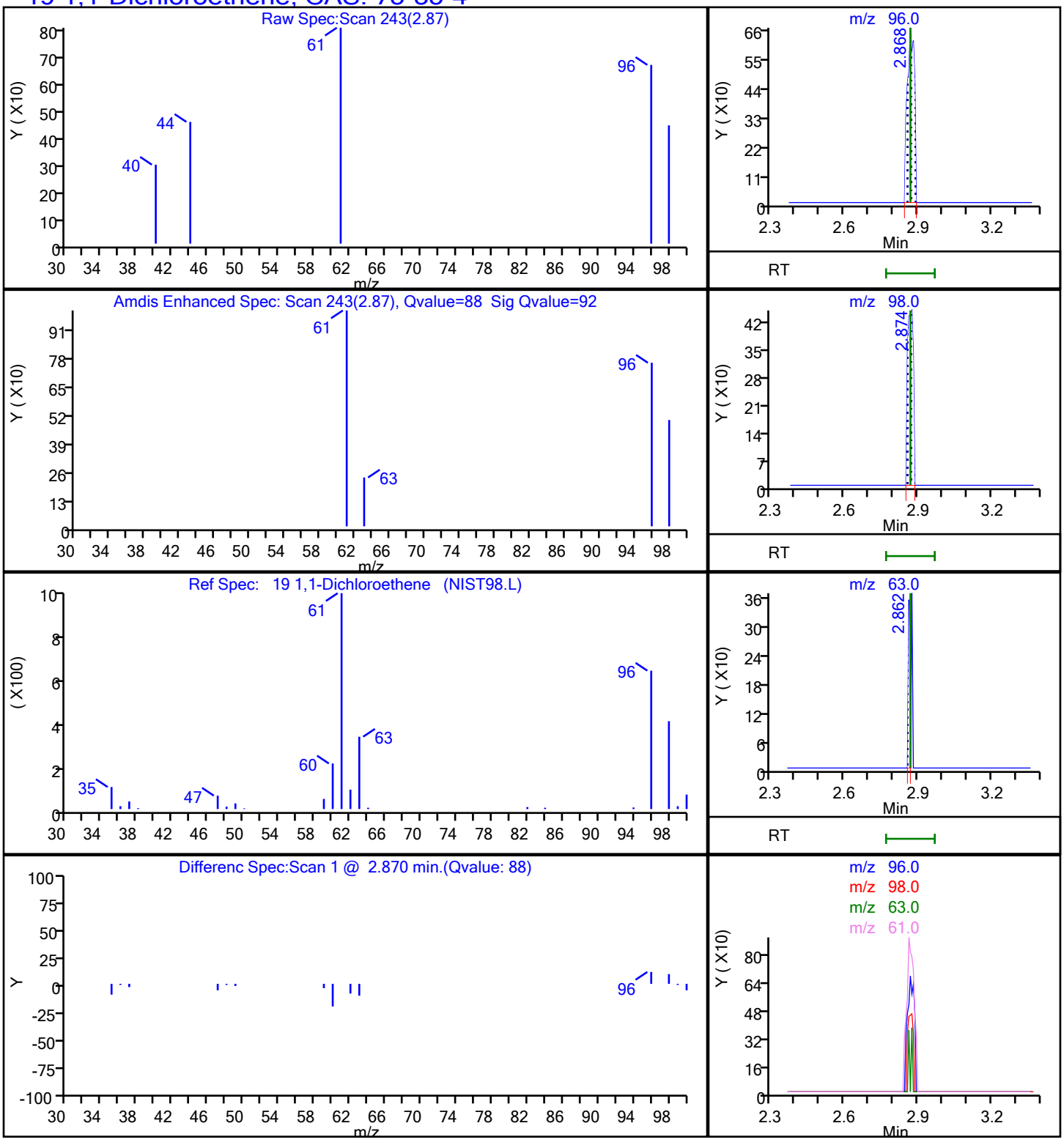
Report Date: 20-Nov-2020 10:21:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D

Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5		
Client ID:	DUP-01				
Operator ID:	etp33087	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 20-Nov-2020 10:21:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D

Injection Date: 20-Nov-2020 01:57:30 Instrument ID: 26285

Lims ID: 410-20865-A-5 Lab Sample ID: 410-20865-5

Client ID: DUP-01

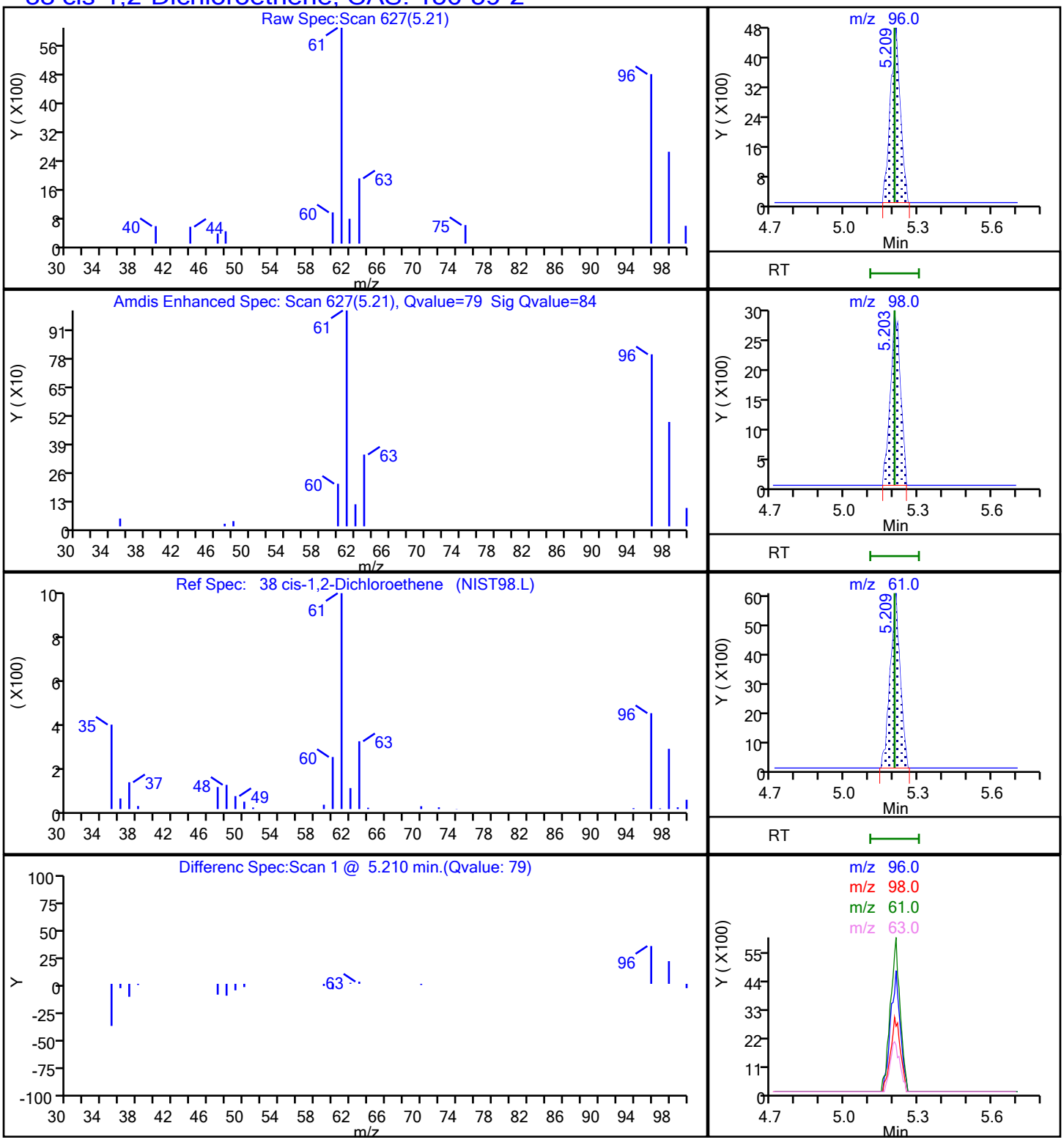
Operator ID: etp33087 ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

38 cis-1,2-Dichloroethene, CAS: 156-59-2



Report Date: 20-Nov-2020 10:21:14 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D

Injection Date: 20-Nov-2020 01:57:30 Instrument ID: 26285

Lims ID: 410-20865-A-5 Lab Sample ID: 410-20865-5

Client ID: DUP-01

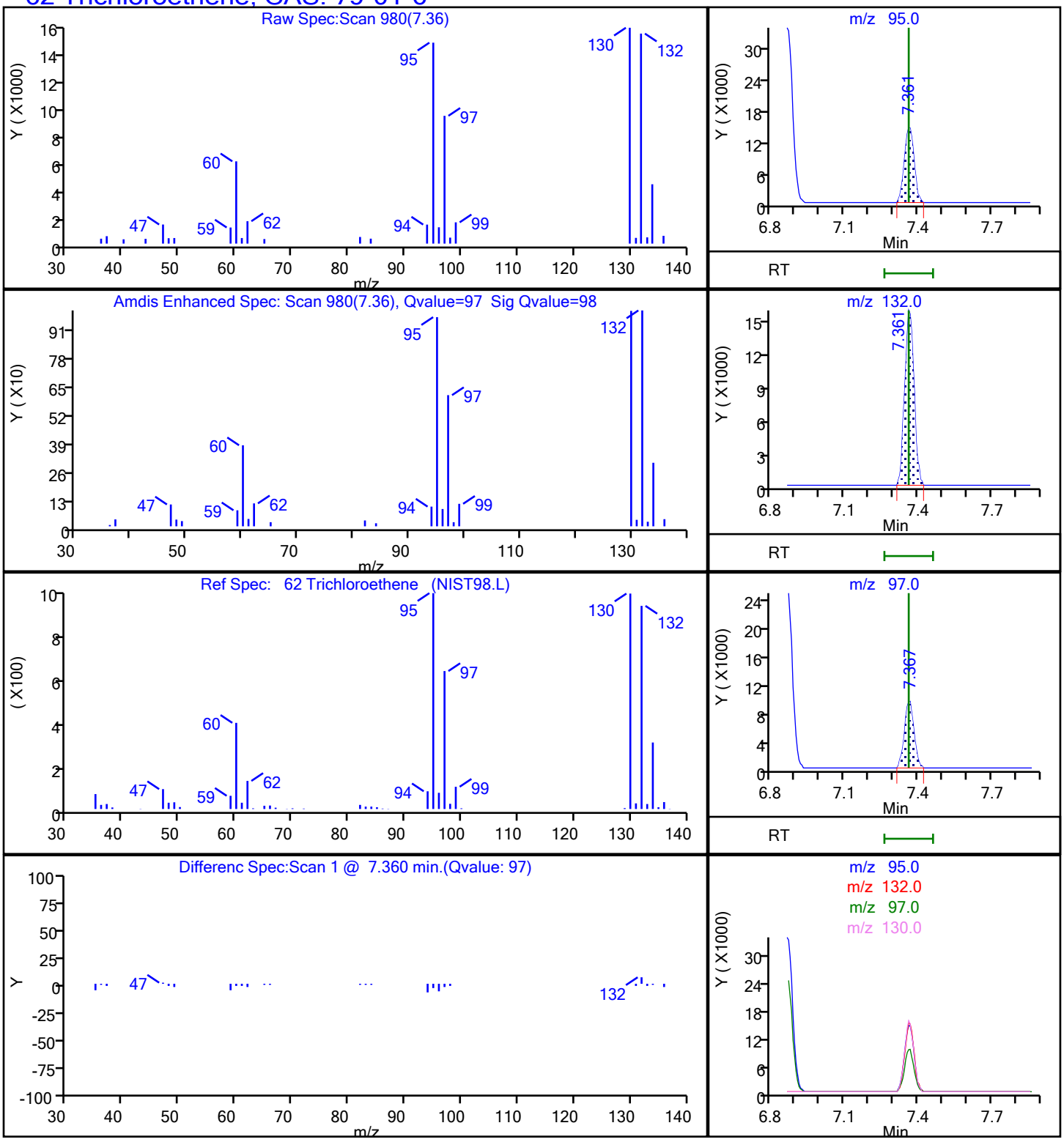
Operator ID: etp33087 ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Report Date: 20-Nov-2020 10:21:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D

Injection Date: 20-Nov-2020 01:57:30 Instrument ID: 26285

Lims ID: 410-20865-A-5 Lab Sample ID: 410-20865-5

Client ID: DUP-01

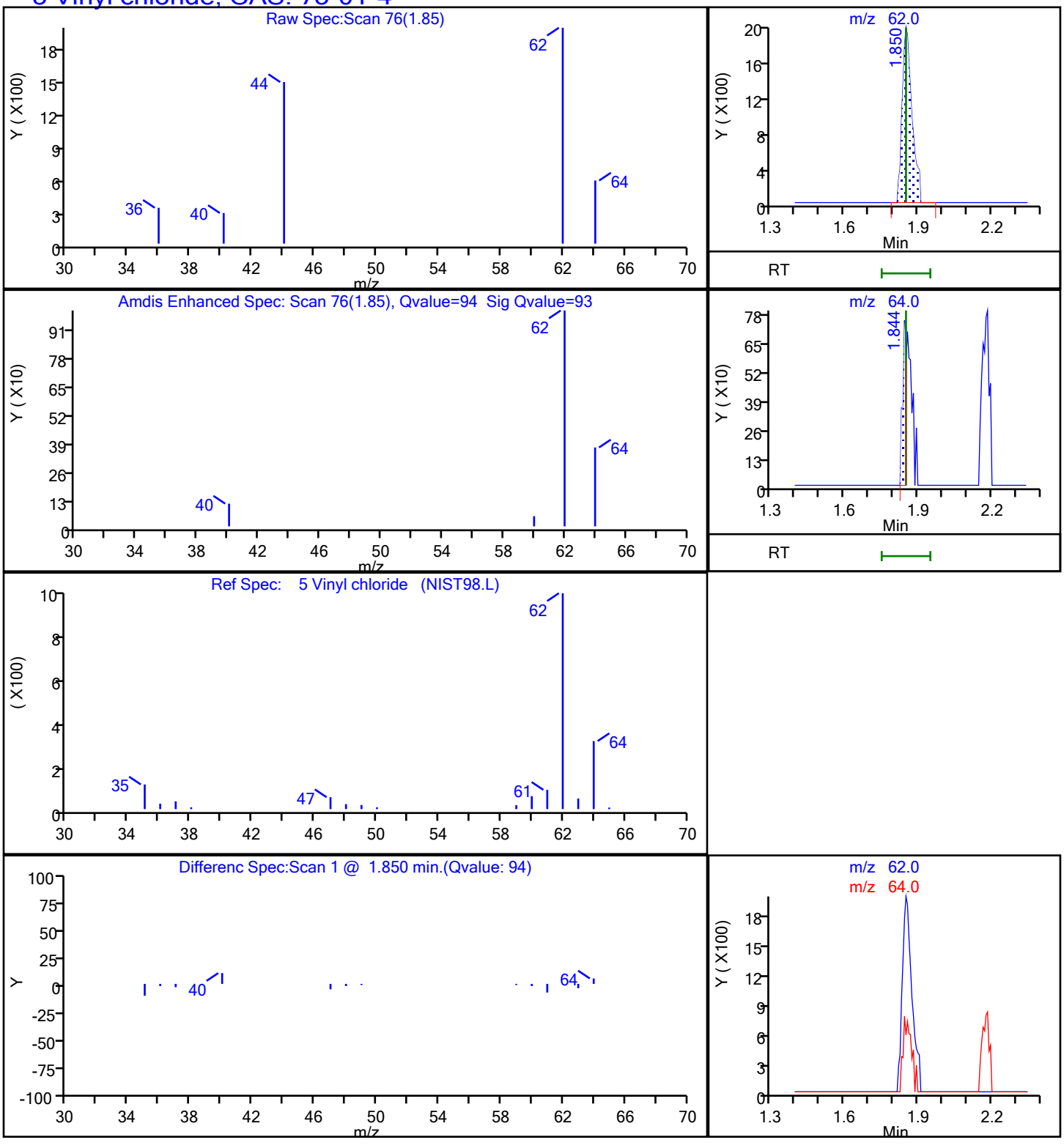
Operator ID: etp33087 ALS Bottle#: 19 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Vinyl chloride, CAS: 75-01-4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

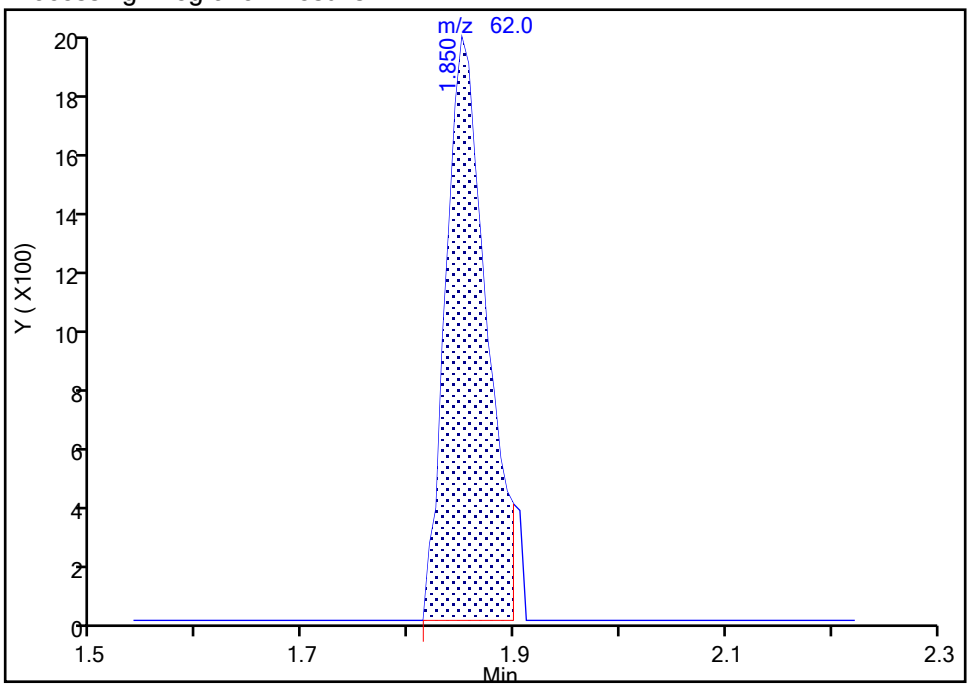
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D				
Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5		
Client ID:	DUP-01				
Operator ID:	etp33087	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

5 Vinyl chloride, CAS: 75-01-4

Signal: 1

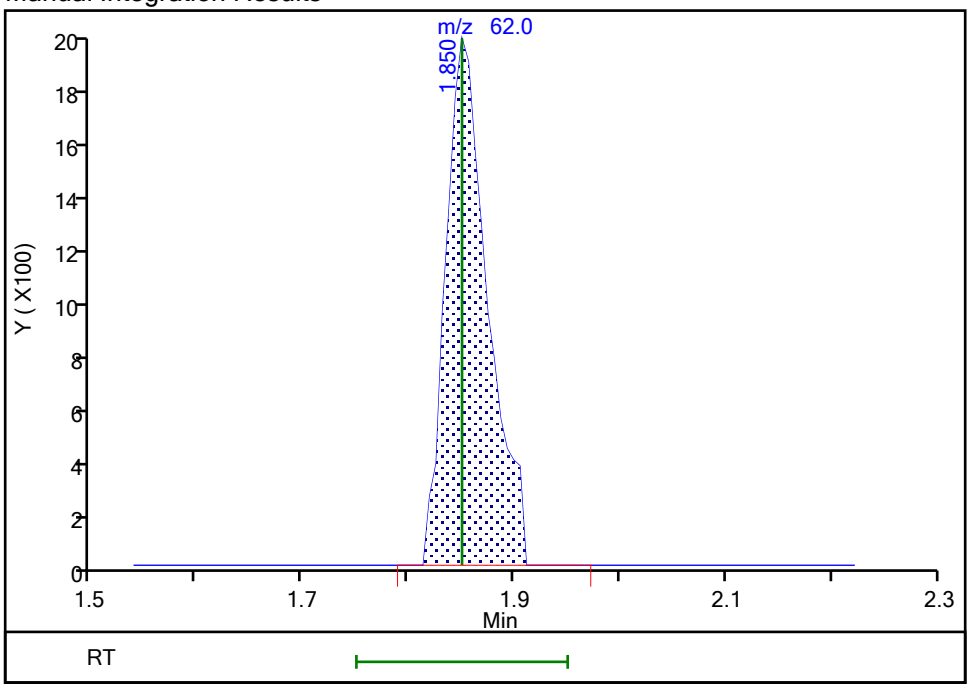
Processing Integration Results

RT: 1.85
Area: 5205
Amount: 0.631889
Amount Units: ug/l



Manual Integration Results

RT: 1.85
Area: 5339
Amount: 0.648156
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:13:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

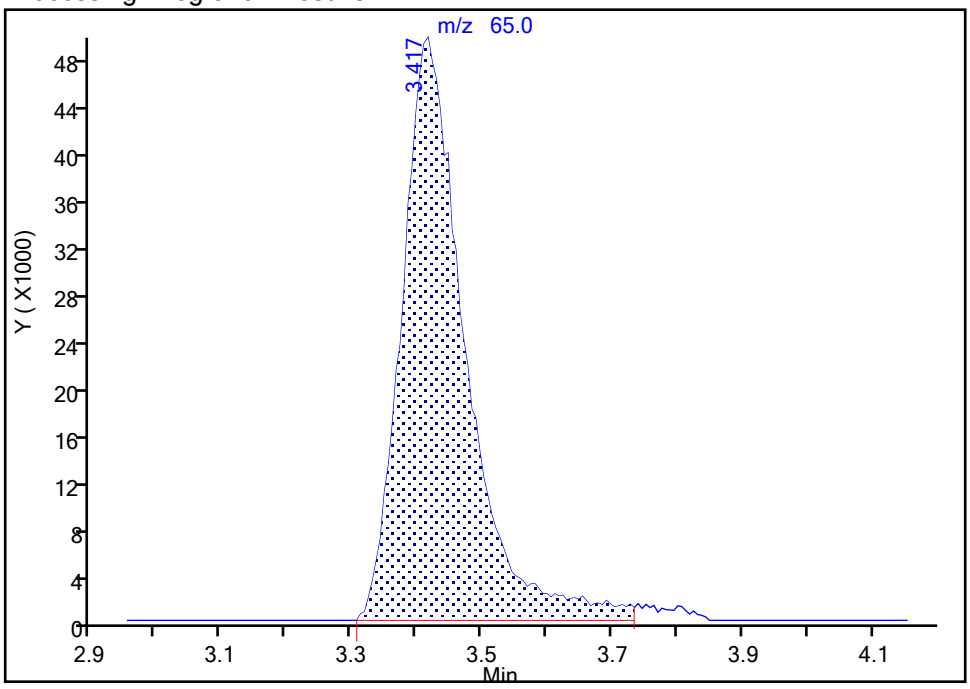
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S48.D				
Injection Date:	20-Nov-2020 01:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-5	Lab Sample ID:	410-20865-5		
Client ID:	DUP-01				
Operator ID:	etp33087	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

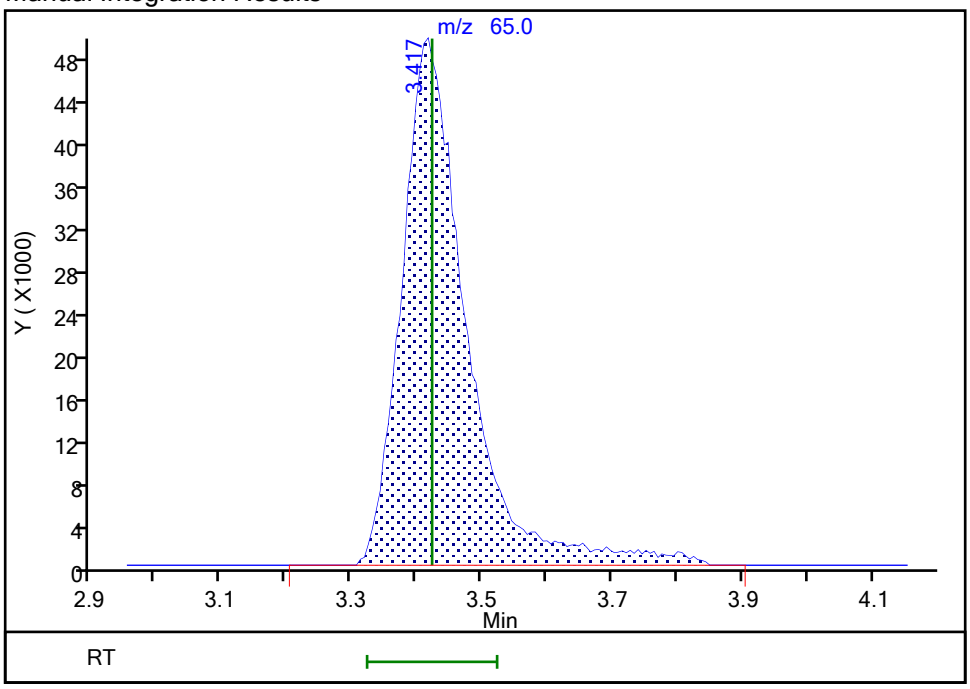
Processing Integration Results

RT: 3.42
Area: 335170
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.42
Area: 341131
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:12:57

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J13-BR02 Lab Sample ID: 410-20865-6

Matrix: Water Lab File ID: 5N19S49.D

Analysis Method: 8260C Date Collected: 11/12/2020 09:20

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 02:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S49.D
Lims ID: 410-20865-A-6
Client ID: J13-BR02
Sample Type: Client
Inject. Date: 20-Nov-2020 02:17:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-020
Misc. Info.: 410-20865-A-6
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:13:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	7
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.417	3.423	-0.006	98	334701	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	276820	48.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	98	63541	50.6	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.868	6.861	0.007	99	1104637	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.020	9.020	0.000	93	1039360	50.2	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.660	10.659	0.001	85	822322	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.739	11.745	-0.006	95	387749	46.4	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	443400	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

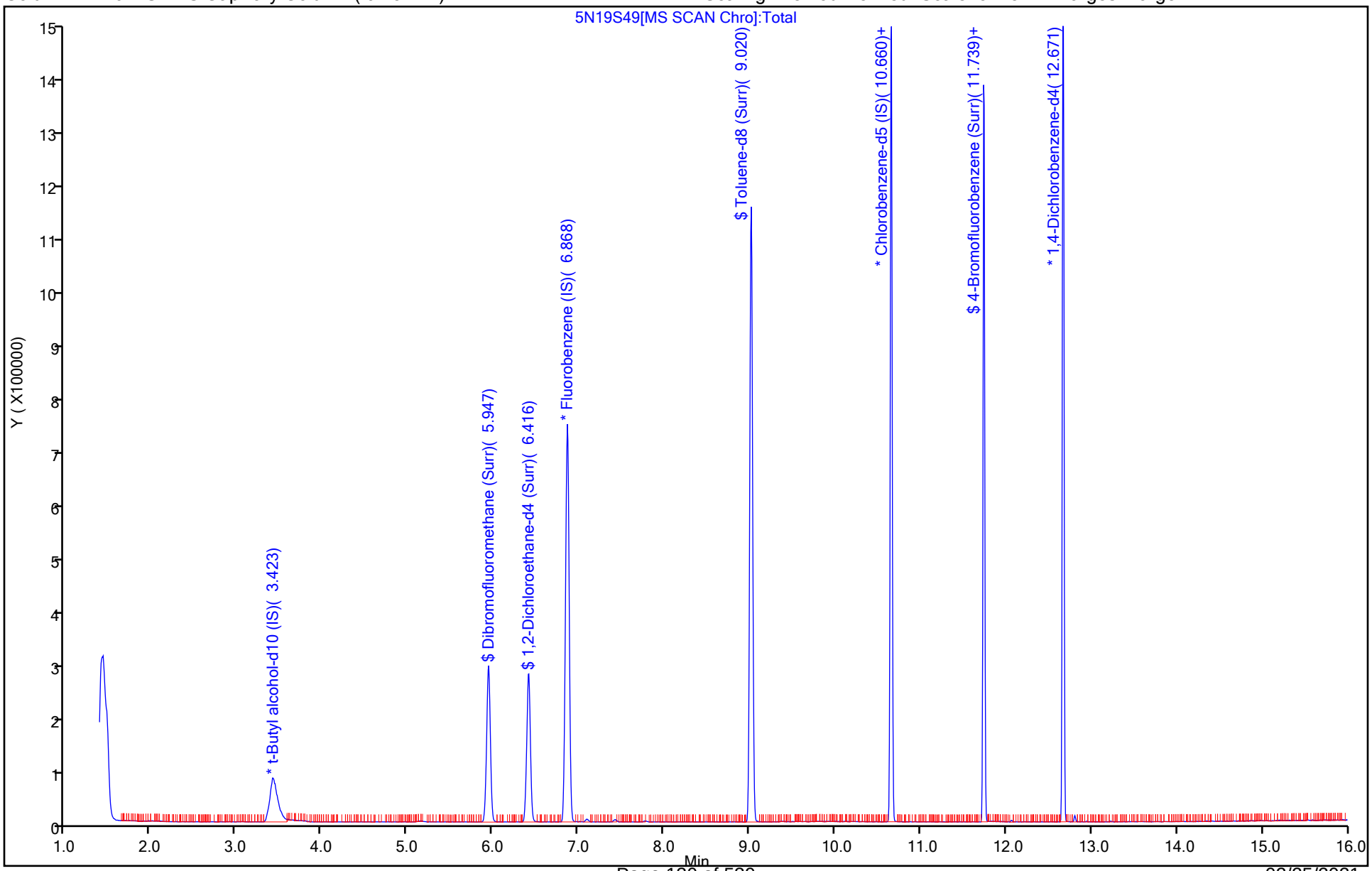
Report Date: 20-Nov-2020 10:21:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S49.D

Injection Date:	20-Nov-2020 02:17:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-6	Lab Sample ID:	410-20865-6	Worklist Smp#:	20
Client ID:	J13-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J13-BR01 Lab Sample ID: 410-20865-7

Matrix: Water Lab File ID: 5N19S50.D

Analysis Method: 8260C Date Collected: 11/12/2020 11:05

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 02:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.2		1.0	0.30
75-34-3	1,1-Dichloroethane	3.3		1.0	0.20
75-35-4	1,1-Dichloroethene	1.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	4.5		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D
Lims ID: 410-20865-A-7
Client ID: J13-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 02:38:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-021
Misc. Info.: 410-20865-A-7
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:14:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	96	5094	1.01	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	97	343107	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.350	4.338	0.012	95	35604	3.31	M
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.941	5.929	0.012	41	11298	1.21	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	276335	48.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	98	62022	49.7	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1097096	50.0	
62 Trichloroethene	95	7.367	7.361	0.006	96	29996	4.49	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1032148	50.1	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	818725	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	96	390451	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	437178	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

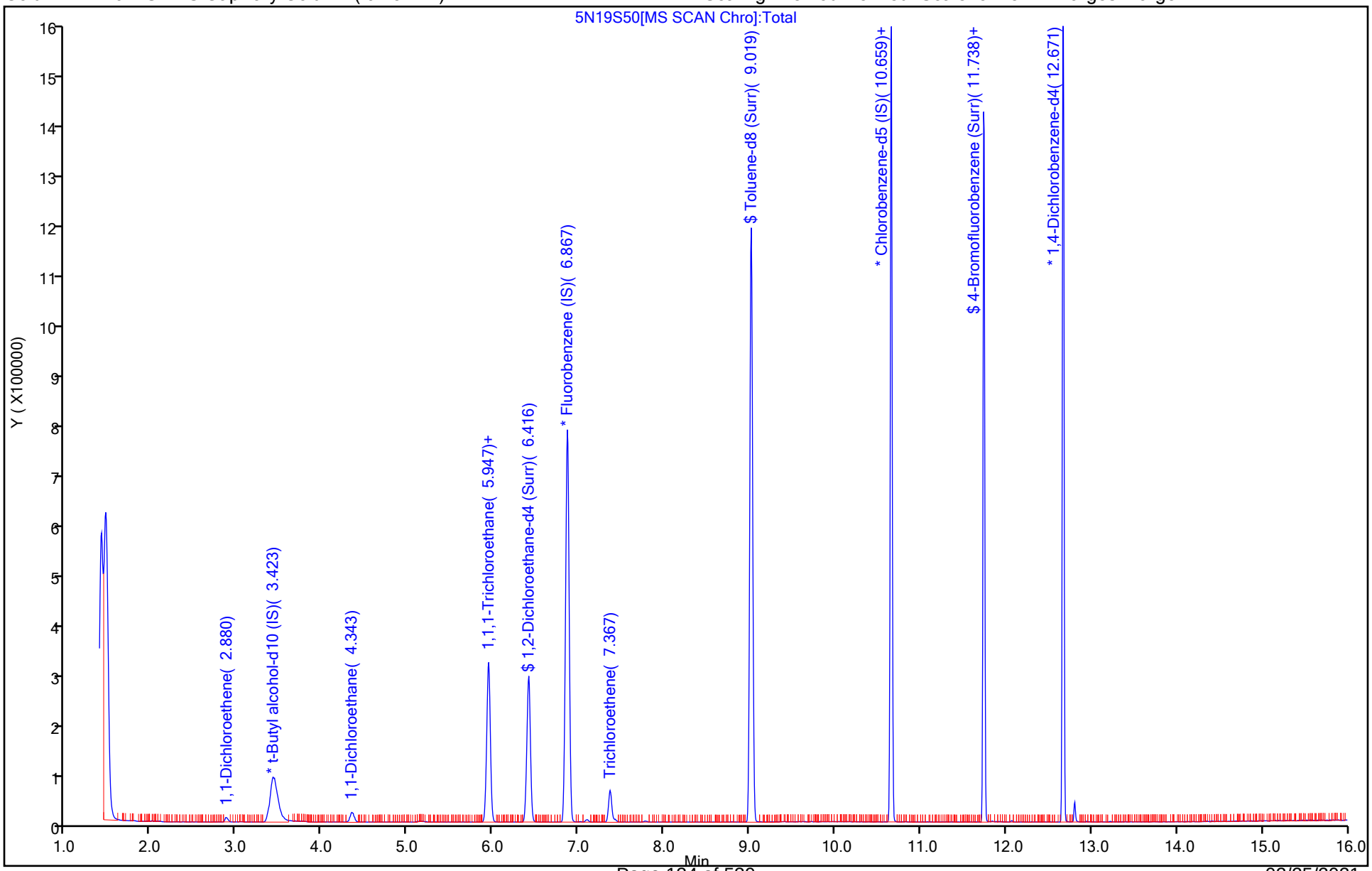
Report Date: 20-Nov-2020 10:21:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D

Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7	Worklist Smp#:	21
Client ID:	J13-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

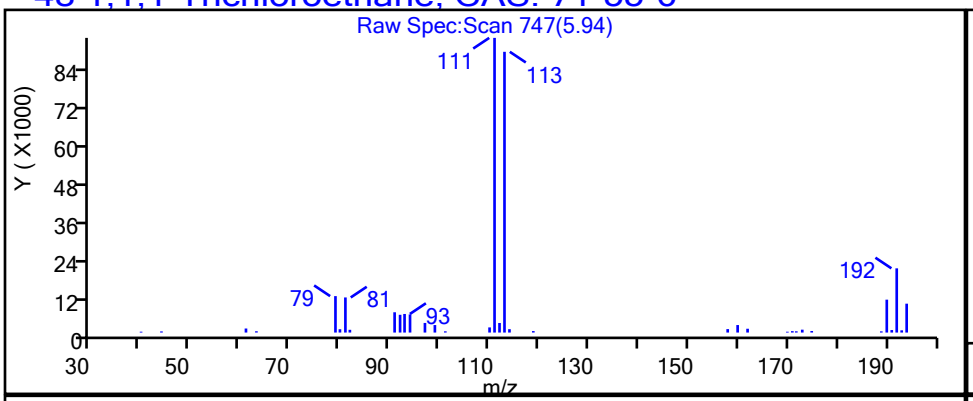
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

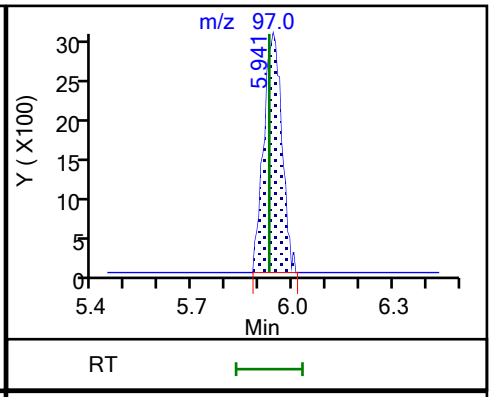


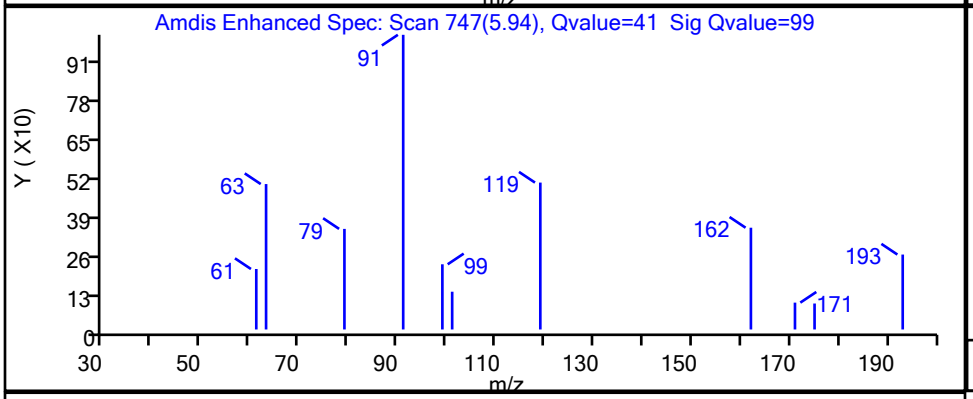
Eurofins Lancaster Laboratories Env, LLC

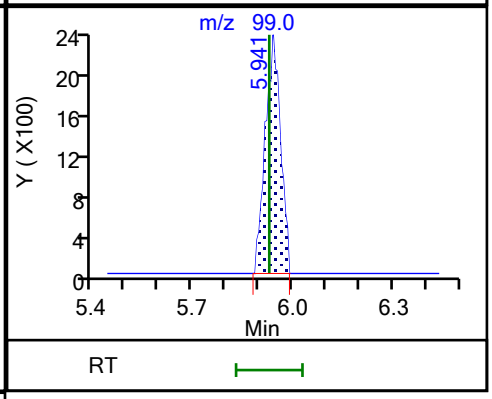
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D				
Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

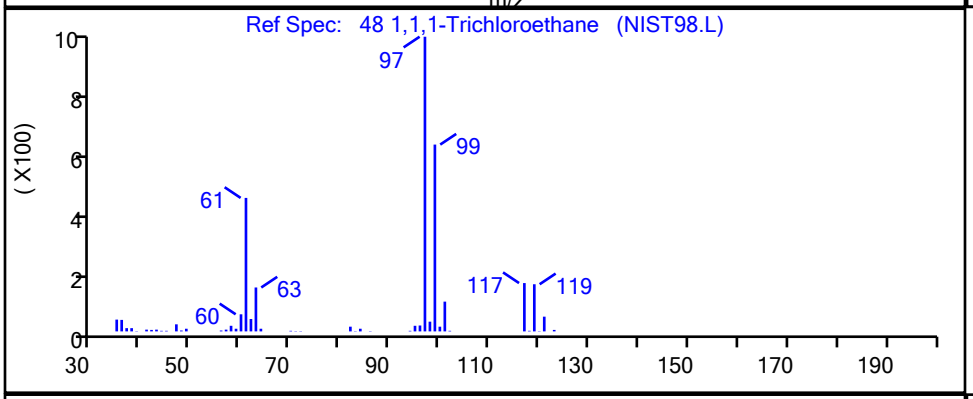
48 1,1,1-Trichloroethane, CAS: 71-55-6

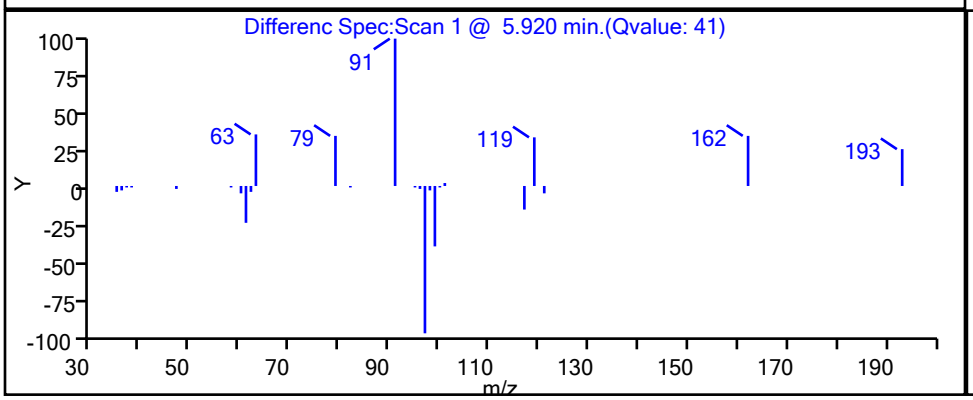


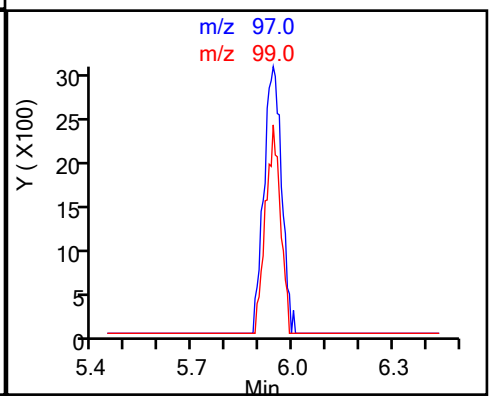












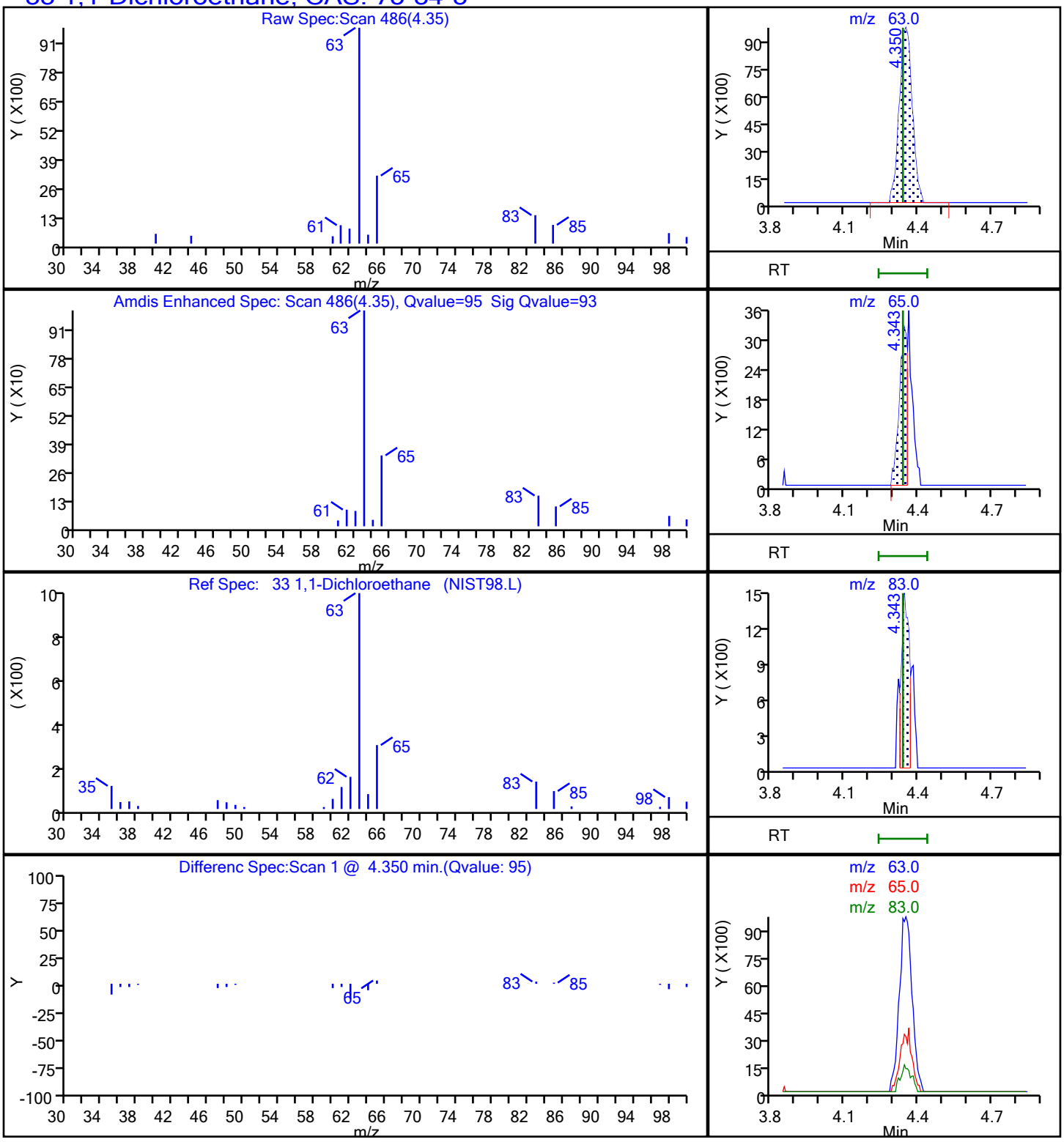
Report Date: 20-Nov-2020 10:21:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D

Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

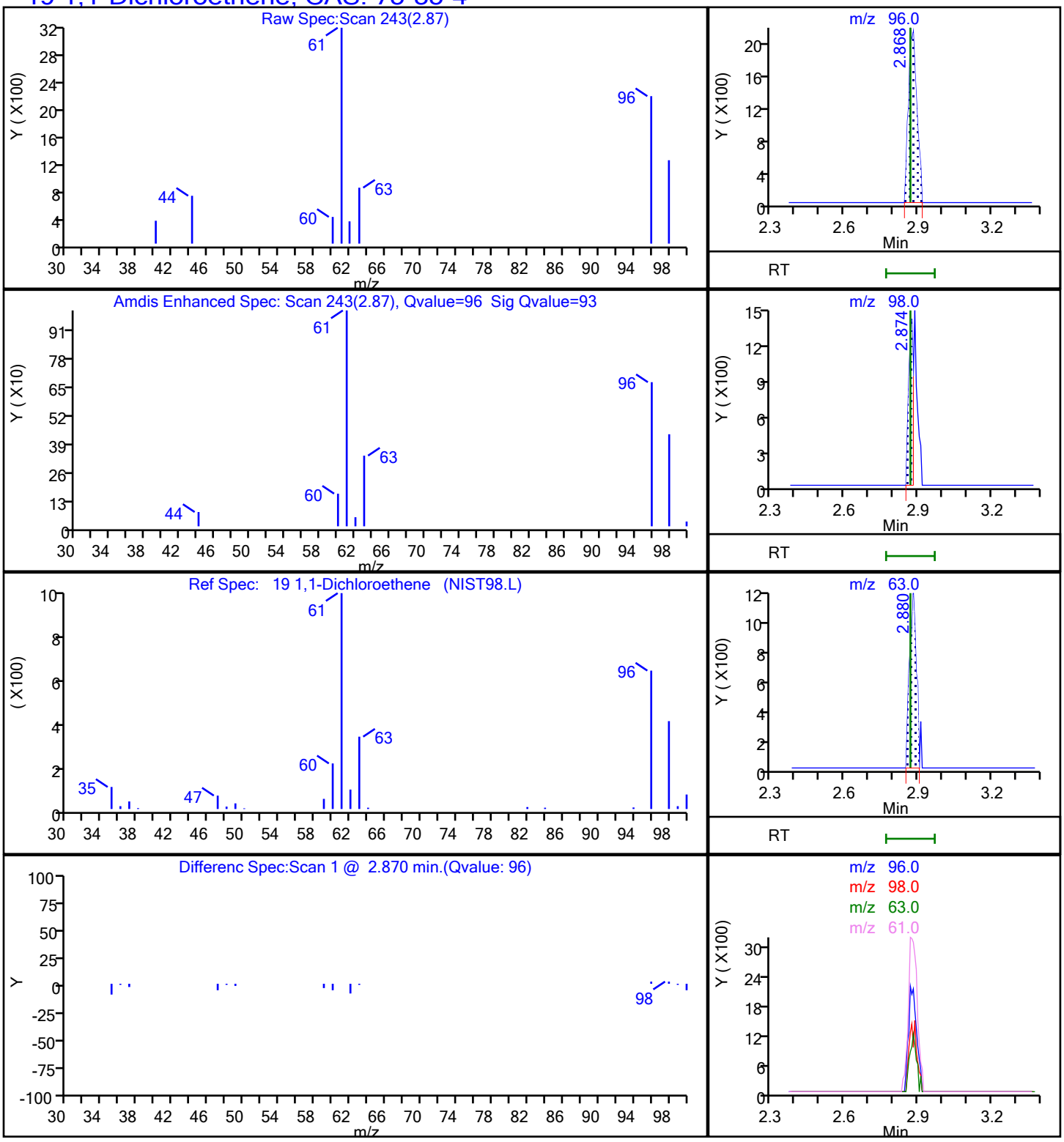
33 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D				
Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4



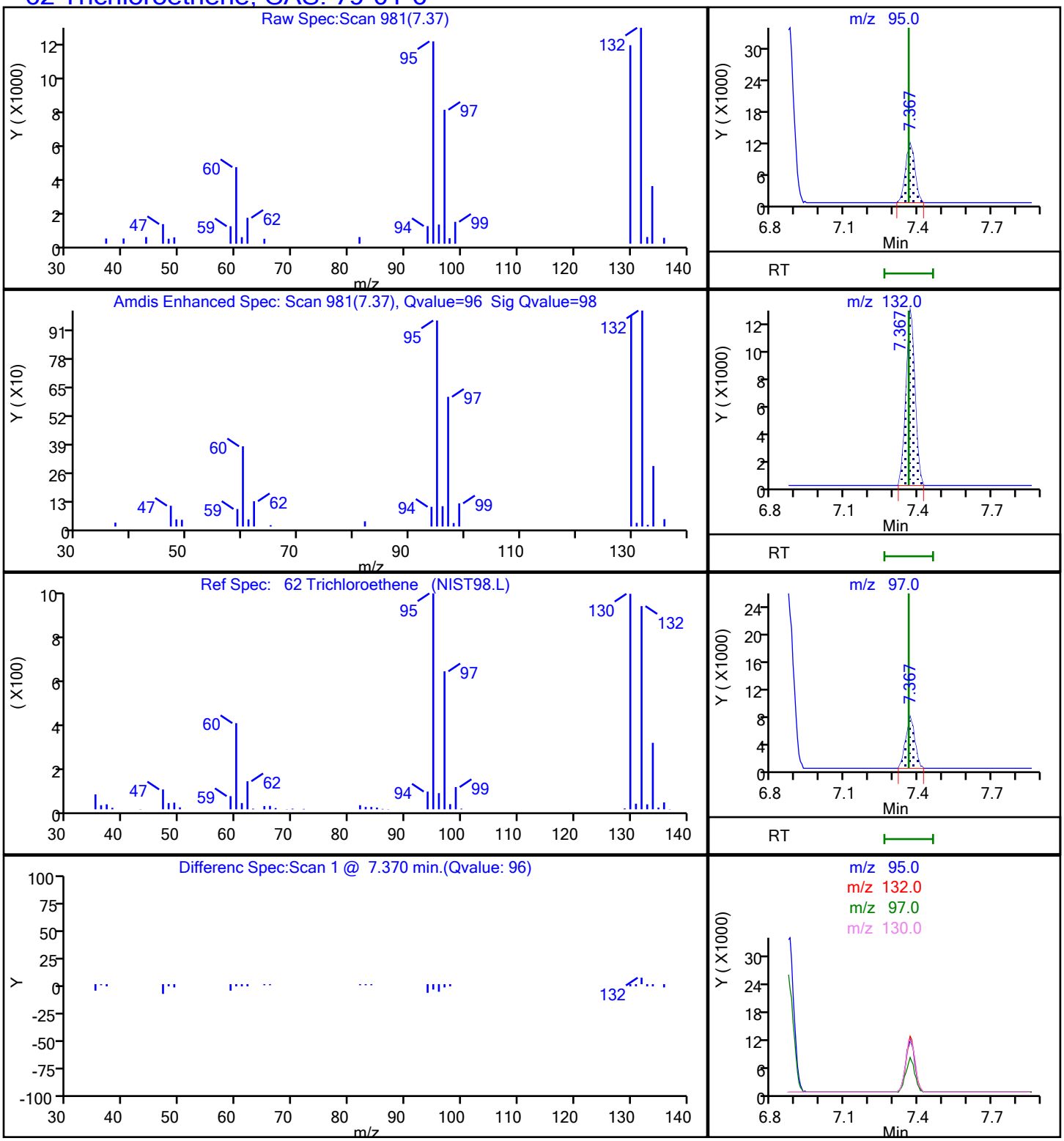
Report Date: 20-Nov-2020 10:21:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D

Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Eurofins Lancaster Laboratories Env, LLC

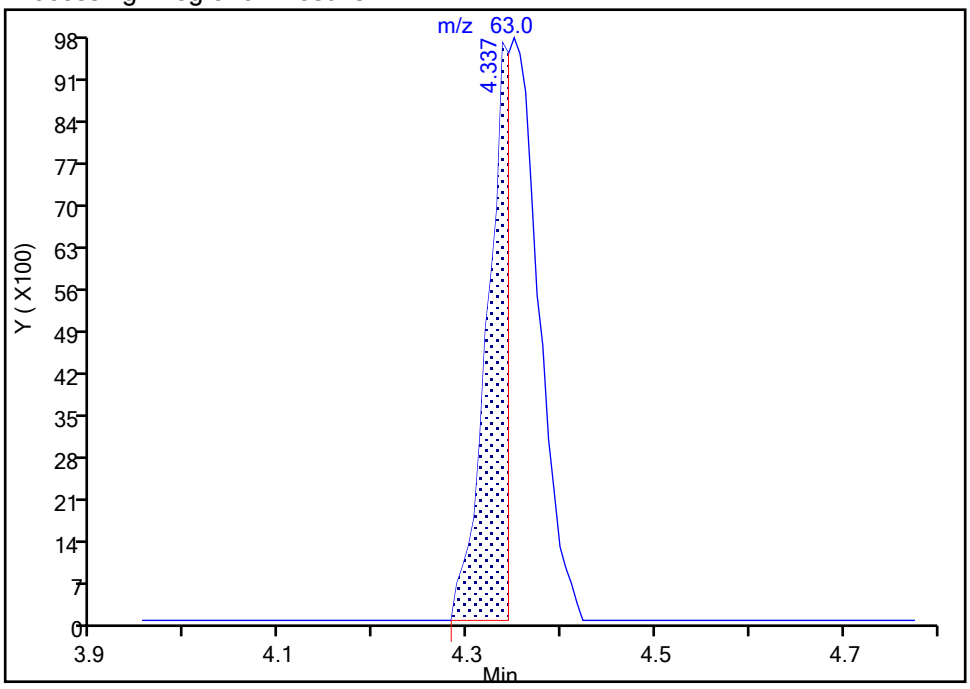
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D				
Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

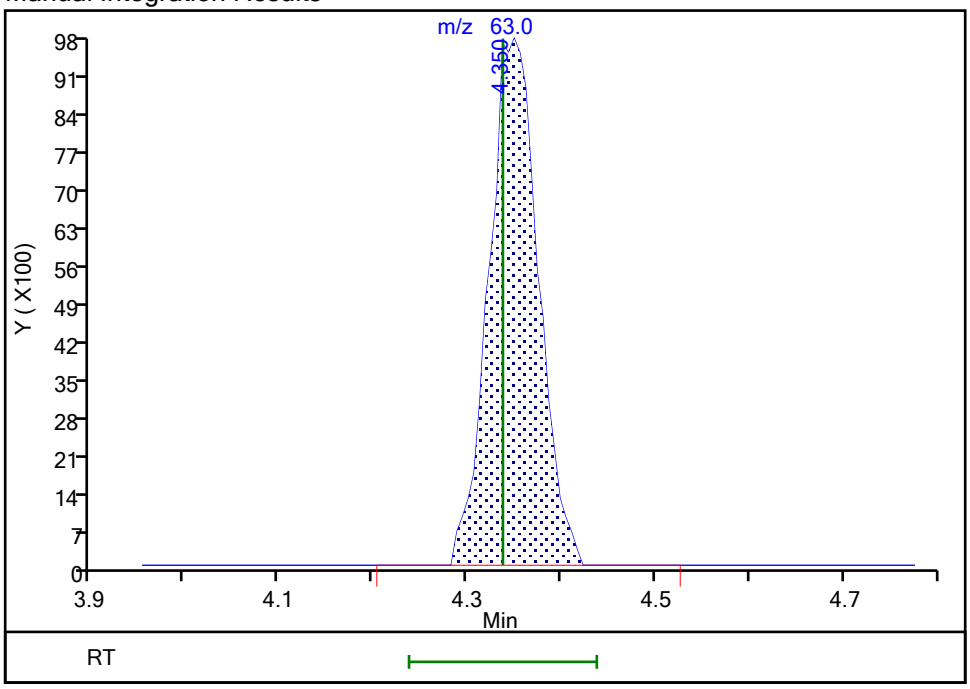
Processing Integration Results

RT: 4.34
Area: 16114
Amount: 1.497197
Amount Units: ug/l



Manual Integration Results

RT: 4.35
Area: 35604
Amount: 3.308067
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:14:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

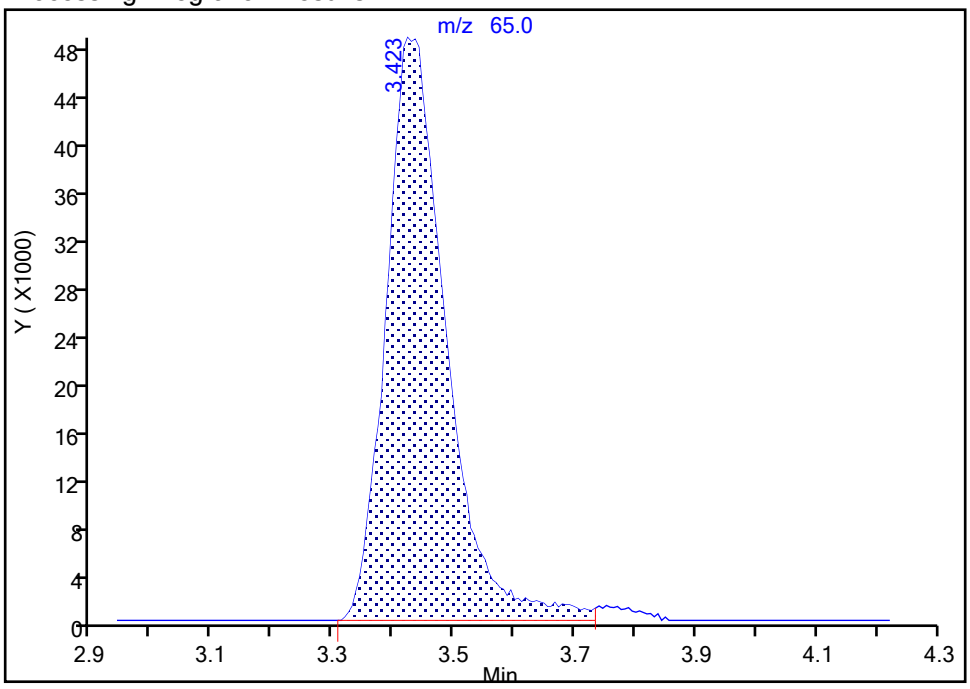
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S50.D				
Injection Date:	20-Nov-2020 02:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-7	Lab Sample ID:	410-20865-7		
Client ID:	J13-BR01				
Operator ID:	etp33087	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

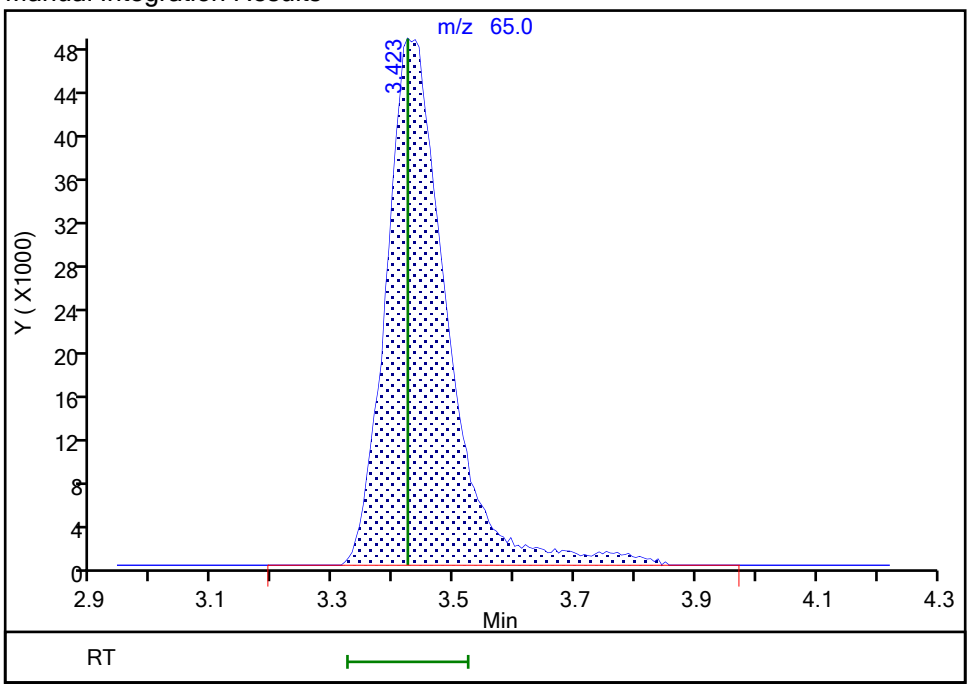
Processing Integration Results

RT: 3.42
Area: 337636
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.42
Area: 343107
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:14:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J13-UC03 Lab Sample ID: 410-20865-8

Matrix: Water Lab File ID: 5N19S51.D

Analysis Method: 8260C Date Collected: 11/12/2020 13:05

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 02:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	5.9		1.0	0.30
75-34-3	1,1-Dichloroethane	3.2		1.0	0.20
75-35-4	1,1-Dichloroethene	0.63	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	1.8		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D
Lims ID: 410-20865-A-8
Client ID: J13-VC03
Sample Type: Client
Inject. Date: 20-Nov-2020 02:58:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-022
Misc. Info.: 410-20865-A-8
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:15:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96	2.874	2.868	0.006	96	3142	0.6272	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.429	3.423	0.006	97	328903	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.350	4.338	0.012	96	33985	3.18	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	44	54497	5.87	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	271287	47.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	97	62948	50.9	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1088092	50.0	
62 Trichloroethene	95	7.373	7.361	0.012	96	11910	1.80	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1026197	50.1	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	814289	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	96	384078	46.4	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	436151	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

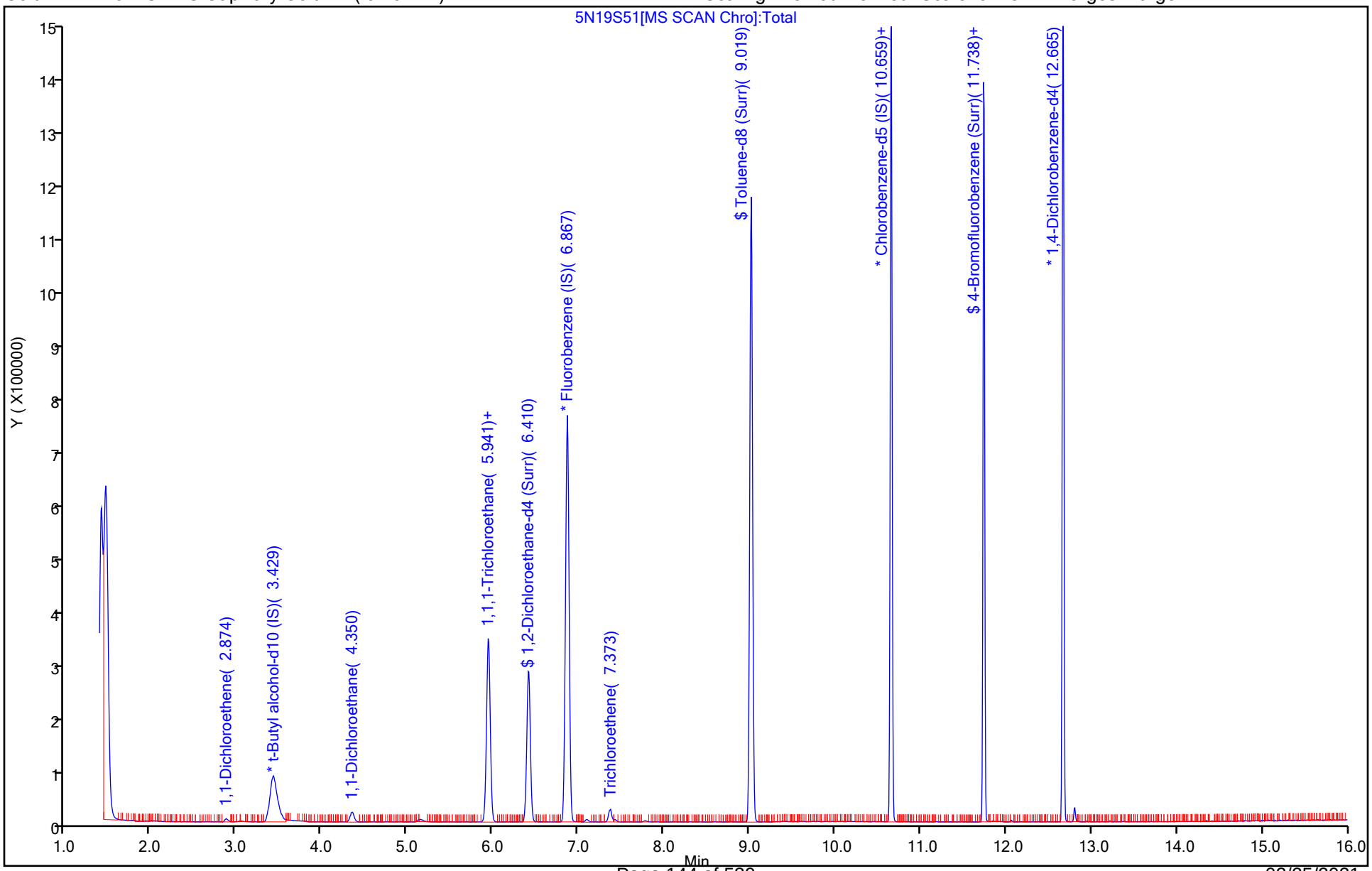
MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 20-Nov-2020 10:21:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D				
Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8	Worklist Smp#:	22
Client ID:	J13-VC03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

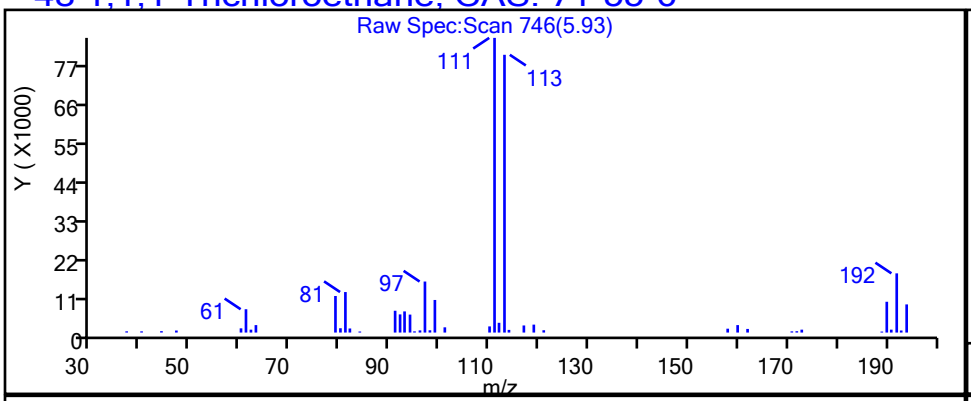
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

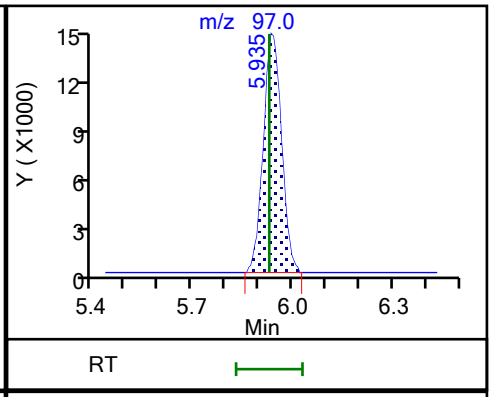


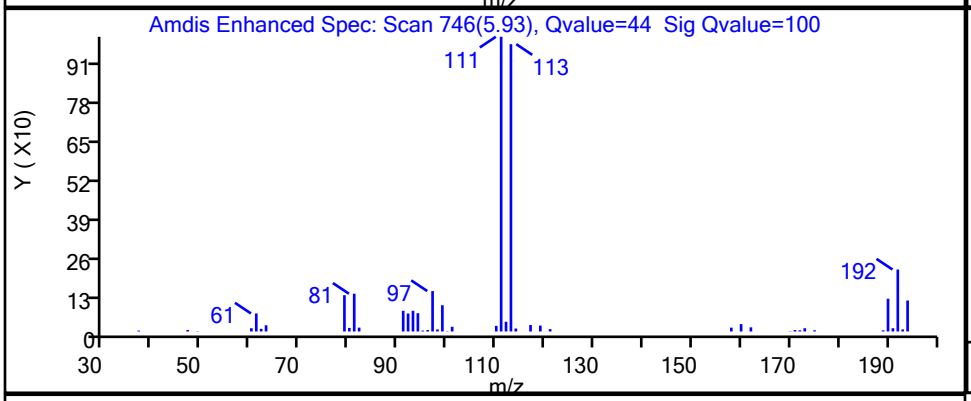
Eurofins Lancaster Laboratories Env, LLC

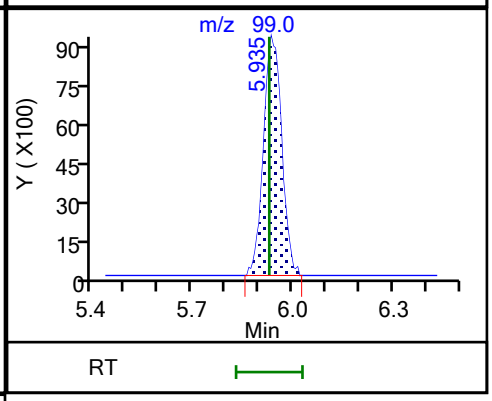
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D				
Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8		
Client ID:	J13-VC03				
Operator ID:	etp33087	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

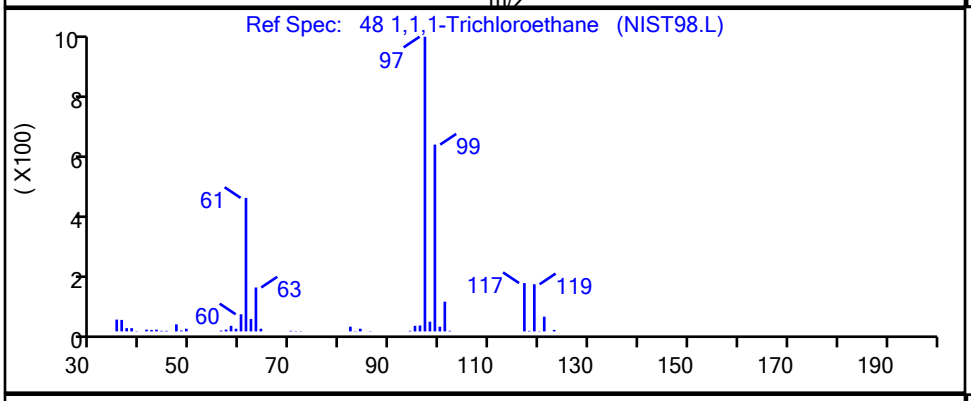
48 1,1,1-Trichloroethane, CAS: 71-55-6

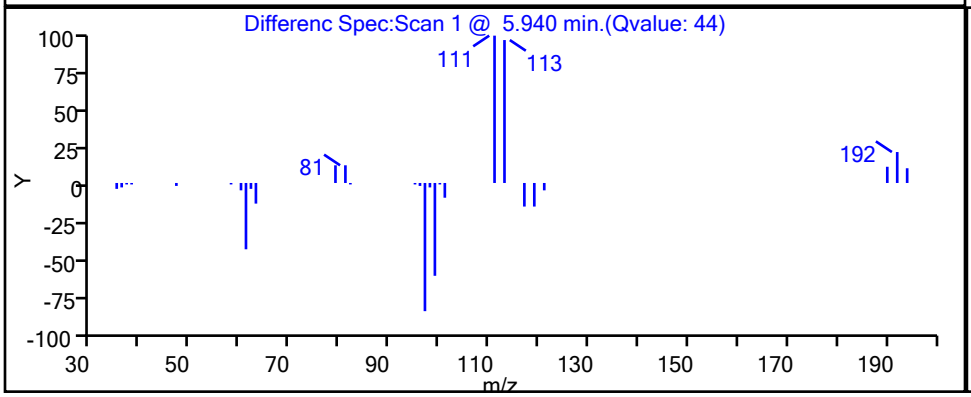


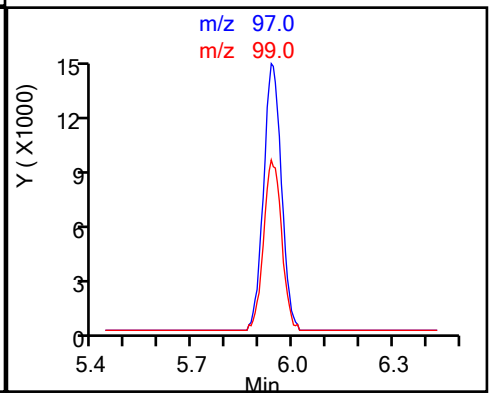








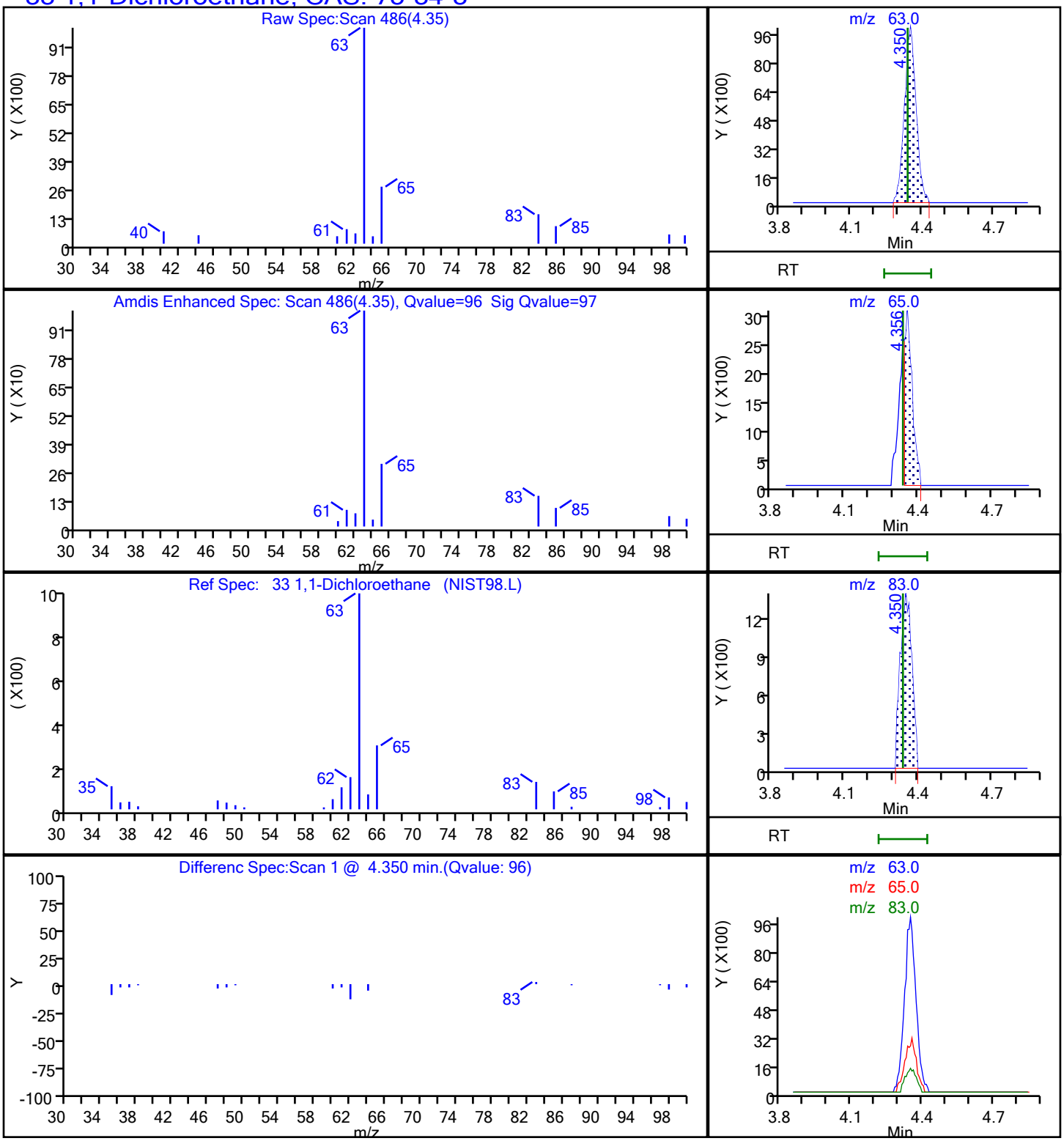




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D				
Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8		
Client ID:	J13-VC03				
Operator ID:	etp33087	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



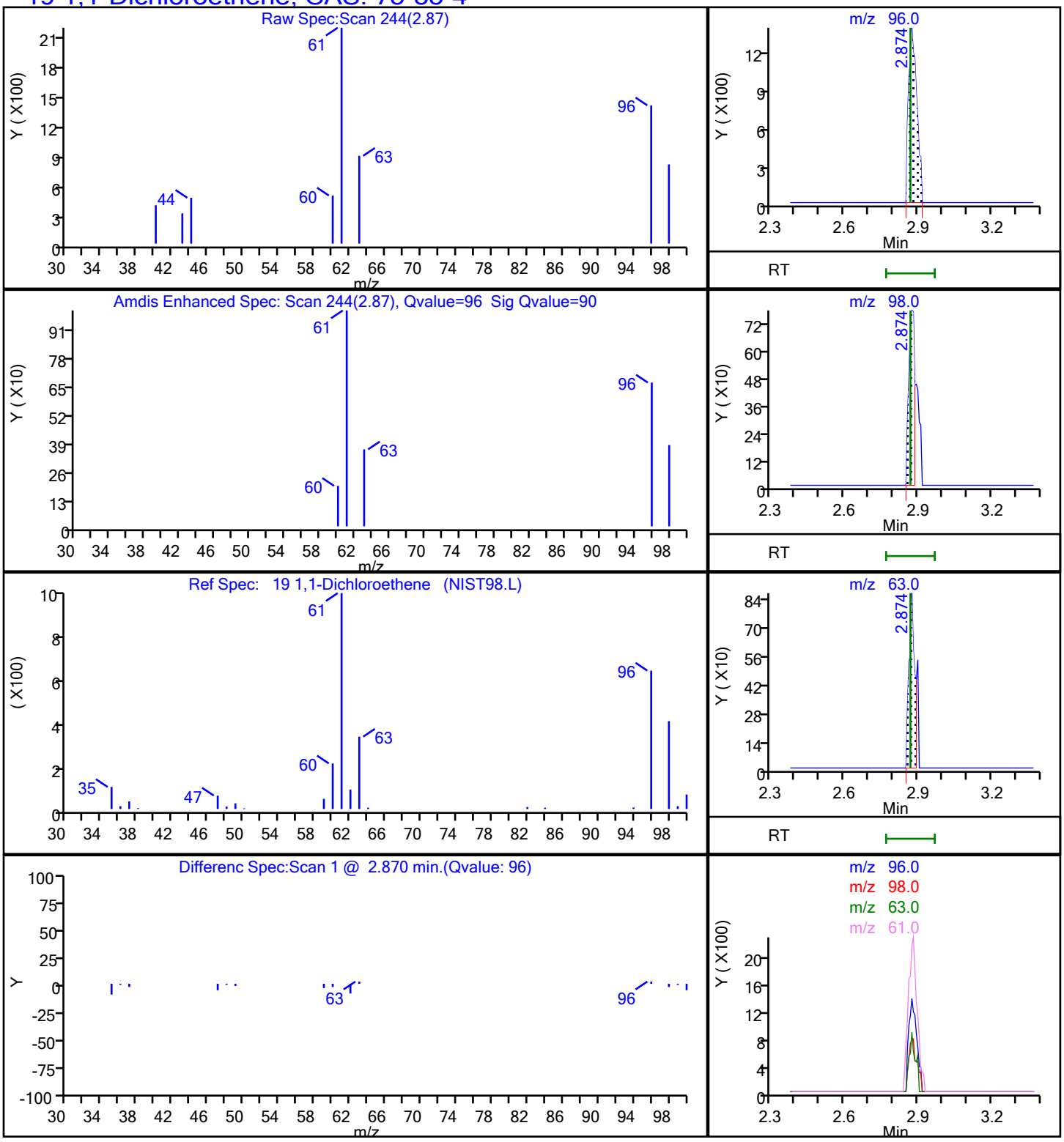
Report Date: 20-Nov-2020 10:21:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D

Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8		
Client ID:	J13-VC03				
Operator ID:	etp33087	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4

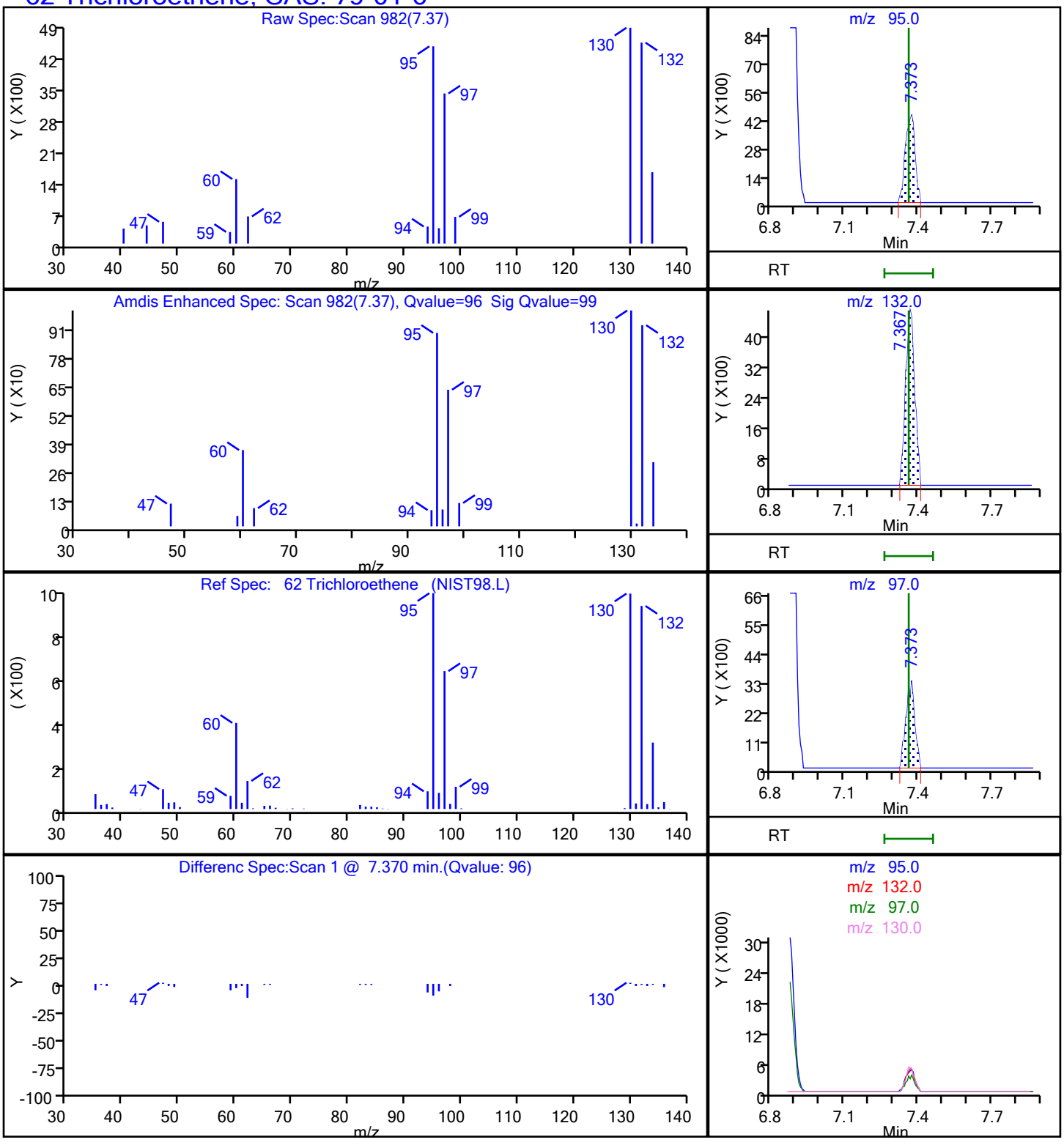


02/25/2021

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D				
Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8		
Client ID:	J13-VC03				
Operator ID:	etp33087	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

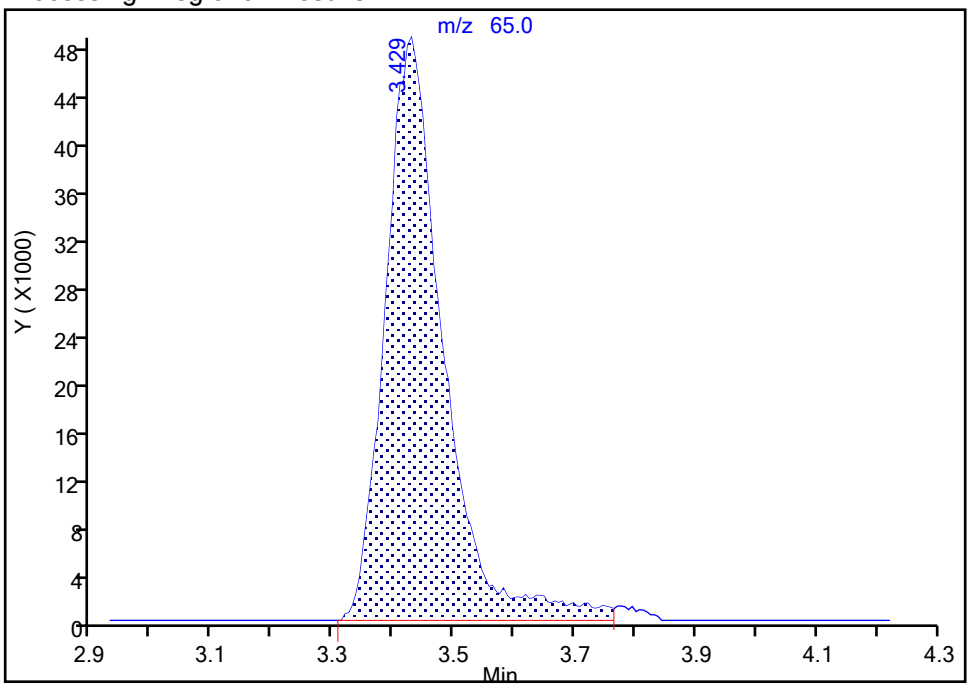
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S51.D				
Injection Date:	20-Nov-2020 02:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-8	Lab Sample ID:	410-20865-8		
Client ID:	J13-VC03				
Operator ID:	etp33087	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

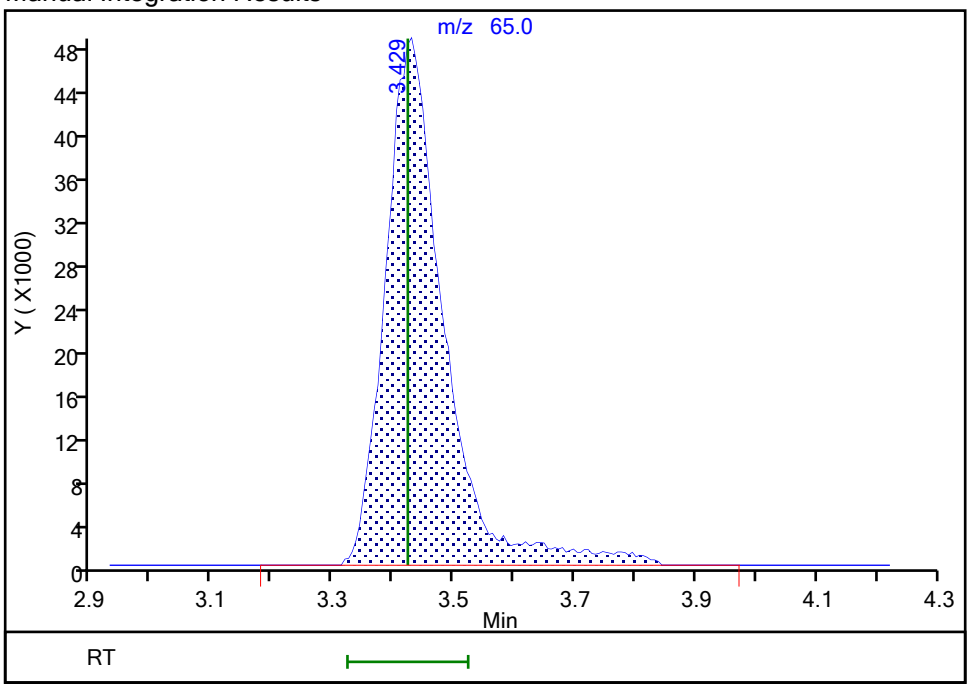
Processing Integration Results

RT: 3.43
Area: 325202
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.43
Area: 328903
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:14:48

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J13-UC02 Lab Sample ID: 410-20865-9

Matrix: Water Lab File ID: 5N19S52.D

Analysis Method: 8260C Date Collected: 11/12/2020 14:30

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 03:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	8.8		1.0	0.30
75-34-3	1,1-Dichloroethane	0.84	J	1.0	0.20
75-35-4	1,1-Dichloroethene	1.1		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	3.0		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	91		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D
Lims ID: 410-20865-A-9
Client ID: J13-VC02
Sample Type: Client
Inject. Date: 20-Nov-2020 03:18:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-023
Misc. Info.: 410-20865-A-9
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:15:38

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	94	5328	1.06	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.411	3.423	-0.012	99	340285	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.350	4.338	0.012	93	9060	0.8423	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96	5.209	5.203	0.006	76	9529	1.42	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	56	82260	8.80	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	278119	48.7	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	98	61697	49.5	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1096388	50.0	
62 Trichloroethene	95	7.367	7.361	0.006	98	605155	90.7	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1040408	50.5	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166	9.727	9.733	-0.006	96	21132	3.02	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.659	-0.006	85	817833	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	96	388749	46.8	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	438164	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

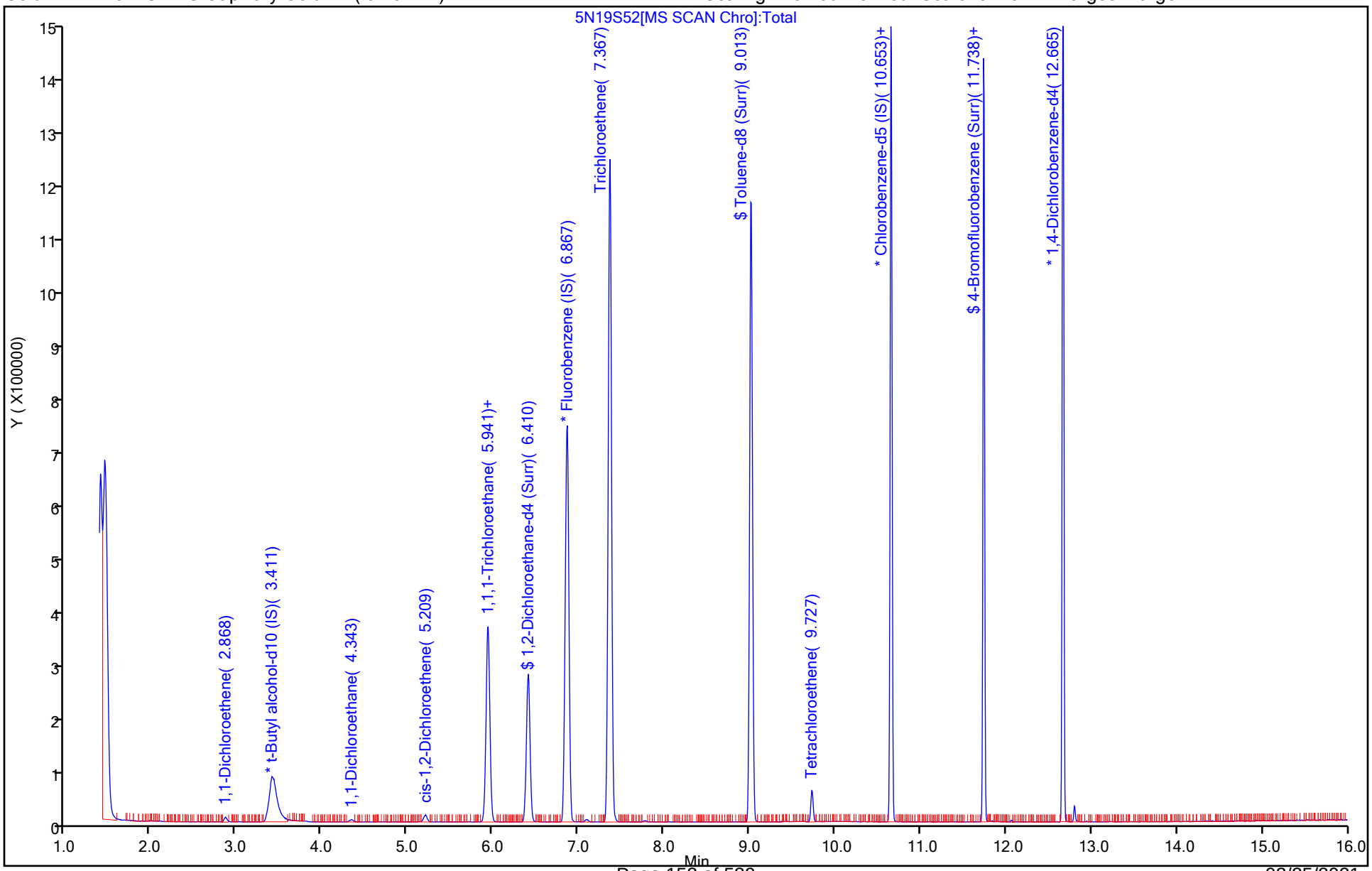
Report Date: 20-Nov-2020 10:21:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D

Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9	Worklist Smp#:	23
Client ID:	J13-VC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

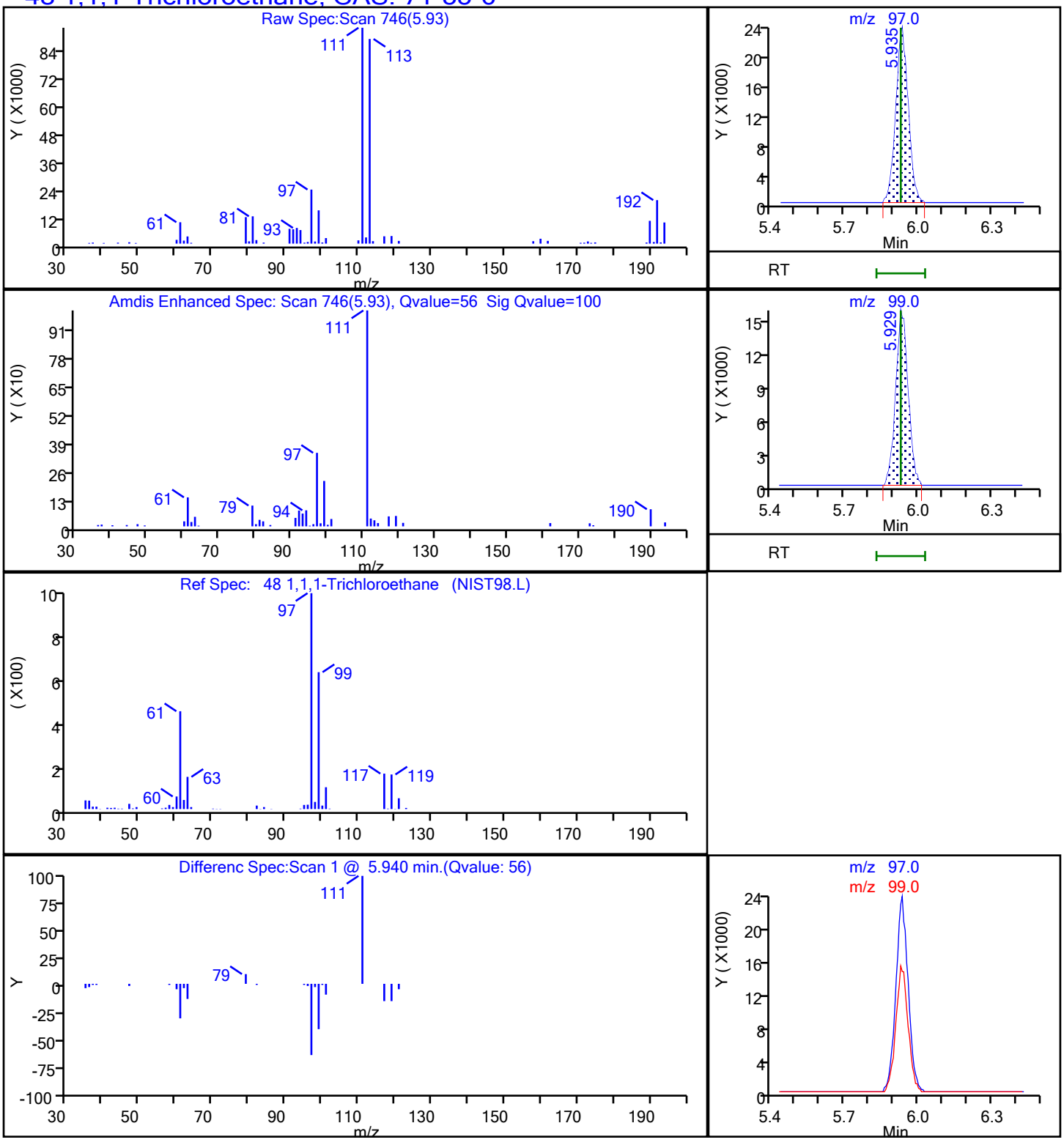
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

48 1,1,1-Trichloroethane, CAS: 71-55-6

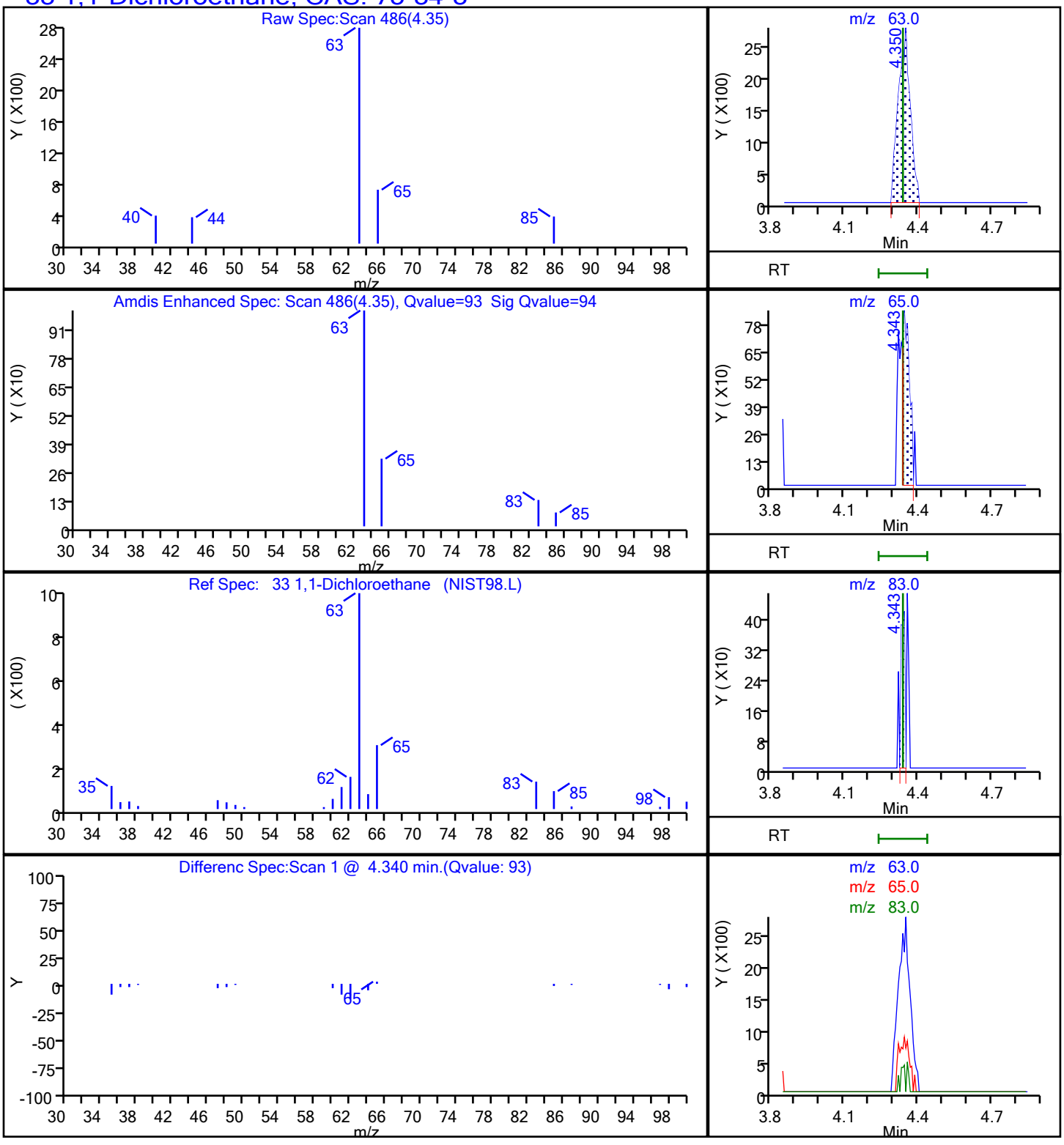


Report Date: 20-Nov-2020 10:21:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



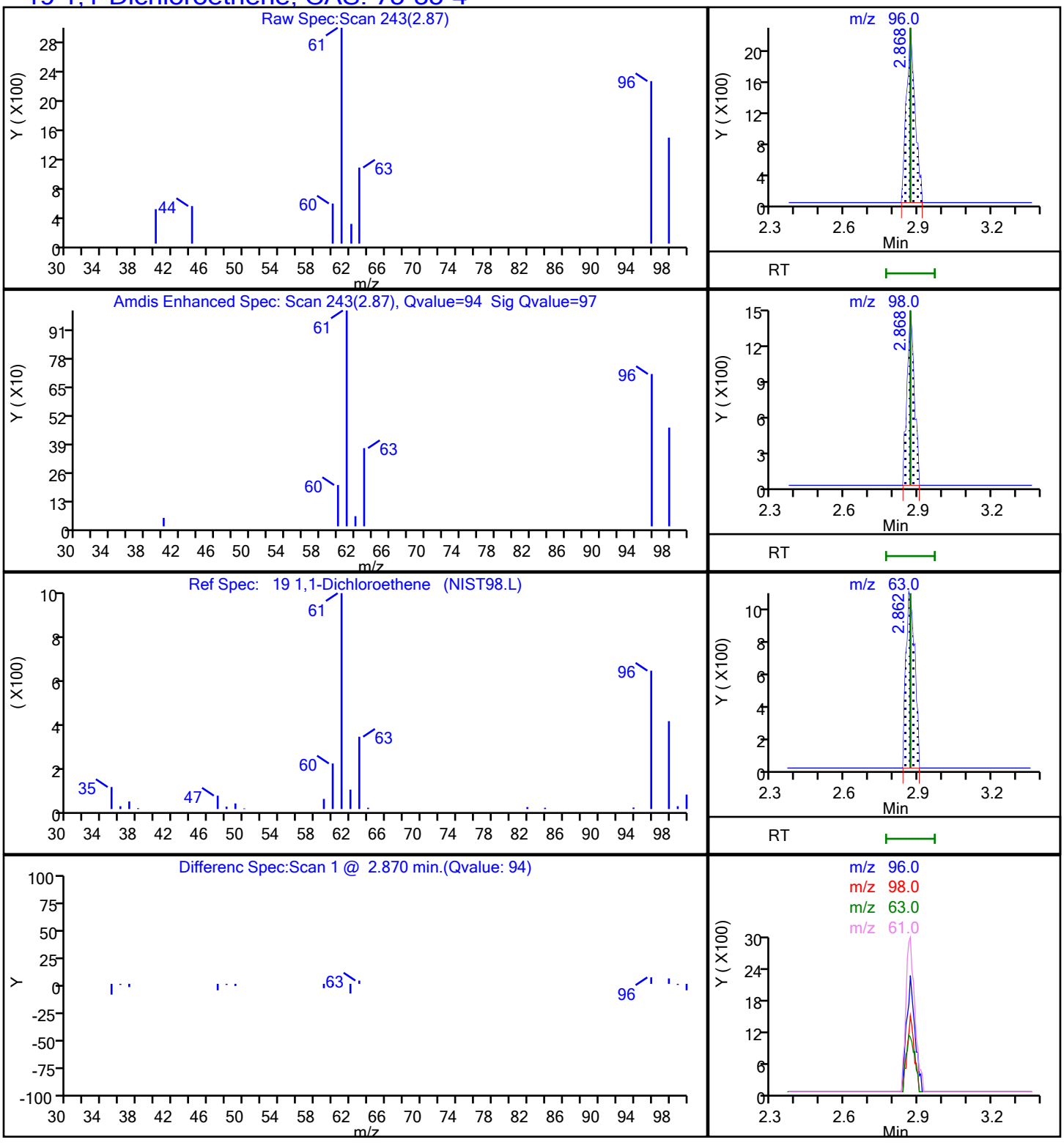
Report Date: 20-Nov-2020 10:21:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D

Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

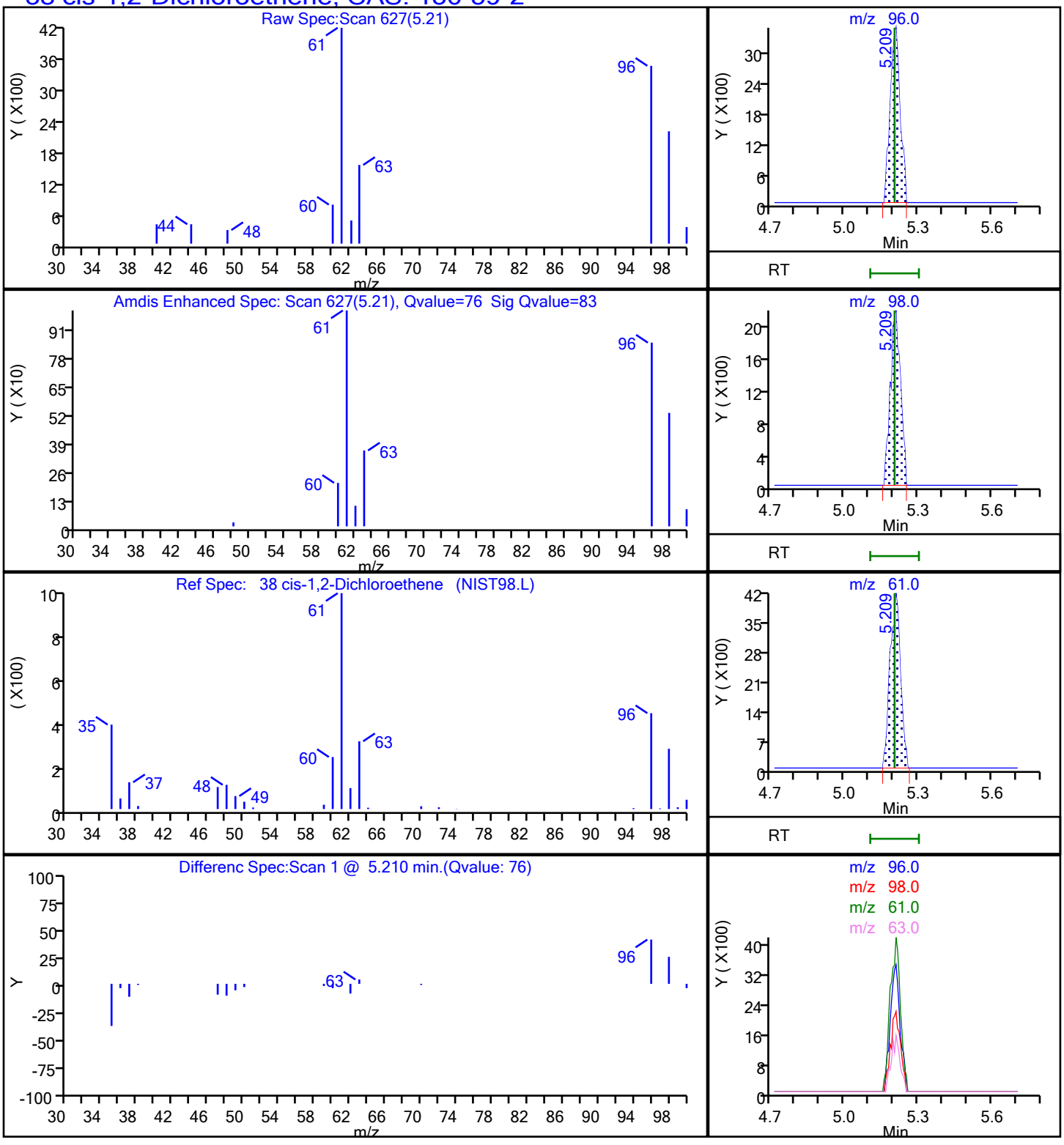
19 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

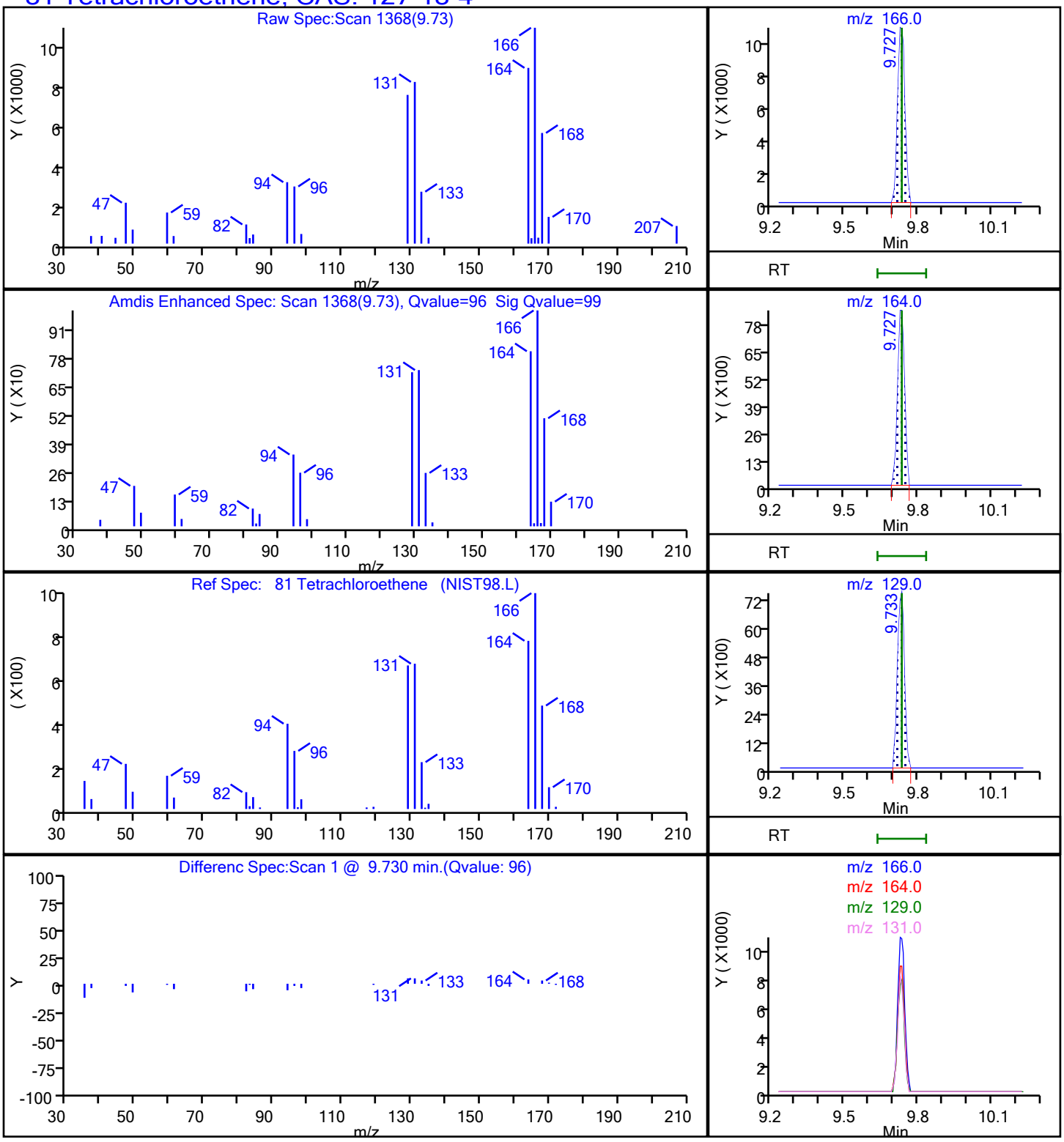
38 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4

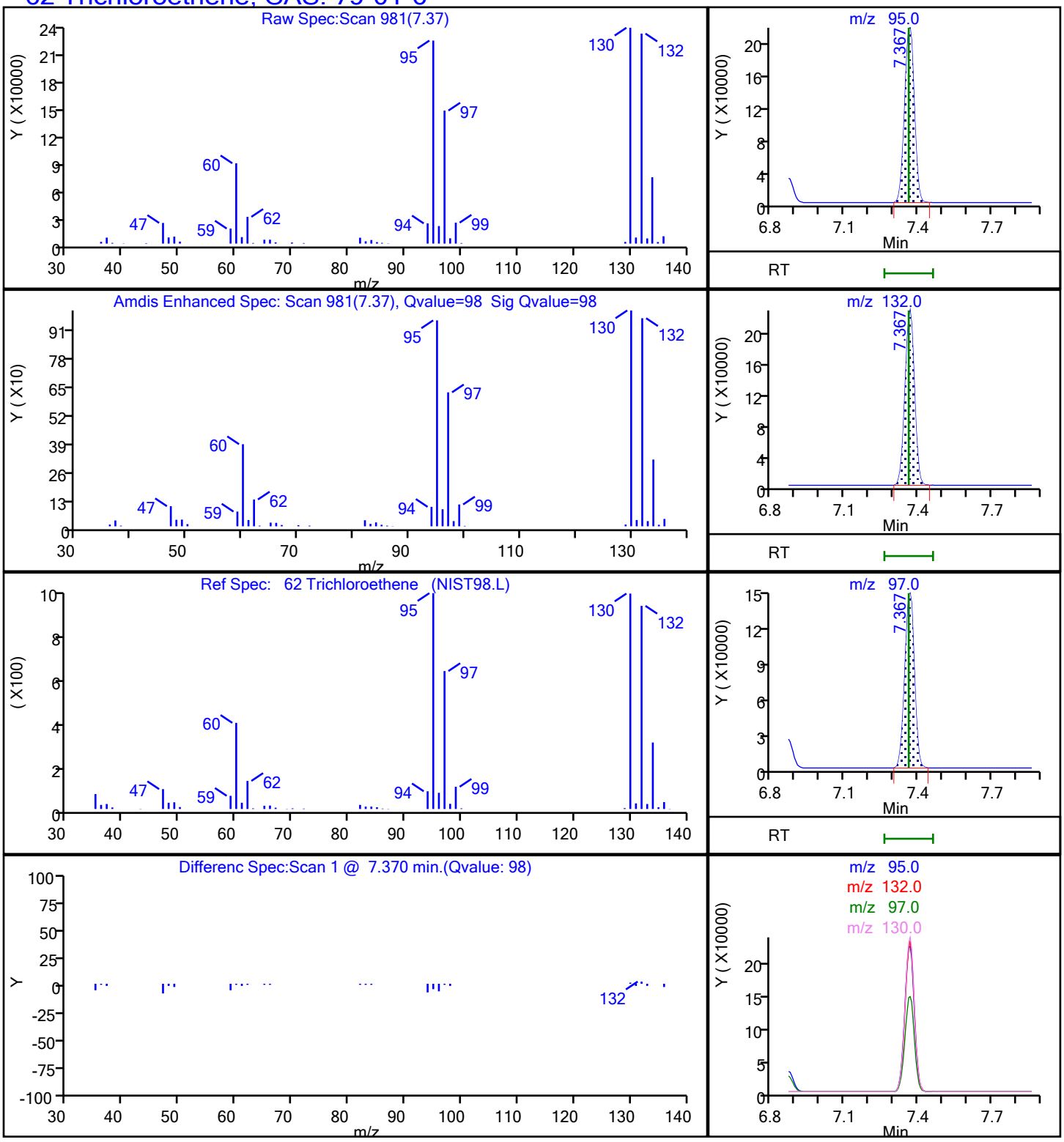


Report Date: 20-Nov-2020 10:21:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

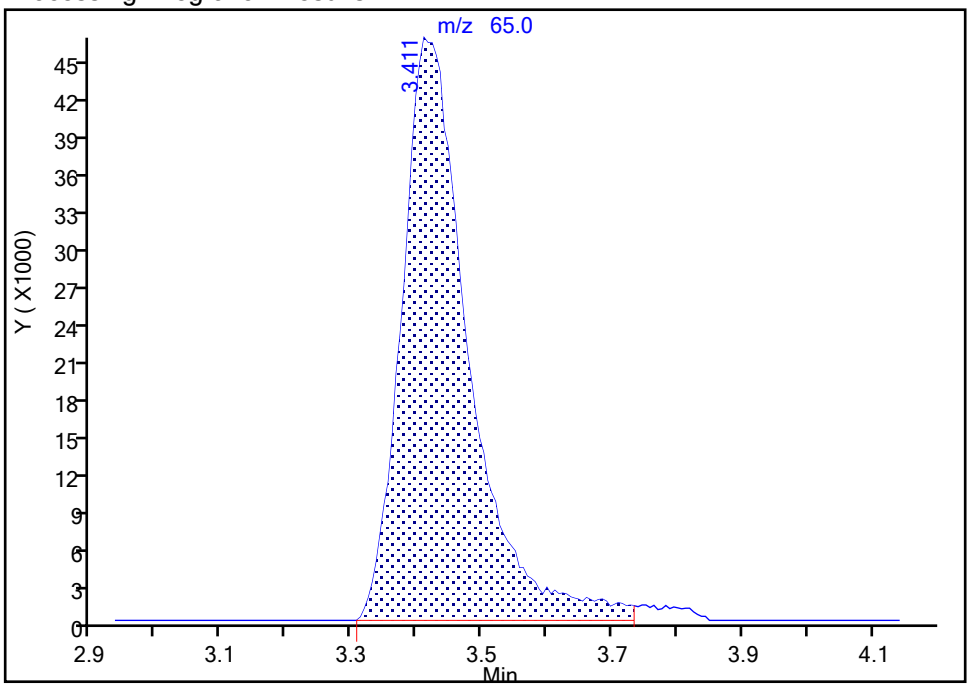
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S52.D				
Injection Date:	20-Nov-2020 03:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-9	Lab Sample ID:	410-20865-9		
Client ID:	J13-VC02				
Operator ID:	etp33087	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

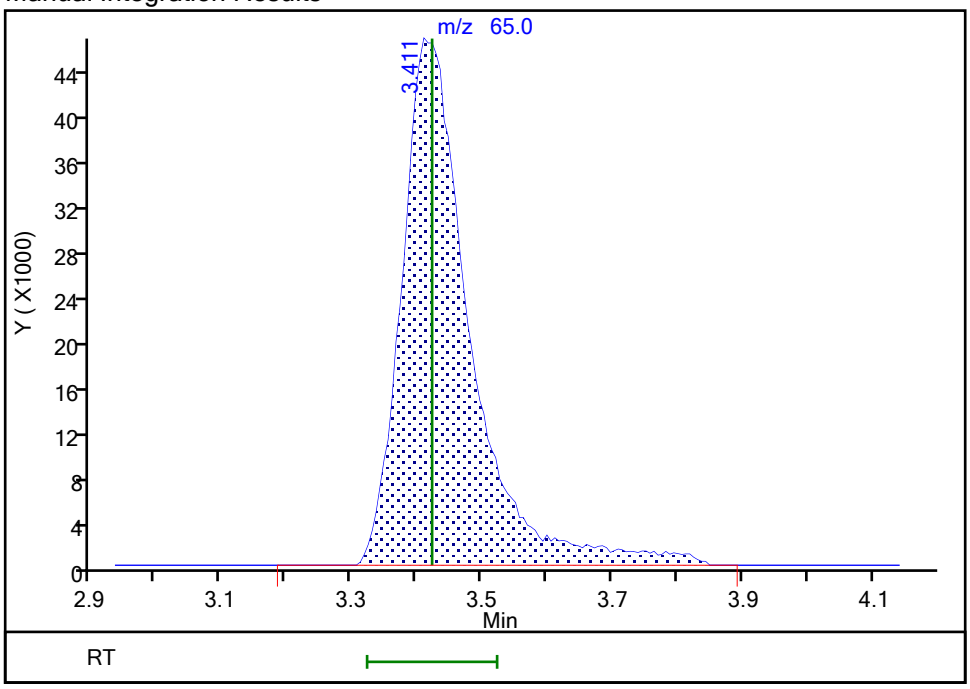
Processing Integration Results

RT: 3.41
Area: 334257
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.41
Area: 340285
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:15:21

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J08-UC02 Lab Sample ID: 410-20865-10

Matrix: Water Lab File ID: 5N19S53.D

Analysis Method: 8260C Date Collected: 11/12/2020 16:35

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 03:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	1.5		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S53.D
Lims ID: 410-20865-A-10
Client ID: J08-VC02
Sample Type: Client
Inject. Date: 20-Nov-2020 03:39:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-024
Misc. Info.: 410-20865-A-10
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:16:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	97	327899	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	277462	48.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	97	64100	51.1	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1102687	50.0	
62 Trichloroethene	95	7.373	7.361	0.012	95	10075	1.50	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1040277	50.1	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	824737	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	95	387843	46.3	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.677	-0.012	94	437527	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

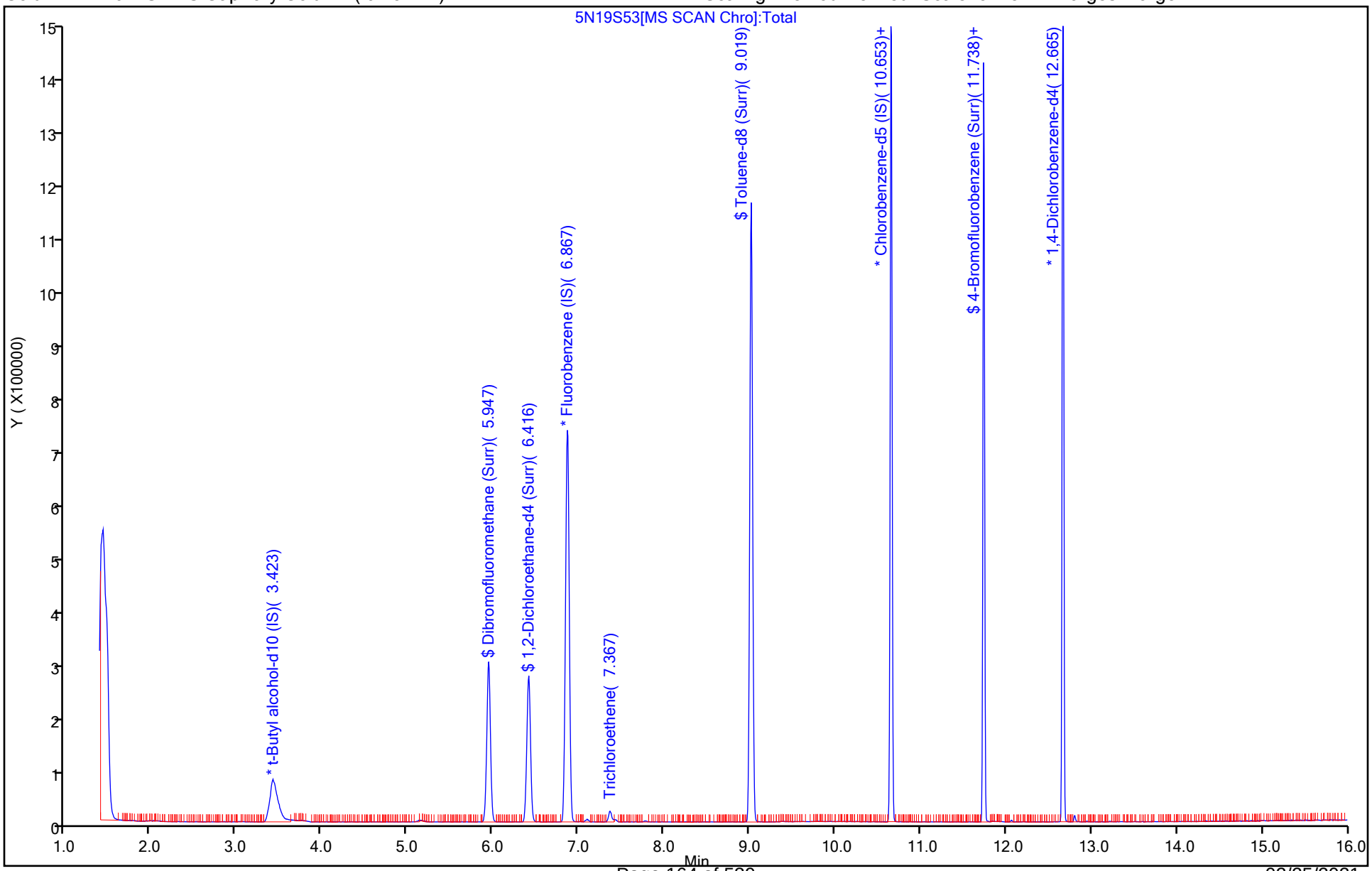
Report Date: 20-Nov-2020 10:21:24 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S53.D

Injection Date:	20-Nov-2020 03:39:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-10	Lab Sample ID:	410-20865-10	Worklist Smp#:	24
Client ID:	J08-VC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

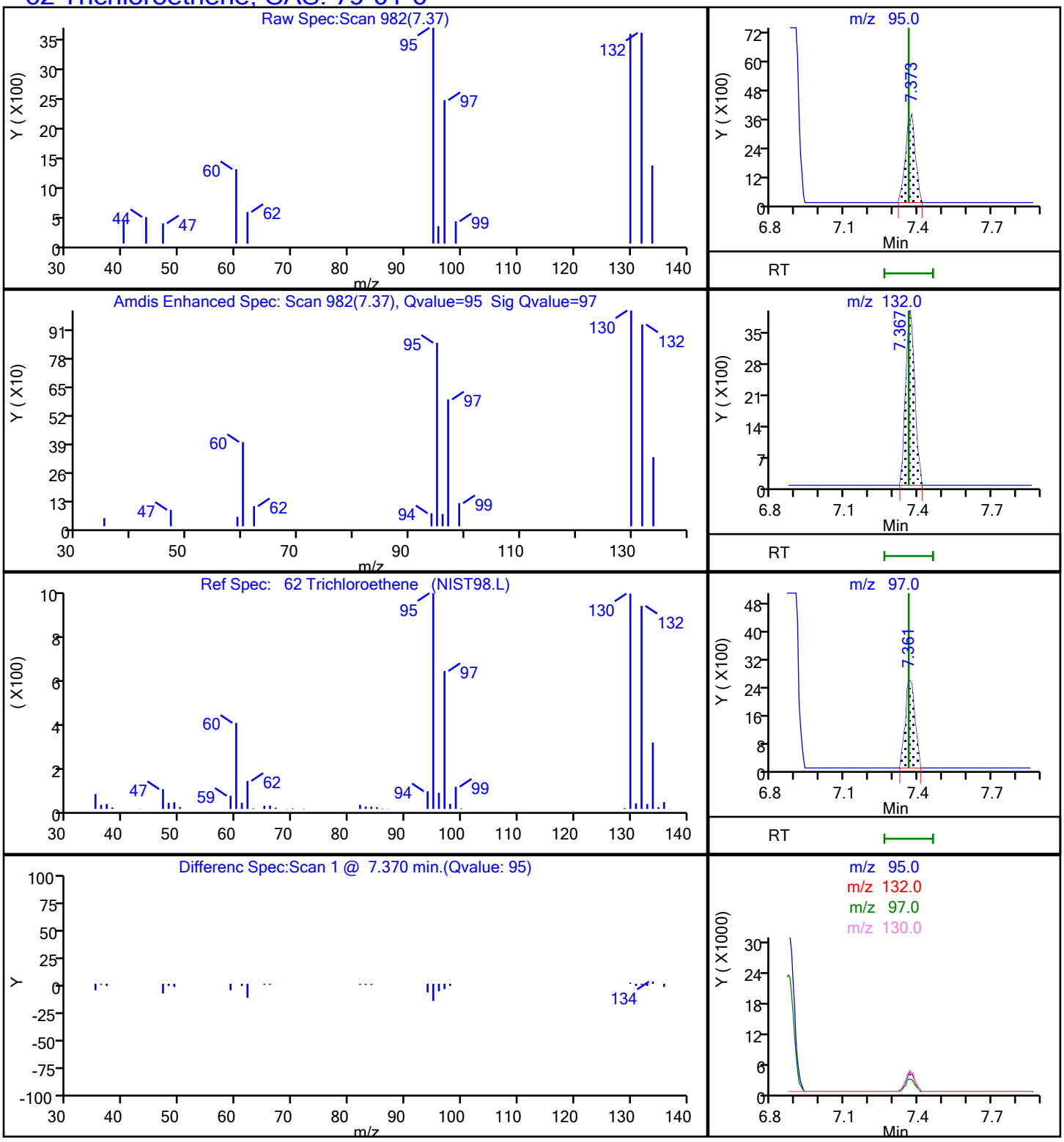
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S53.D				
Injection Date:	20-Nov-2020 03:39:30	Instrument ID:	26285		
Lims ID:	410-20865-A-10	Lab Sample ID:	410-20865-10		
Client ID:	J08-VC02				
Operator ID:	etp33087	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

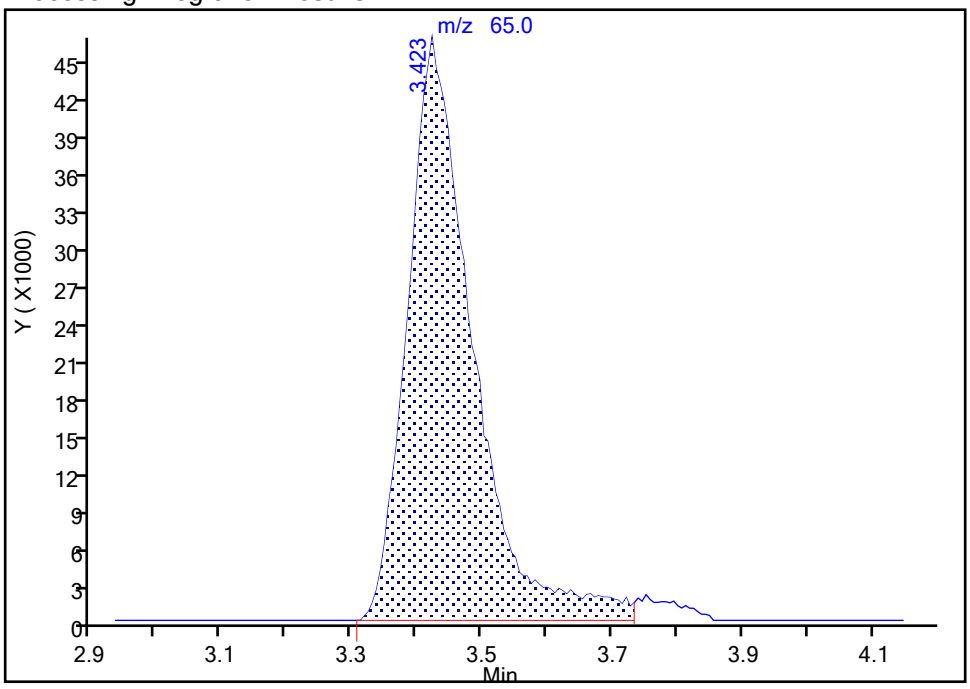
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S53.D				
Injection Date:	20-Nov-2020 03:39:30	Instrument ID:	26285		
Lims ID:	410-20865-A-10	Lab Sample ID:	410-20865-10		
Client ID:	J08-VC02				
Operator ID:	etp33087	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

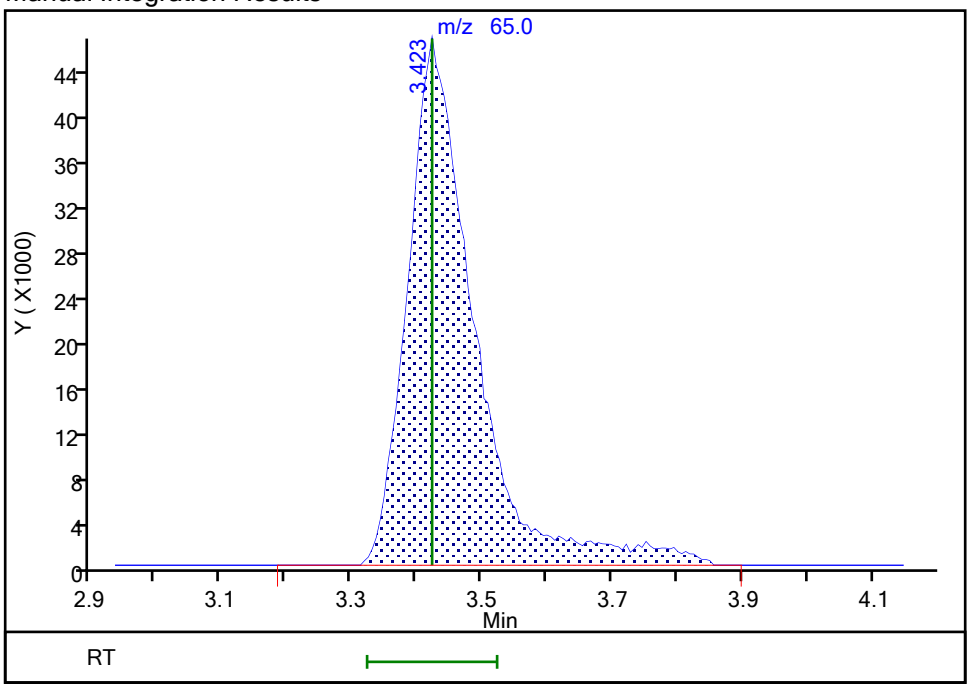
Processing Integration Results

RT: 3.42
Area: 319496
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.42
Area: 327899
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:15:58

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J12-BR02 Lab Sample ID: 410-20865-11

Matrix: Water Lab File ID: 5N19S54.D

Analysis Method: 8260C Date Collected: 11/12/2020 10:44

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 03:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S54.D
Lims ID: 410-20865-A-11
Client ID: J12-BR02
Sample Type: Client
Inject. Date: 20-Nov-2020 03:59:30 ALS Bottle#: 25 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-025
Misc. Info.: 410-20865-A-11
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:16:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.435	3.423	0.012	97	330479	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	277922	48.7	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	97	62434	50.1	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.874	6.861	0.013	99	1095162	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.020	9.020	0.000	93	1030413	50.5	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	809842	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.739	11.745	-0.006	95	383422	46.6	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.677	-0.012	94	436816	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

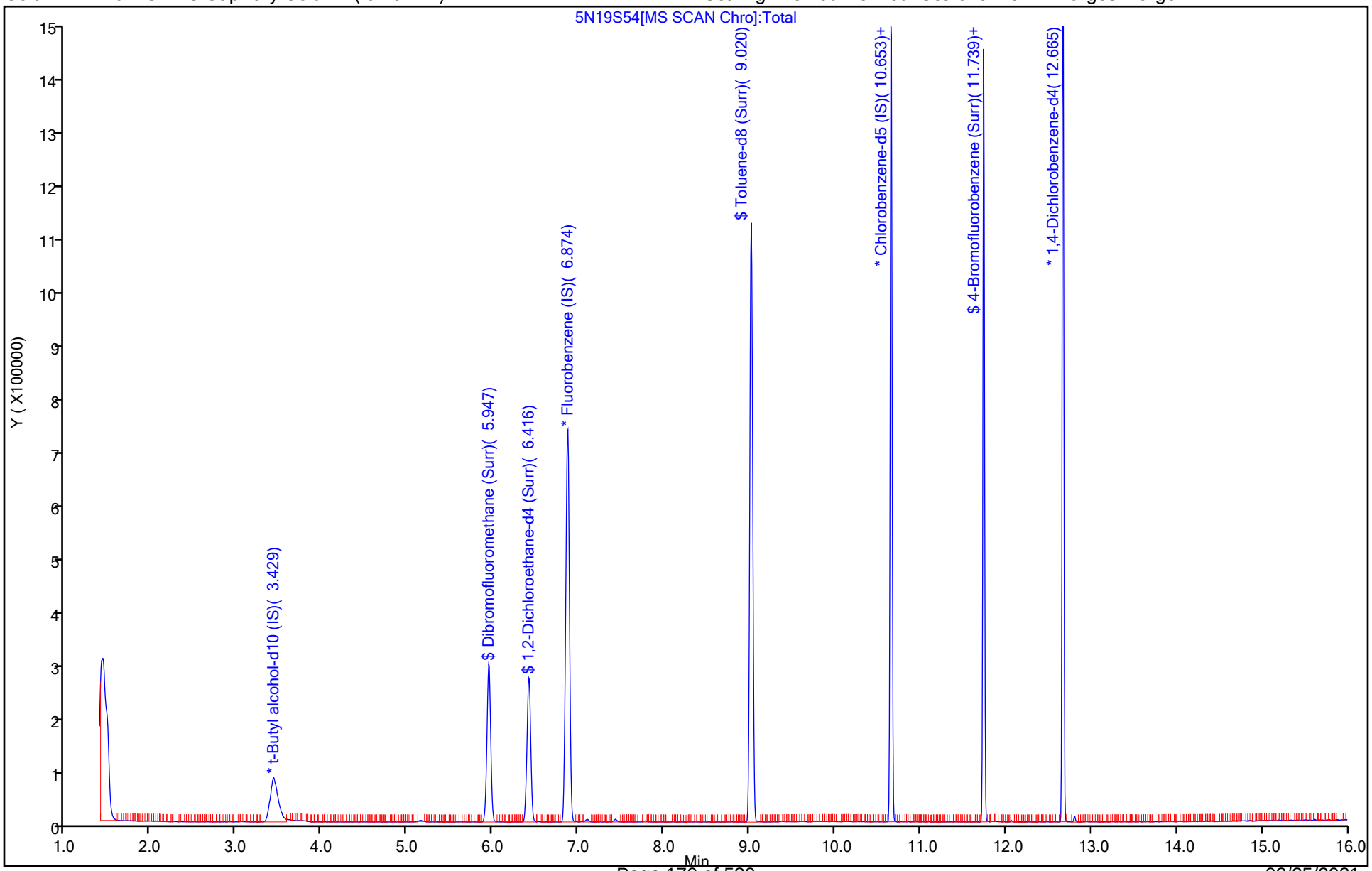
MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 20-Nov-2020 10:21:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S54.D				
Injection Date:	20-Nov-2020 03:59:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-11	Lab Sample ID:	410-20865-11	Worklist Smp#:	25
Client ID:	J12-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J21-UC02 Lab Sample ID: 410-20865-12

Matrix: Water Lab File ID: 5N19S55.D

Analysis Method: 8260C Date Collected: 11/12/2020 12:02

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 04:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S55.D
Lims ID: 410-20865-A-12
Client ID: J21-VC02
Sample Type: Client
Inject. Date: 20-Nov-2020 04:19:30 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-026
Misc. Info.: 410-20865-A-12
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:17:33

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.850				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.899				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	96	341707	250.0	M
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	35	2638	0.2810	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	273471	47.7	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	97	63193	50.5	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1100400	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1036785	50.1	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.733				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.659	-0.006	84	821997	50.0	
93 Ethylbenzene	91		10.794				ND	
94 m-Xylene & p-Xylene	106		10.922				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.275				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.745	-0.007	95	381929	45.7	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.677	-0.012	94	438657	50.0	
125 1,2-Dichlorobenzene	146		12.964				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.281				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

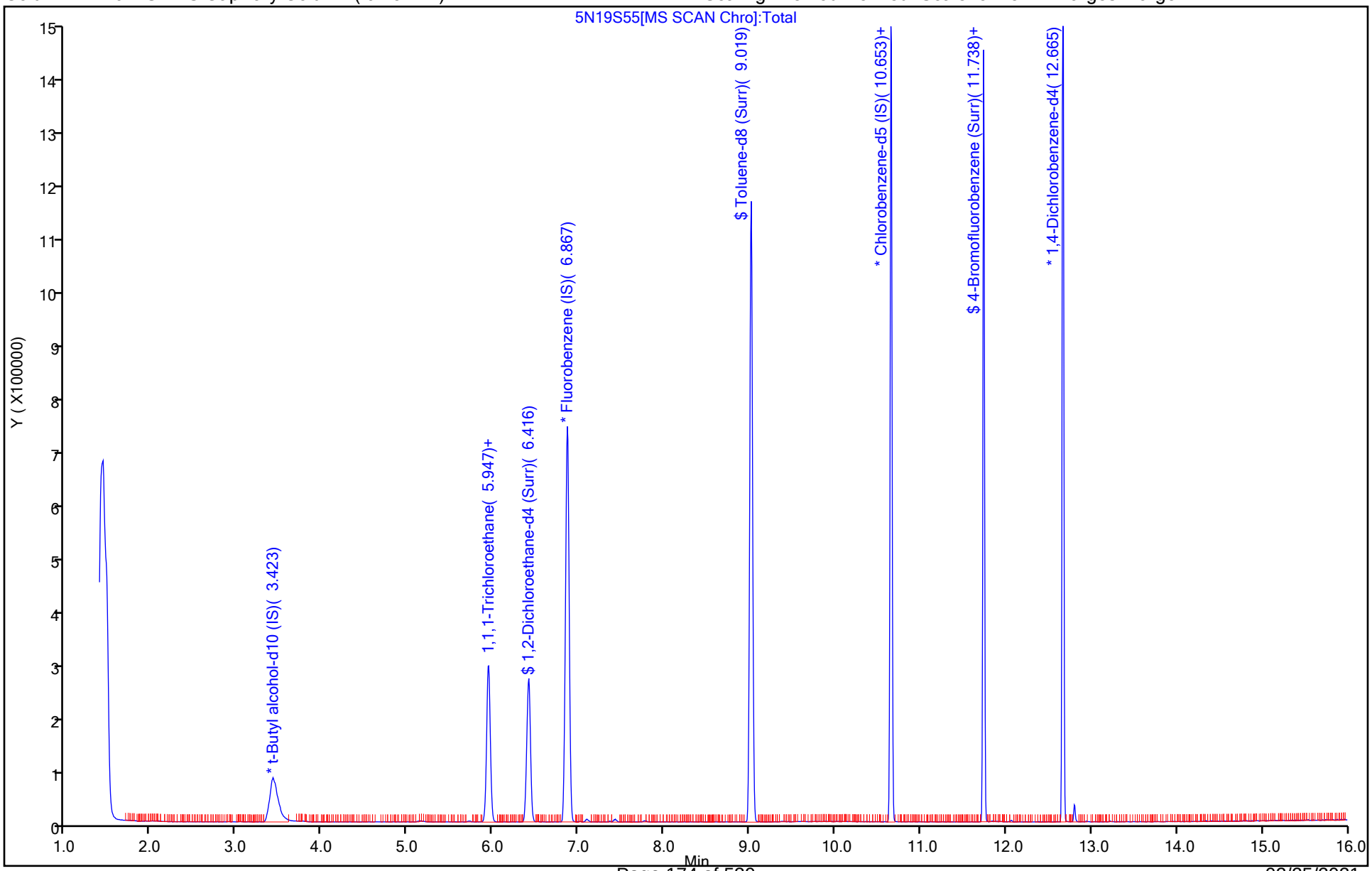
Report Date: 20-Nov-2020 10:21:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S55.D

Injection Date:	20-Nov-2020 04:19:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	410-20865-A-12	Lab Sample ID:	410-20865-12	Worklist Smp#:	26
Client ID:	J21-VC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

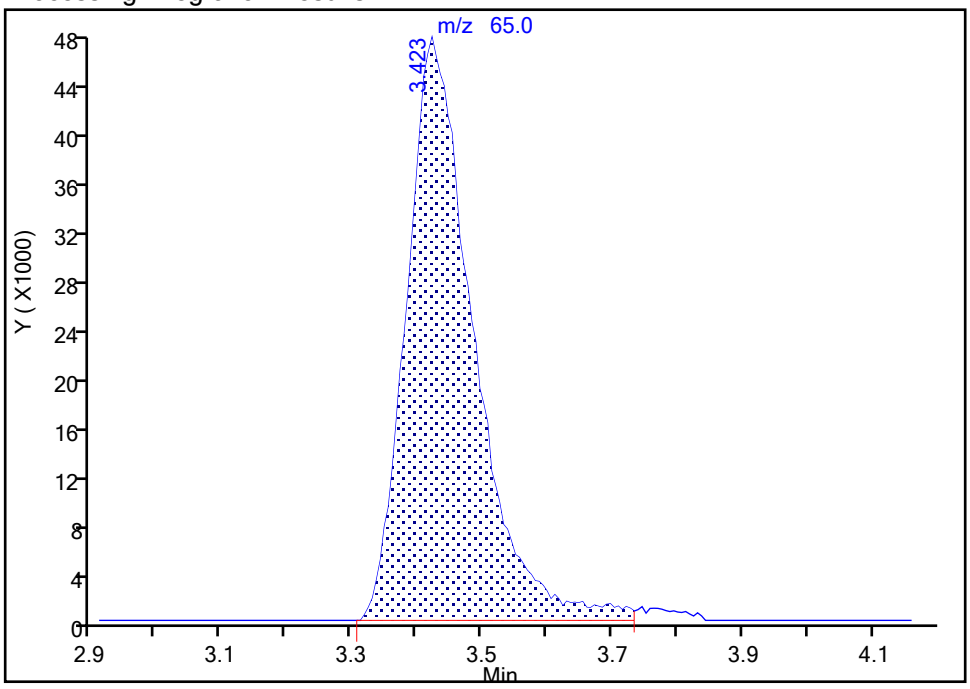
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S55.D				
Injection Date:	20-Nov-2020 04:19:30	Instrument ID:	26285		
Lims ID:	410-20865-A-12	Lab Sample ID:	410-20865-12		
Client ID:	J21-VC02				
Operator ID:	etp33087	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

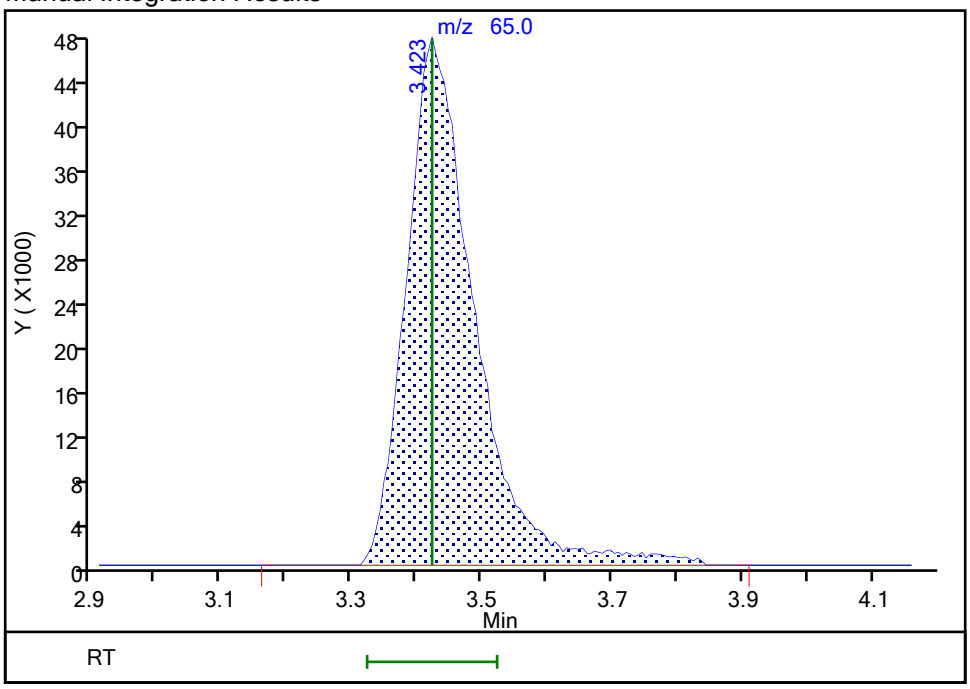
Processing Integration Results

RT: 3.42
Area: 337116
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.42
Area: 341707
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:17:22

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-05 Lab Sample ID: 410-20865-13

Matrix: Water Lab File ID: 5N18S07.D

Analysis Method: 8260C Date Collected: 11/10/2020 14:13

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 14:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.9		1.0	0.30
75-34-3	1,1-Dichloroethane	0.66	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.30	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	3.8	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.9		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	2.1		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	14		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D
Lims ID: 410-20865-A-13
Client ID: RS-05
Sample Type: Client
Inject. Date: 18-Nov-2020 14:15:30 ALS Bottle#: 12 Worklist Smp#: 13
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-013
Misc. Info.: 410-20865-A-13
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:12:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62	1.850	1.844	0.006	85	900	0.1103	
19 1,1-Dichloroethene	96	2.856	2.844	0.012	81	1545	0.3031	
17 Acetone	58	2.881	2.874	0.007	100	3808	3.82	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	7
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.387	3.386	0.001	96	350361	250.0	M
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.301	4.295	0.006	92	7194	0.6624	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96	5.179	5.154	0.025	20	13136	1.93	M
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.898	5.892	0.006	40	27014	2.86	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	276351	47.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	98	63146	50.2	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1107036	50.0	
62 Trichloroethene	95	7.343	7.337	0.006	99	92403	13.7	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1045695	50.6	
77 Toluene	92		9.093				ND	7
81 Tetrachloroethene	166	9.733	9.727	0.006	95	14717	2.10	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	820420	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	96	389342	46.7	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	436389	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

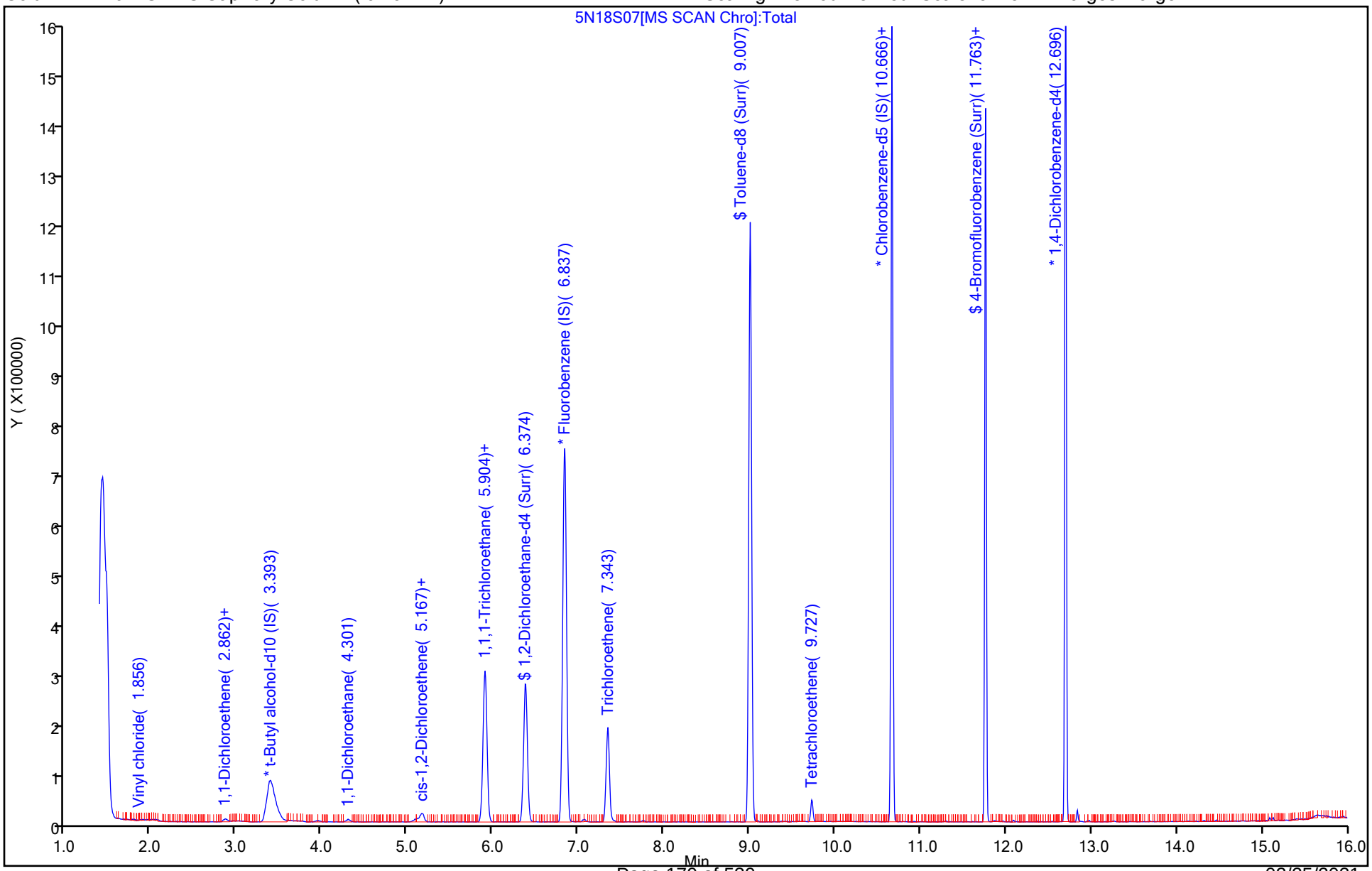
Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13	Worklist Smp#:	13
Client ID:	RS-05				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	12
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

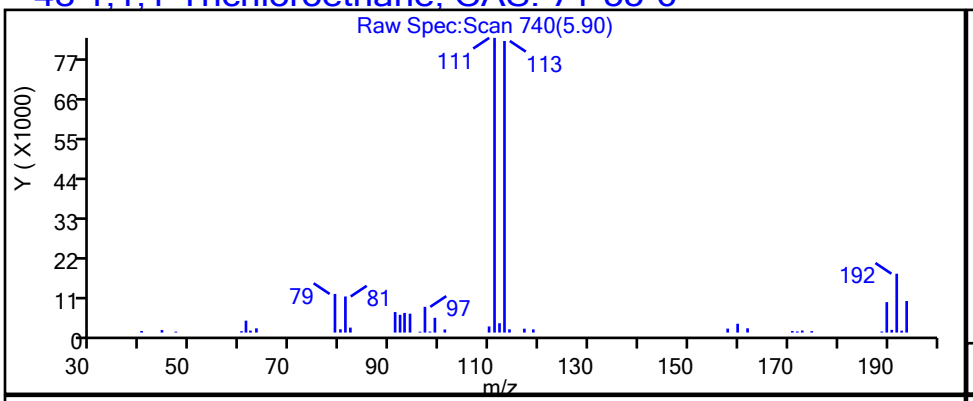
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

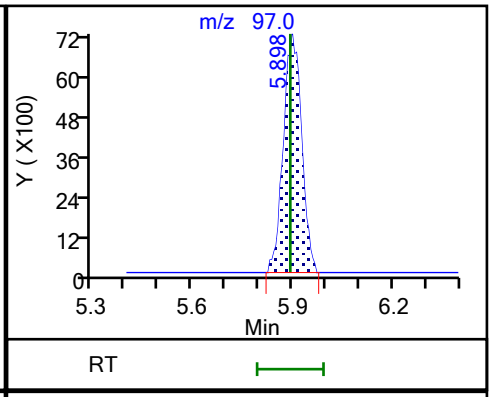


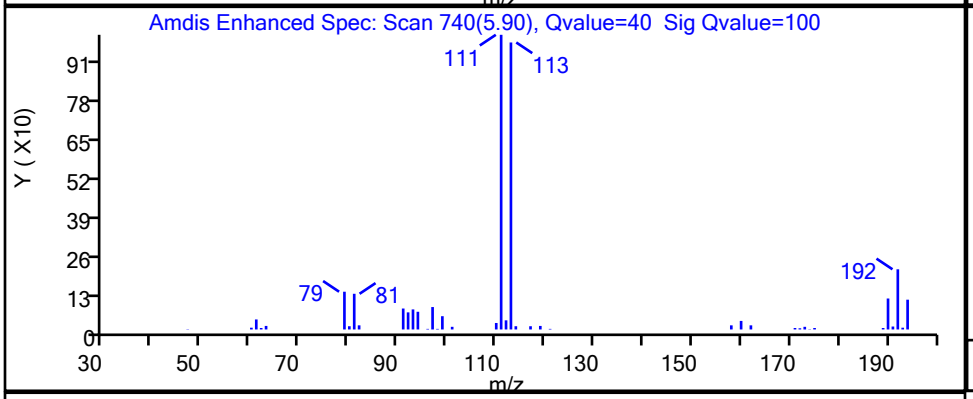
Eurofins Lancaster Laboratories Env, LLC

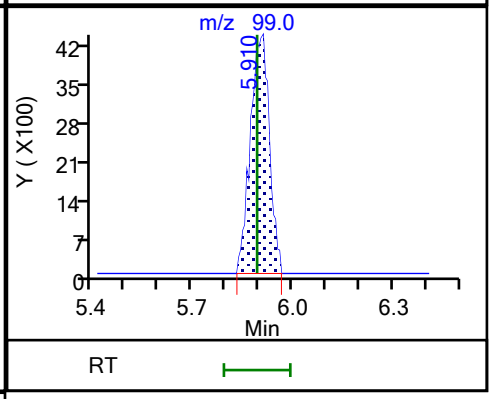
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D				
Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

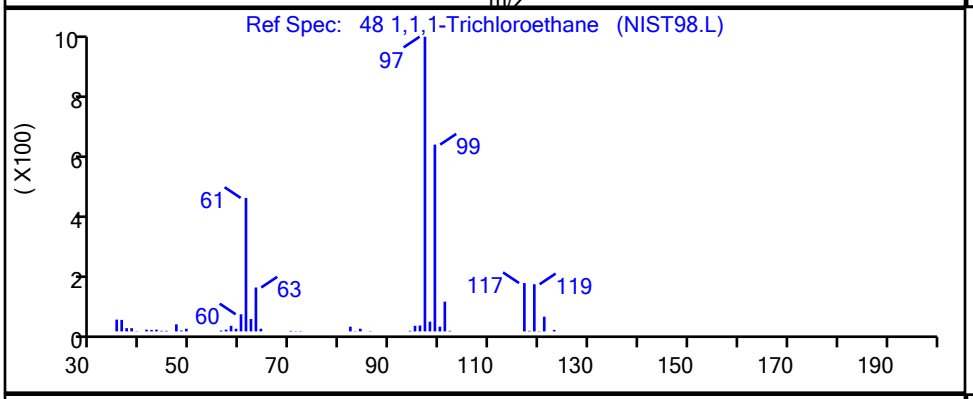
48 1,1,1-Trichloroethane, CAS: 71-55-6

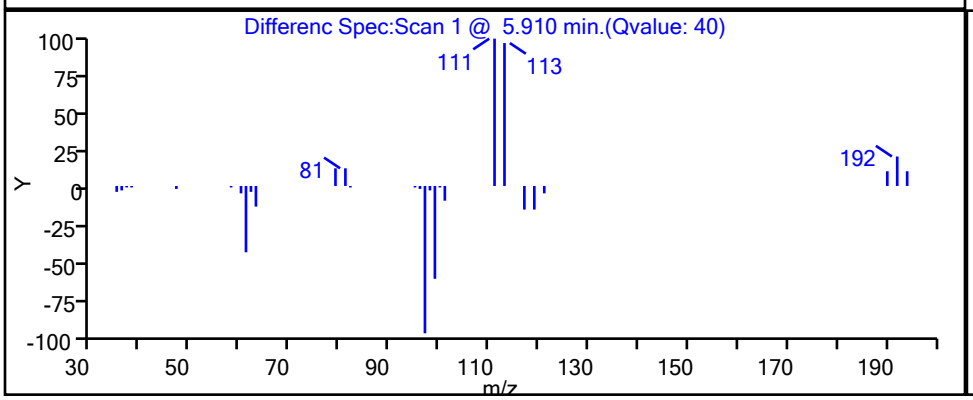


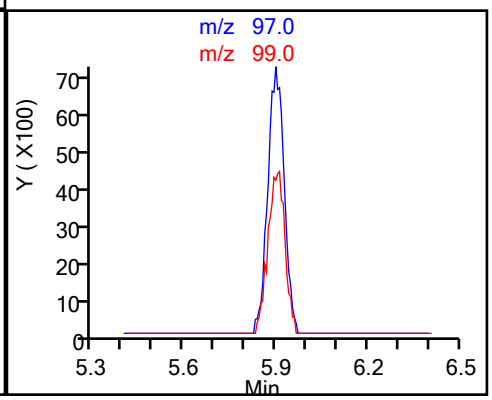












Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date: 18-Nov-2020 14:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-13 Lab Sample ID: 410-20865-13

Client ID: RS-05

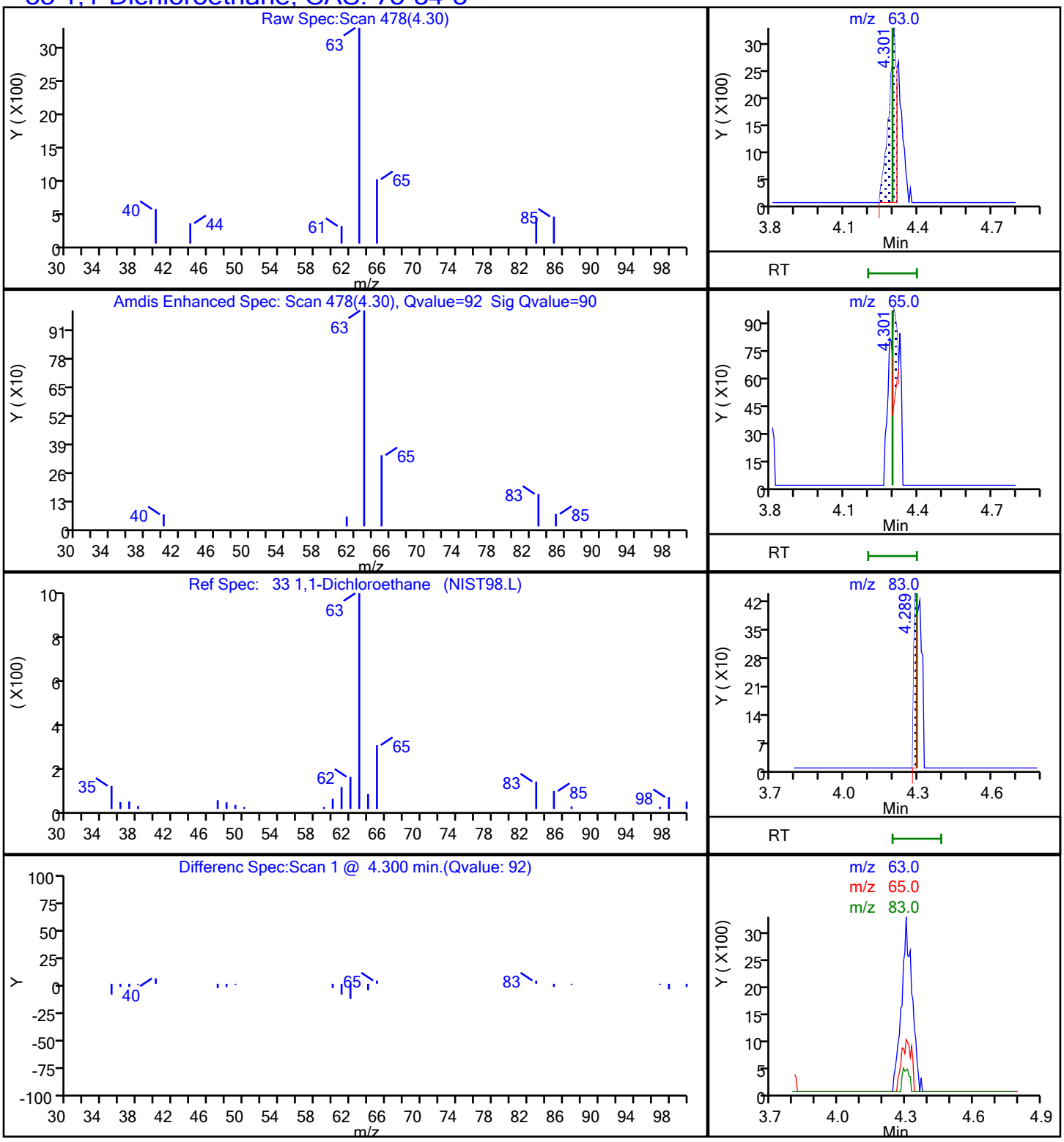
Operator ID: clm27445 ALS Bottle#: 12 Worklist Smp#: 13

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

33 1,1-Dichloroethane, CAS: 75-34-3



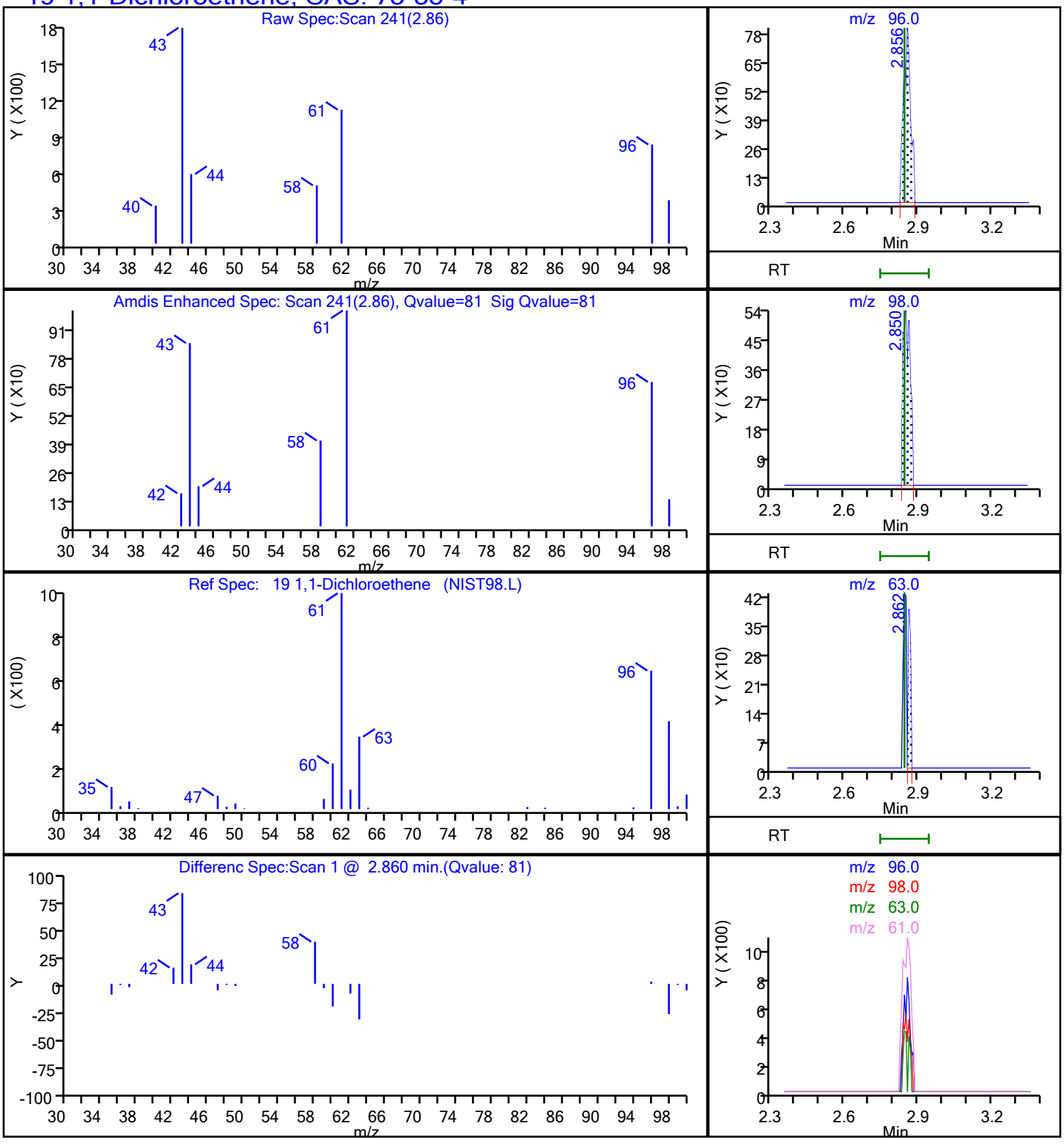
Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4

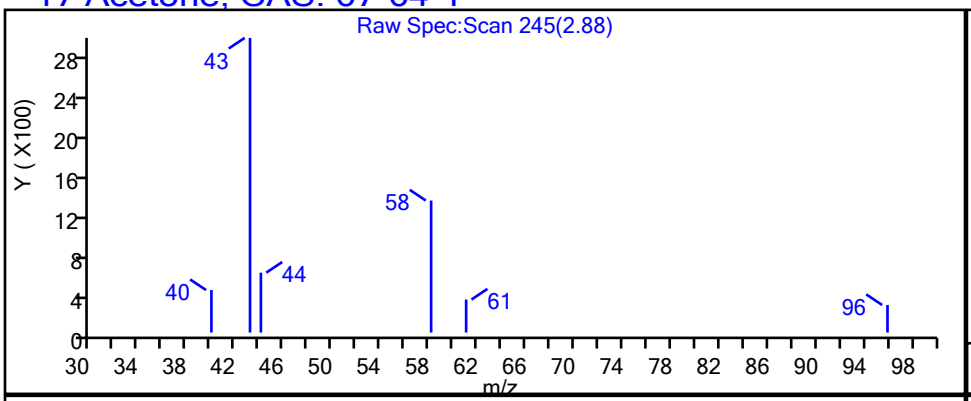


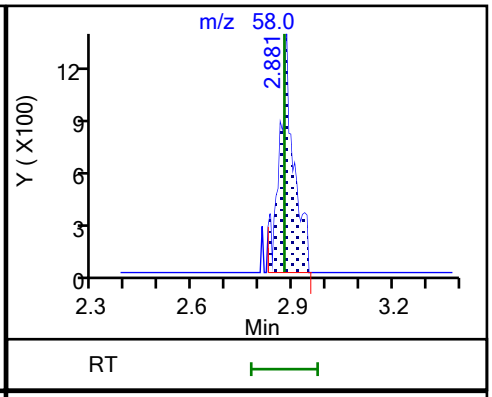
Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

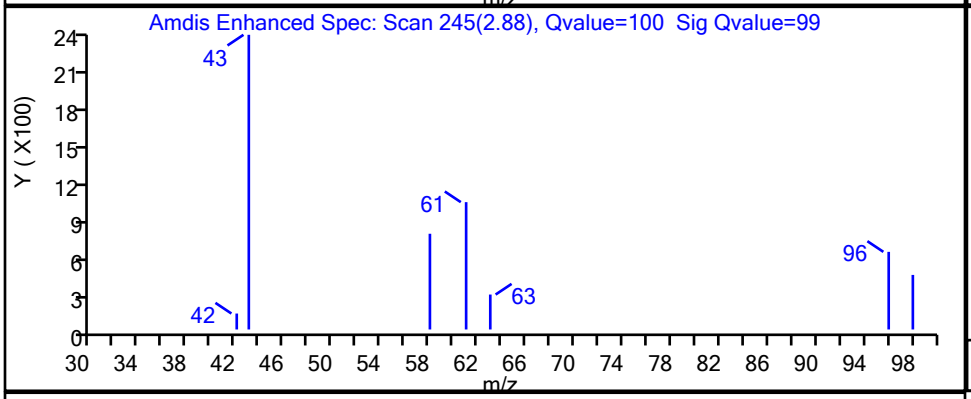
Eurofins Lancaster Laboratories Env, LLC

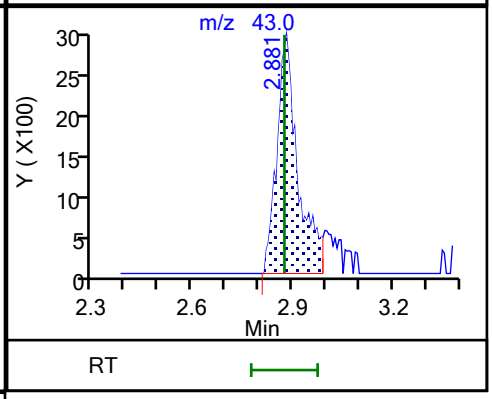
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D				
Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

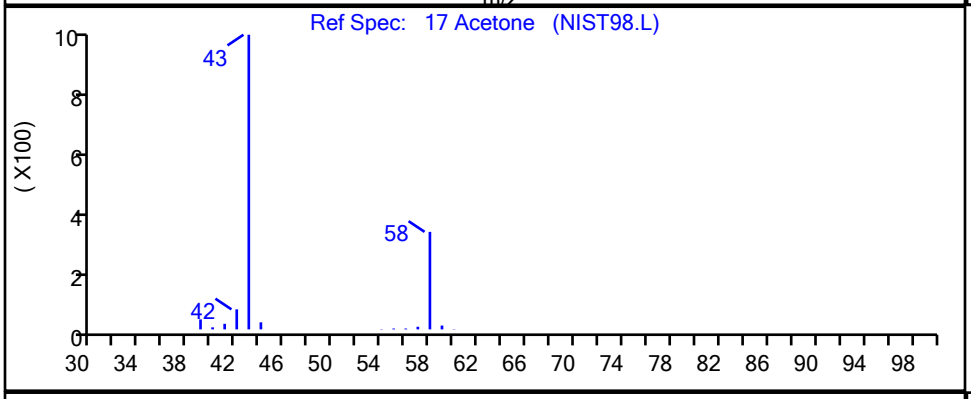
17 Acetone, CAS: 67-64-1

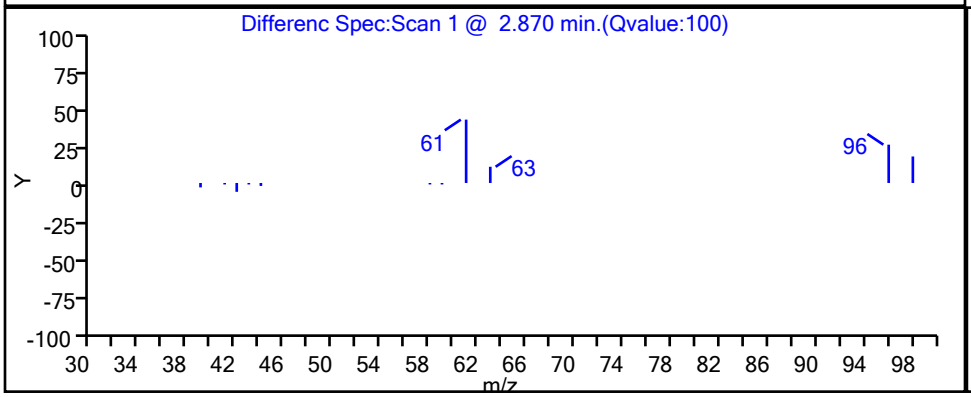


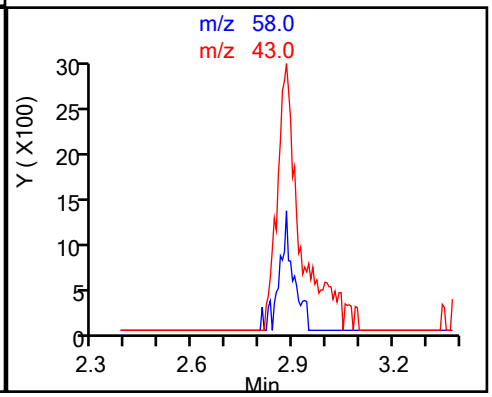












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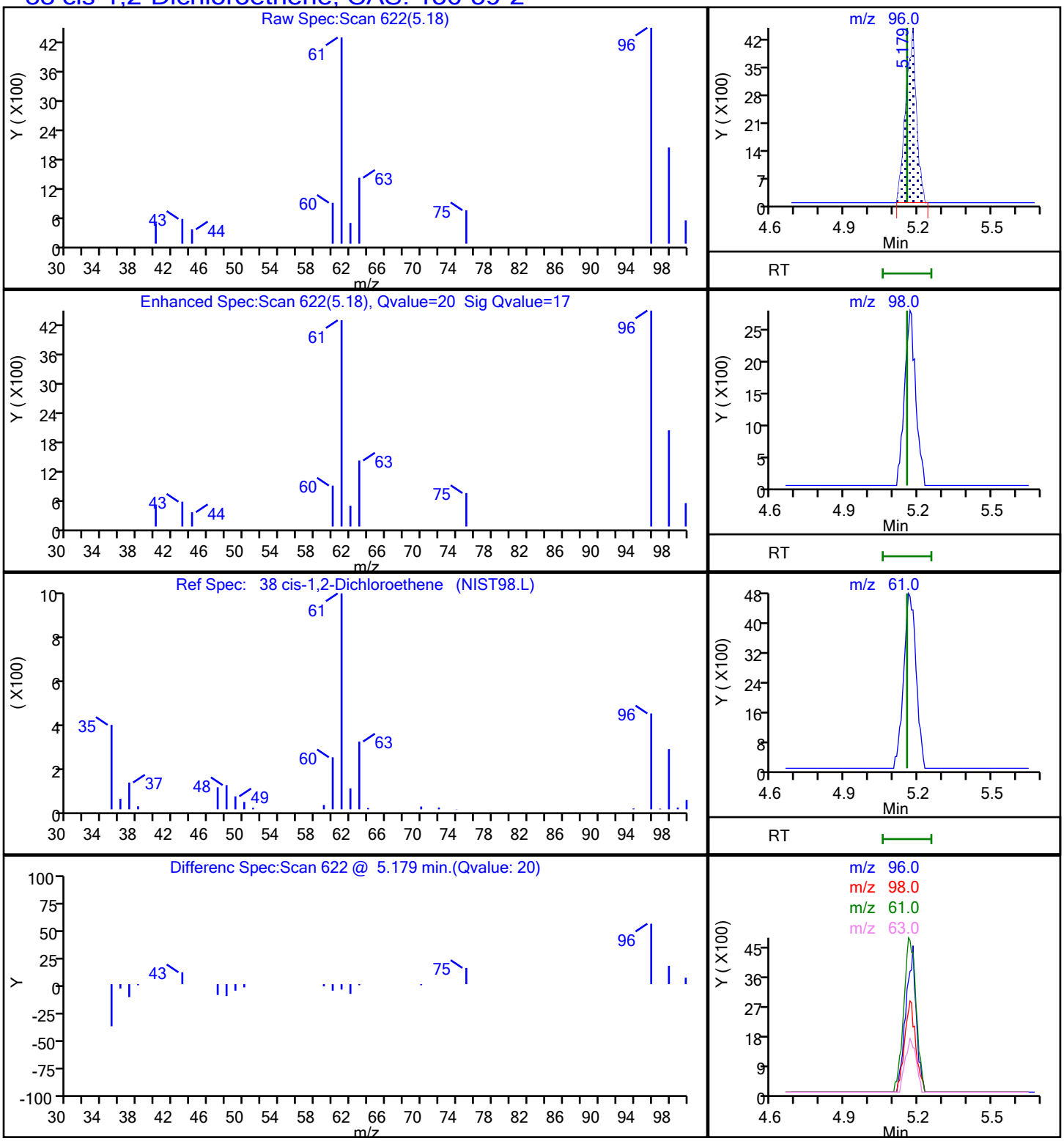
Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2



02/25/2021

Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date: 18-Nov-2020 14:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-13 Lab Sample ID: 410-20865-13

Client ID: RS-05

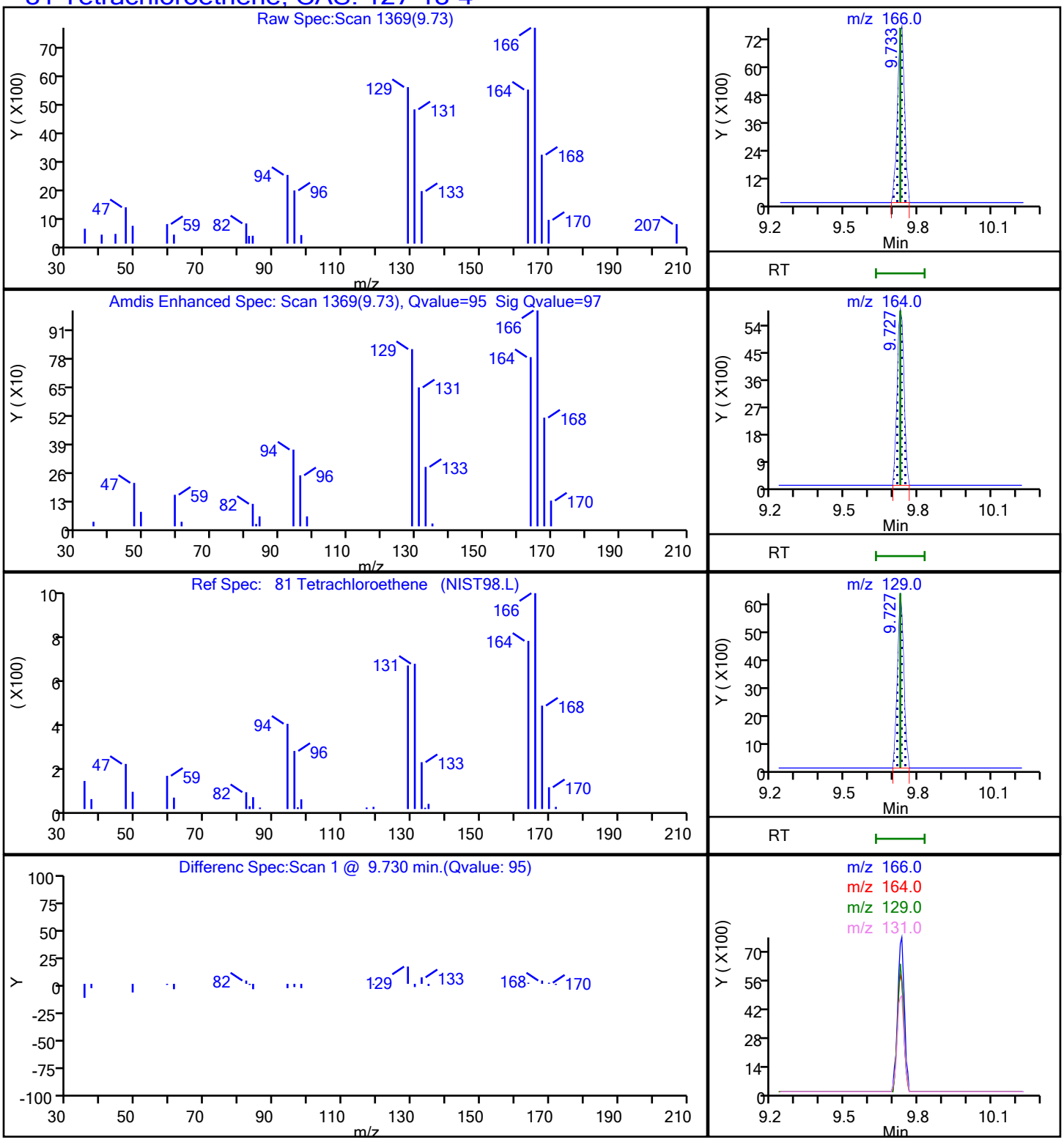
Operator ID: clm27445 ALS Bottle#: 12 Worklist Smp#: 13

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 19-Nov-2020 23:20:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D

Injection Date: 18-Nov-2020 14:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-13 Lab Sample ID: 410-20865-13

Client ID: RS-05

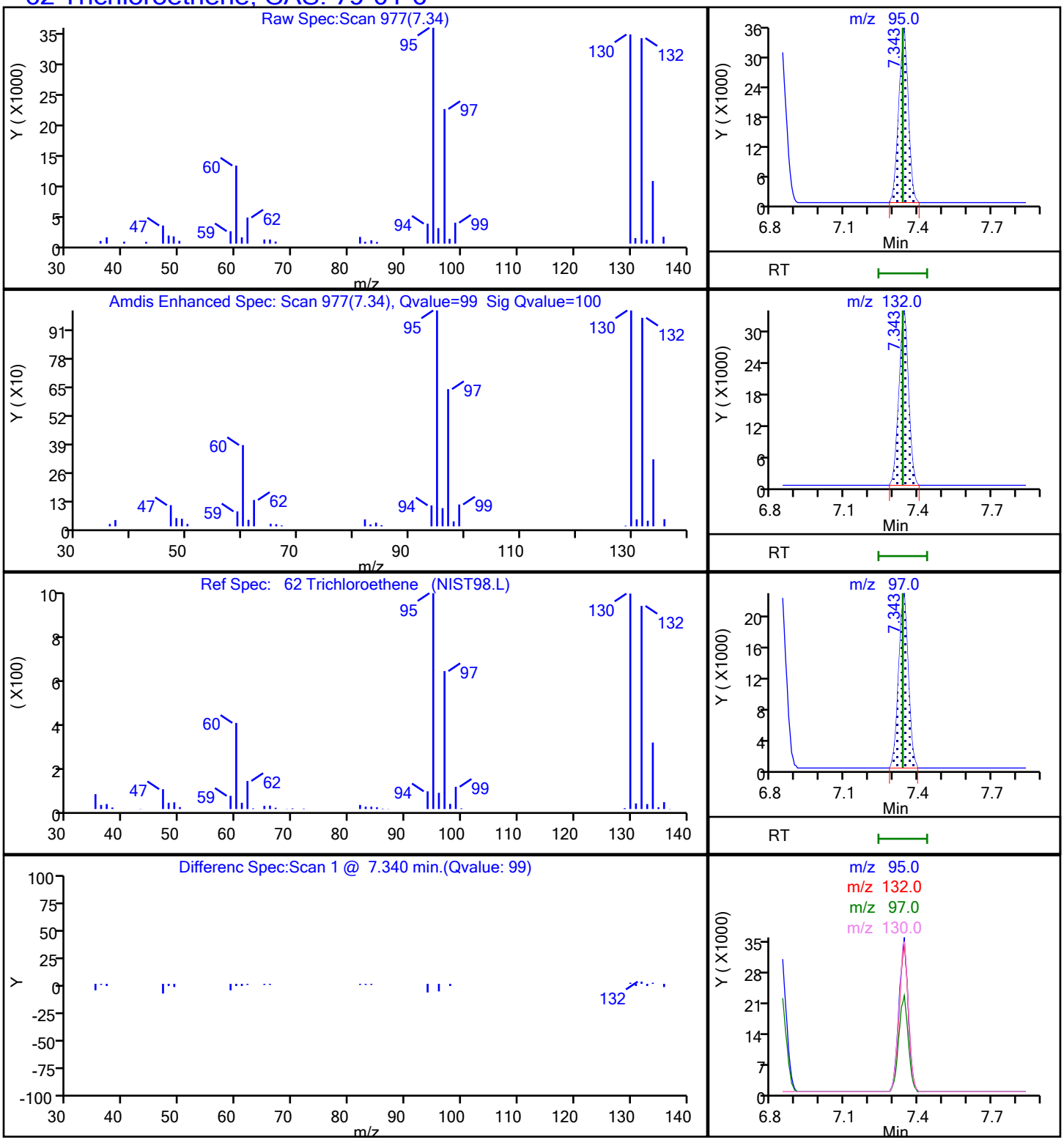
Operator ID: clm27445 ALS Bottle#: 12 Worklist Smp#: 13

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

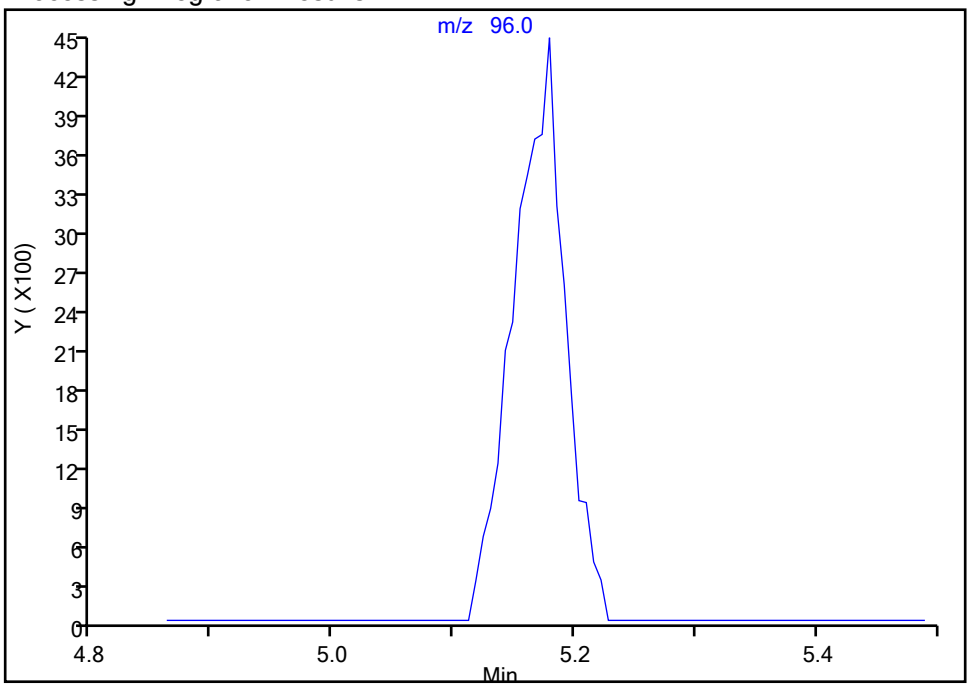
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D				
Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

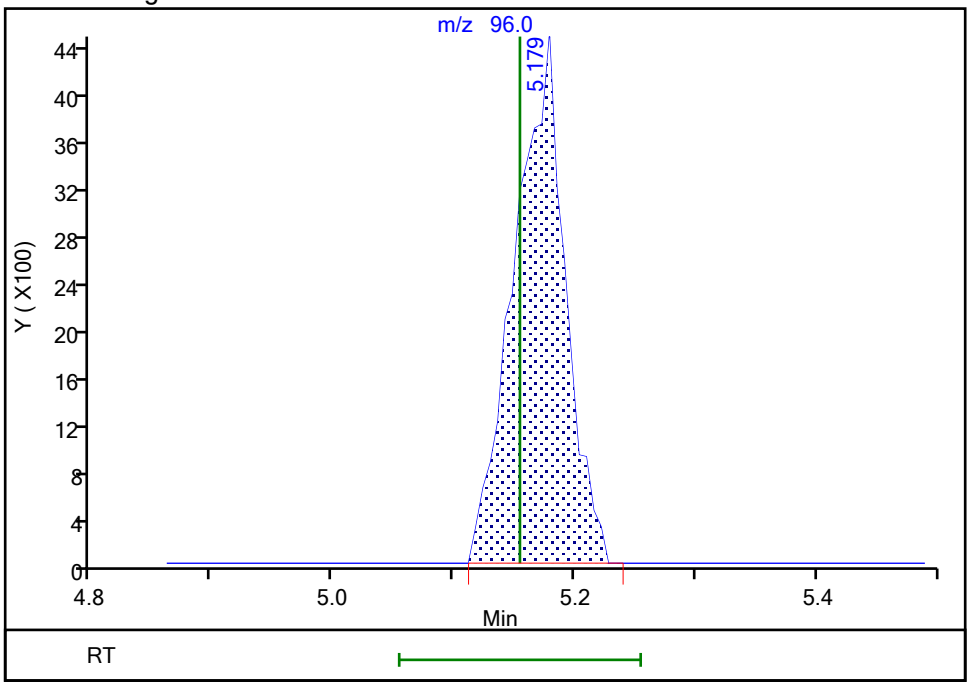
Not Detected
Expected RT: 5.15

Processing Integration Results



Manual Integration Results

RT: 5.18
Area: 13136
Amount: 1.933339
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:12:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

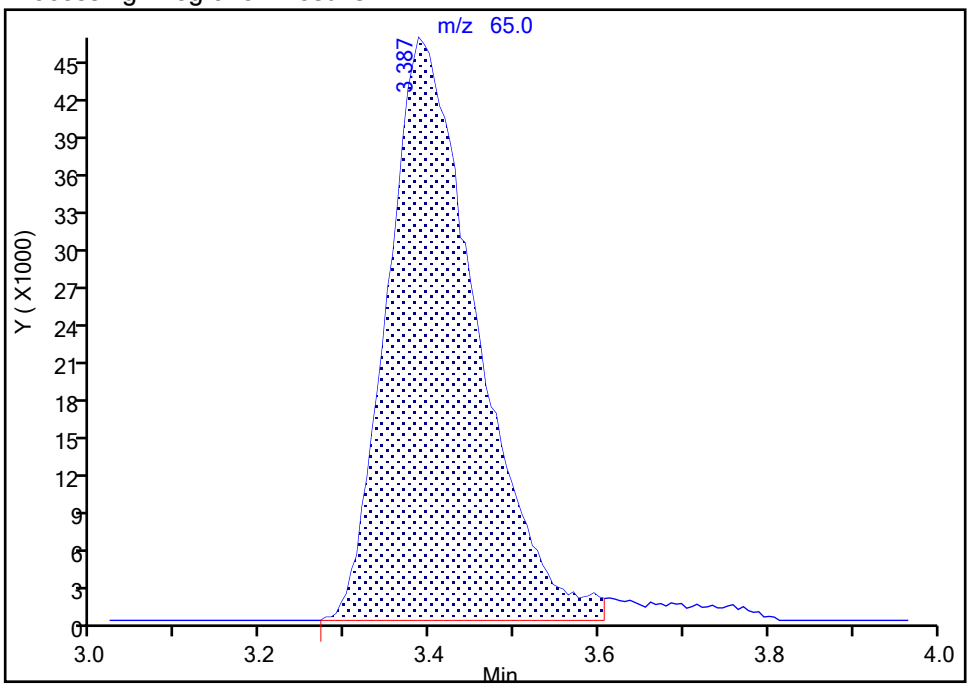
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S07.D				
Injection Date:	18-Nov-2020 14:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-13	Lab Sample ID:	410-20865-13		
Client ID:	RS-05				
Operator ID:	clm27445	ALS Bottle#:	12	Worklist Smp#:	13
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

Processing Integration Results

RT: 3.39
Area: 341320
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

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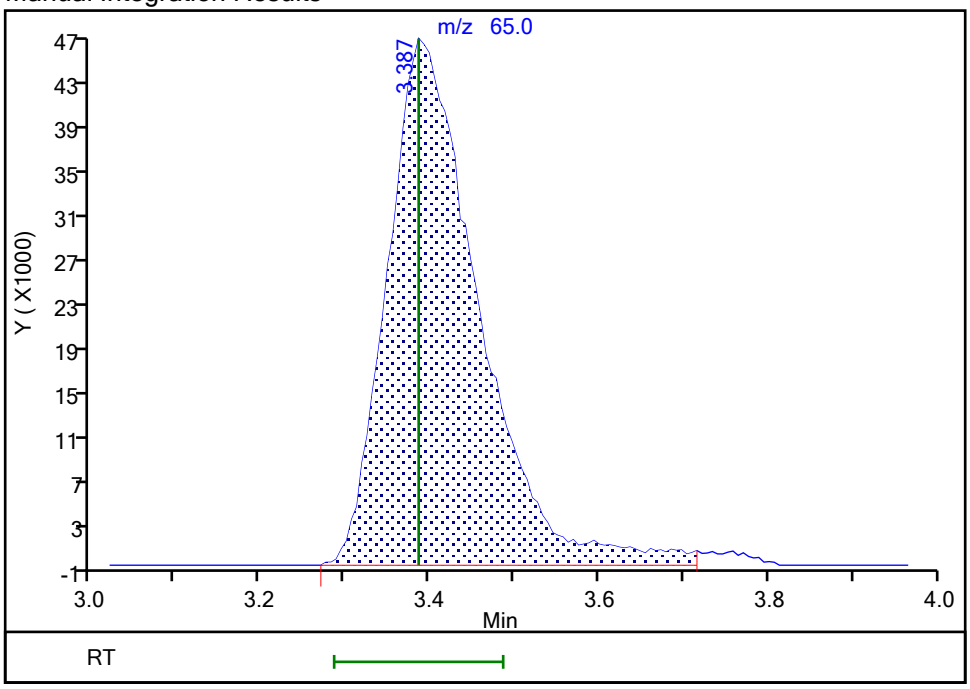
Amount: 250.0000
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:12:07

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-04 Lab Sample ID: 410-20865-14

Matrix: Water Lab File ID: 5N18S08.D

Analysis Method: 8260C Date Collected: 11/10/2020 14:18

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 14:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	3.4		1.0	0.30
75-34-3	1,1-Dichloroethane	0.43	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.37	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	1.2	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.25	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	0.33	J	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	8.6		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D
Lims ID: 410-20865-A-14
Client ID: RS-04
Sample Type: Client
Inject. Date: 18-Nov-2020 14:35:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-014
Misc. Info.: 410-20865-A-14
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:13:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96	2.850	2.844	0.006	89	1899	0.3717	
17 Acetone	58	2.874	2.874	0.000	94	1185	1.21	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.399	3.386	0.013	97	345661	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.295	4.295	0.000	90	4694	0.4312	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96	5.160	5.154	0.006	70	1698	0.2493	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.898	5.892	0.006	60	32197	3.40	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	278363	48.2	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	97	63915	50.6	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1109667	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	98	58076	8.60	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1061305	50.7	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166	9.720	9.727	-0.007	90	2376	0.3343	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	832140	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	96	394027	46.6	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	443165	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

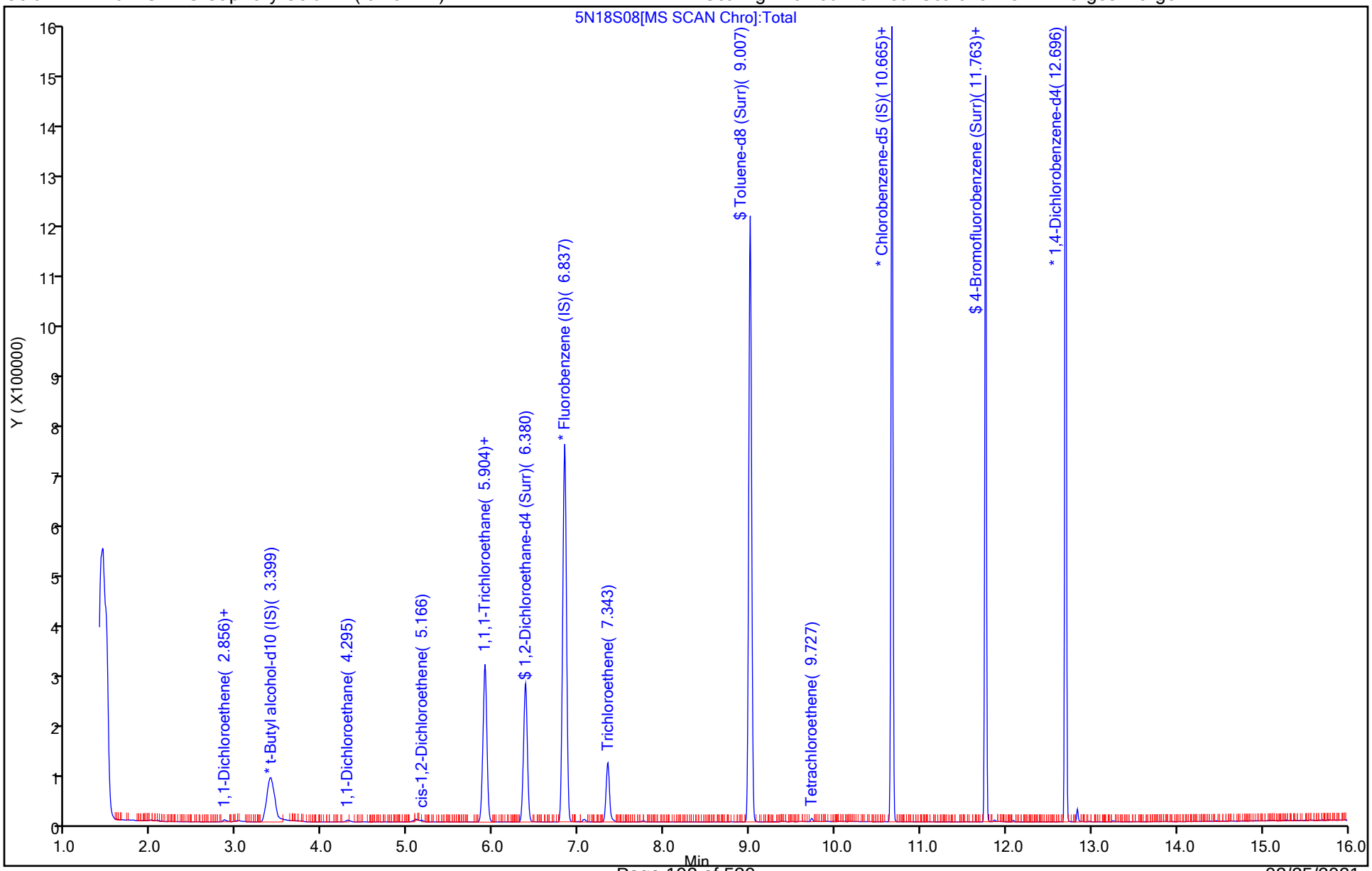
Report Date: 19-Nov-2020 23:20:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D

Injection Date:	18-Nov-2020 14:35:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-14	Lab Sample ID:	410-20865-14	Worklist Smp#:	14
Client ID:	RS-04				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 19-Nov-2020 23:20:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D

Injection Date: 18-Nov-2020 14:35:30 Instrument ID: 26285

Lims ID: 410-20865-A-14 Lab Sample ID: 410-20865-14

Client ID: RS-04

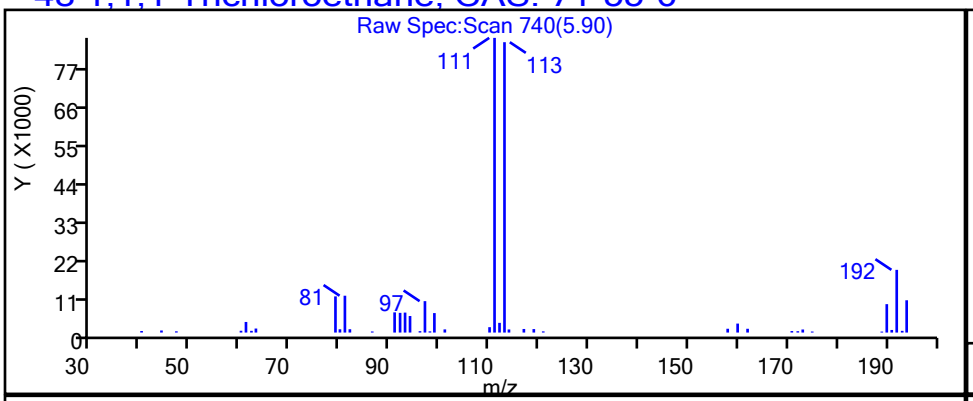
Operator ID: clm27445 ALS Bottle#: 13 Worklist Smp#: 14

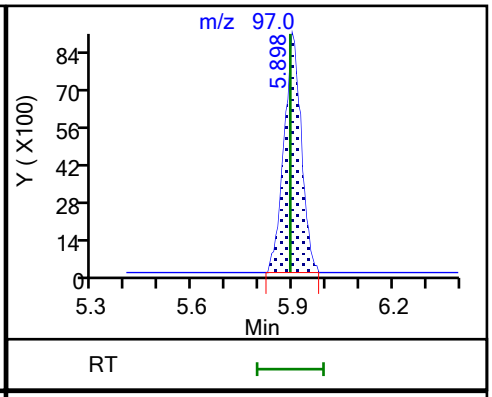
Purge Vol: 5.000 mL Dil. Factor: 1.0000

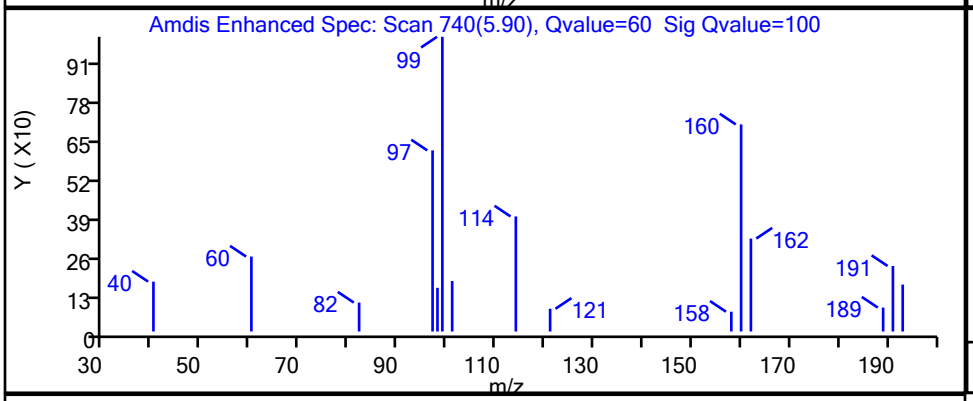
Method: MSVoa_26285a Limit Group: MSV - 8260C_D

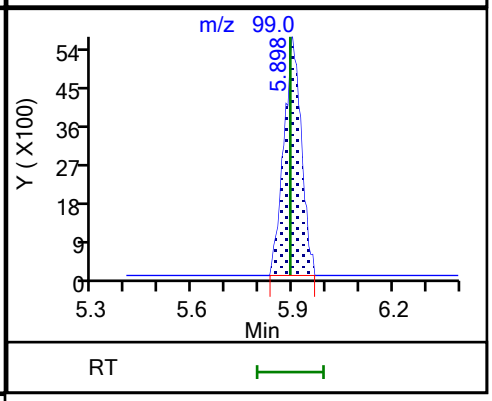
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

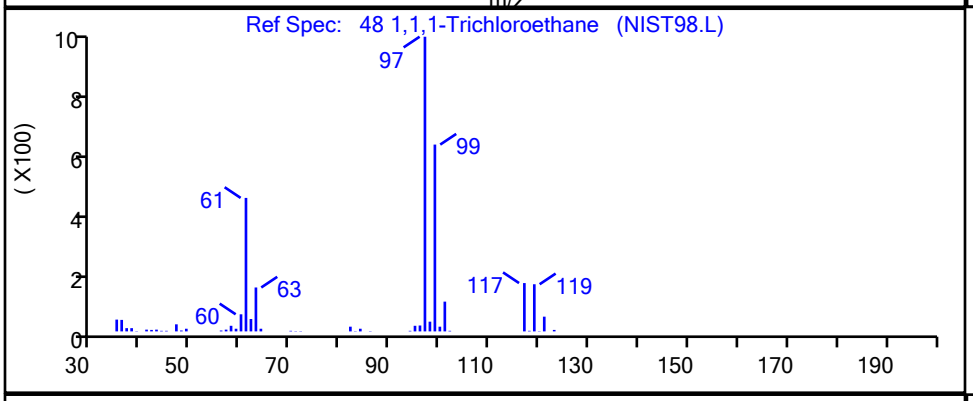
48 1,1,1-Trichloroethane, CAS: 71-55-6

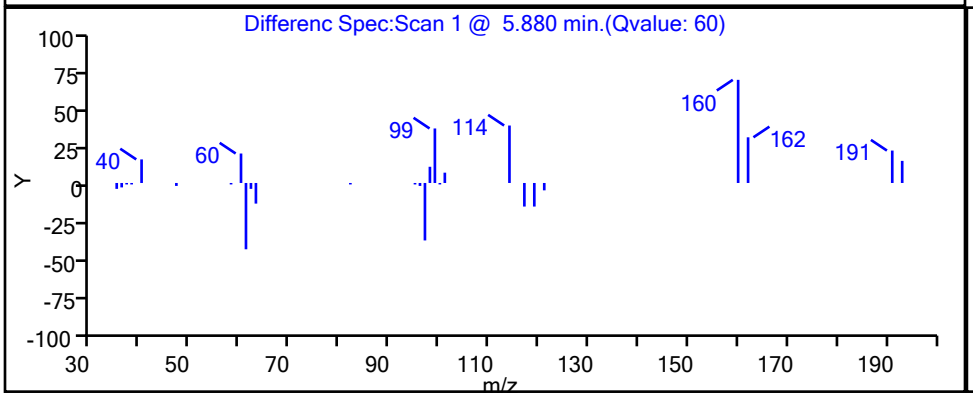


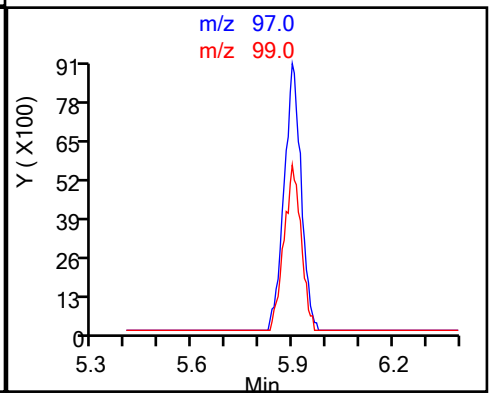








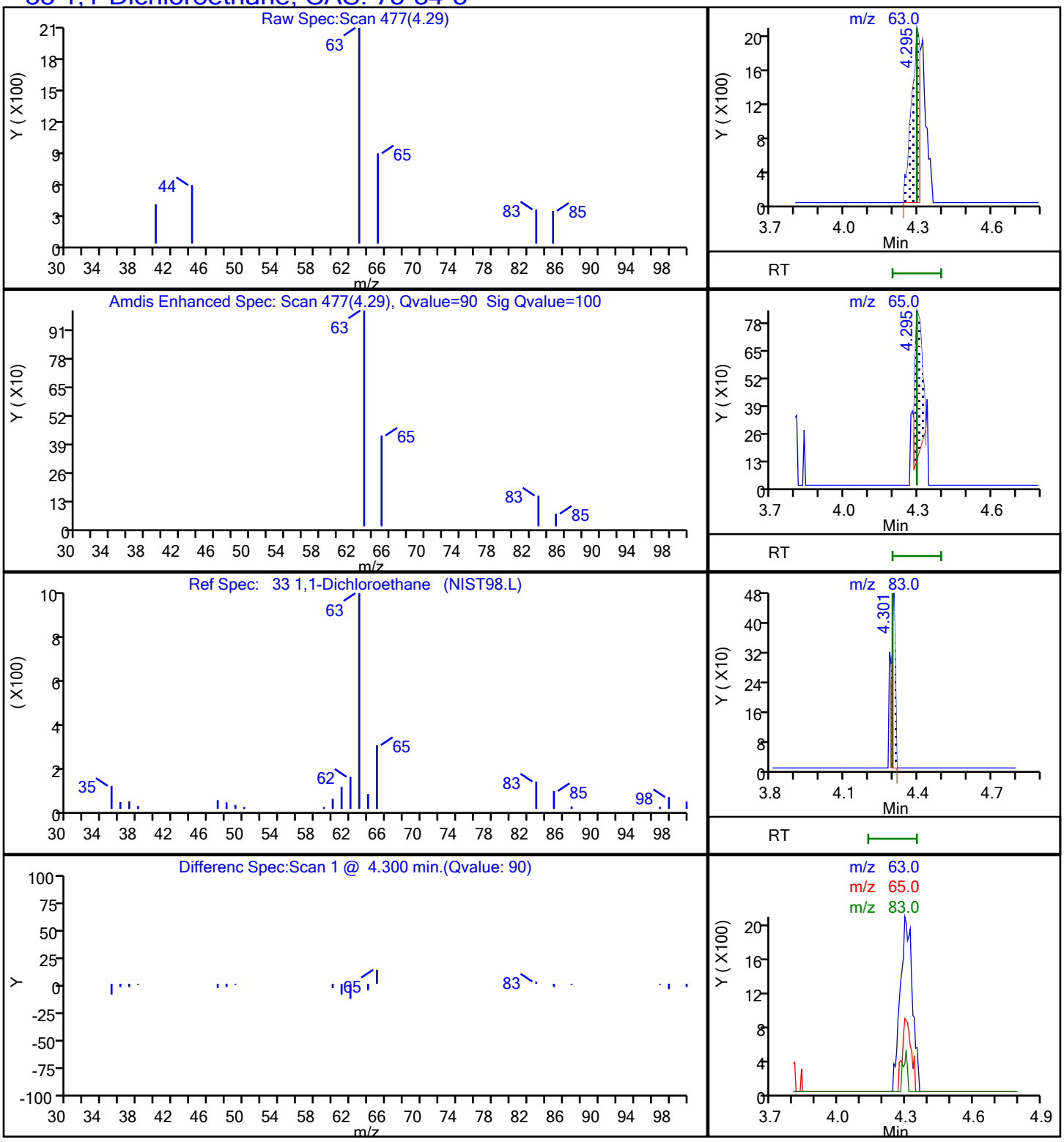




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D				
Injection Date:	18-Nov-2020 14:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-14	Lab Sample ID:	410-20865-14		
Client ID:	RS-04				
Operator ID:	clm27445	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 19-Nov-2020 23:20:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D

Injection Date: 18-Nov-2020 14:35:30 Instrument ID: 26285

Lims ID: 410-20865-A-14 Lab Sample ID: 410-20865-14

Client ID: RS-04

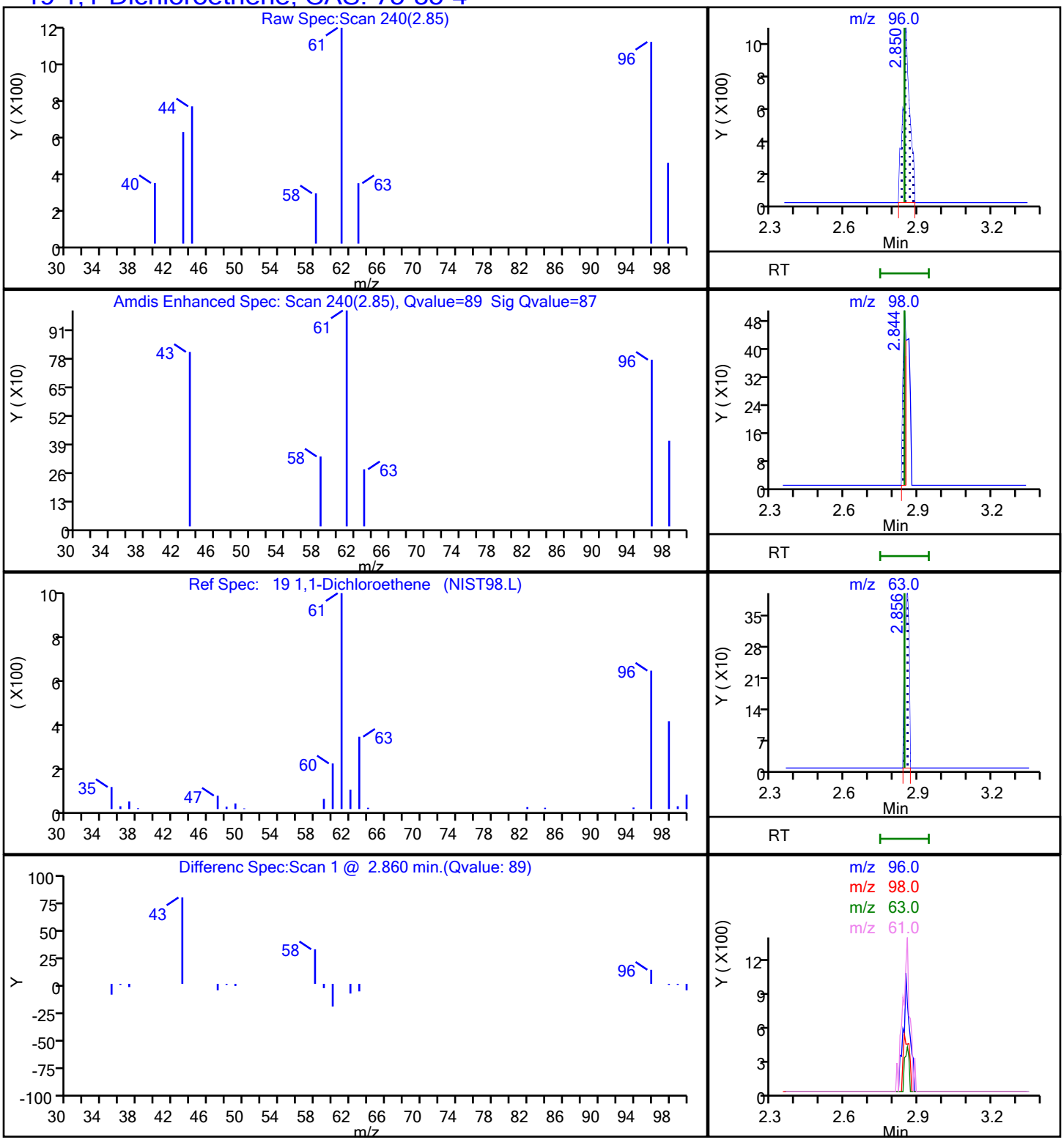
Operator ID: clm27445 ALS Bottle#: 13 Worklist Smp#: 14

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

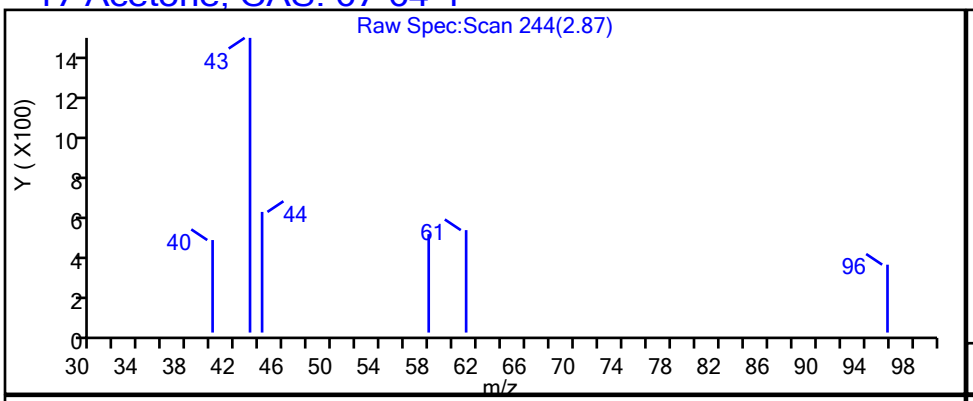
19 1,1-Dichloroethene, CAS: 75-35-4

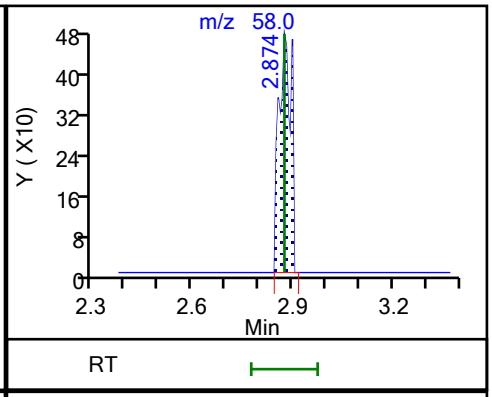


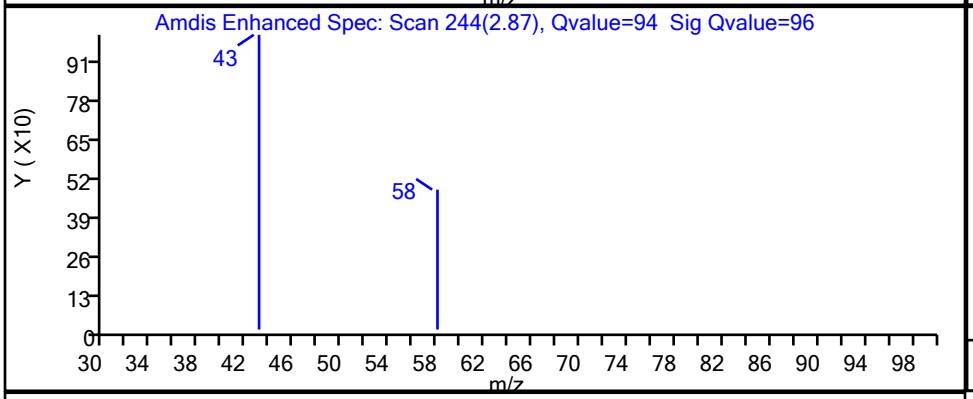
Eurofins Lancaster Laboratories Env, LLC

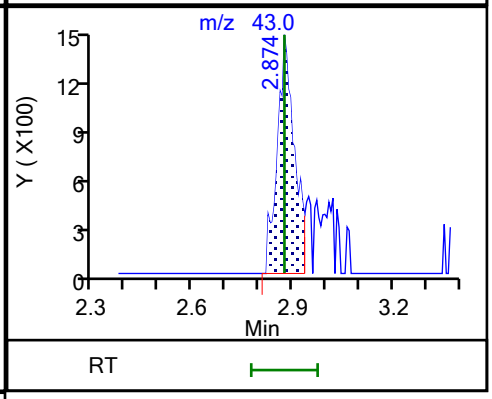
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D				
Injection Date:	18-Nov-2020 14:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-14	Lab Sample ID:	410-20865-14		
Client ID:	RS-04				
Operator ID:	clm27445	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

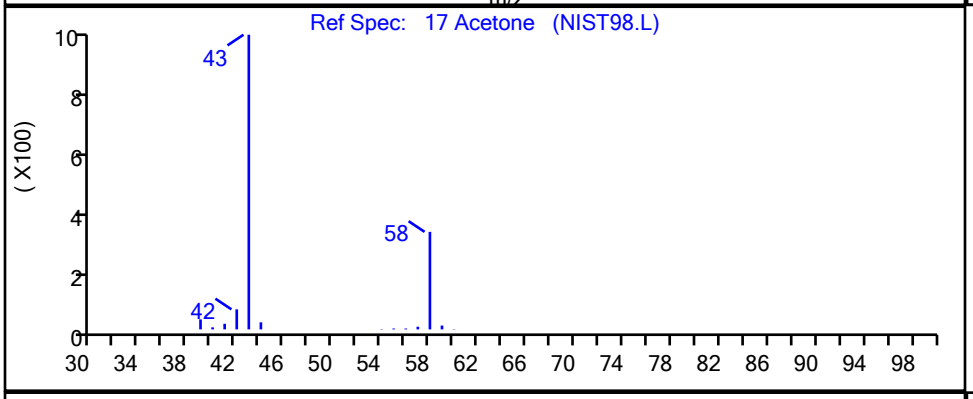
17 Acetone, CAS: 67-64-1

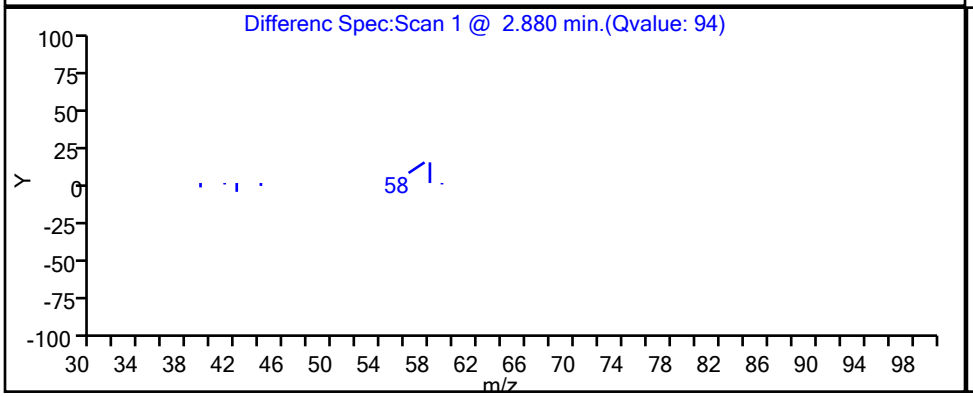


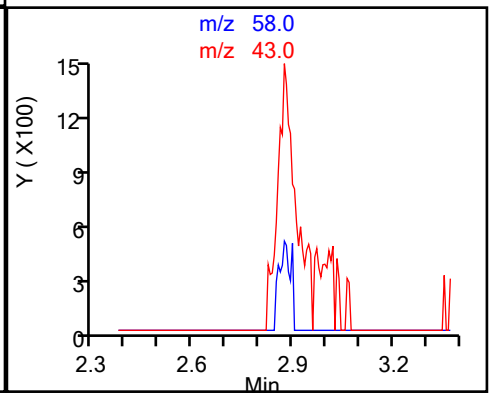








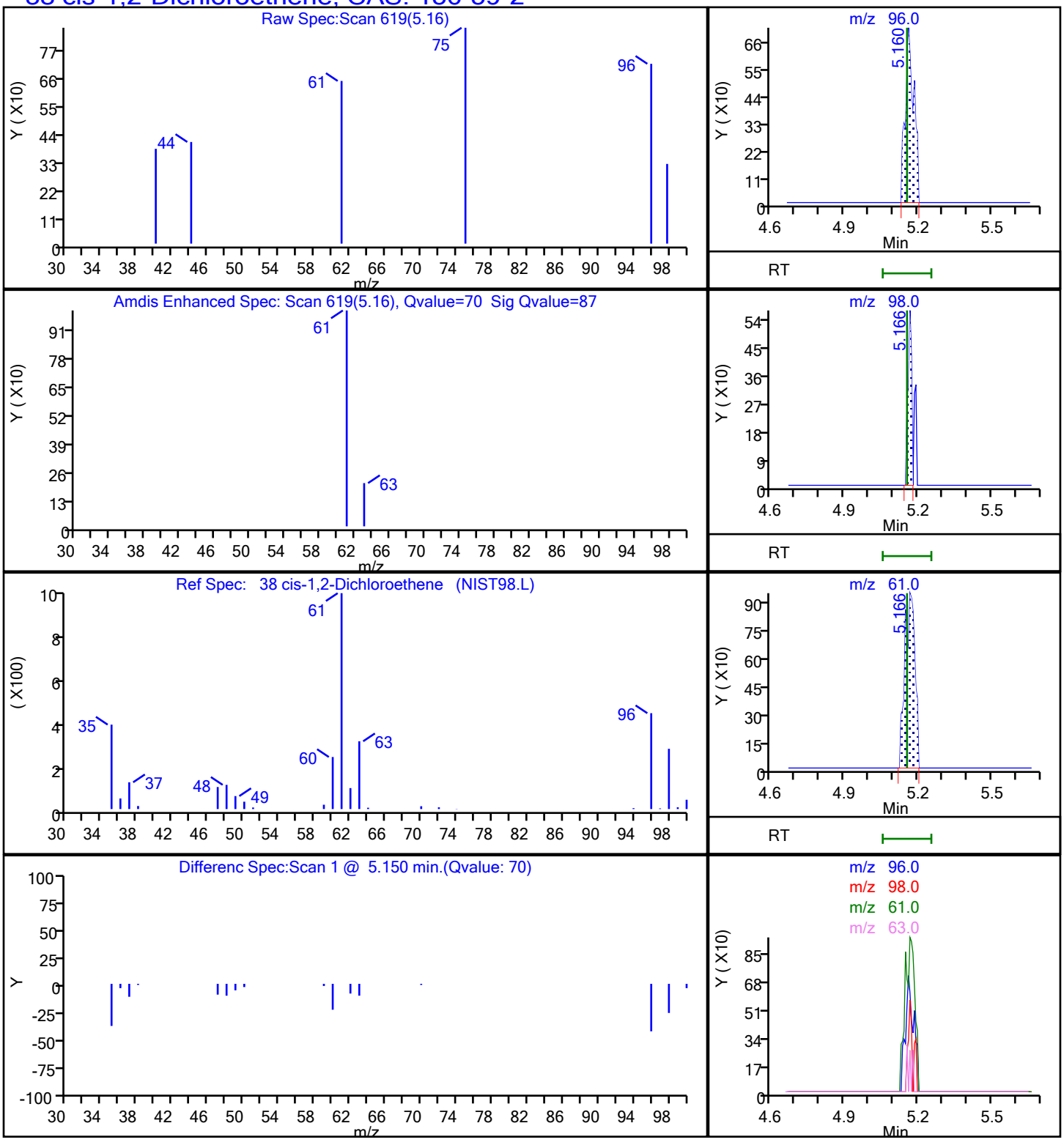




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D				
Injection Date:	18-Nov-2020 14:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-14	Lab Sample ID:	410-20865-14		
Client ID:	RS-04				
Operator ID:	clm27445	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

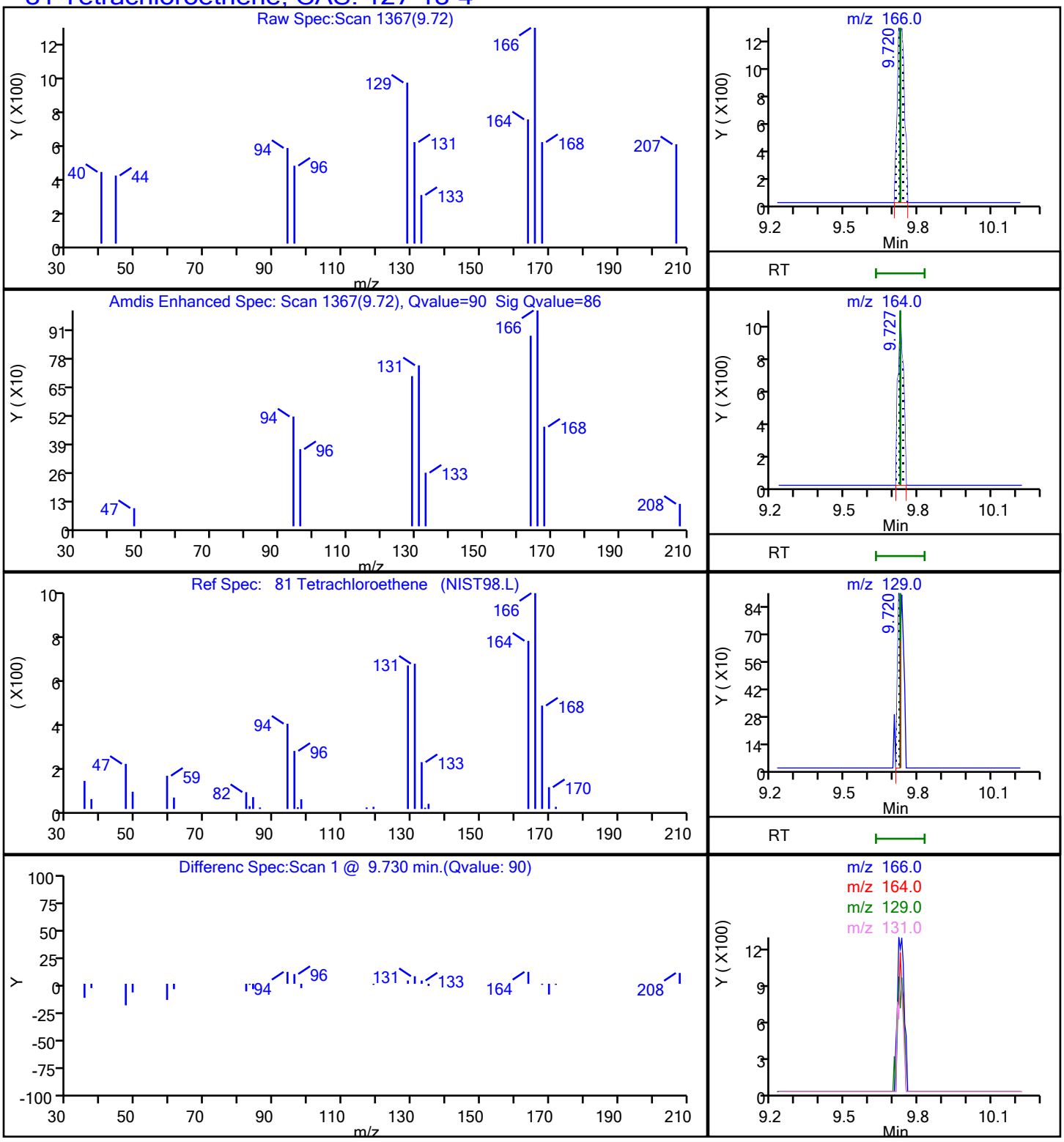


Report Date: 19-Nov-2020 23:20:14 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D				
Injection Date:	18-Nov-2020 14:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-14	Lab Sample ID:	410-20865-14		
Client ID:	RS-04				
Operator ID:	clm27445	ALS Bottle#:	13	Worklist Smp#:	14
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 19-Nov-2020 23:20:13 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S08.D

Injection Date: 18-Nov-2020 14:35:30 Instrument ID: 26285

Lims ID: 410-20865-A-14 Lab Sample ID: 410-20865-14

Client ID: RS-04

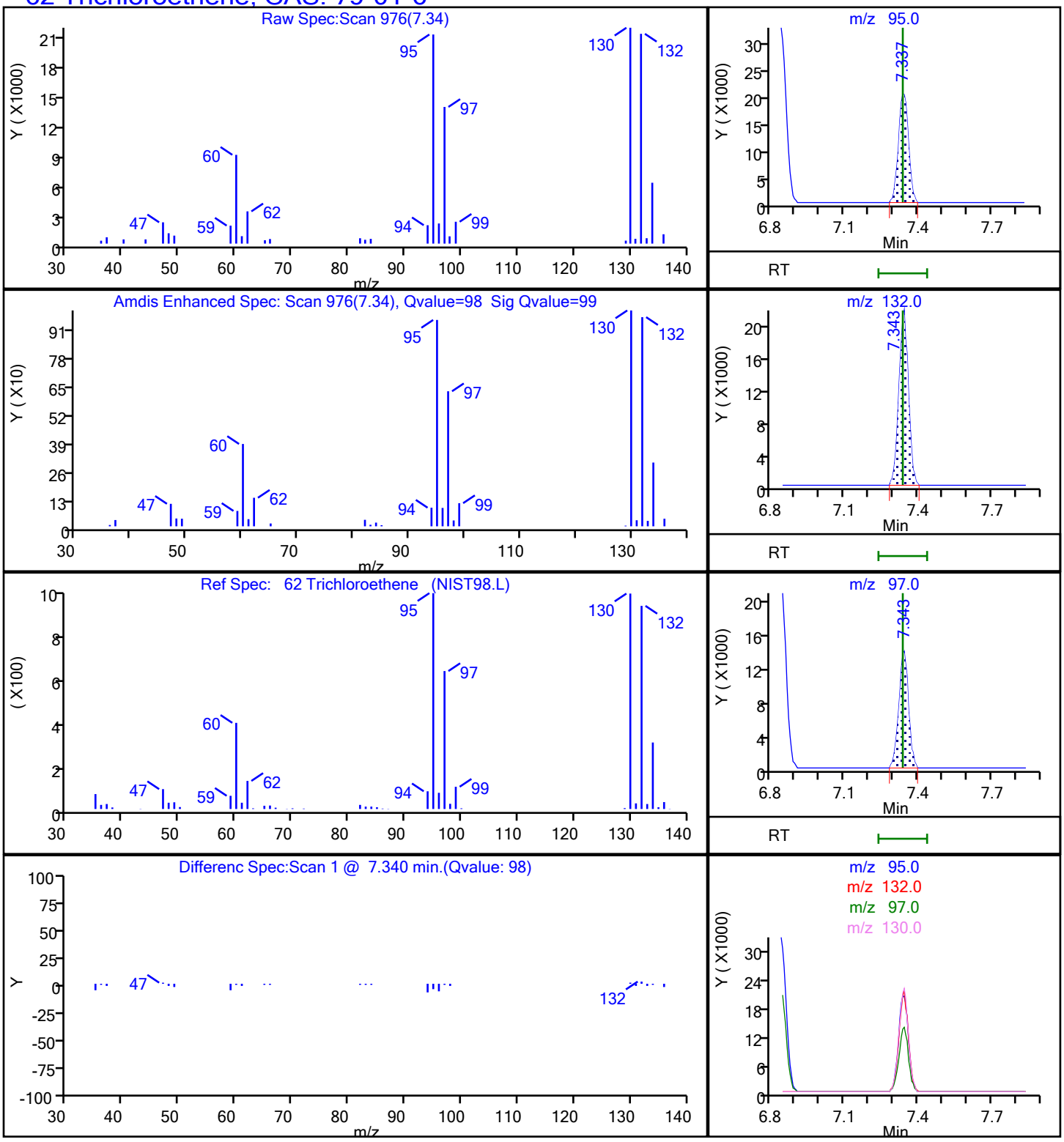
Operator ID: clm27445 ALS Bottle#: 13 Worklist Smp#: 14

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-15 Lab Sample ID: 410-20865-15

Matrix: Water Lab File ID: 5N18S09.D

Analysis Method: 8260C Date Collected: 11/10/2020 14:23

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 14:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.7		1.0	0.30
75-34-3	1,1-Dichloroethane	0.55	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S09.D
Lims ID: 410-20865-A-15
Client ID: RS-15
Sample Type: Client
Inject. Date: 18-Nov-2020 14:55:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-015
Misc. Info.: 410-20865-A-15
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:13:40

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	7
17 Acetone	58		2.874				ND	7
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	98	347741	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.295	4.295	0.000	90	5997	0.5505	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.898	5.892	0.006	38	16224	1.71	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	276529	47.8	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	97	63116	50.0	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1110503	50.0	
62 Trichloroethene	95	7.349	7.337	0.012	62	1283	0.1899	Ma
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1046973	50.5	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166	9.727	9.727	0.000	81	1002	0.1424	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	823745	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	392672	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	434280	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

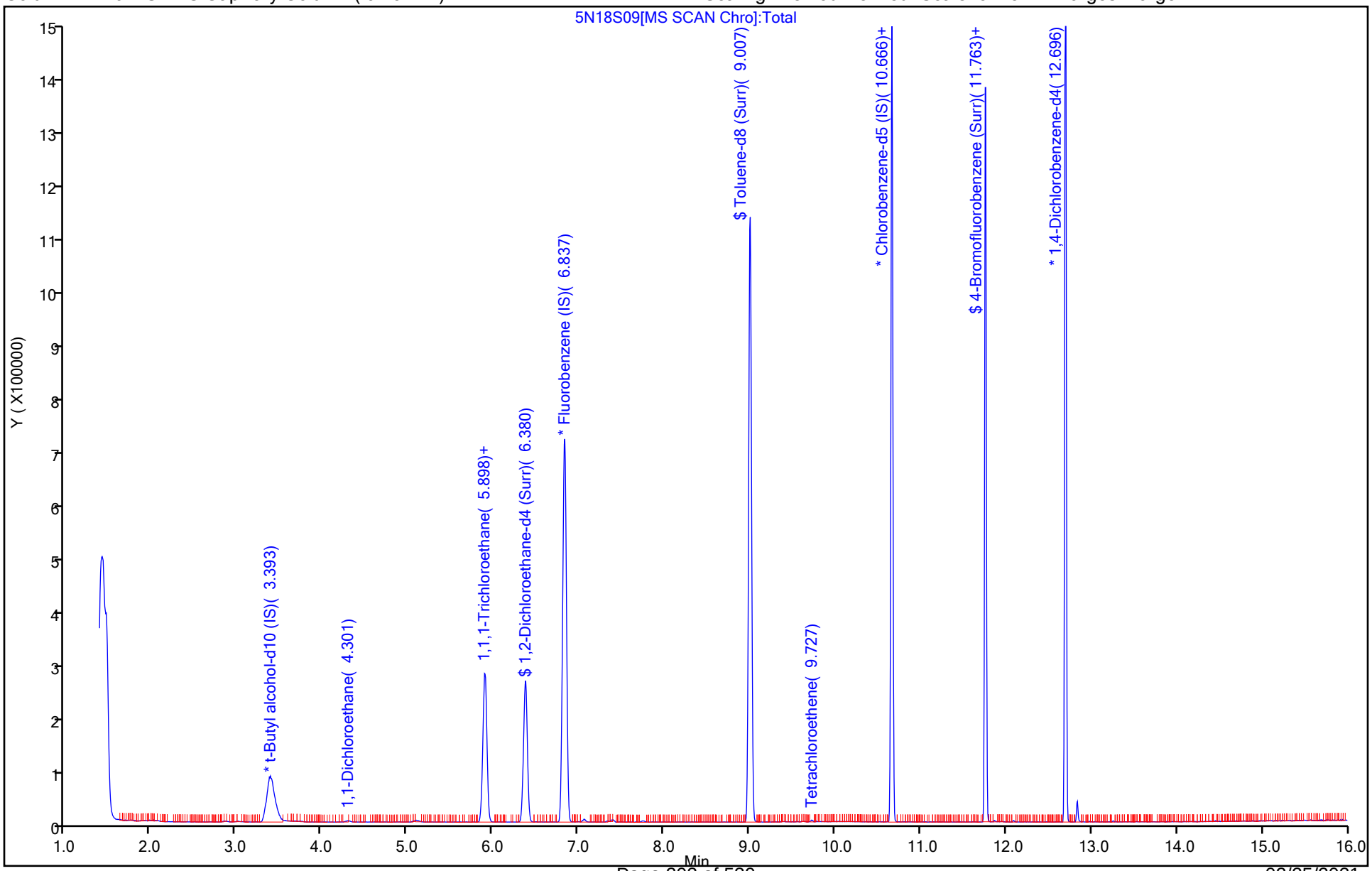
Report Date: 19-Nov-2020 23:20:15 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S09.D

Injection Date:	18-Nov-2020 14:55:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-15	Lab Sample ID:	410-20865-15	Worklist Smp#:	15
Client ID:	RS-15				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

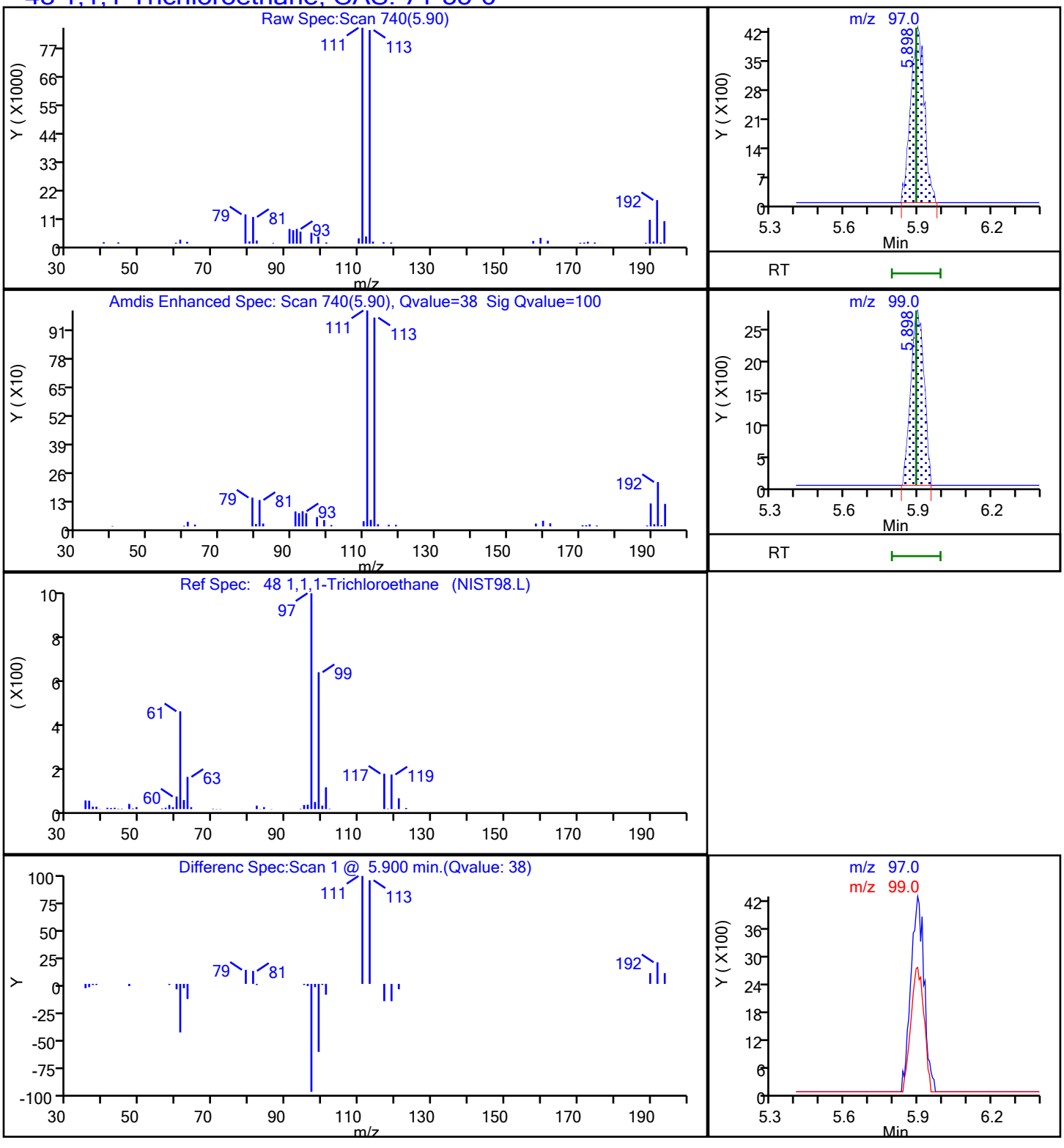
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S09.D				
Injection Date:	18-Nov-2020 14:55:30	Instrument ID:	26285		
Lims ID:	410-20865-A-15	Lab Sample ID:	410-20865-15		
Client ID:	RS-15				
Operator ID:	clm27445	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

48 1,1,1-Trichloroethane, CAS: 71-55-6

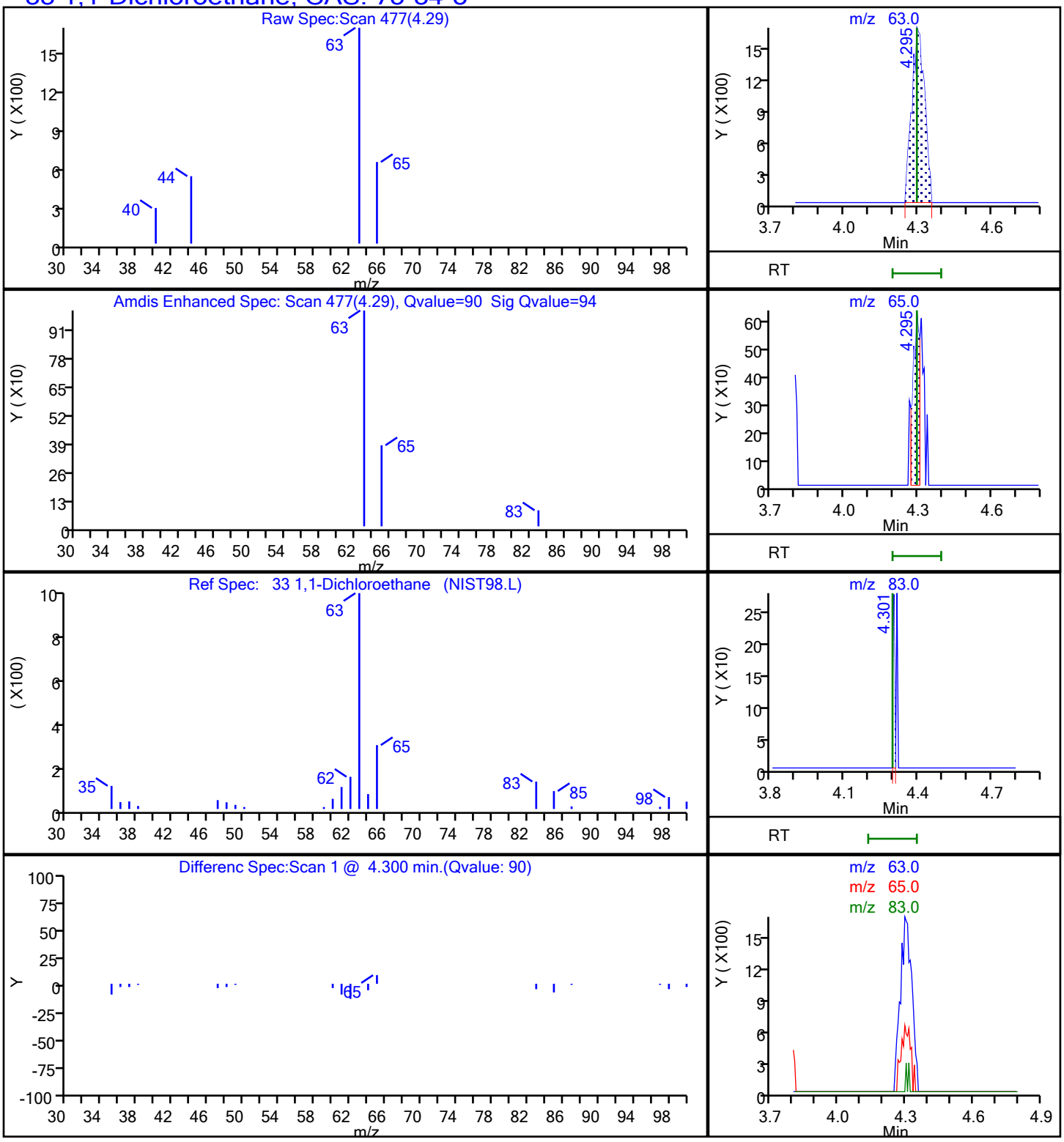


Report Date: 19-Nov-2020 23:20:15 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S09.D				
Injection Date:	18-Nov-2020 14:55:30	Instrument ID:	26285		
Lims ID:	410-20865-A-15	Lab Sample ID:	410-20865-15		
Client ID:	RS-15				
Operator ID:	clm27445	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

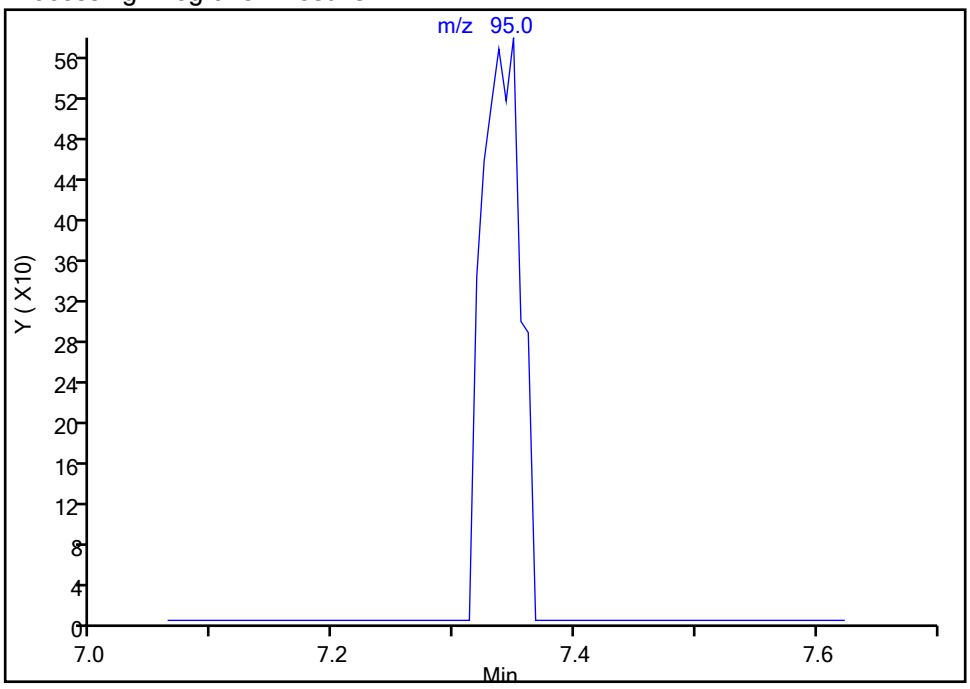
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S09.D				
Injection Date:	18-Nov-2020 14:55:30	Instrument ID:	26285		
Lims ID:	410-20865-A-15	Lab Sample ID:	410-20865-15		
Client ID:	RS-15				
Operator ID:	clm27445	ALS Bottle#:	14	Worklist Smp#:	15
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6

Signal: 1

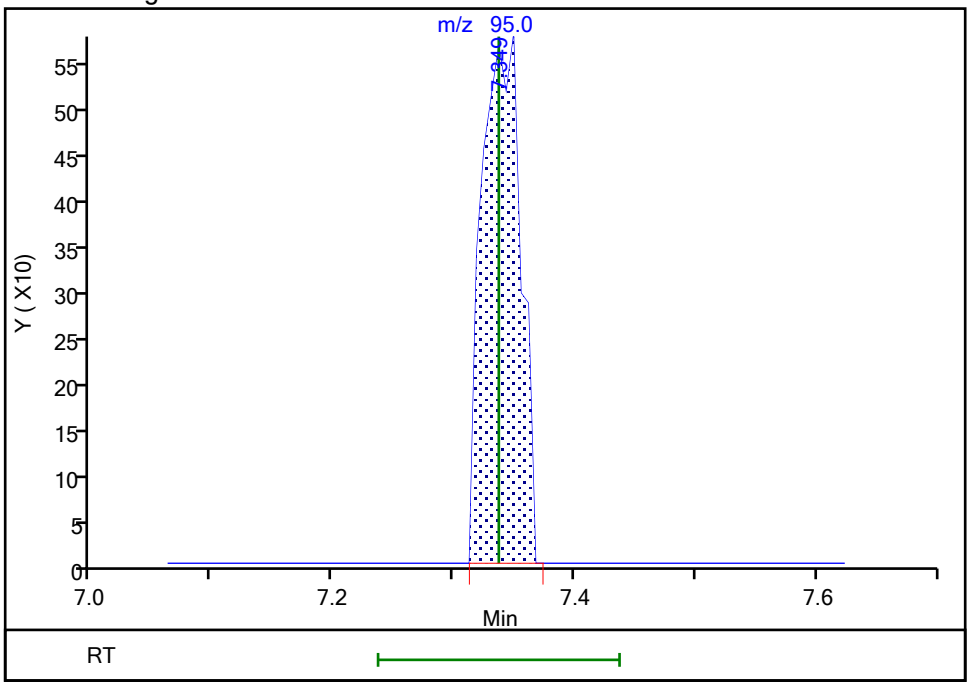
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 1283
Amount: 0.189898
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:13:29
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-07 Lab Sample ID: 410-20865-16

Matrix: Water Lab File ID: 5N18S10.D

Analysis Method: 8260C Date Collected: 11/10/2020 14:30

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 15:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	0.24	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	0.98	J	10	0.30
67-64-1	Acetone	12	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.80	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	0.24	J	1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	0.45	J	1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D
Lims ID: 410-20865-A-16
Client ID: RS-07
Sample Type: Client
Inject. Date: 18-Nov-2020 15:15:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-016
Misc. Info.: 410-20865-A-16
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:13:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62	1.850	1.844	0.006	7	3736	0.4527	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.880	2.874	0.006	100	11408	12.3	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.399	3.386	0.013	97	327327	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.295	4.295	0.000	1	2675	0.2435	
39 2-Butanone (MEK)	43	5.154	5.142	0.012	42	5897	0.9783	
38 cis-1,2-Dichloroethene	96	5.161	5.154	0.007	75	5530	0.8046	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.898	5.892	0.006	35	1446	0.1514	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	93	277378	47.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	63971	50.2	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1119837	50.0	
62 Trichloroethene	95		7.337				ND	7
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1065759	50.5	
77 Toluene	92	9.093	9.093	0.000	98	3814	0.2375	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	838117	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	7
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	96	403093	47.3	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	448145	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

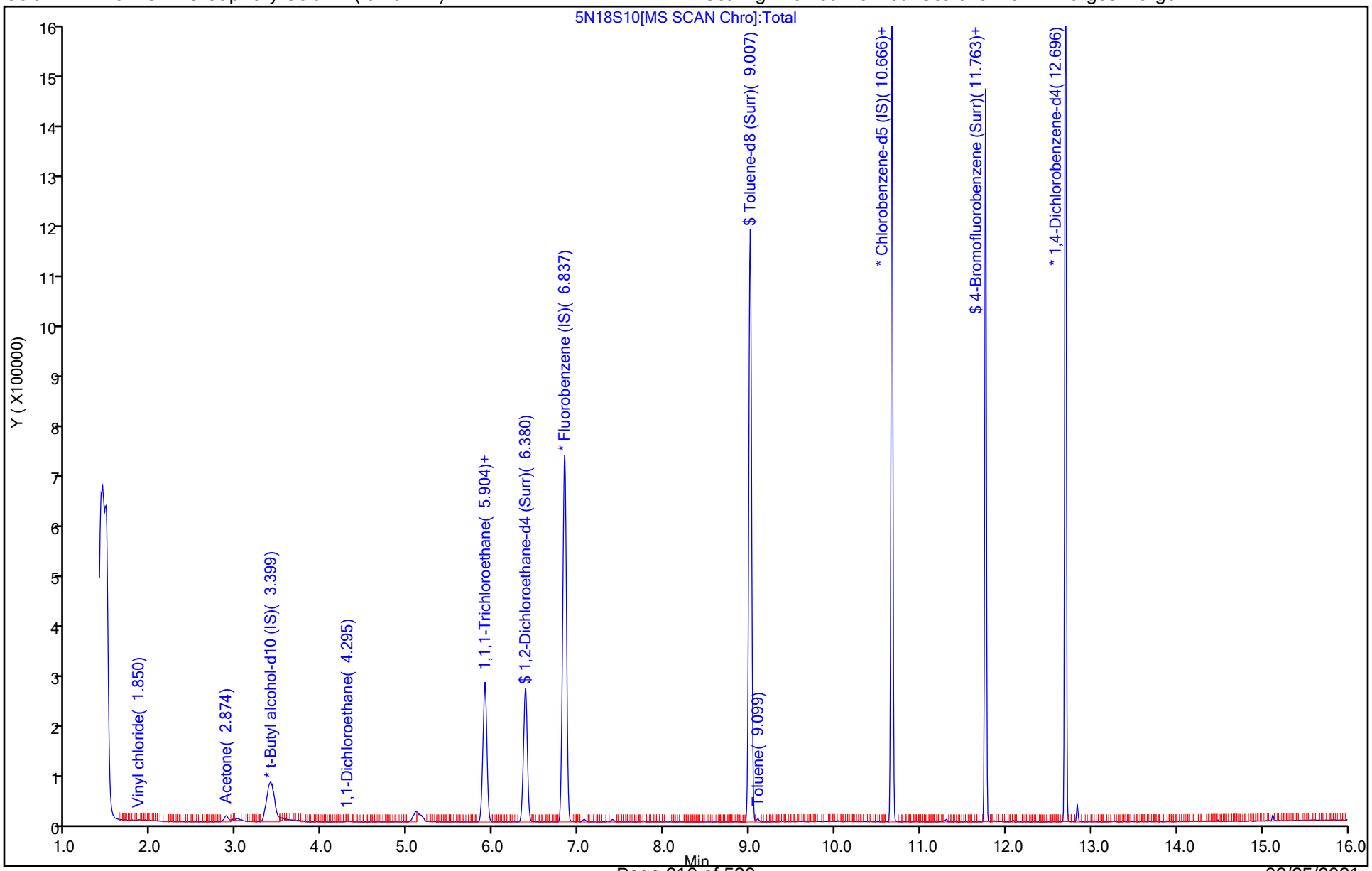
Report Date: 19-Nov-2020 23:20:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D

Injection Date:	18-Nov-2020 15:15:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-16	Lab Sample ID:	410-20865-16	Worklist Smp#:	16
Client ID:	RS-07				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

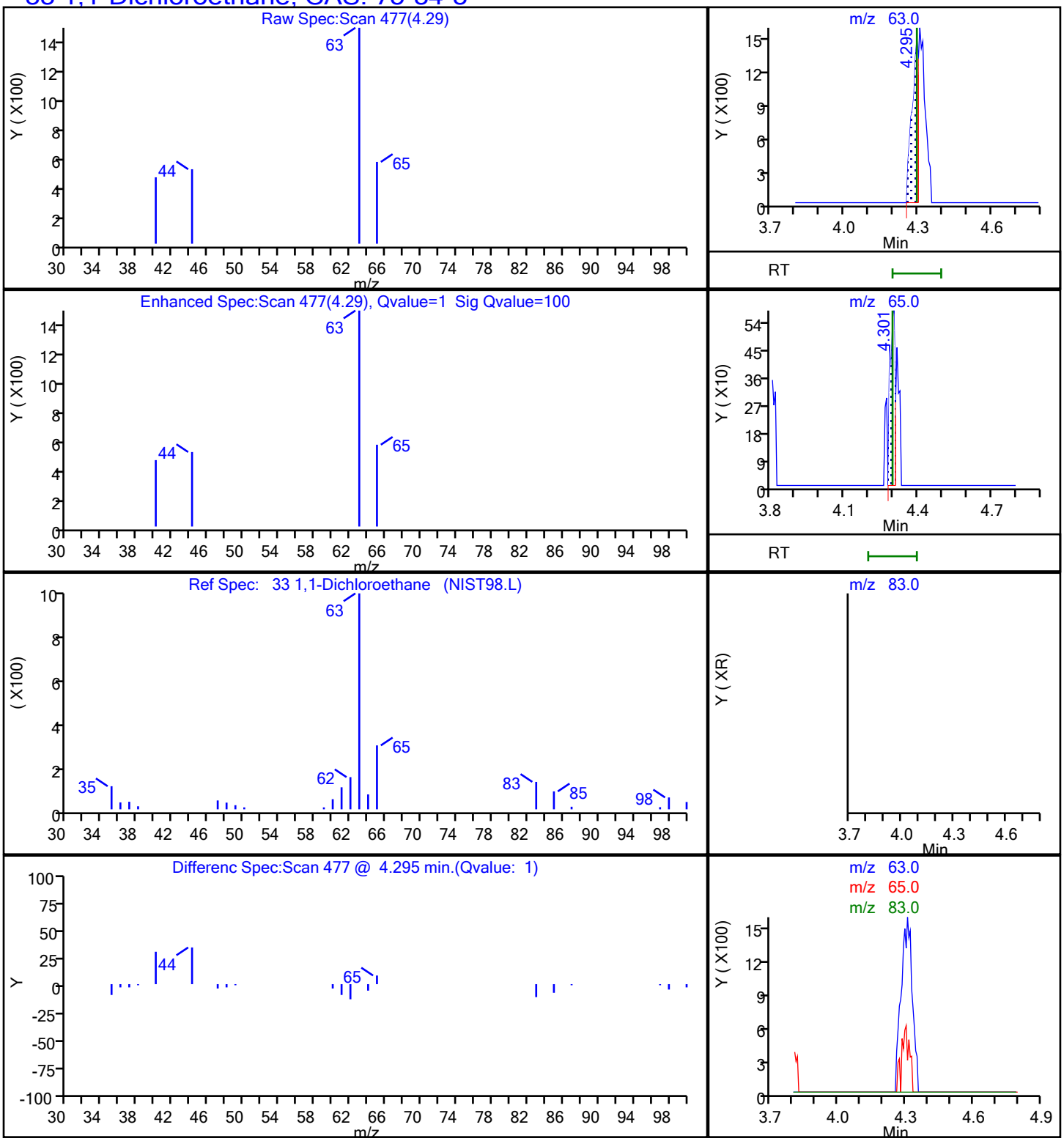


Report Date: 19-Nov-2020 23:20:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D				
Injection Date:	18-Nov-2020 15:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-16	Lab Sample ID:	410-20865-16		
Client ID:	RS-07				
Operator ID:	clm27445	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 19-Nov-2020 23:20:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D

Injection Date: 18-Nov-2020 15:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-16 Lab Sample ID: 410-20865-16

Client ID: RS-07

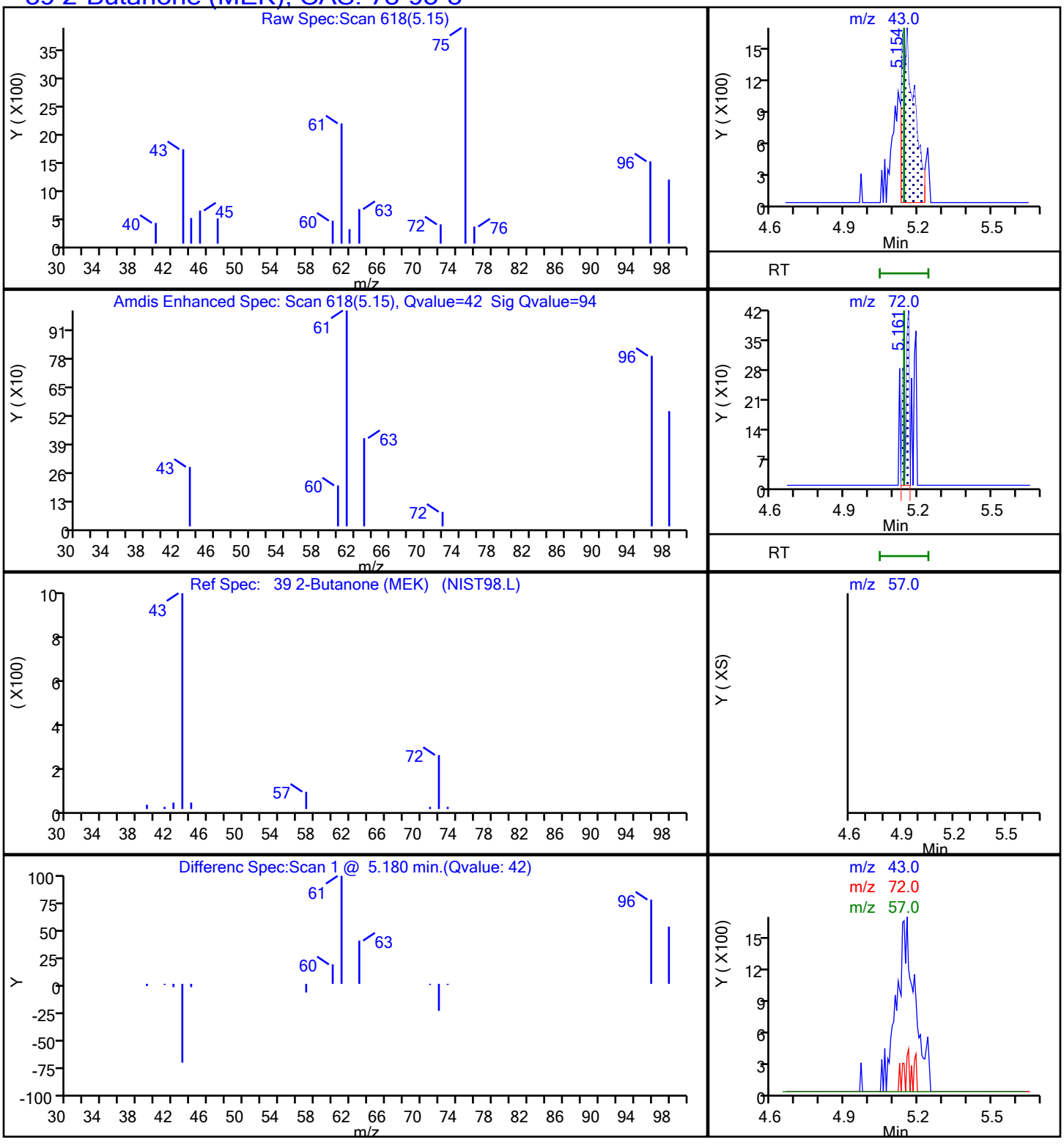
Operator ID: clm27445 ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

39 2-Butanone (MEK), CAS: 78-93-3

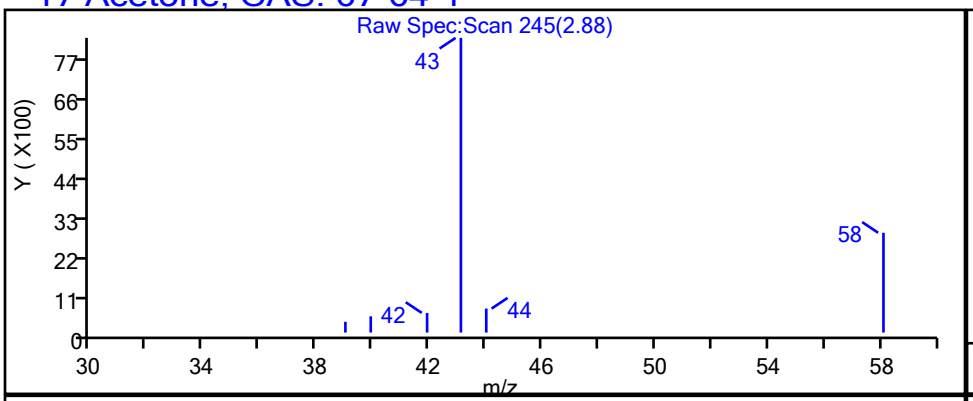


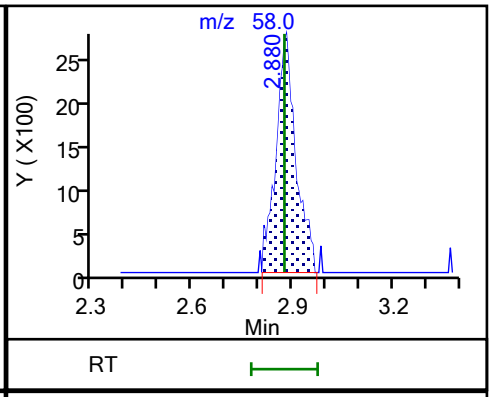
Report Date: 19-Nov-2020 23:20:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

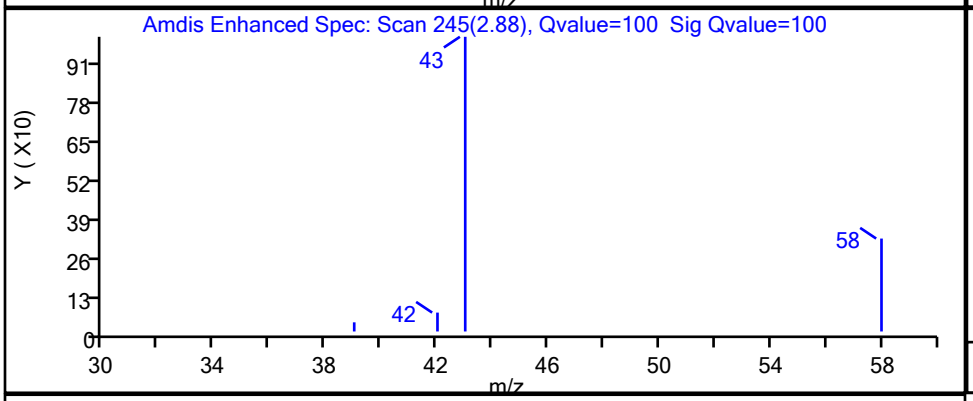
Eurofins Lancaster Laboratories Env, LLC

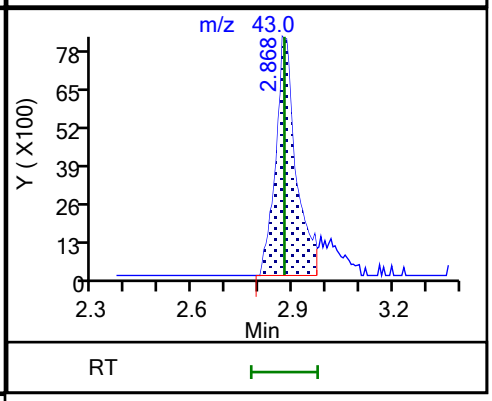
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D				
Injection Date:	18-Nov-2020 15:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-16	Lab Sample ID:	410-20865-16		
Client ID:	RS-07				
Operator ID:	clm27445	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

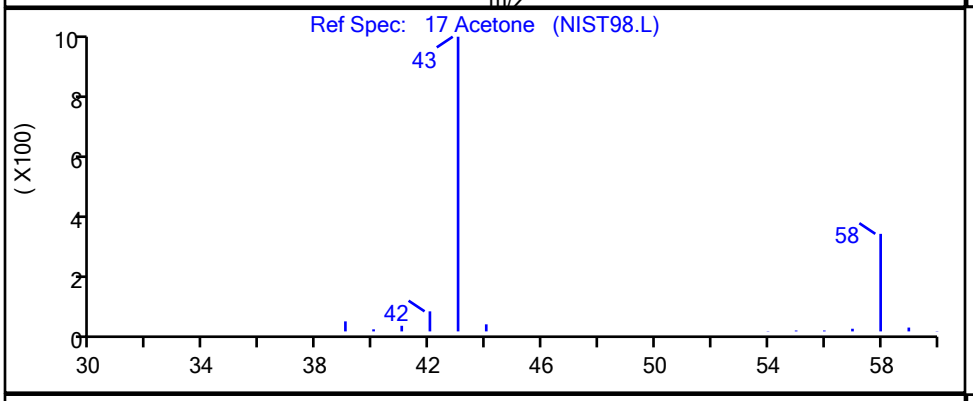
17 Acetone, CAS: 67-64-1

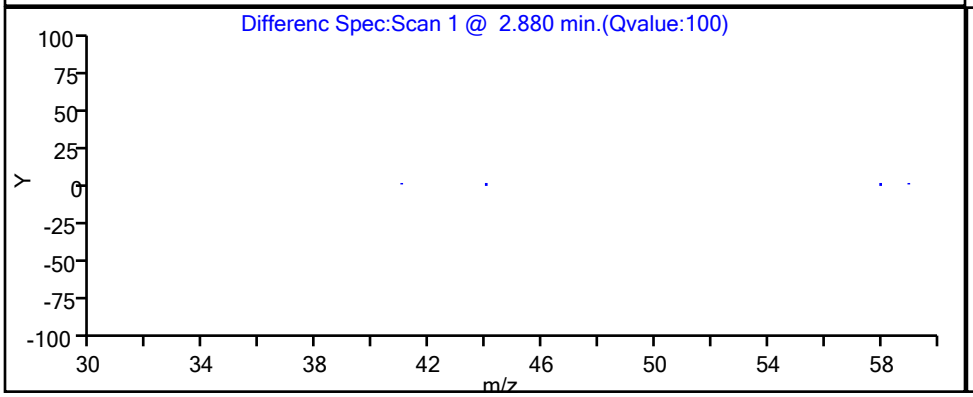


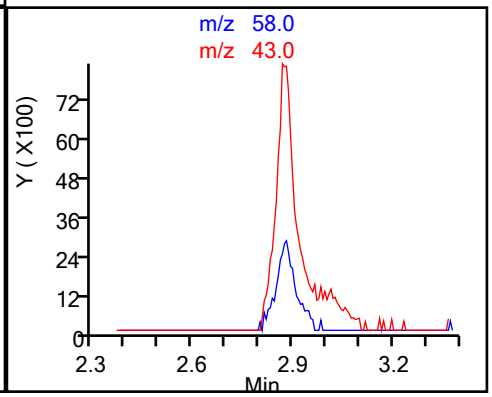








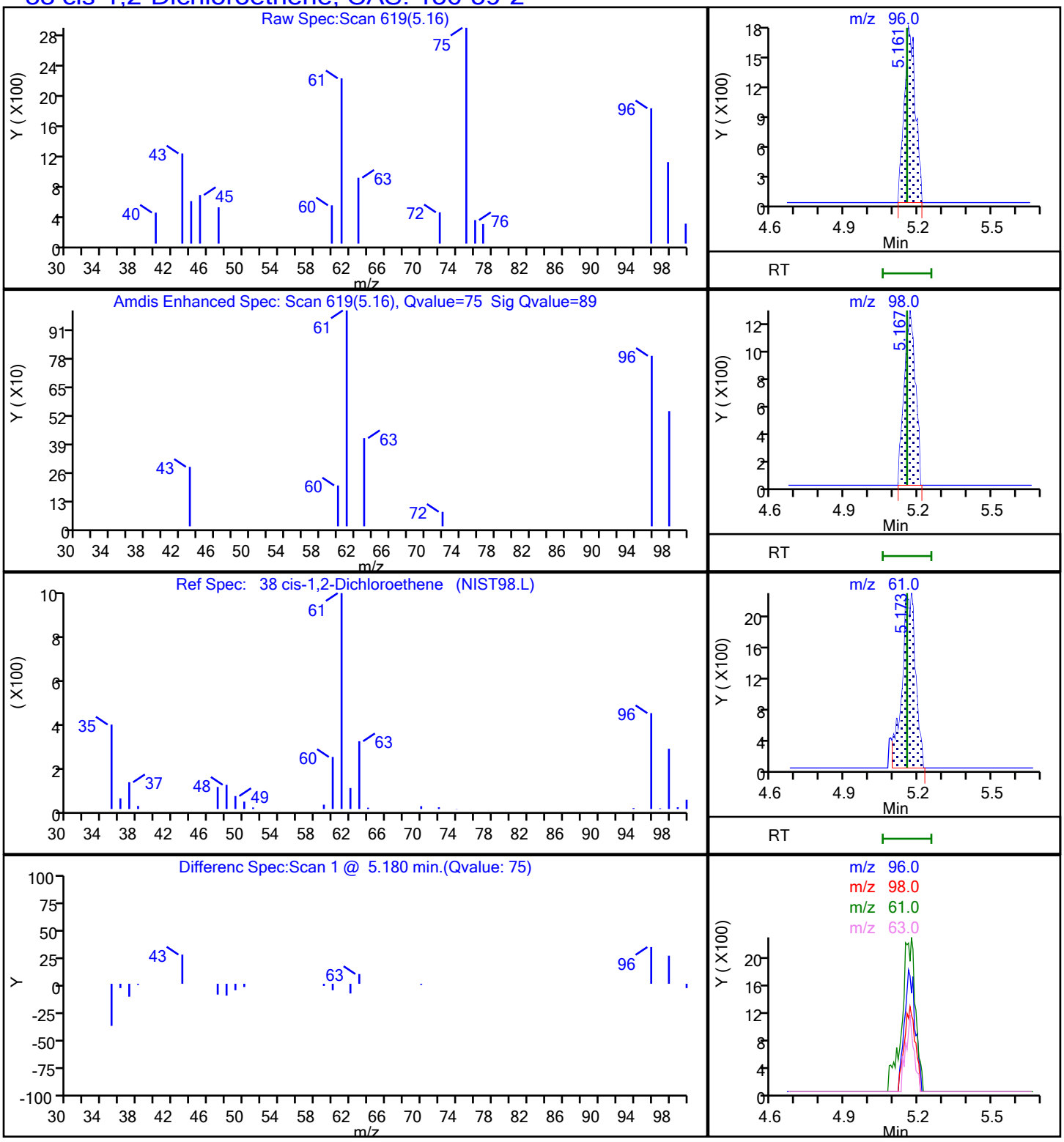




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D				
Injection Date:	18-Nov-2020 15:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-16	Lab Sample ID:	410-20865-16		
Client ID:	RS-07				
Operator ID:	clm27445	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

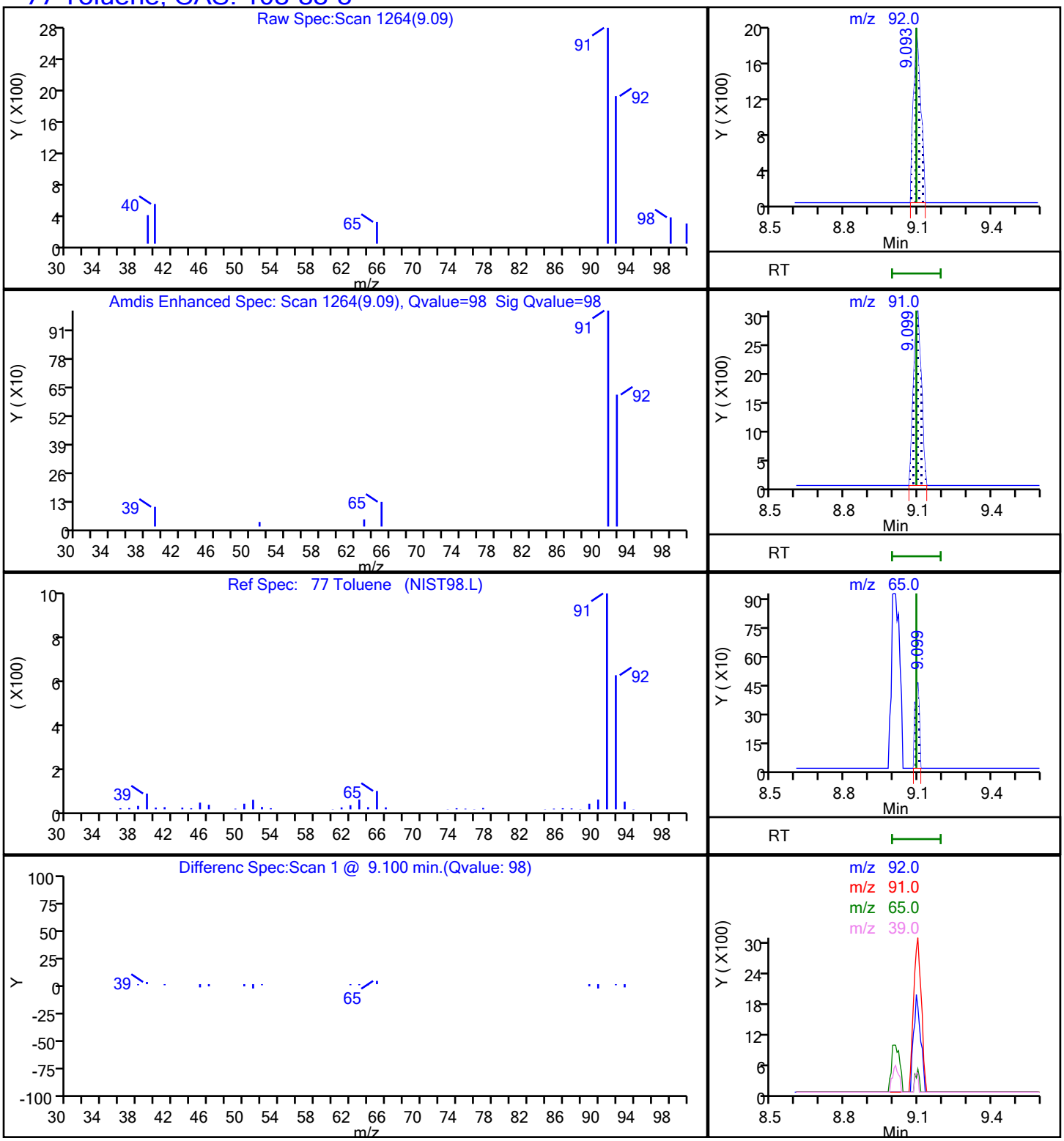


Report Date: 19-Nov-2020 23:20:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D				
Injection Date:	18-Nov-2020 15:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-16	Lab Sample ID:	410-20865-16		
Client ID:	RS-07				
Operator ID:	clm27445	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

77 Toluene, CAS: 108-88-3



Report Date: 19-Nov-2020 23:20:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S10.D

Injection Date: 18-Nov-2020 15:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-16 Lab Sample ID: 410-20865-16

Client ID: RS-07

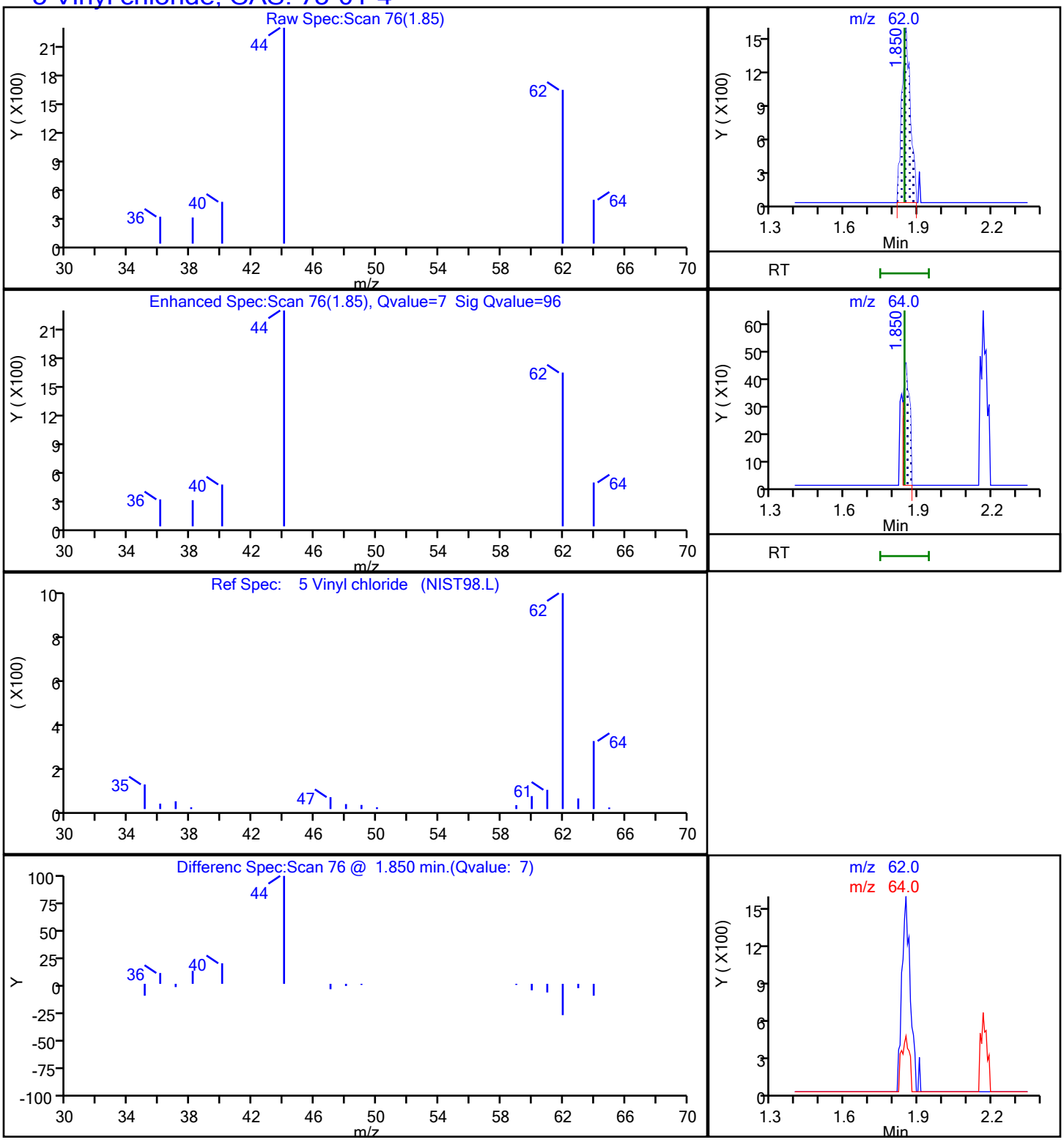
Operator ID: clm27445 ALS Bottle#: 15 Worklist Smp#: 16

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Vinyl chloride, CAS: 75-01-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-14 Lab Sample ID: 410-20865-17

Matrix: Water Lab File ID: 5N18S11.D

Analysis Method: 8260C Date Collected: 11/10/2020 14:44

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 15:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	7.2	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S11.D
Lims ID: 410-20865-A-17
Client ID: RS-14
Sample Type: Client
Inject. Date: 18-Nov-2020 15:35:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-017
Misc. Info.: 410-20865-A-17
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:14:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.874	2.874	0.000	99	7260	7.22	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	7
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	97	353629	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	276441	47.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	97	62747	49.4	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1115823	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1059562	50.2	
77 Toluene	92	9.093	9.093	0.000	97	1898	0.1181	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	838965	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	398350	46.7	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	447504	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

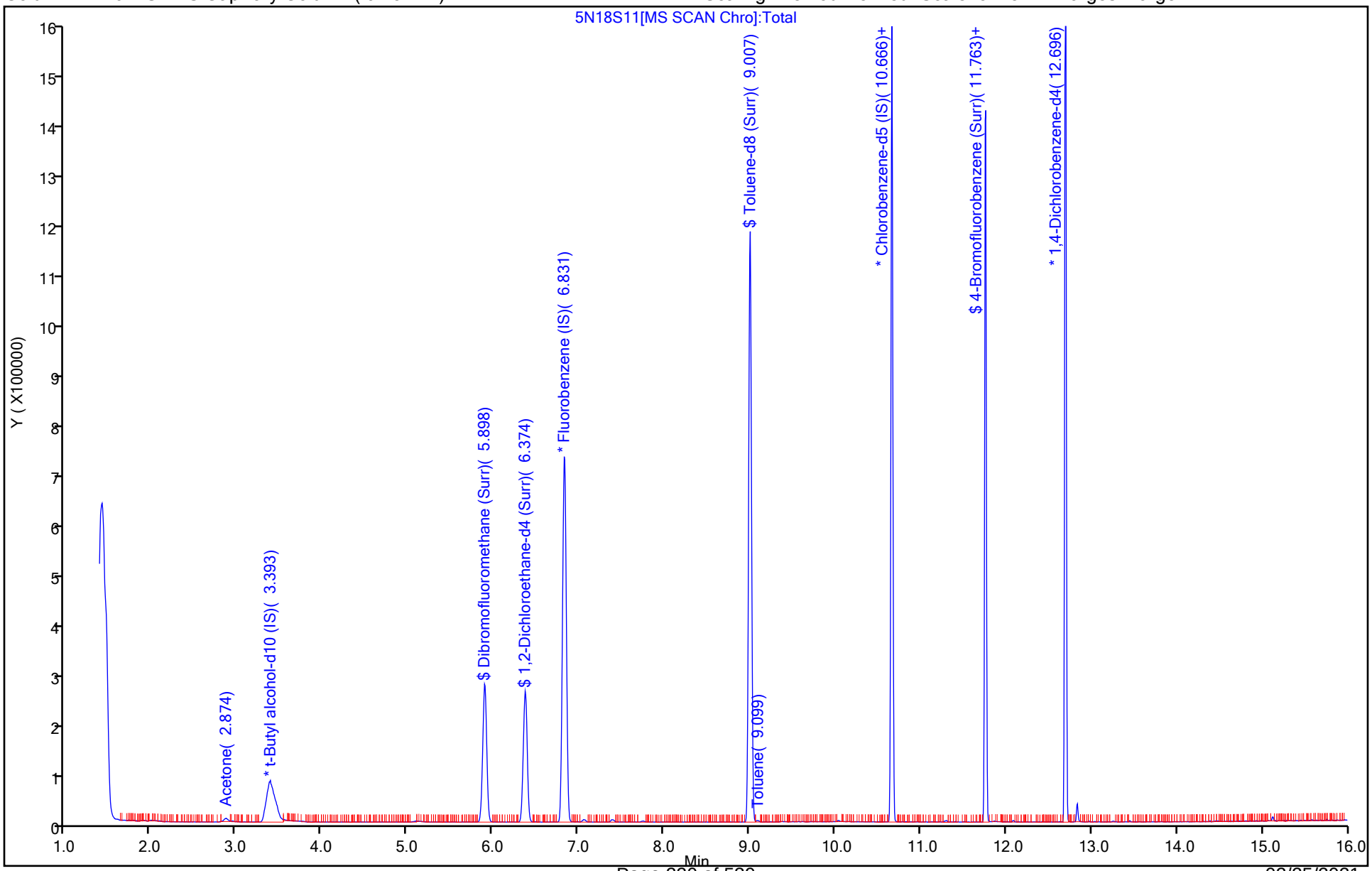
Report Date: 19-Nov-2020 23:20:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S11.D

Injection Date:	18-Nov-2020 15:35:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-17	Lab Sample ID:	410-20865-17	Worklist Smp#:	17
Client ID:	RS-14				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

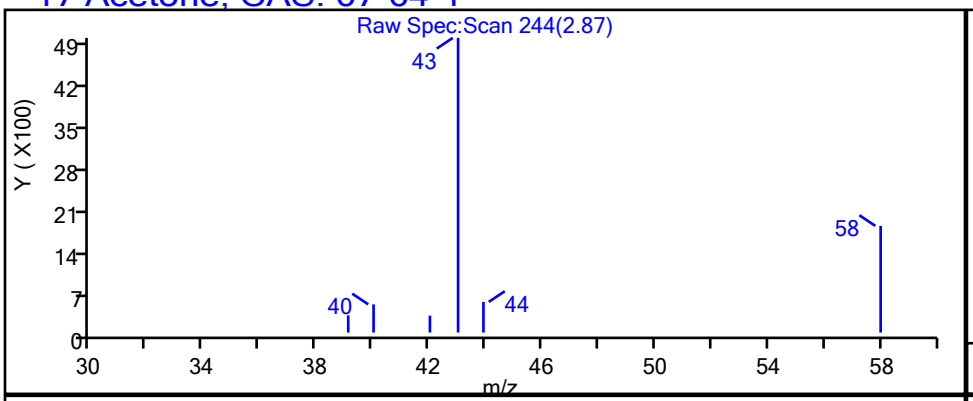


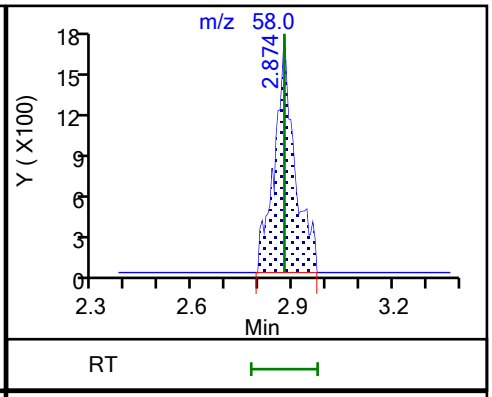
Report Date: 19-Nov-2020 23:20:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

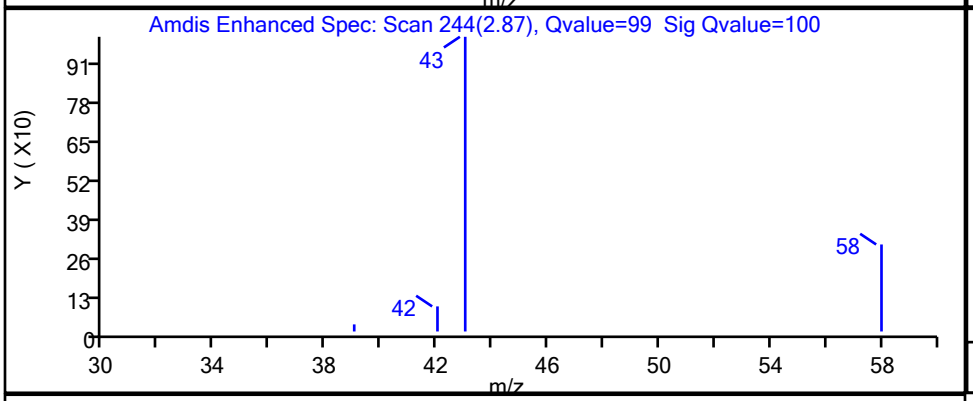
Eurofins Lancaster Laboratories Env, LLC

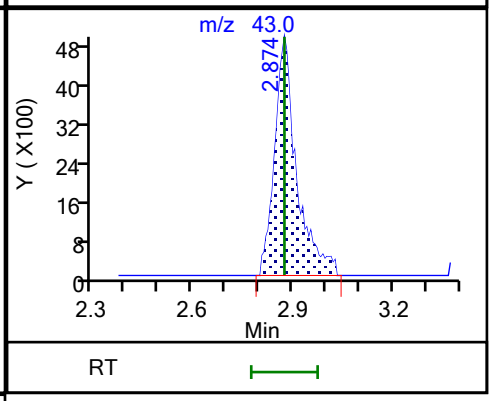
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S11.D				
Injection Date:	18-Nov-2020 15:35:30	Instrument ID:	26285		
Lims ID:	410-20865-A-17	Lab Sample ID:	410-20865-17		
Client ID:	RS-14				
Operator ID:	clm27445	ALS Bottle#:	16	Worklist Smp#:	17
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

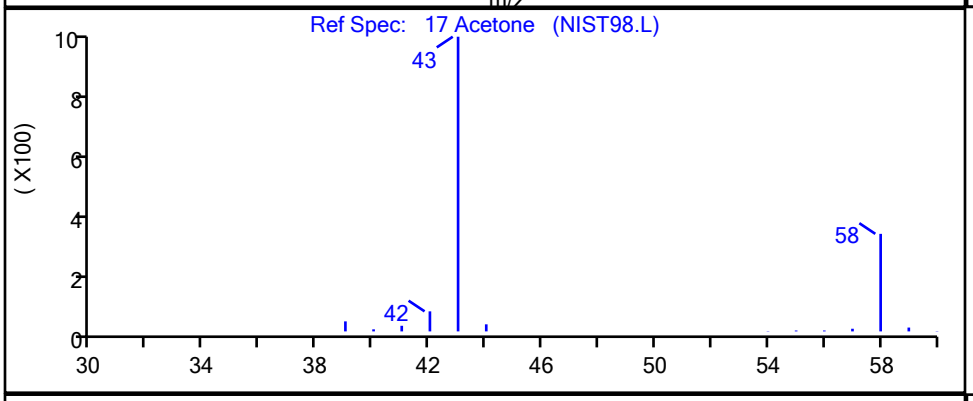
17 Acetone, CAS: 67-64-1

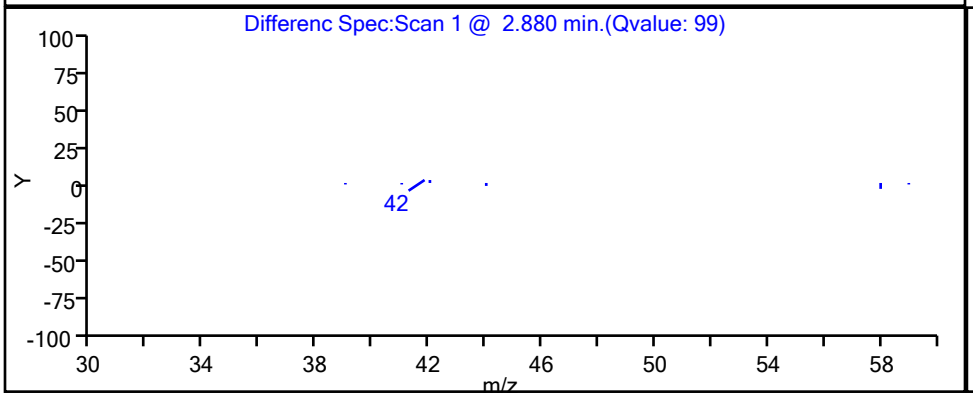


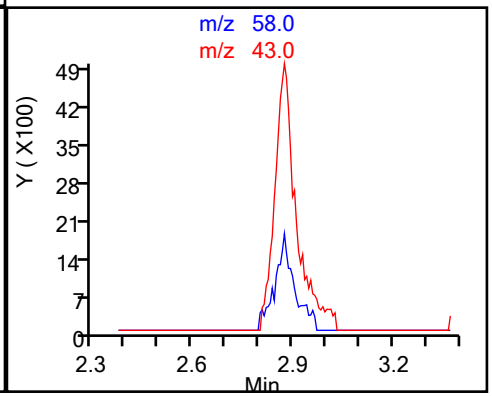












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-08 Lab Sample ID: 410-20865-18

Matrix: Water Lab File ID: 5N18S12.D

Analysis Method: 8260C Date Collected: 11/10/2020 15:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 15:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	3.6	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S12.D
Lims ID: 410-20865-A-18
Client ID: RS-08
Sample Type: Client
Inject. Date: 18-Nov-2020 15:55:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-018
Misc. Info.: 410-20865-A-18
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:14:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.868	2.874	-0.006	99	3680	3.55	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.386	3.386	0.000	97	364165	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	272925	47.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	97	63395	50.9	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1094871	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1044146	49.9	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	830677	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	396324	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	438404	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

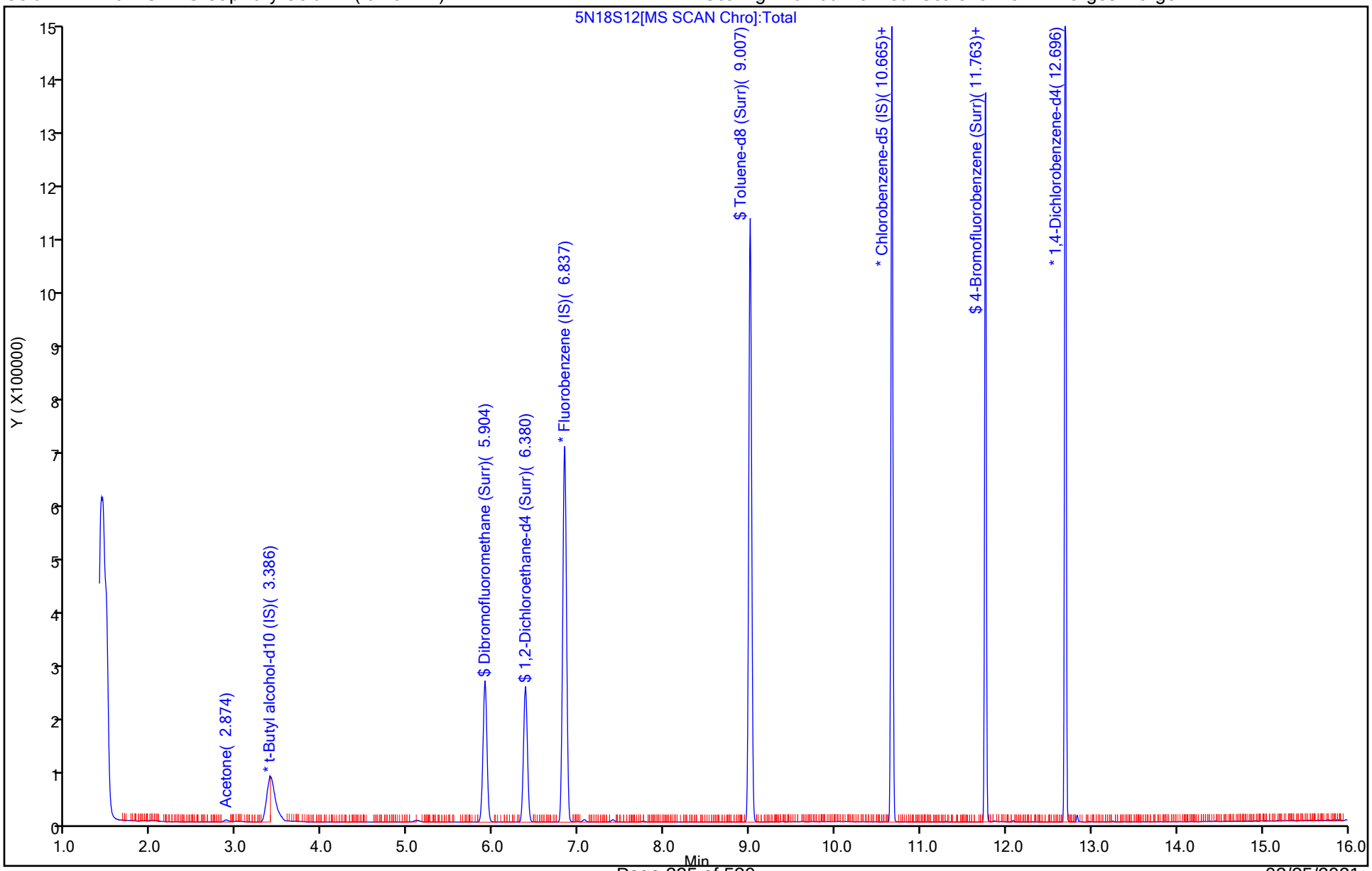
Report Date: 19-Nov-2020 23:20:19 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S12.D

Injection Date:	18-Nov-2020 15:55:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-18	Lab Sample ID:	410-20865-18	Worklist Smp#:	18
Client ID:	RS-08				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

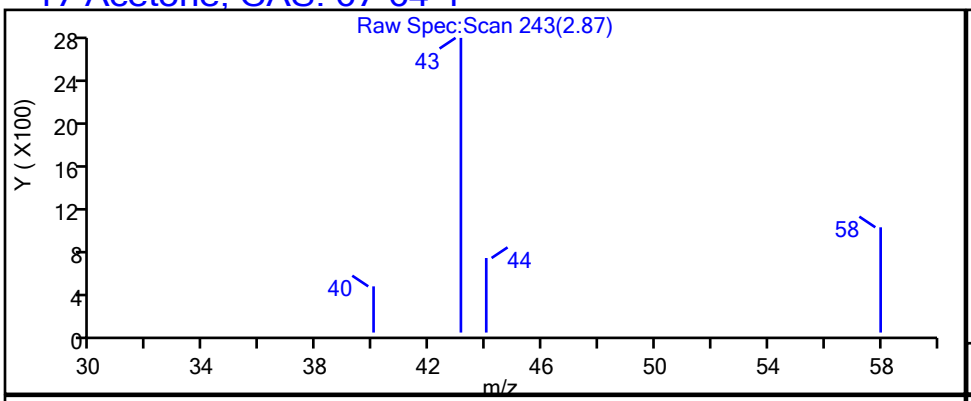
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

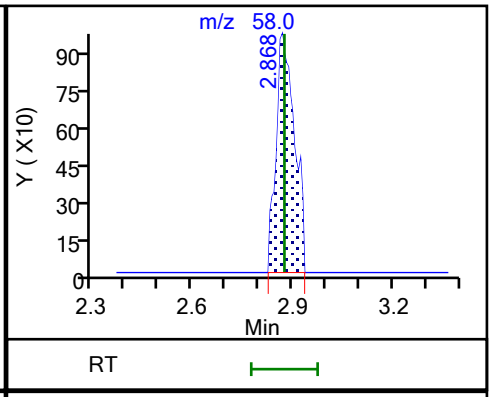


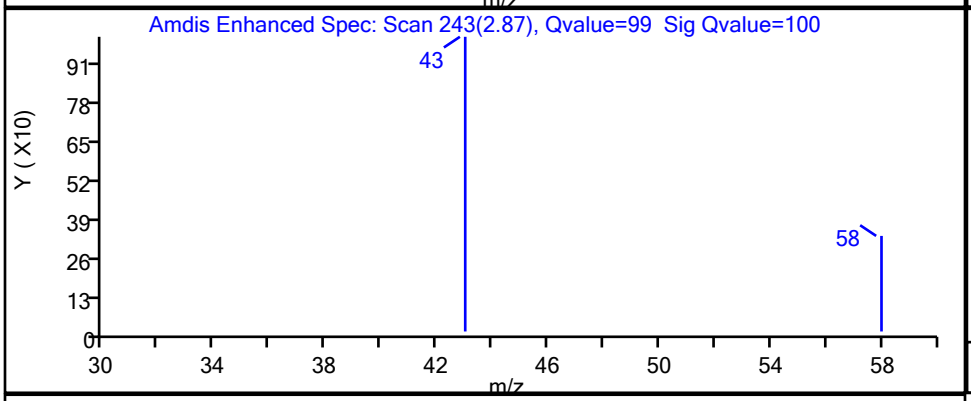
Eurofins Lancaster Laboratories Env, LLC

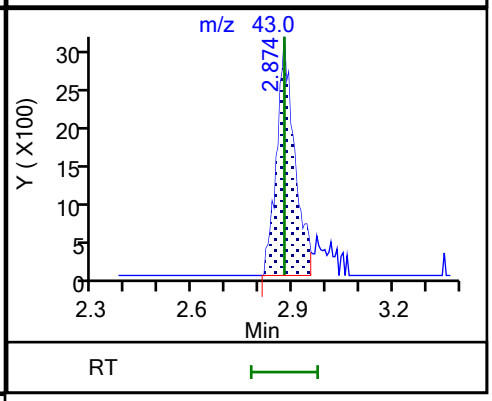
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S12.D				
Injection Date:	18-Nov-2020 15:55:30	Instrument ID:	26285		
Lims ID:	410-20865-A-18	Lab Sample ID:	410-20865-18		
Client ID:	RS-08				
Operator ID:	clm27445	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

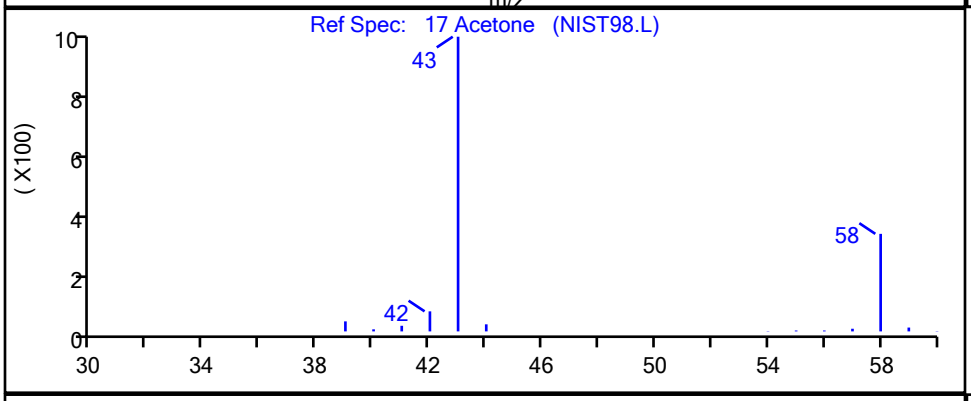
17 Acetone, CAS: 67-64-1

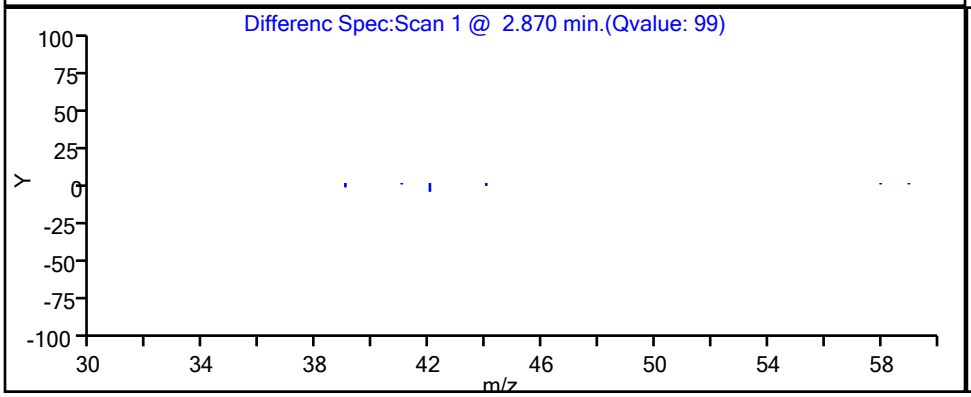


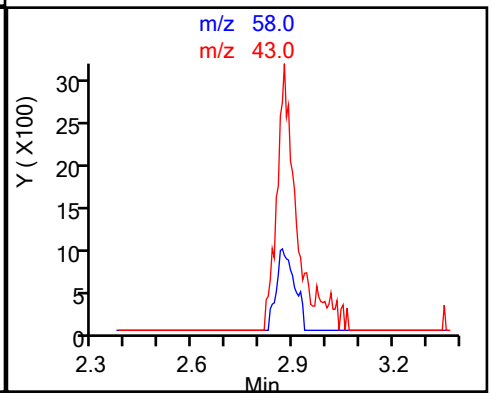












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-BR01 Lab Sample ID: 410-20865-19

Matrix: Water Lab File ID: 5N18S13.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:50

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 16:16

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S13.D
Lims ID: 410-20865-A-19
Client ID: J01-BR01
Sample Type: Client
Inject. Date: 18-Nov-2020 16:16:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-019
Misc. Info.: 410-20865-A-19
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:14:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58		2.874				ND	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.392	3.386	0.006	98	344236	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	273468	47.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	98	63282	50.5	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1102135	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	94	1053879	50.6	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	828210	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	395972	47.0	
* 117 1,4-Dichlorobenzene-d4	152	12.695	12.702	-0.007	94	450146	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

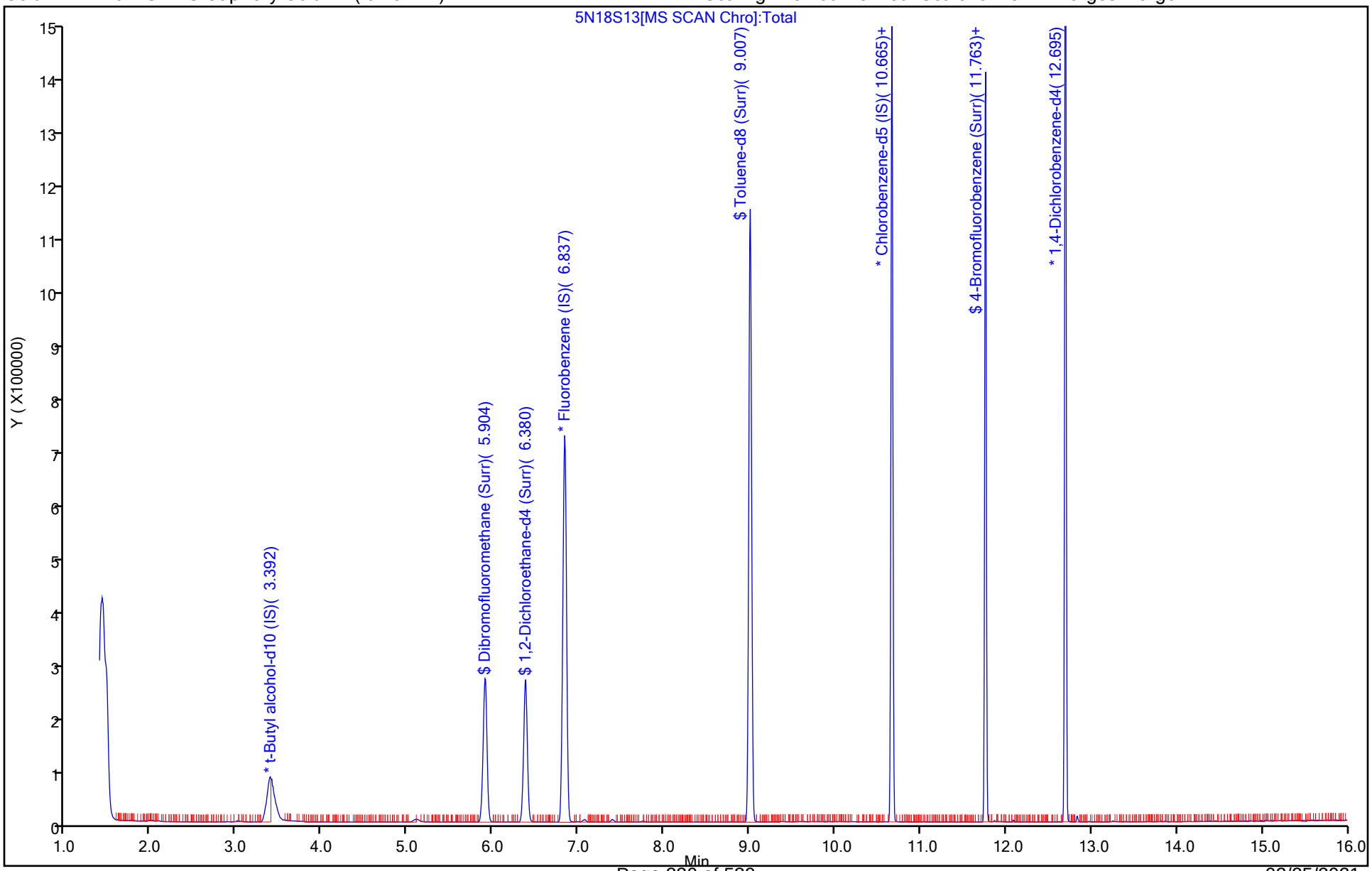
Report Date: 19-Nov-2020 23:20:21 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S13.D

Injection Date:	18-Nov-2020 16:16:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-19	Lab Sample ID:	410-20865-19	Worklist Smp#:	19
Client ID:	J01-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-BR02 Lab Sample ID: 410-20865-20

Matrix: Water Lab File ID: 5N18S14.D

Analysis Method: 8260C Date Collected: 11/10/2020 15:15

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 16:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S14.D
Lims ID: 410-20865-A-20
Client ID: J01-BR02
Sample Type: Client
Inject. Date: 18-Nov-2020 16:36:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-020
Misc. Info.: 410-20865-A-20
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:14:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58		2.874				ND	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	97	323798	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	271506	48.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	98	61591	50.1	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1080450	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	94	1027828	50.9	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	801858	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	385527	47.3	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	428681	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

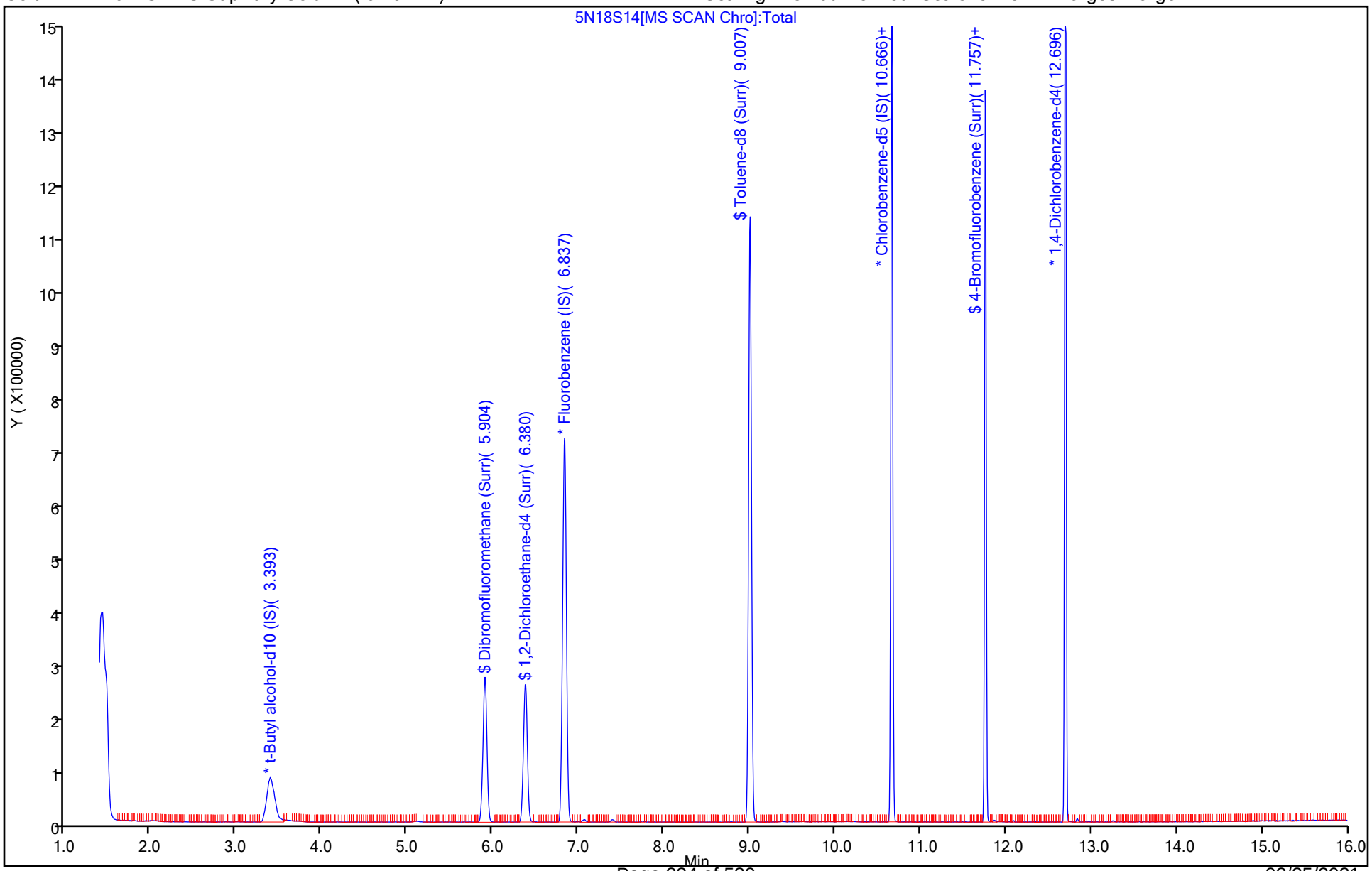
Report Date: 19-Nov-2020 23:20:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S14.D

Injection Date:	18-Nov-2020 16:36:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-20	Lab Sample ID:	410-20865-20	Worklist Smp#:	20
Client ID:	J01-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J04-BR01 Lab Sample ID: 410-20865-21

Matrix: Water Lab File ID: 5N20S20.D

Analysis Method: 8260C Date Collected: 11/11/2020 12:48

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 17:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S20.D
Lims ID: 410-20865-A-21
Client ID: J04-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 17:39:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-027
Misc. Info.: 410-20865-A-21
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 08:03:53 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1673

First Level Reviewer: beckerk Date: 21-Nov-2020 08:03:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.856				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.893				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.429	3.417	0.012	97	314911	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.953	5.935	0.018	94	279689	48.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.423	6.410	0.012	97	64505	51.1	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.874	6.861	0.013	99	1109496	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.026	9.013	0.013	93	1053419	49.9	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	85	838260	50.0	
93 Ethylbenzene	91		10.781				ND	
94 m-Xylene & p-Xylene	106		10.909				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.263				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.732	11.732	0.000	95	395992	46.5	
* 117 1,4-Dichlorobenzene-d4	152	12.659	12.665	-0.006	94	448124	50.0	
125 1,2-Dichlorobenzene	146		12.952				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.269				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

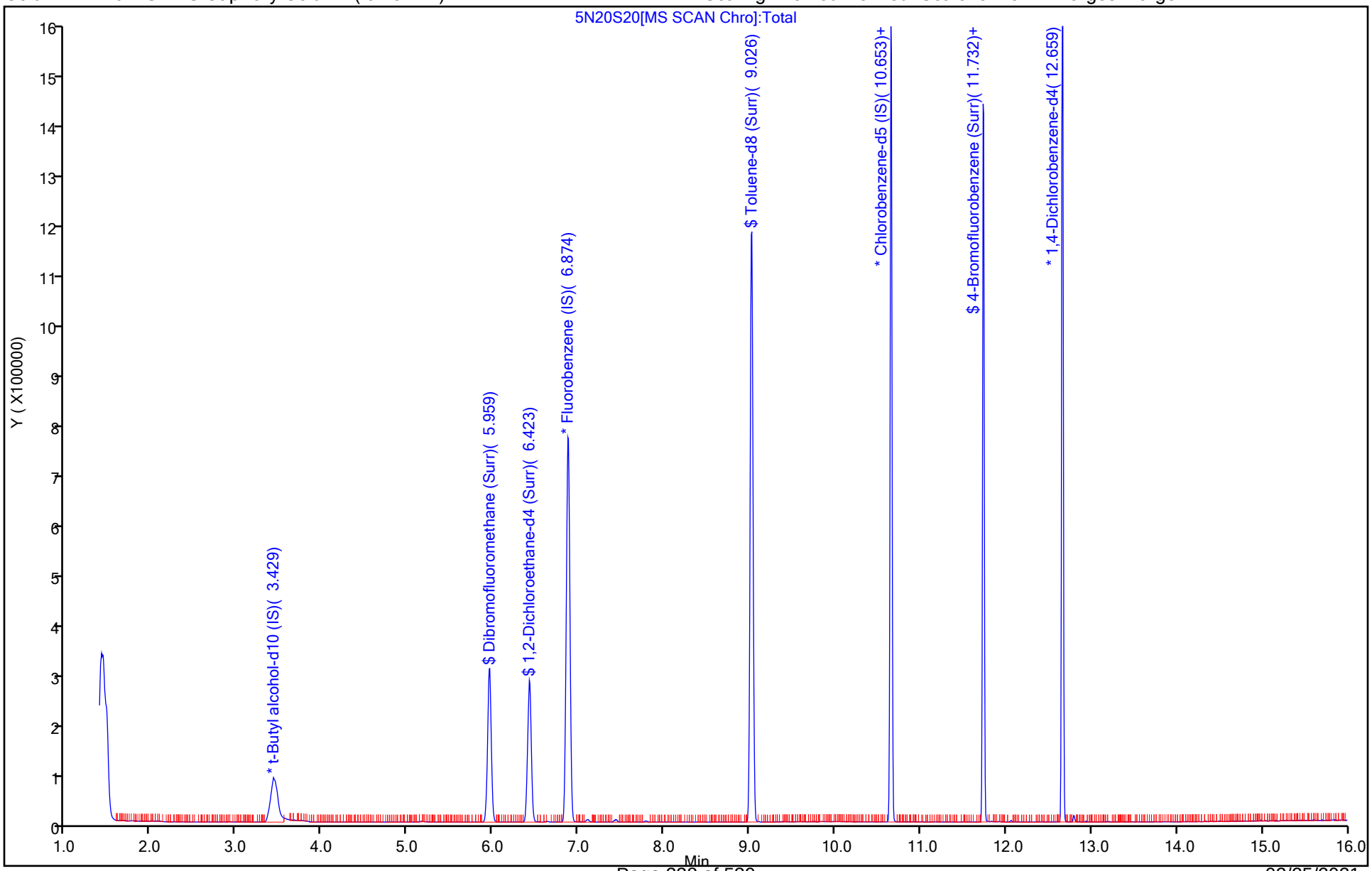
Report Date: 21-Nov-2020 08:04:54 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S20.D

Injection Date:	20-Nov-2020 17:39:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	410-20865-A-21	Lab Sample ID:	410-20865-21	Worklist Smp#:	27
Client ID:	J04-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J05-BR01 Lab Sample ID: 410-20865-22

Matrix: Water Lab File ID: 5N20S21.D

Analysis Method: 8260C Date Collected: 11/11/2020 15:52

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 17:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	1.5		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.40	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S21.D
Lims ID: 410-20865-A-22
Client ID: J05-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 17:59:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-028
Misc. Info.: 410-20865-A-22
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 08:03:53 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1673

First Level Reviewer: beckerk Date: 21-Nov-2020 08:03:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.856				ND	
19 1,1-Dichloroethene	96		2.868				ND	7
17 Acetone	58		2.893				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	7
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.441	3.417	0.024	97	348969	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63	4.362	4.338	0.024	94	15847	1.47	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.959	5.935	0.024	94	276573	48.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.429	6.410	0.019	97	62107	49.7	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.880	6.861	0.019	99	1098714	50.0	
62 Trichloroethene	95	7.374	7.361	0.013	89	2675	0.4002	Ma
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.026	9.013	0.013	93	1039984	50.0	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	85	826599	50.0	
93 Ethylbenzene	91		10.781				ND	
94 m-Xylene & p-Xylene	106		10.909				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.263				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.732	11.732	0.000	96	392220	46.7	
* 117 1,4-Dichlorobenzene-d4	152	12.659	12.665	-0.006	94	446748	50.0	
125 1,2-Dichlorobenzene	146		12.952				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.269				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

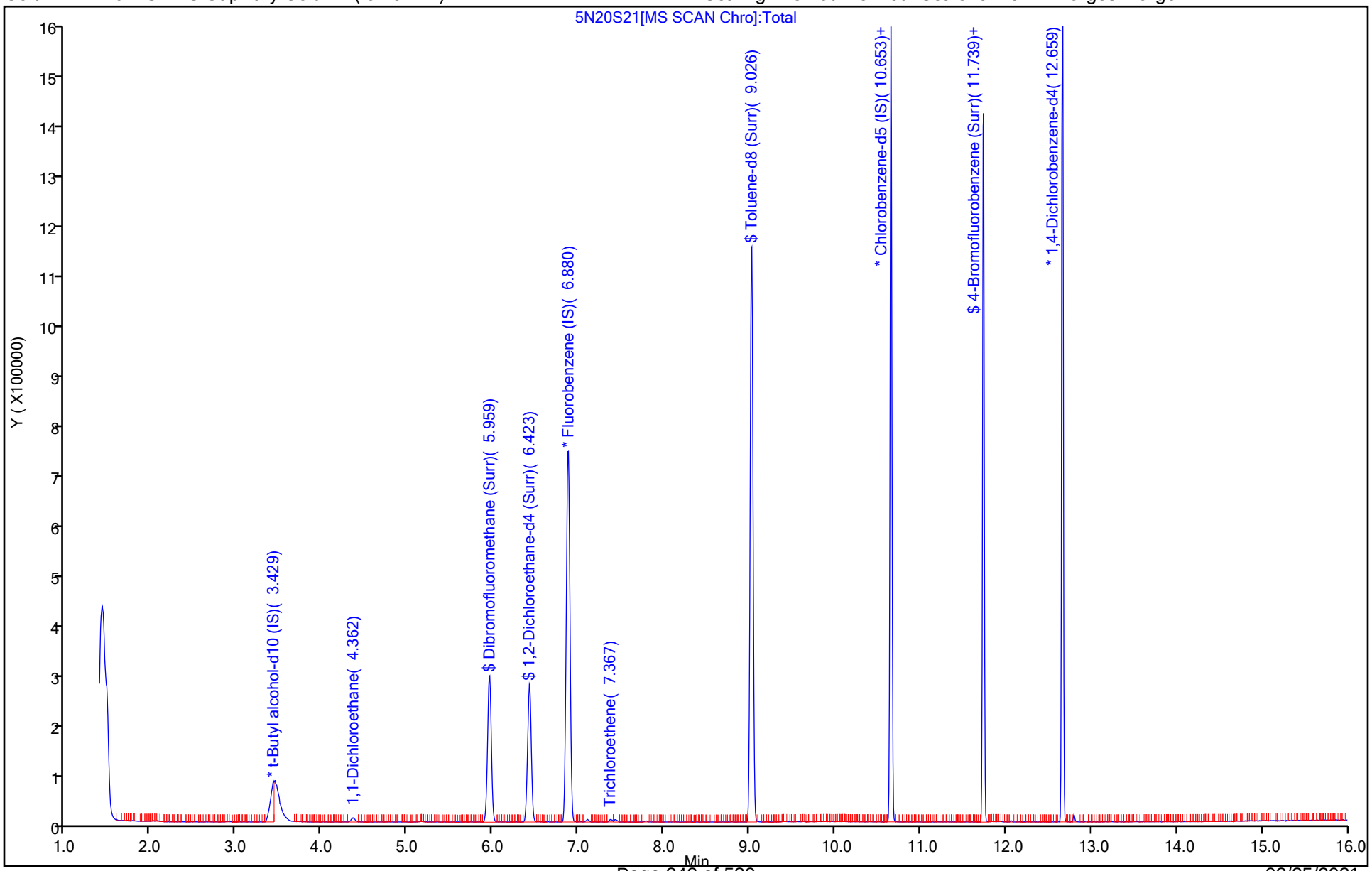
Report Date: 21-Nov-2020 08:04:55 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S21.D

Injection Date:	20-Nov-2020 17:59:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	410-20865-A-22	Lab Sample ID:	410-20865-22	Worklist Smp#:	28
Client ID:	J05-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

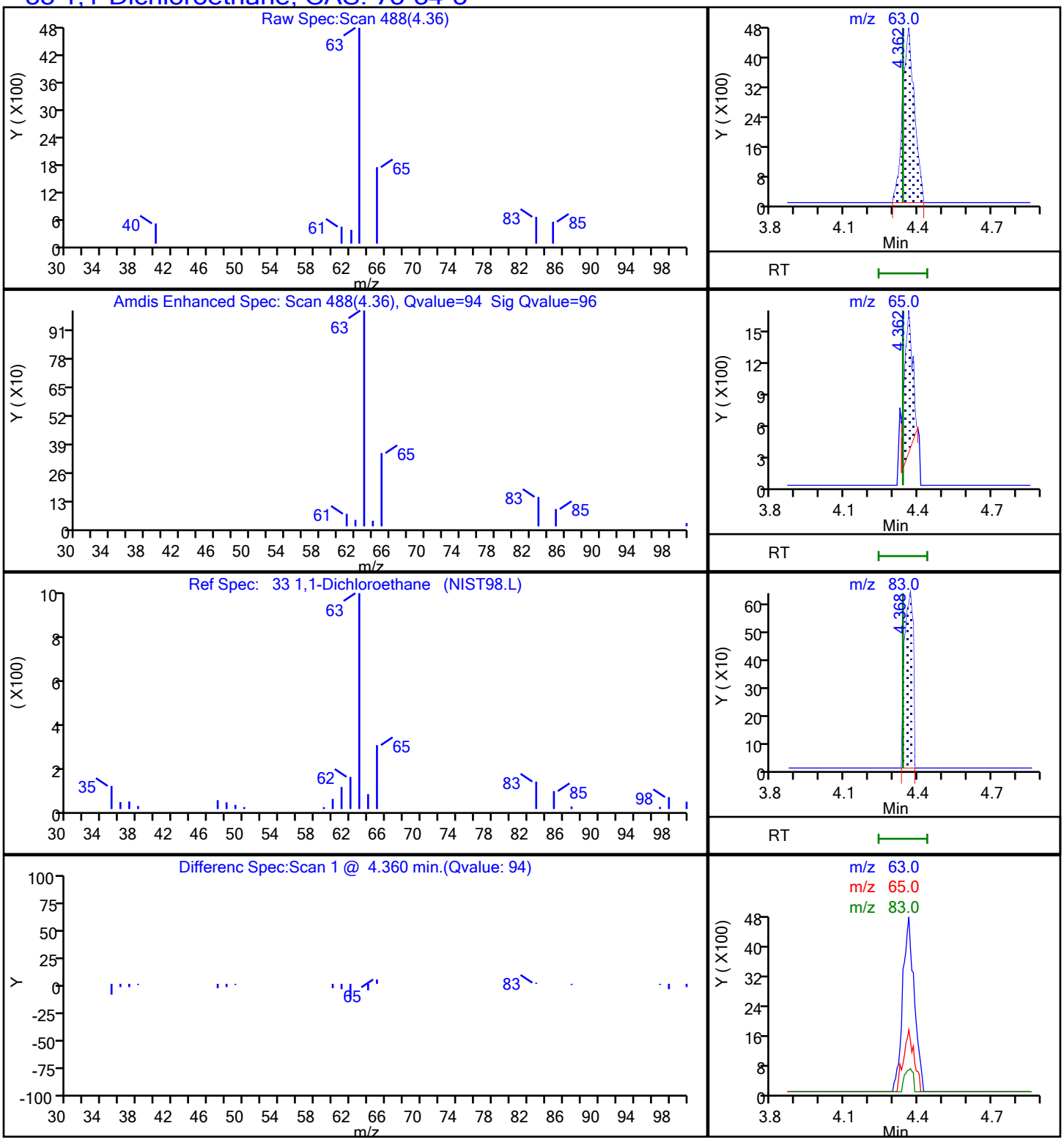
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S21.D				
Injection Date:	20-Nov-2020 17:59:30	Instrument ID:	26285		
Lims ID:	410-20865-A-22	Lab Sample ID:	410-20865-22		
Client ID:	J05-BR01				
Operator ID:	CLM27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3

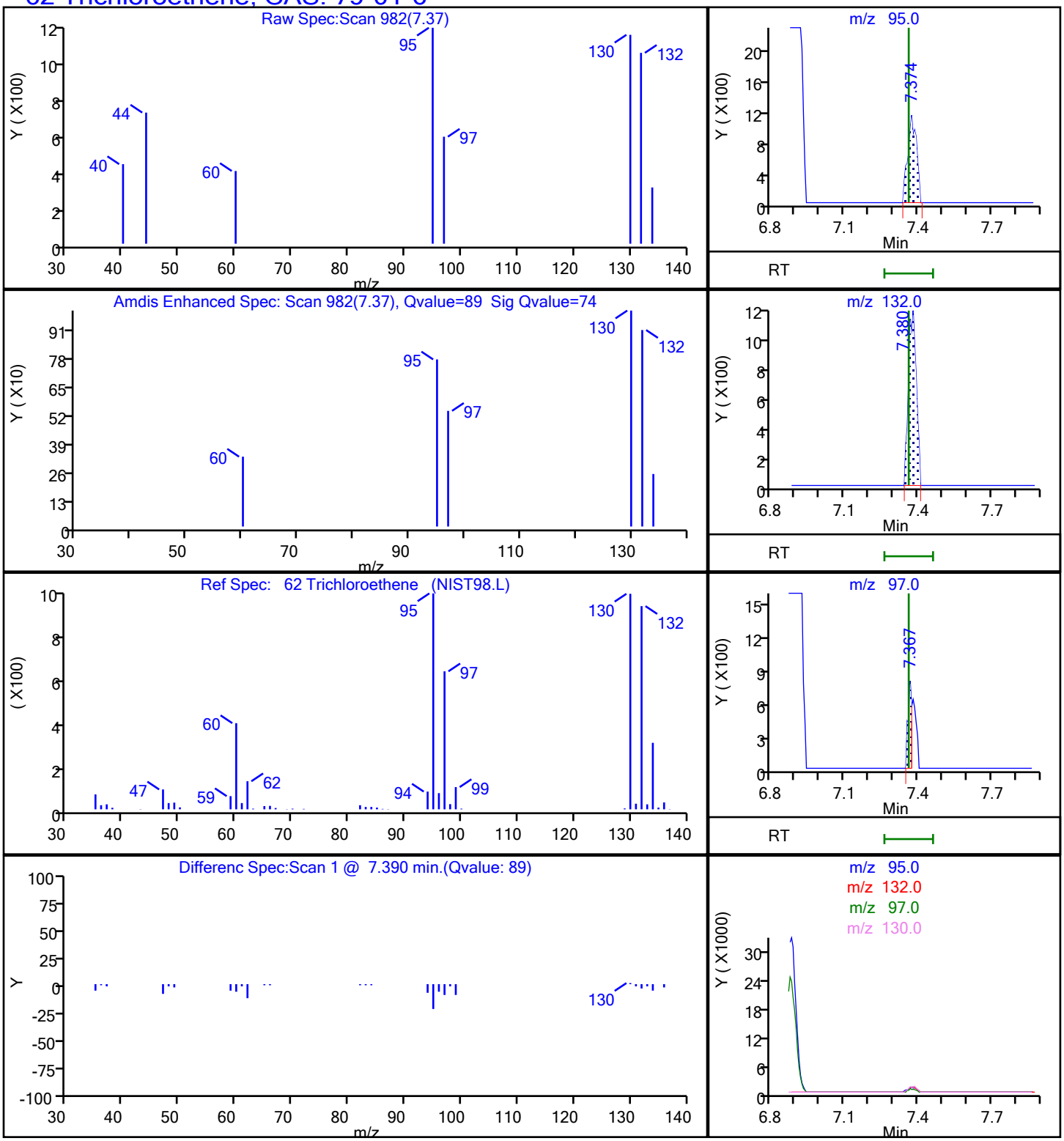


Report Date: 21-Nov-2020 08:04:55 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S21.D				
Injection Date:	20-Nov-2020 17:59:30	Instrument ID:	26285		
Lims ID:	410-20865-A-22	Lab Sample ID:	410-20865-22		
Client ID:	J05-BR01				
Operator ID:	CLM27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

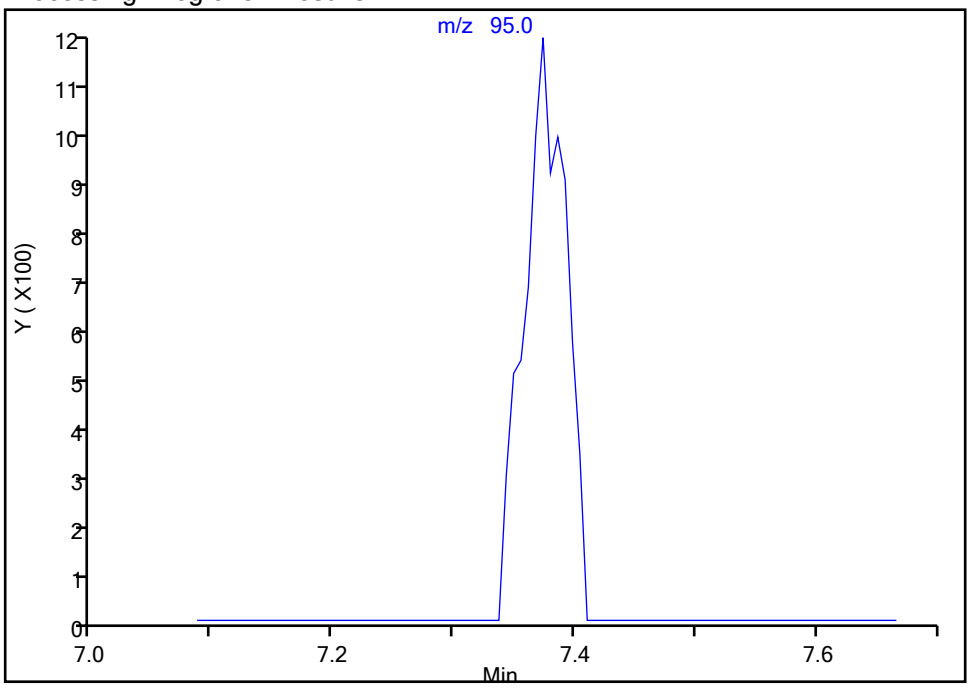
Data File:	\\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S21.D				
Injection Date:	20-Nov-2020 17:59:30	Instrument ID:	26285		
Lims ID:	410-20865-A-22	Lab Sample ID:	410-20865-22		
Client ID:	J05-BR01				
Operator ID:	CLM27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6

Signal: 1

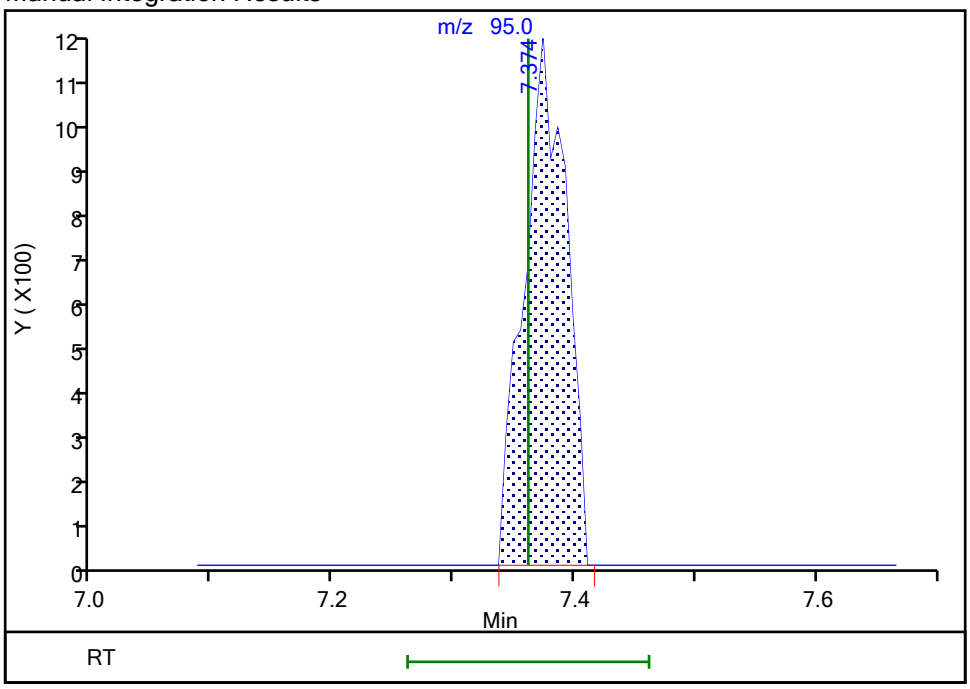
Not Detected
Expected RT: 7.36

Processing Integration Results



Manual Integration Results

RT: 7.37
Area: 2675
Amount: 0.400177
Amount Units: ug/l



Reviewer: beckerk, 21-Nov-2020 08:03:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J12-BR01 Lab Sample ID: 410-20865-23

Matrix: Water Lab File ID: 5N20S22.D

Analysis Method: 8260C Date Collected: 11/12/2020 09:26

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 18:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S22.D
Lims ID: 410-20865-A-23
Client ID: J12-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 18:19:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-029
Misc. Info.: 410-20865-A-23
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 08:03:53 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1673

First Level Reviewer: beckerk Date: 21-Nov-2020 08:04:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.856				ND	
19 1,1-Dichloroethene	96		2.868				ND	
17 Acetone	58		2.893				ND	
18 112TCTFE	101		2.905				ND	
22 Carbon disulfide	76		3.112				ND	
26 Methylene Chloride	84		3.405				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.435	3.417	0.018	97	337705	250.0	
31 trans-1,2-Dichloroethene	96		3.734				ND	
33 1,1-Dichloroethane	63		4.338				ND	
39 2-Butanone (MEK)	43		5.185				ND	
38 cis-1,2-Dichloroethene	96		5.203				ND	
46 Chloroform	83		5.709				ND	
48 1,1,1-Trichloroethane	97		5.929				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.959	5.935	0.024	94	274022	48.2	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.422	6.410	0.012	85	63547	51.1	
53 Benzene	78		6.429				ND	
55 1,2-Dichloroethane	62		6.514				ND	7
* 59 Fluorobenzene (IS)	96	6.880	6.861	0.019	99	1092504	50.0	
62 Trichloroethene	95		7.361				ND	
68 1,4-Dioxane	88		7.806				ND	
$ 76 Toluene-d8 (Surr)	98	9.020	9.013	0.007	93	1040640	50.1	
77 Toluene	92		9.105				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	85	825295	50.0	
93 Ethylbenzene	91		10.781				ND	
94 m-Xylene & p-Xylene	106		10.909				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.263				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.732	11.732	0.000	95	391480	46.7	
* 117 1,4-Dichlorobenzene-d4	152	12.659	12.665	-0.006	94	441918	50.0	
125 1,2-Dichlorobenzene	146		12.952				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.269				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

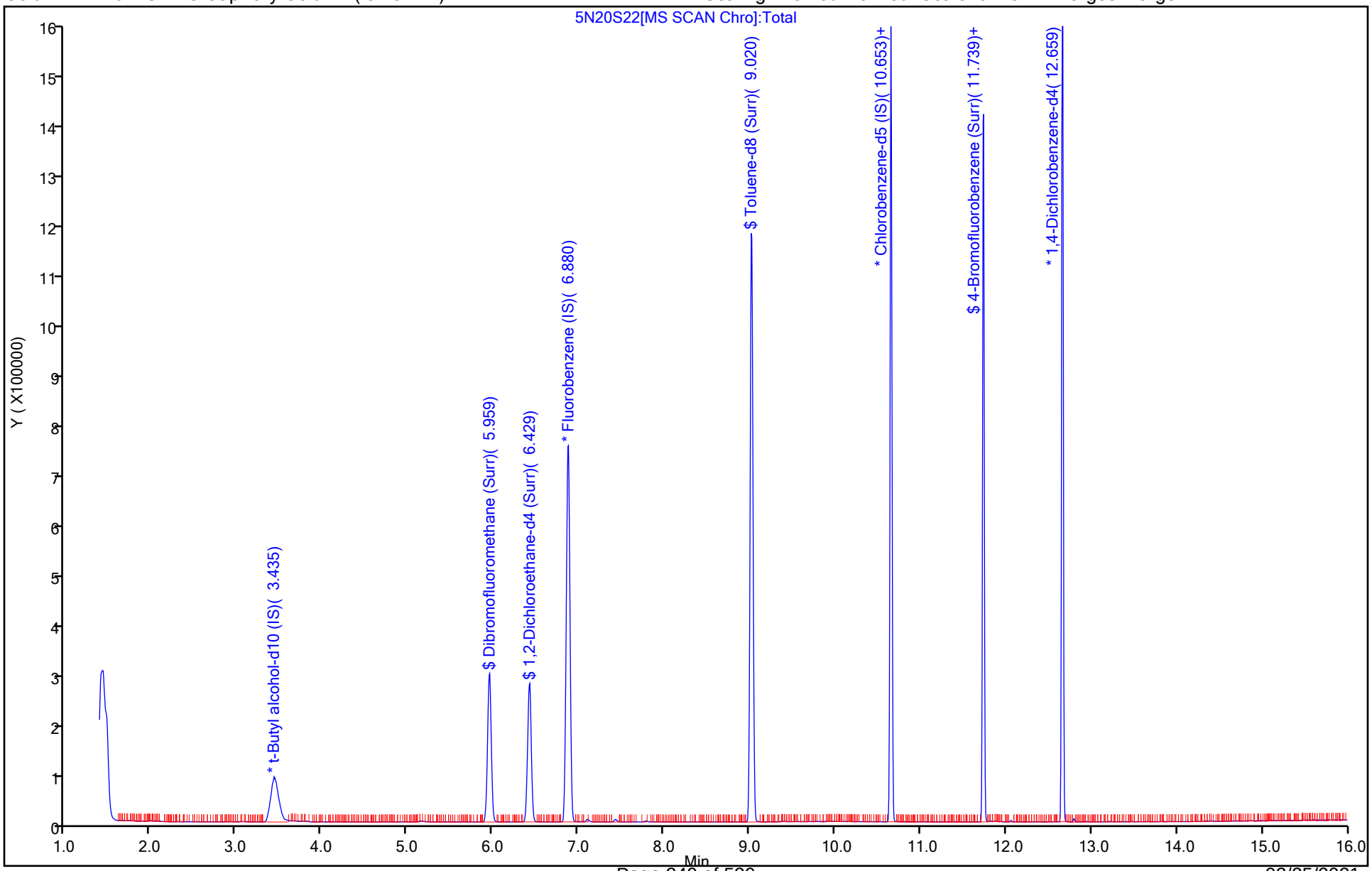
Report Date: 21-Nov-2020 08:04:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20S22.D

Injection Date:	20-Nov-2020 18:19:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	410-20865-A-23	Lab Sample ID:	410-20865-23	Worklist Smp#:	29
Client ID:	J12-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: PDB Blank Lab Sample ID: 410-20865-24

Matrix: Water Lab File ID: 5N18S02.D

Analysis Method: 8260C Date Collected: 11/10/2020 10:20

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 12:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	1.1	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S02.D
Lims ID: 410-20865-A-24
Client ID: PDB Blank
Sample Type: Client
Inject. Date: 18-Nov-2020 12:34:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-008
Misc. Info.: 410-20865-A-24
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:09:15

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.862	2.874	-0.012	98	1174	1.14	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	7
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.006	97	362060	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.910	5.898	0.012	94	279513	47.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.392	6.374	0.018	97	64196	49.9	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.849	6.831	0.018	99	1132284	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.026	9.007	0.019	94	1082280	50.5	
77 Toluene	92		9.093				ND	7
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.684	10.666	0.018	85	851597	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	7
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.775	11.763	0.012	95	406483	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.708	12.702	0.006	94	452711	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

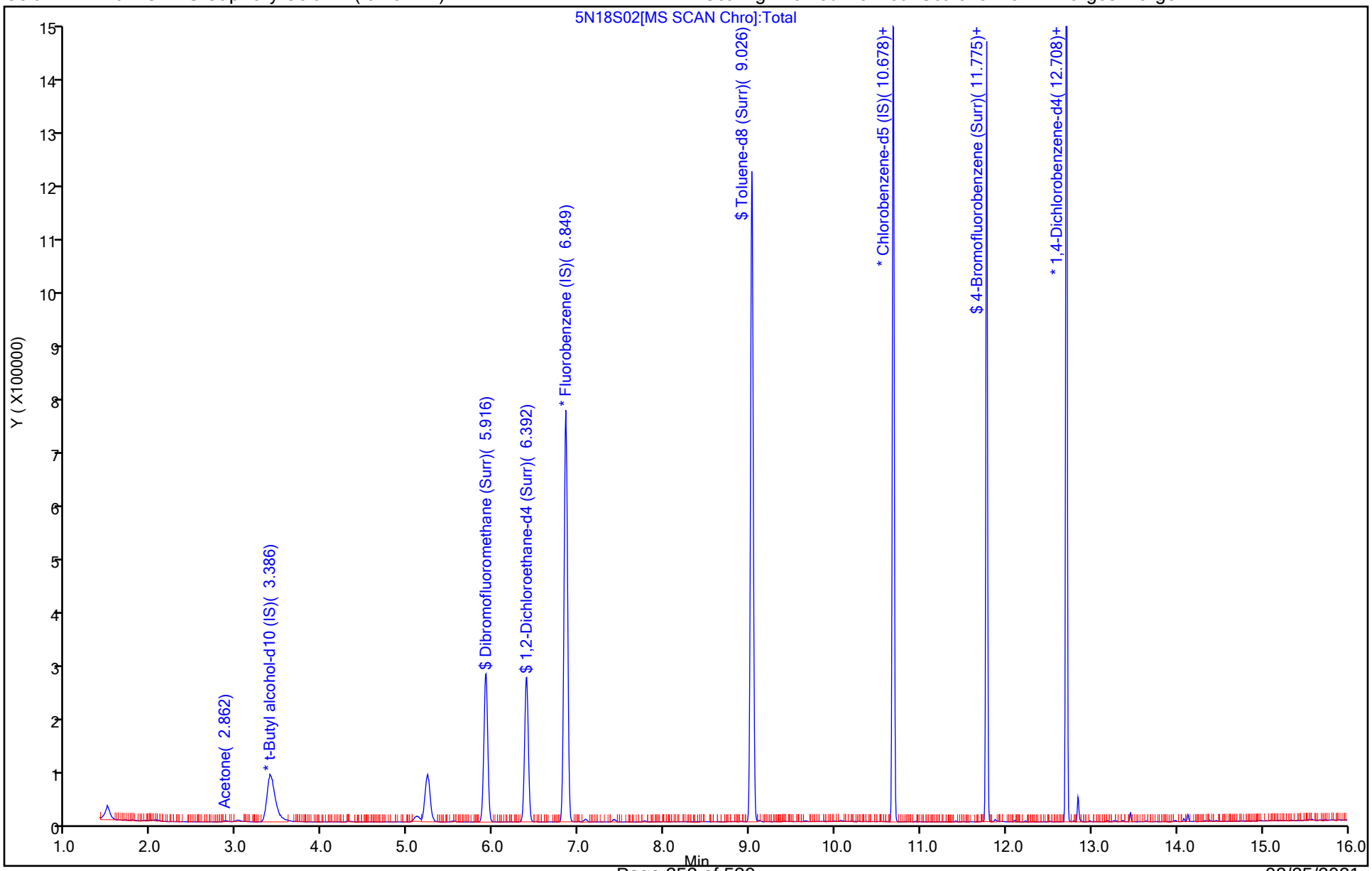
Report Date: 19-Nov-2020 23:19:59 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S02.D

Injection Date:	18-Nov-2020 12:34:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-24	Lab Sample ID:	410-20865-24	Worklist Smp#:	8
Client ID:	PDB Blank				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

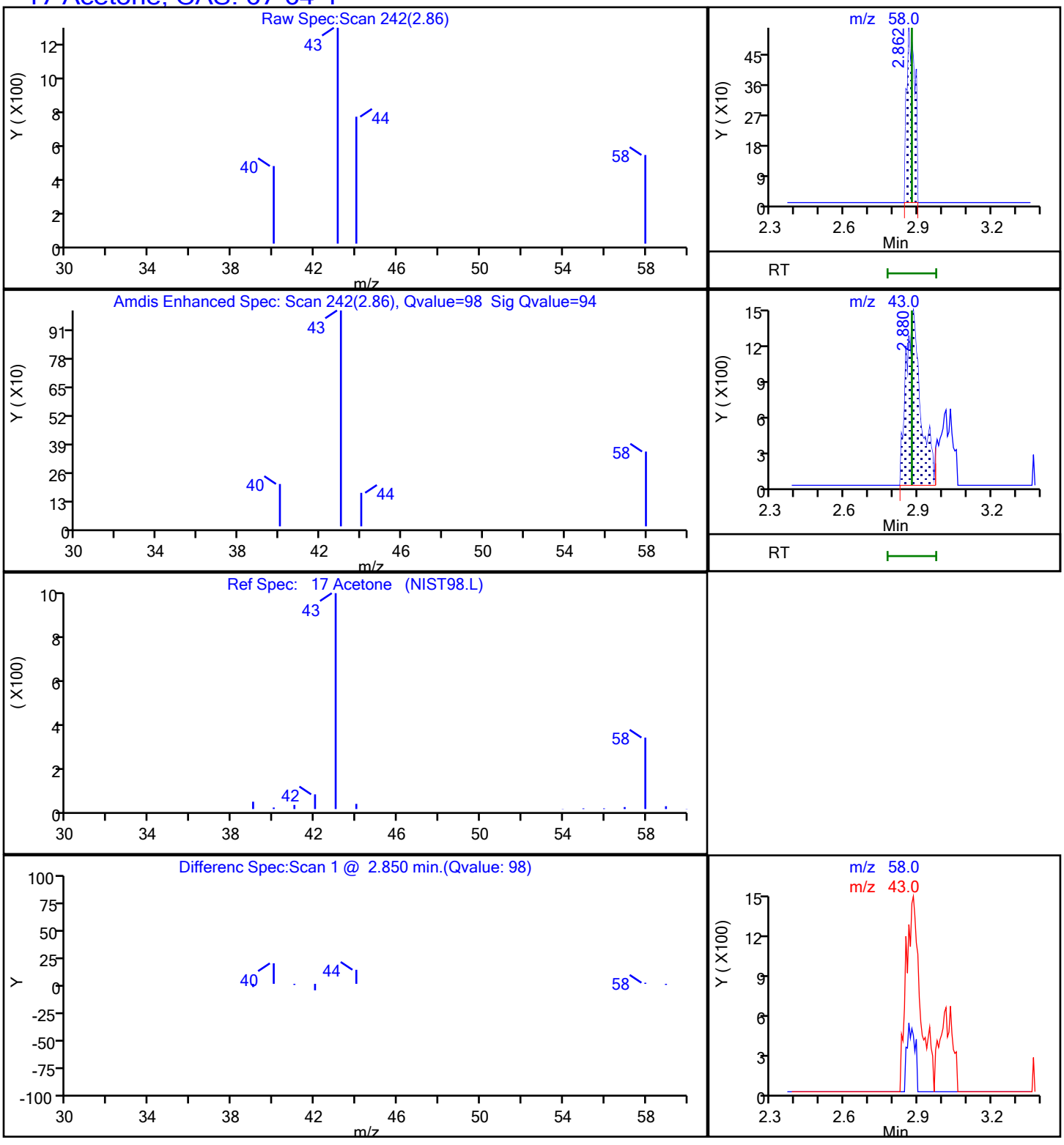


Report Date: 19-Nov-2020 23:19:59 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S02.D				
Injection Date:	18-Nov-2020 12:34:30	Instrument ID:	26285		
Lims ID:	410-20865-A-24	Lab Sample ID:	410-20865-24		
Client ID:	PDB Blank				
Operator ID:	clm27445	ALS Bottle#:	7	Worklist Smp#:	8
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acetone, CAS: 67-64-1



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-12A Lab Sample ID: 410-20865-25

Matrix: Water Lab File ID: 5N18S15.D

Analysis Method: 8260C Date Collected: 11/10/2020 12:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 16:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.44	J	1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.31	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S15.D
Lims ID: 410-20865-A-25
Client ID: R5-12A
Sample Type: Client
Inject. Date: 18-Nov-2020 16:57:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-020
Misc. Info.: 410-20865-A-25
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:15:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.899	2.874	0.025	95	404	0.3794	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.399	3.386	0.013	98	374491	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.904	5.892	0.012	36	4141	0.4411	
$ 47 Dibromofluoromethane (Surr)	113	5.910	5.898	0.012	94	276514	48.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.386	6.374	0.012	97	62796	50.2	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1100483	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	91	2057	0.3072	a
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1045417	49.5	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	839167	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	97	396572	46.5	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	446963	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

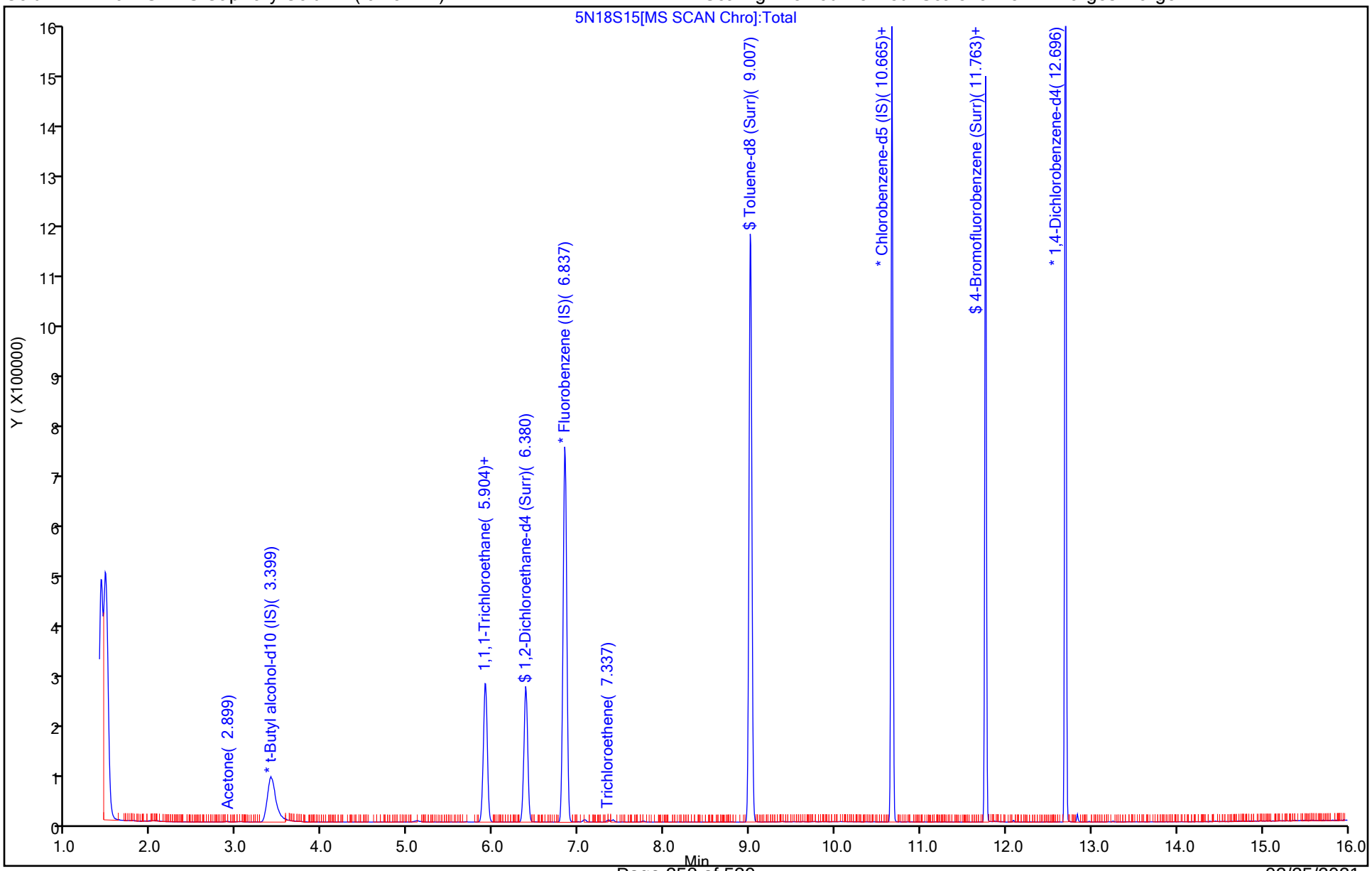
Report Date: 19-Nov-2020 23:20:23 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S15.D

Injection Date:	18-Nov-2020 16:57:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-25	Lab Sample ID:	410-20865-25	Worklist Smp#:	21
Client ID:	R5-12A				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

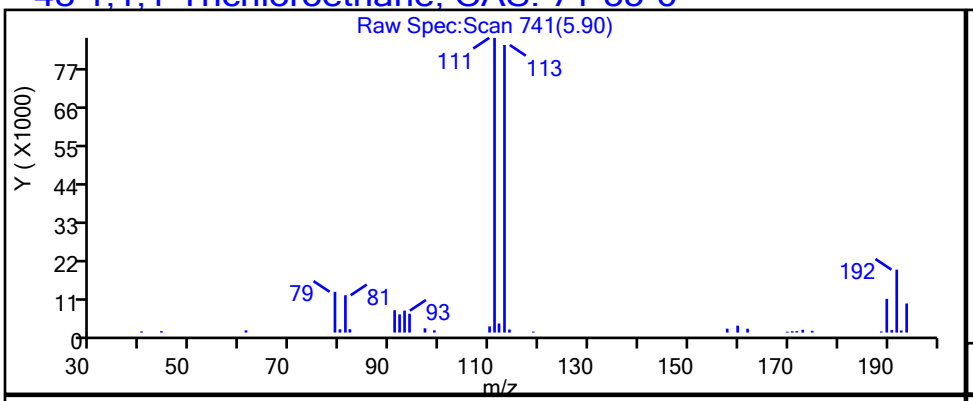
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

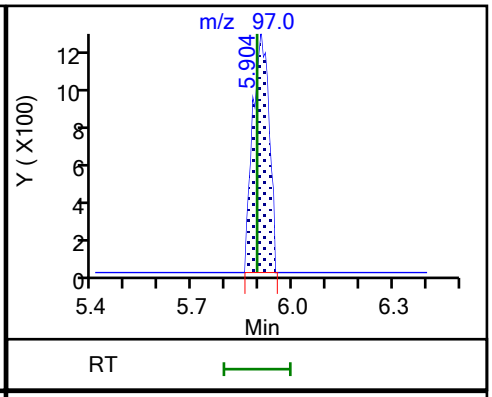


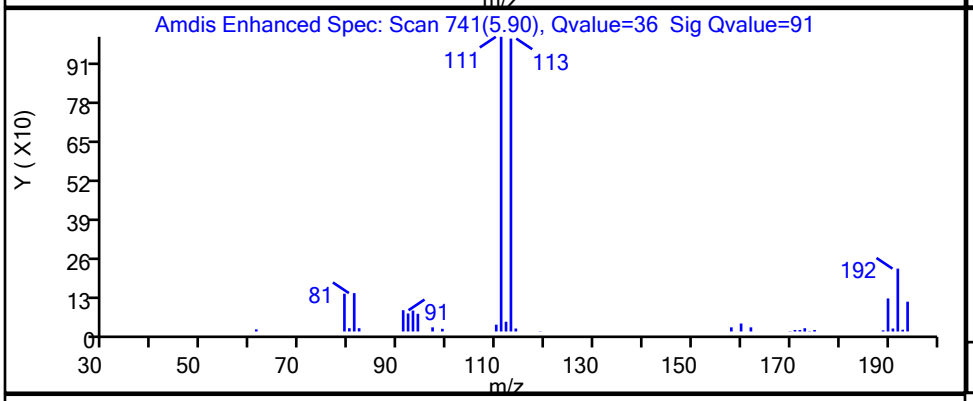
Eurofins Lancaster Laboratories Env, LLC

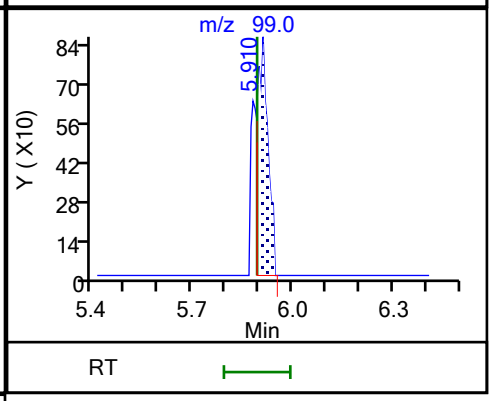
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S15.D				
Injection Date:	18-Nov-2020 16:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-25	Lab Sample ID:	410-20865-25		
Client ID:	R5-12A				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

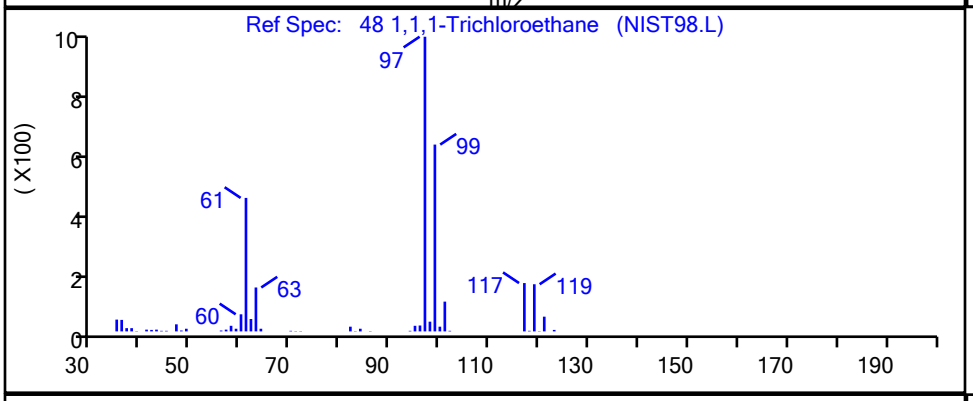
48 1,1,1-Trichloroethane, CAS: 71-55-6

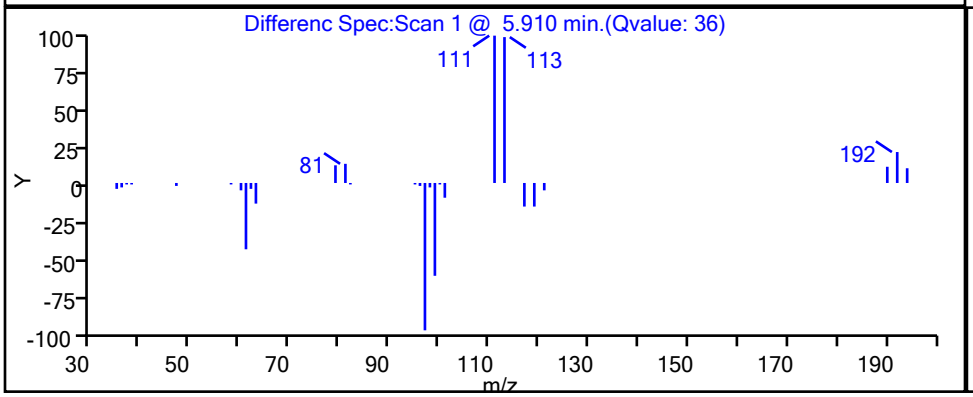


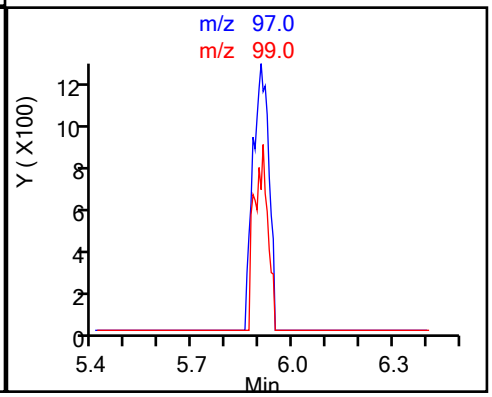










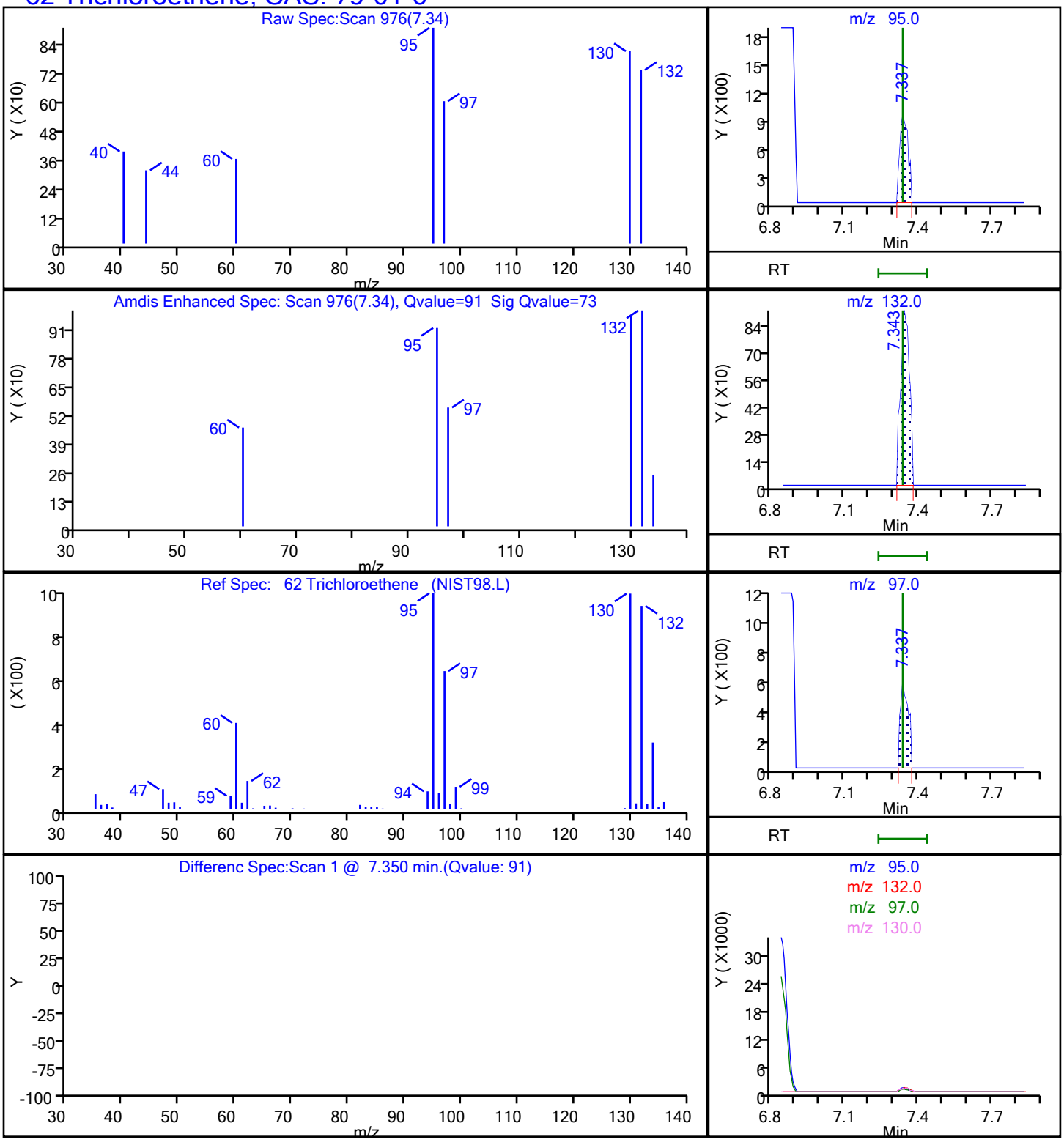


Report Date: 19-Nov-2020 23:20:23 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S15.D				
Injection Date:	18-Nov-2020 16:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-25	Lab Sample ID:	410-20865-25		
Client ID:	R5-12A				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

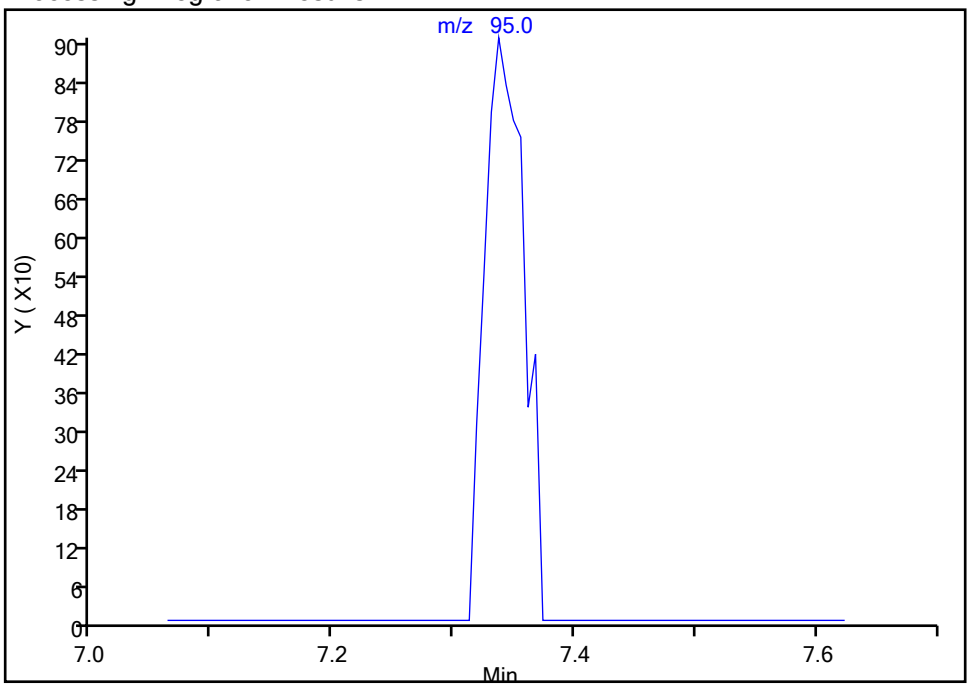
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S15.D				
Injection Date:	18-Nov-2020 16:57:30	Instrument ID:	26285		
Lims ID:	410-20865-A-25	Lab Sample ID:	410-20865-25		
Client ID:	R5-12A				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6

Signal: 1

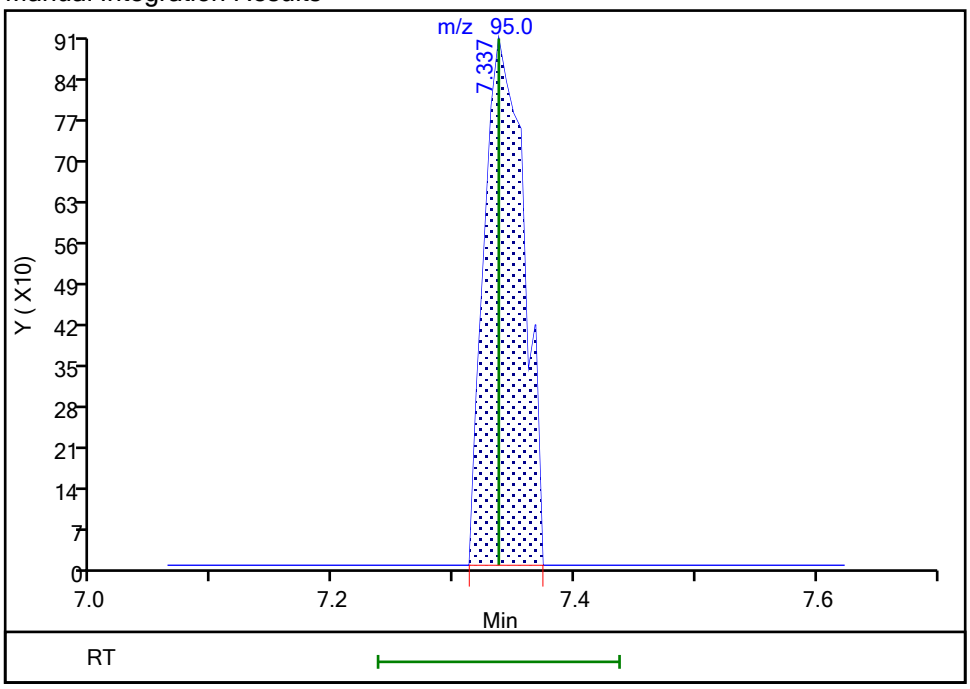
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 2057
Amount: 0.307231
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:15:17
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-01 Lab Sample ID: 410-20865-26

Matrix: Water Lab File ID: 5N18S16.D

Analysis Method: 8260C Date Collected: 11/10/2020 12:15

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 17:17

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.53	J	1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.49	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S16.D
Lims ID: 410-20865-A-26
Client ID: R5-01
Sample Type: Client
Inject. Date: 18-Nov-2020 17:17:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-022
Misc. Info.: 410-20865-A-26
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:15:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.874	2.874	0.000	97	632	0.6515	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.006	98	341184	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	7
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	56	4943	0.5324	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	93	271938	48.0	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	98	61632	49.8	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1088411	50.0	
62 Trichloroethene	95	7.343	7.337	0.006	92	3239	0.4891	a
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1036879	50.8	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	810680	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	96	383875	46.6	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	433057	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

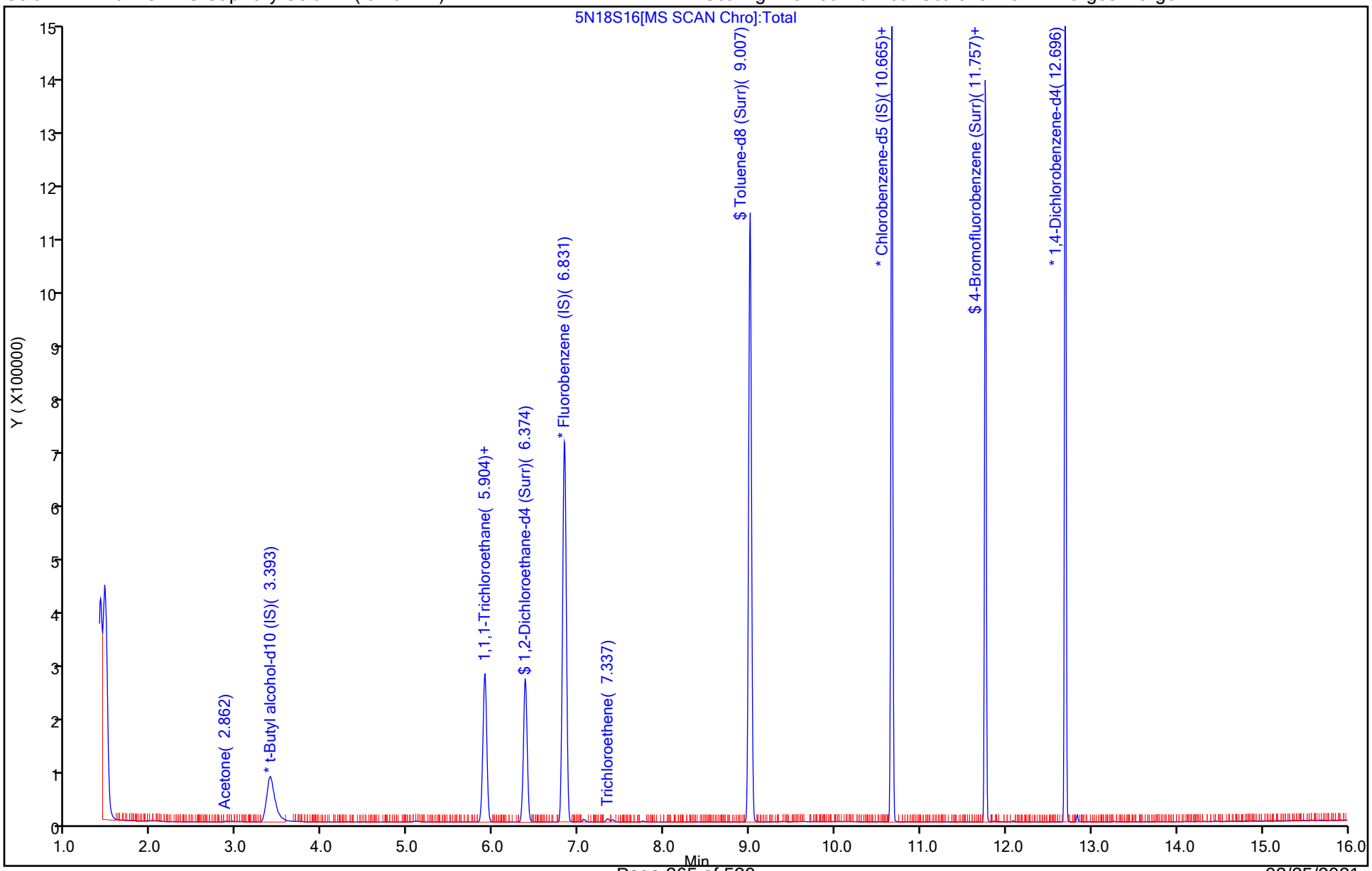
MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 19-Nov-2020 23:20:25 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S16.D				
Injection Date:	18-Nov-2020 17:17:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-26	Lab Sample ID:	410-20865-26	Worklist Smp#:	22
Client ID:	R5-01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



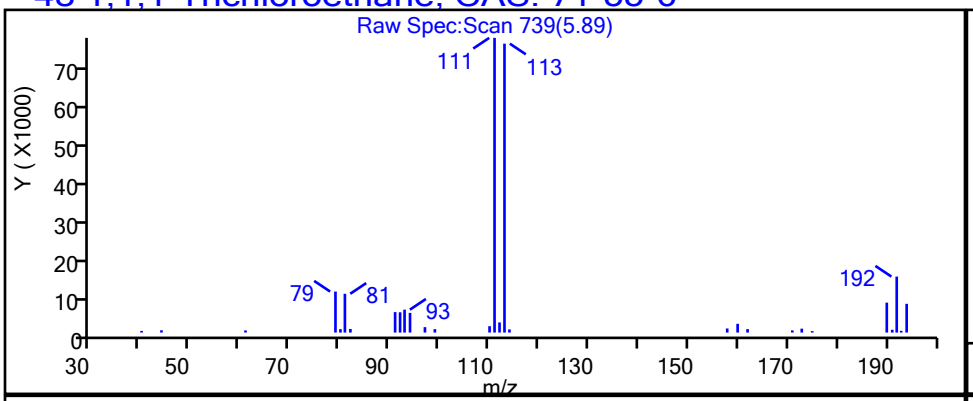
02/25/2021

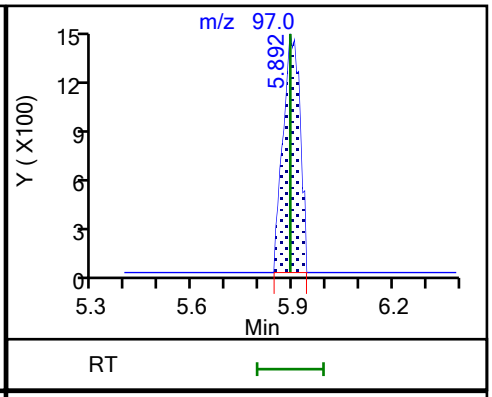
Report Date: 19-Nov-2020 23:20:25 Chrom Revision: 2.3 13-Nov-2020 01:23:02

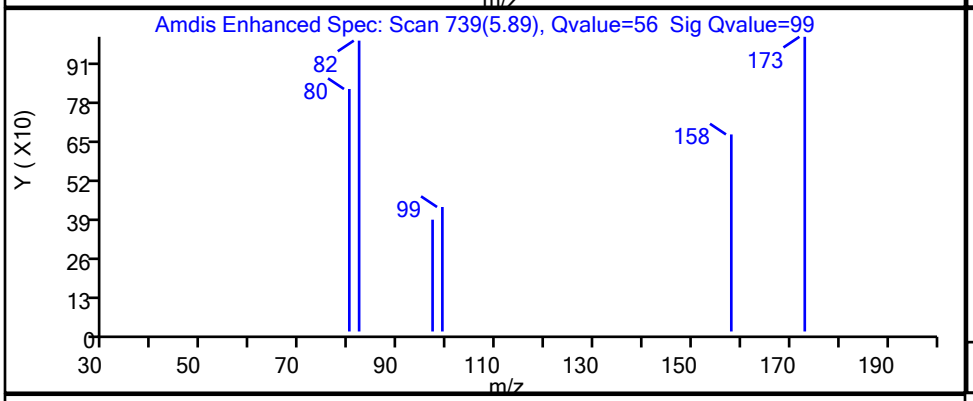
Eurofins Lancaster Laboratories Env, LLC

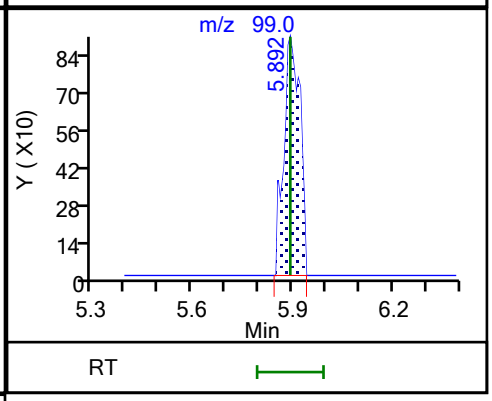
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S16.D				
Injection Date:	18-Nov-2020 17:17:30	Instrument ID:	26285		
Lims ID:	410-20865-A-26	Lab Sample ID:	410-20865-26		
Client ID:	R5-01				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

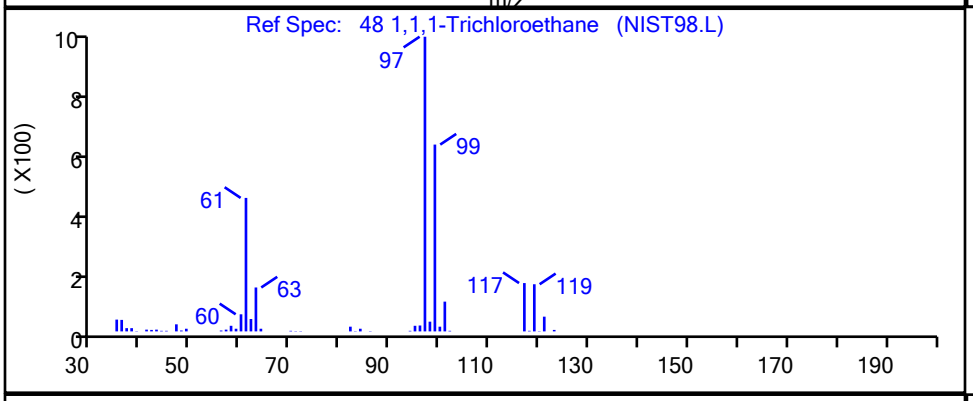
48 1,1,1-Trichloroethane, CAS: 71-55-6

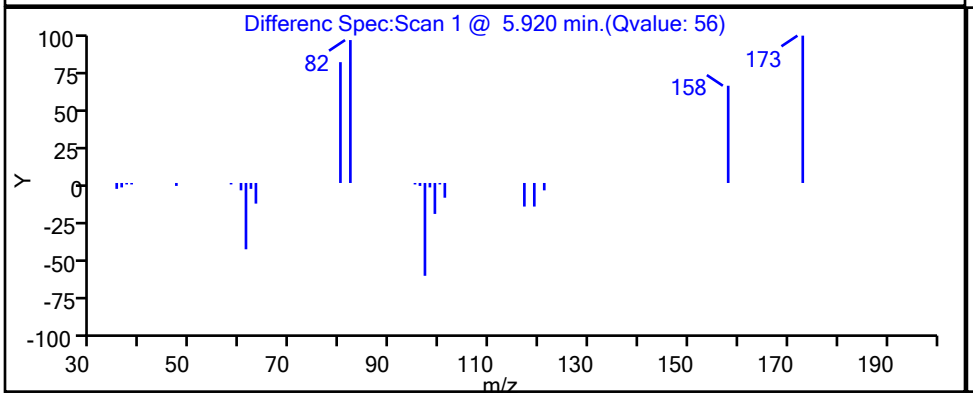


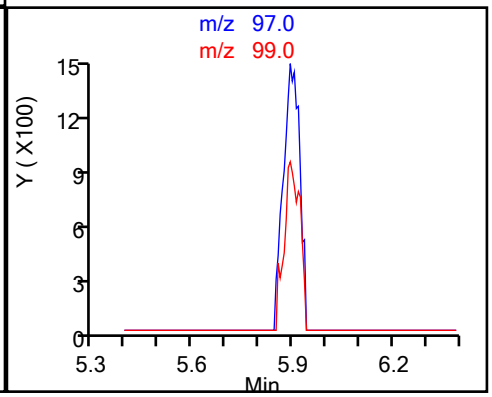












Report Date: 19-Nov-2020 23:20:25 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S16.D

Injection Date: 18-Nov-2020 17:17:30 Instrument ID: 26285

Lims ID: 410-20865-A-26 Lab Sample ID: 410-20865-26

Client ID: R5-01

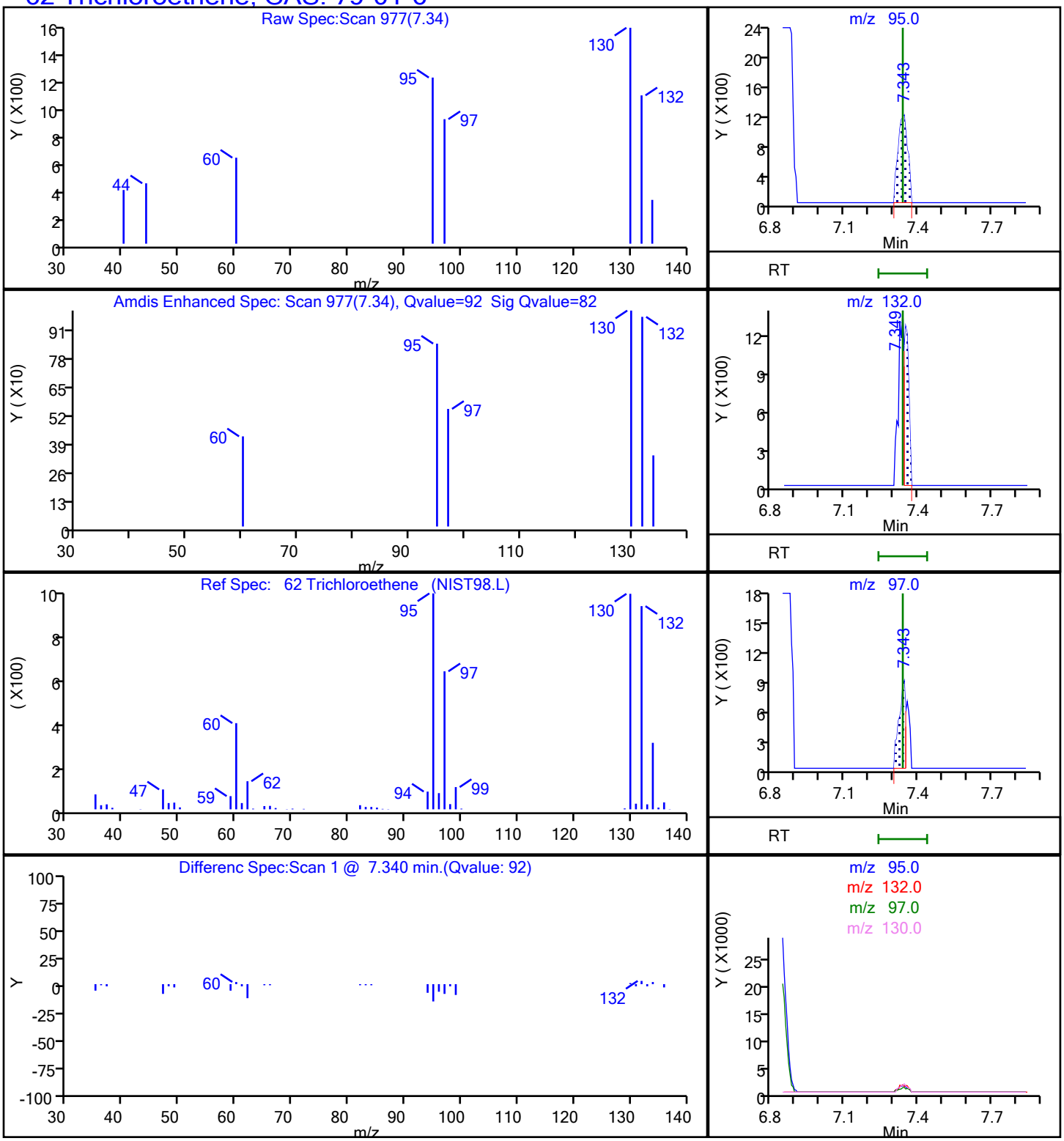
Operator ID: clm27445 ALS Bottle#: 21 Worklist Smp#: 22

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

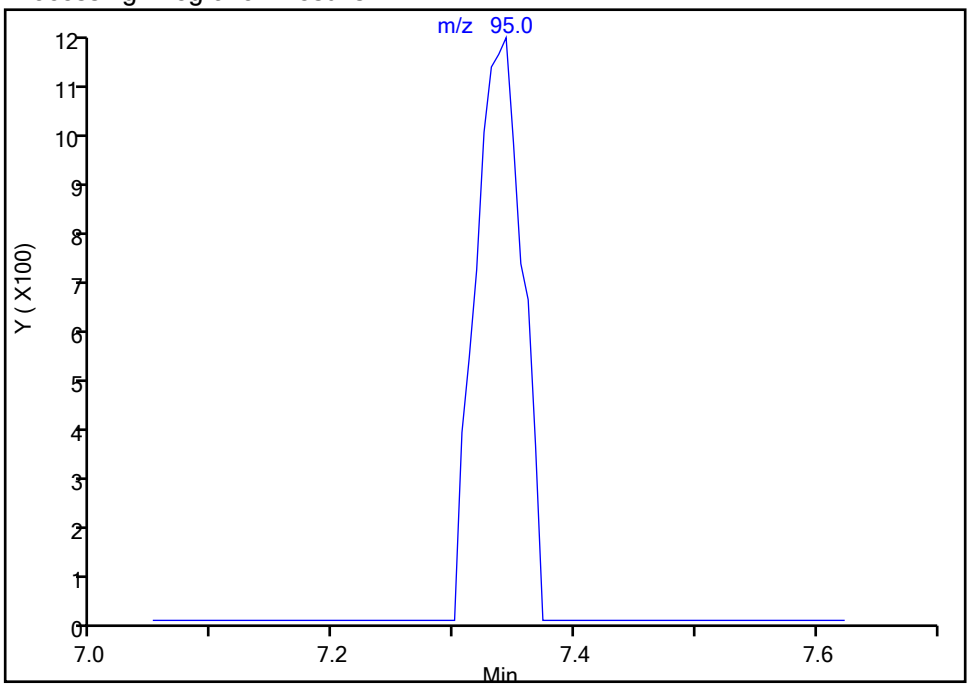
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S16.D				
Injection Date:	18-Nov-2020 17:17:30	Instrument ID:	26285		
Lims ID:	410-20865-A-26	Lab Sample ID:	410-20865-26		
Client ID:	R5-01				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6

Signal: 1

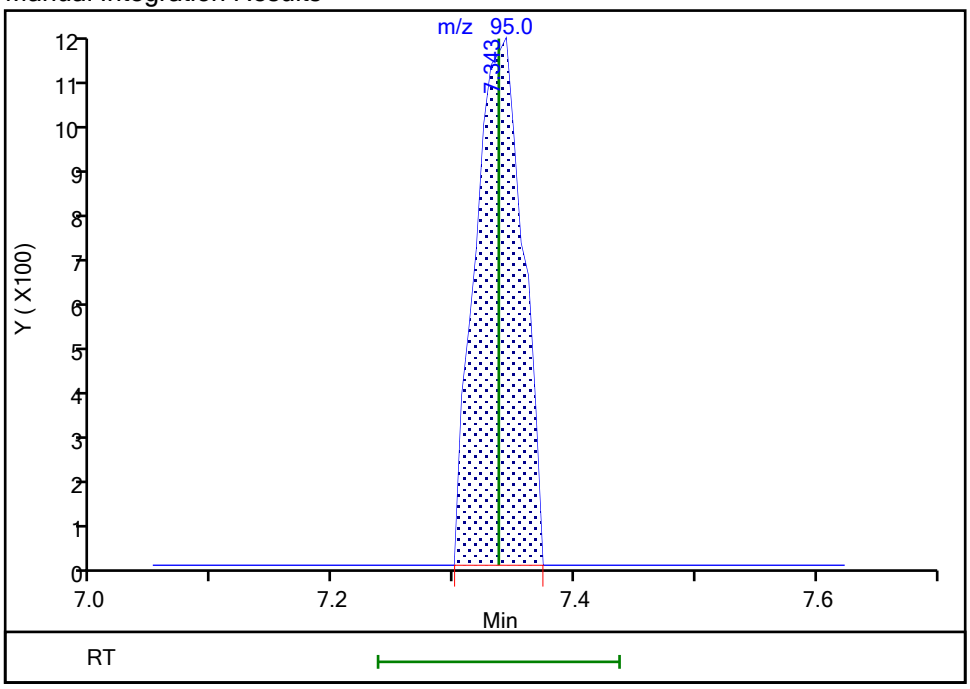
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.34
Area: 3239
Amount: 0.489138
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:15:41
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-09 Lab Sample ID: 410-20865-27

Matrix: Water Lab File ID: 5N18S17.D

Analysis Method: 8260C Date Collected: 11/10/2020 12:25

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 17:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.30	J	1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	3.1	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.70	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D
Lims ID: 410-20865-A-27
Client ID: R5-09
Sample Type: Client
Inject. Date: 18-Nov-2020 17:37:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-023
Misc. Info.: 410-20865-A-27
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:16:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.862	2.874	-0.012	98	3120	3.13	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	98	350460	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	7
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.904	5.892	0.012	35	2808	0.3027	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	271118	47.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	62597	50.6	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1087519	50.0	
62 Trichloroethene	95	7.349	7.337	0.012	93	4643	0.7017	Ma
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1015195	50.4	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	800685	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	379157	46.6	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	426423	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

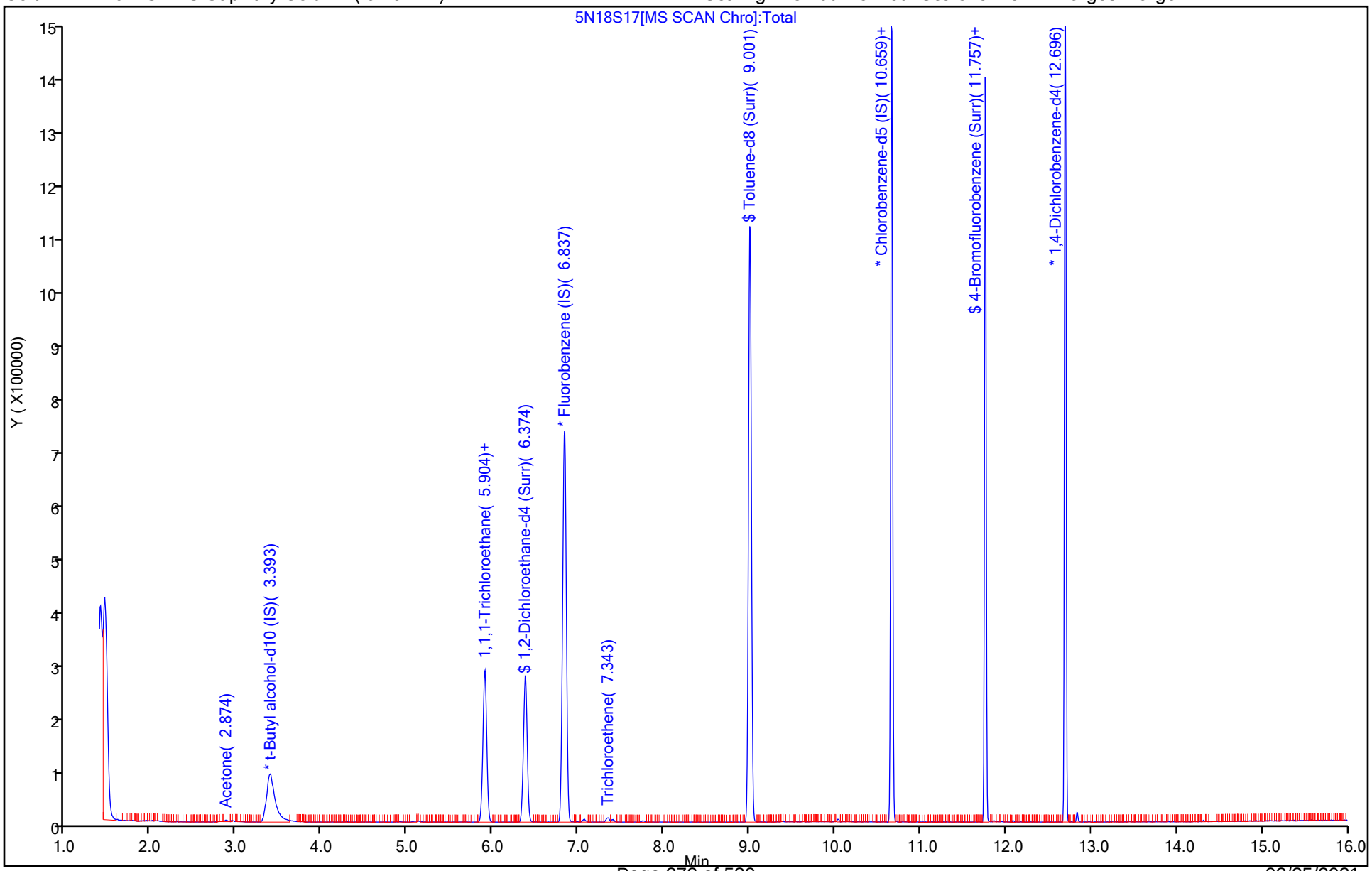
Report Date: 19-Nov-2020 23:20:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D

Injection Date:	18-Nov-2020 17:37:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-27	Lab Sample ID:	410-20865-27	Worklist Smp#:	23
Client ID:	R5-09				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

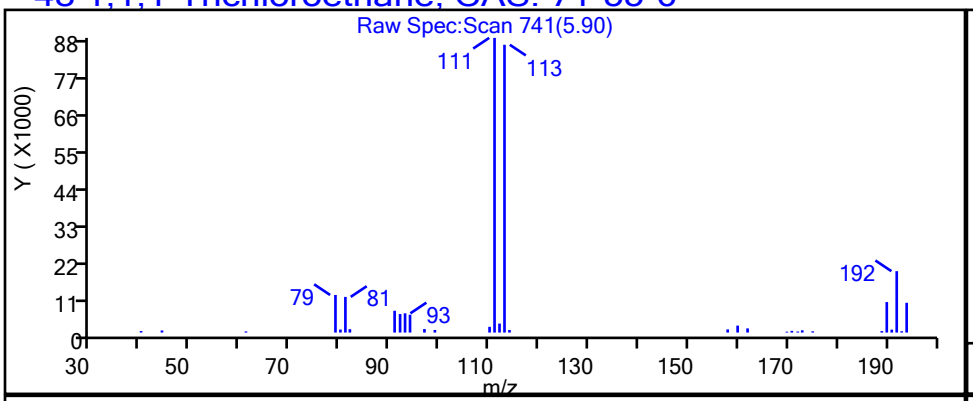
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

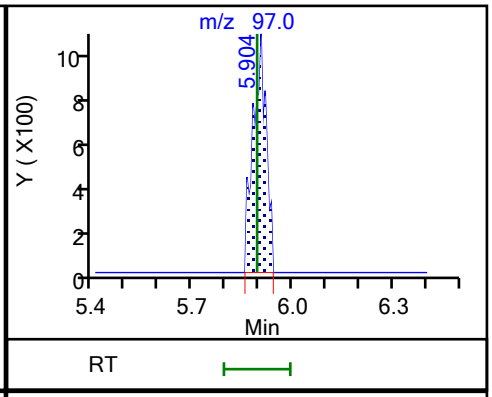


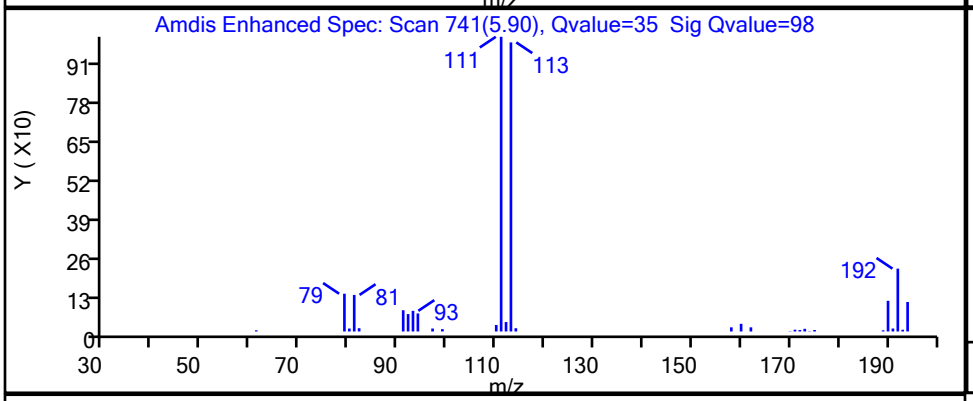
Eurofins Lancaster Laboratories Env, LLC

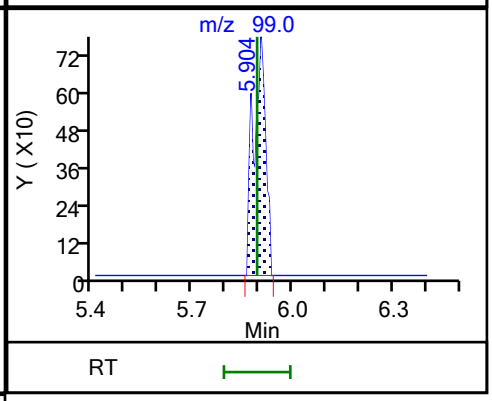
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D				
Injection Date:	18-Nov-2020 17:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-27	Lab Sample ID:	410-20865-27		
Client ID:	R5-09				
Operator ID:	clm27445	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

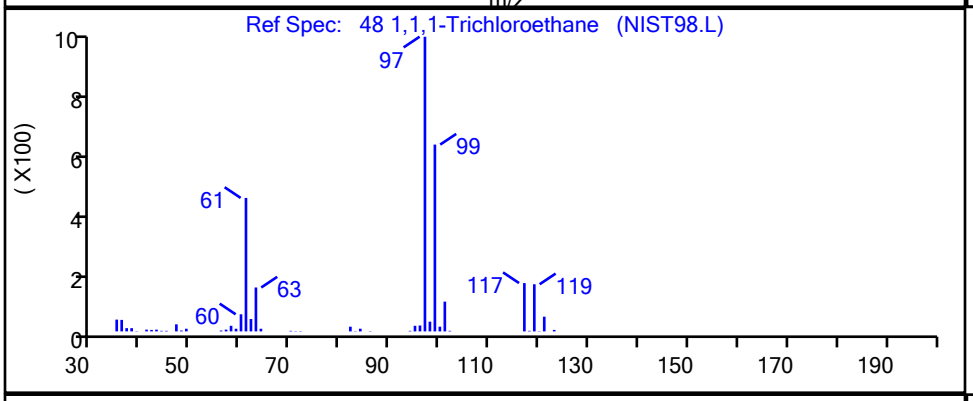
48 1,1,1-Trichloroethane, CAS: 71-55-6

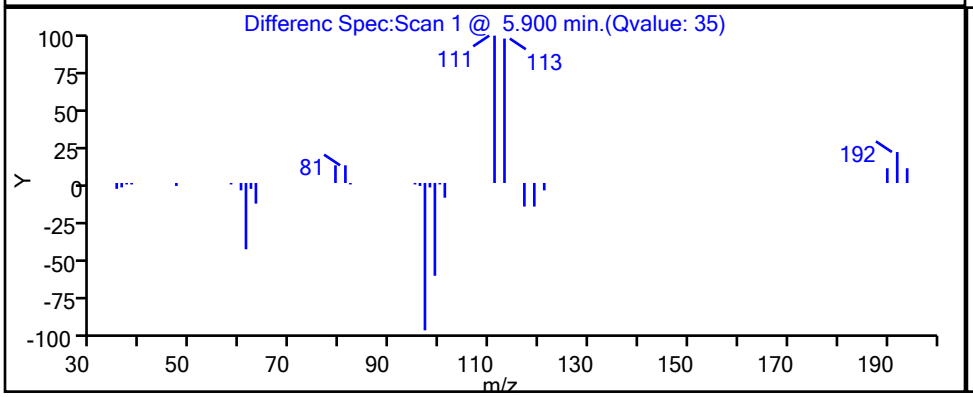


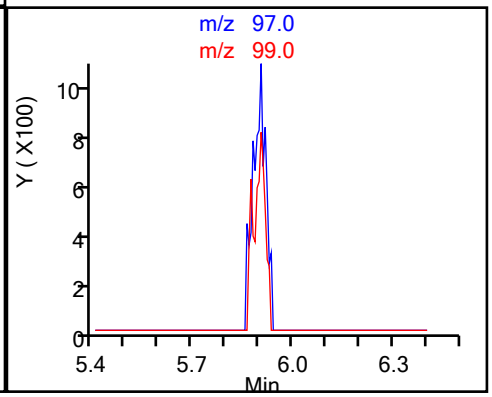










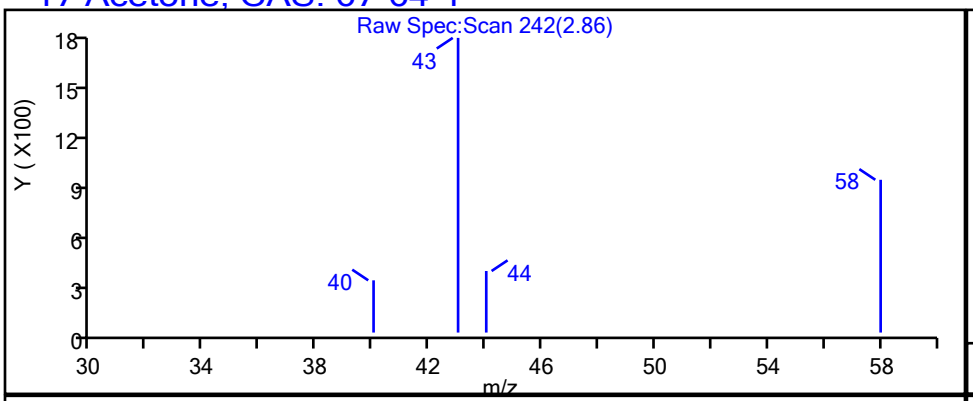


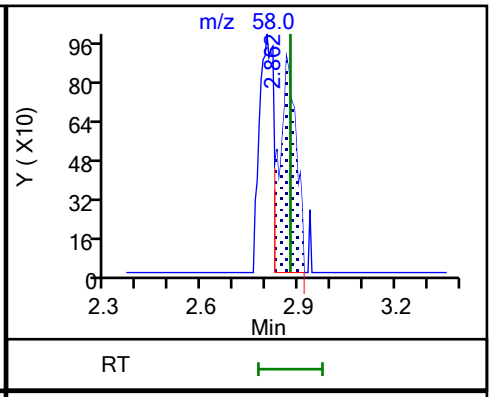
Report Date: 19-Nov-2020 23:20:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

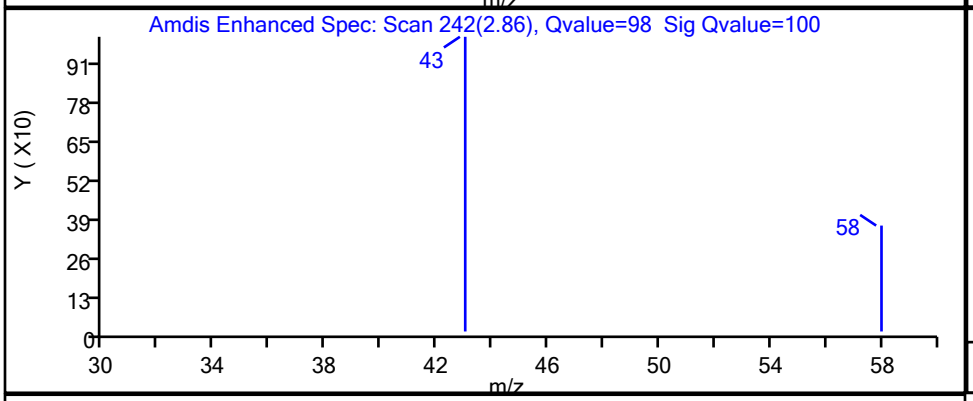
Eurofins Lancaster Laboratories Env, LLC

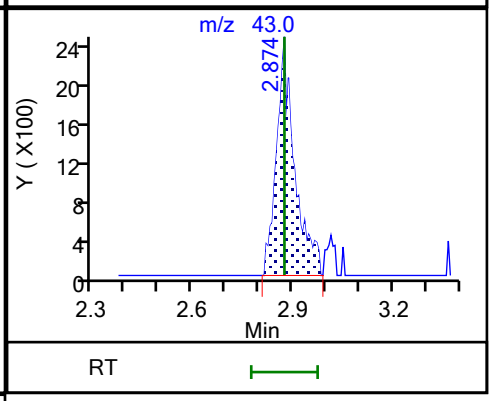
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D				
Injection Date:	18-Nov-2020 17:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-27	Lab Sample ID:	410-20865-27		
Client ID:	R5-09				
Operator ID:	clm27445	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

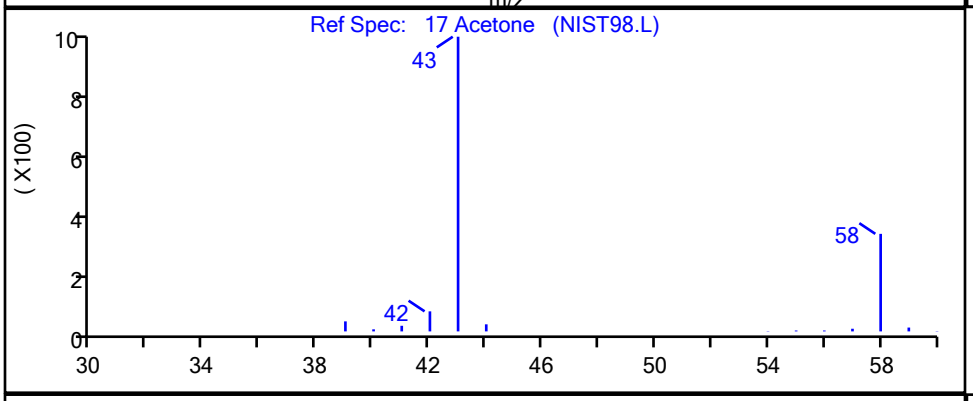
17 Acetone, CAS: 67-64-1

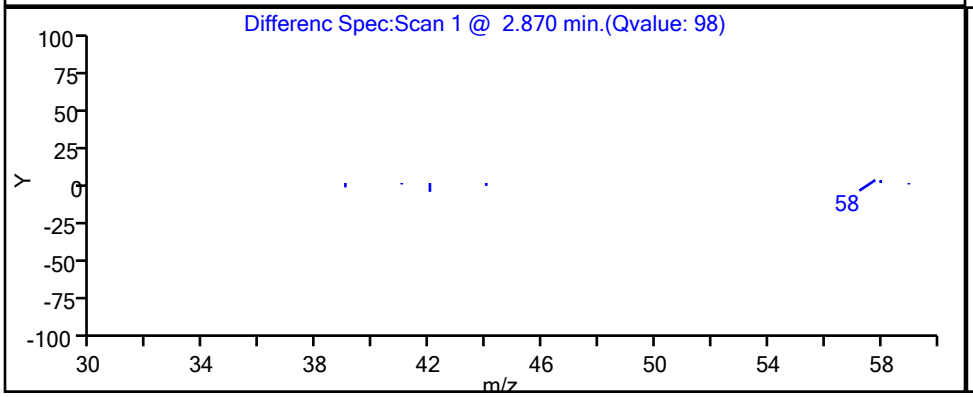


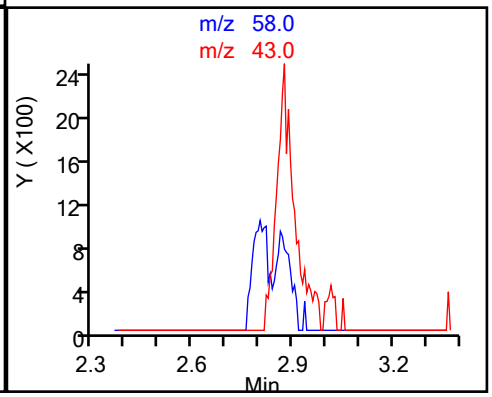












Report Date: 19-Nov-2020 23:20:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D

Injection Date: 18-Nov-2020 17:37:30 Instrument ID: 26285

Lims ID: 410-20865-A-27 Lab Sample ID: 410-20865-27

Client ID: R5-09

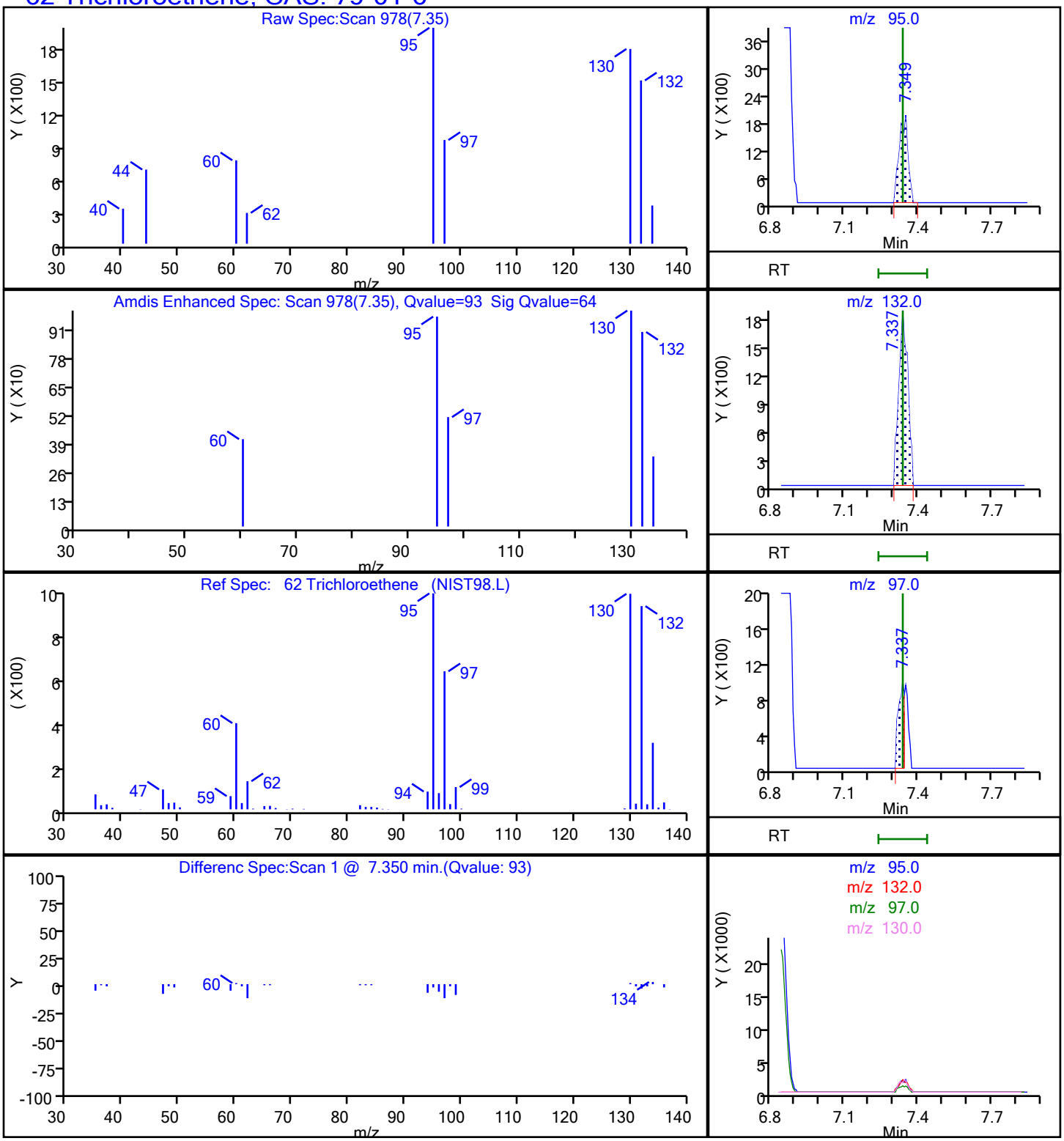
Operator ID: clm27445 ALS Bottle#: 22 Worklist Smp#: 23

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

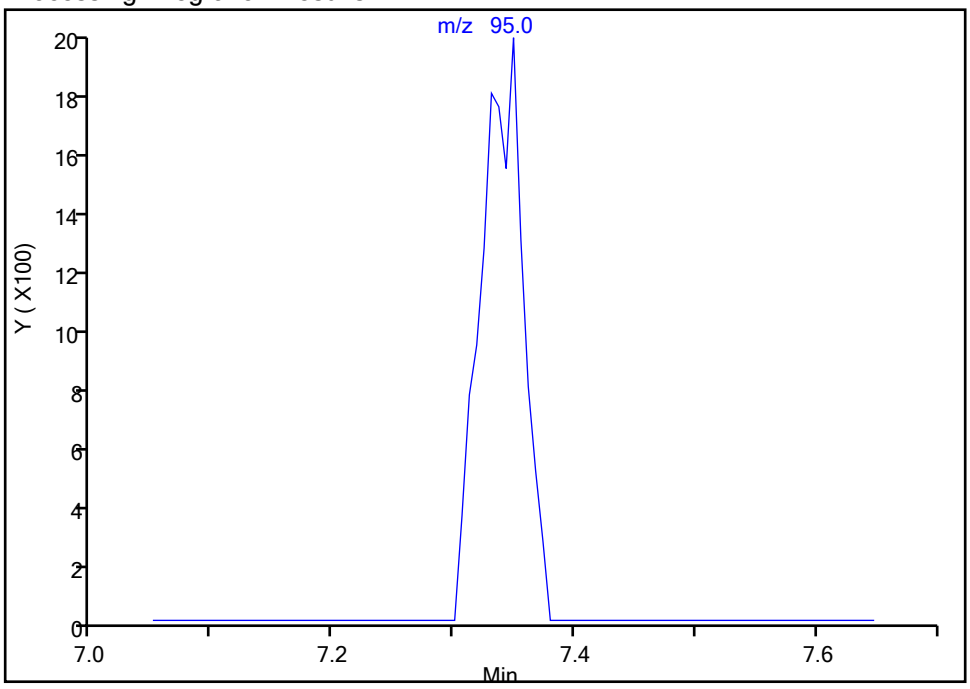
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S17.D				
Injection Date:	18-Nov-2020 17:37:30	Instrument ID:	26285		
Lims ID:	410-20865-A-27	Lab Sample ID:	410-20865-27		
Client ID:	R5-09				
Operator ID:	clm27445	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6

Signal: 1

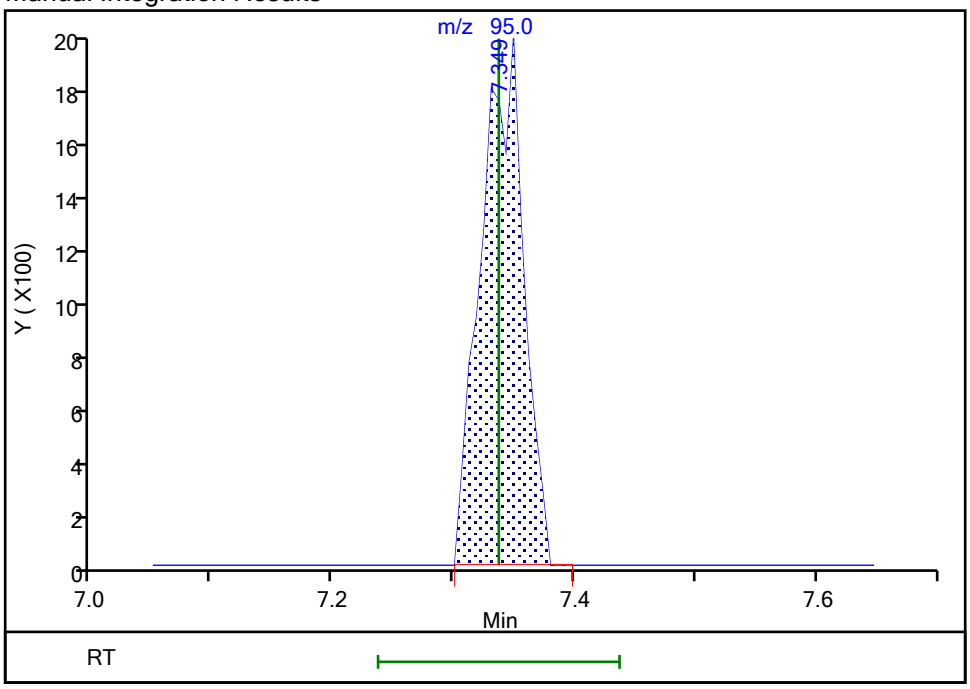
Not Detected
Expected RT: 7.34

Processing Integration Results



Manual Integration Results

RT: 7.35
Area: 4643
Amount: 0.701738
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:16:16
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-10 Lab Sample ID: 410-20865-28

Matrix: Water Lab File ID: 5N18S18.D

Analysis Method: 8260C Date Collected: 11/10/2020 12:50

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 17:58

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	1.7	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	1.2		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D
Lims ID: 410-20865-A-28
Client ID: R5-10
Sample Type: Client
Inject. Date: 18-Nov-2020 17:58:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-024
Misc. Info.: 410-20865-A-28
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:17:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.880	2.874	0.006	97	1655	1.71	M
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	98	340989	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	7
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96	5.167	5.154	0.013	74	1129	0.1708	a
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	35	2197	0.2392	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	271536	48.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	61072	49.9	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1076792	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	97	7866	1.20	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1015933	50.4	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	7
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.666	-0.007	85	800211	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	381327	46.9	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	433333	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

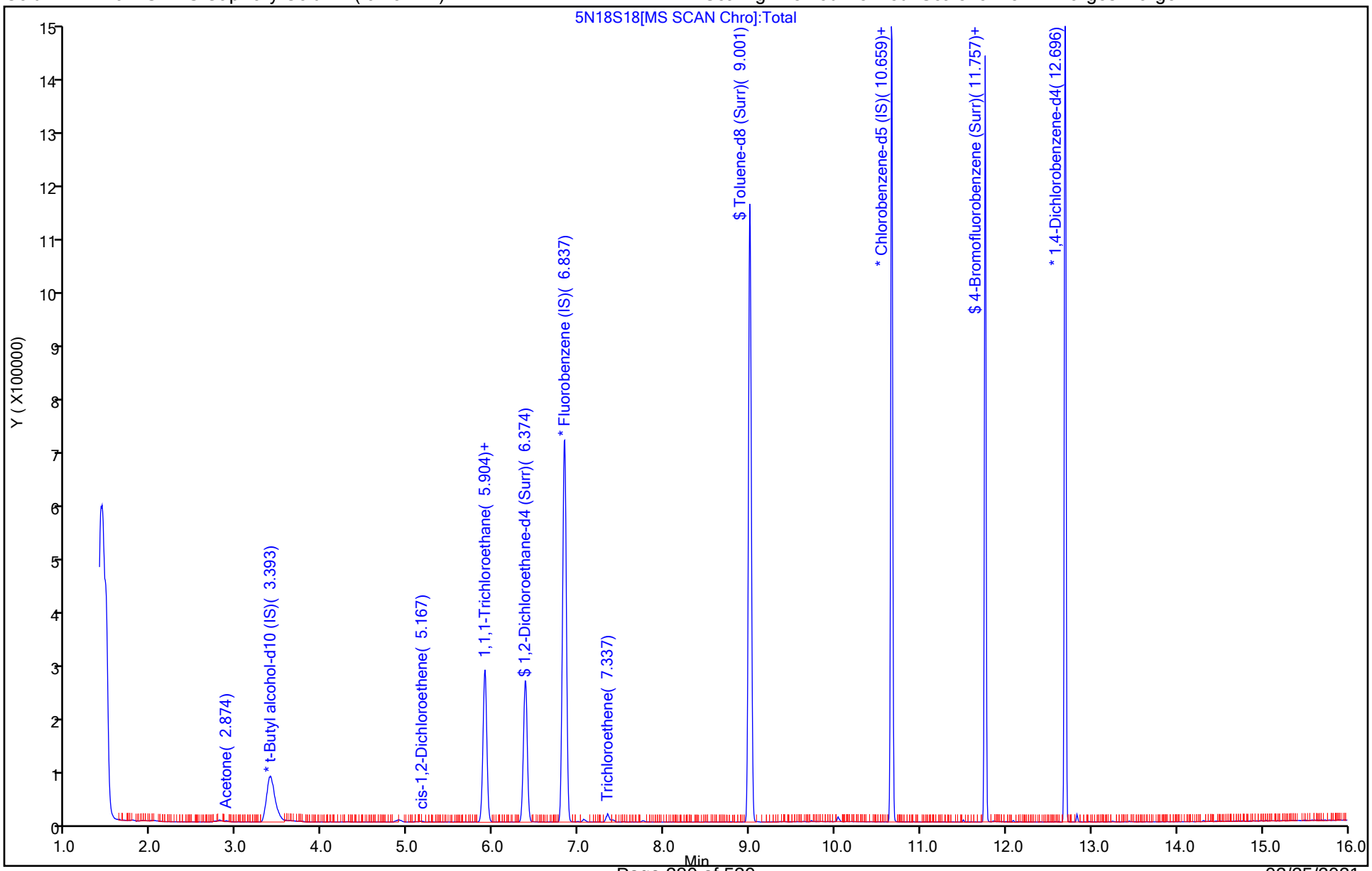
Report Date: 19-Nov-2020 23:20:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D

Injection Date:	18-Nov-2020 17:58:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-28	Lab Sample ID:	410-20865-28	Worklist Smp#:	24
Client ID:	R5-10				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

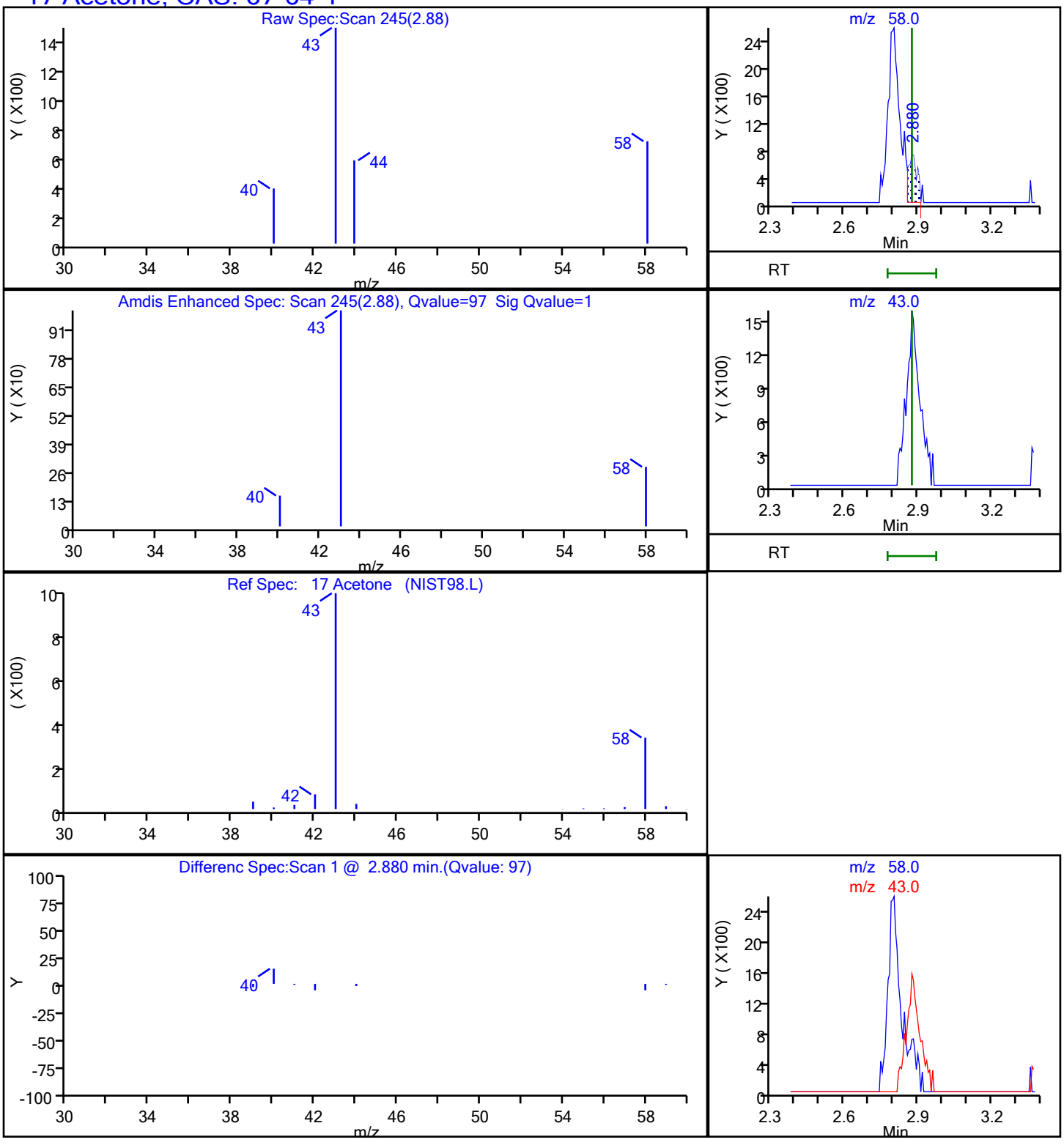
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D				
Injection Date:	18-Nov-2020 17:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-28	Lab Sample ID:	410-20865-28		
Client ID:	R5-10				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acetone, CAS: 67-64-1

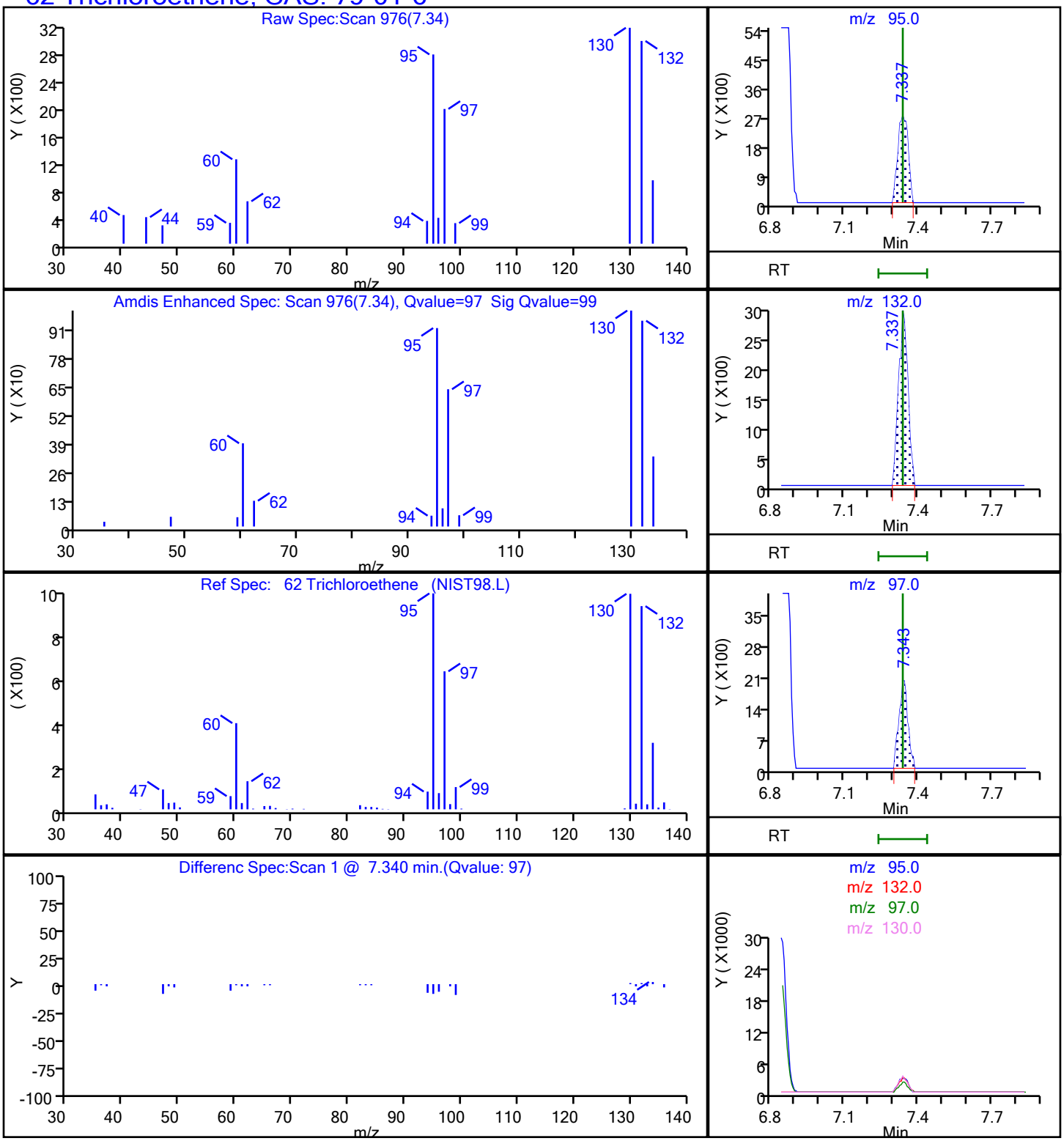


Report Date: 19-Nov-2020 23:20:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D				
Injection Date:	18-Nov-2020 17:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-28	Lab Sample ID:	410-20865-28		
Client ID:	R5-10				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

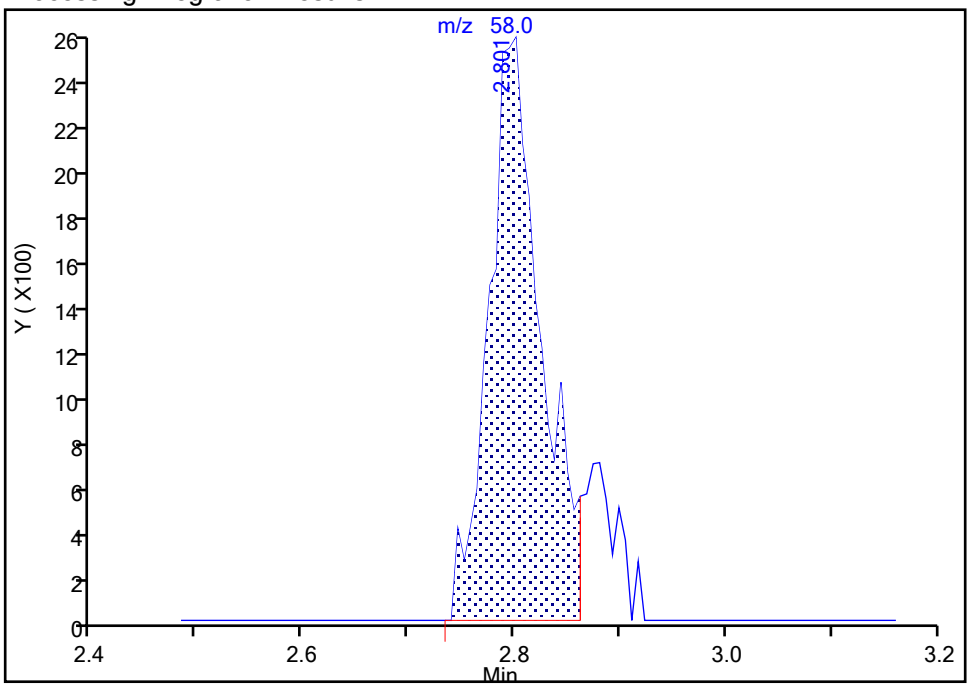
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D				
Injection Date:	18-Nov-2020 17:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-28	Lab Sample ID:	410-20865-28		
Client ID:	R5-10				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acetone, CAS: 67-64-1

Signal: 1

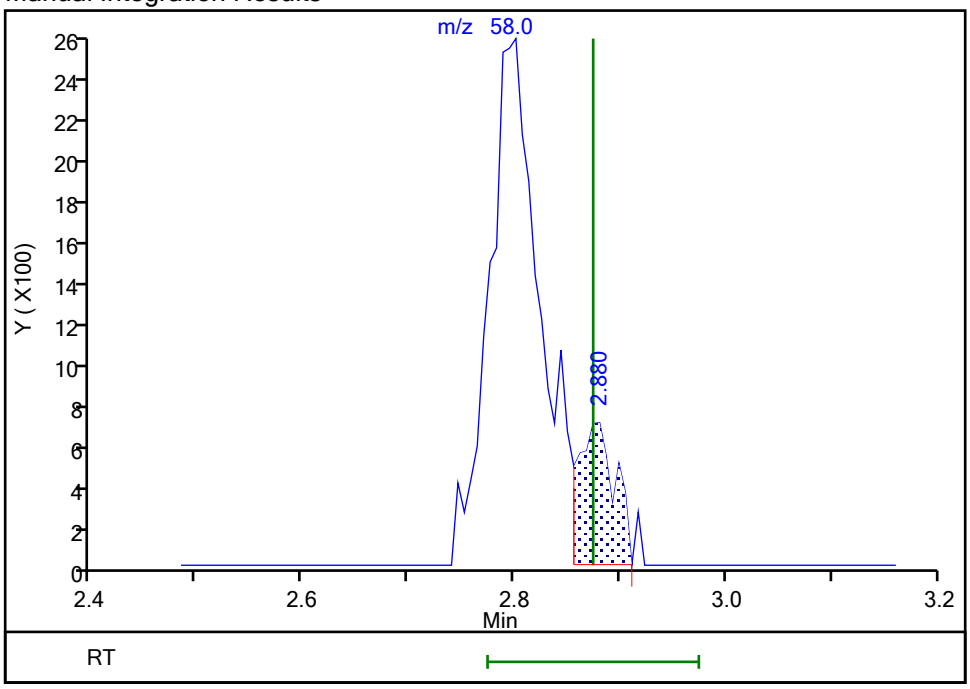
Processing Integration Results

RT: 2.80
Area: 8689
Amount: 8.961580
Amount Units: ug/l



Manual Integration Results

RT: 2.88
Area: 1655
Amount: 1.706919
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:16:46
Audit Action: Manually Integrated Audit Reason: Wrong peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

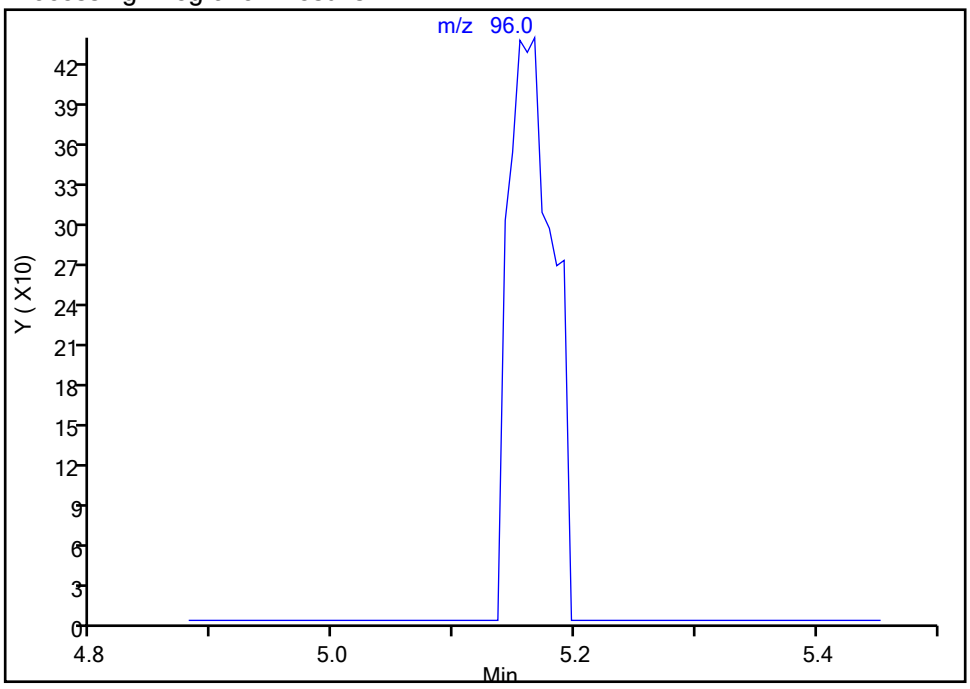
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S18.D				
Injection Date:	18-Nov-2020 17:58:30	Instrument ID:	26285		
Lims ID:	410-20865-A-28	Lab Sample ID:	410-20865-28		
Client ID:	R5-10				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

Signal: 1

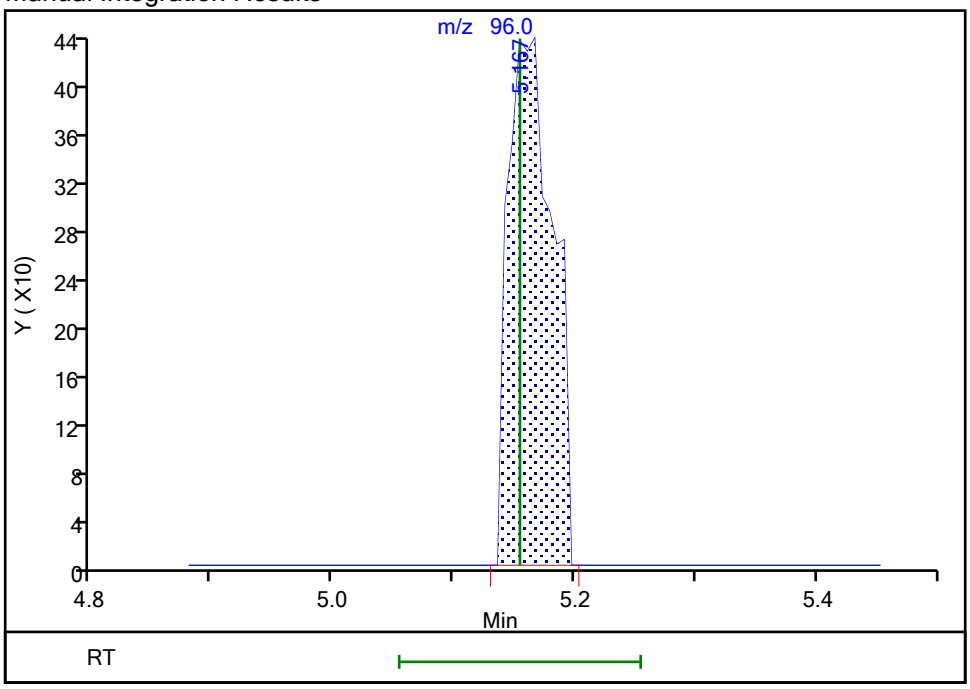
Not Detected
Expected RT: 5.15

Processing Integration Results



Manual Integration Results

RT: 5.17
Area: 1129
Amount: 0.170832
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:17:05
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-DUP Lab Sample ID: 410-20865-29

Matrix: Water Lab File ID: 5N18S19.D

Analysis Method: 8260C Date Collected: 11/10/2020 12:30

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 18:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.6		1.0	0.30
75-34-3	1,1-Dichloroethane	0.83	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.25	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	2.6	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.4		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	1.3		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	11		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D
Lims ID: 410-20865-A-29
Client ID: R5-DUP
Sample Type: Client
Inject. Date: 18-Nov-2020 18:18:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-025
Misc. Info.: 410-20865-A-29
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:17:32

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	7
19 1,1-Dichloroethene	96	2.850	2.844	0.006	18	1239	0.2491	
17 Acetone	58	2.868	2.874	-0.006	98	2645	2.58	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	7
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.399	3.386	0.012	98	359921	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.307	4.295	0.012	92	8841	0.8341	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96	5.160	5.154	0.006	85	9015	1.36	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	73	24225	2.63	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	270537	48.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	61884	50.4	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1080453	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	98	75591	11.5	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1025932	50.9	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166	9.727	9.727	0.000	95	8740	1.28	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.666	-0.007	85	801381	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	381143	46.8	
* 117 1,4-Dichlorobenzene-d4	152	12.695	12.702	-0.007	94	429702	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

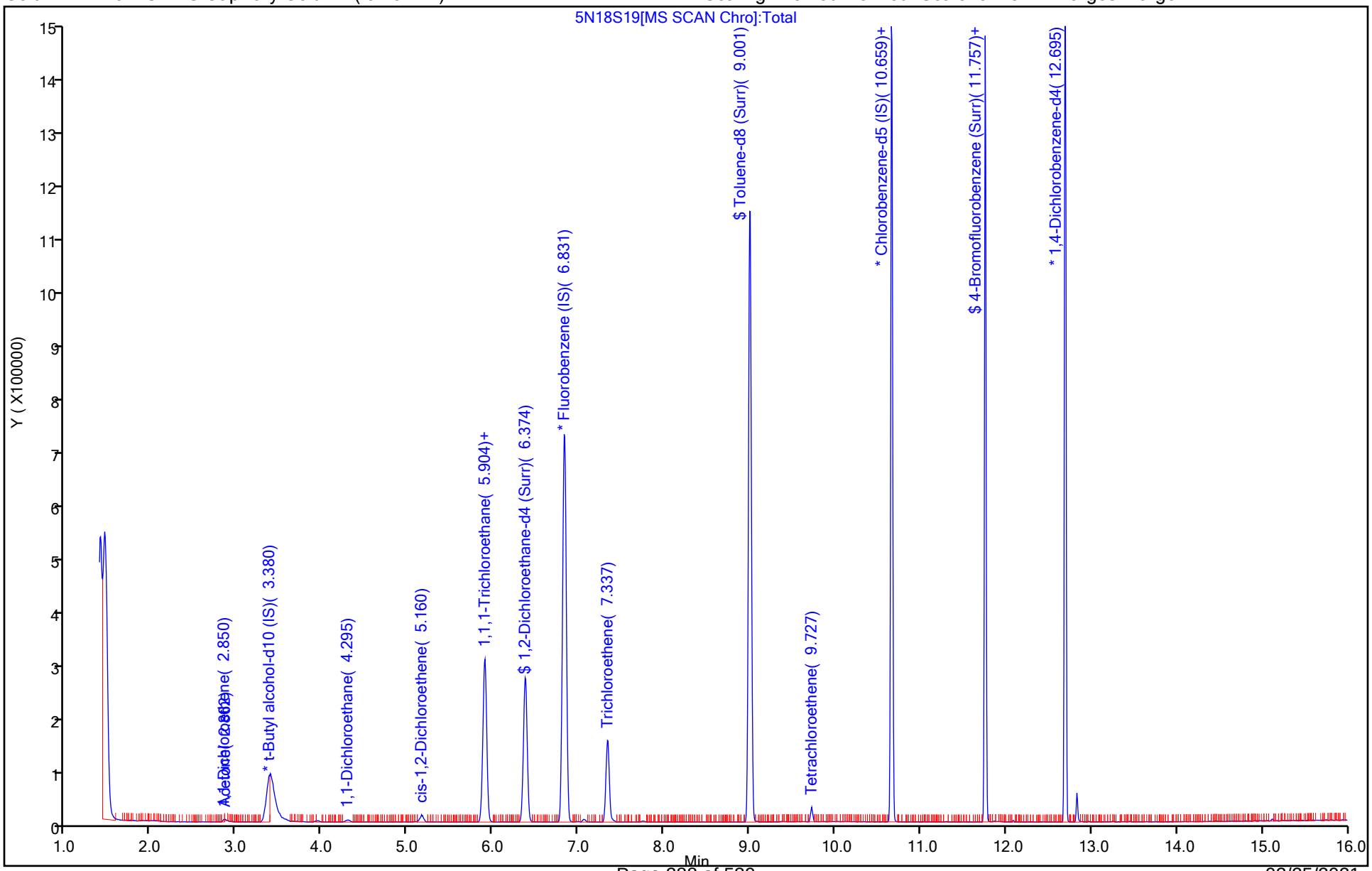
Report Date: 19-Nov-2020 23:20:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D

Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29	Worklist Smp#:	25
Client ID:	R5-DUP				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

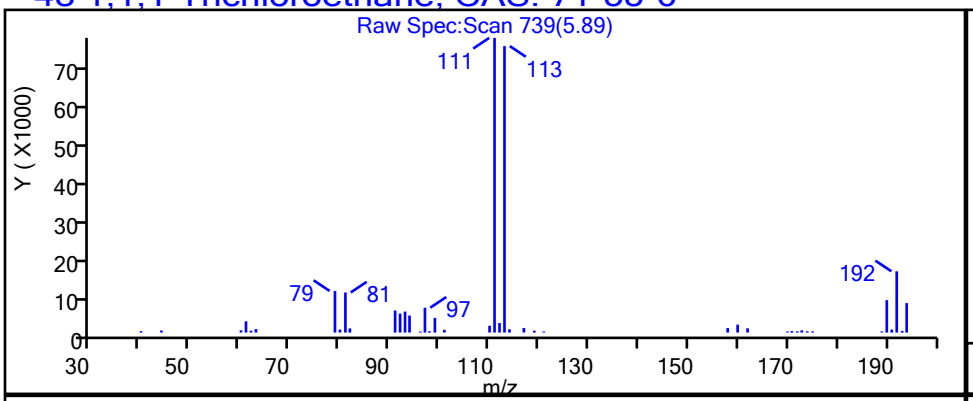
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

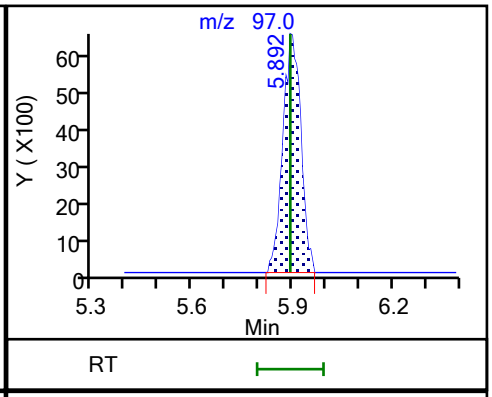


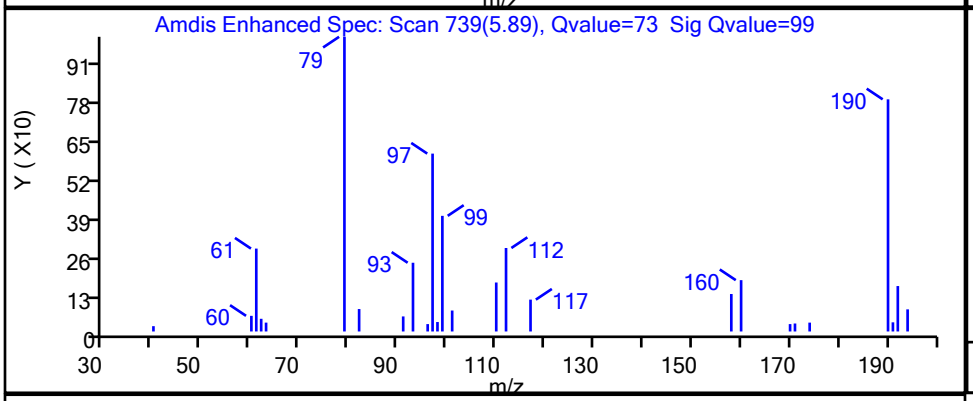
Eurofins Lancaster Laboratories Env, LLC

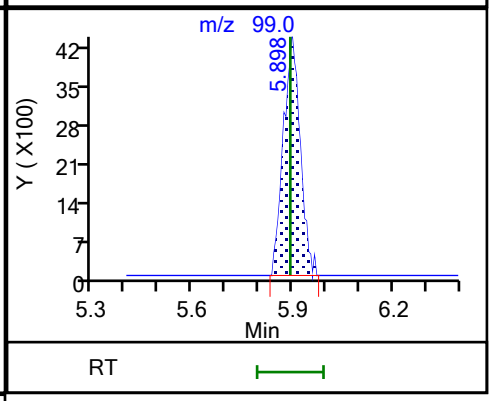
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D				
Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

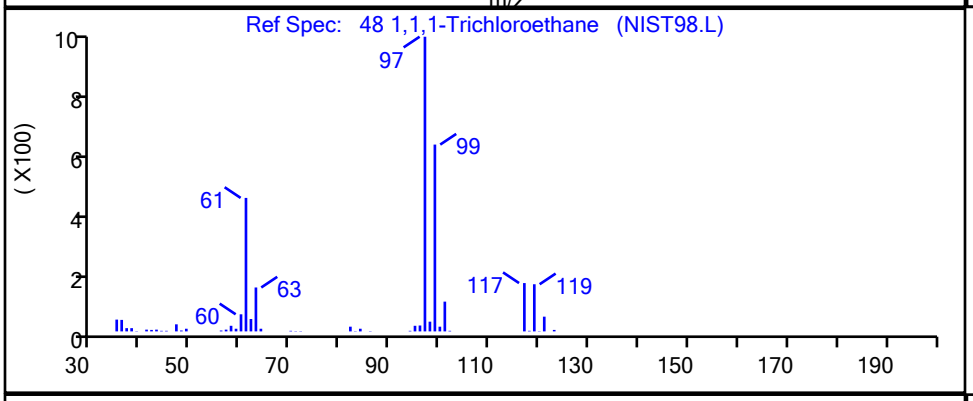
48 1,1,1-Trichloroethane, CAS: 71-55-6

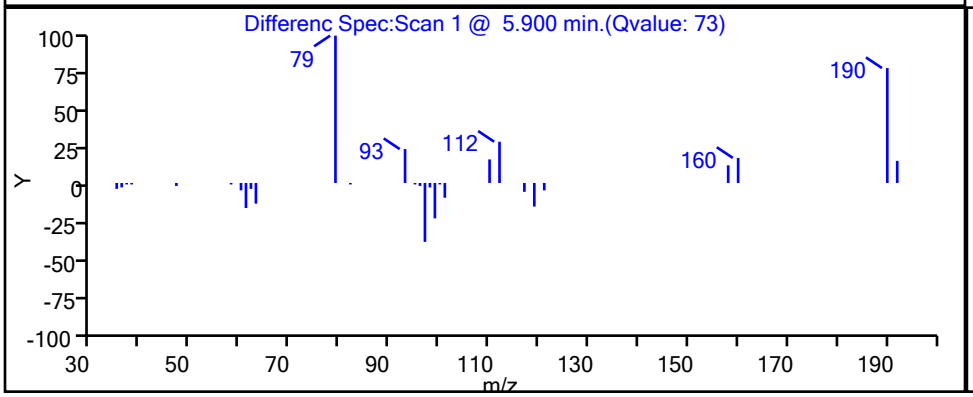


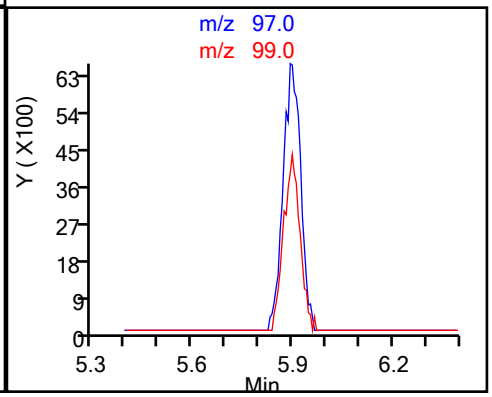








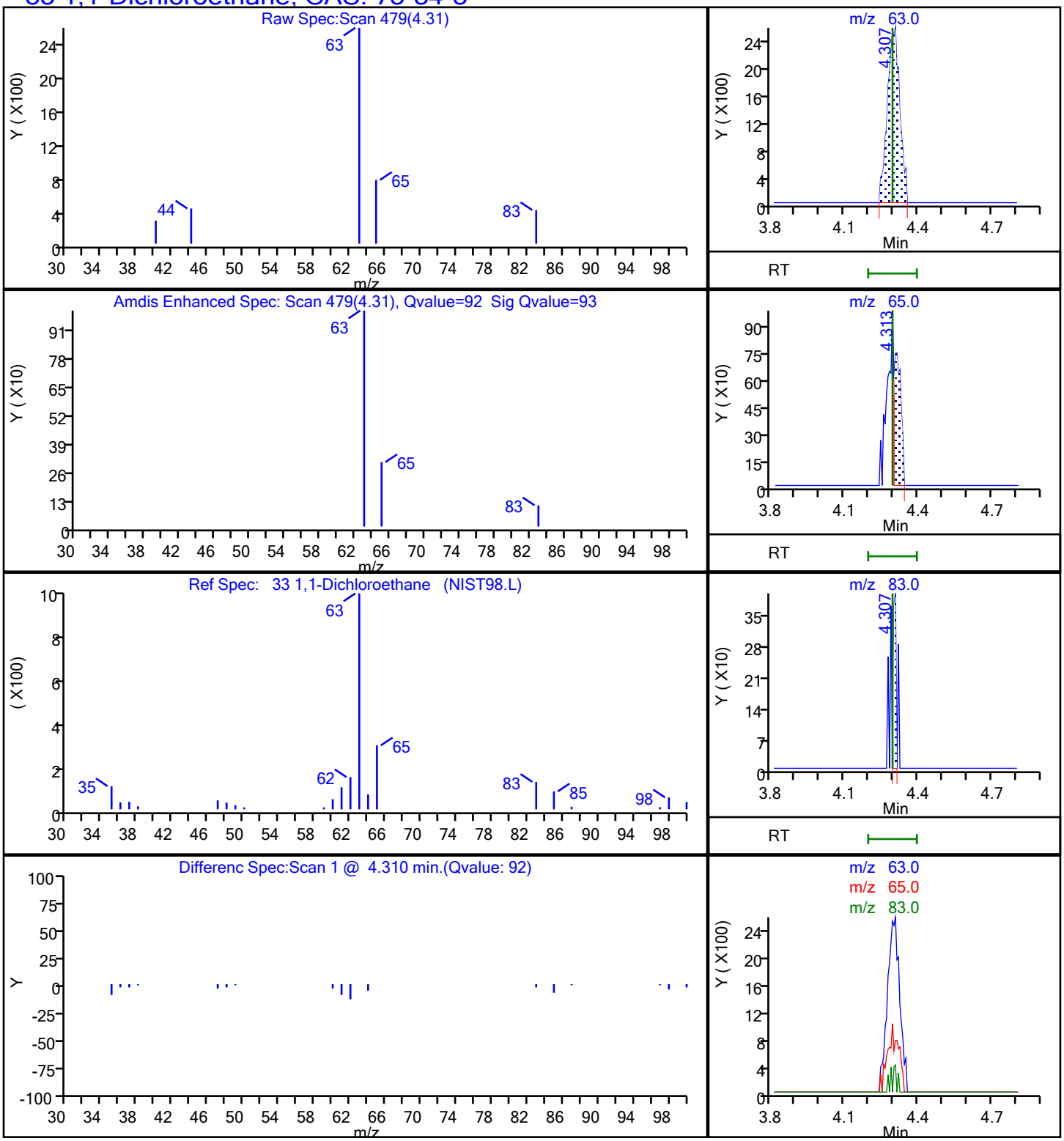




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D				
Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



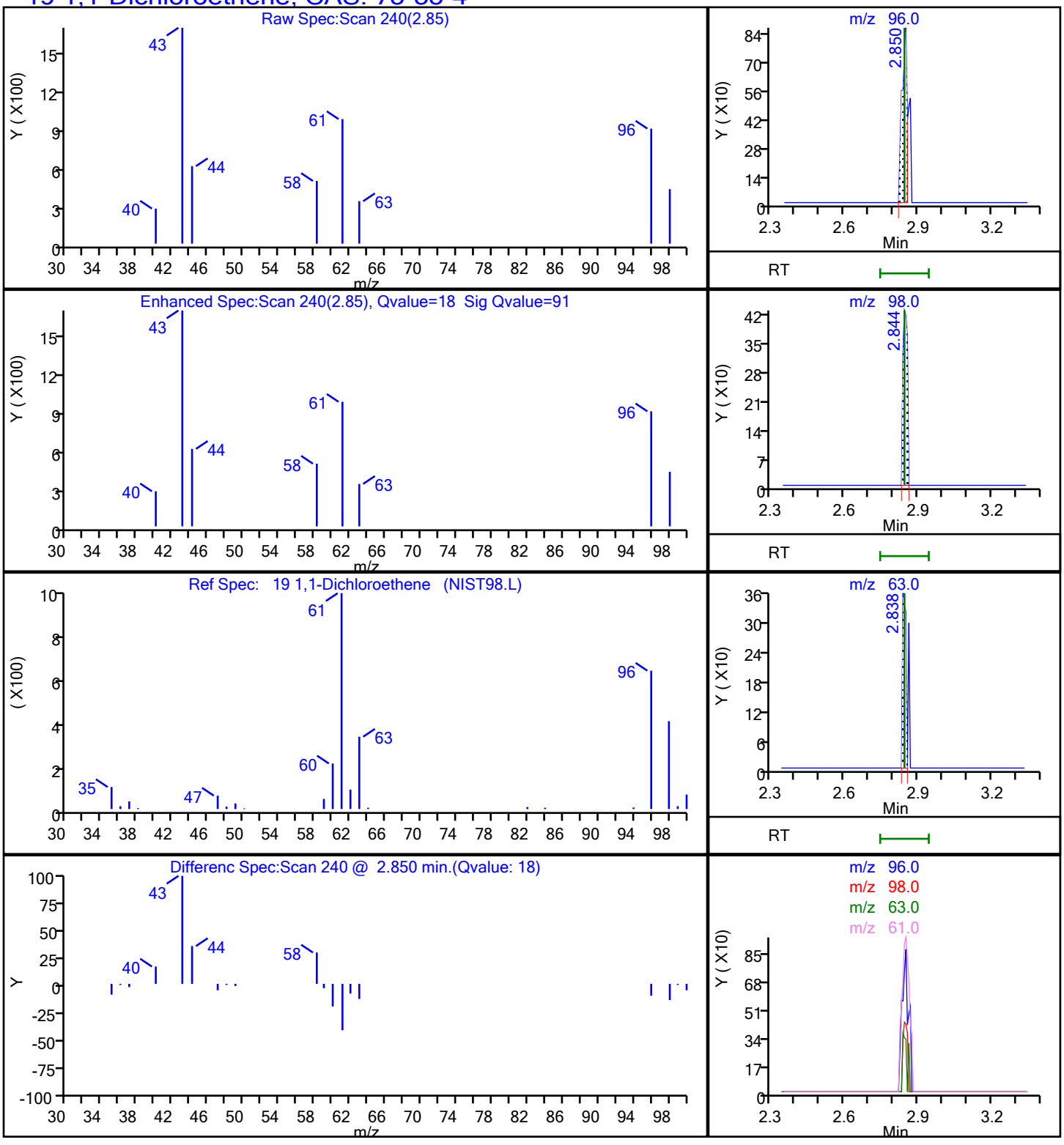
Report Date: 19-Nov-2020 23:20:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D

Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4



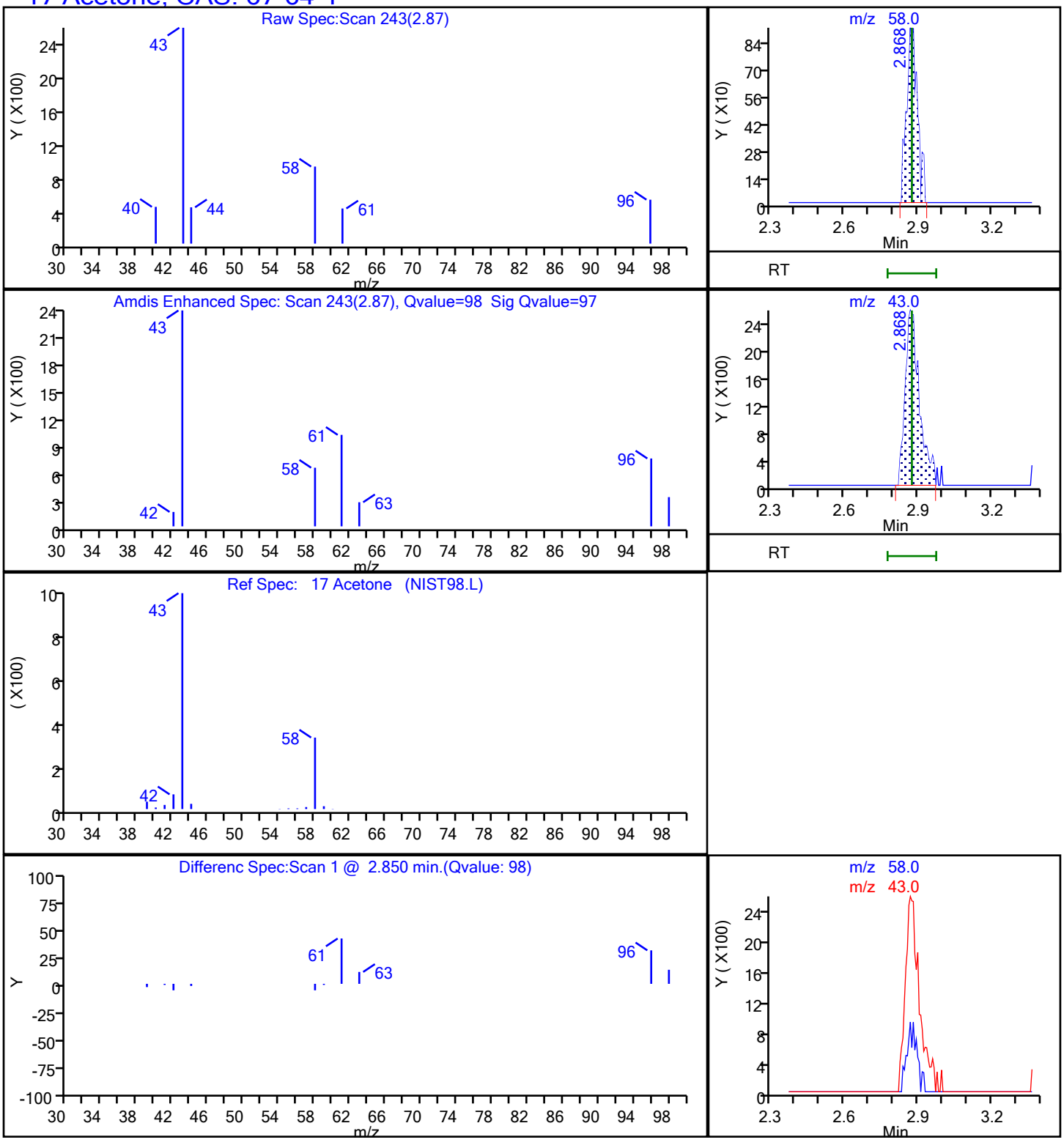
02/25/2021

Report Date: 19-Nov-2020 23:20:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D				
Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

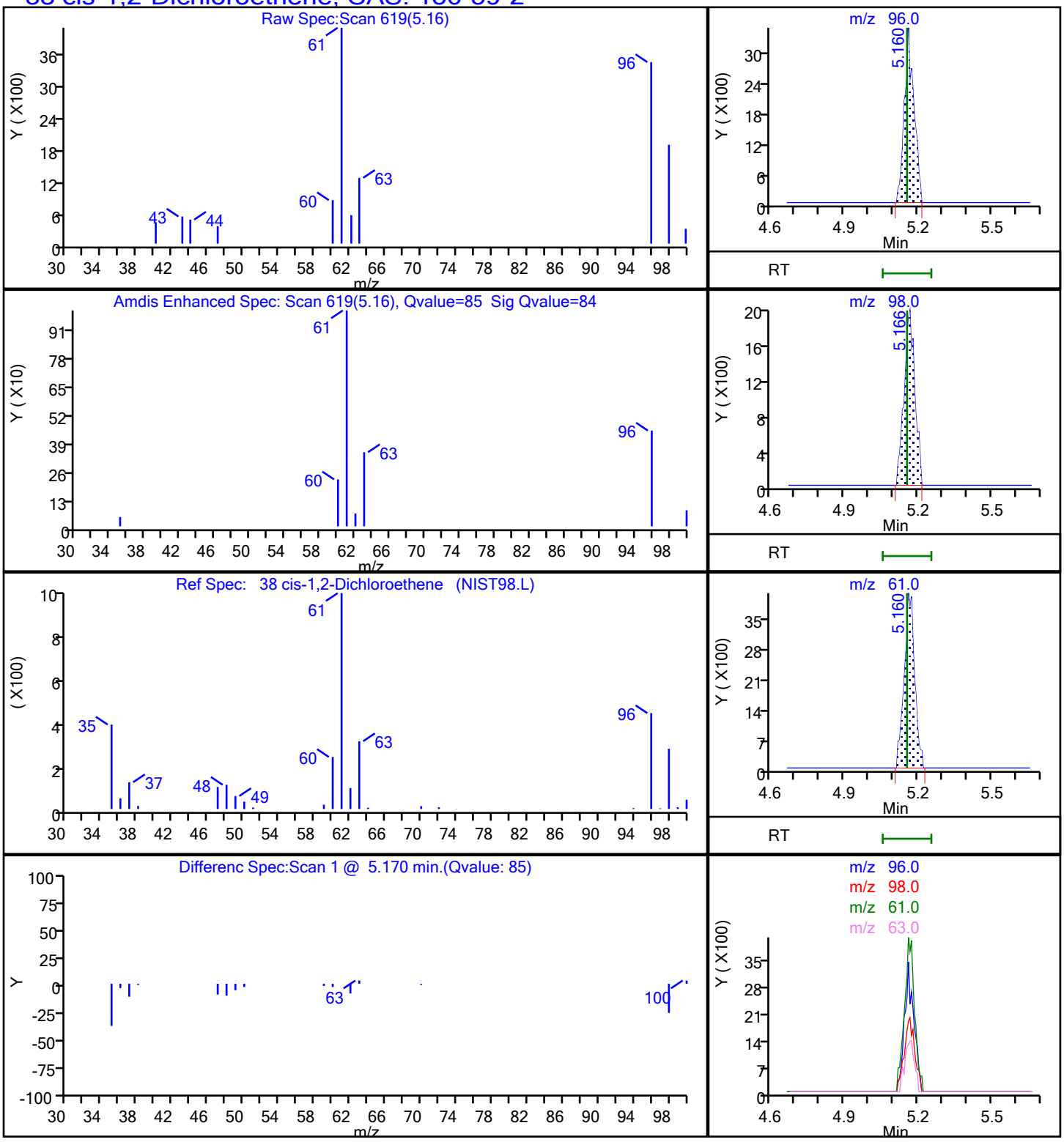
17 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D				
Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

38 cis-1,2-Dichloroethene, CAS: 156-59-2

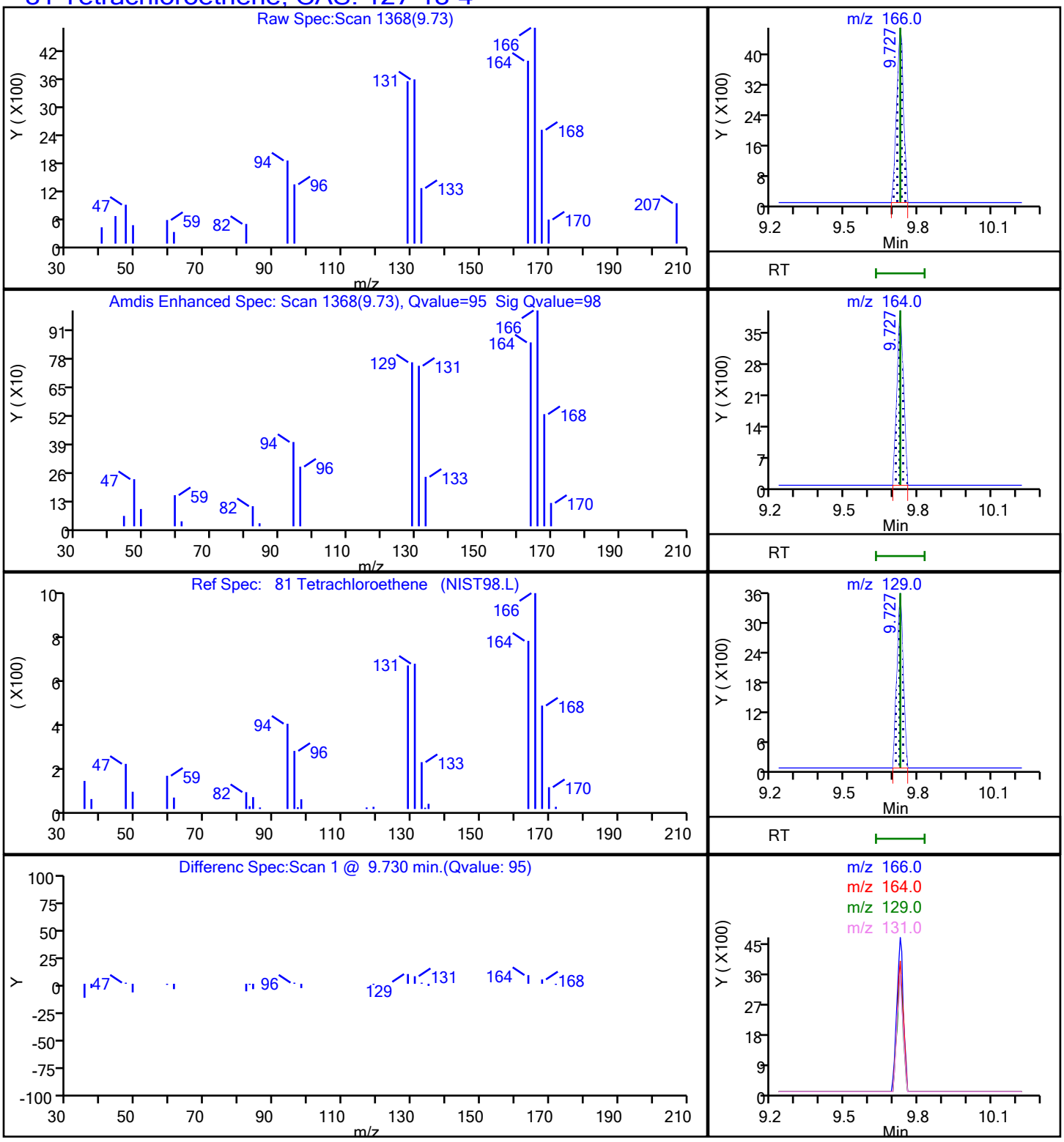


Report Date: 19-Nov-2020 23:20:30 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D				
Injection Date:	18-Nov-2020 18:18:30	Instrument ID:	26285		
Lims ID:	410-20865-A-29	Lab Sample ID:	410-20865-29		
Client ID:	R5-DUP				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 19-Nov-2020 23:20:30 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S19.D

Injection Date: 18-Nov-2020 18:18:30 Instrument ID: 26285

Lims ID: 410-20865-A-29 Lab Sample ID: 410-20865-29

Client ID: R5-DUP

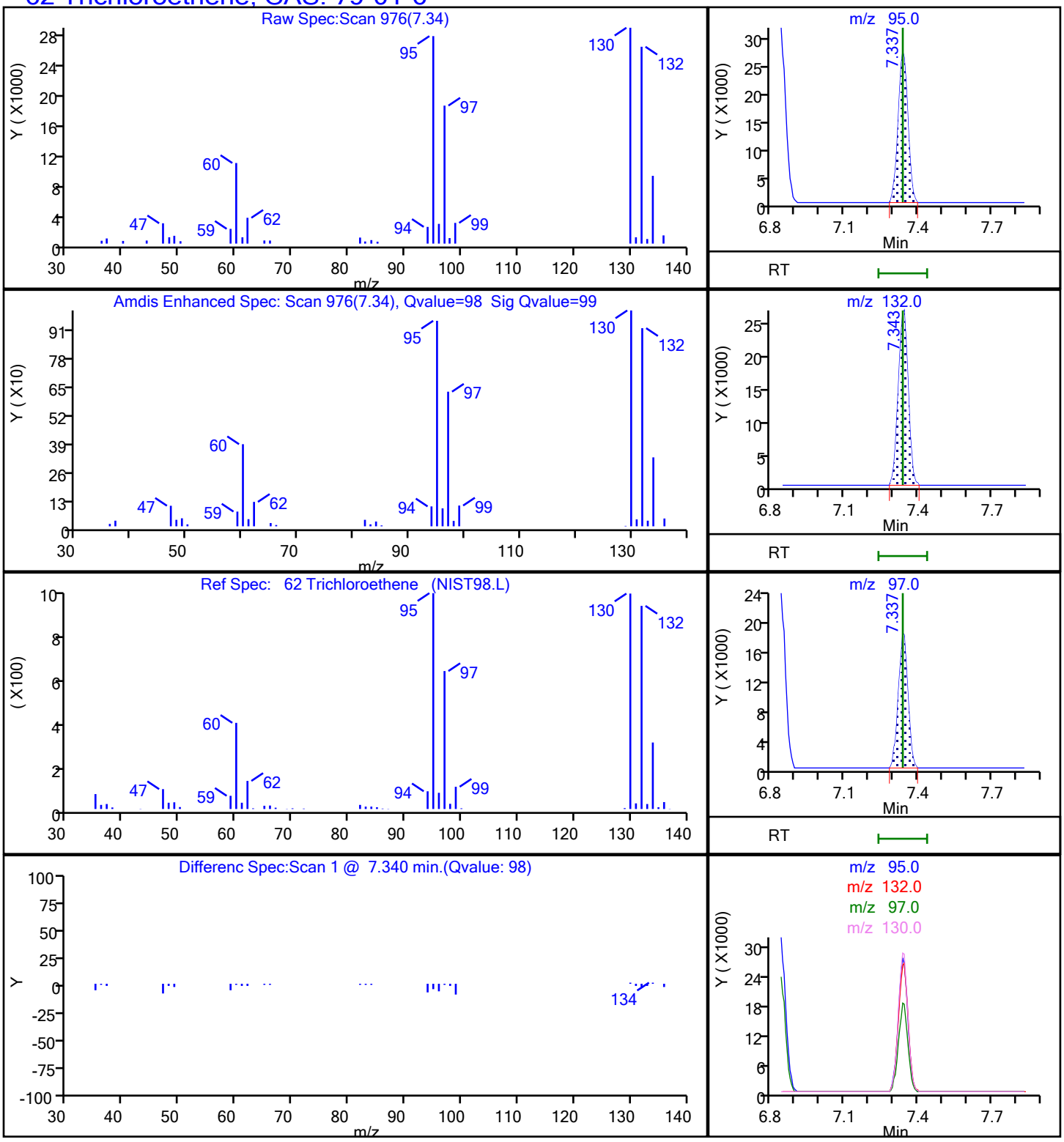
Operator ID: clm27445 ALS Bottle#: 24 Worklist Smp#: 25

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-03 Lab Sample ID: 410-20865-30

Matrix: Water Lab File ID: 5N18S04.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 13:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.6		1.0	0.30
75-34-3	1,1-Dichloroethane	0.80	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.20	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	3.1	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	1.3	F1	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	11		1.0	0.20
75-01-4	Vinyl chloride	ND	F2	1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D
Lims ID: 410-20865-A-30
Client ID: R5-03
Sample Type: Client
Inject. Date: 18-Nov-2020 13:15:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-010
Misc. Info.: 410-20865-A-30
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:10:31

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.582				ND	
2	Dichlorodifluoromethane	85		1.594				ND	
6	Chlorodifluoromethane	51		1.624				ND	
3	Chloromethane	50		1.753				ND	
4	Butadiene	39		1.838				ND	7
5	Vinyl chloride	62		1.844				ND	7
7	2-Chloro-1,1,1-Trifluoroethane	118		1.917				ND	
8	Bromomethane	94		2.100				ND	
9	Chloroethane	64		2.161				ND	
10	Dichlorofluoromethane	67		2.356				ND	
11	Trichlorofluoromethane	101		2.405				ND	
12	Pentane	43		2.429				ND	
13	Ethanol	45		2.545				ND	
14	Ethyl ether	59		2.594				ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		2.667				ND	
16	Acrolein	56		2.734				ND	
19	1,1-Dichloroethene	96	2.844	2.844	0.000	89	1005	0.1955	
17	Acetone	58	2.874	2.874	0.000	99	3239	3.07	
18	112TCTFE	101		2.880				ND	
20	Iodomethane	142		3.002				ND	
21	Isopropyl alcohol	45		3.008				ND	
22	Carbon disulfide	76		3.082				ND	7
23	Methyl acetate	43		3.197				ND	
24	Acetonitrile	41		3.222				ND	
25	3-Chloro-1-propene	41		3.222				ND	
26	Methylene Chloride	84		3.374				ND	
* 27	t-Butyl alcohol-d10 (IS)	65	3.386	3.386	0.000	98	370750	250.0	
28	2-Methyl-2-propanol	59		3.496				ND	
29	Acrylonitrile	53		3.643				ND	
30	Methyl tert-butyl ether	73		3.691				ND	
31	trans-1,2-Dichloroethene	96		3.697				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
32 Hexane	57		4.063				ND	
33 1,1-Dichloroethane	63	4.301	4.295	0.006	90	8707	0.7951	
35 Isopropyl ether	45		4.350				ND	
34 Vinyl acetate	43		4.368				ND	
36 2-Chloro-1,3-butadiene	53		4.405				ND	
37 Tert-butyl ethyl ether	59		4.911				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
40 2,2-Dichloropropane	77		5.173				ND	
41 Propionitrile	54		5.246				ND	
42 Ethyl acetate	43		5.270				ND	7
43 Methacrylonitrile	67		5.459				ND	
44 Chlorobromomethane	128		5.502				ND	
45 Tetrahydrofuran	71		5.514				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.886	5.892	-0.006	39	24701	2.59	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	275934	47.5	
49 Cyclohexane	56		5.990				ND	
51 Carbon tetrachloride	117		6.112				ND	
50 1,1-Dichloropropene	75		6.118				ND	
S 74 1,2-Dichloroethene, Total	100		6.155				ND	7
52 Isobutyl alcohol	41		6.343				ND	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	62609	49.3	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
57 Isopropyl acetate	43		6.587				ND	
58 Tert-amyl methyl ether	73		6.611				ND	
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1116272	50.0	
60 n-Heptane	43		6.855				ND	
61 n-Butanol	56		7.270				ND	
62 Trichloroethene	95	7.337	7.337	0.000	99	77609	11.4	
63 Methylcyclohexane	83		7.642				ND	
64 1,2-Dichloropropane	63		7.691				ND	
65 2-ethoxy-2-methyl butane	87		7.715				ND	
68 1,4-Dioxane	88		7.794				ND	
66 Dibromomethane	93		7.806				ND	
67 Methyl methacrylate	69		7.806				ND	
89 t-Amyl alcohol	73		7.842				ND	
69 n-Propyl acetate	61		7.953				ND	
70 Dichlorobromomethane	83		8.062				ND	
72 2-Nitropropane	41		8.367				ND	
71 2-Chloroethyl vinyl ether	63		8.471				ND	
73 cis-1,3-Dichloropropene	75		8.660				ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1059042	50.1	
77 Toluene	92		9.093				ND	7
78 trans-1,3-Dichloropropene	75		9.422				ND	
79 Ethyl methacrylate	69		9.513				ND	
80 1,1,2-Trichloroethane	97		9.647				ND	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	9406	1.31	
82 1,3-Dichloropropane	76		9.830				ND	
83 3,4-Dichloro-1-butene	75		9.903				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 2-Hexanone	43		9.910				ND	
T 183 Hexachloroethane TIC	117		10.000				ND	
S 123 1,3-Dichloropropene, Total	100		10.060				ND	7
85 Chlorodibromomethane	129		10.068				ND	
86 n-Butyl acetate	43		10.080				ND	
87 Ethylene Dibromide	107		10.178				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	838995	50.0	
88 Chlorobenzene	112		10.696				ND	
91 1-Chlorohexane	91		10.696				ND	U
92 1,1,1,2-Tetrachloroethane	131		10.794				ND	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
96 Styrene	104		11.306				ND	
97 Bromoform	173		11.464				ND	
98 Isopropylbenzene	105		11.617				ND	
99 cis-1,4-Dichloro-2-butene	88		11.677				ND	U
100 Cyclohexanone	55		11.690				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	95	402233	47.2	
102 Bromobenzene	156		11.879				ND	
105 1,1,2,2-Tetrachloroethane	83		11.891				ND	
104 trans-1,4-Dichloro-2-butene	53		11.915				ND	
103 1,2,3-Trichloropropane	110		11.927				ND	
106 N-Propylbenzene	91		11.970				ND	
107 2-Chlorotoluene	126		12.043				ND	
108 1,3,5-Trimethylbenzene	105		12.116				ND	
109 4-Chlorotoluene	126		12.141				ND	
110 2,3,4-Trichlorobutene	109		12.171				ND	
111 tert-Butylbenzene	134		12.373				ND	
112 Pentachloroethane	167		12.397				ND	
113 1,2,4-Trimethylbenzene	105		12.415				ND	
114 sec-Butylbenzene	105		12.543				ND	
115 1,3-Dichlorobenzene	146		12.641				ND	
116 4-Isopropyltoluene	119		12.665				ND	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	445861	50.0	
118 1,4-Dichlorobenzene	146		12.720				ND	
119 1,2,3-Trimethylbenzene	105		12.738				ND	
120 Benzyl chloride	91		12.805				ND	
121 1,3-Diethylbenzene	119		12.879				ND	
122 p-Diethylbenzene	119		12.952				ND	
124 n-Butylbenzene	92		12.970				ND	
125 1,2-Dichlorobenzene	146		12.988				ND	
126 o-diethylbenzene	119		13.025				ND	
135 Hexachloroethane	201		13.560				ND	
127 1,2-Dibromo-3-Chloropropane	75		13.561				ND	
128 1,3,5-Trichlorobenzene	180		13.689				ND	
129 1,2,4-Trichlorobenzene	180		14.134				ND	
131 Hexachlorobutadiene	225		14.226				ND	
132 Naphthalene	128		14.317				ND	7
133 1,2,3-Trichlorobenzene	180		14.464				ND	
134 2-Methylnaphthalene	142		15.085				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
136 C4-C10	1		0.000				ND	
146 2,3-Dichloro-1,3-butadiene	1		0.000				ND	
148 Diethoxymethane	1		0.000				ND	
150 C5-C12	1		0.000				ND	
151 1-Bromo-2-chloroethane	1		0.000				ND	
152 C6-C12	1		0.000				ND	
209 Ethyl acrylate TIC	1		0.000				ND	
202 Bromoacetone (TIC)	1		0.000				ND	
195 1-Bromopropane TIC	1		0.000				ND	
157 Methyl acrylate	1		0.000				ND	
158 tert-Butyl Formate	1		0.000				ND	
159 1,3-Divinylbenzene	1		0.000				ND	
160 Ethyl bromide	1		0.000				ND	
161 Chloroacetonitrile	1		0.000				ND	
196 Epichlorohydrin TIC	1		0.000				ND	
208 Pentachloroethane TIC	1		0.000				ND	
143 trans-1,2,3-Trichlorobutene-2	1		0.000				ND	
144 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
210 Ethanol TIC	1		0.000				ND	
203 2,3-Dibromopropene TIC	1		0.000				ND	
201 Paraldehyde TIC	1		0.000				ND	
200 Ethylene oxide TIC	1		0.000				ND	
199 Bis(2-chloroethyl)sulfide (TIC)	1		0.000				ND	
198 2-Bromo-3-chloropropene TIC	1		0.000				ND	
197 Pentafluorobenzene TIC	1		0.000				ND	
137 1,3-Dichlorobutene-2(total)	1		0.000				ND	
S 162 divinyl benzene	1		0.000				ND	7
163 Methylal	1		0.000				ND	
165 n-Decane	57		0.000				ND	
145 cis-1,2,3-Trichlorobutene-2	1		0.000				ND	
155 3-chloro-1-Butene	1		0.000				ND	
S 154 Total Diethylbenzene	1		0.000				ND	7
156 C6-C10	1		0.000				ND	
174 1-Methyl-2-pyrrilidinone TIC	1		0.000				ND	
175 n-Propylamine (TIC)	1		0.000				ND	
176 beta-Propiolactone TIC	1		0.000				ND	
172 2,3-Dibromo-1-propanol TIC	1		0.000				ND	
191 Chloroacetaldehyde TIC	1		0.000				ND	
190 2-Picoline (TIC)	1		0.000				ND	
189 Epibromohydrin TIC	1		0.000				ND	
188 Malononitrile (TIC)	1		0.000				ND	
187 2-Pentanone (TIC)	1		0.000				ND	
140 C4-C12	1		0.000				ND	
142 1,4-Divinylbenzene	1		0.000				ND	
141 1-Chlorobutane	1		0.000				ND	
182 2-Chloroethanol TIC	1		0.000				ND	
181 Acetonitrile TIC	1		0.000				ND	
180 Propanol TIC	1		0.000				ND	
179 Monochloroacetic acid TIC	1		0.000				ND	
178 Propargyl alcohol TIC	1		0.000				ND	
173 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
138 Propene oxide	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
194 Vinyl bromide TIC	1		0.000				ND	
193 Allyl Alcohol TIC	1		0.000				ND	
186 Bromoethane TIC	1		0.000				ND	
185 Nitrobenzene TIC	1		0.000				ND	
192 Vinyl acetate (TIC)	1		0.000				ND	
177 2-Bromoethanol TIC	1		0.000				ND	
204 Methanol TIC	1		0.000				ND	
205 Chloral hydrate (TIC)	1		0.000				ND	
184 1,3-Dichlorobutene-2(total) TIC	1		0.000				ND	
206 3-Chloro-1,2-propanediol TIC	1		0.000				ND	
171 N-Nitrosodi-n-butylamine TIC	1		0.000				ND	
170 1,2,3,4-Diepoxybutane (TIC)	1		0.000				ND	
169 Ethyl acrylate	55		0.000				ND	
168 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000				ND	
167 Butane	1		0.000				ND	
166 Dodecane	57		0.000				ND	
207 1-Bromo-2-chloroethane TIC	1		0.000				ND	
211 o-toluidine TIC	1		0.000				ND	

QC Flag Legend

Processing Flags
7 - Failed Limit of Detection
Review Flags
U - Marked Undetected

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

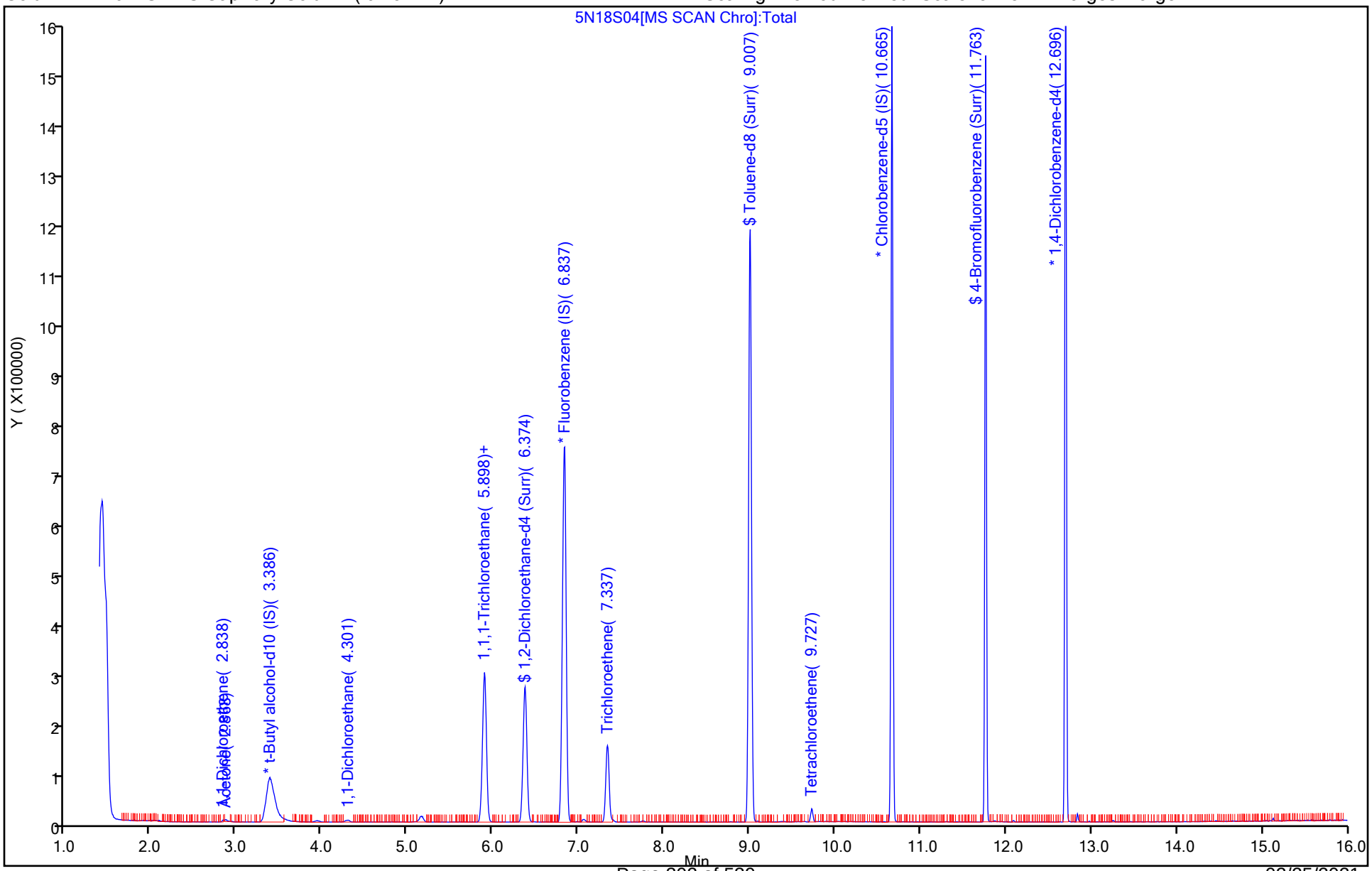
Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D

Injection Date:	18-Nov-2020 13:15:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-30	Lab Sample ID:	410-20865-30	Worklist Smp#:	10
Client ID:	R5-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

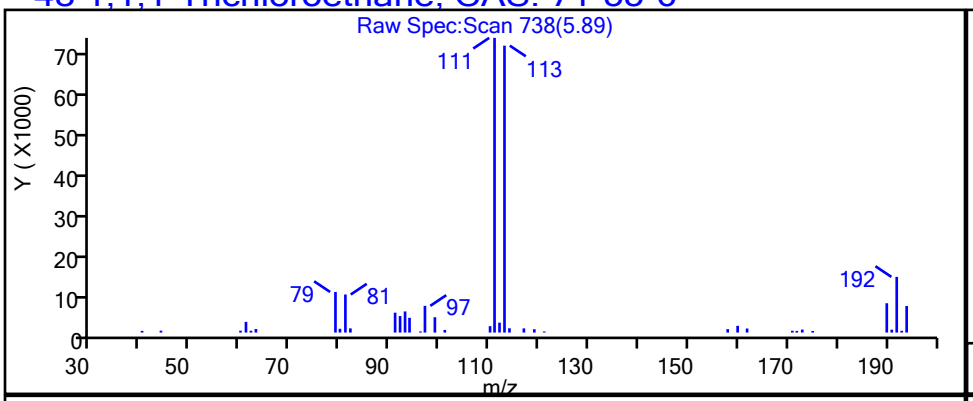


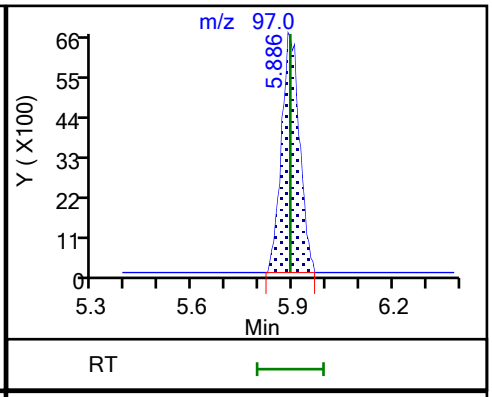
Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

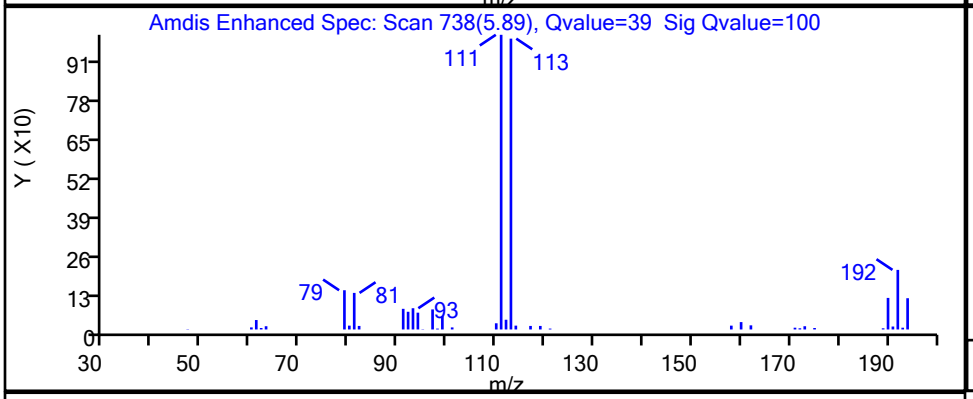
Eurofins Lancaster Laboratories Env, LLC

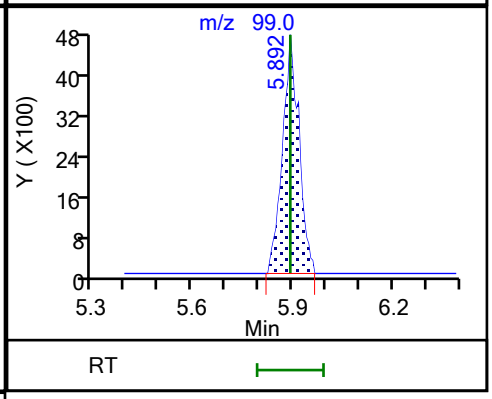
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D				
Injection Date:	18-Nov-2020 13:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-30	Lab Sample ID:	410-20865-30		
Client ID:	R5-03				
Operator ID:	clm27445	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

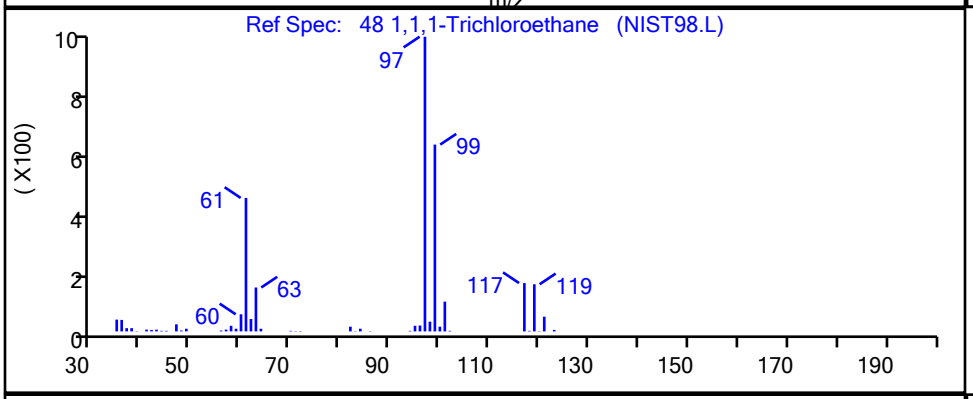
48 1,1,1-Trichloroethane, CAS: 71-55-6

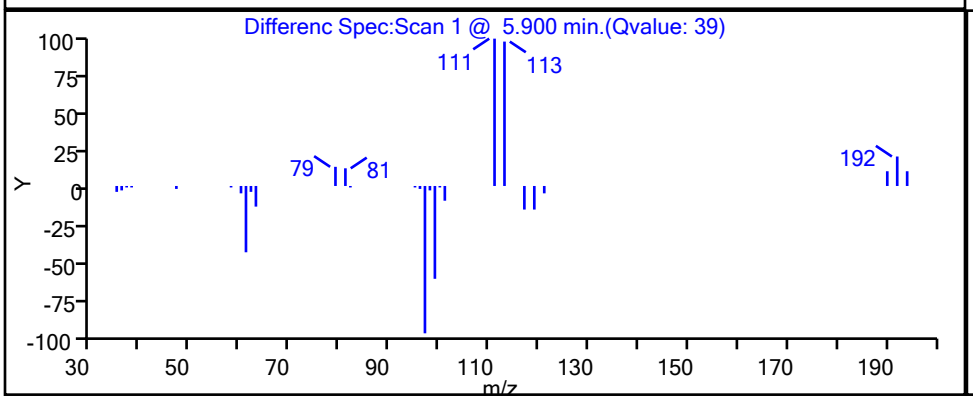


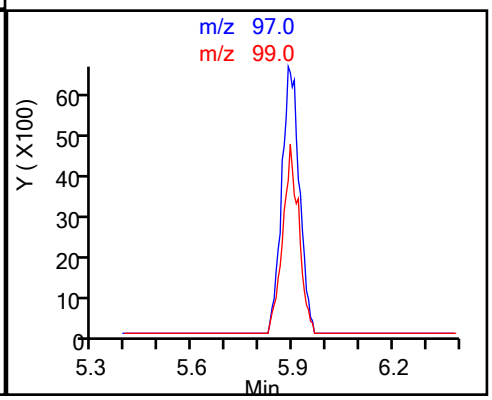










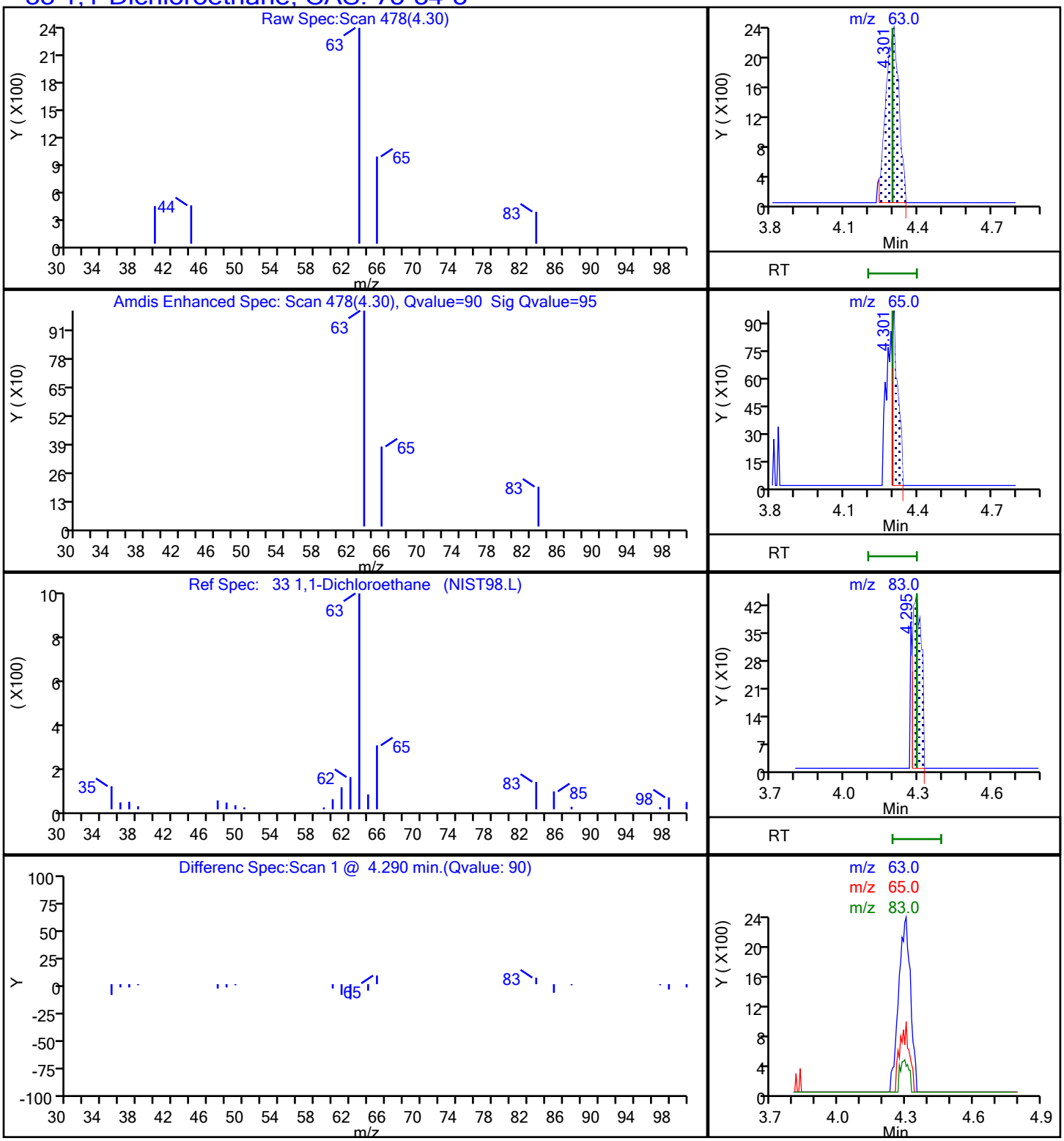


Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D				
Injection Date:	18-Nov-2020 13:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-30	Lab Sample ID:	410-20865-30		
Client ID:	R5-03				
Operator ID:	clm27445	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



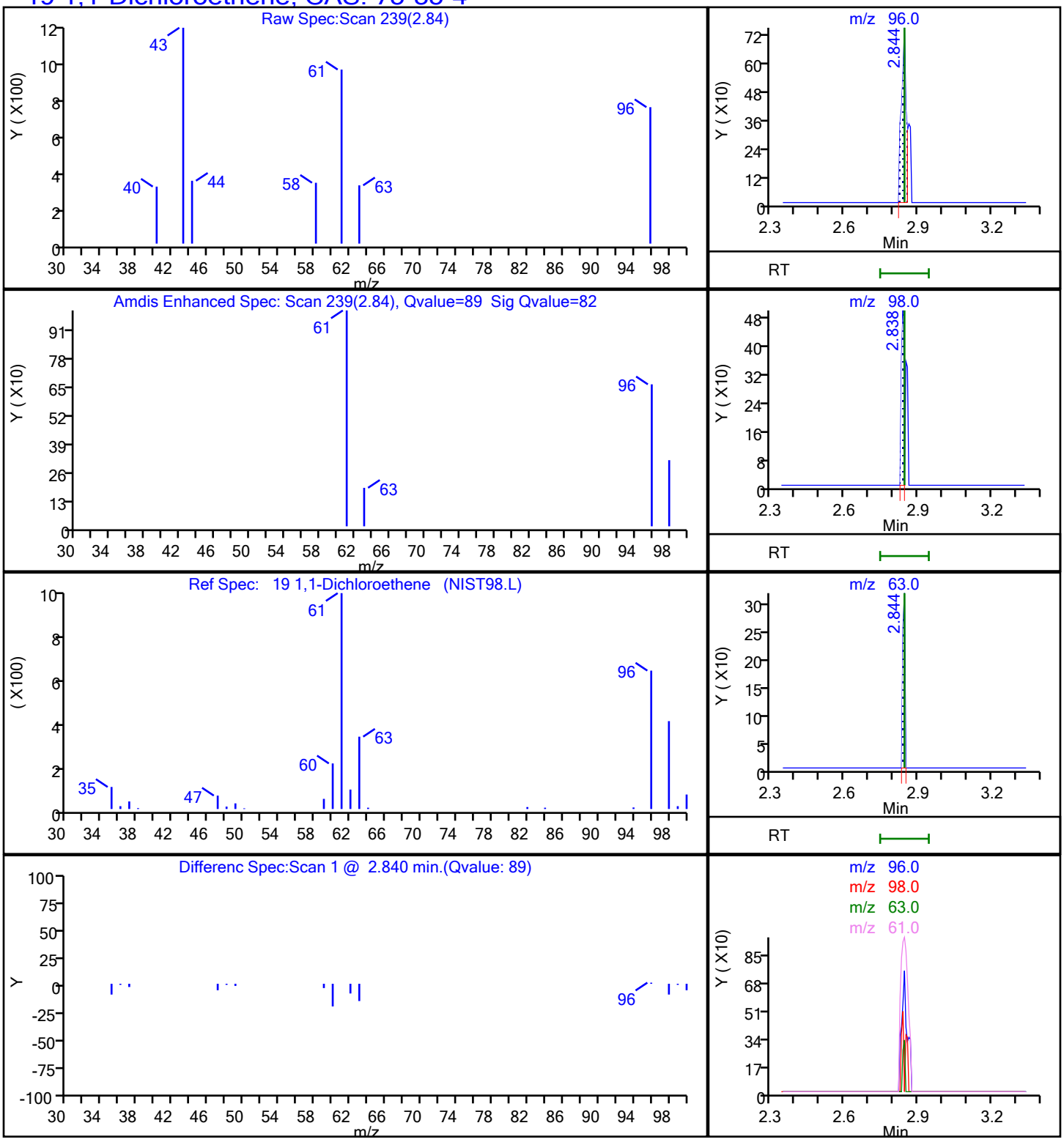
Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D

Injection Date:	18-Nov-2020 13:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-30	Lab Sample ID:	410-20865-30		
Client ID:	R5-03				
Operator ID:	clm27445	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D

Injection Date: 18-Nov-2020 13:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-30 Lab Sample ID: 410-20865-30

Client ID: R5-03

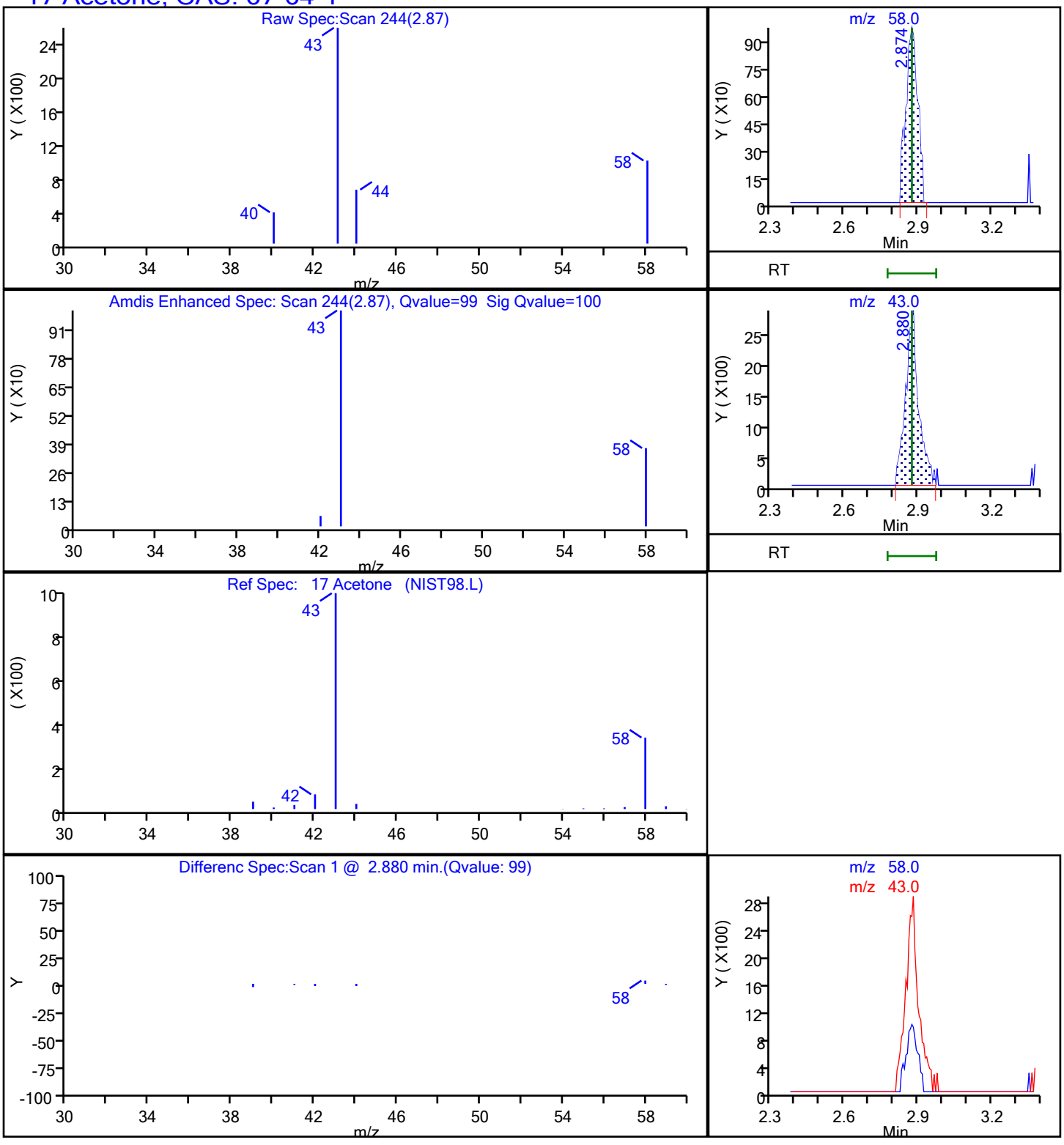
Operator ID: clm27445 ALS Bottle#: 9 Worklist Smp#: 10

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

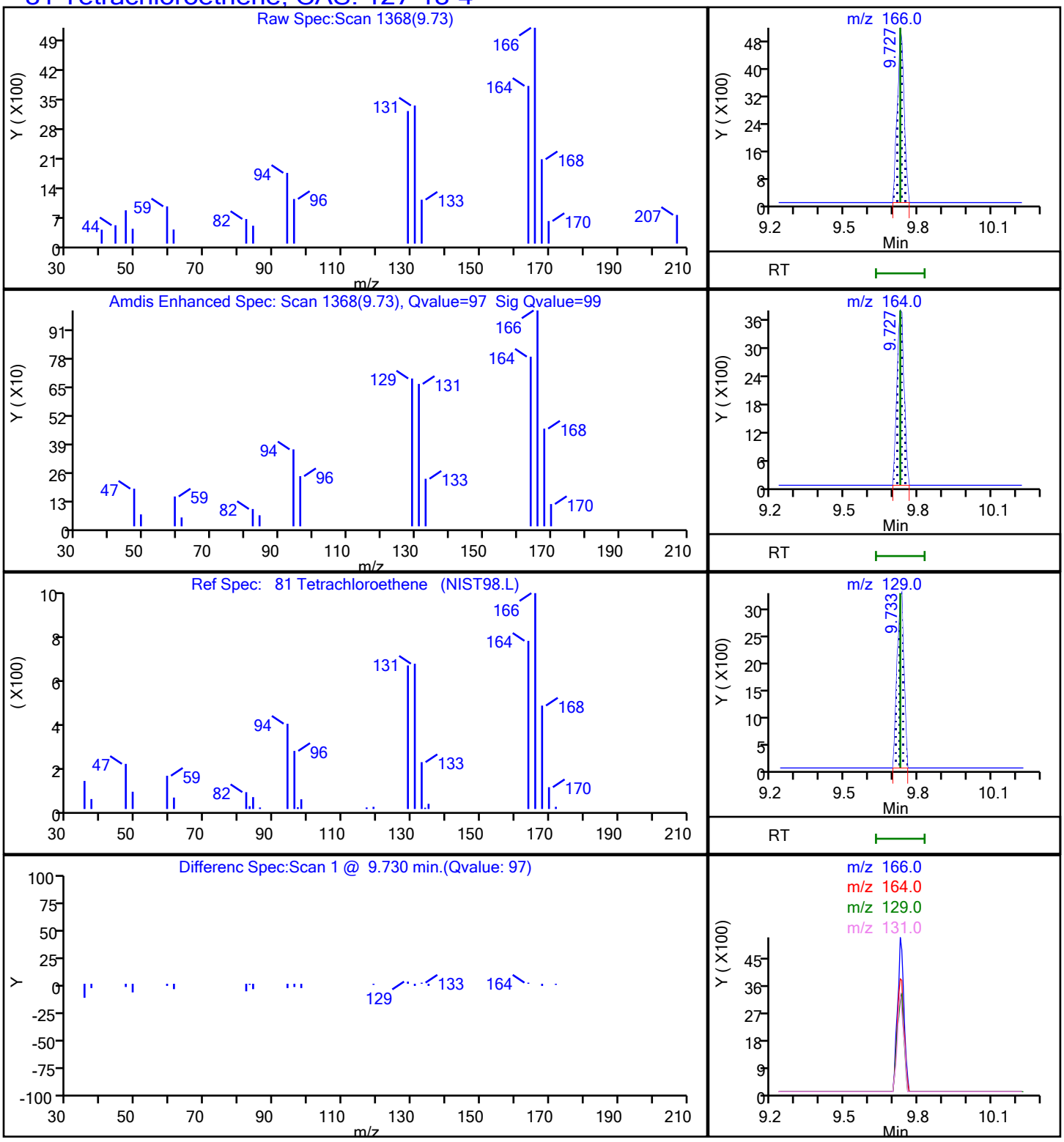
17 Acetone, CAS: 67-64-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D				
Injection Date:	18-Nov-2020 13:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-30	Lab Sample ID:	410-20865-30		
Client ID:	R5-03				
Operator ID:	clm27445	ALS Bottle#:	9	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



Report Date: 19-Nov-2020 23:20:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S04.D

Injection Date: 18-Nov-2020 13:15:30 Instrument ID: 26285

Lims ID: 410-20865-A-30 Lab Sample ID: 410-20865-30

Client ID: R5-03

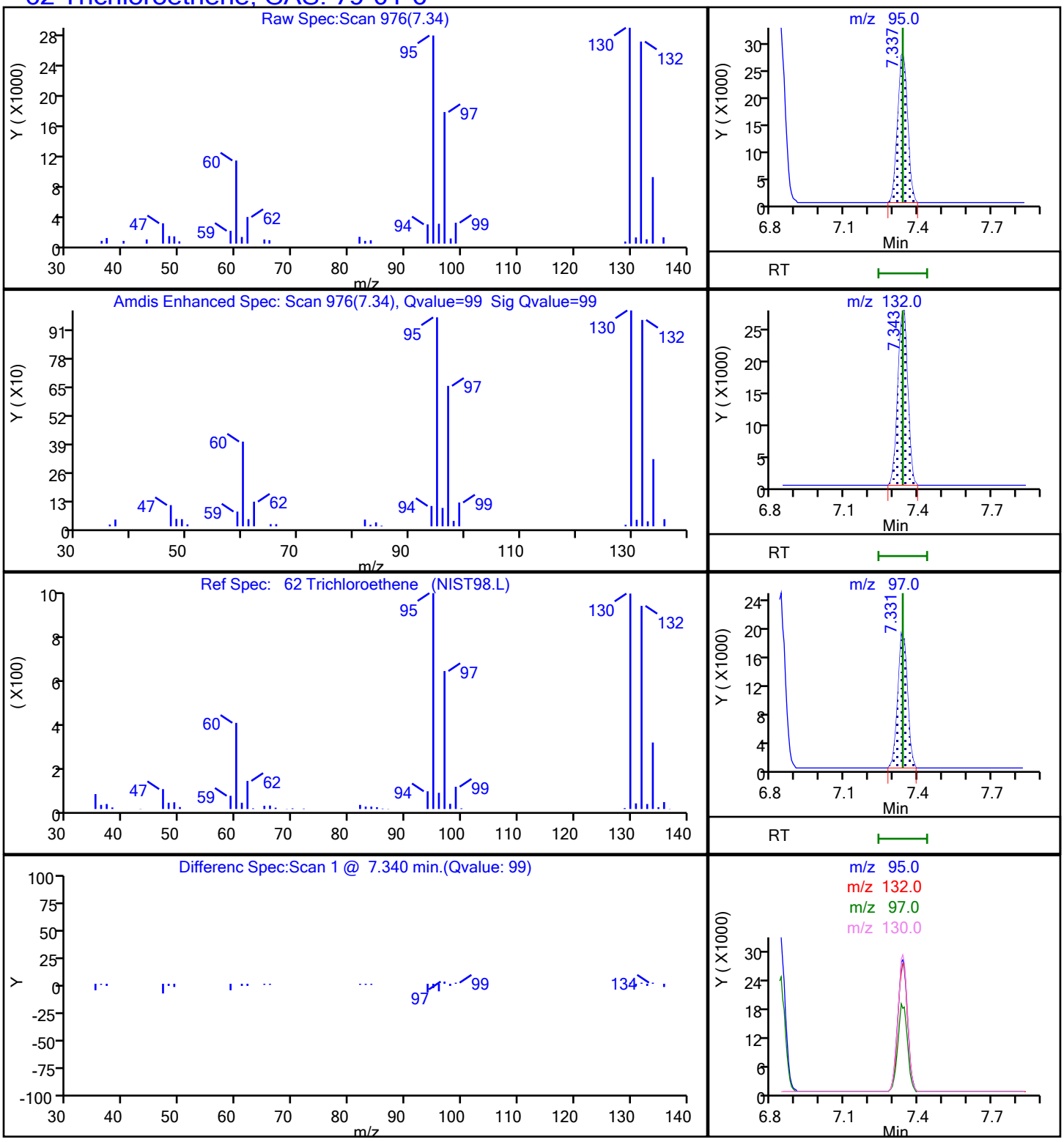
Operator ID: clm27445 ALS Bottle#: 9 Worklist Smp#: 10

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-13 Lab Sample ID: 410-20865-31

Matrix: Water Lab File ID: 5N18S20.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:17

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 18:38

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.8		1.0	0.30
75-34-3	1,1-Dichloroethane	0.53	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.27	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	2.9	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.5		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	1.5		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	13		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D
Lims ID: 410-20865-A-31
Client ID: R5-13
Sample Type: Client
Inject. Date: 18-Nov-2020 18:38:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-026
Misc. Info.: 410-20865-A-31
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:17:50

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	7
19 1,1-Dichloroethene	96	2.850	2.844	0.006	83	1338	0.2693	
17 Acetone	58	2.862	2.874	-0.012	96	2896	2.88	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.393	3.386	0.007	98	353280	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63	4.301	4.295	0.006	6	5656	0.5342	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96	5.160	5.154	0.006	78	9961	1.50	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	39	25462	2.77	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	93	269603	48.0	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	98	61968	50.5	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1079276	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	98	82220	12.5	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1017369	50.3	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166	9.727	9.727	0.000	95	10241	1.49	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	803133	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	378790	46.4	
* 117 1,4-Dichlorobenzene-d4	152	12.696	12.702	-0.006	94	424904	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

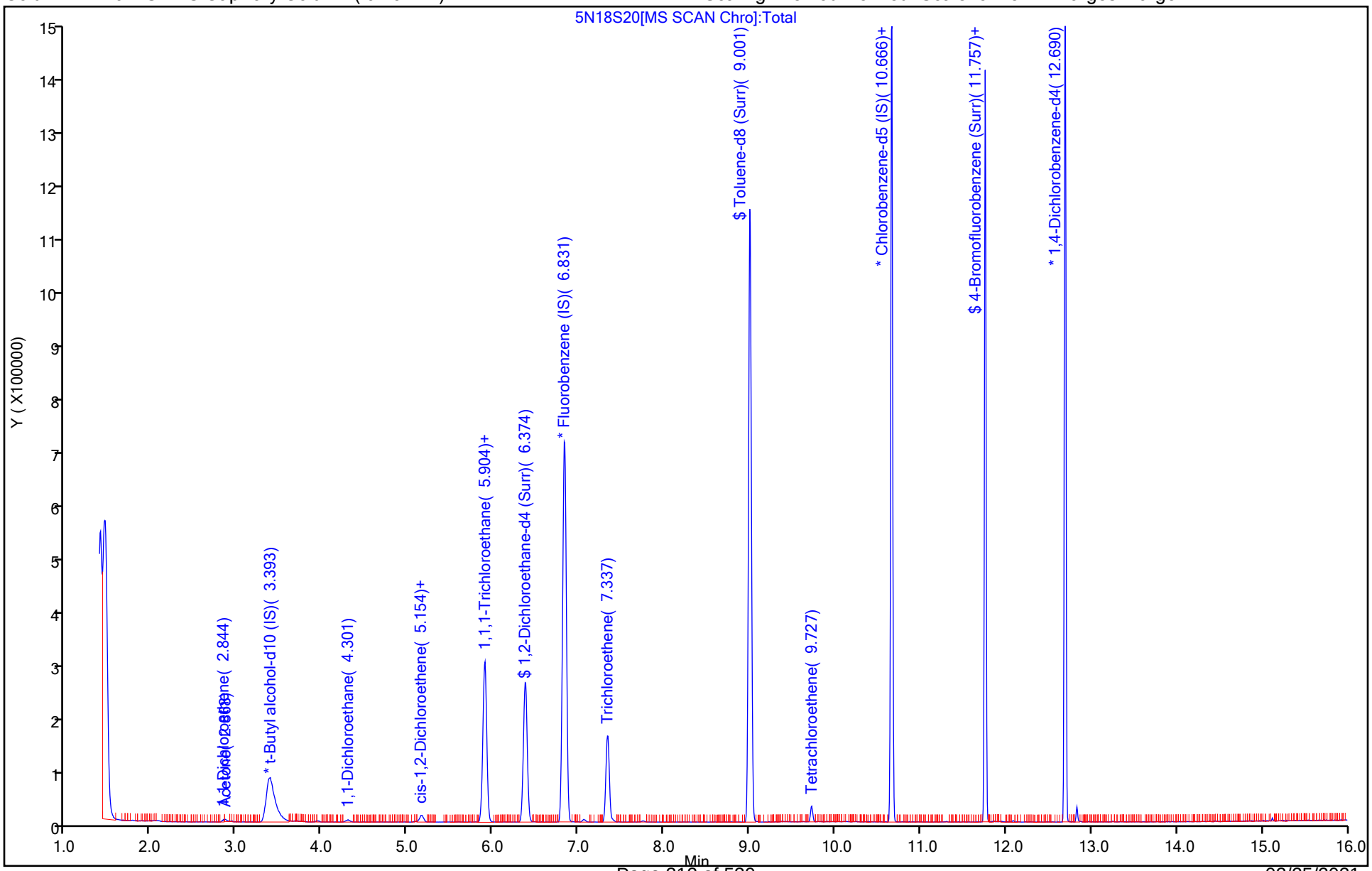
Report Date: 19-Nov-2020 23:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D

Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31	Worklist Smp#:	26
Client ID:	R5-13				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

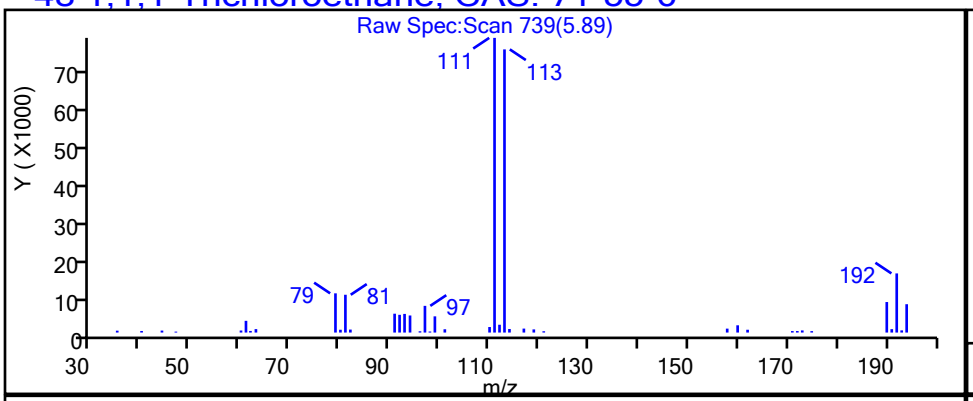
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

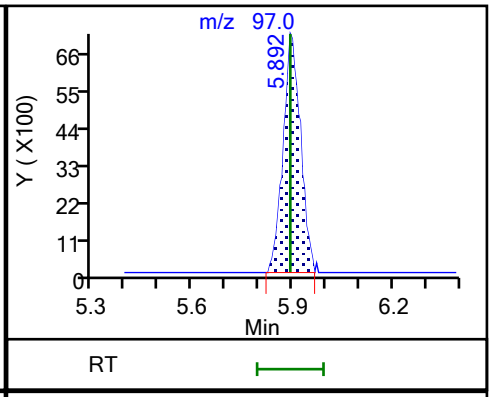


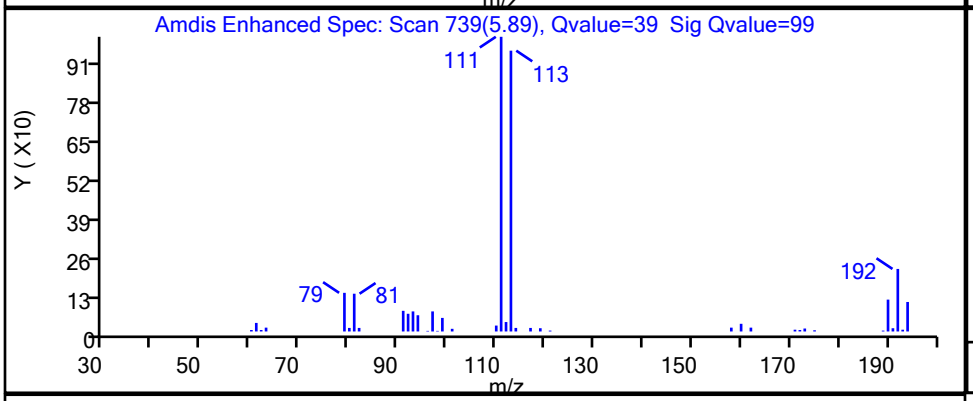
Eurofins Lancaster Laboratories Env, LLC

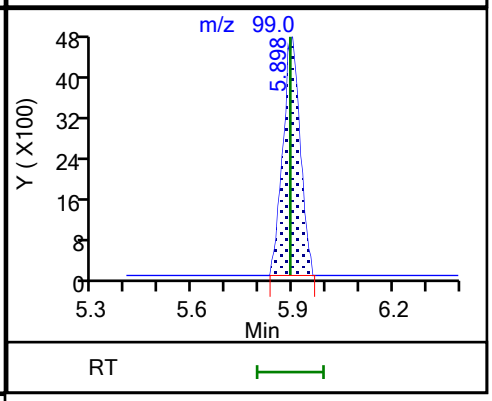
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D				
Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

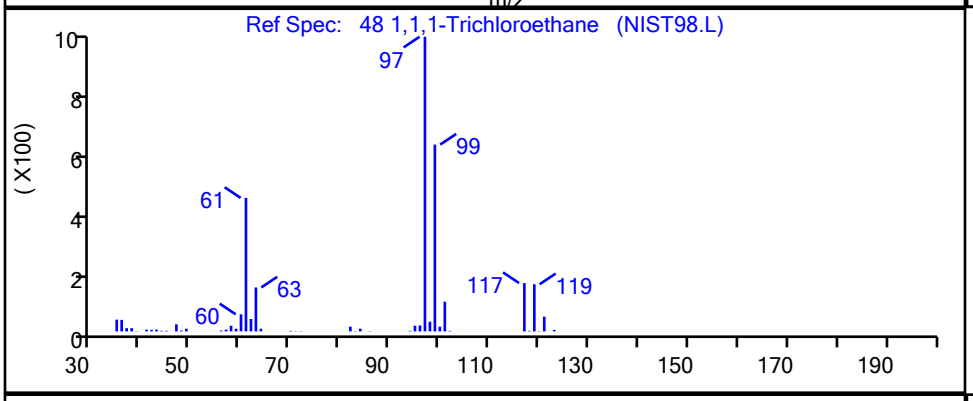
48 1,1,1-Trichloroethane, CAS: 71-55-6

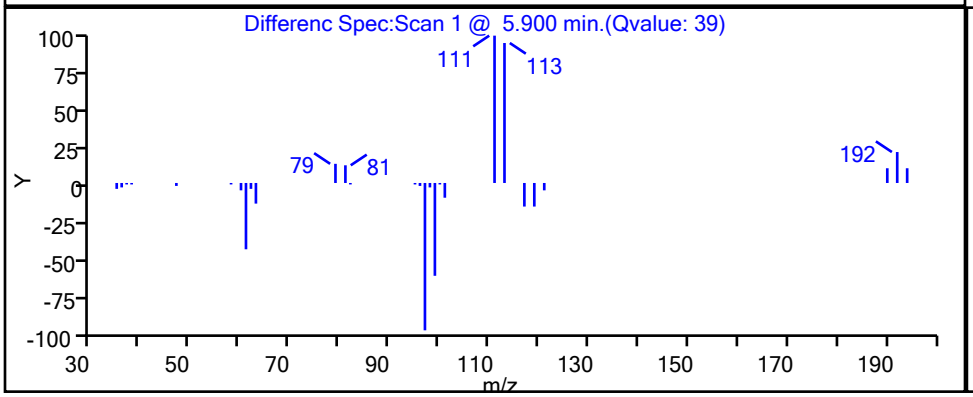


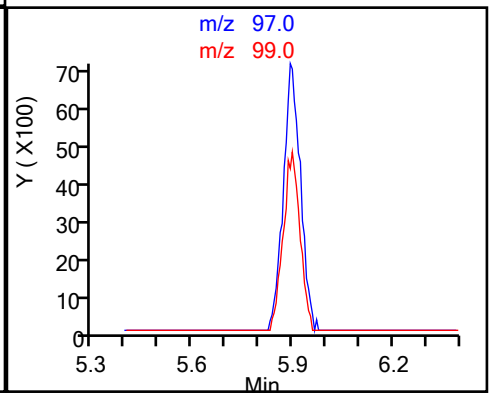








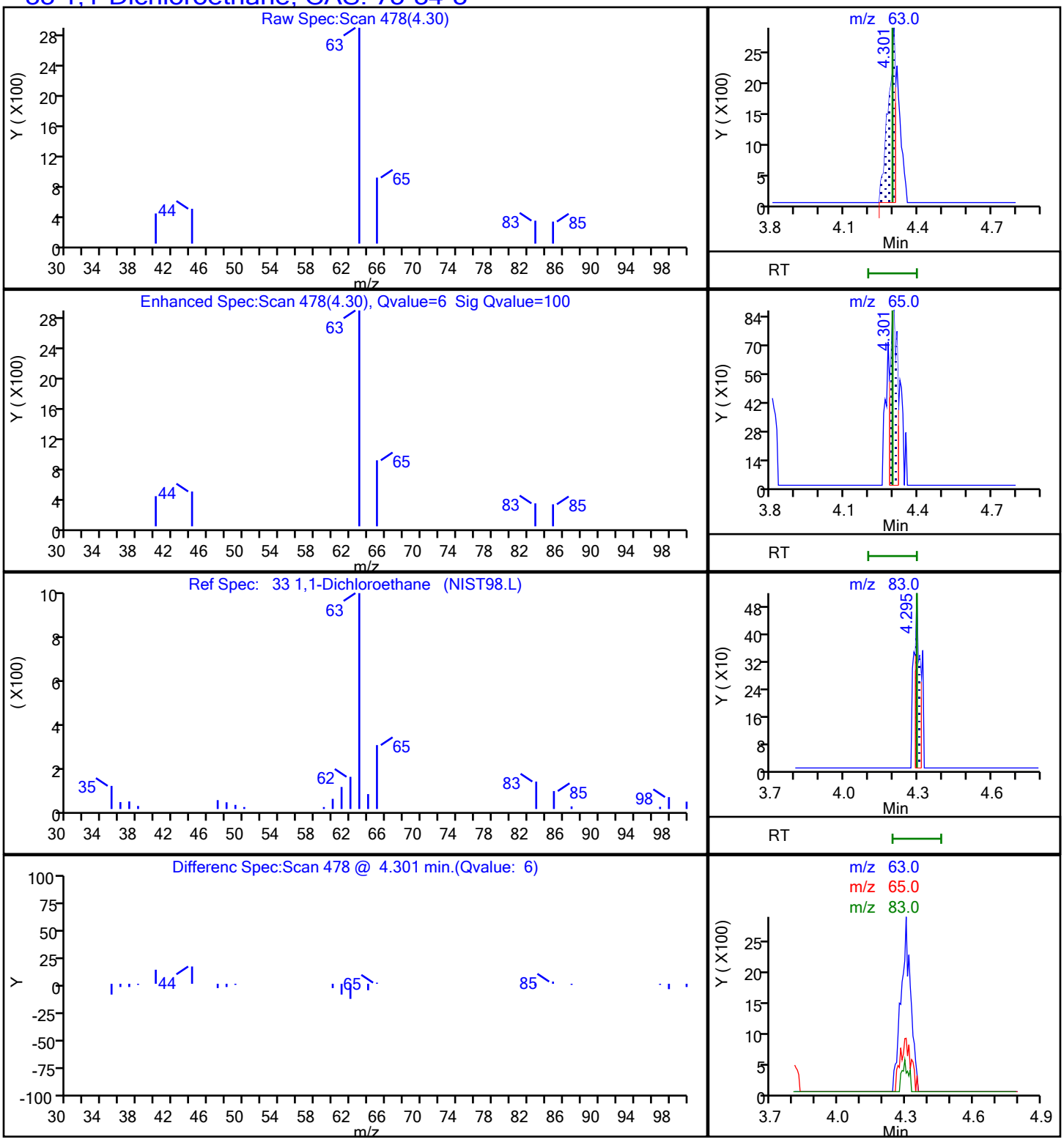




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D				
Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

33 1,1-Dichloroethane, CAS: 75-34-3



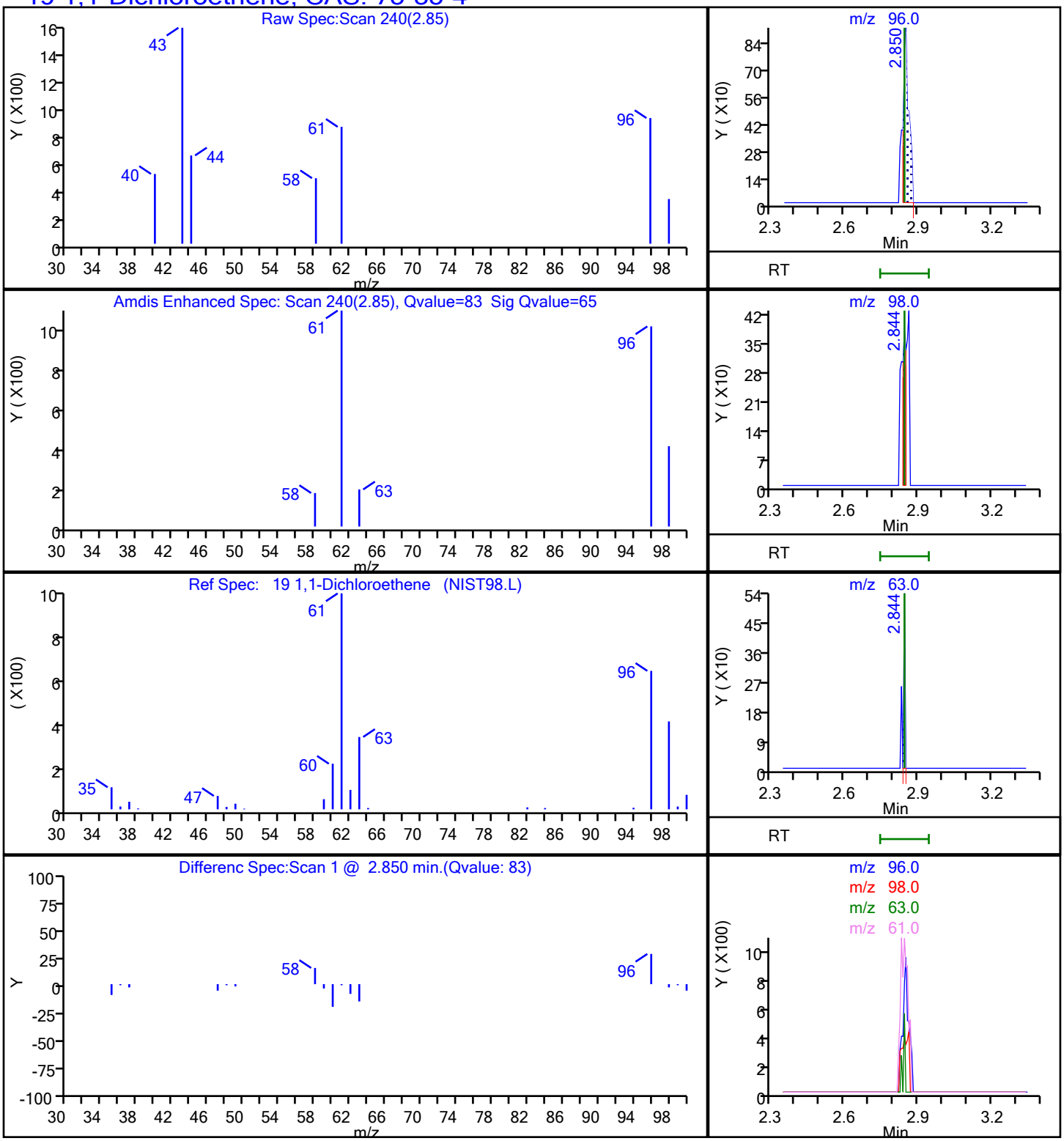
Report Date: 19-Nov-2020 23:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D

Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

19 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 19-Nov-2020 23:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

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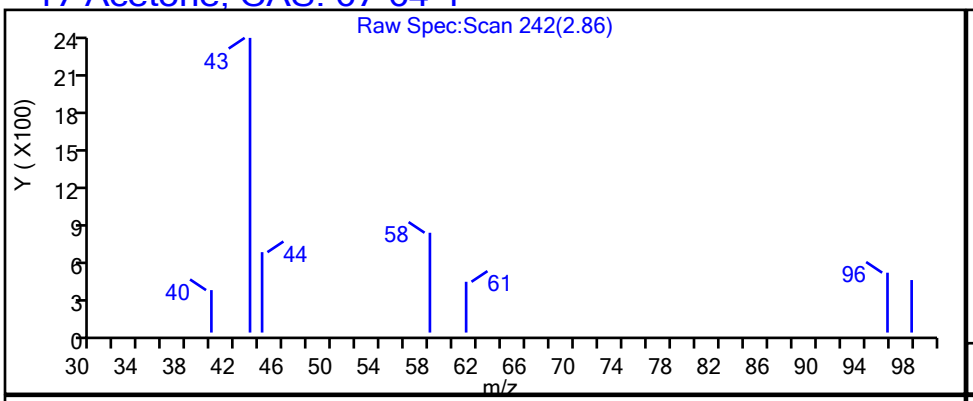
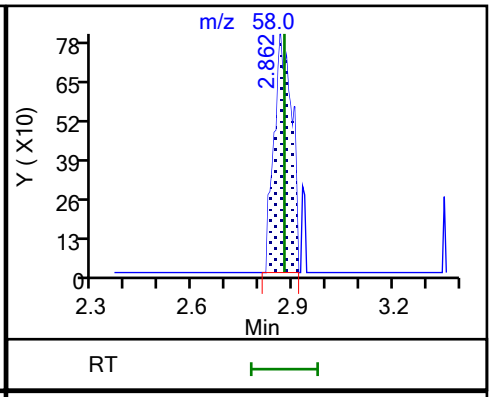
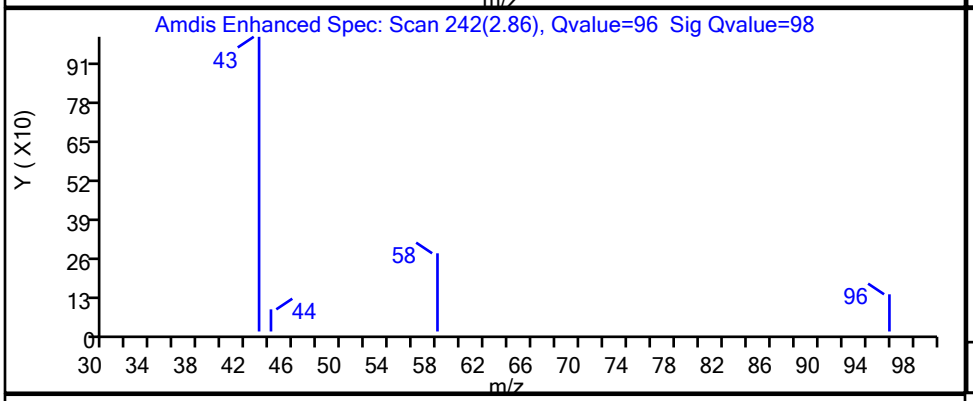
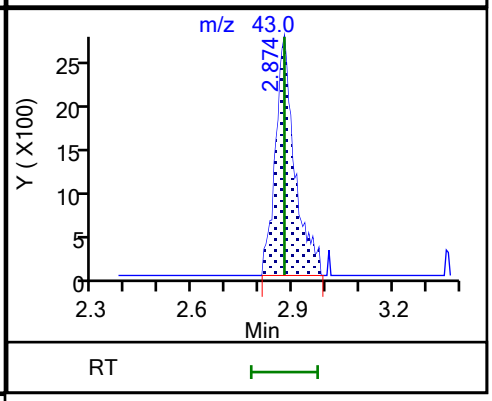
Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

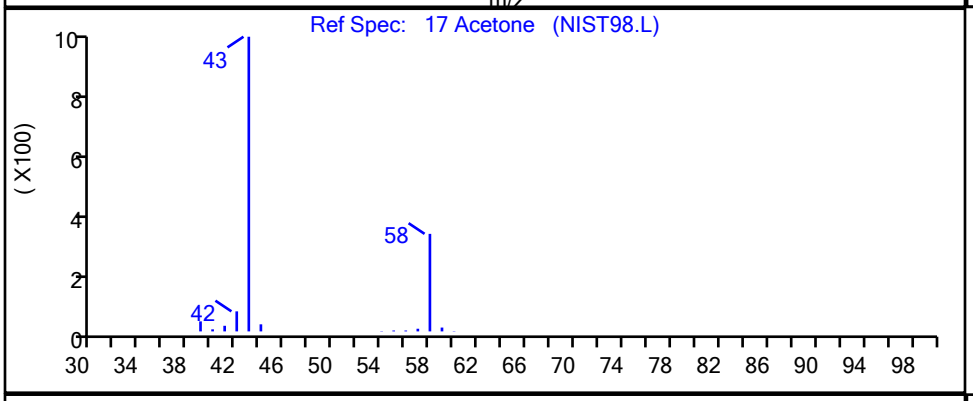
17 Acetone, CAS: 67-64-1

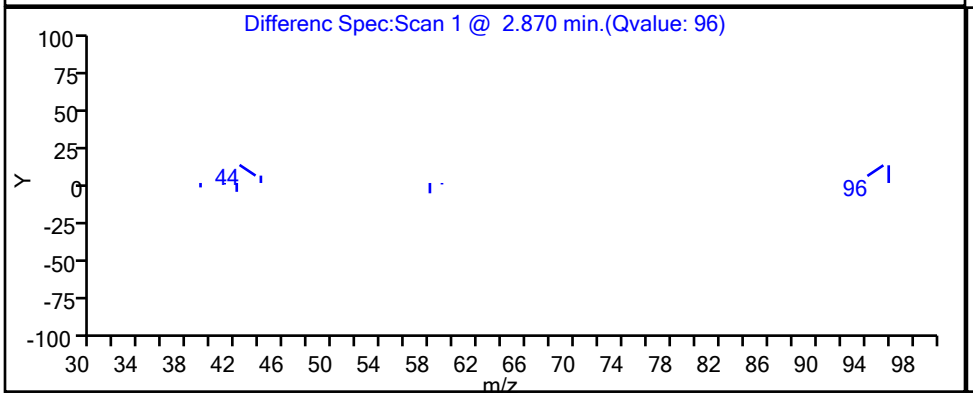


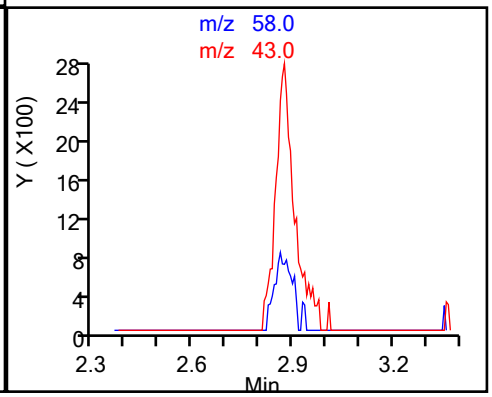








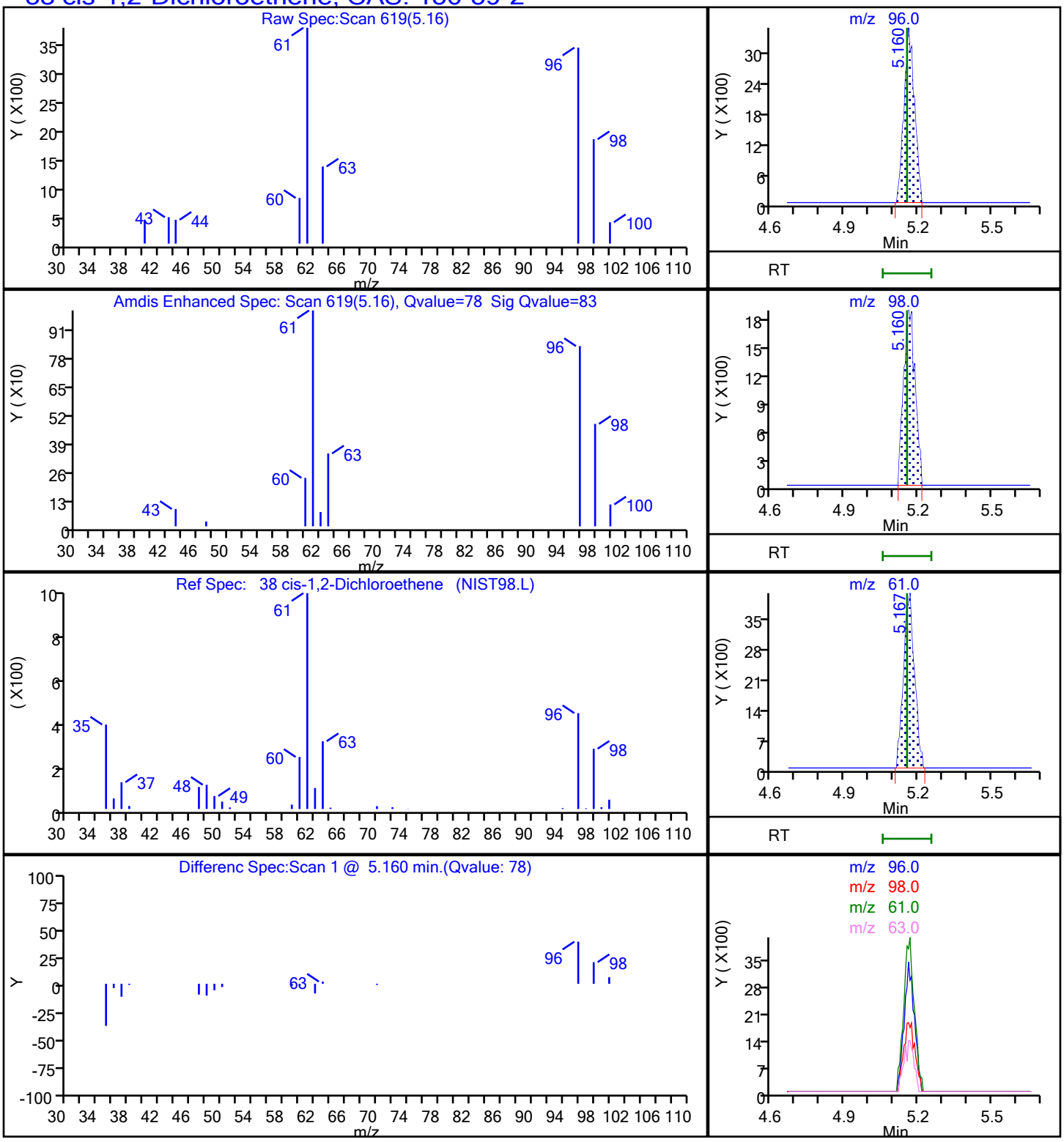




Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D
Injection Date: 18-Nov-2020 18:38:30 Instrument ID: 26285
Lims ID: 410-20865-A-31 Lab Sample ID: 410-20865-31
Client ID: R5-13
Operator ID: clm27445 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

38 cis-1,2-Dichloroethene, CAS: 156-59-2

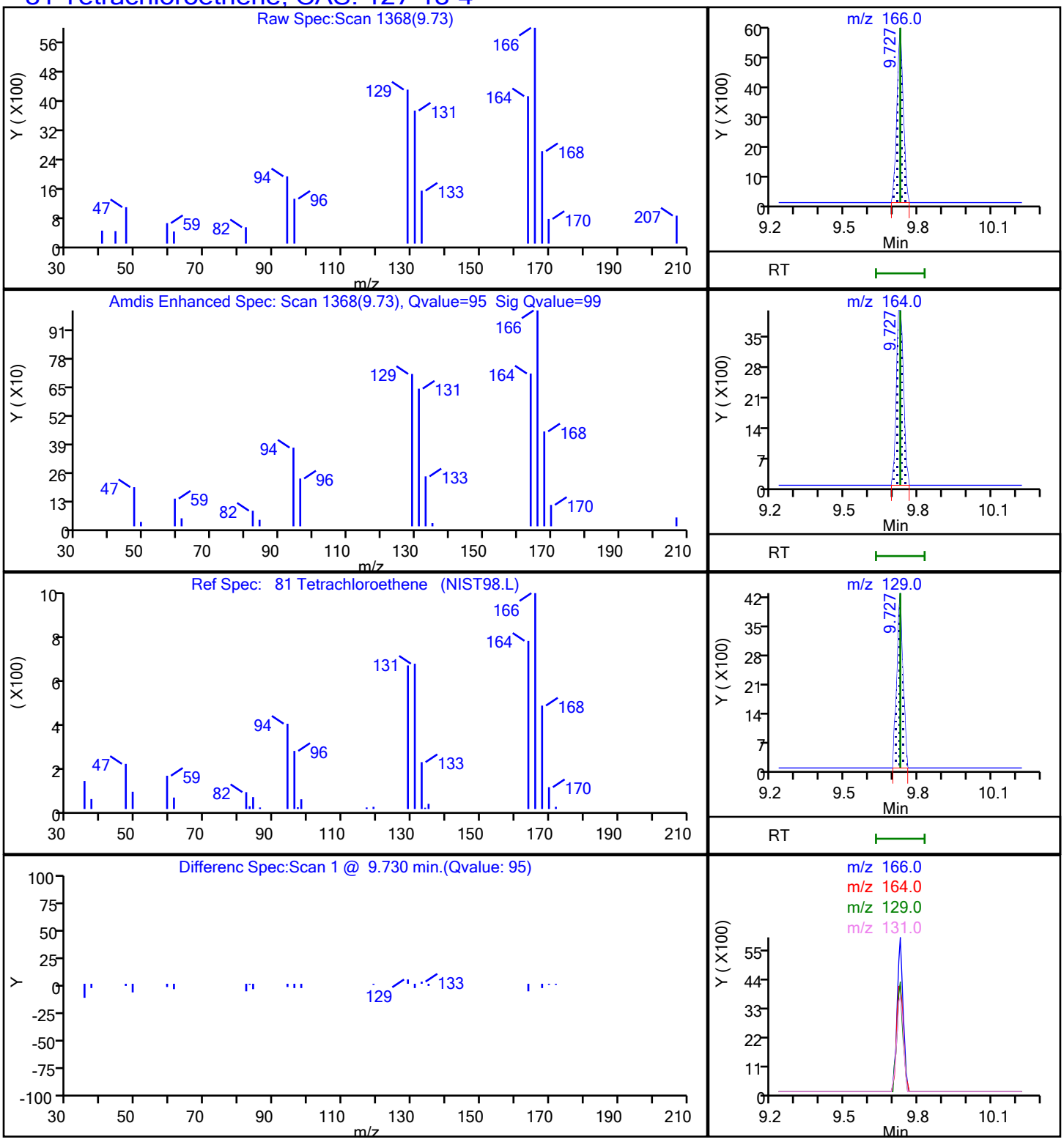


Report Date: 19-Nov-2020 23:20:32 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D				
Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

81 Tetrachloroethene, CAS: 127-18-4



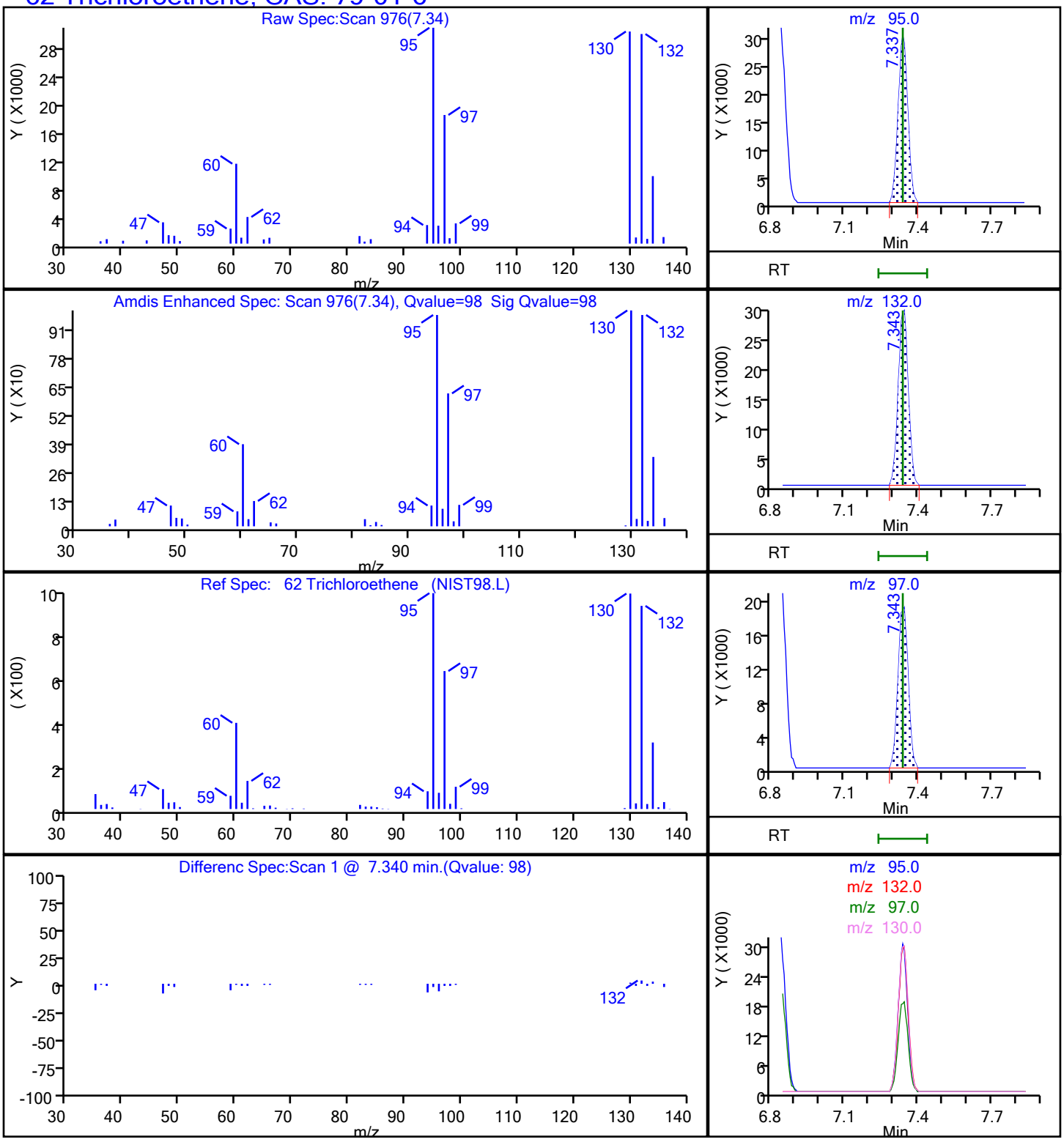
02/25/2021

Report Date: 19-Nov-2020 23:20:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S20.D				
Injection Date:	18-Nov-2020 18:38:30	Instrument ID:	26285		
Lims ID:	410-20865-A-31	Lab Sample ID:	410-20865-31		
Client ID:	R5-13				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

62 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-02 Lab Sample ID: 410-20865-32

Matrix: Water Lab File ID: 5N18S21.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:36

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 18:59

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	1.2	J	20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.92	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S21.D
Lims ID: 410-20865-A-32
Client ID: R5-02
Sample Type: Client
Inject. Date: 18-Nov-2020 18:59:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-027
Misc. Info.: 410-20865-A-32
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:18:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.868	2.874	-0.006	99	1251	1.24	a
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.387	3.386	0.001	98	355563	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	7
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	35	1915	0.2090	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	269034	48.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	61542	50.4	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1074204	50.0	
62 Trichloroethene	95	7.337	7.337	0.000	93	6009	0.9195	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1012237	49.9	
77 Toluene	92		9.093				ND	7
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.666	-0.007	85	806489	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	96	377510	46.0	
* 117 1,4-Dichlorobenzene-d4	152	12.690	12.702	-0.012	94	425150	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

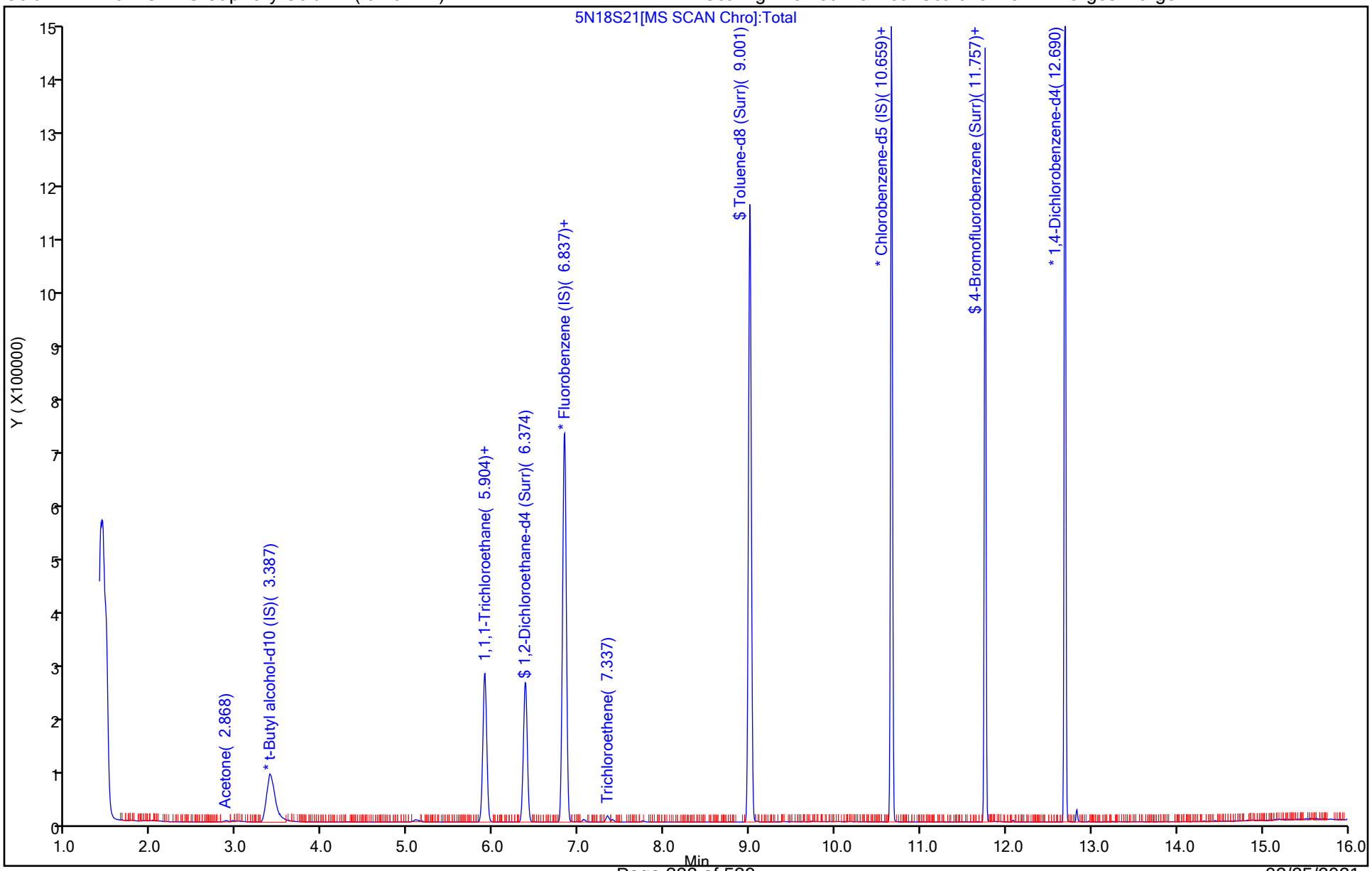
Report Date: 19-Nov-2020 23:20:33 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S21.D

Injection Date:	18-Nov-2020 18:59:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-32	Lab Sample ID:	410-20865-32	Worklist Smp#:	27
Client ID:	R5-02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

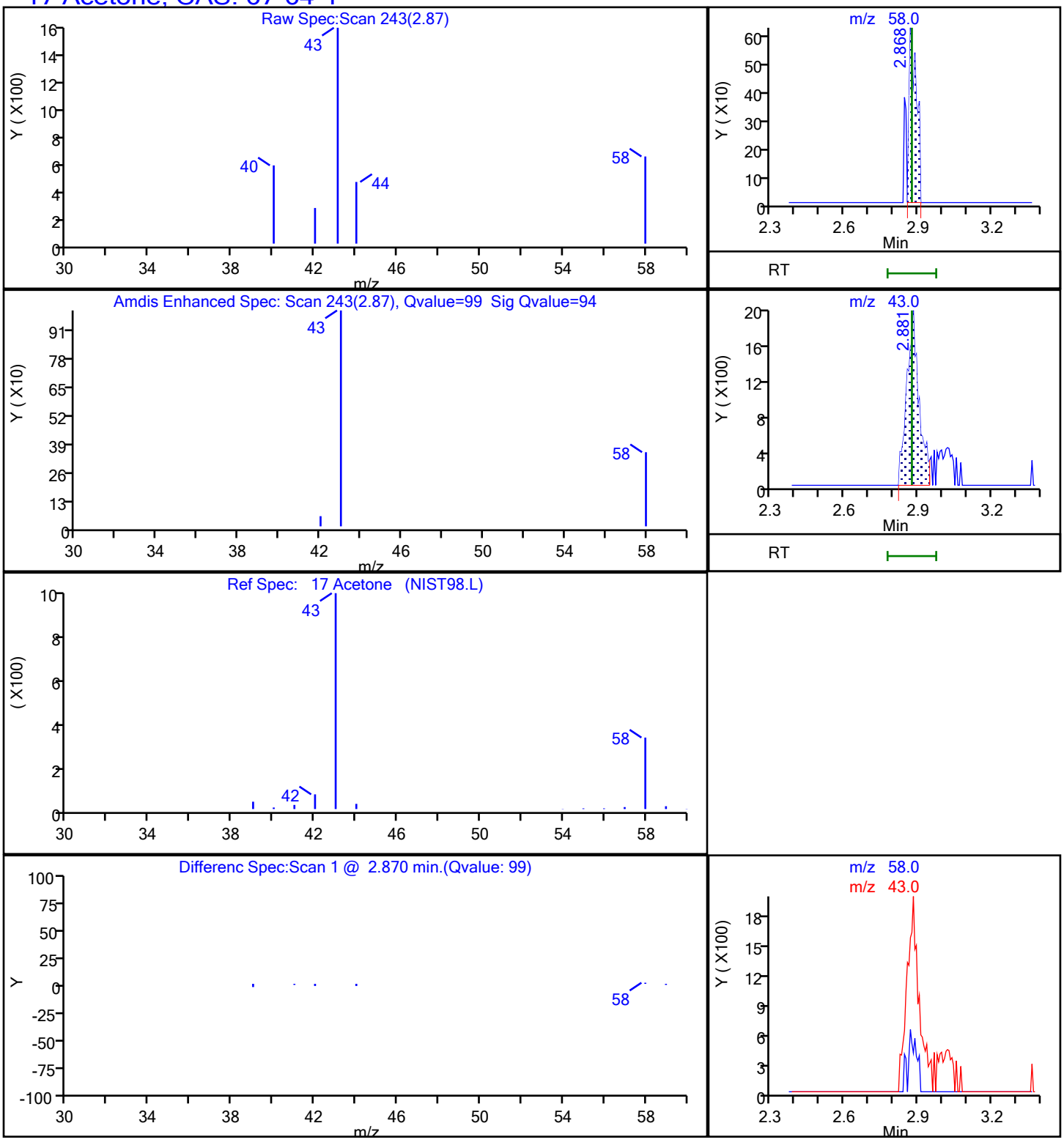
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S21.D				
Injection Date:	18-Nov-2020 18:59:30	Instrument ID:	26285		
Lims ID:	410-20865-A-32	Lab Sample ID:	410-20865-32		
Client ID:	R5-02				
Operator ID:	clm27445	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acetone, CAS: 67-64-1



Report Date: 19-Nov-2020 23:20:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S21.D

Injection Date: 18-Nov-2020 18:59:30 Instrument ID: 26285

Lims ID: 410-20865-A-32 Lab Sample ID: 410-20865-32

Client ID: R5-02

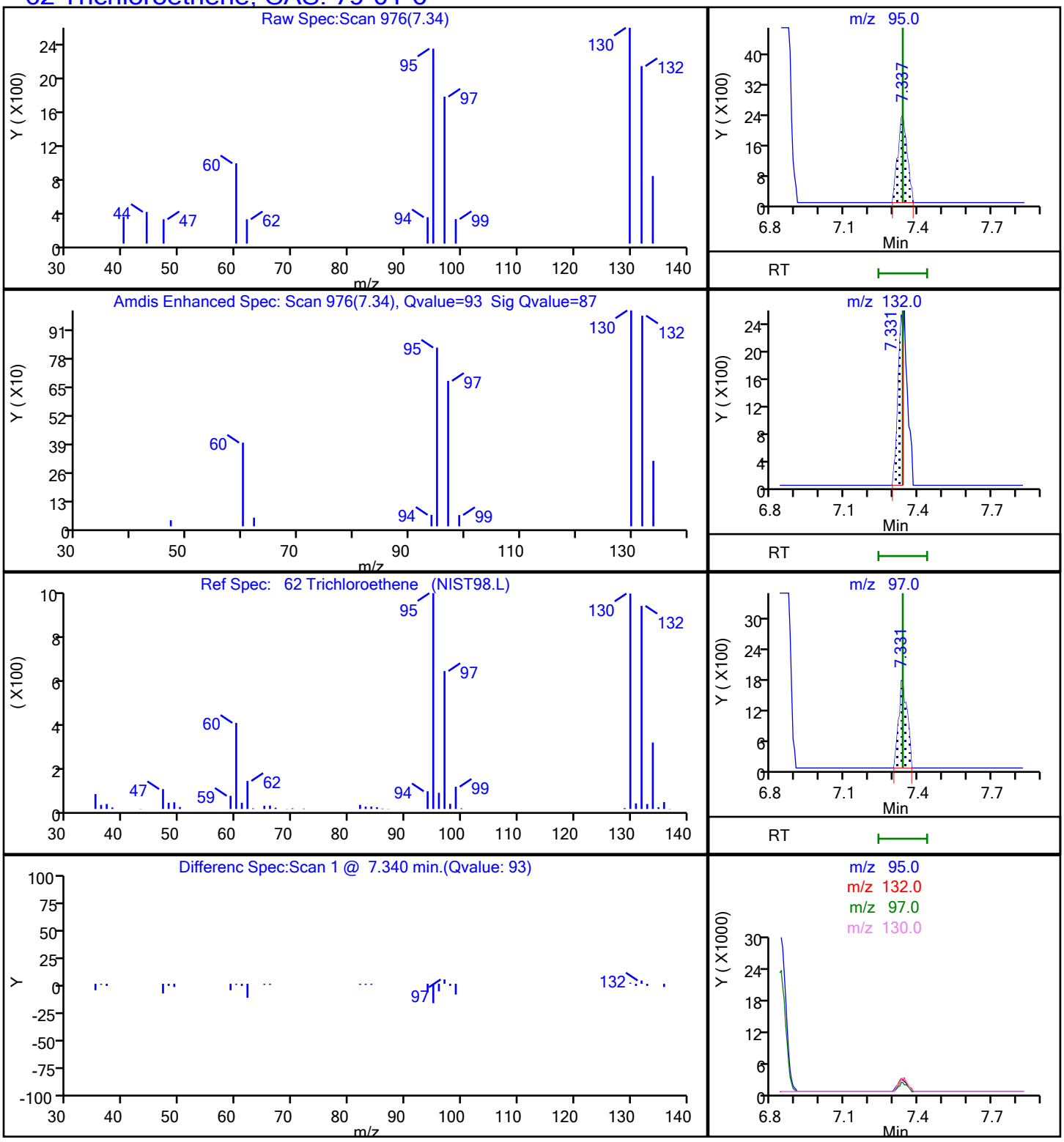
Operator ID: clm27445 ALS Bottle#: 26 Worklist Smp#: 27

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

62 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

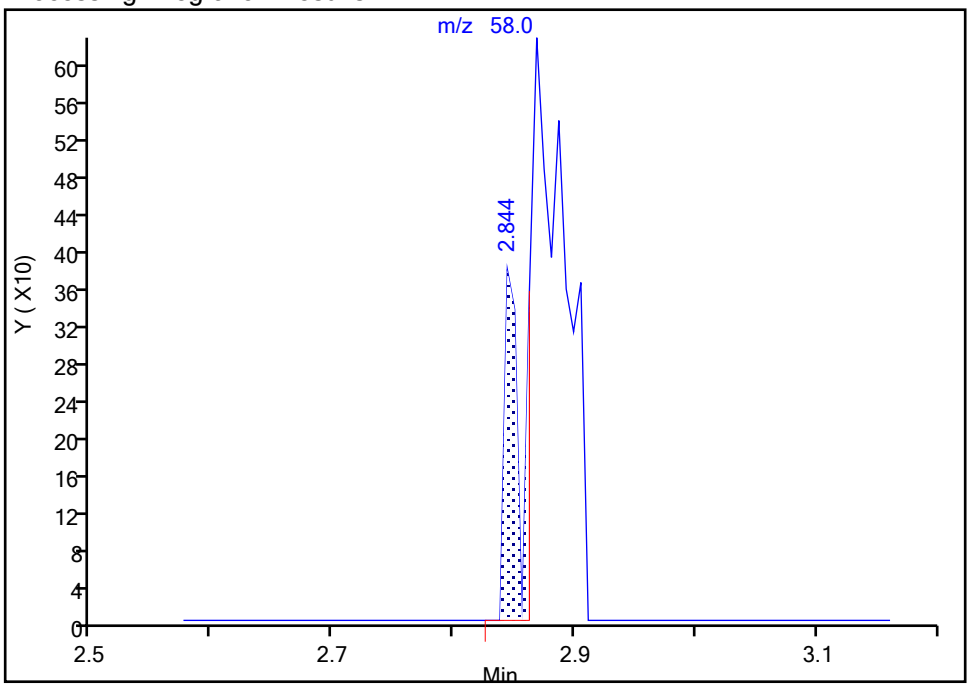
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S21.D				
Injection Date:	18-Nov-2020 18:59:30	Instrument ID:	26285		
Lims ID:	410-20865-A-32	Lab Sample ID:	410-20865-32		
Client ID:	R5-02				
Operator ID:	clm27445	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 Acetone, CAS: 67-64-1

Signal: 1

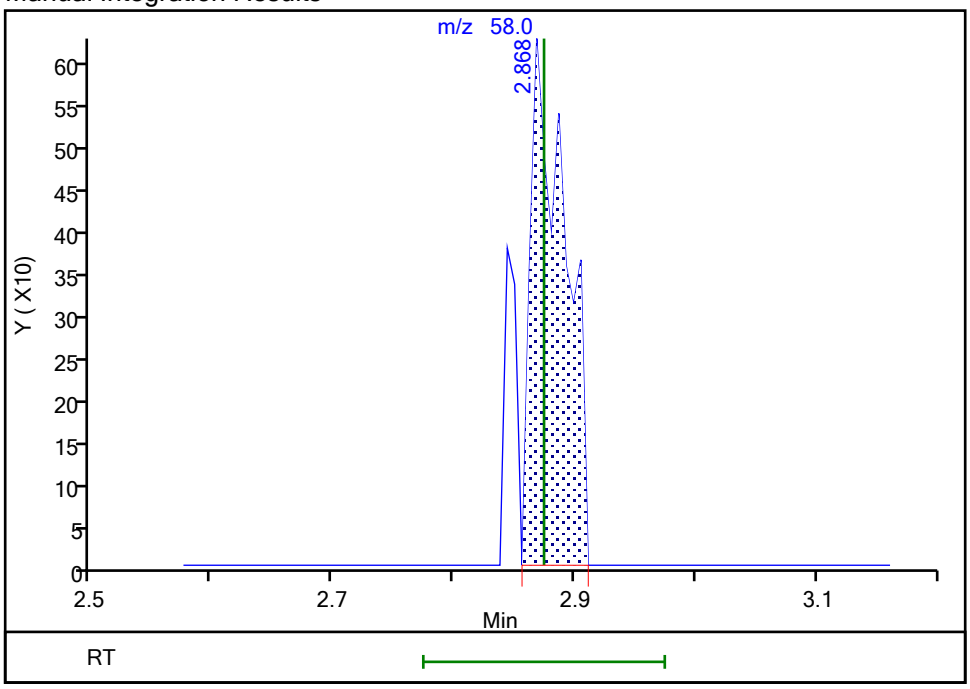
Processing Integration Results

RT: 2.84
Area: 390
Amount: 0.385748
Amount Units: ug/l



Manual Integration Results

RT: 2.87
Area: 1251
Amount: 1.237360
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:18:02
Audit Action: Assigned Compound ID Audit Reason: Wrong peak

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-11 Lab Sample ID: 410-20865-33

Matrix: Water Lab File ID: 5N18S22.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:45

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 19:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	3.8	J	10	0.30
67-64-1	Acetone	27		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S22.D
Lims ID: 410-20865-A-33
Client ID: R5-11
Sample Type: Client
Inject. Date: 18-Nov-2020 19:19:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-028
Misc. Info.: 410-20865-A-33
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:18:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58	2.880	2.874	0.006	97	25738	27.1	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76	3.094	3.082	0.012	50	2761	0.1523	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.392	3.386	0.006	97	333819	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43	5.142	5.142	0.000	99	22559	3.84	M
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	275067	48.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	97	61027	49.2	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	7
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1091029	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1020915	50.3	
77 Toluene	92	9.099	9.093	0.006	92	1889	0.1223	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.666	-0.007	85	806056	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	7
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.757	11.763	-0.006	95	385793	47.1	
* 117 1,4-Dichlorobenzene-d4	152	12.689	12.702	-0.013	94	434954	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

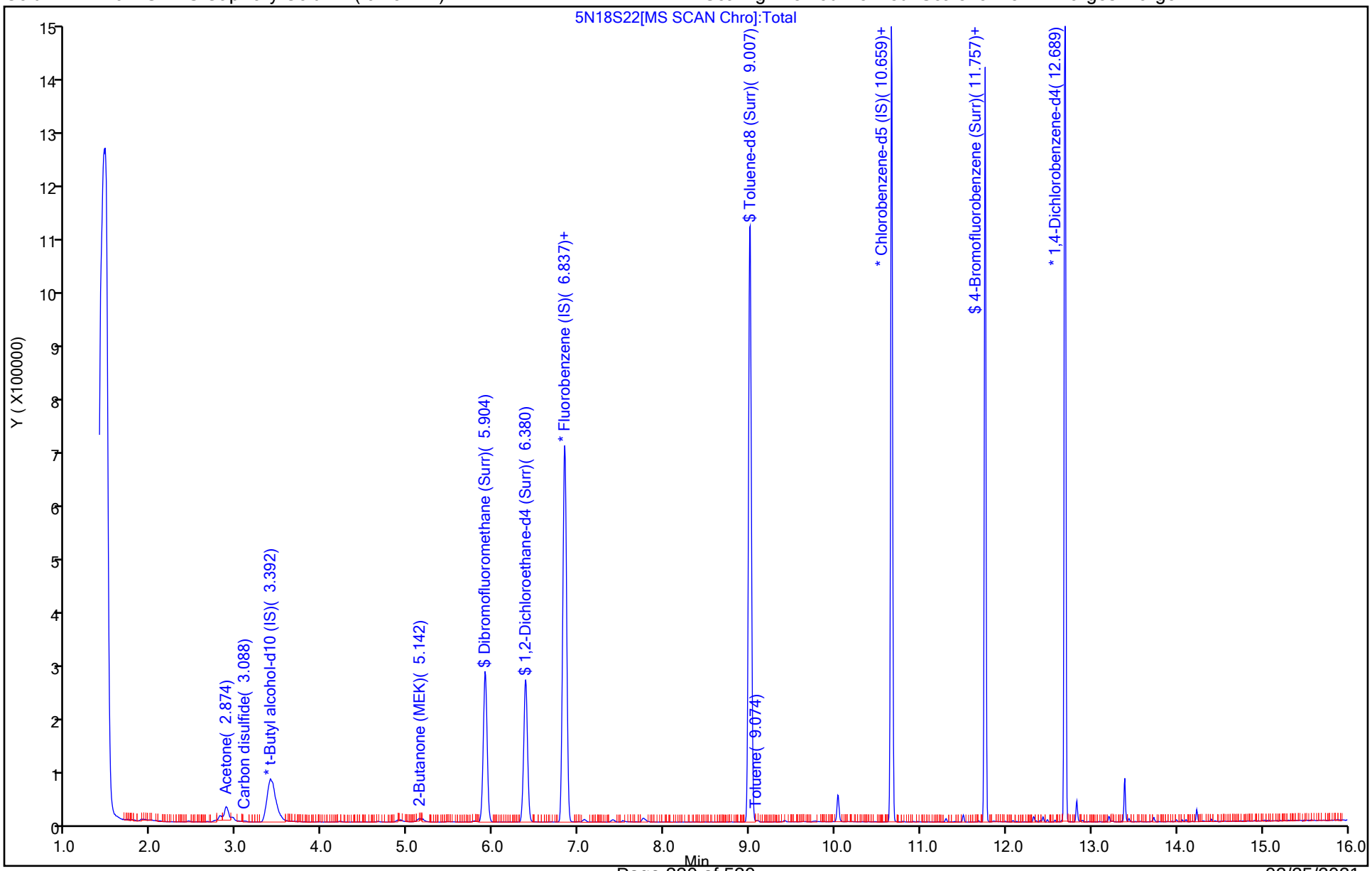
Report Date: 19-Nov-2020 23:20:35 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S22.D

Injection Date:	18-Nov-2020 19:19:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-33	Lab Sample ID:	410-20865-33	Worklist Smp#:	28
Client ID:	R5-11				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

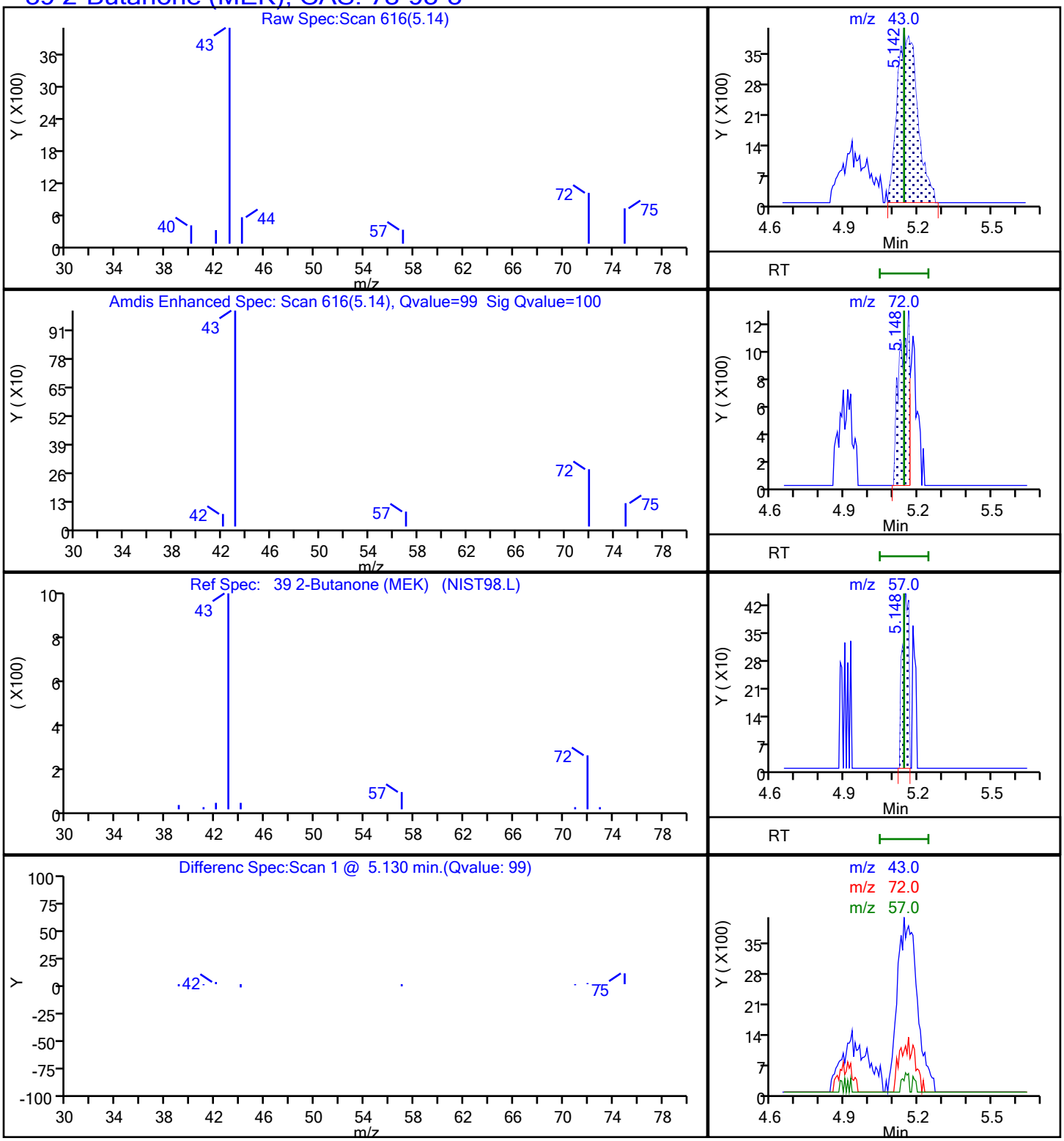
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S22.D				
Injection Date:	18-Nov-2020 19:19:30	Instrument ID:	26285		
Lims ID:	410-20865-A-33	Lab Sample ID:	410-20865-33		
Client ID:	R5-11				
Operator ID:	clm27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

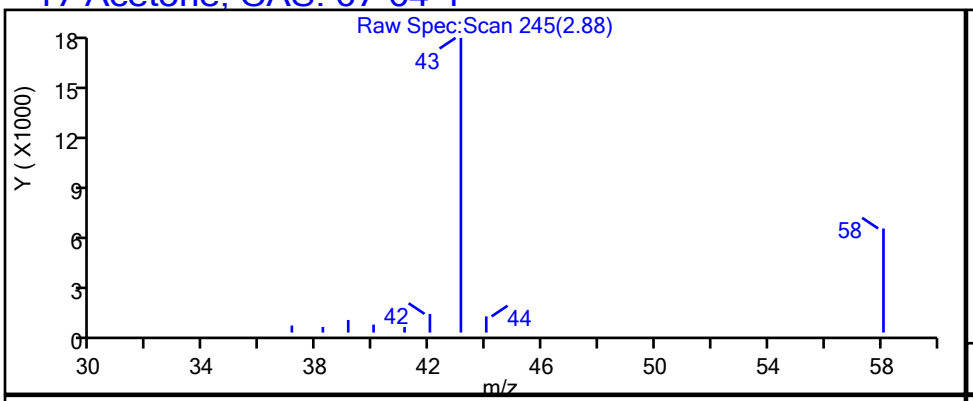
39 2-Butanone (MEK), CAS: 78-93-3

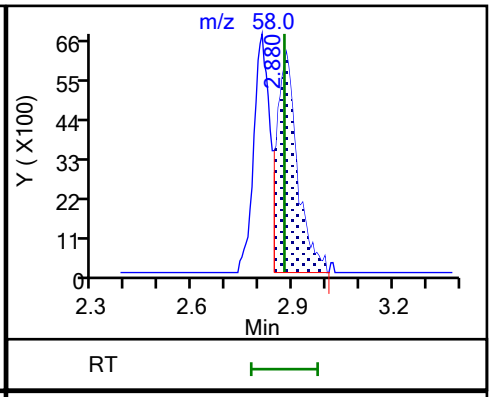


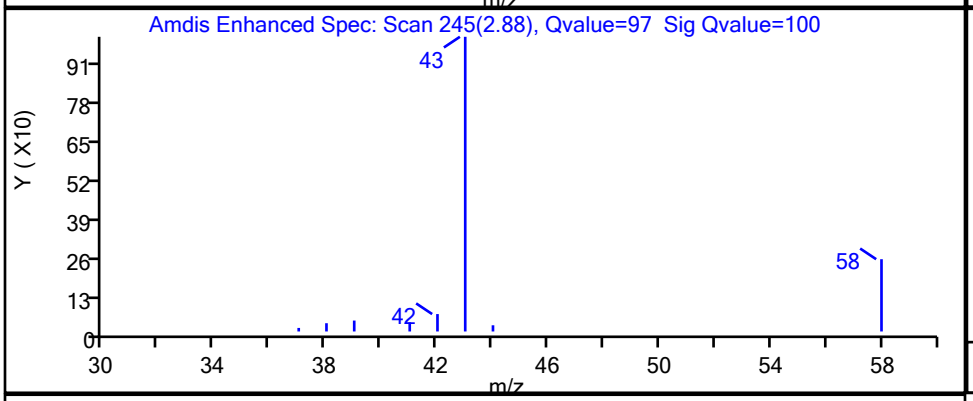
Eurofins Lancaster Laboratories Env, LLC

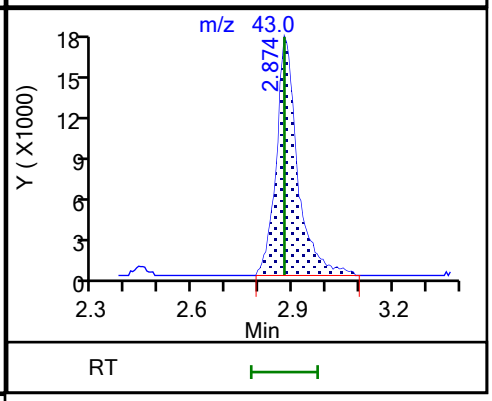
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S22.D				
Injection Date:	18-Nov-2020 19:19:30	Instrument ID:	26285		
Lims ID:	410-20865-A-33	Lab Sample ID:	410-20865-33		
Client ID:	R5-11				
Operator ID:	clm27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

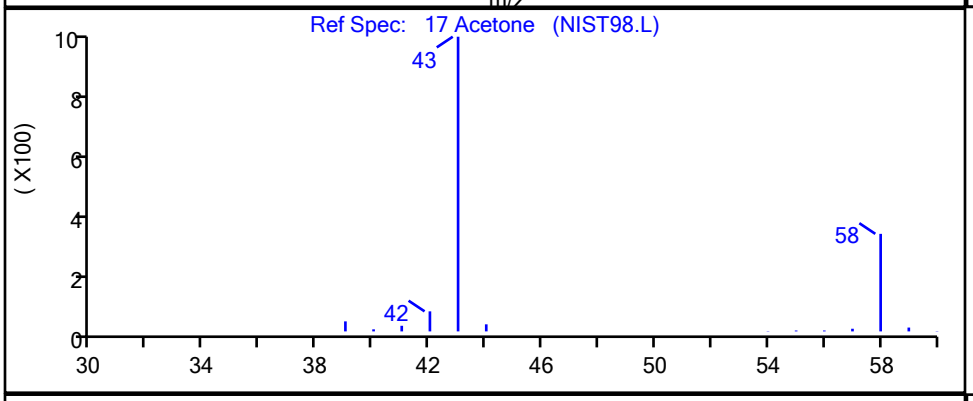
17 Acetone, CAS: 67-64-1

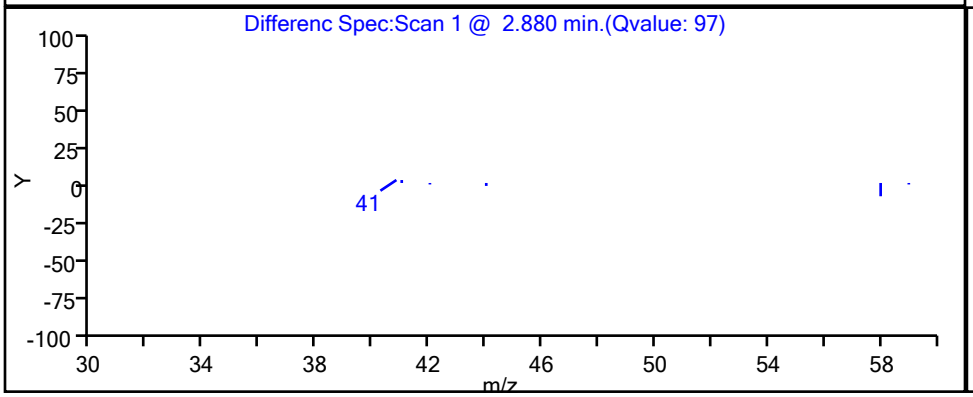


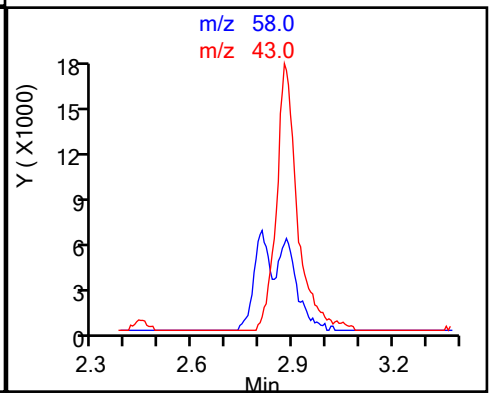












Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

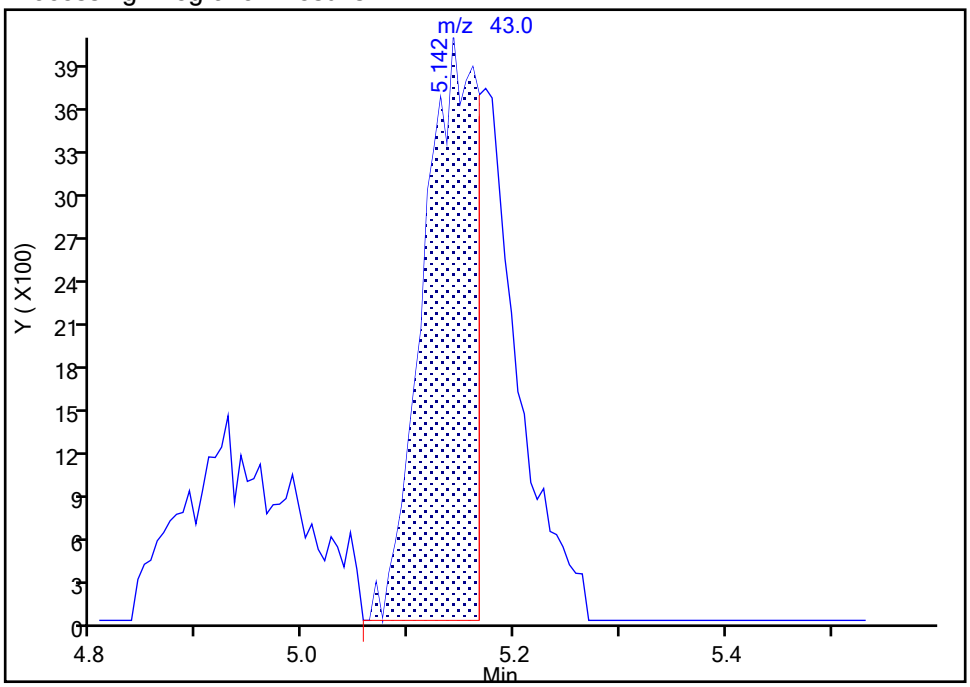
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S22.D				
Injection Date:	18-Nov-2020 19:19:30	Instrument ID:	26285		
Lims ID:	410-20865-A-33	Lab Sample ID:	410-20865-33		
Client ID:	R5-11				
Operator ID:	clm27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

39 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

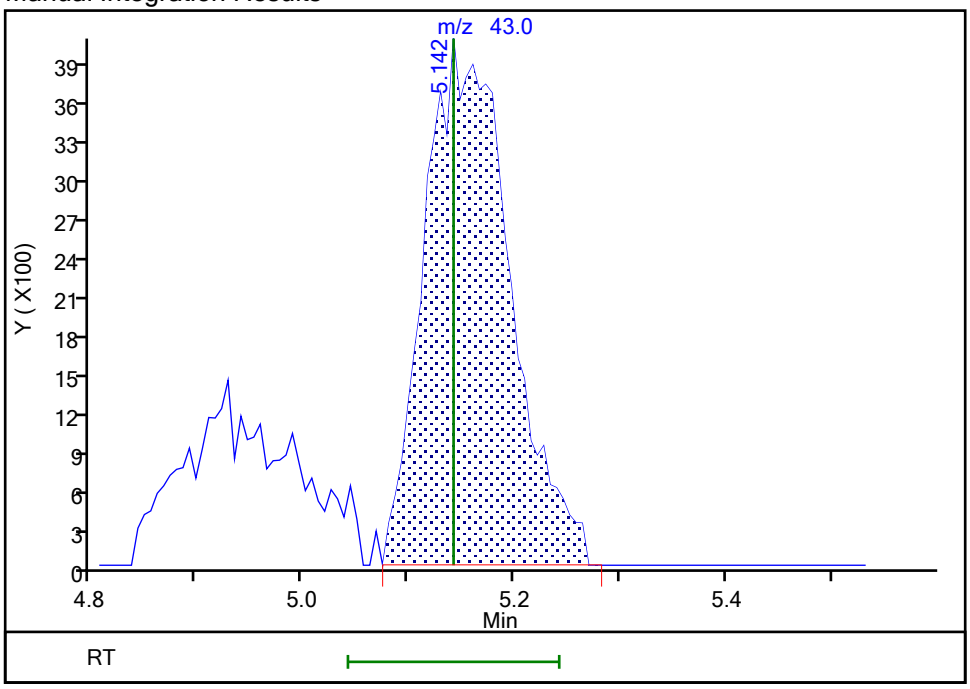
Processing Integration Results

RT: 5.14
Area: 14137
Amount: 2.407214
Amount Units: ug/l



Manual Integration Results

RT: 5.14
Area: 22559
Amount: 3.841292
Amount Units: ug/l



Reviewer: beckerk, 19-Nov-2020 23:18:40

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: TB 111020 Lab Sample ID: 410-20865-34

Matrix: Water Lab File ID: 5N18S03.D

Analysis Method: 8260C Date Collected: 11/10/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 12:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S03.D
Lims ID: 410-20865-A-34
Client ID: TB 1111020
Sample Type: Client
Inject. Date: 18-Nov-2020 12:55:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-009
Misc. Info.: 410-20865-A-34
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:09:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
5 Vinyl chloride	62		1.844				ND	
19 1,1-Dichloroethene	96		2.844				ND	
17 Acetone	58		2.874				ND	
18 112TCTFE	101		2.880				ND	
22 Carbon disulfide	76		3.082				ND	
26 Methylene Chloride	84		3.374				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.392	3.386	0.006	97	331890	250.0	
31 trans-1,2-Dichloroethene	96		3.697				ND	
33 1,1-Dichloroethane	63		4.295				ND	
39 2-Butanone (MEK)	43		5.142				ND	
38 cis-1,2-Dichloroethene	96		5.154				ND	
46 Chloroform	83		5.667				ND	
48 1,1,1-Trichloroethane	97		5.892				ND	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	277212	47.8	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	63524	50.2	
53 Benzene	78		6.398				ND	
55 1,2-Dichloroethane	62		6.483				ND	
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1113577	50.0	
62 Trichloroethene	95		7.337				ND	
68 1,4-Dioxane	88		7.794				ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1064868	50.9	
77 Toluene	92		9.093				ND	
81 Tetrachloroethene	166		9.727				ND	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	85	831898	50.0	
93 Ethylbenzene	91		10.800				ND	
94 m-Xylene & p-Xylene	106		10.928				ND	
S 130 Xylenes, Total	106		11.245				ND	7
95 o-Xylene	106		11.287				ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	95	398753	47.1	
* 117 1,4-Dichlorobenzene-d4	152	12.702	12.702	0.000	94	444612	50.0	
125 1,2-Dichlorobenzene	146		12.988				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
132 Naphthalene	128		14.317				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

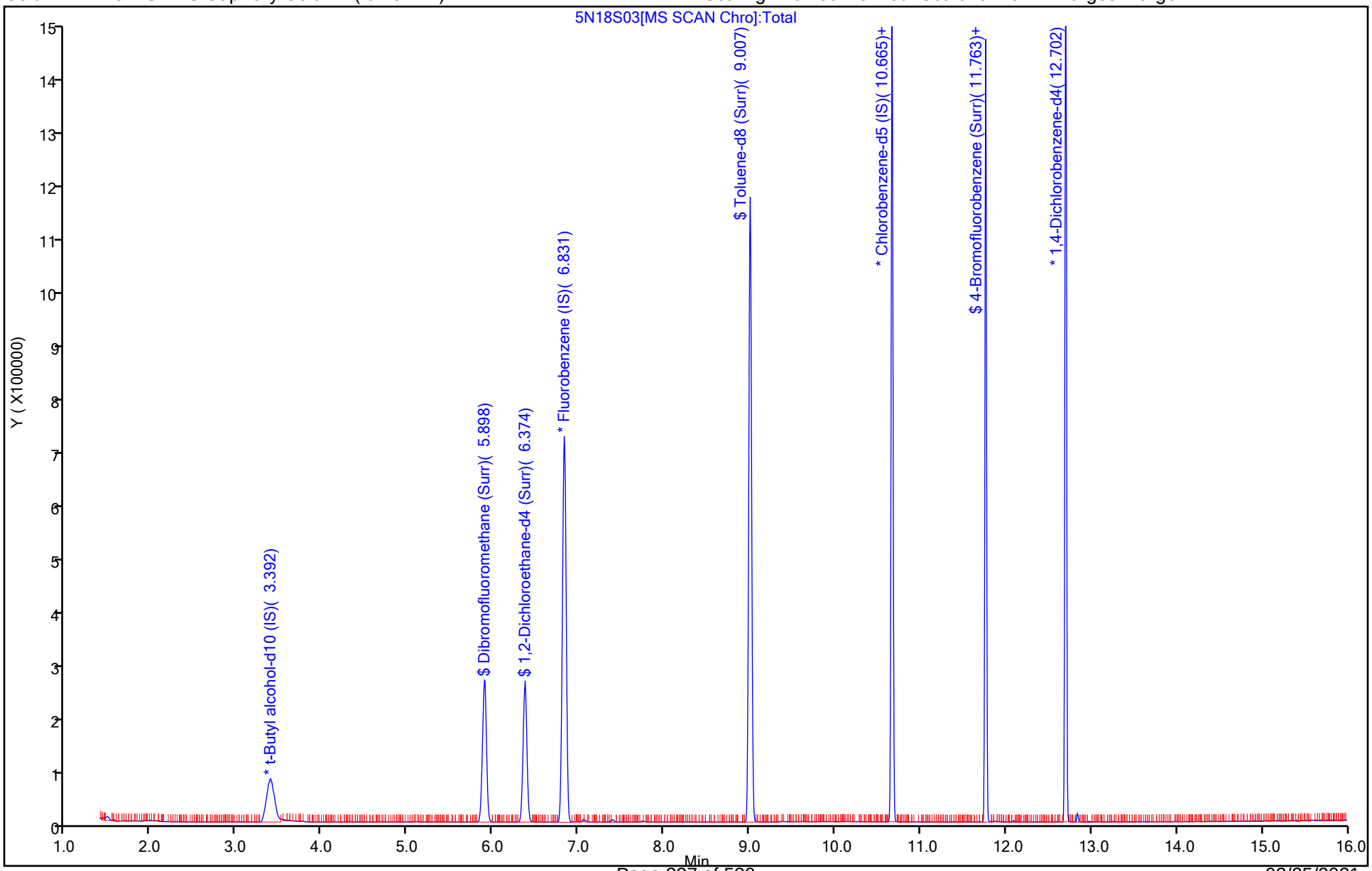
Report Date: 19-Nov-2020 23:20:00 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S03.D

Injection Date:	18-Nov-2020 12:55:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-34	Lab Sample ID:	410-20865-34	Worklist Smp#:	9
Client ID:	TB 1111020				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-42091/9	5S09I07.D
Level 2	IC 410-42091/8	5S09I06.D
Level 3	IC 410-42091/7	5S09I05.D
Level 4	IC 410-42091/6	5S09I04.D
Level 5	ICIS 410-42091/5	5S09I03.D
Level 6	IC 410-42091/4	5S09I02.D
Level 7	IC 410-42091/3	5S09I01.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2103 0.3508	0.3661 0.3785	0.3142	0.3422	0.3621	Ave		0.3320			0.1000	17.3		20.0			
Chloromethane	0.3704 0.4447	0.4383 0.4467	0.4358	0.4183	0.4069	Ave		0.4230			0.1000	6.5		20.0			
1,3-Butadiene	0.2319 0.3052	0.3036 0.3150	0.2673	0.2802	0.2934	Ave		0.2852				10.0		20.0			
Vinyl chloride	0.2870 0.3884	0.3925 0.3909	0.3827	0.3764	0.3614	Ave		0.3685			0.1000	10.2		20.0			
Bromomethane	0.2250 0.2680	0.2668 0.2593	0.2676	0.2608	0.2524	Ave		0.2571			0.1000	5.9		20.0			
Chloroethane	0.1758 0.2200	0.2235 0.2253	0.2133	0.2121	0.2039	Ave		0.2106			0.1000	8.1		20.0			
Dichlorofluoromethane	0.4380 0.5447	0.5410 0.5584	0.5651	0.5120	0.5195	Ave		0.5255			0.1000	8.2		20.0			
Trichlorofluoromethane	0.3322 0.4468	0.4778 0.4723	0.4358	0.4547	0.4418	Ave		0.4373			0.1000	11.2		20.0			
n-Pentane	0.2546 0.4083	0.3720 0.4532	0.3174	0.3743	0.4224	Ave		0.3718				18.1		20.0			
Ethyl ether	0.2080 0.2586	0.2291 0.2536	0.2320	0.2415	0.2415	Ave		0.2377				7.1		20.0			
Freon 123a	0.2326 0.3494	0.3147 0.3570	0.3047	0.3202	0.3314	Ave		0.3157				13.0		20.0			
Acrolein	1.4500 1.5380	1.4988 1.7292	1.6641	1.5563	1.3582	Ave		1.5421				8.1		20.0			
1,1-Dichloroethene	0.1781 0.2541	0.2281 0.2590	0.2218	0.2313	0.2392	Ave		0.2302			0.1000	11.6		20.0			
Freon 113	+++++ 0.2517	0.2286 0.2718	0.2016	0.2348	0.2596	Ave		0.2414			0.1000	10.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetone	0.6266 0.6907	0.6986 0.7764	0.7890	0.7482	0.6466	Ave		0.7109			0.1000	8.8		20.0			
Methyl iodide	0.3858 0.5208	0.4589 0.5247	0.4498	0.4678	0.4836	Ave		0.4702				10.0		20.0			
2-Propanol	0.6743 0.5579	0.5488 0.5875	0.5747	0.5575	0.5844	Ave		0.5836				7.3		20.0			
Carbon disulfide	0.6582 0.9310	0.8119 0.9491	0.7759	0.8331	0.8568	Ave		0.8309			0.1000	11.8		20.0			
Methyl acetate	0.3663 0.3851	0.4177 0.3875	0.3696	0.3456	0.3656	Ave		0.3768			0.1000	6.0		20.0			
Allyl chloride	0.3709 0.4668	0.4240 0.4704	0.4373	0.4277	0.4425	Ave		0.4342				7.6		20.0			
Methylene Chloride	0.2358 0.2972	0.2741 0.3028	0.2670	0.2703	0.2760	Ave		0.2748			0.1000	8.0		20.0			
t-Butyl alcohol	1.0981 1.0966	1.0367 1.1254	1.0640	1.0507	1.0838	Ave		1.0793				2.8		20.0			
Acrylonitrile	0.1332 0.1867	0.1794 0.1867	0.1959	0.1790	0.1772	Ave		0.1769				11.5		20.0			
Methyl tertiary butyl ether	0.7327 0.8470	0.8103 0.8370	0.7744	0.7734	0.7856	Ave		0.7944			0.1000	5.0		20.0			
trans-1,2-Dichloroethene	0.2076 0.2975	0.2577 0.3002	0.2524	0.2674	0.2721	Ave		0.2650			0.1000	11.8		20.0			
n-Hexane	0.2091 0.3714	0.3330 0.3978	0.2845	0.3321	0.3743	Ave		0.3289				19.6		20.0			
1,1-Dichloroethane	0.3910 0.5486	0.4870 0.5499	0.4724	0.4825	0.5022	Ave		0.4905			0.2000	11.0		20.0			
di-Isopropyl ether	0.7837 0.9835	0.8735 0.9854	0.8583	0.8773	0.9019	Ave		0.8948				8.0		20.0			
2-Chloro-1,3-butadiene	0.3109 0.4650	0.3928 0.4708	0.3878	0.4143	0.4280	Ave		0.4100				13.2		20.0			
Ethyl t-butyl ether	0.7468 0.8947	0.8213 0.8739	0.8093	0.8187	0.8326	Ave		0.8282				5.8		20.0			
2-Butanone	0.2805 0.2698	0.2623 0.2687	0.2841	0.2630	0.2555	Ave		0.2691			0.1000	3.8		20.0			
cis-1,2-Dichloroethene	0.2645 0.3383	0.2937 0.3413	0.2966	0.3011	0.3126	Ave		0.3069			0.1000	8.7		20.0			
2,2-Dichloropropane	0.3090 0.4578	0.3885 0.4563	0.3942	0.4123	0.4264	Ave		0.4064				12.5		20.0			
Propionitrile	1.1563 1.1863	1.1636 1.3688	1.1858	1.1435	1.1030	Ave		1.1868				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methacrylonitrile	0.1861 0.2041	0.1946 0.2077	0.1874	0.1848	0.1892	Ave		0.1934				4.7		20.0			
Bromochloromethane	0.1416 0.1648	0.1509 0.1646	0.1534	0.1540	0.1589	Ave		0.1555				5.3		20.0			
Tetrahydrofuran	1.1514 1.1168	1.0865 1.2741	1.2121	1.1287	1.0064	Ave		1.1394				7.6		20.0			
Chloroform	0.4152 0.5465	0.4903 0.5498	0.4746	0.4889	0.5008	Ave		0.4952			0.2000	9.2		20.0			
1,1,1-Trichloroethane	0.3144 0.4788	0.4213 0.4839	0.4076	0.4337	0.4460	Ave		0.4265			0.1000	13.3		20.0			
Cyclohexane	0.2818 0.4652	0.4127 0.5002	0.3722	0.4260	0.4629	Ave		0.4173			0.1000	17.4		20.0			
Carbon tetrachloride	0.2529 0.4155	0.3578 0.4246	0.3528	0.3762	0.3920	Ave		0.3674			0.1000	15.6		20.0			
1,1-Dichloropropene	0.2839 0.4338	0.3679 0.4413	0.3649	0.3891	0.4021	Ave		0.3833				13.8		20.0			
Isobutyl alcohol	0.3533 0.3844	0.3409 0.3908	0.3456	0.3457	0.3434	Ave		0.3578				5.8		20.0			
Benzene	0.9710 1.2833	1.1276 1.3028	1.1069	1.1470	1.1839	Ave		1.1604			0.5000	9.7		20.0			
1,2-Dichloroethane	0.3819 0.3885	0.3752 0.3917	0.3598	0.3530	0.3576	Ave		0.3725			0.1000	4.2		20.0			
t-Amyl methyl ether	0.7527 0.8786	0.8165 0.8476	0.8021	0.8052	0.8201	Ave		0.8175				4.8		20.0			
n-Heptane	0.2495 0.3899	0.3375 0.3995	0.2902	0.3334	0.3780	Ave		0.3397				16.2		20.0			
n-Butanol	0.2933 0.3320	0.3157 0.3270	0.3030	0.3027	0.2961	Ave		0.3100				4.9		20.0			
Trichloroethene	0.2469 0.3369	0.2939 0.3463	0.2893	0.3041	0.3120	Ave		0.3042			0.2000	10.8		20.0			
Methylcyclohexane	0.2703 0.4440	0.4079 0.4758	0.4214	0.4325	0.4642	Ave		0.4166			0.1000	16.5		20.0			
1,2-Dichloropropane	0.2498 0.3329	0.2899 0.3423	0.2923	0.2916	0.3063	Ave		0.3007			0.1000	10.2		20.0			
t-Amyl ethyl ether	0.3510 0.4593	0.4034 0.4604	0.4013	0.4090	0.4194	Ave		0.4148				9.1		20.0			
1,4-Dioxane	0.0630 0.0743	0.0674 0.0731	0.0638	0.0605	0.0603	Ave		0.0661			0.0050	8.7		20.0			
Dibromomethane	0.1757 0.2118	0.1991 0.2170	0.1892	0.1894	0.1949	Ave		0.1967				7.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methyl methacrylate	0.2781 0.3120	0.2831 0.3229	0.2795	0.2763	0.2849	Ave		0.2910				6.4		20.0			
Bromodichloromethane	0.3185 0.4244	0.3671 0.4375	0.3658	0.3747	0.3909	Ave		0.3827			0.2000	10.4		20.0			
2-Nitropropane	1.7888 2.0161	2.0093 2.2597	2.1724	2.0559	1.7951	Ave		2.0139				8.7		20.0			
2-Chloroethyl vinyl ether	0.2050 0.2724	0.2256 0.2725	0.2386	0.2330	0.2433	Ave		0.2415				10.1		20.0			
cis-1,3-Dichloropropene	0.4063 0.5369	0.4637 0.5538	0.4634	0.4715	0.4920	Ave		0.4840			0.2000	10.3		20.0			
4-Methyl-2-pentanone	0.5027 0.5365	0.5236 0.5226	0.5776	0.5162	0.4951	Ave		0.5249			0.1000	5.1		20.0			
Toluene	0.7716 1.0739	0.9189 1.0832	0.9081	0.9573	0.9933	Ave		0.9580			0.4000	11.2		20.0			
trans-1,3-Dichloropropene	0.5211 0.6490	0.5728 0.6633	0.5590	0.5695	0.5940	Ave		0.5898			0.1000	8.6		20.0			
Ethyl methacrylate	0.5647 0.6850	0.5999 0.6925	0.5942	0.6052	0.6243	Ave		0.6237				7.7		20.0			
1,1,2-Trichloroethane	0.3211 0.3946	0.3562 0.4017	0.3537	0.3561	0.3635	Ave		0.3639			0.1000	7.5		20.0			
Tetrachloroethene	0.3139 0.4759	0.4047 0.4857	0.4201	0.4391	0.4504	Ave		0.4271			0.2000	13.5		20.0			
1,3-Dichloropropane	0.5546 0.6504	0.5979 0.6581	0.5818	0.5871	0.5961	Ave		0.6037				6.2		20.0			
2-Hexanone	0.5416 0.5747	0.5867 0.5441	0.6409	0.5691	0.5182	Ave		0.5679			0.1000	7.0		20.0			
Dibromochloromethane	0.3703 0.4737	0.4133 0.4832	0.4038	0.4144	0.4325	Ave		0.4273				9.3		20.0			
1,2-Dibromoethane	0.3860 0.4481	0.4024 0.4540	0.4024	0.4012	0.4147	Ave		0.4155			0.1000	6.2		20.0			
1-Chlorohexane	0.4771 0.5992	0.5303 0.6196	0.5173	0.5489	0.5621	Ave		0.5506				8.8		20.0			
Chlorobenzene	0.8972 1.1965	1.0370 1.2097	1.0180	1.0687	1.1044	Ave		1.0759			0.5000	10.0		20.0			
1,1,1,2-Tetrachloroethane	0.3172 0.4372	0.3728 0.4502	0.3725	0.3849	0.4027	Ave		0.3911				11.4		20.0			
Ethylbenzene	1.4845 2.1560	1.7999 2.1389	1.8183	1.9011	1.9794	Ave		1.8969			0.1000	12.1		20.0			
m&p-Xylene	0.5553 0.8220	0.6865 0.8247	0.6965	0.7307	0.7576	Ave		0.7247			0.1000	12.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
o-Xylene	0.5734 0.8090	0.6711 0.8157	0.6838	0.7125	0.7419	Ave		0.7153			0.3000	11.8		20.0			
Styrene	0.9225 1.3596	1.1213 1.3757	1.1527	1.1844	1.2420	Ave		1.1940			0.3000	13.0		20.0			
Bromoform	0.2884 0.3928	0.3293 0.4027	0.3347	0.3393	0.3559	Ave		0.3490			0.1000	11.2		20.0			
Isopropylbenzene	1.3953 2.0980	1.7576 2.0421	1.7795	1.8823	1.9506	Ave		1.8436			0.1000	12.7		20.0			
Cyclohexanone	0.2913 0.3453	0.3192 0.3439	0.3023	0.2953	0.2998	Ave		0.3139				7.2		20.0			
Bromobenzene	0.7303 0.9692	0.8519 0.9702	0.8432	0.8536	0.8795	Ave		0.8711				9.5		20.0			
1,1,2,2-Tetrachloroethane	1.1156 1.3016	1.2187 1.2968	1.1494	1.1473	1.1977	Ave		1.2039			0.3000	6.1		20.0			
trans-1,4-Dichloro-2-butene	0.3484 0.4155	0.3829 0.4141	0.3704	0.3691	0.3801	Ave		0.3829				6.4		20.0			
1,2,3-Trichloropropane	0.3372 0.3663	0.3432 0.3579	0.3317	0.3270	0.3394	Ave		0.3432				4.1		20.0			
N-Propylbenzene	3.0770 4.6080	3.8479 4.1394	3.9011	4.0933	4.2484	Ave		3.9879				11.9		20.0			
2-Chlorotoluene	0.6448 0.9124	0.7756 0.9167	0.7722	0.8063	0.8415	Ave		0.8099				11.6		20.0			
1,3,5-Trimethylbenzene	2.1527 3.2424	2.6485 3.1427	2.7011	2.8264	2.9504	Ave		2.8092				12.9		20.0			
4-Chlorotoluene	0.6452 0.9385	0.7944 0.9489	0.7953	0.8294	0.8511	Ave		0.8290				12.4		20.0			
tert-Butylbenzene	0.3930 0.6791	0.5614 0.6849	0.5315	0.5931	0.6231	Ave		0.5809				17.3		20.0			
Pentachloroethane	0.4206 0.6176	0.5196 0.6178	0.5109	0.5233	0.5946	Ave		0.5435				13.2		20.0			
1,2,4-Trimethylbenzene	2.2618 3.3344	2.7356 3.2306	2.7927	2.9083	3.0121	Ave		2.8965				12.3		20.0			
sec-Butylbenzene	2.5947 4.0445	3.3137 3.7603	3.3560	3.5354	3.7149	Ave		3.4742				13.3		20.0			
1,3-Dichlorobenzene	1.3258 1.7997	1.5592 1.7954	1.5408	1.5990	1.6414	Ave		1.6088			0.6000	10.1		20.0			
p-Isopropyltoluene	2.1955 3.4193	2.7547 3.2593	2.8190	2.9674	3.1357	Ave		2.9358				13.7		20.0			
1,4-Dichlorobenzene	1.3837 1.8198	1.5820 1.8239	1.5778	1.6126	1.6664	Ave		1.6380			0.5000	9.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.4745 3.2226	2.7632 3.1308	2.8986	2.9069	3.1396	Ave		2.9337				8.9		20.0			
Benzyl chloride	2.0559 2.8094	2.3991 2.7304	2.3701	2.4259	2.5482	Ave		2.4770				10.1		20.0			
1,3-Diethylbenzene	1.4598 1.9941	1.7300 1.9757	1.8173	1.7997	1.9195	Ave		1.8137				10.1		20.0			
1,4-Diethylbenzene	1.4243 2.0521	1.7670 2.0461	1.8613	1.8652	1.9977	Ave		1.8591				11.8		20.0			
n-Butylbenzene	1.1051 1.7401	1.4341 1.7402	1.4294	1.4983	1.5731	Ave		1.5029				14.5		20.0			
1,2-Dichlorobenzene	1.2851 1.7238	1.5406 1.7221	1.5132	1.5312	1.5814	Ave		1.5568			0.4000	9.5		20.0			
1,2-Diethylbenzene	1.1677 1.6281	1.3977 1.6209	1.4821	1.4639	1.5798	Ave		1.4772				10.9		20.0			
1,2-Dibromo-3-Chloropropane	0.2783 0.3500	0.3230 0.3380	0.3031	0.2977	0.3202	Ave		0.3157			0.0500	7.8		20.0			
1,3,5-Trichlorobenzene	0.8668 1.2369	1.0233 1.2409	1.0348	1.0636	1.1197	Ave		1.0837				12.1		20.0			
1,2,4-Trichlorobenzene	0.8558 1.1549	0.9705 1.1603	0.9788	0.9807	1.0345	Ave		1.0194			0.2000	10.7		20.0			
Hexachlorobutadiene	0.3157 0.4749	0.3899 0.4720	0.3917	0.4076	0.4315	Ave		0.4119				13.3		20.0			
Naphthalene	3.4062 4.3054	3.8183 3.8418	3.7427	3.7318	3.9044	Ave		3.8215				7.0		20.0			
1,2,3-Trichlorobenzene	0.8123 1.1268	0.9658 1.1133	0.9657	0.9644	1.0097	Ave		0.9940				10.7		20.0			
2-Methylnaphthalene	1.7490 2.4264	1.9459 2.2781	2.0043	2.0542	2.3598	Ave		2.1168				11.6		20.0			
Dibromofluoromethane (Surr)	0.2634 0.2582	0.2605 0.2574	0.2630	0.2614	0.2588	Ave		0.2604				0.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0569 0.0571	0.0562 0.0575	0.0568	0.0568	0.0567	Ave		0.0569				0.7		20.0			
Toluene-d8 (Surr)	1.2573 1.2554	1.2582 1.2490	1.2685	1.2621	1.2596	Ave		1.2586				0.5		20.0			
4-Bromofluorobenzene (Surr)	0.5033 0.5070	0.5075 0.5124	0.5103	0.5078	0.5101	Ave		0.5083				0.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-42091/9	5S09I07.D
Level 2	IC 410-42091/8	5S09I06.D
Level 3	IC 410-42091/7	5S09I05.D
Level 4	IC 410-42091/6	5S09I04.D
Level 5	ICIS 410-42091/5	5S09I03.D
Level 6	IC 410-42091/4	5S09I02.D
Level 7	IC 410-42091/3	5S09I01.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	4843 788563	33163 2600582	70483	160250	427998	1.00 100	4.00 300	10.0	20.0	50.0
Chloromethane	FB	Ave	8529 999549	39697 3068865	97775	195863	481000	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Butadiene	FB	Ave	5340 685965	27499 2164398	59974	131208	346749	1.00 100	4.00 300	10.0	20.0	50.0
Vinyl chloride	FB	Ave	6609 873015	35547 2685581	85854	176253	427210	1.00 100	4.00 300	10.0	20.0	50.0
Bromomethane	FB	Ave	5182 602368	24164 1781894	60035	122120	298292	1.00 100	4.00 300	10.0	20.0	50.0
Chloroethane	FB	Ave	4049 494507	20248 1548144	47842	99315	241029	1.00 100	4.00 300	10.0	20.0	50.0
Dichlorofluoromethane	FB	Ave	10086 1224452	49001 3836467	126781	239726	614008	1.00 100	4.00 300	10.0	20.0	50.0
Trichlorofluoromethane	FB	Ave	7650 1004289	43279 3244856	97771	212916	522161	1.00 100	4.00 300	10.0	20.0	50.0
n-Pentane	FB	Ave	5863 917861	33694 3113899	71206	175291	499224	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl ether	FB	Ave	4788 581117	20747 1741963	52036	113080	285390	1.000 100.0	4.00 300	10.00	20.0	50.0
Freon 123a	FB	Ave	5357 785436	28505 2453199	68362	149927	391696	1.00 100	4.00 300	10.0	20.0	50.0
Acrolein	TBAd10	Ave	22019 2246936	88530 6856735	236423	454467	1114577	10.00 1000	40.0 3000	100.0	200	500
1,1-Dichloroethene	FB	Ave	4100 571219	20656 1779553	49748	108288	282772	1.00 100	4.00 300	10.0	20.0	50.0
Freon 113	FB	Ave	+++++ 565749	20703 1867758	45232	109961	306878	+++++ 100	4.00 300	10.0	20.0	50.0
Acetone	TBAd10	Ave	1903	8253	22419	43701	106131	2.00	8.00	20.0	40.0	100

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			201826	615732				200	600			
Methyl iodide	FB	Ave	8883 1170779	41561 3605342	100907	219037	571556	1.00 100	4.00 300	10.0	20.0	50.0
2-Propanol	TBAd10	Ave	20480 407569	64839 1164797	81656	162791	239780	20.0 500	80.0 1500	100	200	250
Carbon disulfide	FB	Ave	15156 2092709	73540 6521447	174062	390125	1012747	1.00 100	4.00 300	10.0	20.0	50.0
Methyl acetate	FB	Ave	8434 865601	37830 2662336	82921	161814	432189	1.00 100	4.00 300	10.0	20.0	50.0
Allyl chloride	FB	Ave	8541 1049405	38402 3231887	98093	200272	523058	1.00 100	4.00 300	10.0	20.0	50.0
Methylene Chloride	FB	Ave	5429 668076	24831 2080566	59909	126582	326217	1.00 100	4.00 300	10.0	20.0	50.0
t-Butyl alcohol	TBAd10	Ave	33351 801047	122482 2231410	151173	306833	444735	20.0 500	80.0 1500	100	200	250
Acrylonitrile	FB	Ave	3068 419777	16251 1282499	43958	83802	209427	1.00 100	4.00 300	10.0	20.0	50.0
Methyl tertiary butyl ether	FB	Ave	16872 1903933	73397 5751040	173738	362173	928609	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,2-Dichloroethene	FB	Ave	4781 668857	23341 2062407	56624	125222	321659	1.00 100	4.00 300	10.0	20.0	50.0
n-Hexane	FB	Ave	4814 834874	30163 2733197	63824	155490	442447	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloroethane	FB	Ave	9003 1233274	44113 3778202	105982	225922	593542	1.00 100	4.00 300	10.0	20.0	50.0
di-Isopropyl ether	FB	Ave	18046 2210843	79117 6770190	192552	410782	1066029	1.00 100	4.00 300	10.0	20.0	50.0
2-Chloro-1,3-butadiene	FB	Ave	7160 1045276	35580 3234696	87008	193987	505933	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl t-butyl ether	FB	Ave	17197 2011291	74391 6004315	181556	383354	984105	1.00 100	4.00 300	10.0	20.0	50.0
2-Butanone	FB	Ave	12917 1213106	47513 3692819	127466	246325	604063	2.00 200	8.00 600	20.0	40.0	100
cis-1,2-Dichloroethene	FB	Ave	6091 760453	26601 2345332	66537	140974	369526	1.00 100	4.00 300	10.0	20.0	50.0
2,2-Dichloropropane	FB	Ave	7116 1028986	35187 3135119	88435	193046	504054	1.00 100	4.00 300	10.0	20.0	50.0
Propionitrile	TBAd10	Ave	35120 866631	137469 2714032	168473	333931	452583	20.0 500	80.0 1500	100	200	250

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methacrylonitrile	FB	Ave	42856 1147038	176243 3567876	210200	432594	559119	10.0 250	40.0 750	50.0	100	125
Bromochloromethane	FB	Ave	3260 370402	13669 1131264	34409	72104	187876	1.00 100	4.00 300	10.0	20.0	50.0
Tetrahydrofuran	TBAd10	Ave	3497 326336	12836 1010493	34443	65919	165191	2.00 200	8.00 600	20.0	40.0	100
Chloroform	FB	Ave	9560 1228555	44407 3777572	106478	228945	591911	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1-Trichloroethane	FB	Ave	7239 1076263	38161 3325137	91439	203073	527153	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexane	FB	Ave	6489 1045663	37384 3436922	83502	199460	547183	1.00 100	4.00 300	10.0	20.0	50.0
Carbon tetrachloride	FB	Ave	5823 934093	32405 2917688	79150	176167	463361	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloropropene	FB	Ave	6538 975237	33324 3032056	81870	182212	475329	1.00 100	4.00 300	10.0	20.0	50.0
Isobutyl alcohol	TBAd10	Ave	26830 702107	100672 1937296	122771	252369	352320	50.0 1250	200 3750	250	500	625
Benzene	FB	Ave	22359 2884765	102133 8951240	248316	537082	1399400	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloroethane	FB	Ave	8793 873277	33983 2691358	80709	165302	422669	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl methyl ether	FB	Ave	17332 1974895	73954 5823704	179936	377020	969387	1.00 100	4.00 300	10.0	20.0	50.0
n-Heptane	FB	Ave	5745 876438	30571 2744696	65102	156133	446756	1.00 100	4.00 300	10.0	20.0	50.0
n-Butanol	TBAd10	Ave	44537 1212467	186500 3242111	215231	441976	607463	100 2500	400 7500	500	1000	1250
Trichloroethene	FB	Ave	5686 757211	26619 2379510	64901	142406	368752	1.00 100	4.00 300	10.0	20.0	50.0
Methylcyclohexane	FB	Ave	6225 998126	36950 3269337	94538	202534	548633	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloropropane	FB	Ave	5751 748285	26256 2351999	65572	136555	361989	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl ethyl ether	FB	Ave	8083 1032484	36542 3163182	90029	191520	495696	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Dioxane	TBAd10	Ave	4787 135753	19917 362212	22665	44196	61835	50.0 1250	200 3750	250	500	625

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dibromomethane	FB	Ave	4045 476042	18037 1490932	42437	88693	230416	1.00 100	4.00 300	10.0	20.0	50.0
Methyl methacrylate	FB	Ave	6403 701308	25643 2218404	62696	129399	336782	1.00 100	4.00 300	10.0	20.0	50.0
Bromodichloromethane	FB	Ave	7333 954015	33250 3006273	82072	175459	462053	1.00 100	4.00 300	10.0	20.0	50.0
2-Nitropropane	TBAd10	Ave	5433 589110	23738 1792165	61731	120074	294641	2.00 200	8.00 600	20.0	40.0	100
2-Chloroethyl vinyl ether	FB	Ave	4721 612227	20431 1872130	53521	109127	287539	1.00 100	4.00 300	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	9355 1206977	42004 3805050	103961	220796	581557	1.00 100	4.00 300	10.0	20.0	50.0
4-Methyl-2-pentanone	FB	Ave	23150 2412091	94844 7181041	259145	483460	1170501	2.00 200	8.00 600	20.0	40.0	100
Toluene	CBZd5	Ave	13628 1836470	63345 5705056	154502	339401	890558	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,3-Dichloropropene	CBZd5	Ave	9203 1109752	39483 3493673	95115	201915	532572	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl methacrylate	CBZd5	Ave	9974 1171484	41352 3647183	101101	214549	559762	1.00 100	4.00 300	10.0	20.0	50.0
1,1,2-Trichloroethane	CBZd5	Ave	5672 674815	24553 2115953	60174	126265	325941	1.00 100	4.00 300	10.0	20.0	50.0
Tetrachloroethene	CBZd5	Ave	5544 813788	27895 2558133	71476	155686	403820	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichloropropane	CBZd5	Ave	9796 1112273	41212 3465903	98983	208136	534414	1.00 100	4.00 300	10.0	20.0	50.0
2-Hexanone	CBZd5	Ave	19130 1965497	80885 5731580	218080	403508	929166	2.00 200	8.00 600	20.0	40.0	100
Dibromochloromethane	CBZd5	Ave	6540 810023	28490 2545158	68698	146918	387781	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromoethane	CBZd5	Ave	6817 766340	27742 2390979	68475	142246	371777	1.00 100	4.00 300	10.0	20.0	50.0
1-Chlorohexane	CBZd5	Ave	8427 1024639	36553 3263251	88008	194603	503994	1.00 100	4.00 300	10.0	20.0	50.0
Chlorobenzene	CBZd5	Ave	15846 2046046	71485 6371324	173202	378899	990186	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1,2-Tetrachloroethane	CBZd5	Ave	5603 747569	25697 2371226	63372	136451	361081	1.00 100	4.00 300	10.0	20.0	50.0
Ethylbenzene	CBZd5	Ave	26220 3686913	124073 11265205	309378	673996	1774674	1.00 100	4.00 300	10.0	20.0	50.0
m&p-Xylene	CBZd5	Ave	19614	94650	237005	518120	1358418	2.00	8.00	20.0	40.0	100

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			2811417	8686745				200	600			
o-Xylene	CBZd5	Ave	10127 1383407	46259 4296110	116350	252618	665134	1.00 100	4.00 300	10.0	20.0	50.0
Styrene	CBZd5	Ave	16293 2324969	77294 7245932	196132	419911	1113512	1.00 100	4.00 300	10.0	20.0	50.0
Bromoform	CBZd5	Ave	5094 671777	22703 2121066	56948	120278	319092	1.00 100	4.00 300	10.0	20.0	50.0
Isopropylbenzene	CBZd5	Ave	24644 3587768	121156 10755397	302777	667323	1748831	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexanone	TBAd10	Ave	22117 630585	94277 1704742	107360	215586	307538	50.0 1250	200 3750	250	500	625
Bromobenzene	DCBd4	Ave	6996 900530	31896 2848755	78372	165688	430579	1.00 100	4.00 300	10.0	20.0	50.0
1,1,2,2-Tetrachloroethane	DCBd4	Ave	10688 1209349	45628 3807511	106833	222717	586351	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,4-Dichloro-2-butene	DCBd4	Ave	33374 965152	143353 3039932	172162	358230	465222	10.0 250	40.0 750	50.0	100	125
1,2,3-Trichloropropane	DCBd4	Ave	3230 340325	12849 1050875	30830	63471	166173	1.00 100	4.00 300	10.0	20.0	50.0
N-Propylbenzene	DCBd4	Ave	29478 4281604	144060 12154018	362596	794561	2079805	1.00 100	4.00 300	10.0	20.0	50.0
2-Chlorotoluene	DCBd4	Ave	6177 847781	29039 2691624	71770	156519	411946	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trimethylbenzene	DCBd4	Ave	20623 3012745	99156 9227489	251061	548654	1444370	1.00 100	4.00 300	10.0	20.0	50.0
4-Chlorotoluene	DCBd4	Ave	6181 872035	29743 2786235	73923	161008	416638	1.00 100	4.00 300	10.0	20.0	50.0
tert-Butylbenzene	DCBd4	Ave	3765 630991	21020 2010963	49400	115132	305032	1.00 100	4.00 300	10.0	20.0	50.0
Pentachloroethane	DCBd4	Ave	4029 573849	19454 1813947	47485	101583	291062	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trimethylbenzene	DCBd4	Ave	21668 3098185	102419 9485458	259574	564544	1474572	1.00 100	4.00 300	10.0	20.0	50.0
sec-Butylbenzene	DCBd4	Ave	24858 3757971	124063 11040837	311930	686282	1818624	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichlorobenzene	DCBd4	Ave	12701 1672246	58373 5271659	143217	310383	803530	1.00 100	4.00 300	10.0	20.0	50.0
p-Isopropyltoluene	DCBd4	Ave	21033 3177050	103134 9569768	262018	576008	1535062	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Dichlorobenzene	DCBd4	Ave	13256 1690851	59227 5355342	146651	313032	815782	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1 Analy Batch No.: 42091

SDG No.:

Instrument ID: 26285 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/09/2020 14:51 Calibration End Date: 09/09/2020 16:53 Calibration ID: 10794

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,2,3-Trimethylbenzene	DCBd4	Ave	23706 2994322	103451 9192633	269416	564266	1536968	1.00 100	4.00 300	10.0	20.0	50.0
Benzyl chloride	DCBd4	Ave	19696 2610363	89821 8016961	220292	470906	1247490	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Diethylbenzene	DCBd4	Ave	13985 1852836	64770 5801058	168914	349342	939711	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Diethylbenzene	DCBd4	Ave	13645 1906702	66154 6007817	173007	362066	977988	1.00 100	4.00 300	10.0	20.0	50.0
n-Butylbenzene	DCBd4	Ave	10587 1616838	53691 5109552	132861	290838	770100	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichlorobenzene	DCBd4	Ave	12311 1601653	57677 5056379	140651	297238	774162	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Diethylbenzene	DCBd4	Ave	11187 1512741	52328 4759201	137760	284159	773393	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	2666 325212	12091 992298	28171	57791	156743	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trichlorobenzene	DCBd4	Ave	8304 1149291	38312 3643384	96180	206451	548162	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trichlorobenzene	DCBd4	Ave	8199 1073116	36333 3406904	90976	190375	506421	1.00 100	4.00 300	10.0	20.0	50.0
Hexachlorobutadiene	DCBd4	Ave	3024 441236	14596 1385931	36409	79130	211252	1.00 100	4.00 300	10.0	20.0	50.0
Naphthalene	DCBd4	Ave	32632 4000369	142952 11280038	347878	724388	1911398	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trichlorobenzene	DCBd4	Ave	7782 1046967	36160 3268907	89761	187212	494306	1.00 100	4.00 300	10.0	20.0	50.0
2-Methylnaphthalene	DCBd4	Ave	16756 2254471	72852 6688897	186299	398754	1155256	1.00 100	4.00 300	10.0	20.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	303314 290150	294920 294777	294986	305998	305867	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	65510 64200	63661 65837	63745	66456	67024	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBZd5	Ave	1110330 1073411	1084113 1096366	1079145	1118619	1129324	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	444478 433468	437283 449797	434133	450092	457310	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I01.D
Lims ID: IC level7 300
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 09-Sep-2020 14:51:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC LEVEL7 300
Misc. Info.: 410-0010032-003
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:27:59 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 14:01:57

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.600	1.606	-0.006	99	2600582	300.0	342.0	
3 Chloromethane	50	1.765	1.771	-0.006	99	3068865	300.0	316.8	
4 Butadiene	39	1.850	1.850	0.000	92	2164398	300.0	331.3	
5 Vinyl chloride	62	1.862	1.862	0.000	98	2685581	300.0	318.2	
8 Bromomethane	94	2.112	2.118	-0.006	90	1781894	300.0	302.6	
9 Chloroethane	64	2.179	2.186	-0.007	99	1548144	300.0	321.0	
10 Dichlorofluoromethane	67	2.380	2.387	-0.007	97	3836467	300.0	318.8	
11 Trichlorofluoromethane	101	2.429	2.435	-0.006	98	3244856	300.0	324.0	
12 Pentane	43	2.454	2.466	-0.012	96	3113899	300.0	365.7	
14 Ethyl ether	59	2.624	2.637	-0.013	94	1741963	300.0	319.9	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.697	2.704	-0.007	93	2453199	300.0	339.3	
16 Acrolein	56	2.771	2.783	-0.012	100	6856735	2999.9	3363.9	
19 1,1-Dichloroethene	96	2.880	2.887	-0.007	98	1779553	300.0	337.5	
17 Acetone	58	2.911	2.917	-0.006	100	615732	600.0	655.3	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.911	2.923	-0.012	92	1867758	300.0	337.9	
20 Iodomethane	142	3.045	3.051	-0.006	99	3605342	300.0	334.8	
21 Isopropyl alcohol	45	3.051	3.057	-0.006	99	1164797	1500.0	1510.0	
22 Carbon disulfide	76	3.124	3.130	-0.006	99	6521447	300.0	342.7	
23 Methyl acetate	43	3.246	3.258	-0.012	99	2662336	300.0	308.5	
25 3-Chloro-1-propene	41	3.264	3.277	-0.013	93	3231887	300.0	325.0	
26 Methylene Chloride	84	3.423	3.435	-0.012	94	2080566	300.0	330.6	
* 27 t-Butyl alcohol-d10 (IS)	65	3.447	3.453	-0.006	95	330455	250.0	250.0	
28 2-Methyl-2-propanol	59	3.545	3.551	-0.006	100	2231410	1500.0	1564.0	
29 Acrylonitrile	53	3.703	3.716	-0.013	98	1282499	300.0	316.6	
30 Methyl tert-butyl ether	73	3.752	3.758	-0.006	95	5751040	300.0	316.1	
31 trans-1,2-Dichloroethene	96	3.752	3.764	-0.012	98	2062407	300.0	339.8	
32 Hexane	57	4.124	4.142	-0.018	93	2733197	300.0	362.9	
33 1,1-Dichloroethane	63	4.368	4.380	-0.012	96	3778202	300.0	336.3	
35 Isopropyl ether	45	4.429	4.441	-0.012	96	6770190	300.0	330.4	
36 2-Chloro-1,3-butadiene	53	4.478	4.490	-0.012	90	3234696	300.0	344.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	4.990	5.002	-0.012	99	6004315	300.0	316.6	
39 2-Butanone (MEK)	43	5.221	5.228	-0.007	100	3692819	600.0	599.1	
38 cis-1,2-Dichloroethene	96	5.234	5.240	-0.006	82	2345332	300.0	333.7	
40 2,2-Dichloropropane	77	5.246	5.252	-0.006	87	3135119	300.0	336.9	
41 Propionitrile	54	5.325	5.331	-0.006	99	2714032	1500.0	1730.1	
43 Methacrylonitrile	67	5.538	5.545	-0.007	93	3567876	750.0	805.4	
44 Chlorobromomethane	128	5.575	5.587	-0.012	98	1131264	300.0	317.7	
45 Tetrahydrofuran	71	5.587	5.593	-0.006	88	1010493	600.0	670.9	
46 Chloroform	83	5.740	5.752	-0.012	93	3777572	300.0	333.1	
48 1,1,1-Trichloroethane	97	5.959	5.965	-0.006	98	3325137	300.0	340.4	
$ 47 Dibromofluoromethane (Surr)	113	5.965	5.971	-0.006	93	294777	50.0	49.4	
49 Cyclohexane	56	6.050	6.057	-0.007	91	3436922	300.0	359.6	
S 74 1,2-Dichloroethene, Total	100				0			673.5	
51 Carbon tetrachloride	117	6.172	6.179	-0.007	96	2917688	300.0	346.7	
50 1,1-Dichloropropene	75	6.185	6.191	-0.006	98	3032056	300.0	345.4	
52 Isobutyl alcohol	41	6.404	6.404	0.000	95	1937296	3750.0	4096.8	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	98	65837	50.0	50.6	
53 Benzene	78	6.459	6.465	-0.006	97	8951240	300.0	336.8	
55 1,2-Dichloroethane	62	6.544	6.551	-0.007	97	2691358	300.0	315.5	
58 Tert-amyl methyl ether	73	6.672	6.679	-0.007	99	5823704	300.0	311.0	
* 59 Fluorobenzene (IS)	96	6.886	6.892	-0.006	99	1145139	50.0	50.0	
60 n-Heptane	43	6.904	6.910	-0.006	94	2744696	300.0	352.8	
61 n-Butanol	56	7.325	7.319	0.006	89	3242111	7500.0	7913.1	
62 Trichloroethene	95	7.379	7.386	-0.007	99	2379510	300.0	341.5	
63 Methylcyclohexane	83	7.690	7.691	-0.001	91	3269337	300.0	342.6	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	98	2351999	300.0	341.5	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	92	3163182	300.0	332.9	
68 1,4-Dioxane	88	7.824	7.831	-0.007	83	362212	3750.0	4147.3	M
66 Dibromomethane	93	7.843	7.849	-0.006	96	1490932	300.0	330.9	
67 Methyl methacrylate	69	7.849	7.849	0.000	92	2218404	300.0	332.9	
70 Dichlorobromomethane	83	8.099	8.105	-0.006	100	3006273	300.0	343.0	
72 2-Nitropropane	41	8.398	8.398	0.000	97	1792165	600.0	673.2	
71 2-Chloroethyl vinyl ether	63	8.501	8.501	0.000	91	1872130	300.0	338.5	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	3805050	300.0	343.3	
75 4-Methyl-2-pentanone (MIBK)	43	8.897	8.898	-0.001	97	7181041	600.0	597.3	
$ 76 Toluene-d8 (Surr)	98	9.025	9.026	-0.001	94	1096366	50.0	49.6	
77 Toluene	92	9.111	9.111	0.000	98	5705056	300.0	339.2	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	3493673	300.0	337.4	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	3647183	300.0	333.1	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	90	2115953	300.0	331.2	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	2558133	300.0	341.2	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	3465903	300.0	327.0	
84 2-Hexanone	43	9.903	9.910	-0.007	97	5731580	600.0	574.9	
85 Chlorodibromomethane	129	10.056	10.056	0.000	90	2545158	300.0	339.3	
S 123 1,3-Dichloropropene, Total	100				0			680.7	
87 Ethylene Dibromide	107	10.166	10.172	-0.006	98	2390979	300.0	327.7	
* 90 Chlorobenzene-d5 (IS)	117	10.641	10.641	0.000	86	877819	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	68	3263251	300.0	337.6	
88 Chlorobenzene	112	10.672	10.672	0.000	92	6371324	300.0	337.3	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	97	2371226	300.0	345.4	
93 Ethylbenzene	91	10.775	10.775	0.000	98	11265205	300.0	338.3	
94 m-Xylene & p-Xylene	106	10.903	10.897	0.006	97	8686745	600.0	682.7	e

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			1024.8	
95 o-Xylene	106	11.251	11.251	0.000	96	4296110	300.0	342.1	
96 Styrene	104	11.269	11.269	0.000	95	7245932	300.0	345.7	
97 Bromoform	173	11.421	11.422	-0.001	97	2121066	300.0	346.1	
98 Isopropylbenzene	105	11.574	11.568	0.006	96	10755397	300.0	332.3	
100 Cyclohexanone	55	11.641	11.647	-0.006	92	1704742	3749.8	4108.8	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	449797	50.0	50.4	
102 Bromobenzene	156	11.830	11.830	0.000	95	2848755	300.0	334.1	
105 1,1,2,2-Tetrachloroethane	83	11.842	11.836	0.006	94	3807511	300.0	323.1	
104 trans-1,4-Dichloro-2-butene	53	11.866	11.867	-0.001	89	3039932	750.0	811.1	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	86	1050875	300.0	312.8	
106 N-Propylbenzene	91	11.921	11.915	0.006	97	12154018	300.0	311.4	e
107 2-Chlorotoluene	126	11.994	11.988	0.006	97	2691624	300.0	339.6	
108 1,3,5-Trimethylbenzene	105	12.068	12.062	0.006	95	9227489	300.0	335.6	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	2786235	300.0	343.4	
111 tert-Butylbenzene	134	12.311	12.312	-0.001	92	2010963	300.0	353.7	
112 Pentachloroethane	167	12.342	12.342	0.000	92	1813947	300.0	341.0	
113 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	97	9485458	300.0	334.6	
114 sec-Butylbenzene	105	12.482	12.482	0.000	95	11040837	300.0	324.7	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	5271659	300.0	334.8	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	9569768	300.0	333.1	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.641	-0.006	94	489361	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	95	5355342	300.0	334.0	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	9192633	300.0	320.2	
120 Benzyl chloride	91	12.738	12.738	0.000	98	8016961	300.0	330.7	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	94	5801058	300.0	326.8	
122 p-Diethylbenzene	119	12.878	12.879	-0.001	92	6007817	300.0	330.2	
124 n-Butylbenzene	92	12.903	12.897	0.006	97	5109552	300.0	347.4	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	98	5056379	300.0	331.9	
126 o-diethylbenzene	119	12.952	12.952	0.000	97	4759201	300.0	329.2	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	88	992298	300.0	321.1	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	3643384	300.0	343.5	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	94	3406904	300.0	341.5	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	1385931	300.0	343.8	
132 Naphthalene	128	14.226	14.226	0.000	98	11280038	300.0	301.6	
133 1,2,3-Trichlorobenzene	180	14.372	14.372	0.000	96	3268907	300.0	336.0	
134 2-Methylnaphthalene	142	14.976	14.976	0.000	92	6688897	300.0	322.9	
S 154 Total Diethylbenzene	1				0			986.2	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	30.00	Units: uL	
MSV_V_VOA1_00090	Amount Added:	15.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	6.00	Units: uL	
MSV_V_EE_00003	Amount Added:	15.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	15.00	Units: uL	
MSV_DCFM_00021	Amount Added:	7.50	Units: uL	
MSV_V_VOA6_00051	Amount Added:	15.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	7.50	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

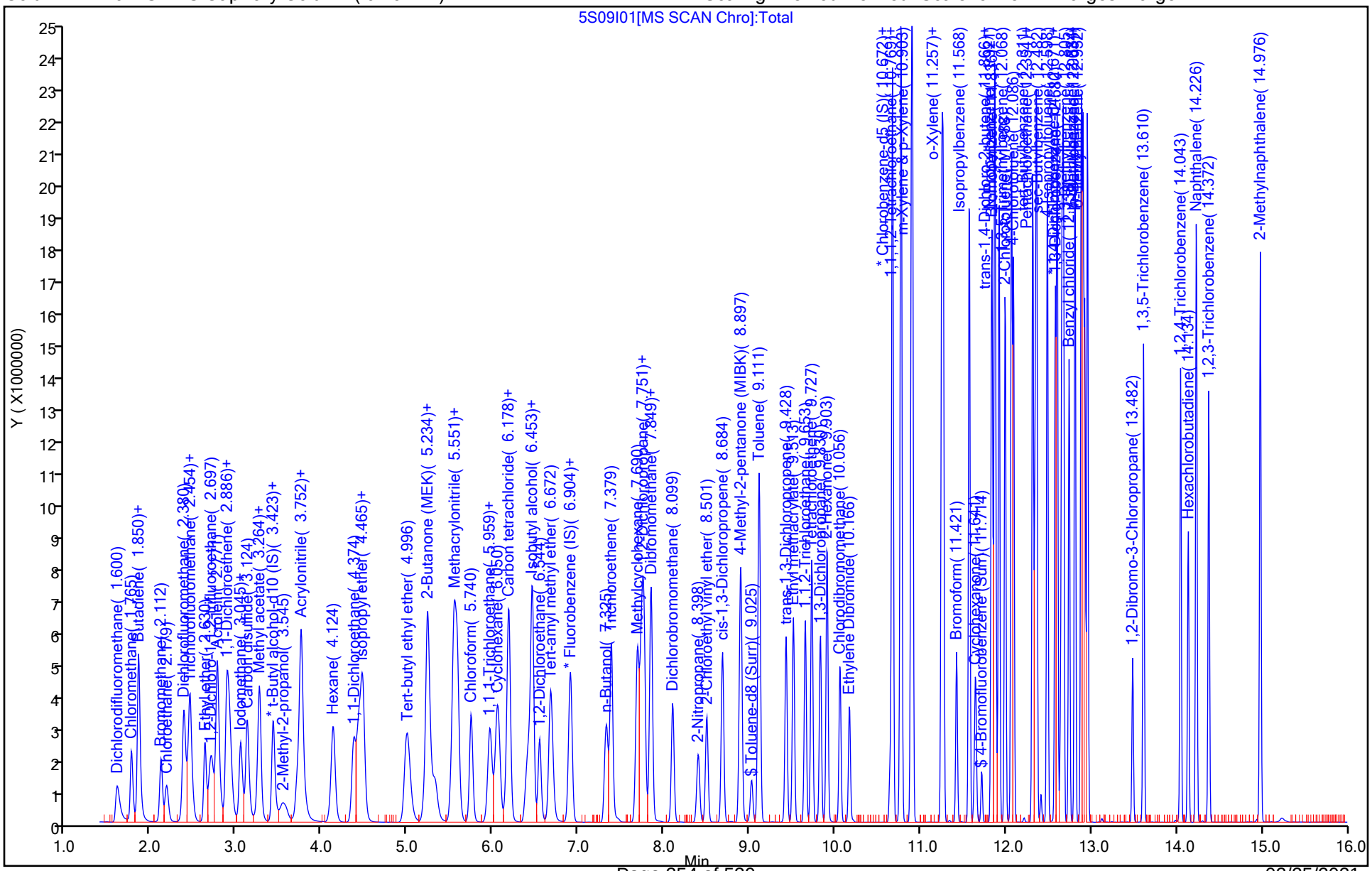
Report Date: 11-Sep-2020 20:28:00 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I01.D

Injection Date:	09-Sep-2020 14:51:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	IC level7 300			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

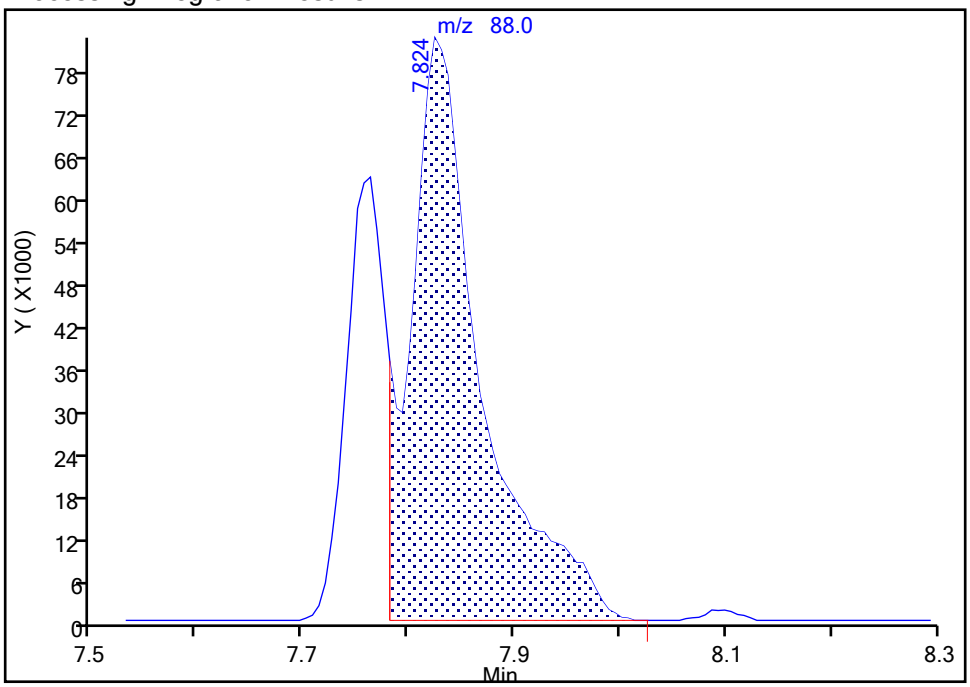
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I01.D
Injection Date: 09-Sep-2020 14:51:30 Instrument ID: 26285
Lims ID: IC level7 300
Client ID:
Operator ID: CLM27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

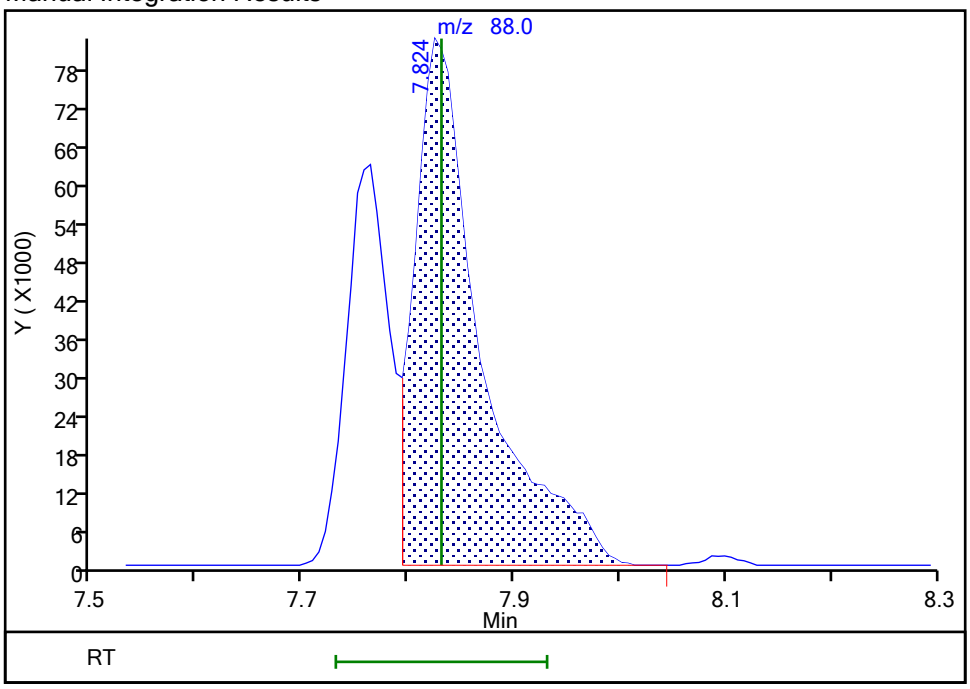
Processing Integration Results

RT: 7.82
Area: 386558
Amount: 4185.1185
Amount Units: ug/l



Manual Integration Results

RT: 7.82
Area: 362212
Amount: 4147.3097
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:01:47
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I02.D
Lims ID: IC std6 100
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 09-Sep-2020 15:11:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC STD6 100
Misc. Info.: 410-0010032-004
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:09 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:07:27

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.606	1.606	0.000	99	788563	100.0	105.7	
3 Chloromethane	50	1.771	1.771	0.000	99	999549	100.0	105.1	
4 Butadiene	39	1.850	1.850	0.000	93	685965	100.0	107.0	
5 Vinyl chloride	62	1.862	1.862	0.000	98	873015	100.0	105.4	
8 Bromomethane	94	2.118	2.118	0.000	91	602368	100.0	104.2	
9 Chloroethane	64	2.185	2.186	-0.001	99	494507	100.0	104.5	
10 Dichlorofluoromethane	67	2.387	2.387	0.000	97	1224452	100.0	103.7	
11 Trichlorofluoromethane	101	2.435	2.435	0.000	98	1004289	100.0	102.2	
12 Pentane	43	2.466	2.466	0.000	97	917861	100.0	109.8	
14 Ethyl ether	59	2.637	2.637	0.000	94	581117	100.0	108.7	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.704	2.704	0.000	93	785436	100.0	110.7	
16 Acrolein	56	2.783	2.783	0.000	100	2246936	1000.0	997.3	
19 1,1-Dichloroethene	96	2.887	2.887	0.000	98	571219	100.0	110.4	
17 Acetone	58	2.917	2.917	0.000	100	201826	200.0	194.3	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.917	2.923	-0.006	91	565749	100.0	104.3	
20 Iodomethane	142	3.051	3.051	0.000	99	1170779	100.0	110.8	
21 Isopropyl alcohol	45	3.057	3.057	0.000	99	407569	500.0	478.0	
22 Carbon disulfide	76	3.130	3.130	0.000	99	2092709	100.0	112.0	
23 Methyl acetate	43	3.258	3.258	0.000	99	865601	100.0	102.2	
25 3-Chloro-1-propene	41	3.277	3.277	0.000	93	1049405	100.0	107.5	
26 Methylene Chloride	84	3.435	3.435	0.000	94	668076	100.0	108.2	
* 27 t-Butyl alcohol-d10 (IS)	65	3.447	3.453	-0.006	96	365254	250.0	250.0	
28 2-Methyl-2-propanol	59	3.557	3.551	0.006	100	801047	500.0	508.0	
29 Acrylonitrile	53	3.716	3.716	0.000	98	419777	100.0	105.6	
30 Methyl tert-butyl ether	73	3.758	3.758	0.000	96	1903933	100.0	106.6	
31 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	99	668857	100.0	112.3	
32 Hexane	57	4.142	4.142	0.000	93	834874	100.0	112.9	
33 1,1-Dichloroethane	63	4.380	4.380	0.000	96	1233274	100.0	111.8	
35 Isopropyl ether	45	4.441	4.441	0.000	96	2210843	100.0	109.9	
36 2-Chloro-1,3-butadiene	53	4.490	4.490	0.000	91	1045276	100.0	113.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	5.002	5.002	0.000	99	2011291	100.0	108.0	
39 2-Butanone (MEK)	43	5.228	5.228	0.000	100	1213106	200.0	200.5	
38 cis-1,2-Dichloroethene	96	5.246	5.240	0.006	82	760453	100.0	110.2	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	89	1028986	100.0	112.6	
41 Propionitrile	54	5.325	5.331	-0.006	99	866631	500.0	499.8	
43 Methacrylonitrile	67	5.545	5.545	0.000	92	1147038	250.0	263.8	
44 Chlorobromomethane	128	5.587	5.587	0.000	98	370402	100.0	106.0	
45 Tetrahydrofuran	71	5.593	5.593	0.000	80	326336	200.0	196.0	
46 Chloroform	83	5.752	5.752	0.000	93	1228555	100.0	110.4	
48 1,1,1-Trichloroethane	97	5.965	5.965	0.000	99	1076263	100.0	112.3	
$ 47 Dibromofluoromethane (Surr)	113	5.977	5.971	0.006	93	290150	50.0	49.6	
49 Cyclohexane	56	6.057	6.057	0.000	91	1045663	100.0	111.5	
S 74 1,2-Dichloroethene, Total	100				0			222.5	
51 Carbon tetrachloride	117	6.179	6.179	0.000	97	934093	100.0	113.1	
50 1,1-Dichloropropene	75	6.191	6.191	0.000	97	975237	100.0	113.2	
52 Isobutyl alcohol	41	6.410	6.404	0.006	94	702107	1250.0	1343.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	98	64200	50.0	50.2	
53 Benzene	78	6.465	6.465	0.000	96	2884765	100.0	110.6	
55 1,2-Dichloroethane	62	6.550	6.551	-0.001	97	873277	100.0	104.3	
58 Tert-amyl methyl ether	73	6.679	6.679	-0.001	99	1974895	100.0	107.5	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	99	1123942	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	94	876438	100.0	114.8	
61 n-Butanol	56	7.319	7.319	0.000	95	1212467	2500.0	2677.3	
62 Trichloroethene	95	7.386	7.386	0.000	99	757211	100.0	110.7	
63 Methylcyclohexane	83	7.691	7.691	-0.001	91	998126	100.0	106.6	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	98	748285	100.0	110.7	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	91	1032484	100.0	110.7	
68 1,4-Dioxane	88	7.825	7.831	-0.006	86	135753	1250.0	1406.3	M
66 Dibromomethane	93	7.849	7.849	0.000	81	476042	100.0	107.6	
67 Methyl methacrylate	69	7.849	7.849	0.000	92	701308	100.0	107.2	
70 Dichlorobromomethane	83	8.105	8.105	0.000	100	954015	100.0	110.9	
72 2-Nitropropane	41	8.398	8.398	0.000	97	589110	200.0	200.2	
71 2-Chloroethyl vinyl ether	63	8.501	8.501	0.000	91	612227	100.0	112.8	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	1206977	100.0	110.9	
75 4-Methyl-2-pentanone (MIBK)	43	8.898	8.898	0.000	97	2412091	200.0	204.4	
$ 76 Toluene-d8 (Surr)	98	9.026	9.026	0.000	94	1073411	50.0	49.9	
77 Toluene	92	9.117	9.111	0.006	98	1836470	100.0	112.1	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	1109752	100.0	110.0	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	1171484	100.0	109.8	
80 1,1,2-Trichloroethane	97	9.654	9.654	0.000	90	674815	100.0	108.5	
81 Tetrachloroethene	166	9.733	9.727	0.006	97	813788	100.0	111.4	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	1112273	100.0	107.7	
84 2-Hexanone	43	9.910	9.910	0.000	97	1965497	200.0	202.4	
85 Chlorodibromomethane	129	10.062	10.056	0.006	90	810023	100.0	110.9	
S 123 1,3-Dichloropropene, Total	100				0			221.0	
87 Ethylene Dibromide	107	10.172	10.172	0.000	99	766340	100.0	107.8	
* 90 Chlorobenzene-d5 (IS)	117	10.647	10.641	0.006	85	855036	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	84	1024639	100.0	108.8	
88 Chlorobenzene	112	10.672	10.672	0.000	93	2046046	100.0	111.2	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	98	747569	100.0	111.8	
93 Ethylbenzene	91	10.775	10.775	0.000	98	3686913	100.0	113.7	
94 m-Xylene & p-Xylene	106	10.903	10.897	0.006	100	2811417	200.0	226.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			339.9	
95 o-Xylene	106	11.251	11.251	0.000	96	1383407	100.0	113.1	
96 Styrene	104	11.269	11.269	0.000	95	2324969	100.0	113.9	
97 Bromoform	173	11.421	11.422	-0.001	97	671777	100.0	112.6	
98 Isopropylbenzene	105	11.574	11.568	0.006	96	3587768	100.0	113.8	
100 Cyclohexanone	55	11.647	11.647	0.000	91	630585	1249.9	1375.1	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	433468	50.0	49.9	
102 Bromobenzene	156	11.830	11.830	0.000	92	900530	100.0	111.3	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	94	1209349	100.0	108.1	
104 trans-1,4-Dichloro-2-butene	53	11.867	11.867	0.000	88	965152	250.0	271.3	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	83	340325	100.0	106.7	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	4281604	100.0	115.6	
107 2-Chlorotoluene	126	11.988	11.988	0.000	96	847781	100.0	112.7	
108 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	93	3012745	100.0	115.4	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	872035	100.0	113.2	
111 tert-Butylbenzene	134	12.312	12.312	0.000	92	630991	100.0	116.9	
112 Pentachloroethane	167	12.342	12.342	0.000	92	573849	100.0	113.6	
113 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	97	3098185	100.0	115.1	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	3757971	100.0	116.4	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	1672246	100.0	111.9	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	3177050	100.0	116.5	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.641	-0.006	94	464580	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	94	1690851	100.0	111.1	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	99	2994322	100.0	109.8	
120 Benzyl chloride	91	12.738	12.738	0.000	98	2610363	100.0	113.4	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	1852836	100.0	109.9	
122 p-Diethylbenzene	119	12.879	12.879	0.000	92	1906702	100.0	110.4	
124 n-Butylbenzene	92	12.903	12.897	0.006	97	1616838	100.0	115.8	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	99	1601653	100.0	110.7	
126 o-diethylbenzene	119	12.952	12.952	0.000	97	1512741	100.0	110.2	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	88	325212	100.0	110.9	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	1149291	100.0	114.1	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	94	1073116	100.0	113.3	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	441236	100.0	115.3	
132 Naphthalene	128	14.226	14.226	0.000	97	4000369	100.0	112.7	
133 1,2,3-Trichlorobenzene	180	14.372	14.372	0.000	96	1046967	100.0	113.4	
134 2-Methylnaphthalene	142	14.976	14.976	0.000	92	2254471	100.0	114.6	
S 154 Total Diethylbenzene	1				0			330.5	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA1_00090	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	2.00	Units: uL	
MSV_V_EE_00003	Amount Added:	5.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.50	Units: uL	
MSV_V_VOA6_00051	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	2.50	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:28:11 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I02.D

Injection Date: 09-Sep-2020 15:11:30 Instrument ID: 26285 Operator ID: CLM27445

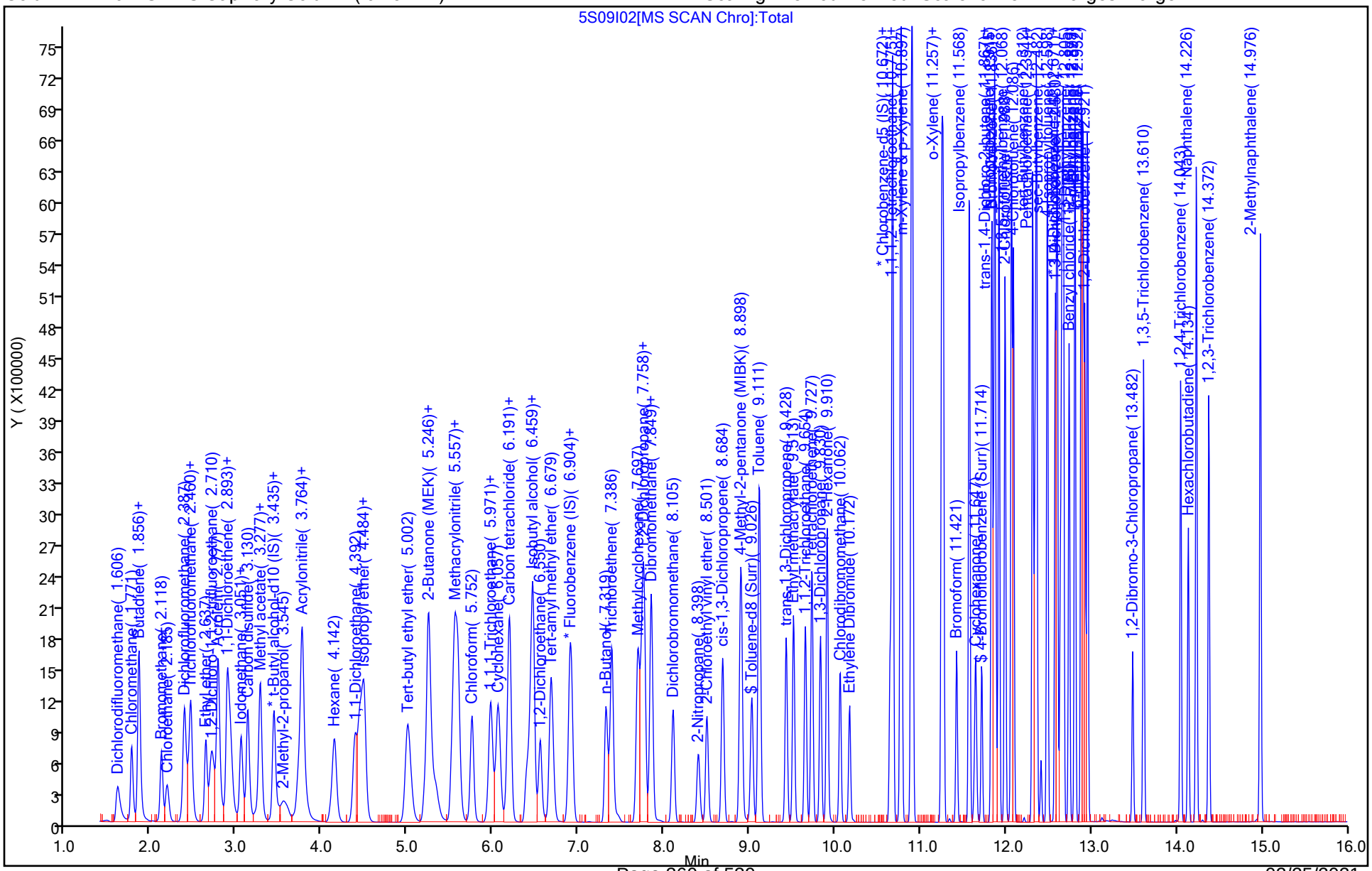
Lims ID: IC std6 100 Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

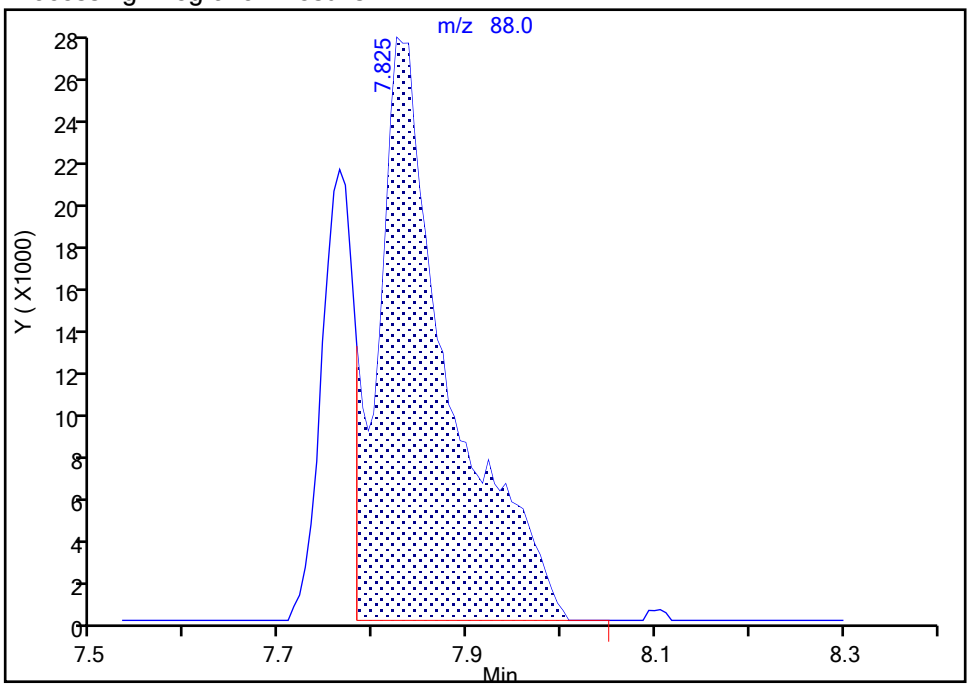
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I02.D
Injection Date: 09-Sep-2020 15:11:30 Instrument ID: 26285
Lims ID: IC std6 100
Client ID:
Operator ID: CLM27445 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

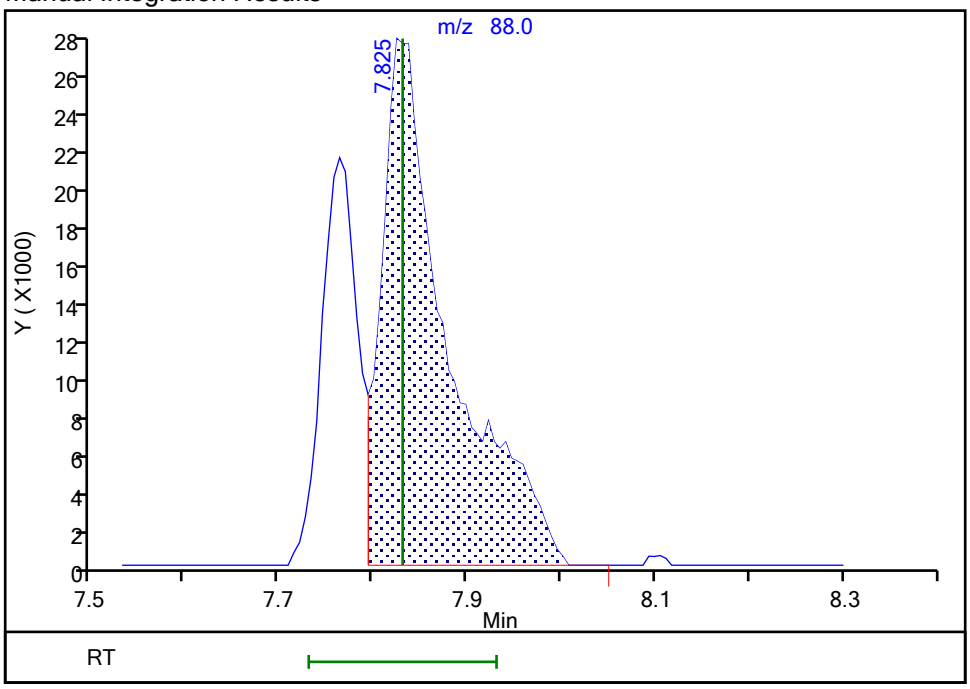
Processing Integration Results

RT: 7.82
Area: 144064
Amount: 1425.4397
Amount Units: ug/l



Manual Integration Results

RT: 7.82
Area: 135753
Amount: 1406.2755
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:06:49
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I03.D
Lims ID: ICIS 50
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 09-Sep-2020 15:31:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS 50
Misc. Info.: 410-0010032-005
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:19 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:00:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.606	1.606	0.000	99	427998	50.0	54.5	
3 Chloromethane	50	1.771	1.771	0.000	99	481000	50.0	48.1	
4 Butadiene	39	1.850	1.850	0.000	92	346749	50.0	51.4	
5 Vinyl chloride	62	1.862	1.862	0.000	98	427210	50.0	49.0	
8 Bromomethane	94	2.118	2.118	0.000	90	298292	50.0	49.1	
9 Chloroethane	64	2.186	2.186	0.000	99	241029	50.0	48.4	
10 Dichlorofluoromethane	67	2.387	2.387	0.000	97	614008	50.0	49.4	
11 Trichlorofluoromethane	101	2.435	2.435	0.000	98	522161	50.0	50.5	
12 Pentane	43	2.466	2.466	0.000	96	499224	50.0	56.8	
14 Ethyl ether	59	2.637	2.637	0.000	94	285390	50.0	50.8	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.704	2.704	0.000	93	391696	50.0	52.5	
16 Acrolein	56	2.783	2.783	0.000	99	1114577	500.0	440.4	
19 1,1-Dichloroethene	96	2.887	2.887	0.000	98	282772	50.0	52.0	
17 Acetone	58	2.917	2.917	0.000	100	106131	100.0	91.0	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.923	2.923	0.000	92	306878	50.0	53.8	
20 Iodomethane	142	3.051	3.051	0.000	98	571556	50.0	51.4	
21 Isopropyl alcohol	45	3.057	3.057	0.000	37	239780	250.0	250.3	
22 Carbon disulfide	76	3.130	3.130	0.000	99	1012747	50.0	51.6	
23 Methyl acetate	43	3.258	3.258	0.000	98	432189	50.0	48.5	
25 3-Chloro-1-propene	41	3.277	3.277	0.000	93	523058	50.0	51.0	
26 Methylene Chloride	84	3.435	3.435	0.000	93	326217	50.0	50.2	
* 27 t-Butyl alcohol-d10 (IS)	65	3.454	3.454	0.000	94	410336	250.0	250.0	M
28 2-Methyl-2-propanol	59	3.551	3.551	0.000	100	444735	250.0	251.0	
29 Acrylonitrile	53	3.716	3.716	0.000	99	209427	50.0	50.1	
30 Methyl tert-butyl ether	73	3.758	3.758	0.000	94	928609	50.0	49.4	
31 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	98	321659	50.0	51.3	
32 Hexane	57	4.142	4.142	0.000	93	442447	50.0	56.9	
33 1,1-Dichloroethane	63	4.380	4.380	0.000	96	593542	50.0	51.2	
35 Isopropyl ether	45	4.441	4.441	0.000	96	1066029	50.0	50.4	
36 2-Chloro-1,3-butadiene	53	4.490	4.490	0.000	90	505933	50.0	52.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	5.002	5.002	0.000	99	984105	50.0	50.3	
39 2-Butanone (MEK)	43	5.228	5.228	0.000	100	604063	100.0	94.9	
38 cis-1,2-Dichloroethene	96	5.240	5.240	0.000	82	369526	50.0	50.9	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	86	504054	50.0	52.5	
41 Propionitrile	54	5.331	5.331	0.000	99	452583	250.0	232.3	
43 Methacrylonitrile	67	5.545	5.545	0.000	92	559119	125.0	122.3	
44 Chlorobromomethane	128	5.587	5.587	0.000	98	187876	50.0	51.1	
45 Tetrahydrofuran	71	5.593	5.593	0.000	84	165191	100.0	88.3	
46 Chloroform	83	5.752	5.752	0.000	93	591911	50.0	50.6	
48 1,1,1-Trichloroethane	97	5.965	5.965	0.000	98	527153	50.0	52.3	
$ 47 Dibromofluoromethane (Surr)	113	5.971	5.971	0.000	93	305867	50.0	49.7	
49 Cyclohexane	56	6.057	6.057	0.000	91	547183	50.0	55.5	
51 Carbon tetrachloride	117	6.179	6.179	0.000	97	463361	50.0	53.3	
50 1,1-Dichloropropene	75	6.191	6.191	0.000	98	475329	50.0	52.5	
52 Isobutyl alcohol	41	6.404	6.404	0.000	95	352320	625.0	600.0	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	99	67024	50.0	49.9	
53 Benzene	78	6.465	6.465	0.000	97	1399400	50.0	51.0	
55 1,2-Dichloroethane	62	6.551	6.551	0.000	97	422669	50.0	48.0	
58 Tert-amyl methyl ether	73	6.679	6.679	0.000	99	969387	50.0	50.2	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	98	1181993	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	91	446756	50.0	55.6	
61 n-Butanol	56	7.319	7.319	0.000	89	607463	1250.0	1194.0	
62 Trichloroethene	95	7.386	7.386	0.000	99	368752	50.0	51.3	
63 Methylcyclohexane	83	7.691	7.691	0.000	90	548633	50.0	55.7	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	97	361989	50.0	50.9	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	92	495696	50.0	50.5	
68 1,4-Dioxane	88	7.831	7.831	0.000	66	61835	625.0	570.2	M
66 Dibromomethane	93	7.849	7.849	0.000	97	230416	50.0	49.5	
67 Methyl methacrylate	69	7.849	7.849	0.000	93	336782	50.0	49.0	
70 Dichlorobromomethane	83	8.105	8.105	0.000	99	462053	50.0	51.1	
72 2-Nitropropane	41	8.398	8.398	0.000	97	294641	100.0	89.1	
71 2-Chloroethyl vinyl ether	63	8.501	8.501	0.000	91	287539	50.0	50.4	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	581557	50.0	50.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.898	8.898	0.000	97	1170501	100.0	94.3	
$ 76 Toluene-d8 (Surr)	98	9.026	9.026	0.000	94	1129324	50.0	50.0	
77 Toluene	92	9.111	9.111	0.000	98	890558	50.0	51.8	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	532572	50.0	50.4	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	559762	50.0	50.1	
80 1,1,2-Trichloroethane	97	9.654	9.654	0.000	90	325941	50.0	50.0	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	403820	50.0	52.7	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	534414	50.0	49.4	
84 2-Hexanone	43	9.910	9.910	0.000	97	929166	100.0	91.2	
85 Chlorodibromomethane	129	10.056	10.056	0.000	90	387781	50.0	50.6	
87 Ethylene Dibromide	107	10.172	10.172	0.000	99	371777	50.0	49.9	
* 90 Chlorobenzene-d5 (IS)	117	10.647	10.647	0.000	84	896578	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	67	503994	50.0	51.0	
88 Chlorobenzene	112	10.672	10.672	0.000	94	990186	50.0	51.3	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	97	361081	50.0	51.5	
93 Ethylbenzene	91	10.775	10.775	0.000	98	1774674	50.0	52.2	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	100	1358418	100.0	104.5	
95 o-Xylene	106	11.251	11.251	0.000	96	665134	50.0	51.9	
96 Styrene	104	11.269	11.269	0.000	95	1113512	50.0	52.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 Bromoform	173	11.422	11.422	0.000	97	319092	50.0	51.0	
98 Isopropylbenzene	105	11.568	11.568	0.000	96	1748831	50.0	52.9	
100 Cyclohexanone	55	11.647	11.647	0.000	92	307538	625.0	596.9	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	457310	50.0	50.2	
102 Bromobenzene	156	11.830	11.830	0.000	92	430579	50.0	50.5	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	94	586351	50.0	49.7	
104 trans-1,4-Dichloro-2-butene	53	11.867	11.867	0.000	88	465222	125.0	124.1	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	84	166173	50.0	49.4	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	2079805	50.0	53.3	
107 2-Chlorotoluene	126	11.988	11.988	0.000	97	411946	50.0	51.9	
108 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	93	1444370	50.0	52.5	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	416638	50.0	51.3	
111 tert-Butylbenzene	134	12.312	12.312	0.000	93	305032	50.0	53.6	
112 Pentachloroethane	167	12.342	12.342	0.000	92	291062	50.0	54.7	
113 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	97	1474572	50.0	52.0	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	1818624	50.0	53.5	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	803530	50.0	51.0	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	1535062	50.0	53.4	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.635	0.000	95	489549	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	95	815782	50.0	50.9	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	1536968	50.0	53.5	
120 Benzyl chloride	91	12.738	12.738	0.000	98	1247490	50.0	51.4	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	939711	50.0	52.9	
122 p-Diethylbenzene	119	12.879	12.879	0.000	93	977988	50.0	53.7	
124 n-Butylbenzene	92	12.897	12.897	0.000	97	770100	50.0	52.3	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	99	774162	50.0	50.8	
126 o-diethylbenzene	119	12.952	12.952	0.000	96	773393	50.0	53.5	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	88	156743	50.0	50.7	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	548162	50.0	51.7	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	94	506421	50.0	50.7	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	211252	50.0	52.4	
132 Naphthalene	128	14.226	14.226	0.000	97	1911398	50.0	51.1	
133 1,2,3-Trichlorobenzene	180	14.372	14.372	0.000	96	494306	50.0	50.8	
134 2-Methylnaphthalene	142	14.976	14.976	0.000	92	1155256	50.0	55.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA1_00090	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	2.00	Units: uL	
MSV_V_EE_00003	Amount Added:	5.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.50	Units: uL	
MSV_V_VOA6_00051	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	2.50	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:28:20 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I03.D

Injection Date: 09-Sep-2020 15:31:30 Instrument ID: 26285 Operator ID: CLM27445

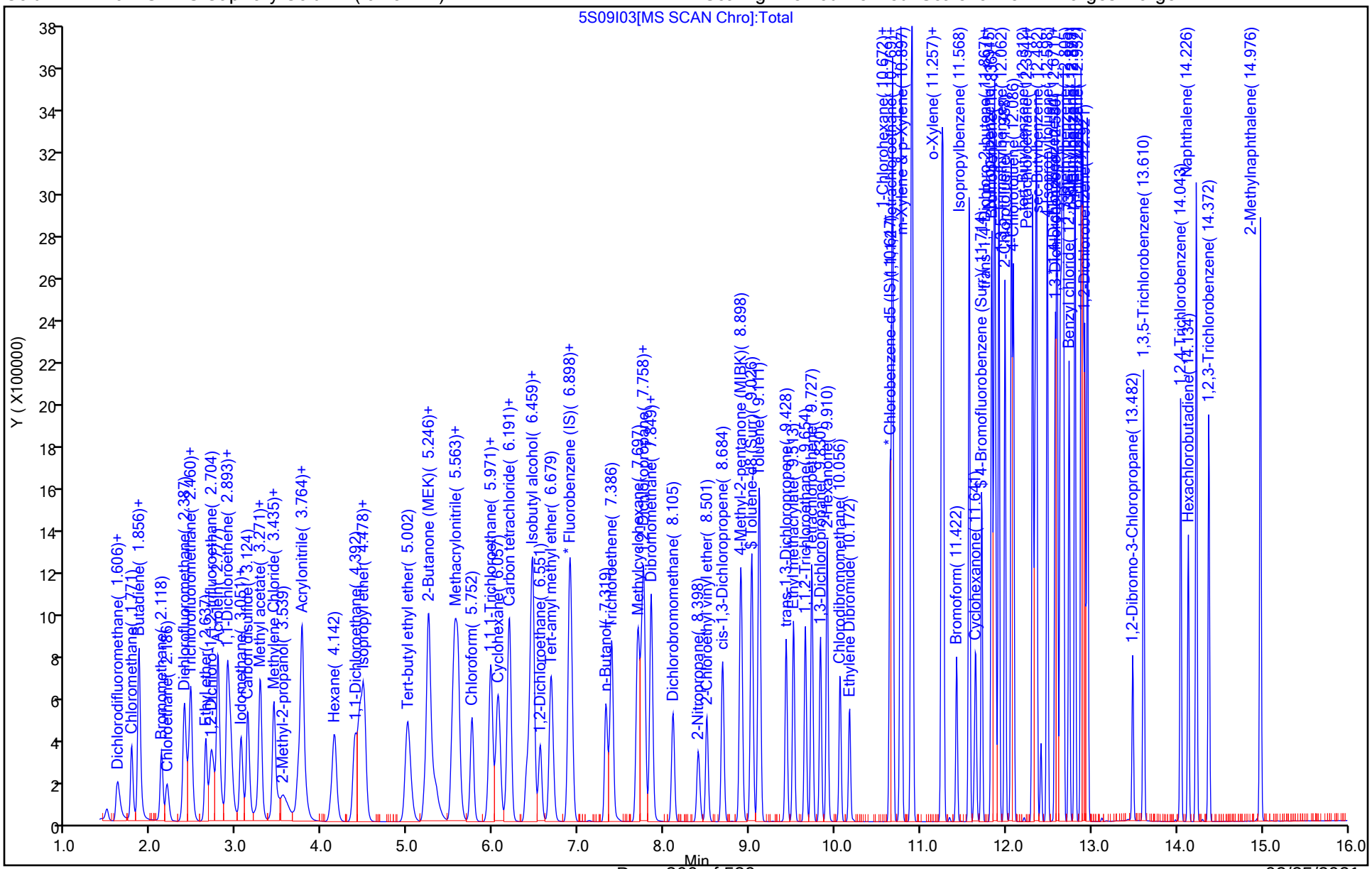
Lims ID: ICIS 50 Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

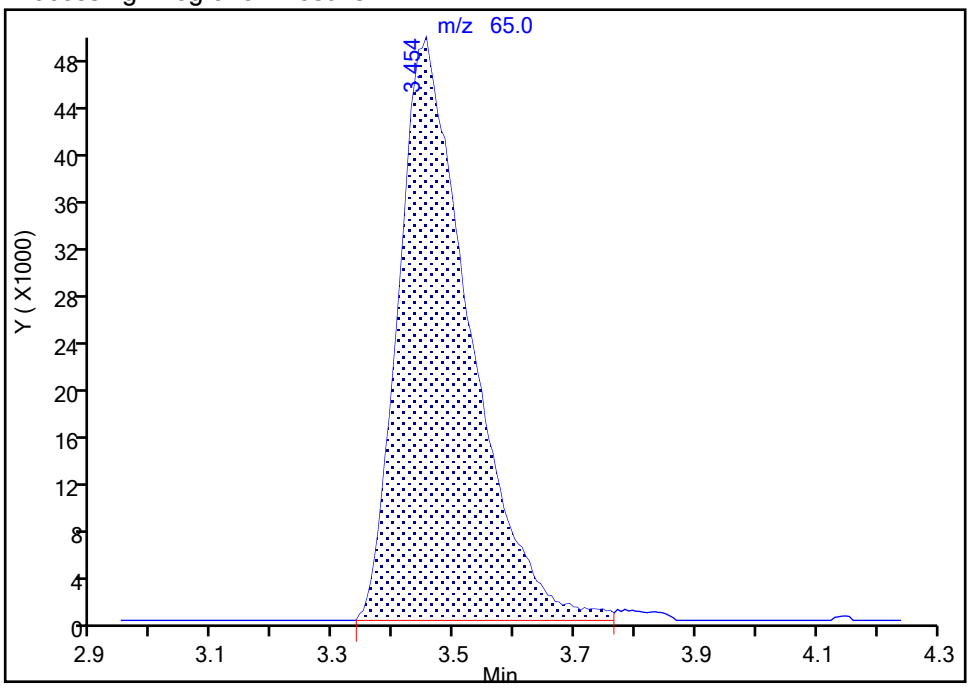
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I03.D
Injection Date: 09-Sep-2020 15:31:30 Instrument ID: 26285
Lims ID: ICIS 50
Client ID:
Operator ID: CLM27445 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

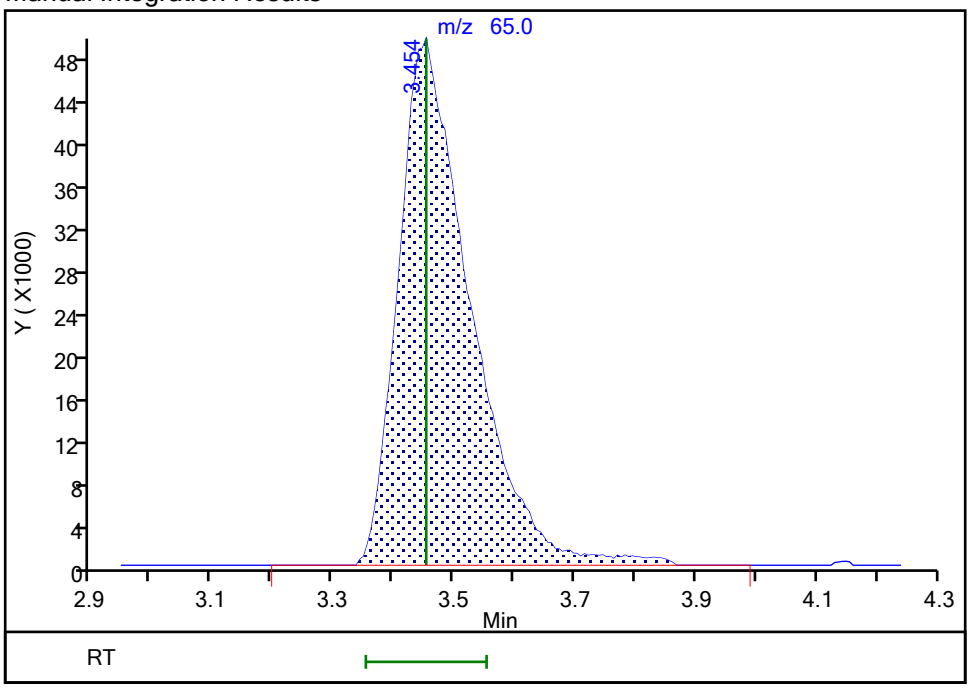
Processing Integration Results

RT: 3.45
Area: 406229
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.45
Area: 410336
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 10:55:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

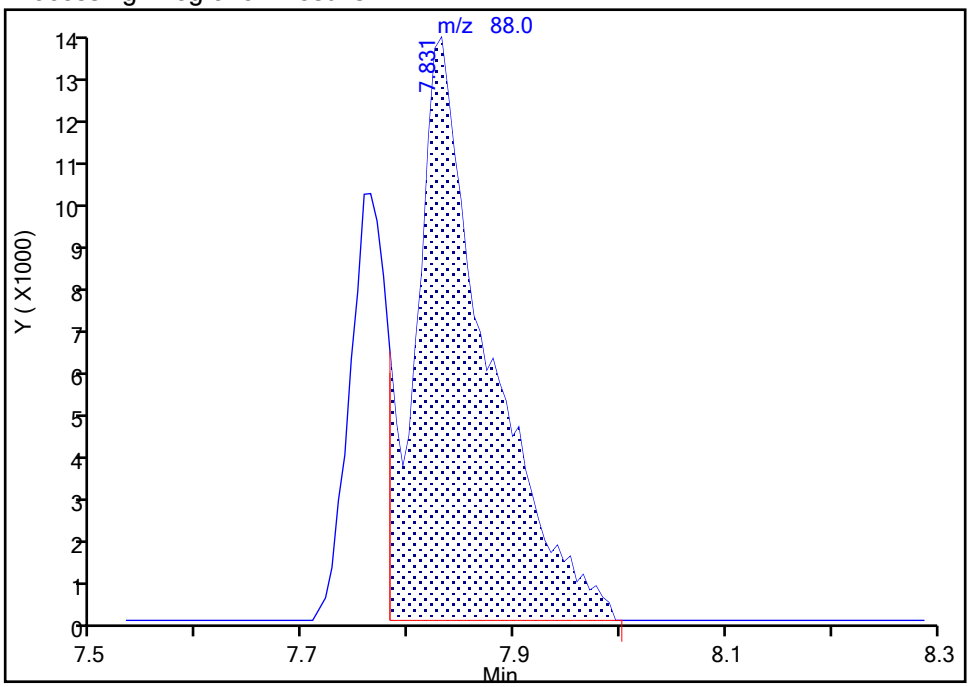
Data File:	\\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I03.D				
Injection Date:	09-Sep-2020 15:31:30	Instrument ID:	26285		
Lims ID:	ICIS 50				
Client ID:					
Operator ID:	CLM27445	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

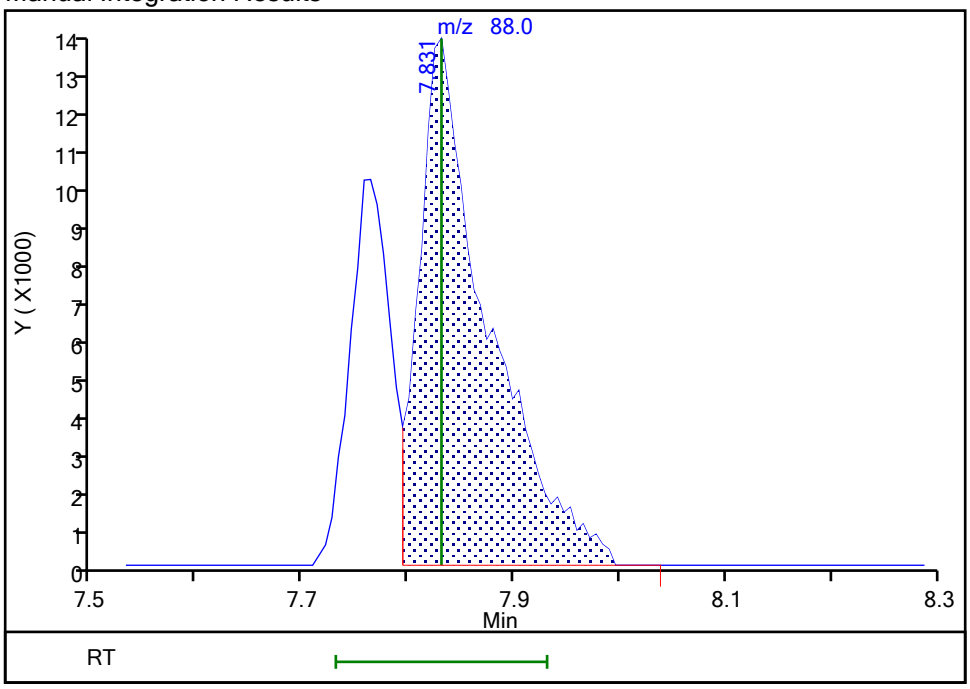
Processing Integration Results

RT: 7.83
Area: 65818
Amount: 574.3084
Amount Units: ug/l



Manual Integration Results

RT: 7.83
Area: 61835
Amount: 570.1783
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 10:56:32

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I04.D
Lims ID: IC std4 20
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 09-Sep-2020 15:51:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC STD4 20
Misc. Info.: 410-0010032-006
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:18:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.600	1.606	-0.006	99	160250	20.0	20.6	
3 Chloromethane	50	1.771	1.771	0.000	99	195863	20.0	19.8	
4 Butadiene	39	1.850	1.850	0.000	92	131208	20.0	19.6	
5 Vinyl chloride	62	1.862	1.862	0.000	98	176253	20.0	20.4	
8 Bromomethane	94	2.118	2.118	0.000	91	122120	20.0	20.3	
9 Chloroethane	64	2.185	2.186	-0.001	99	99315	20.0	20.1	
10 Dichlorofluoromethane	67	2.387	2.387	0.000	97	239726	20.0	19.5	
11 Trichlorofluoromethane	101	2.435	2.435	0.000	98	212916	20.0	20.8	
12 Pentane	43	2.466	2.466	0.000	96	175291	20.0	20.1	
14 Ethyl ether	59	2.643	2.637	0.006	94	113080	20.0	20.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.710	2.704	0.006	92	149927	20.0	20.3	
16 Acrolein	56	2.783	2.783	0.000	100	454467	200.0	201.8	
19 1,1-Dichloroethene	96	2.893	2.887	0.006	98	108288	20.0	20.1	
17 Acetone	58	2.923	2.917	0.006	100	43701	40.0	42.1	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.923	2.923	0.000	90	109961	20.0	19.5	
20 Iodomethane	142	3.051	3.051	0.000	99	219037	20.0	19.9	
21 Isopropyl alcohol	45	3.057	3.057	0.000	47	162791	200.0	191.0	
22 Carbon disulfide	76	3.130	3.130	0.000	99	390125	20.0	20.1	
23 Methyl acetate	43	3.264	3.258	0.006	99	161814	20.0	18.3	
25 3-Chloro-1-propene	41	3.277	3.277	0.000	93	200272	20.0	19.7	
26 Methylene Chloride	84	3.435	3.435	0.000	93	126582	20.0	19.7	
* 27 t-Butyl alcohol-d10 (IS)	65	3.447	3.454	-0.007	96	365028	250.0	250.0	
28 2-Methyl-2-propanol	59	3.551	3.551	0.000	100	306833	200.0	194.7	
29 Acrylonitrile	53	3.722	3.716	0.006	97	83802	20.0	20.2	
30 Methyl tert-butyl ether	73	3.758	3.758	0.000	95	362173	20.0	19.5	
31 trans-1,2-Dichloroethene	96	3.770	3.764	0.006	98	125222	20.0	20.2	
32 Hexane	57	4.148	4.142	0.006	93	155490	20.0	20.2	
33 1,1-Dichloroethane	63	4.386	4.380	0.006	96	225922	20.0	19.7	
35 Isopropyl ether	45	4.447	4.441	0.006	96	410782	20.0	19.6	
36 2-Chloro-1,3-butadiene	53	4.490	4.490	0.000	90	193987	20.0	20.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	5.002	5.002	0.000	99	383354	20.0	19.8	
39 2-Butanone (MEK)	43	5.215	5.228	-0.013	100	246325	40.0	39.1	
38 cis-1,2-Dichloroethene	96	5.252	5.240	0.012	82	140974	20.0	19.6	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	88	193046	20.0	20.3	
41 Propionitrile	54	5.325	5.331	-0.006	99	333931	200.0	192.7	
43 Methacrylonitrile	67	5.551	5.545	0.006	93	432594	100.0	95.5	
44 Chlorobromomethane	128	5.593	5.587	0.006	97	72104	20.0	19.8	
45 Tetrahydrofuran	71	5.593	5.593	0.000	83	65919	40.0	39.6	
46 Chloroform	83	5.758	5.752	0.006	93	228945	20.0	19.7	
48 1,1,1-Trichloroethane	97	5.971	5.965	0.006	98	203073	20.0	20.3	
$ 47 Dibromofluoromethane (Surr)	113	5.983	5.971	0.012	93	305998	50.0	50.2	
49 Cyclohexane	56	6.057	6.057	0.000	91	199460	20.0	20.4	
S 74 1,2-Dichloroethene, Total	100				0			39.8	
51 Carbon tetrachloride	117	6.185	6.179	0.006	97	176167	20.0	20.5	
50 1,1-Dichloropropene	75	6.197	6.191	0.006	98	182212	20.0	20.3	
52 Isobutyl alcohol	41	6.404	6.404	0.000	94	252369	500.0	483.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.447	6.441	0.006	100	66456	50.0	49.9	
53 Benzene	78	6.465	6.465	0.000	96	537082	20.0	19.8	
55 1,2-Dichloroethane	62	6.550	6.551	-0.001	97	165302	20.0	19.0	
58 Tert-amyl methyl ether	73	6.678	6.679	-0.001	99	377020	20.0	19.7	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	99	1170651	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	94	156133	20.0	19.6	
61 n-Butanol	56	7.318	7.319	-0.001	89	441976	1000.0	976.6	
62 Trichloroethene	95	7.386	7.386	0.000	99	142406	20.0	20.0	
63 Methylcyclohexane	83	7.696	7.691	0.005	89	202534	20.0	20.8	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	96	136555	20.0	19.4	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	91	191520	20.0	19.7	
68 1,4-Dioxane	88	7.831	7.831	0.000	87	44196	500.0	458.1	M
66 Dibromomethane	93	7.849	7.849	0.000	89	88693	20.0	19.3	
67 Methyl methacrylate	69	7.849	7.849	0.000	92	129399	20.0	19.0	
70 Dichlorobromomethane	83	8.105	8.105	0.000	100	175459	20.0	19.6	
72 2-Nitropropane	41	8.398	8.398	0.000	98	120074	40.0	40.8	
71 2-Chloroethyl vinyl ether	63	8.501	8.501	0.000	91	109127	20.0	19.3	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	220796	20.0	19.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.897	8.898	-0.001	97	483460	40.0	39.3	
$ 76 Toluene-d8 (Surr)	98	9.025	9.026	-0.001	93	1118619	50.0	50.1	
77 Toluene	92	9.111	9.111	0.000	98	339401	20.0	20.0	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	201915	20.0	19.3	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	214549	20.0	19.4	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	90	126265	20.0	19.6	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	155686	20.0	20.6	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	208136	20.0	19.4	
84 2-Hexanone	43	9.909	9.910	-0.001	97	403508	40.0	40.1	
85 Chlorodibromomethane	129	10.056	10.056	0.000	90	146918	20.0	19.4	
S 123 1,3-Dichloropropene, Total	100				0			38.8	
87 Ethylene Dibromide	107	10.172	10.172	0.000	98	142246	20.0	19.3	
* 90 Chlorobenzene-d5 (IS)	117	10.647	10.647	0.000	85	886336	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	68	194603	20.0	19.9	
88 Chlorobenzene	112	10.672	10.672	0.000	94	378899	20.0	19.9	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	97	136451	20.0	19.7	
93 Ethylbenzene	91	10.775	10.775	0.000	98	673996	20.0	20.0	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	100	518120	40.0	40.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			60.3	
95 o-Xylene	106	11.251	11.251	0.000	96	252618	20.0	19.9	
96 Styrene	104	11.269	11.269	0.000	95	419911	20.0	19.8	
97 Bromoform	173	11.421	11.422	-0.001	97	120278	20.0	19.4	
98 Isopropylbenzene	105	11.568	11.568	0.000	96	667323	20.0	20.4	
100 Cyclohexanone	55	11.641	11.647	-0.006	91	215586	500.0	470.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	92	450092	50.0	49.9	
102 Bromobenzene	156	11.830	11.830	0.000	92	165688	20.0	19.6	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	94	222717	20.0	19.1	
104 trans-1,4-Dichloro-2-butene	53	11.866	11.867	-0.001	90	358230	100.0	96.4	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	82	63471	20.0	19.1	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	794561	20.0	20.5	
107 2-Chlorotoluene	126	11.988	11.988	0.000	97	156519	20.0	19.9	
108 1,3,5-Trimethylbenzene	105	12.061	12.062	-0.001	93	548654	20.0	20.1	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	161008	20.0	20.0	
111 tert-Butylbenzene	134	12.311	12.312	-0.001	93	115132	20.0	20.4	
112 Pentachloroethane	167	12.342	12.342	0.000	92	101583	20.0	19.3	
113 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	97	564544	20.0	20.1	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	686282	20.0	20.4	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	310383	20.0	19.9	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	576008	20.0	20.2	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.635	0.000	95	485287	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	96	313032	20.0	19.7	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	564266	20.0	19.8	
120 Benzyl chloride	91	12.738	12.738	0.000	98	470906	20.0	19.6	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	349342	20.0	19.8	
122 p-Diethylbenzene	119	12.878	12.879	-0.001	94	362066	20.0	20.1	
124 n-Butylbenzene	92	12.897	12.897	0.000	98	290838	20.0	19.9	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	99	297238	20.0	19.7	
126 o-diethylbenzene	119	12.952	12.952	0.000	97	284159	20.0	19.8	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	88	57791	20.0	18.9	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	206451	20.0	19.6	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	95	190375	20.0	19.2	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	79130	20.0	19.8	
132 Naphthalene	128	14.226	14.226	0.000	97	724388	20.0	19.5	
133 1,2,3-Trichlorobenzene	180	14.372	14.372	0.000	96	187212	20.0	19.4	
134 2-Methylnaphthalene	142	14.976	14.976	0.000	92	398754	20.0	19.4	
S 154 Total Diethylbenzene	1				0			59.7	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	16.00	Units: uL	
MSV_V_VOA1_00090	Amount Added:	4.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	1.60	Units: uL	
MSV_V_VOA2_00048	Amount Added:	4.00	Units: uL	
MSV_V_EE_00003	Amount Added:	4.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00051	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	2.00	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:28:31 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I04.D

Injection Date: 09-Sep-2020 15:51:30 Instrument ID: 26285 Operator ID: CLM27445

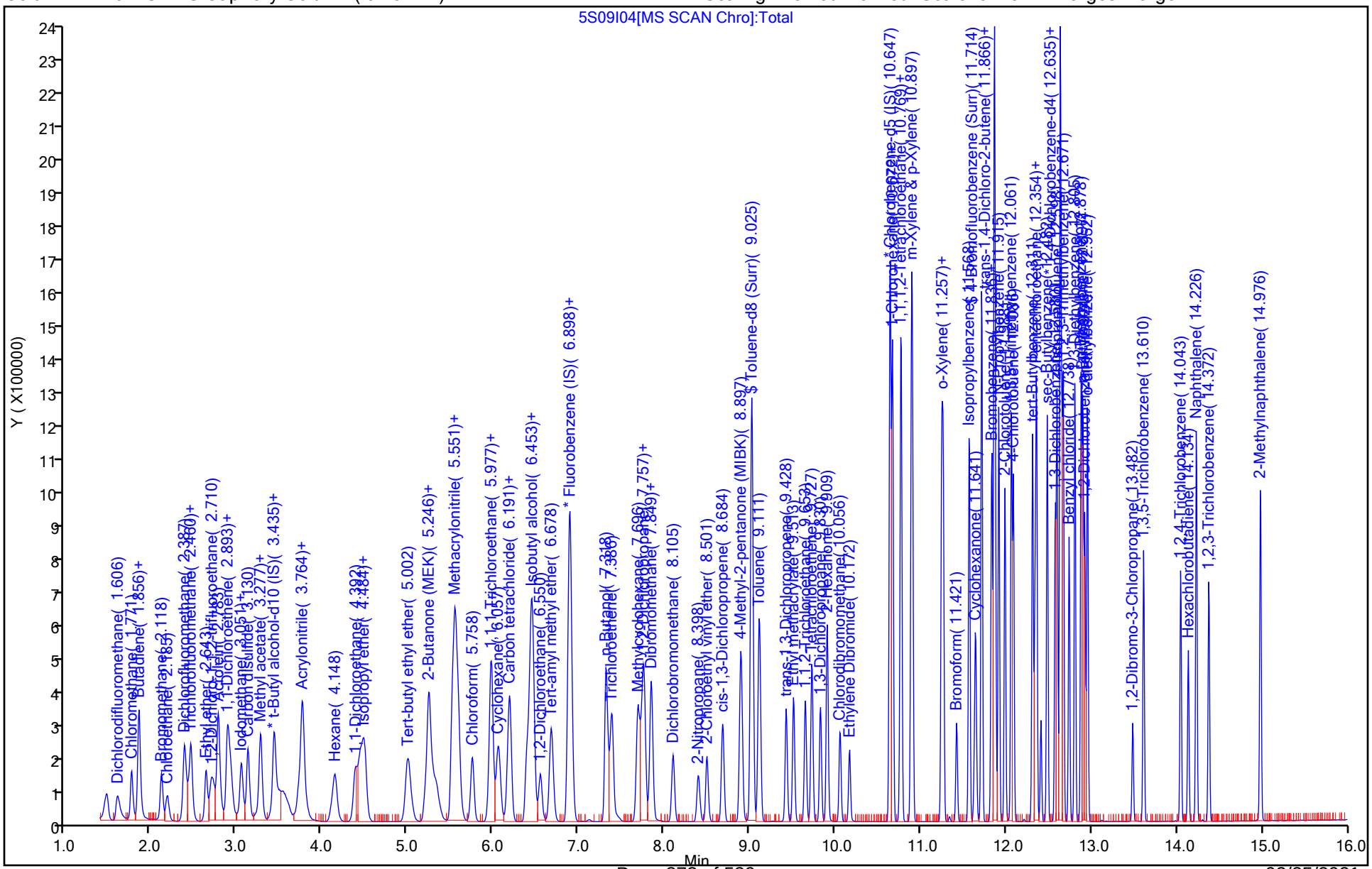
Lims ID: IC std4 20 Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

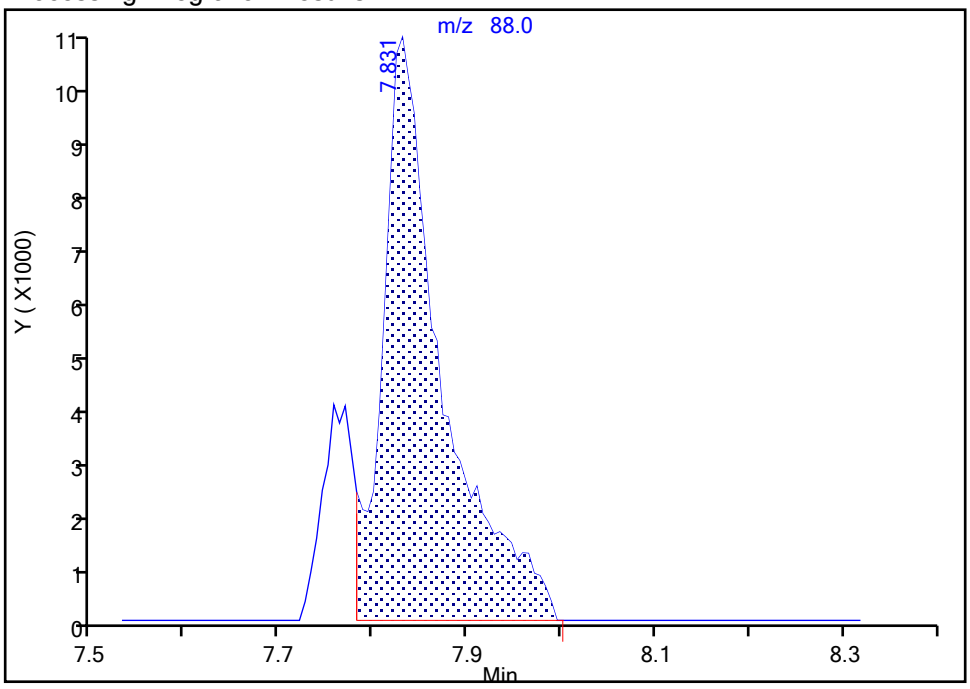
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I04.D
Injection Date: 09-Sep-2020 15:51:30 Instrument ID: 26285
Lims ID: IC std4 20
Client ID:
Operator ID: CLM27445 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

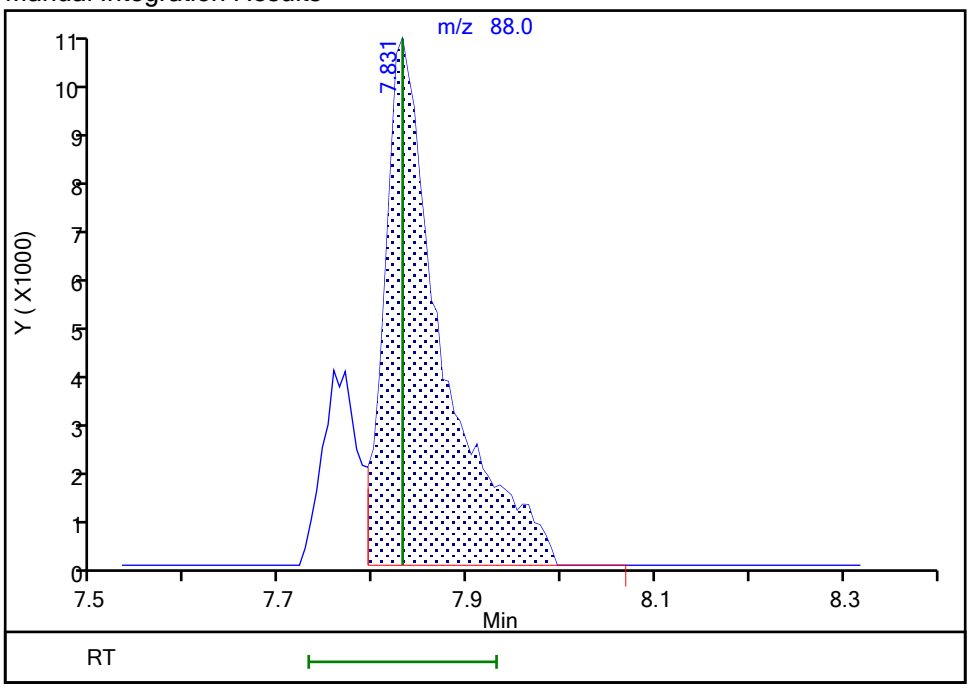
Processing Integration Results

RT: 7.83
Area: 45747
Amount: 457.2204
Amount Units: ug/l



Manual Integration Results

RT: 7.83
Area: 44196
Amount: 458.1131
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:09:04
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I05.D
Lims ID: IC std3 10
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 09-Sep-2020 16:12:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC STD3 10
Misc. Info.: 410-0010032-007
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:39 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:20:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.606	1.606	0.000	99	70483	10.0	9.46	
3 Chloromethane	50	1.777	1.771	0.006	99	97775	10.0	10.3	
4 Butadiene	39	1.856	1.850	0.006	92	59974	10.0	9.37	
5 Vinyl chloride	62	1.868	1.862	0.006	98	85854	10.0	10.4	
8 Bromomethane	94	2.124	2.118	0.006	90	60035	10.0	10.4	
9 Chloroethane	64	2.191	2.186	0.005	98	47842	10.0	10.1	
10 Dichlorofluoromethane	67	2.393	2.387	0.006	97	126781	10.0	10.8	
11 Trichlorofluoromethane	101	2.441	2.435	0.006	96	97771	10.0	9.97	
12 Pentane	43	2.472	2.466	0.006	97	71206	10.0	8.54	
14 Ethyl ether	59	2.643	2.637	0.006	93	52036	10.0	9.76	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.704	2.704	0.000	92	68362	10.0	9.65	
16 Acrolein	56	2.789	2.783	0.006	99	236423	100.0	107.9	
19 1,1-Dichloroethene	96	2.899	2.887	0.012	98	49748	10.0	9.63	
17 Acetone	58	2.929	2.917	0.012	100	22419	20.0	22.2	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.923	2.923	0.000	78	45232	10.0	8.35	
20 Iodomethane	142	3.057	3.051	0.006	99	100907	10.0	9.57	
21 Isopropyl alcohol	45	3.069	3.057	0.012	51	81656	100.0	98.5	
22 Carbon disulfide	76	3.136	3.130	0.006	99	174062	10.0	9.34	
23 Methyl acetate	43	3.264	3.258	0.006	98	82921	10.0	9.81	
25 3-Chloro-1-propene	41	3.283	3.277	0.006	93	98093	10.0	10.1	
26 Methylene Chloride	84	3.441	3.435	0.006	94	59909	10.0	9.72	
* 27 t-Butyl alcohol-d10 (IS)	65	3.453	3.454	-0.001	96	355193	250.0	250.0	M
28 2-Methyl-2-propanol	59	3.551	3.551	0.000	100	151173	100.0	98.6	
29 Acrylonitrile	53	3.722	3.716	0.006	99	43958	10.0	11.1	
30 Methyl tert-butyl ether	73	3.764	3.758	0.006	96	173738	10.0	9.75	
31 trans-1,2-Dichloroethene	96	3.777	3.764	0.013	98	56624	10.0	9.52	
32 Hexane	57	4.148	4.142	0.006	93	63824	10.0	8.65	
33 1,1-Dichloroethane	63	4.380	4.380	0.000	96	105982	10.0	9.63	
35 Isopropyl ether	45	4.447	4.441	0.006	96	192552	10.0	9.59	
36 2-Chloro-1,3-butadiene	53	4.496	4.490	0.006	91	87008	10.0	9.46	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	5.002	5.002	0.000	99	181556	10.0	9.77	
39 2-Butanone (MEK)	43	5.215	5.228	-0.013	100	127466	20.0	21.1	
38 cis-1,2-Dichloroethene	96	5.246	5.240	0.006	82	66537	10.0	9.66	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	88	88435	10.0	9.70	
41 Propionitrile	54	5.337	5.331	0.006	99	168473	100.0	99.9	
43 Methacrylonitrile	67	5.551	5.545	0.006	92	210200	50.0	48.4	
44 Chlorobromomethane	128	5.593	5.587	0.006	96	34409	10.0	9.87	
45 Tetrahydrofuran	71	5.599	5.593	0.006	93	34443	20.0	21.3	
46 Chloroform	83	5.758	5.752	0.006	93	106478	10.0	9.59	
48 1,1,1-Trichloroethane	97	5.971	5.965	0.006	86	91439	10.0	9.56	
$ 47 Dibromofluoromethane (Surr)	113	5.977	5.971	0.006	93	294986	50.0	50.5	
49 Cyclohexane	56	6.057	6.057	0.000	91	83502	10.0	8.92	
S 74 1,2-Dichloroethene, Total	100				0			19.2	
51 Carbon tetrachloride	117	6.179	6.179	-0.001	97	79150	10.0	9.60	
50 1,1-Dichloropropene	75	6.197	6.191	0.006	97	81870	10.0	9.52	
52 Isobutyl alcohol	41	6.404	6.404	0.000	94	122771	250.0	241.5	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	97	63745	50.0	50.0	
53 Benzene	78	6.471	6.465	0.006	94	248316	10.0	9.54	
55 1,2-Dichloroethane	62	6.556	6.551	0.005	97	80709	10.0	9.66	
58 Tert-amyl methyl ether	73	6.678	6.679	-0.001	99	179936	10.0	9.81	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	99	1121696	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	93	65102	10.0	8.54	
61 n-Butanol	56	7.319	7.319	0.000	90	215231	500.0	488.7	
62 Trichloroethene	95	7.386	7.386	0.000	99	64901	10.0	9.51	
63 Methylcyclohexane	83	7.697	7.691	0.005	89	94538	10.0	10.1	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	96	65572	10.0	9.72	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	91	90029	10.0	9.67	
68 1,4-Dioxane	88	7.831	7.831	0.000	87	22665	250.0	241.4	M
66 Dibromomethane	93	7.849	7.849	0.000	96	42437	10.0	9.62	
67 Methyl methacrylate	69	7.849	7.849	0.000	92	62696	10.0	9.60	
70 Dichlorobromomethane	83	8.105	8.105	0.000	99	82072	10.0	9.56	
72 2-Nitropropane	41	8.398	8.398	0.000	98	61731	20.0	21.6	
71 2-Chloroethyl vinyl ether	63	8.501	8.501	0.000	91	53521	10.0	9.88	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	103961	10.0	9.58	
75 4-Methyl-2-pentanone (MIBK)	43	8.897	8.898	-0.001	97	259145	20.0	22.0	
$ 76 Toluene-d8 (Surr)	98	9.026	9.026	0.000	94	1079145	50.0	50.4	
77 Toluene	92	9.111	9.111	0.000	98	154502	10.0	9.48	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	93	95115	10.0	9.48	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	101101	10.0	9.53	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	90	60174	10.0	9.72	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	71476	10.0	9.84	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	98983	10.0	9.64	
84 2-Hexanone	43	9.909	9.910	-0.001	97	218080	20.0	22.6	
85 Chlorodibromomethane	129	10.056	10.056	0.000	90	68698	10.0	9.45	
S 123 1,3-Dichloropropene, Total	100				0			19.1	
87 Ethylene Dibromide	107	10.172	10.172	0.000	98	68475	10.0	9.68	
* 90 Chlorobenzene-d5 (IS)	117	10.647	10.647	0.000	86	850728	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	68	88008	10.0	9.39	
88 Chlorobenzene	112	10.672	10.672	0.000	96	173202	10.0	9.46	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	97	63372	10.0	9.52	
93 Ethylbenzene	91	10.775	10.775	0.000	98	309378	10.0	9.59	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	100	237005	20.0	19.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			28.8	
95 o-Xylene	106	11.251	11.251	0.000	96	116350	10.0	9.56	
96 Styrene	104	11.269	11.269	0.000	95	196132	10.0	9.65	
97 Bromoform	173	11.421	11.422	-0.001	97	56948	10.0	9.59	
98 Isopropylbenzene	105	11.568	11.568	0.000	95	302777	10.0	9.65	
100 Cyclohexanone	55	11.641	11.647	-0.006	92	107360	250.0	240.7	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	92	434133	50.0	50.2	
102 Bromobenzene	156	11.830	11.830	0.000	93	78372	10.0	9.68	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	93	106833	10.0	9.55	
104 trans-1,4-Dichloro-2-butene	53	11.866	11.867	-0.001	92	172162	50.0	48.4	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	85	30830	10.0	9.66	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	362596	10.0	9.78	
107 2-Chlorotoluene	126	11.988	11.988	0.000	97	71770	10.0	9.53	
108 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	93	251061	10.0	9.62	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	73923	10.0	9.59	
111 tert-Butylbenzene	134	12.311	12.312	-0.001	93	49400	10.0	9.15	
112 Pentachloroethane	167	12.342	12.342	0.000	90	47485	10.0	9.40	
113 1,2,4-Trimethylbenzene	105	12.360	12.360	0.000	97	259574	10.0	9.64	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	311930	10.0	9.66	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	143217	10.0	9.58	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	262018	10.0	9.60	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.635	0.000	95	464738	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	95	146651	10.0	9.63	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	269416	10.0	9.88	
120 Benzyl chloride	91	12.738	12.738	0.000	98	220292	10.0	9.57	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	168914	10.0	10.0	
122 p-Diethylbenzene	119	12.878	12.879	-0.001	93	173007	10.0	10.0	
124 n-Butylbenzene	92	12.897	12.897	0.000	96	132861	10.0	9.51	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	99	140651	10.0	9.72	
126 o-diethylbenzene	119	12.952	12.952	0.000	96	137760	10.0	10.0	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	87	28171	10.0	9.60	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	96180	10.0	9.55	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	94	90976	10.0	9.60	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	36409	10.0	9.51	
132 Naphthalene	128	14.226	14.226	0.000	97	347878	10.0	9.79	
133 1,2,3-Trichlorobenzene	180	14.372	14.372	0.000	96	89761	10.0	9.72	
134 2-Methylnaphthalene	142	14.976	14.976	0.000	92	186299	10.0	9.47	
S 154 Total Diethylbenzene	1				0			30.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	8.00	Units: uL	
MSV_DCFM_00021	Amount Added:	1.00	Units: uL	
MSV_V_VOA1_00090	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	2.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	0.80	Units: uL	
MSV_V_VOA2_00048	Amount Added:	2.00	Units: uL	
MSV_V_EE_00003	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00051	Amount Added:	2.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	1.00	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:28:41 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I05.D

Injection Date: 09-Sep-2020 16:12:30 Instrument ID: 26285 Operator ID: CLM27445

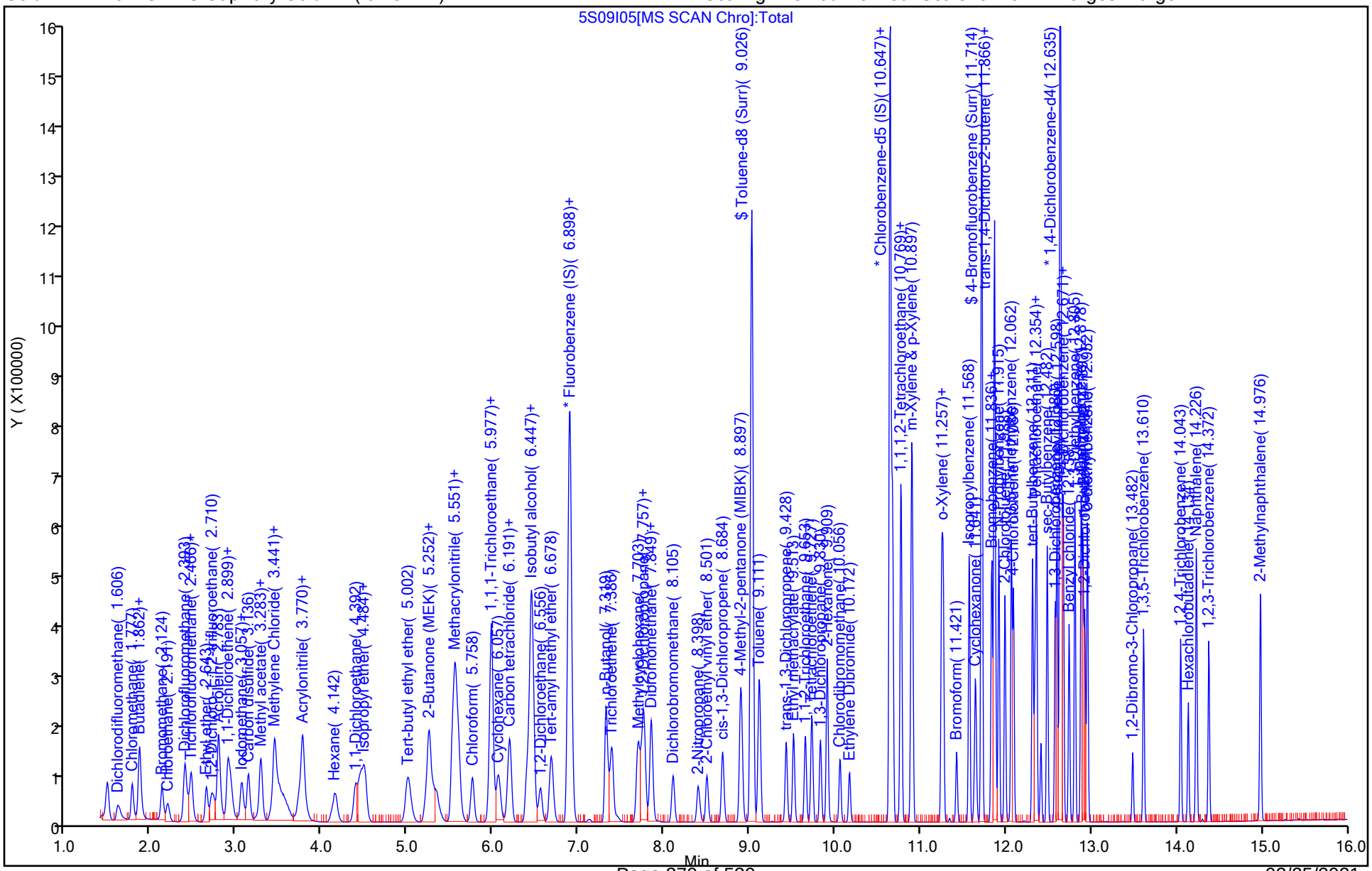
Lims ID: IC std3 10 Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

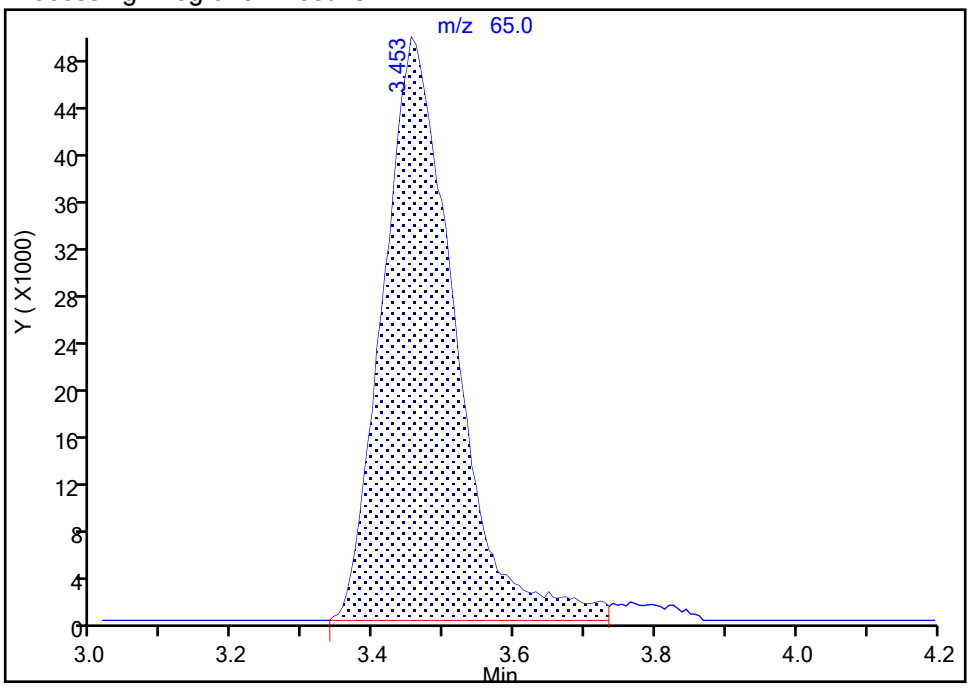
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I05.D
Injection Date: 09-Sep-2020 16:12:30 Instrument ID: 26285
Lims ID: IC std3 10
Client ID:
Operator ID: CLM27445 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

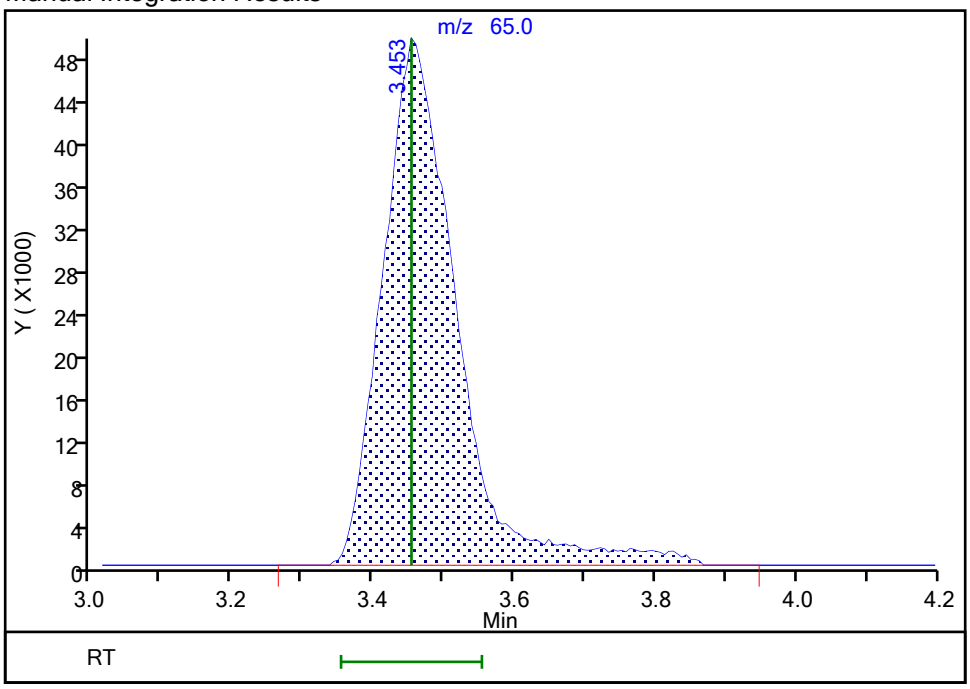
Processing Integration Results

RT: 3.45
Area: 346608
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.45
Area: 355193
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:18:39
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

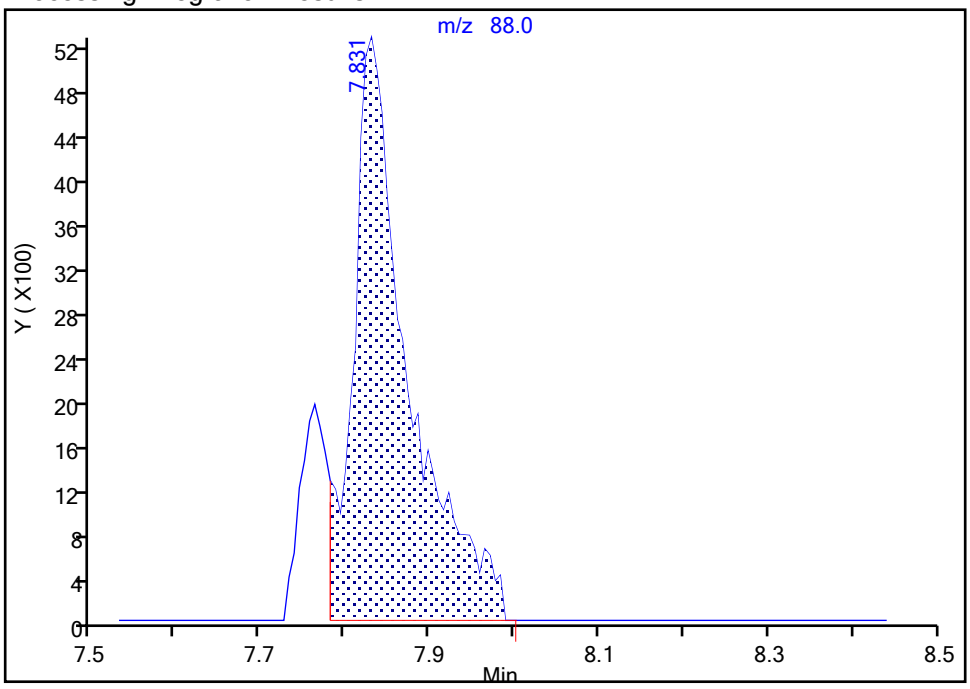
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I05.D
Injection Date: 09-Sep-2020 16:12:30 Instrument ID: 26285
Lims ID: IC std3 10
Client ID:
Operator ID: CLM27445 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

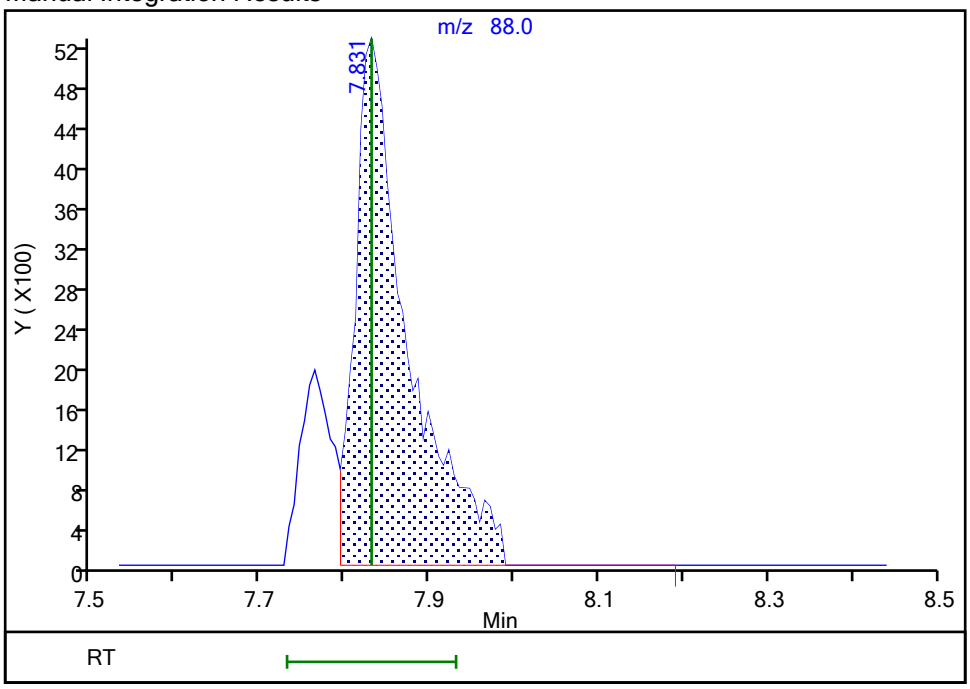
Processing Integration Results

RT: 7.83
Area: 23550
Amount: 243.8033
Amount Units: ug/l



Manual Integration Results

RT: 7.83
Area: 22665
Amount: 241.4389
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:19:55
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D
Lims ID: IC std2 4
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 09-Sep-2020 16:33:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC STD2 4
Misc. Info.: 410-0010032-008
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:49 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:22:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.606	1.606	0.000	99	33163	4.00	4.41	
3 Chloromethane	50	1.771	1.771	0.000	98	39697	4.00	4.14	
4 Butadiene	39	1.850	1.850	0.000	93	27499	4.00	4.26	
5 Vinyl chloride	62	1.862	1.862	0.000	98	35547	4.00	4.26	
8 Bromomethane	94	2.125	2.118	0.007	91	24164	4.00	4.15	
9 Chloroethane	64	2.185	2.186	-0.001	99	20248	4.00	4.25	
10 Dichlorofluoromethane	67	2.387	2.387	0.000	97	49001	4.00	4.12	
11 Trichlorofluoromethane	101	2.442	2.435	0.007	96	43279	4.00	4.37	
12 Pentane	43	2.466	2.466	0.000	95	33694	4.00	4.00	
14 Ethyl ether	59	2.637	2.637	0.000	94	20747	4.00	3.85	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.710	2.704	0.006	92	28505	4.00	3.99	
16 Acrolein	56	2.783	2.783	0.000	100	88530	40.0	38.9	
19 1,1-Dichloroethene	96	2.893	2.887	0.006	98	20656	4.00	3.96	
17 Acetone	58	2.923	2.917	0.006	100	8253	8.00	7.86	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.923	2.923	0.000	88	20703	4.00	3.79	
20 Iodomethane	142	3.057	3.051	0.006	99	41561	4.00	3.90	
21 Isopropyl alcohol	45	3.069	3.057	0.012	99	64839	80.0	75.2	
22 Carbon disulfide	76	3.130	3.130	0.000	99	73540	4.00	3.91	
23 Methyl acetate	43	3.265	3.258	0.007	97	37830	4.00	4.43	M
25 3-Chloro-1-propene	41	3.277	3.277	0.000	93	38402	4.00	3.91	
26 Methylene Chloride	84	3.435	3.435	0.000	91	24831	4.00	3.99	
* 27 t-Butyl alcohol-d10 (IS)	65	3.454	3.454	0.000	96	369191	250.0	250.0	M
28 2-Methyl-2-propanol	59	3.545	3.551	-0.006	100	122482	80.0	76.8	
29 Acrylonitrile	53	3.722	3.716	0.006	95	16251	4.00	4.06	
30 Methyl tert-butyl ether	73	3.764	3.758	0.006	93	73397	4.00	4.08	
31 trans-1,2-Dichloroethene	96	3.764	3.764	0.000	97	23341	4.00	3.89	
32 Hexane	57	4.142	4.142	0.000	92	30163	4.00	4.05	
33 1,1-Dichloroethane	63	4.374	4.380	-0.006	95	44113	4.00	3.97	
35 Isopropyl ether	45	4.447	4.441	0.006	96	79117	4.00	3.90	
36 2-Chloro-1,3-butadiene	53	4.496	4.490	0.006	91	35580	4.00	3.83	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	4.996	5.002	-0.006	98	74391	4.00	3.97	
39 2-Butanone (MEK)	43	5.234	5.228	0.006	99	47513	8.00	7.80	M
38 cis-1,2-Dichloroethene	96	5.240	5.240	0.000	84	26601	4.00	3.83	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	59	35187	4.00	3.82	
41 Propionitrile	54	5.325	5.331	-0.006	99	137469	80.0	78.4	
43 Methacrylonitrile	67	5.545	5.545	0.000	92	176243	40.0	40.2	
44 Chlorobromomethane	128	5.587	5.587	0.000	95	13669	4.00	3.88	
45 Tetrahydrofuran	71	5.593	5.593	0.000	71	12836	8.00	7.63	
46 Chloroform	83	5.752	5.752	0.000	93	44407	4.00	3.96	
48 1,1,1-Trichloroethane	97	5.971	5.965	0.006	41	38161	4.00	3.95	
$ 47 Dibromofluoromethane (Surr)	113	5.977	5.971	0.006	93	294920	50.0	50.0	
49 Cyclohexane	56	6.063	6.057	0.006	90	37384	4.00	3.96	
S 74 1,2-Dichloroethene, Total	100				0			7.72	
51 Carbon tetrachloride	117	6.179	6.179	0.000	97	32405	4.00	3.89	
50 1,1-Dichloropropene	75	6.191	6.191	0.000	95	33324	4.00	3.84	
52 Isobutyl alcohol	41	6.404	6.404	0.000	95	100672	200.0	190.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.447	6.441	0.006	99	63661	50.0	49.4	
53 Benzene	78	6.465	6.465	0.000	93	102133	4.00	3.89	
55 1,2-Dichloroethane	62	6.550	6.551	-0.001	97	33983	4.00	4.03	
58 Tert-amyl methyl ether	73	6.672	6.679	-0.007	99	73954	4.00	3.99	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	99	1132195	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	95	30571	4.00	3.97	
61 n-Butanol	56	7.319	7.319	0.000	89	186500	400.0	407.4	
62 Trichloroethene	95	7.386	7.386	0.000	98	26619	4.00	3.86	
63 Methylcyclohexane	83	7.697	7.691	0.006	93	36950	4.00	3.92	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	96	26256	4.00	3.86	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	90	36542	4.00	3.89	
68 1,4-Dioxane	88	7.831	7.831	0.000	86	19917	200.0	204.1	M
66 Dibromomethane	93	7.849	7.849	0.000	96	18037	4.00	4.05	
67 Methyl methacrylate	69	7.849	7.849	0.000	91	25643	4.00	3.89	
70 Dichlorobromomethane	83	8.099	8.105	-0.006	99	33250	4.00	3.84	
72 2-Nitropropane	41	8.398	8.398	0.000	97	23738	8.00	7.98	
71 2-Chloroethyl vinyl ether	63	8.495	8.501	-0.006	92	20431	4.00	3.74	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	95	42004	4.00	3.83	
75 4-Methyl-2-pentanone (MIBK)	43	8.898	8.898	0.000	97	94844	8.00	7.98	
$ 76 Toluene-d8 (Surr)	98	9.026	9.026	0.000	94	1084113	50.0	50.0	
77 Toluene	92	9.111	9.111	0.000	98	63345	4.00	3.84	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	39483	4.00	3.88	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	41352	4.00	3.85	
80 1,1,2-Trichloroethane	97	9.647	9.654	-0.007	90	24553	4.00	3.92	
81 Tetrachloroethene	166	9.727	9.727	0.000	95	27895	4.00	3.79	
82 1,3-Dichloropropane	76	9.824	9.830	-0.006	90	41212	4.00	3.96	
84 2-Hexanone	43	9.903	9.910	-0.007	97	80885	8.00	8.27	
85 Chlorodibromomethane	129	10.056	10.056	0.000	89	28490	4.00	3.87	
S 123 1,3-Dichloropropene, Total	100				0			7.72	
87 Ethylene Dibromide	107	10.166	10.172	-0.006	100	27742	4.00	3.87	
* 90 Chlorobenzene-d5 (IS)	117	10.641	10.647	-0.006	85	861665	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	66	36553	4.00	3.85	
88 Chlorobenzene	112	10.672	10.672	0.000	94	71485	4.00	3.86	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	97	25697	4.00	3.81	
93 Ethylbenzene	91	10.769	10.775	-0.006	98	124073	4.00	3.80	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	100	94650	8.00	7.58	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			11.3	
95 o-Xylene	106	11.251	11.251	0.000	96	46259	4.00	3.75	
96 Styrene	104	11.263	11.269	-0.006	95	77294	4.00	3.76	
97 Bromoform	173	11.421	11.422	-0.001	97	22703	4.00	3.77	
98 Isopropylbenzene	105	11.568	11.568	0.000	95	121156	4.00	3.81	
100 Cyclohexanone	55	11.641	11.647	-0.006	92	94277	200.0	203.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	437283	50.0	49.9	
102 Bromobenzene	156	11.830	11.830	0.000	93	31896	4.00	3.91	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	92	45628	4.00	4.05	
104 trans-1,4-Dichloro-2-butene	53	11.867	11.867	0.000	92	143353	40.0	40.0	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	80	12849	4.00	4.00	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	144060	4.00	3.86	
107 2-Chlorotoluene	126	11.988	11.988	0.000	96	29039	4.00	3.83	
108 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	93	99156	4.00	3.77	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	29743	4.00	3.83	
111 tert-Butylbenzene	134	12.312	12.312	0.000	92	21020	4.00	3.87	
112 Pentachloroethane	167	12.342	12.342	0.000	93	19454	4.00	3.82	
113 1,2,4-Trimethylbenzene	105	12.354	12.360	-0.006	97	102419	4.00	3.78	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	124063	4.00	3.82	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	58373	4.00	3.88	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	103134	4.00	3.75	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.635	0.000	95	467986	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	93	59227	4.00	3.86	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	103451	4.00	3.77	
120 Benzyl chloride	91	12.738	12.738	0.000	98	89821	4.00	3.87	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	94	64770	4.00	3.82	
122 p-Diethylbenzene	119	12.879	12.879	0.000	94	66154	4.00	3.80	
124 n-Butylbenzene	92	12.897	12.897	0.000	98	53691	4.00	3.82	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	98	57677	4.00	3.96	
126 o-diethylbenzene	119	12.952	12.952	0.000	96	52328	4.00	3.78	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	85	12091	4.00	4.09	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	38312	4.00	3.78	
129 1,2,4-Trichlorobenzene	180	14.043	14.043	0.000	94	36333	4.00	3.81	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	14596	4.00	3.79	
132 Naphthalene	128	14.226	14.226	0.000	97	142952	4.00	4.00	
133 1,2,3-Trichlorobenzene	180	14.378	14.372	0.006	95	36160	4.00	3.89	
134 2-Methylnaphthalene	142	14.982	14.976	0.006	92	72852	4.00	3.68	
S 154 Total Diethylbenzene	1				0			11.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00090	Amount Added:	4.00	Units: uL	
MSV_V_EE_00003	Amount Added:	4.00	Units: uL	
MSV_V_2CEVE_00102	Amount Added:	4.00	Units: uL	
MSV_V_VOA6_00051	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00044	Amount Added:	1.60	Units: uL	
MSV_V_VOA2_00048	Amount Added:	12.00	Units: uL	
MSV_VCYC_00005	Amount Added:	32.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.00	Units: uL	
MSV_V_Gas_00141	Amount Added:	2.00	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:28:52 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D

Injection Date: 09-Sep-2020 16:33:30 Instrument ID: 26285 Operator ID: CLM27445

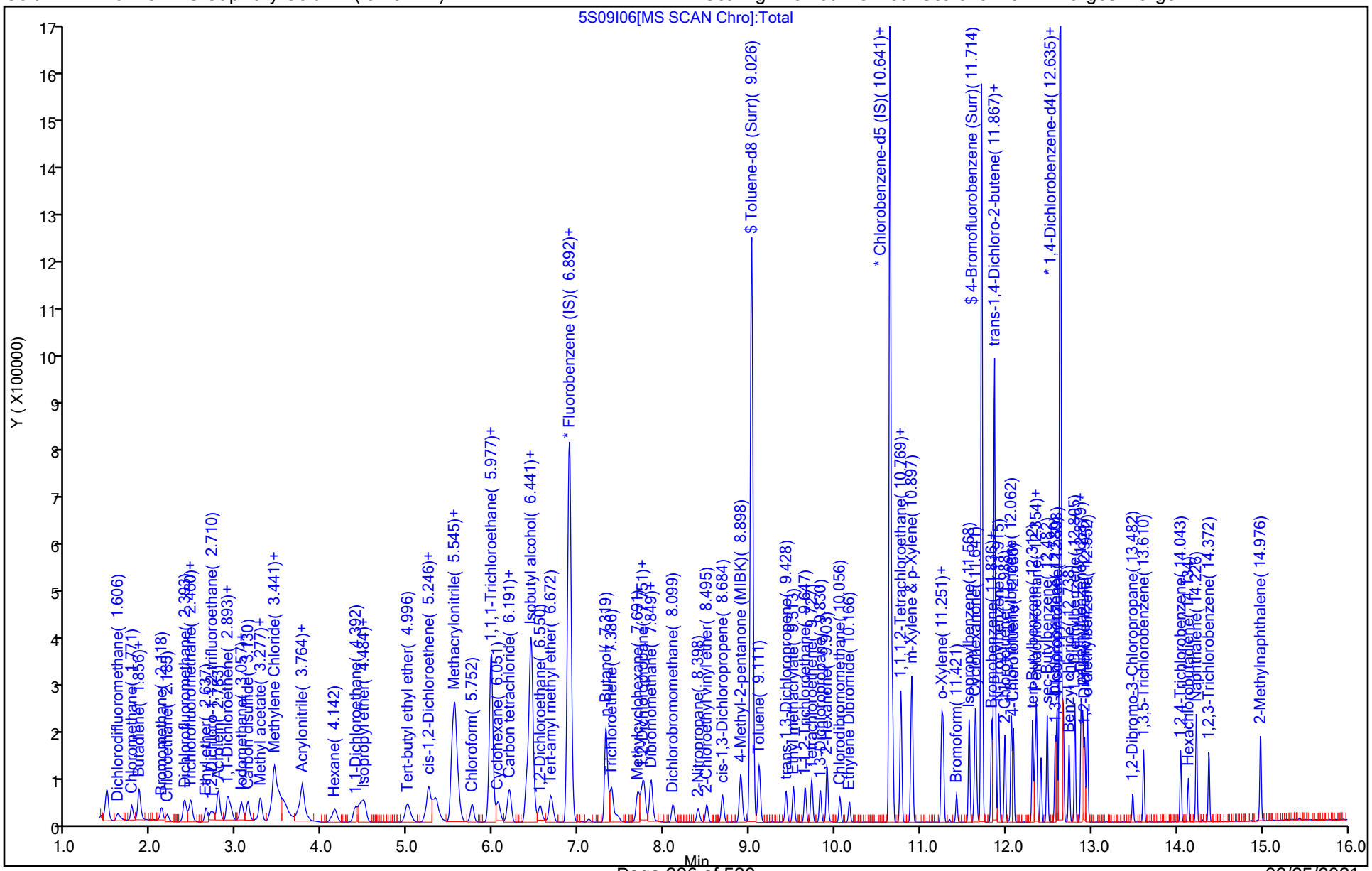
Lims ID: IC std2 4 Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 7

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

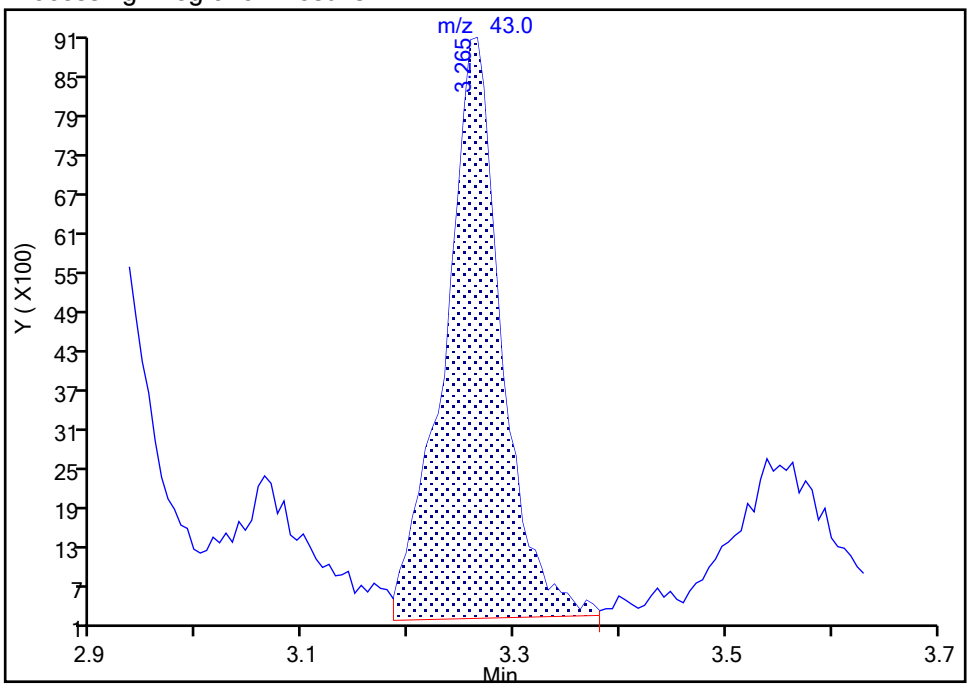
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D
Injection Date: 09-Sep-2020 16:33:30 Instrument ID: 26285
Lims ID: IC std2 4
Client ID:
Operator ID: CLM27445 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

23 Methyl acetate, CAS: 79-20-9

Signal: 1

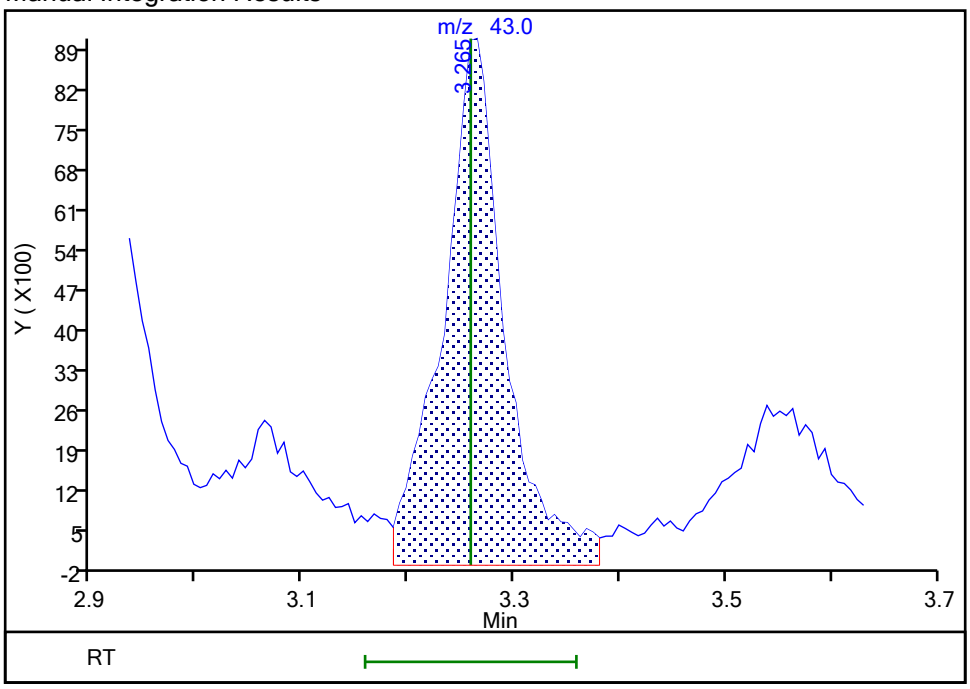
Processing Integration Results

RT: 3.26
Area: 33352
Amount: 3.984037
Amount Units: ug/l



Manual Integration Results

RT: 3.26
Area: 37830
Amount: 4.434241
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:21:31
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

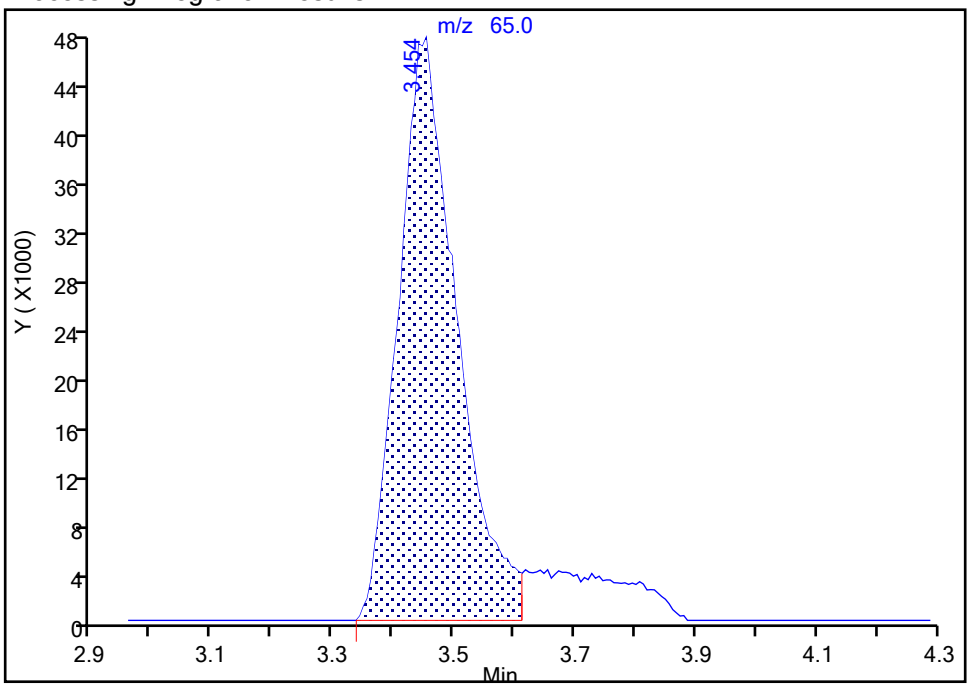
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D
Injection Date: 09-Sep-2020 16:33:30 Instrument ID: 26285
Lims ID: IC std2 4
Client ID:
Operator ID: CLM27445 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

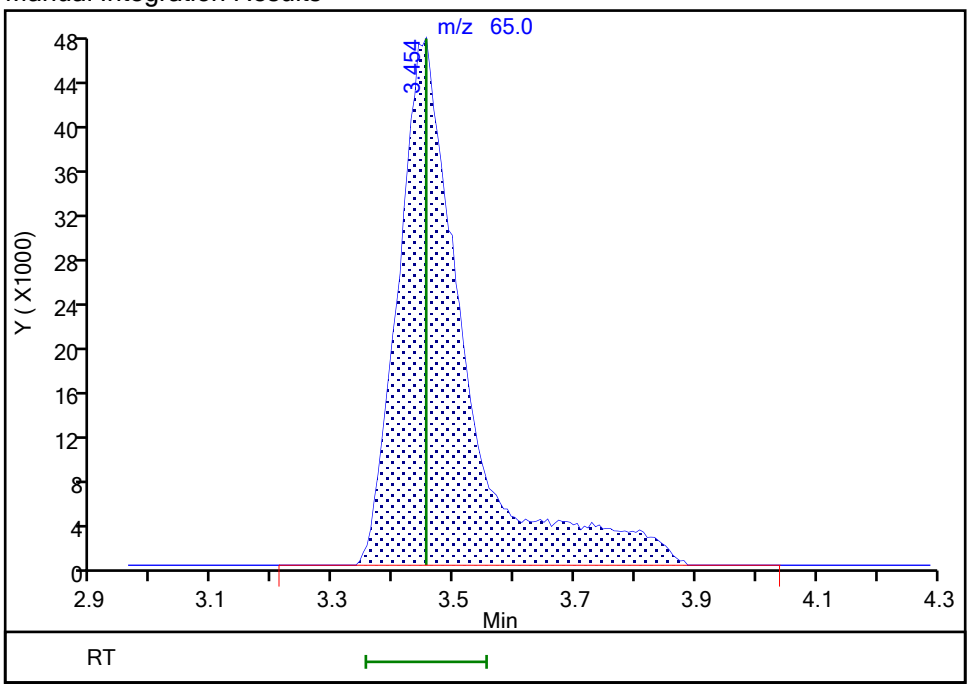
Processing Integration Results

RT: 3.45
Area: 320421
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.45
Area: 369191
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:20:59
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

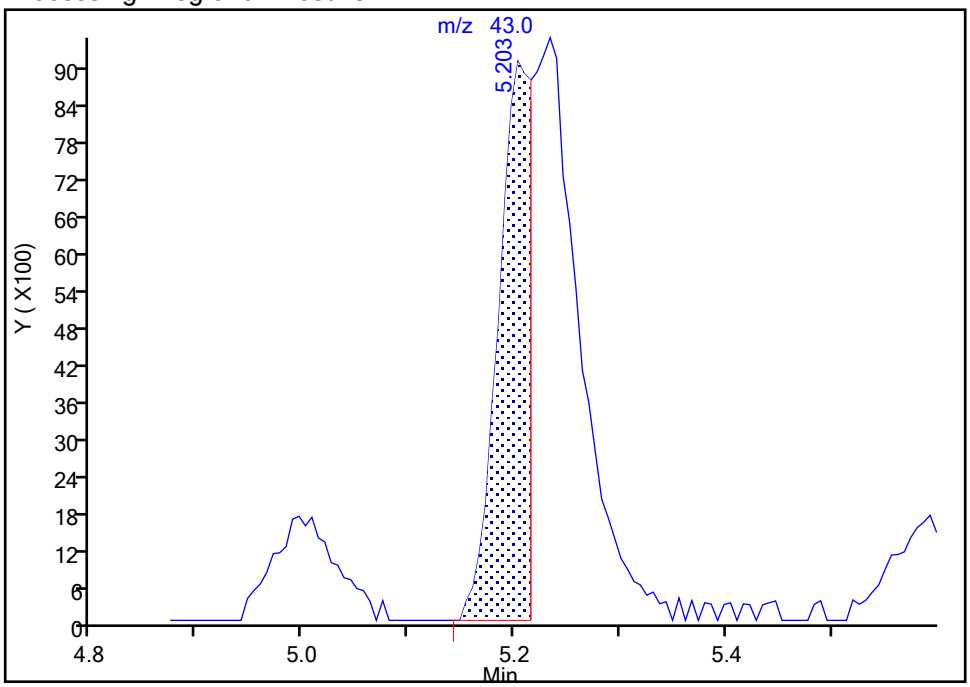
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D
Injection Date: 09-Sep-2020 16:33:30 Instrument ID: 26285
Lims ID: IC std2 4
Client ID:
Operator ID: CLM27445 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

39 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

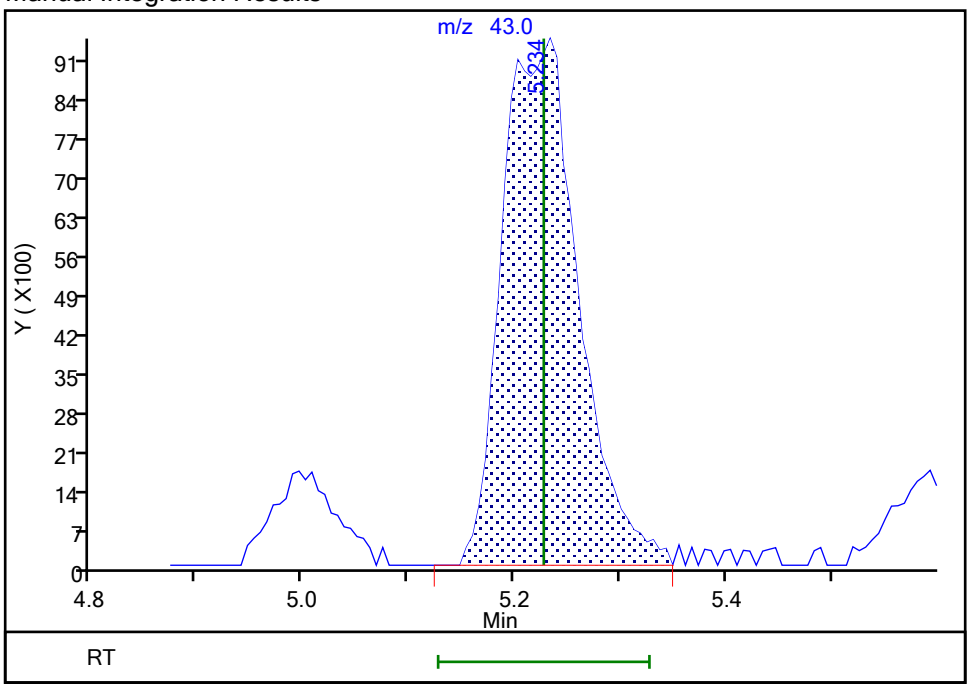
Processing Integration Results

RT: 5.20
Area: 19848
Amount: 5.099833
Amount Units: ug/l



Manual Integration Results

RT: 5.23
Area: 47513
Amount: 7.796236
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:21:48
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

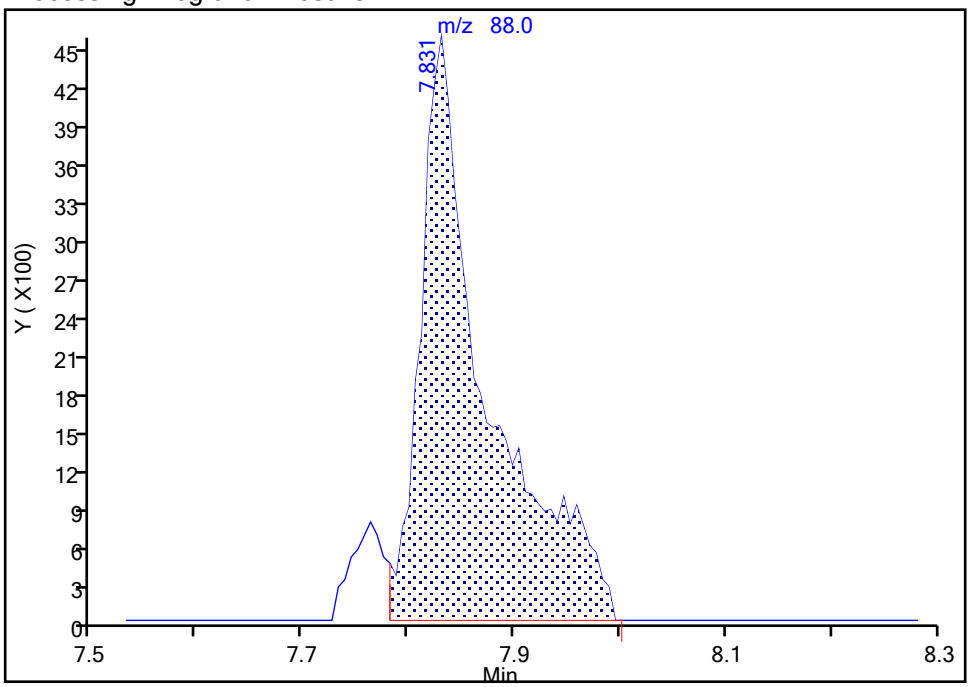
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I06.D
Injection Date: 09-Sep-2020 16:33:30 Instrument ID: 26285
Lims ID: IC std2 4
Client ID:
Operator ID: CLM27445 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

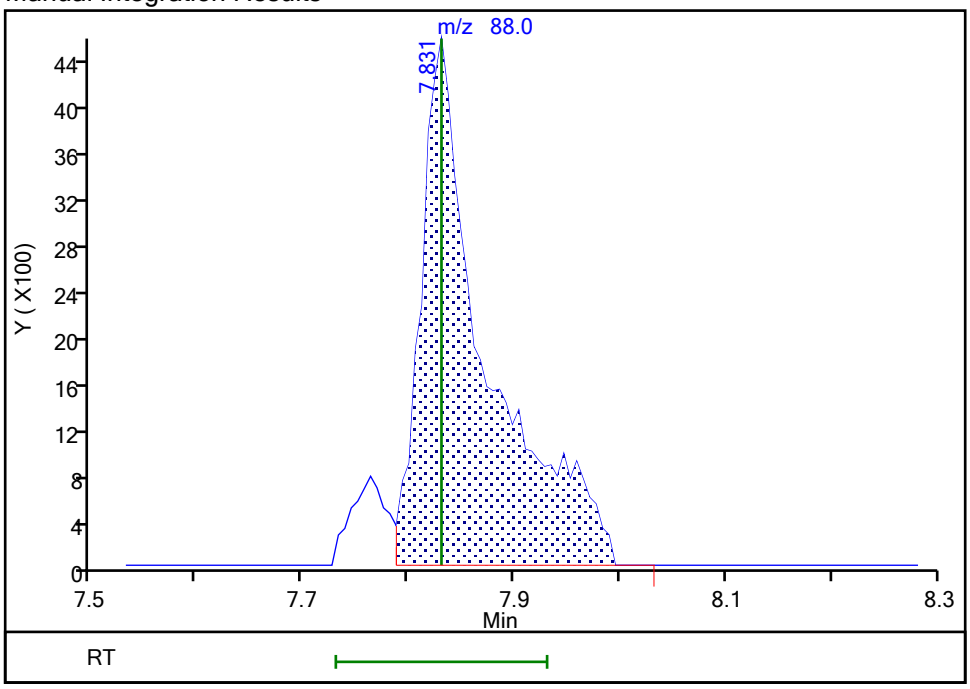
Processing Integration Results

RT: 7.83
Area: 20082
Amount: 205.5642
Amount Units: ug/l



Manual Integration Results

RT: 7.83
Area: 19917
Amount: 204.1215
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:22:19
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Lims ID: IC std 1 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 09-Sep-2020 16:53:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC STD1 1
Misc. Info.: 410-0010032-009
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:28:59 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:27:42

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.612	1.606	0.006	95	4843	1.00	0.6334	
3 Chloromethane	50	1.771	1.771	0.000	98	8529	1.00	0.8756	
4 Butadiene	39	1.856	1.850	0.006	96	5340	1.00	0.8131	
5 Vinyl chloride	62	1.862	1.862	0.000	96	6609	1.00	0.7790	
8 Bromomethane	94	2.118	2.118	0.000	91	5182	1.00	0.8752	
9 Chloroethane	64	2.185	2.186	-0.001	96	4049	1.00	0.8351	
10 Dichlorofluoromethane	67	2.380	2.387	-0.007	95	10086	1.00	0.8335	
11 Trichlorofluoromethane	101	2.448	2.435	0.013	93	7650	1.00	0.7597	
12 Pentane	43	2.466	2.466	0.000	93	5863	1.00	0.6849	
14 Ethyl ether	59	2.643	2.637	0.006	94	4788	1.00	0.8746	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.697	2.704	-0.007	87	5357	1.00	0.7369	
16 Acrolein	56	2.783	2.783	0.000	98	22019	10.0	9.40	
19 1,1-Dichloroethene	96	2.899	2.887	0.012	96	4100	1.00	0.7735	M
17 Acetone	58	2.929	2.917	0.012	98	1903	2.00	1.76	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.929	2.923	0.006	65	3124	1.00	0.5621	
20 Iodomethane	142	3.051	3.051	0.000	99	8883	1.00	0.8205	
21 Isopropyl alcohol	45	3.069	3.057	0.012	62	20480	20.0	23.1	
22 Carbon disulfide	76	3.124	3.130	-0.006	98	15156	1.00	0.7922	
23 Methyl acetate	43	3.264	3.258	0.006	97	8434	1.00	0.9722	
25 3-Chloro-1-propene	41	3.277	3.277	0.000	92	8541	1.00	0.8542	
26 Methylene Chloride	84	3.429	3.435	-0.006	88	5429	1.00	0.8581	
* 27 t-Butyl alcohol-d10 (IS)	65	3.441	3.454	-0.013	96	379656	250.0	250.0	
28 2-Methyl-2-propanol	59	3.557	3.551	0.006	98	33351	20.0	20.3	
29 Acrylonitrile	53	3.716	3.716	0.000	98	3068	1.00	0.7533	
30 Methyl tert-butyl ether	73	3.758	3.758	0.000	94	16872	1.00	0.9224	
31 trans-1,2-Dichloroethene	96	3.770	3.764	0.006	97	4781	1.00	0.7835	
32 Hexane	57	4.142	4.142	0.000	88	4814	1.00	0.6357	
33 1,1-Dichloroethane	63	4.386	4.380	0.006	91	9003	1.00	0.7971	
35 Isopropyl ether	45	4.447	4.441	0.006	96	18046	1.00	0.8759	
36 2-Chloro-1,3-butadiene	53	4.490	4.490	0.000	88	7160	1.00	0.7585	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	4.996	5.002	-0.006	96	17197	1.00	0.9018	
39 2-Butanone (MEK)	43	5.209	5.228	-0.019	90	12917	2.00	2.08	M
38 cis-1,2-Dichloroethene	96	5.240	5.240	0.000	78	6091	1.00	0.8620	
40 2,2-Dichloropropane	77	5.258	5.252	0.006	54	7116	1.00	0.7605	M
41 Propionitrile	54	5.325	5.331	-0.006	98	35120	20.0	19.5	
43 Methacrylonitrile	67	5.544	5.545	-0.001	91	42856	10.0	9.62	
44 Chlorobromomethane	128	5.587	5.587	0.000	93	3260	1.00	0.9107	
45 Tetrahydrofuran	71	5.599	5.593	0.006	75	3497	2.00	2.02	
46 Chloroform	83	5.752	5.752	0.000	91	9560	1.00	0.8385	
48 1,1,1-Trichloroethane	97	5.965	5.965	0.000	36	7239	1.00	0.7371	
$ 47 Dibromofluoromethane (Surr)	113	5.977	5.971	0.006	93	303314	50.0	50.6	
49 Cyclohexane	56	6.050	6.057	-0.007	62	6489	1.00	0.6753	M
S 74 1,2-Dichloroethene, Total	100				0			1.65	
51 Carbon tetrachloride	117	6.185	6.179	0.006	55	5823	1.00	0.6883	M
50 1,1-Dichloropropene	75	6.191	6.191	0.000	94	6538	1.00	0.7407	
52 Isobutyl alcohol	41	6.398	6.404	-0.006	94	26830	50.0	49.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	99	65510	50.0	50.0	
53 Benzene	78	6.465	6.465	0.000	94	22359	1.00	0.8368	
55 1,2-Dichloroethane	62	6.550	6.551	-0.001	96	8793	1.00	1.03	
58 Tert-amyl methyl ether	73	6.672	6.679	-0.007	97	17332	1.00	0.9207	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	99	1151320	50.0	50.0	
60 n-Heptane	43	6.916	6.910	0.006	36	5745	1.00	0.7344	
61 n-Butanol	56	7.319	7.319	-0.001	90	44537	100.0	94.6	
62 Trichloroethene	95	7.386	7.386	0.000	94	5686	1.00	0.8118	
63 Methylcyclohexane	83	7.684	7.691	-0.007	84	6225	1.00	0.6489	
64 1,2-Dichloropropane	63	7.727	7.733	-0.006	91	5751	1.00	0.8305	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	92	8083	1.00	0.8462	
68 1,4-Dioxane	88	7.837	7.831	0.006	28	4787	50.0	47.7	
66 Dibromomethane	93	7.843	7.849	-0.006	67	4045	1.00	0.8930	
67 Methyl methacrylate	69	7.843	7.849	-0.006	94	6403	1.00	0.9557	
70 Dichlorobromomethane	83	8.105	8.105	0.000	97	7333	1.00	0.8321	
72 2-Nitropropane	41	8.398	8.398	0.000	94	5433	2.00	1.78	
71 2-Chloroethyl vinyl ether	63	8.495	8.501	-0.006	89	4721	1.00	0.8491	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	95	9355	1.00	0.8395	
75 4-Methyl-2-pentanone (MIBK)	43	8.891	8.898	-0.007	96	23150	2.00	1.92	
$ 76 Toluene-d8 (Surr)	98	9.019	9.026	-0.007	94	1110330	50.0	49.9	
77 Toluene	92	9.111	9.111	0.000	97	13628	1.00	0.8054	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	9203	1.00	0.8834	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	9974	1.00	0.9054	
80 1,1,2-Trichloroethane	97	9.647	9.654	-0.007	89	5672	1.00	0.8826	
81 Tetrachloroethene	166	9.727	9.727	0.000	95	5544	1.00	0.7349	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	90	9796	1.00	0.9187	
84 2-Hexanone	43	9.903	9.910	-0.007	98	19130	2.00	1.91	
85 Chlorodibromomethane	129	10.056	10.056	0.000	87	6540	1.00	0.8665	
S 123 1,3-Dichloropropene, Total	100				0			1.72	
87 Ethylene Dibromide	107	10.172	10.172	0.000	95	6817	1.00	0.9288	
* 90 Chlorobenzene-d5 (IS)	117	10.641	10.647	-0.006	85	883106	50.0	50.0	
91 1-Chlorohexane	91	10.665	10.672	-0.007	62	8427	1.00	0.8665	
88 Chlorobenzene	112	10.672	10.672	0.000	96	15846	1.00	0.8339	
92 1,1,1,2-Tetrachloroethane	131	10.769	10.769	0.000	95	5603	1.00	0.8112	
93 Ethylbenzene	91	10.769	10.775	-0.006	98	26220	1.00	0.7826	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	99	19614	2.00	1.53	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
S 130 Xylenes, Total	106				0			2.33	
95 o-Xylene	106	11.245	11.251	-0.006	96	10127	1.00	0.8016	
96 Styrene	104	11.269	11.269	0.000	94	16293	1.00	0.7726	
97 Bromoform	173	11.421	11.422	-0.001	94	5094	1.00	0.8263	
98 Isopropylbenzene	105	11.568	11.568	0.000	95	24644	1.00	0.7568	
100 Cyclohexanone	55	11.647	11.647	0.000	91	22117	50.0	46.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	444478	50.0	49.5	
102 Bromobenzene	156	11.830	11.830	0.000	93	6996	1.00	0.8383	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	96	10688	1.00	0.9267	
104 trans-1,4-Dichloro-2-butene	53	11.866	11.867	-0.001	93	33374	10.0	9.10	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	77	3230	1.00	0.9823	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	29478	1.00	0.7716	
107 2-Chlorotoluene	126	11.988	11.988	0.000	97	6177	1.00	0.7961	
108 1,3,5-Trimethylbenzene	105	12.061	12.062	-0.001	94	20623	1.00	0.7663	
109 4-Chlorotoluene	126	12.086	12.086	0.000	97	6181	1.00	0.7783	
111 tert-Butylbenzene	134	12.311	12.312	-0.001	91	3765	1.00	0.6766	
112 Pentachloroethane	167	12.342	12.342	0.000	79	4029	1.00	0.7738	
113 1,2,4-Trimethylbenzene	105	12.354	12.360	-0.006	97	21668	1.00	0.7809	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	24858	1.00	0.7469	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	12701	1.00	0.8241	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	21033	1.00	0.7478	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.635	0.000	95	479006	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	93	13256	1.00	0.8447	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	96	23706	1.00	0.8435	
120 Benzyl chloride	91	12.738	12.738	0.000	98	19696	1.00	0.8300	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	13985	1.00	0.8049	
122 p-Diethylbenzene	119	12.878	12.879	-0.001	92	13645	1.00	0.7661	
124 n-Butylbenzene	92	12.897	12.897	0.000	97	10587	1.00	0.7353	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	97	12311	1.00	0.8255	
126 o-diethylbenzene	119	12.952	12.952	0.000	96	11187	1.00	0.7905	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	85	2666	1.00	0.8814	
128 1,3,5-Trichlorobenzene	180	13.616	13.610	0.006	97	8304	1.00	0.7998	
129 1,2,4-Trichlorobenzene	180	14.049	14.043	0.006	92	8199	1.00	0.8396	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	94	3024	1.00	0.7663	
132 Naphthalene	128	14.232	14.226	0.006	97	32632	1.00	0.8913	
133 1,2,3-Trichlorobenzene	180	14.378	14.372	0.006	95	7782	1.00	0.8172	
134 2-Methylnaphthalene	142	14.982	14.976	0.006	93	16756	1.00	0.8263	
S 154 Total Diethylbenzene	1				0			2.36	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_4ppbEE_00073	Amount Added: 12.50	Units: mL	
MSV_HP05_ISSS_00003	Amount Added: 5.00	Units: uL	Run Reagent

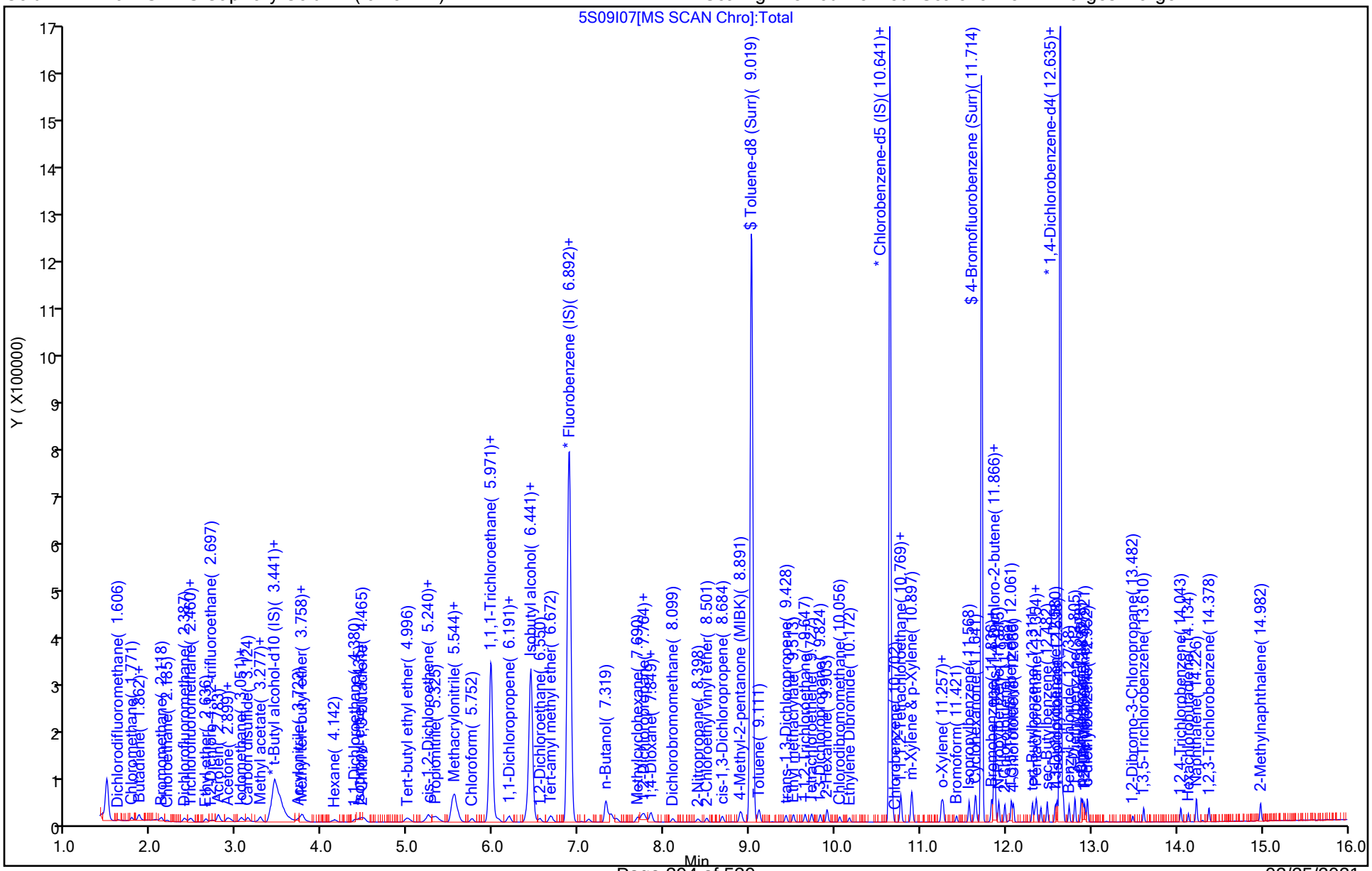
Report Date: 11-Sep-2020 20:29:01 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D

Injection Date:	09-Sep-2020 16:53:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	IC std 1 1			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

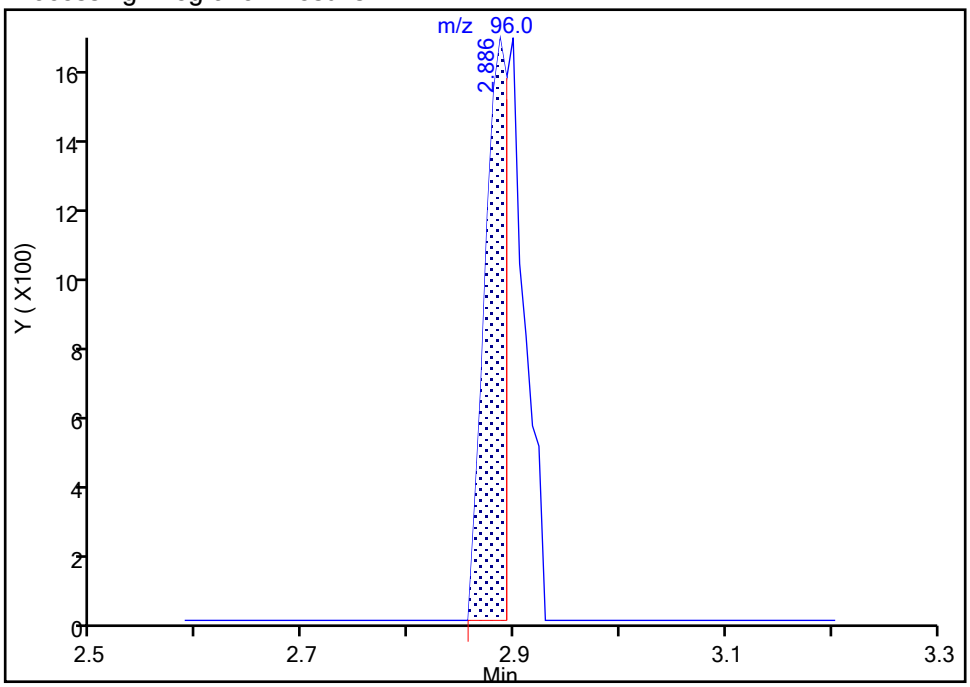
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Injection Date: 09-Sep-2020 16:53:30 Instrument ID: 26285
Lims ID: IC std 1 1
Client ID:
Operator ID: CLM27445 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

19 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

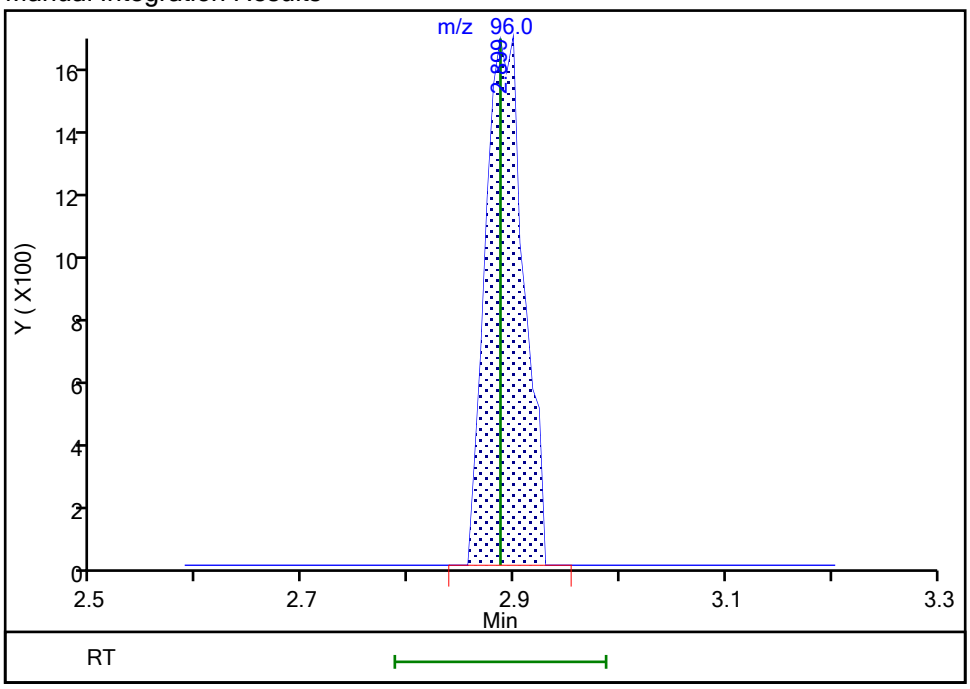
Processing Integration Results

RT: 2.89
Area: 2468
Amount: 2.160646
Amount Units: ug/l



Manual Integration Results

RT: 2.90
Area: 4100
Amount: 0.773454
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:25:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

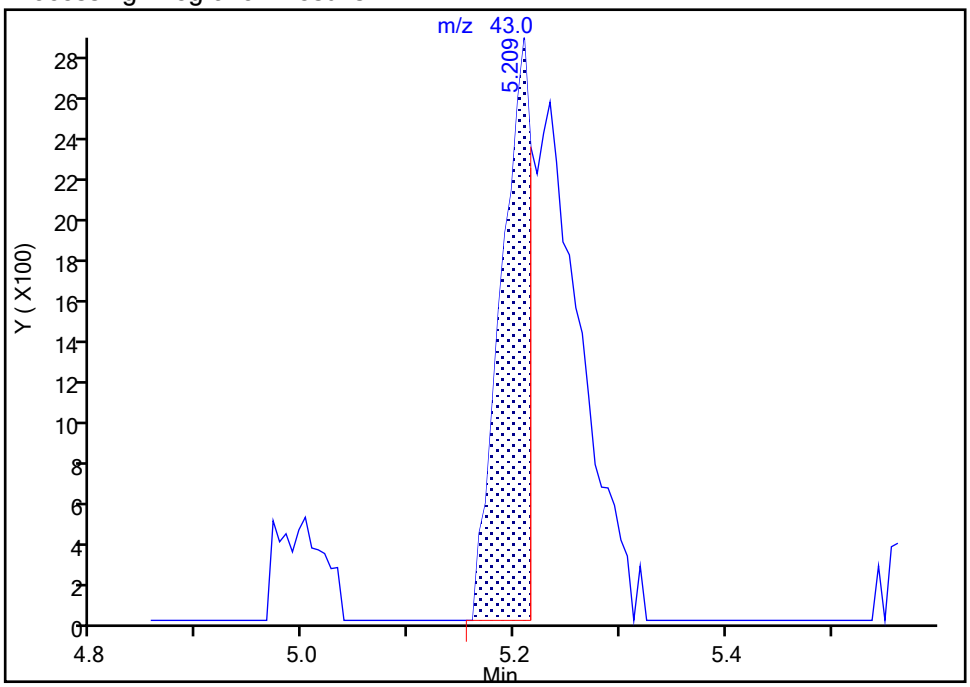
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Injection Date: 09-Sep-2020 16:53:30 Instrument ID: 26285
Lims ID: IC std 1 1
Client ID:
Operator ID: CLM27445 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

39 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

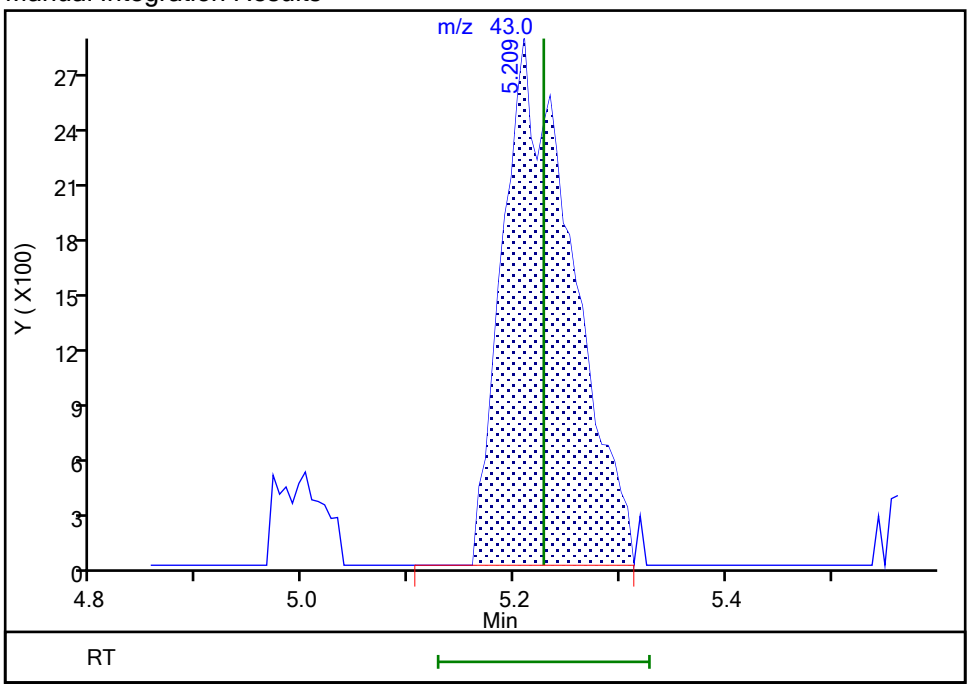
Processing Integration Results

RT: 5.21
Area: 5537
Amount: 1.802406
Amount Units: ug/l



Manual Integration Results

RT: 5.21
Area: 12917
Amount: 2.084296
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:25:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

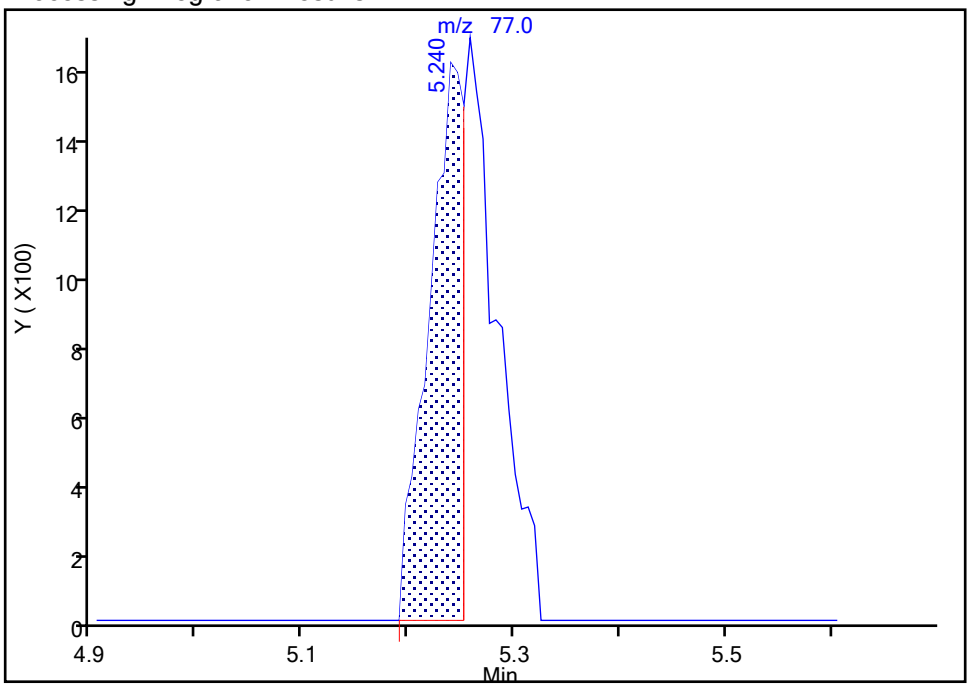
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Injection Date: 09-Sep-2020 16:53:30 Instrument ID: 26285
Lims ID: IC std 1 1
Client ID:
Operator ID: CLM27445 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

40 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

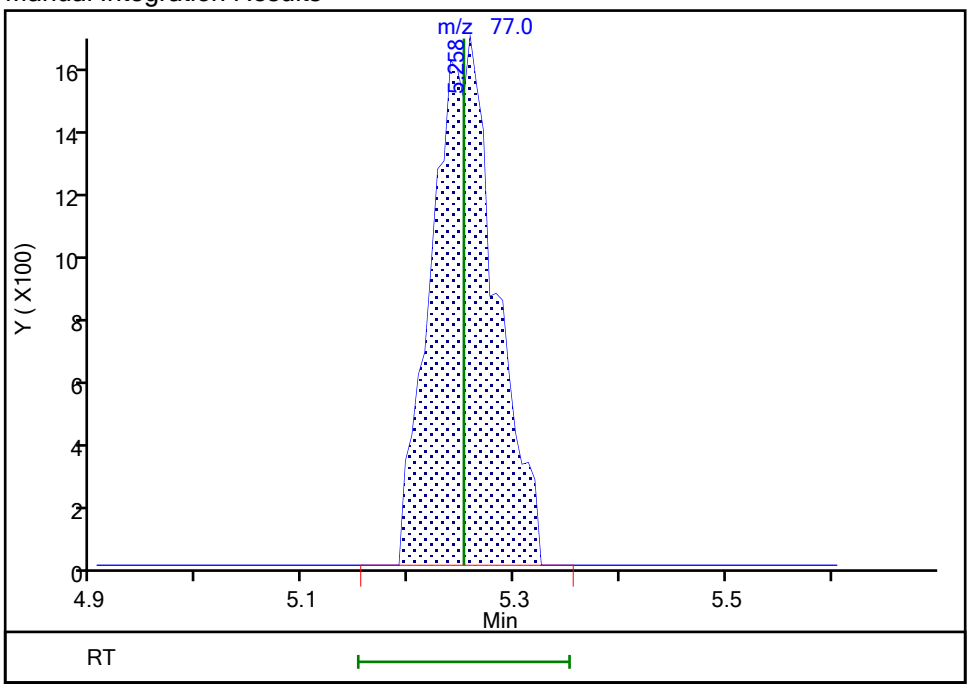
Processing Integration Results

RT: 5.24
Area: 3762
Amount: 1.748648
Amount Units: ug/l



Manual Integration Results

RT: 5.26
Area: 7116
Amount: 0.760511
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:25:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

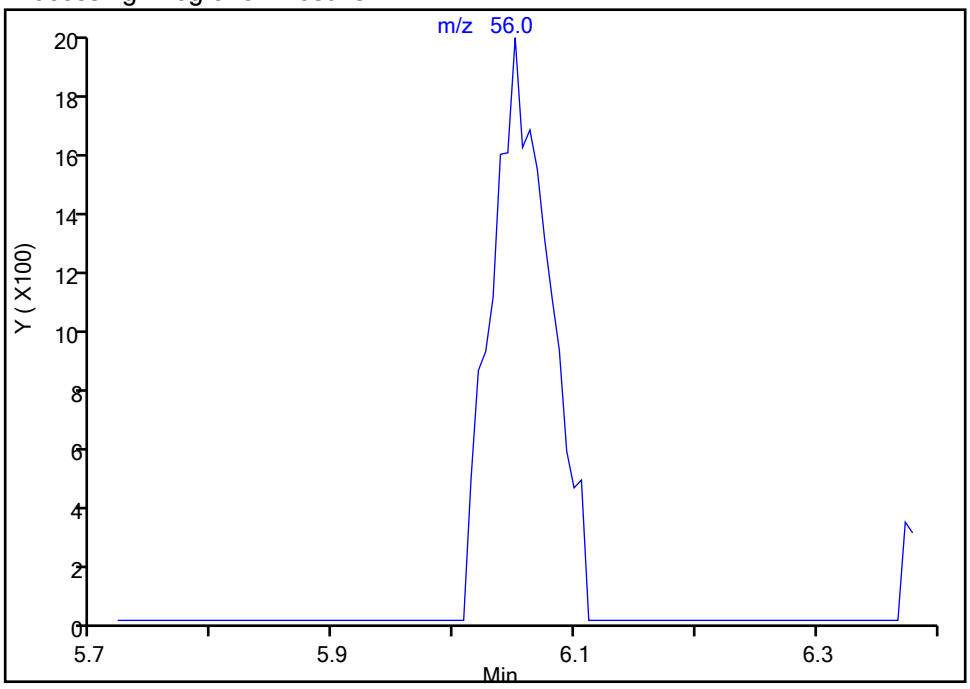
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Injection Date: 09-Sep-2020 16:53:30 Instrument ID: 26285
Lims ID: IC std 1 1
Client ID:
Operator ID: CLM27445 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

49 Cyclohexane, CAS: 110-82-7

Signal: 1

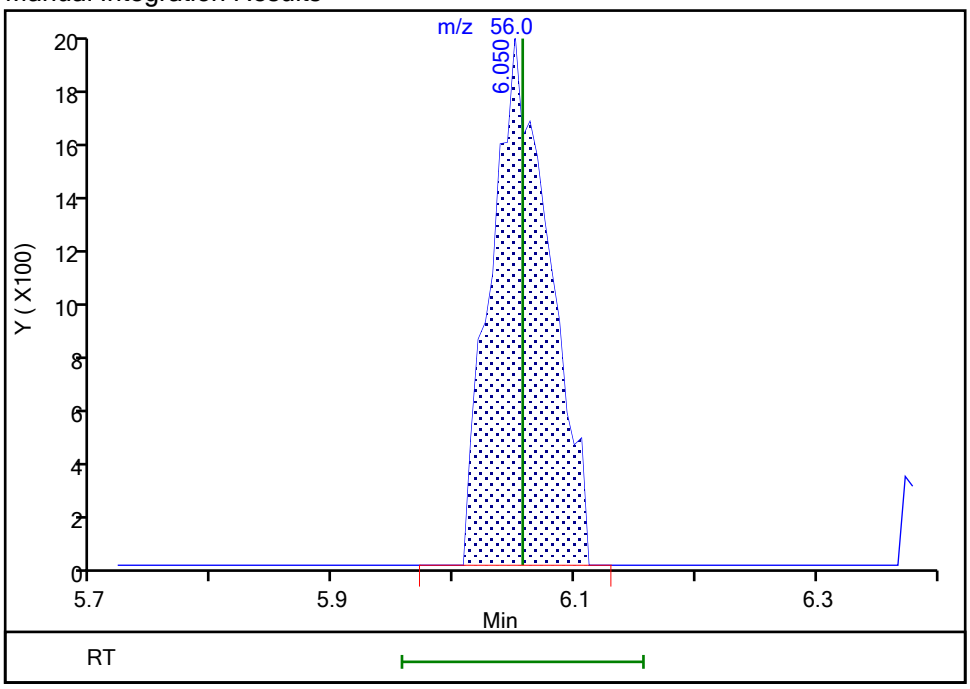
Not Detected
Expected RT: 6.06

Processing Integration Results



Manual Integration Results

RT: 6.05
Area: 6489
Amount: 0.675323
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:26:00
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

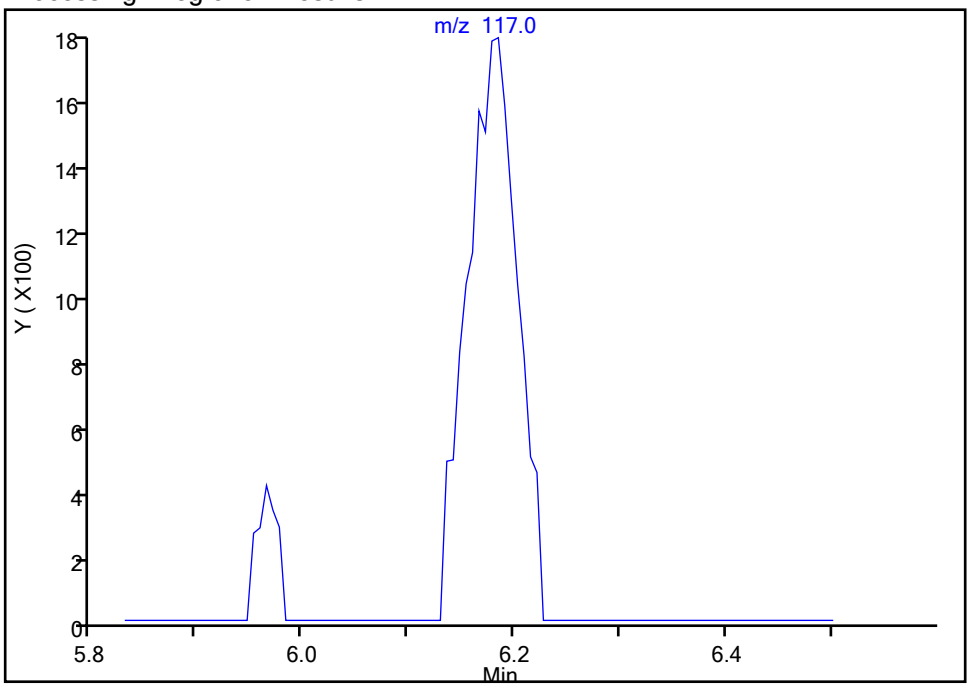
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I07.D
Injection Date: 09-Sep-2020 16:53:30 Instrument ID: 26285
Lims ID: IC std 1 1
Client ID:
Operator ID: CLM27445 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

51 Carbon tetrachloride, CAS: 56-23-5

Signal: 1

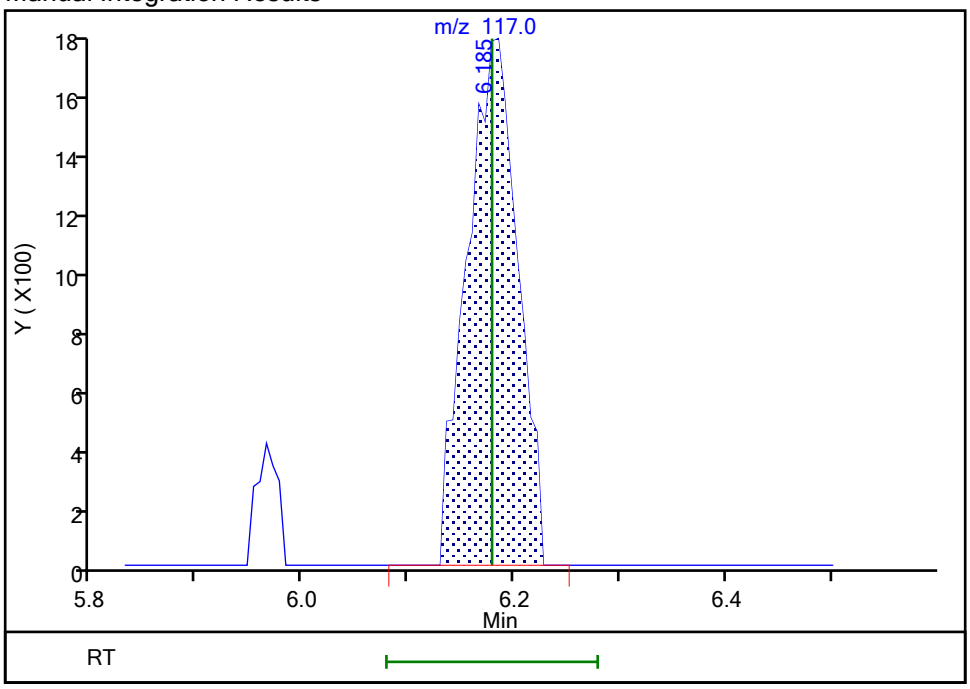
Not Detected
Expected RT: 6.18

Processing Integration Results



Manual Integration Results

RT: 6.18
Area: 5823
Amount: 0.688282
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:26:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: ICV 410-42091/10 Calibration Date: 09/09/2020 17:14

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5S09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3320	0.2914	0.1000	17.6	20.0	-12.2	30.0
Chloromethane	Ave	0.4230	0.4010	0.1000	19.0	20.0	-5.2	30.0
1,3-Butadiene	Ave	0.2852	0.3590		25.2	20.0	25.9	30.0
Vinyl chloride	Ave	0.3685	0.3951	0.1000	21.4	20.0	7.2	30.0
Bromomethane	Ave	0.2571	0.2744	0.1000	21.3	20.0	6.7	30.0
Chloroethane	Ave	0.2106	0.2183	0.1000	20.7	20.0	3.7	30.0
Dichlorofluoromethane	Ave	0.5255	0.4927		18.7	20.0	-6.3	30.0
Trichlorofluoromethane	Ave	0.4373	0.5028	0.1000	23.0	20.0	15.0	30.0
n-Pentane	Ave	0.3718	0.4484		24.1	20.0	20.6	30.0
Ethyl ether	Ave	0.2377	0.2328		19.6	20.0	-2.1	30.0
Freon 123a	Ave	0.3157	0.3539		22.4	20.0	12.1	30.0
Acrolein	Ave	1.542	1.509		147	150	-2.2	30.0
1,1-Dichloroethene	Ave	0.2302	0.2510	0.1000	21.8	20.0	9.0	30.0
Acetone	Ave	0.7109	0.6838	0.1000	144	150	-3.8	30.0
Freon 113	Ave	0.2414	0.2681	0.1000	22.2	20.0	11.1	30.0
Methyl iodide	Ave	0.4702	0.4973		21.2	20.0	5.8	30.0
2-Propanol	Ave	0.5836	0.5036		129	150	-13.7	30.0
Carbon disulfide	Ave	0.8309	0.9170	0.1000	22.1	20.0	10.4	30.0
Methyl acetate	Ave	0.3768	0.3701	0.1000	19.6	20.0	-1.8	30.0
Allyl chloride	Ave	0.4342	0.4321		19.9	20.0	-0.5	30.0
Methylene Chloride	Ave	0.2748	0.2806	0.1000	20.4	20.0	2.1	30.0
t-Butyl alcohol	Ave	1.079	1.079		200	200	0.0	30.0
Acrylonitrile	Ave	0.1769	0.1704		96.3	100	-3.7	30.0
Methyl tertiary butyl ether	Ave	0.7944	0.7674	0.1000	19.3	20.0	-3.4	30.0
trans-1,2-Dichloroethene	Ave	0.2650	0.2727	0.1000	20.6	20.0	2.9	30.0
n-Hexane	Ave	0.3289	0.3981		24.2	20.0	21.1	30.0
1,1-Dichloroethane	Ave	0.4905	0.5023	0.2000	20.5	20.0	2.4	30.0
di-Isopropyl ether	Ave	0.8948	0.8959		20.0	20.0	0.1	30.0
2-Chloro-1,3-butadiene	Ave	0.4100	0.4356		21.2	20.0	6.2	30.0
Ethyl t-butyl ether	Ave	0.8282	0.8272		20.0	20.0	-0.1	30.0
2-Butanone	Ave	0.2691	0.2470	0.1000	138	150	-8.2	30.0
cis-1,2-Dichloroethene	Ave	0.3069	0.3239	0.1000	21.1	20.0	5.5	30.0
2,2-Dichloropropane	Ave	0.4064	0.4221		20.8	20.0	3.9	30.0
Propionitrile	Ave	1.187	1.179		149	150	-0.6	30.0
Methacrylonitrile	Ave	0.1934	0.1928		150	150	-0.3	30.0
Bromochloromethane	Ave	0.1555	0.1481		19.0	20.0	-4.8	30.0
Tetrahydrofuran	Ave	1.139	1.089		95.6	100	-4.4	30.0
Chloroform	Ave	0.4952	0.4949	0.2000	20.0	20.0	-0.0	30.0
1,1,1-Trichloroethane	Ave	0.4265	0.4375	0.1000	20.5	20.0	2.6	30.0
Cyclohexane	Ave	0.4173	0.4923	0.1000	23.6	20.0	18.0	30.0
Carbon tetrachloride	Ave	0.3674	0.3879	0.1000	21.1	20.0	5.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: ICV 410-42091/10 Calibration Date: 09/09/2020 17:14

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5S09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1-Dichloropropene	Ave	0.3833	0.3965		20.7	20.0	3.4	30.0
Isobutyl alcohol	Ave	0.3578	0.3475		486	500	-2.9	30.0
Benzene	Ave	1.160	1.159	0.5000	20.0	20.0	-0.1	30.0
1,2-Dichloroethane	Ave	0.3725	0.3578	0.1000	19.2	20.0	-4.0	30.0
t-Amyl methyl ether	Ave	0.8175	0.8240		20.2	20.0	0.8	30.0
n-Heptane	Ave	0.3397	0.3591		21.1	20.0	5.7	30.0
n-Butanol	Ave	0.3100	0.2987		964	1000	-3.6	30.0
Trichloroethene	Ave	0.3042	0.3071	0.2000	20.2	20.0	0.9	30.0
Methylcyclohexane	Ave	0.4166	0.4725	0.1000	22.7	20.0	13.4	30.0
1,2-Dichloropropane	Ave	0.3007	0.3009	0.1000	20.0	20.0	0.0	30.0
t-Amyl ethyl ether	Ave	0.4148	0.4228		20.4	20.0	1.9	30.0
1,4-Dioxane	Ave	0.0661	0.0601	0.0050	455	500	-9.1	30.0
Dibromomethane	Ave	0.1967	0.1878		19.1	20.0	-4.5	30.0
Methyl methacrylate	Ave	0.2910	0.2784		19.1	20.0	-4.3	30.0
Bromodichloromethane	Ave	0.3827	0.3770	0.2000	19.7	20.0	-1.5	30.0
2-Nitropropane	Ave	2.014	1.864		18.5	20.0	-7.4	30.0
2-Chloroethyl vinyl ether	Ave	0.2415	0.2354		19.5	20.0	-2.5	30.0
cis-1,3-Dichloropropene	Ave	0.4840	0.4638	0.2000	19.2	20.0	-4.2	30.0
4-Methyl-2-pentanone	Ave	0.5249	0.4705	0.1000	89.6	100	-10.4	30.0
Toluene	Ave	0.9580	0.9536	0.4000	19.9	20.0	-0.5	30.0
trans-1,3-Dichloropropene	Ave	0.5898	0.5444	0.1000	18.5	20.0	-7.7	30.0
Ethyl methacrylate	Ave	0.6237	0.6119		19.6	20.0	-1.9	30.0
1,1,2-Trichloroethane	Ave	0.3639	0.3569	0.1000	19.6	20.0	-1.9	30.0
Tetrachloroethene	Ave	0.4271	0.4410	0.2000	20.6	20.0	3.2	30.0
1,3-Dichloropropane	Ave	0.6037	0.5658		18.7	20.0	-6.3	30.0
2-Hexanone	Ave	0.5679	0.4968	0.1000	87.5	100	-12.5	30.0
Dibromochloromethane	Ave	0.4273	0.4120		19.3	20.0	-3.6	30.0
1,2-Dibromoethane	Ave	0.4155	0.3874	0.1000	18.6	20.0	-6.8	30.0
1-Chlorohexane	Ave	0.5506	0.5344		19.4	20.0	-3.0	30.0
Chlorobenzene	Ave	1.076	1.058	0.5000	19.7	20.0	-1.7	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3911	0.3785		19.4	20.0	-3.2	30.0
Ethylbenzene	Ave	1.897	1.883	0.1000	19.9	20.0	-0.7	30.0
m&p-Xylene	Ave	0.7247	0.7210	0.1000	39.8	40.0	-0.5	30.0
o-Xylene	Ave	0.7153	0.7047	0.3000	19.7	20.0	-1.5	30.0
Styrene	Ave	1.194	1.170	0.3000	19.6	20.0	-2.0	30.0
Bromoform	Ave	0.3490	0.3214	0.1000	18.4	20.0	-7.9	30.0
Isopropylbenzene	Ave	1.844	1.847	0.1000	20.0	20.0	0.2	30.0
Cyclohexanone	Ave	0.3139	0.2624		418	500	-16.4	30.0
Bromobenzene	Ave	0.8711	0.8448		19.4	20.0	-3.0	30.0
1,1,2,2-Tetrachloroethane	Ave	1.204	1.124	0.3000	18.7	20.0	-6.6	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3829	0.3837		100	100	0.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: ICV 410-42091/10 Calibration Date: 09/09/2020 17:14

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5S09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3432	0.3230		18.8	20.0	-5.9	30.0
N-Propylbenzene	Ave	3.988	4.107		20.6	20.0	3.0	30.0
2-Chlorotoluene	Ave	0.8099	0.7930		19.6	20.0	-2.1	30.0
1,3,5-Trimethylbenzene	Ave	2.809	2.796		19.9	20.0	-0.5	30.0
4-Chlorotoluene	Ave	0.8290	0.8159		19.7	20.0	-1.6	30.0
tert-Butylbenzene	Ave	0.5809	0.5891		20.3	20.0	1.4	30.0
Pentachloroethane	Ave	0.5435	0.5254		19.3	20.0	-3.3	30.0
1,2,4-Trimethylbenzene	Ave	2.896	2.828		19.5	20.0	-2.4	30.0
sec-Butylbenzene	Ave	3.474	3.562		20.5	20.0	2.5	30.0
1,3-Dichlorobenzene	Ave	1.609	1.552	0.6000	19.3	20.0	-3.5	30.0
p-Isopropyltoluene	Ave	2.936	3.005		20.5	20.0	2.4	30.0
1,4-Dichlorobenzene	Ave	1.638	1.599	0.5000	19.5	20.0	-2.4	30.0
1,2,3-Trimethylbenzene	Ave	2.934	2.987		20.4	20.0	1.8	30.0
Benzyl chloride	Ave	2.477	2.407		19.4	20.0	-2.8	30.0
1,3-Diethylbenzene	Ave	1.814	1.749		19.3	20.0	-3.5	30.0
1,4-Diethylbenzene	Ave	1.859	1.824		19.6	20.0	-1.9	30.0
n-Butylbenzene	Ave	1.503	1.492		19.9	20.0	-0.7	30.0
1,2-Dichlorobenzene	Ave	1.557	1.515	0.4000	19.5	20.0	-2.7	30.0
1,2-Diethylbenzene	Ave	1.477	1.444		19.6	20.0	-2.2	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3157	0.2855	0.0500	18.1	20.0	-9.6	30.0
1,3,5-Trichlorobenzene	Ave	1.084	1.048		19.3	20.0	-3.3	30.0
1,2,4-Trichlorobenzene	Ave	1.019	0.9865	0.2000	19.4	20.0	-3.2	30.0
Hexachlorobutadiene	Ave	0.4119	0.4106		19.9	20.0	-0.3	30.0
Naphthalene	Ave	3.822	3.586		18.8	20.0	-6.2	30.0
1,2,3-Trichlorobenzene	Ave	0.9940	0.9606		19.3	20.0	-3.4	30.0
2-Methylnaphthalene	Ave	2.117	1.914		18.1	20.0	-9.6	30.0
Dibromofluoromethane (Surr)	Ave	0.2604	0.2619		50.3	50.0	0.6	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0569	0.0570		50.1	50.0	0.2	30.0
Toluene-d8 (Surr)	Ave	1.259	1.266		50.3	50.0	0.6	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5083	0.5051		49.7	50.0	-0.6	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09V01.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 09-Sep-2020 17:14:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICV
Misc. Info.: 410-0010032-010
Operator ID: CLM27445 Instrument ID: 26285
Sublist:

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 11-Sep-2020 20:18:14 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1058

First Level Reviewer: mellingerc Date: 10-Sep-2020 11:29:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.606	1.606	0.000	99	134803	20.0	17.6	
3 Chloromethane	50	1.777	1.771	0.006	99	185517	20.0	19.0	
4 Butadiene	39	1.856	1.850	0.006	91	166104	20.0	25.2	
5 Vinyl chloride	62	1.868	1.862	0.006	98	182785	20.0	21.4	
8 Bromomethane	94	2.124	2.118	0.006	90	126957	20.0	21.3	
9 Chloroethane	64	2.185	2.186	-0.001	99	101015	20.0	20.7	
10 Dichlorofluoromethane	67	2.387	2.387	0.000	97	227938	20.0	18.7	
11 Trichlorofluoromethane	101	2.435	2.435	0.000	98	232616	20.0	23.0	
12 Pentane	43	2.466	2.466	0.000	96	207454	20.0	24.1	
14 Ethyl ether	59	2.643	2.637	0.006	93	107811	20.0	19.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.710	2.704	0.006	95	163736	20.0	22.4	
16 Acrolein	56	2.783	2.783	0.000	99	330582	150.0	146.7	
19 1,1-Dichloroethene	96	2.893	2.887	0.006	98	116112	20.0	21.8	
17 Acetone	58	2.923	2.917	0.006	100	149844	150.0	144.3	
18 1,1,2-Trichloro-1,2,2-trifluoroe	101	2.923	2.923	0.000	86	124023	20.0	22.2	
20 Iodomethane	142	3.051	3.051	0.000	98	230065	20.0	21.2	
21 Isopropyl alcohol	45	3.063	3.057	0.006	43	110350	150.0	129.4	
22 Carbon disulfide	76	3.130	3.130	0.000	99	424281	20.0	22.1	
23 Methyl acetate	43	3.258	3.258	0.000	98	171247	20.0	19.6	
25 3-Chloro-1-propene	41	3.277	3.277	0.000	93	199899	20.0	19.9	
26 Methylene Chloride	84	3.435	3.435	0.000	93	129826	20.0	20.4	
* 27 t-Butyl alcohol-d10 (IS)	65	3.453	3.453	0.000	96	365219	250.0	250.0	
28 2-Methyl-2-propanol	59	3.545	3.551	-0.006	100	315402	200.0	200.0	
29 Acrylonitrile	53	3.722	3.716	0.006	98	394218	100.0	96.3	
30 Methyl tert-butyl ether	73	3.764	3.758	0.006	94	355027	20.0	19.3	
31 trans-1,2-Dichloroethene	96	3.770	3.764	0.006	98	126178	20.0	20.6	
32 Hexane	57	4.142	4.142	0.000	93	184190	20.0	24.2	
33 1,1-Dichloroethane	63	4.386	4.380	0.006	96	232372	20.0	20.5	
35 Isopropyl ether	45	4.447	4.441	0.006	97	414505	20.0	20.0	
36 2-Chloro-1,3-butadiene	53	4.496	4.490	0.006	90	201514	20.0	21.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	5.002	5.002	0.000	99	382721	20.0	20.0	
39 2-Butanone (MEK)	43	5.215	5.228	-0.013	100	857206	150.0	137.7	
38 cis-1,2-Dichloroethene	96	5.246	5.240	0.006	82	149856	20.0	21.1	
40 2,2-Dichloropropane	77	5.252	5.252	0.000	86	195273	20.0	20.8	
41 Propionitrile	54	5.331	5.331	0.000	99	258424	150.0	149.1	
43 Methacrylonitrile	67	5.544	5.545	-0.001	93	669027	150.0	149.5	
44 Chlorobromomethane	128	5.587	5.587	0.000	95	68501	20.0	19.0	
45 Tetrahydrofuran	71	5.587	5.593	-0.006	82	159129	100.0	95.6	
46 Chloroform	83	5.752	5.752	0.000	93	228956	20.0	20.0	
48 1,1,1-Trichloroethane	97	5.965	5.965	0.000	98	202437	20.0	20.5	
$ 47 Dibromofluoromethane (Surr)	113	5.977	5.971	0.006	93	302978	50.0	50.3	
49 Cyclohexane	56	6.057	6.057	0.000	91	227784	20.0	23.6	
51 Carbon tetrachloride	117	6.179	6.179	-0.001	97	179462	20.0	21.1	
50 1,1-Dichloropropene	75	6.191	6.191	0.000	97	183457	20.0	20.7	
52 Isobutyl alcohol	41	6.398	6.404	-0.006	93	253791	500.0	485.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.441	6.441	0.000	100	65881	50.0	50.1	
53 Benzene	78	6.465	6.465	0.000	97	536295	20.0	20.0	
55 1,2-Dichloroethane	62	6.550	6.551	-0.001	97	165537	20.0	19.2	
58 Tert-amyl methyl ether	73	6.678	6.679	-0.001	98	381227	20.0	20.2	
* 59 Fluorobenzene (IS)	96	6.892	6.892	0.000	98	1156653	50.0	50.0	
60 n-Heptane	43	6.910	6.910	0.000	93	166145	20.0	21.1	
61 n-Butanol	56	7.319	7.319	0.000	89	436307	1000.0	963.5	
62 Trichloroethene	95	7.386	7.386	0.000	99	142065	20.0	20.2	
63 Methylcyclohexane	83	7.690	7.691	-0.001	90	218608	20.0	22.7	
64 1,2-Dichloropropane	63	7.733	7.733	0.000	93	139214	20.0	20.0	
65 2-ethoxy-2-methyl butane	87	7.764	7.764	0.000	90	195615	20.0	20.4	M
68 1,4-Dioxane	88	7.831	7.831	0.000	86	43878	500.0	454.6	M
66 Dibromomethane	93	7.849	7.849	0.000	65	86881	20.0	19.1	
67 Methyl methacrylate	69	7.849	7.849	0.000	92	128797	20.0	19.1	
70 Dichlorobromomethane	83	8.105	8.105	0.000	99	174415	20.0	19.7	
72 2-Nitropropane	41	8.398	8.398	0.000	98	54473	20.0	18.5	
71 2-Chloroethyl vinyl ether	63	8.495	8.501	-0.006	91	108912	20.0	19.5	
73 cis-1,3-Dichloropropene	75	8.684	8.684	0.000	96	214587	20.0	19.2	
75 4-Methyl-2-pentanone (MIBK)	43	8.897	8.898	-0.001	97	1088428	100.0	89.6	
$ 76 Toluene-d8 (Surr)	98	9.026	9.026	0.000	94	1124164	50.0	50.3	
77 Toluene	92	9.111	9.111	0.000	98	338749	20.0	19.9	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	93	193382	20.0	18.5	
79 Ethyl methacrylate	69	9.513	9.513	0.000	89	217347	20.0	19.6	
80 1,1,2-Trichloroethane	97	9.647	9.654	-0.007	90	126781	20.0	19.6	
81 Tetrachloroethene	166	9.727	9.727	0.000	98	156648	20.0	20.6	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	90	200993	20.0	18.7	
84 2-Hexanone	43	9.903	9.910	-0.007	97	882384	100.0	87.5	
85 Chlorodibromomethane	129	10.056	10.056	0.000	89	146340	20.0	19.3	
87 Ethylene Dibromide	107	10.166	10.172	-0.006	99	137625	20.0	18.6	
* 90 Chlorobenzene-d5 (IS)	117	10.641	10.641	0.000	85	888064	50.0	50.0	
91 1-Chlorohexane	91	10.672	10.672	0.000	68	189816	20.0	19.4	
88 Chlorobenzene	112	10.672	10.672	0.000	93	375774	20.0	19.7	
92 1,1,1,2-Tetrachloroethane	131	10.763	10.769	-0.006	97	134461	20.0	19.4	
93 Ethylbenzene	91	10.775	10.775	0.000	98	668793	20.0	19.9	
94 m-Xylene & p-Xylene	106	10.897	10.897	0.000	100	512261	40.0	39.8	
95 o-Xylene	106	11.245	11.251	-0.006	97	250319	20.0	19.7	
96 Styrene	104	11.263	11.269	-0.006	95	415679	20.0	19.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 Bromoform	173	11.421	11.422	-0.001	97	114172	20.0	18.4	
98 Isopropylbenzene	105	11.568	11.568	0.000	96	655937	20.0	20.0	
100 Cyclohexanone	55	11.641	11.647	-0.006	92	191677	500.0	418.0	
$ 101 4-Bromofluorobenzene (Surr)	95	11.714	11.714	0.000	91	448528	50.0	49.7	
102 Bromobenzene	156	11.830	11.830	0.000	92	163488	20.0	19.4	
105 1,1,2,2-Tetrachloroethane	83	11.836	11.836	0.000	92	217560	20.0	18.7	
104 trans-1,4-Dichloro-2-butene	53	11.866	11.867	-0.001	92	371240	100.0	100.2	
103 1,2,3-Trichloropropane	110	11.879	11.879	0.000	84	62511	20.0	18.8	
106 N-Propylbenzene	91	11.915	11.915	0.000	99	794740	20.0	20.6	
107 2-Chlorotoluene	126	11.988	11.988	0.000	97	153466	20.0	19.6	
108 1,3,5-Trimethylbenzene	105	12.062	12.062	0.000	93	541186	20.0	19.9	
109 4-Chlorotoluene	126	12.086	12.086	0.000	98	157905	20.0	19.7	
111 tert-Butylbenzene	134	12.311	12.312	-0.001	93	114005	20.0	20.3	
112 Pentachloroethane	167	12.342	12.342	0.000	92	101681	20.0	19.3	
113 1,2,4-Trimethylbenzene	105	12.354	12.360	-0.006	97	547274	20.0	19.5	
114 sec-Butylbenzene	105	12.482	12.482	0.000	94	689294	20.0	20.5	
115 1,3-Dichlorobenzene	146	12.580	12.580	0.000	98	300453	20.0	19.3	
116 4-Isopropyltoluene	119	12.598	12.598	0.000	97	581533	20.0	20.5	
* 117 1,4-Dichlorobenzene-d4	152	12.635	12.641	-0.006	94	483822	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.653	12.653	0.000	96	309435	20.0	19.5	
119 1,2,3-Trimethylbenzene	105	12.671	12.671	0.000	98	578050	20.0	20.4	
120 Benzyl chloride	91	12.738	12.738	0.000	98	465850	20.0	19.4	
121 1,3-Diethylbenzene	119	12.805	12.805	0.000	95	338552	20.0	19.3	
122 p-Diethylbenzene	119	12.878	12.879	-0.001	93	353062	20.0	19.6	
124 n-Butylbenzene	92	12.897	12.897	0.000	97	288829	20.0	19.9	
125 1,2-Dichlorobenzene	146	12.921	12.921	0.000	99	293251	20.0	19.5	
126 o-diethylbenzene	119	12.952	12.952	0.000	97	279521	20.0	19.6	
127 1,2-Dibromo-3-Chloropropane	75	13.482	13.482	0.000	87	55244	20.0	18.1	
128 1,3,5-Trichlorobenzene	180	13.610	13.610	0.000	98	202784	20.0	19.3	
129 1,2,4-Trichlorobenzene	180	14.049	14.043	0.006	94	190922	20.0	19.4	
131 Hexachlorobutadiene	225	14.134	14.134	0.000	97	79460	20.0	19.9	
132 Naphthalene	128	14.232	14.226	0.006	97	694078	20.0	18.8	
133 1,2,3-Trichlorobenzene	180	14.378	14.372	0.006	96	185906	20.0	19.3	
134 2-Methylnaphthalene	142	14.982	14.976	0.006	92	370361	20.0	18.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_Q#1B_00049	Amount Added:	2.00	Units: uL	
MSV_Q#2B_00052	Amount Added:	2.00	Units: uL	
MSV_Q#3B_00048	Amount Added:	2.00	Units: uL	
MSV_Q#4C_00054	Amount Added:	2.00	Units: uL	
MSV_QCYC_00004	Amount Added:	50.00	Units: uL	
MSV_Q_EE_00002	Amount Added:	50.00	Units: uL	
MSV_Q1B_2CEVE_00060	Amount Added:	2.00	Units: uL	
MSV_QCS#6Std_00047	Amount Added:	2.00	Units: uL	
MSV_QACR_00014	Amount Added:	2.00	Units: uL	
MSV_DCFM_00021	Amount Added:	1.00	Units: uL	
MSV_502QGas_00094	Amount Added:	1.00	Units: uL	
MSV_HP05_ISSS_00003	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 11-Sep-2020 20:18:15 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09V01.D

Injection Date: 09-Sep-2020 17:14:30 Instrument ID: 26285 Operator ID: CLM27445

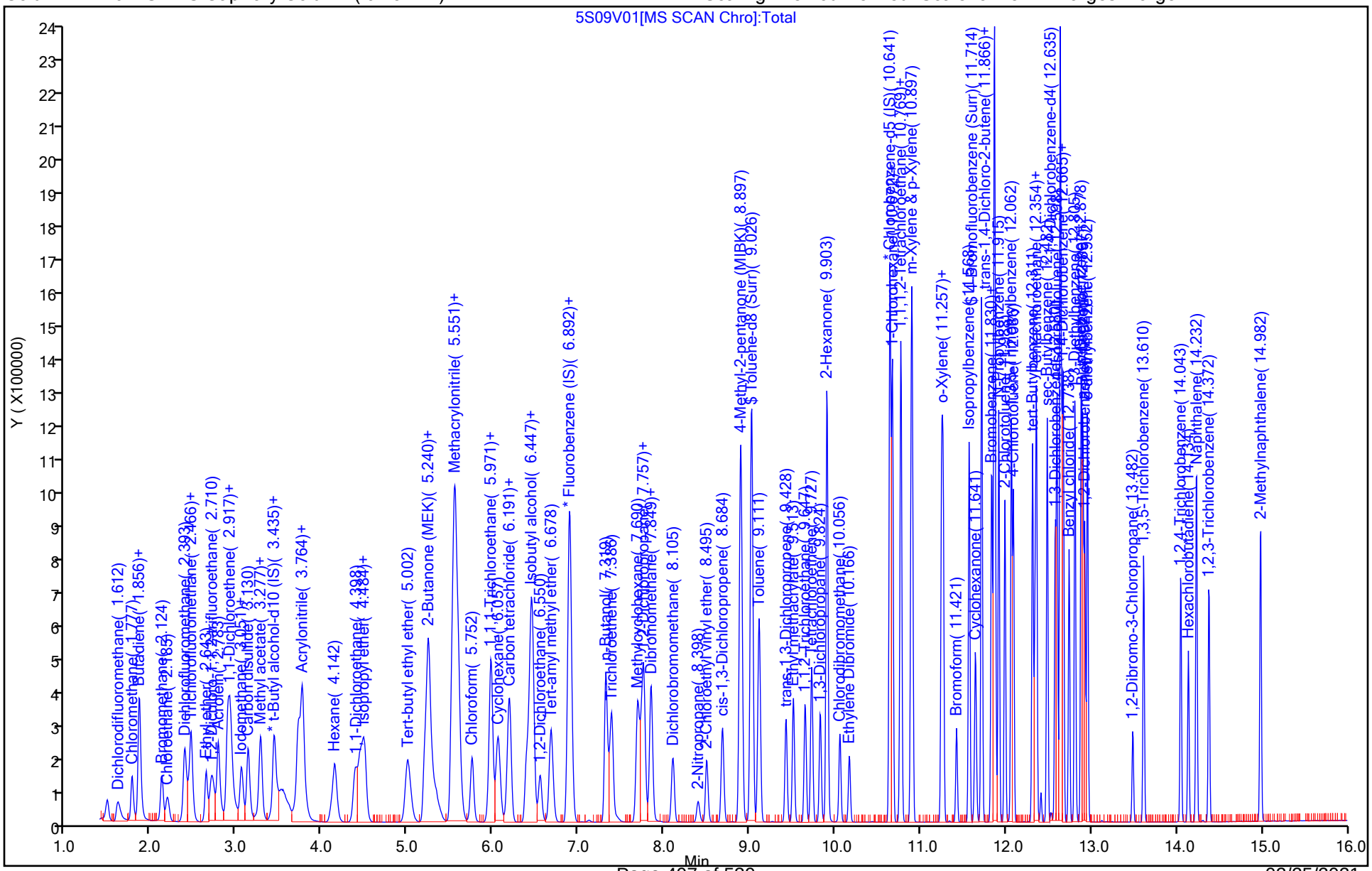
Lims ID: ICV Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 9

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

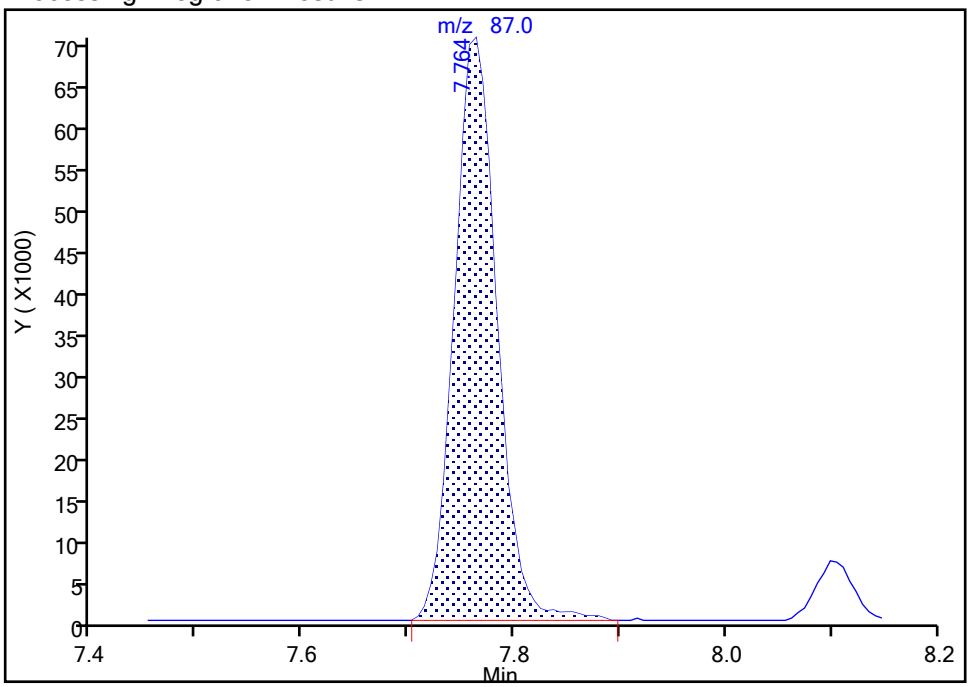
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09V01.D
Injection Date: 09-Sep-2020 17:14:30 Instrument ID: 26285
Lims ID: ICV
Client ID:
Operator ID: CLM27445 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

65 2-ethoxy-2-methyl butane, CAS: 919-94-8

Signal: 1

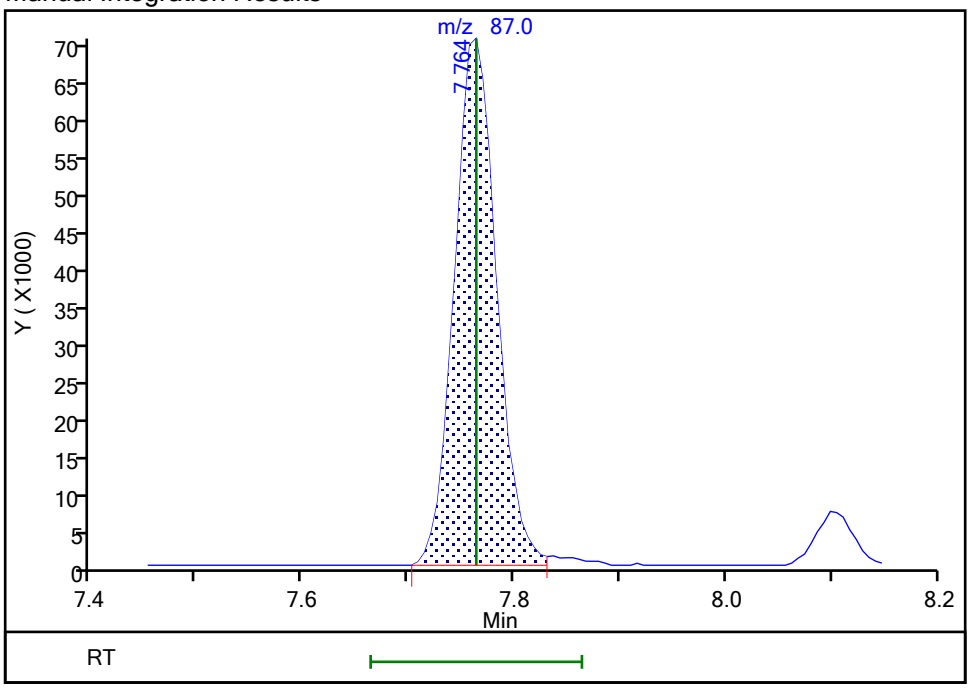
Processing Integration Results

RT: 7.76
Area: 198142
Amount: 20.647496
Amount Units: ug/l



Manual Integration Results

RT: 7.76
Area: 195615
Amount: 20.384169
Amount Units: ug/l



Reviewer: beckerk, 11-Sep-2020 20:17:24
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

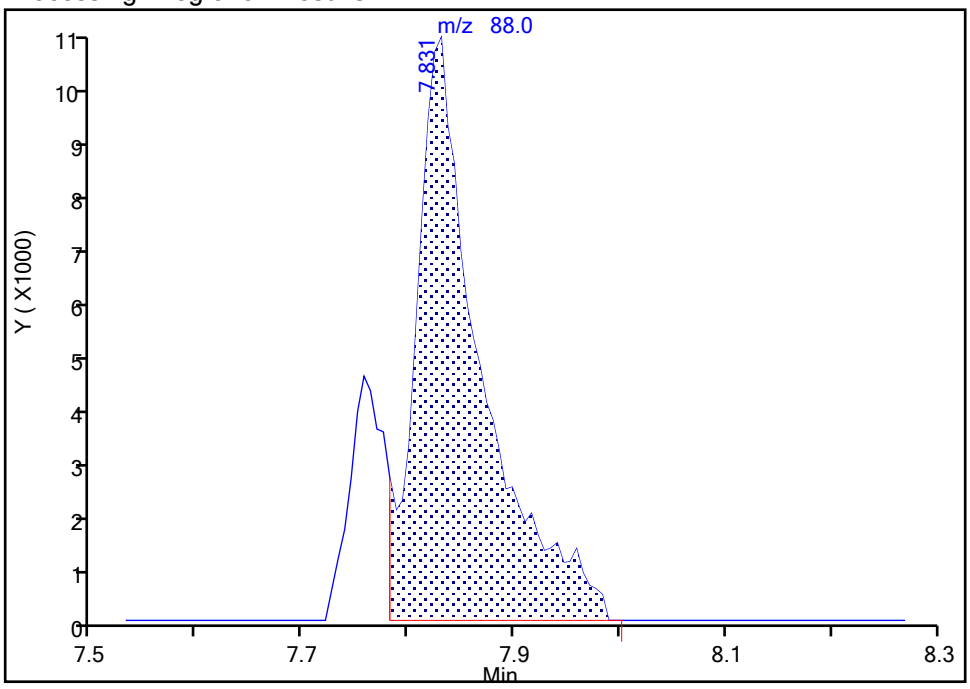
Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09V01.D
Injection Date: 09-Sep-2020 17:14:30 Instrument ID: 26285
Lims ID: ICV
Client ID:
Operator ID: CLM27445 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

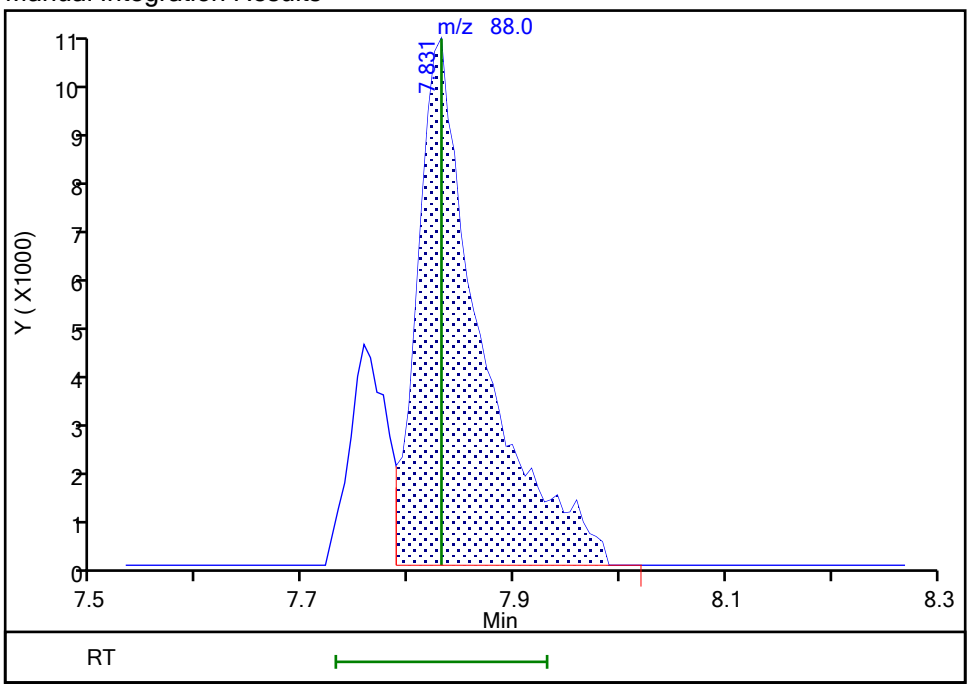
Processing Integration Results

RT: 7.83
Area: 44813
Amount: 464.2657
Amount Units: ug/l



Manual Integration Results

RT: 7.83
Area: 43878
Amount: 454.5791
Amount Units: ug/l



Reviewer: mellingerc, 10-Sep-2020 11:28:47
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-67415/3 Calibration Date: 11/18/2020 10:25

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N18C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3320	0.3160	0.1000	47.6	50.0	-4.8	20.0
Chloromethane	Ave	0.4230	0.3838	0.1000	45.4	50.0	-9.3	20.0
1,3-Butadiene	Ave	0.2852	0.3949		69.2	50.0	38.4*	20.0
Vinyl chloride	Ave	0.3685	0.3544	0.1000	48.1	50.0	-3.8	20.0
Bromomethane	Ave	0.2571	0.2667	0.1000	51.9	50.0	3.7	20.0
Chloroethane	Ave	0.2106	0.2123	0.1000	50.4	50.0	0.8	20.0
Dichlorofluoromethane	Ave	0.5255	0.4126		39.3	50.0	-21.5*	20.0
Trichlorofluoromethane	Ave	0.4373	0.4512	0.1000	51.6	50.0	3.2	20.0
n-Pentane	Ave	0.3718	0.4753		63.9	50.0	27.9*	20.0
Ethyl ether	Ave	0.2377	0.2357		49.6	50.0	-0.8	20.0
Freon 123a	Ave	0.3157	0.3439		54.5	50.0	8.9	20.0
Acrolein	Ave	1.542	1.535		498	500	-0.5	20.0
1,1-Dichloroethene	Ave	0.2302	0.2486	0.1000	54.0	50.0	8.0	20.0
Acetone	Ave	0.7109	0.7513	0.1000	106	100	5.7	20.0
Freon 113	Ave	0.2414	0.2830	0.1000	58.6	50.0	17.3	20.0
Methyl iodide	Ave	0.4702	0.5037		53.6	50.0	7.1	20.0
2-Propanol	Ave	0.5836	0.5650		242	250	-3.2	20.0
Carbon disulfide	Ave	0.8309	0.8718	0.1000	52.5	50.0	4.9	20.0
Methyl acetate	Ave	0.3768	0.3592	0.1000	47.7	50.0	-4.7	20.0
Allyl chloride	Ave	0.4342	0.4216		48.5	50.0	-2.9	20.0
Methylene Chloride	Ave	0.2748	0.2832	0.1000	51.5	50.0	3.1	20.0
t-Butyl alcohol	Ave	1.079	1.099		255	250	1.8	20.0
Acrylonitrile	Ave	0.1769	0.1779		50.3	50.0	0.6	20.0
Methyl tertiary butyl ether	Ave	0.7944	0.7709	0.1000	48.5	50.0	-3.0	20.0
trans-1,2-Dichloroethene	Ave	0.2650	0.2772	0.1000	52.3	50.0	4.6	20.0
n-Hexane	Ave	0.3289	0.4081		62.0	50.0	24.1*	20.0
1,1-Dichloroethane	Ave	0.4905	0.4994	0.2000	50.9	50.0	1.8	20.0
di-Isopropyl ether	Ave	0.8948	0.9250		51.7	50.0	3.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4100	0.4226		51.5	50.0	3.1	20.0
Ethyl t-butyl ether	Ave	0.8282	0.7975		48.1	50.0	-3.7	20.0
2-Butanone	Ave	0.2691	0.2586	0.1000	96.1	100	-3.9	20.0
cis-1,2-Dichloroethene	Ave	0.3069	0.3186	0.1000	51.9	50.0	3.8	20.0
2,2-Dichloropropane	Ave	0.4064	0.3706		45.6	50.0	-8.8	20.0
Propionitrile	Ave	1.187	1.339		282	250	12.9	20.0
Methacrylonitrile	Ave	0.1934	0.1936		125	125	0.1	20.0
Bromochloromethane	Ave	0.1555	0.1529		49.2	50.0	-1.7	20.0
Tetrahydrofuran	Ave	1.139	1.114		97.8	100	-2.2	20.0
Chloroform	Ave	0.4952	0.4900	0.2000	49.5	50.0	-1.0	20.0
1,1,1-Trichloroethane	Ave	0.4265	0.4099	0.1000	48.0	50.0	-3.9	20.0
Cyclohexane	Ave	0.4173	0.4957	0.1000	59.4	50.0	18.8	20.0
Carbon tetrachloride	Ave	0.3674	0.3620	0.1000	49.3	50.0	-1.5	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-67415/3 Calibration Date: 11/18/2020 10:25

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N18C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1-Dichloropropene	Ave	0.3833	0.3983		52.0	50.0	3.9	20.0
Isobutyl alcohol	Ave	0.3578	0.3889		679	625	8.7	20.0
Benzene	Ave	1.160	1.207	0.5000	52.0	50.0	4.1	20.0
1,2-Dichloroethane	Ave	0.3725	0.3402	0.1000	45.7	50.0	-8.7	20.0
t-Amyl methyl ether	Ave	0.8175	0.7796		47.7	50.0	-4.6	20.0
n-Heptane	Ave	0.3397	0.4124		60.7	50.0	21.4*	20.0
n-Butanol	Ave	0.3100	0.3182		1280	1250	2.7	20.0
Trichloroethene	Ave	0.3042	0.3148	0.2000	51.7	50.0	3.5	20.0
Methylcyclohexane	Ave	0.4166	0.4792	0.1000	57.5	50.0	15.0	20.0
1,2-Dichloropropane	Ave	0.3007	0.3167	0.1000	52.7	50.0	5.3	20.0
t-Amyl ethyl ether	Ave	0.4148	0.3919		47.2	50.0	-5.5	20.0
1,4-Dioxane	Ave	0.0661	0.0720	0.0050	681	625	8.9	20.0
Dibromomethane	Ave	0.1967	0.1938		49.3	50.0	-1.5	20.0
Methyl methacrylate	Ave	0.2910	0.2891		49.7	50.0	-0.6	20.0
Bromodichloromethane	Ave	0.3827	0.3680	0.2000	48.1	50.0	-3.8	20.0
2-Nitropropane	Ave	2.014	1.745		86.6	100	-13.4	20.0
2-Chloroethyl vinyl ether	Ave	0.2415	0.2465		51.1	50.0	2.1	20.0
cis-1,3-Dichloropropene	Ave	0.4840	0.4693	0.2000	48.5	50.0	-3.0	20.0
4-Methyl-2-pentanone	Ave	0.5249	0.5271	0.1000	100	100	0.4	20.0
Toluene	Ave	0.9580	1.018	0.4000	53.1	50.0	6.2	20.0
trans-1,3-Dichloropropene	Ave	0.5898	0.5455	0.1000	46.2	50.0	-7.5	20.0
Ethyl methacrylate	Ave	0.6237	0.6351		50.9	50.0	1.8	20.0
1,1,2-Trichloroethane	Ave	0.3639	0.3748	0.1000	51.5	50.0	3.0	20.0
Tetrachloroethene	Ave	0.4271	0.4930	0.2000	57.7	50.0	15.4	20.0
1,3-Dichloropropane	Ave	0.6037	0.6089		50.4	50.0	0.9	20.0
2-Hexanone	Ave	0.5679	0.5680	0.1000	100	100	0.0	20.0
Dibromochloromethane	Ave	0.4273	0.4084		47.8	50.0	-4.4	20.0
1,2-Dibromoethane	Ave	0.4155	0.4177	0.1000	50.3	50.0	0.5	20.0
1-Chlorohexane	Ave	0.5506	0.5776		52.4	50.0	4.9	20.0
Chlorobenzene	Ave	1.076	1.120	0.5000	52.1	50.0	4.1	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3911	0.3930		50.2	50.0	0.5	20.0
Ethylbenzene	Ave	1.897	1.995	0.1000	52.6	50.0	5.2	20.0
m&p-Xylene	Ave	0.7247	0.7705	0.1000	106	100	6.3	20.0
o-Xylene	Ave	0.7153	0.7495	0.3000	52.4	50.0	4.8	20.0
Styrene	Ave	1.194	1.274	0.3000	53.4	50.0	6.7	20.0
Bromoform	Ave	0.3490	0.3342	0.1000	47.9	50.0	-4.2	20.0
Isopropylbenzene	Ave	1.844	1.924	0.1000	52.2	50.0	4.4	20.0
Cyclohexanone	Ave	0.3139	0.2915		580	625	-7.1	20.0
Bromobenzene	Ave	0.8711	0.9344		53.6	50.0	7.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.204	1.227	0.3000	51.0	50.0	1.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3829	0.2776		90.6	125	-27.5*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-67415/3 Calibration Date: 11/18/2020 10:25

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N18C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3432	0.3366		49.0	50.0	-1.9	20.0
N-Propylbenzene	Ave	3.988	4.225		53.0	50.0	6.0	20.0
2-Chlorotoluene	Ave	0.8099	0.8590		53.0	50.0	6.1	20.0
1,3,5-Trimethylbenzene	Ave	2.809	2.896		51.5	50.0	3.1	20.0
4-Chlorotoluene	Ave	0.8290	0.8819		53.2	50.0	6.4	20.0
tert-Butylbenzene	Ave	0.5809	0.6157		53.0	50.0	6.0	20.0
Pentachloroethane	Ave	0.5435	0.4978		45.8	50.0	-8.4	20.0
1,2,4-Trimethylbenzene	Ave	2.896	2.966		51.2	50.0	2.4	20.0
sec-Butylbenzene	Ave	3.474	3.666		52.8	50.0	5.5	20.0
1,3-Dichlorobenzene	Ave	1.609	1.653	0.6000	51.4	50.0	2.7	20.0
p-Isopropyltoluene	Ave	2.936	3.079		52.4	50.0	4.9	20.0
1,4-Dichlorobenzene	Ave	1.638	1.683	0.5000	51.4	50.0	2.8	20.0
1,2,3-Trimethylbenzene	Ave	2.934	2.811		47.9	50.0	-4.2	20.0
Benzyl chloride	Ave	2.477	2.261		45.6	50.0	-8.7	20.0
1,3-Diethylbenzene	Ave	1.814	1.745		48.1	50.0	-3.8	20.0
1,4-Diethylbenzene	Ave	1.859	1.790		48.1	50.0	-3.7	20.0
n-Butylbenzene	Ave	1.503	1.550		51.6	50.0	3.2	20.0
1,2-Dichlorobenzene	Ave	1.557	1.592	0.4000	51.1	50.0	2.3	20.0
1,2-Diethylbenzene	Ave	1.477	1.406		47.6	50.0	-4.8	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3157	0.2838	0.0500	44.9	50.0	-10.1	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.127		52.0	50.0	4.0	20.0
1,2,4-Trichlorobenzene	Ave	1.019	1.053	0.2000	51.7	50.0	3.3	20.0
Hexachlorobutadiene	Ave	0.4119	0.4590		55.7	50.0	11.4	20.0
Naphthalene	Ave	3.822	3.854		50.4	50.0	0.8	20.0
1,2,3-Trichlorobenzene	Ave	0.9940	1.009		50.7	50.0	1.5	20.0
2-Methylnaphthalene	Ave	2.117	1.976		46.7	50.0	-6.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2604	0.2512		48.2	50.0	-3.5	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0569	0.0570		50.1	50.0	0.3	20.0
Toluene-d8 (Surr)	Ave	1.259	1.275		50.7	50.0	1.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5083	0.4822		47.4	50.0	-5.1	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 18-Nov-2020 10:25:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-003
Misc. Info.: CCVIS
Operator ID: clm27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 18-Nov-2020 12:08:09 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: mellingerc Date: 18-Nov-2020 11:05:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	355948	50.0	47.6	
3 Chloromethane	50	1.753	1.753	0.000	99	432323	50.0	45.4	
4 Butadiene	39	1.838	1.838	0.000	92	444850	50.0	69.2	
5 Vinyl chloride	62	1.844	1.844	0.000	97	399278	50.0	48.1	
8 Bromomethane	94	2.100	2.100	0.000	90	300472	50.0	51.9	
9 Chloroethane	64	2.161	2.161	0.000	100	239115	50.0	50.4	
10 Dichlorofluoromethane	67	2.356	2.356	0.000	97	464863	50.0	39.3	
11 Trichlorofluoromethane	101	2.405	2.405	0.000	98	508292	50.0	51.6	
12 Pentane	43	2.429	2.429	0.000	96	535462	50.0	63.9	
14 Ethyl ether	59	2.594	2.594	0.000	94	265633	50.0	49.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.667	2.667	0.000	93	387435	50.0	54.5	
16 Acrolein	56	2.734	2.734	0.000	100	1037724	500.0	497.7	
19 1,1-Dichloroethene	96	2.844	2.844	0.000	98	280041	50.0	54.0	
17 Acetone	58	2.874	2.874	0.000	90	101573	100.0	105.7	
18 112TCTFE	101	2.880	2.880	0.000	91	318809	50.0	58.6	
20 Iodomethane	142	3.002	3.002	0.000	97	567465	50.0	53.6	
21 Isopropyl alcohol	45	3.008	3.008	0.000	37	190952	250.0	242.0	
22 Carbon disulfide	76	3.082	3.082	0.000	99	982063	50.0	52.5	
23 Methyl acetate	43	3.197	3.197	0.000	99	404660	50.0	47.7	
25 3-Chloro-1-propene	41	3.222	3.222	0.000	94	474902	50.0	48.5	
26 Methylene Chloride	84	3.374	3.374	0.000	94	319049	50.0	51.5	
* 27 t-Butyl alcohol-d10 (IS)	65	3.386	3.386	0.000	97	337998	250.0	250.0	
28 2-Methyl-2-propanol	59	3.496	3.496	0.000	100	371417	250.0	254.5	
29 Acrylonitrile	53	3.643	3.643	0.000	98	200369	50.0	50.3	
30 Methyl tert-butyl ether	73	3.691	3.691	0.000	95	868418	50.0	48.5	
31 trans-1,2-Dichloroethene	96	3.697	3.697	0.000	99	312277	50.0	52.3	
32 Hexane	57	4.063	4.063	0.000	93	459688	50.0	62.0	
33 1,1-Dichloroethane	63	4.295	4.295	0.000	96	562615	50.0	50.9	
35 Isopropyl ether	45	4.350	4.350	0.000	97	1042036	50.0	51.7	
36 2-Chloro-1,3-butadiene	53	4.405	4.405	0.000	90	476116	50.0	51.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	4.911	4.911	0.000	99	898357	50.0	48.1	
39 2-Butanone (MEK)	43	5.142	5.142	0.000	100	582711	100.0	96.1	
38 cis-1,2-Dichloroethene	96	5.154	5.154	0.000	81	358860	50.0	51.9	
40 2,2-Dichloropropane	77	5.173	5.173	0.000	90	417462	50.0	45.6	
41 Propionitrile	54	5.246	5.246	0.000	99	452692	250.0	282.1	
43 Methacrylonitrile	67	5.459	5.459	0.000	92	545311	125.0	125.1	
44 Chlorobromomethane	128	5.502	5.502	0.000	98	172224	50.0	49.2	
45 Tetrahydrofuran	71	5.514	5.514	0.000	86	150665	100.0	97.8	
46 Chloroform	83	5.667	5.667	0.000	93	552041	50.0	49.5	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	99	461735	50.0	48.0	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	93	282995	50.0	48.2	
49 Cyclohexane	56	5.990	5.990	0.000	91	558460	50.0	59.4	
51 Carbon tetrachloride	117	6.112	6.112	0.000	96	407774	50.0	49.3	
50 1,1-Dichloropropene	75	6.118	6.118	0.000	97	448712	50.0	52.0	
52 Isobutyl alcohol	41	6.343	6.343	0.000	94	328632	625.0	679.4	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	96	64231	50.0	50.1	
53 Benzene	78	6.398	6.398	0.000	97	1360281	50.0	52.0	
55 1,2-Dichloroethane	62	6.483	6.483	0.000	97	383193	50.0	45.7	
58 Tert-amyl methyl ether	73	6.611	6.611	0.000	99	878207	50.0	47.7	
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1126537	50.0	50.0	
60 n-Heptane	43	6.855	6.855	0.000	94	464583	50.0	60.7	
61 n-Butanol	56	7.270	7.270	0.000	89	537760	1250.0	1283.2	
62 Trichloroethene	95	7.337	7.337	0.000	99	354594	50.0	51.7	
63 Methylcyclohexane	83	7.642	7.642	0.000	89	539841	50.0	57.5	
64 1,2-Dichloropropane	63	7.691	7.691	0.000	97	356782	50.0	52.7	
65 2-ethoxy-2-methyl butane	87	7.715	7.715	0.000	92	441545	50.0	47.2	
68 1,4-Dioxane	88	7.794	7.794	0.000	86	60823	625.0	680.9	M
66 Dibromomethane	93	7.806	7.806	0.000	94	218359	50.0	49.3	
67 Methyl methacrylate	69	7.806	7.806	0.000	93	325678	50.0	49.7	
70 Dichlorobromomethane	83	8.062	8.062	0.000	100	414604	50.0	48.1	
72 2-Nitropropane	41	8.367	8.367	0.000	97	235896	100.0	86.6	
71 2-Chloroethyl vinyl ether	63	8.471	8.471	0.000	91	277744	50.0	51.1	
73 cis-1,3-Dichloropropene	75	8.660	8.660	0.000	97	528710	50.0	48.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.873	8.873	0.000	97	1187593	100.0	100.4	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1081700	50.0	50.7	
77 Toluene	92	9.093	9.093	0.000	98	863129	50.0	53.1	
78 trans-1,3-Dichloropropene	75	9.422	9.422	0.000	92	462670	50.0	46.2	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	538649	50.0	50.9	
80 1,1,2-Trichloroethane	97	9.647	9.647	0.000	89	317879	50.0	51.5	
81 Tetrachloroethene	166	9.727	9.727	0.000	98	418137	50.0	57.7	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	516449	50.0	50.4	
84 2-Hexanone	43	9.910	9.910	0.000	97	963587	100.0	100.0	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	346372	50.0	47.8	
87 Ethylene Dibromide	107	10.178	10.178	0.000	98	354304	50.0	50.3	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	84	848189	50.0	50.0	
88 Chlorobenzene	112	10.696	10.696	0.000	94	950131	50.0	52.1	
91 1-Chlorohexane	91	10.696	10.696	0.000	68	489875	50.0	52.4	
92 1,1,1,2-Tetrachloroethane	131	10.794	10.794	0.000	97	333315	50.0	50.2	
93 Ethylbenzene	91	10.800	10.800	0.000	98	1691826	50.0	52.6	
94 m-Xylene & p-Xylene	106	10.928	10.928	0.000	100	1307035	100.0	106.3	
95 o-Xylene	106	11.287	11.287	0.000	96	635719	50.0	52.4	
96 Styrene	104	11.306	11.306	0.000	95	1080683	50.0	53.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 Bromoform	173	11.464	11.464	0.000	99	283462	50.0	47.9	
98 Isopropylbenzene	105	11.617	11.617	0.000	95	1631845	50.0	52.2	
100 Cyclohexanone	55	11.690	11.690	0.000	92	246284	625.0	580.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	94	409011	50.0	47.4	
102 Bromobenzene	156	11.879	11.879	0.000	89	425533	50.0	53.6	
105 1,1,2,2-Tetrachloroethane	83	11.891	11.891	0.000	93	558842	50.0	51.0	
104 trans-1,4-Dichloro-2-butene	53	11.915	11.915	0.000	86	316094	125.0	90.6	
103 1,2,3-Trichloropropane	110	11.927	11.927	0.000	84	153296	50.0	49.0	
106 N-Propylbenzene	91	11.970	11.970	0.000	99	1924205	50.0	53.0	
107 2-Chlorotoluene	126	12.043	12.043	0.000	97	391205	50.0	53.0	
108 1,3,5-Trimethylbenzene	105	12.116	12.116	0.000	94	1318886	50.0	51.5	
109 4-Chlorotoluene	126	12.141	12.141	0.000	97	401608	50.0	53.2	
111 tert-Butylbenzene	134	12.373	12.373	0.000	93	280418	50.0	53.0	
112 Pentachloroethane	167	12.397	12.397	0.000	92	226716	50.0	45.8	
113 1,2,4-Trimethylbenzene	105	12.415	12.415	0.000	97	1350866	50.0	51.2	
114 sec-Butylbenzene	105	12.543	12.543	0.000	94	1669644	50.0	52.8	
115 1,3-Dichlorobenzene	146	12.641	12.641	0.000	98	752628	50.0	51.4	
116 4-Isopropyltoluene	119	12.665	12.665	0.000	97	1402078	50.0	52.4	
* 117 1,4-Dichlorobenzene-d4	152	12.702	12.702	0.000	93	455409	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.720	12.720	0.000	96	766622	50.0	51.4	
119 1,2,3-Trimethylbenzene	105	12.738	12.738	0.000	98	1280074	50.0	47.9	
120 Benzyl chloride	91	12.805	12.805	0.000	98	1029516	50.0	45.6	
121 1,3-Diethylbenzene	119	12.879	12.879	0.000	95	794724	50.0	48.1	
122 p-Diethylbenzene	119	12.952	12.952	0.000	93	815306	50.0	48.1	
124 n-Butylbenzene	92	12.970	12.970	0.000	98	706018	50.0	51.6	
125 1,2-Dichlorobenzene	146	12.988	12.988	0.000	99	725145	50.0	51.1	
126 o-diethylbenzene	119	13.025	13.025	0.000	95	640382	50.0	47.6	
127 1,2-Dibromo-3-Chloropropane	75	13.561	13.561	0.000	89	129223	50.0	44.9	
128 1,3,5-Trichlorobenzene	180	13.689	13.689	0.000	98	513219	50.0	52.0	
129 1,2,4-Trichlorobenzene	180	14.134	14.134	0.000	94	479667	50.0	51.7	
131 Hexachlorobutadiene	225	14.226	14.226	0.000	95	209035	50.0	55.7	
132 Naphthalene	128	14.317	14.317	0.000	97	1754997	50.0	50.4	
133 1,2,3-Trichlorobenzene	180	14.464	14.464	0.000	95	459352	50.0	50.7	
134 2-Methylnaphthalene	142	15.085	15.085	0.000	92	900103	50.0	46.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA1_00110	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00061	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00122	Amount Added:	5.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00171	Amount Added:	2.50	Units: uL	
MSV_DCFM_00054	Amount Added:	2.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 18-Nov-2020 12:08:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18C01.D

Injection Date: 18-Nov-2020 10:25:30 Instrument ID: 26285 Operator ID: clm27445

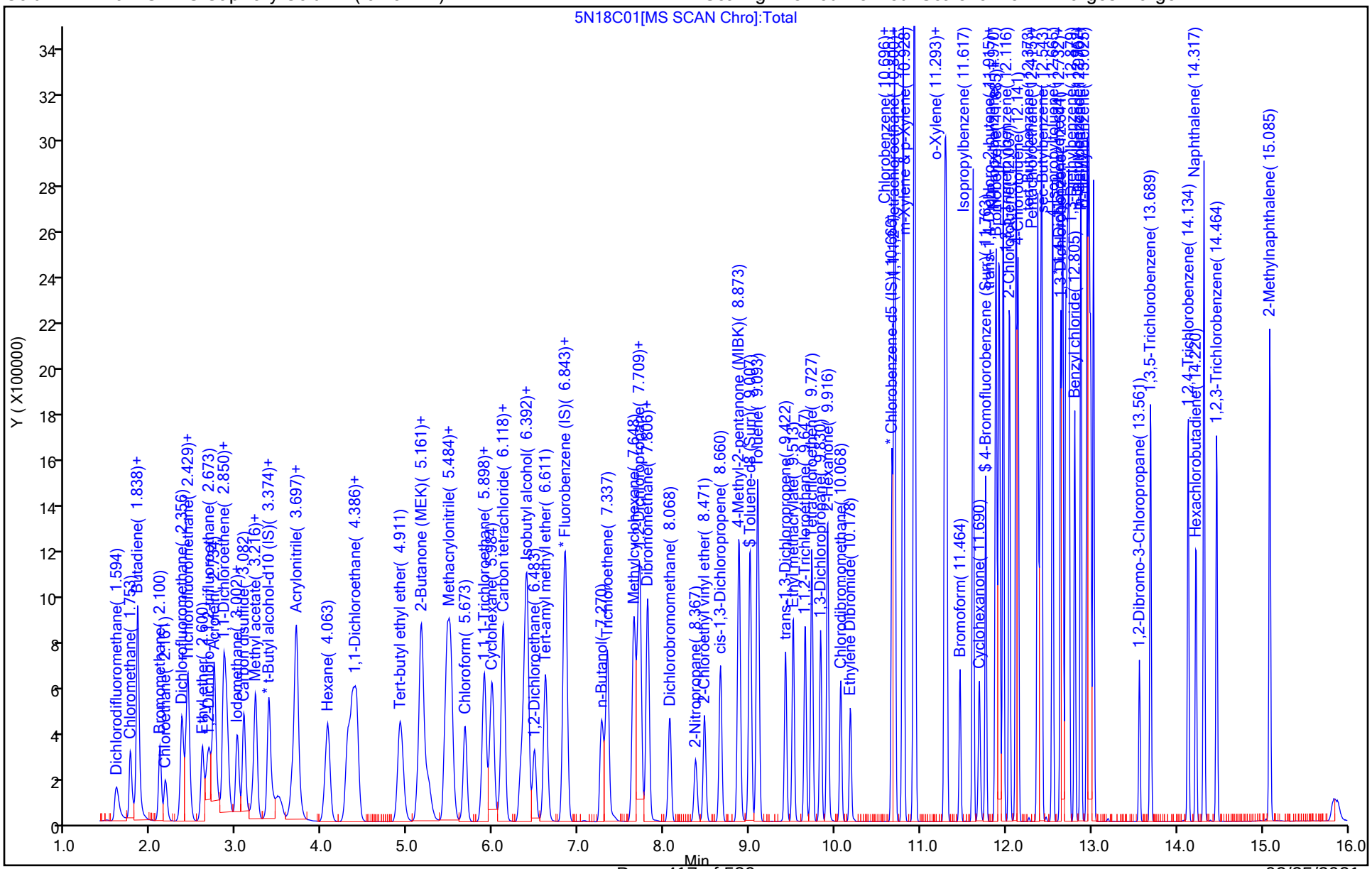
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

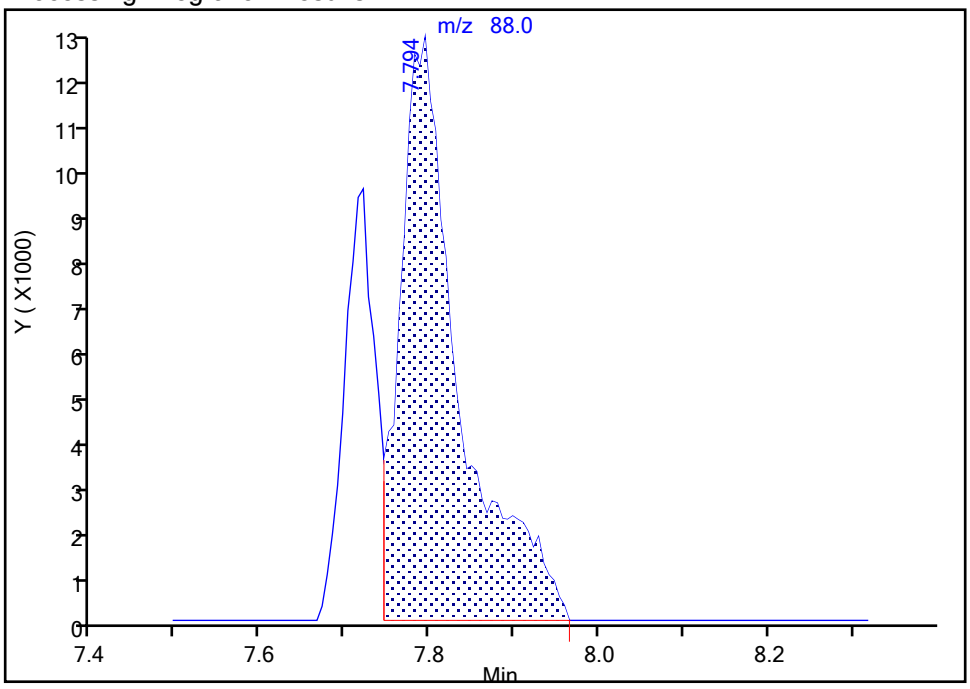
Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18C01.D
Injection Date: 18-Nov-2020 10:25:30 Instrument ID: 26285
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

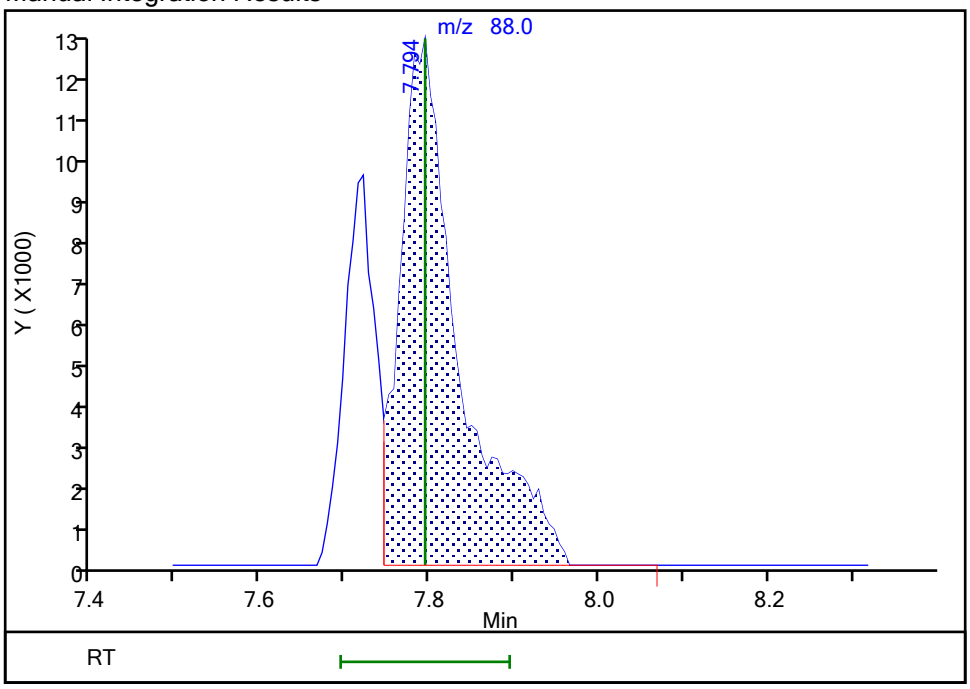
Processing Integration Results

RT: 7.79
Area: 60824
Amount: 680.8898
Amount Units: ug/l



Manual Integration Results

RT: 7.79
Area: 60823
Amount: 680.8786
Amount Units: ug/l



Reviewer: mellingerc, 18-Nov-2020 10:59:53
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68196/3 Calibration Date: 11/19/2020 20:04

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N19C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3320	0.3605	0.1000	54.3	50.0	8.6	20.0
Chloromethane	Ave	0.4230	0.4090	0.1000	48.3	50.0	-3.3	20.0
1,3-Butadiene	Ave	0.2852	0.4477		78.5	50.0	57.0*	20.0
Vinyl chloride	Ave	0.3685	0.3754	0.1000	50.9	50.0	1.9	20.0
Bromomethane	Ave	0.2571	0.2832	0.1000	55.1	50.0	10.1	20.0
Chloroethane	Ave	0.2106	0.2200	0.1000	52.3	50.0	4.5	20.0
Trichlorofluoromethane	Ave	0.4373	0.4578	0.1000	52.3	50.0	4.7	20.0
n-Pentane	Ave	0.3718	0.4786		64.4	50.0	28.7*	20.0
Ethyl ether	Ave	0.2377	0.2356		49.6	50.0	-0.9	20.0
Freon 123a	Ave	0.3157	0.3458		54.8	50.0	9.5	20.0
Acrolein	Ave	1.542	1.611		522	500	4.5	20.0
1,1-Dichloroethene	Ave	0.2302	0.2482	0.1000	53.9	50.0	7.8	20.0
Acetone	Ave	0.7109	0.8468	0.1000	119	100	19.1	20.0
Freon 113	Ave	0.2414	0.2855	0.1000	59.1	50.0	18.3	20.0
2-Propanol	Ave	0.5836	0.7001		300	250	20.0	20.0
Methyl iodide	Ave	0.4702	0.5182		55.1	50.0	10.2	20.0
Carbon disulfide	Ave	0.8309	0.8881	0.1000	53.4	50.0	6.9	20.0
Methyl acetate	Ave	0.3768	0.3817	0.1000	50.6	50.0	1.3	20.0
Allyl chloride	Ave	0.4342	0.4223		48.6	50.0	-2.7	20.0
Methylene Chloride	Ave	0.2748	0.2922	0.1000	53.2	50.0	6.4	20.0
t-Butyl alcohol	Ave	1.079	1.180		273	250	9.4	20.0
Acrylonitrile	Ave	0.1769	0.2173		61.4	50.0	22.9*	20.0
Methyl tertiary butyl ether	Ave	0.7944	0.8176	0.1000	51.5	50.0	2.9	20.0
trans-1,2-Dichloroethene	Ave	0.2650	0.2846	0.1000	53.7	50.0	7.4	20.0
n-Hexane	Ave	0.3289	0.4082		62.1	50.0	24.1*	20.0
1,1-Dichloroethane	Ave	0.4905	0.5078	0.2000	51.8	50.0	3.5	20.0
di-Isopropyl ether	Ave	0.8948	0.9473		52.9	50.0	5.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4100	0.4197		51.2	50.0	2.4	20.0
Ethyl t-butyl ether	Ave	0.8282	0.8444		51.0	50.0	2.0	20.0
2-Butanone	Ave	0.2691	0.3095	0.1000	115	100	15.0	20.0
cis-1,2-Dichloroethene	Ave	0.3069	0.3243	0.1000	52.8	50.0	5.7	20.0
2,2-Dichloropropane	Ave	0.4064	0.3812		46.9	50.0	-6.2	20.0
Propionitrile	Ave	1.187	1.326		279	250	11.7	20.0
Methacrylonitrile	Ave	0.1934	0.2032		131	125	5.0	20.0
Bromochloromethane	Ave	0.1555	0.1621		52.1	50.0	4.2	20.0
Tetrahydrofuran	Ave	1.139	1.220		107	100	7.1	20.0
Chloroform	Ave	0.4952	0.4976	0.2000	50.2	50.0	0.5	20.0
1,1,1-Trichloroethane	Ave	0.4265	0.4158	0.1000	48.7	50.0	-2.5	20.0
Cyclohexane	Ave	0.4173	0.4963	0.1000	59.5	50.0	18.9	20.0
Carbon tetrachloride	Ave	0.3674	0.3644	0.1000	49.6	50.0	-0.8	20.0
1,1-Dichloropropene	Ave	0.3833	0.3986		52.0	50.0	4.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68196/3 Calibration Date: 11/19/2020 20:04

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N19C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3578	0.3990		697	625	11.5	20.0
Benzene	Ave	1.160	1.231	0.5000	53.0	50.0	6.1	20.0
1,2-Dichloroethane	Ave	0.3725	0.3501	0.1000	47.0	50.0	-6.0	20.0
t-Amyl methyl ether	Ave	0.8175	0.8251		50.5	50.0	0.9	20.0
n-Heptane	Ave	0.3397	0.3967		58.4	50.0	16.8	20.0
n-Butanol	Ave	0.3100	0.3405		1370	1250	9.9	20.0
Trichloroethene	Ave	0.3042	0.3147	0.2000	51.7	50.0	3.4	20.0
Methylcyclohexane	Ave	0.4166	0.4845	0.1000	58.1	50.0	16.3	20.0
1,2-Dichloropropane	Ave	0.3007	0.3231	0.1000	53.7	50.0	7.5	20.0
t-Amyl ethyl ether	Ave	0.4148	0.4145		50.0	50.0	-0.0	20.0
1,4-Dioxane	Ave	0.0661	0.0828	0.0050	784	625	25.4*	20.0
Dibromomethane	Ave	0.1967	0.2005		51.0	50.0	1.9	20.0
Methyl methacrylate	Ave	0.2910	0.3053		52.5	50.0	4.9	20.0
Bromodichloromethane	Ave	0.3827	0.3831	0.2000	50.1	50.0	0.1	20.0
2-Nitropropane	Ave	2.014	1.833		91.0	100	-9.0	20.0
2-Chloroethyl vinyl ether	Ave	0.2415	0.2568		53.2	50.0	6.3	20.0
cis-1,3-Dichloropropene	Ave	0.4840	0.4901	0.2000	50.6	50.0	1.3	20.0
4-Methyl-2-pentanone	Ave	0.5249	0.5921	0.1000	113	100	12.8	20.0
Toluene	Ave	0.9580	1.035	0.4000	54.0	50.0	8.1	20.0
trans-1,3-Dichloropropene	Ave	0.5898	0.5775	0.1000	49.0	50.0	-2.1	20.0
Ethyl methacrylate	Ave	0.6237	0.6567		52.6	50.0	5.3	20.0
1,1,2-Trichloroethane	Ave	0.3639	0.3916	0.1000	53.8	50.0	7.6	20.0
Tetrachloroethene	Ave	0.4271	0.4752	0.2000	55.6	50.0	11.3	20.0
1,3-Dichloropropane	Ave	0.6037	0.6294		52.1	50.0	4.3	20.0
2-Hexanone	Ave	0.5679	0.6196	0.1000	109	100	9.1	20.0
Dibromochloromethane	Ave	0.4273	0.4368		51.1	50.0	2.2	20.0
1,2-Dibromoethane	Ave	0.4155	0.4359	0.1000	52.5	50.0	4.9	20.0
1-Chlorohexane	Ave	0.5506	0.5731		52.0	50.0	4.1	20.0
Chlorobenzene	Ave	1.076	1.160	0.5000	53.9	50.0	7.8	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3911	0.4133		52.8	50.0	5.7	20.0
Ethylbenzene	Ave	1.897	2.031	0.1000	53.5	50.0	7.1	20.0
m&p-Xylene	Ave	0.7247	0.7831	0.1000	108	100	8.1	20.0
o-Xylene	Ave	0.7153	0.7743	0.3000	54.1	50.0	8.3	20.0
Styrene	Ave	1.194	1.297	0.3000	54.3	50.0	8.6	20.0
Bromoform	Ave	0.3490	0.3590	0.1000	51.4	50.0	2.8	20.0
Isopropylbenzene	Ave	1.844	1.947	0.1000	52.8	50.0	5.6	20.0
Cyclohexanone	Ave	0.3139	0.3776		752	625	20.3*	20.0
Bromobenzene	Ave	0.8711	0.9675		55.5	50.0	11.1	20.0
1,1,2,2-Tetrachloroethane	Ave	1.204	1.309	0.3000	54.4	50.0	8.7	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3829	0.2263		73.9	125	-40.9*	20.0
1,2,3-Trichloropropane	Ave	0.3432	0.3584		52.2	50.0	4.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68196/3 Calibration Date: 11/19/2020 20:04

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N19C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Propylbenzene	Ave	3.988	4.343		54.5	50.0	8.9	20.0
2-Chlorotoluene	Ave	0.8099	0.8874		54.8	50.0	9.6	20.0
1,3,5-Trimethylbenzene	Ave	2.809	2.990		53.2	50.0	6.4	20.0
4-Chlorotoluene	Ave	0.8290	0.9032		54.5	50.0	8.9	20.0
tert-Butylbenzene	Ave	0.5809	0.6460		55.6	50.0	11.2	20.0
Pentachloroethane	Ave	0.5435	0.5822		53.6	50.0	7.1	20.0
1,2,4-Trimethylbenzene	Ave	2.896	3.080		53.2	50.0	6.3	20.0
sec-Butylbenzene	Ave	3.474	3.776		54.3	50.0	8.7	20.0
1,3-Dichlorobenzene	Ave	1.609	1.733	0.6000	53.9	50.0	7.7	20.0
p-Isopropyltoluene	Ave	2.936	3.178		54.1	50.0	8.2	20.0
1,4-Dichlorobenzene	Ave	1.638	1.765	0.5000	53.9	50.0	7.7	20.0
1,2,3-Trimethylbenzene	Ave	2.934	3.037		51.8	50.0	3.5	20.0
Benzyl chloride	Ave	2.477	2.435		49.2	50.0	-1.7	20.0
1,3-Diethylbenzene	Ave	1.814	1.859		51.3	50.0	2.5	20.0
1,4-Diethylbenzene	Ave	1.859	1.915		51.5	50.0	3.0	20.0
n-Butylbenzene	Ave	1.503	1.554		51.7	50.0	3.4	20.0
1,2-Dichlorobenzene	Ave	1.557	1.688	0.4000	54.2	50.0	8.5	20.0
1,2-Diethylbenzene	Ave	1.477	1.511		51.1	50.0	2.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3157	0.3117	0.0500	49.4	50.0	-1.3	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.193		55.0	50.0	10.1	20.0
1,2,4-Trichlorobenzene	Ave	1.019	1.114	0.2000	54.6	50.0	9.3	20.0
Hexachlorobutadiene	Ave	0.4119	0.4574		55.5	50.0	11.0	20.0
Naphthalene	Ave	3.822	4.152		54.3	50.0	8.6	20.0
1,2,3-Trichlorobenzene	Ave	0.9940	1.093		55.0	50.0	9.9	20.0
2-Methylnaphthalene	Ave	2.117	2.204		52.1	50.0	4.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2604	0.2467		47.4	50.0	-5.2	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0569	0.0561		49.3	50.0	-1.4	20.0
Toluene-d8 (Surr)	Ave	1.259	1.266		50.3	50.0	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5083	0.4787		47.1	50.0	-5.8	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19C35.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 19-Nov-2020 20:04:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-003
Misc. Info.: CCVIS
Operator ID: etp33087 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub9

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:16:25 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1669

First Level Reviewer: proctore Date: 19-Nov-2020 20:48:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	402810	50.0	54.3	
3 Chloromethane	50	1.759	1.759	0.000	99	457026	50.0	48.3	
4 Butadiene	39	1.850	1.850	0.000	91	500295	50.0	78.5	
5 Vinyl chloride	62	1.850	1.850	0.000	98	419462	50.0	50.9	
8 Bromomethane	94	2.112	2.112	0.000	90	316439	50.0	55.1	
9 Chloroethane	64	2.179	2.179	0.000	100	245884	50.0	52.3	
11 Trichlorofluoromethane	101	2.423	2.423	0.000	98	511501	50.0	52.3	
12 Pentane	43	2.448	2.448	0.000	97	534795	50.0	64.4	
14 Ethyl ether	59	2.618	2.618	0.000	94	263308	50.0	49.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.692	2.692	0.000	93	386403	50.0	54.8	
16 Acrolein	56	2.759	2.759	0.000	100	1220521	500.0	522.3	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	98	277396	50.0	53.9	
17 Acetone	58	2.899	2.899	0.000	100	128331	100.0	119.1	
18 112TCTFE	101	2.905	2.905	0.000	89	318995	50.0	59.1	
20 Iodomethane	142	3.033	3.033	0.000	97	579097	50.0	55.1	
21 Isopropyl alcohol	45	3.033	3.033	0.000	39	265261	250.0	299.9	
22 Carbon disulfide	76	3.112	3.112	0.000	99	992427	50.0	53.4	
23 Methyl acetate	43	3.228	3.228	0.000	98	426467	50.0	50.6	
25 3-Chloro-1-propene	41	3.246	3.246	0.000	94	471917	50.0	48.6	
26 Methylene Chloride	84	3.405	3.405	0.000	93	326525	50.0	53.2	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	96	378867	250.0	250.0	
28 2-Methyl-2-propanol	59	3.515	3.515	0.000	100	447217	250.0	273.4	
29 Acrylonitrile	53	3.673	3.673	0.000	100	242855	50.0	61.4	
30 Methyl tert-butyl ether	73	3.728	3.728	0.000	95	913654	50.0	51.5	
31 trans-1,2-Dichloroethene	96	3.734	3.734	0.000	99	318038	50.0	53.7	
32 Hexane	57	4.106	4.106	0.000	93	456095	50.0	62.1	
33 1,1-Dichloroethane	63	4.338	4.338	0.000	96	567408	50.0	51.8	
35 Isopropyl ether	45	4.399	4.399	0.000	97	1058484	50.0	52.9	
36 2-Chloro-1,3-butadiene	53	4.447	4.447	0.000	91	469028	50.0	51.2	
37 Tert-butyl ethyl ether	59	4.959	4.959	0.000	99	943522	50.0	51.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
39 2-Butanone (MEK)	43	5.185	5.185	0.000	100	691725	100.0	115.0	
38 cis-1,2-Dichloroethene	96	5.203	5.203	0.000	81	362420	50.0	52.8	
40 2,2-Dichloropropane	77	5.215	5.215	0.000	86	425939	50.0	46.9	
41 Propionitrile	54	5.282	5.282	0.000	99	502408	250.0	279.3	
43 Methacrylonitrile	67	5.502	5.502	0.000	92	567568	125.0	131.3	
44 Chlorobromomethane	128	5.539	5.539	0.000	97	181083	50.0	52.1	
45 Tetrahydrofuran	71	5.551	5.551	0.000	81	184958	100.0	107.1	
46 Chloroform	83	5.709	5.709	0.000	93	556031	50.0	50.2	
48 1,1,1-Trichloroethane	97	5.929	5.929	0.000	98	464608	50.0	48.7	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	93	275694	50.0	47.4	
49 Cyclohexane	56	6.020	6.020	0.000	91	554596	50.0	59.5	
51 Carbon tetrachloride	117	6.142	6.142	0.000	97	407190	50.0	49.6	
50 1,1-Dichloropropene	75	6.154	6.154	0.000	97	445427	50.0	52.0	
52 Isobutyl alcohol	41	6.374	6.374	0.000	95	377886	625.0	697.0	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	98	62679	50.0	49.3	
53 Benzene	78	6.429	6.429	0.000	97	1375429	50.0	53.0	
55 1,2-Dichloroethane	62	6.514	6.514	0.000	97	391158	50.0	47.0	
58 Tert-amyl methyl ether	73	6.648	6.648	0.000	99	921967	50.0	50.5	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1117424	50.0	50.0	
60 n-Heptane	43	6.886	6.886	0.000	92	443284	50.0	58.4	
61 n-Butanol	56	7.294	7.294	0.000	89	645012	1250.0	1373.1	
62 Trichloroethene	95	7.361	7.361	0.000	98	351631	50.0	51.7	
63 Methylcyclohexane	83	7.672	7.672	0.000	89	541369	50.0	58.1	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	95	361076	50.0	53.7	
65 2-ethoxy-2-methyl butane	87	7.739	7.739	0.000	92	463226	50.0	50.0	
68 1,4-Dioxane	88	7.806	7.806	0.000	84	78461	625.0	783.6	
66 Dibromomethane	93	7.825	7.825	0.000	96	224073	50.0	51.0	
67 Methyl methacrylate	69	7.831	7.831	0.000	94	341135	50.0	52.5	
70 Dichlorobromomethane	83	8.087	8.087	0.000	100	428128	50.0	50.1	
72 2-Nitropropane	41	8.386	8.386	0.000	98	277770	100.0	91.0	
71 2-Chloroethyl vinyl ether	63	8.489	8.489	0.000	91	286941	50.0	53.2	
73 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	97	547677	50.0	50.6	
75 4-Methyl-2-pentanone (MIBK)	43	8.885	8.885	0.000	96	1323351	100.0	112.8	
$ 76 Toluene-d8 (Surr)	98	9.020	9.020	0.000	93	1059558	50.0	50.3	
77 Toluene	92	9.105	9.105	0.000	98	866342	50.0	54.0	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	483160	50.0	49.0	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	549459	50.0	52.6	
80 1,1,2-Trichloroethane	97	9.654	9.654	0.000	89	327661	50.0	53.8	
81 Tetrachloroethene	166	9.733	9.733	0.000	98	397617	50.0	55.6	
82 1,3-Dichloropropane	76	9.836	9.836	0.000	91	526607	50.0	52.1	
84 2-Hexanone	43	9.910	9.910	0.000	97	1036798	100.0	109.1	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	365500	50.0	51.1	
87 Ethylene Dibromide	107	10.178	10.178	0.000	99	364747	50.0	52.5	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	83	836697	50.0	50.0	
88 Chlorobenzene	112	10.690	10.690	0.000	94	970805	50.0	53.9	
91 1-Chlorohexane	91	10.690	10.690	0.000	68	479543	50.0	52.0	
92 1,1,1,2-Tetrachloroethane	131	10.788	10.788	0.000	97	345845	50.0	52.8	
93 Ethylbenzene	91	10.794	10.794	0.000	98	1699029	50.0	53.5	
94 m-Xylene & p-Xylene	106	10.922	10.922	0.000	100	1310438	100.0	108.1	
95 o-Xylene	106	11.275	11.275	0.000	96	647893	50.0	54.1	
96 Styrene	104	11.294	11.294	0.000	95	1085321	50.0	54.3	
97 Bromoform	173	11.446	11.446	0.000	99	300346	50.0	51.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 Isopropylbenzene	105	11.598	11.598	0.000	95	1629214	50.0	52.8	
100 Cyclohexanone	55	11.671	11.671	0.000	91	357622	625.0	751.8	
$ 101 4-Bromofluorobenzene (Surr)	95	11.745	11.745	0.000	95	400554	50.0	47.1	
102 Bromobenzene	156	11.860	11.860	0.000	90	430315	50.0	55.5	
105 1,1,2,2-Tetrachloroethane	83	11.867	11.867	0.000	93	582067	50.0	54.4	
104 trans-1,4-Dichloro-2-butene	53	11.897	11.897	0.000	86	251646	125.0	73.9	
103 1,2,3-Trichloropropane	110	11.909	11.909	0.000	84	159414	50.0	52.2	
106 N-Propylbenzene	91	11.946	11.946	0.000	99	1931929	50.0	54.5	
107 2-Chlorotoluene	126	12.025	12.025	0.000	97	394718	50.0	54.8	
108 1,3,5-Trimethylbenzene	105	12.098	12.098	0.000	95	1330032	50.0	53.2	
109 4-Chlorotoluene	126	12.123	12.123	0.000	97	401712	50.0	54.5	
111 tert-Butylbenzene	134	12.348	12.348	0.000	93	287333	50.0	55.6	
112 Pentachloroethane	167	12.379	12.379	0.000	91	258963	50.0	53.6	
113 1,2,4-Trimethylbenzene	105	12.397	12.397	0.000	97	1369930	50.0	53.2	
114 sec-Butylbenzene	105	12.519	12.519	0.000	94	1679712	50.0	54.3	
115 1,3-Dichlorobenzene	146	12.616	12.616	0.000	98	770715	50.0	53.9	
116 4-Isopropyltoluene	119	12.641	12.641	0.000	97	1413360	50.0	54.1	
* 117 1,4-Dichlorobenzene-d4	152	12.677	12.677	0.000	93	444789	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.696	12.696	0.000	96	785014	50.0	53.9	
119 1,2,3-Trimethylbenzene	105	12.714	12.714	0.000	98	1350822	50.0	51.8	
120 Benzyl chloride	91	12.781	12.781	0.000	98	1083116	50.0	49.2	
121 1,3-Diethylbenzene	119	12.848	12.848	0.000	95	826963	50.0	51.3	
122 p-Diethylbenzene	119	12.921	12.921	0.000	93	851984	50.0	51.5	
124 n-Butylbenzene	92	12.940	12.940	0.000	98	691287	50.0	51.7	
125 1,2-Dichlorobenzene	146	12.964	12.964	0.000	99	750990	50.0	54.2	
126 o-diethylbenzene	119	12.994	12.994	0.000	96	671974	50.0	51.1	
127 1,2-Dibromo-3-Chloropropane	75	13.531	13.531	0.000	90	138654	50.0	49.4	
128 1,3,5-Trichlorobenzene	180	13.659	13.659	0.000	98	530647	50.0	55.0	
129 1,2,4-Trichlorobenzene	180	14.098	14.098	0.000	94	495421	50.0	54.6	
131 Hexachlorobutadiene	225	14.189	14.189	0.000	94	203425	50.0	55.5	
132 Naphthalene	128	14.281	14.281	0.000	97	1846647	50.0	54.3	
133 1,2,3-Trichlorobenzene	180	14.427	14.427	0.000	96	486027	50.0	55.0	
134 2-Methylnaphthalene	142	15.043	15.043	0.000	93	980469	50.0	52.1	

QC Flag Legend

Processing Flags

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA1_00111	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00123	Amount Added:	5.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00173	Amount Added:	2.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 19-Nov-2020 23:16:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19C35.D

Injection Date: 19-Nov-2020 20:04:30 Instrument ID: 26285 Operator ID: etp33087

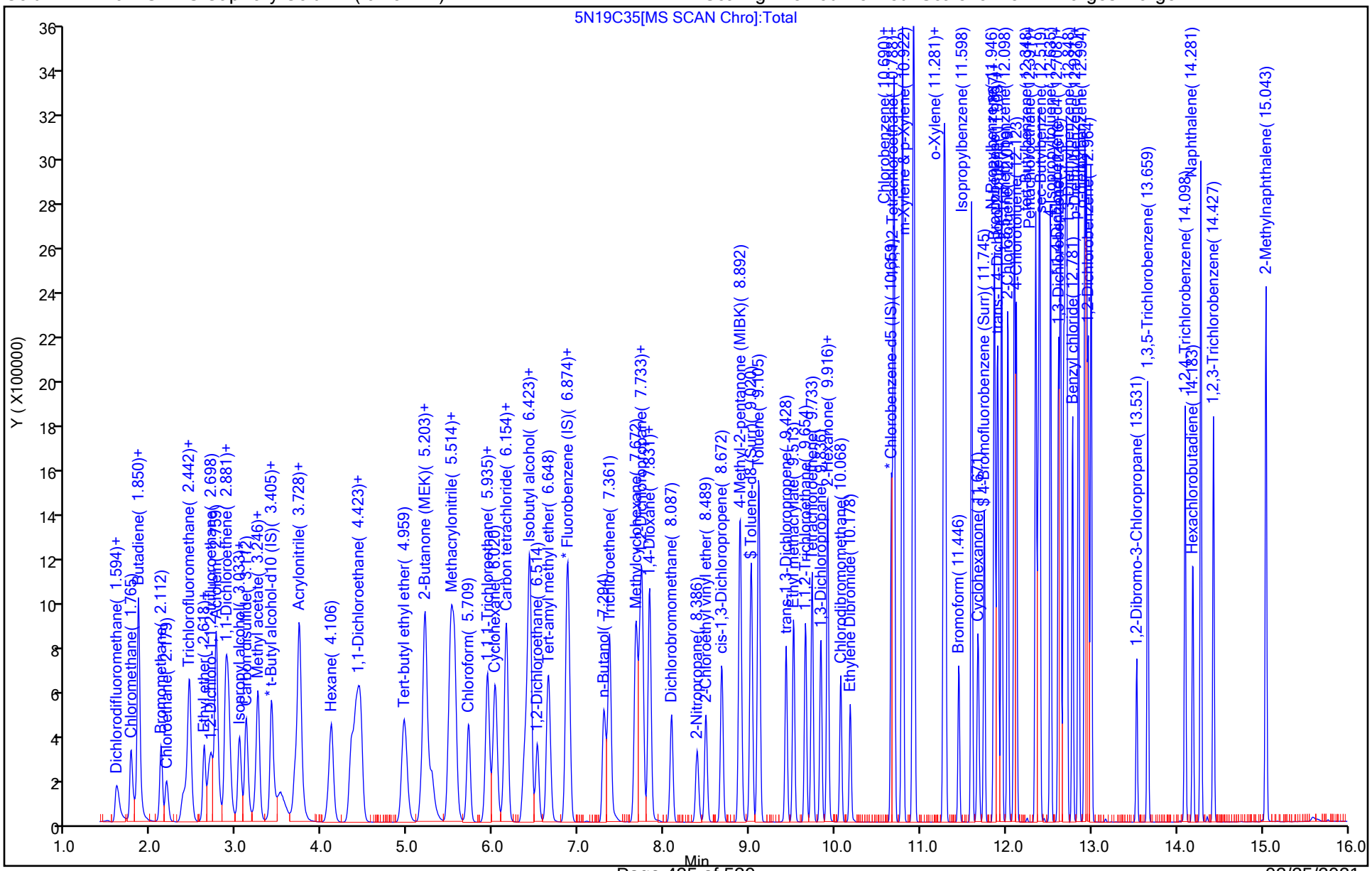
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68468/3 Calibration Date: 11/20/2020 09:00

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3320	0.3195	0.1000	48.1	50.0	-3.8	20.0
Chloromethane	Ave	0.4230	0.3482	0.1000	41.2	50.0	-17.7	20.0
1,3-Butadiene	Ave	0.2852	0.3965		69.5	50.0	39.0*	20.0
Vinyl chloride	Ave	0.3685	0.3302	0.1000	44.8	50.0	-10.4	20.0
Bromomethane	Ave	0.2571	0.2515	0.1000	48.9	50.0	-2.2	20.0
Chloroethane	Ave	0.2106	0.1939	0.1000	46.0	50.0	-7.9	20.0
Dichlorofluoromethane	Ave	0.5255	0.4689		44.6	50.0	-10.8	20.0
Trichlorofluoromethane	Ave	0.4373	0.4074	0.1000	46.6	50.0	-6.8	20.0
n-Pentane	Ave	0.3718	0.4466		60.1	50.0	20.1*	20.0
Ethyl ether	Ave	0.2377	0.2257		47.5	50.0	-5.0	20.0
Freon 123a	Ave	0.3157	0.3329		52.7	50.0	5.4	20.0
Acrolein	Ave	1.542	1.406		456	500	-8.8	20.0
1,1-Dichloroethene	Ave	0.2302	0.2452	0.1000	53.3	50.0	6.5	20.0
Acetone	Ave	0.7109	0.7447	0.1000	105	100	4.8	20.0
Freon 113	Ave	0.2414	0.2717	0.1000	56.3	50.0	12.6	20.0
2-Propanol	Ave	0.5836	0.6831		293	250	17.1	20.0
Methyl iodide	Ave	0.4702	0.5107		54.3	50.0	8.6	20.0
Carbon disulfide	Ave	0.8309	0.8621	0.1000	51.9	50.0	3.8	20.0
Methyl acetate	Ave	0.3768	0.3622	0.1000	48.1	50.0	-3.9	20.0
Allyl chloride	Ave	0.4342	0.4002		46.1	50.0	-7.8	20.0
Methylene Chloride	Ave	0.2748	0.2870	0.1000	52.2	50.0	4.5	20.0
t-Butyl alcohol	Ave	1.079	1.109		257	250	2.8	20.0
Acrylonitrile	Ave	0.1769	0.1826		51.6	50.0	3.2	20.0
Methyl tertiary butyl ether	Ave	0.7944	0.7930	0.1000	49.9	50.0	-0.2	20.0
trans-1,2-Dichloroethene	Ave	0.2650	0.2787	0.1000	52.6	50.0	5.2	20.0
n-Hexane	Ave	0.3289	0.3805		57.9	50.0	15.7	20.0
1,1-Dichloroethane	Ave	0.4905	0.4971	0.2000	50.7	50.0	1.3	20.0
di-Isopropyl ether	Ave	0.8948	0.9198		51.4	50.0	2.8	20.0
2-Chloro-1,3-butadiene	Ave	0.4100	0.4090		49.9	50.0	-0.2	20.0
Ethyl t-butyl ether	Ave	0.8282	0.8137		49.1	50.0	-1.8	20.0
2-Butanone	Ave	0.2691	0.2558	0.1000	95.1	100	-4.9	20.0
cis-1,2-Dichloroethene	Ave	0.3069	0.3203	0.1000	52.2	50.0	4.4	20.0
2,2-Dichloropropane	Ave	0.4064	0.3763		46.3	50.0	-7.4	20.0
Propionitrile	Ave	1.187	1.284		270	250	8.2	20.0
Methacrylonitrile	Ave	0.1934	0.1976		128	125	2.2	20.0
Bromochloromethane	Ave	0.1555	0.1556		50.0	50.0	0.0	20.0
Tetrahydrofuran	Ave	1.139	1.055		92.6	100	-7.4	20.0
Chloroform	Ave	0.4952	0.4920	0.2000	49.7	50.0	-0.6	20.0
1,1,1-Trichloroethane	Ave	0.4265	0.4083	0.1000	47.9	50.0	-4.3	20.0
Cyclohexane	Ave	0.4173	0.4749	0.1000	56.9	50.0	13.8	20.0
Carbon tetrachloride	Ave	0.3674	0.3574	0.1000	48.6	50.0	-2.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68468/3 Calibration Date: 11/20/2020 09:00

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1-Dichloropropene	Ave	0.3833	0.3916		51.1	50.0	2.2	20.0
Isobutyl alcohol	Ave	0.3578	0.3838		671	625	7.3	20.0
Benzene	Ave	1.160	1.207	0.5000	52.0	50.0	4.1	20.0
1,2-Dichloroethane	Ave	0.3725	0.3462	0.1000	46.5	50.0	-7.1	20.0
t-Amyl methyl ether	Ave	0.8175	0.8007		49.0	50.0	-2.1	20.0
n-Heptane	Ave	0.3397	0.3891		57.3	50.0	14.6	20.0
n-Butanol	Ave	0.3100	0.3247		1310	1250	4.8	20.0
Trichloroethene	Ave	0.3042	0.3122	0.2000	51.3	50.0	2.6	20.0
Methylcyclohexane	Ave	0.4166	0.4509	0.1000	54.1	50.0	8.2	20.0
1,2-Dichloropropane	Ave	0.3007	0.3142	0.1000	52.2	50.0	4.5	20.0
t-Amyl ethyl ether	Ave	0.4148	0.4097		49.4	50.0	-1.2	20.0
1,4-Dioxane	Ave	0.0661	0.0851	0.0050	805	625	28.8*	20.0
Dibromomethane	Ave	0.1967	0.1964		49.9	50.0	-0.2	20.0
Methyl methacrylate	Ave	0.2910	0.2921		50.2	50.0	0.4	20.0
Bromodichloromethane	Ave	0.3827	0.3717	0.2000	48.6	50.0	-2.9	20.0
2-Nitropropane	Ave	2.014	1.591		79.0	100	-21.0*	20.0
2-Chloroethyl vinyl ether	Ave	0.2415	0.2428		50.3	50.0	0.5	20.0
cis-1,3-Dichloropropene	Ave	0.4840	0.4722	0.2000	48.8	50.0	-2.4	20.0
4-Methyl-2-pentanone	Ave	0.5249	0.5030	0.1000	95.8	100	-4.2	20.0
Toluene	Ave	0.9580	1.002	0.4000	52.3	50.0	4.6	20.0
trans-1,3-Dichloropropene	Ave	0.5898	0.5511	0.1000	46.7	50.0	-6.6	20.0
Ethyl methacrylate	Ave	0.6237	0.6293		50.5	50.0	0.9	20.0
1,1,2-Trichloroethane	Ave	0.3639	0.3820	0.1000	52.5	50.0	5.0	20.0
Tetrachloroethene	Ave	0.4271	0.4720	0.2000	55.3	50.0	10.5	20.0
1,3-Dichloropropane	Ave	0.6037	0.6090		50.4	50.0	0.9	20.0
2-Hexanone	Ave	0.5679	0.5233	0.1000	92.1	100	-7.9	20.0
Dibromochloromethane	Ave	0.4273	0.4154		48.6	50.0	-2.8	20.0
1,2-Dibromoethane	Ave	0.4155	0.4216	0.1000	50.7	50.0	1.5	20.0
1-Chlorohexane	Ave	0.5506	0.5557		50.5	50.0	0.9	20.0
Chlorobenzene	Ave	1.076	1.129	0.5000	52.5	50.0	5.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3911	0.4013		51.3	50.0	2.6	20.0
Ethylbenzene	Ave	1.897	1.963	0.1000	51.7	50.0	3.5	20.0
m&p-Xylene	Ave	0.7247	0.7662	0.1000	106	100	5.7	20.0
o-Xylene	Ave	0.7153	0.7500	0.3000	52.4	50.0	4.8	20.0
Styrene	Ave	1.194	1.261	0.3000	52.8	50.0	5.6	20.0
Bromoform	Ave	0.3490	0.3391	0.1000	48.6	50.0	-2.8	20.0
Isopropylbenzene	Ave	1.844	1.919	0.1000	52.1	50.0	4.1	20.0
Cyclohexanone	Ave	0.3139	0.3284		654	625	4.6	20.0
Bromobenzene	Ave	0.8711	0.9412		54.0	50.0	8.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.204	1.249	0.3000	51.9	50.0	3.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3829	0.2448		79.9	125	-36.1*	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Lab Sample ID: CCVIS 410-68468/3 Calibration Date: 11/20/2020 09:00

Instrument ID: 26285 Calib Start Date: 09/09/2020 14:51

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/09/2020 16:53

Lab File ID: 5N20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3432	0.3405		49.6	50.0	-0.8	20.0
N-Propylbenzene	Ave	3.988	4.182		52.4	50.0	4.9	20.0
2-Chlorotoluene	Ave	0.8099	0.8573		52.9	50.0	5.8	20.0
1,3,5-Trimethylbenzene	Ave	2.809	2.878		51.2	50.0	2.4	20.0
4-Chlorotoluene	Ave	0.8290	0.8843		53.3	50.0	6.7	20.0
tert-Butylbenzene	Ave	0.5809	0.6220		53.5	50.0	7.1	20.0
Pentachloroethane	Ave	0.5435	0.5428		49.9	50.0	-0.1	20.0
1,2,4-Trimethylbenzene	Ave	2.896	2.945		50.8	50.0	1.7	20.0
sec-Butylbenzene	Ave	3.474	3.655		52.6	50.0	5.2	20.0
1,3-Dichlorobenzene	Ave	1.609	1.681	0.6000	52.3	50.0	4.5	20.0
p-Isopropyltoluene	Ave	2.936	3.069		52.3	50.0	4.6	20.0
1,4-Dichlorobenzene	Ave	1.638	1.684	0.5000	51.4	50.0	2.8	20.0
1,2,3-Trimethylbenzene	Ave	2.934	2.847		48.5	50.0	-2.9	20.0
Benzyl chloride	Ave	2.477	2.302		46.5	50.0	-7.1	20.0
1,3-Diethylbenzene	Ave	1.814	1.757		48.4	50.0	-3.1	20.0
1,4-Diethylbenzene	Ave	1.859	1.803		48.5	50.0	-3.0	20.0
n-Butylbenzene	Ave	1.503	1.504		50.0	50.0	0.0	20.0
1,2-Dichlorobenzene	Ave	1.557	1.623	0.4000	52.1	50.0	4.2	20.0
1,2-Diethylbenzene	Ave	1.477	1.438		48.7	50.0	-2.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3157	0.2910	0.0500	46.1	50.0	-7.8	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.164		53.7	50.0	7.4	20.0
1,2,4-Trichlorobenzene	Ave	1.019	1.085	0.2000	53.2	50.0	6.4	20.0
Hexachlorobutadiene	Ave	0.4119	0.4564		55.4	50.0	10.8	20.0
Naphthalene	Ave	3.822	3.993		52.2	50.0	4.5	20.0
1,2,3-Trichlorobenzene	Ave	0.9940	1.053		53.0	50.0	6.0	20.0
2-Methylnaphthalene	Ave	2.117	2.085		49.2	50.0	-1.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2604	0.2536		48.7	50.0	-2.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0569	0.0581		51.1	50.0	2.2	20.0
Toluene-d8 (Surr)	Ave	1.259	1.263		50.2	50.0	0.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5083	0.4757		46.8	50.0	-6.4	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Nov-2020 09:00:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-003
Misc. Info.: CCVIS
Operator ID: CLM27445 Instrument ID: 26285
Sublist: chrom-MSVoa_26285a*sub2

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:55:31 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 09:34:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.588	1.588	0.000	99	350550	50.0	48.1	
3 Chloromethane	50	1.759	1.759	0.000	99	381952	50.0	41.2	
4 Butadiene	39	1.844	1.844	0.000	92	435022	50.0	69.5	
5 Vinyl chloride	62	1.856	1.856	0.000	98	362271	50.0	44.8	
8 Bromomethane	94	2.112	2.112	0.000	90	275868	50.0	48.9	
9 Chloroethane	64	2.179	2.179	0.000	99	212663	50.0	46.0	
10 Dichlorofluoromethane	67	2.375	2.375	0.000	97	514409	50.0	44.6	
11 Trichlorofluoromethane	101	2.423	2.423	0.000	98	446924	50.0	46.6	
12 Pentane	43	2.448	2.448	0.000	96	489986	50.0	60.1	
14 Ethyl ether	59	2.618	2.618	0.000	94	247694	50.0	47.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.692	2.692	0.000	96	365207	50.0	52.7	
16 Acrolein	56	2.759	2.759	0.000	100	1002131	500.0	456.1	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	98	269047	50.0	53.3	
17 Acetone	58	2.893	2.893	0.000	100	106124	100.0	104.8	
18 112TCTFE	101	2.905	2.905	0.000	90	298022	50.0	56.3	
21 Isopropyl alcohol	45	3.027	3.027	0.000	45	243360	250.0	292.6	
20 Iodomethane	142	3.033	3.033	0.000	97	560237	50.0	54.3	
22 Carbon disulfide	76	3.112	3.112	0.000	99	945744	50.0	51.9	
23 Methyl acetate	43	3.228	3.228	0.000	99	397372	50.0	48.1	
25 3-Chloro-1-propene	41	3.246	3.246	0.000	94	439041	50.0	46.1	
26 Methylene Chloride	84	3.405	3.405	0.000	93	314839	50.0	52.2	
* 27 t-Butyl alcohol-d10 (IS)	65	3.417	3.417	0.000	53	356242	250.0	250.0	
28 2-Methyl-2-propanol	59	3.515	3.515	0.000	99	395086	250.0	256.9	
29 Acrylonitrile	53	3.673	3.673	0.000	100	200285	50.0	51.6	
30 Methyl tert-butyl ether	73	3.728	3.728	0.000	95	869920	50.0	49.9	
31 trans-1,2-Dichloroethene	96	3.734	3.734	0.000	99	305704	50.0	52.6	
32 Hexane	57	4.100	4.100	0.000	93	417470	50.0	57.9	
33 1,1-Dichloroethane	63	4.338	4.338	0.000	96	545287	50.0	50.7	
35 Isopropyl ether	45	4.399	4.399	0.000	97	1009053	50.0	51.4	
36 2-Chloro-1,3-butadiene	53	4.447	4.447	0.000	89	448738	50.0	49.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
37 Tert-butyl ethyl ether	59	4.959	4.959	0.000	99	892635	50.0	49.1	
39 2-Butanone (MEK)	43	5.185	5.185	0.000	100	561311	100.0	95.1	
38 cis-1,2-Dichloroethene	96	5.203	5.203	0.000	81	351433	50.0	52.2	
40 2,2-Dichloropropane	77	5.209	5.209	0.000	86	412866	50.0	46.3	
41 Propionitrile	54	5.289	5.289	0.000	100	457416	250.0	270.5	
43 Methacrylonitrile	67	5.502	5.502	0.000	92	541890	125.0	127.7	
44 Chlorobromomethane	128	5.545	5.545	0.000	97	170673	50.0	50.0	
45 Tetrahydrofuran	71	5.551	5.551	0.000	85	150308	100.0	92.6	
46 Chloroform	83	5.709	5.709	0.000	93	539770	50.0	49.7	
48 1,1,1-Trichloroethane	97	5.929	5.929	0.000	98	447951	50.0	47.9	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	278180	50.0	48.7	
49 Cyclohexane	56	6.020	6.020	0.000	91	520980	50.0	56.9	
51 Carbon tetrachloride	117	6.142	6.142	0.000	95	392134	50.0	48.6	
50 1,1-Dichloropropene	75	6.154	6.154	0.000	97	429589	50.0	51.1	
52 Isobutyl alcohol	41	6.368	6.368	0.000	95	341821	625.0	670.5	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	99	63760	50.0	51.1	
53 Benzene	78	6.429	6.429	0.000	96	1324634	50.0	52.0	
55 1,2-Dichloroethane	62	6.514	6.514	0.000	97	379817	50.0	46.5	
58 Tert-amyl methyl ether	73	6.642	6.642	0.000	99	878347	50.0	49.0	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	98	1097033	50.0	50.0	
60 n-Heptane	43	6.880	6.880	0.000	93	426899	50.0	57.3	
61 n-Butanol	56	7.294	7.294	0.000	90	578433	1250.0	1309.6	
62 Trichloroethene	95	7.361	7.361	0.000	98	342521	50.0	51.3	
63 Methylcyclohexane	83	7.666	7.666	0.000	90	494660	50.0	54.1	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	94	344719	50.0	52.2	
65 2-ethoxy-2-methyl butane	87	7.739	7.739	0.000	91	449483	50.0	49.4	
68 1,4-Dioxane	88	7.806	7.806	0.000	84	75798	625.0	805.1	M
66 Dibromomethane	93	7.825	7.825	0.000	94	215415	50.0	49.9	
67 Methyl methacrylate	69	7.825	7.825	0.000	92	320434	50.0	50.2	
70 Dichlorobromomethane	83	8.087	8.087	0.000	100	407796	50.0	48.6	
72 2-Nitropropane	41	8.386	8.386	0.000	98	226777	100.0	79.0	
71 2-Chloroethyl vinyl ether	63	8.483	8.483	0.000	91	266347	50.0	50.3	
73 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	98	518024	50.0	48.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.885	8.885	0.000	97	1103507	100.0	95.8	
$ 76 Toluene-d8 (Surr)	98	9.013	9.013	0.000	93	1049036	50.0	50.2	
77 Toluene	92	9.105	9.105	0.000	98	832150	50.0	52.3	
78 trans-1,3-Dichloropropene	75	9.422	9.422	0.000	92	457684	50.0	46.7	
79 Ethyl methacrylate	69	9.507	9.507	0.000	90	522621	50.0	50.5	
80 1,1,2-Trichloroethane	97	9.647	9.647	0.000	89	317197	50.0	52.5	
81 Tetrachloroethene	166	9.727	9.727	0.000	98	391987	50.0	55.3	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	90	505777	50.0	50.4	
84 2-Hexanone	43	9.904	9.904	0.000	97	869103	100.0	92.1	
85 Chlorodibromomethane	129	10.062	10.062	0.000	90	344991	50.0	48.6	
87 Ethylene Dibromide	107	10.172	10.172	0.000	98	350149	50.0	50.7	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	83	830451	50.0	50.0	
88 Chlorobenzene	112	10.684	10.684	0.000	95	937863	50.0	52.5	
91 1-Chlorohexane	91	10.684	10.684	0.000	66	461473	50.0	50.5	
92 1,1,1,2-Tetrachloroethane	131	10.775	10.775	0.000	98	333291	50.0	51.3	
93 Ethylbenzene	91	10.781	10.781	0.000	98	1629891	50.0	51.7	
94 m-Xylene & p-Xylene	106	10.909	10.909	0.000	100	1272501	100.0	105.7	
95 o-Xylene	106	11.263	11.263	0.000	96	622826	50.0	52.4	
96 Styrene	104	11.281	11.281	0.000	95	1047093	50.0	52.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 Bromoform	173	11.440	11.440	0.000	98	281633	50.0	48.6	
98 Isopropylbenzene	105	11.586	11.586	0.000	95	1593822	50.0	52.1	
100 Cyclohexanone	55	11.665	11.665	0.000	91	292493	625.0	653.9	
$ 101 4-Bromofluorobenzene (Surr)	95	11.732	11.732	0.000	96	395013	50.0	46.8	
102 Bromobenzene	156	11.848	11.848	0.000	90	422301	50.0	54.0	
105 1,1,2,2-Tetrachloroethane	83	11.860	11.860	0.000	93	560617	50.0	51.9	
104 trans-1,4-Dichloro-2-butene	53	11.885	11.885	0.000	89	274576	125.0	79.9	
103 1,2,3-Trichloropropane	110	11.903	11.903	0.000	83	152759	50.0	49.6	
106 N-Propylbenzene	91	11.940	11.940	0.000	99	1876554	50.0	52.4	
107 2-Chlorotoluene	126	12.013	12.013	0.000	97	384647	50.0	52.9	
108 1,3,5-Trimethylbenzene	105	12.086	12.086	0.000	95	1291128	50.0	51.2	
109 4-Chlorotoluene	126	12.110	12.110	0.000	97	396792	50.0	53.3	
111 tert-Butylbenzene	134	12.336	12.336	0.000	93	279072	50.0	53.5	
112 Pentachloroethane	167	12.366	12.366	0.000	91	243536	50.0	49.9	
113 1,2,4-Trimethylbenzene	105	12.385	12.385	0.000	97	1321275	50.0	50.8	
114 sec-Butylbenzene	105	12.513	12.513	0.000	94	1640061	50.0	52.6	
115 1,3-Dichlorobenzene	146	12.604	12.604	0.000	98	754310	50.0	52.3	
116 4-Isopropyltoluene	119	12.629	12.629	0.000	97	1377190	50.0	52.3	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.665	0.000	93	448683	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.683	12.683	0.000	96	755461	50.0	51.4	
119 1,2,3-Trimethylbenzene	105	12.702	12.702	0.000	98	1277582	50.0	48.5	
120 Benzyl chloride	91	12.769	12.769	0.000	98	1032907	50.0	46.5	
121 1,3-Diethylbenzene	119	12.836	12.836	0.000	95	788339	50.0	48.4	
122 p-Diethylbenzene	119	12.909	12.909	0.000	94	809036	50.0	48.5	
124 n-Butylbenzene	92	12.927	12.927	0.000	97	674603	50.0	50.0	
125 1,2-Dichlorobenzene	146	12.952	12.952	0.000	100	727993	50.0	52.1	
126 o-diethylbenzene	119	12.982	12.982	0.000	95	645001	50.0	48.7	
127 1,2-Dibromo-3-Chloropropane	75	13.513	13.513	0.000	90	130559	50.0	46.1	
128 1,3,5-Trichlorobenzene	180	13.647	13.647	0.000	98	522301	50.0	53.7	
129 1,2,4-Trichlorobenzene	180	14.086	14.086	0.000	94	486700	50.0	53.2	
131 Hexachlorobutadiene	225	14.171	14.171	0.000	95	204790	50.0	55.4	
132 Naphthalene	128	14.269	14.269	0.000	96	1791588	50.0	52.2	
133 1,2,3-Trichlorobenzene	180	14.415	14.415	0.000	96	472651	50.0	53.0	
134 2-Methylnaphthalene	142	15.024	15.024	0.000	92	935369	50.0	49.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA1_00111	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00123	Amount Added:	5.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00173	Amount Added:	2.50	Units: uL	
MSV_DCFM_00030	Amount Added:	2.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 10:55:33 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20C01.D

Injection Date: 20-Nov-2020 09:00:30 Instrument ID: 26285 Operator ID: CLM27445

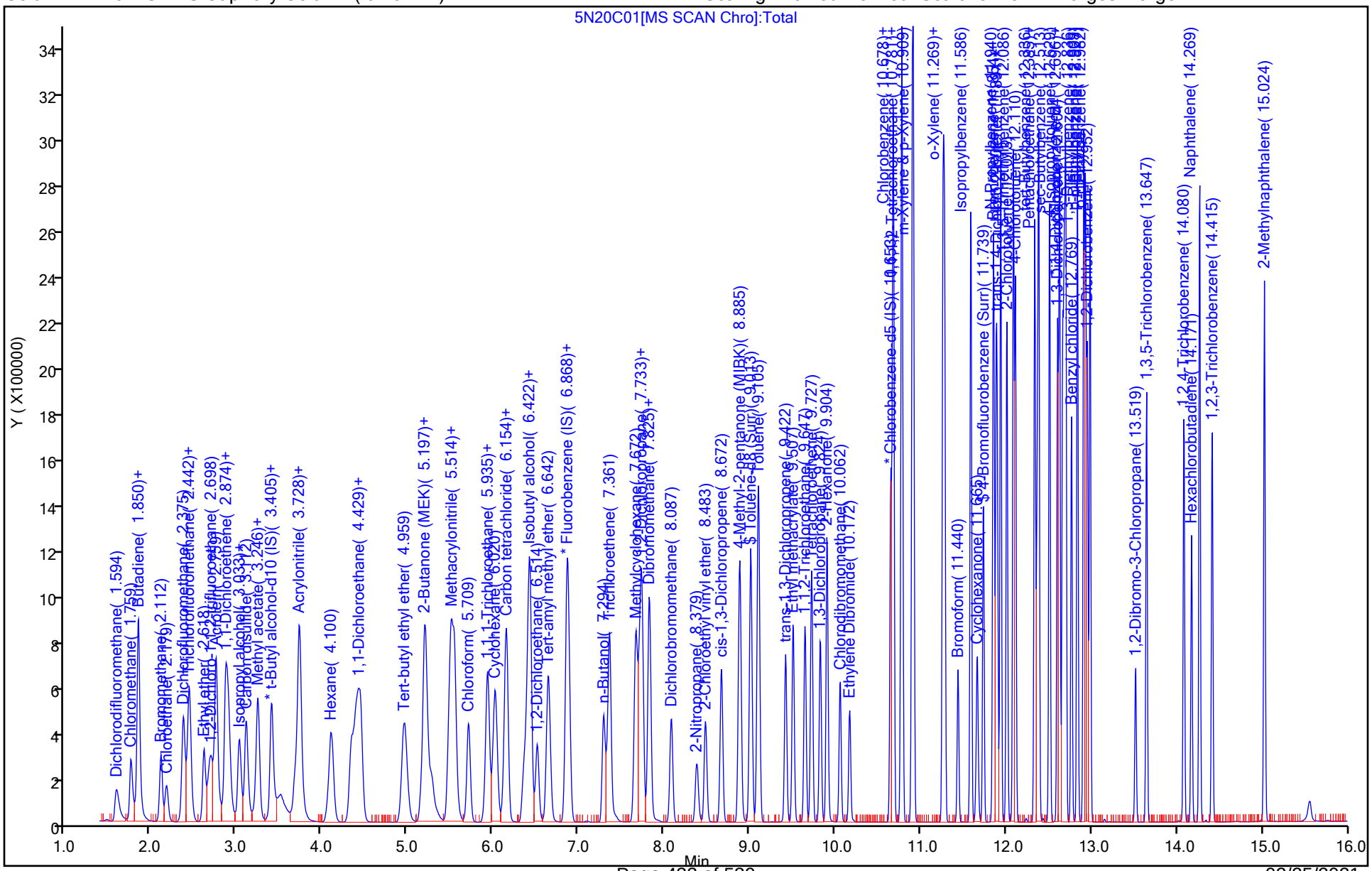
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

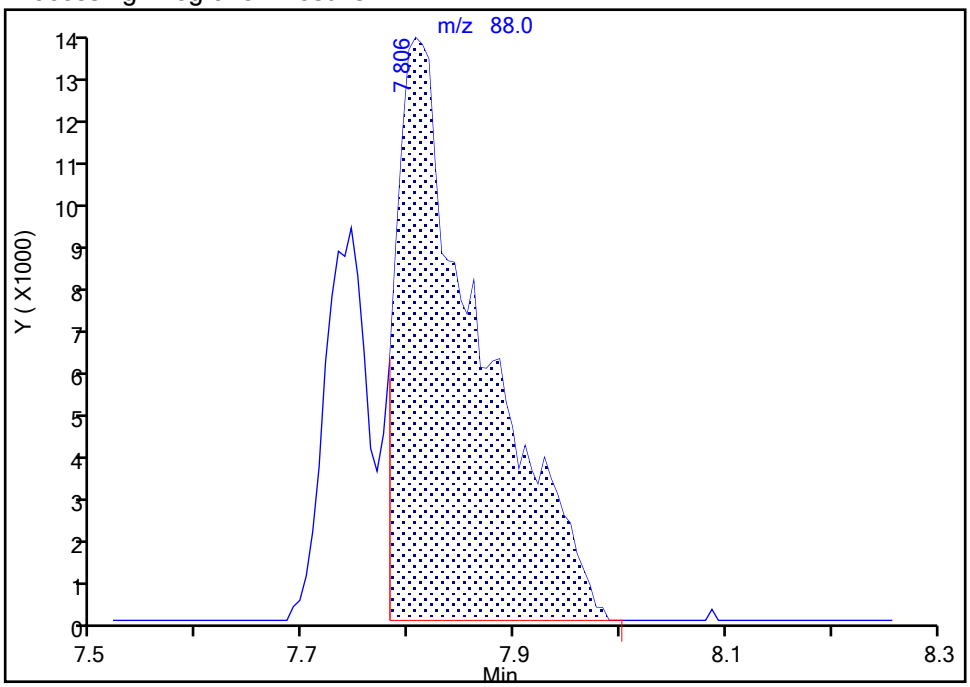
Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20C01.D
Injection Date: 20-Nov-2020 09:00:30 Instrument ID: 26285
Lims ID: CCVIS
Client ID:
Operator ID: CLM27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

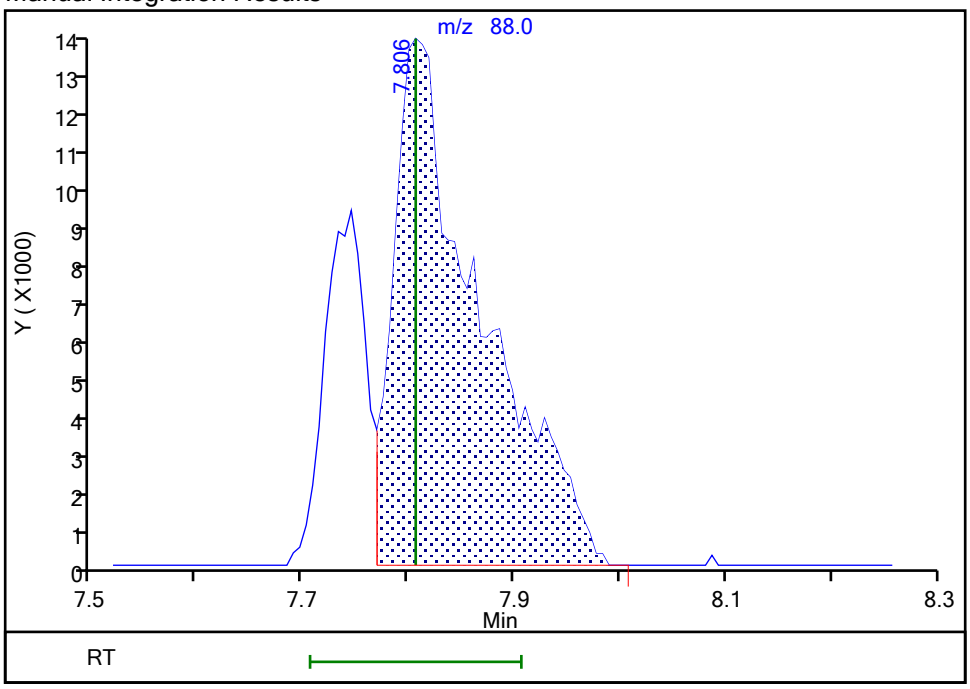
Processing Integration Results

RT: 7.81
Area: 73006
Amount: 775.4064
Amount Units: ug/l



Manual Integration Results

RT: 7.81
Area: 75798
Amount: 805.0606
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 09:24:02
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09T01.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 09-Sep-2020 13:58:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: BFB
Misc. Info.: 410-0010032-001
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 10-Sep-2020 14:01:12 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1017

First Level Reviewer: mellingerc Date: 09-Sep-2020 15:01:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 54 BFB	95	4.394	4.394	0.000	0	486579	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

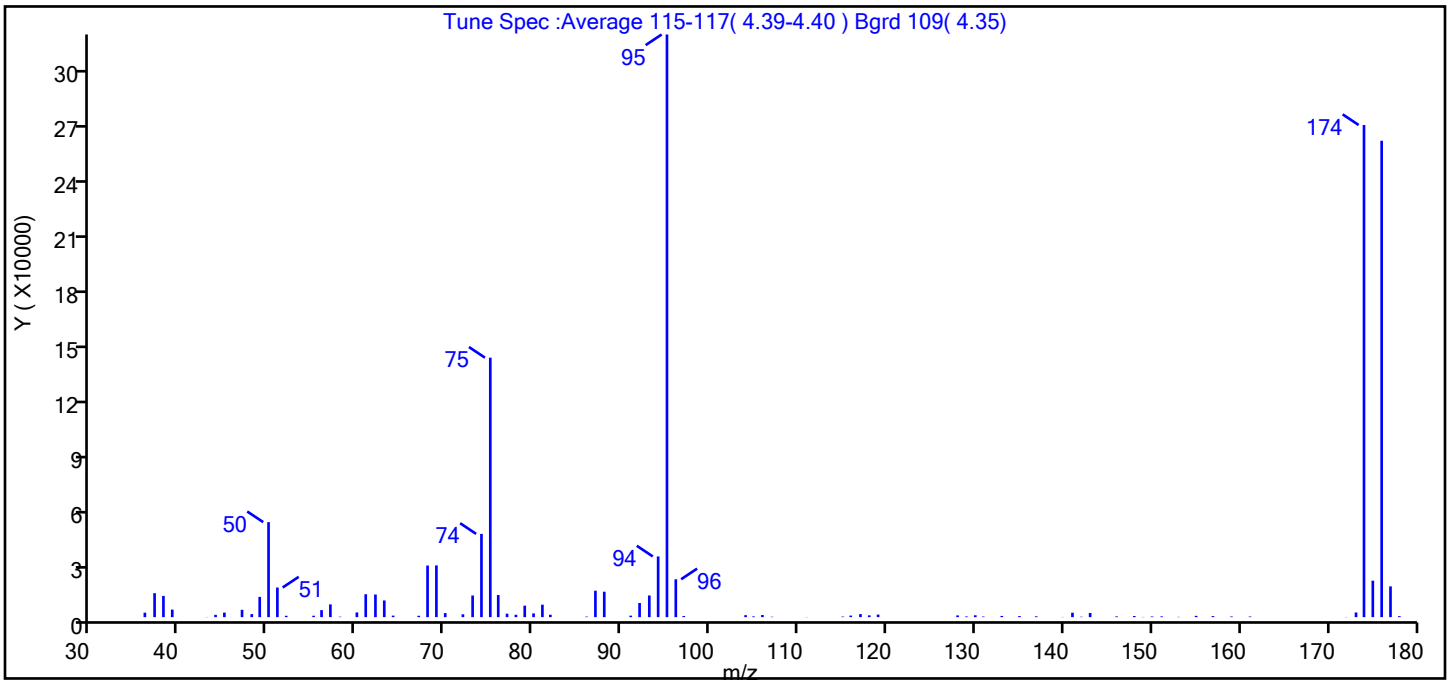
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09T01.D
Injection Date: 09-Sep-2020 13:58:30 Instrument ID: 26285
Lims ID: bfb
Client ID:
Operator ID: CLM27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 54 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.3
75	30 to 60% of m/z 95	44.5
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.8 (1.0)
174	50 to 120% of m/z 95	84.5
175	5 to 9% of m/z 174	6.3 (7.4)
176	Greater than 95% but less than 101% of m/z 174	81.8 (96.8)
177	5 to 9% of m/z 176	5.3 (6.5)

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09T01.D\MSVoa_26285a.rslt\spectra.d
Injection Date: 09-Sep-2020 13:58:30
Spectrum: Tune Spec :Average 115-117(4.39-4.40) Bgrd 109(4.35)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2409	64.00	823	94.00	32608	141.00	2376
37.00	12869	67.00	744	95.00	313024	142.00	210
38.00	11399	68.00	27736	96.00	20352	143.00	2240
39.00	4060	69.00	27792	97.00	585	146.00	403
40.00	8	70.00	2170	104.00	1053	148.00	594
43.00	88	72.00	1536	105.00	410	149.00	99
44.00	1243	73.00	11634	106.00	1135	150.00	350
45.00	2449	74.00	44736	107.00	208	151.00	414
47.00	3944	75.00	139392	111.00	85	153.00	153
48.00	1636	76.00	11878	115.00	304	155.00	699
49.00	10883	77.00	1866	116.00	839	157.00	567
50.00	51040	78.00	1278	117.00	1638	159.00	351
51.00	15928	79.00	6170	118.00	965	161.00	336
52.00	730	80.00	2012	119.00	1380	172.00	89
55.00	759	81.00	6693	128.00	936	173.00	2512
56.00	3763	82.00	1286	129.00	382	174.00	264384
57.00	6860	86.00	294	130.00	1000	175.00	19592
58.00	237	87.00	14205	131.00	320	176.00	255936
60.00	2532	88.00	13663	133.00	649	177.00	16528
61.00	12309	91.00	799	135.00	565	178.00	520
62.00	12153	92.00	7598	137.00	450		
63.00	8961	93.00	11629	140.00	98		

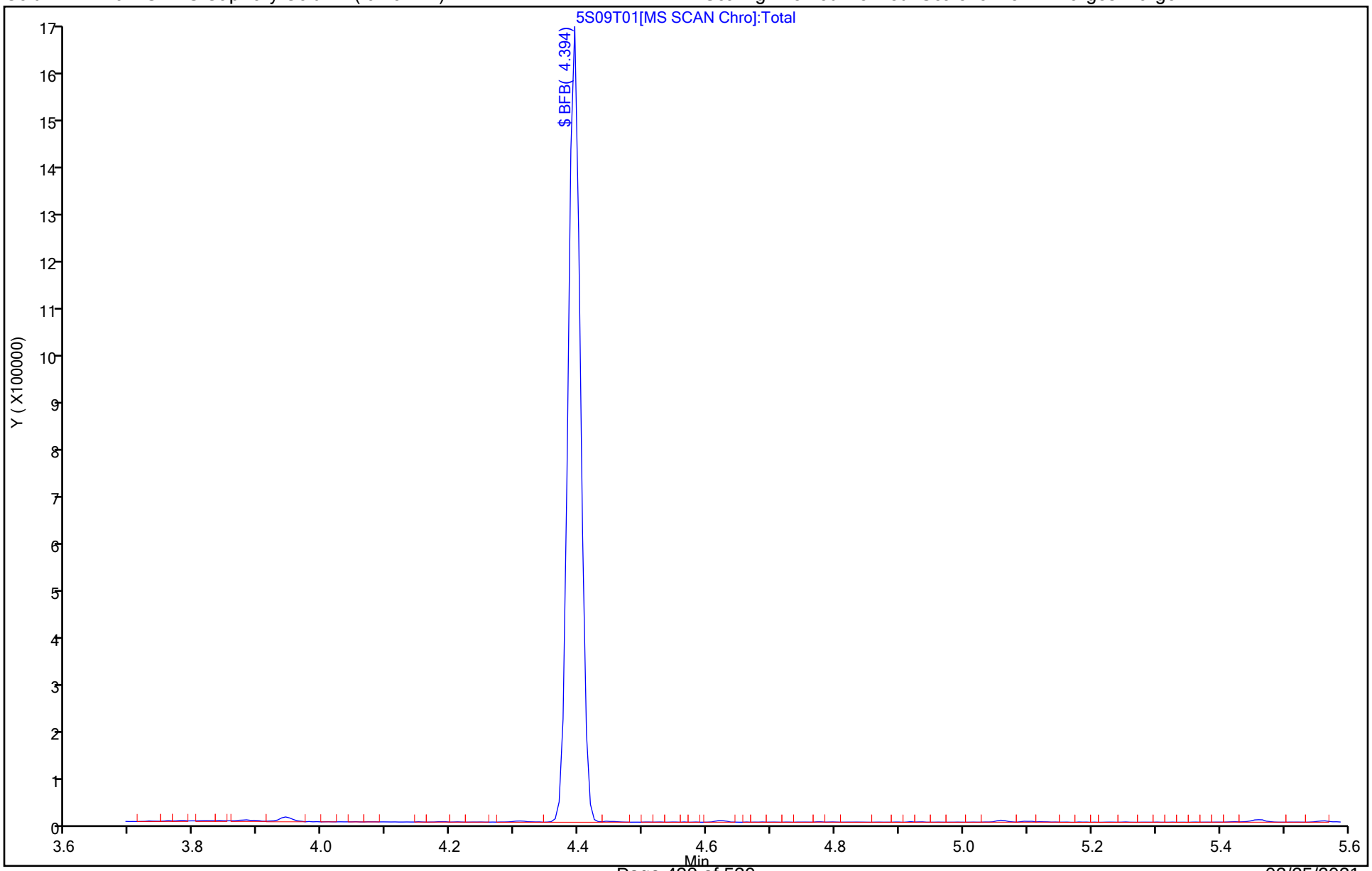
Report Date: 10-Sep-2020 14:01:12 Chrom Revision: 2.3 09-Sep-2020 15:12:58

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09T01.D

Injection Date:	09-Sep-2020 13:58:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18T01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 18-Nov-2020 09:39:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: 410-0015817-001
Misc. Info.: BFB
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 18-Nov-2020 12:08:06 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: mellingerc Date: 18-Nov-2020 09:51:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 54 BFB	95	4.431	4.431	0.000	0	443508	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

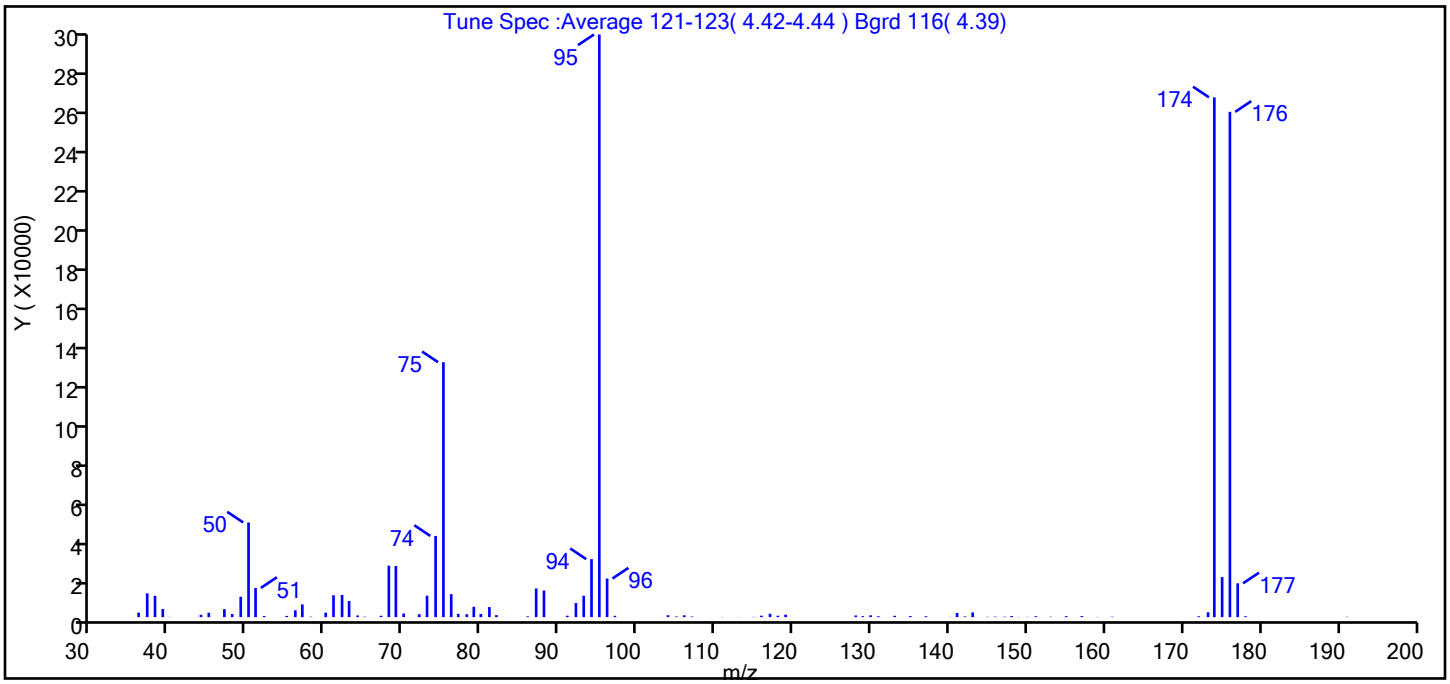
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18T01.D
Injection Date: 18-Nov-2020 09:39:30 Instrument ID: 26285
Lims ID: BFB
Client ID:
Operator ID: clm27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 54 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.2
75	30 to 60% of m/z 95	43.8
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.8 (0.9)
174	50 to 120% of m/z 95	89.2
175	5 to 9% of m/z 174	6.9 (7.7)
176	Greater than 95% but less than 101% of m/z 174	86.7 (97.2)
177	5 to 9% of m/z 176	5.8 (6.7)

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18T01.D\MSVoa_26285a.rslt\spectra.d
Injection Date: 18-Nov-2020 09:39:30
Spectrum: Tune Spec :Average 121-123(4.42-4.44) Bgrd 116(4.39)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 90

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2298	67.00	699	96.00	19456	143.00	2385
37.00	12016	68.00	25928	97.00	674	145.00	180
38.00	10748	69.00	25752	104.00	961	146.00	264
39.00	4107	70.00	1829	105.00	340	147.00	240
40.00	117	72.00	1457	106.00	936	148.00	551
44.00	1174	73.00	10818	107.00	312	149.00	96
45.00	2205	74.00	40928	111.00	111	150.00	103
47.00	4037	75.00	128480	113.00	85	151.00	478
48.00	1550	76.00	11601	115.00	141	153.00	196
49.00	10273	77.00	1639	116.00	744	155.00	509
50.00	47704	78.00	1456	117.00	1705	157.00	545
51.00	14728	79.00	5235	118.00	729	159.00	112
52.00	569	80.00	1605	119.00	1260	161.00	218
55.00	621	81.00	5061	128.00	858	172.00	439
56.00	3472	82.00	1028	129.00	492	173.00	2470
57.00	6410	86.00	397	130.00	924	174.00	261952
58.00	225	87.00	14455	131.00	442	175.00	20192
60.00	2258	88.00	13412	133.00	672	176.00	254656
61.00	11027	91.00	721	135.00	535	177.00	17048
62.00	11176	92.00	7088	137.00	466	178.00	470
63.00	8127	93.00	10793	140.00	101	191.00	182
64.00	861	94.00	29240	141.00	2095		
65.00	216	95.00	293632	142.00	358		

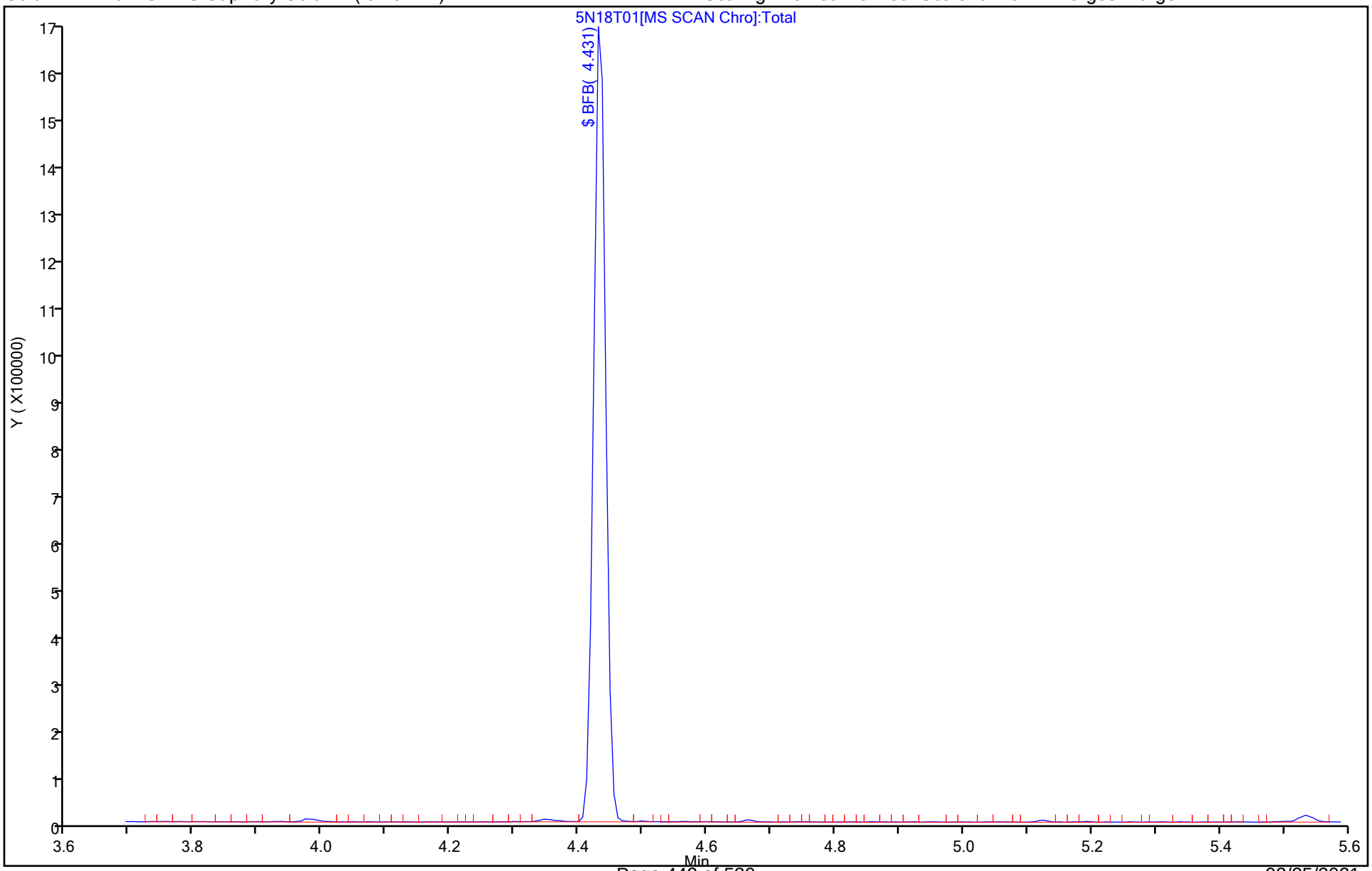
Report Date: 18-Nov-2020 12:08:07 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18T01.D

Injection Date:	18-Nov-2020 09:39:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19T35.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 19-Nov-2020 19:29:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: 410-0015990-001
Misc. Info.: BFB
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:16:23 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1669

First Level Reviewer: proctore Date: 19-Nov-2020 19:39:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 54 BFB	95	4.418	4.418	0.000	0	393833	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

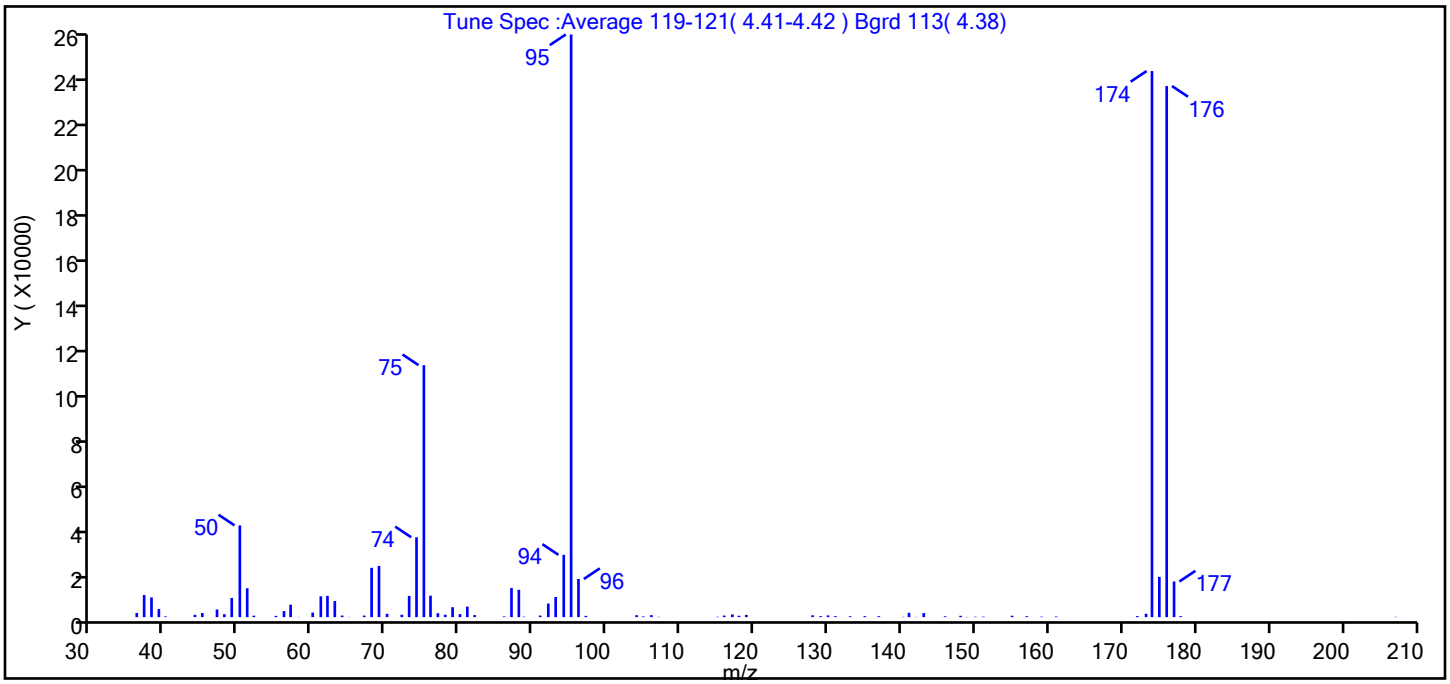
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19T35.D
Injection Date: 19-Nov-2020 19:29:30 Instrument ID: 26285
Lims ID: BFB
Client ID:
Operator ID: etp33087 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 54 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.7
75	30 to 60% of m/z 95	43.2
96	5 to 9% of m/z 95	6.5
173	Less than 2% of m/z 174	0.6 (0.6)
174	50 to 120% of m/z 95	93.7
175	5 to 9% of m/z 174	6.9 (7.4)
176	Greater than 95% but less than 101% of m/z 174	91.1 (97.3)
177	5 to 9% of m/z 176	6.1 (6.7)

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19T35.D\MSVoa_26285a.rslt\spectra.d
Injection Date: 19-Nov-2020 19:29:30
Spectrum: Tune Spec :Average 119-121(4.41-4.42) Bgrd 113(4.38)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1798	65.00	86	93.00	8664	141.00	1860
37.00	9543	67.00	672	94.00	26824	142.00	109
38.00	8496	68.00	21248	95.00	250880	143.00	1747
39.00	3469	69.00	22040	96.00	16416	146.00	359
40.00	318	70.00	1422	97.00	564	148.00	587
44.00	1004	72.00	1033	104.00	837	149.00	92
45.00	1767	73.00	9152	105.00	304	150.00	188
47.00	3299	74.00	34392	106.00	867	151.00	230
48.00	1266	75.00	108496	107.00	128	155.00	614
49.00	8249	76.00	9247	115.00	172	157.00	412
50.00	39512	77.00	1709	116.00	675	159.00	214
51.00	12453	78.00	1040	117.00	1175	161.00	277
52.00	645	79.00	4270	118.00	607	172.00	469
55.00	544	80.00	1296	119.00	971	173.00	1442
56.00	2615	81.00	4535	128.00	801	174.00	235136
57.00	5359	82.00	901	129.00	432	175.00	17344
58.00	95	86.00	304	130.00	747	176.00	228672
60.00	1975	87.00	12523	131.00	423	177.00	15342
61.00	8951	88.00	11759	133.00	386	178.00	421
62.00	9161	89.00	199	135.00	438	207.00	131
63.00	6930	91.00	682	137.00	421		
64.00	685	92.00	5850	140.00	121		

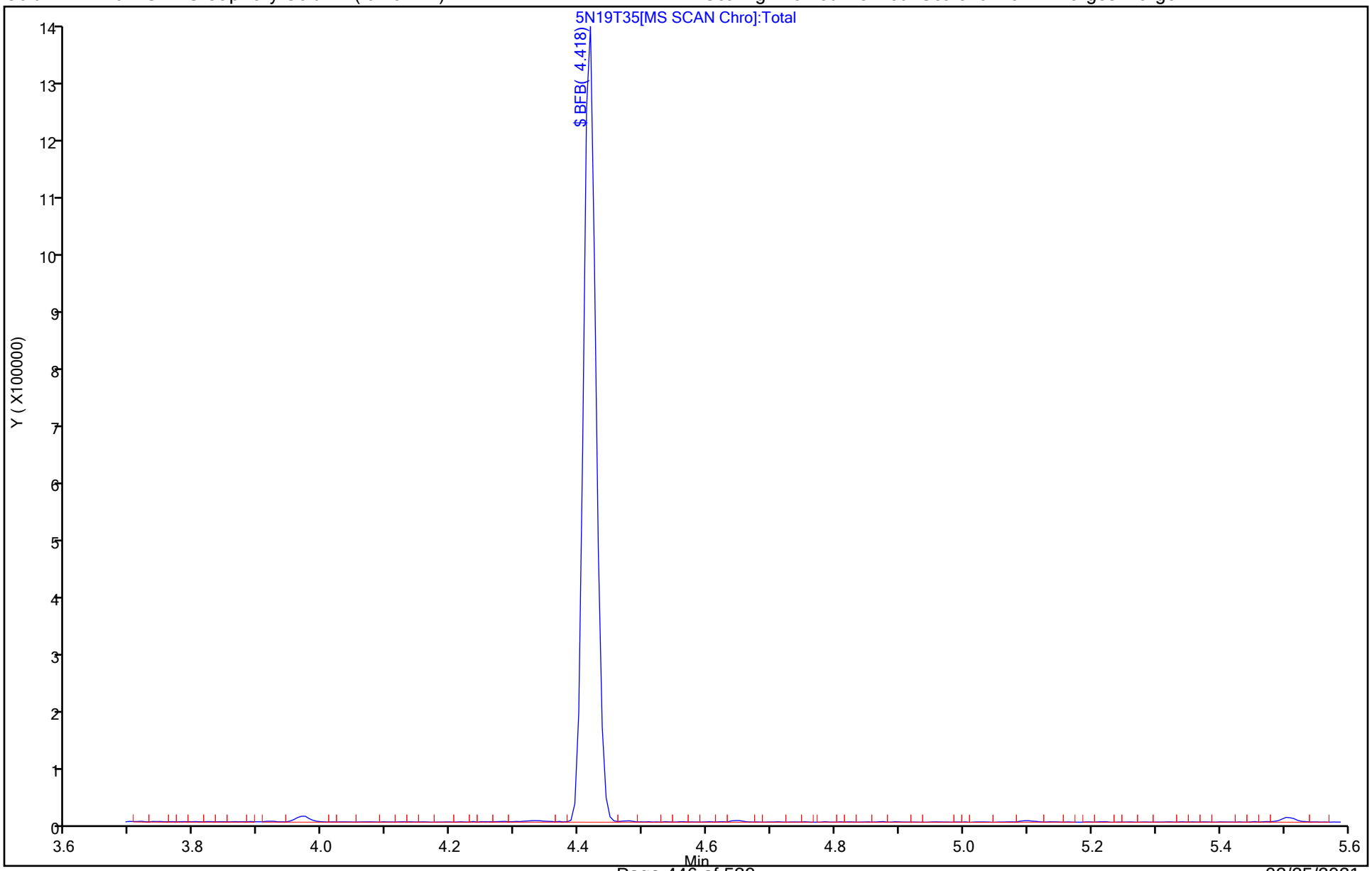
Report Date: 19-Nov-2020 23:16:23 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19T35.D

Injection Date:	19-Nov-2020 19:29:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Nov-2020 08:14:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016051-001				
Misc. Info.:	BFB				
Operator ID:	CLM27445	Instrument ID:	26285		
Method:	\\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m				
Limit Group:	MSV - 8260C_D				
Last Update:	20-Nov-2020 10:55:29	Calib Date:	09-Sep-2020 19:35:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1649				
First Level Reviewer: mellingerc		Date:	20-Nov-2020 08:25:36		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 54 BFB	95	4.412	4.412	0.000	0	313911	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

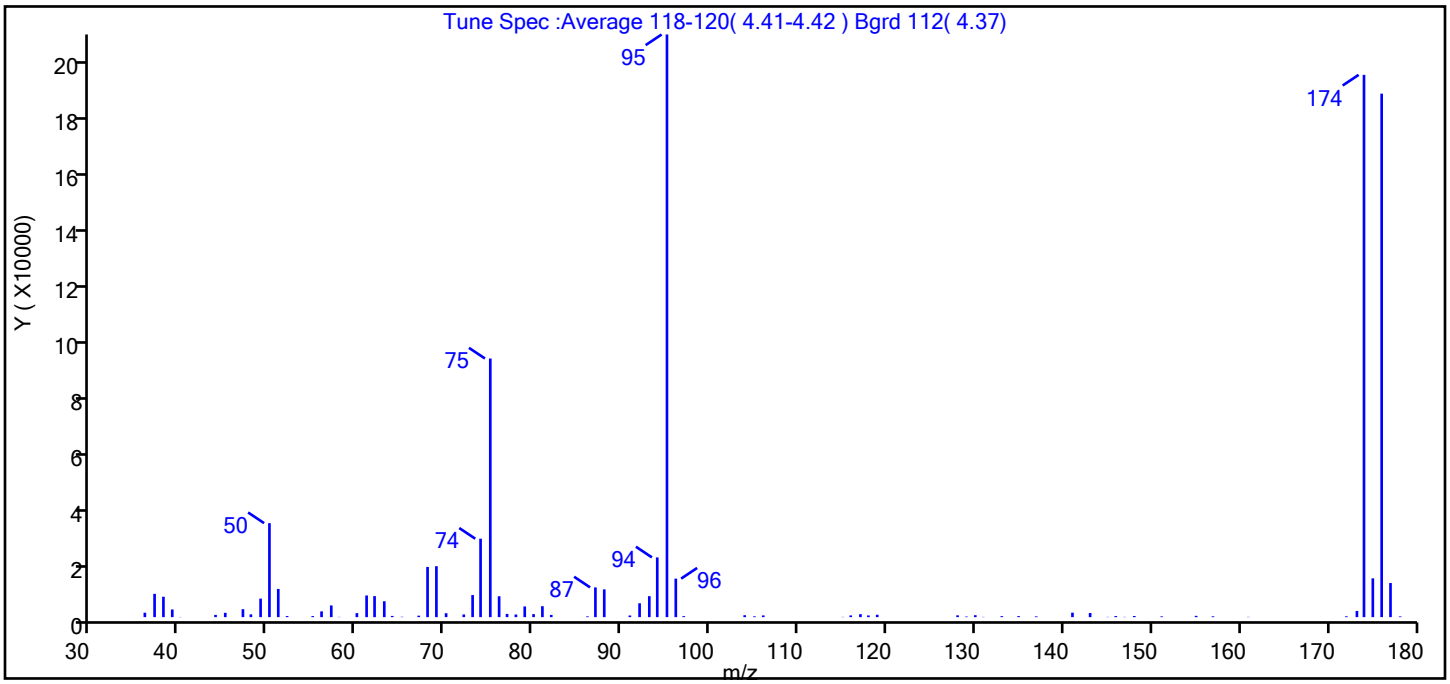
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20T01.D
Injection Date: 20-Nov-2020 08:14:30 Instrument ID: 26285
Lims ID: BFB
Client ID:
Operator ID: CLM27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 54 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.1
75	30 to 60% of m/z 95	44.4
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	1.1 (1.1)
174	50 to 120% of m/z 95	93.1
175	5 to 9% of m/z 174	6.7 (7.2)
176	Greater than 95% but less than 101% of m/z 174	89.8 (96.5)
177	5 to 9% of m/z 176	5.9 (6.5)

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20T01.D\MSVoa_26285a.rslt\spectra.d
Injection Date: 20-Nov-2020 08:14:30
Spectrum: Tune Spec :Average 118-120(4.41-4.42) Bgrd 112(4.37)
Base Peak: 95.10
Minimum % Base Peak: 0
Number of Points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1558	63.00	5568	88.00	9726	133.00	345
37.00	8166	64.00	428	91.00	575	135.00	360
38.00	7144	65.00	125	92.00	4857	137.00	270
39.00	2687	67.00	518	93.00	7354	141.00	1564
40.00	62	68.00	17584	94.00	20936	143.00	1448
44.00	786	69.00	17864	95.00	204160	145.00	86
45.00	1518	70.00	1377	96.00	13498	146.00	383
47.00	2791	72.00	943	97.00	347	147.00	91
48.00	976	73.00	7738	104.00	677	148.00	406
49.00	6494	74.00	27488	105.00	284	151.00	261
50.00	32936	75.00	90624	106.00	603	155.00	457
51.00	9881	76.00	7323	115.00	85	157.00	291
52.00	383	77.00	1129	116.00	603	161.00	90
55.00	370	78.00	927	117.00	1042	172.00	290
56.00	2028	79.00	3749	118.00	598	173.00	2164
57.00	4106	80.00	1060	119.00	839	174.00	190016
58.00	85	81.00	3839	128.00	637	175.00	13600
60.00	1408	82.00	778	129.00	210	176.00	183424
61.00	7593	86.00	262	130.00	679	177.00	11958
62.00	7372	87.00	10423	131.00	90	178.00	244

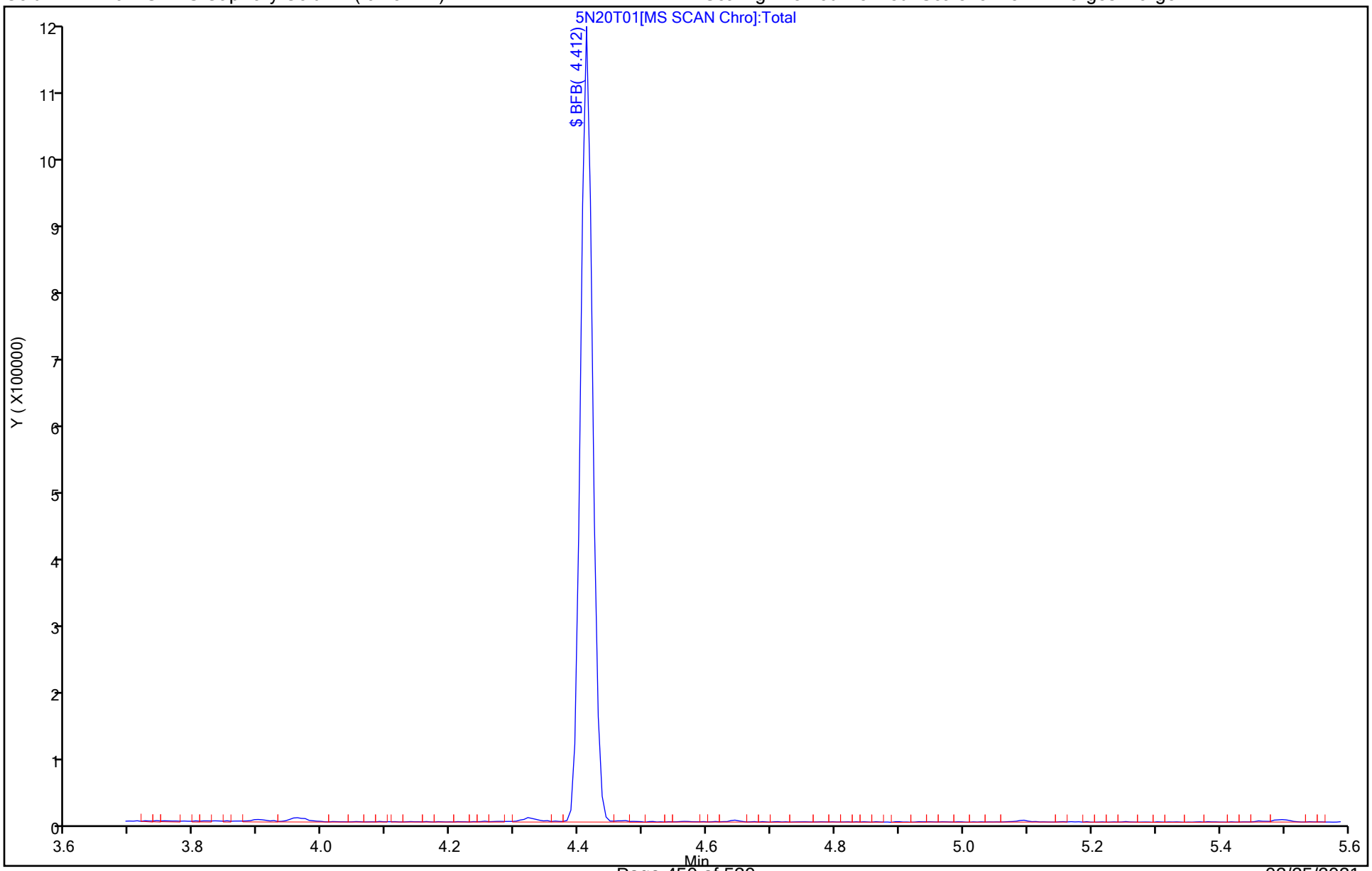
Report Date: 20-Nov-2020 10:55:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20T01.D

Injection Date:	20-Nov-2020 08:14:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-67415/7

Matrix: Water Lab File ID: 5N18B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 11:45

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	103		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 18-Nov-2020 11:45:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-007
Misc. Info.: MB
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 18-Nov-2020 12:08:09 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: mellingerc Date: 18-Nov-2020 12:07:46

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.582					ND	
2	Dichlorodifluoromethane	85		1.594					ND	
6	Chlorodifluoromethane	51		1.624					ND	
3	Chloromethane	50		1.753					ND	
4	Butadiene	39		1.838					ND	
5	Vinyl chloride	62		1.844					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		1.917					ND	
8	Bromomethane	94		2.100					ND	
9	Chloroethane	64		2.161					ND	
10	Dichlorofluoromethane	67		2.356					ND	
11	Trichlorofluoromethane	101		2.405					ND	
12	Pentane	43		2.429					ND	
13	Ethanol	45		2.545					ND	
14	Ethyl ether	59		2.594					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		2.667					ND	
16	Acrolein	56		2.734					ND	
19	1,1-Dichloroethene	96		2.844					ND	
17	Acetone	58		2.874					ND	
18	112TCTFE	101		2.880					ND	
20	Iodomethane	142		3.002					ND	
21	Isopropyl alcohol	45		3.008					ND	
22	Carbon disulfide	76		3.082					ND	
23	Methyl acetate	43		3.197					ND	
24	Acetonitrile	41		3.222					ND	
25	3-Chloro-1-propene	41		3.222					ND	
26	Methylene Chloride	84		3.374					ND	
* 27	t-Butyl alcohol-d10 (IS)	65	3.405	3.386	0.019	97	341465	250.0	250.0	
28	2-Methyl-2-propanol	59		3.496					ND	
29	Acrylonitrile	53		3.643					ND	
30	Methyl tert-butyl ether	73		3.691					ND	
31	trans-1,2-Dichloroethene	96		3.697					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Hexane	57		4.063					ND	
33 1,1-Dichloroethane	63		4.295					ND	
35 Isopropyl ether	45		4.350					ND	
34 Vinyl acetate	43		4.368					ND	
36 2-Chloro-1,3-butadiene	53		4.405					ND	
37 Tert-butyl ethyl ether	59		4.911					ND	
39 2-Butanone (MEK)	43		5.142					ND	
38 cis-1,2-Dichloroethene	96		5.154					ND	
40 2,2-Dichloropropane	77		5.173					ND	
41 Propionitrile	54		5.246					ND	
42 Ethyl acetate	43		5.270					ND	
43 Methacrylonitrile	67		5.459					ND	
44 Chlorobromomethane	128		5.502					ND	
45 Tetrahydrofuran	71		5.514					ND	
46 Chloroform	83		5.667					ND	
48 1,1,1-Trichloroethane	97		5.892					ND	
$ 47 Dibromofluoromethane (Surr)	113	5.904	5.898	0.006	94	275995	50.0	47.4	
49 Cyclohexane	56		5.990					ND	
51 Carbon tetrachloride	117		6.112					ND	
50 1,1-Dichloropropene	75		6.118					ND	
S 74 1,2-Dichloroethene, Total	100		6.155					ND	7
52 Isobutyl alcohol	41		6.343					ND	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.380	6.374	0.006	98	62773	50.0	49.4	
53 Benzene	78		6.398					ND	
55 1,2-Dichloroethane	62		6.483					ND	7
57 Isopropyl acetate	43		6.587					ND	
58 Tert-amyl methyl ether	73		6.611					ND	
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1117145	50.0	50.0	
60 n-Heptane	43		6.855					ND	
61 n-Butanol	56		7.270					ND	
62 Trichloroethene	95		7.337					ND	
63 Methylcyclohexane	83		7.642					ND	
64 1,2-Dichloropropane	63		7.691					ND	
65 2-ethoxy-2-methyl butane	87		7.715					ND	
68 1,4-Dioxane	88		7.794					ND	
66 Dibromomethane	93		7.806					ND	
67 Methyl methacrylate	69		7.806					ND	
89 t-Amyl alcohol	73		7.842					ND	
69 n-Propyl acetate	61		7.953					ND	
70 Dichlorobromomethane	83		8.062					ND	
72 2-Nitropropane	41		8.367					ND	
71 2-Chloroethyl vinyl ether	63		8.471					ND	
73 cis-1,3-Dichloropropene	75		8.660					ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.873					ND	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1051976	50.0	51.4	
77 Toluene	92		9.093					ND	
78 trans-1,3-Dichloropropene	75		9.422					ND	
79 Ethyl methacrylate	69		9.513					ND	
80 1,1,2-Trichloroethane	97		9.647					ND	
81 Tetrachloroethene	166		9.727					ND	
82 1,3-Dichloropropane	76		9.830					ND	
83 3,4-Dichloro-1-butene	75		9.903					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 2-Hexanone	43		9.910					ND	
S 123 1,3-Dichloropropene, Total	100		10.060					ND	7
85 Chlorodibromomethane	129		10.068					ND	
86 n-Butyl acetate	43		10.080					ND	
87 Ethylene Dibromide	107		10.178					ND	
* 90 Chlorobenzene-d5 (IS)	117	10.666	10.666	0.000	85	812823	50.0	50.0	
88 Chlorobenzene	112		10.696					ND	
91 1-Chlorohexane	91		10.696					ND	U
92 1,1,1,2-Tetrachloroethane	131		10.794					ND	
93 Ethylbenzene	91		10.800					ND	
94 m-Xylene & p-Xylene	106		10.928					ND	
S 130 Xylenes, Total	106		11.245					ND	7
95 o-Xylene	106		11.287					ND	
96 Styrene	104		11.306					ND	
97 Bromoform	173		11.464					ND	
98 Isopropylbenzene	105		11.617					ND	
99 cis-1,4-Dichloro-2-butene	88		11.677					ND	
100 Cyclohexanone	55		11.690					ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	95	394696	50.0	47.8	
102 Bromobenzene	156		11.879					ND	
105 1,1,2,2-Tetrachloroethane	83		11.891					ND	
104 trans-1,4-Dichloro-2-butene	53		11.915					ND	
103 1,2,3-Trichloropropane	110		11.927					ND	
106 N-Propylbenzene	91		11.970					ND	
107 2-Chlorotoluene	126		12.043					ND	
108 1,3,5-Trimethylbenzene	105		12.116					ND	
109 4-Chlorotoluene	126		12.141					ND	
110 2,3,4-Trichlorobutene	109		12.171					ND	
111 tert-Butylbenzene	134		12.373					ND	
112 Pentachloroethane	167		12.397					ND	
113 1,2,4-Trimethylbenzene	105		12.415					ND	
114 sec-Butylbenzene	105		12.543					ND	
115 1,3-Dichlorobenzene	146		12.641					ND	
116 4-Isopropyltoluene	119		12.665					ND	
* 117 1,4-Dichlorobenzene-d4	152	12.702	12.702	0.000	94	439112	50.0	50.0	
118 1,4-Dichlorobenzene	146		12.720					ND	
119 1,2,3-Trimethylbenzene	105		12.738					ND	
120 Benzyl chloride	91		12.805					ND	
121 1,3-Diethylbenzene	119		12.879					ND	
122 p-Diethylbenzene	119		12.952					ND	
124 n-Butylbenzene	92		12.970					ND	
125 1,2-Dichlorobenzene	146		12.988					ND	
126 o-diethylbenzene	119		13.025					ND	
135 Hexachloroethane	201		13.560					ND	
127 1,2-Dibromo-3-Chloropropane	75		13.561					ND	
128 1,3,5-Trichlorobenzene	180		13.689					ND	
129 1,2,4-Trichlorobenzene	180		14.134					ND	
131 Hexachlorobutadiene	225		14.226					ND	
132 Naphthalene	128		14.317					ND	7
133 1,2,3-Trichlorobenzene	180		14.464					ND	
134 2-Methylnaphthalene	142		15.085					ND	
136 C4-C10	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
146 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
150 C5-C12	1		0.000					ND	
151 1-Bromo-2-chloroethane	1		0.000					ND	
152 C6-C12	1		0.000					ND	
142 1,4-Divinylbenzene	1		0.000					ND	
172 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
173 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
157 Methyl acrylate	1		0.000					ND	
158 tert-Butyl Formate	1		0.000					ND	
159 1,3-Divinylbenzene	1		0.000					ND	
160 Ethyl bromide	1		0.000					ND	
161 Chloroacetonitrile	1		0.000					ND	
171 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
141 1-Chlorobutane	1		0.000					ND	
143 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
186 Bromoethane TIC	1		0.000					ND	
184 1,3-Dichlorobutene-2(total) TIC	1		0.000					ND	
193 Allyl Alcohol TIC	1		0.000					ND	
166 Dodecane	57		0.000					ND	
167 Butane	1		0.000					ND	
168 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
170 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
208 Pentachloroethane TIC	1		0.000					ND	
207 1-Bromo-2-chloroethane TIC	1		0.000					ND	
206 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
205 Chloral hydrate (TIC)	1		0.000					ND	
204 Methanol TIC	1		0.000					ND	
177 2-Bromoethanol TIC	1		0.000					ND	
192 Vinyl acetate (TIC)	1		0.000					ND	
185 Nitrobenzene TIC	1		0.000					ND	
174 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
175 n-Propylamine (TIC)	1		0.000					ND	
176 beta-Propiolactone TIC	1		0.000					ND	
198 2-Bromo-3-chloropropene TIC	1		0.000					ND	
191 Chloroacetaldehyde TIC	1		0.000					ND	
190 2-Picoline (TIC)	1		0.000					ND	
189 Epibromohydrin TIC	1		0.000					ND	
188 Malononitrile (TIC)	1		0.000					ND	
187 2-Pentanone (TIC)	1		0.000					ND	
195 1-Bromopropane TIC	1		0.000					ND	
196 Epichlorohydrin TIC	1		0.000					ND	
202 Bromoacetone (TIC)	1		0.000					ND	
182 2-Chloroethanol TIC	1		0.000					ND	
181 Acetonitrile TIC	1		0.000					ND	
180 Propanol TIC	1		0.000					ND	
179 Monochloroacetic acid TIC	1		0.000					ND	
178 Propargyl alcohol TIC	1		0.000					ND	
197 Pentafluorobenzene TIC	1		0.000					ND	
209 Ethyl acrylate TIC	1		0.000					ND	
194 Vinyl bromide TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
156 C6-C10	1		0.000					ND	
155 3-chloro-1-Butene	1		0.000					ND	
145 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
165 n-Decane	57		0.000					ND	
163 Methylal	1		0.000					ND	
S 162 divinyl benzene	1		0.000					ND	7
137 1,3-Dichlorobutene-2(total)	1		0.000					ND	
S 154 Total Diethylbenzene	1		0.000					ND	7
138 Propene oxide	1		0.000					ND	
199 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
200 Ethylene oxide TIC	1		0.000					ND	
201 Paraldehyde TIC	1		0.000					ND	
203 2,3-Dibromopropene TIC	1		0.000					ND	
210 Ethanol TIC	1		0.000					ND	
144 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
140 C4-C12	1		0.000					ND	
211 o-toluidine TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

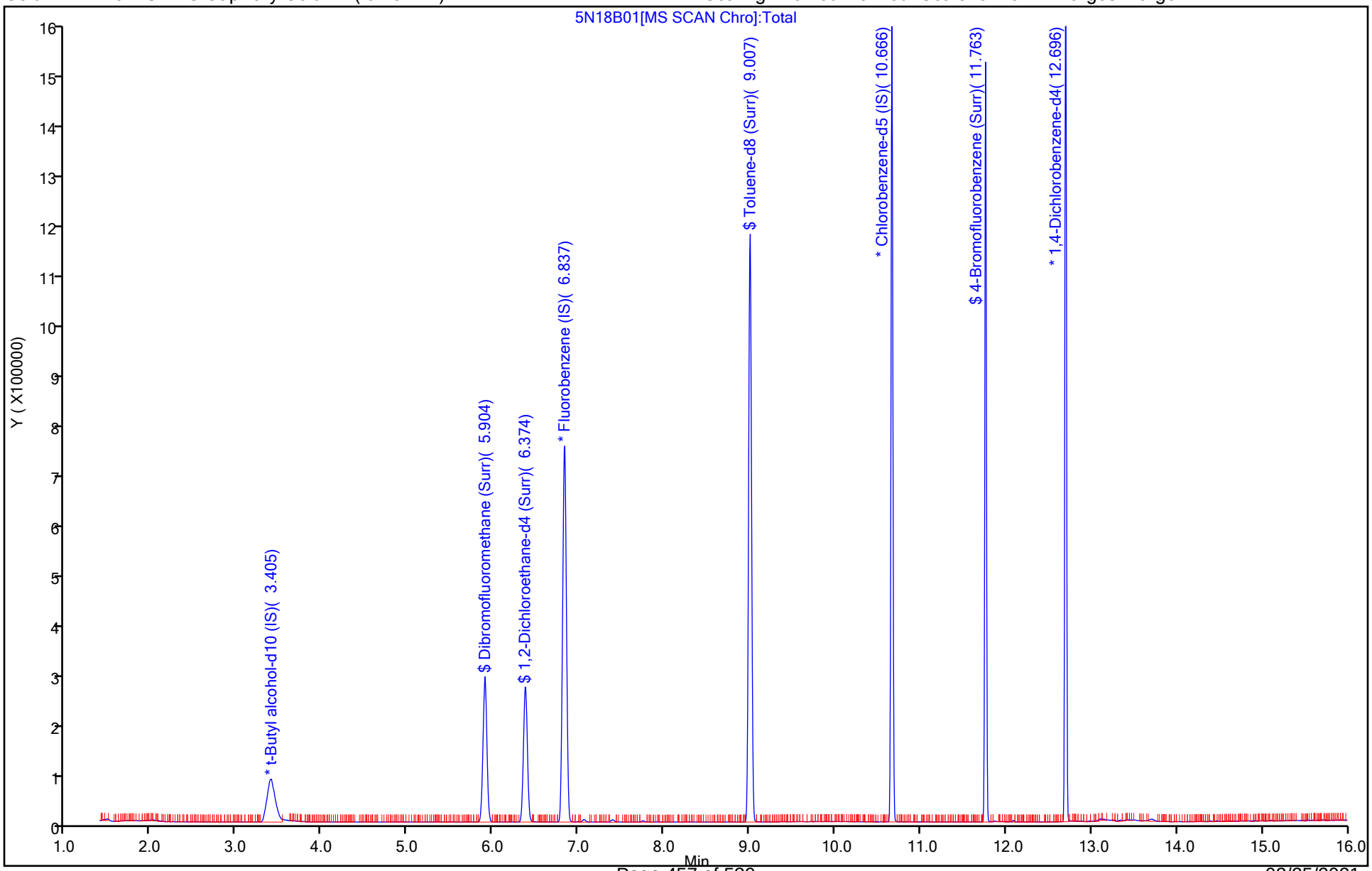
Report Date: 18-Nov-2020 12:08:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18B01.D

Injection Date:	18-Nov-2020 11:45:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-68196/6

Matrix: Water Lab File ID: 5N19B35.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 21:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19B35.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 19-Nov-2020 21:25:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-006
Misc. Info.: MB
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: proctore Date: 19-Nov-2020 23:16:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.582					ND	
2 Dichlorodifluoromethane	85		1.594					ND	
6 Chlorodifluoromethane	51		1.624					ND	
3 Chloromethane	50		1.759					ND	
4 Butadiene	39		1.850					ND	
5 Vinyl chloride	62		1.850					ND	
7 2-Chloro-1,1,1-Trifluoroethane	118		1.917					ND	
8 Bromomethane	94		2.112					ND	
9 Chloroethane	64		2.179					ND	
10 Dichlorofluoromethane	67		2.362					ND	
11 Trichlorofluoromethane	101		2.423					ND	
12 Pentane	43		2.448					ND	
13 Ethanol	45		2.545					ND	
14 Ethyl ether	59		2.618					ND	
15 1,2-Dichloro-1,1,2-trifluoroetha	67		2.692					ND	
16 Acrolein	56		2.759					ND	
19 1,1-Dichloroethene	96		2.868					ND	
17 Acetone	58		2.899					ND	
18 112TCTFE	101		2.905					ND	
20 Iodomethane	142		3.033					ND	
21 Isopropyl alcohol	45		3.033					ND	
22 Carbon disulfide	76		3.112					ND	7
24 Acetonitrile	41		3.222					ND	
23 Methyl acetate	43		3.228					ND	
25 3-Chloro-1-propene	41		3.246					ND	
26 Methylene Chloride	84		3.405					ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	97	365707	250.0	250.0	
28 2-Methyl-2-propanol	59		3.515					ND	
29 Acrylonitrile	53		3.673					ND	
30 Methyl tert-butyl ether	73		3.728					ND	
31 trans-1,2-Dichloroethene	96		3.734					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Hexane	57		4.106					ND	
33 1,1-Dichloroethane	63		4.338					ND	
34 Vinyl acetate	43		4.368					ND	
35 Isopropyl ether	45		4.399					ND	
36 2-Chloro-1,3-butadiene	53		4.447					ND	
37 Tert-butyl ethyl ether	59		4.959					ND	
39 2-Butanone (MEK)	43		5.185					ND	
38 cis-1,2-Dichloroethene	96		5.203					ND	
40 2,2-Dichloropropane	77		5.215					ND	
42 Ethyl acetate	43		5.270					ND	
41 Propionitrile	54		5.282					ND	
43 Methacrylonitrile	67		5.502					ND	
44 Chlorobromomethane	128		5.539					ND	
45 Tetrahydrofuran	71		5.551					ND	
46 Chloroform	83		5.709					ND	
48 1,1,1-Trichloroethane	97		5.929					ND	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	279879	50.0	47.5	
49 Cyclohexane	56		6.020					ND	
51 Carbon tetrachloride	117		6.142					ND	
50 1,1-Dichloropropene	75		6.154					ND	
S 74 1,2-Dichloroethene, Total	100		6.155					ND	7
52 Isobutyl alcohol	41		6.374					ND	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	97	65494	50.0	50.9	
53 Benzene	78		6.429					ND	
55 1,2-Dichloroethane	62		6.514					ND	7
57 Isopropyl acetate	43		6.587					ND	
58 Tert-amyl methyl ether	73		6.648					ND	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1130836	50.0	50.0	
60 n-Heptane	43		6.886					ND	
61 n-Butanol	56		7.294					ND	
62 Trichloroethene	95		7.361					ND	
63 Methylcyclohexane	83		7.672					ND	
64 1,2-Dichloropropane	63		7.715					ND	
65 2-ethoxy-2-methyl butane	87		7.739					ND	
68 1,4-Dioxane	88		7.806					ND	
66 Dibromomethane	93		7.825					ND	
67 Methyl methacrylate	69		7.831					ND	
89 t-Amyl alcohol	73		7.842					ND	
69 n-Propyl acetate	61		7.953					ND	
70 Dichlorobromomethane	83		8.087					ND	
72 2-Nitropropane	41		8.386					ND	
71 2-Chloroethyl vinyl ether	63		8.489					ND	
73 cis-1,3-Dichloropropene	75		8.672					ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.885					ND	
$ 76 Toluene-d8 (Surr)	98	9.013	9.020	-0.007	93	1077015	50.0	50.6	
77 Toluene	92		9.105					ND	
78 trans-1,3-Dichloropropene	75		9.428					ND	
79 Ethyl methacrylate	69		9.513					ND	
80 1,1,2-Trichloroethane	97		9.654					ND	
81 Tetrachloroethene	166		9.733					ND	
82 1,3-Dichloropropane	76		9.836					ND	
83 3,4-Dichloro-1-butene	75		9.903					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 2-Hexanone	43		9.910					ND	
S 123 1,3-Dichloropropene, Total	100		10.060					ND	7
85 Chlorodibromomethane	129		10.068					ND	
86 n-Butyl acetate	43		10.080					ND	
87 Ethylene Dibromide	107		10.178					ND	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	85	845823	50.0	50.0	
88 Chlorobenzene	112		10.690					ND	
91 1-Chlorohexane	91		10.690					ND	U
92 1,1,1,2-Tetrachloroethane	131		10.788					ND	
93 Ethylbenzene	91		10.794					ND	
94 m-Xylene & p-Xylene	106		10.922					ND	
S 130 Xylenes, Total	106		11.245					ND	7
95 o-Xylene	106		11.275					ND	
96 Styrene	104		11.294					ND	
97 Bromoform	173		11.446					ND	
98 Isopropylbenzene	105		11.598					ND	
100 Cyclohexanone	55		11.671					ND	
99 cis-1,4-Dichloro-2-butene	88		11.677					ND	
$ 101 4-Bromofluorobenzene (Surr)	95	11.745	11.745	0.000	95	399331	50.0	46.4	
102 Bromobenzene	156		11.860					ND	
105 1,1,2,2-Tetrachloroethane	83		11.867					ND	
104 trans-1,4-Dichloro-2-butene	53		11.897					ND	
103 1,2,3-Trichloropropane	110		11.909					ND	
106 N-Propylbenzene	91		11.946					ND	
107 2-Chlorotoluene	126		12.025					ND	
108 1,3,5-Trimethylbenzene	105		12.098					ND	
109 4-Chlorotoluene	126		12.123					ND	
110 2,3,4-Trichlorobutene	109		12.171					ND	
111 tert-Butylbenzene	134		12.348					ND	
112 Pentachloroethane	167		12.379					ND	
113 1,2,4-Trimethylbenzene	105		12.397					ND	
114 sec-Butylbenzene	105		12.519					ND	
115 1,3-Dichlorobenzene	146		12.616					ND	
116 4-Isopropyltoluene	119		12.641					ND	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	453943	50.0	50.0	
118 1,4-Dichlorobenzene	146		12.696					ND	
119 1,2,3-Trimethylbenzene	105		12.714					ND	7
120 Benzyl chloride	91		12.781					ND	
121 1,3-Diethylbenzene	119		12.848					ND	
122 p-Diethylbenzene	119		12.921					ND	
124 n-Butylbenzene	92		12.940					ND	
125 1,2-Dichlorobenzene	146		12.964					ND	
126 o-diethylbenzene	119		12.994					ND	
127 1,2-Dibromo-3-Chloropropane	75		13.531					ND	
135 Hexachloroethane	201		13.560					ND	
128 1,3,5-Trichlorobenzene	180		13.659					ND	7
129 1,2,4-Trichlorobenzene	180		14.098					ND	
131 Hexachlorobutadiene	225		14.189					ND	
132 Naphthalene	128		14.281					ND	7
133 1,2,3-Trichlorobenzene	180		14.427					ND	
134 2-Methylnaphthalene	142		15.043					ND	7
136 C4-C10	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
161 Chloroacetonitrile	1		0.000					ND	
160 Ethyl bromide	1		0.000					ND	
159 1,3-Divinylbenzene	1		0.000					ND	
158 tert-Butyl Formate	1		0.000					ND	
157 Methyl acrylate	1		0.000					ND	
209 Ethyl acrylate TIC	1		0.000					ND	
202 Bromoacetone (TIC)	1		0.000					ND	
195 1-Bromopropane TIC	1		0.000					ND	
152 C6-C12	1		0.000					ND	
151 1-Bromo-2-chloroethane	1		0.000					ND	
150 C5-C12	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
146 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
196 Epichlorohydrin TIC	1		0.000					ND	
208 Pentachloroethane TIC	1		0.000					ND	
143 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
144 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
210 Ethanol TIC	1		0.000					ND	
203 2,3-Dibromopropene TIC	1		0.000					ND	
201 Paraldehyde TIC	1		0.000					ND	
200 Ethylene oxide TIC	1		0.000					ND	
199 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
198 2-Bromo-3-chloropropene TIC	1		0.000					ND	
197 Pentafluorobenzene TIC	1		0.000					ND	
137 1,3-Dichlorobutene-2(total)	1		0.000					ND	
S 162 divinyl benzene	1		0.000					ND	7
163 Methylal	1		0.000					ND	
165 n-Decane	57		0.000					ND	
145 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
155 3-chloro-1-Butene	1		0.000					ND	
S 154 Total Diethylbenzene	1		0.000					ND	7
156 C6-C10	1		0.000					ND	
174 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
175 n-Propylamine (TIC)	1		0.000					ND	
176 beta-Propiolactone TIC	1		0.000					ND	
172 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
178 Propargyl alcohol TIC	1		0.000					ND	
179 Monochloroacetic acid TIC	1		0.000					ND	
180 Propanol TIC	1		0.000					ND	
181 Acetonitrile TIC	1		0.000					ND	
182 2-Chloroethanol TIC	1		0.000					ND	
140 C4-C12	1		0.000					ND	
142 1,4-Divinylbenzene	1		0.000					ND	
141 1-Chlorobutane	1		0.000					ND	
187 2-Pentanone (TIC)	1		0.000					ND	
188 Malononitrile (TIC)	1		0.000					ND	
189 Epibromohydrin TIC	1		0.000					ND	
190 2-Picoline (TIC)	1		0.000					ND	
191 Chloroacetaldehyde TIC	1		0.000					ND	
173 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
138 Propene oxide	1		0.000					ND	
194 Vinyl bromide TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
193 Allyl Alcohol TIC	1		0.000					ND	
186 Bromoethane TIC	1		0.000					ND	
185 Nitrobenzene TIC	1		0.000					ND	
192 Vinyl acetate (TIC)	1		0.000					ND	
177 2-Bromoethanol TIC	1		0.000					ND	
204 Methanol TIC	1		0.000					ND	
205 Chloral hydrate (TIC)	1		0.000					ND	
184 1,3-Dichlorobutene-2(total) TIC	1		0.000					ND	
206 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
171 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
170 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
168 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
167 Butane	1		0.000					ND	
166 Dodecane	57		0.000					ND	
207 1-Bromo-2-chloroethane TIC	1		0.000					ND	
211 o-toluidine TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

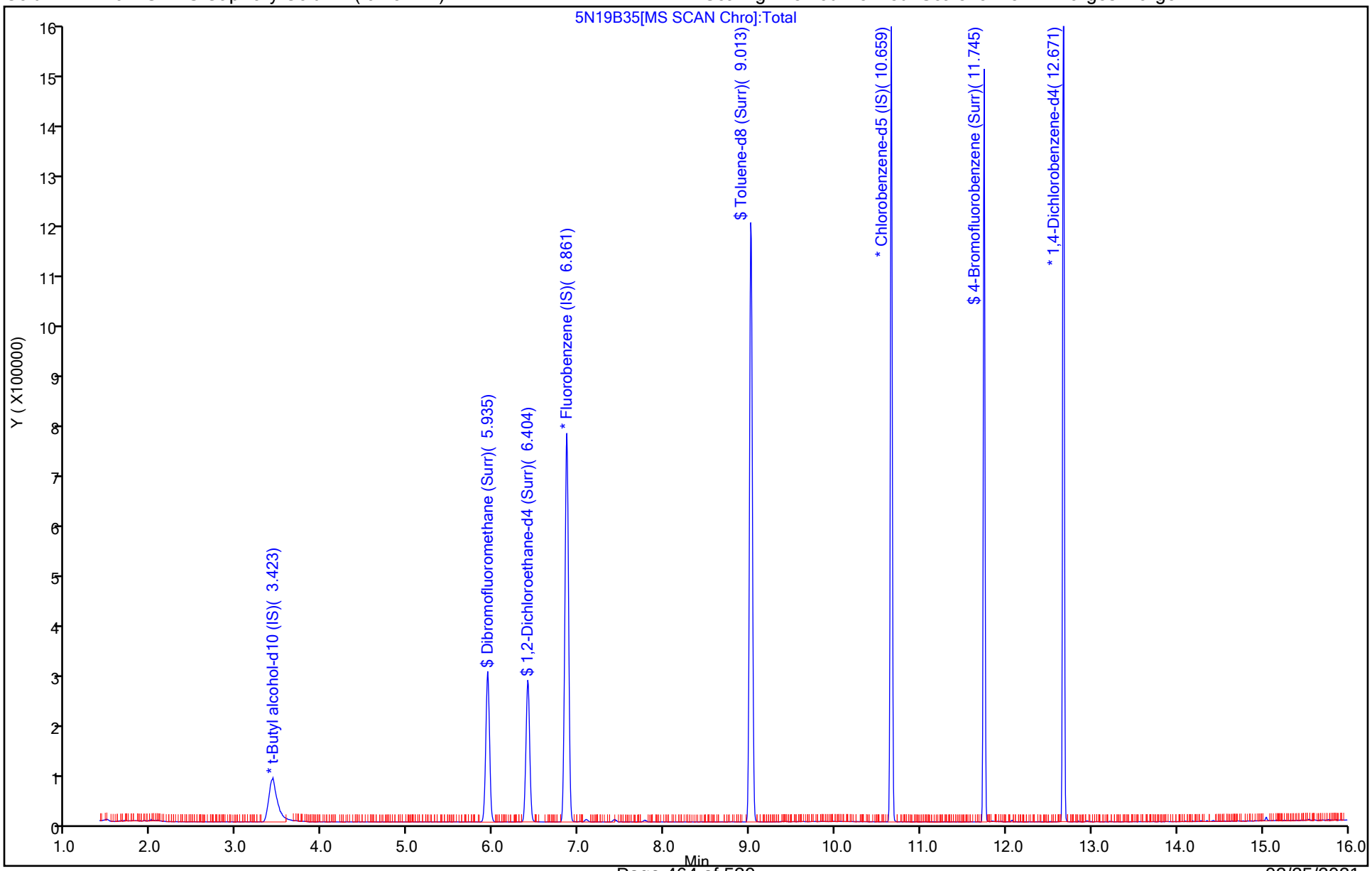
Report Date: 20-Nov-2020 10:49:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19B35.D

Injection Date:	19-Nov-2020 21:25:30	Instrument ID:	26285	Operator ID:	etp33087
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-68468/7

Matrix: Water Lab File ID: 5N20B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 10:20

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 20-Nov-2020 10:20:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-007
Misc. Info.: MB
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:55:31 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:55:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		1.582					ND	
2 Dichlorodifluoromethane	85		1.588					ND	
6 Chlorodifluoromethane	51		1.624					ND	
3 Chloromethane	50		1.759					ND	
4 Butadiene	39		1.844					ND	
5 Vinyl chloride	62		1.856					ND	
7 2-Chloro-1,1,1-Trifluoroethane	118		1.917					ND	
8 Bromomethane	94		2.112					ND	
9 Chloroethane	64		2.179					ND	
10 Dichlorofluoromethane	67		2.375					ND	
11 Trichlorofluoromethane	101		2.423					ND	
12 Pentane	43		2.448					ND	
13 Ethanol	45		2.545					ND	
14 Ethyl ether	59		2.618					ND	
15 1,2-Dichloro-1,1,2-trifluoroetha	67		2.692					ND	
16 Acrolein	56		2.759					ND	
19 1,1-Dichloroethene	96		2.868					ND	
17 Acetone	58		2.893					ND	
18 112TCTFE	101		2.905					ND	
21 Isopropyl alcohol	45		3.027					ND	
20 Iodomethane	142		3.033					ND	
22 Carbon disulfide	76		3.112					ND	
24 Acetonitrile	41		3.222					ND	
23 Methyl acetate	43		3.228					ND	
25 3-Chloro-1-propene	41		3.246					ND	
26 Methylene Chloride	84		3.405					ND	
* 27 t-Butyl alcohol-d10 (IS)	65	3.435	3.417	0.018	97	337702	250.0	250.0	M
28 2-Methyl-2-propanol	59		3.515					ND	
29 Acrylonitrile	53		3.673					ND	
30 Methyl tert-butyl ether	73		3.728					ND	
31 trans-1,2-Dichloroethene	96		3.734					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
32 Hexane	57		4.100					ND	
33 1,1-Dichloroethane	63		4.338					ND	
34 Vinyl acetate	43		4.368					ND	
35 Isopropyl ether	45		4.399					ND	
36 2-Chloro-1,3-butadiene	53		4.447					ND	
37 Tert-butyl ethyl ether	59		4.959					ND	
39 2-Butanone (MEK)	43		5.185					ND	
38 cis-1,2-Dichloroethene	96		5.203					ND	
40 2,2-Dichloropropane	77		5.209					ND	
42 Ethyl acetate	43		5.270					ND	
41 Propionitrile	54		5.289					ND	
43 Methacrylonitrile	67		5.502					ND	
44 Chlorobromomethane	128		5.545					ND	
45 Tetrahydrofuran	71		5.551					ND	
46 Chloroform	83		5.709					ND	
48 1,1,1-Trichloroethane	97		5.929					ND	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	275136	50.0	48.0	
49 Cyclohexane	56		6.020					ND	
51 Carbon tetrachloride	117		6.142					ND	
50 1,1-Dichloropropene	75		6.154					ND	
S 74 1,2-Dichloroethene, Total	100		6.155					ND	7
52 Isobutyl alcohol	41		6.368					ND	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.416	6.410	0.006	97	62388	50.0	49.9	
53 Benzene	78		6.429					ND	
55 1,2-Dichloroethane	62		6.514					ND	7
57 Isopropyl acetate	43		6.587					ND	
58 Tert-amyl methyl ether	73		6.642					ND	
* 59 Fluorobenzene (IS)	96	6.867	6.861	0.006	99	1099909	50.0	50.0	
60 n-Heptane	43		6.880					ND	
61 n-Butanol	56		7.294					ND	
62 Trichloroethene	95		7.361					ND	
63 Methylcyclohexane	83		7.666					ND	
64 1,2-Dichloropropane	63		7.715					ND	
65 2-ethoxy-2-methyl butane	87		7.739					ND	
68 1,4-Dioxane	88		7.806					ND	
66 Dibromomethane	93		7.825					ND	
67 Methyl methacrylate	69		7.825					ND	
89 t-Amyl alcohol	73		7.842					ND	
69 n-Propyl acetate	61		7.953					ND	
70 Dichlorobromomethane	83		8.087					ND	
72 2-Nitropropane	41		8.386					ND	
71 2-Chloroethyl vinyl ether	63		8.483					ND	
73 cis-1,3-Dichloropropene	75		8.672					ND	
75 4-Methyl-2-pentanone (MIBK)	43		8.885					ND	
$ 76 Toluene-d8 (Surr)	98	9.019	9.013	0.006	93	1035958	50.0	50.3	
77 Toluene	92		9.105					ND	
78 trans-1,3-Dichloropropene	75		9.422					ND	
79 Ethyl methacrylate	69		9.507					ND	
80 1,1,2-Trichloroethane	97		9.647					ND	
81 Tetrachloroethene	166		9.727					ND	
82 1,3-Dichloropropane	76		9.830					ND	
83 3,4-Dichloro-1-butene	75		9.903					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
84 2-Hexanone	43		9.904					ND	
S 123 1,3-Dichloropropene, Total	100		10.060					ND	7
85 Chlorodibromomethane	129		10.062					ND	
86 n-Butyl acetate	43		10.080					ND	
87 Ethylene Dibromide	107		10.172					ND	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	85	817456	50.0	50.0	
88 Chlorobenzene	112		10.684					ND	
91 1-Chlorohexane	91		10.684					ND	U
92 1,1,1,2-Tetrachloroethane	131		10.775					ND	
93 Ethylbenzene	91		10.781					ND	
94 m-Xylene & p-Xylene	106		10.909					ND	
S 130 Xylenes, Total	106		11.245					ND	7
95 o-Xylene	106		11.263					ND	
96 Styrene	104		11.281					ND	
97 Bromoform	173		11.440					ND	
98 Isopropylbenzene	105		11.586					ND	
100 Cyclohexanone	55		11.665					ND	
99 cis-1,4-Dichloro-2-butene	88	11.738	11.677	0.061	35	17457		4.42	
$ 101 4-Bromofluorobenzene (Surr)	95	11.738	11.732	0.006	96	385117	50.0	46.3	
102 Bromobenzene	156		11.848					ND	
105 1,1,2,2-Tetrachloroethane	83		11.860					ND	
104 trans-1,4-Dichloro-2-butene	53		11.885					ND	
103 1,2,3-Trichloropropane	110		11.903					ND	
106 N-Propylbenzene	91		11.940					ND	
107 2-Chlorotoluene	126		12.013					ND	
108 1,3,5-Trimethylbenzene	105		12.086					ND	
109 4-Chlorotoluene	126		12.110					ND	
110 2,3,4-Trichlorobutene	109		12.171					ND	
111 tert-Butylbenzene	134		12.336					ND	
112 Pentachloroethane	167		12.366					ND	
113 1,2,4-Trimethylbenzene	105		12.385					ND	
114 sec-Butylbenzene	105		12.513					ND	
115 1,3-Dichlorobenzene	146		12.604					ND	
116 4-Isopropyltoluene	119		12.629					ND	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.665	0.000	94	440517	50.0	50.0	
118 1,4-Dichlorobenzene	146		12.683					ND	
119 1,2,3-Trimethylbenzene	105		12.702					ND	
120 Benzyl chloride	91		12.769					ND	
121 1,3-Diethylbenzene	119		12.836					ND	
122 p-Diethylbenzene	119		12.909					ND	
124 n-Butylbenzene	92		12.927					ND	
125 1,2-Dichlorobenzene	146		12.952					ND	
126 o-diethylbenzene	119		12.982					ND	
127 1,2-Dibromo-3-Chloropropane	75		13.513					ND	
135 Hexachloroethane	201		13.560					ND	
128 1,3,5-Trichlorobenzene	180		13.647					ND	
129 1,2,4-Trichlorobenzene	180		14.086					ND	
131 Hexachlorobutadiene	225		14.171					ND	
132 Naphthalene	128		14.269					ND	
133 1,2,3-Trichlorobenzene	180		14.415					ND	
134 2-Methylnaphthalene	142		15.024					ND	
136 C4-C10	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
161 Chloroacetonitrile	1		0.000					ND	
160 Ethyl bromide	1		0.000					ND	
159 1,3-Divinylbenzene	1		0.000					ND	
158 tert-Butyl Formate	1		0.000					ND	
157 Methyl acrylate	1		0.000					ND	
166 Dodecane	57		0.000					ND	
184 1,3-Dichlorobutene-2(total) TIC	1		0.000					ND	
193 Allyl Alcohol TIC	1		0.000					ND	
152 C6-C12	1		0.000					ND	
151 1-Bromo-2-chloroethane	1		0.000					ND	
150 C5-C12	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
146 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
186 Bromoethane TIC	1		0.000					ND	
167 Butane	1		0.000					ND	
143 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
208 Pentachloroethane TIC	1		0.000					ND	
207 1-Bromo-2-chloroethane TIC	1		0.000					ND	
206 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
205 Chloral hydrate (TIC)	1		0.000					ND	
204 Methanol TIC	1		0.000					ND	
177 2-Bromoethanol TIC	1		0.000					ND	
192 Vinyl acetate (TIC)	1		0.000					ND	
185 Nitrobenzene TIC	1		0.000					ND	
200 Ethylene oxide TIC	1		0.000					ND	
199 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
198 2-Bromo-3-chloropropene TIC	1		0.000					ND	
197 Pentafluorobenzene TIC	1		0.000					ND	
196 Epichlorohydrin TIC	1		0.000					ND	
202 Bromoacetone (TIC)	1		0.000					ND	
195 1-Bromopropane TIC	1		0.000					ND	
209 Ethyl acrylate TIC	1		0.000					ND	
174 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
175 n-Propylamine (TIC)	1		0.000					ND	
176 beta-Propiolactone TIC	1		0.000					ND	
S 154 Total Diethylbenzene	1		0.000					ND	7
178 Propargyl alcohol TIC	1		0.000					ND	
179 Monochloroacetic acid TIC	1		0.000					ND	
180 Propanol TIC	1		0.000					ND	
181 Acetonitrile TIC	1		0.000					ND	
182 2-Chloroethanol TIC	1		0.000					ND	
203 2,3-Dibromopropene TIC	1		0.000					ND	
144 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
210 Ethanol TIC	1		0.000					ND	
187 2-Pentanone (TIC)	1		0.000					ND	
188 Malononitrile (TIC)	1		0.000					ND	
189 Epibromohydrin TIC	1		0.000					ND	
190 2-Picoline (TIC)	1		0.000					ND	
191 Chloroacetaldehyde TIC	1		0.000					ND	
156 C6-C10	1		0.000					ND	
201 Paraldehyde TIC	1		0.000					ND	
194 Vinyl bromide TIC	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
138 Propene oxide	1		0.000					ND	
141 1-Chlorobutane	1		0.000					ND	
142 1,4-Divinylbenzene	1		0.000					ND	
173 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
172 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
171 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
170 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
140 C4-C12	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
155 3-chloro-1-Butene	1		0.000					ND	
145 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
165 n-Decane	57		0.000					ND	
163 Methylal	1		0.000					ND	
S 162 divinyl benzene	1		0.000					ND	7
137 1,3-Dichlorobutene-2(total)	1		0.000					ND	
168 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
211 o-toluidine TIC	1		0.000					ND	

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected

Reagents:

MSV_HP05_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

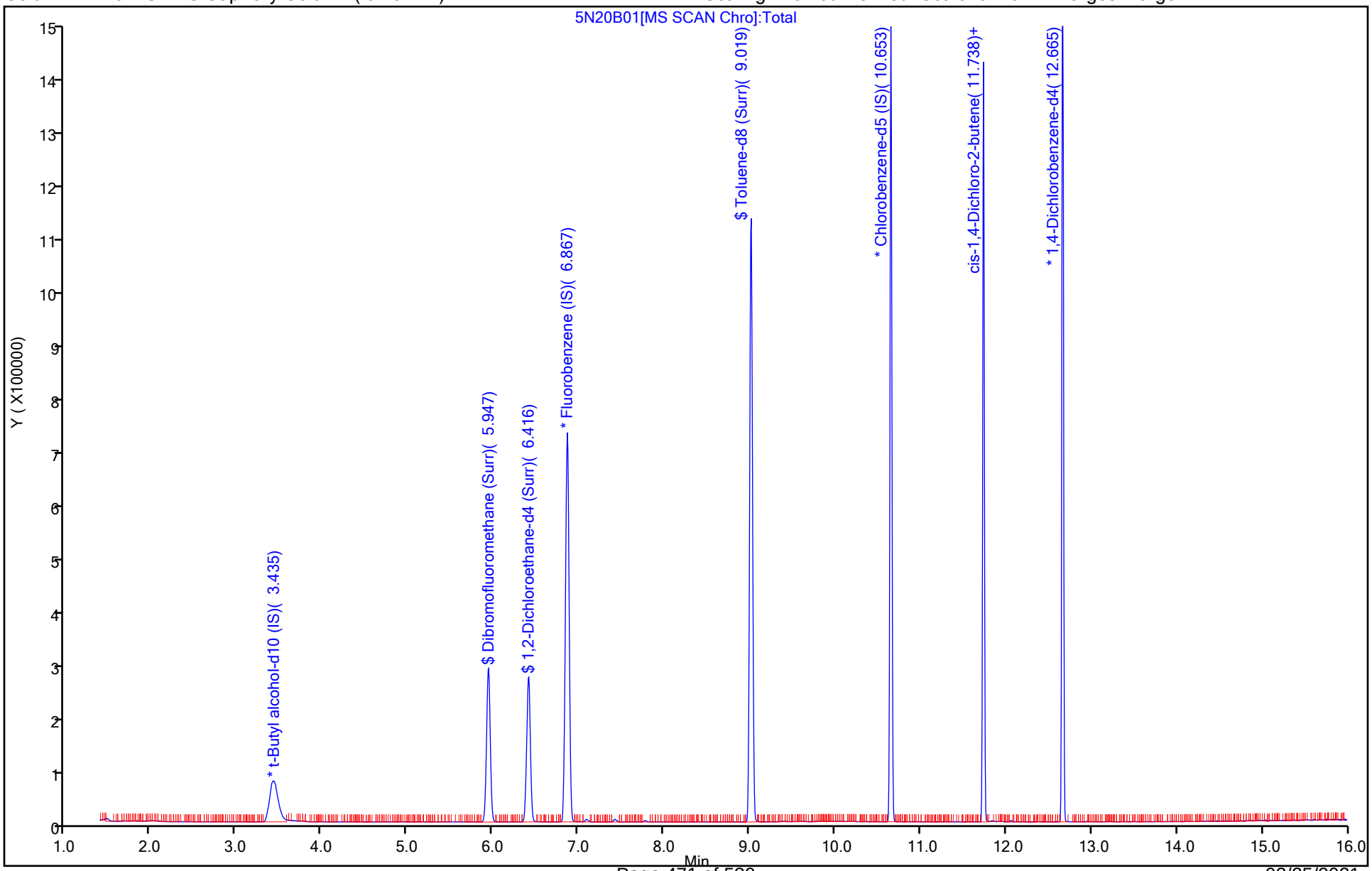
Report Date: 20-Nov-2020 10:55:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20B01.D

Injection Date:	20-Nov-2020 10:20:30	Instrument ID:	26285	Operator ID:	CLM27445
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

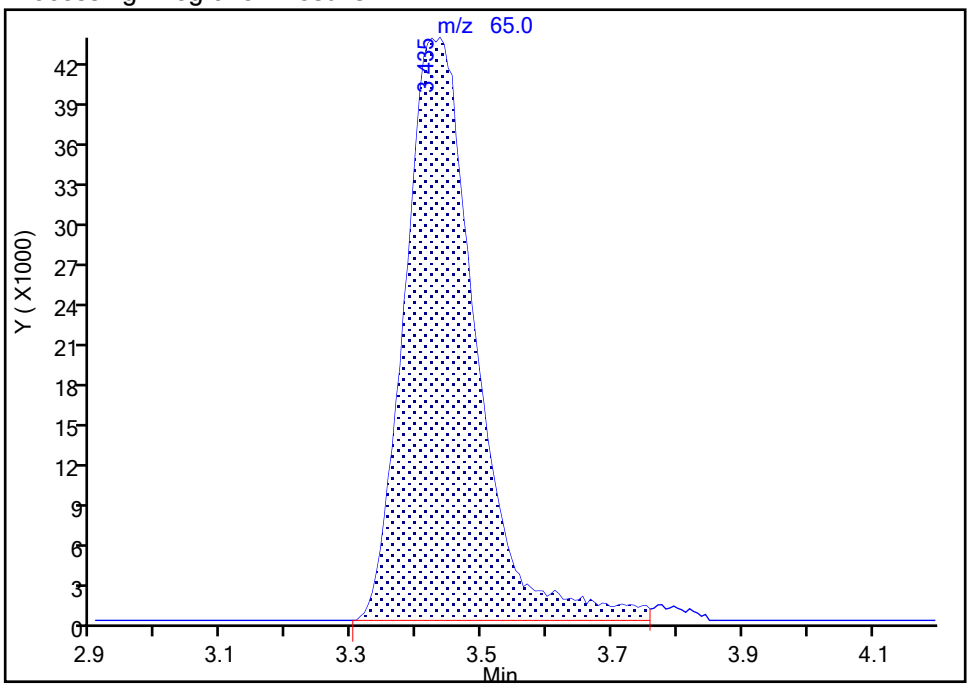
Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20B01.D
Injection Date: 20-Nov-2020 10:20:30 Instrument ID: 26285
Lims ID: MB
Client ID:
Operator ID: CLM27445 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

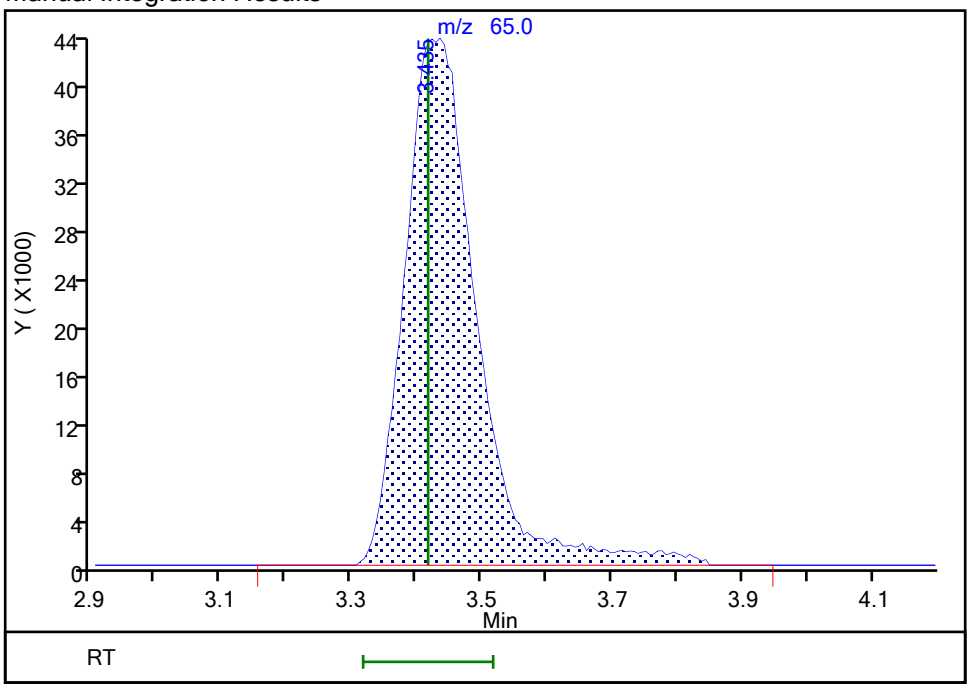
Processing Integration Results

RT: 3.44
Area: 333552
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.44
Area: 337702
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:54:21
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-67415/5

Matrix: Water Lab File ID: 5N18L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 11:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	17.8		1.0	0.30
75-34-3	1,1-Dichloroethane	19.6		1.0	0.20
75-35-4	1,1-Dichloroethene	20.9		1.0	0.20
95-50-1	1,2-Dichlorobenzene	19.9		5.0	0.20
107-06-2	1,2-Dichloroethane	18.1		1.0	0.30
123-91-1	1,4-Dioxane	493		250	29
78-93-3	2-Butanone	157		10	0.30
67-64-1	Acetone	190		20	0.70
71-43-2	Benzene	19.7		1.0	0.20
75-15-0	Carbon disulfide	19.2		5.0	0.20
67-66-3	Chloroform	18.9		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	20.6		1.0	0.20
100-41-4	Ethylbenzene	19.5		1.0	0.40
76-13-1	Freon 113	18.8		10	0.20
75-09-2	Methylene Chloride	20.7		1.0	0.30
91-20-3	Naphthalene	19.5		5.0	1.0
127-18-4	Tetrachloroethene	20.8		1.0	0.20
108-88-3	Toluene	19.9		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	20.1		1.0	0.20
79-01-6	Trichloroethene	19.4		1.0	0.20
75-01-4	Vinyl chloride	18.5		1.0	0.20
1330-20-7	Xylenes, Total	59.6		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 18-Nov-2020 11:05:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-005
Misc. Info.: LCS
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 18-Nov-2020 12:08:09 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1626

First Level Reviewer: mellingerc Date: 18-Nov-2020 12:04:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.582	1.594	-0.012	99	123481	20.0	16.5	
3 Chloromethane	50	1.746	1.753	-0.007	99	159027	20.0	16.7	
4 Butadiene	39	1.832	1.838	-0.006	92	211997	20.0	33.0	
5 Vinyl chloride	62	1.838	1.844	-0.006	97	153751	20.0	18.5	
8 Bromomethane	94	2.094	2.100	-0.006	89	116181	20.0	20.1	
9 Chloroethane	64	2.161	2.161	0.000	99	87507	20.0	18.5	
11 Trichlorofluoromethane	101	2.393	2.405	-0.012	98	178398	20.0	18.1	
12 Pentane	43	2.423	2.429	-0.006	96	162464	20.0	19.4	
14 Ethyl ether	59	2.594	2.594	0.000	95	111301	20.0	20.8	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.667	2.667	0.000	93	144787	20.0	20.4	
16 Acrolein	56	2.734	2.734	0.000	99	319643	150.0	153.6	
19 1,1-Dichloroethene	96	2.844	2.844	0.000	97	108053	20.0	20.9	
17 Acetone	58	2.868	2.874	-0.006	100	182491	150.0	190.2	
18 112TCTFE	101	2.880	2.880	0.000	90	102311	20.0	18.8	
20 Iodomethane	142	3.002	3.002	0.000	97	205126	20.0	19.4	
21 Isopropyl alcohol	45	2.996	3.008	-0.012	44	123648	150.0	157.0	
22 Carbon disulfide	76	3.075	3.082	-0.007	99	358452	20.0	19.2	
23 Methyl acetate	43	3.191	3.197	-0.006	98	158325	20.0	18.7	
25 3-Chloro-1-propene	41	3.216	3.222	-0.006	94	169319	20.0	17.3	
26 Methylene Chloride	84	3.368	3.374	-0.006	95	128233	20.0	20.7	
* 27 t-Butyl alcohol-d10 (IS)	65	3.386	3.386	0.000	96	337478	250.0	250.0	M
28 2-Methyl-2-propanol	59	3.478	3.496	-0.018	99	302906	200.0	207.9	
29 Acrylonitrile	53	3.642	3.643	0.000	99	426329	100.0	107.1	
30 Methyl tert-butyl ether	73	3.691	3.691	0.000	95	327050	20.0	18.3	
31 trans-1,2-Dichloroethene	96	3.691	3.697	-0.006	99	120156	20.0	20.1	
32 Hexane	57	4.057	4.063	-0.006	93	150755	20.0	20.4	
33 1,1-Dichloroethane	63	4.289	4.295	-0.006	96	215911	20.0	19.6	
35 Isopropyl ether	45	4.344	4.350	-0.006	98	394133	20.0	19.6	
36 2-Chloro-1,3-butadiene	53	4.398	4.405	-0.007	90	170517	20.0	18.5	
37 Tert-butyl ethyl ether	59	4.910	4.911	-0.001	99	349649	20.0	18.8	
39 2-Butanone (MEK)	43	5.142	5.142	0.000	100	951496	150.0	157.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.154	5.154	0.000	82	142333	20.0	20.6	
40 2,2-Dichloropropane	77	5.173	5.173	0.000	90	156348	20.0	17.1	a
41 Propionitrile	54	5.234	5.246	-0.012	100	270357	150.0	168.8	
43 Methacrylonitrile	67	5.459	5.459	0.000	93	643286	150.0	147.8	
44 Chlorobromomethane	128	5.496	5.502	-0.006	98	63626	20.0	18.2	
45 Tetrahydrofuran	71	5.514	5.514	0.000	90	164562	100.0	107.0	
46 Chloroform	83	5.666	5.667	0.000	92	210194	20.0	18.9	
48 1,1,1-Trichloroethane	97	5.886	5.892	-0.006	96	171026	20.0	17.8	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	278967	50.0	47.6	
49 Cyclohexane	56	5.983	5.990	-0.007	91	191731	20.0	20.4	
51 Carbon tetrachloride	117	6.099	6.112	-0.013	97	151255	20.0	18.3	
50 1,1-Dichloropropene	75	6.118	6.118	0.000	98	166189	20.0	19.3	
52 Isobutyl alcohol	41	6.337	6.343	-0.006	93	258050	500.0	534.3	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	97	63434	50.0	49.6	
53 Benzene	78	6.392	6.398	-0.006	96	514349	20.0	19.7	
55 1,2-Dichloroethane	62	6.477	6.483	-0.006	97	151435	20.0	18.1	
58 Tert-amyl methyl ether	73	6.605	6.611	-0.006	99	341196	20.0	18.5	
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1125469	50.0	50.0	
60 n-Heptane	43	6.855	6.855	0.000	97	151763	20.0	19.8	
61 n-Butanol	56	7.270	7.270	0.000	91	406735	1000.0	972.1	
62 Trichloroethene	95	7.331	7.337	-0.006	98	132745	20.0	19.4	
63 Methylcyclohexane	83	7.636	7.642	-0.006	89	183375	20.0	19.6	
64 1,2-Dichloropropane	63	7.684	7.691	-0.006	98	138281	20.0	20.4	
65 2-ethoxy-2-methyl butane	87	7.715	7.715	0.000	92	170494	20.0	18.3	
68 1,4-Dioxane	88	7.788	7.794	-0.006	39	44012	500.0	493.4	M
66 Dibromomethane	93	7.794	7.806	-0.012	95	85361	20.0	19.3	
67 Methyl methacrylate	69	7.806	7.806	0.000	93	129576	20.0	19.8	
70 Dichlorobromomethane	83	8.062	8.062	0.000	99	158747	20.0	18.4	
72 2-Nitropropane	41	8.367	8.367	0.000	98	46843	20.0	17.2	
71 2-Chloroethyl vinyl ether	63	8.471	8.471	0.000	91	108902	20.0	20.0	
73 cis-1,3-Dichloropropene	75	8.660	8.660	0.000	96	201789	20.0	18.5	
75 4-Methyl-2-pentanone (MIBK)	43	8.873	8.873	0.000	97	1196782	100.0	101.3	
$ 76 Toluene-d8 (Surr)	98	9.001	9.007	-0.006	93	1076159	50.0	50.1	
77 Toluene	92	9.093	9.093	0.000	98	325404	20.0	19.9	
78 trans-1,3-Dichloropropene	75	9.416	9.422	-0.006	92	174855	20.0	17.4	
79 Ethyl methacrylate	69	9.507	9.513	-0.006	90	207352	20.0	19.5	
80 1,1,2-Trichloroethane	97	9.647	9.647	0.000	89	127811	20.0	20.6	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	151511	20.0	20.8	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	199797	20.0	19.4	
84 2-Hexanone	43	9.910	9.910	0.000	98	968796	100.0	100.0	
85 Chlorodibromomethane	129	10.062	10.068	-0.006	89	133537	20.0	18.3	
87 Ethylene Dibromide	107	10.178	10.178	0.000	98	137805	20.0	19.4	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	84	852806	50.0	50.0	
88 Chlorobenzene	112	10.696	10.696	0.000	95	366034	20.0	19.9	
91 1-Chlorohexane	91	10.696	10.696	0.000	98	174026	20.0	18.5	
92 1,1,1,2-Tetrachloroethane	131	10.793	10.794	-0.001	97	123803	20.0	18.6	
93 Ethylbenzene	91	10.800	10.800	0.000	98	630436	20.0	19.5	
94 m-Xylene & p-Xylene	106	10.928	10.928	0.000	100	491299	40.0	39.7	
95 o-Xylene	106	11.281	11.287	-0.006	97	242936	20.0	19.9	
96 Styrene	104	11.299	11.306	-0.007	95	407055	20.0	20.0	
97 Bromoform	173	11.464	11.464	0.000	98	104284	20.0	17.5	
98 Isopropylbenzene	105	11.617	11.617	-0.001	95	607106	20.0	19.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.690	11.690	0.000	91	193845	500.0	457.5	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	95	407774	50.0	47.0	
102 Bromobenzene	156	11.879	11.879	0.000	89	163067	20.0	20.5	
105 1,1,2,2-Tetrachloroethane	83	11.885	11.891	-0.006	93	225337	20.0	20.5	
104 trans-1,4-Dichloro-2-butene	53	11.915	11.915	0.000	89	240801	100.0	68.9	
103 1,2,3-Trichloropropane	110	11.927	11.927	0.000	84	60882	20.0	19.4	
106 N-Propylbenzene	91	11.970	11.970	0.000	99	737895	20.0	20.3	
107 2-Chlorotoluene	126	12.043	12.043	0.000	97	148575	20.0	20.1	
108 1,3,5-Trimethylbenzene	105	12.116	12.116	0.000	94	494315	20.0	19.3	
109 4-Chlorotoluene	126	12.141	12.141	0.000	97	151822	20.0	20.1	
111 tert-Butylbenzene	134	12.372	12.373	-0.001	93	104899	20.0	19.8	
112 Pentachloroethane	167	12.397	12.397	0.000	91	93332	20.0	18.8	
113 1,2,4-Trimethylbenzene	105	12.415	12.415	0.000	97	504075	20.0	19.1	
114 sec-Butylbenzene	105	12.543	12.543	0.000	94	618082	20.0	19.5	
115 1,3-Dichlorobenzene	146	12.641	12.641	0.000	98	295627	20.0	20.1	
116 4-Isopropyltoluene	119	12.665	12.665	0.000	97	528810	20.0	19.7	
* 117 1,4-Dichlorobenzene-d4	152	12.702	12.702	0.000	93	456390	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.720	12.720	0.000	96	299902	20.0	20.1	
119 1,2,3-Trimethylbenzene	105	12.732	12.738	-0.006	98	530494	20.0	19.8	
120 Benzyl chloride	91	12.805	12.805	0.000	98	390215	20.0	17.3	
121 1,3-Diethylbenzene	119	12.878	12.879	-0.001	95	306645	20.0	18.5	
122 p-Diethylbenzene	119	12.952	12.952	0.000	93	320940	20.0	18.9	
124 n-Butylbenzene	92	12.970	12.970	0.000	97	261253	20.0	19.0	
125 1,2-Dichlorobenzene	146	12.988	12.988	0.000	99	283359	20.0	19.9	
126 o-diethylbenzene	119	13.025	13.025	0.000	96	251899	20.0	18.7	
127 1,2-Dibromo-3-Chloropropane	75	13.561	13.561	0.000	89	50332	20.0	17.5	
128 1,3,5-Trichlorobenzene	180	13.695	13.689	0.006	98	198071	20.0	20.0	
129 1,2,4-Trichlorobenzene	180	14.134	14.134	0.000	93	186339	20.0	20.0	
131 Hexachlorobutadiene	225	14.220	14.226	-0.006	95	76964	20.0	20.5	
132 Naphthalene	128	14.317	14.317	0.000	97	679842	20.0	19.5	
133 1,2,3-Trichlorobenzene	180	14.464	14.464	0.000	96	180299	20.0	19.9	
134 2-Methylnaphthalene	142	15.085	15.085	0.000	93	342953	20.0	17.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00052	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 18-Nov-2020 12:08:25 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18L01.D

Injection Date: 18-Nov-2020 11:05:30 Instrument ID: 26285 Operator ID: clm27445

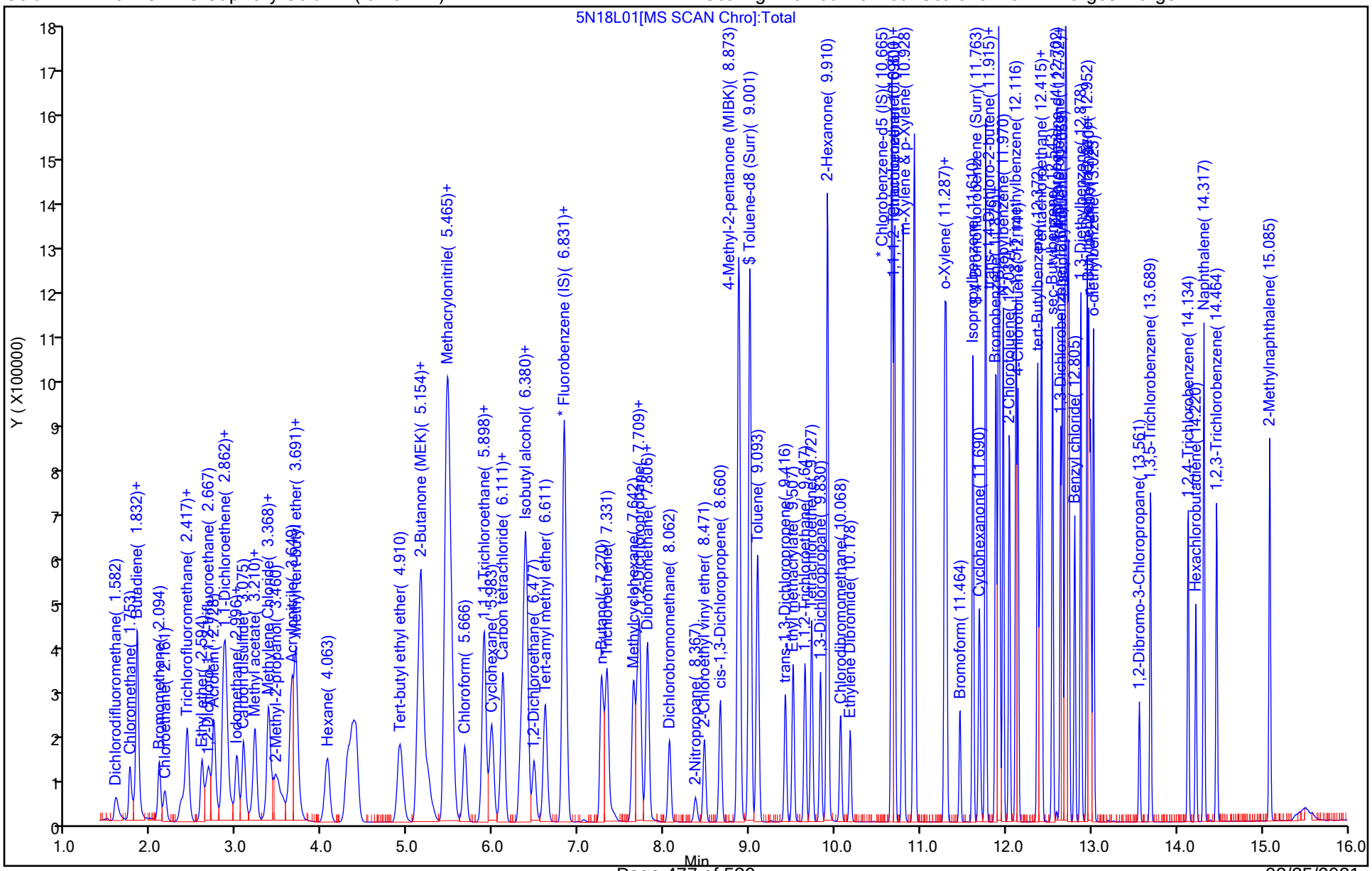
Lims ID: LCS Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

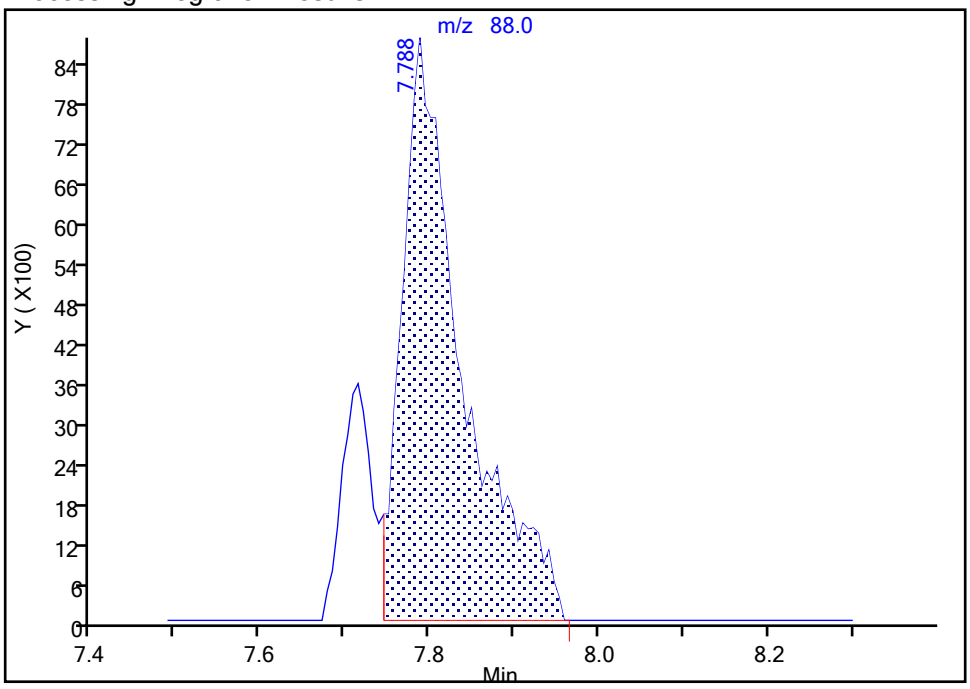
Data File:	\\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18L01.D				
Injection Date:	18-Nov-2020 11:05:30	Instrument ID:	26285		
Lims ID:	LCS				
Client ID:					
Operator ID:	clm27445	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

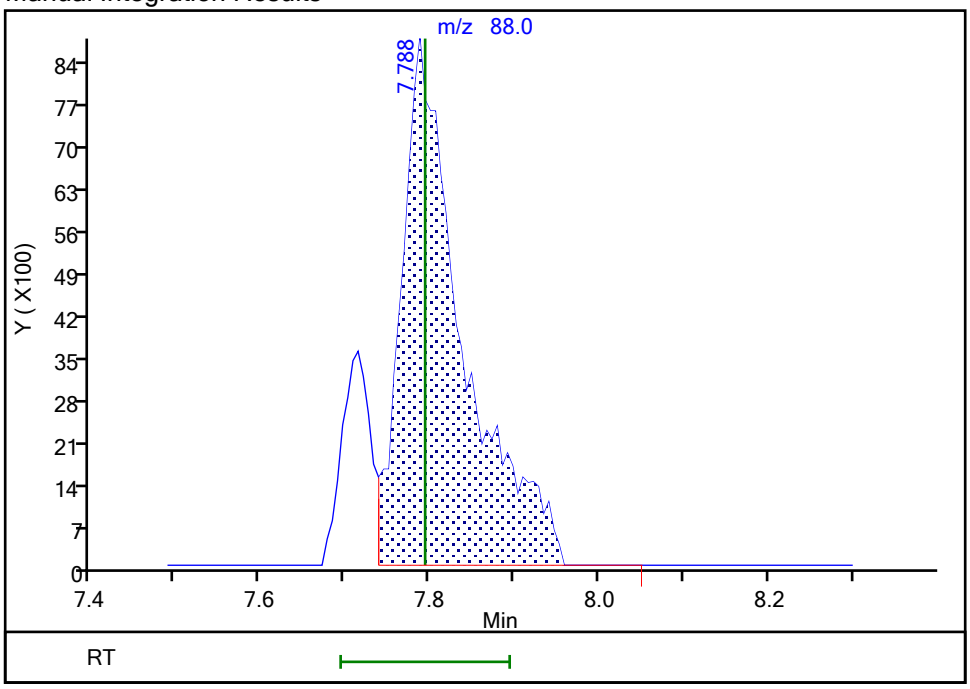
Processing Integration Results

RT: 7.79
Area: 43477
Amount: 487.4500
Amount Units: ug/l



Manual Integration Results

RT: 7.79
Area: 44012
Amount: 493.4482
Amount Units: ug/l



Reviewer: mellingerc, 18-Nov-2020 11:49:31

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

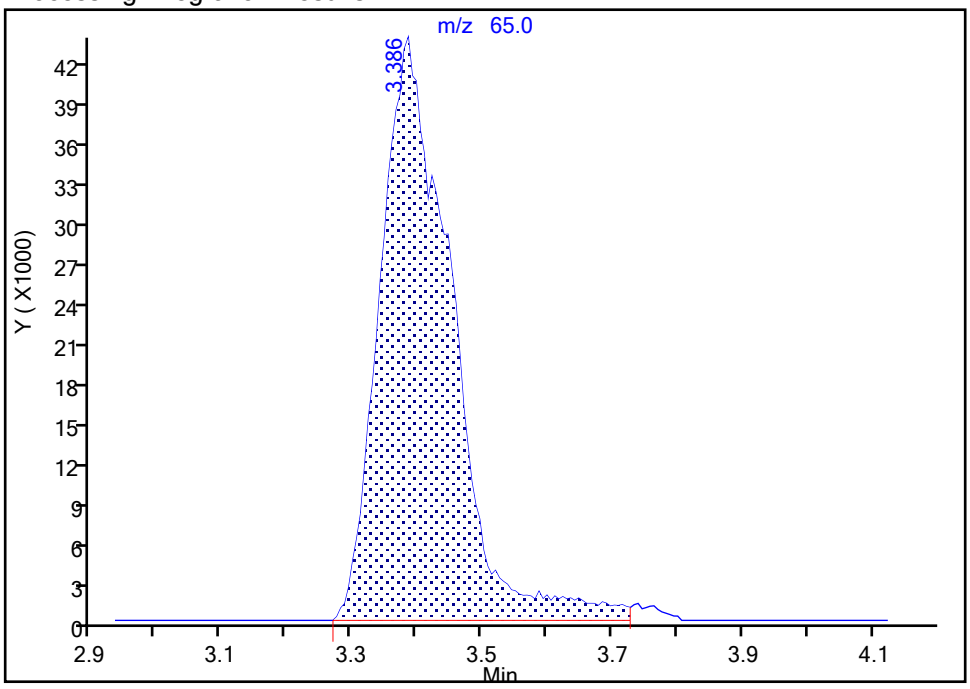
Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18L01.D
Injection Date: 18-Nov-2020 11:05:30 Instrument ID: 26285
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

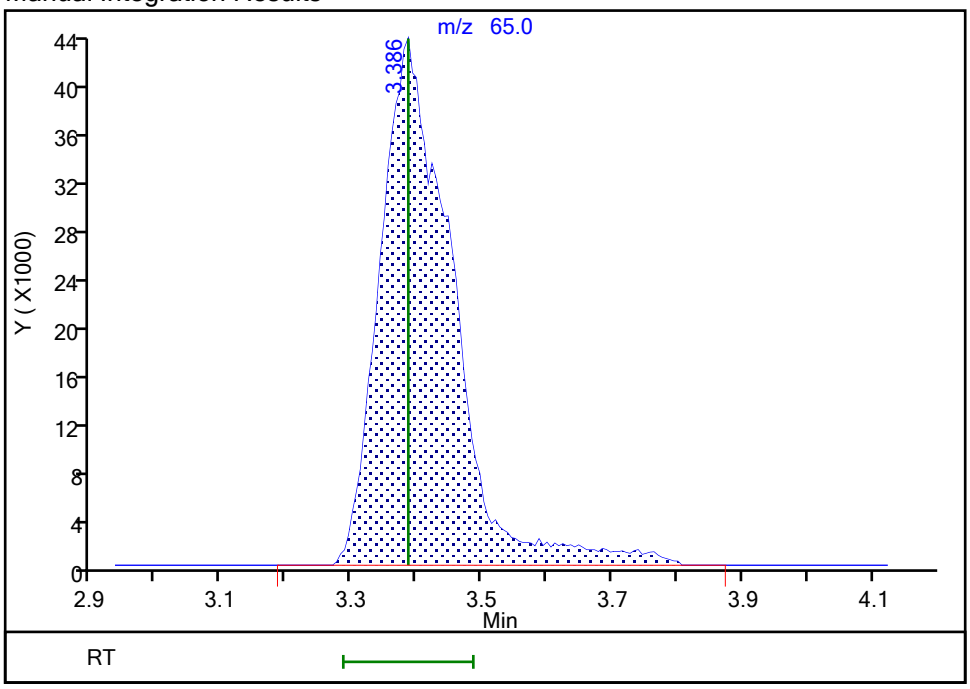
Processing Integration Results

RT: 3.39
Area: 333995
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.39
Area: 337478
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 18-Nov-2020 11:48:50
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-68196/4

Matrix: Water Lab File ID: 5N19L35.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 20:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	18.2		1.0	0.30
75-34-3	1,1-Dichloroethane	19.5		1.0	0.20
75-35-4	1,1-Dichloroethene	20.4		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.6		5.0	0.20
107-06-2	1,2-Dichloroethane	18.5		1.0	0.30
123-91-1	1,4-Dioxane	629		250	29
78-93-3	2-Butanone	153		10	0.30
67-64-1	Acetone	160		20	0.70
71-43-2	Benzene	20.0		1.0	0.20
75-15-0	Carbon disulfide	18.7		5.0	0.20
67-66-3	Chloroform	19.5		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	21.3		1.0	0.20
100-41-4	Ethylbenzene	19.8		1.0	0.40
76-13-1	Freon 113	19.4		10	0.20
75-09-2	Methylene Chloride	20.7		1.0	0.30
91-20-3	Naphthalene	20.3		5.0	1.0
127-18-4	Tetrachloroethene	21.2		1.0	0.20
108-88-3	Toluene	20.4		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	20.3		1.0	0.20
79-01-6	Trichloroethene	19.9		1.0	0.20
75-01-4	Vinyl chloride	18.8		1.0	0.20
1330-20-7	Xylenes, Total	60.7		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19L35.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 19-Nov-2020 20:24:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-004
Misc. Info.: LCS
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:16:25 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1669

First Level Reviewer: proctore Date: 19-Nov-2020 20:49:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	136571	20.0	18.5	M
3 Chloromethane	50	1.759	1.759	0.000	99	169149	20.0	18.0	
4 Butadiene	39	1.844	1.850	-0.006	92	237431	20.0	37.5	
5 Vinyl chloride	62	1.850	1.850	0.000	98	153839	20.0	18.8	
8 Bromomethane	94	2.112	2.112	0.000	90	114745	20.0	20.1	
9 Chloroethane	64	2.173	2.179	-0.006	100	84477	20.0	18.1	
11 Trichlorofluoromethane	101	2.423	2.423	0.000	98	178962	20.0	18.4	
12 Pentane	43	2.441	2.448	-0.007	96	157220	20.0	19.0	
14 Ethyl ether	59	2.612	2.618	-0.006	94	106766	20.0	20.2	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.697	2.692	0.005	92	142037	20.0	20.3	
16 Acrolein	56	2.758	2.759	-0.001	99	306582	150.0	135.2	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	98	104406	20.0	20.4	
17 Acetone	58	2.893	2.899	-0.007	100	167450	150.0	160.1	
18 112TCTFE	101	2.899	2.905	-0.006	49	103745	20.0	19.4	
20 Iodomethane	142	3.033	3.033	0.000	97	201241	20.0	19.3	
21 Isopropyl alcohol	45	3.039	3.033	0.006	51	87620	150.0	102.1	
22 Carbon disulfide	76	3.106	3.112	-0.006	99	345811	20.0	18.7	
23 Methyl acetate	43	3.228	3.228	0.000	98	170133	20.0	20.3	
25 3-Chloro-1-propene	41	3.252	3.246	0.006	94	178328	20.0	18.5	
26 Methylene Chloride	84	3.405	3.405	0.000	92	126339	20.0	20.7	
* 27 t-Butyl alcohol-d10 (IS)	65	3.411	3.423	-0.012	87	367739	250.0	250.0	
28 2-Methyl-2-propanol	59	3.520	3.515	0.005	99	355250	200.0	223.8	
29 Acrylonitrile	53	3.679	3.673	0.006	100	420907	100.0	107.1	
30 Methyl tert-butyl ether	73	3.728	3.728	0.000	93	331999	20.0	18.8	
31 trans-1,2-Dichloroethene	96	3.728	3.734	-0.006	99	119574	20.0	20.3	
32 Hexane	57	4.112	4.106	0.006	93	152473	20.0	20.9	
33 1,1-Dichloroethane	63	4.337	4.338	-0.001	95	212941	20.0	19.5	
35 Isopropyl ether	45	4.398	4.399	0.000	97	390380	20.0	19.6	
36 2-Chloro-1,3-butadiene	53	4.453	4.447	0.006	90	170271	20.0	18.7	
37 Tert-butyl ethyl ether	59	4.965	4.959	0.006	99	347874	20.0	18.9	
39 2-Butanone (MEK)	43	5.185	5.185	0.000	100	916995	150.0	153.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.203	5.203	0.000	81	145307	20.0	21.3	
40 2,2-Dichloropropane	77	5.209	5.215	-0.006	54	161964	20.0	17.9	
41 Propionitrile	54	5.282	5.282	0.000	99	286185	150.0	163.9	
43 Methacrylonitrile	67	5.502	5.502	0.000	92	647194	150.0	150.6	
44 Chlorobromomethane	128	5.544	5.539	0.005	97	67824	20.0	19.6	
45 Tetrahydrofuran	71	5.557	5.551	0.006	86	164855	100.0	98.4	
46 Chloroform	83	5.715	5.709	0.006	93	214302	20.0	19.5	
48 1,1,1-Trichloroethane	97	5.928	5.929	-0.001	95	172752	20.0	18.2	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	277573	50.0	48.0	
49 Cyclohexane	56	6.020	6.020	0.000	91	194277	20.0	21.0	
51 Carbon tetrachloride	117	6.142	6.142	0.000	96	150897	20.0	18.5	
50 1,1-Dichloropropene	75	6.154	6.154	0.000	97	166526	20.0	19.6	
52 Isobutyl alcohol	41	6.367	6.374	-0.007	94	280243	500.0	532.5	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.404	6.410	-0.006	96	63099	50.0	50.0	
53 Benzene	78	6.428	6.429	-0.001	96	516710	20.0	20.0	
55 1,2-Dichloroethane	62	6.514	6.514	0.000	97	153192	20.0	18.5	
58 Tert-amyl methyl ether	73	6.642	6.648	-0.006	99	351068	20.0	19.3	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1110583	50.0	50.0	
60 n-Heptane	43	6.880	6.886	-0.006	95	154839	20.0	20.5	
61 n-Butanol	56	7.294	7.294	0.000	89	469312	1000.0	1029.3	
62 Trichloroethene	95	7.361	7.361	0.000	98	134371	20.0	19.9	
63 Methylcyclohexane	83	7.666	7.672	-0.006	90	197816	20.0	21.4	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	97	137127	20.0	20.5	
65 2-ethoxy-2-methyl butane	87	7.745	7.739	0.006	92	177830	20.0	19.3	
68 1,4-Dioxane	88	7.812	7.806	0.006	85	61090	500.0	628.6	
66 Dibromomethane	93	7.831	7.825	0.006	96	87060	20.0	19.9	
67 Methyl methacrylate	69	7.831	7.831	0.000	93	126646	20.0	19.6	
70 Dichlorobromomethane	83	8.081	8.087	-0.006	99	161209	20.0	19.0	
72 2-Nitropropane	41	8.379	8.386	-0.007	98	47468	20.0	16.0	
71 2-Chloroethyl vinyl ether	63	8.489	8.489	0.000	91	104055	20.0	19.4	
73 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	97	201715	20.0	18.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.885	8.885	0.000	97	1175081	100.0	100.8	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1066322	50.0	50.4	
77 Toluene	92	9.105	9.105	0.000	98	328030	20.0	20.4	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	179670	20.0	18.1	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	205240	20.0	19.6	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	89	128668	20.0	21.0	
81 Tetrachloroethene	166	9.733	9.733	0.000	97	152320	20.0	21.2	
82 1,3-Dichloropropane	76	9.830	9.836	-0.006	90	198296	20.0	19.5	
84 2-Hexanone	43	9.909	9.910	-0.001	97	935556	100.0	97.9	
85 Chlorodibromomethane	129	10.062	10.068	-0.006	90	136635	20.0	19.0	
87 Ethylene Dibromide	107	10.178	10.178	0.000	99	136787	20.0	19.6	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	841090	50.0	50.0	
88 Chlorobenzene	112	10.690	10.690	0.000	94	366049	20.0	20.2	
91 1-Chlorohexane	91	10.690	10.690	0.000	67	176729	20.0	19.1	
92 1,1,1,2-Tetrachloroethane	131	10.787	10.788	-0.001	98	128348	20.0	19.5	
93 Ethylbenzene	91	10.793	10.794	-0.001	98	633126	20.0	19.8	
94 m-Xylene & p-Xylene	106	10.921	10.922	-0.001	100	495503	40.0	40.6	
95 o-Xylene	106	11.275	11.275	0.000	96	241909	20.0	20.1	
96 Styrene	104	11.287	11.294	-0.007	96	404689	20.0	20.1	
97 Bromoform	173	11.446	11.446	0.000	98	110854	20.0	18.9	
98 Isopropylbenzene	105	11.598	11.598	0.000	96	613030	20.0	19.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.671	11.671	0.000	91	242559	500.0	525.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.744	11.745	-0.001	94	399495	50.0	46.7	
102 Bromobenzene	156	11.860	11.860	0.000	90	165419	20.0	21.1	
105 1,1,2,2-Tetrachloroethane	83	11.866	11.867	-0.001	93	221809	20.0	20.4	
104 trans-1,4-Dichloro-2-butene	53	11.897	11.897	0.000	89	173656	100.0	50.3	
103 1,2,3-Trichloropropane	110	11.909	11.909	0.000	84	61390	20.0	19.8	
106 N-Propylbenzene	91	11.946	11.946	0.000	99	736606	20.0	20.5	
107 2-Chlorotoluene	126	12.019	12.025	-0.006	97	149921	20.0	20.5	
108 1,3,5-Trimethylbenzene	105	12.098	12.098	0.000	93	499662	20.0	19.7	
109 4-Chlorotoluene	126	12.122	12.123	-0.001	97	152085	20.0	20.4	
111 tert-Butylbenzene	134	12.348	12.348	0.000	93	106943	20.0	20.4	
112 Pentachloroethane	167	12.378	12.379	-0.001	92	97856	20.0	20.0	
113 1,2,4-Trimethylbenzene	105	12.397	12.397	0.000	97	513213	20.0	19.7	
114 sec-Butylbenzene	105	12.525	12.519	0.006	94	628856	20.0	20.1	
115 1,3-Dichlorobenzene	146	12.616	12.616	0.000	98	293484	20.0	20.2	
116 4-Isopropyltoluene	119	12.641	12.641	0.000	97	529872	20.0	20.0	
* 117 1,4-Dichlorobenzene-d4	152	12.677	12.677	0.000	93	450581	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.695	12.696	-0.001	96	299057	20.0	20.3	
119 1,2,3-Trimethylbenzene	105	12.714	12.714	0.000	98	529932	20.0	20.0	
120 Benzyl chloride	91	12.781	12.781	0.000	98	399252	20.0	17.9	
121 1,3-Diethylbenzene	119	12.848	12.848	0.000	95	309662	20.0	18.9	
122 p-Diethylbenzene	119	12.921	12.921	0.000	93	318416	20.0	19.0	
124 n-Butylbenzene	92	12.945	12.940	0.005	98	257641	20.0	19.0	
125 1,2-Dichlorobenzene	146	12.964	12.964	0.000	99	288434	20.0	20.6	
126 o-diethylbenzene	119	12.994	12.994	0.000	96	256190	20.0	19.2	
127 1,2-Dibromo-3-Chloropropane	75	13.531	13.531	0.000	89	52405	20.0	18.4	
128 1,3,5-Trichlorobenzene	180	13.659	13.659	0.000	97	199375	20.0	20.4	
129 1,2,4-Trichlorobenzene	180	14.098	14.098	0.000	93	192470	20.0	21.0	
131 Hexachlorobutadiene	225	14.189	14.189	0.000	94	78135	20.0	21.0	
132 Naphthalene	128	14.281	14.281	0.000	97	698512	20.0	20.3	
133 1,2,3-Trichlorobenzene	180	14.427	14.427	0.000	96	189471	20.0	21.2	
134 2-Methylnaphthalene	142	15.043	15.043	0.000	92	360809	20.0	18.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 19-Nov-2020 23:16:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19L35.D

Injection Date: 19-Nov-2020 20:24:30 Instrument ID: 26285 Operator ID: etp33087

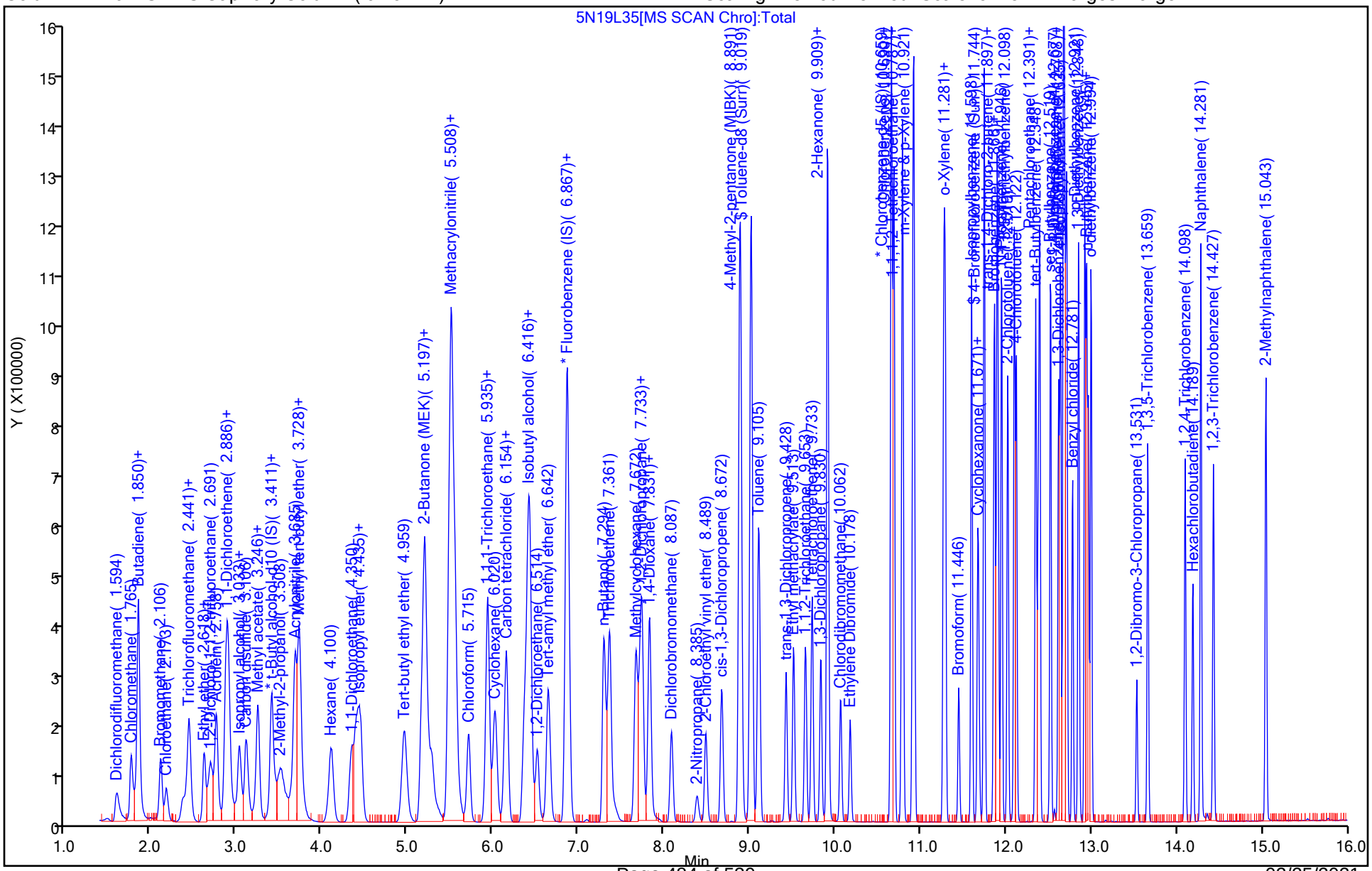
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-68468/5

Matrix: Water Lab File ID: 5N20L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 09:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68468 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	18.8		1.0	0.30
75-34-3	1,1-Dichloroethane	20.1		1.0	0.20
75-35-4	1,1-Dichloroethene	21.3		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.6		5.0	0.20
107-06-2	1,2-Dichloroethane	19.0		1.0	0.30
123-91-1	1,4-Dioxane	546		250	29
78-93-3	2-Butanone	159		10	0.30
67-64-1	Acetone	183		20	0.70
71-43-2	Benzene	20.5		1.0	0.20
75-15-0	Carbon disulfide	19.2		5.0	0.20
67-66-3	Chloroform	20.0		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	21.8		1.0	0.20
100-41-4	Ethylbenzene	20.6		1.0	0.40
76-13-1	Freon 113	19.8		10	0.20
75-09-2	Methylene Chloride	21.1		1.0	0.30
91-20-3	Naphthalene	20.2		5.0	1.0
127-18-4	Tetrachloroethene	22.2		1.0	0.20
108-88-3	Toluene	21.0		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	20.7		1.0	0.20
79-01-6	Trichloroethene	20.3		1.0	0.20
75-01-4	Vinyl chloride	18.9		1.0	0.20
1330-20-7	Xylenes, Total	62.8		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Nov-2020 09:40:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016051-005
Misc. Info.: LCS
Operator ID: CLM27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:55:31 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:24:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.588	1.588	0.000	99	134683	20.0	18.2	
3 Chloromethane	50	1.759	1.759	0.000	99	168316	20.0	17.9	
4 Butadiene	39	1.844	1.844	0.000	94	218084	20.0	34.3	
5 Vinyl chloride	62	1.856	1.856	0.000	98	155543	20.0	18.9	
8 Bromomethane	94	2.106	2.112	-0.006	91	115895	20.0	20.2	
9 Chloroethane	64	2.173	2.179	-0.006	99	86052	20.0	18.3	
11 Trichlorofluoromethane	101	2.423	2.423	0.000	98	184380	20.0	18.9	
12 Pentane	43	2.448	2.448	0.000	96	160426	20.0	19.4	
14 Ethyl ether	59	2.618	2.618	0.000	94	112959	20.0	21.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.692	2.692	0.000	92	148597	20.0	21.1	
16 Acrolein	56	2.765	2.759	0.006	99	300560	150.0	133.0	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	97	109422	20.0	21.3	
17 Acetone	58	2.893	2.893	0.000	100	191088	150.0	183.5	
18 112TCTFE	101	2.905	2.905	0.000	50	106511	20.0	19.8	
21 Isopropyl alcohol	45	3.039	3.027	0.012	46	146156	150.0	170.9	
20 Iodomethane	142	3.033	3.033	0.000	97	210647	20.0	20.1	
22 Carbon disulfide	76	3.112	3.112	0.000	99	355923	20.0	19.2	
23 Methyl acetate	43	3.234	3.228	0.006	98	175291	20.0	20.9	
25 3-Chloro-1-propene	41	3.252	3.246	0.006	94	179579	20.0	18.6	
26 Methylene Chloride	84	3.411	3.405	0.006	93	129241	20.0	21.1	
* 27 t-Butyl alcohol-d10 (IS)	65	3.429	3.417	0.012	96	366270	250.0	250.0	M
28 2-Methyl-2-propanol	59	3.521	3.515	0.006	100	338921	200.0	214.3	
29 Acrylonitrile	53	3.685	3.673	0.012	98	433600	100.0	110.0	
30 Methyl tert-butyl ether	73	3.734	3.728	0.006	96	333761	20.0	18.8	
31 trans-1,2-Dichloroethene	96	3.740	3.734	0.006	99	122241	20.0	20.7	
32 Hexane	57	4.112	4.100	0.012	93	154949	20.0	21.1	
33 1,1-Dichloroethane	63	4.344	4.338	0.006	96	219274	20.0	20.1	
35 Isopropyl ether	45	4.411	4.399	0.013	97	394089	20.0	19.8	
36 2-Chloro-1,3-butadiene	53	4.459	4.447	0.012	90	173657	20.0	19.0	
37 Tert-butyl ethyl ether	59	4.972	4.959	0.013	99	349603	20.0	18.9	
39 2-Butanone (MEK)	43	5.197	5.185	0.012	100	951838	150.0	158.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.209	5.203	0.006	81	149169	20.0	21.8	
40 2,2-Dichloropropane	77	5.222	5.209	0.013	88	168465	20.0	18.6	
41 Propionitrile	54	5.295	5.289	0.006	99	289126	150.0	166.3	
43 Methacrylonitrile	67	5.514	5.502	0.012	92	657503	150.0	152.5	
44 Chlorobromomethane	128	5.551	5.545	0.006	94	67722	20.0	19.5	
45 Tetrahydrofuran	71	5.569	5.551	0.018	89	169935	100.0	101.8	
46 Chloroform	83	5.715	5.709	0.006	93	220914	20.0	20.0	
48 1,1,1-Trichloroethane	97	5.941	5.929	0.012	98	179187	20.0	18.8	
$ 47 Dibromofluoromethane (Surr)	113	5.947	5.935	0.012	94	280169	50.0	48.3	
49 Cyclohexane	56	6.026	6.020	0.006	92	199181	20.0	21.4	
51 Carbon tetrachloride	117	6.148	6.142	0.006	97	156683	20.0	19.1	
50 1,1-Dichloropropene	75	6.160	6.154	0.006	97	172116	20.0	20.1	
52 Isobutyl alcohol	41	6.374	6.368	0.006	94	278321	500.0	531.0	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	98	63853	50.0	50.4	
53 Benzene	78	6.435	6.429	0.006	96	531314	20.0	20.5	
55 1,2-Dichloroethane	62	6.520	6.514	0.006	97	157996	20.0	19.0	
58 Tert-amyl methyl ether	73	6.654	6.642	0.012	99	351351	20.0	19.3	
* 59 Fluorobenzene (IS)	96	6.868	6.861	0.007	99	1114569	50.0	50.0	
60 n-Heptane	43	6.886	6.880	0.006	95	158418	20.0	20.9	
61 n-Butanol	56	7.300	7.294	0.006	89	460254	1000.0	1013.5	
62 Trichloroethene	95	7.367	7.361	0.006	98	137553	20.0	20.3	
63 Methylcyclohexane	83	7.672	7.666	0.006	90	200338	20.0	21.6	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	97	140159	20.0	20.9	
65 2-ethoxy-2-methyl butane	87	7.745	7.739	0.006	92	179709	20.0	19.4	
68 1,4-Dioxane	88	7.812	7.806	0.006	90	52876	500.0	546.2	M
66 Dibromomethane	93	7.831	7.825	0.006	93	87648	20.0	20.0	
67 Methyl methacrylate	69	7.831	7.825	0.006	93	128538	20.0	19.8	
70 Dichlorobromomethane	83	8.087	8.087	0.000	99	162415	20.0	19.0	
72 2-Nitropropane	41	8.386	8.386	0.000	99	47121	20.0	16.0	
71 2-Chloroethyl vinyl ether	63	8.489	8.483	0.006	91	105059	20.0	19.5	
73 cis-1,3-Dichloropropene	75	8.672	8.672	0.000	97	201258	20.0	18.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.885	8.885	0.000	96	1191429	100.0	101.8	
$ 76 Toluene-d8 (Surr)	98	9.020	9.013	0.007	93	1062003	50.0	50.7	
77 Toluene	92	9.105	9.105	0.000	98	335626	20.0	21.0	
78 trans-1,3-Dichloropropene	75	9.422	9.422	0.000	92	173761	20.0	17.7	
79 Ethyl methacrylate	69	9.513	9.507	0.006	90	206050	20.0	19.8	
80 1,1,2-Trichloroethane	97	9.654	9.647	0.007	89	130151	20.0	21.5	
81 Tetrachloroethene	166	9.727	9.727	0.000	97	157530	20.0	22.2	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	197987	20.0	19.7	
84 2-Hexanone	43	9.910	9.904	0.006	97	958227	100.0	101.4	
85 Chlorodibromomethane	129	10.062	10.062	0.000	90	136198	20.0	19.1	
87 Ethylene Dibromide	107	10.172	10.172	0.000	97	139965	20.0	20.2	
* 90 Chlorobenzene-d5 (IS)	117	10.653	10.653	0.000	84	832249	50.0	50.0	
88 Chlorobenzene	112	10.684	10.684	0.000	94	375187	20.0	21.0	
91 1-Chlorohexane	91	10.684	10.684	0.000	66	180228	20.0	19.7	
92 1,1,1,2-Tetrachloroethane	131	10.781	10.775	0.006	97	128924	20.0	19.8	
93 Ethylbenzene	91	10.788	10.781	0.007	98	650256	20.0	20.6	
94 m-Xylene & p-Xylene	106	10.909	10.909	0.000	100	503739	40.0	41.8	
95 o-Xylene	106	11.263	11.263	0.000	97	249734	20.0	21.0	
96 Styrene	104	11.281	11.281	0.000	95	410266	20.0	20.6	
97 Bromoform	173	11.440	11.440	0.000	98	106658	20.0	18.4	
98 Isopropylbenzene	105	11.592	11.586	0.006	95	634434	20.0	20.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.665	11.665	0.000	91	237823	500.0	517.2	
$ 101 4-Bromofluorobenzene (Surr)	95	11.732	11.732	0.000	96	396647	50.0	46.9	
102 Bromobenzene	156	11.854	11.848	0.006	89	169581	20.0	21.3	
105 1,1,2,2-Tetrachloroethane	83	11.860	11.860	0.000	93	227644	20.0	20.6	
104 trans-1,4-Dichloro-2-butene	53	11.885	11.885	0.000	91	224124	100.0	63.9	
103 1,2,3-Trichloropropane	110	11.903	11.903	0.000	84	61407	20.0	19.5	
106 N-Propylbenzene	91	11.940	11.940	0.000	99	754764	20.0	20.7	
107 2-Chlorotoluene	126	12.013	12.013	0.000	97	153290	20.0	20.7	
108 1,3,5-Trimethylbenzene	105	12.086	12.086	0.000	94	511267	20.0	19.9	
109 4-Chlorotoluene	126	12.110	12.110	0.000	97	156998	20.0	20.7	
111 tert-Butylbenzene	134	12.336	12.336	0.000	93	109543	20.0	20.6	
112 Pentachloroethane	167	12.366	12.366	0.000	90	97000	20.0	19.5	
113 1,2,4-Trimethylbenzene	105	12.385	12.385	0.000	97	519747	20.0	19.6	
114 sec-Butylbenzene	105	12.513	12.513	0.000	94	649367	20.0	20.4	
115 1,3-Dichlorobenzene	146	12.604	12.604	0.000	98	301006	20.0	20.4	
116 4-Isopropyltoluene	119	12.629	12.629	0.000	97	546931	20.0	20.3	
* 117 1,4-Dichlorobenzene-d4	152	12.665	12.665	0.000	93	458034	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.683	12.683	0.000	96	307919	20.0	20.5	
119 1,2,3-Trimethylbenzene	105	12.702	12.702	0.000	98	540741	20.0	20.1	
120 Benzyl chloride	91	12.769	12.769	0.000	98	404443	20.0	17.8	
121 1,3-Diethylbenzene	119	12.836	12.836	0.000	95	315290	20.0	19.0	
122 p-Diethylbenzene	119	12.909	12.909	0.000	94	328384	20.0	19.3	
124 n-Butylbenzene	92	12.927	12.927	0.000	97	267650	20.0	19.4	
125 1,2-Dichlorobenzene	146	12.952	12.952	0.000	99	294170	20.0	20.6	
126 o-diethylbenzene	119	12.982	12.982	0.000	96	263316	20.0	19.5	
127 1,2-Dibromo-3-Chloropropane	75	13.519	13.513	0.006	89	52791	20.0	18.3	
128 1,3,5-Trichlorobenzene	180	13.647	13.647	0.000	97	206719	20.0	20.8	
129 1,2,4-Trichlorobenzene	180	14.080	14.086	-0.006	94	194743	20.0	20.9	
131 Hexachlorobutadiene	225	14.171	14.171	0.000	95	80045	20.0	21.2	
132 Naphthalene	128	14.269	14.269	0.000	96	707961	20.0	20.2	
133 1,2,3-Trichlorobenzene	180	14.415	14.415	0.000	95	189950	20.0	20.9	
134 2-Methylnaphthalene	142	15.024	15.024	0.000	92	359859	20.0	18.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 10:55:46 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20L01.D

Injection Date: 20-Nov-2020 09:40:30 Instrument ID: 26285 Operator ID: CLM27445

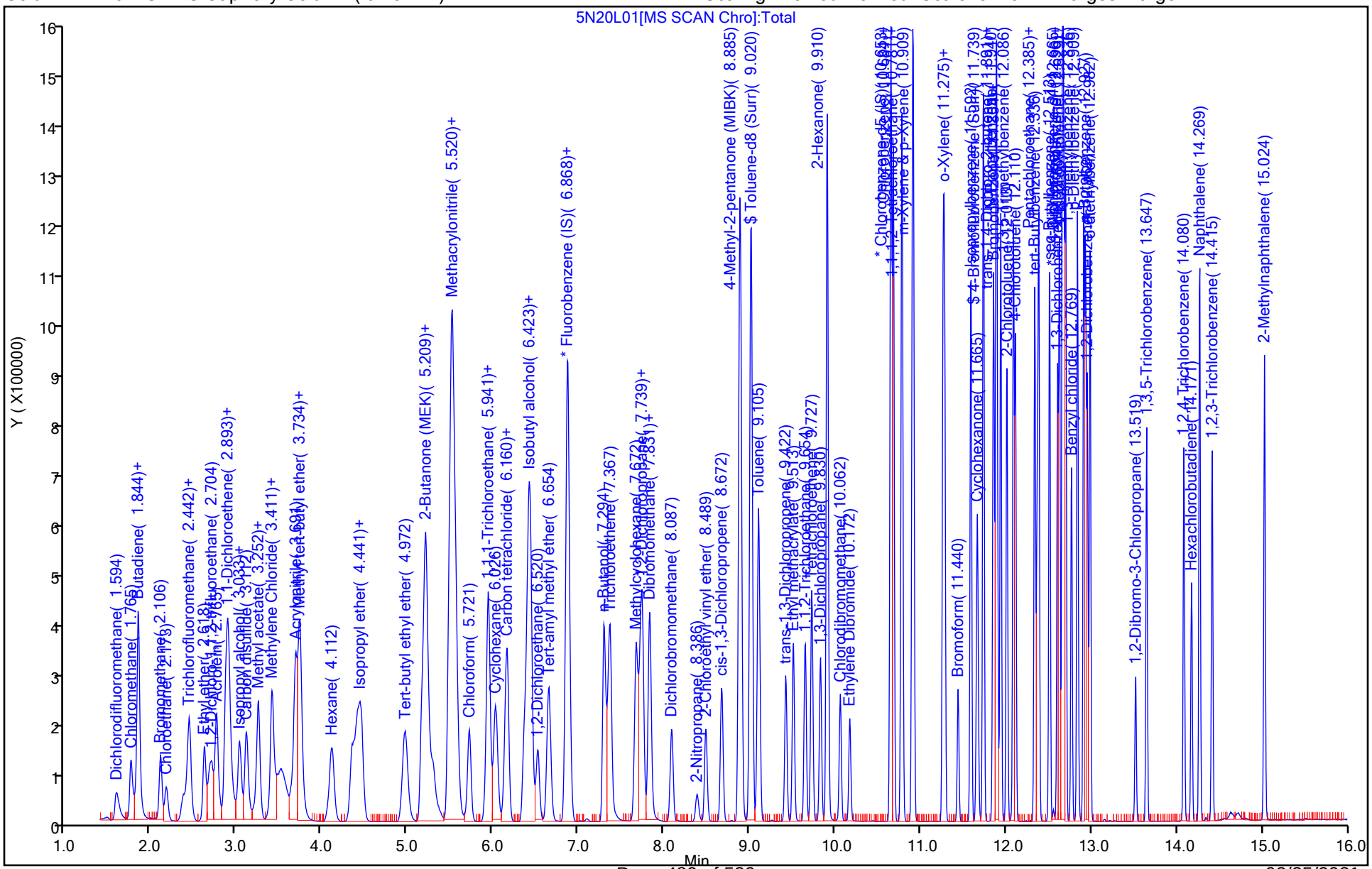
Lims ID: LCS Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

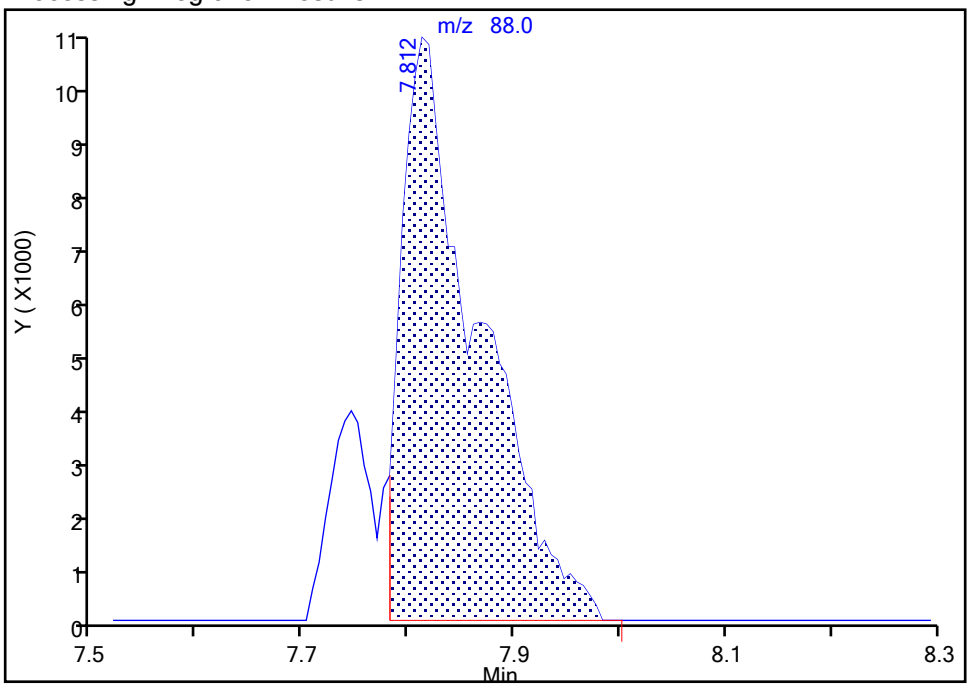
Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20L01.D
Injection Date: 20-Nov-2020 09:40:30 Instrument ID: 26285
Lims ID: LCS
Client ID:
Operator ID: CLM27445 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

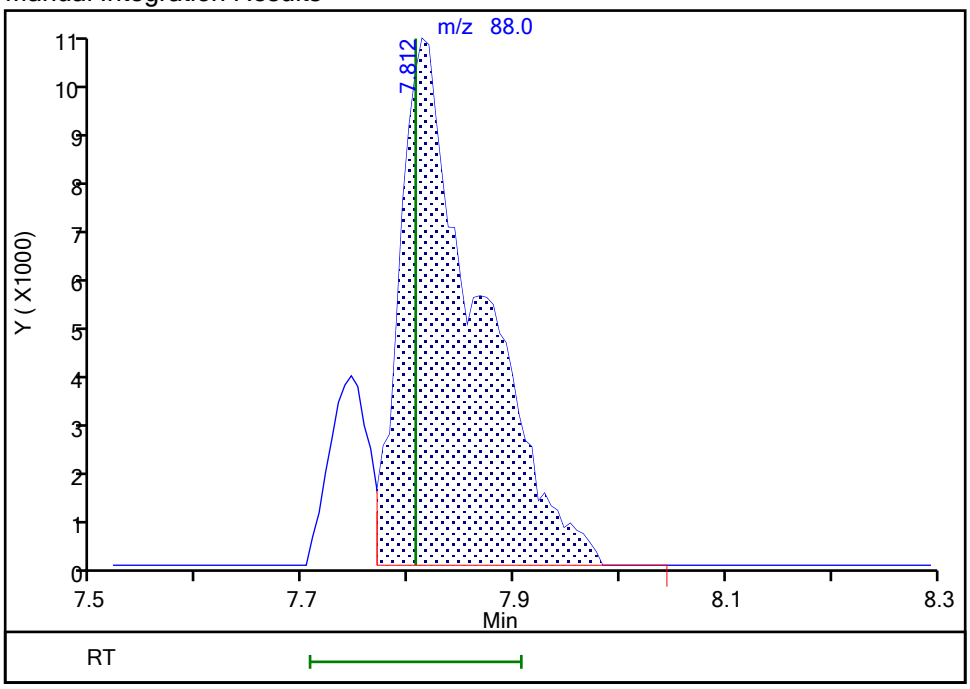
Processing Integration Results

RT: 7.81
Area: 51503
Amount: 532.0435
Amount Units: ug/l



Manual Integration Results

RT: 7.81
Area: 52876
Amount: 546.2271
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:23:01
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

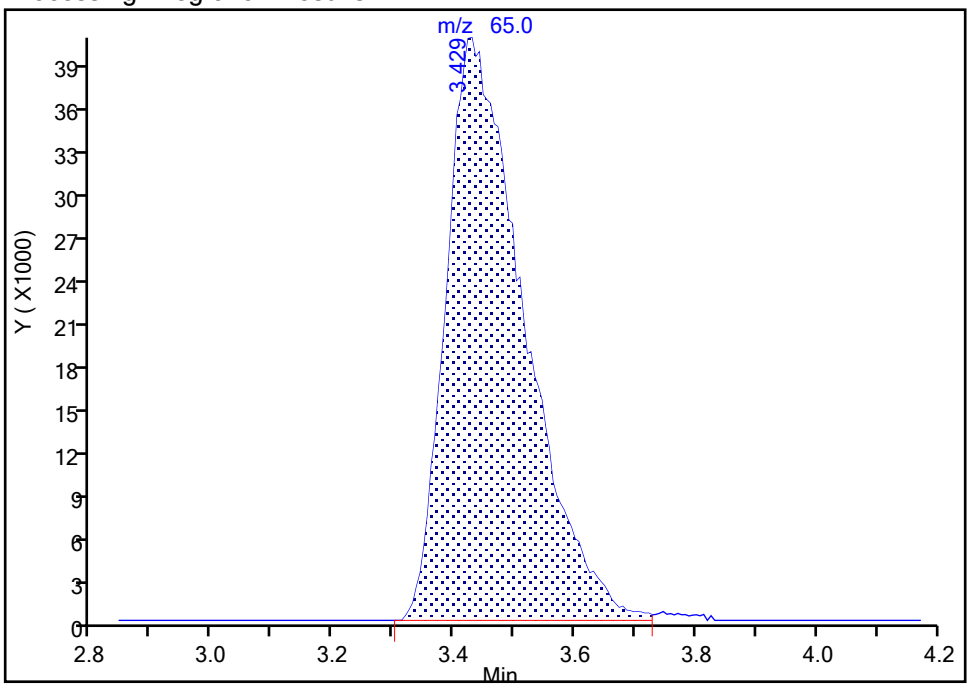
Data File: \\chromfs\Lancaster\ChromData\26285\20201120-16051.b\5N20L01.D
Injection Date: 20-Nov-2020 09:40:30 Instrument ID: 26285
Lims ID: LCS
Client ID:
Operator ID: CLM27445 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_26285a Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

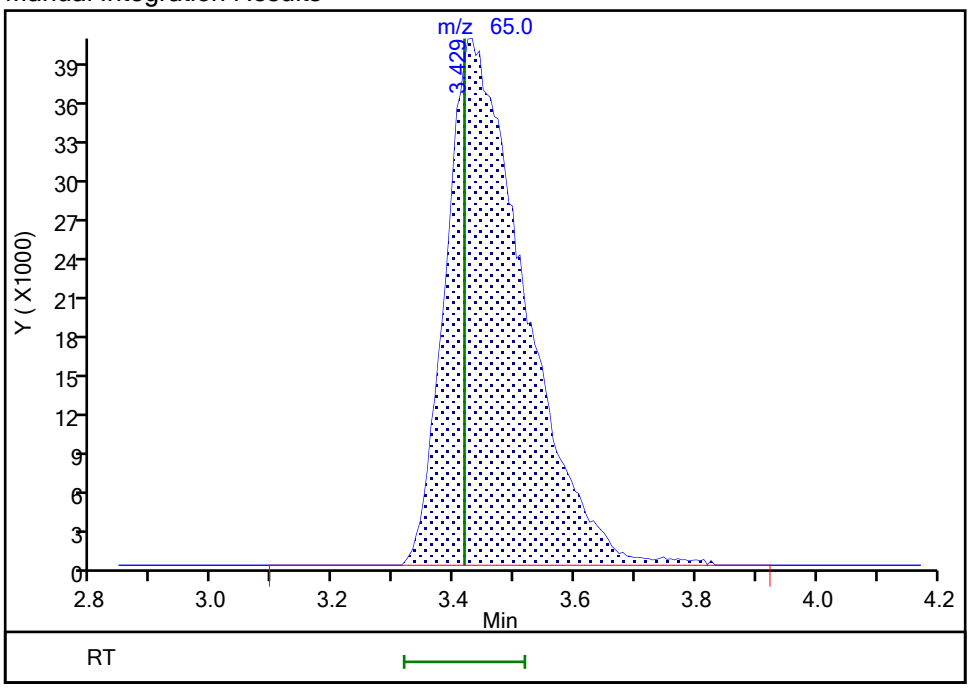
Processing Integration Results

RT: 3.43
Area: 364011
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 3.43
Area: 366270
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:22:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-68196/56

Matrix: Water Lab File ID: 5N19L36.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 21:05

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	18.2		1.0	0.30
75-34-3	1,1-Dichloroethane	19.7		1.0	0.20
75-35-4	1,1-Dichloroethene	20.4		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.9		5.0	0.20
107-06-2	1,2-Dichloroethane	18.3		1.0	0.30
123-91-1	1,4-Dioxane	635		250	29
78-93-3	2-Butanone	154		10	0.30
67-64-1	Acetone	162		20	0.70
71-43-2	Benzene	20.0		1.0	0.20
75-15-0	Carbon disulfide	18.8		5.0	0.20
67-66-3	Chloroform	19.4		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	21.3		1.0	0.20
100-41-4	Ethylbenzene	20.0		1.0	0.40
76-13-1	Freon 113	19.4		10	0.20
75-09-2	Methylene Chloride	20.8		1.0	0.30
91-20-3	Naphthalene	20.2		5.0	1.0
127-18-4	Tetrachloroethene	21.4		1.0	0.20
108-88-3	Toluene	20.6		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	20.3		1.0	0.20
79-01-6	Trichloroethene	20.0		1.0	0.20
75-01-4	Vinyl chloride	19.0		1.0	0.20
1330-20-7	Xylenes, Total	61.5		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19L36.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 19-Nov-2020 21:05:30 ALS Bottle#: 5 Worklist Smp#: 56
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-056
Misc. Info.: LCSD
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:16:25 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1669

First Level Reviewer: proctore Date: 19-Nov-2020 21:31:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	138250	20.0	18.6	
3 Chloromethane	50	1.759	1.759	-0.001	98	173495	20.0	18.3	
4 Butadiene	39	1.844	1.850	-0.006	91	234369	20.0	36.6	M
5 Vinyl chloride	62	1.850	1.850	0.000	97	156807	20.0	19.0	
8 Bromomethane	94	2.106	2.112	-0.006	90	115626	20.0	20.0	
9 Chloroethane	64	2.173	2.179	-0.006	99	87658	20.0	18.5	
11 Trichlorofluoromethane	101	2.417	2.423	-0.006	98	182007	20.0	18.5	
12 Pentane	43	2.441	2.448	-0.007	97	162741	20.0	19.5	
14 Ethyl ether	59	2.618	2.618	0.000	94	106977	20.0	20.0	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.685	2.692	-0.007	92	144307	20.0	20.4	
16 Acrolein	56	2.758	2.759	-0.001	100	311457	150.0	136.1	
19 1,1-Dichloroethene	96	2.868	2.868	0.000	98	105596	20.0	20.4	
17 Acetone	58	2.892	2.899	-0.007	100	170575	150.0	161.7	
18 112TCTFE	101	2.892	2.905	-0.013	86	105142	20.0	19.4	
20 Iodomethane	142	3.027	3.033	-0.006	97	205581	20.0	19.5	
21 Isopropyl alcohol	45	3.033	3.033	0.000	96	150189	150.0	173.5	
22 Carbon disulfide	76	3.106	3.112	-0.006	98	350364	20.0	18.8	
23 Methyl acetate	43	3.228	3.228	0.000	99	169639	20.0	20.1	M
25 3-Chloro-1-propene	41	3.246	3.246	0.000	94	181654	20.0	18.6	
26 Methylene Chloride	84	3.405	3.405	0.000	93	128219	20.0	20.8	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	96	370922	250.0	250.0	
28 2-Methyl-2-propanol	59	3.520	3.515	0.005	100	355118	200.0	221.8	
29 Acrylonitrile	53	3.679	3.673	0.006	99	428947	100.0	108.0	
30 Methyl tert-butyl ether	73	3.728	3.728	0.000	89	334718	20.0	18.8	
31 trans-1,2-Dichloroethene	96	3.728	3.734	-0.006	99	120573	20.0	20.3	
32 Hexane	57	4.100	4.106	-0.006	93	154550	20.0	20.9	
33 1,1-Dichloroethane	63	4.337	4.338	-0.001	96	217123	20.0	19.7	
35 Isopropyl ether	45	4.398	4.399	0.000	97	393824	20.0	19.6	
36 2-Chloro-1,3-butadiene	53	4.447	4.447	0.000	89	173024	20.0	18.8	
37 Tert-butyl ethyl ether	59	4.959	4.959	0.000	98	349385	20.0	18.8	
39 2-Butanone (MEK)	43	5.185	5.185	0.000	100	927638	150.0	153.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.197	5.203	-0.006	81	146727	20.0	21.3	
40 2,2-Dichloropropane	77	5.215	5.215	0.000	53	162871	20.0	17.9	
41 Propionitrile	54	5.282	5.282	0.000	100	291367	150.0	165.5	
43 Methacrylonitrile	67	5.508	5.502	0.006	92	654943	150.0	150.9	
44 Chlorobromomethane	128	5.544	5.539	0.005	98	67886	20.0	19.5	
45 Tetrahydrofuran	71	5.550	5.551	-0.001	86	167966	100.0	99.4	
46 Chloroform	83	5.715	5.709	0.006	92	215775	20.0	19.4	
48 1,1,1-Trichloroethane	97	5.928	5.929	-0.001	98	174214	20.0	18.2	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	281093	50.0	48.1	
49 Cyclohexane	56	6.020	6.020	0.000	91	197949	20.0	21.1	
51 Carbon tetrachloride	117	6.142	6.142	0.000	97	154727	20.0	18.8	
50 1,1-Dichloropropene	75	6.154	6.154	0.000	97	167932	20.0	19.5	
52 Isobutyl alcohol	41	6.367	6.374	-0.007	95	283325	500.0	533.8	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	99	63334	50.0	49.6	
53 Benzene	78	6.428	6.429	-0.001	96	520399	20.0	20.0	
55 1,2-Dichloroethane	62	6.514	6.514	0.000	97	153403	20.0	18.3	
58 Tert-amyl methyl ether	73	6.642	6.648	-0.006	99	351269	20.0	19.1	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1122282	50.0	50.0	
60 n-Heptane	43	6.886	6.886	0.000	95	156972	20.0	20.6	
61 n-Butanol	56	7.294	7.294	0.000	89	475519	1000.0	1034.0	
62 Trichloroethene	95	7.361	7.361	0.000	98	136801	20.0	20.0	
63 Methylcyclohexane	83	7.672	7.672	0.000	90	198731	20.0	21.3	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	97	138279	20.0	20.5	
65 2-ethoxy-2-methyl butane	87	7.739	7.739	0.000	91	178843	20.0	19.2	
68 1,4-Dioxane	88	7.806	7.806	0.000	86	62245	500.0	634.9	
66 Dibromomethane	93	7.824	7.825	-0.001	95	87467	20.0	19.8	
67 Methyl methacrylate	69	7.830	7.831	-0.001	92	125937	20.0	19.3	
70 Dichlorobromomethane	83	8.087	8.087	0.000	99	161952	20.0	18.9	
72 2-Nitropropane	41	8.385	8.386	-0.001	98	47730	20.0	16.0	
71 2-Chloroethyl vinyl ether	63	8.489	8.489	0.000	91	104263	20.0	19.2	
73 cis-1,3-Dichloropropene	75	8.678	8.672	0.006	97	202712	20.0	18.7	
75 4-Methyl-2-pentanone (MIBK)	43	8.891	8.885	0.006	97	1184041	100.0	100.5	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1065139	50.0	50.4	
77 Toluene	92	9.105	9.105	0.000	98	331224	20.0	20.6	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	176593	20.0	17.8	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	207066	20.0	19.8	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	89	129293	20.0	21.2	
81 Tetrachloroethene	166	9.733	9.733	0.000	98	153198	20.0	21.4	
82 1,3-Dichloropropane	76	9.836	9.836	0.000	90	199108	20.0	19.7	
84 2-Hexanone	43	9.909	9.910	-0.001	98	945691	100.0	99.2	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	137821	20.0	19.2	
87 Ethylene Dibromide	107	10.178	10.178	0.000	98	136431	20.0	19.6	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	839044	50.0	50.0	
88 Chlorobenzene	112	10.690	10.690	0.000	94	368850	20.0	20.4	
91 1-Chlorohexane	91	10.690	10.690	0.000	66	178007	20.0	19.3	
92 1,1,1,2-Tetrachloroethane	131	10.787	10.788	-0.001	96	127649	20.0	19.5	
93 Ethylbenzene	91	10.793	10.794	-0.001	98	636362	20.0	20.0	
94 m-Xylene & p-Xylene	106	10.921	10.922	-0.001	100	500511	40.0	41.2	
95 o-Xylene	106	11.275	11.275	0.000	96	243796	20.0	20.3	
96 Styrene	104	11.287	11.294	-0.007	95	404959	20.0	20.2	
97 Bromoform	173	11.446	11.446	0.000	98	108288	20.0	18.5	
98 Isopropylbenzene	105	11.598	11.598	0.000	95	623781	20.0	20.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.671	11.671	0.000	91	243381	500.0	522.6	
$ 101 4-Bromofluorobenzene (Surr)	95	11.744	11.745	-0.001	95	400356	50.0	46.9	
102 Bromobenzene	156	11.860	11.860	0.000	90	165026	20.0	21.2	
105 1,1,2,2-Tetrachloroethane	83	11.866	11.867	-0.001	93	224242	20.0	20.8	
104 trans-1,4-Dichloro-2-butene	53	11.897	11.897	0.000	88	183481	100.0	53.5	
103 1,2,3-Trichloropropane	110	11.909	11.909	0.000	81	61486	20.0	20.0	
106 N-Propylbenzene	91	11.952	11.946	0.006	99	749788	20.0	21.0	
107 2-Chlorotoluene	126	12.019	12.025	-0.006	97	150158	20.0	20.7	
108 1,3,5-Trimethylbenzene	105	12.098	12.098	0.000	94	502077	20.0	20.0	
109 4-Chlorotoluene	126	12.122	12.123	-0.001	96	155030	20.0	20.9	
111 tert-Butylbenzene	134	12.348	12.348	0.000	93	109171	20.0	21.0	
112 Pentachloroethane	167	12.378	12.379	-0.001	88	96066	20.0	19.8	
113 1,2,4-Trimethylbenzene	105	12.391	12.397	-0.006	97	510127	20.0	19.7	
114 sec-Butylbenzene	105	12.519	12.519	0.000	94	628542	20.0	20.2	
115 1,3-Dichlorobenzene	146	12.616	12.616	0.000	98	293036	20.0	20.4	
116 4-Isopropyltoluene	119	12.634	12.641	-0.007	97	532597	20.0	20.3	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	94	447500	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.695	12.696	-0.001	96	302960	20.0	20.7	
119 1,2,3-Trimethylbenzene	105	12.708	12.714	-0.006	98	533710	20.0	20.3	
120 Benzyl chloride	91	12.781	12.781	0.000	98	395340	20.0	17.8	
121 1,3-Diethylbenzene	119	12.848	12.848	0.000	95	307964	20.0	19.0	
122 p-Diethylbenzene	119	12.921	12.921	0.000	93	326986	20.0	19.7	
124 n-Butylbenzene	92	12.939	12.940	-0.001	97	258622	20.0	19.2	
125 1,2-Dichlorobenzene	146	12.964	12.964	0.000	99	291670	20.0	20.9	
126 o-diethylbenzene	119	12.994	12.994	0.000	95	257254	20.0	19.5	
127 1,2-Dibromo-3-Chloropropane	75	13.531	13.531	0.000	90	52952	20.0	18.7	
128 1,3,5-Trichlorobenzene	180	13.659	13.659	0.000	98	199052	20.0	20.5	
129 1,2,4-Trichlorobenzene	180	14.098	14.098	0.000	94	189295	20.0	20.7	
131 Hexachlorobutadiene	225	14.189	14.189	0.000	94	76967	20.0	20.9	
132 Naphthalene	128	14.280	14.281	-0.001	97	689692	20.0	20.2	
133 1,2,3-Trichlorobenzene	180	14.427	14.427	0.000	95	185804	20.0	20.9	
134 2-Methylnaphthalene	142	15.043	15.043	-0.001	93	346984	20.0	18.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 19-Nov-2020 23:16:53 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19L36.D

Injection Date: 19-Nov-2020 21:05:30 Instrument ID: 26285 Operator ID: etp33087

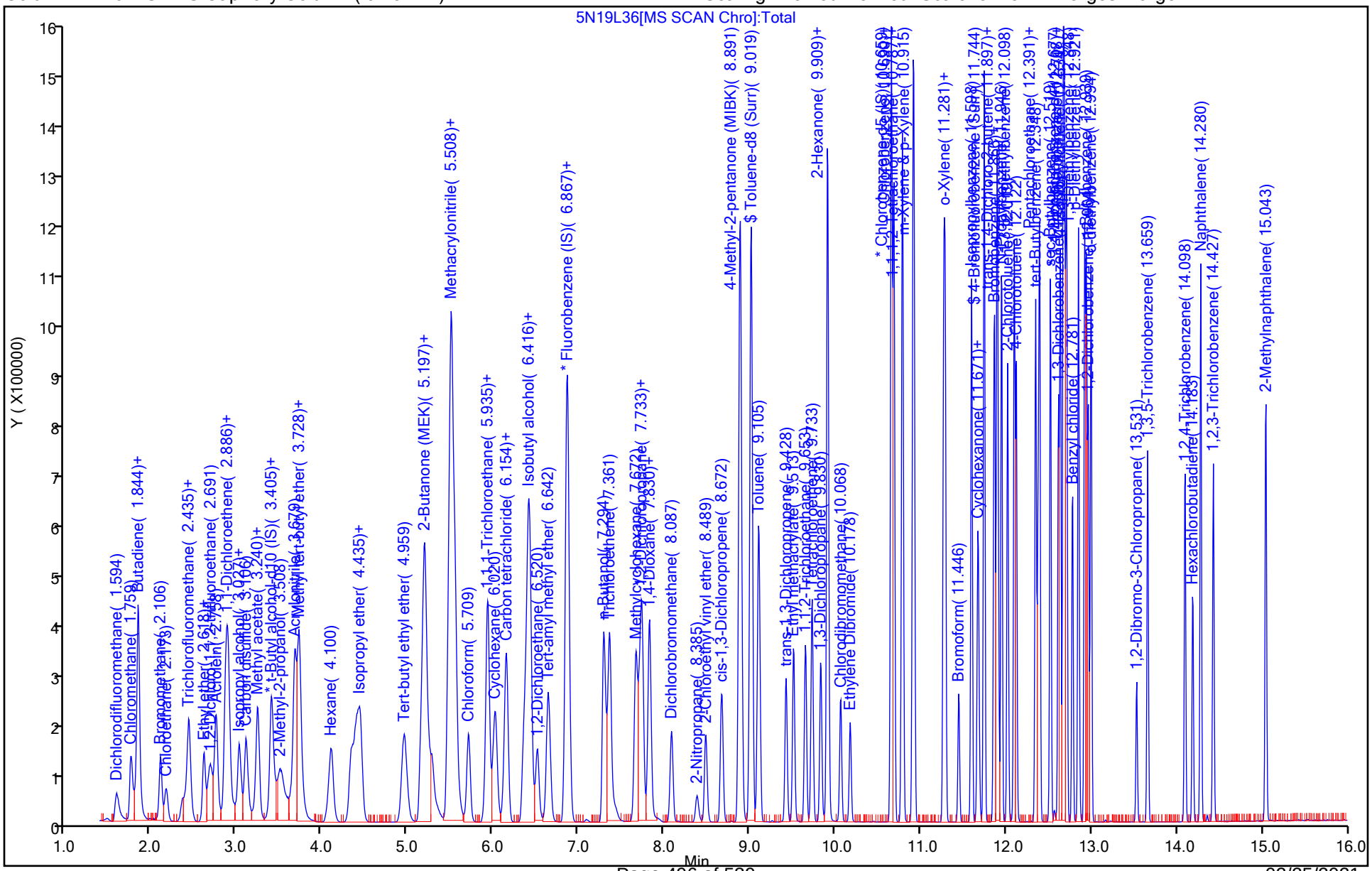
Lims ID: LCSD Worklist Smp#: 56

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-UC01 MS Lab Sample ID: 410-20865-1 MS

Matrix: Water Lab File ID: 5N19S39.D

Analysis Method: 8260C Date Collected: 11/11/2020 08:55

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 22:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	24.0		1.0	0.30
75-34-3	1,1-Dichloroethane	23.3		1.0	0.20
75-35-4	1,1-Dichloroethene	26.1		1.0	0.20
95-50-1	1,2-Dichlorobenzene	22.7		5.0	0.20
107-06-2	1,2-Dichloroethane	20.0		1.0	0.30
123-91-1	1,4-Dioxane	633		250	29
78-93-3	2-Butanone	157		10	0.30
67-64-1	Acetone	176		20	0.70
71-43-2	Benzene	23.2		1.0	0.20
75-15-0	Carbon disulfide	23.0		5.0	0.20
67-66-3	Chloroform	22.1		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	25.9		1.0	0.20
100-41-4	Ethylbenzene	23.0		1.0	0.40
76-13-1	Freon 113	25.3		10	0.20
75-09-2	Methylene Chloride	23.3		1.0	0.30
91-20-3	Naphthalene	21.5		5.0	1.0
127-18-4	Tetrachloroethene	33.8		1.0	0.20
108-88-3	Toluene	23.7		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	25.2		1.0	0.20
79-01-6	Trichloroethene	27.6		1.0	0.20
75-01-4	Vinyl chloride	25.2		1.0	0.20
1330-20-7	Xylenes, Total	70.1		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S39.D
Lims ID: 410-20865-A-1 MS
Client ID: J01-VC01
Sample Type: MS
Inject. Date: 19-Nov-2020 22:55:30 ALS Bottle#: 10 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-010
Misc. Info.: 410-20865-A-1 MS
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:04:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	187952	20.0	26.2	
3 Chloromethane	50	1.759	1.759	0.000	99	208511	20.0	22.8	
4 Butadiene	39	1.844	1.850	-0.006	91	295461	20.0	48.0	
5 Vinyl chloride	62	1.850	1.850	0.000	98	200489	20.0	25.2	
8 Bromomethane	94	2.106	2.112	-0.006	89	131939	20.0	23.8	
9 Chloroethane	64	2.173	2.179	-0.006	100	100576	20.0	22.1	
11 Trichlorofluoromethane	101	2.417	2.423	-0.006	98	231010	20.0	24.5	
12 Pentane	43	2.441	2.448	-0.007	96	205969	20.0	25.7	
14 Ethyl ether	59	2.612	2.618	-0.006	94	121301	20.0	23.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.691	2.692	-0.001	93	174965	20.0	25.7	
16 Acrolein	56	2.758	2.759	-0.001	100	299405	150.0	136.1	
19 1,1-Dichloroethene	96	2.862	2.868	-0.006	97	129590	20.0	26.1	
17 Acetone	58	2.893	2.899	-0.006	100	178806	150.0	176.4	
18 112TCTFE	101	2.899	2.905	-0.006	52	131572	20.0	25.3	
20 Iodomethane	142	3.027	3.033	-0.006	98	227634	20.0	22.4	
21 Isopropyl alcohol	45	3.039	3.033	0.006	50	134483	150.0	161.6	
22 Carbon disulfide	76	3.106	3.112	-0.006	99	411674	20.0	23.0	
23 Methyl acetate	43	3.228	3.228	0.000	98	162494	20.0	20.0	
25 3-Chloro-1-propene	41	3.246	3.246	0.000	94	202254	20.0	21.6	
26 Methylene Chloride	84	3.405	3.405	0.000	93	138402	20.0	23.3	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	96	356537	250.0	250.0	
28 2-Methyl-2-propanol	59	3.520	3.515	0.005	100	325366	200.0	211.4	
29 Acrylonitrile	53	3.679	3.673	0.006	99	420041	100.0	110.0	
30 Methyl tert-butyl ether	73	3.728	3.728	0.000	95	345729	20.0	20.2	
31 trans-1,2-Dichloroethene	96	3.734	3.734	0.000	100	144220	20.0	25.2	
32 Hexane	57	4.100	4.106	-0.006	93	195548	20.0	27.5	
33 1,1-Dichloroethane	63	4.337	4.338	-0.001	96	247023	20.0	23.3	
35 Isopropyl ether	45	4.398	4.399	0.000	97	422528	20.0	21.9	
36 2-Chloro-1,3-butadiene	53	4.447	4.447	0.000	89	202139	20.0	22.8	
37 Tert-butyl ethyl ether	59	4.959	4.959	0.000	99	371500	20.0	20.8	
39 2-Butanone (MEK)	43	5.185	5.185	0.000	100	912548	150.0	157.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.203	5.203	0.000	81	171741	20.0	25.9	
40 2,2-Dichloropropane	77	5.215	5.215	0.000	84	193565	20.0	22.1	
41 Propionitrile	54	5.282	5.282	0.000	100	277899	150.0	164.2	
43 Methacrylonitrile	67	5.508	5.502	0.006	92	650103	150.0	155.7	
44 Chlorobromomethane	128	5.544	5.539	0.005	96	71440	20.0	21.3	
45 Tetrahydrofuran	71	5.551	5.551	0.000	88	164311	100.0	101.1	
46 Chloroform	83	5.715	5.709	0.006	93	236026	20.0	22.1	
48 1,1,1-Trichloroethane	97	5.929	5.929	0.000	72	221336	20.0	24.0	
$ 47 Dibromofluoromethane (Surr)	113	5.935	5.935	0.000	94	268905	50.0	47.9	
49 Cyclohexane	56	6.026	6.020	0.006	90	248487	20.0	27.6	
51 Carbon tetrachloride	117	6.142	6.142	0.000	96	183574	20.0	23.2	
50 1,1-Dichloropropene	75	6.160	6.154	0.006	97	200139	20.0	24.2	
52 Isobutyl alcohol	41	6.374	6.374	0.000	94	274012	500.0	537.1	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.404	6.410	-0.006	98	61933	50.0	50.5	
53 Benzene	78	6.428	6.429	-0.001	97	581894	20.0	23.2	
55 1,2-Dichloroethane	62	6.514	6.514	0.000	97	160707	20.0	20.0	
58 Tert-amyl methyl ether	73	6.648	6.648	0.000	99	363250	20.0	20.6	
* 59 Fluorobenzene (IS)	96	6.861	6.861	0.000	99	1079109	50.0	50.0	
60 n-Heptane	43	6.892	6.886	0.006	95	195128	20.0	26.6	
61 n-Butanol	56	7.300	7.294	0.006	90	461216	1000.0	1043.3	
62 Trichloroethene	95	7.361	7.361	0.000	98	180992	20.0	27.6	
63 Methylcyclohexane	83	7.672	7.672	0.000	90	249701	20.0	27.8	
64 1,2-Dichloropropane	63	7.709	7.715	-0.006	98	150597	20.0	23.2	
65 2-ethoxy-2-methyl butane	87	7.739	7.739	0.000	91	186398	20.0	20.8	
68 1,4-Dioxane	88	7.806	7.806	0.000	28	59627	500.0	632.8	M
66 Dibromomethane	93	7.825	7.825	-0.001	71	90132	20.0	21.2	
67 Methyl methacrylate	69	7.831	7.831	0.000	93	128947	20.0	20.5	
70 Dichlorobromomethane	83	8.087	8.087	0.000	100	171558	20.0	20.8	
72 2-Nitropropane	41	8.385	8.386	-0.001	98	47630	20.0	16.6	
71 2-Chloroethyl vinyl ether	63	8.489	8.489	0.000	1	1245	20.0	0.2389	
73 cis-1,3-Dichloropropene	75	8.678	8.672	0.006	96	216935	20.0	20.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.885	8.885	0.000	97	1180656	100.0	104.2	
$ 76 Toluene-d8 (Surr)	98	9.019	9.020	-0.001	93	1032611	50.0	50.0	
77 Toluene	92	9.105	9.105	0.000	98	372665	20.0	23.7	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	182101	20.0	18.8	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	208835	20.0	20.4	
80 1,1,2-Trichloroethane	97	9.653	9.654	-0.001	89	133180	20.0	22.3	
81 Tetrachloroethene	166	9.733	9.733	0.000	97	236589	20.0	33.8	
82 1,3-Dichloropropane	76	9.830	9.836	-0.006	90	207261	20.0	20.9	
84 2-Hexanone	43	9.909	9.910	-0.001	97	952242	100.0	102.2	
85 Chlorodibromomethane	129	10.062	10.068	-0.006	90	142705	20.0	20.4	
87 Ethylene Dibromide	107	10.178	10.178	0.000	98	141315	20.0	20.7	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	820009	50.0	50.0	
88 Chlorobenzene	112	10.684	10.690	-0.006	94	410831	20.0	23.3	
91 1-Chlorohexane	91	10.690	10.690	0.000	67	210988	20.0	23.4	
92 1,1,1,2-Tetrachloroethane	131	10.781	10.788	-0.007	96	140636	20.0	21.9	
93 Ethylbenzene	91	10.787	10.794	-0.007	98	716255	20.0	23.0	
94 m-Xylene & p-Xylene	106	10.915	10.922	-0.007	100	561161	40.0	47.2	
95 o-Xylene	106	11.269	11.275	-0.006	97	268510	20.0	22.9	
96 Styrene	104	11.287	11.294	-0.007	96	449813	20.0	23.0	
97 Bromoform	173	11.446	11.446	0.000	98	109421	20.0	19.1	
98 Isopropylbenzene	105	11.598	11.598	0.000	95	714719	20.0	23.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.671	11.671	0.000	91	239648	500.0	535.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.744	11.745	-0.001	98	387639	50.0	46.5	
102 Bromobenzene	156	11.860	11.860	0.000	88	180601	20.0	23.9	
105 1,1,2,2-Tetrachloroethane	83	11.866	11.867	-0.001	93	228882	20.0	22.0	
104 trans-1,4-Dichloro-2-butene	53	11.891	11.897	-0.006	89	167003	100.0	50.4	
103 1,2,3-Trichloropropane	110	11.909	11.909	0.000	83	62385	20.0	21.0	
106 N-Propylbenzene	91	11.946	11.946	0.000	99	844432	20.0	24.4	
107 2-Chlorotoluene	126	12.019	12.025	-0.006	97	167337	20.0	23.9	
108 1,3,5-Trimethylbenzene	105	12.092	12.098	-0.006	93	571355	20.0	23.5	
109 4-Chlorotoluene	126	12.116	12.123	-0.007	97	166599	20.0	23.2	
111 tert-Butylbenzene	134	12.348	12.348	0.000	93	124257	20.0	24.7	
112 Pentachloroethane	167	12.372	12.379	-0.007	90	104969	20.0	22.3	
113 1,2,4-Trimethylbenzene	105	12.391	12.397	-0.006	97	570258	20.0	22.7	
114 sec-Butylbenzene	105	12.519	12.519	0.000	94	734619	20.0	24.4	
115 1,3-Dichlorobenzene	146	12.610	12.616	-0.006	98	316724	20.0	22.7	
116 4-Isopropyltoluene	119	12.635	12.641	-0.006	97	612745	20.0	24.1	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	93	433051	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.689	12.696	-0.007	96	325258	20.0	22.9	
119 1,2,3-Trimethylbenzene	105	12.708	12.714	-0.006	98	586770	20.0	23.1	
120 Benzyl chloride	91	12.775	12.781	-0.006	98	409833	20.0	19.1	
121 1,3-Diethylbenzene	119	12.848	12.848	0.000	95	352851	20.0	22.5	
122 p-Diethylbenzene	119	12.921	12.921	0.000	93	368123	20.0	22.9	
124 n-Butylbenzene	92	12.939	12.940	-0.001	98	296246	20.0	22.8	
125 1,2-Dichlorobenzene	146	12.958	12.964	-0.006	99	306588	20.0	22.7	
126 o-diethylbenzene	119	12.994	12.994	0.000	95	288031	20.0	22.5	
127 1,2-Dibromo-3-Chloropropane	75	13.525	13.531	-0.006	90	52000	20.0	19.0	
128 1,3,5-Trichlorobenzene	180	13.659	13.659	0.000	97	216843	20.0	23.1	
129 1,2,4-Trichlorobenzene	180	14.092	14.098	-0.006	94	203584	20.0	23.1	
131 Hexachlorobutadiene	225	14.183	14.189	-0.006	94	87795	20.0	24.6	
132 Naphthalene	128	14.274	14.281	-0.007	97	711915	20.0	21.5	
133 1,2,3-Trichlorobenzene	180	14.421	14.427	-0.006	96	197292	20.0	22.9	
134 2-Methylnaphthalene	142	15.037	15.043	-0.006	93	356935	20.0	19.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 10:20:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S39.D

Injection Date: 19-Nov-2020 22:55:30 Instrument ID: 26285 Operator ID: etp33087

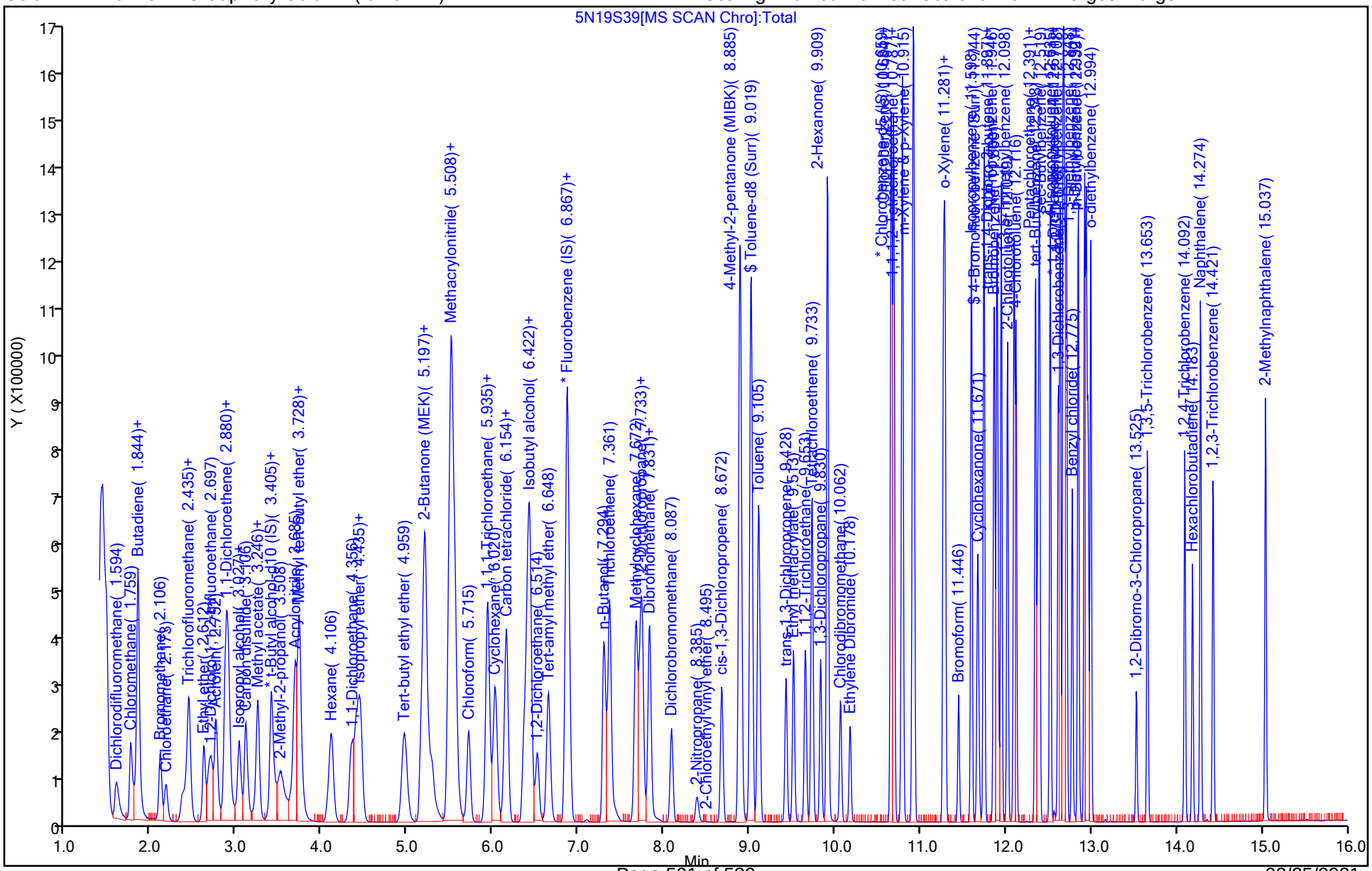
Lims ID: 410-20865-A-1 MS Worklist Smp#: 10

Client ID: J01-VC01

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 10

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

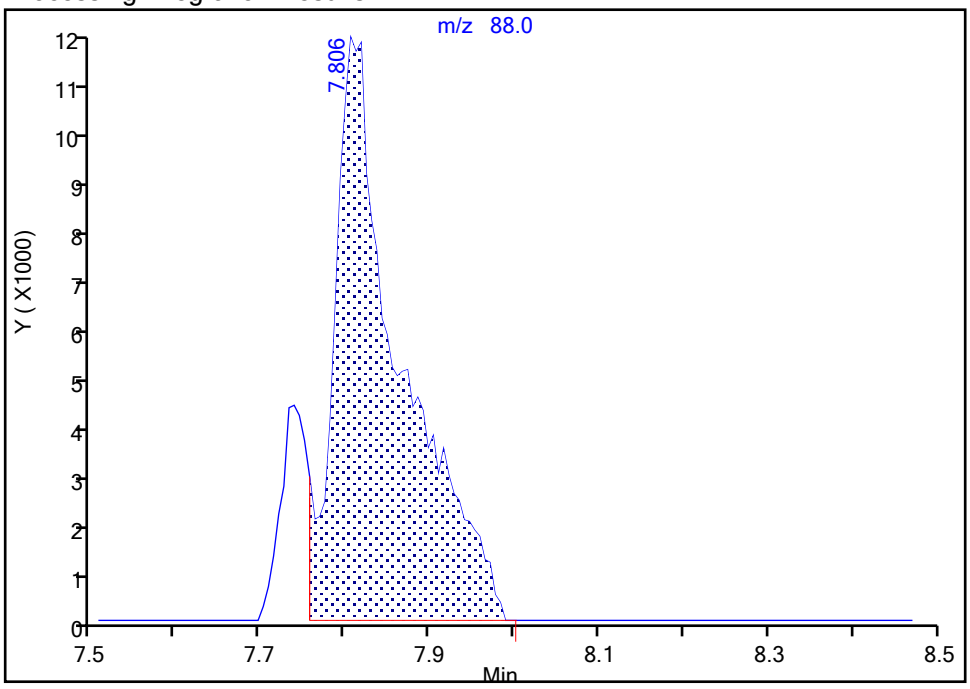
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S39.D				
Injection Date:	19-Nov-2020 22:55:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1 MS				
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	10	Worklist Smp#:	10
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

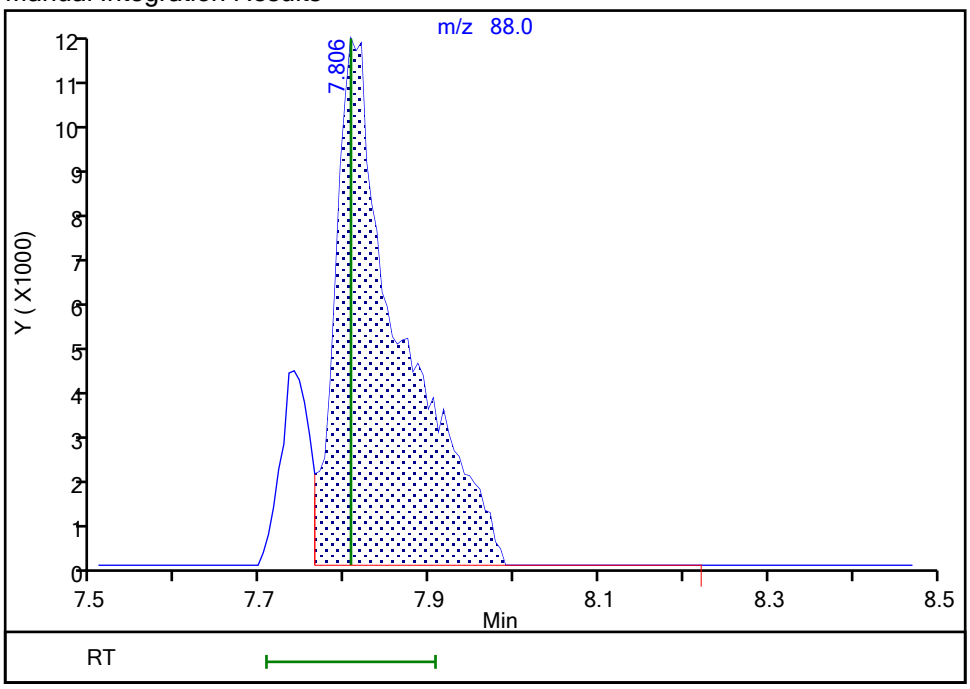
Processing Integration Results

RT: 7.81
Area: 60626
Amount: 643.3840
Amount Units: ug/l



Manual Integration Results

RT: 7.81
Area: 59627
Amount: 632.7823
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:03:56
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-03 MS Lab Sample ID: 410-20865-30 MS

Matrix: Water Lab File ID: 5N18S05.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 13:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.7		1.0	0.30
75-34-3	1,1-Dichloroethane	22.5		1.0	0.20
75-35-4	1,1-Dichloroethene	24.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.3		5.0	0.20
107-06-2	1,2-Dichloroethane	19.1		1.0	0.30
123-91-1	1,4-Dioxane	523		250	29
78-93-3	2-Butanone	152		10	0.30
67-64-1	Acetone	170		20	0.70
71-43-2	Benzene	22.3		1.0	0.20
75-15-0	Carbon disulfide	22.6		5.0	0.20
67-66-3	Chloroform	21.0		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	24.6		1.0	0.20
100-41-4	Ethylbenzene	22.1		1.0	0.40
76-13-1	Freon 113	24.5		10	0.20
75-09-2	Methylene Chloride	22.3		1.0	0.30
91-20-3	Naphthalene	19.8		5.0	1.0
127-18-4	Tetrachloroethene	25.5		1.0	0.20
108-88-3	Toluene	22.6		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	23.0		1.0	0.20
79-01-6	Trichloroethene	33.5		1.0	0.20
75-01-4	Vinyl chloride	17.4		1.0	0.20
1330-20-7	Xylenes, Total	67.4		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	95		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S05.D
Lims ID: 410-20865-A-30 MS
Client ID: R5-03
Sample Type: MS
Inject. Date: 18-Nov-2020 13:35:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-011
Misc. Info.: 410-20865-A-30 MS
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:11:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.588	1.594	-0.006	99	96813	20.0	13.1	
3 Chloromethane	50	1.752	1.753	-0.001	99	140506	20.0	15.0	
4 Butadiene	39	1.838	1.838	0.000	90	221268	20.0	35.0	
5 Vinyl chloride	62	1.844	1.844	0.000	98	141901	20.0	17.4	
8 Bromomethane	94	2.100	2.100	0.000	89	103828	20.0	18.2	
9 Chloroethane	64	2.161	2.161	0.000	100	83460	20.0	17.9	
11 Trichlorofluoromethane	101	2.405	2.405	0.000	98	184339	20.0	19.0	
12 Pentane	43	2.423	2.429	-0.006	97	218758	20.0	26.5	
14 Ethyl ether	59	2.600	2.594	0.006	94	119310	20.0	22.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.661	2.667	-0.006	95	171355	20.0	24.5	
16 Acrolein	56	2.740	2.734	0.006	100	293542	150.0	131.8	
19 1,1-Dichloroethene	96	2.844	2.844	0.000	98	125578	20.0	24.6	
17 Acetone	58	2.868	2.874	-0.006	100	174198	150.0	169.7	
18 112TCTFE	101	2.874	2.880	-0.006	85	130979	20.0	24.5	
20 Iodomethane	142	3.002	3.002	0.000	98	227066	20.0	21.8	
21 Isopropyl alcohol	45	3.020	3.008	0.012	50	142189	150.0	168.8	
22 Carbon disulfide	76	3.081	3.082	-0.001	99	416489	20.0	22.6	
23 Methyl acetate	43	3.203	3.197	0.006	98	151458	20.0	18.1	
25 3-Chloro-1-propene	41	3.222	3.222	0.000	94	180405	20.0	18.7	
26 Methylene Chloride	84	3.374	3.374	0.000	93	135826	20.0	22.3	
* 27 t-Butyl alcohol-d10 (IS)	65	3.398	3.386	0.012	98	360955	250.0	250.0	
28 2-Methyl-2-propanol	59	3.490	3.496	-0.006	99	327502	200.0	210.2	
29 Acrylonitrile	53	3.648	3.643	0.006	98	414556	100.0	105.7	
30 Methyl tert-butyl ether	73	3.691	3.691	0.000	95	329277	20.0	18.7	
31 trans-1,2-Dichloroethene	96	3.697	3.697	0.000	99	135034	20.0	23.0	
32 Hexane	57	4.069	4.063	0.006	93	197529	20.0	27.1	
33 1,1-Dichloroethane	63	4.301	4.295	0.006	96	245288	20.0	22.5	
35 Isopropyl ether	45	4.356	4.350	0.006	96	413846	20.0	20.9	
36 2-Chloro-1,3-butadiene	53	4.410	4.405	0.005	90	200041	20.0	22.0	
37 Tert-butyl ethyl ether	59	4.916	4.911	0.005	99	356009	20.0	19.4	
39 2-Butanone (MEK)	43	5.142	5.142	0.000	100	908033	150.0	152.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.160	5.154	0.006	81	167172	20.0	24.6	
40 2,2-Dichloropropane	77	5.179	5.173	0.006	88	182101	20.0	20.2	
41 Propionitrile	54	5.246	5.246	0.000	99	270294	150.0	157.7	
43 Methacrylonitrile	67	5.459	5.459	0.000	92	635793	150.0	148.2	
44 Chlorobromomethane	128	5.508	5.502	0.006	96	64575	20.0	18.7	
45 Tetrahydrofuran	71	5.514	5.514	0.000	87	162986	100.0	99.1	
46 Chloroform	83	5.672	5.667	0.006	93	230266	20.0	21.0	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	98	224212	20.0	23.7	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	273015	50.0	47.3	
49 Cyclohexane	56	5.989	5.990	-0.001	92	245236	20.0	26.5	
51 Carbon tetrachloride	117	6.111	6.112	-0.001	95	177865	20.0	21.8	
50 1,1-Dichloropropene	75	6.124	6.118	0.006	98	198700	20.0	23.4	
52 Isobutyl alcohol	41	6.343	6.343	0.000	94	272108	500.0	526.8	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.373	6.374	-0.001	97	62563	50.0	49.6	
53 Benzene	78	6.398	6.398	0.000	97	572697	20.0	22.3	
55 1,2-Dichloroethane	62	6.483	6.483	0.000	96	157832	20.0	19.1	
58 Tert-amyl methyl ether	73	6.611	6.611	0.000	99	344666	20.0	19.0	
* 59 Fluorobenzene (IS)	96	6.837	6.831	0.006	99	1109047	50.0	50.0	
60 n-Heptane	43	6.861	6.855	0.006	94	189452	20.0	25.1	
61 n-Butanol	56	7.276	7.270	0.006	89	447420	1000.0	999.8	
62 Trichloroethene	95	7.337	7.337	0.000	98	226315	20.0	33.5	
63 Methylcyclohexane	83	7.648	7.642	0.006	90	219319	20.0	23.7	
64 1,2-Dichloropropane	63	7.690	7.691	0.000	94	148312	20.0	22.2	
65 2-ethoxy-2-methyl butane	87	7.721	7.715	0.006	91	174622	20.0	19.0	
68 1,4-Dioxane	88	7.800	7.794	0.006	89	49925	500.0	523.3	
66 Dibromomethane	93	7.806	7.806	0.000	97	87378	20.0	20.0	
67 Methyl methacrylate	69	7.812	7.806	0.006	94	122955	20.0	19.1	
70 Dichlorobromomethane	83	8.068	8.062	0.006	99	168393	20.0	19.8	
72 2-Nitropropane	41	8.373	8.367	0.006	97	45906	20.0	15.8	
71 2-Chloroethyl vinyl ether	63	8.477	8.471	0.006	1	804	20.0	0.1501	
73 cis-1,3-Dichloropropene	75	8.660	8.660	0.000	97	207929	20.0	19.4	
75 4-Methyl-2-pentanone (MIBK)	43	8.879	8.873	0.006	97	1179594	100.0	101.3	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1061058	50.0	50.5	
77 Toluene	92	9.099	9.093	0.006	98	361767	20.0	22.6	
78 trans-1,3-Dichloropropene	75	9.422	9.422	0.000	92	181538	20.0	18.4	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	206420	20.0	19.8	
80 1,1,2-Trichloroethane	97	9.647	9.647	0.000	89	130805	20.0	21.5	
81 Tetrachloroethene	166	9.726	9.727	-0.001	97	181911	20.0	25.5	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	91	205044	20.0	20.3	
84 2-Hexanone	43	9.915	9.910	0.005	97	950997	100.0	100.3	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	138085	20.0	19.4	
87 Ethylene Dibromide	107	10.178	10.178	0.000	99	138999	20.0	20.0	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	84	834971	50.0	50.0	
88 Chlorobenzene	112	10.696	10.696	0.000	94	397742	20.0	22.1	
91 1-Chlorohexane	91	10.696	10.696	0.000	69	207143	20.0	22.5	
92 1,1,1,2-Tetrachloroethane	131	10.793	10.794	-0.001	97	131922	20.0	20.2	
93 Ethylbenzene	91	10.799	10.800	-0.001	98	701171	20.0	22.1	
94 m-Xylene & p-Xylene	106	10.927	10.928	-0.001	100	550004	40.0	45.4	
95 o-Xylene	106	11.287	11.287	0.000	96	263133	20.0	22.0	
96 Styrene	104	11.305	11.306	-0.001	95	442273	20.0	22.2	
97 Bromoform	173	11.464	11.464	0.000	99	104365	20.0	17.9	
98 Isopropylbenzene	105	11.610	11.617	-0.007	95	688388	20.0	22.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.690	11.690	0.000	91	197297	500.0	435.4	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	95	402956	50.0	47.5	
102 Bromobenzene	156	11.878	11.879	-0.001	90	174719	20.0	22.2	
105 1,1,2,2-Tetrachloroethane	83	11.891	11.891	0.000	94	226315	20.0	20.8	
104 trans-1,4-Dichloro-2-butene	53	11.915	11.915	0.000	91	262418	100.0	75.9	
103 1,2,3-Trichloropropane	110	11.927	11.927	0.000	84	61153	20.0	19.7	
106 N-Propylbenzene	91	11.970	11.970	0.000	99	827796	20.0	23.0	
107 2-Chlorotoluene	126	12.043	12.043	0.000	97	164623	20.0	22.5	
108 1,3,5-Trimethylbenzene	105	12.116	12.116	0.000	93	550610	20.0	21.7	
109 4-Chlorotoluene	126	12.141	12.141	0.000	97	166418	20.0	22.2	
111 tert-Butylbenzene	134	12.372	12.373	-0.001	93	116136	20.0	22.2	
112 Pentachloroethane	167	12.397	12.397	0.000	91	97700	20.0	19.9	
113 1,2,4-Trimethylbenzene	105	12.415	12.415	0.000	97	552757	20.0	21.1	
114 sec-Butylbenzene	105	12.543	12.543	0.000	94	701889	20.0	22.4	
115 1,3-Dichlorobenzene	146	12.641	12.641	0.000	98	312558	20.0	21.5	
116 4-Isopropyltoluene	119	12.665	12.665	0.000	97	583522	20.0	22.0	
* 117 1,4-Dichlorobenzene-d4	152	12.701	12.702	-0.001	93	451299	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.720	12.720	0.000	97	319324	20.0	21.6	
119 1,2,3-Trimethylbenzene	105	12.732	12.738	-0.006	99	547690	20.0	20.7	
120 Benzyl chloride	91	12.805	12.805	0.000	98	397004	20.0	17.8	
121 1,3-Diethylbenzene	119	12.872	12.879	-0.007	95	329478	20.0	20.1	
122 p-Diethylbenzene	119	12.945	12.952	-0.007	94	344027	20.0	20.5	
124 n-Butylbenzene	92	12.970	12.970	0.000	98	289768	20.0	21.4	
125 1,2-Dichlorobenzene	146	12.988	12.988	0.000	99	298623	20.0	21.3	
126 o-diethylbenzene	119	13.025	13.025	0.000	95	269249	20.0	20.2	
127 1,2-Dibromo-3-Chloropropane	75	13.561	13.561	0.000	88	51355	20.0	18.0	
128 1,3,5-Trichlorobenzene	180	13.689	13.689	0.000	97	208234	20.0	21.3	
129 1,2,4-Trichlorobenzene	180	14.128	14.134	-0.006	94	192856	20.0	21.0	
131 Hexachlorobutadiene	225	14.219	14.226	-0.007	95	82955	20.0	22.3	
132 Naphthalene	128	14.317	14.317	0.000	97	684115	20.0	19.8	
133 1,2,3-Trichlorobenzene	180	14.463	14.464	-0.001	96	187139	20.0	20.9	
134 2-Methylnaphthalene	142	15.085	15.085	0.000	94	335150	20.0	17.5	

QC Flag Legend

Processing Flags

Reagents:

MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00052	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

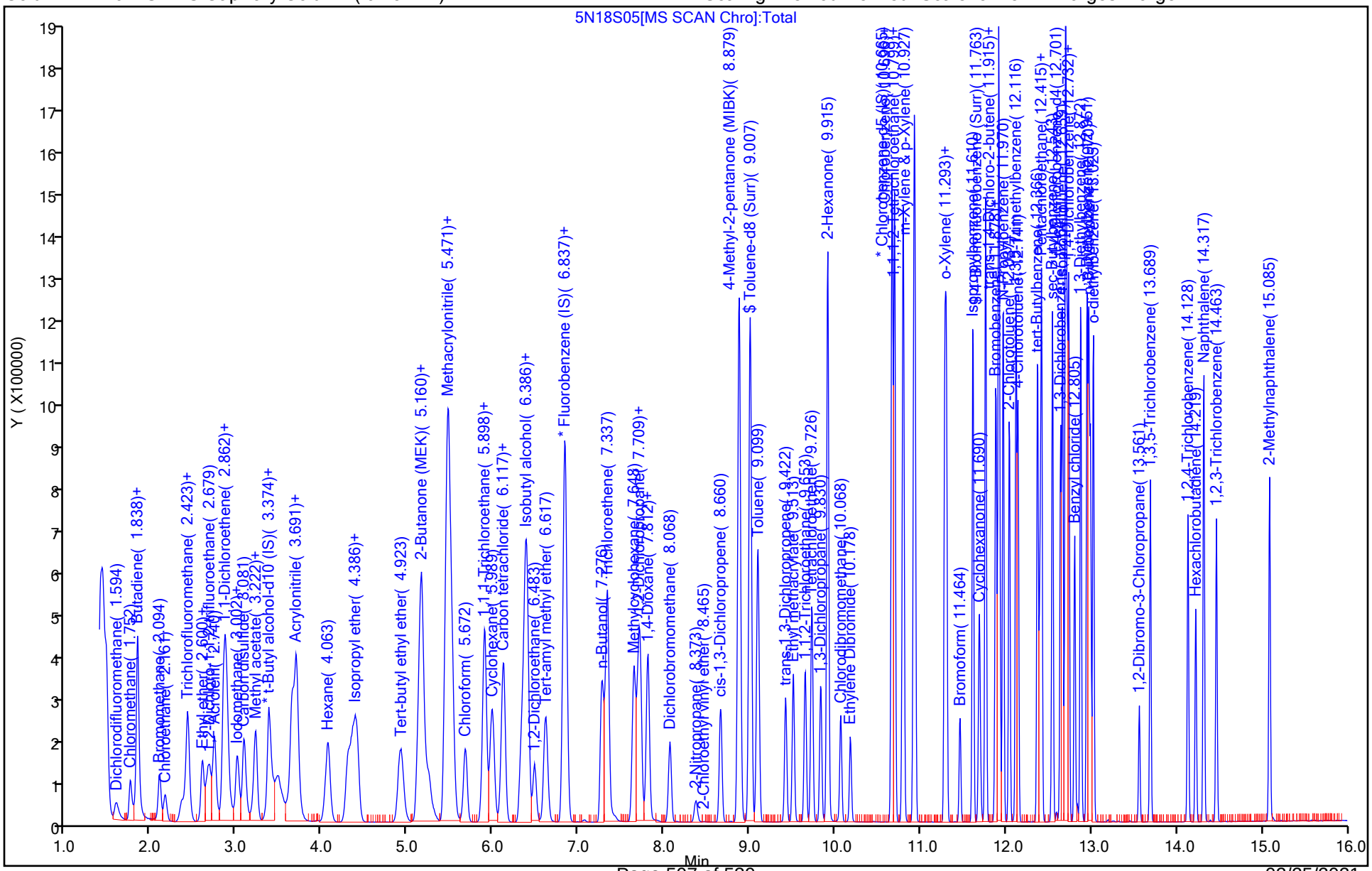
Report Date: 19-Nov-2020 23:20:05 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S05.D

Injection Date:	18-Nov-2020 13:35:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-30 MS			Worklist Smp#:	11
Client ID:	R5-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: J01-UC01 MSD Lab Sample ID: 410-20865-1 MSD

Matrix: Water Lab File ID: 5N19S40.D

Analysis Method: 8260C Date Collected: 11/11/2020 08:55

Sample wt/vol: 5(mL) Date Analyzed: 11/19/2020 23:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68196 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.0		1.0	0.30
75-34-3	1,1-Dichloroethane	22.8		1.0	0.20
75-35-4	1,1-Dichloroethene	25.2		1.0	0.20
95-50-1	1,2-Dichlorobenzene	22.2		5.0	0.20
107-06-2	1,2-Dichloroethane	20.0		1.0	0.30
123-91-1	1,4-Dioxane	603		250	29
78-93-3	2-Butanone	156		10	0.30
67-64-1	Acetone	173		20	0.70
71-43-2	Benzene	22.8		1.0	0.20
75-15-0	Carbon disulfide	22.9		5.0	0.20
67-66-3	Chloroform	21.8		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	25.7		1.0	0.20
100-41-4	Ethylbenzene	22.6		1.0	0.40
76-13-1	Freon 113	24.8		10	0.20
75-09-2	Methylene Chloride	23.0		1.0	0.30
91-20-3	Naphthalene	21.0		5.0	1.0
127-18-4	Tetrachloroethene	33.1		1.0	0.20
108-88-3	Toluene	23.5		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	24.7		1.0	0.20
79-01-6	Trichloroethene	26.7		1.0	0.20
75-01-4	Vinyl chloride	24.3		1.0	0.20
1330-20-7	Xylenes, Total	69.2		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S40.D
Lims ID: 410-20865-A-1 MSD
Client ID: J01-VC01
Sample Type: MSD
Inject. Date: 19-Nov-2020 23:15:30 ALS Bottle#: 11 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015990-011
Misc. Info.: 410-20865-A-1 MSD
Operator ID: etp33087 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 10:19:57 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:05:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.594	1.594	0.000	99	185281	20.0	25.0	
3 Chloromethane	50	1.765	1.759	0.006	99	216465	20.0	22.9	
4 Butadiene	39	1.850	1.850	0.000	92	287677	20.0	45.2	
5 Vinyl chloride	62	1.856	1.850	0.006	98	199572	20.0	24.3	
8 Bromomethane	94	2.112	2.112	0.000	90	135541	20.0	23.6	
9 Chloroethane	64	2.173	2.179	-0.006	99	102024	20.0	21.7	
11 Trichlorofluoromethane	101	2.423	2.423	0.000	99	228871	20.0	23.4	
12 Pentane	43	2.448	2.448	0.000	96	205958	20.0	24.8	
14 Ethyl ether	59	2.618	2.618	0.000	94	120065	20.0	22.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.704	2.692	0.012	95	177404	20.0	25.2	
16 Acrolein	56	2.765	2.759	0.006	99	305034	150.0	132.1	
19 1,1-Dichloroethene	96	2.874	2.868	0.006	98	129521	20.0	25.2	
17 Acetone	58	2.899	2.899	0.000	100	184126	150.0	172.9	
18 112TCTFE	101	2.899	2.905	-0.006	52	133830	20.0	24.8	
20 Iodomethane	142	3.033	3.033	0.000	97	232932	20.0	22.2	
21 Isopropyl alcohol	45	3.045	3.033	0.012	50	90868	150.0	104.0	
22 Carbon disulfide	76	3.112	3.112	0.000	98	424307	20.0	22.9	
23 Methyl acetate	43	3.234	3.228	0.006	99	167071	20.0	19.9	
25 3-Chloro-1-propene	41	3.252	3.246	0.006	94	205167	20.0	21.2	
26 Methylene Chloride	84	3.411	3.405	0.006	94	141281	20.0	23.0	
* 27 t-Butyl alcohol-d10 (IS)	65	3.423	3.423	0.000	97	374464	250.0	250.0	
28 2-Methyl-2-propanol	59	3.521	3.515	0.006	99	362399	200.0	224.2	
29 Acrylonitrile	53	3.685	3.673	0.012	99	426370	100.0	107.9	
30 Methyl tert-butyl ether	73	3.734	3.728	0.006	95	346251	20.0	19.5	
31 trans-1,2-Dichloroethene	96	3.740	3.734	0.006	99	145976	20.0	24.7	
32 Hexane	57	4.112	4.106	0.006	93	199550	20.0	27.2	
33 1,1-Dichloroethane	63	4.338	4.338	0.000	96	249576	20.0	22.8	
35 Isopropyl ether	45	4.411	4.399	0.013	96	419025	20.0	21.0	
36 2-Chloro-1,3-butadiene	53	4.453	4.447	0.006	90	204179	20.0	22.3	
37 Tert-butyl ethyl ether	59	4.965	4.959	0.006	99	368950	20.0	19.9	
39 2-Butanone (MEK)	43	5.191	5.185	0.006	100	938063	150.0	156.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.209	5.203	0.006	80	176068	20.0	25.7	
40 2,2-Dichloropropane	77	5.215	5.215	0.000	55	193730	20.0	21.3	
41 Propionitrile	54	5.289	5.282	0.007	99	291840	150.0	164.2	
43 Methacrylonitrile	67	5.508	5.502	0.006	92	663212	150.0	153.5	
44 Chlorobromomethane	128	5.551	5.539	0.012	97	71121	20.0	20.5	
45 Tetrahydrofuran	71	5.557	5.551	0.006	88	169874	100.0	99.5	
46 Chloroform	83	5.715	5.709	0.006	93	241016	20.0	21.8	
48 1,1,1-Trichloroethane	97	5.935	5.929	0.006	99	219509	20.0	23.0	
$ 47 Dibromofluoromethane (Surr)	113	5.941	5.935	0.006	94	279218	50.0	48.0	
49 Cyclohexane	56	6.026	6.020	0.006	91	249413	20.0	26.8	
51 Carbon tetrachloride	117	6.148	6.142	0.006	96	184165	20.0	22.4	
50 1,1-Dichloropropene	75	6.160	6.154	0.006	98	198675	20.0	23.2	
52 Isobutyl alcohol	41	6.374	6.374	0.000	95	285012	500.0	531.9	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.410	6.410	0.000	98	63309	50.0	49.8	
53 Benzene	78	6.435	6.429	0.006	97	590165	20.0	22.8	
55 1,2-Dichloroethane	62	6.520	6.514	0.006	97	166058	20.0	20.0	
58 Tert-amyl methyl ether	73	6.654	6.648	0.006	99	365808	20.0	20.0	
* 59 Fluorobenzene (IS)	96	6.868	6.861	0.007	99	1116758	50.0	50.0	
60 n-Heptane	43	6.886	6.886	0.000	94	196907	20.0	26.0	
61 n-Butanol	56	7.300	7.294	0.006	89	478012	1000.0	1029.6	
62 Trichloroethene	95	7.367	7.361	0.006	98	181274	20.0	26.7	
63 Methylcyclohexane	83	7.672	7.672	0.000	91	256119	20.0	27.5	
64 1,2-Dichloropropane	63	7.715	7.715	0.000	95	150908	20.0	22.5	
65 2-ethoxy-2-methyl butane	87	7.745	7.739	0.006	92	187773	20.0	20.3	
68 1,4-Dioxane	88	7.812	7.806	0.006	87	59707	500.0	603.3	M
66 Dibromomethane	93	7.831	7.825	0.006	97	91882	20.0	20.9	
67 Methyl methacrylate	69	7.831	7.831	0.000	93	127816	20.0	19.7	
70 Dichlorobromomethane	83	8.087	8.087	0.000	100	174759	20.0	20.4	
72 2-Nitropropane	41	8.386	8.386	0.000	99	47465	20.0	15.7	
71 2-Chloroethyl vinyl ether	63	8.495	8.489	0.006	1	741	20.0	0.1374	
73 cis-1,3-Dichloropropene	75	8.678	8.672	0.006	97	216059	20.0	20.0	
75 4-Methyl-2-pentanone (MIBK)	43	8.892	8.885	0.007	96	1202974	100.0	102.6	
$ 76 Toluene-d8 (Surr)	98	9.020	9.020	0.000	93	1064659	50.0	50.6	
77 Toluene	92	9.105	9.105	0.000	98	376261	20.0	23.5	
78 trans-1,3-Dichloropropene	75	9.428	9.428	0.000	92	184006	20.0	18.6	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	211264	20.0	20.2	
80 1,1,2-Trichloroethane	97	9.654	9.654	0.000	89	135839	20.0	22.3	
81 Tetrachloroethene	166	9.733	9.733	0.000	97	236296	20.0	33.1	
82 1,3-Dichloropropane	76	9.830	9.836	-0.006	90	207691	20.0	20.6	
84 2-Hexanone	43	9.910	9.910	0.000	97	954118	100.0	100.4	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	141258	20.0	19.8	
87 Ethylene Dibromide	107	10.178	10.178	0.000	99	143912	20.0	20.7	
* 90 Chlorobenzene-d5 (IS)	117	10.659	10.659	0.000	84	836698	50.0	50.0	
88 Chlorobenzene	112	10.690	10.690	0.000	94	406440	20.0	22.6	
91 1-Chlorohexane	91	10.690	10.690	0.000	69	214674	20.0	23.3	
92 1,1,1,2-Tetrachloroethane	131	10.781	10.788	-0.007	97	138255	20.0	21.1	
93 Ethylbenzene	91	10.794	10.794	0.000	98	718058	20.0	22.6	
94 m-Xylene & p-Xylene	106	10.916	10.922	-0.006	100	564152	40.0	46.5	
95 o-Xylene	106	11.269	11.275	-0.006	97	271129	20.0	22.7	
96 Styrene	104	11.287	11.294	-0.007	95	448228	20.0	22.4	
97 Bromoform	173	11.446	11.446	0.000	98	110002	20.0	18.8	
98 Isopropylbenzene	105	11.598	11.598	0.000	95	720242	20.0	23.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.671	11.671	0.000	91	240986	500.0	512.6	
$ 101 4-Bromofluorobenzene (Surr)	95	11.745	11.745	0.000	95	399087	50.0	46.9	
102 Bromobenzene	156	11.860	11.860	0.000	88	179094	20.0	22.9	
105 1,1,2,2-Tetrachloroethane	83	11.867	11.867	0.000	93	226555	20.0	20.9	
104 trans-1,4-Dichloro-2-butene	53	11.891	11.897	-0.006	89	155941	100.0	45.3	
103 1,2,3-Trichloropropane	110	11.909	11.909	0.000	82	63762	20.0	20.6	
106 N-Propylbenzene	91	11.946	11.946	0.000	99	851393	20.0	23.7	
107 2-Chlorotoluene	126	12.019	12.025	-0.006	97	170535	20.0	23.4	
108 1,3,5-Trimethylbenzene	105	12.092	12.098	-0.006	94	567594	20.0	22.5	
109 4-Chlorotoluene	126	12.117	12.123	-0.007	97	171105	20.0	22.9	
111 tert-Butylbenzene	134	12.348	12.348	0.000	93	123618	20.0	23.7	
112 Pentachloroethane	167	12.373	12.379	-0.006	90	105184	20.0	21.5	
113 1,2,4-Trimethylbenzene	105	12.391	12.397	-0.006	97	571222	20.0	21.9	
114 sec-Butylbenzene	105	12.519	12.519	0.000	94	744092	20.0	23.8	
115 1,3-Dichlorobenzene	146	12.610	12.616	-0.006	98	322825	20.0	22.3	
116 4-Isopropyltoluene	119	12.635	12.641	-0.006	97	616302	20.0	23.3	
* 117 1,4-Dichlorobenzene-d4	152	12.671	12.677	-0.006	93	449859	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.690	12.696	-0.006	96	328174	20.0	22.3	
119 1,2,3-Trimethylbenzene	105	12.708	12.714	-0.006	98	591368	20.0	22.4	
120 Benzyl chloride	91	12.775	12.781	-0.006	98	415430	20.0	18.6	
121 1,3-Diethylbenzene	119	12.848	12.848	0.000	95	357584	20.0	21.9	
122 p-Diethylbenzene	119	12.921	12.921	0.000	93	374619	20.0	22.4	
124 n-Butylbenzene	92	12.940	12.940	0.000	98	303594	20.0	22.5	
125 1,2-Dichlorobenzene	146	12.958	12.964	-0.006	99	310351	20.0	22.2	
126 o-diethylbenzene	119	12.994	12.994	0.000	95	292028	20.0	22.0	
127 1,2-Dibromo-3-Chloropropane	75	13.525	13.531	-0.006	89	53218	20.0	18.7	
128 1,3,5-Trichlorobenzene	180	13.659	13.659	0.000	97	217671	20.0	22.3	
129 1,2,4-Trichlorobenzene	180	14.092	14.098	-0.006	94	203999	20.0	22.2	
131 Hexachlorobutadiene	225	14.183	14.189	-0.006	94	93152	20.0	25.1	
132 Naphthalene	128	14.275	14.281	-0.006	97	720646	20.0	21.0	
133 1,2,3-Trichlorobenzene	180	14.421	14.427	-0.006	95	200966	20.0	22.5	
134 2-Methylnaphthalene	142	15.037	15.043	-0.006	93	373342	20.0	19.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 10:20:42 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S40.D

Injection Date: 19-Nov-2020 23:15:30 Instrument ID: 26285 Operator ID: etp33087

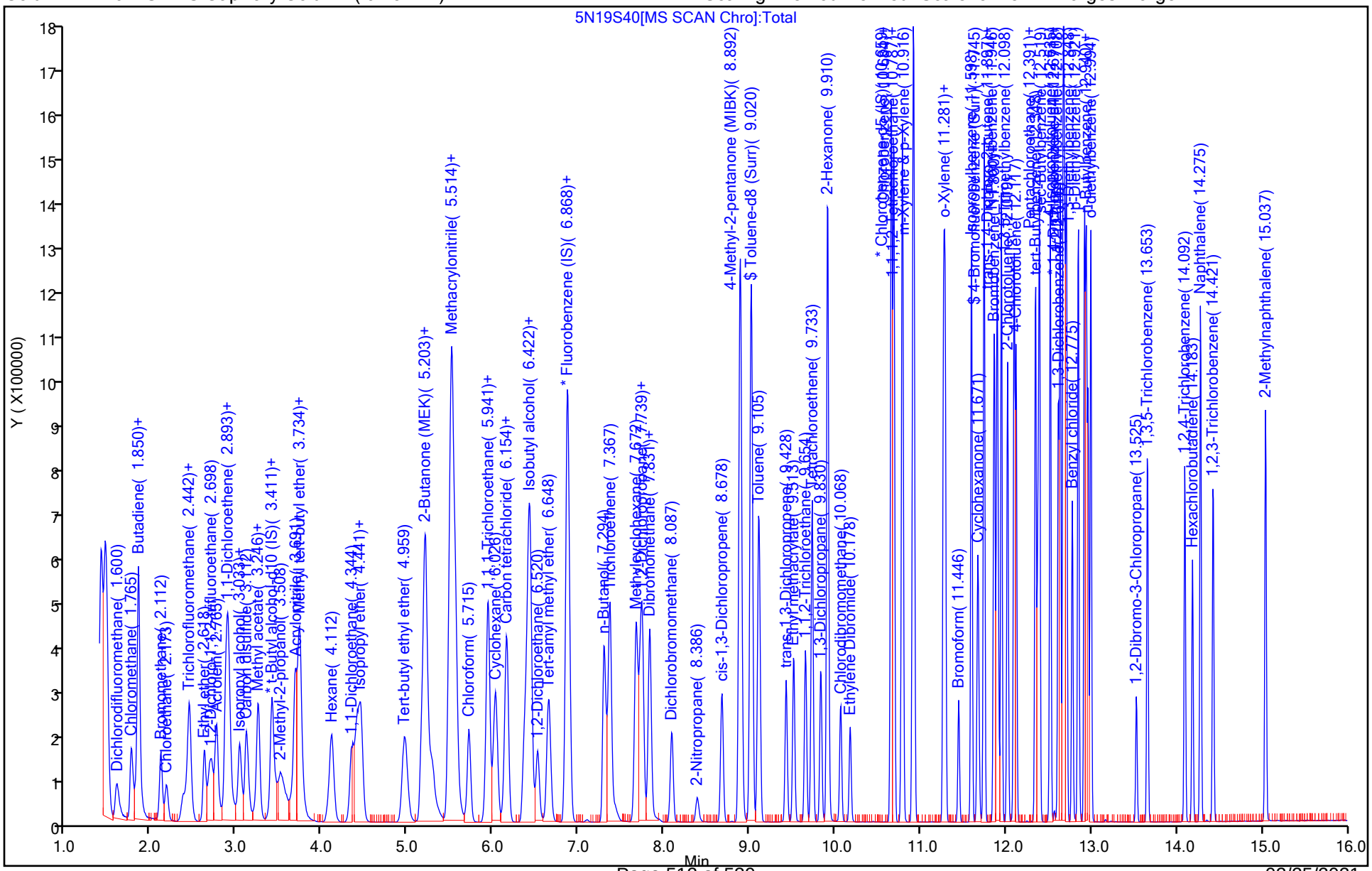
Lims ID: 410-20865-A-1 MSD Worklist Smp#: 11

Client ID: J01-VC01

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 11

Method: MSVoa_26285a Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

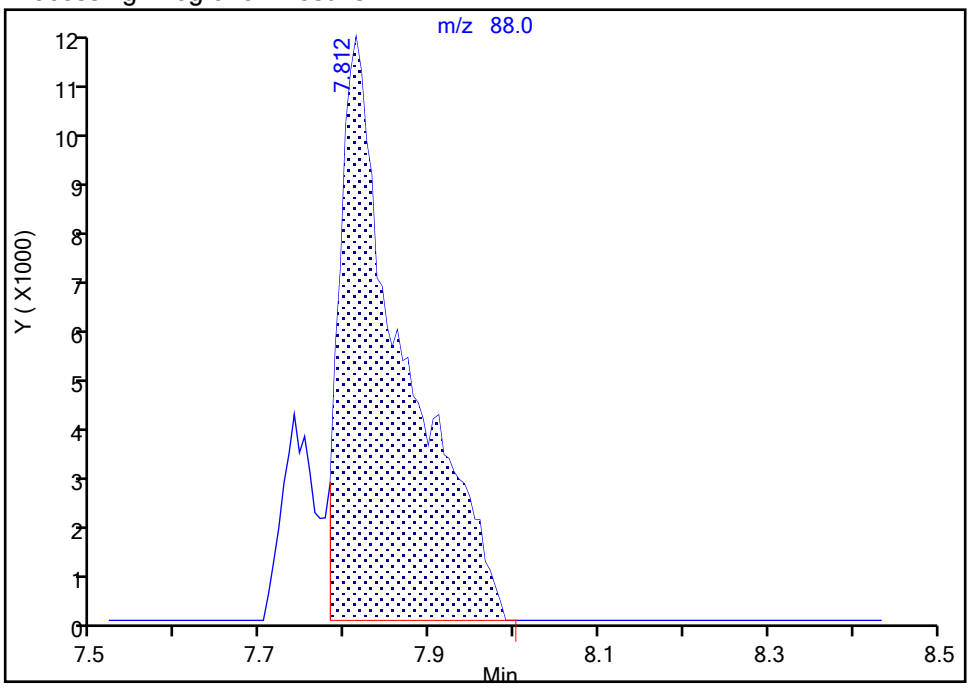
Data File:	\\chromfs\Lancaster\ChromData\26285\20201119-15990.b\5N19S40.D				
Injection Date:	19-Nov-2020 23:15:30	Instrument ID:	26285		
Lims ID:	410-20865-A-1 MSD				
Client ID:	J01-VC01				
Operator ID:	etp33087	ALS Bottle#:	11	Worklist Smp#:	11
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

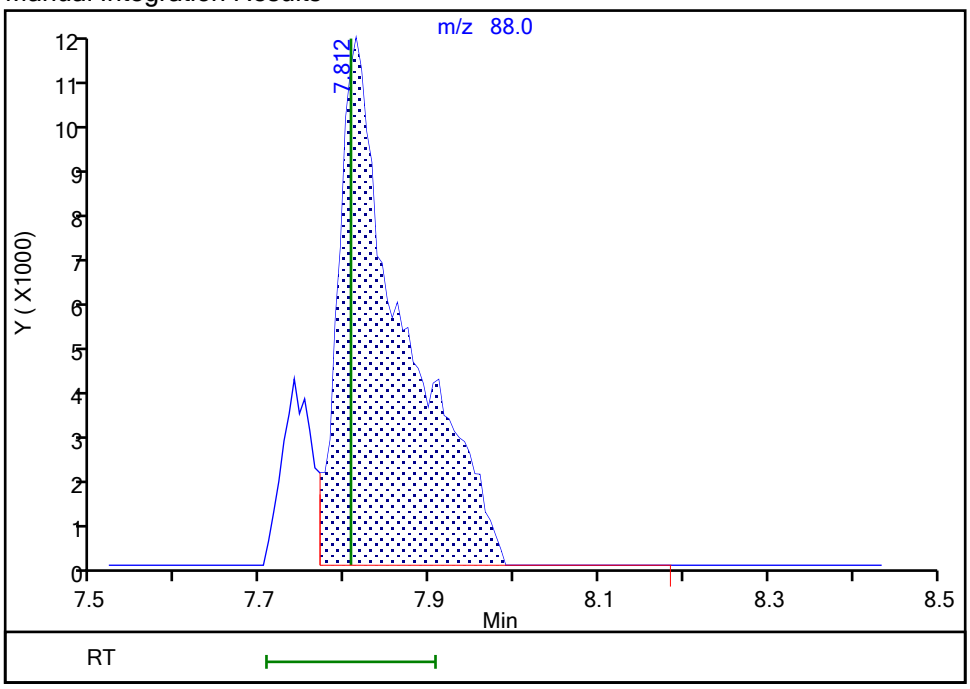
Processing Integration Results

RT: 7.81
Area: 58284
Amount: 588.9186
Amount Units: ug/l



Manual Integration Results

RT: 7.81
Area: 59707
Amount: 603.2970
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:05:18

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-20865-1

SDG No.:

Client Sample ID: RS-03 MSD Lab Sample ID: 410-20865-30 MSD

Matrix: Water Lab File ID: 5N18S06.D

Analysis Method: 8260C Date Collected: 11/10/2020 13:00

Sample wt/vol: 5(mL) Date Analyzed: 11/18/2020 13:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 67415 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	23.6		1.0	0.30
75-34-3	1,1-Dichloroethane	23.0		1.0	0.20
75-35-4	1,1-Dichloroethene	25.2		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.2		5.0	0.20
107-06-2	1,2-Dichloroethane	19.2		1.0	0.30
123-91-1	1,4-Dioxane	407		250	29
78-93-3	2-Butanone	156		10	0.30
67-64-1	Acetone	167		20	0.70
71-43-2	Benzene	22.4		1.0	0.20
75-15-0	Carbon disulfide	23.2		5.0	0.20
67-66-3	Chloroform	21.1		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	24.7		1.0	0.20
100-41-4	Ethylbenzene	22.1		1.0	0.40
76-13-1	Freon 113	24.9		10	0.20
75-09-2	Methylene Chloride	22.5		1.0	0.30
91-20-3	Naphthalene	19.9		5.0	1.0
127-18-4	Tetrachloroethene	25.4		1.0	0.20
108-88-3	Toluene	22.6		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	23.2		1.0	0.20
79-01-6	Trichloroethene	34.2		1.0	0.20
75-01-4	Vinyl chloride	23.7		1.0	0.20
1330-20-7	Xylenes, Total	66.6		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S06.D
Lims ID: 410-20865-A-30 MSD
Client ID: R5-03
Sample Type: MSD
Inject. Date: 18-Nov-2020 13:55:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0015817-012
Misc. Info.: 410-20865-A-30 MSD
Operator ID: clm27445 Instrument ID: 26285

Method: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\MSVoa_26285a.m
Limit Group: MSV - 8260C_D
Last Update: 19-Nov-2020 23:19:29 Calib Date: 09-Sep-2020 19:35:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\26285\20200909-10032.b\5S09I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1668

First Level Reviewer: beckerk Date: 19-Nov-2020 23:11:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.588	1.594	-0.006	99	170559	20.0	23.1	
3 Chloromethane	50	1.752	1.753	-0.001	99	197648	20.0	21.0	
4 Butadiene	39	1.838	1.838	0.000	93	225428	20.0	35.5	
5 Vinyl chloride	62	1.844	1.844	0.000	98	194585	20.0	23.7	
8 Bromomethane	94	2.094	2.100	-0.006	90	130971	20.0	22.9	
9 Chloroethane	64	2.161	2.161	0.000	99	105386	20.0	22.5	
11 Trichlorofluoromethane	101	2.399	2.405	-0.006	99	231170	20.0	23.7	
12 Pentane	43	2.423	2.429	-0.006	96	217384	20.0	26.3	
14 Ethyl ether	59	2.594	2.594	0.000	94	121336	20.0	22.9	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	2.661	2.667	-0.006	94	174100	20.0	24.8	
16 Acrolein	56	2.734	2.734	0.000	100	313048	150.0	135.7	
19 1,1-Dichloroethene	96	2.844	2.844	0.000	98	129173	20.0	25.2	
17 Acetone	58	2.868	2.874	-0.006	100	177331	150.0	166.8	
18 112TCTFE	101	2.874	2.880	-0.006	55	133597	20.0	24.9	
20 Iodomethane	142	3.002	3.002	0.000	97	229944	20.0	22.0	
21 Isopropyl alcohol	45	2.996	3.008	-0.012	47	154328	150.0	176.8	
22 Carbon disulfide	76	3.081	3.082	-0.001	99	429120	20.0	23.2	
23 Methyl acetate	43	3.197	3.197	0.000	98	162946	20.0	19.4	
25 3-Chloro-1-propene	41	3.222	3.222	0.000	94	180723	20.0	18.7	
26 Methylene Chloride	84	3.374	3.374	0.000	95	137649	20.0	22.5	
* 27 t-Butyl alcohol-d10 (IS)	65	3.405	3.386	0.019	97	374002	250.0	250.0	
28 2-Methyl-2-propanol	59	3.496	3.496	0.000	99	346580	200.0	214.6	
29 Acrylonitrile	53	3.642	3.643	0.000	99	422015	100.0	107.2	
30 Methyl tert-butyl ether	73	3.691	3.691	0.000	95	335714	20.0	19.0	
31 trans-1,2-Dichloroethene	96	3.697	3.697	0.000	99	136708	20.0	23.2	
32 Hexane	57	4.069	4.063	0.006	93	202035	20.0	27.6	
33 1,1-Dichloroethane	63	4.295	4.295	0.000	96	251312	20.0	23.0	
35 Isopropyl ether	45	4.356	4.350	0.006	97	419920	20.0	21.1	
36 2-Chloro-1,3-butadiene	53	4.404	4.405	-0.001	90	200865	20.0	22.0	
37 Tert-butyl ethyl ether	59	4.923	4.911	0.012	99	362263	20.0	19.6	
39 2-Butanone (MEK)	43	5.142	5.142	0.000	100	934075	150.0	155.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 cis-1,2-Dichloroethene	96	5.160	5.154	0.006	82	168499	20.0	24.7	
40 2,2-Dichloropropane	77	5.166	5.173	-0.007	91	184994	20.0	20.5	
41 Propionitrile	54	5.234	5.246	-0.012	99	283024	150.0	159.4	
43 Methacrylonitrile	67	5.465	5.459	0.006	92	647664	150.0	150.4	
44 Chlorobromomethane	128	5.502	5.502	0.000	96	65524	20.0	18.9	
45 Tetrahydrofuran	71	5.520	5.514	0.006	88	166373	100.0	97.6	
46 Chloroform	83	5.672	5.667	0.006	93	232965	20.0	21.1	
48 1,1,1-Trichloroethane	97	5.892	5.892	0.000	74	224382	20.0	23.6	
$ 47 Dibromofluoromethane (Surr)	113	5.898	5.898	0.000	94	275170	50.0	47.5	
49 Cyclohexane	56	5.989	5.990	-0.001	92	248266	20.0	26.7	
51 Carbon tetrachloride	117	6.111	6.112	-0.001	96	180702	20.0	22.1	
50 1,1-Dichloropropene	75	6.124	6.118	0.006	97	196395	20.0	23.0	
52 Isobutyl alcohol	41	6.337	6.343	-0.006	94	285038	500.0	532.6	
$ 56 1,2-Dichloroethane-d4 (Surr)	102	6.374	6.374	0.000	96	63591	50.0	50.2	
53 Benzene	78	6.392	6.398	-0.006	96	579252	20.0	22.4	
55 1,2-Dichloroethane	62	6.483	6.483	0.000	97	159446	20.0	19.2	
58 Tert-amyl methyl ether	73	6.611	6.611	0.000	99	351955	20.0	19.3	
* 59 Fluorobenzene (IS)	96	6.831	6.831	0.000	99	1113066	50.0	50.0	
60 n-Heptane	43	6.855	6.855	0.000	95	199890	20.0	26.4	
61 n-Butanol	56	7.276	7.270	0.006	91	471592	1000.0	1017.0	
62 Trichloroethene	95	7.337	7.337	0.000	99	231595	20.0	34.2	
63 Methylcyclohexane	83	7.648	7.642	0.006	90	225963	20.0	24.4	
64 1,2-Dichloropropane	63	7.690	7.691	0.000	97	149395	20.0	22.3	
65 2-ethoxy-2-methyl butane	87	7.715	7.715	0.000	92	183157	20.0	19.8	
68 1,4-Dioxane	88	7.806	7.794	0.012	86	40244	500.0	407.1	
66 Dibromomethane	93	7.806	7.806	0.000	94	89076	20.0	20.3	
67 Methyl methacrylate	69	7.812	7.806	0.006	93	127940	20.0	19.8	
70 Dichlorobromomethane	83	8.068	8.062	0.006	99	170867	20.0	20.1	
72 2-Nitropropane	41	8.373	8.367	0.006	98	46538	20.0	15.4	
71 2-Chloroethyl vinyl ether	63	8.465	8.471	-0.006	1	591	20.0	0.1099	
73 cis-1,3-Dichloropropene	75	8.660	8.660	0.000	97	213717	20.0	19.8	
75 4-Methyl-2-pentanone (MIBK)	43	8.879	8.873	0.006	97	1195666	100.0	102.3	
$ 76 Toluene-d8 (Surr)	98	9.007	9.007	0.000	93	1071756	50.0	50.2	
77 Toluene	92	9.093	9.093	-0.001	98	367974	20.0	22.6	
78 trans-1,3-Dichloropropene	75	9.422	9.422	0.000	92	184023	20.0	18.4	
79 Ethyl methacrylate	69	9.513	9.513	0.000	90	210142	20.0	19.9	
80 1,1,2-Trichloroethane	97	9.647	9.647	0.000	89	131256	20.0	21.3	
81 Tetrachloroethene	166	9.727	9.727	0.000	98	184378	20.0	25.4	
82 1,3-Dichloropropane	76	9.830	9.830	0.000	90	208865	20.0	20.4	
84 2-Hexanone	43	9.909	9.910	-0.001	97	970942	100.0	100.8	
85 Chlorodibromomethane	129	10.068	10.068	0.000	90	139993	20.0	19.3	
87 Ethylene Dibromide	107	10.178	10.178	0.000	99	140834	20.0	20.0	
* 90 Chlorobenzene-d5 (IS)	117	10.665	10.666	-0.001	84	848460	50.0	50.0	
88 Chlorobenzene	112	10.696	10.696	0.000	94	402542	20.0	22.0	
91 1-Chlorohexane	91	10.696	10.696	0.000	69	211910	20.0	22.7	
92 1,1,1,2-Tetrachloroethane	131	10.793	10.794	-0.001	96	135990	20.0	20.5	
93 Ethylbenzene	91	10.799	10.800	-0.001	98	710303	20.0	22.1	
94 m-Xylene & p-Xylene	106	10.928	10.928	0.000	100	550466	40.0	44.8	
95 o-Xylene	106	11.281	11.287	-0.006	97	264300	20.0	21.8	
96 Styrene	104	11.299	11.306	-0.007	96	444335	20.0	21.9	
97 Bromoform	173	11.464	11.464	0.000	98	109073	20.0	18.4	
98 Isopropylbenzene	105	11.610	11.617	-0.007	96	694859	20.0	22.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Cyclohexanone	55	11.690	11.690	0.000	91	210418	500.0	448.1	
$ 101 4-Bromofluorobenzene (Surr)	95	11.763	11.763	0.000	96	404283	50.0	46.9	
102 Bromobenzene	156	11.879	11.879	0.000	89	177984	20.0	22.5	
105 1,1,2,2-Tetrachloroethane	83	11.885	11.891	-0.006	94	225172	20.0	20.6	
104 trans-1,4-Dichloro-2-butene	53	11.915	11.915	0.000	91	265948	100.0	76.4	
103 1,2,3-Trichloropropane	110	11.927	11.927	0.000	84	61951	20.0	19.8	
106 N-Propylbenzene	91	11.964	11.970	-0.006	99	833162	20.0	23.0	
107 2-Chlorotoluene	126	12.043	12.043	0.000	97	165241	20.0	22.4	
108 1,3,5-Trimethylbenzene	105	12.116	12.116	0.000	93	555476	20.0	21.7	
109 4-Chlorotoluene	126	12.141	12.141	0.000	97	165715	20.0	22.0	
111 tert-Butylbenzene	134	12.372	12.373	-0.001	93	118734	20.0	22.5	
112 Pentachloroethane	167	12.397	12.397	0.000	91	99519	20.0	20.1	
113 1,2,4-Trimethylbenzene	105	12.415	12.415	0.000	97	561313	20.0	21.3	
114 sec-Butylbenzene	105	12.543	12.543	0.000	94	715280	20.0	22.6	
115 1,3-Dichlorobenzene	146	12.641	12.641	0.000	98	314402	20.0	21.5	
116 4-Isopropyltoluene	119	12.659	12.665	-0.006	97	594732	20.0	22.3	
* 117 1,4-Dichlorobenzene-d4	152	12.695	12.702	-0.007	94	454690	50.0	50.0	
118 1,4-Dichlorobenzene	146	12.720	12.720	0.000	96	322658	20.0	21.7	
119 1,2,3-Trimethylbenzene	105	12.732	12.738	-0.006	98	556365	20.0	20.9	
120 Benzyl chloride	91	12.805	12.805	0.000	98	401989	20.0	17.8	
121 1,3-Diethylbenzene	119	12.872	12.879	-0.007	95	338279	20.0	20.5	
122 p-Diethylbenzene	119	12.945	12.952	-0.007	93	355288	20.0	21.0	
124 n-Butylbenzene	92	12.970	12.970	0.000	97	296248	20.0	21.7	
125 1,2-Dichlorobenzene	146	12.988	12.988	0.000	99	300271	20.0	21.2	
126 o-diethylbenzene	119	13.025	13.025	0.000	95	277994	20.0	20.7	
127 1,2-Dibromo-3-Chloropropane	75	13.561	13.561	0.000	89	51797	20.0	18.0	
128 1,3,5-Trichlorobenzene	180	13.689	13.689	0.000	98	213557	20.0	21.7	
129 1,2,4-Trichlorobenzene	180	14.128	14.134	-0.006	93	197740	20.0	21.3	
131 Hexachlorobutadiene	225	14.220	14.226	-0.006	95	89042	20.0	23.8	
132 Naphthalene	128	14.317	14.317	0.000	97	691190	20.0	19.9	
133 1,2,3-Trichlorobenzene	180	14.463	14.464	-0.001	95	188772	20.0	20.9	
134 2-Methylnaphthalene	142	15.085	15.085	0.000	92	348553	20.0	18.1	

QC Flag Legend

Processing Flags

Reagents:

MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00052	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_HP05_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

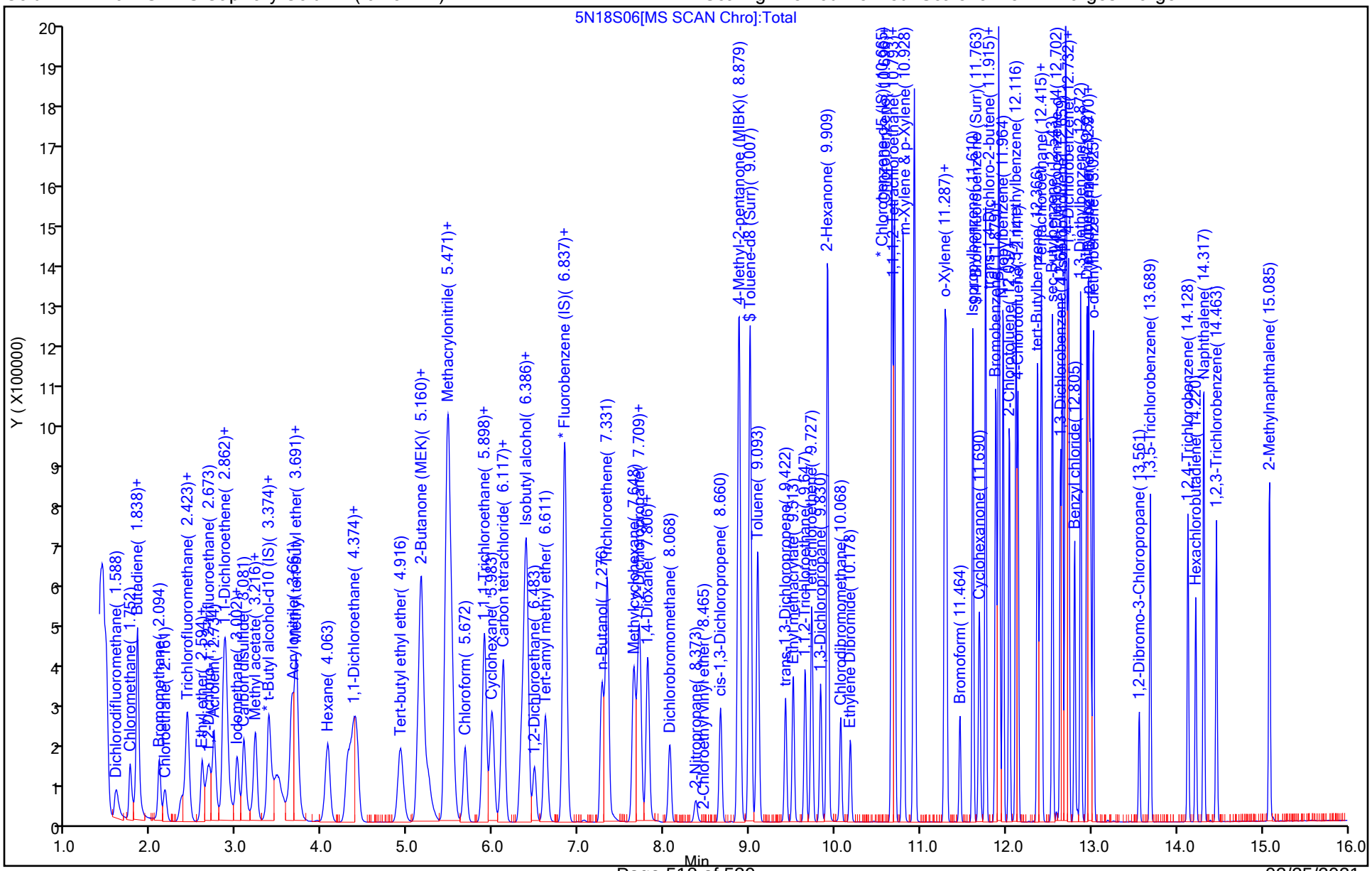
Report Date: 19-Nov-2020 23:20:09 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\26285\20201118-15817.b\5N18S06.D

Injection Date:	18-Nov-2020 13:55:30	Instrument ID:	26285	Operator ID:	clm27445
Lims ID:	410-20865-A-30 MSD			Worklist Smp#:	12
Client ID:	R5-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVoa_26285a	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Instrument ID: 26285 Start Date: 09/09/2020 13:58

Analysis Batch Number: 42091 End Date: 09/09/2020 19:55

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-42091/1		09/09/2020 13:58	1	5S09T01.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/3		09/09/2020 14:51	1	5S09I01.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/4		09/09/2020 15:11	1	5S09I02.D	R-624SilMS 30m 0.25(mm)
ICIS 410-42091/5		09/09/2020 15:31	1	5S09I03.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/6		09/09/2020 15:51	1	5S09I04.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/7		09/09/2020 16:12	1	5S09I05.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/8		09/09/2020 16:33	1	5S09I06.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/9		09/09/2020 16:53	1	5S09I07.D	R-624SilMS 30m 0.25(mm)
ICV 410-42091/10		09/09/2020 17:14	1	5S09V01.D	R-624SilMS 30m 0.25(mm)
IC 410-42091/12		09/09/2020 17:55	1		R-624SilMS 30m 0.25(mm)
IC 410-42091/13		09/09/2020 18:15	1		R-624SilMS 30m 0.25(mm)
IC 410-42091/14 ICIS		09/09/2020 18:35	1		R-624SilMS 30m 0.25(mm)
IC 410-42091/15		09/09/2020 18:55	1		R-624SilMS 30m 0.25(mm)
IC 410-42091/16		09/09/2020 19:15	1		R-624SilMS 30m 0.25(mm)
IC 410-42091/17		09/09/2020 19:35	1		R-624SilMS 30m 0.25(mm)
ICV 410-42091/18		09/09/2020 19:55	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Instrument ID: 26285 Start Date: 11/18/2020 09:39

Analysis Batch Number: 67415 End Date: 11/18/2020 19:59

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-67415/1		11/18/2020 09:39	1	5N18T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-67415/3		11/18/2020 10:25	1	5N18C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-67415/5		11/18/2020 11:05	1	5N18L01.D	R-624SilMS 30m 0.25(mm)
MB 410-67415/7		11/18/2020 11:45	1	5N18B01.D	R-624SilMS 30m 0.25(mm)
410-20865-24	PDB Blank	11/18/2020 12:34	1	5N18S02.D	R-624SilMS 30m 0.25(mm)
410-20865-34	TB 111020	11/18/2020 12:55	1	5N18S03.D	R-624SilMS 30m 0.25(mm)
410-20865-30	RS-03	11/18/2020 13:15	1	5N18S04.D	R-624SilMS 30m 0.25(mm)
410-20865-30 MS	RS-03 MS	11/18/2020 13:35	1	5N18S05.D	R-624SilMS 30m 0.25(mm)
410-20865-30 MSD	RS-03 MSD	11/18/2020 13:55	1	5N18S06.D	R-624SilMS 30m 0.25(mm)
410-20865-13	RS-05	11/18/2020 14:15	1	5N18S07.D	R-624SilMS 30m 0.25(mm)
410-20865-14	RS-04	11/18/2020 14:35	1	5N18S08.D	R-624SilMS 30m 0.25(mm)
410-20865-15	RS-15	11/18/2020 14:55	1	5N18S09.D	R-624SilMS 30m 0.25(mm)
410-20865-16	RS-07	11/18/2020 15:15	1	5N18S10.D	R-624SilMS 30m 0.25(mm)
410-20865-17	RS-14	11/18/2020 15:35	1	5N18S11.D	R-624SilMS 30m 0.25(mm)
410-20865-18	RS-08	11/18/2020 15:55	1	5N18S12.D	R-624SilMS 30m 0.25(mm)
410-20865-19	J01-BR01	11/18/2020 16:16	1	5N18S13.D	R-624SilMS 30m 0.25(mm)
410-20865-20	J01-BR02	11/18/2020 16:36	1	5N18S14.D	R-624SilMS 30m 0.25(mm)
410-20865-25	RS-12A	11/18/2020 16:57	1	5N18S15.D	R-624SilMS 30m 0.25(mm)
410-20865-26	RS-01	11/18/2020 17:17	1	5N18S16.D	R-624SilMS 30m 0.25(mm)
410-20865-27	RS-09	11/18/2020 17:37	1	5N18S17.D	R-624SilMS 30m 0.25(mm)
410-20865-28	RS-10	11/18/2020 17:58	1	5N18S18.D	R-624SilMS 30m 0.25(mm)
410-20865-29	RS-DUP	11/18/2020 18:18	1	5N18S19.D	R-624SilMS 30m 0.25(mm)
410-20865-31	RS-13	11/18/2020 18:38	1	5N18S20.D	R-624SilMS 30m 0.25(mm)
410-20865-32	RS-02	11/18/2020 18:59	1	5N18S21.D	R-624SilMS 30m 0.25(mm)
410-20865-33	RS-11	11/18/2020 19:19	1	5N18S22.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/18/2020 19:39	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/18/2020 19:59	10		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Instrument ID: 26285 Start Date: 11/19/2020 19:29

Analysis Batch Number: 68196 End Date: 11/20/2020 04:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-68196/1		11/19/2020 19:29	1	5N19T35.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-68196/3		11/19/2020 20:04	1	5N19C35.D	R-624SilMS 30m 0.25(mm)
LCS 410-68196/4		11/19/2020 20:24	1	5N19L35.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/19/2020 20:44	1		R-624SilMS 30m 0.25(mm)
LCSD 410-68196/56		11/19/2020 21:05	1	5N19L36.D	R-624SilMS 30m 0.25(mm)
MB 410-68196/6		11/19/2020 21:25	1	5N19B35.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/19/2020 22:14	1		R-624SilMS 30m 0.25(mm)
410-20865-1	J01-UC01	11/19/2020 22:35	1	5N19S38.D	R-624SilMS 30m 0.25(mm)
410-20865-1 MS	J01-UC01 MS	11/19/2020 22:55	1	5N19S39.D	R-624SilMS 30m 0.25(mm)
410-20865-1 MSD	J01-UC01 MSD	11/19/2020 23:15	1	5N19S40.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/19/2020 23:36	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/19/2020 23:56	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 00:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 00:36	1		R-624SilMS 30m 0.25(mm)
410-20865-2	J01-UC02	11/20/2020 00:56	1	5N19S45.D	R-624SilMS 30m 0.25(mm)
410-20865-3	J04-BR02	11/20/2020 01:16	1	5N19S46.D	R-624SilMS 30m 0.25(mm)
410-20865-4	J05-BR02	11/20/2020 01:37	1	5N19S47.D	R-624SilMS 30m 0.25(mm)
410-20865-5	DUP-01	11/20/2020 01:57	1	5N19S48.D	R-624SilMS 30m 0.25(mm)
410-20865-6	J13-BR02	11/20/2020 02:17	1	5N19S49.D	R-624SilMS 30m 0.25(mm)
410-20865-7	J13-BR01	11/20/2020 02:38	1	5N19S50.D	R-624SilMS 30m 0.25(mm)
410-20865-8	J13-UC03	11/20/2020 02:58	1	5N19S51.D	R-624SilMS 30m 0.25(mm)
410-20865-9	J13-UC02	11/20/2020 03:18	1	5N19S52.D	R-624SilMS 30m 0.25(mm)
410-20865-10	J08-UC02	11/20/2020 03:39	1	5N19S53.D	R-624SilMS 30m 0.25(mm)
410-20865-11	J12-BR02	11/20/2020 03:59	1	5N19S54.D	R-624SilMS 30m 0.25(mm)
410-20865-12	J21-UC02	11/20/2020 04:19	1	5N19S55.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-20865-1

SDG No.:

Instrument ID: 26285 Start Date: 11/20/2020 08:14

Analysis Batch Number: 68468 End Date: 11/20/2020 18:19

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-68468/1		11/20/2020 08:14	1	5N20T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-68468/3		11/20/2020 09:00	1	5N20C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-68468/5		11/20/2020 09:40	1	5N20L01.D	R-624SilMS 30m 0.25(mm)
MB 410-68468/7		11/20/2020 10:20	1	5N20B01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 11:15	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 11:36	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 11:56	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 12:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 12:36	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 12:57	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:17	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:57	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 14:17	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 14:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 14:57	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:18	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:38	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:58	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 16:18	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 16:38	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 16:58	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 17:19	10		R-624SilMS 30m 0.25(mm)
410-20865-21	J04-BR01	11/20/2020 17:39	1	5N20S20.D	R-624SilMS 30m 0.25(mm)
410-20865-22	J05-BR01	11/20/2020 17:59	1	5N20S21.D	R-624SilMS 30m 0.25(mm)
410-20865-23	J12-BR01	11/20/2020 18:19	1	5N20S22.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 42091 Batch Start Date: 09/09/20 13:58 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_4ppbEE 00073	MSV_502QGas 00094	MSV_DCFM 00021	MSV_HP05_ISSS 00003
BFB 410-42091/1		8260C		1 uL	1 uL				
IC 410-42091/3		8260C		5 mL	5 mL			7.5 uL	5 uL
IC 410-42091/4		8260C		5 mL	5 mL			2.5 uL	5 uL
ICIS 410-42091/5		8260C		5 mL	5 mL			2.5 uL	5 uL
IC 410-42091/6		8260C		5 mL	5 mL			2 uL	5 uL
IC 410-42091/7		8260C		5 mL	5 mL			1 uL	5 uL
IC 410-42091/8		8260C		5 mL	5 mL			2 uL	5 uL
IC 410-42091/9		8260C		5 mL	5 mL	12.5 mL			5 uL
ICV 410-42091/10		8260C		5 mL	5 mL		1 uL	1 uL	5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q#1B 00049	MSV_Q#2B 00052	MSV_Q#3B 00048	MSV_Q#4C 00054	MSV_Q_EE 00002	MSV_Q1B_2CEVE 00060
BFB 410-42091/1		8260C							
IC 410-42091/3		8260C							
IC 410-42091/4		8260C							
ICIS 410-42091/5		8260C							
IC 410-42091/6		8260C							
IC 410-42091/7		8260C							
IC 410-42091/8		8260C							
IC 410-42091/9		8260C							
ICV 410-42091/10		8260C		2 uL	2 uL	2 uL	2 uL	50 uL	2 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QACR 00014	MSV_QCS#6Std 00047	MSV_QCYC 00004	MSV_V_2CEVE 00102	MSV_V_BFB 00003	MSV_V_EE 00003
BFB 410-42091/1		8260C						1 uL	
IC 410-42091/3		8260C					15 uL		15 uL
IC 410-42091/4		8260C					5 uL		5 uL
ICIS 410-42091/5		8260C					5 uL		5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 42091 Batch Start Date: 09/09/20 13:58 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QACR 00014	MSV_QCS#6Std 00047	MSV_QCYC 00004	MSV_V_2CEVE 00102	MSV_V_BFB 00003	MSV_V_EE 00003
IC 410-42091/6		8260C					4 uL		4 uL
IC 410-42091/7		8260C					2 uL		2 uL
IC 410-42091/8		8260C					4 uL		4 uL
IC 410-42091/9		8260C							
ICV 410-42091/10		8260C		2 uL	2 uL	50 uL			

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_Gas 00141	MSV_V_VOA1 00090	MSV_V_VOA2 00048	MSV_V_VOA3 00044	MSV_V_VOA6 00051	MSV_VCYC 00005
BFB 410-42091/1		8260C							
IC 410-42091/3		8260C		7.5 uL	15 uL		6 uL	15 uL	30 uL
IC 410-42091/4		8260C		2.5 uL	5 uL		2 uL	5 uL	10 uL
ICIS 410-42091/5		8260C		2.5 uL	5 uL		2 uL	5 uL	10 uL
IC 410-42091/6		8260C		2 uL	4 uL	4 uL	1.6 uL	4 uL	16 uL
IC 410-42091/7		8260C		1 uL	2 uL	2 uL	0.8 uL	2 uL	8 uL
IC 410-42091/8		8260C		2 uL	4 uL	12 uL	1.6 uL	4 uL	32 uL
IC 410-42091/9		8260C							
ICV 410-42091/10		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 67415 Batch Start Date: 11/18/20 09:39 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_DCFM 00054
BFB 410-67415/1		8260C		1 uL	1 uL				
CCVIS 410-67415/3		8260C		5 mL	5 mL				2.5 uL
LCS 410-67415/5		8260C		5 mL	5 mL				
MB 410-67415/7		8260C		5 mL	5 mL				
410-20865-A-24	PDB Blank	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-34	TB 1111020	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-30	R5-03	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-30 MS	R5-03	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-30 MSD	R5-03	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-13	RS-05	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-14	RS-04	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-15	RS-15	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-16	RS-07	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-17	RS-14	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-18	RS-08	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-19	J01-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-20	J01-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-25	R5-12A	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-26	R5-01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-27	R5-09	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-28	R5-10	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-29	R5-DUP	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-31	R5-13	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-32	R5-02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-33	R5-11	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP05_ISSS 00005	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00052
BFB 410-67415/1		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 67415 Batch Start Date: 11/18/20 09:39 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP05_ISSS 00005	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00052
CCVIS 410-67415/3		8260C		5 uL					
LCS 410-67415/5		8260C		5 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-67415/7		8260C		5 uL					
410-20865-A-24	PDB Blank	8260C	T	5 uL					
410-20865-A-34	TB 1111020	8260C	T	5 uL					
410-20865-A-30	R5-03	8260C	T	5 uL					
410-20865-A-30 MS	R5-03	8260C	T	5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-20865-A-30 MSD	R5-03	8260C	T	5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-20865-A-13	RS-05	8260C	T	5 uL					
410-20865-A-14	RS-04	8260C	T	5 uL					
410-20865-A-15	RS-15	8260C	T	5 uL					
410-20865-A-16	RS-07	8260C	T	5 uL					
410-20865-A-17	RS-14	8260C	T	5 uL					
410-20865-A-18	RS-08	8260C	T	5 uL					
410-20865-A-19	J01-BR01	8260C	T	5 uL					
410-20865-A-20	J01-BR02	8260C	T	5 uL					
410-20865-A-25	R5-12A	8260C	T	5 uL					
410-20865-A-26	R5-01	8260C	T	5 uL					
410-20865-A-27	R5-09	8260C	T	5 uL					
410-20865-A-28	R5-10	8260C	T	5 uL					
410-20865-A-29	R5-DUP	8260C	T	5 uL					
410-20865-A-31	R5-13	8260C	T	5 uL					
410-20865-A-32	R5-02	8260C	T	5 uL					
410-20865-A-33	R5-11	8260C	T	5 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00122	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00171	MSV_V_VOA1 00110
BFB 410-67415/1		8260C				1 uL			
CCVIS 410-67415/3		8260C			5 uL		5 uL	2.5 uL	5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 67415 Batch Start Date: 11/18/20 09:39 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00122	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00171	MSV_V_VOA1 00110
LCS 410-67415/5		8260C		50 uL					
MB 410-67415/7		8260C							
410-20865-A-24	PDB Blank	8260C	T						
410-20865-A-34	TB 1111020	8260C	T						
410-20865-A-30	R5-03	8260C	T						
410-20865-A-30 MS	R5-03	8260C	T	21.5 uL					
410-20865-A-30 MSD	R5-03	8260C	T	21.5 uL					
410-20865-A-13	RS-05	8260C	T						
410-20865-A-14	RS-04	8260C	T						
410-20865-A-15	RS-15	8260C	T						
410-20865-A-16	RS-07	8260C	T						
410-20865-A-17	RS-14	8260C	T						
410-20865-A-18	RS-08	8260C	T						
410-20865-A-19	J01-BR01	8260C	T						
410-20865-A-20	J01-BR02	8260C	T						
410-20865-A-25	R5-12A	8260C	T						
410-20865-A-26	R5-01	8260C	T						
410-20865-A-27	R5-09	8260C	T						
410-20865-A-28	R5-10	8260C	T						
410-20865-A-29	R5-DUP	8260C	T						
410-20865-A-31	R5-13	8260C	T						
410-20865-A-32	R5-02	8260C	T						
410-20865-A-33	R5-11	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00061	MSV_VCYC 00005			
BFB 410-67415/1		8260C							
CCVIS 410-67415/3		8260C		2 uL	5 uL	10 uL			
LCS 410-67415/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 67415 Batch Start Date: 11/18/20 09:39 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00061	MSV_VCYC 00005			
MB 410-67415/7		8260C							
410-20865-A-24	PDB Blank	8260C	T						
410-20865-A-34	TB 1111020	8260C	T						
410-20865-A-30	R5-03	8260C	T						
410-20865-A-30 MS	R5-03	8260C	T						
410-20865-A-30 MSD	R5-03	8260C	T						
410-20865-A-13	RS-05	8260C	T						
410-20865-A-14	RS-04	8260C	T						
410-20865-A-15	RS-15	8260C	T						
410-20865-A-16	RS-07	8260C	T						
410-20865-A-17	RS-14	8260C	T						
410-20865-A-18	RS-08	8260C	T						
410-20865-A-19	J01-BR01	8260C	T						
410-20865-A-20	J01-BR02	8260C	T						
410-20865-A-25	R5-12A	8260C	T						
410-20865-A-26	R5-01	8260C	T						
410-20865-A-27	R5-09	8260C	T						
410-20865-A-28	R5-10	8260C	T						
410-20865-A-29	R5-DUP	8260C	T						
410-20865-A-31	R5-13	8260C	T						
410-20865-A-32	R5-02	8260C	T						
410-20865-A-33	R5-11	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68196 Batch Start Date: 11/19/20 19:29 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_HP05_ISSS 00005
BFB 410-68196/1		8260C		1 uL	1 uL				
CCVIS 410-68196/3		8260C		5 mL	5 mL				5 uL
LCS 410-68196/4		8260C		5 mL	5 mL				5 uL
MB 410-68196/6		8260C		5 mL	5 mL				5 uL
410-20865-A-1	J01-VC01	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-1 MS	J01-VC01	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-1 MSD	J01-VC01	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-2	J01-VC02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-3	J04-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-4	J05-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-5	DUP-01	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-6	J13-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-7	J13-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-8	J13-VC03	8260C	T	5 mL	5 mL	<2 SU	N	Y	5 uL
410-20865-A-9	J13-VC02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-10	J08-VC02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-11	J12-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
410-20865-A-12	J21-VC02	8260C	T	5 mL	5 mL	<2 SU	N	N	5 uL
LCSD 410-68196/56		8260C		5 mL	5 mL				5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053	MSV_QCYC 00004
BFB 410-68196/1		8260C							
CCVIS 410-68196/3		8260C							
LCS 410-68196/4		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-68196/6		8260C							
410-20865-A-1	J01-VC01	8260C	T						
410-20865-A-1 MS	J01-VC01	8260C	T	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68196 Batch Start Date: 11/19/20 19:29 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053	MSV_QCYC 00004
410-20865-A-1 MSD	J01-VC01	8260C	T	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-20865-A-2	J01-VC02	8260C	T						
410-20865-A-3	J04-BR02	8260C	T						
410-20865-A-4	J05-BR02	8260C	T						
410-20865-A-5	DUP-01	8260C	T						
410-20865-A-6	J13-BR02	8260C	T						
410-20865-A-7	J13-BR01	8260C	T						
410-20865-A-8	J13-VC03	8260C	T						
410-20865-A-9	J13-VC02	8260C	T						
410-20865-A-10	J08-VC02	8260C	T						
410-20865-A-11	J12-BR02	8260C	T						
410-20865-A-12	J21-VC02	8260C	T						
LCSD 410-68196/56		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111	MSV_V_VOA3 00055
BFB 410-68196/1		8260C			1 uL				
CCVIS 410-68196/3		8260C		5 uL		5 uL	2.5 uL	5 uL	2 uL
LCS 410-68196/4		8260C							
MB 410-68196/6		8260C							
410-20865-A-1	J01-VC01	8260C	T						
410-20865-A-1 MS	J01-VC01	8260C	T						
410-20865-A-1 MSD	J01-VC01	8260C	T						
410-20865-A-2	J01-VC02	8260C	T						
410-20865-A-3	J04-BR02	8260C	T						
410-20865-A-4	J05-BR02	8260C	T						
410-20865-A-5	DUP-01	8260C	T						
410-20865-A-6	J13-BR02	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68196 Batch Start Date: 11/19/20 19:29 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111	MSV_V_VOA3 00055
410-20865-A-7	J13-BR01	8260C	T						
410-20865-A-8	J13-VC03	8260C	T						
410-20865-A-9	J13-VC02	8260C	T						
410-20865-A-10	J08-VC02	8260C	T						
410-20865-A-11	J12-BR02	8260C	T						
410-20865-A-12	J21-VC02	8260C	T						
LCSD 410-68196/56		8260C							

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00062	MSV_VCYC 00005	AnalysisComment			
BFB 410-68196/1		8260C							
CCVIS 410-68196/3		8260C		5 uL	10 uL				
LCS 410-68196/4		8260C							
MB 410-68196/6		8260C							
410-20865-A-1	J01-VC01	8260C	T						
410-20865-A-1 MS	J01-VC01	8260C	T						
410-20865-A-1 MSD	J01-VC01	8260C	T						
410-20865-A-2	J01-VC02	8260C	T						
410-20865-A-3	J04-BR02	8260C	T						
410-20865-A-4	J05-BR02	8260C	T						
410-20865-A-5	DUP-01	8260C	T						
410-20865-A-6	J13-BR02	8260C	T						
410-20865-A-7	J13-BR01	8260C	T						
410-20865-A-8	J13-VC03	8260C	T			9440			
410-20865-A-9	J13-VC02	8260C	T						
410-20865-A-10	J08-VC02	8260C	T						
410-20865-A-11	J12-BR02	8260C	T						
410-20865-A-12	J21-VC02	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68196 Batch Start Date: 11/19/20 19:29 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00062	MSV_VCYC 00005	AnalysisComment			
LCSD 410-68196/56		8260C							

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68468 Batch Start Date: 11/20/20 08:14 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_DCFM 00030
BFB 410-68468/1		8260C		1 uL	1 uL				
CCVIS 410-68468/3		8260C		5 mL	5 mL				2.5 uL
LCS 410-68468/5		8260C		5 mL	5 mL				
MB 410-68468/7		8260C		5 mL	5 mL				
410-20865-A-21	J04-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-22	J05-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-20865-A-23	J12-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP05_ISSS 00005	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053
BFB 410-68468/1		8260C							
CCVIS 410-68468/3		8260C		5 uL					
LCS 410-68468/5		8260C		5 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-68468/7		8260C		5 uL					
410-20865-A-21	J04-BR01	8260C	T	5 uL					
410-20865-A-22	J05-BR01	8260C	T	5 uL					
410-20865-A-23	J12-BR01	8260C	T	5 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111
BFB 410-68468/1		8260C				1 uL			
CCVIS 410-68468/3		8260C			5 uL		5 uL	2.5 uL	5 uL
LCS 410-68468/5		8260C		50 uL					
MB 410-68468/7		8260C							
410-20865-A-21	J04-BR01	8260C	T						
410-20865-A-22	J05-BR01	8260C	T						
410-20865-A-23	J12-BR01	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00062	MSV_VCYC 00005			

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-20865-1

SDG No.:

Batch Number: 68468 Batch Start Date: 11/20/20 08:14 Batch Analyst: Becker, Kari

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00062	MSV_VCYC 00005			
BFB 410-68468/1		8260C							
CCVIS 410-68468/3		8260C		2 uL	5 uL	10 uL			
LCS 410-68468/5		8260C							
MB 410-68468/7		8260C							
410-20865-A-21	J04-BR01	8260C	T						
410-20865-A-22	J05-BR01	8260C	T						
410-20865-A-23	J12-BR01	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

410-20865 Chain of Custody

eurofins Environment Testing America

Client Information	Sampler: Emily Rodriguez (EER)	Lab PM: Zanar, Elizabeth M	COC No: 410-11182-3547.3
Client Contact: George Lester	Phone: (210) 551-9112	E-Mail: elizabethmzanar@eurofinsus.com	Page: Page 3 of 11
Company: VHB (Formerly The Johnson Co)			Job #:
Address: 100 State Street Suite 600	Due Date Requested:	Analysis Requested	Preservation Codes:
City: Montpelier	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602			Other:
Phone: 802-778-1271(Tel)	PO #: 1-0145-05		
Email: glester@vhb.com	WO #: 58300.00		
Project Name: AD New Windsor System	Project #: 41000306		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
J01-UC01	11/11/20	8:55	G	Water		Y	X	9	MS & MSD
J01-UC02	11/11/20	10:50	G	Water		N	X	3	
J04-BR02	11/11/20	12:59	G	Water		N	X	3	
J05-BR02	11/11/20	15:25	G	Water		N	X	3	
DUP-01	11/11/20	14:35	G	Water		N	X	3	
J13-BR02	11/12/20	9:20	G	Water		N	X	3	
J13-BR01	11/12/20	11:05	G	Water		N	X	3	
J13-UC03	11/12/20	13:05	G	Water		N	X	3	
J13-UC02	11/12/20	14:30	G	Water		N	X	3	
J08-UC02	11/12/20	16:35	G	Water		N	X	3	
J12-BR02	11/12/20	1044	G	Water		N	X	3	
J21-UC02	11/12/20	1202	G			N	X	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Emily Rodriguez	11/12/20 1700	VHB			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/13/20 1036	Company: EDE

Custody Seals Intact: ☒ Yes ☐ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.5

Ver: 01/16/2019

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Adam Rodtuy	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.2
Client Contact: George Lester	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 2 of 11
Company: VHB (Formerly The Johnson Co)		Analysis Requested		Job #:
Address: 100 State Street Suite 600	Due Date Requested:			Preservation Codes:
City: Montpelier	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602				Other:
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
RS-05	11/10/20	1413	G	Water		N	X	3	
RS-04	11/10/20	1418	G	Water		N	X	3	
RS-15	11/10/20	1423	G	Water		N	X	3	
RS-07	11/10/20	1430	G	Water		N	X	3	
RS-14	11/10/20	1444	G	Water		N	X	3	
RS-08	11/10/20	1500	G	Water		N	X	3	
J01-BR01	11/10/20	1350	G	Water		N	X	3	
J01-BR02	11/10/20	1515	G	Water		N	X	3	
J04-BR01	11/11/2020	1248	G	Water		N	X	3	
J05-BR01	11/11/2020	1552	G	Water		N	X	3	
J12-BR01	11/12/20	926	G	Water		N	X	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/12/20 1700	VHB			
2						
3					11/13/20 1036	EDR

Custody Seals Intact: X Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.5

Ver: 01/16/2019

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Adam Robey	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.1
Client Contact: George Lester	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 1 of 11
Company: VHB (Formerly The Johnson Co)				Job #:
Address: 100 State Street Suite 600	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Montpelier	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602				Other:
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
PDB Blank	11/10/20	1020	G	Water			X	3	
RS-12 A	11/10/20	1200	G	Water			X	3	
RS-01	11/10/20	1215	G	Water			X	3	
RS-09	11/10/20	1225	G	Water			X	3	
RS-10	11/10/20	1250	G	Water			X	3	
RS-Dup	11/10/20	1230	G	Water			X	3	
RS-03	11/10/20	1300	G	Water		X	X	3	MS/MSD
RS-13	11/10/20	1317	G	Water			X	3	
RS-02	11/10/20	1336	G	Water			X	3	
RS-11	11/10/20	1345	G	Water			X	3	
TB 111020	—	—	—	DIWater			X	2	Trip Blank

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1	[signature]	10:20 11/3/20		[signature]	11/7/20 1500	VHB
2	[signature]	11/12/20 1700	VHB			
3				[signature]	11/13/20 10:36	GLE

Custody Seals Intact: X Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3-5

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: VHB (Formerly The Johnson Co) Job Number: 410-20865-1

Login Number: 20865 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Metzger, Katherine A

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

ANALYTICAL REPORT

Job Number: 410-21210-1

Job Description: AD New Windsor

For:
VHB (Formerly The Johnson Co)
100 State Street
Suite 600
Montpelier, VT 05602

Attention: George Lester



Approved for release.
Elizabeth M Zanar
Project Manager
11/25/2020 12:42 PM

Elizabeth M Zanar, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7290
Elizabeth.Zanar@eurofinset.com
11/25/2020

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 410-21210-1

Job Description: AD New Windsor

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Table of Contents

Cover Title Page 1

Data Summaries 5

- Report Narrative 5
- Sample Summary 6
- Detection Summary 7
- Method Summary 11
- Client Sample Results 12
- Surrogate Summary 35
- QC Sample Results 37
- Definitions 45
- QC Association 46
- Chronicle 48
- Certification Summary 53

Organic Sample Data 54

- GC/MS VOA 54
  - Method 8260C 54
    - Method 8260C QC Summary 55
    - Method 8260C Sample Data 84
    - Standards Data 289
      - Method 8260C ICAL Data 289
      - Method 8260C CCAL Data 369
    - Raw QC Data 423
      - Method 8260C Tune Data 423
      - Method 8260C Blank Data 443
      - Method 8260C LCS/LCSD Data 472
      - Method 8260C MS/MSD Data 497

Table of Contents

Method 8260C Run Logs 520
Method 8260C Prep Data 525
Shipping and Receiving Documents 538
Client Chain of Custody 539
Sample Receipt Checklist 542

Job Narrative
410-21210-1

Receipt
The samples were received on 11/17/2020 11:26 AM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

Receipt Exceptions
The container label for the following sample did not match the information listed on the Chain-of-Custody (COC): J21-UC01 (410-21210-2). The container labels list a collection time of 12:40, while the COC lists 12:02. The client was contacted, and the lab will proceed with using the time listed on the COC.

GC/MS VOA
Method 8260C: The continuing calibration verification (CCV) associated with batch 410-68801 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260C: The continuing calibration verification (CCV) associated with batch 410-68925 recovered above the upper control limit for 1,4-Dioxane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21210-1
Project/Site: AD New Windsor

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-21210-1	J16-UC01	Water	11/12/20 15:42	11/17/20 11:26	
410-21210-2	J21-UC01	Water	11/12/20 12:02	11/17/20 11:26	
410-21210-3	J16-UC02	Water	11/12/20 14:56	11/17/20 11:26	
410-21210-4	J14-UC01	Water	11/13/20 08:38	11/17/20 11:26	
410-21210-5	J14-BR01	Water	11/13/20 09:58	11/17/20 11:26	
410-21210-6	J14-UC02	Water	11/13/20 11:00	11/17/20 11:26	
410-21210-7	J14-BR02	Water	11/13/20 12:12	11/17/20 11:26	
410-21210-8	J17-UC01	Water	11/13/20 13:54	11/17/20 11:26	
410-21210-9	J17-BR01	Water	11/13/20 15:15	11/17/20 11:26	
410-21210-10	J17-UC02	Water	11/13/20 16:12	11/17/20 11:26	
410-21210-11	TB111320	Water	11/12/20 00:00	11/17/20 11:26	
410-21210-12	J22-BR02	Water	11/15/20 11:42	11/17/20 11:26	
410-21210-13	J22-BR01	Water	11/15/20 13:15	11/17/20 11:26	
410-21210-14	J23-UC01	Water	11/15/20 14:43	11/17/20 11:26	
410-21210-15	J23-UC02	Water	11/15/20 15:34	11/17/20 11:26	
410-21210-16	J18-UC02	Water	11/16/20 08:24	11/17/20 11:26	
410-21210-17	J18-UC03	Water	11/16/20 09:56	11/17/20 11:26	
410-21210-18	J19-UC01	Water	11/16/20 11:10	11/17/20 11:26	
410-21210-19	J19-UC02	Water	11/16/20 12:18	11/17/20 11:26	
410-21210-20	J15-UC01	Water	11/16/20 13:33	11/17/20 11:26	
410-21210-21	J15-UC02	Water	11/16/20 14:20	11/17/20 11:26	
410-21210-22	J06-UC02	Water	11/16/20 16:10	11/17/20 11:26	
410-21210-23	MW-1S	Water	11/13/20 10:00	11/17/20 11:26	
410-21210-24	MW-1D	Water	11/13/20 12:05	11/17/20 11:26	
410-21210-25	DUP-03	Water	11/13/20 12:10	11/17/20 11:26	
410-21210-26	J20-UC02	Water	11/14/20 09:08	11/17/20 11:26	
410-21210-27	J20-UC01	Water	11/14/20 09:49	11/17/20 11:26	
410-21210-28	J20-BR02	Water	11/14/20 11:18	11/17/20 11:26	
410-21210-29	J20-BR01	Water	11/14/20 13:34	11/17/20 11:26	
410-21210-30	J08-UC01	Water	11/14/20 14:58	11/17/20 11:26	
410-21210-31	J07-UC02	Water	11/14/20 16:13	11/17/20 11:26	
410-21210-32	RIZ-19	Water	11/15/20 16:30	11/17/20 11:26	
410-21210-33	EB111620	Water	11/16/20 16:30	11/17/20 11:26	

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: J16-UC01 — Lab Sample ID: 410-21210-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	12		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.0		1.0	0.20	ug/L	1		8260C	Total/NA
Chloroform	0.71	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.46	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	37		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J21-UC01 — Lab Sample ID: 410-21210-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.6		1.0	0.30	ug/L	1		8260C	Total/NA
Trichloroethene	0.88	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J16-UC02 — Lab Sample ID: 410-21210-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	10		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.83	J	1.0	0.20	ug/L	1		8260C	Total/NA
Chloroform	0.36	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	41		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J14-UC01 — Lab Sample ID: 410-21210-4

No Detections.

Client Sample ID: J14-BR01 — Lab Sample ID: 410-21210-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	4.2		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.78	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.20	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J14-UC02 — Lab Sample ID: 410-21210-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.7		1.0	0.30	ug/L	1		8260C	Total/NA

Client Sample ID: J14-BR02 — Lab Sample ID: 410-21210-7

No Detections.

Client Sample ID: J17-UC01 — Lab Sample ID: 410-21210-8

No Detections.

Client Sample ID: J17-BR01 — Lab Sample ID: 410-21210-9

No Detections.

Client Sample ID: J17-UC02 — Lab Sample ID: 410-21210-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.1		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: TB111320 — Lab Sample ID: 410-21210-11

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: J22-BR02 — Lab Sample ID: 410-21210-12

No Detections.

Client Sample ID: J22-BR01 — Lab Sample ID: 410-21210-13

No Detections.

Client Sample ID: J23-UC01 — Lab Sample ID: 410-21210-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	8.8		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.3		1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.9		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	0.97	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	76		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J23-UC02 — Lab Sample ID: 410-21210-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	93		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	6.3		1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.55	J	1.0	0.20	ug/L	1		8260C	Total/NA
Freon 113	0.27	J	10	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	4.4		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene - DL	500		10	2.0	ug/L	10		8260C	Total/NA

Client Sample ID: J18-UC02 — Lab Sample ID: 410-21210-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	16		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.35	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	1.0		1.0	0.20	ug/L	1		8260C	Total/NA
Chloroform	0.63	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	36		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J18-UC03 — Lab Sample ID: 410-21210-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.8		1.0	0.30	ug/L	1		8260C	Total/NA

Client Sample ID: J19-UC01 — Lab Sample ID: 410-21210-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.33	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J19-UC02 — Lab Sample ID: 410-21210-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.79	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.46	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J15-UC01 — Lab Sample ID: 410-21210-20

No Detections.

Client Sample ID: J15-UC02 — Lab Sample ID: 410-21210-21

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: J06-UC02 — Lab Sample ID: 410-21210-22

No Detections.

Client Sample ID: MW-1S — Lab Sample ID: 410-21210-23

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.82	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: MW-1D — Lab Sample ID: 410-21210-24

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.53	J	1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.74	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: DUP-03 — Lab Sample ID: 410-21210-25

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.88	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J20-UC02 — Lab Sample ID: 410-21210-26

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.84	J	1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	0.58	J	1.0	0.20	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.32	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	0.36	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J20-UC01 — Lab Sample ID: 410-21210-27

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
cis-1,2-Dichloroethene	0.51	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	1.1		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J20-BR02 — Lab Sample ID: 410-21210-28

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.1		1.0	0.30	ug/L	1		8260C	Total/NA

Client Sample ID: J20-BR01 — Lab Sample ID: 410-21210-29

No Detections.

Client Sample ID: J08-UC01 — Lab Sample ID: 410-21210-30

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.95	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J07-UC02 — Lab Sample ID: 410-21210-31

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	1.0		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: RIZ-19 — Lab Sample ID: 410-21210-32

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.36	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	0.93	J	1.0	0.20	ug/L	1		8260C	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21210-1
Project/Site: AD New Windsor

Client Sample ID: EB111620
Lab Sample ID: 410-21210-33

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample ID: J16-UC01
Lab Sample ID: 410-21210-1

Date Collected: 11/12/20 15:42
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**12**		1.0	0.30	ug/L			11/20/20 16:06	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 16:06	1
1,1-Dichloroethene	**1.0**		1.0	0.20	ug/L			11/20/20 16:06	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 16:06	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 16:06	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 16:06	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 16:06	1
Acetone	ND		20	0.70	ug/L			11/20/20 16:06	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 16:06	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 16:06	1
Chloroform	**0.71**	**J**	1.0	0.20	ug/L			11/20/20 16:06	1
cis-1,2-Dichloroethene	**0.46**	**J**	1.0	0.20	ug/L			11/20/20 16:06	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 16:06	1
Freon 113	ND		10	0.20	ug/L			11/20/20 16:06	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 16:06	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 16:06	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 16:06	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 16:06	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:06	1
Trichloroethene	**37**		1.0	0.20	ug/L			11/20/20 16:06	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 16:06	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 16:06	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/20/20 16:06*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/20/20 16:06*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 16:06*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 16:06*	*1*

Client Sample ID: J21-UC01
Lab Sample ID: 410-21210-2

Date Collected: 11/12/20 12:02
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.6**		1.0	0.30	ug/L			11/20/20 16:28	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 16:28	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 16:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 16:28	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 16:28	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 16:28	1
Acetone	ND		20	0.70	ug/L			11/20/20 16:28	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 16:28	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 16:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 16:28	1
Freon 113	ND		10	0.20	ug/L			11/20/20 16:28	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 16:28	1

Client Sample ID: J21-UC01
Lab Sample ID: 410-21210-2

Date Collected: 11/12/20 12:02
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 16:28	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:28	1
Trichloroethene	**0.88**	**J**	1.0	0.20	ug/L			11/20/20 16:28	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 16:28	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 16:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/20/20 16:28*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/20/20 16:28*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 16:28*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 16:28*	*1*

Client Sample ID: J16-UC02
Lab Sample ID: 410-21210-3

Date Collected: 11/12/20 14:56
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**10**		1.0	0.30	ug/L			11/20/20 16:50	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 16:50	1
1,1-Dichloroethene	**0.83**	**J**	1.0	0.20	ug/L			11/20/20 16:50	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 16:50	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 16:50	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 16:50	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 16:50	1
Acetone	ND		20	0.70	ug/L			11/20/20 16:50	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 16:50	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 16:50	1
Chloroform	**0.36**	**J**	1.0	0.20	ug/L			11/20/20 16:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:50	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 16:50	1
Freon 113	ND		10	0.20	ug/L			11/20/20 16:50	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 16:50	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 16:50	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 16:50	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 16:50	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 16:50	1
Trichloroethene	**41**		1.0	0.20	ug/L			11/20/20 16:50	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 16:50	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 16:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 16:50*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 16:50*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 16:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 16:50*	*1*

Client Sample ID: J14-UC01
Lab Sample ID: 410-21210-4

Date Collected: 11/13/20 08:38
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:12	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 17:12	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 17:12	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:12	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 17:12	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 17:12	1
Acetone	ND		20	0.70	ug/L			11/20/20 17:12	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 17:12	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 17:12	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 17:12	1
Freon 113	ND		10	0.20	ug/L			11/20/20 17:12	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 17:12	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 17:12	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 17:12	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 17:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 17:12*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 17:12*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 17:12*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 17:12*	*1*

Client Sample ID: J14-BR01
Lab Sample ID: 410-21210-5

Date Collected: 11/13/20 09:58
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**4.2**		1.0	0.30	ug/L			11/20/20 12:03	1
1,1-Dichloroethane	**0.78**	**J**	1.0	0.20	ug/L			11/20/20 12:03	1
1,1-Dichloroethene	**0.20**	**J**	1.0	0.20	ug/L			11/20/20 12:03	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 12:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 12:03	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 12:03	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 12:03	1
Acetone	ND		20	0.70	ug/L			11/20/20 12:03	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 12:03	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 12:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 12:03	1
Freon 113	ND		10	0.20	ug/L			11/20/20 12:03	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 12:03	1

Client Sample ID: J14-BR01
Lab Sample ID: 410-21210-5

Date Collected: 11/13/20 09:58
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 12:03	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 12:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 12:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 12:03*	*1*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*11/20/20 12:03*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 12:03*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 12:03*	*1*

Client Sample ID: J14-UC02
Lab Sample ID: 410-21210-6

Date Collected: 11/13/20 11:00
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.7**		1.0	0.30	ug/L			11/20/20 17:34	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 17:34	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 17:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:34	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 17:34	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 17:34	1
Acetone	ND		20	0.70	ug/L			11/20/20 17:34	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 17:34	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 17:34	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 17:34	1
Freon 113	ND		10	0.20	ug/L			11/20/20 17:34	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 17:34	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 17:34	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 17:34	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 17:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/20/20 17:34*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 17:34*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 17:34*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 17:34*	*1*

Client Sample ID: J14-BR02
Lab Sample ID: 410-21210-7

Date Collected: 11/13/20 12:12
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:56	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 17:56	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 17:56	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 17:56	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 17:56	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 17:56	1
Acetone	ND		20	0.70	ug/L			11/20/20 17:56	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 17:56	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 17:56	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 17:56	1
Freon 113	ND		10	0.20	ug/L			11/20/20 17:56	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 17:56	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 17:56	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 17:56	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 17:56	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 17:56*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 17:56*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 17:56*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 17:56*	*1*

Client Sample ID: J17-UC01
Lab Sample ID: 410-21210-8

Date Collected: 11/13/20 13:54
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:18	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 18:18	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 18:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:18	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 18:18	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 18:18	1
Acetone	ND		20	0.70	ug/L			11/20/20 18:18	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 18:18	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 18:18	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 18:18	1
Freon 113	ND		10	0.20	ug/L			11/20/20 18:18	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 18:18	1

Client Sample ID: J17-UC01
Lab Sample ID: 410-21210-8

Date Collected: 11/13/20 13:54
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 18:18	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 18:18	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 18:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 18:18*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 18:18*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 18:18*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 18:18*	*1*

Client Sample ID: J17-BR01
Lab Sample ID: 410-21210-9

Date Collected: 11/13/20 15:15
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:39	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 18:39	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 18:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 18:39	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 18:39	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 18:39	1
Acetone	ND		20	0.70	ug/L			11/20/20 18:39	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 18:39	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 18:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 18:39	1
Freon 113	ND		10	0.20	ug/L			11/20/20 18:39	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 18:39	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 18:39	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 18:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 18:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 18:39*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/20/20 18:39*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 18:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 18:39*	*1*

Client Sample ID: J17-UC02
Lab Sample ID: 410-21210-10

Date Collected: 11/13/20 16:12
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 19:01	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 19:01	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 19:01	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 19:01	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 19:01	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 19:01	1
Acetone	ND		20	0.70	ug/L			11/20/20 19:01	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 19:01	1
Chloroform	**1.1**		1.0	0.20	ug/L			11/20/20 19:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 19:01	1
Freon 113	ND		10	0.20	ug/L			11/20/20 19:01	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 19:01	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 19:01	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 19:01	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 19:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/20/20 19:01*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/20/20 19:01*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/20/20 19:01*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 19:01*	*1*

Client Sample ID: TB111320
Lab Sample ID: 410-21210-11

Date Collected: 11/12/20 00:00
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 11:41	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 11:41	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 11:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 11:41	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 11:41	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 11:41	1
Acetone	ND		20	0.70	ug/L			11/20/20 11:41	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 11:41	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 11:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 11:41	1
Freon 113	ND		10	0.20	ug/L			11/20/20 11:41	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 11:41	1

Client Sample ID: TB111320
Lab Sample ID: 410-21210-11

Date Collected: 11/12/20 00:00
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 11:41	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 11:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 11:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/20/20 11:41*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 11:41*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 11:41*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 11:41*	*1*

Client Sample ID: J22-BR02
Lab Sample ID: 410-21210-12

Date Collected: 11/15/20 11:42
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 15:39	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 15:39	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 15:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 15:39	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 15:39	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 15:39	1
Acetone	ND		20	0.70	ug/L			11/21/20 15:39	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 15:39	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 15:39	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 15:39	1
Freon 113	ND		10	0.20	ug/L			11/21/20 15:39	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 15:39	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 15:39	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 15:39	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/21/20 15:39*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 15:39*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/21/20 15:39*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 15:39*	*1*

Client Sample ID: J22-BR01
Lab Sample ID: 410-21210-13

Date Collected: 11/15/20 13:15
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 16:01	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 16:01	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 16:01	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 16:01	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 16:01	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 16:01	1
Acetone	ND		20	0.70	ug/L			11/21/20 16:01	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 16:01	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 16:01	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 16:01	1
Freon 113	ND		10	0.20	ug/L			11/21/20 16:01	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 16:01	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 16:01	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 16:01	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 16:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/21/20 16:01*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 16:01*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 16:01*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 16:01*	*1*

Client Sample ID: J23-UC01
Lab Sample ID: 410-21210-14

Date Collected: 11/15/20 14:43
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**8.8**		1.0	0.30	ug/L			11/21/20 16:24	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 16:24	1
1,1-Dichloroethene	**1.3**		1.0	0.20	ug/L			11/21/20 16:24	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 16:24	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 16:24	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 16:24	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 16:24	1
Acetone	ND		20	0.70	ug/L			11/21/20 16:24	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 16:24	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 16:24	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 16:24	1
cis-1,2-Dichloroethene	**1.9**		1.0	0.20	ug/L			11/21/20 16:24	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 16:24	1
Freon 113	ND		10	0.20	ug/L			11/21/20 16:24	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 16:24	1

Client Sample ID: J23-UC01
Lab Sample ID: 410-21210-14
Date Collected: 11/15/20 14:43
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 16:24	1
Tetrachloroethene	**0.97**	**J**	1.0	0.20	ug/L			11/21/20 16:24	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 16:24	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:24	1
Trichloroethene	**76**		1.0	0.20	ug/L			11/21/20 16:24	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 16:24	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/21/20 16:24*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/21/20 16:24*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 16:24*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 16:24*	*1*

Client Sample ID: J23-UC02
Lab Sample ID: 410-21210-15
Date Collected: 11/15/20 15:34
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**93**		1.0	0.30	ug/L			11/21/20 16:46	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 16:46	1
1,1-Dichloroethene	**6.3**		1.0	0.20	ug/L			11/21/20 16:46	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 16:46	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 16:46	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 16:46	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 16:46	1
Acetone	ND		20	0.70	ug/L			11/21/20 16:46	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 16:46	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 16:46	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 16:46	1
cis-1,2-Dichloroethene	**0.55**	**J**	1.0	0.20	ug/L			11/21/20 16:46	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 16:46	1
Freon 113	**0.27**	**J**	10	0.20	ug/L			11/21/20 16:46	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 16:46	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 16:46	1
Tetrachloroethene	**4.4**		1.0	0.20	ug/L			11/21/20 16:46	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 16:46	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 16:46	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 16:46	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 16:46	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 16:46*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/21/20 16:46*	*1*
Dibromofluoromethane (Surr)	*105*		*80 - 120*		*11/21/20 16:46*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*11/21/20 16:46*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**500**		10	2.0	ug/L			11/23/20 20:27	10

Client Sample ID: J23-UC02
Lab Sample ID: 410-21210-15

Date Collected: 11/15/20 15:34
Matrix: Water
Date Received: 11/17/20 11:26

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/23/20 20:27*	*10*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/23/20 20:27*	*10*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/23/20 20:27*	*10*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/23/20 20:27*	*10*

Client Sample ID: J18-UC02
Lab Sample ID: 410-21210-16

Date Collected: 11/16/20 08:24
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**16**		1.0	0.30	ug/L			11/23/20 16:24	1
1,1-Dichloroethane	**0.35**	**J**	1.0	0.20	ug/L			11/23/20 16:24	1
1,1-Dichloroethene	**1.0**		1.0	0.20	ug/L			11/23/20 16:24	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/23/20 16:24	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/23/20 16:24	1
1,4-Dioxane	ND		250	29	ug/L			11/23/20 16:24	1
2-Butanone	ND		10	0.30	ug/L			11/23/20 16:24	1
Acetone	ND		20	0.70	ug/L			11/23/20 16:24	1
Benzene	ND		1.0	0.20	ug/L			11/23/20 16:24	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/23/20 16:24	1
Chloroform	**0.63**	**J**	1.0	0.20	ug/L			11/23/20 16:24	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 16:24	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/23/20 16:24	1
Freon 113	ND		10	0.20	ug/L			11/23/20 16:24	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/23/20 16:24	1
Naphthalene	ND		5.0	1.0	ug/L			11/23/20 16:24	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/23/20 16:24	1
Toluene	ND		1.0	0.20	ug/L			11/23/20 16:24	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 16:24	1
Trichloroethene	**36**		1.0	0.20	ug/L			11/23/20 16:24	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/23/20 16:24	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/23/20 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/23/20 16:24*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/23/20 16:24*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/23/20 16:24*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/23/20 16:24*	*1*

Client Sample ID: J18-UC03
Lab Sample ID: 410-21210-17

Date Collected: 11/16/20 09:56
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**3.8**		1.0	0.30	ug/L			11/21/20 03:47	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 03:47	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 03:47	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 03:47	1

Client Sample ID: J18-UC03
Lab Sample ID: 410-21210-17

Date Collected: 11/16/20 09:56
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	ND		250	29	ug/L			11/21/20 03:47	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 03:47	1
Acetone	ND		20	0.70	ug/L			11/21/20 03:47	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 03:47	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 03:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 03:47	1
Freon 113	ND		10	0.20	ug/L			11/21/20 03:47	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 03:47	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 03:47	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 03:47	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 03:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/21/20 03:47*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/21/20 03:47*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 03:47*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 03:47*	*1*

Client Sample ID: J19-UC01
Lab Sample ID: 410-21210-18

Date Collected: 11/16/20 11:10
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 04:09	1
1,1-Dichloroethane	**0.33**	**J**	1.0	0.20	ug/L			11/21/20 04:09	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 04:09	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 04:09	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 04:09	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 04:09	1
Acetone	ND		20	0.70	ug/L			11/21/20 04:09	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 04:09	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 04:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 04:09	1
Freon 113	ND		10	0.20	ug/L			11/21/20 04:09	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 04:09	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 04:09	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:09	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:09	1

Client Sample ID: J19-UC01
Lab Sample ID: 410-21210-18
Date Collected: 11/16/20 11:10
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 04:09	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 04:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/21/20 04:09*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 04:09*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 04:09*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 04:09*	*1*

Client Sample ID: J19-UC02
Lab Sample ID: 410-21210-19
Date Collected: 11/16/20 12:18
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.79**	**J**	1.0	0.30	ug/L			11/21/20 04:31	1
1,1-Dichloroethane	**0.46**	**J**	1.0	0.20	ug/L			11/21/20 04:31	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 04:31	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 04:31	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 04:31	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 04:31	1
Acetone	ND		20	0.70	ug/L			11/21/20 04:31	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 04:31	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 04:31	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 04:31	1
Freon 113	ND		10	0.20	ug/L			11/21/20 04:31	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 04:31	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 04:31	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 04:31	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 04:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/21/20 04:31*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 04:31*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 04:31*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 04:31*	*1*

Client Sample ID: J15-UC01
Lab Sample ID: 410-21210-20
Date Collected: 11/16/20 13:33
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 04:53	1

Client Sample ID: J15-UC01
Lab Sample ID: 410-21210-20

Date Collected: 11/16/20 13:33
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 04:53	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 04:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 04:53	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 04:53	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 04:53	1
Acetone	ND		20	0.70	ug/L			11/21/20 04:53	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 04:53	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 04:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 04:53	1
Freon 113	ND		10	0.20	ug/L			11/21/20 04:53	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 04:53	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 04:53	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 04:53	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 04:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/21/20 04:53*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 04:53*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 04:53*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 04:53*	*1*

Client Sample ID: J15-UC02
Lab Sample ID: 410-21210-21

Date Collected: 11/16/20 14:20
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 05:15	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 05:15	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 05:15	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 05:15	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 05:15	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 05:15	1
Acetone	ND		20	0.70	ug/L			11/21/20 05:15	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 05:15	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 05:15	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 05:15	1
Freon 113	ND		10	0.20	ug/L			11/21/20 05:15	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 05:15	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 05:15	1

Client Sample ID: J15-UC02
Lab Sample ID: 410-21210-21

Date Collected: 11/16/20 14:20
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 05:15	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 05:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/21/20 05:15*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 05:15*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 05:15*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 05:15*	*1*

Client Sample ID: J06-UC02
Lab Sample ID: 410-21210-22

Date Collected: 11/16/20 16:10
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 05:37	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 05:37	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 05:37	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 05:37	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 05:37	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 05:37	1
Acetone	ND		20	0.70	ug/L			11/21/20 05:37	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 05:37	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 05:37	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 05:37	1
Freon 113	ND		10	0.20	ug/L			11/21/20 05:37	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 05:37	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 05:37	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 05:37	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 05:37	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/21/20 05:37*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 05:37*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 05:37*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 05:37*	*1*

Client Sample ID: MW-1S
Lab Sample ID: 410-21210-23
Date Collected: 11/13/20 10:00
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 19:23	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 19:23	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 19:23	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 19:23	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 19:23	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 19:23	1
Acetone	ND		20	0.70	ug/L			11/20/20 19:23	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 19:23	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 19:23	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 19:23	1
Freon 113	ND		10	0.20	ug/L			11/20/20 19:23	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 19:23	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 19:23	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 19:23	1
Trichloroethene	**0.82**	**J**	1.0	0.20	ug/L			11/20/20 19:23	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 19:23	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 19:23	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/20/20 19:23*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/20/20 19:23*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 19:23*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 19:23*	*1*

Client Sample ID: MW-1D
Lab Sample ID: 410-21210-24
Date Collected: 11/13/20 12:05
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.53**	**J**	1.0	0.30	ug/L			11/21/20 17:08	1
1,1-Dichloroethane	**0.74**	**J**	1.0	0.20	ug/L			11/21/20 17:08	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 17:08	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 17:08	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 17:08	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 17:08	1
Acetone	ND		20	0.70	ug/L			11/21/20 17:08	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 17:08	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 17:08	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 17:08	1
Freon 113	ND		10	0.20	ug/L			11/21/20 17:08	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 17:08	1

Client Sample ID: MW-1D
Lab Sample ID: 410-21210-24

Date Collected: 11/13/20 12:05
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 17:08	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 17:08	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 17:08	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/21/20 17:08*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 17:08*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 17:08*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 17:08*	*1*

Client Sample ID: DUP-03
Lab Sample ID: 410-21210-25

Date Collected: 11/13/20 12:10
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 17:30	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 17:30	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 17:30	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 17:30	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 17:30	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 17:30	1
Acetone	ND		20	0.70	ug/L			11/21/20 17:30	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 17:30	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 17:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 17:30	1
Freon 113	ND		10	0.20	ug/L			11/21/20 17:30	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 17:30	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 17:30	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:30	1
Trichloroethene	**0.88**	**J**	1.0	0.20	ug/L			11/21/20 17:30	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 17:30	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 17:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/21/20 17:30*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 17:30*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 17:30*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 17:30*	*1*

Client Sample ID: J20-UC02
Lab Sample ID: 410-21210-26

Date Collected: 11/14/20 09:08
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 17:52	1
1,1-Dichloroethane	**0.84**	**J**	1.0	0.20	ug/L			11/21/20 17:52	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 17:52	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 17:52	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 17:52	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 17:52	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 17:52	1
Acetone	ND		20	0.70	ug/L			11/21/20 17:52	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 17:52	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 17:52	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 17:52	1
cis-1,2-Dichloroethene	**0.58**	**J**	1.0	0.20	ug/L			11/21/20 17:52	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 17:52	1
Freon 113	ND		10	0.20	ug/L			11/21/20 17:52	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 17:52	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 17:52	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 17:52	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 17:52	1
trans-1,2-Dichloroethene	**0.32**	**J**	1.0	0.20	ug/L			11/21/20 17:52	1
Trichloroethene	**0.36**	**J**	1.0	0.20	ug/L			11/21/20 17:52	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 17:52	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 17:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 17:52*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 17:52*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 17:52*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 17:52*	*1*

Client Sample ID: J20-UC01
Lab Sample ID: 410-21210-27

Date Collected: 11/14/20 09:49
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 18:14	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 18:14	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:14	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 18:14	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 18:14	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 18:14	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 18:14	1
Acetone	ND		20	0.70	ug/L			11/21/20 18:14	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 18:14	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 18:14	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 18:14	1
cis-1,2-Dichloroethene	**0.51**	**J**	1.0	0.20	ug/L			11/21/20 18:14	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 18:14	1
Freon 113	ND		10	0.20	ug/L			11/21/20 18:14	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 18:14	1

Client Sample ID: J20-UC01
Lab Sample ID: 410-21210-27

Date Collected: 11/14/20 09:49
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 18:14	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 18:14	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 18:14	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:14	1
Trichloroethene	**1.1**		1.0	0.20	ug/L			11/21/20 18:14	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 18:14	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 18:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 18:14*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 18:14*	*1*
Dibromofluoromethane (Surr)	*104*		*80 - 120*		*11/21/20 18:14*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 18:14*	*1*

Client Sample ID: J20-BR02
Lab Sample ID: 410-21210-28

Date Collected: 11/14/20 11:18
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.1**		1.0	0.30	ug/L			11/21/20 18:36	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 18:36	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 18:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 18:36	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 18:36	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 18:36	1
Acetone	ND		20	0.70	ug/L			11/21/20 18:36	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 18:36	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 18:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 18:36	1
Freon 113	ND		10	0.20	ug/L			11/21/20 18:36	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 18:36	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 18:36	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 18:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 18:36	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 18:36*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 18:36*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 18:36*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 18:36*	*1*

Client Sample ID: J20-BR01
Lab Sample ID: 410-21210-29

Date Collected: 11/14/20 13:34
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 18:57	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 18:57	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 18:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 18:57	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 18:57	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 18:57	1
Acetone	ND		20	0.70	ug/L			11/21/20 18:57	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 18:57	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 18:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 18:57	1
Freon 113	ND		10	0.20	ug/L			11/21/20 18:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 18:57	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 18:57	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 18:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 18:57*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/21/20 18:57*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 18:57*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 18:57*	*1*

Client Sample ID: J08-UC01
Lab Sample ID: 410-21210-30

Date Collected: 11/14/20 14:58
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 19:19	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 19:19	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 19:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 19:19	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 19:19	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 19:19	1
Acetone	ND		20	0.70	ug/L			11/21/20 19:19	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 19:19	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 19:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 19:19	1
Freon 113	ND		10	0.20	ug/L			11/21/20 19:19	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 19:19	1

Client Sample ID: J08-UC01
Lab Sample ID: 410-21210-30

Date Collected: 11/14/20 14:58
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 19:19	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:19	1
Trichloroethene	**0.95**	**J**	1.0	0.20	ug/L			11/21/20 19:19	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 19:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/21/20 19:19*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/21/20 19:19*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 19:19*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 19:19*	*1*

Client Sample ID: J07-UC02
Lab Sample ID: 410-21210-31

Date Collected: 11/14/20 16:13
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 19:41	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 19:41	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 19:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 19:41	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 19:41	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 19:41	1
Acetone	ND		20	0.70	ug/L			11/21/20 19:41	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 19:41	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 19:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 19:41	1
Freon 113	ND		10	0.20	ug/L			11/21/20 19:41	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 19:41	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 19:41	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 19:41	1
Trichloroethene	**1.0**		1.0	0.20	ug/L			11/21/20 19:41	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 19:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 19:41*	*1*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*11/21/20 19:41*	*1*
Dibromofluoromethane (Surr)	*103*		*80 - 120*		*11/21/20 19:41*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 19:41*	*1*

Client Sample ID: RIZ-19
Lab Sample ID: 410-21210-32
Date Collected: 11/15/20 16:30
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 20:03	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 20:03	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 20:03	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 20:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 20:03	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 20:03	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 20:03	1
Acetone	ND		20	0.70	ug/L			11/21/20 20:03	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 20:03	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 20:03	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 20:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 20:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 20:03	1
Freon 113	ND		10	0.20	ug/L			11/21/20 20:03	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 20:03	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 20:03	1
Tetrachloroethene	**0.36**	**J**	1.0	0.20	ug/L			11/21/20 20:03	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 20:03	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 20:03	1
Trichloroethene	**0.93**	**J**	1.0	0.20	ug/L			11/21/20 20:03	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 20:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/21/20 20:03*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 20:03*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 20:03*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/21/20 20:03*	*1*

Client Sample ID: EB111620
Lab Sample ID: 410-21210-33
Date Collected: 11/16/20 16:30
Matrix: Water
Date Received: 11/17/20 11:26

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/23/20 13:27	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/23/20 13:27	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/23/20 13:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/23/20 13:27	1
1,4-Dioxane	ND		250	29	ug/L			11/23/20 13:27	1
2-Butanone	ND		10	0.30	ug/L			11/23/20 13:27	1
Acetone	ND		20	0.70	ug/L			11/23/20 13:27	1
Benzene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/23/20 13:27	1
Chloroform	ND		1.0	0.20	ug/L			11/23/20 13:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/23/20 13:27	1
Freon 113	ND		10	0.20	ug/L			11/23/20 13:27	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/23/20 13:27	1

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: EB111620
Date Collected: 11/16/20 16:30
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-33
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/23/20 13:27	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Toluene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Trichloroethene	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/23/20 13:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/23/20 13:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*11/23/20 13:27*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/23/20 13:27*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/23/20 13:27*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*11/23/20 13:27*	*1*

Surrogate Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-21210-1	J16-UC01	105	92	103	101
410-21210-2	J21-UC01	105	92	103	100
410-21210-3	J16-UC02	104	91	103	100
410-21210-4	J14-UC01	104	91	102	100
410-21210-5	J14-BR01	104	94	102	101
410-21210-5 MS	J14-BR01	104	99	101	101
410-21210-5 MSD	J14-BR01	101	99	101	101
410-21210-6	J14-UC02	103	91	102	100
410-21210-7	J14-BR02	104	91	103	100
410-21210-8	J17-UC01	104	91	103	101
410-21210-9	J17-BR01	104	92	102	100
410-21210-10	J17-UC02	105	90	103	101
410-21210-11	TB111320	103	93	102	100
410-21210-12	J22-BR02	103	91	101	100
410-21210-13	J22-BR01	104	91	102	101
410-21210-14	J23-UC01	105	92	103	101
410-21210-15	J23-UC02	106	92	105	102
410-21210-15 - DL	J23-UC02	104	92	102	100
410-21210-16	J18-UC02	104	92	102	100
410-21210-16 MS	J18-UC02	100	100	99	101
410-21210-16 MSD	J18-UC02	102	99	101	101
410-21210-17	J18-UC03	103	92	103	101
410-21210-18	J19-UC01	103	91	102	100
410-21210-19	J19-UC02	104	91	103	101
410-21210-20	J15-UC01	105	91	102	101
410-21210-21	J15-UC02	103	91	102	101
410-21210-22	J06-UC02	104	91	102	100
410-21210-23	MW-1S	104	90	102	100
410-21210-24	MW-1D	104	91	103	101
410-21210-25	DUP-03	105	91	103	101
410-21210-26	J20-UC02	106	91	103	100
410-21210-27	J20-UC01	106	91	104	101
410-21210-28	J20-BR02	106	91	103	101
410-21210-29	J20-BR01	106	90	103	100
410-21210-30	J08-UC01	105	90	103	101
410-21210-31	J07-UC02	106	90	103	101
410-21210-32	RIZ-19	106	91	102	100
410-21210-33	EB111620	104	91	101	99
LCS 410-68475/5	Lab Control Sample	103	99	101	101
LCS 410-68801/4	Lab Control Sample	102	98	101	101
LCS 410-68925/6	Lab Control Sample	102	99	100	102
LCS 410-69288/6	Lab Control Sample	102	100	100	101
MB 410-68475/7	Method Blank	103	93	102	101
MB 410-68801/6	Method Blank	106	91	101	100
MB 410-68925/9	Method Blank	105	91	102	101
MB 410-69288/9	Method Blank	105	92	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)

Surrogate Summary

Client: VHB (Formerly The Johnson Co) Job ID: 410-21210-1
Project/Site: AD New Windsor

DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-68475/7
Matrix: Water
Analysis Batch: 68475

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 10:36	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 10:36	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 10:36	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 10:36	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 10:36	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 10:36	1
Acetone	ND		20	0.70	ug/L			11/20/20 10:36	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 10:36	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 10:36	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 10:36	1
Freon 113	ND		10	0.20	ug/L			11/20/20 10:36	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 10:36	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 10:36	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 10:36	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 10:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*11/20/20 10:36*	*1*
4-Bromofluorobenzene (Surr)	*93*		*80 - 120*		*11/20/20 10:36*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/20/20 10:36*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/20/20 10:36*	*1*

Lab Sample ID: LCS 410-68475/5
Matrix: Water
Analysis Batch: 68475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	19.4		ug/L		97	67 - 126
1,1-Dichloroethane	20.0	19.2		ug/L		96	80 - 120
1,1-Dichloroethene	20.0	19.2		ug/L		96	80 - 131
1,2-Dichlorobenzene	20.0	19.7		ug/L		99	80 - 120
1,2-Dichloroethane	20.0	19.5		ug/L		97	73 - 124
1,4-Dioxane	500	598		ug/L		120	63 - 146
2-Butanone	150	162		ug/L		108	59 - 135
Acetone	150	166		ug/L		111	54 - 157
Benzene	20.0	20.1		ug/L		100	80 - 120
Carbon disulfide	20.0	16.5		ug/L		83	65 - 128
Chloroform	20.0	20.2		ug/L		101	80 - 120
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	80 - 125
Ethylbenzene	20.0	19.8		ug/L		99	80 - 120
Freon 113	20.0	16.7		ug/L		83	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-68475/5
Matrix: Water
Analysis Batch: 68475

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	20.1		ug/L		101	80 - 120		
Naphthalene			20.0	18.2		ug/L		91	53 - 124		
Tetrachloroethene			20.0	20.7		ug/L		103	80 - 120		
Toluene			20.0	20.0		ug/L		100	80 - 120		
trans-1,2-Dichloroethene			20.0	19.8		ug/L		99	80 - 126		
Trichloroethene			20.0	20.0		ug/L		100	80 - 120		
Vinyl chloride			20.0	16.9		ug/L		85	56 - 120		
Xylenes, Total			60.0	59.8		ug/L		100	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 410-21210-5 MS
Matrix: Water
Analysis Batch: 68475

Client Sample ID: J14-BR01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
1,1,1-Trichloroethane	4.2		20.0	26.6		ug/L		112	67 - 126		
1,1-Dichloroethane	0.78	J	20.0	22.2		ug/L		107	80 - 120		
1,1-Dichloroethene	0.20	J	20.0	22.8		ug/L		113	80 - 131		
1,2-Dichlorobenzene	ND		20.0	21.2		ug/L		106	80 - 120		
1,2-Dichloroethane	ND		20.0	20.8		ug/L		104	73 - 124		
1,4-Dioxane	ND		500	614		ug/L		123	63 - 146		
2-Butanone	ND		150	163		ug/L		109	59 - 135		
Acetone	ND		150	172		ug/L		115	54 - 157		
Benzene	ND		20.0	22.4		ug/L		112	80 - 120		
Carbon disulfide	ND		20.0	19.6		ug/L		98	65 - 128		
Chloroform	ND		20.0	22.5		ug/L		113	80 - 120		
cis-1,2-Dichloroethene	ND		20.0	23.5		ug/L		117	80 - 125		
Ethylbenzene	ND		20.0	22.2		ug/L		111	80 - 120		
Freon 113	ND		20.0	21.1		ug/L		105	73 - 139		
Methylene Chloride	ND		20.0	22.2		ug/L		111	80 - 120		
Naphthalene	ND		20.0	18.8		ug/L		94	53 - 124		
Tetrachloroethene	ND		20.0	23.4		ug/L		117	80 - 120		
Toluene	ND		20.0	22.6		ug/L		113	80 - 120		
trans-1,2-Dichloroethene	ND		20.0	22.8		ug/L		114	80 - 126		
Trichloroethene	ND		20.0	23.0		ug/L		115	80 - 120		
Vinyl chloride	ND		20.0	19.9		ug/L		100	56 - 120		
Xylenes, Total	ND		60.0	66.9		ug/L		112	80 - 120		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: 410-21210-5 MSD
Matrix: Water
Analysis Batch: 68475

Client Sample ID: J14-BR01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	4.2		20.0	26.6		ug/L		112	67 - 126	0	30
1,1-Dichloroethane	0.78	J	20.0	22.4		ug/L		108	80 - 120	0	30
1,1-Dichloroethene	0.20	J	20.0	22.6		ug/L		112	80 - 131	1	30
1,2-Dichlorobenzene	ND		20.0	21.2		ug/L		106	80 - 120	0	30
1,2-Dichloroethane	ND		20.0	20.5		ug/L		103	73 - 124	1	30
1,4-Dioxane	ND		500	609		ug/L		122	63 - 146	1	30
2-Butanone	ND		150	161		ug/L		108	59 - 135	1	30
Acetone	ND		150	164		ug/L		109	54 - 157	5	30
Benzene	ND		20.0	22.3		ug/L		111	80 - 120	1	30
Carbon disulfide	ND		20.0	19.5		ug/L		97	65 - 128	1	30
Chloroform	ND		20.0	22.1		ug/L		111	80 - 120	2	30
cis-1,2-Dichloroethene	ND		20.0	23.5		ug/L		117	80 - 125	0	30
Ethylbenzene	ND		20.0	22.2		ug/L		111	80 - 120	0	30
Freon 113	ND		20.0	20.8		ug/L		104	73 - 139	1	30
Methylene Chloride	ND		20.0	22.0		ug/L		110	80 - 120	1	30
Naphthalene	ND		20.0	18.6		ug/L		93	53 - 124	1	30
Tetrachloroethene	ND		20.0	23.2		ug/L		116	80 - 120	1	30
Toluene	ND		20.0	22.5		ug/L		112	80 - 120	1	30
trans-1,2-Dichloroethene	ND		20.0	22.6		ug/L		113	80 - 126	1	30
Trichloroethene	ND		20.0	23.0		ug/L		115	80 - 120	0	30
Vinyl chloride	ND		20.0	20.4		ug/L		102	56 - 120	2	30
Xylenes, Total	ND		60.0	66.2		ug/L		110	80 - 120	1	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 410-68801/6
Matrix: Water
Analysis Batch: 68801

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/20/20 21:40	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/20/20 21:40	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/20/20 21:40	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/20/20 21:40	1
1,4-Dioxane	ND		250	29	ug/L			11/20/20 21:40	1
2-Butanone	ND		10	0.30	ug/L			11/20/20 21:40	1
Acetone	ND		20	0.70	ug/L			11/20/20 21:40	1
Benzene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/20/20 21:40	1
Chloroform	ND		1.0	0.20	ug/L			11/20/20 21:40	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/20/20 21:40	1
Freon 113	ND		10	0.20	ug/L			11/20/20 21:40	1

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-68801/6
Matrix: Water
Analysis Batch: 68801

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Chloride	ND		1.0	0.30	ug/L			11/20/20 21:40	1
Naphthalene	ND		5.0	1.0	ug/L			11/20/20 21:40	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Toluene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Trichloroethene	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/20/20 21:40	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/20/20 21:40	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*11/20/20 21:40*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/20/20 21:40*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/20/20 21:40*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/20/20 21:40*	*1*

Lab Sample ID: LCS 410-68801/4
Matrix: Water
Analysis Batch: 68801

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.0		ug/L		100	67 - 126
1,1-Dichloroethane	20.0	20.3		ug/L		101	80 - 120
1,1-Dichloroethene	20.0	19.6		ug/L		98	80 - 131
1,2-Dichlorobenzene	20.0	20.7		ug/L		104	80 - 120
1,2-Dichloroethane	20.0	20.5		ug/L		103	73 - 124
1,4-Dioxane	500	617		ug/L		123	63 - 146
2-Butanone	150	166		ug/L		111	59 - 135
Acetone	150	170		ug/L		114	54 - 157
Benzene	20.0	21.0		ug/L		105	80 - 120
Carbon disulfide	20.0	17.0		ug/L		85	65 - 128
Chloroform	20.0	21.3		ug/L		106	80 - 120
cis-1,2-Dichloroethene	20.0	22.0		ug/L		110	80 - 125
Ethylbenzene	20.0	20.7		ug/L		103	80 - 120
Freon 113	20.0	17.1		ug/L		86	73 - 139
Methylene Chloride	20.0	20.9		ug/L		105	80 - 120
Naphthalene	20.0	18.9		ug/L		94	53 - 124
Tetrachloroethene	20.0	20.6		ug/L		103	80 - 120
Toluene	20.0	21.0		ug/L		105	80 - 120
trans-1,2-Dichloroethene	20.0	20.6		ug/L		103	80 - 126
Trichloroethene	20.0	21.0		ug/L		105	80 - 120
Vinyl chloride	20.0	18.4		ug/L		92	56 - 120
Xylenes, Total	60.0	61.9		ug/L		103	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-68925/9
Matrix: Water
Analysis Batch: 68925

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/21/20 11:33	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/21/20 11:33	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/21/20 11:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/21/20 11:33	1
1,4-Dioxane	ND		250	29	ug/L			11/21/20 11:33	1
2-Butanone	ND		10	0.30	ug/L			11/21/20 11:33	1
Acetone	ND		20	0.70	ug/L			11/21/20 11:33	1
Benzene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/21/20 11:33	1
Chloroform	ND		1.0	0.20	ug/L			11/21/20 11:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/21/20 11:33	1
Freon 113	ND		10	0.20	ug/L			11/21/20 11:33	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/21/20 11:33	1
Naphthalene	ND		5.0	1.0	ug/L			11/21/20 11:33	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Toluene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Trichloroethene	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/21/20 11:33	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/21/20 11:33	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/21/20 11:33*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*11/21/20 11:33*	*1*
Dibromofluoromethane (Surr)	*102*		*80 - 120*		*11/21/20 11:33*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/21/20 11:33*	*1*

Lab Sample ID: LCS 410-68925/6
Matrix: Water
Analysis Batch: 68925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.8		ug/L		94	67 - 126
1,1-Dichloroethane	20.0	19.1		ug/L		96	80 - 120
1,1-Dichloroethene	20.0	18.6		ug/L		93	80 - 131
1,2-Dichlorobenzene	20.0	19.6		ug/L		98	80 - 120
1,2-Dichloroethane	20.0	19.8		ug/L		99	73 - 124
1,4-Dioxane	500	593		ug/L		119	63 - 146
2-Butanone	150	162		ug/L		108	59 - 135
Acetone	150	172		ug/L		115	54 - 157
Benzene	20.0	20.3		ug/L		101	80 - 120
Carbon disulfide	20.0	16.0		ug/L		80	65 - 128
Chloroform	20.0	20.2		ug/L		101	80 - 120
cis-1,2-Dichloroethene	20.0	20.9		ug/L		105	80 - 125
Ethylbenzene	20.0	19.8		ug/L		99	80 - 120
Freon 113	20.0	16.9		ug/L		85	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-68925/6
Matrix: Water
Analysis Batch: 68925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	20.0	19.9		ug/L		100	80 - 120
Naphthalene	20.0	16.9		ug/L		85	53 - 124
Tetrachloroethene	20.0	19.8		ug/L		99	80 - 120
Toluene	20.0	20.1		ug/L		100	80 - 120
trans-1,2-Dichloroethene	20.0	19.7		ug/L		99	80 - 126
Trichloroethene	20.0	20.0		ug/L		100	80 - 120
Vinyl chloride	20.0	16.7		ug/L		84	56 - 120
Xylenes, Total	60.0	59.3		ug/L		99	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Lab Sample ID: MB 410-69288/9
Matrix: Water
Analysis Batch: 69288

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/23/20 12:22	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/23/20 12:22	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/23/20 12:22	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/23/20 12:22	1
1,4-Dioxane	ND		250	29	ug/L			11/23/20 12:22	1
2-Butanone	ND		10	0.30	ug/L			11/23/20 12:22	1
Acetone	ND		20	0.70	ug/L			11/23/20 12:22	1
Benzene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/23/20 12:22	1
Chloroform	ND		1.0	0.20	ug/L			11/23/20 12:22	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/23/20 12:22	1
Freon 113	ND		10	0.20	ug/L			11/23/20 12:22	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/23/20 12:22	1
Naphthalene	ND		5.0	1.0	ug/L			11/23/20 12:22	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Toluene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Trichloroethene	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/23/20 12:22	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/23/20 12:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*11/23/20 12:22*	*1*
4-Bromofluorobenzene (Surr)	*92*		*80 - 120*		*11/23/20 12:22*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/23/20 12:22*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/23/20 12:22*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: LCS 410-69288/6
Matrix: Water
Analysis Batch: 69288

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	17.9		ug/L		89	67 - 126
1,1-Dichloroethane	20.0	18.6		ug/L		93	80 - 120
1,1-Dichloroethene	20.0	17.6		ug/L		88	80 - 131
1,2-Dichlorobenzene	20.0	18.9		ug/L		94	80 - 120
1,2-Dichloroethane	20.0	19.5		ug/L		97	73 - 124
1,4-Dioxane	500	575		ug/L		115	63 - 146
2-Butanone	150	163		ug/L		109	59 - 135
Acetone	150	162		ug/L		108	54 - 157
Benzene	20.0	19.3		ug/L		97	80 - 120
Carbon disulfide	20.0	15.4		ug/L		77	65 - 128
Chloroform	20.0	19.6		ug/L		98	80 - 120
cis-1,2-Dichloroethene	20.0	20.0		ug/L		100	80 - 125
Ethylbenzene	20.0	18.7		ug/L		94	80 - 120
Freon 113	20.0	15.3		ug/L		76	73 - 139
Methylene Chloride	20.0	18.9		ug/L		95	80 - 120
Naphthalene	20.0	16.6		ug/L		83	53 - 124
Tetrachloroethene	20.0	18.8		ug/L		94	80 - 120
Toluene	20.0	19.1		ug/L		96	80 - 120
trans-1,2-Dichloroethene	20.0	18.7		ug/L		94	80 - 126
Trichloroethene	20.0	19.1		ug/L		96	80 - 120
Vinyl chloride	20.0	16.8		ug/L		84	56 - 120
Xylenes, Total	60.0	56.6		ug/L		94	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 410-21210-16 MS
Matrix: Water
Analysis Batch: 69288

Client Sample ID: J18-UC02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	16		20.0	36.9		ug/L		106	67 - 126
1,1-Dichloroethane	0.35	J	20.0	21.7		ug/L		107	80 - 120
1,1-Dichloroethene	1.0		20.0	22.5		ug/L		108	80 - 131
1,2-Dichlorobenzene	ND		20.0	20.7		ug/L		103	80 - 120
1,2-Dichloroethane	ND		20.0	20.8		ug/L		104	73 - 124
1,4-Dioxane	ND		500	649		ug/L		130	63 - 146
2-Butanone	ND		150	167		ug/L		111	59 - 135
Acetone	ND		150	170		ug/L		113	54 - 157
Benzene	ND		20.0	22.3		ug/L		111	80 - 120
Carbon disulfide	ND		20.0	18.9		ug/L		95	65 - 128
Chloroform	0.63	J	20.0	22.5		ug/L		109	80 - 120
cis-1,2-Dichloroethene	ND		20.0	23.1		ug/L		116	80 - 125
Ethylbenzene	ND		20.0	21.8		ug/L		109	80 - 120
Freon 113	ND		20.0	20.2		ug/L		101	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: 410-21210-16 MS
Matrix: Water
Analysis Batch: 69288

Client Sample ID: J18-UC02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Chloride	ND		20.0	21.1		ug/L		106	80 - 120
Naphthalene	ND		20.0	17.5		ug/L		87	53 - 124
Tetrachloroethene	ND		20.0	22.3		ug/L		111	80 - 120
Toluene	ND		20.0	22.1		ug/L		111	80 - 120
trans-1,2-Dichloroethene	ND		20.0	22.0		ug/L		110	80 - 126
Trichloroethene	36		20.0	58.9		ug/L		115	80 - 120
Vinyl chloride	ND		20.0	20.0		ug/L		100	56 - 120
Xylenes, Total	ND		60.0	64.9		ug/L		108	80 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*
Dibromofluoromethane (Surr)	*99*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 410-21210-16 MSD
Matrix: Water
Analysis Batch: 69288

Client Sample ID: J18-UC02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane	16		20.0	37.7		ug/L		110	67 - 126	2	30
1,1-Dichloroethane	0.35	J	20.0	22.0		ug/L		108	80 - 120	1	30
1,1-Dichloroethene	1.0		20.0	23.0		ug/L		110	80 - 131	2	30
1,2-Dichlorobenzene	ND		20.0	20.7		ug/L		103	80 - 120	0	30
1,2-Dichloroethane	ND		20.0	20.7		ug/L		103	73 - 124	1	30
1,4-Dioxane	ND		500	594		ug/L		119	63 - 146	9	30
2-Butanone	ND		150	165		ug/L		110	59 - 135	1	30
Acetone	ND		150	166		ug/L		111	54 - 157	2	30
Benzene	ND		20.0	22.6		ug/L		113	80 - 120	2	30
Carbon disulfide	ND		20.0	19.1		ug/L		96	65 - 128	1	30
Chloroform	0.63	J	20.0	22.9		ug/L		111	80 - 120	2	30
cis-1,2-Dichloroethene	ND		20.0	23.2		ug/L		116	80 - 125	0	30
Ethylbenzene	ND		20.0	22.1		ug/L		110	80 - 120	1	30
Freon 113	ND		20.0	20.4		ug/L		102	73 - 139	1	30
Methylene Chloride	ND		20.0	21.2		ug/L		106	80 - 120	0	30
Naphthalene	ND		20.0	17.2		ug/L		86	53 - 124	1	30
Tetrachloroethene	ND		20.0	22.3		ug/L		111	80 - 120	0	30
Toluene	ND		20.0	22.2		ug/L		111	80 - 120	0	30
trans-1,2-Dichloroethene	ND		20.0	22.3		ug/L		111	80 - 126	1	30
Trichloroethene	36		20.0	59.3		ug/L		116	80 - 120	1	30
Vinyl chloride	ND		20.0	20.7		ug/L		104	56 - 120	4	30
Xylenes, Total	ND		60.0	65.2		ug/L		109	80 - 120	0	30

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Analysis Batch: 68475

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21210-1	J16-UC01	Total/NA	Water	8260C	
410-21210-2	J21-UC01	Total/NA	Water	8260C	
410-21210-3	J16-UC02	Total/NA	Water	8260C	
410-21210-4	J14-UC01	Total/NA	Water	8260C	
410-21210-5	J14-BR01	Total/NA	Water	8260C	
410-21210-6	J14-UC02	Total/NA	Water	8260C	
410-21210-7	J14-BR02	Total/NA	Water	8260C	
410-21210-8	J17-UC01	Total/NA	Water	8260C	
410-21210-9	J17-BR01	Total/NA	Water	8260C	
410-21210-10	J17-UC02	Total/NA	Water	8260C	
410-21210-11	TB111320	Total/NA	Water	8260C	
410-21210-23	MW-1S	Total/NA	Water	8260C	
MB 410-68475/7	Method Blank	Total/NA	Water	8260C	
LCS 410-68475/5	Lab Control Sample	Total/NA	Water	8260C	
410-21210-5 MS	J14-BR01	Total/NA	Water	8260C	
410-21210-5 MSD	J14-BR01	Total/NA	Water	8260C	

Analysis Batch: 68801

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21210-17	J18-UC03	Total/NA	Water	8260C	
410-21210-18	J19-UC01	Total/NA	Water	8260C	
410-21210-19	J19-UC02	Total/NA	Water	8260C	
410-21210-20	J15-UC01	Total/NA	Water	8260C	
410-21210-21	J15-UC02	Total/NA	Water	8260C	
410-21210-22	J06-UC02	Total/NA	Water	8260C	
MB 410-68801/6	Method Blank	Total/NA	Water	8260C	
LCS 410-68801/4	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 68925

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21210-12	J22-BR02	Total/NA	Water	8260C	
410-21210-13	J22-BR01	Total/NA	Water	8260C	
410-21210-14	J23-UC01	Total/NA	Water	8260C	
410-21210-15	J23-UC02	Total/NA	Water	8260C	
410-21210-24	MW-1D	Total/NA	Water	8260C	
410-21210-25	DUP-03	Total/NA	Water	8260C	
410-21210-26	J20-UC02	Total/NA	Water	8260C	
410-21210-27	J20-UC01	Total/NA	Water	8260C	
410-21210-28	J20-BR02	Total/NA	Water	8260C	
410-21210-29	J20-BR01	Total/NA	Water	8260C	
410-21210-30	J08-UC01	Total/NA	Water	8260C	
410-21210-31	J07-UC02	Total/NA	Water	8260C	
410-21210-32	RIZ-19	Total/NA	Water	8260C	
MB 410-68925/9	Method Blank	Total/NA	Water	8260C	
LCS 410-68925/6	Lab Control Sample	Total/NA	Water	8260C	

Analysis Batch: 69288

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21210-15 - DL	J23-UC02	Total/NA	Water	8260C	
410-21210-16	J18-UC02	Total/NA	Water	8260C	
410-21210-33	EB111620	Total/NA	Water	8260C	

GC/MS VOA (Continued)

Analysis Batch: 69288 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-69288/9	Method Blank	Total/NA	Water	8260C	
LCS 410-69288/6	Lab Control Sample	Total/NA	Water	8260C	
410-21210-16 MS	J18-UC02	Total/NA	Water	8260C	
410-21210-16 MSD	J18-UC02	Total/NA	Water	8260C	

Lab Chronicle

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: J16-UC01
Lab Sample ID: 410-21210-1
Date Collected: 11/12/20 15:42
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 16:06	USEJ	ELLE

Client Sample ID: J21-UC01
Lab Sample ID: 410-21210-2
Date Collected: 11/12/20 12:02
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 16:28	USEJ	ELLE

Client Sample ID: J16-UC02
Lab Sample ID: 410-21210-3
Date Collected: 11/12/20 14:56
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 16:50	USEJ	ELLE

Client Sample ID: J14-UC01
Lab Sample ID: 410-21210-4
Date Collected: 11/13/20 08:38
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 17:12	USEJ	ELLE

Client Sample ID: J14-BR01
Lab Sample ID: 410-21210-5
Date Collected: 11/13/20 09:58
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 12:03	USEJ	ELLE

Client Sample ID: J14-UC02
Lab Sample ID: 410-21210-6
Date Collected: 11/13/20 11:00
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 17:34	USEJ	ELLE

Client Sample ID: J14-BR02
Lab Sample ID: 410-21210-7
Date Collected: 11/13/20 12:12
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 17:56	USEJ	ELLE

Client Sample ID: J17-UC01
Lab Sample ID: 410-21210-8
Date Collected: 11/13/20 13:54
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 18:18	USEJ	ELLE

Client Sample ID: J17-BR01
Lab Sample ID: 410-21210-9
Date Collected: 11/13/20 15:15
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 18:39	USEJ	ELLE

Client Sample ID: J17-UC02
Lab Sample ID: 410-21210-10
Date Collected: 11/13/20 16:12
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 19:01	USEJ	ELLE

Client Sample ID: TB111320
Lab Sample ID: 410-21210-11
Date Collected: 11/12/20 00:00
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 11:41	USEJ	ELLE

Client Sample ID: J22-BR02
Lab Sample ID: 410-21210-12
Date Collected: 11/15/20 11:42
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 15:39	USEJ	ELLE

Client Sample ID: J22-BR01
Lab Sample ID: 410-21210-13
Date Collected: 11/15/20 13:15
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 16:01	USEJ	ELLE

Client Sample ID: J23-UC01
Lab Sample ID: 410-21210-14
Date Collected: 11/15/20 14:43
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 16:24	USEJ	ELLE

Client Sample ID: J23-UC02
Date Collected: 11/15/20 15:34
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-15
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 16:46	USEJ	ELLE
Total/NA	Analysis	8260C	DL	10	69288	11/23/20 20:27	H9JD	ELLE

Client Sample ID: J18-UC02
Date Collected: 11/16/20 08:24
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-16
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	69288	11/23/20 16:24	H9JD	ELLE

Client Sample ID: J18-UC03
Date Collected: 11/16/20 09:56
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-17
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 03:47	TQ4J	ELLE

Client Sample ID: J19-UC01
Date Collected: 11/16/20 11:10
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-18
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 04:09	TQ4J	ELLE

Client Sample ID: J19-UC02
Date Collected: 11/16/20 12:18
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-19
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 04:31	TQ4J	ELLE

Client Sample ID: J15-UC01
Date Collected: 11/16/20 13:33
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-20
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 04:53	TQ4J	ELLE

Client Sample ID: J15-UC02
Date Collected: 11/16/20 14:20
Date Received: 11/17/20 11:26

Lab Sample ID: 410-21210-21
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 05:15	TQ4J	ELLE

Client Sample ID: J06-UC02
Lab Sample ID: 410-21210-22
Date Collected: 11/16/20 16:10
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68801	11/21/20 05:37	TQ4J	ELLE

Client Sample ID: MW-1S
Lab Sample ID: 410-21210-23
Date Collected: 11/13/20 10:00
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68475	11/20/20 19:23	USEJ	ELLE

Client Sample ID: MW-1D
Lab Sample ID: 410-21210-24
Date Collected: 11/13/20 12:05
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 17:08	USEJ	ELLE

Client Sample ID: DUP-03
Lab Sample ID: 410-21210-25
Date Collected: 11/13/20 12:10
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 17:30	USEJ	ELLE

Client Sample ID: J20-UC02
Lab Sample ID: 410-21210-26
Date Collected: 11/14/20 09:08
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 17:52	USEJ	ELLE

Client Sample ID: J20-UC01
Lab Sample ID: 410-21210-27
Date Collected: 11/14/20 09:49
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 18:14	USEJ	ELLE

Client Sample ID: J20-BR02
Lab Sample ID: 410-21210-28
Date Collected: 11/14/20 11:18
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 18:36	USEJ	ELLE

Lab Chronicle

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21210-1

Client Sample ID: J20-BR01
Lab Sample ID: 410-21210-29
Date Collected: 11/14/20 13:34
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 18:57	USEJ	ELLE

Client Sample ID: J08-UC01
Lab Sample ID: 410-21210-30
Date Collected: 11/14/20 14:58
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 19:19	USEJ	ELLE

Client Sample ID: J07-UC02
Lab Sample ID: 410-21210-31
Date Collected: 11/14/20 16:13
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 19:41	USEJ	ELLE

Client Sample ID: RIZ-19
Lab Sample ID: 410-21210-32
Date Collected: 11/15/20 16:30
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	68925	11/21/20 20:03	USEJ	ELLE

Client Sample ID: EB111620
Lab Sample ID: 410-21210-33
Date Collected: 11/16/20 16:30
Matrix: Water
Date Received: 11/17/20 11:26

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	69288	11/23/20 13:27	H9JD	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21210-1
Project/Site: AD New Windsor

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-21

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
J16-UC01	410-21210-1	103	105	101	92
J21-UC01	410-21210-2	103	105	100	92
J16-UC02	410-21210-3	103	104	100	91
J14-UC01	410-21210-4	102	104	100	91
J14-BR01	410-21210-5	102	104	101	94
J14-UC02	410-21210-6	102	103	100	91
J14-BR02	410-21210-7	103	104	100	91
J17-UC01	410-21210-8	103	104	101	91
J17-BR01	410-21210-9	102	104	100	92
J17-UC02	410-21210-10	103	105	101	90
TB111320	410-21210-11	102	103	100	93
J22-BR02	410-21210-12	101	103	100	91
J22-BR01	410-21210-13	102	104	101	91
J23-UC01	410-21210-14	103	105	101	92
J23-UC02	410-21210-15	105	106	102	92
J23-UC02 DL	410-21210-15 DL	102	104	100	92
J18-UC02	410-21210-16	102	104	100	92
J18-UC03	410-21210-17	103	103	101	92
J19-UC01	410-21210-18	102	103	100	91
J19-UC02	410-21210-19	103	104	101	91
J15-UC01	410-21210-20	102	105	101	91
J15-UC02	410-21210-21	102	103	101	91
J06-UC02	410-21210-22	102	104	100	91
MW-1S	410-21210-23	102	104	100	90
MW-1D	410-21210-24	103	104	101	91
DUP-03	410-21210-25	103	105	101	91
J20-UC02	410-21210-26	103	106	100	91
J20-UC01	410-21210-27	104	106	101	91
J20-BR02	410-21210-28	103	106	101	91
J20-BR01	410-21210-29	103	106	100	90
J08-UC01	410-21210-30	103	105	101	90
J07-UC02	410-21210-31	103	106	101	90
RIZ-19	410-21210-32	102	106	100	91
EB111620	410-21210-33	101	104	99	91
	MB 410-68475/7	102	103	101	93

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
	MB 410-68801/6	101	106	100	91
	MB 410-68925/9	102	105	101	91
	MB 410-69288/9	101	105	100	92
	LCS 410-68475/5	101	103	101	99
	LCS 410-68801/4	101	102	101	98
	LCS 410-68925/6	100	102	102	99
	LCS 410-69288/6	100	102	101	100
J14-BR01 MS	410-21210-5 MS	101	104	101	99
J18-UC02 MS	410-21210-16 MS	99	100	101	100
J14-BR01 MSD	410-21210-5 MSD	101	101	101	99
J18-UC02 MSD	410-21210-16 MSD	101	102	101	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN20L01.D

Lab ID: LCS 410-68475/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	19.4	97	67-126	
1,1-Dichloroethane	20.0	19.2	96	80-120	
1,1-Dichloroethene	20.0	19.2	96	80-131	
1,2-Dichlorobenzene	20.0	19.7	99	80-120	
1,2-Dichloroethane	20.0	19.5	97	73-124	
1,4-Dioxane	500	598	120	63-146	
2-Butanone	150	162	108	59-135	
Acetone	150	166	111	54-157	
Benzene	20.0	20.1	100	80-120	
Carbon disulfide	20.0	16.5	83	65-128	
Chloroform	20.0	20.2	101	80-120	
cis-1,2-Dichloroethene	20.0	20.9	105	80-125	
Ethylbenzene	20.0	19.8	99	80-120	
Freon 113	20.0	16.7	83	73-139	
Methylene Chloride	20.0	20.1	101	80-120	
Naphthalene	20.0	18.2	91	53-124	
Tetrachloroethene	20.0	20.7	103	80-120	
Toluene	20.0	20.0	100	80-120	
trans-1,2-Dichloroethene	20.0	19.8	99	80-126	
Trichloroethene	20.0	20.0	100	80-120	
Vinyl chloride	20.0	16.9	85	56-120	
Xylenes, Total	60.0	59.8	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN20L50.D

Lab ID: LCS 410-68801/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.0	100	67-126	
1,1-Dichloroethane	20.0	20.3	101	80-120	
1,1-Dichloroethene	20.0	19.6	98	80-131	
1,2-Dichlorobenzene	20.0	20.7	104	80-120	
1,2-Dichloroethane	20.0	20.5	103	73-124	
1,4-Dioxane	500	617	123	63-146	
2-Butanone	150	166	111	59-135	
Acetone	150	170	114	54-157	
Benzene	20.0	21.0	105	80-120	
Carbon disulfide	20.0	17.0	85	65-128	
Chloroform	20.0	21.3	106	80-120	
cis-1,2-Dichloroethene	20.0	22.0	110	80-125	
Ethylbenzene	20.0	20.7	103	80-120	
Freon 113	20.0	17.1	86	73-139	
Methylene Chloride	20.0	20.9	105	80-120	
Naphthalene	20.0	18.9	94	53-124	
Tetrachloroethene	20.0	20.6	103	80-120	
Toluene	20.0	21.0	105	80-120	
trans-1,2-Dichloroethene	20.0	20.6	103	80-126	
Trichloroethene	20.0	21.0	105	80-120	
Vinyl chloride	20.0	18.4	92	56-120	
Xylenes, Total	60.0	61.9	103	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN21L01.D

Lab ID: LCS 410-68925/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.8	94	67-126	
1,1-Dichloroethane	20.0	19.1	96	80-120	
1,1-Dichloroethene	20.0	18.6	93	80-131	
1,2-Dichlorobenzene	20.0	19.6	98	80-120	
1,2-Dichloroethane	20.0	19.8	99	73-124	
1,4-Dioxane	500	593	119	63-146	
2-Butanone	150	162	108	59-135	
Acetone	150	172	115	54-157	
Benzene	20.0	20.3	101	80-120	
Carbon disulfide	20.0	16.0	80	65-128	
Chloroform	20.0	20.2	101	80-120	
cis-1,2-Dichloroethene	20.0	20.9	105	80-125	
Ethylbenzene	20.0	19.8	99	80-120	
Freon 113	20.0	16.9	85	73-139	
Methylene Chloride	20.0	19.9	100	80-120	
Naphthalene	20.0	16.9	85	53-124	
Tetrachloroethene	20.0	19.8	99	80-120	
Toluene	20.0	20.1	100	80-120	
trans-1,2-Dichloroethene	20.0	19.7	99	80-126	
Trichloroethene	20.0	20.0	100	80-120	
Vinyl chloride	20.0	16.7	84	56-120	
Xylenes, Total	60.0	59.3	99	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN23L01.D

Lab ID: LCS 410-69288/6 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	17.9	89	67-126	
1,1-Dichloroethane	20.0	18.6	93	80-120	
1,1-Dichloroethene	20.0	17.6	88	80-131	
1,2-Dichlorobenzene	20.0	18.9	94	80-120	
1,2-Dichloroethane	20.0	19.5	97	73-124	
1,4-Dioxane	500	575	115	63-146	
2-Butanone	150	163	109	59-135	
Acetone	150	162	108	54-157	
Benzene	20.0	19.3	97	80-120	
Carbon disulfide	20.0	15.4	77	65-128	
Chloroform	20.0	19.6	98	80-120	
cis-1,2-Dichloroethene	20.0	20.0	100	80-125	
Ethylbenzene	20.0	18.7	94	80-120	
Freon 113	20.0	15.3	76	73-139	
Methylene Chloride	20.0	18.9	95	80-120	
Naphthalene	20.0	16.6	83	53-124	
Tetrachloroethene	20.0	18.8	94	80-120	
Toluene	20.0	19.1	96	80-120	
trans-1,2-Dichloroethene	20.0	18.7	94	80-126	
Trichloroethene	20.0	19.1	96	80-120	
Vinyl chloride	20.0	16.8	84	56-120	
Xylenes, Total	60.0	56.6	94	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN20S03.D

Lab ID: 410-21210-5 MS Client ID: J14-BR01 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	4.2	26.6	112	67-126	
1,1-Dichloroethane	20.0	0.78 J	22.2	107	80-120	
1,1-Dichloroethene	20.0	0.20 J	22.8	113	80-131	
1,2-Dichlorobenzene	20.0	ND	21.2	106	80-120	
1,2-Dichloroethane	20.0	ND	20.8	104	73-124	
1,4-Dioxane	500	ND	614	123	63-146	
2-Butanone	150	ND	163	109	59-135	
Acetone	150	ND	172	115	54-157	
Benzene	20.0	ND	22.4	112	80-120	
Carbon disulfide	20.0	ND	19.6	98	65-128	
Chloroform	20.0	ND	22.5	113	80-120	
cis-1,2-Dichloroethene	20.0	ND	23.5	117	80-125	
Ethylbenzene	20.0	ND	22.2	111	80-120	
Freon 113	20.0	ND	21.1	105	73-139	
Methylene Chloride	20.0	ND	22.2	111	80-120	
Naphthalene	20.0	ND	18.8	94	53-124	
Tetrachloroethene	20.0	ND	23.4	117	80-120	
Toluene	20.0	ND	22.6	113	80-120	
trans-1,2-Dichloroethene	20.0	ND	22.8	114	80-126	
Trichloroethene	20.0	ND	23.0	115	80-120	
Vinyl chloride	20.0	ND	19.9	100	56-120	
Xylenes, Total	60.0	ND	66.9	112	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN23S11.D

Lab ID: 410-21210-16 MS Client ID: J18-UC02 MS

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	16	36.9	106	67-126	
1,1-Dichloroethane	20.0	0.35 J	21.7	107	80-120	
1,1-Dichloroethene	20.0	1.0	22.5	108	80-131	
1,2-Dichlorobenzene	20.0	ND	20.7	103	80-120	
1,2-Dichloroethane	20.0	ND	20.8	104	73-124	
1,4-Dioxane	500	ND	649	130	63-146	
2-Butanone	150	ND	167	111	59-135	
Acetone	150	ND	170	113	54-157	
Benzene	20.0	ND	22.3	111	80-120	
Carbon disulfide	20.0	ND	18.9	95	65-128	
Chloroform	20.0	0.63 J	22.5	109	80-120	
cis-1,2-Dichloroethene	20.0	ND	23.1	116	80-125	
Ethylbenzene	20.0	ND	21.8	109	80-120	
Freon 113	20.0	ND	20.2	101	73-139	
Methylene Chloride	20.0	ND	21.1	106	80-120	
Naphthalene	20.0	ND	17.5	87	53-124	
Tetrachloroethene	20.0	ND	22.3	111	80-120	
Toluene	20.0	ND	22.1	111	80-120	
trans-1,2-Dichloroethene	20.0	ND	22.0	110	80-126	
Trichloroethene	20.0	36	58.9	115	80-120	
Vinyl chloride	20.0	ND	20.0	100	56-120	
Xylenes, Total	60.0	ND	64.9	108	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN20S04.D

Lab ID: 410-21210-5 MSD Client ID: J14-BR01 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	26.6	112	0	30	67-126	
1,1-Dichloroethane	20.0	22.4	108	0	30	80-120	
1,1-Dichloroethene	20.0	22.6	112	1	30	80-131	
1,2-Dichlorobenzene	20.0	21.2	106	0	30	80-120	
1,2-Dichloroethane	20.0	20.5	103	1	30	73-124	
1,4-Dioxane	500	609	122	1	30	63-146	
2-Butanone	150	161	108	1	30	59-135	
Acetone	150	164	109	5	30	54-157	
Benzene	20.0	22.3	111	1	30	80-120	
Carbon disulfide	20.0	19.5	97	1	30	65-128	
Chloroform	20.0	22.1	111	2	30	80-120	
cis-1,2-Dichloroethene	20.0	23.5	117	0	30	80-125	
Ethylbenzene	20.0	22.2	111	0	30	80-120	
Freon 113	20.0	20.8	104	1	30	73-139	
Methylene Chloride	20.0	22.0	110	1	30	80-120	
Naphthalene	20.0	18.6	93	1	30	53-124	
Tetrachloroethene	20.0	23.2	116	1	30	80-120	
Toluene	20.0	22.5	112	1	30	80-120	
trans-1,2-Dichloroethene	20.0	22.6	113	1	30	80-126	
Trichloroethene	20.0	23.0	115	0	30	80-120	
Vinyl chloride	20.0	20.4	102	2	30	56-120	
Xylenes, Total	60.0	66.2	110	1	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Matrix: Water Level: Low Lab File ID: YN23S12.D

Lab ID: 410-21210-16 MSD Client ID: J18-UC02 MSD

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	37.7	110	2	30	67-126	
1,1-Dichloroethane	20.0	22.0	108	1	30	80-120	
1,1-Dichloroethene	20.0	23.0	110	2	30	80-131	
1,2-Dichlorobenzene	20.0	20.7	103	0	30	80-120	
1,2-Dichloroethane	20.0	20.7	103	1	30	73-124	
1,4-Dioxane	500	594	119	9	30	63-146	
2-Butanone	150	165	110	1	30	59-135	
Acetone	150	166	111	2	30	54-157	
Benzene	20.0	22.6	113	2	30	80-120	
Carbon disulfide	20.0	19.1	96	1	30	65-128	
Chloroform	20.0	22.9	111	2	30	80-120	
cis-1,2-Dichloroethene	20.0	23.2	116	0	30	80-125	
Ethylbenzene	20.0	22.1	110	1	30	80-120	
Freon 113	20.0	20.4	102	1	30	73-139	
Methylene Chloride	20.0	21.2	106	0	30	80-120	
Naphthalene	20.0	17.2	86	1	30	53-124	
Tetrachloroethene	20.0	22.3	111	0	30	80-120	
Toluene	20.0	22.2	111	0	30	80-120	
trans-1,2-Dichloroethene	20.0	22.3	111	1	30	80-126	
Trichloroethene	20.0	59.3	116	1	30	80-120	
Vinyl chloride	20.0	20.7	104	4	30	56-120	
Xylenes, Total	60.0	65.2	109	0	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Lab File ID: YN20B01.D Lab Sample ID: MB 410-68475/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 9355 Date Analyzed: 11/20/2020 10:36

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-68475/5	YN20L01.D	11/20/2020 09:52
TB111320	410-21210-11	YN20S01.D	11/20/2020 11:41
J14-BR01	410-21210-5	YN20S02.D	11/20/2020 12:03
J14-BR01 MS	410-21210-5 MS	YN20S03.D	11/20/2020 12:25
J14-BR01 MSD	410-21210-5 MSD	YN20S04.D	11/20/2020 12:47
J16-UC01	410-21210-1	YN20S13.D	11/20/2020 16:06
J21-UC01	410-21210-2	YN20S14.D	11/20/2020 16:28
J16-UC02	410-21210-3	YN20S15.D	11/20/2020 16:50
J14-UC01	410-21210-4	YN20S16.D	11/20/2020 17:12
J14-UC02	410-21210-6	YN20S17.D	11/20/2020 17:34
J14-BR02	410-21210-7	YN20S18.D	11/20/2020 17:56
J17-UC01	410-21210-8	YN20S19.D	11/20/2020 18:18
J17-BR01	410-21210-9	YN20S20.D	11/20/2020 18:39
J17-UC02	410-21210-10	YN20S21.D	11/20/2020 19:01
MW-1S	410-21210-23	YN20S22.D	11/20/2020 19:23

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Lab File ID: YN20B50.D Lab Sample ID: MB 410-68801/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 9355 Date Analyzed: 11/20/2020 21:40

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-68801/4	YN20L50.D	11/20/2020 20:56
J18-UC03	410-21210-17	YN20S66.D	11/21/2020 03:47
J19-UC01	410-21210-18	YN20S67.D	11/21/2020 04:09
J19-UC02	410-21210-19	YN20S68.D	11/21/2020 04:31
J15-UC01	410-21210-20	YN20S69.D	11/21/2020 04:53
J15-UC02	410-21210-21	YN20S70.D	11/21/2020 05:15
J06-UC02	410-21210-22	YN20S71.D	11/21/2020 05:37

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Lab File ID: YN21B01.D Lab Sample ID: MB 410-68925/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 9355 Date Analyzed: 11/21/2020 11:33

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-68925/6	YN21L01.D	11/21/2020 10:27
J22-BR02	410-21210-12	YN21S10.D	11/21/2020 15:39
J22-BR01	410-21210-13	YN21S11.D	11/21/2020 16:01
J23-UC01	410-21210-14	YN21S12.D	11/21/2020 16:24
J23-UC02	410-21210-15	YN21S13.D	11/21/2020 16:46
MW-1D	410-21210-24	YN21S14.D	11/21/2020 17:08
DUP-03	410-21210-25	YN21S15.D	11/21/2020 17:30
J20-UC02	410-21210-26	YN21S16.D	11/21/2020 17:52
J20-UC01	410-21210-27	YN21S17.D	11/21/2020 18:14
J20-BR02	410-21210-28	YN21S18.D	11/21/2020 18:36
J20-BR01	410-21210-29	YN21S19.D	11/21/2020 18:57
J08-UC01	410-21210-30	YN21S20.D	11/21/2020 19:19
J07-UC02	410-21210-31	YN21S21.D	11/21/2020 19:41
RIZ-19	410-21210-32	YN21S22.D	11/21/2020 20:03

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21210-1

SDG No.:

Lab File ID: YN23B01.D Lab Sample ID: MB 410-69288/9

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 9355 Date Analyzed: 11/23/2020 12:22

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-69288/6	YN23L01.D	11/23/2020 10:54
EB111620	410-21210-33	YN23S02.D	11/23/2020 13:27
J18-UC02	410-21210-16	YN23S10.D	11/23/2020 16:24
J18-UC02 MS	410-21210-16 MS	YN23S11.D	11/23/2020 16:46
J18-UC02 MSD	410-21210-16 MSD	YN23S12.D	11/23/2020 17:08
J23-UC02 DL	410-21210-15 DL	YN23S21.D	11/23/2020 20:27

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Lab File ID: YN02T31.D BFB Injection Date: 11/02/2020

Instrument ID: 9355 BFB Injection Time: 23:20

Analysis Batch No.: 61287

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.7	
75	30.0 - 60.0 % of mass 95	50.0	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.1	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	89.3	
175	5.0 - 9.0 % of mass 174	6.3	(7.1) 1
176	95.0 - 101.0 % of mass 174	85.7	(96.0) 1
177	5.0 - 9.0 % of mass 176	5.9	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-61287/3	YN02I31.D	11/02/2020	23:57
	IC 410-61287/4	YN02I32.D	11/03/2020	0:19
	ICIS 410-61287/5	YN02I33.D	11/03/2020	0:41
	IC 410-61287/6	YN02I34.D	11/03/2020	1:03
	IC 410-61287/7	YN02I35.D	11/03/2020	1:25
	IC 410-61287/8	YN02I36.D	11/03/2020	1:47
	IC 410-61287/9	YN02I37.D	11/03/2020	2:09
	ICV 410-61287/11	YN02V31.D	11/03/2020	2:53

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Lab File ID: YN20T01.D BFB Injection Date: 11/20/2020

Instrument ID: 9355 BFB Injection Time: 08:20

Analysis Batch No.: 68475

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.1	
75	30.0 - 60.0 % of mass 95	47.7	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.0	
173	Less than 2.0 % of mass 174	0.2	(0.3) 1
174	Greater than 50% of mass 95	99.2	
175	5.0 - 9.0 % of mass 174	7.1	(7.1) 1
176	95.0 - 101.0 % of mass 174	96.5	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.5	(6.7) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-68475/3	YN20C01.D	11/20/2020	9:07
	LCS 410-68475/5	YN20L01.D	11/20/2020	9:52
	MB 410-68475/7	YN20B01.D	11/20/2020	10:36
TB111320	410-21210-11	YN20S01.D	11/20/2020	11:41
J14-BR01	410-21210-5	YN20S02.D	11/20/2020	12:03
J14-BR01 MS	410-21210-5 MS	YN20S03.D	11/20/2020	12:25
J14-BR01 MSD	410-21210-5 MSD	YN20S04.D	11/20/2020	12:47
J16-UC01	410-21210-1	YN20S13.D	11/20/2020	16:06
J21-UC01	410-21210-2	YN20S14.D	11/20/2020	16:28
J16-UC02	410-21210-3	YN20S15.D	11/20/2020	16:50
J14-UC01	410-21210-4	YN20S16.D	11/20/2020	17:12
J14-UC02	410-21210-6	YN20S17.D	11/20/2020	17:34
J14-BR02	410-21210-7	YN20S18.D	11/20/2020	17:56
J17-UC01	410-21210-8	YN20S19.D	11/20/2020	18:18
J17-BR01	410-21210-9	YN20S20.D	11/20/2020	18:39
J17-UC02	410-21210-10	YN20S21.D	11/20/2020	19:01
MW-1S	410-21210-23	YN20S22.D	11/20/2020	19:23

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Lab File ID: YN20T50.D BFB Injection Date: 11/20/2020

Instrument ID: 9355 BFB Injection Time: 19:46

Analysis Batch No.: 68801

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.5	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	95.6	
175	5.0 - 9.0 % of mass 174	6.8	(7.1) 1
176	95.0 - 101.0 % of mass 174	91.9	(96.1) 1
177	5.0 - 9.0 % of mass 176	6.2	(6.8) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-68801/3	YN20C50.D	11/20/2020	20:34
	LCS 410-68801/4	YN20L50.D	11/20/2020	20:56
	MB 410-68801/6	YN20B50.D	11/20/2020	21:40
J18-UC03	410-21210-17	YN20S66.D	11/21/2020	3:47
J19-UC01	410-21210-18	YN20S67.D	11/21/2020	4:09
J19-UC02	410-21210-19	YN20S68.D	11/21/2020	4:31
J15-UC01	410-21210-20	YN20S69.D	11/21/2020	4:53
J15-UC02	410-21210-21	YN20S70.D	11/21/2020	5:15
J06-UC02	410-21210-22	YN20S71.D	11/21/2020	5:37

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Lab File ID: YN21T10.D BFB Injection Date: 11/21/2020

Instrument ID: 9355 BFB Injection Time: 08:33

Analysis Batch No.: 68925

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.5	
75	30.0 - 60.0 % of mass 95	49.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.2	
173	Less than 2.0 % of mass 174	0.3	(0.3) 1
174	Greater than 50% of mass 95	98.5	
175	5.0 - 9.0 % of mass 174	7.3	(7.4) 1
176	95.0 - 101.0 % of mass 174	93.7	(95.2) 1
177	5.0 - 9.0 % of mass 176	6.8	(7.3) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-68925/3	YN21C01.D	11/21/2020	9:21
	LCS 410-68925/6	YN21L01.D	11/21/2020	10:27
	MB 410-68925/9	YN21B01.D	11/21/2020	11:33
J22-BR02	410-21210-12	YN21S10.D	11/21/2020	15:39
J22-BR01	410-21210-13	YN21S11.D	11/21/2020	16:01
J23-UC01	410-21210-14	YN21S12.D	11/21/2020	16:24
J23-UC02	410-21210-15	YN21S13.D	11/21/2020	16:46
MW-1D	410-21210-24	YN21S14.D	11/21/2020	17:08
DUP-03	410-21210-25	YN21S15.D	11/21/2020	17:30
J20-UC02	410-21210-26	YN21S16.D	11/21/2020	17:52
J20-UC01	410-21210-27	YN21S17.D	11/21/2020	18:14
J20-BR02	410-21210-28	YN21S18.D	11/21/2020	18:36
J20-BR01	410-21210-29	YN21S19.D	11/21/2020	18:57
J08-UC01	410-21210-30	YN21S20.D	11/21/2020	19:19
J07-UC02	410-21210-31	YN21S21.D	11/21/2020	19:41
RIZ-19	410-21210-32	YN21S22.D	11/21/2020	20:03

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Lab File ID: YN23T02.D BFB Injection Date: 11/23/2020

Instrument ID: 9355 BFB Injection Time: 09:00

Analysis Batch No.: 69288

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.2	
75	30.0 - 60.0 % of mass 95	48.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.7	(0.7) 1
174	Greater than 50% of mass 95	94.9	
175	5.0 - 9.0 % of mass 174	6.7	(7.1) 1
176	95.0 - 101.0 % of mass 174	92.3	(97.3) 1
177	5.0 - 9.0 % of mass 176	6.0	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-69288/3	YN23C01.D	11/23/2020	9:48
	LCS 410-69288/6	YN23L01.D	11/23/2020	10:54
	MB 410-69288/9	YN23B01.D	11/23/2020	12:22
EB111620	410-21210-33	YN23S02.D	11/23/2020	13:27
J18-UC02	410-21210-16	YN23S10.D	11/23/2020	16:24
J18-UC02 MS	410-21210-16 MS	YN23S11.D	11/23/2020	16:46
J18-UC02 MSD	410-21210-16 MSD	YN23S12.D	11/23/2020	17:08
J23-UC02 DL	410-21210-15 DL	YN23S21.D	11/23/2020	20:27

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: ICIS 410-61287/5 Date Analyzed: 11/03/2020 00:41

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN02I33.D Heated Purge: (Y/N) N

Calibration ID: 14504

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		353803	4.34	1206879	7.85	978645	11.29
UPPER LIMIT		707606	4.84	2413758	8.35	1957290	11.79
LOWER LIMIT		176902	3.84	603440	7.35	489323	10.79
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-61287/11		304787	4.36	1141896	7.85	921387	11.29
CCVIS 410-68475/3		374421	4.36	1235214	7.85	1046572	11.29
CCVIS 410-68801/3		297353	4.37	1080491	7.85	933097	11.29
CCVIS 410-68925/3		303193	4.37	1075483	7.85	927310	11.29
CCVIS 410-69288/3		349674	4.37	1229940	7.85	1052491	11.29

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: ICIS 410-61287/5 Date Analyzed: 11/03/2020 00:41

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN02I33.D Heated Purge: (Y/N) N

Calibration ID: 14504

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		561395	13.17				
UPPER LIMIT		1122790	13.67				
LOWER LIMIT		280698	12.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-61287/11		528651	13.17				
CCVIS 410-68475/3		623817	13.17				
CCVIS 410-68801/3		558943	13.17				
CCVIS 410-68925/3		552509	13.17				
CCVIS 410-69288/3		619796	13.17				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68475/3 Date Analyzed: 11/20/2020 09:07

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN20C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		374421	4.36	1235214	7.85	1046572	11.29
UPPER LIMIT		748842	4.86	2470428	8.35	2093144	11.79
LOWER LIMIT		187211	3.86	617607	7.35	523286	10.79
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68475/5		363641	4.35	1233388	7.85	1035881	11.29
MB 410-68475/7		345297	4.36	1158272	7.85	955927	11.29
410-21210-11	TB111320	341602	4.35	1123253	7.85	931434	11.29
410-21210-5	J14-BR01	334043	4.36	1109949	7.85	917076	11.29
410-21210-5 MS	J14-BR01 MS	345718	4.37	1198916	7.85	1011523	11.29
410-21210-5 MSD	J14-BR01 MSD	363870	4.36	1243160	7.85	1040174	11.29
410-21210-1	J16-UC01	309291	4.36	1043377	7.85	871050	11.29
410-21210-2	J21-UC01	314601	4.37	1033432	7.85	857339	11.29
410-21210-3	J16-UC02	301910	4.36	1009033	7.85	841336	11.29
410-21210-4	J14-UC01	292632	4.36	986755	7.85	817199	11.29
410-21210-6	J14-UC02	294297	4.36	1003412	7.85	828062	11.29
410-21210-7	J14-BR02	280226	4.36	987755	7.85	817763	11.29
410-21210-8	J17-UC01	288737	4.37	987702	7.85	813403	11.29
410-21210-9	J17-BR01	283941	4.36	985754	7.85	812389	11.29
410-21210-10	J17-UC02	275100	4.36	958602	7.85	785716	11.29
410-21210-23	MW-1S	287484	4.36	972416	7.85	807027	11.29

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68475/3 Date Analyzed: 11/20/2020 09:07

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN20C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		623817	13.17				
UPPER LIMIT		1247634	13.67				
LOWER LIMIT		311909	12.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68475/5		613053	13.17				
MB 410-68475/7		548654	13.17				
410-21210-11	TB111320	531416	13.17				
410-21210-5	J14-BR01	525283	13.17				
410-21210-5 MS	J14-BR01 MS	599798	13.17				
410-21210-5 MSD	J14-BR01 MSD	613032	13.17				
410-21210-1	J16-UC01	493393	13.17				
410-21210-2	J21-UC01	488755	13.17				
410-21210-3	J16-UC02	476963	13.17				
410-21210-4	J14-UC01	460855	13.17				
410-21210-6	J14-UC02	473209	13.17				
410-21210-7	J14-BR02	464921	13.17				
410-21210-8	J17-UC01	464808	13.17				
410-21210-9	J17-BR01	463712	13.17				
410-21210-10	J17-UC02	451433	13.17				
410-21210-23	MW-1S	454955	13.17				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68801/3 Date Analyzed: 11/20/2020 20:34

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN20C50.D Heated Purge: (Y/N) N

Calibration ID: 14504

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		297353	4.37	1080491	7.85	933097	11.29
UPPER LIMIT		594706	4.87	2160982	8.35	1866194	11.79
LOWER LIMIT		148677	3.87	540246	7.35	466549	10.79
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68801/4		323192	4.35	1131106	7.85	949859	11.29
MB 410-68801/6		309661	4.37	1059768	7.85	874562	11.29
410-21210-17	J18-UC03	306344	4.37	1039045	7.85	855096	11.29
410-21210-18	J19-UC01	306983	4.37	1007726	7.85	832870	11.29
410-21210-19	J19-UC02	303575	4.36	1008839	7.85	835028	11.29
410-21210-20	J15-UC01	284157	4.37	950679	7.85	788254	11.29
410-21210-21	J15-UC02	277700	4.37	993412	7.85	823917	11.29
410-21210-22	J06-UC02	273247	4.36	985986	7.85	821641	11.29

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68801/3 Date Analyzed: 11/20/2020 20:34

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN20C50.D Heated Purge: (Y/N) N

Calibration ID: 14504

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		558943	13.17				
UPPER LIMIT		1117886	13.67				
LOWER LIMIT		279472	12.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68801/4		556233	13.17				
MB 410-68801/6		492239	13.17				
410-21210-17	J18-UC03	483313	13.17				
410-21210-18	J19-UC01	467722	13.17				
410-21210-19	J19-UC02	471346	13.17				
410-21210-20	J15-UC01	442859	13.17				
410-21210-21	J15-UC02	466429	13.17				
410-21210-22	J06-UC02	460495	13.17				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68925/3 Date Analyzed: 11/21/2020 09:21

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN21C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		303193	4.37	1075483	7.85	927310	11.29
UPPER LIMIT		606386	4.87	2150966	8.35	1854620	11.79
LOWER LIMIT		151597	3.87	537742	7.35	463655	10.79
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68925/6		314449	4.35	1125590	7.85	947943	11.29
MB 410-68925/9		303834	4.36	1032274	7.85	855706	11.29
410-21210-12	J22-BR02	304106	4.36	1039722	7.85	867128	11.29
410-21210-13	J22-BR01	293815	4.36	1029105	7.85	855058	11.29
410-21210-14	J23-UC01	278876	4.37	984751	7.85	820671	11.29
410-21210-15	J23-UC02	283373	4.36	1006622	7.85	841282	11.29
410-21210-24	MW-1D	271184	4.35	979019	7.85	819242	11.29
410-21210-25	DUP-03	272861	4.38	989719	7.85	823992	11.29
410-21210-26	J20-UC02	278582	4.37	996250	7.85	826397	11.29
410-21210-27	J20-UC01	265563	4.37	950176	7.85	793399	11.29
410-21210-28	J20-BR02	279477	4.37	975530	7.85	809723	11.29
410-21210-29	J20-BR01	258122	4.36	945272	7.85	792076	11.29
410-21210-30	J08-UC01	254185	4.36	967521	7.85	809663	11.29
410-21210-31	J07-UC02	251110	4.37	946482	7.85	794175	11.29
410-21210-32	RIZ-19	260802	4.36	953732	7.85	806804	11.29

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-68925/3 Date Analyzed: 11/21/2020 09:21

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN21C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		552509	13.17				
UPPER LIMIT		1105018	13.67				
LOWER LIMIT		276255	12.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-68925/6		562111	13.17				
MB 410-68925/9		481100	13.17				
410-21210-12	J22-BR02	485391	13.17				
410-21210-13	J22-BR01	480247	13.17				
410-21210-14	J23-UC01	459836	13.17				
410-21210-15	J23-UC02	469678	13.17				
410-21210-24	MW-1D	458851	13.17				
410-21210-25	DUP-03	463879	13.17				
410-21210-26	J20-UC02	463036	13.17				
410-21210-27	J20-UC01	444247	13.17				
410-21210-28	J20-BR02	456029	13.17				
410-21210-29	J20-BR01	440268	13.17				
410-21210-30	J08-UC01	448565	13.17				
410-21210-31	J07-UC02	439878	13.17				
410-21210-32	RIZ-19	445434	13.17				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-69288/3 Date Analyzed: 11/23/2020 09:48

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN23C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		349674	4.37	1229940	7.85	1052491	11.29
UPPER LIMIT		699348	4.87	2459880	8.35	2104982	11.79
LOWER LIMIT		174837	3.87	614970	7.35	526246	10.79
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-69288/6		363937	4.36	1223079	7.85	1042347	11.29
MB 410-69288/9		326761	4.37	1075979	7.85	908205	11.29
410-21210-33	EB111620	325867	4.38	1064170	7.85	895411	11.29
410-21210-16	J18-UC02	307122	4.38	1103288	7.85	925691	11.29
410-21210-16 MS	J18-UC02 MS	355157	4.38	1202570	7.85	1027204	11.29
410-21210-16 MSD	J18-UC02 MSD	354748	4.37	1240832	7.85	1059696	11.29
410-21210-15 DL	J23-UC02 DL	291645	4.37	1055803	7.85	896196	11.29

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Sample No.: CCVIS 410-69288/3 Date Analyzed: 11/23/2020 09:48

Instrument ID: 9355 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): YN23C01.D Heated Purge: (Y/N) N

Calibration ID: 14504

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		619796	13.17				
UPPER LIMIT		1239592	13.67				
LOWER LIMIT		309898	12.67				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-69288/6		607068	13.17				
MB 410-69288/9		506145	13.17				
410-21210-33	EB111620	498815	13.17				
410-21210-16	J18-UC02	508764	13.17				
410-21210-16 MS	J18-UC02 MS	597384	13.17				
410-21210-16 MSD	J18-UC02 MSD	614851	13.17				
410-21210-15 DL	J23-UC02 DL	495500	13.17				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J16-UC01 Lab Sample ID: 410-21210-1

Matrix: Water Lab File ID: YN20S13.D

Analysis Method: 8260C Date Collected: 11/12/2020 15:42

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 16:06

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	12		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	1.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	0.71	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.46	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	37		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D
Lims ID: 410-21210-A-1
Client ID: J16-UC01
Sample Type: Client
Inject. Date: 20-Nov-2020 16:06:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-020
Misc. Info.: 410-21210-A-1
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:12:03 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:13:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96	3.680	3.686	-0.006	92	5182	1.04	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.355	0.007	0	309291	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	73	3055	0.4593	
48 Chloroform	83	6.746	6.740	0.006	92	7291	0.7070	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	270164	51.5	
50 1,1,1-Trichloroethane	97	6.978	6.984	-0.006	98	112379	11.9	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	65954	52.4	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1043377	50.0	
64 Trichloroethene	95	8.334	8.334	0.000	95	239442	36.8	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1067603	50.4	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	871050	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	372546	45.9	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	493393	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

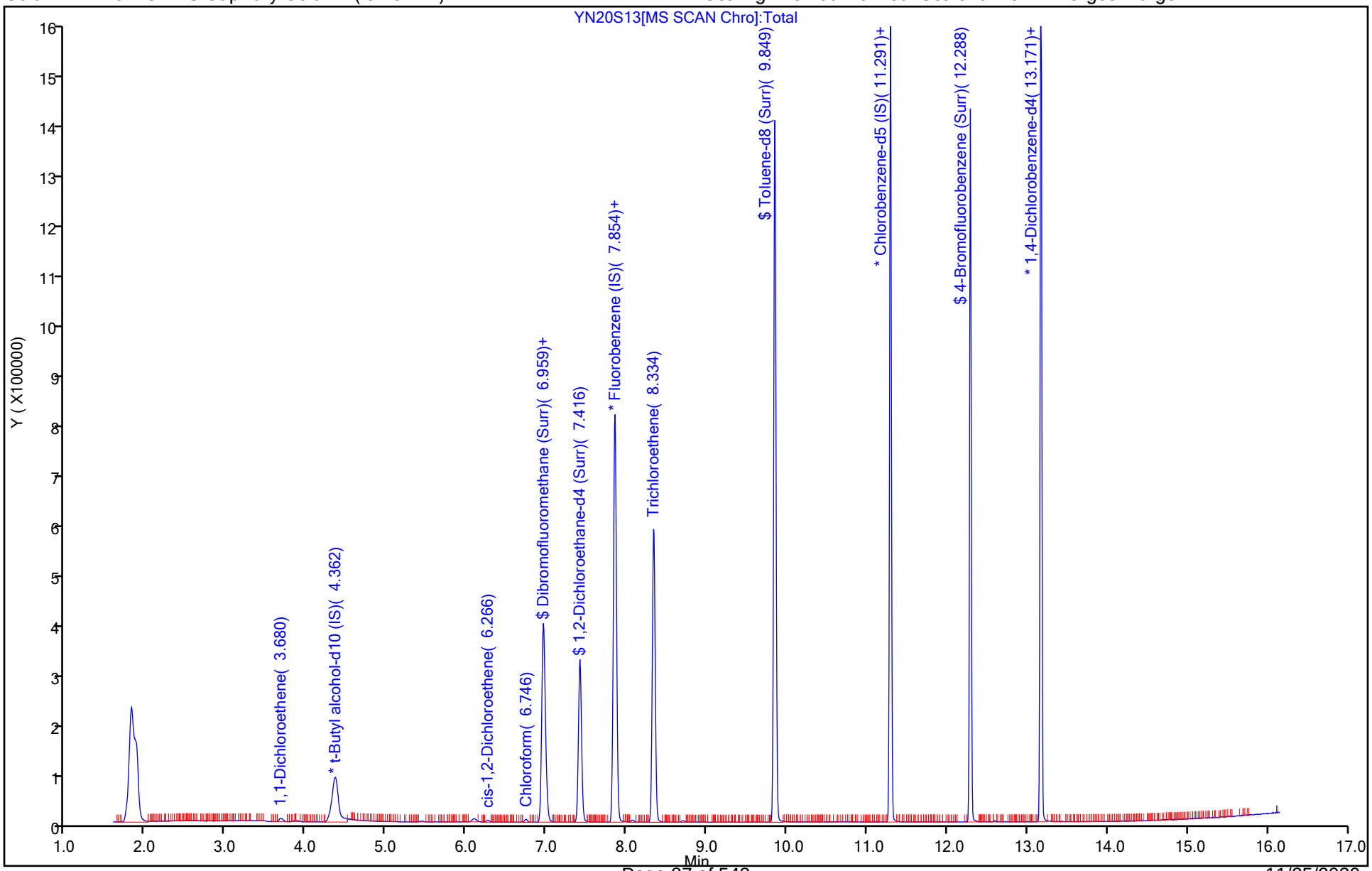
Report Date: 20-Nov-2020 21:14:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D

Injection Date:	20-Nov-2020 16:06:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-1	Lab Sample ID:	410-21210-1	Worklist Smp#:	20
Client ID:	J16-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

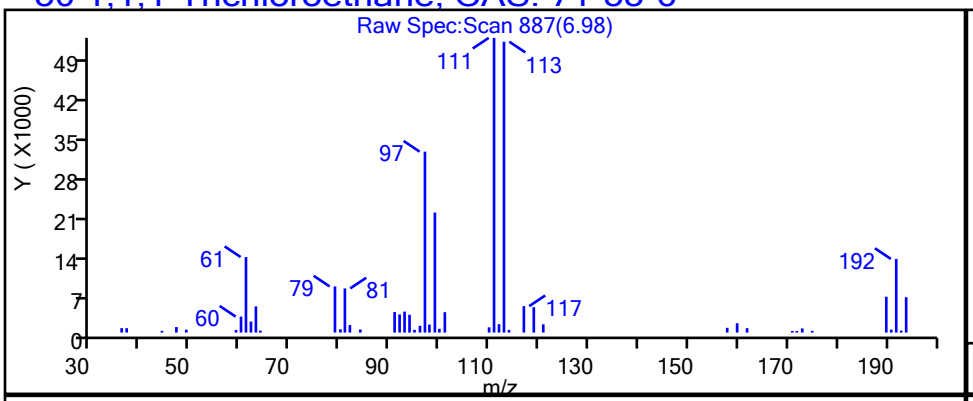
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

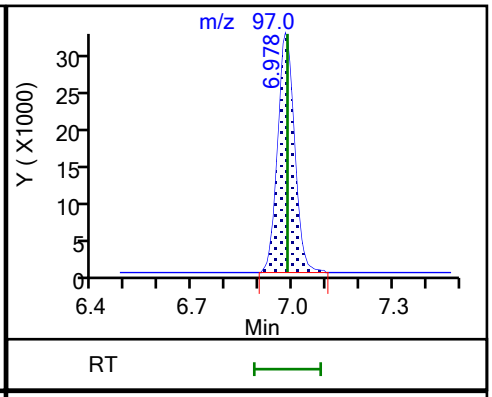


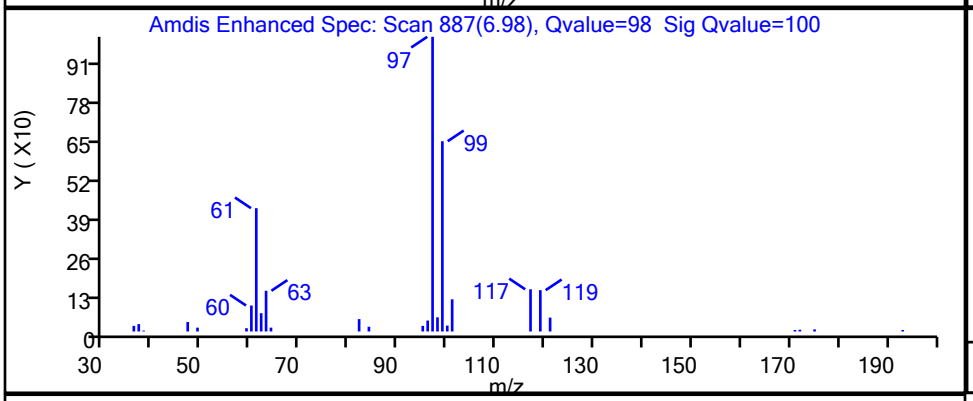
Eurofins Lancaster Laboratories Env, LLC

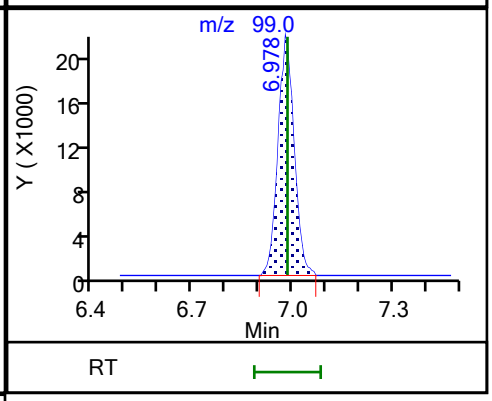
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D				
Injection Date:	20-Nov-2020 16:06:30	Instrument ID:	9355		
Lims ID:	410-21210-A-1	Lab Sample ID:	410-21210-1		
Client ID:	J16-UC01				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

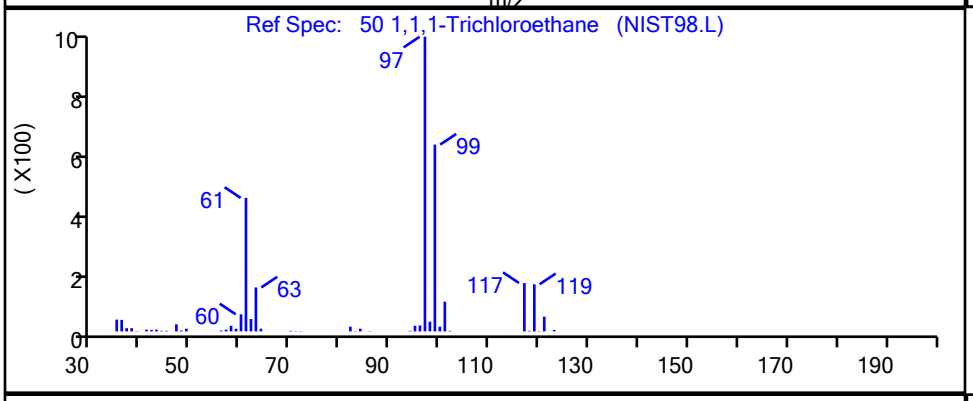
50 1,1,1-Trichloroethane, CAS: 71-55-6

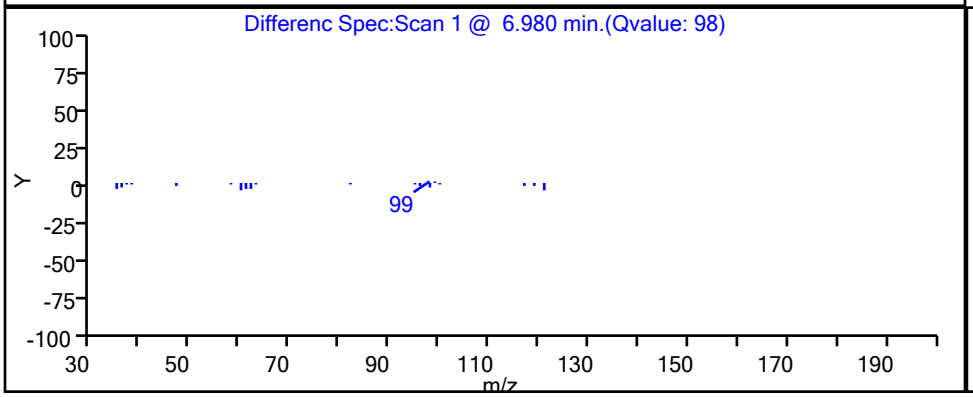


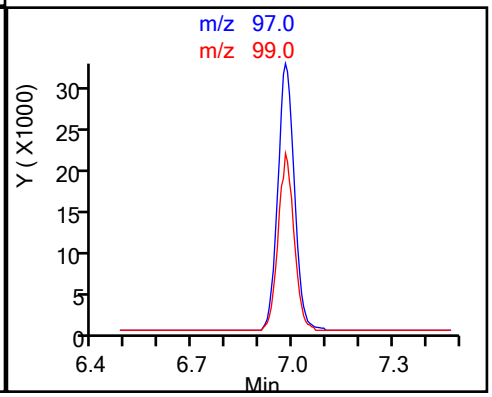












Report Date: 20-Nov-2020 21:14:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D

Injection Date: 20-Nov-2020 16:06:30 Instrument ID: 9355

Lims ID: 410-21210-A-1 Lab Sample ID: 410-21210-1

Client ID: J16-UC01

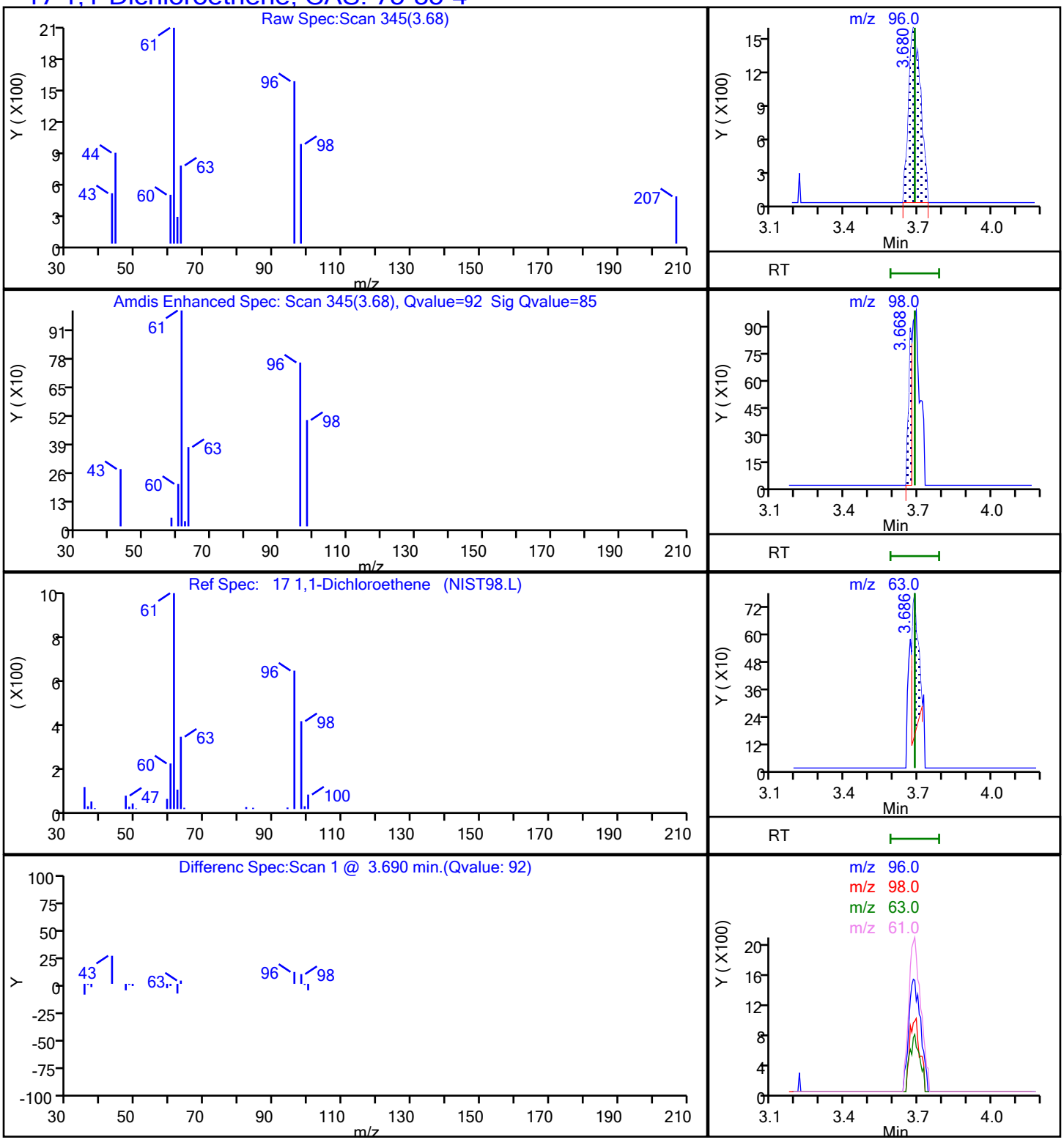
Operator ID: clm27445 ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

17 1,1-Dichloroethene, CAS: 75-35-4

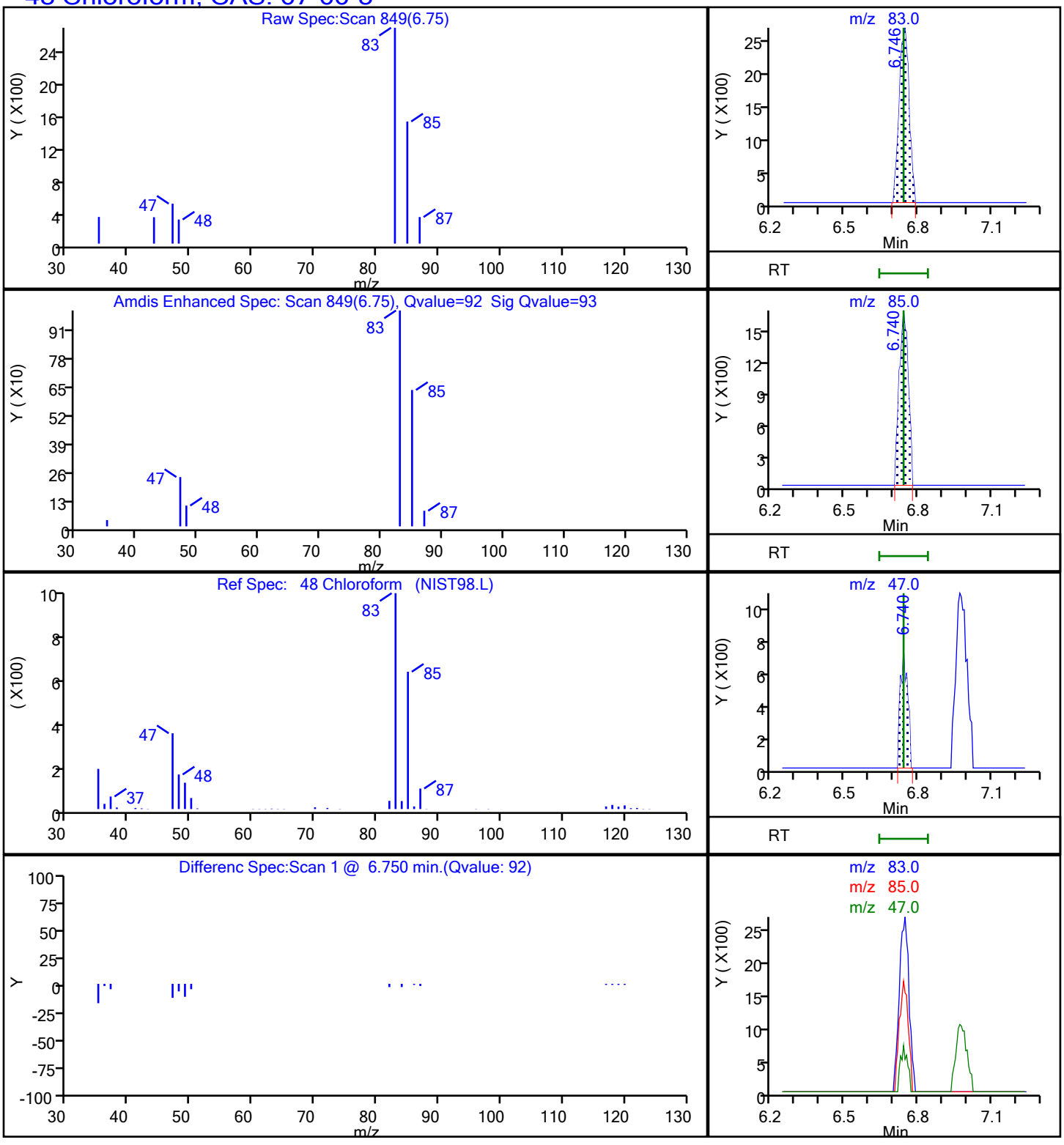


Report Date: 20-Nov-2020 21:14:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D				
Injection Date:	20-Nov-2020 16:06:30	Instrument ID:	9355		
Lims ID:	410-21210-A-1	Lab Sample ID:	410-21210-1		
Client ID:	J16-UC01				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

48 Chloroform, CAS: 67-66-3

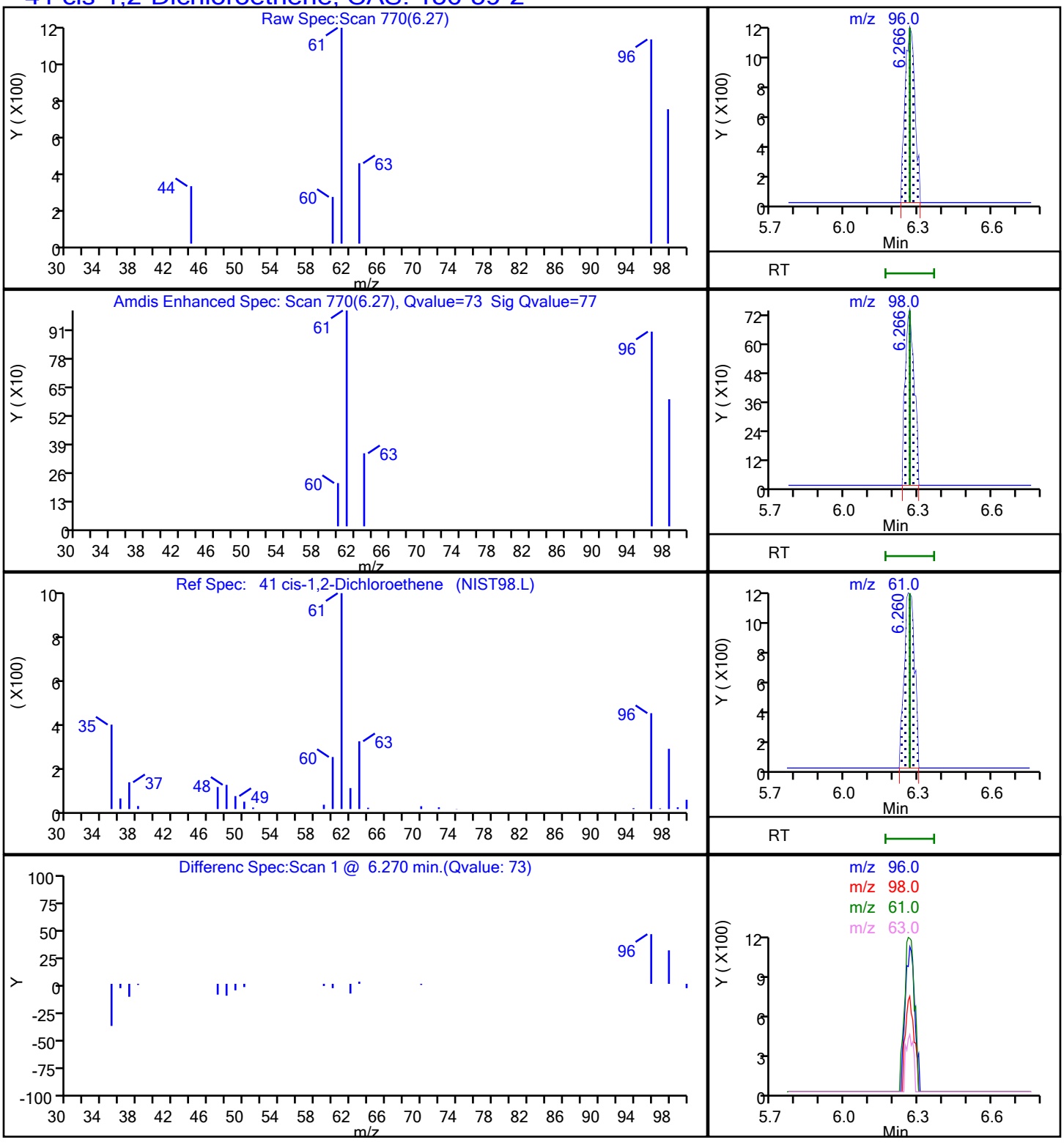


Report Date: 20-Nov-2020 21:14:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D				
Injection Date:	20-Nov-2020 16:06:30	Instrument ID:	9355		
Lims ID:	410-21210-A-1	Lab Sample ID:	410-21210-1		
Client ID:	J16-UC01				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

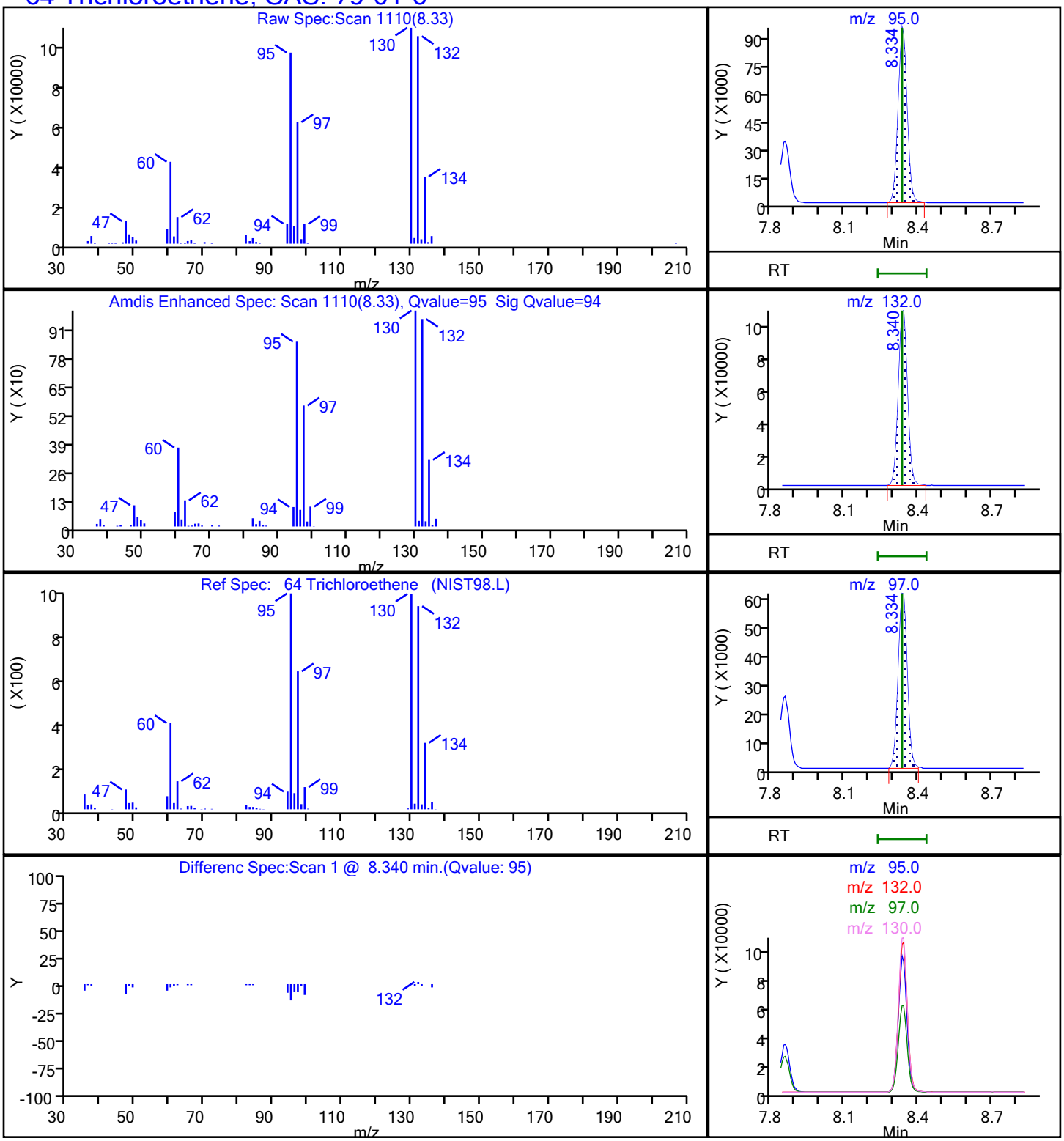
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S13.D				
Injection Date:	20-Nov-2020 16:06:30	Instrument ID:	9355		
Lims ID:	410-21210-A-1	Lab Sample ID:	410-21210-1		
Client ID:	J16-UC01				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J21-UC01 Lab Sample ID: 410-21210-2

Matrix: Water Lab File ID: YN20S14.D

Analysis Method: 8260C Date Collected: 11/12/2020 12:02

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 16:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.6		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.88	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S14.D
Lims ID: 410-21210-A-2
Client ID: J21-UC01
Sample Type: Client
Inject. Date: 20-Nov-2020 16:28:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-021
Misc. Info.: 410-21210-A-2
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:14:35 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:14:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.355	0.013	0	314601	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	267078	51.4	
50 1,1,1-Trichloroethane	97	6.977	6.984	-0.007	99	14688	1.57	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	65401	52.4	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	1033432	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	93	5686	0.8824	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1047134	50.2	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	857339	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	366510	45.8	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	488755	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

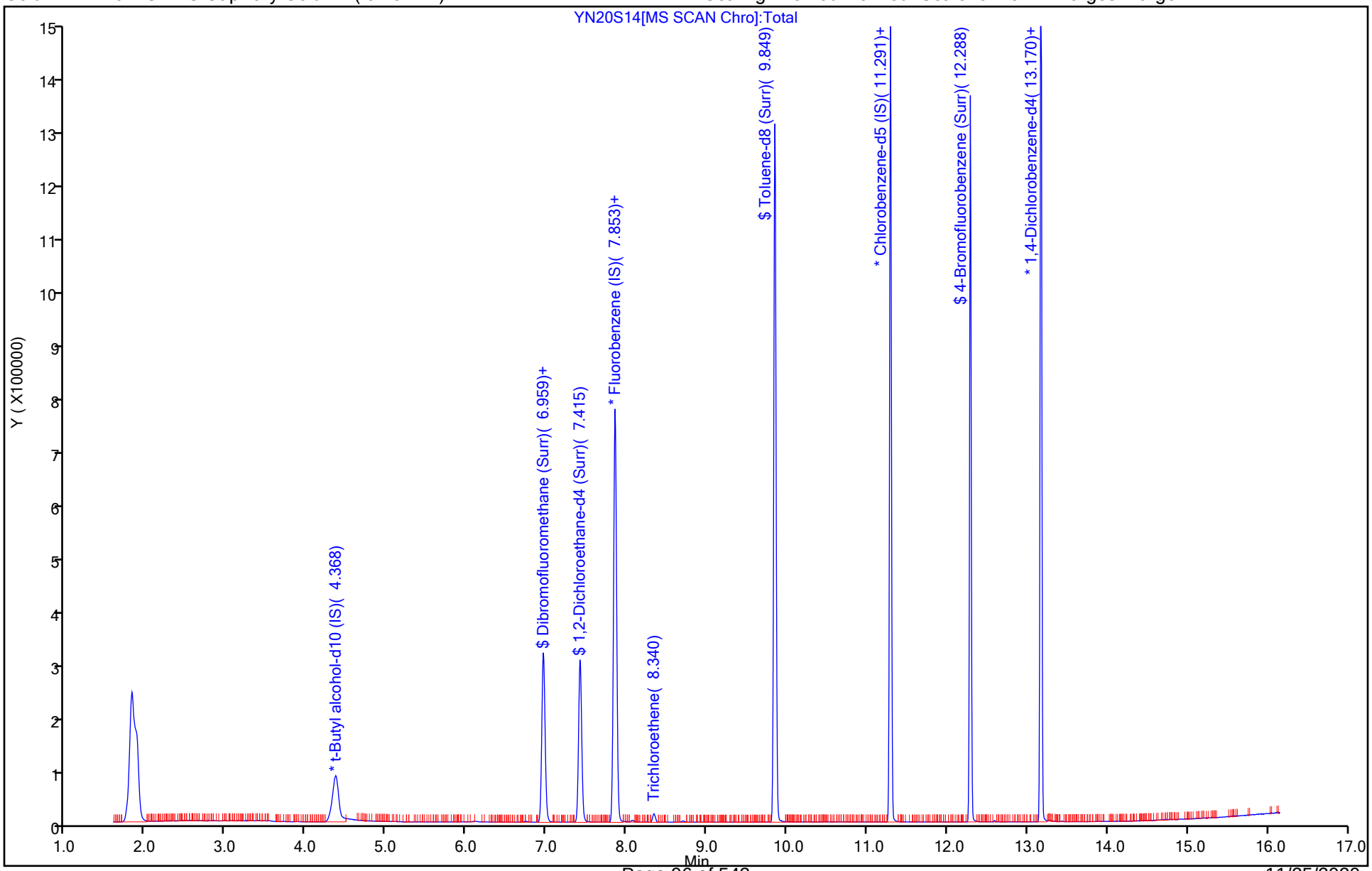
Report Date: 20-Nov-2020 21:16:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S14.D

Injection Date:	20-Nov-2020 16:28:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-2	Lab Sample ID:	410-21210-2	Worklist Smp#:	21
Client ID:	J21-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

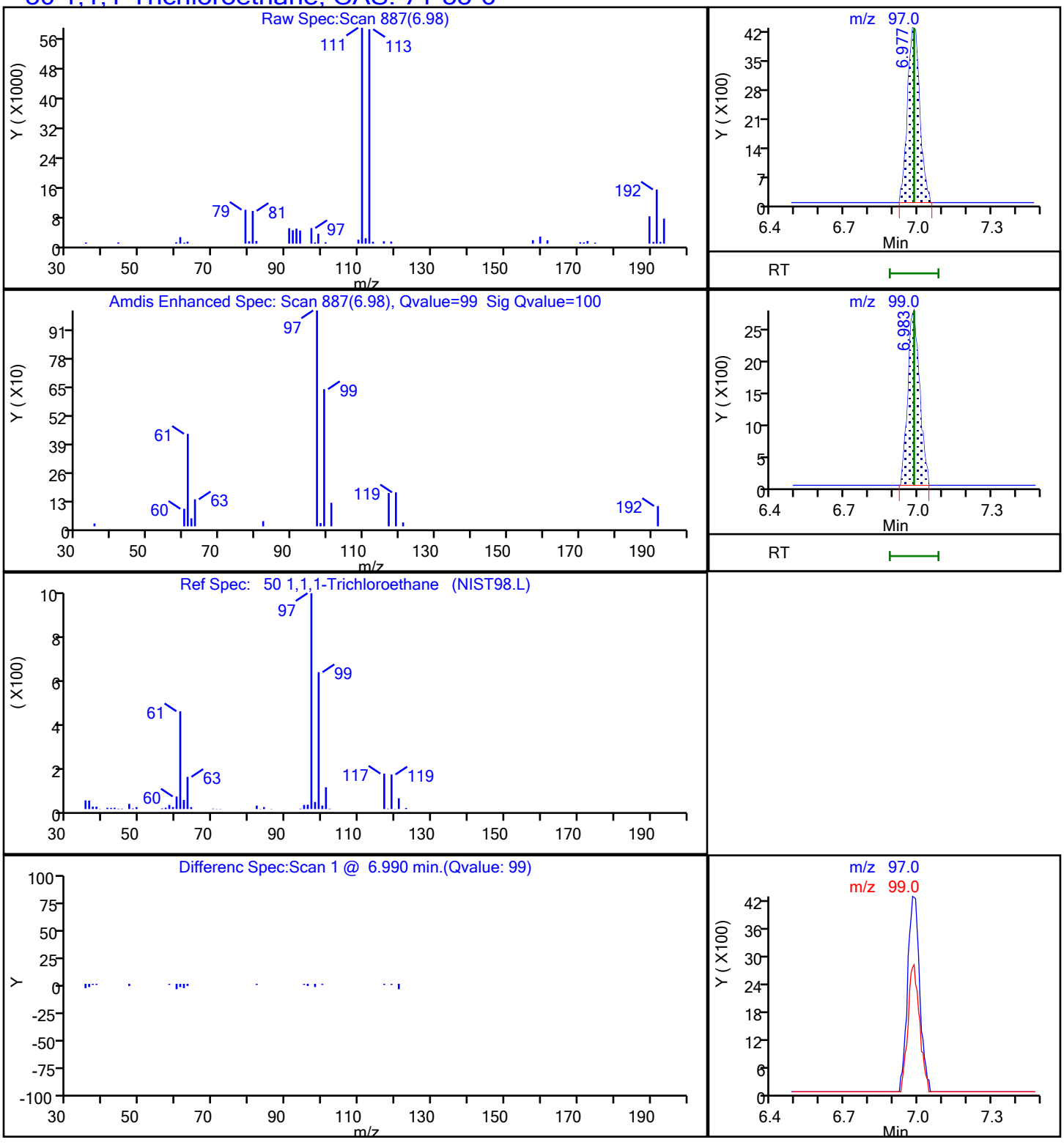
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S14.D				
Injection Date:	20-Nov-2020 16:28:30	Instrument ID:	9355		
Lims ID:	410-21210-A-2	Lab Sample ID:	410-21210-2		
Client ID:	J21-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 20-Nov-2020 21:16:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S14.D

Injection Date: 20-Nov-2020 16:28:30 Instrument ID: 9355

Lims ID: 410-21210-A-2 Lab Sample ID: 410-21210-2

Client ID: J21-UC01

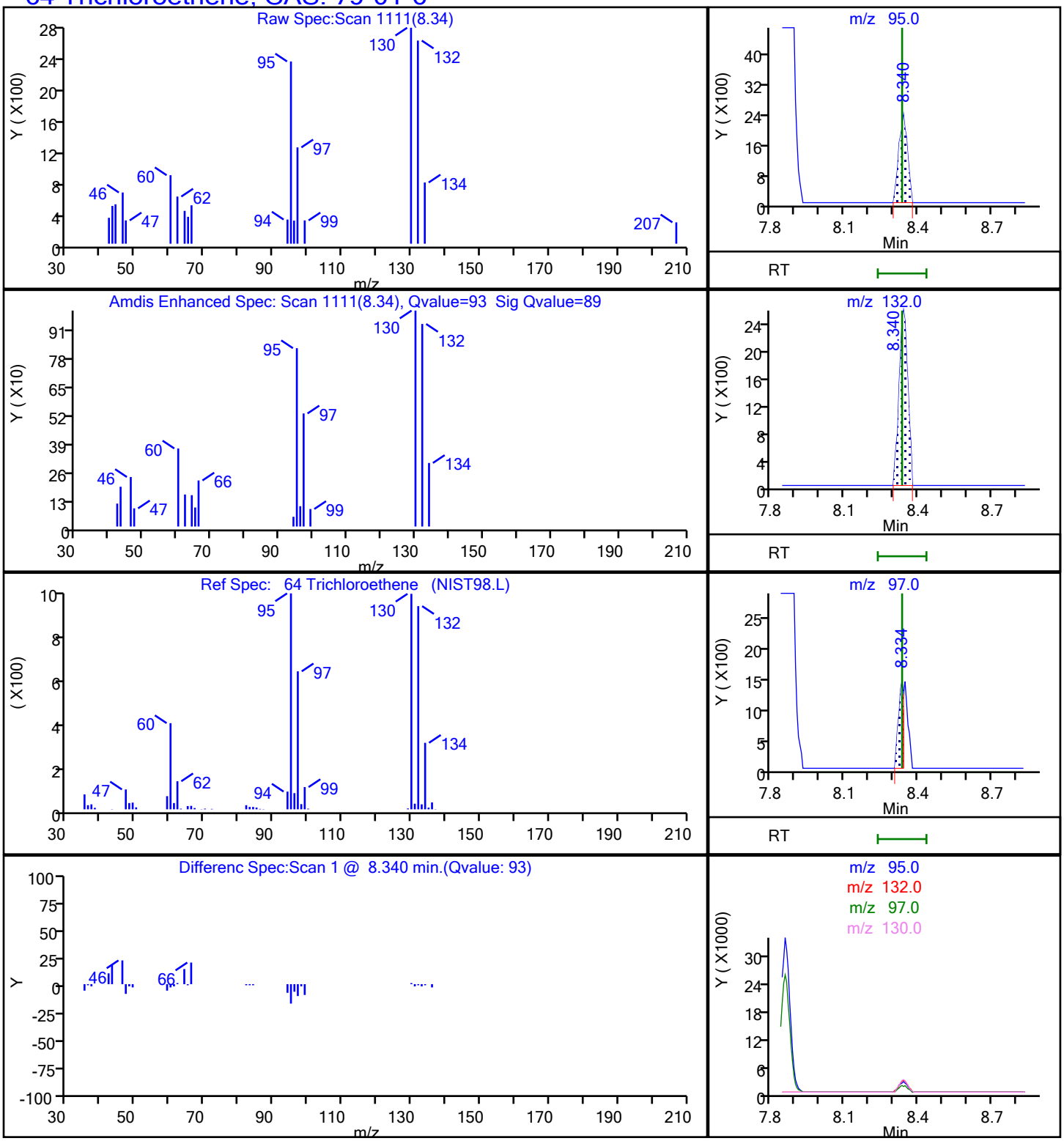
Operator ID: clm27445 ALS Bottle#: 20 Worklist Smp#: 21

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J16-UC02 Lab Sample ID: 410-21210-3

Matrix: Water Lab File ID: YN20S15.D

Analysis Method: 8260C Date Collected: 11/12/2020 14:56

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 16:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	10		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	0.83	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	0.36	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	41		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D
Lims ID: 410-21210-A-3
Client ID: J16-UC02
Sample Type: Client
Inject. Date: 20-Nov-2020 16:50:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-022
Misc. Info.: 410-21210-A-3
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:14:35 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:15:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	90	4026	0.8319	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.361	4.355	0.006	0	301910	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83	6.740	6.740	0.000	88	3599	0.3609	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	260964	51.4	
50 1,1,1-Trichloroethane	97	6.977	6.984	-0.007	98	95158	10.4	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	63430	52.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	1009033	50.0	
64 Trichloroethene	95	8.334	8.334	0.000	95	254884	40.5	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1028825	50.2	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	841336	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	357179	45.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	-0.001	93	476963	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

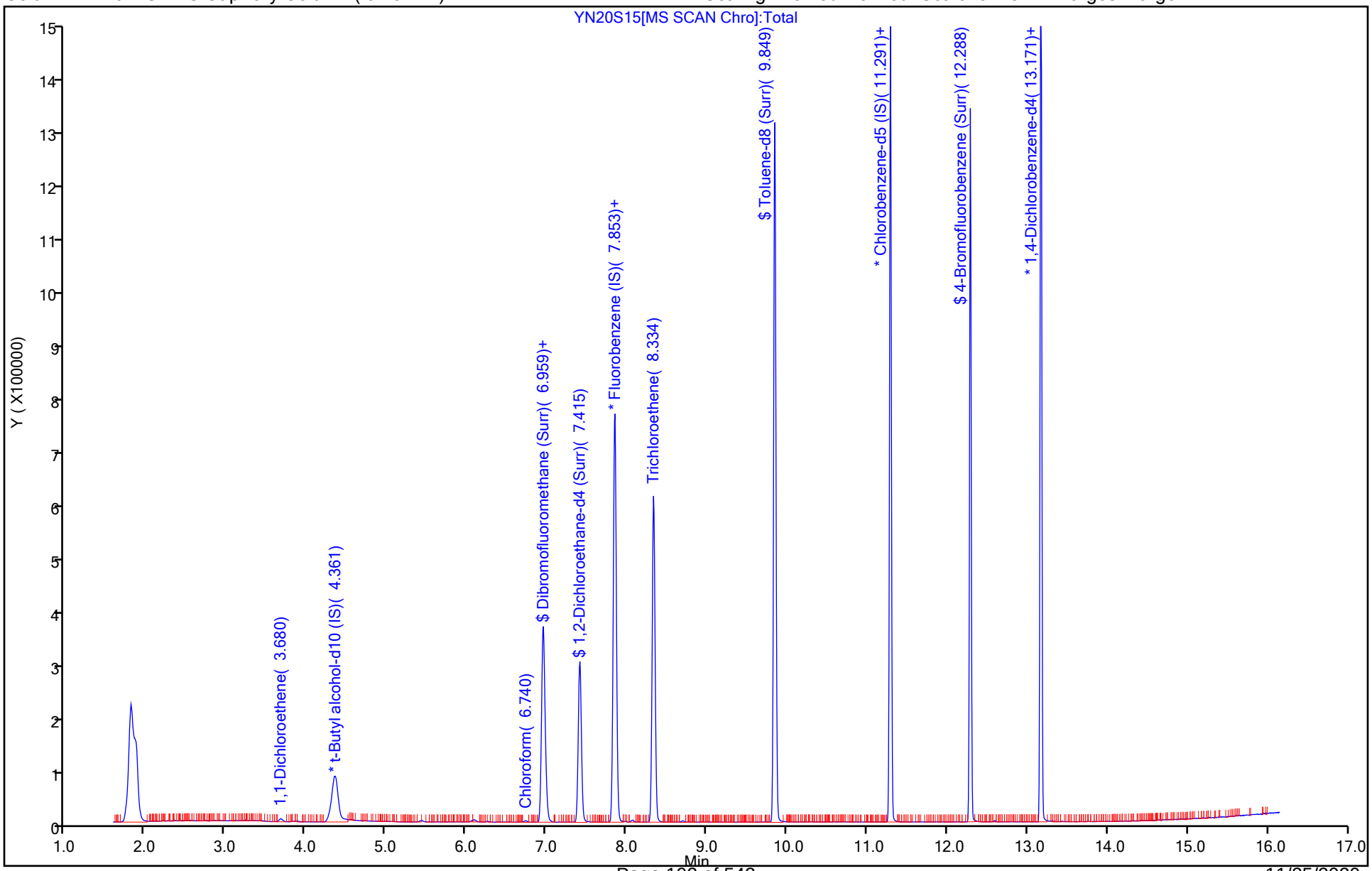
Report Date: 20-Nov-2020 21:16:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D

Injection Date:	20-Nov-2020 16:50:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-3	Lab Sample ID:	410-21210-3	Worklist Smp#:	22
Client ID:	J16-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

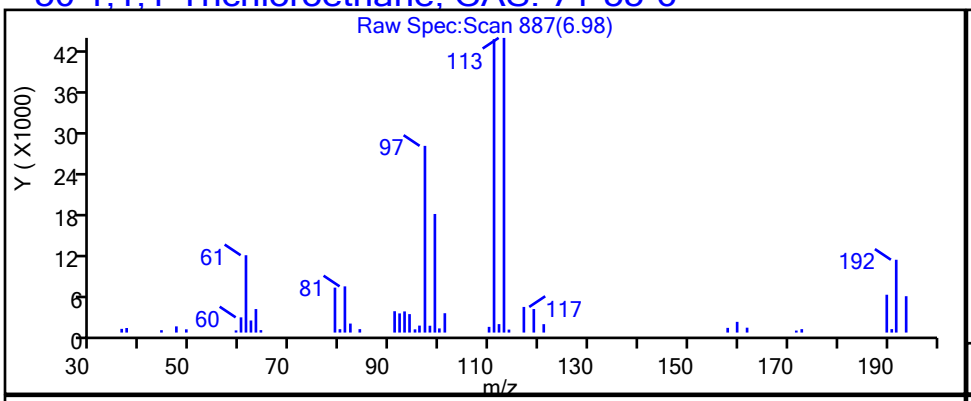
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

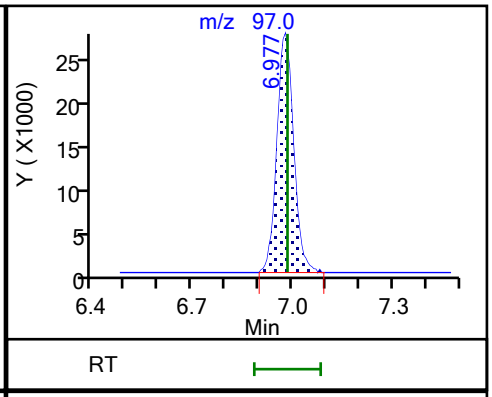


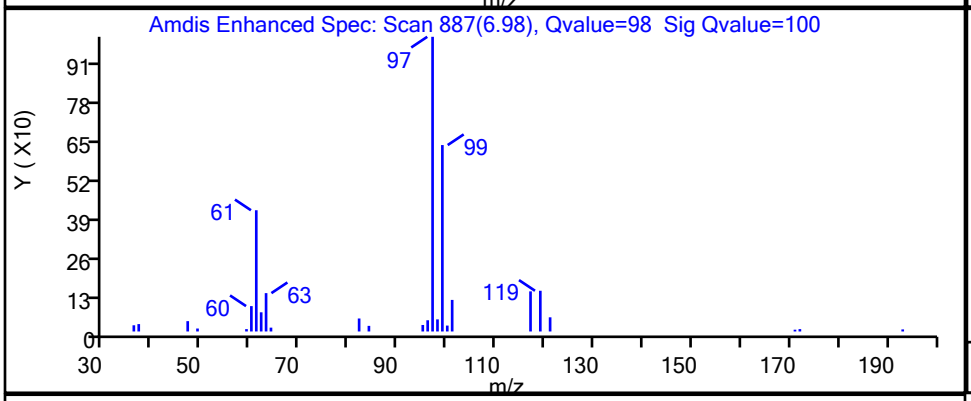
Eurofins Lancaster Laboratories Env, LLC

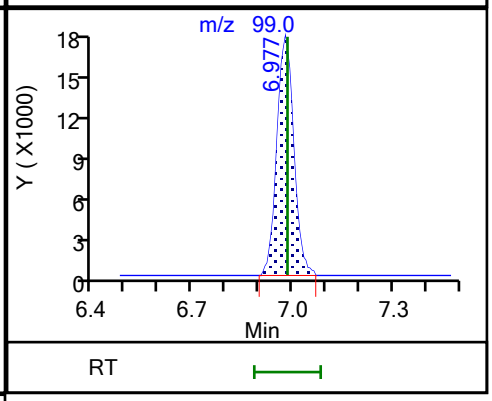
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D				
Injection Date:	20-Nov-2020 16:50:30	Instrument ID:	9355		
Lims ID:	410-21210-A-3	Lab Sample ID:	410-21210-3		
Client ID:	J16-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

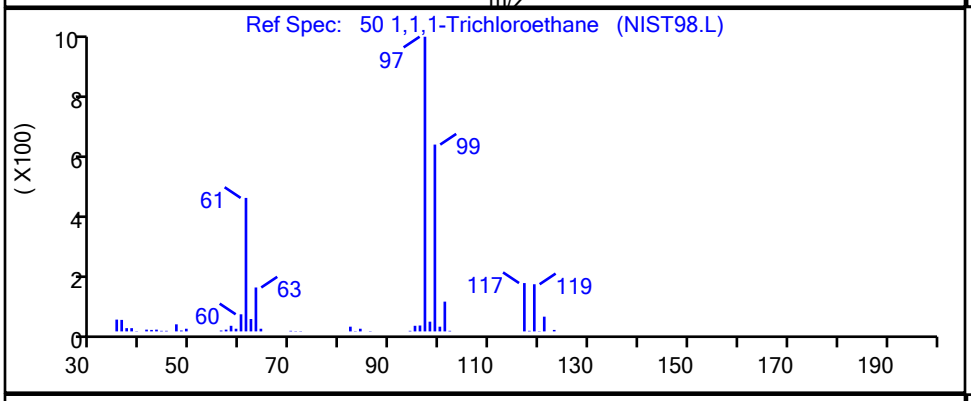
50 1,1,1-Trichloroethane, CAS: 71-55-6

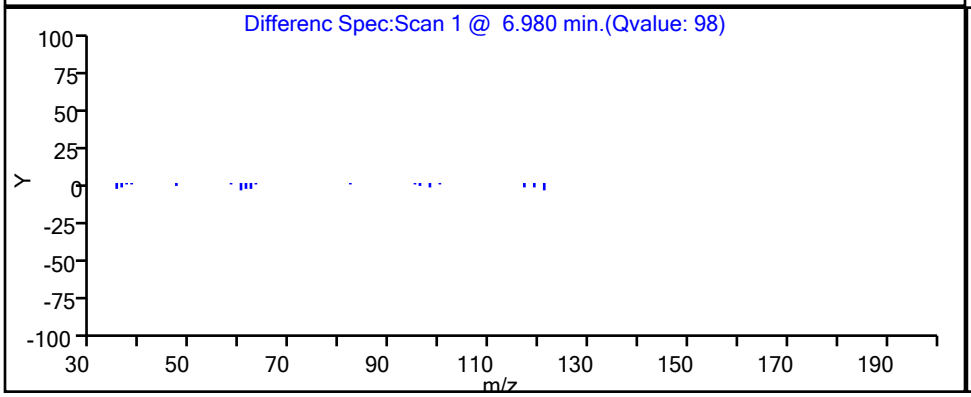


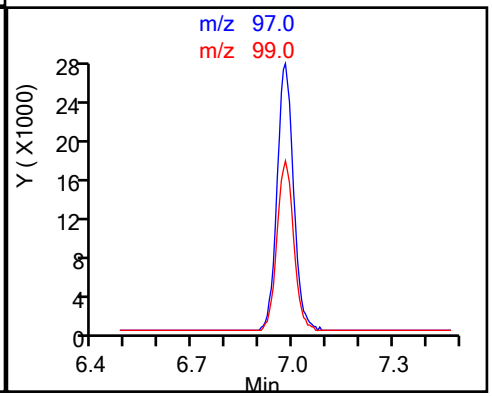








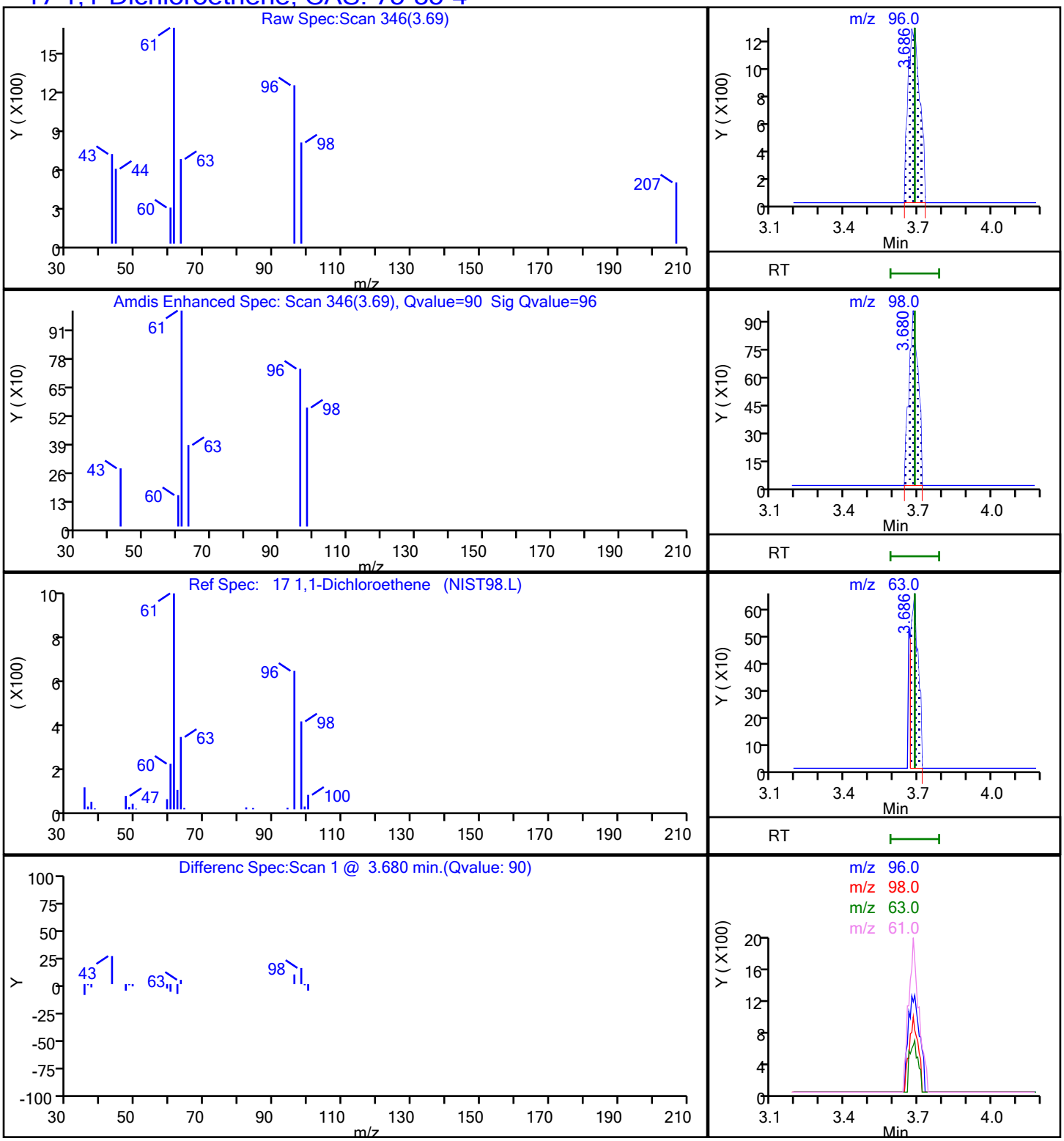




Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D				
Injection Date:	20-Nov-2020 16:50:30	Instrument ID:	9355		
Lims ID:	410-21210-A-3	Lab Sample ID:	410-21210-3		
Client ID:	J16-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4

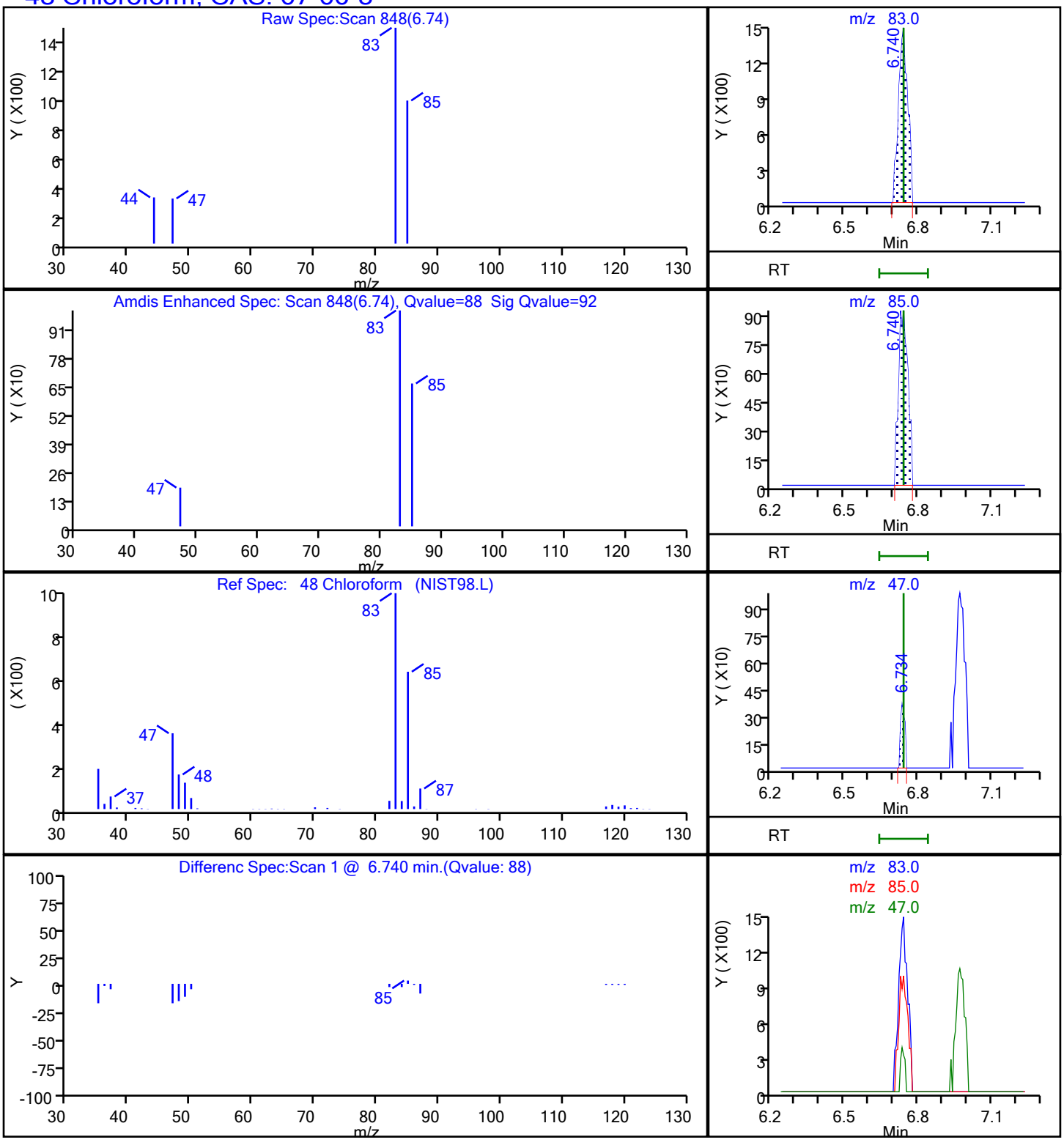


Report Date: 20-Nov-2020 21:16:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D				
Injection Date:	20-Nov-2020 16:50:30	Instrument ID:	9355		
Lims ID:	410-21210-A-3	Lab Sample ID:	410-21210-3		
Client ID:	J16-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

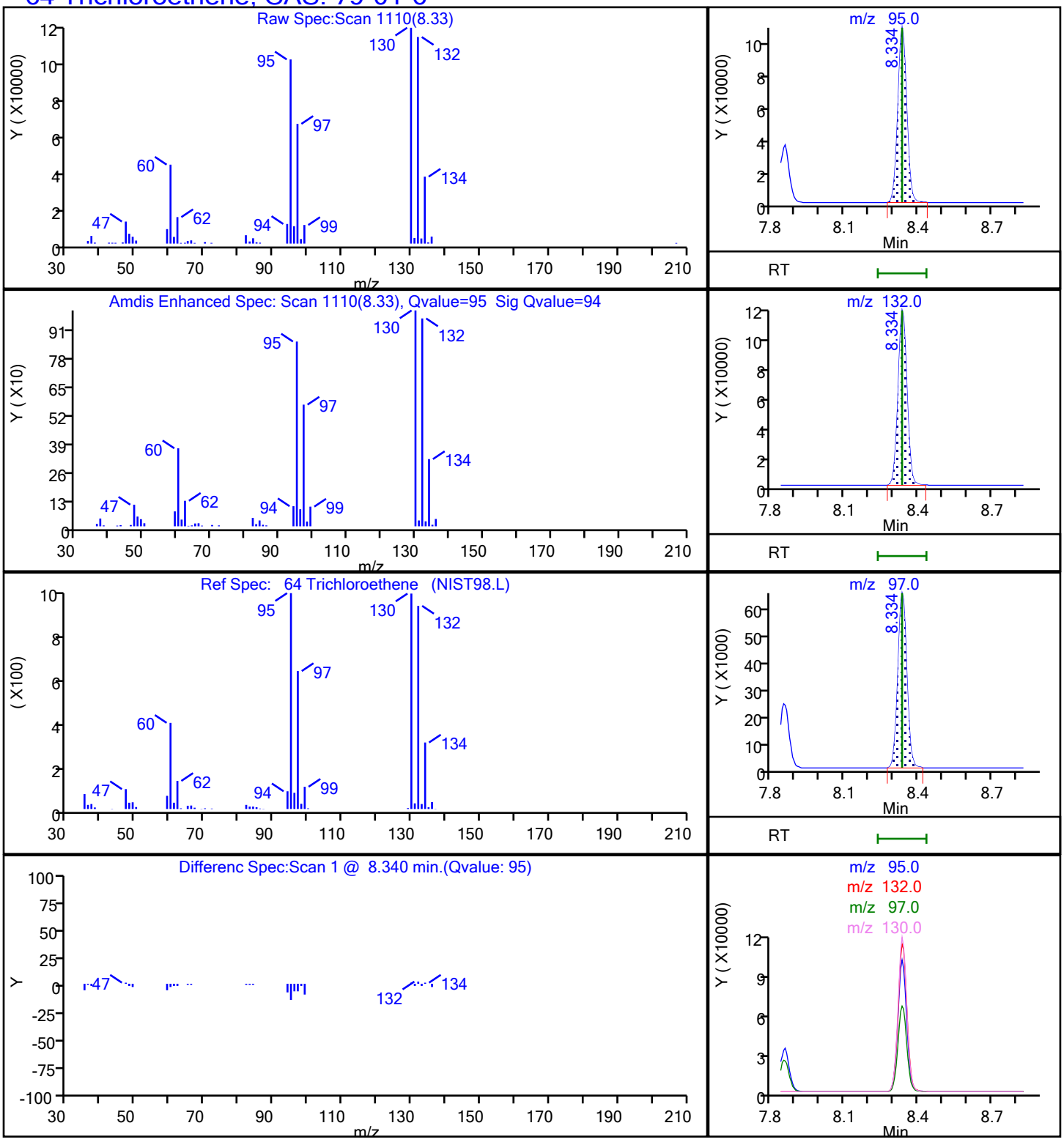
48 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S15.D				
Injection Date:	20-Nov-2020 16:50:30	Instrument ID:	9355		
Lims ID:	410-21210-A-3	Lab Sample ID:	410-21210-3		
Client ID:	J16-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-UC01 Lab Sample ID: 410-21210-4

Matrix: Water Lab File ID: YN20S16.D

Analysis Method: 8260C Date Collected: 11/13/2020 08:38

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 17:12

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S16.D
Lims ID: 410-21210-A-4
Client ID: J14-UC01
Sample Type: Client
Inject. Date: 20-Nov-2020 17:12:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-023
Misc. Info.: 410-21210-A-4
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:14:35 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:15:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.355	0.000	0	292632	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	253036	51.0	
50 1,1,1-Trichloroethane	97	6.983	6.984	-0.001	35	1874	0.2095	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	61758	51.8	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	986755	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	996951	50.1	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	817199	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	348333	45.7	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	460855	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

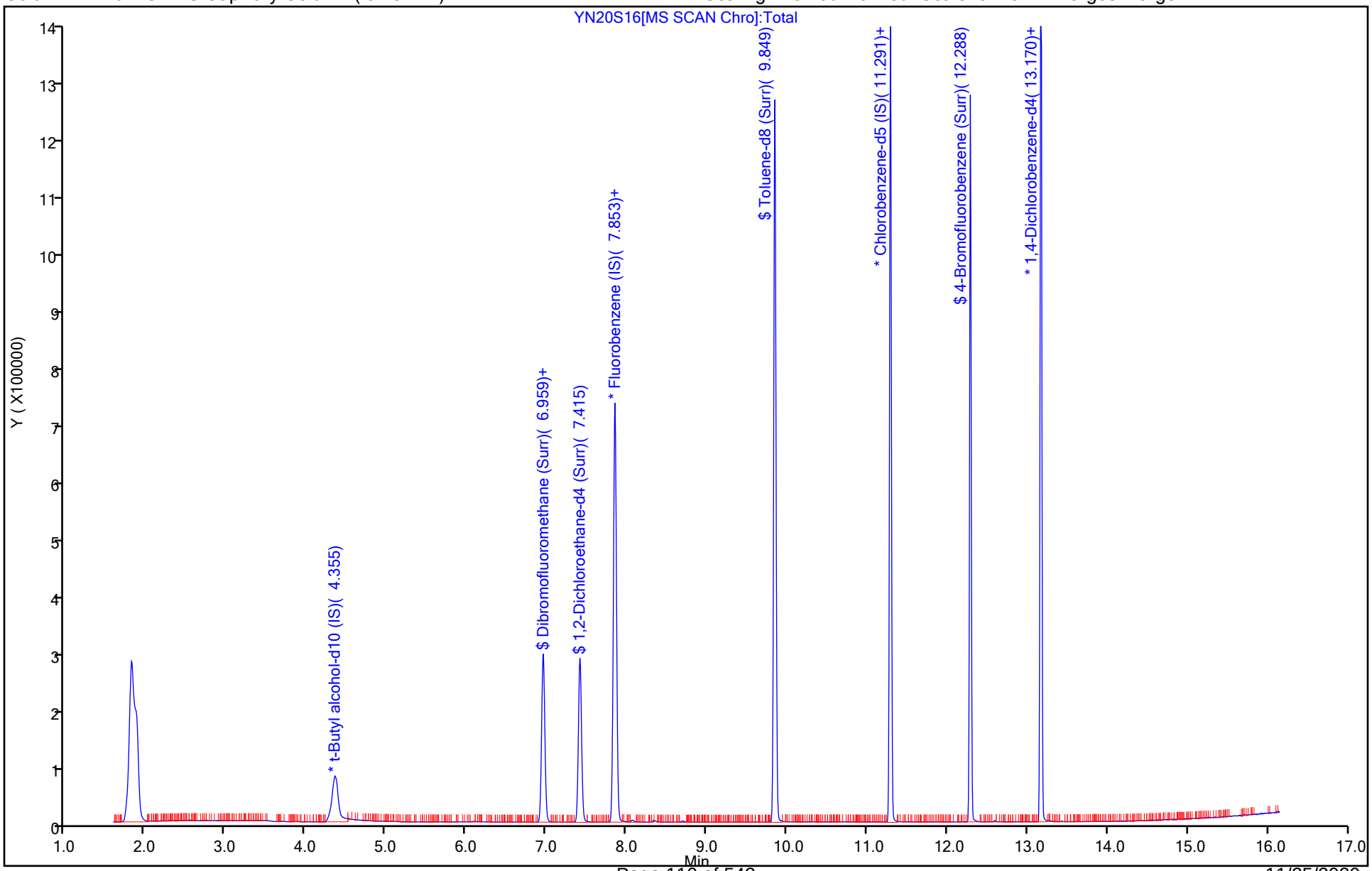
Report Date: 20-Nov-2020 21:16:30 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S16.D

Injection Date:	20-Nov-2020 17:12:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-4	Lab Sample ID:	410-21210-4	Worklist Smp#:	23
Client ID:	J14-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-BR01 Lab Sample ID: 410-21210-5

Matrix: Water Lab File ID: YN20S02.D

Analysis Method: 8260C Date Collected: 11/13/2020 09:58

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 12:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	4.2		1.0	0.30
75-34-3	1,1-Dichloroethane	0.78	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.20	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	94		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D
Lims ID: 410-21210-A-5
Client ID: J14-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 12:03:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-009
Misc. Info.: 410-21210-A-5
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:12:03 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:08:57

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		2.013				ND	
2	Dichlorodifluoromethane	85		2.056				ND	
3	Chlorodifluoromethane	51		2.062				ND	
4	Chloromethane	50		2.257				ND	
5	Butadiene	39		2.378				ND	
6	Vinyl chloride	62		2.378				ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.439				ND	
8	Bromomethane	94		2.719				ND	
9	Chloroethane	64		2.798				ND	
10	Dichlorofluoromethane	67		3.041				ND	
11	Trichlorofluoromethane	101		3.121				ND	
12	Pentane	43		3.151				ND	
13	Ethanol	45		3.224				ND	
14	Ethyl ether	59		3.364				ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.437				ND	
16	Acrolein	56		3.528				ND	
17	1,1-Dichloroethene	96	3.674	3.686	-0.012	73	1068	0.2006	M
18	Acetone	58	3.711	3.698	0.013	96	669	0.6157	
19	112TCTFE	101		3.723				ND	
20	Isopropyl alcohol	45	3.863	3.863	0.000	41	3556	4.89	
21	Iodomethane	142		3.899				ND	
22	Carbon disulfide	76		4.015				ND	
23	Acetonitrile	41		4.070				ND	
24	Methyl acetate	43		4.136				ND	
25	3-Chloro-1-propene	41		4.173				ND	
* 26	t-Butyl alcohol-d10 (IS)	65	4.362	4.355	0.007	0	334043	250.0	
27	Methylene Chloride	84		4.368				ND	
28	2-Methyl-2-propanol	59		4.483				ND	
30	Acrylonitrile	53		4.684				ND	
31	Methyl tert-butyl ether	73		4.781				ND	
32	trans-1,2-Dichloroethene	96		4.800				ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	33 Hexane	57		5.213				ND	
	34 Vinyl acetate	43		5.432				ND	
	35 1,1-Dichloroethane	63	5.438	5.438	0.000	93	7975	0.7758	M
	36 Isopropyl ether	45		5.499				ND	
	37 2-Chloro-1,3-butadiene	53		5.554				ND	
	38 Tert-butyl ethyl ether	59		6.035				ND	
S	39 1,2-Dichloroethene, Total	100		6.155				ND	7
	40 2-Butanone (MEK)	43		6.223				ND	
	41 cis-1,2-Dichloroethene	96		6.266				ND	
	43 2,2-Dichloropropane	77		6.284				ND	
	44 Propionitrile	54		6.296				ND	
	42 Ethyl acetate	43		6.296				ND	
	45 Methacrylonitrile	67		6.521				ND	
	46 Chlorobromomethane	128		6.600				ND	
	47 Tetrahydrofuran	71		6.619				ND	
	48 Chloroform	83		6.740				ND	
$	49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	285416	51.1	
	50 1,1,1-Trichloroethane	97	6.978	6.984	-0.006	98	42199	4.19	
	51 Cyclohexane	56		7.093				ND	
	52 1,1-Dichloropropene	75		7.190				ND	
	53 Carbon tetrachloride	117		7.203				ND	
	54 Isobutyl alcohol	41		7.306				ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	69561	51.9	
	56 Benzene	78		7.452				ND	
	58 1,2-Dichloroethane	62		7.519				ND	7
	57 Isopropyl acetate	43		7.519				ND	
	59 Tert-amyl methyl ether	73		7.647				ND	
	60 t-Amyl alcohol	73	7.854	7.842	0.012	35	13954	NC	
*	61 Fluorobenzene (IS)	96	7.847	7.854	-0.007	99	1109949	50.0	
	62 n-Heptane	43		7.872				ND	
	63 n-Butanol	56		8.188				ND	
	64 Trichloroethene	95		8.334				ND	
	65 Methylcyclohexane	83		8.657				ND	
	66 1,2-Dichloropropane	63		8.663				ND	
	67 2-ethoxy-2-methyl butane	87		8.669				ND	
	68 Methyl methacrylate	69		8.736				ND	
	69 1,4-Dioxane	88		8.754				ND	
	70 Dibromomethane	93		8.778				ND	
	71 n-Propyl acetate	61		8.809				ND	
	72 Dichlorobromomethane	83		9.009				ND	
	73 2-Nitropropane	41		9.253				ND	
	74 2-Chloroethyl vinyl ether	63		9.356				ND	
	75 cis-1,3-Dichloropropene	75		9.545				ND	
	76 4-Methyl-2-pentanone (MIBK)	43		9.697				ND	
$	77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1122851	50.3	
	78 Toluene	92		9.922				ND	7
T	208 1,3-Dichlorobutene-2(total) TIC	89	11.291	10.000	1.291	0	7667	0.3454	7
	79 1,3-Dichlorobutene-2(total)	89		10.000				ND	7
S	80 1,3-Dichloropropene, Total	100		10.060				ND	7
	81 trans-1,3-Dichloropropene	75		10.171				ND	
	82 Ethyl methacrylate	69		10.226				ND	
	83 1,1,2-Trichloroethane	97		10.372				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 Tetrachloroethene	166		10.476				ND	7
85 1,3-Dichloropropane	76		10.536				ND	
87 2-Hexanone	43		10.573				ND	
86 3,4-Dichloro-1-butene	75		10.573				ND	
88 n-Butyl acetate	43		10.695				ND	
89 Chlorodibromomethane	129		10.755				ND	
90 Ethylene Dibromide	107		10.871				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	917076	50.0	
92 1-Chlorohexane	91		11.297				ND	U
94 Chlorobenzene	112		11.321				ND	
95 1,1,1,2-Tetrachloroethane	131		11.400				ND	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
99 Styrene	104		11.857				ND	
100 Bromoform	173		12.021				ND	
101 Isopropylbenzene	105		12.142				ND	
102 cis-1,4-Dichloro-2-butene	88		12.179				ND	
103 Cyclohexanone	55		12.215				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	400944	46.9	
105 1,1,2,2-Tetrachloroethane	83		12.380				ND	
106 trans-1,4-Dichloro-2-butene	53		12.404				ND	
107 Bromobenzene	156		12.404				ND	
108 1,2,3-Trichloropropane	110		12.428				ND	
109 N-Propylbenzene	91		12.471				ND	
110 2-Chlorotoluene	126		12.550				ND	
111 1,3,5-Trimethylbenzene	105		12.605				ND	
112 4-Chlorotoluene	126		12.641				ND	
113 2,3,4-Trichlorobutene	109		12.654				ND	
114 tert-Butylbenzene	134		12.848				ND	
115 Pentachloroethane	167		12.885				ND	
116 1,2,4-Trimethylbenzene	105		12.891				ND	
117 sec-Butylbenzene	105		13.012				ND	
118 1,3-Dichlorobenzene	146		13.116				ND	
119 4-Isopropyltoluene	119		13.116				ND	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	525283	50.0	
121 1,4-Dichlorobenzene	146		13.189				ND	
122 1,2,3-Trimethylbenzene	105		13.195				ND	
123 Benzyl chloride	91		13.256				ND	7
124 1,3-Diethylbenzene	119		13.317				ND	
125 p-Diethylbenzene	119		13.390				ND	
126 n-Butylbenzene	92		13.408				ND	
127 1,2-Dichlorobenzene	146		13.444				ND	
128 o-diethylbenzene	119		13.463				ND	
129 Hexachloroethane	201		13.560				ND	
130 1,2-Dibromo-3-Chloropropane	75		13.986				ND	
131 1,3,5-Trichlorobenzene	180		14.120				ND	
132 1,2,4-Trichlorobenzene	180		14.539				ND	
133 Hexachlorobutadiene	225		14.625				ND	
134 Naphthalene	128		14.722				ND	
135 1,2,3-Trichlorobenzene	180		14.868				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
136 2-Methylnaphthalene	142		15.513				ND	
137 C4-C10	1		0.000				ND	
172 Propene oxide	1		0.000				ND	
173 Methyl acrylate	1		0.000				ND	
174 1,3-Divinylbenzene	1		0.000				ND	
175 Ethyl bromide	1		0.000				ND	
176 Chloroacetonitrile	1		0.000				ND	
S 177 divinyl benzene	1		0.000				ND	7
178 Methylal	1		0.000				ND	
179 n-Decane	57		0.000				ND	
180 Dodecane	57		0.000				ND	
181 Butane	1		0.000				ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000				ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000				ND	
184 2-Bromoethanol TIC	1		0.000				ND	
185 2-Chloroethanol TIC	1		0.000				ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000				ND	
202 tert-Butyl Formate	1		0.000				ND	
188 Epichlorohydrin TIC	1		0.000				ND	
189 2-Bromo-3-chloropropene TIC	1		0.000				ND	
190 Ethylene oxide TIC	1		0.000				ND	
191 2,3-Dibromopropene TIC	1		0.000				ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000				ND	
193 1-Bromo-2-chloroethane TIC	1		0.000				ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000				ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000				ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
197 n-Propylamine (TIC)	1		0.000				ND	
198 beta-Propiolactone TIC	1		0.000				ND	
199 Propargyl alcohol TIC	1		0.000				ND	
200 Propanol TIC	1		0.000				ND	
201 Malononitrile (TIC)	1		0.000				ND	
171 Hexachloroethane TIC	1		0.000				ND	
186 Monochloroacetic acid TIC	1		0.000				ND	
170 Ethanol TIC	1		0.000				ND	
152 Vinyl bromide TIC	1		0.000				ND	
138 C6-C10	1		0.000				ND	
139 Nitrobenzene TIC	1		0.000				ND	
140 Chloroacetaldehyde TIC	1		0.000				ND	
141 Pentachloroethane TIC	1		0.000				ND	
142 Chloral hydrate (TIC)	1		0.000				ND	
143 Methanol TIC	1		0.000				ND	
144 Bromoacetone (TIC)	1		0.000				ND	
145 Epibromohydrin TIC	1		0.000				ND	
146 Paraldehyde TIC	1		0.000				ND	
147 Pentafluorobenzene TIC	1		0.000				ND	
148 1-Bromopropane TIC	1		0.000				ND	
149 Allyl Alcohol TIC	1		0.000				ND	
150 Vinyl acetate (TIC)	1		0.000				ND	
151 2-Picoline (TIC)	1		0.000				ND	
153 o-toluidine TIC	1		0.000				ND	
168 2-Pentanone (TIC)	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000				ND	
155 C4-C12	1		0.000				ND	
156 1-Chlorobutane	1		0.000				ND	
157 1,4-Divinylbenzene	1		0.000				ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000				ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000				ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000				ND	
162 Diethoxymethane	1		0.000				ND	
163 C5-C12	1		0.000				ND	
164 1-Bromo-2-chloroethane	1		0.000				ND	
165 C6-C12	1		0.000				ND	
S 166 Total Diethylbenzene	1		0.000				ND	7
167 3-chloro-1-Butene	1		0.000				ND	
169 Ethyl acrylate	55		0.000				ND	
209 Bromoethane TIC	1		0.000				ND	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

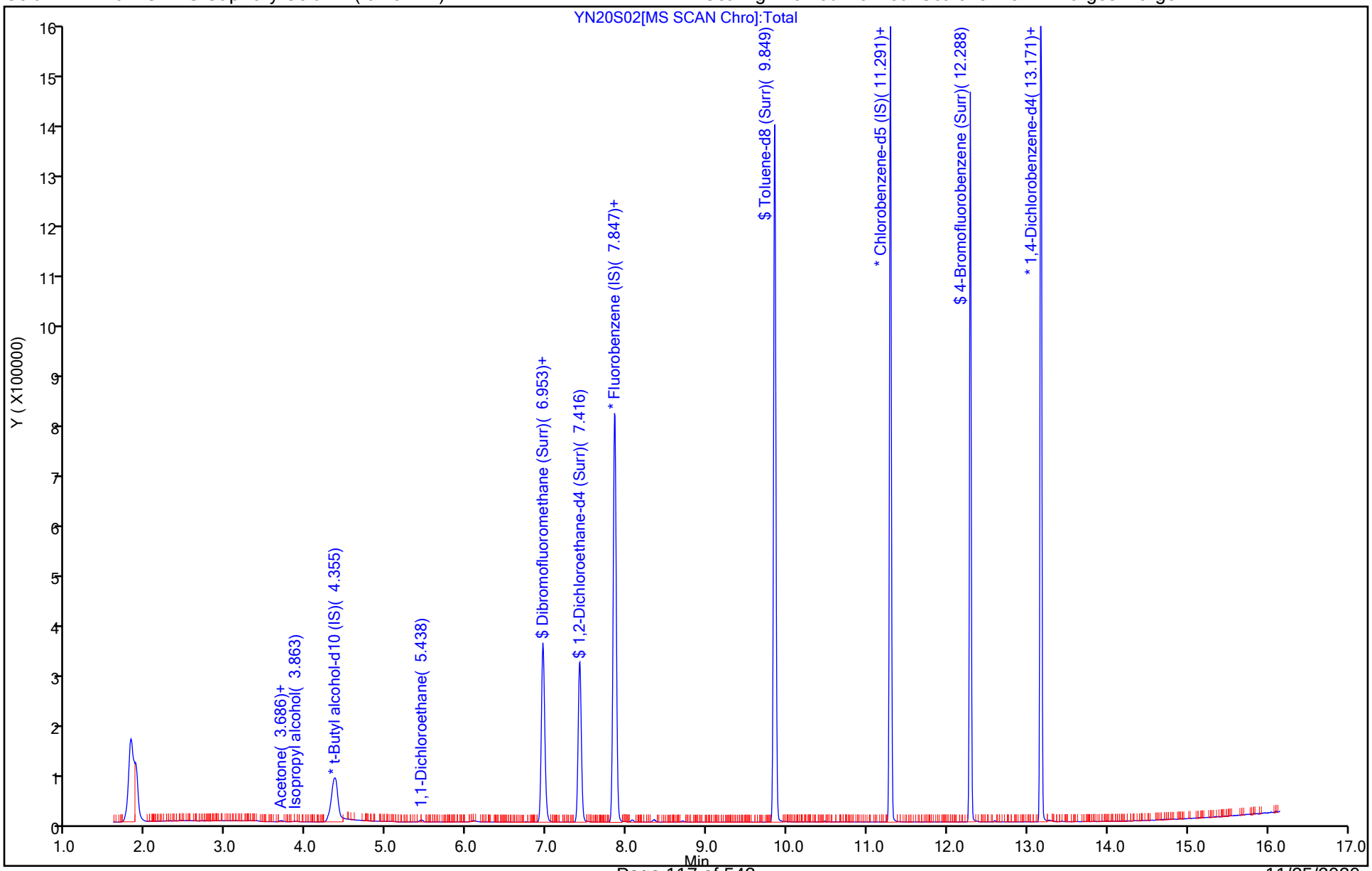
Report Date: 20-Nov-2020 21:13:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D

Injection Date:	20-Nov-2020 12:03:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-5	Lab Sample ID:	410-21210-5	Worklist Smp#:	9
Client ID:	J14-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

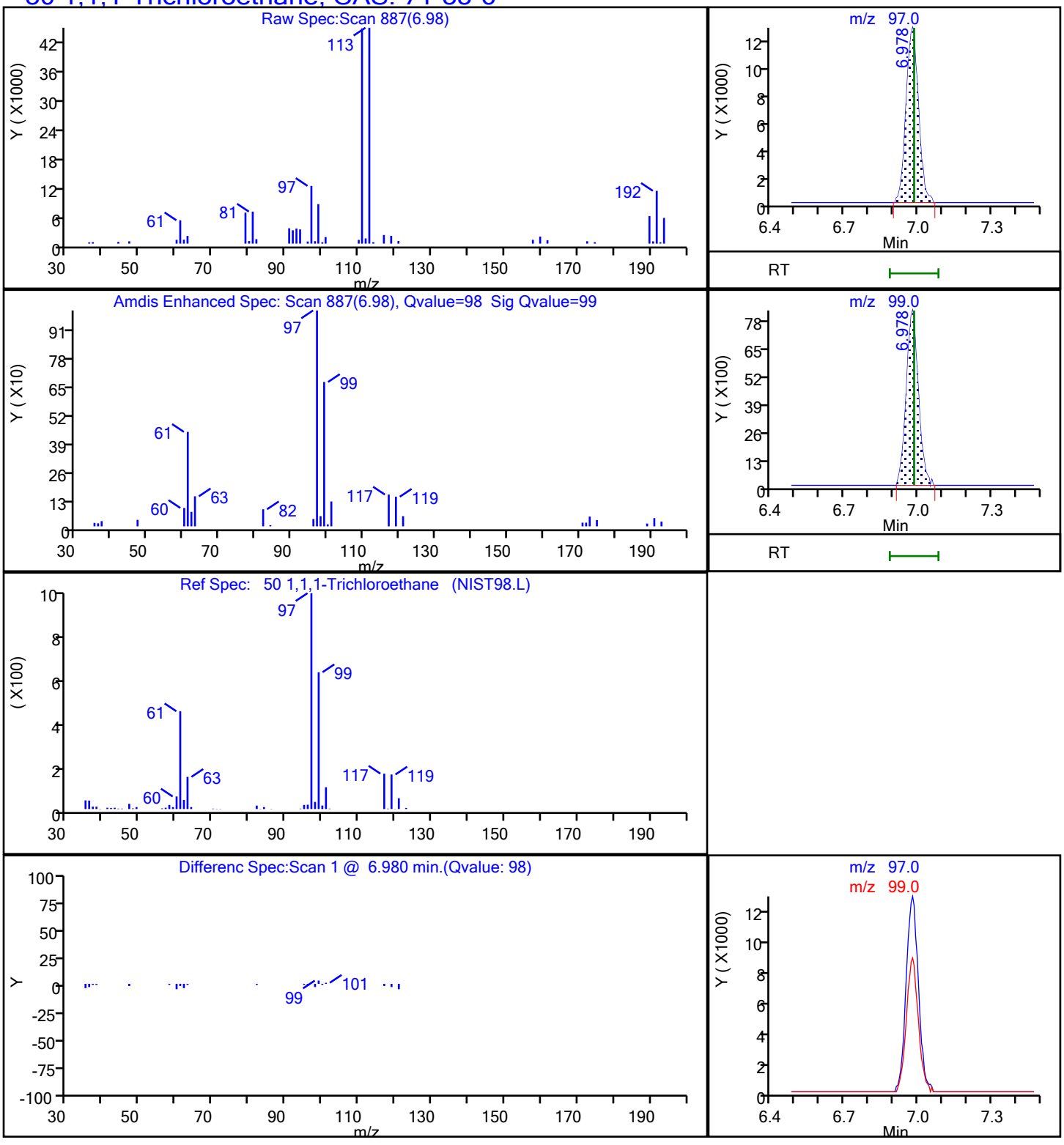


Report Date: 20-Nov-2020 21:13:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D				
Injection Date:	20-Nov-2020 12:03:30	Instrument ID:	9355		
Lims ID:	410-21210-A-5	Lab Sample ID:	410-21210-5		
Client ID:	J14-BR01				
Operator ID:	clm27445	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 20-Nov-2020 21:13:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D

Injection Date: 20-Nov-2020 12:03:30 Instrument ID: 9355

Lims ID: 410-21210-A-5 Lab Sample ID: 410-21210-5

Client ID: J14-BR01

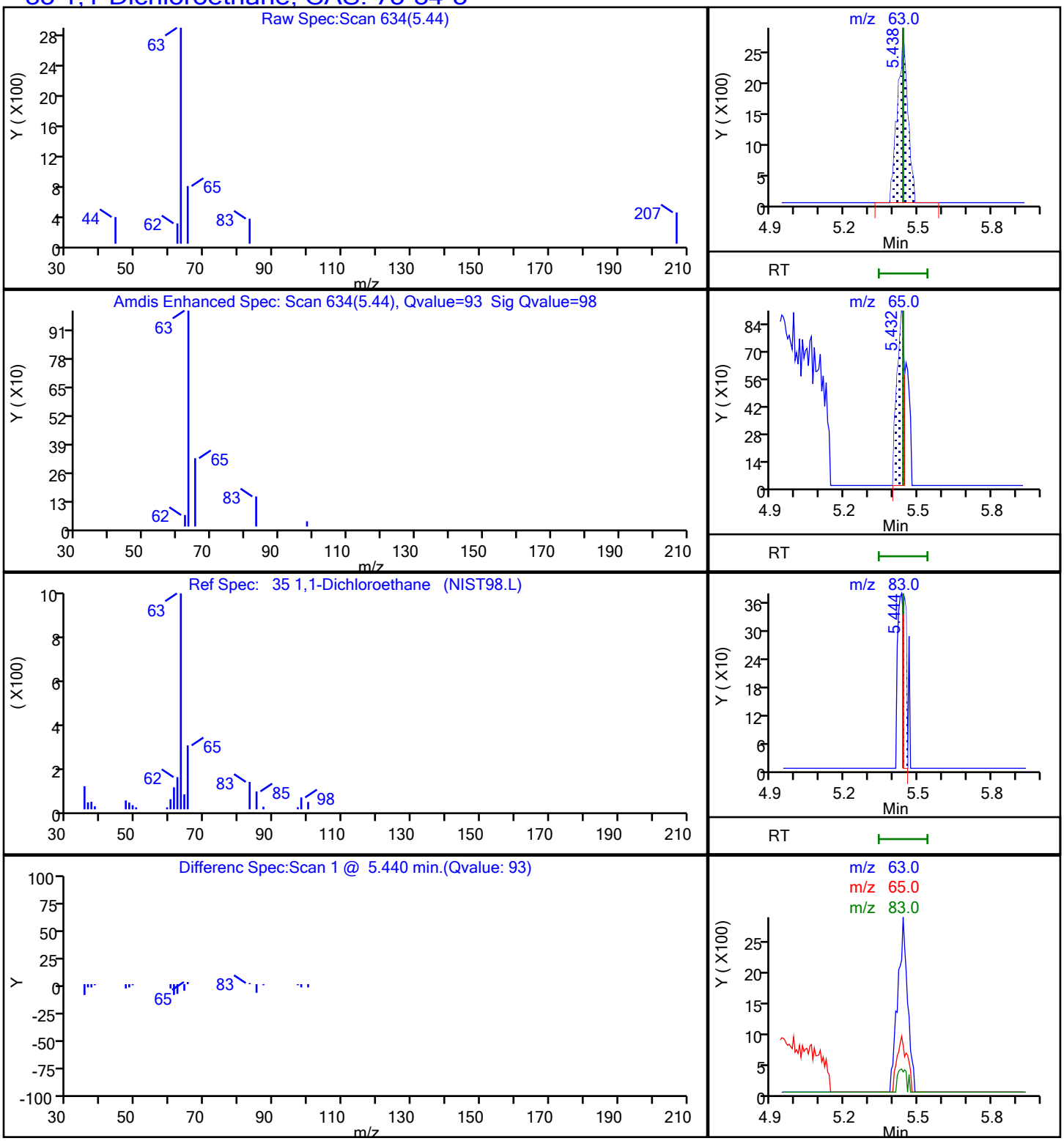
Operator ID: clm27445 ALS Bottle#: 8 Worklist Smp#: 9

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

35 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 20-Nov-2020 21:13:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D

Injection Date: 20-Nov-2020 12:03:30 Instrument ID: 9355

Lims ID: 410-21210-A-5 Lab Sample ID: 410-21210-5

Client ID: J14-BR01

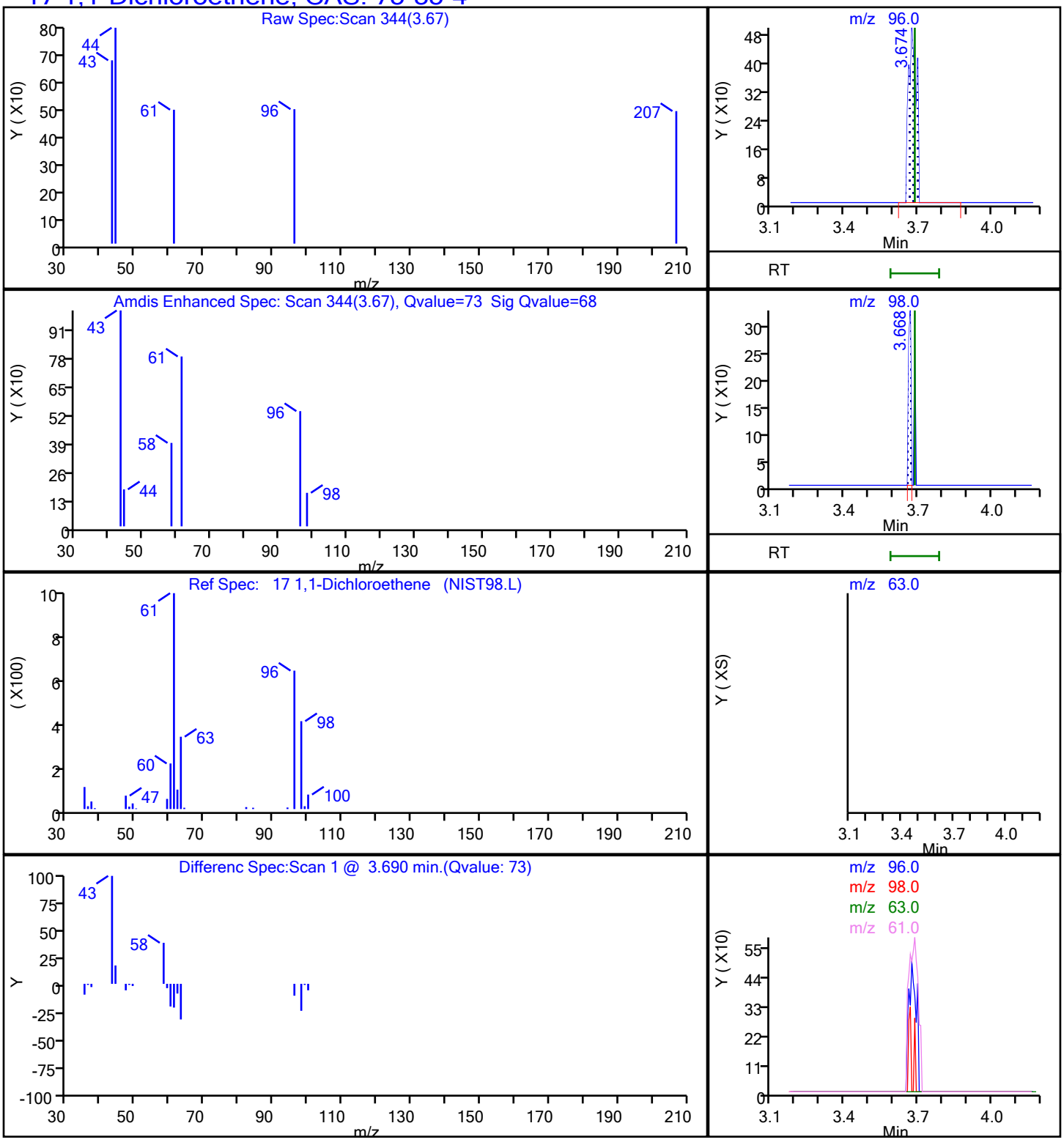
Operator ID: clm27445 ALS Bottle#: 8 Worklist Smp#: 9

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

17 1,1-Dichloroethene, CAS: 75-35-4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

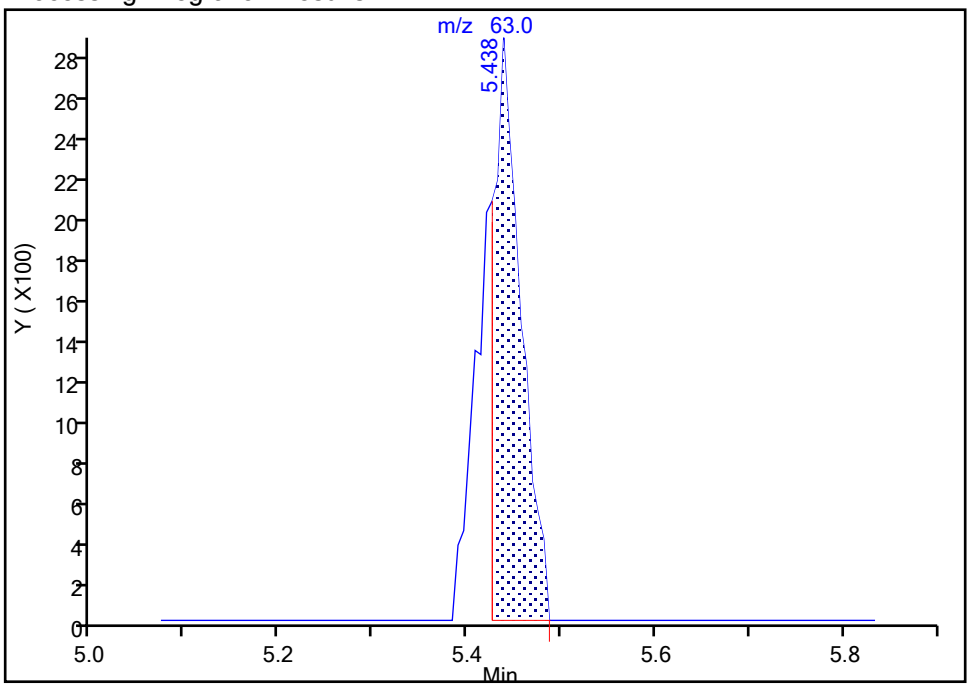
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D				
Injection Date:	20-Nov-2020 12:03:30	Instrument ID:	9355		
Lims ID:	410-21210-A-5	Lab Sample ID:	410-21210-5		
Client ID:	J14-BR01				
Operator ID:	clm27445	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

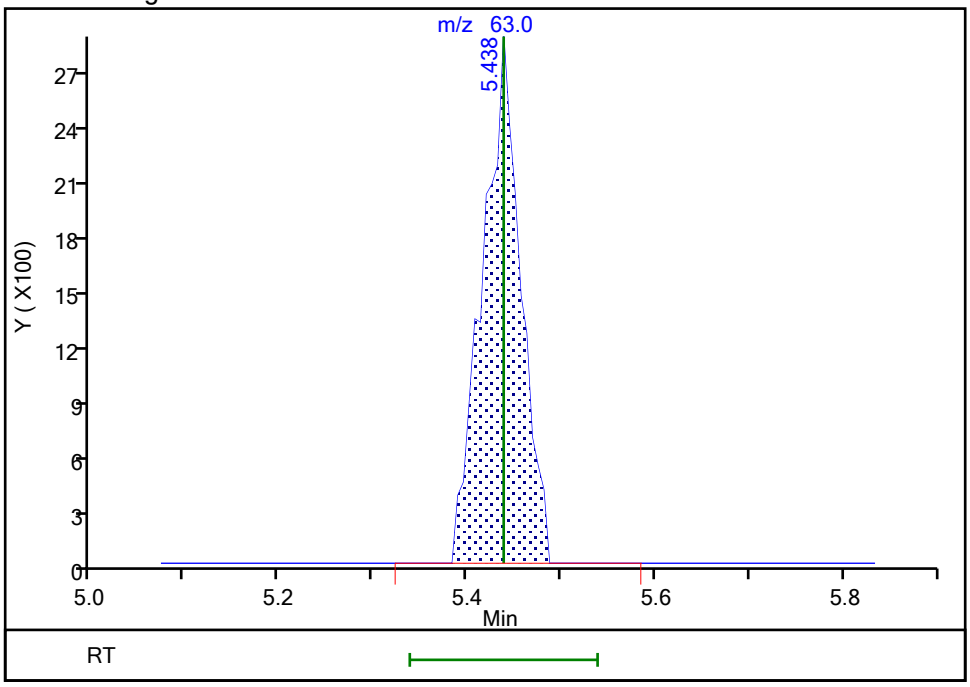
Processing Integration Results

RT: 5.44
Area: 5694
Amount: 0.553940
Amount Units: ug/l



Manual Integration Results

RT: 5.44
Area: 7975
Amount: 0.775847
Amount Units: ug/l



Reviewer: johnsons, 20-Nov-2020 21:08:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

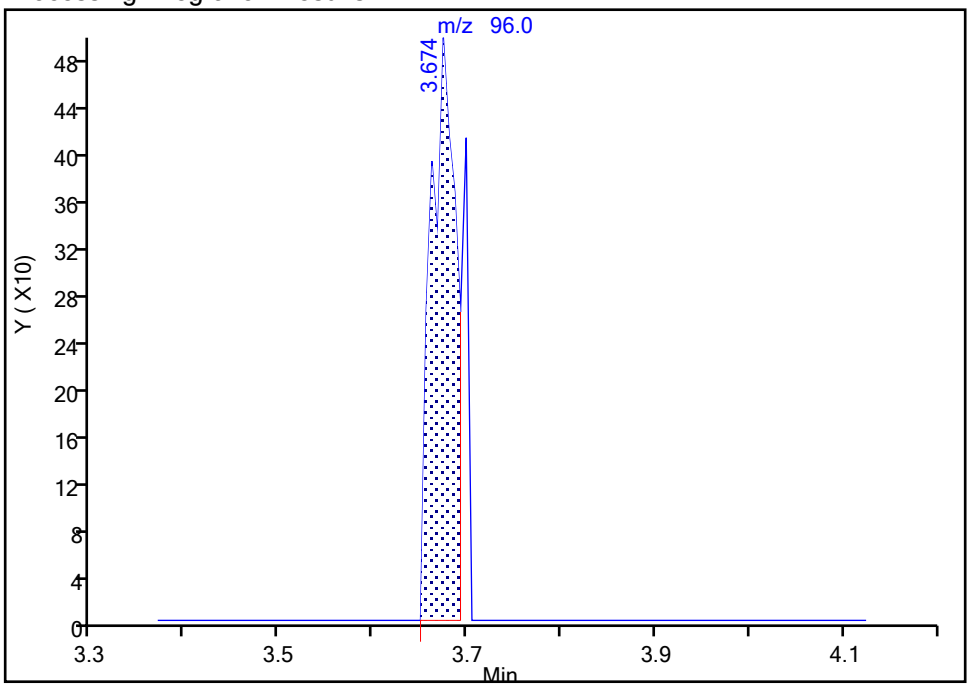
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S02.D				
Injection Date:	20-Nov-2020 12:03:30	Instrument ID:	9355		
Lims ID:	410-21210-A-5	Lab Sample ID:	410-21210-5		
Client ID:	J14-BR01				
Operator ID:	clm27445	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

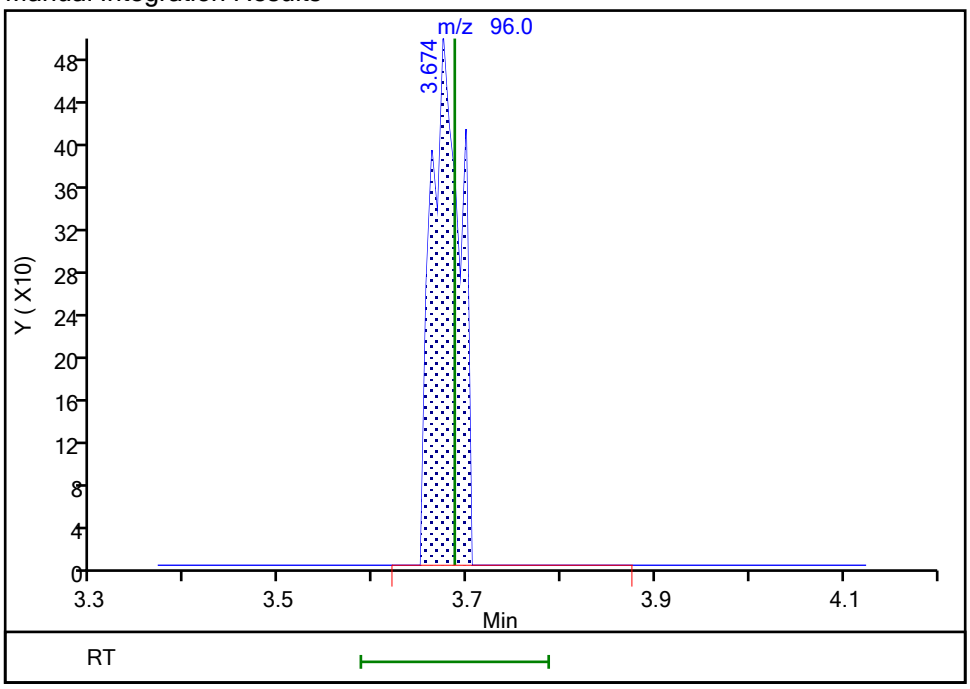
Processing Integration Results

RT: 3.67
Area: 918
Amount: 0.172436
Amount Units: ug/l



Manual Integration Results

RT: 3.67
Area: 1068
Amount: 0.200612
Amount Units: ug/l



Reviewer: johnsons, 20-Nov-2020 21:08:01
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-UC02 Lab Sample ID: 410-21210-6

Matrix: Water Lab File ID: YN20S17.D

Analysis Method: 8260C Date Collected: 11/13/2020 11:00

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 17:34

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.7		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S17.D
Lims ID: 410-21210-A-6
Client ID: J14-UC02
Sample Type: Client
Inject. Date: 20-Nov-2020 17:34:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-024
Misc. Info.: 410-21210-A-6
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:14:35 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:15:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.355	0.000	0	294297	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	257318	51.0	
50 1,1,1-Trichloroethane	97	6.977	6.984	-0.007	98	15309	1.68	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	62464	51.6	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.847	7.854	-0.007	99	1003412	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1008402	50.0	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	828062	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	351219	45.5	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	473209	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

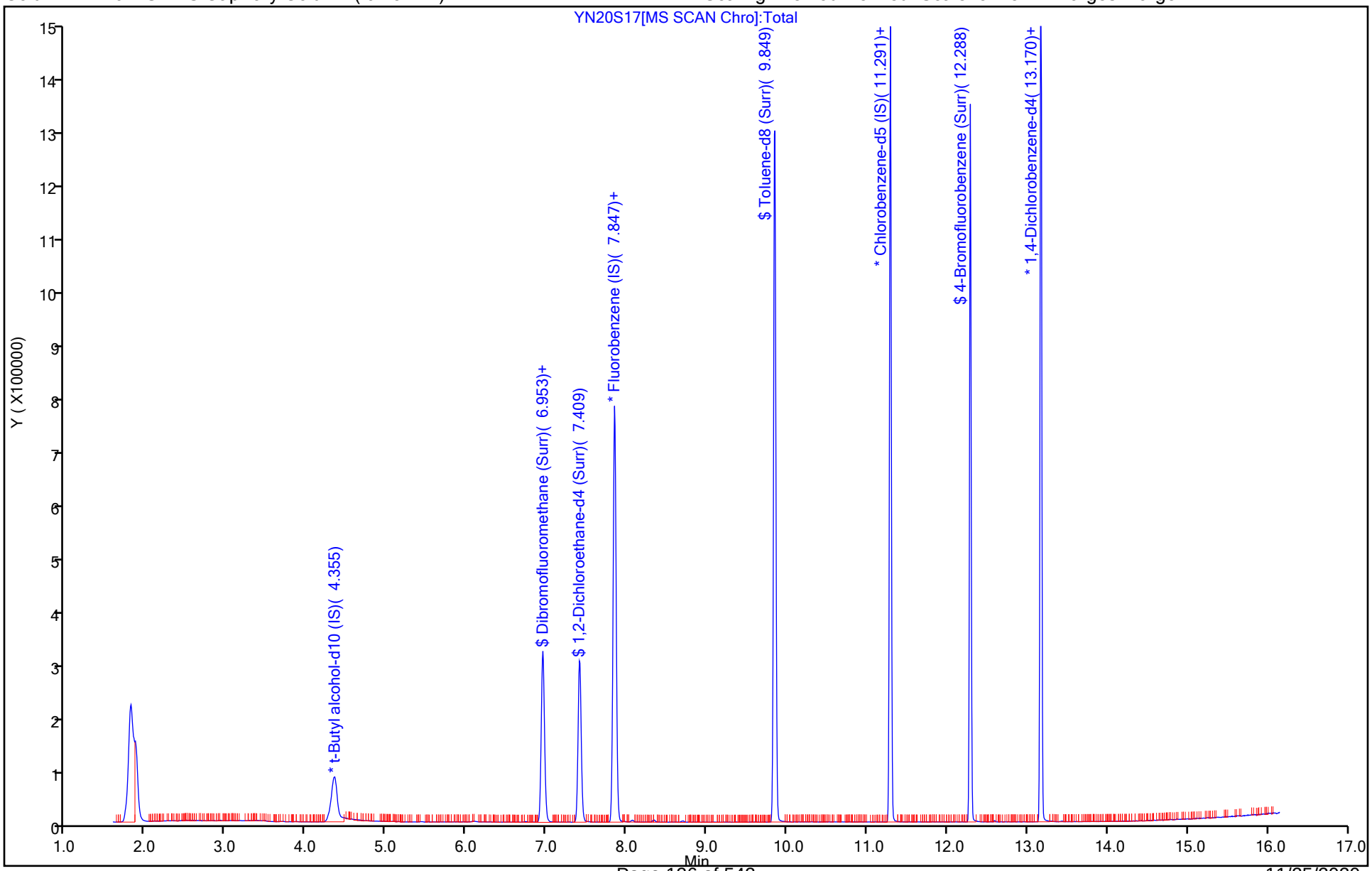
Report Date: 20-Nov-2020 21:16:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S17.D

Injection Date:	20-Nov-2020 17:34:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-6	Lab Sample ID:	410-21210-6	Worklist Smp#:	24
Client ID:	J14-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

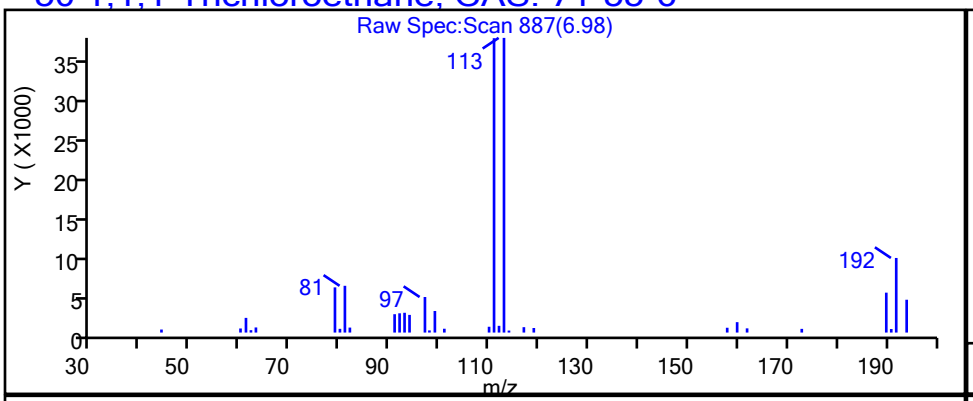


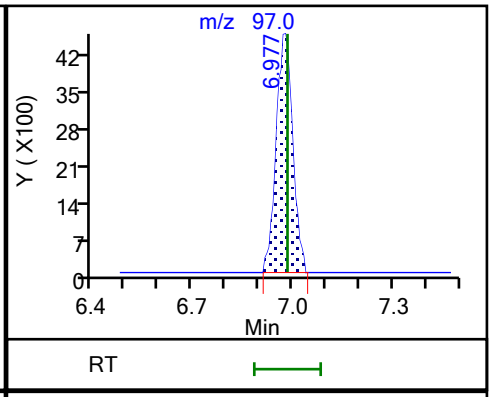
Report Date: 20-Nov-2020 21:16:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

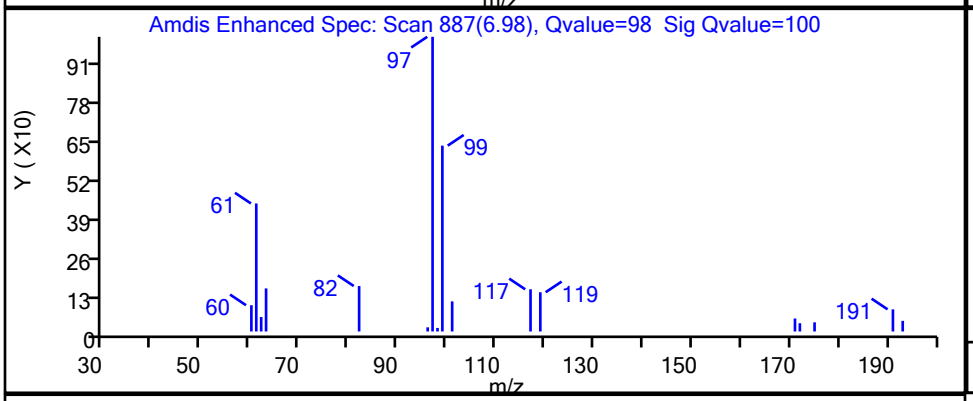
Eurofins Lancaster Laboratories Env, LLC

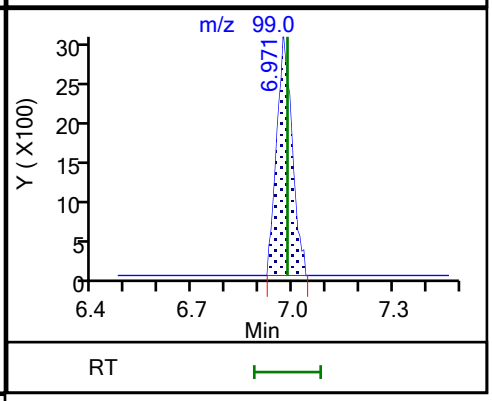
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S17.D				
Injection Date:	20-Nov-2020 17:34:30	Instrument ID:	9355		
Lims ID:	410-21210-A-6	Lab Sample ID:	410-21210-6		
Client ID:	J14-UC02				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

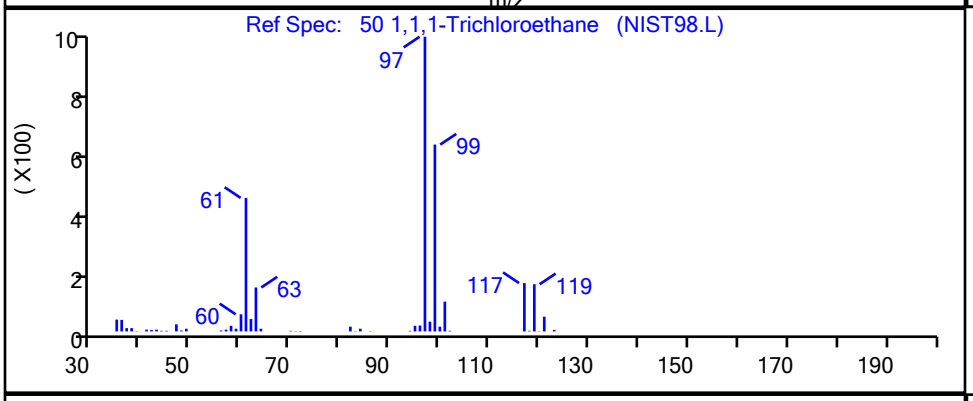
50 1,1,1-Trichloroethane, CAS: 71-55-6

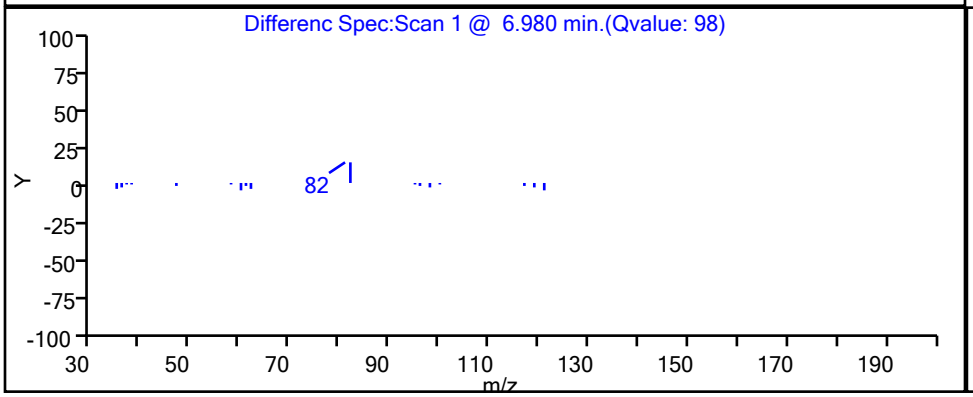


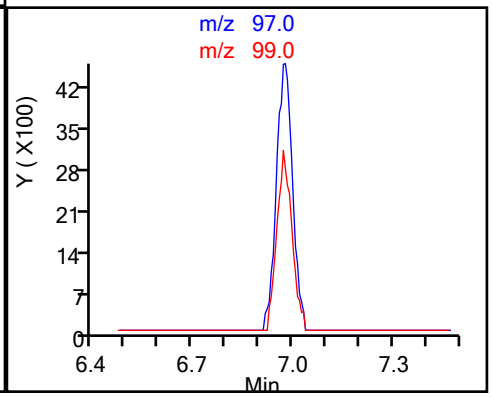












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-BR02 Lab Sample ID: 410-21210-7

Matrix: Water Lab File ID: YN20S18.D

Analysis Method: 8260C Date Collected: 11/13/2020 12:12

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 17:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S18.D
Lims ID: 410-21210-A-7
Client ID: J14-BR02
Sample Type: Client
Inject. Date: 20-Nov-2020 17:56:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-025
Misc. Info.: 410-21210-A-7
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:14:35 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:16:12

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.355	0.007	0	280226	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	255032	51.3	
50 1,1,1-Trichloroethane	97		6.984				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	62080	52.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	987755	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	995550	50.0	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	817763	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	347878	45.6	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	464921	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

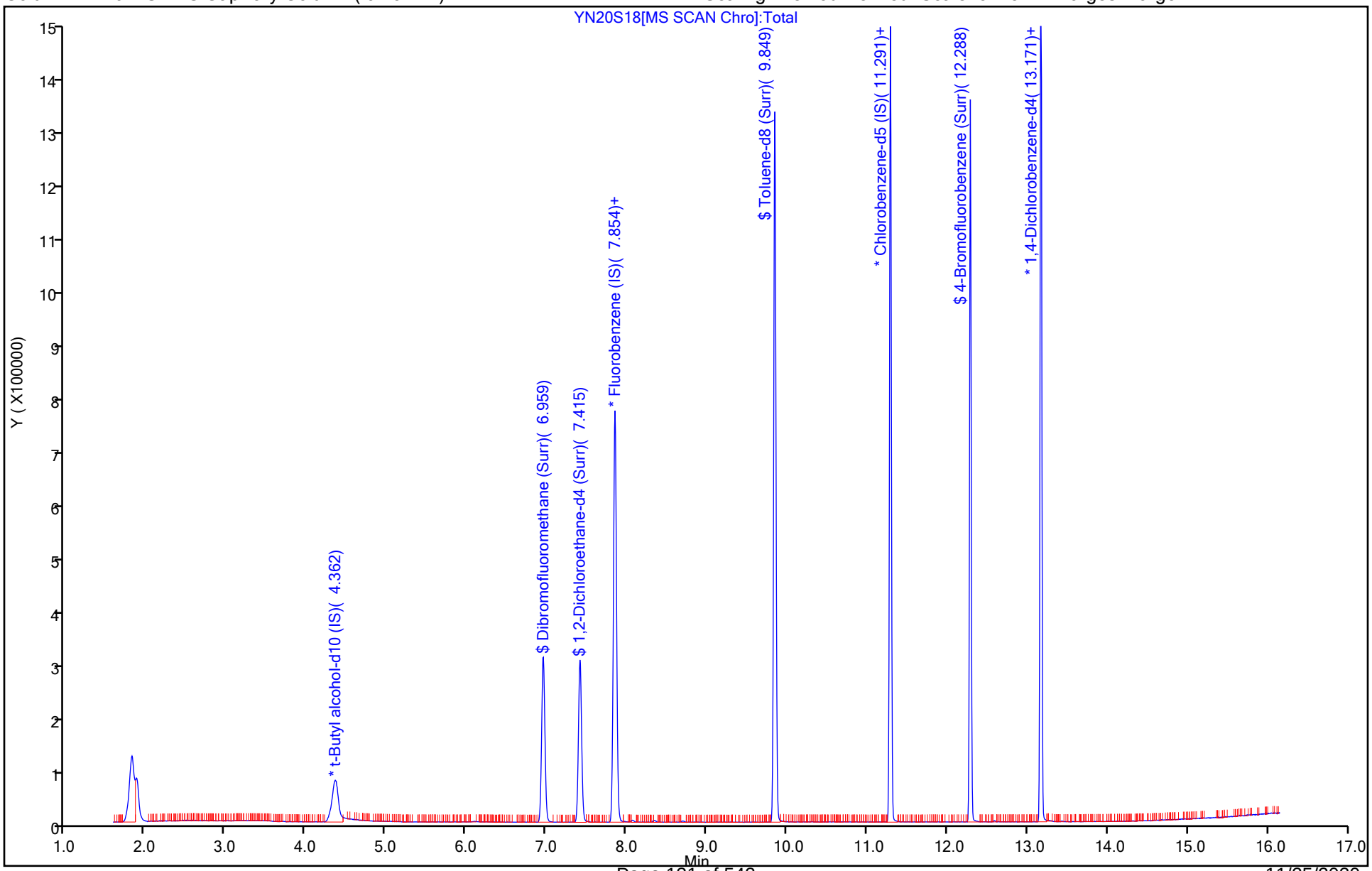
Report Date: 20-Nov-2020 21:16:33 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S18.D

Injection Date:	20-Nov-2020 17:56:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-7	Lab Sample ID:	410-21210-7	Worklist Smp#:	25
Client ID:	J14-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J17-UC01 Lab Sample ID: 410-21210-8

Matrix: Water Lab File ID: YN20S19.D

Analysis Method: 8260C Date Collected: 11/13/2020 13:54

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 18:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S19.D
Lims ID: 410-21210-A-8
Client ID: J17-UC01
Sample Type: Client
Inject. Date: 20-Nov-2020 18:18:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-026
Misc. Info.: 410-21210-A-8
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:17:08 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:17:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.355	0.013	0	288737	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	256328	51.6	
50 1,1,1-Trichloroethane	97		6.984				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	61824	51.9	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	987702	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	998275	50.4	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	813403	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	346098	45.6	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	-0.001	93	464808	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

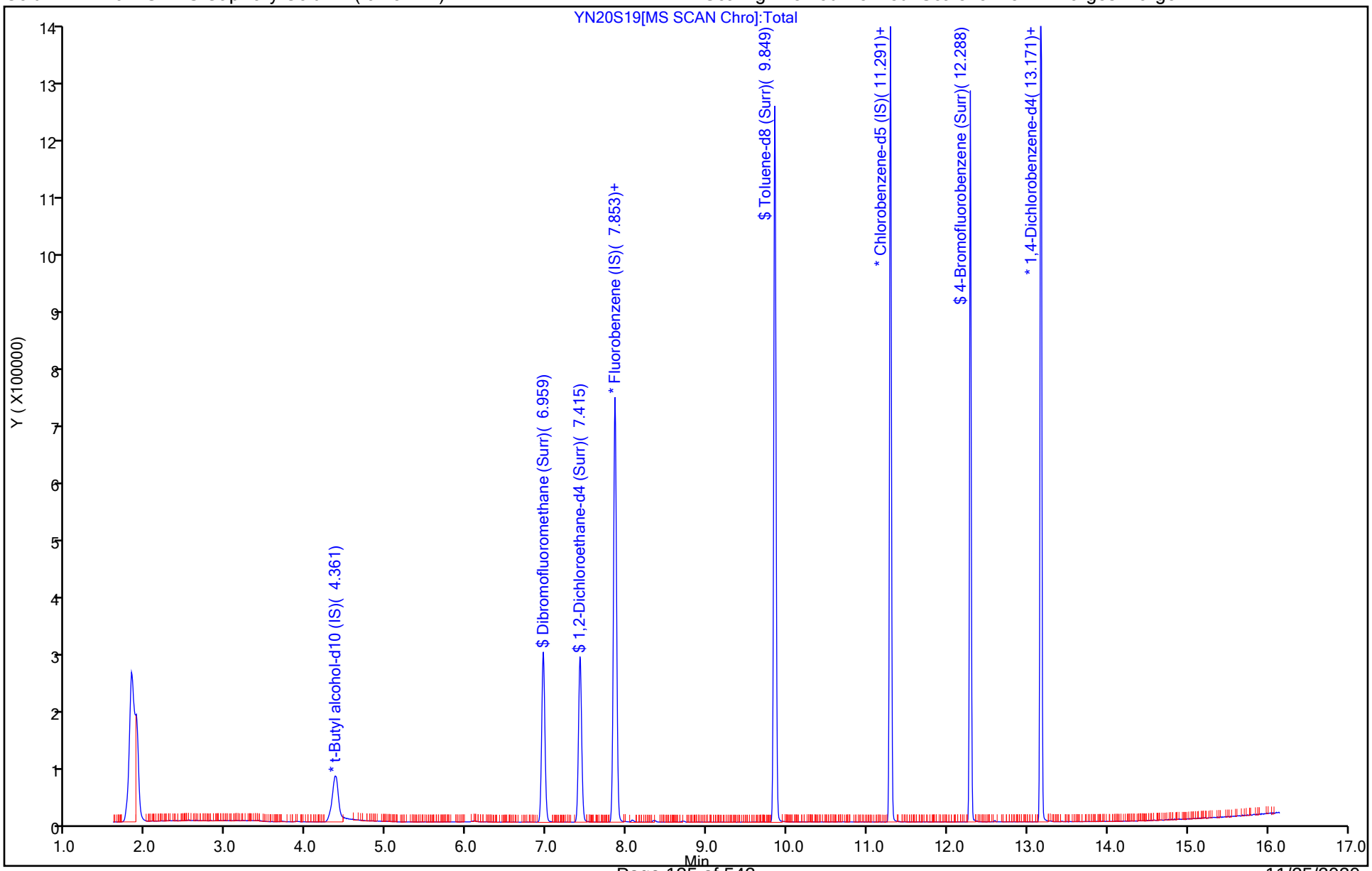
Report Date: 20-Nov-2020 21:18:54 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S19.D

Injection Date:	20-Nov-2020 18:18:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-8	Lab Sample ID:	410-21210-8	Worklist Smp#:	26
Client ID:	J17-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J17-BR01 Lab Sample ID: 410-21210-9

Matrix: Water Lab File ID: YN20S20.D

Analysis Method: 8260C Date Collected: 11/13/2020 15:15

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 18:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S20.D
Lims ID: 410-21210-A-9
Client ID: J17-BR01
Sample Type: Client
Inject. Date: 20-Nov-2020 18:39:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-027
Misc. Info.: 410-21210-A-9
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:17:08 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:17:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.356	4.355	0.001	0	283941	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	252166	50.8	
50 1,1,1-Trichloroethane	97	6.971	6.984	-0.013	35	1136	0.1271	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	61927	52.0	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.847	7.854	-0.007	100	985754	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	992297	50.2	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	812389	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.000	97	346907	45.8	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	463712	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

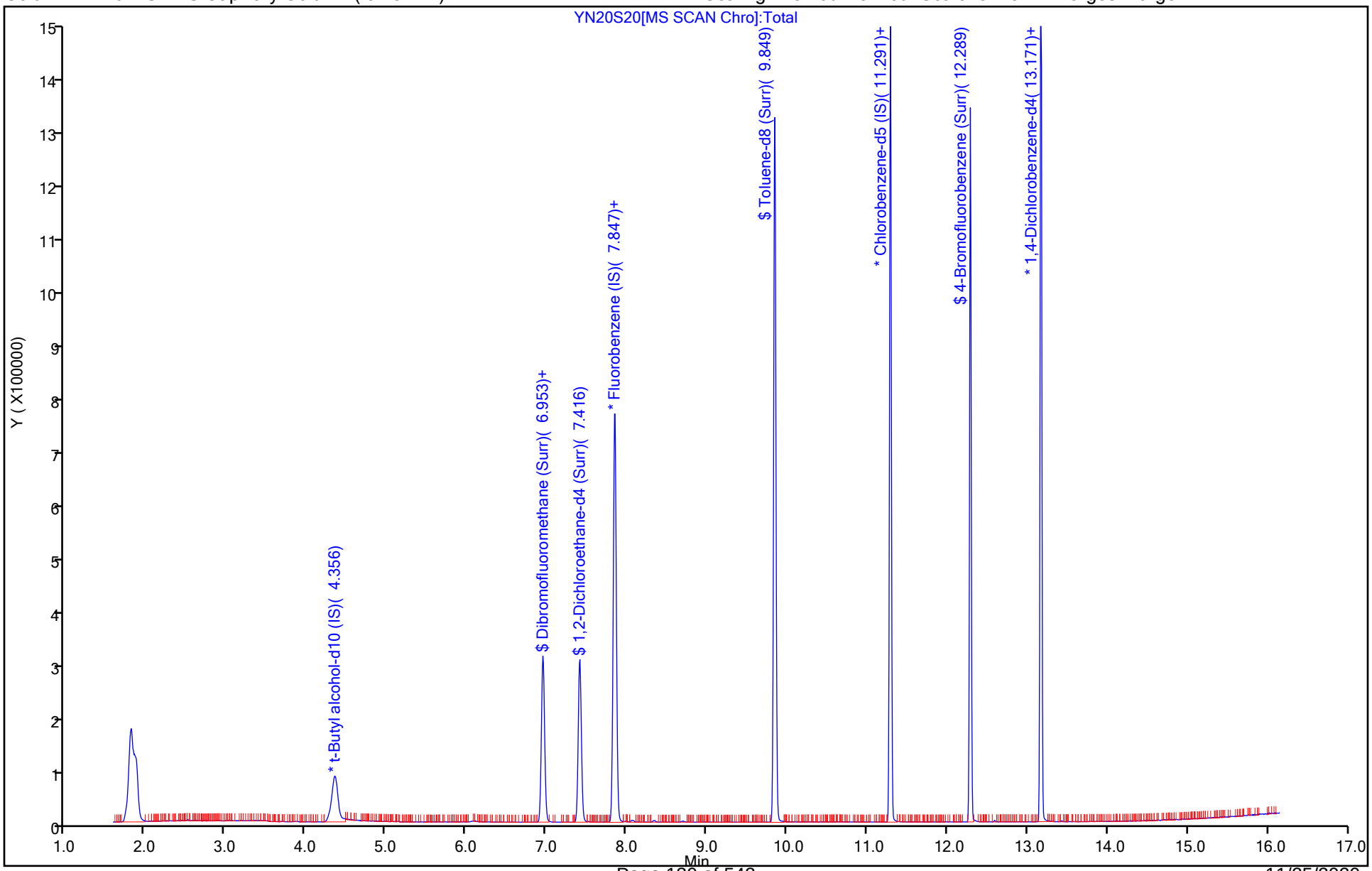
Report Date: 20-Nov-2020 21:18:55 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S20.D

Injection Date:	20-Nov-2020 18:39:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-9	Lab Sample ID:	410-21210-9	Worklist Smp#:	27
Client ID:	J17-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J17-UC02 Lab Sample ID: 410-21210-10

Matrix: Water Lab File ID: YN20S21.D

Analysis Method: 8260C Date Collected: 11/13/2020 16:12

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 19:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	1.1		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S21.D
Lims ID: 410-21210-A-10
Client ID: J17-UC02
Sample Type: Client
Inject. Date: 20-Nov-2020 19:01:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-028
Misc. Info.: 410-21210-A-10
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:17:08 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:18:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.355	0.007	0	275100	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83	6.740	6.740	0.000	92	10150	1.07	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	247643	51.3	
50 1,1,1-Trichloroethane	97		6.984				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	60639	52.4	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	100	958602	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	966269	50.5	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	785716	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	331562	45.2	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	451433	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

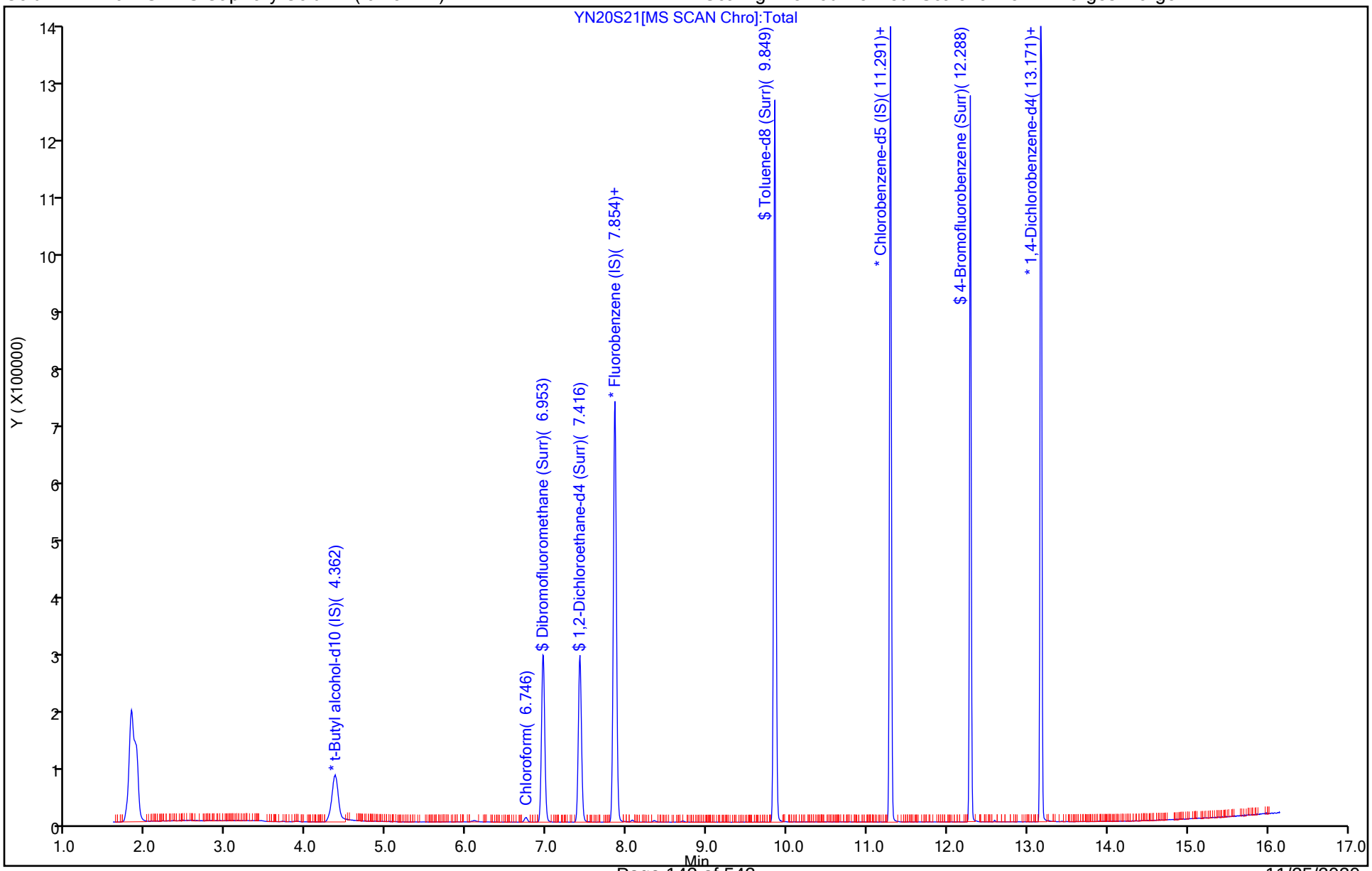
Report Date: 20-Nov-2020 21:18:56 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S21.D

Injection Date:	20-Nov-2020 19:01:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-10	Lab Sample ID:	410-21210-10	Worklist Smp#:	28
Client ID:	J17-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

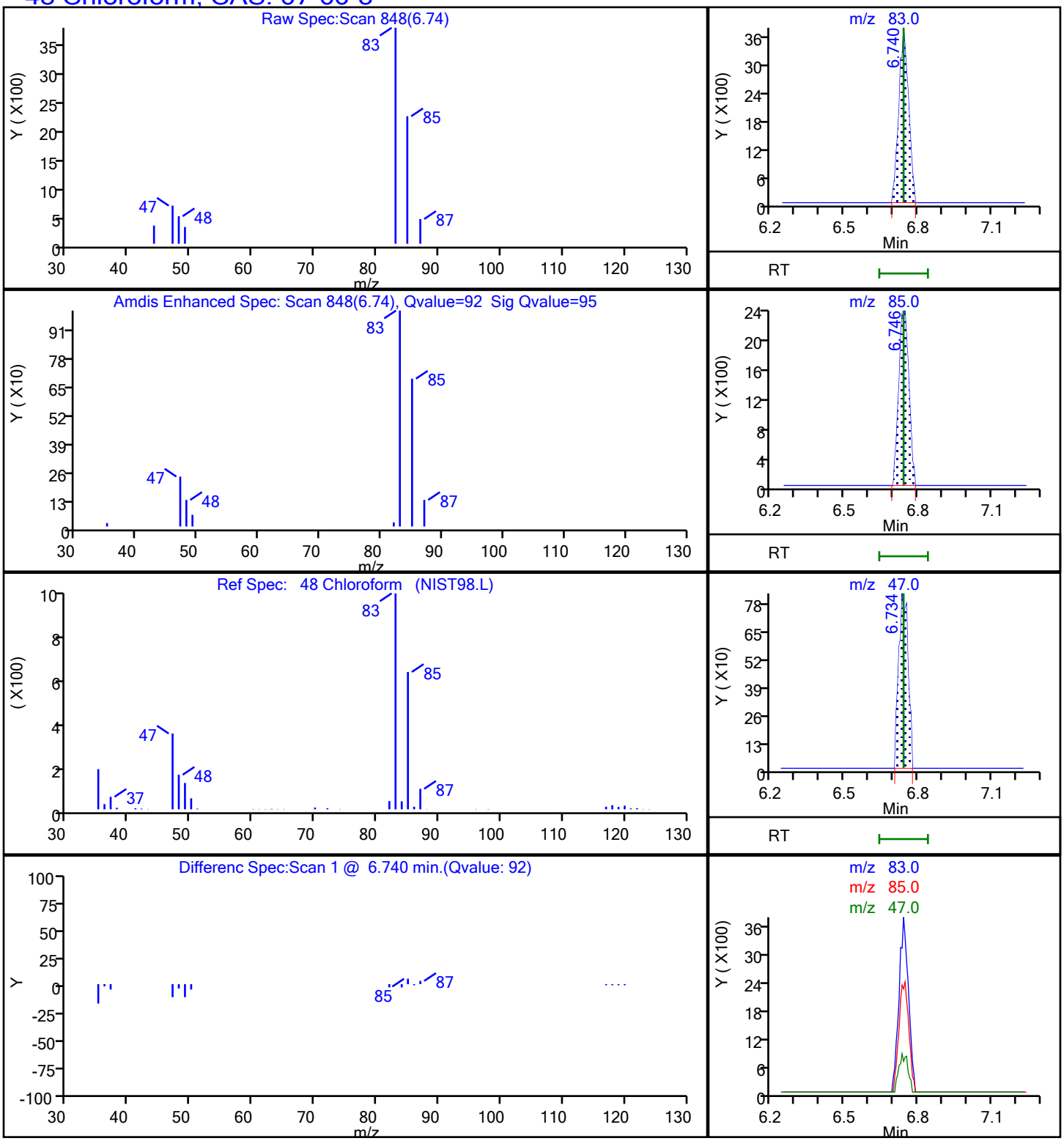
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S21.D				
Injection Date:	20-Nov-2020 19:01:30	Instrument ID:	9355		
Lims ID:	410-21210-A-10	Lab Sample ID:	410-21210-10		
Client ID:	J17-UC02				
Operator ID:	clm27445	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

48 Chloroform, CAS: 67-66-3



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: TB111320 Lab Sample ID: 410-21210-11

Matrix: Water Lab File ID: YN20S01.D

Analysis Method: 8260C Date Collected: 11/12/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 11:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S01.D
Lims ID: 410-21210-A-11
Client ID: TB111320
Sample Type: Client
Inject. Date: 20-Nov-2020 11:41:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-008
Misc. Info.: 410-21210-A-11
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:12:03 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:07:21

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.355	-0.006	0	341602	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	287098	50.8	
50 1,1,1-Trichloroethane	97		6.984				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	69853	51.5	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	1123253	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1134639	50.0	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	931434	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	404156	46.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	-0.001	93	531416	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

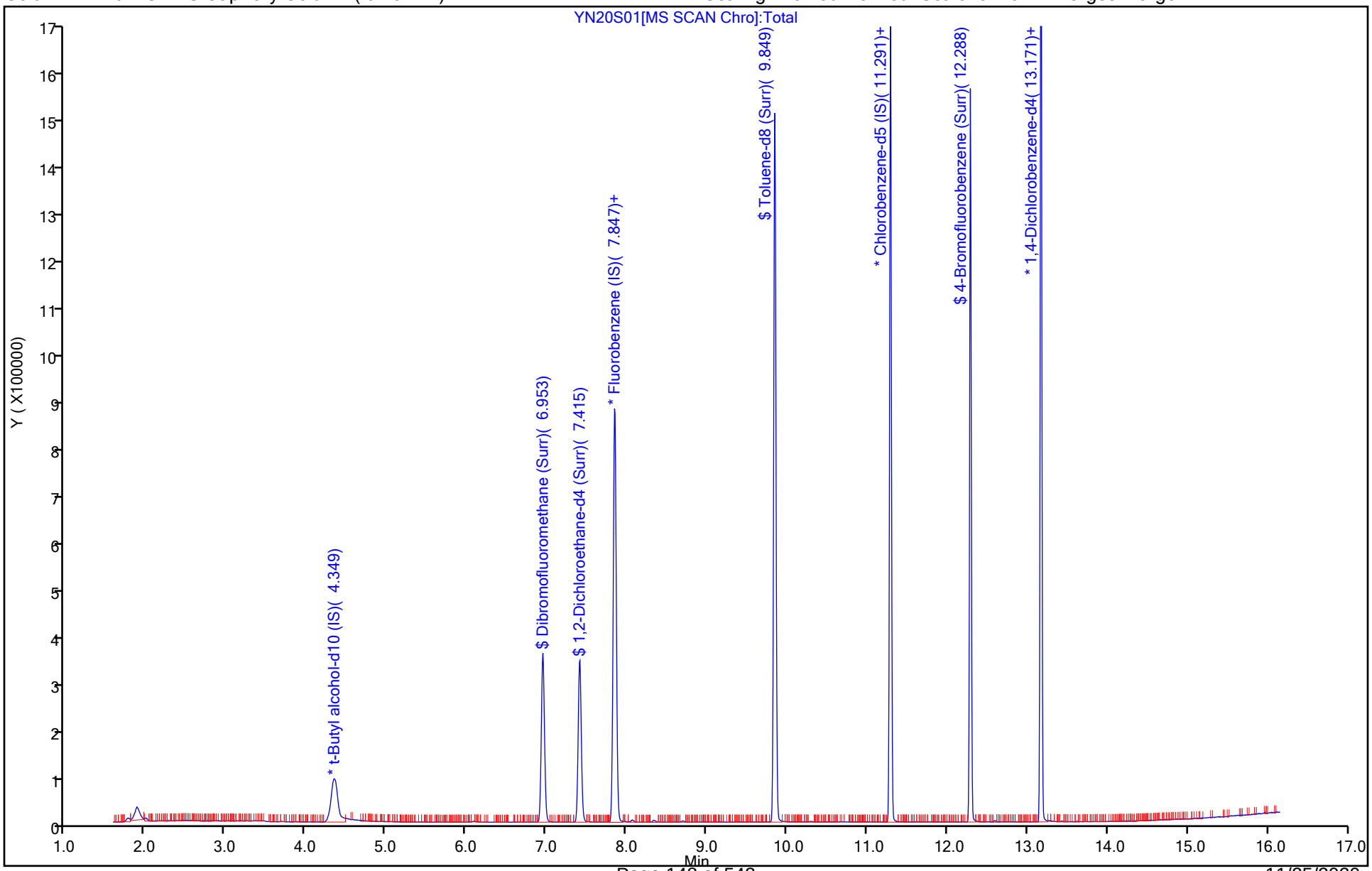
Report Date: 20-Nov-2020 21:13:50 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S01.D

Injection Date:	20-Nov-2020 11:41:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-11	Lab Sample ID:	410-21210-11	Worklist Smp#:	8
Client ID:	TB111320				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J22-BR02 Lab Sample ID: 410-21210-12

Matrix: Water Lab File ID: YN21S10.D

Analysis Method: 8260C Date Collected: 11/15/2020 11:42

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 15:39

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S10.D
Lims ID: 410-21210-A-12
Client ID: J22-BR02
Sample Type: Client
Inject. Date: 21-Nov-2020 15:39:30 ALS Bottle#: 18 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-018
Misc. Info.: 410-21210-A-12
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:15:05

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	304106	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	264485	50.6	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.416	0.000	0	64943	51.7	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1039722	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1056920	50.1	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	867128	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.001	97	369749	45.7	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	485391	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

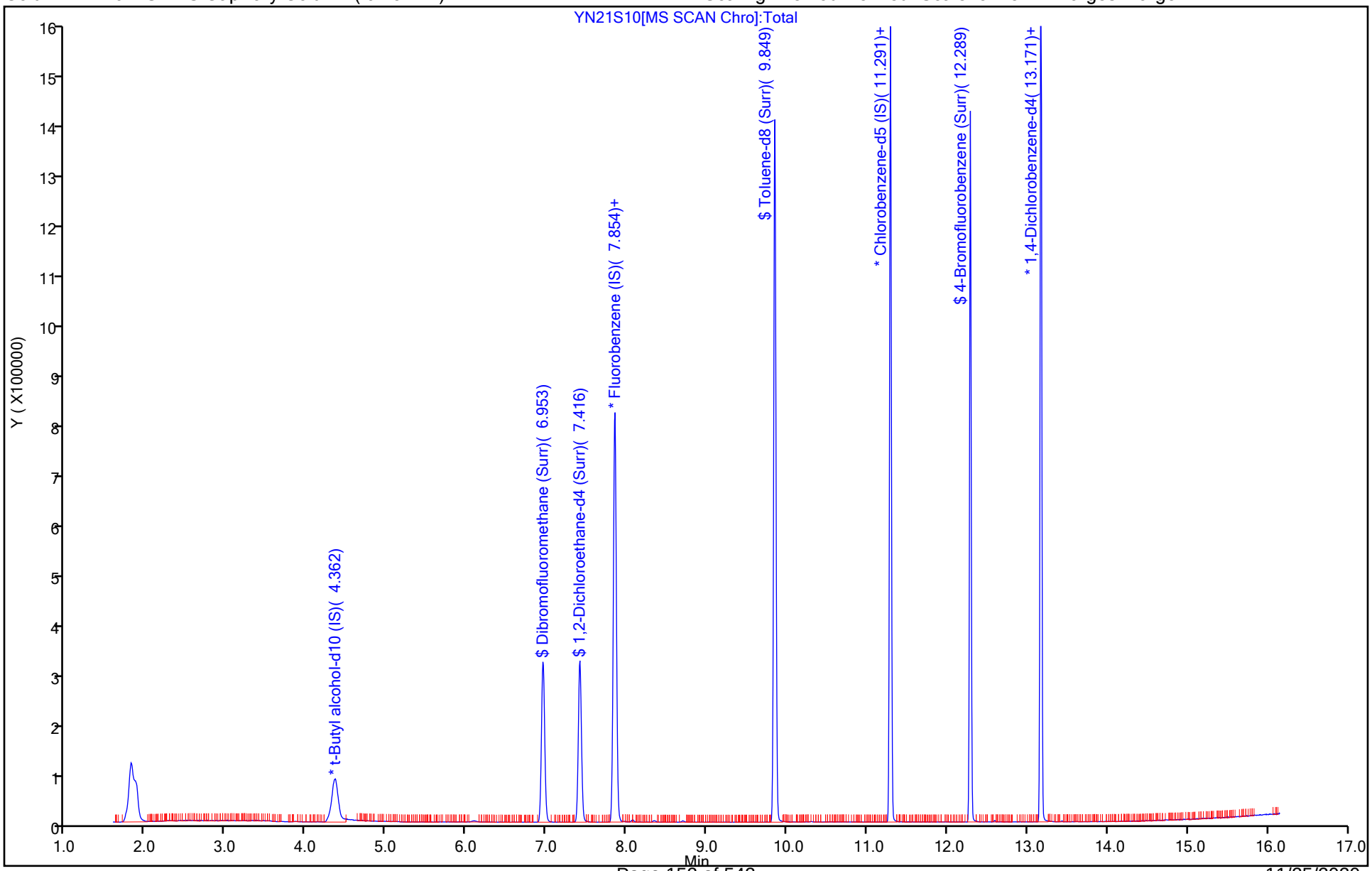
Report Date: 22-Nov-2020 21:23:42 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S10.D

Injection Date:	21-Nov-2020 15:39:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-12	Lab Sample ID:	410-21210-12	Worklist Smp#:	18
Client ID:	J22-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J22-BR01 Lab Sample ID: 410-21210-13

Matrix: Water Lab File ID: YN21S11.D

Analysis Method: 8260C Date Collected: 11/15/2020 13:15

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 16:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S11.D
Lims ID: 410-21210-A-13
Client ID: J22-BR01
Sample Type: Client
Inject. Date: 21-Nov-2020 16:01:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-019
Misc. Info.: 410-21210-A-13
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:15:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	293815	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	264490	51.1	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.416	0.000	0	64725	52.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1029105	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1047490	50.3	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	855058	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	363775	45.6	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	480247	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

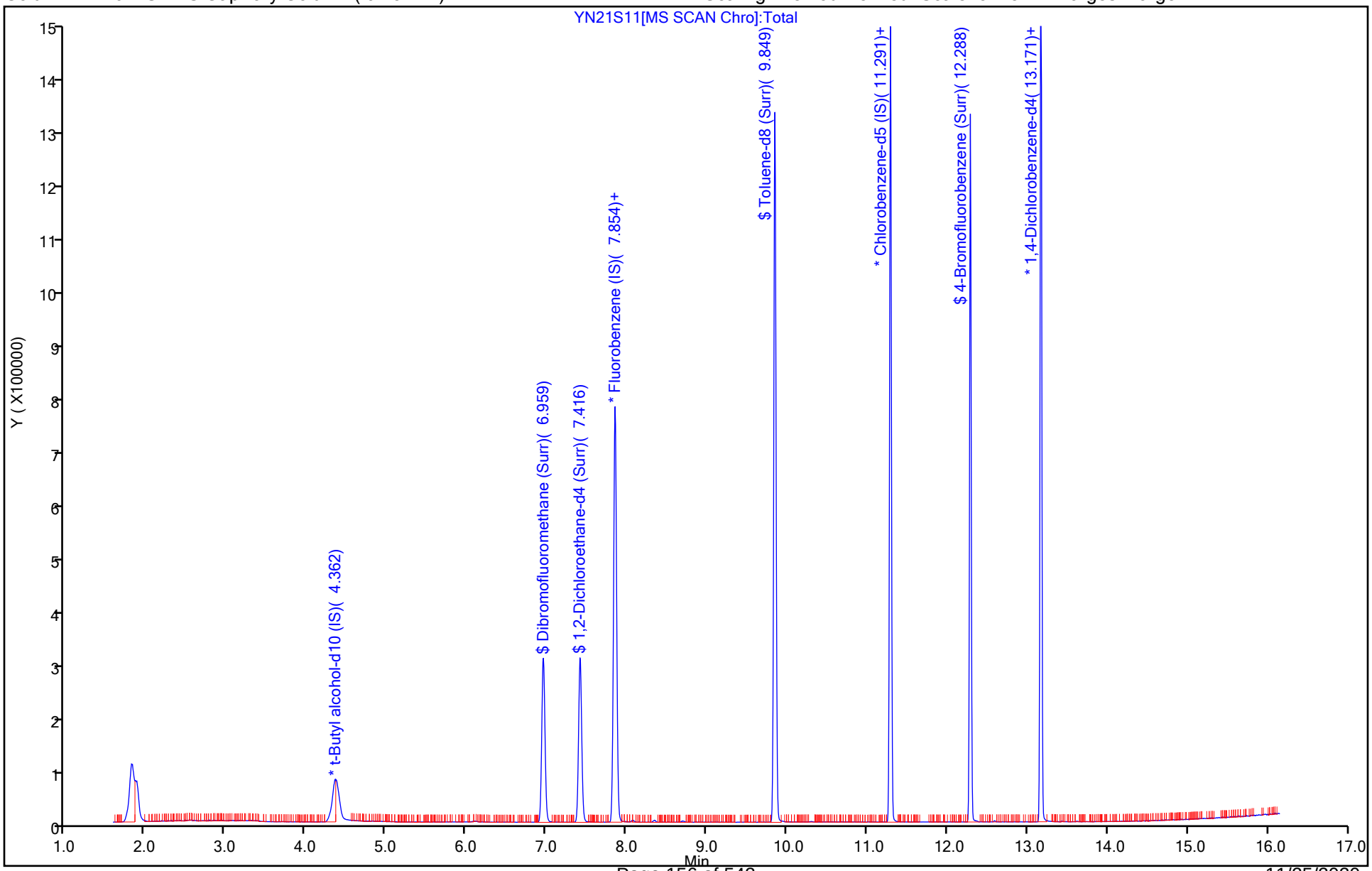
Report Date: 22-Nov-2020 21:23:43 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S11.D

Injection Date:	21-Nov-2020 16:01:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-13	Lab Sample ID:	410-21210-13	Worklist Smp#:	19
Client ID:	J22-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J23-UC01 Lab Sample ID: 410-21210-14

Matrix: Water Lab File ID: YN21S12.D

Analysis Method: 8260C Date Collected: 11/15/2020 14:43

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 16:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	8.8		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	1.3		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.9		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	0.97	J	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	76		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D
Lims ID: 410-21210-A-14
Client ID: J23-UC01
Sample Type: Client
Inject. Date: 21-Nov-2020 16:24:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-020
Misc. Info.: 410-21210-A-14
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:16:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	94	6223	1.32	M
18 Acetone	58		3.698				ND	U
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.368	0.000	0	278876	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96	6.272	6.260	0.012	76	12179	1.94	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	255552	51.6	
50 1,1,1-Trichloroethane	97	6.984	6.978	0.006	98	78416	8.78	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	62329	52.4	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	984751	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	95	466310	75.9	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1009939	50.6	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166	10.476	10.476	0.000	94	7566	0.9743	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	820671	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	351963	46.0	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	459836	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

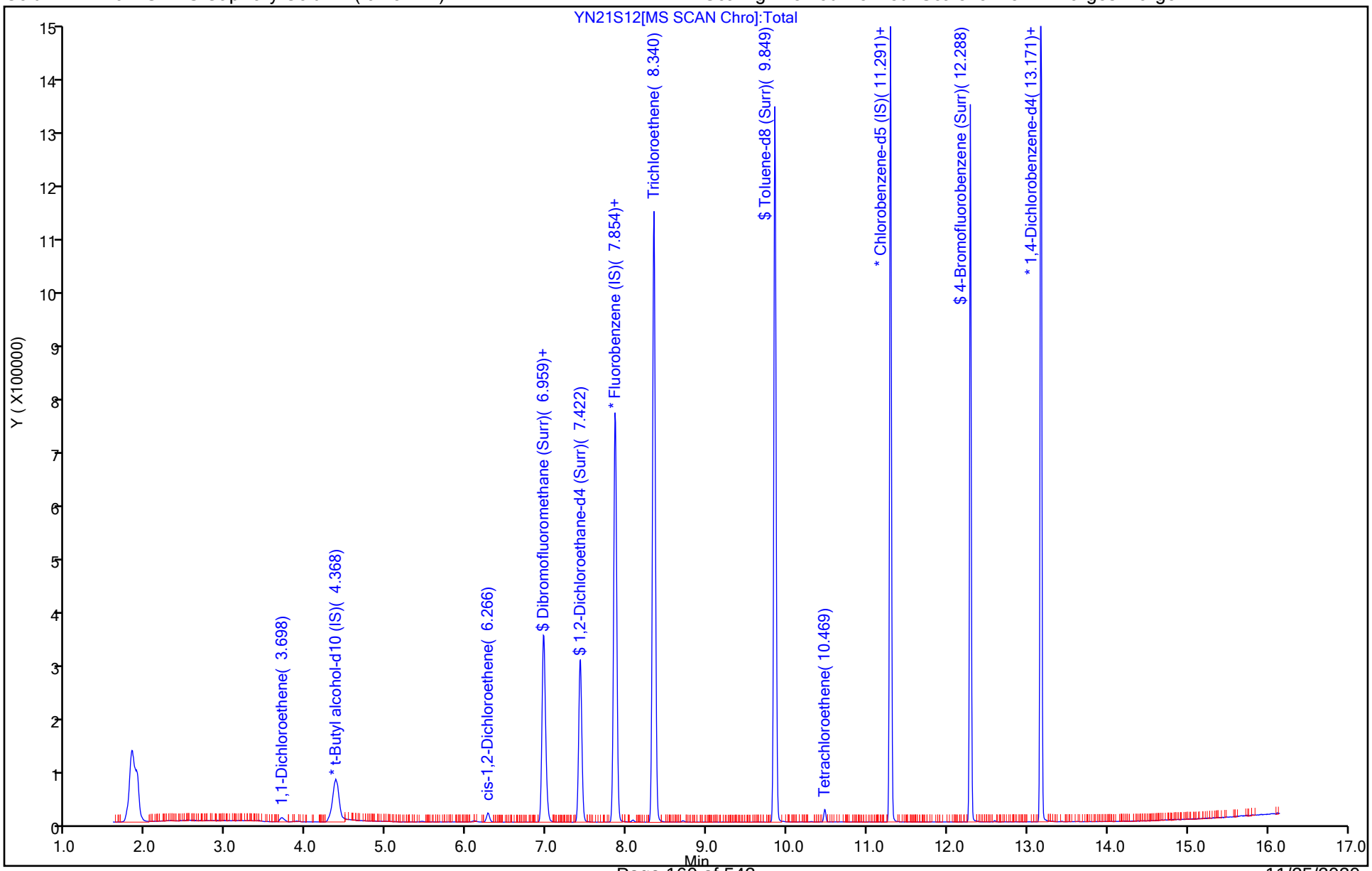
Report Date: 22-Nov-2020 21:23:44 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D

Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14	Worklist Smp#:	20
Client ID:	J23-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

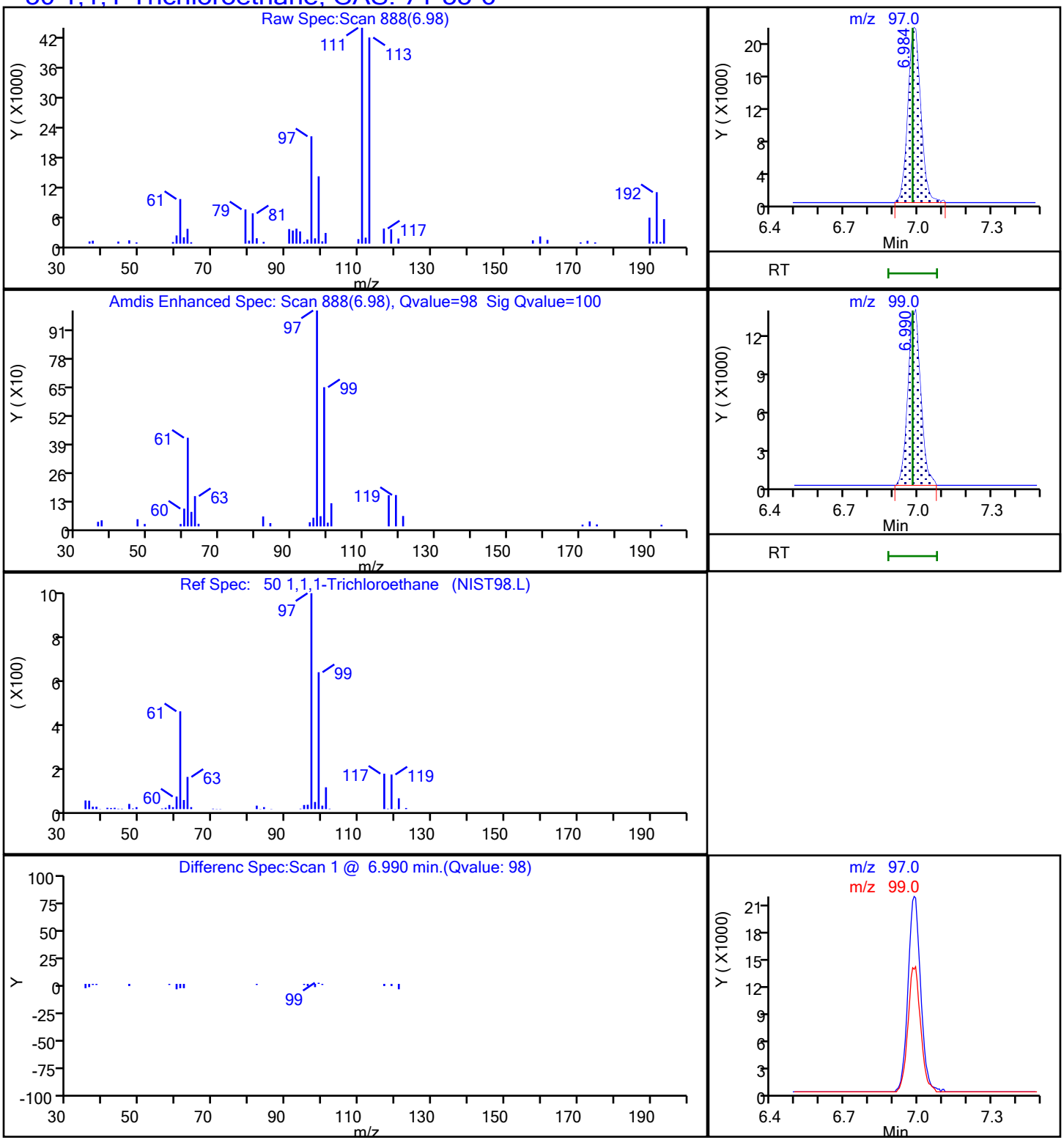
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6



Report Date: 22-Nov-2020 21:23:44 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D

Injection Date: 21-Nov-2020 16:24:30 Instrument ID: 9355

Lims ID: 410-21210-A-14 Lab Sample ID: 410-21210-14

Client ID: J23-UC01

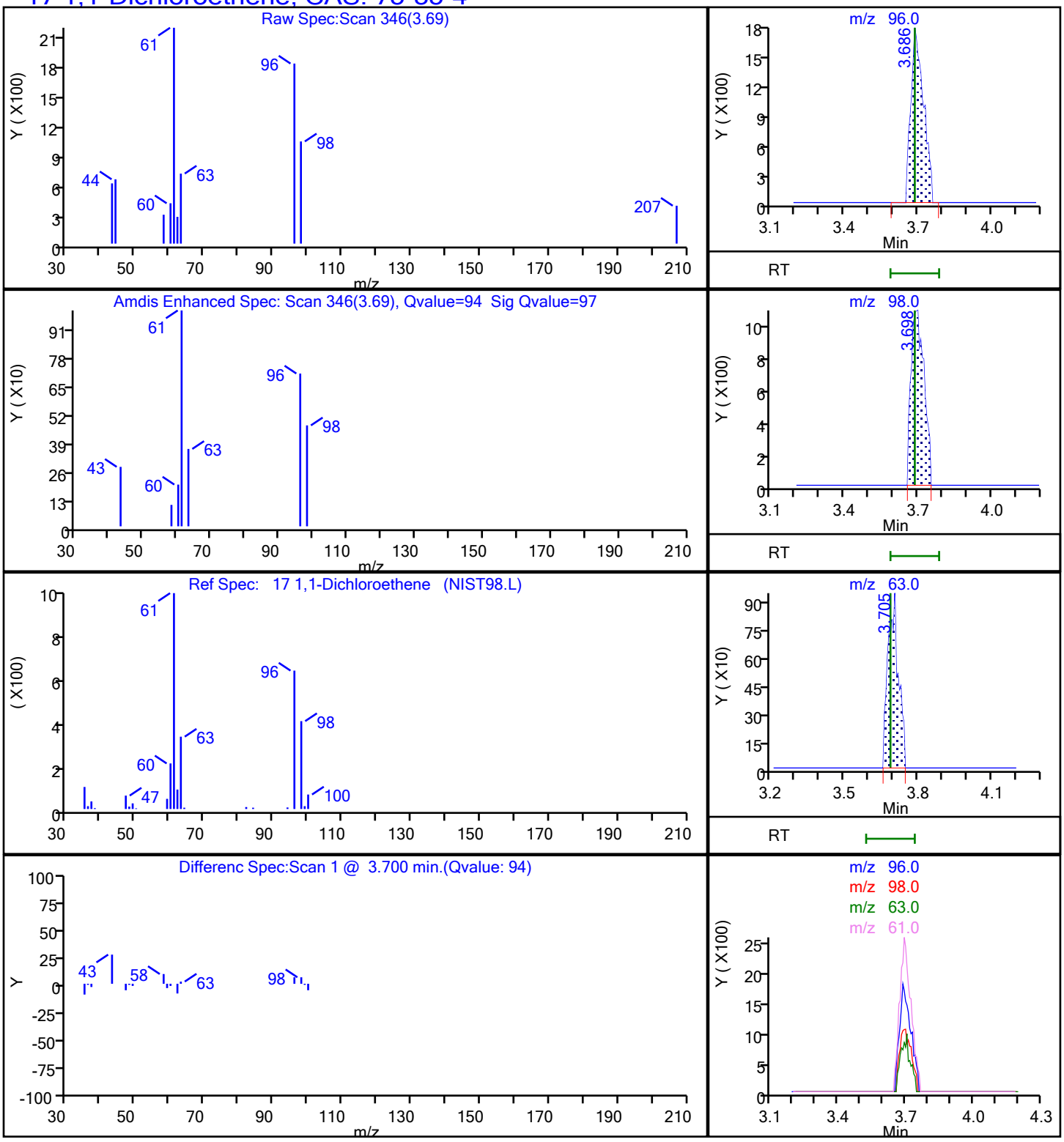
Operator ID: clm27445 ALS Bottle#: 20 Worklist Smp#: 20

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

17 1,1-Dichloroethene, CAS: 75-35-4

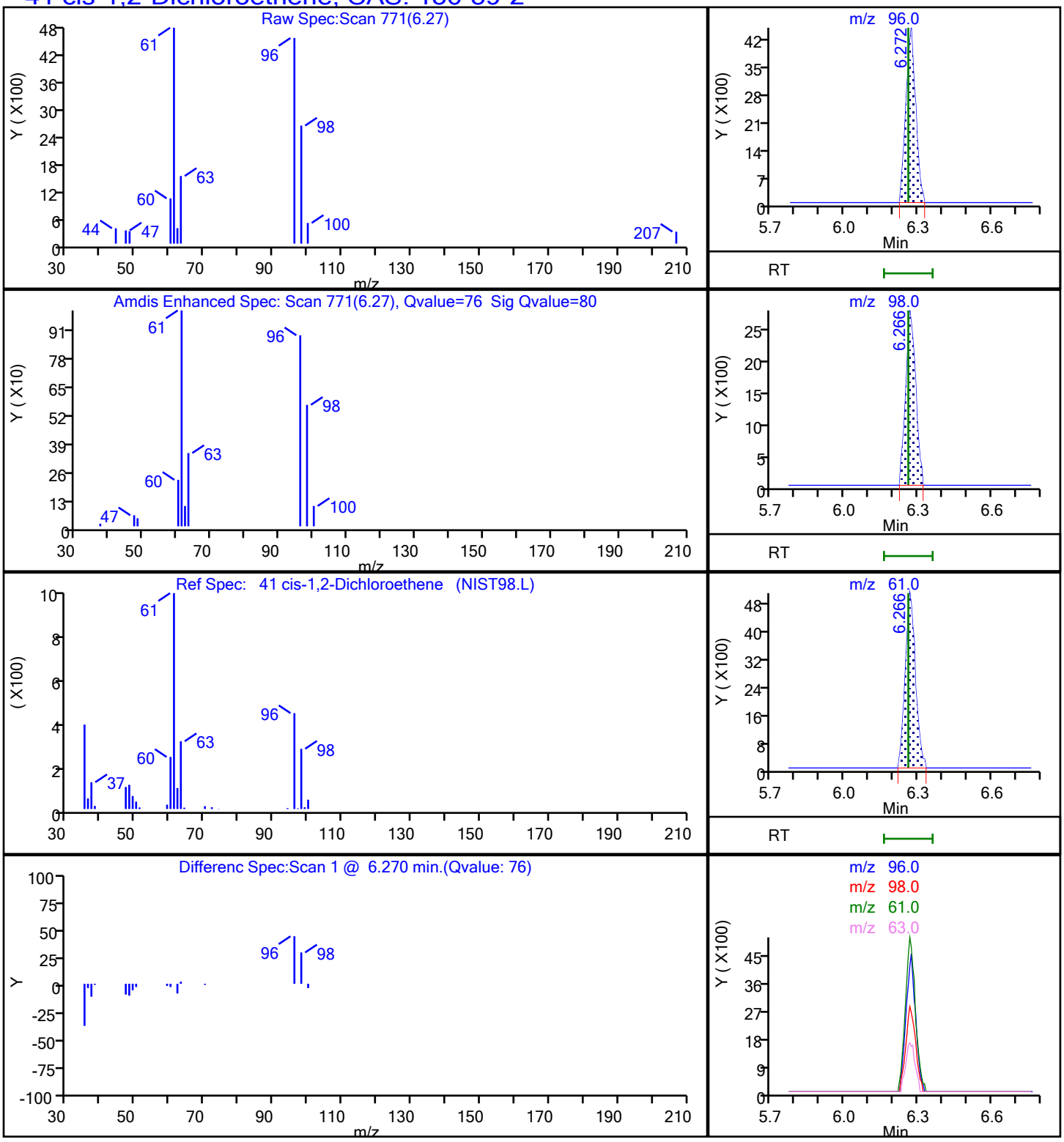


Report Date: 22-Nov-2020 21:23:44 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

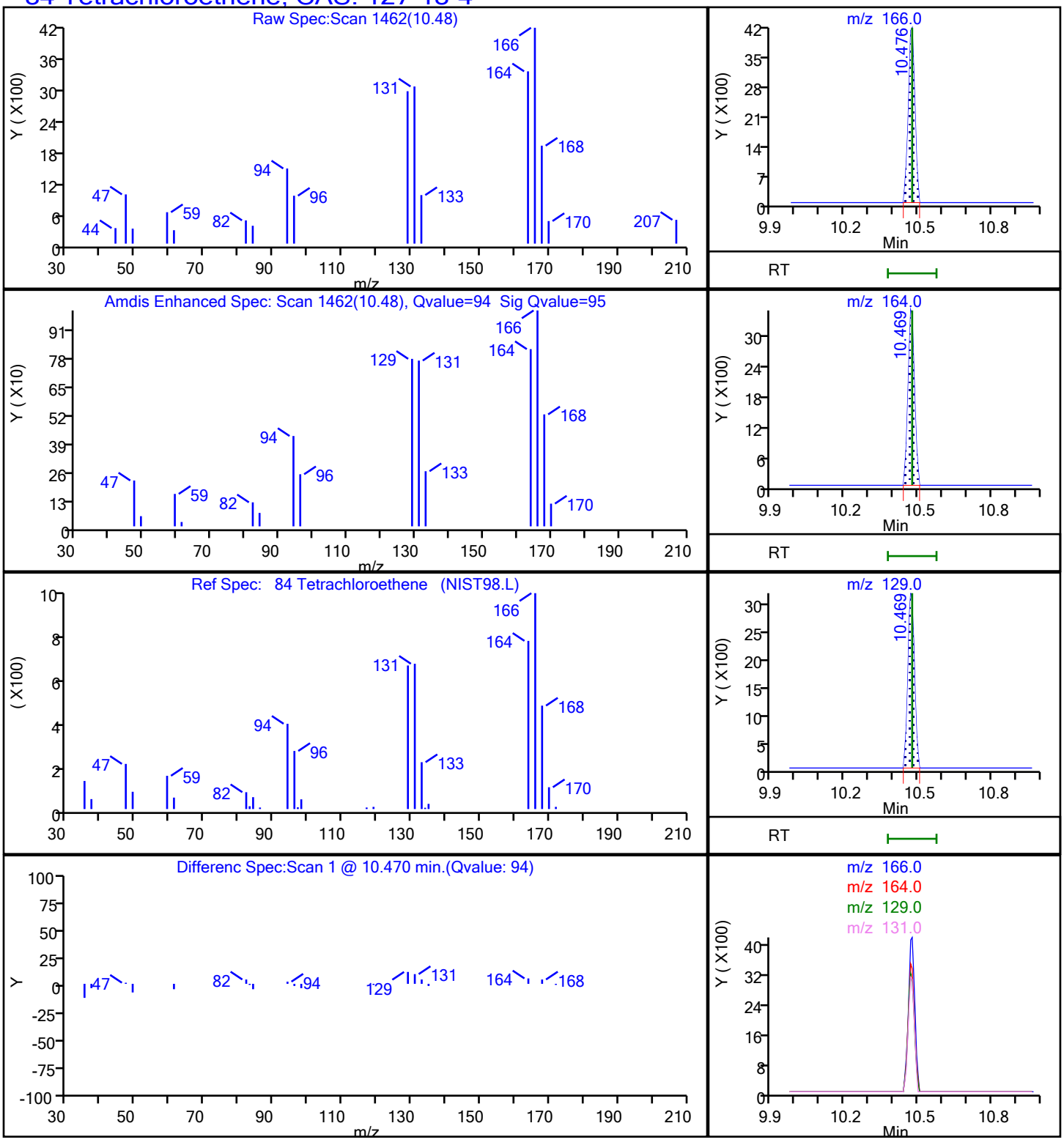
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

84 Tetrachloroethene, CAS: 127-18-4

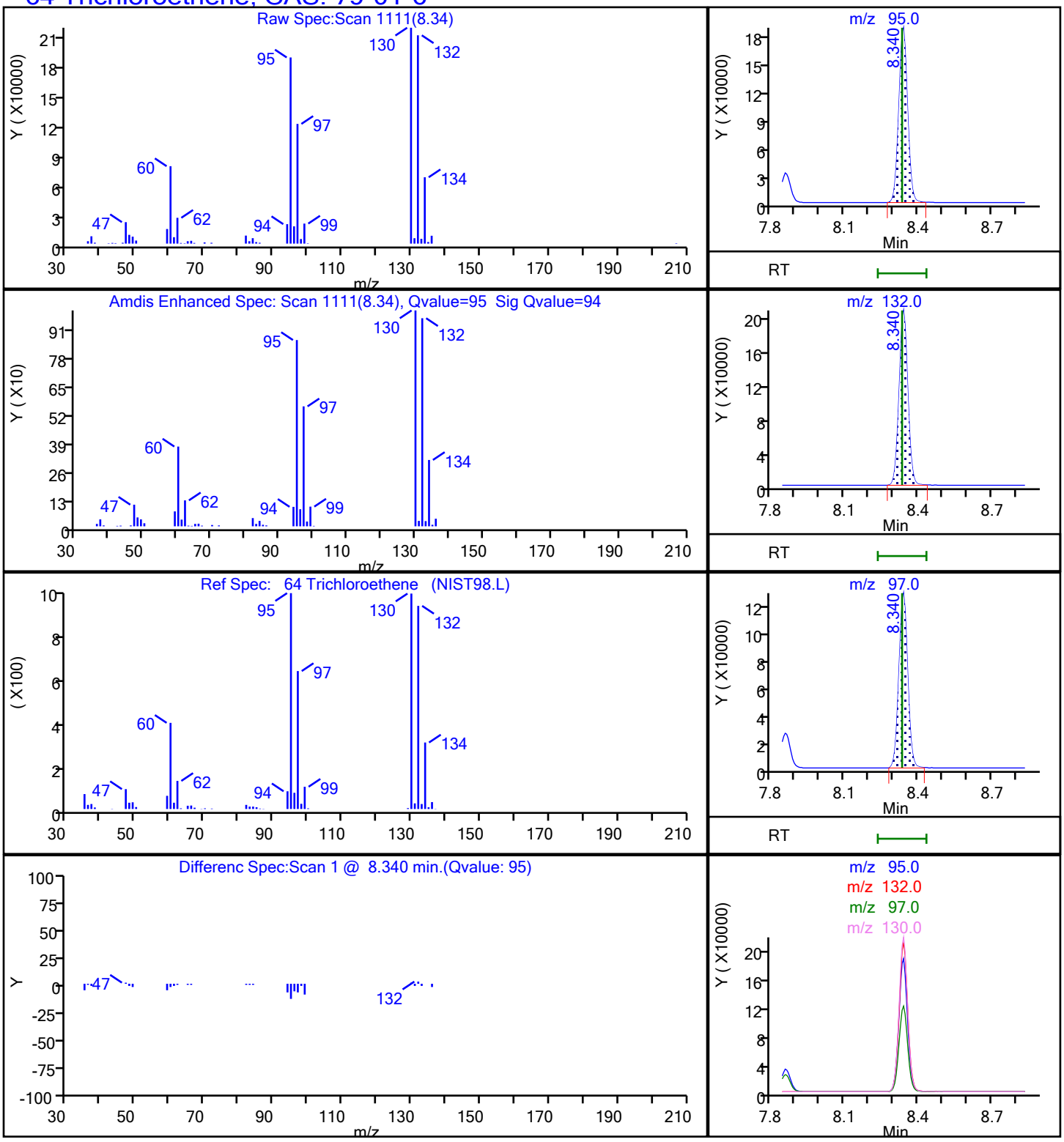


Report Date: 22-Nov-2020 21:23:44 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

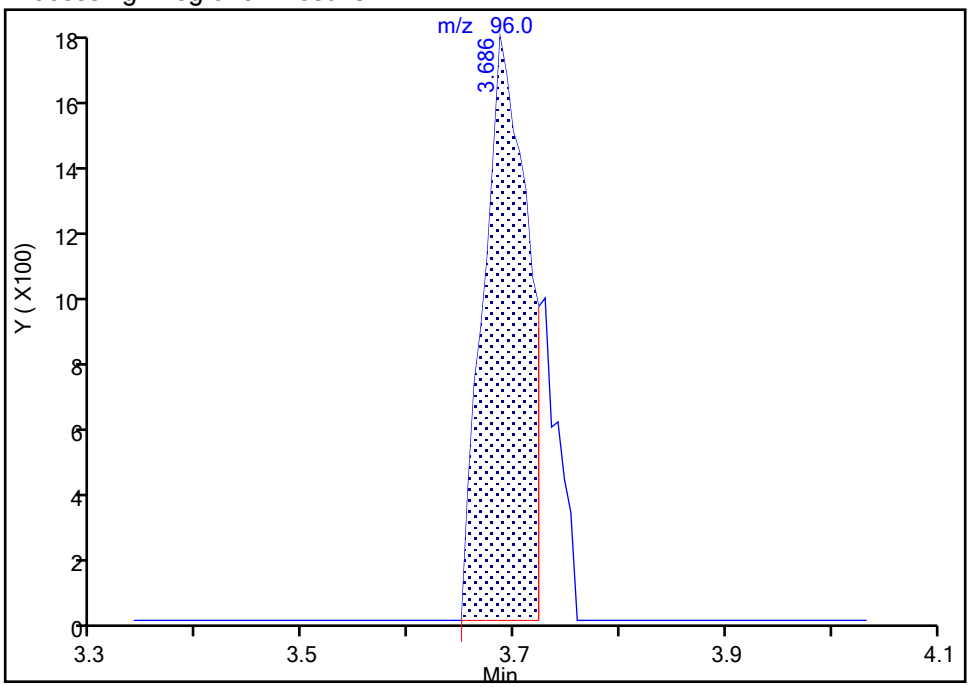
Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

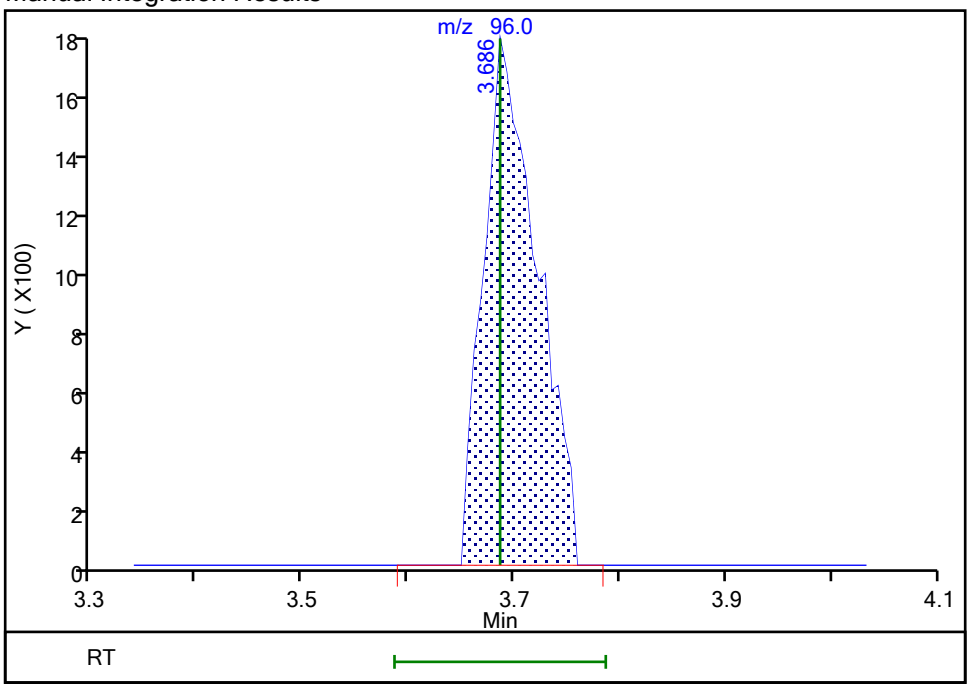
Processing Integration Results

RT: 3.69
Area: 5158
Amount: 1.092052
Amount Units: ug/l



Manual Integration Results

RT: 3.69
Area: 6223
Amount: 1.317533
Amount Units: ug/l



Reviewer: johnsons, 22-Nov-2020 21:15:41

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

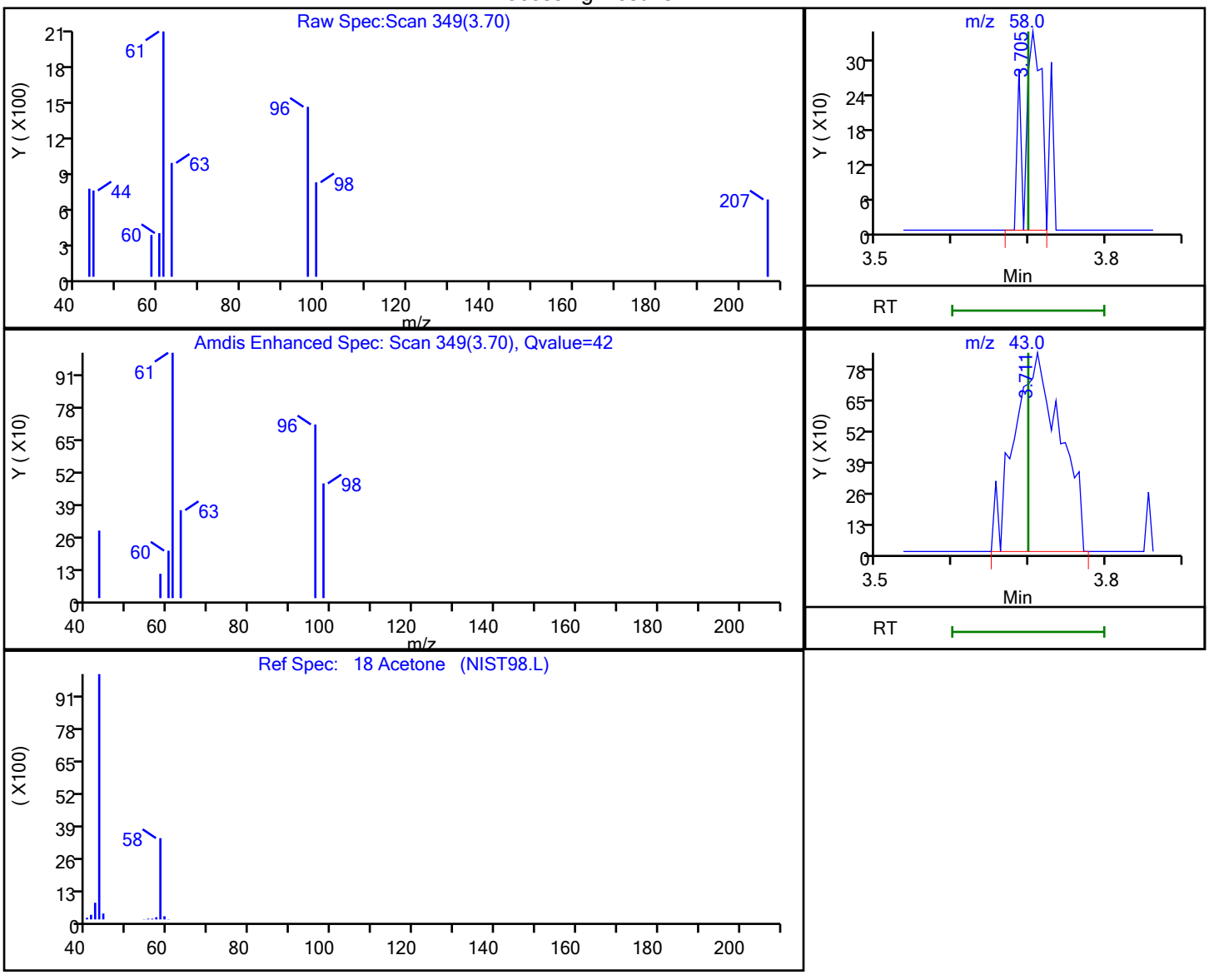
User Disabled Compound Report

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S12.D				
Injection Date:	21-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-14	Lab Sample ID:	410-21210-14		
Client ID:	J23-UC01				
Operator ID:	clm27445	ALS Bottle#:	20	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

18 Acetone, CAS: 67-64-1

Processing Results



RT	Mass	Response	Amount
3.70	58.00	538	0.593102
3.71	43.00	3524	

Reviewer: johnsons, 22-Nov-2020 21:15:47

Audit Action: Marked Compound Undetected Audit Reason: Invalid Compound ID

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J23-UC02 Lab Sample ID: 410-21210-15

Matrix: Water Lab File ID: YN21S13.D

Analysis Method: 8260C Date Collected: 11/15/2020 15:34

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 16:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	93		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	6.3		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.55	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	0.27	J	10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	4.4		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	105		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D
Lims ID: 410-21210-A-15
Client ID: J23-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 16:46:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-021
Misc. Info.: 410-21210-A-15
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:16:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	98	30358	6.29	
18 Acetone	58		3.698				ND	
19 112TCTFE	101	3.723	3.729	-0.006	1	1409	0.2740	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	283373	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96	6.272	6.260	0.012	74	3549	0.5530	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	265875	52.5	
50 1,1,1-Trichloroethane	97	6.984	6.978	0.006	98	844856	92.6	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	64625	53.2	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1006622	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	95	4308119	686.4	E
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1044357	51.0	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166	10.470	10.476	-0.006	97	34858	4.38	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	841282	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.001	97	360231	45.9	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	469678	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

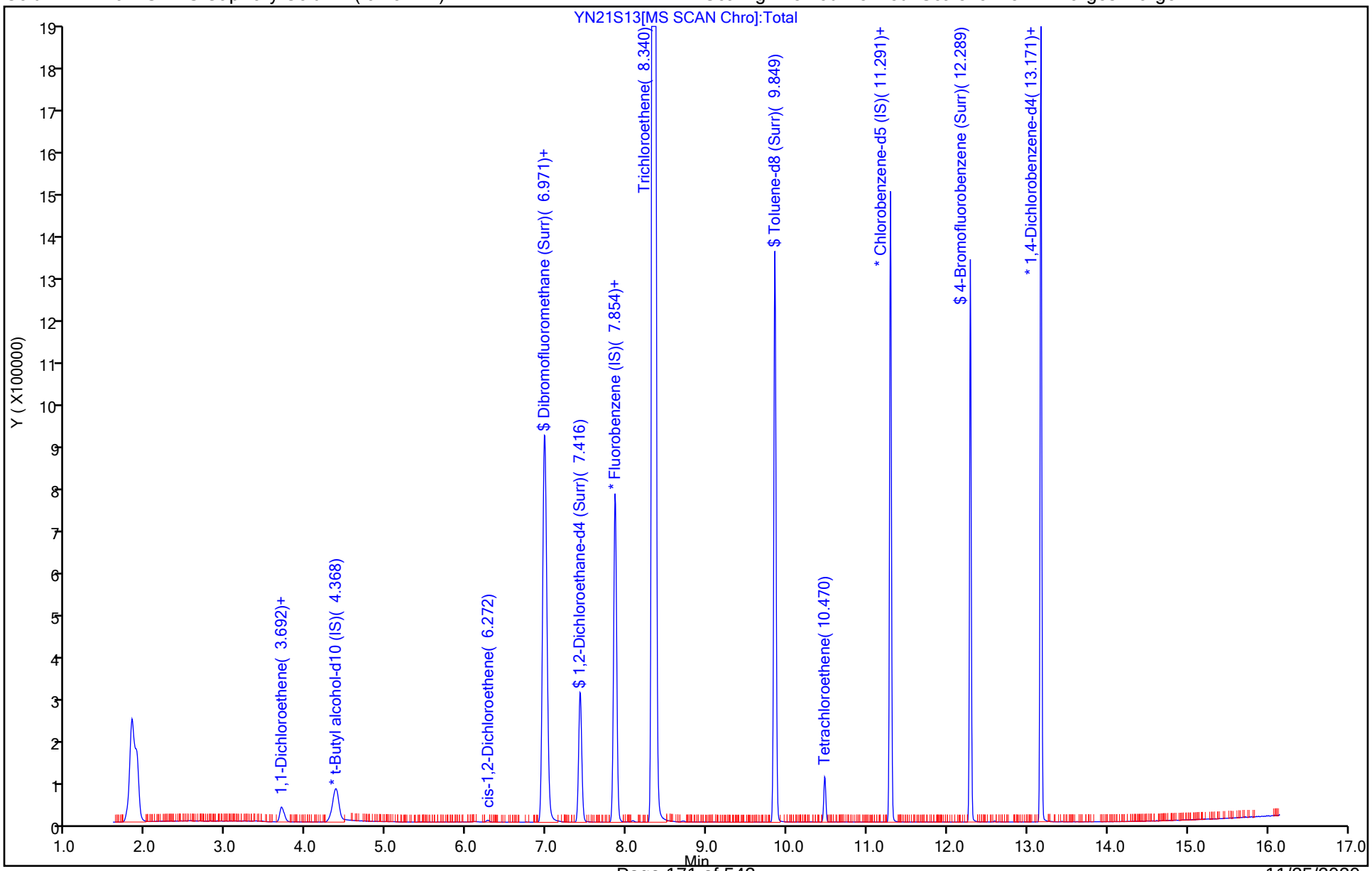
Report Date: 22-Nov-2020 21:23:46 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D

Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15	Worklist Smp#:	21
Client ID:	J23-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

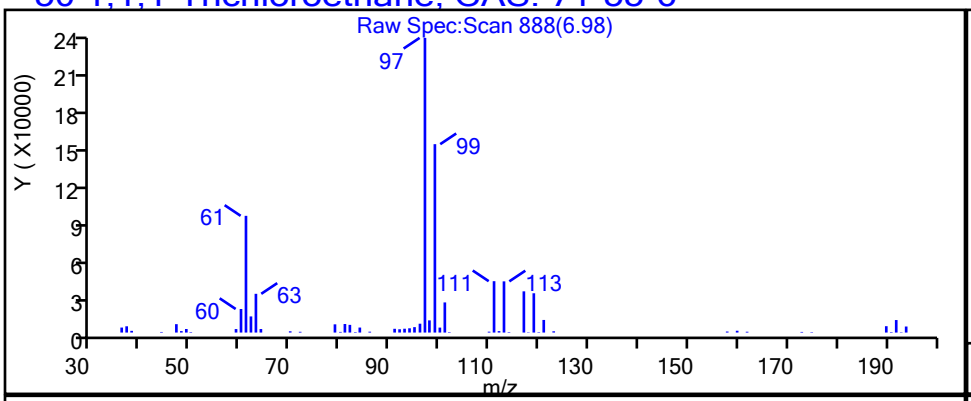


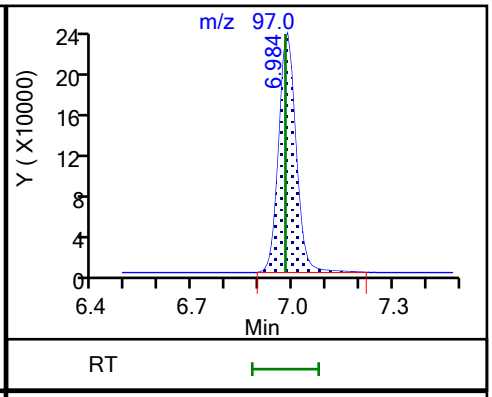
Report Date: 22-Nov-2020 21:23:46 Chrom Revision: 2.3 13-Nov-2020 01:23:02

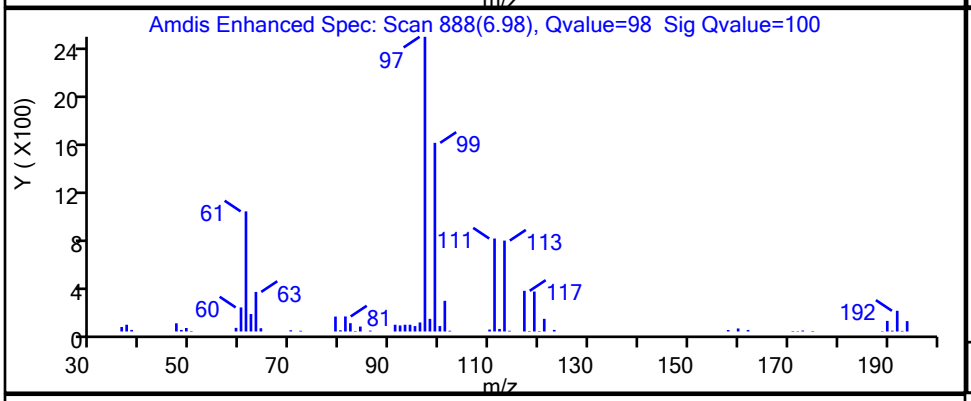
Eurofins Lancaster Laboratories Env, LLC

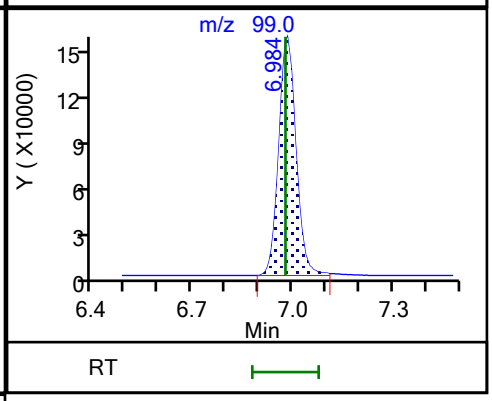
Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D				
Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355		
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

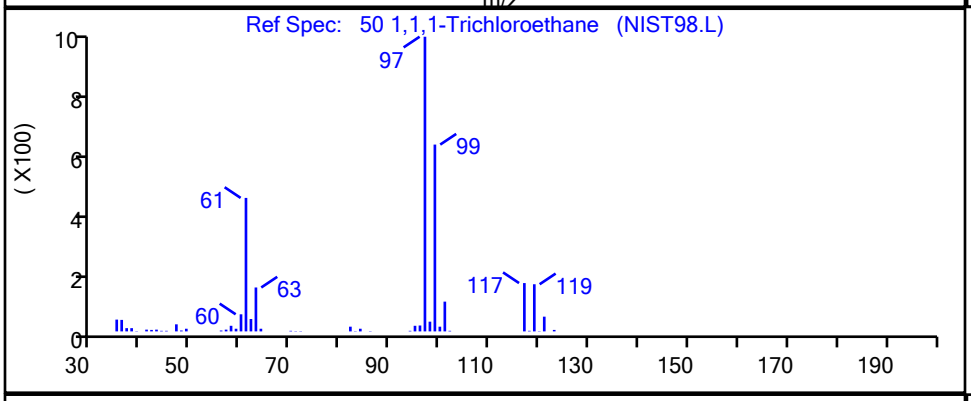
50 1,1,1-Trichloroethane, CAS: 71-55-6

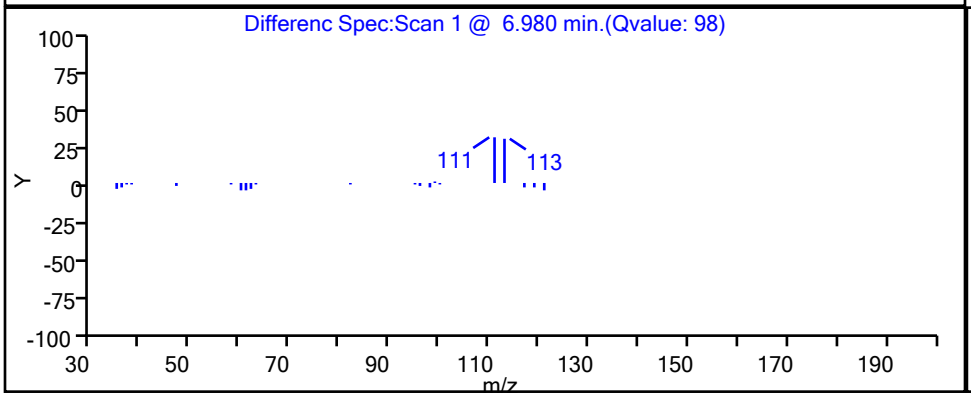


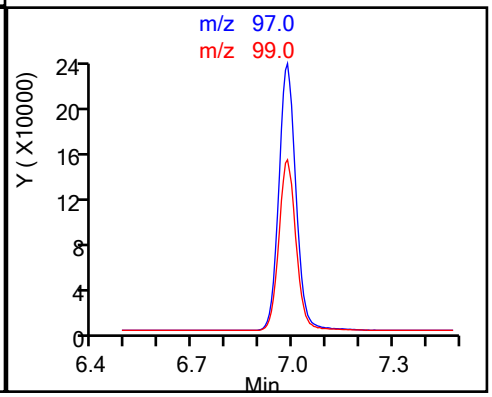










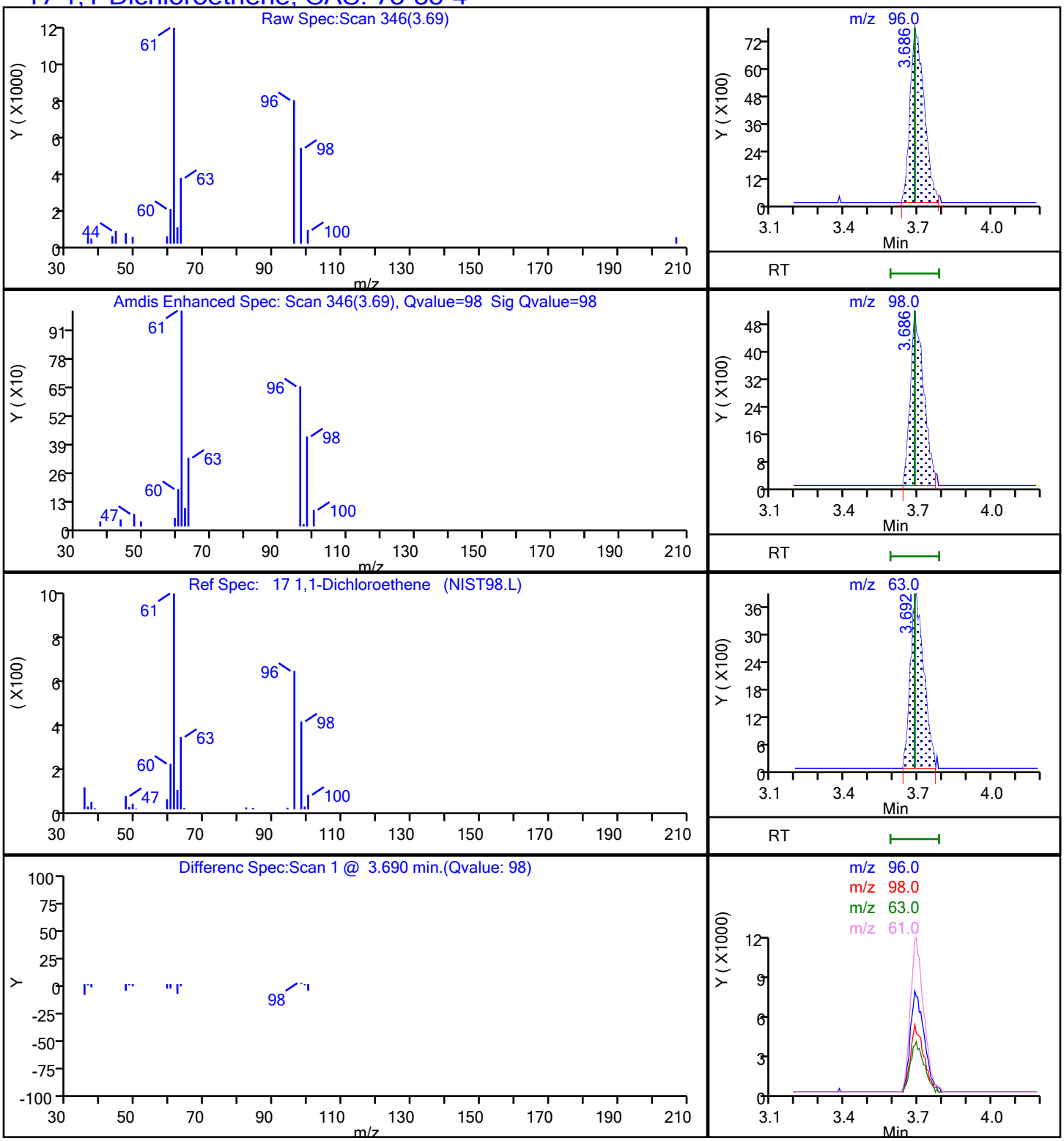


Report Date: 22-Nov-2020 21:23:46 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D				
Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355		
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

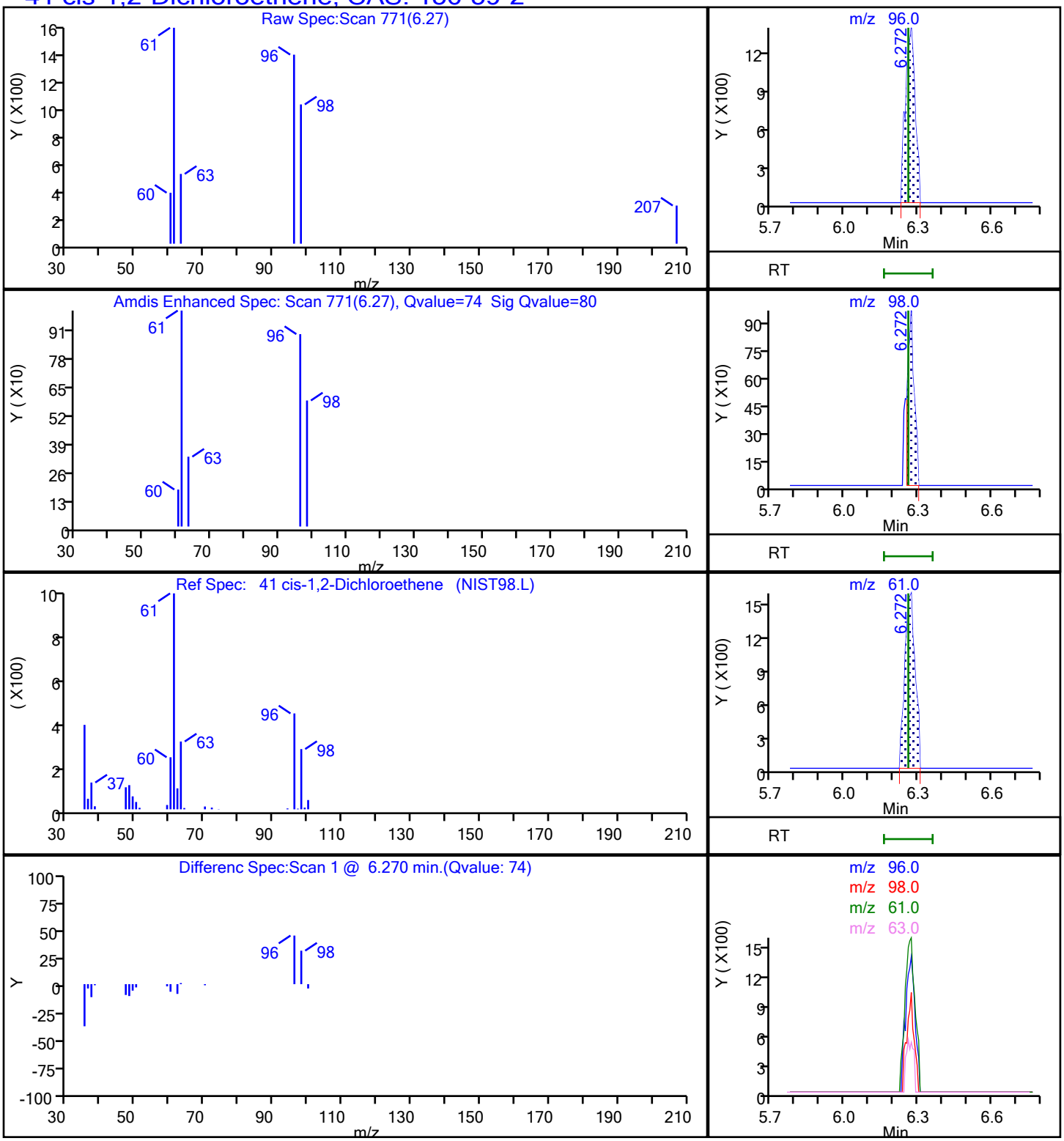
17 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D				
Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355		
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

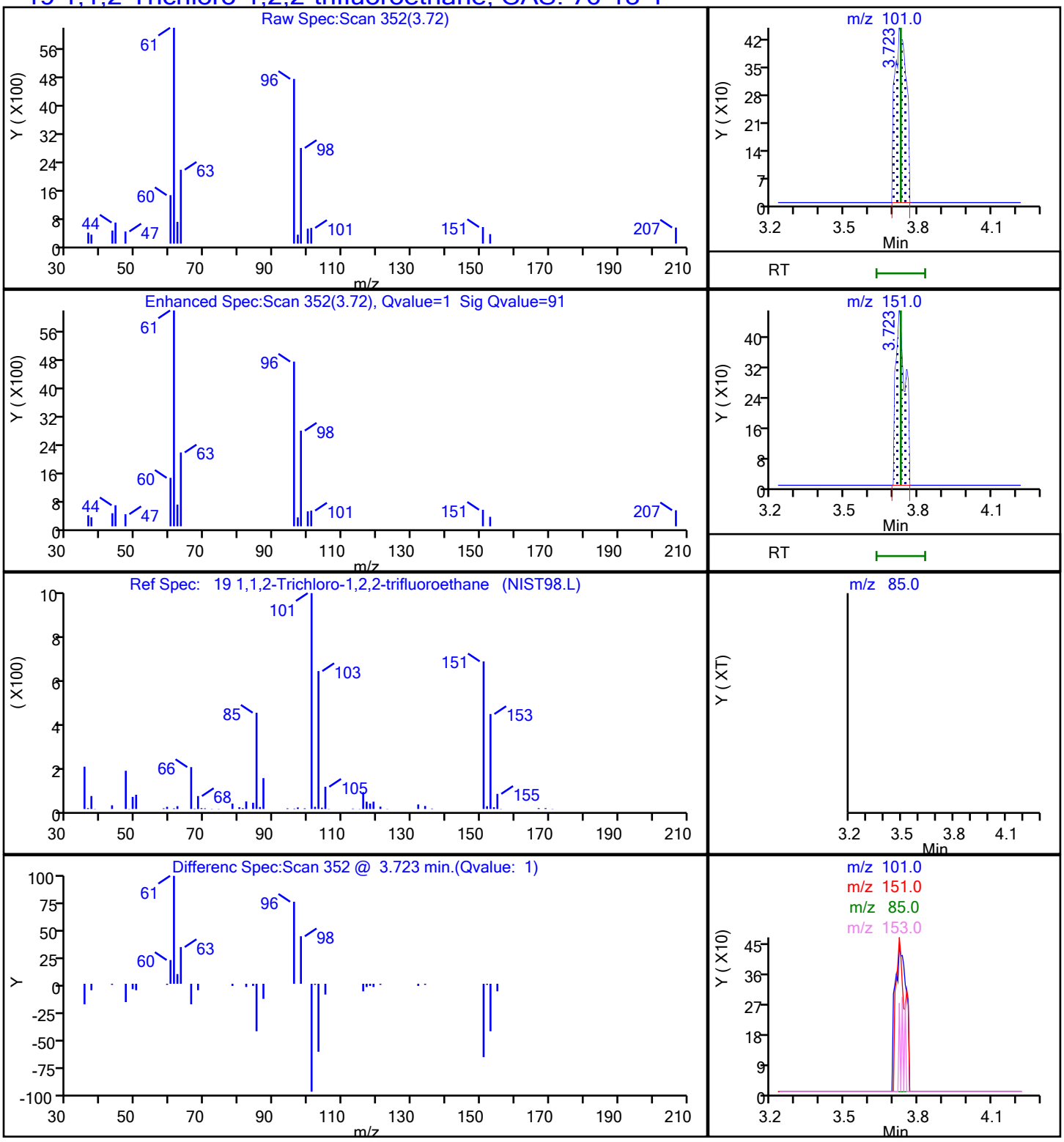


Report Date: 22-Nov-2020 21:23:46 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D				
Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355		
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

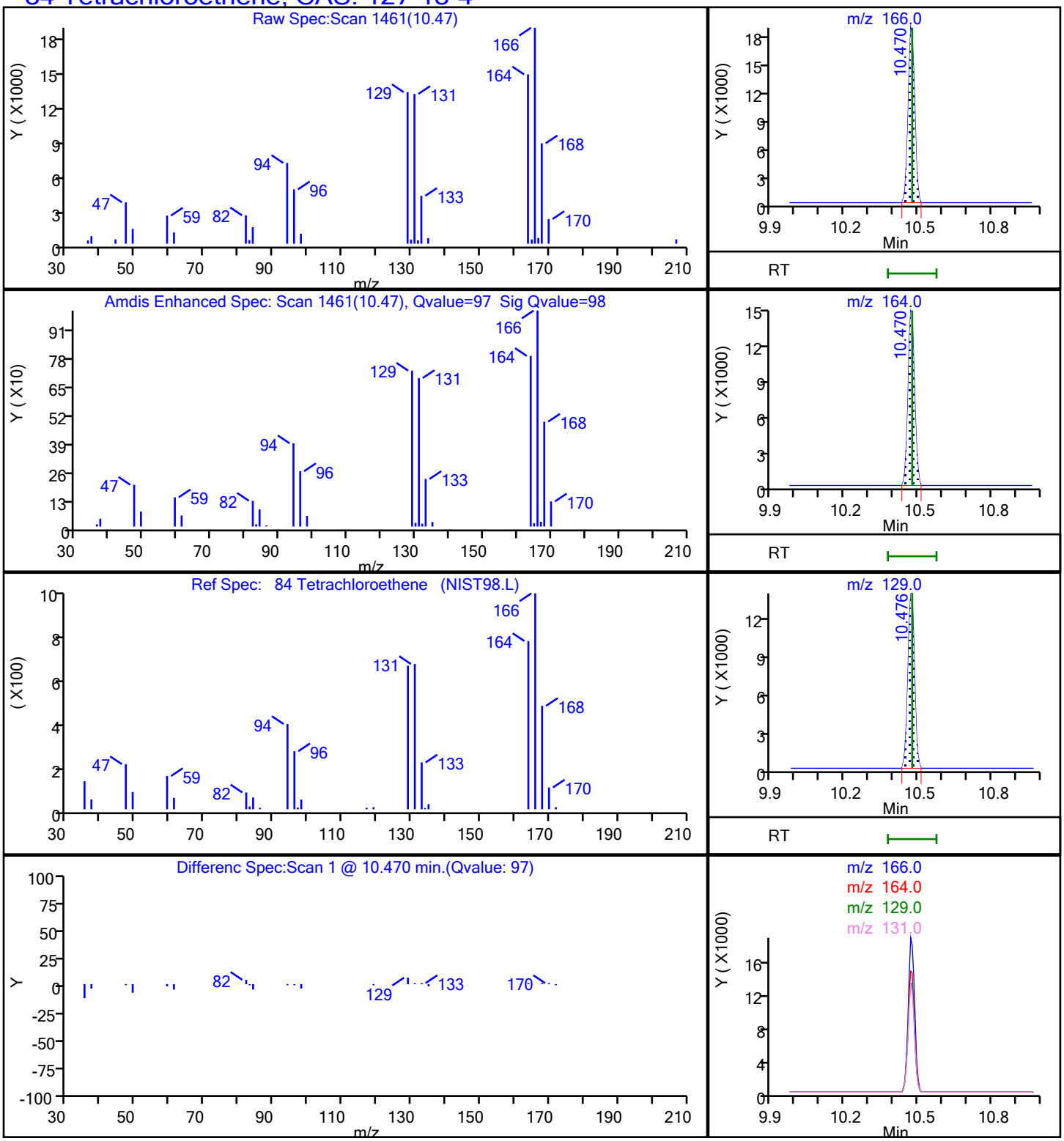
19 1,1,2-Trichloro-1,2,2-trifluoroethane, CAS: 76-13-1



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S13.D				
Injection Date:	21-Nov-2020 16:46:30	Instrument ID:	9355		
Lims ID:	410-21210-A-15	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

84 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J23-UC02 DL Lab Sample ID: 410-21210-15 DL

Matrix: Water Lab File ID: YN23S21.D

Analysis Method: 8260C Date Collected: 11/15/2020 15:34

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 20:27

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	500		10	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S21.D
Lims ID: 410-21210-B-15 DL
Client ID: J23-UC02
Sample Type: Client
Inject. Date: 23-Nov-2020 20:27:30 ALS Bottle#: 30 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 410-0016252-029
Misc. Info.: 410-21210-B-15
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 21:06:23 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1666

First Level Reviewer: proctore Date: 23-Nov-2020 21:06:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96	3.698	3.692	0.006	32	2375	0.4690	M
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.735				ND	
22 Carbon disulfide	76		4.021				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.374	-0.006	0	291645	250.0	
27 Methylene Chloride	84		4.374				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.444				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	271364	51.1	
50 1,1,1-Trichloroethane	97	6.984	6.984	0.000	98	70322	7.35	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.415	0.007	0	66530	52.2	
56 Benzene	78		7.458				ND	
58 1,2-Dichloroethane	62		7.525				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1055803	50.0	
64 Trichloroethene	95	8.340	8.340	0.000	96	326906	49.7	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1094855	50.2	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166	10.469	10.476	-0.007	95	2984	0.3519	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	896196	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	382584	45.8	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	495500	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

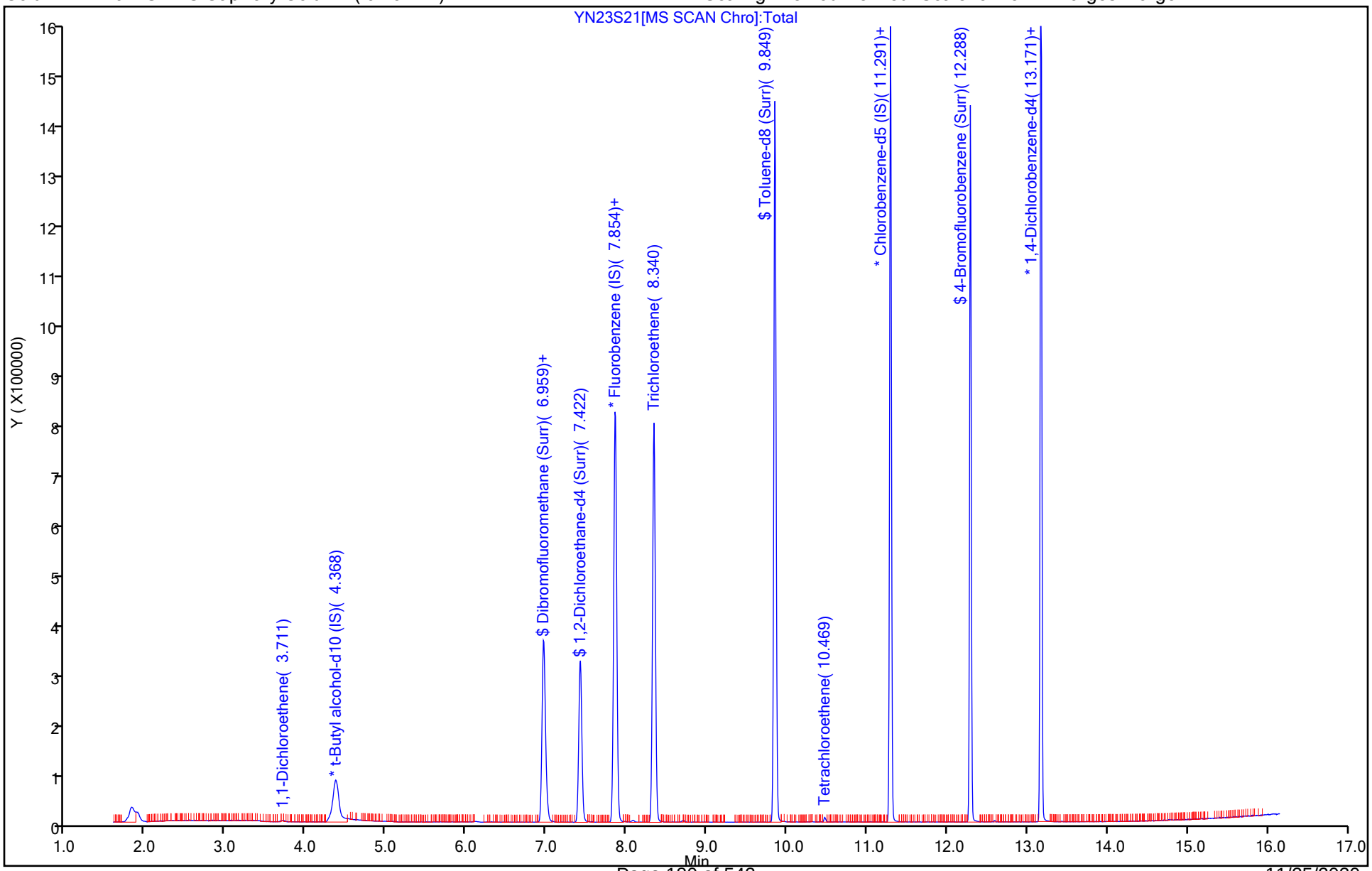
Report Date: 23-Nov-2020 21:07:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S21.D

Injection Date:	23-Nov-2020 20:27:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-B-15 DL	Lab Sample ID:	410-21210-15	Worklist Smp#:	29
Client ID:	J23-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	30
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

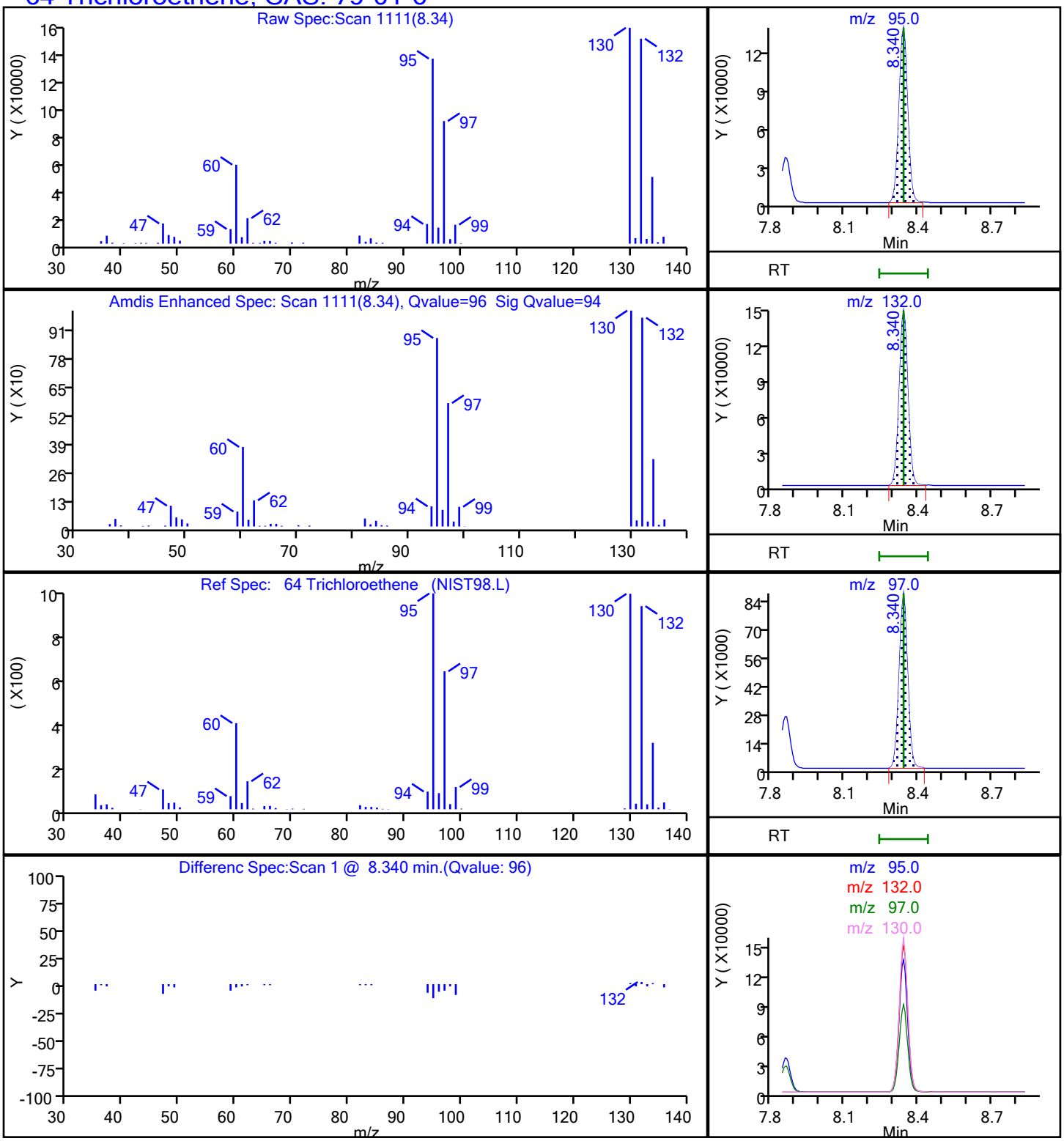


Report Date: 23-Nov-2020 21:07:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S21.D				
Injection Date:	23-Nov-2020 20:27:30	Instrument ID:	9355		
Lims ID:	410-21210-B-15 DL	Lab Sample ID:	410-21210-15		
Client ID:	J23-UC02				
Operator ID:	clm27445	ALS Bottle#:	30	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	10.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J18-UC02 Lab Sample ID: 410-21210-16

Matrix: Water Lab File ID: YN23S10.D

Analysis Method: 8260C Date Collected: 11/16/2020 08:24

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 16:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	16		1.0	0.30
75-34-3	1,1-Dichloroethane	0.35	J	1.0	0.20
75-35-4	1,1-Dichloroethene	1.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	0.63	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	36		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D
Lims ID: 410-21210-A-16
Client ID: J18-UC02
Sample Type: Client
Inject. Date: 23-Nov-2020 16:24:30 ALS Bottle#: 19 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-019
Misc. Info.: 410-21210-A-16
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 17:54:29 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1666

First Level Reviewer: proctore Date: 23-Nov-2020 17:49:34

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		2.013				ND	
2	Dichlorodifluoromethane	85		2.056				ND	
3	Chlorodifluoromethane	51		2.062				ND	
4	Chloromethane	50		2.257				ND	
6	Vinyl chloride	62		2.372				ND	
5	Butadiene	39		2.384				ND	7
7	2-Chloro-1,1,1-Trifluoroethane	118		2.439				ND	
8	Bromomethane	94		2.719				ND	
9	Chloroethane	64		2.810				ND	
10	Dichlorofluoromethane	67		3.047				ND	
11	Trichlorofluoromethane	101		3.120				ND	
12	Pentane	43		3.157				ND	
13	Ethanol	45		3.242				ND	
14	Ethyl ether	59		3.370				ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.455				ND	
16	Acrolein	56		3.534				ND	
17	1,1-Dichloroethene	96	3.705	3.692	0.013	50	5401	1.02	M
18	Acetone	58		3.698				ND	
19	112TCTFE	101		3.735				ND	
20	Isopropyl alcohol	45		3.881				ND	7
21	Iodomethane	142		3.905				ND	
22	Carbon disulfide	76		4.021				ND	
23	Acetonitrile	41		4.075				ND	
24	Methyl acetate	43		4.136				ND	
25	3-Chloro-1-propene	41		4.179				ND	
* 26	t-Butyl alcohol-d10 (IS)	65	4.380	4.374	0.006	0	307122	250.0	
27	Methylene Chloride	84		4.374				ND	
28	2-Methyl-2-propanol	59		4.495				ND	
30	Acrylonitrile	53		4.690				ND	
31	Methyl tert-butyl ether	73		4.787				ND	
32	trans-1,2-Dichloroethene	96		4.800				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
33 Hexane	57		5.219				ND	
34 Vinyl acetate	43		5.432				ND	
35 1,1-Dichloroethane	63	5.444	5.444	0.000	1	3562	0.3486	Ma
36 Isopropyl ether	45		5.505				ND	
37 2-Chloro-1,3-butadiene	53		5.554				ND	
38 Tert-butyl ethyl ether	59		6.041				ND	
S 39 1,2-Dichloroethene, Total	100		6.155				ND	7
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
43 2,2-Dichloropropane	77		6.284				ND	
42 Ethyl acetate	43		6.296				ND	
44 Propionitrile	54		6.296				ND	
45 Methacrylonitrile	67		6.521				ND	
46 Chlorobromomethane	128		6.600				ND	
47 Tetrahydrofuran	71		6.625				ND	
48 Chloroform	83	6.752	6.740	0.012	90	6870	0.6300	
$ 49 Dibromofluoromethane (Surr)	113	6.965	6.959	0.006	94	282196	50.8	
50 1,1,1-Trichloroethane	97	6.984	6.984	0.000	98	157960	15.8	
51 Cyclohexane	56		7.099				ND	
52 1,1-Dichloropropene	75		7.190				ND	
53 Carbon tetrachloride	117		7.203				ND	
54 Isobutyl alcohol	41		7.312				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.415	0.007	0	69234	52.0	
56 Benzene	78		7.458				ND	
57 Isopropyl acetate	43		7.519				ND	
58 1,2-Dichloroethane	62	7.519	7.525	-0.006	1	1029	0.1067	7M
59 Tert-amyl methyl ether	73		7.647				ND	
60 t-Amyl alcohol	73	7.860	7.842	0.018	35	14466	NC	
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1103288	50.0	
62 n-Heptane	43		7.872				ND	
63 n-Butanol	56		8.188				ND	
64 Trichloroethene	95	8.340	8.340	0.000	95	247980	36.0	
65 Methylcyclohexane	83		8.657				ND	
66 1,2-Dichloropropane	63		8.669				ND	
67 2-ethoxy-2-methyl butane	87		8.675				ND	
68 Methyl methacrylate	69		8.736				ND	
69 1,4-Dioxane	88		8.754				ND	
70 Dibromomethane	93		8.778				ND	
71 n-Propyl acetate	61		8.815				ND	
72 Dichlorobromomethane	83		9.009				ND	
73 2-Nitropropane	41		9.253				ND	
74 2-Chloroethyl vinyl ether	63		9.356				ND	
75 cis-1,3-Dichloropropene	75		9.545				ND	
76 4-Methyl-2-pentanone (MIBK)	43		9.697				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1132129	50.2	
78 Toluene	92		9.928				ND	
T 208 1,3-Dichlorobutene-2(total) TIC	89		10.000				ND	U
79 1,3-Dichlorobutene-2(total)	89		10.000				ND	7
S 80 1,3-Dichloropropene, Total	100		10.060				ND	7
81 trans-1,3-Dichloropropene	75		10.171				ND	
82 Ethyl methacrylate	69		10.226				ND	
83 1,1,2-Trichloroethane	97		10.372				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
84 Tetrachloroethene	166		10.476				ND	
85 1,3-Dichloropropane	76		10.536				ND	
86 3,4-Dichloro-1-butene	75		10.573				ND	
87 2-Hexanone	43		10.573				ND	
88 n-Butyl acetate	43		10.700				ND	
89 Chlorodibromomethane	129		10.755				ND	
90 Ethylene Dibromide	107		10.871				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	925691	50.0	
92 1-Chlorohexane	91		11.297				ND	U
94 Chlorobenzene	112		11.321				ND	
95 1,1,1,2-Tetrachloroethane	131		11.400				ND	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
99 Styrene	104		11.857				ND	
100 Bromoform	173		12.021				ND	
101 Isopropylbenzene	105		12.142				ND	
102 cis-1,4-Dichloro-2-butene	88		12.179				ND	
103 Cyclohexanone	55		12.215				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	397201	46.0	
105 1,1,2,2-Tetrachloroethane	83		12.380				ND	
106 trans-1,4-Dichloro-2-butene	53		12.404				ND	
107 Bromobenzene	156		12.404				ND	
108 1,2,3-Trichloropropane	110		12.428				ND	
109 N-Propylbenzene	91		12.471				ND	
110 2-Chlorotoluene	126		12.550				ND	
111 1,3,5-Trimethylbenzene	105		12.605				ND	
112 4-Chlorotoluene	126		12.641				ND	
113 2,3,4-Trichlorobutene	109		12.653				ND	
114 tert-Butylbenzene	134		12.848				ND	
115 Pentachloroethane	167		12.885				ND	
116 1,2,4-Trimethylbenzene	105		12.891				ND	
117 sec-Butylbenzene	105		13.012				ND	
118 1,3-Dichlorobenzene	146		13.116				ND	
119 4-Isopropyltoluene	119		13.116				ND	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	508764	50.0	
121 1,4-Dichlorobenzene	146		13.189				ND	
122 1,2,3-Trimethylbenzene	105		13.195				ND	
123 Benzyl chloride	91		13.256				ND	7
124 1,3-Diethylbenzene	119		13.317				ND	
125 p-Diethylbenzene	119		13.390				ND	
126 n-Butylbenzene	92		13.408				ND	
127 1,2-Dichlorobenzene	146		13.444				ND	
128 o-diethylbenzene	119		13.463				ND	
129 Hexachloroethane	201		13.560				ND	
130 1,2-Dibromo-3-Chloropropane	75		13.986				ND	
131 1,3,5-Trichlorobenzene	180		14.120				ND	
132 1,2,4-Trichlorobenzene	180		14.539				ND	
133 Hexachlorobutadiene	225		14.625				ND	
134 Naphthalene	128		14.722				ND	7
135 1,2,3-Trichlorobenzene	180		14.862				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
136 2-Methylnaphthalene	142		15.513				ND	
137 C4-C10	1		0.000				ND	
172 Propene oxide	1		0.000				ND	
173 Methyl acrylate	1		0.000				ND	
174 1,3-Divinylbenzene	1		0.000				ND	
175 Ethyl bromide	1		0.000				ND	
176 Chloroacetonitrile	1		0.000				ND	
S 177 divinyl benzene	1		0.000				ND	7
178 Methylal	1		0.000				ND	
179 n-Decane	57		0.000				ND	
180 Dodecane	57		0.000				ND	
181 Butane	1		0.000				ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000				ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000				ND	
184 2-Bromoethanol TIC	1		0.000				ND	
185 2-Chloroethanol TIC	1		0.000				ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000				ND	
202 tert-Butyl Formate	1		0.000				ND	
188 Epichlorohydrin TIC	1		0.000				ND	
189 2-Bromo-3-chloropropene TIC	1		0.000				ND	
190 Ethylene oxide TIC	1		0.000				ND	
191 2,3-Dibromopropene TIC	1		0.000				ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000				ND	
193 1-Bromo-2-chloroethane TIC	1		0.000				ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000				ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000				ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000				ND	
197 n-Propylamine (TIC)	1		0.000				ND	
198 beta-Propiolactone TIC	1		0.000				ND	
199 Propargyl alcohol TIC	1		0.000				ND	
200 Propanol TIC	1		0.000				ND	
201 Malononitrile (TIC)	1		0.000				ND	
171 Hexachloroethane TIC	1		0.000				ND	
186 Monochloroacetic acid TIC	1		0.000				ND	
170 Ethanol TIC	1		0.000				ND	
152 Vinyl bromide TIC	1		0.000				ND	
138 C6-C10	1		0.000				ND	
139 Nitrobenzene TIC	1		0.000				ND	
140 Chloroacetaldehyde TIC	1		0.000				ND	
141 Pentachloroethane TIC	1		0.000				ND	
142 Chloral hydrate (TIC)	1		0.000				ND	
143 Methanol TIC	1		0.000				ND	
144 Bromoacetone (TIC)	1		0.000				ND	
145 Epibromohydrin TIC	1		0.000				ND	
146 Paraldehyde TIC	1		0.000				ND	
147 Pentafluorobenzene TIC	1		0.000				ND	
148 1-Bromopropane TIC	1		0.000				ND	
149 Allyl Alcohol TIC	1		0.000				ND	
150 Vinyl acetate (TIC)	1		0.000				ND	
151 2-Picoline (TIC)	1		0.000				ND	
153 o-toluidine TIC	1		0.000				ND	
168 2-Pentanone (TIC)	1		0.000				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000				ND	
155 C4-C12	1		0.000				ND	
156 1-Chlorobutane	1		0.000				ND	
157 1,4-Divinylbenzene	1		0.000				ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000				ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000				ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000				ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000				ND	
162 Diethoxymethane	1		0.000				ND	
163 C5-C12	1		0.000				ND	
164 1-Bromo-2-chloroethane	1		0.000				ND	
165 C6-C12	1		0.000				ND	
S 166 Total Diethylbenzene	1		0.000				ND	7
167 3-chloro-1-Butene	1		0.000				ND	
169 Ethyl acrylate	55		0.000				ND	
209 Bromoethane TIC	1		0.000				ND	

QC Flag Legend

Processing Flags
- NC - Not Calibrated
- 7 - Failed Limit of Detection

Review Flags
- M - Manually Integrated
- U - Marked Undetected
- a - User Assigned ID

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

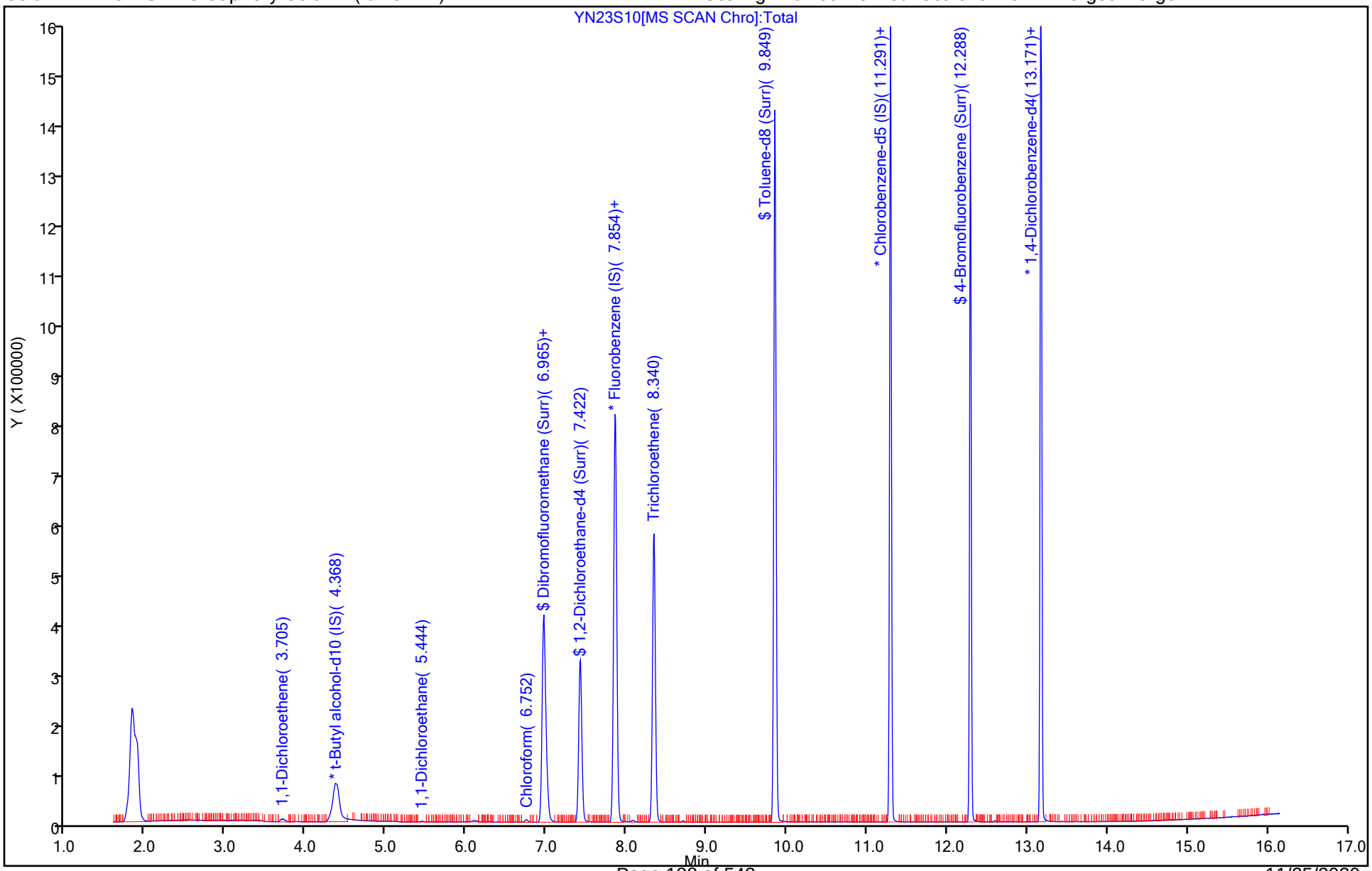
Report Date: 23-Nov-2020 17:54:56 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D

Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16	Worklist Smp#:	19
Client ID:	J18-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

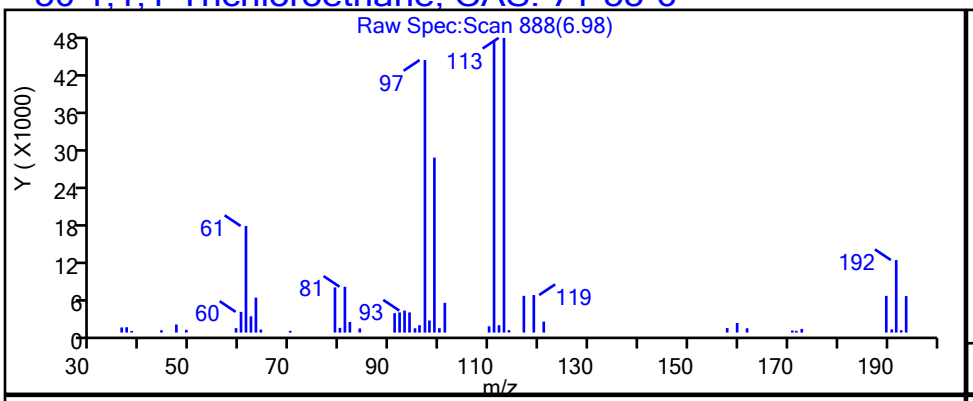


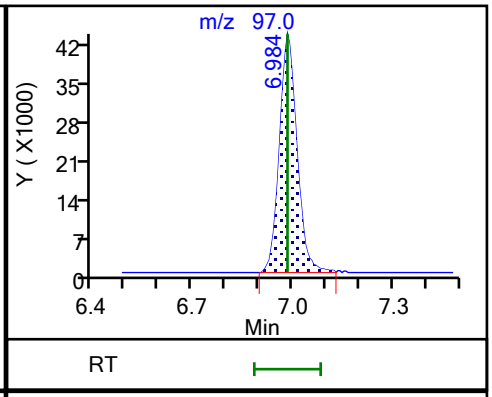
Report Date: 23-Nov-2020 17:54:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

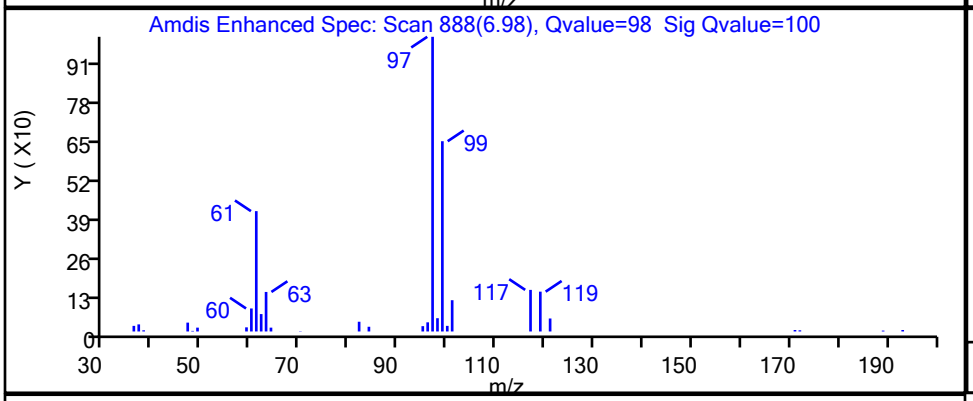
Eurofins Lancaster Laboratories Env, LLC

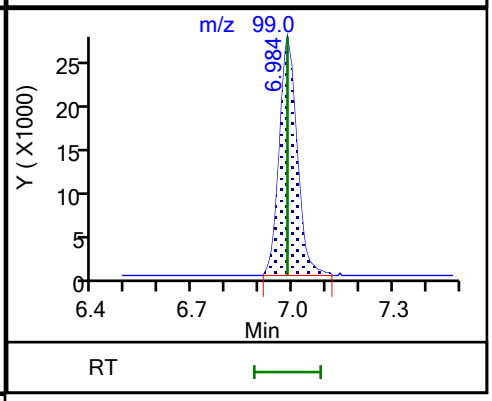
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

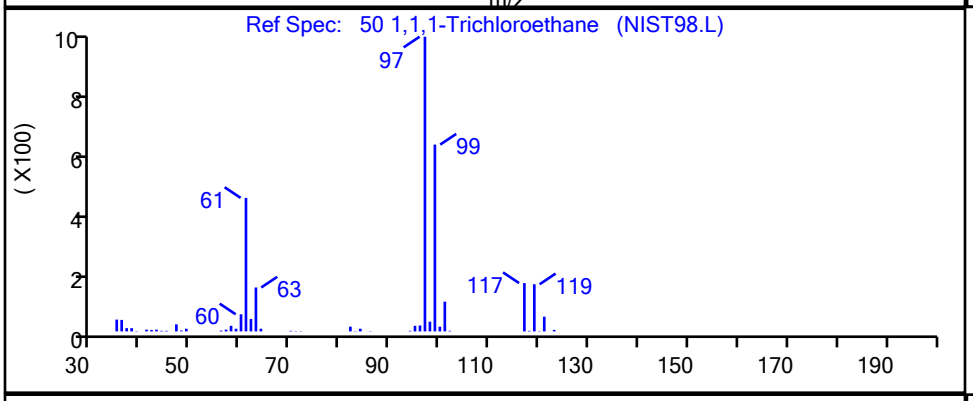
50 1,1,1-Trichloroethane, CAS: 71-55-6

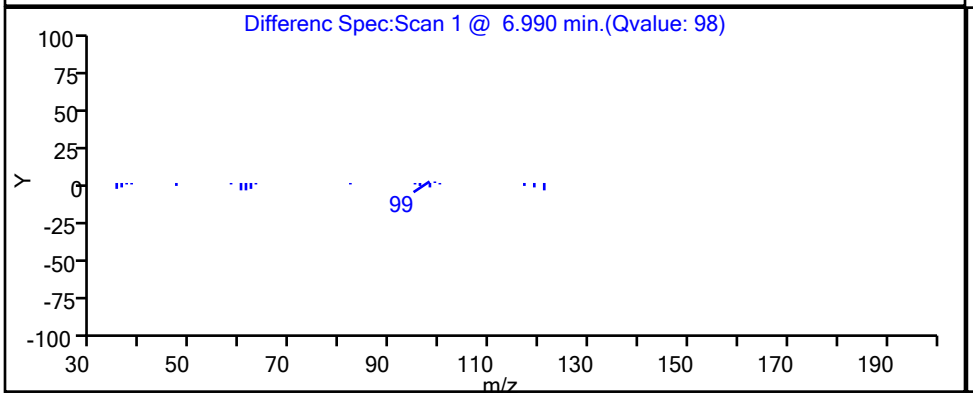


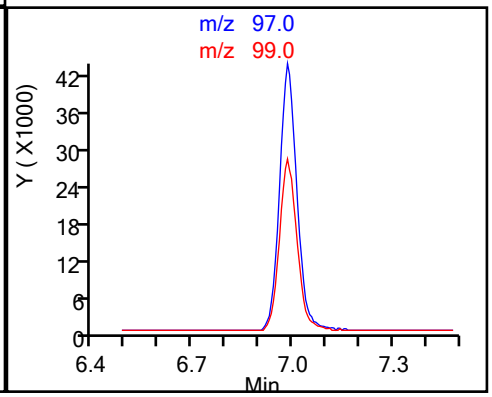










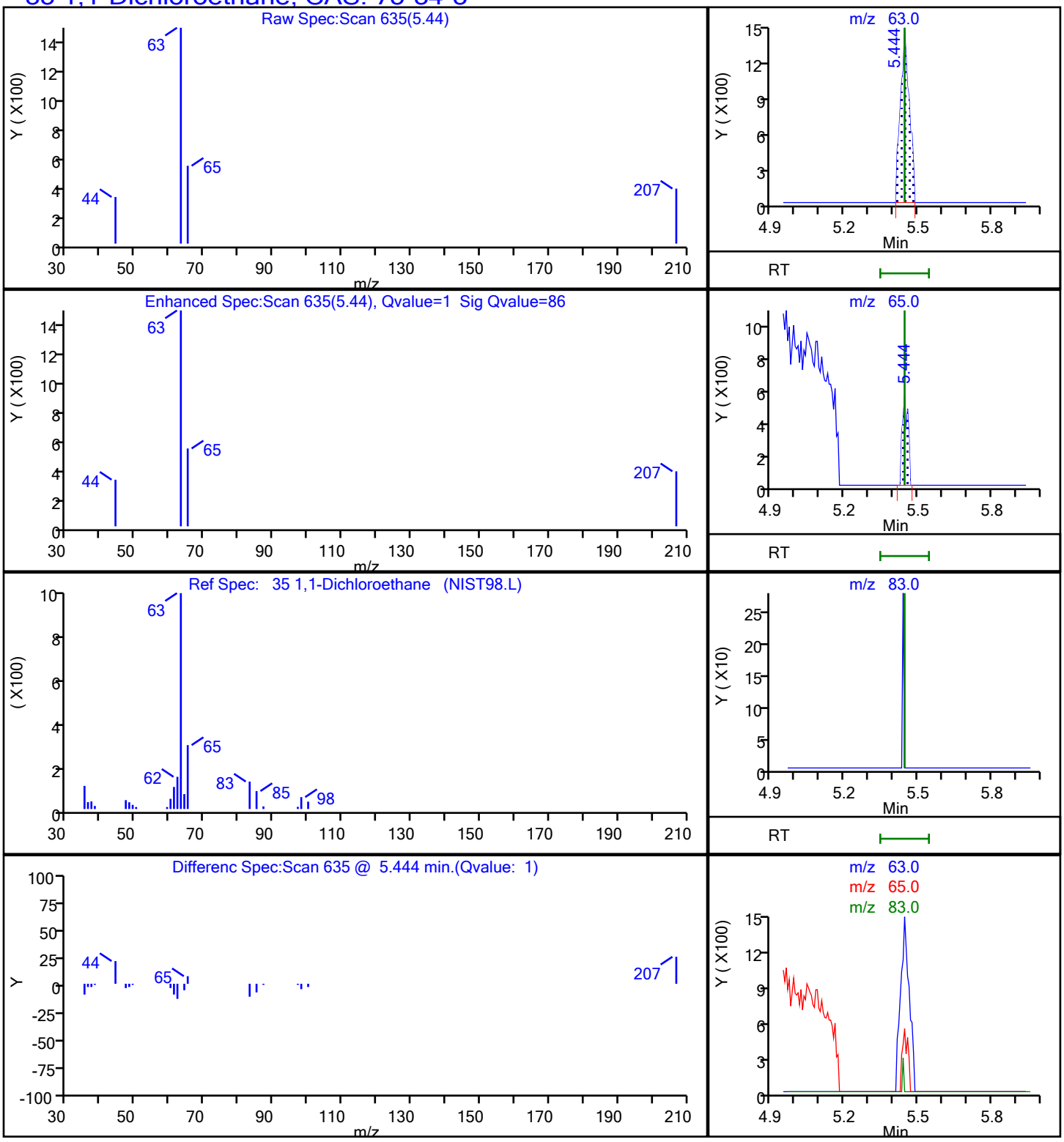


Report Date: 23-Nov-2020 17:54:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

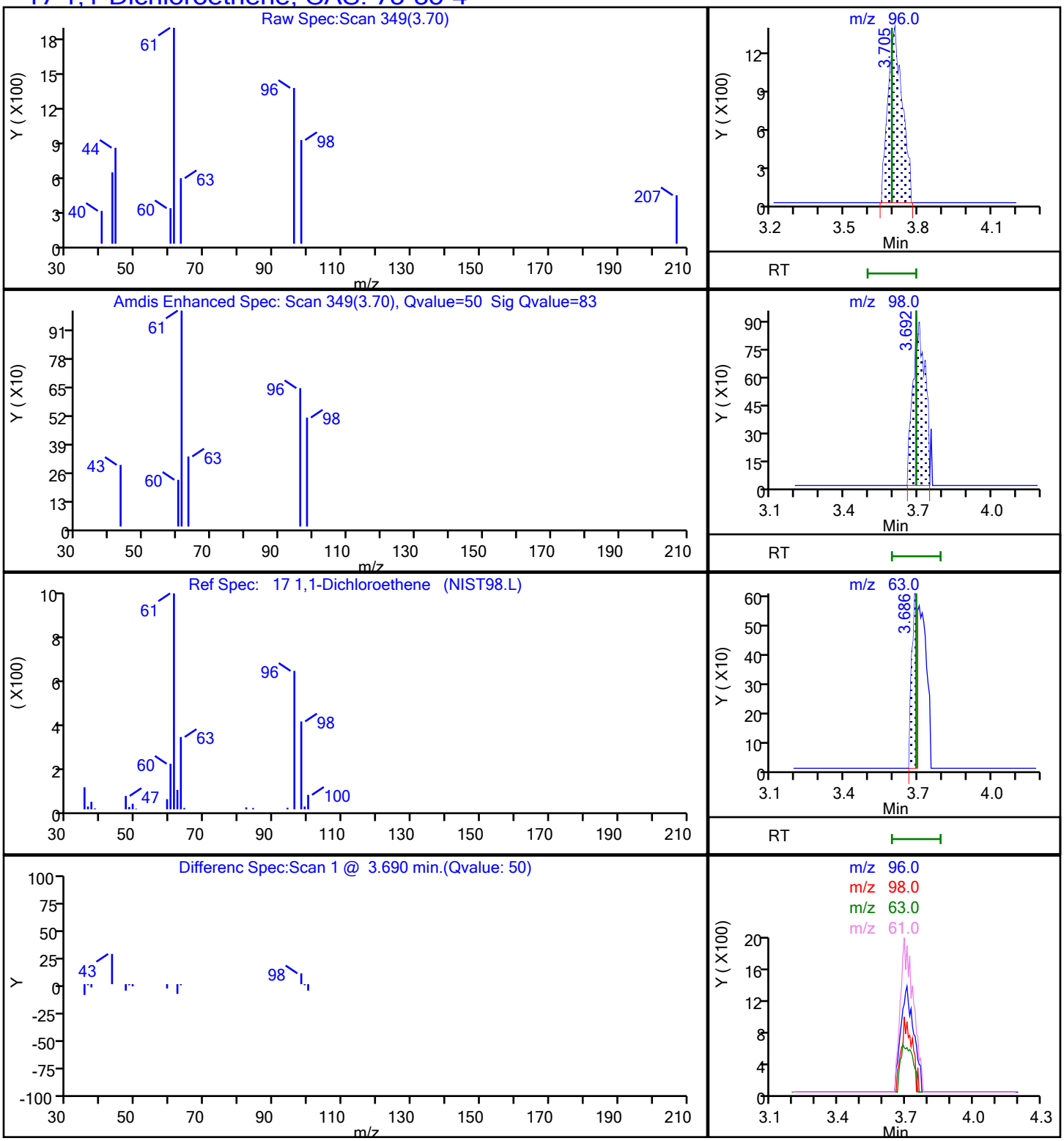
35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

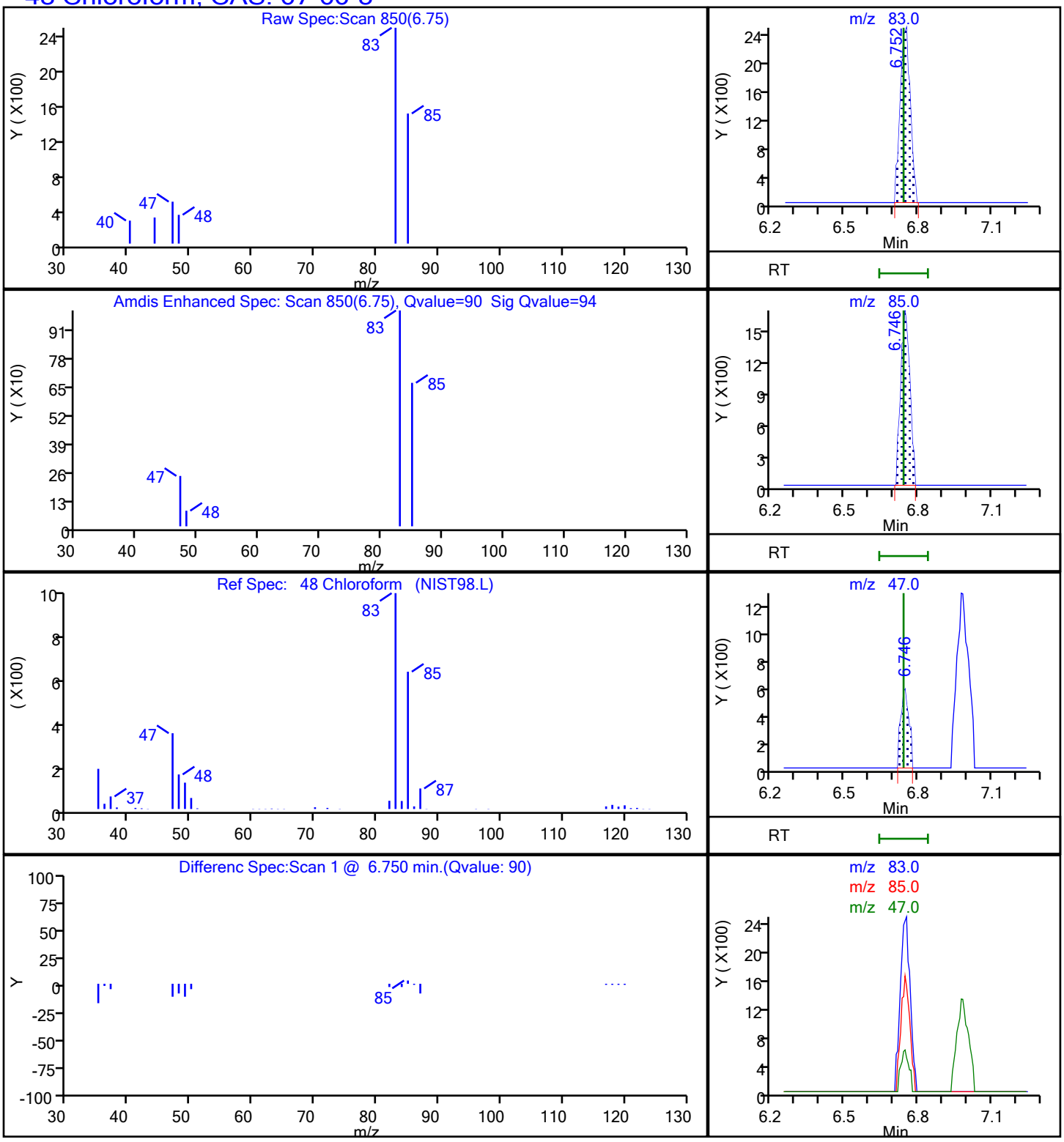
17 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

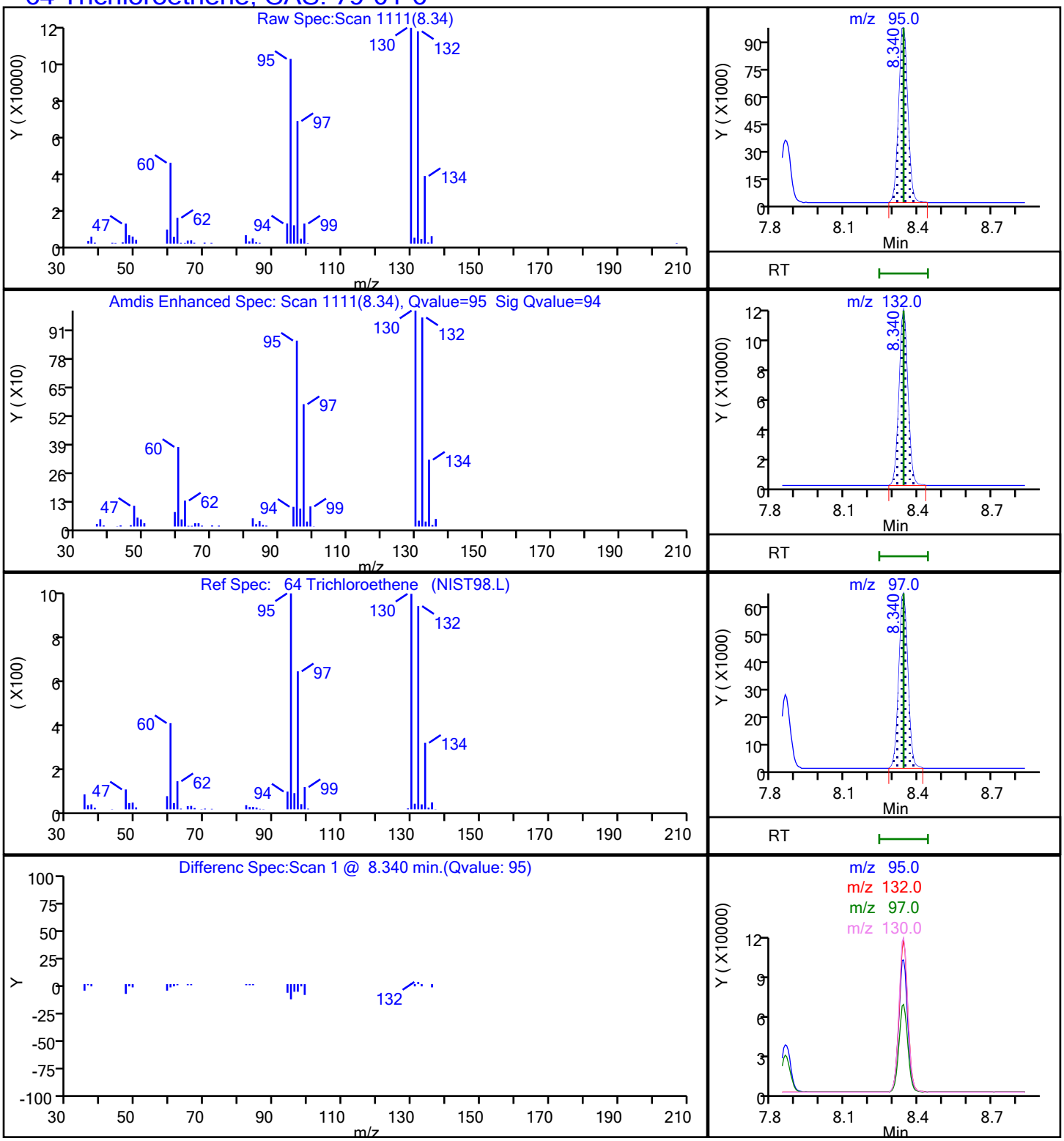
48 Chloroform, CAS: 67-66-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

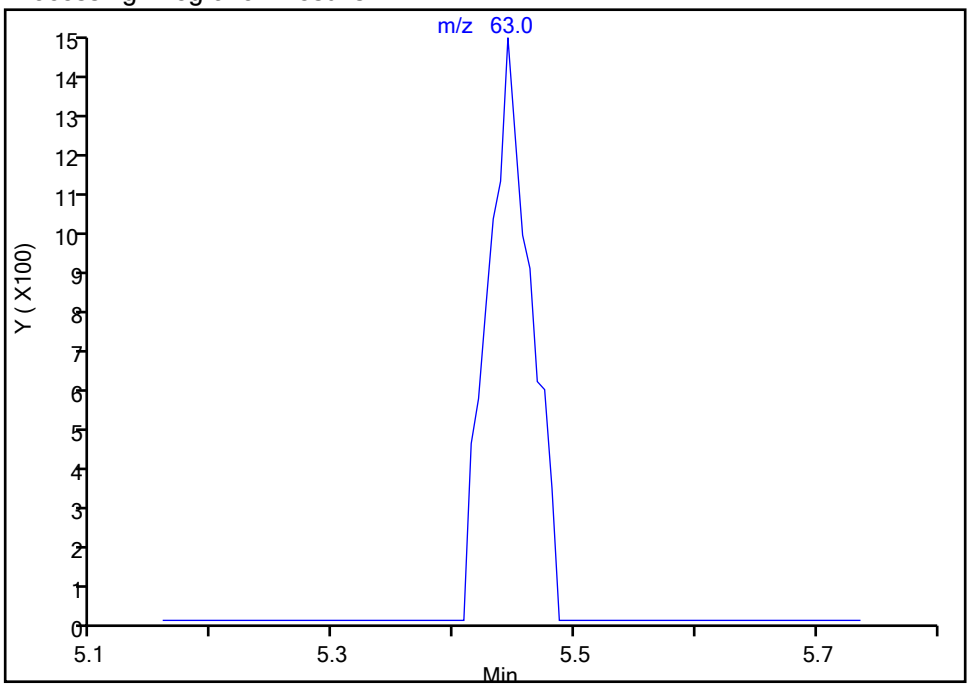
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

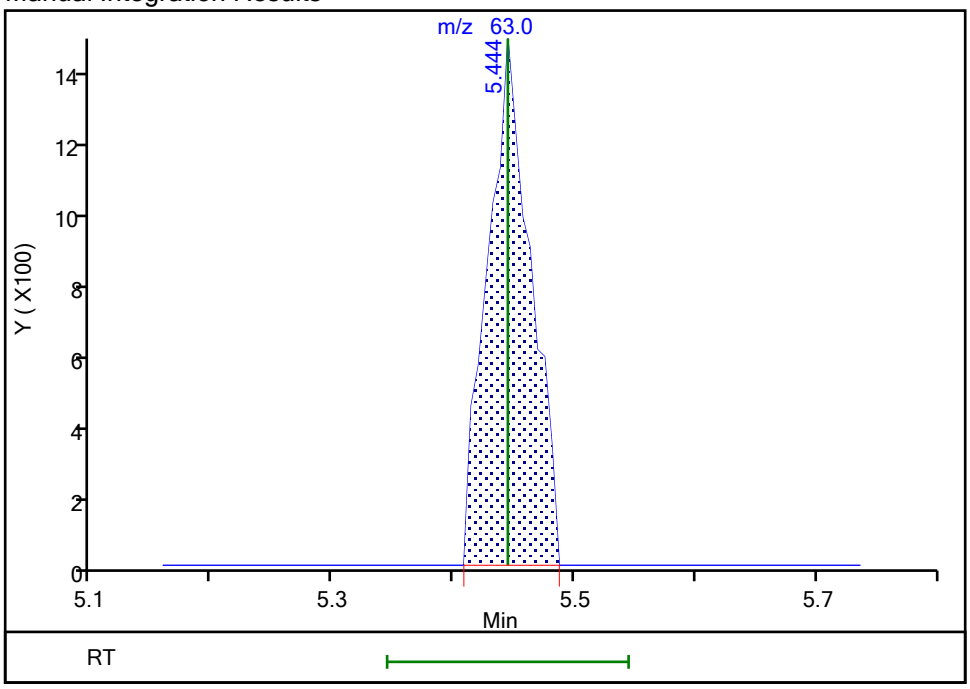
Not Detected
Expected RT: 5.44

Processing Integration Results



Manual Integration Results

RT: 5.44
Area: 3562
Amount: 0.348621
Amount Units: ug/l



Reviewer: proctore, 23-Nov-2020 17:47:44
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

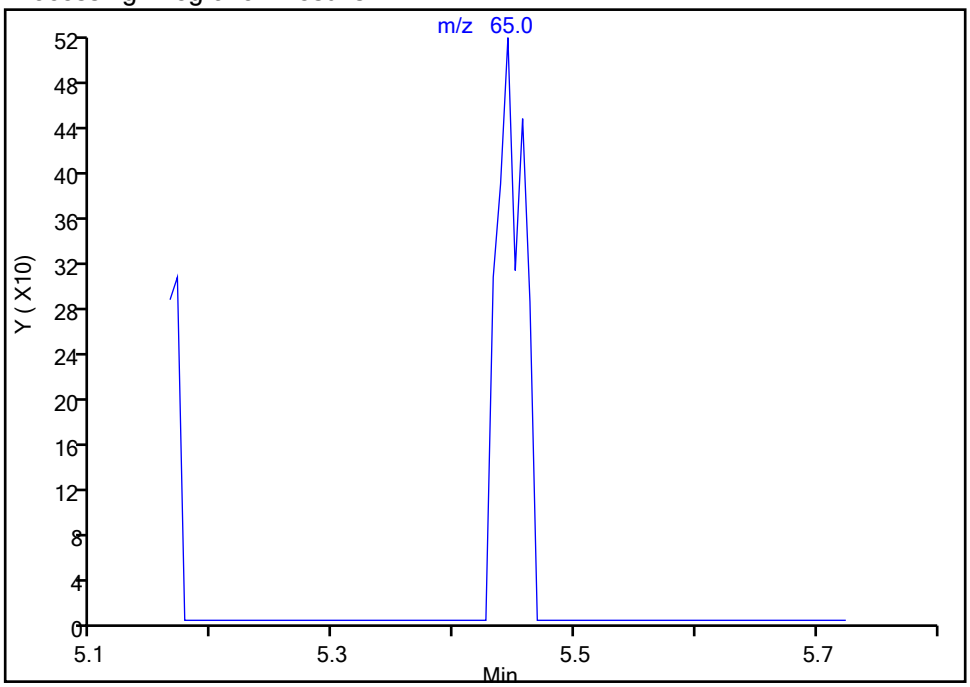
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Signal: 2

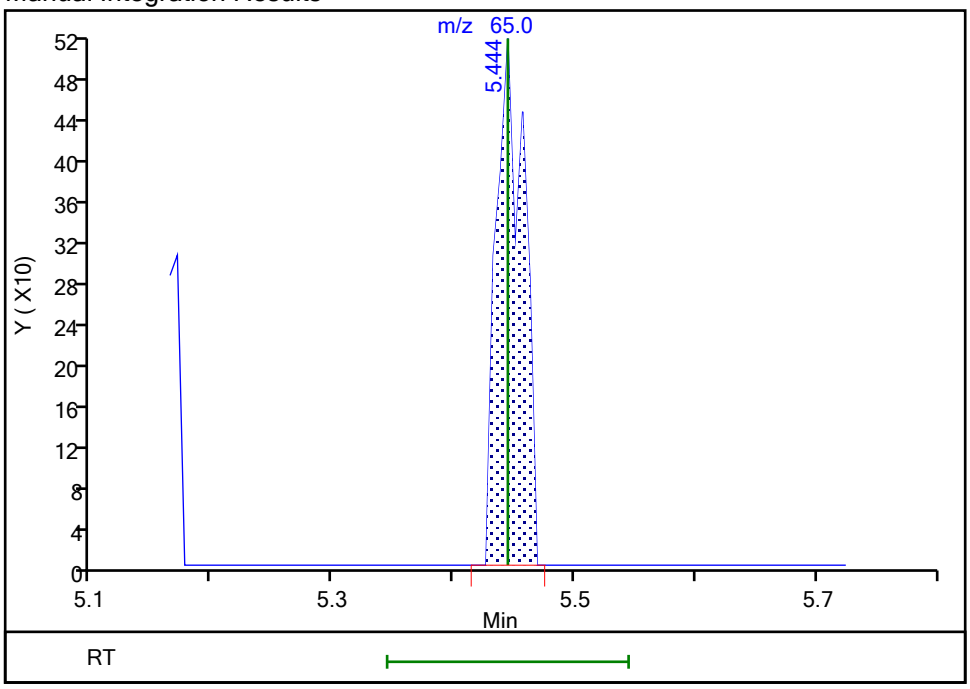
Not Detected
Expected RT: 5.44

Processing Integration Results



Manual Integration Results

RT: 5.44
Area: 822
Amount: 0.348621
Amount Units: ug/l



Reviewer: proctore, 23-Nov-2020 17:47:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

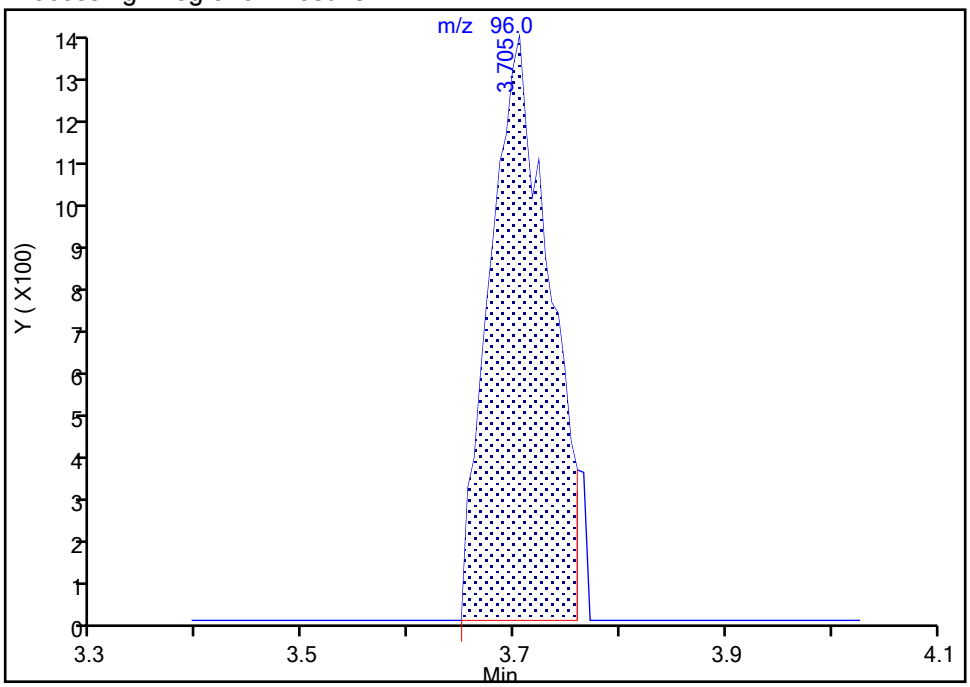
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

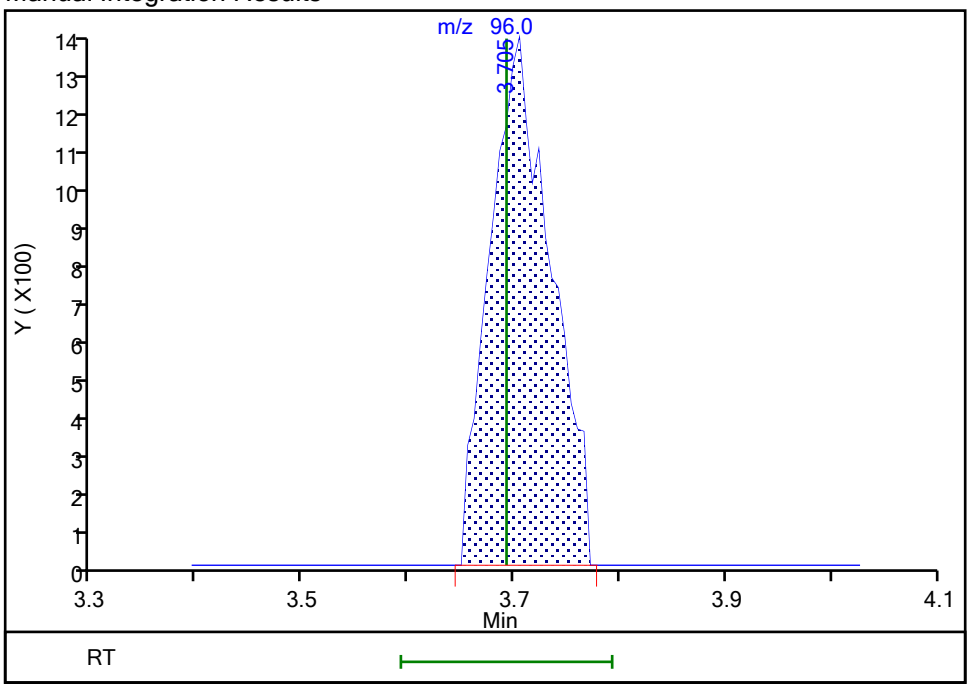
Processing Integration Results

RT: 3.70
Area: 5276
Amount: 0.997021
Amount Units: ug/l



Manual Integration Results

RT: 3.70
Area: 5401
Amount: 1.020642
Amount Units: ug/l



Reviewer: proctore, 23-Nov-2020 17:47:14
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

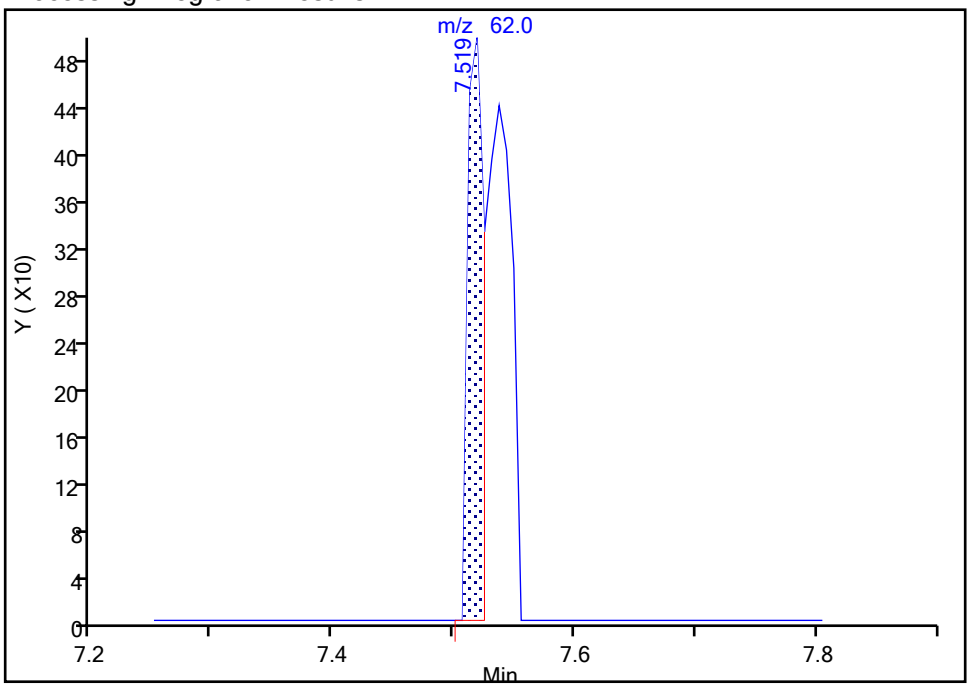
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S10.D				
Injection Date:	23-Nov-2020 16:24:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16	Lab Sample ID:	410-21210-16		
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	19	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

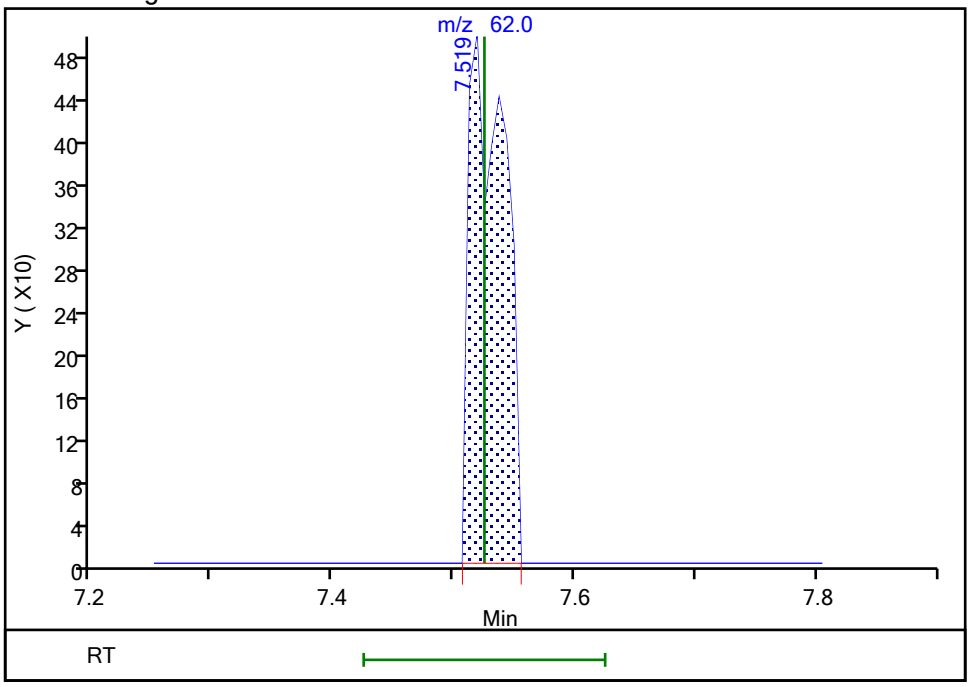
Processing Integration Results

RT: 7.52
Area: 468
Amount: 0.048523
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 1029
Amount: 0.106688
Amount Units: ug/l



Reviewer: proctore, 23-Nov-2020 17:48:56
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J18-UC03 Lab Sample ID: 410-21210-17

Matrix: Water Lab File ID: YN20S66.D

Analysis Method: 8260C Date Collected: 11/16/2020 09:56

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 03:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	3.8		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S66.D
Lims ID: 410-21210-A-17
Client ID: J18-UC03
Sample Type: Client
Inject. Date: 21-Nov-2020 03:47:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-022
Misc. Info.: 410-21210-A-17
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:57:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.367	4.367	0.000	0	306344	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	268604	51.4	
50 1,1,1-Trichloroethane	97	6.983	6.983	0.000	98	35610	3.78	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.415	0.006	0	64832	51.7	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1039045	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1049319	50.4	
78 Toluene	92	9.928	9.922	0.006	97	2900	0.1832	
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	855096	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	366594	46.0	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	483313	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

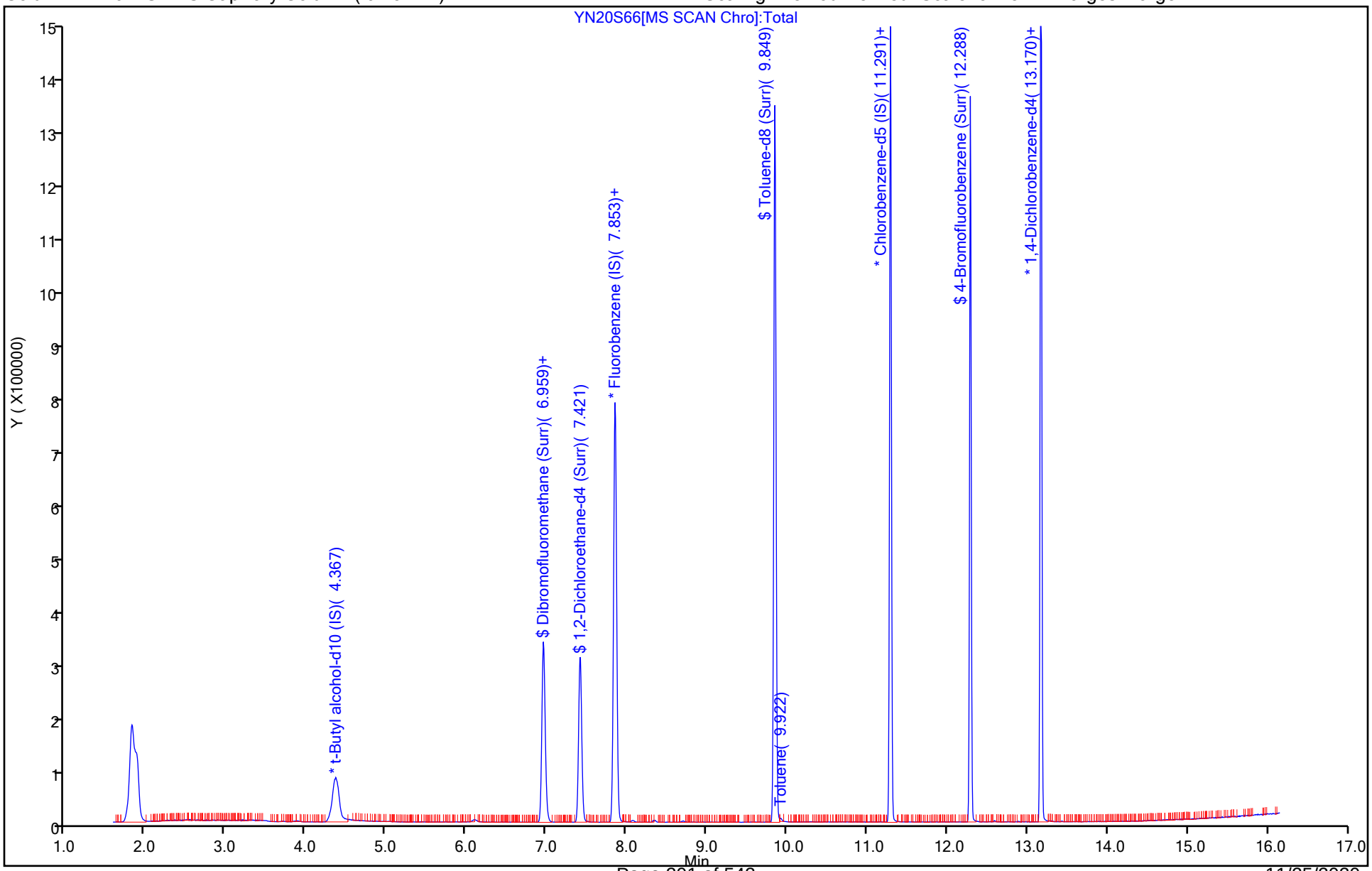
Report Date: 21-Nov-2020 11:03:49 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S66.D

Injection Date:	21-Nov-2020 03:47:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-17	Lab Sample ID:	410-21210-17	Worklist Smp#:	22
Client ID:	J18-UC03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

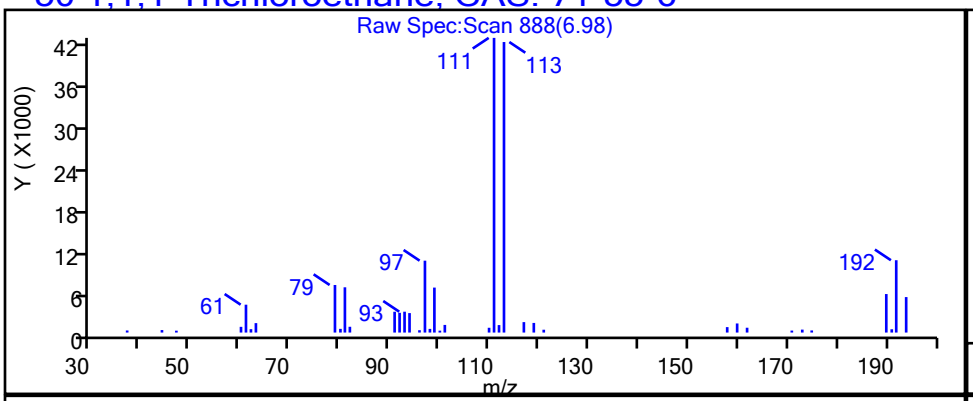
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

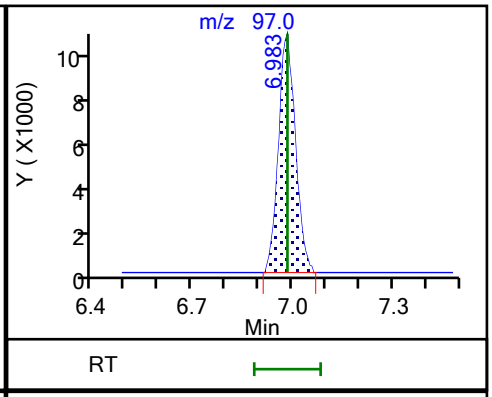


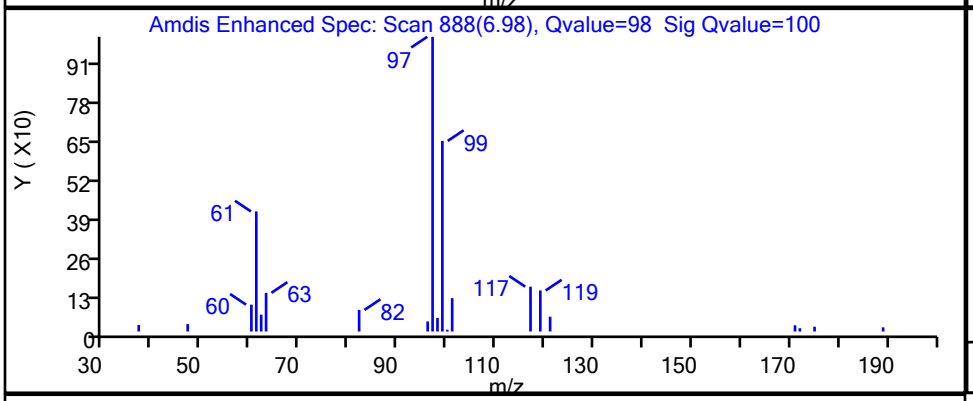
Eurofins Lancaster Laboratories Env, LLC

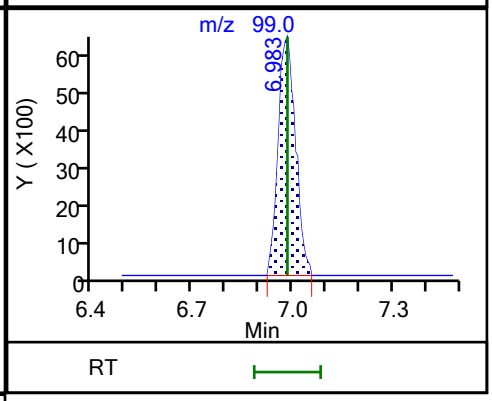
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S66.D				
Injection Date:	21-Nov-2020 03:47:30	Instrument ID:	9355		
Lims ID:	410-21210-A-17	Lab Sample ID:	410-21210-17		
Client ID:	J18-UC03				
Operator ID:	ljg30941	ALS Bottle#:	21	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

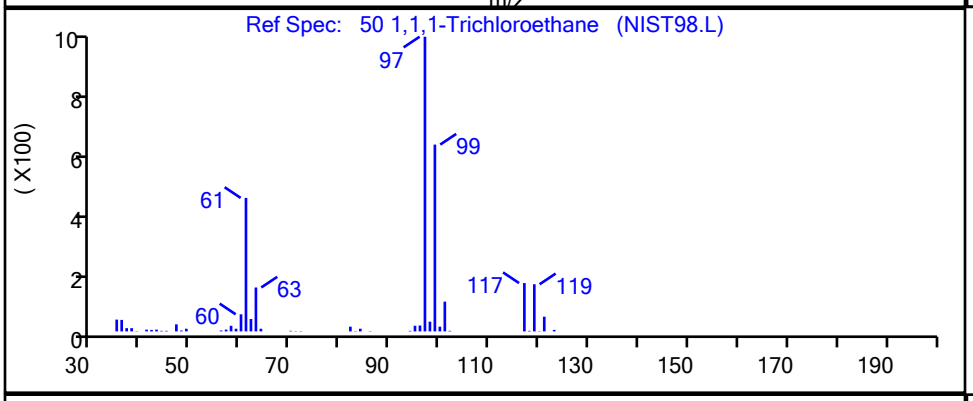
50 1,1,1-Trichloroethane, CAS: 71-55-6

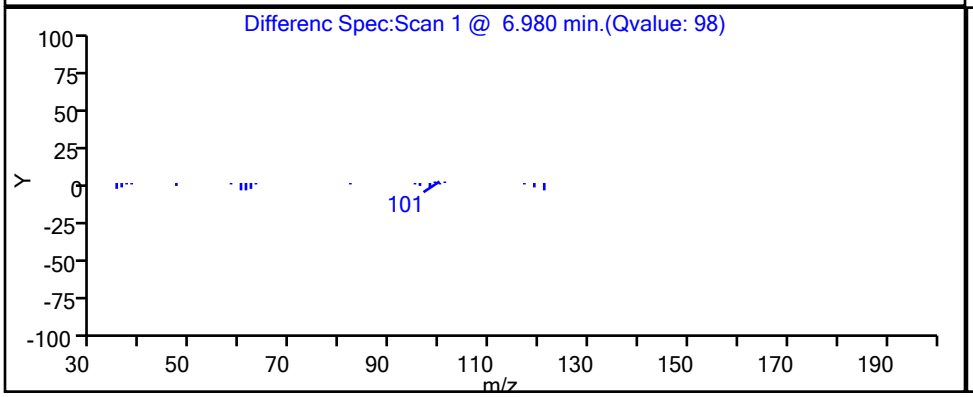


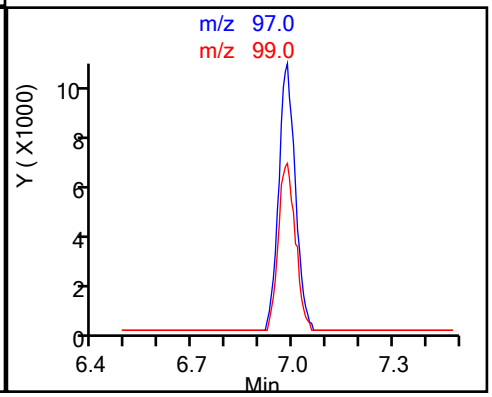












FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J19-UC01 Lab Sample ID: 410-21210-18

Matrix: Water Lab File ID: YN20S67.D

Analysis Method: 8260C Date Collected: 11/16/2020 11:10

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 04:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	0.33	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S67.D
Lims ID: 410-21210-A-18
Client ID: J19-UC01
Sample Type: Client
Inject. Date: 21-Nov-2020 04:09:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-023
Misc. Info.: 410-21210-A-18
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:57:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.367	0.001	0	306983	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63	5.444	5.438	0.006	0	3068	0.3287	M
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	258326	50.9	
50 1,1,1-Trichloroethane	97	6.971	6.983	-0.012	42	2405	0.2633	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.415	0.001	0	62872	51.7	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1007726	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1016195	50.1	
78 Toluene	92		9.922				ND	7
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	832870	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	353699	45.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	467722	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

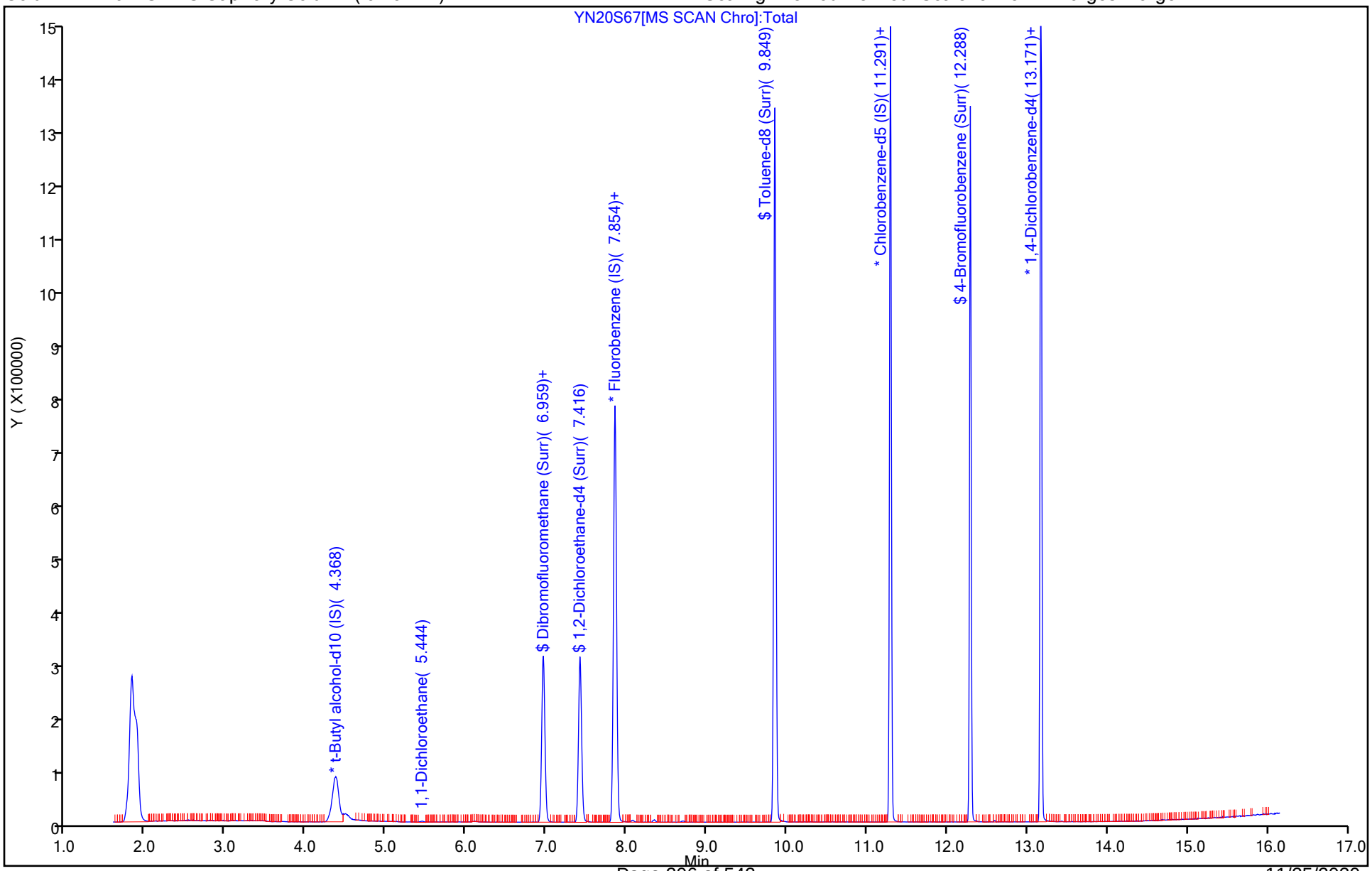
Report Date: 21-Nov-2020 11:03:50 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S67.D

Injection Date:	21-Nov-2020 04:09:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-18	Lab Sample ID:	410-21210-18	Worklist Smp#:	23
Client ID:	J19-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

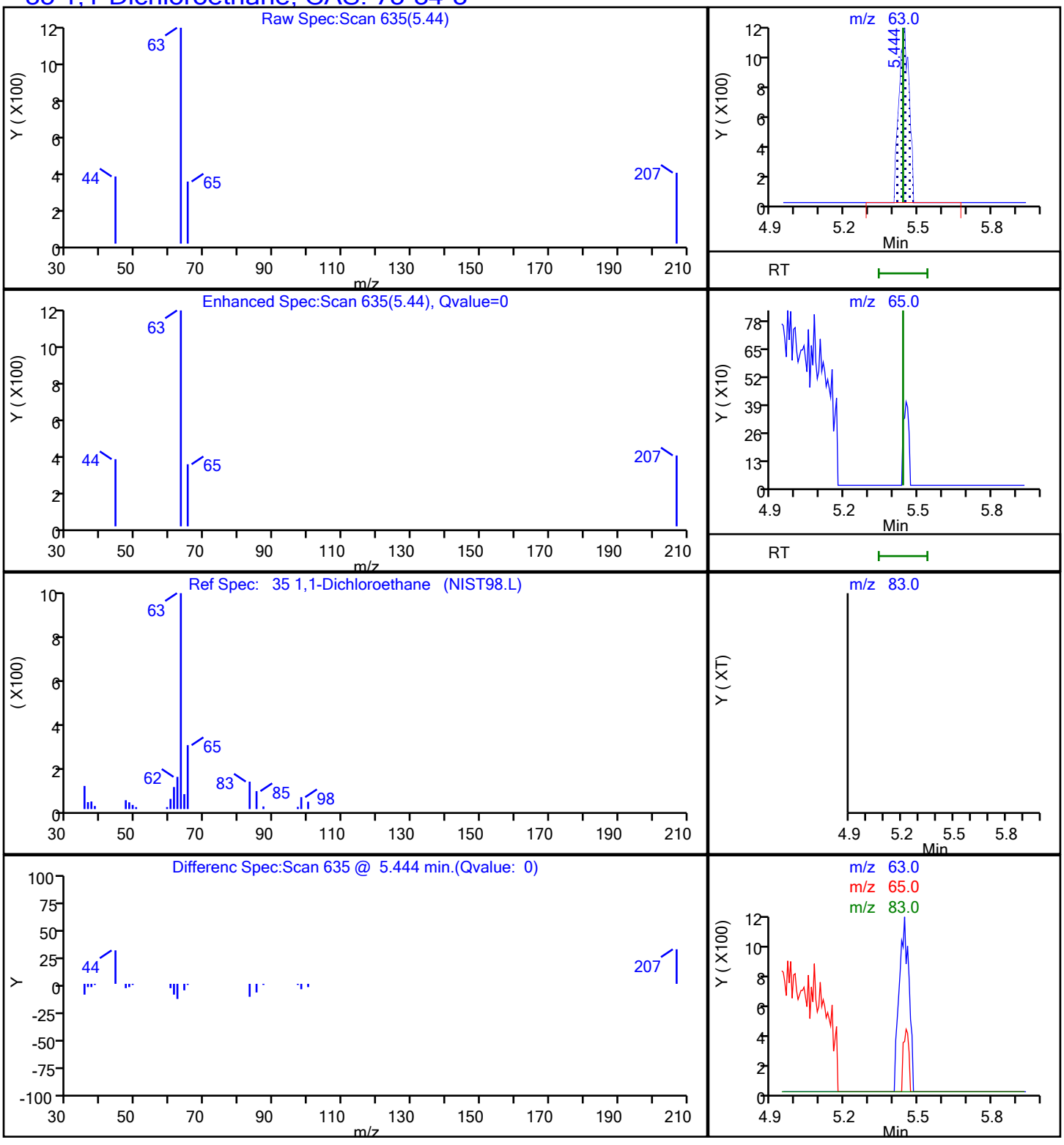
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S67.D				
Injection Date:	21-Nov-2020 04:09:30	Instrument ID:	9355		
Lims ID:	410-21210-A-18	Lab Sample ID:	410-21210-18		
Client ID:	J19-UC01				
Operator ID:	ljg30941	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

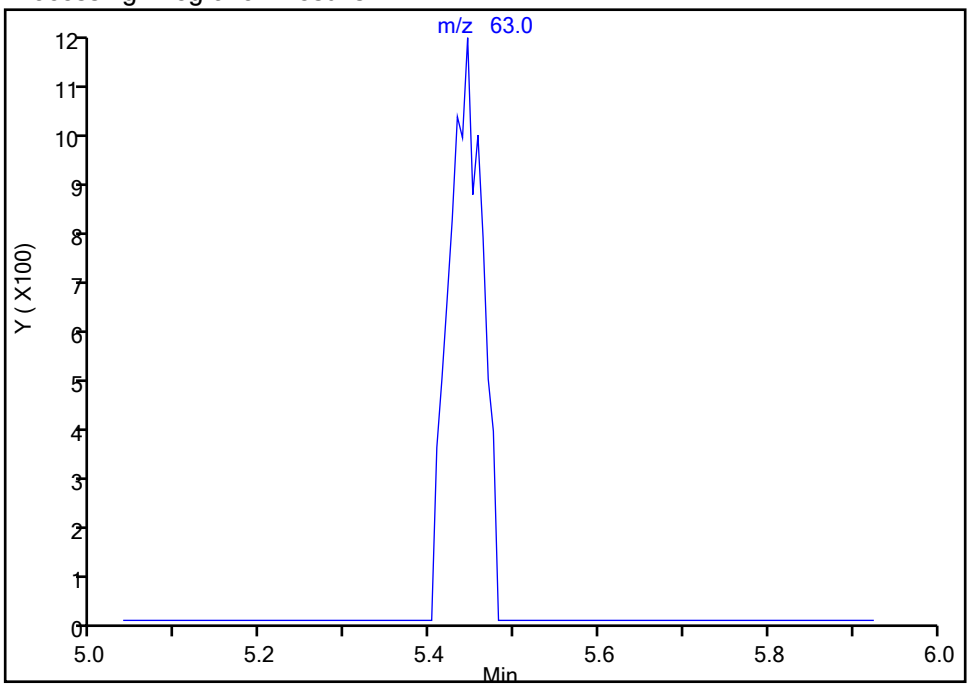
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S67.D				
Injection Date:	21-Nov-2020 04:09:30	Instrument ID:	9355		
Lims ID:	410-21210-A-18	Lab Sample ID:	410-21210-18		
Client ID:	J19-UC01				
Operator ID:	ljg30941	ALS Bottle#:	22	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

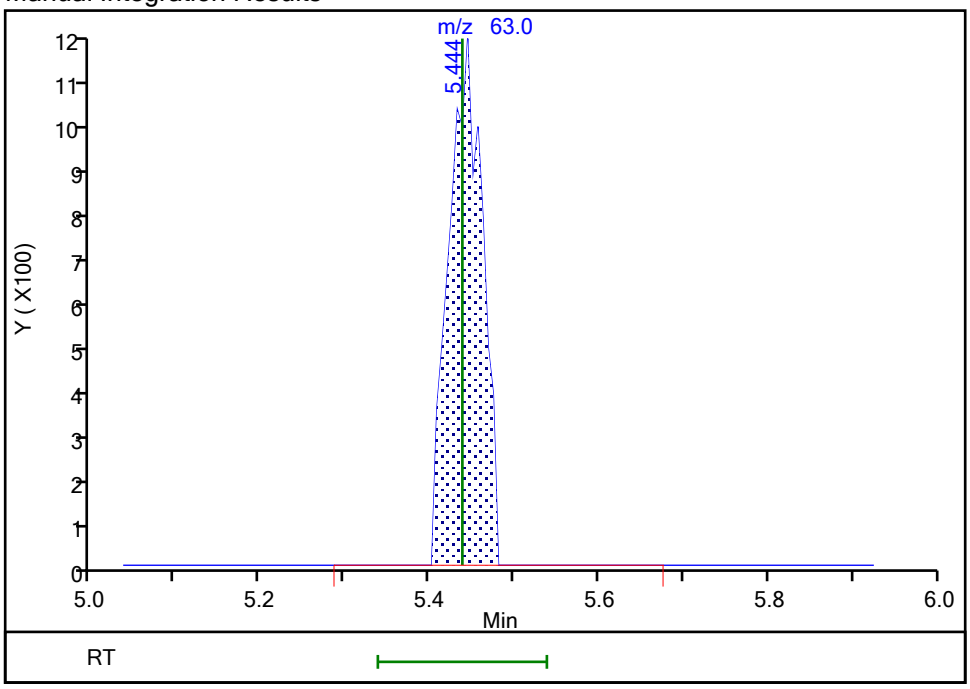
Not Detected
Expected RT: 5.44

Processing Integration Results



Manual Integration Results

RT: 5.44
Area: 3068
Amount: 0.328747
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 10:57:33
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J19-UC02 Lab Sample ID: 410-21210-19

Matrix: Water Lab File ID: YN20S68.D

Analysis Method: 8260C Date Collected: 11/16/2020 12:18

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 04:31

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.79	J	1.0	0.30
75-34-3	1,1-Dichloroethane	0.46	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S68.D
Lims ID: 410-21210-A-19
Client ID: J19-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 04:31:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-024
Misc. Info.: 410-21210-A-19
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:58:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.367	-0.005	0	303575	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63	5.432	5.438	-0.006	0	4321	0.4625	M
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	93	262192	51.6	
50 1,1,1-Trichloroethane	97	6.984	6.983	0.001	78	7255	0.7933	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.415	0.001	0	63173	51.9	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1008839	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1023940	50.4	
78 Toluene	92		9.922				ND	7
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	835028	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.000	97	353220	45.4	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	471346	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

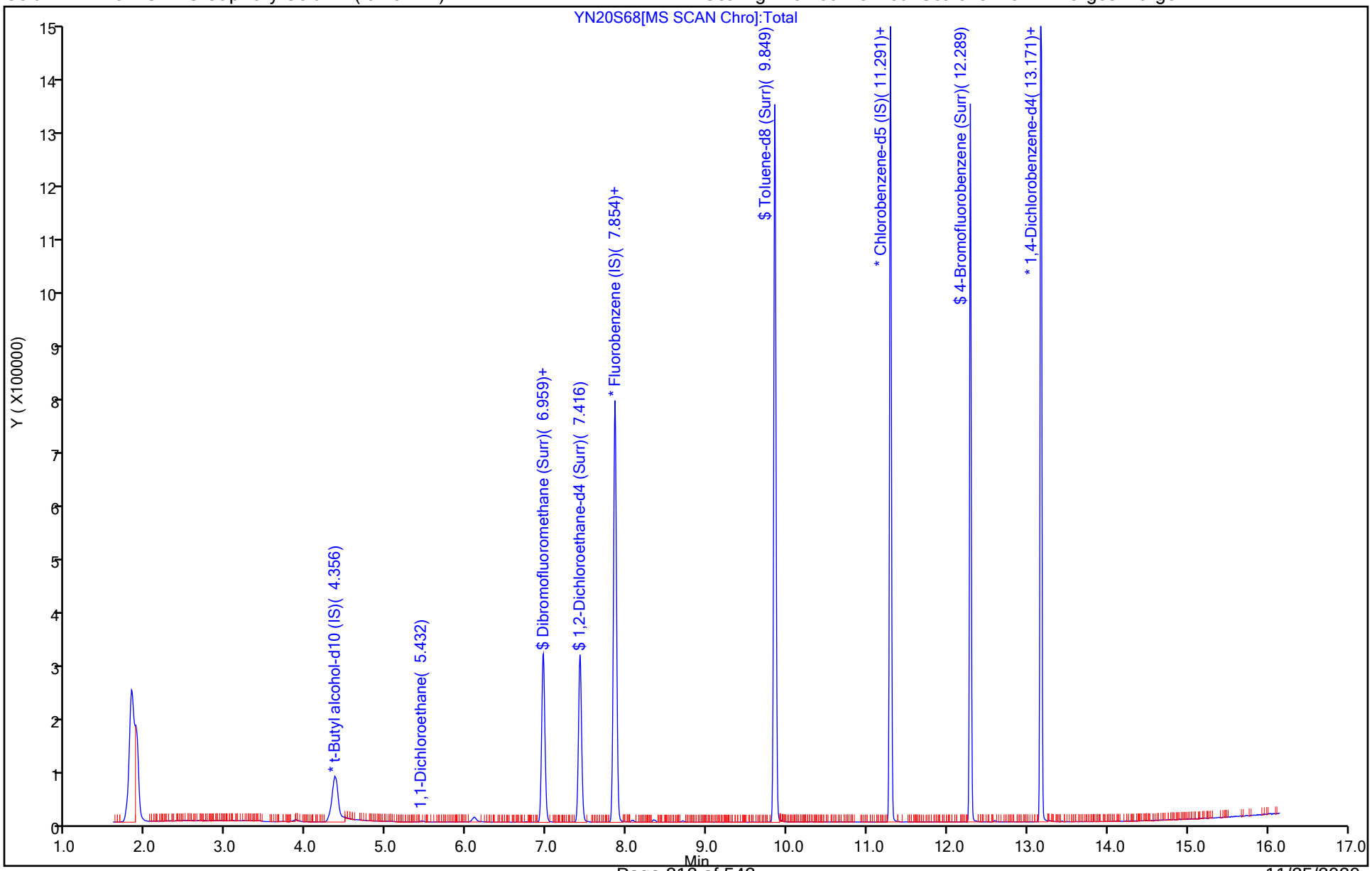
Report Date: 21-Nov-2020 11:03:52 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S68.D

Injection Date:	21-Nov-2020 04:31:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-19	Lab Sample ID:	410-21210-19	Worklist Smp#:	24
Client ID:	J19-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

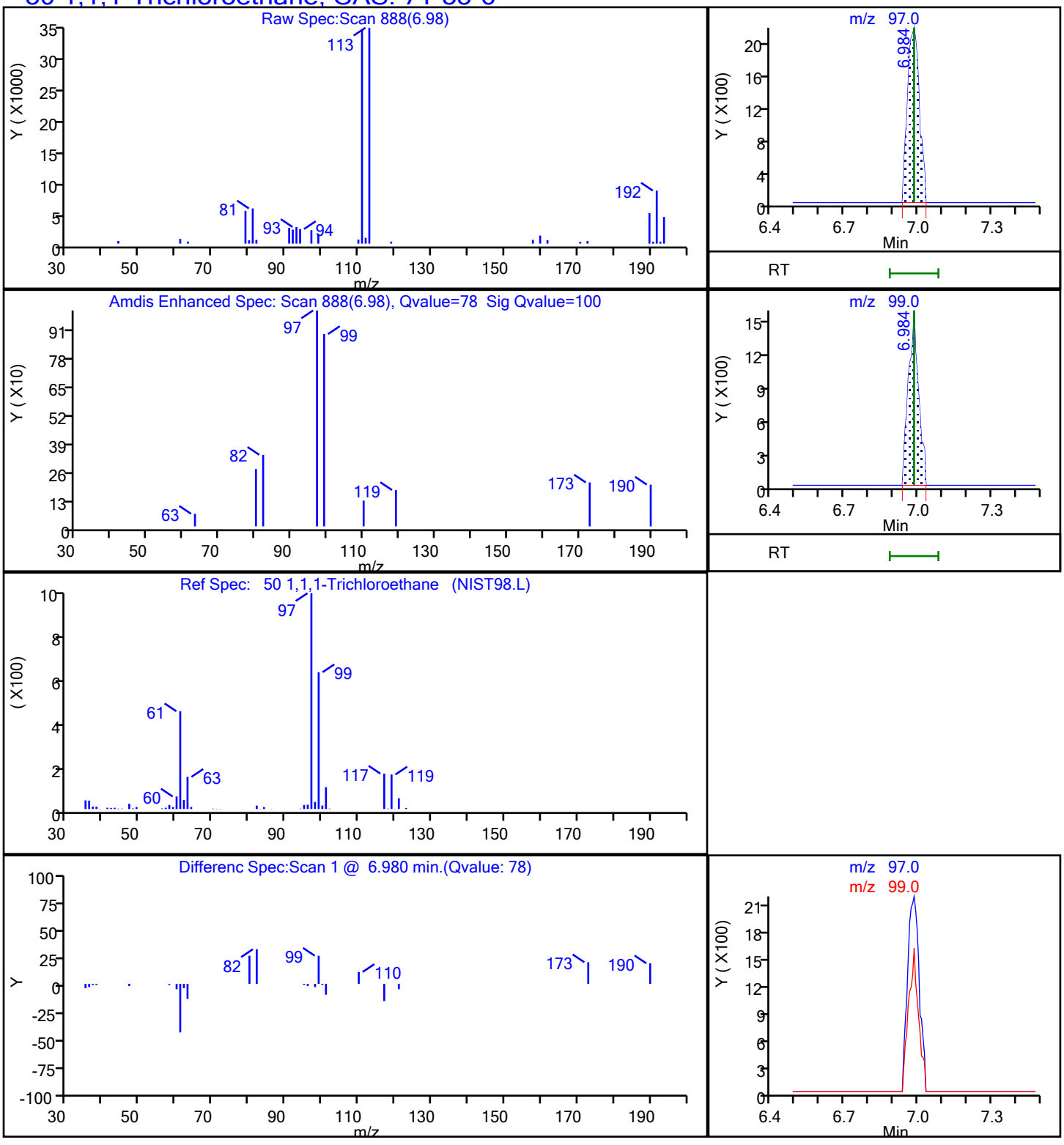


Report Date: 21-Nov-2020 11:03:52 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S68.D				
Injection Date:	21-Nov-2020 04:31:30	Instrument ID:	9355		
Lims ID:	410-21210-A-19	Lab Sample ID:	410-21210-19		
Client ID:	J19-UC02				
Operator ID:	ljg30941	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

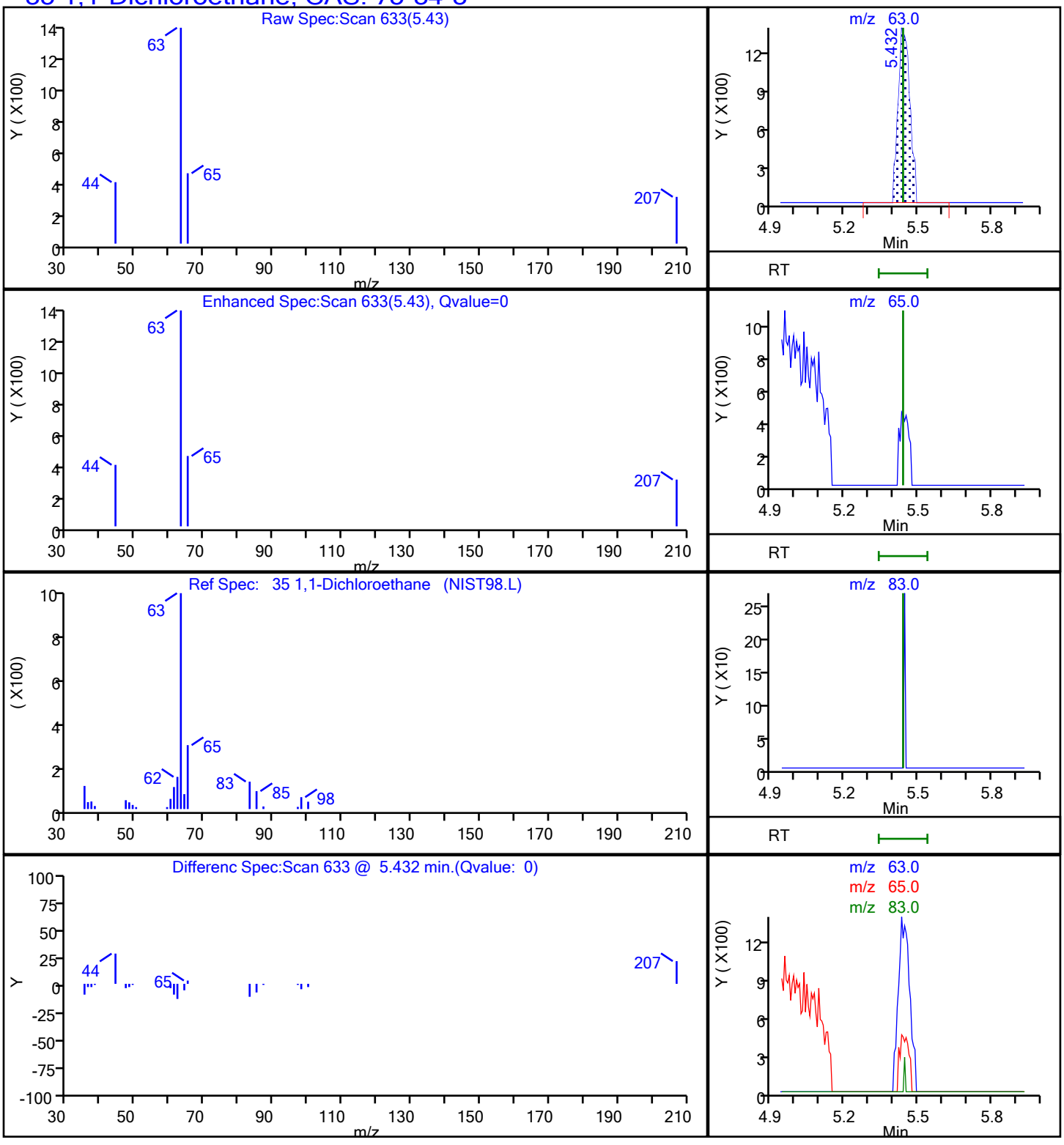
50 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S68.D				
Injection Date:	21-Nov-2020 04:31:30	Instrument ID:	9355		
Lims ID:	410-21210-A-19	Lab Sample ID:	410-21210-19		
Client ID:	J19-UC02				
Operator ID:	ljg30941	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

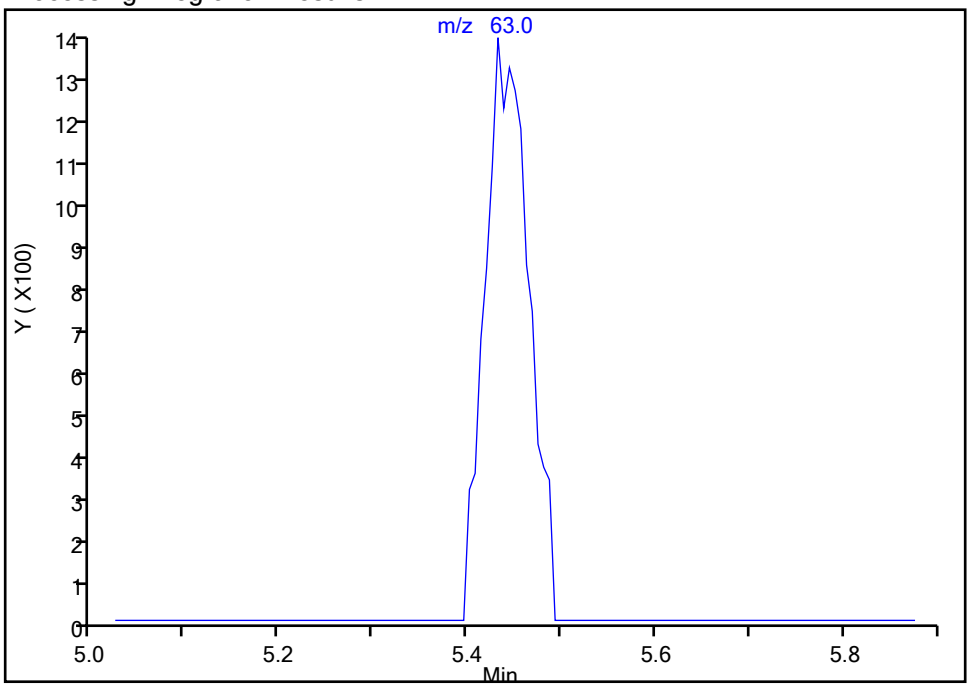
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S68.D				
Injection Date:	21-Nov-2020 04:31:30	Instrument ID:	9355		
Lims ID:	410-21210-A-19	Lab Sample ID:	410-21210-19		
Client ID:	J19-UC02				
Operator ID:	ljg30941	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

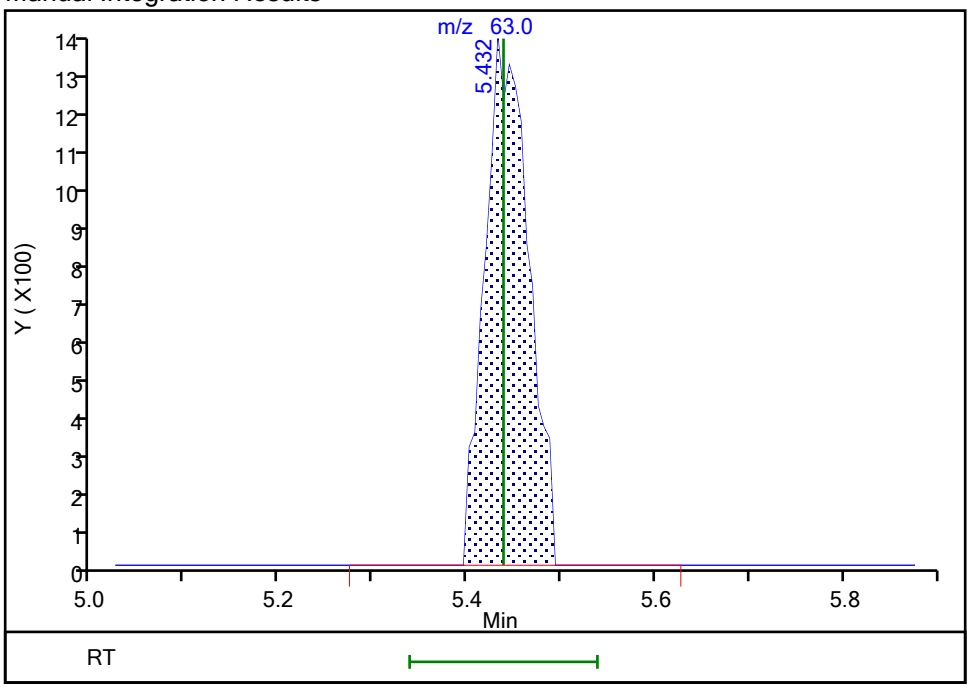
Not Detected
Expected RT: 5.44

Processing Integration Results



Manual Integration Results

RT: 5.43
Area: 4321
Amount: 0.462499
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 10:58:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J15-UC01 Lab Sample ID: 410-21210-20

Matrix: Water Lab File ID: YN20S69.D

Analysis Method: 8260C Date Collected: 11/16/2020 13:33

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 04:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S69.D
Lims ID: 410-21210-A-20
Client ID: J15-UC01
Sample Type: Client
Inject. Date: 21-Nov-2020 04:53:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-025
Misc. Info.: 410-21210-A-20
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:58:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.367	4.367	0.000	0	284157	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	244210	51.0	
50 1,1,1-Trichloroethane	97		6.983				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.415	0.006	0	60232	52.5	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	950679	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	965209	50.3	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	788254	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	333582	45.4	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	442859	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

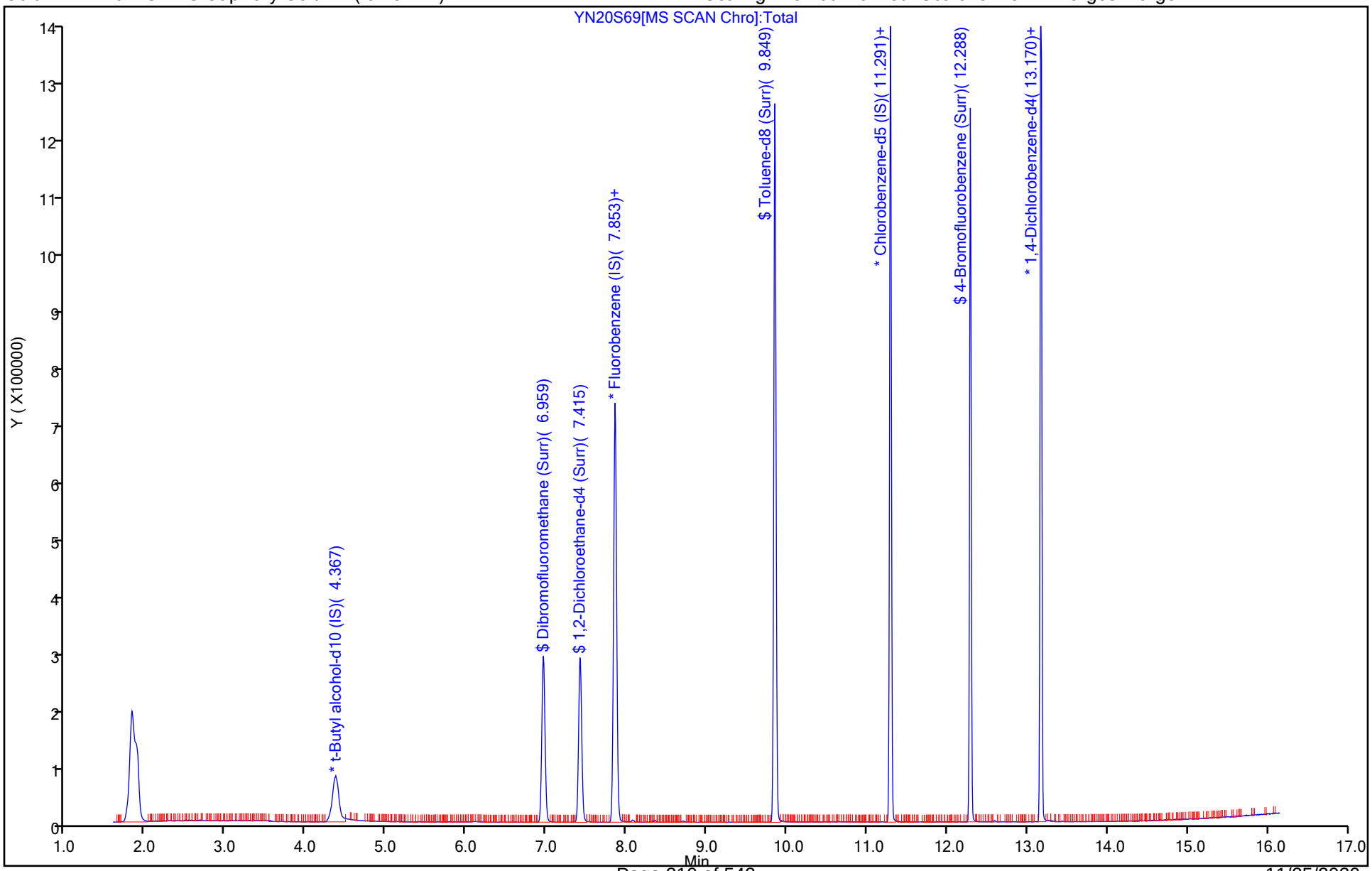
Report Date: 21-Nov-2020 11:03:53 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S69.D

Injection Date:	21-Nov-2020 04:53:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-20	Lab Sample ID:	410-21210-20	Worklist Smp#:	25
Client ID:	J15-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J15-UC02 Lab Sample ID: 410-21210-21

Matrix: Water Lab File ID: YN20S70.D

Analysis Method: 8260C Date Collected: 11/16/2020 14:20

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 05:15

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S70.D
Lims ID: 410-21210-A-21
Client ID: J15-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 05:15:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-026
Misc. Info.: 410-21210-A-21
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:59:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.367	0.001	0	277700	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	256176	51.2	
50 1,1,1-Trichloroethane	97	6.977	6.983	-0.006	0	212	0.0235	7M
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.415	0.007	0	61737	51.5	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	993412	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1011060	50.4	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	823917	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	349058	45.4	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	466429	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

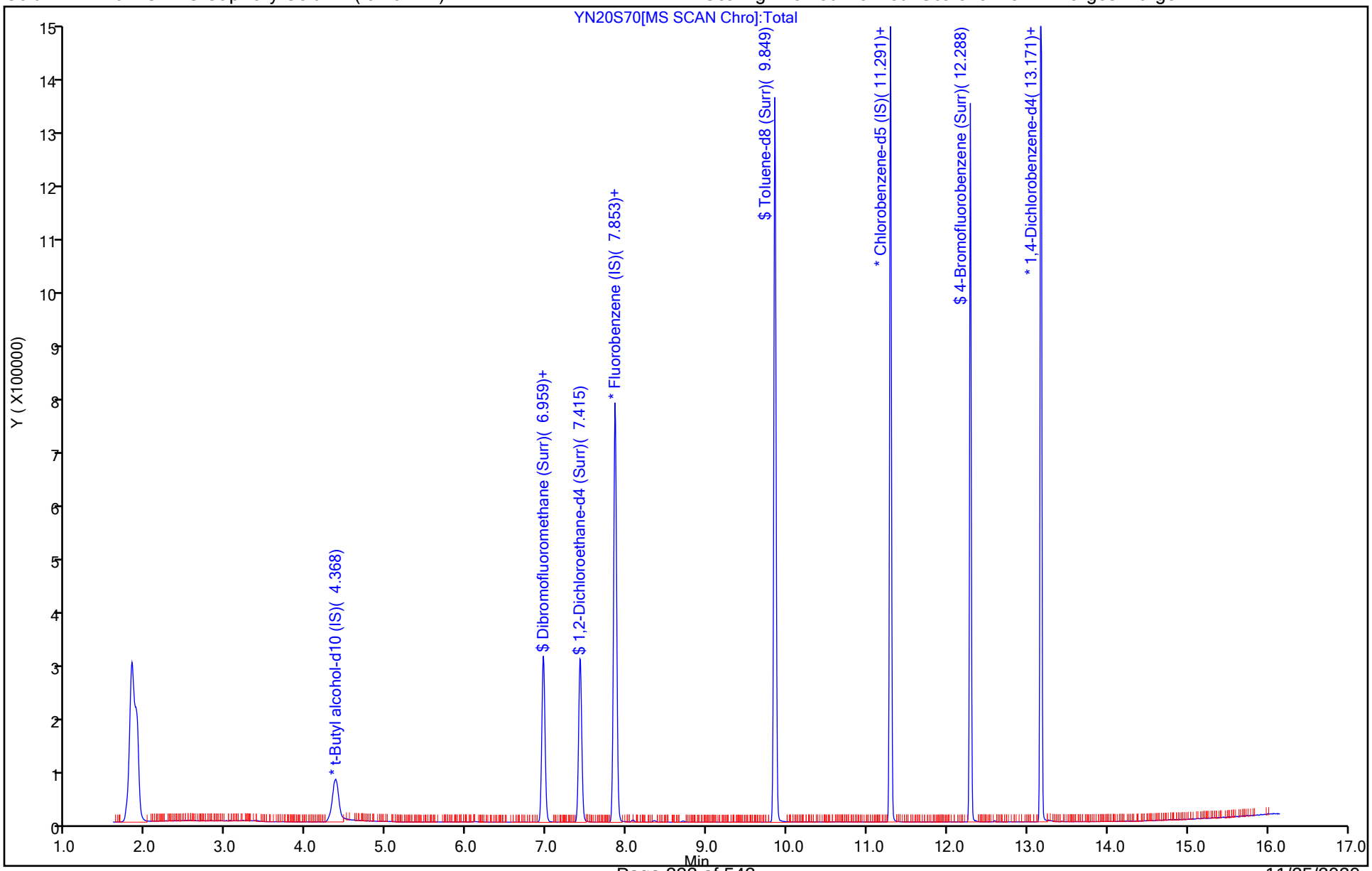
Report Date: 21-Nov-2020 11:03:54 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S70.D

Injection Date:	21-Nov-2020 05:15:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-21	Lab Sample ID:	410-21210-21	Worklist Smp#:	26
Client ID:	J15-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

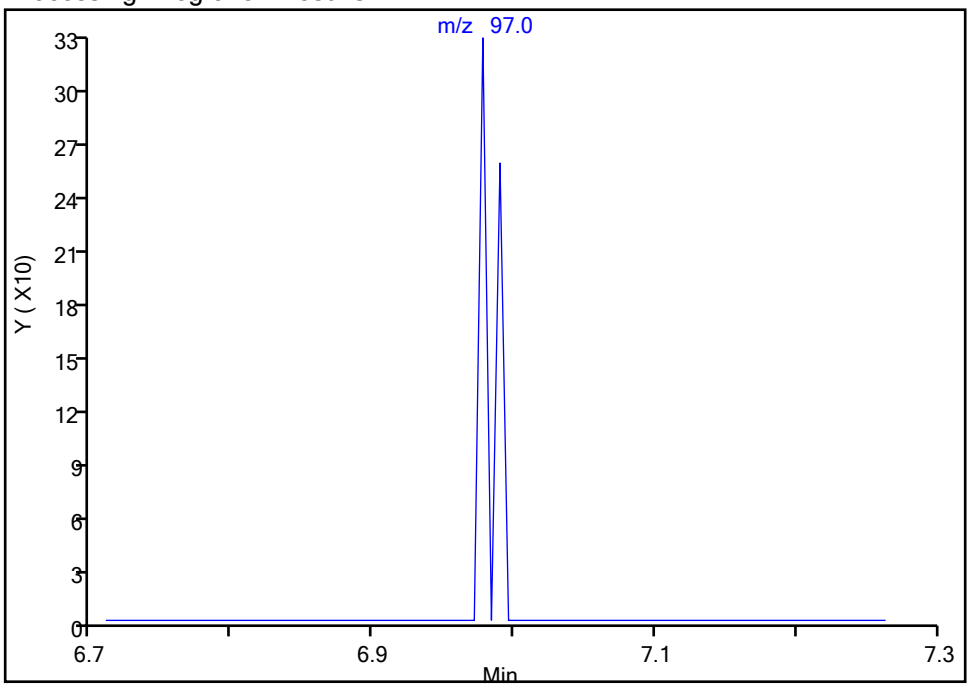
Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S70.D				
Injection Date:	21-Nov-2020 05:15:30	Instrument ID:	9355		
Lims ID:	410-21210-A-21	Lab Sample ID:	410-21210-21		
Client ID:	J15-UC02				
Operator ID:	ljg30941	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6

Signal: 1

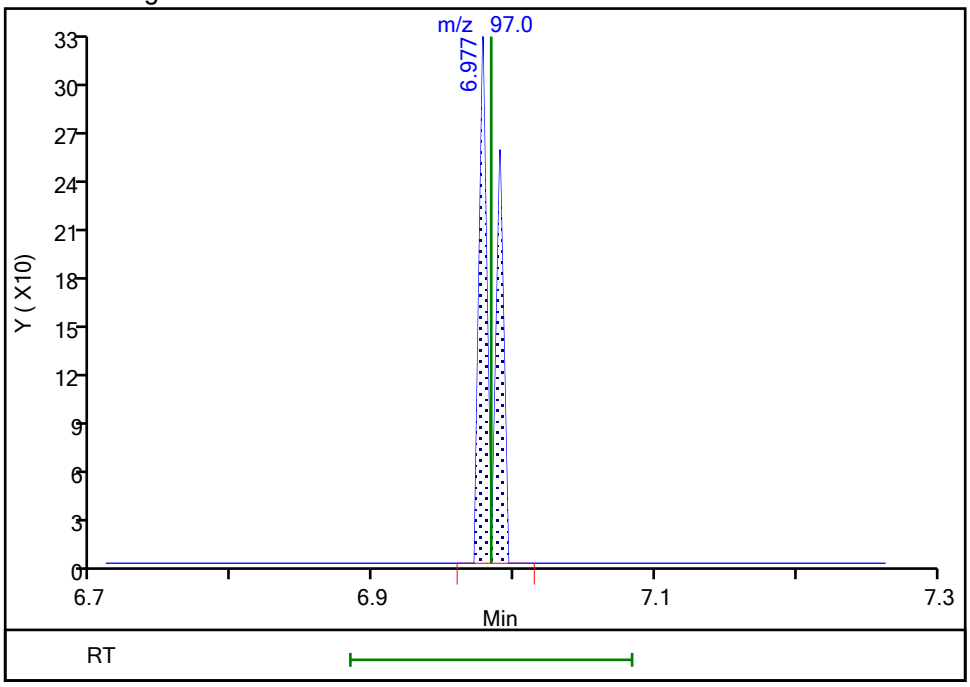
Not Detected
Expected RT: 6.98

Processing Integration Results



Manual Integration Results

RT: 6.98
Area: 212
Amount: 0.023541
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 10:59:20
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J06-UC02 Lab Sample ID: 410-21210-22

Matrix: Water Lab File ID: YN20S71.D

Analysis Method: 8260C Date Collected: 11/16/2020 16:10

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 05:37

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S71.D
Lims ID: 410-21210-A-22
Client ID: J06-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 05:37:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-027
Misc. Info.: 410-21210-A-22
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 11:02:55 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 11:00:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.704				ND	
19 112TCTFE	101		3.717				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.367	-0.005	0	273247	250.0	
27 Methylene Chloride	84		4.367				ND	
32 trans-1,2-Dichloroethene	96		4.793				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.259				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	252417	50.9	
50 1,1,1-Trichloroethane	97		6.983				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.415	0.001	0	61983	52.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	985986	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	999946	50.0	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.475				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	821641	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	348260	45.4	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	460495	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

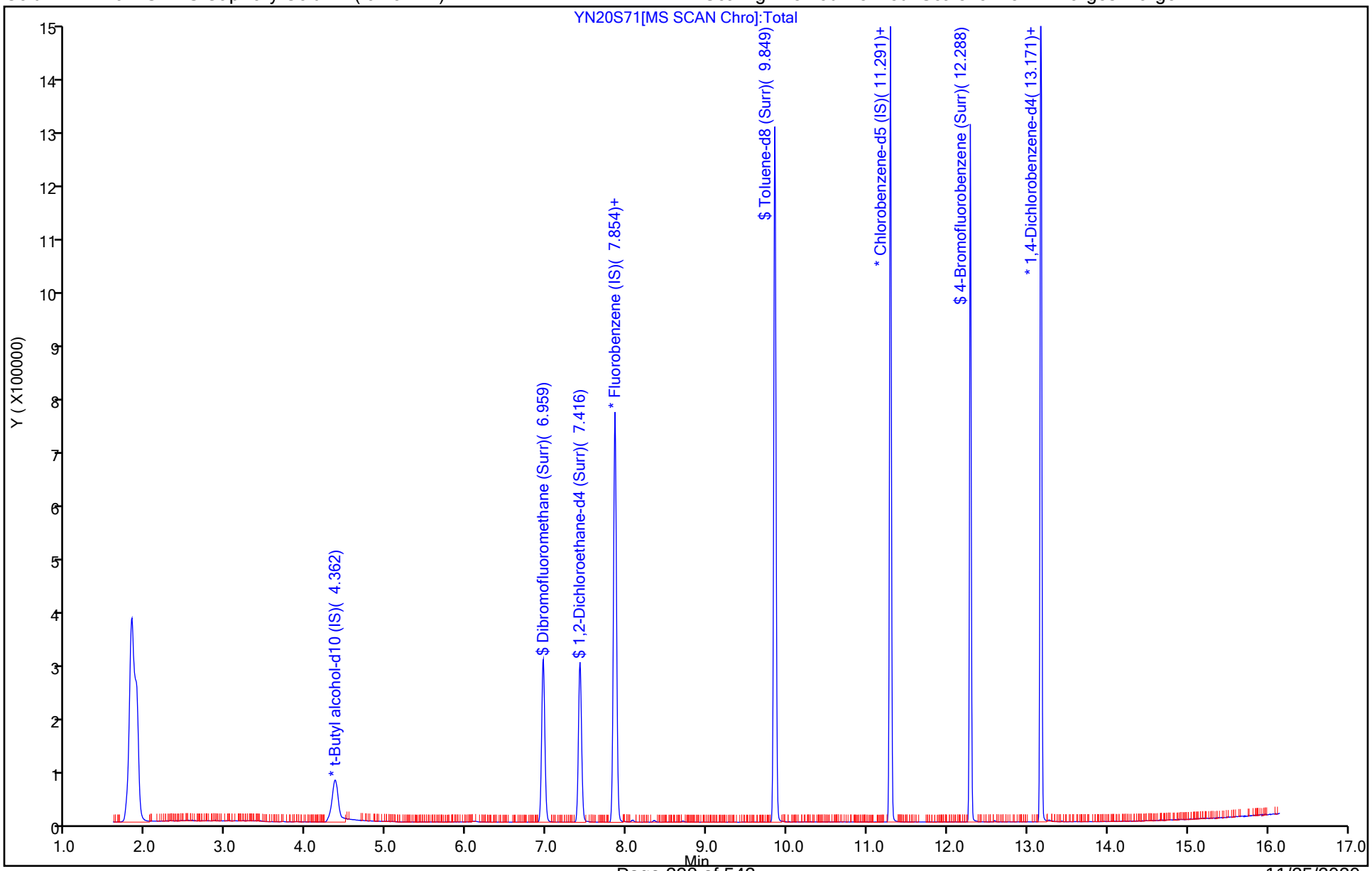
Report Date: 21-Nov-2020 11:03:56 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20S71.D

Injection Date:	21-Nov-2020 05:37:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	410-21210-A-22	Lab Sample ID:	410-21210-22	Worklist Smp#:	27
Client ID:	J06-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: MW-1S Lab Sample ID: 410-21210-23

Matrix: Water Lab File ID: YN20S22.D

Analysis Method: 8260C Date Collected: 11/13/2020 10:00

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 19:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.82	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S22.D
Lims ID: 410-21210-A-23
Client ID: MW-1S
Sample Type: Client
Inject. Date: 20-Nov-2020 19:23:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-029
Misc. Info.: 410-21210-A-23
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:17:08 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:18:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.723				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.361	4.355	0.006	0	287484	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	250499	51.2	
50 1,1,1-Trichloroethane	97	6.971	6.984	-0.013	35	956	0.1084	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.422	-0.001	0	61102	52.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	972416	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	92	4961	0.8182	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	979302	49.9	
78 Toluene	92		9.922				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	807027	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	337887	44.9	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	454955	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

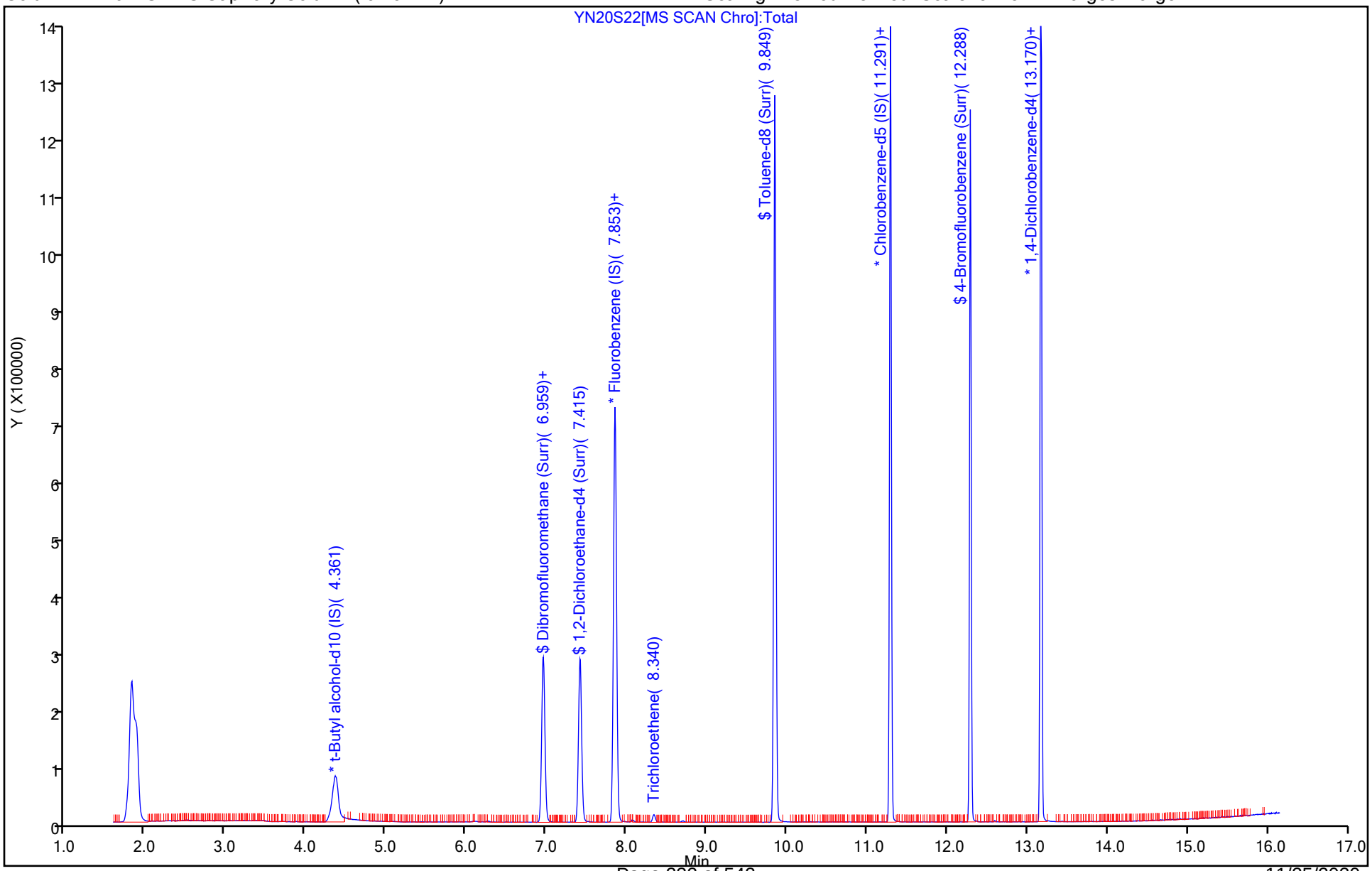
Report Date: 20-Nov-2020 21:18:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S22.D

Injection Date:	20-Nov-2020 19:23:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-23	Lab Sample ID:	410-21210-23	Worklist Smp#:	29
Client ID:	MW-1S				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

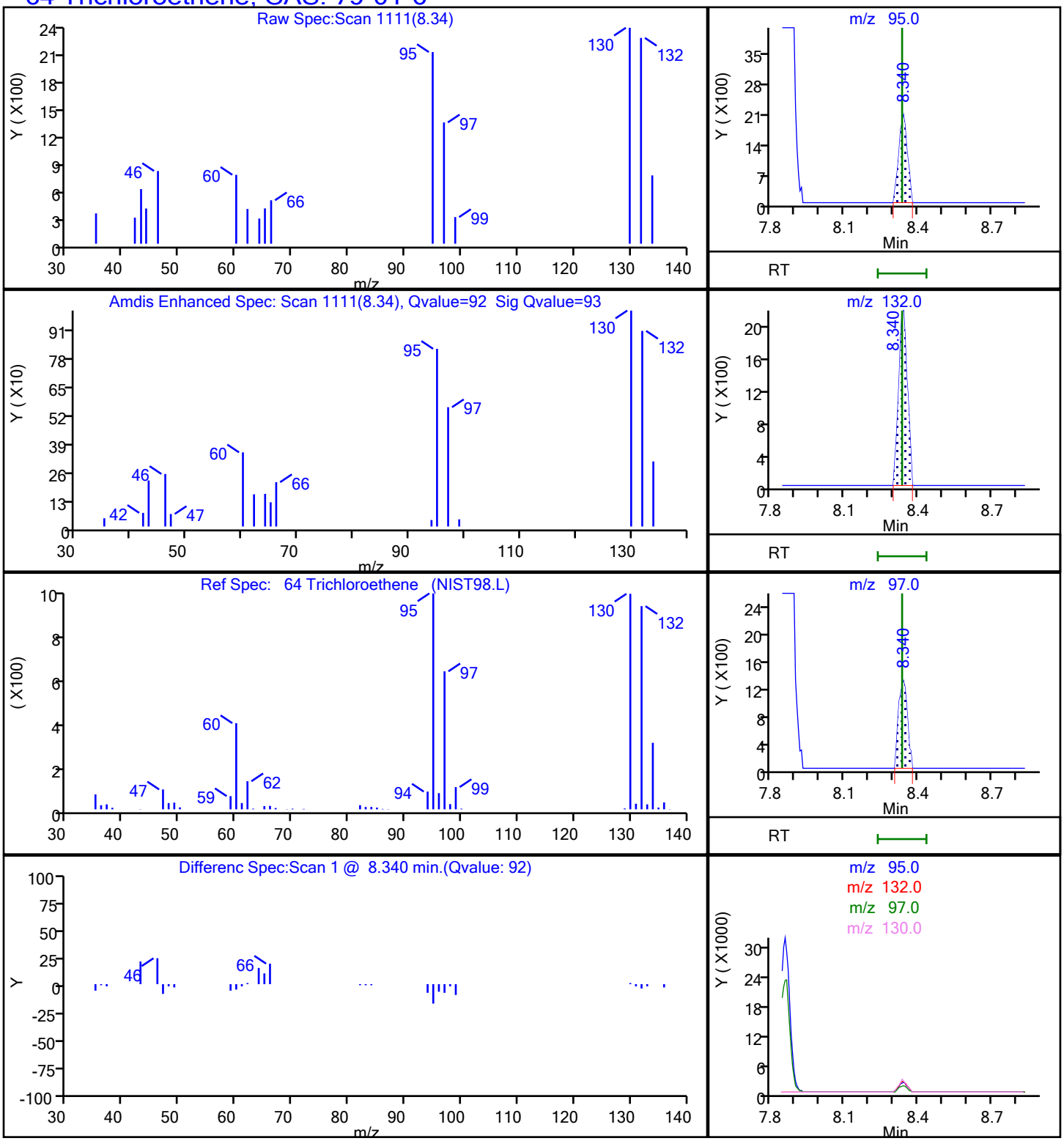


Report Date: 20-Nov-2020 21:18:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S22.D				
Injection Date:	20-Nov-2020 19:23:30	Instrument ID:	9355		
Lims ID:	410-21210-A-23	Lab Sample ID:	410-21210-23		
Client ID:	MW-1S				
Operator ID:	clm27445	ALS Bottle#:	28	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: MW-1D Lab Sample ID: 410-21210-24

Matrix: Water Lab File ID: YN21S14.D

Analysis Method: 8260C Date Collected: 11/13/2020 12:05

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 17:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.53	J	1.0	0.30
75-34-3	1,1-Dichloroethane	0.74	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S14.D
Lims ID: 410-21210-A-24
Client ID: MW-1D
Sample Type: Client
Inject. Date: 21-Nov-2020 17:08:30 ALS Bottle#: 22 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-022
Misc. Info.: 410-21210-A-24
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:20:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.368	-0.019	0	271184	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	91	6739	0.7433	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	252619	51.3	
50 1,1,1-Trichloroethane	97	6.989	6.978	0.011	92	4695	0.5290	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.416	-0.001	0	61223	51.8	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	979019	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1006302	50.5	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	819242	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	348196	45.6	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	458851	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

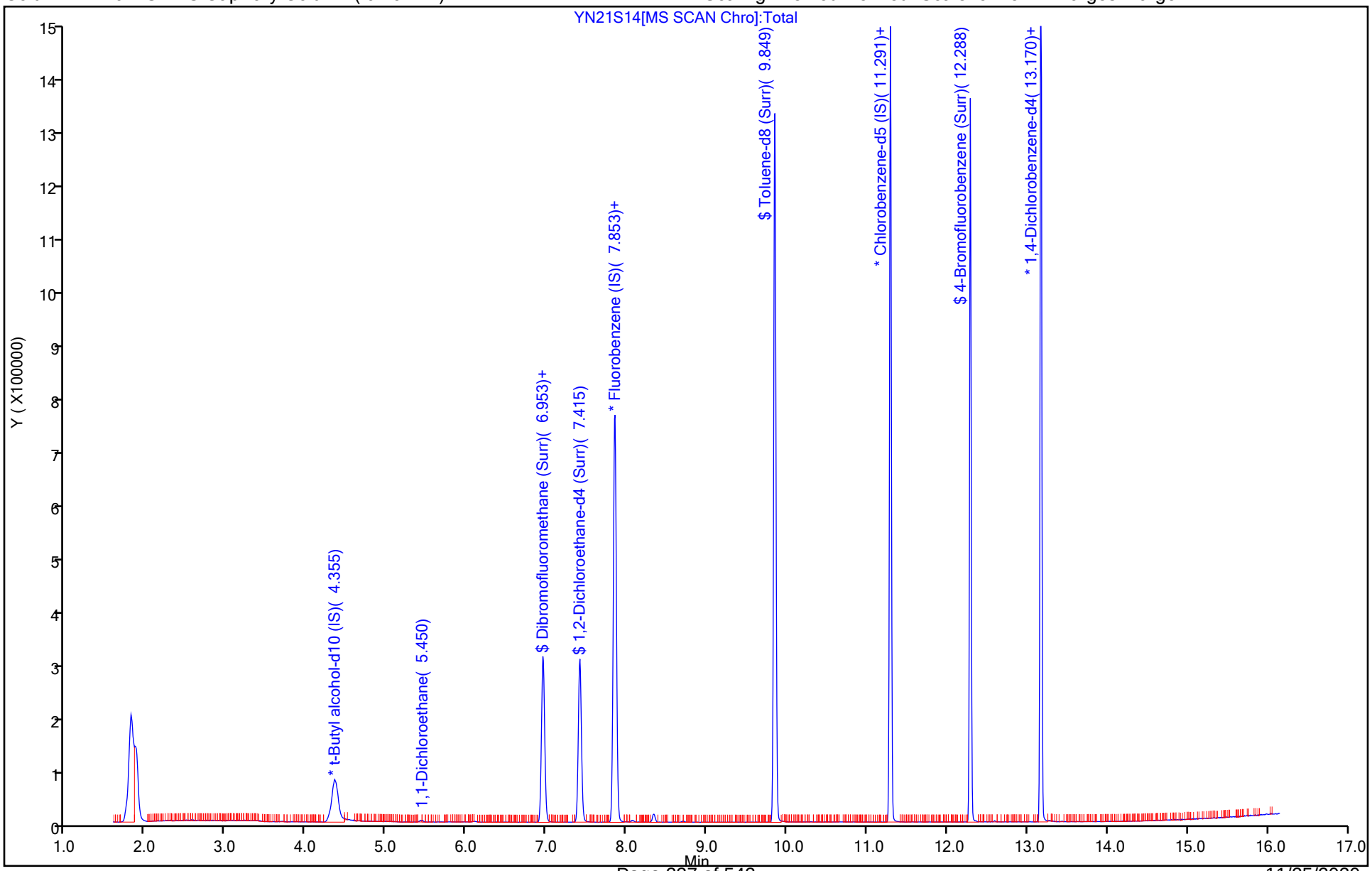
Report Date: 22-Nov-2020 21:23:47 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S14.D

Injection Date:	21-Nov-2020 17:08:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-24	Lab Sample ID:	410-21210-24	Worklist Smp#:	22
Client ID:	MW-1D				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

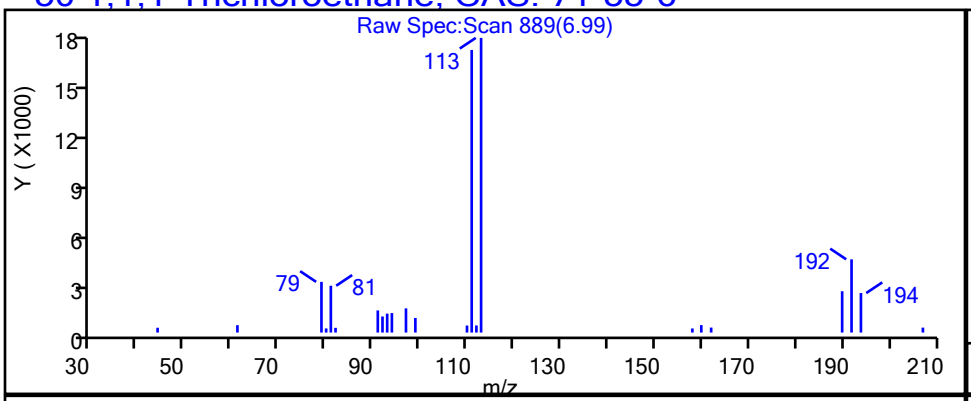


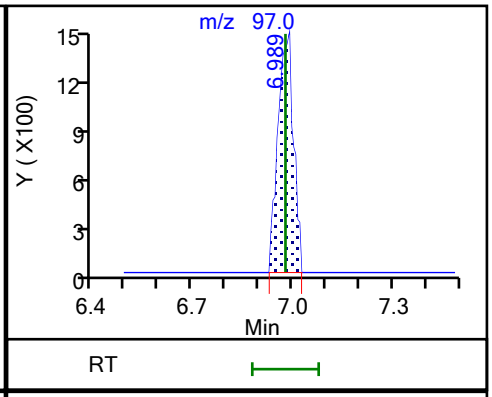
Report Date: 22-Nov-2020 21:23:47 Chrom Revision: 2.3 13-Nov-2020 01:23:02

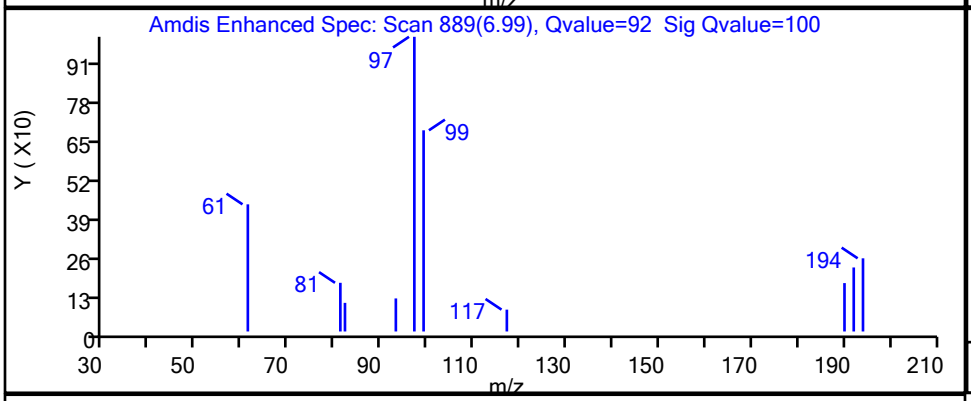
Eurofins Lancaster Laboratories Env, LLC

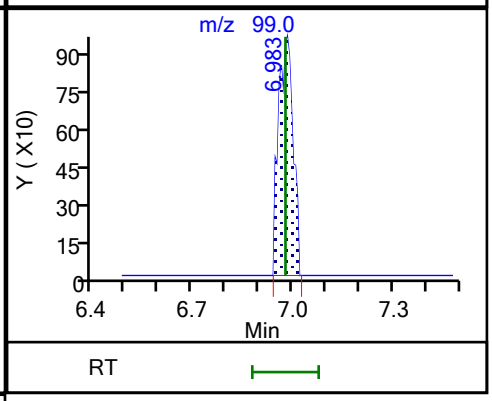
Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S14.D				
Injection Date:	21-Nov-2020 17:08:30	Instrument ID:	9355		
Lims ID:	410-21210-A-24	Lab Sample ID:	410-21210-24		
Client ID:	MW-1D				
Operator ID:	clm27445	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

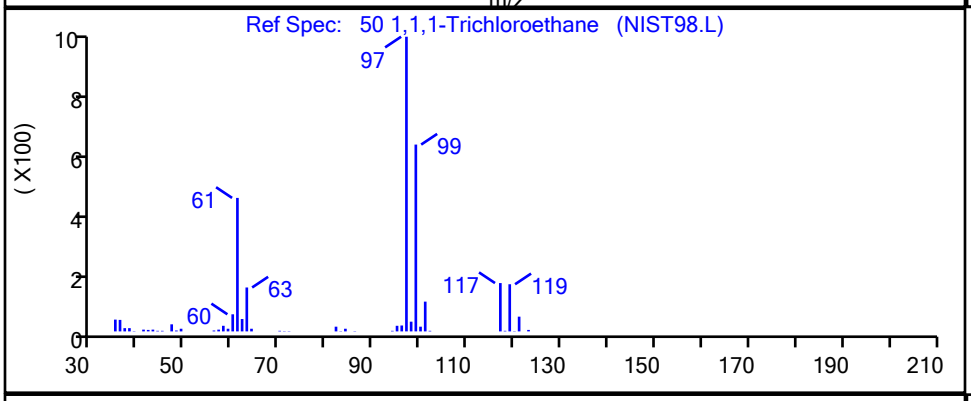
50 1,1,1-Trichloroethane, CAS: 71-55-6

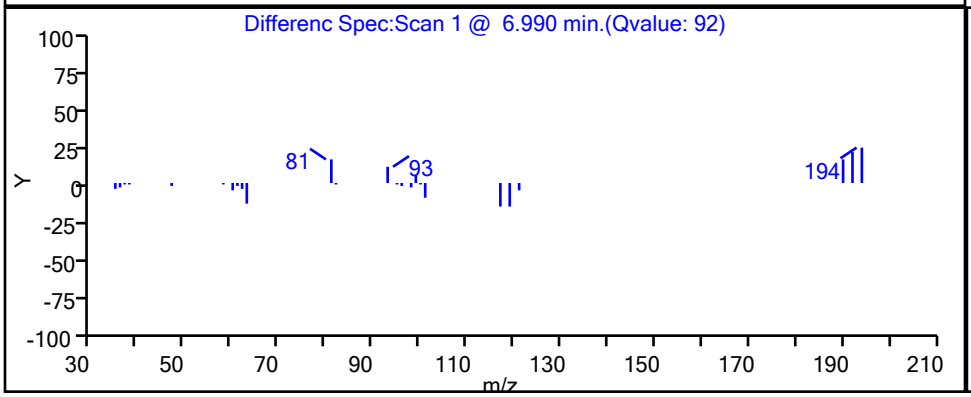


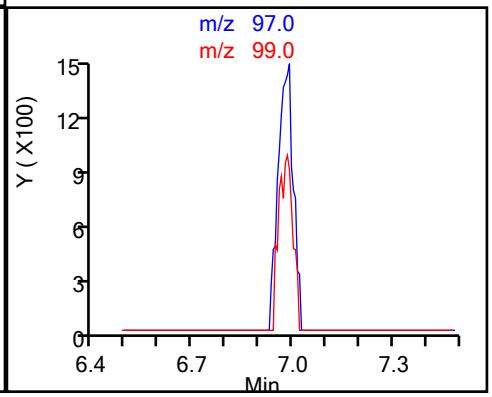










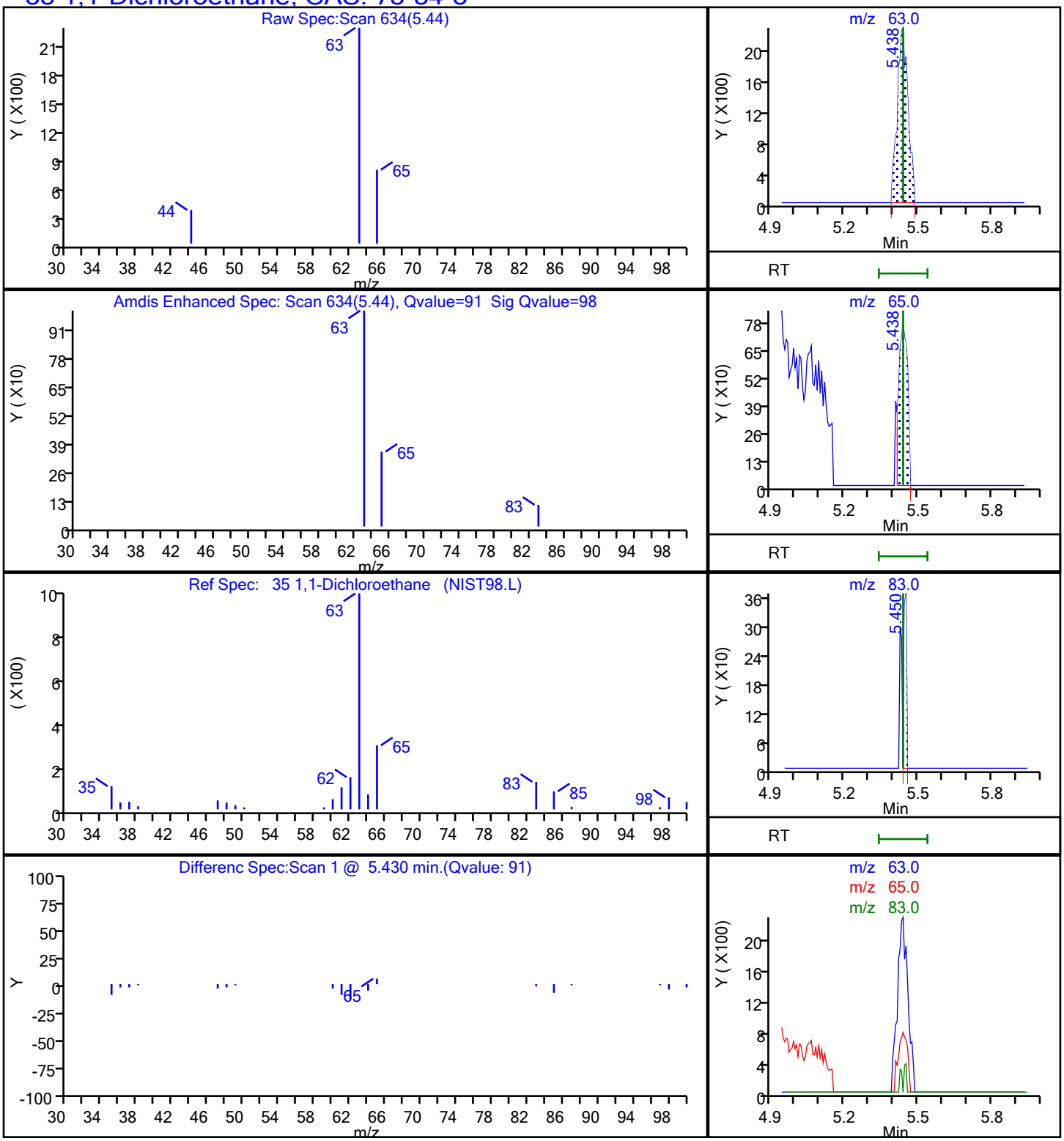


Report Date: 22-Nov-2020 21:23:47 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S14.D				
Injection Date:	21-Nov-2020 17:08:30	Instrument ID:	9355		
Lims ID:	410-21210-A-24	Lab Sample ID:	410-21210-24		
Client ID:	MW-1D				
Operator ID:	clm27445	ALS Bottle#:	22	Worklist Smp#:	22
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

35 1,1-Dichloroethane, CAS: 75-34-3



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: DUP-03 Lab Sample ID: 410-21210-25

Matrix: Water Lab File ID: YN21S15.D

Analysis Method: 8260C Date Collected: 11/13/2020 12:10

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 17:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.88	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S15.D
Lims ID: 410-21210-A-25
Client ID: DUP-03
Sample Type: Client
Inject. Date: 21-Nov-2020 17:30:30 ALS Bottle#: 23 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-023
Misc. Info.: 410-21210-A-25
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:20:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.380	4.368	0.012	0	272861	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	93	257435	51.7	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	62661	52.4	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	989719	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	93	5429	0.8798	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1011242	50.4	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	823992	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	348506	45.3	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	463879	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

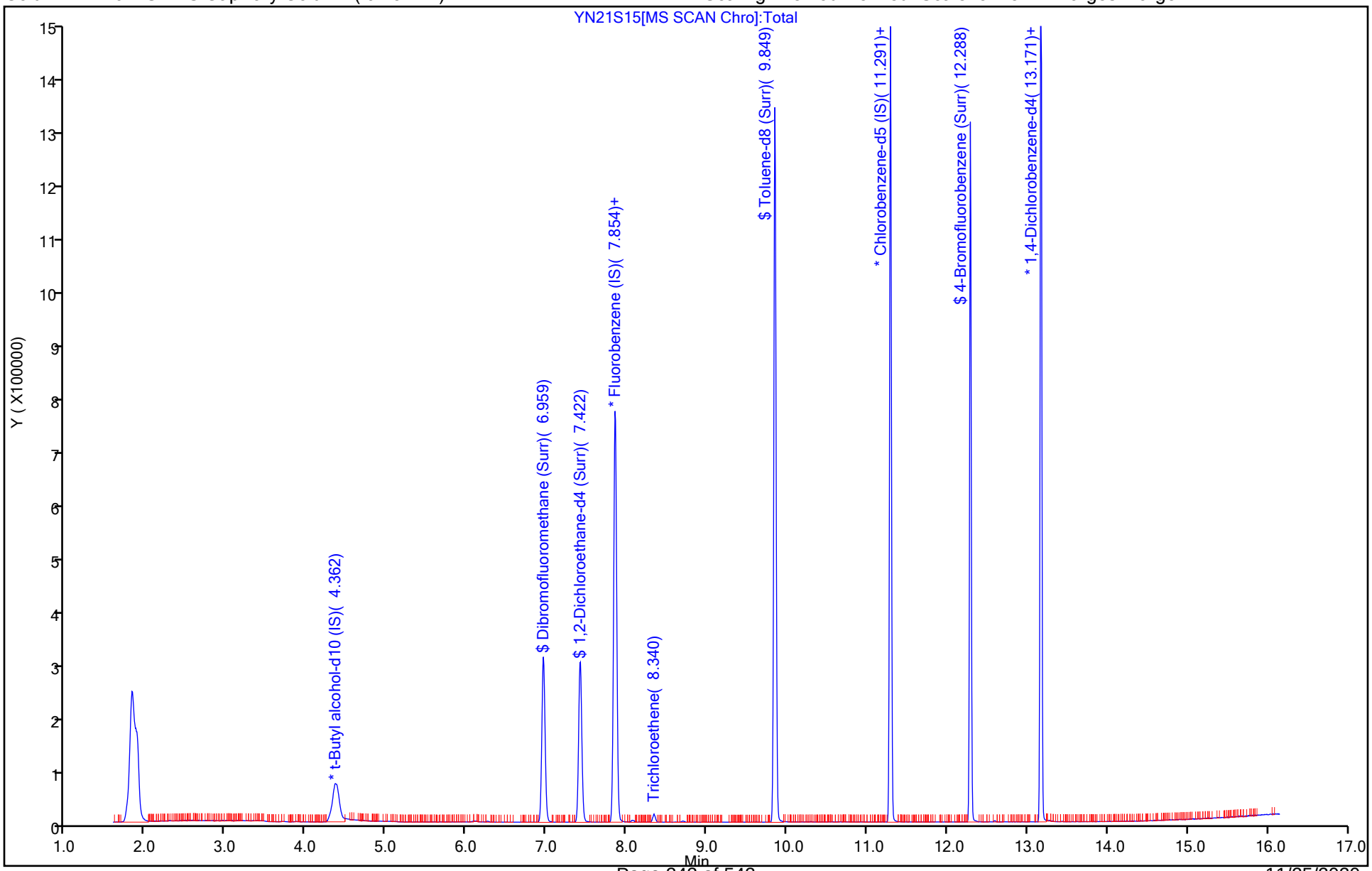
Report Date: 22-Nov-2020 21:23:49 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S15.D

Injection Date:	21-Nov-2020 17:30:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-25	Lab Sample ID:	410-21210-25	Worklist Smp#:	23
Client ID:	DUP-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

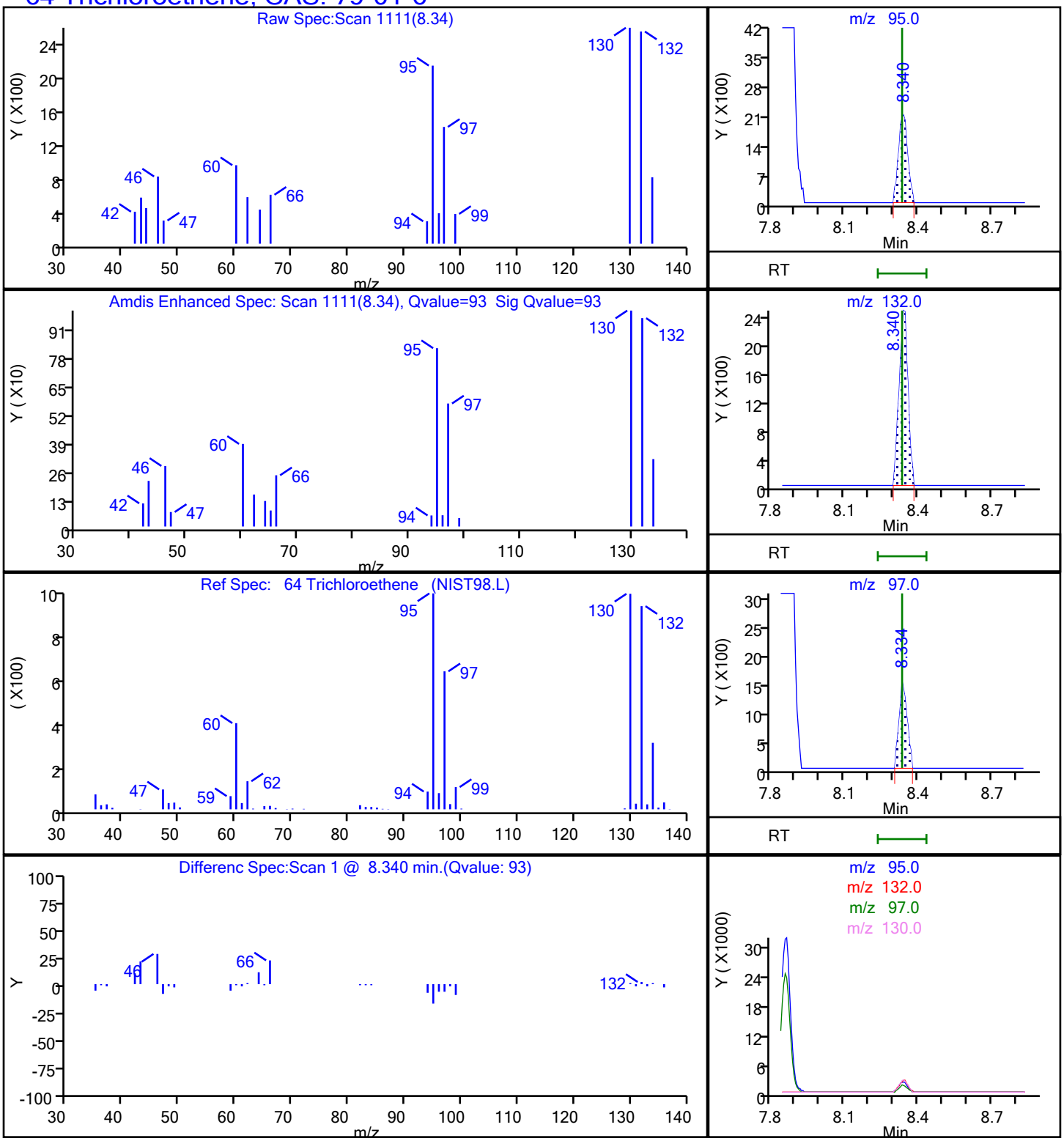


Report Date: 22-Nov-2020 21:23:49 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S15.D				
Injection Date:	21-Nov-2020 17:30:30	Instrument ID:	9355		
Lims ID:	410-21210-A-25	Lab Sample ID:	410-21210-25		
Client ID:	DUP-03				
Operator ID:	clm27445	ALS Bottle#:	23	Worklist Smp#:	23
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J20-UC02 Lab Sample ID: 410-21210-26

Matrix: Water Lab File ID: YN21S16.D

Analysis Method: 8260C Date Collected: 11/14/2020 09:08

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 17:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	0.84	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.58	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	0.32	J	1.0	0.20
79-01-6	Trichloroethene	0.36	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D
Lims ID: 410-21210-A-26
Client ID: J20-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 17:52:30 ALS Bottle#: 24 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-024
Misc. Info.: 410-21210-A-26
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:21:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.374	4.368	0.006	0	278582	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96	4.812	4.800	0.012	85	1763	0.3191	M
35 1,1-Dichloroethane	63	5.438	5.438	0.000	92	7711	0.8358	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96	6.260	6.260	0.000	76	3705	0.5833	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	257713	51.4	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.416	-0.001	0	63493	52.8	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	996250	50.0	
64 Trichloroethene	95	8.334	8.334	0.000	93	2207	0.3553	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1009226	50.2	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	826397	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	350780	45.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	463036	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

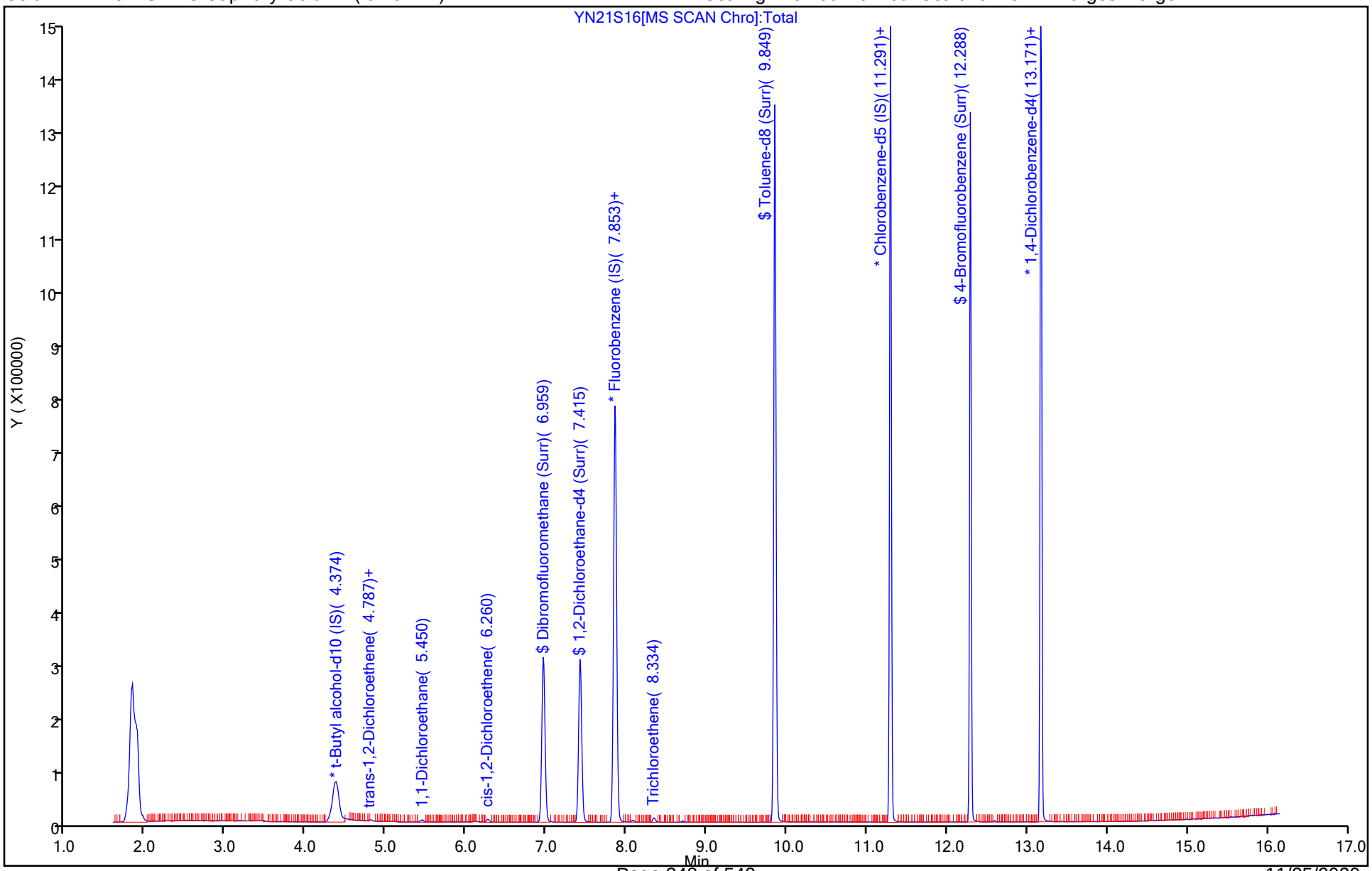
Report Date: 22-Nov-2020 21:23:50 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D

Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26	Worklist Smp#:	24
Client ID:	J20-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

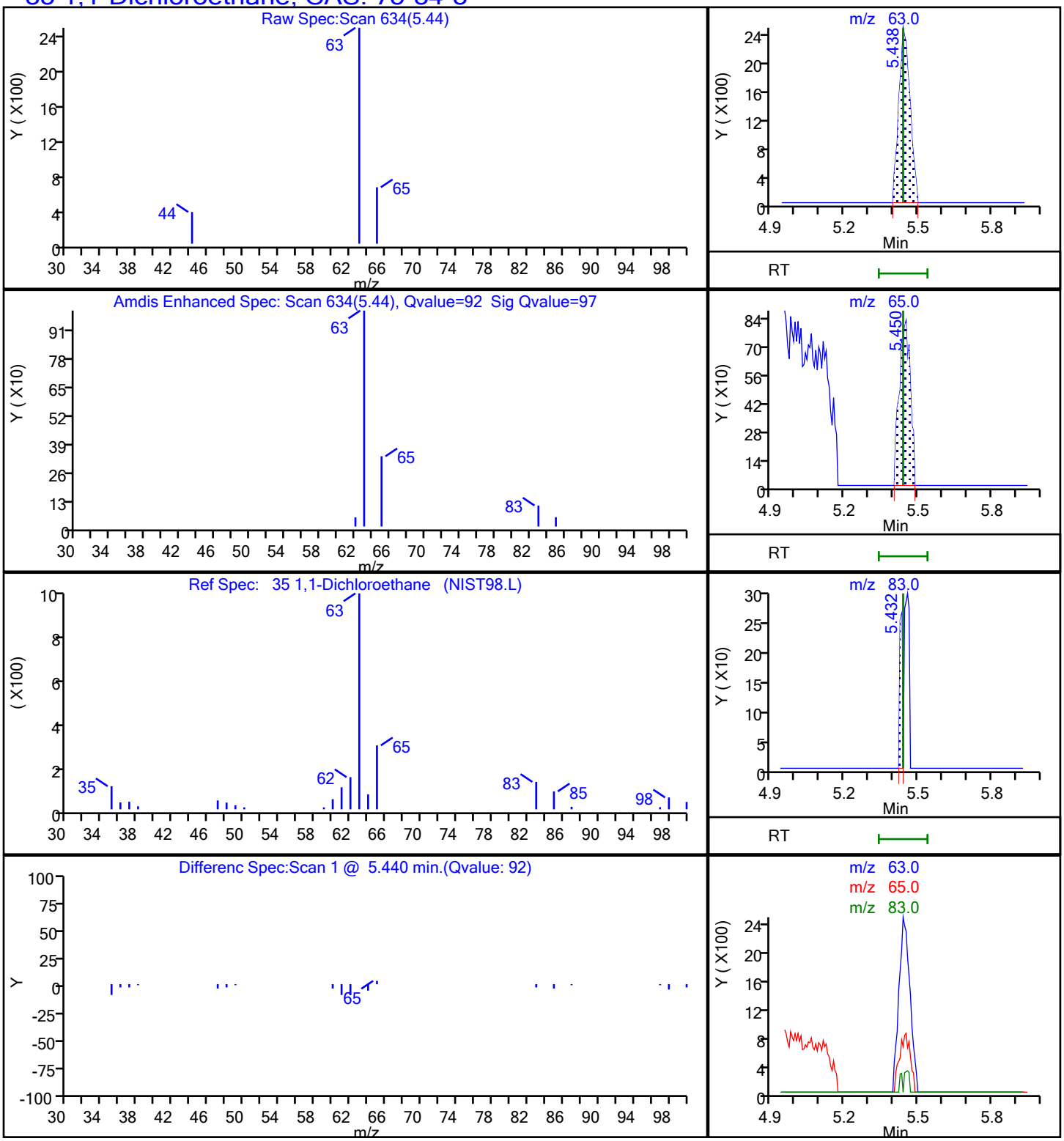


Report Date: 22-Nov-2020 21:23:50 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D				
Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355		
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26		
Client ID:	J20-UC02				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

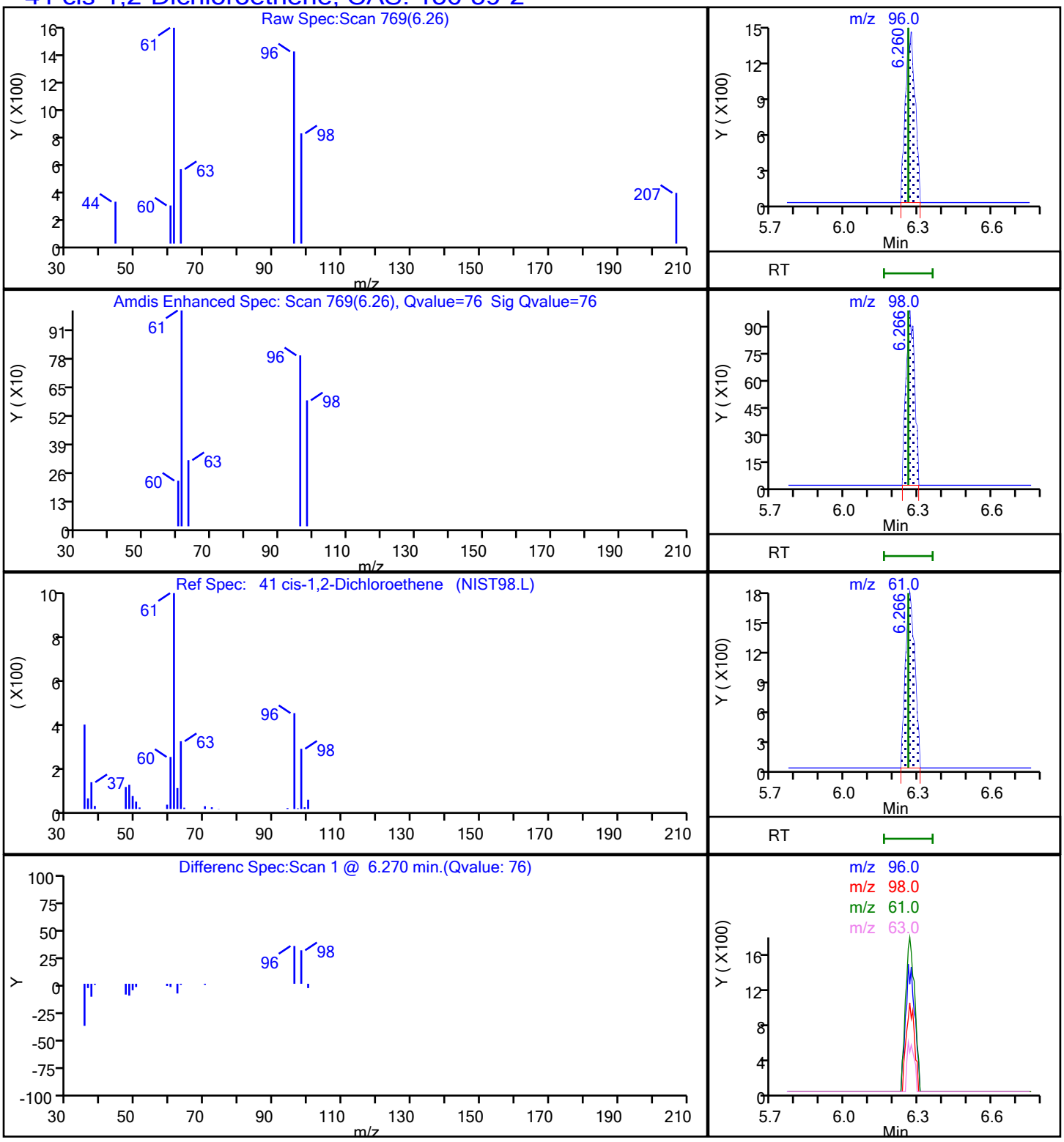
35 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D				
Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355		
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26		
Client ID:	J20-UC02				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

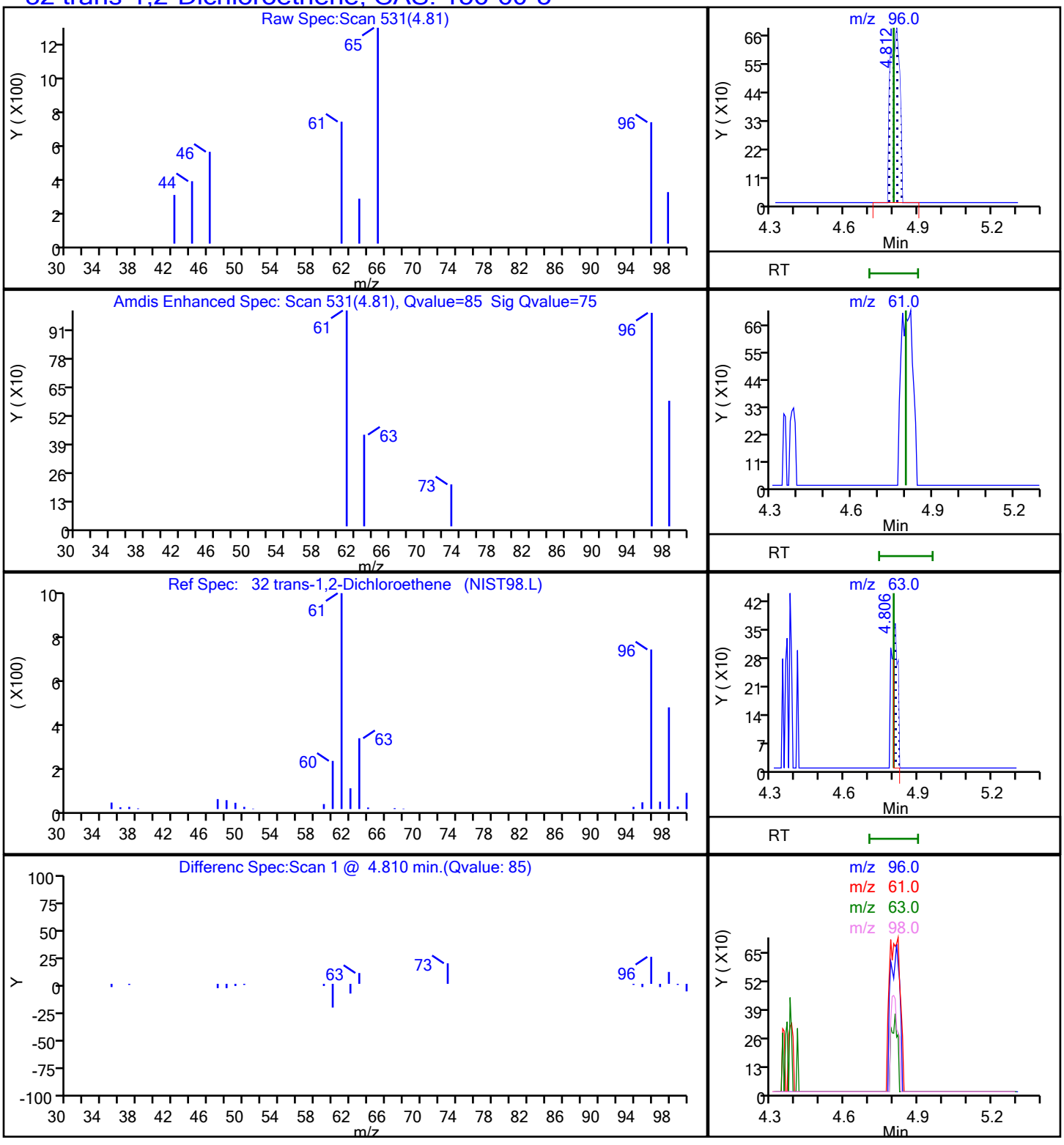
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D				
Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355		
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26		
Client ID:	J20-UC02				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

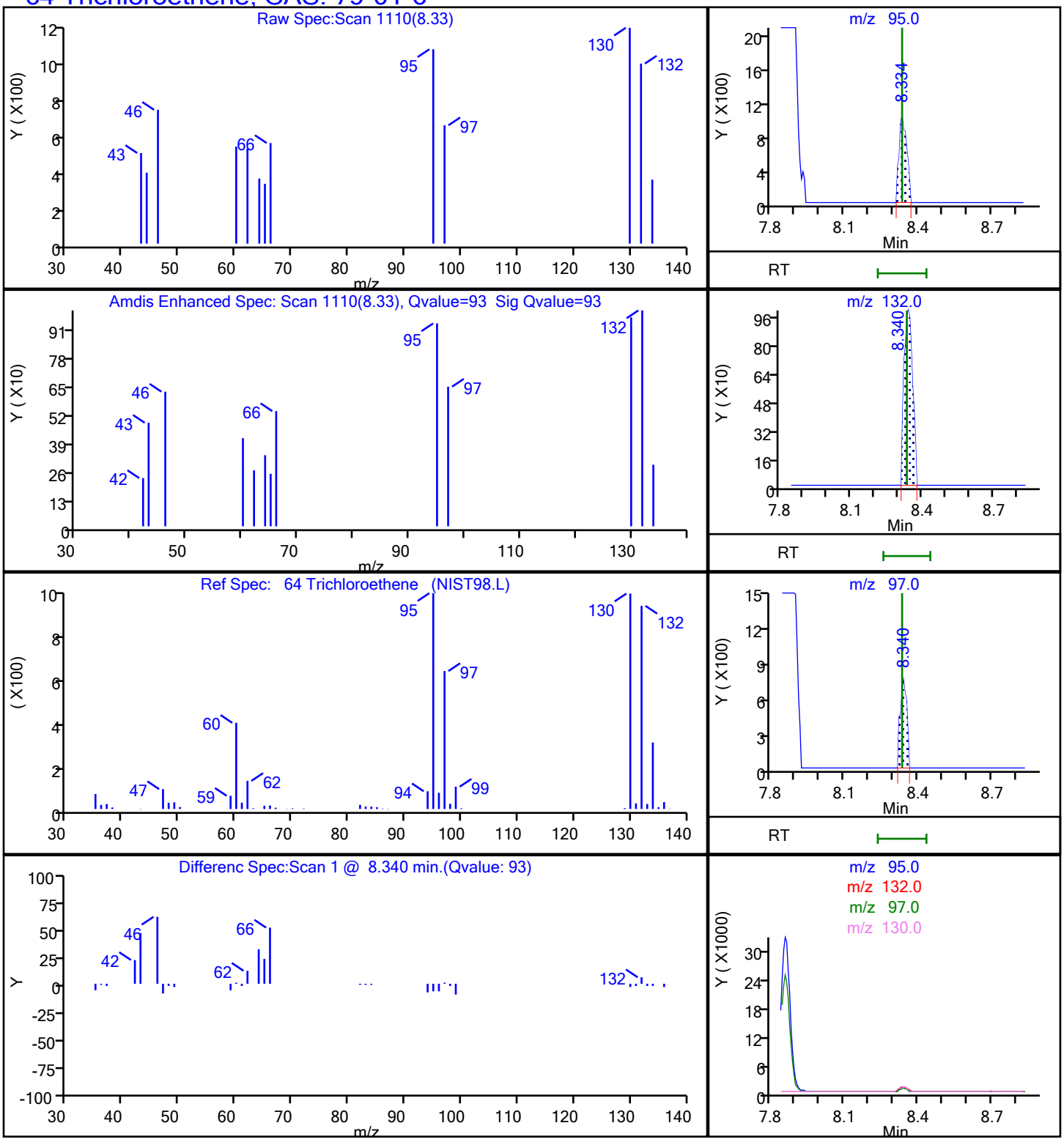
32 trans-1,2-Dichloroethene, CAS: 156-60-5



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D				
Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355		
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26		
Client ID:	J20-UC02				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

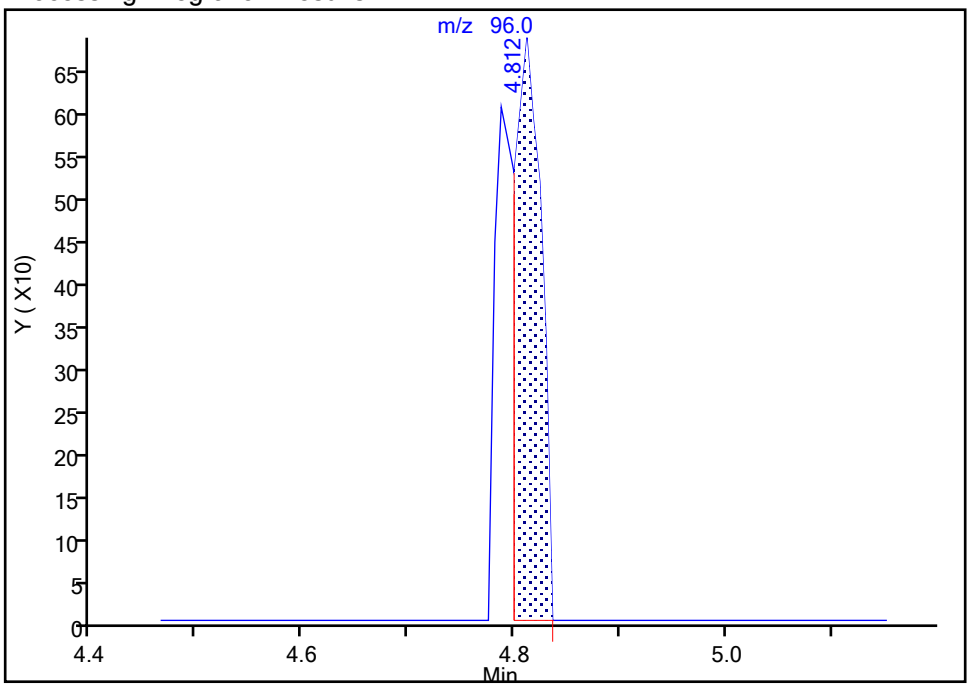
Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S16.D				
Injection Date:	21-Nov-2020 17:52:30	Instrument ID:	9355		
Lims ID:	410-21210-A-26	Lab Sample ID:	410-21210-26		
Client ID:	J20-UC02				
Operator ID:	clm27445	ALS Bottle#:	24	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

32 trans-1,2-Dichloroethene, CAS: 156-60-5

Signal: 1

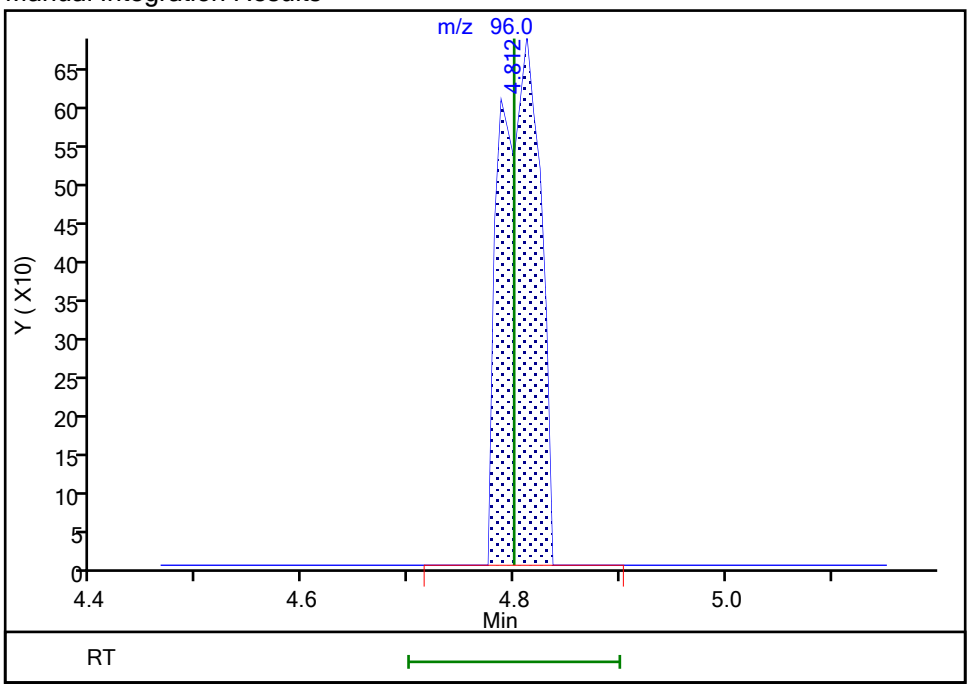
Processing Integration Results

RT: 4.81
Area: 1178
Amount: 0.213247
Amount Units: ug/l



Manual Integration Results

RT: 4.81
Area: 1763
Amount: 0.319146
Amount Units: ug/l



Reviewer: johnsons, 22-Nov-2020 21:20:50

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J20-UC01 Lab Sample ID: 410-21210-27

Matrix: Water Lab File ID: YN21S17.D

Analysis Method: 8260C Date Collected: 11/14/2020 09:49

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 18:14

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	0.51	J	1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	1.1		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	104		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S17.D
Lims ID: 410-21210-A-27
Client ID: J20-UC01
Sample Type: Client
Inject. Date: 21-Nov-2020 18:14:30 ALS Bottle#: 25 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-025
Misc. Info.: 410-21210-A-27
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:21:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.367	4.368	-0.001	0	265563	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96	6.266	6.260	0.006	67	3093	0.5106	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	247882	51.8	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.416	0.005	0	60655	52.9	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	100	950176	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	94	6581	1.11	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	971992	50.3	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	793399	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	334972	45.3	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	444247	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

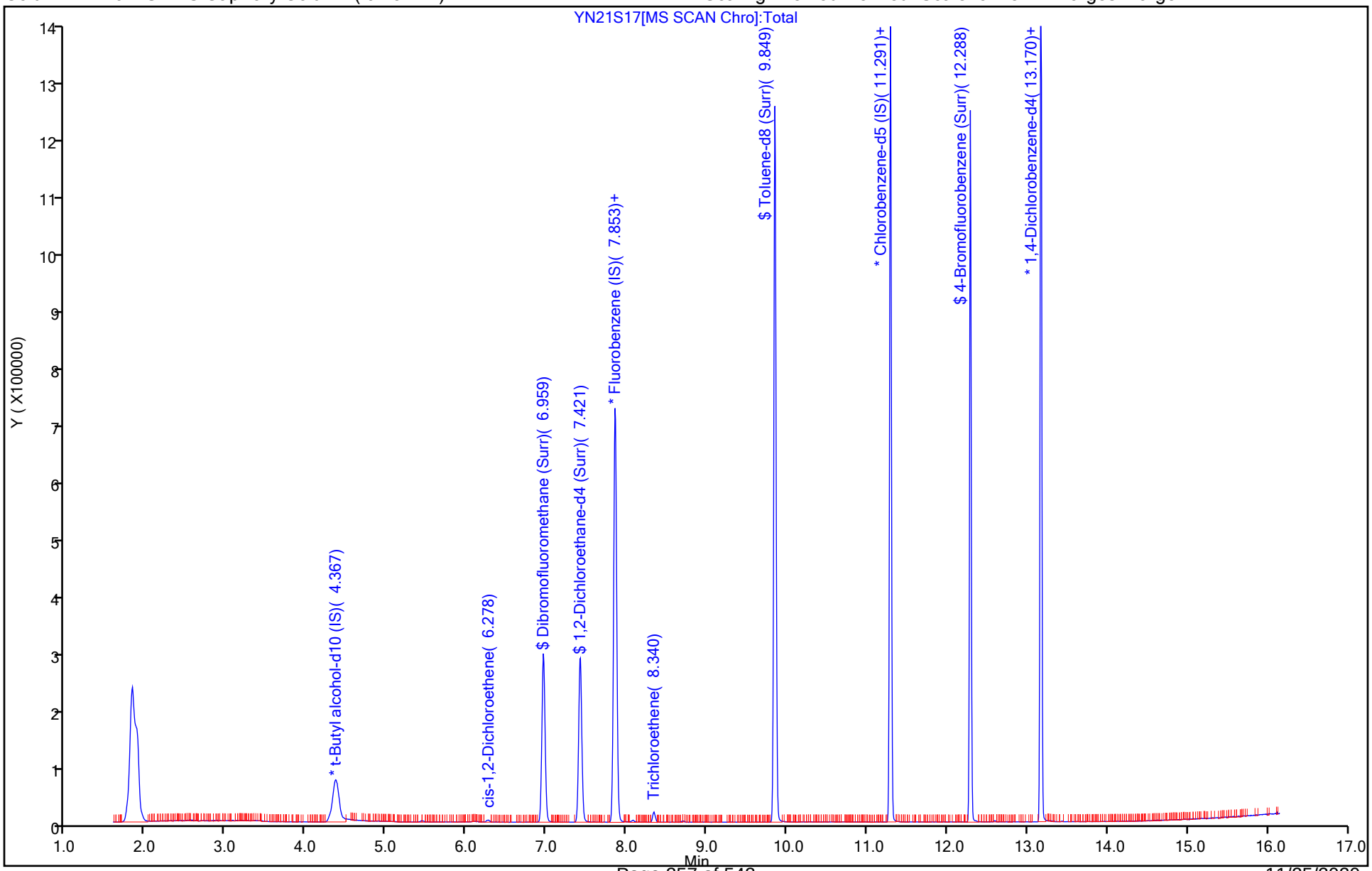
Report Date: 22-Nov-2020 21:23:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S17.D

Injection Date:	21-Nov-2020 18:14:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-27	Lab Sample ID:	410-21210-27	Worklist Smp#:	25
Client ID:	J20-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

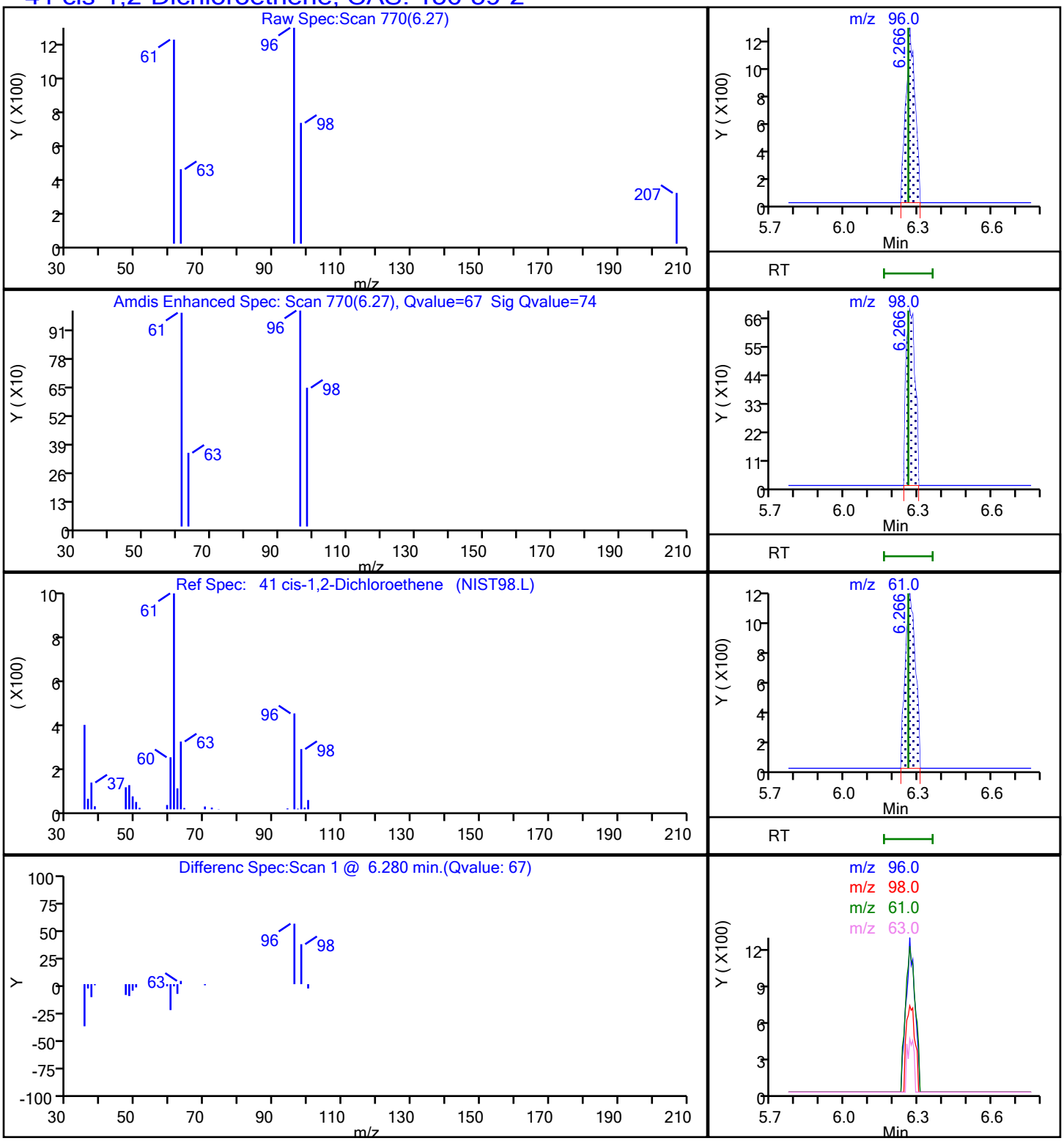
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S17.D				
Injection Date:	21-Nov-2020 18:14:30	Instrument ID:	9355		
Lims ID:	410-21210-A-27	Lab Sample ID:	410-21210-27		
Client ID:	J20-UC01				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

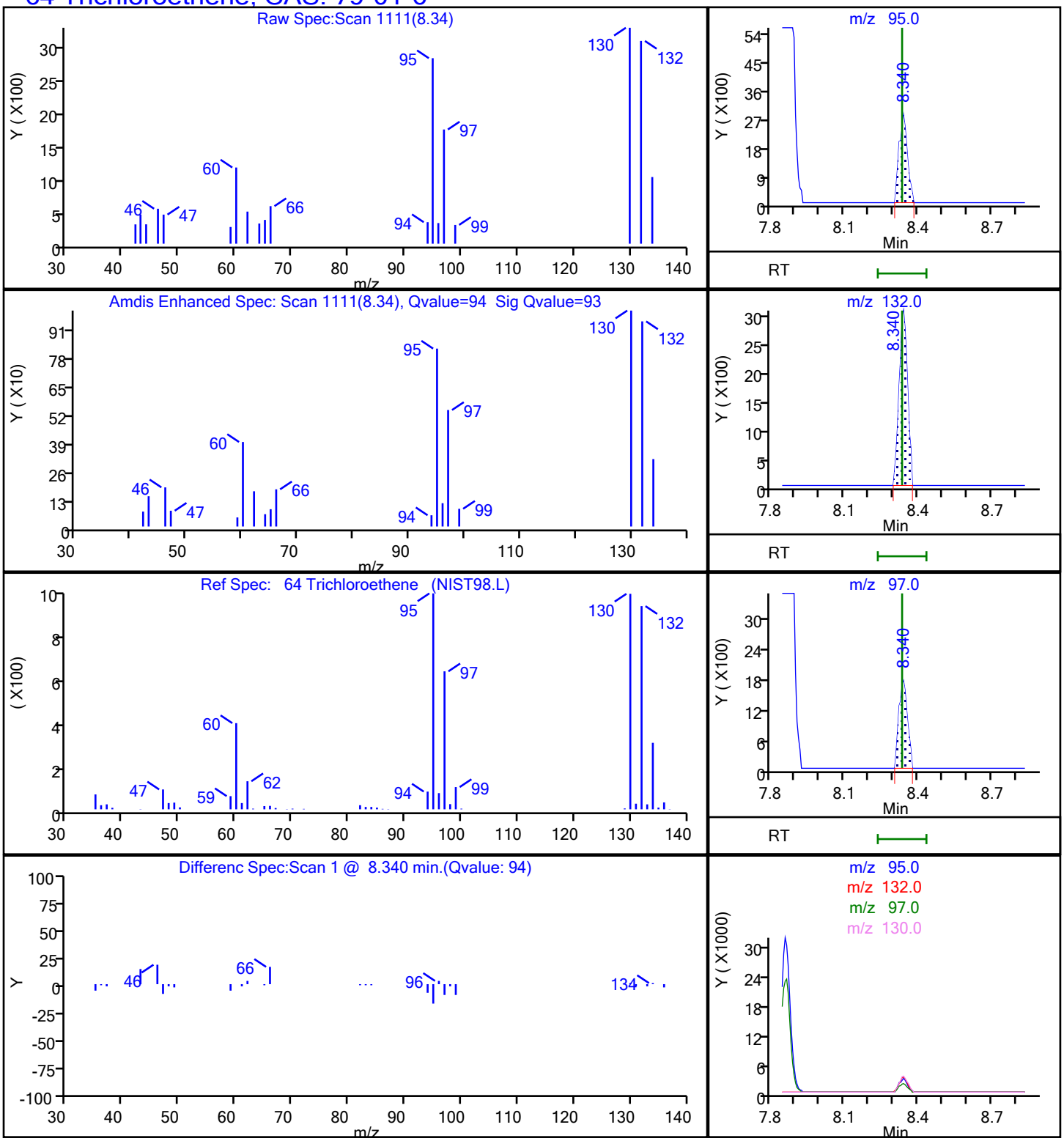


Report Date: 22-Nov-2020 21:23:51 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S17.D				
Injection Date:	21-Nov-2020 18:14:30	Instrument ID:	9355		
Lims ID:	410-21210-A-27	Lab Sample ID:	410-21210-27		
Client ID:	J20-UC01				
Operator ID:	clm27445	ALS Bottle#:	25	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J20-BR02 Lab Sample ID: 410-21210-28

Matrix: Water Lab File ID: YN21S18.D

Analysis Method: 8260C Date Collected: 11/14/2020 11:18

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 18:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.1		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S18.D
Lims ID: 410-21210-A-28
Client ID: J20-BR02
Sample Type: Client
Inject. Date: 21-Nov-2020 18:36:30 ALS Bottle#: 26 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-026
Misc. Info.: 410-21210-A-28
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:21:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.368	0.000	0	279477	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	253854	51.7	
50 1,1,1-Trichloroethane	97	6.983	6.978	0.005	96	9402	1.06	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	62400	53.0	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	975530	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	997354	50.6	
78 Toluene	92		9.928				ND	7
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	809723	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	342229	45.3	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	456029	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

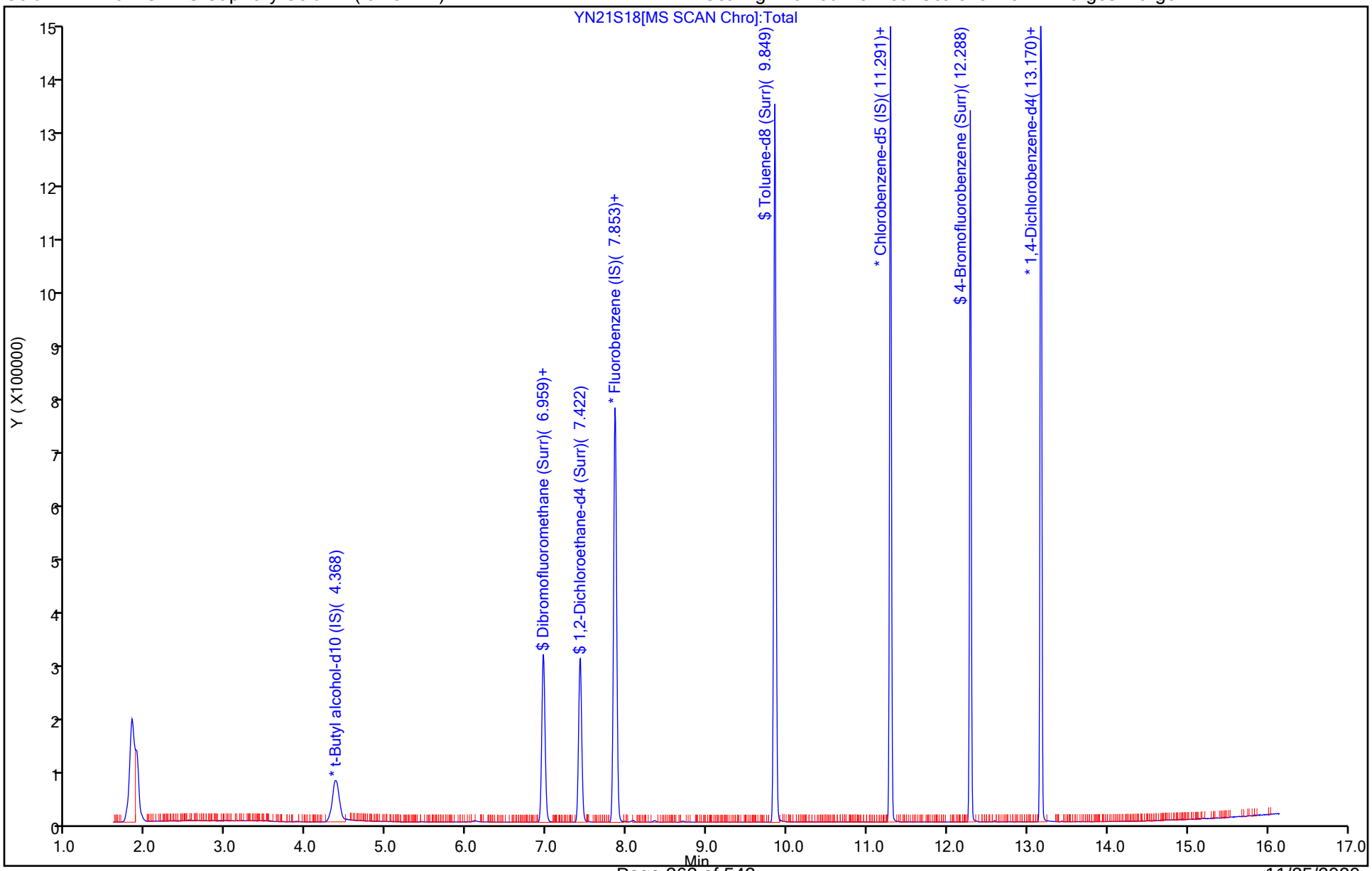
Report Date: 22-Nov-2020 21:23:53 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S18.D

Injection Date:	21-Nov-2020 18:36:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-28	Lab Sample ID:	410-21210-28	Worklist Smp#:	26
Client ID:	J20-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

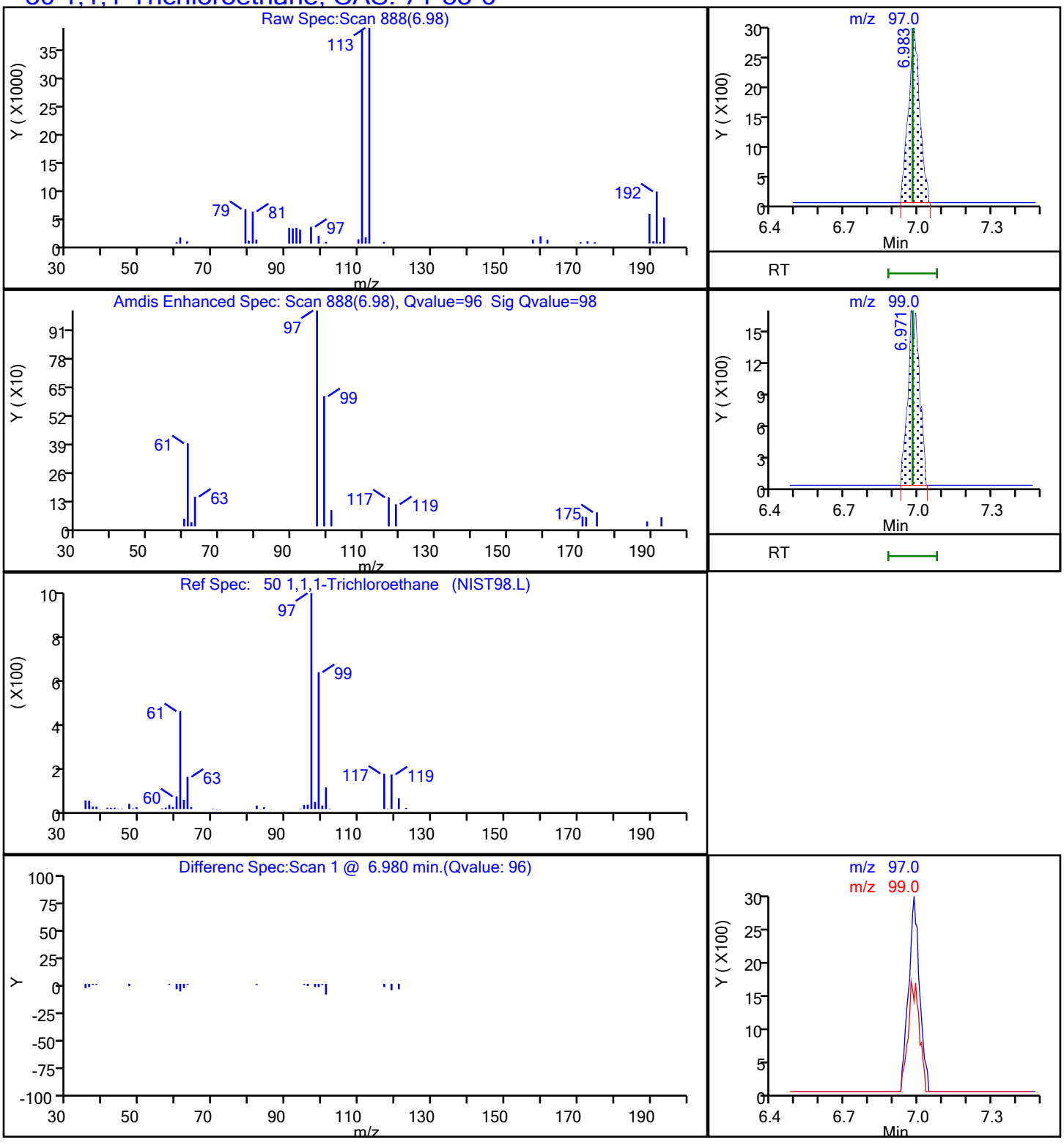
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S18.D				
Injection Date:	21-Nov-2020 18:36:30	Instrument ID:	9355		
Lims ID:	410-21210-A-28	Lab Sample ID:	410-21210-28		
Client ID:	J20-BR02				
Operator ID:	clm27445	ALS Bottle#:	26	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J20-BR01 Lab Sample ID: 410-21210-29

Matrix: Water Lab File ID: YN21S19.D

Analysis Method: 8260C Date Collected: 11/14/2020 13:34

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S19.D
Lims ID: 410-21210-A-29
Client ID: J20-BR01
Sample Type: Client
Inject. Date: 21-Nov-2020 18:57:30 ALS Bottle#: 27 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-027
Misc. Info.: 410-21210-A-29
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:22:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	258122	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	244642	51.4	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	60722	53.2	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	945272	50.0	
64 Trichloroethene	95		8.334				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	968425	50.2	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	792076	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.000	97	332246	45.0	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	440268	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

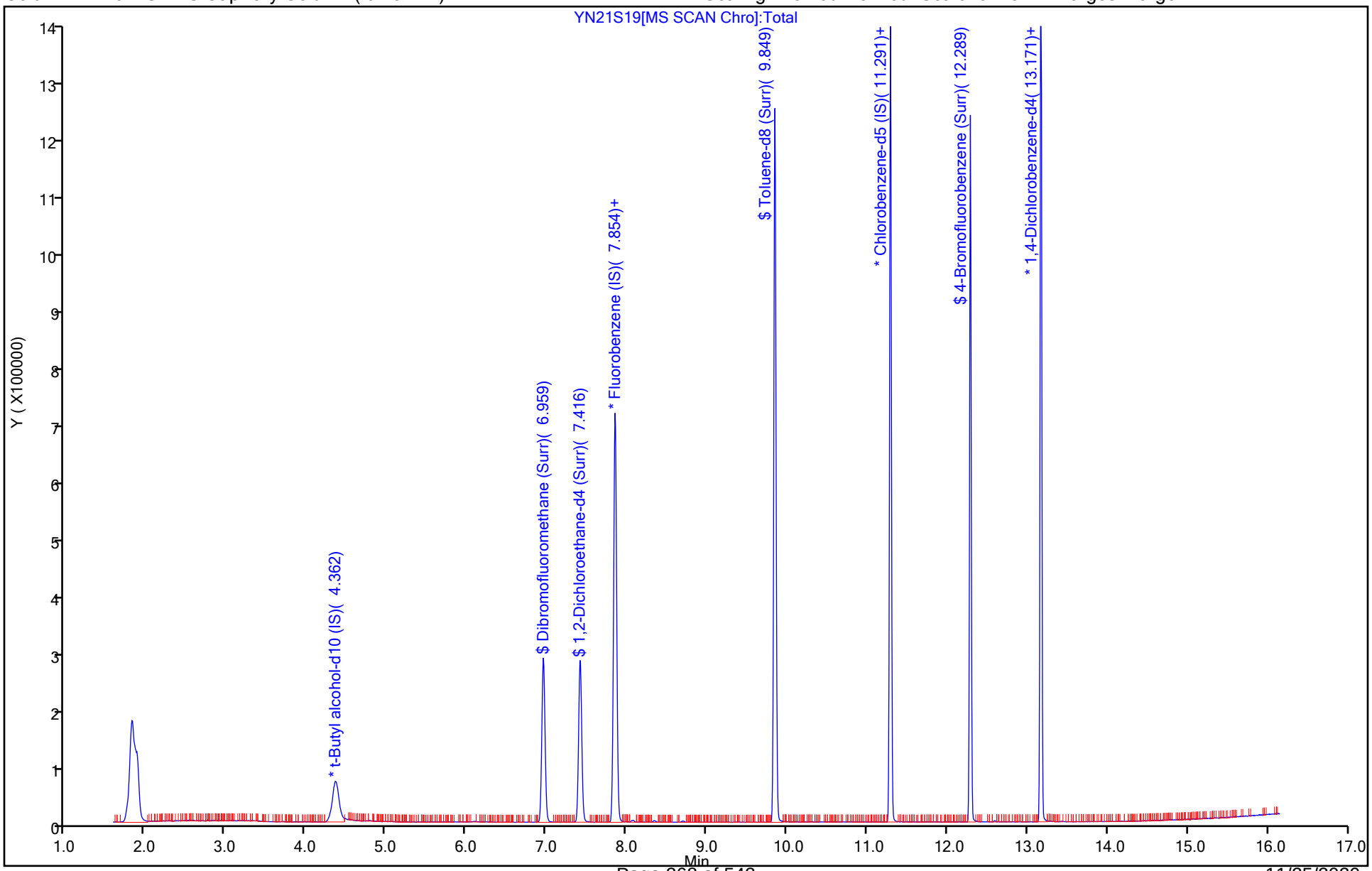
Report Date: 22-Nov-2020 21:23:54 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S19.D

Injection Date:	21-Nov-2020 18:57:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-29	Lab Sample ID:	410-21210-29	Worklist Smp#:	27
Client ID:	J20-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J08-UC01 Lab Sample ID: 410-21210-30

Matrix: Water Lab File ID: YN21S20.D

Analysis Method: 8260C Date Collected: 11/14/2020 14:58

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 19:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.95	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S20.D
Lims ID: 410-21210-A-30
Client ID: J08-UC01
Sample Type: Client
Inject. Date: 21-Nov-2020 19:19:30 ALS Bottle#: 28 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-028
Misc. Info.: 410-21210-A-30
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:22:28

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.361	4.368	-0.007	0	254185	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	250226	51.4	
50 1,1,1-Trichloroethane	97	6.977	6.978	-0.001	66	1979	0.2256	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	61358	52.5	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	967521	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	93	5759	0.9547	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	992898	50.4	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	809663	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	341105	45.2	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	448565	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

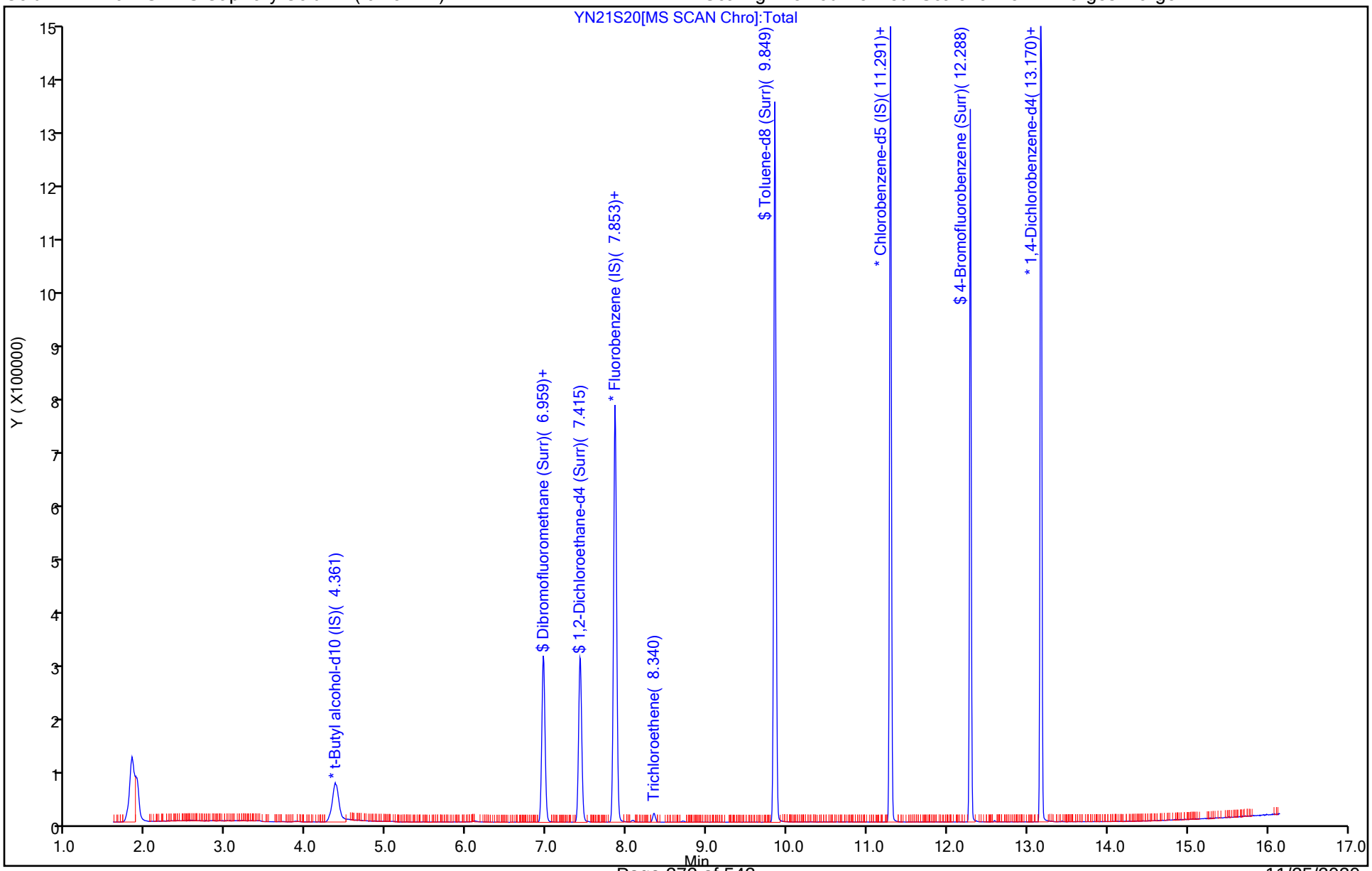
Report Date: 22-Nov-2020 21:23:55 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S20.D

Injection Date:	21-Nov-2020 19:19:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-30	Lab Sample ID:	410-21210-30	Worklist Smp#:	28
Client ID:	J08-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

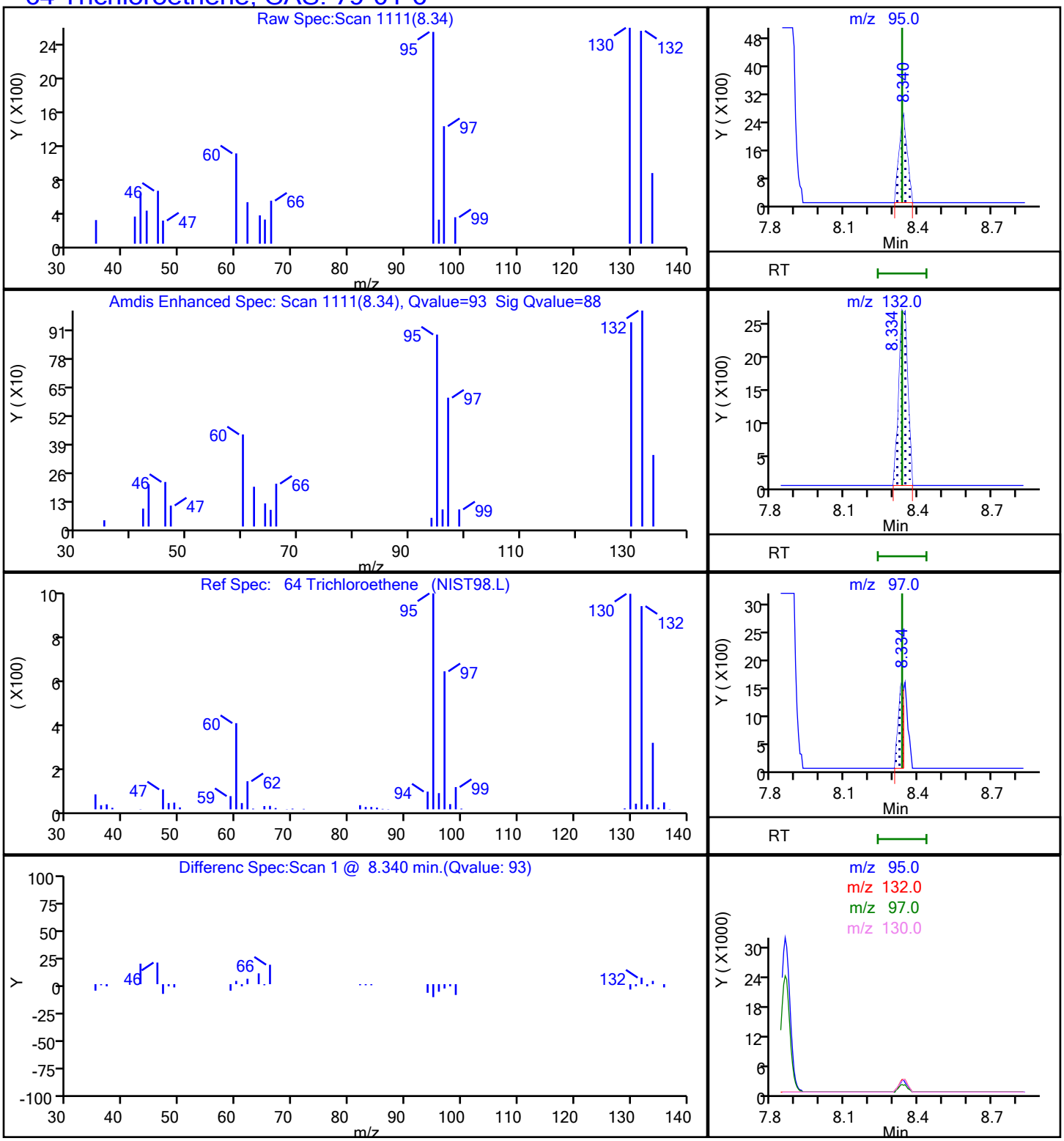


Report Date: 22-Nov-2020 21:23:55 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S20.D				
Injection Date:	21-Nov-2020 19:19:30	Instrument ID:	9355		
Lims ID:	410-21210-A-30	Lab Sample ID:	410-21210-30		
Client ID:	J08-UC01				
Operator ID:	clm27445	ALS Bottle#:	28	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J07-UC02 Lab Sample ID: 410-21210-31

Matrix: Water Lab File ID: YN21S21.D

Analysis Method: 8260C Date Collected: 11/14/2020 16:13

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 19:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	1.0		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	90		80-120
1868-53-7	Dibromofluoromethane (Surr)	103		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S21.D
Lims ID: 410-21210-A-31
Client ID: J07-UC02
Sample Type: Client
Inject. Date: 21-Nov-2020 19:41:30 ALS Bottle#: 29 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-029
Misc. Info.: 410-21210-A-31
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:22:46

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.368	0.000	0	251110	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	245803	51.6	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	60623	53.1	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	99	946482	50.0	
64 Trichloroethene	95	8.334	8.334	0.000	95	6075	1.03	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	972215	50.3	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	794175	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	335061	45.2	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	93	439878	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

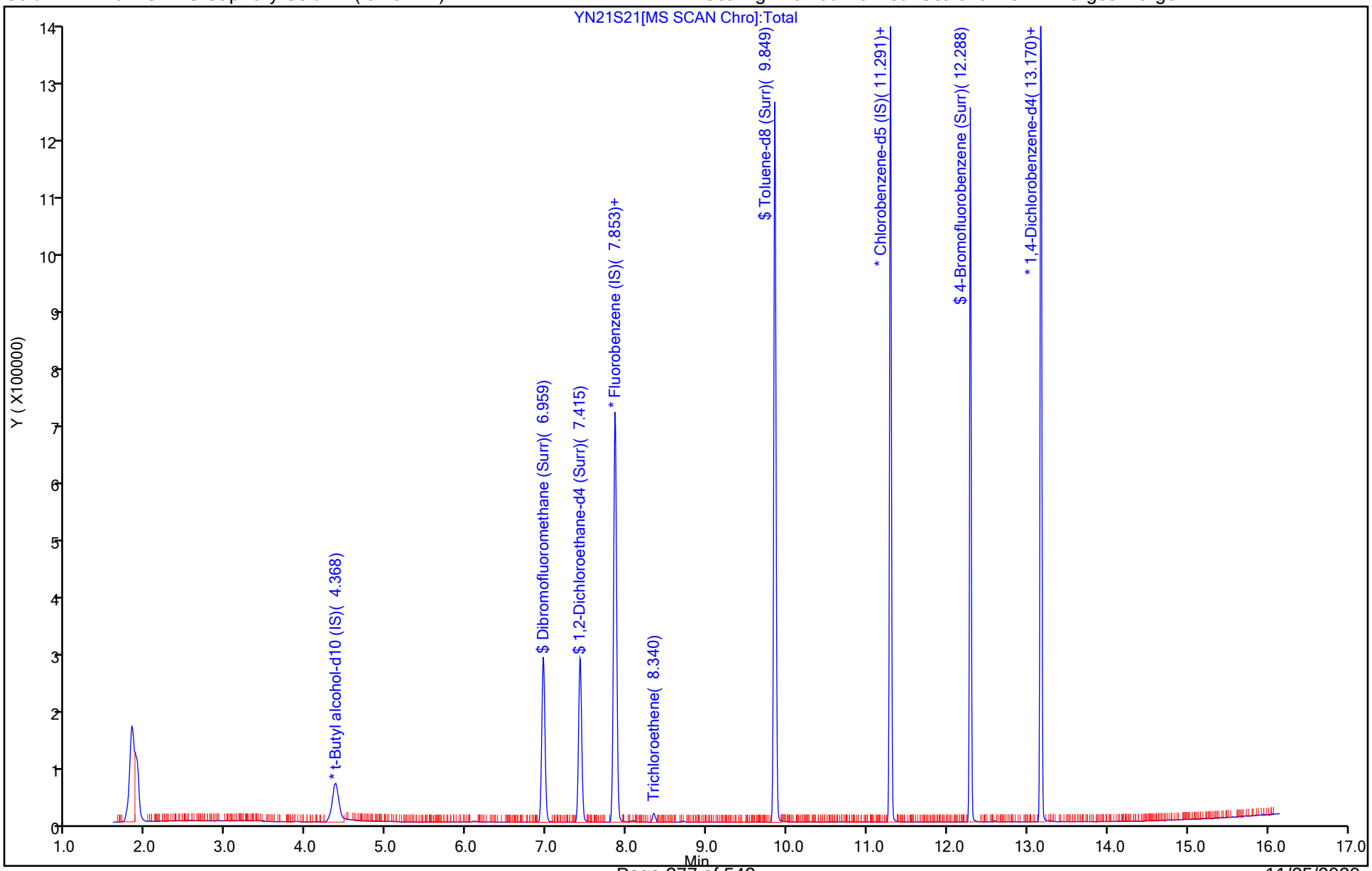
Report Date: 22-Nov-2020 21:23:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S21.D

Injection Date:	21-Nov-2020 19:41:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-31	Lab Sample ID:	410-21210-31	Worklist Smp#:	29
Client ID:	J07-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

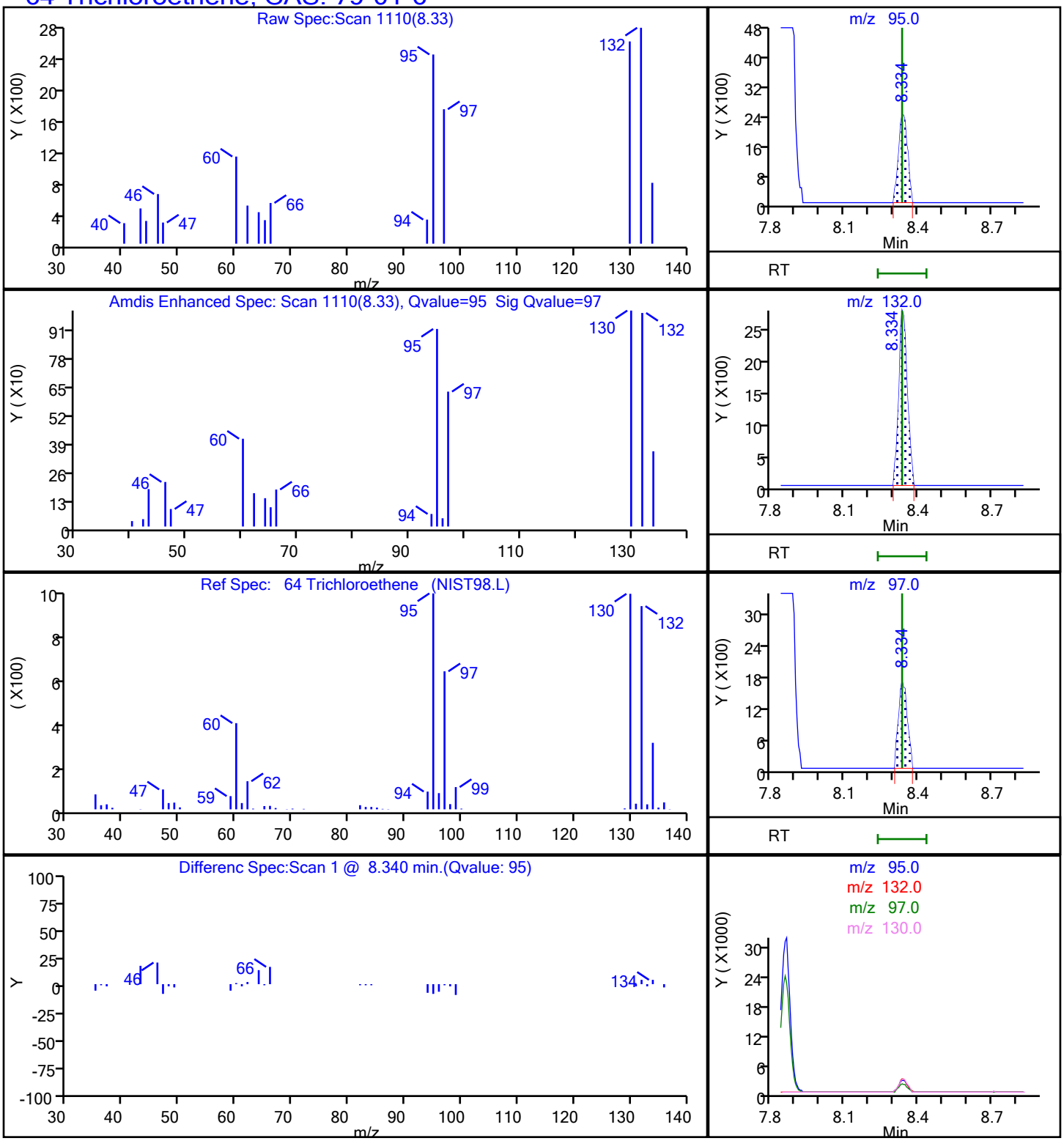


Report Date: 22-Nov-2020 21:23:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S21.D				
Injection Date:	21-Nov-2020 19:41:30	Instrument ID:	9355		
Lims ID:	410-21210-A-31	Lab Sample ID:	410-21210-31		
Client ID:	J07-UC02				
Operator ID:	clm27445	ALS Bottle#:	29	Worklist Smp#:	29
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: RIZ-19 Lab Sample ID: 410-21210-32

Matrix: Water Lab File ID: YN21S22.D

Analysis Method: 8260C Date Collected: 11/15/2020 16:30

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	0.36	J	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.93	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S22.D
Lims ID: 410-21210-A-32
Client ID: RIZ-19
Sample Type: Client
Inject. Date: 21-Nov-2020 20:03:30 ALS Bottle#: 30 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-030
Misc. Info.: 410-21210-A-32
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 22-Nov-2020 21:21:02 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: johnsons Date: 22-Nov-2020 21:23:09

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.378				ND	
17 1,1-Dichloroethene	96		3.686				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.729				ND	
22 Carbon disulfide	76		4.015				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	260802	250.0	
27 Methylene Chloride	84		4.368				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.438				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.260				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	245353	51.1	
50 1,1,1-Trichloroethane	97		6.978				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.416	0.006	0	61055	53.0	
56 Benzene	78		7.452				ND	
58 1,2-Dichloroethane	62		7.519				ND	7
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	953732	50.0	
64 Trichloroethene	95	8.340	8.334	0.006	92	5501	0.9251	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	982100	50.0	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166	10.470	10.476	-0.006	90	2776	0.3636	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	806804	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	341018	45.3	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	445434	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

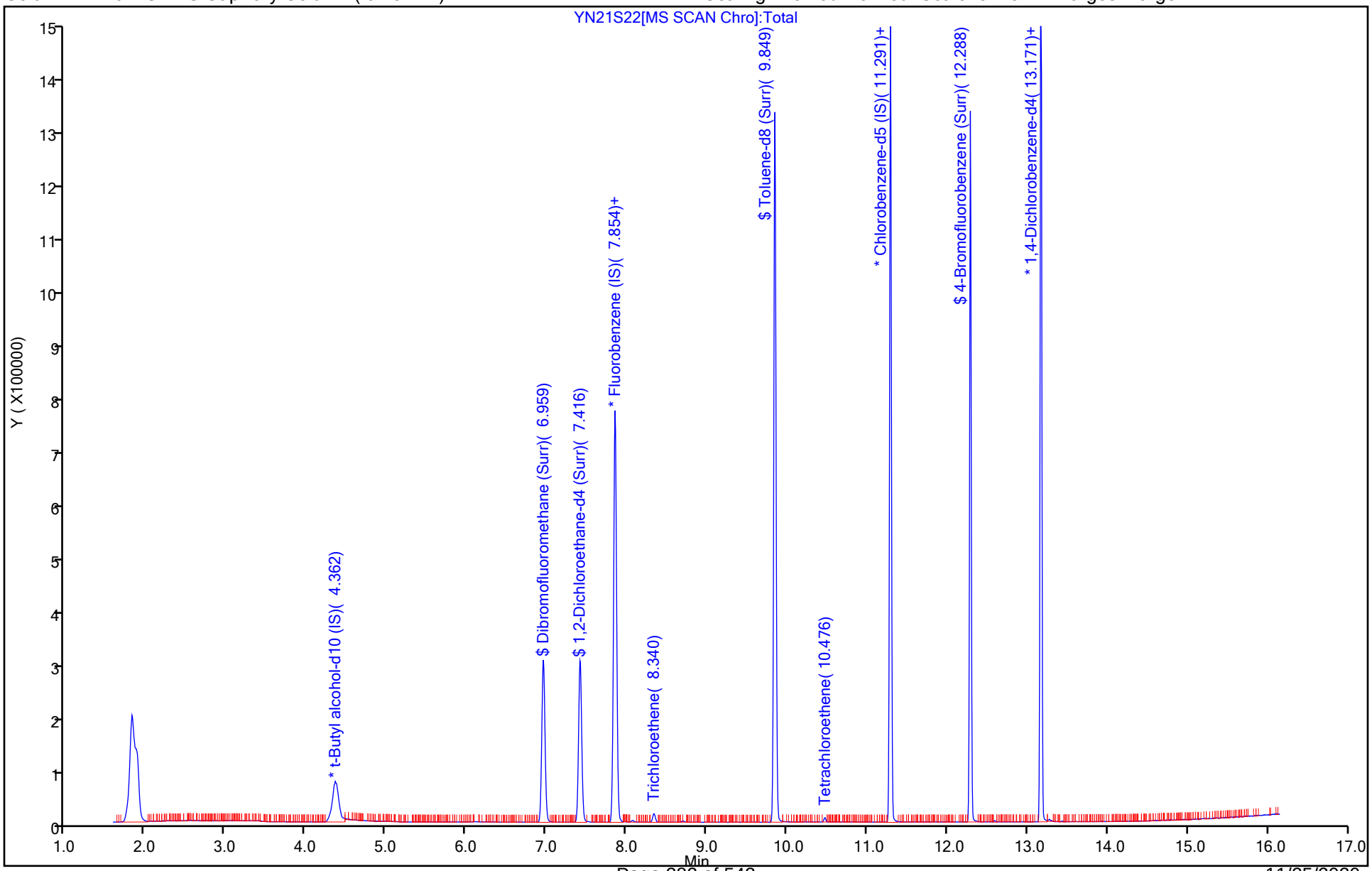
Report Date: 22-Nov-2020 21:23:58 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S22.D

Injection Date:	21-Nov-2020 20:03:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-32	Lab Sample ID:	410-21210-32	Worklist Smp#:	30
Client ID:	RIZ-19				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

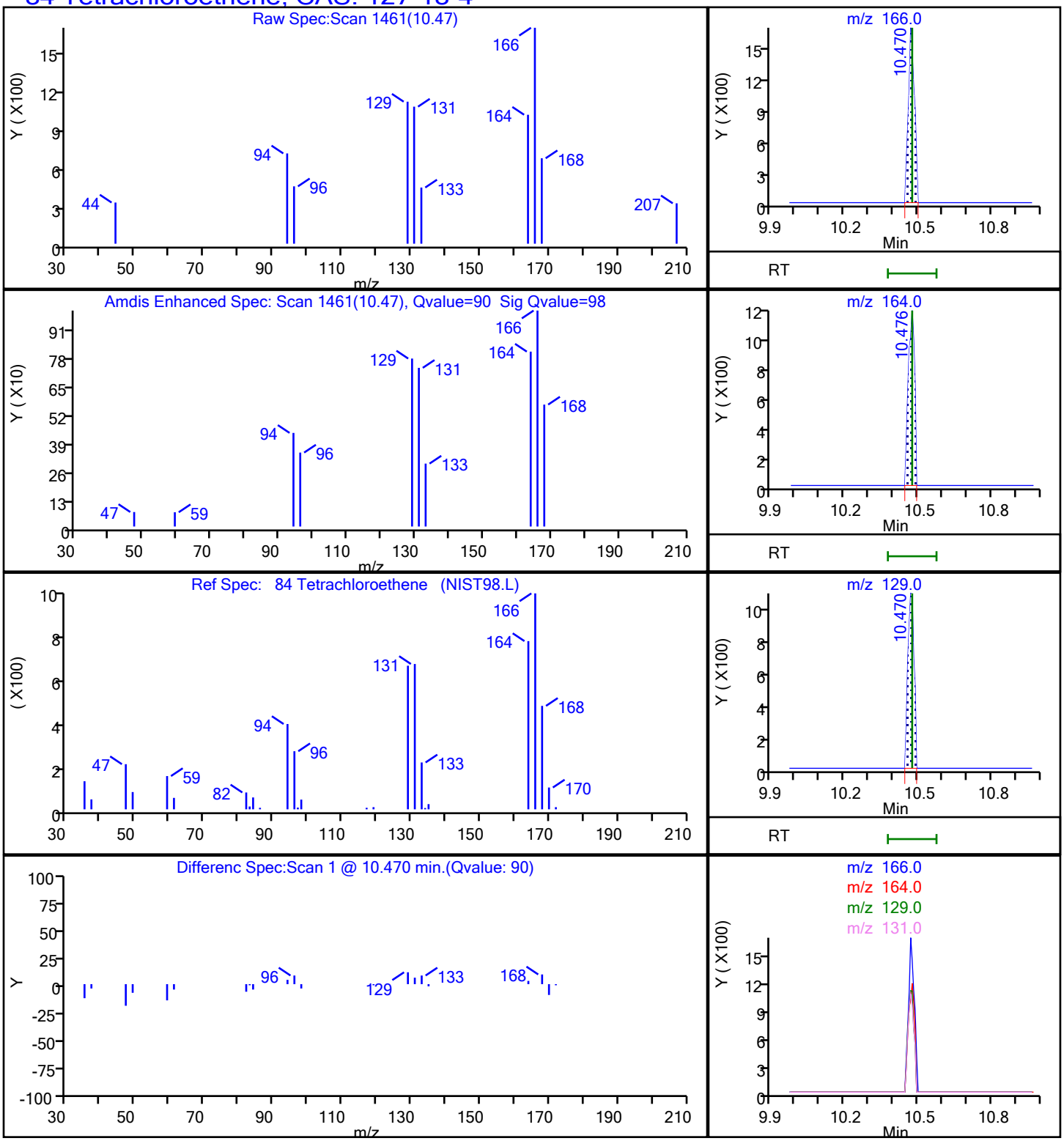
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S22.D				
Injection Date:	21-Nov-2020 20:03:30	Instrument ID:	9355		
Lims ID:	410-21210-A-32	Lab Sample ID:	410-21210-32		
Client ID:	RIZ-19				
Operator ID:	clm27445	ALS Bottle#:	30	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

84 Tetrachloroethene, CAS: 127-18-4

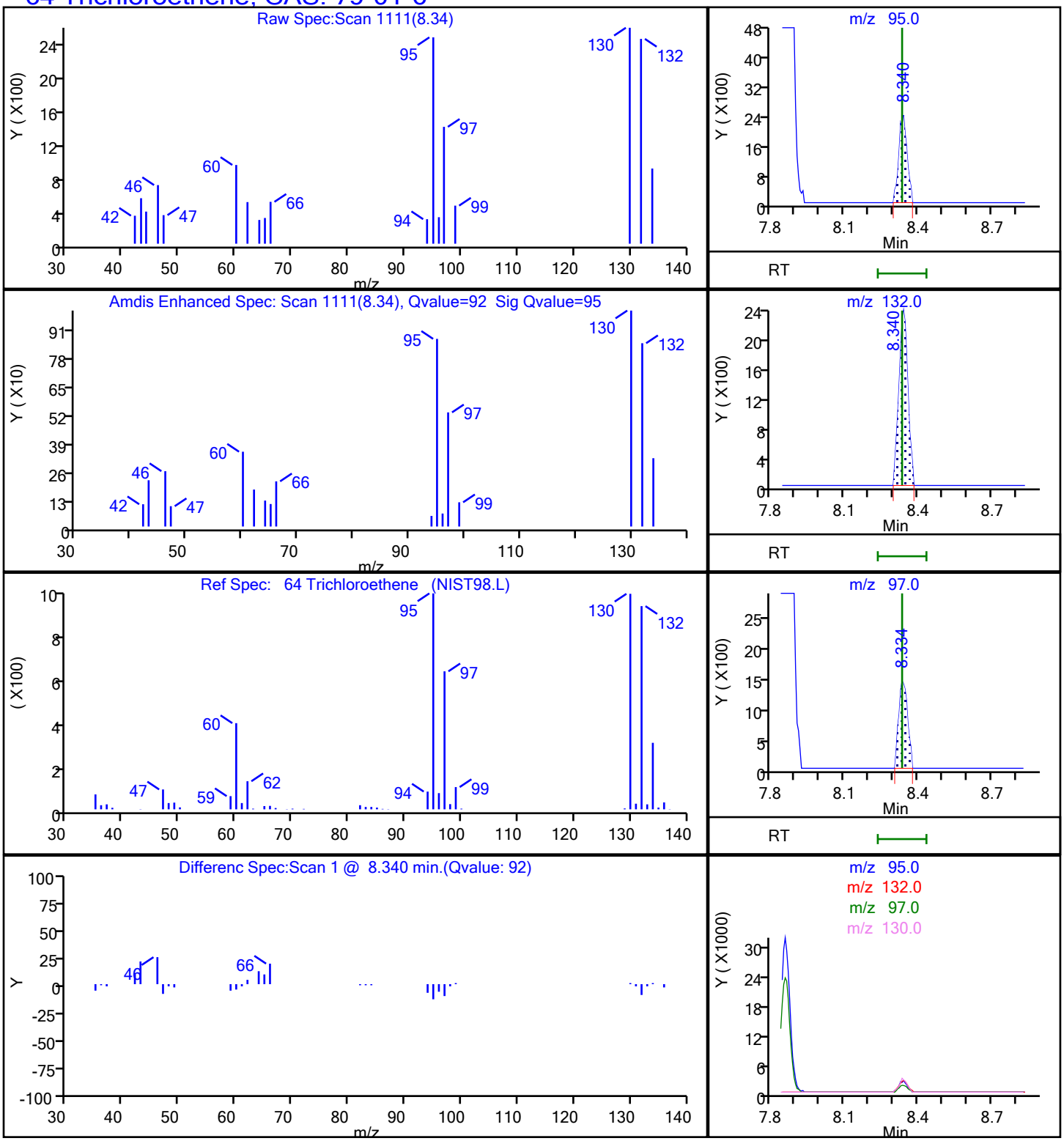


Report Date: 22-Nov-2020 21:23:58 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21S22.D				
Injection Date:	21-Nov-2020 20:03:30	Instrument ID:	9355		
Lims ID:	410-21210-A-32	Lab Sample ID:	410-21210-32		
Client ID:	RIZ-19				
Operator ID:	clm27445	ALS Bottle#:	30	Worklist Smp#:	30
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: EB111620 Lab Sample ID: 410-21210-33

Matrix: Water Lab File ID: YN23S02.D

Analysis Method: 8260C Date Collected: 11/16/2020 16:30

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 13:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S02.D
Lims ID: 410-21210-C-33
Client ID: EB111620
Sample Type: Client
Inject. Date: 23-Nov-2020 13:27:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-012
Misc. Info.: 410-21210-C-33
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 15:31:15 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1666

First Level Reviewer: proctore Date: 23-Nov-2020 16:59:39

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.372				ND	
17 1,1-Dichloroethene	96		3.692				ND	
18 Acetone	58		3.698				ND	
19 112TCTFE	101		3.735				ND	
22 Carbon disulfide	76		4.021				ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.380	4.374	0.006	0	325867	250.0	
27 Methylene Chloride	84		4.374				ND	
32 trans-1,2-Dichloroethene	96		4.800				ND	
35 1,1-Dichloroethane	63		5.444				ND	
40 2-Butanone (MEK)	43		6.223				ND	
41 cis-1,2-Dichloroethene	96		6.266				ND	
48 Chloroform	83		6.740				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	270900	50.6	
50 1,1,1-Trichloroethane	97		6.984				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.415	0.007	0	66564	51.8	
56 Benzene	78		7.458				ND	
58 1,2-Dichloroethane	62		7.525				ND	7
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1064170	50.0	
64 Trichloroethene	95		8.340				ND	
69 1,4-Dioxane	88		8.754				ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1079802	49.5	
78 Toluene	92		9.928				ND	
84 Tetrachloroethene	166		10.476				ND	
S 91 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	895411	50.0	
96 Ethylbenzene	91		11.400				ND	
97 m-Xylene & p-Xylene	106		11.516				ND	
98 o-Xylene	106		11.844				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	378657	45.3	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	498815	50.0	
127 1,2-Dichlorobenzene	146		13.444				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
134 Naphthalene	128		14.722				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

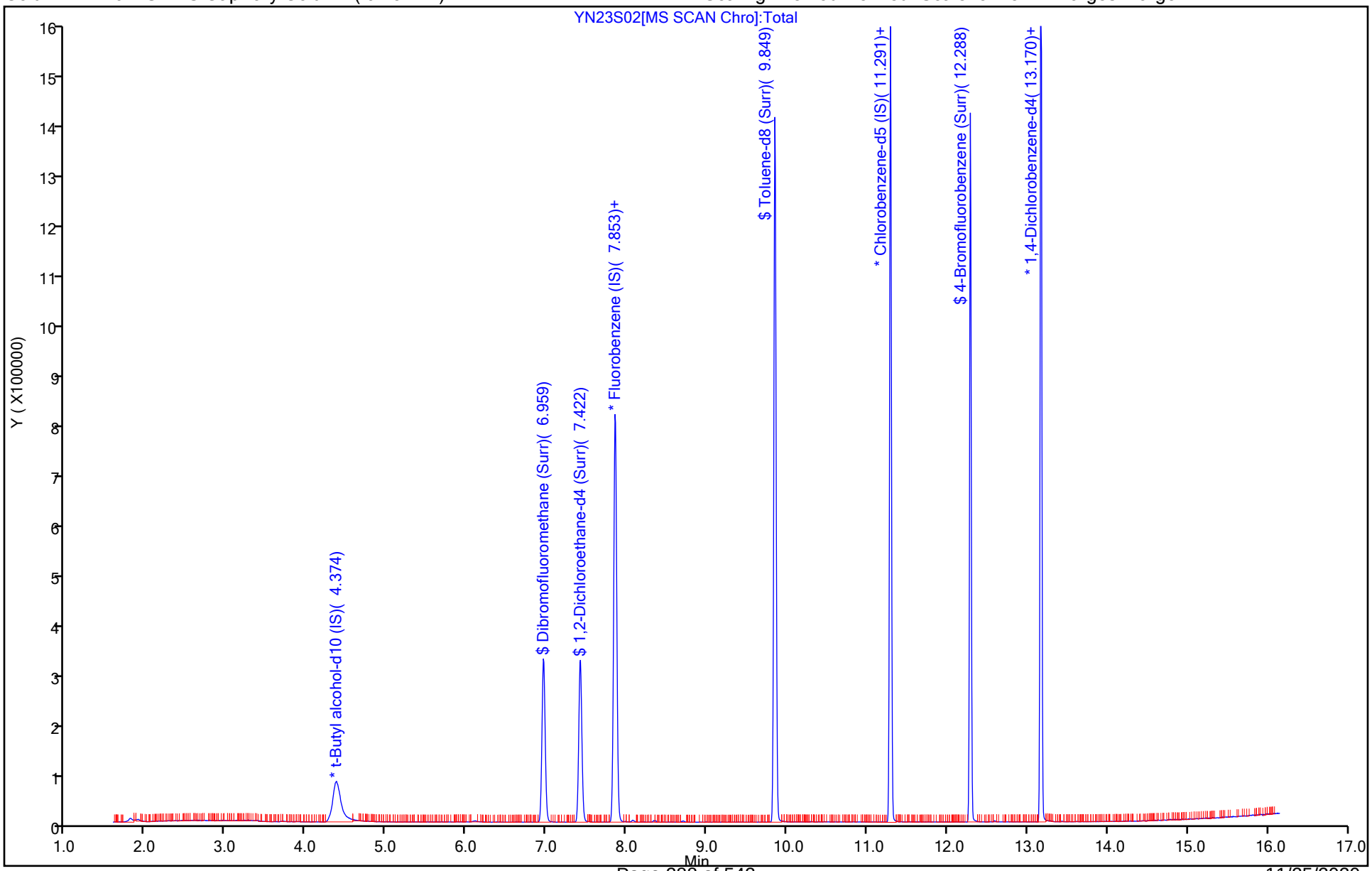
Report Date: 23-Nov-2020 17:36:39 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S02.D

Injection Date:	23-Nov-2020 13:27:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-C-33	Lab Sample ID:	410-21210-33	Worklist Smp#:	12
Client ID:	EB111620				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-61287/9	YN02I37.D
Level 2	IC 410-61287/8	YN02I36.D
Level 3	IC 410-61287/7	YN02I35.D
Level 4	IC 410-61287/6	YN02I34.D
Level 5	ICIS 410-61287/5	YN02I33.D
Level 6	IC 410-61287/4	YN02I32.D
Level 7	IC 410-61287/3	YN02I31.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.3007 0.3810	0.4043 0.3464	0.3799	0.3786	0.4012	Ave		0.3703			0.1000	9.7		20.0			
Chloromethane	0.3139 0.3162	0.3750 0.2959	0.3354	0.3345	0.3302	Ave		0.3287			0.1000	7.5		20.0			
1,3-Butadiene	0.3806 0.2585	0.3081 0.2444	0.2568	0.2684	0.2685	Ave		0.2836				16.6		20.0			
Vinyl chloride	0.2976 0.3290	0.3747 0.3117	0.3386	0.3439	0.3451	Ave		0.3344			0.1000	7.5		20.0			
Bromomethane	0.2785 0.2836	0.3260 0.2579	0.2918	0.2934	0.2908	Ave		0.2889			0.1000	7.1		20.0			
Chloroethane	0.1984 0.2124	0.2359 0.1945	0.2145	0.2176	0.2154	Ave		0.2127			0.1000	6.4		20.0			
Dichlorofluoromethane	0.4824 0.4604	0.5360 0.4283	0.4678	0.4892	0.4757	Ave		0.4771			0.1000	6.8		20.0			
Trichlorofluoromethane	0.5099 0.5692	0.6502 0.5230	0.5847	0.5813	0.6050	Ave		0.5748			0.1000	8.3		20.0			
n-Pentane	0.3800 0.4183	0.4011 0.3932	0.3792	0.4081	0.4356	Ave		0.4022				5.1		20.0			
Ethyl ether	0.2585 0.2612	0.2709 0.2525	0.2744	0.2733	0.2658	Ave		0.2652				3.1		20.0			
Freon 123a	0.3280 0.3144	0.3390 0.3056	0.3119	0.3238	0.3282	Ave		0.3216				3.6		20.0			
Acrolein	1.8386 1.8640	1.9047 1.9665	2.0138	1.7744	1.8773	Ave		1.8913				4.2		20.0			
1,1-Dichloroethene	0.2200 0.2440	0.2481 0.2396	0.2316	0.2437	0.2516	Ave		0.2398			0.1000	4.5		20.0			
Acetone	0.6333 0.8018	0.8253 0.8550	0.9360	0.8037	0.8370	Ave		0.8132			0.1000	11.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Freon 113	0.1919 0.2757	0.2525 0.2672	0.2459	0.2689	0.2859	Ave		0.2554			0.1000	12.2		20.0			
2-Propanol	0.6114 0.5264	0.5409 0.5322	0.5471	0.5188	0.5327	Ave		0.5442				5.7		20.0			
Methyl iodide	0.4292 0.5072	0.5056 0.4919	0.4929	0.5145	0.5175	Ave		0.4941				6.1		20.0			
Carbon disulfide	0.6785 0.7932	0.7750 0.7564	0.7476	0.7996	0.8103	Ave		0.7658			0.1000	5.8		20.0			
Methyl acetate	0.4045 0.3404	0.3954 0.3279	0.3575	0.3365	0.3473	Ave		0.3585			0.1000	8.3		20.0			
Allyl chloride	0.3944 0.3817	0.4288 0.3639	0.3856	0.3936	0.3855	Ave		0.3905				5.0		20.0			
Methylene Chloride	0.2365 0.2700	0.2687 0.2622	0.2689	0.2769	0.2777	Ave		0.2658			0.1000	5.2		20.0			
t-Butyl alcohol	1.2410 1.1313	1.1694 1.1510	1.2388	1.1614	1.1842	Ave		1.1824				3.6		20.0			
Acrylonitrile	0.1536 0.1771	0.1762 0.1695	0.1850	0.1758	0.1893	Ave		0.1752				6.6		20.0			
Methyl tertiary butyl ether	0.8896 0.9372	0.9354 0.9102	0.9526	0.9518	0.9573	Ave		0.9334			0.1000	2.7		20.0			
trans-1,2-Dichloroethene	0.2500 0.2796	0.2874 0.2807	0.2710	0.2861	0.2860	Ave		0.2772			0.1000	4.8		20.0			
n-Hexane	0.3236 0.4158	0.4028 0.3980	0.3776	0.4170	0.4283	Ave		0.3947				9.0		20.0			
1,1-Dichloroethane	0.4020 0.4702	0.4805 0.4551	0.4613	0.4869	0.4853	Ave		0.4630			0.2000	6.4		20.0			
di-Isopropyl ether	0.7812 0.8340	0.8458 0.7901	0.8444	0.8614	0.8548	Ave		0.8302				3.8		20.0			
2-Chloro-1,3-butadiene	0.3309 0.4294	0.4175 0.4189	0.3959	0.4275	0.4380	Ave		0.4083				9.0		20.0			
Ethyl t-butyl ether	0.8102 0.8615	0.8803 0.8217	0.8827	0.8905	0.8879	Ave		0.8621				3.8		20.0			
2-Butanone	0.2642 0.2459	0.2569 0.2318	0.2650	0.2402	0.2628	Ave		0.2524			0.1000	5.2		20.0			
cis-1,2-Dichloroethene	0.2926 0.3218	0.3243 0.3278	0.3108	0.3281	0.3260	Ave		0.3188			0.1000	4.1		20.0			
2,2-Dichloropropane	0.3731 0.4461	0.4328 0.4406	0.4232	0.4472	0.4534	Ave		0.4309				6.4		20.0			
Propionitrile	1.2692 1.2805	1.2919 1.3768	1.3576	1.2225	1.2897	Ave		1.2983				4.1		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methacrylonitrile	0.1938 0.2006	0.2005 0.2000	0.2059	0.2021	0.2074	Ave		0.2015				2.2		20.0			
Bromochloromethane	0.1567 0.1791	0.1848 0.1834	0.1842	0.1806	0.1791	Ave		0.1783				5.5		20.0			
Tetrahydrofuran	1.2505 1.3358	1.3186 1.4664	1.3980	1.2702	1.3291	Ave		1.3384				5.5		20.0			
Chloroform	0.4440 0.5011	0.5069 0.4923	0.4911	0.5124	0.5115	Ave		0.4942			0.2000	4.8		20.0			
1,1,1-Trichloroethane	0.3833 0.4670	0.4667 0.4606	0.4428	0.4740	0.4784	Ave		0.4533			0.1000	7.3		20.0			
Cyclohexane	0.3552 0.4703	0.4530 0.4491	0.4249	0.4692	0.4891	Ave		0.4444			0.1000	9.9		20.0			
1,1-Dichloropropene	0.3171 0.4039	0.3993 0.4016	0.3796	0.4057	0.4093	Ave		0.3881				8.4		20.0			
Carbon tetrachloride	0.3291 0.4407	0.4056 0.4486	0.3900	0.4296	0.4452	Ave		0.4127			0.1000	10.4		20.0			
Isobutyl alcohol	0.4035 0.3627	0.3725 0.3680	0.3666	0.3624	0.3605	Ave		0.3709				4.0		20.0			
Benzene	1.0076 1.1246	1.1564 1.1094	1.0994	1.1592	1.1573	Ave		1.1163			0.5000	4.8		20.0			
1,2-Dichloroethane	0.4563 0.4242	0.4526 0.4174	0.4343	0.4408	0.4340	Ave		0.4371			0.1000	3.2		20.0			
t-Amyl methyl ether	0.8274 0.8973	0.9100 0.8621	0.9193	0.9274	0.9268	Ave		0.8958				4.2		20.0			
n-Heptane	0.3922 0.4677	0.4654 0.4333	0.4302	0.4670	0.4749	Ave		0.4472				6.7		20.0			
n-Butanol	0.3348 0.3530	0.3657 0.3601	0.3785	0.3678	0.3588	Ave		0.3598				3.8		20.0			
Trichloroethene	0.2657 0.3172	0.3225 0.3212	0.3075	0.3241	0.3241	Ave		0.3118			0.2000	6.8		20.0			
Methylcyclohexane	0.4248 0.5510	0.5317 0.5668	0.5288	0.5290	0.5524	Ave		0.5264			0.1000	8.9		20.0			
1,2-Dichloropropane	0.2528 0.2971	0.2934 0.2985	0.2894	0.2999	0.3025	Ave		0.2905			0.1000	5.9		20.0			
t-Amyl ethyl ether	0.4073 0.4955	0.4642 0.5227	0.4736	0.4843	0.4943	Ave		0.4774				7.6		20.0			
Methyl methacrylate	0.2824 0.3251	0.3119 0.3316	0.3273	0.3304	0.3389	Ave		0.3211				5.9		20.0			
1,4-Dioxane	0.0678 0.0966	0.0974 0.0978	0.0944	0.0989	0.0914	Ave		0.0921			0.0050	11.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromomethane	0.1839 0.2209	0.2130 0.2245	0.2180	0.2204	0.2247	Ave		0.2151				6.7		20.0			
Bromodichloromethane	0.3116 0.4001	0.3664 0.4018	0.3672	0.3933	0.4022	Ave		0.3775			0.2000	8.7		20.0			
2-Nitropropane	2.4290 2.8746	2.6067 3.0618	2.9161	2.6792	2.8421	Ave		2.7728				7.7		20.0			
2-Chloroethyl vinyl ether	0.1239 0.1528	0.1425 0.1638	0.1539	0.1508	0.1532	Ave		0.1487				8.5		20.0			
cis-1,3-Dichloropropene	0.4008 0.5092	0.4695 0.5121	0.4899	0.5066	0.5161	Ave		0.4863			0.2000	8.4		20.0			
4-Methyl-2-pentanone	0.4555 0.4982	0.4939 0.4598	0.5121	0.4938	0.5208	Ave		0.4906			0.1000	5.0		20.0			
Toluene	0.8421 0.9363	0.9464 0.9092	0.9126	0.9656	0.9664	Ave		0.9255			0.4000	4.7		20.0			
trans-1,3-Dichloropropene	0.4820 0.6033	0.5588 0.5847	0.5871	0.5994	0.6214	Ave		0.5767			0.1000	8.0		20.0			
Ethyl methacrylate	0.5423 0.6416	0.6035 0.6147	0.6339	0.6436	0.6573	Ave		0.6196				6.2		20.0			
1,1,2-Trichloroethane	0.3342 0.3694	0.3826 0.3616	0.3753	0.3815	0.3831	Ave		0.3697			0.1000	4.7		20.0			
Tetrachloroethene	0.4160 0.4681	0.4904 0.4852	0.4824	0.4813	0.4885	Ave		0.4731			0.2000	5.5		20.0			
1,3-Dichloropropane	0.5740 0.6193	0.6375 0.5888	0.6379	0.6418	0.6384	Ave		0.6197				4.4		20.0			
2-Hexanone	0.4636 0.4907	0.4989 0.4277	0.5175	0.4958	0.5182	Ave		0.4875			0.1000	6.6		20.0			
Dibromochloromethane	0.3333 0.4558	0.3935 0.4559	0.4119	0.4387	0.4616	Ave		0.4215				11.0		20.0			
1,2-Dibromoethane	0.3822 0.4358	0.4245 0.4203	0.4383	0.4461	0.4508	Ave		0.4283			0.1000	5.4		20.0			
1-Chlorohexane	0.5597 0.5537	0.5641 0.5364	0.5194	0.5596	0.5692	Ave		0.5517				3.2		20.0			
Chlorobenzene	1.0322 1.1506	1.1610 1.1265	1.1215	1.1721	1.1794	Ave		1.1348			0.5000	4.4		20.0			
1,1,1,2-Tetrachloroethane	0.3263 0.4470	0.3917 0.4499	0.3982	0.4304	0.4438	Ave		0.4125				10.8		20.0			
Ethylbenzene	1.6029 1.8871	1.8556 1.7178	1.7875	1.9068	1.9216	Ave		1.8113			0.1000	6.4		20.0			
m&p-Xylene	0.6490 0.7968	0.7535 0.7634	0.7365	0.7900	0.8031	Ave		0.7560			0.1000	7.0		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
o-Xylene	0.6388 0.7837	0.7315 0.7695	0.7293	0.7763	0.7822	Ave		0.7445			0.3000	7.0		20.0			
Styrene	1.0021 1.3230	1.1714 1.2824	1.1947	1.2839	1.3177	Ave		1.2250			0.3000	9.3		20.0			
Bromoform	0.2531 0.3899	0.3033 0.3949	0.3367	0.3577	0.3877	Ave		0.3462			0.1000	15.2		20.0			
Isopropylbenzene	1.6181 1.9509	1.9296 1.7026	1.8418	1.9817	1.9852	Ave		1.8585			0.1000	7.8		20.0			
Cyclohexanone	0.3948 0.4324	0.4364 0.3953	0.4261	0.4336	0.4161	Ave		0.4192				4.2		20.0			
1,1,2,2-Tetrachloroethane	0.9951 1.0873	1.0869 1.0835	1.1150	1.1156	1.1217	Ave		1.0864			0.3000	4.0		20.0			
trans-1,4-Dichloro-2-butene	0.3386 0.3888	0.3852 0.3278	0.3990	0.4000	0.4084	Ave		0.3783				8.4		20.0			
Bromobenzene	0.8841 1.0586	0.9647 1.0457	0.9695	1.0216	1.0323	Ave		0.9967				6.2		20.0			
1,2,3-Trichloropropane	0.3806 0.3866	0.3878 0.4030	0.3935	0.3900	0.3934	Ave		0.3907				1.8		20.0			
N-Propylbenzene	3.4274 3.8630	3.9653 3.2909	3.7698	4.0199	3.9664	Ave		3.7575				7.6		20.0			
2-Chlorotoluene	0.7560 0.8907	0.8595 0.9208	0.8553	0.8953	0.8968	Ave		0.8678				6.3		20.0			
1,3,5-Trimethylbenzene	2.5057 3.0205	2.9135 2.8242	2.8291	3.0435	3.0376	Ave		2.8820				6.6		20.0			
4-Chlorotoluene	0.7991 0.9400	0.9204 0.9885	0.8918	0.9422	0.9458	Ave		0.9183				6.5		20.0			
tert-Butylbenzene	0.5749 0.7009	0.6693 0.7297	0.6331	0.6938	0.6913	Ave		0.6704				7.7		20.0			
Pentachloroethane	0.4120 0.6195	0.5066 0.6170	0.4895	0.5622	0.5763	Ave		0.5404				13.9		20.0			
1,2,4-Trimethylbenzene	2.5523 3.2411	3.0265 2.9446	2.9484	3.1921	3.2015	Ave		3.0152				7.9		20.0			
sec-Butylbenzene	3.2045 3.9049	3.8457 3.2657	3.6609	3.9678	3.9317	Ave		3.6830				8.7		20.0			
1,3-Dichlorobenzene	1.6429 1.9607	1.8135 1.8700	1.7818	1.8703	1.9110	Ave		1.8357			0.6000	5.6		20.0			
p-Isopropyltoluene	2.7791 3.7109	3.4127 3.1256	3.2864	3.6016	3.6463	Ave		3.3661				9.9		20.0			
1,4-Dichlorobenzene	1.7364 2.0069	1.8694 1.9495	1.8661	1.9246	1.9820	Ave		1.9050			0.5000	4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.7897 3.2062	3.1239 2.9084	3.0779	3.1148	3.1255	Ave		3.0495				4.8		20.0			
Benzyl chloride	1.8652 2.5369	2.1631 2.4478	2.3369	2.4334	2.5447	Ave		2.3326				10.5		20.0			
1,3-Diethylbenzene	1.7722 2.1022	2.0839 2.0488	2.0447	2.0658	2.0668	Ave		2.0264				5.6		20.0			
1,4-Diethylbenzene	1.8279 2.2513	2.2021 2.1927	2.1447	2.1974	2.1981	Ave		2.1449				6.7		20.0			
n-Butylbenzene	1.3868 1.7502	1.6762 1.6802	1.5925	1.7325	1.7302	Ave		1.6498				7.7		20.0			
1,2-Dichlorobenzene	1.6280 1.8600	1.7685 1.8665	1.7415	1.8147	1.8323	Ave		1.7874			0.4000	4.7		20.0			
1,2-Diethylbenzene	1.5050 1.7664	1.7068 1.7566	1.6922	1.7198	1.7153	Ave		1.6946				5.2		20.0			
1,2-Dibromo-3-Chloropropane	0.2859 0.3181	0.2949 0.3133	0.3018	0.3096	0.3242	Ave		0.3068			0.0500	4.4		20.0			
1,3,5-Trichlorobenzene	1.3586 1.5321	1.5018 1.4856	1.4433	1.5218	1.5248	Ave		1.4811				4.2		20.0			
1,2,4-Trichlorobenzene	1.3240 1.4112	1.3680 1.3807	1.3441	1.4074	1.4055	Ave		1.3773			0.2000	2.5		20.0			
Hexachlorobutadiene	0.6421 0.6904	0.6750 0.6562	0.6266	0.6756	0.6665	Ave		0.6618				3.3		20.0			
Naphthalene	4.1414 4.2889	4.2617 3.4849	4.2319	4.3777	4.3859	Ave		4.1675				7.5		20.0			
1,2,3-Trichlorobenzene	1.2653 1.3293	1.2986 1.3240	1.2637	1.3289	1.3156	Ave		1.3036				2.2		20.0			
2-Methylnaphthalene	2.7325 2.7174	2.5651 2.5592	2.5146	2.6242	2.6351	Ave		2.6212				3.1		20.0			
Dibromofluoromethane (Surr)	0.2506 0.2522	0.2518 0.2469	0.2524	0.2539	0.2533	Ave		0.2516				0.9		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0609 0.0598	0.0607 0.0588	0.0602	0.0609	0.0612	Ave		0.0604				1.4		20.0			
Toluene-d8 (Surr)	1.2565 1.1942	1.2474 1.1010	1.2460	1.2442	1.2296	Ave		1.2170				4.5		20.0			
4-Bromofluorobenzene (Surr)	0.4753 0.4596	0.4751 0.4276	0.4728	0.4797	0.4741	Ave		0.4663				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-61287/9	YN02I37.D
Level 2	IC 410-61287/8	YN02I36.D
Level 3	IC 410-61287/7	YN02I35.D
Level 4	IC 410-61287/6	YN02I34.D
Level 5	ICIS 410-61287/5	YN02I33.D
Level 6	IC 410-61287/4	YN02I32.D
Level 7	IC 410-61287/3	YN02I31.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	6759 928634	36280 2641665	88679	177479	484158	1.00 100	4.00 300	10.0	20.0	50.0
Chloromethane	FB	Ave	7055 770688	33646 2256619	78305	156818	398550	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Butadiene	FB	Ave	8554 630156	27648 1864024	59942	125840	324095	1.00 100	4.00 300	10.0	20.0	50.0
Vinyl chloride	FB	Ave	6689 801862	33626 2377099	79041	161233	416537	1.00 100	4.00 300	10.0	20.0	50.0
Bromomethane	FB	Ave	6260 691130	29253 1966885	68131	137536	350980	1.00 100	4.00 300	10.0	20.0	50.0
Chloroethane	FB	Ave	4458 517809	21166 1483317	50084	102029	259958	1.00 100	4.00 300	10.0	20.0	50.0
Dichlorofluoromethane	FB	Ave	10842 1122094	48096 3266492	109208	229317	574126	1.00 100	4.00 300	10.0	20.0	50.0
Trichlorofluoromethane	FB	Ave	11460 1387369	58339 3988614	136506	272494	730202	1.00 100	4.00 300	10.0	20.0	50.0
n-Pentane	FB	Ave	8540 1019524	35990 2998985	88528	191334	525722	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl ether	FB	Ave	5810 636889	24311 1926248	64064	128128	320870	1.00 100	4.00 300	10.0	20.0	50.0
Freon 123a	FB	Ave	7372 766371	30415 2330427	72823	151785	396076	1.00 100	4.00 300	10.0	20.0	50.0
Acrolein	TBAd10	Ave	24113 2523450	95430 7500999	253840	470849	1328395	10.0 1000	40.0 3000	100	200	500
1,1-Dichloroethene	FB	Ave	4944 594789	22262 1827624	54067	114266	303691	1.00 100	4.00 300	10.0	20.0	50.0
Acetone	TBAd10	Ave	1661 217087	8270 652232	23597	42655	118458	2.00 200	8.00 600	20.0	40.0	100
Freon 113	FB	Ave	4313	22655	57416	126083	345024	1.00	4.00	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			672044	2038063				100	300			
2-Propanol	TBAd10	Ave	16037 356315	54196 1015043	68956	137653	188469	20.0 500	80.0 1500	100	200	250
Methyl iodide	FB	Ave	9647 1236287	45364 3751645	115066	241176	624536	1.00 100	4.00 300	10.0	20.0	50.0
Carbon disulfide	FB	Ave	15248 1933293	69538 5768940	174541	374863	977939	1.00 100	4.00 300	10.0	20.0	50.0
Methyl acetate	FB	Ave	9090 829617	35479 2500779	83458	157749	419092	1.00 100	4.00 300	10.0	20.0	50.0
Allyl chloride	FB	Ave	8863 930362	38480 2775617	90017	184538	465308	1.00 100	4.00 300	10.0	20.0	50.0
Methylene Chloride	FB	Ave	5316 658129	24107 1999651	62766	129793	335131	1.00 100	4.00 300	10.0	20.0	50.0
t-Butyl alcohol	TBAd10	Ave	32551 765742	117174 2195133	156148	308174	418990	20.0 500	80.0 1500	100	200	250
Acrylonitrile	FB	Ave	3451 431691	15814 1293063	43189	82434	228484	1.00 100	4.00 300	10.0	20.0	50.0
Methyl tertiary butyl ether	FB	Ave	19992 2284335	83934 6942114	222390	446196	1155294	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,2-Dichloroethene	FB	Ave	5618 681420	25792 2141017	63257	134114	345117	1.00 100	4.00 300	10.0	20.0	50.0
n-Hexane	FB	Ave	7273 1013342	36139 3035318	88156	195508	516871	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloroethane	FB	Ave	9035 1146008	43113 3470875	107701	228263	585670	1.00 100	4.00 300	10.0	20.0	50.0
di-Isopropyl ether	FB	Ave	17556 2032833	75894 6025622	197127	403813	1031676	1.00 100	4.00 300	10.0	20.0	50.0
2-Chloro-1,3-butadiene	FB	Ave	7437 1046628	37461 3195022	92436	200394	528617	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl t-butyl ether	FB	Ave	18209 2099773	78993 6266798	206062	417473	1071573	1.00 100	4.00 300	10.0	20.0	50.0
2-Butanone	FB	Ave	11877 1198821	46111 3535189	123723	225165	634232	2.00 200	8.00 600	20.0	40.0	100
cis-1,2-Dichloroethene	FB	Ave	6575 784451	29102 2499786	72547	153823	393444	1.00 100	4.00 300	10.0	20.0	50.0
2,2-Dichloropropane	FB	Ave	8384 1087324	38835 3360618	98795	209627	547227	1.00 100	4.00 300	10.0	20.0	50.0
Propionitrile	TBAd10	Ave	33290 866720	129453 2625792	171121	324398	456284	20.0 500	80.0 1500	100	200	250

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methacrylonitrile	FB	Ave	43561 1222510	179897 3812762	240371	473737	625858	10.0 250	40.0 750	50.0	100	125
Bromochloromethane	FB	Ave	3521 436463	16585 1398482	42998	84646	216132	1.00 100	4.00 300	10.0	20.0	50.0
Tetrahydrofuran	TBAd10	Ave	3280 361661	13213 1118650	35242	67408	188096	2.00 200	8.00 600	20.0	40.0	100
Chloroform	FB	Ave	9979 1221477	45486 3754746	114652	240224	617353	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1-Trichloroethane	FB	Ave	8614 1138235	41877 3513034	103383	222233	577352	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexane	FB	Ave	7982 1146250	40648 3425461	99195	219960	590253	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloropropene	FB	Ave	7126 984343	35833 3063243	88613	190173	493924	1.00 100	4.00 300	10.0	20.0	50.0
Carbon tetrachloride	FB	Ave	7396 1074042	36393 3421665	91058	201399	537277	1.00 100	4.00 300	10.0	20.0	50.0
Isobutyl alcohol	TBAd10	Ave	26459 613829	93318 1754651	115514	240408	318869	50.0 1250	200 3750	250	500	625
Benzene	FB	Ave	22644 2740956	103764 8461175	256652	543448	1396713	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloroethane	FB	Ave	10255 1033886	40616 3183221	101400	206658	523817	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl methyl ether	FB	Ave	18596 2186969	81657 6574766	214609	434746	1118519	1.00 100	4.00 300	10.0	20.0	50.0
n-Heptane	FB	Ave	8815 1140046	41760 3304417	100427	218914	573201	1.00 100	4.00 300	10.0	20.0	50.0
n-Butanol	TBAd10	Ave	43910 1194558	183211 3433598	238572	487930	634688	100 2500	400 7500	500	1000	1250
Trichloroethene	FB	Ave	5972 773114	28935 2449669	71779	151927	391181	1.00 100	4.00 300	10.0	20.0	50.0
Methylcyclohexane	FB	Ave	9548 1342954	47713 4322614	123448	248014	666676	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloropropane	FB	Ave	5682 724214	26325 2276856	67553	140593	365136	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl ethyl ether	FB	Ave	9153 1207814	41649 3986104	110555	227041	596548	1.00 100	4.00 300	10.0	20.0	50.0
Methyl methacrylate	FB	Ave	6347 792492	27989 2528778	76404	154888	409047	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	TBAd10	Ave	4447 163533	24388 466531	29757	65637	80873	50.0 1250	200 3750	250	500	625
Dibromomethane	FB	Ave	4133 538495	19113 1712315	50898	103310	271141	1.00 100	4.00 300	10.0	20.0	50.0
Bromodichloromethane	FB	Ave	7003 975117	32876 3064369	85726	184382	485429	1.00 100	4.00 300	10.0	20.0	50.0
2-Nitropropane	TBAd10	Ave	6371 778289	26120 2335752	73512	142187	402217	2.00 200	8.00 600	20.0	40.0	100
2-Chloroethyl vinyl ether	FB	Ave	2785 372414	12785 1249613	35919	70705	184913	1.00 100	4.00 300	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	9008 1241063	42124 3905811	114368	237504	622911	1.00 100	4.00 300	10.0	20.0	50.0
4-Methyl-2-pentanone	FB	Ave	20476 2428744	88633 7013012	239093	462970	1257092	2.00 200	8.00 600	20.0	40.0	100
Toluene	CBZd5	Ave	14982 1875877	67494 5997113	170808	363544	945727	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,3-Dichloropropene	CBZd5	Ave	8576 1208848	39849 3856914	109884	225651	608085	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl methacrylate	CBZd5	Ave	9649 1285396	43040 4055027	118643	242301	643253	1.00 100	4.00 300	10.0	20.0	50.0
1,1,2-Trichloroethane	CBZd5	Ave	5947 740128	27284 2385346	70236	143640	374888	1.00 100	4.00 300	10.0	20.0	50.0
Tetrachloroethene	CBZd5	Ave	7401 937789	34972 3200461	90292	181211	478085	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichloropropane	CBZd5	Ave	10212 1240840	45460 3884184	119383	241634	624741	1.00 100	4.00 300	10.0	20.0	50.0
2-Hexanone	CBZd5	Ave	16497 1966273	71152 5642658	193727	373316	1014212	2.00 200	8.00 600	20.0	40.0	100
Dibromochloromethane	CBZd5	Ave	5930 913254	28064 3007154	77083	165173	451765	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromoethane	CBZd5	Ave	6800 873139	30275 2772143	82039	167939	441211	1.00 100	4.00 300	10.0	20.0	50.0
1-Chlorohexane	CBZd5	Ave	9958 1109461	40228 3537938	97208	210688	557031	1.00 100	4.00 300	10.0	20.0	50.0
Chlorobenzene	CBZd5	Ave	18365 2305341	82798 7430983	209891	441282	1154197	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1,2-Tetrachloroethane	CBZd5	Ave	5806 895498	27937 2967993	74530	162046	434291	1.00 100	4.00 300	10.0	20.0	50.0
Ethylbenzene	CBZd5	Ave	28519 3780946	132330 11331069	334550	717868	1880604	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
m&p-Xylene	CBZd5	Ave	23095 3192979	107474 10071559	275682	594809	1571827	2.00 200	8.00 600	20.0	40.0	100
o-Xylene	CBZd5	Ave	11365 1570132	52168 5075956	136491	292247	765509	1.00 100	4.00 300	10.0	20.0	50.0
Styrene	CBZd5	Ave	17829 2650778	83538 8459345	223590	483379	1289520	1.00 100	4.00 300	10.0	20.0	50.0
Bromoform	CBZd5	Ave	4504 781097	21632 2604594	63009	134674	379395	1.00 100	4.00 300	10.0	20.0	50.0
Isopropylbenzene	CBZd5	Ave	28789 3908841	137606 11230586	344703	746073	1942766	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexanone	TBAd10	Ave	25888 731668	109310 1884703	134248	287614	368063	50.0 1250	200 3750	250	500	625
1,1,2,2-Tetrachloroethane	DCBd4	Ave	10040 1242271	44247 3913085	118702	240213	629735	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,4-Dichloro-2-butene	DCBd4	Ave	34163 1110421	156830 2959404	212415	430593	573205	10.0 250	40.0 750	50.0	100	125
Bromobenzene	DCBd4	Ave	8920 1209441	39272 3776817	103219	219978	579549	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trichloropropane	DCBd4	Ave	3840 441648	15787 1455616	41895	83978	220837	1.00 100	4.00 300	10.0	20.0	50.0
N-Propylbenzene	DCBd4	Ave	34581 4413442	161424 11885629	401346	865561	2226710	1.00 100	4.00 300	10.0	20.0	50.0
2-Chlorotoluene	DCBd4	Ave	7628 1017625	34988 3325725	91055	192775	503447	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trimethylbenzene	DCBd4	Ave	25281 3450914	118604 10200206	301190	655308	1705306	1.00 100	4.00 300	10.0	20.0	50.0
4-Chlorotoluene	DCBd4	Ave	8062 1073924	37468 3570231	94947	202869	530981	1.00 100	4.00 300	10.0	20.0	50.0
tert-Butylbenzene	DCBd4	Ave	5800 800786	27247 2635373	67404	149384	388115	1.00 100	4.00 300	10.0	20.0	50.0
Pentachloroethane	DCBd4	Ave	4157 707780	20625 2228497	52114	121044	323509	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trimethylbenzene	DCBd4	Ave	25751 3702985	123206 10634894	313898	687313	1797301	1.00 100	4.00 300	10.0	20.0	50.0
sec-Butylbenzene	DCBd4	Ave	32332 4461383	156556 11794666	389750	854326	2207238	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichlorobenzene	DCBd4	Ave	16576 2240049	73824 6753777	189695	402702	1072806	1.00 100	4.00 300	10.0	20.0	50.0
p-Isopropyltoluene	DCBd4	Ave	28040 4239680	138927 11288630	349875	775483	2047038	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Dichlorobenzene	DCBd4	Ave	17519	76100	198673	414401	1112681	1.00	4.00	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1 Analy Batch No.: 61287

SDG No.:

Instrument ID: 9355 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/02/2020 23:57 Calibration End Date: 11/03/2020 02:09 Calibration ID: 14504

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			2292873	7040822				100	300			
1,2,3-Trimethylbenzene	DCBd4	Ave	28147 3663126	127171 10504062	327687	670671	1754638	1.00 100	4.00 300	10.0	20.0	50.0
Benzyl chloride	DCBd4	Ave	18819 2898415	88058 8840625	248796	523959	1428600	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Diethylbenzene	DCBd4	Ave	17881 2401784	84835 7399605	217681	444808	1160286	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Diethylbenzene	DCBd4	Ave	18442 2572099	89646 7919142	228335	473132	1234012	1.00 100	4.00 300	10.0	20.0	50.0
n-Butylbenzene	DCBd4	Ave	13992 1999562	68237 6068254	169539	373027	971298	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichlorobenzene	DCBd4	Ave	16426 2125092	71992 6741105	185406	390735	1028656	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Diethylbenzene	DCBd4	Ave	15185 2018152	69481 6344399	180157	370310	962953	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	2885 363441	12006 1131607	32127	66658	182009	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trichlorobenzene	DCBd4	Ave	13708 1750410	61137 5365393	153662	327669	856014	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trichlorobenzene	DCBd4	Ave	13358 1612300	55689 4986575	143101	303046	789032	1.00 100	4.00 300	10.0	20.0	50.0
Hexachlorobutadiene	DCBd4	Ave	6478 788753	27477 2369965	66707	145475	374149	1.00 100	4.00 300	10.0	20.0	50.0
Naphthalene	DCBd4	Ave	41784 4900055	173491 12586448	450545	942594	2462223	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trichlorobenzene	DCBd4	Ave	12766 1518771	52863 4781779	134532	286134	738553	1.00 100	4.00 300	10.0	20.0	50.0
2-Methylnaphthalene	DCBd4	Ave	27569 3104649	104424 9243129	267710	565039	1479313	1.00 100	4.00 300	10.0	20.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	281645 307372	282418 313888	294617	297558	305711	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	68478 72917	68033 74796	70246	71316	73883	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBZd5	Ave	1117794 1196355	1111948 1210422	1166030	1171076	1203367	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	422839 460384	423511 470132	442472	451477	464019	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I31.D
Lims ID: IC level7 300
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 02-Nov-2020 23:57:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-003
Misc. Info.: IC LEVEL7 300
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:49:08 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:46:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.038	2.038	0.000	99	2641665	300.0	280.6	
4 Chloromethane	50	2.238	2.244	-0.006	99	2256619	300.0	270.0	
5 Butadiene	39	2.354	2.360	-0.006	89	1864024	300.0	258.5	
6 Vinyl chloride	62	2.360	2.366	-0.006	98	2377099	300.0	279.6	
8 Bromomethane	94	2.689	2.695	-0.006	90	1966885	300.0	267.8	
9 Chloroethane	64	2.774	2.780	-0.006	99	1483317	300.0	274.3	
10 Dichlorofluoromethane	67	3.011	3.017	-0.006	97	3266492	300.0	269.3	
11 Trichlorofluoromethane	101	3.096	3.102	-0.006	98	3988614	300.0	273.0	
12 Pentane	43	3.127	3.139	-0.012	96	2998985	300.0	293.3	
14 Ethyl ether	59	3.346	3.352	-0.006	86	1926248	300.1	285.7	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.419	3.425	-0.006	91	2330427	300.0	285.1	
16 Acrolein	56	3.510	3.516	-0.006	99	7500999	3000.1	3119.3	
17 1,1-Dichloroethene	96	3.662	3.668	-0.006	98	1827624	300.0	299.8	
18 Acetone	58	3.680	3.680	0.000	100	652232	600.0	630.8	M
19 112TCTFE	101	3.704	3.711	-0.007	90	2038063	300.0	313.8	
20 Isopropyl alcohol	45	3.850	3.857	-0.007	100	1015043	1500.0	1467.0	
21 Iodomethane	142	3.875	3.875	0.000	99	3751645	300.0	298.7	
22 Carbon disulfide	76	3.990	3.997	-0.007	99	5768940	300.0	296.3	
24 Methyl acetate	43	4.118	4.118	0.000	97	2500779	300.0	274.4	
25 3-Chloro-1-propene	41	4.149	4.161	-0.012	89	2775617	300.0	279.6	
* 26 t-Butyl alcohol-d10 (IS)	65	4.343	4.337	0.006	0	317861	250.0	250.0	
27 Methylene Chloride	84	4.343	4.349	-0.006	90	1999651	300.0	295.9	
28 2-Methyl-2-propanol	59	4.471	4.465	0.006	99	2195133	1500.0	1460.1	
30 Acrylonitrile	53	4.666	4.672	-0.006	99	1293063	300.0	290.3	
31 Methyl tert-butyl ether	73	4.763	4.769	-0.006	95	6942114	300.0	292.5	
32 trans-1,2-Dichloroethene	96	4.775	4.781	-0.006	97	2141017	300.0	303.8	
33 Hexane	57	5.201	5.207	-0.006	92	3035318	300.0	302.5	
35 1,1-Dichloroethane	63	5.426	5.432	-0.006	96	3470875	300.0	294.9	
36 Isopropyl ether	45	5.487	5.487	0.000	91	6025622	300.0	285.5	
37 2-Chloro-1,3-butadiene	53	5.536	5.542	-0.006	91	3195022	300.0	307.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.028	6.022	0.006	96	6266798	300.0	285.9	
S 39 1,2-Dichloroethene, Total	100				0			612.2	
40 2-Butanone (MEK)	43	6.217	6.211	0.006	99	3535189	600.0	551.0	
41 cis-1,2-Dichloroethene	96	6.253	6.254	-0.001	80	2499786	300.0	308.5	
43 2,2-Dichloropropane	77	6.272	6.272	0.000	88	3360618	300.0	306.8	
44 Propionitrile	54	6.290	6.284	0.006	99	2625792	1500.0	1590.7	
45 Methacrylonitrile	67	6.515	6.509	0.006	89	3812762	750.0	744.4	
46 Chlorobromomethane	128	6.594	6.594	0.000	84	1398482	300.0	308.6	
47 Tetrahydrofuran	71	6.612	6.612	0.000	86	1118650	600.0	657.4	
48 Chloroform	83	6.734	6.734	0.000	93	3754746	300.0	298.9	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.953	0.000	94	313888	50.0	49.1	
50 1,1,1-Trichloroethane	97	6.971	6.977	-0.006	98	3513034	300.0	304.9	
51 Cyclohexane	56	7.087	7.087	0.000	89	3425461	300.0	303.2	
52 1,1-Dichloropropene	75	7.184	7.184	0.000	97	3063243	300.0	310.5	
53 Carbon tetrachloride	117	7.190	7.196	-0.006	97	3421665	300.0	326.1	
54 Isobutyl alcohol	41	7.306	7.300	0.006	94	1754651	3750.0	3720.9	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	74796	50.0	48.7	
56 Benzene	78	7.452	7.452	0.000	96	8461175	300.0	298.2	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	3183221	300.0	286.5	
59 Tert-amyl methyl ether	73	7.641	7.634	0.007	98	6574766	300.0	288.7	
* 61 Fluorobenzene (IS)	96	7.853	7.847	0.006	99	1271110	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	92	3304417	300.0	290.6	
63 n-Butanol	56	8.182	8.176	0.006	88	3433598	7500.0	7505.6	
64 Trichloroethene	95	8.334	8.334	0.000	96	2449669	300.0	309.1	
65 Methylcyclohexane	83	8.657	8.650	0.006	92	4322614	300.0	323.0	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	80	2276856	300.0	308.3	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	96	3986104	300.0	328.4	
68 Methyl methacrylate	69	8.736	8.730	0.006	88	2528778	300.0	309.8	
69 1,4-Dioxane	88	8.748	8.748	0.000	87	466531	3750.0	3985.5	M
70 Dibromomethane	93	8.778	8.778	0.000	94	1712315	300.0	313.2	
72 Dichlorobromomethane	83	9.009	9.003	0.006	99	3064369	300.0	319.3	
73 2-Nitropropane	41	9.253	9.247	0.006	98	2335752	600.0	662.5	
74 2-Chloroethyl vinyl ether	63	9.356	9.350	0.006	93	1249613	300.0	330.5	
75 cis-1,3-Dichloropropene	75	9.545	9.539	0.006	96	3905811	300.0	315.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	94	7013012	600.0	562.3	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1210422	50.0	45.2	
78 Toluene	92	9.928	9.922	0.006	99	5997113	300.0	294.7	
S 80 1,3-Dichloropropene, Total	100				0			620.1	
81 trans-1,3-Dichloropropene	75	10.171	10.165	0.006	91	3856914	300.0	304.2	
82 Ethyl methacrylate	69	10.226	10.226	0.000	87	4055027	300.0	297.7	
83 1,1,2-Trichloroethane	97	10.378	10.372	0.006	90	2385346	300.0	293.5	
84 Tetrachloroethene	166	10.476	10.476	0.000	97	3200461	300.0	307.6	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	90	3884184	300.0	285.1	
87 2-Hexanone	43	10.573	10.573	0.000	93	5642658	600.0	526.4	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	3007154	300.0	324.4	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	2772143	300.0	294.4	
S 91 Xylenes, Total	106				0			916.0	
* 93 Chlorobenzene-d5 (IS)	117	11.297	11.291	0.006	88	1099386	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	92	3537938	300.0	291.6	
94 Chlorobenzene	112	11.321	11.321	0.000	97	7430983	300.0	297.8	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	97	2967993	300.0	327.2	
96 Ethylbenzene	91	11.406	11.400	0.006	96	11331069	300.0	284.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.522	11.516	0.006	0	10071559	600.0	605.9	
98 o-Xylene	106	11.844	11.844	0.000	93	5075956	300.0	310.1	
99 Styrene	104	11.863	11.856	0.007	93	8459345	300.0	314.1	
100 Bromoform	173	12.021	12.021	0.000	97	2604594	300.0	342.2	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	11230586	300.0	274.8	
103 Cyclohexanone	55	12.215	12.215	0.000	91	1884703	3749.8	3535.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	93	470132	50.0	45.9	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	3913085	300.0	299.2	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	82	2959404	750.0	649.9	
107 Bromobenzene	156	12.410	12.404	0.006	88	3776817	300.0	314.8	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	82	1455616	300.0	309.5	
109 N-Propylbenzene	91	12.477	12.471	0.006	95	11885629	300.0	262.7	
110 2-Chlorotoluene	126	12.556	12.550	0.006	98	3325725	300.0	318.3	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	96	10200206	300.0	294.0	
112 4-Chlorotoluene	126	12.641	12.641	0.000	95	3570231	300.0	323.0	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	2635373	300.0	326.5	
115 Pentachloroethane	167	12.885	12.885	0.000	93	2228497	300.0	342.5	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	95	10634894	300.0	293.0	
117 sec-Butylbenzene	105	13.012	13.012	0.000	95	11794666	300.0	266.0	
119 4-Isopropyltoluene	119	13.122	13.116	0.006	93	11288630	300.0	278.6	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	6753777	300.0	305.6	
* 120 1,4-Dichlorobenzene-d4	152	13.177	13.171	0.006	91	601946	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	7040822	300.0	307.0	
122 1,2,3-Trimethylbenzene	105	13.201	13.195	0.006	97	10504062	300.0	286.1	
123 Benzyl chloride	91	13.262	13.262	0.000	98	8840625	300.0	314.8	
124 1,3-Diethylbenzene	119	13.323	13.317	0.006	94	7399605	300.0	303.3	
125 p-Diethylbenzene	119	13.396	13.390	0.006	91	7919142	300.0	306.7	
126 n-Butylbenzene	92	13.414	13.414	0.000	93	6068254	300.0	305.5	
127 1,2-Dichlorobenzene	146	13.450	13.444	0.006	98	6741105	300.0	313.3	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	6344399	300.0	311.0	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	90	1131607	300.0	306.3	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	5365393	300.0	300.9	
132 1,2,4-Trichlorobenzene	180	14.545	14.539	0.006	95	4986575	300.0	300.7	
133 Hexachlorobutadiene	225	14.625	14.625	-0.001	98	2369965	300.0	297.5	
134 Naphthalene	128	14.722	14.722	0.000	98	12586448	300.0	250.9	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	97	4781779	300.0	304.7	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	90	9243129	300.0	292.9	
S 166 Total Diethylbenzene	1				0			921.0	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	30.00	Units: uL	
MSV_V_EE_00004	Amount Added:	15.00	Units: uL	
MSV_DCFM_00024	Amount Added:	7.50	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	15.00	Units: uL	
MSV_V_VOA1_00106	Amount Added:	15.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	6.00	Units: uL	
MSV_V_VOA6_00059	Amount Added:	15.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	7.50	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:49:10 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I31.D

Injection Date: 02-Nov-2020 23:57:30 Instrument ID: 9355 Operator ID: mec29284

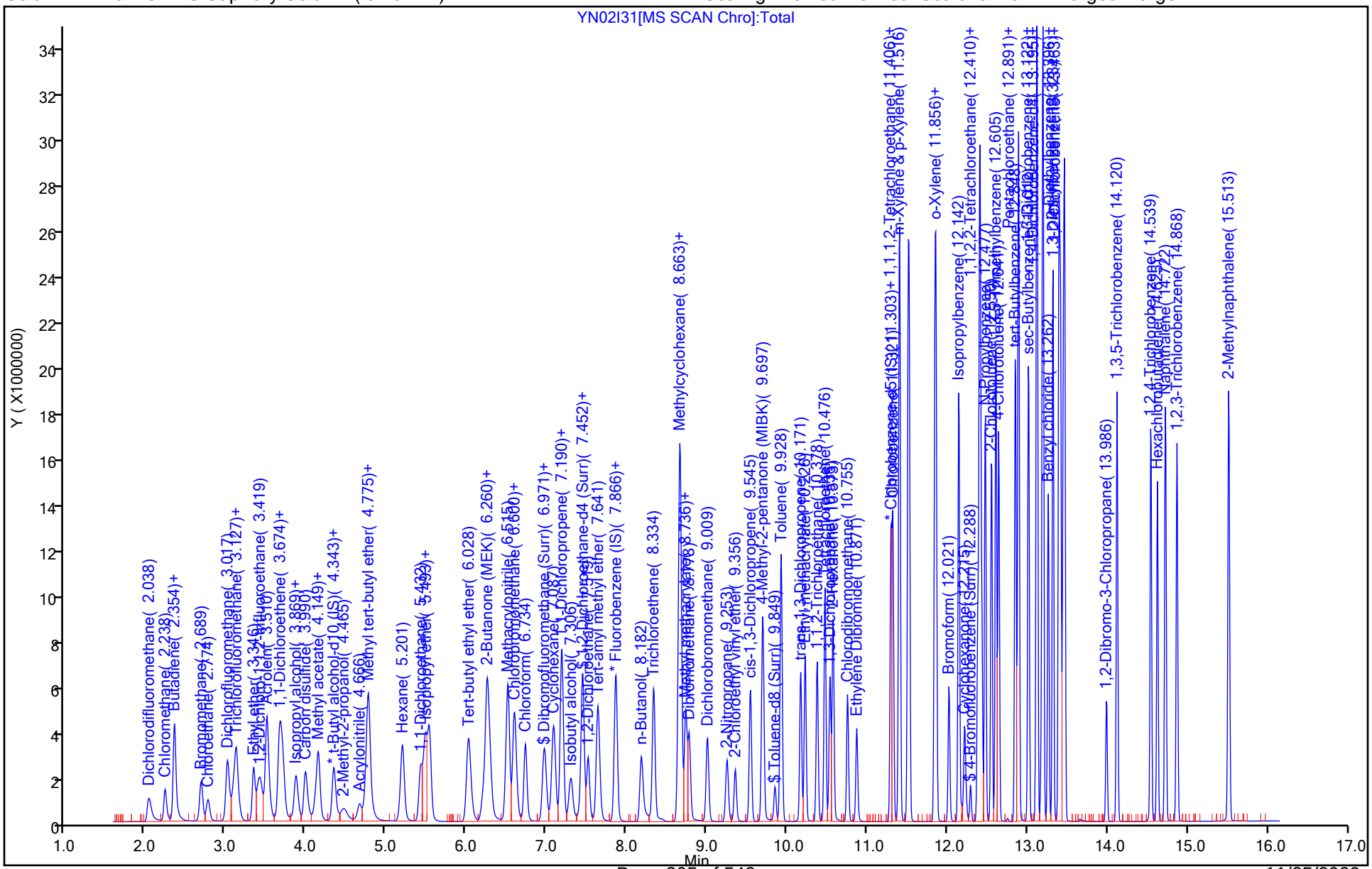
Lims ID: IC level7 300 Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

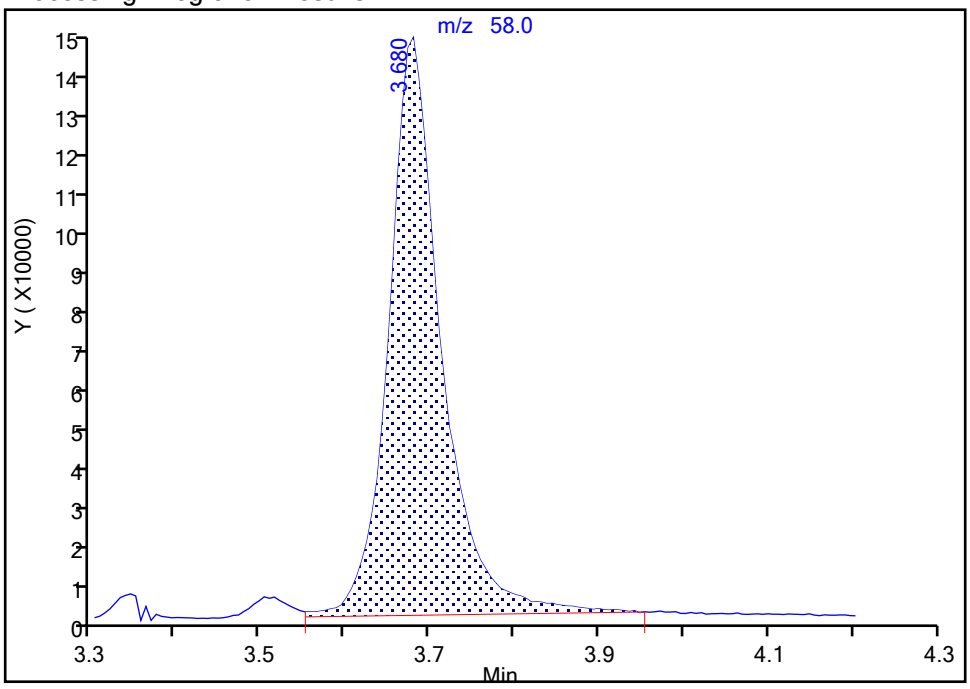
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I31.D
Injection Date: 02-Nov-2020 23:57:30 Instrument ID: 9355
Lims ID: IC level7 300
Client ID:
Operator ID: mec29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

18 Acetone, CAS: 67-64-1

Signal: 1

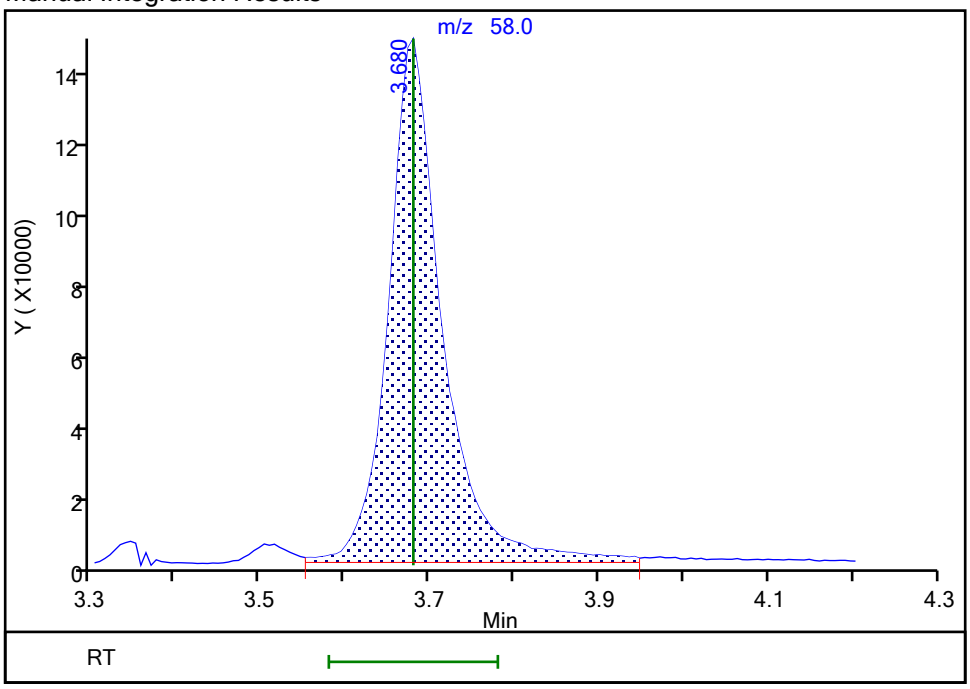
Processing Integration Results

RT: 3.68
Area: 635201
Amount: 625.1692
Amount Units: ug/l



Manual Integration Results

RT: 3.68
Area: 652232
Amount: 630.8459
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:44:55
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

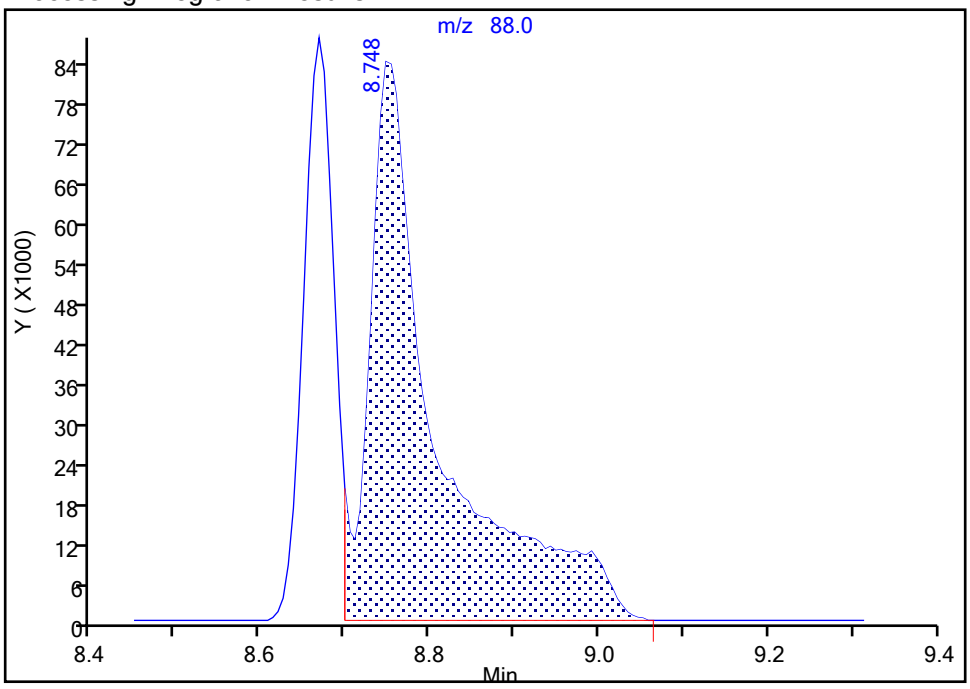
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I31.D
Injection Date: 02-Nov-2020 23:57:30 Instrument ID: 9355
Lims ID: IC level7 300
Client ID:
Operator ID: mec29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

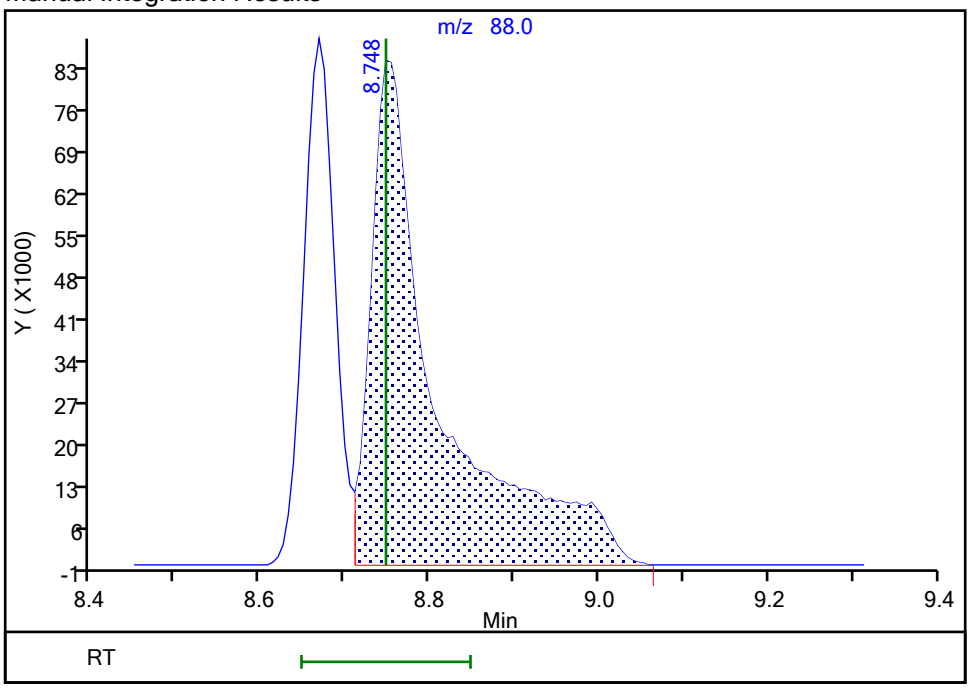
Processing Integration Results

RT: 8.75
Area: 477272
Amount: 4508.0492
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 466531
Amount: 3985.4671
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:45:26
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I32.D
Lims ID: IC std6 100
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 03-Nov-2020 00:19:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-004
Misc. Info.: IC STD6 100
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:49:21 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:48:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.038	0.012	99	928634	100.0	102.9	
4 Chloromethane	50	2.250	2.244	0.006	99	770688	100.0	96.2	
5 Butadiene	39	2.366	2.360	0.006	90	630156	100.0	91.2	
6 Vinyl chloride	62	2.372	2.366	0.006	98	801862	100.0	98.4	
8 Bromomethane	94	2.707	2.695	0.012	90	691130	100.0	98.2	
9 Chloroethane	64	2.786	2.780	0.006	99	517809	100.0	99.9	
10 Dichlorofluoromethane	67	3.029	3.017	0.012	97	1122094	100.0	96.5	
11 Trichlorofluoromethane	101	3.108	3.102	0.006	98	1387369	100.0	99.0	
12 Pentane	43	3.145	3.139	0.006	96	1019524	100.0	104.0	
14 Ethyl ether	59	3.358	3.352	0.006	87	636889	100.0	98.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.431	3.425	0.006	86	766371	100.0	97.8	
16 Acrolein	56	3.522	3.516	0.006	99	2523450	1000.0	985.6	
17 1,1-Dichloroethene	96	3.674	3.668	0.006	98	594789	100.0	101.8	
18 Acetone	58	3.692	3.680	0.012	100	217087	200.0	197.2	
19 112TCTFE	101	3.710	3.711	-0.001	91	672044	100.0	107.9	
20 Isopropyl alcohol	45	3.856	3.857	-0.001	100	356315	500.0	483.7	
21 Iodomethane	142	3.881	3.875	0.006	99	1236287	100.0	102.7	
22 Carbon disulfide	76	4.002	3.997	0.005	99	1933293	100.0	103.6	
24 Methyl acetate	43	4.130	4.118	0.012	97	829617	100.0	94.9	
25 3-Chloro-1-propene	41	4.167	4.161	0.006	90	930362	100.0	97.7	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.337	0.012	0	338437	250.0	250.0	
27 Methylene Chloride	84	4.355	4.349	0.006	91	658129	100.0	101.6	
28 2-Methyl-2-propanol	59	4.471	4.465	0.006	99	765742	500.0	478.4	
30 Acrylonitrile	53	4.678	4.672	0.006	98	431691	100.0	101.1	
31 Methyl tert-butyl ether	73	4.775	4.769	0.006	95	2284335	100.0	100.4	
32 trans-1,2-Dichloroethene	96	4.787	4.781	0.006	99	681420	100.0	100.8	
33 Hexane	57	5.213	5.207	0.006	93	1013342	100.0	105.3	
35 1,1-Dichloroethane	63	5.438	5.432	0.006	96	1146008	100.0	101.5	
36 Isopropyl ether	45	5.493	5.487	0.006	94	2032833	100.0	100.5	
37 2-Chloro-1,3-butadiene	53	5.548	5.542	0.006	91	1046628	100.0	105.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.028	6.022	0.006	96	2099773	100.0	99.9	
S 39 1,2-Dichloroethene, Total	100				0			201.8	
40 2-Butanone (MEK)	43	6.223	6.211	0.012	99	1198821	200.0	194.9	
41 cis-1,2-Dichloroethene	96	6.259	6.254	0.005	82	784451	100.0	101.0	
43 2,2-Dichloropropane	77	6.278	6.272	0.006	88	1087324	100.0	103.5	
44 Propionitrile	54	6.290	6.284	0.006	99	866720	500.0	493.1	
45 Methacrylonitrile	67	6.515	6.509	0.006	90	1222510	250.0	248.9	
46 Chlorobromomethane	128	6.600	6.594	0.006	89	436463	100.0	100.5	
47 Tetrahydrofuran	71	6.618	6.612	0.006	90	361661	200.0	199.6	
48 Chloroform	83	6.740	6.734	0.006	93	1221477	100.0	101.4	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.953	0.006	93	307372	50.0	50.1	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	98	1138235	100.0	103.0	
51 Cyclohexane	56	7.093	7.087	0.006	89	1146250	100.0	105.8	
52 1,1-Dichloropropene	75	7.190	7.184	0.006	96	984343	100.0	104.1	
53 Carbon tetrachloride	117	7.196	7.196	0.000	97	1074042	100.0	106.8	
54 Isobutyl alcohol	41	7.300	7.300	0.000	94	613829	1250.0	1222.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	72917	50.0	49.6	
56 Benzene	78	7.452	7.452	0.000	96	2740956	100.0	100.7	
58 1,2-Dichloroethane	62	7.525	7.519	0.006	98	1033886	100.0	97.0	M
59 Tert-amyl methyl ether	73	7.640	7.634	0.006	98	2186969	100.0	100.2	
* 61 Fluorobenzene (IS)	96	7.853	7.847	0.006	99	1218678	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	94	1140046	100.0	104.6	
63 n-Butanol	56	8.182	8.176	0.006	88	1194558	2500.0	2452.5	
64 Trichloroethene	95	8.340	8.334	0.006	97	773114	100.0	101.7	
65 Methylcyclohexane	83	8.656	8.650	0.006	93	1342954	100.0	104.7	
66 1,2-Dichloropropane	63	8.669	8.663	0.006	72	724214	100.0	102.3	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	95	1207814	100.0	103.8	
68 Methyl methacrylate	69	8.735	8.730	0.005	88	792492	100.0	101.3	
69 1,4-Dioxane	88	8.754	8.748	0.006	89	163533	1250.0	1312.1	
70 Dibromomethane	93	8.778	8.778	0.000	95	538495	100.0	102.7	
72 Dichlorobromomethane	83	9.009	9.003	0.006	99	975117	100.0	106.0	
73 2-Nitropropane	41	9.253	9.247	0.006	99	778289	200.0	207.3	
74 2-Chloroethyl vinyl ether	63	9.356	9.350	0.006	93	372414	100.0	102.7	
75 cis-1,3-Dichloropropene	75	9.545	9.539	0.006	96	1241063	100.0	104.7	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	2428744	200.0	203.1	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1196355	50.0	49.1	
78 Toluene	92	9.928	9.922	0.006	98	1875877	100.0	101.2	
S 80 1,3-Dichloropropene, Total	100				0			209.3	
81 trans-1,3-Dichloropropene	75	10.171	10.165	0.006	93	1208848	100.0	104.6	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	1285396	100.0	103.5	
83 1,1,2-Trichloroethane	97	10.378	10.372	0.006	91	740128	100.0	99.9	
84 Tetrachloroethene	166	10.475	10.476	-0.001	97	937789	100.0	98.9	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	91	1240840	100.0	99.9	
87 2-Hexanone	43	10.573	10.573	0.000	96	1966273	200.0	201.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	913254	100.0	108.1	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	873139	100.0	101.8	
S 91 Xylenes, Total	106				0			316.1	
* 93 Chlorobenzene-d5 (IS)	117	11.297	11.291	0.006	85	1001782	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	95	1109461	100.0	100.4	
94 Chlorobenzene	112	11.321	11.321	0.000	97	2305341	100.0	101.4	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	895498	100.0	108.4	
96 Ethylbenzene	91	11.406	11.400	0.006	97	3780946	100.0	104.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	3192979	200.0	210.8	
98 o-Xylene	106	11.844	11.844	0.000	95	1570132	100.0	105.3	
99 Styrene	104	11.856	11.856	0.000	95	2650778	100.0	108.0	
100 Bromoform	173	12.021	12.021	0.000	97	781097	100.0	112.6	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	3908841	100.0	105.0	
103 Cyclohexanone	55	12.215	12.215	0.000	92	731668	1249.9	1289.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	460384	50.0	49.3	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	1242271	100.0	100.1	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	81	1110421	250.0	256.9	
107 Bromobenzene	156	12.410	12.404	0.006	94	1209441	100.0	106.2	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	441648	100.0	98.9	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	4413442	100.0	102.8	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	1017625	100.0	102.6	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	3450914	100.0	104.8	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	1073924	100.0	102.4	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	800786	100.0	104.5	
115 Pentachloroethane	167	12.884	12.885	-0.001	90	707780	100.0	114.6	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	3702985	100.0	107.5	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	4461383	100.0	106.0	
119 4-Isopropyltoluene	119	13.122	13.116	0.006	96	4239680	100.0	110.2	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	2240049	100.0	106.8	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.171	-0.001	94	571251	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	2292873	100.0	105.3	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	3663126	100.0	105.1	
123 Benzyl chloride	91	13.262	13.262	0.000	98	2898415	100.0	108.8	
124 1,3-Diethylbenzene	119	13.316	13.317	-0.001	95	2401784	100.0	103.7	
125 p-Diethylbenzene	119	13.395	13.390	0.005	94	2572099	100.0	105.0	
126 n-Butylbenzene	92	13.414	13.414	0.000	96	1999562	100.0	106.1	
127 1,2-Dichlorobenzene	146	13.450	13.444	0.006	99	2125092	100.0	104.1	
128 o-diethylbenzene	119	13.462	13.463	-0.001	94	2018152	100.0	104.2	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	363441	100.0	103.7	
131 1,3,5-Trichlorobenzene	180	14.119	14.120	-0.001	98	1750410	100.0	103.4	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	1612300	100.0	102.5	
133 Hexachlorobutadiene	225	14.624	14.625	-0.001	98	788753	100.0	104.3	
134 Naphthalene	128	14.722	14.722	0.000	97	4900055	100.0	102.9	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	1518771	100.0	102.0	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	3104649	100.0	103.7	
S 166 Total Diethylbenzene	1				0			312.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_DCFM_00024	Amount Added:	2.50	Units: uL	
MSV_V_VOA1_00106	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00059	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:49:22 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I32.D

Injection Date: 03-Nov-2020 00:19:30 Instrument ID: 9355 Operator ID: mec29284

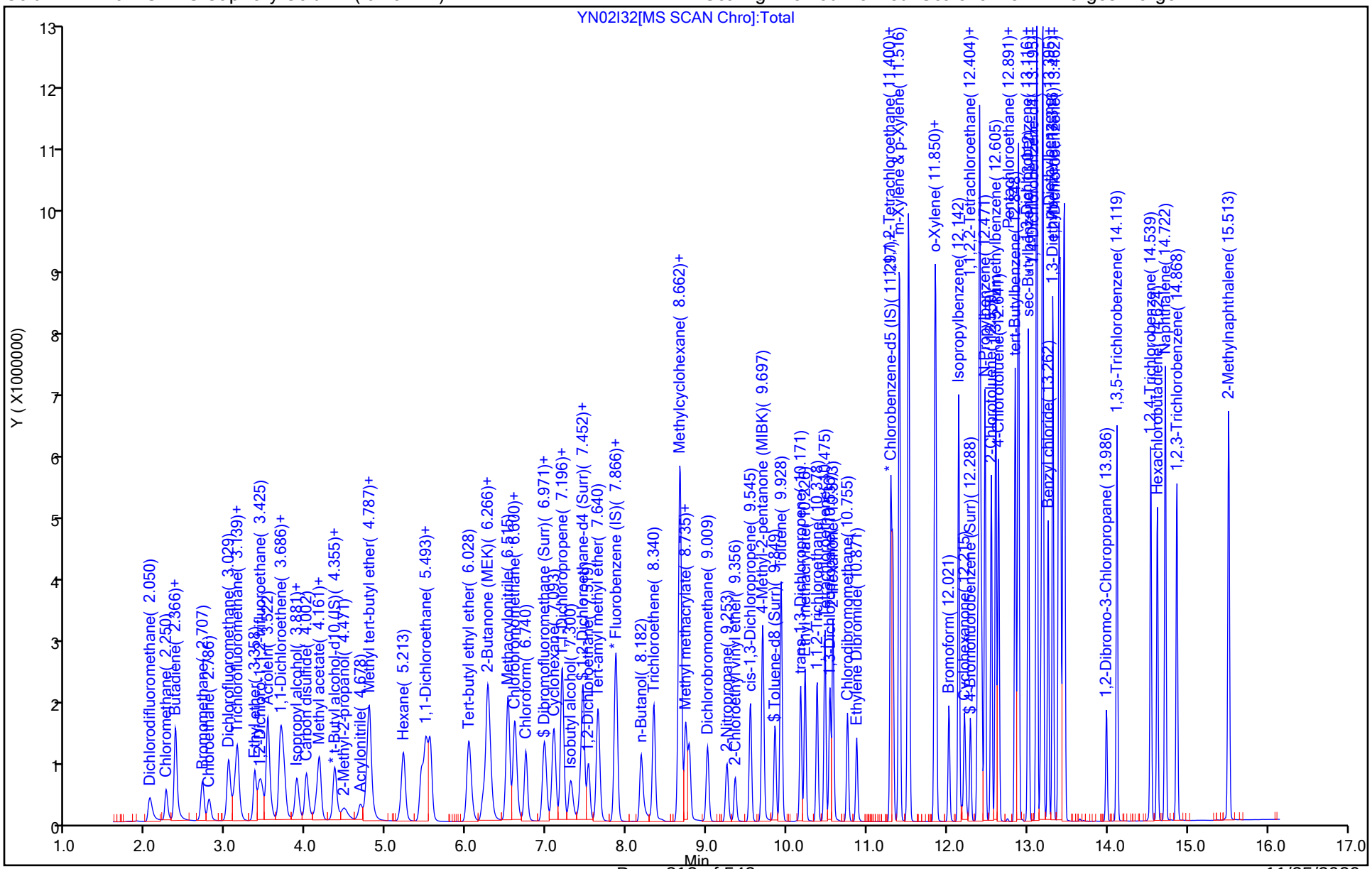
Lims ID: IC std6 100 Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

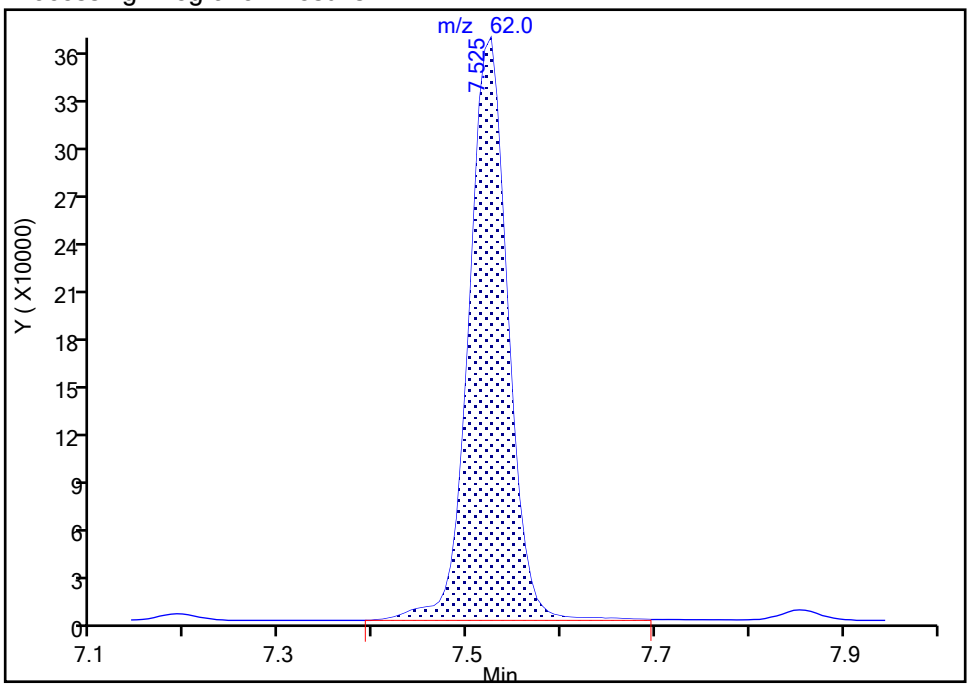
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I32.D
Injection Date: 03-Nov-2020 00:19:30 Instrument ID: 9355
Lims ID: IC std6 100
Client ID:
Operator ID: mec29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

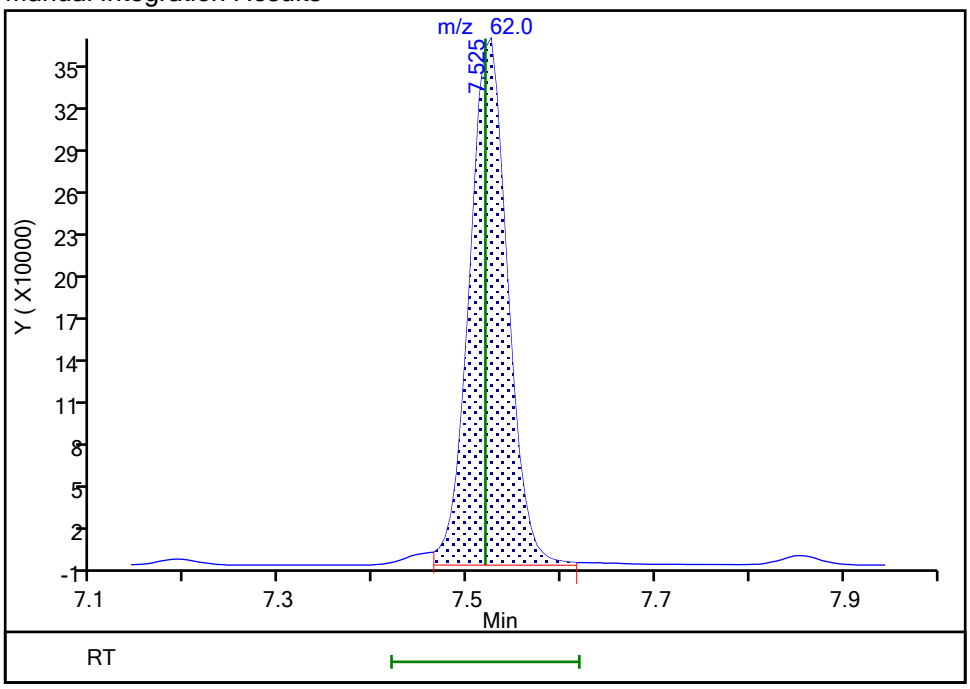
Processing Integration Results

RT: 7.52
Area: 1054273
Amount: 98.414253
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 1033886
Amount: 97.044486
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:48:01
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D
Lims ID: ICIS std5 50
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 03-Nov-2020 00:41:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-005
Misc. Info.: ICIS
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:49:32 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:43:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.038	2.038	0.000	99	484158	50.0	54.2	
4 Chloromethane	50	2.244	2.244	0.000	99	398550	50.0	50.2	
5 Butadiene	39	2.360	2.360	0.000	91	324095	50.0	47.3	
6 Vinyl chloride	62	2.366	2.366	0.000	98	416537	50.0	51.6	
8 Bromomethane	94	2.695	2.695	0.000	90	350980	50.0	50.3	
9 Chloroethane	64	2.780	2.780	0.000	99	259958	50.0	50.6	
10 Dichlorofluoromethane	67	3.017	3.017	0.000	97	574126	50.0	49.9	
11 Trichlorofluoromethane	101	3.102	3.102	0.000	98	730202	50.0	52.6	M
12 Pentane	43	3.139	3.139	0.000	97	525722	50.0	54.1	
14 Ethyl ether	59	3.352	3.352	0.000	87	320870	50.0	50.1	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.425	3.425	0.000	88	396076	50.0	51.0	
16 Acrolein	56	3.516	3.516	0.000	99	1328395	500.0	496.3	
17 1,1-Dichloroethene	96	3.668	3.668	0.000	98	303691	50.0	52.5	
18 Acetone	58	3.680	3.680	0.000	100	118458	100.0	102.9	M
19 112TCTFE	101	3.711	3.711	0.000	90	345024	50.0	56.0	
20 Isopropyl alcohol	45	3.857	3.857	0.000	96	188469	250.0	244.7	
21 Iodomethane	142	3.875	3.875	0.000	99	624536	50.0	52.4	
22 Carbon disulfide	76	3.997	3.997	0.000	99	977939	50.0	52.9	
24 Methyl acetate	43	4.118	4.118	0.000	97	419092	50.0	48.4	
25 3-Chloro-1-propene	41	4.161	4.161	0.000	90	465308	50.0	49.4	
* 26 t-Butyl alcohol-d10 (IS)	65	4.337	4.337	0.000	0	353803	250.0	250.0	
27 Methylene Chloride	84	4.349	4.349	0.000	91	335131	50.0	52.2	
28 2-Methyl-2-propanol	59	4.465	4.465	0.000	99	418990	250.0	250.4	
30 Acrylonitrile	53	4.672	4.672	0.000	98	228484	50.0	54.0	
31 Methyl tert-butyl ether	73	4.769	4.769	0.000	95	1155294	50.0	51.3	
32 trans-1,2-Dichloroethene	96	4.781	4.781	0.000	99	345117	50.0	51.6	
33 Hexane	57	5.207	5.207	0.000	93	516871	50.0	54.2	
35 1,1-Dichloroethane	63	5.432	5.432	0.000	96	585670	50.0	52.4	
36 Isopropyl ether	45	5.487	5.487	0.000	92	1031676	50.0	51.5	
37 2-Chloro-1,3-butadiene	53	5.542	5.542	0.000	92	528617	50.0	53.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.022	6.022	0.000	96	1071573	50.0	51.5	
40 2-Butanone (MEK)	43	6.211	6.211	0.000	99	634232	100.0	104.1	
41 cis-1,2-Dichloroethene	96	6.254	6.254	0.000	82	393444	50.0	51.1	
43 2,2-Dichloropropane	77	6.272	6.272	0.000	90	547227	50.0	52.6	
44 Propionitrile	54	6.284	6.284	0.000	99	456284	250.0	248.3	
45 Methacrylonitrile	67	6.509	6.509	0.000	90	625858	125.0	128.7	
46 Chlorobromomethane	128	6.594	6.594	0.000	89	216132	50.0	50.2	
47 Tetrahydrofuran	71	6.612	6.612	0.000	91	188096	100.0	99.3	
48 Chloroform	83	6.734	6.734	0.000	93	617353	50.0	51.8	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.953	0.000	93	305711	50.0	50.3	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	98	577352	50.0	52.8	
51 Cyclohexane	56	7.087	7.087	0.000	89	590253	50.0	55.0	
52 1,1-Dichloropropene	75	7.184	7.184	0.000	96	493924	50.0	52.7	
53 Carbon tetrachloride	117	7.196	7.196	0.000	97	537277	50.0	53.9	
54 Isobutyl alcohol	41	7.300	7.300	0.000	93	318869	625.0	607.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	73883	50.0	50.7	
56 Benzene	78	7.452	7.452	0.000	96	1396713	50.0	51.8	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	523817	50.0	49.6	M
59 Tert-amyl methyl ether	73	7.634	7.634	0.000	98	1118519	50.0	51.7	
* 61 Fluorobenzene (IS)	96	7.847	7.847	0.000	99	1206879	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	91	573201	50.0	53.1	
63 n-Butanol	56	8.176	8.176	0.000	89	634688	1250.0	1246.4	
64 Trichloroethene	95	8.334	8.334	0.000	97	391181	50.0	52.0	
65 Methylcyclohexane	83	8.650	8.650	0.000	94	666676	50.0	52.5	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	71	365136	50.0	52.1	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	93	596548	50.0	51.8	
68 Methyl methacrylate	69	8.730	8.730	0.000	89	409047	50.0	52.8	
69 1,4-Dioxane	88	8.748	8.748	0.000	86	80873	625.0	620.7	M
70 Dibromomethane	93	8.778	8.778	0.000	95	271141	50.0	52.2	
72 Dichlorobromomethane	83	9.003	9.003	0.000	99	485429	50.0	53.3	
73 2-Nitropropane	41	9.247	9.247	0.000	98	402217	100.0	102.5	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	93	184913	50.0	51.5	
75 cis-1,3-Dichloropropene	75	9.539	9.539	0.000	95	622911	50.0	53.1	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1257092	100.0	106.2	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1203367	50.0	50.5	
78 Toluene	92	9.922	9.922	0.000	98	945727	50.0	52.2	
81 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	608085	50.0	53.9	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	643253	50.0	53.0	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	374888	50.0	51.8	
84 Tetrachloroethene	166	10.476	10.476	0.000	97	478085	50.0	51.6	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	91	624741	50.0	51.5	
87 2-Hexanone	43	10.573	10.573	0.000	96	1014212	100.0	106.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	451765	50.0	54.8	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	441211	50.0	52.6	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	978645	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	95	557031	50.0	51.6	
94 Chlorobenzene	112	11.321	11.321	0.000	96	1154197	50.0	52.0	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	434291	50.0	53.8	
96 Ethylbenzene	91	11.400	11.400	0.000	98	1880604	50.0	53.0	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	1571827	100.0	106.2	
98 o-Xylene	106	11.844	11.844	0.000	95	765509	50.0	52.5	
99 Styrene	104	11.856	11.856	0.000	94	1289520	50.0	53.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Bromoform	173	12.021	12.021	0.000	97	379395	50.0	56.0	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	1942766	50.0	53.4	
103 Cyclohexanone	55	12.215	12.215	0.000	92	368063	625.0	620.3	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	464019	50.0	50.8	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	629735	50.0	51.6	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	82	573205	125.0	135.0	
107 Bromobenzene	156	12.404	12.404	0.000	94	579549	50.0	51.8	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	220837	50.0	50.3	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	2226710	50.0	52.8	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	503447	50.0	51.7	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	1705306	50.0	52.7	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	530981	50.0	51.5	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	388115	50.0	51.6	
115 Pentachloroethane	167	12.885	12.885	0.000	89	323509	50.0	53.3	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	1797301	50.0	53.1	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	2207238	50.0	53.4	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	2047038	50.0	54.2	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	1072806	50.0	52.0	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	561395	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	1112681	50.0	52.0	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	1754638	50.0	51.2	
123 Benzyl chloride	91	13.262	13.262	0.000	98	1428600	50.0	54.5	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	1160286	50.0	51.0	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	1234012	50.0	51.2	
126 n-Butylbenzene	92	13.414	13.414	0.000	96	971298	50.0	52.4	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	1028656	50.0	51.3	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	962953	50.0	50.6	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	182009	50.0	52.8	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	856014	50.0	51.5	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	789032	50.0	51.0	
133 Hexachlorobutadiene	225	14.625	14.625	0.000	98	374149	50.0	50.4	
134 Naphthalene	128	14.722	14.722	0.000	97	2462223	50.0	52.6	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	738553	50.0	50.5	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	1479313	50.0	50.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_DCFM_00024	Amount Added:	2.50	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	5.00	Units: uL	
MSV_V_VOA1_00106	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00059	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:49:34 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D

Injection Date: 03-Nov-2020 00:41:30 Instrument ID: 9355 Operator ID: mec29284

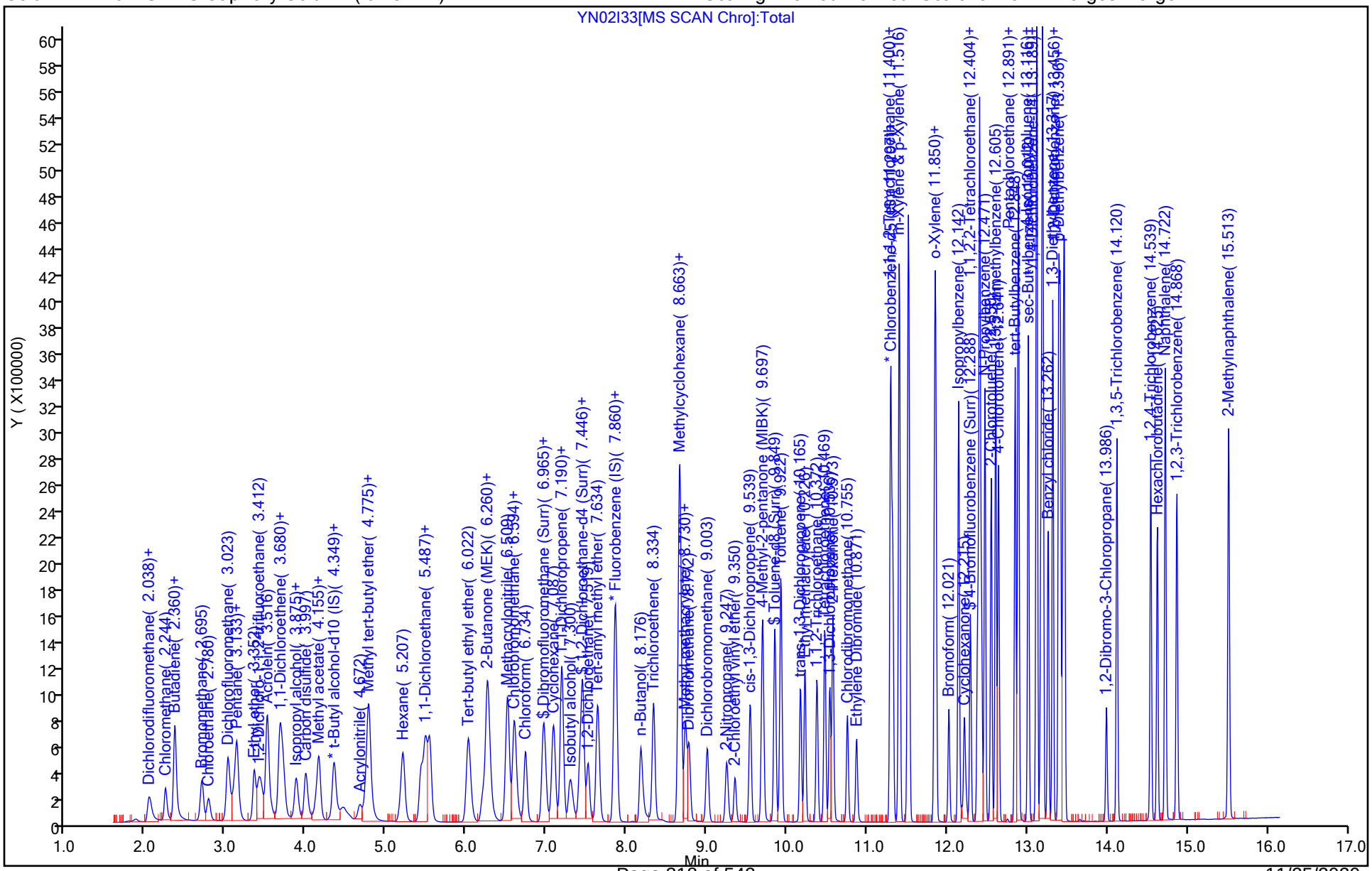
Lims ID: ICIS std5 50 Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

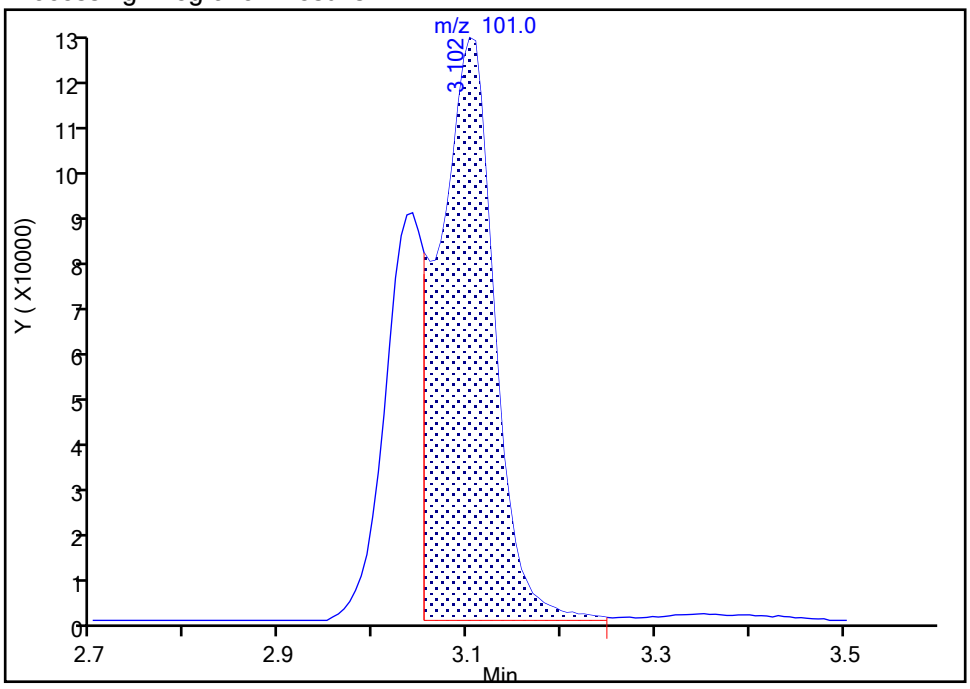
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D
Injection Date: 03-Nov-2020 00:41:30 Instrument ID: 9355
Lims ID: ICIS std5 50
Client ID:
Operator ID: mec29284 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

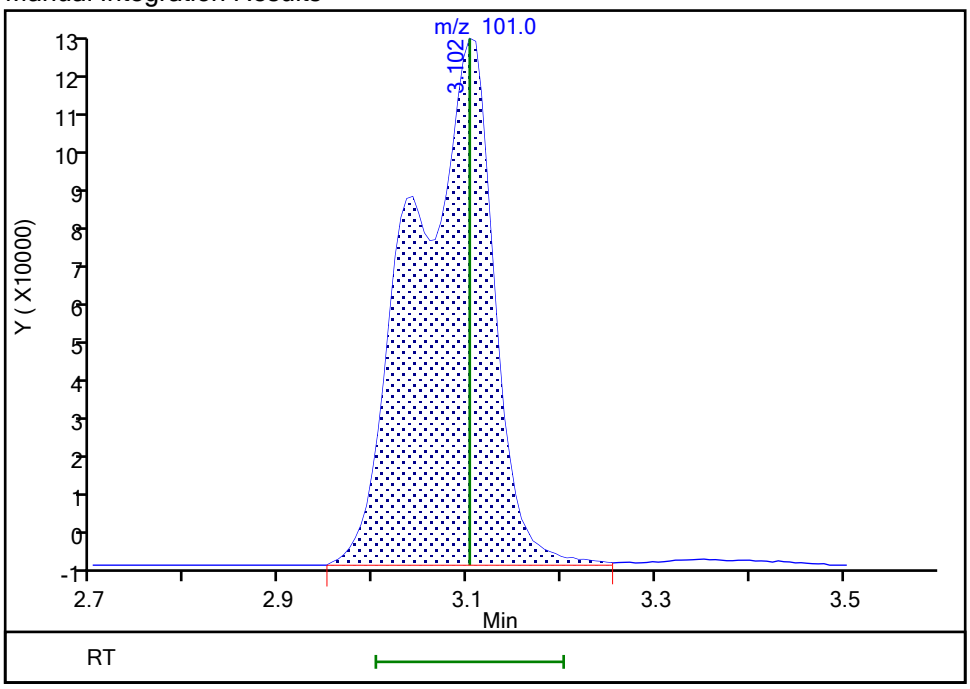
Processing Integration Results

RT: 3.10
Area: 512570
Amount: 41.660149
Amount Units: ug/l



Manual Integration Results

RT: 3.10
Area: 730202
Amount: 52.633870
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:33:30
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

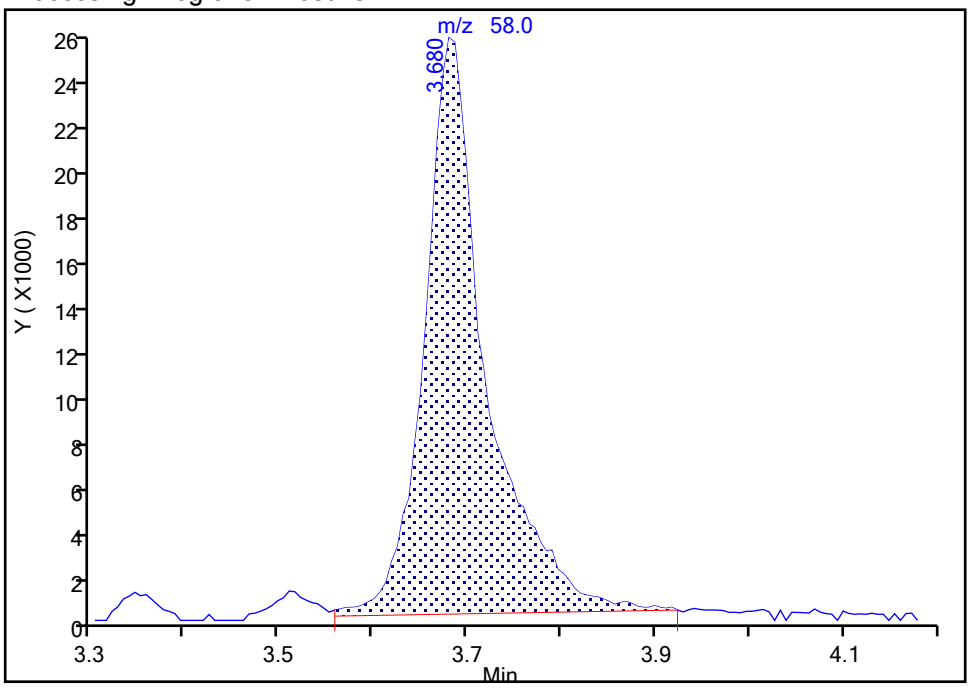
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D
Injection Date: 03-Nov-2020 00:41:30 Instrument ID: 9355
Lims ID: ICIS std5 50
Client ID:
Operator ID: mec29284 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

18 Acetone, CAS: 67-64-1

Signal: 1

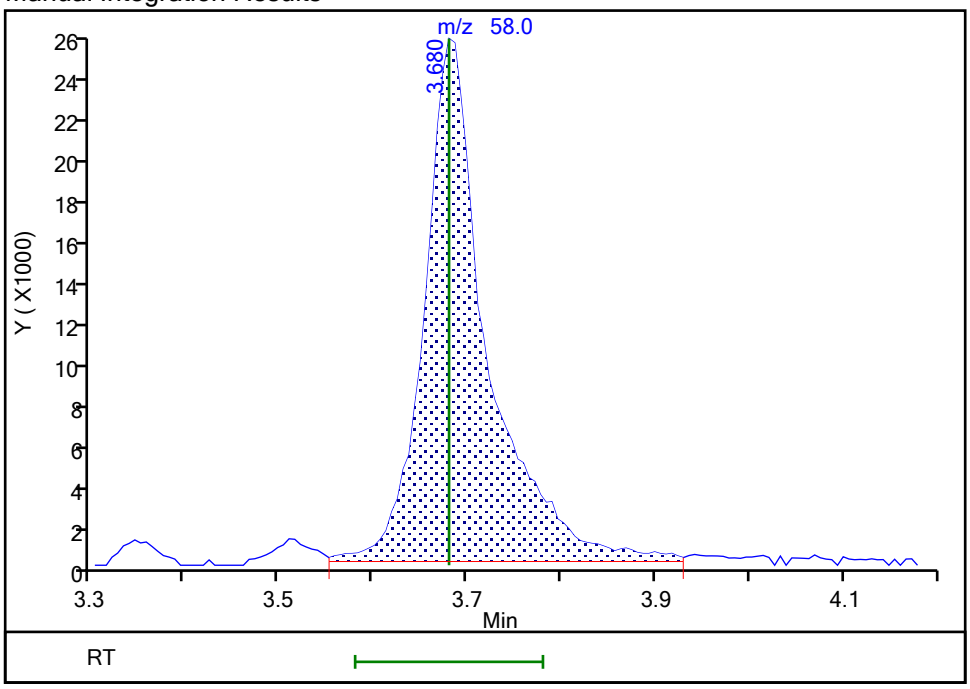
Processing Integration Results

RT: 3.68
Area: 115262
Amount: 102.3305
Amount Units: ug/l



Manual Integration Results

RT: 3.68
Area: 118458
Amount: 102.9346
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:35:43
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

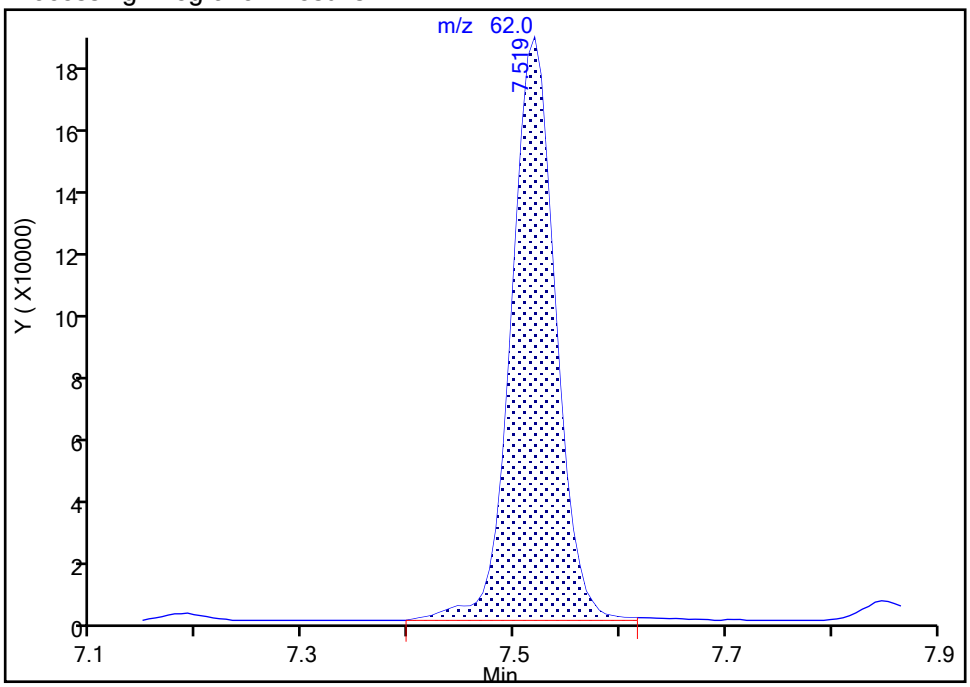
Data File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D				
Injection Date:	03-Nov-2020 00:41:30	Instrument ID:	9355		
Lims ID:	ICIS std5 50				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

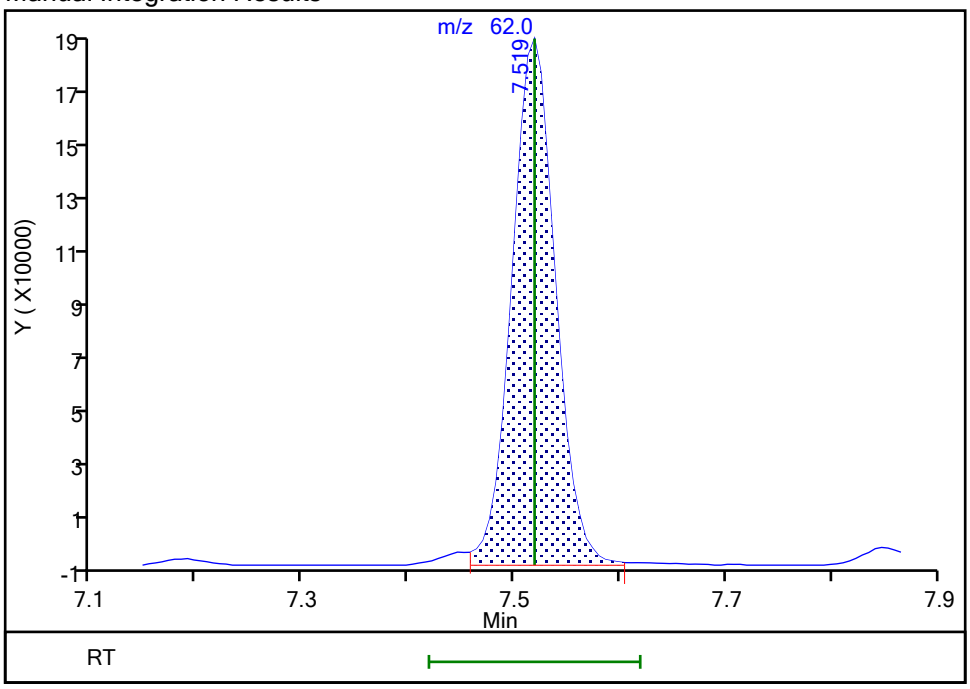
Processing Integration Results

RT: 7.52
Area: 532084
Amount: 50.043134
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 523817
Amount: 49.648146
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:36:27
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

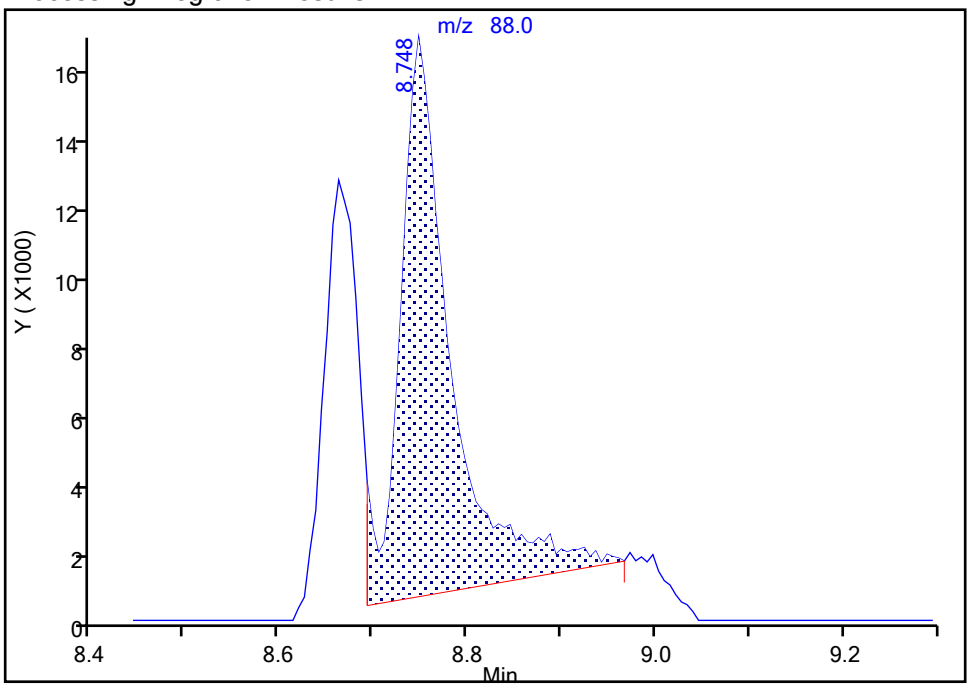
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I33.D
Injection Date: 03-Nov-2020 00:41:30 Instrument ID: 9355
Lims ID: ICIS std5 50
Client ID:
Operator ID: mec29284 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

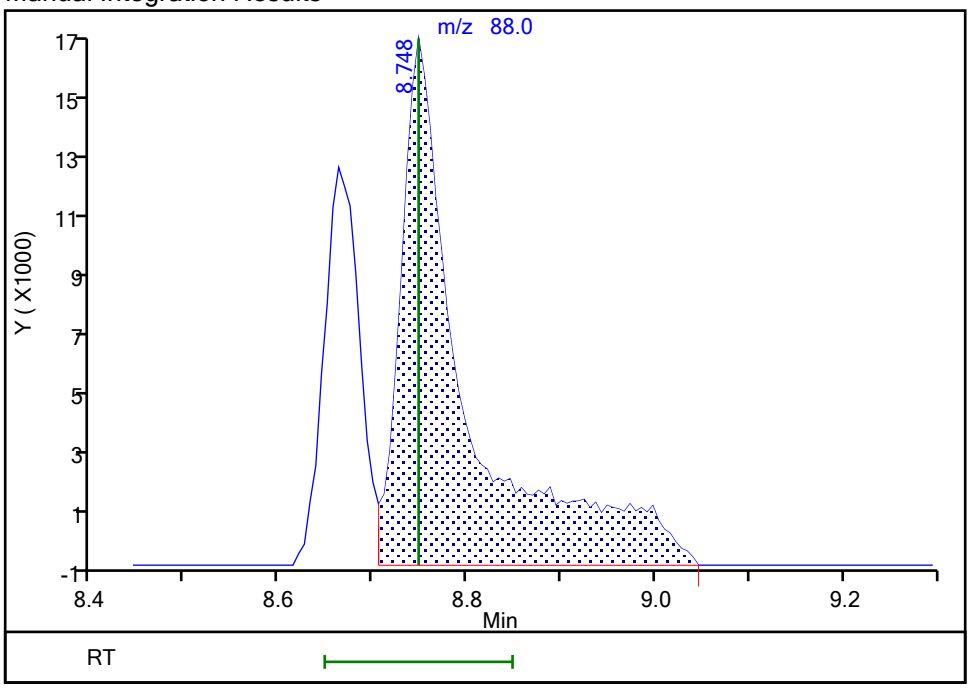
Processing Integration Results

RT: 8.75
Area: 60290
Amount: 532.8904
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 80873
Amount: 620.6947
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:40:34
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I34.D
Lims ID: IC std4 20
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 03-Nov-2020 01:03:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-006
Misc. Info.: ic std4 20
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:49:44 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:50:08

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	99	177479	20.0	20.4	
4 Chloromethane	50	2.250	2.250	0.000	99	156818	20.0	20.4	
5 Butadiene	39	2.366	2.366	0.000	90	125840	20.0	18.9	
6 Vinyl chloride	62	2.378	2.378	0.000	97	161233	20.0	20.6	
8 Bromomethane	94	2.707	2.707	0.000	90	137536	20.0	20.3	
9 Chloroethane	64	2.786	2.786	0.000	99	102029	20.0	20.5	
10 Dichlorofluoromethane	67	3.029	3.029	0.000	97	229317	20.0	20.5	
11 Trichlorofluoromethane	101	3.108	3.108	0.000	98	272494	20.0	20.2	M
12 Pentane	43	3.145	3.145	0.000	96	191334	20.0	20.3	
14 Ethyl ether	59	3.358	3.358	0.000	87	128128	20.0	20.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.425	3.425	0.000	86	151785	20.0	20.1	
16 Acrolein	56	3.522	3.522	0.000	99	470849	200.0	187.6	
17 1,1-Dichloroethene	96	3.680	3.680	0.000	99	114266	20.0	20.3	
18 Acetone	58	3.698	3.698	0.000	99	42655	40.0	39.5	
19 112TCTFE	101	3.717	3.717	0.000	90	126083	20.0	21.1	
20 Isopropyl alcohol	45	3.863	3.863	0.000	99	137653	200.0	190.6	
21 Iodomethane	142	3.881	3.881	0.000	99	241176	20.0	20.8	
22 Carbon disulfide	76	4.003	4.003	0.000	99	374863	20.0	20.9	
24 Methyl acetate	43	4.130	4.130	0.000	98	157749	20.0	18.8	
25 3-Chloro-1-propene	41	4.167	4.167	0.000	90	184538	20.0	20.2	
* 26 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	331688	250.0	250.0	M
27 Methylene Chloride	84	4.355	4.355	0.000	92	129793	20.0	20.8	
28 2-Methyl-2-propanol	59	4.477	4.477	0.000	99	308174	200.0	196.4	
30 Acrylonitrile	53	4.678	4.678	0.000	99	82434	20.0	20.1	
31 Methyl tert-butyl ether	73	4.775	4.775	0.000	95	446196	20.0	20.4	
32 trans-1,2-Dichloroethene	96	4.793	4.793	0.000	99	134114	20.0	20.6	
33 Hexane	57	5.213	5.213	0.000	94	195508	20.0	21.1	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	228263	20.0	21.0	
36 Isopropyl ether	45	5.493	5.493	0.000	92	403813	20.0	20.8	
37 2-Chloro-1,3-butadiene	53	5.548	5.548	0.000	92	200394	20.0	20.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.028	6.028	0.000	97	417473	20.0	20.7	
S 39 1,2-Dichloroethene, Total	100				0			41.2	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	99	225165	40.0	38.1	
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	82	153823	20.0	20.6	
43 2,2-Dichloropropane	77	6.278	6.278	0.000	83	209627	20.0	20.8	
44 Propionitrile	54	6.290	6.290	0.000	99	324398	200.0	188.3	
45 Methacrylonitrile	67	6.515	6.515	0.000	91	473737	100.0	100.3	
46 Chlorobromomethane	128	6.600	6.600	0.000	90	84646	20.0	20.3	
47 Tetrahydrofuran	71	6.612	6.612	0.000	90	67408	40.0	38.0	
48 Chloroform	83	6.740	6.740	0.000	93	240224	20.0	20.7	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	297558	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	98	222233	20.0	20.9	
51 Cyclohexane	56	7.093	7.093	0.000	90	219960	20.0	21.1	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	95	190173	20.0	20.9	
53 Carbon tetrachloride	117	7.203	7.203	0.000	97	201399	20.0	20.8	
54 Isobutyl alcohol	41	7.300	7.300	0.000	94	240408	500.0	488.6	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.422	0.000	0	71316	50.0	50.4	
56 Benzene	78	7.452	7.452	0.000	97	543448	20.0	20.8	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	206658	20.0	20.2	M
59 Tert-amyl methyl ether	73	7.641	7.641	0.000	98	434746	20.0	20.7	
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1171996	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	91	218914	20.0	20.9	
63 n-Butanol	56	8.176	8.176	0.000	89	487930	1000.0	1022.1	
64 Trichloroethene	95	8.334	8.334	0.000	97	151927	20.0	20.8	
65 Methylcyclohexane	83	8.657	8.657	0.000	94	248014	20.0	20.1	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	71	140593	20.0	20.6	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	93	227041	20.0	20.3	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	154888	20.0	20.6	
69 1,4-Dioxane	88	8.748	8.748	0.000	89	65637	500.0	537.3	
70 Dibromomethane	93	8.778	8.778	0.000	94	103310	20.0	20.5	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	184382	20.0	20.8	
73 2-Nitropropane	41	9.247	9.247	0.000	99	142187	40.0	38.7	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	93	70705	20.0	20.3	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	95	237504	20.0	20.8	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	462970	40.0	40.3	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1171076	50.0	51.1	
78 Toluene	92	9.928	9.928	0.000	98	363544	20.0	20.9	
S 80 1,3-Dichloropropene, Total	100				0			41.6	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	93	225651	20.0	20.8	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	242301	20.0	20.8	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	143640	20.0	20.6	
84 Tetrachloroethene	166	10.475	10.475	0.000	97	181211	20.0	20.3	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	91	241634	20.0	20.7	
87 2-Hexanone	43	10.573	10.573	0.000	97	373316	40.0	40.7	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	165173	20.0	20.8	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	167939	20.0	20.8	
S 91 Xylenes, Total	106				0			62.6	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	941203	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	94	210688	20.0	20.3	
94 Chlorobenzene	112	11.321	11.321	0.000	96	441282	20.0	20.7	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	94	162046	20.0	20.9	
96 Ethylbenzene	91	11.400	11.400	0.000	98	717868	20.0	21.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	594809	40.0	41.8	
98 o-Xylene	106	11.844	11.844	0.000	96	292247	20.0	20.9	
99 Styrene	104	11.856	11.856	0.000	95	483379	20.0	21.0	
100 Bromoform	173	12.021	12.021	0.000	97	134674	20.0	20.7	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	746073	20.0	21.3	
103 Cyclohexanone	55	12.215	12.215	0.000	93	287614	500.0	517.1	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	451477	50.0	51.4	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	240213	20.0	20.5	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	90	430593	100.0	105.7	
107 Bromobenzene	156	12.410	12.410	0.000	77	219978	20.0	20.5	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	83978	20.0	20.0	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	865561	20.0	21.4	
110 2-Chlorotoluene	126	12.550	12.550	0.000	97	192775	20.0	20.6	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	655308	20.0	21.1	
112 4-Chlorotoluene	126	12.641	12.641	0.000	97	202869	20.0	20.5	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	149384	20.0	20.7	
115 Pentachloroethane	167	12.885	12.885	0.000	90	121044	20.0	20.8	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	97	687313	20.0	21.2	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	854326	20.0	21.5	
119 4-Isopropyltoluene	119	13.122	13.122	0.000	96	775483	20.0	21.4	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	402702	20.0	20.4	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	95	538292	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	414401	20.0	20.2	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	98	670671	20.0	20.4	
123 Benzyl chloride	91	13.262	13.262	0.000	98	523959	20.0	20.9	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	444808	20.0	20.4	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	473132	20.0	20.5	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	373027	20.0	21.0	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	390735	20.0	20.3	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	370310	20.0	20.3	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	66658	20.0	20.2	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	327669	20.0	20.5	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	303046	20.0	20.4	
133 Hexachlorobutadiene	225	14.624	14.624	0.000	98	145475	20.0	20.4	
134 Naphthalene	128	14.722	14.722	0.000	97	942594	20.0	21.0	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	286134	20.0	20.4	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	565039	20.0	20.0	
S 166 Total Diethylbenzene	1				0			61.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	16.00	Units: uL	
MSV_V_EE_00004	Amount Added:	4.00	Units: uL	
MSV_DCFM_00024	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	4.00	Units: uL	
MSV_V_VOA1_00106	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	1.60	Units: uL	
MSV_V_VOA6_00059	Amount Added:	4.00	Units: uL	
MSV_V_VOA2_00056	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	2.00	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:49:46 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I34.D

Injection Date: 03-Nov-2020 01:03:30 Instrument ID: 9355 Operator ID: mec29284

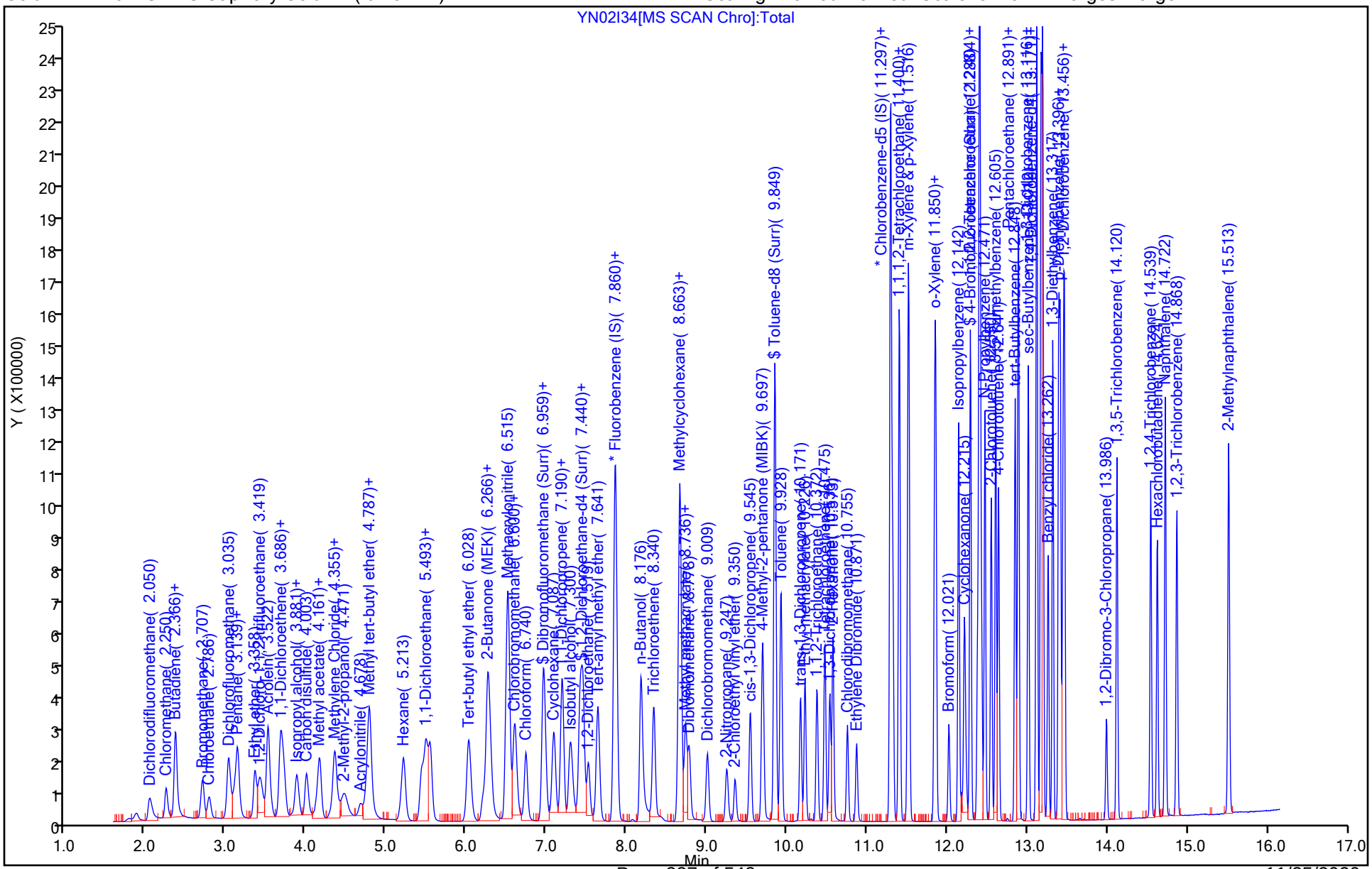
Lims ID: IC std4 20 Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

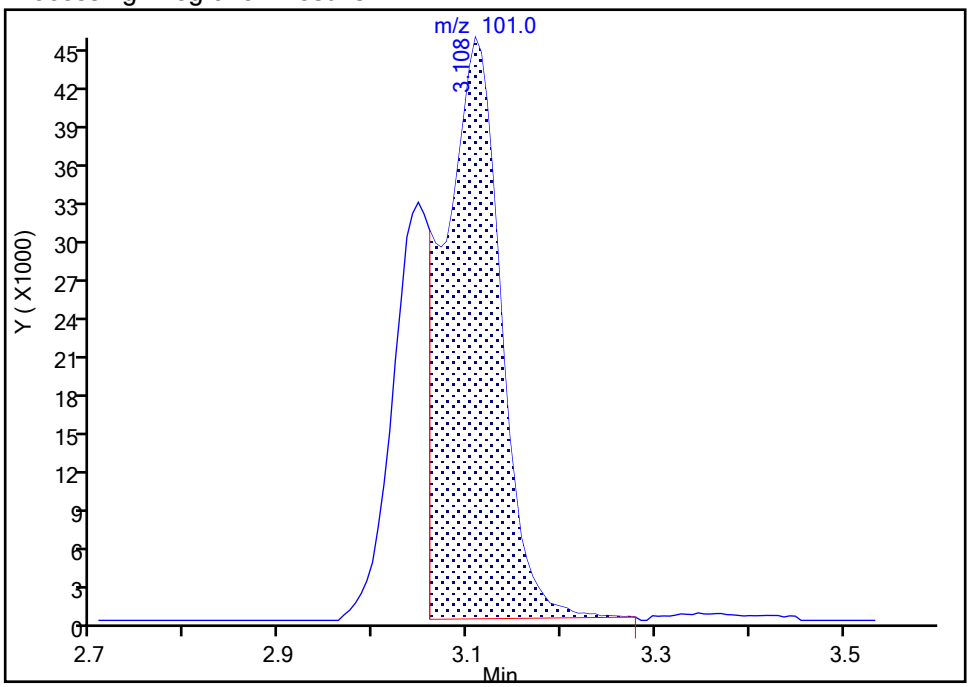
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I34.D
Injection Date: 03-Nov-2020 01:03:30 Instrument ID: 9355
Lims ID: IC std4 20
Client ID:
Operator ID: mec29284 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

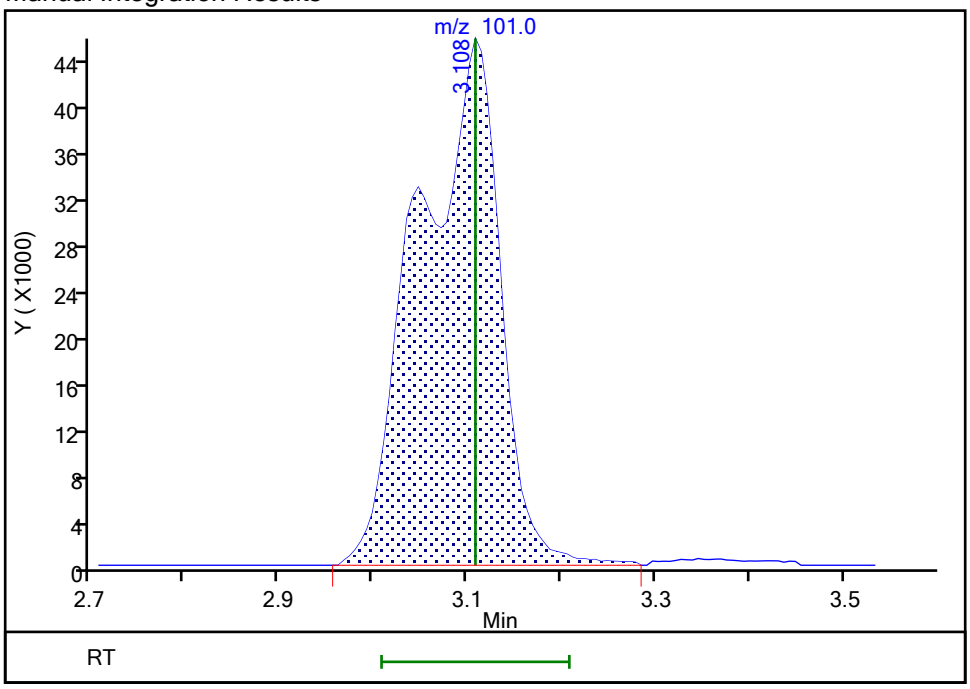
Processing Integration Results

RT: 3.11
Area: 191919
Amount: 15.736350
Amount Units: ug/l



Manual Integration Results

RT: 3.11
Area: 272494
Amount: 20.226318
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:49:02
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

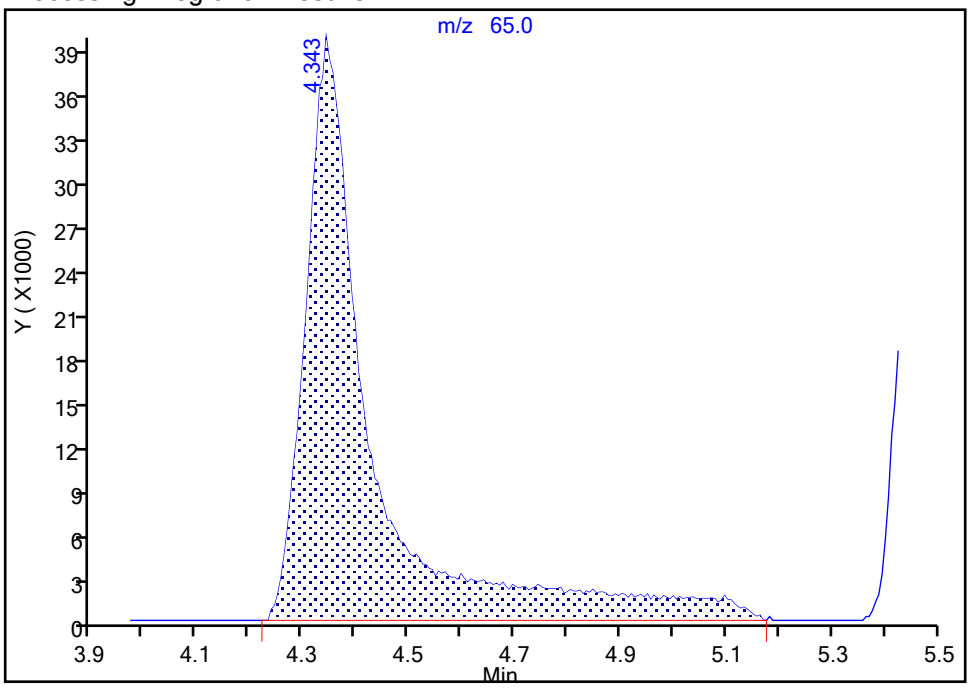
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I34.D
Injection Date: 03-Nov-2020 01:03:30 Instrument ID: 9355
Lims ID: IC std4 20
Client ID:
Operator ID: mec29284 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

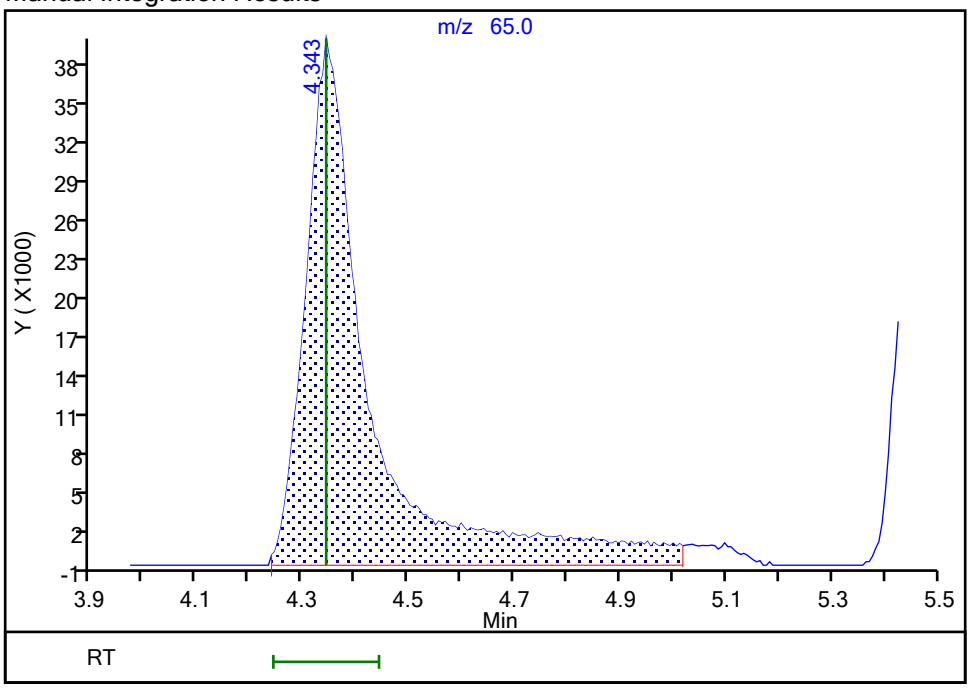
Processing Integration Results

RT: 4.34
Area: 341847
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 331688
Amount: 250.0000
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:49:22
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

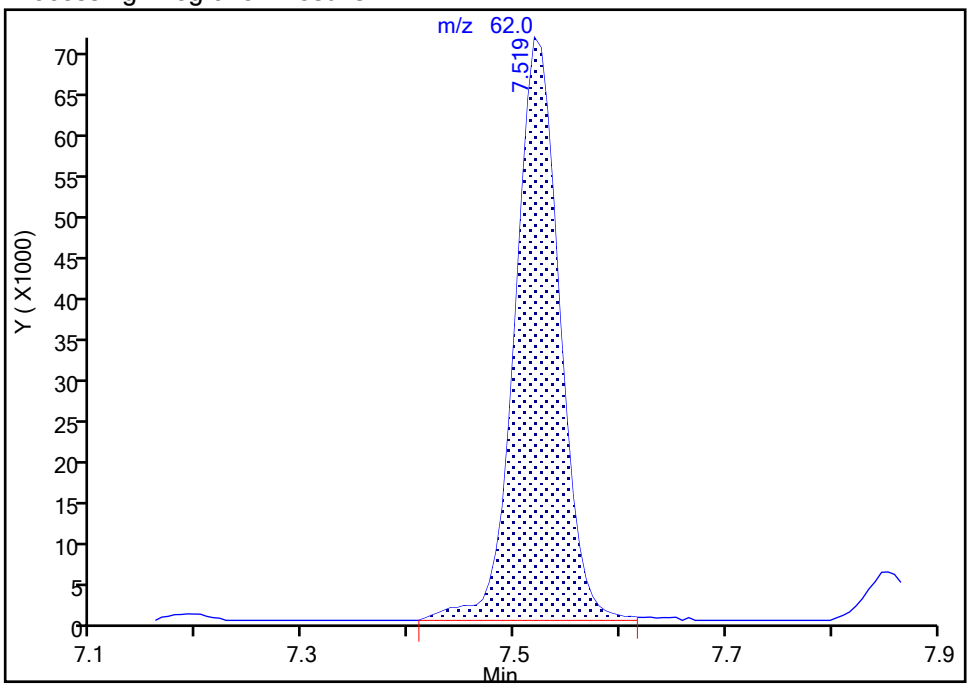
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I34.D
Injection Date: 03-Nov-2020 01:03:30 Instrument ID: 9355
Lims ID: IC std4 20
Client ID:
Operator ID: mec29284 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

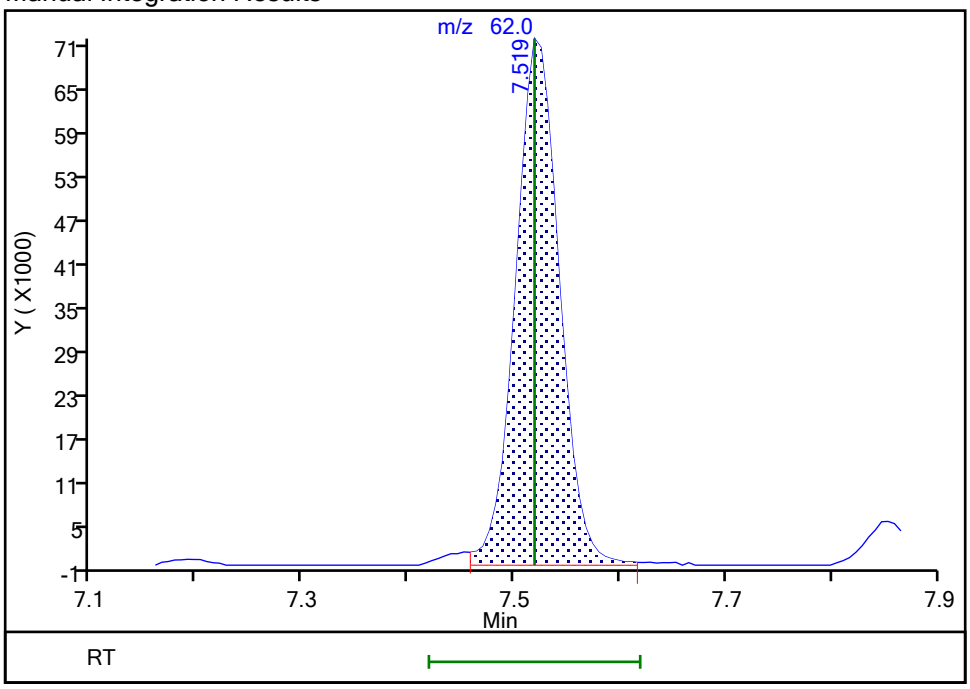
Processing Integration Results

RT: 7.52
Area: 209519
Amount: 20.392642
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 206658
Amount: 20.170343
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:49:38
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D
Lims ID: IC std3 10
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 03-Nov-2020 01:25:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-007
Misc. Info.: IC STD3 10
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:49:56 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:51:47

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.038	2.050	-0.012	99	88679	10.0	10.3	
4 Chloromethane	50	2.244	2.250	-0.006	99	78305	10.0	10.2	
5 Butadiene	39	2.360	2.366	-0.006	90	59942	10.0	9.05	M
6 Vinyl chloride	62	2.366	2.378	-0.012	98	79041	10.0	10.1	
8 Bromomethane	94	2.695	2.707	-0.012	90	68131	10.0	10.1	
9 Chloroethane	64	2.780	2.786	-0.006	99	50084	10.0	10.1	
10 Dichlorofluoromethane	67	3.017	3.029	-0.012	97	109208	10.0	9.80	
11 Trichlorofluoromethane	101	3.102	3.108	-0.006	97	136506	10.0	10.2	
12 Pentane	43	3.139	3.145	-0.006	96	88528	10.0	9.43	
14 Ethyl ether	59	3.352	3.358	-0.006	87	64064	10.0	10.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.419	3.425	-0.006	85	72823	10.0	9.70	
16 Acrolein	56	3.516	3.522	-0.006	99	253840	100.0	106.5	
17 1,1-Dichloroethene	96	3.668	3.680	-0.012	99	54067	10.0	9.66	
18 Acetone	58	3.692	3.698	-0.006	99	23597	20.0	23.0	
19 112TCTFE	101	3.705	3.717	-0.012	91	57416	10.0	9.63	
20 Isopropyl alcohol	45	3.844	3.863	-0.019	99	68956	100.0	100.5	
21 Iodomethane	142	3.875	3.881	-0.006	98	115066	10.0	9.98	
22 Carbon disulfide	76	3.997	4.003	-0.006	99	174541	10.0	9.76	
24 Methyl acetate	43	4.124	4.130	-0.006	98	83458	10.0	9.97	
25 3-Chloro-1-propene	41	4.161	4.167	-0.006	90	90017	10.0	9.87	
* 26 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	315115	250.0	250.0	M
27 Methylene Chloride	84	4.349	4.355	-0.006	92	62766	10.0	10.1	
28 2-Methyl-2-propanol	59	4.471	4.477	-0.006	99	156148	100.0	104.8	M
30 Acrylonitrile	53	4.672	4.678	-0.006	99	43189	10.0	10.6	
31 Methyl tert-butyl ether	73	4.763	4.775	-0.012	95	222390	10.0	10.2	
32 trans-1,2-Dichloroethene	96	4.787	4.793	-0.006	99	63257	10.0	9.77	
33 Hexane	57	5.207	5.213	-0.006	93	88156	10.0	9.57	
35 1,1-Dichloroethane	63	5.432	5.438	-0.006	96	107701	10.0	9.96	
36 Isopropyl ether	45	5.487	5.493	-0.006	92	197127	10.0	10.2	
37 2-Chloro-1,3-butadiene	53	5.542	5.548	-0.006	92	92436	10.0	9.70	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.022	6.028	-0.006	97	206062	10.0	10.2	
S 39 1,2-Dichloroethene, Total	100				0			19.5	
40 2-Butanone (MEK)	43	6.211	6.217	-0.006	100	123723	20.0	21.0	
41 cis-1,2-Dichloroethene	96	6.254	6.266	-0.012	82	72547	10.0	9.75	
43 2,2-Dichloropropane	77	6.272	6.278	-0.006	84	98795	10.0	9.82	
44 Propionitrile	54	6.290	6.290	0.000	99	171121	100.0	104.6	
45 Methacrylonitrile	67	6.509	6.515	-0.006	90	240371	50.0	51.1	
46 Chlorobromomethane	128	6.594	6.600	-0.006	90	42998	10.0	10.3	
47 Tetrahydrofuran	71	6.606	6.612	-0.006	91	35242	20.0	20.9	
48 Chloroform	83	6.740	6.740	0.000	93	114652	10.0	9.94	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	294617	50.0	50.2	
50 1,1,1-Trichloroethane	97	6.971	6.977	-0.006	98	103383	10.0	9.77	
51 Cyclohexane	56	7.087	7.093	-0.006	89	99195	10.0	9.56	
52 1,1-Dichloropropene	75	7.184	7.190	-0.006	93	88613	10.0	9.78	
53 Carbon tetrachloride	117	7.190	7.203	-0.013	97	91058	10.0	9.45	
54 Isobutyl alcohol	41	7.294	7.300	-0.006	94	115514	250.0	247.1	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.409	7.422	-0.013	0	70246	50.0	49.9	
56 Benzene	78	7.452	7.452	0.000	96	256652	10.0	9.85	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	101400	10.0	9.94	
59 Tert-amyl methyl ether	73	7.635	7.641	-0.006	98	214609	10.0	10.3	
* 61 Fluorobenzene (IS)	96	7.847	7.853	-0.006	98	1167269	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	91	100427	10.0	9.62	
63 n-Butanol	56	8.176	8.176	0.000	89	238572	500.0	526.0	
64 Trichloroethene	95	8.334	8.334	0.000	97	71779	10.0	9.86	
65 Methylcyclohexane	83	8.651	8.657	-0.006	92	123448	10.0	10.0	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	72	67553	10.0	9.96	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	94	110555	10.0	9.92	
68 Methyl methacrylate	69	8.730	8.736	-0.006	89	76404	10.0	10.2	
69 1,4-Dioxane	88	8.754	8.748	0.006	91	29757	250.0	256.4	M
70 Dibromomethane	93	8.778	8.778	0.000	95	50898	10.0	10.1	
72 Dichlorobromomethane	83	9.003	9.009	-0.006	98	85726	10.0	9.73	
73 2-Nitropropane	41	9.247	9.247	0.000	99	73512	20.0	21.0	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	93	35919	10.0	10.3	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	95	114368	10.0	10.1	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	239093	20.0	20.9	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1166030	50.0	51.2	
78 Toluene	92	9.922	9.928	-0.006	98	170808	10.0	9.86	
S 80 1,3-Dichloropropene, Total	100				0			20.3	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	93	109884	10.0	10.2	
82 Ethyl methacrylate	69	10.226	10.226	0.000	89	118643	10.0	10.2	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	92	70236	10.0	10.2	
84 Tetrachloroethene	166	10.476	10.475	0.001	97	90292	10.0	10.2	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	90	119383	10.0	10.3	
87 2-Hexanone	43	10.573	10.573	0.000	97	193727	20.0	21.2	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	77083	10.0	9.77	
90 Ethylene Dibromide	107	10.871	10.871	0.000	98	82039	10.0	10.2	
S 91 Xylenes, Total	106				0			29.3	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	935793	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	95	97208	10.0	9.41	
94 Chlorobenzene	112	11.321	11.321	0.000	97	209891	10.0	9.88	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	93	74530	10.0	9.65	
96 Ethylbenzene	91	11.400	11.400	0.000	98	334550	10.0	9.87	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	275682	20.0	19.5	
98 o-Xylene	106	11.844	11.844	0.000	95	136491	10.0	9.80	
99 Styrene	104	11.857	11.856	0.001	94	223590	10.0	9.75	
100 Bromoform	173	12.021	12.021	0.000	97	63009	10.0	9.73	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	344703	10.0	9.91	
103 Cyclohexanone	55	12.215	12.215	0.000	92	134248	250.0	254.0	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	442472	50.0	50.7	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	118702	10.0	10.3	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	90	212415	50.0	52.7	
107 Bromobenzene	156	12.404	12.410	-0.006	76	103219	10.0	9.73	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	41895	10.0	10.1	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	401346	10.0	10.0	
110 2-Chlorotoluene	126	12.550	12.550	0.000	97	91055	10.0	9.86	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	301190	10.0	9.82	
112 4-Chlorotoluene	126	12.641	12.641	0.000	97	94947	10.0	9.71	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	67404	10.0	9.44	
115 Pentachloroethane	167	12.885	12.885	0.000	88	52114	10.0	9.06	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	97	313898	10.0	9.78	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	389750	10.0	9.94	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	189695	10.0	9.71	
119 4-Isopropyltoluene	119	13.122	13.122	0.000	96	349875	10.0	9.76	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	94	532315	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	198673	10.0	9.80	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	327687	10.0	10.1	
123 Benzyl chloride	91	13.262	13.262	0.000	98	248796	10.0	10.0	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	217681	10.0	10.1	
125 p-Diethylbenzene	119	13.390	13.390	0.000	96	228335	10.0	10.0	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	169539	10.0	9.65	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	185406	10.0	9.74	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	180157	10.0	9.99	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	32127	10.0	9.83	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	153662	10.0	9.74	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	143101	10.0	9.76	
133 Hexachlorobutadiene	225	14.625	14.624	0.001	98	66707	10.0	9.47	
134 Naphthalene	128	14.722	14.722	0.000	97	450545	10.0	10.2	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	134532	10.0	9.69	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	267710	10.0	9.59	
S 166 Total Diethylbenzene	1				0			30.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	8.00	Units: uL	
MSV_V_EE_00004	Amount Added:	2.00	Units: uL	
MSV_DCFM_00024	Amount Added:	1.00	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	2.00	Units: uL	
MSV_V_VOA1_00106	Amount Added:	2.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	0.80	Units: uL	
MSV_V_VOA6_00059	Amount Added:	2.00	Units: uL	
MSV_V_VOA2_00056	Amount Added:	2.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	1.00	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:49:57 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D

Injection Date: 03-Nov-2020 01:25:30 Instrument ID: 9355 Operator ID: mec29284

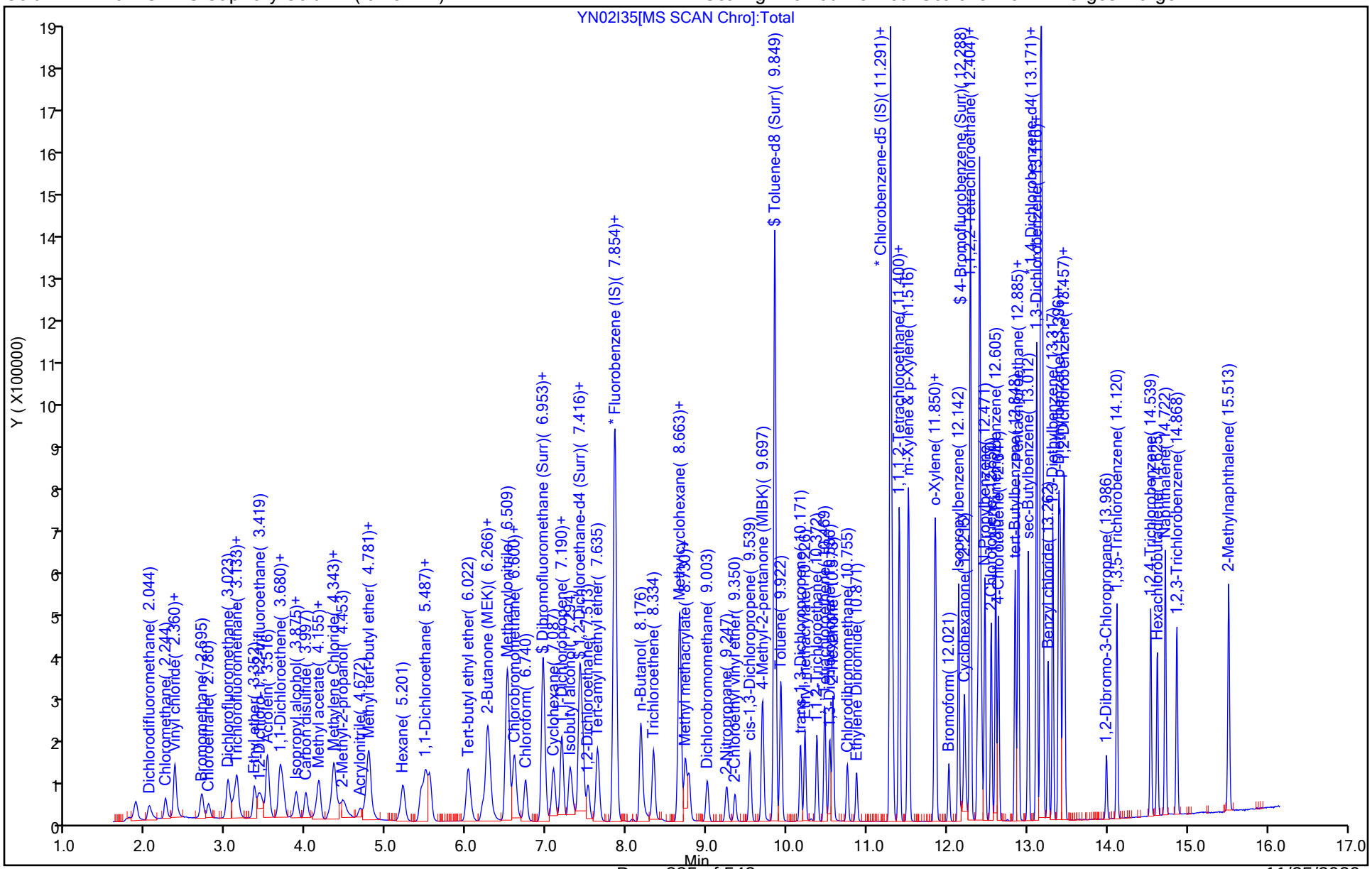
Lims ID: IC std3 10 Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

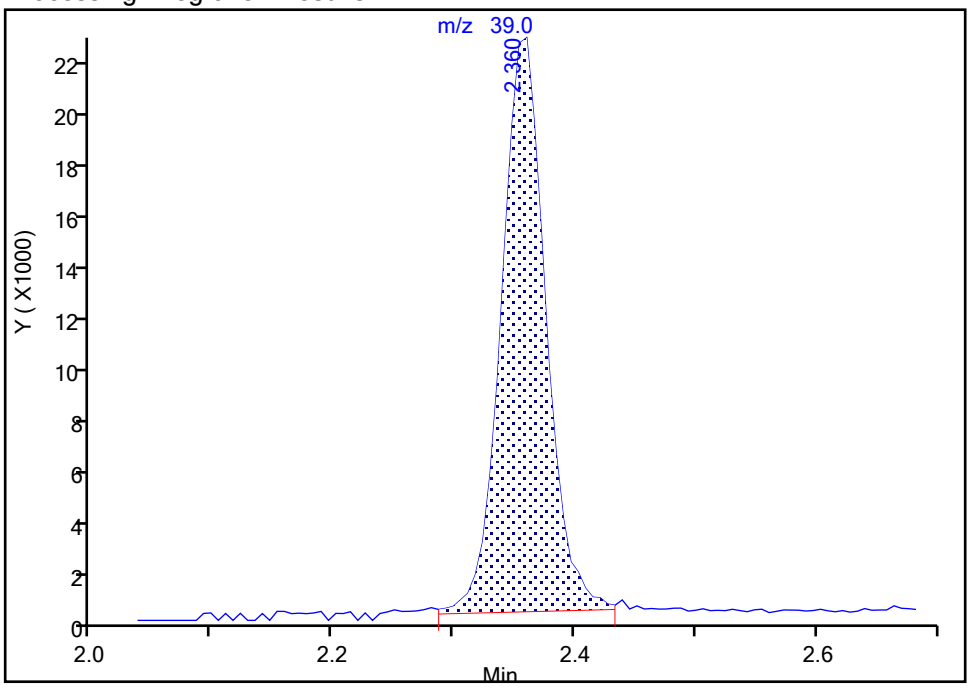
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D
Injection Date: 03-Nov-2020 01:25:30 Instrument ID: 9355
Lims ID: IC std3 10
Client ID:
Operator ID: mec29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

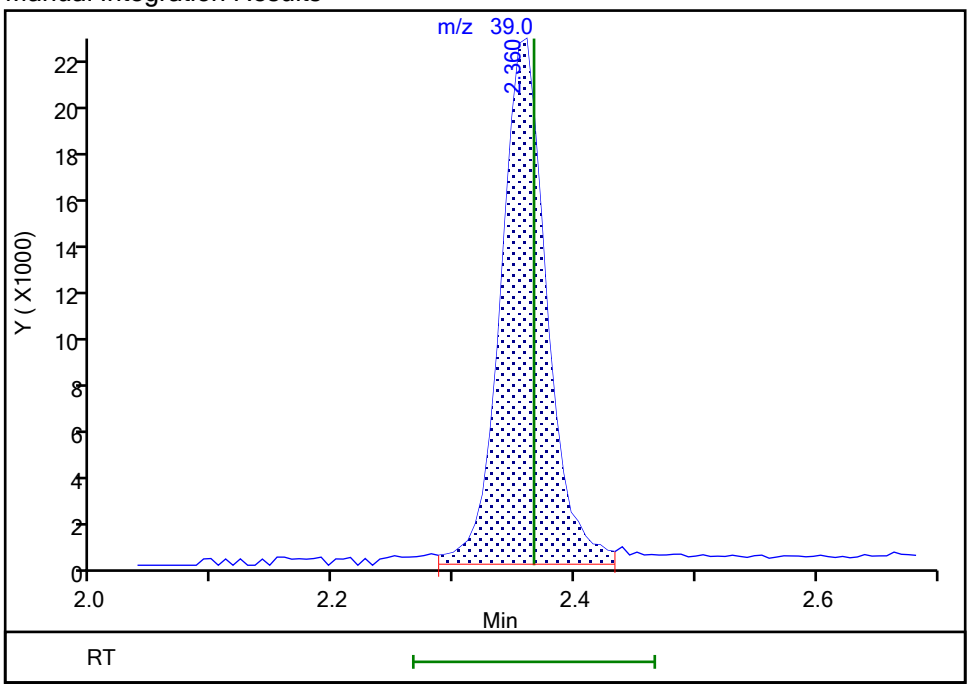
Processing Integration Results

RT: 2.36
Area: 57300
Amount: 9.540729
Amount Units: ug/l



Manual Integration Results

RT: 2.36
Area: 59942
Amount: 9.052637
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:50:37
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

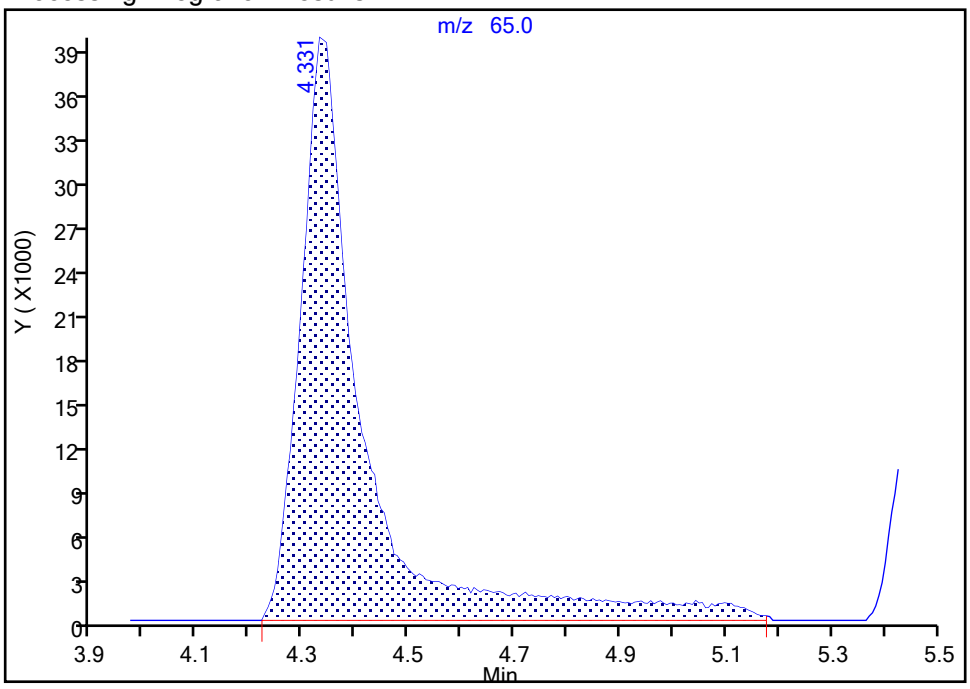
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D
Injection Date: 03-Nov-2020 01:25:30 Instrument ID: 9355
Lims ID: IC std3 10
Client ID:
Operator ID: mec29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

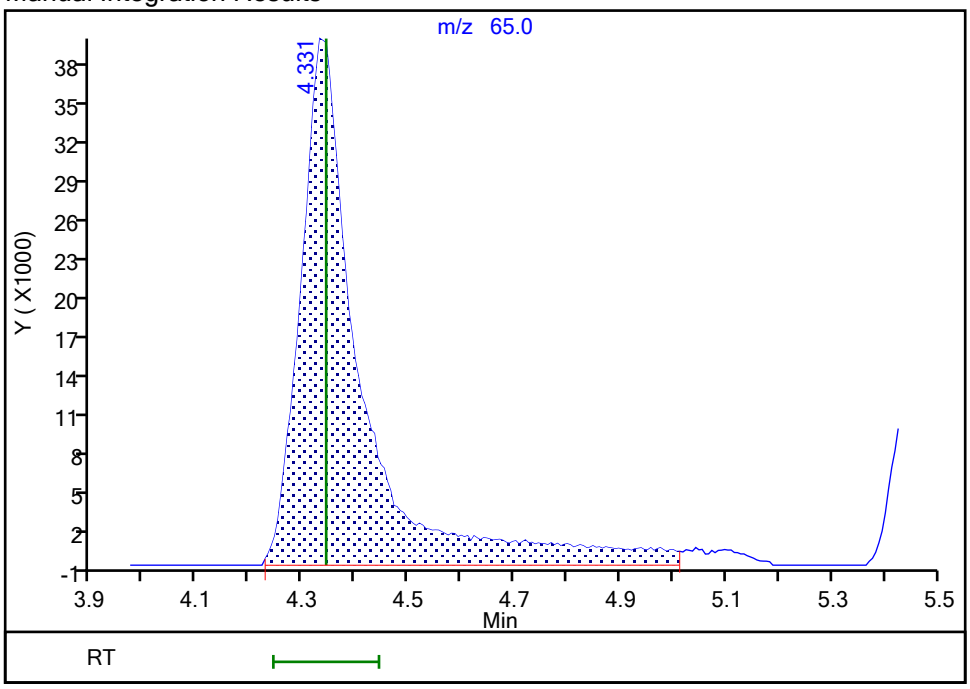
Processing Integration Results

RT: 4.33
Area: 323787
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.33
Area: 315115
Amount: 250.0000
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:50:54
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

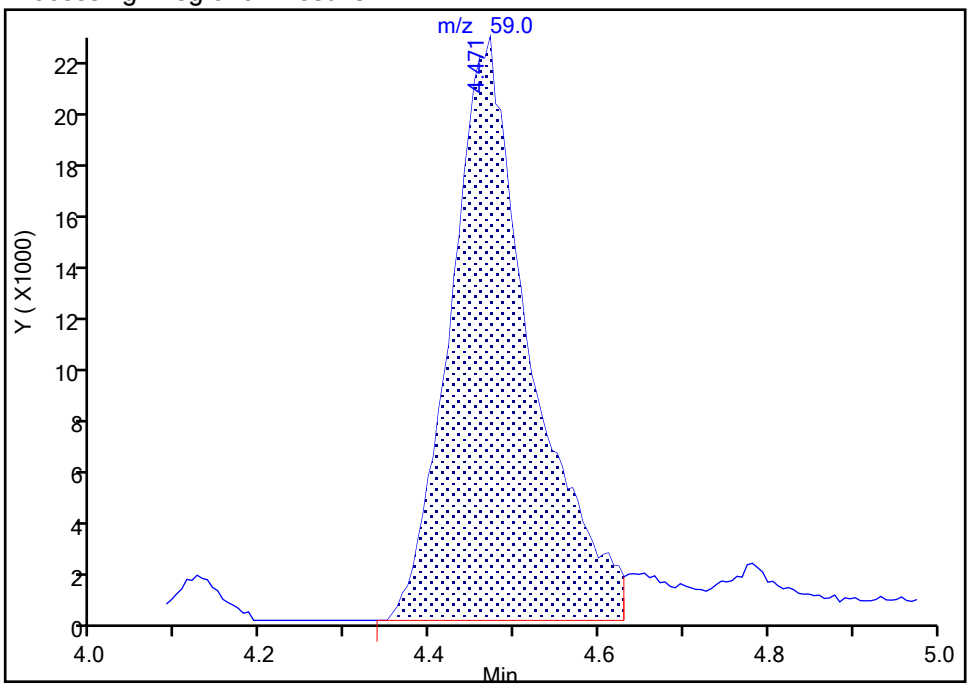
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D
Injection Date: 03-Nov-2020 01:25:30 Instrument ID: 9355
Lims ID: IC std3 10
Client ID:
Operator ID: mec29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

28 2-Methyl-2-propanol, CAS: 75-65-0

Signal: 1

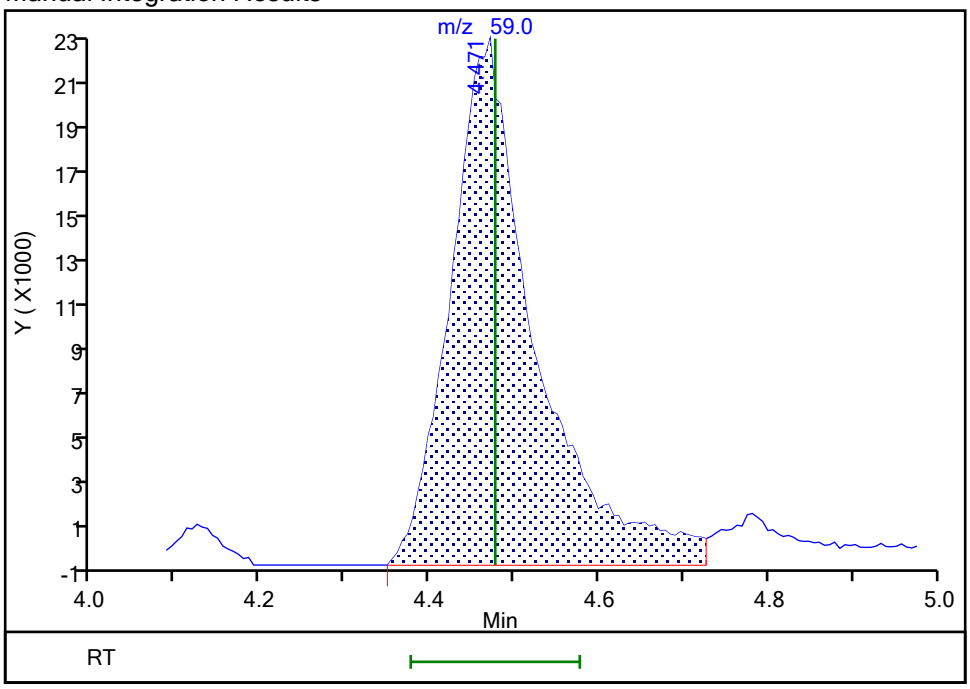
Processing Integration Results

RT: 4.47
Area: 147392
Amount: 100.1969
Amount Units: ug/l



Manual Integration Results

RT: 4.47
Area: 156148
Amount: 104.7674
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:51:06
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

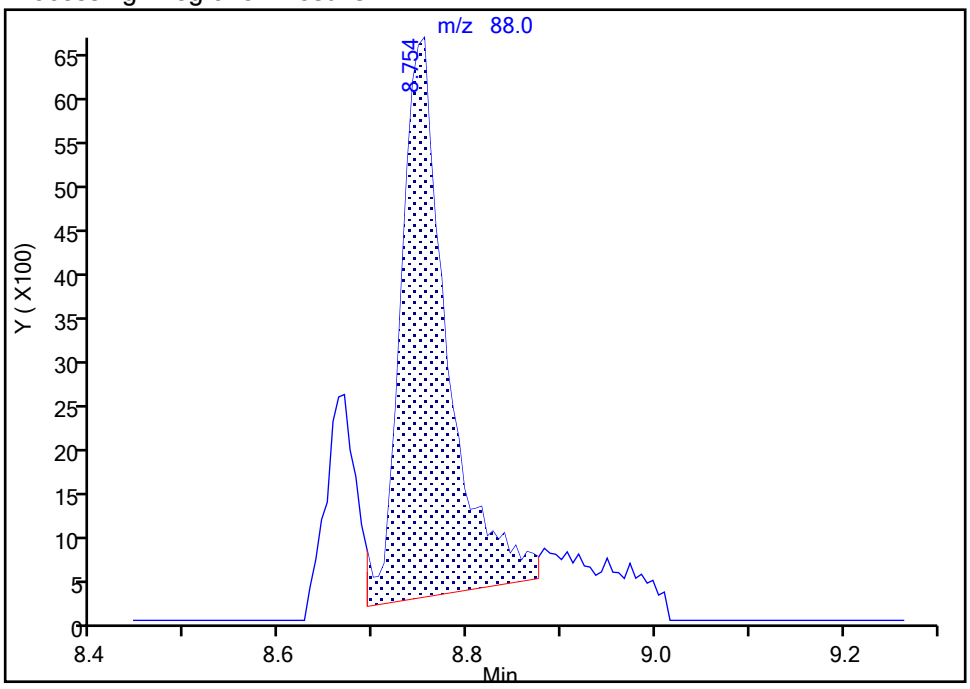
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I35.D
Injection Date: 03-Nov-2020 01:25:30 Instrument ID: 9355
Lims ID: IC std3 10
Client ID:
Operator ID: mec29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

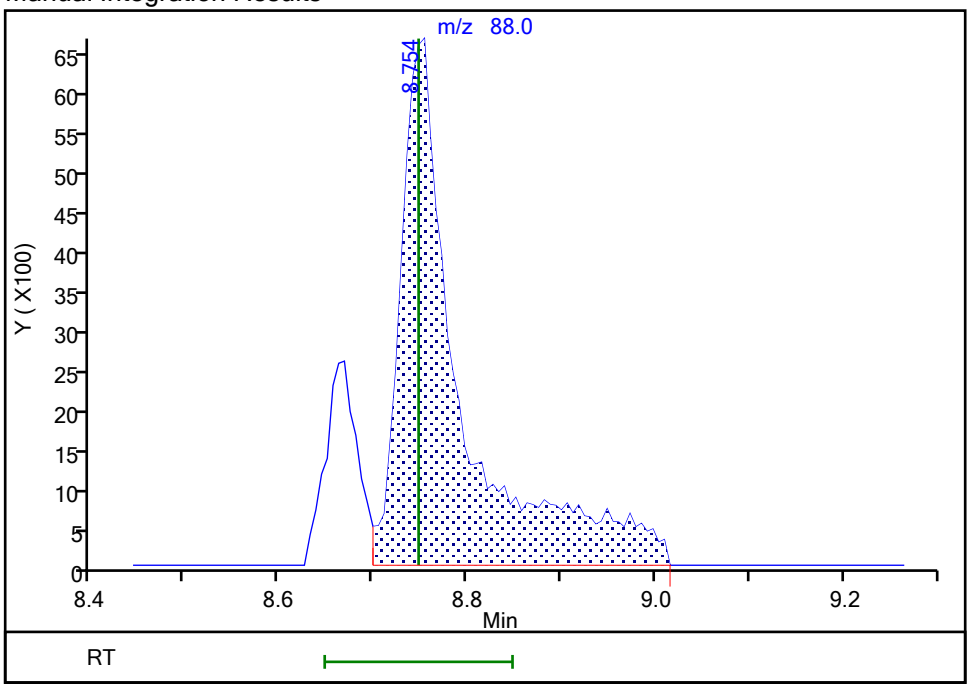
Processing Integration Results

RT: 8.75
Area: 21765
Amount: 206.4728
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 29757
Amount: 256.4224
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:51:23
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Lims ID: IC std2 4
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 03-Nov-2020 01:47:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-008
Misc. Info.: IC STD2 4
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:50:07 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 06:55:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	99	36280	4.00	4.37	
4 Chloromethane	50	2.251	2.250	0.001	99	33646	4.00	4.56	
5 Butadiene	39	2.366	2.366	0.000	89	27648	4.00	4.35	M
6 Vinyl chloride	62	2.372	2.378	-0.006	93	33626	4.00	4.48	
8 Bromomethane	94	2.707	2.707	0.000	91	29253	4.00	4.51	
9 Chloroethane	64	2.792	2.786	0.006	98	21166	4.00	4.44	
10 Dichlorofluoromethane	67	3.029	3.029	0.000	97	48096	4.00	4.49	
11 Trichlorofluoromethane	101	3.114	3.108	0.006	98	58339	4.00	4.52	M
12 Pentane	43	3.145	3.145	0.000	97	35990	4.00	3.99	
14 Ethyl ether	59	3.364	3.358	0.006	86	24311	4.00	4.09	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.419	3.425	-0.006	84	30415	4.00	4.22	
16 Acrolein	56	3.528	3.522	0.006	98	95430	40.0	40.3	
17 1,1-Dichloroethene	96	3.680	3.680	0.000	98	22262	4.00	4.14	
18 Acetone	58	3.698	3.698	0.000	98	8270	8.00	8.12	
19 112TCTFE	101	3.723	3.717	0.006	91	22655	4.00	3.95	
20 Isopropyl alcohol	45	3.857	3.863	-0.006	99	54196	80.0	79.5	M
21 Iodomethane	142	3.887	3.881	0.006	99	45364	4.00	4.09	
22 Carbon disulfide	76	4.009	4.003	0.006	100	69538	4.00	4.05	
24 Methyl acetate	43	4.136	4.130	0.006	97	35479	4.00	4.41	M
25 3-Chloro-1-propene	41	4.167	4.167	0.000	90	38480	4.00	4.39	M
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.343	0.012	0	313132	250.0	250.0	M
27 Methylene Chloride	84	4.362	4.355	0.007	92	24107	4.00	4.04	
28 2-Methyl-2-propanol	59	4.471	4.477	-0.006	98	117174	80.0	79.1	
30 Acrylonitrile	53	4.678	4.678	0.000	97	15814	4.00	4.02	
31 Methyl tert-butyl ether	73	4.781	4.775	0.006	95	83934	4.00	4.01	
32 trans-1,2-Dichloroethene	96	4.793	4.793	0.000	99	25792	4.00	4.15	
33 Hexane	57	5.219	5.213	0.006	86	36139	4.00	4.08	M
35 1,1-Dichloroethane	63	5.444	5.438	0.006	96	43113	4.00	4.15	
36 Isopropyl ether	45	5.493	5.493	0.000	92	75894	4.00	4.08	
37 2-Chloro-1,3-butadiene	53	5.554	5.548	0.006	92	37461	4.00	4.09	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.028	6.028	0.000	96	78993	4.00	4.08	
S 39 1,2-Dichloroethene, Total	100				0			8.22	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	99	46111	8.00	8.14	
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	80	29102	4.00	4.07	
43 2,2-Dichloropropane	77	6.278	6.278	0.000	60	38835	4.00	4.02	
44 Propionitrile	54	6.290	6.290	0.000	98	129453	80.0	79.6	
45 Methacrylonitrile	67	6.521	6.515	0.006	91	179897	40.0	39.8	
46 Chlorobromomethane	128	6.600	6.600	0.000	88	16585	4.00	4.15	
47 Tetrahydrofuran	71	6.619	6.612	0.007	91	13213	8.00	7.88	
48 Chloroform	83	6.740	6.740	0.000	94	45486	4.00	4.10	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	282418	50.0	50.0	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	98	41877	4.00	4.12	
51 Cyclohexane	56	7.087	7.093	-0.006	89	40648	4.00	4.08	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	94	35833	4.00	4.12	
53 Carbon tetrachloride	117	7.196	7.203	-0.007	96	36393	4.00	3.93	
54 Isobutyl alcohol	41	7.294	7.300	-0.006	94	93318	200.0	200.9	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	68033	50.0	50.2	
56 Benzene	78	7.452	7.452	0.000	93	103764	4.00	4.14	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	40616	4.00	4.14	M
59 Tert-amyl methyl ether	73	7.641	7.641	0.000	97	81657	4.00	4.06	
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1121618	50.0	50.0	
62 n-Heptane	43	7.872	7.866	0.006	93	41760	4.00	4.16	
63 n-Butanol	56	8.182	8.176	0.006	90	183211	400.0	406.5	
64 Trichloroethene	95	8.340	8.334	0.006	97	28935	4.00	4.14	
65 Methylcyclohexane	83	8.657	8.657	0.001	91	47713	4.00	4.04	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	71	26325	4.00	4.04	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	93	41649	4.00	3.89	
68 Methyl methacrylate	69	8.736	8.736	0.000	88	27989	4.00	3.89	
69 1,4-Dioxane	88	8.754	8.748	0.006	91	24388	200.0	211.5	M
70 Dibromomethane	93	8.778	8.778	0.000	94	19113	4.00	3.96	
72 Dichlorobromomethane	83	9.009	9.009	0.000	98	32876	4.00	3.88	
73 2-Nitropropane	41	9.247	9.247	0.000	99	26120	8.00	7.52	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	94	12785	4.00	3.83	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	95	42124	4.00	3.86	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	88633	8.00	8.05	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	94	1111948	50.0	51.2	
78 Toluene	92	9.922	9.928	-0.006	98	67494	4.00	4.09	
S 80 1,3-Dichloropropene, Total	100				0			7.74	
81 trans-1,3-Dichloropropene	75	10.165	10.171	-0.006	93	39849	4.00	3.88	
82 Ethyl methacrylate	69	10.226	10.226	0.000	89	43040	4.00	3.90	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	27284	4.00	4.14	
84 Tetrachloroethene	166	10.476	10.475	0.001	97	34972	4.00	4.15	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	45460	4.00	4.11	
87 2-Hexanone	43	10.573	10.573	0.000	96	71152	8.00	8.19	
89 Chlorodibromomethane	129	10.755	10.755	0.000	90	28064	4.00	3.73	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	30275	4.00	3.96	
S 91 Xylenes, Total	106				0			11.9	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	891436	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	95	40228	4.00	4.09	
94 Chlorobenzene	112	11.321	11.321	0.000	98	82798	4.00	4.09	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	93	27937	4.00	3.80	
96 Ethylbenzene	91	11.400	11.400	0.000	98	132330	4.00	4.10	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	107474	8.00	7.97	
98 o-Xylene	106	11.844	11.844	0.000	96	52168	4.00	3.93	
99 Styrene	104	11.857	11.856	0.000	93	83538	4.00	3.82	
100 Bromoform	173	12.021	12.021	0.000	96	21632	4.00	3.50	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	137606	4.00	4.15	
103 Cyclohexanone	55	12.215	12.215	0.000	92	109310	200.0	208.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	423511	50.0	50.9	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	44247	4.00	4.00	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	93	156830	40.0	40.7	
107 Bromobenzene	156	12.404	12.410	-0.006	62	39272	4.00	3.87	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	15787	4.00	3.97	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	161424	4.00	4.22	
110 2-Chlorotoluene	126	12.550	12.550	0.000	97	34988	4.00	3.96	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	118604	4.00	4.04	
112 4-Chlorotoluene	126	12.641	12.641	0.000	97	37468	4.00	4.01	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	27247	4.00	3.99	
115 Pentachloroethane	167	12.885	12.885	0.000	89	20625	4.00	3.75	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	97	123206	4.00	4.01	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	156556	4.00	4.18	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	73824	4.00	3.95	
119 4-Isopropyltoluene	119	13.122	13.122	0.000	96	138927	4.00	4.06	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	94	508861	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	94	76100	4.00	3.93	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	127171	4.00	4.10	
123 Benzyl chloride	91	13.262	13.262	0.000	98	88058	4.00	3.71	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	96	84835	4.00	4.11	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	89646	4.00	4.11	
126 n-Butylbenzene	92	13.414	13.408	0.006	96	68237	4.00	4.06	
127 1,2-Dichlorobenzene	146	13.450	13.444	0.006	98	71992	4.00	3.96	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	69481	4.00	4.03	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	86	12006	4.00	3.84	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	61137	4.00	4.06	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	55689	4.00	3.97	
133 Hexachlorobutadiene	225	14.625	14.624	0.001	98	27477	4.00	4.08	
134 Naphthalene	128	14.722	14.722	0.000	97	173491	4.00	4.09	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	95	52863	4.00	3.98	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	104424	4.00	3.91	
S 166 Total Diethylbenzene	1				0			12.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	32.00	Units: uL	
MSV_V_EE_00004	Amount Added:	4.00	Units: uL	
MSV_DCFM_00024	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00118	Amount Added:	4.00	Units: uL	
MSV_V_VOA1_00106	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00053	Amount Added:	1.60	Units: uL	
MSV_V_VOA6_00059	Amount Added:	4.00	Units: uL	
MSV_V_VOA2_00056	Amount Added:	12.00	Units: uL	
MSV_V_Gas_00164	Amount Added:	2.00	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:50:08 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D

Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355 Operator ID: mec29284

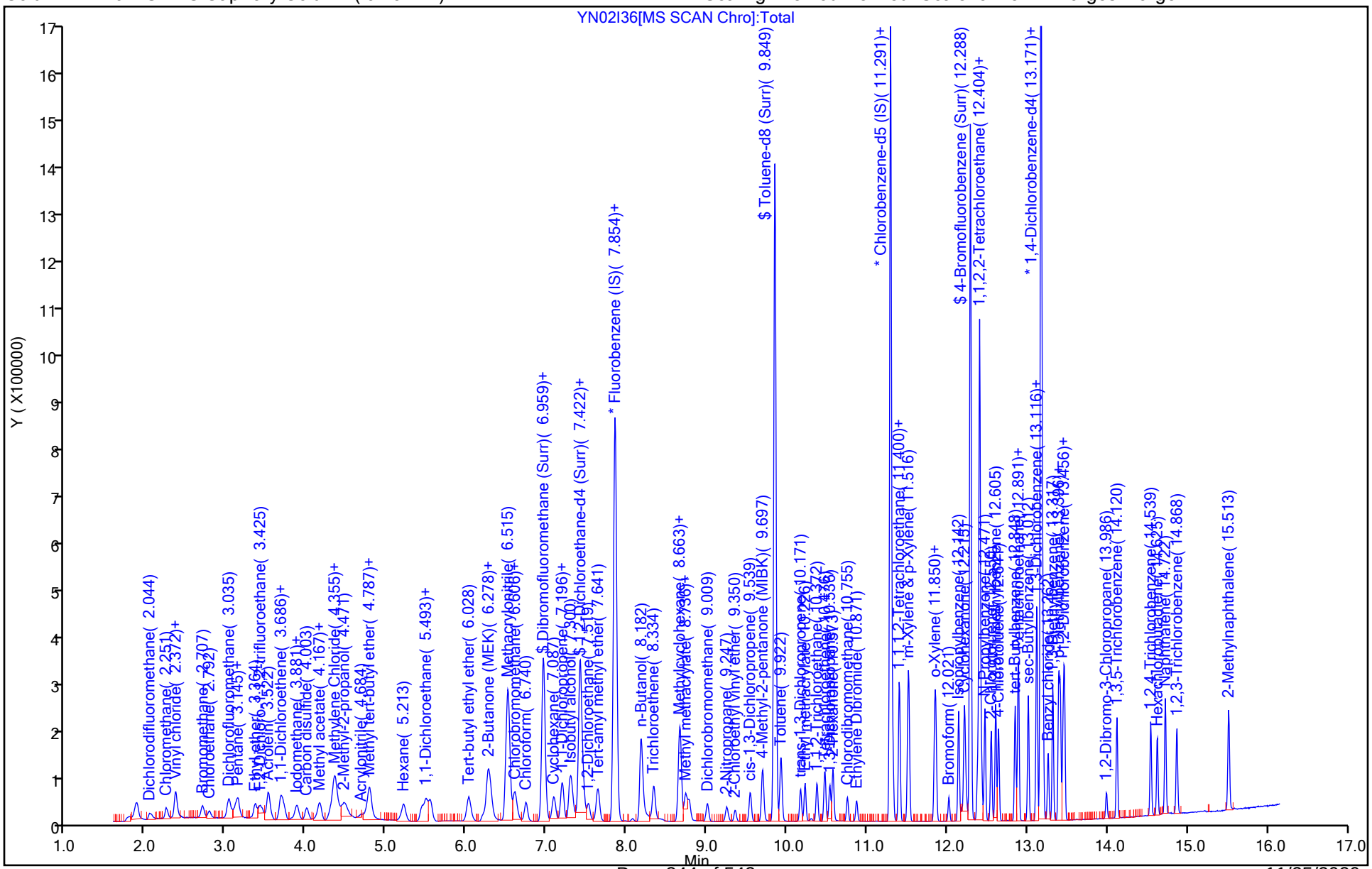
Lims ID: IC std2 4 Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 7

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

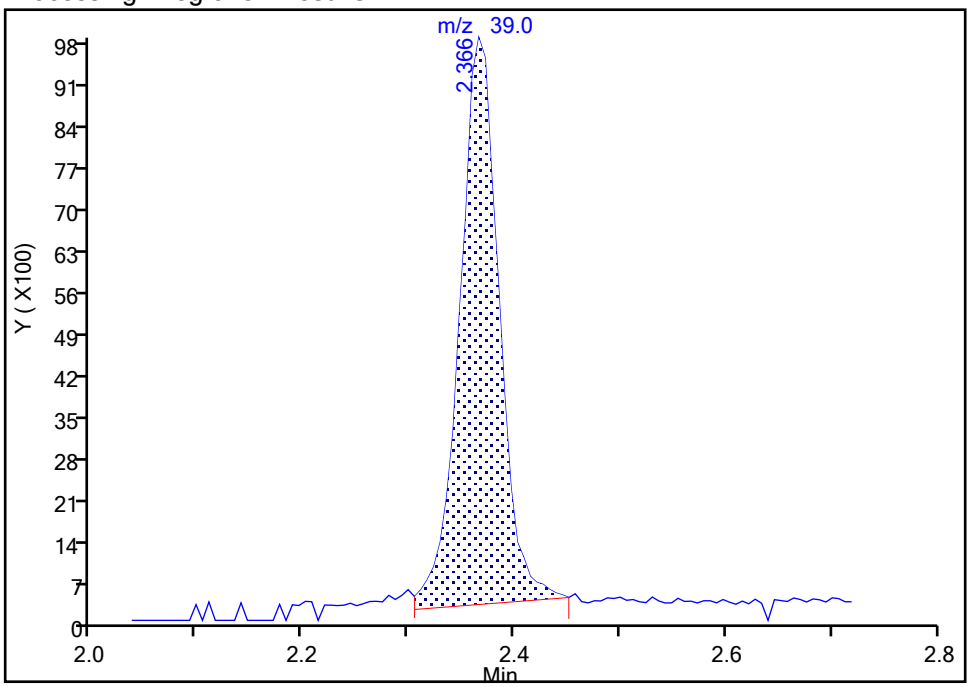
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

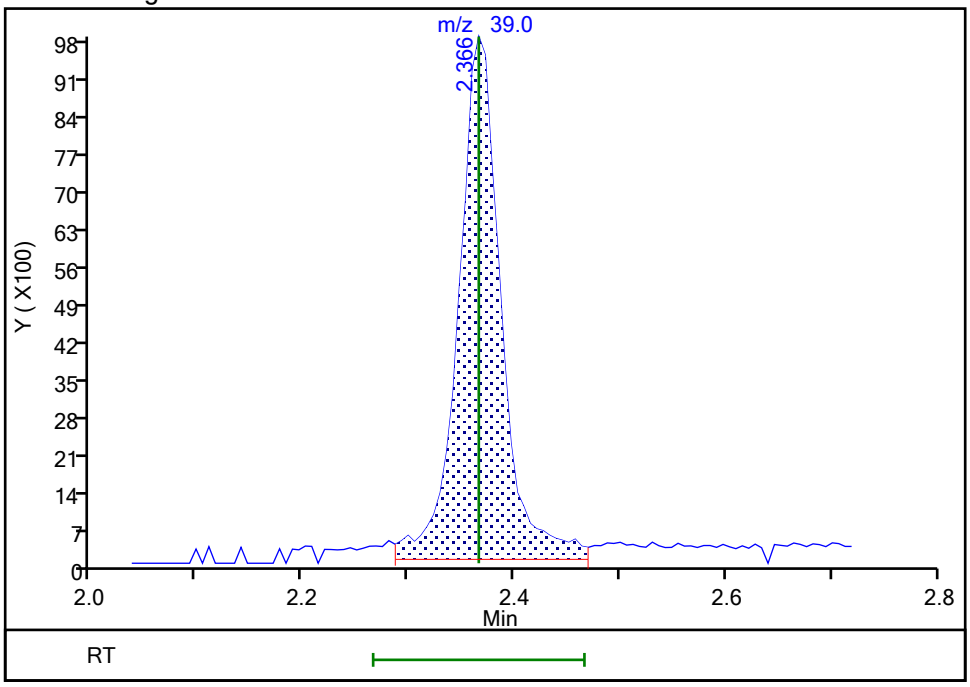
Processing Integration Results

RT: 2.37
Area: 24995
Amount: 4.304130
Amount Units: ug/l



Manual Integration Results

RT: 2.37
Area: 27648
Amount: 4.345438
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:52:13
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

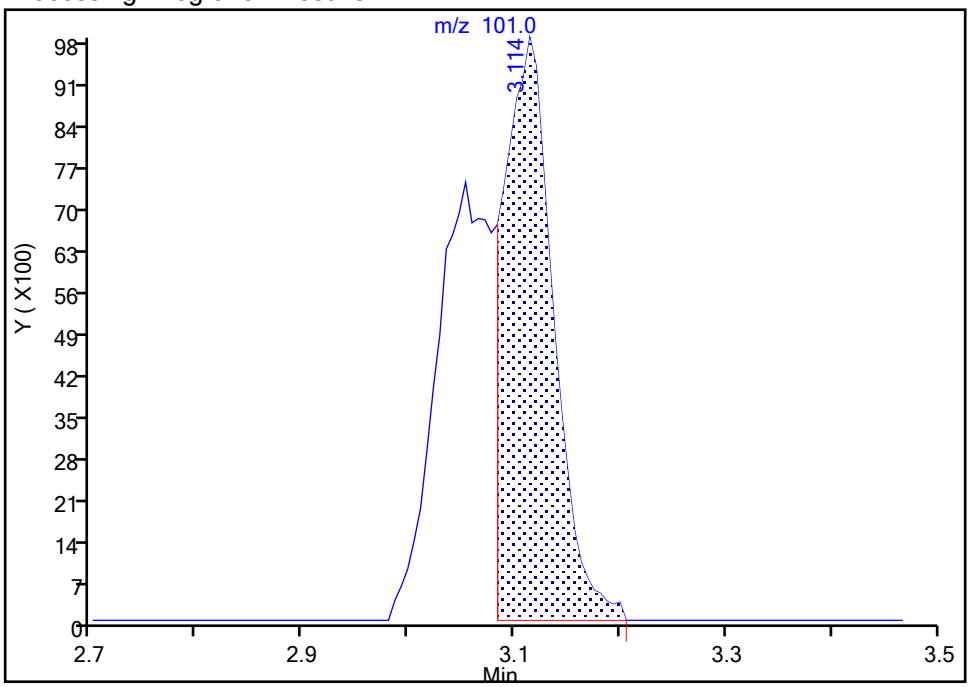
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

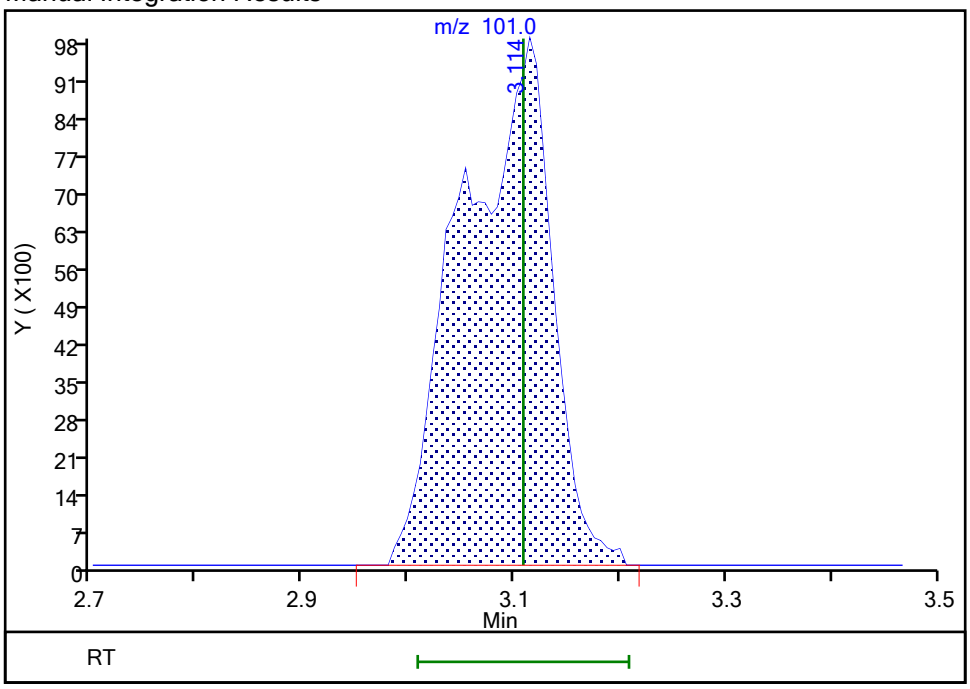
Processing Integration Results

RT: 3.11
Area: 32534
Amount: 3.063350
Amount Units: ug/l



Manual Integration Results

RT: 3.11
Area: 58339
Amount: 4.524807
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:52:21
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

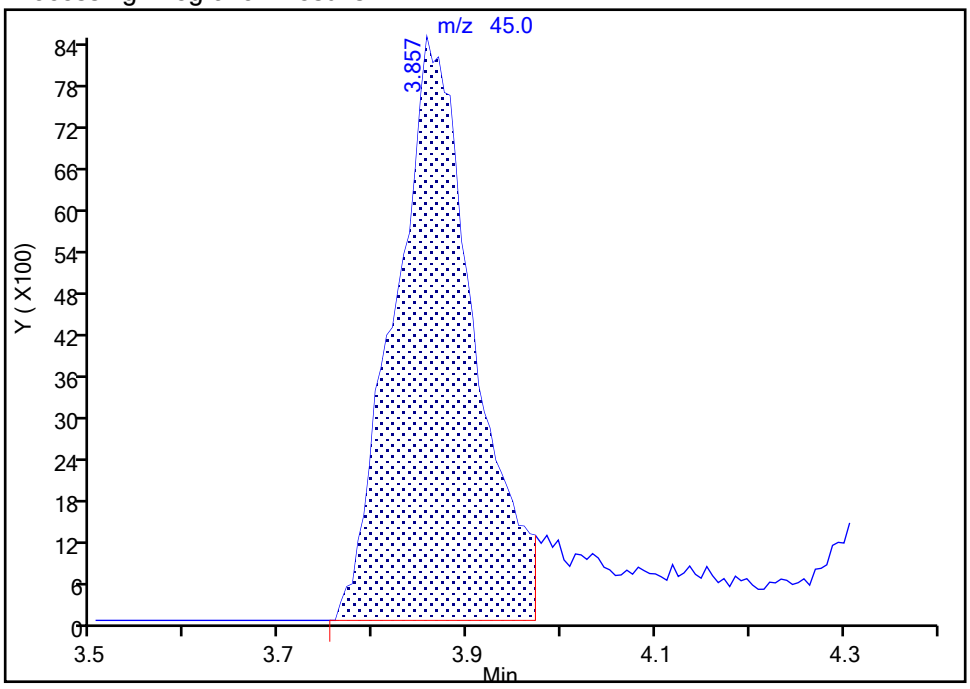
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

20 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

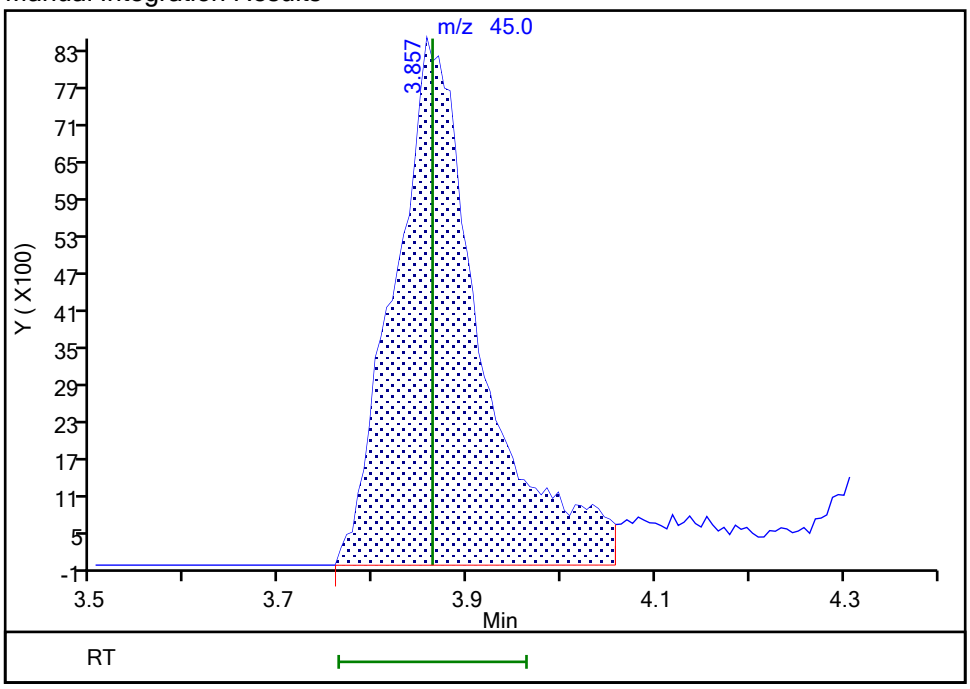
Processing Integration Results

RT: 3.86
Area: 49427
Amount: 73.895044
Amount Units: ug/l



Manual Integration Results

RT: 3.86
Area: 54196
Amount: 79.509053
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:52:32
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

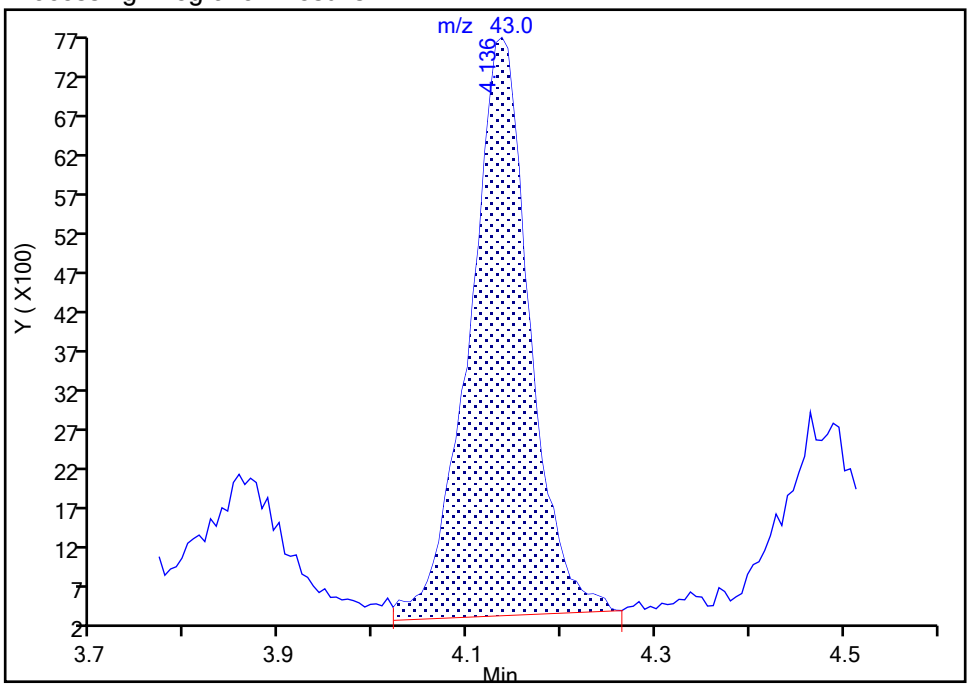
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

24 Methyl acetate, CAS: 79-20-9

Signal: 1

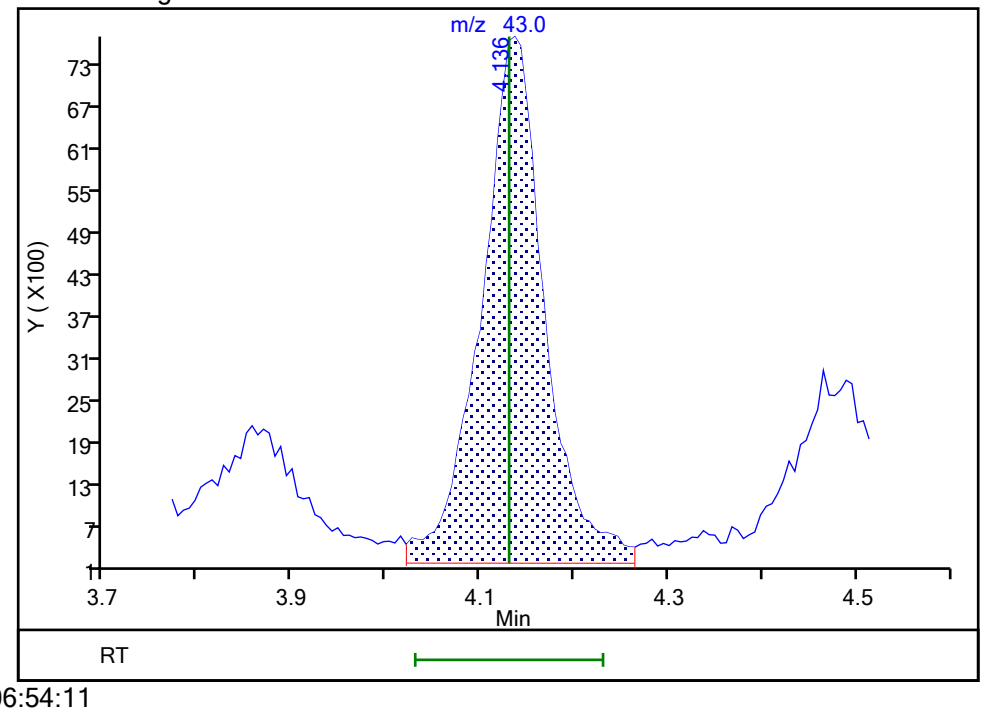
Processing Integration Results

RT: 4.14
Area: 32987
Amount: 4.147940
Amount Units: ug/l



Manual Integration Results

RT: 4.14
Area: 35479
Amount: 4.411921
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:54:11
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

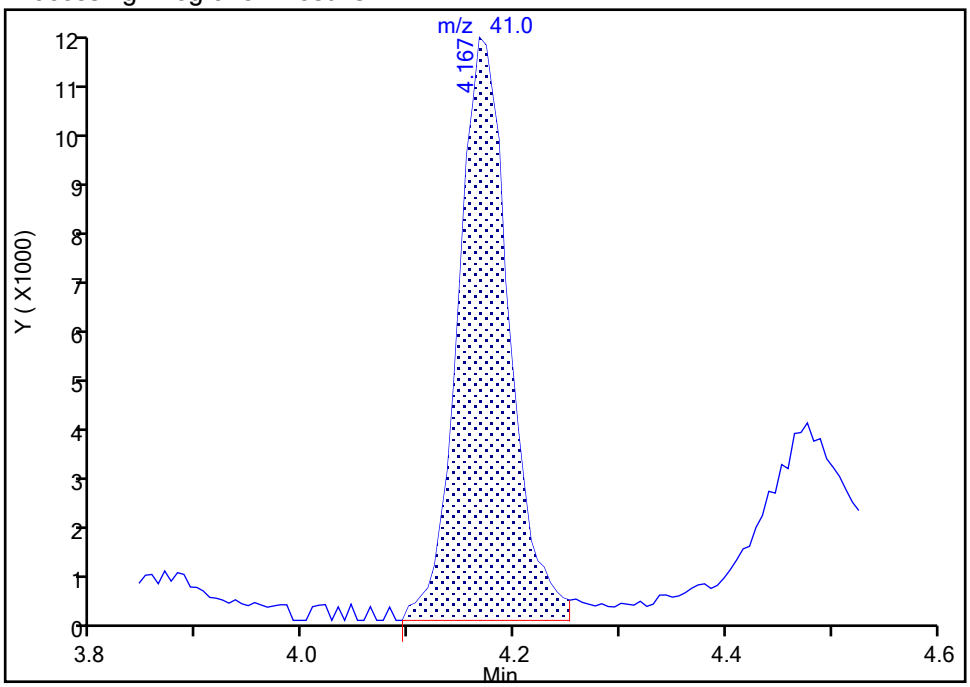
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

25 3-Chloro-1-propene, CAS: 107-05-1

Signal: 1

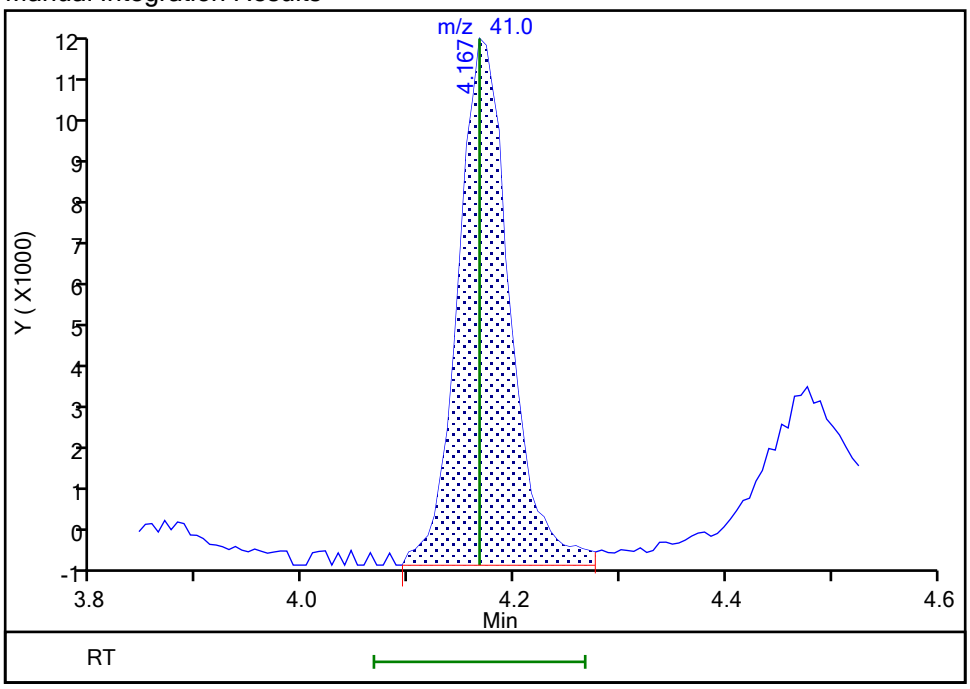
Processing Integration Results

RT: 4.17
Area: 37947
Amount: 4.341158
Amount Units: ug/l



Manual Integration Results

RT: 4.17
Area: 38480
Amount: 4.392567
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:54:25
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

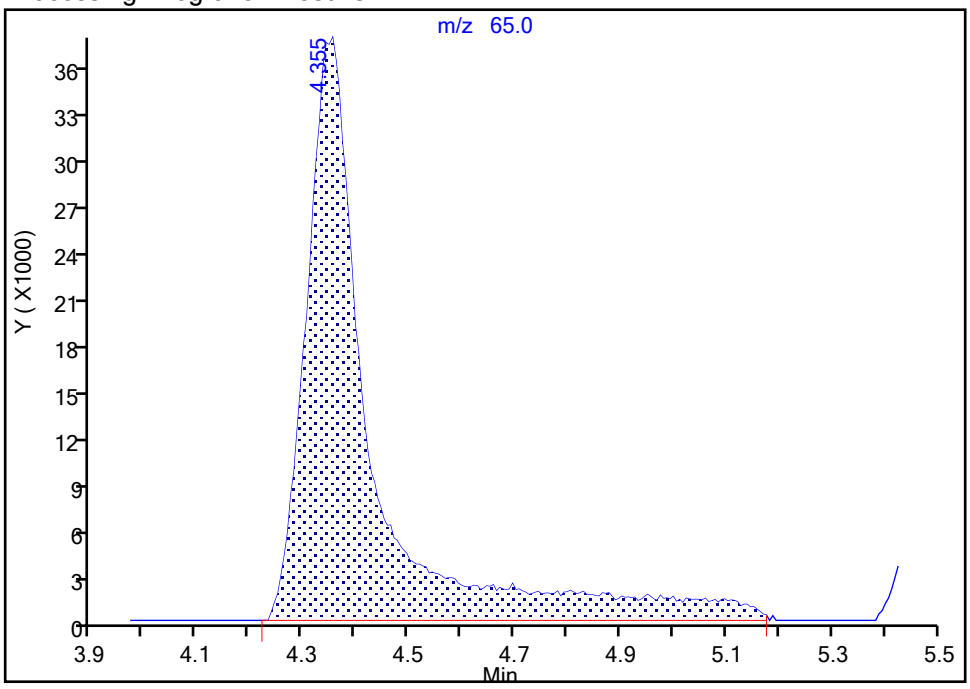
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

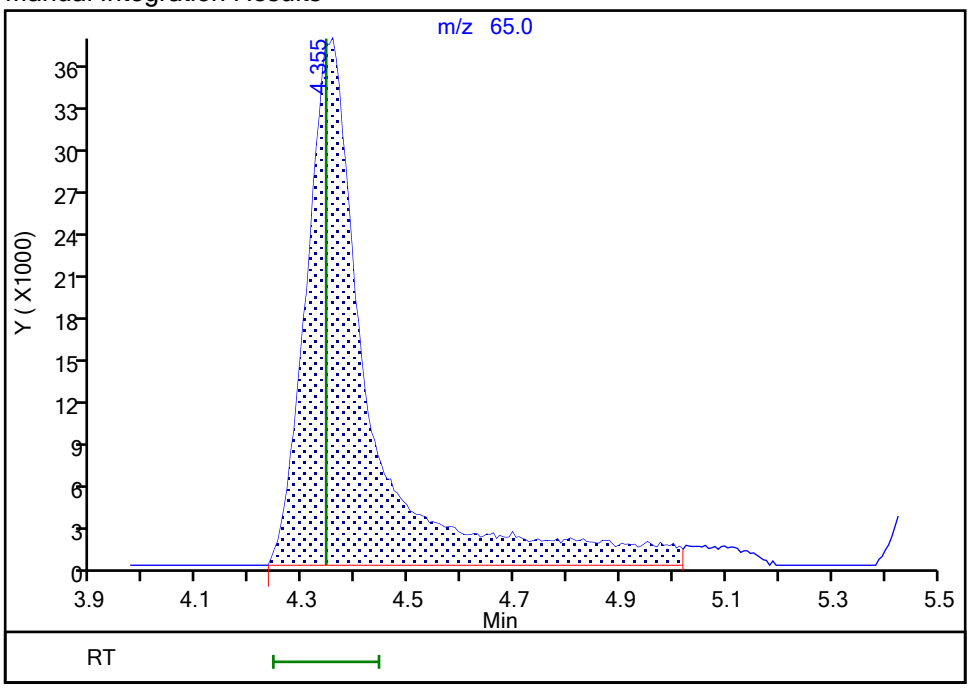
Processing Integration Results

RT: 4.36
Area: 323729
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 313132
Amount: 250.0000
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:54:40
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

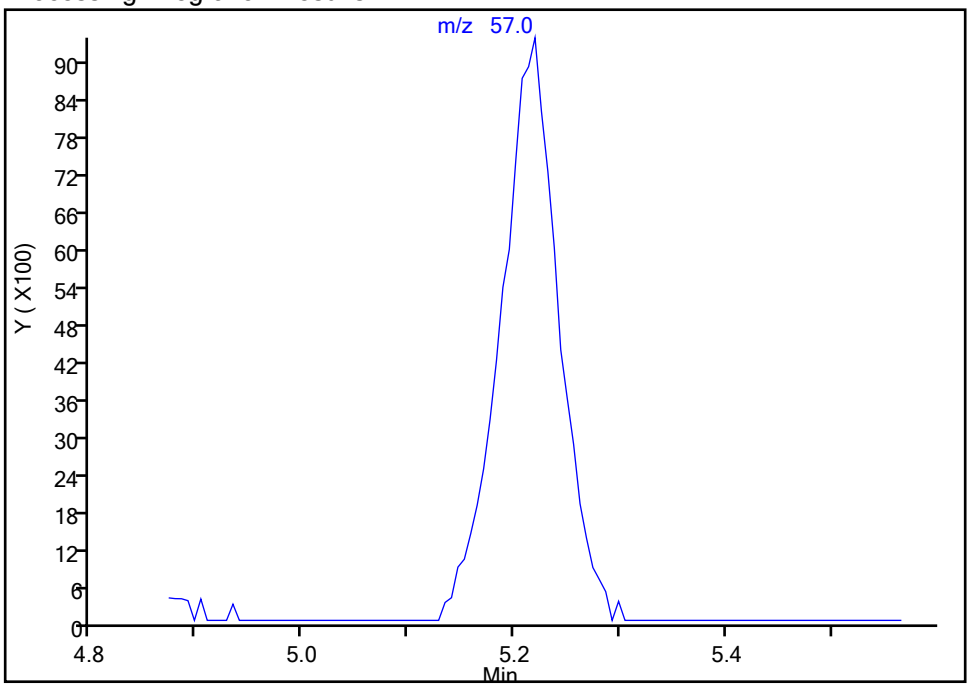
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

33 Hexane, CAS: 110-54-3

Signal: 1

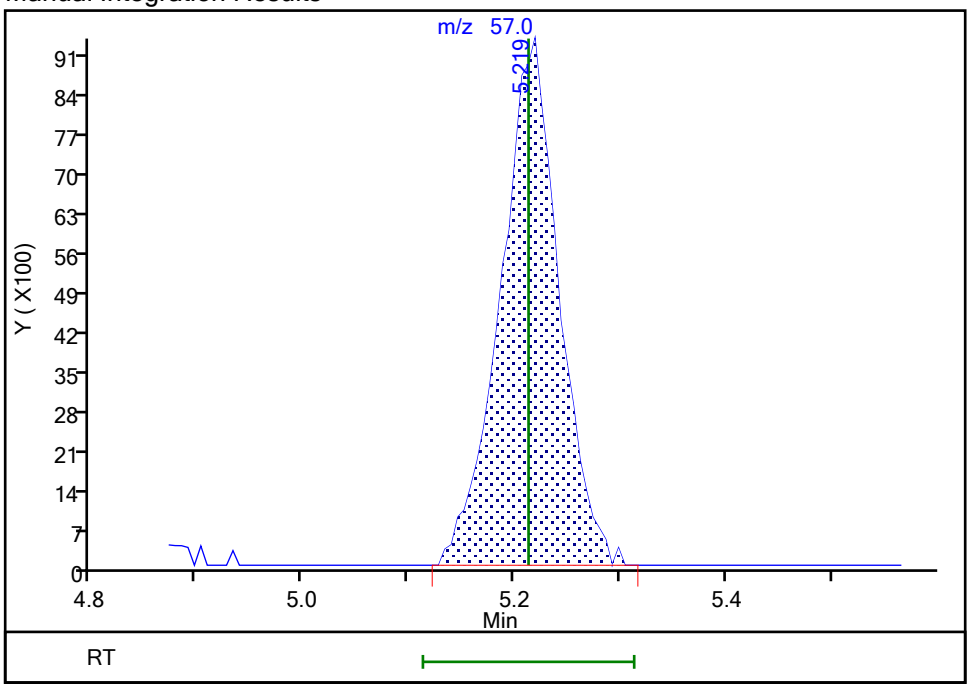
Not Detected
Expected RT: 5.21

Processing Integration Results



Manual Integration Results

RT: 5.22
Area: 36139
Amount: 4.081424
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:54:50
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

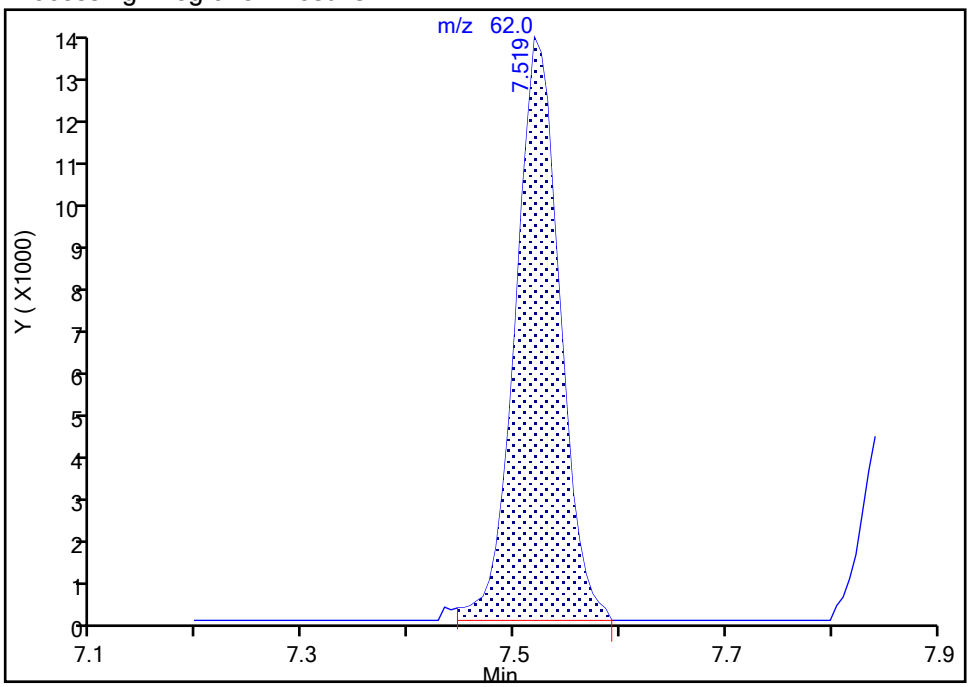
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

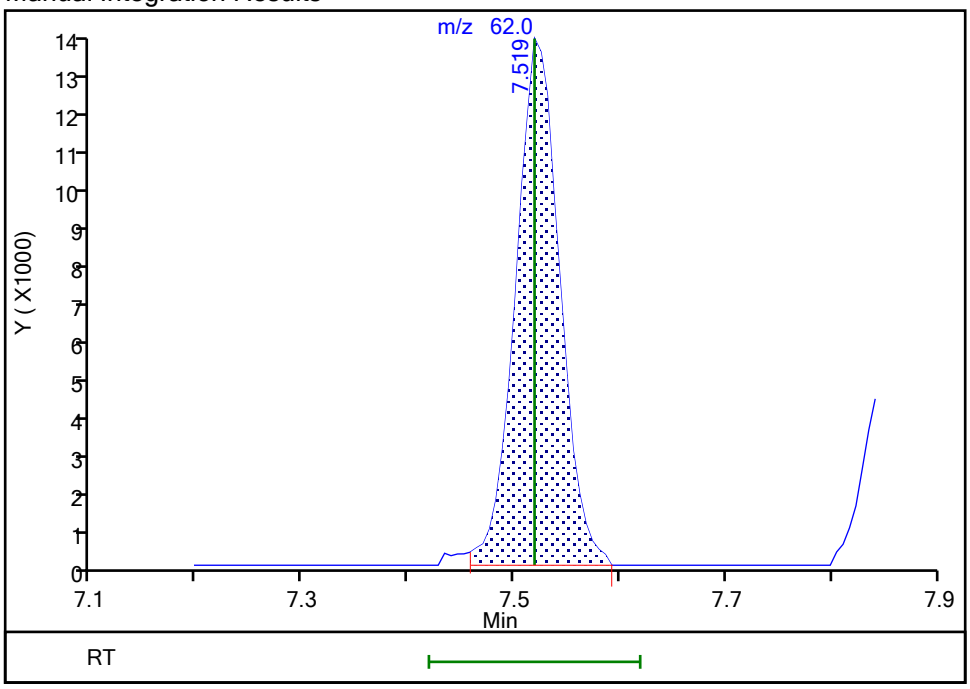
Processing Integration Results

RT: 7.52
Area: 40835
Amount: 4.161295
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 40616
Amount: 4.142279
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:55:19
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

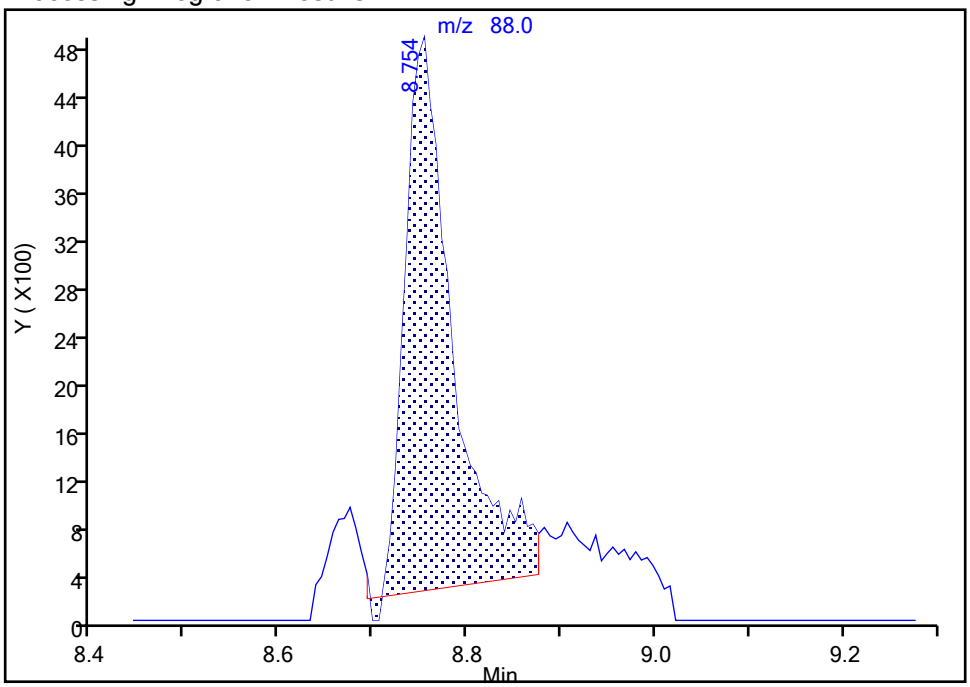
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I36.D
Injection Date: 03-Nov-2020 01:47:30 Instrument ID: 9355
Lims ID: IC std2 4
Client ID:
Operator ID: mec29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

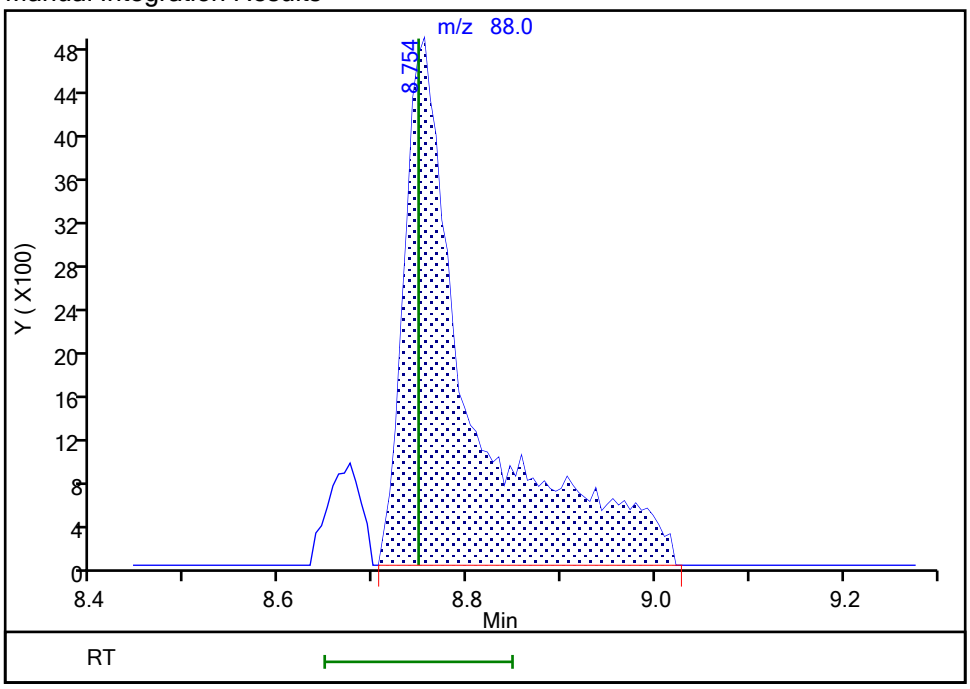
Processing Integration Results

RT: 8.75
Area: 16488
Amount: 150.3369
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 24388
Amount: 211.4875
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:55:29
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Lims ID: IC std1 1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 03-Nov-2020 02:09:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-009
Misc. Info.: IC STD1 1
Operator ID: mec29284 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:50:17 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 07:05:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	93	6759	1.00	0.8122	
4 Chloromethane	50	2.257	2.250	0.007	96	7055	1.00	0.9549	
5 Butadiene	39	2.360	2.366	-0.006	85	8554	1.00	1.34	M
6 Vinyl chloride	62	2.372	2.378	-0.006	79	6689	1.00	0.8901	M
8 Bromomethane	94	2.707	2.707	0.000	93	6260	1.00	0.9643	
9 Chloroethane	64	2.786	2.786	0.000	96	4458	1.00	0.9327	
10 Dichlorofluoromethane	67	3.029	3.029	0.000	94	10842	1.00	1.01	
11 Trichlorofluoromethane	101	3.114	3.108	0.006	95	11460	1.00	0.8872	M
12 Pentane	43	3.139	3.145	-0.006	96	8540	1.00	0.9447	M
14 Ethyl ether	59	3.358	3.358	0.000	88	5810	1.00	0.9747	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.425	3.425	0.000	78	7372	1.00	1.02	
16 Acrolein	56	3.528	3.522	0.006	98	24113	10.0	9.72	
17 1,1-Dichloroethene	96	3.674	3.680	-0.006	95	4944	1.00	0.9173	M
18 Acetone	58	3.704	3.698	0.006	84	1661	2.00	1.56	
19 112TCTFE	101	3.711	3.717	-0.006	81	4313	1.00	0.7513	
20 Isopropyl alcohol	45	3.869	3.863	0.006	58	16037	20.0	22.5	M
21 Iodomethane	142	3.887	3.881	0.006	98	9647	1.00	0.8687	
22 Carbon disulfide	76	4.009	4.003	0.006	99	15248	1.00	0.8860	
24 Methyl acetate	43	4.143	4.130	0.012	96	9090	1.00	1.13	
25 3-Chloro-1-propene	41	4.167	4.167	0.000	86	8863	1.00	1.01	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.343	0.006	0	327868	250.0	250.0	
27 Methylene Chloride	84	4.362	4.355	0.007	33	5316	1.00	0.8898	
28 2-Methyl-2-propanol	59	4.489	4.477	0.012	98	32551	20.0	21.0	
30 Acrylonitrile	53	4.672	4.678	-0.006	97	3451	1.00	0.8763	
31 Methyl tert-butyl ether	73	4.775	4.775	0.000	96	19992	1.00	0.9530	
32 trans-1,2-Dichloroethene	96	4.787	4.793	-0.006	97	5618	1.00	0.9016	
33 Hexane	57	5.213	5.213	0.000	91	7273	1.00	0.8199	M
35 1,1-Dichloroethane	63	5.438	5.438	0.000	92	9035	1.00	0.8682	
36 Isopropyl ether	45	5.499	5.493	0.006	96	17556	1.00	0.9409	M
37 2-Chloro-1,3-butadiene	53	5.548	5.548	0.000	93	7437	1.00	0.8105	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.034	6.028	0.006	95	18209	1.00	0.9398	M
S 39 1,2-Dichloroethene, Total	100				0			1.82	
40 2-Butanone (MEK)	43	6.223	6.217	0.006	97	11877	2.00	2.09	M
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	78	6575	1.00	0.9178	
43 2,2-Dichloropropane	77	6.284	6.278	0.006	59	8384	1.00	0.8657	
44 Propionitrile	54	6.290	6.290	0.000	97	33290	20.0	19.6	
45 Methacrylonitrile	67	6.515	6.515	0.000	91	43561	10.0	9.62	
46 Chlorobromomethane	128	6.600	6.600	0.000	89	3521	1.00	0.8789	
47 Tetrahydrofuran	71	6.625	6.612	0.013	81	3280	2.00	1.87	
48 Chloroform	83	6.740	6.740	0.000	92	9979	1.00	0.8984	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	93	281645	50.0	49.8	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	35	8614	1.00	0.8456	
51 Cyclohexane	56	7.087	7.093	-0.006	87	7982	1.00	0.7992	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	91	7126	1.00	0.8171	
53 Carbon tetrachloride	117	7.196	7.203	-0.007	90	7396	1.00	0.7974	
54 Isobutyl alcohol	41	7.294	7.300	-0.006	92	26459	50.0	54.4	M
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.422	-0.007	0	68478	50.0	50.5	
56 Benzene	78	7.452	7.452	0.000	96	22644	1.00	0.9026	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	97	10255	1.00	1.04	
59 Tert-amyl methyl ether	73	7.634	7.641	-0.007	96	18596	1.00	0.9237	
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1123707	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	37	8815	1.00	0.8770	
63 n-Butanol	56	8.182	8.176	0.006	89	43910	100.0	93.1	
64 Trichloroethene	95	8.334	8.334	0.000	93	5972	1.00	0.8524	
65 Methylcyclohexane	83	8.657	8.657	0.001	79	9548	1.00	0.8071	
66 1,2-Dichloropropane	63	8.669	8.663	0.006	70	5682	1.00	0.8702	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	92	9153	1.00	0.8531	
68 Methyl methacrylate	69	8.736	8.736	0.000	93	6347	1.00	0.8795	
69 1,4-Dioxane	88	8.754	8.748	0.006	93	4447	50.0	36.8	
70 Dibromomethane	93	8.784	8.778	0.006	92	4133	1.00	0.8551	
72 Dichlorobromomethane	83	9.009	9.009	0.000	97	7003	1.00	0.8254	
73 2-Nitropropane	41	9.247	9.247	0.000	97	6371	2.00	1.75	
74 2-Chloroethyl vinyl ether	63	9.356	9.350	0.006	91	2785	1.00	0.8333	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	94	9008	1.00	0.8242	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	20476	2.00	1.86	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1117794	50.0	51.6	
78 Toluene	92	9.922	9.928	-0.006	97	14982	1.00	0.9098	
S 80 1,3-Dichloropropene, Total	100				0			1.66	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	93	8576	1.00	0.8359	
82 Ethyl methacrylate	69	10.226	10.226	0.000	89	9649	1.00	0.8753	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	5947	1.00	0.9042	
84 Tetrachloroethene	166	10.476	10.475	0.001	97	7401	1.00	0.8792	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	10212	1.00	0.9263	
87 2-Hexanone	43	10.573	10.573	0.000	97	16497	2.00	1.90	
89 Chlorodibromomethane	129	10.755	10.755	0.000	87	5930	1.00	0.7907	
90 Ethylene Dibromide	107	10.871	10.871	0.000	97	6800	1.00	0.8924	
S 91 Xylenes, Total	106				0			2.57	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	889604	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	53	9958	1.00	1.01	
94 Chlorobenzene	112	11.321	11.321	0.000	97	18365	1.00	0.9096	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	81	5806	1.00	0.7911	
96 Ethylbenzene	91	11.406	11.400	0.006	98	28519	1.00	0.8849	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
97 m-Xylene & p-Xylene	106	11.522	11.516	0.006	0	23095	2.00	1.72	
98 o-Xylene	106	11.844	11.844	0.000	96	11365	1.00	0.8580	
99 Styrene	104	11.856	11.856	0.000	93	17829	1.00	0.8180	
100 Bromoform	173	12.021	12.021	0.000	95	4504	1.00	0.7313	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	28789	1.00	0.8706	
103 Cyclohexanone	55	12.215	12.215	0.000	93	25888	50.0	47.1	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	422839	50.0	51.0	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	10040	1.00	0.9159	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	92	34163	10.0	8.95	
107 Bromobenzene	156	12.404	12.410	-0.006	64	8920	1.00	0.8871	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	78	3840	1.00	0.9741	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	34581	1.00	0.9122	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	7628	1.00	0.8712	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	93	25281	1.00	0.8694	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	8062	1.00	0.8702	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	5800	1.00	0.8574	
115 Pentachloroethane	167	12.885	12.885	0.000	74	4157	1.00	0.7624	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	97	25751	1.00	0.8465	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	32332	1.00	0.8701	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	16576	1.00	0.8950	
119 4-Isopropyltoluene	119	13.116	13.122	-0.006	96	28040	1.00	0.8256	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	94	504472	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	94	17519	1.00	0.9115	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	28147	1.00	0.9148	
123 Benzyl chloride	91	13.262	13.262	0.000	98	18819	1.00	0.7996	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	96	17881	1.00	0.8746	
125 p-Diethylbenzene	119	13.390	13.390	0.000	96	18442	1.00	0.8522	
126 n-Butylbenzene	92	13.414	13.408	0.006	97	13992	1.00	0.8406	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	98	16426	1.00	0.9109	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	15185	1.00	0.8881	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	85	2885	1.00	0.9319	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	13708	1.00	0.9173	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	93	13358	1.00	0.9613	
133 Hexachlorobutadiene	225	14.625	14.624	0.000	97	6478	1.00	0.9702	
134 Naphthalene	128	14.722	14.722	0.000	97	41784	1.00	0.99	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	12766	1.00	0.9706	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	27569	1.00	1.04	
S 166 Total Diethylbenzene	1				0			2.61	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_4ppbEE_00115	Amount Added: 12.50	Units: mL	
MSV_HP20_ISSS_00029	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:50:18 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355 Operator ID: mec29284

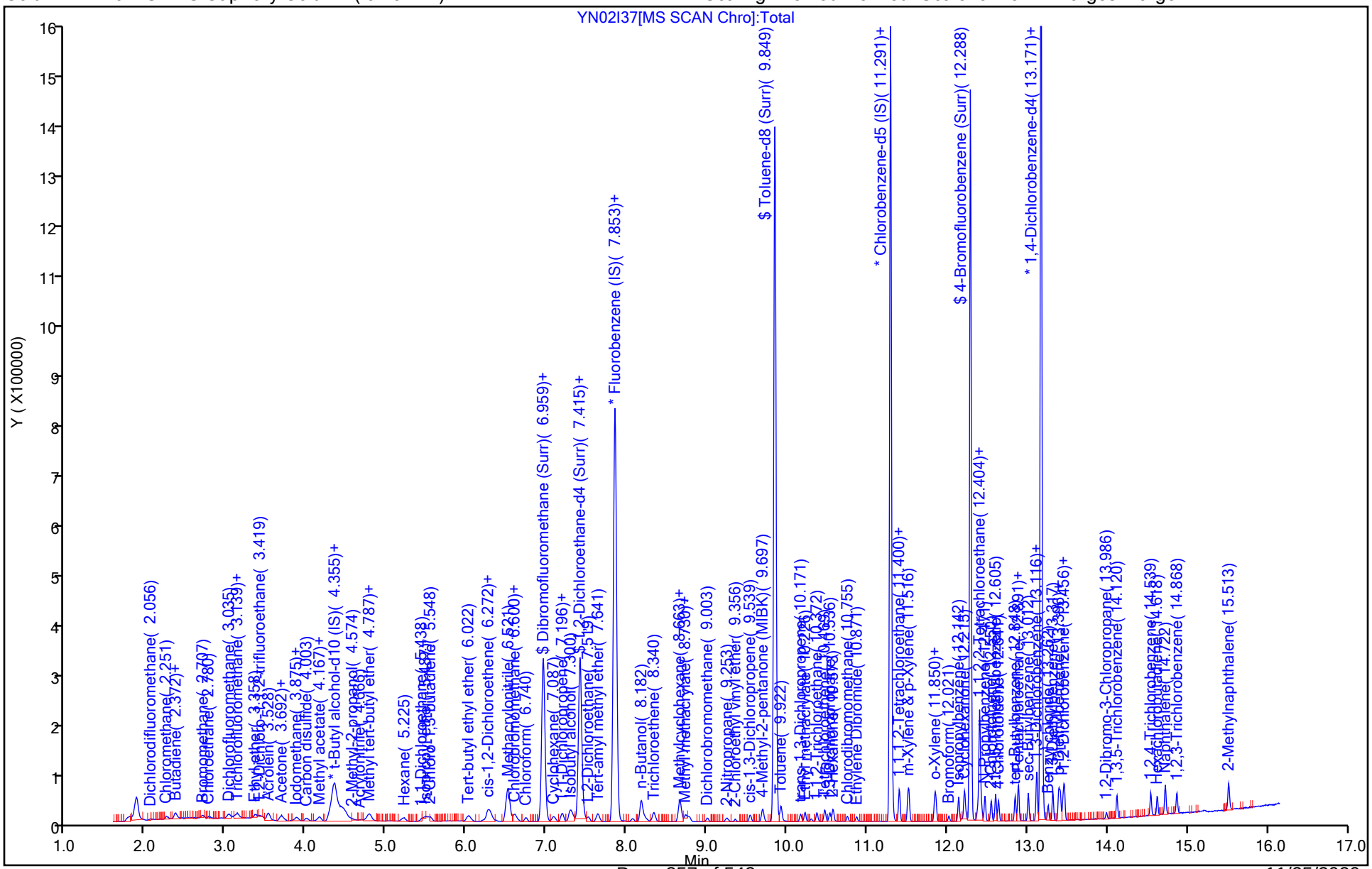
Lims ID: IC std1 1 Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 8

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

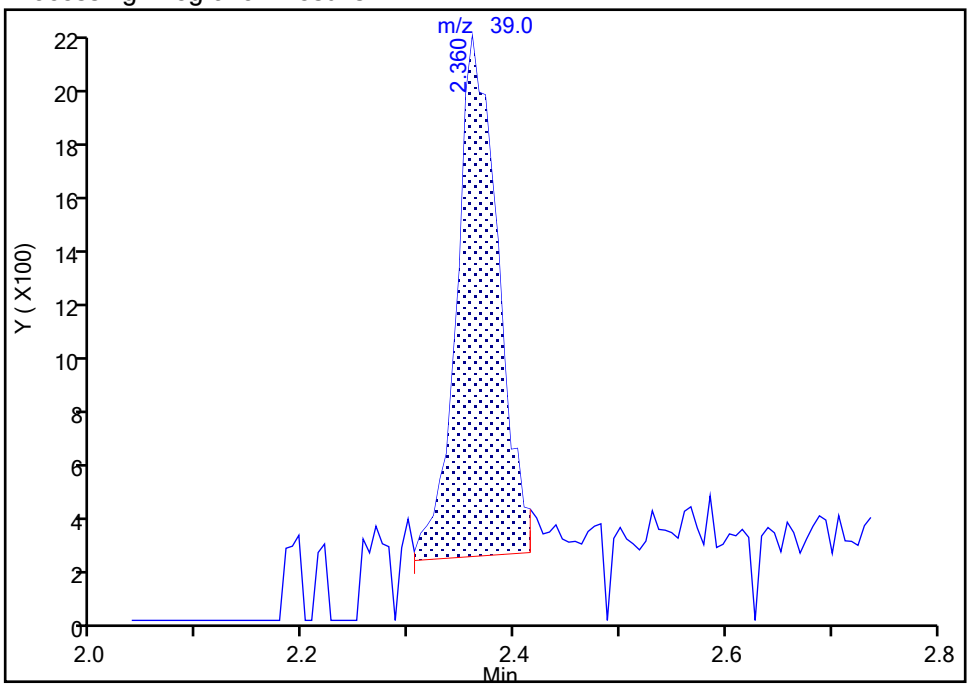
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

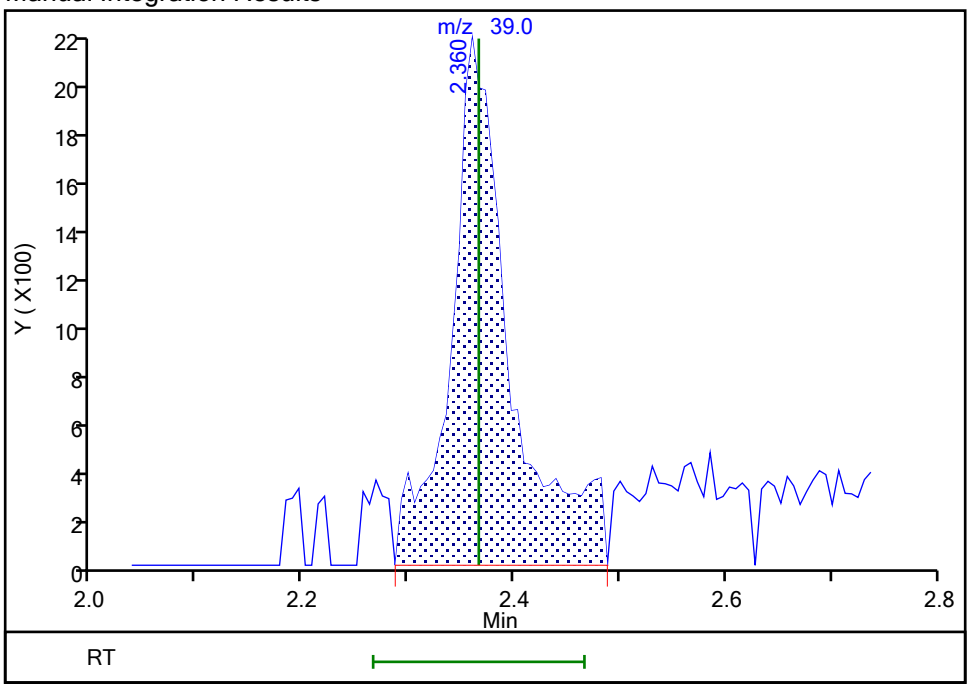
Processing Integration Results

RT: 2.36
Area: 5324
Amount: 0.900396
Amount Units: ug/l



Manual Integration Results

RT: 2.36
Area: 8554
Amount: 1.341934
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 06:56:49
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

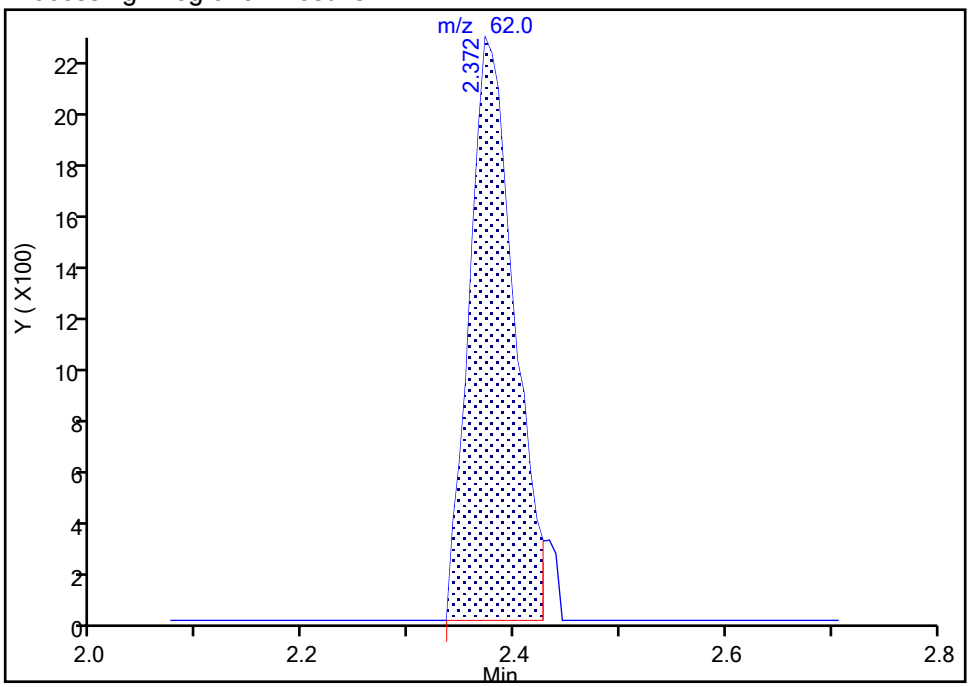
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

6 Vinyl chloride, CAS: 75-01-4

Signal: 1

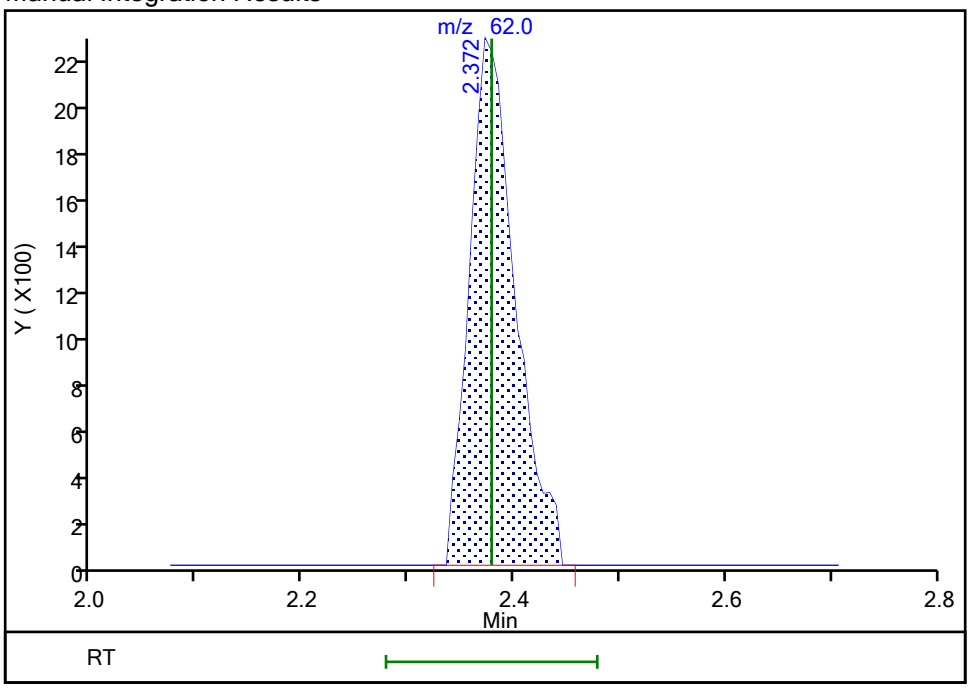
Processing Integration Results

RT: 2.37
Area: 6485
Amount: 0.866301
Amount Units: ug/l



Manual Integration Results

RT: 2.37
Area: 6689
Amount: 0.890088
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:00:05
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

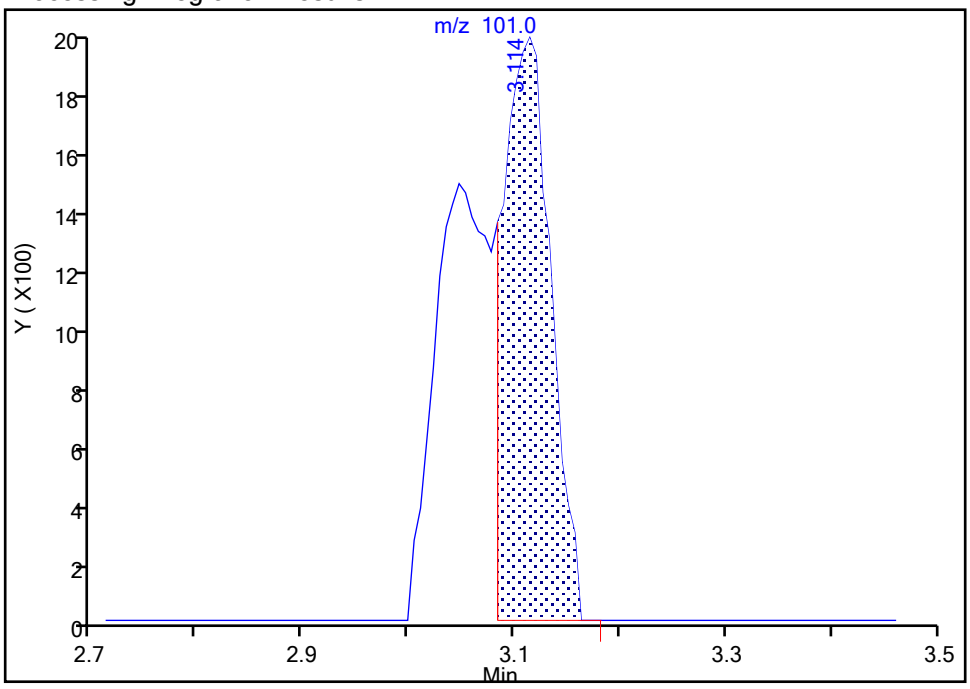
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

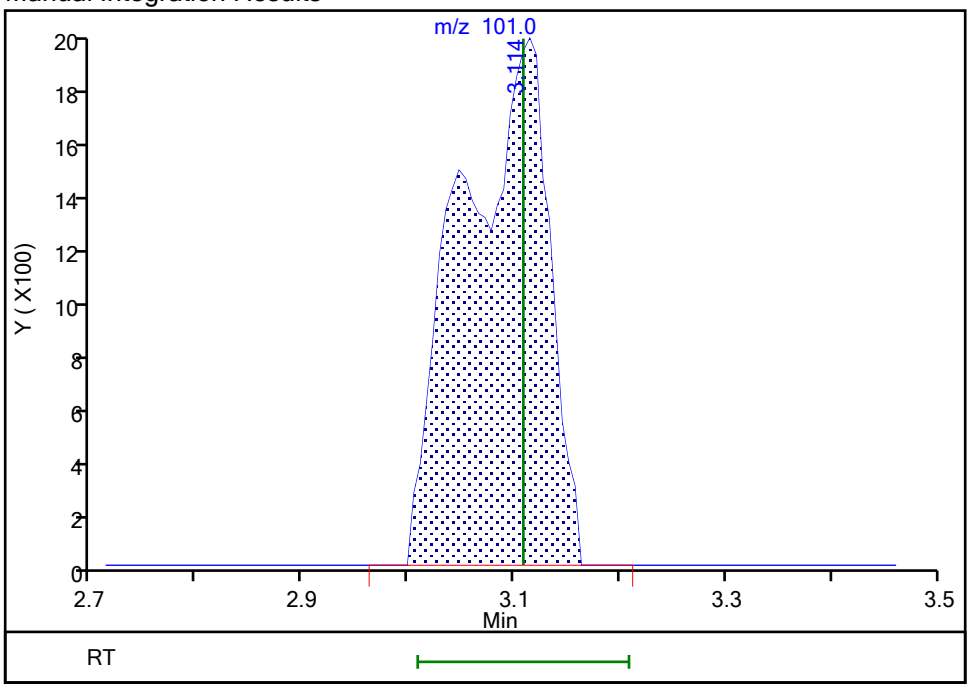
Processing Integration Results

RT: 3.11
Area: 6241
Amount: 0.543879
Amount Units: ug/l



Manual Integration Results

RT: 3.11
Area: 11460
Amount: 0.887192
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:00:09
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

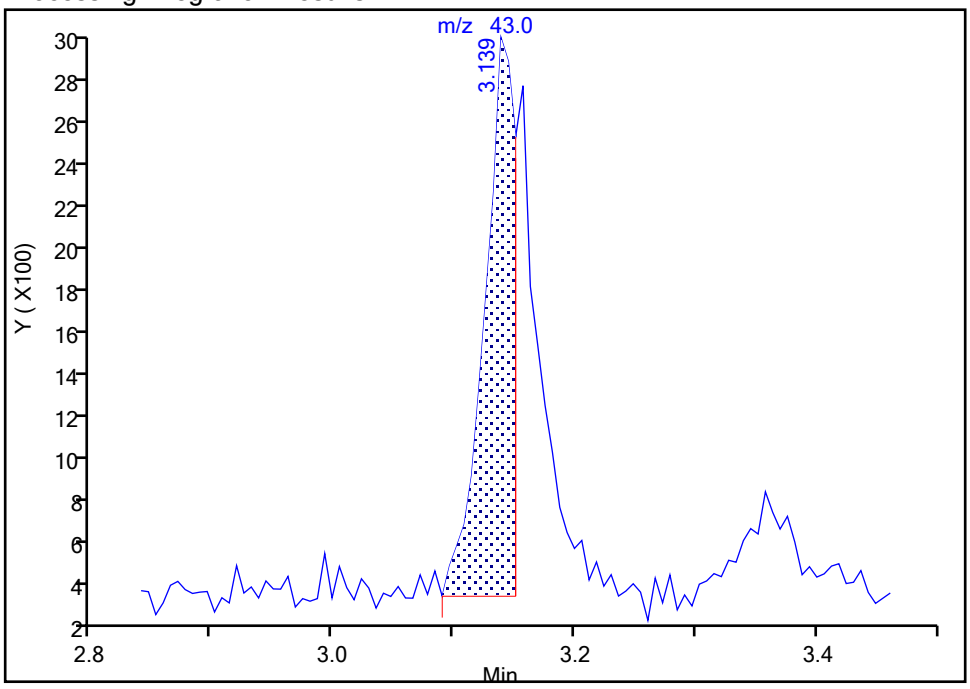
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

12 Pentane, CAS: 109-66-0

Signal: 1

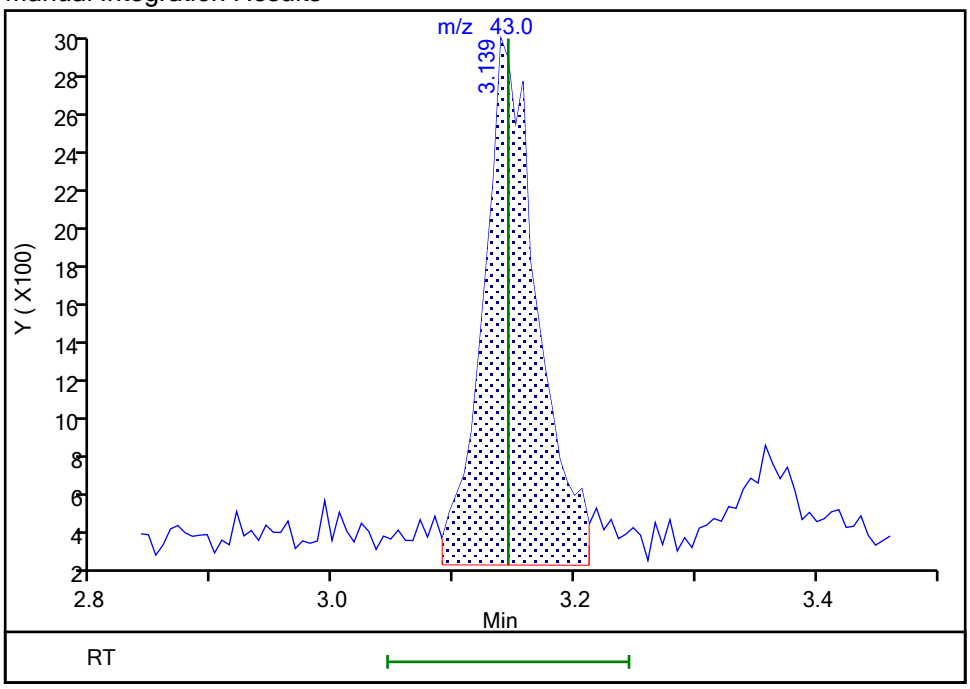
Processing Integration Results

RT: 3.14
Area: 4651
Amount: 0.984523
Amount Units: ug/l



Manual Integration Results

RT: 3.14
Area: 8540
Amount: 0.944733
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:00:18
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

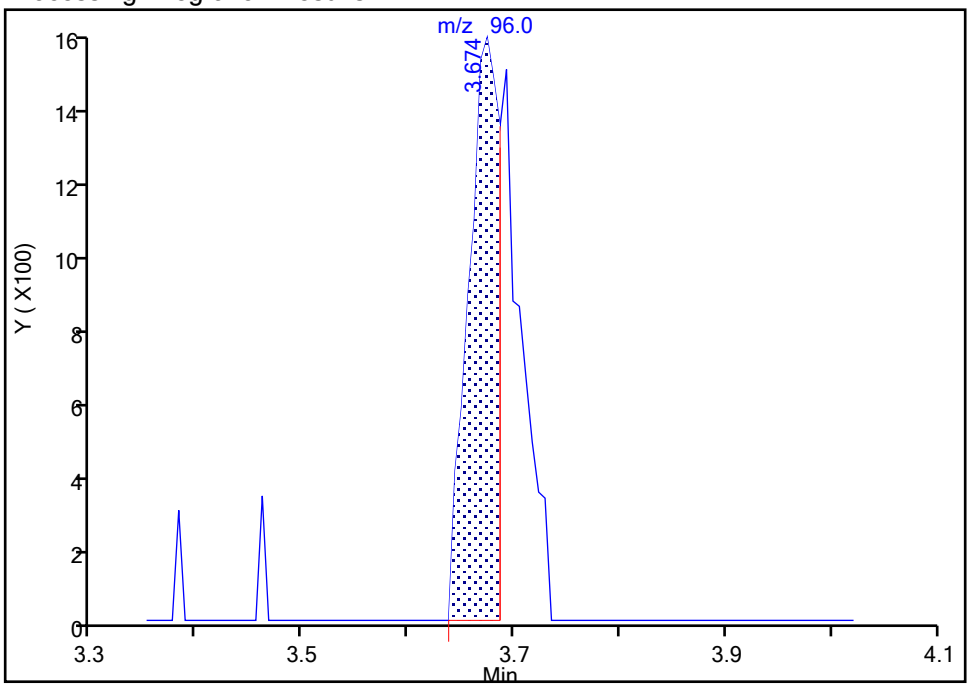
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

17 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

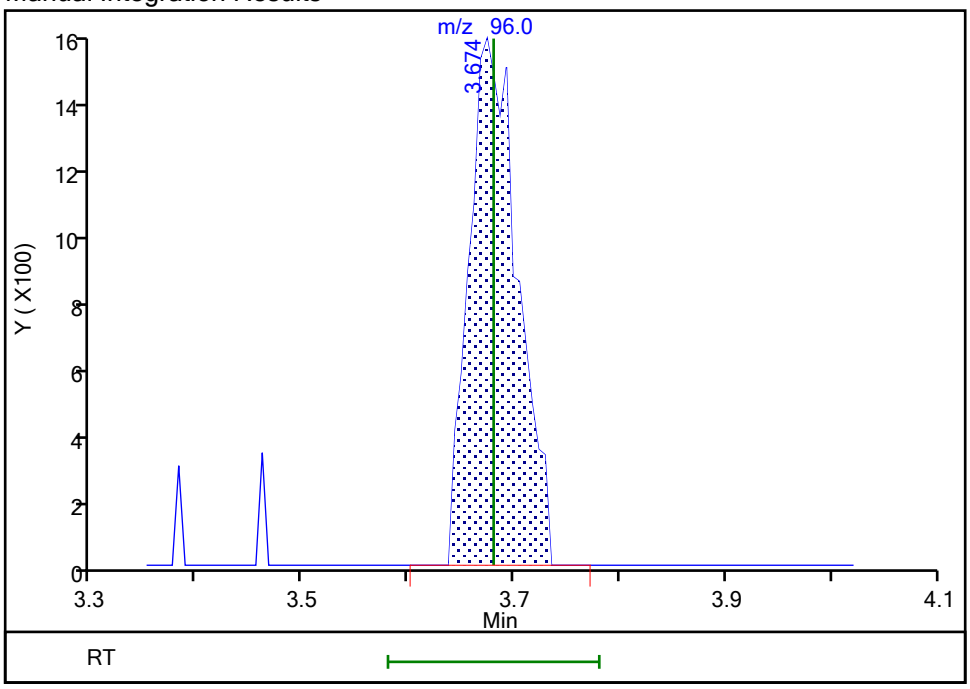
Processing Integration Results

RT: 3.67
Area: 3152
Amount: 0.613982
Amount Units: ug/l



Manual Integration Results

RT: 3.67
Area: 4944
Amount: 0.917305
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:00:25
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

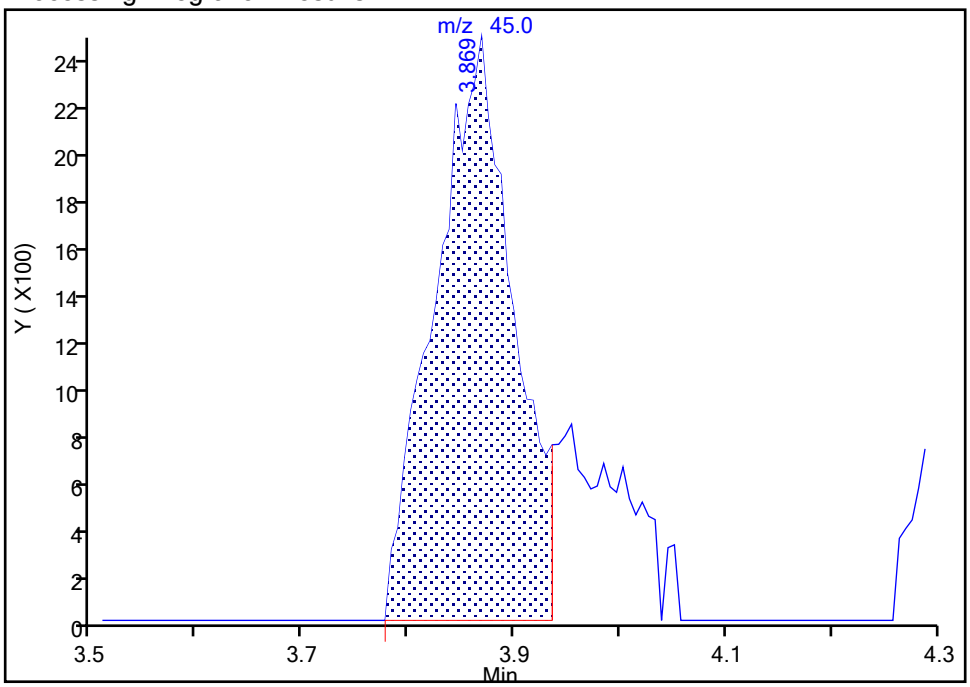
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

20 Isopropyl alcohol, CAS: 67-63-0

Signal: 1

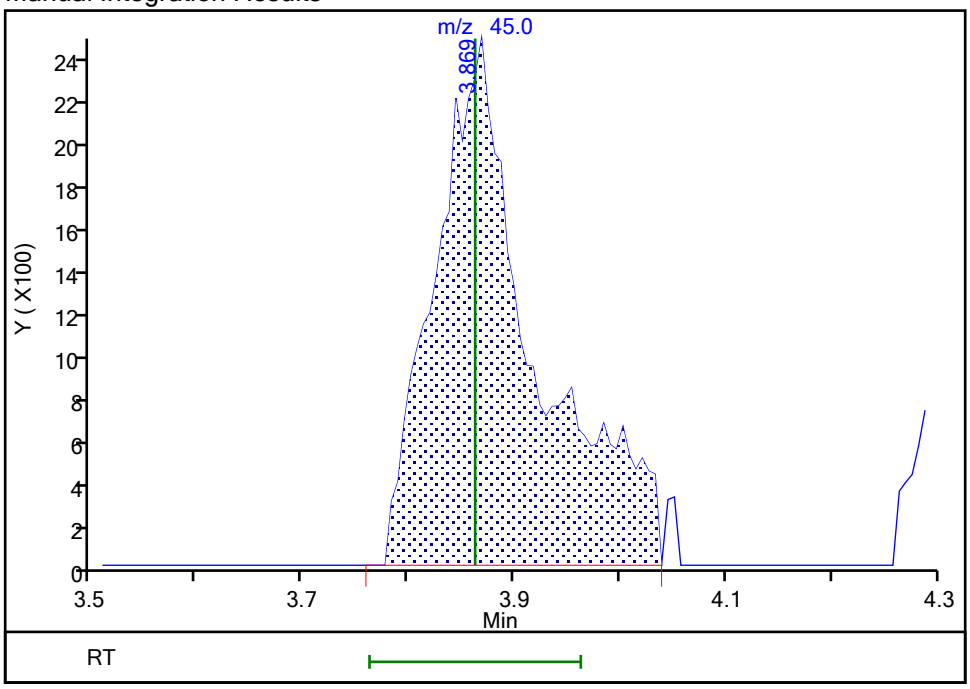
Processing Integration Results

RT: 3.87
Area: 12630
Amount: 18.320942
Amount Units: ug/l



Manual Integration Results

RT: 3.87
Area: 16037
Amount: 22.469887
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:05:46
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

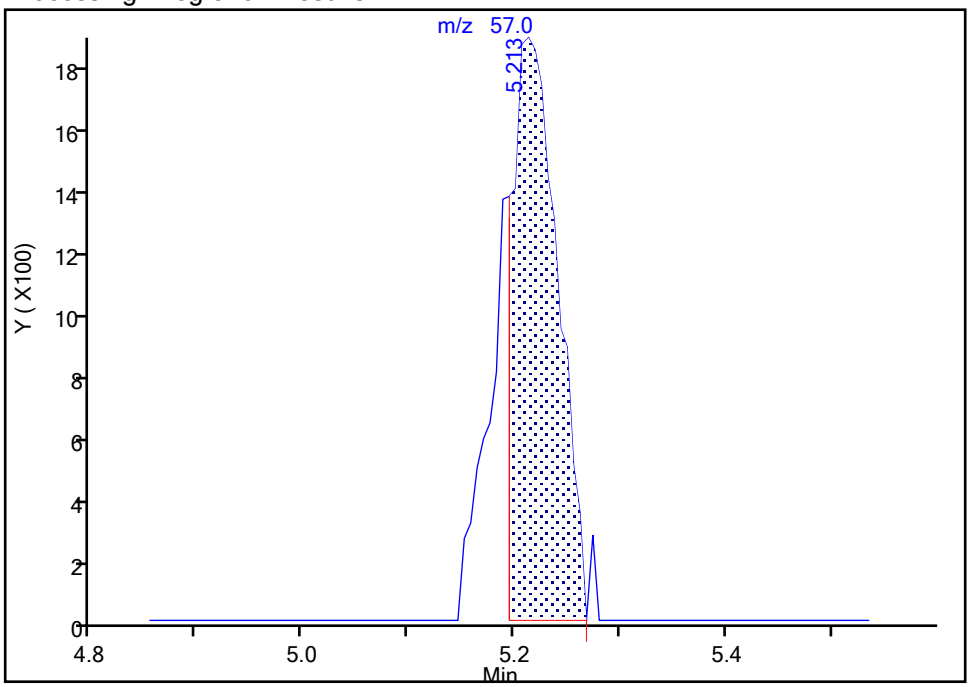
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

33 Hexane, CAS: 110-54-3

Signal: 1

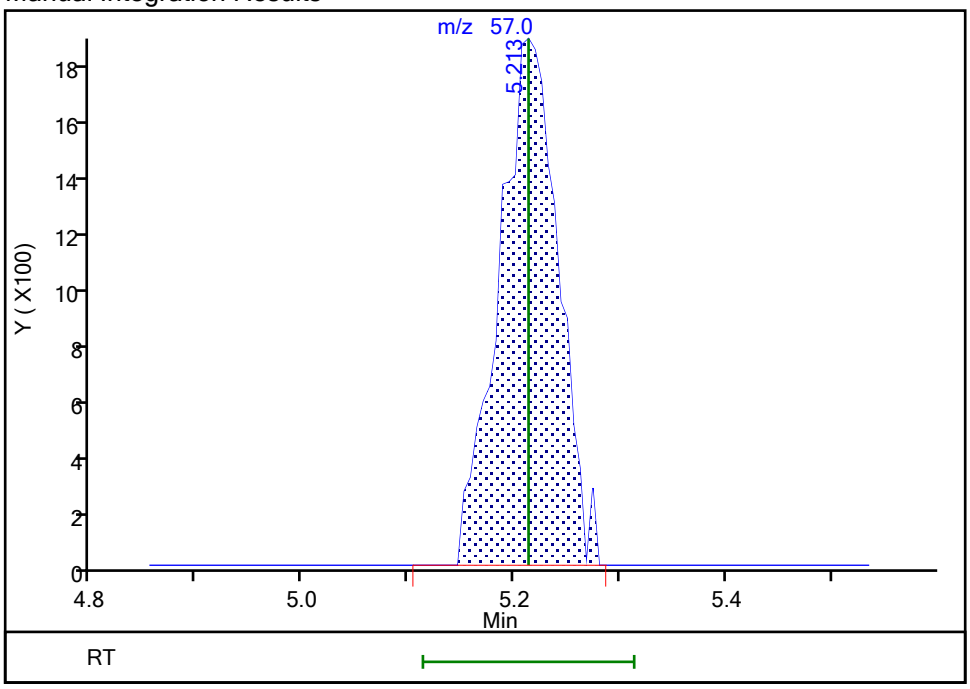
Processing Integration Results

RT: 5.21
Area: 5569
Amount: -0.505288
Amount Units: ug/l



Manual Integration Results

RT: 5.21
Area: 7273
Amount: 0.819863
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:05:54
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

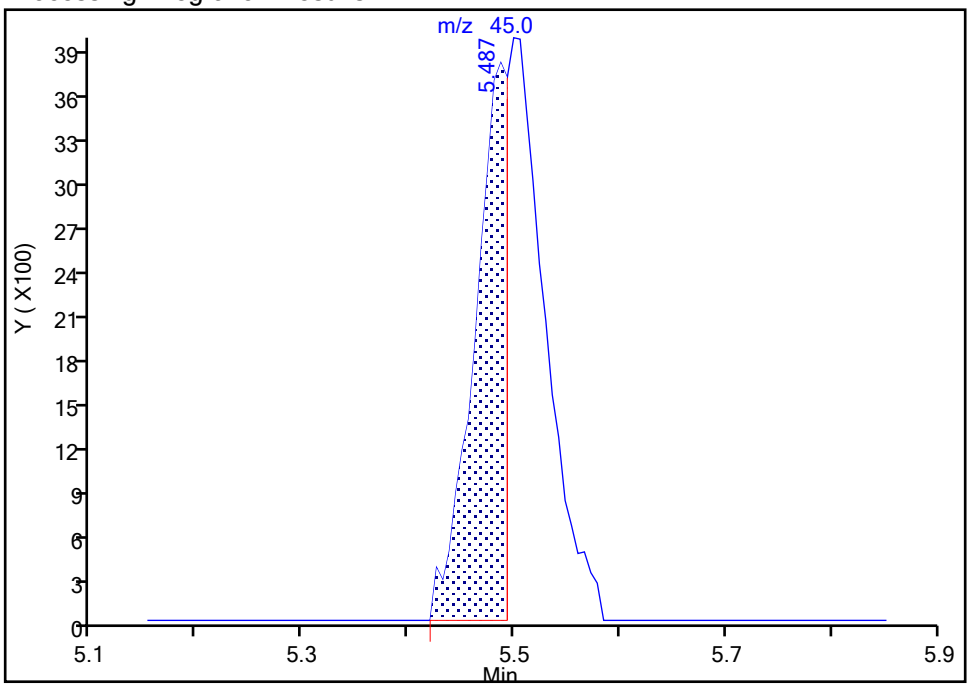
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

36 Isopropyl ether, CAS: 108-20-3

Signal: 1

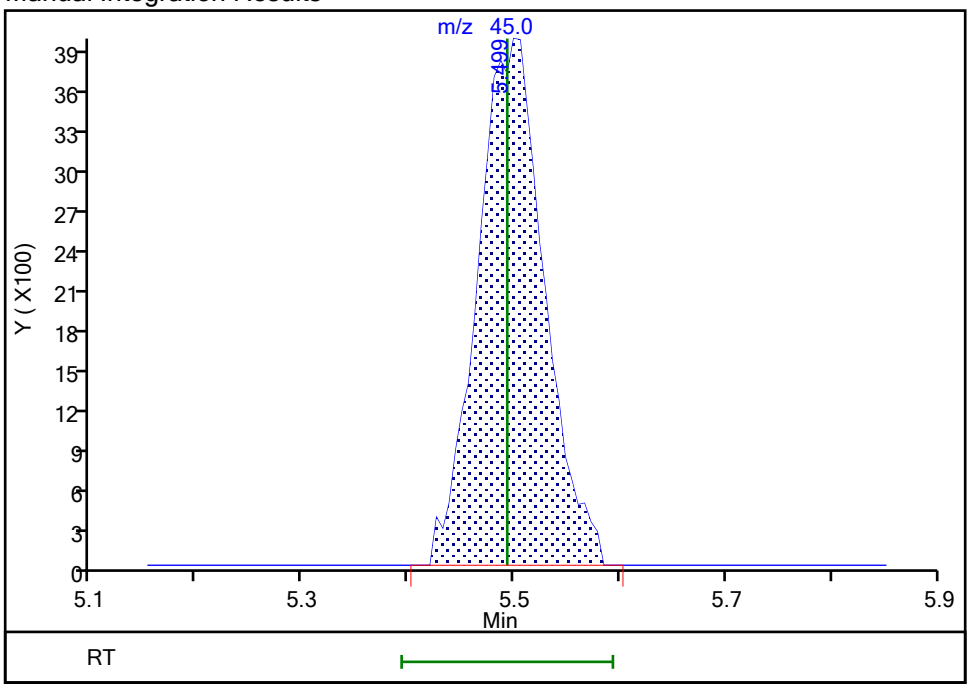
Processing Integration Results

RT: 5.49
Area: 8527
Amount: 0.970000
Amount Units: ug/l



Manual Integration Results

RT: 5.50
Area: 17556
Amount: 0.940890
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:06:01
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

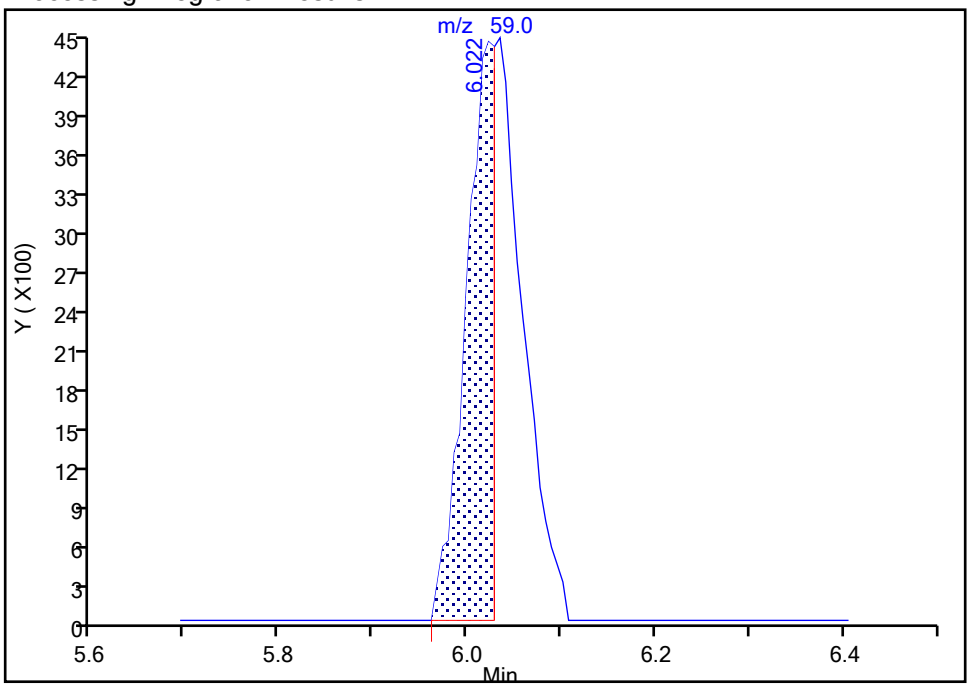
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

38 Tert-butyl ethyl ether, CAS: 637-92-3

Signal: 1

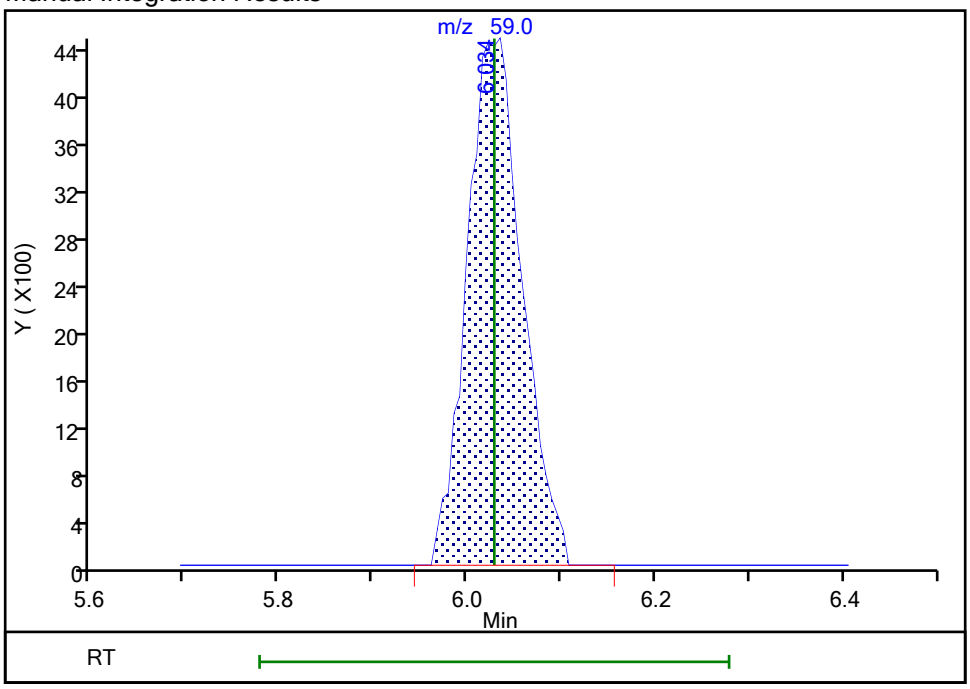
Processing Integration Results

RT: 6.02
Area: 9642
Amount: 0.970900
Amount Units: ug/l



Manual Integration Results

RT: 6.03
Area: 18209
Amount: 0.939801
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:06:06
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

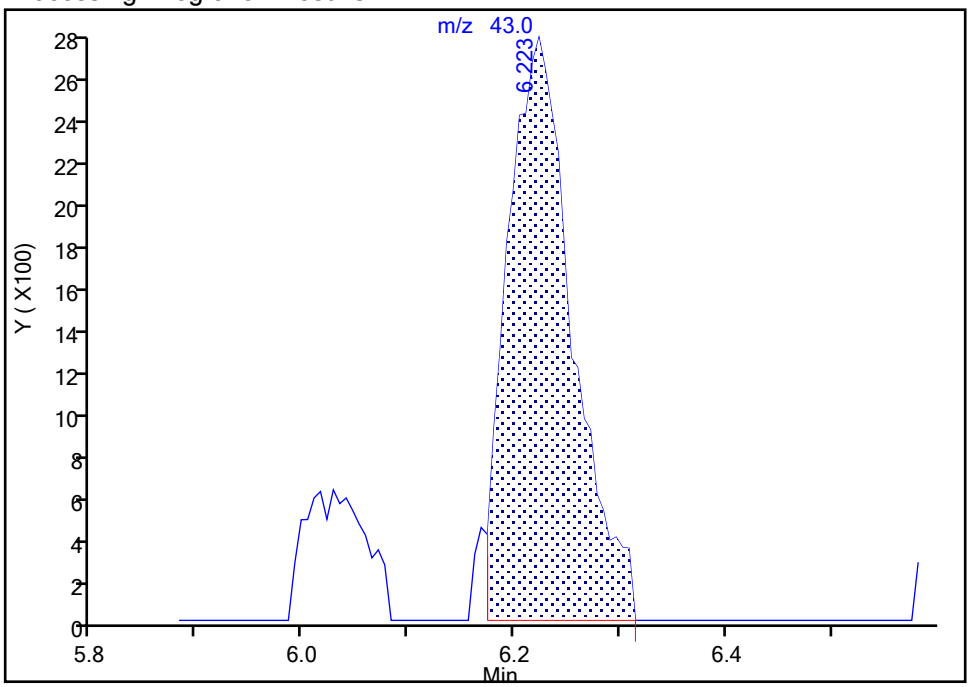
Data File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D				
Injection Date:	03-Nov-2020 02:09:30	Instrument ID:	9355		
Lims ID:	IC std1 1				
Client ID:					
Operator ID:	mec29284	ALS Bottle#:	8	Worklist Smp#:	9
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

40 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

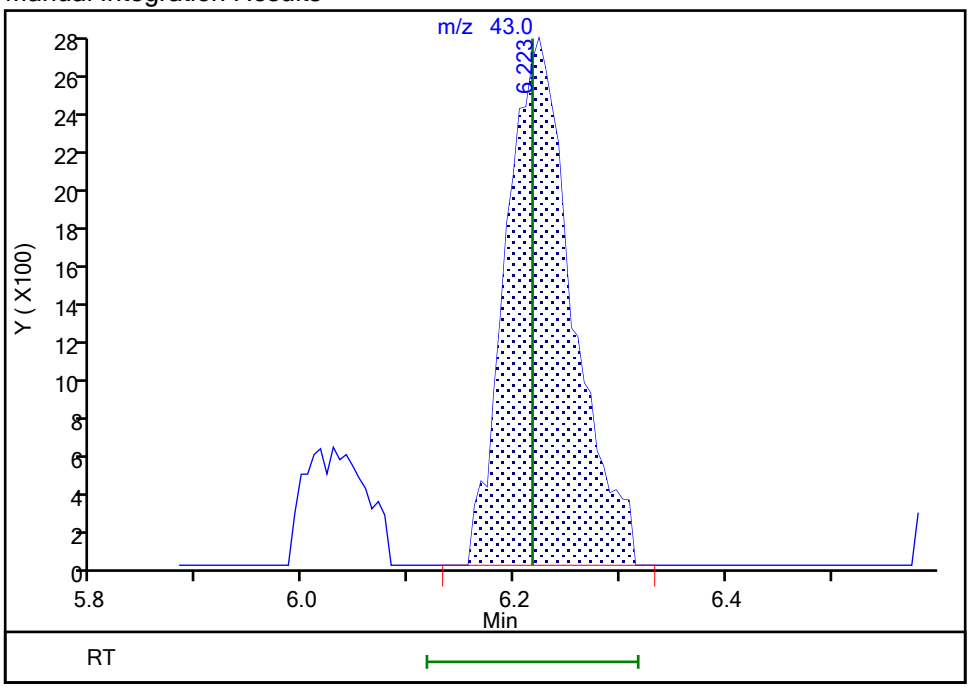
Processing Integration Results

RT: 6.22
Area: 11608
Amount: 2.053369
Amount Units: ug/l



Manual Integration Results

RT: 6.22
Area: 11877
Amount: 2.093837
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:06:11
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

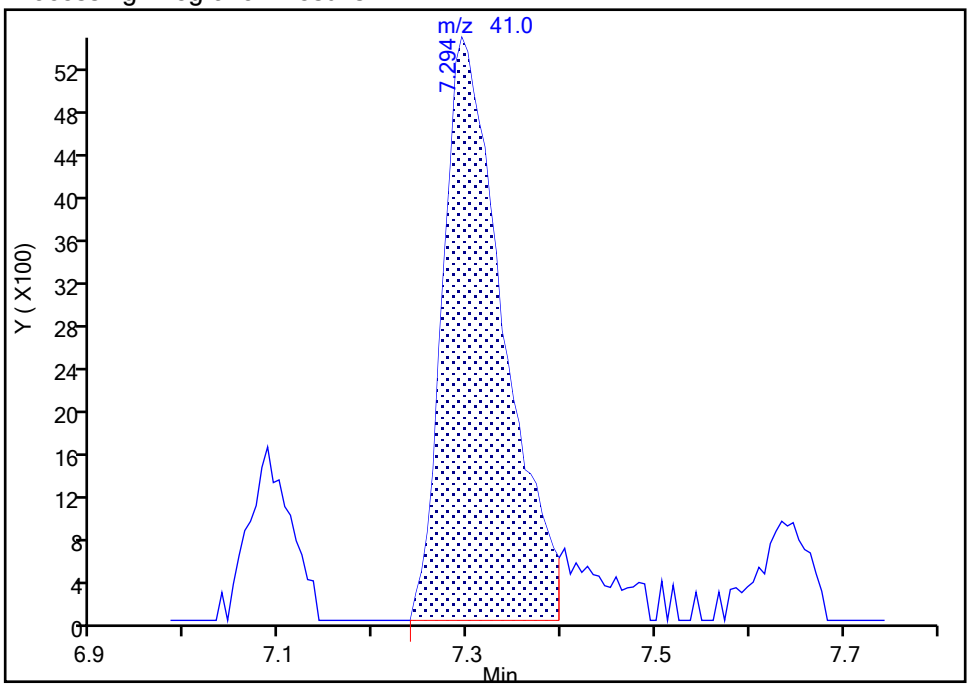
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D
Injection Date: 03-Nov-2020 02:09:30 Instrument ID: 9355
Lims ID: IC std1 1
Client ID:
Operator ID: mec29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

54 Isobutyl alcohol, CAS: 78-83-1

Signal: 1

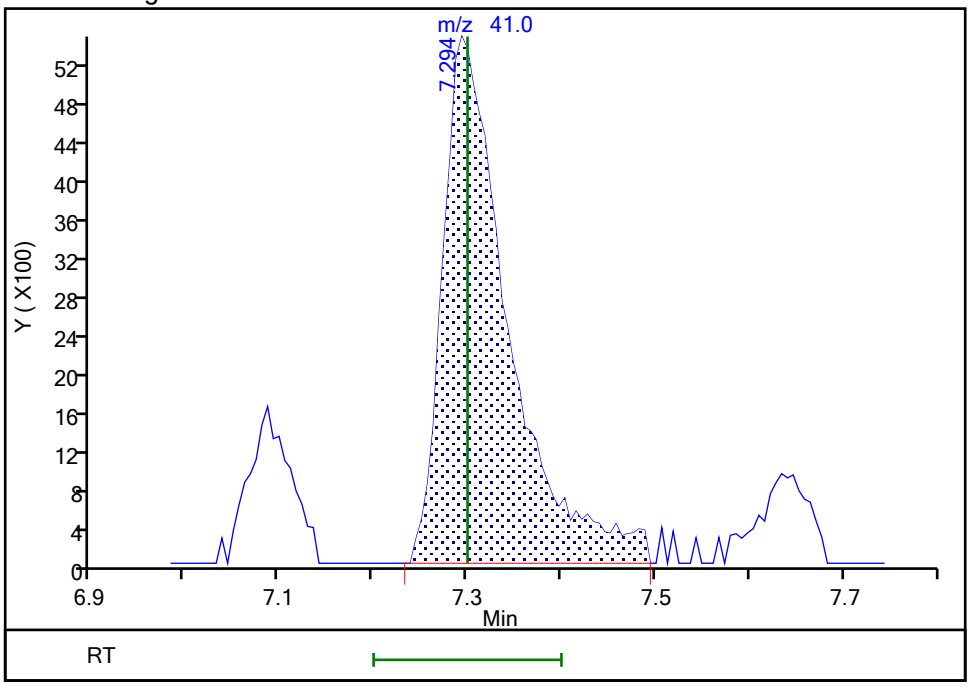
Processing Integration Results

RT: 7.29
Area: 24253
Amount: 50.515066
Amount Units: ug/l



Manual Integration Results

RT: 7.29
Area: 26459
Amount: 54.395709
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:06:21
Audit Action: Manually Integrated Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: ICV 410-61287/11 Calibration Date: 11/03/2020 02:53

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN02V31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3703	0.2676	0.1000	14.5	20.0	-27.7	30.0
Chloromethane	Ave	0.3287	0.2741	0.1000	16.7	20.0	-16.6	30.0
1,3-Butadiene	Ave	0.2836	0.2847		20.1	20.0	0.4	30.0
Vinyl chloride	Ave	0.3344	0.3055	0.1000	18.3	20.0	-8.6	30.0
Bromomethane	Ave	0.2889	0.2634	0.1000	18.2	20.0	-8.8	30.0
Chloroethane	Ave	0.2127	0.1946	0.1000	18.3	20.0	-8.5	30.0
Dichlorofluoromethane	Ave	0.4771	0.4535		19.0	20.0	-5.0	30.0
Trichlorofluoromethane	Ave	0.5748	0.5193	0.1000	18.1	20.0	-9.6	30.0
n-Pentane	Ave	0.4022	0.3639		18.1	20.0	-9.5	30.0
Ethyl ether	Ave	0.2652	0.2761		20.8	20.0	4.1	30.0
Freon 123a	Ave	0.3216	0.3159		19.6	20.0	-1.8	30.0
Acrolein	Ave	1.891	1.945		154	150	2.8	30.0
1,1-Dichloroethene	Ave	0.2398	0.2472	0.1000	20.6	20.0	3.1	30.0
Acetone	Ave	0.8132	0.8587	0.1000	158	150	5.6	30.0
Freon 113	Ave	0.2554	0.2402	0.1000	18.8	20.0	-6.0	30.0
2-Propanol	Ave	0.5442	0.4926		136	150	-9.5	30.0
Methyl iodide	Ave	0.4941	0.4837		19.6	20.0	-2.1	30.0
Carbon disulfide	Ave	0.7658	0.7632	0.1000	19.9	20.0	-0.3	30.0
Methyl acetate	Ave	0.3585	0.3554	0.1000	19.8	20.0	-0.9	30.0
Allyl chloride	Ave	0.3905	0.3677		18.8	20.0	-5.8	30.0
Methylene Chloride	Ave	0.2658	0.2807	0.1000	21.1	20.0	5.6	30.0
t-Butyl alcohol	Ave	1.182	1.167		197	200	-1.3	30.0
Acrylonitrile	Ave	0.1752	0.1784		102	100	1.8	30.0
Methyl tertiary butyl ether	Ave	0.9334	0.9006	0.1000	19.3	20.0	-3.5	30.0
trans-1,2-Dichloroethene	Ave	0.2772	0.2816	0.1000	20.3	20.0	1.6	30.0
n-Hexane	Ave	0.3947	0.3740		19.0	20.0	-5.2	30.0
1,1-Dichloroethane	Ave	0.4630	0.4786	0.2000	20.7	20.0	3.4	30.0
di-Isopropyl ether	Ave	0.8302	0.8226		19.8	20.0	-0.9	30.0
2-Chloro-1,3-butadiene	Ave	0.4083	0.4089		20.0	20.0	0.2	30.0
Ethyl t-butyl ether	Ave	0.8621	0.8530		19.8	20.0	-1.1	30.0
2-Butanone	Ave	0.2524	0.2576	0.1000	153	150	2.1	30.0
cis-1,2-Dichloroethene	Ave	0.3188	0.3401	0.1000	21.3	20.0	6.7	30.0
2,2-Dichloropropane	Ave	0.4309	0.4445		20.6	20.0	3.2	30.0
Propionitrile	Ave	1.298	1.309		151	150	0.8	30.0
Methacrylonitrile	Ave	0.2015	0.2043		152	150	1.4	30.0
Bromochloromethane	Ave	0.1783	0.1739		19.5	20.0	-2.4	30.0
Tetrahydrofuran	Ave	1.338	1.477		110	100	10.3	30.0
Chloroform	Ave	0.4942	0.5100	0.2000	20.6	20.0	3.2	30.0
1,1,1-Trichloroethane	Ave	0.4533	0.4578	0.1000	20.2	20.0	1.0	30.0
Cyclohexane	Ave	0.4444	0.4429	0.1000	19.9	20.0	-0.3	30.0
1,1-Dichloropropene	Ave	0.3881	0.3925		20.2	20.0	1.1	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: ICV 410-61287/11 Calibration Date: 11/03/2020 02:53

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN02V31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon tetrachloride	Ave	0.4127	0.4140	0.1000	20.1	20.0	0.3	30.0
Isobutyl alcohol	Ave	0.3709	0.3698		498	500	-0.3	30.0
Benzene	Ave	1.116	1.140	0.5000	20.4	20.0	2.1	30.0
1,2-Dichloroethane	Ave	0.4371	0.4366	0.1000	20.0	20.0	-0.1	30.0
t-Amyl methyl ether	Ave	0.8958	0.9049		20.2	20.0	1.0	30.0
n-Heptane	Ave	0.4472	0.4097		18.3	20.0	-8.4	30.0
n-Butanol	Ave	0.3598	0.3748		1040	1000	4.2	30.0
Trichloroethene	Ave	0.3118	0.3168	0.2000	20.3	20.0	1.6	30.0
Methylcyclohexane	Ave	0.5264	0.5038	0.1000	19.1	20.0	-4.3	30.0
1,2-Dichloropropane	Ave	0.2905	0.3015	0.1000	20.8	20.0	3.8	30.0
t-Amyl ethyl ether	Ave	0.4774	0.4742		19.9	20.0	-0.7	30.0
Methyl methacrylate	Ave	0.3211	0.3213		20.0	20.0	0.0	30.0
1,4-Dioxane	Ave	0.0921	0.1002	0.0050	544	500	8.8	30.0
Dibromomethane	Ave	0.2151	0.2188		20.3	20.0	1.7	30.0
Bromodichloromethane	Ave	0.3775	0.3834	0.2000	20.3	20.0	1.5	30.0
2-Nitropropane	Ave	2.773	2.897		20.9	20.0	4.5	30.0
2-Chloroethyl vinyl ether	Ave	0.1487	0.1552		20.9	20.0	4.4	30.0
cis-1,3-Dichloropropene	Ave	0.4863	0.4928	0.2000	20.3	20.0	1.3	30.0
4-Methyl-2-pentanone	Ave	0.4906	0.5185	0.1000	106	100	5.7	30.0
Toluene	Ave	0.9255	0.9498	0.4000	20.5	20.0	2.6	30.0
trans-1,3-Dichloropropene	Ave	0.5767	0.5807	0.1000	20.1	20.0	0.7	30.0
Ethyl methacrylate	Ave	0.6196	0.6401		20.7	20.0	3.3	30.0
1,1,2-Trichloroethane	Ave	0.3697	0.3891	0.1000	21.1	20.0	5.3	30.0
Tetrachloroethene	Ave	0.4731	0.4710	0.2000	19.9	20.0	-0.5	30.0
1,3-Dichloropropane	Ave	0.6197	0.6270		20.2	20.0	1.2	30.0
2-Hexanone	Ave	0.4875	0.5303	0.1000	109	100	8.8	30.0
Dibromochloromethane	Ave	0.4215	0.4351		20.6	20.0	3.2	30.0
1,2-Dibromoethane	Ave	0.4283	0.4380	0.1000	20.5	20.0	2.3	30.0
1-Chlorohexane	Ave	0.5517	0.5316		19.3	20.0	-3.6	30.0
Chlorobenzene	Ave	1.135	1.160	0.5000	20.4	20.0	2.2	30.0
1,1,1,2-Tetrachloroethane	Ave	0.4125	0.4128		20.0	20.0	0.0	30.0
Ethylbenzene	Ave	1.811	1.852	0.1000	20.4	20.0	2.2	30.0
m&p-Xylene	Ave	0.7560	0.7727	0.1000	40.9	40.0	2.2	30.0
o-Xylene	Ave	0.7445	0.7463	0.3000	20.0	20.0	0.2	30.0
Styrene	Ave	1.225	1.252	0.3000	20.4	20.0	2.2	30.0
Bromoform	Ave	0.3462	0.3359	0.1000	19.4	20.0	-3.0	30.0
Isopropylbenzene	Ave	1.859	1.919	0.1000	20.7	20.0	3.3	30.0
Cyclohexanone	Ave	0.4192	0.3376		403	500	-19.5	30.0
1,1,2,2-Tetrachloroethane	Ave	1.086	1.102	0.3000	20.3	20.0	1.5	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3783	0.3991		106	100	5.5	30.0
Bromobenzene	Ave	0.997	1.009		20.2	20.0	1.2	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: ICV 410-61287/11 Calibration Date: 11/03/2020 02:53

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN02V31.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3907	0.3882		19.9	20.0	-0.6	30.0
N-Propylbenzene	Ave	3.758	3.894		20.7	20.0	3.6	30.0
2-Chlorotoluene	Ave	0.8678	0.8768		20.2	20.0	1.0	30.0
1,3,5-Trimethylbenzene	Ave	2.882	2.885		20.0	20.0	0.1	30.0
4-Chlorotoluene	Ave	0.9183	0.9179		20.0	20.0	-0.0	30.0
tert-Butylbenzene	Ave	0.6704	0.6543		19.5	20.0	-2.4	30.0
Pentachloroethane	Ave	0.5404	0.5452		20.2	20.0	0.9	30.0
1,2,4-Trimethylbenzene	Ave	3.015	3.035		20.1	20.0	0.6	30.0
sec-Butylbenzene	Ave	3.683	3.723		20.2	20.0	1.1	30.0
1,3-Dichlorobenzene	Ave	1.836	1.808	0.6000	19.7	20.0	-1.5	30.0
p-Isopropyltoluene	Ave	3.366	3.403		20.2	20.0	1.1	30.0
1,4-Dichlorobenzene	Ave	1.905	1.902	0.5000	20.0	20.0	-0.1	30.0
1,2,3-Trimethylbenzene	Ave	3.050	3.229		21.2	20.0	5.9	30.0
Benzyl chloride	Ave	2.333	2.318		19.9	20.0	-0.6	30.0
1,3-Diethylbenzene	Ave	2.026	2.009		19.8	20.0	-0.9	30.0
1,4-Diethylbenzene	Ave	2.145	2.146		20.0	20.0	0.0	30.0
n-Butylbenzene	Ave	1.650	1.605		19.5	20.0	-2.7	30.0
1,2-Dichlorobenzene	Ave	1.787	1.775	0.4000	19.9	20.0	-0.7	30.0
1,2-Diethylbenzene	Ave	1.695	1.687		19.9	20.0	-0.4	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.3068	0.2931	0.0500	19.1	20.0	-4.5	30.0
1,3,5-Trichlorobenzene	Ave	1.481	1.435		19.4	20.0	-3.1	30.0
1,2,4-Trichlorobenzene	Ave	1.377	1.329	0.2000	19.3	20.0	-3.5	30.0
Hexachlorobutadiene	Ave	0.6618	0.6020		18.2	20.0	-9.0	30.0
Naphthalene	Ave	4.167	4.088		19.6	20.0	-1.9	30.0
1,2,3-Trichlorobenzene	Ave	1.304	1.245		19.1	20.0	-4.5	30.0
2-Methylnaphthalene	Ave	2.621	2.304		17.6	20.0	-12.1	30.0
Dibromofluoromethane (Surr)	Ave	0.2516	0.2507		49.8	50.0	-0.4	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0604	0.0602		49.9	50.0	-0.2	30.0
Toluene-d8 (Surr)	Ave	1.217	1.246		51.2	50.0	2.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4663	0.4746		50.9	50.0	1.8	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 03-Nov-2020 02:53:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0014502-011
Misc. Info.: ICV
Operator ID: mec29284 Instrument ID: 9355
Sublist:

Method: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 03-Nov-2020 07:52:24 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1003

First Level Reviewer: virayd Date: 03-Nov-2020 07:48:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	99	122235	20.0	14.5	
4 Chloromethane	50	2.251	2.250	0.001	99	125210	20.0	16.7	
5 Butadiene	39	2.360	2.366	-0.006	91	130047	20.0	20.1	M
6 Vinyl chloride	62	2.372	2.378	-0.006	98	139557	20.0	18.3	
8 Bromomethane	94	2.701	2.707	-0.006	89	120333	20.0	18.2	
9 Chloroethane	64	2.780	2.786	-0.006	99	88896	20.0	18.3	
10 Dichlorofluoromethane	67	3.023	3.029	-0.006	97	207129	20.0	19.0	
11 Trichlorofluoromethane	101	3.102	3.108	-0.006	98	237196	20.0	18.1	M
12 Pentane	43	3.139	3.145	-0.006	97	166235	20.0	18.1	
14 Ethyl ether	59	3.352	3.358	-0.006	86	126132	20.0	20.8	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.419	3.425	-0.006	88	144271	20.0	19.6	
16 Acrolein	56	3.522	3.522	0.000	99	355614	150.0	154.2	
17 1,1-Dichloroethene	96	3.674	3.680	-0.006	98	112914	20.0	20.6	
18 Acetone	58	3.686	3.698	-0.012	100	157036	150.0	158.4	
19 112TCTFE	101	3.705	3.717	-0.012	89	109717	20.0	18.8	
20 Isopropyl alcohol	45	3.863	3.863	0.000	98	90086	150.0	135.8	
21 Iodomethane	142	3.881	3.881	0.000	98	220918	20.0	19.6	
22 Carbon disulfide	76	4.003	4.003	0.000	100	348605	20.0	19.9	
24 Methyl acetate	43	4.130	4.130	0.000	98	162329	20.0	19.8	
25 3-Chloro-1-propene	41	4.161	4.167	-0.006	90	167942	20.0	18.8	
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.343	0.012	0	304787	250.0	250.0	M
27 Methylene Chloride	84	4.349	4.355	-0.006	91	128231	20.0	21.1	
28 2-Methyl-2-propanol	59	4.477	4.477	0.000	98	284441	200.0	197.3	
30 Acrylonitrile	53	4.672	4.678	-0.006	98	407519	100.0	101.8	
31 Methyl tert-butyl ether	73	4.769	4.775	-0.006	95	411369	20.0	19.3	
32 trans-1,2-Dichloroethene	96	4.787	4.793	-0.006	99	128623	20.0	20.3	
33 Hexane	57	5.207	5.213	-0.006	93	170838	20.0	19.0	
35 1,1-Dichloroethane	63	5.432	5.438	-0.006	96	218585	20.0	20.7	
36 Isopropyl ether	45	5.493	5.493	0.000	92	375714	20.0	19.8	
37 2-Chloro-1,3-butadiene	53	5.542	5.548	-0.006	92	186790	20.0	20.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.028	6.028	0.000	97	389596	20.0	19.8	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	99	882615	150.0	153.1	
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	81	155329	20.0	21.3	
43 2,2-Dichloropropane	77	6.278	6.278	0.000	87	203042	20.0	20.6	
44 Propionitrile	54	6.284	6.290	-0.006	99	239299	150.0	151.2	
45 Methacrylonitrile	67	6.515	6.515	0.000	90	699968	150.0	152.1	
46 Chlorobromomethane	128	6.594	6.600	-0.006	80	79446	20.0	19.5	
47 Tetrahydrofuran	71	6.612	6.612	0.000	89	180032	100.0	110.3	
48 Chloroform	83	6.740	6.740	0.000	94	232957	20.0	20.6	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	286283	50.0	49.8	
50 1,1,1-Trichloroethane	97	6.977	6.977	0.000	98	209115	20.0	20.2	
51 Cyclohexane	56	7.087	7.093	-0.006	89	202286	20.0	19.9	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	95	179271	20.0	20.2	
53 Carbon tetrachloride	117	7.197	7.203	-0.007	97	189096	20.0	20.1	
54 Isobutyl alcohol	41	7.300	7.300	0.000	94	225393	500.0	498.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	68782	50.0	49.9	
56 Benzene	78	7.452	7.452	0.000	97	520698	20.0	20.4	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	199424	20.0	20.0	M
59 Tert-amyl methyl ether	73	7.641	7.641	0.000	98	413298	20.0	20.2	
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1141896	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	92	187142	20.0	18.3	
63 n-Butanol	56	8.176	8.176	0.000	89	456978	1000.0	1041.8	
64 Trichloroethene	95	8.334	8.334	0.000	96	144686	20.0	20.3	
65 Methylcyclohexane	83	8.657	8.657	0.001	90	230117	20.0	19.1	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	75	137697	20.0	20.8	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	95	216614	20.0	19.9	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	146772	20.0	20.0	
69 1,4-Dioxane	88	8.754	8.748	0.006	90	61083	500.0	544.2	M
70 Dibromomethane	93	8.778	8.778	0.000	97	99925	20.0	20.3	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	175101	20.0	20.3	
73 2-Nitropropane	41	9.247	9.247	0.000	99	70632	20.0	20.9	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	93	70880	20.0	20.9	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	95	225087	20.0	20.3	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1184080	100.0	105.7	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1147779	50.0	51.2	
78 Toluene	92	9.922	9.928	-0.006	98	350064	20.0	20.5	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	93	214037	20.0	20.1	
82 Ethyl methacrylate	69	10.226	10.226	0.000	89	235901	20.0	20.7	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	143412	20.0	21.1	
84 Tetrachloroethene	166	10.476	10.475	0.001	98	173581	20.0	19.9	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	91	231068	20.0	20.2	
87 2-Hexanone	43	10.573	10.573	0.000	96	977194	100.0	108.8	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	160371	20.0	20.6	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	161440	20.0	20.5	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	921387	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	96	195940	20.0	19.3	
94 Chlorobenzene	112	11.321	11.321	0.000	96	427377	20.0	20.4	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	152148	20.0	20.0	
96 Ethylbenzene	91	11.400	11.400	0.000	98	682543	20.0	20.4	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	0	569528	40.0	40.9	
98 o-Xylene	106	11.844	11.844	0.000	96	275050	20.0	20.0	
99 Styrene	104	11.857	11.856	0.001	95	461275	20.0	20.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Bromoform	173	12.021	12.021	0.000	97	123786	20.0	19.4	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	707265	20.0	20.7	
103 Cyclohexanone	55	12.215	12.215	0.000	93	205788	500.0	402.6	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	94	437251	50.0	50.9	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	233072	20.0	20.3	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	90	422008	100.0	105.5	
107 Bromobenzene	156	12.410	12.410	0.000	77	213306	20.0	20.2	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	82097	20.0	19.9	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	823394	20.0	20.7	
110 2-Chlorotoluene	126	12.550	12.550	0.000	97	185404	20.0	20.2	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	610141	20.0	20.0	
112 4-Chlorotoluene	126	12.641	12.641	0.000	97	194096	20.0	20.0	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	138357	20.0	19.5	
115 Pentachloroethane	167	12.885	12.885	0.000	89	115296	20.0	20.2	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	97	641722	20.0	20.1	
117 sec-Butylbenzene	105	13.012	13.012	0.000	94	787316	20.0	20.2	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	382316	20.0	19.7	
119 4-Isopropyltoluene	119	13.122	13.122	0.000	96	719626	20.0	20.2	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	94	528651	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	95	402250	20.0	20.0	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	98	682884	20.0	21.2	
123 Benzyl chloride	91	13.262	13.262	0.000	98	490267	20.0	19.9	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	424742	20.0	19.8	
125 p-Diethylbenzene	119	13.390	13.390	0.000	96	453760	20.0	20.0	
126 n-Butylbenzene	92	13.414	13.408	0.006	97	339489	20.0	19.5	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	375363	20.0	19.9	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	356783	20.0	19.9	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	87	61979	20.0	19.1	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	303430	20.0	19.4	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	281133	20.0	19.3	
133 Hexachlorobutadiene	225	14.625	14.624	0.001	98	127294	20.0	18.2	
134 Naphthalene	128	14.722	14.722	0.000	96	864528	20.0	19.6	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	263273	20.0	19.1	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	487154	20.0	17.6	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_QCYC_00004	Amount Added:	50.00	Units: uL	
MSV_Q_EE_00003	Amount Added:	50.00	Units: uL	
MSV_Q_QVOA1_00053	Amount Added:	50.00	Units: uL	
MSV_Q_QARC_00052	Amount Added:	50.00	Units: uL	
MSV_Q_QVOA6_00050	Amount Added:	50.00	Units: uL	
MSV_DCFM_00024	Amount Added:	1.00	Units: uL	
MSV_502QGas_00112	Amount Added:	1.00	Units: uL	
MSV_HP20_ISSS_00029	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 03-Nov-2020 07:52:27 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D

Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355 Operator ID: mec29284

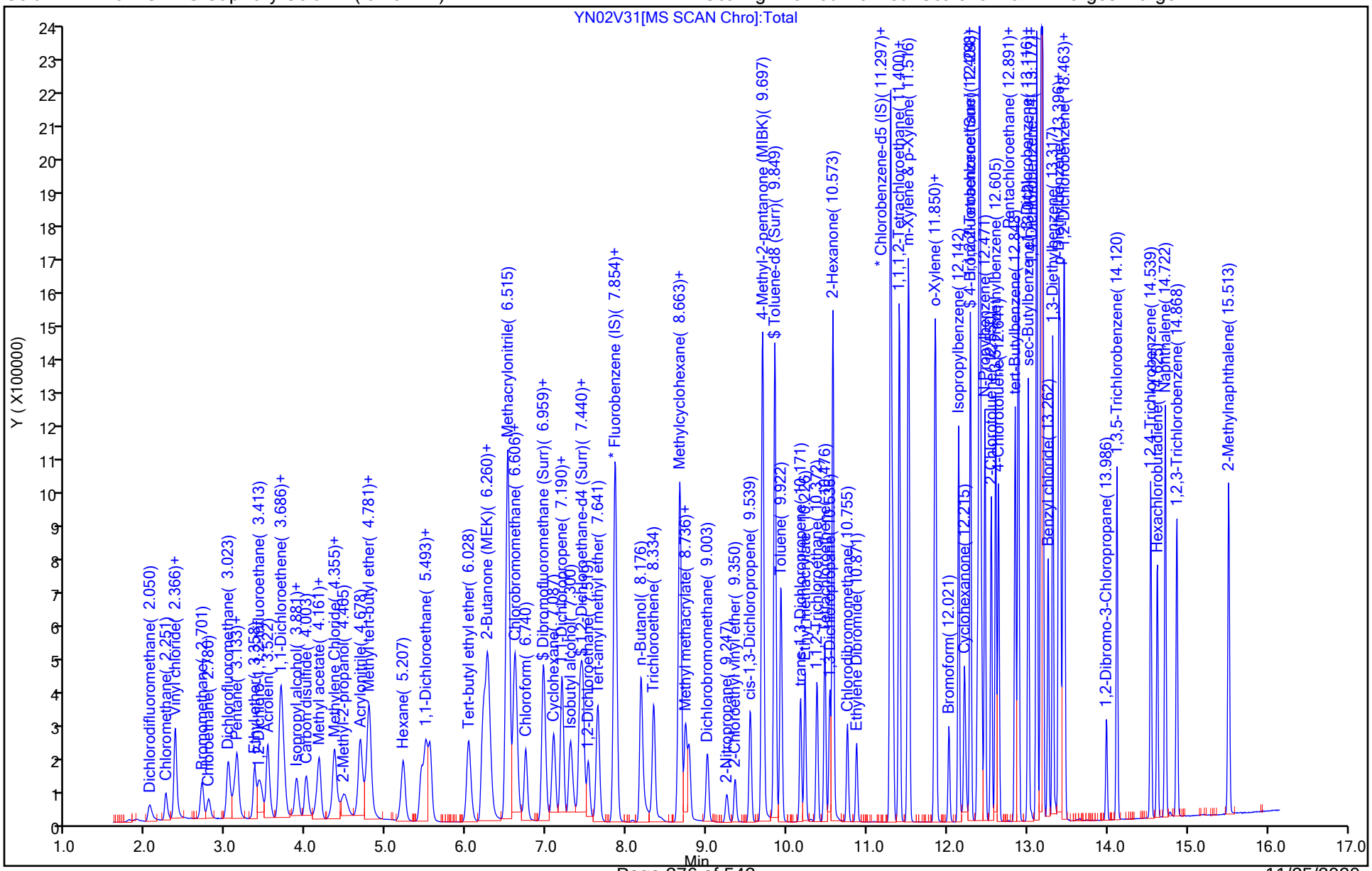
Lims ID: ICV Worklist Smp#: 11

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 10

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

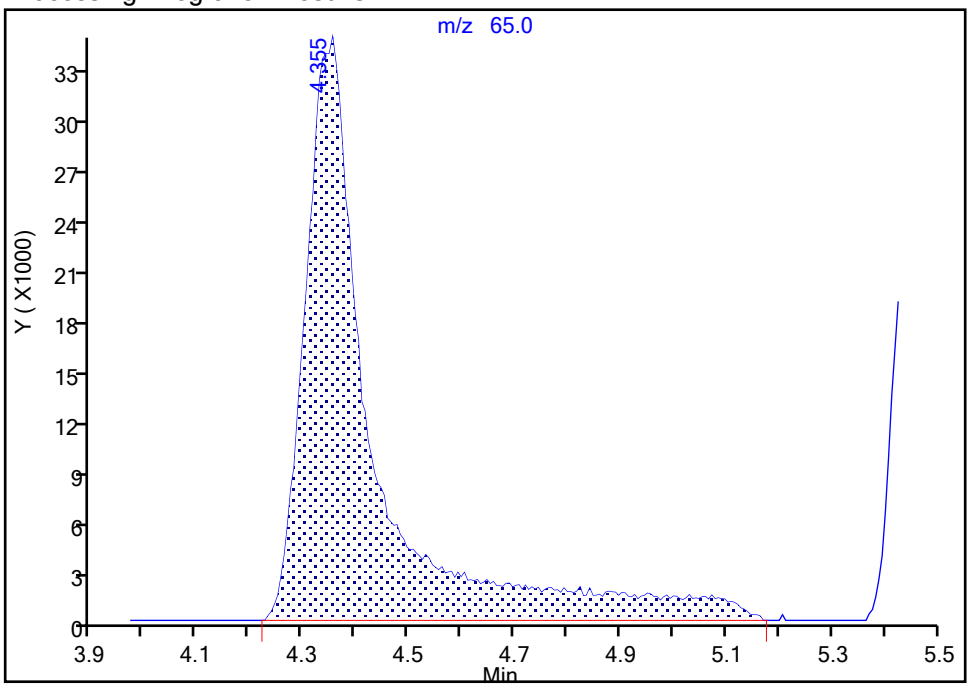
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355
Lims ID: ICV
Client ID:
Operator ID: mec29284 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

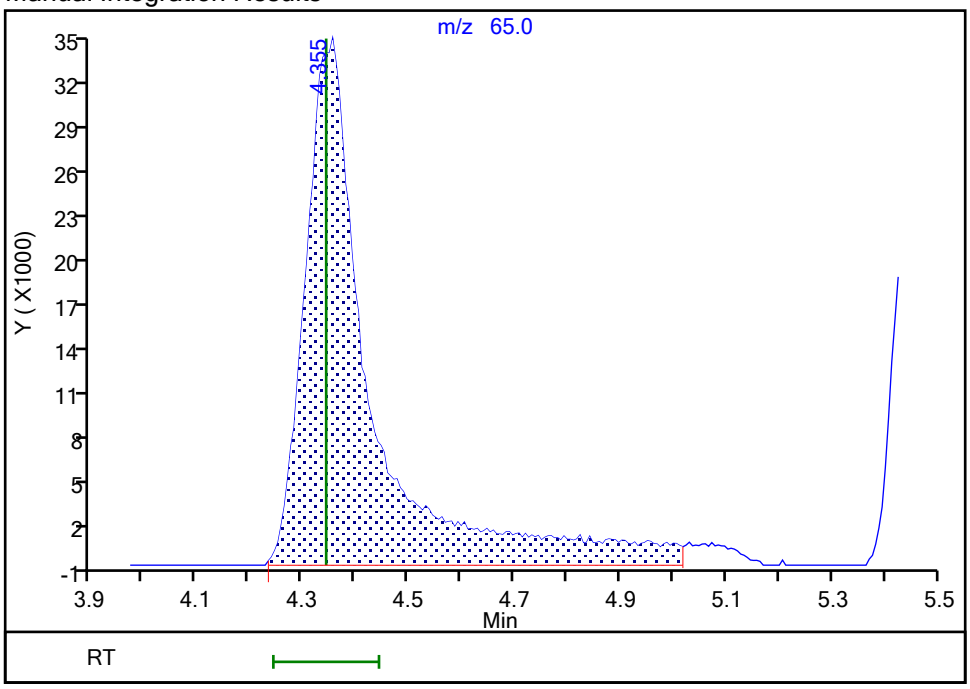
Processing Integration Results

RT: 4.36
Area: 313569
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 304787
Amount: 250.0000
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:44:56
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

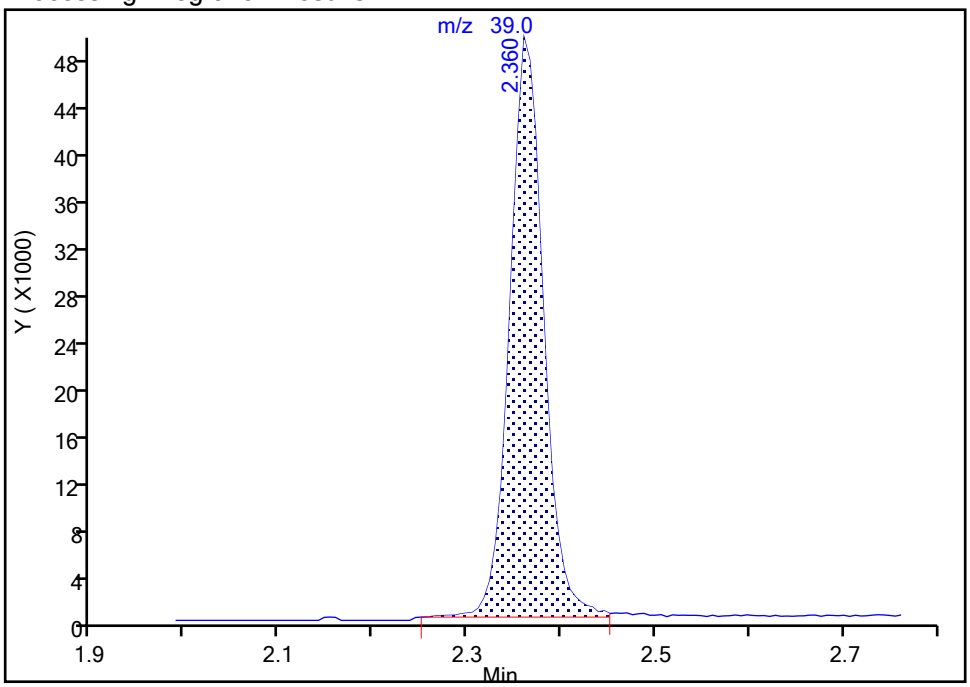
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355
Lims ID: ICV
Client ID:
Operator ID: mec29284 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

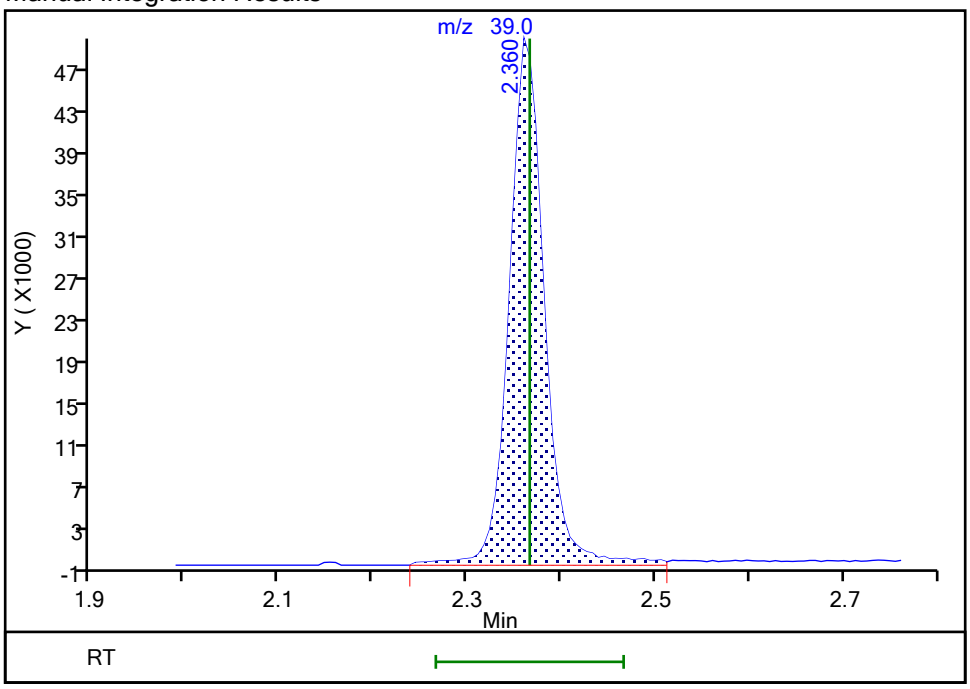
Processing Integration Results

RT: 2.36
Area: 124441
Amount: 19.211080
Amount Units: ug/l



Manual Integration Results

RT: 2.36
Area: 130047
Amount: 20.076529
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:44:29
Audit Action: Manually Integrated Audit Reason: Other

Eurofins Lancaster Laboratories Env, LLC

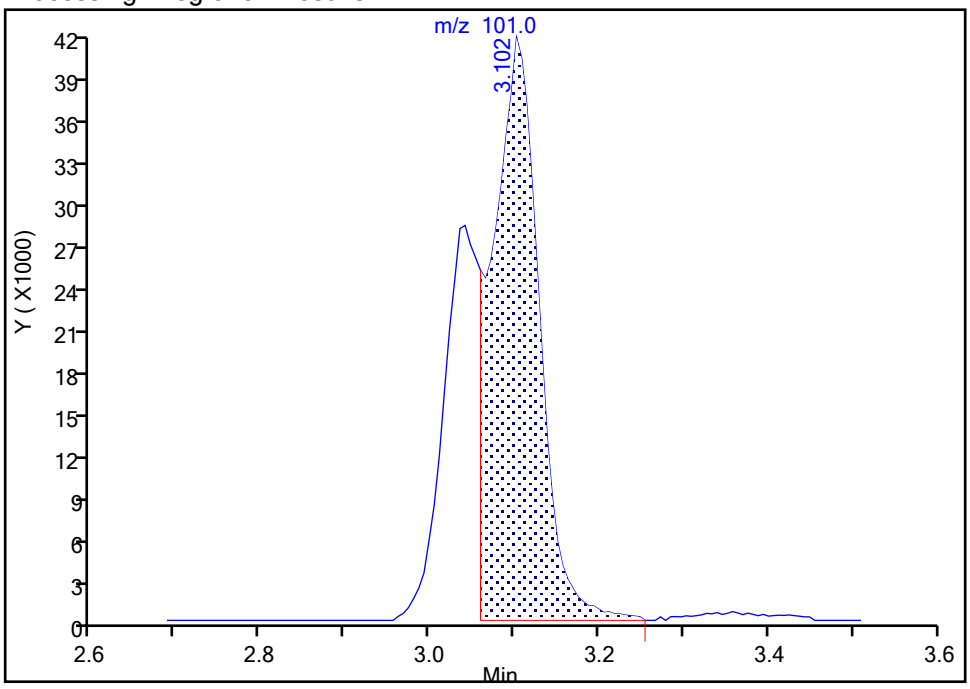
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355
Lims ID: ICV
Client ID:
Operator ID: mec29284 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

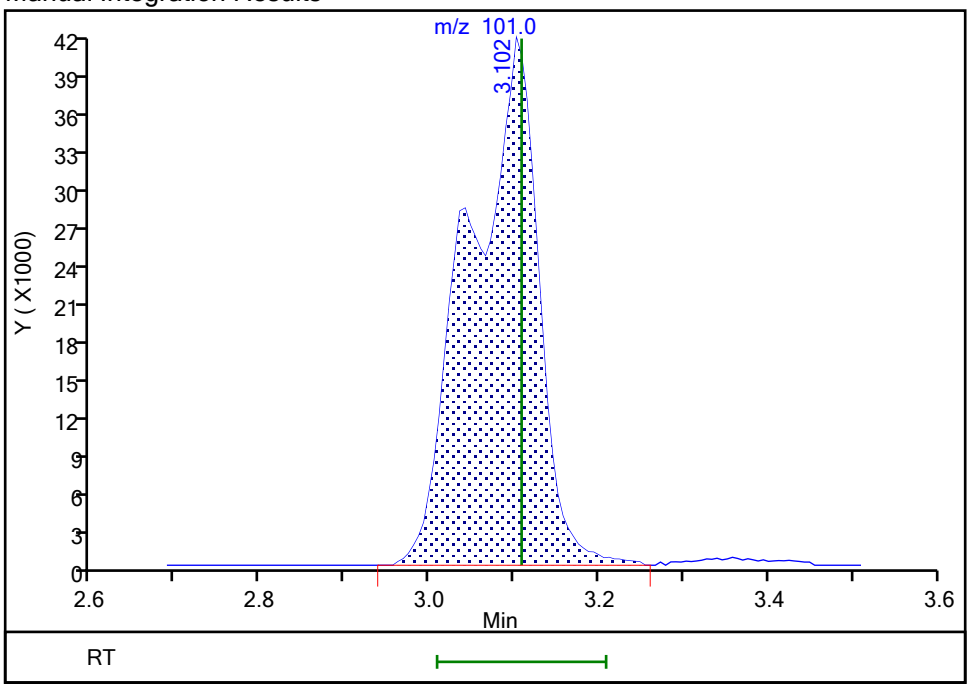
Processing Integration Results

RT: 3.10
Area: 162360
Amount: 12.369111
Amount Units: ug/l



Manual Integration Results

RT: 3.10
Area: 237196
Amount: 18.070361
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:44:40
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

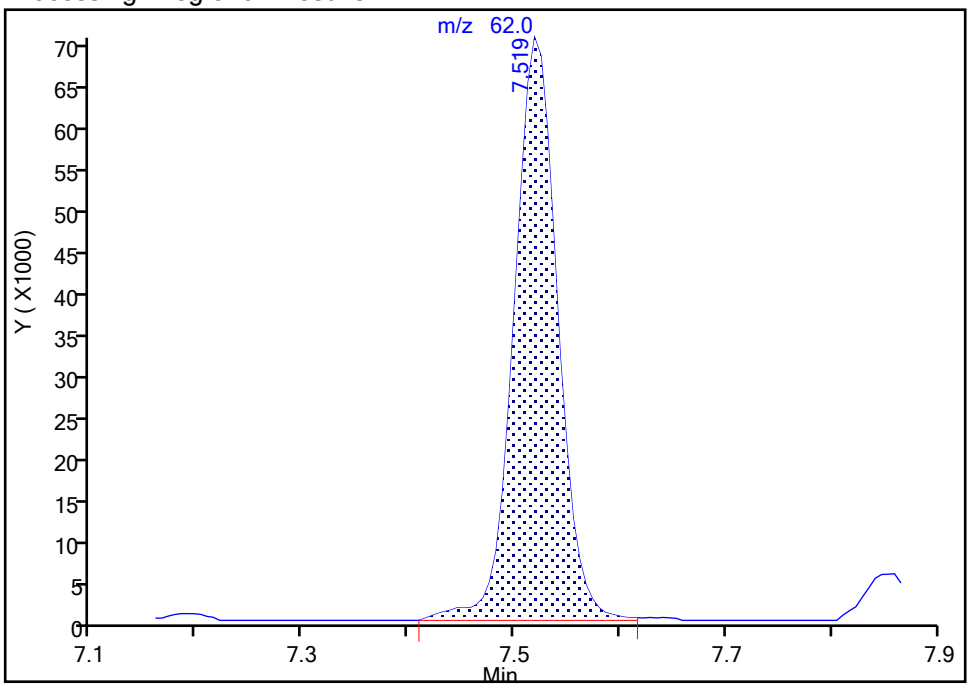
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355
Lims ID: ICV
Client ID:
Operator ID: mec29284 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

58 1,2-Dichloroethane, CAS: 107-06-2

Signal: 1

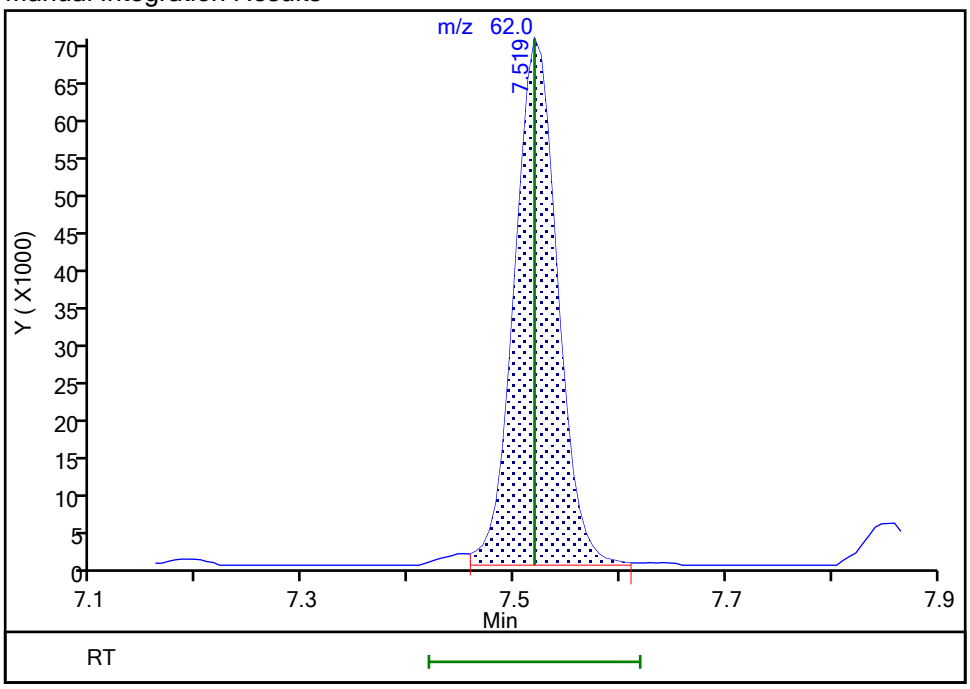
Processing Integration Results

RT: 7.52
Area: 202228
Amount: 20.258250
Amount Units: ug/l



Manual Integration Results

RT: 7.52
Area: 199424
Amount: 19.977358
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:45:11
Audit Action: Manually Integrated Audit Reason: Other

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

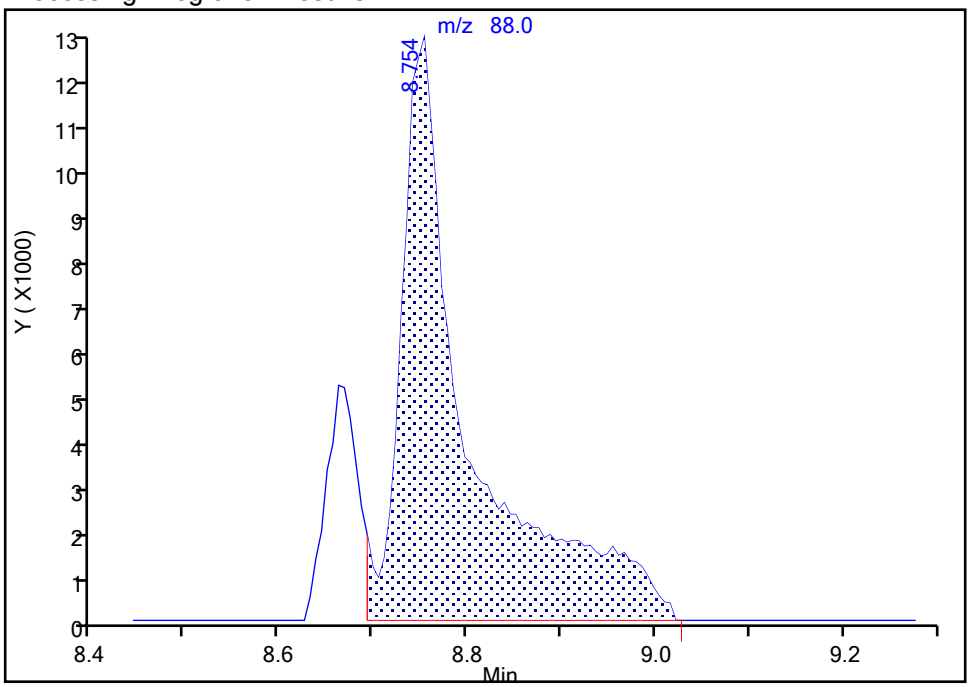
Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02V31.D
Injection Date: 03-Nov-2020 02:53:30 Instrument ID: 9355
Lims ID: ICV
Client ID:
Operator ID: mec29284 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

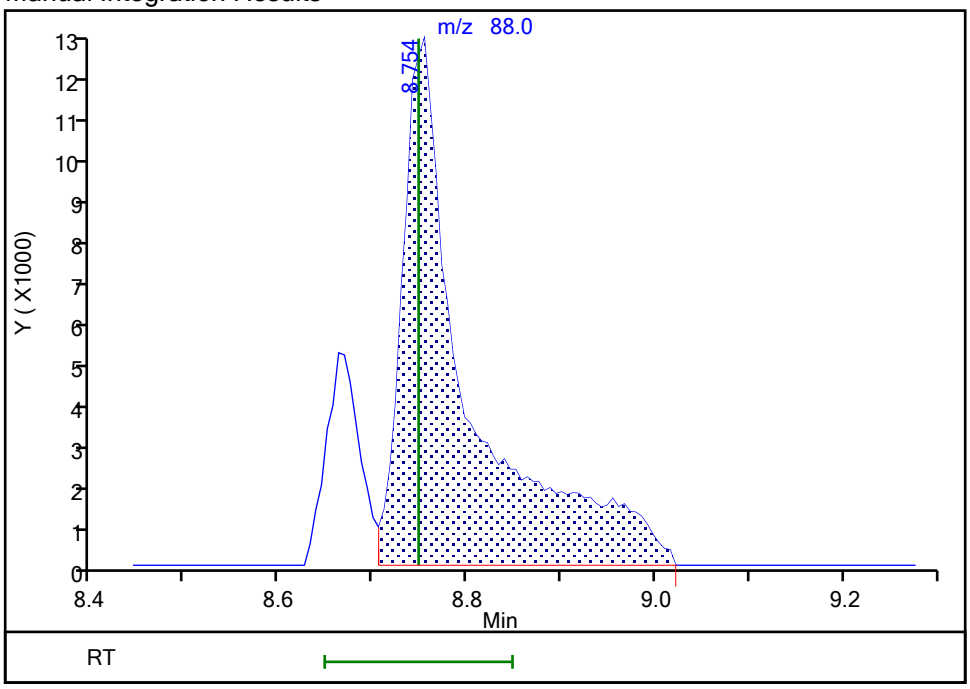
Processing Integration Results

RT: 8.75
Area: 62158
Amount: 553.7791
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 61083
Amount: 544.2017
Amount Units: ug/l



Reviewer: virayd, 03-Nov-2020 07:45:20
Audit Action: Manually Integrated Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68475/3 Calibration Date: 11/20/2020 09:07

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3703	0.3358	0.1000	45.3	50.0	-9.3	20.0
Chloromethane	Ave	0.3287	0.2874	0.1000	43.7	50.0	-12.6	20.0
1,3-Butadiene	Ave	0.2836	0.2650		46.7	50.0	-6.6	20.0
Vinyl chloride	Ave	0.3344	0.2973	0.1000	44.5	50.0	-11.1	20.0
Bromomethane	Ave	0.2889	0.2643	0.1000	45.7	50.0	-8.5	20.0
Chloroethane	Ave	0.2127	0.1989	0.1000	46.8	50.0	-6.5	20.0
Dichlorofluoromethane	Ave	0.4771	0.4318		45.3	50.0	-9.5	20.0
Trichlorofluoromethane	Ave	0.5748	0.5436	0.1000	47.3	50.0	-5.4	20.0
n-Pentane	Ave	0.4022	0.4098		50.9	50.0	1.9	20.0
Ethyl ether	Ave	0.2652	0.2624		49.5	50.0	-1.1	20.0
Freon 123a	Ave	0.3216	0.3011		46.8	50.0	-6.3	20.0
Acrolein	Ave	1.891	1.750		463	500	-7.5	20.0
1,1-Dichloroethene	Ave	0.2398	0.2337	0.1000	48.7	50.0	-2.5	20.0
Acetone	Ave	0.8132	0.8587	0.1000	106	100	5.6	20.0
Freon 113	Ave	0.2554	0.2485	0.1000	48.6	50.0	-2.7	20.0
2-Propanol	Ave	0.5442	0.5127		236	250	-5.8	20.0
Methyl iodide	Ave	0.4941	0.4984		50.4	50.0	0.9	20.0
Carbon disulfide	Ave	0.7658	0.6954	0.1000	45.4	50.0	-9.2	20.0
Methyl acetate	Ave	0.3585	0.3300	0.1000	46.0	50.0	-7.9	20.0
Allyl chloride	Ave	0.3905	0.3085		39.5	50.0	-21.0*	20.0
Methylene Chloride	Ave	0.2658	0.2631	0.1000	49.5	50.0	-1.0	20.0
t-Butyl alcohol	Ave	1.182	1.157		245	250	-2.2	20.0
Acrylonitrile	Ave	0.1752	0.1837		52.4	50.0	4.9	20.0
Methyl tertiary butyl ether	Ave	0.9334	0.8372	0.1000	44.8	50.0	-10.3	20.0
trans-1,2-Dichloroethene	Ave	0.2772	0.2769	0.1000	49.9	50.0	-0.1	20.0
n-Hexane	Ave	0.3947	0.3699		46.9	50.0	-6.3	20.0
1,1-Dichloroethane	Ave	0.4630	0.4494	0.2000	48.5	50.0	-2.9	20.0
di-Isopropyl ether	Ave	0.8302	0.7441		44.8	50.0	-10.4	20.0
2-Chloro-1,3-butadiene	Ave	0.4083	0.3868		47.4	50.0	-5.3	20.0
Ethyl t-butyl ether	Ave	0.8621	0.7531		43.7	50.0	-12.6	20.0
2-Butanone	Ave	0.2524	0.2748	0.1000	109	100	8.9	20.0
cis-1,2-Dichloroethene	Ave	0.3188	0.3204	0.1000	50.3	50.0	0.5	20.0
2,2-Dichloropropane	Ave	0.4309	0.4008		46.5	50.0	-7.0	20.0
Propionitrile	Ave	1.298	1.356		261	250	4.4	20.0
Methacrylonitrile	Ave	0.2015	0.2099		130	125	4.2	20.0
Bromochloromethane	Ave	0.1783	0.1806		50.7	50.0	1.3	20.0
Tetrahydrofuran	Ave	1.338	1.394		104	100	4.2	20.0
Chloroform	Ave	0.4942	0.4971	0.2000	50.3	50.0	0.6	20.0
1,1,1-Trichloroethane	Ave	0.4533	0.4507	0.1000	49.7	50.0	-0.6	20.0
Cyclohexane	Ave	0.4444	0.4029	0.1000	45.3	50.0	-9.3	20.0
1,1-Dichloropropene	Ave	0.3881	0.3875		49.9	50.0	-0.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68475/3 Calibration Date: 11/20/2020 09:07

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon tetrachloride	Ave	0.4127	0.4204	0.1000	50.9	50.0	1.9	20.0
Isobutyl alcohol	Ave	0.3709	0.3785		638	625	2.0	20.0
Benzene	Ave	1.116	1.127	0.5000	50.5	50.0	1.0	20.0
1,2-Dichloroethane	Ave	0.4371	0.4208	0.1000	48.1	50.0	-3.7	20.0
t-Amyl methyl ether	Ave	0.8958	0.8235		46.0	50.0	-8.1	20.0
n-Heptane	Ave	0.4472	0.4104		45.9	50.0	-8.2	20.0
n-Butanol	Ave	0.3598	0.3621		1260	1250	0.6	20.0
Trichloroethene	Ave	0.3118	0.3162	0.2000	50.7	50.0	1.4	20.0
Methylcyclohexane	Ave	0.5264	0.4815	0.1000	45.7	50.0	-8.5	20.0
1,2-Dichloropropane	Ave	0.2905	0.2886	0.1000	49.7	50.0	-0.7	20.0
t-Amyl ethyl ether	Ave	0.4774	0.4707		49.3	50.0	-1.4	20.0
Methyl methacrylate	Ave	0.3211	0.3232		50.3	50.0	0.7	20.0
1,4-Dioxane	Ave	0.0921	0.1028	0.0050	698	625	11.6	20.0
Dibromomethane	Ave	0.2151	0.2227		51.8	50.0	3.5	20.0
Bromodichloromethane	Ave	0.3775	0.3865	0.2000	51.2	50.0	2.4	20.0
2-Nitropropane	Ave	2.773	2.769		99.9	100	-0.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1487	0.2276		76.5	50.0	53.0*	20.0
cis-1,3-Dichloropropene	Ave	0.4863	0.4953	0.2000	50.9	50.0	1.8	20.0
4-Methyl-2-pentanone	Ave	0.4906	0.5272	0.1000	107	100	7.5	20.0
Toluene	Ave	0.9255	0.9368	0.4000	50.6	50.0	1.2	20.0
trans-1,3-Dichloropropene	Ave	0.5767	0.5726	0.1000	49.6	50.0	-0.7	20.0
Ethyl methacrylate	Ave	0.6196	0.5979		48.3	50.0	-3.5	20.0
1,1,2-Trichloroethane	Ave	0.3697	0.3791	0.1000	51.3	50.0	2.5	20.0
Tetrachloroethene	Ave	0.4731	0.4995	0.2000	52.8	50.0	5.6	20.0
1,3-Dichloropropane	Ave	0.6197	0.6095		49.2	50.0	-1.6	20.0
2-Hexanone	Ave	0.4875	0.5284	0.1000	108	100	8.4	20.0
Dibromochloromethane	Ave	0.4215	0.4442		52.7	50.0	5.4	20.0
1,2-Dibromoethane	Ave	0.4283	0.4404	0.1000	51.4	50.0	2.8	20.0
1-Chlorohexane	Ave	0.5517	0.5263		47.7	50.0	-4.6	20.0
Chlorobenzene	Ave	1.135	1.180	0.5000	52.0	50.0	4.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4125	0.4226		51.2	50.0	2.4	20.0
Ethylbenzene	Ave	1.811	1.862	0.1000	51.4	50.0	2.8	20.0
m&p-Xylene	Ave	0.7560	0.7942	0.1000	105	100	5.0	20.0
o-Xylene	Ave	0.7445	0.7547	0.3000	50.7	50.0	1.4	20.0
Styrene	Ave	1.225	1.298	0.3000	53.0	50.0	6.0	20.0
Bromoform	Ave	0.3462	0.3721	0.1000	53.7	50.0	7.5	20.0
Isopropylbenzene	Ave	1.859	1.889	0.1000	50.8	50.0	1.6	20.0
Cyclohexanone	Ave	0.4192	0.3040		453	625	-27.5*	20.0
1,1,2,2-Tetrachloroethane	Ave	1.086	1.042	0.3000	47.9	50.0	-4.1	20.0
Bromobenzene	Ave	0.997	1.015		50.9	50.0	1.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3783	0.3230		107	125	-14.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68475/3 Calibration Date: 11/20/2020 09:07

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3907	0.3889		49.8	50.0	-0.5	20.0
N-Propylbenzene	Ave	3.758	3.647		48.5	50.0	-2.9	20.0
2-Chlorotoluene	Ave	0.8678	0.8445		48.7	50.0	-2.7	20.0
1,3,5-Trimethylbenzene	Ave	2.882	2.773		48.1	50.0	-3.8	20.0
4-Chlorotoluene	Ave	0.9183	0.9175		50.0	50.0	-0.0	20.0
tert-Butylbenzene	Ave	0.6704	0.6419		47.9	50.0	-4.2	20.0
Pentachloroethane	Ave	0.5404	0.5182		47.9	50.0	-4.1	20.0
1,2,4-Trimethylbenzene	Ave	3.015	2.961		49.1	50.0	-1.8	20.0
sec-Butylbenzene	Ave	3.683	3.562		48.4	50.0	-3.3	20.0
1,3-Dichlorobenzene	Ave	1.836	1.898	0.6000	51.7	50.0	3.4	20.0
p-Isopropyltoluene	Ave	3.366	3.370		50.1	50.0	0.1	20.0
1,4-Dichlorobenzene	Ave	1.905	1.962	0.5000	51.5	50.0	3.0	20.0
1,2,3-Trimethylbenzene	Ave	3.050	2.793		45.8	50.0	-8.4	20.0
Benzyl chloride	Ave	2.333	2.366		50.7	50.0	1.4	20.0
1,3-Diethylbenzene	Ave	2.026	1.878		46.3	50.0	-7.3	20.0
1,4-Diethylbenzene	Ave	2.145	2.006		46.8	50.0	-6.5	20.0
n-Butylbenzene	Ave	1.650	1.597		48.4	50.0	-3.2	20.0
1,2-Dichlorobenzene	Ave	1.787	1.787	0.4000	50.0	50.0	-0.0	20.0
1,2-Diethylbenzene	Ave	1.695	1.556		45.9	50.0	-8.2	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3068	0.2809	0.0500	45.8	50.0	-8.5	20.0
1,3,5-Trichlorobenzene	Ave	1.481	1.404		47.4	50.0	-5.2	20.0
1,2,4-Trichlorobenzene	Ave	1.377	1.253	0.2000	45.5	50.0	-9.1	20.0
Hexachlorobutadiene	Ave	0.6618	0.6043		45.7	50.0	-8.7	20.0
Naphthalene	Ave	4.167	3.924		47.1	50.0	-5.8	20.0
1,2,3-Trichlorobenzene	Ave	1.304	1.175		45.1	50.0	-9.9	20.0
2-Methylnaphthalene	Ave	2.621	2.122		40.5	50.0	-19.0	20.0
Dibromofluoromethane (Surr)	Ave	0.2516	0.2539		50.5	50.0	0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0604	0.0609		50.4	50.0	0.9	20.0
Toluene-d8 (Surr)	Ave	1.217	1.210		49.7	50.0	-0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4663	0.4560		48.9	50.0	-2.2	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Nov-2020 09:07:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-003
Misc. Info.: CCVIS
Operator ID: clm27445 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 11:23:18 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 09:49:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.056	2.056	0.000	99	414822	50.0	45.3	
4 Chloromethane	50	2.257	2.257	0.000	99	354960	50.0	43.7	
5 Butadiene	39	2.378	2.378	0.000	89	327352	50.0	46.7	
6 Vinyl chloride	62	2.378	2.378	0.000	85	367280	50.0	44.5	
8 Bromomethane	94	2.719	2.719	0.000	90	326431	50.0	45.7	
9 Chloroethane	64	2.798	2.798	0.000	99	245716	50.0	46.8	
10 Dichlorofluoromethane	67	3.041	3.041	0.000	97	533356	50.0	45.3	
11 Trichlorofluoromethane	101	3.121	3.121	0.000	97	671503	50.0	47.3	
12 Pentane	43	3.151	3.151	0.000	96	506147	50.0	50.9	
14 Ethyl ether	59	3.364	3.364	0.000	87	324163	50.0	49.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.437	3.437	0.000	85	371982	50.0	46.8	
16 Acrolein	56	3.528	3.528	0.000	99	1310539	500.0	462.7	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	97	288706	50.0	48.7	
18 Acetone	58	3.698	3.698	0.000	100	128605	100.0	105.6	
19 112TCTFE	101	3.723	3.723	0.000	90	306947	50.0	48.6	
20 Isopropyl alcohol	45	3.863	3.863	0.000	99	191953	250.0	235.5	
21 Iodomethane	142	3.899	3.899	0.000	98	615669	50.0	50.4	
22 Carbon disulfide	76	4.015	4.015	0.000	99	859018	50.0	45.4	
24 Methyl acetate	43	4.136	4.136	0.000	97	407678	50.0	46.0	
25 3-Chloro-1-propene	41	4.173	4.173	0.000	88	381044	50.0	39.5	
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.355	0.000	0	374421	250.0	250.0	M
27 Methylene Chloride	84	4.368	4.368	0.000	88	324996	50.0	49.5	
28 2-Methyl-2-propanol	59	4.483	4.483	0.000	98	433102	250.0	244.6	
30 Acrylonitrile	53	4.684	4.684	0.000	99	226970	50.0	52.4	
31 Methyl tert-butyl ether	73	4.781	4.781	0.000	94	1034078	50.0	44.8	
32 trans-1,2-Dichloroethene	96	4.800	4.800	0.000	97	342035	50.0	49.9	
33 Hexane	57	5.213	5.213	0.000	92	456919	50.0	46.9	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	555150	50.0	48.5	
36 Isopropyl ether	45	5.499	5.499	0.000	93	919147	50.0	44.8	
37 2-Chloro-1,3-butadiene	53	5.554	5.554	0.000	91	477764	50.0	47.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.035	6.035	0.000	96	930192	50.0	43.7	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	99	678831	100.0	108.9	
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	80	395780	50.0	50.3	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	88	495121	50.0	46.5	
44 Propionitrile	54	6.296	6.296	0.000	99	507529	250.0	261.0	
45 Methacrylonitrile	67	6.521	6.521	0.000	89	648107	125.0	130.2	
46 Chlorobromomethane	128	6.600	6.600	0.000	83	223057	50.0	50.7	
47 Tetrahydrofuran	71	6.619	6.619	0.000	86	208835	100.0	104.2	
48 Chloroform	83	6.740	6.740	0.000	93	614014	50.0	50.3	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	313602	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.984	6.984	0.000	98	556749	50.0	49.7	
51 Cyclohexane	56	7.093	7.093	0.000	88	497650	50.0	45.3	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	97	478619	50.0	49.9	
53 Carbon tetrachloride	117	7.203	7.203	0.000	97	519319	50.0	50.9	
54 Isobutyl alcohol	41	7.306	7.306	0.000	94	354289	625.0	637.8	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.422	0.000	0	75202	50.0	50.4	
56 Benzene	78	7.452	7.452	0.000	96	1392185	50.0	50.5	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	519780	50.0	48.1	
59 Tert-amyl methyl ether	73	7.647	7.647	0.000	98	1017220	50.0	46.0	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1235214	50.0	50.0	
62 n-Heptane	43	7.872	7.872	0.000	88	506953	50.0	45.9	
63 n-Butanol	56	8.188	8.188	0.000	88	677952	1250.0	1258.1	
64 Trichloroethene	95	8.334	8.334	0.000	95	390522	50.0	50.7	
65 Methylcyclohexane	83	8.657	8.657	0.000	93	594817	50.0	45.7	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	73	356427	50.0	49.7	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	95	581466	50.0	49.3	
68 Methyl methacrylate	69	8.736	8.736	0.000	88	399264	50.0	50.3	
69 1,4-Dioxane	88	8.754	8.754	0.000	88	96198	625.0	697.7	M
70 Dibromomethane	93	8.778	8.778	0.000	95	275049	50.0	51.8	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	477387	50.0	51.2	
73 2-Nitropropane	41	9.253	9.253	0.000	98	414708	100.0	99.9	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	93	281123	50.0	76.5	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	611768	50.0	50.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1302369	100.0	107.5	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1266286	50.0	49.7	
78 Toluene	92	9.922	9.922	0.000	98	980479	50.0	50.6	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	599221	50.0	49.6	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	625741	50.0	48.3	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	396752	50.0	51.3	
84 Tetrachloroethene	166	10.476	10.476	0.000	98	522724	50.0	52.8	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	637884	50.0	49.2	
87 2-Hexanone	43	10.573	10.573	0.000	95	1105939	100.0	108.4	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	464917	50.0	52.7	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	460902	50.0	51.4	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	1046572	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	92	550808	50.0	47.7	
94 Chlorobenzene	112	11.321	11.321	0.000	98	1235356	50.0	52.0	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	96	442258	50.0	51.2	
96 Ethylbenzene	91	11.400	11.400	0.000	97	1948614	50.0	51.4	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	1662322	100.0	105.0	
98 o-Xylene	106	11.844	11.844	0.000	96	789883	50.0	50.7	
99 Styrene	104	11.857	11.857	0.000	94	1358528	50.0	53.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Bromoform	173	12.021	12.021	0.000	98	389442	50.0	53.7	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	1976494	50.0	50.8	
103 Cyclohexanone	55	12.215	12.215	0.000	91	284511	625.0	453.1	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	477208	50.0	48.9	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	649914	50.0	47.9	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	78	503726	125.0	106.7	
107 Bromobenzene	156	12.404	12.404	0.000	90	633091	50.0	50.9	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	242587	50.0	49.8	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	2275124	50.0	48.5	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	526786	50.0	48.7	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	1729988	50.0	48.1	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	572347	50.0	50.0	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	400457	50.0	47.9	
115 Pentachloroethane	167	12.885	12.885	0.000	89	323284	50.0	47.9	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	1847014	50.0	49.1	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	2222195	50.0	48.4	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	1183981	50.0	51.7	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	2102046	50.0	50.1	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	623817	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	1223683	50.0	51.5	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	1742408	50.0	45.8	
123 Benzyl chloride	91	13.256	13.256	0.000	98	1476196	50.0	50.7	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	1171567	50.0	46.3	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	1251070	50.0	46.8	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	996472	50.0	48.4	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	1114590	50.0	50.0	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	970483	50.0	45.9	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	91	175235	50.0	45.8	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	876046	50.0	47.4	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	781384	50.0	45.5	
133 Hexachlorobutadiene	225	14.625	14.625	0.000	97	376977	50.0	45.7	
134 Naphthalene	128	14.722	14.722	0.000	96	2447908	50.0	47.1	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	733035	50.0	45.1	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	1323659	50.0	40.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00111	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00123	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00173	Amount Added:	2.50	Units: uL	
MSV_DCFM_00030	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 11:23:21 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20C01.D

Injection Date: 20-Nov-2020 09:07:30 Instrument ID: 9355 Operator ID: clm27445

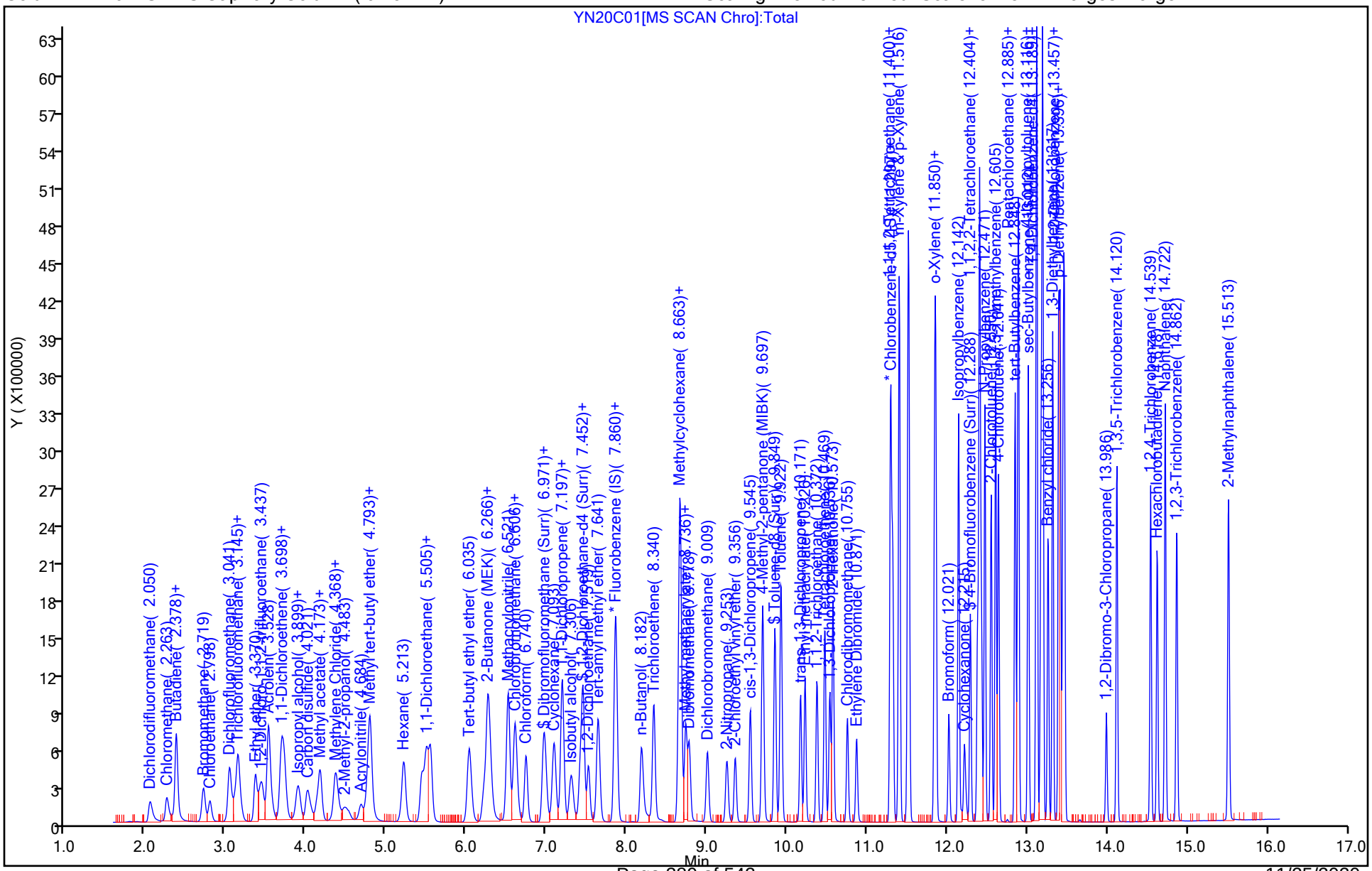
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

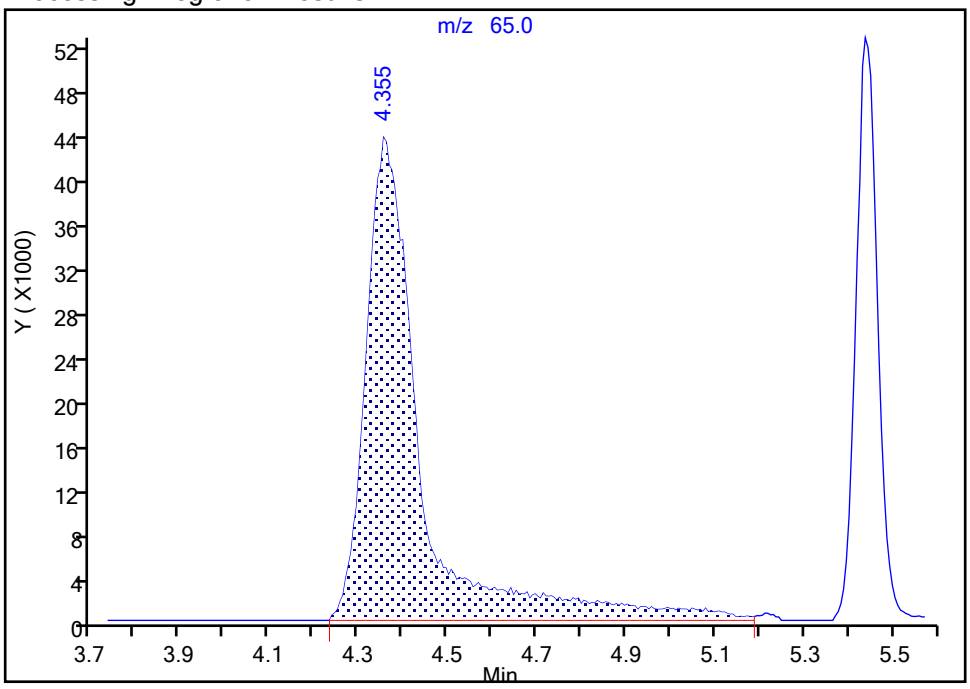
Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20C01.D
Injection Date: 20-Nov-2020 09:07:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

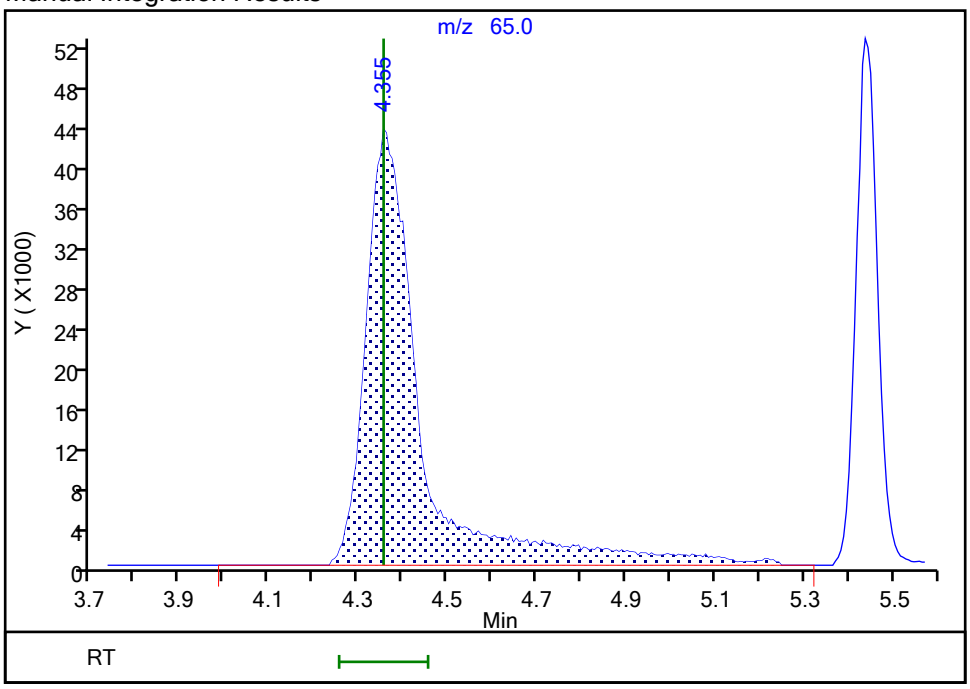
Processing Integration Results

RT: 4.36
Area: 372852
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 374421
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 09:39:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

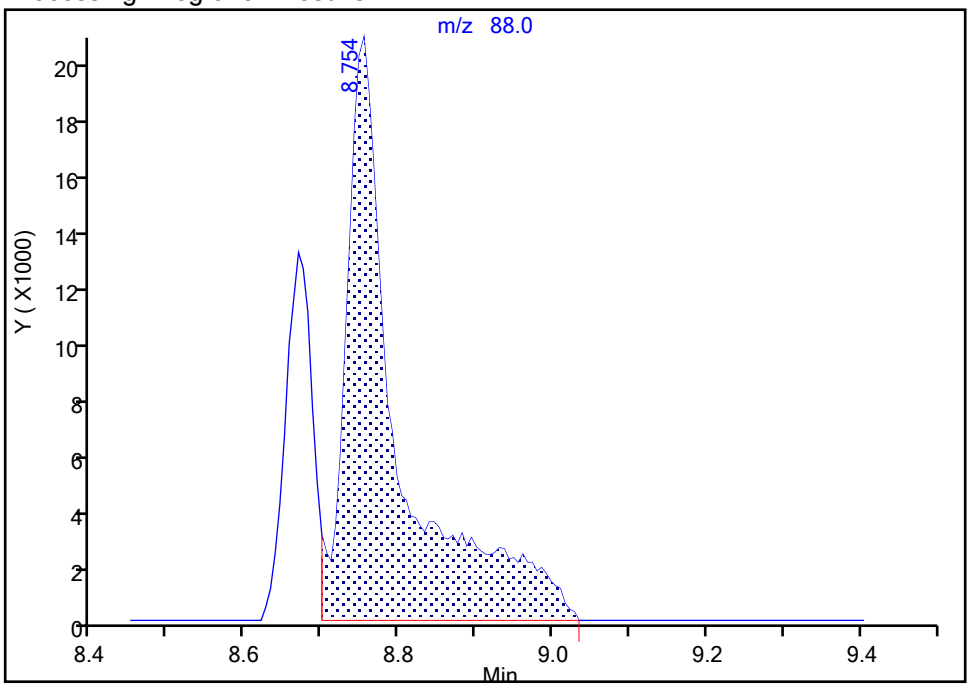
Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20C01.D
Injection Date: 20-Nov-2020 09:07:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

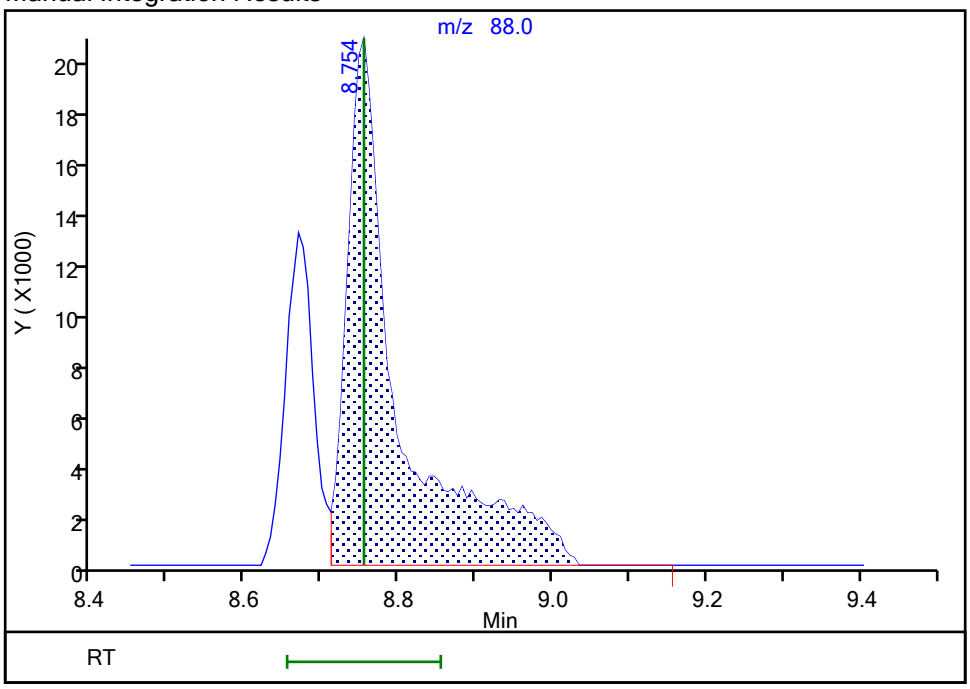
Processing Integration Results

RT: 8.75
Area: 98165
Amount: 711.9220
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 96198
Amount: 697.6568
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 09:40:29
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68801/3 Calibration Date: 11/20/2020 20:34

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C50.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3703	0.3076	0.1000	41.5	50.0	-16.9	20.0
Chloromethane	Ave	0.3287	0.2968	0.1000	45.1	50.0	-9.7	20.0
1,3-Butadiene	Ave	0.2836	0.2767		48.8	50.0	-2.4	20.0
Vinyl chloride	Ave	0.3344	0.2923	0.1000	43.7	50.0	-12.6	20.0
Bromomethane	Ave	0.2889	0.2646	0.1000	45.8	50.0	-8.4	20.0
Chloroethane	Ave	0.2127	0.2012	0.1000	47.3	50.0	-5.4	20.0
Trichlorofluoromethane	Ave	0.5748	0.5336	0.1000	46.4	50.0	-7.2	20.0
n-Pentane	Ave	0.4022	0.3870		48.1	50.0	-3.8	20.0
Ethyl ether	Ave	0.2652	0.2629		49.6	50.0	-0.9	20.0
Freon 123a	Ave	0.3216	0.3217		50.0	50.0	0.0	20.0
Acrolein	Ave	1.891	2.265		599	500	19.8	20.0
1,1-Dichloroethene	Ave	0.2398	0.2215	0.1000	46.2	50.0	-7.6	20.0
Acetone	Ave	0.8132	0.9292	0.1000	114	100	14.3	20.0
Freon 113	Ave	0.2554	0.2382	0.1000	46.6	50.0	-6.8	20.0
2-Propanol	Ave	0.5442	0.5563		256	250	2.2	20.0
Methyl iodide	Ave	0.4941	0.4698		47.5	50.0	-4.9	20.0
Carbon disulfide	Ave	0.7658	0.6632	0.1000	43.3	50.0	-13.4	20.0
Methyl acetate	Ave	0.3585	0.3573	0.1000	49.8	50.0	-0.3	20.0
Allyl chloride	Ave	0.3905	0.3361		43.0	50.0	-13.9	20.0
Methylene Chloride	Ave	0.2658	0.2650	0.1000	49.8	50.0	-0.3	20.0
t-Butyl alcohol	Ave	1.182	1.210		256	250	2.3	20.0
Acrylonitrile	Ave	0.1752	0.1927		55.0	50.0	10.0	20.0
Methyl tertiary butyl ether	Ave	0.9334	0.8216	0.1000	44.0	50.0	-12.0	20.0
trans-1,2-Dichloroethene	Ave	0.2772	0.2723	0.1000	49.1	50.0	-1.8	20.0
n-Hexane	Ave	0.3947	0.3380		42.8	50.0	-14.4	20.0
1,1-Dichloroethane	Ave	0.4630	0.4407	0.2000	47.6	50.0	-4.8	20.0
di-Isopropyl ether	Ave	0.8302	0.7427		44.7	50.0	-10.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4083	0.3717		45.5	50.0	-9.0	20.0
Ethyl t-butyl ether	Ave	0.8621	0.7335		42.5	50.0	-14.9	20.0
2-Butanone	Ave	0.2524	0.2748	0.1000	109	100	8.9	20.0
cis-1,2-Dichloroethene	Ave	0.3188	0.3181	0.1000	49.9	50.0	-0.2	20.0
2,2-Dichloropropane	Ave	0.4309	0.3846		44.6	50.0	-10.8	20.0
Propionitrile	Ave	1.298	1.497		288	250	15.3	20.0
Methacrylonitrile	Ave	0.2015	0.2139		133	125	6.2	20.0
Bromochloromethane	Ave	0.1783	0.1941		54.4	50.0	8.9	20.0
Tetrahydrofuran	Ave	1.338	1.498		112	100	11.9	20.0
Chloroform	Ave	0.4942	0.4974	0.2000	50.3	50.0	0.6	20.0
1,1,1-Trichloroethane	Ave	0.4533	0.4339	0.1000	47.9	50.0	-4.3	20.0
Cyclohexane	Ave	0.4444	0.3831	0.1000	43.1	50.0	-13.8	20.0
1,1-Dichloropropene	Ave	0.3881	0.3738		48.2	50.0	-3.7	20.0
Carbon tetrachloride	Ave	0.4127	0.4027	0.1000	48.8	50.0	-2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68801/3 Calibration Date: 11/20/2020 20:34

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C50.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3709	0.4234		714	625	14.2	20.0
Benzene	Ave	1.116	1.126	0.5000	50.4	50.0	0.9	20.0
1,2-Dichloroethane	Ave	0.4371	0.4322	0.1000	49.4	50.0	-1.1	20.0
t-Amyl methyl ether	Ave	0.8958	0.8104		45.2	50.0	-9.5	20.0
n-Heptane	Ave	0.4472	0.3951		44.2	50.0	-11.7	20.0
n-Butanol	Ave	0.3598	0.4265		1480	1250	18.5	20.0
Trichloroethene	Ave	0.3118	0.3116	0.2000	50.0	50.0	-0.0	20.0
Methylcyclohexane	Ave	0.5264	0.5098	0.1000	48.4	50.0	-3.2	20.0
1,2-Dichloropropane	Ave	0.2905	0.2975	0.1000	51.2	50.0	2.4	20.0
t-Amyl ethyl ether	Ave	0.4774	0.4627		48.5	50.0	-3.1	20.0
Methyl methacrylate	Ave	0.3211	0.3251		50.6	50.0	1.3	20.0
1,4-Dioxane	Ave	0.0921	0.1154	0.0050	783	625	25.3*	20.0
Dibromomethane	Ave	0.2151	0.2287		53.2	50.0	6.3	20.0
Bromodichloromethane	Ave	0.3775	0.3877	0.2000	51.4	50.0	2.7	20.0
2-Nitropropane	Ave	2.773	3.141		113	100	13.3	20.0
2-Chloroethyl vinyl ether	Ave	0.1487	0.2391		80.4	50.0	60.8*	20.0
cis-1,3-Dichloropropene	Ave	0.4863	0.4892	0.2000	50.3	50.0	0.6	20.0
4-Methyl-2-pentanone	Ave	0.4906	0.5884	0.1000	120	100	19.9	20.0
Toluene	Ave	0.9255	0.9166	0.4000	49.5	50.0	-1.0	20.0
trans-1,3-Dichloropropene	Ave	0.5767	0.5644	0.1000	48.9	50.0	-2.1	20.0
Ethyl methacrylate	Ave	0.6196	0.5915		47.7	50.0	-4.5	20.0
1,1,2-Trichloroethane	Ave	0.3697	0.3802	0.1000	51.4	50.0	2.8	20.0
Tetrachloroethene	Ave	0.4731	0.4918	0.2000	52.0	50.0	3.9	20.0
1,3-Dichloropropane	Ave	0.6197	0.6139		49.5	50.0	-0.9	20.0
2-Hexanone	Ave	0.4875	0.6116	0.1000	125	100	25.5*	20.0
Dibromochloromethane	Ave	0.4215	0.4380		52.0	50.0	3.9	20.0
1,2-Dibromoethane	Ave	0.4283	0.4379	0.1000	51.1	50.0	2.3	20.0
1-Chlorohexane	Ave	0.5517	0.4921		44.6	50.0	-10.8	20.0
Chlorobenzene	Ave	1.135	1.169	0.5000	51.5	50.0	3.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4125	0.4187		50.8	50.0	1.5	20.0
Ethylbenzene	Ave	1.811	1.826	0.1000	50.4	50.0	0.8	20.0
m&p-Xylene	Ave	0.7560	0.7724	0.1000	102	100	2.2	20.0
o-Xylene	Ave	0.7445	0.7367	0.3000	49.5	50.0	-1.0	20.0
Styrene	Ave	1.225	1.292	0.3000	52.7	50.0	5.4	20.0
Bromoform	Ave	0.3462	0.3707	0.1000	53.5	50.0	7.1	20.0
Isopropylbenzene	Ave	1.859	1.816	0.1000	48.9	50.0	-2.3	20.0
Cyclohexanone	Ave	0.4192	0.3829		571	625	-8.7	20.0
1,1,2,2-Tetrachloroethane	Ave	1.086	1.094	0.3000	50.3	50.0	0.7	20.0
Bromobenzene	Ave	0.997	1.012		50.7	50.0	1.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3783	0.3481		115	125	-8.0	20.0
1,2,3-Trichloropropane	Ave	0.3907	0.4040		51.7	50.0	3.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68801/3 Calibration Date: 11/20/2020 20:34

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN20C50.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Propylbenzene	Ave	3.758	3.512		46.7	50.0	-6.5	20.0
2-Chlorotoluene	Ave	0.8678	0.8330		48.0	50.0	-4.0	20.0
1,3,5-Trimethylbenzene	Ave	2.882	2.686		46.6	50.0	-6.8	20.0
4-Chlorotoluene	Ave	0.9183	0.9018		49.1	50.0	-1.8	20.0
tert-Butylbenzene	Ave	0.6704	0.6181		46.1	50.0	-7.8	20.0
Pentachloroethane	Ave	0.5404	0.5340		49.4	50.0	-1.2	20.0
1,2,4-Trimethylbenzene	Ave	3.015	2.924		48.5	50.0	-3.0	20.0
sec-Butylbenzene	Ave	3.683	3.456		46.9	50.0	-6.2	20.0
1,3-Dichlorobenzene	Ave	1.836	1.889	0.6000	51.4	50.0	2.9	20.0
p-Isopropyltoluene	Ave	3.366	3.273		48.6	50.0	-2.8	20.0
1,4-Dichlorobenzene	Ave	1.905	1.981	0.5000	52.0	50.0	4.0	20.0
1,2,3-Trimethylbenzene	Ave	3.050	3.029		49.7	50.0	-0.7	20.0
Benzyl chloride	Ave	2.333	2.387		51.2	50.0	2.3	20.0
1,3-Diethylbenzene	Ave	2.026	1.979		48.8	50.0	-2.3	20.0
1,4-Diethylbenzene	Ave	2.145	2.120		49.4	50.0	-1.1	20.0
n-Butylbenzene	Ave	1.650	1.574		47.7	50.0	-4.6	20.0
1,2-Dichlorobenzene	Ave	1.787	1.819	0.4000	50.9	50.0	1.8	20.0
1,2-Diethylbenzene	Ave	1.695	1.654		48.8	50.0	-2.4	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3068	0.2864	0.0500	46.7	50.0	-6.7	20.0
1,3,5-Trichlorobenzene	Ave	1.481	1.380		46.6	50.0	-6.9	20.0
1,2,4-Trichlorobenzene	Ave	1.377	1.232	0.2000	44.7	50.0	-10.6	20.0
Hexachlorobutadiene	Ave	0.6618	0.5671		42.8	50.0	-14.3	20.0
Naphthalene	Ave	4.167	4.032		48.4	50.0	-3.3	20.0
1,2,3-Trichlorobenzene	Ave	1.304	1.170		44.9	50.0	-10.2	20.0
2-Methylnaphthalene	Ave	2.621	2.276		43.4	50.0	-13.2	20.0
Dibromofluoromethane (Surr)	Ave	0.2516	0.2519		50.1	50.0	0.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0604	0.0615		50.9	50.0	1.8	20.0
Toluene-d8 (Surr)	Ave	1.217	1.192		49.0	50.0	-2.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4663	0.4531		48.6	50.0	-2.8	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20C50.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 20-Nov-2020 20:34:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-003
Misc. Info.: CCVIS
Operator ID: ljg30941 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub10

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 23:49:27 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: greenl Date: 20-Nov-2020 21:09:03

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	99	332336	50.0	41.5	
4 Chloromethane	50	2.256	2.256	0.000	99	320714	50.0	45.1	
5 Butadiene	39	2.372	2.372	0.000	89	299024	50.0	48.8	
6 Vinyl chloride	62	2.372	2.372	0.000	91	315790	50.0	43.7	
8 Bromomethane	94	2.713	2.713	0.000	90	285944	50.0	45.8	
9 Chloroethane	64	2.792	2.792	0.000	99	217435	50.0	47.3	
11 Trichlorofluoromethane	101	3.114	3.114	0.000	98	576507	50.0	46.4	
12 Pentane	43	3.151	3.151	0.000	97	418129	50.0	48.1	
14 Ethyl ether	59	3.364	3.364	0.000	88	284089	50.0	49.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.443	3.443	0.000	86	347606	50.0	50.0	
16 Acrolein	56	3.528	3.528	0.000	99	1347021	500.0	598.8	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	97	239368	50.0	46.2	
18 Acetone	58	3.704	3.704	0.000	100	110522	100.0	114.3	
19 112TCTFE	101	3.717	3.717	0.000	89	257350	50.0	46.6	
20 Isopropyl alcohol	45	3.875	3.875	0.000	98	165406	250.0	255.5	
21 Iodomethane	142	3.899	3.899	0.000	99	507596	50.0	47.5	
22 Carbon disulfide	76	4.015	4.015	0.000	99	716543	50.0	43.3	
24 Methyl acetate	43	4.130	4.130	0.000	97	386051	50.0	49.8	
25 3-Chloro-1-propene	41	4.173	4.173	0.000	89	363109	50.0	43.0	
* 26 t-Butyl alcohol-d10 (IS)	65	4.367	4.367	0.000	0	297353	250.0	250.0	
27 Methylene Chloride	84	4.367	4.367	0.000	88	286346	50.0	49.8	
28 2-Methyl-2-propanol	59	4.489	4.489	0.000	97	359775	250.0	255.8	
30 Acrylonitrile	53	4.678	4.678	0.000	99	208178	50.0	55.0	
31 Methyl tert-butyl ether	73	4.781	4.781	0.000	95	887740	50.0	44.0	
32 trans-1,2-Dichloroethene	96	4.793	4.793	0.000	97	294175	50.0	49.1	
33 Hexane	57	5.219	5.219	0.000	92	365196	50.0	42.8	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	476170	50.0	47.6	
36 Isopropyl ether	45	5.499	5.499	0.000	91	802461	50.0	44.7	
37 2-Chloro-1,3-butadiene	53	5.548	5.548	0.000	91	401635	50.0	45.5	
38 Tert-butyl ethyl ether	59	6.034	6.034	0.000	96	792511	50.0	42.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.223	6.223	0.000	99	593917	100.0	108.9	
41 cis-1,2-Dichloroethene	96	6.259	6.259	0.000	80	343718	50.0	49.9	
43 2,2-Dichloropropane	77	6.278	6.278	0.000	88	415515	50.0	44.6	
44 Propionitrile	54	6.296	6.296	0.000	100	445102	250.0	288.2	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	577893	125.0	132.7	
46 Chlorobromomethane	128	6.600	6.600	0.000	84	209712	50.0	54.4	
47 Tetrahydrofuran	71	6.618	6.618	0.000	86	178162	100.0	111.9	
48 Chloroform	83	6.740	6.740	0.000	93	537401	50.0	50.3	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	272137	50.0	50.1	
50 1,1,1-Trichloroethane	97	6.983	6.983	0.000	98	468839	50.0	47.9	
51 Cyclohexane	56	7.093	7.093	0.000	89	413909	50.0	43.1	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	96	403927	50.0	48.2	
53 Carbon tetrachloride	117	7.196	7.196	0.000	97	435074	50.0	48.8	
54 Isobutyl alcohol	41	7.306	7.306	0.000	93	314766	625.0	713.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	66421	50.0	50.9	
56 Benzene	78	7.452	7.452	0.000	96	1216765	50.0	50.4	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	467008	50.0	49.4	
59 Tert-amyl methyl ether	73	7.640	7.640	0.000	98	875623	50.0	45.2	
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1080491	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	90	426881	50.0	44.2	
63 n-Butanol	56	8.182	8.182	0.000	89	634042	1250.0	1481.6	
64 Trichloroethene	95	8.334	8.334	0.000	95	336673	50.0	50.0	
65 Methylcyclohexane	83	8.656	8.656	0.000	93	550797	50.0	48.4	
66 1,2-Dichloropropane	63	8.669	8.669	0.000	73	321428	50.0	51.2	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	93	499947	50.0	48.5	
68 Methyl methacrylate	69	8.735	8.735	0.000	91	351290	50.0	50.6	
69 1,4-Dioxane	88	8.754	8.754	0.000	89	85776	625.0	783.3	M
70 Dibromomethane	93	8.778	8.778	0.000	96	247058	50.0	53.2	
72 Dichlorobromomethane	83	9.003	9.003	0.000	99	418920	50.0	51.4	
73 2-Nitropropane	41	9.253	9.253	0.000	98	373587	100.0	113.3	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	92	258358	50.0	80.4	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	528623	50.0	50.3	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1271552	100.0	119.9	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1112539	50.0	49.0	
78 Toluene	92	9.922	9.922	0.000	98	855298	50.0	49.5	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	526657	50.0	48.9	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	551904	50.0	47.7	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	354749	50.0	51.4	
84 Tetrachloroethene	166	10.475	10.475	0.000	98	458882	50.0	52.0	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	572791	50.0	49.5	
87 2-Hexanone	43	10.573	10.573	0.000	96	1141308	100.0	125.5	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	408677	50.0	52.0	
90 Ethylene Dibromide	107	10.871	10.871	0.000	98	408630	50.0	51.1	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	933097	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	459167	50.0	44.6	
94 Chlorobenzene	112	11.321	11.321	0.000	98	1090797	50.0	51.5	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	390688	50.0	50.8	
96 Ethylbenzene	91	11.400	11.400	0.000	97	1703878	50.0	50.4	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	1441529	100.0	102.2	
98 o-Xylene	106	11.844	11.844	0.000	96	687410	50.0	49.5	
99 Styrene	104	11.856	11.856	0.000	94	1205153	50.0	52.7	
100 Bromoform	173	12.021	12.021	0.000	97	345862	50.0	53.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Isopropylbenzene	105	12.142	12.142	0.000	95	1694357	50.0	48.9	
103 Cyclohexanone	55	12.215	12.215	0.000	91	284608	625.0	570.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	422815	50.0	48.6	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	611480	50.0	50.3	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	78	486399	125.0	115.0	
107 Bromobenzene	156	12.404	12.404	0.000	91	565401	50.0	50.7	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	225796	50.0	51.7	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	1963269	50.0	46.7	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	465610	50.0	48.0	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	1501107	50.0	46.6	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	504080	50.0	49.1	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	345465	50.0	46.1	
115 Pentachloroethane	167	12.884	12.884	0.000	90	298450	50.0	49.4	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	1634256	50.0	48.5	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	1931856	50.0	46.9	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	1055798	50.0	51.4	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	1829618	50.0	48.6	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	558943	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	1107449	50.0	52.0	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	1693045	50.0	49.7	
123 Benzyl chloride	91	13.256	13.256	0.000	98	1334080	50.0	51.2	
124 1,3-Diethylbenzene	119	13.316	13.316	0.000	95	1106235	50.0	48.8	
125 p-Diethylbenzene	119	13.389	13.389	0.000	94	1185210	50.0	49.4	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	879614	50.0	47.7	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	1016792	50.0	50.9	
128 o-diethylbenzene	119	13.462	13.462	0.000	93	924740	50.0	48.8	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	90	160080	50.0	46.7	
131 1,3,5-Trichlorobenzene	180	14.119	14.119	0.000	98	771113	50.0	46.6	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	688405	50.0	44.7	
133 Hexachlorobutadiene	225	14.624	14.624	0.000	98	316960	50.0	42.8	
134 Naphthalene	128	14.722	14.722	0.000	96	2253522	50.0	48.4	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	654045	50.0	44.9	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	1271941	50.0	43.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00111	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00123	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00173	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 23:49:30 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20C50.D

Injection Date: 20-Nov-2020 20:34:30 Instrument ID: 9355 Operator ID: ljg30941

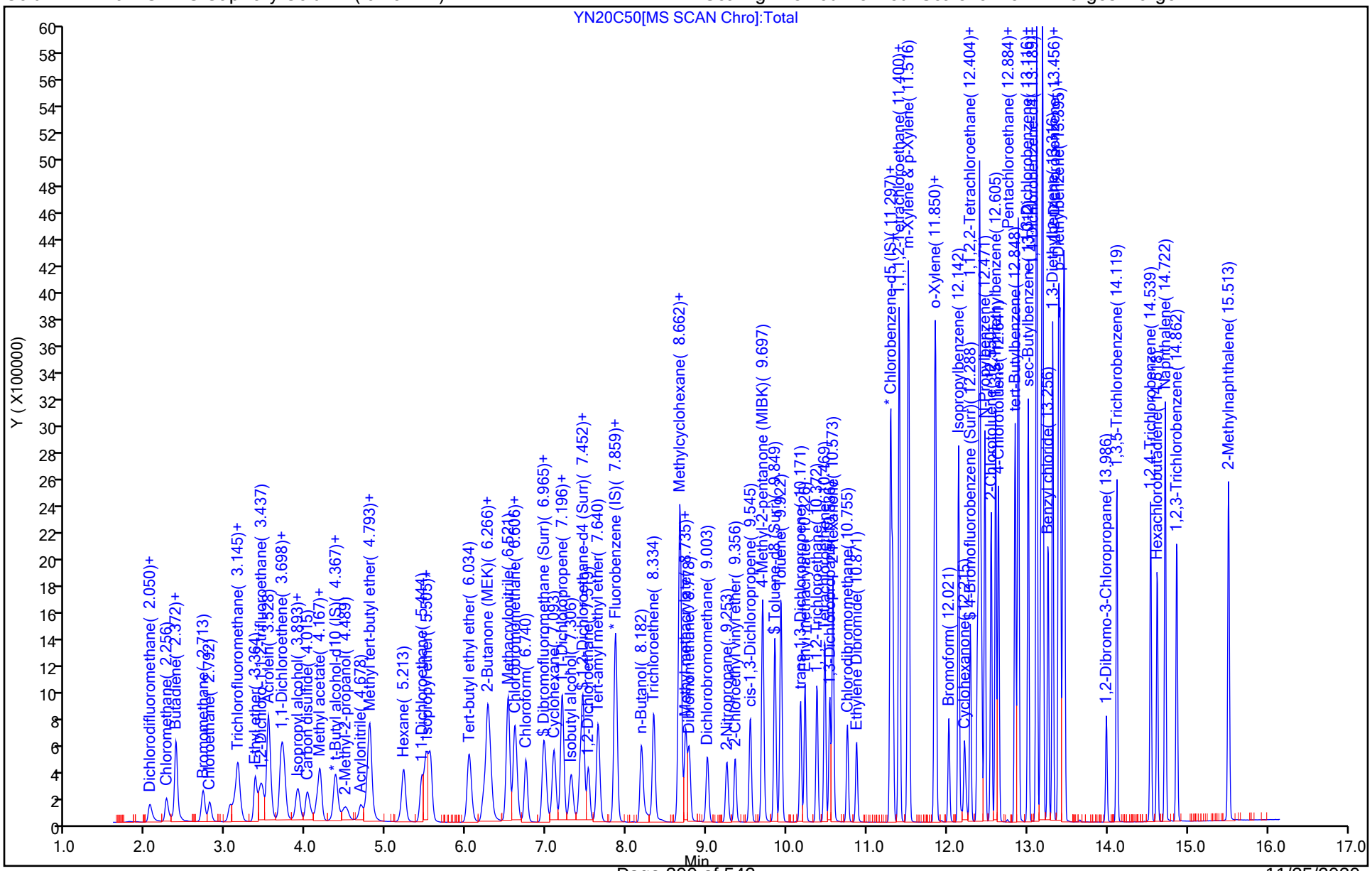
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

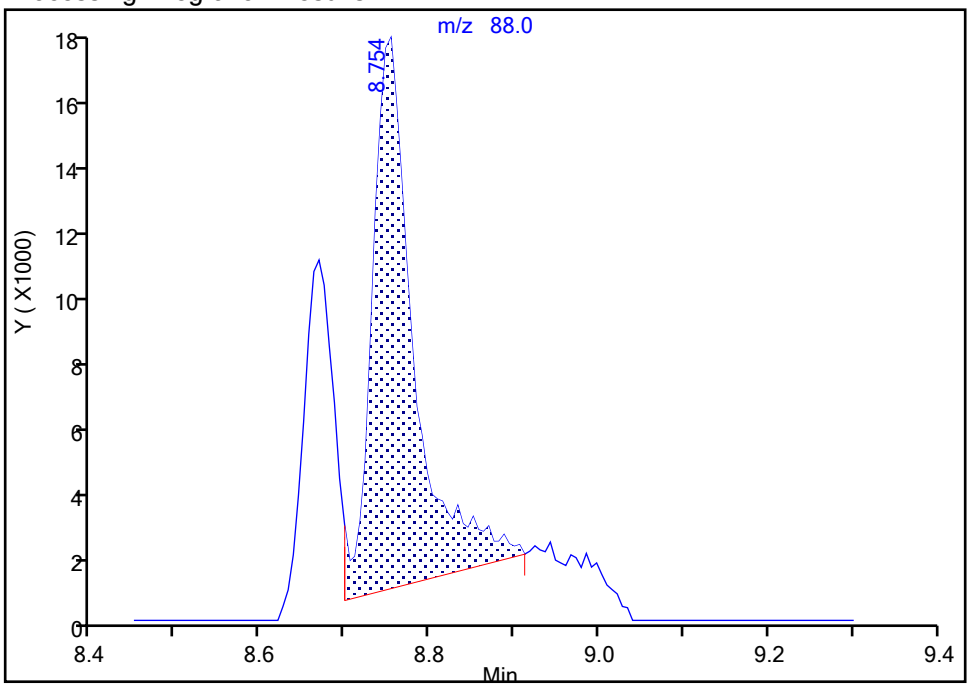
Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20C50.D
Injection Date: 20-Nov-2020 20:34:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: ljg30941 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

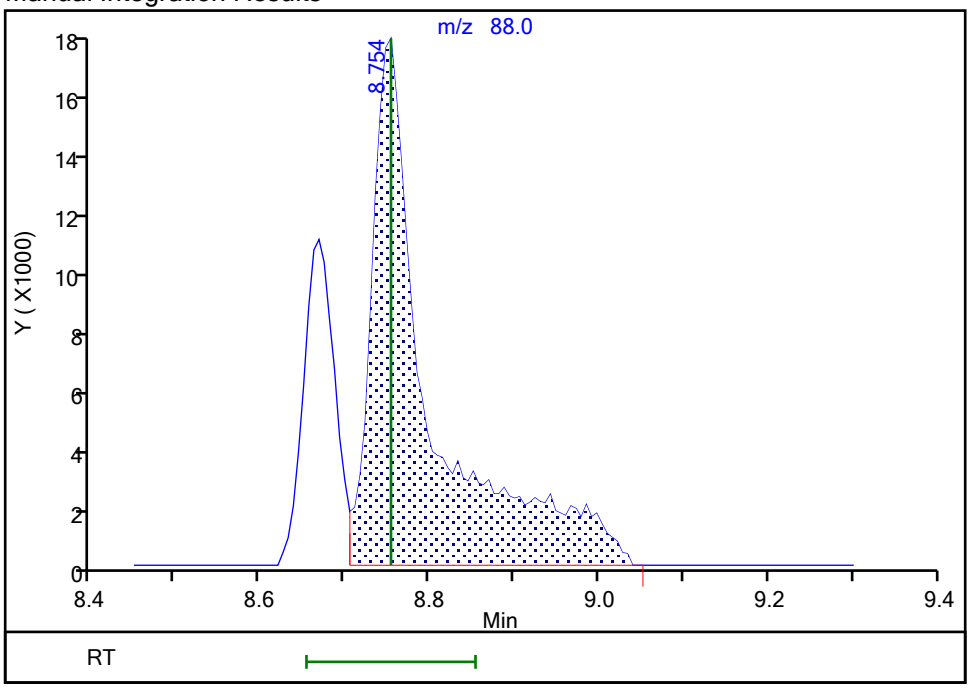
Processing Integration Results

RT: 8.75
Area: 57946
Amount: 529.1601
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 85776
Amount: 783.3024
Amount Units: ug/l



Reviewer: greenl, 20-Nov-2020 21:06:03
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68925/3 Calibration Date: 11/21/2020 09:21

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN21C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3703	0.2810	0.1000	37.9	50.0	-24.1*	20.0
Chloromethane	Ave	0.3287	0.2799	0.1000	42.6	50.0	-14.9	20.0
1,3-Butadiene	Ave	0.2836	0.2479		43.7	50.0	-12.6	20.0
Vinyl chloride	Ave	0.3344	0.2795	0.1000	41.8	50.0	-16.4	20.0
Bromomethane	Ave	0.2889	0.2538	0.1000	43.9	50.0	-12.2	20.0
Chloroethane	Ave	0.2127	0.1934	0.1000	45.5	50.0	-9.1	20.0
Dichlorofluoromethane	Ave	0.4771	0.4150		43.5	50.0	-13.0	20.0
Trichlorofluoromethane	Ave	0.5748	0.5009	0.1000	43.6	50.0	-12.8	20.0
n-Pentane	Ave	0.4022	0.3571		44.4	50.0	-11.2	20.0
Ethyl ether	Ave	0.2652	0.2813		53.0	50.0	6.1	20.0
Freon 123a	Ave	0.3216	0.2897		45.1	50.0	-9.9	20.0
Acrolein	Ave	1.891	1.836		485	500	-2.9	20.0
1,1-Dichloroethene	Ave	0.2398	0.2027	0.1000	42.3	50.0	-15.5	20.0
Acetone	Ave	0.8132	0.8354	0.1000	103	100	2.7	20.0
Freon 113	Ave	0.2554	0.2049	0.1000	40.1	50.0	-19.8	20.0
2-Propanol	Ave	0.5442	0.4466		205	250	-17.9	20.0
Methyl iodide	Ave	0.4941	0.4486		45.4	50.0	-9.2	20.0
Carbon disulfide	Ave	0.7658	0.6195	0.1000	40.5	50.0	-19.1	20.0
Methyl acetate	Ave	0.3585	0.3166	0.1000	44.2	50.0	-11.7	20.0
Allyl chloride	Ave	0.3905	0.2844		36.4	50.0	-27.2*	20.0
Methylene Chloride	Ave	0.2658	0.2597	0.1000	48.9	50.0	-2.3	20.0
t-Butyl alcohol	Ave	1.182	1.143		242	250	-3.3	20.0
Acrylonitrile	Ave	0.1752	0.1770		50.5	50.0	1.0	20.0
Methyl tertiary butyl ether	Ave	0.9334	0.8326	0.1000	44.6	50.0	-10.8	20.0
trans-1,2-Dichloroethene	Ave	0.2772	0.2610	0.1000	47.1	50.0	-5.9	20.0
n-Hexane	Ave	0.3947	0.3087		39.1	50.0	-21.8*	20.0
1,1-Dichloroethane	Ave	0.4630	0.4361	0.2000	47.1	50.0	-5.8	20.0
di-Isopropyl ether	Ave	0.8302	0.7434		44.8	50.0	-10.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4083	0.3537		43.3	50.0	-13.4	20.0
Ethyl t-butyl ether	Ave	0.8621	0.7363		42.7	50.0	-14.6	20.0
2-Butanone	Ave	0.2524	0.2597	0.1000	103	100	2.9	20.0
cis-1,2-Dichloroethene	Ave	0.3188	0.3135	0.1000	49.2	50.0	-1.6	20.0
2,2-Dichloropropane	Ave	0.4309	0.3668		42.6	50.0	-14.9	20.0
Propionitrile	Ave	1.298	1.497		288	250	15.3	20.0
Methacrylonitrile	Ave	0.2015	0.2195		136	125	8.9	20.0
Bromochloromethane	Ave	0.1783	0.1699		47.7	50.0	-4.7	20.0
Tetrahydrofuran	Ave	1.338	1.403		105	100	4.8	20.0
Chloroform	Ave	0.4942	0.4914	0.2000	49.7	50.0	-0.6	20.0
1,1,1-Trichloroethane	Ave	0.4533	0.4098	0.1000	45.2	50.0	-9.6	20.0
Cyclohexane	Ave	0.4444	0.3448	0.1000	38.8	50.0	-22.4*	20.0
1,1-Dichloropropene	Ave	0.3881	0.3548		45.7	50.0	-8.6	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68925/3 Calibration Date: 11/21/2020 09:21

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN21C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon tetrachloride	Ave	0.4127	0.3747	0.1000	45.4	50.0	-9.2	20.0
Isobutyl alcohol	Ave	0.3709	0.4284		722	625	15.5	20.0
Benzene	Ave	1.116	1.113	0.5000	49.9	50.0	-0.3	20.0
1,2-Dichloroethane	Ave	0.4371	0.4337	0.1000	49.6	50.0	-0.8	20.0
t-Amyl methyl ether	Ave	0.8958	0.8069		45.0	50.0	-9.9	20.0
n-Heptane	Ave	0.4472	0.3680		41.1	50.0	-17.7	20.0
n-Butanol	Ave	0.3598	0.3957		1370	1250	10.0	20.0
Trichloroethene	Ave	0.3118	0.3037	0.2000	48.7	50.0	-2.6	20.0
Methylcyclohexane	Ave	0.5264	0.4122	0.1000	39.2	50.0	-21.7*	20.0
1,2-Dichloropropane	Ave	0.2905	0.2965	0.1000	51.0	50.0	2.1	20.0
t-Amyl ethyl ether	Ave	0.4774	0.4600		48.2	50.0	-3.6	20.0
Methyl methacrylate	Ave	0.3211	0.3415		53.2	50.0	6.4	20.0
1,4-Dioxane	Ave	0.0921	0.1135	0.0050	770	625	23.3*	20.0
Dibromomethane	Ave	0.2151	0.2285		53.1	50.0	6.2	20.0
Bromodichloromethane	Ave	0.3775	0.3898	0.2000	51.6	50.0	3.2	20.0
2-Nitropropane	Ave	2.773	2.769		99.9	100	-0.1	20.0
2-Chloroethyl vinyl ether	Ave	0.1487	0.2431		81.7	50.0	63.5*	20.0
cis-1,3-Dichloropropene	Ave	0.4863	0.4946	0.2000	50.9	50.0	1.7	20.0
4-Methyl-2-pentanone	Ave	0.4906	0.5009	0.1000	102	100	2.1	20.0
Toluene	Ave	0.9255	0.9117	0.4000	49.3	50.0	-1.5	20.0
trans-1,3-Dichloropropene	Ave	0.5767	0.5736	0.1000	49.7	50.0	-0.5	20.0
Ethyl methacrylate	Ave	0.6196	0.5919		47.8	50.0	-4.5	20.0
1,1,2-Trichloroethane	Ave	0.3697	0.3881	0.1000	52.5	50.0	5.0	20.0
Tetrachloroethene	Ave	0.4731	0.4424	0.2000	46.8	50.0	-6.5	20.0
1,3-Dichloropropane	Ave	0.6197	0.6233		50.3	50.0	0.6	20.0
2-Hexanone	Ave	0.4875	0.4987	0.1000	102	100	2.3	20.0
Dibromochloromethane	Ave	0.4215	0.4395		52.1	50.0	4.3	20.0
1,2-Dibromoethane	Ave	0.4283	0.4405	0.1000	51.4	50.0	2.8	20.0
1-Chlorohexane	Ave	0.5517	0.4799		43.5	50.0	-13.0	20.0
Chlorobenzene	Ave	1.135	1.169	0.5000	51.5	50.0	3.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4125	0.4147		50.3	50.0	0.5	20.0
Ethylbenzene	Ave	1.811	1.802	0.1000	49.7	50.0	-0.5	20.0
m&p-Xylene	Ave	0.7560	0.7701	0.1000	102	100	1.9	20.0
o-Xylene	Ave	0.7445	0.7324	0.3000	49.2	50.0	-1.6	20.0
Styrene	Ave	1.225	1.296	0.3000	52.9	50.0	5.8	20.0
Bromoform	Ave	0.3462	0.3666	0.1000	52.9	50.0	5.9	20.0
Isopropylbenzene	Ave	1.859	1.781	0.1000	47.9	50.0	-4.2	20.0
Cyclohexanone	Ave	0.4192	0.3690		550	625	-12.0	20.0
1,1,2,2-Tetrachloroethane	Ave	1.086	1.080	0.3000	49.7	50.0	-0.6	20.0
Bromobenzene	Ave	0.997	1.015		50.9	50.0	1.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3783	0.3418		113	125	-9.7	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-68925/3 Calibration Date: 11/21/2020 09:21

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN21C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3907	0.3997		51.2	50.0	2.3	20.0
N-Propylbenzene	Ave	3.758	3.514		46.8	50.0	-6.5	20.0
2-Chlorotoluene	Ave	0.8678	0.8141		46.9	50.0	-6.2	20.0
1,3,5-Trimethylbenzene	Ave	2.882	2.682		46.5	50.0	-7.0	20.0
4-Chlorotoluene	Ave	0.9183	0.9125		49.7	50.0	-0.6	20.0
tert-Butylbenzene	Ave	0.6704	0.6022		44.9	50.0	-10.2	20.0
Pentachloroethane	Ave	0.5404	0.4926		45.6	50.0	-8.8	20.0
1,2,4-Trimethylbenzene	Ave	3.015	2.893		48.0	50.0	-4.1	20.0
sec-Butylbenzene	Ave	3.683	3.348		45.5	50.0	-9.1	20.0
1,3-Dichlorobenzene	Ave	1.836	1.890	0.6000	51.5	50.0	3.0	20.0
p-Isopropyltoluene	Ave	3.366	3.202		47.6	50.0	-4.9	20.0
1,4-Dichlorobenzene	Ave	1.905	1.961	0.5000	51.5	50.0	2.9	20.0
1,2,3-Trimethylbenzene	Ave	3.050	2.606		42.7	50.0	-14.6	20.0
Benzyl chloride	Ave	2.333	2.386		51.1	50.0	2.3	20.0
1,3-Diethylbenzene	Ave	2.026	1.701		42.0	50.0	-16.1	20.0
1,4-Diethylbenzene	Ave	2.145	1.813		42.3	50.0	-15.5	20.0
n-Butylbenzene	Ave	1.650	1.511		45.8	50.0	-8.4	20.0
1,2-Dichlorobenzene	Ave	1.787	1.785	0.4000	49.9	50.0	-0.1	20.0
1,2-Diethylbenzene	Ave	1.695	1.419		41.9	50.0	-16.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3068	0.2757	0.0500	44.9	50.0	-10.1	20.0
1,3,5-Trichlorobenzene	Ave	1.481	1.315		44.4	50.0	-11.2	20.0
1,2,4-Trichlorobenzene	Ave	1.377	1.173	0.2000	42.6	50.0	-14.8	20.0
Hexachlorobutadiene	Ave	0.6618	0.5280		39.9	50.0	-20.2*	20.0
Naphthalene	Ave	4.167	3.767		45.2	50.0	-9.6	20.0
1,2,3-Trichlorobenzene	Ave	1.304	1.101		42.2	50.0	-15.6	20.0
2-Methylnaphthalene	Ave	2.621	1.818		34.7	50.0	-30.6*	20.0
Dibromofluoromethane (Surr)	Ave	0.2516	0.2509		49.9	50.0	-0.3	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0604	0.0614		50.9	50.0	1.8	20.0
Toluene-d8 (Surr)	Ave	1.217	1.197		49.2	50.0	-1.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4663	0.4568		49.0	50.0	-2.0	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 21-Nov-2020 09:21:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-003
Misc. Info.: CCVIS
Operator ID: clm27445 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 12:03:50 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 10:28:43

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.050	0.000	99	302209	50.0	37.9	
4 Chloromethane	50	2.257	2.257	0.000	99	300998	50.0	42.6	
5 Butadiene	39	2.378	2.378	0.000	89	266630	50.0	43.7	
6 Vinyl chloride	62	2.378	2.378	0.000	98	300569	50.0	41.8	
8 Bromomethane	94	2.719	2.719	0.000	90	272920	50.0	43.9	
9 Chloroethane	64	2.804	2.804	0.000	99	207980	50.0	45.5	
10 Dichlorofluoromethane	67	3.041	3.041	0.000	97	446355	50.0	43.5	
11 Trichlorofluoromethane	101	3.114	3.114	0.000	98	538739	50.0	43.6	M
12 Pentane	43	3.151	3.151	0.000	96	384106	50.0	44.4	
14 Ethyl ether	59	3.364	3.364	0.000	87	302566	50.0	53.0	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.449	3.449	0.000	86	311590	50.0	45.1	
16 Acrolein	56	3.528	3.528	0.000	99	1113141	500.0	485.3	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	98	218019	50.0	42.3	
18 Acetone	58	3.698	3.698	0.000	99	101311	100.0	102.7	
19 112TCTFE	101	3.729	3.729	0.000	90	220315	50.0	40.1	
20 Isopropyl alcohol	45	3.875	3.875	0.000	97	135408	250.0	205.2	
21 Iodomethane	142	3.899	3.899	0.000	99	482456	50.0	45.4	
22 Carbon disulfide	76	4.015	4.015	0.000	99	666300	50.0	40.5	
24 Methyl acetate	43	4.136	4.136	0.000	97	340534	50.0	44.2	
25 3-Chloro-1-propene	41	4.173	4.173	0.000	90	305916	50.0	36.4	
* 26 t-Butyl alcohol-d10 (IS)	65	4.368	4.368	0.000	0	303193	250.0	250.0	M
27 Methylene Chloride	84	4.368	4.368	0.000	89	279342	50.0	48.9	
28 2-Methyl-2-propanol	59	4.495	4.495	0.000	98	346617	250.0	241.7	
30 Acrylonitrile	53	4.690	4.690	0.000	99	190388	50.0	50.5	
31 Methyl tert-butyl ether	73	4.781	4.781	0.000	95	895410	50.0	44.6	
32 trans-1,2-Dichloroethene	96	4.800	4.800	0.000	97	280666	50.0	47.1	
33 Hexane	57	5.219	5.219	0.000	92	331961	50.0	39.1	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	469054	50.0	47.1	
36 Isopropyl ether	45	5.499	5.499	0.000	91	799502	50.0	44.8	
37 2-Chloro-1,3-butadiene	53	5.554	5.554	0.000	91	380349	50.0	43.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.035	6.035	0.000	96	791827	50.0	42.7	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	99	558708	100.0	102.9	
41 cis-1,2-Dichloroethene	96	6.260	6.260	0.000	82	337194	50.0	49.2	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	87	394471	50.0	42.6	
44 Propionitrile	54	6.296	6.296	0.000	100	454000	250.0	288.3	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	590037	125.0	136.1	
46 Chlorobromomethane	128	6.600	6.600	0.000	85	182749	50.0	47.7	
47 Tetrahydrofuran	71	6.619	6.619	0.000	93	170102	100.0	104.8	
48 Chloroform	83	6.740	6.740	0.000	93	528512	50.0	49.7	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	269822	50.0	49.9	
50 1,1,1-Trichloroethane	97	6.978	6.978	0.000	98	440690	50.0	45.2	
51 Cyclohexane	56	7.093	7.093	0.000	89	370846	50.0	38.8	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	96	381594	50.0	45.7	
53 Carbon tetrachloride	117	7.197	7.197	0.000	97	403024	50.0	45.4	
54 Isobutyl alcohol	41	7.306	7.306	0.000	92	324756	625.0	722.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.416	0.000	0	66065	50.0	50.9	
56 Benzene	78	7.452	7.452	0.000	96	1197449	50.0	49.9	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	466394	50.0	49.6	
59 Tert-amyl methyl ether	73	7.647	7.647	0.000	98	867852	50.0	45.0	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1075483	50.0	50.0	
62 n-Heptane	43	7.872	7.872	0.000	88	395749	50.0	41.1	
63 n-Butanol	56	8.182	8.182	0.000	90	599905	1250.0	1374.8	
64 Trichloroethene	95	8.334	8.334	0.000	95	326582	50.0	48.7	
65 Methylcyclohexane	83	8.657	8.657	0.000	91	443350	50.0	39.2	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	88	318926	50.0	51.0	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	95	494720	50.0	48.2	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	367273	50.0	53.2	
69 1,4-Dioxane	88	8.754	8.754	0.000	89	86023	625.0	770.4	M
70 Dibromomethane	93	8.778	8.778	0.000	93	245737	50.0	53.1	
72 Dichlorobromomethane	83	9.003	9.003	0.000	99	419192	50.0	51.6	
73 2-Nitropropane	41	9.247	9.247	0.000	99	335795	100.0	99.9	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	92	261441	50.0	81.7	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	531956	50.0	50.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1077463	100.0	102.1	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1110260	50.0	49.2	
78 Toluene	92	9.928	9.928	0.000	98	845454	50.0	49.3	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	531943	50.0	49.7	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	548891	50.0	47.8	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	359845	50.0	52.5	
84 Tetrachloroethene	166	10.476	10.476	0.000	98	410233	50.0	46.8	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	90	577966	50.0	50.3	
87 2-Hexanone	43	10.573	10.573	0.000	96	924991	100.0	102.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	407575	50.0	52.1	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	408469	50.0	51.4	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	927310	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	445030	50.0	43.5	
94 Chlorobenzene	112	11.321	11.321	0.000	97	1084281	50.0	51.5	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	384531	50.0	50.3	
96 Ethylbenzene	91	11.400	11.400	0.000	97	1671157	50.0	49.7	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	1428293	100.0	101.9	
98 o-Xylene	106	11.844	11.844	0.000	95	679124	50.0	49.2	
99 Styrene	104	11.857	11.857	0.000	94	1201392	50.0	52.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Bromoform	173	12.021	12.021	0.000	98	339926	50.0	52.9	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	1651385	50.0	47.9	
103 Cyclohexanone	55	12.215	12.215	0.000	91	279659	625.0	550.0	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	423566	50.0	49.0	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	596479	50.0	49.7	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	78	472053	125.0	112.9	
107 Bromobenzene	156	12.404	12.404	0.000	93	560854	50.0	50.9	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	220838	50.0	51.2	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	1941271	50.0	46.8	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	449785	50.0	46.9	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	1481576	50.0	46.5	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	504143	50.0	49.7	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	332696	50.0	44.9	
115 Pentachloroethane	167	12.885	12.885	0.000	93	272188	50.0	45.6	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	1598273	50.0	48.0	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	1849816	50.0	45.5	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	1044273	50.0	51.5	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	1769087	50.0	47.6	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	552509	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	1083229	50.0	51.5	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	1439667	50.0	42.7	
123 Benzyl chloride	91	13.256	13.256	0.000	98	1318122	50.0	51.1	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	939806	50.0	42.0	
125 p-Diethylbenzene	119	13.390	13.390	0.000	93	1001860	50.0	42.3	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	834991	50.0	45.8	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	986197	50.0	49.9	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	784023	50.0	41.9	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	90	152347	50.0	44.9	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	726758	50.0	44.4	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	648068	50.0	42.6	
133 Hexachlorobutadiene	225	14.618	14.618	0.000	98	291725	50.0	39.9	
134 Naphthalene	128	14.722	14.722	0.000	96	2081241	50.0	45.2	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	608186	50.0	42.2	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	1004494	50.0	34.7	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00111	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00123	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00055	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00173	Amount Added:	2.50	Units: uL	
MSV_DCFM_00030	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 21-Nov-2020 12:03:53 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21C01.D

Injection Date: 21-Nov-2020 09:21:30 Instrument ID: 9355 Operator ID: clm27445

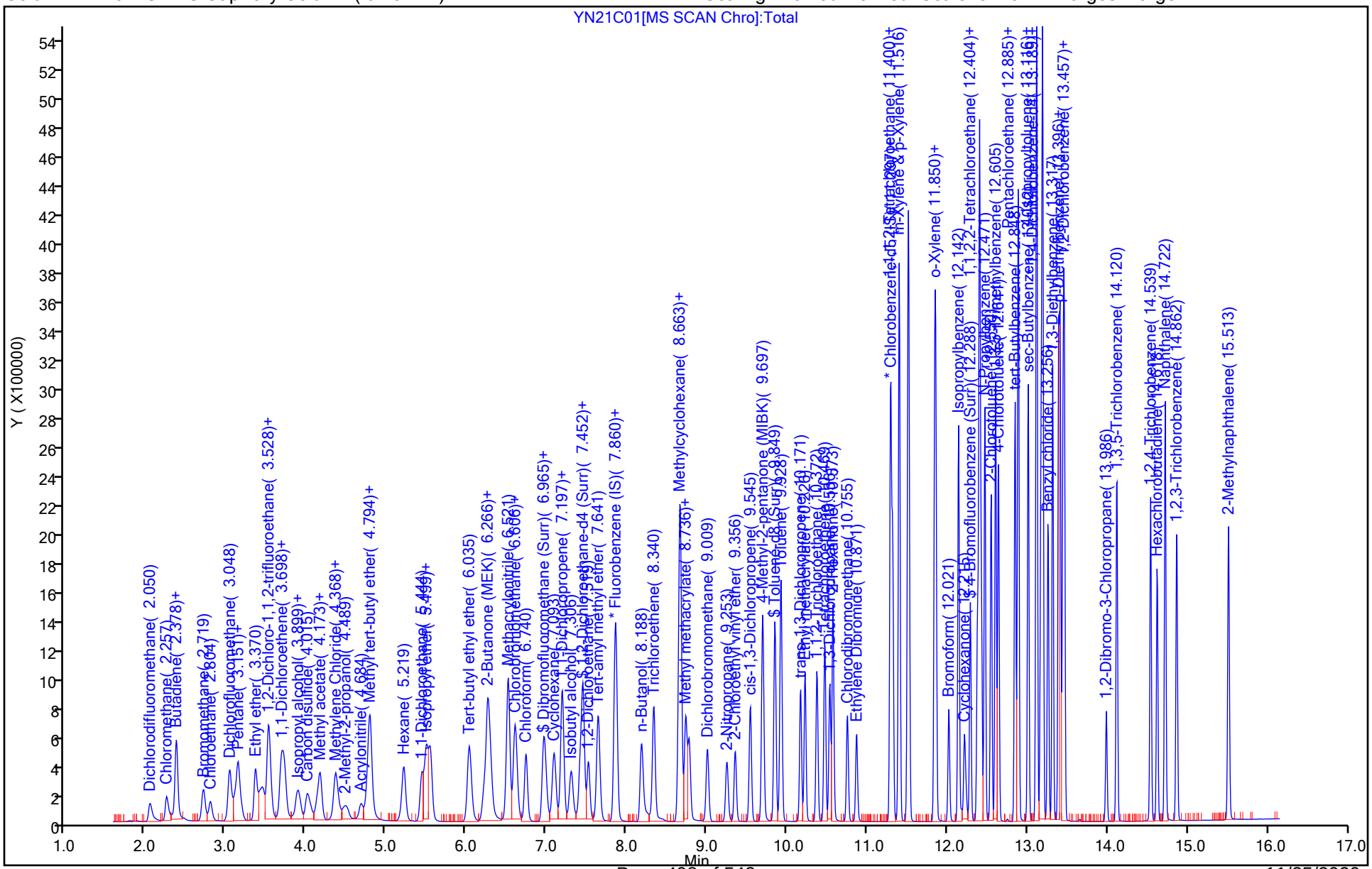
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

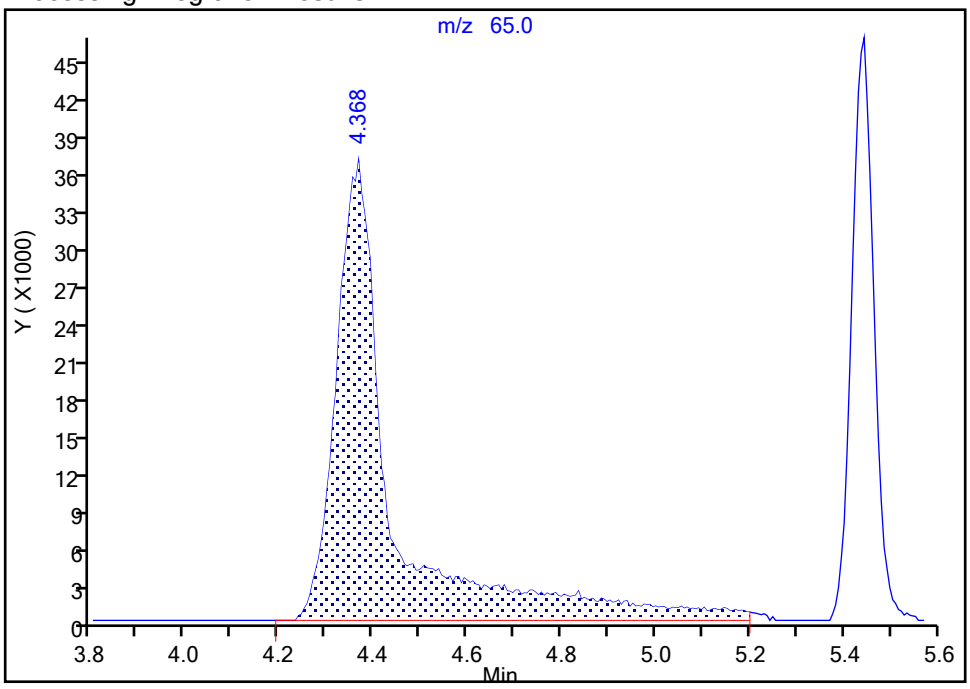
Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21C01.D
Injection Date: 21-Nov-2020 09:21:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

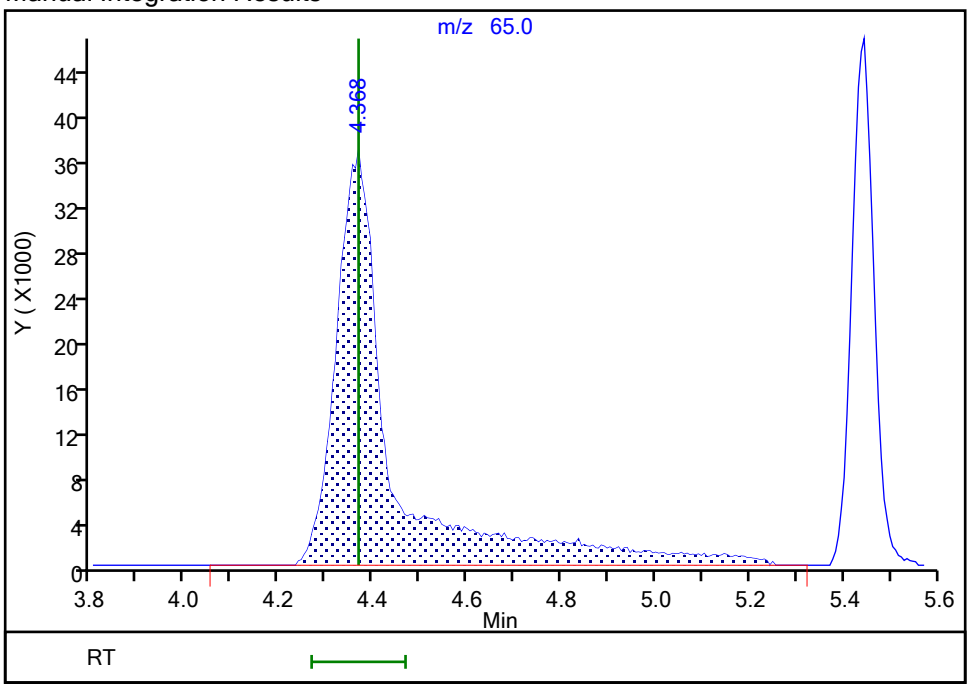
Processing Integration Results

RT: 4.37
Area: 301969
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.37
Area: 303193
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 09:54:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

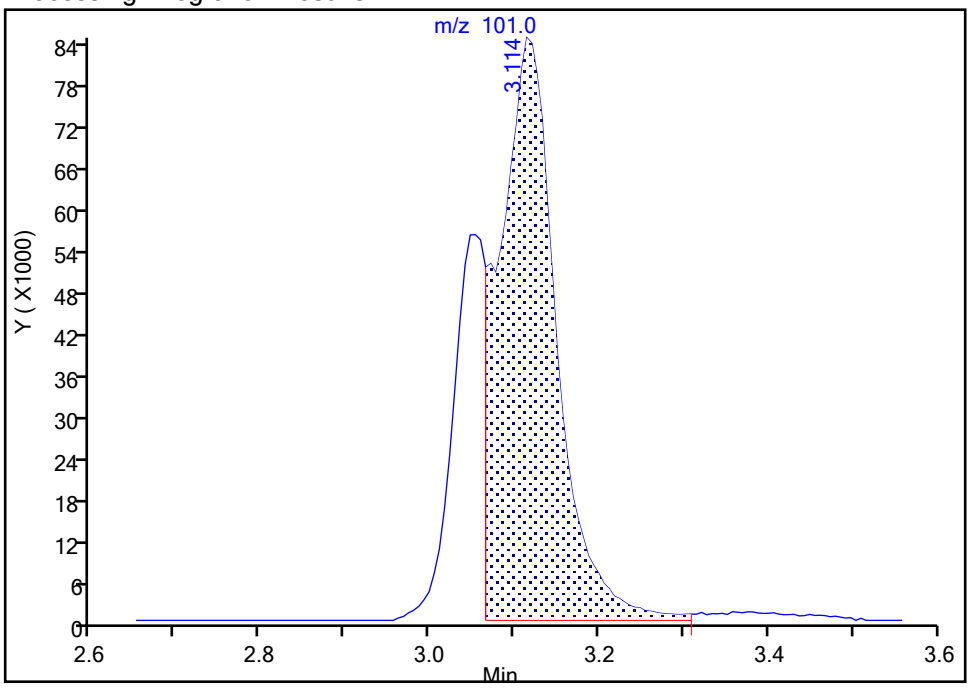
Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21C01.D
Injection Date: 21-Nov-2020 09:21:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

11 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

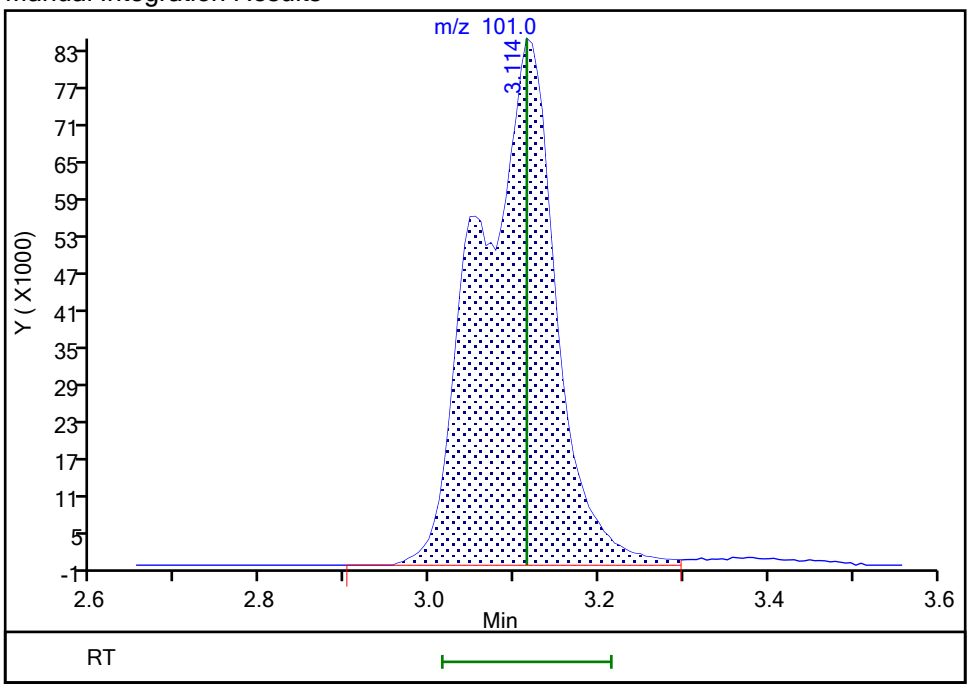
Processing Integration Results

RT: 3.11
Area: 405367
Amount: 32.789202
Amount Units: ug/l



Manual Integration Results

RT: 3.11
Area: 538739
Amount: 43.577356
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 09:54:28
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

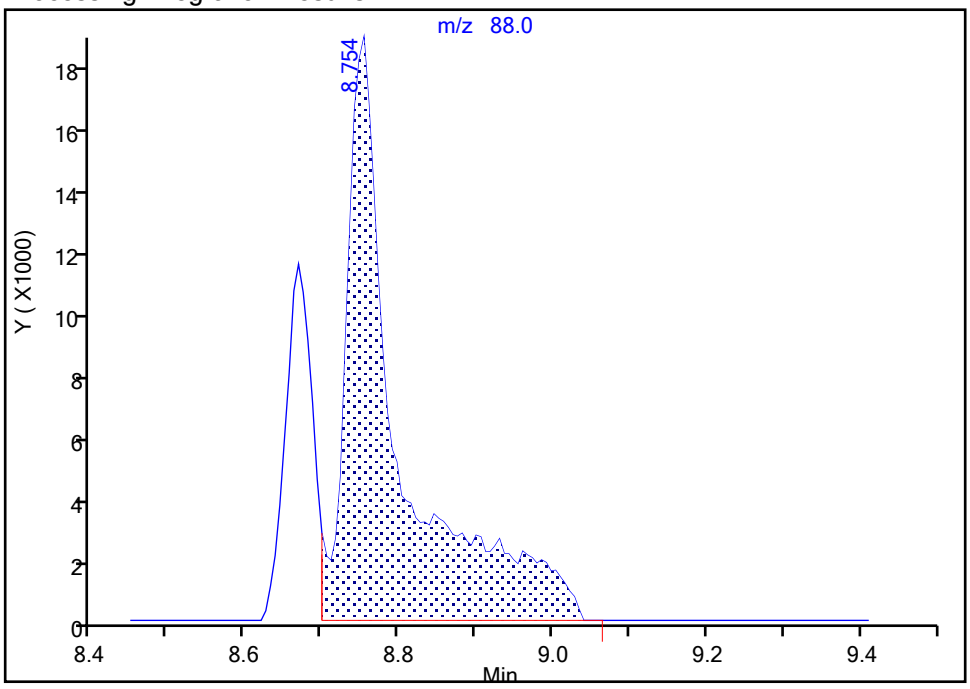
Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21C01.D
Injection Date: 21-Nov-2020 09:21:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

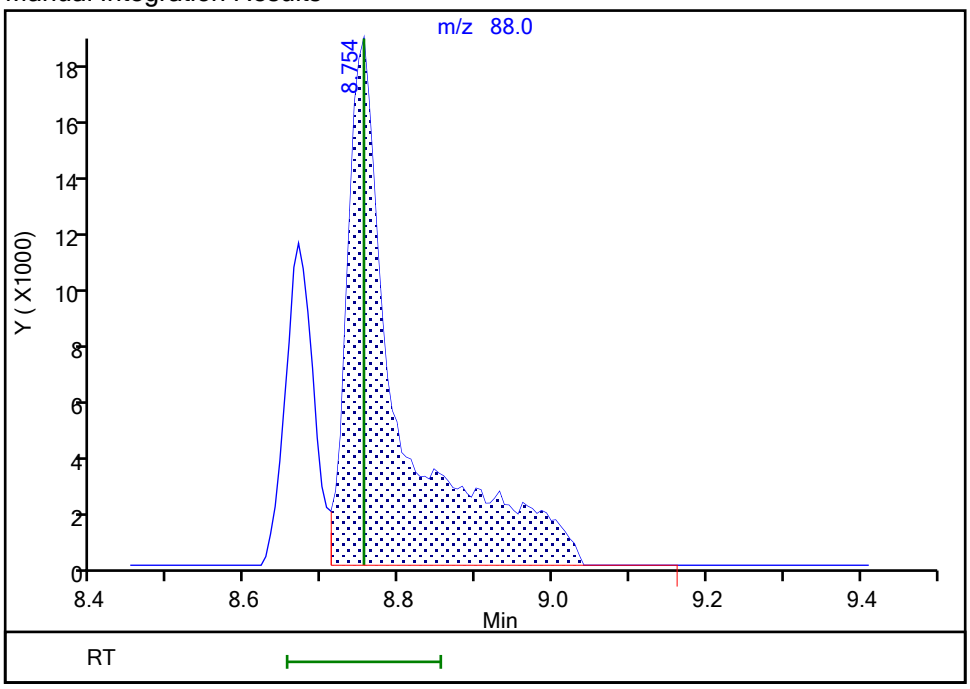
Processing Integration Results

RT: 8.75
Area: 87735
Amount: 785.7596
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 86023
Amount: 770.4268
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 09:54:58
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-69288/3 Calibration Date: 11/23/2020 09:48

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN23C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.3703	0.3207	0.1000	43.3	50.0	-13.4	20.0
Chloromethane	Ave	0.3287	0.2842	0.1000	43.2	50.0	-13.5	20.0
Vinyl chloride	Ave	0.3344	0.2814	0.1000	42.1	50.0	-15.8	20.0
1,3-Butadiene	Ave	0.2836	0.2366		41.7	50.0	-16.6	20.0
Bromomethane	Ave	0.2889	0.2475	0.1000	42.8	50.0	-14.3	20.0
Chloroethane	Ave	0.2127	0.1908	0.1000	44.9	50.0	-10.3	20.0
Dichlorofluoromethane	Ave	0.4771	0.4095		42.9	50.0	-14.2	20.0
Trichlorofluoromethane	Ave	0.5748	0.5124	0.1000	44.6	50.0	-10.9	20.0
n-Pentane	Ave	0.4022	0.3643		45.3	50.0	-9.4	20.0
Ethyl ether	Ave	0.2652	0.2513		47.4	50.0	-5.3	20.0
Freon 123a	Ave	0.3216	0.2690		41.8	50.0	-16.3	20.0
Acrolein	Ave	1.891	1.820		481	500	-3.7	20.0
1,1-Dichloroethene	Ave	0.2398	0.2148	0.1000	44.8	50.0	-10.4	20.0
Acetone	Ave	0.8132	0.8286	0.1000	102	100	1.9	20.0
Freon 113	Ave	0.2554	0.2247	0.1000	44.0	50.0	-12.1	20.0
2-Propanol	Ave	0.5442	0.5039		231	250	-7.4	20.0
Methyl iodide	Ave	0.4941	0.4535		45.9	50.0	-8.2	20.0
Carbon disulfide	Ave	0.7658	0.6241	0.1000	40.7	50.0	-18.5	20.0
Methyl acetate	Ave	0.3585	0.3385	0.1000	47.2	50.0	-5.6	20.0
Allyl chloride	Ave	0.3905	0.3242		41.5	50.0	-17.0	20.0
Methylene Chloride	Ave	0.2658	0.2522	0.1000	47.4	50.0	-5.1	20.0
t-Butyl alcohol	Ave	1.182	1.167		247	250	-1.3	20.0
Acrylonitrile	Ave	0.1752	0.1832		52.3	50.0	4.5	20.0
Methyl tertiary butyl ether	Ave	0.9334	0.8390	0.1000	44.9	50.0	-10.1	20.0
trans-1,2-Dichloroethene	Ave	0.2772	0.2723	0.1000	49.1	50.0	-1.8	20.0
n-Hexane	Ave	0.3947	0.3477		44.0	50.0	-11.9	20.0
1,1-Dichloroethane	Ave	0.4630	0.4527	0.2000	48.9	50.0	-2.2	20.0
di-Isopropyl ether	Ave	0.8302	0.7428		44.7	50.0	-10.5	20.0
2-Chloro-1,3-butadiene	Ave	0.4083	0.3852		47.2	50.0	-5.7	20.0
Ethyl t-butyl ether	Ave	0.8621	0.7530		43.7	50.0	-12.7	20.0
2-Butanone	Ave	0.2524	0.2656	0.1000	105	100	5.2	20.0
cis-1,2-Dichloroethene	Ave	0.3188	0.3232	0.1000	50.7	50.0	1.4	20.0
2,2-Dichloropropane	Ave	0.4309	0.3888		45.1	50.0	-9.8	20.0
Propionitrile	Ave	1.298	1.455		280	250	12.1	20.0
Methacrylonitrile	Ave	0.2015	0.2142		133	125	6.3	20.0
Bromochloromethane	Ave	0.1783	0.1861		52.2	50.0	4.4	20.0
Tetrahydrofuran	Ave	1.338	1.440		108	100	7.6	20.0
Chloroform	Ave	0.4942	0.5057	0.2000	51.2	50.0	2.3	20.0
1,1,1-Trichloroethane	Ave	0.4533	0.4375	0.1000	48.3	50.0	-3.5	20.0
Cyclohexane	Ave	0.4444	0.3818	0.1000	43.0	50.0	-14.1	20.0
1,1-Dichloropropene	Ave	0.3881	0.3920		50.5	50.0	1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-69288/3 Calibration Date: 11/23/2020 09:48

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN23C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon tetrachloride	Ave	0.4127	0.4067	0.1000	49.3	50.0	-1.5	20.0
Isobutyl alcohol	Ave	0.3709	0.4059		684	625	9.4	20.0
Benzene	Ave	1.116	1.146	0.5000	51.3	50.0	2.7	20.0
1,2-Dichloroethane	Ave	0.4371	0.4312	0.1000	49.3	50.0	-1.3	20.0
t-Amyl methyl ether	Ave	0.8958	0.8127		45.4	50.0	-9.3	20.0
n-Heptane	Ave	0.4472	0.4036		45.1	50.0	-9.8	20.0
n-Butanol	Ave	0.3598	0.3824		1330	1250	6.3	20.0
Trichloroethene	Ave	0.3118	0.3219	0.2000	51.6	50.0	3.3	20.0
Methylcyclohexane	Ave	0.5264	0.4922	0.1000	46.8	50.0	-6.5	20.0
1,2-Dichloropropane	Ave	0.2905	0.2982	0.1000	51.3	50.0	2.6	20.0
t-Amyl ethyl ether	Ave	0.4774	0.4632		48.5	50.0	-3.0	20.0
Methyl methacrylate	Ave	0.3211	0.3316		51.6	50.0	3.3	20.0
1,4-Dioxane	Ave	0.0921	0.1077	0.0050	731	625	16.9	20.0
Dibromomethane	Ave	0.2151	0.2277		53.0	50.0	5.9	20.0
Bromodichloromethane	Ave	0.3775	0.3931	0.2000	52.1	50.0	4.1	20.0
2-Nitropropane	Ave	2.773	2.851		103	100	2.8	20.0
2-Chloroethyl vinyl ether	Ave	0.1487	0.2293		77.1	50.0	54.2*	20.0
cis-1,3-Dichloropropene	Ave	0.4863	0.5059	0.2000	52.0	50.0	4.0	20.0
4-Methyl-2-pentanone	Ave	0.4906	0.5081	0.1000	104	100	3.6	20.0
Toluene	Ave	0.9255	0.9517	0.4000	51.4	50.0	2.8	20.0
trans-1,3-Dichloropropene	Ave	0.5767	0.5844	0.1000	50.7	50.0	1.3	20.0
Ethyl methacrylate	Ave	0.6196	0.6078		49.0	50.0	-1.9	20.0
1,1,2-Trichloroethane	Ave	0.3697	0.3857	0.1000	52.2	50.0	4.3	20.0
Tetrachloroethene	Ave	0.4731	0.4765	0.2000	50.4	50.0	0.7	20.0
1,3-Dichloropropane	Ave	0.6197	0.6218		50.2	50.0	0.3	20.0
2-Hexanone	Ave	0.4875	0.5060	0.1000	104	100	3.8	20.0
Dibromochloromethane	Ave	0.4215	0.4455		52.8	50.0	5.7	20.0
1,2-Dibromoethane	Ave	0.4283	0.4432	0.1000	51.7	50.0	3.5	20.0
1-Chlorohexane	Ave	0.5517	0.5325		48.3	50.0	-3.5	20.0
Chlorobenzene	Ave	1.135	1.197	0.5000	52.7	50.0	5.4	20.0
1,1,1,2-Tetrachloroethane	Ave	0.4125	0.4184		50.7	50.0	1.4	20.0
Ethylbenzene	Ave	1.811	1.886	0.1000	52.1	50.0	4.1	20.0
m&p-Xylene	Ave	0.7560	0.8015	0.1000	106	100	6.0	20.0
o-Xylene	Ave	0.7445	0.7523	0.3000	50.5	50.0	1.0	20.0
Styrene	Ave	1.225	1.323	0.3000	54.0	50.0	8.0	20.0
Bromoform	Ave	0.3462	0.3689	0.1000	53.3	50.0	6.6	20.0
Isopropylbenzene	Ave	1.859	1.869	0.1000	50.3	50.0	0.6	20.0
Cyclohexanone	Ave	0.4192	0.3463		516	625	-17.4	20.0
1,1,2,2-Tetrachloroethane	Ave	1.086	1.053	0.3000	48.5	50.0	-3.1	20.0
Bromobenzene	Ave	0.997	1.023		51.3	50.0	2.6	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3783	0.3439		114	125	-9.1	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Lab Sample ID: CCVIS 410-69288/3 Calibration Date: 11/23/2020 09:48

Instrument ID: 9355 Calib Start Date: 11/02/2020 23:57

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/03/2020 02:09

Lab File ID: YN23C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3907	0.3965		50.7	50.0	1.5	20.0
N-Propylbenzene	Ave	3.758	3.693		49.1	50.0	-1.7	20.0
2-Chlorotoluene	Ave	0.8678	0.8479		48.9	50.0	-2.3	20.0
1,3,5-Trimethylbenzene	Ave	2.882	2.761		47.9	50.0	-4.2	20.0
4-Chlorotoluene	Ave	0.9183	0.9318		50.7	50.0	1.5	20.0
tert-Butylbenzene	Ave	0.6704	0.6366		47.5	50.0	-5.1	20.0
Pentachloroethane	Ave	0.5404	0.5475		50.6	50.0	1.3	20.0
1,2,4-Trimethylbenzene	Ave	3.015	2.975		49.3	50.0	-1.3	20.0
sec-Butylbenzene	Ave	3.683	3.513		47.7	50.0	-4.6	20.0
1,3-Dichlorobenzene	Ave	1.836	1.913	0.6000	52.1	50.0	4.2	20.0
p-Isopropyltoluene	Ave	3.366	3.331		49.5	50.0	-1.1	20.0
1,4-Dichlorobenzene	Ave	1.905	1.975	0.5000	51.8	50.0	3.7	20.0
1,2,3-Trimethylbenzene	Ave	3.050	2.870		47.1	50.0	-5.9	20.0
Benzyl chloride	Ave	2.333	2.377		51.0	50.0	1.9	20.0
1,3-Diethylbenzene	Ave	2.026	1.927		47.5	50.0	-4.9	20.0
1,4-Diethylbenzene	Ave	2.145	2.069		48.2	50.0	-3.5	20.0
n-Butylbenzene	Ave	1.650	1.592		48.2	50.0	-3.5	20.0
1,2-Dichlorobenzene	Ave	1.787	1.793	0.4000	50.2	50.0	0.3	20.0
1,2-Diethylbenzene	Ave	1.695	1.593		47.0	50.0	-6.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.3068	0.2668	0.0500	43.5	50.0	-13.0	20.0
1,3,5-Trichlorobenzene	Ave	1.481	1.312		44.3	50.0	-11.4	20.0
1,2,4-Trichlorobenzene	Ave	1.377	1.143	0.2000	41.5	50.0	-17.0	20.0
Hexachlorobutadiene	Ave	0.6618	0.5460		41.3	50.0	-17.5	20.0
Naphthalene	Ave	4.167	3.550		42.6	50.0	-14.8	20.0
1,2,3-Trichlorobenzene	Ave	1.304	1.049		40.2	50.0	-19.5	20.0
2-Methylnaphthalene	Ave	2.621	1.980		37.8	50.0	-24.5*	20.0
Dibromofluoromethane (Surr)	Ave	0.2516	0.2495		49.6	50.0	-0.8	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0604	0.0605		50.1	50.0	0.3	20.0
Toluene-d8 (Surr)	Ave	1.217	1.204		49.5	50.0	-1.1	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4663	0.4589		49.2	50.0	-1.6	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 23-Nov-2020 09:48:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-003
Misc. Info.: CCVIS
Operator ID: clm27445 Instrument ID: 9355
Sublist: chrom-MSVoa_9355*sub2

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 12:46:22 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1633

First Level Reviewer: mellingerc Date: 23-Nov-2020 10:34:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.056	2.056	0.000	99	394399	50.0	43.3	
4 Chloromethane	50	2.257	2.257	0.000	99	349609	50.0	43.2	
6 Vinyl chloride	62	2.372	2.372	0.000	98	346088	50.0	42.1	
5 Butadiene	39	2.384	2.384	0.000	90	290965	50.0	41.7	M
8 Bromomethane	94	2.719	2.719	0.000	90	304399	50.0	42.8	
9 Chloroethane	64	2.810	2.810	0.000	99	234715	50.0	44.9	
10 Dichlorofluoromethane	67	3.047	3.047	0.000	97	503720	50.0	42.9	
11 Trichlorofluoromethane	101	3.120	3.120	0.000	97	630213	50.0	44.6	
12 Pentane	43	3.157	3.157	0.000	96	448051	50.0	45.3	
14 Ethyl ether	59	3.370	3.370	0.000	86	309126	50.0	47.4	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.455	3.455	0.000	89	330864	50.0	41.8	
16 Acrolein	56	3.534	3.534	0.000	99	1273155	500.0	481.3	
17 1,1-Dichloroethene	96	3.692	3.692	0.000	97	264239	50.0	44.8	
18 Acetone	58	3.698	3.698	0.000	100	115902	100.0	101.9	
19 112TCTFE	101	3.735	3.735	0.000	90	276307	50.0	44.0	
20 Isopropyl alcohol	45	3.881	3.881	0.000	98	176212	250.0	231.5	
21 Iodomethane	142	3.905	3.905	0.000	98	557756	50.0	45.9	
22 Carbon disulfide	76	4.021	4.021	0.000	99	767573	50.0	40.7	
24 Methyl acetate	43	4.136	4.136	0.000	97	416327	50.0	47.2	
25 3-Chloro-1-propene	41	4.179	4.179	0.000	90	398780	50.0	41.5	
* 26 t-Butyl alcohol-d10 (IS)	65	4.374	4.374	0.000	0	349674	250.0	250.0	M
27 Methylene Chloride	84	4.374	4.374	0.000	89	310179	50.0	47.4	
28 2-Methyl-2-propanol	59	4.495	4.495	0.000	98	407897	250.0	246.6	
30 Acrylonitrile	53	4.690	4.690	0.000	99	225310	50.0	52.3	
31 Methyl tert-butyl ether	73	4.787	4.787	0.000	95	1031937	50.0	44.9	
32 trans-1,2-Dichloroethene	96	4.800	4.800	0.000	97	334970	50.0	49.1	
33 Hexane	57	5.219	5.219	0.000	92	427673	50.0	44.0	
35 1,1-Dichloroethane	63	5.444	5.444	0.000	96	556851	50.0	48.9	
36 Isopropyl ether	45	5.505	5.505	0.000	91	913574	50.0	44.7	
37 2-Chloro-1,3-butadiene	53	5.554	5.554	0.000	91	473759	50.0	47.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.041	6.041	0.000	96	926124	50.0	43.7	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	98	653378	100.0	105.2	
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	81	397572	50.0	50.7	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	86	478178	50.0	45.1	
44 Propionitrile	54	6.296	6.296	0.000	99	508878	250.0	280.2	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	658564	125.0	132.9	
46 Chlorobromomethane	128	6.600	6.600	0.000	84	228890	50.0	52.2	
47 Tetrahydrofuran	71	6.625	6.625	0.000	88	201411	100.0	107.6	
48 Chloroform	83	6.740	6.740	0.000	93	621963	50.0	51.2	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	306842	50.0	49.6	
50 1,1,1-Trichloroethane	97	6.984	6.984	0.000	98	538055	50.0	48.3	
51 Cyclohexane	56	7.099	7.099	0.000	88	469583	50.0	43.0	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	97	482117	50.0	50.5	
53 Carbon tetrachloride	117	7.203	7.203	0.000	97	500159	50.0	49.3	
54 Isobutyl alcohol	41	7.312	7.312	0.000	93	354855	625.0	684.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.422	0.000	0	74437	50.0	50.1	
56 Benzene	78	7.458	7.458	0.000	96	1409726	50.0	51.3	
58 1,2-Dichloroethane	62	7.525	7.525	0.000	98	530395	50.0	49.3	
59 Tert-amyl methyl ether	73	7.647	7.647	0.000	99	999547	50.0	45.4	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1229940	50.0	50.0	
62 n-Heptane	43	7.872	7.872	0.000	89	496369	50.0	45.1	
63 n-Butanol	56	8.188	8.188	0.000	88	668551	1250.0	1328.5	
64 Trichloroethene	95	8.340	8.340	0.000	96	395907	50.0	51.6	
65 Methylcyclohexane	83	8.657	8.657	0.000	89	605388	50.0	46.8	
66 1,2-Dichloropropane	63	8.669	8.669	0.000	74	366750	50.0	51.3	
67 2-ethoxy-2-methyl butane	87	8.675	8.675	0.000	95	569756	50.0	48.5	
68 Methyl methacrylate	69	8.736	8.736	0.000	87	407812	50.0	51.6	
69 1,4-Dioxane	88	8.754	8.754	0.000	88	94111	625.0	730.8	M
70 Dibromomethane	93	8.778	8.778	0.000	93	280117	50.0	53.0	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	483453	50.0	52.1	
73 2-Nitropropane	41	9.253	9.253	0.000	98	398801	100.0	102.8	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	92	281969	50.0	77.1	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	622276	50.0	52.0	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1249879	100.0	103.6	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1266954	50.0	49.5	
78 Toluene	92	9.928	9.928	0.000	98	1001675	50.0	51.4	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	615091	50.0	50.7	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	639662	50.0	49.0	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	405906	50.0	52.2	
84 Tetrachloroethene	166	10.476	10.476	0.000	98	501499	50.0	50.4	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	654462	50.0	50.2	
87 2-Hexanone	43	10.573	10.573	0.000	95	1065080	100.0	103.8	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	468901	50.0	52.8	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	466482	50.0	51.7	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1052491	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	91	560469	50.0	48.3	
94 Chlorobenzene	112	11.321	11.321	0.000	98	1259378	50.0	52.7	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	440406	50.0	50.7	
96 Ethylbenzene	91	11.400	11.400	0.000	97	1985268	50.0	52.1	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	1687165	100.0	106.0	
98 o-Xylene	106	11.844	11.844	0.000	95	791759	50.0	50.5	
99 Styrene	104	11.857	11.857	0.000	94	1392265	50.0	54.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Bromoform	173	12.021	12.021	0.000	98	388281	50.0	53.3	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	1967044	50.0	50.3	
103 Cyclohexanone	55	12.215	12.215	0.000	91	302710	625.0	516.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	483019	50.0	49.2	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	652687	50.0	48.5	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	79	532798	125.0	113.6	
107 Bromobenzene	156	12.404	12.404	0.000	93	633950	50.0	51.3	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	245720	50.0	50.7	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	2288813	50.0	49.1	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	525533	50.0	48.9	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	1711260	50.0	47.9	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	577529	50.0	50.7	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	394545	50.0	47.5	
115 Pentachloroethane	167	12.885	12.885	0.000	93	339320	50.0	50.6	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	1843743	50.0	49.3	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	2177231	50.0	47.7	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	1185853	50.0	52.1	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	2064254	50.0	49.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	619796	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	1223888	50.0	51.8	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	1778868	50.0	47.1	
123 Benzyl chloride	91	13.256	13.256	0.000	98	1473428	50.0	51.0	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	1194199	50.0	47.5	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	1282525	50.0	48.2	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	986487	50.0	48.2	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	1111383	50.0	50.2	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	987296	50.0	47.0	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	90	165389	50.0	43.5	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	813465	50.0	44.3	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	708344	50.0	41.5	
133 Hexachlorobutadiene	225	14.625	14.625	0.000	98	338421	50.0	41.3	
134 Naphthalene	128	14.722	14.722	0.000	96	2200468	50.0	42.6	
135 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	650418	50.0	40.2	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	1226965	50.0	37.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00112	Amount Added:	5.00	Units: uL	
MSV_V_2CEVE_00124	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00056	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00062	Amount Added:	5.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_EE_00004	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00175	Amount Added:	2.50	Units: uL	
MSV_DCFM_00030	Amount Added:	2.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 23-Nov-2020 12:46:27 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23C01.D

Injection Date: 23-Nov-2020 09:48:30 Instrument ID: 9355 Operator ID: clm27445

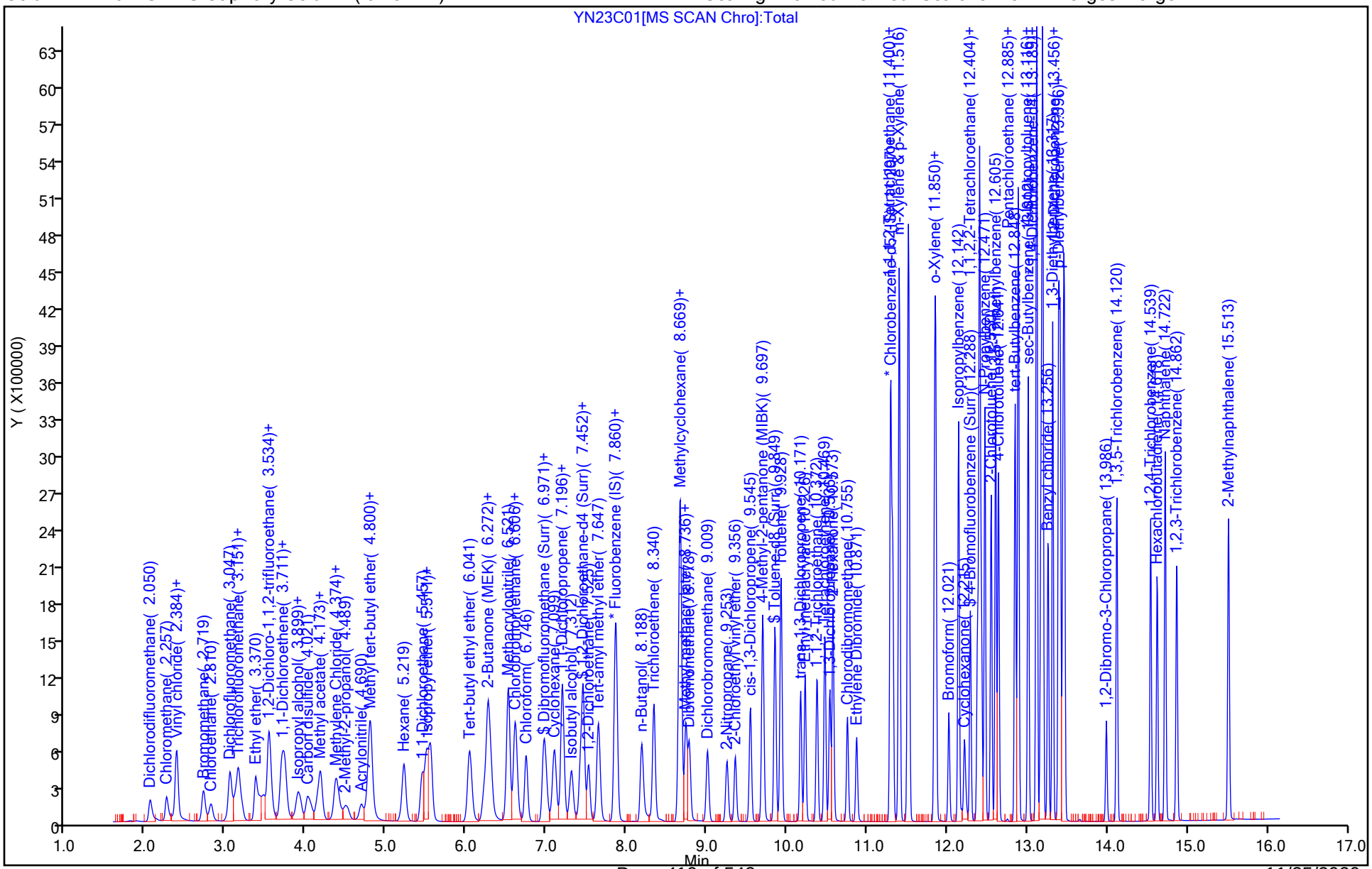
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

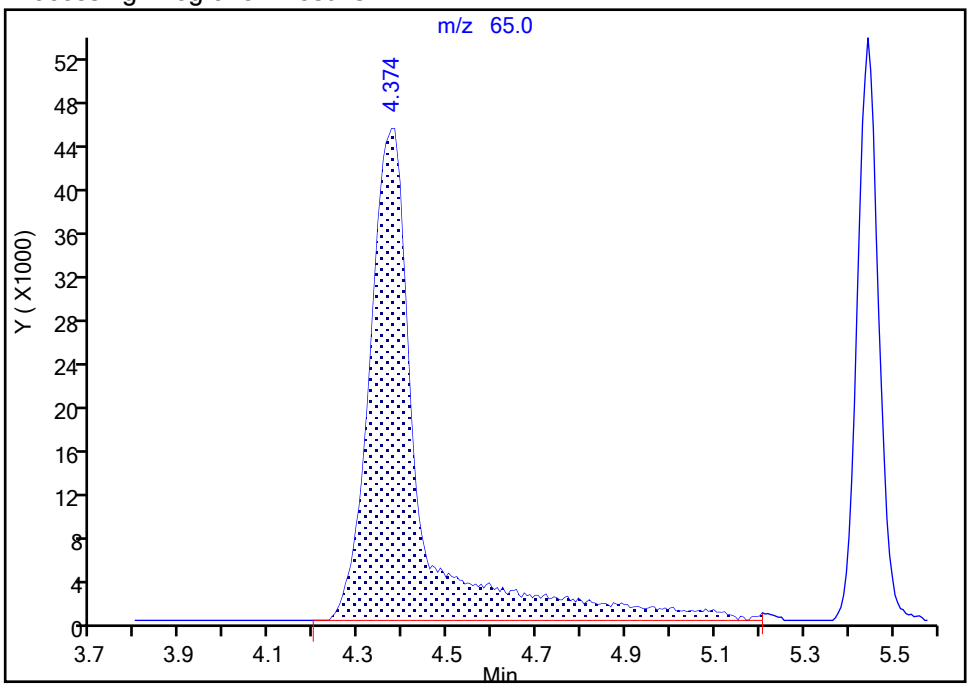
Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23C01.D
Injection Date: 23-Nov-2020 09:48:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

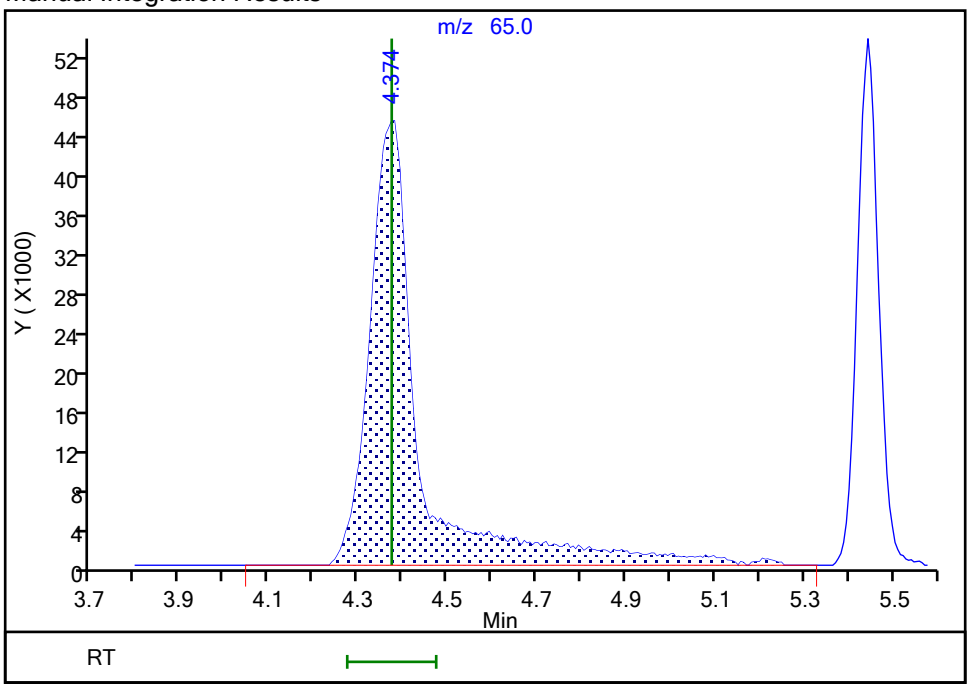
Processing Integration Results

RT: 4.37
Area: 348516
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.37
Area: 349674
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 23-Nov-2020 10:24:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

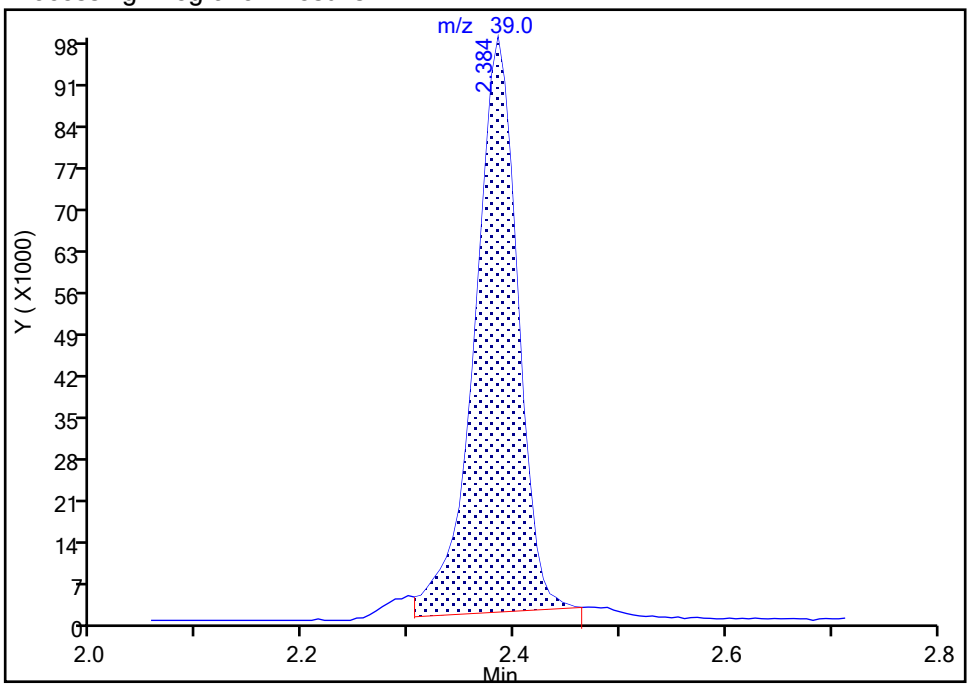
Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23C01.D
Injection Date: 23-Nov-2020 09:48:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

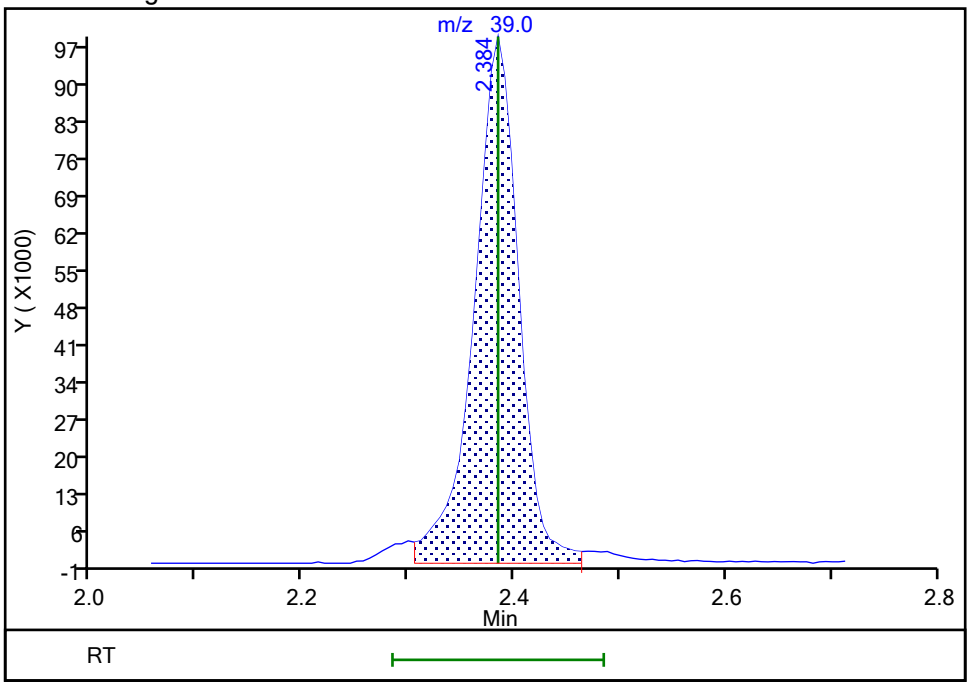
Processing Integration Results

RT: 2.38
Area: 277119
Amount: 39.718900
Amount Units: ug/l



Manual Integration Results

RT: 2.38
Area: 290965
Amount: 41.703419
Amount Units: ug/l



Reviewer: mellingerc, 23-Nov-2020 10:25:32
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

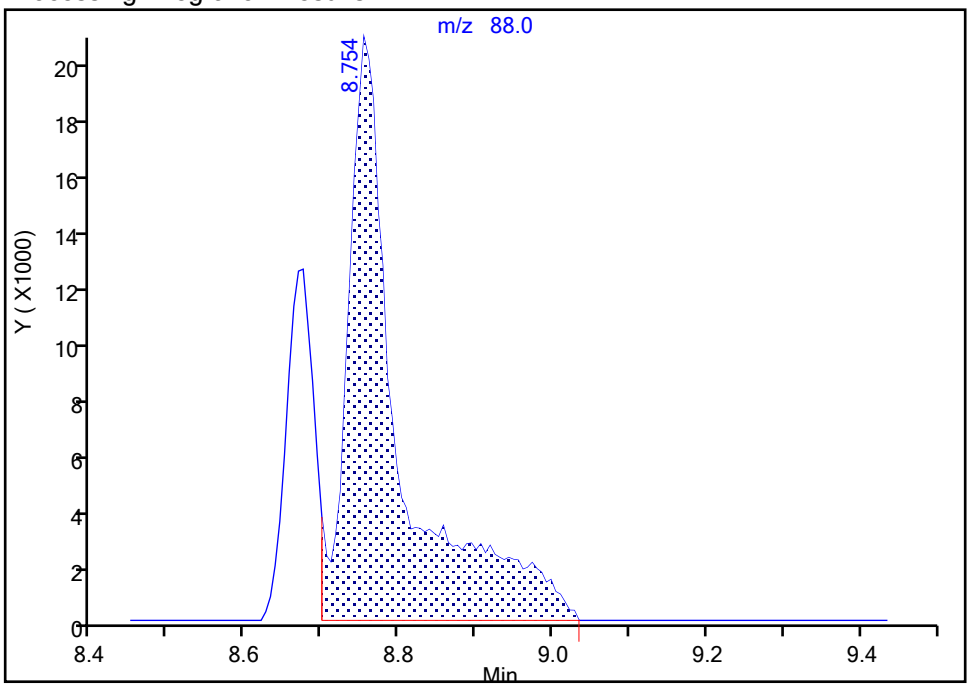
Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23C01.D
Injection Date: 23-Nov-2020 09:48:30 Instrument ID: 9355
Lims ID: CCVIS
Client ID:
Operator ID: clm27445 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

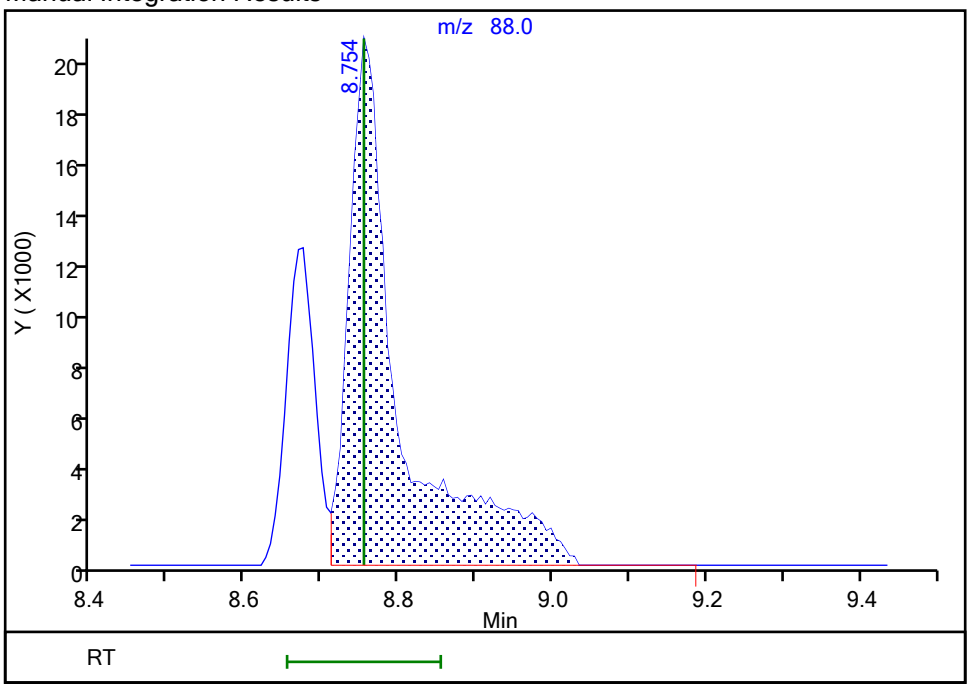
Processing Integration Results

RT: 8.75
Area: 96261
Amount: 747.5203
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 94111
Amount: 730.8244
Amount Units: ug/l



Reviewer: mellingerc, 23-Nov-2020 10:26:54
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02T31.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	02-Nov-2020 23:20:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	BFB				
Operator ID:	mec29284	Instrument ID:	9355		
Method:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\MSVoa_9355.m				
Limit Group:	MSV - 8260C_D				
Last Update:	03-Nov-2020 07:52:24	Calib Date:	03-Nov-2020 02:09:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1003				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 29 BFB	95	4.671	4.671	0.000	0	107745	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

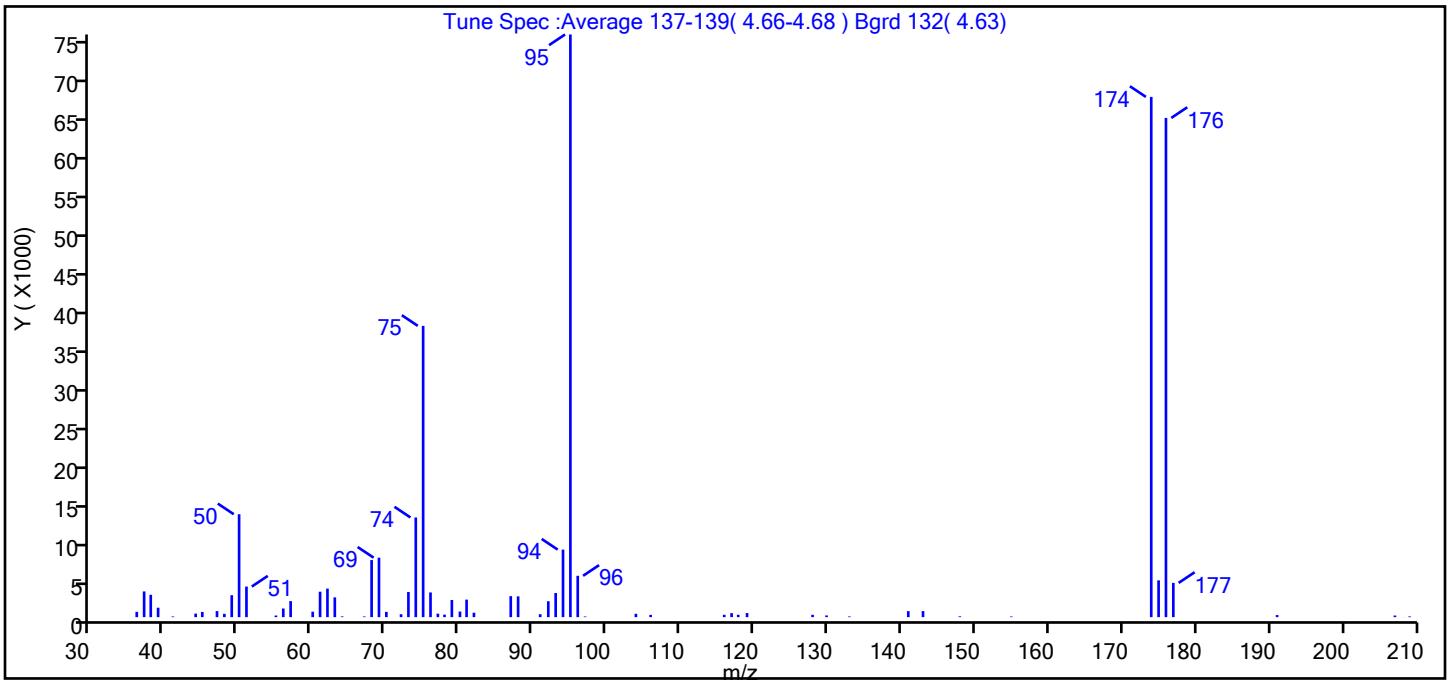
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02T31.D
Injection Date: 02-Nov-2020 23:20:30 Instrument ID: 9355
Lims ID: bfb
Client ID:
Operator ID: mec29284 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 29 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.7
75	30 to 60% of m/z 95	50.0
96	5 to 9% of m/z 95	7.1
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	89.3
175	5 to 9% of m/z 174	6.3 (7.1)
176	Greater than 95% but less than 101% of m/z 174	85.7 (96.0)
177	5 to 9% of m/z 176	5.9 (6.9)

Data File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02T31.D\MSVoa_9355.rslt\spectra.d
Injection Date: 02-Nov-2020 23:20:30
Spectrum: Tune Spec :Average 137-139(4.66-4.68) Bgrd 132(4.63)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 65

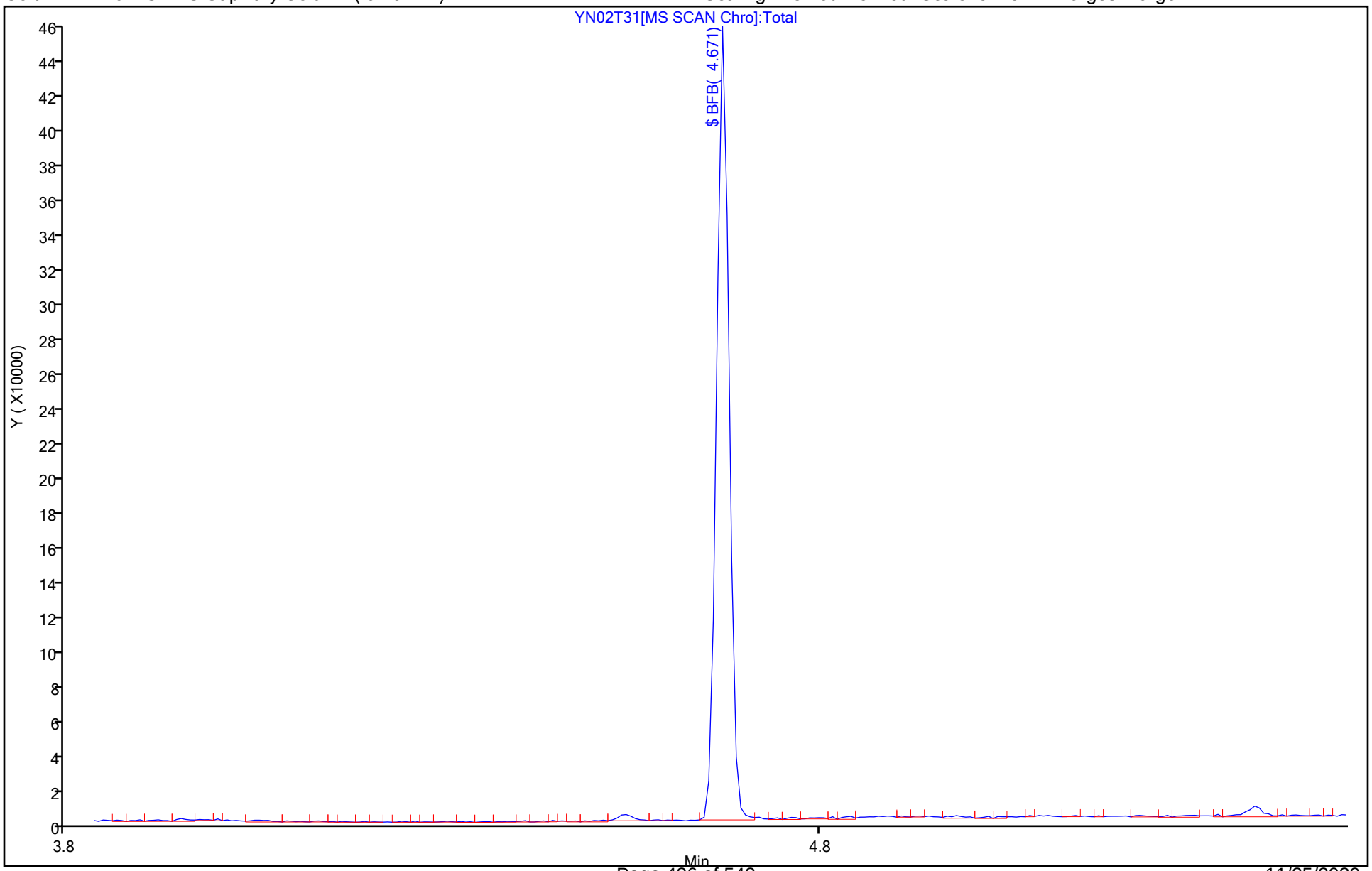
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	689	62.00	3702	82.00	574	130.00	221
37.00	3336	63.00	2565	87.00	2722	133.00	90
38.00	2902	64.00	95	88.00	2694	141.00	779
39.00	1223	67.00	88	91.00	381	143.00	786
41.00	87	68.00	7404	92.00	2066	148.00	104
44.00	460	69.00	7710	93.00	3127	155.00	83
45.00	675	70.00	683	94.00	8758	174.00	67472
47.00	786	72.00	380	95.00	75568	175.00	4771
48.00	431	73.00	3266	96.00	5362	176.00	64744
49.00	2846	74.00	12926	97.00	85	177.00	4442
50.00	13346	75.00	37776	104.00	437	191.00	271
51.00	3967	76.00	3204	106.00	295	207.00	210
55.00	212	77.00	452	116.00	305	208.00	7
56.00	1122	78.00	328	117.00	520	209.00	96
57.00	2081	79.00	2224	118.00	307		
60.00	706	80.00	724	119.00	531		
61.00	3299	81.00	2272	128.00	304		

Report Date: 03-Nov-2020 07:52:24 Chrom Revision: 2.3 14-Oct-2020 14:51:38

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02T31.D				
Injection Date:	02-Nov-2020 23:20:30	Instrument ID:	9355	Operator ID:	mec29284
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20T01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Nov-2020 08:20:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016053-001				
Misc. Info.:	BFB				
Operator ID:	clm27445	Instrument ID:	9355		
Method:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m				
Limit Group:	MSV - 8260C_D				
Last Update:	20-Nov-2020 11:23:14	Calib Date:	03-Nov-2020 02:09:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1649				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 29 BFB	95	4.671	4.671	0.000	0	218201	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

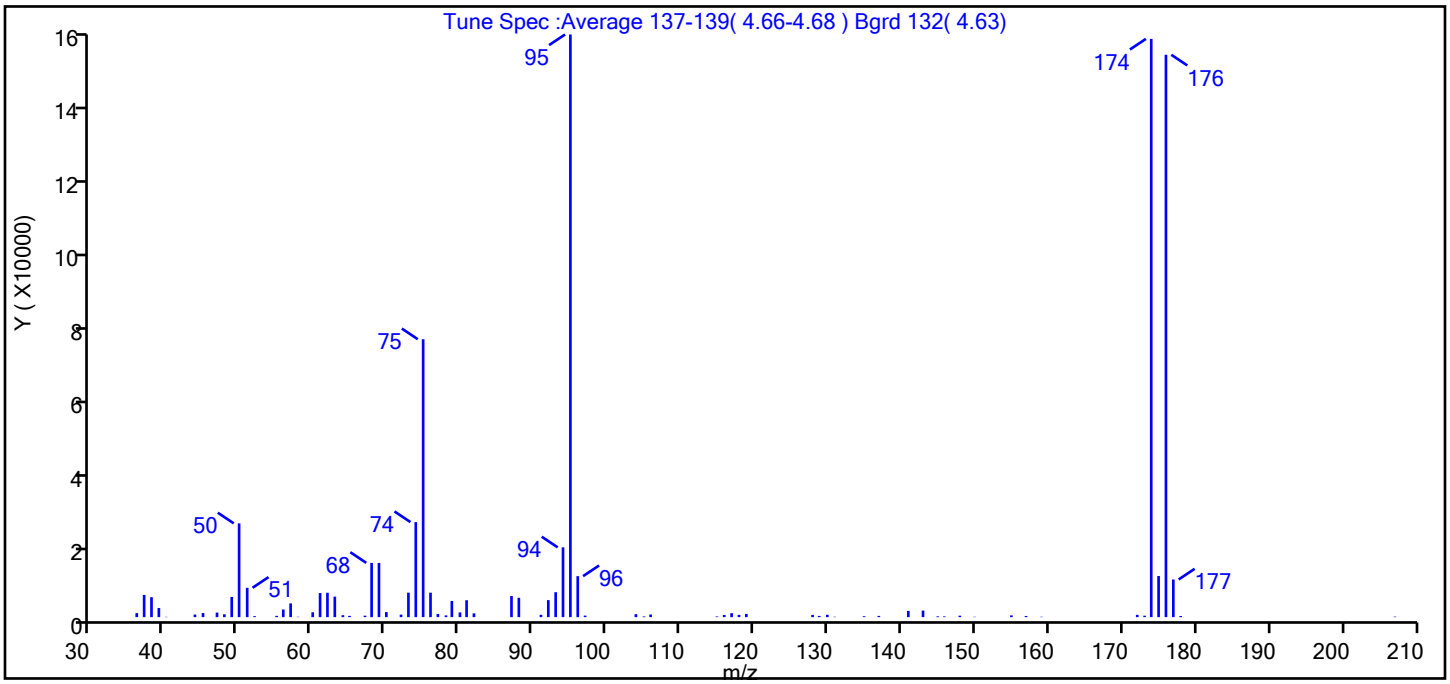
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20T01.D
Injection Date: 20-Nov-2020 08:20:30 Instrument ID: 9355
Lims ID: bfb
Client ID:
Operator ID: clm27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 29 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.1
75	30 to 60% of m/z 95	47.7
96	5 to 9% of m/z 95	7.0
173	Less than 2% of m/z 174	0.2 (0.3)
174	50 to 120% of m/z 95	99.2
175	5 to 9% of m/z 174	7.1 (7.1)
176	Greater than 95% but less than 101% of m/z 174	96.5 (97.3)
177	5 to 9% of m/z 176	6.5 (6.7)

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20T01.D\MSVoa_9355.rslt\spectra.d
Injection Date: 20-Nov-2020 08:20:30
Spectrum: Tune Spec :Average 137-139(4.66-4.68) Bgrd 132(4.63)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 78

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1058	63.00	5367	91.00	613	137.00	329
37.00	5816	64.00	499	92.00	4454	141.00	1637
38.00	5221	65.00	331	93.00	6521	143.00	1717
39.00	2384	67.00	386	94.00	18264	145.00	205
40.00	83	68.00	14202	95.00	152512	146.00	192
44.00	681	69.00	14187	96.00	10726	148.00	382
45.00	1075	70.00	1329	97.00	406	150.00	93
47.00	1195	72.00	664	104.00	771	155.00	461
48.00	747	73.00	6406	105.00	190	157.00	310
49.00	5290	74.00	24880	106.00	690	159.00	97
50.00	24544	75.00	72744	115.00	181	172.00	604
51.00	7684	76.00	6402	116.00	577	173.00	381
52.00	257	77.00	814	117.00	1042	174.00	151360
55.00	341	78.00	458	118.00	603	175.00	10764
56.00	2005	79.00	4232	119.00	857	176.00	147200
57.00	3601	80.00	1239	128.00	583	177.00	9863
58.00	90	81.00	4433	129.00	320	178.00	296
60.00	1268	82.00	996	130.00	611	207.00	137
61.00	6309	87.00	5525	131.00	103		
62.00	6388	88.00	5067	135.00	233		

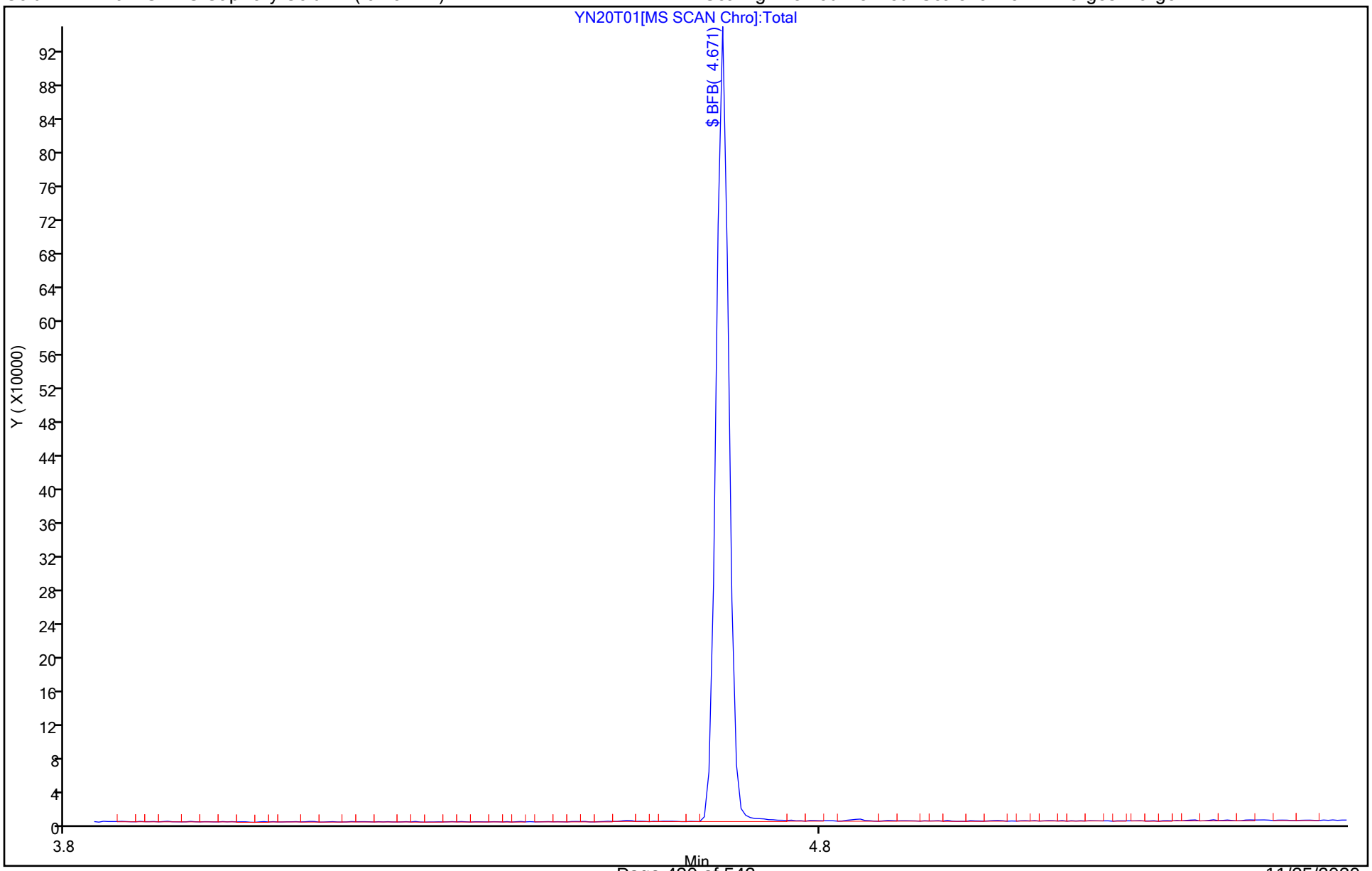
Report Date: 20-Nov-2020 11:23:15 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20T01.D

Injection Date:	20-Nov-2020 08:20:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20T50.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	20-Nov-2020 19:46:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016133-001				
Misc. Info.:	BFB				
Operator ID:	ljg30941	Instrument ID:	9355		
Method:	\\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m				
Limit Group:	MSV - 8260C_D				
Last Update:	20-Nov-2020 23:49:24	Calib Date:	03-Nov-2020 02:09:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1676				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 29 BFB	95	4.653	4.653	0.000	0	92810	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

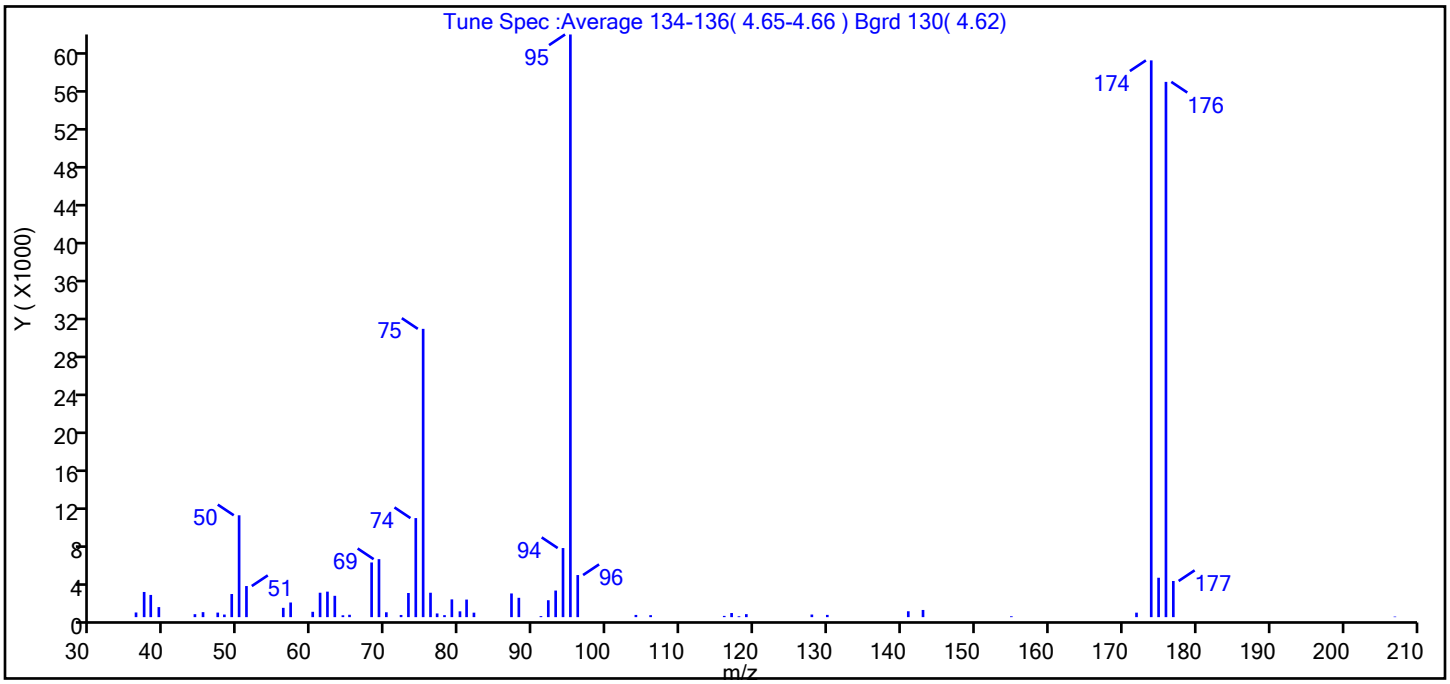
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20T50.D
Injection Date: 20-Nov-2020 19:46:30 Instrument ID: 9355
Lims ID: bfb
Client ID:
Operator ID: ljg30941 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 29 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.5
75	30 to 60% of m/z 95	49.5
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	95.6
175	5 to 9% of m/z 174	6.8 (7.1)
176	Greater than 95% but less than 101% of m/z 174	91.9 (96.1)
177	5 to 9% of m/z 176	6.2 (6.8)

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20T50.D\MSVoa_9355.rslt\spectra.d
Injection Date: 20-Nov-2020 19:46:30
Spectrum: Tune Spec :Average 134-136(4.65-4.66) Bgrd 130(4.62)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 58

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	492	62.00	2687	80.00	611	118.00	93
37.00	2651	63.00	2246	81.00	1851	119.00	316
38.00	2339	64.00	196	82.00	472	128.00	275
39.00	1058	65.00	250	87.00	2495	130.00	237
44.00	313	68.00	5759	88.00	2036	141.00	620
45.00	527	69.00	6106	91.00	108	143.00	757
47.00	479	70.00	513	92.00	1781	155.00	90
48.00	273	72.00	228	93.00	2800	172.00	472
49.00	2435	73.00	2543	94.00	7275	174.00	58632
50.00	10726	74.00	10431	95.00	61360	175.00	4149
51.00	3275	75.00	30360	96.00	4433	176.00	56368
56.00	981	76.00	2571	104.00	234	177.00	3806
57.00	1543	77.00	389	106.00	209	207.00	59
60.00	564	78.00	210	116.00	132		
61.00	2572	79.00	1871	117.00	435		

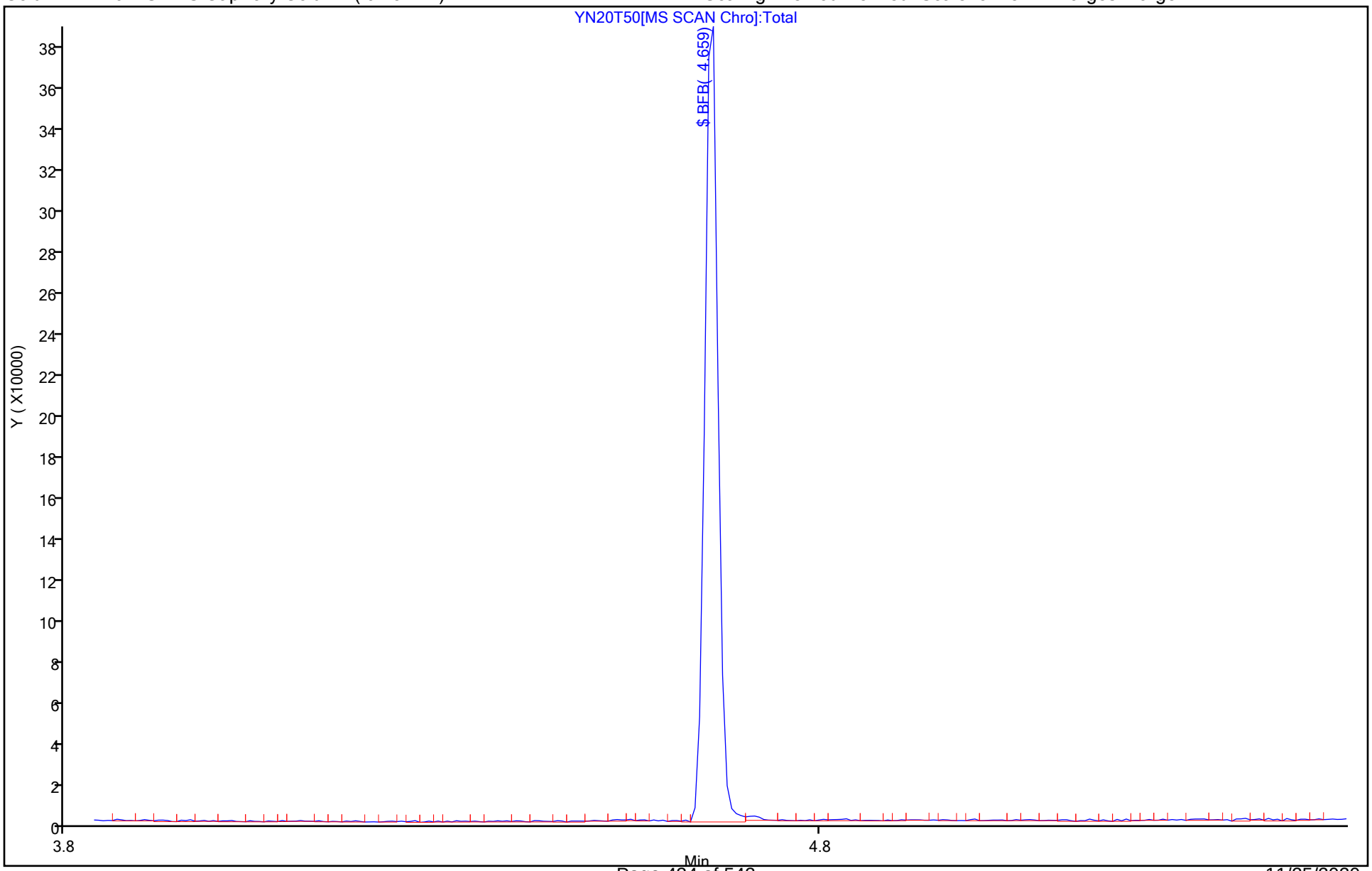
Report Date: 20-Nov-2020 23:49:24 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20T50.D

Injection Date:	20-Nov-2020 19:46:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21T10.D
Lims ID: bfb
Client ID:
Sample Type: BFB
Inject. Date: 21-Nov-2020 08:33:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: 410-0016167-001
Misc. Info.: BFB
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 12:03:48 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 08:45:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 29 BFB	95	4.671	4.671	0.000	0	50059	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

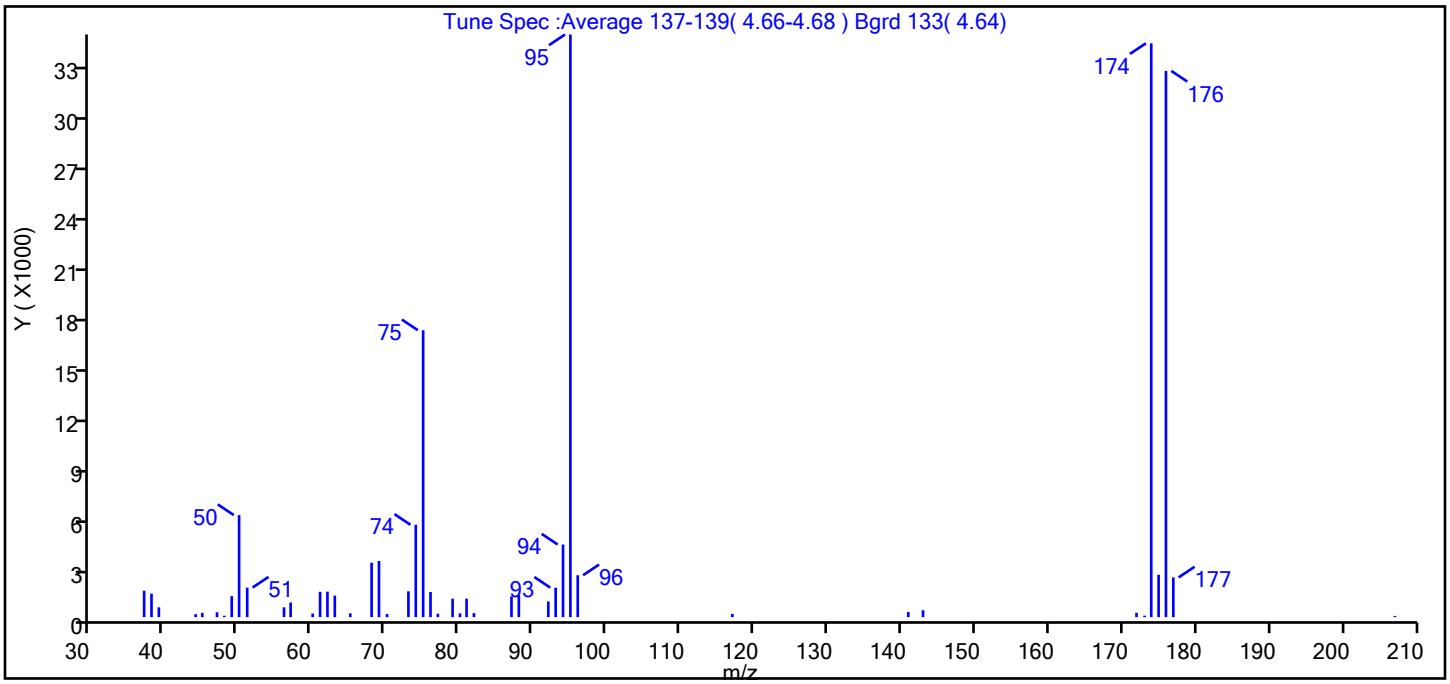
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21T10.D
Injection Date: 21-Nov-2020 08:33:30 Instrument ID: 9355
Lims ID: bfb
Client ID:
Operator ID: clm27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 29 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.5
75	30 to 60% of m/z 95	49.2
96	5 to 9% of m/z 95	7.2
173	Less than 2% of m/z 174	0.3 (0.3)
174	50 to 120% of m/z 95	98.5
175	5 to 9% of m/z 174	7.3 (7.4)
176	Greater than 95% but less than 101% of m/z 174	93.7 (95.2)
177	5 to 9% of m/z 176	6.8 (7.3)

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21T10.D\MSVoa_9355.rslt\spectra.d
Injection Date: 21-Nov-2020 08:33:30
Spectrum: Tune Spec :Average 137-139(4.66-4.68) Bgrd 133(4.64)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 46

m/z	Y	m/z	Y	m/z	Y	m/z	Y
37.00	1563	60.00	214	77.00	202	117.00	193
38.00	1389	61.00	1496	79.00	1089	141.00	301
39.00	578	62.00	1507	80.00	225	143.00	408
44.00	176	63.00	1270	81.00	1093	172.00	260
45.00	256	65.00	227	82.00	241	173.00	88
47.00	287	68.00	3215	87.00	1226	174.00	33888
48.00	85	69.00	3313	88.00	1301	175.00	2502
49.00	1239	70.00	184	92.00	926	176.00	32256
50.00	6028	73.00	1524	93.00	1740	177.00	2347
51.00	1746	74.00	5454	94.00	4288	207.00	74
56.00	579	75.00	16944	95.00	34408		
57.00	864	76.00	1489	96.00	2475		

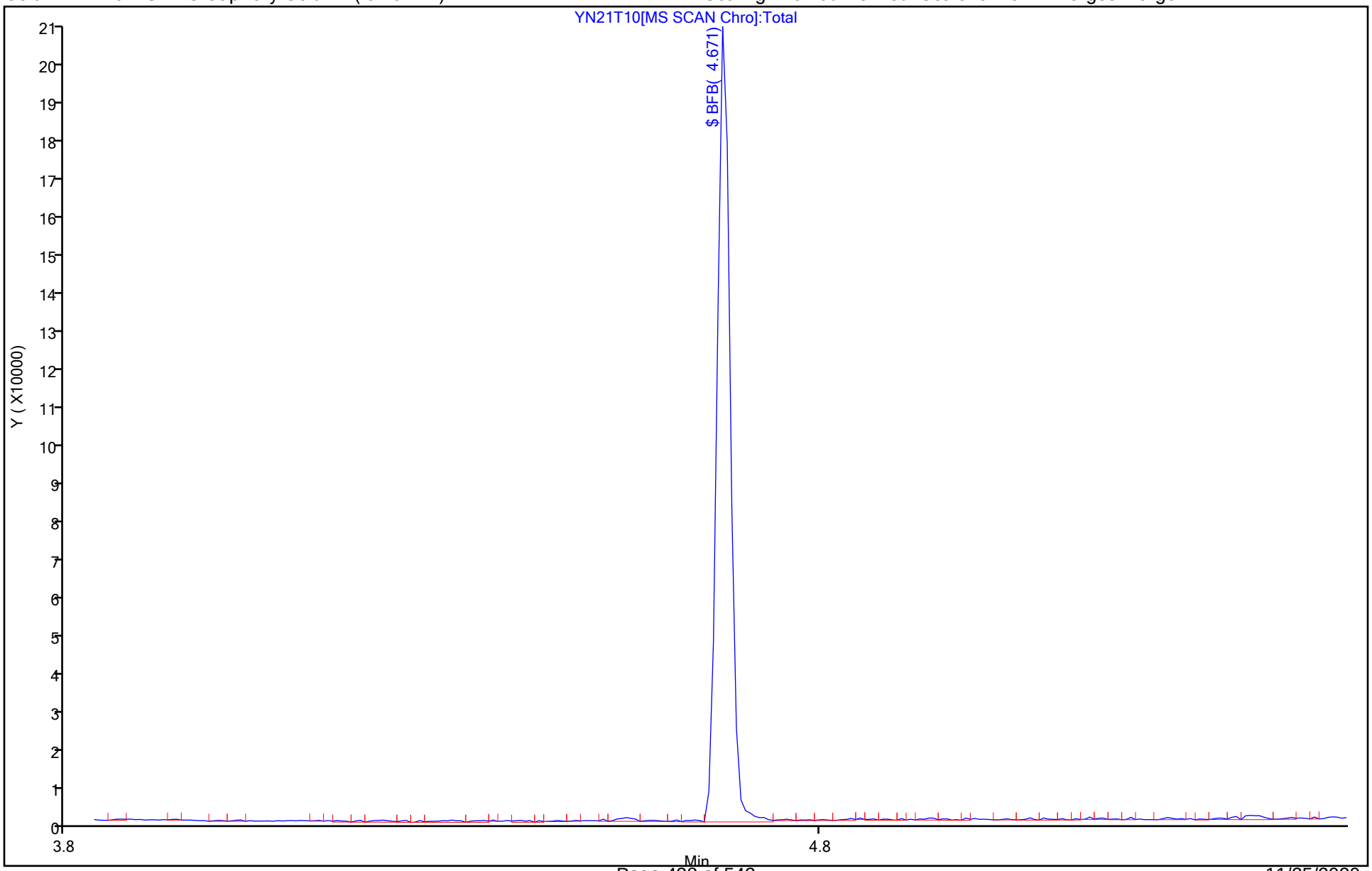
Report Date: 21-Nov-2020 12:03:49 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21T10.D

Injection Date:	21-Nov-2020 08:33:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23T02.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	23-Nov-2020 09:00:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016252-001				
Misc. Info.:	BFB				
Operator ID:	clm27445	Instrument ID:	9355		
Method:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m				
Limit Group:	MSV - 8260C_D				
Last Update:	23-Nov-2020 12:46:18	Calib Date:	03-Nov-2020 02:09:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1633				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 29 BFB	95	4.671	4.671	0.000	0	262841	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

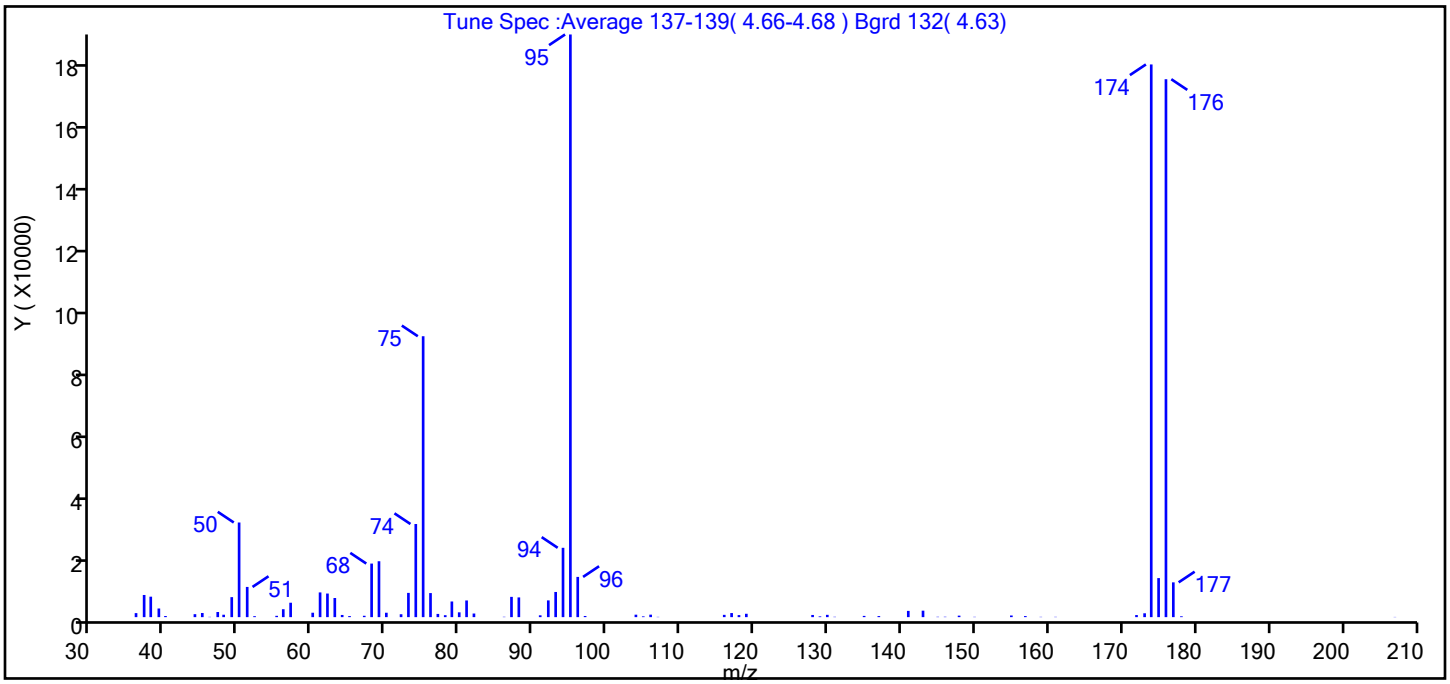
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23T02.D
Injection Date: 23-Nov-2020 09:00:30 Instrument ID: 9355
Lims ID: bfb
Client ID:
Operator ID: clm27445 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 29 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.2
75	30 to 60% of m/z 95	48.2
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.7 (0.7)
174	50 to 120% of m/z 95	94.9
175	5 to 9% of m/z 174	6.7 (7.1)
176	Greater than 95% but less than 101% of m/z 174	92.3 (97.3)
177	5 to 9% of m/z 176	6.0 (6.5)

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23T02.D\MSVoa_9355.rslt\spectra.d
Injection Date: 23-Nov-2020 09:00:30
Spectrum: Tune Spec :Average 137-139(4.66-4.68) Bgrd 132(4.63)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 80

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1275	63.00	6051	88.00	6237	135.00	393
37.00	7006	64.00	689	91.00	576	137.00	338
38.00	6469	65.00	336	92.00	5295	141.00	1978
39.00	2734	67.00	434	93.00	7959	143.00	2049
40.00	358	68.00	16936	94.00	21920	145.00	114
44.00	941	69.00	17672	95.00	184192	146.00	123
45.00	1307	70.00	1392	96.00	12719	148.00	475
46.00	91	72.00	918	97.00	366	150.00	97
47.00	1622	73.00	7667	104.00	779	155.00	520
48.00	764	74.00	29440	105.00	241	157.00	339
49.00	6322	75.00	88800	106.00	787	159.00	94
50.00	29920	76.00	7607	107.00	86	161.00	95
51.00	9550	77.00	1022	116.00	725	172.00	660
52.00	303	78.00	615	117.00	1293	173.00	1221
55.00	418	79.00	4951	118.00	650	174.00	174720
56.00	2507	80.00	1519	119.00	1067	175.00	12346
57.00	4557	81.00	5272	128.00	689	176.00	170048
60.00	1399	82.00	1144	129.00	234	177.00	10998
61.00	7816	86.00	111	130.00	728	178.00	261
62.00	7461	87.00	6408	131.00	110	207.00	64

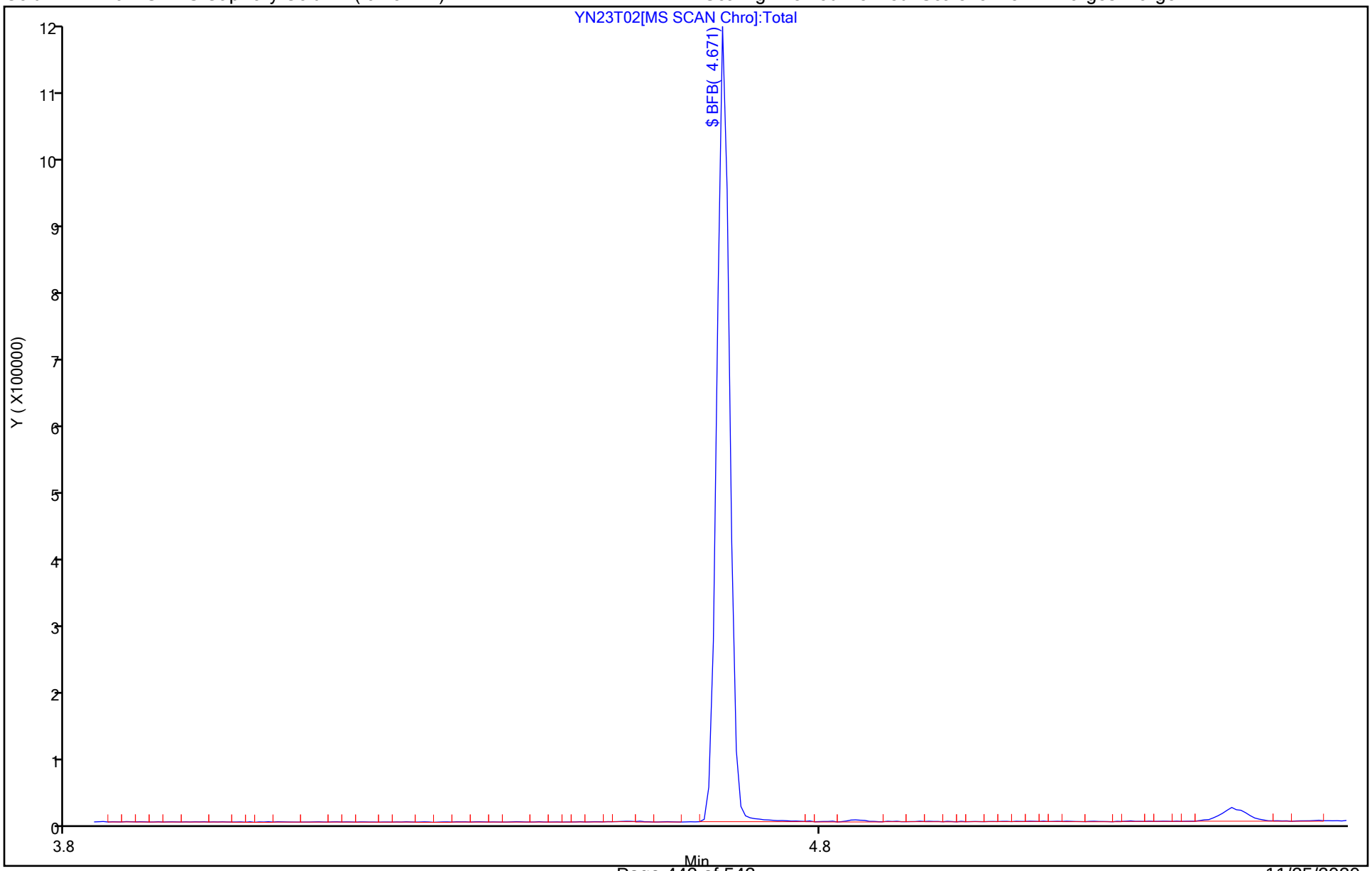
Report Date: 23-Nov-2020 12:46:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23T02.D

Injection Date:	23-Nov-2020 09:00:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-68475/7

Matrix: Water Lab File ID: YN20B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 10:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	93		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 20-Nov-2020 10:36:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-007
Misc. Info.: MB
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 11:23:18 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 11:22:50

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		2.013					ND	
2	Dichlorodifluoromethane	85		2.056					ND	
3	Chlorodifluoromethane	51		2.062					ND	
4	Chloromethane	50		2.257					ND	
5	Butadiene	39		2.378					ND	7
6	Vinyl chloride	62		2.378					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.439					ND	
8	Bromomethane	94		2.719					ND	
9	Chloroethane	64		2.798					ND	
10	Dichlorofluoromethane	67		3.041					ND	
11	Trichlorofluoromethane	101		3.121					ND	
12	Pentane	43		3.151					ND	
13	Ethanol	45		3.224					ND	
14	Ethyl ether	59		3.364					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.437					ND	
16	Acrolein	56		3.528					ND	
17	1,1-Dichloroethene	96		3.686					ND	
18	Acetone	58		3.698					ND	
19	112TCTFE	101		3.723					ND	
20	Isopropyl alcohol	45		3.863					ND	
21	Iodomethane	142		3.899					ND	
22	Carbon disulfide	76		4.015					ND	
23	Acetonitrile	41		4.070					ND	
24	Methyl acetate	43		4.136					ND	
25	3-Chloro-1-propene	41		4.173					ND	
* 26	t-Butyl alcohol-d10 (IS)	65	4.362	4.355	0.007	0	345297	250.0	250.0	M
27	Methylene Chloride	84		4.368					ND	
28	2-Methyl-2-propanol	59		4.483					ND	
30	Acrylonitrile	53		4.684					ND	
31	Methyl tert-butyl ether	73		4.781					ND	
32	trans-1,2-Dichloroethene	96		4.800					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57		5.213					ND	
34 Vinyl acetate	43		5.432					ND	
35 1,1-Dichloroethane	63		5.438					ND	
36 Isopropyl ether	45		5.499					ND	
37 2-Chloro-1,3-butadiene	53		5.554					ND	
38 Tert-butyl ethyl ether	59		6.035					ND	
S 39 1,2-Dichloroethene, Total	100		6.155					ND	7
40 2-Butanone (MEK)	43		6.223					ND	
41 cis-1,2-Dichloroethene	96		6.266					ND	
43 2,2-Dichloropropane	77		6.284					ND	
44 Propionitrile	54		6.296					ND	
42 Ethyl acetate	43		6.296					ND	
45 Methacrylonitrile	67		6.521					ND	
46 Chlorobromomethane	128		6.600					ND	
47 Tetrahydrofuran	71		6.619					ND	
48 Chloroform	83		6.740					ND	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	295907	50.0	50.8	
50 1,1,1-Trichloroethane	97		6.984					ND	
51 Cyclohexane	56		7.093					ND	
52 1,1-Dichloropropene	75		7.190					ND	
53 Carbon tetrachloride	117		7.203					ND	
54 Isobutyl alcohol	41		7.306					ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.422	7.422	0.000	0	72182	50.0	51.6	
56 Benzene	78		7.452					ND	
58 1,2-Dichloroethane	62		7.519					ND	7
57 Isopropyl acetate	43		7.519					ND	
59 Tert-amyl methyl ether	73		7.647					ND	
60 t-Amyl alcohol	73	7.854	7.842	0.012	34	14857		NC	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1158272	50.0	50.0	
62 n-Heptane	43		7.872					ND	
63 n-Butanol	56		8.188					ND	
64 Trichloroethene	95		8.334					ND	
65 Methylcyclohexane	83		8.657					ND	
66 1,2-Dichloropropane	63		8.663					ND	
67 2-ethoxy-2-methyl butane	87		8.669					ND	
68 Methyl methacrylate	69		8.736					ND	
69 1,4-Dioxane	88		8.754					ND	
70 Dibromomethane	93		8.778					ND	
71 n-Propyl acetate	61		8.809					ND	
72 Dichlorobromomethane	83		9.009					ND	
73 2-Nitropropane	41		9.253					ND	
74 2-Chloroethyl vinyl ether	63		9.356					ND	
75 cis-1,3-Dichloropropene	75		9.545					ND	
76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1173556	50.0	50.4	
78 Toluene	92		9.922					ND	
79 1,3-Dichlorobutene-2(total)	89		10.000					ND	7
S 80 1,3-Dichloropropene, Total	100		10.060					ND	7
81 trans-1,3-Dichloropropene	75		10.171					ND	
82 Ethyl methacrylate	69		10.226					ND	
83 1,1,2-Trichloroethane	97		10.372					ND	
84 Tetrachloroethene	166		10.476					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,3-Dichloropropane	76		10.536					ND	
87 2-Hexanone	43		10.573					ND	
86 3,4-Dichloro-1-butene	75		10.573					ND	
88 n-Butyl acetate	43		10.695					ND	
89 Chlorodibromomethane	129		10.755					ND	
90 Ethylene Dibromide	107		10.871					ND	
S 91 Xylenes, Total	106		11.245					ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	83	955927	50.0	50.0	
92 1-Chlorohexane	91	11.291	11.297	-0.006	33	1692		0.1604	
94 Chlorobenzene	112		11.321					ND	
95 1,1,1,2-Tetrachloroethane	131		11.400					ND	
96 Ethylbenzene	91		11.400					ND	
97 m-Xylene & p-Xylene	106		11.516					ND	
98 o-Xylene	106		11.844					ND	
99 Styrene	104		11.857					ND	
100 Bromoform	173		12.021					ND	
101 Isopropylbenzene	105		12.142					ND	
102 cis-1,4-Dichloro-2-butene	88		12.179					ND	
103 Cyclohexanone	55		12.215					ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	415954	50.0	46.7	
105 1,1,2,2-Tetrachloroethane	83		12.380					ND	
106 trans-1,4-Dichloro-2-butene	53		12.404					ND	
107 Bromobenzene	156		12.404					ND	
108 1,2,3-Trichloropropane	110		12.428					ND	
109 N-Propylbenzene	91		12.471					ND	
110 2-Chlorotoluene	126		12.550					ND	
111 1,3,5-Trimethylbenzene	105		12.605					ND	
112 4-Chlorotoluene	126		12.641					ND	
113 2,3,4-Trichlorobutene	109		12.654					ND	
114 tert-Butylbenzene	134		12.848					ND	
115 Pentachloroethane	167		12.885					ND	
116 1,2,4-Trimethylbenzene	105		12.891					ND	
117 sec-Butylbenzene	105		13.012					ND	
118 1,3-Dichlorobenzene	146		13.116					ND	
119 4-Isopropyltoluene	119		13.116					ND	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	548654	50.0	50.0	
121 1,4-Dichlorobenzene	146		13.189					ND	
122 1,2,3-Trimethylbenzene	105		13.195					ND	
123 Benzyl chloride	91		13.256					ND	7
124 1,3-Diethylbenzene	119		13.317					ND	
125 p-Diethylbenzene	119		13.390					ND	
126 n-Butylbenzene	92		13.408					ND	
127 1,2-Dichlorobenzene	146		13.444					ND	
128 o-diethylbenzene	119		13.463					ND	
129 Hexachloroethane	201		13.560					ND	
130 1,2-Dibromo-3-Chloropropane	75		13.986					ND	
131 1,3,5-Trichlorobenzene	180		14.120					ND	
132 1,2,4-Trichlorobenzene	180		14.539					ND	
133 Hexachlorobutadiene	225		14.625					ND	
134 Naphthalene	128		14.722					ND	7
135 1,2,3-Trichlorobenzene	180		14.868					ND	
136 2-Methylnaphthalene	142		15.513					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 C4-C10	1		0.000					ND	
172 Propene oxide	1		0.000					ND	
173 Methyl acrylate	1		0.000					ND	
174 1,3-Divinylbenzene	1		0.000					ND	
175 Ethyl bromide	1		0.000					ND	
176 Chloroacetonitrile	1		0.000					ND	
S 177 divinyl benzene	1		0.000					ND	7
178 Methylal	1		0.000					ND	
179 n-Decane	57		0.000					ND	
180 Dodecane	57		0.000					ND	
181 Butane	1		0.000					ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
184 2-Bromoethanol TIC	1		0.000					ND	
185 2-Chloroethanol TIC	1		0.000					ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
202 tert-Butyl Formate	1		0.000					ND	
188 Epichlorohydrin TIC	1		0.000					ND	
189 2-Bromo-3-chloropropene TIC	1		0.000					ND	
190 Ethylene oxide TIC	1		0.000					ND	
191 2,3-Dibromopropene TIC	1		0.000					ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
193 1-Bromo-2-chloroethane TIC	1		0.000					ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
197 n-Propylamine (TIC)	1		0.000					ND	
198 beta-Propiolactone TIC	1		0.000					ND	
199 Propargyl alcohol TIC	1		0.000					ND	
200 Propanol TIC	1		0.000					ND	
201 Malononitrile (TIC)	1		0.000					ND	
171 Hexachloroethane TIC	1		0.000					ND	
186 Monochloroacetic acid TIC	1		0.000					ND	
170 Ethanol TIC	1		0.000					ND	
152 Vinyl bromide TIC	1		0.000					ND	
138 C6-C10	1		0.000					ND	
139 Nitrobenzene TIC	1		0.000					ND	
140 Chloroacetaldehyde TIC	1		0.000					ND	
141 Pentachloroethane TIC	1		0.000					ND	
142 Chloral hydrate (TIC)	1		0.000					ND	
143 Methanol TIC	1		0.000					ND	
144 Bromoacetone (TIC)	1		0.000					ND	
145 Epibromohydrin TIC	1		0.000					ND	
146 Paraldehyde TIC	1		0.000					ND	
147 Pentafluorobenzene TIC	1		0.000					ND	
148 1-Bromopropane TIC	1		0.000					ND	
149 Allyl Alcohol TIC	1		0.000					ND	
150 Vinyl acetate (TIC)	1		0.000					ND	
151 2-Picoline (TIC)	1		0.000					ND	
153 o-toluidine TIC	1		0.000					ND	
168 2-Pentanone (TIC)	1		0.000					ND	
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
155 C4-C12	1		0.000					ND	
156 1-Chlorobutane	1		0.000					ND	
157 1,4-Divinylbenzene	1		0.000					ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
162 Diethoxymethane	1		0.000					ND	
163 C5-C12	1		0.000					ND	
164 1-Bromo-2-chloroethane	1		0.000					ND	
165 C6-C12	1		0.000					ND	
S 166 Total Diethylbenzene	1		0.000					ND	7
167 3-chloro-1-Butene	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
209 Bromoethane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

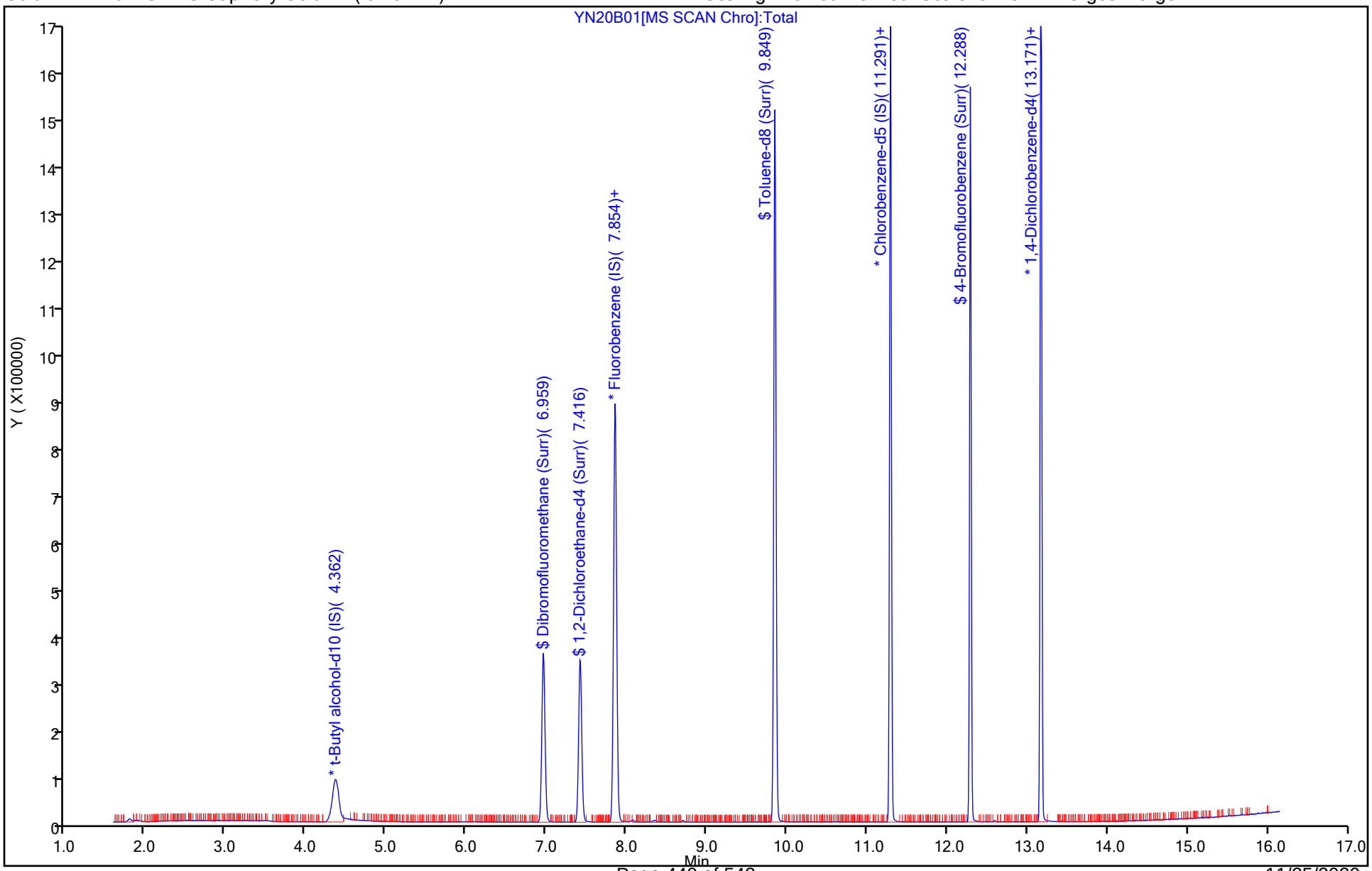
Report Date: 20-Nov-2020 11:23:45 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20B01.D

Injection Date:	20-Nov-2020 10:36:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

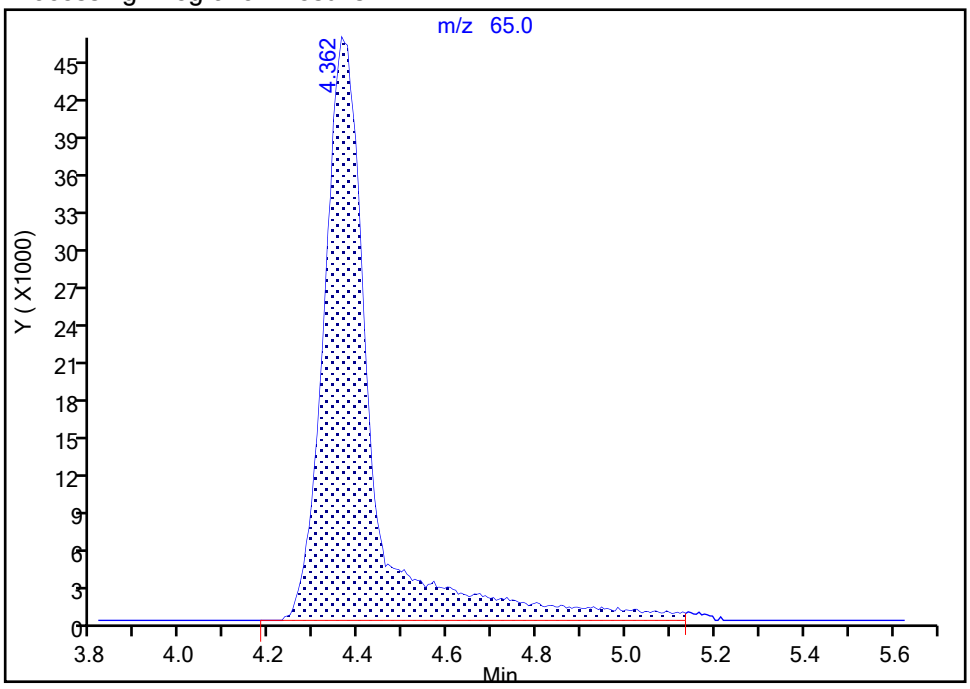
Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20B01.D
Injection Date: 20-Nov-2020 10:36:30 Instrument ID: 9355
Lims ID: MB
Client ID:
Operator ID: clm27445 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

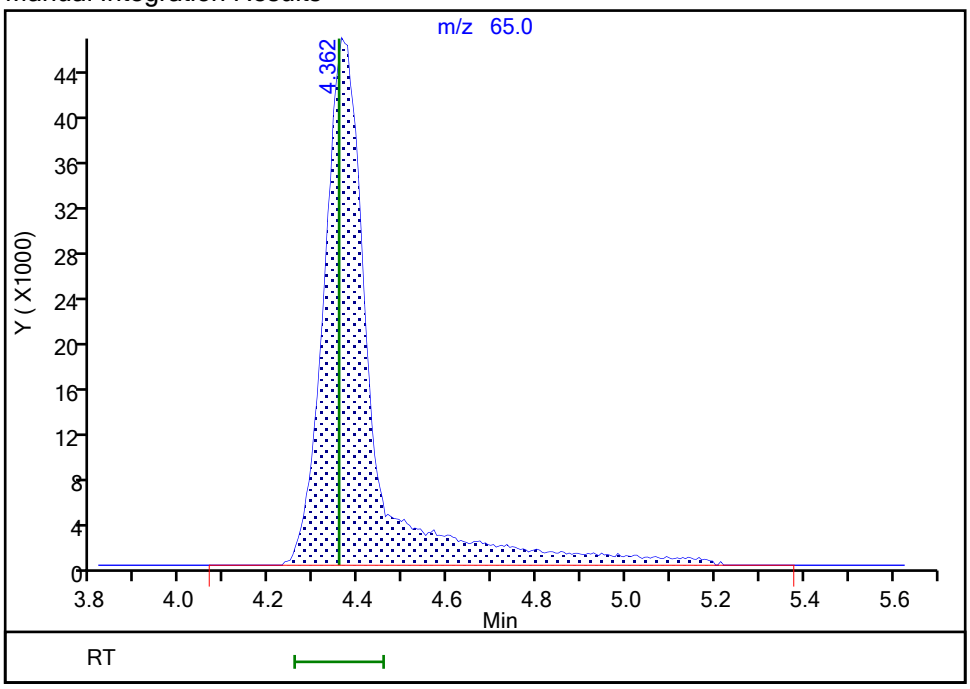
Processing Integration Results

RT: 4.36
Area: 343346
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 345297
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 11:22:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-68801/6

Matrix: Water Lab File ID: YN20B50.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 21:40

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	106		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20B50.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 20-Nov-2020 21:40:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-006
Misc. Info.: MB
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 23:49:27 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: greenl Date: 20-Nov-2020 22:06:53

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1 Chlorotrifluoroethene	116		2.013					ND	
2 Dichlorodifluoromethane	85		2.050					ND	
3 Chlorodifluoromethane	51		2.062					ND	
4 Chloromethane	50		2.256					ND	
5 Butadiene	39		2.372					ND	
6 Vinyl chloride	62		2.372					ND	
7 2-Chloro-1,1,1-Trifluoroethane	118		2.439					ND	
8 Bromomethane	94		2.713					ND	
9 Chloroethane	64		2.792					ND	
10 Dichlorofluoromethane	67		3.041					ND	
11 Trichlorofluoromethane	101		3.114					ND	
12 Pentane	43		3.151					ND	
13 Ethanol	45		3.224					ND	
14 Ethyl ether	59		3.364					ND	
15 1,2-Dichloro-1,1,2-trifluoroetha	67		3.443					ND	
16 Acrolein	56		3.528					ND	
17 1,1-Dichloroethene	96		3.686					ND	
18 Acetone	58		3.704					ND	
19 112TCTFE	101		3.717					ND	
20 Isopropyl alcohol	45		3.875					ND	
21 Iodomethane	142		3.899					ND	
22 Carbon disulfide	76		4.015					ND	
23 Acetonitrile	41		4.070					ND	
24 Methyl acetate	43		4.130					ND	
25 3-Chloro-1-propene	41		4.173					ND	
* 26 t-Butyl alcohol-d10 (IS)	65	4.367	4.367	0.000	0	309661	250.0	250.0	
27 Methylene Chloride	84		4.367					ND	
28 2-Methyl-2-propanol	59		4.489					ND	
30 Acrylonitrile	53		4.678					ND	
31 Methyl tert-butyl ether	73		4.781					ND	
32 trans-1,2-Dichloroethene	96		4.793					ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	33 Hexane	57		5.219					ND	
	34 Vinyl acetate	43		5.432					ND	
	35 1,1-Dichloroethane	63		5.438					ND	
	36 Isopropyl ether	45		5.499					ND	
	37 2-Chloro-1,3-butadiene	53		5.548					ND	
	38 Tert-butyl ethyl ether	59		6.034					ND	
S	39 1,2-Dichloroethene, Total	100		6.155					ND	7
	40 2-Butanone (MEK)	43		6.223					ND	
	41 cis-1,2-Dichloroethene	96		6.259					ND	
	43 2,2-Dichloropropane	77		6.278					ND	
	44 Propionitrile	54		6.296					ND	
	42 Ethyl acetate	43		6.296					ND	
	45 Methacrylonitrile	67		6.521					ND	
	46 Chlorobromomethane	128		6.600					ND	
	47 Tetrahydrofuran	71		6.618					ND	
	48 Chloroform	83		6.740					ND	
$	49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	270625	50.0	50.7	
	50 1,1,1-Trichloroethane	97		6.983					ND	
	51 Cyclohexane	56		7.093					ND	
	52 1,1-Dichloropropene	75		7.190					ND	
	53 Carbon tetrachloride	117		7.196					ND	
	54 Isobutyl alcohol	41		7.306					ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.415	0.006	0	67517	50.0	52.8	
	56 Benzene	78		7.452					ND	
	58 1,2-Dichloroethane	62		7.519					ND	7
	57 Isopropyl acetate	43		7.519					ND	
	59 Tert-amyl methyl ether	73		7.640					ND	
	60 t-Amyl alcohol	73	7.853	7.842	0.011	35	13526		NC	
*	61 Fluorobenzene (IS)	96	7.853	7.853	0.000	100	1059768	50.0	50.0	
	62 n-Heptane	43		7.866					ND	
	63 n-Butanol	56		8.182					ND	
	64 Trichloroethene	95		8.334					ND	
	65 Methylcyclohexane	83		8.656					ND	
	66 1,2-Dichloropropane	63		8.669					ND	
	67 2-ethoxy-2-methyl butane	87		8.669					ND	
	68 Methyl methacrylate	69		8.735					ND	
	69 1,4-Dioxane	88		8.754					ND	
	70 Dibromomethane	93		8.778					ND	
	71 n-Propyl acetate	61		8.809					ND	
	72 Dichlorobromomethane	83		9.003					ND	
	73 2-Nitropropane	41		9.253					ND	
	74 2-Chloroethyl vinyl ether	63		9.356					ND	
	75 cis-1,3-Dichloropropene	75		9.545					ND	
	76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$	77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1068886	50.0	50.2	
	78 Toluene	92		9.922					ND	
	79 1,3-Dichlorobutene-2(total)	89		10.000					ND	7
S	80 1,3-Dichloropropene, Total	100		10.060					ND	7
	81 trans-1,3-Dichloropropene	75		10.171					ND	
	82 Ethyl methacrylate	69		10.226					ND	
	83 1,1,2-Trichloroethane	97		10.372					ND	
	84 Tetrachloroethene	166		10.475					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,3-Dichloropropane	76		10.536				ND		
87 2-Hexanone	43		10.573				ND		
86 3,4-Dichloro-1-butene	75		10.573				ND		
88 n-Butyl acetate	43		10.695				ND		
89 Chlorodibromomethane	129		10.755				ND		
90 Ethylene Dibromide	107		10.871				ND		
S 91 Xylenes, Total	106		11.245				ND		7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	-0.001	83	874562	50.0	50.0	
92 1-Chlorohexane	91		11.297				ND		U
94 Chlorobenzene	112		11.321				ND		
95 1,1,1,2-Tetrachloroethane	131		11.400				ND		
96 Ethylbenzene	91		11.400				ND		
97 m-Xylene & p-Xylene	106		11.516				ND		
98 o-Xylene	106		11.844				ND		
99 Styrene	104		11.856				ND		
100 Bromoform	173		12.021				ND		
101 Isopropylbenzene	105		12.142				ND		
102 cis-1,4-Dichloro-2-butene	88		12.179				ND		
103 Cyclohexanone	55		12.215				ND		
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	373160	50.0	45.7	
105 1,1,2,2-Tetrachloroethane	83		12.380				ND		
106 trans-1,4-Dichloro-2-butene	53		12.404				ND		
107 Bromobenzene	156		12.404				ND		
108 1,2,3-Trichloropropane	110		12.428				ND		
109 N-Propylbenzene	91		12.471				ND		
110 2-Chlorotoluene	126		12.550				ND		
111 1,3,5-Trimethylbenzene	105		12.605				ND		
112 4-Chlorotoluene	126		12.641				ND		
113 2,3,4-Trichlorobutene	109		12.654				ND		
114 tert-Butylbenzene	134		12.848				ND		
115 Pentachloroethane	167		12.884				ND		
116 1,2,4-Trimethylbenzene	105		12.891				ND		
117 sec-Butylbenzene	105		13.012				ND		
118 1,3-Dichlorobenzene	146		13.116				ND		
119 4-Isopropyltoluene	119		13.116				ND		
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	492239	50.0	50.0	
121 1,4-Dichlorobenzene	146		13.189				ND		
122 1,2,3-Trimethylbenzene	105		13.195				ND		
123 Benzyl chloride	91		13.256				ND		7
124 1,3-Diethylbenzene	119		13.316				ND		
125 p-Diethylbenzene	119		13.389				ND		
126 n-Butylbenzene	92		13.408				ND		
127 1,2-Dichlorobenzene	146		13.444				ND		
128 o-diethylbenzene	119		13.462				ND		
129 Hexachloroethane	201		13.560				ND		
130 1,2-Dibromo-3-Chloropropane	75		13.986				ND		
131 1,3,5-Trichlorobenzene	180		14.119				ND		
132 1,2,4-Trichlorobenzene	180		14.539				ND		
133 Hexachlorobutadiene	225		14.624				ND		
134 Naphthalene	128		14.722				ND		7
135 1,2,3-Trichlorobenzene	180		14.868				ND		
136 2-Methylnaphthalene	142		15.513				ND		7

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 C4-C10	1		0.000					ND	
172 Propene oxide	1		0.000					ND	
173 Methyl acrylate	1		0.000					ND	
174 1,3-Divinylbenzene	1		0.000					ND	
175 Ethyl bromide	1		0.000					ND	
176 Chloroacetonitrile	1		0.000					ND	
S 177 divinyl benzene	1		0.000					ND	7
178 Methylal	1		0.000					ND	
179 n-Decane	57		0.000					ND	
180 Dodecane	57		0.000					ND	
181 Butane	1		0.000					ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
184 2-Bromoethanol TIC	1		0.000					ND	
185 2-Chloroethanol TIC	1		0.000					ND	
171 Hexachloroethane TIC	1		0.000					ND	
186 Monochloroacetic acid TIC	1		0.000					ND	
188 Epichlorohydrin TIC	1		0.000					ND	
189 2-Bromo-3-chloropropene TIC	1		0.000					ND	
190 Ethylene oxide TIC	1		0.000					ND	
191 2,3-Dibromopropene TIC	1		0.000					ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
193 1-Bromo-2-chloroethane TIC	1		0.000					ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
197 n-Propylamine (TIC)	1		0.000					ND	
198 beta-Propiolactone TIC	1		0.000					ND	
199 Propargyl alcohol TIC	1		0.000					ND	
200 Propanol TIC	1		0.000					ND	
201 Malononitrile (TIC)	1		0.000					ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
202 tert-Butyl Formate	1		0.000					ND	
170 Ethanol TIC	1		0.000					ND	
168 2-Pentanone (TIC)	1		0.000					ND	
138 C6-C10	1		0.000					ND	
139 Nitrobenzene TIC	1		0.000					ND	
140 Chloroacetaldehyde TIC	1		0.000					ND	
141 Pentachloroethane TIC	1		0.000					ND	
142 Chloral hydrate (TIC)	1		0.000					ND	
143 Methanol TIC	1		0.000					ND	
144 Bromoacetone (TIC)	1		0.000					ND	
145 Epibromohydrin TIC	1		0.000					ND	
146 Paraldehyde TIC	1		0.000					ND	
147 Pentafluorobenzene TIC	1		0.000					ND	
148 1-Bromopropane TIC	1		0.000					ND	
149 Allyl Alcohol TIC	1		0.000					ND	
150 Vinyl acetate (TIC)	1		0.000					ND	
151 2-Picoline (TIC)	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
152 Vinyl bromide TIC	1		0.000					ND	
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
155 C4-C12	1		0.000					ND	
156 1-Chlorobutane	1		0.000					ND	
157 1,4-Divinylbenzene	1		0.000					ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
162 Diethoxymethane	1		0.000					ND	
163 C5-C12	1		0.000					ND	
164 1-Bromo-2-chloroethane	1		0.000					ND	
165 C6-C12	1		0.000					ND	
S 166 Total Diethylbenzene	1		0.000					ND	7
167 3-chloro-1-Butene	1		0.000					ND	
153 o-toluidine TIC	1		0.000					ND	
209 Bromoethane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

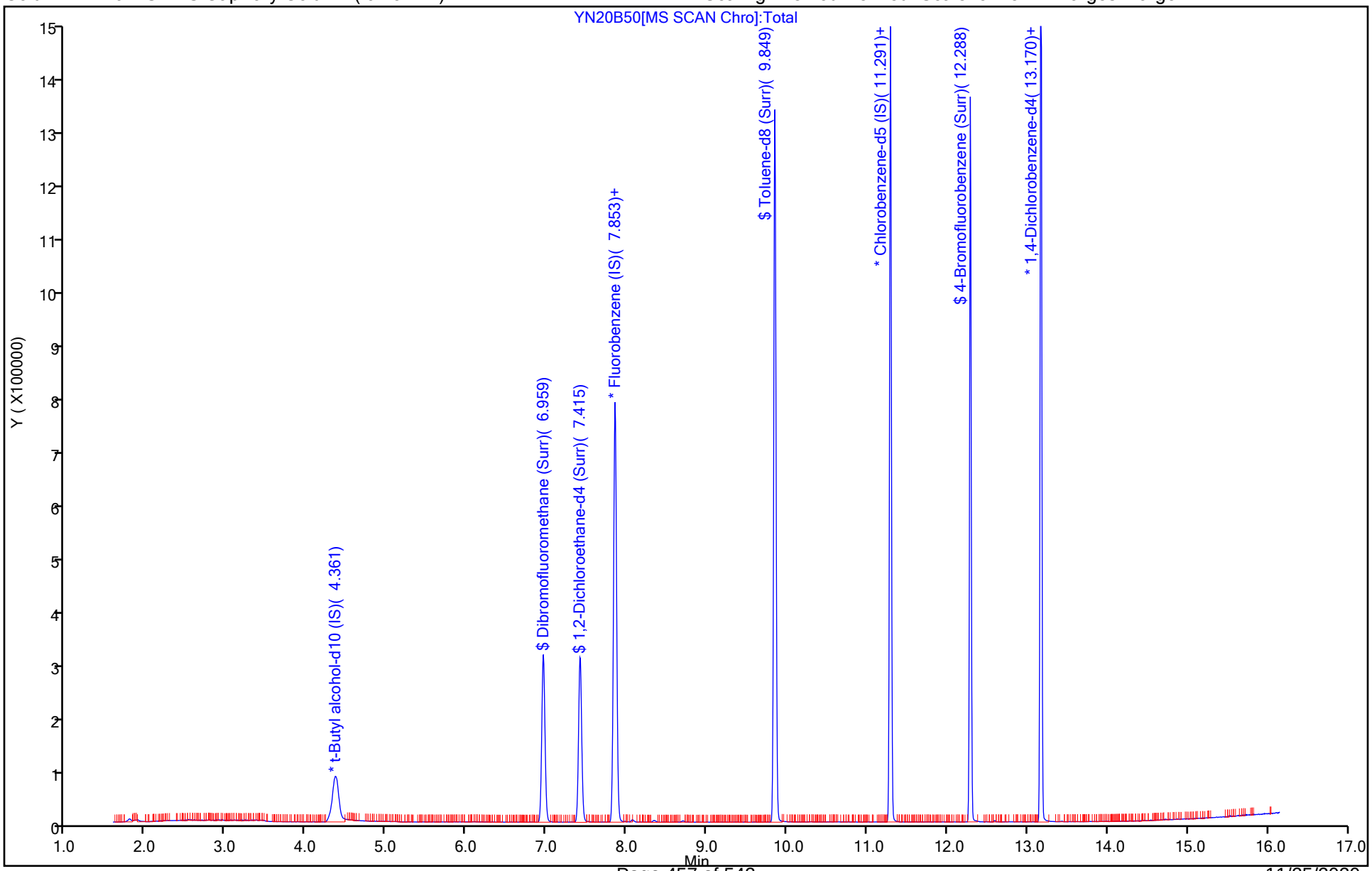
Report Date: 20-Nov-2020 23:49:47 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20B50.D

Injection Date:	20-Nov-2020 21:40:30	Instrument ID:	9355	Operator ID:	ljg30941
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-68925/9

Matrix: Water Lab File ID: YN21B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 11:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	91		80-120
1868-53-7	Dibromofluoromethane (Surr)	102		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 21-Nov-2020 11:33:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-009
Misc. Info.: MB
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 12:03:50 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 12:03:18

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		2.013					ND	
2	Dichlorodifluoromethane	85		2.050					ND	
3	Chlorodifluoromethane	51		2.062					ND	
4	Chloromethane	50		2.257					ND	
5	Butadiene	39		2.378					ND	7
6	Vinyl chloride	62		2.378					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.439					ND	
8	Bromomethane	94		2.719					ND	
9	Chloroethane	64		2.804					ND	
10	Dichlorofluoromethane	67		3.041					ND	
11	Trichlorofluoromethane	101		3.114					ND	
12	Pentane	43		3.151					ND	
13	Ethanol	45		3.224					ND	
14	Ethyl ether	59		3.364					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.449					ND	
16	Acrolein	56		3.528					ND	
17	1,1-Dichloroethene	96		3.686					ND	
18	Acetone	58		3.698					ND	
19	112TCTFE	101		3.729					ND	
20	Isopropyl alcohol	45		3.875					ND	
21	Iodomethane	142		3.899					ND	
22	Carbon disulfide	76		4.015					ND	
23	Acetonitrile	41		4.070					ND	
24	Methyl acetate	43		4.136					ND	
25	3-Chloro-1-propene	41		4.173					ND	
* 26	t-Butyl alcohol-d10 (IS)	65	4.362	4.368	-0.006	0	303834	250.0	250.0	
27	Methylene Chloride	84		4.368					ND	
28	2-Methyl-2-propanol	59		4.495					ND	
30	Acrylonitrile	53		4.690					ND	
31	Methyl tert-butyl ether	73		4.781					ND	
32	trans-1,2-Dichloroethene	96		4.800					ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	33 Hexane	57		5.219					ND	
	34 Vinyl acetate	43		5.432					ND	
	35 1,1-Dichloroethane	63		5.438					ND	
	36 Isopropyl ether	45		5.499					ND	
	37 2-Chloro-1,3-butadiene	53		5.554					ND	
	38 Tert-butyl ethyl ether	59		6.035					ND	
S	39 1,2-Dichloroethene, Total	100		6.155					ND	7
	40 2-Butanone (MEK)	43		6.223					ND	
	41 cis-1,2-Dichloroethene	96		6.260					ND	
	43 2,2-Dichloropropane	77		6.284					ND	
	44 Propionitrile	54		6.296					ND	
	42 Ethyl acetate	43		6.296					ND	
	45 Methacrylonitrile	67		6.521					ND	
	46 Chlorobromomethane	128		6.600					ND	
	47 Tetrahydrofuran	71		6.619					ND	
	48 Chloroform	83		6.740					ND	
$	49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	264639	50.0	50.9	
	50 1,1,1-Trichloroethane	97		6.978					ND	
	51 Cyclohexane	56		7.093					ND	
	52 1,1-Dichloropropene	75		7.190					ND	
	53 Carbon tetrachloride	117		7.197					ND	
	54 Isobutyl alcohol	41		7.306					ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.416	0.000	0	65209	50.0	52.3	
	56 Benzene	78		7.452					ND	
	58 1,2-Dichloroethane	62		7.519					ND	7
	57 Isopropyl acetate	43		7.519					ND	
	59 Tert-amyl methyl ether	73		7.647					ND	
	60 t-Amyl alcohol	73	7.854	7.842	0.012	35	13015		NC	
*	61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1032274	50.0	50.0	
	62 n-Heptane	43		7.872					ND	
	63 n-Butanol	56		8.182					ND	
	64 Trichloroethene	95		8.334					ND	
	65 Methylcyclohexane	83		8.657					ND	
	66 1,2-Dichloropropane	63		8.663					ND	
	67 2-ethoxy-2-methyl butane	87		8.669					ND	
	68 Methyl methacrylate	69		8.736					ND	
	69 1,4-Dioxane	88		8.754					ND	
	70 Dibromomethane	93		8.778					ND	
	71 n-Propyl acetate	61		8.809					ND	
	72 Dichlorobromomethane	83		9.003					ND	
	73 2-Nitropropane	41		9.247					ND	
	74 2-Chloroethyl vinyl ether	63		9.356					ND	
	75 cis-1,3-Dichloropropene	75		9.545					ND	
	76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$	77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1047109	50.0	50.3	
	78 Toluene	92		9.928					ND	
	79 1,3-Dichlorobutene-2(total)	89		10.000					ND	7
S	80 1,3-Dichloropropene, Total	100		10.060					ND	7
	81 trans-1,3-Dichloropropene	75		10.171					ND	
	82 Ethyl methacrylate	69		10.226					ND	
	83 1,1,2-Trichloroethane	97		10.372					ND	
	84 Tetrachloroethene	166		10.476					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,3-Dichloropropane	76		10.536					ND	
87 2-Hexanone	43		10.573					ND	
86 3,4-Dichloro-1-butene	75		10.573					ND	
88 n-Butyl acetate	43		10.695					ND	
89 Chlorodibromomethane	129		10.755					ND	
90 Ethylene Dibromide	107		10.871					ND	
S 91 Xylenes, Total	106		11.245					ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	855706	50.0	50.0	
92 1-Chlorohexane	91	11.291	11.297	-0.006	33	1628		0.1724	
94 Chlorobenzene	112		11.321					ND	
95 1,1,1,2-Tetrachloroethane	131		11.400					ND	
96 Ethylbenzene	91		11.400					ND	
97 m-Xylene & p-Xylene	106		11.516					ND	
98 o-Xylene	106		11.844					ND	
99 Styrene	104		11.857					ND	
100 Bromoform	173		12.021					ND	
101 Isopropylbenzene	105		12.142					ND	
102 cis-1,4-Dichloro-2-butene	88		12.179					ND	
103 Cyclohexanone	55		12.215					ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	364463	50.0	45.7	
105 1,1,2,2-Tetrachloroethane	83		12.380					ND	
106 trans-1,4-Dichloro-2-butene	53		12.404					ND	
107 Bromobenzene	156		12.404					ND	
108 1,2,3-Trichloropropane	110		12.428					ND	
109 N-Propylbenzene	91		12.471					ND	
110 2-Chlorotoluene	126		12.550					ND	
111 1,3,5-Trimethylbenzene	105		12.605					ND	
112 4-Chlorotoluene	126		12.641					ND	
113 2,3,4-Trichlorobutene	109		12.654					ND	
114 tert-Butylbenzene	134		12.848					ND	
115 Pentachloroethane	167		12.885					ND	
116 1,2,4-Trimethylbenzene	105		12.891					ND	
117 sec-Butylbenzene	105		13.012					ND	
118 1,3-Dichlorobenzene	146		13.116					ND	
119 4-Isopropyltoluene	119		13.116					ND	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	481100	50.0	50.0	
121 1,4-Dichlorobenzene	146		13.189					ND	
122 1,2,3-Trimethylbenzene	105		13.195					ND	
123 Benzyl chloride	91		13.256					ND	7
124 1,3-Diethylbenzene	119		13.317					ND	
125 p-Diethylbenzene	119		13.390					ND	
126 n-Butylbenzene	92		13.408					ND	
127 1,2-Dichlorobenzene	146		13.444					ND	
128 o-diethylbenzene	119		13.463					ND	
129 Hexachloroethane	201		13.560					ND	
130 1,2-Dibromo-3-Chloropropane	75		13.986					ND	
131 1,3,5-Trichlorobenzene	180		14.120					ND	
132 1,2,4-Trichlorobenzene	180		14.539					ND	
133 Hexachlorobutadiene	225		14.618					ND	
134 Naphthalene	128		14.722					ND	
135 1,2,3-Trichlorobenzene	180		14.868					ND	
136 2-Methylnaphthalene	142		15.513					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 C4-C10	1		0.000					ND	
172 Propene oxide	1		0.000					ND	
173 Methyl acrylate	1		0.000					ND	
174 1,3-Divinylbenzene	1		0.000					ND	
175 Ethyl bromide	1		0.000					ND	
176 Chloroacetonitrile	1		0.000					ND	
S 177 divinyl benzene	1		0.000					ND	7
178 Methylal	1		0.000					ND	
179 n-Decane	57		0.000					ND	
180 Dodecane	57		0.000					ND	
181 Butane	1		0.000					ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
184 2-Bromoethanol TIC	1		0.000					ND	
185 2-Chloroethanol TIC	1		0.000					ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
202 tert-Butyl Formate	1		0.000					ND	
188 Epichlorohydrin TIC	1		0.000					ND	
189 2-Bromo-3-chloropropene TIC	1		0.000					ND	
190 Ethylene oxide TIC	1		0.000					ND	
191 2,3-Dibromopropene TIC	1		0.000					ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
193 1-Bromo-2-chloroethane TIC	1		0.000					ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
197 n-Propylamine (TIC)	1		0.000					ND	
198 beta-Propiolactone TIC	1		0.000					ND	
199 Propargyl alcohol TIC	1		0.000					ND	
200 Propanol TIC	1		0.000					ND	
201 Malononitrile (TIC)	1		0.000					ND	
171 Hexachloroethane TIC	1		0.000					ND	
186 Monochloroacetic acid TIC	1		0.000					ND	
170 Ethanol TIC	1		0.000					ND	
152 Vinyl bromide TIC	1		0.000					ND	
138 C6-C10	1		0.000					ND	
139 Nitrobenzene TIC	1		0.000					ND	
140 Chloroacetaldehyde TIC	1		0.000					ND	
141 Pentachloroethane TIC	1		0.000					ND	
142 Chloral hydrate (TIC)	1		0.000					ND	
143 Methanol TIC	1		0.000					ND	
144 Bromoacetone (TIC)	1		0.000					ND	
145 Epibromohydrin TIC	1		0.000					ND	
146 Paraldehyde TIC	1		0.000					ND	
147 Pentafluorobenzene TIC	1		0.000					ND	
148 1-Bromopropane TIC	1		0.000					ND	
149 Allyl Alcohol TIC	1		0.000					ND	
150 Vinyl acetate (TIC)	1		0.000					ND	
151 2-Picoline (TIC)	1		0.000					ND	
153 o-toluidine TIC	1		0.000					ND	
168 2-Pentanone (TIC)	1		0.000					ND	
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
155 C4-C12	1		0.000					ND	
156 1-Chlorobutane	1		0.000					ND	
157 1,4-Divinylbenzene	1		0.000					ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
162 Diethoxymethane	1		0.000					ND	
163 C5-C12	1		0.000					ND	
164 1-Bromo-2-chloroethane	1		0.000					ND	
165 C6-C12	1		0.000					ND	
S 166 Total Diethylbenzene	1		0.000					ND	7
167 3-chloro-1-Butene	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
209 Bromoethane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

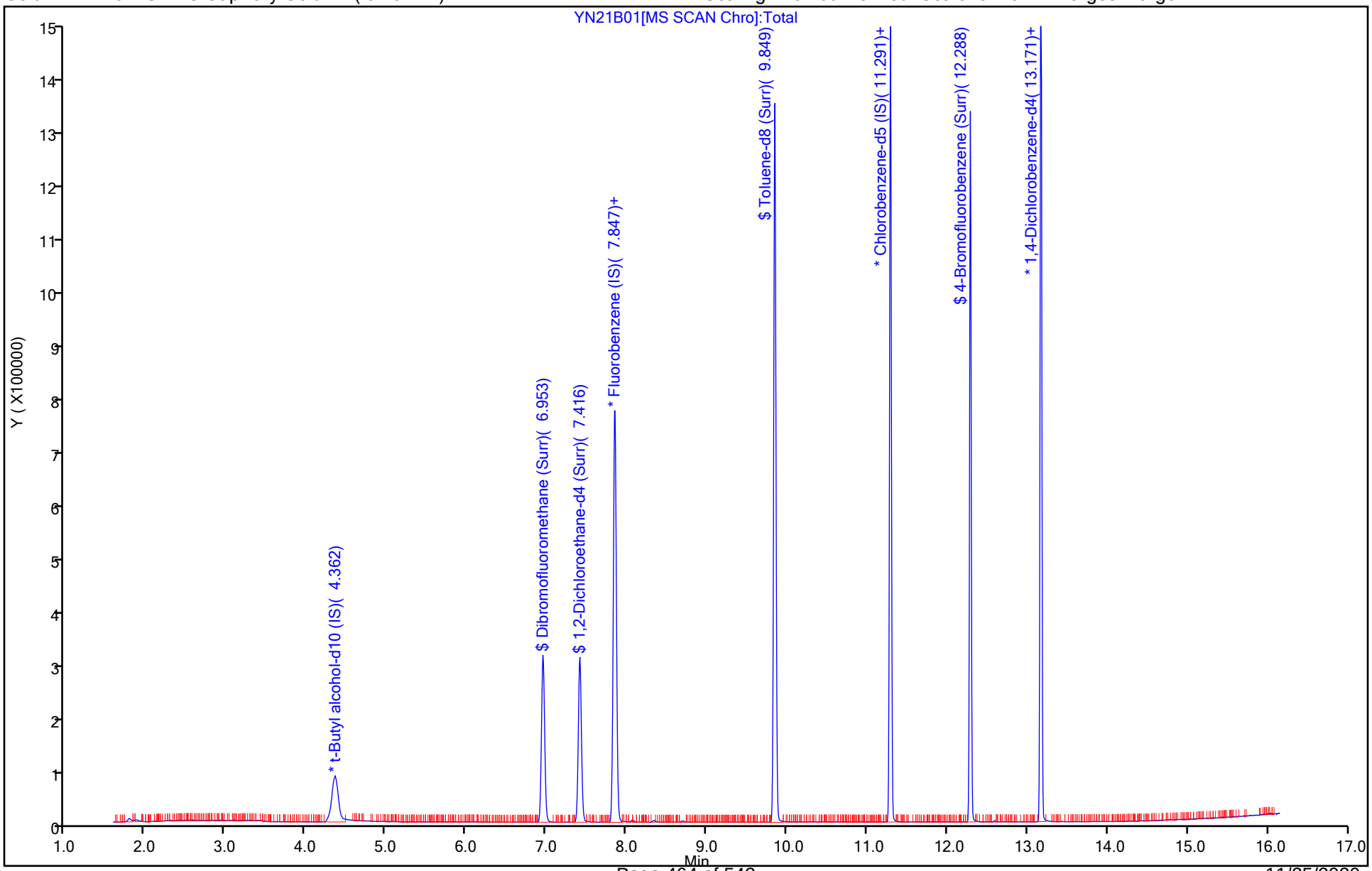
Report Date: 21-Nov-2020 12:04:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21B01.D

Injection Date:	21-Nov-2020 11:33:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	MB			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-69288/9

Matrix: Water Lab File ID: YN23B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 12:22

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	105		80-120
460-00-4	4-Bromofluorobenzene (Surr)	92		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 23-Nov-2020 12:22:30 ALS Bottle#: 9 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-009
Misc. Info.: MB
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 12:46:38 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1633

First Level Reviewer: mellingerc Date: 23-Nov-2020 12:45:48

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		2.013					ND	
2	Dichlorodifluoromethane	85		2.056					ND	
3	Chlorodifluoromethane	51		2.062					ND	
4	Chloromethane	50		2.257					ND	
6	Vinyl chloride	62		2.372					ND	
5	Butadiene	39		2.384					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.439					ND	
8	Bromomethane	94		2.719					ND	
9	Chloroethane	64		2.810					ND	
10	Dichlorofluoromethane	67		3.047					ND	
11	Trichlorofluoromethane	101		3.120					ND	
12	Pentane	43		3.157					ND	
13	Ethanol	45		3.242					ND	
14	Ethyl ether	59		3.370					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.455					ND	
16	Acrolein	56		3.534					ND	
17	1,1-Dichloroethene	96		3.692					ND	
18	Acetone	58		3.698					ND	
19	112TCTFE	101		3.735					ND	
20	Isopropyl alcohol	45		3.881					ND	
21	Iodomethane	142		3.905					ND	
22	Carbon disulfide	76		4.021					ND	
23	Acetonitrile	41		4.075					ND	
24	Methyl acetate	43		4.136					ND	
25	3-Chloro-1-propene	41		4.179					ND	
* 26	t-Butyl alcohol-d10 (IS)	65	4.374	4.374	0.000	0	326761	250.0	250.0	
27	Methylene Chloride	84		4.374					ND	
28	2-Methyl-2-propanol	59		4.495					ND	
30	Acrylonitrile	53		4.690					ND	
31	Methyl tert-butyl ether	73		4.787					ND	
32	trans-1,2-Dichloroethene	96		4.800					ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	33 Hexane	57		5.219					ND	
	34 Vinyl acetate	43		5.432					ND	
	35 1,1-Dichloroethane	63		5.444					ND	
	36 Isopropyl ether	45		5.505					ND	
	37 2-Chloro-1,3-butadiene	53		5.554					ND	
	38 Tert-butyl ethyl ether	59		6.041					ND	
S	39 1,2-Dichloroethene, Total	100		6.155					ND	7
	40 2-Butanone (MEK)	43		6.223					ND	
	41 cis-1,2-Dichloroethene	96		6.266					ND	
	43 2,2-Dichloropropane	77		6.284					ND	
	42 Ethyl acetate	43		6.296					ND	
	44 Propionitrile	54		6.296					ND	
	45 Methacrylonitrile	67		6.521					ND	
	46 Chlorobromomethane	128		6.600					ND	
	47 Tetrahydrofuran	71		6.625					ND	
	48 Chloroform	83		6.740					ND	
$	49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	274247	50.0	50.7	
	50 1,1,1-Trichloroethane	97		6.984					ND	
	51 Cyclohexane	56		7.099					ND	
	52 1,1-Dichloropropene	75		7.190					ND	
	53 Carbon tetrachloride	117		7.203					ND	
	54 Isobutyl alcohol	41		7.312					ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.421	7.415	0.006	0	67881	50.0	52.3	
	56 Benzene	78		7.458					ND	
	57 Isopropyl acetate	43		7.519					ND	
	58 1,2-Dichloroethane	62		7.525					ND	7
	59 Tert-amyl methyl ether	73		7.647					ND	
	60 t-Amyl alcohol	73	7.853	7.842	0.011	35	13470		NC	
*	61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1075979	50.0	50.0	
	62 n-Heptane	43		7.872					ND	
	63 n-Butanol	56		8.188					ND	
	64 Trichloroethene	95		8.340					ND	
	65 Methylcyclohexane	83		8.657					ND	
	66 1,2-Dichloropropane	63		8.669					ND	
	67 2-ethoxy-2-methyl butane	87		8.675					ND	
	68 Methyl methacrylate	69		8.736					ND	
	69 1,4-Dioxane	88		8.754					ND	
	70 Dibromomethane	93		8.778					ND	
	71 n-Propyl acetate	61		8.815					ND	
	72 Dichlorobromomethane	83		9.009					ND	
	73 2-Nitropropane	41		9.253					ND	
	74 2-Chloroethyl vinyl ether	63		9.356					ND	
	75 cis-1,3-Dichloropropene	75		9.545					ND	
	76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$	77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1101178	50.0	49.8	
	78 Toluene	92		9.928					ND	
	79 1,3-Dichlorobutene-2(total)	89		10.000					ND	7
S	80 1,3-Dichloropropene, Total	100		10.060					ND	7
	81 trans-1,3-Dichloropropene	75		10.171					ND	
	82 Ethyl methacrylate	69		10.226					ND	
	83 1,1,2-Trichloroethane	97		10.372					ND	
	84 Tetrachloroethene	166		10.476					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 1,3-Dichloropropane	76		10.536					ND	
86 3,4-Dichloro-1-butene	75		10.573					ND	
87 2-Hexanone	43		10.573					ND	
88 n-Butyl acetate	43		10.700					ND	
89 Chlorodibromomethane	129		10.755					ND	
90 Ethylene Dibromide	107		10.871					ND	
S 91 Xylenes, Total	106		11.245					ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	908205	50.0	50.0	
92 1-Chlorohexane	91	11.291	11.297	-0.006	33	1548		0.1545	
94 Chlorobenzene	112		11.321					ND	
95 1,1,1,2-Tetrachloroethane	131		11.400					ND	
96 Ethylbenzene	91		11.400					ND	
97 m-Xylene & p-Xylene	106		11.516					ND	
98 o-Xylene	106		11.844					ND	
99 Styrene	104		11.857					ND	
100 Bromoform	173		12.021					ND	
101 Isopropylbenzene	105		12.142					ND	
102 cis-1,4-Dichloro-2-butene	88		12.179					ND	
103 Cyclohexanone	55		12.215					ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	388420	50.0	45.9	
105 1,1,2,2-Tetrachloroethane	83		12.380					ND	
106 trans-1,4-Dichloro-2-butene	53		12.404					ND	
107 Bromobenzene	156		12.404					ND	
108 1,2,3-Trichloropropane	110		12.428					ND	
109 N-Propylbenzene	91		12.471					ND	
110 2-Chlorotoluene	126		12.550					ND	
111 1,3,5-Trimethylbenzene	105		12.605					ND	
112 4-Chlorotoluene	126		12.641					ND	
113 2,3,4-Trichlorobutene	109		12.653					ND	
114 tert-Butylbenzene	134		12.848					ND	
115 Pentachloroethane	167		12.885					ND	
116 1,2,4-Trimethylbenzene	105		12.891					ND	
117 sec-Butylbenzene	105		13.012					ND	
118 1,3-Dichlorobenzene	146		13.116					ND	
119 4-Isopropyltoluene	119		13.116					ND	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	93	506145	50.0	50.0	
121 1,4-Dichlorobenzene	146		13.189					ND	
122 1,2,3-Trimethylbenzene	105		13.195					ND	
123 Benzyl chloride	91		13.256					ND	7
124 1,3-Diethylbenzene	119		13.317					ND	
125 p-Diethylbenzene	119		13.390					ND	
126 n-Butylbenzene	92		13.408					ND	
127 1,2-Dichlorobenzene	146		13.444					ND	
128 o-diethylbenzene	119		13.463					ND	
129 Hexachloroethane	201		13.560					ND	
130 1,2-Dibromo-3-Chloropropane	75		13.986					ND	
131 1,3,5-Trichlorobenzene	180		14.120					ND	
132 1,2,4-Trichlorobenzene	180		14.539					ND	
133 Hexachlorobutadiene	225		14.625					ND	
134 Naphthalene	128		14.722					ND	
135 1,2,3-Trichlorobenzene	180		14.862					ND	
136 2-Methylnaphthalene	142		15.513					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 C4-C10	1		0.000					ND	
172 Propene oxide	1		0.000					ND	
173 Methyl acrylate	1		0.000					ND	
174 1,3-Divinylbenzene	1		0.000					ND	
175 Ethyl bromide	1		0.000					ND	
176 Chloroacetonitrile	1		0.000					ND	
S 177 divinyl benzene	1		0.000					ND	7
178 Methylal	1		0.000					ND	
179 n-Decane	57		0.000					ND	
180 Dodecane	57		0.000					ND	
181 Butane	1		0.000					ND	
182 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
183 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
184 2-Bromoethanol TIC	1		0.000					ND	
185 2-Chloroethanol TIC	1		0.000					ND	
187 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	
202 tert-Butyl Formate	1		0.000					ND	
188 Epichlorohydrin TIC	1		0.000					ND	
189 2-Bromo-3-chloropropene TIC	1		0.000					ND	
190 Ethylene oxide TIC	1		0.000					ND	
191 2,3-Dibromopropene TIC	1		0.000					ND	
192 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
193 1-Bromo-2-chloroethane TIC	1		0.000					ND	
194 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
195 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
196 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
197 n-Propylamine (TIC)	1		0.000					ND	
198 beta-Propiolactone TIC	1		0.000					ND	
199 Propargyl alcohol TIC	1		0.000					ND	
200 Propanol TIC	1		0.000					ND	
201 Malononitrile (TIC)	1		0.000					ND	
171 Hexachloroethane TIC	1		0.000					ND	
186 Monochloroacetic acid TIC	1		0.000					ND	
170 Ethanol TIC	1		0.000					ND	
152 Vinyl bromide TIC	1		0.000					ND	
138 C6-C10	1		0.000					ND	
139 Nitrobenzene TIC	1		0.000					ND	
140 Chloroacetaldehyde TIC	1		0.000					ND	
141 Pentachloroethane TIC	1		0.000					ND	
142 Chloral hydrate (TIC)	1		0.000					ND	
143 Methanol TIC	1		0.000					ND	
144 Bromoacetone (TIC)	1		0.000					ND	
145 Epibromohydrin TIC	1		0.000					ND	
146 Paraldehyde TIC	1		0.000					ND	
147 Pentafluorobenzene TIC	1		0.000					ND	
148 1-Bromopropane TIC	1		0.000					ND	
149 Allyl Alcohol TIC	1		0.000					ND	
150 Vinyl acetate (TIC)	1		0.000					ND	
151 2-Picoline (TIC)	1		0.000					ND	
153 o-toluidine TIC	1		0.000					ND	
168 2-Pentanone (TIC)	1		0.000					ND	
154 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
155 C4-C12	1		0.000					ND	
156 1-Chlorobutane	1		0.000					ND	
157 1,4-Divinylbenzene	1		0.000					ND	
158 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
159 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
160 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
162 Diethoxymethane	1		0.000					ND	
163 C5-C12	1		0.000					ND	
164 1-Bromo-2-chloroethane	1		0.000					ND	
165 C6-C12	1		0.000					ND	
S 166 Total Diethylbenzene	1		0.000					ND	7
167 3-chloro-1-Butene	1		0.000					ND	
169 Ethyl acrylate	55		0.000					ND	
209 Bromoethane TIC	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Reagents:

MSV_HP20_ISSS_00031 Amount Added: 1.00 Units: uL Run Reagent

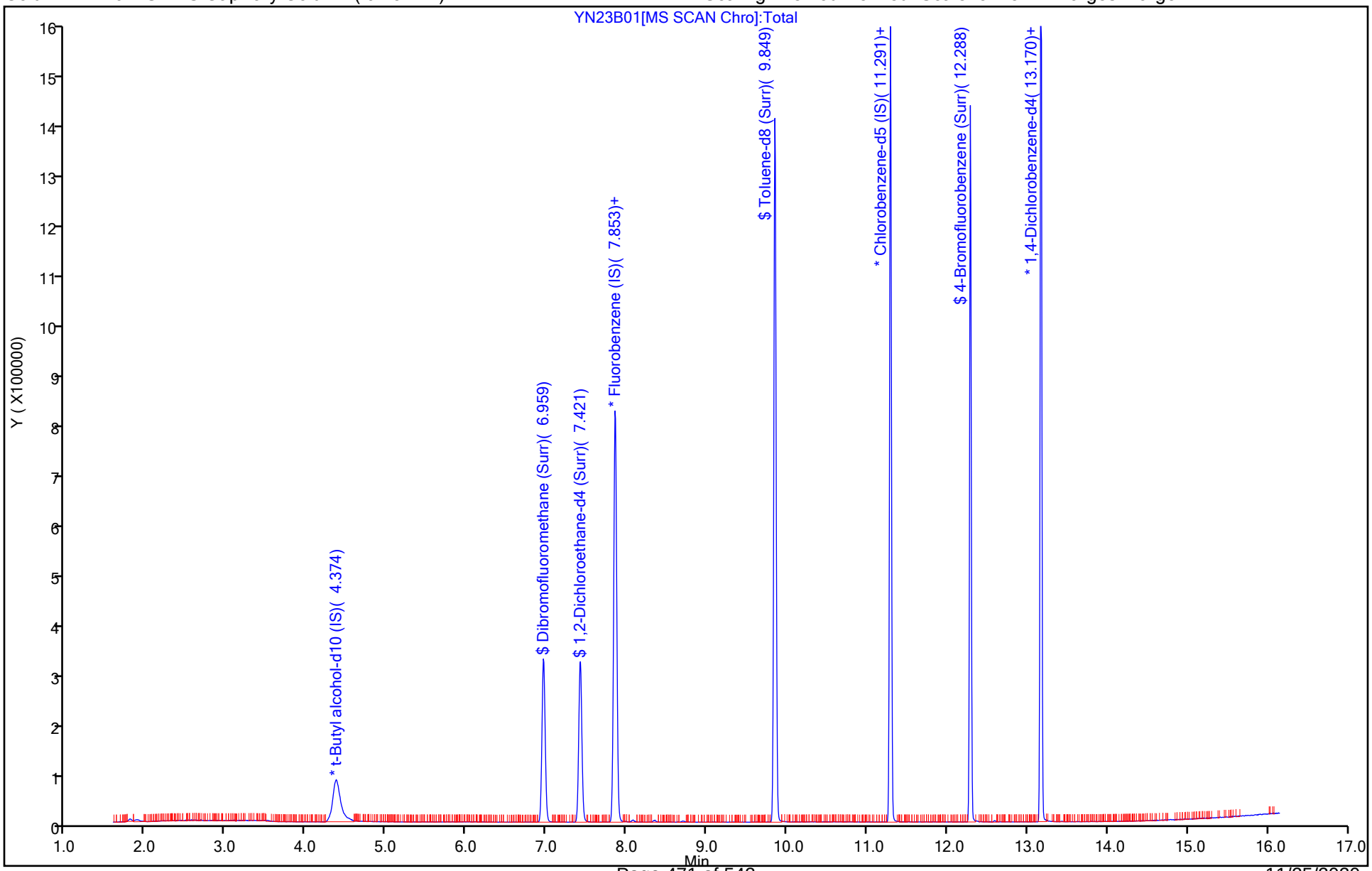
Report Date: 23-Nov-2020 12:47:11 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23B01.D

Injection Date:	23-Nov-2020 12:22:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	MB			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-68475/5

Matrix: Water Lab File ID: YN20L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 09:52

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	19.4		1.0	0.30
75-34-3	1,1-Dichloroethane	19.2		1.0	0.20
75-35-4	1,1-Dichloroethene	19.2		1.0	0.20
95-50-1	1,2-Dichlorobenzene	19.7		5.0	0.20
107-06-2	1,2-Dichloroethane	19.5		1.0	0.30
123-91-1	1,4-Dioxane	598		250	29
78-93-3	2-Butanone	162		10	0.30
67-64-1	Acetone	166		20	0.70
71-43-2	Benzene	20.1		1.0	0.20
75-15-0	Carbon disulfide	16.5		5.0	0.20
67-66-3	Chloroform	20.2		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	20.9		1.0	0.20
100-41-4	Ethylbenzene	19.8		1.0	0.40
76-13-1	Freon 113	16.7		10	0.20
75-09-2	Methylene Chloride	20.1		1.0	0.30
91-20-3	Naphthalene	18.2		5.0	1.0
127-18-4	Tetrachloroethene	20.7		1.0	0.20
108-88-3	Toluene	20.0		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	19.8		1.0	0.20
79-01-6	Trichloroethene	20.0		1.0	0.20
75-01-4	Vinyl chloride	16.9		1.0	0.20
1330-20-7	Xylenes, Total	59.8		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	103		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Nov-2020 09:52:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-005
Misc. Info.: LCS
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 11:23:18 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1649

First Level Reviewer: mellingerc Date: 20-Nov-2020 10:26:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.056	-0.006	99	144813	20.0	15.9	
4 Chloromethane	50	2.257	2.257	0.000	99	140334	20.0	17.3	
5 Butadiene	39	2.372	2.378	-0.006	88	157671	20.0	22.5	
6 Vinyl chloride	62	2.372	2.378	-0.006	88	139404	20.0	16.9	
8 Bromomethane	94	2.707	2.719	-0.012	89	124568	20.0	17.5	
9 Chloroethane	64	2.792	2.798	-0.006	99	91761	20.0	17.5	
11 Trichlorofluoromethane	101	3.108	3.121	-0.012	98	246419	20.0	17.4	
12 Pentane	43	3.145	3.151	-0.006	97	159423	20.0	16.1	
14 Ethyl ether	59	3.358	3.364	-0.006	86	154463	20.0	23.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.431	3.437	-0.006	86	151807	20.0	19.1	
16 Acrolein	56	3.522	3.528	-0.006	99	347202	150.0	126.2	
17 1,1-Dichloroethene	96	3.680	3.686	-0.006	98	113539	20.0	19.2	
18 Acetone	58	3.698	3.698	0.000	100	196061	150.0	165.8	
19 112TCTFE	101	3.717	3.723	-0.006	88	105192	20.0	16.7	
20 Isopropyl alcohol	45	3.869	3.863	0.006	97	107821	150.0	136.2	
21 Iodomethane	142	3.887	3.899	-0.012	99	223749	20.0	18.4	
22 Carbon disulfide	76	4.009	4.015	-0.006	99	311860	20.0	16.5	
24 Methyl acetate	43	4.130	4.136	-0.006	97	172924	20.0	19.6	
25 3-Chloro-1-propene	41	4.167	4.173	-0.006	89	157699	20.0	16.4	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.355	-0.006	0	363641	250.0	250.0	
27 Methylene Chloride	84	4.362	4.368	-0.006	89	131960	20.0	20.1	
28 2-Methyl-2-propanol	59	4.483	4.483	0.000	98	343666	200.0	199.8	
30 Acrylonitrile	53	4.678	4.684	-0.006	99	453450	100.0	104.9	
31 Methyl tert-butyl ether	73	4.775	4.781	-0.006	95	395565	20.0	17.2	
32 trans-1,2-Dichloroethene	96	4.794	4.800	-0.006	97	135651	20.0	19.8	
33 Hexane	57	5.213	5.213	0.000	92	160853	20.0	16.5	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	218951	20.0	19.2	
36 Isopropyl ether	45	5.499	5.499	0.000	91	352195	20.0	17.2	
37 2-Chloro-1,3-butadiene	53	5.548	5.554	-0.006	94	173690	20.0	17.2	
38 Tert-butyl ethyl ether	59	6.028	6.035	-0.007	96	361795	20.0	17.0	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	99	1009185	150.0	162.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	80	164548	20.0	20.9	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	88	195021	20.0	18.3	
44 Propionitrile	54	6.296	6.296	0.000	99	310220	150.0	164.3	
45 Methacrylonitrile	67	6.515	6.521	-0.006	90	793644	150.0	159.7	
46 Chlorobromomethane	128	6.594	6.600	-0.006	82	89426	20.0	20.3	
47 Tetrahydrofuran	71	6.619	6.619	0.000	86	208011	100.0	106.9	
48 Chloroform	83	6.740	6.740	0.000	93	246334	20.0	20.2	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	313038	50.0	50.4	
50 1,1,1-Trichloroethane	97	6.978	6.984	-0.006	98	217391	20.0	19.4	
51 Cyclohexane	56	7.093	7.093	0.000	88	181993	20.0	16.6	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	98	186509	20.0	19.5	
53 Carbon tetrachloride	117	7.197	7.203	-0.006	97	198211	20.0	19.5	
54 Isobutyl alcohol	41	7.306	7.306	0.000	93	285416	500.0	529.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	77014	50.0	51.7	
56 Benzene	78	7.452	7.452	0.000	96	552478	20.0	20.1	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	209961	20.0	19.5	
59 Tert-amyl methyl ether	73	7.641	7.647	-0.006	99	404461	20.0	18.3	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1233388	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	89	174821	20.0	15.8	
63 n-Butanol	56	8.182	8.188	-0.006	89	530401	1000.0	1013.5	
64 Trichloroethene	95	8.334	8.334	0.000	95	153919	20.0	20.0	
65 Methylcyclohexane	83	8.657	8.657	0.000	93	234747	20.0	18.1	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	83	142643	20.0	19.9	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	94	223077	20.0	18.9	
68 Methyl methacrylate	69	8.736	8.736	0.000	86	153093	20.0	19.3	
69 1,4-Dioxane	88	8.754	8.754	0.000	89	80120	500.0	598.3	M
70 Dibromomethane	93	8.778	8.778	0.000	93	109863	20.0	20.7	
72 Dichlorobromomethane	83	9.003	9.009	-0.006	99	183729	20.0	19.7	
73 2-Nitropropane	41	9.253	9.253	0.000	100	71145	20.0	17.6	
74 2-Chloroethyl vinyl ether	63	9.350	9.356	-0.006	93	109217	20.0	29.8	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	96	236019	20.0	19.7	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1251957	100.0	103.5	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1276850	50.0	50.6	
78 Toluene	92	9.922	9.922	0.000	98	384131	20.0	20.0	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	224983	20.0	18.8	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	234840	20.0	18.3	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	91	161929	20.0	21.1	
84 Tetrachloroethene	166	10.469	10.476	-0.007	98	202680	20.0	20.7	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	253488	20.0	19.7	
87 2-Hexanone	43	10.573	10.573	0.000	96	1077134	100.0	106.7	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	177861	20.0	20.4	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	181601	20.0	20.5	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1035881	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	94	203485	20.0	17.8	
94 Chlorobenzene	112	11.321	11.321	0.000	98	486607	20.0	20.7	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	165560	20.0	19.4	
96 Ethylbenzene	91	11.400	11.400	0.000	97	743082	20.0	19.8	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	634379	40.0	40.5	
98 o-Xylene	106	11.844	11.844	0.000	96	297990	20.0	19.3	
99 Styrene	104	11.857	11.857	0.000	95	497337	20.0	19.6	
100 Bromoform	173	12.021	12.021	0.000	97	135634	20.0	18.9	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	748997	20.0	19.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	247418	500.0	405.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	478780	50.0	49.6	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	259380	20.0	19.5	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	373271	100.0	80.5	
107 Bromobenzene	156	12.404	12.404	0.000	83	246340	20.0	20.2	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	97076	20.0	20.3	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	893193	20.0	19.4	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	204725	20.0	19.2	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	661955	20.0	18.7	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	219296	20.0	19.5	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	149960	20.0	18.2	
115 Pentachloroethane	167	12.885	12.885	0.000	91	126273	20.0	19.1	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	694942	20.0	18.8	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	836538	20.0	18.5	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	446780	20.0	19.8	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	781675	20.0	18.9	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	613053	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	474536	20.0	20.3	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	730512	20.0	19.5	
123 Benzyl chloride	91	13.256	13.256	0.000	98	550668	20.0	19.3	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	96	462886	20.0	18.6	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	495114	20.0	18.8	
126 n-Butylbenzene	92	13.408	13.408	0.000	97	368268	20.0	18.2	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	432160	20.0	19.7	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	388499	20.0	18.7	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	65096	20.0	17.3	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	333034	20.0	18.3	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	300600	20.0	17.8	
133 Hexachlorobutadiene	225	14.625	14.625	0.000	98	141882	20.0	17.5	
134 Naphthalene	128	14.722	14.722	0.000	96	929979	20.0	18.2	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	288346	20.0	18.0	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	507158	20.0	15.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 11:23:35 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20L01.D

Injection Date: 20-Nov-2020 09:52:30 Instrument ID: 9355 Operator ID: clm27445

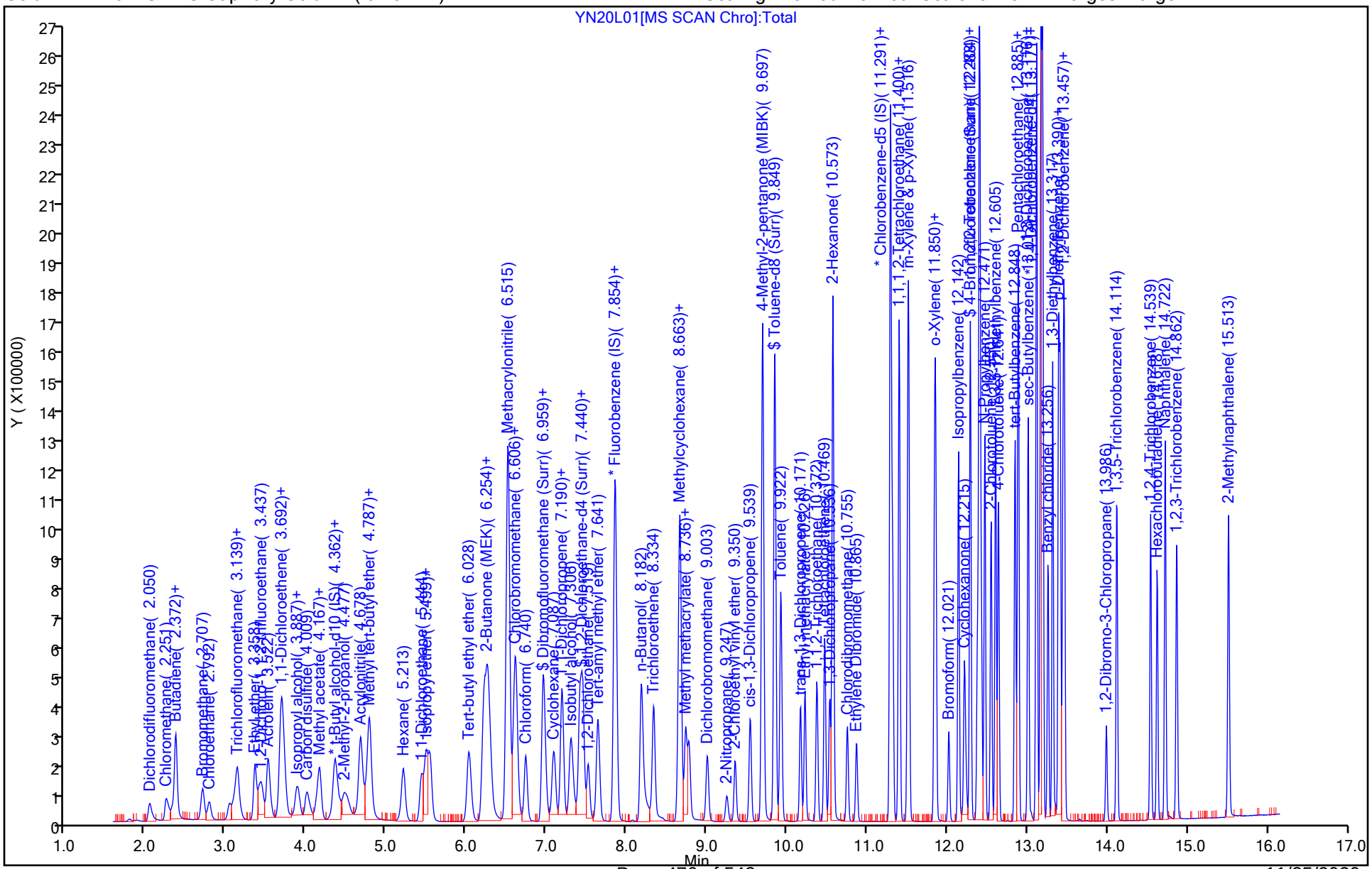
Lims ID: LCS Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

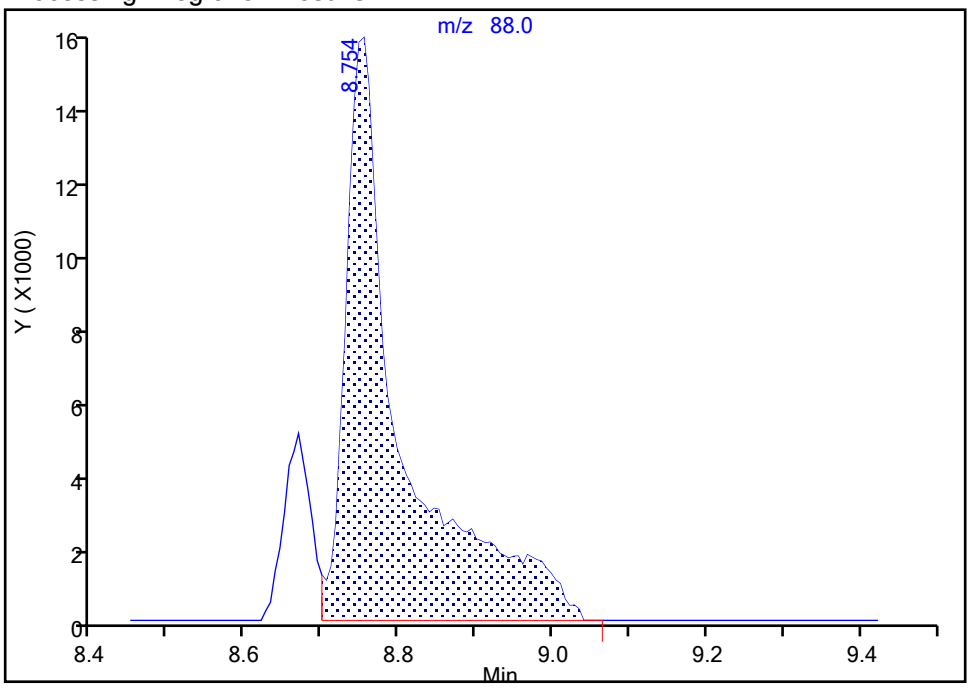
Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20L01.D
Injection Date: 20-Nov-2020 09:52:30 Instrument ID: 9355
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

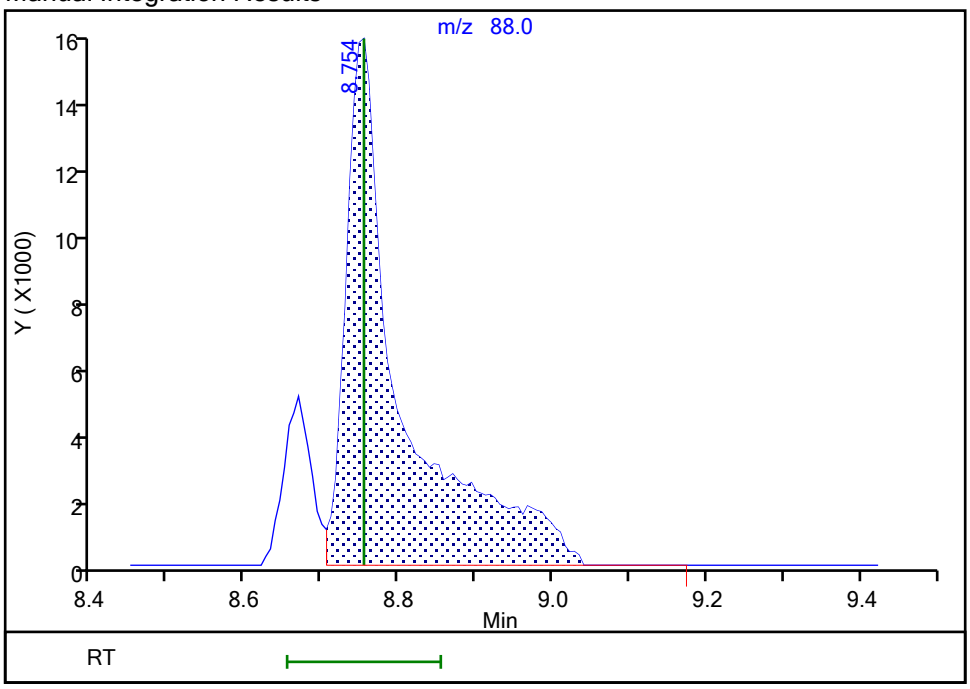
Processing Integration Results

RT: 8.75
Area: 80573
Amount: 601.6621
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 80120
Amount: 598.2794
Amount Units: ug/l



Reviewer: mellingerc, 20-Nov-2020 10:25:52
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-68801/4

Matrix: Water Lab File ID: YN20L50.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 20:56

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68801 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	20.0		1.0	0.30
75-34-3	1,1-Dichloroethane	20.3		1.0	0.20
75-35-4	1,1-Dichloroethene	19.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.7		5.0	0.20
107-06-2	1,2-Dichloroethane	20.5		1.0	0.30
123-91-1	1,4-Dioxane	617		250	29
78-93-3	2-Butanone	166		10	0.30
67-64-1	Acetone	170		20	0.70
71-43-2	Benzene	21.0		1.0	0.20
75-15-0	Carbon disulfide	17.0		5.0	0.20
67-66-3	Chloroform	21.3		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	22.0		1.0	0.20
100-41-4	Ethylbenzene	20.7		1.0	0.40
76-13-1	Freon 113	17.1		10	0.20
75-09-2	Methylene Chloride	20.9		1.0	0.30
91-20-3	Naphthalene	18.9		5.0	1.0
127-18-4	Tetrachloroethene	20.6		1.0	0.20
108-88-3	Toluene	21.0		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	20.6		1.0	0.20
79-01-6	Trichloroethene	21.0		1.0	0.20
75-01-4	Vinyl chloride	18.4		1.0	0.20
1330-20-7	Xylenes, Total	61.9		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20L50.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 20-Nov-2020 20:56:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016133-004
Misc. Info.: LCS
Operator ID: ljg30941 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 23:49:27 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1676

First Level Reviewer: greenl Date: 20-Nov-2020 21:26:07

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.044	2.050	-0.006	99	133751	20.0	16.0	
4 Chloromethane	50	2.251	2.256	-0.005	99	134971	20.0	18.1	
5 Butadiene	39	2.366	2.372	-0.006	88	143870	20.0	22.4	
6 Vinyl chloride	62	2.366	2.372	-0.006	89	138834	20.0	18.4	
8 Bromomethane	94	2.701	2.713	-0.012	91	126979	20.0	19.4	
9 Chloroethane	64	2.786	2.792	-0.006	99	92135	20.0	19.1	
11 Trichlorofluoromethane	101	3.102	3.114	-0.012	98	236779	20.0	18.2	
12 Pentane	43	3.145	3.151	-0.006	96	140417	20.0	15.4	
14 Ethyl ether	59	3.358	3.364	-0.006	85	151559	20.0	25.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.431	3.443	-0.012	84	153826	20.0	21.1	
16 Acrolein	56	3.522	3.528	-0.006	99	382036	150.0	156.3	
17 1,1-Dichloroethene	96	3.674	3.686	-0.012	97	106435	20.0	19.6	
18 Acetone	58	3.692	3.704	-0.012	100	179121	150.0	170.4	
19 112TCTFE	101	3.705	3.717	-0.012	88	99000	20.0	17.1	
20 Isopropyl alcohol	45	3.875	3.875	0.000	52	90547	150.0	128.7	
21 Iodomethane	142	3.887	3.899	-0.012	98	208082	20.0	18.6	
22 Carbon disulfide	76	4.003	4.015	-0.012	99	294248	20.0	17.0	
24 Methyl acetate	43	4.130	4.130	0.000	97	178492	20.0	22.0	
25 3-Chloro-1-propene	41	4.161	4.173	-0.012	89	156009	20.0	17.7	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.367	-0.018	0	323192	250.0	250.0	
27 Methylene Chloride	84	4.356	4.367	-0.011	89	125914	20.0	20.9	
28 2-Methyl-2-propanol	59	4.483	4.489	-0.006	98	314400	200.0	205.7	
30 Acrylonitrile	53	4.672	4.678	-0.006	99	426567	100.0	107.6	
31 Methyl tert-butyl ether	73	4.769	4.781	-0.012	95	371709	20.0	17.6	
32 trans-1,2-Dichloroethene	96	4.787	4.793	-0.006	98	129471	20.0	20.6	
33 Hexane	57	5.213	5.219	-0.006	92	141845	20.0	15.9	
35 1,1-Dichloroethane	63	5.432	5.438	-0.006	96	212318	20.0	20.3	
36 Isopropyl ether	45	5.493	5.499	-0.006	90	333919	20.0	17.8	
37 2-Chloro-1,3-butadiene	53	5.542	5.548	-0.006	91	163214	20.0	17.7	
38 Tert-butyl ethyl ether	59	6.028	6.034	-0.006	95	331990	20.0	17.0	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	99	950441	150.0	166.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.259	0.001	80	158553	20.0	22.0	
43 2,2-Dichloropropane	77	6.272	6.278	-0.006	88	187747	20.0	19.3	
44 Propionitrile	54	6.290	6.296	-0.006	99	286074	150.0	170.4	
45 Methacrylonitrile	67	6.515	6.521	-0.006	90	756781	150.0	166.0	
46 Chlorobromomethane	128	6.594	6.600	-0.006	83	87738	20.0	21.8	
47 Tetrahydrofuran	71	6.613	6.618	-0.005	88	197025	100.0	113.9	
48 Chloroform	83	6.734	6.740	-0.006	93	237977	20.0	21.3	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	287201	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.978	6.983	-0.005	98	205105	20.0	20.0	
51 Cyclohexane	56	7.087	7.093	-0.006	89	167508	20.0	16.7	
52 1,1-Dichloropropene	75	7.184	7.190	-0.006	96	175371	20.0	20.0	
53 Carbon tetrachloride	117	7.197	7.196	0.001	95	186405	20.0	20.0	
54 Isobutyl alcohol	41	7.306	7.306	0.000	93	271552	500.0	566.3	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.415	0.001	0	69342	50.0	50.8	
56 Benzene	78	7.446	7.452	-0.006	96	530943	20.0	21.0	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	202722	20.0	20.5	
59 Tert-amyl methyl ether	73	7.641	7.640	0.001	98	375103	20.0	18.5	
* 61 Fluorobenzene (IS)	96	7.847	7.853	-0.006	98	1131106	50.0	50.0	
62 n-Heptane	43	7.866	7.866	0.000	90	161262	20.0	15.9	
63 n-Butanol	56	8.182	8.182	0.000	89	499384	1000.0	1073.6	
64 Trichloroethene	95	8.334	8.334	0.000	95	147807	20.0	21.0	
65 Methylcyclohexane	83	8.657	8.656	0.001	91	217980	20.0	18.3	
66 1,2-Dichloropropane	63	8.663	8.669	-0.006	80	137016	20.0	20.8	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	95	210040	20.0	19.4	
68 Methyl methacrylate	69	8.736	8.735	0.001	87	147903	20.0	20.4	
69 1,4-Dioxane	88	8.748	8.754	-0.006	88	73384	500.0	616.6	
70 Dibromomethane	93	8.778	8.778	0.000	95	103140	20.0	21.2	
72 Dichlorobromomethane	83	9.003	9.003	0.000	99	174322	20.0	20.4	
73 2-Nitropropane	41	9.247	9.253	-0.006	99	66641	20.0	18.6	
74 2-Chloroethyl vinyl ether	63	9.350	9.356	-0.006	93	97184	20.0	28.9	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	96	218521	20.0	19.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1211998	100.0	109.2	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1166600	50.0	50.5	
78 Toluene	92	9.922	9.922	0.000	98	369374	20.0	21.0	
81 trans-1,3-Dichloropropene	75	10.165	10.171	-0.006	91	210590	20.0	19.2	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	206336	20.0	17.5	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	153933	20.0	21.9	
84 Tetrachloroethene	166	10.470	10.475	-0.005	98	185431	20.0	20.6	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	239344	20.0	20.3	
87 2-Hexanone	43	10.573	10.573	0.000	96	1039584	100.0	112.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	165423	20.0	20.7	
90 Ethylene Dibromide	107	10.871	10.871	0.000	98	169315	20.0	20.8	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	949859	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	94	190113	20.0	18.1	
94 Chlorobenzene	112	11.315	11.321	-0.006	97	463116	20.0	21.5	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	94	157536	20.0	20.1	
96 Ethylbenzene	91	11.400	11.400	0.000	97	710834	20.0	20.7	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	605521	40.0	42.2	
98 o-Xylene	106	11.844	11.844	0.000	95	279204	20.0	19.7	
99 Styrene	104	11.857	11.856	0.001	94	469014	20.0	20.2	
100 Bromoform	173	12.021	12.021	0.000	98	126026	20.0	19.2	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	707808	20.0	20.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	92	226097	500.0	417.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	435482	50.0	49.2	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	248704	20.0	20.6	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	383611	100.0	91.2	
107 Bromobenzene	156	12.404	12.404	0.000	80	231265	20.0	20.9	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	91565	20.0	21.1	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	842562	20.0	20.2	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	192992	20.0	20.0	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	626807	20.0	19.6	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	210614	20.0	20.6	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	140956	20.0	18.9	
115 Pentachloroethane	167	12.885	12.884	0.001	90	124727	20.0	20.7	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	654841	20.0	19.5	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	789100	20.0	19.3	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	423532	20.0	20.7	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	736633	20.0	19.7	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	93	556233	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	445627	20.0	21.0	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	708951	20.0	20.9	
123 Benzyl chloride	91	13.256	13.256	0.000	98	508956	20.0	19.6	
124 1,3-Diethylbenzene	119	13.317	13.316	0.001	95	437465	20.0	19.4	
125 p-Diethylbenzene	119	13.390	13.389	0.001	96	474871	20.0	19.9	
126 n-Butylbenzene	92	13.408	13.408	0.000	97	346755	20.0	18.9	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	412310	20.0	20.7	
128 o-diethylbenzene	119	13.463	13.462	0.001	94	371205	20.0	19.7	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	61001	20.0	17.9	
131 1,3,5-Trichlorobenzene	180	14.120	14.119	0.001	98	310528	20.0	18.8	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	279854	20.0	18.3	
133 Hexachlorobutadiene	225	14.625	14.624	0.001	98	130488	20.0	17.7	
134 Naphthalene	128	14.722	14.722	0.000	96	874446	20.0	18.9	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	95	270055	20.0	18.6	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	477880	20.0	16.4	

QC Flag Legend

Processing Flags

Reagents:

MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 23:49:39 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16133.b\YN20L50.D

Injection Date: 20-Nov-2020 20:56:30 Instrument ID: 9355 Operator ID: ljg30941

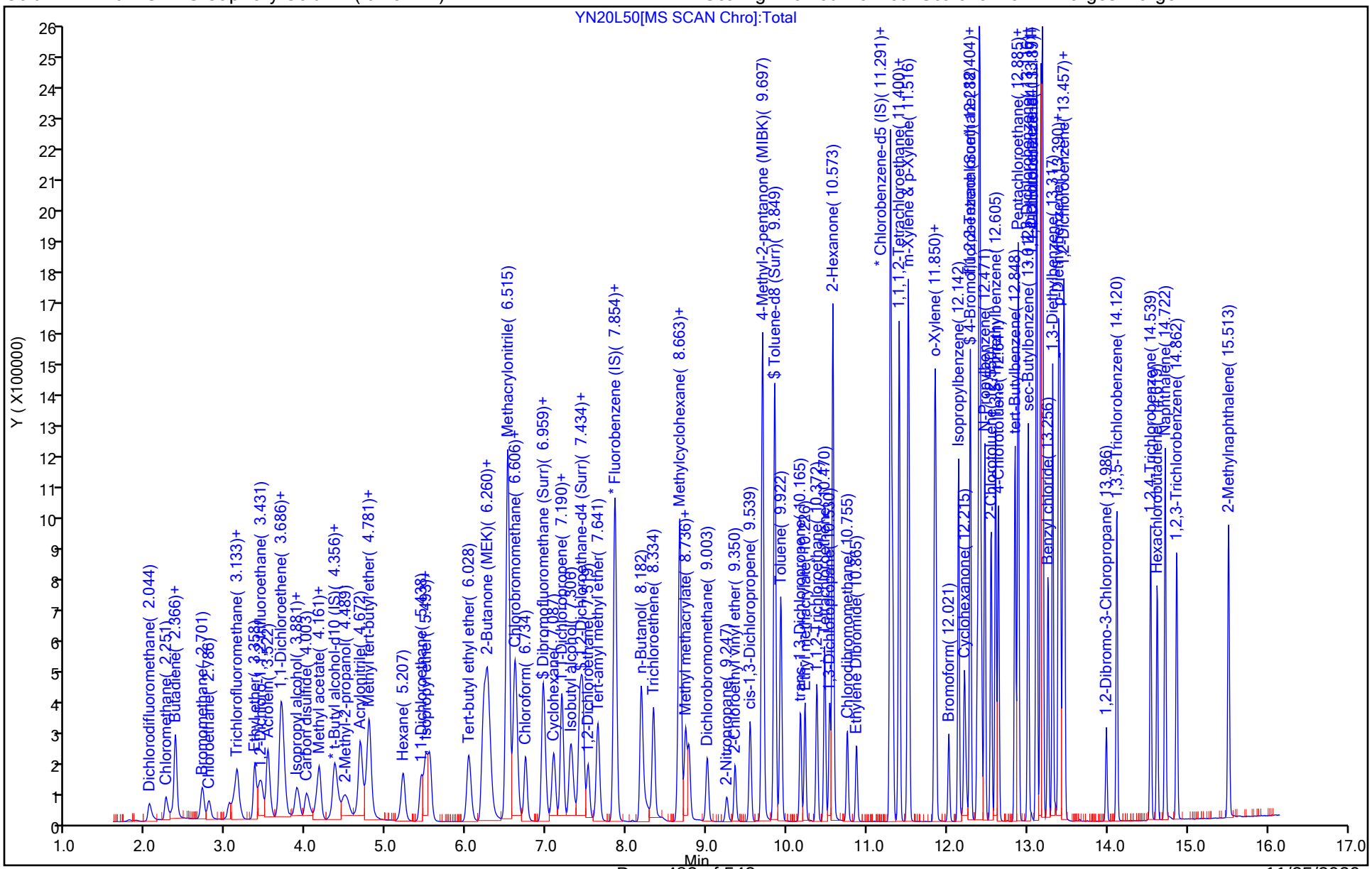
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-68925/6

Matrix: Water Lab File ID: YN21L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/21/2020 10:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68925 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	18.8		1.0	0.30
75-34-3	1,1-Dichloroethane	19.1		1.0	0.20
75-35-4	1,1-Dichloroethene	18.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	19.6		5.0	0.20
107-06-2	1,2-Dichloroethane	19.8		1.0	0.30
123-91-1	1,4-Dioxane	593		250	29
78-93-3	2-Butanone	162		10	0.30
67-64-1	Acetone	172		20	0.70
71-43-2	Benzene	20.3		1.0	0.20
75-15-0	Carbon disulfide	16.0		5.0	0.20
67-66-3	Chloroform	20.2		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	20.9		1.0	0.20
100-41-4	Ethylbenzene	19.8		1.0	0.40
76-13-1	Freon 113	16.9		10	0.20
75-09-2	Methylene Chloride	19.9		1.0	0.30
91-20-3	Naphthalene	16.9		5.0	1.0
127-18-4	Tetrachloroethene	19.8		1.0	0.20
108-88-3	Toluene	20.1		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	19.7		1.0	0.20
79-01-6	Trichloroethene	20.0		1.0	0.20
75-01-4	Vinyl chloride	16.7		1.0	0.20
1330-20-7	Xylenes, Total	59.3		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	102		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 21-Nov-2020 10:27:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016167-006
Misc. Info.: LCS
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 21-Nov-2020 12:03:50 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1616

First Level Reviewer: mellingerc Date: 21-Nov-2020 11:05:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.044	2.050	-0.006	99	123695	20.0	14.8	
4 Chloromethane	50	2.251	2.257	-0.007	99	125799	20.0	17.0	
5 Butadiene	39	2.372	2.378	-0.006	88	144484	20.0	22.6	
6 Vinyl chloride	62	2.366	2.378	-0.012	87	125728	20.0	16.7	
8 Bromomethane	94	2.707	2.719	-0.012	90	113710	20.0	17.5	
9 Chloroethane	64	2.798	2.804	-0.006	99	81311	20.0	17.0	
11 Trichlorofluoromethane	101	3.108	3.114	-0.006	98	221750	20.0	17.1	
12 Pentane	43	3.145	3.151	-0.006	97	147685	20.0	16.3	
14 Ethyl ether	59	3.358	3.364	-0.006	86	135197	20.0	22.6	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.437	3.449	-0.012	87	145744	20.0	20.1	
16 Acrolein	56	3.522	3.528	-0.006	99	316735	150.0	133.1	
17 1,1-Dichloroethene	96	3.674	3.686	-0.012	97	100179	20.0	18.6	
18 Acetone	58	3.692	3.698	-0.006	100	176430	150.0	172.5	
19 112TCTFE	101	3.717	3.729	-0.012	90	97255	20.0	16.9	
20 Isopropyl alcohol	45	3.863	3.875	-0.012	98	79722	150.0	116.5	
21 Iodomethane	142	3.893	3.899	-0.006	99	191594	20.0	17.2	
22 Carbon disulfide	76	4.009	4.015	-0.006	99	275536	20.0	16.0	
24 Methyl acetate	43	4.130	4.136	-0.006	97	166395	20.0	20.6	
25 3-Chloro-1-propene	41	4.167	4.173	-0.006	89	144223	20.0	16.4	
* 26 t-Butyl alcohol-d10 (IS)	65	4.349	4.368	-0.019	0	314449	250.0	250.0	M
27 Methylene Chloride	84	4.355	4.368	-0.013	89	119113	20.0	19.9	
28 2-Methyl-2-propanol	59	4.477	4.495	-0.018	97	252861	200.0	170.0	
30 Acrylonitrile	53	4.672	4.690	-0.018	99	413224	100.0	104.8	
31 Methyl tert-butyl ether	73	4.769	4.781	-0.012	95	353903	20.0	16.8	
32 trans-1,2-Dichloroethene	96	4.787	4.800	-0.013	97	123136	20.0	19.7	
33 Hexane	57	5.207	5.219	-0.012	93	144255	20.0	16.2	
35 1,1-Dichloroethane	63	5.432	5.438	-0.006	96	199270	20.0	19.1	
36 Isopropyl ether	45	5.493	5.499	-0.006	91	316218	20.0	16.9	
37 2-Chloro-1,3-butadiene	53	5.548	5.554	-0.006	91	158321	20.0	17.2	
38 Tert-butyl ethyl ether	59	6.028	6.035	-0.007	95	307691	20.0	15.9	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	99	920107	150.0	161.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.260	0.000	80	149999	20.0	20.9	
43 2,2-Dichloropropane	77	6.278	6.284	-0.006	77	171941	20.0	17.7	
44 Propionitrile	54	6.290	6.296	-0.006	99	270658	150.0	165.7	
45 Methacrylonitrile	67	6.515	6.521	-0.006	90	731903	150.0	161.4	
46 Chlorobromomethane	128	6.594	6.600	-0.006	85	80921	20.0	20.2	
47 Tetrahydrofuran	71	6.619	6.619	0.000	87	186972	100.0	111.1	
48 Chloroform	83	6.734	6.740	-0.006	93	224843	20.0	20.2	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	284197	50.0	50.2	
50 1,1,1-Trichloroethane	97	6.977	6.978	-0.001	98	192100	20.0	18.8	
51 Cyclohexane	56	7.087	7.093	-0.006	89	164815	20.0	16.5	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	97	167735	20.0	19.2	
53 Carbon tetrachloride	117	7.196	7.197	-0.001	97	176993	20.0	19.1	
54 Isobutyl alcohol	41	7.306	7.306	0.000	92	252454	500.0	541.2	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.409	7.416	-0.007	0	69320	50.0	51.0	
56 Benzene	78	7.452	7.452	0.000	96	509104	20.0	20.3	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	194697	20.0	19.8	
59 Tert-amyl methyl ether	73	7.641	7.647	-0.006	97	347566	20.0	17.2	
* 61 Fluorobenzene (IS)	96	7.853	7.854	-0.001	98	1125590	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	89	168576	20.0	16.7	
63 n-Butanol	56	8.182	8.182	0.000	89	474001	1000.0	1047.4	
64 Trichloroethene	95	8.334	8.334	0.000	96	140210	20.0	20.0	
65 Methylcyclohexane	83	8.657	8.657	0.000	92	212031	20.0	17.9	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	74	132548	20.0	20.3	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	94	196375	20.0	18.3	
68 Methyl methacrylate	69	8.736	8.736	0.000	88	135543	20.0	18.8	
69 1,4-Dioxane	88	8.754	8.754	0.000	90	68657	500.0	592.9	M
70 Dibromomethane	93	8.778	8.778	0.000	96	99546	20.0	20.6	
72 Dichlorobromomethane	83	9.003	9.003	0.000	99	164761	20.0	19.4	
73 2-Nitropropane	41	9.253	9.247	0.006	100	61550	20.0	17.6	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	93	96694	20.0	28.9	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	96	206022	20.0	18.8	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1171197	100.0	106.0	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1174402	50.0	50.9	
78 Toluene	92	9.922	9.928	-0.006	98	351997	20.0	20.1	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	92	200571	20.0	18.3	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	209224	20.0	17.8	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	149006	20.0	21.3	
84 Tetrachloroethene	166	10.469	10.476	-0.007	98	177950	20.0	19.8	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	90	229801	20.0	19.6	
87 2-Hexanone	43	10.573	10.573	0.000	96	1016306	100.0	110.0	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	157229	20.0	19.7	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	161983	20.0	19.9	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	947943	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	95	184677	20.0	17.7	
94 Chlorobenzene	112	11.321	11.321	0.000	97	446292	20.0	20.7	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	94	149734	20.0	19.1	
96 Ethylbenzene	91	11.400	11.400	0.000	97	681355	20.0	19.8	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	579789	40.0	40.4	
98 o-Xylene	106	11.844	11.844	0.000	95	266264	20.0	18.9	
99 Styrene	104	11.856	11.857	-0.001	94	449950	20.0	19.4	
100 Bromoform	173	12.021	12.021	0.000	97	118449	20.0	18.0	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	673663	20.0	19.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	216140	500.0	409.9	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	435561	50.0	49.3	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	236697	20.0	19.4	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	362719	100.0	85.3	
107 Bromobenzene	156	12.404	12.404	0.000	81	222883	20.0	19.9	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	88975	20.0	20.3	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	824413	20.0	19.5	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	185520	20.0	19.0	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	598353	20.0	18.5	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	201750	20.0	19.5	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	134435	20.0	17.8	
115 Pentachloroethane	167	12.885	12.885	0.000	92	114221	20.0	18.8	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	627514	20.0	18.5	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	759928	20.0	18.4	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	97	408477	20.0	19.8	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	702172	20.0	18.6	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	562111	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	433380	20.0	20.2	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	662858	20.0	19.3	
123 Benzyl chloride	91	13.256	13.256	0.000	98	487067	20.0	18.6	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	417820	20.0	18.3	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	449812	20.0	18.7	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	334831	20.0	18.1	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	394216	20.0	19.6	
128 o-diethylbenzene	119	13.463	13.463	0.000	94	351332	20.0	18.4	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	56588	20.0	16.4	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	293117	20.0	17.6	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	258865	20.0	16.7	
133 Hexachlorobutadiene	225	14.618	14.618	0.000	98	124756	20.0	16.8	
134 Naphthalene	128	14.722	14.722	0.000	96	793765	20.0	16.9	
135 1,2,3-Trichlorobenzene	180	14.862	14.868	-0.006	95	245840	20.0	16.8	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	416867	20.0	14.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00054	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00104	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 21-Nov-2020 12:04:04 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21L01.D

Injection Date: 21-Nov-2020 10:27:30 Instrument ID: 9355 Operator ID: clm27445

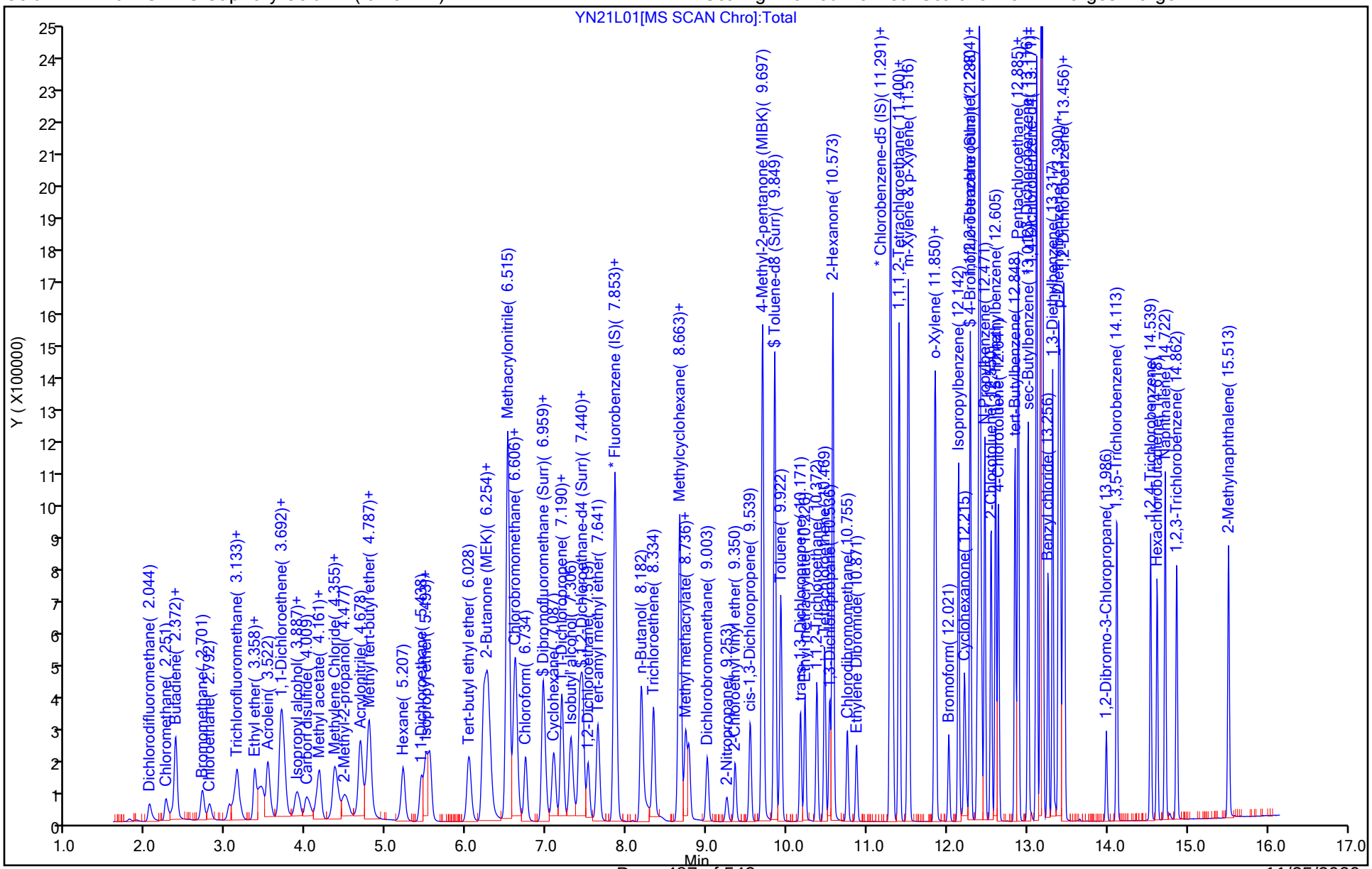
Lims ID: LCS Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

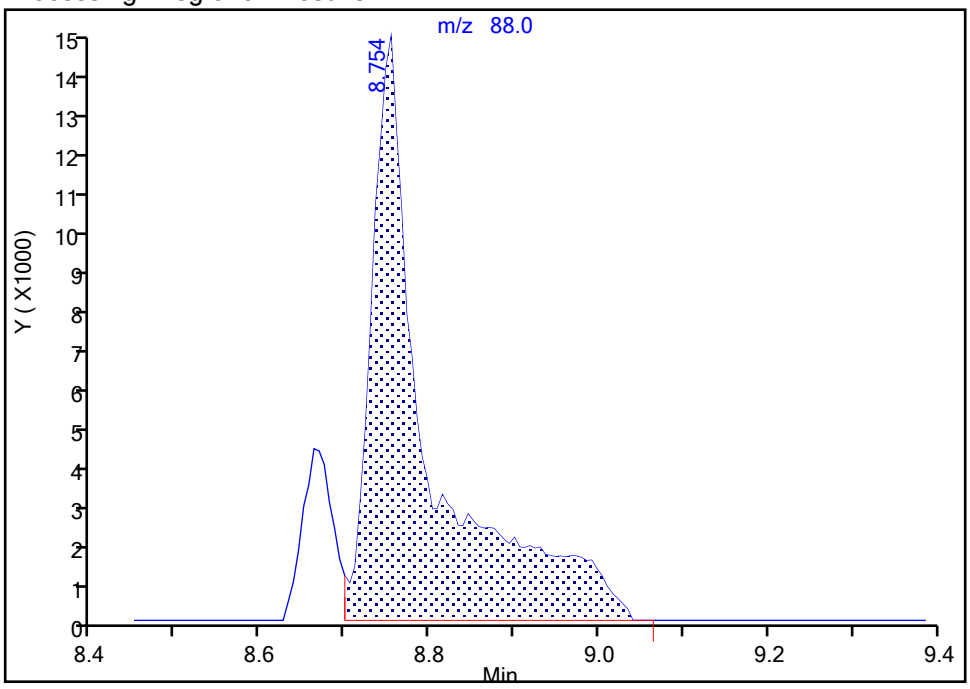
Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21L01.D
Injection Date: 21-Nov-2020 10:27:30 Instrument ID: 9355
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

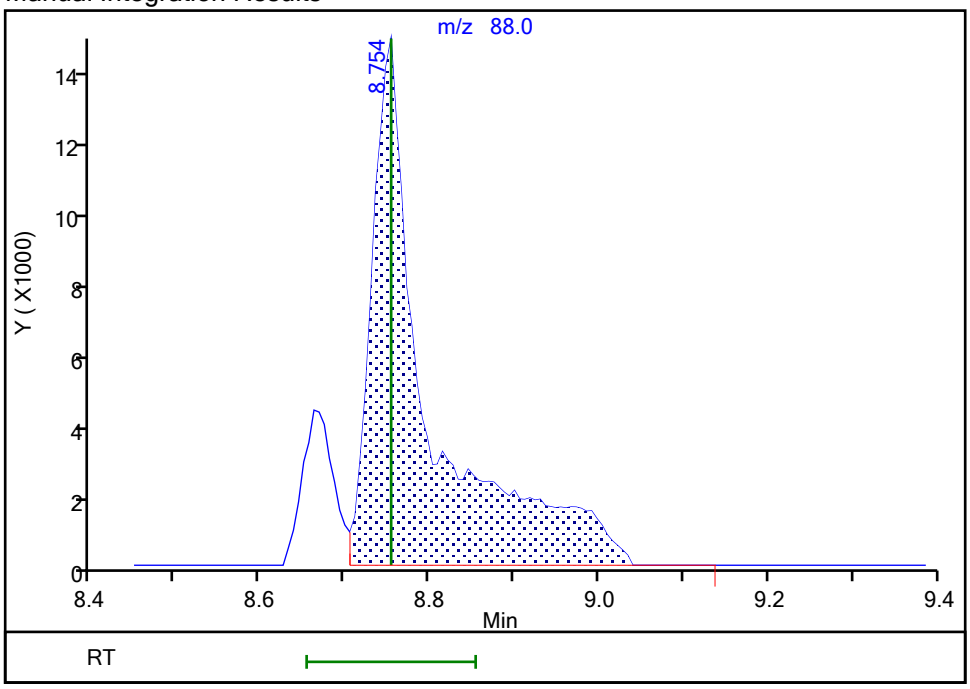
Processing Integration Results

RT: 8.75
Area: 69061
Amount: 596.3739
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 68657
Amount: 592.8852
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 11:05:18
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

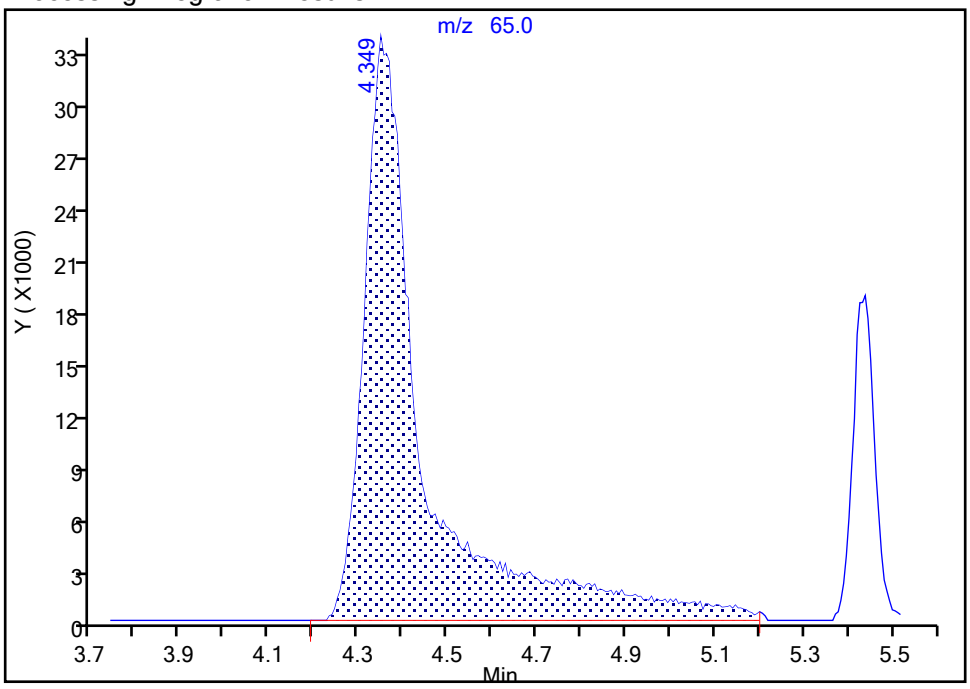
Data File: \\chromfs\Lancaster\ChromData\9355\20201121-16167.b\YN21L01.D
Injection Date: 21-Nov-2020 10:27:30 Instrument ID: 9355
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

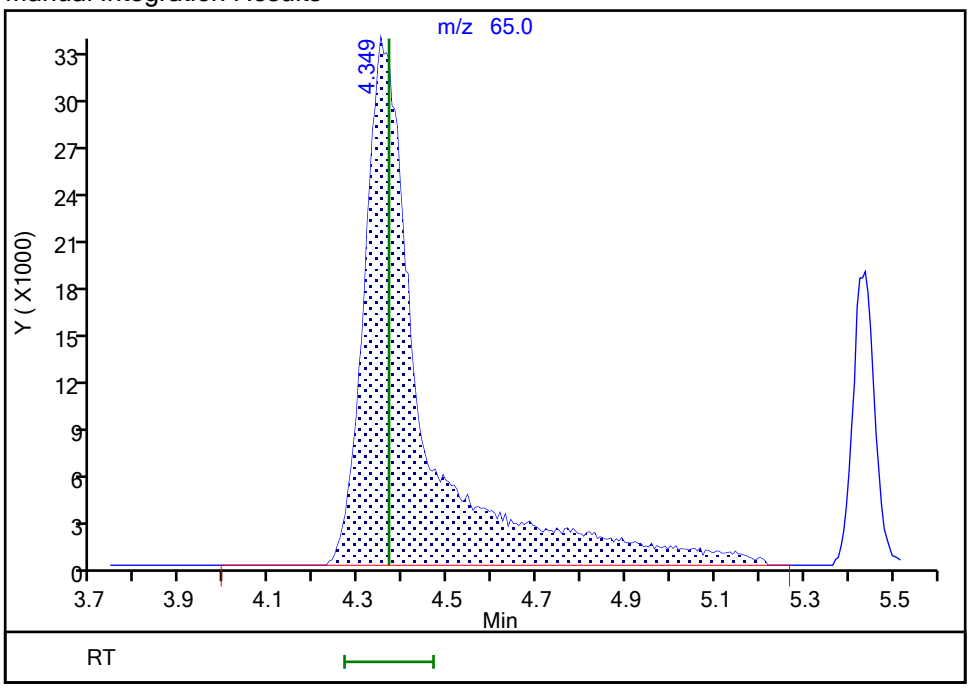
Processing Integration Results

RT: 4.35
Area: 314196
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.35
Area: 314449
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 21-Nov-2020 11:04:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-69288/6

Matrix: Water Lab File ID: YN23L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 10:54

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	17.9		1.0	0.30
75-34-3	1,1-Dichloroethane	18.6		1.0	0.20
75-35-4	1,1-Dichloroethene	17.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	18.9		5.0	0.20
107-06-2	1,2-Dichloroethane	19.5		1.0	0.30
123-91-1	1,4-Dioxane	575		250	29
78-93-3	2-Butanone	163		10	0.30
67-64-1	Acetone	162		20	0.70
71-43-2	Benzene	19.3		1.0	0.20
75-15-0	Carbon disulfide	15.4		5.0	0.20
67-66-3	Chloroform	19.6		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	20.0		1.0	0.20
100-41-4	Ethylbenzene	18.7		1.0	0.40
76-13-1	Freon 113	15.3		10	0.20
75-09-2	Methylene Chloride	18.9		1.0	0.30
91-20-3	Naphthalene	16.6		5.0	1.0
127-18-4	Tetrachloroethene	18.8		1.0	0.20
108-88-3	Toluene	19.1		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	18.7		1.0	0.20
79-01-6	Trichloroethene	19.1		1.0	0.20
75-01-4	Vinyl chloride	16.8		1.0	0.20
1330-20-7	Xylenes, Total	56.6		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 23-Nov-2020 10:54:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-006
Misc. Info.: LCS
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 12:46:38 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1633

First Level Reviewer: mellingerc Date: 23-Nov-2020 11:37:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.044	2.056	-0.012	99	125623	20.0	13.9	
4 Chloromethane	50	2.251	2.257	-0.006	99	131449	20.0	16.3	
6 Vinyl chloride	62	2.366	2.372	-0.006	98	137503	20.0	16.8	
5 Butadiene	39	2.372	2.384	-0.012	90	137067	20.0	19.8	
8 Bromomethane	94	2.701	2.719	-0.018	90	127267	20.0	18.0	
9 Chloroethane	64	2.798	2.810	-0.012	99	90131	20.0	17.3	
11 Trichlorofluoromethane	101	3.108	3.120	-0.012	97	224894	20.0	16.0	
12 Pentane	43	3.145	3.157	-0.012	96	155829	20.0	15.8	
14 Ethyl ether	59	3.358	3.370	-0.012	86	155878	20.0	24.0	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.431	3.455	-0.024	87	135536	20.0	17.2	
16 Acrolein	56	3.528	3.534	-0.006	99	351899	150.0	127.8	
17 1,1-Dichloroethene	96	3.686	3.692	-0.006	53	103263	20.0	17.6	
18 Acetone	58	3.692	3.698	-0.006	100	191844	150.0	162.1	
19 112TCTFE	101	3.723	3.735	-0.012	90	95519	20.0	15.3	
20 Isopropyl alcohol	45	3.869	3.881	-0.012	97	119795	150.0	151.2	
21 Iodomethane	142	3.905	3.905	0.000	98	205828	20.0	17.0	
22 Carbon disulfide	76	4.015	4.021	-0.006	99	287650	20.0	15.4	
24 Methyl acetate	43	4.130	4.136	-0.006	97	170877	20.0	19.5	
25 3-Chloro-1-propene	41	4.167	4.179	-0.012	90	149549	20.0	15.7	
* 26 t-Butyl alcohol-d10 (IS)	65	4.362	4.374	-0.012	0	363937	250.0	250.0	M
27 Methylene Chloride	84	4.368	4.374	-0.006	89	123057	20.0	18.9	
28 2-Methyl-2-propanol	59	4.502	4.495	0.007	97	354845	200.0	206.1	
30 Acrylonitrile	53	4.678	4.690	-0.012	98	443203	100.0	103.4	
31 Methyl tert-butyl ether	73	4.781	4.787	-0.006	95	381051	20.0	16.7	
32 trans-1,2-Dichloroethene	96	4.794	4.800	-0.006	97	127079	20.0	18.7	
33 Hexane	57	5.213	5.219	-0.006	92	148537	20.0	15.4	
35 1,1-Dichloroethane	63	5.432	5.444	-0.012	96	210301	20.0	18.6	
36 Isopropyl ether	45	5.499	5.505	-0.006	91	336086	20.0	16.5	
37 2-Chloro-1,3-butadiene	53	5.548	5.554	-0.006	91	164061	20.0	16.4	
38 Tert-butyl ethyl ether	59	6.035	6.041	-0.006	96	334732	20.0	15.9	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	98	1005912	150.0	162.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	80	155979	20.0	20.0	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	83	175482	20.0	16.6	
44 Propionitrile	54	6.296	6.296	0.000	99	309784	150.0	163.9	
45 Methacrylonitrile	67	6.521	6.521	0.000	89	785667	150.0	159.4	
46 Chlorobromomethane	128	6.594	6.600	-0.006	82	86438	20.0	19.8	
47 Tetrahydrofuran	71	6.619	6.625	-0.006	87	207236	100.0	106.4	
48 Chloroform	83	6.740	6.740	0.000	93	236956	20.0	19.6	
$ 49 Dibromofluoromethane (Surr)	113	6.953	6.959	-0.006	94	308840	50.0	50.2	
50 1,1,1-Trichloroethane	97	6.978	6.984	-0.006	97	198068	20.0	17.9	
51 Cyclohexane	56	7.087	7.099	-0.012	89	164702	20.0	15.2	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	95	172974	20.0	18.2	
53 Carbon tetrachloride	117	7.203	7.203	0.000	95	180618	20.0	17.9	
54 Isobutyl alcohol	41	7.312	7.312	0.000	96	295953	500.0	548.1	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.415	0.001	0	75408	50.0	51.1	
56 Benzene	78	7.452	7.458	-0.006	96	527758	20.0	19.3	
58 1,2-Dichloroethane	62	7.519	7.525	-0.006	98	208053	20.0	19.5	
59 Tert-amyl methyl ether	73	7.641	7.647	-0.006	98	372260	20.0	17.0	
* 61 Fluorobenzene (IS)	96	7.854	7.853	0.001	99	1223079	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	90	169722	20.0	15.5	
63 n-Butanol	56	8.182	8.188	-0.006	89	540272	1000.0	1031.5	
64 Trichloroethene	95	8.334	8.340	-0.006	96	145711	20.0	19.1	
65 Methylcyclohexane	83	8.657	8.657	0.000	92	201514	20.0	15.7	
66 1,2-Dichloropropane	63	8.663	8.669	-0.006	76	138889	20.0	19.5	
67 2-ethoxy-2-methyl butane	87	8.669	8.675	-0.006	97	211765	20.0	18.1	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	152788	20.0	19.5	
69 1,4-Dioxane	88	8.748	8.754	-0.006	88	77030	500.0	574.7	M
70 Dibromomethane	93	8.778	8.778	0.000	93	104944	20.0	19.9	
72 Dichlorobromomethane	83	9.003	9.009	-0.006	99	177310	20.0	19.2	
73 2-Nitropropane	41	9.247	9.253	-0.006	99	71405	20.0	17.7	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	93	100393	20.0	27.6	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	96	222468	20.0	18.7	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1252590	100.0	104.4	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1278909	50.0	50.4	
78 Toluene	92	9.922	9.928	-0.006	98	368570	20.0	19.1	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	221286	20.0	18.4	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	230690	20.0	17.9	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	159099	20.0	20.6	
84 Tetrachloroethene	166	10.470	10.476	-0.006	98	185040	20.0	18.8	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	247213	20.0	19.1	
87 2-Hexanone	43	10.573	10.573	0.000	96	1090406	100.0	107.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	171801	20.0	19.6	
90 Ethylene Dibromide	107	10.865	10.871	-0.006	99	174709	20.0	19.6	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	84	1042347	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	194937	20.0	16.9	
94 Chlorobenzene	112	11.321	11.321	0.000	97	468787	20.0	19.8	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	94	157500	20.0	18.3	
96 Ethylbenzene	91	11.400	11.400	0.000	97	707295	20.0	18.7	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	607940	40.0	38.6	
98 o-Xylene	106	11.844	11.844	0.000	95	279031	20.0	18.0	
99 Styrene	104	11.857	11.857	0.001	95	477452	20.0	18.7	
100 Bromoform	173	12.021	12.021	0.000	98	130222	20.0	18.0	
101 Isopropylbenzene	105	12.143	12.142	0.000	95	699833	20.0	18.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.216	12.215	0.001	91	245336	500.0	402.0	
$ 104 4-Bromofluorobenzene (Surr)	95	12.289	12.288	0.000	96	483949	50.0	49.8	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	250254	20.0	19.0	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	415691	100.0	90.5	
107 Bromobenzene	156	12.404	12.404	0.000	78	236602	20.0	19.6	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	93157	20.0	19.6	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	842989	20.0	18.5	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	191977	20.0	18.2	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	620096	20.0	17.7	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	212065	20.0	19.0	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	140498	20.0	17.3	
115 Pentachloroethane	167	12.885	12.885	0.000	91	121128	20.0	18.5	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	655226	20.0	17.9	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	777984	20.0	17.4	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	424730	20.0	19.1	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	97	726439	20.0	17.8	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.170	0.001	94	607068	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	449942	20.0	19.5	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	699410	20.0	18.9	
123 Benzyl chloride	91	13.256	13.256	0.000	98	537967	20.0	19.0	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	434620	20.0	17.7	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	469849	20.0	18.0	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	343309	20.0	17.1	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	409909	20.0	18.9	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	369406	20.0	18.0	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	61052	20.0	16.4	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	304269	20.0	16.9	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	271523	20.0	16.2	
133 Hexachlorobutadiene	225	14.625	14.625	0.000	98	126209	20.0	15.7	
134 Naphthalene	128	14.722	14.722	0.000	96	839156	20.0	16.6	
135 1,2,3-Trichlorobenzene	180	14.868	14.862	0.006	96	257983	20.0	16.3	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	456079	20.0	14.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00055	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00106	Amount Added: 50.00	Units: uL	
MSV_Q_EE_00003	Amount Added: 50.00	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 23-Nov-2020 12:46:48 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23L01.D

Injection Date: 23-Nov-2020 10:54:30 Instrument ID: 9355 Operator ID: clm27445

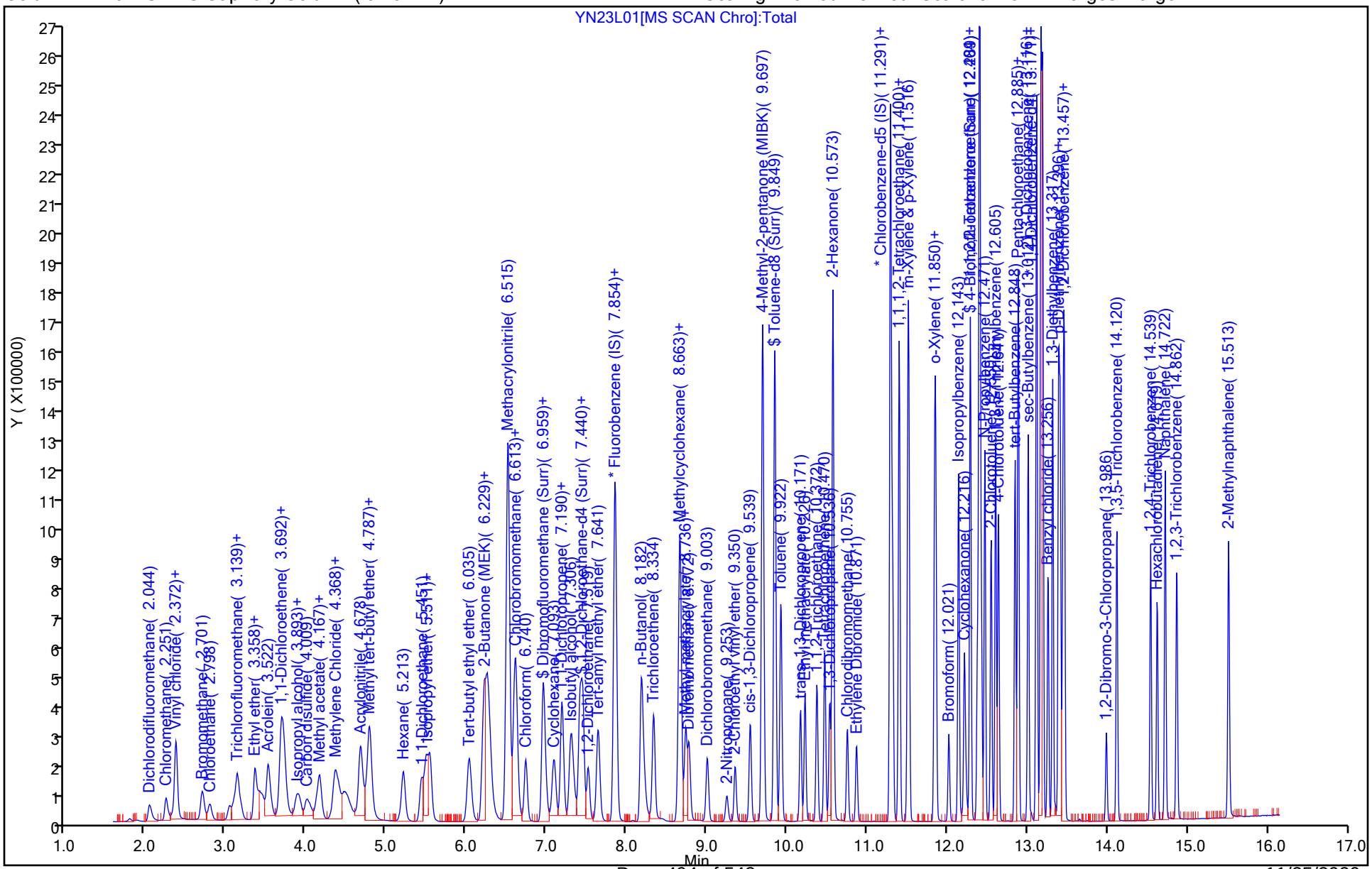
Lims ID: LCS Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

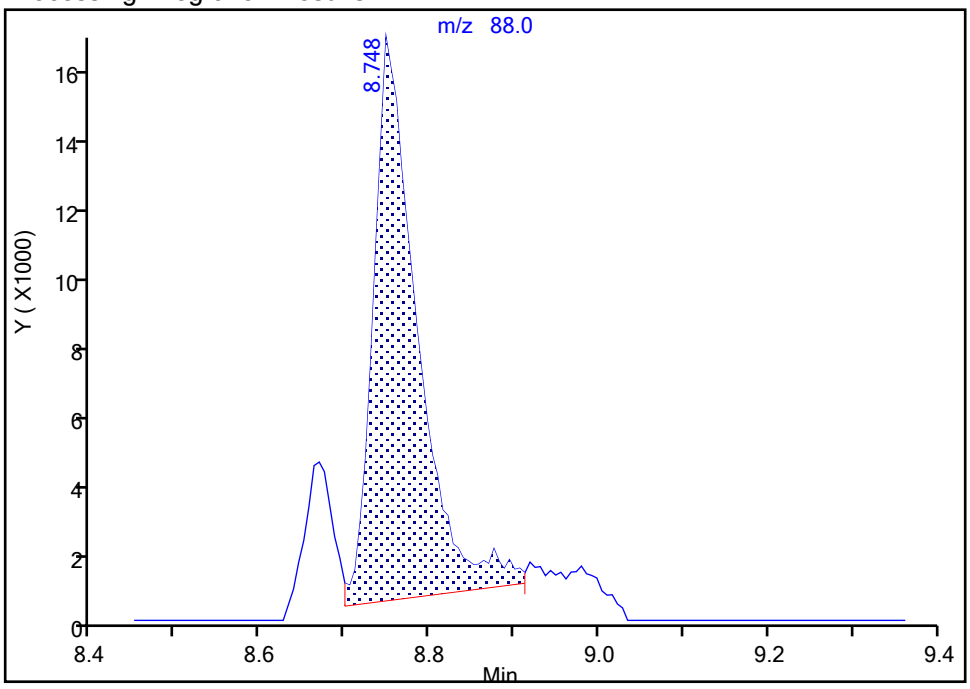
Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23L01.D
Injection Date: 23-Nov-2020 10:54:30 Instrument ID: 9355
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

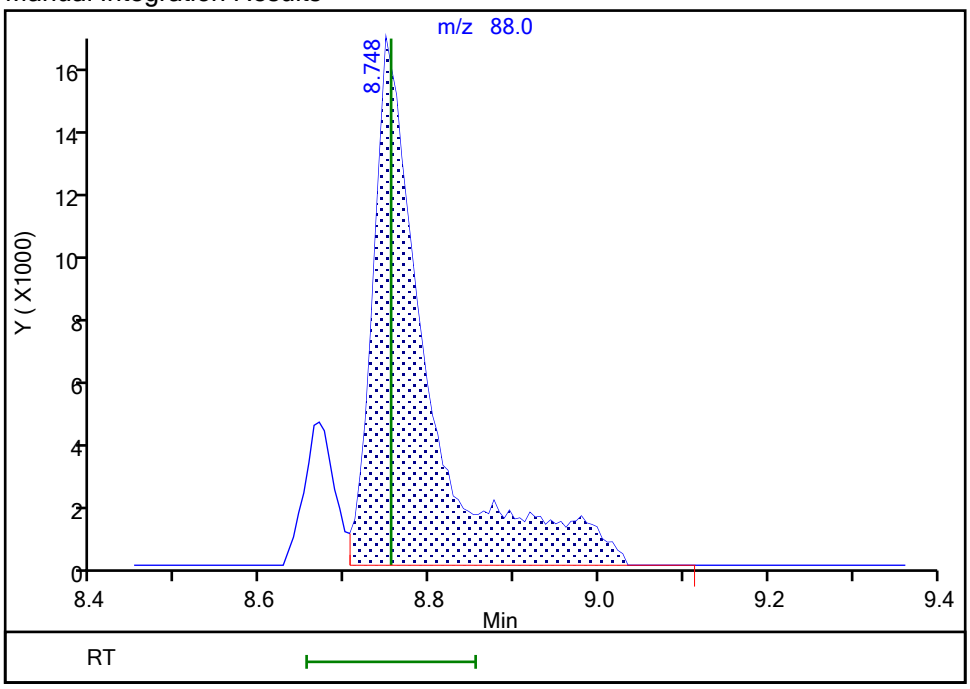
Processing Integration Results

RT: 8.75
Area: 59218
Amount: 441.8384
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 77030
Amount: 574.7377
Amount Units: ug/l



Reviewer: mellingerc, 23-Nov-2020 11:21:16
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

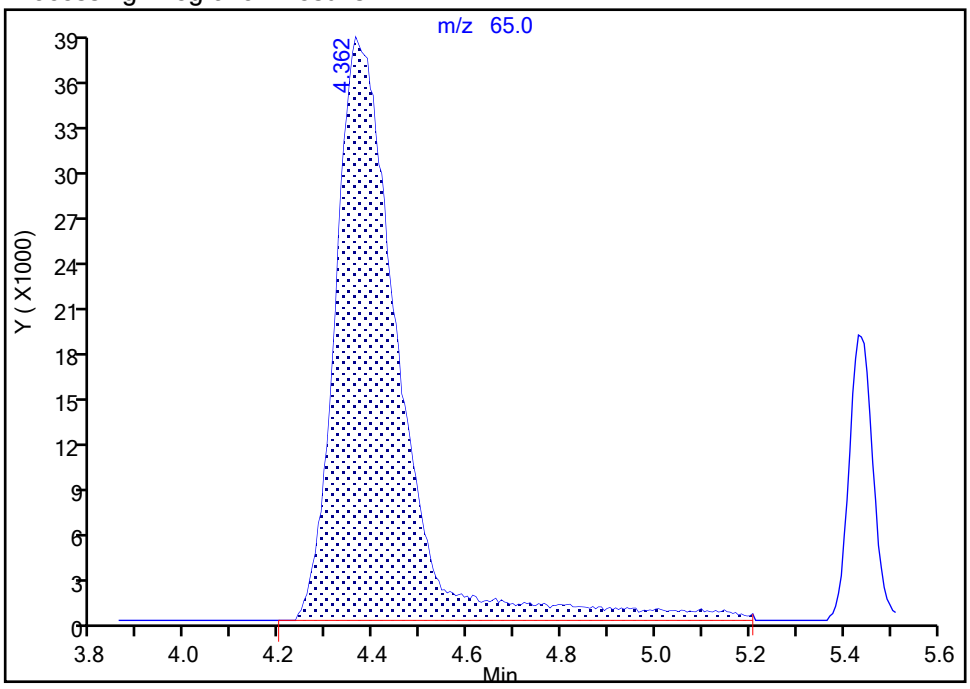
Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23L01.D
Injection Date: 23-Nov-2020 10:54:30 Instrument ID: 9355
Lims ID: LCS
Client ID:
Operator ID: clm27445 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_9355 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 26 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

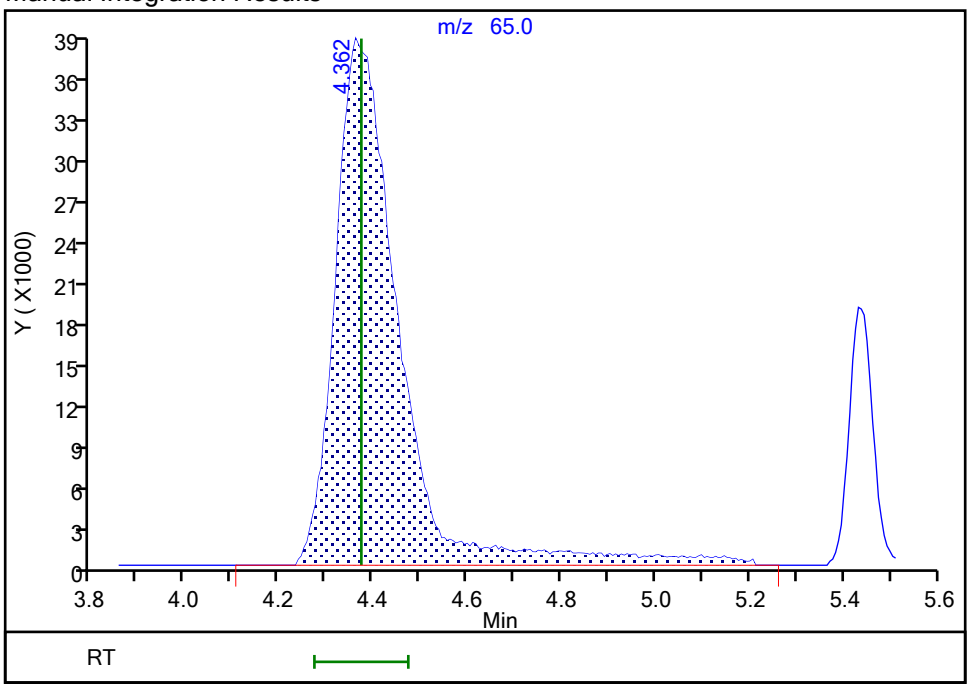
Processing Integration Results

RT: 4.36
Area: 363939
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 363937
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 23-Nov-2020 11:20:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-BR01 MS Lab Sample ID: 410-21210-5 MS

Matrix: Water Lab File ID: YN20S03.D

Analysis Method: 8260C Date Collected: 11/13/2020 09:58

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 12:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	26.6		1.0	0.30
75-34-3	1,1-Dichloroethane	22.2		1.0	0.20
75-35-4	1,1-Dichloroethene	22.8		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.2		5.0	0.20
107-06-2	1,2-Dichloroethane	20.8		1.0	0.30
123-91-1	1,4-Dioxane	614		250	29
78-93-3	2-Butanone	163		10	0.30
67-64-1	Acetone	172		20	0.70
71-43-2	Benzene	22.4		1.0	0.20
75-15-0	Carbon disulfide	19.6		5.0	0.20
67-66-3	Chloroform	22.5		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.5		1.0	0.20
100-41-4	Ethylbenzene	22.2		1.0	0.40
76-13-1	Freon 113	21.1		10	0.20
75-09-2	Methylene Chloride	22.2		1.0	0.30
91-20-3	Naphthalene	18.8		5.0	1.0
127-18-4	Tetrachloroethene	23.4		1.0	0.20
108-88-3	Toluene	22.6		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.8		1.0	0.20
79-01-6	Trichloroethene	23.0		1.0	0.20
75-01-4	Vinyl chloride	19.9		1.0	0.20
1330-20-7	Xylenes, Total	66.9		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	104		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S03.D
Lims ID: 410-21210-A-5 MS
Client ID: J14-BR01
Sample Type: MS
Inject. Date: 20-Nov-2020 12:25:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-010
Misc. Info.: 410-21210-A-5 MS
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:12:03 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:10:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.056	-0.006	99	170408	20.0	19.2	
4 Chloromethane	50	2.257	2.257	0.000	99	147707	20.0	18.7	
5 Butadiene	39	2.372	2.378	-0.006	89	175081	20.0	25.7	
6 Vinyl chloride	62	2.372	2.378	-0.006	86	159830	20.0	19.9	
8 Bromomethane	94	2.713	2.719	-0.006	89	141145	20.0	20.4	
9 Chloroethane	64	2.792	2.798	-0.006	99	103854	20.0	20.4	
11 Trichlorofluoromethane	101	3.114	3.121	-0.006	98	293216	20.0	21.3	
12 Pentane	43	3.145	3.151	-0.006	96	192430	20.0	20.0	
14 Ethyl ether	59	3.364	3.364	0.000	86	160362	20.0	25.2	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.443	3.437	0.006	86	177620	20.0	23.0	
16 Acrolein	56	3.528	3.528	0.000	99	326014	150.0	124.6	
17 1,1-Dichloroethene	96	3.680	3.686	-0.006	97	131388	20.0	22.8	
18 Acetone	58	3.698	3.698	0.000	100	193302	150.0	171.9	
19 112TCTFE	101	3.723	3.723	0.000	88	129058	20.0	21.1	
20 Isopropyl alcohol	45	3.869	3.863	0.006	98	91405	150.0	121.5	
21 Iodomethane	142	3.893	3.899	-0.006	98	242758	20.0	20.5	
22 Carbon disulfide	76	4.015	4.015	0.000	99	360010	20.0	19.6	
24 Methyl acetate	43	4.130	4.136	-0.006	97	160977	20.0	18.7	
25 3-Chloro-1-propene	41	4.173	4.173	0.000	89	157918	20.0	16.9	
* 26 t-Butyl alcohol-d10 (IS)	65	4.374	4.355	0.019	0	345718	250.0	250.0	
27 Methylene Chloride	84	4.368	4.368	0.000	89	141478	20.0	22.2	
28 2-Methyl-2-propanol	59	4.495	4.483	0.012	98	326943	200.0	199.9	
30 Acrylonitrile	53	4.678	4.684	-0.006	99	447687	100.0	106.5	
31 Methyl tert-butyl ether	73	4.781	4.781	0.000	94	394936	20.0	17.6	
32 trans-1,2-Dichloroethene	96	4.794	4.800	-0.006	97	151589	20.0	22.8	
33 Hexane	57	5.219	5.213	0.006	91	198208	20.0	20.9	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	247037	20.0	22.2	
36 Isopropyl ether	45	5.499	5.499	0.000	91	368012	20.0	18.5	
37 2-Chloro-1,3-butadiene	53	5.548	5.554	-0.006	91	199696	20.0	20.4	
38 Tert-butyl ethyl ether	59	6.035	6.035	0.000	95	364886	20.0	17.7	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	98	987143	150.0	163.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	81	179487	20.0	23.5	
43 2,2-Dichloropropane	77	6.278	6.284	-0.006	88	221088	20.0	21.4	
44 Propionitrile	54	6.296	6.296	0.000	99	310679	150.0	173.0	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	790358	150.0	163.6	
46 Chlorobromomethane	128	6.594	6.600	-0.006	82	86415	20.0	20.2	
47 Tetrahydrofuran	71	6.619	6.619	0.000	87	203719	100.0	110.1	
48 Chloroform	83	6.740	6.740	0.000	93	266956	20.0	22.5	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	304428	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.978	6.984	-0.006	98	288879	20.0	26.6	
51 Cyclohexane	56	7.093	7.093	0.000	88	221695	20.0	20.8	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	96	211846	20.0	22.8	
53 Carbon tetrachloride	117	7.197	7.203	-0.006	97	227391	20.0	23.0	
54 Isobutyl alcohol	41	7.306	7.306	0.000	94	257370	500.0	501.8	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	75456	50.0	52.1	
56 Benzene	78	7.452	7.452	0.000	96	600813	20.0	22.4	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	218284	20.0	20.8	
59 Tert-amyl methyl ether	73	7.641	7.647	-0.006	98	408567	20.0	19.0	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	99	1198916	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	90	225769	20.0	21.1	
63 n-Butanol	56	8.182	8.188	-0.006	88	519094	1000.0	1043.3	
64 Trichloroethene	95	8.334	8.334	0.000	95	171885	20.0	23.0	
65 Methylcyclohexane	83	8.657	8.657	0.000	91	261682	20.0	20.7	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	73	150396	20.0	21.6	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	94	232958	20.0	20.4	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	150366	20.0	19.5	
69 1,4-Dioxane	88	8.754	8.754	0.000	88	78207	500.0	614.3	
70 Dibromomethane	93	8.778	8.778	0.000	93	111835	20.0	21.7	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	192930	20.0	21.3	
73 2-Nitropropane	41	9.253	9.253	0.000	98	67384	20.0	17.6	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	84	1736	20.0	0.4869	
75 cis-1,3-Dichloropropene	75	9.539	9.545	-0.006	96	236780	20.0	20.3	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1245295	100.0	105.9	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1243173	50.0	50.5	
78 Toluene	92	9.922	9.922	0.000	98	423208	20.0	22.6	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	92	231889	20.0	19.9	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	235459	20.0	18.8	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	166661	20.0	22.3	
84 Tetrachloroethene	166	10.476	10.476	0.000	98	224180	20.0	23.4	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	259631	20.0	20.7	
87 2-Hexanone	43	10.573	10.573	0.000	96	1068032	100.0	108.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	182801	20.0	21.4	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	181736	20.0	21.0	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1011523	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	236994	20.0	21.2	
94 Chlorobenzene	112	11.321	11.321	0.000	98	525296	20.0	22.9	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	175280	20.0	21.0	
96 Ethylbenzene	91	11.400	11.400	0.000	97	814155	20.0	22.2	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	697422	40.0	45.6	
98 o-Xylene	106	11.844	11.844	0.000	95	321070	20.0	21.3	
99 Styrene	104	11.857	11.857	0.000	95	530958	20.0	21.4	
100 Bromoform	173	12.021	12.021	0.000	98	138478	20.0	19.8	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	834719	20.0	22.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	233041	500.0	402.0	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	466367	50.0	49.4	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	95	260253	20.0	20.0	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	88	376448	100.0	83.0	
107 Bromobenzene	156	12.404	12.404	0.000	84	257844	20.0	21.6	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	96477	20.0	20.6	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	992470	20.0	22.0	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	221594	20.0	21.3	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	721188	20.0	20.9	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	238386	20.0	21.6	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	165473	20.0	20.6	
115 Pentachloroethane	167	12.885	12.885	0.000	92	125828	20.0	19.4	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	750538	20.0	20.8	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	949515	20.0	21.5	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	481313	20.0	21.9	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	97	874678	20.0	21.7	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	93	599798	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	502624	20.0	22.0	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	714809	20.0	19.5	
123 Benzyl chloride	91	13.256	13.256	0.000	98	554098	20.0	19.8	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	95	466415	20.0	19.2	
125 p-Diethylbenzene	119	13.390	13.390	0.000	93	506662	20.0	19.7	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	415132	20.0	21.0	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	455349	20.0	21.2	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	388941	20.0	19.1	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	90	63878	20.0	17.4	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	356243	20.0	20.0	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	317216	20.0	19.2	
133 Hexachlorobutadiene	225	14.618	14.625	-0.007	97	160859	20.0	20.3	
134 Naphthalene	128	14.722	14.722	0.000	96	938075	20.0	18.8	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	95	296545	20.0	19.0	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	457927	20.0	14.6	

QC Flag Legend

Processing Flags

Reagents:

MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 21.50	Units: uL	
MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

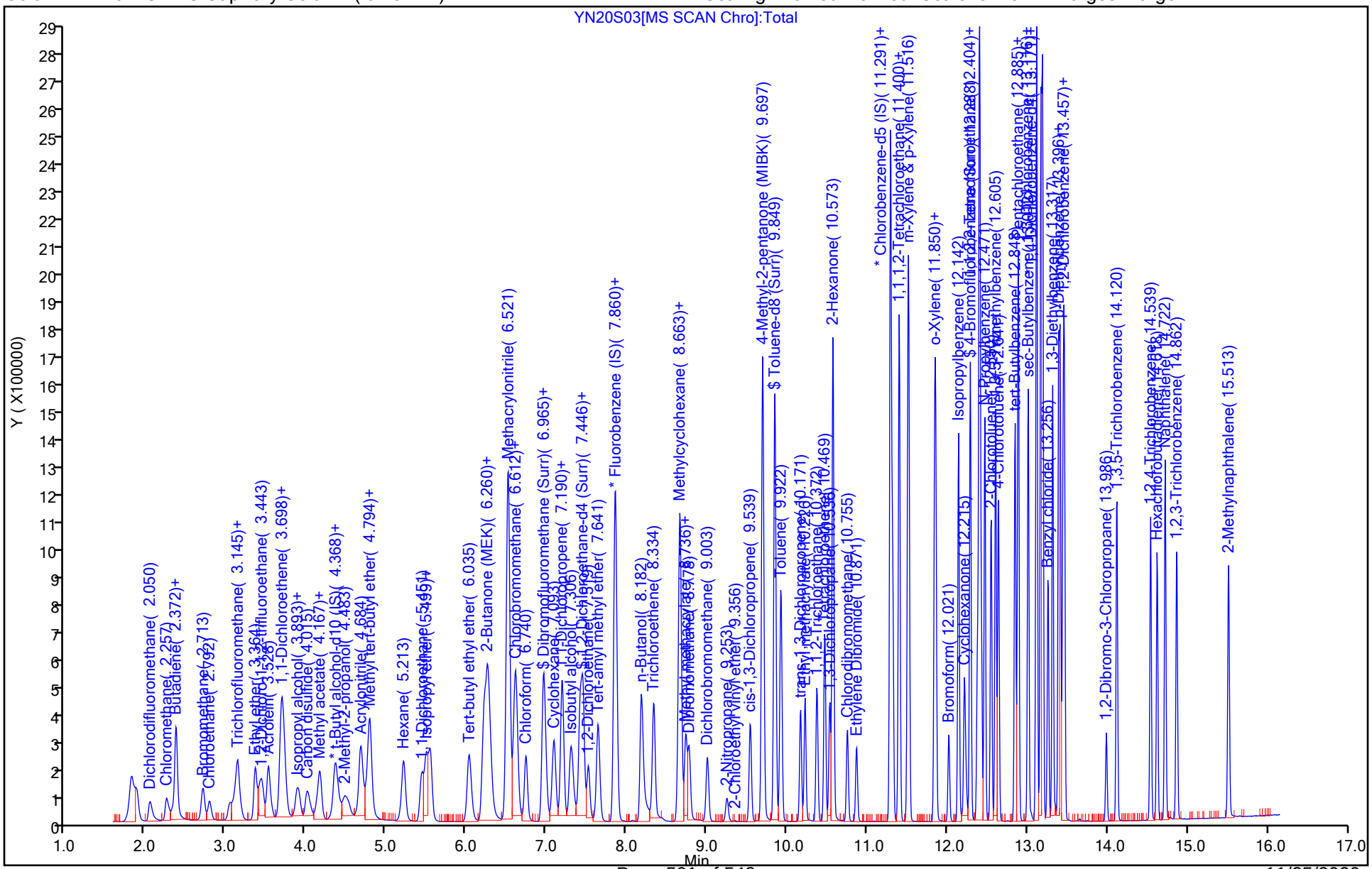
Report Date: 20-Nov-2020 21:13:54 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S03.D

Injection Date:	20-Nov-2020 12:25:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-5 MS			Worklist Smp#:	10
Client ID:	J14-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	9
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J18-UC02 MS Lab Sample ID: 410-21210-16 MS

Matrix: Water Lab File ID: YN23S11.D

Analysis Method: 8260C Date Collected: 11/16/2020 08:24

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 16:46

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	36.9		1.0	0.30
75-34-3	1,1-Dichloroethane	21.7		1.0	0.20
75-35-4	1,1-Dichloroethene	22.5		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.7		5.0	0.20
107-06-2	1,2-Dichloroethane	20.8		1.0	0.30
123-91-1	1,4-Dioxane	649		250	29
78-93-3	2-Butanone	167		10	0.30
67-64-1	Acetone	170		20	0.70
71-43-2	Benzene	22.3		1.0	0.20
75-15-0	Carbon disulfide	18.9		5.0	0.20
67-66-3	Chloroform	22.5		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.1		1.0	0.20
100-41-4	Ethylbenzene	21.8		1.0	0.40
76-13-1	Freon 113	20.2		10	0.20
75-09-2	Methylene Chloride	21.1		1.0	0.30
91-20-3	Naphthalene	17.5		5.0	1.0
127-18-4	Tetrachloroethene	22.3		1.0	0.20
108-88-3	Toluene	22.1		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.0		1.0	0.20
79-01-6	Trichloroethene	58.9		1.0	0.20
75-01-4	Vinyl chloride	20.0		1.0	0.20
1330-20-7	Xylenes, Total	64.9		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S11.D
Lims ID: 410-21210-A-16 MS
Client ID: J18-UC02
Sample Type: MS
Inject. Date: 23-Nov-2020 16:46:30 ALS Bottle#: 20 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-020
Misc. Info.: 410-21210-A-16 MS
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 17:54:29 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1666

First Level Reviewer: proctore Date: 23-Nov-2020 17:52:26

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.056	-0.006	99	166352	20.0	18.7	
4 Chloromethane	50	2.257	2.257	0.000	99	152906	20.0	19.3	
6 Vinyl chloride	62	2.372	2.372	0.000	98	160656	20.0	20.0	
5 Butadiene	39	2.384	2.384	0.000	89	163807	20.0	24.0	
8 Bromomethane	94	2.707	2.719	-0.012	90	120972	20.0	17.4	M
9 Chloroethane	64	2.804	2.810	-0.006	99	94392	20.0	18.5	
11 Trichlorofluoromethane	101	3.108	3.120	-0.012	98	283058	20.0	20.5	
12 Pentane	43	3.151	3.157	-0.006	97	201509	20.0	20.8	
14 Ethyl ether	59	3.364	3.370	-0.006	87	159375	20.0	25.0	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.425	3.455	-0.030	88	162272	20.0	21.0	M
16 Acrolein	56	3.528	3.534	-0.006	99	355391	150.0	132.3	
17 1,1-Dichloroethene	96	3.692	3.692	0.000	98	129990	20.0	22.5	
18 Acetone	58	3.698	3.698	0.000	100	196275	150.0	169.9	
19 112TCTFE	101	3.729	3.735	-0.006	90	123870	20.0	20.2	
20 Isopropyl alcohol	45	3.881	3.881	0.000	96	120727	150.0	156.2	M
21 Iodomethane	142	3.905	3.905	0.000	99	230405	20.0	19.4	
22 Carbon disulfide	76	4.021	4.021	0.000	99	348742	20.0	18.9	
24 Methyl acetate	43	4.136	4.136	0.000	97	174201	20.0	20.2	M
25 3-Chloro-1-propene	41	4.173	4.179	-0.006	90	167463	20.0	17.8	
* 26 t-Butyl alcohol-d10 (IS)	65	4.380	4.374	0.006	0	355157	250.0	250.0	
27 Methylene Chloride	84	4.368	4.374	-0.006	90	135048	20.0	21.1	
28 2-Methyl-2-propanol	59	4.495	4.495	0.000	98	356113	200.0	212.0	
30 Acrylonitrile	53	4.684	4.690	-0.006	99	441672	100.0	104.8	
31 Methyl tert-butyl ether	73	4.781	4.787	-0.006	95	391844	20.0	17.5	
32 trans-1,2-Dichloroethene	96	4.799	4.800	-0.001	98	146835	20.0	22.0	
33 Hexane	57	5.213	5.219	-0.006	93	198547	20.0	20.9	
35 1,1-Dichloroethane	63	5.438	5.444	-0.006	96	242011	20.0	21.7	
36 Isopropyl ether	45	5.499	5.505	-0.006	91	359992	20.0	18.0	
37 2-Chloro-1,3-butadiene	53	5.554	5.554	0.000	91	199373	20.0	20.3	
38 Tert-butyl ethyl ether	59	6.034	6.041	-0.007	96	350889	20.0	16.9	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	99	1011753	150.0	166.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	81	177237	20.0	23.1	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	87	203388	20.0	19.6	
44 Propionitrile	54	6.296	6.296	0.000	99	310180	150.0	168.2	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	800029	150.0	165.1	
46 Chlorobromomethane	128	6.600	6.600	0.000	83	92337	20.0	21.5	
47 Tetrahydrofuran	71	6.618	6.625	-0.007	87	205859	100.0	108.3	
48 Chloroform	83	6.740	6.740	0.000	93	267061	20.0	22.5	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	300294	50.0	49.6	
50 1,1,1-Trichloroethane	97	6.977	6.984	-0.007	98	402205	20.0	36.9	
51 Cyclohexane	56	7.093	7.099	-0.006	88	217802	20.0	20.4	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	96	210073	20.0	22.5	
53 Carbon tetrachloride	117	7.202	7.203	-0.001	97	220180	20.0	22.2	
54 Isobutyl alcohol	41	7.312	7.312	0.000	93	312388	500.0	592.9	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	72717	50.0	50.1	
56 Benzene	78	7.452	7.458	-0.006	96	597769	20.0	22.3	
58 1,2-Dichloroethane	62	7.525	7.525	0.000	98	218681	20.0	20.8	
59 Tert-amyl methyl ether	73	7.647	7.647	0.000	98	383983	20.0	17.8	
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	99	1202570	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	90	223580	20.0	20.8	
63 n-Butanol	56	8.188	8.188	0.000	88	553472	1000.0	1082.8	
64 Trichloroethene	95	8.334	8.340	-0.006	95	442008	20.0	58.9	
65 Methylcyclohexane	83	8.656	8.657	-0.001	92	273208	20.0	21.6	
66 1,2-Dichloropropane	63	8.669	8.669	0.000	81	151614	20.0	21.7	
67 2-ethoxy-2-methyl butane	87	8.669	8.675	-0.006	94	225220	20.0	19.6	
68 Methyl methacrylate	69	8.736	8.736	0.000	89	153834	20.0	19.9	
69 1,4-Dioxane	88	8.760	8.754	0.006	87	84877	500.0	648.9	
70 Dibromomethane	93	8.778	8.778	0.000	94	110767	20.0	21.4	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	190474	20.0	21.0	
73 2-Nitropropane	41	9.253	9.253	0.000	99	69680	20.0	17.7	
74 2-Chloroethyl vinyl ether	63		9.356				ND	ND	U
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	232691	20.0	19.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1269665	100.0	107.6	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1258139	50.0	50.3	
78 Toluene	92	9.928	9.928	0.000	98	420699	20.0	22.1	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	92	231039	20.0	19.5	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	235055	20.0	18.5	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	163563	20.0	21.5	
84 Tetrachloroethene	166	10.469	10.476	-0.007	98	216488	20.0	22.3	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	257523	20.0	20.2	
87 2-Hexanone	43	10.573	10.573	0.000	96	1101800	100.0	110.0	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	177079	20.0	20.4	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	180166	20.0	20.5	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1027204	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	94	235935	20.0	20.8	
94 Chlorobenzene	112	11.321	11.321	0.000	97	519208	20.0	22.3	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	168237	20.0	19.9	
96 Ethylbenzene	91	11.400	11.400	0.000	97	809638	20.0	21.8	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	691509	40.0	44.5	
98 o-Xylene	106	11.844	11.844	0.000	95	312624	20.0	20.4	
99 Styrene	104	11.856	11.857	0.000	94	529403	20.0	21.0	
100 Bromoform	173	12.021	12.021	0.000	97	133754	20.0	18.8	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	800983	20.0	21.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	259587	500.0	435.8	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	477187	50.0	49.8	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	258456	20.0	19.9	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	442818	100.0	98.0	
107 Bromobenzene	156	12.404	12.404	0.000	78	253967	20.0	21.3	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	95595	20.0	20.5	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	980565	20.0	21.8	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	214426	20.0	20.7	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	704452	20.0	20.5	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	236867	20.0	21.6	
114 tert-Butylbenzene	134	12.848	12.848	0.000	92	161694	20.0	20.2	
115 Pentachloroethane	167	12.885	12.885	0.000	92	132628	20.0	20.5	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	729608	20.0	20.3	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	919077	20.0	20.9	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	467748	20.0	21.3	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	839437	20.0	20.9	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	95	597384	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	493565	20.0	21.7	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	774471	20.0	21.3	
123 Benzyl chloride	91	13.256	13.256	0.000	98	545713	20.0	19.6	
124 1,3-Diethylbenzene	119	13.316	13.317	-0.001	95	498249	20.0	20.6	
125 p-Diethylbenzene	119	13.389	13.390	-0.001	94	543186	20.0	21.2	
126 n-Butylbenzene	92	13.408	13.408	0.000	97	411097	20.0	20.9	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	441417	20.0	20.7	
128 o-diethylbenzene	119	13.462	13.463	-0.001	94	418200	20.0	20.7	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	61282	20.0	16.7	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	336817	20.0	19.0	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	289098	20.0	17.6	
133 Hexachlorobutadiene	225	14.624	14.625	-0.001	98	147651	20.0	18.7	
134 Naphthalene	128	14.722	14.722	0.000	96	869669	20.0	17.5	
135 1,2,3-Trichlorobenzene	180	14.868	14.862	0.006	96	274007	20.0	17.6	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	481548	20.0	15.4	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MSV_Q_QGases_00106	Amount Added:	21.50	Units: uL	
MSV_QCYC_00004	Amount Added:	21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added:	21.50	Units: uL	
MSV_Q_QARC_00055	Amount Added:	21.50	Units: uL	
MSV_Q_QVOA1_00056	Amount Added:	21.50	Units: uL	
MSV_Q_EE_00003	Amount Added:	21.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

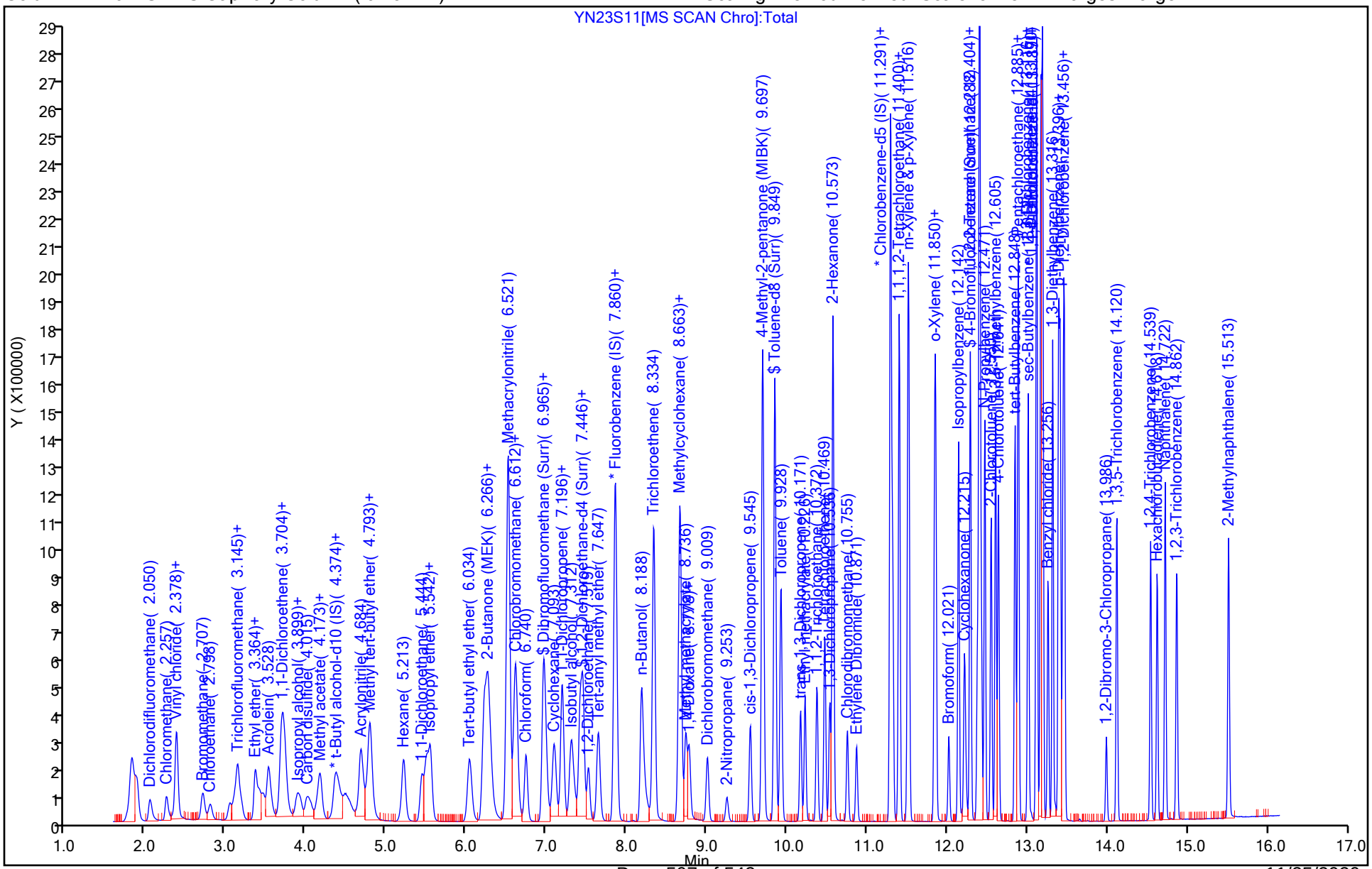
Report Date: 23-Nov-2020 17:55:01 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S11.D

Injection Date:	23-Nov-2020 16:46:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-16 MS			Worklist Smp#:	20
Client ID:	J18-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J14-BR01 MSD Lab Sample ID: 410-21210-5 MSD

Matrix: Water Lab File ID: YN20S04.D

Analysis Method: 8260C Date Collected: 11/13/2020 09:58

Sample wt/vol: 5(mL) Date Analyzed: 11/20/2020 12:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 68475 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	26.6		1.0	0.30
75-34-3	1,1-Dichloroethane	22.4		1.0	0.20
75-35-4	1,1-Dichloroethene	22.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.2		5.0	0.20
107-06-2	1,2-Dichloroethane	20.5		1.0	0.30
123-91-1	1,4-Dioxane	609		250	29
78-93-3	2-Butanone	161		10	0.30
67-64-1	Acetone	164		20	0.70
71-43-2	Benzene	22.3		1.0	0.20
75-15-0	Carbon disulfide	19.5		5.0	0.20
67-66-3	Chloroform	22.1		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.5		1.0	0.20
100-41-4	Ethylbenzene	22.2		1.0	0.40
76-13-1	Freon 113	20.8		10	0.20
75-09-2	Methylene Chloride	22.0		1.0	0.30
91-20-3	Naphthalene	18.6		5.0	1.0
127-18-4	Tetrachloroethene	23.2		1.0	0.20
108-88-3	Toluene	22.5		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.6		1.0	0.20
79-01-6	Trichloroethene	23.0		1.0	0.20
75-01-4	Vinyl chloride	20.4		1.0	0.20
1330-20-7	Xylenes, Total	66.2		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S04.D
Lims ID: 410-21210-A-5 MSD
Client ID: J14-BR01
Sample Type: MSD
Inject. Date: 20-Nov-2020 12:47:30 ALS Bottle#: 10 Worklist Smp#: 11
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016053-011
Misc. Info.: 410-21210-A-5 MSD
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201120-16053.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 20-Nov-2020 21:12:03 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1681

First Level Reviewer: johnsons Date: 20-Nov-2020 21:10:41

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.056	-0.006	99	175077	20.0	19.0	
4 Chloromethane	50	2.257	2.257	0.000	99	149006	20.0	18.2	
5 Butadiene	39	2.378	2.378	0.000	89	182565	20.0	25.9	
6 Vinyl chloride	62	2.372	2.378	-0.006	90	169312	20.0	20.4	
8 Bromomethane	94	2.713	2.719	-0.006	90	139794	20.0	19.5	
9 Chloroethane	64	2.798	2.798	0.000	99	103799	20.0	19.6	
11 Trichlorofluoromethane	101	3.114	3.121	-0.006	98	299898	20.0	21.0	
12 Pentane	43	3.151	3.151	0.000	97	195813	20.0	19.6	
14 Ethyl ether	59	3.364	3.364	0.000	86	161309	20.0	24.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.443	3.437	0.006	92	185376	20.0	23.2	
16 Acrolein	56	3.528	3.528	0.000	99	344416	150.0	125.1	
17 1,1-Dichloroethene	96	3.686	3.686	0.000	96	134669	20.0	22.6	
18 Acetone	58	3.692	3.698	-0.006	100	193829	150.0	163.8	
19 112TCTFE	101	3.723	3.723	0.000	87	131860	20.0	20.8	
20 Isopropyl alcohol	45	3.869	3.863	0.006	97	96424	150.0	121.7	
21 Iodomethane	142	3.893	3.899	-0.006	98	250149	20.0	20.4	
22 Carbon disulfide	76	4.015	4.015	0.000	99	371137	20.0	19.5	
24 Methyl acetate	43	4.136	4.136	0.000	97	169467	20.0	19.0	
25 3-Chloro-1-propene	41	4.173	4.173	0.000	89	168788	20.0	17.4	
* 26 t-Butyl alcohol-d10 (IS)	65	4.355	4.355	0.000	0	363870	250.0	250.0	
27 Methylene Chloride	84	4.362	4.368	-0.006	89	145688	20.0	22.0	
28 2-Methyl-2-propanol	59	4.495	4.483	0.012	99	340035	200.0	197.6	
30 Acrylonitrile	53	4.678	4.684	-0.006	99	462842	100.0	106.2	
31 Methyl tert-butyl ether	73	4.781	4.781	0.000	94	413158	20.0	17.8	
32 trans-1,2-Dichloroethene	96	4.794	4.800	-0.006	98	155532	20.0	22.6	
33 Hexane	57	5.213	5.213	0.000	91	208412	20.0	21.2	
35 1,1-Dichloroethane	63	5.438	5.438	0.000	96	257395	20.0	22.4	
36 Isopropyl ether	45	5.505	5.499	0.006	91	381747	20.0	18.5	
37 2-Chloro-1,3-butadiene	53	5.548	5.554	-0.006	91	205822	20.0	20.3	
38 Tert-butyl ethyl ether	59	6.028	6.035	-0.007	97	384949	20.0	18.0	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	99	1012006	150.0	161.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.260	6.266	-0.006	80	186136	20.0	23.5	
43 2,2-Dichloropropane	77	6.278	6.284	-0.006	89	227564	20.0	21.2	
44 Propionitrile	54	6.296	6.296	0.000	99	307495	150.0	162.7	
45 Methacrylonitrile	67	6.521	6.521	0.000	90	814480	150.0	162.6	
46 Chlorobromomethane	128	6.600	6.600	0.000	81	89162	20.0	20.1	
47 Tetrahydrofuran	71	6.619	6.619	0.000	87	210451	100.0	108.0	
48 Chloroform	83	6.740	6.740	0.000	93	271565	20.0	22.1	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	315928	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.984	6.984	0.000	97	299972	20.0	26.6	
51 Cyclohexane	56	7.093	7.093	0.000	88	228483	20.0	20.7	
52 1,1-Dichloropropene	75	7.190	7.190	0.000	96	217304	20.0	22.5	
53 Carbon tetrachloride	117	7.197	7.203	-0.006	96	238342	20.0	23.2	
54 Isobutyl alcohol	41	7.300	7.306	-0.006	93	278396	500.0	515.7	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.416	7.422	-0.006	0	76076	50.0	50.7	
56 Benzene	78	7.452	7.452	0.000	96	618050	20.0	22.3	
58 1,2-Dichloroethane	62	7.519	7.519	0.000	98	222980	20.0	20.5	
59 Tert-amyl methyl ether	73	7.641	7.647	-0.006	98	421952	20.0	18.9	
* 61 Fluorobenzene (IS)	96	7.854	7.854	0.000	98	1243160	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	92	228908	20.0	20.6	
63 n-Butanol	56	8.182	8.188	-0.006	88	544780	1000.0	1040.3	
64 Trichloroethene	95	8.334	8.334	0.000	96	178293	20.0	23.0	
65 Methylcyclohexane	83	8.657	8.657	0.000	89	277619	20.0	21.2	
66 1,2-Dichloropropane	63	8.663	8.663	0.000	73	155992	20.0	21.6	
67 2-ethoxy-2-methyl butane	87	8.669	8.669	0.000	97	241251	20.0	20.3	
68 Methyl methacrylate	69	8.736	8.736	0.000	87	156481	20.0	19.6	
69 1,4-Dioxane	88	8.754	8.754	0.000	89	81590	500.0	608.9	
70 Dibromomethane	93	8.778	8.778	0.000	93	114529	20.0	21.4	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	199014	20.0	21.2	
73 2-Nitropropane	41	9.247	9.253	-0.006	99	72980	20.0	18.1	
74 2-Chloroethyl vinyl ether	63	9.356	9.356	0.000	93	10805	20.0	2.92	
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	246666	20.0	20.4	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1272851	100.0	104.4	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1284359	50.0	50.7	
78 Toluene	92	9.922	9.922	0.000	98	432355	20.0	22.5	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	238843	20.0	19.9	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	240242	20.0	18.6	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	170001	20.0	22.1	
84 Tetrachloroethene	166	10.469	10.476	-0.007	98	228633	20.0	23.2	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	264609	20.0	20.5	
87 2-Hexanone	43	10.573	10.573	0.000	96	1088000	100.0	107.3	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	187240	20.0	21.4	
90 Ethylene Dibromide	107	10.871	10.871	0.000	98	189326	20.0	21.2	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1040174	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	245599	20.0	21.4	
94 Chlorobenzene	112	11.321	11.321	0.000	98	534384	20.0	22.6	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	96	179262	20.0	20.9	
96 Ethylbenzene	91	11.400	11.400	0.000	97	835304	20.0	22.2	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	708181	40.0	45.0	
98 o-Xylene	106	11.844	11.844	0.000	95	327837	20.0	21.2	
99 Styrene	104	11.857	11.857	0.000	94	543428	20.0	21.3	
100 Bromoform	173	12.021	12.021	0.000	97	140249	20.0	19.5	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	855130	20.0	22.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	245680	500.0	402.6	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	97	478876	50.0	49.4	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	264714	20.0	19.9	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	88	381403	100.0	82.2	
107 Bromobenzene	156	12.404	12.404	0.000	84	261588	20.0	21.4	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	97873	20.0	20.4	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	1004199	20.0	21.8	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	225932	20.0	21.2	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	741258	20.0	21.0	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	244249	20.0	21.7	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	169959	20.0	20.7	
115 Pentachloroethane	167	12.885	12.885	0.000	92	129521	20.0	19.5	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	765574	20.0	20.7	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	970366	20.0	21.5	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	488124	20.0	21.7	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	888005	20.0	21.5	
* 120 1,4-Dichlorobenzene-d4	152	13.171	13.171	0.000	94	613032	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	511630	20.0	21.9	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	737683	20.0	19.7	
123 Benzyl chloride	91	13.256	13.256	0.000	98	570434	20.0	19.9	
124 1,3-Diethylbenzene	119	13.317	13.317	0.000	96	482062	20.0	19.4	
125 p-Diethylbenzene	119	13.390	13.390	0.000	94	521811	20.0	19.8	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	420623	20.0	20.8	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	463949	20.0	21.2	
128 o-diethylbenzene	119	13.463	13.463	0.000	93	398475	20.0	19.2	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	66126	20.0	17.6	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	365311	20.0	20.1	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	322237	20.0	19.1	
133 Hexachlorobutadiene	225	14.618	14.625	-0.007	98	163943	20.0	20.2	
134 Naphthalene	128	14.722	14.722	0.000	96	951550	20.0	18.6	
135 1,2,3-Trichlorobenzene	180	14.868	14.868	0.000	96	302570	20.0	18.9	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	484825	20.0	15.1	

QC Flag Legend

Processing Flags

Reagents:

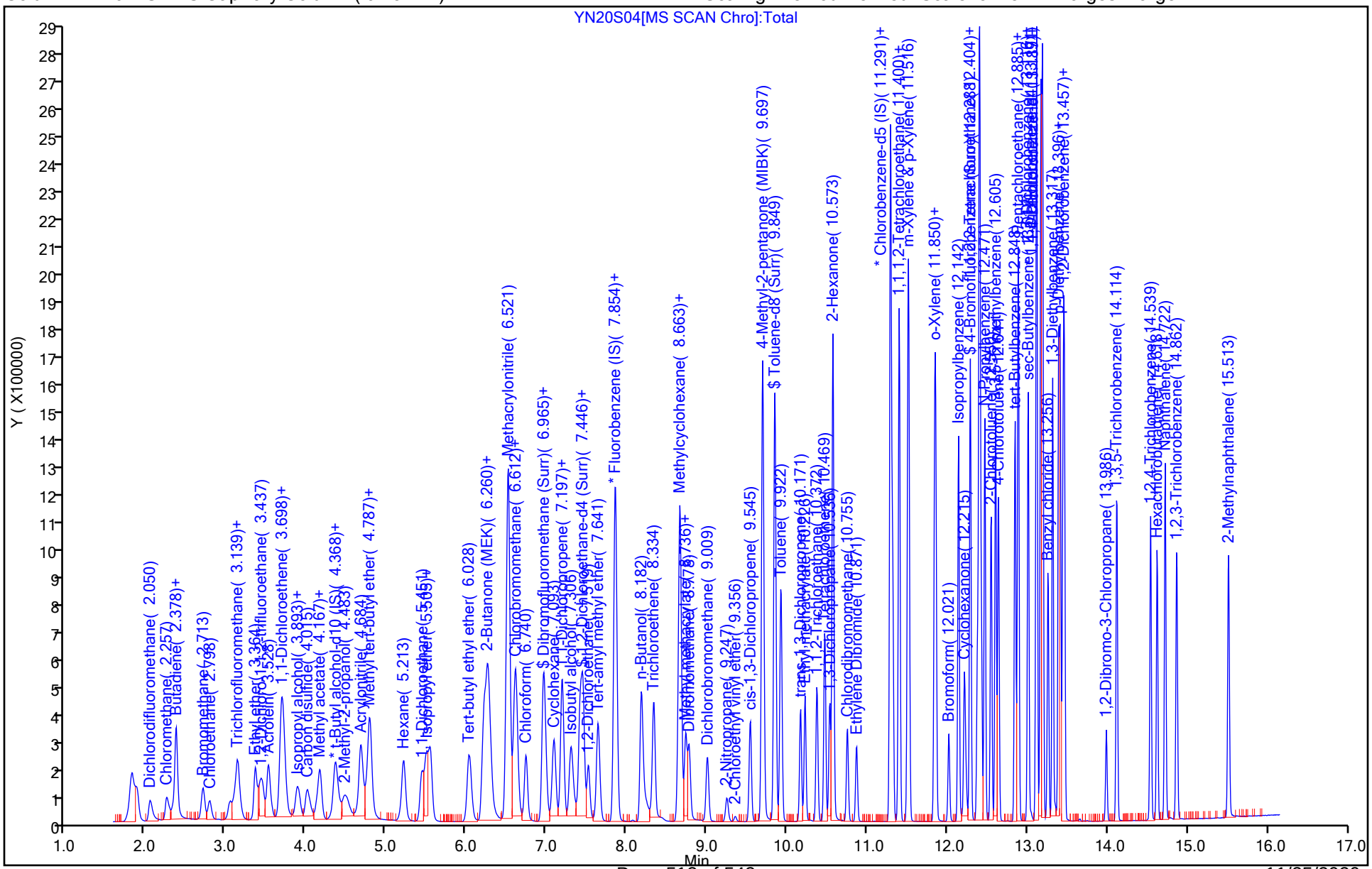
MSV_Q_EE_00003	Amount Added: 21.50	Units: uL	
MSV_Q_QGases_00104	Amount Added: 21.50	Units: uL	
MSV_QCYC_00004	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added: 21.50	Units: uL	
MSV_Q_QARC_00054	Amount Added: 21.50	Units: uL	
MSV_Q_QVOA1_00055	Amount Added: 21.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 20-Nov-2020 21:13:59 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\9355\20201120-16053.b\YN20S04.D				
Injection Date:	20-Nov-2020 12:47:30	Instrument ID:	9355	Operator ID:	clm27445
Lims ID:	410-21210-A-5 MSD			Worklist Smp#:	11
Client ID:	J14-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	10
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21210-1

SDG No.:

Client Sample ID: J18-UC02 MSD Lab Sample ID: 410-21210-16 MSD

Matrix: Water Lab File ID: YN23S12.D

Analysis Method: 8260C Date Collected: 11/16/2020 08:24

Sample wt/vol: 5(mL) Date Analyzed: 11/23/2020 17:08

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 69288 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	37.7		1.0	0.30
75-34-3	1,1-Dichloroethane	22.0		1.0	0.20
75-35-4	1,1-Dichloroethene	23.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.7		5.0	0.20
107-06-2	1,2-Dichloroethane	20.7		1.0	0.30
123-91-1	1,4-Dioxane	594		250	29
78-93-3	2-Butanone	165		10	0.30
67-64-1	Acetone	166		20	0.70
71-43-2	Benzene	22.6		1.0	0.20
75-15-0	Carbon disulfide	19.1		5.0	0.20
67-66-3	Chloroform	22.9		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.2		1.0	0.20
100-41-4	Ethylbenzene	22.1		1.0	0.40
76-13-1	Freon 113	20.4		10	0.20
75-09-2	Methylene Chloride	21.2		1.0	0.30
91-20-3	Naphthalene	17.2		5.0	1.0
127-18-4	Tetrachloroethene	22.3		1.0	0.20
108-88-3	Toluene	22.2		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.3		1.0	0.20
79-01-6	Trichloroethene	59.3		1.0	0.20
75-01-4	Vinyl chloride	20.7		1.0	0.20
1330-20-7	Xylenes, Total	65.2		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S12.D
Lims ID: 410-21210-A-16 MSD
Client ID: J18-UC02
Sample Type: MSD
Inject. Date: 23-Nov-2020 17:08:30 ALS Bottle#: 21 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016252-021
Misc. Info.: 410-21210-A-16 MSD
Operator ID: clm27445 Instrument ID: 9355

Method: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\MSVoa_9355.m
Limit Group: MSV - 8260C_D
Last Update: 23-Nov-2020 17:54:29 Calib Date: 03-Nov-2020 02:09:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\9355\20201102-14502.b\YN02I37.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1666

First Level Reviewer: proctore Date: 23-Nov-2020 17:54:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.050	2.056	-0.006	99	166051	20.0	18.1	
4 Chloromethane	50	2.257	2.257	0.000	99	160649	20.0	19.7	
6 Vinyl chloride	62	2.372	2.372	0.000	98	172122	20.0	20.7	
5 Butadiene	39	2.384	2.384	0.000	88	174100	20.0	24.7	M
8 Bromomethane	94	2.713	2.719	-0.006	91	142992	20.0	19.9	
9 Chloroethane	64	2.810	2.810	0.000	100	103835	20.0	19.7	
11 Trichlorofluoromethane	101	3.114	3.120	-0.006	98	285505	20.0	20.0	
12 Pentane	43	3.151	3.157	-0.006	97	204337	20.0	20.5	
14 Ethyl ether	59	3.364	3.370	-0.006	86	162928	20.0	24.8	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.461	3.455	0.006	89	162086	20.0	20.3	
16 Acrolein	56	3.534	3.534	0.000	99	371377	150.0	138.4	
17 1,1-Dichloroethene	96	3.692	3.692	0.000	97	136641	20.0	23.0	
18 Acetone	58	3.698	3.698	0.000	100	191777	150.0	166.2	
19 112TCTFE	101	3.729	3.735	-0.006	91	129115	20.0	20.4	
20 Isopropyl alcohol	45	3.881	3.881	0.000	96	105919	150.0	137.2	
21 Iodomethane	142	3.905	3.905	0.000	98	240480	20.0	19.6	
22 Carbon disulfide	76	4.021	4.021	0.000	99	363886	20.0	19.1	
24 Methyl acetate	43	4.136	4.136	0.000	97	180905	20.0	20.3	
25 3-Chloro-1-propene	41	4.179	4.179	0.000	90	175929	20.0	18.2	
* 26 t-Butyl alcohol-d10 (IS)	65	4.374	4.374	0.000	0	354748	250.0	250.0	
27 Methylene Chloride	84	4.368	4.374	-0.006	90	139999	20.0	21.2	
28 2-Methyl-2-propanol	59	4.507	4.495	0.012	98	335027	200.0	199.7	
30 Acrylonitrile	53	4.690	4.690	0.000	100	463910	100.0	106.7	
31 Methyl tert-butyl ether	73	4.787	4.787	0.000	95	413553	20.0	17.9	
32 trans-1,2-Dichloroethene	96	4.799	4.800	-0.001	98	153374	20.0	22.3	
33 Hexane	57	5.213	5.219	-0.006	93	205082	20.0	20.9	
35 1,1-Dichloroethane	63	5.444	5.444	0.000	96	252385	20.0	22.0	
36 Isopropyl ether	45	5.505	5.505	0.000	91	380263	20.0	18.5	
37 2-Chloro-1,3-butadiene	53	5.554	5.554	0.000	91	209587	20.0	20.7	
38 Tert-butyl ethyl ether	59	6.041	6.041	0.000	96	374450	20.0	17.5	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	98	1032883	150.0	164.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.266	6.266	0.000	80	183364	20.0	23.2	
43 2,2-Dichloropropane	77	6.284	6.284	0.000	80	217318	20.0	20.3	
44 Propionitrile	54	6.296	6.296	0.000	99	308078	150.0	167.2	
45 Methacrylonitrile	67	6.521	6.521	0.000	89	838886	150.0	167.8	
46 Chlorobromomethane	128	6.600	6.600	0.000	83	95123	20.0	21.5	
47 Tetrahydrofuran	71	6.625	6.625	0.000	88	215397	100.0	113.4	
48 Chloroform	83	6.746	6.740	0.006	93	280492	20.0	22.9	
$ 49 Dibromofluoromethane (Surr)	113	6.959	6.959	0.000	94	313795	50.0	50.3	
50 1,1,1-Trichloroethane	97	6.983	6.984	-0.001	97	424450	20.0	37.7	
51 Cyclohexane	56	7.099	7.099	0.000	88	225631	20.0	20.5	
52 1,1-Dichloropropene	75	7.196	7.190	0.006	96	220169	20.0	22.9	
53 Carbon tetrachloride	117	7.202	7.203	-0.001	97	229156	20.0	22.4	
54 Isobutyl alcohol	41	7.306	7.312	-0.006	93	288562	500.0	548.3	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.415	7.415	0.000	0	76497	50.0	51.1	
56 Benzene	78	7.452	7.458	-0.006	96	627052	20.0	22.6	
58 1,2-Dichloroethane	62	7.525	7.525	0.000	98	224221	20.0	20.7	
59 Tert-amyl methyl ether	73	7.647	7.647	0.000	98	406616	20.0	18.3	
* 61 Fluorobenzene (IS)	96	7.853	7.853	0.000	98	1240832	50.0	50.0	
62 n-Heptane	43	7.866	7.872	-0.006	89	230842	20.0	20.8	
63 n-Butanol	56	8.188	8.188	0.000	89	543646	1000.0	1064.8	
64 Trichloroethene	95	8.340	8.340	0.000	95	458681	20.0	59.3	
65 Methylcyclohexane	83	8.656	8.657	-0.001	89	282513	20.0	21.6	
66 1,2-Dichloropropane	63	8.663	8.669	-0.006	83	159743	20.0	22.2	
67 2-ethoxy-2-methyl butane	87	8.669	8.675	-0.006	93	237043	20.0	20.0	
68 Methyl methacrylate	69	8.736	8.736	0.000	88	159485	20.0	20.0	
69 1,4-Dioxane	88	8.754	8.754	0.000	89	77582	500.0	593.9	M
70 Dibromomethane	93	8.778	8.778	0.000	94	114187	20.0	21.4	
72 Dichlorobromomethane	83	9.009	9.009	0.000	99	199593	20.0	21.3	
73 2-Nitropropane	41	9.253	9.253	0.000	99	74395	20.0	18.9	
74 2-Chloroethyl vinyl ether	63		9.356				ND	ND	U
75 cis-1,3-Dichloropropene	75	9.545	9.545	0.000	96	246989	20.0	20.5	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	95	1310378	100.0	107.6	
$ 77 Toluene-d8 (Surr)	98	9.849	9.849	0.000	93	1298279	50.0	50.3	
78 Toluene	92	9.922	9.928	-0.006	98	435978	20.0	22.2	
81 trans-1,3-Dichloropropene	75	10.171	10.171	0.000	91	243273	20.0	19.9	
82 Ethyl methacrylate	69	10.226	10.226	0.000	88	247379	20.0	18.8	
83 1,1,2-Trichloroethane	97	10.372	10.372	0.000	90	172214	20.0	22.0	
84 Tetrachloroethene	166	10.475	10.476	-0.001	98	223113	20.0	22.3	
85 1,3-Dichloropropane	76	10.536	10.536	0.000	89	268755	20.0	20.5	
87 2-Hexanone	43	10.573	10.573	0.000	96	1144529	100.0	110.8	
89 Chlorodibromomethane	129	10.755	10.755	0.000	89	186883	20.0	20.9	
90 Ethylene Dibromide	107	10.871	10.871	0.000	99	187457	20.0	20.7	
* 93 Chlorobenzene-d5 (IS)	117	11.291	11.291	0.000	85	1059696	50.0	50.0	
92 1-Chlorohexane	91	11.297	11.297	0.000	93	246305	20.0	21.1	
94 Chlorobenzene	112	11.321	11.321	0.000	97	538803	20.0	22.4	
95 1,1,1,2-Tetrachloroethane	131	11.400	11.400	0.000	95	174813	20.0	20.0	
96 Ethylbenzene	91	11.400	11.400	0.000	97	846930	20.0	22.1	
97 m-Xylene & p-Xylene	106	11.516	11.516	0.000	100	714598	40.0	44.6	
98 o-Xylene	106	11.844	11.844	0.000	95	325031	20.0	20.6	
99 Styrene	104	11.856	11.857	0.000	94	549809	20.0	21.2	
100 Bromoform	173	12.021	12.021	0.000	97	139776	20.0	19.1	
101 Isopropylbenzene	105	12.142	12.142	0.000	95	838041	20.0	21.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.215	12.215	0.000	91	242465	500.0	407.6	
$ 104 4-Bromofluorobenzene (Surr)	95	12.288	12.288	0.000	96	490886	50.0	49.7	
105 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	96	264692	20.0	19.8	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	454797	100.0	97.8	
107 Bromobenzene	156	12.404	12.404	0.000	78	262964	20.0	21.5	
108 1,2,3-Trichloropropane	110	12.428	12.428	0.000	84	100013	20.0	20.8	
109 N-Propylbenzene	91	12.471	12.471	0.000	98	1017987	20.0	22.0	
110 2-Chlorotoluene	126	12.550	12.550	0.000	98	222942	20.0	20.9	
111 1,3,5-Trimethylbenzene	105	12.605	12.605	0.000	94	727731	20.0	20.5	
112 4-Chlorotoluene	126	12.641	12.641	0.000	96	244128	20.0	21.6	
114 tert-Butylbenzene	134	12.848	12.848	0.000	91	165322	20.0	20.1	
115 Pentachloroethane	167	12.885	12.885	0.000	88	134388	20.0	20.2	
116 1,2,4-Trimethylbenzene	105	12.891	12.891	0.000	96	753953	20.0	20.3	
117 sec-Butylbenzene	105	13.012	13.012	0.000	93	948021	20.0	20.9	
118 1,3-Dichlorobenzene	146	13.116	13.116	0.000	98	483325	20.0	21.4	
119 4-Isopropyltoluene	119	13.116	13.116	0.000	96	863520	20.0	20.9	
* 120 1,4-Dichlorobenzene-d4	152	13.170	13.170	0.000	94	614851	50.0	50.0	
121 1,4-Dichlorobenzene	146	13.189	13.189	0.000	96	509992	20.0	21.8	
122 1,2,3-Trimethylbenzene	105	13.195	13.195	0.000	97	782929	20.0	20.9	
123 Benzyl chloride	91	13.256	13.256	0.000	98	564870	20.0	19.7	
124 1,3-Diethylbenzene	119	13.316	13.317	-0.001	95	508129	20.0	20.4	
125 p-Diethylbenzene	119	13.389	13.390	-0.001	94	550237	20.0	20.9	
126 n-Butylbenzene	92	13.408	13.408	0.000	96	417183	20.0	20.6	
127 1,2-Dichlorobenzene	146	13.444	13.444	0.000	99	454506	20.0	20.7	
128 o-diethylbenzene	119	13.463	13.463	-0.001	93	424797	20.0	20.4	
130 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	95	63074	20.0	16.7	
131 1,3,5-Trichlorobenzene	180	14.120	14.120	0.000	98	340330	20.0	18.7	
132 1,2,4-Trichlorobenzene	180	14.539	14.539	0.000	94	296430	20.0	17.5	
133 Hexachlorobutadiene	225	14.624	14.625	-0.001	98	152254	20.0	18.7	
134 Naphthalene	128	14.722	14.722	0.000	96	882252	20.0	17.2	
135 1,2,3-Trichlorobenzene	180	14.868	14.862	0.006	96	275928	20.0	17.2	
136 2-Methylnaphthalene	142	15.513	15.513	0.000	92	469371	20.0	14.6	

QC Flag Legend

Processing Flags

ND - Not Detected or Marked ND

Review Flags

M - Manually Integrated

U - Marked Undetected

Reagents:

MSV_Q_EE_00003	Amount Added:	21.50	Units: uL	
MSV_Q_QGases_00106	Amount Added:	21.50	Units: uL	
MSV_QCYC_00004	Amount Added:	21.50	Units: uL	
MSV_Q_QVOA6_00053	Amount Added:	21.50	Units: uL	
MSV_Q_QARC_00055	Amount Added:	21.50	Units: uL	
MSV_Q_QVOA1_00056	Amount Added:	21.50	Units: uL	
MSV_HP20_ISSS_00031	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 23-Nov-2020 17:55:06 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S12.D

Injection Date: 23-Nov-2020 17:08:30 Instrument ID: 9355 Operator ID: clm27445

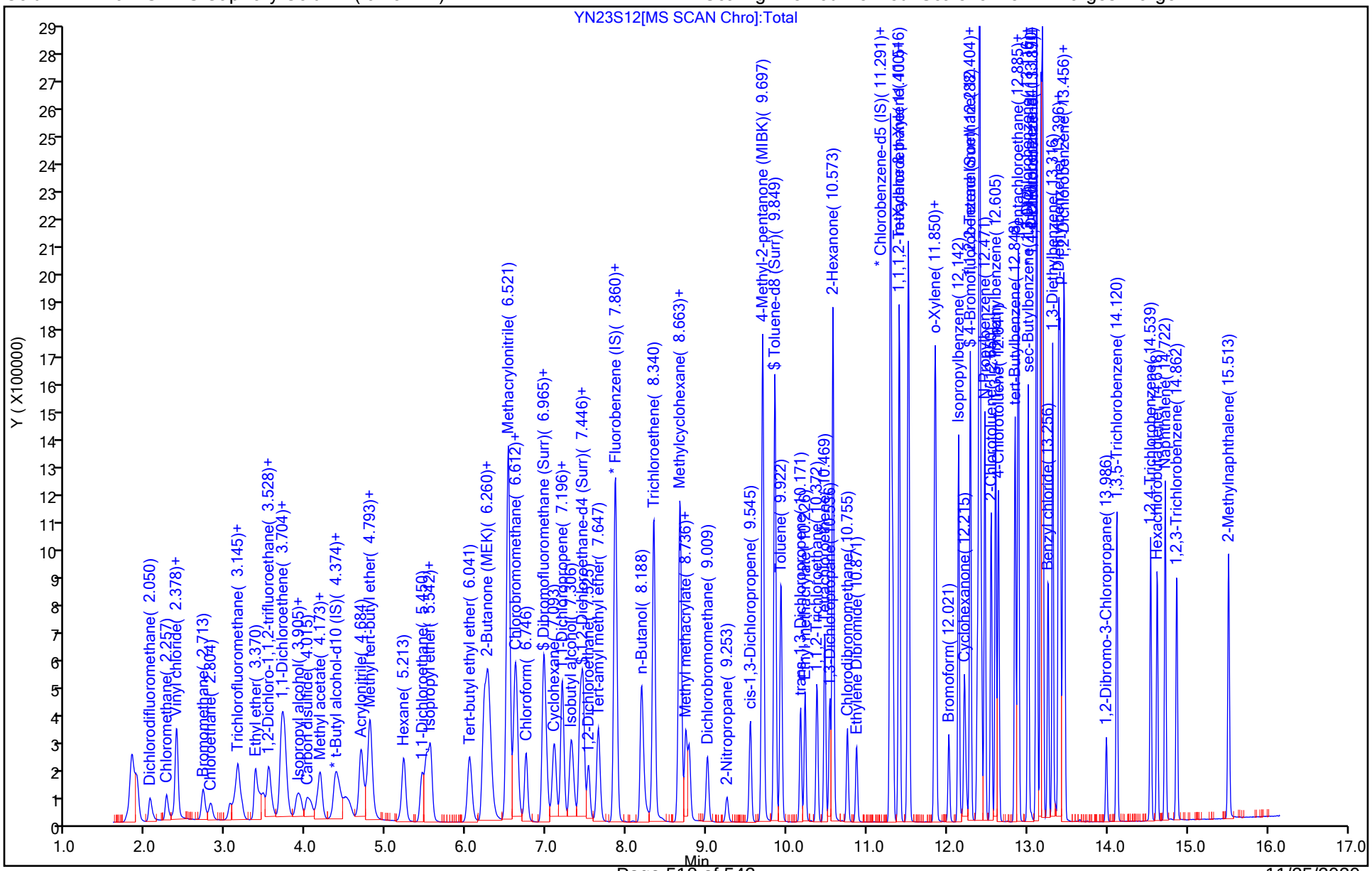
Lims ID: 410-21210-A-16 MSD Worklist Smp#: 21

Client ID: J18-UC02

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 21

Method: MSVoa_9355 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

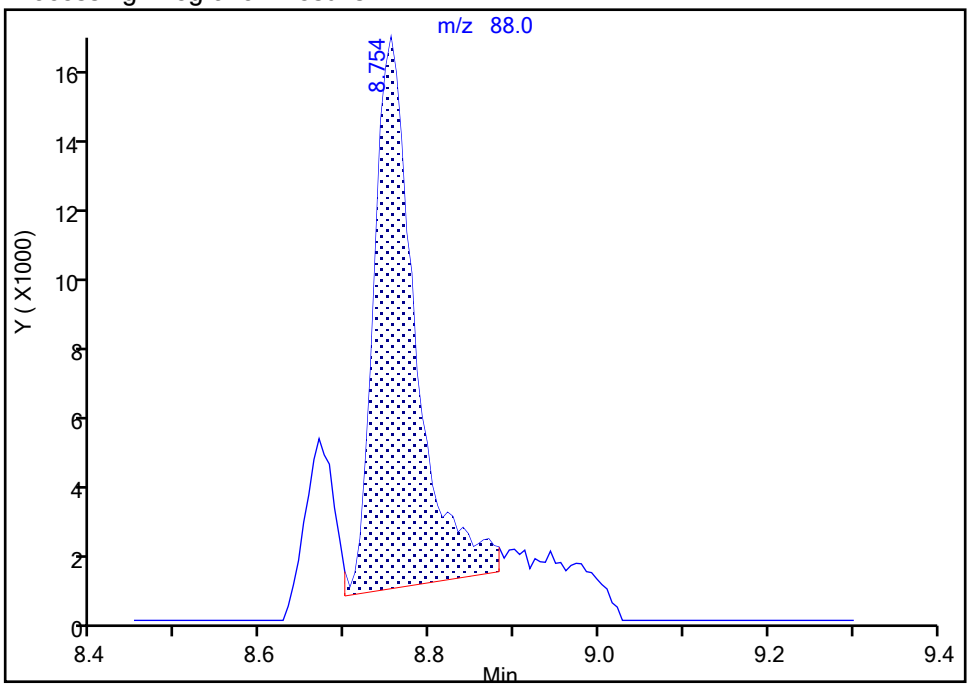
Data File:	\\chromfs\Lancaster\ChromData\9355\20201123-16252.b\YN23S12.D				
Injection Date:	23-Nov-2020 17:08:30	Instrument ID:	9355		
Lims ID:	410-21210-A-16 MSD				
Client ID:	J18-UC02				
Operator ID:	clm27445	ALS Bottle#:	21	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_9355	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

69 1,4-Dioxane, CAS: 123-91-1

Signal: 1

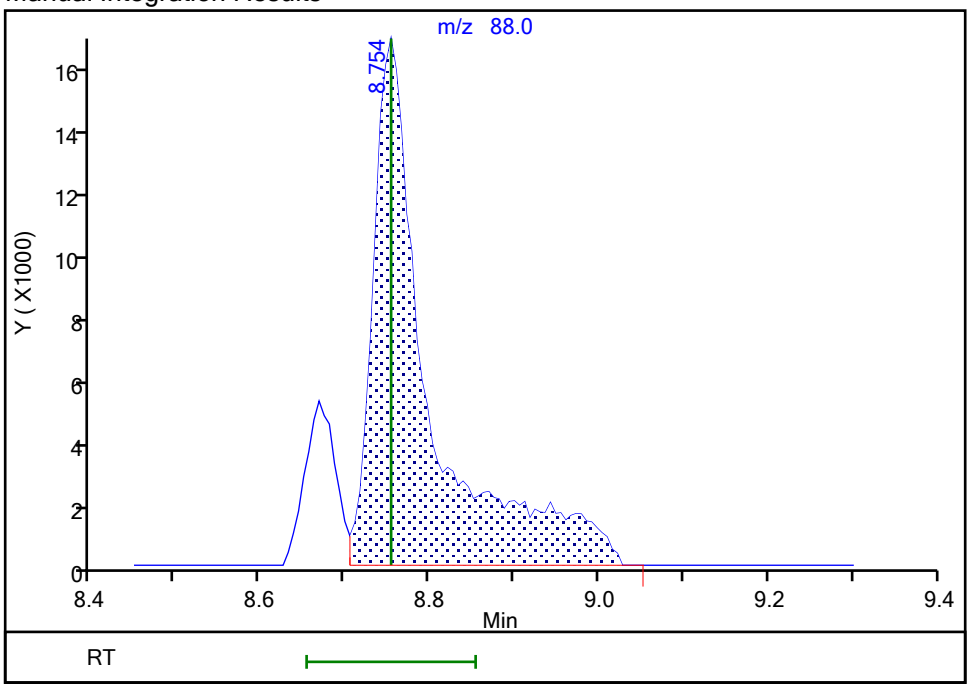
Processing Integration Results

RT: 8.75
Area: 53771
Amount: 411.5893
Amount Units: ug/l



Manual Integration Results

RT: 8.75
Area: 77582
Amount: 593.8503
Amount Units: ug/l



Reviewer: proctore, 23-Nov-2020 17:53:59

Audit Action: Split an Integrated Peak Audit Reason: Split Peak

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Instrument ID: 9355 Start Date: 11/02/2020 23:20

Analysis Batch Number: 61287 End Date: 11/03/2020 02:53

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-61287/1		11/02/2020 23:20	1	YN02T31.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/3		11/02/2020 23:57	1	YN02I31.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/4		11/03/2020 00:19	1	YN02I32.D	R-624SilMS 30m 0.25(mm)
ICIS 410-61287/5		11/03/2020 00:41	1	YN02I33.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/6		11/03/2020 01:03	1	YN02I34.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/7		11/03/2020 01:25	1	YN02I35.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/8		11/03/2020 01:47	1	YN02I36.D	R-624SilMS 30m 0.25(mm)
IC 410-61287/9		11/03/2020 02:09	1	YN02I37.D	R-624SilMS 30m 0.25(mm)
ICV 410-61287/11		11/03/2020 02:53	1	YN02V31.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Instrument ID: 9355 Start Date: 11/20/2020 08:20

Analysis Batch Number: 68475 End Date: 11/20/2020 19:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-68475/1		11/20/2020 08:20	1	YN20T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-68475/3		11/20/2020 09:07	1	YN20C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-68475/5		11/20/2020 09:52	1	YN20L01.D	R-624SilMS 30m 0.25(mm)
MB 410-68475/7		11/20/2020 10:36	1	YN20B01.D	R-624SilMS 30m 0.25(mm)
410-21210-11	TB111320	11/20/2020 11:41	1	YN20S01.D	R-624SilMS 30m 0.25(mm)
410-21210-5	J14-BR01	11/20/2020 12:03	1	YN20S02.D	R-624SilMS 30m 0.25(mm)
410-21210-5 MS	J14-BR01 MS	11/20/2020 12:25	1	YN20S03.D	R-624SilMS 30m 0.25(mm)
410-21210-5 MSD	J14-BR01 MSD	11/20/2020 12:47	1	YN20S04.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:09	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:32	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 13:53	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 14:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 14:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:00	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:22	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 15:44	1		R-624SilMS 30m 0.25(mm)
410-21210-1	J16-UC01	11/20/2020 16:06	1	YN20S13.D	R-624SilMS 30m 0.25(mm)
410-21210-2	J21-UC01	11/20/2020 16:28	1	YN20S14.D	R-624SilMS 30m 0.25(mm)
410-21210-3	J16-UC02	11/20/2020 16:50	1	YN20S15.D	R-624SilMS 30m 0.25(mm)
410-21210-4	J14-UC01	11/20/2020 17:12	1	YN20S16.D	R-624SilMS 30m 0.25(mm)
410-21210-6	J14-UC02	11/20/2020 17:34	1	YN20S17.D	R-624SilMS 30m 0.25(mm)
410-21210-7	J14-BR02	11/20/2020 17:56	1	YN20S18.D	R-624SilMS 30m 0.25(mm)
410-21210-8	J17-UC01	11/20/2020 18:18	1	YN20S19.D	R-624SilMS 30m 0.25(mm)
410-21210-9	J17-BR01	11/20/2020 18:39	1	YN20S20.D	R-624SilMS 30m 0.25(mm)
410-21210-10	J17-UC02	11/20/2020 19:01	1	YN20S21.D	R-624SilMS 30m 0.25(mm)
410-21210-23	MW-1S	11/20/2020 19:23	1	YN20S22.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Instrument ID: 9355 Start Date: 11/20/2020 19:46

Analysis Batch Number: 68801 End Date: 11/21/2020 07:05

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-68801/1		11/20/2020 19:46	1	YN20T50.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-68801/3		11/20/2020 20:34	1	YN20C50.D	R-624SilMS 30m 0.25(mm)
LCS 410-68801/4		11/20/2020 20:56	1	YN20L50.D	R-624SilMS 30m 0.25(mm)
MB 410-68801/6		11/20/2020 21:40	1	YN20B50.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 22:18	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 22:40	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 23:02	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 23:24	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/20/2020 23:46	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 00:08	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 00:30	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 00:52	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 01:14	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 01:36	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 01:58	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 02:19	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 02:41	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 03:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 03:25	1		R-624SilMS 30m 0.25(mm)
410-21210-17	J18-UC03	11/21/2020 03:47	1	YN20S66.D	R-624SilMS 30m 0.25(mm)
410-21210-18	J19-UC01	11/21/2020 04:09	1	YN20S67.D	R-624SilMS 30m 0.25(mm)
410-21210-19	J19-UC02	11/21/2020 04:31	1	YN20S68.D	R-624SilMS 30m 0.25(mm)
410-21210-20	J15-UC01	11/21/2020 04:53	1	YN20S69.D	R-624SilMS 30m 0.25(mm)
410-21210-21	J15-UC02	11/21/2020 05:15	1	YN20S70.D	R-624SilMS 30m 0.25(mm)
410-21210-22	J06-UC02	11/21/2020 05:37	1	YN20S71.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 05:59	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 06:21	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 06:43	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 07:05	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Instrument ID: 9355 Start Date: 11/21/2020 08:33

Analysis Batch Number: 68925 End Date: 11/21/2020 20:03

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-68925/1		11/21/2020 08:33	1	YN21T10.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-68925/3		11/21/2020 09:21	1	YN21C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-68925/6		11/21/2020 10:27	1	YN21L01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 11:11	1		R-624SilMS 30m 0.25(mm)
MB 410-68925/9		11/21/2020 11:33	1	YN21B01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 12:21	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 12:43	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 13:05	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 13:27	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 13:50	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 14:11	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 14:33	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 14:55	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/21/2020 15:18	1		R-624SilMS 30m 0.25(mm)
410-21210-12	J22-BR02	11/21/2020 15:39	1	YN21S10.D	R-624SilMS 30m 0.25(mm)
410-21210-13	J22-BR01	11/21/2020 16:01	1	YN21S11.D	R-624SilMS 30m 0.25(mm)
410-21210-14	J23-UC01	11/21/2020 16:24	1	YN21S12.D	R-624SilMS 30m 0.25(mm)
410-21210-15	J23-UC02	11/21/2020 16:46	1	YN21S13.D	R-624SilMS 30m 0.25(mm)
410-21210-24	MW-1D	11/21/2020 17:08	1	YN21S14.D	R-624SilMS 30m 0.25(mm)
410-21210-25	DUP-03	11/21/2020 17:30	1	YN21S15.D	R-624SilMS 30m 0.25(mm)
410-21210-26	J20-UC02	11/21/2020 17:52	1	YN21S16.D	R-624SilMS 30m 0.25(mm)
410-21210-27	J20-UC01	11/21/2020 18:14	1	YN21S17.D	R-624SilMS 30m 0.25(mm)
410-21210-28	J20-BR02	11/21/2020 18:36	1	YN21S18.D	R-624SilMS 30m 0.25(mm)
410-21210-29	J20-BR01	11/21/2020 18:57	1	YN21S19.D	R-624SilMS 30m 0.25(mm)
410-21210-30	J08-UC01	11/21/2020 19:19	1	YN21S20.D	R-624SilMS 30m 0.25(mm)
410-21210-31	J07-UC02	11/21/2020 19:41	1	YN21S21.D	R-624SilMS 30m 0.25(mm)
410-21210-32	RIZ-19	11/21/2020 20:03	1	YN21S22.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21210-1

SDG No.:

Instrument ID: 9355 Start Date: 11/23/2020 09:00

Analysis Batch Number: 69288 End Date: 11/23/2020 20:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-69288/1		11/23/2020 09:00	1	YN23T02.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-69288/3		11/23/2020 09:48	1	YN23C01.D	R-624SilMS 30m 0.25(mm)
CCV 410-69288/4		11/23/2020 10:10	1		R-624SilMS 30m 0.25(mm)
LCS 410-69288/6		11/23/2020 10:54	1	YN23L01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 11:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 12:00	1		R-624SilMS 30m 0.25(mm)
MB 410-69288/9		11/23/2020 12:22	1	YN23B01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 13:05	1		R-624SilMS 30m 0.25(mm)
410-21210-33	EB111620	11/23/2020 13:27	1	YN23S02.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 13:49	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 14:11	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 14:33	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 14:56	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 15:18	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 15:40	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 16:02	10		R-624SilMS 30m 0.25(mm)
410-21210-16	J18-UC02	11/23/2020 16:24	1	YN23S10.D	R-624SilMS 30m 0.25(mm)
410-21210-16 MS	J18-UC02 MS	11/23/2020 16:46	1	YN23S11.D	R-624SilMS 30m 0.25(mm)
410-21210-16 MSD	J18-UC02 MSD	11/23/2020 17:08	1	YN23S12.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 17:30	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 17:52	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 18:15	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 18:37	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 18:59	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 19:21	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 19:43	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/23/2020 20:05	1		R-624SilMS 30m 0.25(mm)
410-21210-15 DL	J23-UC02 DL	11/23/2020 20:27	10	YN23S21.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 61287 Batch Start Date: 11/02/20 23:20 Batch Analyst: Viray, Don V

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_4ppbEE 00115	MSV_502QGas 00112	MSV_DCFM 00024	MSV_HP20_ISSS 00029
BFB 410-61287/1		8260C		1 uL	1 uL				
IC 410-61287/3		8260C		5 mL	5 mL			7.5 uL	1 uL
IC 410-61287/4		8260C		5 mL	5 mL			2.5 uL	1 uL
ICIS 410-61287/5		8260C		5 mL	5 mL			2.5 uL	1 uL
IC 410-61287/6		8260C		5 mL	5 mL			2 uL	1 uL
IC 410-61287/7		8260C		5 mL	5 mL			1 uL	1 uL
IC 410-61287/8		8260C		5 mL	5 mL			2 uL	1 uL
IC 410-61287/9		8260C		5 mL	5 mL	12.5 mL			1 uL
ICV 410-61287/11		8260C		5 mL	5 mL		1 uL	1 uL	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_QARC 00052	MSV_Q_QVOA1 00053	MSV_Q_QVOA6 00050	MSV_QCYC 00004	MSV_V_2CEVE 00118
BFB 410-61287/1		8260C							
IC 410-61287/3		8260C							15 uL
IC 410-61287/4		8260C							5 uL
ICIS 410-61287/5		8260C							5 uL
IC 410-61287/6		8260C							4 uL
IC 410-61287/7		8260C							2 uL
IC 410-61287/8		8260C							4 uL
IC 410-61287/9		8260C							
ICV 410-61287/11		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00164	MSV_V_VOA1 00106	MSV_V_VOA2 00056	MSV_V_VOA3 00053
BFB 410-61287/1		8260C		1 uL					
IC 410-61287/3		8260C			15 uL	7.5 uL	15 uL		6 uL
IC 410-61287/4		8260C			5 uL	2.5 uL	5 uL		2 uL
ICIS 410-61287/5		8260C			5 uL	2.5 uL	5 uL		2 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 61287 Batch Start Date: 11/02/20 23:20 Batch Analyst: Viray, Don V

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00164	MSV_V_VOA1 00106	MSV_V_VOA2 00056	MSV_V_VOA3 00053
IC 410-61287/6		8260C			4 uL	2 uL	4 uL	4 uL	1.6 uL
IC 410-61287/7		8260C			2 uL	1 uL	2 uL	2 uL	0.8 uL
IC 410-61287/8		8260C			4 uL	2 uL	4 uL	12 uL	1.6 uL
IC 410-61287/9		8260C							
ICV 410-61287/11		8260C							

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00059	MSV_VCYC 00005				
BFB 410-61287/1		8260C							
IC 410-61287/3		8260C		15 uL	30 uL				
IC 410-61287/4		8260C		5 uL	10 uL				
ICIS 410-61287/5		8260C		5 uL	10 uL				
IC 410-61287/6		8260C		4 uL	16 uL				
IC 410-61287/7		8260C		2 uL	8 uL				
IC 410-61287/8		8260C		4 uL	32 uL				
IC 410-61287/9		8260C							
ICV 410-61287/11		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68475 Batch Start Date: 11/20/20 08:20 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_DCFM 00030
BFB 410-68475/1		8260C		1 uL	1 uL				
CCVIS 410-68475/3		8260C		5 mL	5 mL				2.5 uL
LCS 410-68475/5		8260C		5 mL	5 mL				
MB 410-68475/7		8260C		5 mL	5 mL				
410-21210-A-11	TB111320	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-5	J14-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-5 MS	J14-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-5 MSD	J14-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-1	J16-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-2	J21-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-3	J16-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-4	J14-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-6	J14-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-7	J14-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-8	J17-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-9	J17-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-10	J17-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-23	MW-1S	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP20_ISSS 00031	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053
BFB 410-68475/1		8260C							
CCVIS 410-68475/3		8260C		1 uL					
LCS 410-68475/5		8260C		1 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-68475/7		8260C		1 uL					
410-21210-A-11	TB111320	8260C	T	1 uL					
410-21210-A-5	J14-BR01	8260C	T	1 uL					
410-21210-A-5 MS	J14-BR01	8260C	T	1 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68475 Batch Start Date: 11/20/20 08:20 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP20_ISSS 00031	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053
410-21210-A-5 MSD	J14-BR01	8260C	T	1 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-21210-A-1	J16-UC01	8260C	T	1 uL					
410-21210-A-2	J21-UC01	8260C	T	1 uL					
410-21210-A-3	J16-UC02	8260C	T	1 uL					
410-21210-A-4	J14-UC01	8260C	T	1 uL					
410-21210-A-6	J14-UC02	8260C	T	1 uL					
410-21210-A-7	J14-BR02	8260C	T	1 uL					
410-21210-A-8	J17-UC01	8260C	T	1 uL					
410-21210-A-9	J17-BR01	8260C	T	1 uL					
410-21210-A-10	J17-UC02	8260C	T	1 uL					
410-21210-A-23	MW-1S	8260C	T	1 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111
BFB 410-68475/1		8260C				1 uL			
CCVIS 410-68475/3		8260C			5 uL		5 uL	2.5 uL	5 uL
LCS 410-68475/5		8260C		50 uL					
MB 410-68475/7		8260C							
410-21210-A-11	TB111320	8260C	T						
410-21210-A-5	J14-BR01	8260C	T						
410-21210-A-5 MS	J14-BR01	8260C	T	21.5 uL					
410-21210-A-5 MSD	J14-BR01	8260C	T	21.5 uL					
410-21210-A-1	J16-UC01	8260C	T						
410-21210-A-2	J21-UC01	8260C	T						
410-21210-A-3	J16-UC02	8260C	T						
410-21210-A-4	J14-UC01	8260C	T						
410-21210-A-6	J14-UC02	8260C	T						
410-21210-A-7	J14-BR02	8260C	T						
410-21210-A-8	J17-UC01	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68475 Batch Start Date: 11/20/20 08:20 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111
410-21210-A-9	J17-BR01	8260C	T						
410-21210-A-10	J17-UC02	8260C	T						
410-21210-A-23	MW-1S	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00062	MSV_VCYC 00005			
BFB 410-68475/1		8260C							
CCVIS 410-68475/3		8260C		2 uL	5 uL	10 uL			
LCS 410-68475/5		8260C							
MB 410-68475/7		8260C							
410-21210-A-11	TB111320	8260C	T						
410-21210-A-5	J14-BR01	8260C	T						
410-21210-A-5 MS	J14-BR01	8260C	T						
410-21210-A-5 MSD	J14-BR01	8260C	T						
410-21210-A-1	J16-UC01	8260C	T						
410-21210-A-2	J21-UC01	8260C	T						
410-21210-A-3	J16-UC02	8260C	T						
410-21210-A-4	J14-UC01	8260C	T						
410-21210-A-6	J14-UC02	8260C	T						
410-21210-A-7	J14-BR02	8260C	T						
410-21210-A-8	J17-UC01	8260C	T						
410-21210-A-9	J17-BR01	8260C	T						
410-21210-A-10	J17-UC02	8260C	T						
410-21210-A-23	MW-1S	8260C	T						

Batch Notes	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68475 Batch Start Date: 11/20/20 08:20 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68801 Batch Start Date: 11/20/20 19:46 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_HP20_ISSS 00031
BFB 410-68801/1		8260C		1 uL	1 uL				
CCVIS 410-68801/3		8260C		5 mL	5 mL				1 uL
LCS 410-68801/4		8260C		5 mL	5 mL				1 uL
MB 410-68801/6		8260C		5 mL	5 mL				1 uL
410-21210-A-17	J18-UC03	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21210-A-18	J19-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21210-A-19	J19-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21210-A-20	J15-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21210-A-21	J15-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21210-A-22	J06-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053	MSV_QCYC 00004
BFB 410-68801/1		8260C							
CCVIS 410-68801/3		8260C							
LCS 410-68801/4		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-68801/6		8260C							
410-21210-A-17	J18-UC03	8260C	T						
410-21210-A-18	J19-UC01	8260C	T						
410-21210-A-19	J19-UC02	8260C	T						
410-21210-A-20	J15-UC01	8260C	T						
410-21210-A-21	J15-UC02	8260C	T						
410-21210-A-22	J06-UC02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111	MSV_V_VOA3 00055
BFB 410-68801/1		8260C			1 uL				
CCVIS 410-68801/3		8260C		5 uL		5 uL	2.5 uL	5 uL	2 uL
LCS 410-68801/4		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68801 Batch Start Date: 11/20/20 19:46 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111	MSV_V_VOA3 00055
MB 410-68801/6		8260C							
410-21210-A-17	J18-UC03	8260C	T						
410-21210-A-18	J19-UC01	8260C	T						
410-21210-A-19	J19-UC02	8260C	T						
410-21210-A-20	J15-UC01	8260C	T						
410-21210-A-21	J15-UC02	8260C	T						
410-21210-A-22	J06-UC02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00062	MSV_VCYC 00005				
BFB 410-68801/1		8260C							
CCVIS 410-68801/3		8260C		5 uL	10 uL				
LCS 410-68801/4		8260C							
MB 410-68801/6		8260C							
410-21210-A-17	J18-UC03	8260C	T						
410-21210-A-18	J19-UC01	8260C	T						
410-21210-A-19	J19-UC02	8260C	T						
410-21210-A-20	J15-UC01	8260C	T						
410-21210-A-21	J15-UC02	8260C	T						
410-21210-A-22	J06-UC02	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68925 Batch Start Date: 11/21/20 08:33 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_DCFM 00030
BFB 410-68925/1		8260C		1 uL	1 uL				
CCVIS 410-68925/3		8260C		5 mL	5 mL				2.5 uL
LCS 410-68925/6		8260C		5 mL	5 mL				
MB 410-68925/9		8260C		5 mL	5 mL				
410-21210-A-12	J22-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-13	J22-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-14	J23-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-15	J23-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-24	MW-1D	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-25	DUP-03	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-26	J20-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-27	J20-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-28	J20-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-29	J20-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-30	J08-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-31	J07-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-32	RIZ-19	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP20_ISSS 00031	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053
BFB 410-68925/1		8260C							
CCVIS 410-68925/3		8260C		1 uL					
LCS 410-68925/6		8260C		1 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-68925/9		8260C		1 uL					
410-21210-A-12	J22-BR02	8260C	T	1 uL					
410-21210-A-13	J22-BR01	8260C	T	1 uL					
410-21210-A-14	J23-UC01	8260C	T	1 uL					
410-21210-A-15	J23-UC02	8260C	T	1 uL					
410-21210-A-24	MW-1D	8260C	T	1 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68925 Batch Start Date: 11/21/20 08:33 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP20_ISSS 00031	MSV_Q_EE 00003	MSV_Q_QARC 00054	MSV_Q_QGases 00104	MSV_Q_QVOA1 00055	MSV_Q_QVOA6 00053
410-21210-A-25	DUP-03	8260C	T	1 uL					
410-21210-A-26	J20-UC02	8260C	T	1 uL					
410-21210-A-27	J20-UC01	8260C	T	1 uL					
410-21210-A-28	J20-BR02	8260C	T	1 uL					
410-21210-A-29	J20-BR01	8260C	T	1 uL					
410-21210-A-30	J08-UC01	8260C	T	1 uL					
410-21210-A-31	J07-UC02	8260C	T	1 uL					
410-21210-A-32	RIZ-19	8260C	T	1 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00123	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00173	MSV_V_VOA1 00111
BFB 410-68925/1		8260C				1 uL			
CCVIS 410-68925/3		8260C			5 uL		5 uL	2.5 uL	5 uL
LCS 410-68925/6		8260C		50 uL					
MB 410-68925/9		8260C							
410-21210-A-12	J22-BR02	8260C	T						
410-21210-A-13	J22-BR01	8260C	T						
410-21210-A-14	J23-UC01	8260C	T						
410-21210-A-15	J23-UC02	8260C	T						
410-21210-A-24	MW-1D	8260C	T						
410-21210-A-25	DUP-03	8260C	T						
410-21210-A-26	J20-UC02	8260C	T						
410-21210-A-27	J20-UC01	8260C	T						
410-21210-A-28	J20-BR02	8260C	T						
410-21210-A-29	J20-BR01	8260C	T						
410-21210-A-30	J08-UC01	8260C	T						
410-21210-A-31	J07-UC02	8260C	T						
410-21210-A-32	RIZ-19	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 68925 Batch Start Date: 11/21/20 08:33 Batch Analyst: Johnson, Sara E

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00055	MSV_V_VOA6 00062	MSV_VCYC 00005			
BFB 410-68925/1		8260C							
CCVIS 410-68925/3		8260C		2 uL	5 uL	10 uL			
LCS 410-68925/6		8260C							
MB 410-68925/9		8260C							
410-21210-A-12	J22-BR02	8260C	T						
410-21210-A-13	J22-BR01	8260C	T						
410-21210-A-14	J23-UC01	8260C	T						
410-21210-A-15	J23-UC02	8260C	T						
410-21210-A-24	MW-1D	8260C	T						
410-21210-A-25	DUP-03	8260C	T						
410-21210-A-26	J20-UC02	8260C	T						
410-21210-A-27	J20-UC01	8260C	T						
410-21210-A-28	J20-BR02	8260C	T						
410-21210-A-29	J20-BR01	8260C	T						
410-21210-A-30	J08-UC01	8260C	T						
410-21210-A-31	J07-UC02	8260C	T						
410-21210-A-32	RIZ-19	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 69288 Batch Start Date: 11/23/20 09:00 Batch Analyst: Proctor, Evan

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_DCFM 00030
BFB 410-69288/1		8260C		1 uL	1 uL				
CCVIS 410-69288/3		8260C		5 mL	5 mL				2.5 uL
LCS 410-69288/6		8260C		5 mL	5 mL				
MB 410-69288/9		8260C		5 mL	5 mL				
410-21210-C-33	EB111620	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-16	J18-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-16 MS	J18-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-A-16 MSD	J18-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21210-B-15	J23-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP20_ISSS 00031	MSV_Q_EE 00003	MSV_Q_QARC 00055	MSV_Q_QGases 00106	MSV_Q_QVOA1 00056	MSV_Q_QVOA6 00053
BFB 410-69288/1		8260C							
CCVIS 410-69288/3		8260C		1 uL					
LCS 410-69288/6		8260C		1 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-69288/9		8260C		1 uL					
410-21210-C-33	EB111620	8260C	T	1 uL					
410-21210-A-16	J18-UC02	8260C	T	1 uL					
410-21210-A-16 MS	J18-UC02	8260C	T	1 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-21210-A-16 MSD	J18-UC02	8260C	T	1 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL	21.5 uL
410-21210-B-15	J23-UC02	8260C	T	1 uL					

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00124	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00175	MSV_V_VOA1 00112
BFB 410-69288/1		8260C				1 uL			
CCVIS 410-69288/3		8260C			5 uL		5 uL	2.5 uL	5 uL
LCS 410-69288/6		8260C		50 uL					
MB 410-69288/9		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21210-1

SDG No.:

Batch Number: 69288 Batch Start Date: 11/23/20 09:00 Batch Analyst: Proctor, Evan

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00124	MSV_V_BFB 00003	MSV_V_EE 00004	MSV_V_Gas 00175	MSV_V_VOA1 00112
410-21210-C-33	EB111620	8260C	T						
410-21210-A-16	J18-UC02	8260C	T						
410-21210-A-16 MS	J18-UC02	8260C	T	21.5 uL					
410-21210-A-16 MSD	J18-UC02	8260C	T	21.5 uL					
410-21210-B-15	J23-UC02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00056	MSV_V_VOA6 00062	MSV_VCYC 00005			
BFB 410-69288/1		8260C							
CCVIS 410-69288/3		8260C		2 uL	5 uL	10 uL			
LCS 410-69288/6		8260C							
MB 410-69288/9		8260C							
410-21210-C-33	EB111620	8260C	T						
410-21210-A-16	J18-UC02	8260C	T						
410-21210-A-16 MS	J18-UC02	8260C	T						
410-21210-A-16 MSD	J18-UC02	8260C	T						
410-21210-B-15	J23-UC02	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

eurofins Environment Testing America

410-21210 Chain of Custody

Client Contact: George Lester	Sampler: Adam Robtoy	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.4
Company: VHB (Formerly The Johnson Co)	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 4 of 11
Address: 100 State Street Suite 600	Due Date Requested:	Analysis Requested		Job #:
City: Montpelier	TAT Requested (days):			Preservation Codes: A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602				
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			Other:
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
J16-UC01	11/12/20	1542	G	Water		N	X	3	
J21-UC01	11/12/20	1202	G	Water		N	X	3	
J16-UC02	11/12/20	1456	G	Water		N	X	3	
J14-UC01	11/13/20	838	G	Water		N	X	3	
J14-BR01	11/13/20	958	G	Water		Y	X	9	MS/MSD
J14-UC02	11/13/20	1100	G	Water		N	X	3	
J14-BR02	11/13/20	1212	G	Water		N	X	3	
J17-UC01	11/13/20	1354	G	Water		N	X	3	
J17-BR01	11/13/20	1515	G	Water		N	X	3	
J17-UC02	11/13/20	1612	G	Water		N	X	3	
TB 111320	—	—	—	Water		N	X	2	TRIP BLANK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:		Date:	Time:	Method of Shipment:		
Relinquished by:	Date/Time: 11/16/20 1700	Company: VHB	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company	
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/17/20 1126	Company: EDE	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.1

Ver: 01/16/2019

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Adam Rokhoy	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.5
Client Contact: George Lester	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 5 of 11
Company: VHB (Formerly The Johnson Co)				Job #:
Address: 100 State Street Suite 600	Due Date Requested:	Analysis Requested		Preservation Codes:
City: Montpelier	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602				Other:
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
J22-BR02	11/15/20	1142	G	Water		N	X	3	
J22-BR01	11/15/20	1315	G	Water		N	X	3	
J23-UC01	11/15/20	1443	G	Water		N	X	3	
J23-UC02	11/15/20	1534	G	Water		N	X	3	
J18-UC02	11/16/20	824	G	Water		Y	X	9	MS/MSD
J18-UC03	11/16/20	956	G	Water		N	X	3	
J19-UC01	11/16/20	1110	G	Water		N	X	3	
J19-UC02	11/16/20	1218	G	Water		N	X	3	
J15-UC01	11/16/20	1333	G	Water		N	X	3	
J15-UC02	11/16/20	1420	G	Water		N	X	3	
J06-UC02	11/16/20	1610	G	Water		N	X	3	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
	11/16/20 / 1700	VHB			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: MR	Date/Time: 11/17/20 1126	Company EST

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.1

Ver: 01/16/2019

C3

11/25/2020

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Emily Rodriguez	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.11
Client Contact: George Lester	Phone: 210-551-9112	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 11 of 11
Company: VHB (Formerly The Johnson Co)				Job #:
Address: 100 State Street Suite 600	Due Date Requested:			
City: Montpelier	TAT Requested (days):			
State, Zip: VT, 05602				
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
MW-1S	11/13/20	10:00	G	Water		N	X	3	
MW-1D	11/13/20	12:05	G	Water		N	X	3	
DUP-03	11/13/20	12:10	G	Water		N	X	3	
J20-UC02	11/14/20	908	G	Water		N	X	3	
J20-UC01	11/14/20	949	G	W		N	X	3	
J20-BR02	11/14/20	1118	G	W		N	X	3	
J20-BR01	11/14/20	1334	G	W		N	X	3	
J08-UC01	11/14/20	1458	G	W		N	X	3	
J07-UC02	11/14/20	1613	G	W		N	X	3	
RIZ-19	11/15/20	1630	G	W		N	X	3	
EB111620	11/16/20	1630	G	DI		N	X	3	Equip. Blank

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Emily Rodriguez	11/16/20 / 1700	VHB			
				~~11/2~~ 11/17/20 ~~1123~~ 1126	Elle

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		③ MR 25684 11/17/20 2.1

Ver: 01/16/2019

CB

11/25/2020

Login Sample Receipt Checklist

Client: VHB (Formerly The Johnson Co) Job Number: 410-21210-1

Login Number: 21210 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Barns, Christopher

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	False	Refer to Job Narrative for details.
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

ANALYTICAL REPORT

Job Number: 410-21451-1

Job Description: AD New Windsor

For:
VHB (Formerly The Johnson Co)
100 State Street
Suite 600
Montpelier, VT 05602

Attention: George Lester



Approved for release.
Elizabeth M Zanar
Project Manager
12/3/2020 3:25 PM

Elizabeth M Zanar, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7290
Elizabeth.Zanar@eurofinset.com
12/03/2020

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 410-21451-1

Job Description: AD New Windsor

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

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Table of Contents

Cover Title Page 1

Data Summaries 5

Report Narrative 5

Sample Summary 6

Detection Summary 7

Method Summary 9

Client Sample Results 10

Surrogate Summary 20

QC Sample Results 21

Definitions 26

QC Association 27

Chronicle 28

Certification Summary 30

Organic Sample Data 31

GC/MS VOA 31

Method 8260C 31

Method 8260C QC Summary 32

Method 8260C Sample Data 53

Standards Data 139

Method 8260C ICAL Data 139

Method 8260C CCAL Data 204

Raw QC Data 244

Method 8260C Tune Data 244

Method 8260C Blank Data 260

Method 8260C LCS/LCSD Data 281

Method 8260C Run Logs 309

Table of Contents

Method 8260C Prep Data 313

Shipping and Receiving Documents 322

Client Chain of Custody 323

Sample Receipt Checklist 325

Job Narrative
410-21451-1

Receipt
The samples were received on 11/19/2020 11:10 AM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.4°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21451-1
Project/Site: AD New Windsor

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-21451-1	J11-BR02	Water	11/17/20 09:57	11/19/20 11:10	
410-21451-2	J11-UC02	Water	11/17/20 08:42	11/19/20 11:10	
410-21451-3	J11-UC01	Water	11/17/20 10:40	11/19/20 11:10	
410-21451-4	J11-BR01	Water	11/17/20 11:48	11/19/20 11:10	
410-21451-5	MW-2	Water	11/17/20 13:44	11/19/20 11:10	
410-21451-6	Dup-02	Water	11/17/20 14:30	11/19/20 11:10	
410-21451-7	MW-2I	Water	11/17/20 15:40	11/19/20 11:10	
410-21451-8	TB111720	Water	11/17/20 00:00	11/19/20 11:10	
410-21451-9	J02-UC01	Water	11/18/20 08:28	11/19/20 11:10	
410-21451-10	J02-BR02	Water	11/18/20 09:38	11/19/20 11:10	
410-21451-11	J02-BR01	Water	11/18/20 10:57	11/19/20 11:10	
410-21451-12	RIZ-7	Water	11/18/20 12:03	11/19/20 11:10	
410-21451-13	J06-UC01	Water	11/18/20 13:12	11/19/20 11:10	
410-21451-14	EB111820	Water	11/18/20 14:00	11/19/20 11:10	

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21451-1

Client Sample ID: J11-BR02 — Lab Sample ID: 410-21451-1

No Detections.

Client Sample ID: J11-UC02 — Lab Sample ID: 410-21451-2

No Detections.

Client Sample ID: J11-UC01 — Lab Sample ID: 410-21451-3

No Detections.

Client Sample ID: J11-BR01 — Lab Sample ID: 410-21451-4

No Detections.

Client Sample ID: MW-2 — Lab Sample ID: 410-21451-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	40		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.0		1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	15		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.5		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene - DL	290		10	2.0	ug/L	10		8260C	Total/NA

Client Sample ID: Dup-02 — Lab Sample ID: 410-21451-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	40		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.3		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	5.0		1.0	0.20	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	16		1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	2.5		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene - DL	300		10	2.0	ug/L	10		8260C	Total/NA

Client Sample ID: MW-2I — Lab Sample ID: 410-21451-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	0.38	J	1.0	0.30	ug/L	1		8260C	Total/NA
cis-1,2-Dichloroethene	1.1		1.0	0.20	ug/L	1		8260C	Total/NA
trans-1,2-Dichloroethene	0.75	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	6.4		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: TB111720 — Lab Sample ID: 410-21451-8

No Detections.

Client Sample ID: J02-UC01 — Lab Sample ID: 410-21451-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Tetrachloroethene	0.20	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: J02-BR02 — Lab Sample ID: 410-21451-10

No Detections.

Client Sample ID: J02-BR01 — Lab Sample ID: 410-21451-11

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21451-1

Client Sample ID: RIZ-7 — Lab Sample ID: 410-21451-12

No Detections.

Client Sample ID: J06-UC01 — Lab Sample ID: 410-21451-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Trichloroethene	0.64	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: EB111820 — Lab Sample ID: 410-21451-14

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21451-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample ID: J11-BR02
Lab Sample ID: 410-21451-1

Date Collected: 11/17/20 09:57
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 13:47	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 13:47	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 13:47	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 13:47	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 13:47	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 13:47	1
Acetone	ND		20	0.70	ug/L			11/28/20 13:47	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 13:47	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 13:47	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 13:47	1
Freon 113	ND		10	0.20	ug/L			11/28/20 13:47	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 13:47	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 13:47	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 13:47	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 13:47	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/28/20 13:47*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/28/20 13:47*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/28/20 13:47*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 13:47*	*1*

Client Sample ID: J11-UC02
Lab Sample ID: 410-21451-2

Date Collected: 11/17/20 08:42
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:10	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 14:10	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 14:10	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:10	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 14:10	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 14:10	1
Acetone	ND		20	0.70	ug/L			11/28/20 14:10	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 14:10	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 14:10	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 14:10	1
Freon 113	ND		10	0.20	ug/L			11/28/20 14:10	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 14:10	1

Client Sample ID: J11-UC02
Lab Sample ID: 410-21451-2

Date Collected: 11/17/20 08:42
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 14:10	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 14:10	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 14:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/28/20 14:10*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/28/20 14:10*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/28/20 14:10*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 14:10*	*1*

Client Sample ID: J11-UC01
Lab Sample ID: 410-21451-3

Date Collected: 11/17/20 10:40
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:33	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 14:33	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 14:33	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:33	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 14:33	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 14:33	1
Acetone	ND		20	0.70	ug/L			11/28/20 14:33	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 14:33	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 14:33	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 14:33	1
Freon 113	ND		10	0.20	ug/L			11/28/20 14:33	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 14:33	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 14:33	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 14:33	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 14:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/28/20 14:33*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/28/20 14:33*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/28/20 14:33*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 14:33*	*1*

Client Sample ID: J11-BR01
Lab Sample ID: 410-21451-4

Date Collected: 11/17/20 11:48
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:55	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 14:55	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 14:55	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 14:55	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 14:55	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 14:55	1
Acetone	ND		20	0.70	ug/L			11/28/20 14:55	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 14:55	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 14:55	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 14:55	1
Freon 113	ND		10	0.20	ug/L			11/28/20 14:55	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 14:55	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 14:55	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 14:55	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 14:55	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/28/20 14:55*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/28/20 14:55*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/28/20 14:55*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/28/20 14:55*	*1*

Client Sample ID: MW-2
Lab Sample ID: 410-21451-5

Date Collected: 11/17/20 13:44
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**40**		1.0	0.30	ug/L			11/28/20 15:18	1
1,1-Dichloroethane	**1.2**		1.0	0.20	ug/L			11/28/20 15:18	1
1,1-Dichloroethene	**5.0**		1.0	0.20	ug/L			11/28/20 15:18	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 15:18	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 15:18	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 15:18	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 15:18	1
Acetone	ND		20	0.70	ug/L			11/28/20 15:18	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 15:18	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 15:18	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 15:18	1
cis-1,2-Dichloroethene	**15**		1.0	0.20	ug/L			11/28/20 15:18	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 15:18	1
Freon 113	ND		10	0.20	ug/L			11/28/20 15:18	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 15:18	1

Client Sample ID: MW-2
Lab Sample ID: 410-21451-5

Date Collected: 11/17/20 13:44
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 15:18	1
Tetrachloroethene	**2.5**		1.0	0.20	ug/L			11/28/20 15:18	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 15:18	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 15:18	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 15:18	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 15:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/28/20 15:18*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/28/20 15:18*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/28/20 15:18*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 15:18*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**290**		10	2.0	ug/L			12/01/20 03:51	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*12/01/20 03:51*	*10*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/01/20 03:51*	*10*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*12/01/20 03:51*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/01/20 03:51*	*10*

Client Sample ID: Dup-02
Lab Sample ID: 410-21451-6

Date Collected: 11/17/20 14:30
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**40**		1.0	0.30	ug/L			11/28/20 15:41	1
1,1-Dichloroethane	**1.3**		1.0	0.20	ug/L			11/28/20 15:41	1
1,1-Dichloroethene	**5.0**		1.0	0.20	ug/L			11/28/20 15:41	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 15:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 15:41	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 15:41	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 15:41	1
Acetone	ND		20	0.70	ug/L			11/28/20 15:41	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 15:41	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 15:41	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 15:41	1
cis-1,2-Dichloroethene	**16**		1.0	0.20	ug/L			11/28/20 15:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 15:41	1
Freon 113	ND		10	0.20	ug/L			11/28/20 15:41	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 15:41	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 15:41	1
Tetrachloroethene	**2.5**		1.0	0.20	ug/L			11/28/20 15:41	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 15:41	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 15:41	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 15:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 15:41	1

Client Sample ID: Dup-02
Lab Sample ID: 410-21451-6

Date Collected: 11/17/20 14:30
Matrix: Water
Date Received: 11/19/20 11:10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/28/20 15:41*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/28/20 15:41*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/28/20 15:41*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/28/20 15:41*	*1*

Method: 8260C - Volatile Organic Compounds by GC/MS - DL

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	**300**		10	2.0	ug/L			12/01/20 04:13	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*12/01/20 04:13*	*10*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*12/01/20 04:13*	*10*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*12/01/20 04:13*	*10*
Toluene-d8 (Surr)	*101*		*80 - 120*		*12/01/20 04:13*	*10*

Client Sample ID: MW-2I
Lab Sample ID: 410-21451-7

Date Collected: 11/17/20 15:40
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**0.38**	**J**	1.0	0.30	ug/L			11/28/20 16:03	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 16:03	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:03	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 16:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 16:03	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 16:03	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 16:03	1
Acetone	ND		20	0.70	ug/L			11/28/20 16:03	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 16:03	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 16:03	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 16:03	1
cis-1,2-Dichloroethene	**1.1**		1.0	0.20	ug/L			11/28/20 16:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 16:03	1
Freon 113	ND		10	0.20	ug/L			11/28/20 16:03	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 16:03	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 16:03	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 16:03	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 16:03	1
trans-1,2-Dichloroethene	**0.75**	**J**	1.0	0.20	ug/L			11/28/20 16:03	1
Trichloroethene	**6.4**		1.0	0.20	ug/L			11/28/20 16:03	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 16:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 16:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/28/20 16:03*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/28/20 16:03*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/28/20 16:03*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 16:03*	*1*

Client Sample ID: TB111720
Lab Sample ID: 410-21451-8

Date Collected: 11/17/20 00:00
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 13:02	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 13:02	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 13:02	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 13:02	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 13:02	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 13:02	1
Acetone	ND		20	0.70	ug/L			11/28/20 13:02	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 13:02	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 13:02	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 13:02	1
Freon 113	ND		10	0.20	ug/L			11/28/20 13:02	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 13:02	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 13:02	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 13:02	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 13:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/28/20 13:02*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*		*11/28/20 13:02*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/28/20 13:02*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/28/20 13:02*	*1*

Client Sample ID: J02-UC01
Lab Sample ID: 410-21451-9

Date Collected: 11/18/20 08:28
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 16:26	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 16:26	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 16:26	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 16:26	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 16:26	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 16:26	1
Acetone	ND		20	0.70	ug/L			11/28/20 16:26	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 16:26	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 16:26	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 16:26	1
Freon 113	ND		10	0.20	ug/L			11/28/20 16:26	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 16:26	1

Client Sample ID: J02-UC01
Lab Sample ID: 410-21451-9
Date Collected: 11/18/20 08:28
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 16:26	1
Tetrachloroethene	**0.20**	**J**	1.0	0.20	ug/L			11/28/20 16:26	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:26	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 16:26	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 16:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/28/20 16:26*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/28/20 16:26*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*11/28/20 16:26*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/28/20 16:26*	*1*

Client Sample ID: J02-BR02
Lab Sample ID: 410-21451-10
Date Collected: 11/18/20 09:38
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 16:49	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 16:49	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 16:49	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 16:49	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 16:49	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 16:49	1
Acetone	ND		20	0.70	ug/L			11/28/20 16:49	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 16:49	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 16:49	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 16:49	1
Freon 113	ND		10	0.20	ug/L			11/28/20 16:49	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 16:49	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 16:49	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 16:49	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 16:49	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*		*11/28/20 16:49*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/28/20 16:49*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/28/20 16:49*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/28/20 16:49*	*1*

Client Sample ID: J02-BR01
Lab Sample ID: 410-21451-11

Date Collected: 11/18/20 10:57
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:07	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/30/20 13:07	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/30/20 13:07	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:07	1
1,4-Dioxane	ND		250	29	ug/L			11/30/20 13:07	1
2-Butanone	ND		10	0.30	ug/L			11/30/20 13:07	1
Acetone	ND		20	0.70	ug/L			11/30/20 13:07	1
Benzene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/30/20 13:07	1
Chloroform	ND		1.0	0.20	ug/L			11/30/20 13:07	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/30/20 13:07	1
Freon 113	ND		10	0.20	ug/L			11/30/20 13:07	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/30/20 13:07	1
Naphthalene	ND		5.0	1.0	ug/L			11/30/20 13:07	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Toluene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Trichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/30/20 13:07	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/30/20 13:07	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/30/20 13:07*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/30/20 13:07*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/30/20 13:07*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/30/20 13:07*	*1*

Client Sample ID: RIZ-7
Lab Sample ID: 410-21451-12

Date Collected: 11/18/20 12:03
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:30	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/30/20 13:30	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/30/20 13:30	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:30	1
1,4-Dioxane	ND		250	29	ug/L			11/30/20 13:30	1
2-Butanone	ND		10	0.30	ug/L			11/30/20 13:30	1
Acetone	ND		20	0.70	ug/L			11/30/20 13:30	1
Benzene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/30/20 13:30	1
Chloroform	ND		1.0	0.20	ug/L			11/30/20 13:30	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/30/20 13:30	1
Freon 113	ND		10	0.20	ug/L			11/30/20 13:30	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/30/20 13:30	1

Client Sample ID: RIZ-7
Lab Sample ID: 410-21451-12
Date Collected: 11/18/20 12:03
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			11/30/20 13:30	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Toluene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Trichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/30/20 13:30	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/30/20 13:30	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/30/20 13:30*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/30/20 13:30*	*1*
Dibromofluoromethane (Surr)	*100*		*80 - 120*		*11/30/20 13:30*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/30/20 13:30*	*1*

Client Sample ID: J06-UC01
Lab Sample ID: 410-21451-13
Date Collected: 11/18/20 13:12
Matrix: Water
Date Received: 11/19/20 11:10

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:53	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/30/20 13:53	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/30/20 13:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/30/20 13:53	1
1,4-Dioxane	ND		250	29	ug/L			11/30/20 13:53	1
2-Butanone	ND		10	0.30	ug/L			11/30/20 13:53	1
Acetone	ND		20	0.70	ug/L			11/30/20 13:53	1
Benzene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/30/20 13:53	1
Chloroform	ND		1.0	0.20	ug/L			11/30/20 13:53	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/30/20 13:53	1
Freon 113	ND		10	0.20	ug/L			11/30/20 13:53	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/30/20 13:53	1
Naphthalene	ND		5.0	1.0	ug/L			11/30/20 13:53	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
Toluene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 13:53	1
Trichloroethene	**0.64**	**J**	1.0	0.20	ug/L			11/30/20 13:53	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/30/20 13:53	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/30/20 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*		*11/30/20 13:53*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/30/20 13:53*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/30/20 13:53*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/30/20 13:53*	*1*

Client Sample ID: EB111820
Date Collected: 11/18/20 14:00
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-14
Matrix: Water

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/30/20 10:50	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/30/20 10:50	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/30/20 10:50	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/30/20 10:50	1
1,4-Dioxane	ND		250	29	ug/L			11/30/20 10:50	1
2-Butanone	ND		10	0.30	ug/L			11/30/20 10:50	1
Acetone	ND		20	0.70	ug/L			11/30/20 10:50	1
Benzene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/30/20 10:50	1
Chloroform	ND		1.0	0.20	ug/L			11/30/20 10:50	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/30/20 10:50	1
Freon 113	ND		10	0.20	ug/L			11/30/20 10:50	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/30/20 10:50	1
Naphthalene	ND		5.0	1.0	ug/L			11/30/20 10:50	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Toluene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Trichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/30/20 10:50	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/30/20 10:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/30/20 10:50*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/30/20 10:50*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*11/30/20 10:50*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/30/20 10:50*	*1*

Surrogate Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21451-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-21451-1	J11-BR02	102	100	98	101
410-21451-2	J11-UC02	101	98	98	101
410-21451-3	J11-UC01	101	99	98	101
410-21451-4	J11-BR01	102	98	99	100
410-21451-5	MW-2	102	99	98	101
410-21451-5 - DL	MW-2	101	97	99	101
410-21451-6	Dup-02	101	99	99	100
410-21451-6 - DL	Dup-02	100	100	99	101
410-21451-7	MW-2I	101	98	99	101
410-21451-8	TB111720	100	101	99	100
410-21451-9	J02-UC01	102	99	100	101
410-21451-10	J02-BR02	100	98	99	100
410-21451-11	J02-BR01	102	98	101	100
410-21451-12	RIZ-7	101	98	100	101
410-21451-13	J06-UC01	102	99	99	100
410-21451-14	EB111820	99	98	99	100
LCS 410-70709/4	Lab Control Sample	102	99	97	101
LCS 410-70864/4	Lab Control Sample	100	99	98	100
LCS 410-71112/4	Lab Control Sample	102	99	100	100
LCSD 410-70709/5	Lab Control Sample Dup	101	99	98	101
LCSD 410-70864/5	Lab Control Sample Dup	100	99	100	101
MB 410-70709/7	Method Blank	99	98	98	100
MB 410-70864/7	Method Blank	101	100	98	101
MB 410-71112/6	Method Blank	101	99	101	100

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-70709/7
Matrix: Water
Analysis Batch: 70709

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/28/20 11:09	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/28/20 11:09	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/28/20 11:09	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/28/20 11:09	1
1,4-Dioxane	ND		250	29	ug/L			11/28/20 11:09	1
2-Butanone	ND		10	0.30	ug/L			11/28/20 11:09	1
Acetone	ND		20	0.70	ug/L			11/28/20 11:09	1
Benzene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/28/20 11:09	1
Chloroform	ND		1.0	0.20	ug/L			11/28/20 11:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/28/20 11:09	1
Freon 113	ND		10	0.20	ug/L			11/28/20 11:09	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/28/20 11:09	1
Naphthalene	ND		5.0	1.0	ug/L			11/28/20 11:09	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Toluene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Trichloroethene	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/28/20 11:09	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/28/20 11:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*11/28/20 11:09*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*		*11/28/20 11:09*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/28/20 11:09*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/28/20 11:09*	*1*

Lab Sample ID: LCS 410-70709/4
Matrix: Water
Analysis Batch: 70709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.9		ug/L		104	67 - 126
1,1-Dichloroethane	20.0	22.6		ug/L		113	80 - 120
1,1-Dichloroethene	20.0	23.3		ug/L		117	80 - 131
1,2-Dichlorobenzene	20.0	22.1		ug/L		111	80 - 120
1,2-Dichloroethane	20.0	19.5		ug/L		97	73 - 124
1,4-Dioxane	500	564		ug/L		113	63 - 146
2-Butanone	150	167		ug/L		112	59 - 135
Acetone	150	153		ug/L		102	54 - 157
Benzene	20.0	22.5		ug/L		112	80 - 120
Carbon disulfide	20.0	23.0		ug/L		115	65 - 128
Chloroform	20.0	21.4		ug/L		107	80 - 120
cis-1,2-Dichloroethene	20.0	23.6		ug/L		118	80 - 125
Ethylbenzene	20.0	22.7		ug/L		114	80 - 120
Freon 113	20.0	21.3		ug/L		107	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-70709/4
Matrix: Water
Analysis Batch: 70709

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	23.2		ug/L		116	80 - 120		
Naphthalene			20.0	22.2		ug/L		111	53 - 124		
Tetrachloroethene			20.0	20.7		ug/L		104	80 - 120		
Toluene			20.0	22.6		ug/L		113	80 - 120		
trans-1,2-Dichloroethene			20.0	22.6		ug/L		113	80 - 126		
Trichloroethene			20.0	22.1		ug/L		111	80 - 120		
Vinyl chloride			20.0	22.7		ug/L		114	56 - 120		
Xylenes, Total			60.0	67.7		ug/L		113	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*97*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 410-70709/5
Matrix: Water
Analysis Batch: 70709

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	20.8		ug/L		104	67 - 126	0	30
1,1-Dichloroethane			20.0	22.4		ug/L		112	80 - 120	1	30
1,1-Dichloroethene			20.0	23.1		ug/L		115	80 - 131	1	30
1,2-Dichlorobenzene			20.0	22.0		ug/L		110	80 - 120	1	30
1,2-Dichloroethane			20.0	19.5		ug/L		98	73 - 124	0	30
1,4-Dioxane			500	575		ug/L		115	63 - 146	2	30
2-Butanone			150	163		ug/L		109	59 - 135	3	30
Acetone			150	156		ug/L		104	54 - 157	2	30
Benzene			20.0	22.5		ug/L		113	80 - 120	0	30
Carbon disulfide			20.0	22.9		ug/L		114	65 - 128	1	30
Chloroform			20.0	21.6		ug/L		108	80 - 120	1	30
cis-1,2-Dichloroethene			20.0	23.5		ug/L		118	80 - 125	1	30
Ethylbenzene			20.0	21.9		ug/L		110	80 - 120	4	30
Freon 113			20.0	21.5		ug/L		108	73 - 139	1	30
Methylene Chloride			20.0	23.1		ug/L		116	80 - 120	1	30
Naphthalene			20.0	21.7		ug/L		109	53 - 124	2	30
Tetrachloroethene			20.0	19.9		ug/L		100	80 - 120	4	30
Toluene			20.0	22.3		ug/L		111	80 - 120	1	30
trans-1,2-Dichloroethene			20.0	22.7		ug/L		113	80 - 126	0	30
Trichloroethene			20.0	21.7		ug/L		108	80 - 120	2	30
Vinyl chloride			20.0	22.1		ug/L		110	56 - 120	3	30
Xylenes, Total			60.0	66.6		ug/L		111	80 - 120	2	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-70864/7
Matrix: Water
Analysis Batch: 70864

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			11/30/20 10:27	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			11/30/20 10:27	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			11/30/20 10:27	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			11/30/20 10:27	1
1,4-Dioxane	ND		250	29	ug/L			11/30/20 10:27	1
2-Butanone	ND		10	0.30	ug/L			11/30/20 10:27	1
Acetone	ND		20	0.70	ug/L			11/30/20 10:27	1
Benzene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Carbon disulfide	ND		5.0	0.20	ug/L			11/30/20 10:27	1
Chloroform	ND		1.0	0.20	ug/L			11/30/20 10:27	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Ethylbenzene	ND		1.0	0.40	ug/L			11/30/20 10:27	1
Freon 113	ND		10	0.20	ug/L			11/30/20 10:27	1
Methylene Chloride	ND		1.0	0.30	ug/L			11/30/20 10:27	1
Naphthalene	ND		5.0	1.0	ug/L			11/30/20 10:27	1
Tetrachloroethene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Toluene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Trichloroethene	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Vinyl chloride	ND		1.0	0.20	ug/L			11/30/20 10:27	1
Xylenes, Total	ND		6.0	1.4	ug/L			11/30/20 10:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/30/20 10:27*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*		*11/30/20 10:27*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*11/30/20 10:27*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*11/30/20 10:27*	*1*

Lab Sample ID: LCS 410-70864/4
Matrix: Water
Analysis Batch: 70864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	20.0		ug/L		100	67 - 126
1,1-Dichloroethane	20.0	21.9		ug/L		110	80 - 120
1,1-Dichloroethene	20.0	22.3		ug/L		112	80 - 131
1,2-Dichlorobenzene	20.0	21.3		ug/L		106	80 - 120
1,2-Dichloroethane	20.0	18.9		ug/L		94	73 - 124
1,4-Dioxane	500	539		ug/L		108	63 - 146
2-Butanone	150	161		ug/L		107	59 - 135
Acetone	150	145		ug/L		97	54 - 157
Benzene	20.0	21.6		ug/L		108	80 - 120
Carbon disulfide	20.0	22.4		ug/L		112	65 - 128
Chloroform	20.0	21.0		ug/L		105	80 - 120
cis-1,2-Dichloroethene	20.0	22.8		ug/L		114	80 - 125
Ethylbenzene	20.0	21.5		ug/L		108	80 - 120
Freon 113	20.0	20.1		ug/L		101	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-70864/4
Matrix: Water
Analysis Batch: 70864

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	22.5		ug/L		112	80 - 120		
Naphthalene			20.0	21.4		ug/L		107	53 - 124		
Tetrachloroethene			20.0	19.7		ug/L		99	80 - 120		
Toluene			20.0	21.2		ug/L		106	80 - 120		
trans-1,2-Dichloroethene			20.0	22.2		ug/L		111	80 - 126		
Trichloroethene			20.0	21.6		ug/L		108	80 - 120		
Vinyl chloride			20.0	20.5		ug/L		103	56 - 120		
Xylenes, Total			60.0	65.4		ug/L		109	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Lab Sample ID: LCSD 410-70864/5
Matrix: Water
Analysis Batch: 70864

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	20.0		ug/L		100	67 - 126	0	30
1,1-Dichloroethane			20.0	21.9		ug/L		109	80 - 120	0	30
1,1-Dichloroethene			20.0	22.6		ug/L		113	80 - 131	1	30
1,2-Dichlorobenzene			20.0	21.1		ug/L		106	80 - 120	1	30
1,2-Dichloroethane			20.0	19.1		ug/L		95	73 - 124	1	30
1,4-Dioxane			500	552		ug/L		110	63 - 146	2	30
2-Butanone			150	159		ug/L		106	59 - 135	1	30
Acetone			150	149		ug/L		99	54 - 157	2	30
Benzene			20.0	21.9		ug/L		109	80 - 120	1	30
Carbon disulfide			20.0	22.0		ug/L		110	65 - 128	2	30
Chloroform			20.0	20.8		ug/L		104	80 - 120	1	30
cis-1,2-Dichloroethene			20.0	22.9		ug/L		114	80 - 125	0	30
Ethylbenzene			20.0	21.7		ug/L		109	80 - 120	1	30
Freon 113			20.0	19.9		ug/L		99	73 - 139	1	30
Methylene Chloride			20.0	22.5		ug/L		112	80 - 120	0	30
Naphthalene			20.0	21.3		ug/L		107	53 - 124	0	30
Tetrachloroethene			20.0	19.8		ug/L		99	80 - 120	0	30
Toluene			20.0	21.9		ug/L		109	80 - 120	3	30
trans-1,2-Dichloroethene			20.0	22.0		ug/L		110	80 - 126	1	30
Trichloroethene			20.0	21.8		ug/L		109	80 - 120	1	30
Vinyl chloride			20.0	20.7		ug/L		103	56 - 120	1	30
Xylenes, Total			60.0	65.4		ug/L		109	80 - 120	0	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-71112/6
Matrix: Water
Analysis Batch: 71112

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichloroethene	ND		1.0	0.20	ug/L			11/30/20 22:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*		*80 - 120*		*11/30/20 22:36*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*		*11/30/20 22:36*	*1*
Dibromofluoromethane (Surr)	*101*		*80 - 120*		*11/30/20 22:36*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*11/30/20 22:36*	*1*

Lab Sample ID: LCS 410-71112/4
Matrix: Water
Analysis Batch: 71112

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Trichloroethene			20.0	20.0		ug/L		100	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 120*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*100*		*80 - 120*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

GC/MS VOA

Analysis Batch: 70709

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21451-1	J11-BR02	Total/NA	Water	8260C	
410-21451-2	J11-UC02	Total/NA	Water	8260C	
410-21451-3	J11-UC01	Total/NA	Water	8260C	
410-21451-4	J11-BR01	Total/NA	Water	8260C	
410-21451-5	MW-2	Total/NA	Water	8260C	
410-21451-6	Dup-02	Total/NA	Water	8260C	
410-21451-7	MW-2I	Total/NA	Water	8260C	
410-21451-8	TB111720	Total/NA	Water	8260C	
410-21451-9	J02-UC01	Total/NA	Water	8260C	
410-21451-10	J02-BR02	Total/NA	Water	8260C	
MB 410-70709/7	Method Blank	Total/NA	Water	8260C	
LCS 410-70709/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-70709/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 70864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21451-11	J02-BR01	Total/NA	Water	8260C	
410-21451-12	RIZ-7	Total/NA	Water	8260C	
410-21451-13	J06-UC01	Total/NA	Water	8260C	
410-21451-14	EB111820	Total/NA	Water	8260C	
MB 410-70864/7	Method Blank	Total/NA	Water	8260C	
LCS 410-70864/4	Lab Control Sample	Total/NA	Water	8260C	
LCSD 410-70864/5	Lab Control Sample Dup	Total/NA	Water	8260C	

Analysis Batch: 71112

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21451-5 - DL	MW-2	Total/NA	Water	8260C	
410-21451-6 - DL	Dup-02	Total/NA	Water	8260C	
MB 410-71112/6	Method Blank	Total/NA	Water	8260C	
LCS 410-71112/4	Lab Control Sample	Total/NA	Water	8260C	

Client Sample ID: J11-BR02
Date Collected: 11/17/20 09:57
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-1
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 13:47	UCB5	ELLE

Client Sample ID: J11-UC02
Date Collected: 11/17/20 08:42
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-2
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 14:10	UCB5	ELLE

Client Sample ID: J11-UC01
Date Collected: 11/17/20 10:40
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-3
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 14:33	UCB5	ELLE

Client Sample ID: J11-BR01
Date Collected: 11/17/20 11:48
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-4
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 14:55	UCB5	ELLE

Client Sample ID: MW-2
Date Collected: 11/17/20 13:44
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 15:18	UCB5	ELLE
Total/NA	Analysis	8260C	DL	10	71112	12/01/20 03:51	R64Z	ELLE

Client Sample ID: Dup-02
Date Collected: 11/17/20 14:30
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-6
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 15:41	UCB5	ELLE
Total/NA	Analysis	8260C	DL	10	71112	12/01/20 04:13	R64Z	ELLE

Client Sample ID: MW-2I
Date Collected: 11/17/20 15:40
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-7
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 16:03	UCB5	ELLE

Client Sample ID: TB111720
Date Collected: 11/17/20 00:00
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-8
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 13:02	UCB5	ELLE

Client Sample ID: J02-UC01
Date Collected: 11/18/20 08:28
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-9
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 16:26	UCB5	ELLE

Client Sample ID: J02-BR02
Date Collected: 11/18/20 09:38
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-10
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70709	11/28/20 16:49	UCB5	ELLE

Client Sample ID: J02-BR01
Date Collected: 11/18/20 10:57
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-11
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70864	11/30/20 13:07	R64Z	ELLE

Client Sample ID: RIZ-7
Date Collected: 11/18/20 12:03
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-12
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70864	11/30/20 13:30	R64Z	ELLE

Client Sample ID: J06-UC01
Date Collected: 11/18/20 13:12
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70864	11/30/20 13:53	R64Z	ELLE

Client Sample ID: EB111820
Date Collected: 11/18/20 14:00
Date Received: 11/19/20 11:10

Lab Sample ID: 410-21451-14
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	70864	11/30/20 10:50	R64Z	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21451-1
Project/Site: AD New Windsor

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-21

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
J11-BR02	410-21451-1	98	102	101	100
J11-UC02	410-21451-2	98	101	101	98
J11-UC01	410-21451-3	98	101	101	99
J11-BR01	410-21451-4	99	102	100	98
MW-2	410-21451-5	98	102	101	99
MW-2 DL	410-21451-5 DL	99	101	101	97
Dup-02	410-21451-6	99	101	100	99
Dup-02 DL	410-21451-6 DL	99	100	101	100
MW-2I	410-21451-7	99	101	101	98
TB111720	410-21451-8	99	100	100	101
J02-UC01	410-21451-9	100	102	101	99
J02-BR02	410-21451-10	99	100	100	98
J02-BR01	410-21451-11	101	102	100	98
RIZ-7	410-21451-12	100	101	101	98
J06-UC01	410-21451-13	99	102	100	99
EB111820	410-21451-14	99	99	100	98
	MB 410-70709/7	98	99	100	98
	MB 410-70864/7	98	101	101	100
	MB 410-71112/6	101	101	100	99
	LCS 410-70709/4	97	102	101	99
	LCS 410-70864/4	98	100	100	99
	LCS 410-71112/4	100	102	100	99
	LCSD 410-70709/5	98	101	101	99
	LCSD 410-70864/5	100	100	101	99

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4N28L01.D

Lab ID: LCS 410-70709/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.9	104	67-126	
1,1-Dichloroethane	20.0	22.6	113	80-120	
1,1-Dichloroethene	20.0	23.3	117	80-131	
1,2-Dichlorobenzene	20.0	22.1	111	80-120	
1,2-Dichloroethane	20.0	19.5	97	73-124	
1,4-Dioxane	500	564	113	63-146	
2-Butanone	150	167	112	59-135	
Acetone	150	153	102	54-157	
Benzene	20.0	22.5	112	80-120	
Carbon disulfide	20.0	23.0	115	65-128	
Chloroform	20.0	21.4	107	80-120	
cis-1,2-Dichloroethene	20.0	23.6	118	80-125	
Ethylbenzene	20.0	22.7	114	80-120	
Freon 113	20.0	21.3	107	73-139	
Methylene Chloride	20.0	23.2	116	80-120	
Naphthalene	20.0	22.2	111	53-124	
Tetrachloroethene	20.0	20.7	104	80-120	
Toluene	20.0	22.6	113	80-120	
trans-1,2-Dichloroethene	20.0	22.6	113	80-126	
Trichloroethene	20.0	22.1	111	80-120	
Vinyl chloride	20.0	22.7	114	56-120	
Xylenes, Total	60.0	67.7	113	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4N22L01.D

Lab ID: LCS 410-70864/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.0	100	67-126	
1,1-Dichloroethane	20.0	21.9	110	80-120	
1,1-Dichloroethene	20.0	22.3	112	80-131	
1,2-Dichlorobenzene	20.0	21.3	106	80-120	
1,2-Dichloroethane	20.0	18.9	94	73-124	
1,4-Dioxane	500	539	108	63-146	
2-Butanone	150	161	107	59-135	
Acetone	150	145	97	54-157	
Benzene	20.0	21.6	108	80-120	
Carbon disulfide	20.0	22.4	112	65-128	
Chloroform	20.0	21.0	105	80-120	
cis-1,2-Dichloroethene	20.0	22.8	114	80-125	
Ethylbenzene	20.0	21.5	108	80-120	
Freon 113	20.0	20.1	101	73-139	
Methylene Chloride	20.0	22.5	112	80-120	
Naphthalene	20.0	21.4	107	53-124	
Tetrachloroethene	20.0	19.7	99	80-120	
Toluene	20.0	21.2	106	80-120	
trans-1,2-Dichloroethene	20.0	22.2	111	80-126	
Trichloroethene	20.0	21.6	108	80-120	
Vinyl chloride	20.0	20.5	103	56-120	
Xylenes, Total	60.0	65.4	109	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4N22L35.D

Lab ID: LCS 410-71112/4 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
Trichloroethene	20.0	20.0	100	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4N28L02.D

Lab ID: LCSD 410-70709/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.8	104	0	30	67-126	
1,1-Dichloroethane	20.0	22.4	112	1	30	80-120	
1,1-Dichloroethene	20.0	23.1	115	1	30	80-131	
1,2-Dichlorobenzene	20.0	22.0	110	1	30	80-120	
1,2-Dichloroethane	20.0	19.5	98	0	30	73-124	
1,4-Dioxane	500	575	115	2	30	63-146	
2-Butanone	150	163	109	3	30	59-135	
Acetone	150	156	104	2	30	54-157	
Benzene	20.0	22.5	113	0	30	80-120	
Carbon disulfide	20.0	22.9	114	1	30	65-128	
Chloroform	20.0	21.6	108	1	30	80-120	
cis-1,2-Dichloroethene	20.0	23.5	118	1	30	80-125	
Ethylbenzene	20.0	21.9	110	4	30	80-120	
Freon 113	20.0	21.5	108	1	30	73-139	
Methylene Chloride	20.0	23.1	116	1	30	80-120	
Naphthalene	20.0	21.7	109	2	30	53-124	
Tetrachloroethene	20.0	19.9	100	4	30	80-120	
Toluene	20.0	22.3	111	1	30	80-120	
trans-1,2-Dichloroethene	20.0	22.7	113	0	30	80-126	
Trichloroethene	20.0	21.7	108	2	30	80-120	
Vinyl chloride	20.0	22.1	110	3	30	56-120	
Xylenes, Total	60.0	66.6	111	2	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE DUPLICATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Matrix: Water Level: Low Lab File ID: 4N22L02.D

Lab ID: LCSD 410-70864/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC	% RPD	QC LIMITS RPD	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	20.0	100	0	30	67-126	
1,1-Dichloroethane	20.0	21.9	109	0	30	80-120	
1,1-Dichloroethene	20.0	22.6	113	1	30	80-131	
1,2-Dichlorobenzene	20.0	21.1	106	1	30	80-120	
1,2-Dichloroethane	20.0	19.1	95	1	30	73-124	
1,4-Dioxane	500	552	110	2	30	63-146	
2-Butanone	150	159	106	1	30	59-135	
Acetone	150	149	99	2	30	54-157	
Benzene	20.0	21.9	109	1	30	80-120	
Carbon disulfide	20.0	22.0	110	2	30	65-128	
Chloroform	20.0	20.8	104	1	30	80-120	
cis-1,2-Dichloroethene	20.0	22.9	114	0	30	80-125	
Ethylbenzene	20.0	21.7	109	1	30	80-120	
Freon 113	20.0	19.9	99	1	30	73-139	
Methylene Chloride	20.0	22.5	112	0	30	80-120	
Naphthalene	20.0	21.3	107	0	30	53-124	
Tetrachloroethene	20.0	19.8	99	0	30	80-120	
Toluene	20.0	21.9	109	3	30	80-120	
trans-1,2-Dichloroethene	20.0	22.0	110	1	30	80-126	
Trichloroethene	20.0	21.8	109	1	30	80-120	
Vinyl chloride	20.0	20.7	103	1	30	56-120	
Xylenes, Total	60.0	65.4	109	0	30	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N28B01.D Lab Sample ID: MB 410-70709/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 23297 Date Analyzed: 11/28/2020 11:09

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-70709/4	4N28L01.D	11/28/2020 10:01
	LCSD 410-70709/5	4N28L02.D	11/28/2020 10:23
TB111720	410-21451-8	4N28S05.D	11/28/2020 13:02
J11-BR02	410-21451-1	4N28S07.D	11/28/2020 13:47
J11-UC02	410-21451-2	4N28S08.D	11/28/2020 14:10
J11-UC01	410-21451-3	4N28S09.D	11/28/2020 14:33
J11-BR01	410-21451-4	4N28S10.D	11/28/2020 14:55
MW-2	410-21451-5	4N28S11.D	11/28/2020 15:18
Dup-02	410-21451-6	4N28S12.D	11/28/2020 15:41
MW-2I	410-21451-7	4N28S13.D	11/28/2020 16:03
J02-UC01	410-21451-9	4N28S14.D	11/28/2020 16:26
J02-BR02	410-21451-10	4N28S15.D	11/28/2020 16:49

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N22B01.D Lab Sample ID: MB 410-70864/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 23297 Date Analyzed: 11/30/2020 10:27

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-70864/4	4N22L01.D	11/30/2020 09:19
	LCSD 410-70864/5	4N22L02.D	11/30/2020 09:41
EB111820	410-21451-14	4N30S01.D	11/30/2020 10:50
J02-BR01	410-21451-11	4N30S07.D	11/30/2020 13:07
RIZ-7	410-21451-12	4N30S08.D	11/30/2020 13:30
J06-UC01	410-21451-13	4N30S09.D	11/30/2020 13:53

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N22B35.D Lab Sample ID: MB 410-71112/6

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 23297 Date Analyzed: 11/30/2020 22:36

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-71112/4	4N22L35.D	11/30/2020 21:50
MW-2 DL	410-21451-5 DL	4N30S47.D	12/01/2020 03:51
Dup-02 DL	410-21451-6 DL	4N30S48.D	12/01/2020 04:13

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Lab File ID: 4S01T01.D BFB Injection Date: 09/01/2020

Instrument ID: 23297 BFB Injection Time: 19:24

Analysis Batch No.: 39906

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.5	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	86.4	
175	5.0 - 9.0 % of mass 174	6.6	(7.7) 1
176	95.0 - 101.0 % of mass 174	84.2	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.4	(6.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-39906/3	4S01101.D	09/01/2020	20:14
	IC 410-39906/4	4S01102.D	09/01/2020	20:36
	ICIS 410-39906/5	4S01103.D	09/01/2020	20:59
	IC 410-39906/6	4S01104.D	09/01/2020	21:22
	IC 410-39906/7	4S01105.D	09/01/2020	21:44
	IC 410-39906/8	4S01106.D	09/01/2020	22:07
	IC 410-39906/9	4S01107.D	09/01/2020	22:29
	ICV 410-39906/21	4S01V02.D	09/02/2020	3:00

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N28T01.D BFB Injection Date: 11/28/2020

Instrument ID: 23297 BFB Injection Time: 08:53

Analysis Batch No.: 70709

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.5	
75	30.0 - 60.0 % of mass 95	41.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	7.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	86.4	
175	5.0 - 9.0 % of mass 174	5.5	(6.3) 1
176	95.0 - 101.0 % of mass 174	82.9	(96.0) 1
177	5.0 - 9.0 % of mass 176	6.2	(7.5) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-70709/3	4N28C01.D	11/28/2020	9:38
	LCS 410-70709/4	4N28L01.D	11/28/2020	10:01
	LCSD 410-70709/5	4N28L02.D	11/28/2020	10:23
	MB 410-70709/7	4N28B01.D	11/28/2020	11:09
TB111720	410-21451-8	4N28S05.D	11/28/2020	13:02
J11-BR02	410-21451-1	4N28S07.D	11/28/2020	13:47
J11-UC02	410-21451-2	4N28S08.D	11/28/2020	14:10
J11-UC01	410-21451-3	4N28S09.D	11/28/2020	14:33
J11-BR01	410-21451-4	4N28S10.D	11/28/2020	14:55
MW-2	410-21451-5	4N28S11.D	11/28/2020	15:18
Dup-02	410-21451-6	4N28S12.D	11/28/2020	15:41
MW-2I	410-21451-7	4N28S13.D	11/28/2020	16:03
J02-UC01	410-21451-9	4N28S14.D	11/28/2020	16:26
J02-BR02	410-21451-10	4N28S15.D	11/28/2020	16:49

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N30T01.D BFB Injection Date: 11/30/2020

Instrument ID: 23297 BFB Injection Time: 08:17

Analysis Batch No.: 70864

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.6	
75	30.0 - 60.0 % of mass 95	45.2	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.4	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	86.6	
175	5.0 - 9.0 % of mass 174	6.4	(7.4) 1
176	95.0 - 101.0 % of mass 174	85.5	(98.7) 1
177	5.0 - 9.0 % of mass 176	6.3	(7.4) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-70864/3	4N22C01.D	11/30/2020	8:56
	LCS 410-70864/4	4N22L01.D	11/30/2020	9:19
	LCSD 410-70864/5	4N22L02.D	11/30/2020	9:41
	MB 410-70864/7	4N22B01.D	11/30/2020	10:27
EB111820	410-21451-14	4N30S01.D	11/30/2020	10:50
J02-BR01	410-21451-11	4N30S07.D	11/30/2020	13:07
RIZ-7	410-21451-12	4N30S08.D	11/30/2020	13:30
J06-UC01	410-21451-13	4N30S09.D	11/30/2020	13:53

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Lab File ID: 4N30T35.D BFB Injection Date: 11/30/2020

Instrument ID: 23297 BFB Injection Time: 20:45

Analysis Batch No.: 71112

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	16.3	
75	30.0 - 60.0 % of mass 95	43.3	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.3	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	82.3	
175	5.0 - 9.0 % of mass 174	6.7	(8.1) 1
176	95.0 - 101.0 % of mass 174	78.7	(95.6) 1
177	5.0 - 9.0 % of mass 176	5.2	(6.6) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-71112/3	4N22C35.D	11/30/2020	21:27
	LCS 410-71112/4	4N22L35.D	11/30/2020	21:50
	MB 410-71112/6	4N22B35.D	11/30/2020	22:36
MW-2 DL	410-21451-5 DL	4N30S47.D	12/01/2020	3:51
Dup-02 DL	410-21451-6 DL	4N30S48.D	12/01/2020	4:13

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: ICIS 410-39906/5 Date Analyzed: 09/01/2020 20:59

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4S01l03.D Heated Purge: (Y/N) N

Calibration ID: 10318

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		517355	4.33	1307534	7.83	980844	11.28
UPPER LIMIT		1034710	4.83	2615068	8.33	1961688	11.78
LOWER LIMIT		258678	3.83	653767	7.33	490422	10.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-39906/21		415447	4.34	1235829	7.83	941656	11.28
CCVIS 410-70709/3		520800	4.34	1231724	7.83	938511	11.28
CCVIS 410-70864/3		510856	4.34	1266538	7.83	959601	11.28
CCVIS 410-71112/3		508114	4.34	1252665	7.83	933862	11.28

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: ICIS 410-39906/5 Date Analyzed: 09/01/2020 20:59

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4S01l03.D Heated Purge: (Y/N) N

Calibration ID: 10318

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		538201	13.16				
UPPER LIMIT		1076402	13.66				
LOWER LIMIT		269101	12.66				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-39906/21		523585	13.16				
CCVIS 410-70709/3		489666	13.16				
CCVIS 410-70864/3		521744	13.16				
CCVIS 410-71112/3		496892	13.16				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-70709/3 Date Analyzed: 11/28/2020 09:38

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N28C01.D Heated Purge: (Y/N) N

Calibration ID: 10318

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		520800	4.34	1231724	7.83	938511	11.28
UPPER LIMIT		1041600	4.84	2463448	8.33	1877022	11.78
LOWER LIMIT		260400	3.84	615862	7.33	469256	10.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-70709/4		506568	4.34	1261744	7.82	944032	11.28
LCSD 410-70709/5		501787	4.33	1267518	7.82	958853	11.28
MB 410-70709/7		493936	4.34	1285340	7.82	955902	11.28
410-21451-8	TB111720	486521	4.33	1259254	7.82	946134	11.28
410-21451-1	J11-BR02	495904	4.33	1269144	7.82	938978	11.28
410-21451-2	J11-UC02	517189	4.34	1302008	7.83	956460	11.28
410-21451-3	J11-UC01	531303	4.34	1304283	7.82	972998	11.28
410-21451-4	J11-BR01	489744	4.34	1253682	7.83	938917	11.28
410-21451-5	MW-2	518144	4.33	1270437	7.82	948372	11.28
410-21451-6	Dup-02	498357	4.34	1273425	7.82	960514	11.28
410-21451-7	MW-2I	511237	4.33	1274208	7.82	954299	11.28
410-21451-9	J02-UC01	518686	4.34	1277797	7.83	950447	11.28
410-21451-10	J02-BR02	513079	4.34	1300852	7.83	970832	11.28

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-70709/3 Date Analyzed: 11/28/2020 09:38

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N28C01.D Heated Purge: (Y/N) N

Calibration ID: 10318

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		489666	13.16				
UPPER LIMIT		979332	13.66				
LOWER LIMIT		244833	12.66				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-70709/4		496174	13.16				
LCSD 410-70709/5		505410	13.16				
MB 410-70709/7		493982	13.16				
410-21451-8	TB111720	496444	13.16				
410-21451-1	J11-BR02	500285	13.16				
410-21451-2	J11-UC02	503040	13.16				
410-21451-3	J11-UC01	516964	13.16				
410-21451-4	J11-BR01	493097	13.16				
410-21451-5	MW-2	500981	13.16				
410-21451-6	Dup-02	516085	13.16				
410-21451-7	MW-2I	507626	13.16				
410-21451-9	J02-UC01	501453	13.16				
410-21451-10	J02-BR02	514588	13.16				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-70864/3 Date Analyzed: 11/30/2020 08:56

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N22C01.D Heated Purge: (Y/N) N

Calibration ID: 10318

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		510856	4.34	1266538	7.83	959601	11.28
UPPER LIMIT		1021712	4.84	2533076	8.33	1919202	11.78
LOWER LIMIT		255428	3.84	633269	7.33	479801	10.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-70864/4		525572	4.33	1258074	7.82	951846	11.28
LCSD 410-70864/5		508691	4.35	1252184	7.83	961978	11.28
MB 410-70864/7		510938	4.34	1304554	7.83	964831	11.28
410-21451-14	EB111820	498885	4.36	1256921	7.83	942007	11.28
410-21451-11	J02-BR01	499387	4.34	1258865	7.82	941619	11.28
410-21451-12	RIZ-7	520936	4.35	1257048	7.83	942843	11.28
410-21451-13	J06-UC01	510692	4.34	1257572	7.83	930882	11.28

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-70864/3 Date Analyzed: 11/30/2020 08:56

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N22C01.D Heated Purge: (Y/N) N

Calibration ID: 10318

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		521744	13.16				
UPPER LIMIT		1043488	13.66				
LOWER LIMIT		260872	12.66				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-70864/4		502435	13.16				
LCSD 410-70864/5		510877	13.16				
MB 410-70864/7		513159	13.16				
410-21451-14	EB111820	493959	13.16				
410-21451-11	J02-BR01	492077	13.16				
410-21451-12	RIZ-7	497459	13.16				
410-21451-13	J06-UC01	488088	13.16				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-71112/3 Date Analyzed: 11/30/2020 21:27

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N22C35.D Heated Purge: (Y/N) N

Calibration ID: 10343

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		508114	4.34	1252665	7.83	933862	11.28
UPPER LIMIT		1016228	4.84	2505330	8.33	1867724	11.78
LOWER LIMIT		254057	3.84	626333	7.33	466931	10.78
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-71112/4		513443	4.36	1252249	7.83	963019	11.28
MB 410-71112/6		501850	4.34	1255697	7.83	953279	11.28
410-21451-5 DL	MW-2 DL	493113	4.33	1270056	7.82	950991	11.28
410-21451-6 DL	Dup-02 DL	478954	4.33	1288268	7.83	966235	11.28

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Sample No.: CCVIS 410-71112/3 Date Analyzed: 11/30/2020 21:27

Instrument ID: 23297 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): 4N22C35.D Heated Purge: (Y/N) N

Calibration ID: 10343

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		496892	13.16				
UPPER LIMIT		993784	13.66				
LOWER LIMIT		248446	12.66				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-71112/4		509372	13.16				
MB 410-71112/6		511249	13.16				
410-21451-5 DL	MW-2 DL	500005	13.16				
410-21451-6 DL	Dup-02 DL	515239	13.16				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J11-BR02 Lab Sample ID: 410-21451-1

Matrix: Water Lab File ID: 4N28S07.D

Analysis Method: 8260C Date Collected: 11/17/2020 09:57

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 13:47

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S07.D
Lims ID: 410-21451-A-1
Client ID: J11-BR02
Sample Type: Client
Inject. Date: 28-Nov-2020 13:47:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-014
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:01:29

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	6 Vinyl chloride	62		2.329				ND	
	17 1,1-Dichloroethene	96		3.643				ND	
	19 Acetone	58		3.674				ND	
	18 112TCTFE	101		3.674				ND	
	22 Carbon disulfide	76		3.948				ND	
	26 Methylene Chloride	84		4.331				ND	
*	27 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	495904	250.0	
	31 trans-1,2-Dichloroethene	96		4.745				ND	
	34 1,1-Dichloroethane	63		5.402				ND	
	40 2-Butanone (MEK)	43		6.217				ND	
	41 cis-1,2-Dichloroethene	96		6.235				ND	
	48 Chloroform	83		6.722				ND	
$	49 Dibromofluoromethane (Surr)	113	6.929	6.935	-0.006	93	312935	49.1	
	50 1,1,1-Trichloroethane	97		6.947				ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	75888	50.8	
	56 Benzene	78		7.427				ND	
	57 1,2-Dichloroethane	62	7.500	7.500	0.000	1	1356	0.1683	
*	62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1269144	50.0	
	64 Trichloroethene	95		8.303				ND	
	68 1,4-Dioxane	88		8.735				ND	
$	77 Toluene-d8 (Surr)	98	9.830	9.830	0.000	93	1223735	50.5	
	78 Toluene	92		9.903				ND	
	83 Tetrachloroethene	166		10.445				ND	
S	90 Xylenes, Total	106		11.245				ND	7
*	91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	938978	50.0	
	95 Ethylbenzene	91		11.388				ND	
	96 m-Xylene & p-Xylene	106		11.503				ND	
	97 o-Xylene	106		11.832				ND	
$	103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	460987	50.1	
*	119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	500285	50.0	
	126 1,2-Dichlorobenzene	146		13.438				ND	
	133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

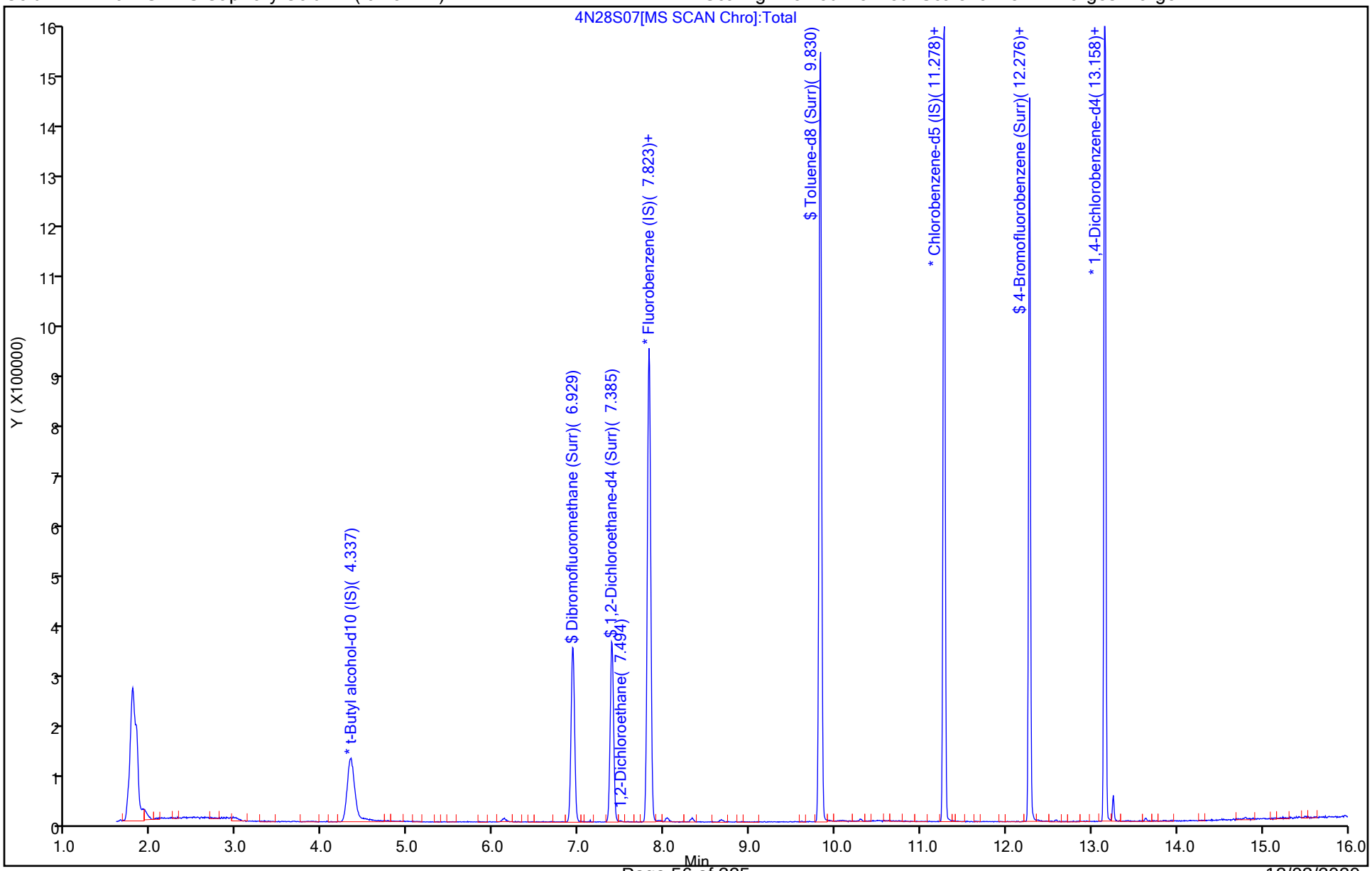
Report Date: 30-Nov-2020 13:10:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S07.D

Injection Date:	28-Nov-2020 13:47:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-1	Lab Sample ID:	410-21451-1	Worklist Smp#:	14
Client ID:	J11-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J11-UC02 Lab Sample ID: 410-21451-2

Matrix: Water Lab File ID: 4N28S08.D

Analysis Method: 8260C Date Collected: 11/17/2020 08:42

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 14:10

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S08.D
Lims ID: 410-21451-A-2
Client ID: J11-UC02
Sample Type: Client
Inject. Date: 28-Nov-2020 14:10:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-015
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:01:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	517189	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.235				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	318951	48.8	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	77200	50.4	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62	7.501	7.500	0.000	1	1307	0.1581	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1302008	50.0	
64 Trichloroethene	95		8.303				ND	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1247671	50.5	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	956460	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	457749	48.8	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	503040	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

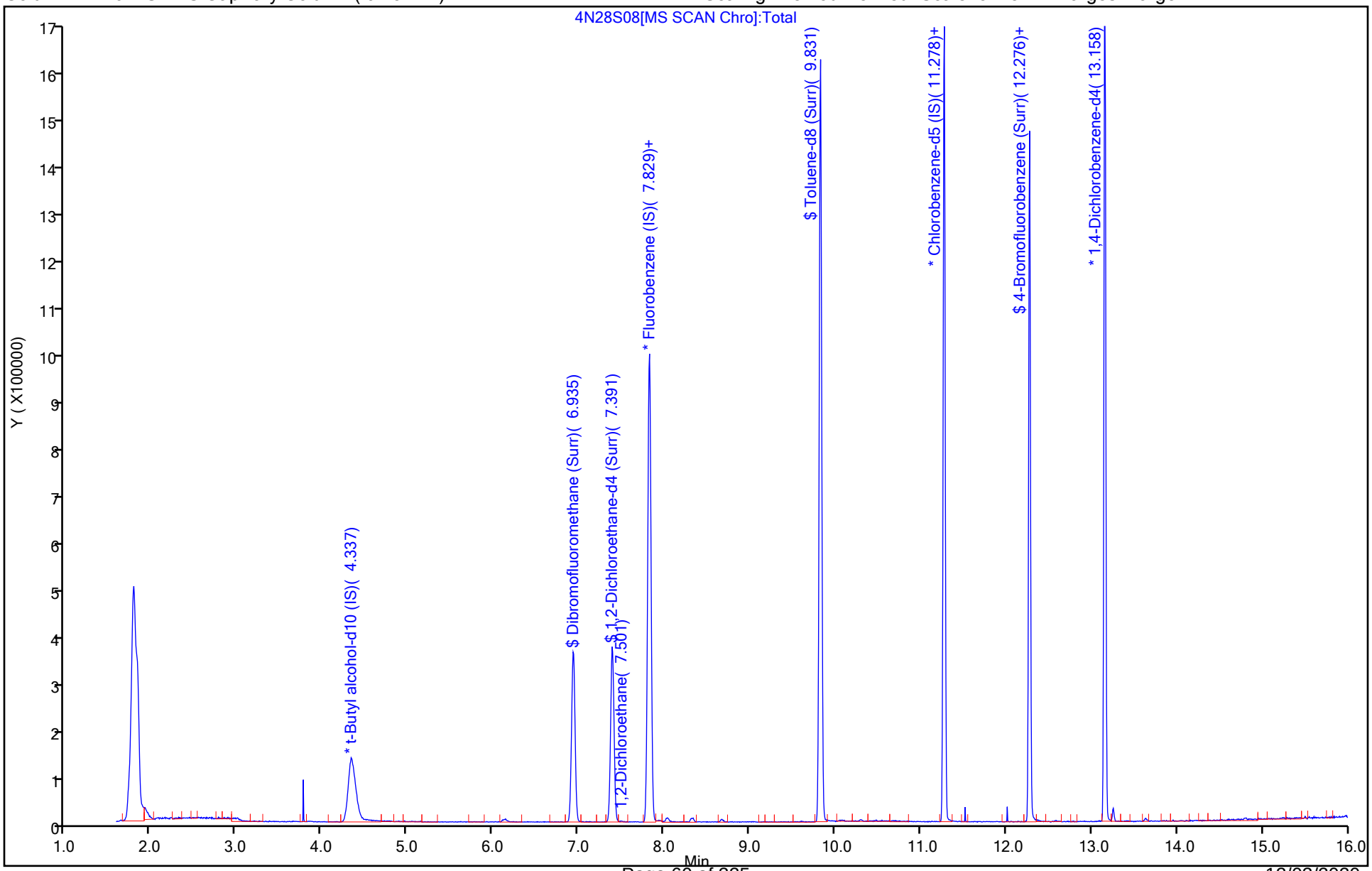
Report Date: 30-Nov-2020 13:10:30 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S08.D

Injection Date:	28-Nov-2020 14:10:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-2	Lab Sample ID:	410-21451-2	Worklist Smp#:	15
Client ID:	J11-UC02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J11-UC01 Lab Sample ID: 410-21451-3

Matrix: Water Lab File ID: 4N28S09.D

Analysis Method: 8260C Date Collected: 11/17/2020 10:40

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 14:33

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S09.D
Lims ID: 410-21451-A-3
Client ID: J11-UC01
Sample Type: Client
Inject. Date: 28-Nov-2020 14:33:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-016
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:02:18

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	6 Vinyl chloride	62		2.329				ND	
	17 1,1-Dichloroethene	96		3.643				ND	
	19 Acetone	58		3.674				ND	
	18 112TCTFE	101		3.674				ND	
	22 Carbon disulfide	76		3.948				ND	
	26 Methylene Chloride	84		4.331				ND	
*	27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	531303	250.0	
	31 trans-1,2-Dichloroethene	96		4.745				ND	
	34 1,1-Dichloroethane	63		5.402				ND	
	40 2-Butanone (MEK)	43		6.217				ND	
	41 cis-1,2-Dichloroethene	96		6.235				ND	
	48 Chloroform	83		6.722				ND	
$	49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	319897	48.9	
	50 1,1,1-Trichloroethane	97		6.947				ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	77785	50.7	
	56 Benzene	78		7.427				ND	
	57 1,2-Dichloroethane	62	7.482	7.500	-0.018	1	1695	0.2047	
*	62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1304283	50.0	
	64 Trichloroethene	95		8.303				ND	
	68 1,4-Dioxane	88		8.735				ND	
$	77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1267782	50.5	
	78 Toluene	92		9.903				ND	
	83 Tetrachloroethene	166		10.445				ND	
S	90 Xylenes, Total	106		11.245				ND	7
*	91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	972998	50.0	
	95 Ethylbenzene	91		11.388				ND	
	96 m-Xylene & p-Xylene	106		11.503				ND	
	97 o-Xylene	106		11.832				ND	
$	103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	472297	49.5	
*	119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	516964	50.0	
	126 1,2-Dichlorobenzene	146		13.438				ND	
	133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

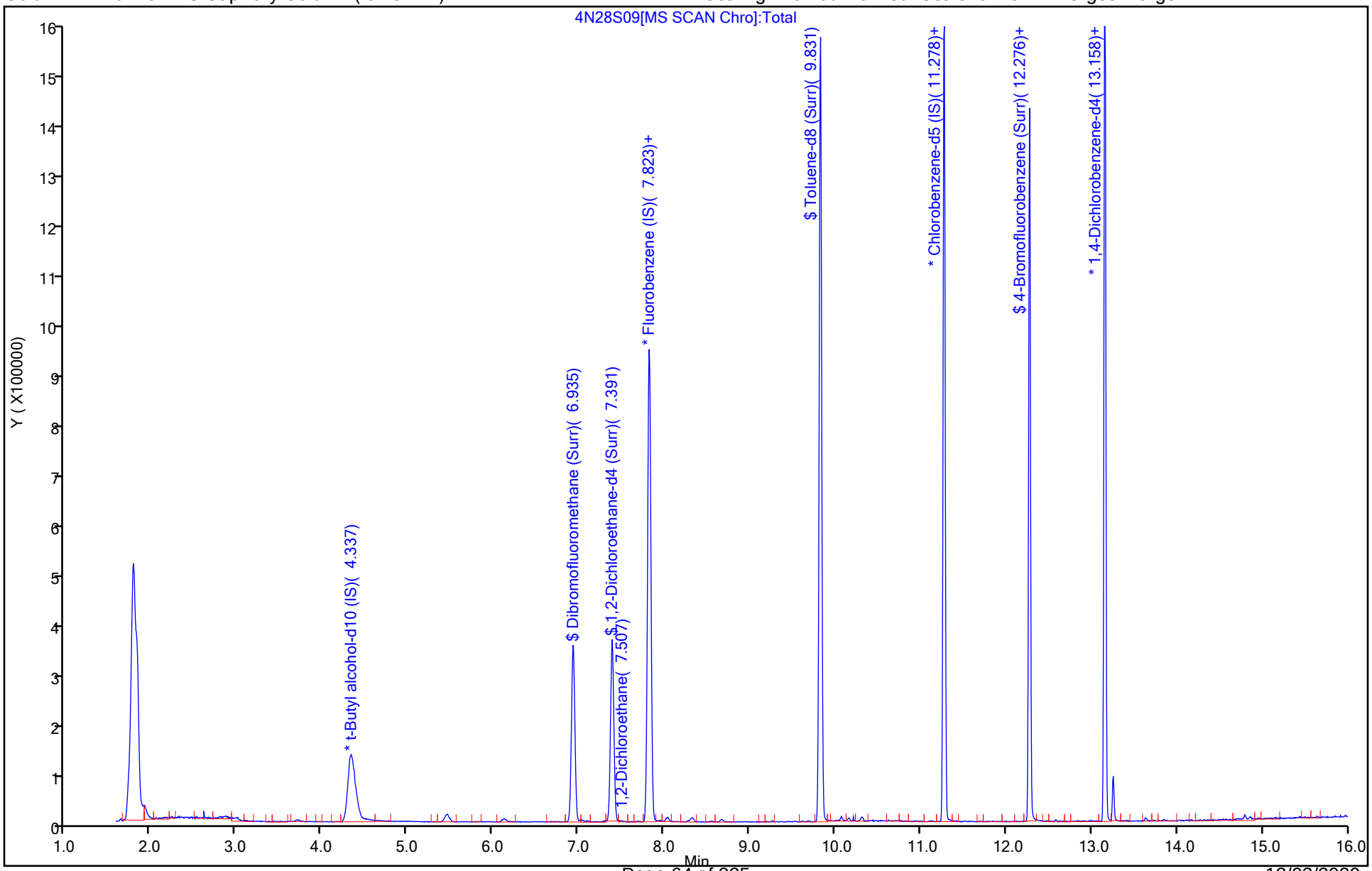
Report Date: 30-Nov-2020 13:10:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S09.D

Injection Date:	28-Nov-2020 14:33:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-3	Lab Sample ID:	410-21451-3	Worklist Smp#:	16
Client ID:	J11-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J11-BR01 Lab Sample ID: 410-21451-4

Matrix: Water Lab File ID: 4N28S10.D

Analysis Method: 8260C Date Collected: 11/17/2020 11:48

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 14:55

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S10.D
Lims ID: 410-21451-A-4
Client ID: J11-BR01
Sample Type: Client
Inject. Date: 28-Nov-2020 14:55:30 ALS Bottle#: 16 Worklist Smp#: 17
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-017
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:02:45

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	489744	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.235				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	312909	49.7	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	75356	51.1	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1253682	50.0	
64 Trichloroethene	95		8.303				ND	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1215602	50.2	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	938917	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	451646	49.1	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	493097	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

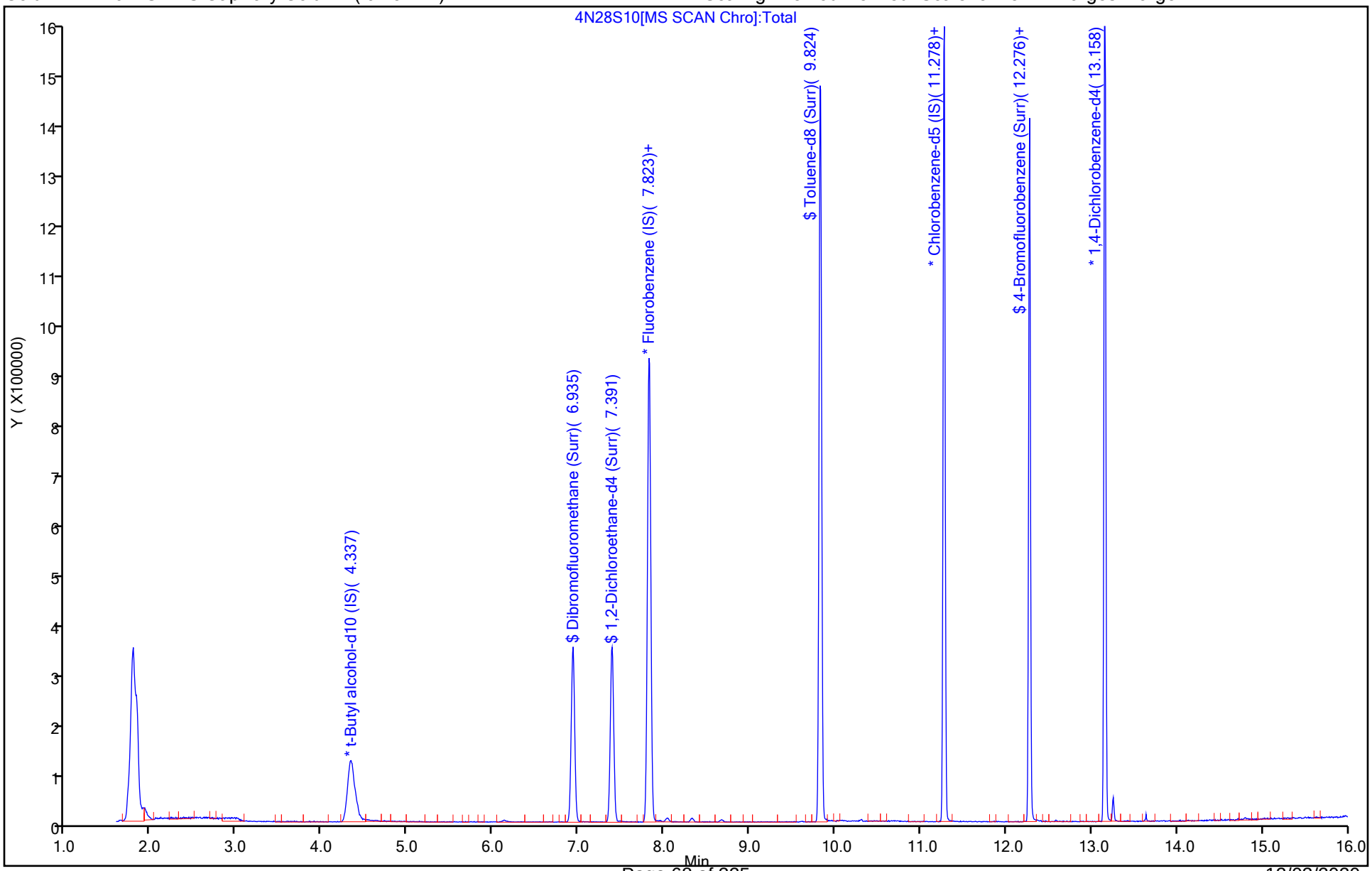
Report Date: 30-Nov-2020 13:10:33 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S10.D

Injection Date:	28-Nov-2020 14:55:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-4	Lab Sample ID:	410-21451-4	Worklist Smp#:	17
Client ID:	J11-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	16
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: MW-2 Lab Sample ID: 410-21451-5

Matrix: Water Lab File ID: 4N28S11.D

Analysis Method: 8260C Date Collected: 11/17/2020 13:44

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 15:18

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	40		1.0	0.30
75-34-3	1,1-Dichloroethane	1.2		1.0	0.20
75-35-4	1,1-Dichloroethene	5.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	15		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	2.5		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D
Lims ID: 410-21451-A-5
Client ID: MW-2
Sample Type: Client
Inject. Date: 28-Nov-2020 15:18:30 ALS Bottle#: 17 Worklist Smp#: 18
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-018
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:03:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96	3.638	3.643	-0.005	97	23278	5.03	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.325	4.343	-0.018	0	518144	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63	5.414	5.402	0.012	92	11882	1.22	M
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	79	94799	15.4	
48 Chloroform	83	6.722	6.722	0.000	1	1480	0.1524	M
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	312467	49.0	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	98	324510	39.8	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	76104	50.9	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62	7.495	7.500	-0.005	1	1315	0.1630	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1270437	50.0	
64 Trichloroethene	95	8.304	8.303	0.001	98	1977430	332.7	E
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1230621	50.3	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166	10.445	10.445	0.000	96	17373	2.53	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.279	11.278	0.001	84	948372	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	458403	49.3	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	500981	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

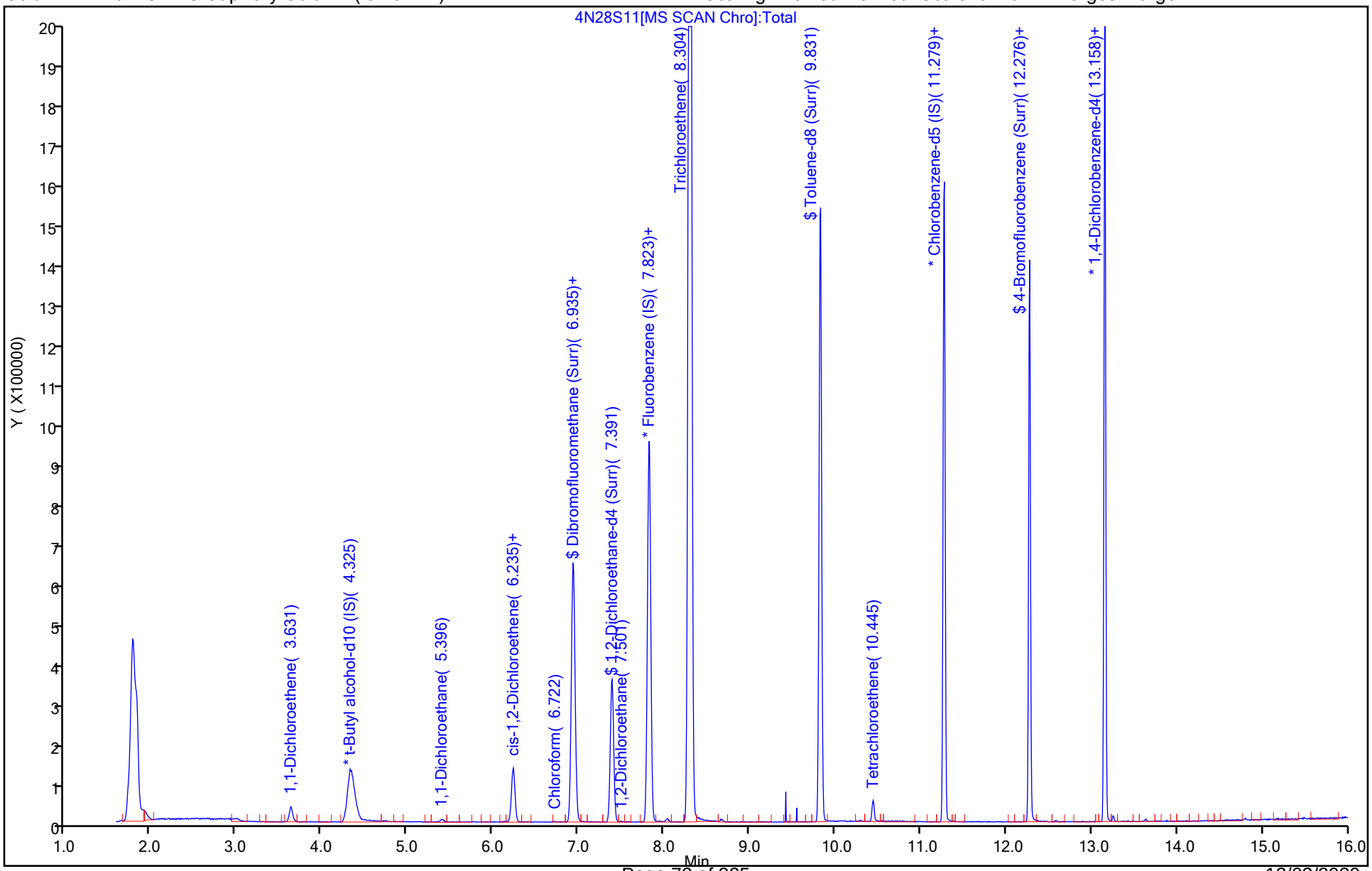
Report Date: 30-Nov-2020 13:10:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D

Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5	Worklist Smp#:	18
Client ID:	MW-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	17
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

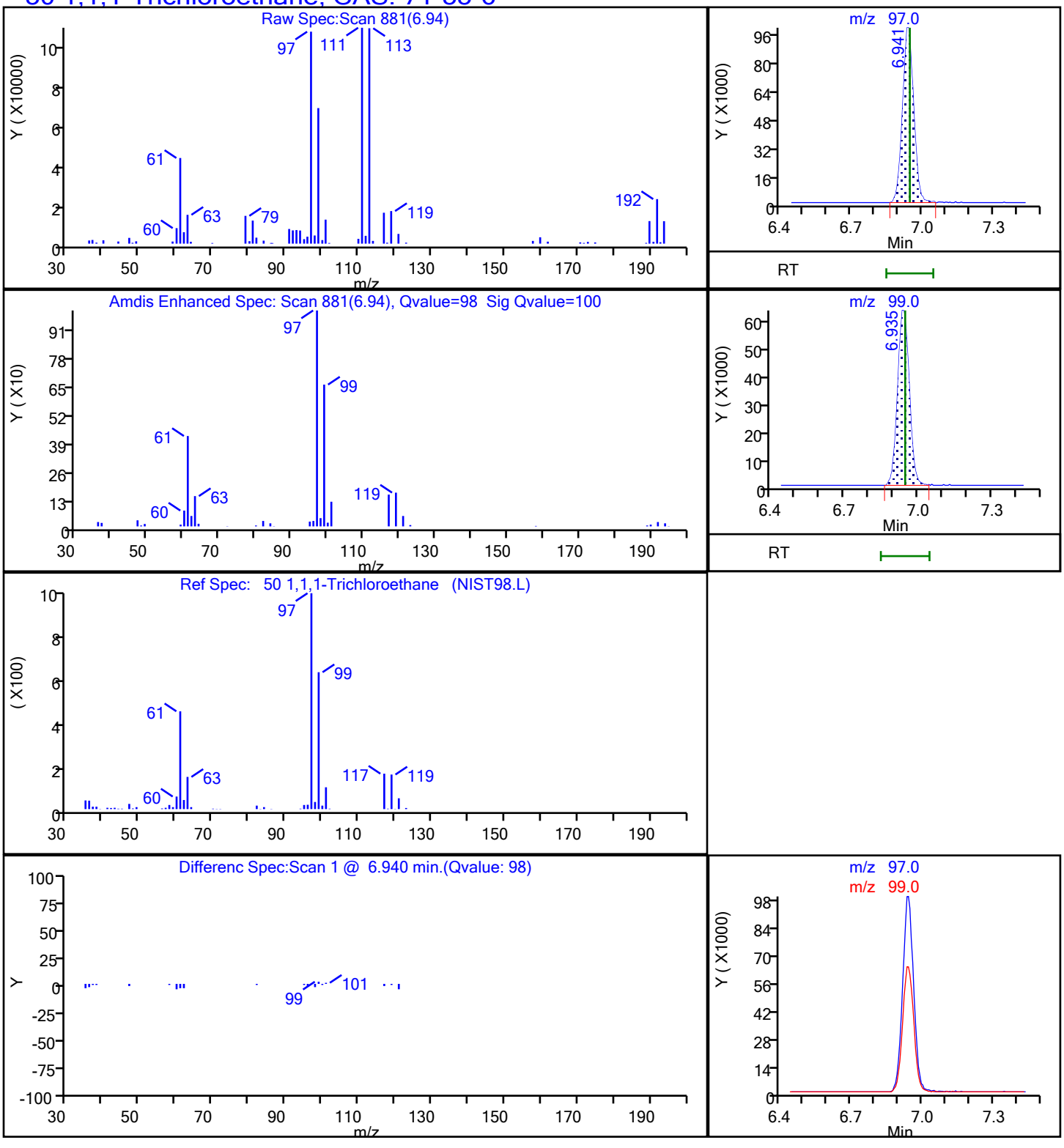
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D				
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297		
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5		
Client ID:	MW-2				
Operator ID:	lcp00895	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

50 1,1,1-Trichloroethane, CAS: 71-55-6

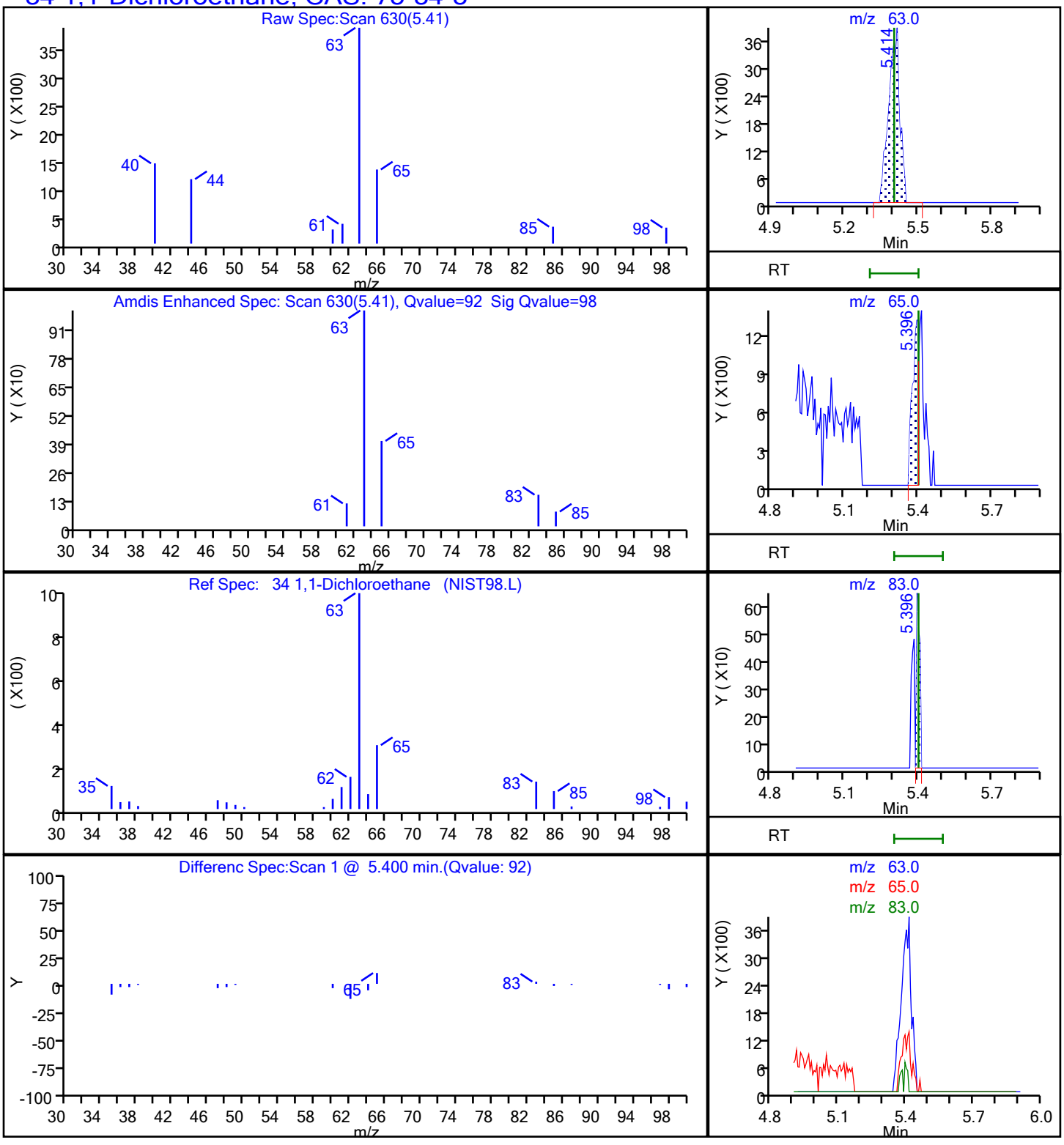


Report Date: 30-Nov-2020 13:10:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D				
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297		
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5		
Client ID:	MW-2				
Operator ID:	lcp00895	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

34 1,1-Dichloroethane, CAS: 75-34-3

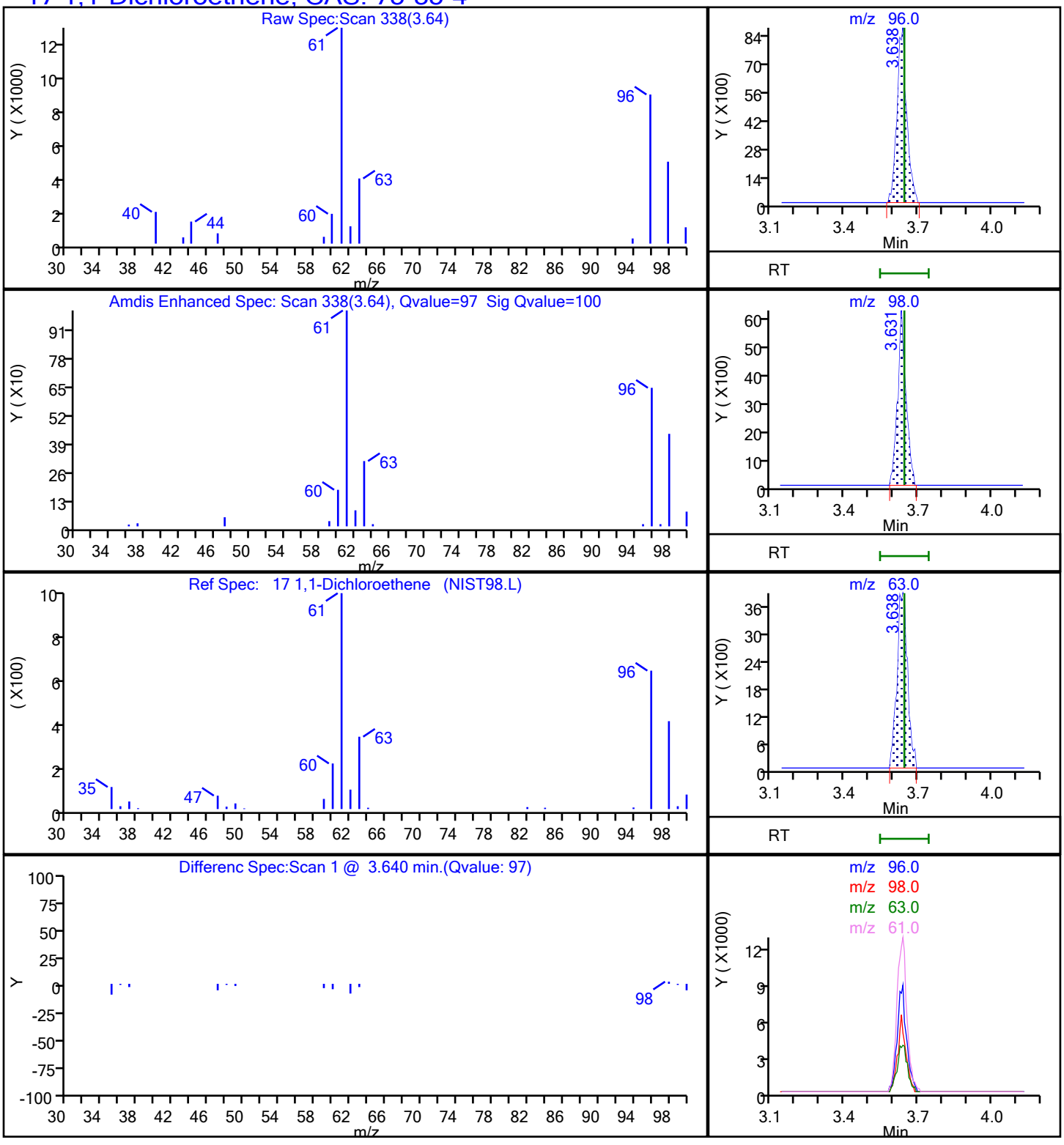


Report Date: 30-Nov-2020 13:10:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D				
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297		
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5		
Client ID:	MW-2				
Operator ID:	lcp00895	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 30-Nov-2020 13:10:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D

Injection Date: 28-Nov-2020 15:18:30 Instrument ID: 23297

Lims ID: 410-21451-A-5 Lab Sample ID: 410-21451-5

Client ID: MW-2

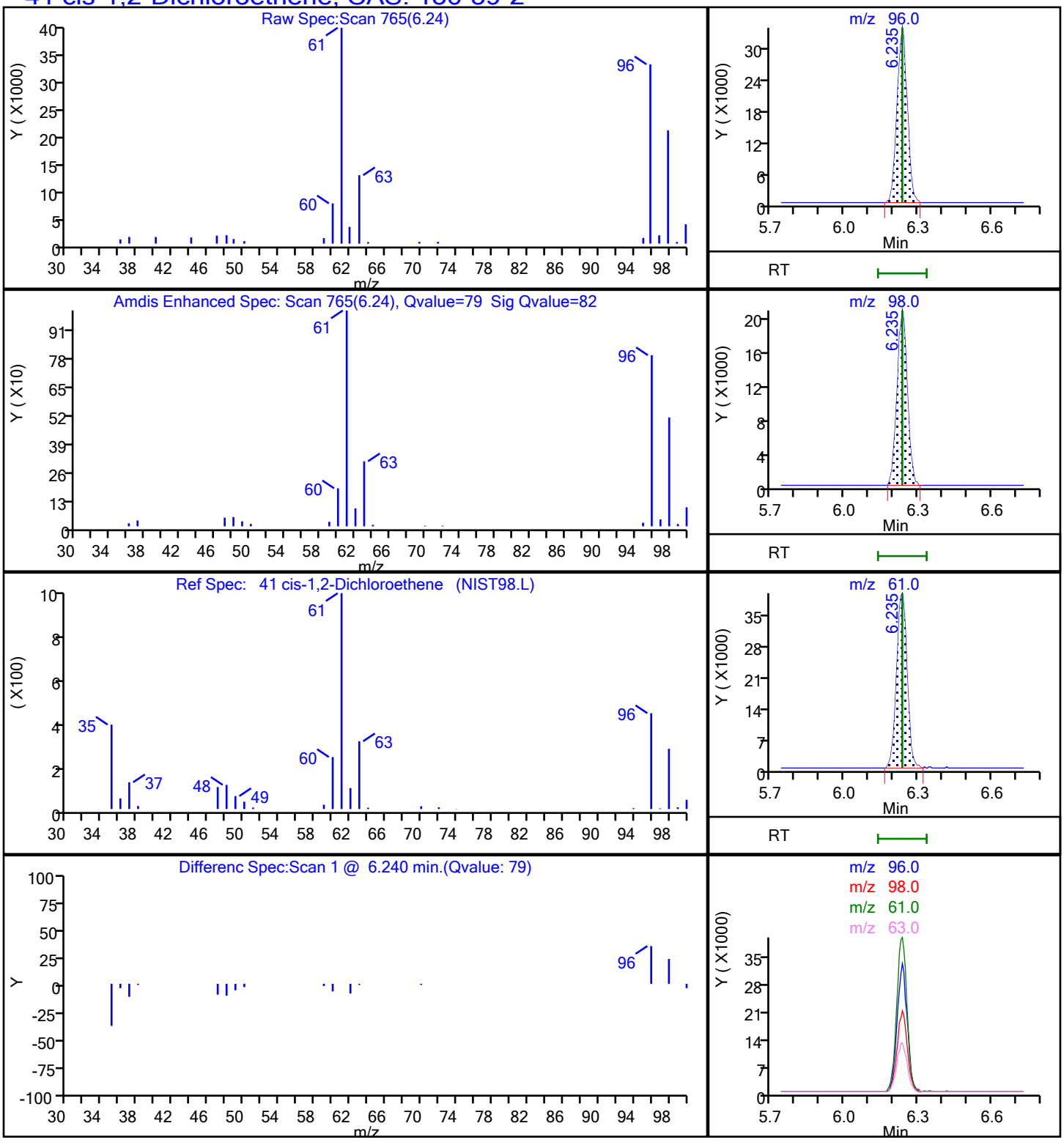
Operator ID: lcp00895 ALS Bottle#: 17 Worklist Smp#: 18

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

41 cis-1,2-Dichloroethene, CAS: 156-59-2

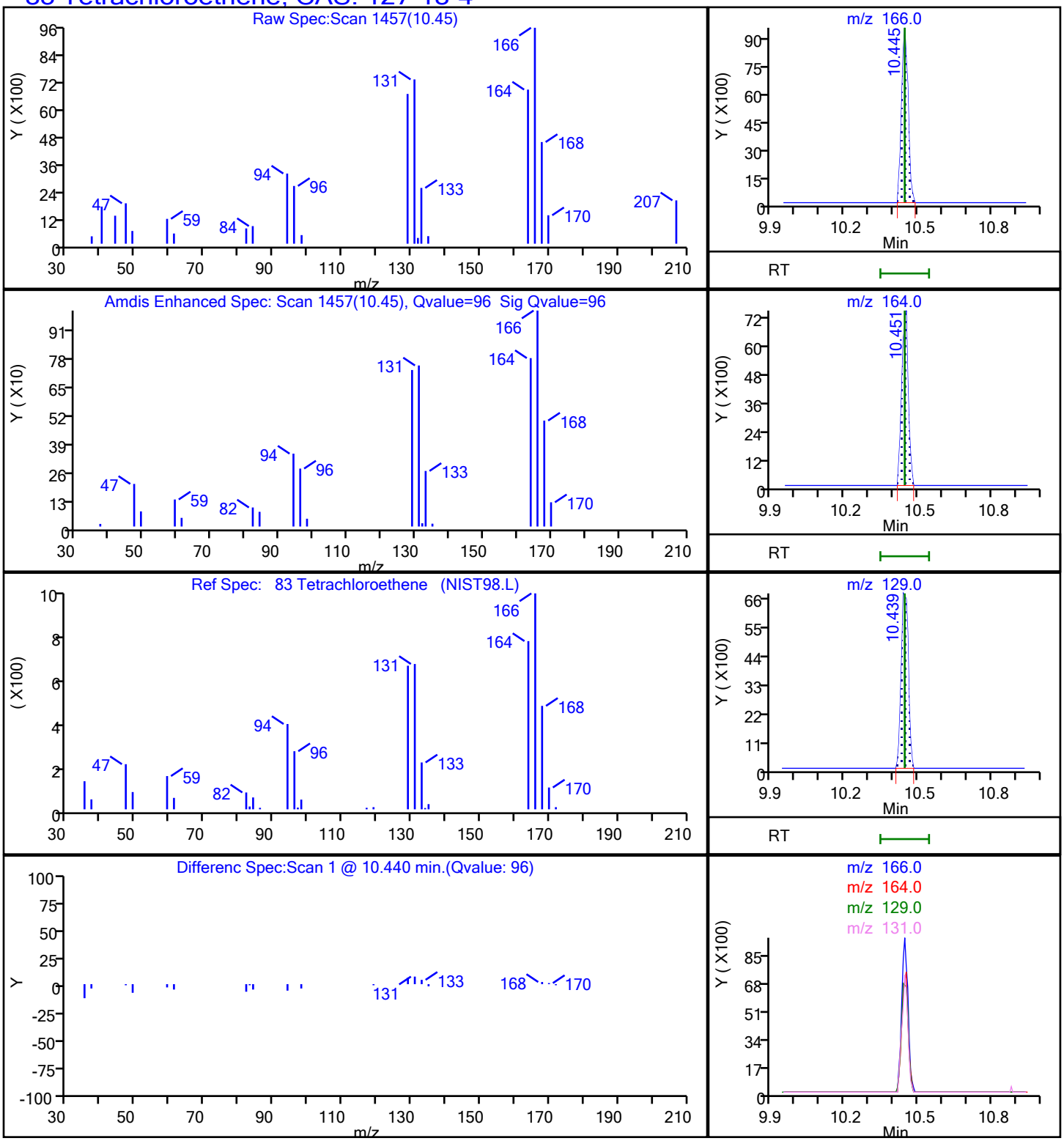


Report Date: 30-Nov-2020 13:10:34 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D		
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5
Client ID:	MW-2		
Operator ID:	lcp00895	ALS Bottle#:	17 Worklist Smp#: 18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad

83 Tetrachloroethene, CAS: 127-18-4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

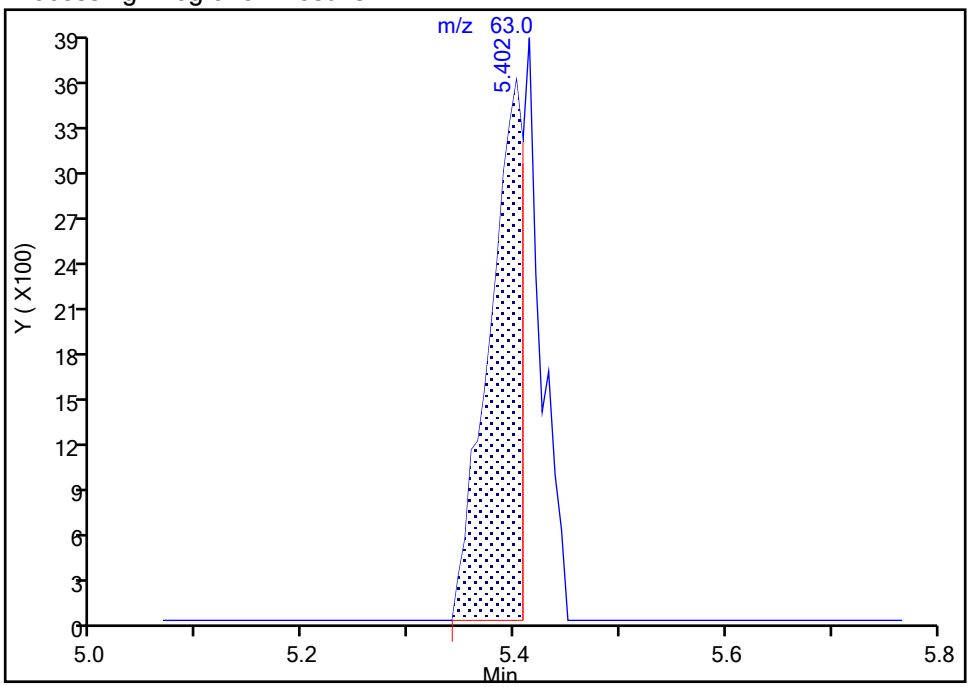
Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D				
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297		
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5		
Client ID:	MW-2				
Operator ID:	lcp00895	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

34 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

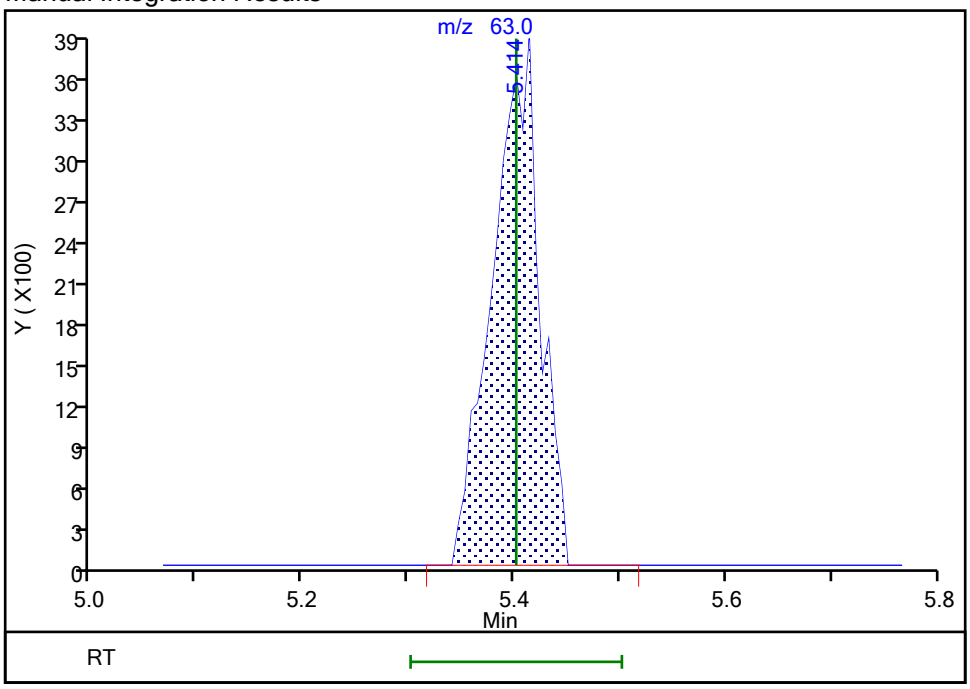
Processing Integration Results

RT: 5.40
Area: 7978
Amount: 0.816899
Amount Units: ug/l



Manual Integration Results

RT: 5.41
Area: 11882
Amount: 1.216645
Amount Units: ug/l



Reviewer: riehlc, 30-Nov-2020 13:03:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

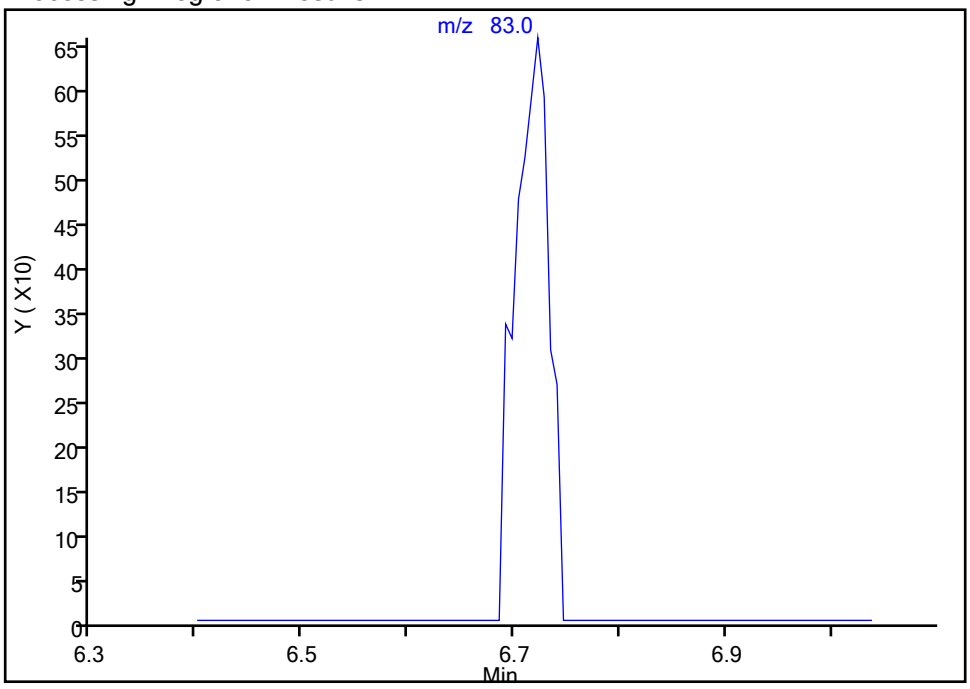
Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S11.D				
Injection Date:	28-Nov-2020 15:18:30	Instrument ID:	23297		
Lims ID:	410-21451-A-5	Lab Sample ID:	410-21451-5		
Client ID:	MW-2				
Operator ID:	lcp00895	ALS Bottle#:	17	Worklist Smp#:	18
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

48 Chloroform, CAS: 67-66-3

Signal: 1

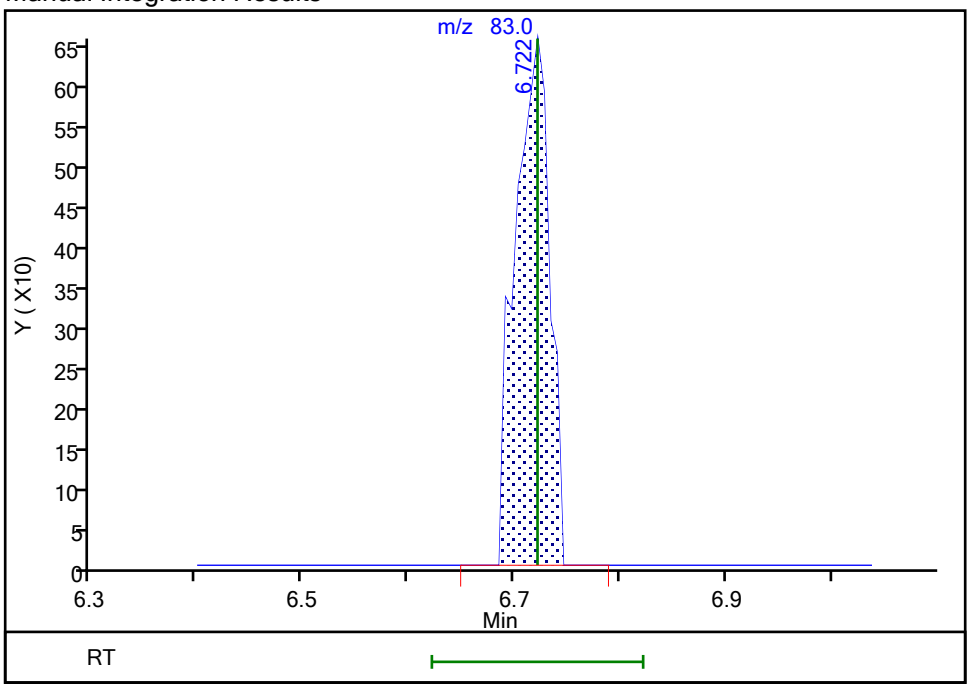
Not Detected
Expected RT: 6.72

Processing Integration Results



Manual Integration Results

RT: 6.72
Area: 1480
Amount: 0.152417
Amount Units: ug/l



Reviewer: riehlc, 30-Nov-2020 13:03:11
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: MW-2 DL Lab Sample ID: 410-21451-5 DL

Matrix: Water Lab File ID: 4N30S47.D

Analysis Method: 8260C Date Collected: 11/17/2020 13:44

Sample wt/vol: 5(mL) Date Analyzed: 12/01/2020 03:51

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 71112 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	290		10	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S47.D
Lims ID: 410-21451-B-5 DL
Client ID: MW-2
Sample Type: Client
Inject. Date: 01-Dec-2020 03:51:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 410-0016666-019
Misc. Info.: 410-21451-B-5
Operator ID: etp33087 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 01-Dec-2020 13:57:38 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1643

First Level Reviewer: howej Date: 01-Dec-2020 13:43:19

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.336				ND	7
17 1,1-Dichloroethene	96	3.625	3.643	-0.018	13	1888	0.4084	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.680				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.337	-0.006	0	493113	250.0	
31 trans-1,2-Dichloroethene	96		4.739				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96	6.235	6.241	-0.006	77	8482	1.38	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	316722	49.7	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	39	26703	3.28	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	75711	50.6	
56 Benzene	78		7.421				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1270056	50.0	
64 Trichloroethene	95	8.304	8.303	0.001	98	171935	28.9	
68 1,4-Dioxane	88		8.729				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1235483	50.3	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166	10.457	10.445	0.012	88	1667	0.2426	M
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	950991	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	452880	48.6	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	500005	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

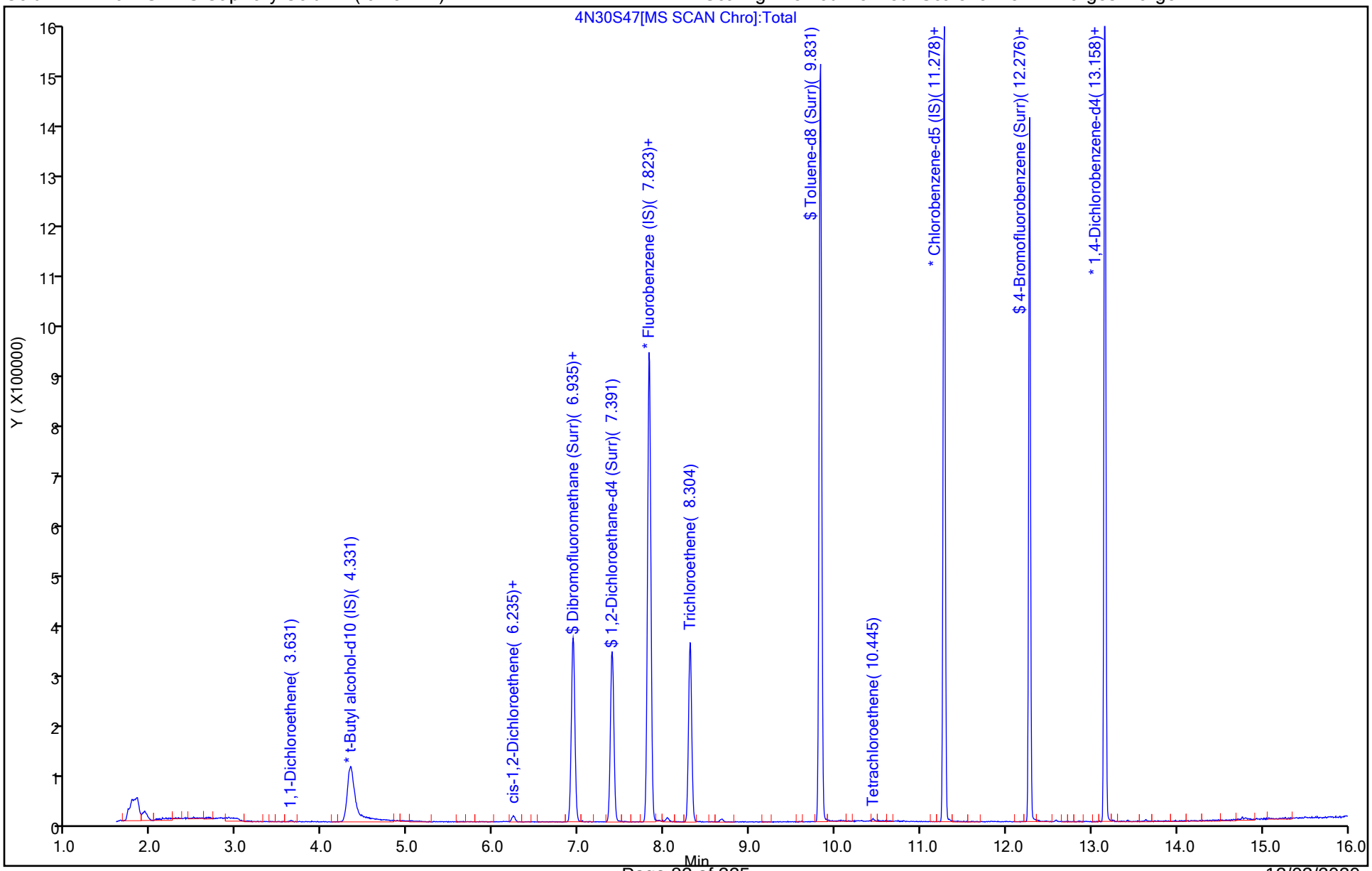
Report Date: 01-Dec-2020 13:58:21 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S47.D

Injection Date:	01-Dec-2020 03:51:30	Instrument ID:	23297	Operator ID:	etp33087
Lims ID:	410-21451-B-5 DL	Lab Sample ID:	410-21451-5	Worklist Smp#:	19
Client ID:	MW-2				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	18
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 01-Dec-2020 13:58:21 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S47.D

Injection Date: 01-Dec-2020 03:51:30 Instrument ID: 23297

Lims ID: 410-21451-B-5 DL Lab Sample ID: 410-21451-5

Client ID: MW-2

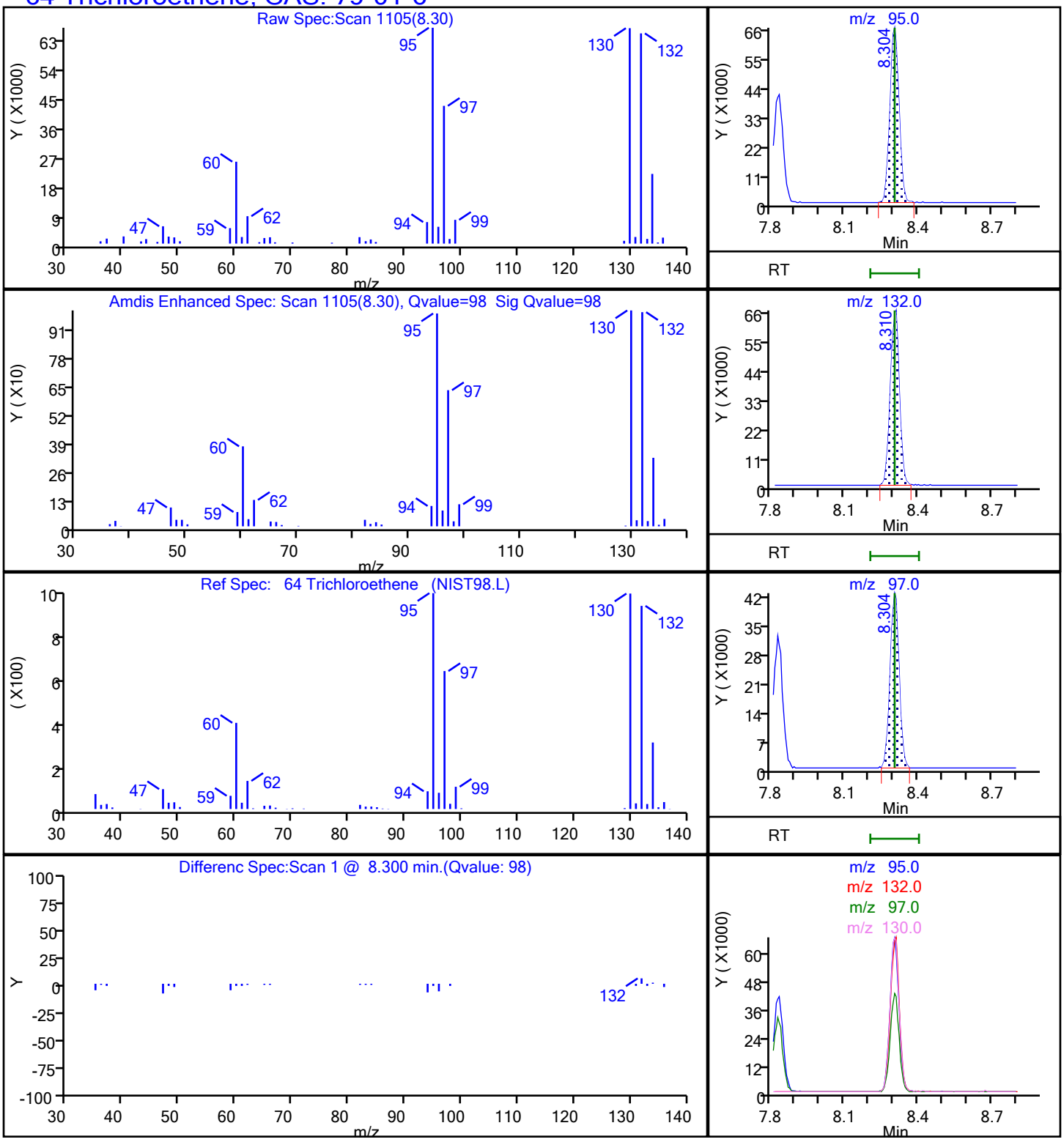
Operator ID: etp33087 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Dup-02 Lab Sample ID: 410-21451-6

Matrix: Water Lab File ID: 4N28S12.D

Analysis Method: 8260C Date Collected: 11/17/2020 14:30

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 15:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	40		1.0	0.30
75-34-3	1,1-Dichloroethane	1.3		1.0	0.20
75-35-4	1,1-Dichloroethene	5.0		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	16		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	2.5		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D
Lims ID: 410-21451-A-6
Client ID: Dup-02
Sample Type: Client
Inject. Date: 28-Nov-2020 15:41:30 ALS Bottle#: 18 Worklist Smp#: 19
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-019
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:04:29

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96	3.637	3.643	-0.006	98	23383	5.05	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	7
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	498357	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63	5.402	5.402	0.000	93	12360	1.26	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	79	96869	15.7	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	316527	49.5	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	98	326652	40.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	75359	50.3	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1273425	50.0	
64 Trichloroethene	95	8.304	8.303	0.001	98	1971184	330.9	E
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.000	93	1245173	50.2	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	17642	2.54	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	960514	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	464841	49.4	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	516085	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

E - Exceeded Maximum Amount

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005	Amount Added:	1.00	Units: uL	Run Reagent

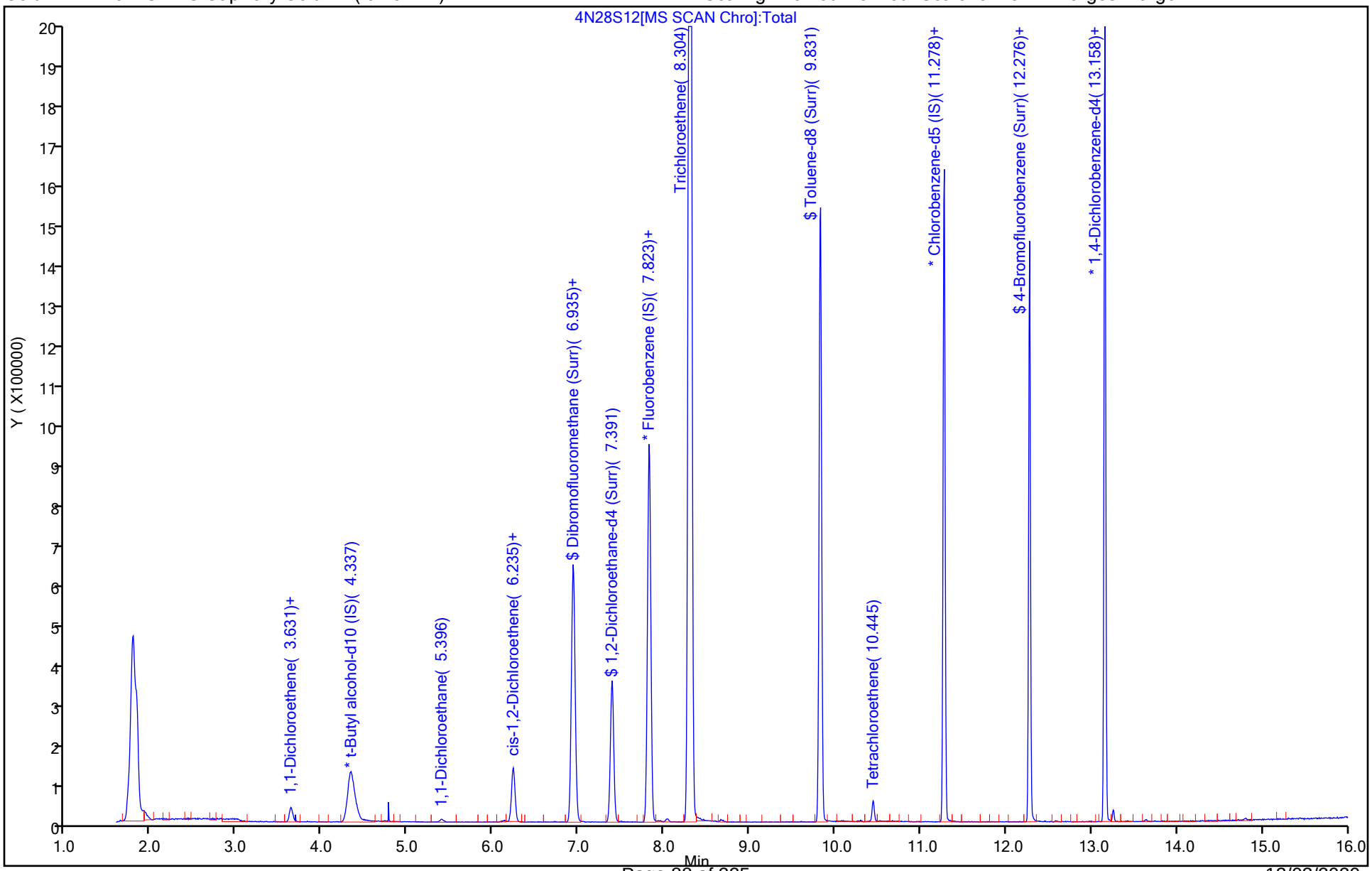
Report Date: 30-Nov-2020 13:10:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D

Injection Date:	28-Nov-2020 15:41:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-6	Lab Sample ID:	410-21451-6	Worklist Smp#:	19
Client ID:	Dup-02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	18
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

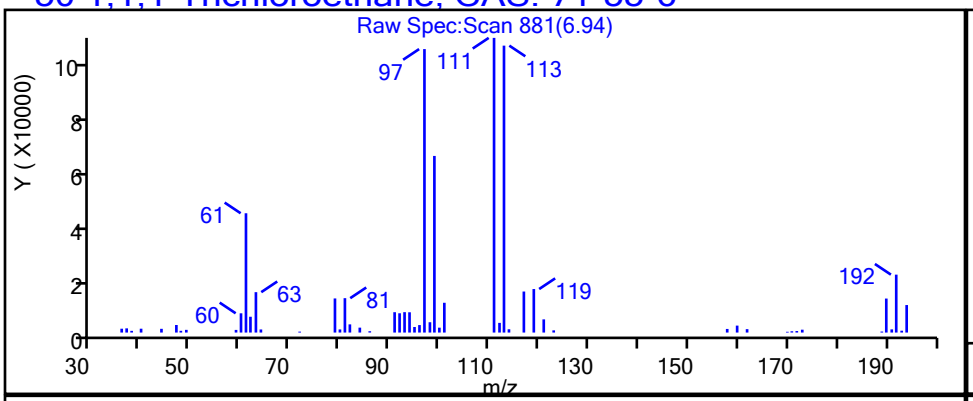
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

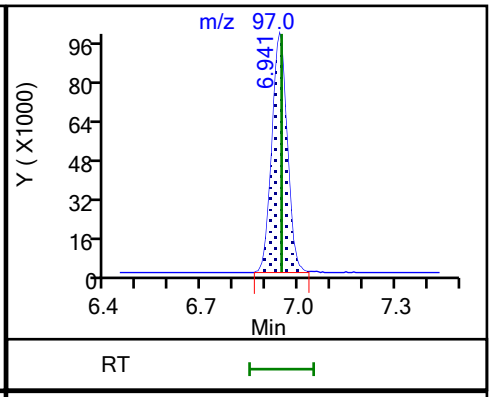


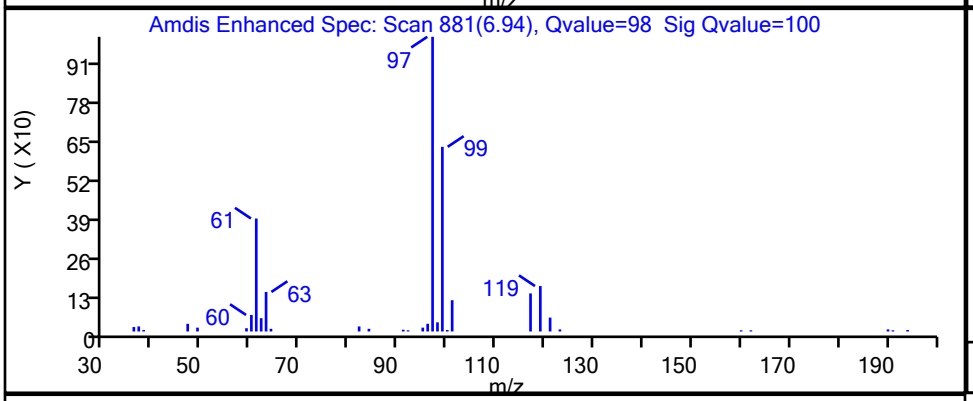
Eurofins Lancaster Laboratories Env, LLC

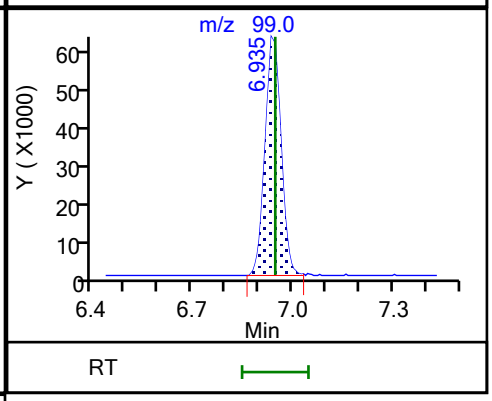
Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D				
Injection Date:	28-Nov-2020 15:41:30	Instrument ID:	23297		
Lims ID:	410-21451-A-6	Lab Sample ID:	410-21451-6		
Client ID:	Dup-02				
Operator ID:	lcp00895	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

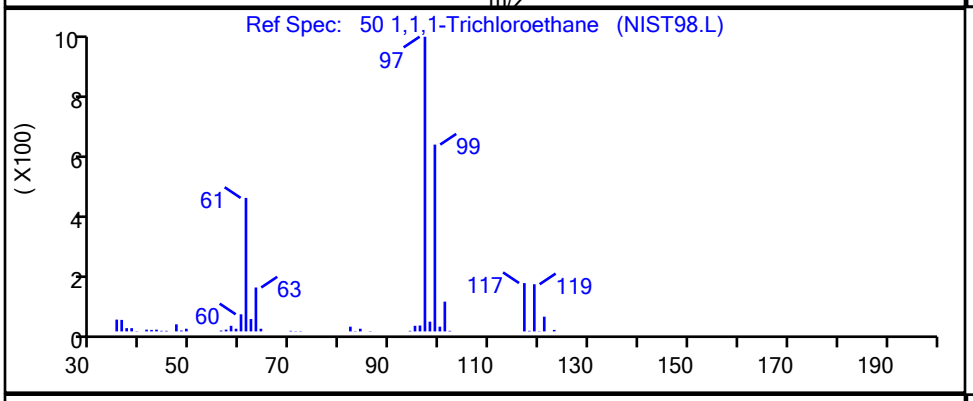
50 1,1,1-Trichloroethane, CAS: 71-55-6

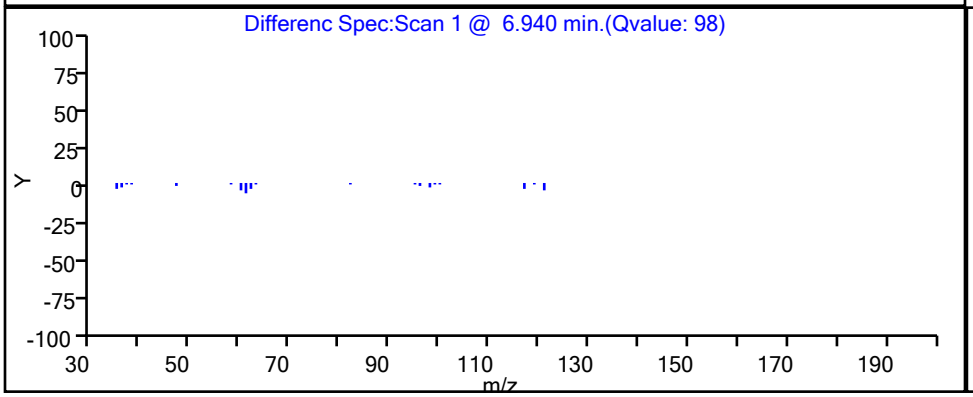


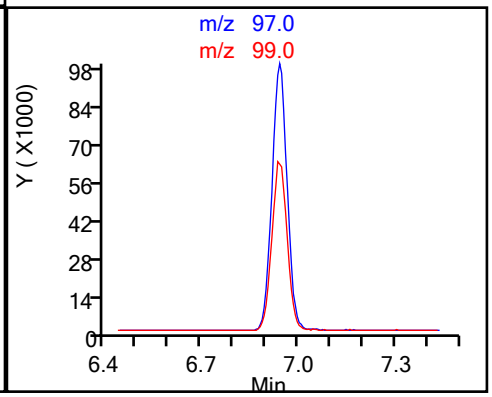










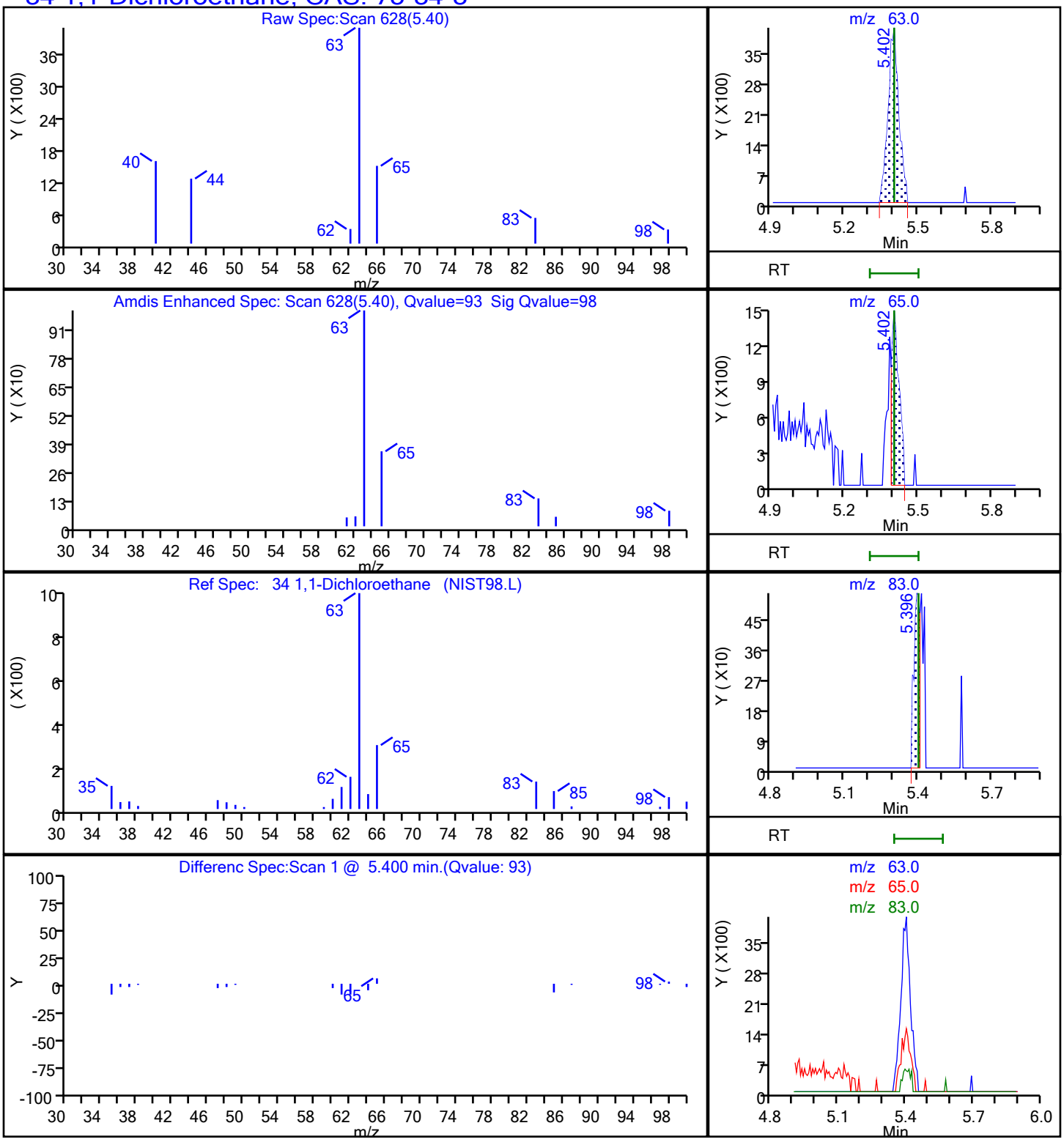


Report Date: 30-Nov-2020 13:10:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D				
Injection Date:	28-Nov-2020 15:41:30	Instrument ID:	23297		
Lims ID:	410-21451-A-6	Lab Sample ID:	410-21451-6		
Client ID:	Dup-02				
Operator ID:	lcp00895	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

34 1,1-Dichloroethane, CAS: 75-34-3

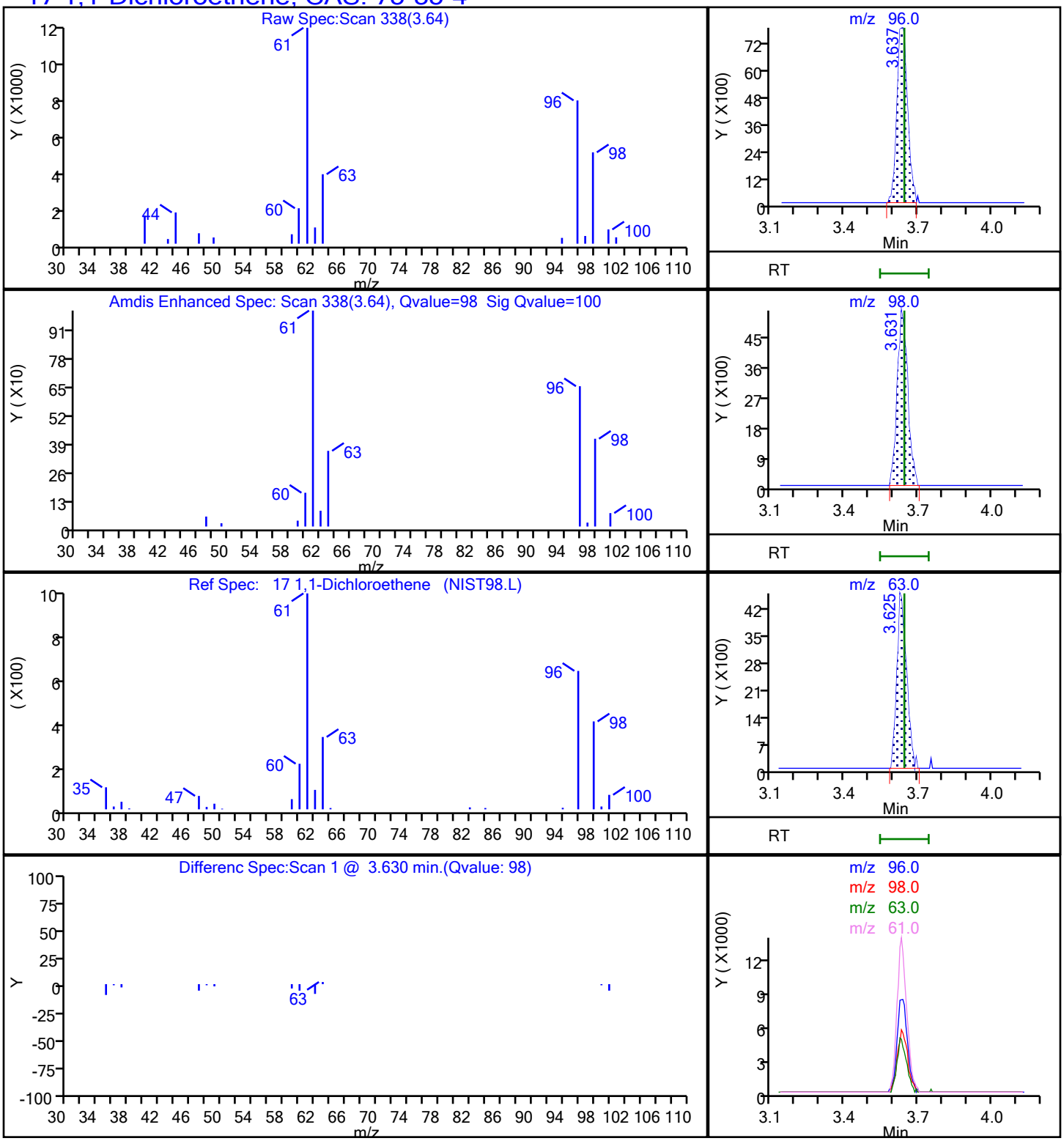


Report Date: 30-Nov-2020 13:10:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D				
Injection Date:	28-Nov-2020 15:41:30	Instrument ID:	23297		
Lims ID:	410-21451-A-6	Lab Sample ID:	410-21451-6		
Client ID:	Dup-02				
Operator ID:	lcp00895	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

17 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 30-Nov-2020 13:10:36 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D

Injection Date: 28-Nov-2020 15:41:30 Instrument ID: 23297

Lims ID: 410-21451-A-6 Lab Sample ID: 410-21451-6

Client ID: Dup-02

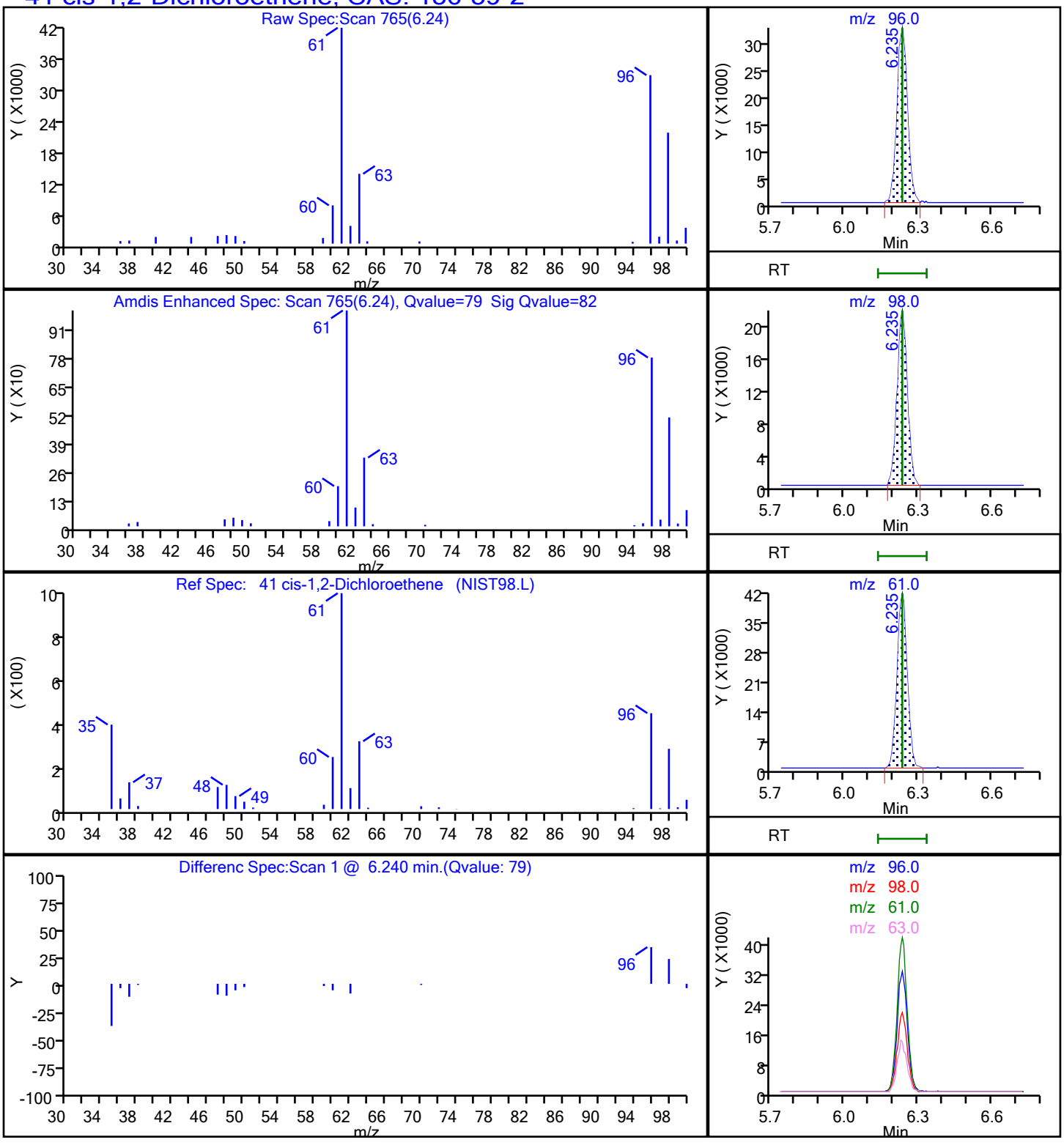
Operator ID: lcp00895 ALS Bottle#: 18 Worklist Smp#: 19

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

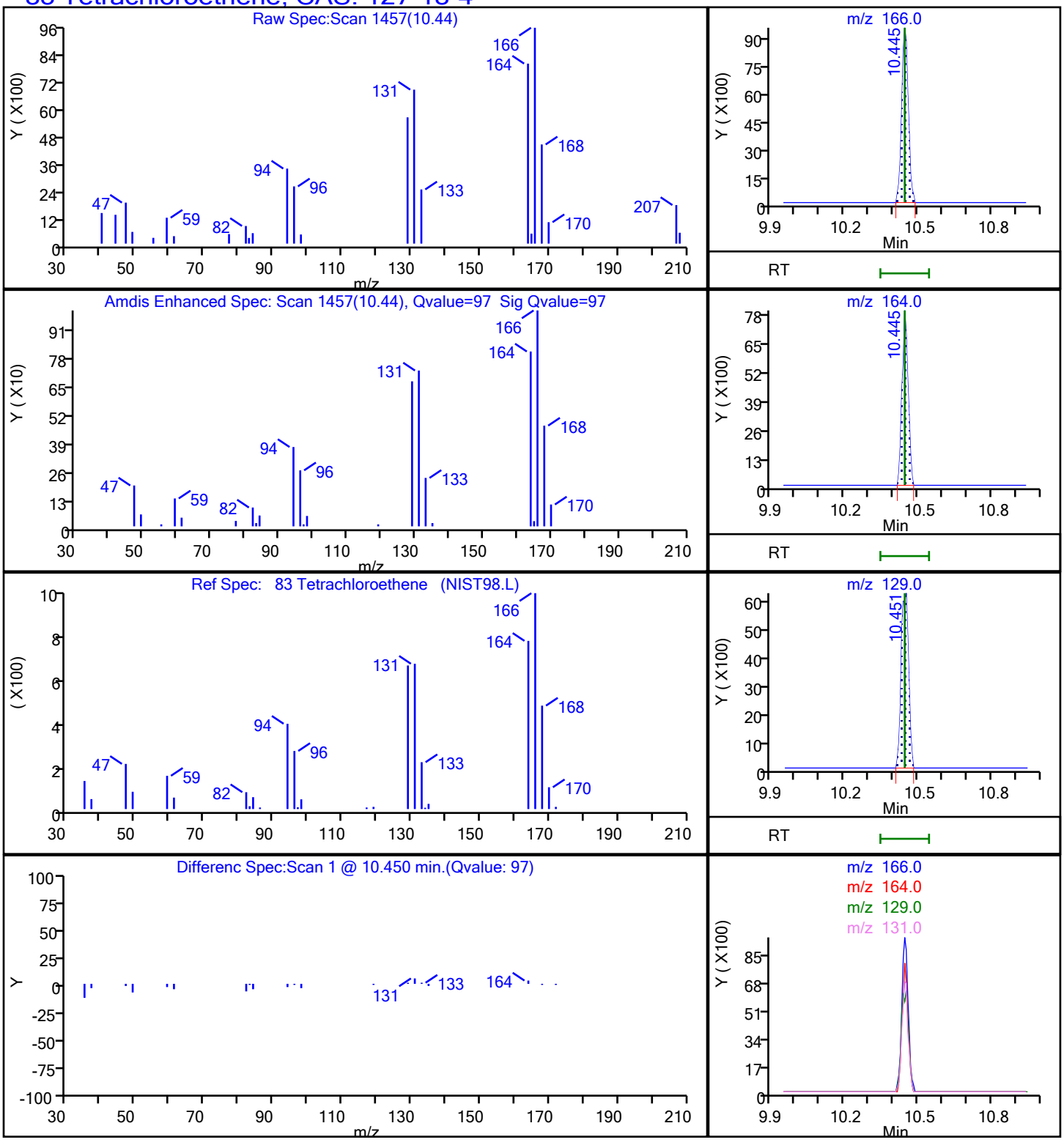
41 cis-1,2-Dichloroethene, CAS: 156-59-2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S12.D				
Injection Date:	28-Nov-2020 15:41:30	Instrument ID:	23297		
Lims ID:	410-21451-A-6	Lab Sample ID:	410-21451-6		
Client ID:	Dup-02				
Operator ID:	lcp00895	ALS Bottle#:	18	Worklist Smp#:	19
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

83 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Dup-02 DL Lab Sample ID: 410-21451-6 DL

Matrix: Water Lab File ID: 4N30S48.D

Analysis Method: 8260C Date Collected: 11/17/2020 14:30

Sample wt/vol: 5(mL) Date Analyzed: 12/01/2020 04:13

Soil Aliquot Vol: Dilution Factor: 10

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 71112 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	300		10	2.0

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S48.D
Lims ID: 410-21451-B-6 DL
Client ID: Dup-02
Sample Type: Client
Inject. Date: 01-Dec-2020 04:13:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 10.0000
Sample Info: 410-0016666-020
Misc. Info.: 410-21451-B-6
Operator ID: etp33087 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 01-Dec-2020 13:57:38 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1643

First Level Reviewer: howej Date: 01-Dec-2020 13:43:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.336				ND	
17 1,1-Dichloroethene	96	3.644	3.643	0.001	81	1602	0.3417	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.680				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.337	-0.006	0	478954	250.0	
31 trans-1,2-Dichloroethene	96		4.739				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96	6.235	6.241	-0.006	75	9732	1.56	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	320488	49.6	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	39	27286	3.30	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	75679	49.9	
56 Benzene	78		7.421				ND	7
57 1,2-Dichloroethane	62	7.494	7.500	-0.006	1	1237	0.1512	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1288268	50.0	
64 Trichloroethene	95	8.304	8.303	0.001	98	179114	29.7	
68 1,4-Dioxane	88		8.729				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1259291	50.5	
78 Toluene	92		9.903				ND	7
83 Tetrachloroethene	166	10.451	10.445	0.006	82	1767	0.2531	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	966235	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	7
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	472693	49.9	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	515239	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

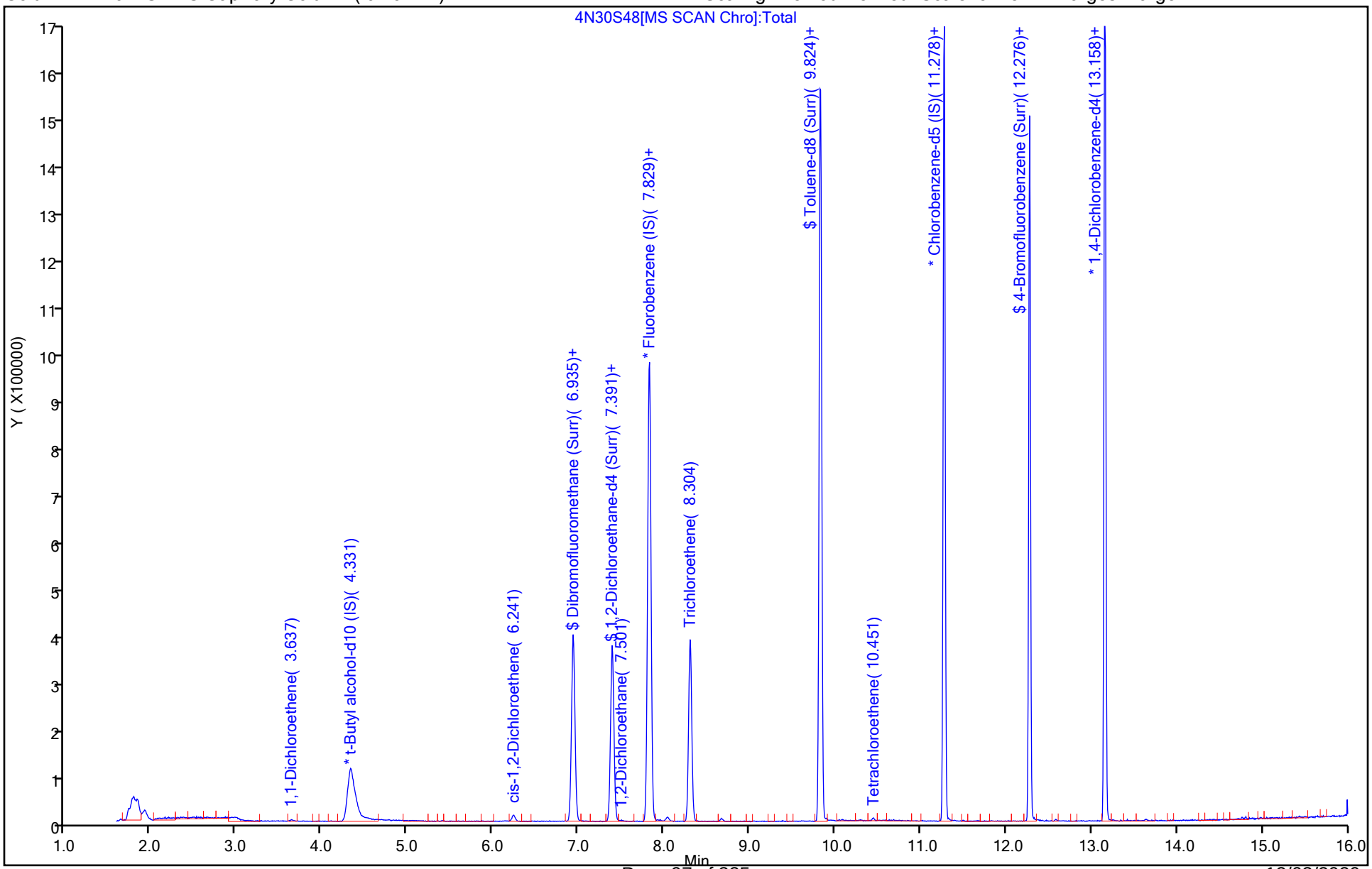
MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 01-Dec-2020 13:58:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S48.D				
Injection Date:	01-Dec-2020 04:13:30	Instrument ID:	23297	Operator ID:	etp33087
Lims ID:	410-21451-B-6 DL	Lab Sample ID:	410-21451-6	Worklist Smp#:	20
Client ID:	Dup-02				
Purge Vol:	5.000 mL	Dil. Factor:	10.0000	ALS Bottle#:	19
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 01-Dec-2020 13:58:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30S48.D

Injection Date: 01-Dec-2020 04:13:30 Instrument ID: 23297

Lims ID: 410-21451-B-6 DL Lab Sample ID: 410-21451-6

Client ID: Dup-02

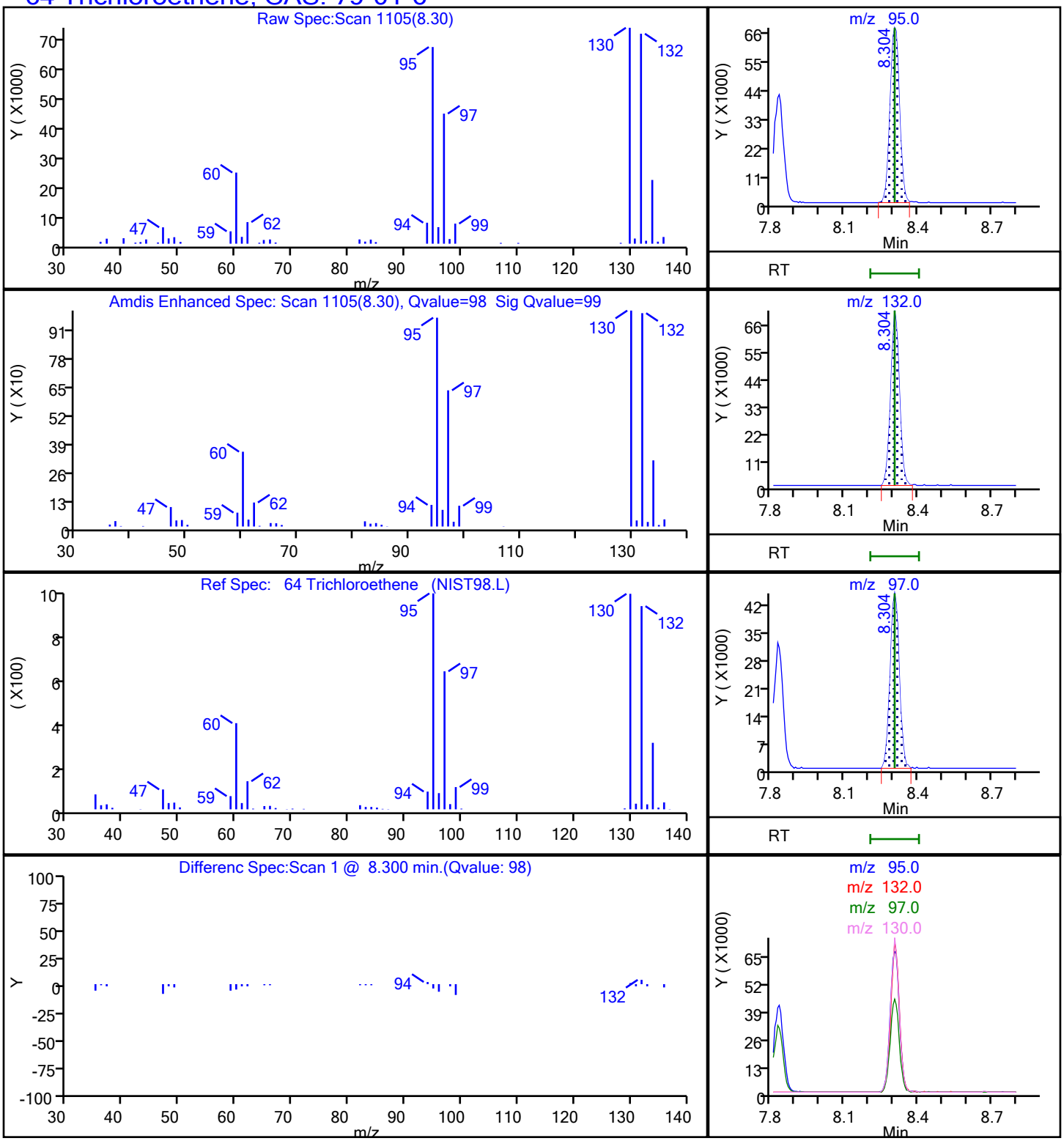
Operator ID: etp33087 ALS Bottle#: 19 Worklist Smp#: 20

Purge Vol: 5.000 mL Dil. Factor: 10.0000

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: MW-2I Lab Sample ID: 410-21451-7

Matrix: Water Lab File ID: 4N28S13.D

Analysis Method: 8260C Date Collected: 11/17/2020 15:40

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 16:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	0.38	J	1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	1.1		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	0.75	J	1.0	0.20
79-01-6	Trichloroethene	6.4		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D
Lims ID: 410-21451-A-7
Client ID: MW-2I
Sample Type: Client
Inject. Date: 28-Nov-2020 16:03:30 ALS Bottle#: 19 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-020
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:05:02

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	511237	250.0	
31 trans-1,2-Dichloroethene	96	4.720	4.745	-0.025	91	4004	0.7453	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	75	6516	1.05	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.929	6.935	-0.006	94	316543	49.5	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	35	3145	0.3845	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	75725	50.5	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62	7.495	7.500	-0.005	1	1312	0.1622	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1274208	50.0	
64 Trichloroethene	95	8.298	8.303	-0.005	98	38320	6.43	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.825	9.830	-0.005	93	1241366	50.4	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.279	11.278	0.000	84	954299	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	456055	48.8	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	507626	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

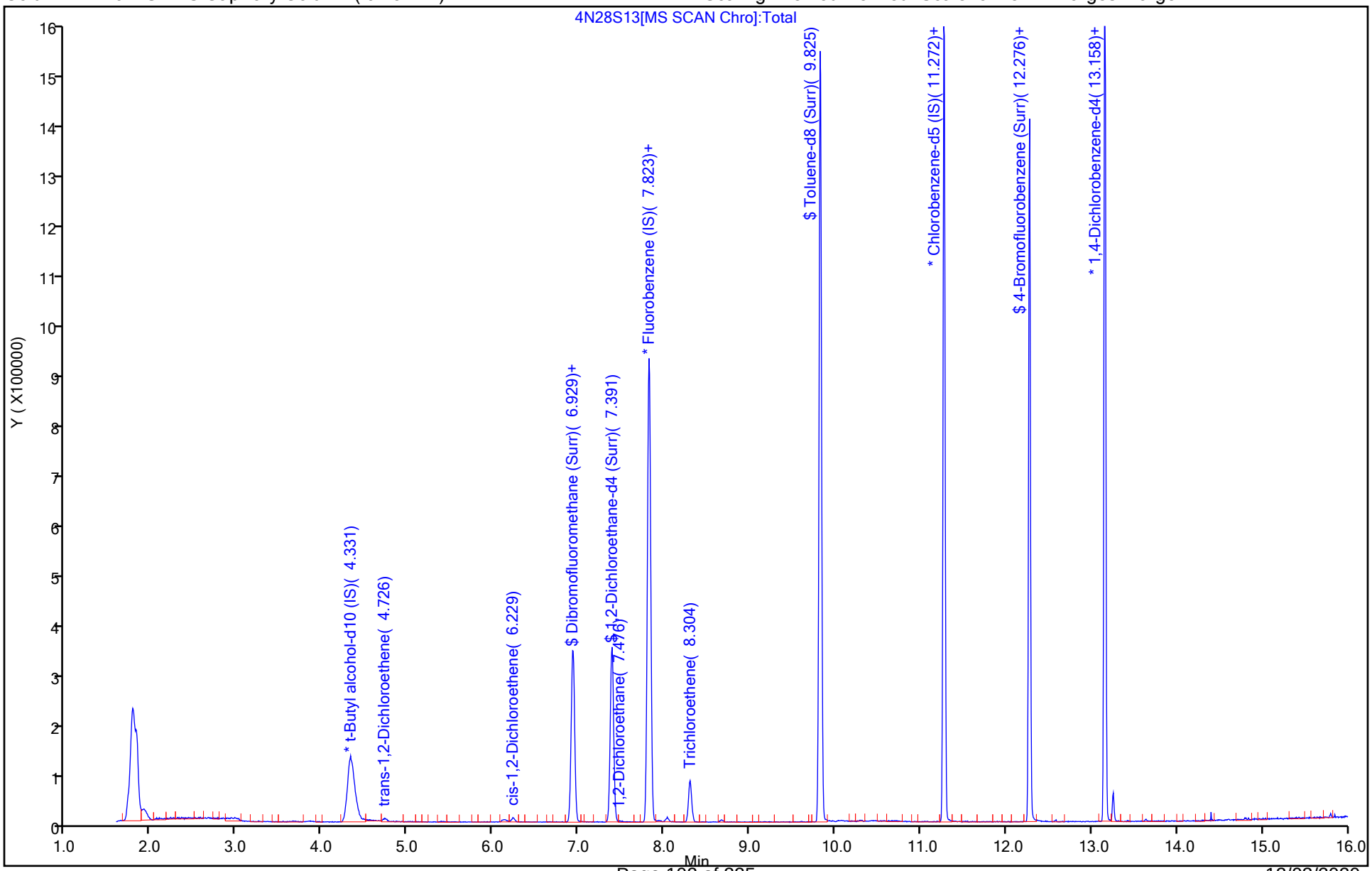
MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 30-Nov-2020 13:10:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D				
Injection Date:	28-Nov-2020 16:03:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-7	Lab Sample ID:	410-21451-7	Worklist Smp#:	20
Client ID:	MW-2I				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	19
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

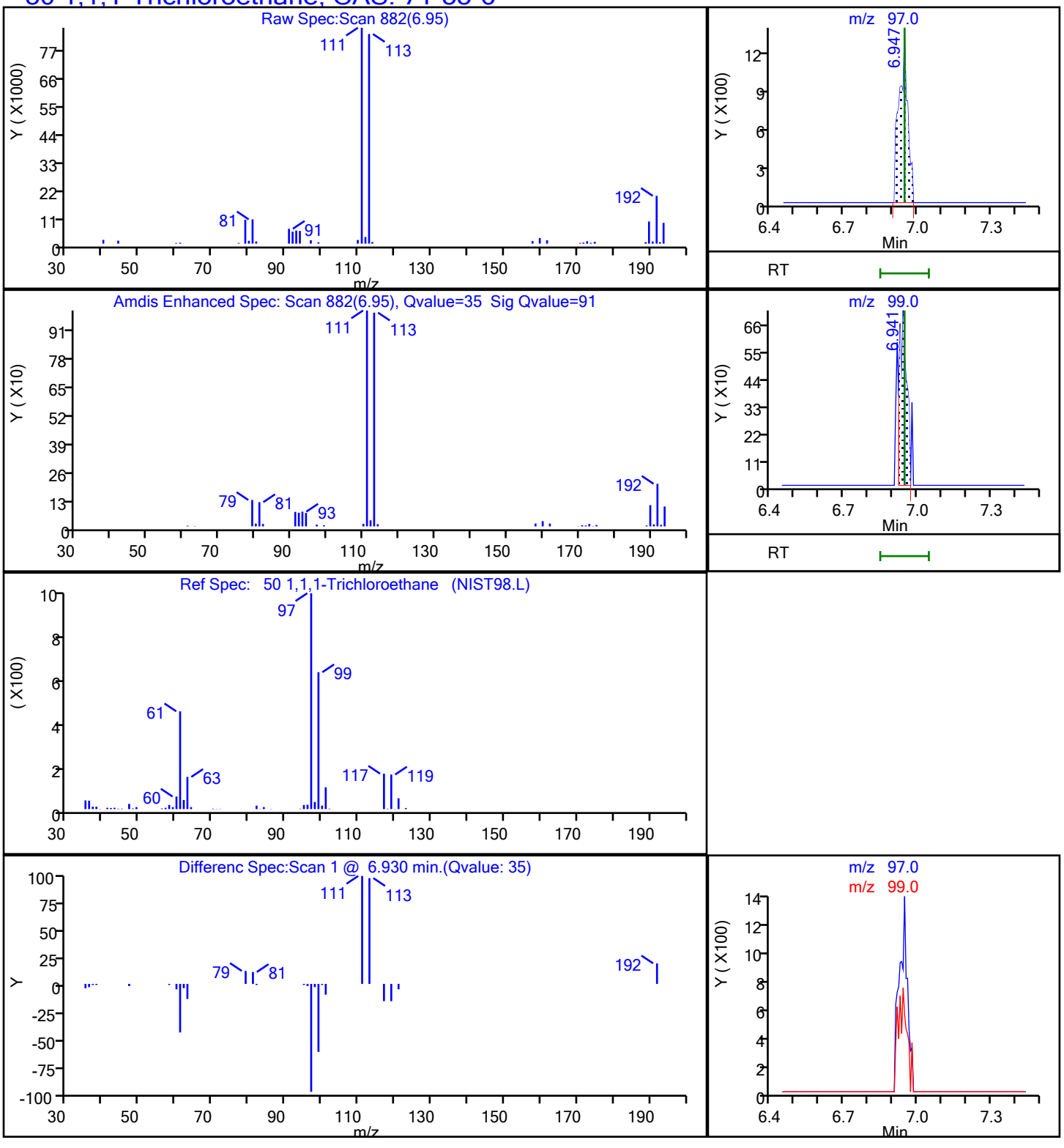
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D				
Injection Date:	28-Nov-2020 16:03:30	Instrument ID:	23297		
Lims ID:	410-21451-A-7	Lab Sample ID:	410-21451-7		
Client ID:	MW-2I				
Operator ID:	lcp00895	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

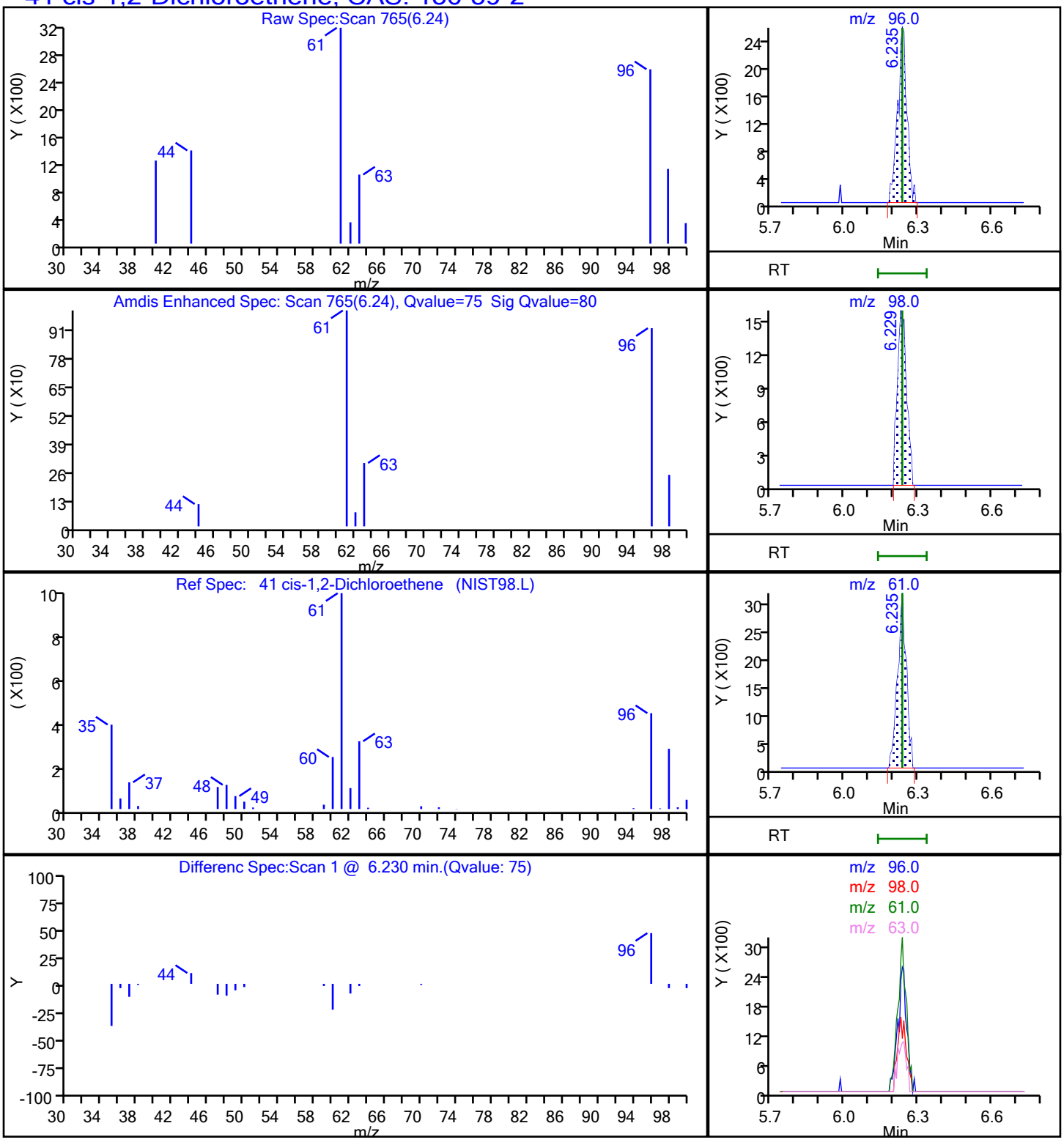
50 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D				
Injection Date:	28-Nov-2020 16:03:30	Instrument ID:	23297		
Lims ID:	410-21451-A-7	Lab Sample ID:	410-21451-7		
Client ID:	MW-2I				
Operator ID:	lcp00895	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

41 cis-1,2-Dichloroethene, CAS: 156-59-2

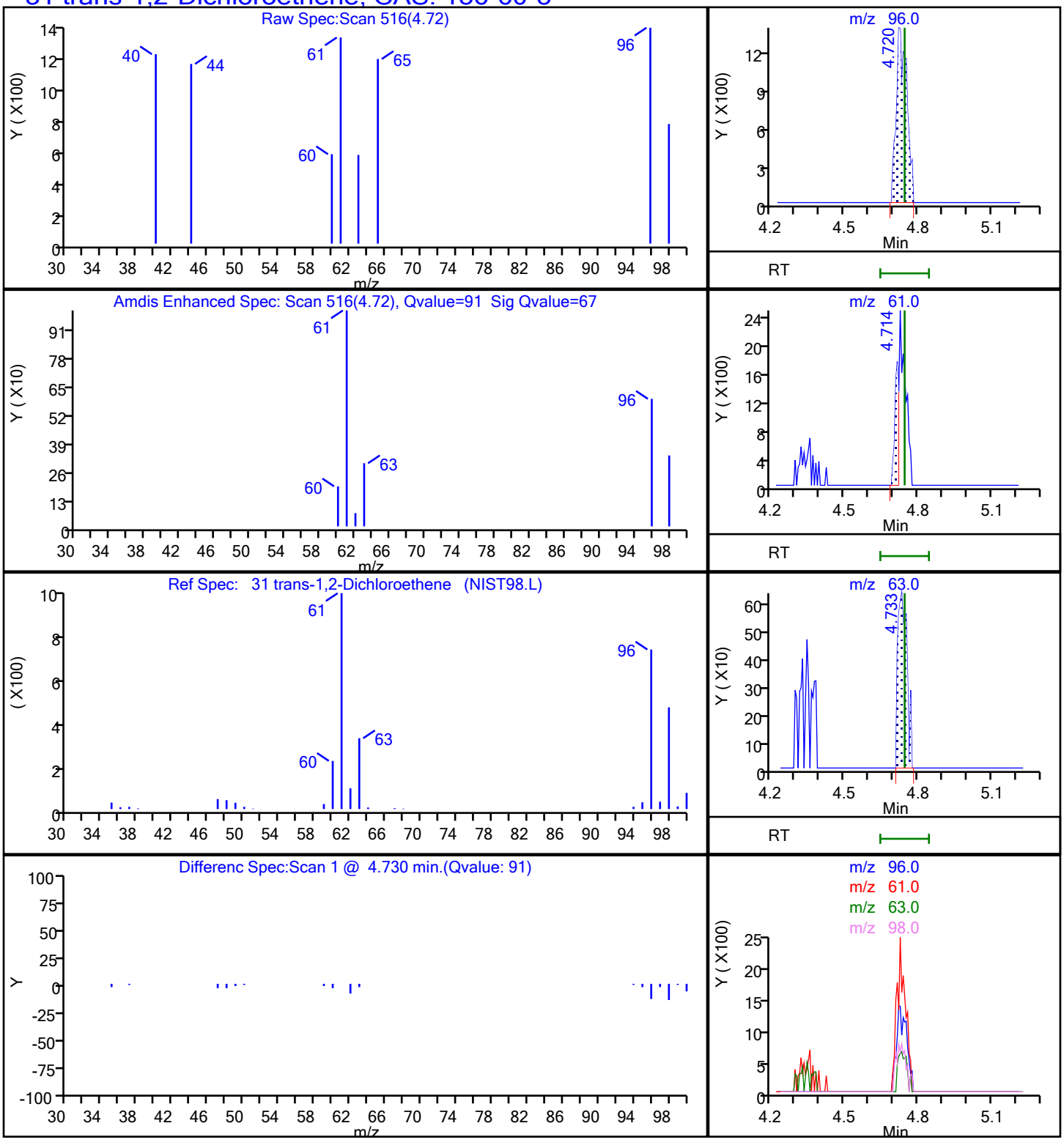


Report Date: 30-Nov-2020 13:10:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D				
Injection Date:	28-Nov-2020 16:03:30	Instrument ID:	23297		
Lims ID:	410-21451-A-7	Lab Sample ID:	410-21451-7		
Client ID:	MW-2I				
Operator ID:	lcp00895	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

31 trans-1,2-Dichloroethene, CAS: 156-60-5

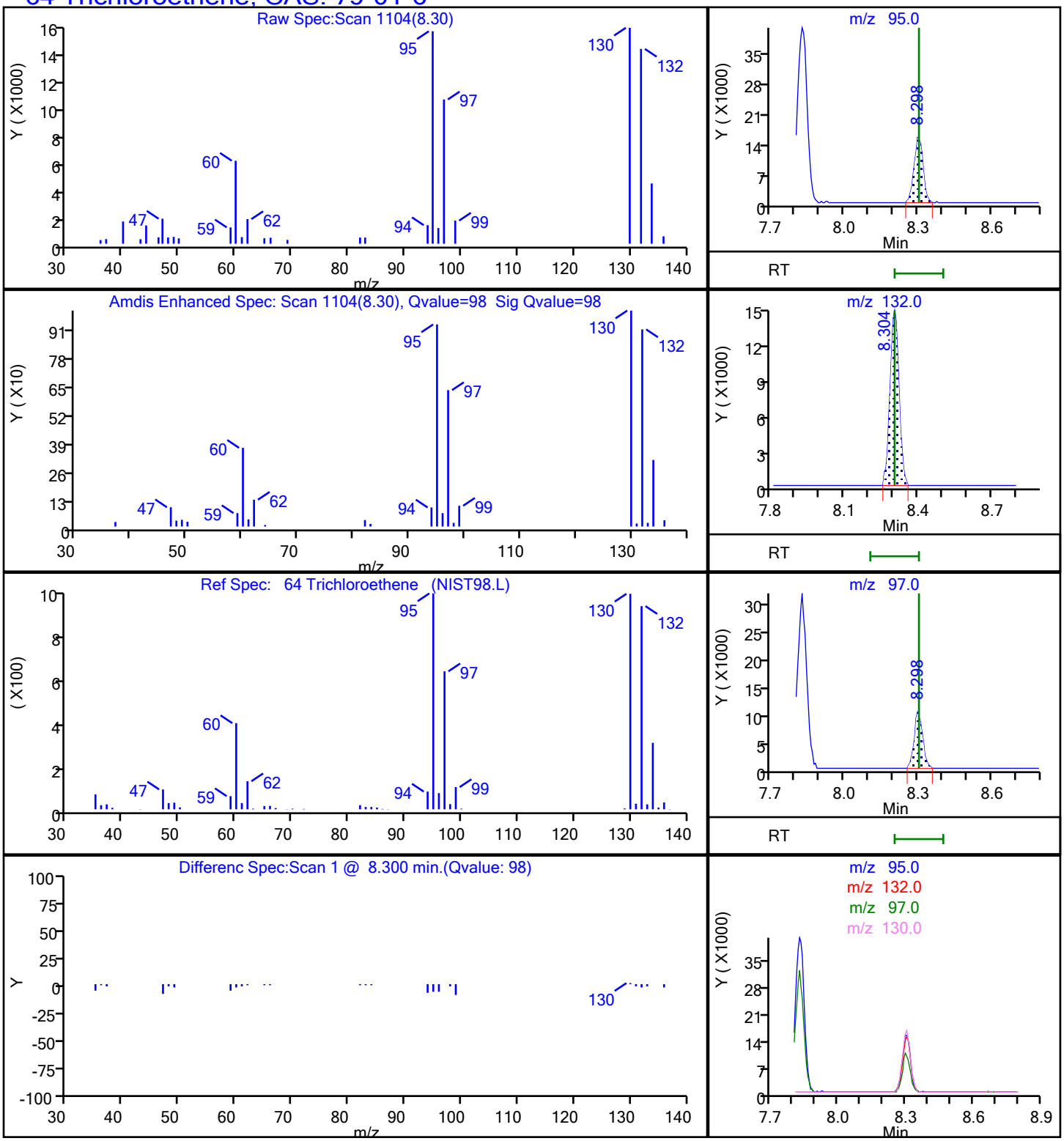


Report Date: 30-Nov-2020 13:10:37 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S13.D				
Injection Date:	28-Nov-2020 16:03:30	Instrument ID:	23297		
Lims ID:	410-21451-A-7	Lab Sample ID:	410-21451-7		
Client ID:	MW-2I				
Operator ID:	lcp00895	ALS Bottle#:	19	Worklist Smp#:	20
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: TB111720 Lab Sample ID: 410-21451-8

Matrix: Water Lab File ID: 4N28S05.D

Analysis Method: 8260C Date Collected: 11/17/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 13:02

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	101		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S05.D
Lims ID: 410-21451-A-8
Client ID: TB111720
Sample Type: Client
Inject. Date: 28-Nov-2020 13:02:30 ALS Bottle#: 11 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-012
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:00:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.325	4.343	-0.018	0	486521	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.235				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.929	6.935	-0.006	94	314329	49.7	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	74390	50.2	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1259254	50.0	
64 Trichloroethene	95		8.303				ND	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.824	9.830	-0.006	93	1221535	50.0	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	946134	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	467582	50.4	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	496444	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

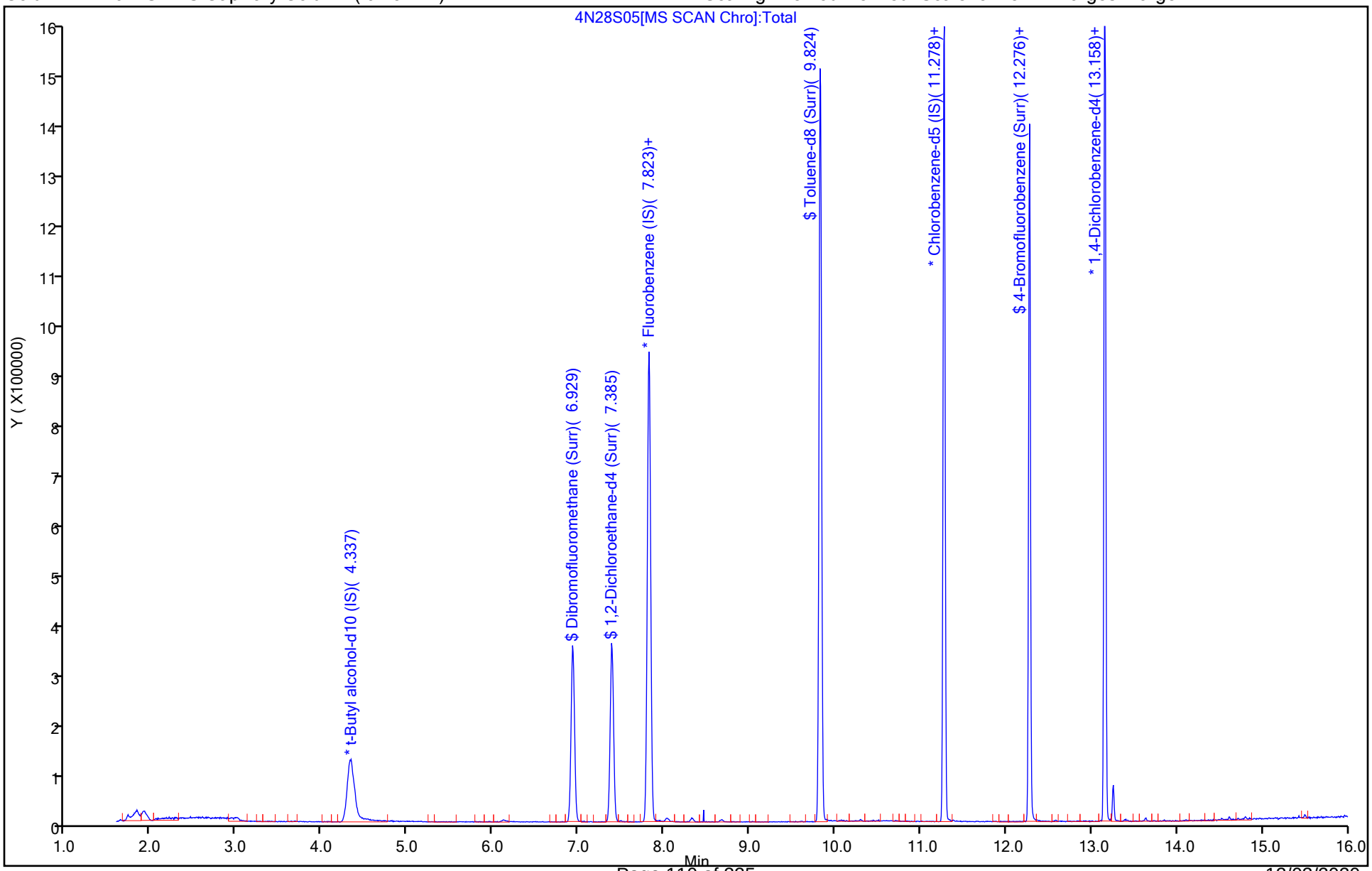
Report Date: 30-Nov-2020 13:10:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S05.D

Injection Date:	28-Nov-2020 13:02:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-8	Lab Sample ID:	410-21451-8	Worklist Smp#:	12
Client ID:	TB111720				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	11
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J02-UC01 Lab Sample ID: 410-21451-9

Matrix: Water Lab File ID: 4N28S14.D

Analysis Method: 8260C Date Collected: 11/18/2020 08:28

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 16:26

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	0.20	J	1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S14.D
Lims ID: 410-21451-A-9
Client ID: J02-UC01
Sample Type: Client
Inject. Date: 28-Nov-2020 16:26:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-021
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:05:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	518686	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.235				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	319156	49.8	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	76362	50.8	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1277797	50.0	
64 Trichloroethene	95		8.303				ND	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1235278	50.4	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166	10.451	10.445	0.006	83	1357	0.1976	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	950447	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	460843	49.5	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	95	501453	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

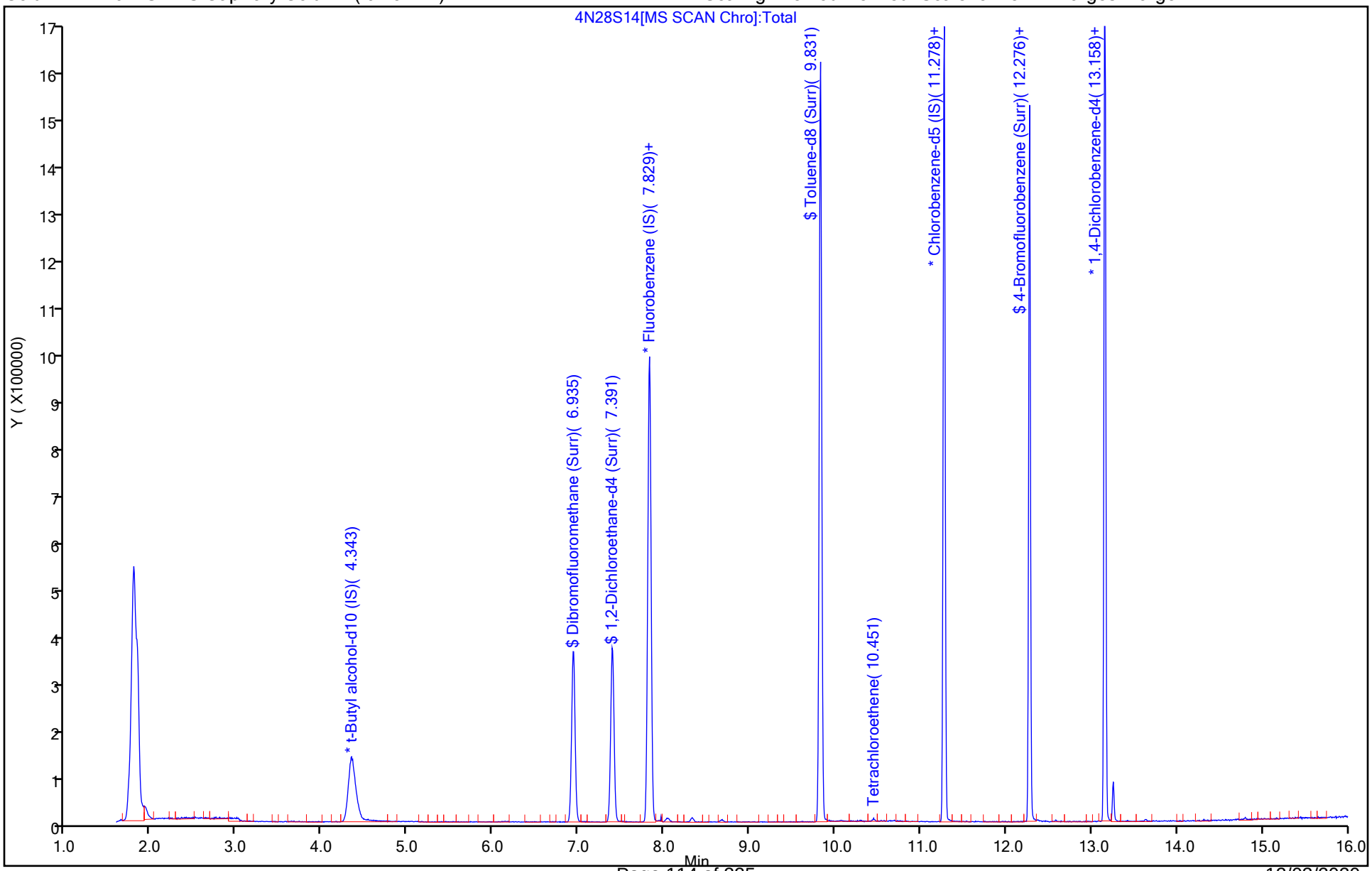
Report Date: 30-Nov-2020 13:10:39 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S14.D

Injection Date:	28-Nov-2020 16:26:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-9	Lab Sample ID:	410-21451-9	Worklist Smp#:	21
Client ID:	J02-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	20
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

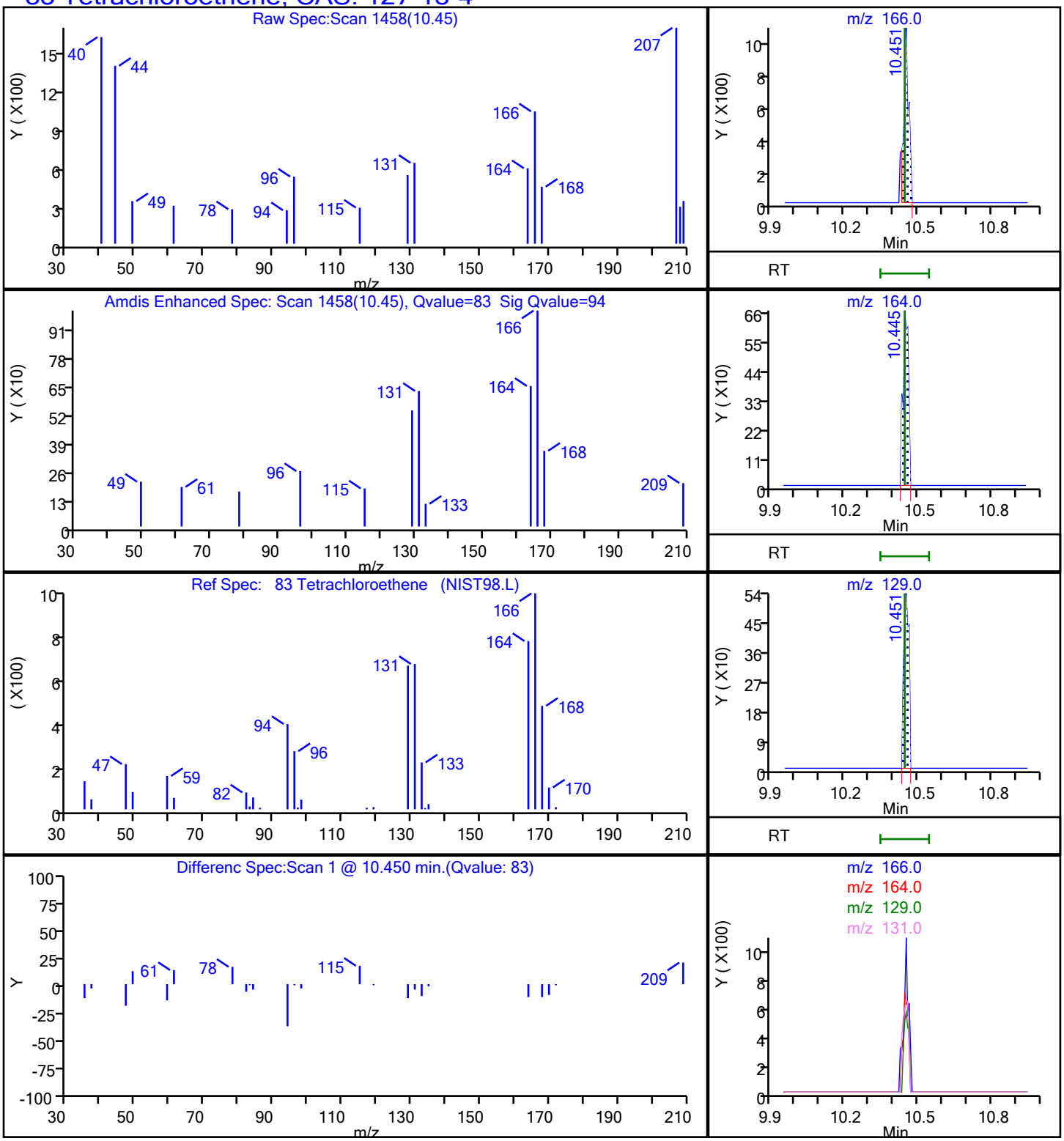


Report Date: 30-Nov-2020 13:10:39 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S14.D				
Injection Date:	28-Nov-2020 16:26:30	Instrument ID:	23297		
Lims ID:	410-21451-A-9	Lab Sample ID:	410-21451-9		
Client ID:	J02-UC01				
Operator ID:	lcp00895	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

83 Tetrachloroethene, CAS: 127-18-4



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J02-BR02 Lab Sample ID: 410-21451-10

Matrix: Water Lab File ID: 4N28S15.D

Analysis Method: 8260C Date Collected: 11/18/2020 09:38

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 16:49

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S15.D
Lims ID: 410-21451-A-10
Client ID: J02-BR02
Sample Type: Client
Inject. Date: 28-Nov-2020 16:49:30 ALS Bottle#: 21 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-022
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 13:09:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: riehlc Date: 30-Nov-2020 13:06:00

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.643				ND	
19 Acetone	58	3.680	3.674	0.006	46	875	0.6765	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.331				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	513079	250.0	
31 trans-1,2-Dichloroethene	96		4.745				ND	
34 1,1-Dichloroethane	63		5.402				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.235				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.935	0.006	94	323148	49.5	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	76387	49.9	
56 Benzene	78		7.427				ND	
57 1,2-Dichloroethane	62		7.500				ND	7
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1300852	50.0	
64 Trichloroethene	95		8.303				ND	
68 1,4-Dioxane	88		8.735				ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1256650	50.2	
78 Toluene	92		9.903				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	970832	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.503				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	466507	49.0	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	514588	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.715				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

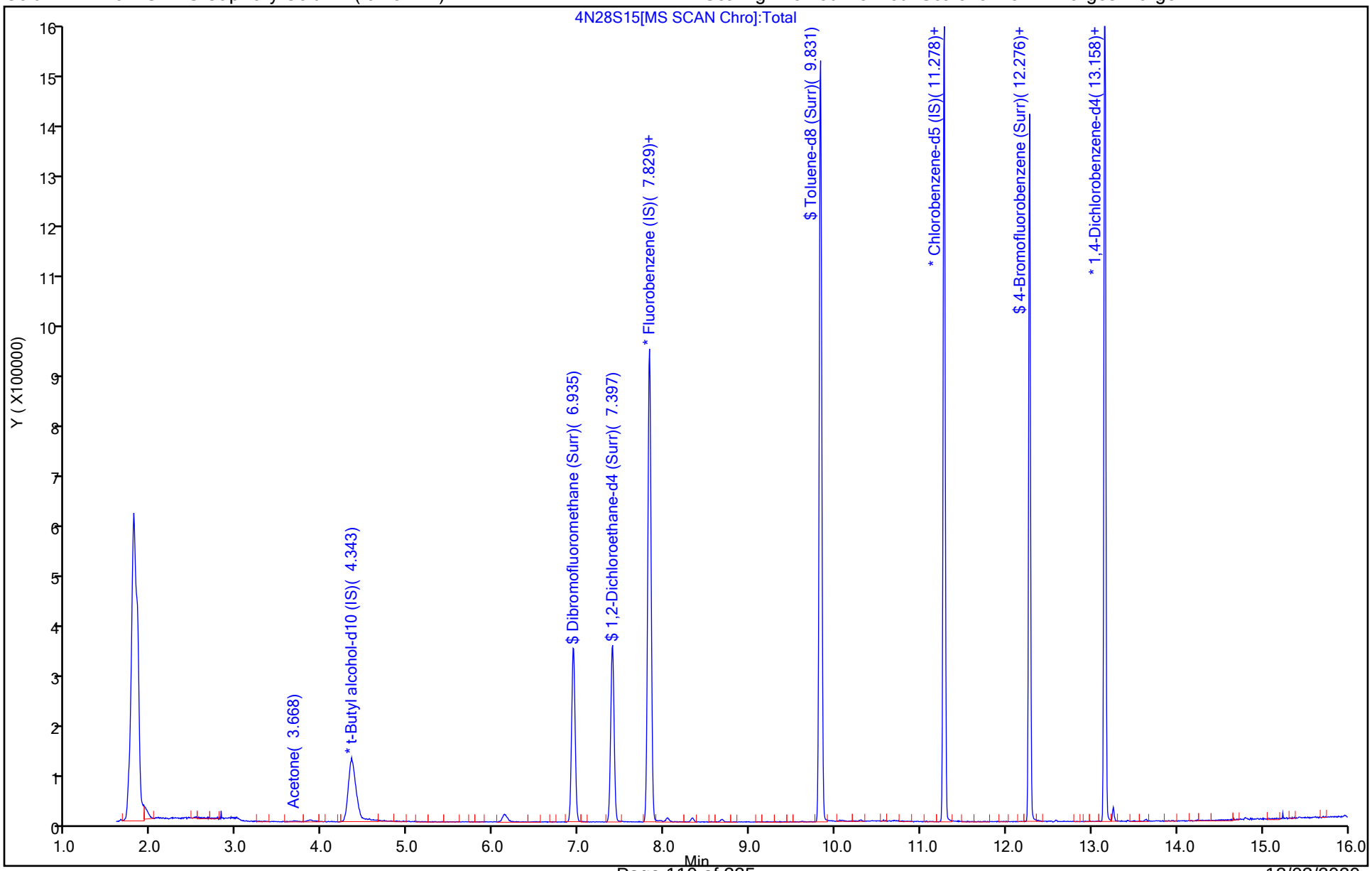
Report Date: 30-Nov-2020 13:10:40 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28S15.D

Injection Date:	28-Nov-2020 16:49:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	410-21451-A-10	Lab Sample ID:	410-21451-10	Worklist Smp#:	22
Client ID:	J02-BR02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	21
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J02-BR01 Lab Sample ID: 410-21451-11

Matrix: Water Lab File ID: 4N30S07.D

Analysis Method: 8260C Date Collected: 11/18/2020 10:57

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 13:07

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S07.D
Lims ID: 410-21451-A-11
Client ID: J02-BR01
Sample Type: Client
Inject. Date: 30-Nov-2020 13:07:30 ALS Bottle#: 13 Worklist Smp#: 14
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-014
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 11:53:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 13:53:31

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.637				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.325				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	499387	250.0	
31 trans-1,2-Dichloroethene	96		4.739				ND	
34 1,1-Dichloroethane	63		5.408				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.241				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	93	317662	50.3	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	75516	50.9	
56 Benzene	78		7.421				ND	
57 1,2-Dichloroethane	62		7.501				ND	7
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1258865	50.0	
64 Trichloroethene	95		8.304				ND	
68 1,4-Dioxane	88		8.729				ND	
$ 77 Toluene-d8 (Surr)	98	9.824	9.831	-0.007	93	1216117	50.0	
78 Toluene	92		9.904				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	941619	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.504				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	449951	48.8	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	492077	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

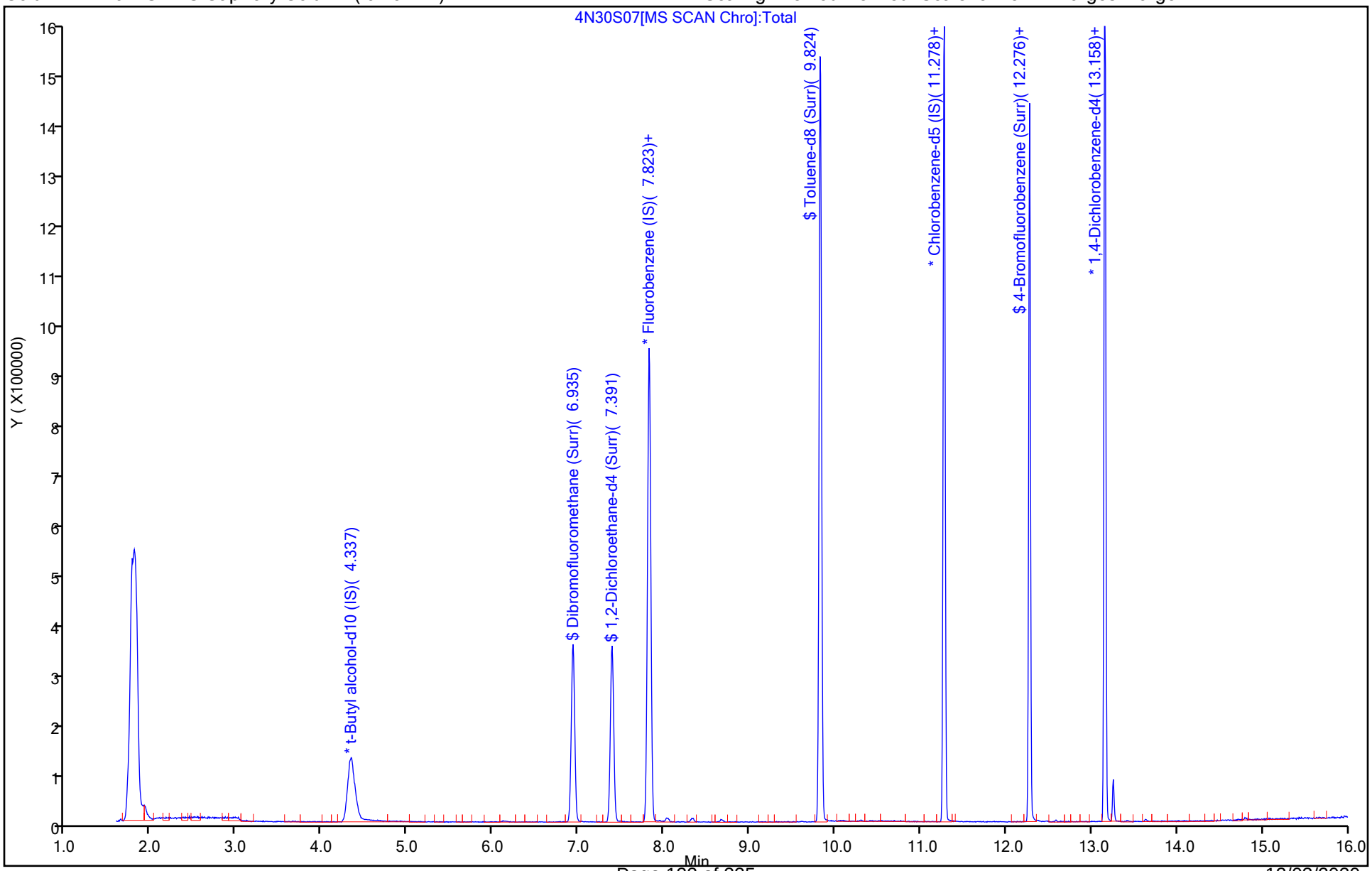
Report Date: 30-Nov-2020 13:54:05 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S07.D

Injection Date:	30-Nov-2020 13:07:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	410-21451-A-11	Lab Sample ID:	410-21451-11	Worklist Smp#:	14
Client ID:	J02-BR01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	13
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: RIZ-7 Lab Sample ID: 410-21451-12

Matrix: Water Lab File ID: 4N30S08.D

Analysis Method: 8260C Date Collected: 11/18/2020 12:03

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 13:30

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S08.D
Lims ID: 410-21451-A-12
Client ID: RIZ-7
Sample Type: Client
Inject. Date: 30-Nov-2020 13:30:30 ALS Bottle#: 14 Worklist Smp#: 15
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-015
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 11:53:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 13:53:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.637				ND	
19 Acetone	58		3.674				ND	7
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.325				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.349	4.343	0.006	0	520936	250.0	
31 trans-1,2-Dichloroethene	96		4.739				ND	
34 1,1-Dichloroethane	63		5.408				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.241				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.935	0.006	94	316713	50.2	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	96	74940	50.6	
56 Benzene	78		7.421				ND	
57 1,2-Dichloroethane	62		7.501				ND	7
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1257048	50.0	
64 Trichloroethene	95		8.304				ND	
68 1,4-Dioxane	88		8.729				ND	
$ 77 Toluene-d8 (Surr)	98	9.830	9.831	-0.001	93	1229284	50.5	
78 Toluene	92		9.904				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	942843	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.504				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	450791	48.8	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	497459	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

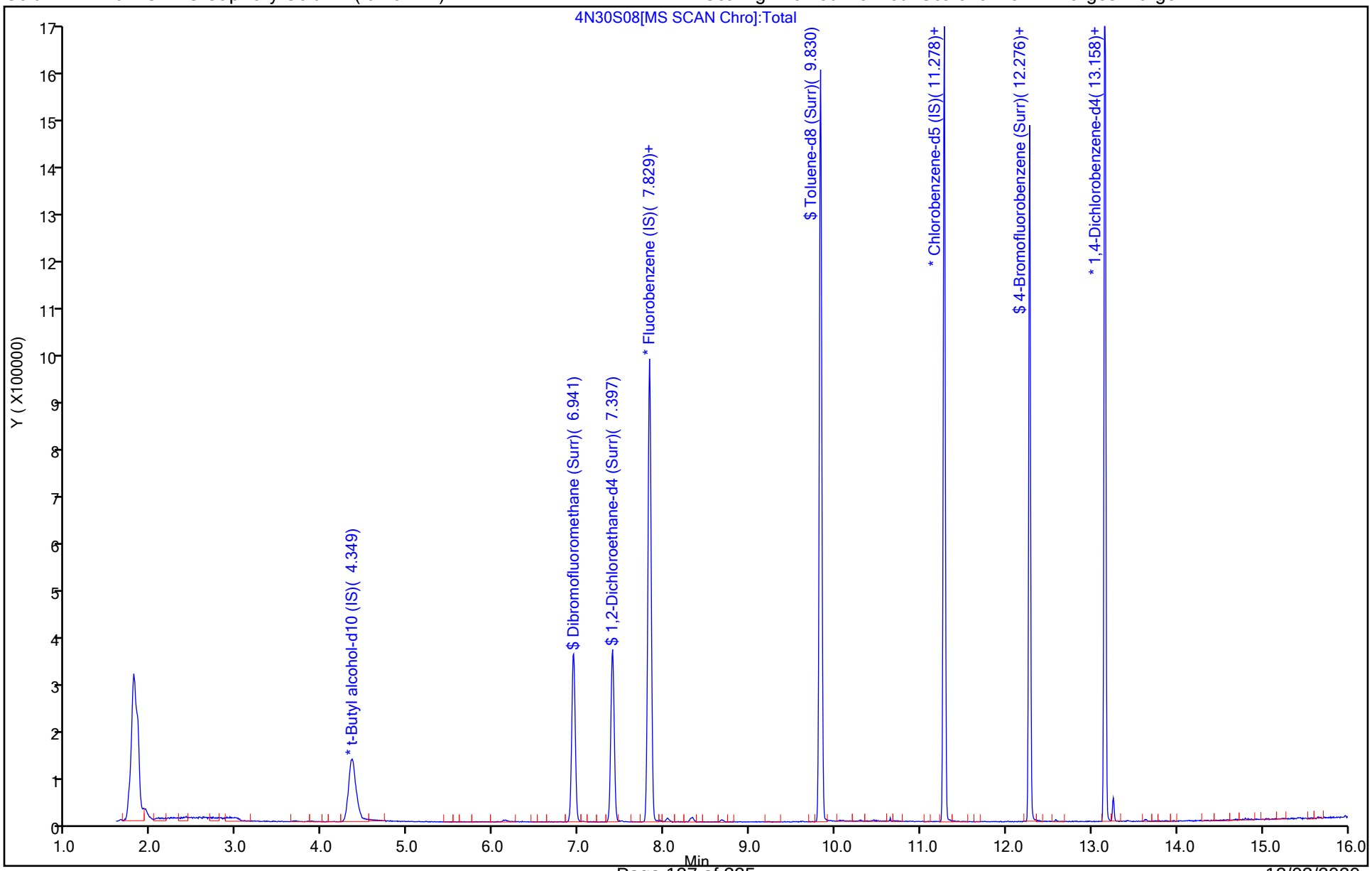
Report Date: 30-Nov-2020 13:54:06 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S08.D

Injection Date:	30-Nov-2020 13:30:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	410-21451-A-12	Lab Sample ID:	410-21451-12	Worklist Smp#:	15
Client ID:	RIZ-7				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	14
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: J06-UC01 Lab Sample ID: 410-21451-13

Matrix: Water Lab File ID: 4N30S09.D

Analysis Method: 8260C Date Collected: 11/18/2020 13:12

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 13:53

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	0.64	J	1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S09.D
Lims ID: 410-21451-A-13
Client ID: J06-UC01
Sample Type: Client
Inject. Date: 30-Nov-2020 13:53:30 ALS Bottle#: 15 Worklist Smp#: 16
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-016
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 16:36:59 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: proctore Date: 30-Nov-2020 16:25:59

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
6 Vinyl chloride	62		2.329				ND	
17 1,1-Dichloroethene	96		3.637				ND	
19 Acetone	58		3.674				ND	
18 112TCTFE	101		3.674				ND	
22 Carbon disulfide	76		3.948				ND	
26 Methylene Chloride	84		4.325				ND	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	510692	250.0	M
31 trans-1,2-Dichloroethene	96		4.739				ND	
34 1,1-Dichloroethane	63		5.408				ND	
40 2-Butanone (MEK)	43		6.217				ND	
41 cis-1,2-Dichloroethene	96		6.241				ND	
48 Chloroform	83		6.722				ND	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.935	0.006	94	313921	49.7	
50 1,1,1-Trichloroethane	97		6.947				ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	75358	50.9	
56 Benzene	78		7.421				ND	
57 1,2-Dichloroethane	62	7.488	7.501	-0.013	1	1232	0.1543	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1257572	50.0	
64 Trichloroethene	95	8.303	8.304	-0.001	90	3775	0.6417	M
68 1,4-Dioxane	88		8.729				ND	
$ 77 Toluene-d8 (Surr)	98	9.830	9.831	-0.001	93	1198749	49.9	
78 Toluene	92		9.904				ND	
83 Tetrachloroethene	166		10.445				ND	
S 90 Xylenes, Total	106		11.245				ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	930882	50.0	
95 Ethylbenzene	91		11.388				ND	
96 m-Xylene & p-Xylene	106		11.504				ND	
97 o-Xylene	106		11.832				ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	449771	49.3	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	488088	50.0	
126 1,2-Dichlorobenzene	146		13.438				ND	
133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

MSV_HP4_ISSS_00005	Amount Added:	1.00	Units: uL	Run Reagent

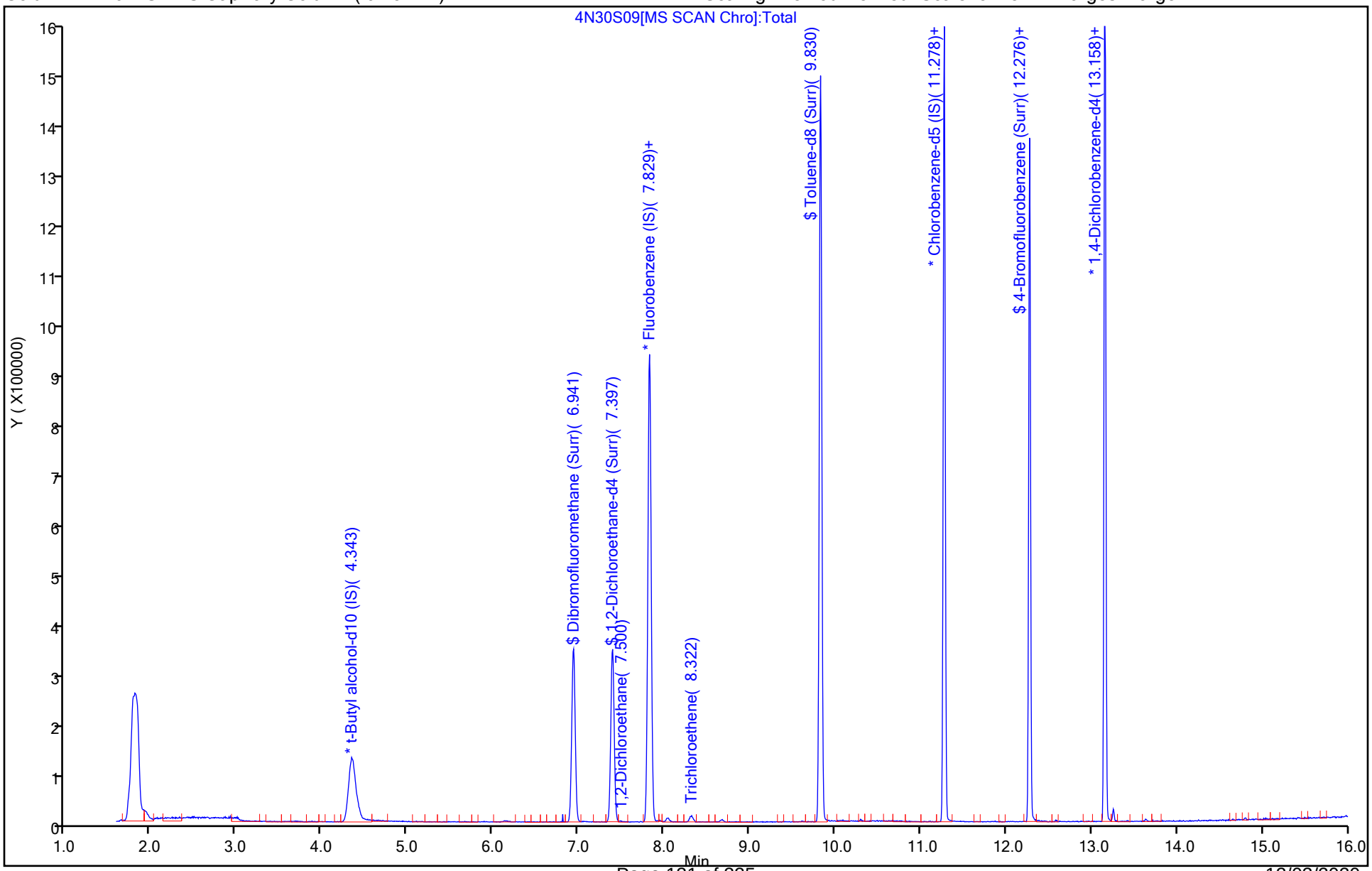
Report Date: 30-Nov-2020 16:37:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S09.D

Injection Date:	30-Nov-2020 13:53:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	410-21451-A-13	Lab Sample ID:	410-21451-13	Worklist Smp#:	16
Client ID:	J06-UC01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	15
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

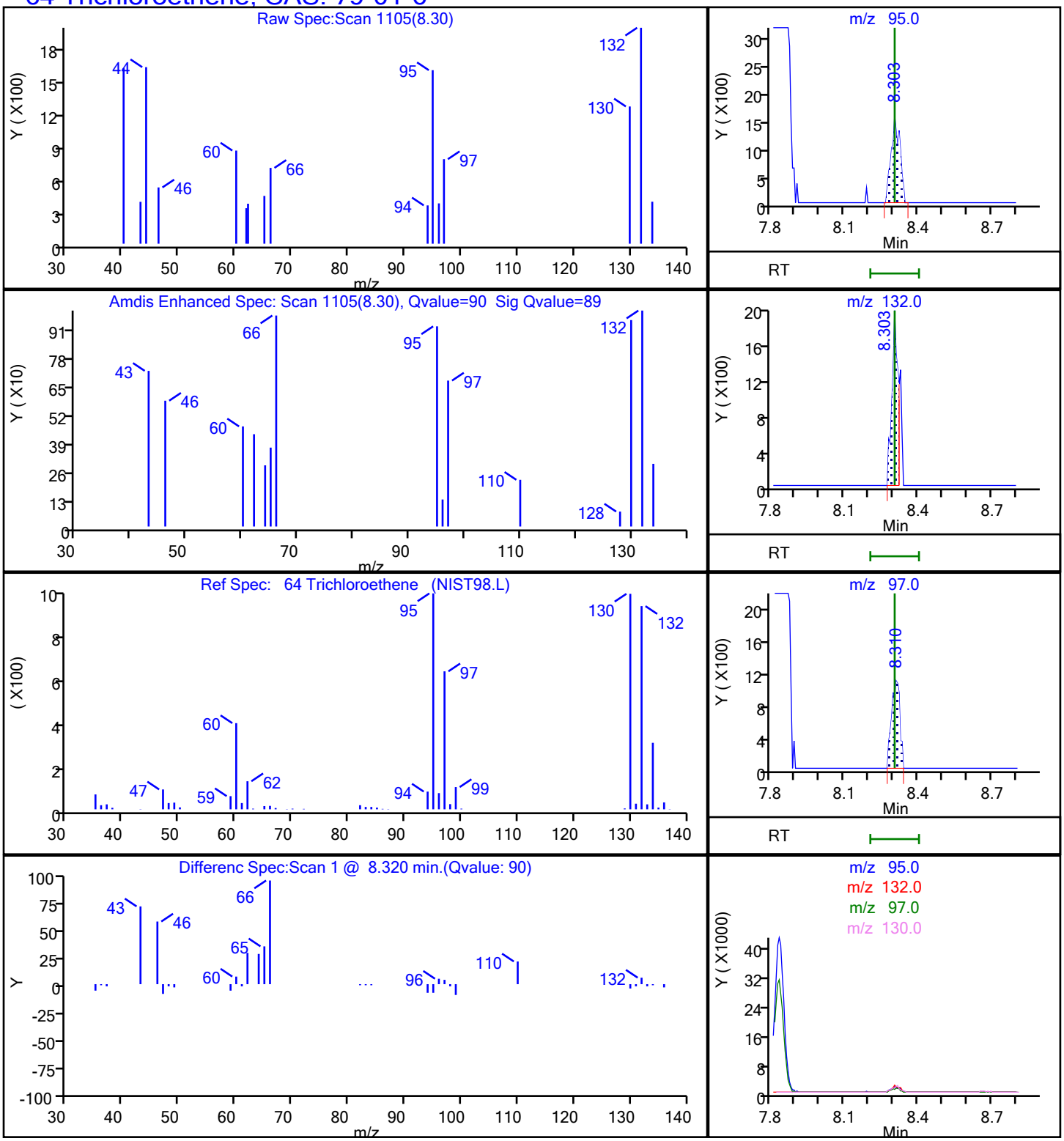


Report Date: 30-Nov-2020 16:37:28 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S09.D				
Injection Date:	30-Nov-2020 13:53:30	Instrument ID:	23297		
Lims ID:	410-21451-A-13	Lab Sample ID:	410-21451-13		
Client ID:	J06-UC01				
Operator ID:	jkh09052	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

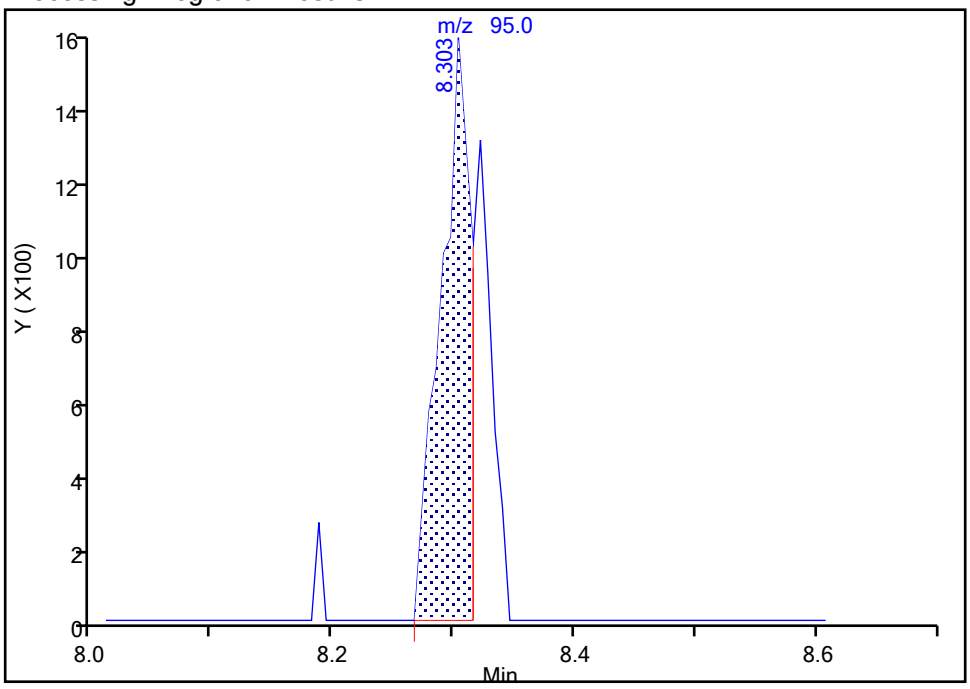
Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S09.D				
Injection Date:	30-Nov-2020 13:53:30	Instrument ID:	23297		
Lims ID:	410-21451-A-13	Lab Sample ID:	410-21451-13		
Client ID:	J06-UC01				
Operator ID:	jkh09052	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

64 Trichloroethene, CAS: 79-01-6

Signal: 1

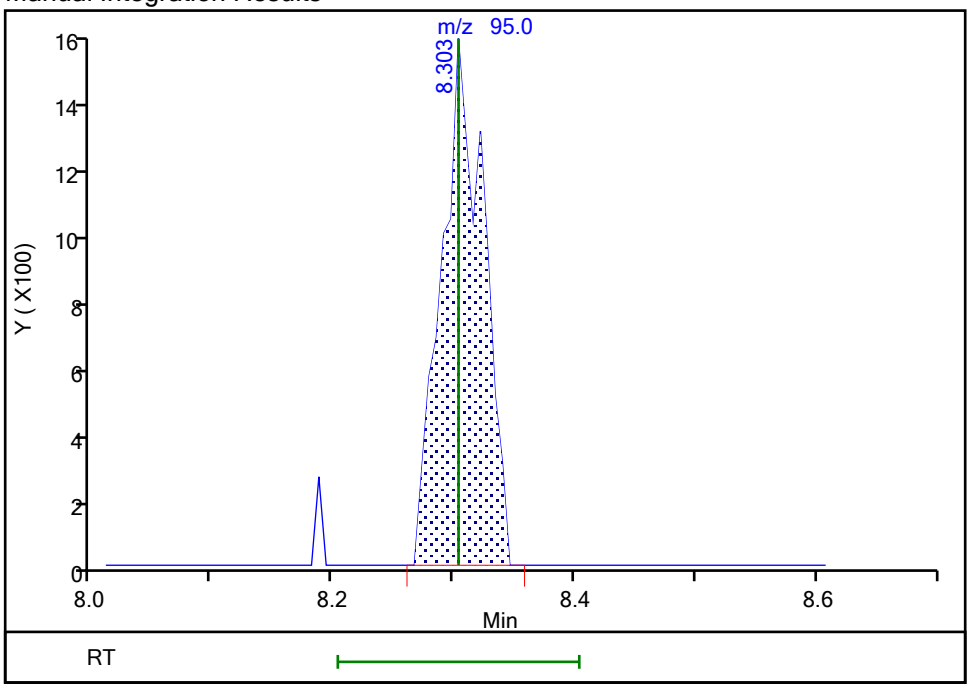
Processing Integration Results

RT: 8.30
Area: 2676
Amount: 0.454859
Amount Units: ug/l



Manual Integration Results

RT: 8.30
Area: 3775
Amount: 0.641664
Amount Units: ug/l



Reviewer: proctore, 30-Nov-2020 16:25:46

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

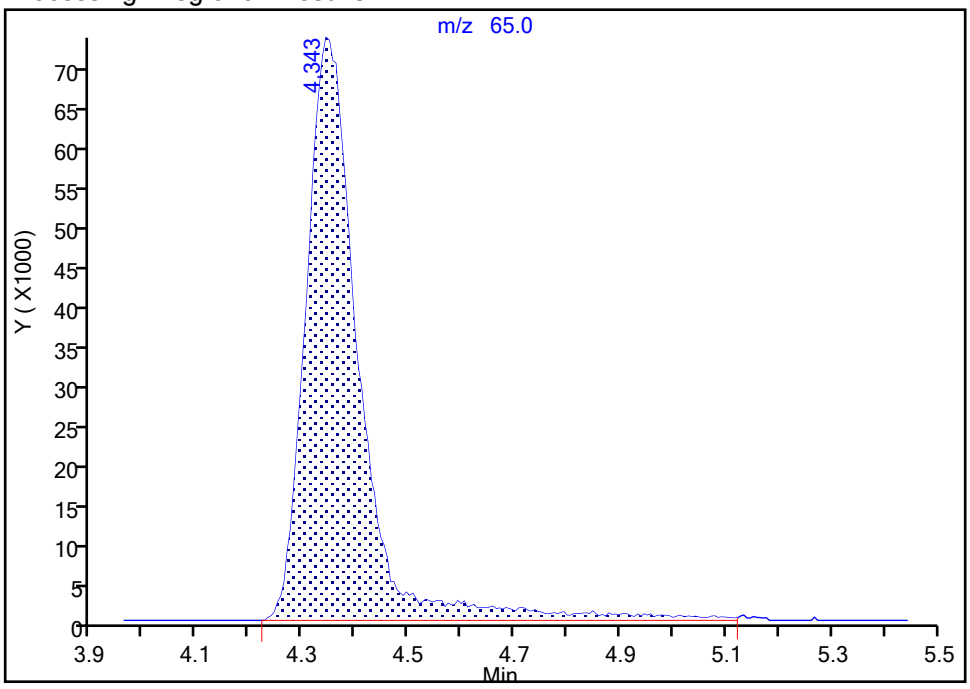
Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S09.D				
Injection Date:	30-Nov-2020 13:53:30	Instrument ID:	23297		
Lims ID:	410-21451-A-13	Lab Sample ID:	410-21451-13		
Client ID:	J06-UC01				
Operator ID:	jkh09052	ALS Bottle#:	15	Worklist Smp#:	16
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

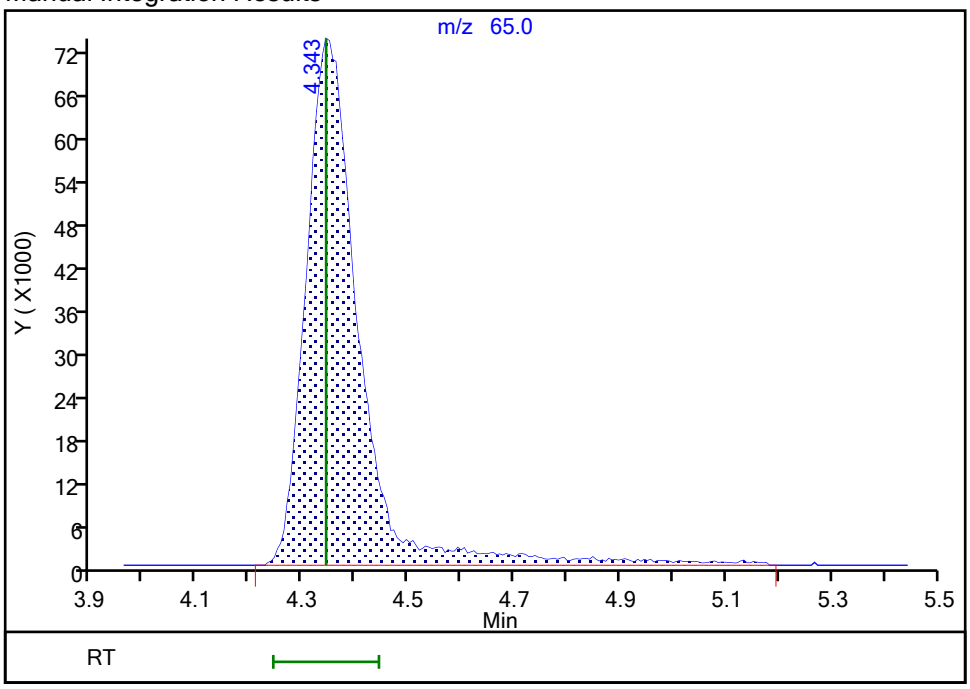
Processing Integration Results

RT: 4.34
Area: 509356
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 510692
Amount: 250.0000
Amount Units: ug/l



Reviewer: proctore, 30-Nov-2020 16:25:36

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: EB111820 Lab Sample ID: 410-21451-14

Matrix: Water Lab File ID: 4N30S01.D

Analysis Method: 8260C Date Collected: 11/18/2020 14:00

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 10:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	99		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S01.D
Lims ID: 410-21451-A-14
Client ID: EB111820
Sample Type: Client
Inject. Date: 30-Nov-2020 10:50:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-008
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 11:53:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 13:51:42

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	6 Vinyl chloride	62		2.329				ND	
	17 1,1-Dichloroethene	96		3.637				ND	
	19 Acetone	58	3.674	3.674	0.000	32	460	0.3658	
	18 112TCTFE	101		3.674				ND	
	22 Carbon disulfide	76		3.948				ND	
	26 Methylene Chloride	84		4.325				ND	
*	27 t-Butyl alcohol-d10 (IS)	65	4.355	4.343	0.012	0	498885	250.0	
	31 trans-1,2-Dichloroethene	96		4.739				ND	
	34 1,1-Dichloroethane	63		5.408				ND	
	40 2-Butanone (MEK)	43		6.217				ND	
	41 cis-1,2-Dichloroethene	96		6.241				ND	
	48 Chloroform	83		6.722				ND	
$	49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	312498	49.5	
	50 1,1,1-Trichloroethane	97		6.947				ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.397	0.000	97	73537	49.7	
	56 Benzene	78		7.421				ND	
	57 1,2-Dichloroethane	62		7.501				ND	7
*	62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1256921	50.0	
	64 Trichloroethene	95		8.304				ND	
	68 1,4-Dioxane	88		8.729				ND	
$	77 Toluene-d8 (Surr)	98	9.831	9.831	0.000	93	1219579	50.2	
	78 Toluene	92		9.904				ND	
	83 Tetrachloroethene	166		10.445				ND	
S	90 Xylenes, Total	106		11.245				ND	7
*	91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	942007	50.0	
	95 Ethylbenzene	91		11.388				ND	
	96 m-Xylene & p-Xylene	106		11.504				ND	
	97 o-Xylene	106		11.832				ND	
$	103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	450498	48.8	
*	119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	493959	50.0	
	126 1,2-Dichlorobenzene	146		13.438				ND	
	133 Naphthalene	128		14.716				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

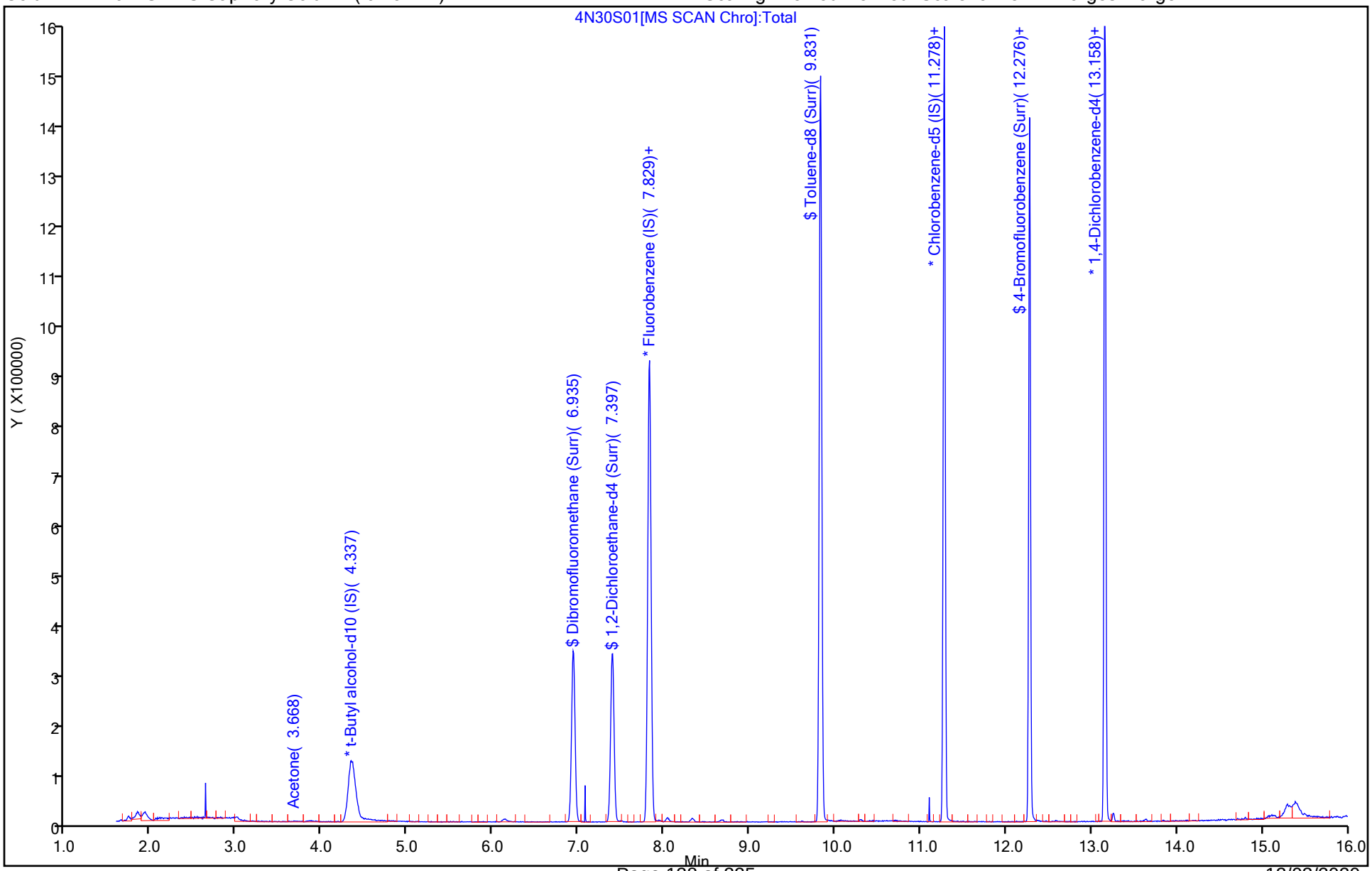
Report Date: 30-Nov-2020 13:53:57 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30S01.D

Injection Date:	30-Nov-2020 10:50:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	410-21451-A-14	Lab Sample ID:	410-21451-14	Worklist Smp#:	8
Client ID:	EB111820				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-39906/9	4S01107.D
Level 2	IC 410-39906/8	4S01106.D
Level 3	IC 410-39906/7	4S01105.D
Level 4	IC 410-39906/6	4S01104.D
Level 5	ICIS 410-39906/5	4S01103.D
Level 6	IC 410-39906/4	4S01102.D
Level 7	IC 410-39906/3	4S01101.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2067 0.2997	0.2946 0.2948	0.2971	0.2840	0.2925	Ave		0.2813			0.1000	11.8		20.0			
Chloromethane	0.3127 0.3204	0.3338 0.3113	0.3333	0.3185	0.3109	Ave		0.3201			0.1000	3.1		20.0			
Vinyl chloride	0.2550 0.2956	0.3081 0.2926	0.3098	0.2853	0.2885	Ave		0.2907			0.1000	6.3		20.0			
1,3-Butadiene	0.2945 0.2372	0.3427 0.2502	0.2433	0.2629	0.2541	Ave		0.2693				13.9		20.0			
Bromomethane	0.2934 0.2110	0.2221 0.2012	0.2185	0.1997	0.2033	Ave		0.2213			0.1000	14.9		20.0			
Chloroethane	0.1714 0.1743	0.1812 0.1674	0.1815	0.1666	0.1677	Ave		0.1729			0.1000	3.7		20.0			
Dichlorofluoromethane	0.3632 0.3895	0.4069 0.3810	0.3991	0.3738	0.3838	Ave		0.3853			0.1000	3.8		20.0			
Trichlorofluoromethane	0.2858 0.3752	0.3695 0.3671	0.3751	0.3547	0.3620	Ave		0.3556			0.1000	8.9		20.0			
n-Pentane	0.3348 0.3558	0.3889 0.3845	0.2999	0.3901	0.3901	Ave		0.3634				9.7		20.0			
Ethanol	0.0944 0.0723	0.0760 0.0612	0.0689	0.0704	0.0828	Ave		0.0751				14.3		20.0			
Freon 123a	0.1918 0.2322	0.2481 0.2475	0.2033	0.2511	0.2556	Ave		0.2328				10.9		20.0			
Acrolein	1.2061 1.3104	1.2810 1.4085	1.2682	1.2162	1.1791	Ave		1.2671				6.1		20.0			
1,1-Dichloroethene	0.1598 0.1826	0.1928 0.1938	0.1568	0.1935	0.1946	Ave		0.1820			0.1000	9.2		20.0			
Freon 113	0.1463 0.2012	0.2048 0.2152	0.1625	0.2126	0.2132	Ave		0.1937			0.1000	14.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Acetone	0.6737 0.6635	0.6342 0.6772	0.6358	0.5722	0.5548	Ave		0.6302			0.1000	7.8		20.0			
Methyl iodide	0.3209 0.3702	0.3812 0.3889	0.3451	0.3914	0.3882	Ave		0.3694				7.2		20.0			
2-Propanol	0.6445 0.5680	0.5839 0.5133	0.5953	0.5509	0.5833	Ave		0.5770				7.0		20.0			
Carbon disulfide	0.5673 0.6568	0.6920 0.6889	0.5756	0.6937	0.6966	Ave		0.6530			0.1000	8.8		20.0			
Methyl acetate	0.3685 0.3409	0.3552 0.3339	0.3259	0.3387	0.3437	Ave		0.3438			0.1000	4.1		20.0			
Allyl chloride	0.3447 0.3725	0.3763 0.3630	0.3772	0.3688	0.3666	Ave		0.3670				3.0		20.0			
Methylene Chloride	0.1985 0.2185	0.2279 0.2278	0.2027	0.2289	0.2331	Ave		0.2196			0.1000	6.3		20.0			
t-Butyl alcohol	1.0272 0.9898	1.0202 0.9067	1.0472	1.0069	0.9965	Ave		0.9992				4.5		20.0			
Acrylonitrile	0.1719 0.1759	0.1766 0.1722	0.1839	0.1737	0.1753	Ave		0.1756				2.3		20.0			
Methyl tertiary butyl ether	0.6817 0.7029	0.7198 0.7010	0.6769	0.7239	0.7294	Ave		0.7051			0.1000	2.9		20.0			
trans-1,2-Dichloroethene	0.1856 0.2131	0.2168 0.2208	0.1865	0.2256	0.2272	Ave		0.2108			0.1000	8.3		20.0			
n-Hexane	0.2709 0.3248	0.3251 0.3352	0.2499	0.3512	0.3522	Ave		0.3156				12.6		20.0			
1,1-Dichloroethane	0.3501 0.3844	0.3917 0.3958	0.3507	0.4115	0.4062	Ave		0.3844			0.2000	6.5		20.0			
di-Isopropyl ether	0.7223 0.7391	0.7637 0.7500	0.6886	0.7827	0.7737	Ave		0.7457				4.4		20.0			
2-Chloro-1,3-butadiene	0.2829 0.3372	0.3444 0.3517	0.2948	0.3578	0.3600	Ave		0.3327				9.3		20.0			
Ethyl t-butyl ether	0.6839 0.6998	0.7427 0.6934	0.6735	0.7434	0.7307	Ave		0.7096				4.1		20.0			
2-Butanone	0.2732 0.2553	0.2647 0.2449	0.2688	0.2499	0.2511	Ave		0.2583			0.1000	4.1		20.0			
cis-1,2-Dichloroethene	0.2105 0.2440	0.2494 0.2531	0.2255	0.2575	0.2579	Ave		0.2426			0.1000	7.4		20.0			
2,2-Dichloropropane	0.3108 0.3202	0.3319 0.3359	0.2869	0.3369	0.3404	Ave		0.3233				5.9		20.0			
Propionitrile	0.9367 0.9962	1.0154 1.0609	0.9702	1.0134	0.9880	Ave		0.9973				3.9		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methacrylonitrile	0.1654 0.1713	0.1738 0.1732	0.1688	0.1755	0.1764	Ave		0.1721				2.3		20.0			
Bromochloromethane	0.1230 0.1387	0.1353 0.1383	0.1424	0.1412	0.1376	Ave		0.1366				4.7		20.0			
Tetrahydrofuran	0.8274 0.9389	0.9048 1.0061	0.9157	0.8661	0.8530	Ave		0.9017				6.7		20.0			
Chloroform	0.3649 0.3808	0.3850 0.3925	0.3483	0.4037	0.4000	Ave		0.3822			0.2000	5.2		20.0			
1,1,1-Trichloroethane	0.2958 0.3200	0.3293 0.3367	0.2850	0.3393	0.3405	Ave		0.3209			0.1000	6.9		20.0			
Cyclohexane	0.3174 0.3752	0.3825 0.3947	0.3008	0.4035	0.4018	Ave		0.3680			0.1000	11.3		20.0			
Carbon tetrachloride	0.2357 0.2822	0.2791 0.2966	0.2394	0.2992	0.3000	Ave		0.2760			0.1000	10.0		20.0			
1,1-Dichloropropene	0.2603 0.3033	0.3145 0.3176	0.2523	0.3292	0.3231	Ave		0.3001				10.3		20.0			
Isobutyl alcohol	0.3070 0.3136	0.3247 0.3076	0.3340	0.3154	0.3243	Ave		0.3181				3.1		20.0			
Benzene	0.8263 0.9013	0.9380 0.9203	0.8220	0.9673	0.9531	Ave		0.9040			0.5000	6.5		20.0			
1,2-Dichloroethane	0.3495 0.3031	0.3288 0.3111	0.2913	0.3202	0.3180	Ave		0.3174			0.1000	5.9		20.0			
t-Amyl methyl ether	0.7094 0.6856	0.7343 0.6670	0.6675	0.7309	0.7152	Ave		0.7014				4.0		20.0			
n-Heptane	0.3387 0.3610	0.3686 0.3691	0.2785	0.3816	0.3815	Ave		0.3541				10.3		20.0			
n-Butanol	0.2593 0.2728	0.2628 0.2675	0.2691	0.2669	0.2880	Ave		0.2695				3.4		20.0			
Trichloroethene	0.2126 0.2346	0.2394 0.2457	0.2034	0.2511	0.2506	Ave		0.2339			0.2000	8.1		20.0			
Methylcyclohexane	0.3420 0.4325	0.4065 0.4326	0.4098	0.4270	0.4292	Ave		0.4114			0.1000	7.9		20.0			
1,2-Dichloropropane	0.2355 0.2438	0.2485 0.2561	0.2223	0.2570	0.2585	Ave		0.2460			0.1000	5.4		20.0			
t-Amyl ethyl ether	0.3295 0.3451	0.3421 0.3517	0.3155	0.3615	0.3572	Ave		0.3432				4.7		20.0			
Methyl methacrylate	0.2529 0.2575	0.2523 0.2687	0.2477	0.2644	0.2670	Ave		0.2586				3.1		20.0			
1,4-Dioxane	0.0828 0.0671	0.0621 0.0629	0.0643	0.0664	0.0841	Ave		0.0700			0.0050	13.4		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromomethane	0.1463 0.1658	0.1695 0.1708	0.1564	0.1693	0.1715	Ave		0.1642				5.8		20.0			
Bromodichloromethane	0.2643 0.3016	0.3047 0.3156	0.2798	0.3165	0.3165	Ave		0.2999			0.2000	6.8		20.0			
2-Nitropropane	1.6450 1.6824	1.6694 1.7960	1.6158	1.5676	1.5047	Ave		1.6401				5.6		20.0			
2-Chloroethyl vinyl ether	0.1999 0.2222	0.2045 0.2210	0.2088	0.2192	0.2193	Ave		0.2136				4.2		20.0			
cis-1,3-Dichloropropene	0.3842 0.3962	0.3886 0.4128	0.3557	0.4116	0.4106	Ave		0.3942			0.2000	5.2		20.0			
4-Methyl-2-pentanone	0.4644 0.4734	0.4808 0.4477	0.5049	0.4619	0.4659	Ave		0.4713			0.1000	3.8		20.0			
Toluene	0.7155 0.7554	0.7600 0.7608	0.6788	0.8026	0.8008	Ave		0.7534			0.4000	5.9		20.0			
trans-1,3-Dichloropropene	0.4628 0.4961	0.4842 0.5069	0.4367	0.5026	0.5071	Ave		0.4852			0.1000	5.5		20.0			
Ethyl methacrylate	0.5041 0.5579	0.5387 0.5631	0.5149	0.5720	0.5713	Ave		0.5460				5.0		20.0			
1,1,2-Trichloroethane	0.3001 0.3091	0.3084 0.3136	0.2909	0.3209	0.3217	Ave		0.3092			0.1000	3.6		20.0			
Tetrachloroethene	0.3197 0.3545	0.3813 0.3605	0.3166	0.4033	0.3935	Ave		0.3613			0.2000	9.4		20.0			
1,3-Dichloropropane	0.4996 0.5154	0.5214 0.5240	0.4747	0.5371	0.5334	Ave		0.5151				4.2		20.0			
2-Hexanone	0.4945 0.4928	0.5032 0.4629	0.5321	0.4797	0.4896	Ave		0.4935			0.1000	4.3		20.0			
Dibromochloromethane	0.3218 0.3583	0.3368 0.3673	0.3220	0.3589	0.3675	Ave		0.3475				5.8		20.0			
1,2-Dibromoethane	0.3643 0.3593	0.3603 0.3623	0.3441	0.3693	0.3741	Ave		0.3620			0.1000	2.6		20.0			
1-Chlorohexane	0.4748 0.4261	0.4512 0.4419	0.3589	0.4654	0.4562	Ave		0.4392				8.8		20.0			
Chlorobenzene	0.8334 0.8681	0.8902 0.8868	0.7898	0.9213	0.9250	Ave		0.8735			0.5000	5.5		20.0			
1,1,1,2-Tetrachloroethane	0.2933 0.3215	0.3211 0.3313	0.2829	0.3336	0.3348	Ave		0.3169				6.5		20.0			
Ethylbenzene	1.3525 1.4457	1.4696 1.4391	1.2884	1.5629	1.5555	Ave		1.4448			0.1000	6.9		20.0			
m&p-Xylene	0.5170 0.5610	0.5693 0.5758	0.4951	0.6035	0.6072	Ave		0.5613			0.1000	7.5		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
o-Xylene	0.5243 0.5667	0.5570 0.5754	0.4843	0.5902	0.5980	Ave		0.5566			0.3000	7.2		20.0			
Styrene	0.8851 0.9771	0.9485 0.9814	0.8716	1.0245	1.0393	Ave		0.9611			0.3000	6.7		20.0			
Bromoform	0.2693 0.2996	0.2782 0.3069	0.2652	0.2956	0.3080	Ave		0.2890			0.1000	6.2		20.0			
Isopropylbenzene	1.3285 1.4327	1.4605 1.4094	1.2407	1.5465	1.5386	Ave		1.4224			0.1000	7.7		20.0			
Cyclohexanone	0.3194 0.2952	0.2878 0.2458	0.2705	0.2866	0.3237	Ave		0.2898				9.3		20.0			
1,1,2,2-Tetrachloroethane	0.9834 1.0121	1.0202 1.0083	0.9952	1.0473	1.0422	Ave		1.0155			0.3000	2.3		20.0			
Bromobenzene	0.6807 0.7362	0.7545 0.7569	0.6814	0.7818	0.7737	Ave		0.7379				5.6		20.0			
trans-1,4-Dichloro-2-butene	0.3115 0.3217	0.3126 0.3202	0.3202	0.3286	0.3232	Ave		0.3197				1.9		20.0			
1,2,3-Trichloropropane	0.3013 0.2941	0.3038 0.2927	0.2893	0.3083	0.3015	Ave		0.2987				2.3		20.0			
N-Propylbenzene	3.0213 3.1033	3.1712 2.9628	2.7813	3.4297	3.3412	Ave		3.1158				7.1		20.0			
2-Chlorotoluene	0.6450 0.6755	0.6803 0.6902	0.6045	0.7255	0.7139	Ave		0.6764				6.1		20.0			
1,3,5-Trimethylbenzene	2.0806 2.2603	2.2488 2.2243	1.9979	2.4461	2.3741	Ave		2.2332				7.0		20.0			
4-Chlorotoluene	0.6482 0.7021	0.7123 0.7104	0.6251	0.7507	0.7382	Ave		0.6981				6.6		20.0			
tert-Butylbenzene	0.4313 0.4904	0.4779 0.4873	0.4018	0.5297	0.5033	Ave		0.4745				9.2		20.0			
Pentachloroethane	0.3604 0.4648	0.3641 0.4718	0.4318	0.4163	0.4295	Ave		0.4198				10.5		20.0			
1,2,4-Trimethylbenzene	2.2940 2.3517	2.3362 2.3255	2.0930	2.5493	2.4744	Ave		2.3463				6.2		20.0			
sec-Butylbenzene	2.6949 2.9204	2.9498 2.7642	2.5247	3.1528	3.0922	Ave		2.8713				7.8		20.0			
1,3-Dichlorobenzene	1.3130 1.3354	1.3813 1.3469	1.2305	1.4375	1.4113	Ave		1.3508			0.6000	5.1		20.0			
p-Isopropyltoluene	2.2886 2.5484	2.5144 2.4525	2.1195	2.7279	2.6690	Ave		2.4743				8.6		20.0			
1,4-Dichlorobenzene	1.4131 1.3728	1.4246 1.3786	1.2858	1.4724	1.4344	Ave		1.3974			0.5000	4.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	2.2657 2.5350	2.4649 2.3549	2.5898	2.5442	2.4746	Ave		2.4613				4.6		20.0			
Benzyl chloride	1.8703 2.0713	1.9727 2.0083	1.8944	2.0834	2.1127	Ave		2.0019				4.7		20.0			
1,3-Diethylbenzene	1.4332 1.6304	1.5668 1.5414	1.6436	1.6398	1.6105	Ave		1.5808				4.8		20.0			
1,4-Diethylbenzene	1.5457 1.6978	1.6554 1.6149	1.7162	1.7134	1.6828	Ave		1.6609				3.7		20.0			
n-Butylbenzene	1.3037 1.2822	1.3425 1.2418	1.1100	1.3998	1.3479	Ave		1.2897				7.3		20.0			
1,2-Dichlorobenzene	1.3192 1.3252	1.3460 1.3211	1.2660	1.4029	1.3886	Ave		1.3384			0.4000	3.5		20.0			
1,2-Diethylbenzene	1.1425 1.3628	1.3136 1.2954	1.3781	1.3376	1.3357	Ave		1.3094				6.0		20.0			
1,2-Dibromo-3-Chloropropane	0.3376 0.2762	0.2774 0.2650	0.2722	0.2856	0.2889	Ave		0.2861			0.0500	8.4		20.0			
1,3,5-Trichlorobenzene	1.1602 1.0557	1.1093 1.0307	0.9646	1.1569	1.1136	Ave		1.0844				6.6		20.0			
1,2,4-Trichlorobenzene	1.1249 1.0107	1.0587 0.9840	0.9526	1.0792	1.0601	Ave		1.0386			0.2000	5.7		20.0			
Hexachlorobutadiene	0.6068 0.4815	0.5225 0.4353	0.4255	0.5383	0.5169	Ave		0.5038				12.5		20.0			
Naphthalene	3.7059 3.4436	3.5649 3.1472	3.4116	3.6507	3.6512	Ave		3.5107				5.5		20.0			
1,2,3-Trichlorobenzene	1.0733 1.0067	1.0431 0.9592	0.9774	1.0517	1.0415	Ave		1.0218				4.1		20.0			
2-Methylnaphthalene	2.5208 2.3261	2.2033 2.0079	2.2722	2.2857	2.2805	Ave		2.2709				6.7		20.0			
Dibromofluoromethane (Surr)	0.2508 0.2490	0.2512 0.2504	0.2533	0.2524	0.2495	Ave		0.2510				0.6		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0582 0.0592	0.0590 0.0577	0.0601	0.0593	0.0585	Ave		0.0589				1.4		20.0			
Toluene-d8 (Surr)	1.2999 1.2945	1.2931 1.2740	1.2900	1.2903	1.2901	Ave		1.2903				0.6		20.0			
4-Bromofluorobenzene (Surr)	0.4936 0.4900	0.4878 0.4856	0.4912	0.4923	0.4893	Ave		0.4900				0.6		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-39906/9	4S01107.D
Level 2	IC 410-39906/8	4S01106.D
Level 3	IC 410-39906/7	4S01105.D
Level 4	IC 410-39906/6	4S01104.D
Level 5	ICIS 410-39906/5	4S01103.D
Level 6	IC 410-39906/4	4S01102.D
Level 7	IC 410-39906/3	4S01101.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5334 769558	30246 2324982	76530	147783	382477	1.00 100	4.00 300	10.0	20.0	50.0
Chloromethane	FB	Ave	8069 822730	34275 2455175	85877	165735	406509	1.00 100	4.00 300	10.0	20.0	50.0
Vinyl chloride	FB	Ave	6579 759037	31633 2307358	79821	148460	377177	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Butadiene	FB	Ave	7600 609101	35187 1973225	62677	136829	332289	1.00 100	4.00 300	10.0	20.0	50.0
Bromomethane	FB	Ave	7572 541860	22801 1586270	56279	103950	265823	1.00 100	4.00 300	10.0	20.0	50.0
Chloroethane	FB	Ave	4422 447593	18604 1319824	46756	86709	219233	1.00 100	4.00 300	10.0	20.0	50.0
Dichlorofluoromethane	FB	Ave	9373 1000231	41780 3004194	102827	194545	501812	1.00 100	4.00 300	10.0	20.0	50.0
Trichlorofluoromethane	FB	Ave	7376 963570	37933 2894543	96632	184571	473297	1.00 100	4.00 300	10.0	20.0	50.0
n-Pentane	FB	Ave	8640 913608	39926 3031735	77266	203008	510122	1.00 100	4.00 300	10.0	20.0	50.0
Ethanol	TBAd10	Ave	12077 337562	36640 792531	68789	136488	214058	62.5 2500	250 7499	500	1000	1250
Freon 123a	FB	Ave	4950 596381	25477 1951409	52369	130697	334143	1.00 100	4.00 300	10.0	20.0	50.0
Acrolein	TBAd10	Ave	24686 2448585	98841 7293400	253327	471504	1220015	10.00 1000	40.0 3000	100.0	200	500
1,1-Dichloroethene	FB	Ave	4123 468884	19794 1528539	40402	100682	254427	1.00 100	4.00 300	10.0	20.0	50.0
Freon 113	FB	Ave	3775 516642	21022 1697323	41868	110623	278703	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Acetone	TBAd10	Ave	2758 247975	9788 701342	25402	44366	114812	2.00 200	8.00 600	20.0	40.0	100
Methyl iodide	FB	Ave	8281 950702	39142 3066828	88905	203695	507578	1.00 100	4.00 300	10.0	20.0	50.0
2-Propanol	TBAd10	Ave	26382 530656	90109 1329018	118920	213576	301754	20.0 500	80.0 1500	100	200	250
Carbon disulfide	FB	Ave	14639 1686509	71053 5432713	148287	361015	910817	1.00 100	4.00 300	10.0	20.0	50.0
Methyl acetate	FB	Ave	9508 875356	36464 2633039	83970	176290	449376	1.00 100	4.00 300	10.0	20.0	50.0
Allyl chloride	FB	Ave	8895 956427	38630 2862831	97182	191952	479321	1.00 100	4.00 300	10.0	20.0	50.0
Methylene Chloride	FB	Ave	5122 561034	23400 1796003	52221	119124	304722	1.00 100	4.00 300	10.0	20.0	50.0
t-Butyl alcohol	TBAd10	Ave	42050 924756	157442 2347540	209190	390374	515570	20.0 500	80.0 1500	100	200	250
Acrylonitrile	FB	Ave	4435 451643	18130 1358297	47376	90387	229246	1.00 100	4.00 300	10.0	20.0	50.0
Methyl tertiary butyl ether	FB	Ave	17591 1804882	73903 5528093	174397	376718	953716	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,2-Dichloroethene	FB	Ave	4788 547320	22262 1741202	48048	117411	297031	1.00 100	4.00 300	10.0	20.0	50.0
n-Hexane	FB	Ave	6990 834040	33375 2643252	64390	182781	460564	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloroethane	FB	Ave	9035 987145	40220 3121372	90356	214163	531086	1.00 100	4.00 300	10.0	20.0	50.0
di-Isopropyl ether	FB	Ave	18638 1897914	78410 5913961	177399	407312	1011589	1.00 100	4.00 300	10.0	20.0	50.0
2-Chloro-1,3-butadiene	FB	Ave	7301 865818	35359 2773359	75959	186214	470702	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl t-butyl ether	FB	Ave	17646 1797008	76254 5467537	173501	386890	955452	1.00 100	4.00 300	10.0	20.0	50.0
2-Butanone	FB	Ave	14100 1310957	54354 3861620	138484	260066	656755	2.00 200	8.00 600	20.0	40.0	100
cis-1,2-Dichloroethene	FB	Ave	5432 626598	25605 1996112	58085	134004	337247	1.00 100	4.00 300	10.0	20.0	50.0
2,2-Dichloropropane	FB	Ave	8019 822198	34080 2649145	73923	175318	445053	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Propionitrile	TBAd10	Ave	38345 930757	156707 2746733	193810	392910	511133	20.0 500	80.0 1500	100	200	250
Methacrylonitrile	FB	Ave	42680 1099838	178451 3414428	217390	456605	576752	10.0 250	40.0 750	50.0	100	125
Bromochloromethane	FB	Ave	3174 356096	13888 1090431	36689	73473	179976	1.00 100	4.00 300	10.0	20.0	50.0
Tetrahydrofuran	TBAd10	Ave	3387 350902	13964 1041953	36584	67159	176524	2.00 200	8.00 600	20.0	40.0	100
Chloroform	FB	Ave	9416 977802	39528 3094850	89732	210092	522967	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1-Trichloroethane	FB	Ave	7633 821615	33814 2654783	73432	176591	445227	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexane	FB	Ave	8189 963566	39270 3112305	77501	210015	525319	1.00 100	4.00 300	10.0	20.0	50.0
Carbon tetrachloride	FB	Ave	6083 724629	28656 2338955	61666	155693	392253	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloropropene	FB	Ave	6717 778893	32286 2504201	65012	171347	422476	1.00 100	4.00 300	10.0	20.0	50.0
Isobutyl alcohol	TBAd10	Ave	31418 732606	125287 1990802	166814	305706	419429	50.0 1250	200 3750	250	500	625
Benzene	FB	Ave	21321 2314364	96309 7257321	211769	503417	1246171	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloroethane	FB	Ave	9019 778286	33761 2453060	75041	166642	415843	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl methyl ether	FB	Ave	18305 1760550	75388 5259758	171972	380374	935153	1.00 100	4.00 300	10.0	20.0	50.0
n-Heptane	FB	Ave	8740 927032	37845 2910402	71738	198588	498868	1.00 100	4.00 300	10.0	20.0	50.0
n-Butanol	TBAd10	Ave	53071 1274491	202826 3463421	268728	517485	744907	100 2500	400 7500	500	1000	1250
Trichloroethene	FB	Ave	5485 602319	24581 1937866	52397	130697	327608	1.00 100	4.00 300	10.0	20.0	50.0
Methylcyclohexane	FB	Ave	8825 1110488	41736 3411639	105563	222196	561220	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloropropane	FB	Ave	6077 625976	25511 2019880	57263	133745	337999	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl ethyl ether	FB	Ave	8502 886052	35120 2773274	81292	188132	467073	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Methyl methacrylate	FB	Ave	6527 661220	25901 2118552	63821	137618	349070	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Dioxane	TBAd10	Ave	8472 156656	23960 407094	32098	64384	108797	50.0 1250	200 3750	250	500	625
Dibromomethane	FB	Ave	3774 425791	17404 1347238	40304	88083	224291	1.00 100	4.00 300	10.0	20.0	50.0
Bromodichloromethane	FB	Ave	6821 774467	31287 2488614	72083	164712	413828	1.00 100	4.00 300	10.0	20.0	50.0
2-Nitropropane	TBAd10	Ave	6734 628755	25764 1860025	64553	121552	311394	2.00 200	8.00 600	20.0	40.0	100
2-Chloroethyl vinyl ether	FB	Ave	5157 570465	20996 1743033	53798	114091	286740	1.00 100	4.00 300	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	9914 1017426	39896 3255045	91639	214193	536820	1.00 100	4.00 300	10.0	20.0	50.0
4-Methyl-2-pentanone	FB	Ave	23967 2431125	98735 7060519	260162	480730	1218459	2.00 200	8.00 600	20.0	40.0	100
Toluene	CBZd5	Ave	13696 1457138	58706 4597325	131852	316147	785471	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,3-Dichloropropene	CBZd5	Ave	8859 956972	37398 3063065	84821	197985	497350	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl methacrylate	CBZd5	Ave	9649 1076177	41611 3402557	100013	225303	560339	1.00 100	4.00 300	10.0	20.0	50.0
1,1,2-Trichloroethane	CBZd5	Ave	5744 596185	23819 1894718	56494	126415	315575	1.00 100	4.00 300	10.0	20.0	50.0
Tetrachloroethene	CBZd5	Ave	6119 683842	29452 2178438	61491	158849	385977	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichloropropane	CBZd5	Ave	9564 994143	40272 3166157	92212	211554	523194	1.00 100	4.00 300	10.0	20.0	50.0
2-Hexanone	CBZd5	Ave	18933 1901220	77739 5593969	206688	377866	960488	2.00 200	8.00 600	20.0	40.0	100
Dibromochloromethane	CBZd5	Ave	6159 691101	26018 2219419	62538	141387	360412	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromoethane	CBZd5	Ave	6974 693053	27830 2189205	66830	145477	366979	1.00 100	4.00 300	10.0	20.0	50.0
1-Chlorohexane	CBZd5	Ave	9088 821975	34849 2669991	69708	183313	447460	1.00 100	4.00 300	10.0	20.0	50.0
Chlorobenzene	CBZd5	Ave	15953 1674469	68762 5358790	153411	362899	907306	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1,2-Tetrachloroethane	CBZd5	Ave	5615 620072	24800 2001970	54944	131391	328338	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Ethylbenzene	CBZd5	Ave	25889 2788573	113517 8695751	250242	615615	1525682	1.00 100	4.00 300	10.0	20.0	50.0
m&p-Xylene	CBZd5	Ave	19793 2164086	87955 6958421	192317	475395	1191176	2.00 200	8.00 600	20.0	40.0	100
o-Xylene	CBZd5	Ave	10036 1093071	43023 3477152	94075	232493	586560	1.00 100	4.00 300	10.0	20.0	50.0
Styrene	CBZd5	Ave	16943 1884782	73262 5930348	169288	403548	1019405	1.00 100	4.00 300	10.0	20.0	50.0
Bromoform	CBZd5	Ave	5155 577898	21492 1854577	51509	116446	302119	1.00 100	4.00 300	10.0	20.0	50.0
Isopropylbenzene	CBZd5	Ave	25431 2763646	112813 8516339	240990	609143	1509112	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexanone	TBAd10	Ave	32684 689381	111041 1590877	135075	277765	418587	50.0 1250	200 3750	250	500	625
1,1,2,2-Tetrachloroethane	DCBd4	Ave	10110 1059106	42850 3330638	103952	222434	560906	1.00 100	4.00 300	10.0	20.0	50.0
Bromobenzene	DCBd4	Ave	6998 770443	31691 2500121	71180	166049	416415	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,4-Dichloro-2-butene	DCBd4	Ave	32028 841574	131301 2644222	167233	348943	434853	10.0 250	40.0 750	50.0	100	125
1,2,3-Trichloropropane	DCBd4	Ave	3098 307734	12762 966717	30224	65474	162261	1.00 100	4.00 300	10.0	20.0	50.0
N-Propylbenzene	DCBd4	Ave	31061 3247456	133196 9786886	290531	728414	1798215	1.00 100	4.00 300	10.0	20.0	50.0
2-Chlorotoluene	DCBd4	Ave	6631 706882	28575 2279887	63145	154091	384234	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trimethylbenzene	DCBd4	Ave	21390 2365371	94453 7347608	208699	519524	1277731	1.00 100	4.00 300	10.0	20.0	50.0
4-Chlorotoluene	DCBd4	Ave	6664 734676	29917 2346725	65294	159447	397320	1.00 100	4.00 300	10.0	20.0	50.0
tert-Butylbenzene	DCBd4	Ave	4434 513198	20074 1609698	41970	112497	270865	1.00 100	4.00 300	10.0	20.0	50.0
Pentachloroethane	DCBd4	Ave	3705 486381	15295 1558621	45108	88413	231134	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trimethylbenzene	DCBd4	Ave	23584 2460981	98124 7681770	218626	541442	1331727	1.00 100	4.00 300	10.0	20.0	50.0
sec-Butylbenzene	DCBd4	Ave	27705 3056094	123898 9130891	263721	669600	1664242	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichlorobenzene	DCBd4	Ave	13498 1397487	58018 4449120	128532	305303	759576	1.00 100	4.00 300	10.0	20.0	50.0
p-Isopropyltoluene	DCBd4	Ave	23528	105612	221398	579366	1436461	1.00	4.00	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1 Analy Batch No.: 39906

SDG No.:

Instrument ID: 23297 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 09/01/2020 20:14 Calibration End Date: 09/01/2020 22:29 Calibration ID: 10318

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			2666793	8101160				100	300			
1,4-Dichlorobenzene	DCBd4	Ave	14528 1436593	59837 4553887	134313	312711	771984	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trimethylbenzene	DCBd4	Ave	23293 2652813	103533 7778908	270522	540340	1331818	1.00 100	4.00 300	10.0	20.0	50.0
Benzyl chloride	DCBd4	Ave	19228 2167546	82859 6633943	197883	442484	1137061	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Diethylbenzene	DCBd4	Ave	14734 1706159	65808 5091589	171682	348266	866758	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Diethylbenzene	DCBd4	Ave	15891 1776724	69529 5334331	179268	363904	905680	1.00 100	4.00 300	10.0	20.0	50.0
n-Butylbenzene	DCBd4	Ave	13403 1341822	56386 4101901	115953	297297	725444	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichlorobenzene	DCBd4	Ave	13562 1386770	56535 4363922	132246	297952	747370	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Diethylbenzene	DCBd4	Ave	11746 1426080	55172 4279104	143952	284087	718885	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	3471 288994	11650 875247	28435	60662	155511	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trichlorobenzene	DCBd4	Ave	11928 1104781	46593 3404835	100756	245707	599353	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trichlorobenzene	DCBd4	Ave	11565 1057694	44468 3250338	99503	229202	570534	1.00 100	4.00 300	10.0	20.0	50.0
Hexachlorobutadiene	DCBd4	Ave	6238 503886	21944 1437824	44452	114335	278223	1.00 100	4.00 300	10.0	20.0	50.0
Naphthalene	DCBd4	Ave	38099 3603617	149735 10396090	356366	775348	1965076	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trichlorobenzene	DCBd4	Ave	11034 1053472	43811 3168469	102102	223360	560520	1.00 100	4.00 300	10.0	20.0	50.0
2-Methylnaphthalene	DCBd4	Ave	25915 2434161	92544 6632516	237350	485447	1227343	1.00 100	4.00 300	10.0	20.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	323582 319755	322394 329089	326339	328334	326284	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	75120 76022	75726 75822	77456	77215	76461	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBZd5	Ave	1244124 1248533	1248496 1283017	1252791	1270646	1265414	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	472436 472573	470941 489049	477035	484802	479882	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I01.D
Lims ID: IC level7
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 01-Sep-2020 20:14:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-003
Misc. Info.: IC LEVEL7
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:06:58 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:36:54

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.001	0.000	99	2324982	300.0	314.4	
4 Chloromethane	50	2.208	2.208	0.000	99	2455175	300.0	291.8	
6 Vinyl chloride	62	2.329	2.329	0.000	98	2307358	300.0	302.0	
5 Butadiene	39	2.335	2.335	0.000	92	1973225	300.0	278.8	
8 Bromomethane	94	2.664	2.664	0.000	90	1586270	300.0	272.7	
9 Chloroethane	64	2.755	2.755	0.000	100	1319824	300.0	290.5	
10 Dichlorofluoromethane	67	2.999	3.005	-0.006	97	3004194	300.0	296.6	
11 Trichlorofluoromethane	101	3.059	3.059	0.000	99	2894543	300.0	309.7	
12 Pentane	43	3.108	3.114	-0.006	97	3031735	300.0	317.4	
13 Ethanol	45	3.187	3.193	-0.006	93	792531	7499.5	6111.1	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.412	3.418	-0.006	93	1951409	300.0	318.9	
16 Acrolein	56	3.504	3.510	-0.006	99	7293400	2999.9	3334.7	
17 1,1-Dichloroethene	96	3.643	3.650	-0.007	98	1528539	300.0	319.5	
18 112TCTFE	101	3.680	3.680	0.000	81	1697323	300.0	333.4	
19 Acetone	58	3.680	3.686	-0.006	100	701342	600.0	644.7	
20 Iodomethane	142	3.850	3.850	0.000	98	3066828	300.0	315.8	
21 Isopropyl alcohol	45	3.856	3.856	0.000	98	1329018	1500.0	1334.4	
22 Carbon disulfide	76	3.954	3.954	0.000	99	5432713	300.0	316.5	
24 Methyl acetate	43	4.106	4.112	-0.006	98	2633039	300.0	291.3	
25 3-Chloro-1-propene	41	4.136	4.142	-0.006	92	2862831	300.0	296.8	
26 Methylene Chloride	84	4.331	4.337	-0.006	93	1796003	300.0	311.1	
* 27 t-Butyl alcohol-d10 (IS)	65	4.349	4.343	0.006	0	431529	250.0	250.0	
28 2-Methyl-2-propanol	59	4.471	4.471	0.000	99	2347540	1500.0	1361.1	
29 Acrylonitrile	53	4.684	4.690	-0.006	99	1358297	300.0	294.2	
30 Methyl tert-butyl ether	73	4.739	4.739	0.000	96	5528093	300.0	298.3	
31 trans-1,2-Dichloroethene	96	4.745	4.745	0.000	99	1741202	300.0	314.2	
33 Hexane	57	5.164	5.170	-0.006	94	2643252	300.0	318.6	
34 1,1-Dichloroethane	63	5.408	5.414	-0.006	96	3121372	300.0	308.9	
36 Isopropyl ether	45	5.469	5.462	0.007	95	5913961	300.0	301.7	
37 2-Chloro-1,3-butadiene	53	5.517	5.523	-0.006	91	2773359	300.0	317.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	6.004	5.998	0.006	98	5467537	300.0	293.1	
S 39 1,2-Dichloroethene, Total	100				0			627.3	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	100	3861620	600.0	568.9	
41 cis-1,2-Dichloroethene	96	6.247	6.247	0.000	82	1996112	300.0	313.1	
42 2,2-Dichloropropane	77	6.259	6.259	0.000	88	2649145	300.0	311.7	
44 Propionitrile	54	6.314	6.314	0.000	99	2746733	1500.0	1595.7	
45 Methacrylonitrile	67	6.533	6.527	0.006	92	3414428	750.0	755.0	
46 Chlorobromomethane	128	6.576	6.582	-0.006	95	1090431	300.0	303.6	
47 Tetrahydrofuran	71	6.582	6.582	0.000	86	1041953	600.0	669.4	
48 Chloroform	83	6.728	6.728	0.000	93	3094850	300.0	308.1	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.947	-0.006	94	329089	50.0	49.9	
50 1,1,1-Trichloroethane	97	6.953	6.953	0.000	99	2654783	300.0	314.7	
51 Cyclohexane	56	7.044	7.044	0.000	91	3112305	300.0	321.8	
52 Carbon tetrachloride	117	7.160	7.154	0.006	97	2338955	300.0	322.4	
53 1,1-Dichloropropene	75	7.160	7.166	-0.006	97	2504201	300.0	317.5	
54 Isobutyl alcohol	41	7.324	7.324	0.000	95	1990802	3750.0	3625.8	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.403	-0.006	99	75822	50.0	49.0	
56 Benzene	78	7.427	7.427	0.000	97	7257321	300.0	305.4	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	97	2453060	300.0	294.0	
59 Tert-amyl methyl ether	73	7.616	7.616	0.000	98	5259758	300.0	285.3	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1314274	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	94	2910402	300.0	312.7	
63 n-Butanol	56	8.200	8.200	0.000	90	3463421	7500.0	7445.4	
64 Trichloroethene	95	8.310	8.310	0.000	98	1937866	300.0	315.2	
65 Methylcyclohexane	83	8.614	8.614	0.000	92	3411639	300.0	315.5	
66 2-ethoxy-2-methyl butane	87	8.650	8.644	0.006	91	2773274	300.0	307.4	
67 1,2-Dichloropropane	63	8.650	8.644	0.006	73	2019880	300.0	312.4	
68 1,4-Dioxane	88	8.729	8.723	0.006	58	407094	3750.0	3371.5	M
69 Methyl methacrylate	69	8.729	8.729	0.000	92	2118552	300.0	311.6	
70 Dibromomethane	93	8.760	8.754	0.006	96	1347238	300.0	312.1	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	2488614	300.0	315.7	
73 2-Nitropropane	41	9.271	9.271	0.000	97	1860025	600.0	657.0	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	91	1743033	300.0	310.5	
75 cis-1,3-Dichloropropene	75	9.532	9.532	0.000	96	3255045	300.0	314.1	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	7060519	600.0	569.9	
$ 77 Toluene-d8 (Surr)	98	9.837	9.837	0.000	93	1283017	50.0	49.4	
78 Toluene	92	9.910	9.910	0.000	98	4597325	300.0	302.9	
S 79 1,3-Dichloropropene, Total	100				0			627.5	
80 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	3063065	300.0	313.4	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	3402557	300.0	309.4	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	1894718	300.0	304.2	
83 Tetrachloroethene	166	10.451	10.451	0.000	97	2178438	300.0	299.3	
84 1,3-Dichloropropane	76	10.530	10.530	0.000	91	3166157	300.0	305.2	
86 2-Hexanone	43	10.579	10.579	0.000	97	5593969	600.0	562.7	
88 Chlorodibromomethane	129	10.743	10.737	0.006	90	2219419	300.0	317.1	
89 Ethylene Dibromide	107	10.852	10.852	0.000	99	2189205	300.0	300.3	
S 90 Xylenes, Total	106				0			925.7	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.279	0.000	86	1007101	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	98	2669991	300.0	301.8	
93 Chlorobenzene	112	11.309	11.309	0.000	95	5358790	300.0	304.6	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	97	2001970	300.0	313.6	
95 Ethylbenzene	91	11.394	11.388	0.006	98	8695751	300.0	298.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	97	6958421	600.0	615.5	
97 o-Xylene	106	11.838	11.832	0.006	96	3477152	300.0	310.2	
98 Styrene	104	11.850	11.850	0.000	94	5930348	300.0	306.4	
99 Bromoform	173	12.008	12.008	0.000	98	1854577	300.0	318.6	
100 Isopropylbenzene	105	12.136	12.136	0.000	96	8516339	300.0	297.2	
102 Cyclohexanone	55	12.215	12.215	0.000	92	1590877	3749.8	3179.8	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	489049	50.0	49.6	
104 1,1,2,2-Tetrachloroethane	83	12.386	12.379	0.007	94	3330638	300.0	297.9	
105 Bromobenzene	156	12.398	12.398	0.000	97	2500121	300.0	307.7	
106 trans-1,4-Dichloro-2-butene	53	12.410	12.404	0.006	92	2644222	750.0	751.1	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	966717	300.0	293.9	
108 N-Propylbenzene	91	12.465	12.465	0.000	97	9786886	300.0	285.3	
109 2-Chlorotoluene	126	12.544	12.538	0.006	97	2279887	300.0	306.1	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	95	7347608	300.0	298.8	
111 4-Chlorotoluene	126	12.635	12.635	0.000	96	2346725	300.0	305.3	
113 tert-Butylbenzene	134	12.842	12.842	0.000	94	1609698	300.0	308.1	
114 Pentachloroethane	167	12.878	12.878	0.000	94	1558621	300.0	337.2	
115 1,2,4-Trimethylbenzene	105	12.884	12.884	0.000	97	7681770	300.0	297.3	
116 sec-Butylbenzene	105	13.006	13.006	0.000	95	9130891	300.0	288.8	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	4449120	300.0	299.1	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	96	8101160	300.0	297.3	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	93	550544	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.183	13.176	0.006	94	4553887	300.0	296.0	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	7778908	300.0	287.0	
122 Benzyl chloride	91	13.256	13.256	0.000	98	6633943	300.0	301.0	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	5091589	300.0	292.5	
124 p-Diethylbenzene	119	13.383	13.383	0.000	95	5334331	300.0	291.7	
125 n-Butylbenzene	92	13.408	13.402	0.006	97	4101901	300.0	288.8	
126 1,2-Dichlorobenzene	146	13.444	13.438	0.006	98	4363922	300.0	296.1	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	4279104	300.0	296.8	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	875247	300.0	277.8	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	3404835	300.0	285.1	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	3250338	300.0	284.2	
132 Hexachlorobutadiene	225	14.618	14.612	0.006	97	1437824	300.0	259.2	
133 Naphthalene	128	14.716	14.716	0.000	98	10396090	300.0	268.9	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	3168469	300.0	281.6	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	6632516	300.0	265.3	
S 144 Total Diethylbenzene	1				0			881.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	15.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	7.50	Units: uL	
MSV_V_VOA3_00043	Amount Added:	6.00	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	15.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	15.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	30.00	Units: uL	
MSV_VCYC_00005	Amount Added:	30.00	Units: uL	
MSV_DCFM_00021	Amount Added:	7.50	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:06:59 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I01.D

Injection Date: 01-Sep-2020 20:14:30 Instrument ID: 23297 Operator ID: MEC29284

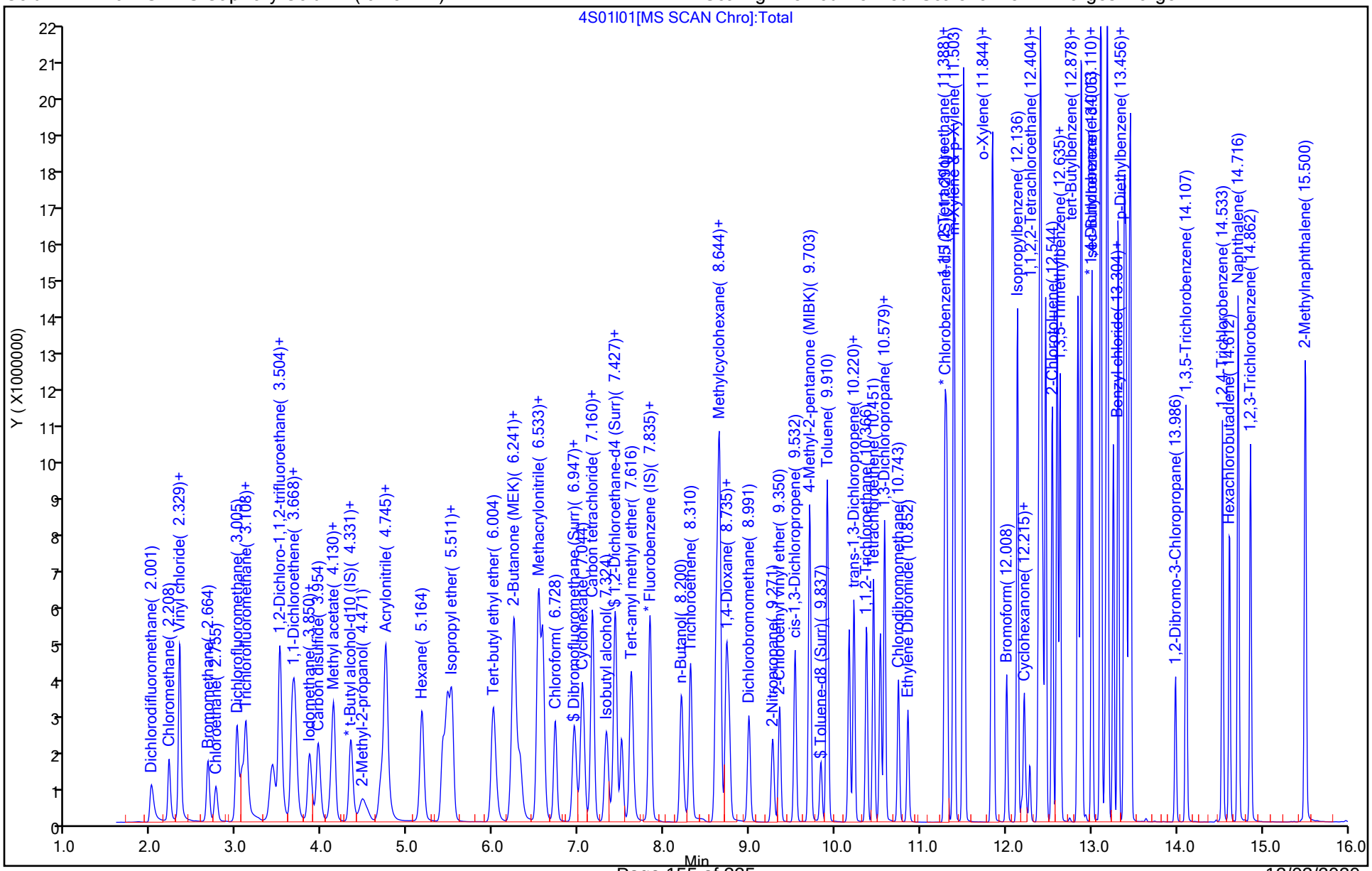
Lims ID: IC level7 Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

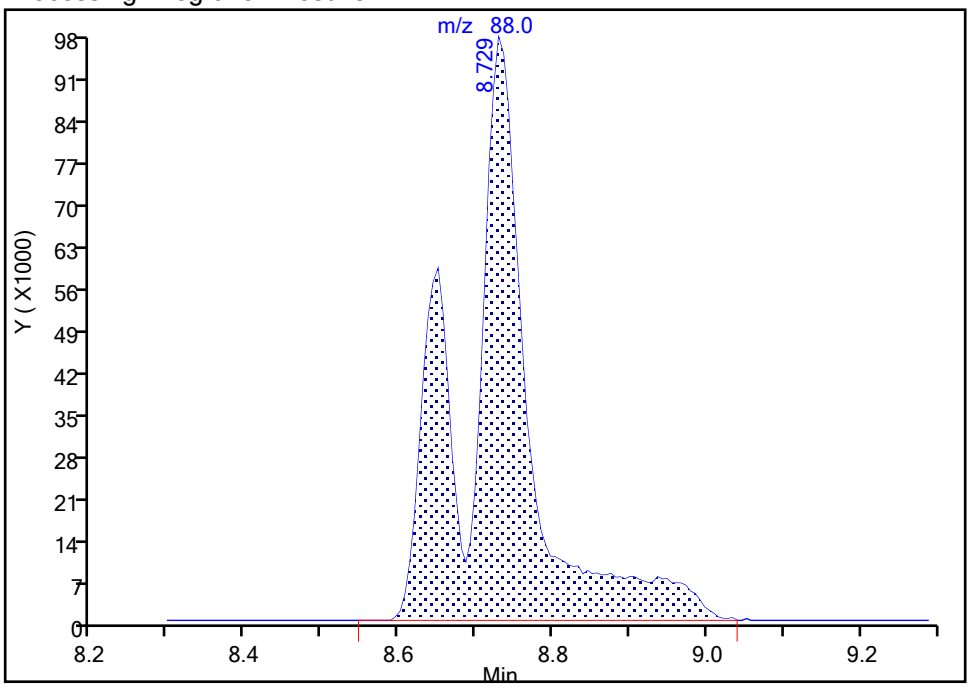
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I01.D
Injection Date: 01-Sep-2020 20:14:30 Instrument ID: 23297
Lims ID: IC level7
Client ID:
Operator ID: MEC29284 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

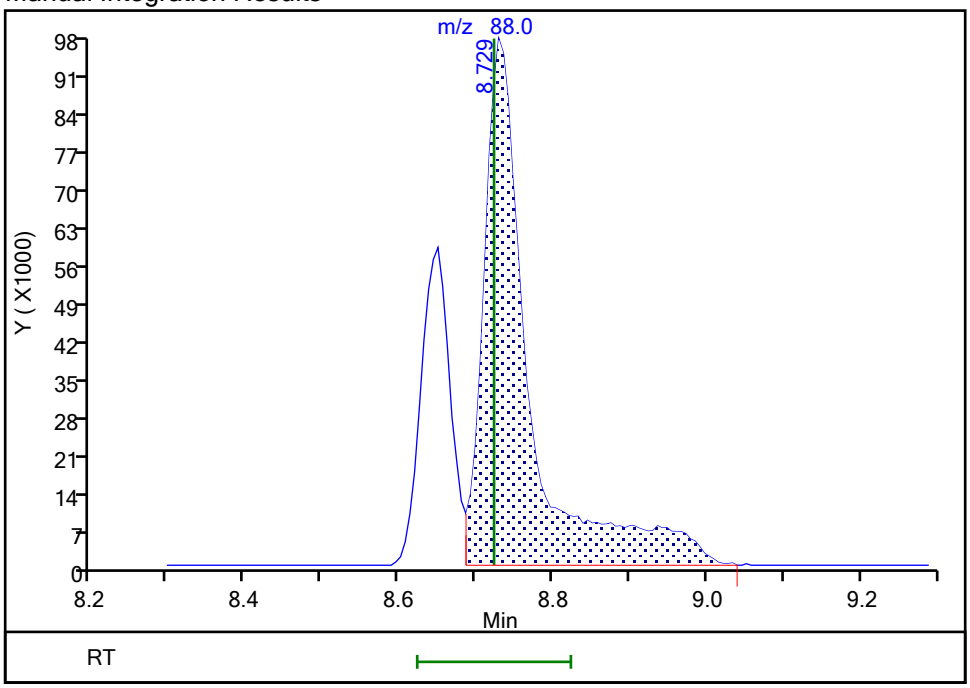
Processing Integration Results

RT: 8.73
Area: 560905
Amount: 4444.4852
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 407094
Amount: 3371.5173
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:31:42
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I02.D
Lims ID: IC std6
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 01-Sep-2020 20:36:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-004
Misc. Info.: IC STD6
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:07:10 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:40:10

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.995	2.001	-0.006	99	769558	100.0	106.5	M
4 Chloromethane	50	2.202	2.208	-0.006	99	822730	100.0	100.1	
6 Vinyl chloride	62	2.323	2.329	-0.006	98	759037	100.0	101.7	
5 Butadiene	39	2.329	2.335	-0.006	93	609101	100.0	88.1	
8 Bromomethane	94	2.658	2.664	-0.006	89	541860	100.0	95.3	
9 Chloroethane	64	2.755	2.755	0.000	100	447593	100.0	100.8	
10 Dichlorofluoromethane	67	2.999	3.005	-0.006	97	1000231	100.0	101.1	
11 Trichlorofluoromethane	101	3.053	3.059	-0.006	97	963570	100.0	105.5	
12 Pentane	43	3.102	3.114	-0.012	96	913608	100.0	97.9	
13 Ethanol	45	3.187	3.193	-0.006	95	337562	2499.8	2404.4	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.412	3.418	-0.006	92	596381	100.0	99.8	
16 Acrolein	56	3.504	3.510	-0.006	99	2448585	1000.0	1034.2	
17 1,1-Dichloroethene	96	3.643	3.650	-0.007	98	468884	100.0	100.3	
18 112TCTFE	101	3.674	3.680	-0.006	76	516642	100.0	103.9	
19 Acetone	58	3.674	3.686	-0.012	100	247975	200.0	210.6	M
20 Iodomethane	142	3.844	3.850	-0.006	98	950702	100.0	100.2	
21 Isopropyl alcohol	45	3.850	3.856	-0.006	48	530656	500.0	492.2	
22 Carbon disulfide	76	3.948	3.954	-0.006	99	1686509	100.0	100.6	
24 Methyl acetate	43	4.100	4.112	-0.012	98	875356	100.0	99.1	
25 3-Chloro-1-propene	41	4.130	4.142	-0.012	93	956427	100.0	101.5	
26 Methylene Chloride	84	4.331	4.337	-0.006	93	561034	100.0	99.5	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	467154	250.0	250.0	
28 2-Methyl-2-propanol	59	4.459	4.471	-0.012	99	924756	500.0	495.3	
29 Acrylonitrile	53	4.678	4.690	-0.012	98	451643	100.0	100.1	
30 Methyl tert-butyl ether	73	4.732	4.739	-0.006	95	1804882	100.0	99.7	
31 trans-1,2-Dichloroethene	96	4.745	4.745	0.000	99	547320	100.0	101.1	
33 Hexane	57	5.164	5.170	-0.006	94	834040	100.0	102.9	
34 1,1-Dichloroethane	63	5.408	5.414	-0.006	96	987145	100.0	100.0	
36 Isopropyl ether	45	5.462	5.462	0.000	95	1897914	100.0	99.1	
37 2-Chloro-1,3-butadiene	53	5.517	5.523	-0.006	91	865818	100.0	101.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	98	1797008	100.0	98.6	
S 39 1,2-Dichloroethene, Total	100				0			201.7	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	100	1310957	200.0	197.7	
41 cis-1,2-Dichloroethene	96	6.241	6.247	-0.006	83	626598	100.0	100.6	
42 2,2-Dichloropropane	77	6.259	6.259	0.000	86	822198	100.0	99.0	
44 Propionitrile	54	6.308	6.314	-0.006	99	930757	500.0	499.5	
45 Methacrylonitrile	67	6.527	6.527	0.000	93	1099838	250.0	248.9	
46 Chlorobromomethane	128	6.576	6.582	-0.006	95	356096	100.0	101.5	
47 Tetrahydrofuran	71	6.582	6.582	0.000	90	350902	200.0	208.3	
48 Chloroform	83	6.722	6.728	-0.006	93	977802	100.0	99.6	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.947	-0.006	93	319755	50.0	49.6	
50 1,1,1-Trichloroethane	97	6.947	6.953	-0.006	98	821615	100.0	99.7	
51 Cyclohexane	56	7.038	7.044	-0.006	91	963566	100.0	102.0	
52 Carbon tetrachloride	117	7.154	7.154	0.000	96	724629	100.0	102.2	
53 1,1-Dichloropropene	75	7.160	7.166	-0.006	97	778893	100.0	101.1	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	95	732606	1250.0	1232.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.403	-0.006	98	76022	50.0	50.3	
56 Benzene	78	7.427	7.427	0.000	96	2314364	100.0	99.7	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	98	778286	100.0	95.5	
59 Tert-amyl methyl ether	73	7.610	7.616	-0.006	98	1760550	100.0	97.7	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1283940	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	93	927032	100.0	101.9	
63 n-Butanol	56	8.200	8.200	0.000	89	1274491	2500.0	2530.9	
64 Trichloroethene	95	8.310	8.310	0.000	98	602319	100.0	100.3	
65 Methylcyclohexane	83	8.608	8.614	-0.006	92	1110488	100.0	105.1	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	91	886052	100.0	100.5	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	71	625976	100.0	99.1	
68 1,4-Dioxane	88	8.729	8.723	0.006	32	156656	1250.0	1198.5	M
69 Methyl methacrylate	69	8.723	8.729	-0.006	92	661220	100.0	99.6	
70 Dibromomethane	93	8.754	8.754	0.000	95	425791	100.0	101.0	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	774467	100.0	100.6	
73 2-Nitropropane	41	9.271	9.271	0.000	97	628755	200.0	205.2	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	91	570465	100.0	104.0	
75 cis-1,3-Dichloropropene	75	9.532	9.532	0.000	96	1017426	100.0	100.5	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	2431125	200.0	200.9	
$ 77 Toluene-d8 (Surr)	98	9.830	9.837	-0.007	93	1248533	50.0	50.2	
78 Toluene	92	9.910	9.910	0.000	98	1457138	100.0	100.3	
S 79 1,3-Dichloropropene, Total	100				0			202.8	
80 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	956972	100.0	102.2	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	1076177	100.0	102.2	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	596185	100.0	99.9	
83 Tetrachloroethene	166	10.451	10.451	0.000	98	683842	100.0	98.1	
84 1,3-Dichloropropane	76	10.530	10.530	0.000	91	994143	100.0	100.1	
86 2-Hexanone	43	10.579	10.579	0.000	97	1901220	200.0	199.7	
88 Chlorodibromomethane	129	10.743	10.737	0.006	90	691101	100.0	103.1	
89 Ethylene Dibromide	107	10.853	10.852	0.000	98	693053	100.0	99.3	
S 90 Xylenes, Total	106				0			301.7	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.279	0.000	85	964467	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	98	821975	100.0	97.0	
93 Chlorobenzene	112	11.309	11.309	0.000	95	1674469	100.0	99.4	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	97	620072	100.0	101.4	
95 Ethylbenzene	91	11.388	11.388	0.000	98	2788573	100.0	100.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	99	2164086	200.0	199.9	
97 o-Xylene	106	11.832	11.832	0.000	96	1093071	100.0	101.8	
98 Styrene	104	11.850	11.850	0.000	95	1884782	100.0	101.7	
99 Bromoform	173	12.008	12.008	0.000	98	577898	100.0	103.7	
100 Isopropylbenzene	105	12.136	12.136	0.000	96	2763646	100.0	100.7	
102 Cyclohexanone	55	12.215	12.215	0.000	92	689381	1249.9	1272.8	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	472573	50.0	50.0	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	93	1059106	100.0	99.7	
105 Bromobenzene	156	12.398	12.398	0.000	97	770443	100.0	99.8	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	90	841574	250.0	251.5	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	307734	100.0	98.4	
108 N-Propylbenzene	91	12.465	12.465	0.000	98	3247456	100.0	99.6	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	706882	100.0	99.9	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	94	2365371	100.0	101.2	
111 4-Chlorotoluene	126	12.635	12.635	0.000	96	734676	100.0	100.6	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	513198	100.0	103.3	
114 Pentachloroethane	167	12.878	12.878	0.000	91	486381	100.0	110.7	
115 1,2,4-Trimethylbenzene	105	12.884	12.884	0.000	97	2460981	100.0	100.2	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	3056094	100.0	101.7	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	1397487	100.0	98.9	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	97	2666793	100.0	103.0	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	523232	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	94	1436593	100.0	98.2	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	2652813	100.0	103.0	
122 Benzyl chloride	91	13.256	13.256	0.000	98	2167546	100.0	103.5	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	1706159	100.0	103.1	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	1776724	100.0	102.2	
125 n-Butylbenzene	92	13.402	13.402	0.000	96	1341822	100.0	99.4	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	1386770	100.0	99.0	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	1426080	100.0	104.1	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	288994	100.0	96.5	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	1104781	100.0	97.4	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	1057694	100.0	97.3	
132 Hexachlorobutadiene	225	14.618	14.612	0.006	97	503886	100.0	95.6	
133 Naphthalene	128	14.716	14.716	0.000	97	3603617	100.0	98.1	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	1053472	100.0	98.5	
135 2-Methylnaphthalene	142	15.506	15.500	0.006	92	2434161	100.0	102.4	
S 144 Total Diethylbenzene	1				0			309.4	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	2.50	Units: uL	
MSV_V_VOA3_00043	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	5.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	5.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	10.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.50	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:07:11 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I02.D

Injection Date: 01-Sep-2020 20:36:30 Instrument ID: 23297 Operator ID: MEC29284

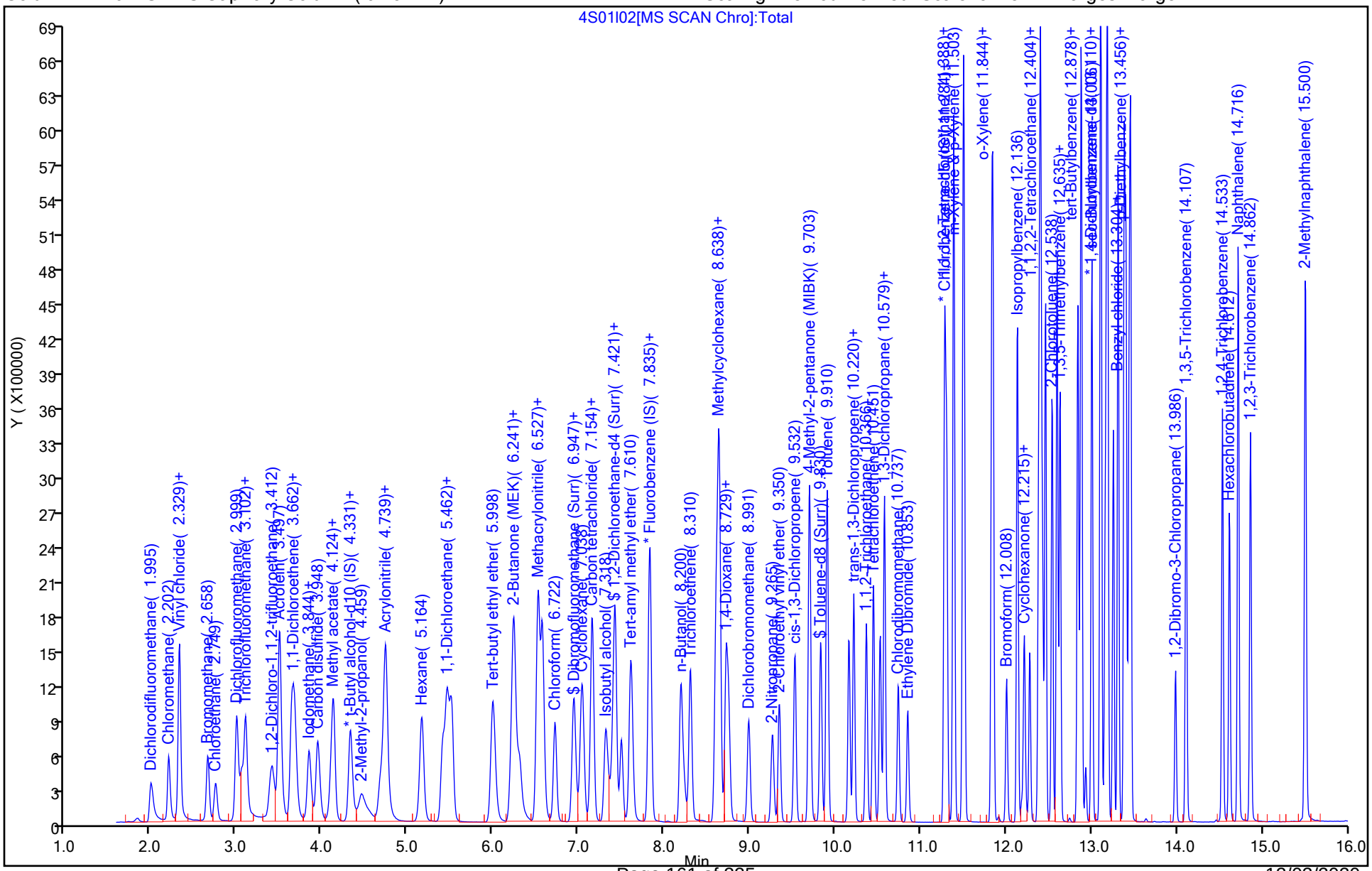
Lims ID: IC std6 Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

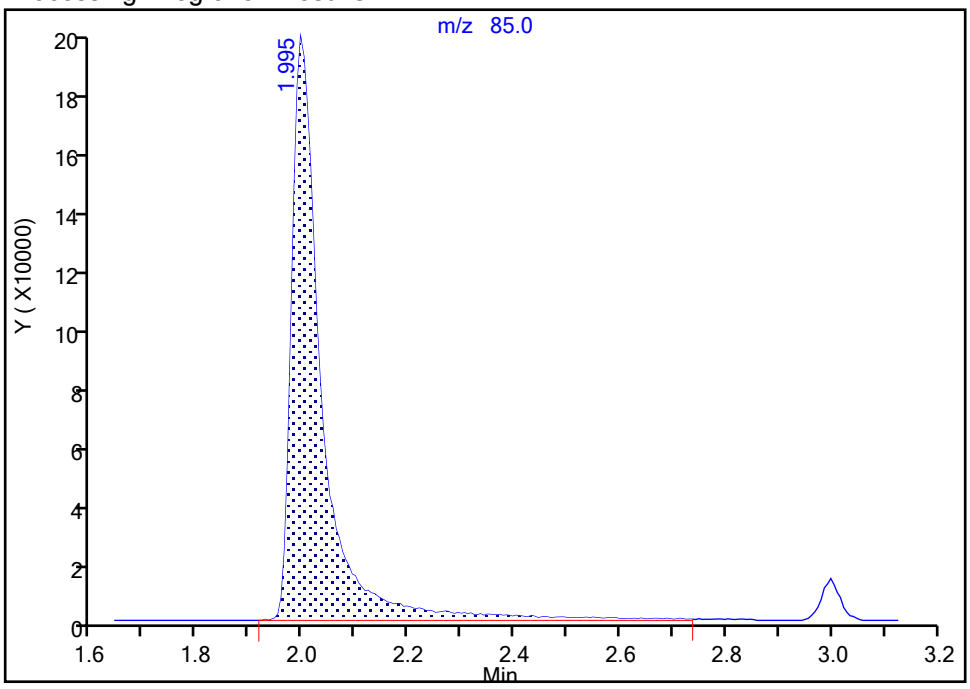
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I02.D
Injection Date: 01-Sep-2020 20:36:30 Instrument ID: 23297
Lims ID: IC std6
Client ID:
Operator ID: MEC29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

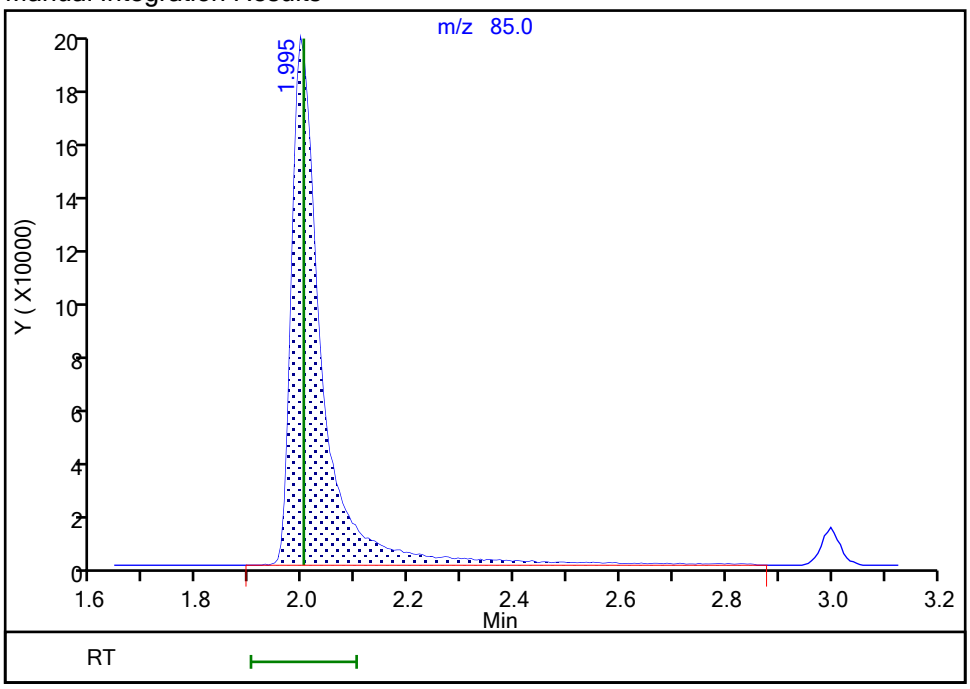
Processing Integration Results

RT: 1.99
Area: 766910
Amount: 101.8698
Amount Units: ug/l



Manual Integration Results

RT: 1.99
Area: 769558
Amount: 106.5214
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:39:06
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

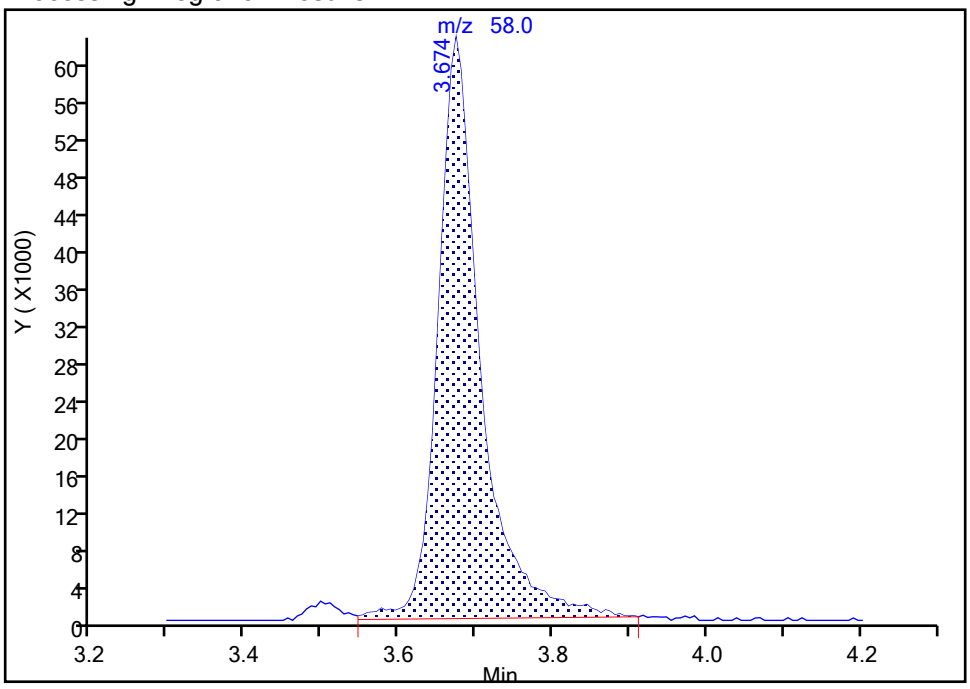
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I02.D
Injection Date: 01-Sep-2020 20:36:30 Instrument ID: 23297
Lims ID: IC std6
Client ID:
Operator ID: MEC29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

19 Acetone, CAS: 67-64-1

Signal: 1

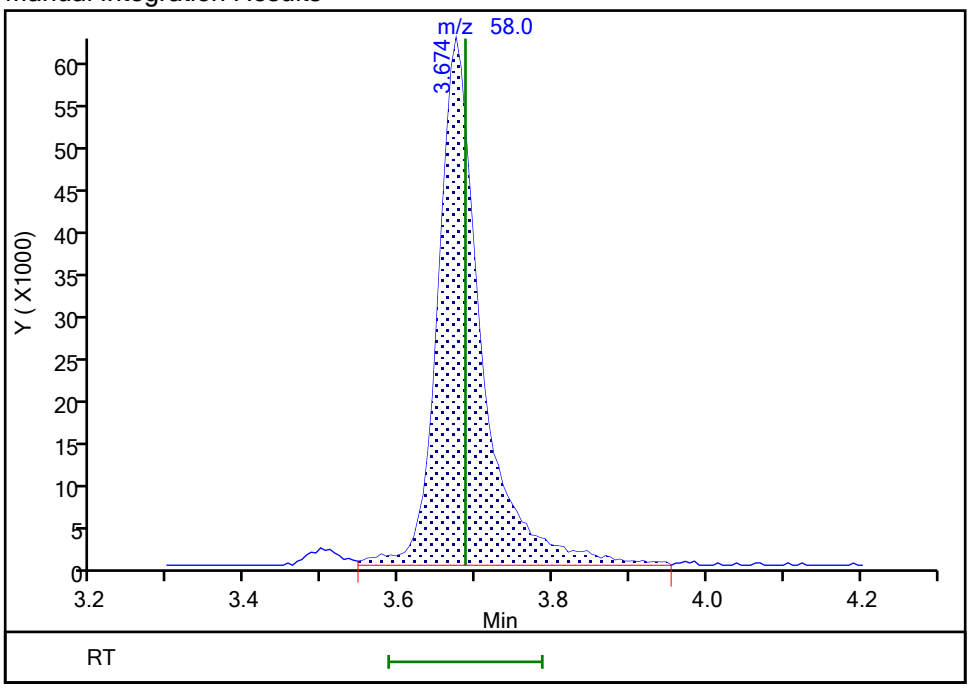
Processing Integration Results

RT: 3.67
Area: 241803
Amount: 209.0181
Amount Units: ug/l



Manual Integration Results

RT: 3.67
Area: 247975
Amount: 210.5726
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:39:33
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

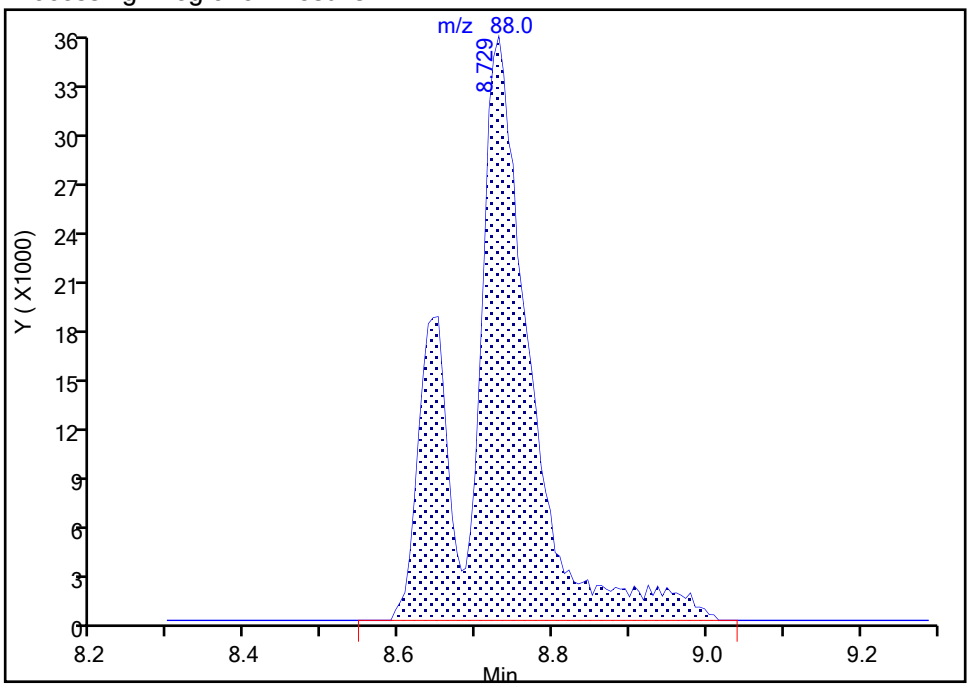
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I02.D
Injection Date: 01-Sep-2020 20:36:30 Instrument ID: 23297
Lims ID: IC std6
Client ID:
Operator ID: MEC29284 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

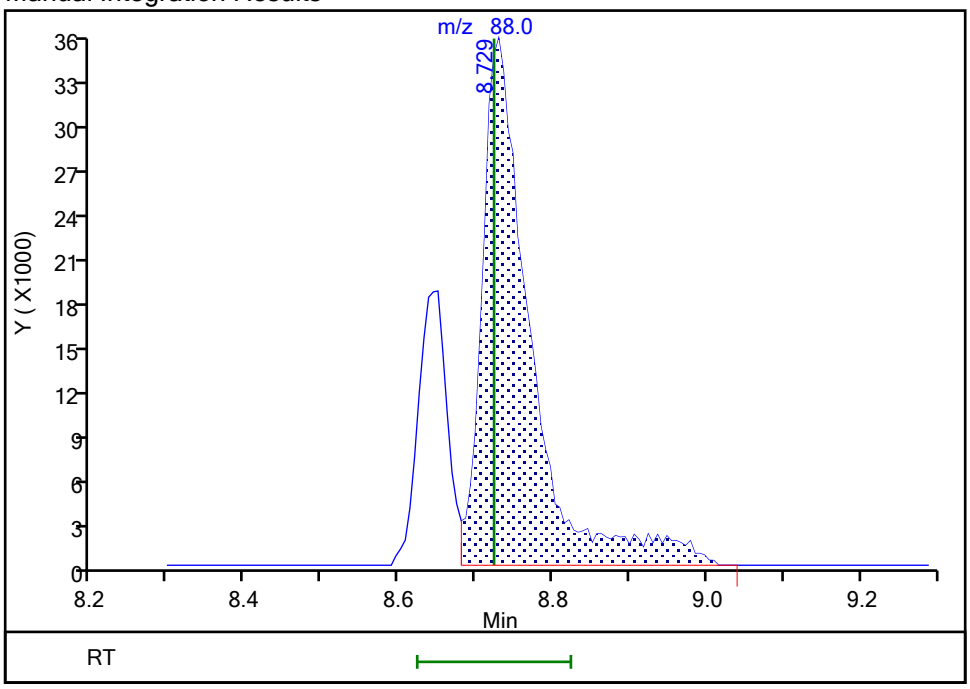
Processing Integration Results

RT: 8.73
Area: 205191
Amount: 1356.0007
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 156656
Amount: 1198.4713
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:39:53
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I03.D
Lims ID: ICIS
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 01-Sep-2020 20:59:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-005
Misc. Info.: ICIS
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:07:22 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:41:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.989	1.989	0.000	99	382477	50.0	52.0	
4 Chloromethane	50	2.202	2.202	0.000	99	406509	50.0	48.6	
6 Vinyl chloride	62	2.317	2.317	0.000	98	377177	50.0	49.6	
5 Butadiene	39	2.323	2.323	0.000	92	332289	50.0	47.2	
8 Bromomethane	94	2.658	2.658	0.000	90	265823	50.0	45.9	
9 Chloroethane	64	2.749	2.749	0.000	100	219233	50.0	48.5	
10 Dichlorofluoromethane	67	2.993	2.993	0.000	97	501812	50.0	49.8	
11 Trichlorofluoromethane	101	3.047	3.047	0.000	96	473297	50.0	50.9	
12 Pentane	43	3.096	3.096	0.000	97	510122	50.0	53.7	
13 Ethanol	45	3.187	3.187	0.000	94	214058	1249.9	1376.7	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.406	3.406	0.000	93	334143	50.0	54.9	
16 Acrolein	56	3.498	3.498	0.000	99	1220015	500.0	465.3	
17 1,1-Dichloroethene	96	3.637	3.637	0.000	98	254427	50.0	53.5	
18 112TCTFE	101	3.668	3.668	0.000	94	278703	50.0	55.0	
19 Acetone	58	3.668	3.668	0.000	100	114812	100.0	88.0	
20 Iodomethane	142	3.838	3.838	0.000	97	507578	50.0	52.5	
21 Isopropyl alcohol	45	3.844	3.844	0.000	47	301754	250.0	252.7	
22 Carbon disulfide	76	3.942	3.942	0.000	99	910817	50.0	53.3	
24 Methyl acetate	43	4.100	4.100	0.000	98	449376	50.0	50.0	
25 3-Chloro-1-propene	41	4.124	4.124	0.000	93	479321	50.0	49.9	
26 Methylene Chloride	84	4.325	4.325	0.000	93	304722	50.0	53.1	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.331	0.000	0	517355	250.0	250.0	
28 2-Methyl-2-propanol	59	4.459	4.459	0.000	99	515570	250.0	249.3	
29 Acrylonitrile	53	4.672	4.672	0.000	100	229246	50.0	49.9	
30 Methyl tert-butyl ether	73	4.726	4.726	0.000	96	953716	50.0	51.7	
31 trans-1,2-Dichloroethene	96	4.739	4.739	0.000	99	297031	50.0	53.9	
33 Hexane	57	5.164	5.164	0.000	94	460564	50.0	55.8	
34 1,1-Dichloroethane	63	5.402	5.402	0.000	96	531086	50.0	52.8	
36 Isopropyl ether	45	5.456	5.456	0.000	95	1011589	50.0	51.9	
37 2-Chloro-1,3-butadiene	53	5.511	5.511	0.000	91	470702	50.0	54.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.992	5.992	0.000	98	955452	50.0	51.5	
40 2-Butanone (MEK)	43	6.211	6.211	0.000	100	656755	100.0	97.2	
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	82	337247	50.0	53.2	
42 2,2-Dichloropropane	77	6.247	6.247	0.000	87	445053	50.0	52.6	
44 Propionitrile	54	6.308	6.308	0.000	99	511133	250.0	247.7	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	576752	125.0	128.2	
46 Chlorobromomethane	128	6.570	6.570	0.000	95	179976	50.0	50.4	
47 Tetrahydrofuran	71	6.576	6.576	0.000	82	176524	100.0	94.6	
48 Chloroform	83	6.722	6.722	0.000	93	522967	50.0	52.3	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	326284	50.0	49.7	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	98	445227	50.0	53.0	
51 Cyclohexane	56	7.038	7.038	0.000	92	525319	50.0	54.6	
52 Carbon tetrachloride	117	7.154	7.154	0.000	97	392253	50.0	54.3	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	97	422476	50.0	53.8	
54 Isobutyl alcohol	41	7.318	7.318	0.000	95	419429	625.0	637.2	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.391	0.000	99	76461	50.0	49.7	
56 Benzene	78	7.421	7.421	0.000	97	1246171	50.0	52.7	
57 1,2-Dichloroethane	62	7.501	7.501	0.000	97	415843	50.0	50.1	
59 Tert-amyl methyl ether	73	7.610	7.610	0.000	98	935153	50.0	51.0	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	95	1307534	50.0	50.0	
61 n-Heptane	43	7.829	7.829	0.000	61	498868	50.0	53.9	
63 n-Butanol	56	8.194	8.194	0.000	89	744907	1250.0	1335.7	
64 Trichloroethene	95	8.304	8.304	0.000	98	327608	50.0	53.6	
65 Methylcyclohexane	83	8.608	8.608	0.000	91	561220	50.0	52.2	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	90	467073	50.0	52.0	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	72	337999	50.0	52.6	
68 1,4-Dioxane	88	8.729	8.729	0.000	33	108797	625.0	751.6	M
69 Methyl methacrylate	69	8.723	8.723	0.000	92	349070	50.0	51.6	
70 Dibromomethane	93	8.754	8.754	0.000	95	224291	50.0	52.2	
72 Dichlorobromomethane	83	8.985	8.985	0.000	99	413828	50.0	52.8	
73 2-Nitropropane	41	9.265	9.265	0.000	98	311394	100.0	91.7	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	91	286740	50.0	51.3	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	96	536820	50.0	52.1	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1218459	100.0	98.9	
$ 77 Toluene-d8 (Surr)	98	9.831	9.831	0.000	93	1265414	50.0	50.0	
78 Toluene	92	9.904	9.904	0.000	98	785471	50.0	53.1	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	93	497350	50.0	52.3	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	560339	50.0	52.3	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	315575	50.0	52.0	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	385977	50.0	54.5	
84 1,3-Dichloropropane	76	10.530	10.530	0.000	90	523194	50.0	51.8	
86 2-Hexanone	43	10.579	10.579	0.000	98	960488	100.0	99.2	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	360412	50.0	52.9	
89 Ethylene Dibromide	107	10.853	10.853	0.000	99	366979	50.0	51.7	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	980844	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.285	0.000	97	447460	50.0	51.9	
93 Chlorobenzene	112	11.309	11.309	0.000	96	907306	50.0	52.9	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	96	328338	50.0	52.8	
95 Ethylbenzene	91	11.388	11.388	0.000	98	1525682	50.0	53.8	
96 m-Xylene & p-Xylene	106	11.504	11.504	0.000	100	1191176	100.0	108.2	
97 o-Xylene	106	11.832	11.832	0.000	96	586560	50.0	53.7	
98 Styrene	104	11.850	11.850	0.000	95	1019405	50.0	54.1	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 Bromoform	173	12.008	12.008	0.000	98	302119	50.0	53.3	
100 Isopropylbenzene	105	12.136	12.136	0.000	96	1509112	50.0	54.1	
102 Cyclohexanone	55	12.215	12.215	0.000	93	418587	625.0	697.9	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	479882	50.0	49.9	
104 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	93	560906	50.0	51.3	
105 Bromobenzene	156	12.398	12.398	0.000	96	416415	50.0	52.4	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	90	434853	125.0	126.4	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	162261	50.0	50.5	
108 N-Propylbenzene	91	12.465	12.465	0.000	99	1798215	50.0	53.6	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	384234	50.0	52.8	
110 1,3,5-Trimethylbenzene	105	12.599	12.599	0.000	94	1277731	50.0	53.2	
111 4-Chlorotoluene	126	12.635	12.635	0.000	97	397320	50.0	52.9	
113 tert-Butylbenzene	134	12.842	12.842	0.000	94	270865	50.0	53.0	
114 Pentachloroethane	167	12.878	12.878	0.000	94	231134	50.0	51.1	
115 1,2,4-Trimethylbenzene	105	12.885	12.885	0.000	97	1331727	50.0	52.7	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	1664242	50.0	53.8	
117 1,3-Dichlorobenzene	146	13.104	13.104	0.000	98	759576	50.0	52.2	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	1436461	50.0	53.9	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	538201	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.177	0.000	94	771984	50.0	51.3	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	1331818	50.0	50.3	
122 Benzyl chloride	91	13.256	13.256	0.000	98	1137061	50.0	52.8	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	866758	50.0	50.9	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	905680	50.0	50.7	
125 n-Butylbenzene	92	13.402	13.402	0.000	98	725444	50.0	52.3	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	747370	50.0	51.9	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	718885	50.0	51.0	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	155511	50.0	50.5	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	599353	50.0	51.3	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	570534	50.0	51.0	
132 Hexachlorobutadiene	225	14.618	14.618	0.000	96	278223	50.0	51.3	
133 Naphthalene	128	14.716	14.716	0.000	97	1965076	50.0	52.0	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	560520	50.0	51.0	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	1227343	50.0	50.2	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	2.50	Units: uL	
MSV_V_VOA3_00043	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	5.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	5.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	10.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.50	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:07:23 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I03.D

Injection Date: 01-Sep-2020 20:59:30 Instrument ID: 23297 Operator ID: MEC29284

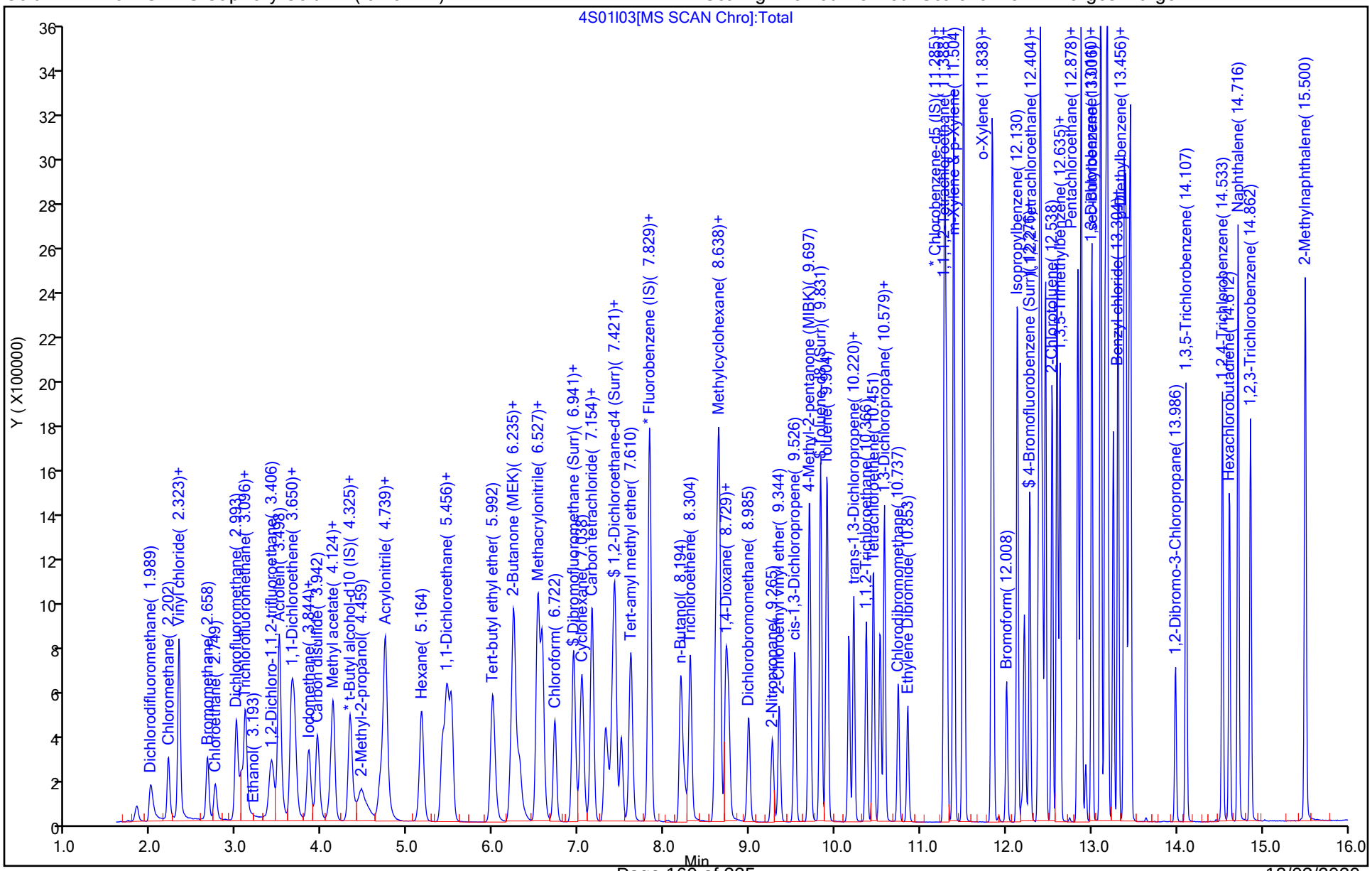
Lims ID: ICIS Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

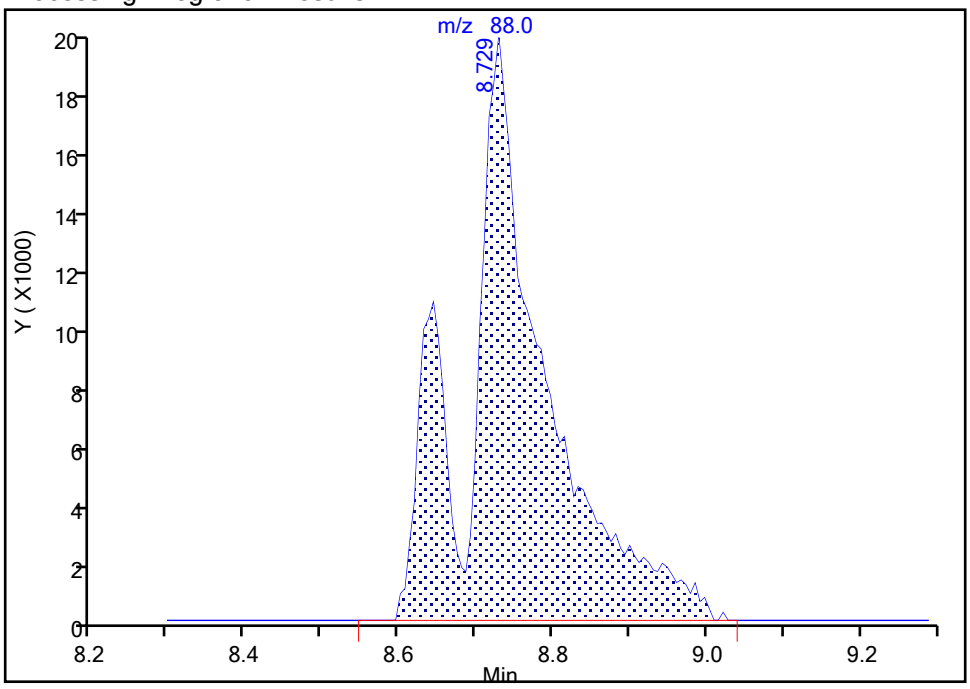
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I03.D
Injection Date: 01-Sep-2020 20:59:30 Instrument ID: 23297
Lims ID: ICIS
Client ID:
Operator ID: MEC29284 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

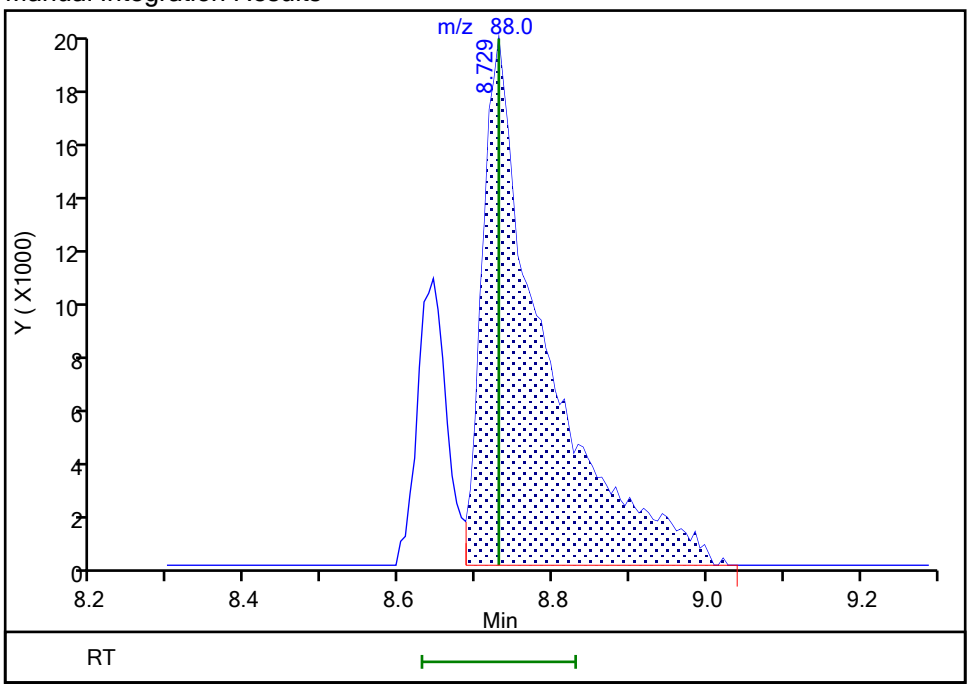
Processing Integration Results

RT: 8.73
Area: 136244
Amount: 856.9789
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 108797
Amount: 751.5691
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:40:48
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I04.D
Lims ID: IC std4
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 01-Sep-2020 21:22:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-006
Misc. Info.: IC STD4
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:07:33 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:42:04

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.001	0.000	99	147783	20.0	20.2	M
4 Chloromethane	50	2.208	2.208	0.000	99	165735	20.0	19.9	
6 Vinyl chloride	62	2.329	2.329	0.000	97	148460	20.0	19.6	
5 Butadiene	39	2.335	2.335	0.000	92	136829	20.0	19.5	
8 Bromomethane	94	2.664	2.664	0.000	90	103950	20.0	18.1	
9 Chloroethane	64	2.755	2.755	0.000	100	86709	20.0	19.3	
10 Dichlorofluoromethane	67	3.005	3.005	0.000	97	194545	20.0	19.4	
11 Trichlorofluoromethane	101	3.059	3.059	0.000	97	184571	20.0	19.9	
12 Pentane	43	3.114	3.114	0.000	96	203008	20.0	21.5	
13 Ethanol	45	3.193	3.193	0.000	92	136488	999.9	937.1	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.418	3.418	0.000	93	130697	20.0	21.6	
16 Acrolein	56	3.510	3.510	0.000	100	471504	200.0	192.0	
17 1,1-Dichloroethene	96	3.650	3.650	0.000	98	100682	20.0	21.3	
18 112TCTFE	101	3.680	3.680	0.000	82	110623	20.0	22.0	
19 Acetone	58	3.686	3.686	0.000	100	44366	40.0	36.3	
20 Iodomethane	142	3.850	3.850	0.000	97	203695	20.0	21.2	
21 Isopropyl alcohol	45	3.856	3.856	0.000	68	213576	200.0	190.9	
22 Carbon disulfide	76	3.954	3.954	0.000	99	361015	20.0	21.2	
24 Methyl acetate	43	4.112	4.112	0.000	98	176290	20.0	19.7	
25 3-Chloro-1-propene	41	4.142	4.142	0.000	92	191952	20.0	20.1	
26 Methylene Chloride	84	4.337	4.337	0.000	93	119124	20.0	20.8	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	484636	250.0	250.0	
28 2-Methyl-2-propanol	59	4.471	4.471	0.000	99	390374	200.0	201.5	
29 Acrylonitrile	53	4.690	4.690	0.000	100	90387	20.0	19.8	
30 Methyl tert-butyl ether	73	4.739	4.739	0.000	95	376718	20.0	20.5	
31 trans-1,2-Dichloroethene	96	4.745	4.745	0.000	98	117411	20.0	21.4	
33 Hexane	57	5.170	5.170	0.000	94	182781	20.0	22.3	
34 1,1-Dichloroethane	63	5.414	5.414	0.000	96	214163	20.0	21.4	
36 Isopropyl ether	45	5.462	5.462	0.000	95	407312	20.0	21.0	
37 2-Chloro-1,3-butadiene	53	5.523	5.523	0.000	90	186214	20.0	21.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	98	386890	20.0	21.0	
S 39 1,2-Dichloroethene, Total	100				0			42.6	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	100	260066	40.0	38.7	
41 cis-1,2-Dichloroethene	96	6.247	6.247	0.000	82	134004	20.0	21.2	
42 2,2-Dichloropropane	77	6.259	6.259	0.000	86	175318	20.0	20.8	
44 Propionitrile	54	6.314	6.314	0.000	99	392910	200.0	203.2	
45 Methacrylonitrile	67	6.527	6.527	0.000	92	456605	100.0	102.0	
46 Chlorobromomethane	128	6.582	6.582	0.000	95	73473	20.0	20.7	
47 Tetrahydrofuran	71	6.582	6.582	0.000	82	67159	40.0	38.4	
48 Chloroform	83	6.728	6.728	0.000	93	210092	20.0	21.1	
$ 49 Dibromofluoromethane (Surr)	113	6.947	6.947	0.000	94	328334	50.0	50.3	
50 1,1,1-Trichloroethane	97	6.953	6.953	0.000	97	176591	20.0	21.1	
51 Cyclohexane	56	7.044	7.044	0.000	91	210015	20.0	21.9	
52 Carbon tetrachloride	117	7.154	7.154	0.000	97	155693	20.0	21.7	
53 1,1-Dichloropropene	75	7.166	7.166	0.000	98	171347	20.0	21.9	
54 Isobutyl alcohol	41	7.324	7.324	0.000	94	305706	500.0	495.8	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.403	7.403	0.000	99	77215	50.0	50.4	
56 Benzene	78	7.427	7.427	0.000	97	503417	20.0	21.4	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	98	166642	20.0	20.2	
59 Tert-amyl methyl ether	73	7.616	7.616	0.000	98	380374	20.0	20.8	
* 62 Fluorobenzene (IS)	96	7.835	7.835	0.000	99	1301050	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	91	198588	20.0	21.6	
63 n-Butanol	56	8.200	8.200	0.000	91	517485	1000.0	990.5	
64 Trichloroethene	95	8.310	8.310	0.000	98	130697	20.0	21.5	
65 Methylcyclohexane	83	8.614	8.614	0.000	92	222196	20.0	20.8	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	90	188132	20.0	21.1	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	72	133745	20.0	20.9	
69 Methyl methacrylate	69	8.729	8.729	0.000	92	137618	20.0	20.4	
68 1,4-Dioxane	88	8.723	8.723	0.000	42	64384	500.0	474.8	M
70 Dibromomethane	93	8.754	8.754	0.000	96	88083	20.0	20.6	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	164712	20.0	21.1	
73 2-Nitropropane	41	9.271	9.271	0.000	99	121552	40.0	38.2	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	92	114091	20.0	20.5	
75 cis-1,3-Dichloropropene	75	9.532	9.532	0.000	96	214193	20.0	20.9	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	480730	40.0	39.2	
$ 77 Toluene-d8 (Surr)	98	9.837	9.837	0.000	94	1270646	50.0	50.0	
78 Toluene	92	9.910	9.910	0.000	98	316147	20.0	21.3	
S 79 1,3-Dichloropropene, Total	100				0			41.6	
80 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	197985	20.0	20.7	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	225303	20.0	21.0	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	126415	20.0	20.8	
83 Tetrachloroethene	166	10.451	10.451	0.000	98	158849	20.0	22.3	
84 1,3-Dichloropropane	76	10.530	10.530	0.000	91	211554	20.0	20.9	
86 2-Hexanone	43	10.579	10.579	0.000	97	377866	40.0	38.9	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	141387	20.0	20.7	
89 Ethylene Dibromide	107	10.852	10.852	0.000	99	145477	20.0	20.4	
S 90 Xylenes, Total	106				0			64.2	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	984740	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	97	183313	20.0	21.2	
93 Chlorobenzene	112	11.309	11.309	0.000	96	362899	20.0	21.1	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	95	131391	20.0	21.1	
95 Ethylbenzene	91	11.388	11.388	0.000	98	615615	20.0	21.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	100	475395	40.0	43.0	
97 o-Xylene	106	11.832	11.832	0.000	97	232493	20.0	21.2	
98 Styrene	104	11.850	11.850	0.000	95	403548	20.0	21.3	
99 Bromoform	173	12.008	12.008	0.000	97	116446	20.0	20.5	
100 Isopropylbenzene	105	12.136	12.136	0.000	96	609143	20.0	21.7	
102 Cyclohexanone	55	12.215	12.215	0.000	92	277765	500.0	494.4	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	484802	50.0	50.2	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	93	222434	20.0	20.6	
105 Bromobenzene	156	12.398	12.398	0.000	96	166049	20.0	21.2	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	93	348943	100.0	102.8	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	65474	20.0	20.6	
108 N-Propylbenzene	91	12.465	12.465	0.000	98	728414	20.0	22.0	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	154091	20.0	21.5	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	95	519524	20.0	21.9	
111 4-Chlorotoluene	126	12.635	12.635	0.000	96	159447	20.0	21.5	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	112497	20.0	22.3	
114 Pentachloroethane	167	12.878	12.878	0.000	93	88413	20.0	19.8	
115 1,2,4-Trimethylbenzene	105	12.884	12.884	0.000	96	541442	20.0	21.7	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	669600	20.0	22.0	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	305303	20.0	21.3	
118 4-Isopropyltoluene	119	13.109	13.109	0.000	97	579366	20.0	22.0	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	95	530961	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	95	312711	20.0	21.1	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	97	540340	20.0	20.7	
122 Benzyl chloride	91	13.256	13.256	0.000	98	442484	20.0	20.8	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	348266	20.0	20.7	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	363904	20.0	20.6	
125 n-Butylbenzene	92	13.402	13.402	0.000	98	297297	20.0	21.7	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	297952	20.0	21.0	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	284087	20.0	20.4	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	89	60662	20.0	20.0	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	245707	20.0	21.3	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	229202	20.0	20.8	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	97	114335	20.0	21.4	
133 Naphthalene	128	14.716	14.716	0.000	97	775348	20.0	20.8	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	95	223360	20.0	20.6	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	93	485447	20.0	20.1	
S 144 Total Diethylbenzene	1				0			61.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	2.00	Units: uL	
MSV_V_VOA3_00043	Amount Added:	1.60	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	4.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	4.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	16.00	Units: uL	
MSV_V_VOA2_00047	Amount Added:	4.00	Units: uL	
MSV_VCYC_00005	Amount Added:	16.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.00	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:07:35 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I04.D

Injection Date: 01-Sep-2020 21:22:30 Instrument ID: 23297 Operator ID: MEC29284

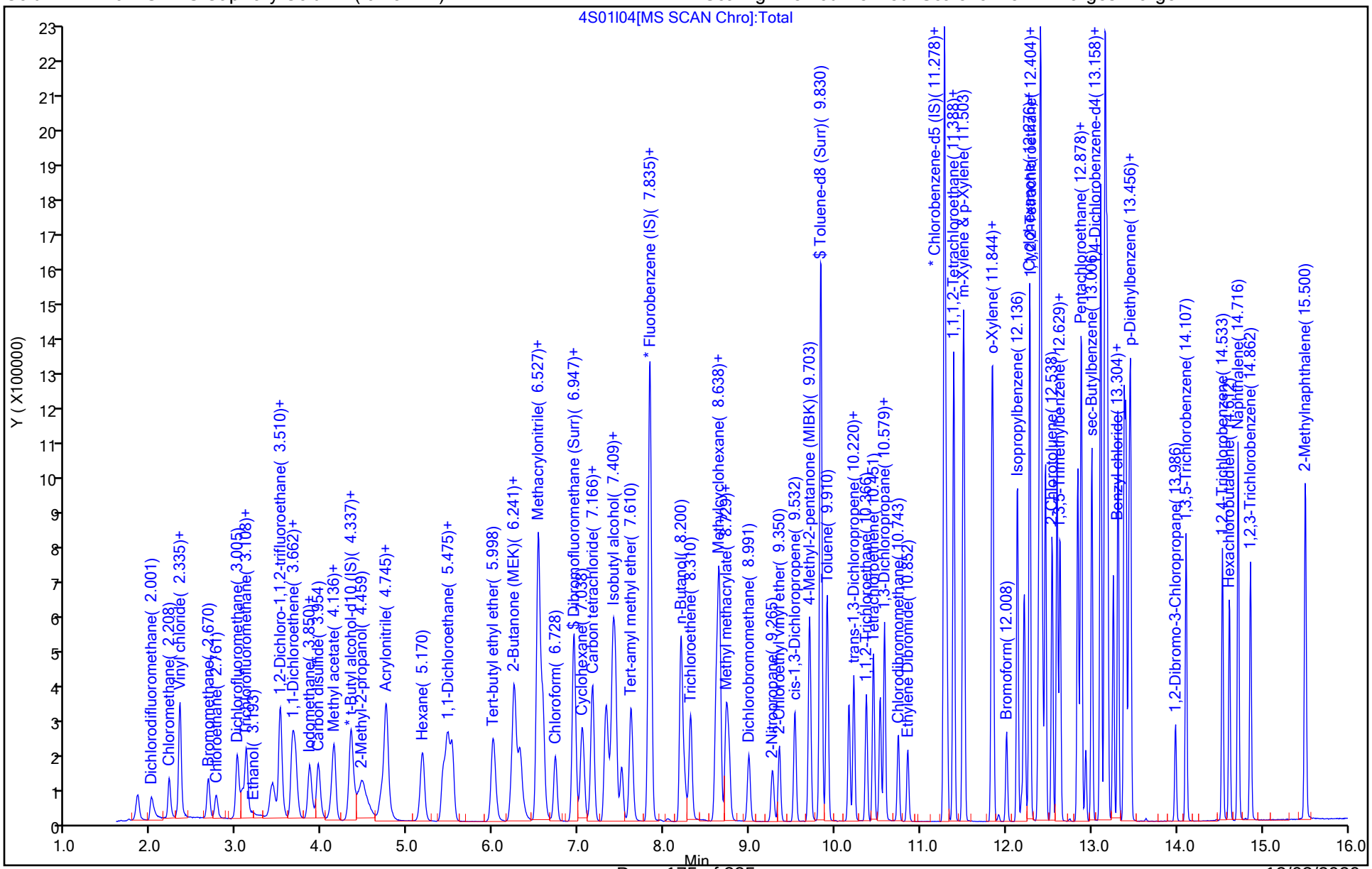
Lims ID: IC std4 Worklist Smp#: 6

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 5

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

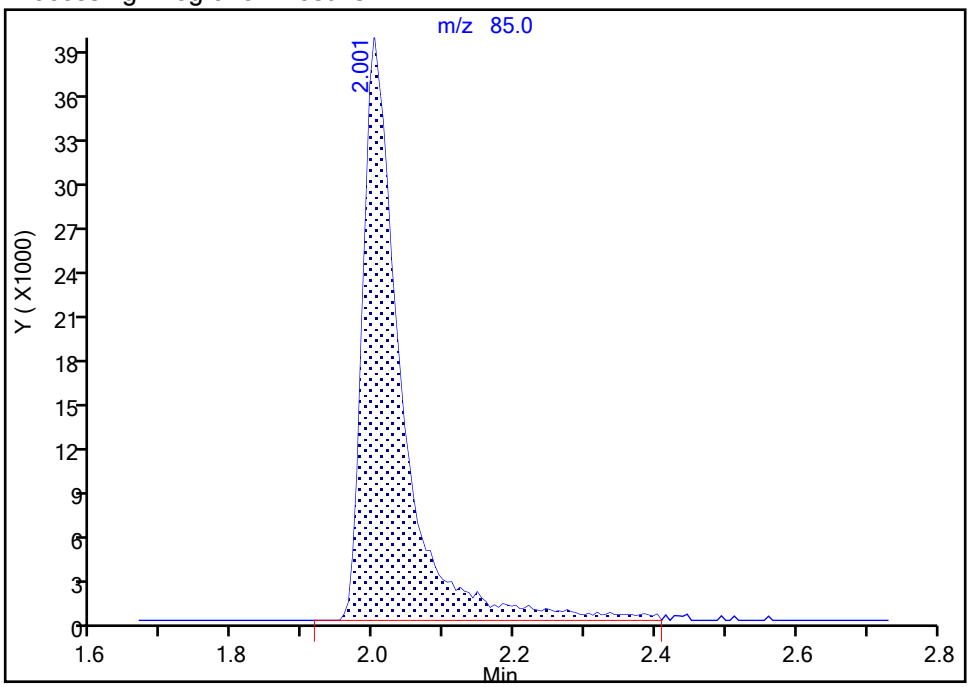
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I04.D
Injection Date: 01-Sep-2020 21:22:30 Instrument ID: 23297
Lims ID: IC std4
Client ID:
Operator ID: MEC29284 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

2 Dichlorodifluoromethane, CAS: 75-71-8

Signal: 1

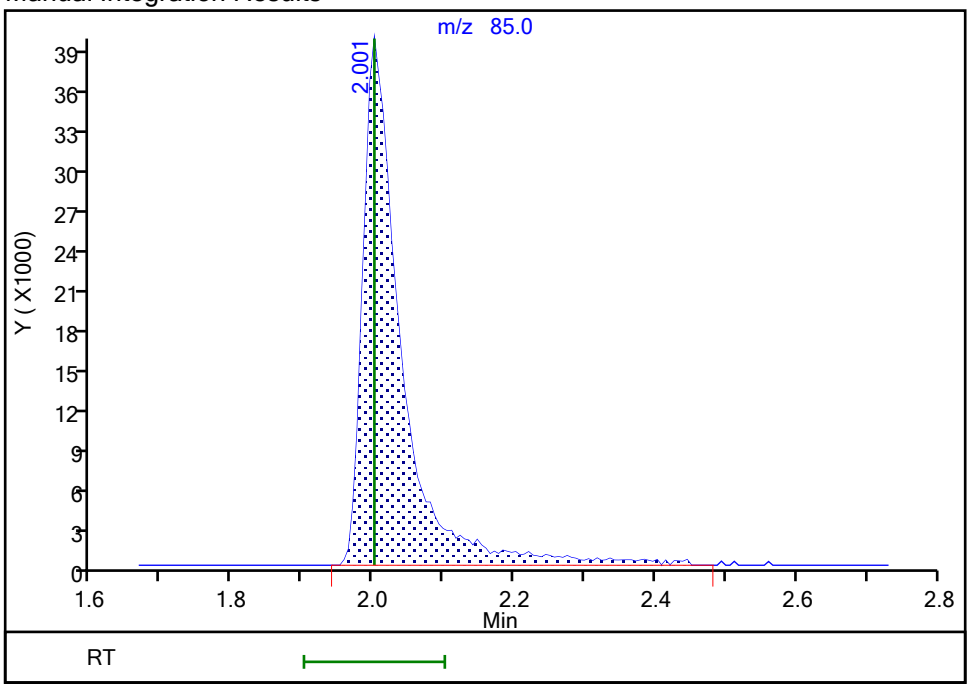
Processing Integration Results

RT: 2.00
Area: 147174
Amount: 19.278681
Amount Units: ug/l



Manual Integration Results

RT: 2.00
Area: 147783
Amount: 20.186942
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:41:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

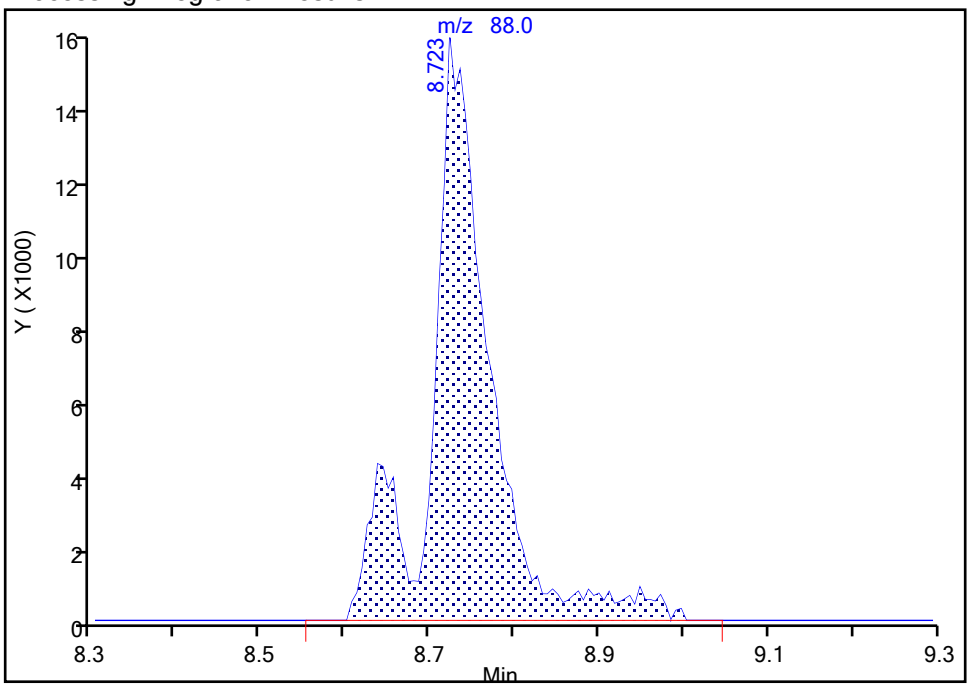
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I04.D
Injection Date: 01-Sep-2020 21:22:30 Instrument ID: 23297
Lims ID: IC std4
Client ID:
Operator ID: MEC29284 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

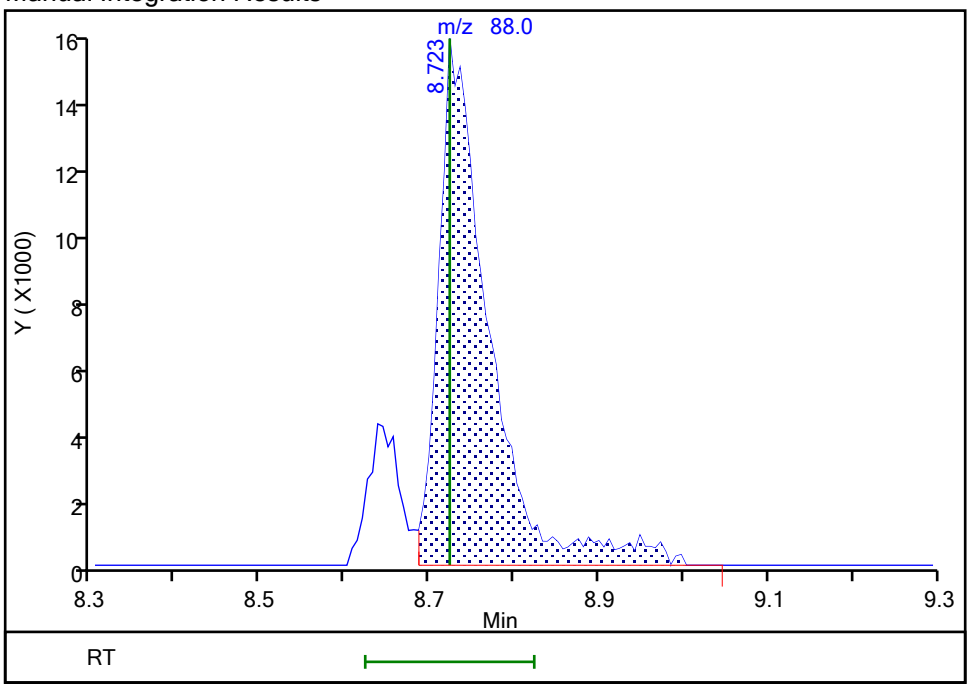
Processing Integration Results

RT: 8.72
Area: 75239
Amount: 534.7488
Amount Units: ug/l



Manual Integration Results

RT: 8.72
Area: 64384
Amount: 474.7915
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:41:47
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I05.D
Lims ID: IC std3
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 01-Sep-2020 21:44:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-007
Misc. Info.: IC STD3
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:07:45 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:43:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.989	2.001	-0.012	99	76530	10.0	10.6	
4 Chloromethane	50	2.196	2.208	-0.012	98	85877	10.0	10.4	
6 Vinyl chloride	62	2.317	2.329	-0.012	97	79821	10.0	10.7	M
5 Butadiene	39	2.323	2.335	-0.012	94	62677	10.0	9.03	
8 Bromomethane	94	2.652	2.664	-0.012	90	56279	10.0	9.87	
9 Chloroethane	64	2.749	2.755	-0.006	100	46756	10.0	10.5	
10 Dichlorofluoromethane	67	2.986	3.005	-0.019	97	102827	10.0	10.4	
11 Trichlorofluoromethane	101	3.053	3.059	-0.006	97	96632	10.0	10.5	
12 Pentane	43	3.102	3.114	-0.012	96	77266	10.0	8.25	
13 Ethanol	45	3.181	3.193	-0.012	97	68789	500.0	458.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.400	3.418	-0.018	91	52369	10.0	8.73	
16 Acrolein	56	3.497	3.510	-0.013	99	253327	100.0	100.1	
17 1,1-Dichloroethene	96	3.637	3.650	-0.013	98	40402	10.0	8.62	
18 112TCTFE	101	3.674	3.680	-0.006	72	41868	10.0	8.39	
19 Acetone	58	3.674	3.686	-0.012	100	25402	20.0	20.2	
20 Iodomethane	142	3.838	3.850	-0.012	97	88905	10.0	9.34	
21 Isopropyl alcohol	45	3.844	3.856	-0.012	99	118920	100.0	103.2	
22 Carbon disulfide	76	3.942	3.954	-0.012	99	148287	10.0	8.81	
24 Methyl acetate	43	4.100	4.112	-0.012	98	83970	10.0	9.48	
25 3-Chloro-1-propene	41	4.124	4.142	-0.018	92	97182	10.0	10.3	
26 Methylene Chloride	84	4.325	4.337	-0.012	93	52221	10.0	9.23	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	499386	250.0	250.0	M
28 2-Methyl-2-propanol	59	4.465	4.471	-0.006	99	209190	100.0	104.8	
29 Acrylonitrile	53	4.678	4.690	-0.012	99	47376	10.0	10.5	
30 Methyl tert-butyl ether	73	4.732	4.739	-0.006	96	174397	10.0	9.60	
31 trans-1,2-Dichloroethene	96	4.739	4.745	-0.006	98	48048	10.0	8.85	
33 Hexane	57	5.158	5.170	-0.012	94	64390	10.0	7.92	
34 1,1-Dichloroethane	63	5.408	5.414	-0.006	96	90356	10.0	9.12	
36 Isopropyl ether	45	5.456	5.462	-0.006	95	177399	10.0	9.23	
37 2-Chloro-1,3-butadiene	53	5.505	5.523	-0.018	91	75959	10.0	8.86	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.992	5.998	-0.006	98	173501	10.0	9.49	
S 39 1,2-Dichloroethene, Total	100				0			18.1	
40 2-Butanone (MEK)	43	6.211	6.223	-0.012	100	138484	20.0	20.8	
41 cis-1,2-Dichloroethene	96	6.241	6.247	-0.006	83	58085	10.0	9.30	
42 2,2-Dichloropropane	77	6.247	6.259	-0.012	83	73923	10.0	8.88	
44 Propionitrile	54	6.308	6.314	-0.006	99	193810	100.0	97.3	
45 Methacrylonitrile	67	6.521	6.527	-0.006	93	217390	50.0	49.0	
46 Chlorobromomethane	128	6.570	6.582	-0.012	88	36689	10.0	10.4	
47 Tetrahydrofuran	71	6.570	6.582	-0.012	77	36584	20.0	20.3	
48 Chloroform	83	6.722	6.728	-0.006	93	89732	10.0	9.11	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.947	-0.012	94	326339	50.0	50.5	
50 1,1,1-Trichloroethane	97	6.947	6.953	-0.006	94	73432	10.0	8.88	
51 Cyclohexane	56	7.038	7.044	-0.006	91	77501	10.0	8.17	
52 Carbon tetrachloride	117	7.154	7.154	0.000	81	61666	10.0	8.67	
53 1,1-Dichloropropene	75	7.160	7.166	-0.006	94	65012	10.0	8.41	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	94	166814	250.0	262.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.403	-0.012	99	77456	50.0	51.1	
56 Benzene	78	7.421	7.427	-0.006	95	211769	10.0	9.09	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	97	75041	10.0	9.18	
59 Tert-amyl methyl ether	73	7.610	7.616	-0.006	98	171972	10.0	9.52	
* 62 Fluorobenzene (IS)	96	7.829	7.835	-0.006	98	1288133	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	39	71738	10.0	7.86	
63 n-Butanol	56	8.194	8.200	-0.006	90	268728	500.0	499.2	
64 Trichloroethene	95	8.303	8.310	-0.007	98	52397	10.0	8.69	
65 Methylcyclohexane	83	8.608	8.614	-0.006	93	105563	10.0	9.96	
66 2-ethoxy-2-methyl butane	87	8.638	8.644	-0.006	90	81292	10.0	9.19	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	70	57263	10.0	9.04	
68 1,4-Dioxane	88	8.729	8.723	0.006	44	32098	250.0	229.7	M
69 Methyl methacrylate	69	8.723	8.729	-0.006	92	63821	10.0	9.58	
70 Dibromomethane	93	8.754	8.754	0.000	97	40304	10.0	9.53	
72 Dichlorobromomethane	83	8.985	8.991	-0.006	99	72083	10.0	9.33	
73 2-Nitropropane	41	9.265	9.271	-0.006	99	64553	20.0	19.7	
74 2-Chloroethyl vinyl ether	63	9.344	9.350	-0.006	92	53798	10.0	9.78	
75 cis-1,3-Dichloropropene	75	9.526	9.532	-0.006	95	91639	10.0	9.02	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	260162	20.0	21.4	
$ 77 Toluene-d8 (Surr)	98	9.830	9.837	-0.007	93	1252791	50.0	50.0	
78 Toluene	92	9.910	9.910	0.000	98	131852	10.0	9.01	
S 79 1,3-Dichloropropene, Total	100				0			18.0	
80 trans-1,3-Dichloropropene	75	10.159	10.165	-0.006	93	84821	10.0	9.00	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	100013	10.0	9.43	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	56494	10.0	9.41	
83 Tetrachloroethene	166	10.445	10.451	-0.006	98	61491	10.0	8.76	
84 1,3-Dichloropropane	76	10.524	10.530	-0.006	92	92212	10.0	9.22	
86 2-Hexanone	43	10.579	10.579	0.000	98	206688	20.0	21.6	
88 Chlorodibromomethane	129	10.737	10.737	0.000	89	62538	10.0	9.27	
89 Ethylene Dibromide	107	10.853	10.852	0.000	98	66830	10.0	9.51	
S 90 Xylenes, Total	106				0			26.3	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	86	971164	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	97	69708	10.0	8.17	
93 Chlorobenzene	112	11.309	11.309	0.000	96	153411	10.0	9.04	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	95	54944	10.0	8.93	
95 Ethylbenzene	91	11.388	11.388	0.000	98	250242	10.0	8.92	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	100	192317	20.0	17.6	
97 o-Xylene	106	11.832	11.832	0.000	96	94075	10.0	8.70	
98 Styrene	104	11.850	11.850	0.000	95	169288	10.0	9.07	
99 Bromoform	173	12.008	12.008	0.000	97	51509	10.0	9.18	
100 Isopropylbenzene	105	12.130	12.136	-0.006	96	240990	10.0	8.72	
102 Cyclohexanone	55	12.215	12.215	0.000	92	135075	250.0	233.3	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	477035	50.0	50.1	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	93	103952	10.0	9.80	
105 Bromobenzene	156	12.398	12.398	0.000	96	71180	10.0	9.23	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	94	167233	50.0	50.1	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	82	30224	10.0	9.69	
108 N-Propylbenzene	91	12.465	12.465	0.000	99	290531	10.0	8.93	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	63145	10.0	8.94	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	94	208699	10.0	8.95	
111 4-Chlorotoluene	126	12.635	12.635	0.000	97	65294	10.0	8.95	
113 tert-Butylbenzene	134	12.842	12.842	0.000	94	41970	10.0	8.47	
114 Pentachloroethane	167	12.872	12.878	-0.006	91	45108	10.0	10.3	
115 1,2,4-Trimethylbenzene	105	12.884	12.884	0.000	97	218626	10.0	8.92	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	263721	10.0	8.79	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	128532	10.0	9.11	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	97	221398	10.0	8.57	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	95	522290	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	95	134313	10.0	9.20	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	270522	10.0	10.5	
122 Benzyl chloride	91	13.256	13.256	0.000	98	197883	10.0	9.46	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	171682	10.0	10.4	
124 p-Diethylbenzene	119	13.383	13.383	0.000	96	179268	10.0	10.3	
125 n-Butylbenzene	92	13.402	13.402	0.000	97	115953	10.0	8.61	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	132246	10.0	9.46	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	143952	10.0	10.5	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	28435	10.0	9.51	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	100756	10.0	8.89	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	99503	10.0	9.17	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	44452	10.0	8.45	
133 Naphthalene	128	14.716	14.716	0.000	97	356366	10.0	9.72	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	102102	10.0	9.57	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	237350	10.0	10.0	
S 144 Total Diethylbenzene	1				0			31.3	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	2.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	1.00	Units: uL	
MSV_V_VOA3_00043	Amount Added:	0.80	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	2.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	2.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	8.00	Units: uL	
MSV_V_VOA2_00047	Amount Added:	2.00	Units: uL	
MSV_VCYC_00005	Amount Added:	8.00	Units: uL	
MSV_DCFM_00021	Amount Added:	1.00	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:07:46 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I05.D

Injection Date: 01-Sep-2020 21:44:30 Instrument ID: 23297 Operator ID: MEC29284

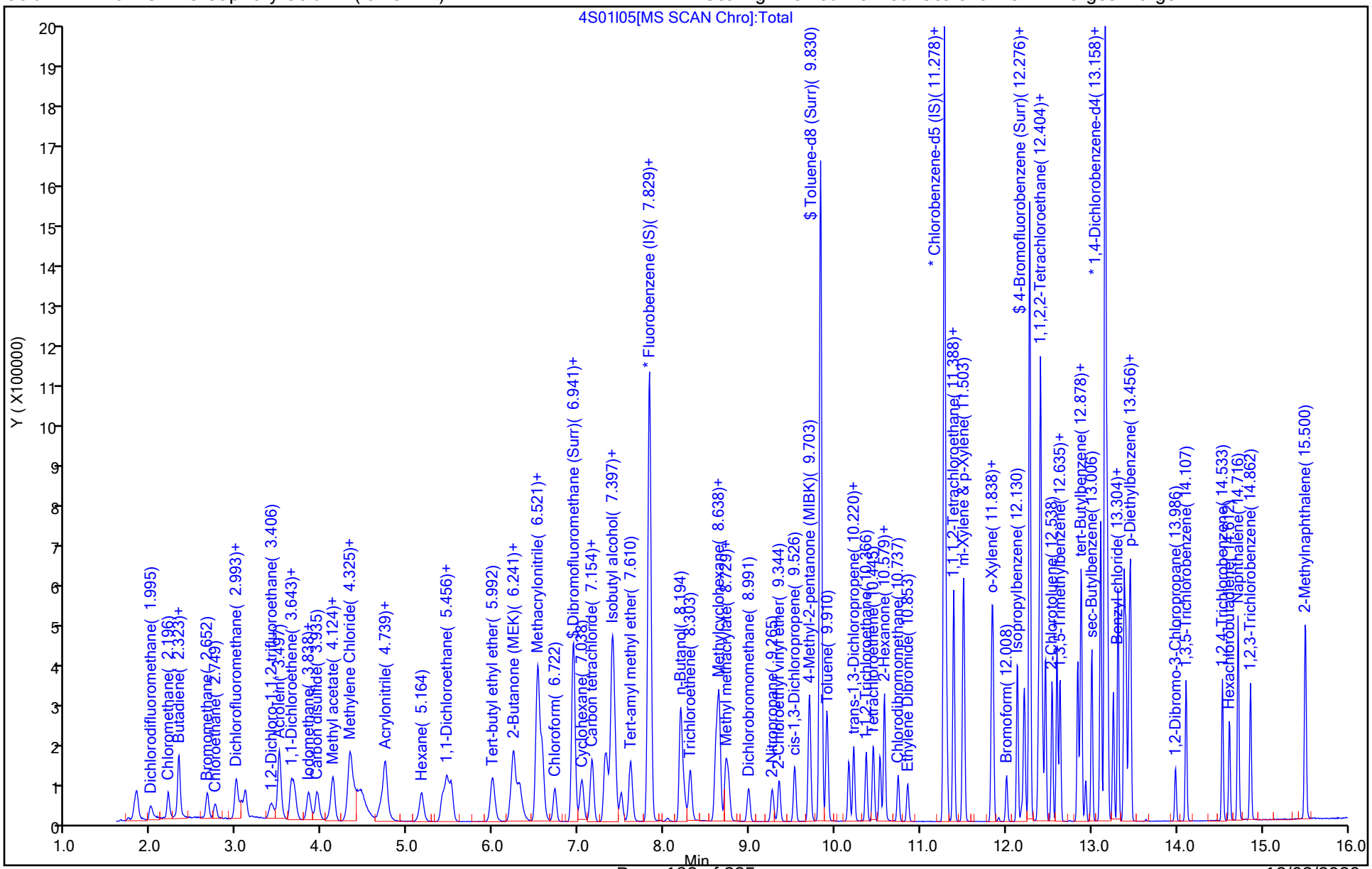
Lims ID: IC std3 Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

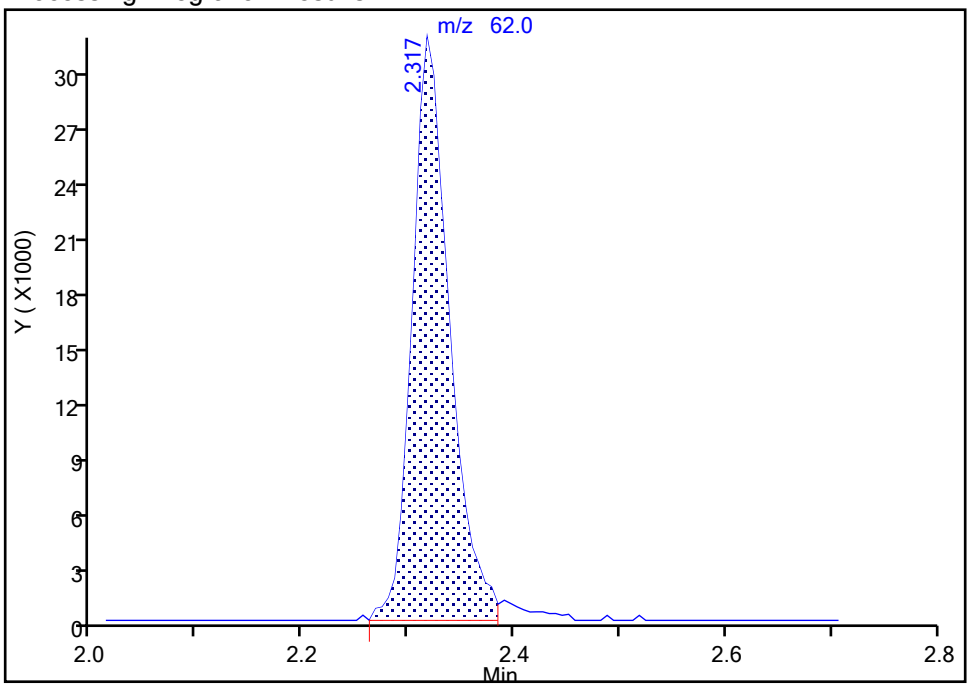
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I05.D
Injection Date: 01-Sep-2020 21:44:30 Instrument ID: 23297
Lims ID: IC std3
Client ID:
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

6 Vinyl chloride, CAS: 75-01-4

Signal: 1

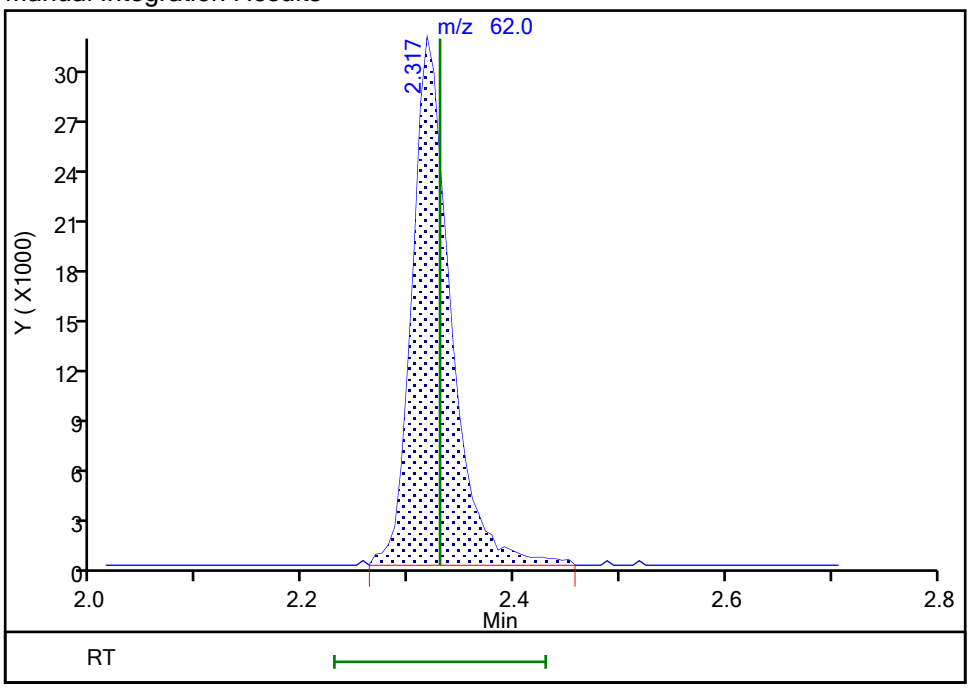
Processing Integration Results

RT: 2.32
Area: 77615
Amount: 10.294917
Amount Units: ug/l



Manual Integration Results

RT: 2.32
Area: 79821
Amount: 10.658556
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:42:27
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

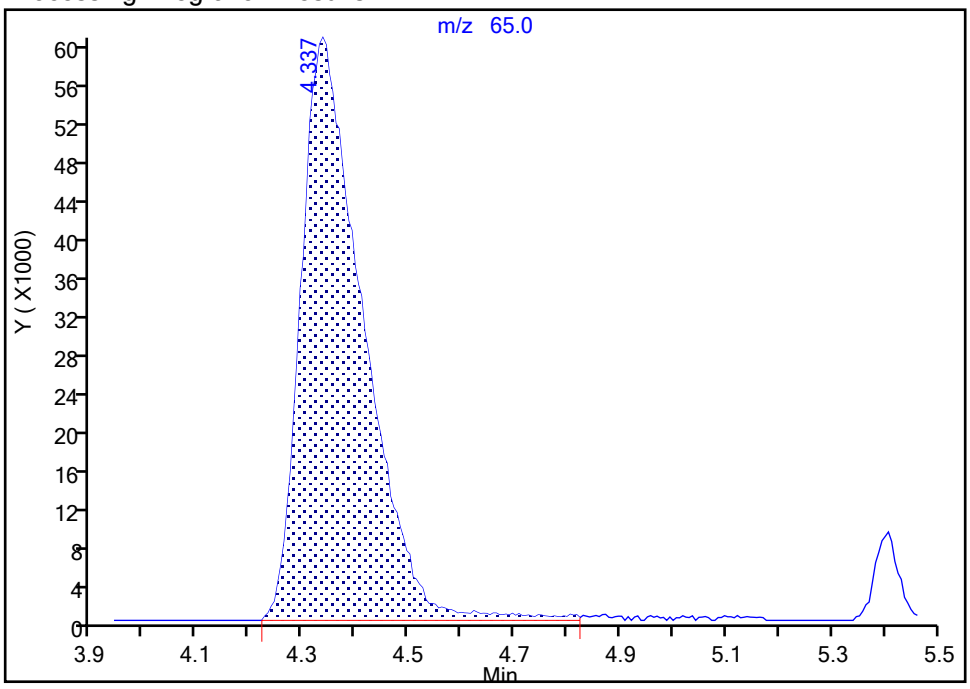
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I05.D
Injection Date: 01-Sep-2020 21:44:30 Instrument ID: 23297
Lims ID: IC std3
Client ID:
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

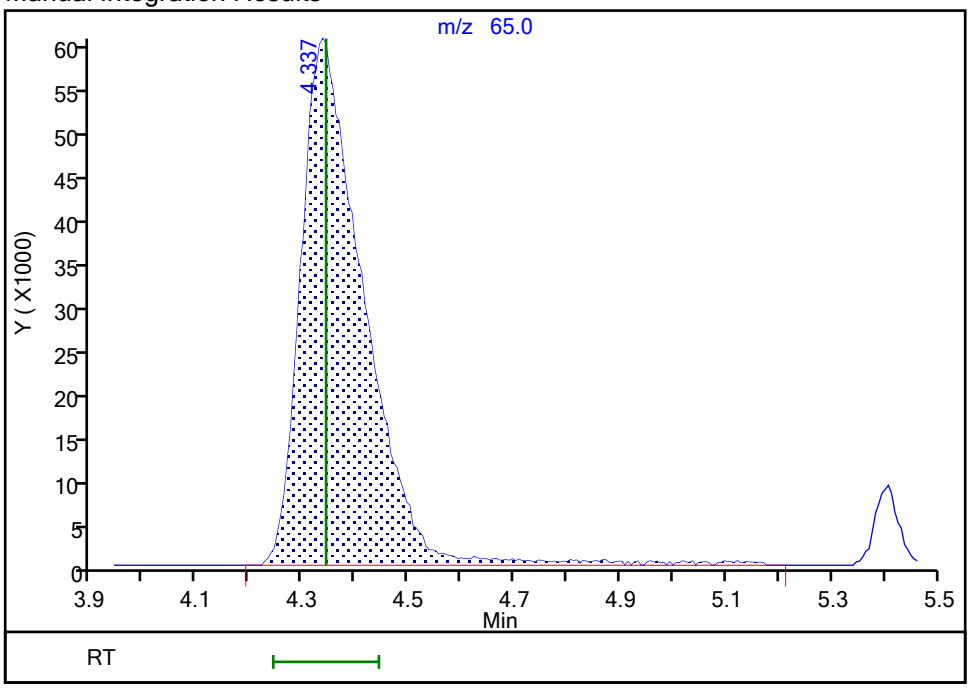
Processing Integration Results

RT: 4.34
Area: 492806
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 499386
Amount: 250.0000
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:42:49
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

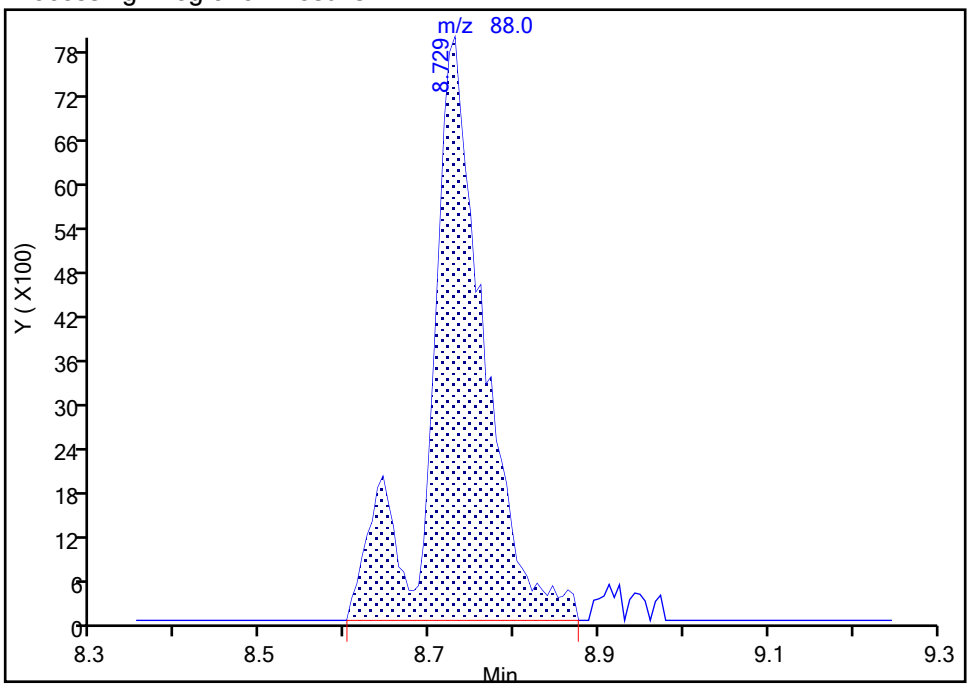
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I05.D
Injection Date: 01-Sep-2020 21:44:30 Instrument ID: 23297
Lims ID: IC std3
Client ID:
Operator ID: MEC29284 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

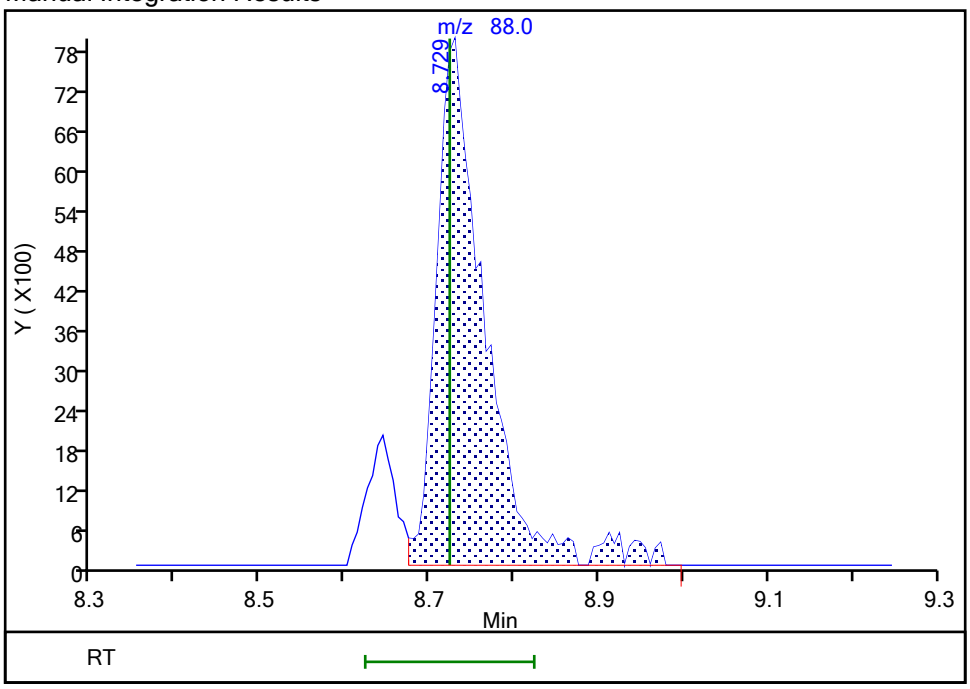
Processing Integration Results

RT: 8.73
Area: 35087
Amount: 250.3836
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 32098
Amount: 229.7113
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:43:08
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D
Lims ID: IC std2
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 01-Sep-2020 22:07:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-008
Misc. Info.: IC STD2
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:07:55 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 01-Sep-2020 22:45:20

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.001	0.000	98	30246	4.00	4.19	
4 Chloromethane	50	2.202	2.208	-0.006	98	34275	4.00	4.17	
6 Vinyl chloride	62	2.329	2.329	0.000	87	31633	4.00	4.24	M
5 Butadiene	39	2.329	2.335	-0.006	92	35187	4.00	5.09	
8 Bromomethane	94	2.664	2.664	0.000	88	22801	4.00	4.01	M
9 Chloroethane	64	2.755	2.755	0.000	98	18604	4.00	4.19	
10 Dichlorofluoromethane	67	3.005	3.005	0.000	97	41780	4.00	4.22	
11 Trichlorofluoromethane	101	3.059	3.059	0.000	97	37933	4.00	4.16	
12 Pentane	43	3.108	3.114	-0.006	97	39926	4.00	4.28	
13 Ethanol	45	3.205	3.193	0.012	89	36640	250.0	252.8	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.406	3.418	-0.012	94	25477	4.00	4.26	
16 Acrolein	56	3.510	3.510	0.000	99	98841	40.0	40.4	
17 1,1-Dichloroethene	96	3.650	3.650	0.000	98	19794	4.00	4.24	
18 112TCTFE	101	3.668	3.680	-0.012	83	21022	4.00	4.23	
19 Acetone	58	3.674	3.686	-0.012	99	9788	8.00	8.05	
20 Iodomethane	142	3.850	3.850	0.000	98	39142	4.00	4.13	
21 Isopropyl alcohol	45	3.862	3.856	0.006	96	90109	80.0	81.0	
22 Carbon disulfide	76	3.954	3.954	0.000	99	71053	4.00	4.24	
24 Methyl acetate	43	4.106	4.112	-0.006	98	36464	4.00	4.13	
25 3-Chloro-1-propene	41	4.136	4.142	-0.006	91	38630	4.00	4.10	
26 Methylene Chloride	84	4.331	4.337	-0.006	48	23400	4.00	4.15	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	482281	250.0	250.0	M
28 2-Methyl-2-propanol	59	4.471	4.471	0.000	98	157442	80.0	81.7	
29 Acrylonitrile	53	4.690	4.690	0.000	99	18130	4.00	4.02	
30 Methyl tert-butyl ether	73	4.732	4.739	-0.006	95	73903	4.00	4.08	
31 trans-1,2-Dichloroethene	96	4.757	4.745	0.012	98	22262	4.00	4.11	
33 Hexane	57	5.177	5.170	0.007	94	33375	4.00	4.12	
34 1,1-Dichloroethane	63	5.408	5.414	-0.006	96	40220	4.00	4.08	
36 Isopropyl ether	45	5.469	5.462	0.007	95	78410	4.00	4.10	
37 2-Chloro-1,3-butadiene	53	5.517	5.523	-0.006	91	35359	4.00	4.14	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.992	5.998	-0.006	98	76254	4.00	4.19	
S 39 1,2-Dichloroethene, Total	100				0			8.23	
40 2-Butanone (MEK)	43	6.223	6.223	0.000	100	54354	8.00	8.20	
41 cis-1,2-Dichloroethene	96	6.247	6.247	0.000	82	25605	4.00	4.11	
42 2,2-Dichloropropane	77	6.253	6.259	-0.006	70	34080	4.00	4.11	
44 Propionitrile	54	6.320	6.314	0.006	99	156707	80.0	81.5	
45 Methacrylonitrile	67	6.527	6.527	0.000	92	178451	40.0	40.4	
46 Chlorobromomethane	128	6.582	6.582	0.000	90	13888	4.00	3.96	
47 Tetrahydrofuran	71	6.576	6.582	-0.006	76	13964	8.00	8.03	
48 Chloroform	83	6.728	6.728	0.000	93	39528	4.00	4.03	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.947	-0.006	93	322394	50.0	50.0	
50 1,1,1-Trichloroethane	97	6.953	6.953	0.000	85	33814	4.00	4.10	
51 Cyclohexane	56	7.038	7.044	-0.006	91	39270	4.00	4.16	
52 Carbon tetrachloride	117	7.160	7.154	0.006	91	28656	4.00	4.04	
53 1,1-Dichloropropene	75	7.166	7.166	0.000	94	32286	4.00	4.19	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	95	125287	200.0	204.2	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.403	7.403	0.000	98	75726	50.0	50.1	
56 Benzene	78	7.421	7.427	-0.006	94	96309	4.00	4.15	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	97	33761	4.00	4.14	
59 Tert-amyl methyl ether	73	7.616	7.616	0.000	99	75388	4.00	4.19	
* 62 Fluorobenzene (IS)	96	7.829	7.835	-0.006	99	1283387	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	38	37845	4.00	4.16	
63 n-Butanol	56	8.200	8.200	0.000	90	202826	400.0	390.1	
64 Trichloroethene	95	8.310	8.310	0.000	97	24581	4.00	4.09	
65 Methylcyclohexane	83	8.608	8.614	-0.006	91	41736	4.00	3.95	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	89	35120	4.00	3.99	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	72	25511	4.00	4.04	
68 1,4-Dioxane	88	8.729	8.723	0.006	61	23960	200.0	177.6	M
69 Methyl methacrylate	69	8.729	8.729	0.000	92	25901	4.00	3.90	
70 Dibromomethane	93	8.754	8.754	0.000	95	17404	4.00	4.13	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	31287	4.00	4.06	
73 2-Nitropropane	41	9.265	9.271	-0.006	99	25764	8.00	8.14	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	92	20996	4.00	3.83	
75 cis-1,3-Dichloropropene	75	9.532	9.532	0.000	96	39896	4.00	3.94	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	98	98735	8.00	8.16	
$ 77 Toluene-d8 (Surr)	98	9.830	9.837	-0.007	93	1248496	50.0	50.1	
78 Toluene	92	9.910	9.910	0.000	98	58706	4.00	4.04	
S 79 1,3-Dichloropropene, Total	100				0			7.93	
80 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	37398	4.00	3.99	
81 Ethyl methacrylate	69	10.220	10.220	0.000	91	41611	4.00	3.95	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	90	23819	4.00	3.99	
83 Tetrachloroethene	166	10.451	10.451	0.000	97	29452	4.00	4.22	
84 1,3-Dichloropropane	76	10.524	10.530	-0.006	91	40272	4.00	4.05	
86 2-Hexanone	43	10.579	10.579	0.000	98	77739	8.00	8.16	
88 Chlorodibromomethane	129	10.737	10.737	0.000	91	26018	4.00	3.88	
89 Ethylene Dibromide	107	10.853	10.852	0.000	98	27830	4.00	3.98	
S 90 Xylenes, Total	106				0			12.1	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	965522	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	91	34849	4.00	4.11	
93 Chlorobenzene	112	11.309	11.309	0.000	96	68762	4.00	4.08	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	94	24800	4.00	4.05	
95 Ethylbenzene	91	11.388	11.388	0.000	98	113517	4.00	4.07	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	100	87955	8.00	8.12	
97 o-Xylene	106	11.832	11.832	0.000	95	43023	4.00	4.00	
98 Styrene	104	11.850	11.850	0.000	95	73262	4.00	3.95	
99 Bromoform	173	12.008	12.008	0.000	96	21492	4.00	3.85	
100 Isopropylbenzene	105	12.136	12.136	0.000	95	112813	4.00	4.11	
102 Cyclohexanone	55	12.215	12.215	0.000	93	111041	200.0	198.6	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	470941	50.0	49.8	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	93	42850	4.00	4.02	
105 Bromobenzene	156	12.398	12.398	0.000	90	31691	4.00	4.09	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	95	131301	40.0	39.1	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	81	12762	4.00	4.07	
108 N-Propylbenzene	91	12.465	12.465	0.000	98	133196	4.00	4.07	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	28575	4.00	4.02	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	94	94453	4.00	4.03	
111 4-Chlorotoluene	126	12.635	12.635	0.000	96	29917	4.00	4.08	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	20074	4.00	4.03	
114 Pentachloroethane	167	12.878	12.878	0.000	79	15295	4.00	3.47	
115 1,2,4-Trimethylbenzene	105	12.884	12.884	0.000	97	98124	4.00	3.98	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	123898	4.00	4.11	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	58018	4.00	4.09	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	97	105612	4.00	4.06	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	525026	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	94	59837	4.00	4.08	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	103533	4.00	4.01	
122 Benzyl chloride	91	13.256	13.256	0.000	98	82859	4.00	3.94	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	65808	4.00	3.96	
124 p-Diethylbenzene	119	13.383	13.383	0.000	96	69529	4.00	3.99	
125 n-Butylbenzene	92	13.402	13.402	0.000	98	56386	4.00	4.16	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	56535	4.00	4.02	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	55172	4.00	4.01	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	11650	4.00	3.88	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	46593	4.00	4.09	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	95	44468	4.00	4.08	
132 Hexachlorobutadiene	225	14.618	14.612	0.006	96	21944	4.00	4.15	
133 Naphthalene	128	14.716	14.716	0.000	97	149735	4.00	4.06	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	43811	4.00	4.08	
135 2-Methylnaphthalene	142	15.506	15.500	0.006	92	92544	4.00	3.88	
S 144 Total Diethylbenzene	1				0			12.0	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA6_00050	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00137	Amount Added:	2.00	Units: uL	
MSV_V_VOA3_00043	Amount Added:	1.60	Units: uL	
MSV_V_2CEVE_00100	Amount Added:	4.00	Units: uL	
MSV_V_VOA1_00088	Amount Added:	4.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	20.00	Units: uL	
MSV_V_VOA2_00047	Amount Added:	12.00	Units: uL	
MSV_VCYC_00005	Amount Added:	32.00	Units: uL	
MSV_DCFM_00021	Amount Added:	2.00	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:07:56 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D

Injection Date: 01-Sep-2020 22:07:30 Instrument ID: 23297 Operator ID: MEC29284

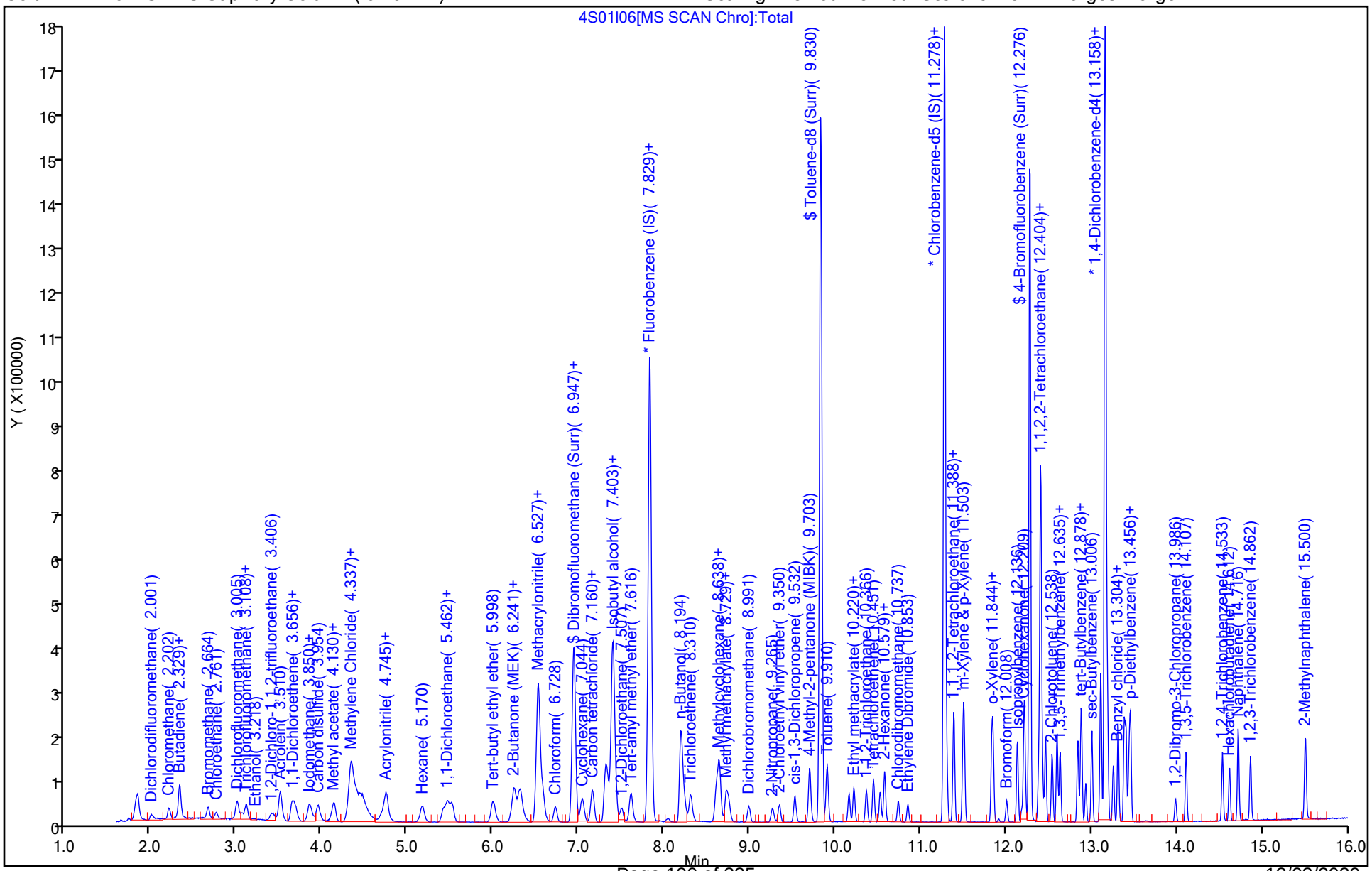
Lims ID: IC std2 Worklist Smp#: 8

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 7

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

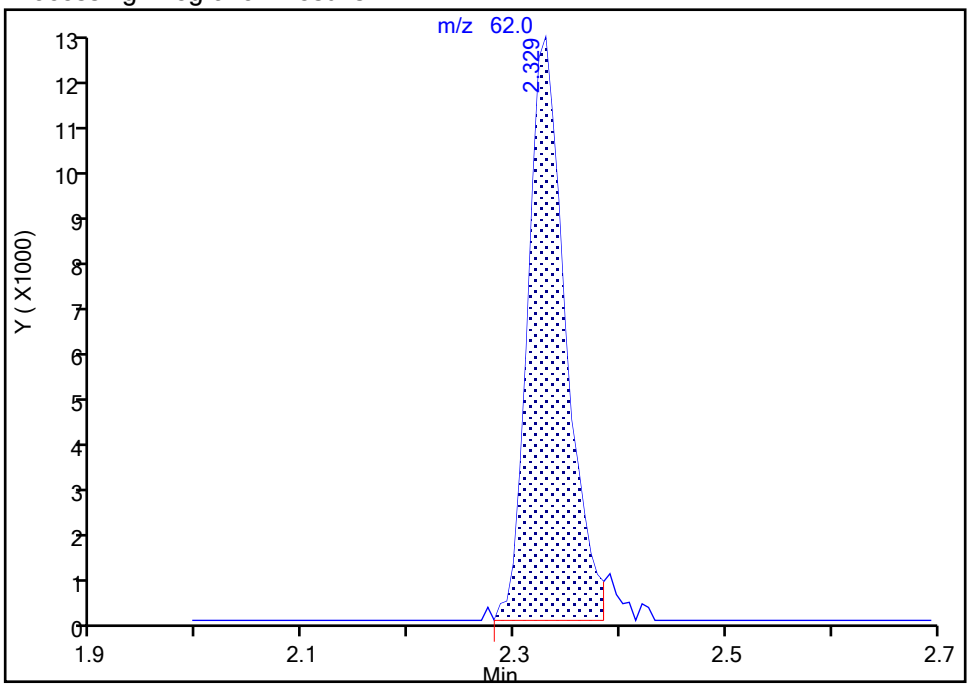
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D
Injection Date: 01-Sep-2020 22:07:30 Instrument ID: 23297
Lims ID: IC std2
Client ID:
Operator ID: MEC29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

6 Vinyl chloride, CAS: 75-01-4

Signal: 1

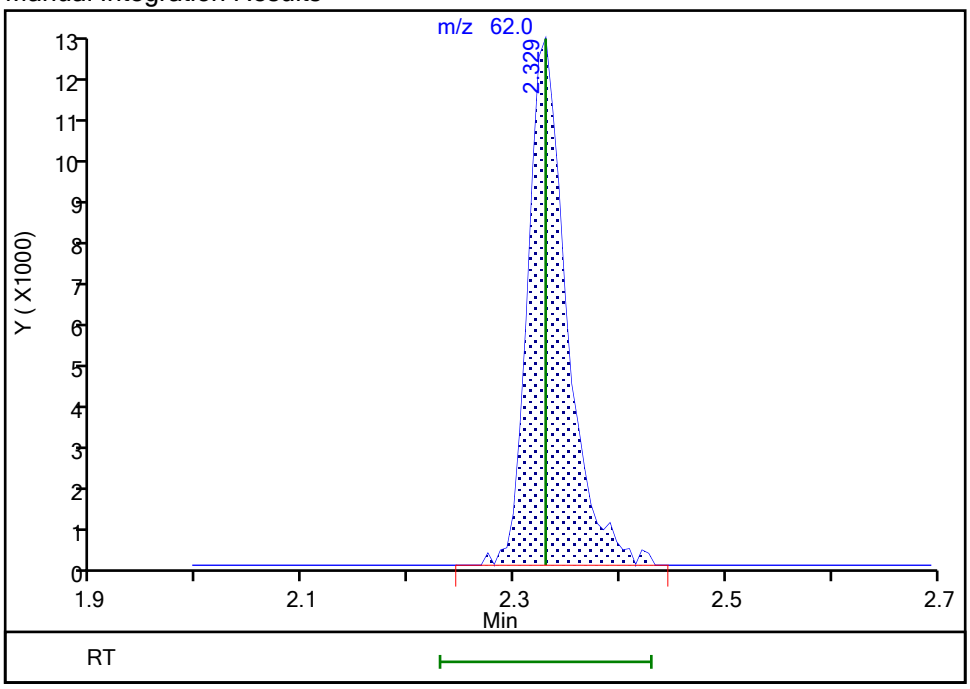
Processing Integration Results

RT: 2.33
Area: 30471
Amount: 4.027498
Amount Units: ug/l



Manual Integration Results

RT: 2.33
Area: 31633
Amount: 4.239598
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:43:42
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

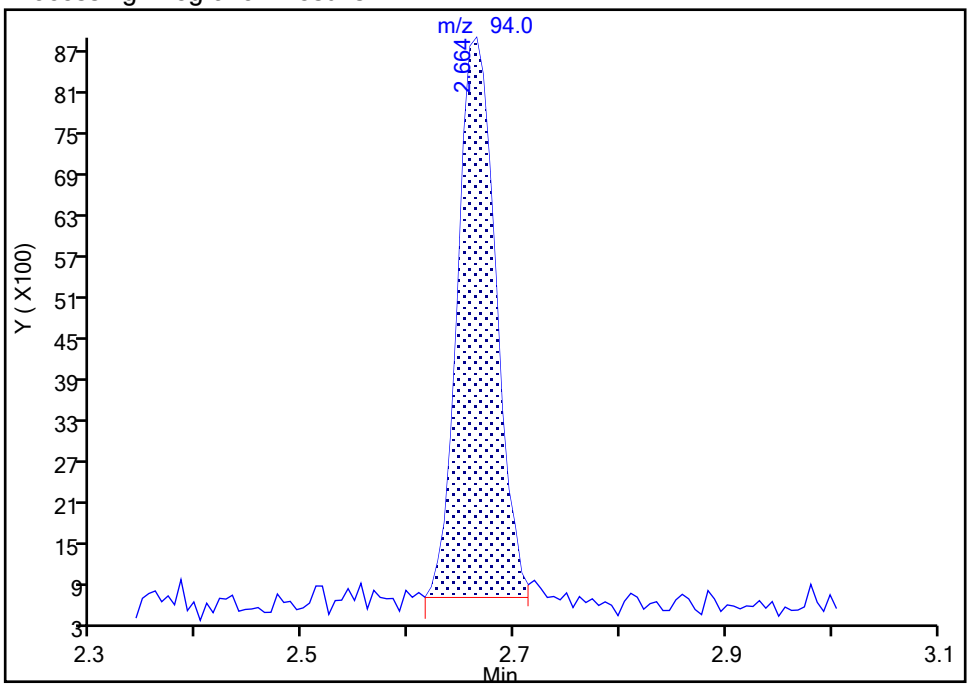
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D
Injection Date: 01-Sep-2020 22:07:30 Instrument ID: 23297
Lims ID: IC std2
Client ID:
Operator ID: MEC29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

8 Bromomethane, CAS: 74-83-9

Signal: 1

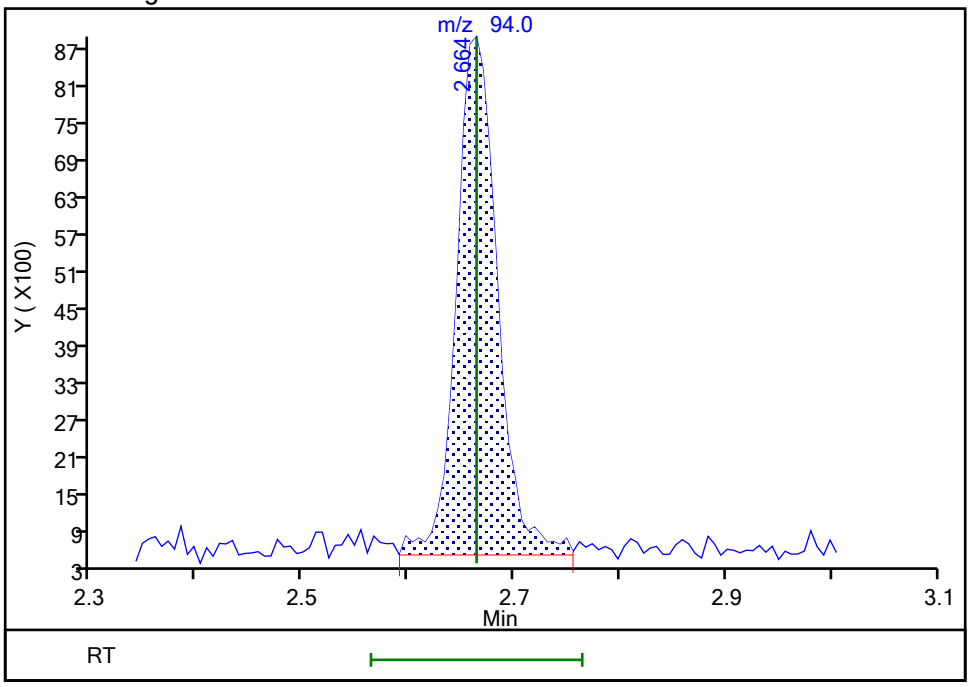
Processing Integration Results

RT: 2.66
Area: 20632
Amount: 3.906349
Amount Units: ug/l



Manual Integration Results

RT: 2.66
Area: 22801
Amount: 4.013829
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:44:25
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

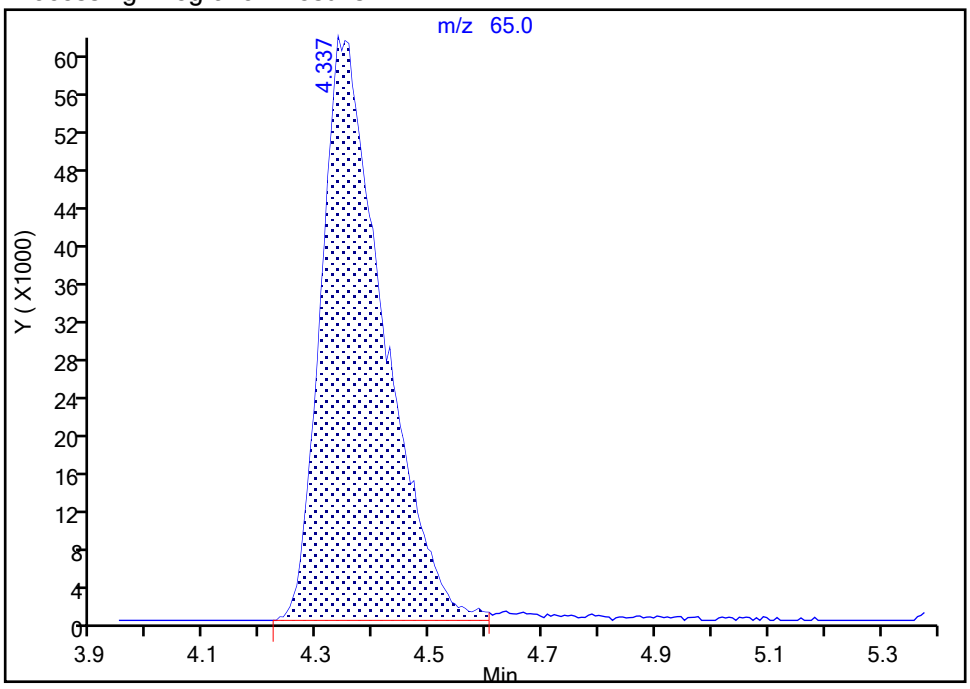
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D
Injection Date: 01-Sep-2020 22:07:30 Instrument ID: 23297
Lims ID: IC std2
Client ID:
Operator ID: MEC29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

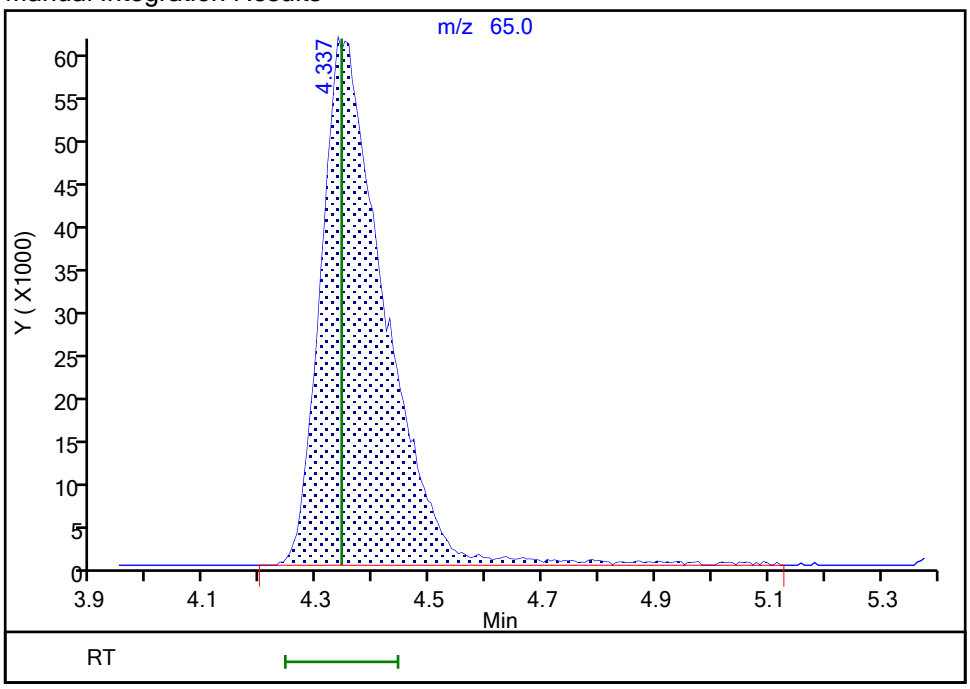
Processing Integration Results

RT: 4.34
Area: 470581
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 482281
Amount: 250.0000
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:44:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

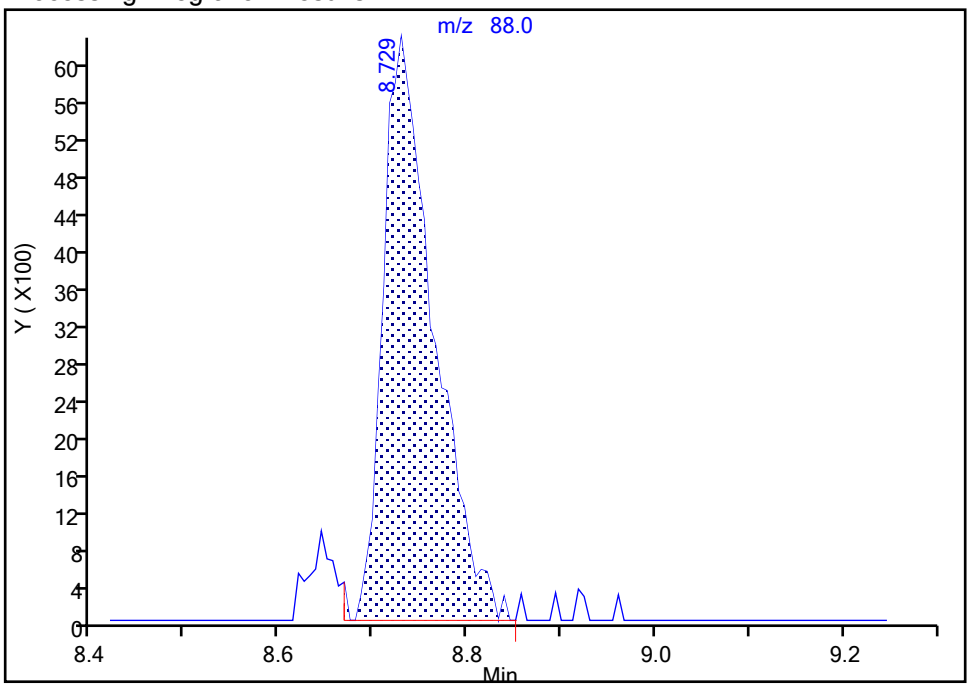
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I06.D
Injection Date: 01-Sep-2020 22:07:30 Instrument ID: 23297
Lims ID: IC std2
Client ID:
Operator ID: MEC29284 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

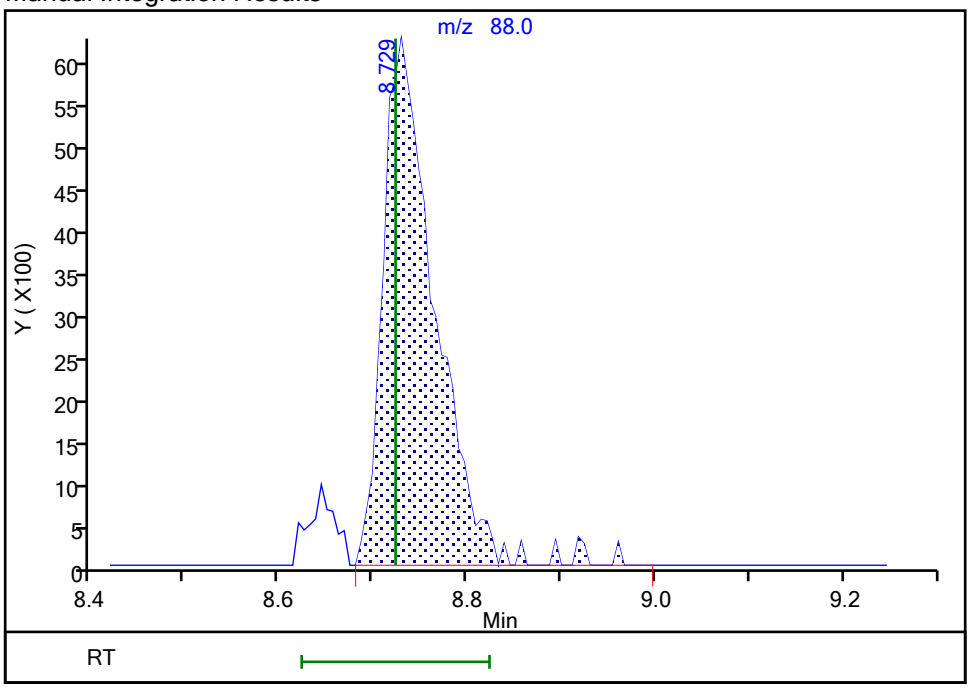
Processing Integration Results

RT: 8.73
Area: 23583
Amount: 180.7047
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 23960
Amount: 177.5527
Amount Units: ug/l



Reviewer: campbellme, 01-Sep-2020 22:44:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Lims ID: IC std1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 01-Sep-2020 22:29:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-009
Misc. Info.: IC STD1
Operator ID: MEC29284 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub12

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 14:08:06 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: campbellme Date: 02-Sep-2020 00:09:14

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.989	2.001	-0.012	95	5334	1.00	0.7347	
4 Chloromethane	50	2.202	2.208	-0.006	99	8069	1.00	0.9768	
6 Vinyl chloride	62	2.317	2.329	-0.012	84	6579	1.00	0.8771	
5 Butadiene	39	2.323	2.335	-0.012	96	7600	1.00	1.09	M
8 Bromomethane	94	2.652	2.664	-0.012	89	7572	1.00	1.33	M
9 Chloroethane	64	2.737	2.755	-0.018	96	4422	1.00	0.99	
10 Dichlorofluoromethane	67	2.999	3.005	-0.006	95	9373	1.00	0.9426	
11 Trichlorofluoromethane	101	3.041	3.059	-0.018	91	7376	1.00	0.8038	
12 Pentane	43	3.096	3.114	-0.018	94	8640	1.00	0.9213	
13 Ethanol	45	3.187	3.193	-0.006	44	12077	62.5	78.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.406	3.418	-0.012	90	4950	1.00	0.8240	
16 Acrolein	56	3.498	3.510	-0.012	99	24686	10.0	9.52	
17 1,1-Dichloroethene	96	3.631	3.650	-0.019	87	4123	1.00	0.8780	
18 112TCTFE	101	3.656	3.680	-0.024	68	3775	1.00	0.7554	
19 Acetone	58	3.680	3.686	-0.006	99	2758	2.00	2.14	
20 Iodomethane	142	3.844	3.850	-0.006	99	8281	1.00	0.8687	
21 Isopropyl alcohol	45	3.863	3.856	0.007	97	26382	20.0	22.3	
22 Carbon disulfide	76	3.942	3.954	-0.012	99	14639	1.00	0.8688	
24 Methyl acetate	43	4.106	4.112	-0.006	97	9508	1.00	1.07	M
25 3-Chloro-1-propene	41	4.124	4.142	-0.018	92	8895	1.00	0.9392	
26 Methylene Chloride	84	4.331	4.337	-0.006	71	5122	1.00	0.9038	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	511690	250.0	250.0	
28 2-Methyl-2-propanol	59	4.465	4.471	-0.006	99	42050	20.0	20.6	
29 Acrylonitrile	53	4.696	4.690	0.006	53	4435	1.00	0.9785	
30 Methyl tert-butyl ether	73	4.733	4.739	-0.005	94	17591	1.00	0.9669	
31 trans-1,2-Dichloroethene	96	4.739	4.745	-0.006	97	4788	1.00	0.8802	
33 Hexane	57	5.171	5.170	0.001	91	6990	1.00	0.8583	
34 1,1-Dichloroethane	63	5.402	5.414	-0.012	93	9035	1.00	0.9110	
36 Isopropyl ether	45	5.456	5.462	-0.006	94	18638	1.00	0.9686	
37 2-Chloro-1,3-butadiene	53	5.511	5.523	-0.012	91	7301	1.00	0.8505	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	99	17646	1.00	0.9637	
S 39 1,2-Dichloroethene, Total	100				0			1.75	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	98	14100	2.00	2.12	
41 cis-1,2-Dichloroethene	96	6.241	6.247	-0.006	76	5432	1.00	0.8679	
42 2,2-Dichloropropane	77	6.253	6.259	-0.006	72	8019	1.00	0.9613	
44 Propionitrile	54	6.314	6.314	0.000	98	38345	20.0	18.8	
45 Methacrylonitrile	67	6.527	6.527	0.000	93	42680	10.0	9.61	
46 Chlorobromomethane	128	6.576	6.582	-0.006	92	3174	1.00	0.9002	M
47 Tetrahydrofuran	71	6.582	6.582	0.000	95	3387	2.00	1.84	
48 Chloroform	83	6.722	6.728	-0.006	91	9416	1.00	0.9549	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.947	-0.006	93	323582	50.0	50.0	
50 1,1,1-Trichloroethane	97	6.959	6.953	0.006	87	7633	1.00	0.9217	
51 Cyclohexane	56	7.032	7.044	-0.012	88	8189	1.00	0.8624	
52 Carbon tetrachloride	117	7.148	7.154	-0.006	90	6083	1.00	0.8541	
53 1,1-Dichloropropene	75	7.160	7.166	-0.006	94	6717	1.00	0.8676	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	95	31418	50.0	48.3	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.403	-0.012	99	75120	50.0	49.5	
56 Benzene	78	7.421	7.427	-0.006	93	21321	1.00	0.9140	
57 1,2-Dichloroethane	62	7.494	7.500	-0.006	96	9019	1.00	1.10	
59 Tert-amyl methyl ether	73	7.610	7.616	-0.006	98	18305	1.00	1.01	
* 62 Fluorobenzene (IS)	96	7.829	7.835	-0.006	99	1290190	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	40	8740	1.00	0.9564	
63 n-Butanol	56	8.200	8.200	0.000	91	53071	100.0	96.2	
64 Trichloroethene	95	8.310	8.310	0.000	95	5485	1.00	0.9088	
65 Methylcyclohexane	83	8.608	8.614	-0.006	86	8825	1.00	0.8314	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	93	8502	1.00	0.9600	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	69	6077	1.00	0.9575	
68 1,4-Dioxane	88	8.742	8.723	0.019	60	8472	50.0	59.2	M
69 Methyl methacrylate	69	8.723	8.729	-0.006	90	6527	1.00	0.9780	
70 Dibromomethane	93	8.754	8.754	0.000	95	3774	1.00	0.8905	
72 Dichlorobromomethane	83	8.985	8.991	-0.006	97	6821	1.00	0.8815	
73 2-Nitropropane	41	9.265	9.271	-0.006	97	6734	2.00	2.01	
74 2-Chloroethyl vinyl ether	63	9.344	9.350	-0.006	89	5157	1.00	0.9358	
75 cis-1,3-Dichloropropene	75	9.526	9.532	-0.006	94	9914	1.00	0.9746	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	23967	2.00	1.97	
$ 77 Toluene-d8 (Surr)	98	9.831	9.837	-0.006	93	1244124	50.0	50.4	
78 Toluene	92	9.904	9.910	-0.006	98	13696	1.00	0.9497	
S 79 1,3-Dichloropropene, Total	100				0			1.93	
80 trans-1,3-Dichloropropene	75	10.159	10.165	-0.006	91	8859	1.00	0.9538	
81 Ethyl methacrylate	69	10.220	10.220	0.000	87	9649	1.00	0.9232	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	88	5744	1.00	0.9704	
83 Tetrachloroethene	166	10.445	10.451	-0.006	96	6119	1.00	0.8847	
84 1,3-Dichloropropane	76	10.524	10.530	-0.006	93	9564	1.00	0.9700	
86 2-Hexanone	43	10.579	10.579	0.000	96	18933	2.00	2.00	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	6159	1.00	0.9259	
89 Ethylene Dibromide	107	10.847	10.852	-0.006	95	6974	1.00	1.01	
S 90 Xylenes, Total	106				0			2.78	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	957098	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.284	0.001	58	9088	1.00	1.08	
93 Chlorobenzene	112	11.303	11.309	-0.006	97	15953	1.00	0.9541	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	44	5615	1.00	0.9256	
95 Ethylbenzene	91	11.388	11.388	0.000	98	25889	1.00	0.9361	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
96 m-Xylene & p-Xylene	106	11.504	11.503	0.001	99	19793	2.00	1.84	
97 o-Xylene	106	11.832	11.832	0.000	97	10036	1.00	0.9420	
98 Styrene	104	11.850	11.850	0.000	95	16943	1.00	0.9210	
99 Bromoform	173	12.008	12.008	0.000	97	5155	1.00	0.9319	
100 Isopropylbenzene	105	12.136	12.136	0.000	95	25431	1.00	0.9340	
102 Cyclohexanone	55	12.215	12.215	0.000	93	32684	50.0	55.1	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	472436	50.0	50.4	
104 1,1,2,2-Tetrachloroethane	83	12.380	12.379	0.001	91	10110	1.00	0.9684	
105 Bromobenzene	156	12.398	12.398	0.000	74	6998	1.00	0.9225	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	95	32028	10.0	9.74	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	80	3098	1.00	1.01	
108 N-Propylbenzene	91	12.465	12.465	0.000	98	31061	1.00	0.9697	
109 2-Chlorotoluene	126	12.544	12.538	0.006	98	6631	1.00	0.9535	
110 1,3,5-Trimethylbenzene	105	12.599	12.598	0.001	94	21390	1.00	0.9317	
111 4-Chlorotoluene	126	12.629	12.635	-0.006	97	6664	1.00	0.9285	
113 tert-Butylbenzene	134	12.842	12.842	0.000	92	4434	1.00	0.9089	
114 Pentachloroethane	167	12.878	12.878	0.000	79	3705	1.00	0.8584	
115 1,2,4-Trimethylbenzene	105	12.885	12.884	0.000	96	23584	1.00	0.9777	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	27705	1.00	0.9386	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	96	13498	1.00	0.9720	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	96	23528	1.00	0.9249	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	514030	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	93	14528	1.00	1.01	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	96	23293	1.00	0.9205	
122 Benzyl chloride	91	13.256	13.256	0.000	98	19228	1.00	0.9343	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	96	14734	1.00	0.9066	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	15891	1.00	0.9307	
125 n-Butylbenzene	92	13.402	13.402	0.000	97	13403	1.00	1.01	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	98	13562	1.00	0.9856	
127 o-diethylbenzene	119	13.456	13.456	0.000	96	11746	1.00	0.8726	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	78	3471	1.00	1.18	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	96	11928	1.00	1.07	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	11565	1.00	1.08	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	95	6238	1.00	1.20	
133 Naphthalene	128	14.716	14.716	0.000	97	38099	1.00	1.06	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	93	11034	1.00	1.05	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	93	25915	1.00	1.11	
S 144 Total Diethylbenzene	1				0			2.71	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_4ppbETOH_00068	Amount Added: 12.50	Units: mL	
MSV_HP4_ISSS_00004	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 14:08:07 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D

Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297 Operator ID: MEC29284

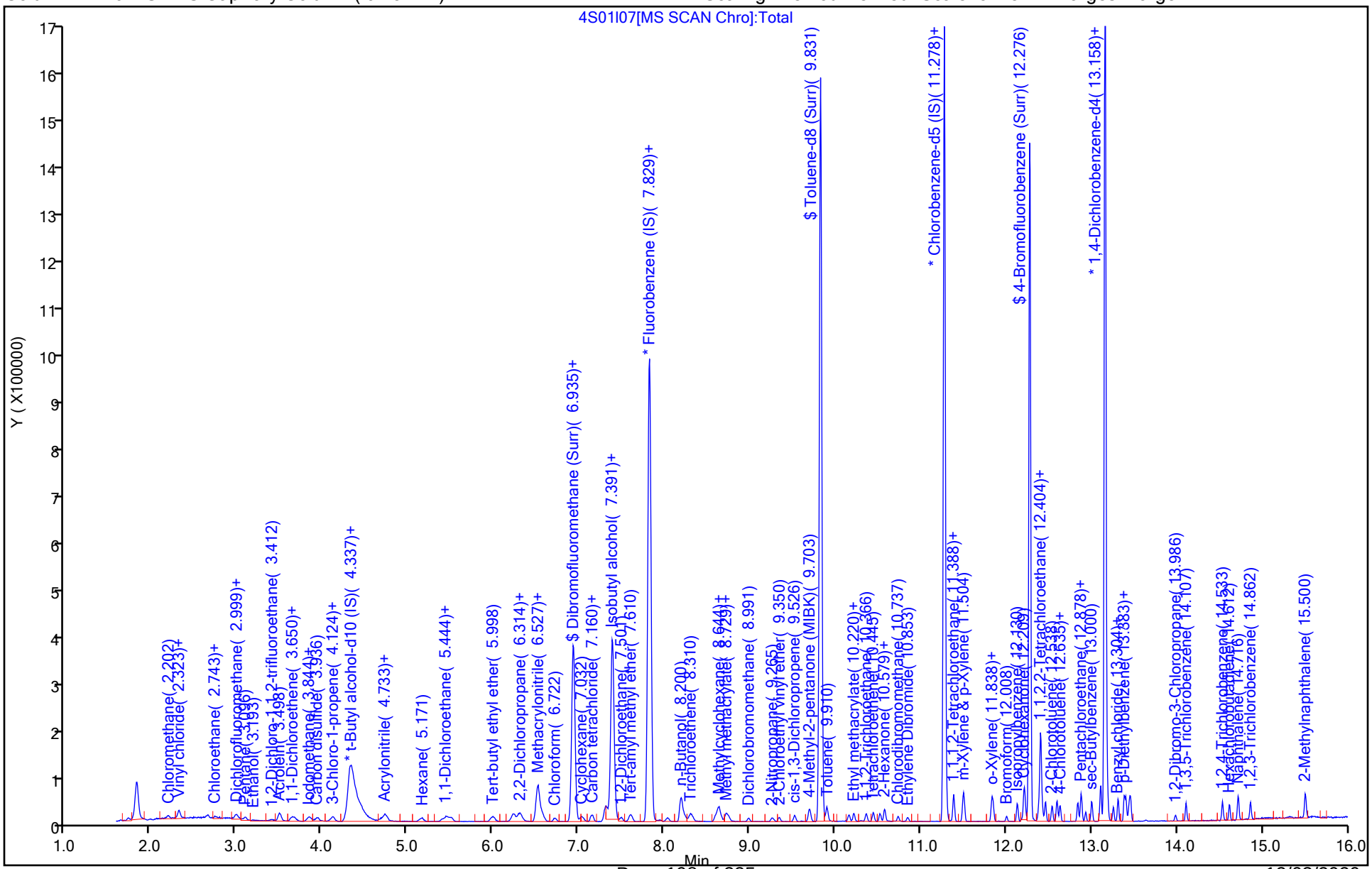
Lims ID: IC std1 Worklist Smp#: 9

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 8

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

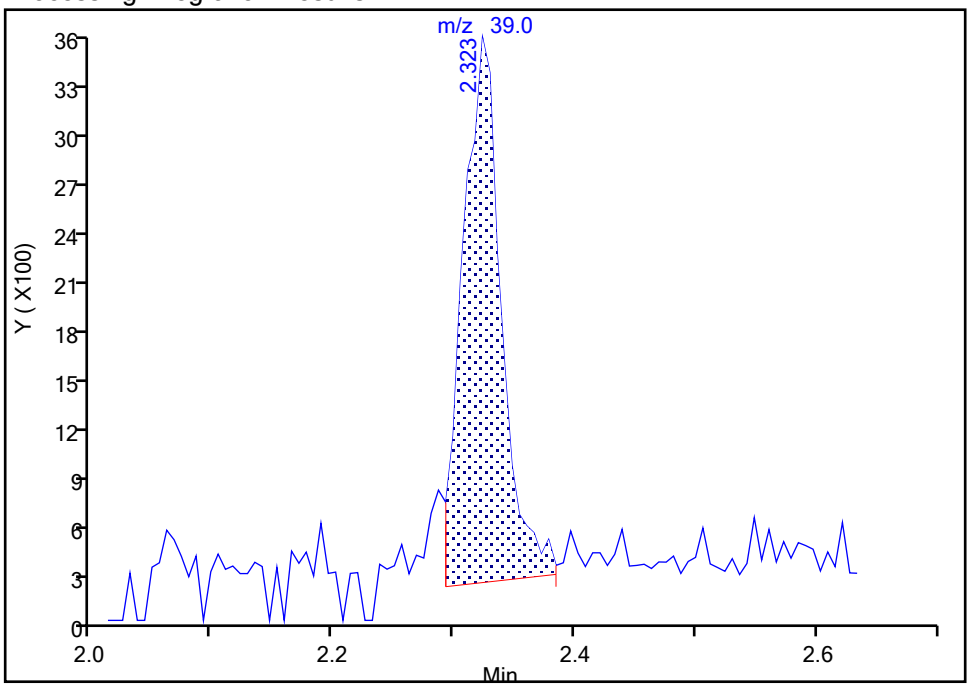
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297
Lims ID: IC std1
Client ID:
Operator ID: MEC29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

5 Butadiene, CAS: 106-99-0

Signal: 1

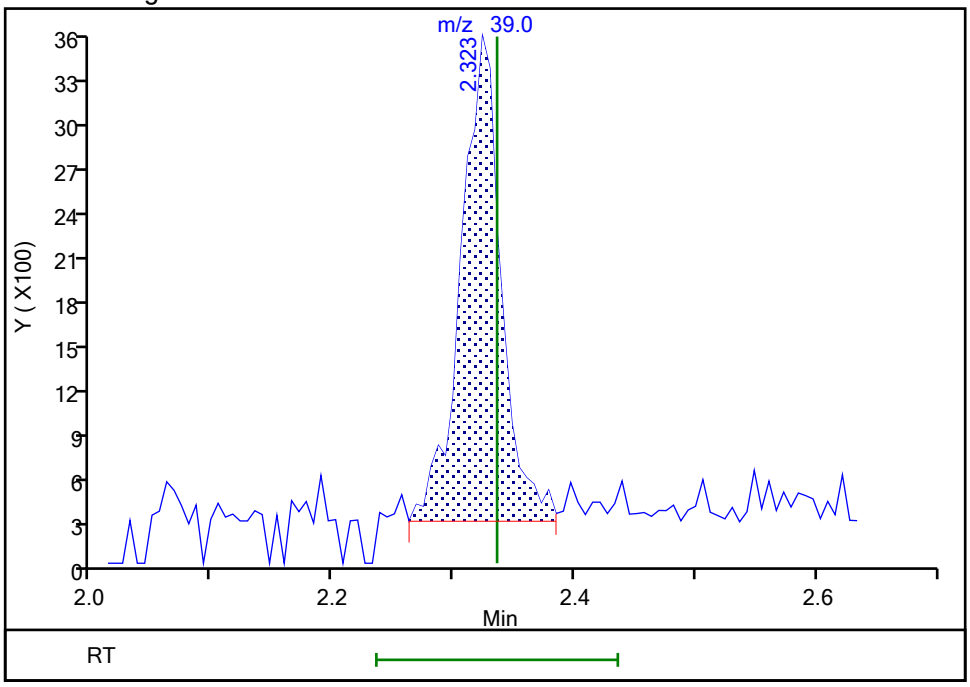
Processing Integration Results

RT: 2.32
Area: 7437
Amount: 1.073877
Amount Units: ug/l



Manual Integration Results

RT: 2.32
Area: 7600
Amount: 1.093736
Amount Units: ug/l



Reviewer: campbellme, 02-Sep-2020 00:01:23
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

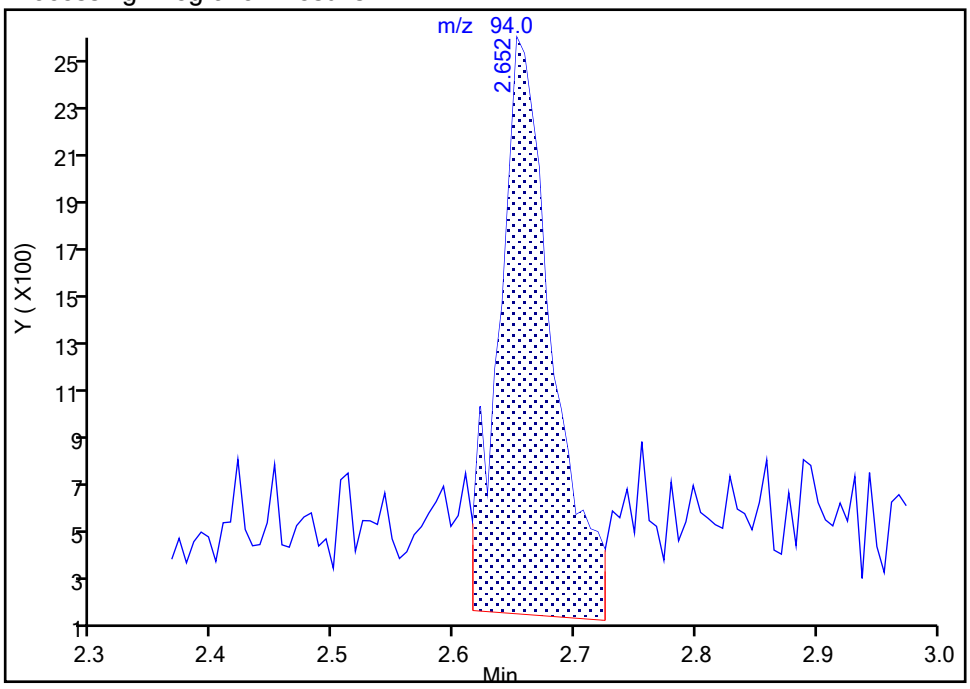
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297
Lims ID: IC std1
Client ID:
Operator ID: MEC29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

8 Bromomethane, CAS: 74-83-9

Signal: 1

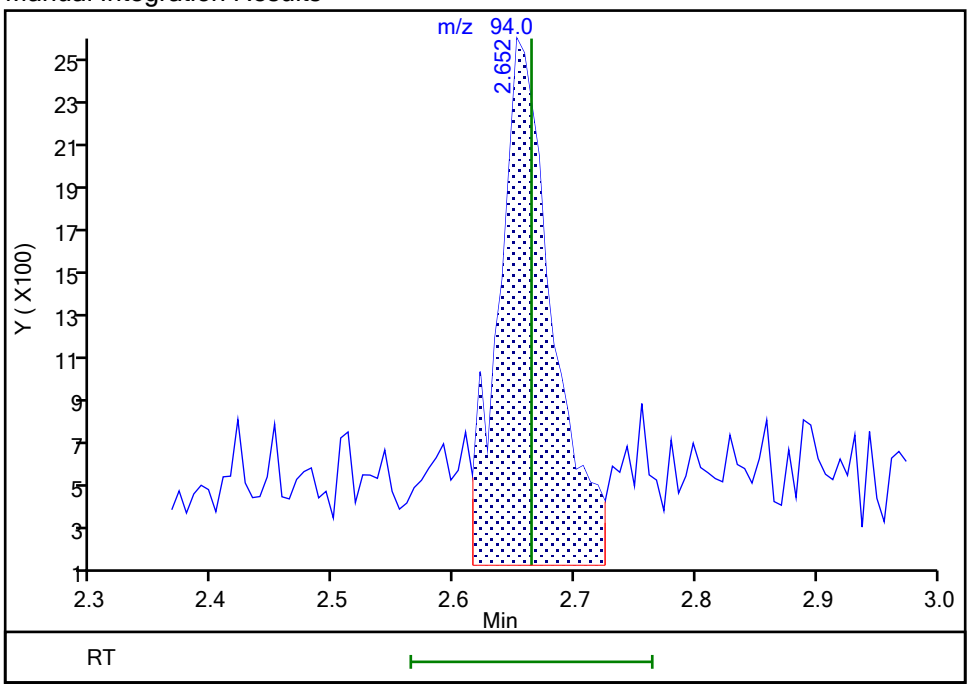
Processing Integration Results

RT: 2.65
Area: 7422
Amount: 1.304556
Amount Units: ug/l



Manual Integration Results

RT: 2.65
Area: 7572
Amount: 1.325927
Amount Units: ug/l



Reviewer: campbellme, 02-Sep-2020 00:01:31
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

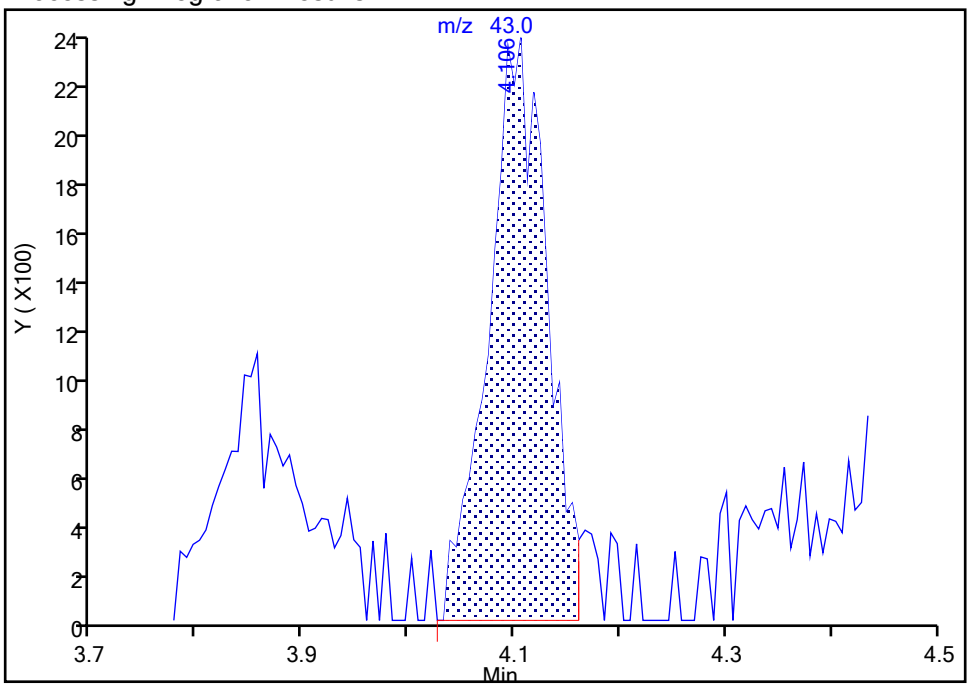
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297
Lims ID: IC std1
Client ID:
Operator ID: MEC29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

24 Methyl acetate, CAS: 79-20-9

Signal: 1

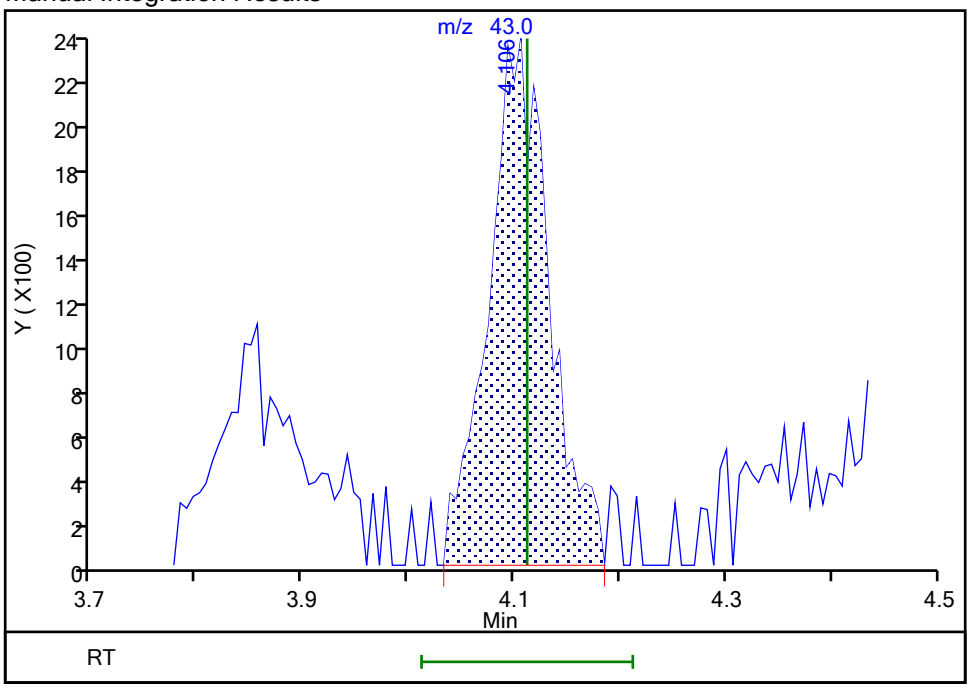
Processing Integration Results

RT: 4.11
Area: 9154
Amount: 1.037699
Amount Units: ug/l



Manual Integration Results

RT: 4.11
Area: 9508
Amount: 1.071685
Amount Units: ug/l



Reviewer: campbellme, 02-Sep-2020 00:01:51
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

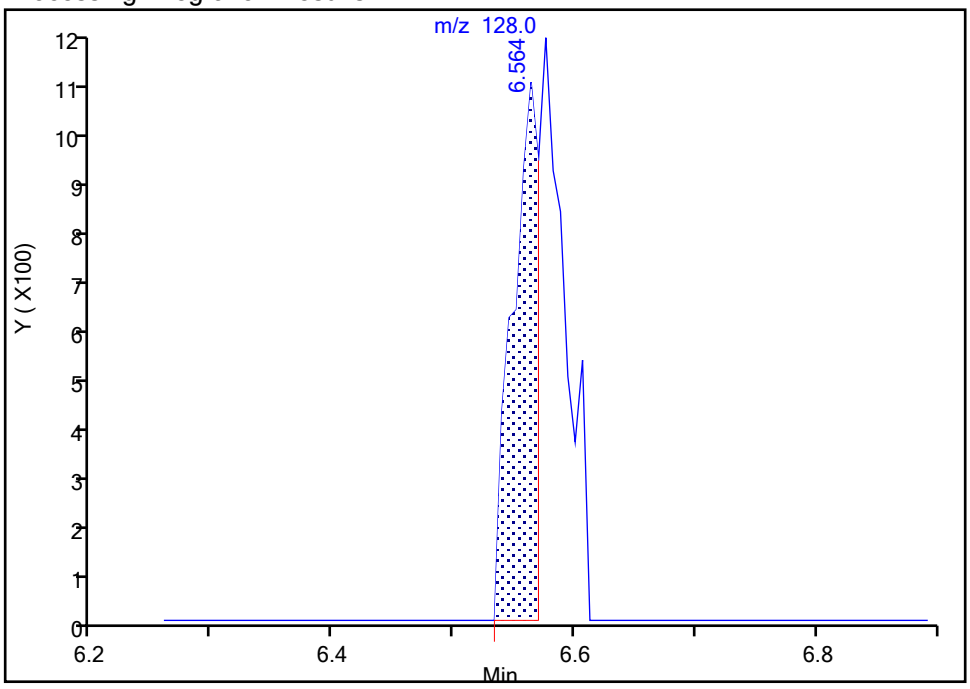
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297
Lims ID: IC std1
Client ID:
Operator ID: MEC29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

46 Chlorobromomethane, CAS: 74-97-5

Signal: 1

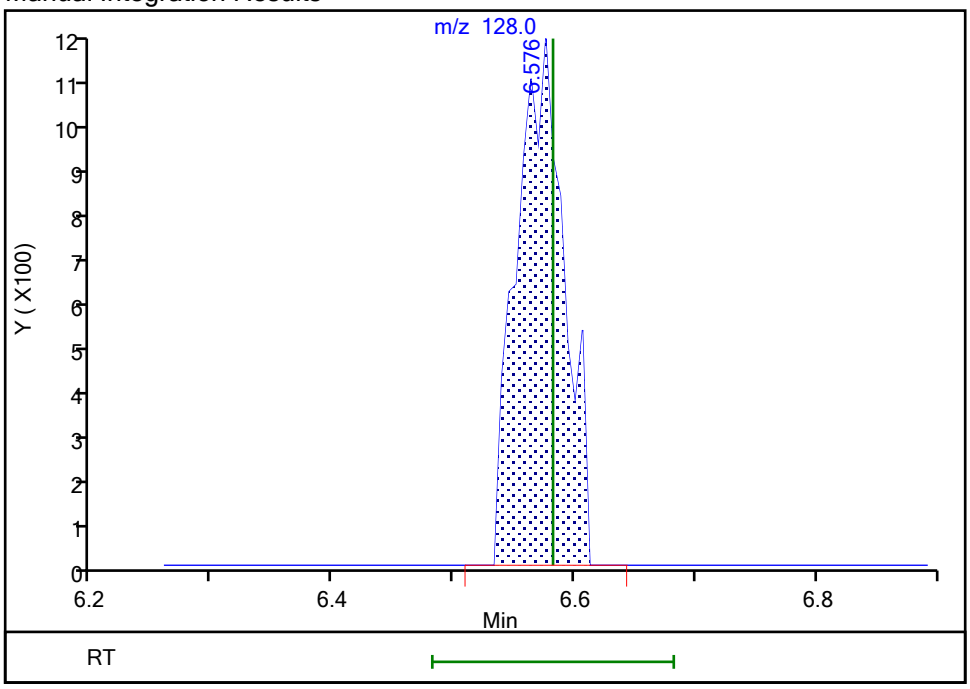
Processing Integration Results

RT: 6.56
Area: 1640
Amount: 0.456141
Amount Units: ug/l



Manual Integration Results

RT: 6.58
Area: 3174
Amount: 0.900229
Amount Units: ug/l



Reviewer: campbellme, 02-Sep-2020 00:02:03
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

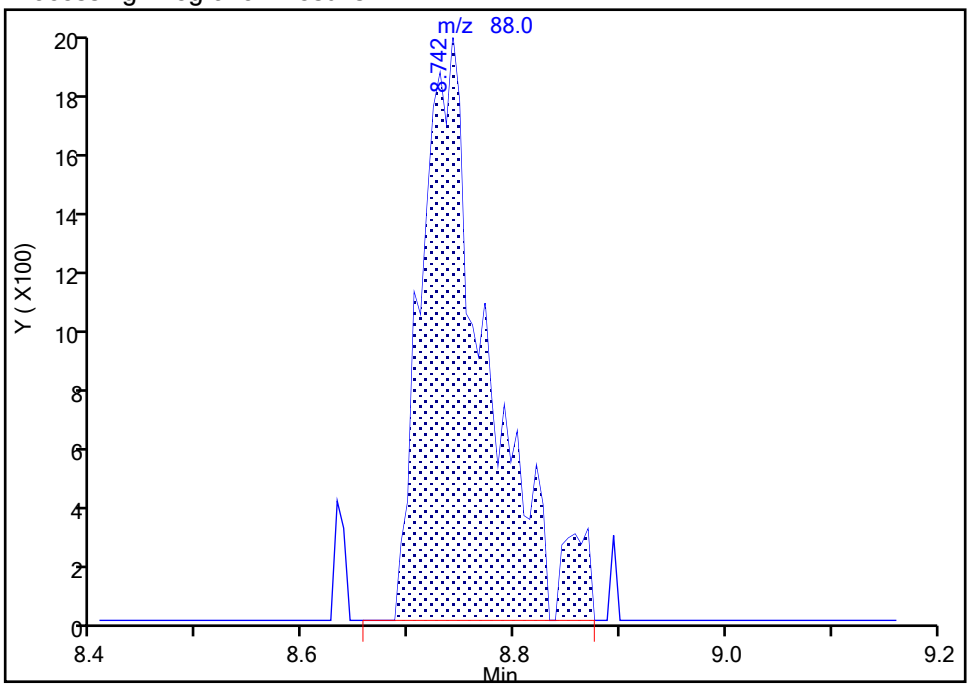
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I07.D
Injection Date: 01-Sep-2020 22:29:30 Instrument ID: 23297
Lims ID: IC std1
Client ID:
Operator ID: MEC29284 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

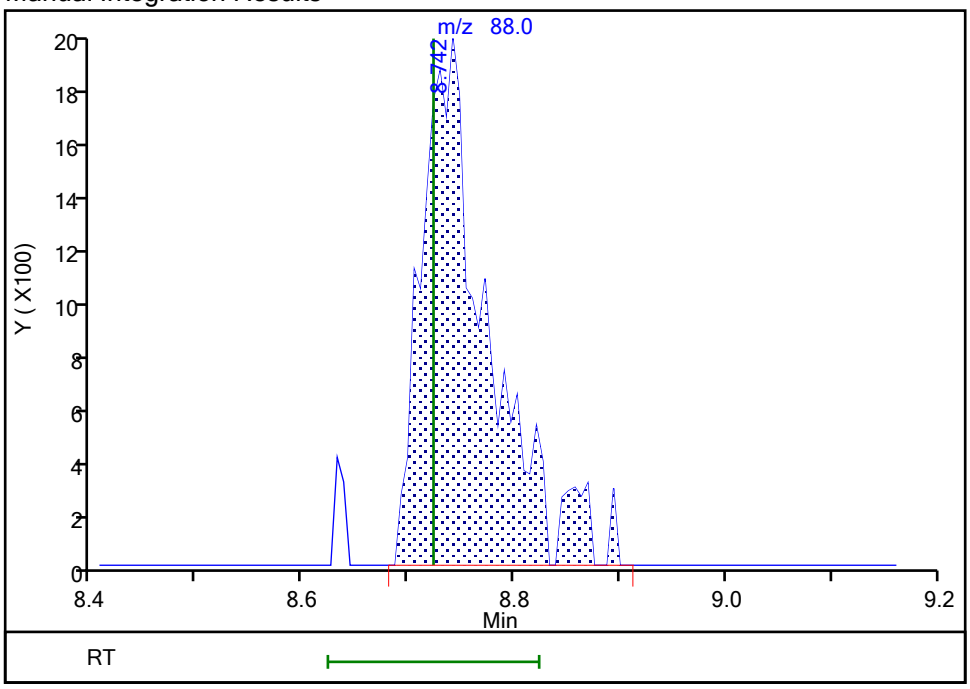
Processing Integration Results

RT: 8.74
Area: 8369
Amount: 58.573462
Amount Units: ug/l



Manual Integration Results

RT: 8.74
Area: 8472
Amount: 59.172469
Amount Units: ug/l



Reviewer: campbellme, 02-Sep-2020 00:02:15
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: ICV 410-39906/21 Calibration Date: 09/02/2020 03:00

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4S01V02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2813	0.2860	0.1000	20.3	20.0	1.7	30.0
Chloromethane	Ave	0.3201	0.3271	0.1000	20.4	20.0	2.2	30.0
Vinyl chloride	Ave	0.2907	0.3175	0.1000	21.8	20.0	9.2	30.0
1,3-Butadiene	Ave	0.2693	0.2981		22.1	20.0	10.7	30.0
Bromomethane	Ave	0.2213	0.2132	0.1000	19.3	20.0	-3.7	30.0
Chloroethane	Ave	0.1729	0.1743	0.1000	20.2	20.0	0.8	30.0
Dichlorofluoromethane	Ave	0.3853	0.3594		18.7	20.0	-6.7	30.0
Trichlorofluoromethane	Ave	0.3556	0.3758	0.1000	21.1	20.0	5.7	30.0
n-Pentane	Ave	0.3634	0.3625		19.9	20.0	-0.3	30.0
Ethanol	Ave	0.0751	0.0650		866	1000	-13.4	30.0
Freon 123a	Ave	0.2328	0.2616		22.5	20.0	12.4	30.0
Acrolein	Ave	1.267	1.377		163	150	8.6	30.0
1,1-Dichloroethene	Ave	0.1820	0.1997	0.1000	22.0	20.0	9.8	30.0
Acetone	Ave	0.6302	0.6961	0.1000	166	150	10.5	30.0
Freon 113	Ave	0.1937	0.2004	0.1000	20.7	20.0	3.5	30.0
Methyl iodide	Ave	0.3694	0.3774		20.4	20.0	2.2	30.0
2-Propanol	Ave	0.5770	0.4986		130	150	-13.6	30.0
Carbon disulfide	Ave	0.6530	0.6907	0.1000	21.2	20.0	5.8	30.0
Methyl acetate	Ave	0.3438	0.3323	0.1000	19.3	20.0	-3.4	30.0
Allyl chloride	Ave	0.3670	0.3387		18.5	20.0	-7.7	30.0
Methylene Chloride	Ave	0.2196	0.2404	0.1000	21.9	20.0	9.5	30.0
t-Butyl alcohol	Ave	0.999	0.9668		194	200	-3.2	30.0
Acrylonitrile	Ave	0.1756	0.1763		100	100	0.4	30.0
Methyl tertiary butyl ether	Ave	0.7051	0.7100	0.1000	20.1	20.0	0.7	30.0
trans-1,2-Dichloroethene	Ave	0.2108	0.2257	0.1000	21.4	20.0	7.1	30.0
n-Hexane	Ave	0.3156	0.3406		21.6	20.0	7.9	30.0
1,1-Dichloroethane	Ave	0.3844	0.4137	0.2000	21.5	20.0	7.6	30.0
di-Isopropyl ether	Ave	0.7457	0.7709		20.7	20.0	3.4	30.0
2-Chloro-1,3-butadiene	Ave	0.3327	0.3528		21.2	20.0	6.0	30.0
Ethyl t-butyl ether	Ave	0.7096	0.7269		20.5	20.0	2.4	30.0
2-Butanone	Ave	0.2583	0.2602	0.1000	151	150	0.8	30.0
cis-1,2-Dichloroethene	Ave	0.2426	0.2725	0.1000	22.5	20.0	12.3	30.0
2,2-Dichloropropane	Ave	0.3233	0.3482		21.5	20.0	7.7	30.0
Propionitrile	Ave	0.997	1.118		168	150	12.1	30.0
Methacrylonitrile	Ave	0.1721	0.1810		158	150	5.2	30.0
Bromochloromethane	Ave	0.1366	0.1334		19.5	20.0	-2.4	30.0
Tetrahydrofuran	Ave	0.9017	1.051		117	100	16.5	30.0
Chloroform	Ave	0.3822	0.4081	0.2000	21.4	20.0	6.8	30.0
1,1,1-Trichloroethane	Ave	0.3209	0.3467	0.1000	21.6	20.0	8.0	30.0
Cyclohexane	Ave	0.3680	0.3989	0.1000	21.7	20.0	8.4	30.0
Carbon tetrachloride	Ave	0.2760	0.3031	0.1000	22.0	20.0	9.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: ICV 410-39906/21 Calibration Date: 09/02/2020 03:00

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4S01V02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,1-Dichloropropene	Ave	0.3001	0.3263		21.7	20.0	8.7	30.0
Isobutyl alcohol	Ave	0.3181	0.3216		506	500	1.1	30.0
Benzene	Ave	0.9040	0.9613	0.5000	21.3	20.0	6.3	30.0
1,2-Dichloroethane	Ave	0.3174	0.3302	0.1000	20.8	20.0	4.0	30.0
t-Amyl methyl ether	Ave	0.7014	0.7284		20.8	20.0	3.8	30.0
n-Heptane	Ave	0.3541	0.3572		20.2	20.0	0.9	30.0
n-Butanol	Ave	0.2695	0.2609		968	1000	-3.2	30.0
Trichloroethene	Ave	0.2339	0.2470	0.2000	21.1	20.0	5.6	30.0
Methylcyclohexane	Ave	0.4114	0.4049	0.1000	19.7	20.0	-1.6	30.0
1,2-Dichloropropane	Ave	0.2460	0.2629	0.1000	21.4	20.0	6.9	30.0
t-Amyl ethyl ether	Ave	0.3432	0.3564		20.8	20.0	3.8	30.0
1,4-Dioxane	Ave	0.0700	0.0658	0.0050	470	500	-6.0	30.0
Methyl methacrylate	Ave	0.2586	0.2688		20.8	20.0	3.9	30.0
Dibromomethane	Ave	0.1642	0.1771		21.6	20.0	7.8	30.0
Bromodichloromethane	Ave	0.2999	0.3270	0.2000	21.8	20.0	9.1	30.0
2-Nitropropane	Ave	1.640	1.895		23.1	20.0	15.5	30.0
2-Chloroethyl vinyl ether	Ave	0.2136	0.2195		20.6	20.0	2.8	30.0
cis-1,3-Dichloropropene	Ave	0.3942	0.4063	0.2000	20.6	20.0	3.1	30.0
4-Methyl-2-pentanone	Ave	0.4713	0.4890	0.1000	104	100	3.8	30.0
Toluene	Ave	0.7534	0.7903	0.4000	21.0	20.0	4.9	30.0
trans-1,3-Dichloropropene	Ave	0.4852	0.4926	0.1000	20.3	20.0	1.5	30.0
Ethyl methacrylate	Ave	0.5460	0.5638		20.7	20.0	3.3	30.0
1,1,2-Trichloroethane	Ave	0.3092	0.3339	0.1000	21.6	20.0	8.0	30.0
Tetrachloroethene	Ave	0.3613	0.3804	0.2000	21.1	20.0	5.3	30.0
1,3-Dichloropropane	Ave	0.5151	0.5342		20.7	20.0	3.7	30.0
2-Hexanone	Ave	0.4935	0.5229	0.1000	106	100	5.9	30.0
Dibromochloromethane	Ave	0.3475	0.3699		21.3	20.0	6.4	30.0
1,2-Dibromoethane	Ave	0.3620	0.3734	0.1000	20.6	20.0	3.2	30.0
1-Chlorohexane	Ave	0.4392	0.4466		20.3	20.0	1.7	30.0
Chlorobenzene	Ave	0.8735	0.9244	0.5000	21.2	20.0	5.8	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3169	0.3300		20.8	20.0	4.1	30.0
Ethylbenzene	Ave	1.445	1.551	0.1000	21.5	20.0	7.4	30.0
m&p-Xylene	Ave	0.5613	0.6086	0.1000	43.4	40.0	8.4	30.0
o-Xylene	Ave	0.5566	0.6000	0.3000	21.6	20.0	7.8	30.0
Styrene	Ave	0.9611	1.038	0.3000	21.6	20.0	8.1	30.0
Bromoform	Ave	0.2890	0.2947	0.1000	20.4	20.0	2.0	30.0
Isopropylbenzene	Ave	1.422	1.561	0.1000	21.9	20.0	9.7	30.0
Cyclohexanone	Ave	0.2898	0.2464		425	500	-15.0	30.0
1,1,2,2-Tetrachloroethane	Ave	1.016	1.067	0.3000	21.0	20.0	5.1	30.0
Bromobenzene	Ave	0.7379	0.7832		21.2	20.0	6.1	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3197	0.3253		102	100	1.7	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: ICV 410-39906/21 Calibration Date: 09/02/2020 03:00

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4S01V02.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.2987	0.3034		20.3	20.0	1.6	30.0
N-Propylbenzene	Ave	3.116	3.352		21.5	20.0	7.6	30.0
2-Chlorotoluene	Ave	0.6764	0.7114		21.0	20.0	5.2	30.0
1,3,5-Trimethylbenzene	Ave	2.233	2.375		21.3	20.0	6.4	30.0
4-Chlorotoluene	Ave	0.6981	0.7279		20.9	20.0	4.3	30.0
tert-Butylbenzene	Ave	0.4745	0.4994		21.1	20.0	5.3	30.0
Pentachloroethane	Ave	0.4198	0.4336		20.7	20.0	3.3	30.0
1,2,4-Trimethylbenzene	Ave	2.346	2.442		20.8	20.0	4.1	30.0
sec-Butylbenzene	Ave	2.871	3.057		21.3	20.0	6.5	30.0
1,3-Dichlorobenzene	Ave	1.351	1.391	0.6000	20.6	20.0	3.0	30.0
p-Isopropyltoluene	Ave	2.474	2.659		21.5	20.0	7.5	30.0
1,4-Dichlorobenzene	Ave	1.397	1.450	0.5000	20.7	20.0	3.7	30.0
1,2,3-Trimethylbenzene	Ave	2.461	2.650		21.5	20.0	7.7	30.0
Benzyl chloride	Ave	2.002	2.063		20.6	20.0	3.1	30.0
1,3-Diethylbenzene	Ave	1.581	1.618		20.5	20.0	2.4	30.0
1,4-Diethylbenzene	Ave	1.661	1.693		20.4	20.0	2.0	30.0
n-Butylbenzene	Ave	1.290	1.308		20.3	20.0	1.4	30.0
1,2-Dichlorobenzene	Ave	1.338	1.402	0.4000	20.9	20.0	4.7	30.0
1,2-Diethylbenzene	Ave	1.309	1.354		20.7	20.0	3.4	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2861	0.2834	0.0500	19.8	20.0	-1.0	30.0
1,3,5-Trichlorobenzene	Ave	1.084	1.093		20.2	20.0	0.8	30.0
1,2,4-Trichlorobenzene	Ave	1.039	1.040	0.2000	20.0	20.0	0.2	30.0
Hexachlorobutadiene	Ave	0.5038	0.4558		18.1	20.0	-9.5	30.0
Naphthalene	Ave	3.511	3.531		20.1	20.0	0.6	30.0
1,2,3-Trichlorobenzene	Ave	1.022	1.017		19.9	20.0	-0.5	30.0
2-Methylnaphthalene	Ave	2.271	2.022		17.8	20.0	-10.9	30.0
Dibromofluoromethane (Surr)	Ave	0.2510	0.2556		50.9	50.0	1.9	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0589	0.0592		50.3	50.0	0.6	30.0
Toluene-d8 (Surr)	Ave	1.290	1.281		49.6	50.0	-0.7	30.0
4-Bromofluorobenzene (Surr)	Ave	0.4900	0.4936		50.4	50.0	0.8	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01V02.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 02-Sep-2020 03:00:30 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0009543-021
Misc. Info.: ICV LG
Operator ID: MEC29284 Instrument ID: 23297
Sublist:

Method: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 02-Sep-2020 12:12:15 Calib Date: 02-Sep-2020 01:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1040

First Level Reviewer: mellingerc Date: 02-Sep-2020 12:09:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.995	2.001	-0.006	99	141372	20.0	20.3	
4 Chloromethane	50	2.202	2.208	-0.006	99	161690	20.0	20.4	
6 Vinyl chloride	62	2.317	2.329	-0.012	97	156969	20.0	21.8	
5 Butadiene	39	2.323	2.335	-0.012	92	147346	20.0	22.1	
8 Bromomethane	94	2.652	2.664	-0.012	89	105367	20.0	19.3	
9 Chloroethane	64	2.749	2.755	-0.006	99	86151	20.0	20.2	
10 Dichlorofluoromethane	67	2.993	3.005	-0.012	97	177687	20.0	18.7	
11 Trichlorofluoromethane	101	3.053	3.059	-0.006	97	185770	20.0	21.1	
12 Pentane	43	3.096	3.114	-0.018	96	179176	20.0	19.9	
13 Ethanol	45	3.193	3.193	0.000	92	108086	1000.0	865.7	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.412	3.418	-0.006	93	129306	20.0	22.5	
16 Acrolein	56	3.498	3.510	-0.012	99	343151	150.0	163.0	
17 1,1-Dichloroethene	96	3.637	3.650	-0.013	98	98737	20.0	22.0	
18 112TCTFE	101	3.674	3.680	-0.006	49	99051	20.0	20.7	
19 Acetone	58	3.674	3.686	-0.012	100	173512	150.0	165.7	
20 Iodomethane	142	3.838	3.850	-0.012	98	186578	20.0	20.4	
21 Isopropyl alcohol	45	3.850	3.856	-0.006	56	124293	150.0	129.6	
22 Carbon disulfide	76	3.942	3.954	-0.012	99	341420	20.0	21.2	
24 Methyl acetate	43	4.100	4.112	-0.012	98	164257	20.0	19.3	
25 3-Chloro-1-propene	41	4.130	4.142	-0.012	92	167436	20.0	18.5	
26 Methylene Chloride	84	4.325	4.337	-0.012	96	118826	20.0	21.9	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	415447	250.0	250.0	M
28 2-Methyl-2-propanol	59	4.465	4.471	-0.006	99	321318	200.0	193.5	
29 Acrylonitrile	53	4.678	4.690	-0.012	98	435702	100.0	100.4	
30 Methyl tert-butyl ether	73	4.733	4.739	-0.005	95	350979	20.0	20.1	
31 trans-1,2-Dichloroethene	96	4.739	4.745	-0.006	98	111564	20.0	21.4	
33 Hexane	57	5.158	5.170	-0.012	95	168374	20.0	21.6	
34 1,1-Dichloroethane	63	5.402	5.414	-0.012	96	204499	20.0	21.5	
36 Isopropyl ether	45	5.456	5.462	-0.006	95	381069	20.0	20.7	
37 2-Chloro-1,3-butadiene	53	5.511	5.523	-0.012	91	174398	20.0	21.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	98	359337	20.0	20.5	
40 2-Butanone (MEK)	43	6.217	6.223	-0.006	100	964693	150.0	151.1	
41 cis-1,2-Dichloroethene	96	6.241	6.247	-0.006	82	134696	20.0	22.5	
42 2,2-Dichloropropane	77	6.247	6.259	-0.012	85	172134	20.0	21.5	
44 Propionitrile	54	6.314	6.314	0.000	100	278688	150.0	168.2	
45 Methacrylonitrile	67	6.527	6.527	0.000	93	670878	150.0	157.8	
46 Chlorobromomethane	128	6.570	6.582	-0.012	91	65938	20.0	19.5	
47 Tetrahydrofuran	71	6.582	6.582	0.000	88	174581	100.0	116.5	
48 Chloroform	83	6.722	6.728	-0.006	93	201759	20.0	21.4	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.947	-0.012	94	315925	50.0	50.9	
50 1,1,1-Trichloroethane	97	6.947	6.953	-0.006	60	171376	20.0	21.6	
51 Cyclohexane	56	7.038	7.044	-0.006	92	197196	20.0	21.7	
52 Carbon tetrachloride	117	7.154	7.154	0.000	98	149833	20.0	22.0	
53 1,1-Dichloropropene	75	7.160	7.166	-0.006	97	161299	20.0	21.7	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	95	267211	500.0	505.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.403	-0.006	98	73218	50.0	50.3	
56 Benzene	78	7.428	7.427	0.001	97	475206	20.0	21.3	
57 1,2-Dichloroethane	62	7.501	7.500	0.001	97	163213	20.0	20.8	
59 Tert-amyl methyl ether	73	7.610	7.616	-0.006	98	360055	20.0	20.8	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1235829	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	93	176583	20.0	20.2	
63 n-Butanol	56	8.194	8.200	-0.006	90	433565	1000.0	968.1	
64 Trichloroethene	95	8.310	8.310	0.000	98	122087	20.0	21.1	
65 Methylcyclohexane	83	8.614	8.614	0.000	92	200150	20.0	19.7	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	91	176162	20.0	20.8	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	70	129960	20.0	21.4	
68 1,4-Dioxane	88	8.723	8.723	0.000	40	54644	500.0	470.1	M
69 Methyl methacrylate	69	8.723	8.729	-0.006	92	132863	20.0	20.8	
70 Dibromomethane	93	8.754	8.754	0.000	96	87550	20.0	21.6	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	161670	20.0	21.8	
73 2-Nitropropane	41	9.271	9.271	0.000	99	62984	20.0	23.1	
74 2-Chloroethyl vinyl ether	63	9.350	9.350	0.000	91	108518	20.0	20.6	
75 cis-1,3-Dichloropropene	75	9.526	9.532	-0.006	96	200868	20.0	20.6	
76 4-Methyl-2-pentanone (MIBK)	43	9.703	9.703	0.000	97	1208703	100.0	103.8	
$ 77 Toluene-d8 (Surr)	98	9.831	9.837	-0.006	93	1206139	50.0	49.6	
78 Toluene	92	9.910	9.910	0.000	97	297682	20.0	21.0	
80 trans-1,3-Dichloropropene	75	10.165	10.165	0.000	93	185545	20.0	20.3	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	212346	20.0	20.7	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	89	125786	20.0	21.6	
83 Tetrachloroethene	166	10.451	10.451	0.000	97	143267	20.0	21.1	
84 1,3-Dichloropropane	76	10.530	10.530	0.000	91	201229	20.0	20.7	
86 2-Hexanone	43	10.579	10.579	0.000	98	984715	100.0	105.9	
88 Chlorodibromomethane	129	10.737	10.737	0.000	89	139333	20.0	21.3	
89 Ethylene Dibromide	107	10.853	10.852	0.001	98	140638	20.0	20.6	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.279	0.000	85	941656	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.284	0.001	97	168229	20.0	20.3	
93 Chlorobenzene	112	11.303	11.309	-0.006	95	348172	20.0	21.2	
94 1,1,1,2-Tetrachloroethane	131	11.388	11.388	0.000	96	124292	20.0	20.8	
95 Ethylbenzene	91	11.388	11.388	0.000	98	584330	20.0	21.5	
96 m-Xylene & p-Xylene	106	11.504	11.503	0.001	100	458495	40.0	43.4	
97 o-Xylene	106	11.832	11.832	0.000	97	225987	20.0	21.6	
98 Styrene	104	11.850	11.850	0.000	95	391149	20.0	21.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
99 Bromoform	173	12.008	12.008	0.000	97	111005	20.0	20.4	
100 Isopropylbenzene	105	12.136	12.136	0.000	96	587790	20.0	21.9	
102 Cyclohexanone	55	12.215	12.215	0.000	93	204752	500.0	425.1	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	464844	50.0	50.4	
104 1,1,2,2-Tetrachloroethane	83	12.380	12.379	0.001	93	223559	20.0	21.0	
105 Bromobenzene	156	12.398	12.398	0.000	95	164023	20.0	21.2	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	93	340651	100.0	101.7	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	83	63541	20.0	20.3	
108 N-Propylbenzene	91	12.465	12.465	0.000	98	702088	20.0	21.5	
109 2-Chlorotoluene	126	12.544	12.538	0.006	97	148997	20.0	21.0	
110 1,3,5-Trimethylbenzene	105	12.599	12.598	0.001	94	497477	20.0	21.3	
111 4-Chlorotoluene	126	12.635	12.635	0.000	97	152453	20.0	20.9	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	104601	20.0	21.1	
114 Pentachloroethane	167	12.872	12.878	-0.006	94	90819	20.0	20.7	
115 1,2,4-Trimethylbenzene	105	12.885	12.884	0.001	97	511533	20.0	20.8	
116 sec-Butylbenzene	105	13.006	13.006	0.000	94	640245	20.0	21.3	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	98	291308	20.0	20.6	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	97	556854	20.0	21.5	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	523585	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	94	303593	20.0	20.7	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	555042	20.0	21.5	
122 Benzyl chloride	91	13.256	13.256	0.000	98	432094	20.0	20.6	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	338911	20.0	20.5	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	354650	20.0	20.4	
125 n-Butylbenzene	92	13.402	13.402	0.000	97	273992	20.0	20.3	
126 1,2-Dichlorobenzene	146	13.444	13.438	0.006	99	293620	20.0	20.9	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	283594	20.0	20.7	
129 1,2-Dibromo-3-Chloropropane	75	13.986	13.986	0.000	88	59353	20.0	19.8	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	228949	20.0	20.2	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	217844	20.0	20.0	
132 Hexachlorobutadiene	225	14.618	14.612	0.006	96	95470	20.0	18.1	
133 Naphthalene	128	14.716	14.716	0.000	97	739446	20.0	20.1	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	212892	20.0	19.9	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	423573	20.0	17.8	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00044	Amount Added:	50.00	Units: uL	
MSV_Q_QARC_00043	Amount Added:	50.00	Units: uL	
MSV_Q_QVOA6_00041	Amount Added:	50.00	Units: uL	
MSV_Q_ETOH_00007	Amount Added:	50.00	Units: uL	
MSV_QCYC_00004	Amount Added:	50.00	Units: uL	
MSV_Q_QGases_00082	Amount Added:	50.00	Units: uL	
MSV_Q_QDCFM_00003	Amount Added:	50.00	Units: uL	
MSV_HP4_ISSS_00004	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 02-Sep-2020 12:21:37 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01V02.D

Injection Date: 02-Sep-2020 03:00:30 Instrument ID: 23297 Operator ID: MEC29284

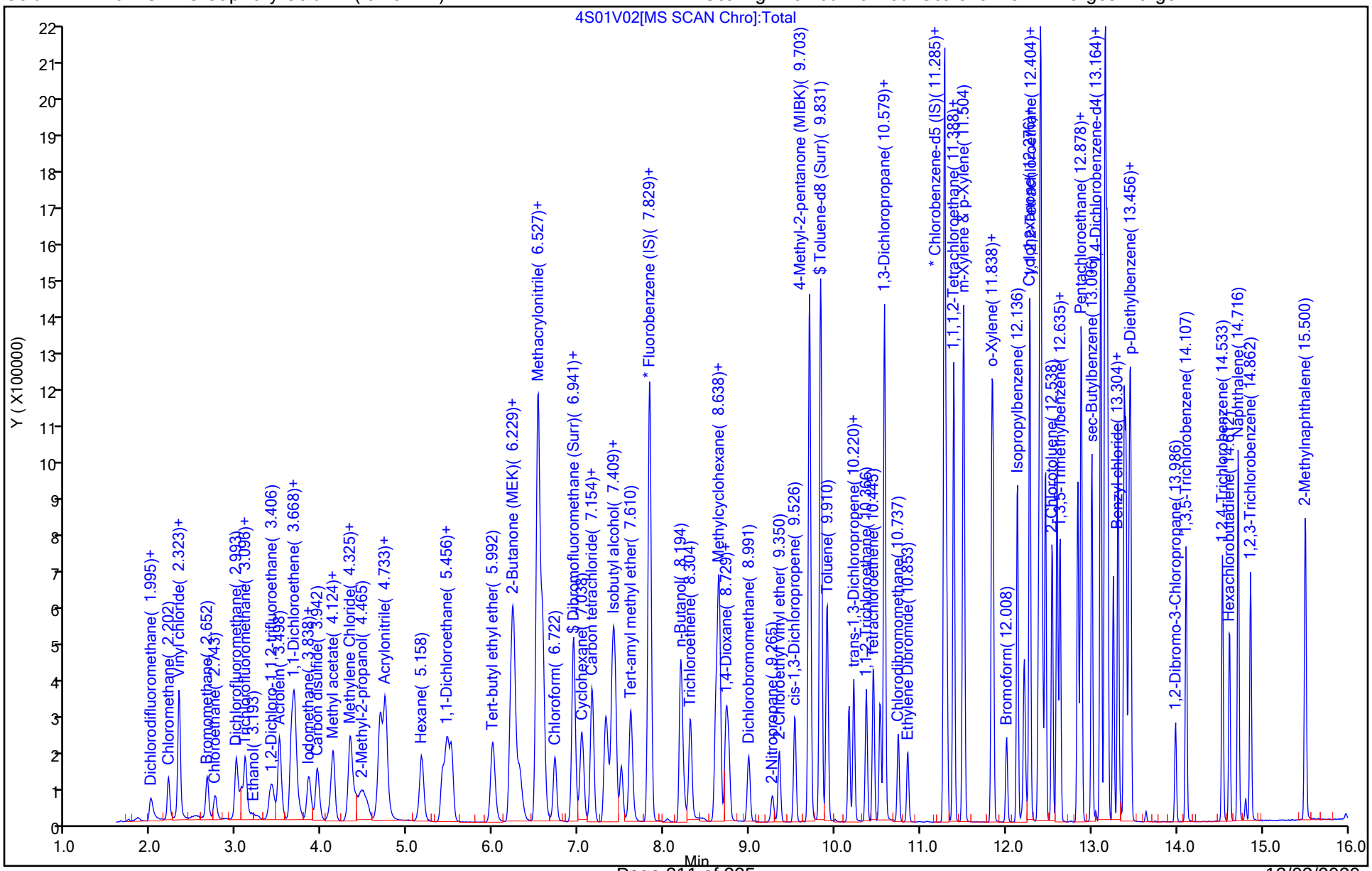
Lims ID: ICV Worklist Smp#: 21

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 20

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

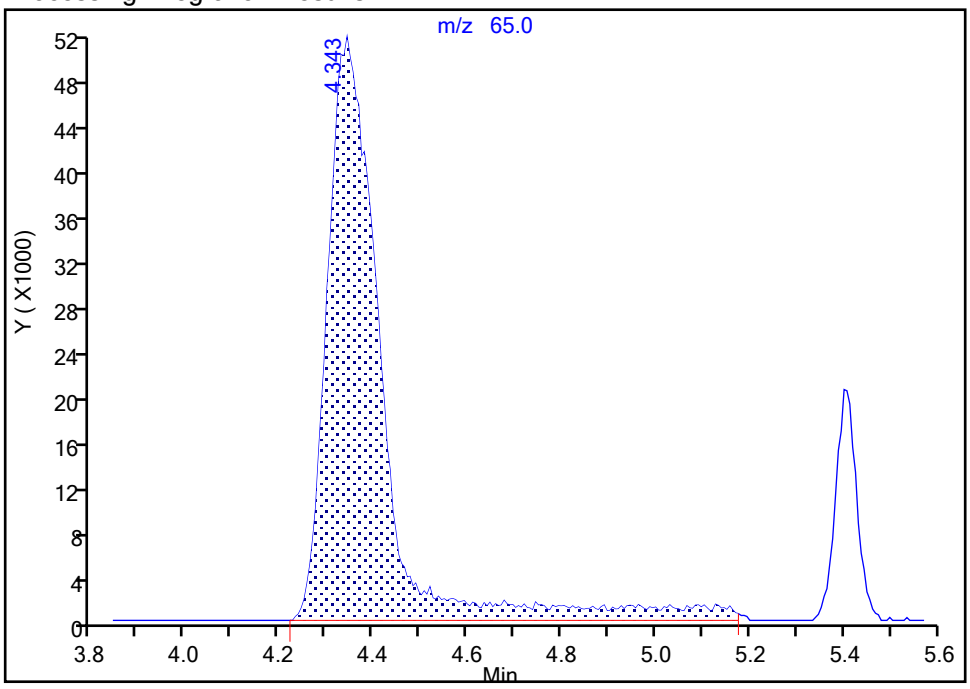
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01V02.D
Injection Date: 02-Sep-2020 03:00:30 Instrument ID: 23297
Lims ID: ICV
Client ID:
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

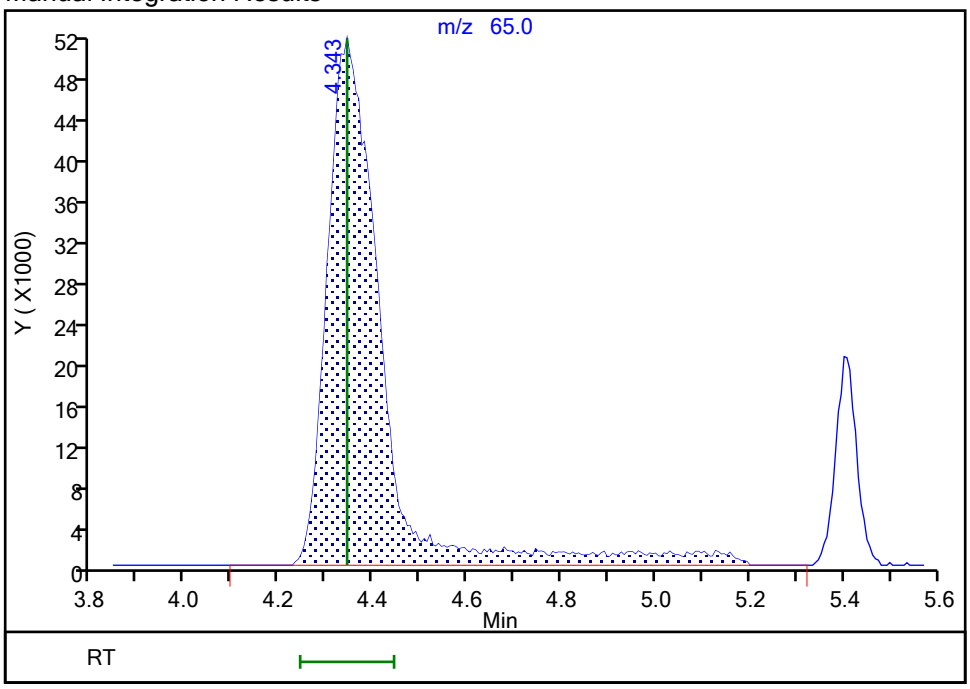
Processing Integration Results

RT: 4.34
Area: 414998
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
Area: 415447
Amount: 250.0000
Amount Units: ug/l



Reviewer: mellingerc, 02-Sep-2020 12:09:25
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

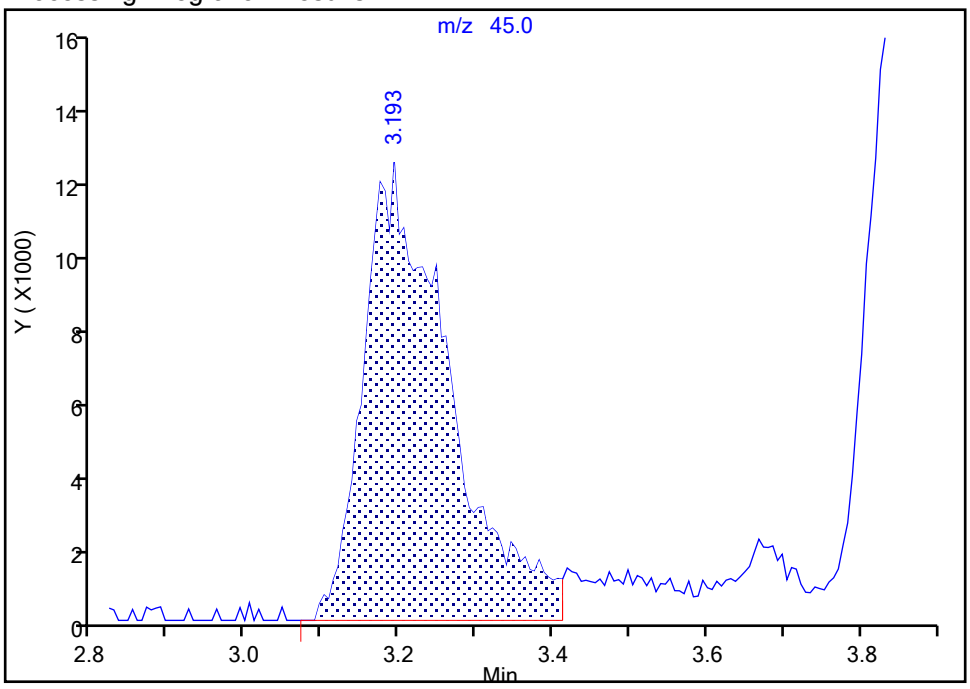
Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01V02.D
Injection Date: 02-Sep-2020 03:00:30 Instrument ID: 23297
Lims ID: ICV
Client ID:
Operator ID: MEC29284 ALS Bottle#: 20 Worklist Smp#: 21
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

13 Ethanol, CAS: 64-17-5

Signal: 1

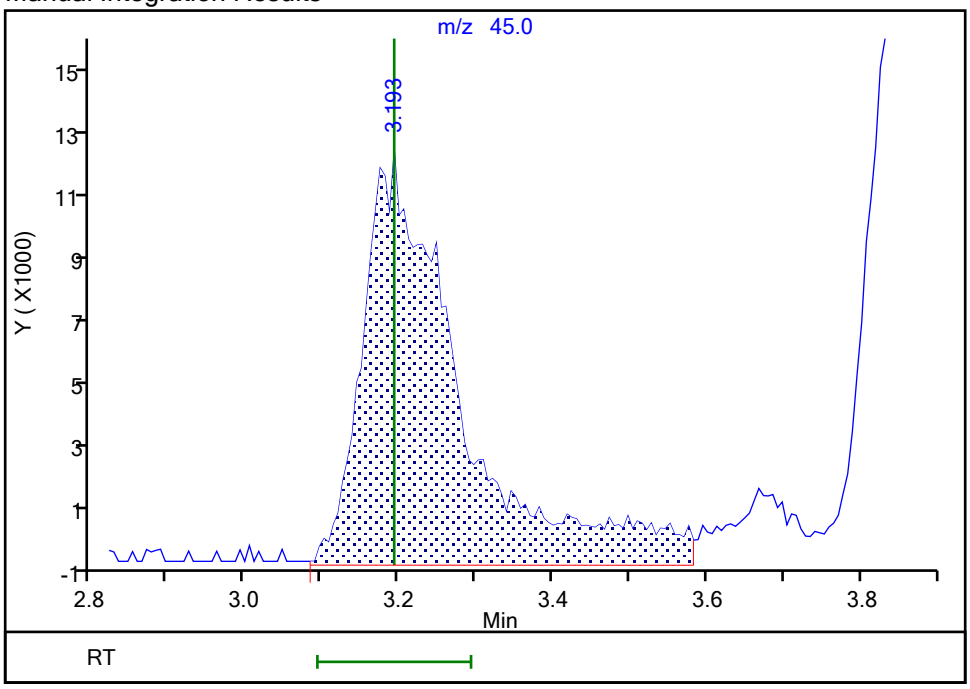
RT: 3.19
Area: 94056
Amount: 753.3261
Amount Units: ug/l

Processing Integration Results



Manual Integration Results

RT: 3.19
Area: 108086
Amount: 865.6971
Amount Units: ug/l



Reviewer: mellingerc, 02-Sep-2020 12:10:53
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

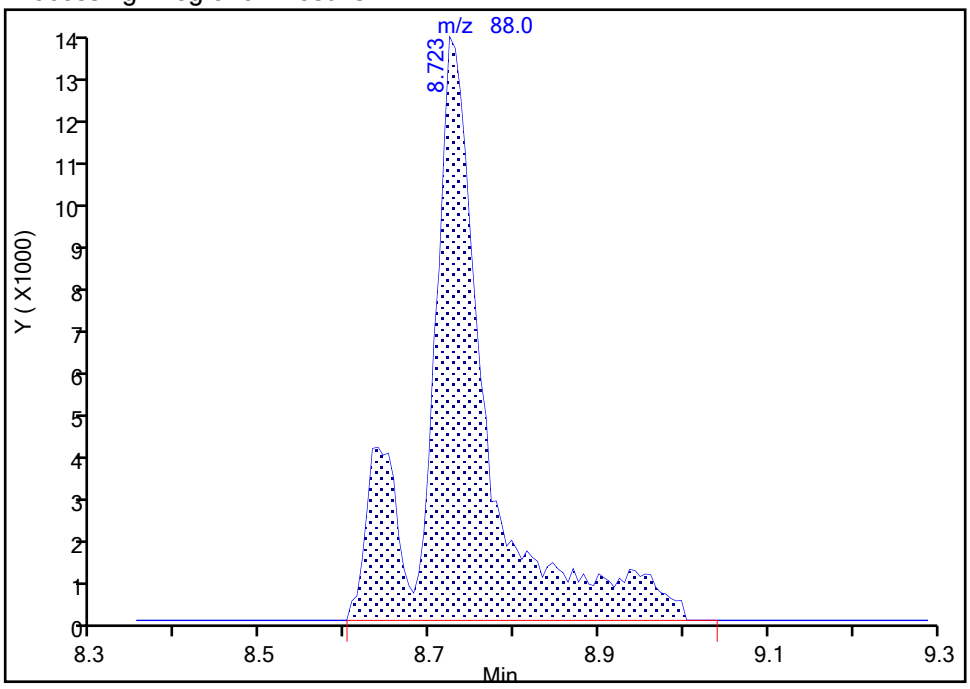
Data File:	\\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01V02.D				
Injection Date:	02-Sep-2020 03:00:30	Instrument ID:	23297		
Lims ID:	ICV				
Client ID:					
Operator ID:	MEC29284	ALS Bottle#:	20	Worklist Smp#:	21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

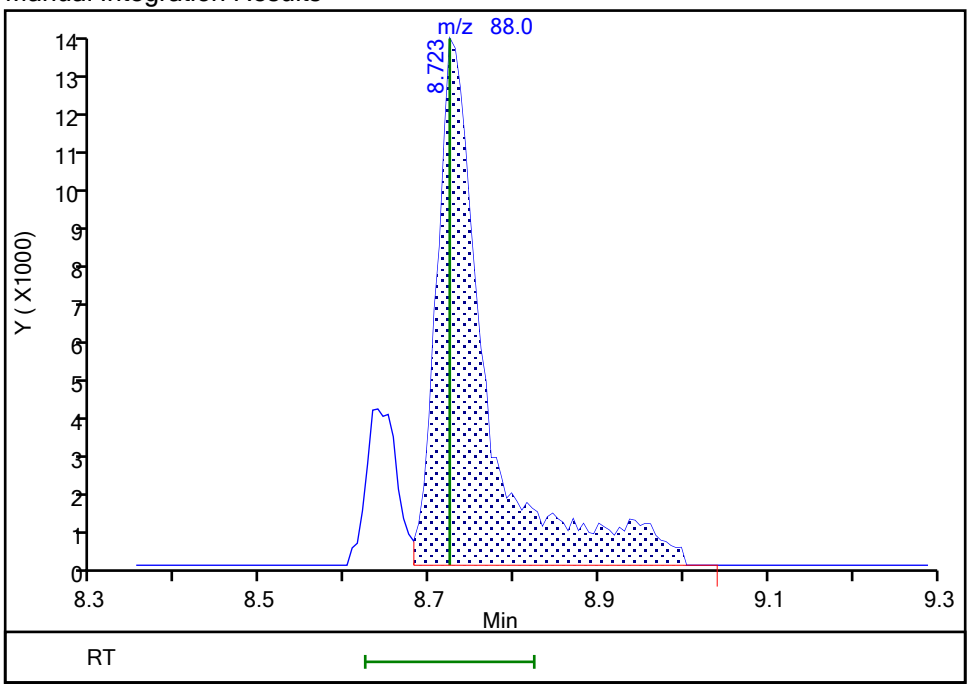
Processing Integration Results

RT: 8.72
Area: 64553
Amount: 555.3176
Amount Units: ug/l



Manual Integration Results

RT: 8.72
Area: 54644
Amount: 470.0754
Amount Units: ug/l



Reviewer: mellingerc, 02-Sep-2020 12:11:49

Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70709/3 Calibration Date: 11/28/2020 09:38

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N28C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2813	0.2581	0.1000	45.9	50.0	-8.3	20.0
Chloromethane	Ave	0.3201	0.3370	0.1000	52.6	50.0	5.3	20.0
1,3-Butadiene	Ave	0.2693	0.2397		44.5	50.0	-11.0	20.0
Vinyl chloride	Ave	0.2907	0.3109	0.1000	53.5	50.0	7.0	20.0
Bromomethane	Ave	0.2213	0.2270	0.1000	51.3	50.0	2.5	20.0
Chloroethane	Ave	0.1729	0.1846	0.1000	53.4	50.0	6.8	20.0
Trichlorofluoromethane	Ave	0.3556	0.3608	0.1000	50.7	50.0	1.5	20.0
n-Pentane	Ave	0.3634	0.3901		53.7	50.0	7.3	20.0
Ethanol	Ave	0.0751	0.0800		1330	1250	6.5	20.0
Freon 123a	Ave	0.2328	0.2672		57.4	50.0	14.8	20.0
Acrolein	Ave	1.267	1.359		536	500	7.2	20.0
1,1-Dichloroethene	Ave	0.1820	0.2017	0.1000	55.4	50.0	10.9	20.0
Acetone	Ave	0.6302	0.6331	0.1000	100	100	0.5	20.0
Freon 113	Ave	0.1937	0.2178	0.1000	56.2	50.0	12.5	20.0
2-Propanol	Ave	0.5770	0.6135		266	250	6.3	20.0
Methyl iodide	Ave	0.3694	0.4039		54.7	50.0	9.3	20.0
Carbon disulfide	Ave	0.6530	0.7373	0.1000	56.5	50.0	12.9	20.0
Methyl acetate	Ave	0.3438	0.3778	0.1000	54.9	50.0	9.9	20.0
Allyl chloride	Ave	0.3670	0.3943		53.7	50.0	7.4	20.0
Methylene Chloride	Ave	0.2196	0.2519	0.1000	57.3	50.0	14.7	20.0
t-Butyl alcohol	Ave	0.999	1.004		251	250	0.5	20.0
Acrylonitrile	Ave	0.1756	0.2050		58.4	50.0	16.7	20.0
Methyl tertiary butyl ether	Ave	0.7051	0.7762	0.1000	55.0	50.0	10.1	20.0
trans-1,2-Dichloroethene	Ave	0.2108	0.2397	0.1000	56.8	50.0	13.7	20.0
n-Hexane	Ave	0.3156	0.3697		58.6	50.0	17.1	20.0
1,1-Dichloroethane	Ave	0.3844	0.4339	0.2000	56.4	50.0	12.9	20.0
di-Isopropyl ether	Ave	0.7457	0.8600		57.7	50.0	15.3	20.0
2-Chloro-1,3-butadiene	Ave	0.3327	0.3561		53.5	50.0	7.0	20.0
Ethyl t-butyl ether	Ave	0.7096	0.7837		55.2	50.0	10.4	20.0
2-Butanone	Ave	0.2583	0.2918	0.1000	113	100	13.0	20.0
cis-1,2-Dichloroethene	Ave	0.2426	0.2730	0.1000	56.3	50.0	12.6	20.0
2,2-Dichloropropane	Ave	0.3233	0.3439		53.2	50.0	6.4	20.0
Propionitrile	Ave	0.997	1.041		261	250	4.4	20.0
Methacrylonitrile	Ave	0.1721	0.1958		142	125	13.8	20.0
Bromochloromethane	Ave	0.1366	0.1453		53.2	50.0	6.4	20.0
Tetrahydrofuran	Ave	0.9017	0.9063		101	100	0.5	20.0
Chloroform	Ave	0.3822	0.4207	0.2000	55.0	50.0	10.1	20.0
1,1,1-Trichloroethane	Ave	0.3209	0.3448	0.1000	53.7	50.0	7.4	20.0
Cyclohexane	Ave	0.3680	0.4332	0.1000	58.9	50.0	17.7	20.0
Carbon tetrachloride	Ave	0.2760	0.3010	0.1000	54.5	50.0	9.1	20.0
1,1-Dichloropropene	Ave	0.3001	0.3365		56.1	50.0	12.2	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70709/3 Calibration Date: 11/28/2020 09:38

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N28C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3181	0.3198		628	625	0.5	20.0
Benzene	Ave	0.9040	1.032	0.5000	57.1	50.0	14.2	20.0
1,2-Dichloroethane	Ave	0.3174	0.3086	0.1000	48.6	50.0	-2.8	20.0
t-Amyl methyl ether	Ave	0.7014	0.7640		54.5	50.0	8.9	20.0
n-Heptane	Ave	0.3541	0.4223		59.6	50.0	19.2	20.0
n-Butanol	Ave	0.2695	0.2925		1360	1250	8.6	20.0
Trichloroethene	Ave	0.2339	0.2642	0.2000	56.5	50.0	12.9	20.0
Methylcyclohexane	Ave	0.4114	0.4467	0.1000	54.3	50.0	8.6	20.0
1,2-Dichloropropane	Ave	0.2460	0.2843	0.1000	57.8	50.0	15.6	20.0
t-Amyl ethyl ether	Ave	0.3432	0.3774		55.0	50.0	10.0	20.0
Methyl methacrylate	Ave	0.2586	0.2964		57.3	50.0	14.6	20.0
1,4-Dioxane	Ave	0.0700	0.0741	0.0050	662	625	5.9	20.0
Dibromomethane	Ave	0.1642	0.1814		55.2	50.0	10.5	20.0
Bromodichloromethane	Ave	0.2999	0.3343	0.2000	55.7	50.0	11.5	20.0
2-Nitropropane	Ave	1.640	1.456		88.8	100	-11.2	20.0
2-Chloroethyl vinyl ether	Ave	0.2136	0.2472		57.9	50.0	15.8	20.0
cis-1,3-Dichloropropene	Ave	0.3942	0.4528	0.2000	57.4	50.0	14.9	20.0
4-Methyl-2-pentanone	Ave	0.4713	0.5656	0.1000	120	100	20.0	20.0
Toluene	Ave	0.7534	0.8480	0.4000	56.3	50.0	12.6	20.0
trans-1,3-Dichloropropene	Ave	0.4852	0.5450	0.1000	56.2	50.0	12.3	20.0
Ethyl methacrylate	Ave	0.5460	0.6236		57.1	50.0	14.2	20.0
1,1,2-Trichloroethane	Ave	0.3092	0.3439	0.1000	55.6	50.0	11.2	20.0
Tetrachloroethene	Ave	0.3613	0.3668	0.2000	50.8	50.0	1.5	20.0
1,3-Dichloropropane	Ave	0.5151	0.5786		56.2	50.0	12.3	20.0
2-Hexanone	Ave	0.4935	0.6045	0.1000	122	100	22.5*	20.0
Dibromochloromethane	Ave	0.3475	0.3914		56.3	50.0	12.6	20.0
1,2-Dibromoethane	Ave	0.3620	0.3957	0.1000	54.7	50.0	9.3	20.0
1-Chlorohexane	Ave	0.4392	0.4876		55.5	50.0	11.0	20.0
Chlorobenzene	Ave	0.8735	0.9783	0.5000	56.0	50.0	12.0	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3169	0.3534		55.8	50.0	11.5	20.0
Ethylbenzene	Ave	1.445	1.635	0.1000	56.6	50.0	13.1	20.0
m&p-Xylene	Ave	0.5613	0.6376	0.1000	114	100	13.6	20.0
o-Xylene	Ave	0.5566	0.6377	0.3000	57.3	50.0	14.6	20.0
Styrene	Ave	0.9611	1.094	0.3000	56.9	50.0	13.9	20.0
Bromoform	Ave	0.2890	0.3222	0.1000	55.7	50.0	11.5	20.0
Isopropylbenzene	Ave	1.422	1.608	0.1000	56.5	50.0	13.0	20.0
Cyclohexanone	Ave	0.2898	0.2993		645	625	3.3	20.0
1,1,2,2-Tetrachloroethane	Ave	1.016	1.217	0.3000	59.9	50.0	19.8	20.0
Bromobenzene	Ave	0.7379	0.8404		56.9	50.0	13.9	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3197	0.3447		135	125	7.8	20.0
1,2,3-Trichloropropane	Ave	0.2987	0.3250		54.4	50.0	8.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70709/3 Calibration Date: 11/28/2020 09:38

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N28C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Propylbenzene	Ave	3.116	3.664		58.8	50.0	17.6	20.0
2-Chlorotoluene	Ave	0.6764	0.7937		58.7	50.0	17.3	20.0
1,3,5-Trimethylbenzene	Ave	2.233	2.593		58.1	50.0	16.1	20.0
4-Chlorotoluene	Ave	0.6981	0.8114		58.1	50.0	16.2	20.0
tert-Butylbenzene	Ave	0.4745	0.5540		58.4	50.0	16.7	20.0
Pentachloroethane	Ave	0.4198	0.5161		61.5	50.0	22.9*	20.0
1,2,4-Trimethylbenzene	Ave	2.346	2.681		57.1	50.0	14.3	20.0
sec-Butylbenzene	Ave	2.871	3.432		59.8	50.0	19.5	20.0
1,3-Dichlorobenzene	Ave	1.351	1.546	0.6000	57.2	50.0	14.4	20.0
p-Isopropyltoluene	Ave	2.474	2.951		59.6	50.0	19.3	20.0
1,4-Dichlorobenzene	Ave	1.397	1.585	0.5000	56.7	50.0	13.4	20.0
1,2,3-Trimethylbenzene	Ave	2.461	2.736		55.6	50.0	11.2	20.0
Benzyl chloride	Ave	2.002	2.359		58.9	50.0	17.8	20.0
1,3-Diethylbenzene	Ave	1.581	1.736		54.9	50.0	9.8	20.0
1,4-Diethylbenzene	Ave	1.661	1.841		55.4	50.0	10.8	20.0
n-Butylbenzene	Ave	1.290	1.506		58.4	50.0	16.8	20.0
1,2-Dichlorobenzene	Ave	1.338	1.496	0.4000	55.9	50.0	11.7	20.0
1,2-Diethylbenzene	Ave	1.309	1.463		55.9	50.0	11.7	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2861	0.3118	0.0500	54.5	50.0	9.0	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.202		55.4	50.0	10.8	20.0
1,2,4-Trichlorobenzene	Ave	1.039	1.129	0.2000	54.3	50.0	8.7	20.0
Hexachlorobutadiene	Ave	0.5038	0.5117		50.8	50.0	1.6	20.0
Naphthalene	Ave	3.511	3.946		56.2	50.0	12.4	20.0
1,2,3-Trichlorobenzene	Ave	1.022	1.103		54.0	50.0	7.9	20.0
2-Methylnaphthalene	Ave	2.271	2.442		53.8	50.0	7.5	20.0
Dibromofluoromethane (Surr)	Ave	0.2510	0.2483		49.5	50.0	-1.1	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0589	0.0603		51.2	50.0	2.4	20.0
Toluene-d8 (Surr)	Ave	1.290	1.298		50.3	50.0	0.6	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4900	0.4761		48.6	50.0	-2.8	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 28-Nov-2020 09:38:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-003
Misc. Info.: CCVIS
Operator ID: lcp00895 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub22

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 28-Nov-2020 11:47:21 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1634

First Level Reviewer: papel Date: 28-Nov-2020 10:43:44

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.001	0.000	99	317929	50.0	45.9	
4 Chloromethane	50	2.208	2.208	0.000	99	415048	50.0	52.6	
5 Butadiene	39	2.329	2.329	0.000	92	295194	50.0	44.5	
6 Vinyl chloride	62	2.329	2.329	0.000	97	382938	50.0	53.5	
8 Bromomethane	94	2.670	2.670	0.000	89	279545	50.0	51.3	
9 Chloroethane	64	2.755	2.755	0.000	100	227407	50.0	53.4	
11 Trichlorofluoromethane	101	3.065	3.065	0.000	98	444428	50.0	50.7	
12 Pentane	43	3.108	3.108	0.000	96	480441	50.0	53.7	
13 Ethanol	45	3.193	3.193	0.000	90	208423	1250.1	1331.6	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.418	3.418	0.000	93	329144	50.0	57.4	
16 Acrolein	56	3.497	3.497	0.000	100	1415114	500.0	536.1	
17 1,1-Dichloroethene	96	3.643	3.643	0.000	97	248495	50.0	55.4	
19 Acetone	58	3.674	3.674	0.000	100	131895	100.0	100.5	
18 112TCTFE	101	3.674	3.674	0.000	79	268292	50.0	56.2	
20 Iodomethane	142	3.844	3.844	0.000	97	497525	50.0	54.7	
21 Isopropyl alcohol	45	3.844	3.844	0.000	48	319491	250.0	265.8	
22 Carbon disulfide	76	3.948	3.948	0.000	99	908116	50.0	56.5	
24 Methyl acetate	43	4.106	4.106	0.000	98	465388	50.0	54.9	
25 3-Chloro-1-propene	41	4.130	4.130	0.000	95	485654	50.0	53.7	
26 Methylene Chloride	84	4.331	4.331	0.000	93	310256	50.0	57.3	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	520800	250.0	250.0	M
28 2-Methyl-2-propanol	59	4.465	4.465	0.000	100	523057	250.0	251.3	
29 Acrylonitrile	53	4.678	4.678	0.000	100	252489	50.0	58.4	
30 Methyl tert-butyl ether	73	4.738	4.738	0.000	95	956068	50.0	55.0	
31 trans-1,2-Dichloroethene	96	4.745	4.745	0.000	99	295191	50.0	56.8	
33 Hexane	57	5.164	5.164	0.000	92	455354	50.0	58.6	
34 1,1-Dichloroethane	63	5.402	5.402	0.000	96	534461	50.0	56.4	
36 Isopropyl ether	45	5.456	5.456	0.000	96	1059326	50.0	57.7	
37 2-Chloro-1,3-butadiene	53	5.517	5.517	0.000	89	438648	50.0	53.5	
38 Tert-butyl ethyl ether	59	5.992	5.992	0.000	99	965278	50.0	55.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.217	6.217	0.000	100	718759	100.0	113.0	
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	81	336319	50.0	56.3	
42 2,2-Dichloropropane	77	6.253	6.253	0.000	85	423639	50.0	53.2	
44 Propionitrile	54	6.308	6.308	0.000	100	541998	250.0	260.9	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	602889	125.0	142.2	
46 Chlorobromomethane	128	6.576	6.576	0.000	95	178988	50.0	53.2	
47 Tetrahydrofuran	71	6.582	6.582	0.000	87	188797	100.0	100.5	
48 Chloroform	83	6.722	6.722	0.000	93	518173	50.0	55.0	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	305780	50.0	49.5	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	98	424648	50.0	53.7	
51 Cyclohexane	56	7.038	7.038	0.000	91	533636	50.0	58.9	
52 Carbon tetrachloride	117	7.148	7.148	0.000	97	370772	50.0	54.5	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	99	414531	50.0	56.1	
54 Isobutyl alcohol	41	7.318	7.318	0.000	96	416430	625.0	628.4	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.397	0.000	97	74244	50.0	51.2	
56 Benzene	78	7.427	7.427	0.000	96	1271563	50.0	57.1	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	97	380070	50.0	48.6	
59 Tert-amyl methyl ether	73	7.610	7.610	0.000	99	941044	50.0	54.5	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1231724	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	92	520115	50.0	59.6	
63 n-Butanol	56	8.194	8.194	0.000	90	761779	1250.0	1356.9	
64 Trichloroethene	95	8.303	8.303	0.000	99	325381	50.0	56.5	
65 Methylcyclohexane	83	8.608	8.608	0.000	90	550159	50.0	54.3	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	91	464828	50.0	55.0	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	71	350159	50.0	57.8	
69 Methyl methacrylate	69	8.723	8.723	0.000	92	365093	50.0	57.3	
68 1,4-Dioxane	88	8.735	8.735	0.000	34	96417	625.0	661.6	M
70 Dibromomethane	93	8.754	8.754	0.000	98	223464	50.0	55.2	
72 Dichlorobromomethane	83	8.991	8.991	0.000	99	411772	50.0	55.7	
73 2-Nitropropane	41	9.265	9.265	0.000	97	303315	100.0	88.8	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	90	304498	50.0	57.9	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	557782	50.0	57.4	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1393248	100.0	120.0	
$ 77 Toluene-d8 (Surr)	98	9.830	9.830	0.000	93	1218075	50.0	50.3	
78 Toluene	92	9.903	9.903	0.000	98	795855	50.0	56.3	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	511511	50.0	56.2	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	585283	50.0	57.1	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	89	322715	50.0	55.6	
83 Tetrachloroethene	166	10.445	10.445	0.000	96	344275	50.0	50.8	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	90	542978	50.0	56.2	
86 2-Hexanone	43	10.573	10.573	0.000	97	1134719	100.0	122.5	
88 Chlorodibromomethane	129	10.737	10.737	0.000	89	367335	50.0	56.3	
89 Ethylene Dibromide	107	10.846	10.846	0.000	98	371373	50.0	54.7	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	938511	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	97	457636	50.0	55.5	
93 Chlorobenzene	112	11.303	11.303	0.000	96	918168	50.0	56.0	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	96	331627	50.0	55.8	
95 Ethylbenzene	91	11.388	11.388	0.000	98	1534039	50.0	56.6	
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	99	1196738	100.0	113.6	
97 o-Xylene	106	11.832	11.832	0.000	96	598501	50.0	57.3	
98 Styrene	104	11.844	11.844	0.000	94	1027188	50.0	56.9	
99 Bromoform	173	12.008	12.008	0.000	98	302386	50.0	55.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Isopropylbenzene	105	12.130	12.130	0.000	95	1508738	50.0	56.5	
102 Cyclohexanone	55	12.209	12.209	0.000	90	389670	625.0	645.4	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	446834	50.0	48.6	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	93	595828	50.0	59.9	
105 Bromobenzene	156	12.392	12.392	0.000	95	411522	50.0	56.9	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	93	421921	125.0	134.8	
107 1,2,3-Trichloropropane	110	12.422	12.422	0.000	81	159157	50.0	54.4	
108 N-Propylbenzene	91	12.458	12.458	0.000	99	1794021	50.0	58.8	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	388650	50.0	58.7	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	94	1269580	50.0	58.1	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	397333	50.0	58.1	
113 tert-Butylbenzene	134	12.836	12.836	0.000	93	271265	50.0	58.4	
114 Pentachloroethane	167	12.872	12.872	0.000	95	252702	50.0	61.5	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	1312920	50.0	57.1	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	1680559	50.0	59.8	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	756994	50.0	57.2	
118 4-Isopropyltoluene	119	13.109	13.109	0.000	97	1445010	50.0	59.6	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	93	489666	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	96	776258	50.0	56.7	
121 1,2,3-Trimethylbenzene	105	13.182	13.182	0.000	98	1339740	50.0	55.6	
122 Benzyl chloride	91	13.249	13.249	0.000	98	1154935	50.0	58.9	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	850140	50.0	54.9	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	901431	50.0	55.4	
125 n-Butylbenzene	92	13.401	13.401	0.000	97	737307	50.0	58.4	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	732301	50.0	55.9	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	716495	50.0	55.9	
129 1,2-Dibromo-3-Chloropropane	75	13.979	13.979	0.000	90	152669	50.0	54.5	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	588471	50.0	55.4	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	552783	50.0	54.3	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	250544	50.0	50.8	
133 Naphthalene	128	14.715	14.715	0.000	97	1932289	50.0	56.2	
134 1,2,3-Trichlorobenzene	180	14.855	14.855	0.000	96	540090	50.0	54.0	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	1195624	50.0	53.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00112	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00056	Amount Added:	2.00	Units: uL	
MSV_V_ETOH_00011	Amount Added:	10.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_2CEVE_00124	Amount Added:	5.00	Units: uL	
MSV_V_VOA6_00063	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00175	Amount Added:	2.50	Units: uL	
MSV_HP4_ISSS_00005	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 28-Nov-2020 11:47:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28C01.D

Injection Date: 28-Nov-2020 09:38:30 Instrument ID: 23297 Operator ID: lcp00895

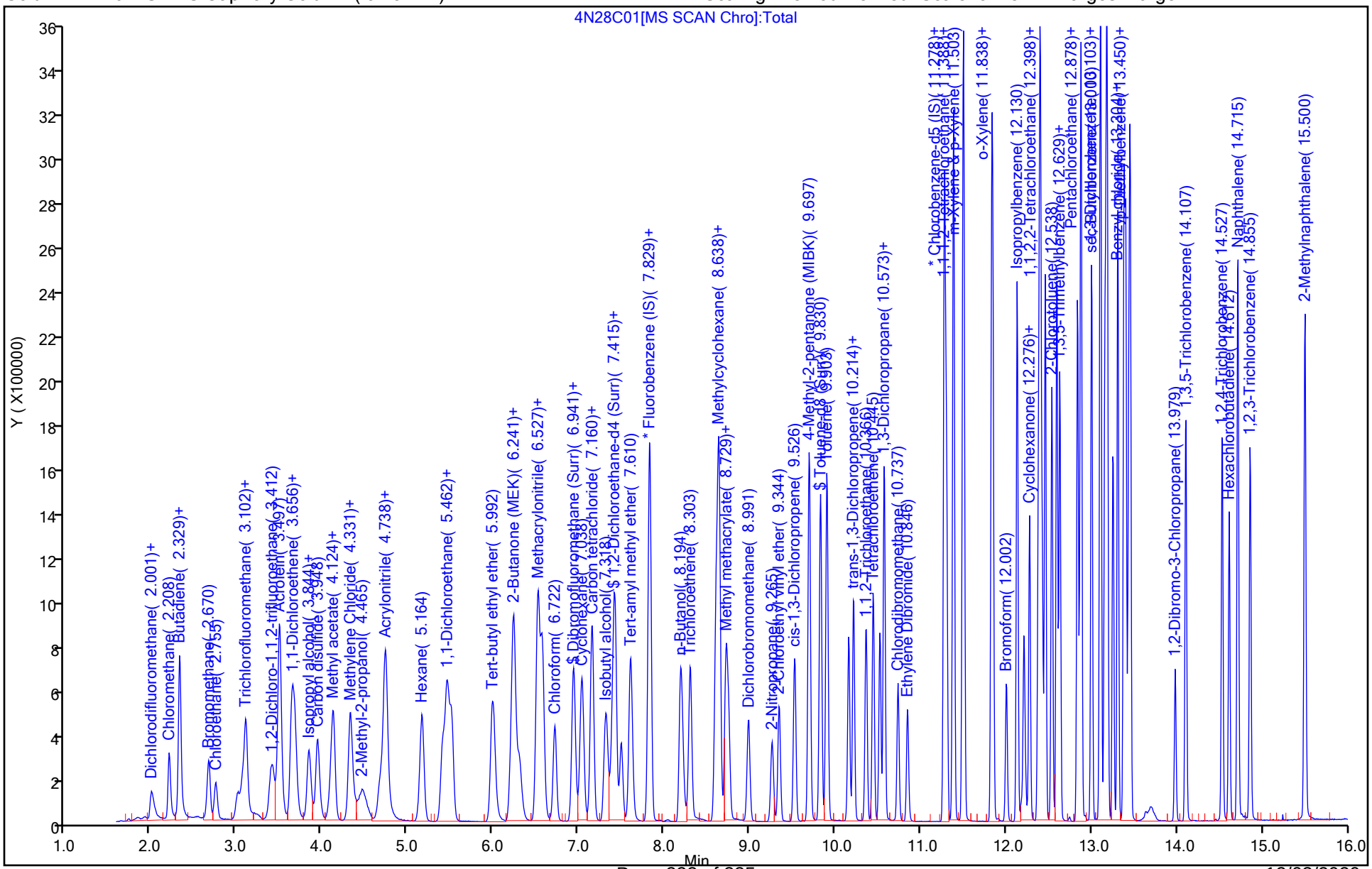
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

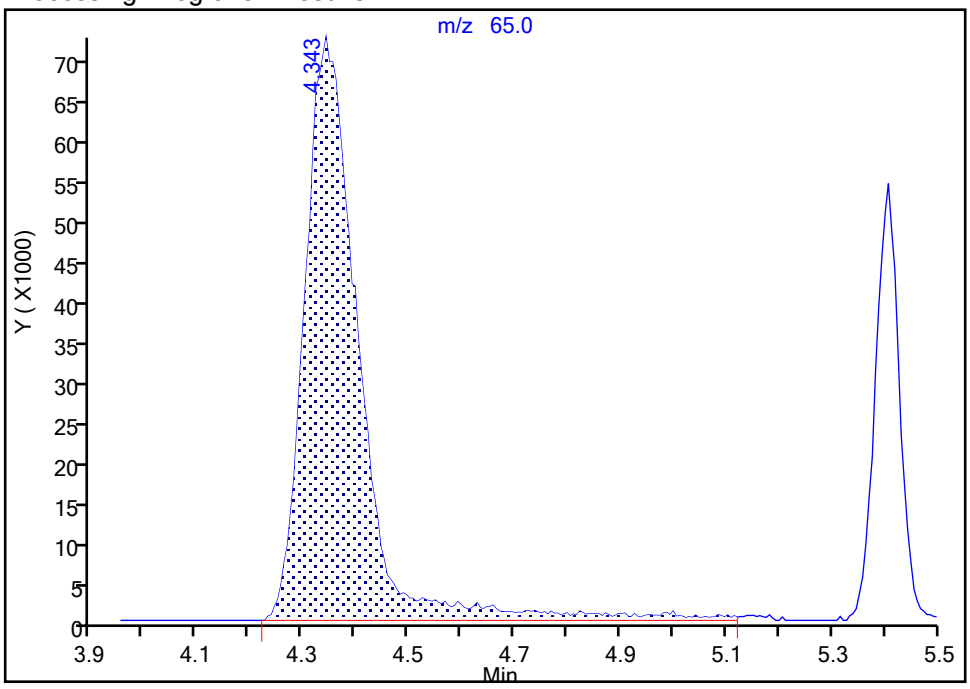
Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28C01.D
Injection Date: 28-Nov-2020 09:38:30 Instrument ID: 23297
Lims ID: CCVIS
Client ID:
Operator ID: lcp00895 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

Processing Integration Results

RT: 4.34
Area: 518549
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.34
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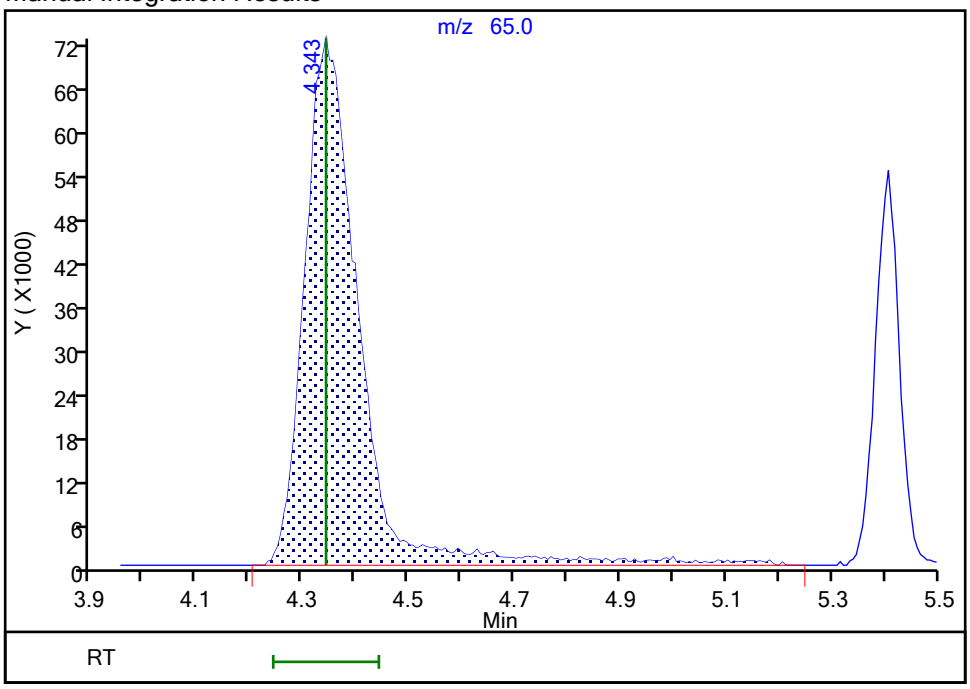
Amount: 250.0000
Amount Units: ug/l



Reviewer: papel, 28-Nov-2020 10:29:17
Audit Action: Manually Integrated Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

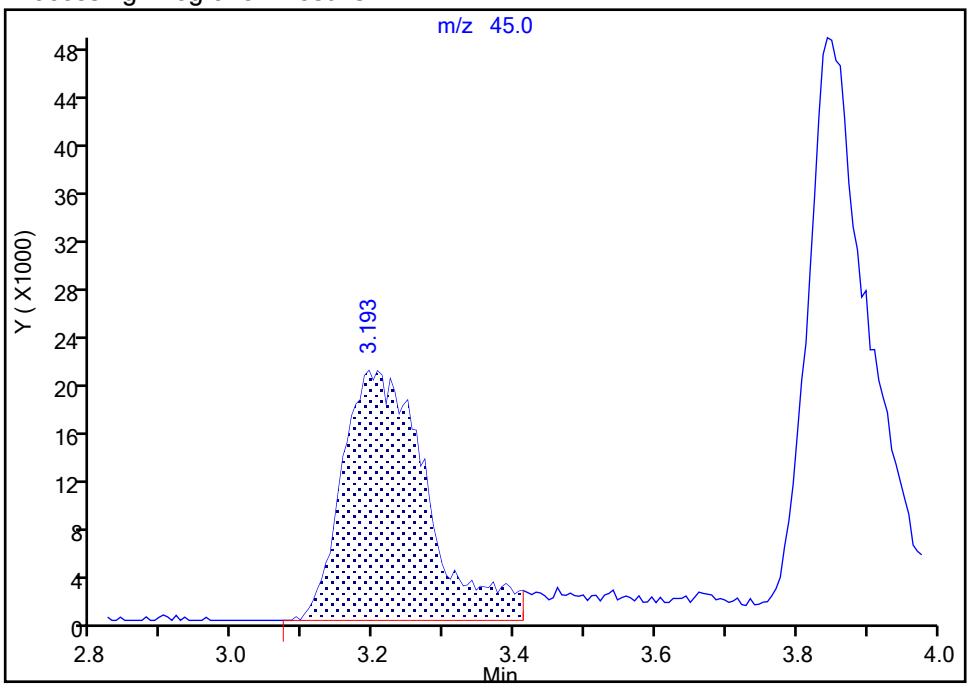
Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28C01.D
Injection Date: 28-Nov-2020 09:38:30 Instrument ID: 23297
Lims ID: CCVIS
Client ID:
Operator ID: lcp00895 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

13 Ethanol, CAS: 64-17-5

Signal: 1

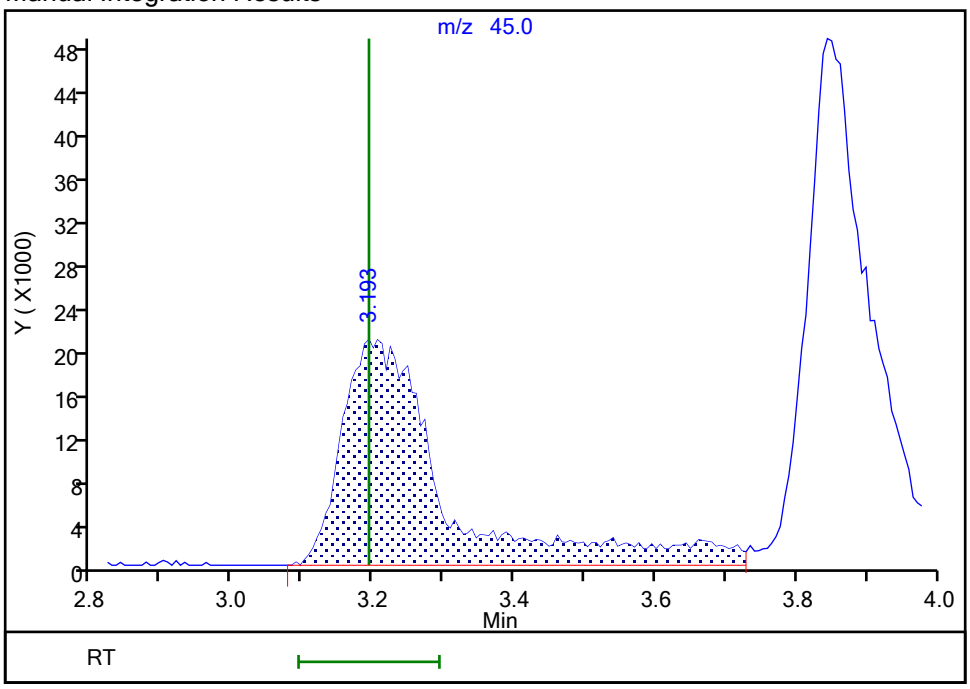
Processing Integration Results

RT: 3.19
Area: 172337
Amount: 1105.8619
Amount Units: ug/l



Manual Integration Results

RT: 3.19
Area: 208423
Amount: 1331.6400
Amount Units: ug/l



Reviewer: papel, 28-Nov-2020 10:28:57
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

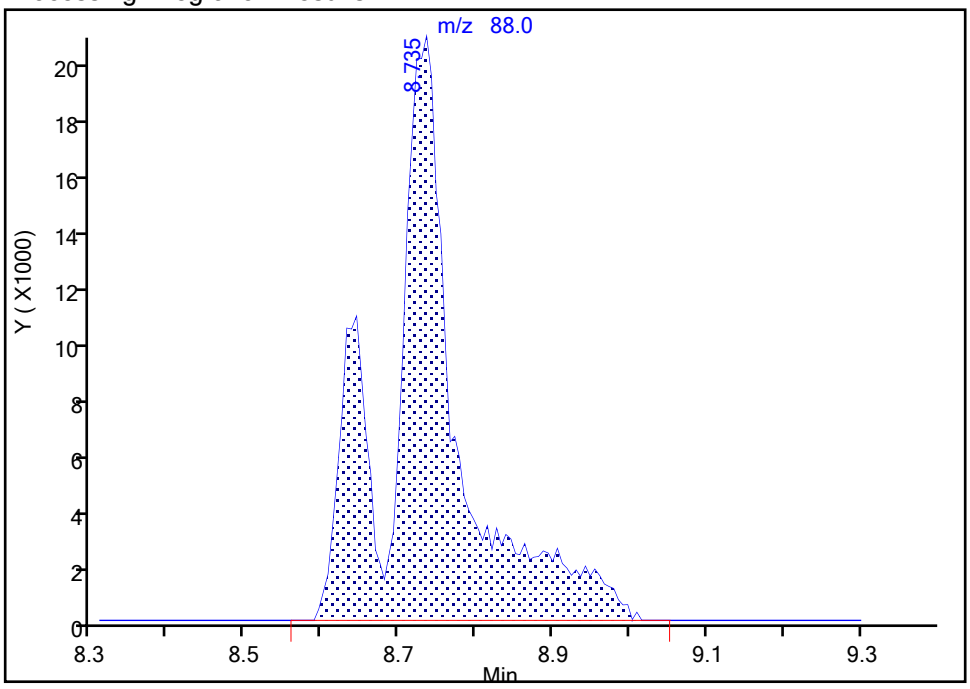
Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28C01.D
Injection Date: 28-Nov-2020 09:38:30 Instrument ID: 23297
Lims ID: CCVIS
Client ID:
Operator ID: lcp00895 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

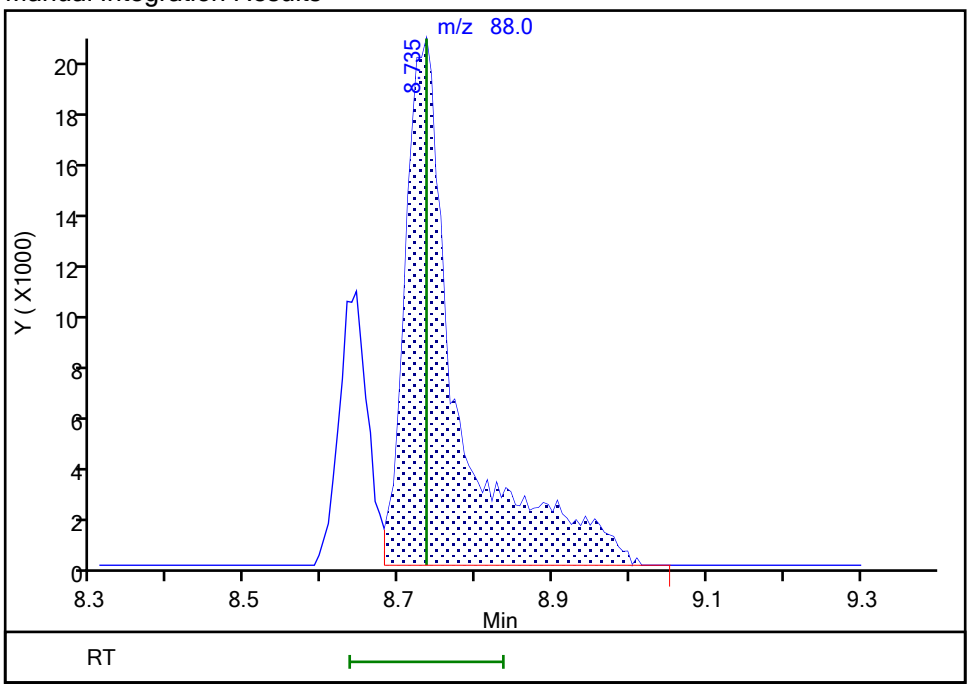
Processing Integration Results

RT: 8.74
Area: 123237
Amount: 845.6893
Amount Units: ug/l



Manual Integration Results

RT: 8.74
Area: 96417
Amount: 661.6424
Amount Units: ug/l



Reviewer: papel, 28-Nov-2020 10:29:42
Audit Action: Split an Integrated Peak Audit Reason: Baseline

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70864/3 Calibration Date: 11/30/2020 08:56

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2813	0.2588	0.1000	46.0	50.0	-8.0	20.0
Chloromethane	Ave	0.3201	0.3178	0.1000	49.6	50.0	-0.7	20.0
1,3-Butadiene	Ave	0.2693	0.2855		53.0	50.0	6.0	20.0
Vinyl chloride	Ave	0.2907	0.2835	0.1000	48.8	50.0	-2.5	20.0
Bromomethane	Ave	0.2213	0.1991	0.1000	45.0	50.0	-10.0	20.0
Chloroethane	Ave	0.1729	0.1605	0.1000	46.4	50.0	-7.2	20.0
Trichlorofluoromethane	Ave	0.3556	0.3164	0.1000	44.5	50.0	-11.0	20.0
n-Pentane	Ave	0.3634	0.4280		58.9	50.0	17.8	20.0
Freon 123a	Ave	0.2328	0.2599		55.8	50.0	11.6	20.0
Acrolein	Ave	1.267	1.304		514	500	2.9	20.0
1,1-Dichloroethene	Ave	0.1820	0.2031	0.1000	55.8	50.0	11.6	20.0
Acetone	Ave	0.6302	0.6054	0.1000	96.1	100	-3.9	20.0
Freon 113	Ave	0.1937	0.2238	0.1000	57.8	50.0	15.5	20.0
Methyl iodide	Ave	0.3694	0.4084		55.3	50.0	10.5	20.0
2-Propanol	Ave	0.5770	0.5204		225	250	-9.8	20.0
Carbon disulfide	Ave	0.6530	0.7568	0.1000	57.9	50.0	15.9	20.0
Methyl acetate	Ave	0.3438	0.3634	0.1000	52.8	50.0	5.7	20.0
Allyl chloride	Ave	0.3670	0.3872		52.7	50.0	5.5	20.0
Methylene Chloride	Ave	0.2196	0.2439	0.1000	55.5	50.0	11.0	20.0
t-Butyl alcohol	Ave	0.999	0.9626		241	250	-3.7	20.0
Acrylonitrile	Ave	0.1756	0.1910		54.4	50.0	8.7	20.0
Methyl tertiary butyl ether	Ave	0.7051	0.7498	0.1000	53.2	50.0	6.3	20.0
trans-1,2-Dichloroethene	Ave	0.2108	0.2336	0.1000	55.4	50.0	10.8	20.0
n-Hexane	Ave	0.3156	0.3732		59.1	50.0	18.2	20.0
1,1-Dichloroethane	Ave	0.3844	0.4226	0.2000	55.0	50.0	10.0	20.0
di-Isopropyl ether	Ave	0.7457	0.8293		55.6	50.0	11.2	20.0
2-Chloro-1,3-butadiene	Ave	0.3327	0.3467		52.1	50.0	4.2	20.0
Ethyl t-butyl ether	Ave	0.7096	0.7518		53.0	50.0	5.9	20.0
2-Butanone	Ave	0.2583	0.2691	0.1000	104	100	4.2	20.0
cis-1,2-Dichloroethene	Ave	0.2426	0.2675	0.1000	55.1	50.0	10.3	20.0
2,2-Dichloropropane	Ave	0.3233	0.3366		52.1	50.0	4.1	20.0
Propionitrile	Ave	0.997	1.018		255	250	2.0	20.0
Methacrylonitrile	Ave	0.1721	0.1874		136	125	8.9	20.0
Bromochloromethane	Ave	0.1366	0.1439		52.6	50.0	5.3	20.0
Tetrahydrofuran	Ave	0.9017	0.8935		99.1	100	-0.9	20.0
Chloroform	Ave	0.3822	0.4002	0.2000	52.4	50.0	4.7	20.0
1,1,1-Trichloroethane	Ave	0.3209	0.3311	0.1000	51.6	50.0	3.2	20.0
Cyclohexane	Ave	0.3680	0.4266	0.1000	58.0	50.0	15.9	20.0
Carbon tetrachloride	Ave	0.2760	0.2914	0.1000	52.8	50.0	5.6	20.0
1,1-Dichloropropene	Ave	0.3001	0.3270		54.5	50.0	9.0	20.0
Isobutyl alcohol	Ave	0.3181	0.3150		619	625	-1.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70864/3 Calibration Date: 11/30/2020 08:56

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Benzene	Ave	0.9040	0.9942	0.5000	55.0	50.0	10.0	20.0
1,2-Dichloroethane	Ave	0.3174	0.2998	0.1000	47.2	50.0	-5.6	20.0
t-Amyl methyl ether	Ave	0.7014	0.7431		53.0	50.0	5.9	20.0
n-Heptane	Ave	0.3541	0.4112		58.1	50.0	16.1	20.0
n-Butanol	Ave	0.2695	0.2821		1310	1250	4.7	20.0
Trichloroethene	Ave	0.2339	0.2532	0.2000	54.1	50.0	8.2	20.0
Methylcyclohexane	Ave	0.4114	0.4466	0.1000	54.3	50.0	8.6	20.0
1,2-Dichloropropane	Ave	0.2460	0.2728	0.1000	55.5	50.0	10.9	20.0
t-Amyl ethyl ether	Ave	0.3432	0.3608		52.6	50.0	5.1	20.0
Methyl methacrylate	Ave	0.2586	0.2860		55.3	50.0	10.6	20.0
1,4-Dioxane	Ave	0.0700	0.0731	0.0050	653	625	4.5	20.0
Dibromomethane	Ave	0.1642	0.1758		53.5	50.0	7.0	20.0
Bromodichloromethane	Ave	0.2999	0.3208	0.2000	53.5	50.0	7.0	20.0
2-Nitropropane	Ave	1.640	1.383		84.3	100	-15.7	20.0
2-Chloroethyl vinyl ether	Ave	0.2136	0.2203		51.6	50.0	3.2	20.0
cis-1,3-Dichloropropene	Ave	0.3942	0.4276	0.2000	54.2	50.0	8.5	20.0
4-Methyl-2-pentanone	Ave	0.4713	0.4976	0.1000	106	100	5.6	20.0
Toluene	Ave	0.7534	0.8100	0.4000	53.8	50.0	7.5	20.0
trans-1,3-Dichloropropene	Ave	0.4852	0.5187	0.1000	53.5	50.0	6.9	20.0
Ethyl methacrylate	Ave	0.5460	0.5910		54.1	50.0	8.2	20.0
1,1,2-Trichloroethane	Ave	0.3092	0.3339	0.1000	54.0	50.0	8.0	20.0
Tetrachloroethene	Ave	0.3613	0.3484	0.2000	48.2	50.0	-3.6	20.0
1,3-Dichloropropane	Ave	0.5151	0.5549		53.9	50.0	7.7	20.0
2-Hexanone	Ave	0.4935	0.5148	0.1000	104	100	4.3	20.0
Dibromochloromethane	Ave	0.3475	0.3700		53.2	50.0	6.5	20.0
1,2-Dibromoethane	Ave	0.3620	0.3841	0.1000	53.1	50.0	6.1	20.0
1-Chlorohexane	Ave	0.4392	0.4686		53.4	50.0	6.7	20.0
Chlorobenzene	Ave	0.8735	0.9309	0.5000	53.3	50.0	6.6	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3169	0.3343		52.7	50.0	5.5	20.0
Ethylbenzene	Ave	1.445	1.549	0.1000	53.6	50.0	7.2	20.0
m&p-Xylene	Ave	0.5613	0.6100	0.1000	109	100	8.7	20.0
o-Xylene	Ave	0.5566	0.5994	0.3000	53.8	50.0	7.7	20.0
Styrene	Ave	0.9611	1.043	0.3000	54.3	50.0	8.6	20.0
Bromoform	Ave	0.2890	0.3147	0.1000	54.4	50.0	8.9	20.0
Isopropylbenzene	Ave	1.422	1.533	0.1000	53.9	50.0	7.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.016	1.108	0.3000	54.6	50.0	9.1	20.0
Bromobenzene	Ave	0.7379	0.7701		52.2	50.0	4.4	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3197	0.3094		121	125	-3.2	20.0
1,2,3-Trichloropropane	Ave	0.2987	0.3009		50.4	50.0	0.7	20.0
N-Propylbenzene	Ave	3.116	3.370		54.1	50.0	8.2	20.0
2-Chlorotoluene	Ave	0.6764	0.7170		53.0	50.0	6.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-70864/3 Calibration Date: 11/30/2020 08:56

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,3,5-Trimethylbenzene	Ave	2.233	2.379		53.3	50.0	6.5	20.0
4-Chlorotoluene	Ave	0.6981	0.7413		53.1	50.0	6.2	20.0
tert-Butylbenzene	Ave	0.4745	0.4988		52.6	50.0	5.1	20.0
Pentachloroethane	Ave	0.4198	0.4859		57.9	50.0	15.7	20.0
1,2,4-Trimethylbenzene	Ave	2.346	2.463		52.5	50.0	5.0	20.0
sec-Butylbenzene	Ave	2.871	3.132		54.5	50.0	9.1	20.0
1,3-Dichlorobenzene	Ave	1.351	1.412	0.6000	52.3	50.0	4.6	20.0
p-Isopropyltoluene	Ave	2.474	2.701		54.6	50.0	9.2	20.0
1,4-Dichlorobenzene	Ave	1.397	1.441	0.5000	51.5	50.0	3.1	20.0
1,2,3-Trimethylbenzene	Ave	2.461	2.507		50.9	50.0	1.9	20.0
Benzyl chloride	Ave	2.002	2.194		54.8	50.0	9.6	20.0
1,3-Diethylbenzene	Ave	1.581	1.622		51.3	50.0	2.6	20.0
1,4-Diethylbenzene	Ave	1.661	1.707		51.4	50.0	2.8	20.0
n-Butylbenzene	Ave	1.290	1.377		53.4	50.0	6.8	20.0
1,2-Dichlorobenzene	Ave	1.338	1.384	0.4000	51.7	50.0	3.4	20.0
1,2-Diethylbenzene	Ave	1.309	1.349		51.5	50.0	3.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2861	0.2817	0.0500	49.2	50.0	-1.5	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.086		50.1	50.0	0.1	20.0
1,2,4-Trichlorobenzene	Ave	1.039	1.034	0.2000	49.8	50.0	-0.4	20.0
Hexachlorobutadiene	Ave	0.5038	0.4655		46.2	50.0	-7.6	20.0
Naphthalene	Ave	3.511	3.633		51.7	50.0	3.5	20.0
1,2,3-Trichlorobenzene	Ave	1.022	1.000		48.9	50.0	-2.1	20.0
2-Methylnaphthalene	Ave	2.271	2.199		48.4	50.0	-3.1	20.0
Dibromofluoromethane (Surr)	Ave	0.2510	0.2496		49.7	50.0	-0.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0589	0.0589		50.0	50.0	0.0	20.0
Toluene-d8 (Surr)	Ave	1.290	1.287		49.9	50.0	-0.3	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4900	0.4775		48.7	50.0	-2.5	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22C01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 30-Nov-2020 08:56:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-003
Misc. Info.: CCVIS
Operator ID: jkh09052 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub34

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 10:29:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 09:34:11

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.007	2.007	0.000	99	327744	50.0	46.0	
4 Chloromethane	50	2.208	2.208	0.000	99	402453	50.0	49.6	
5 Butadiene	39	2.329	2.329	0.000	93	361578	50.0	53.0	
6 Vinyl chloride	62	2.329	2.329	0.000	81	359036	50.0	48.8	
8 Bromomethane	94	2.676	2.676	0.000	90	252134	50.0	45.0	
9 Chloroethane	64	2.755	2.755	0.000	100	203237	50.0	46.4	
11 Trichlorofluoromethane	101	3.066	3.066	0.000	98	400710	50.0	44.5	
12 Pentane	43	3.108	3.108	0.000	97	542033	50.0	58.9	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.412	3.412	0.000	92	329170	50.0	55.8	
16 Acrolein	56	3.504	3.504	0.000	100	1332127	500.0	514.5	
17 1,1-Dichloroethene	96	3.637	3.637	0.000	98	257278	50.0	55.8	
19 Acetone	58	3.674	3.674	0.000	100	123704	100.0	96.1	
18 112TCTFE	101	3.674	3.674	0.000	85	283432	50.0	57.8	
20 Iodomethane	142	3.844	3.844	0.000	96	517241	50.0	55.3	
21 Isopropyl alcohol	45	3.850	3.850	0.000	99	265826	250.0	225.5	
22 Carbon disulfide	76	3.948	3.948	0.000	99	958469	50.0	57.9	
24 Methyl acetate	43	4.106	4.106	0.000	99	460277	50.0	52.8	
25 3-Chloro-1-propene	41	4.136	4.136	0.000	95	490378	50.0	52.7	
26 Methylene Chloride	84	4.325	4.325	0.000	93	308854	50.0	55.5	
* 27 t-Butyl alcohol-d10 (IS)	65	4.343	4.343	0.000	0	510856	250.0	250.0	
28 2-Methyl-2-propanol	59	4.477	4.477	0.000	99	491775	250.0	240.9	
29 Acrylonitrile	53	4.672	4.672	0.000	99	241878	50.0	54.4	
30 Methyl tert-butyl ether	73	4.739	4.739	0.000	94	949669	50.0	53.2	
31 trans-1,2-Dichloroethene	96	4.739	4.739	0.000	99	295843	50.0	55.4	
33 Hexane	57	5.164	5.164	0.000	92	472624	50.0	59.1	
34 1,1-Dichloroethane	63	5.408	5.408	0.000	95	535252	50.0	55.0	
36 Isopropyl ether	45	5.463	5.463	0.000	96	1050336	50.0	55.6	
37 2-Chloro-1,3-butadiene	53	5.517	5.517	0.000	89	439049	50.0	52.1	
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	98	952137	50.0	53.0	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	100	681682	100.0	104.2	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.241	6.241	0.000	81	338794	50.0	55.1	
42 2,2-Dichloropropane	77	6.247	6.247	0.000	85	426351	50.0	52.1	
44 Propionitrile	54	6.308	6.308	0.000	99	519874	250.0	255.1	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	593254	125.0	136.1	
46 Chlorobromomethane	128	6.570	6.570	0.000	97	182225	50.0	52.6	
47 Tetrahydrofuran	71	6.582	6.582	0.000	92	182578	100.0	99.1	
48 Chloroform	83	6.722	6.722	0.000	93	506824	50.0	52.4	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	316073	50.0	49.7	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	98	419330	50.0	51.6	
51 Cyclohexane	56	7.038	7.038	0.000	91	540287	50.0	58.0	
52 Carbon tetrachloride	117	7.154	7.154	0.000	97	369006	50.0	52.8	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	97	414100	50.0	54.5	
54 Isobutyl alcohol	41	7.324	7.324	0.000	96	402321	625.0	619.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.397	0.000	97	74603	50.0	50.0	
56 Benzene	78	7.421	7.421	0.000	96	1259243	50.0	55.0	
57 1,2-Dichloroethane	62	7.501	7.501	0.000	97	379650	50.0	47.2	
59 Tert-amyl methyl ether	73	7.610	7.610	0.000	99	941130	50.0	53.0	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1266538	50.0	50.0	
61 n-Heptane	43	7.829	7.829	0.000	93	520768	50.0	58.1	
63 n-Butanol	56	8.194	8.194	0.000	89	720540	1250.0	1308.4	
64 Trichloroethene	95	8.304	8.304	0.000	98	320625	50.0	54.1	
65 Methylcyclohexane	83	8.608	8.608	0.000	91	565696	50.0	54.3	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	92	456965	50.0	52.6	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	80	345472	50.0	55.5	
69 Methyl methacrylate	69	8.723	8.723	0.000	92	362230	50.0	55.3	
68 1,4-Dioxane	88	8.729	8.729	0.000	34	93363	625.0	653.2	M
70 Dibromomethane	93	8.754	8.754	0.000	98	222662	50.0	53.5	
72 Dichlorobromomethane	83	8.985	8.985	0.000	100	406290	50.0	53.5	
73 2-Nitropropane	41	9.265	9.265	0.000	97	282583	100.0	84.3	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	90	279027	50.0	51.6	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	541623	50.0	54.2	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1260572	100.0	105.6	
$ 77 Toluene-d8 (Surr)	98	9.831	9.831	0.000	93	1234774	50.0	49.9	
78 Toluene	92	9.904	9.904	0.000	98	777249	50.0	53.8	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	497781	50.0	53.5	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	567079	50.0	54.1	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	88	320365	50.0	54.0	
83 Tetrachloroethene	166	10.445	10.445	0.000	96	334349	50.0	48.2	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	89	532436	50.0	53.9	
86 2-Hexanone	43	10.573	10.573	0.000	97	987993	100.0	104.3	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	355068	50.0	53.2	
89 Ethylene Dibromide	107	10.846	10.846	0.000	98	368575	50.0	53.1	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	959601	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.285	0.000	96	449704	50.0	53.4	
93 Chlorobenzene	112	11.303	11.303	0.000	97	893283	50.0	53.3	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	320770	50.0	52.7	
95 Ethylbenzene	91	11.388	11.388	0.000	98	1486078	50.0	53.6	
96 m-Xylene & p-Xylene	106	11.504	11.504	0.000	99	1170645	100.0	108.7	
97 o-Xylene	106	11.832	11.832	0.000	96	575179	50.0	53.8	
98 Styrene	104	11.850	11.850	0.000	95	1001284	50.0	54.3	
99 Bromoform	173	12.002	12.002	0.000	98	301968	50.0	54.4	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	1471515	50.0	53.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	458208	50.0	48.7	
104 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	92	578263	50.0	54.6	
105 Bromobenzene	156	12.392	12.392	0.000	95	401770	50.0	52.2	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	403607	125.0	121.0	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	82	156981	50.0	50.4	
108 N-Propylbenzene	91	12.459	12.459	0.000	98	1758458	50.0	54.1	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	374086	50.0	53.0	
110 1,3,5-Trimethylbenzene	105	12.592	12.592	0.000	94	1241179	50.0	53.3	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	386765	50.0	53.1	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	260233	50.0	52.6	
114 Pentachloroethane	167	12.872	12.872	0.000	92	253497	50.0	57.9	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	1284880	50.0	52.5	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	1634203	50.0	54.5	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	736905	50.0	52.3	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	1409306	50.0	54.6	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	93	521744	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	94	751652	50.0	51.5	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	97	1308170	50.0	50.9	
122 Benzyl chloride	91	13.256	13.256	0.000	98	1144706	50.0	54.8	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	846453	50.0	51.3	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	890468	50.0	51.4	
125 n-Butylbenzene	92	13.402	13.402	0.000	94	718367	50.0	53.4	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	722258	50.0	51.7	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	703889	50.0	51.5	
129 1,2-Dibromo-3-Chloropropane	75	13.980	13.980	0.000	95	146985	50.0	49.2	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	566575	50.0	50.1	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	539707	50.0	49.8	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	242849	50.0	46.2	
133 Naphthalene	128	14.716	14.716	0.000	97	1895563	50.0	51.7	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	521749	50.0	48.9	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	1147540	50.0	48.4	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00113	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00057	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00125	Amount Added:	5.00	Units: uL	
MSV_V_VOA6_00063	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00175	Amount Added:	2.50	Units: uL	
MSV_HP4_ISSS_00005	Amount Added:	1.00	Units: uL	Run Reagent

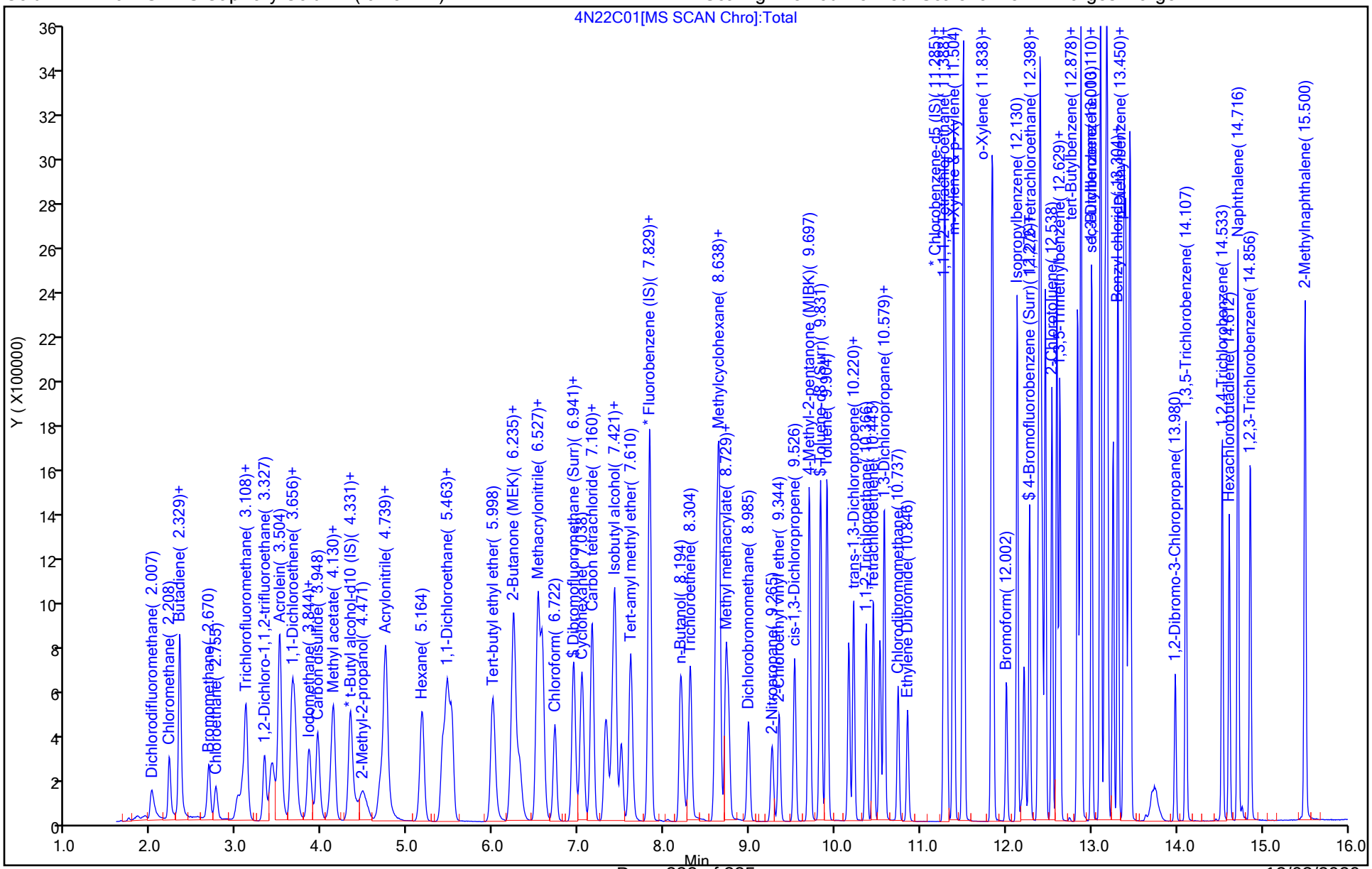
Report Date: 30-Nov-2020 10:29:19 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22C01.D

Injection Date:	30-Nov-2020 08:56:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

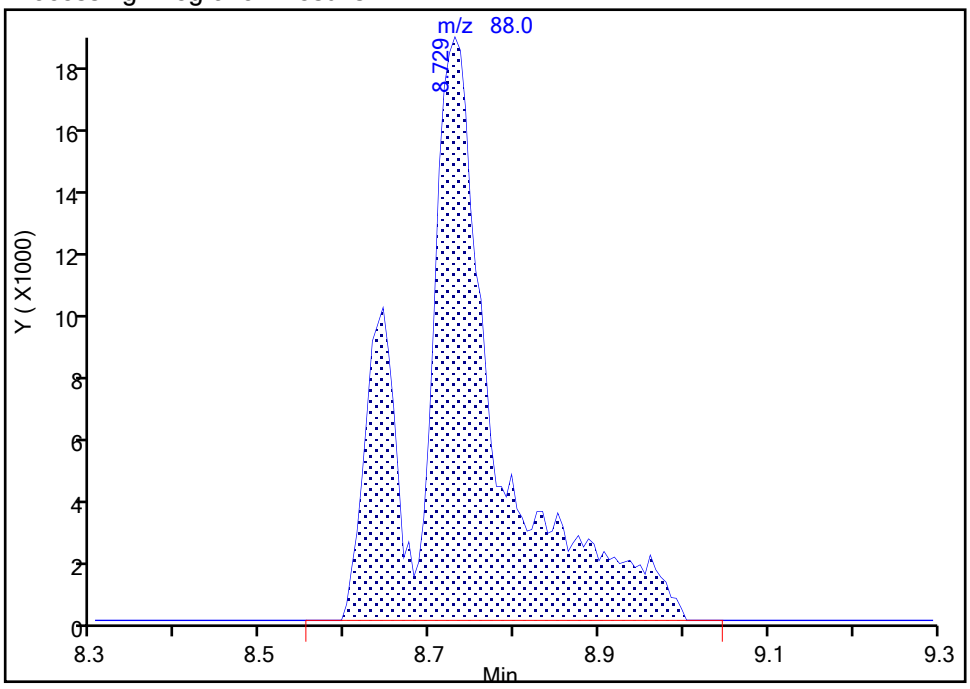
Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22C01.D
Injection Date: 30-Nov-2020 08:56:30 Instrument ID: 23297
Lims ID: CCVIS
Client ID:
Operator ID: jkh09052 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

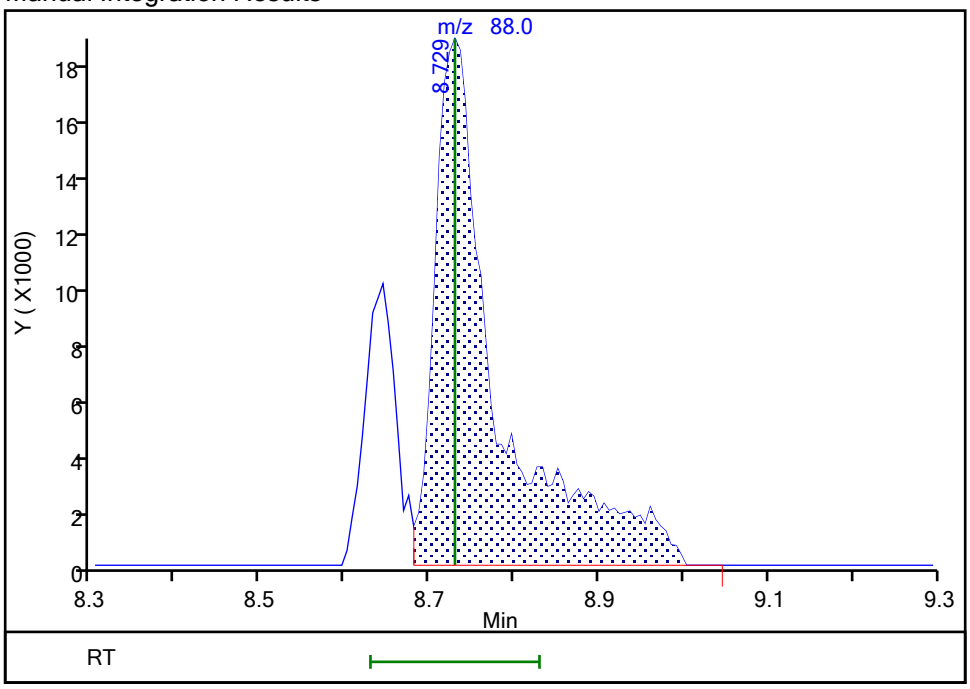
Processing Integration Results

RT: 8.73
Area: 117838
Amount: 824.3802
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 93363
Amount: 653.1561
Amount Units: ug/l



Reviewer: howej, 30-Nov-2020 09:26:15
Audit Action: Split an Integrated Peak Audit Reason: Other

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-71112/3 Calibration Date: 11/30/2020 21:27

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2813	0.2675	0.1000	47.5	50.0	-4.9	20.0
Chloromethane	Ave	0.3201	0.3468	0.1000	54.2	50.0	8.3	20.0
1,3-Butadiene	Ave	0.2693	0.2246		41.7	50.0	-16.6	20.0
Vinyl chloride	Ave	0.2907	0.2976	0.1000	51.2	50.0	2.4	20.0
Bromomethane	Ave	0.2213	0.2219	0.1000	50.1	50.0	0.2	20.0
Chloroethane	Ave	0.1729	0.1768	0.1000	51.1	50.0	2.3	20.0
Trichlorofluoromethane	Ave	0.3556	0.3348	0.1000	47.1	50.0	-5.8	20.0
n-Pentane	Ave	0.3634	0.3822		52.6	50.0	5.2	20.0
Ethanol	Ave	0.0751	0.0850		1410	1250	13.2	20.0
Freon 123a	Ave	0.2328	0.2460		52.8	50.0	5.7	20.0
Acrolein	Ave	1.267	1.390		549	500	9.7	20.0
1,1-Dichloroethene	Ave	0.1820	0.1862	0.1000	51.2	50.0	2.3	20.0
Acetone	Ave	0.6302	0.6128	0.1000	97.2	100	-2.8	20.0
Freon 113	Ave	0.1937	0.2013	0.1000	52.0	50.0	3.9	20.0
2-Propanol	Ave	0.5770	0.5391		234	250	-6.6	20.0
Methyl iodide	Ave	0.3694	0.3766		51.0	50.0	1.9	20.0
Carbon disulfide	Ave	0.6530	0.6768	0.1000	51.8	50.0	3.6	20.0
Methyl acetate	Ave	0.3438	0.3905	0.1000	56.8	50.0	13.6	20.0
Allyl chloride	Ave	0.3670	0.3821		52.1	50.0	4.1	20.0
Methylene Chloride	Ave	0.2196	0.2411	0.1000	54.9	50.0	9.8	20.0
t-Butyl alcohol	Ave	0.999	1.002		251	250	0.3	20.0
Acrylonitrile	Ave	0.1756	0.2019		57.5	50.0	15.0	20.0
Methyl tertiary butyl ether	Ave	0.7051	0.7527	0.1000	53.4	50.0	6.8	20.0
trans-1,2-Dichloroethene	Ave	0.2108	0.2210	0.1000	52.4	50.0	4.9	20.0
n-Hexane	Ave	0.3156	0.3410		54.0	50.0	8.0	20.0
1,1-Dichloroethane	Ave	0.3844	0.4108	0.2000	53.4	50.0	6.9	20.0
di-Isopropyl ether	Ave	0.7457	0.8269		55.4	50.0	10.9	20.0
2-Chloro-1,3-butadiene	Ave	0.3327	0.3363		50.5	50.0	1.1	20.0
Ethyl t-butyl ether	Ave	0.7096	0.7646		53.9	50.0	7.7	20.0
2-Butanone	Ave	0.2583	0.2882	0.1000	112	100	11.6	20.0
cis-1,2-Dichloroethene	Ave	0.2426	0.2633	0.1000	54.3	50.0	8.5	20.0
2,2-Dichloropropane	Ave	0.3233	0.3202		49.5	50.0	-1.0	20.0
Propionitrile	Ave	0.997	1.071		269	250	7.4	20.0
Methacrylonitrile	Ave	0.1721	0.1959		142	125	13.9	20.0
Bromochloromethane	Ave	0.1366	0.1461		53.5	50.0	6.9	20.0
Tetrahydrofuran	Ave	0.9017	0.9381		104	100	4.0	20.0
Chloroform	Ave	0.3822	0.3956	0.2000	51.8	50.0	3.5	20.0
1,1,1-Trichloroethane	Ave	0.3209	0.3150	0.1000	49.1	50.0	-1.9	20.0
Cyclohexane	Ave	0.3680	0.3991	0.1000	54.2	50.0	8.5	20.0
Carbon tetrachloride	Ave	0.2760	0.2755	0.1000	49.9	50.0	-0.2	20.0
1,1-Dichloropropene	Ave	0.3001	0.3151		52.5	50.0	5.0	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-71112/3 Calibration Date: 11/30/2020 21:27

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3181	0.3343		657	625	5.1	20.0
Benzene	Ave	0.9040	0.9762	0.5000	54.0	50.0	8.0	20.0
1,2-Dichloroethane	Ave	0.3174	0.3025	0.1000	47.6	50.0	-4.7	20.0
t-Amyl methyl ether	Ave	0.7014	0.7518		53.6	50.0	7.2	20.0
n-Heptane	Ave	0.3541	0.3843		54.3	50.0	8.5	20.0
n-Butanol	Ave	0.2695	0.3012		1400	1250	11.8	20.0
Trichloroethene	Ave	0.2339	0.2446	0.2000	52.3	50.0	4.6	20.0
Methylcyclohexane	Ave	0.4114	0.4170	0.1000	50.7	50.0	1.4	20.0
1,2-Dichloropropane	Ave	0.2460	0.2724	0.1000	55.4	50.0	10.8	20.0
t-Amyl ethyl ether	Ave	0.3432	0.3629		52.9	50.0	5.7	20.0
Methyl methacrylate	Ave	0.2586	0.2931		56.7	50.0	13.3	20.0
1,4-Dioxane	Ave	0.0700	0.0798	0.0050	713	625	14.1	20.0
Dibromomethane	Ave	0.1642	0.1779		54.1	50.0	8.3	20.0
Bromodichloromethane	Ave	0.2999	0.3163	0.2000	52.7	50.0	5.5	20.0
2-Nitropropane	Ave	1.640	1.467		89.4	100	-10.6	20.0
2-Chloroethyl vinyl ether	Ave	0.2136	0.2337		54.7	50.0	9.4	20.0
cis-1,3-Dichloropropene	Ave	0.3942	0.4309	0.2000	54.6	50.0	9.3	20.0
4-Methyl-2-pentanone	Ave	0.4713	0.5414	0.1000	115	100	14.9	20.0
Toluene	Ave	0.7534	0.8167	0.4000	54.2	50.0	8.4	20.0
trans-1,3-Dichloropropene	Ave	0.4852	0.5304	0.1000	54.7	50.0	9.3	20.0
Ethyl methacrylate	Ave	0.5460	0.6110		56.0	50.0	11.9	20.0
1,1,2-Trichloroethane	Ave	0.3092	0.3422	0.1000	55.3	50.0	10.7	20.0
Tetrachloroethene	Ave	0.3613	0.3471	0.2000	48.0	50.0	-4.0	20.0
1,3-Dichloropropane	Ave	0.5151	0.5779		56.1	50.0	12.2	20.0
2-Hexanone	Ave	0.4935	0.5828	0.1000	118	100	18.1	20.0
Dibromochloromethane	Ave	0.3475	0.3767		54.2	50.0	8.4	20.0
1,2-Dibromoethane	Ave	0.3620	0.3944	0.1000	54.5	50.0	9.0	20.0
1-Chlorohexane	Ave	0.4392	0.4589		52.2	50.0	4.5	20.0
Chlorobenzene	Ave	0.8735	0.9216	0.5000	52.8	50.0	5.5	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3169	0.3341		52.7	50.0	5.4	20.0
Ethylbenzene	Ave	1.445	1.554	0.1000	53.8	50.0	7.6	20.0
m&p-Xylene	Ave	0.5613	0.6049	0.1000	108	100	7.8	20.0
o-Xylene	Ave	0.5566	0.6011	0.3000	54.0	50.0	8.0	20.0
Styrene	Ave	0.9611	1.054	0.3000	54.8	50.0	9.6	20.0
Bromoform	Ave	0.2890	0.3173	0.1000	54.9	50.0	9.8	20.0
Isopropylbenzene	Ave	1.422	1.514	0.1000	53.2	50.0	6.4	20.0
Cyclohexanone	Ave	0.2898	0.3050		658	625	5.2	20.0
1,1,2,2-Tetrachloroethane	Ave	1.016	1.185	0.3000	58.4	50.0	16.7	20.0
Bromobenzene	Ave	0.7379	0.7882		53.4	50.0	6.8	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3197	0.3380		132	125	5.7	20.0
1,2,3-Trichloropropane	Ave	0.2987	0.3191		53.4	50.0	6.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Lab Sample ID: CCVIS 410-71112/3 Calibration Date: 11/30/2020 21:27

Instrument ID: 23297 Calib Start Date: 09/01/2020 20:14

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 09/01/2020 22:29

Lab File ID: 4N22C35.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Propylbenzene	Ave	3.116	3.384		54.3	50.0	8.6	20.0
2-Chlorotoluene	Ave	0.6764	0.7185		53.1	50.0	6.2	20.0
1,3,5-Trimethylbenzene	Ave	2.233	2.440		54.6	50.0	9.3	20.0
4-Chlorotoluene	Ave	0.6981	0.7604		54.5	50.0	8.9	20.0
tert-Butylbenzene	Ave	0.4745	0.5013		52.8	50.0	5.6	20.0
Pentachloroethane	Ave	0.4198	0.4993		59.5	50.0	18.9	20.0
1,2,4-Trimethylbenzene	Ave	2.346	2.510		53.5	50.0	7.0	20.0
sec-Butylbenzene	Ave	2.871	3.086		53.7	50.0	7.5	20.0
1,3-Dichlorobenzene	Ave	1.351	1.434	0.6000	53.1	50.0	6.2	20.0
p-Isopropyltoluene	Ave	2.474	2.673		54.0	50.0	8.0	20.0
1,4-Dichlorobenzene	Ave	1.397	1.469	0.5000	52.6	50.0	5.1	20.0
1,2,3-Trimethylbenzene	Ave	2.461	2.597		52.8	50.0	5.5	20.0
Benzyl chloride	Ave	2.002	2.280		57.0	50.0	13.9	20.0
1,3-Diethylbenzene	Ave	1.581	1.640		51.9	50.0	3.8	20.0
1,4-Diethylbenzene	Ave	1.661	1.706		51.4	50.0	2.7	20.0
n-Butylbenzene	Ave	1.290	1.363		52.8	50.0	5.7	20.0
1,2-Dichlorobenzene	Ave	1.338	1.430	0.4000	53.4	50.0	6.8	20.0
1,2-Diethylbenzene	Ave	1.309	1.378		52.6	50.0	5.3	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2861	0.3051	0.0500	53.3	50.0	6.6	20.0
1,3,5-Trichlorobenzene	Ave	1.084	1.112		51.3	50.0	2.6	20.0
1,2,4-Trichlorobenzene	Ave	1.039	1.068	0.2000	51.4	50.0	2.8	20.0
Hexachlorobutadiene	Ave	0.5038	0.4566		45.3	50.0	-9.4	20.0
Naphthalene	Ave	3.511	3.871		55.1	50.0	10.3	20.0
1,2,3-Trichlorobenzene	Ave	1.022	1.036		50.7	50.0	1.4	20.0
2-Methylnaphthalene	Ave	2.271	2.325		51.2	50.0	2.4	20.0
Dibromofluoromethane (Surr)	Ave	0.2510	0.2488		49.6	50.0	-0.9	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0589	0.0594		50.4	50.0	0.9	20.0
Toluene-d8 (Surr)	Ave	1.290	1.296		50.2	50.0	0.4	20.0
4-Bromofluorobenzene (Surr)	Ave	0.4900	0.4826		49.2	50.0	-1.5	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22C35.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 30-Nov-2020 21:27:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016666-003
Misc. Info.: CCVIS
Operator ID: etp33087 Instrument ID: 23297
Sublist: chrom-MSVoa_23297*sub22

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 23:39:11 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: proctore Date: 30-Nov-2020 22:13:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.001	0.000	99	335110	50.0	47.5	
4 Chloromethane	50	2.208	2.208	0.000	99	434418	50.0	54.2	
5 Butadiene	39	2.336	2.336	0.000	92	281300	50.0	41.7	
6 Vinyl chloride	62	2.336	2.336	0.000	95	372849	50.0	51.2	
8 Bromomethane	94	2.676	2.676	0.000	89	277905	50.0	50.1	
9 Chloroethane	64	2.761	2.761	0.000	100	221456	50.0	51.1	
11 Trichlorofluoromethane	101	3.066	3.066	0.000	98	419430	50.0	47.1	
12 Pentane	43	3.108	3.108	0.000	97	478741	50.0	52.6	
13 Ethanol	45	3.205	3.205	0.000	90	215993	1250.1	1414.5	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.406	3.406	0.000	92	308139	50.0	52.8	
16 Acrolein	56	3.504	3.504	0.000	100	1412575	500.0	548.5	
17 1,1-Dichloroethene	96	3.643	3.643	0.000	98	233254	50.0	51.2	
19 Acetone	58	3.674	3.674	0.000	100	124552	100.0	97.2	
18 112TCTFE	101	3.680	3.680	0.000	75	252152	50.0	52.0	
20 Iodomethane	142	3.850	3.850	0.000	97	471694	50.0	51.0	
21 Isopropyl alcohol	45	3.850	3.850	0.000	53	273930	250.0	233.6	
22 Carbon disulfide	76	3.948	3.948	0.000	99	847810	50.0	51.8	
24 Methyl acetate	43	4.100	4.100	0.000	98	489189	50.0	56.8	
25 3-Chloro-1-propene	41	4.130	4.130	0.000	95	478688	50.0	52.1	
26 Methylene Chloride	84	4.331	4.331	0.000	93	302079	50.0	54.9	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.337	0.000	0	508114	250.0	250.0	
28 2-Methyl-2-propanol	59	4.471	4.471	0.000	99	509011	250.0	250.6	
29 Acrylonitrile	53	4.672	4.672	0.000	100	252922	50.0	57.5	
30 Methyl tert-butyl ether	73	4.732	4.732	0.000	95	942871	50.0	53.4	
31 trans-1,2-Dichloroethene	96	4.739	4.739	0.000	99	276883	50.0	52.4	
33 Hexane	57	5.170	5.170	0.000	93	427151	50.0	54.0	
34 1,1-Dichloroethane	63	5.402	5.402	0.000	96	514534	50.0	53.4	
36 Isopropyl ether	45	5.462	5.462	0.000	96	1035884	50.0	55.4	
37 2-Chloro-1,3-butadiene	53	5.517	5.517	0.000	89	421262	50.0	50.5	
38 Tert-butyl ethyl ether	59	5.998	5.998	0.000	98	957743	50.0	53.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
40 2-Butanone (MEK)	43	6.217	6.217	0.000	100	722106	100.0	111.6	
41 cis-1,2-Dichloroethene	96	6.241	6.241	0.000	82	329795	50.0	54.3	
42 2,2-Dichloropropane	77	6.253	6.253	0.000	85	401076	50.0	49.5	
44 Propionitrile	54	6.308	6.308	0.000	99	544352	250.0	268.6	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	613554	125.0	142.3	
46 Chlorobromomethane	128	6.570	6.570	0.000	96	183008	50.0	53.5	
47 Tetrahydrofuran	71	6.576	6.576	0.000	88	190660	100.0	104.0	
48 Chloroform	83	6.722	6.722	0.000	92	495519	50.0	51.8	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	311658	50.0	49.6	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	98	394590	50.0	49.1	
51 Cyclohexane	56	7.038	7.038	0.000	90	499985	50.0	54.2	
52 Carbon tetrachloride	117	7.154	7.154	0.000	95	345110	50.0	49.9	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	96	394715	50.0	52.5	
54 Isobutyl alcohol	41	7.318	7.318	0.000	95	424688	625.0	656.9	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.397	0.000	97	74391	50.0	50.4	
56 Benzene	78	7.421	7.421	0.000	96	1222891	50.0	54.0	
57 1,2-Dichloroethane	62	7.500	7.500	0.000	96	378875	50.0	47.6	
59 Tert-amyl methyl ether	73	7.610	7.610	0.000	99	941781	50.0	53.6	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1252665	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	92	481343	50.0	54.3	
63 n-Butanol	56	8.194	8.194	0.000	90	765260	1250.0	1397.1	
64 Trichloroethene	95	8.303	8.303	0.000	98	306437	50.0	52.3	
65 Methylcyclohexane	83	8.608	8.608	0.000	91	522354	50.0	50.7	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	92	454643	50.0	52.9	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	70	341259	50.0	55.4	
69 Methyl methacrylate	69	8.723	8.723	0.000	93	367129	50.0	56.7	
68 1,4-Dioxane	88	8.729	8.729	0.000	38	101352	625.0	712.9	M
70 Dibromomethane	93	8.754	8.754	0.000	97	222794	50.0	54.1	
72 Dichlorobromomethane	83	8.985	8.985	0.000	100	396237	50.0	52.7	
73 2-Nitropropane	41	9.259	9.259	0.000	97	298169	100.0	89.4	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	90	292739	50.0	54.7	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	539739	50.0	54.6	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1356486	100.0	114.9	
$ 77 Toluene-d8 (Surr)	98	9.830	9.830	0.000	93	1210241	50.0	50.2	
78 Toluene	92	9.903	9.903	0.000	98	762704	50.0	54.2	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	495282	50.0	54.7	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	570595	50.0	56.0	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	88	319609	50.0	55.3	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	324101	50.0	48.0	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	89	539677	50.0	56.1	
86 2-Hexanone	43	10.573	10.573	0.000	97	1088489	100.0	118.1	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	351829	50.0	54.2	
89 Ethylene Dibromide	107	10.846	10.846	0.000	98	368332	50.0	54.5	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	933862	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	96	428506	50.0	52.2	
93 Chlorobenzene	112	11.303	11.303	0.000	96	860645	50.0	52.8	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	311994	50.0	52.7	
95 Ethylbenzene	91	11.388	11.388	0.000	98	1451123	50.0	53.8	
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	100	1129852	100.0	107.8	
97 o-Xylene	106	11.832	11.832	0.000	96	561390	50.0	54.0	
98 Styrene	104	11.850	11.850	0.000	95	983880	50.0	54.8	
99 Bromoform	173	12.008	12.008	0.000	98	296299	50.0	54.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
100 Isopropylbenzene	105	12.130	12.130	0.000	95	1413927	50.0	53.2	
102 Cyclohexanone	55	12.209	12.209	0.000	91	387391	625.0	657.6	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	450677	50.0	49.2	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	92	588978	50.0	58.4	
105 Bromobenzene	156	12.392	12.392	0.000	95	391650	50.0	53.4	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	89	419826	125.0	132.1	
107 1,2,3-Trichloropropane	110	12.422	12.422	0.000	81	158541	50.0	53.4	
108 N-Propylbenzene	91	12.459	12.459	0.000	98	1681238	50.0	54.3	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	357022	50.0	53.1	
110 1,3,5-Trimethylbenzene	105	12.592	12.592	0.000	94	1212341	50.0	54.6	
111 4-Chlorotoluene	126	12.629	12.629	0.000	96	377856	50.0	54.5	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	249073	50.0	52.8	
114 Pentachloroethane	167	12.872	12.872	0.000	94	248096	50.0	59.5	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	1247377	50.0	53.5	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	1533559	50.0	53.7	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	98	712685	50.0	53.1	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	1328434	50.0	54.0	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	93	496892	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	94	730080	50.0	52.6	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	1290278	50.0	52.8	
122 Benzyl chloride	91	13.256	13.256	0.000	98	1133016	50.0	57.0	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	814963	50.0	51.9	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	847634	50.0	51.4	
125 n-Butylbenzene	92	13.402	13.402	0.000	94	677143	50.0	52.8	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	710553	50.0	53.4	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	684787	50.0	52.6	
129 1,2-Dibromo-3-Chloropropane	75	13.979	13.979	0.000	90	151622	50.0	53.3	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	552786	50.0	51.3	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	530579	50.0	51.4	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	226884	50.0	45.3	
133 Naphthalene	128	14.716	14.716	0.000	97	1923595	50.0	55.1	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	514687	50.0	50.7	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	1155122	50.0	51.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

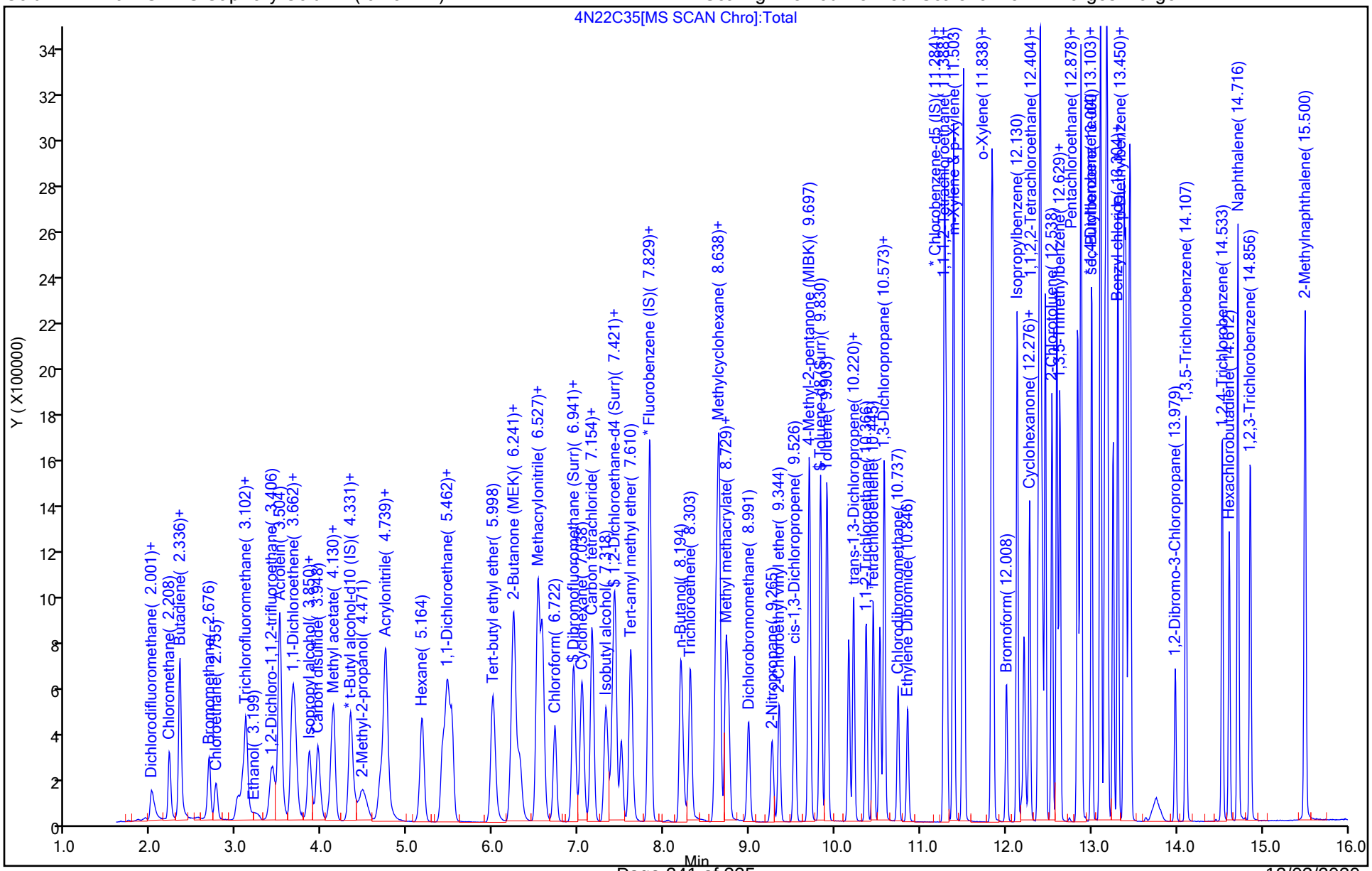
MSV_V_VOA1_00113	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00057	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00125	Amount Added:	5.00	Units: uL	
MSV_V_VOA6_00063	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00175	Amount Added:	2.50	Units: uL	
MSV_V_ETOH_00011	Amount Added:	10.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added:	1.00	Units: uL	Run Reagent

Report Date: 30-Nov-2020 23:39:12 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22C35.D				
Injection Date:	30-Nov-2020 21:27:30	Instrument ID:	23297	Operator ID:	etp33087
Lims ID:	CCVIS			Worklist Smp#:	3
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	2
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

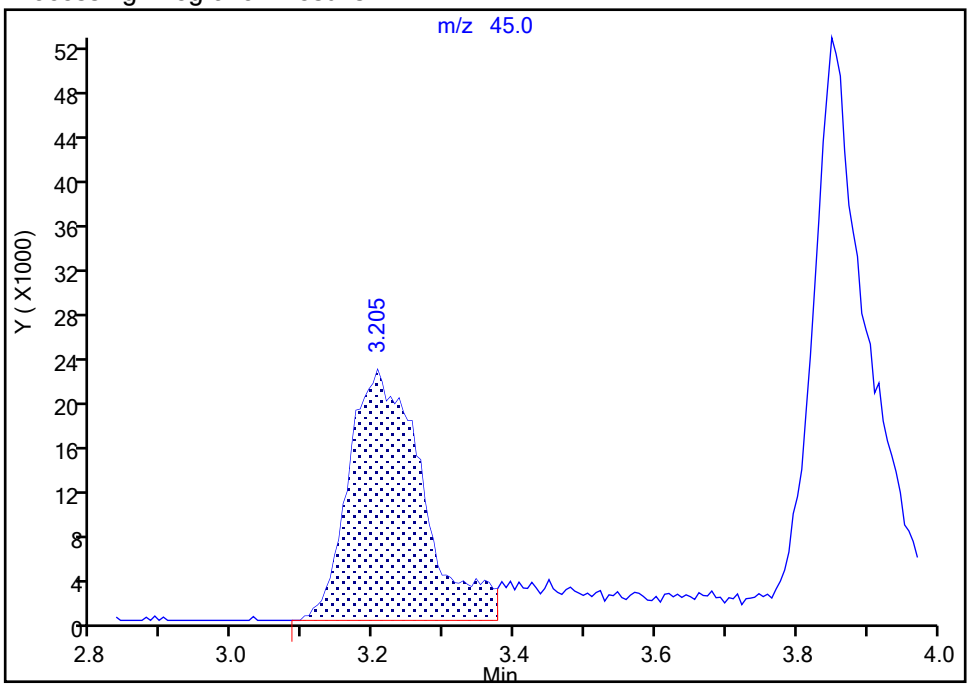
Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22C35.D				
Injection Date:	30-Nov-2020 21:27:30	Instrument ID:	23297		
Lims ID:	CCVIS				
Client ID:					
Operator ID:	etp33087	ALS Bottle#:	2	Worklist Smp#:	3
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

13 Ethanol, CAS: 64-17-5

Signal: 1

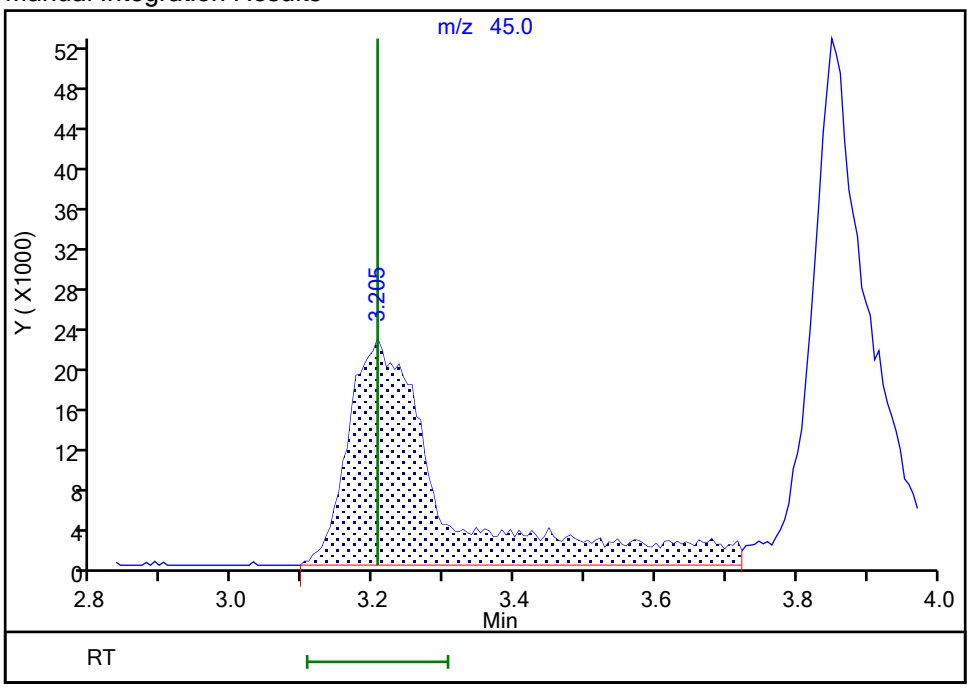
Processing Integration Results

RT: 3.21
Area: 165640
Amount: 1084.7164
Amount Units: ug/l



Manual Integration Results

RT: 3.21
Area: 215993
Amount: 1414.4600
Amount Units: ug/l



Reviewer: proctore, 30-Nov-2020 21:51:42
Audit Action: Assigned New Baseline Audit Reason: Baseline

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

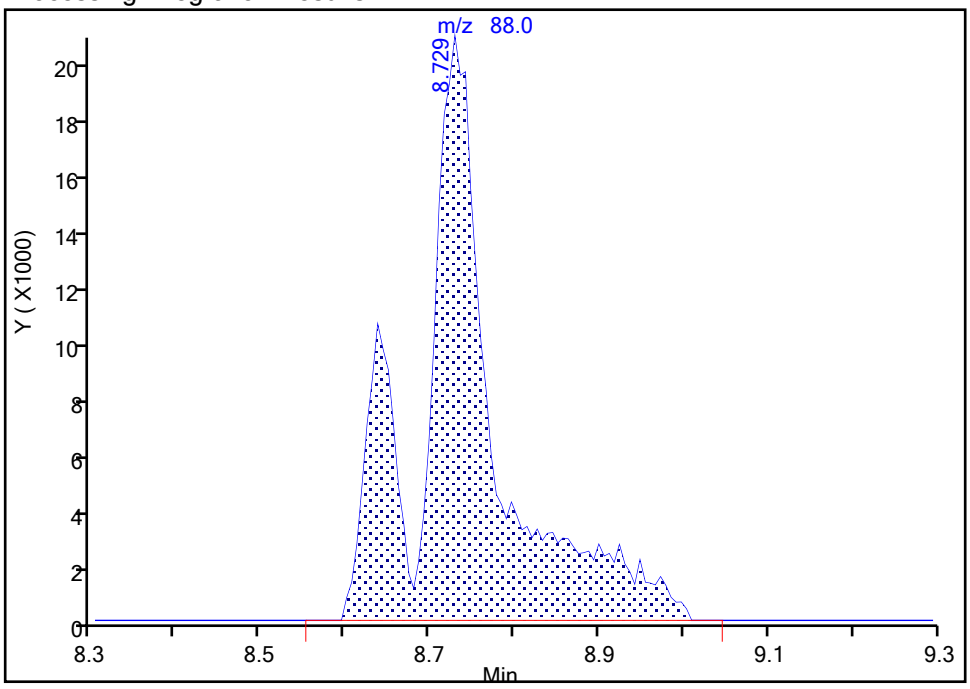
Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22C35.D
Injection Date: 30-Nov-2020 21:27:30 Instrument ID: 23297
Lims ID: CCVIS
Client ID:
Operator ID: etp33087 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

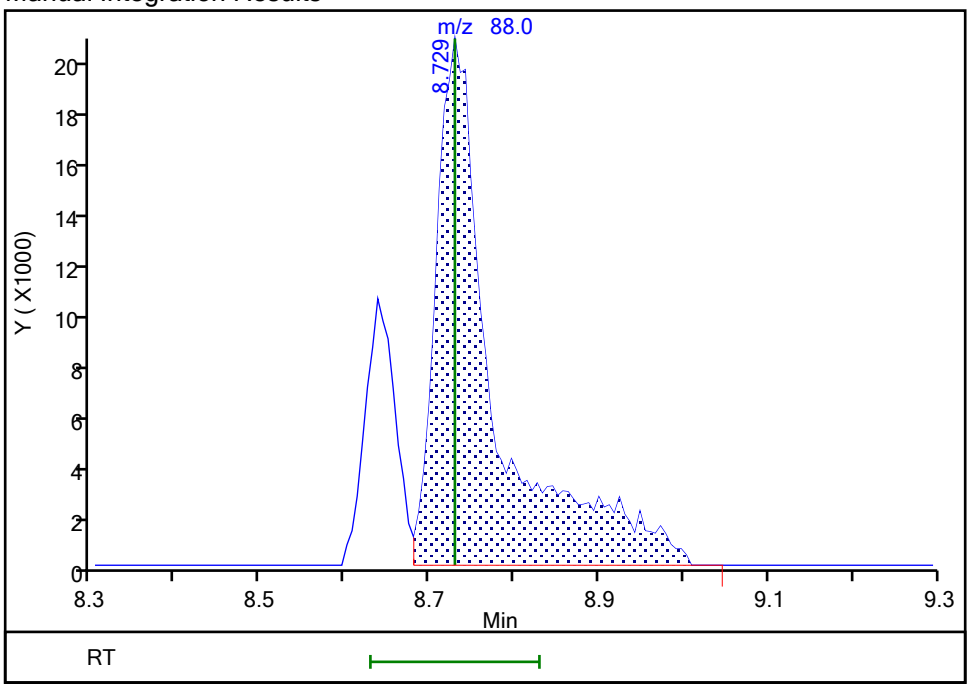
Processing Integration Results

RT: 8.73
Area: 127324
Amount: 895.5499
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 101352
Amount: 712.8725
Amount Units: ug/l



Reviewer: proctore, 30-Nov-2020 21:52:20
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01T01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	01-Sep-2020 19:24:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:					
Misc. Info.:	BFB				
Operator ID:	MEC29284	Instrument ID:	23297		
Method:	\\chromfs\Lancaster\ChromData\23297\20200901-9543.b\MSVoa_23297.m				
Limit Group:	MSV - 8260C_D				
Last Update:	02-Sep-2020 00:57:28	Calib Date:	02-Sep-2020 00:22:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01I12.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1059				
First Level Reviewer: campbellme		Date:	01-Sep-2020 19:37:29		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags

$ 32 BFB

Reagents:

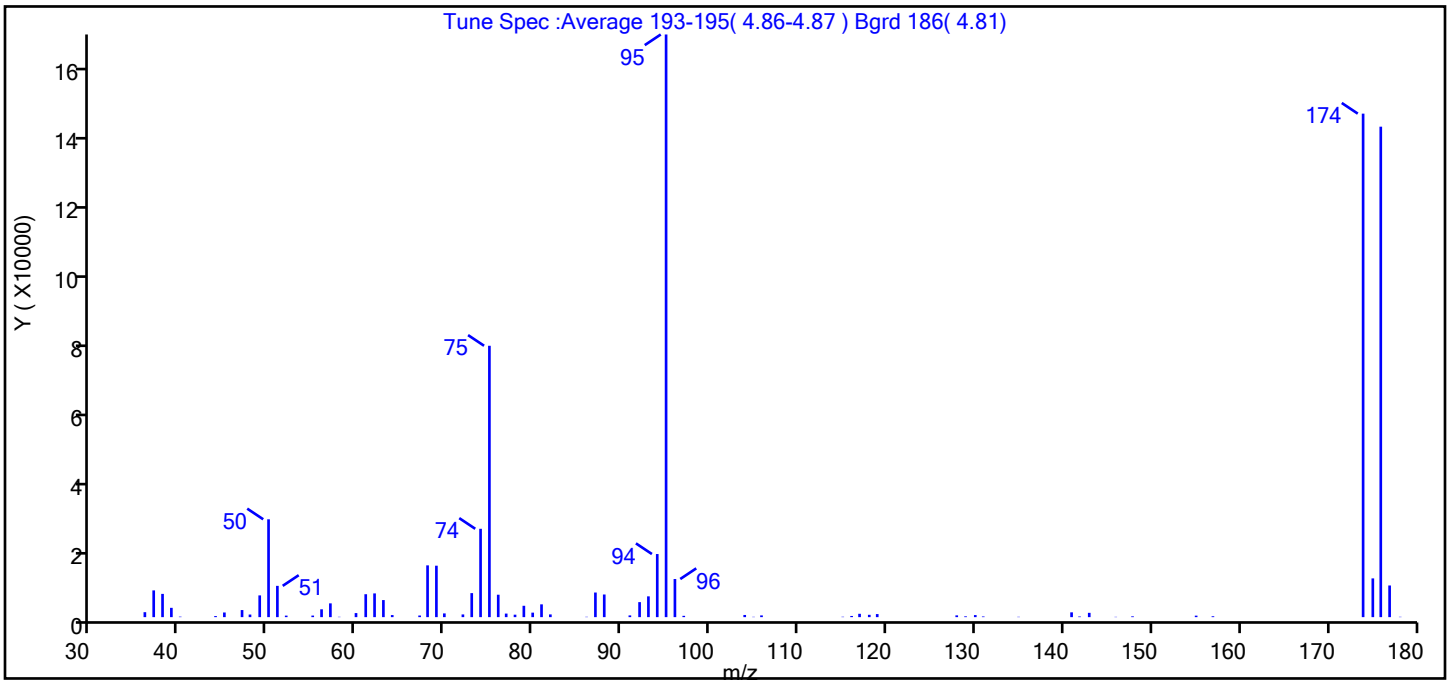
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01T01.D
Injection Date: 01-Sep-2020 19:24:30 Instrument ID: 23297
Lims ID: bfb
Client ID:
Operator ID: MEC29284 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260D

$ 32 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	50 to 200% of m/z 174	100.0 (115.7)
96	5 to 9% of m/z 95	6.5
173	<2% of m/z 174	0.0 (0.0)
174	50 to 200% of m/z 95	86.4
175	5 to 9% of m/z 174	6.6 (7.7)
176	95 to 105% of m/z 174	84.2 (97.4)
177	5 to 10% of m/z 176	5.4 (6.5)

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01T01.D\MSVoa_23297.rslt\spectra.d
Injection Date: 01-Sep-2020 19:24:30
Spectrum: Tune Spec :Average 193-195(4.86-4.87) Bgrd 186(4.81)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 72

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1412	61.00	6525	82.00	778	119.00	873
37.00	7613	62.00	6754	86.00	97	128.00	506
38.00	6619	63.00	4857	87.00	7005	129.00	229
39.00	2651	64.00	589	88.00	6446	130.00	584
40.00	137	67.00	464	91.00	493	131.00	189
44.00	308	68.00	14738	92.00	4273	135.00	94
45.00	1326	69.00	14641	93.00	5918	141.00	1368
47.00	2017	70.00	1062	94.00	17960	142.00	180
48.00	740	72.00	773	95.00	165824	143.00	1226
49.00	6190	73.00	6838	96.00	10848	146.00	83
50.00	27848	74.00	25144	97.00	372	148.00	226
51.00	8904	75.00	77232	104.00	617	155.00	427
52.00	436	76.00	6381	105.00	91	157.00	249
55.00	446	77.00	1014	106.00	496	174.00	143296
56.00	2233	78.00	700	115.00	112	175.00	11027
57.00	3922	79.00	3234	116.00	337	176.00	139584
58.00	94	80.00	1283	117.00	953	177.00	9012
60.00	1158	81.00	3643	118.00	664	178.00	95

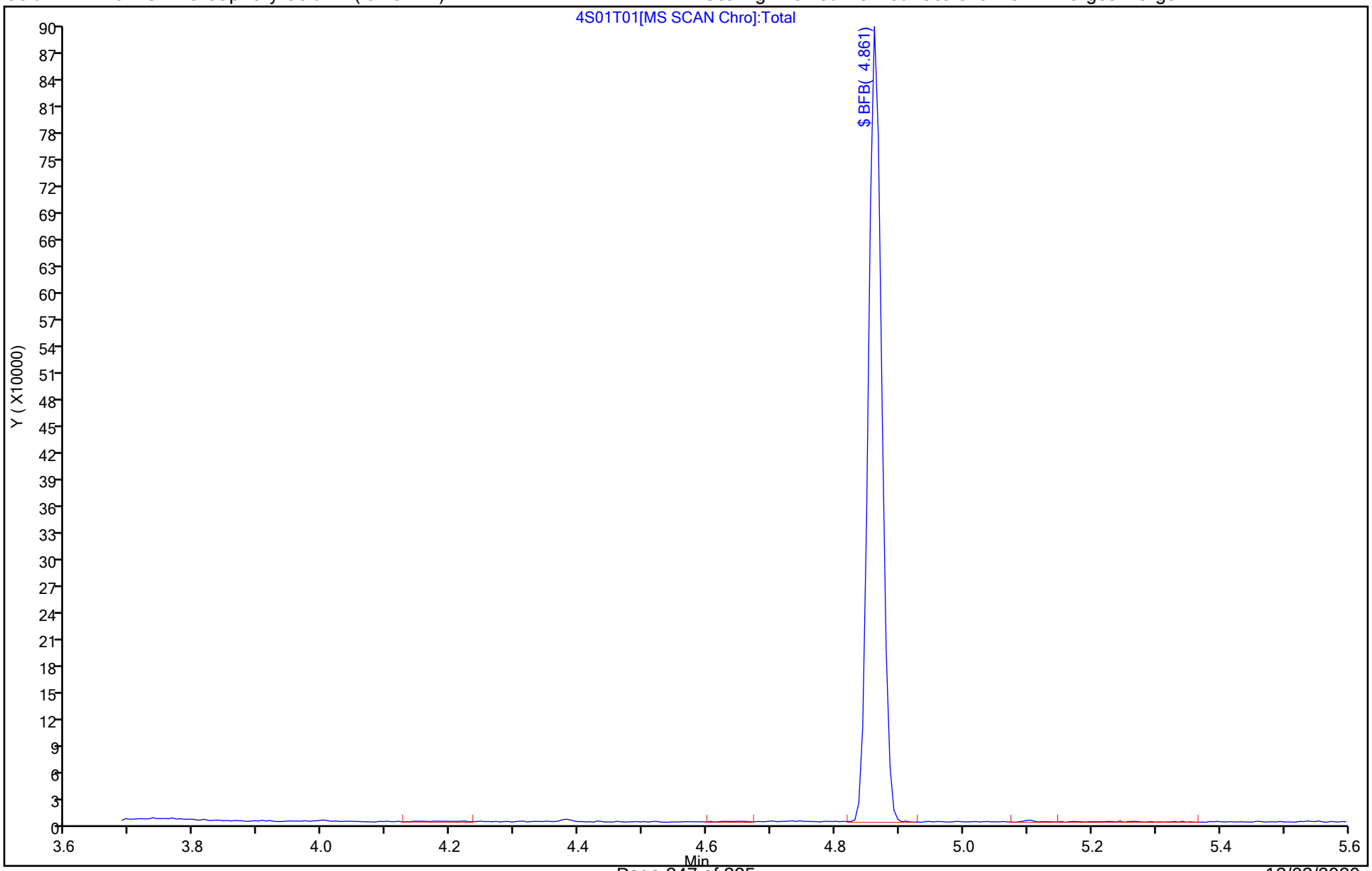
Report Date: 02-Sep-2020 00:57:28 Chrom Revision: 2.3 20-Aug-2020 13:57:12

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20200901-9543.b\4S01T01.D

Injection Date:	01-Sep-2020 19:24:30	Instrument ID:	23297	Operator ID:	MEC29284
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28T01.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	28-Nov-2020 08:53:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016580-001				
Misc. Info.:	BFB				
Operator ID:	lcp00895	Instrument ID:	23297		
Method:	\\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m				
Limit Group:	MSV - 8260C_D				
Last Update:	28-Nov-2020 11:47:19	Calib Date:	02-Sep-2020 21:15:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1634				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 32 BFB	95	4.861	4.861	0.000	0	41259	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

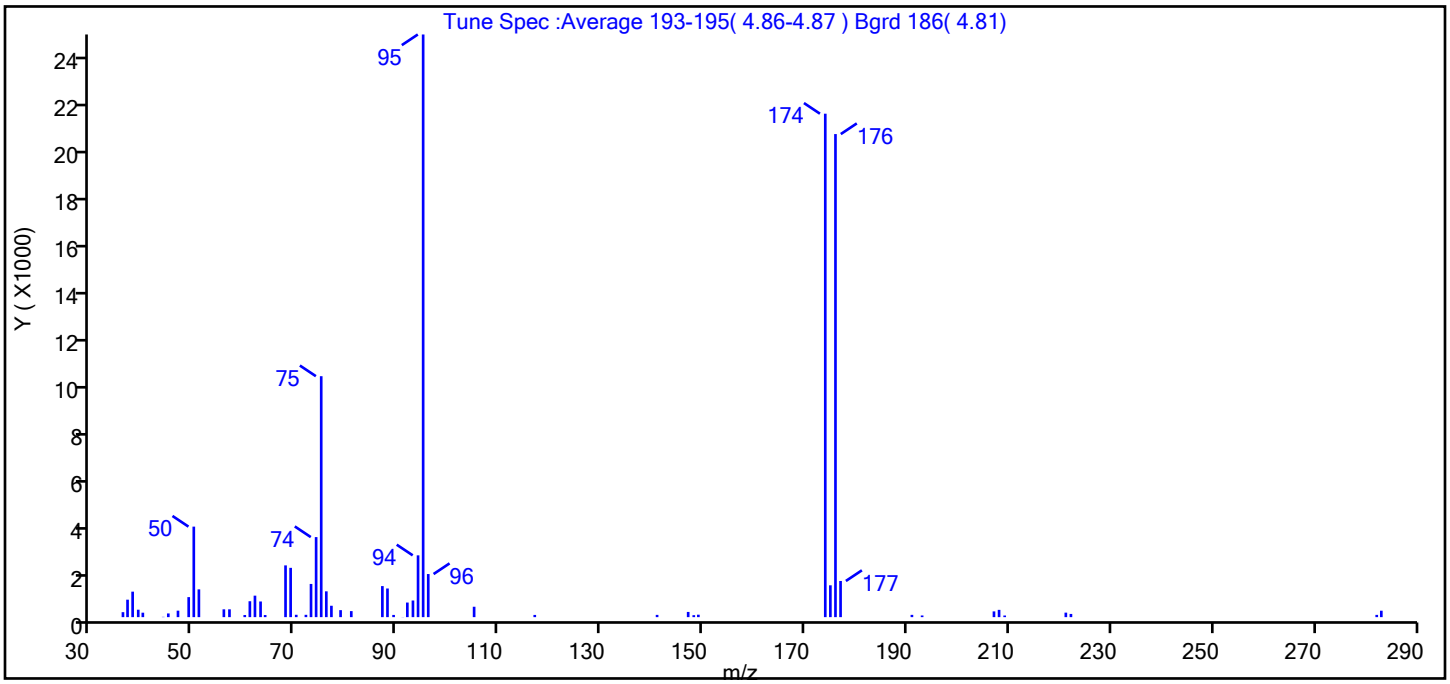
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28T01.D
Injection Date: 28-Nov-2020 08:53:30 Instrument ID: 23297
Lims ID: BFB
Client ID:
Operator ID: lcp00895 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 32 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.5
75	30 to 60% of m/z 95	41.4
96	5 to 9% of m/z 95	7.4
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	86.4
175	5 to 9% of m/z 174	5.5 (6.3)
176	Greater than 95% but less than 101% of m/z 174	82.9 (96.0)
177	5 to 9% of m/z 176	6.2 (7.5)

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28T01.D\MSVoa_23297.rslt\spectra.d
Injection Date: 28-Nov-2020 08:53:30
Spectrum: Tune Spec :Average 193-195(4.86-4.87) Bgrd 186(4.81)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 57

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	211	62.00	911	88.00	1215	175.00	1350
37.00	741	63.00	664	89.00	94	176.00	20488
38.00	1081	64.00	89	91.00	5	177.00	1534
39.00	315	68.00	2195	92.00	619	191.00	97
40.00	189	69.00	2091	93.00	706	193.00	71
44.00	12	70.00	100	94.00	2621	207.00	244
45.00	157	72.00	99	95.00	24712	208.00	309
47.00	275	73.00	1408	96.00	1828	209.00	69
49.00	849	74.00	3395	105.00	441	221.00	191
50.00	3839	75.00	10219	117.00	94	222.00	136
51.00	1178	76.00	1095	141.00	96	282.00	96
56.00	332	77.00	483	147.00	221	283.00	273
57.00	332	79.00	297	148.00	84		
60.00	90	81.00	256	149.00	104		
61.00	675	87.00	1317	174.00	21352		

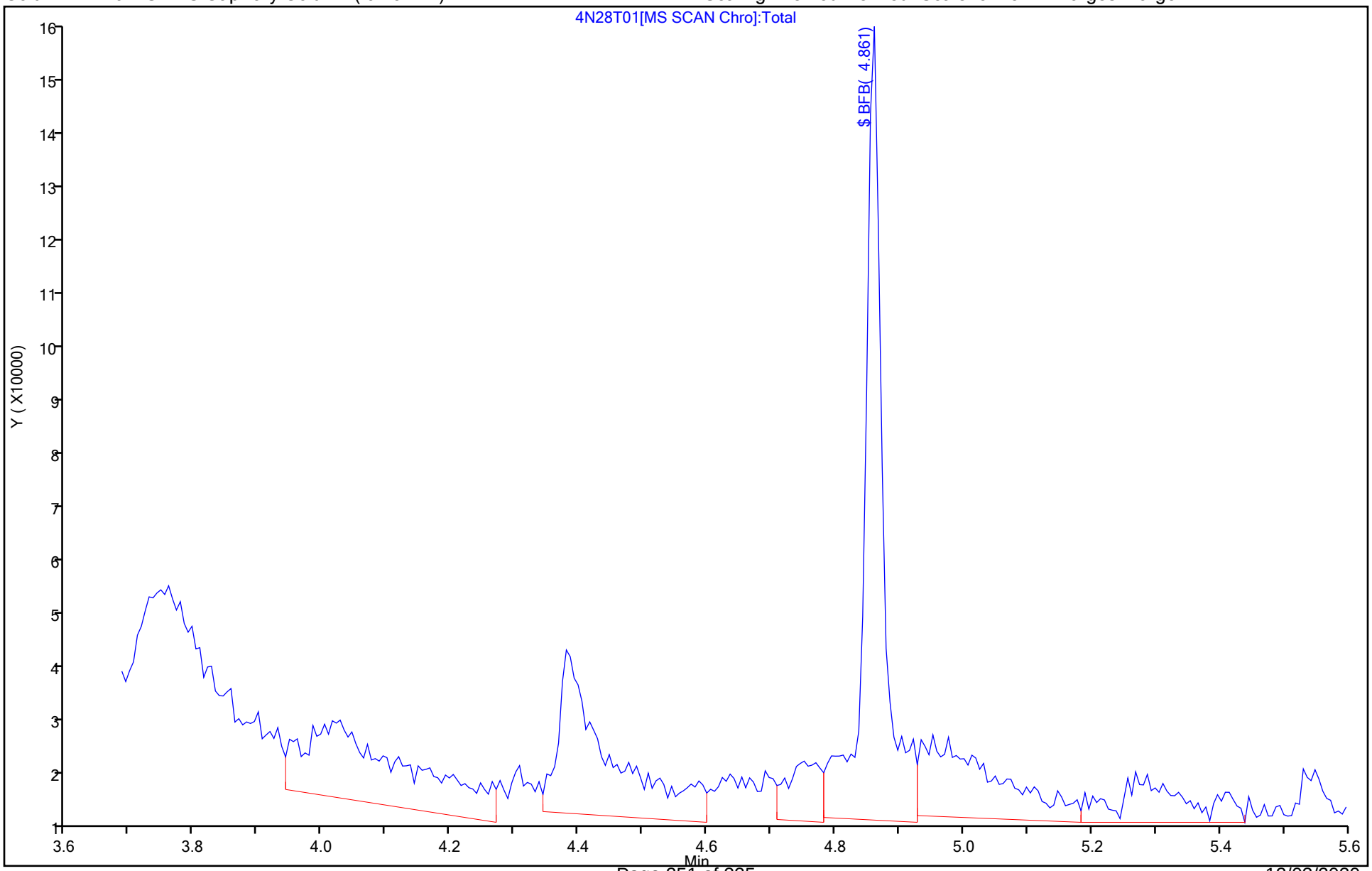
Report Date: 28-Nov-2020 11:47:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28T01.D

Injection Date:	28-Nov-2020 08:53:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30T01.D
Lims ID: BFB
Client ID:
Sample Type: BFB
Inject. Date: 30-Nov-2020 08:17:30 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Sample Info: 410-0016607-001
Misc. Info.: BFB
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 20:29:24 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: proctore Date: 30-Nov-2020 20:29:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 32 BFB	95	4.861	4.861	0.000	0	201996	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

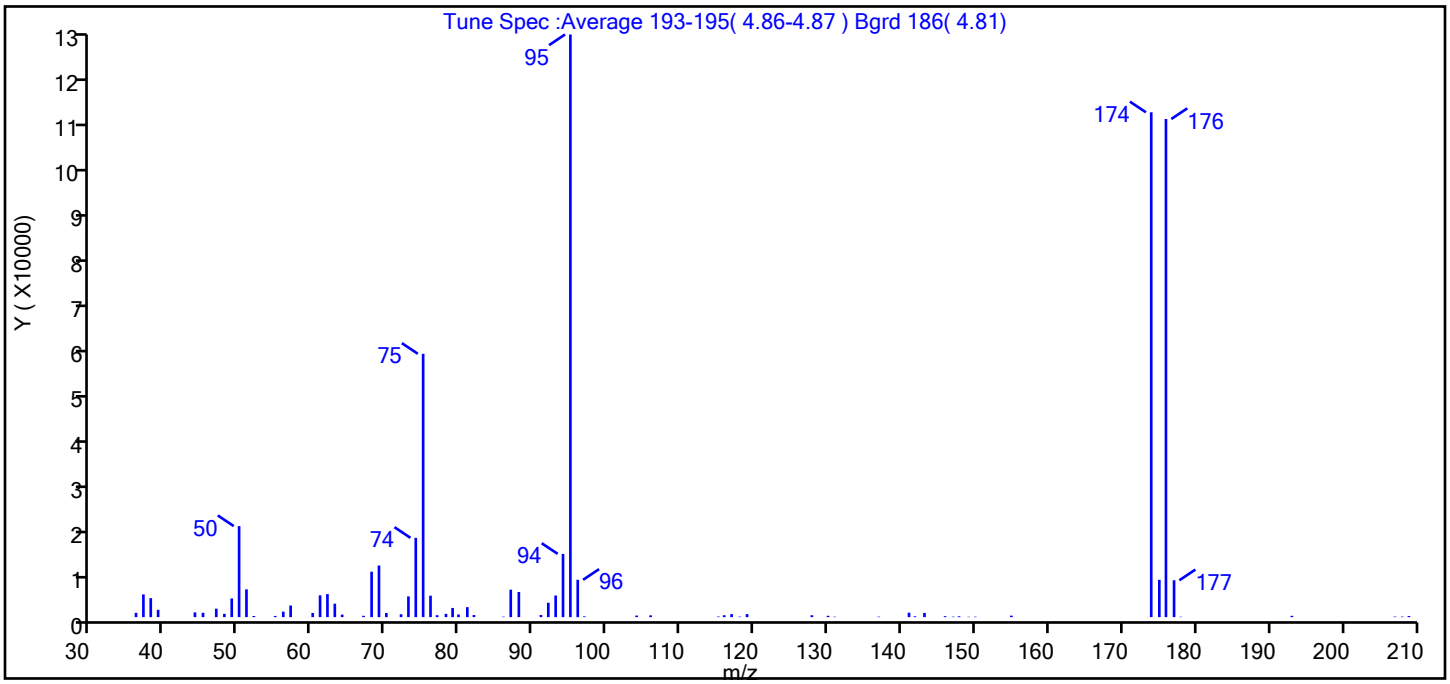
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30T01.D
Injection Date: 30-Nov-2020 08:17:30 Instrument ID: 23297
Lims ID: BFB
Client ID:
Operator ID: jkh09052 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 32 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.6
75	30 to 60% of m/z 95	45.2
96	5 to 9% of m/z 95	6.4
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	86.6
175	5 to 9% of m/z 174	6.4 (7.4)
176	Greater than 95% but less than 101% of m/z 174	85.5 (98.7)
177	5 to 9% of m/z 176	6.3 (7.4)

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30T01.D\MSVoa_23297.rslt\spectra.d
Injection Date: 30-Nov-2020 08:17:30
Spectrum: Tune Spec :Average 193-195(4.86-4.87) Bgrd 186(4.81)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 74

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	916	64.00	549	91.00	457	142.00	184
37.00	4868	67.00	287	92.00	3080	143.00	903
38.00	4068	68.00	9729	93.00	4625	146.00	208
39.00	1574	69.00	11050	94.00	13536	147.00	99
44.00	1019	70.00	884	95.00	124672	148.00	187
45.00	928	72.00	621	96.00	7991	149.00	86
47.00	1807	73.00	4439	97.00	169	150.00	100
48.00	704	74.00	16968	104.00	341	155.00	325
49.00	3996	75.00	56352	106.00	383	174.00	108024
50.00	19480	76.00	4597	115.00	124	175.00	7991
51.00	5949	77.00	425	116.00	407	176.00	106584
52.00	245	78.00	706	117.00	647	177.00	7892
55.00	258	79.00	1967	118.00	105	178.00	88
56.00	1181	80.00	571	119.00	650	193.00	282
57.00	2489	81.00	2142	128.00	407	207.00	123
60.00	896	82.00	453	130.00	292	208.00	119
61.00	4668	86.00	104	131.00	94	209.00	239
62.00	4933	87.00	5879	137.00	105		
63.00	2878	88.00	5380	141.00	953		

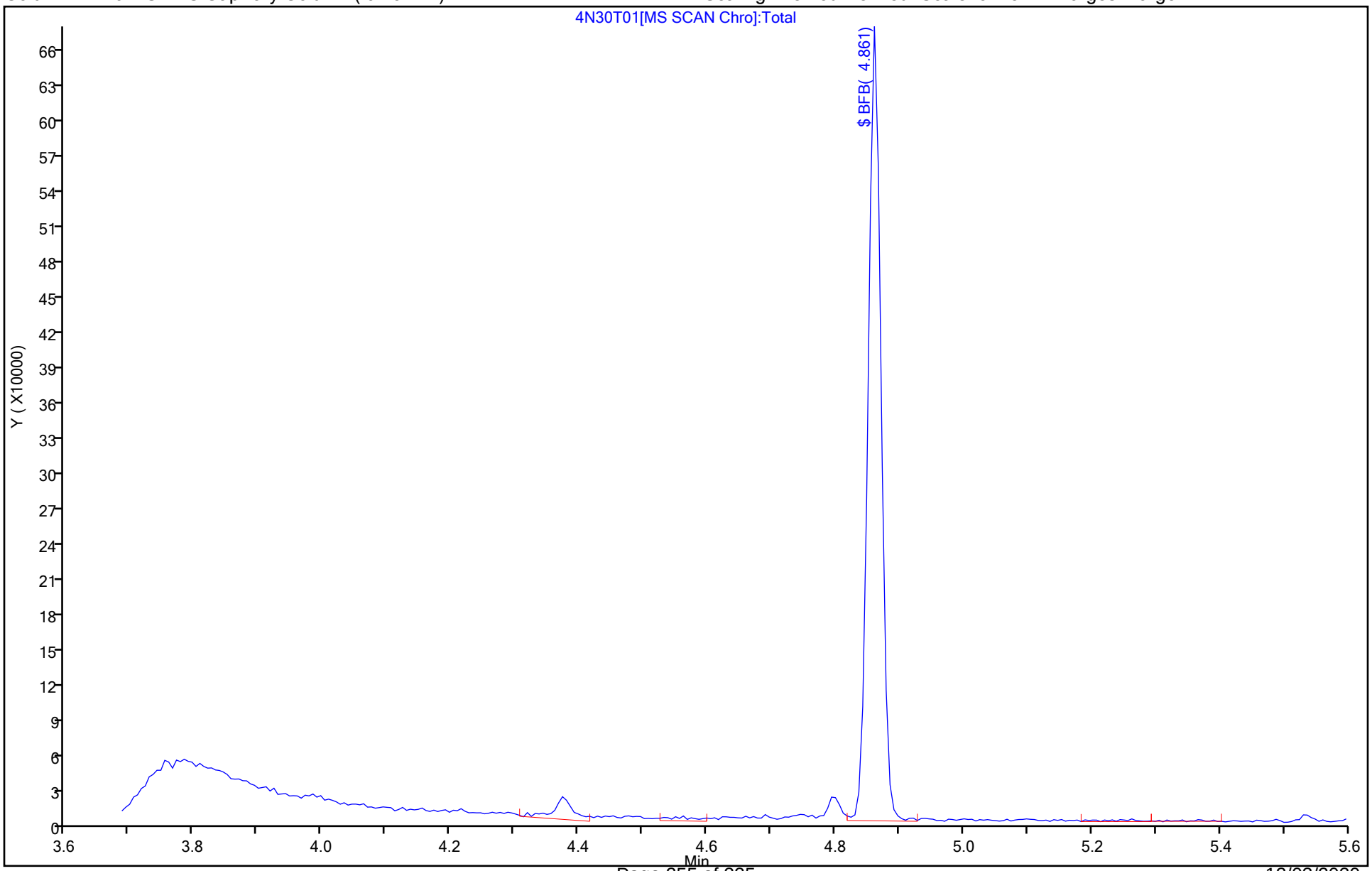
Report Date: 30-Nov-2020 20:29:24 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N30T01.D

Injection Date:	30-Nov-2020 08:17:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30T35.D				
Lims ID:	BFB				
Client ID:					
Sample Type:	BFB				
Inject. Date:	30-Nov-2020 20:45:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0016666-001				
Misc. Info.:	BFB				
Operator ID:	etp33087	Instrument ID:	23297		
Method:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m				
Limit Group:	MSV - 8260C_D				
Last Update:	30-Nov-2020 23:39:09	Calib Date:	02-Sep-2020 21:15:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1678				

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 32 BFB	95	4.855	4.855	0.000	0	246483	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

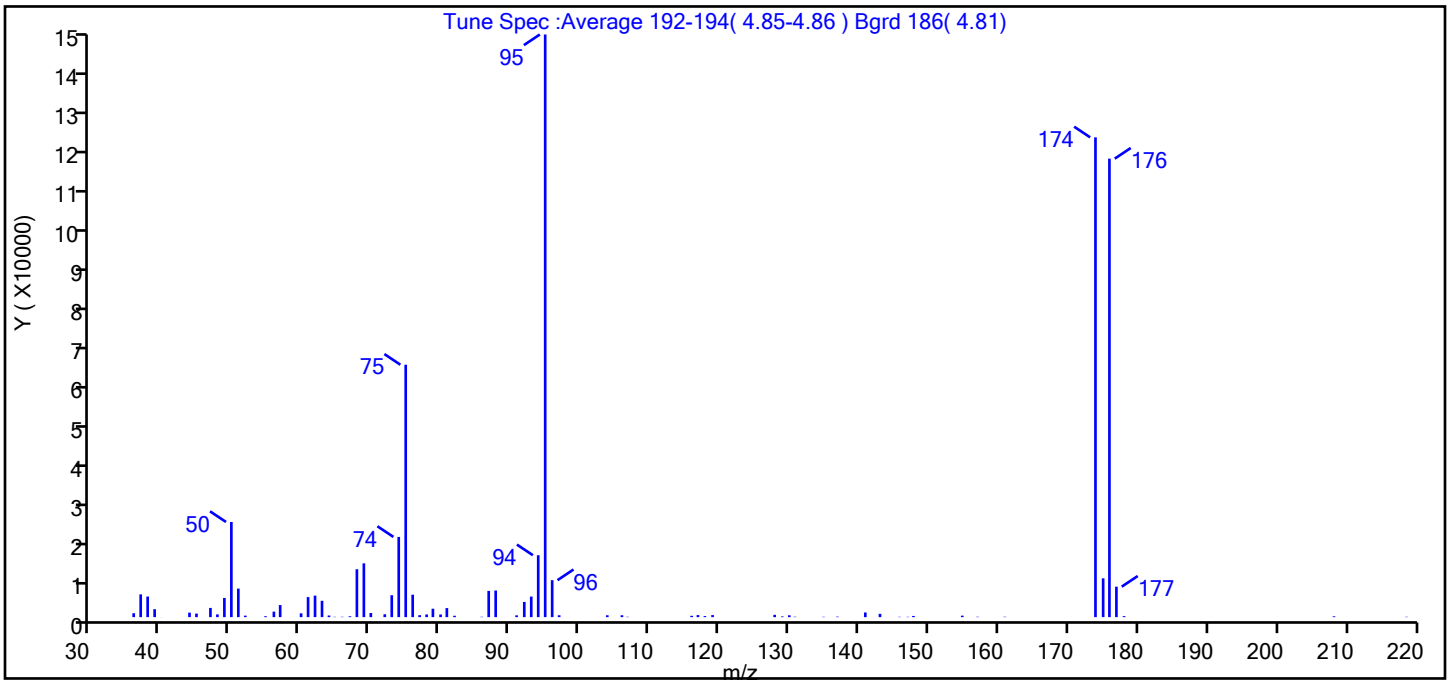
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30T35.D
Injection Date: 30-Nov-2020 20:45:30 Instrument ID: 23297
Lims ID: BFB
Client ID:
Operator ID: etp33087 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 32 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	16.3
75	30 to 60% of m/z 95	43.3
96	5 to 9% of m/z 95	6.3
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	82.3
175	5 to 9% of m/z 174	6.7 (8.1)
176	Greater than 95% but less than 101% of m/z 174	78.7 (95.6)
177	5 to 9% of m/z 176	5.2 (6.6)

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30T35.D\MSVoa_23297.rslt\spectra.d
Injection Date: 30-Nov-2020 20:45:30
Spectrum: Tune Spec :Average 192-194(4.85-4.86) Bgrd 186(4.81)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 76

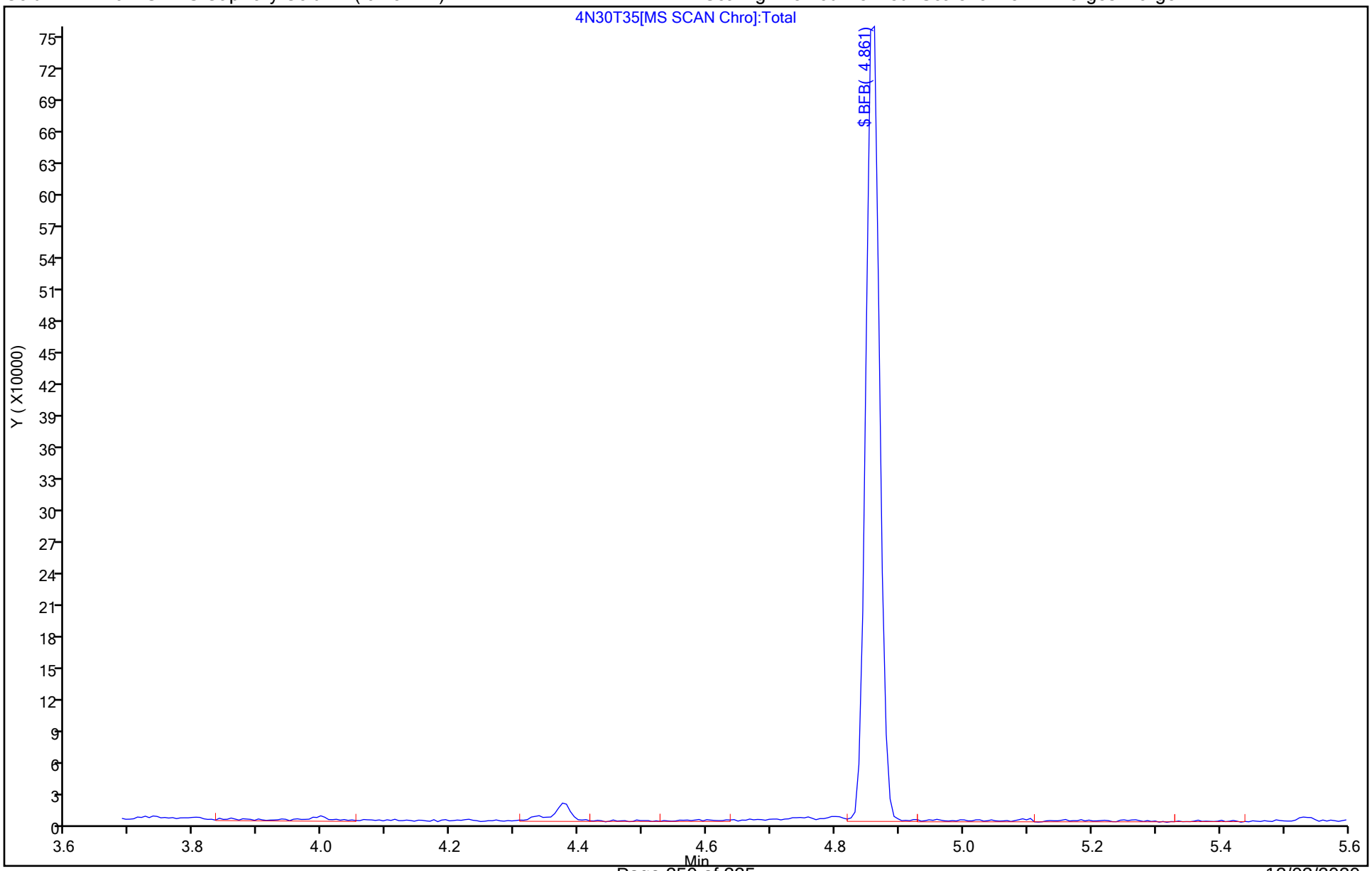
m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	988	63.00	4119	86.00	94	130.00	467
37.00	5737	64.00	417	87.00	6614	131.00	106
38.00	5191	65.00	84	88.00	6709	135.00	87
39.00	2005	66.00	90	91.00	451	137.00	129
40.00	18	67.00	212	92.00	3832	141.00	1173
44.00	1133	68.00	12072	93.00	5182	143.00	834
45.00	902	69.00	13556	94.00	15602	146.00	86
47.00	2324	70.00	1044	95.00	146816	147.00	85
48.00	694	72.00	725	96.00	9316	148.00	297
49.00	4838	73.00	5531	97.00	477	155.00	377
50.00	23976	74.00	20216	104.00	475	157.00	100
51.00	7193	75.00	63600	106.00	475	161.00	103
52.00	377	76.00	5657	107.00	87	174.00	120896
55.00	230	77.00	499	116.00	340	175.00	9783
56.00	1389	78.00	681	117.00	518	176.00	115528
57.00	3044	79.00	2125	118.00	268	177.00	7677
60.00	964	80.00	671	119.00	521	178.00	255
61.00	5054	81.00	2283	128.00	581	208.00	206
62.00	5420	82.00	350	129.00	173	218.00	87

Report Date: 30-Nov-2020 23:39:09 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N30T35.D				
Injection Date:	30-Nov-2020 20:45:30	Instrument ID:	23297	Operator ID:	etp33087
Lims ID:	BFB			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-70709/7

Matrix: Water Lab File ID: 4N28B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 11:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	98		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 28-Nov-2020 11:09:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-007
Misc. Info.: MB
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 28-Nov-2020 11:47:21 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1634

First Level Reviewer: papel Date: 28-Nov-2020 11:46:35

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.946					ND	
2	Dichlorodifluoromethane	85		2.001					ND	
3	Chlorodifluoromethane	51		2.013					ND	7
4	Chloromethane	50		2.208					ND	
5	Butadiene	39		2.329					ND	7
6	Vinyl chloride	62		2.329					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.409					ND	
8	Bromomethane	94		2.670					ND	U
9	Chloroethane	64		2.755					ND	
10	Dichlorofluoromethane	67		2.986					ND	
11	Trichlorofluoromethane	101		3.065					ND	
12	Pentane	43		3.108					ND	
13	Ethanol	45		3.193					ND	
14	Ethyl ether	59		3.315					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.418					ND	
16	Acrolein	56		3.497					ND	
17	1,1-Dichloroethene	96		3.643					ND	
19	Acetone	58		3.674					ND	
18	112TCTFE	101		3.674					ND	
20	Iodomethane	142		3.844					ND	
21	Isopropyl alcohol	45		3.844					ND	
22	Carbon disulfide	76		3.948					ND	7
23	Acetonitrile	41		4.063					ND	
24	Methyl acetate	43		4.106					ND	
25	3-Chloro-1-propene	41		4.130					ND	
26	Methylene Chloride	84		4.331					ND	
* 27	t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	493936	250.0	250.0	
28	2-Methyl-2-propanol	59		4.465					ND	
29	Acrylonitrile	53		4.678					ND	
30	Methyl tert-butyl ether	73		4.738					ND	
31	trans-1,2-Dichloroethene	96		4.745					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57		5.164					ND	
34 1,1-Dichloroethane	63		5.402					ND	
35 Vinyl acetate	43		5.408					ND	
36 Isopropyl ether	45		5.456					ND	
37 2-Chloro-1,3-butadiene	53		5.517					ND	
38 Tert-butyl ethyl ether	59		5.992					ND	
S 39 1,2-Dichloroethene, Total	100		6.155					ND	7
40 2-Butanone (MEK)	43		6.217					ND	
41 cis-1,2-Dichloroethene	96		6.235					ND	
42 2,2-Dichloropropane	77		6.253					ND	
43 Ethyl acetate	43		6.278					ND	7
44 Propionitrile	54		6.308					ND	
45 Methacrylonitrile	67		6.521					ND	
46 Chlorobromomethane	128		6.576					ND	
47 Tetrahydrofuran	71		6.582					ND	
48 Chloroform	83		6.722					ND	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	315035	50.0	48.8	
50 1,1,1-Trichloroethane	97		6.947					ND	
51 Cyclohexane	56		7.038					ND	
52 Carbon tetrachloride	117		7.148					ND	
53 1,1-Dichloropropene	75		7.160					ND	
54 Isobutyl alcohol	41		7.318					ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	75090	50.0	49.6	
56 Benzene	78		7.427					ND	
57 1,2-Dichloroethane	62		7.500					ND	7
58 Isopropyl acetate	43		7.506					ND	
59 Tert-amyl methyl ether	73		7.610					ND	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1285340	50.0	50.0	
60 t-Amyl alcohol	73	7.823	7.829	-0.006	34	13559		NC	
61 n-Heptane	43		7.835					ND	
63 n-Butanol	56		8.194					ND	
64 Trichloroethene	95		8.303					ND	
65 Methylcyclohexane	83		8.608					ND	
66 2-ethoxy-2-methyl butane	87		8.644					ND	
67 1,2-Dichloropropane	63		8.644					ND	
69 Methyl methacrylate	69		8.723					ND	
68 1,4-Dioxane	88		8.735					ND	
70 Dibromomethane	93		8.754					ND	
71 n-Propyl acetate	61		8.802					ND	
72 Dichlorobromomethane	83		8.991					ND	
73 2-Nitropropane	41		9.265					ND	
74 2-Chloroethyl vinyl ether	63		9.344					ND	
75 cis-1,3-Dichloropropene	75		9.526					ND	
76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$ 77 Toluene-d8 (Surr)	98	9.830	9.830	0.000	93	1239276	50.0	50.2	
78 Toluene	92		9.903					ND	
S 79 1,3-Dichloropropene, Total	100		10.060					ND	7
80 trans-1,3-Dichloropropene	75		10.159					ND	
81 Ethyl methacrylate	69		10.220					ND	
82 1,1,2-Trichloroethane	97		10.366					ND	
83 Tetrachloroethene	166		10.445					ND	
84 1,3-Dichloropropane	76		10.524					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 3,4-Dichloro-1-butene	75		10.561				ND		
86 2-Hexanone	43		10.573				ND		
87 n-Butyl acetate	43		10.688				ND		
88 Chlorodibromomethane	129		10.737				ND		
89 Ethylene Dibromide	107		10.846				ND		
S 90 Xylenes, Total	106		11.245				ND		7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	955902	50.0	50.0	
92 1-Chlorohexane	91		11.284				ND		U
93 Chlorobenzene	112		11.303				ND		
94 1,1,1,2-Tetrachloroethane	131		11.382				ND		
95 Ethylbenzene	91		11.388				ND		
96 m-Xylene & p-Xylene	106		11.503				ND		
97 o-Xylene	106		11.832				ND		
98 Styrene	104		11.844				ND		
99 Bromoform	173		12.008				ND		
100 Isopropylbenzene	105		12.130				ND		
101 cis-1,4-Dichloro-2-butene	88		12.185				ND		U
102 Cyclohexanone	55		12.209				ND		
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	457662	50.0	48.9	
104 1,1,2,2-Tetrachloroethane	83		12.379				ND		
105 Bromobenzene	156		12.392				ND		
106 trans-1,4-Dichloro-2-butene	53		12.404				ND		
107 1,2,3-Trichloropropane	110		12.422				ND		
108 N-Propylbenzene	91		12.458				ND		
109 2-Chlorotoluene	126		12.538				ND		
110 1,3,5-Trimethylbenzene	105		12.598				ND		
111 4-Chlorotoluene	126		12.629				ND		
112 2,3,4-Trichlorobutene	109		12.653				ND		
113 tert-Butylbenzene	134		12.836				ND		
114 Pentachloroethane	167		12.872				ND		
115 1,2,4-Trimethylbenzene	105		12.878				ND		
116 sec-Butylbenzene	105		13.000				ND		
117 1,3-Dichlorobenzene	146		13.103				ND		
118 4-Isopropyltoluene	119		13.109				ND		
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	493982	50.0	50.0	
120 1,4-Dichlorobenzene	146		13.176				ND		
121 1,2,3-Trimethylbenzene	105		13.182				ND		7
122 Benzyl chloride	91		13.249				ND		7
123 1,3-Diethylbenzene	119		13.310				ND		7
124 p-Diethylbenzene	119		13.383				ND		7
125 n-Butylbenzene	92		13.401				ND		7
126 1,2-Dichlorobenzene	146		13.438				ND		
127 o-diethylbenzene	119		13.456				ND		7
128 Hexachloroethane	201		13.639				ND		
129 1,2-Dibromo-3-Chloropropane	75		13.979				ND		
130 1,3,5-Trichlorobenzene	180		14.107				ND		7
131 1,2,4-Trichlorobenzene	180		14.533				ND		7
132 Hexachlorobutadiene	225		14.612				ND		7
133 Naphthalene	128		14.715				ND		7
134 1,2,3-Trichlorobenzene	180		14.855				ND		7
135 2-Methylnaphthalene	142		15.500				ND		7
136 C4-C10	1		0.000				ND		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
160 n-Decane	57		0.000					ND	
159 Methylal	1		0.000					ND	
S 158 divinyl benzene	1		0.000					ND	7
157 1,3-Dichlorobutene-2(total)	1		0.000					ND	
156 Propene oxide	1		0.000					ND	
155 C4-C12	1		0.000					ND	
154 1-Chlorobutane	1		0.000					ND	
153 1,4-Divinylbenzene	1		0.000					ND	
152 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
151 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
150 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 Dodecane	57		0.000					ND	
149 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
147 C5-C12	1		0.000					ND	
146 1-Bromo-2-chloroethane	1		0.000					ND	
145 C6-C12	1		0.000					ND	
S 144 Total Diethylbenzene	1		0.000					ND	7
143 3-chloro-1-Butene	1		0.000					ND	
142 C6-C10	1		0.000					ND	
141 Methyl acrylate	1		0.000					ND	
140 tert-Butyl Formate	1		0.000					ND	
139 1,3-Divinylbenzene	1		0.000					ND	
138 Ethyl bromide	1		0.000					ND	
137 Chloroacetonitrile	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
167 Butane	1		0.000					ND	
168 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
169 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
170 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
171 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
172 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
173 n-Propylamine (TIC)	1		0.000					ND	
174 beta-Propiolactone TIC	1		0.000					ND	
175 2-Bromoethanol TIC	1		0.000					ND	
176 Propargyl alcohol TIC	1		0.000					ND	
177 Monochloroacetic acid TIC	1		0.000					ND	
178 Propanol TIC	1		0.000					ND	
179 2-Chloroethanol TIC	1		0.000					ND	
180 Hexachloroethane TIC	1		0.000					ND	
181 Nitrobenzene TIC	1		0.000					ND	
182 2-Pentanone (TIC)	1		0.000					ND	
183 Malononitrile (TIC)	1		0.000					ND	
184 Epibromohydrin TIC	1		0.000					ND	
185 2-Picoline (TIC)	1		0.000					ND	
186 Chloroacetaldehyde TIC	1		0.000					ND	
187 Vinyl acetate (TIC)	1		0.000					ND	
188 Allyl Alcohol TIC	1		0.000					ND	
189 Vinyl bromide TIC	1		0.000					ND	
190 Epichlorohydrin TIC	1		0.000					ND	
191 Pentafluorobenzene TIC	1		0.000					ND	
192 2-Bromo-3-chloropropene TIC	1		0.000					ND	
193 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
194 Ethylene oxide TIC	1		0.000					ND	
195 Paraldehyde TIC	1		0.000					ND	
196 Bromoacetone (TIC)	1		0.000					ND	
197 2,3-Dibromopropene TIC	1		0.000					ND	
198 Methanol TIC	1		0.000					ND	
199 Chloral hydrate (TIC)	1		0.000					ND	
200 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
201 1-Bromo-2-chloroethane TIC	1		0.000					ND	
202 Pentachloroethane TIC	1		0.000					ND	
203 o-toluidine TIC	1		0.000					ND	
204 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
205 Ethyl acrylate	55		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

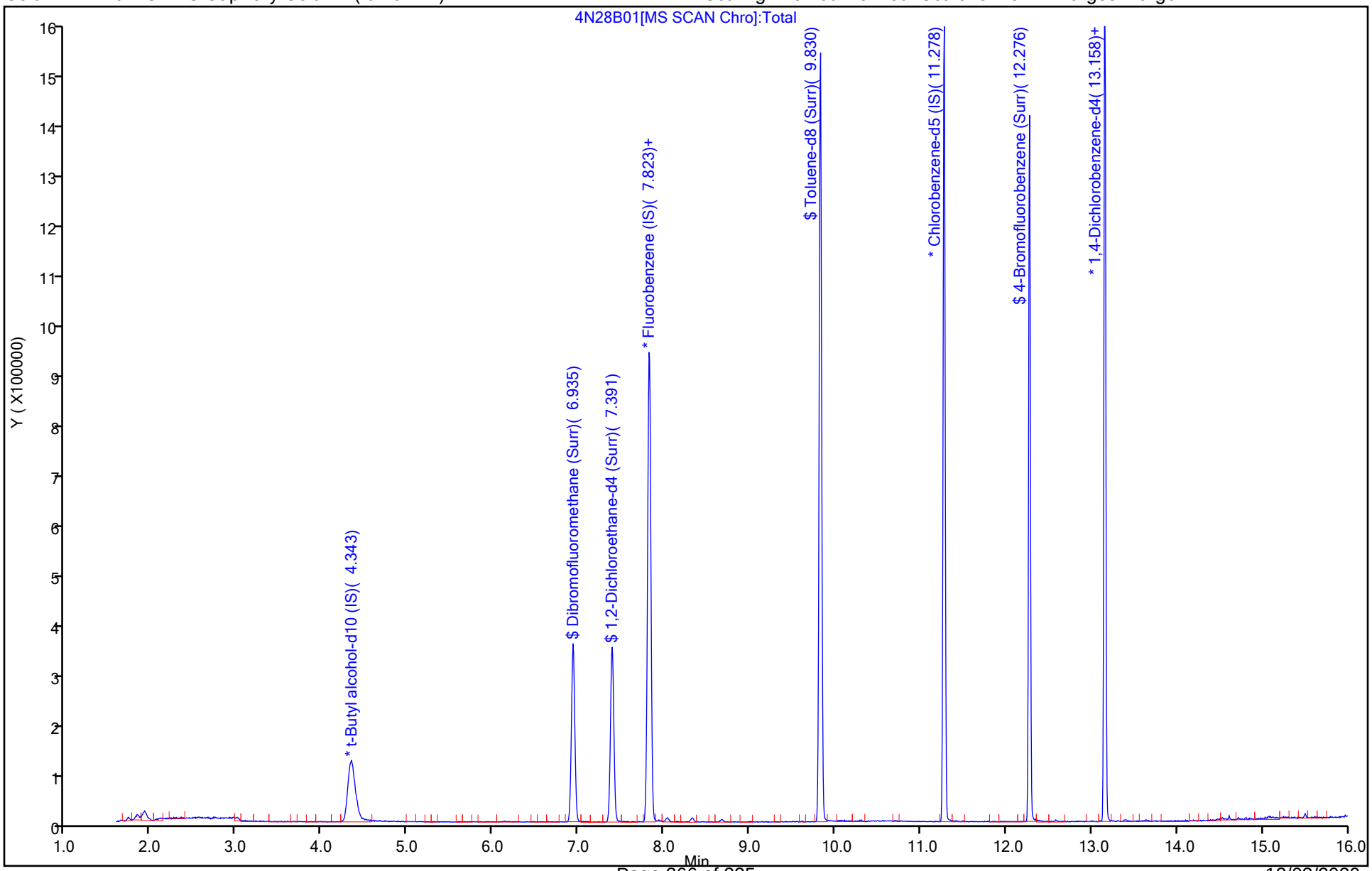
Report Date: 28-Nov-2020 11:47:48 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28B01.D

Injection Date:	28-Nov-2020 11:09:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-70864/7

Matrix: Water Lab File ID: 4N22B01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 10:27

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	100		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22B01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 30-Nov-2020 10:27:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-007
Misc. Info.: MB
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 11:06:39 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 11:06:39

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.946					ND	
2	Dichlorodifluoromethane	85		2.007					ND	
3	Chlorodifluoromethane	51		2.013					ND	7
4	Chloromethane	50		2.208					ND	
5	Butadiene	39		2.329					ND	7
6	Vinyl chloride	62		2.329					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.409					ND	
8	Bromomethane	94		2.676					ND	7
9	Chloroethane	64		2.755					ND	
10	Dichlorofluoromethane	67		2.986					ND	
11	Trichlorofluoromethane	101		3.066					ND	
12	Pentane	43		3.108					ND	7
13	Ethanol	45		3.193					ND	
14	Ethyl ether	59		3.315					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.412					ND	
16	Acrolein	56		3.504					ND	
17	1,1-Dichloroethene	96		3.637					ND	
19	Acetone	58		3.674					ND	
18	112TCTFE	101		3.674					ND	
20	Iodomethane	142		3.844					ND	
21	Isopropyl alcohol	45		3.850					ND	
22	Carbon disulfide	76		3.948					ND	
23	Acetonitrile	41		4.063					ND	
24	Methyl acetate	43		4.106					ND	
25	3-Chloro-1-propene	41		4.136					ND	
26	Methylene Chloride	84		4.325					ND	
* 27	t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	510938	250.0	250.0	
28	2-Methyl-2-propanol	59		4.477					ND	
29	Acrylonitrile	53		4.672					ND	
30	Methyl tert-butyl ether	73		4.739					ND	
31	trans-1,2-Dichloroethene	96		4.739					ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	33 Hexane	57		5.164					ND	
	35 Vinyl acetate	43		5.408					ND	
	34 1,1-Dichloroethane	63		5.408					ND	
	36 Isopropyl ether	45		5.463					ND	
	37 2-Chloro-1,3-butadiene	53		5.517					ND	
	38 Tert-butyl ethyl ether	59		5.998					ND	
S	39 1,2-Dichloroethene, Total	100		6.155					ND	7
	40 2-Butanone (MEK)	43		6.217					ND	
	41 cis-1,2-Dichloroethene	96		6.241					ND	
	42 2,2-Dichloropropane	77		6.247					ND	
	43 Ethyl acetate	43		6.278					ND	
	44 Propionitrile	54		6.308					ND	
	45 Methacrylonitrile	67		6.521					ND	
	46 Chlorobromomethane	128		6.570					ND	
	47 Tetrahydrofuran	71		6.582					ND	
	48 Chloroform	83		6.722					ND	
$	49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	319439	50.0	48.8	
	50 1,1,1-Trichloroethane	97		6.947					ND	
	51 Cyclohexane	56		7.038					ND	
	52 Carbon tetrachloride	117		7.154					ND	
	53 1,1-Dichloropropene	75		7.160					ND	
	54 Isobutyl alcohol	41		7.324					ND	
$	55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	96	77678	50.0	50.6	
	56 Benzene	78		7.421					ND	
	57 1,2-Dichloroethane	62		7.501					ND	7
	58 Isopropyl acetate	43		7.506					ND	
	59 Tert-amyl methyl ether	73		7.610					ND	
*	62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1304554	50.0	50.0	
	61 n-Heptane	43		7.829					ND	
	60 t-Amyl alcohol	73	7.823	7.829	-0.006	35	13908		NC	
	63 n-Butanol	56		8.194					ND	
	64 Trichloroethene	95		8.304					ND	
	65 Methylcyclohexane	83		8.608					ND	
	66 2-ethoxy-2-methyl butane	87		8.644					ND	
	67 1,2-Dichloropropane	63		8.644					ND	
	69 Methyl methacrylate	69		8.723					ND	
	68 1,4-Dioxane	88		8.729					ND	
	70 Dibromomethane	93		8.754					ND	
	71 n-Propyl acetate	61		8.802					ND	
	72 Dichlorobromomethane	83		8.985					ND	
	73 2-Nitropropane	41		9.265					ND	
	74 2-Chloroethyl vinyl ether	63		9.344					ND	
	75 cis-1,3-Dichloropropene	75		9.526					ND	
	76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$	77 Toluene-d8 (Surr)	98	9.830	9.831	-0.001	93	1257686	50.0	50.5	
	78 Toluene	92		9.904					ND	
S	79 1,3-Dichloropropene, Total	100		10.060					ND	7
	80 trans-1,3-Dichloropropene	75		10.159					ND	
	81 Ethyl methacrylate	69		10.220					ND	
	82 1,1,2-Trichloroethane	97		10.366					ND	
	83 Tetrachloroethene	166		10.445					ND	
	84 1,3-Dichloropropane	76		10.524					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 3,4-Dichloro-1-butene	75		10.561				ND		
86 2-Hexanone	43		10.573				ND		
87 n-Butyl acetate	43		10.688				ND		
88 Chlorodibromomethane	129		10.737				ND		
89 Ethylene Dibromide	107		10.846				ND		
S 90 Xylenes, Total	106		11.245				ND		7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	964831	50.0	50.0	
92 1-Chlorohexane	91		11.285				ND		U
93 Chlorobenzene	112		11.303				ND		
94 1,1,1,2-Tetrachloroethane	131		11.382				ND		
95 Ethylbenzene	91		11.388				ND		
96 m-Xylene & p-Xylene	106		11.504				ND		
97 o-Xylene	106		11.832				ND		
98 Styrene	104		11.850				ND		
99 Bromoform	173		12.002				ND		
100 Isopropylbenzene	105		12.130				ND		
101 cis-1,4-Dichloro-2-butene	88		12.185				ND		U
102 Cyclohexanone	55		12.209				ND		
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	471699	50.0	49.9	
104 1,1,2,2-Tetrachloroethane	83		12.380				ND		
105 Bromobenzene	156		12.392				ND		
106 trans-1,4-Dichloro-2-butene	53		12.404				ND		
107 1,2,3-Trichloropropane	110		12.428				ND		
108 N-Propylbenzene	91		12.459				ND		
109 2-Chlorotoluene	126		12.538				ND		
110 1,3,5-Trimethylbenzene	105		12.592				ND		
111 4-Chlorotoluene	126		12.629				ND		
112 2,3,4-Trichlorobutene	109		12.653				ND		
113 tert-Butylbenzene	134		12.842				ND		
114 Pentachloroethane	167		12.872				ND		
115 1,2,4-Trimethylbenzene	105		12.878				ND		
116 sec-Butylbenzene	105		13.000				ND		
117 1,3-Dichlorobenzene	146		13.103				ND		
118 4-Isopropyltoluene	119		13.110				ND		
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	513159	50.0	50.0	
120 1,4-Dichlorobenzene	146		13.176				ND		7
121 1,2,3-Trimethylbenzene	105		13.189				ND		7
122 Benzyl chloride	91		13.256				ND		7
123 1,3-Diethylbenzene	119		13.310				ND		U
124 p-Diethylbenzene	119		13.383				ND		7
125 n-Butylbenzene	92		13.402				ND		U
126 1,2-Dichlorobenzene	146		13.438				ND		
127 o-diethylbenzene	119		13.456				ND		7
128 Hexachloroethane	201		13.639				ND		
129 1,2-Dibromo-3-Chloropropane	75		13.980				ND		
130 1,3,5-Trichlorobenzene	180		14.107				ND		U
131 1,2,4-Trichlorobenzene	180		14.533				ND		
132 Hexachlorobutadiene	225		14.612				ND		7
133 Naphthalene	128		14.716				ND		7
134 1,2,3-Trichlorobenzene	180		14.862				ND		7
135 2-Methylnaphthalene	142		15.500				ND		7
136 C4-C10	1		0.000				ND		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
160 n-Decane	57		0.000					ND	
159 Methylal	1		0.000					ND	
S 158 divinyl benzene	1		0.000					ND	7
157 1,3-Dichlorobutene-2(total)	1		0.000					ND	
156 Propene oxide	1		0.000					ND	
155 C4-C12	1		0.000					ND	
154 1-Chlorobutane	1		0.000					ND	
153 1,4-Divinylbenzene	1		0.000					ND	
152 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
151 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
150 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 Dodecane	57		0.000					ND	
149 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
147 C5-C12	1		0.000					ND	
146 1-Bromo-2-chloroethane	1		0.000					ND	
145 C6-C12	1		0.000					ND	
S 144 Total Diethylbenzene	1		0.000					ND	7
143 3-chloro-1-Butene	1		0.000					ND	
142 C6-C10	1		0.000					ND	
141 Methyl acrylate	1		0.000					ND	
140 tert-Butyl Formate	1		0.000					ND	
139 1,3-Divinylbenzene	1		0.000					ND	
138 Ethyl bromide	1		0.000					ND	
137 Chloroacetonitrile	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
167 Butane	1		0.000					ND	
168 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
169 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
170 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
171 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
172 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
173 n-Propylamine (TIC)	1		0.000					ND	
174 beta-Propiolactone TIC	1		0.000					ND	
175 2-Bromoethanol TIC	1		0.000					ND	
176 Propargyl alcohol TIC	1		0.000					ND	
177 Monochloroacetic acid TIC	1		0.000					ND	
178 Propanol TIC	1		0.000					ND	
179 2-Chloroethanol TIC	1		0.000					ND	
180 Hexachloroethane TIC	1		0.000					ND	
181 Nitrobenzene TIC	1		0.000					ND	
182 2-Pentanone (TIC)	1		0.000					ND	
183 Malononitrile (TIC)	1		0.000					ND	
184 Epibromohydrin TIC	1		0.000					ND	
185 2-Picoline (TIC)	1		0.000					ND	
186 Chloroacetaldehyde TIC	1		0.000					ND	
187 Vinyl acetate (TIC)	1		0.000					ND	
188 Allyl Alcohol TIC	1		0.000					ND	
189 Vinyl bromide TIC	1		0.000					ND	
190 Epichlorohydrin TIC	1		0.000					ND	
191 Pentafluorobenzene TIC	1		0.000					ND	
192 2-Bromo-3-chloropropene TIC	1		0.000					ND	
193 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
194 Ethylene oxide TIC	1		0.000					ND	
195 Paraldehyde TIC	1		0.000					ND	
196 Bromoacetone (TIC)	1		0.000					ND	
197 2,3-Dibromopropene TIC	1		0.000					ND	
198 Methanol TIC	1		0.000					ND	
199 Chloral hydrate (TIC)	1		0.000					ND	
200 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
201 1-Bromo-2-chloroethane TIC	1		0.000					ND	
202 Pentachloroethane TIC	1		0.000					ND	
203 o-toluidine TIC	1		0.000					ND	
204 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
205 Ethyl acrylate	55		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

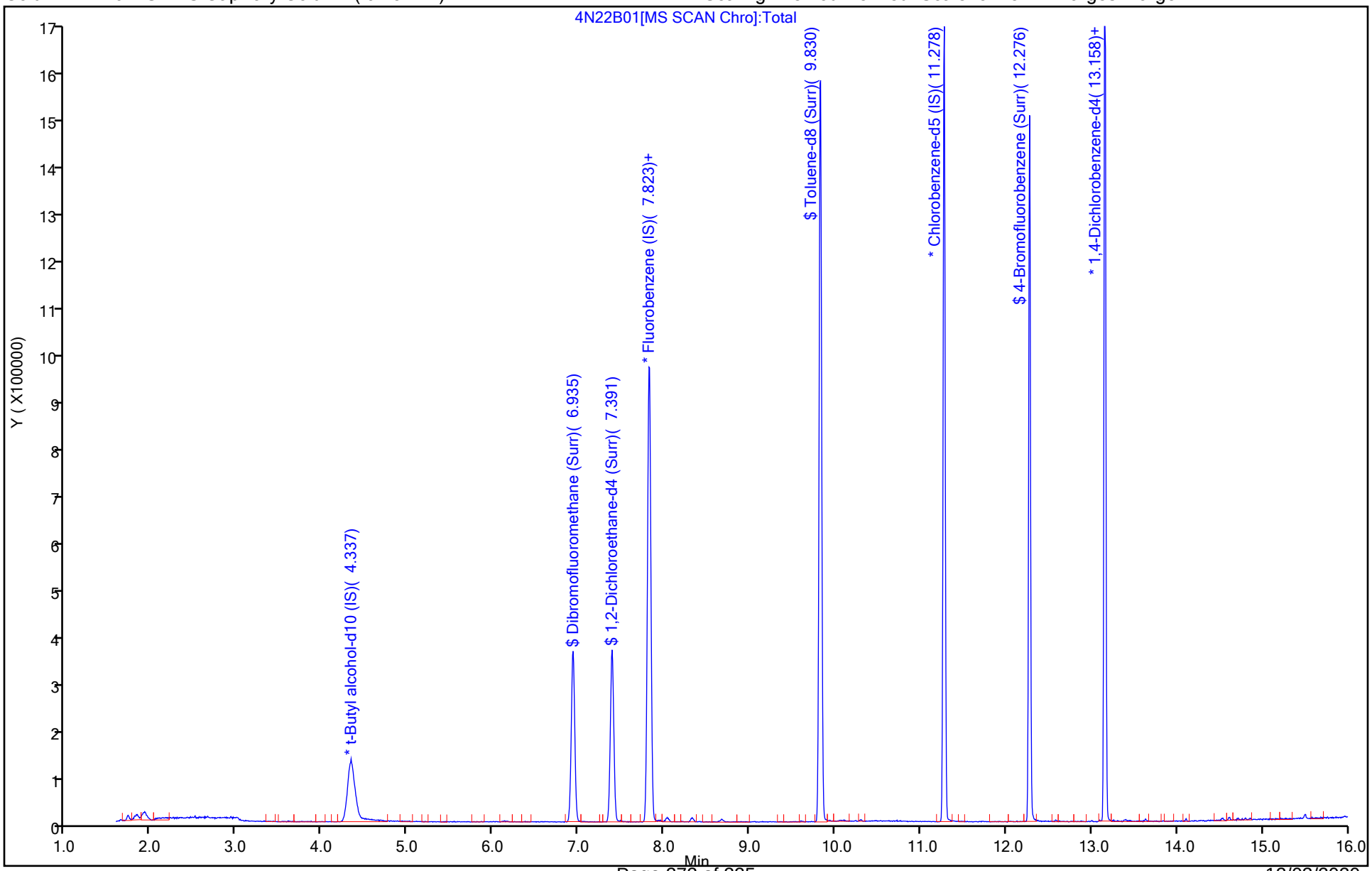
Report Date: 30-Nov-2020 11:06:45 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22B01.D

Injection Date:	30-Nov-2020 10:27:30	Instrument ID:	23297	Operator ID:	jkh09052
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-71112/6

Matrix: Water Lab File ID: 4N22B35.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 22:36

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 71112 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	ND		1.0	0.20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	101		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22B35.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 30-Nov-2020 22:36:30 ALS Bottle#: 6 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016666-006
Misc. Info.: MB
Operator ID: etp33087 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 23:39:11 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: proctore Date: 30-Nov-2020 23:39:00

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.946					ND	
2	Dichlorodifluoromethane	85		2.001					ND	
3	Chlorodifluoromethane	51		2.013					ND	
4	Chloromethane	50		2.208					ND	
5	Butadiene	39		2.336					ND	U
6	Vinyl chloride	62		2.336					ND	
7	2-Chloro-1,1,1-Trifluoroethane	118		2.409					ND	
8	Bromomethane	94		2.676					ND	U
9	Chloroethane	64		2.761					ND	
10	Dichlorofluoromethane	67		2.986					ND	
11	Trichlorofluoromethane	101		3.066					ND	
12	Pentane	43		3.108					ND	7
13	Ethanol	45		3.205					ND	
14	Ethyl ether	59		3.315					ND	
15	1,2-Dichloro-1,1,2-trifluoroetha	67		3.406					ND	
16	Acrolein	56		3.504					ND	
17	1,1-Dichloroethene	96		3.643					ND	
19	Acetone	58		3.674					ND	
18	112TCTFE	101		3.680					ND	
20	Iodomethane	142		3.850					ND	
21	Isopropyl alcohol	45		3.850					ND	
22	Carbon disulfide	76		3.948					ND	
23	Acetonitrile	41		4.063					ND	
24	Methyl acetate	43		4.100					ND	
25	3-Chloro-1-propene	41		4.130					ND	
26	Methylene Chloride	84		4.331					ND	
* 27	t-Butyl alcohol-d10 (IS)	65	4.343	4.337	0.006	0	501850	250.0	250.0	
28	2-Methyl-2-propanol	59		4.471					ND	
29	Acrylonitrile	53		4.672					ND	
30	Methyl tert-butyl ether	73		4.732					ND	
31	trans-1,2-Dichloroethene	96		4.739					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
33 Hexane	57		5.170					ND	
34 1,1-Dichloroethane	63		5.402					ND	
35 Vinyl acetate	43		5.408					ND	
36 Isopropyl ether	45		5.462					ND	
37 2-Chloro-1,3-butadiene	53		5.517					ND	
38 Tert-butyl ethyl ether	59		5.998					ND	
S 39 1,2-Dichloroethene, Total	100		6.155					ND	7
40 2-Butanone (MEK)	43		6.217					ND	
41 cis-1,2-Dichloroethene	96		6.241					ND	
42 2,2-Dichloropropane	77		6.253					ND	
43 Ethyl acetate	43		6.278					ND	7
44 Propionitrile	54		6.308					ND	
45 Methacrylonitrile	67		6.521					ND	
46 Chlorobromomethane	128		6.570					ND	
47 Tetrahydrofuran	71		6.576					ND	
48 Chloroform	83		6.722					ND	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.935	0.006	94	319631	50.0	50.7	
50 1,1,1-Trichloroethane	97		6.947					ND	
51 Cyclohexane	56		7.038					ND	
52 Carbon tetrachloride	117		7.154					ND	
53 1,1-Dichloropropene	75		7.160					ND	
54 Isobutyl alcohol	41		7.318					ND	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.397	7.397	0.000	97	74469	50.0	50.4	
56 Benzene	78		7.421					ND	
57 1,2-Dichloroethane	62		7.500					ND	7
58 Isopropyl acetate	43		7.506					ND	
59 Tert-amyl methyl ether	73		7.610					ND	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1255697	50.0	50.0	
60 t-Amyl alcohol	73	7.823	7.829	-0.006	34	13180		NC	
61 n-Heptane	43		7.835					ND	
63 n-Butanol	56		8.194					ND	
64 Trichloroethene	95		8.303					ND	
65 Methylcyclohexane	83		8.608					ND	
66 2-ethoxy-2-methyl butane	87		8.644					ND	
67 1,2-Dichloropropane	63		8.644					ND	
69 Methyl methacrylate	69		8.723					ND	
68 1,4-Dioxane	88		8.729					ND	
70 Dibromomethane	93		8.754					ND	
71 n-Propyl acetate	61		8.802					ND	
72 Dichlorobromomethane	83		8.985					ND	
73 2-Nitropropane	41		9.259					ND	
74 2-Chloroethyl vinyl ether	63		9.344					ND	
75 cis-1,3-Dichloropropene	75		9.526					ND	
76 4-Methyl-2-pentanone (MIBK)	43		9.697					ND	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1229608	50.0	50.0	
78 Toluene	92		9.903					ND	
S 79 1,3-Dichloropropene, Total	100		10.060					ND	7
80 trans-1,3-Dichloropropene	75		10.159					ND	
81 Ethyl methacrylate	69		10.220					ND	
82 1,1,2-Trichloroethane	97		10.366					ND	
83 Tetrachloroethene	166		10.445					ND	
84 1,3-Dichloropropane	76		10.524					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 3,4-Dichloro-1-butene	75		10.561					ND	
86 2-Hexanone	43		10.573					ND	
87 n-Butyl acetate	43		10.688					ND	
88 Chlorodibromomethane	129		10.737					ND	
89 Ethylene Dibromide	107		10.846					ND	
S 90 Xylenes, Total	106		11.245					ND	7
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	953279	50.0	50.0	
92 1-Chlorohexane	91		11.284					ND	U
93 Chlorobenzene	112		11.303					ND	
94 1,1,1,2-Tetrachloroethane	131		11.382					ND	
95 Ethylbenzene	91		11.388					ND	
96 m-Xylene & p-Xylene	106		11.503					ND	
97 o-Xylene	106		11.832					ND	
98 Styrene	104		11.850					ND	
99 Bromoform	173		12.008					ND	
100 Isopropylbenzene	105		12.130					ND	
101 cis-1,4-Dichloro-2-butene	88		12.185					ND	U
102 Cyclohexanone	55		12.209					ND	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	463976	50.0	49.7	
104 1,1,2,2-Tetrachloroethane	83		12.379					ND	
105 Bromobenzene	156		12.392					ND	
106 trans-1,4-Dichloro-2-butene	53		12.404					ND	
107 1,2,3-Trichloropropane	110		12.422					ND	
108 N-Propylbenzene	91		12.459					ND	
109 2-Chlorotoluene	126		12.538					ND	
110 1,3,5-Trimethylbenzene	105		12.592					ND	
111 4-Chlorotoluene	126		12.629					ND	
112 2,3,4-Trichlorobutene	109		12.653					ND	
113 tert-Butylbenzene	134		12.842					ND	
114 Pentachloroethane	167		12.872					ND	
115 1,2,4-Trimethylbenzene	105		12.878					ND	
116 sec-Butylbenzene	105		13.000					ND	
117 1,3-Dichlorobenzene	146		13.103					ND	
118 4-Isopropyltoluene	119		13.110					ND	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	511249	50.0	50.0	
120 1,4-Dichlorobenzene	146		13.176					ND	
121 1,2,3-Trimethylbenzene	105		13.189					ND	7
122 Benzyl chloride	91		13.256					ND	7
123 1,3-Diethylbenzene	119		13.310					ND	7
124 p-Diethylbenzene	119		13.383					ND	7
125 n-Butylbenzene	92	13.402	13.402	0.000	91	1361		0.1032	
126 1,2-Dichlorobenzene	146		13.438					ND	
127 o-diethylbenzene	119		13.456					ND	7
128 Hexachloroethane	201		13.639					ND	
129 1,2-Dibromo-3-Chloropropane	75		13.979					ND	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	1	1326		0.1196	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	79	2014		0.1896	
132 Hexachlorobutadiene	225		14.612					ND	7
133 Naphthalene	128		14.716					ND	7
134 1,2,3-Trichlorobenzene	180		14.862					ND	7
135 2-Methylnaphthalene	142		15.500					ND	7
136 C4-C10	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
160 n-Decane	57		0.000					ND	
159 Methylal	1		0.000					ND	
S 158 divinyl benzene	1		0.000					ND	7
157 1,3-Dichlorobutene-2(total)	1		0.000					ND	
156 Propene oxide	1		0.000					ND	
155 C4-C12	1		0.000					ND	
154 1-Chlorobutane	1		0.000					ND	
153 1,4-Divinylbenzene	1		0.000					ND	
152 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
151 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
150 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
161 Dodecane	57		0.000					ND	
149 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
147 C5-C12	1		0.000					ND	
146 1-Bromo-2-chloroethane	1		0.000					ND	
145 C6-C12	1		0.000					ND	
S 144 Total Diethylbenzene	1		0.000					ND	7
143 3-chloro-1-Butene	1		0.000					ND	
142 C6-C10	1		0.000					ND	
141 Methyl acrylate	1		0.000					ND	
140 tert-Butyl Formate	1		0.000					ND	
139 1,3-Divinylbenzene	1		0.000					ND	
138 Ethyl bromide	1		0.000					ND	
137 Chloroacetonitrile	1		0.000					ND	
148 Diethoxymethane	1		0.000					ND	
167 Butane	1		0.000					ND	
168 1,2,3,4-Diepoxybutane (TIC)	1		0.000					ND	
169 N-Nitrosodi-n-butylamine TIC	1		0.000					ND	
170 2,3-Dibromo-1-propanol TIC	1		0.000					ND	
171 1,3-Dichloro-2-propanol TIC	1		0.000					ND	
172 1-Methyl-2-pyrrilidinone TIC	1		0.000					ND	
173 n-Propylamine (TIC)	1		0.000					ND	
174 beta-Propiolactone TIC	1		0.000					ND	
175 2-Bromoethanol TIC	1		0.000					ND	
176 Propargyl alcohol TIC	1		0.000					ND	
177 Monochloroacetic acid TIC	1		0.000					ND	
178 Propanol TIC	1		0.000					ND	
179 2-Chloroethanol TIC	1		0.000					ND	
180 Hexachloroethane TIC	1		0.000					ND	
181 Nitrobenzene TIC	1		0.000					ND	
182 2-Pentanone (TIC)	1		0.000					ND	
183 Malononitrile (TIC)	1		0.000					ND	
184 Epibromohydrin TIC	1		0.000					ND	
185 2-Picoline (TIC)	1		0.000					ND	
186 Chloroacetaldehyde TIC	1		0.000					ND	
187 Vinyl acetate (TIC)	1		0.000					ND	
188 Allyl Alcohol TIC	1		0.000					ND	
189 Vinyl bromide TIC	1		0.000					ND	
190 Epichlorohydrin TIC	1		0.000					ND	
191 Pentafluorobenzene TIC	1		0.000					ND	
192 2-Bromo-3-chloropropene TIC	1		0.000					ND	
193 Bis(2-chloroethyl)sulfide (TIC)	1		0.000					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
194 Ethylene oxide TIC	1		0.000					ND	
195 Paraldehyde TIC	1		0.000					ND	
196 Bromoacetone (TIC)	1		0.000					ND	
197 2,3-Dibromopropene TIC	1		0.000					ND	
198 Methanol TIC	1		0.000					ND	
199 Chloral hydrate (TIC)	1		0.000					ND	
200 3-Chloro-1,2-propanediol TIC	1		0.000					ND	
201 1-Bromo-2-chloroethane TIC	1		0.000					ND	
202 Pentachloroethane TIC	1		0.000					ND	
203 o-toluidine TIC	1		0.000					ND	
204 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
205 Ethyl acrylate	55		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP4_ISSS_00005 Amount Added: 1.00 Units: uL Run Reagent

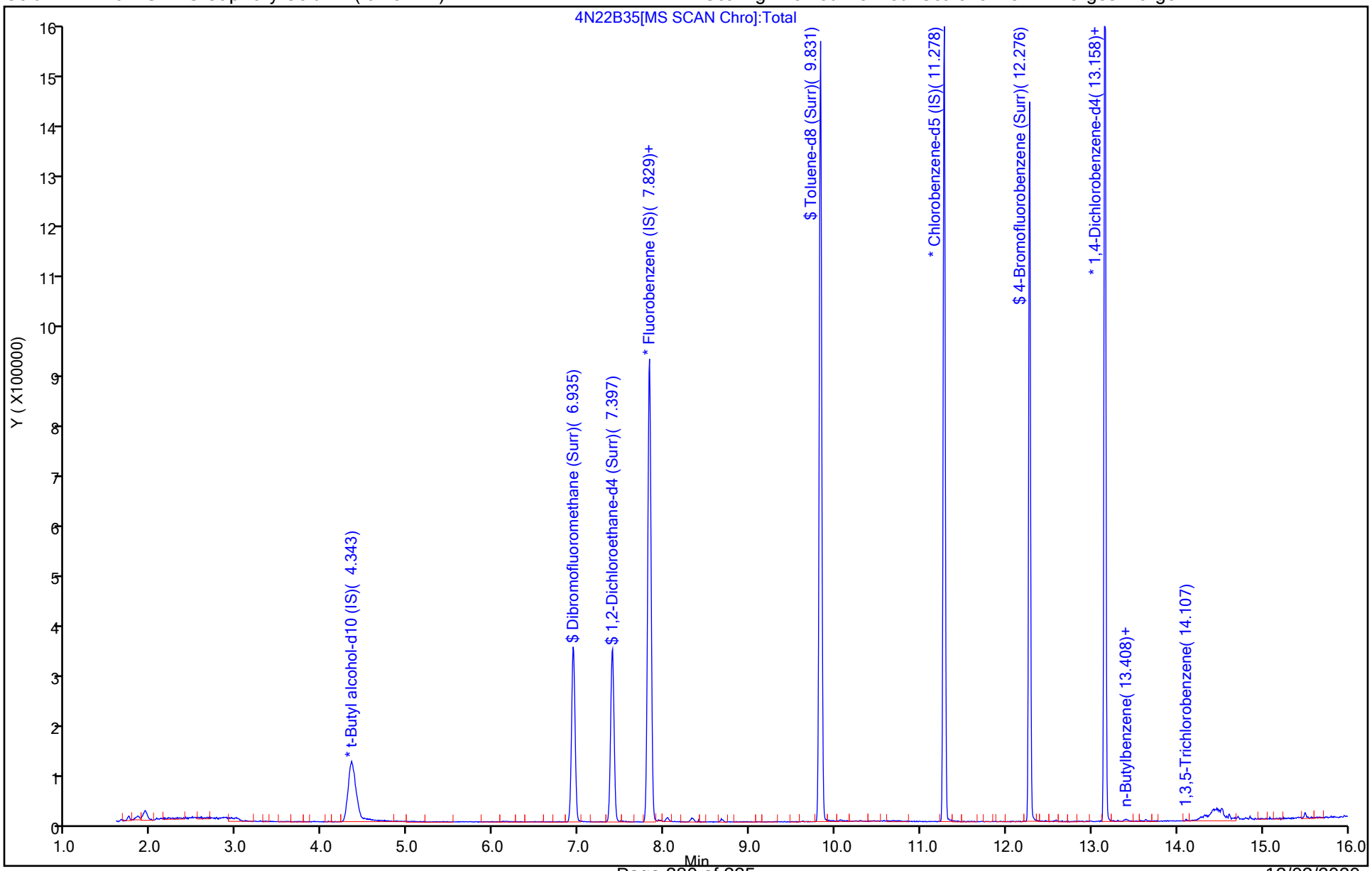
Report Date: 30-Nov-2020 23:39:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22B35.D

Injection Date:	30-Nov-2020 22:36:30	Instrument ID:	23297	Operator ID:	etp33087
Lims ID:	MB			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-70709/4

Matrix: Water Lab File ID: 4N28L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 10:01

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	20.9		1.0	0.30
75-34-3	1,1-Dichloroethane	22.6		1.0	0.20
75-35-4	1,1-Dichloroethene	23.3		1.0	0.20
95-50-1	1,2-Dichlorobenzene	22.1		5.0	0.20
107-06-2	1,2-Dichloroethane	19.5		1.0	0.30
123-91-1	1,4-Dioxane	564		250	29
78-93-3	2-Butanone	167		10	0.30
67-64-1	Acetone	153		20	0.70
71-43-2	Benzene	22.5		1.0	0.20
75-15-0	Carbon disulfide	23.0		5.0	0.20
67-66-3	Chloroform	21.4		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.6		1.0	0.20
100-41-4	Ethylbenzene	22.7		1.0	0.40
76-13-1	Freon 113	21.3		10	0.20
75-09-2	Methylene Chloride	23.2		1.0	0.30
91-20-3	Naphthalene	22.2		5.0	1.0
127-18-4	Tetrachloroethene	20.7		1.0	0.20
108-88-3	Toluene	22.6		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.6		1.0	0.20
79-01-6	Trichloroethene	22.1		1.0	0.20
75-01-4	Vinyl chloride	22.7		1.0	0.20
1330-20-7	Xylenes, Total	67.7		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	97		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 28-Nov-2020 10:01:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-004
Misc. Info.: LCS
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 28-Nov-2020 11:47:21 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1634

First Level Reviewer: papel Date: 28-Nov-2020 10:45:30

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.995	2.001	-0.006	99	138702	20.0	19.5	
4 Chloromethane	50	2.196	2.208	-0.012	99	175412	20.0	21.7	
5 Butadiene	39	2.317	2.329	-0.012	94	140866	20.0	20.7	
6 Vinyl chloride	62	2.317	2.329	-0.012	95	166548	20.0	22.7	
8 Bromomethane	94	2.658	2.670	-0.012	88	110121	20.0	19.7	
9 Chloroethane	64	2.737	2.755	-0.018	100	90467	20.0	20.7	
11 Trichlorofluoromethane	101	3.054	3.065	-0.011	98	179203	20.0	20.0	
12 Pentane	43	3.090	3.108	-0.018	96	186514	20.0	20.3	
13 Ethanol	45	3.181	3.193	-0.012	91	175327	1000.1	1151.7	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.400	3.418	-0.018	93	137684	20.0	23.4	
16 Acrolein	56	3.485	3.497	-0.012	100	375542	150.0	146.3	
17 1,1-Dichloroethene	96	3.625	3.643	-0.018	97	107015	20.0	23.3	
19 Acetone	58	3.662	3.674	-0.012	100	194867	150.0	152.6	
18 112TCTFE	101	3.662	3.674	-0.012	47	104302	20.0	21.3	
20 Iodomethane	142	3.832	3.844	-0.012	97	193672	20.0	20.8	
21 Isopropyl alcohol	45	3.832	3.844	-0.012	99	181398	150.0	155.1	
22 Carbon disulfide	76	3.936	3.948	-0.012	99	379254	20.0	23.0	
24 Methyl acetate	43	4.094	4.106	-0.012	98	189674	20.0	21.9	
25 3-Chloro-1-propene	41	4.118	4.130	-0.012	95	196909	20.0	21.3	
26 Methylene Chloride	84	4.319	4.331	-0.012	94	128847	20.0	23.2	
* 27 t-Butyl alcohol-d10 (IS)	65	4.337	4.343	-0.006	0	506568	250.0	250.0	
28 2-Methyl-2-propanol	59	4.459	4.465	-0.006	100	424021	200.0	209.4	
29 Acrylonitrile	53	4.666	4.678	-0.012	99	489272	100.0	110.4	
30 Methyl tert-butyl ether	73	4.720	4.738	-0.018	96	370517	20.0	20.8	
31 trans-1,2-Dichloroethene	96	4.726	4.745	-0.019	99	120008	20.0	22.6	
33 Hexane	57	5.158	5.164	-0.006	93	183707	20.0	23.1	
34 1,1-Dichloroethane	63	5.402	5.402	0.000	96	219316	20.0	22.6	
36 Isopropyl ether	45	5.450	5.456	-0.006	96	418356	20.0	22.2	
37 2-Chloro-1,3-butadiene	53	5.505	5.517	-0.012	89	180433	20.0	21.5	
38 Tert-butyl ethyl ether	59	5.986	5.992	-0.006	98	388192	20.0	21.7	
40 2-Butanone (MEK)	43	6.211	6.217	-0.006	100	1090831	150.0	167.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.229	6.235	-0.006	80	144697	20.0	23.6	
42 2,2-Dichloropropane	77	6.241	6.253	-0.012	57	172204	20.0	21.1	
44 Propionitrile	54	6.302	6.308	-0.006	100	331421	150.0	164.0	
45 Methacrylonitrile	67	6.515	6.521	-0.006	92	731809	150.0	168.5	
46 Chlorobromomethane	128	6.564	6.576	-0.012	93	69351	20.0	20.1	
47 Tetrahydrofuran	71	6.576	6.582	-0.006	90	191871	100.0	105.0	
48 Chloroform	83	6.716	6.722	-0.006	92	206260	20.0	21.4	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	308608	50.0	48.7	
50 1,1,1-Trichloroethane	97	6.935	6.947	-0.012	60	168973	20.0	20.9	
51 Cyclohexane	56	7.026	7.038	-0.012	91	220009	20.0	23.7	
52 Carbon tetrachloride	117	7.142	7.148	-0.006	96	153100	20.0	22.0	
53 1,1-Dichloropropene	75	7.154	7.160	-0.006	98	170463	20.0	22.5	
54 Isobutyl alcohol	41	7.318	7.318	0.000	95	339720	500.0	527.1	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.385	7.397	-0.012	97	75397	50.0	50.8	
56 Benzene	78	7.422	7.427	-0.005	97	512777	20.0	22.5	
57 1,2-Dichloroethane	62	7.495	7.500	-0.005	96	156095	20.0	19.5	
59 Tert-amyl methyl ether	73	7.598	7.610	-0.012	99	379333	20.0	21.4	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1261744	50.0	50.0	
61 n-Heptane	43	7.823	7.835	-0.012	86	200905	20.0	22.5	
63 n-Butanol	56	8.188	8.194	-0.006	89	611326	1000.0	1119.5	
64 Trichloroethene	95	8.304	8.303	0.001	98	130474	20.0	22.1	
65 Methylcyclohexane	83	8.608	8.608	0.000	91	227768	20.0	21.9	
66 2-ethoxy-2-methyl butane	87	8.638	8.644	-0.006	91	188612	20.0	21.8	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	71	140761	20.0	22.7	
69 Methyl methacrylate	69	8.717	8.723	-0.006	93	146061	20.0	22.4	
68 1,4-Dioxane	88	8.723	8.735	-0.012	41	79905	500.0	563.7	
70 Dibromomethane	93	8.754	8.754	0.000	97	90886	20.0	21.9	
72 Dichlorobromomethane	83	8.985	8.991	-0.006	100	165630	20.0	21.9	
73 2-Nitropropane	41	9.259	9.265	-0.006	97	60582	20.0	18.2	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	92	115896	20.0	21.5	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	221613	20.0	22.3	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1336297	100.0	112.4	
$ 77 Toluene-d8 (Surr)	98	9.825	9.830	-0.005	93	1233380	50.0	50.6	
78 Toluene	92	9.904	9.903	0.001	98	320906	20.0	22.6	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	199057	20.0	21.7	
81 Ethyl methacrylate	69	10.214	10.220	-0.006	90	236567	20.0	22.9	
82 1,1,2-Trichloroethane	97	10.360	10.366	-0.006	89	136061	20.0	23.3	
83 Tetrachloroethene	166	10.445	10.445	0.000	96	141246	20.0	20.7	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	90	218607	20.0	22.5	
86 2-Hexanone	43	10.573	10.573	0.000	97	1079655	100.0	115.9	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	147909	20.0	22.5	
89 Ethylene Dibromide	107	10.847	10.846	0.001	99	147365	20.0	21.6	
* 91 Chlorobenzene-d5 (IS)	117	11.279	11.278	0.000	85	944032	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.284	0.001	97	184020	20.0	22.2	
93 Chlorobenzene	112	11.303	11.303	0.000	96	369520	20.0	22.4	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	94	129962	20.0	21.7	
95 Ethylbenzene	91	11.388	11.388	0.000	98	620118	20.0	22.7	
96 m-Xylene & p-Xylene	106	11.504	11.503	0.001	100	477135	40.0	45.0	
97 o-Xylene	106	11.832	11.832	0.000	96	238732	20.0	22.7	
98 Styrene	104	11.844	11.844	0.000	95	414241	20.0	22.8	
99 Bromoform	173	12.002	12.008	-0.006	98	117664	20.0	21.6	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	610656	20.0	22.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Cyclohexanone	55	12.209	12.209	0.000	91	284948	500.0	485.2	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	456360	50.0	49.3	
104 1,1,2,2-Tetrachloroethane	83	12.374	12.379	-0.005	92	240740	20.0	23.9	
105 Bromobenzene	156	12.392	12.392	0.000	97	166152	20.0	22.7	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	351796	100.0	110.9	
107 1,2,3-Trichloropropane	110	12.428	12.422	0.006	82	66774	20.0	22.5	
108 N-Propylbenzene	91	12.459	12.458	0.001	98	740155	20.0	23.9	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	152973	20.0	22.8	
110 1,3,5-Trimethylbenzene	105	12.593	12.598	-0.005	94	510609	20.0	23.0	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	160413	20.0	23.2	
113 tert-Butylbenzene	134	12.836	12.836	0.000	93	108966	20.0	23.1	
114 Pentachloroethane	167	12.872	12.872	0.000	93	101277	20.0	24.3	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	526802	20.0	22.6	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	659682	20.0	23.2	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	98	301966	20.0	22.5	
118 4-Isopropyltoluene	119	13.110	13.109	0.001	97	572273	20.0	23.3	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	496174	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	96	309025	20.0	22.3	
121 1,2,3-Trimethylbenzene	105	13.183	13.182	0.001	98	559988	20.0	22.9	
122 Benzyl chloride	91	13.256	13.249	0.007	98	474391	20.0	23.9	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	96	343714	20.0	21.9	
124 p-Diethylbenzene	119	13.377	13.383	-0.006	94	360221	20.0	21.9	
125 n-Butylbenzene	92	13.402	13.401	0.001	97	294131	20.0	23.0	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	293672	20.0	22.1	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	279946	20.0	21.5	
129 1,2-Dibromo-3-Chloropropane	75	13.980	13.979	0.001	90	63106	20.0	22.2	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	232920	20.0	21.6	
131 1,2,4-Trichlorobenzene	180	14.527	14.533	-0.006	94	219453	20.0	21.3	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	95	105058	20.0	21.0	
133 Naphthalene	128	14.716	14.715	0.001	97	772533	20.0	22.2	
134 1,2,3-Trichlorobenzene	180	14.856	14.855	0.001	95	218990	20.0	21.6	
135 2-Methylnaphthalene	142	15.501	15.500	0.000	93	475367	20.0	21.1	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00055	Amount Added: 50.00	Units: uL	
MSV_Q_ETOH_00008	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00106	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00054	Amount Added: 50.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 28-Nov-2020 11:47:33 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28L01.D

Injection Date: 28-Nov-2020 10:01:30 Instrument ID: 23297 Operator ID: lcp00895

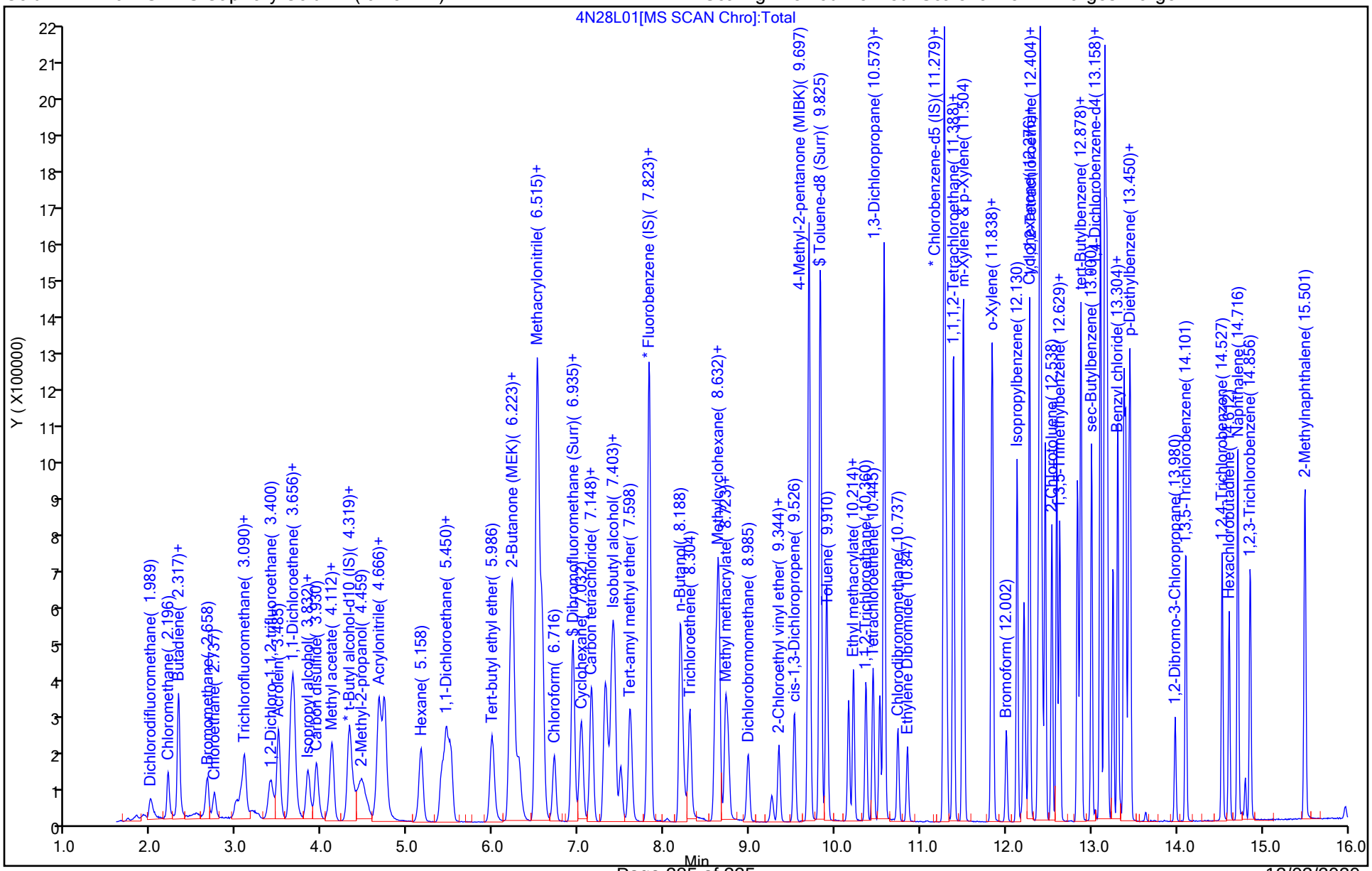
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-70864/4

Matrix: Water Lab File ID: 4N22L01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 09:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	20.0		1.0	0.30
75-34-3	1,1-Dichloroethane	21.9		1.0	0.20
75-35-4	1,1-Dichloroethene	22.3		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.3		5.0	0.20
107-06-2	1,2-Dichloroethane	18.9		1.0	0.30
123-91-1	1,4-Dioxane	539		250	29
78-93-3	2-Butanone	161		10	0.30
67-64-1	Acetone	145		20	0.70
71-43-2	Benzene	21.6		1.0	0.20
75-15-0	Carbon disulfide	22.4		5.0	0.20
67-66-3	Chloroform	21.0		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	22.8		1.0	0.20
100-41-4	Ethylbenzene	21.5		1.0	0.40
76-13-1	Freon 113	20.1		10	0.20
75-09-2	Methylene Chloride	22.5		1.0	0.30
91-20-3	Naphthalene	21.4		5.0	1.0
127-18-4	Tetrachloroethene	19.7		1.0	0.20
108-88-3	Toluene	21.2		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.2		1.0	0.20
79-01-6	Trichloroethene	21.6		1.0	0.20
75-01-4	Vinyl chloride	20.5		1.0	0.20
1330-20-7	Xylenes, Total	65.4		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 30-Nov-2020 09:19:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-004
Misc. Info.: LCS
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 10:29:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 09:51:37

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.995	2.007	-0.012	99	121702	20.0	17.2	
4 Chloromethane	50	2.202	2.208	-0.006	99	157757	20.0	19.6	
5 Butadiene	39	2.324	2.329	-0.005	92	141332	20.0	20.9	
6 Vinyl chloride	62	2.317	2.329	-0.012	88	150052	20.0	20.5	
8 Bromomethane	94	2.658	2.676	-0.018	90	109579	20.0	19.7	
9 Chloroethane	64	2.743	2.755	-0.012	100	84258	20.0	19.4	
11 Trichlorofluoromethane	101	3.054	3.066	-0.012	88	167728	20.0	18.7	
12 Pentane	43	3.090	3.108	-0.018	98	178235	20.0	19.5	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.400	3.412	-0.012	93	130114	20.0	22.2	
16 Acrolein	56	3.485	3.504	-0.019	100	383694	150.0	144.0	
17 1,1-Dichloroethene	96	3.625	3.637	-0.012	98	102328	20.0	22.3	
19 Acetone	58	3.662	3.674	-0.012	100	192566	150.0	145.3	
18 112TCTFE	101	3.668	3.674	-0.006	46	98015	20.0	20.1	
20 Iodomethane	142	3.832	3.844	-0.012	96	191378	20.0	20.6	
21 Isopropyl alcohol	45	3.838	3.850	-0.012	62	173565	150.0	143.1	
22 Carbon disulfide	76	3.936	3.948	-0.012	99	368223	20.0	22.4	
24 Methyl acetate	43	4.094	4.106	-0.012	98	184675	20.0	21.3	
25 3-Chloro-1-propene	41	4.118	4.136	-0.018	95	187675	20.0	20.3	
26 Methylene Chloride	84	4.319	4.325	-0.006	93	124190	20.0	22.5	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	525572	250.0	250.0	
28 2-Methyl-2-propanol	59	4.471	4.477	-0.006	100	401786	200.0	191.3	
29 Acrylonitrile	53	4.666	4.672	-0.006	98	473401	100.0	107.1	
30 Methyl tert-butyl ether	73	4.727	4.739	-0.013	96	358314	20.0	20.2	
31 trans-1,2-Dichloroethene	96	4.739	4.739	0.000	98	117683	20.0	22.2	
33 Hexane	57	5.152	5.164	-0.012	93	172370	20.0	21.7	
34 1,1-Dichloroethane	63	5.396	5.408	-0.012	95	211904	20.0	21.9	
36 Isopropyl ether	45	5.450	5.463	-0.013	96	403988	20.0	21.5	
37 2-Chloro-1,3-butadiene	53	5.505	5.517	-0.012	89	172734	20.0	20.6	
38 Tert-butyl ethyl ether	59	5.986	5.998	-0.012	99	372923	20.0	20.9	
40 2-Butanone (MEK)	43	6.211	6.217	-0.006	100	1047312	150.0	161.2	
41 cis-1,2-Dichloroethene	96	6.235	6.241	-0.006	82	139356	20.0	22.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	77	6.247	6.247	0.000	58	169736	20.0	20.9	
44 Propionitrile	54	6.302	6.308	-0.006	99	320282	150.0	152.8	
45 Methacrylonitrile	67	6.515	6.521	-0.006	92	716386	150.0	165.5	
46 Chlorobromomethane	128	6.564	6.570	-0.006	93	68256	20.0	19.9	
47 Tetrahydrofuran	71	6.582	6.582	0.000	87	190243	100.0	100.4	
48 Chloroform	83	6.710	6.722	-0.012	93	202242	20.0	21.0	
$ 49 Dibromofluoromethane (Surr)	113	6.929	6.935	-0.006	94	310244	50.0	49.1	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	98	161834	20.0	20.0	
51 Cyclohexane	56	7.026	7.038	-0.012	91	206469	20.0	22.3	
52 Carbon tetrachloride	117	7.148	7.154	-0.006	96	146140	20.0	21.0	
53 1,1-Dichloropropene	75	7.154	7.160	-0.006	97	162672	20.0	21.5	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	95	321029	500.0	480.1	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	74176	50.0	50.1	
56 Benzene	78	7.415	7.421	-0.006	96	492465	20.0	21.6	
57 1,2-Dichloroethane	62	7.495	7.501	-0.006	96	150567	20.0	18.9	
59 Tert-amyl methyl ether	73	7.604	7.610	-0.006	99	366636	20.0	20.8	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1258074	50.0	50.0	
61 n-Heptane	43	7.829	7.829	0.000	92	192501	20.0	21.6	
63 n-Butanol	56	8.194	8.194	0.000	88	599741	1000.0	1058.6	
64 Trichloroethene	95	8.298	8.304	-0.006	98	127246	20.0	21.6	
65 Methylcyclohexane	83	8.608	8.608	0.000	91	209098	20.0	20.2	
66 2-ethoxy-2-methyl butane	87	8.638	8.644	-0.006	90	180538	20.0	20.9	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	77	136347	20.0	22.0	
69 Methyl methacrylate	69	8.717	8.723	-0.006	93	142550	20.0	21.9	
68 1,4-Dioxane	88	8.723	8.729	-0.006	41	79255	500.0	538.9	M
70 Dibromomethane	93	8.748	8.754	-0.006	97	87823	20.0	21.3	
72 Dichlorobromomethane	83	8.979	8.985	-0.006	99	158123	20.0	21.0	
73 2-Nitropropane	41	9.259	9.265	-0.006	97	57377	20.0	16.6	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	91	101336	20.0	18.9	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	213021	20.0	21.5	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1271552	100.0	107.2	
$ 77 Toluene-d8 (Surr)	98	9.831	9.831	0.000	93	1231506	50.0	50.1	
78 Toluene	92	9.904	9.904	0.000	98	304110	20.0	21.2	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	193954	20.0	21.0	
81 Ethyl methacrylate	69	10.214	10.220	-0.006	90	225897	20.0	21.7	
82 1,1,2-Trichloroethane	97	10.360	10.366	-0.006	89	129618	20.0	22.0	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	135709	20.0	19.7	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	91	208507	20.0	21.3	
86 2-Hexanone	43	10.573	10.573	0.000	97	1023607	100.0	108.9	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	141590	20.0	21.4	
89 Ethylene Dibromide	107	10.847	10.846	0.001	98	144323	20.0	20.9	
* 91 Chlorobenzene-d5 (IS)	117	11.279	11.278	0.001	84	951846	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.285	0.001	96	171717	20.0	20.5	
93 Chlorobenzene	112	11.303	11.303	0.000	96	350825	20.0	21.1	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	124772	20.0	20.7	
95 Ethylbenzene	91	11.388	11.388	0.000	98	592020	20.0	21.5	
96 m-Xylene & p-Xylene	106	11.498	11.504	-0.006	99	469728	40.0	44.0	
97 o-Xylene	106	11.832	11.832	0.000	96	226581	20.0	21.4	
98 Styrene	104	11.844	11.850	-0.006	95	393542	20.0	21.5	
99 Bromoform	173	12.009	12.002	0.007	98	113423	20.0	20.6	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	585809	20.0	21.6	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	460079	50.0	49.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	92	234635	20.0	23.0	
105 Bromobenzene	156	12.392	12.392	0.000	96	156824	20.0	21.1	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	333891	100.0	103.9	
107 1,2,3-Trichloropropane	110	12.428	12.428	0.000	81	62930	20.0	21.0	
108 N-Propylbenzene	91	12.459	12.459	0.000	99	708220	20.0	22.6	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	148838	20.0	21.9	
110 1,3,5-Trimethylbenzene	105	12.593	12.592	0.001	94	491777	20.0	21.9	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	153115	20.0	21.8	
113 tert-Butylbenzene	134	12.836	12.842	-0.006	93	107565	20.0	22.6	
114 Pentachloroethane	167	12.872	12.872	0.000	83	96901	20.0	23.0	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	501103	20.0	21.3	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	639704	20.0	22.2	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	98	290029	20.0	21.4	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	551043	20.0	22.2	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	502435	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	95	297618	20.0	21.2	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	97	538939	20.0	21.8	
122 Benzyl chloride	91	13.256	13.256	0.000	98	457315	20.0	22.7	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	325100	20.0	20.5	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	351086	20.0	21.0	
125 n-Butylbenzene	92	13.402	13.402	0.000	97	273256	20.0	21.1	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	286031	20.0	21.3	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	273313	20.0	20.8	
129 1,2-Dibromo-3-Chloropropane	75	13.980	13.980	0.000	89	59679	20.0	20.8	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	222996	20.0	20.5	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	216562	20.0	20.8	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	99315	20.0	19.6	
133 Naphthalene	128	14.716	14.716	0.000	97	755456	20.0	21.4	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	212378	20.0	20.7	
135 2-Methylnaphthalene	142	15.501	15.500	0.001	96	454222	20.0	19.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00057	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00107	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00054	Amount Added: 50.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 30-Nov-2020 10:29:31 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L01.D

Injection Date: 30-Nov-2020 09:19:30 Instrument ID: 23297 Operator ID: jkh09052

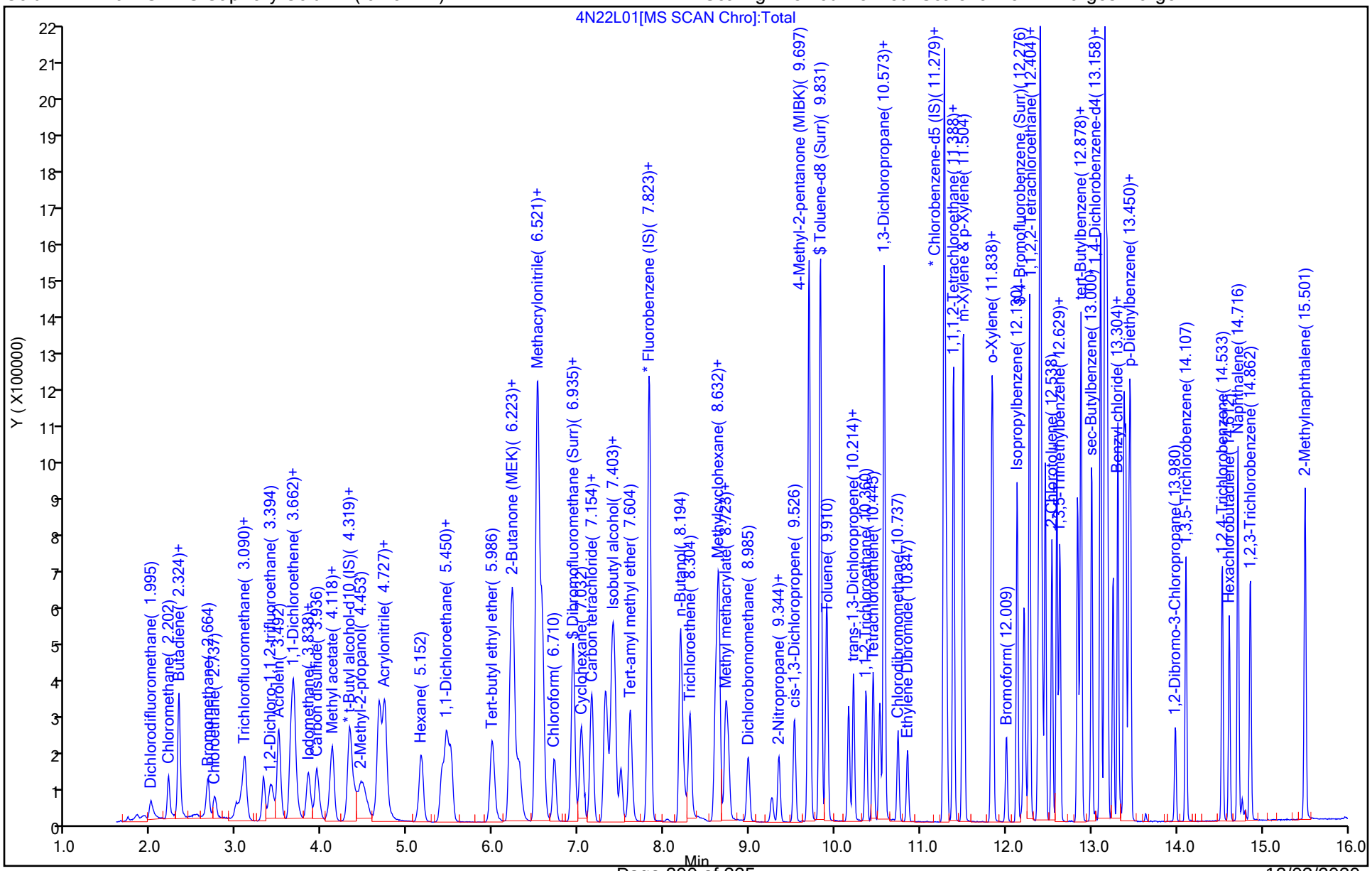
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

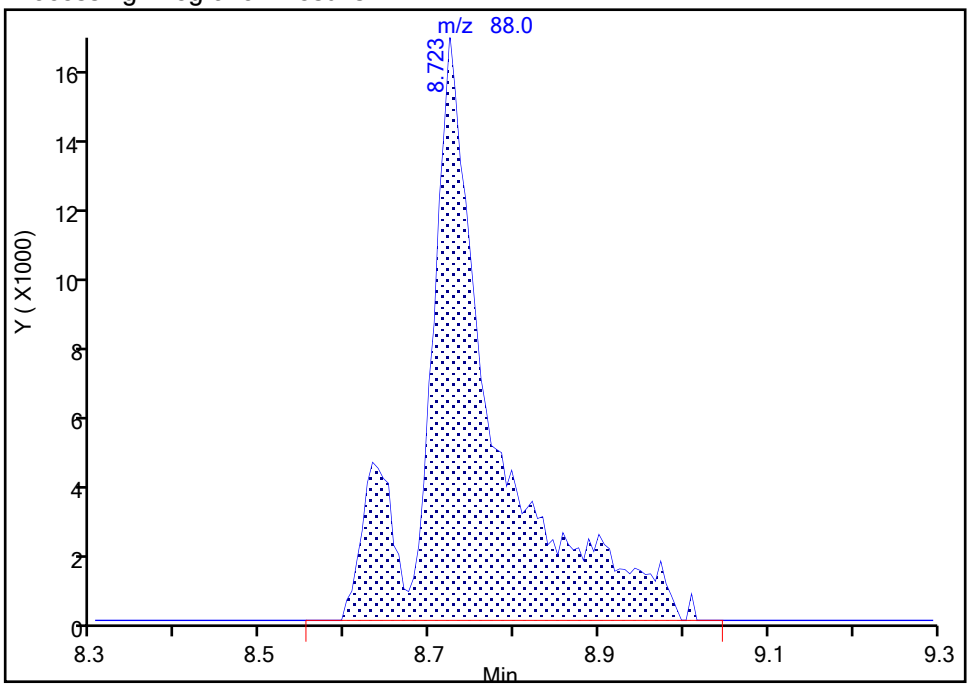
Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L01.D
Injection Date: 30-Nov-2020 09:19:30 Instrument ID: 23297
Lims ID: LCS
Client ID:
Operator ID: jkh09052 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

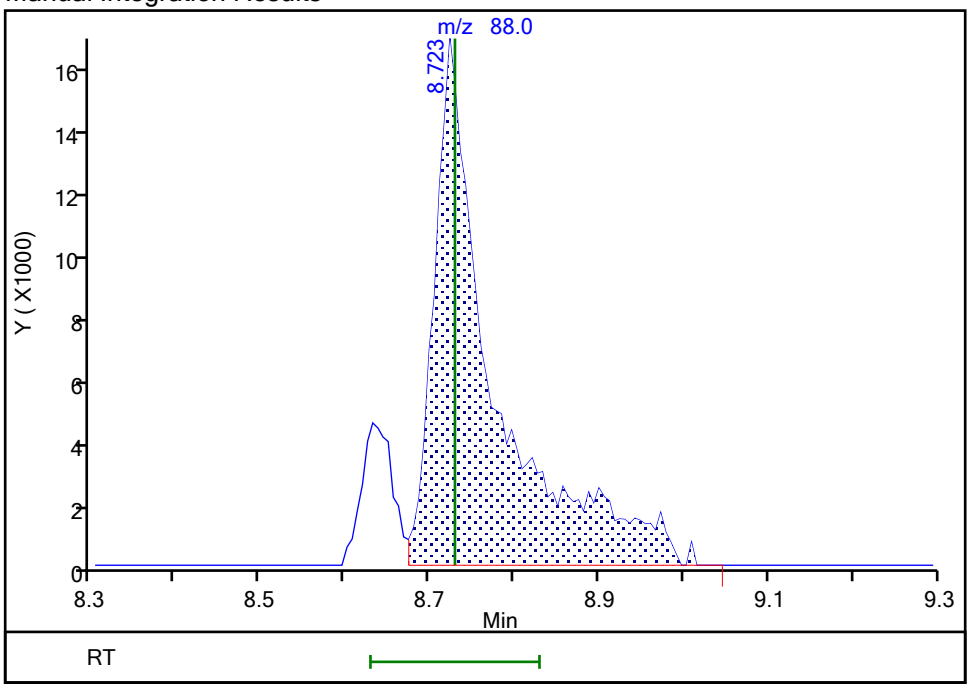
Processing Integration Results

RT: 8.72
Area: 90324
Amount: 614.2025
Amount Units: ug/l



Manual Integration Results

RT: 8.72
Area: 79255
Amount: 538.9334
Amount Units: ug/l



Reviewer: howej, 30-Nov-2020 09:51:20
Audit Action: Split an Integrated Peak Audit Reason: Other

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-71112/4

Matrix: Water Lab File ID: 4N22L35.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 21:50

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 71112 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
79-01-6	Trichloroethene	20.0		1.0	0.20

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	102		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22L35.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 30-Nov-2020 21:50:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016666-004
Misc. Info.: LCS
Operator ID: etp33087 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 23:39:11 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1678

First Level Reviewer: proctore Date: 30-Nov-2020 22:16:24

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.007	2.001	0.006	99	108284	20.0	15.4	M
4 Chloromethane	50	2.208	2.208	0.000	99	146773	20.0	18.3	M
5 Butadiene	39	2.336	2.336	0.000	91	136038	20.0	20.2	M
6 Vinyl chloride	62	2.336	2.336	0.000	80	138560	20.0	19.0	
8 Bromomethane	94	2.670	2.676	-0.006	89	97239	20.0	17.5	
9 Chloroethane	64	2.749	2.761	-0.012	100	77684	20.0	17.9	
11 Trichlorofluoromethane	101	3.066	3.066	0.000	97	151611	20.0	17.0	
12 Pentane	43	3.102	3.108	-0.006	97	189634	20.0	20.8	
13 Ethanol	45	3.206	3.205	0.001	90	153271	1000.1	993.3	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.412	3.406	0.006	93	119465	20.0	20.5	
16 Acrolein	56	3.498	3.504	-0.006	99	385010	150.0	148.0	
17 1,1-Dichloroethene	96	3.637	3.643	-0.006	98	97191	20.0	21.3	
19 Acetone	58	3.674	3.674	0.000	100	191347	150.0	147.8	
18 112TCTFE	101	3.674	3.680	-0.006	48	93301	20.0	19.2	
20 Iodomethane	142	3.844	3.850	-0.006	97	188369	20.0	20.4	
21 Isopropyl alcohol	45	3.863	3.850	0.013	99	166544	150.0	140.5	
22 Carbon disulfide	76	3.948	3.948	0.000	99	350556	20.0	21.4	
24 Methyl acetate	43	4.106	4.100	0.006	99	184303	20.0	21.4	
25 3-Chloro-1-propene	41	4.136	4.130	0.006	95	181616	20.0	19.8	
26 Methylene Chloride	84	4.325	4.331	-0.006	95	124156	20.0	22.6	
* 27 t-Butyl alcohol-d10 (IS)	65	4.355	4.337	0.018	0	513443	250.0	250.0	M
28 2-Methyl-2-propanol	59	4.477	4.471	0.006	100	369840	200.0	180.2	
29 Acrylonitrile	53	4.672	4.672	0.000	99	478509	100.0	108.8	
30 Methyl tert-butyl ether	73	4.726	4.732	-0.006	94	360996	20.0	20.4	
31 trans-1,2-Dichloroethene	96	4.739	4.739	0.000	99	113203	20.0	21.4	
33 Hexane	57	5.171	5.170	0.001	92	168719	20.0	21.3	
34 1,1-Dichloroethane	63	5.408	5.402	0.006	95	201528	20.0	20.9	
36 Isopropyl ether	45	5.463	5.462	0.001	97	395384	20.0	21.2	
37 2-Chloro-1,3-butadiene	53	5.517	5.517	0.000	89	161159	20.0	19.3	
38 Tert-butyl ethyl ether	59	5.992	5.998	-0.006	98	365169	20.0	20.5	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	100	1026156	150.0	158.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.235	6.241	-0.006	81	132249	20.0	21.8	
42 2,2-Dichloropropane	77	6.253	6.253	0.000	83	155950	20.0	19.3	
44 Propionitrile	54	6.308	6.308	0.000	99	305232	150.0	149.0	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	701604	150.0	162.8	
46 Chlorobromomethane	128	6.576	6.570	0.006	93	63895	20.0	18.7	
47 Tetrahydrofuran	71	6.582	6.576	0.006	87	185723	100.0	100.3	
48 Chloroform	83	6.722	6.722	0.000	93	191761	20.0	20.0	
$ 49 Dibromofluoromethane (Surr)	113	6.941	6.935	0.006	93	313277	50.0	49.8	
50 1,1,1-Trichloroethane	97	6.947	6.947	0.000	97	151529	20.0	18.9	
51 Cyclohexane	56	7.044	7.038	0.006	90	191856	20.0	20.8	
52 Carbon tetrachloride	117	7.154	7.154	0.000	98	130121	20.0	18.8	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	98	152245	20.0	20.3	
54 Isobutyl alcohol	41	7.324	7.318	0.006	95	306048	500.0	468.5	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	98	75125	50.0	51.0	
56 Benzene	78	7.428	7.421	0.007	96	472307	20.0	20.9	
57 1,2-Dichloroethane	62	7.501	7.500	0.001	96	147697	20.0	18.6	
59 Tert-amyl methyl ether	73	7.604	7.610	-0.006	99	361220	20.0	20.6	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	98	1252249	50.0	50.0	
61 n-Heptane	43	7.835	7.835	0.000	84	172224	20.0	19.4	
63 n-Butanol	56	8.194	8.194	0.000	89	562165	1000.0	1015.7	
64 Trichloroethene	95	8.310	8.303	0.007	98	117404	20.0	20.0	
65 Methylcyclohexane	83	8.608	8.608	0.000	92	193216	20.0	18.8	
66 2-ethoxy-2-methyl butane	87	8.644	8.644	0.000	91	173528	20.0	20.2	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	70	131300	20.0	21.3	
69 Methyl methacrylate	69	8.723	8.723	0.000	92	137475	20.0	21.2	
68 1,4-Dioxane	88	8.729	8.729	0.000	41	72856	500.0	507.1	M
70 Dibromomethane	93	8.760	8.754	0.006	97	88158	20.0	21.4	
72 Dichlorobromomethane	83	8.985	8.985	0.000	99	151513	20.0	20.2	
73 2-Nitropropane	41	9.265	9.259	0.006	98	55913	20.0	16.6	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	91	110239	20.0	20.6	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	209286	20.0	21.2	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	96	1271625	100.0	107.7	
$ 77 Toluene-d8 (Surr)	98	9.831	9.830	0.001	93	1248444	50.0	50.2	
78 Toluene	92	9.904	9.903	0.001	98	302711	20.0	20.9	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	189218	20.0	20.2	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	225519	20.0	21.4	
82 1,1,2-Trichloroethane	97	10.366	10.366	0.000	88	130489	20.0	21.9	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	126926	20.0	18.2	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	90	205966	20.0	20.8	
86 2-Hexanone	43	10.579	10.573	0.006	97	1025386	100.0	107.9	
88 Chlorodibromomethane	129	10.737	10.737	0.000	89	138755	20.0	20.7	
89 Ethylene Dibromide	107	10.847	10.846	0.000	98	142692	20.0	20.5	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	85	963019	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.284	0.001	96	165841	20.0	19.6	
93 Chlorobenzene	112	11.303	11.303	0.000	96	344202	20.0	20.5	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	121459	20.0	19.9	
95 Ethylbenzene	91	11.388	11.388	0.000	98	574013	20.0	20.6	
96 m-Xylene & p-Xylene	106	11.504	11.503	0.001	100	442465	40.0	40.9	
97 o-Xylene	106	11.832	11.832	0.000	96	220793	20.0	20.6	
98 Styrene	104	11.850	11.850	0.000	96	390723	20.0	21.1	
99 Bromoform	173	12.008	12.008	0.000	98	110865	20.0	19.9	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	561099	20.0	20.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Cyclohexanone	55	12.215	12.209	0.006	91	297020	500.0	499.0	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	465617	50.0	49.3	
104 1,1,2,2-Tetrachloroethane	83	12.380	12.379	0.001	92	233077	20.0	22.5	
105 Bromobenzene	156	12.392	12.392	0.000	97	156580	20.0	20.8	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	338813	100.0	104.0	
107 1,2,3-Trichloropropane	110	12.428	12.422	0.006	82	64432	20.0	21.2	
108 N-Propylbenzene	91	12.459	12.459	0.000	99	680985	20.0	21.5	
109 2-Chlorotoluene	126	12.538	12.538	0.000	97	139523	20.0	20.2	
110 1,3,5-Trimethylbenzene	105	12.592	12.592	0.000	94	471103	20.0	20.7	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	148589	20.0	20.9	
113 tert-Butylbenzene	134	12.842	12.842	0.000	93	97597	20.0	20.2	
114 Pentachloroethane	167	12.872	12.872	0.000	95	95658	20.0	22.4	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	97	490100	20.0	20.5	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	612133	20.0	20.9	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	98	283755	20.0	20.6	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	531035	20.0	21.1	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	509372	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	95	293183	20.0	20.6	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	98	528893	20.0	21.1	
122 Benzyl chloride	91	13.256	13.256	0.000	98	447770	20.0	22.0	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	314949	20.0	19.6	
124 p-Diethylbenzene	119	13.383	13.383	0.000	94	337854	20.0	20.0	
125 n-Butylbenzene	92	13.402	13.402	0.000	94	264716	20.0	20.1	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	283393	20.0	20.8	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	264558	20.0	19.8	
129 1,2-Dibromo-3-Chloropropane	75	13.980	13.979	0.001	90	59115	20.0	20.3	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	214341	20.0	19.4	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	212035	20.0	20.0	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	92912	20.0	18.1	
133 Naphthalene	128	14.716	14.716	0.000	97	748564	20.0	20.9	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	208166	20.0	20.0	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	451309	20.0	19.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00057	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00107	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00054	Amount Added: 50.00	Units: uL	
MSV_Q_ETOH_00008	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 30-Nov-2020 23:39:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22L35.D

Injection Date: 30-Nov-2020 21:50:30 Instrument ID: 23297 Operator ID: etp33087

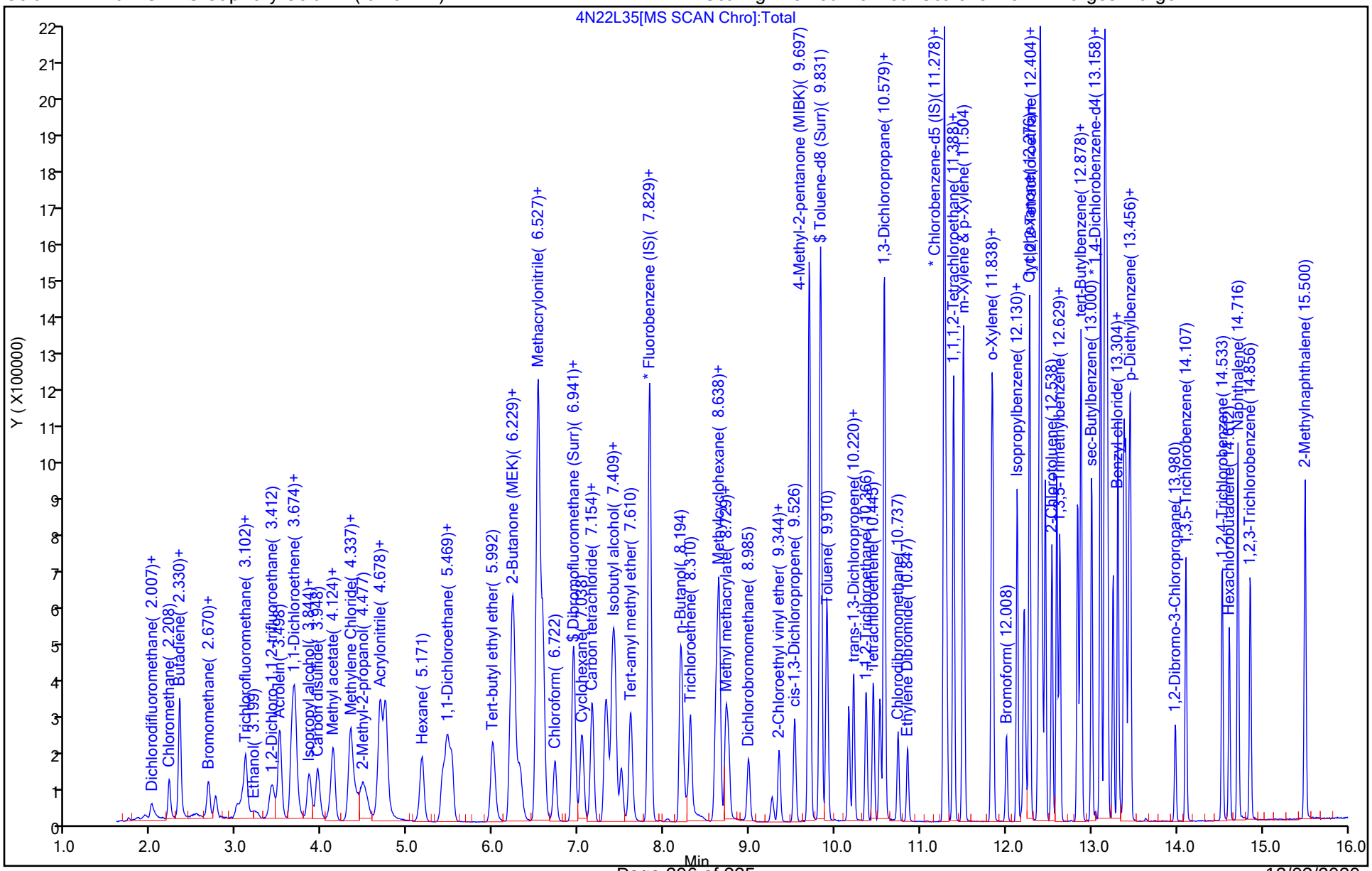
Lims ID: LCS Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

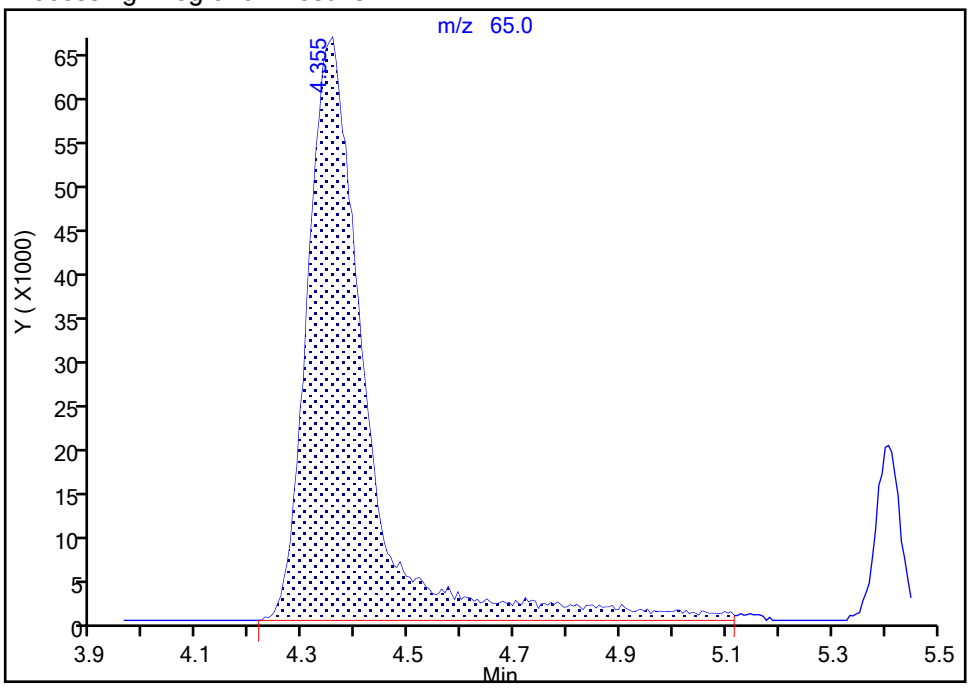
Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16666.b\4N22L35.D
Injection Date: 30-Nov-2020 21:50:30 Instrument ID: 23297
Lims ID: LCS
Client ID:
Operator ID: etp33087 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

* 27 t-Butyl alcohol-d10 (IS), CAS: 53001-22-2

Signal: 1

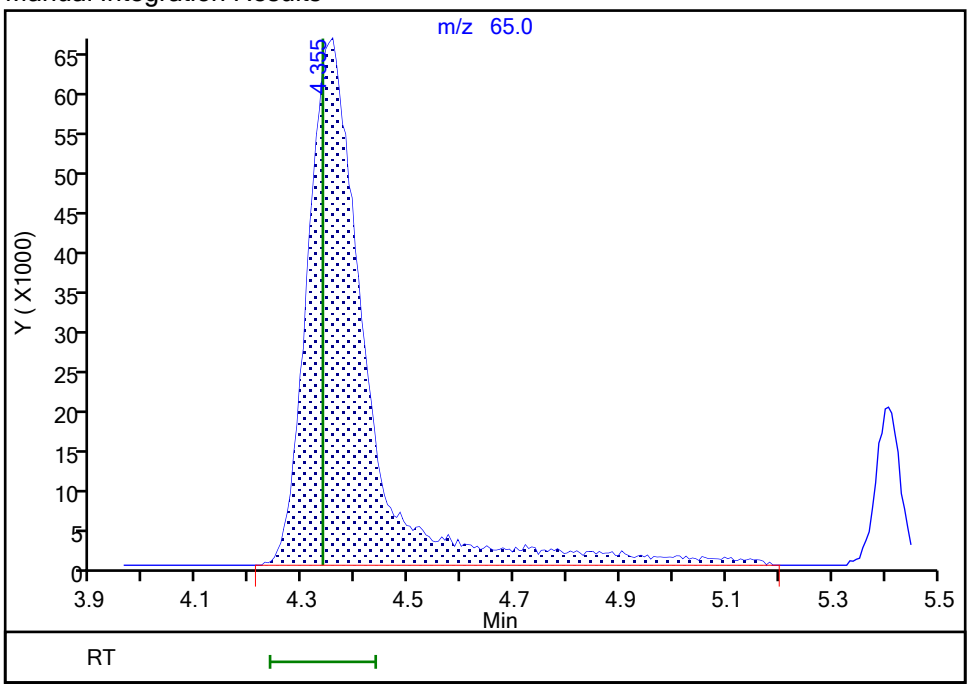
Processing Integration Results

RT: 4.36
Area: 511235
Amount: 250.0000
Amount Units: ug/l



Manual Integration Results

RT: 4.36
Area: 513443
Amount: 250.0000
Amount Units: ug/l



Reviewer: proctore, 30-Nov-2020 22:15:40
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-70709/5

Matrix: Water Lab File ID: 4N28L02.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/28/2020 10:23

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70709 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	20.8		1.0	0.30
75-34-3	1,1-Dichloroethane	22.4		1.0	0.20
75-35-4	1,1-Dichloroethene	23.1		1.0	0.20
95-50-1	1,2-Dichlorobenzene	22.0		5.0	0.20
107-06-2	1,2-Dichloroethane	19.5		1.0	0.30
123-91-1	1,4-Dioxane	575		250	29
78-93-3	2-Butanone	163		10	0.30
67-64-1	Acetone	156		20	0.70
71-43-2	Benzene	22.5		1.0	0.20
75-15-0	Carbon disulfide	22.9		5.0	0.20
67-66-3	Chloroform	21.6		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	23.5		1.0	0.20
100-41-4	Ethylbenzene	21.9		1.0	0.40
76-13-1	Freon 113	21.5		10	0.20
75-09-2	Methylene Chloride	23.1		1.0	0.30
91-20-3	Naphthalene	21.7		5.0	1.0
127-18-4	Tetrachloroethene	19.9		1.0	0.20
108-88-3	Toluene	22.3		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.7		1.0	0.20
79-01-6	Trichloroethene	21.7		1.0	0.20
75-01-4	Vinyl chloride	22.1		1.0	0.20
1330-20-7	Xylenes, Total	66.6		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	101		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	98		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28L02.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 28-Nov-2020 10:23:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016580-005
Misc. Info.: LCSD
Operator ID: lcp00895 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 28-Nov-2020 11:47:21 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1634

First Level Reviewer: papel Date: 28-Nov-2020 11:45:48

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	1.995	2.001	-0.006	99	133702	20.0	18.7	
4 Chloromethane	50	2.196	2.208	-0.012	99	177283	20.0	21.8	
5 Butadiene	39	2.323	2.329	-0.006	92	134815	20.0	19.7	
6 Vinyl chloride	62	2.323	2.329	-0.006	92	162620	20.0	22.1	
8 Bromomethane	94	2.658	2.670	-0.012	87	110081	20.0	19.6	
9 Chloroethane	64	2.743	2.755	-0.012	99	89866	20.0	20.5	
11 Trichlorofluoromethane	101	3.053	3.065	-0.012	98	176199	20.0	19.5	
12 Pentane	43	3.096	3.108	-0.012	97	191945	20.0	20.8	
13 Ethanol	45	3.199	3.193	0.006	22	176875	1000.1	1172.9	M
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.394	3.418	-0.024	93	136527	20.0	23.1	
16 Acrolein	56	3.491	3.497	-0.006	100	364342	150.0	143.3	
17 1,1-Dichloroethene	96	3.631	3.643	-0.012	97	106522	20.0	23.1	
19 Acetone	58	3.662	3.674	-0.012	100	197717	150.0	156.3	
18 112TCTFE	101	3.668	3.674	-0.006	47	105738	20.0	21.5	
20 Iodomethane	142	3.832	3.844	-0.012	96	200183	20.0	21.4	
21 Isopropyl alcohol	45	3.832	3.844	-0.012	60	207611	150.0	179.3	
22 Carbon disulfide	76	3.935	3.948	-0.013	99	378473	20.0	22.9	
24 Methyl acetate	43	4.100	4.106	-0.006	98	191151	20.0	21.9	
25 3-Chloro-1-propene	41	4.124	4.130	-0.006	94	195368	20.0	21.0	
26 Methylene Chloride	84	4.319	4.331	-0.012	92	128732	20.0	23.1	
* 27 t-Butyl alcohol-d10 (IS)	65	4.331	4.343	-0.012	0	501787	250.0	250.0	
28 2-Methyl-2-propanol	59	4.471	4.465	0.006	100	409154	200.0	204.0	
29 Acrylonitrile	53	4.665	4.678	-0.013	100	483535	100.0	108.6	
30 Methyl tert-butyl ether	73	4.726	4.738	-0.012	95	361023	20.0	20.2	
31 trans-1,2-Dichloroethene	96	4.732	4.745	-0.013	99	121087	20.0	22.7	
33 Hexane	57	5.158	5.164	-0.006	93	182123	20.0	22.8	
34 1,1-Dichloroethane	63	5.395	5.402	-0.007	96	217918	20.0	22.4	
36 Isopropyl ether	45	5.456	5.456	0.000	98	420001	20.0	22.2	
37 2-Chloro-1,3-butadiene	53	5.505	5.517	-0.012	89	178363	20.0	21.1	
38 Tert-butyl ethyl ether	59	5.992	5.992	0.000	98	382837	20.0	21.3	
40 2-Butanone (MEK)	43	6.211	6.217	-0.006	100	1066482	150.0	162.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 cis-1,2-Dichloroethene	96	6.235	6.235	0.000	81	144514	20.0	23.5	
42 2,2-Dichloropropane	77	6.247	6.253	-0.006	57	172038	20.0	21.0	
44 Propionitrile	54	6.302	6.308	-0.006	99	327685	150.0	163.7	
45 Methacrylonitrile	67	6.515	6.521	-0.006	92	725210	150.0	166.3	
46 Chlorobromomethane	128	6.570	6.576	-0.006	91	69805	20.0	20.2	
47 Tetrahydrofuran	71	6.576	6.582	-0.006	88	188666	100.0	104.2	
48 Chloroform	83	6.716	6.722	-0.006	92	209135	20.0	21.6	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	311779	50.0	49.0	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	98	169212	20.0	20.8	
51 Cyclohexane	56	7.032	7.038	-0.006	91	216152	20.0	23.2	
52 Carbon tetrachloride	117	7.148	7.148	0.000	96	153212	20.0	21.9	
53 1,1-Dichloropropene	75	7.154	7.160	-0.006	98	167905	20.0	22.1	
54 Isobutyl alcohol	41	7.318	7.318	0.000	95	331171	500.0	518.7	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	98	75210	50.0	50.4	
56 Benzene	78	7.415	7.427	-0.012	96	516287	20.0	22.5	
57 1,2-Dichloroethane	62	7.494	7.500	-0.006	96	157016	20.0	19.5	
59 Tert-amyl methyl ether	73	7.604	7.610	-0.006	99	381614	20.0	21.5	
* 62 Fluorobenzene (IS)	96	7.823	7.829	-0.006	99	1267518	50.0	50.0	
61 n-Heptane	43	7.829	7.835	-0.006	88	194599	20.0	21.7	
63 n-Butanol	56	8.194	8.194	0.000	90	594395	1000.0	1098.9	
64 Trichloroethene	95	8.303	8.303	0.000	98	128464	20.0	21.7	
65 Methylcyclohexane	83	8.602	8.608	-0.006	90	228590	20.0	21.9	
66 2-ethoxy-2-methyl butane	87	8.638	8.644	-0.006	91	188605	20.0	21.7	
67 1,2-Dichloropropane	63	8.638	8.644	-0.006	87	141882	20.0	22.8	
69 Methyl methacrylate	69	8.717	8.723	-0.006	93	141635	20.0	21.6	
68 1,4-Dioxane	88	8.723	8.735	-0.012	41	80713	500.0	574.9	
70 Dibromomethane	93	8.748	8.754	-0.006	97	91366	20.0	21.9	
72 Dichlorobromomethane	83	8.985	8.991	-0.006	99	162283	20.0	21.3	
73 2-Nitropropane	41	9.259	9.265	-0.006	98	57313	20.0	17.4	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	90	116135	20.0	21.5	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	97	216567	20.0	21.7	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1314231	100.0	110.0	
$ 77 Toluene-d8 (Surr)	98	9.830	9.830	0.000	93	1247348	50.0	50.4	
78 Toluene	92	9.903	9.903	0.000	98	321881	20.0	22.3	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	91	202576	20.0	21.8	
81 Ethyl methacrylate	69	10.214	10.220	-0.006	91	232447	20.0	22.2	
82 1,1,2-Trichloroethane	97	10.360	10.366	-0.006	88	136101	20.0	23.0	
83 Tetrachloroethene	166	10.445	10.445	0.000	96	138108	20.0	19.9	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	89	219014	20.0	22.2	
86 2-Hexanone	43	10.573	10.573	0.000	97	1054979	100.0	111.5	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	146728	20.0	22.0	
89 Ethylene Dibromide	107	10.846	10.846	0.000	99	150289	20.0	21.7	
* 91 Chlorobenzene-d5 (IS)	117	11.278	11.278	0.000	84	958853	50.0	50.0	
92 1-Chlorohexane	91	11.284	11.284	0.000	96	183716	20.0	21.8	
93 Chlorobenzene	112	11.303	11.303	0.000	96	363126	20.0	21.7	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	129274	20.0	21.3	
95 Ethylbenzene	91	11.388	11.388	0.000	98	608023	20.0	21.9	
96 m-Xylene & p-Xylene	106	11.503	11.503	0.000	100	478187	40.0	44.4	
97 o-Xylene	106	11.832	11.832	0.000	97	236829	20.0	22.2	
98 Styrene	104	11.844	11.844	0.000	95	412601	20.0	22.4	
99 Bromoform	173	12.002	12.008	-0.006	98	117673	20.0	21.2	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	607227	20.0	22.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Cyclohexanone	55	12.209	12.209	0.000	91	285993	500.0	491.6	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	92	463485	50.0	49.3	
104 1,1,2,2-Tetrachloroethane	83	12.379	12.379	0.000	92	239955	20.0	23.4	
105 Bromobenzene	156	12.392	12.392	0.000	97	163474	20.0	21.9	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	356660	100.0	110.4	
107 1,2,3-Trichloropropane	110	12.422	12.422	0.000	80	65700	20.0	21.8	
108 N-Propylbenzene	91	12.459	12.458	0.001	99	725673	20.0	23.0	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	154480	20.0	22.6	
110 1,3,5-Trimethylbenzene	105	12.598	12.598	0.000	94	501296	20.0	22.2	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	157690	20.0	22.3	
113 tert-Butylbenzene	134	12.842	12.836	0.006	93	107490	20.0	22.4	
114 Pentachloroethane	167	12.872	12.872	0.000	93	101406	20.0	23.9	
115 1,2,4-Trimethylbenzene	105	12.878	12.878	0.000	96	519391	20.0	21.9	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	663351	20.0	22.9	
117 1,3-Dichlorobenzene	146	13.103	13.103	0.000	97	299693	20.0	21.9	
118 4-Isopropyltoluene	119	13.109	13.109	0.000	97	565111	20.0	22.6	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	94	505410	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.176	13.176	0.000	96	308373	20.0	21.8	
121 1,2,3-Trimethylbenzene	105	13.189	13.182	0.007	98	561406	20.0	22.6	
122 Benzyl chloride	91	13.255	13.249	0.006	98	471050	20.0	23.3	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	339481	20.0	21.2	
124 p-Diethylbenzene	119	13.377	13.383	-0.006	94	360154	20.0	21.5	
125 n-Butylbenzene	92	13.401	13.401	0.000	97	288231	20.0	22.1	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	99	297391	20.0	22.0	
127 o-diethylbenzene	119	13.456	13.456	0.000	94	284232	20.0	21.5	
129 1,2-Dibromo-3-Chloropropane	75	13.979	13.979	0.000	89	61392	20.0	21.2	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	98	225596	20.0	20.6	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	93	222393	20.0	21.2	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	97	99653	20.0	19.6	
133 Naphthalene	128	14.716	14.715	0.001	97	770085	20.0	21.7	
134 1,2,3-Trichlorobenzene	180	14.862	14.855	0.007	96	215146	20.0	20.8	
135 2-Methylnaphthalene	142	15.500	15.500	0.000	92	453895	20.0	19.8	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA1_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00054	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00055	Amount Added: 50.00	Units: uL	
MSV_Q_ETOH_00008	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00106	Amount Added: 50.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added: 1.00	Units: uL	Run Reagent

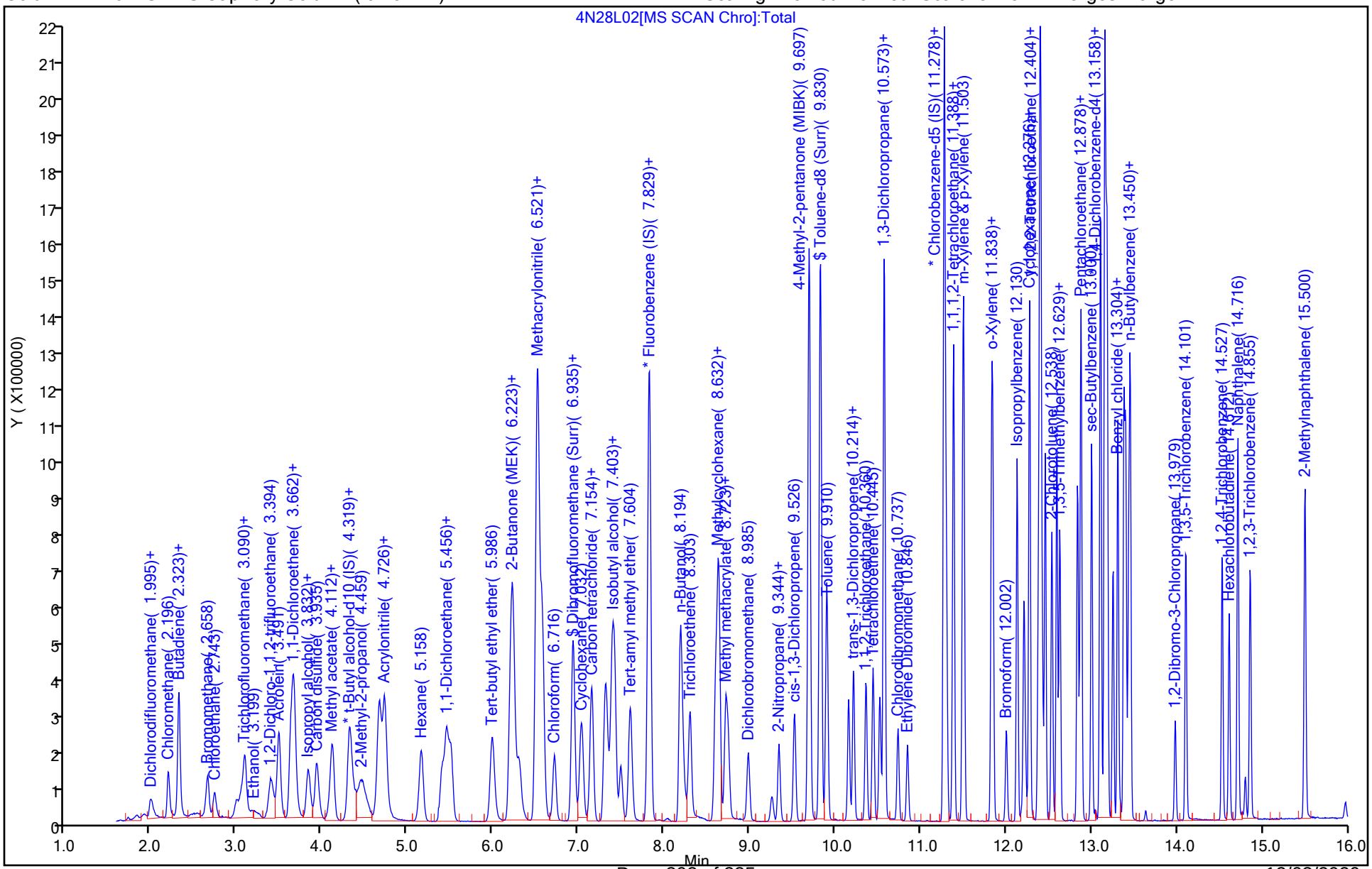
Report Date: 28-Nov-2020 11:47:41 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201128-16580.b\4N28L02.D

Injection Date:	28-Nov-2020 10:23:30	Instrument ID:	23297	Operator ID:	lcp00895
Lims ID:	LCSD			Worklist Smp#:	5
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	4
Method:	MSVoa_23297	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21451-1

SDG No.:

Client Sample ID: Lab Sample ID: LCSD 410-70864/5

Matrix: Water Lab File ID: 4N22L02.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 11/30/2020 09:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 70864 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	20.0		1.0	0.30
75-34-3	1,1-Dichloroethane	21.9		1.0	0.20
75-35-4	1,1-Dichloroethene	22.6		1.0	0.20
95-50-1	1,2-Dichlorobenzene	21.1		5.0	0.20
107-06-2	1,2-Dichloroethane	19.1		1.0	0.30
123-91-1	1,4-Dioxane	552		250	29
78-93-3	2-Butanone	159		10	0.30
67-64-1	Acetone	149		20	0.70
71-43-2	Benzene	21.9		1.0	0.20
75-15-0	Carbon disulfide	22.0		5.0	0.20
67-66-3	Chloroform	20.8		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	22.9		1.0	0.20
100-41-4	Ethylbenzene	21.7		1.0	0.40
76-13-1	Freon 113	19.9		10	0.20
75-09-2	Methylene Chloride	22.5		1.0	0.30
91-20-3	Naphthalene	21.3		5.0	1.0
127-18-4	Tetrachloroethene	19.8		1.0	0.20
108-88-3	Toluene	21.9		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	22.0		1.0	0.20
79-01-6	Trichloroethene	21.8		1.0	0.20
75-01-4	Vinyl chloride	20.7		1.0	0.20
1330-20-7	Xylenes, Total	65.4		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	100		80-120
460-00-4	4-Bromofluorobenzene (Surr)	99		80-120
1868-53-7	Dibromofluoromethane (Surr)	100		80-120
2037-26-5	Toluene-d8 (Surr)	101		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L02.D
Lims ID: LCSD
Client ID:
Sample Type: LCSD
Inject. Date: 30-Nov-2020 09:41:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0016607-005
Misc. Info.: LCSD
Operator ID: jkh09052 Instrument ID: 23297

Method: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\MSVoa_23297.m
Limit Group: MSV - 8260C_D
Last Update: 30-Nov-2020 10:29:18 Calib Date: 02-Sep-2020 21:15:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\23297\20200902-9637.b\4S02I16.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1627

First Level Reviewer: howej Date: 30-Nov-2020 10:11:23

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
2 Dichlorodifluoromethane	85	2.001	2.007	-0.006	99	119742	20.0	17.0	
4 Chloromethane	50	2.202	2.208	-0.006	99	159703	20.0	19.9	
5 Butadiene	39	2.330	2.329	0.001	93	136976	20.0	20.3	
6 Vinyl chloride	62	2.324	2.329	-0.005	86	150414	20.0	20.7	
8 Bromomethane	94	2.664	2.676	-0.012	90	104962	20.0	18.9	
9 Chloroethane	64	2.749	2.755	-0.006	99	83412	20.0	19.3	
11 Trichlorofluoromethane	101	3.054	3.066	-0.012	98	161405	20.0	18.1	
12 Pentane	43	3.096	3.108	-0.012	97	175563	20.0	19.3	
15 1,2-Dichloro-1,1,2-trifluoroetha	67	3.400	3.412	-0.012	93	129999	20.0	22.3	
16 Acrolein	56	3.498	3.504	-0.006	100	381569	150.0	148.0	
17 1,1-Dichloroethene	96	3.638	3.637	0.001	97	102830	20.0	22.6	
19 Acetone	58	3.674	3.674	0.000	100	190428	150.0	148.5	
18 112TCTFE	101	3.674	3.674	0.000	47	96314	20.0	19.9	
20 Iodomethane	142	3.838	3.844	-0.006	97	192667	20.0	20.8	
21 Isopropyl alcohol	45	3.850	3.850	0.000	65	166112	150.0	141.5	
22 Carbon disulfide	76	3.942	3.948	-0.006	99	359592	20.0	22.0	
24 Methyl acetate	43	4.100	4.106	-0.006	98	183808	20.0	21.3	
25 3-Chloro-1-propene	41	4.130	4.136	-0.006	94	188570	20.0	20.5	
26 Methylene Chloride	84	4.319	4.325	-0.006	93	123692	20.0	22.5	
* 27 t-Butyl alcohol-d10 (IS)	65	4.349	4.343	0.006	0	508691	250.0	250.0	
28 2-Methyl-2-propanol	59	4.477	4.477	0.000	99	390417	200.0	192.0	
29 Acrylonitrile	53	4.672	4.672	0.000	99	470997	100.0	107.1	
30 Methyl tert-butyl ether	73	4.733	4.739	-0.006	94	361327	20.0	20.5	
31 trans-1,2-Dichloroethene	96	4.733	4.739	-0.006	100	116066	20.0	22.0	
33 Hexane	57	5.165	5.164	0.001	93	171507	20.0	21.7	
34 1,1-Dichloroethane	63	5.402	5.408	-0.006	96	210596	20.0	21.9	
36 Isopropyl ether	45	5.457	5.463	-0.006	96	404967	20.0	21.7	
37 2-Chloro-1,3-butadiene	53	5.511	5.517	-0.006	89	170689	20.0	20.5	
38 Tert-butyl ethyl ether	59	5.992	5.998	-0.006	98	374806	20.0	21.1	
40 2-Butanone (MEK)	43	6.217	6.217	0.000	100	1027241	150.0	158.8	
41 cis-1,2-Dichloroethene	96	6.235	6.241	-0.006	80	138901	20.0	22.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
42 2,2-Dichloropropane	77	6.247	6.247	0.000	59	166494	20.0	20.6	
44 Propionitrile	54	6.302	6.308	-0.006	100	321092	150.0	158.2	
45 Methacrylonitrile	67	6.521	6.521	0.000	92	710614	150.0	164.9	
46 Chlorobromomethane	128	6.570	6.570	0.000	92	67068	20.0	19.6	
47 Tetrahydrofuran	71	6.576	6.582	-0.006	85	185713	100.0	101.2	
48 Chloroform	83	6.722	6.722	0.000	92	199297	20.0	20.8	
$ 49 Dibromofluoromethane (Surr)	113	6.935	6.935	0.000	94	313562	50.0	49.9	
50 1,1,1-Trichloroethane	97	6.941	6.947	-0.006	59	161099	20.0	20.0	
51 Cyclohexane	56	7.038	7.038	0.000	91	203347	20.0	22.1	
52 Carbon tetrachloride	117	7.154	7.154	0.000	96	143904	20.0	20.8	
53 1,1-Dichloropropene	75	7.160	7.160	0.000	96	157759	20.0	21.0	
54 Isobutyl alcohol	41	7.318	7.324	-0.006	96	330068	500.0	510.0	
$ 55 1,2-Dichloroethane-d4 (Surr)	102	7.391	7.397	-0.006	97	74073	50.0	50.2	
56 Benzene	78	7.422	7.421	0.001	97	495620	20.0	21.9	
57 1,2-Dichloroethane	62	7.495	7.501	-0.006	96	151692	20.0	19.1	
59 Tert-amyl methyl ether	73	7.604	7.610	-0.006	99	373607	20.0	21.3	
* 62 Fluorobenzene (IS)	96	7.829	7.829	0.000	99	1252184	50.0	50.0	
61 n-Heptane	43	7.835	7.829	0.006	89	182887	20.0	20.6	
63 n-Butanol	56	8.194	8.194	0.000	89	579615	1000.0	1057.0	
64 Trichloroethene	95	8.304	8.304	0.000	98	127601	20.0	21.8	
65 Methylcyclohexane	83	8.602	8.608	-0.006	91	211565	20.0	20.5	
66 2-ethoxy-2-methyl butane	87	8.638	8.644	-0.006	90	183172	20.0	21.3	
67 1,2-Dichloropropane	63	8.644	8.644	0.000	87	141230	20.0	22.9	
69 Methyl methacrylate	69	8.723	8.723	0.000	94	143556	20.0	22.2	
68 1,4-Dioxane	88	8.730	8.729	0.001	41	78516	500.0	551.6	M
70 Dibromomethane	93	8.754	8.754	0.000	98	90523	20.0	22.0	
72 Dichlorobromomethane	83	8.985	8.985	0.000	100	161674	20.0	21.5	
73 2-Nitropropane	41	9.265	9.265	0.000	97	56022	20.0	16.8	
74 2-Chloroethyl vinyl ether	63	9.344	9.344	0.000	91	95591	20.0	17.9	
75 cis-1,3-Dichloropropene	75	9.526	9.526	0.000	96	217207	20.0	22.0	
76 4-Methyl-2-pentanone (MIBK)	43	9.697	9.697	0.000	97	1285572	100.0	108.9	
$ 77 Toluene-d8 (Surr)	98	9.831	9.831	0.000	93	1248860	50.0	50.3	
78 Toluene	92	9.904	9.904	0.000	98	317072	20.0	21.9	
80 trans-1,3-Dichloropropene	75	10.159	10.159	0.000	92	195141	20.0	20.9	
81 Ethyl methacrylate	69	10.220	10.220	0.000	90	230826	20.0	22.0	
82 1,1,2-Trichloroethane	97	10.360	10.366	-0.006	88	133584	20.0	22.5	
83 Tetrachloroethene	166	10.445	10.445	0.000	97	137407	20.0	19.8	
84 1,3-Dichloropropane	76	10.524	10.524	0.000	90	214021	20.0	21.6	
86 2-Hexanone	43	10.573	10.573	0.000	97	1036584	100.0	109.2	
88 Chlorodibromomethane	129	10.737	10.737	0.000	90	143388	20.0	21.4	
89 Ethylene Dibromide	107	10.847	10.846	0.001	98	145480	20.0	20.9	
* 91 Chlorobenzene-d5 (IS)	117	11.279	11.278	0.001	85	961978	50.0	50.0	
92 1-Chlorohexane	91	11.285	11.285	0.001	97	177752	20.0	21.0	
93 Chlorobenzene	112	11.303	11.303	0.000	96	361801	20.0	21.5	
94 1,1,1,2-Tetrachloroethane	131	11.382	11.382	0.000	97	127822	20.0	21.0	
95 Ethylbenzene	91	11.388	11.388	0.000	98	603861	20.0	21.7	
96 m-Xylene & p-Xylene	106	11.504	11.504	0.000	100	471597	40.0	43.7	
97 o-Xylene	106	11.832	11.832	0.000	96	232475	20.0	21.7	
98 Styrene	104	11.844	11.850	-0.006	94	405587	20.0	21.9	
99 Bromoform	173	12.002	12.002	0.000	98	114389	20.0	20.6	
100 Isopropylbenzene	105	12.130	12.130	0.000	95	593946	20.0	21.7	
$ 103 4-Bromofluorobenzene (Surr)	95	12.276	12.276	0.000	93	464536	50.0	49.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
104 1,1,2,2-Tetrachloroethane	83	12.380	12.380	0.000	92	238660	20.0	23.0	
105 Bromobenzene	156	12.392	12.392	0.000	97	160941	20.0	21.3	
106 trans-1,4-Dichloro-2-butene	53	12.404	12.404	0.000	91	347614	100.0	106.4	
107 1,2,3-Trichloropropane	110	12.422	12.428	-0.006	81	64470	20.0	21.1	
108 N-Propylbenzene	91	12.459	12.459	0.000	99	722101	20.0	22.7	
109 2-Chlorotoluene	126	12.538	12.538	0.000	98	148274	20.0	21.5	
110 1,3,5-Trimethylbenzene	105	12.593	12.592	0.001	94	499551	20.0	21.9	
111 4-Chlorotoluene	126	12.629	12.629	0.000	97	158075	20.0	22.2	
113 tert-Butylbenzene	134	12.836	12.842	-0.006	93	104470	20.0	21.5	
114 Pentachloroethane	167	12.872	12.872	0.000	91	99068	20.0	23.1	
115 1,2,4-Trimethylbenzene	105	12.879	12.878	0.001	96	510474	20.0	21.3	
116 sec-Butylbenzene	105	13.000	13.000	0.000	94	640382	20.0	21.8	
117 1,3-Dichlorobenzene	146	13.104	13.103	0.001	98	293831	20.0	21.3	
118 4-Isopropyltoluene	119	13.110	13.110	0.000	97	556428	20.0	22.0	
* 119 1,4-Dichlorobenzene-d4	152	13.158	13.158	0.000	93	510877	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.177	13.176	0.001	95	306532	20.0	21.5	
121 1,2,3-Trimethylbenzene	105	13.189	13.189	0.000	97	545495	20.0	21.7	
122 Benzyl chloride	91	13.250	13.256	-0.006	98	460612	20.0	22.5	
123 1,3-Diethylbenzene	119	13.310	13.310	0.000	95	335839	20.0	20.8	
124 p-Diethylbenzene	119	13.383	13.383	0.000	96	356754	20.0	21.0	
125 n-Butylbenzene	92	13.402	13.402	0.000	97	280989	20.0	21.3	
126 1,2-Dichlorobenzene	146	13.438	13.438	0.000	98	288562	20.0	21.1	
127 o-diethylbenzene	119	13.456	13.456	0.000	95	276098	20.0	20.6	
129 1,2-Dibromo-3-Chloropropane	75	13.980	13.980	0.000	89	59449	20.0	20.3	
130 1,3,5-Trichlorobenzene	180	14.107	14.107	0.000	97	225748	20.0	20.4	
131 1,2,4-Trichlorobenzene	180	14.533	14.533	0.000	94	219369	20.0	20.7	
132 Hexachlorobutadiene	225	14.612	14.612	0.000	96	99163	20.0	19.3	
133 Naphthalene	128	14.716	14.716	0.000	97	764586	20.0	21.3	
134 1,2,3-Trichlorobenzene	180	14.862	14.862	0.000	96	216108	20.0	20.7	
135 2-Methylnaphthalene	142	15.501	15.500	0.001	92	452957	20.0	19.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QVOA1_00057	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00054	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00107	Amount Added: 50.00	Units: uL	
MSV_HP4_ISSS_00005	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 30-Nov-2020 10:29:42 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L02.D

Injection Date: 30-Nov-2020 09:41:30 Instrument ID: 23297 Operator ID: jkh09052

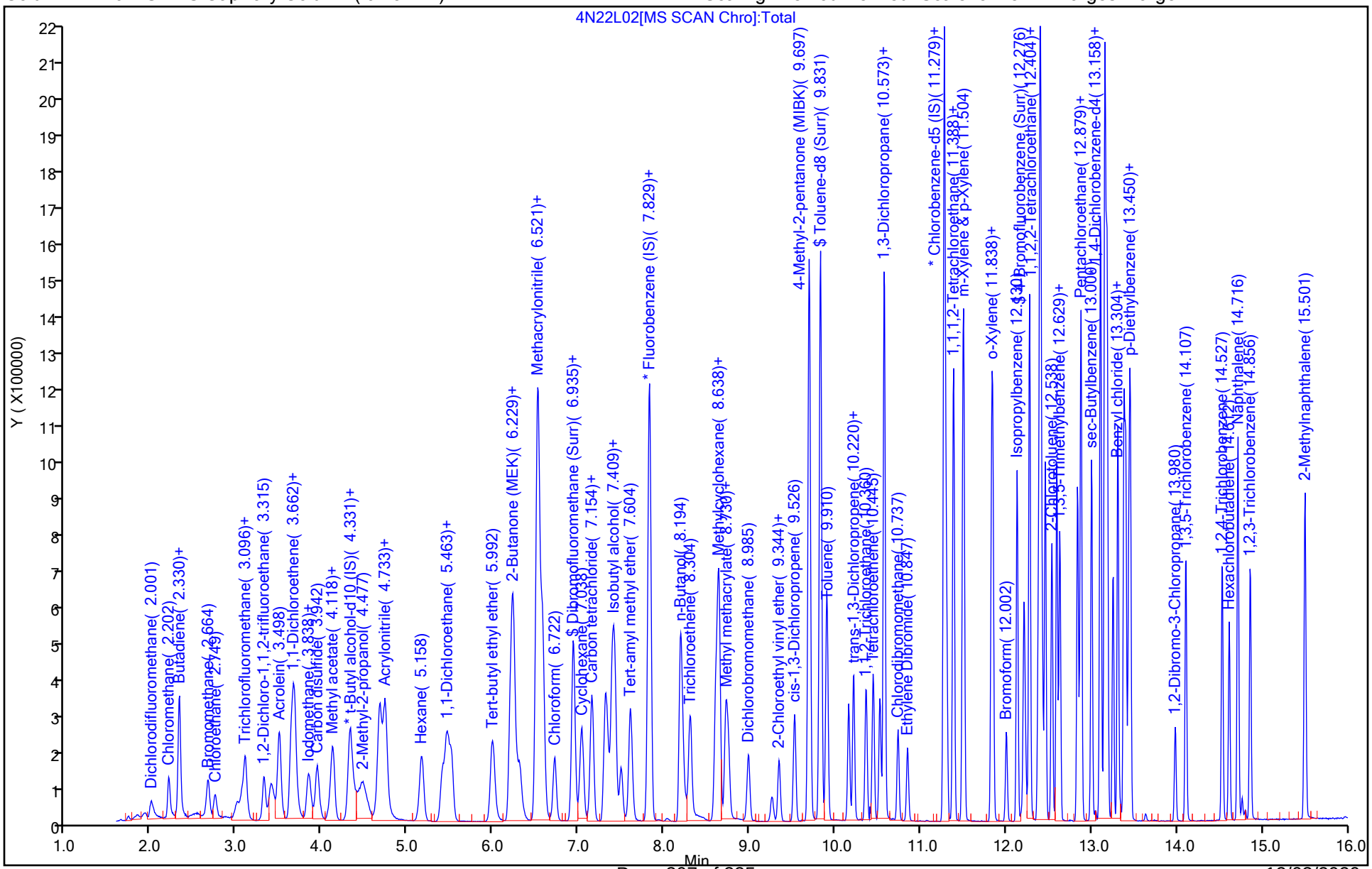
Lims ID: LCSD Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_23297 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

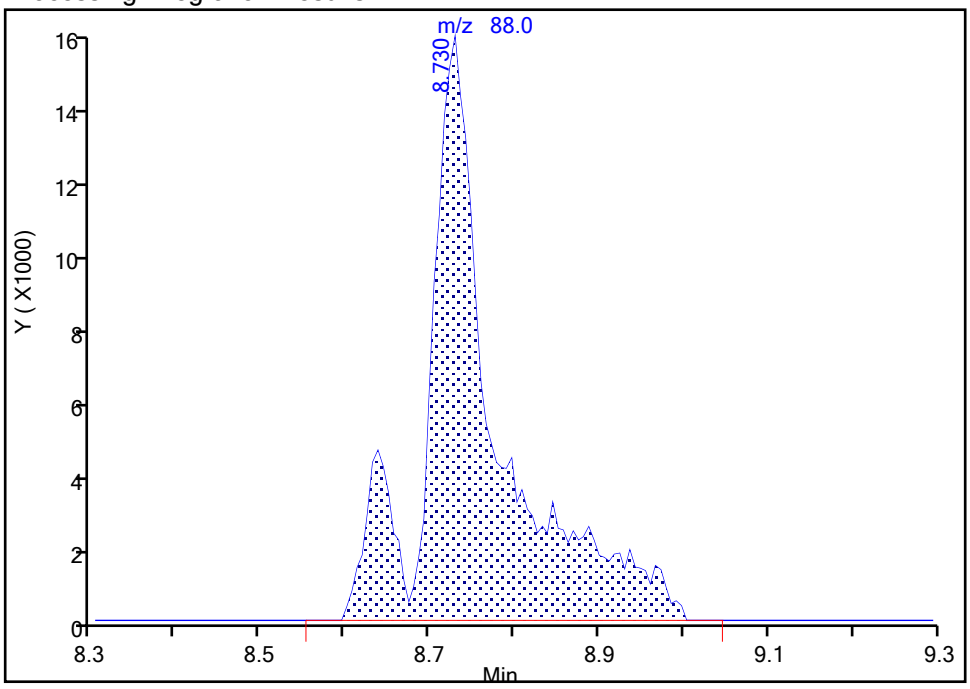
Data File: \\chromfs\Lancaster\ChromData\23297\20201130-16607.b\4N22L02.D
Injection Date: 30-Nov-2020 09:41:30 Instrument ID: 23297
Lims ID: LCSD
Client ID:
Operator ID: jkh09052 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_23297 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

68 1,4-Dioxane, CAS: 123-91-1

Signal: 1

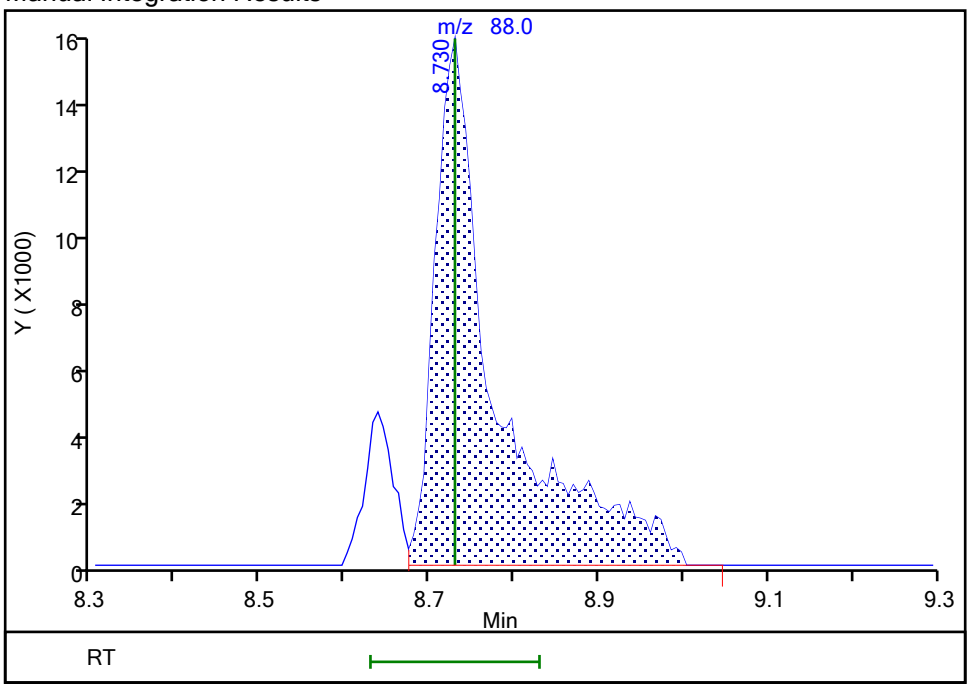
Processing Integration Results

RT: 8.73
Area: 88960
Amount: 625.0020
Amount Units: ug/l



Manual Integration Results

RT: 8.73
Area: 78516
Amount: 551.6261
Amount Units: ug/l



Reviewer: howej, 30-Nov-2020 10:11:06
Audit Action: Split an Integrated Peak Audit Reason: Other

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Instrument ID: 23297 Start Date: 09/01/2020 19:24

Analysis Batch Number: 39906 End Date: 09/02/2020 03:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-39906/1		09/01/2020 19:24	1	4S01T01.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/3		09/01/2020 20:14	1	4S01I01.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/4		09/01/2020 20:36	1	4S01I02.D	R-624SilMS 30m 0.25(mm)
ICIS 410-39906/5		09/01/2020 20:59	1	4S01I03.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/6		09/01/2020 21:22	1	4S01I04.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/7		09/01/2020 21:44	1	4S01I05.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/8		09/01/2020 22:07	1	4S01I06.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/9		09/01/2020 22:29	1	4S01I07.D	R-624SilMS 30m 0.25(mm)
IC 410-39906/13		09/02/2020 00:00	1		R-624SilMS 30m 0.25(mm)
IC 410-39906/14		09/02/2020 00:22	1		R-624SilMS 30m 0.25(mm)
IC 410-39906/15		09/02/2020 00:45	1		R-624SilMS 30m 0.25(mm)
IC 410-39906/16		09/02/2020 01:07	1		R-624SilMS 30m 0.25(mm)
IC 410-39906/17		09/02/2020 01:30	1		R-624SilMS 30m 0.25(mm)
IC 410-39906/18		09/02/2020 01:52	1		R-624SilMS 30m 0.25(mm)
ICV 410-39906/19		09/02/2020 02:15	1		R-624SilMS 30m 0.25(mm)
ICV 410-39906/21		09/02/2020 03:00	1	4S01V02.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Instrument ID: 23297 Start Date: 11/28/2020 08:53

Analysis Batch Number: 70709 End Date: 11/28/2020 19:27

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-70709/1		11/28/2020 08:53	1	4N28T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-70709/3		11/28/2020 09:38	1	4N28C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-70709/4		11/28/2020 10:01	1	4N28L01.D	R-624SilMS 30m 0.25(mm)
LCSD 410-70709/5		11/28/2020 10:23	1	4N28L02.D	R-624SilMS 30m 0.25(mm)
MB 410-70709/7		11/28/2020 11:09	1	4N28B01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 12:39	1		R-624SilMS 30m 0.25(mm)
410-21451-8	TB111720	11/28/2020 13:02	1	4N28S05.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 13:25	1		R-624SilMS 30m 0.25(mm)
410-21451-1	J11-BR02	11/28/2020 13:47	1	4N28S07.D	R-624SilMS 30m 0.25(mm)
410-21451-2	J11-UC02	11/28/2020 14:10	1	4N28S08.D	R-624SilMS 30m 0.25(mm)
410-21451-3	J11-UC01	11/28/2020 14:33	1	4N28S09.D	R-624SilMS 30m 0.25(mm)
410-21451-4	J11-BR01	11/28/2020 14:55	1	4N28S10.D	R-624SilMS 30m 0.25(mm)
410-21451-5	MW-2	11/28/2020 15:18	1	4N28S11.D	R-624SilMS 30m 0.25(mm)
410-21451-6	Dup-02	11/28/2020 15:41	1	4N28S12.D	R-624SilMS 30m 0.25(mm)
410-21451-7	MW-2I	11/28/2020 16:03	1	4N28S13.D	R-624SilMS 30m 0.25(mm)
410-21451-9	J02-UC01	11/28/2020 16:26	1	4N28S14.D	R-624SilMS 30m 0.25(mm)
410-21451-10	J02-BR02	11/28/2020 16:49	1	4N28S15.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 17:11	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 17:34	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 17:56	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 18:19	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 18:42	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 19:05	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/28/2020 19:27	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Instrument ID: 23297 Start Date: 11/30/2020 08:17

Analysis Batch Number: 70864 End Date: 11/30/2020 20:00

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-70864/1		11/30/2020 08:17	1	4N30T01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-70864/3		11/30/2020 08:56	1	4N22C01.D	R-624SilMS 30m 0.25(mm)
LCS 410-70864/4		11/30/2020 09:19	1	4N22L01.D	R-624SilMS 30m 0.25(mm)
LCSD 410-70864/5		11/30/2020 09:41	1	4N22L02.D	R-624SilMS 30m 0.25(mm)
MB 410-70864/7		11/30/2020 10:27	1	4N22B01.D	R-624SilMS 30m 0.25(mm)
410-21451-14	EB111820	11/30/2020 10:50	1	4N30S01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 11:13	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 11:35	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 11:58	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 12:21	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 12:44	1		R-624SilMS 30m 0.25(mm)
410-21451-11	J02-BR01	11/30/2020 13:07	1	4N30S07.D	R-624SilMS 30m 0.25(mm)
410-21451-12	RIZ-7	11/30/2020 13:30	1	4N30S08.D	R-624SilMS 30m 0.25(mm)
410-21451-13	J06-UC01	11/30/2020 13:53	1	4N30S09.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 14:16	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 14:39	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 15:02	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 15:25	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 15:48	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 16:11	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 16:34	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 16:57	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 17:20	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 17:43	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 18:06	1000		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 18:28	5		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 18:51	50		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 19:14	50		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 19:37	500		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 20:00	20		R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21451-1

SDG No.:

Instrument ID: 23297 Start Date: 11/30/2020 20:45

Analysis Batch Number: 71112 End Date: 12/01/2020 08:23

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-71112/1		11/30/2020 20:45	1	4N30T35.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-71112/3		11/30/2020 21:27	1	4N22C35.D	R-624SilMS 30m 0.25(mm)
LCS 410-71112/4		11/30/2020 21:50	1	4N22L35.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 22:13	1		R-624SilMS 30m 0.25(mm)
MB 410-71112/6		11/30/2020 22:36	1	4N22B35.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 23:17	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		11/30/2020 23:40	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 00:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 00:25	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 00:48	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 01:11	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 01:34	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 01:57	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 02:20	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 02:42	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 03:05	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 03:28	1		R-624SilMS 30m 0.25(mm)
410-21451-5 DL	MW-2 DL	12/01/2020 03:51	10	4N30S47.D	R-624SilMS 30m 0.25(mm)
410-21451-6 DL	Dup-02 DL	12/01/2020 04:13	10	4N30S48.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 04:36	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 04:59	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 05:22	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 05:44	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 06:07	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 06:30	100		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 06:52	5		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 07:15	50		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 07:38	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 08:01	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/01/2020 08:23	1		R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 39906 Batch Start Date: 09/01/20 19:24 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_4ppbETOH 00068	MSV_DCFM 00021	MSV_HP4_ISSS 00004	MSV_Q_ETOH 00007
BFB 410-39906/1		8260C		1 uL	1 uL				
IC 410-39906/3		8260C		5 mL	5 mL		7.5 uL	1 uL	
IC 410-39906/4		8260C		5 mL	5 mL		2.5 uL	1 uL	
ICIS 410-39906/5		8260C		5 mL	5 mL		2.5 uL	1 uL	
IC 410-39906/6		8260C		5 mL	5 mL		2 uL	1 uL	
IC 410-39906/7		8260C		5 mL	5 mL		1 uL	1 uL	
IC 410-39906/8		8260C		5 mL	5 mL		2 uL	1 uL	
IC 410-39906/9		8260C		5 mL	5 mL	12.5 mL		1 uL	
ICV 410-39906/21		8260C		5 mL	5 mL			1 uL	50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QARC 00043	MSV_Q_QDCFM 00003	MSV_Q_QGases 00082	MSV_Q_QVOA1 00044	MSV_Q_QVOA6 00041	MSV_QCYC 00004
BFB 410-39906/1		8260C							
IC 410-39906/3		8260C							
IC 410-39906/4		8260C							
ICIS 410-39906/5		8260C							
IC 410-39906/6		8260C							
IC 410-39906/7		8260C							
IC 410-39906/8		8260C							
IC 410-39906/9		8260C							
ICV 410-39906/21		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00100	MSV_V_BFB 00003	MSV_V_ETOH 00008	MSV_V_Gas 00137	MSV_V_VOA1 00088	MSV_V_VOA2 00047
BFB 410-39906/1		8260C			1 uL				
IC 410-39906/3		8260C		15 uL		30 uL	7.5 uL	15 uL	
IC 410-39906/4		8260C		5 uL		10 uL	2.5 uL	5 uL	
ICIS 410-39906/5		8260C		5 uL		10 uL	2.5 uL	5 uL	

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 39906 Batch Start Date: 09/01/20 19:24 Batch Analyst: Mellinger, Corie M

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00100	MSV_V_BFB 00003	MSV_V_ETOH 00008	MSV_V_Gas 00137	MSV_V_VOA1 00088	MSV_V_VOA2 00047
IC 410-39906/6		8260C		4 uL		16 uL	2 uL	4 uL	4 uL
IC 410-39906/7		8260C		2 uL		8 uL	1 uL	2 uL	2 uL
IC 410-39906/8		8260C		4 uL		20 uL	2 uL	4 uL	12 uL
IC 410-39906/9		8260C							
ICV 410-39906/21		8260C							

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00043	MSV_V_VOA6 00050	MSV_VCYC 00005			
BFB 410-39906/1		8260C							
IC 410-39906/3		8260C		6 uL	15 uL	30 uL			
IC 410-39906/4		8260C		2 uL	5 uL	10 uL			
ICIS 410-39906/5		8260C		2 uL	5 uL	10 uL			
IC 410-39906/6		8260C		1.6 uL	4 uL	16 uL			
IC 410-39906/7		8260C		0.8 uL	2 uL	8 uL			
IC 410-39906/8		8260C		1.6 uL	4 uL	32 uL			
IC 410-39906/9		8260C							
ICV 410-39906/21		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 70709 Batch Start Date: 11/28/20 08:53 Batch Analyst: Riehl, Chelsea

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_HP4_ISSS 00005
BFB 410-70709/1		8260C		1 uL	1 uL				
CCVIS 410-70709/3		8260C		5 mL	5 mL				1 uL
LCS 410-70709/4		8260C		5 mL	5 mL				1 uL
LCSD 410-70709/5		8260C		5 mL	5 mL				1 uL
MB 410-70709/7		8260C		5 mL	5 mL				1 uL
410-21451-A-8	TB111720	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-1	J11-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-2	J11-UC02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-3	J11-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-4	J11-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-5	MW-2	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-6	Dup-02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-7	MW-2I	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-9	J02-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-10	J02-BR02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_ETOH 00008	MSV_Q_QARC 00055	MSV_Q_QGases 00106	MSV_Q_QVOA1 00056	MSV_Q_QVOA6 00054	MSV_QCYC 00004
BFB 410-70709/1		8260C							
CCVIS 410-70709/3		8260C							
LCS 410-70709/4		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL
LCSD 410-70709/5		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-70709/7		8260C							
410-21451-A-8	TB111720	8260C	T						
410-21451-A-1	J11-BR02	8260C	T						
410-21451-A-2	J11-UC02	8260C	T						
410-21451-A-3	J11-UC01	8260C	T						
410-21451-A-4	J11-BR01	8260C	T						
410-21451-A-5	MW-2	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 70709 Batch Start Date: 11/28/20 08:53 Batch Analyst: Riehl, Chelsea

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_ETOH 00008	MSV_Q_QARC 00055	MSV_Q_QGases 00106	MSV_Q_QVOA1 00056	MSV_Q_QVOA6 00054	MSV_QCYC 00004
410-21451-A-6	Dup-02	8260C	T						
410-21451-A-7	MW-2I	8260C	T						
410-21451-A-9	J02-UC01	8260C	T						
410-21451-A-10	J02-BR02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00124	MSV_V_BFB 00003	MSV_V_ETOH 00011	MSV_V_Gas 00175	MSV_V_VOA1 00112	MSV_V_VOA3 00056
BFB 410-70709/1		8260C			1 uL				
CCVIS 410-70709/3		8260C		5 uL		10 uL	2.5 uL	5 uL	2 uL
LCS 410-70709/4		8260C							
LCSD 410-70709/5		8260C							
MB 410-70709/7		8260C							
410-21451-A-8	TB111720	8260C	T						
410-21451-A-1	J11-BR02	8260C	T						
410-21451-A-2	J11-UC02	8260C	T						
410-21451-A-3	J11-UC01	8260C	T						
410-21451-A-4	J11-BR01	8260C	T						
410-21451-A-5	MW-2	8260C	T						
410-21451-A-6	Dup-02	8260C	T						
410-21451-A-7	MW-2I	8260C	T						
410-21451-A-9	J02-UC01	8260C	T						
410-21451-A-10	J02-BR02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00063	MSV_VCYC 00005				
BFB 410-70709/1		8260C							
CCVIS 410-70709/3		8260C		5 uL	10 uL				
LCS 410-70709/4		8260C							
LCSD 410-70709/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 70709 Batch Start Date: 11/28/20 08:53 Batch Analyst: Riehl, Chelsea

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00063	MSV_VCYC 00005				
MB 410-70709/7		8260C							
410-21451-A-8	TB111720	8260C	T						
410-21451-A-1	J11-BR02	8260C	T						
410-21451-A-2	J11-UC02	8260C	T						
410-21451-A-3	J11-UC01	8260C	T						
410-21451-A-4	J11-BR01	8260C	T						
410-21451-A-5	MW-2	8260C	T						
410-21451-A-6	Dup-02	8260C	T						
410-21451-A-7	MW-2I	8260C	T						
410-21451-A-9	J02-UC01	8260C	T						
410-21451-A-10	J02-BR02	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 70864 Batch Start Date: 11/30/20 08:17 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_HP4_ISSS 00005
BFB 410-70864/1		8260C		1 uL	1 uL				
CCVIS 410-70864/3		8260C		5 mL	5 mL				1 uL
LCS 410-70864/4		8260C		5 mL	5 mL				1 uL
LCSD 410-70864/5		8260C		5 mL	5 mL				1 uL
MB 410-70864/7		8260C		5 mL	5 mL				1 uL
410-21451-A-14	EB111820	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-11	J02-BR01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-12	RIZ-7	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-A-13	J06-UC01	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_QARC 00056	MSV_Q_QGases 00107	MSV_Q_QVOA1 00057	MSV_Q_QVOA6 00054	MSV_V_2CEVE 00125	MSV_V_BFB 00003
BFB 410-70864/1		8260C							1 uL
CCVIS 410-70864/3		8260C						5 uL	
LCS 410-70864/4		8260C		50 uL	50 uL	50 uL	50 uL		
LCSD 410-70864/5		8260C		50 uL	50 uL	50 uL	50 uL		
MB 410-70864/7		8260C							
410-21451-A-14	EB111820	8260C	T						
410-21451-A-11	J02-BR01	8260C	T						
410-21451-A-12	RIZ-7	8260C	T						
410-21451-A-13	J06-UC01	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_Gas 00175	MSV_V_VOA1 00113	MSV_V_VOA3 00057	MSV_V_VOA6 00063		
BFB 410-70864/1		8260C							
CCVIS 410-70864/3		8260C		2.5 uL	5 uL	2 uL	5 uL		
LCS 410-70864/4		8260C							
LCSD 410-70864/5		8260C							

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 70864 Batch Start Date: 11/30/20 08:17 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_Gas 00175	MSV_V_VOA1 00113	MSV_V_VOA3 00057	MSV_V_VOA6 00063		
MB 410-70864/7		8260C							
410-21451-A-14	EB111820	8260C	T						
410-21451-A-11	J02-BR01	8260C	T						
410-21451-A-12	RIZ-7	8260C	T						
410-21451-A-13	J06-UC01	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 71112 Batch Start Date: 11/30/20 20:45 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	MSV_HP4_ISSS 00005
BFB 410-71112/1		8260C		1 uL	1 uL				
CCVIS 410-71112/3		8260C		5 mL	5 mL				1 uL
LCS 410-71112/4		8260C		5 mL	5 mL				1 uL
MB 410-71112/6		8260C		5 mL	5 mL				1 uL
410-21451-B-5	MW-2	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL
410-21451-B-6	Dup-02	8260C	T	5 mL	5 mL	<2 SU	N	N	1 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_ETOH 00008	MSV_Q_QARC 00056	MSV_Q_QGases 00107	MSV_Q_QVOA1 00057	MSV_Q_QVOA6 00054	MSV_QCYC 00004
BFB 410-71112/1		8260C							
CCVIS 410-71112/3		8260C							
LCS 410-71112/4		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-71112/6		8260C							
410-21451-B-5	MW-2	8260C	T						
410-21451-B-6	Dup-02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_2CEVE 00125	MSV_V_BFB 00003	MSV_V_ETOH 00011	MSV_V_Gas 00175	MSV_V_VOA1 00113	MSV_V_VOA3 00057
BFB 410-71112/1		8260C			1 uL				
CCVIS 410-71112/3		8260C		5 uL		10 uL	2.5 uL	5 uL	2 uL
LCS 410-71112/4		8260C							
MB 410-71112/6		8260C							
410-21451-B-5	MW-2	8260C	T						
410-21451-B-6	Dup-02	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00063	MSV_VCYC 00005				
BFB 410-71112/1		8260C							
CCVIS 410-71112/3		8260C		5 uL	10 uL				

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21451-1

SDG No.:

Batch Number: 71112 Batch Start Date: 11/30/20 20:45 Batch Analyst: Howe, Jennifer K

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00063	MSV_VCYC 00005				
LCS 410-71112/4		8260C							
MB 410-71112/6		8260C							
410-21451-B-5	MW-2	8260C	T						
410-21451-B-6	Dup-02	8260C	T						

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record

eurofins Environment Testing America

410-21451 Chain of Custody

Client Information	Sampler: Adam Robtoy	Lab PM: Zanar, Elizabeth M	COC No: 410-11182-3547.6
Client Contact: George Lester	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com	Page: Page 6 of 11
Company: VHB (Formerly The Johnson Co)		Analysis Requested	Job #:
Address: 100 State Street Suite 600	Due Date Requested:		Preservation Codes:
City: Montpelier	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602			
Phone: 802-778-1271(Tel)	PO #: 1-0145-05		Other:
Email: glester@vhb.com	WO #: 58300.00		
Project Name: AD New Windsor System	Project #: 41000306		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A	X	
J11-BR02	11/17/20	957	G	Water		N	X	3	
J11-UC02	11/17/20	842	G	Water		N	X	3	
J11-UC01	11/17/20	1040	G	Water		N	X	3	
J11-BR01	11/17/20	1148	G	Water		N	X	3	
MW-2	11/17/20	1344	G	Water		N	X	3	
Dup-02	11/17/20	1430	G	Water		N	X	3	
MW-2I	11/17/20	1540	G	Water		N	X	3	
				Water					
				Water					
				Water					
TB 111720	—	—	—	Water			X	2	TRIP BLANK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
1		11/18/20/1510	VHB		11/19/20 0815	11/19/20
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 1110	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/19/20 1110	Company ELLE

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.4

Ver: 01/16/2019

12/03/2020

Chain of Custody Record

eurofins Environment Testing America

Client Information	Sampler: Adam Rodtog	Lab PM: Zanar, Elizabeth M	Carrier Tracking No(s):	COC No: 410-11182-3547.8
Client Contact: George Lester	Phone: 802-522-0905	E-Mail: elizabethmzanar@eurofinsus.com		Page: Page 8 of 11
Company: VHB (Formerly The Johnson Co)		Analysis Requested		Job #:
Address: 100 State Street Suite 600	Due Date Requested:			Preservation Codes:
City: Montpelier	TAT Requested (days):			A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602				
Phone: 802-778-1271(Tel)	PO #: 1-0145-05			Other:
Email: glester@vhb.com	WO #: 58300.00			
Project Name: AD New Windsor System	Project #: 41000306			
Site:	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:				A		
J02-UC01	11/18/20	828	G	Water		N	X	3	
J02-BR02	11/18/20	938	G	Water		N	X	3	
J02-BR01	11/18/20	1057	G	Water		N	X	3	
RIZ-7	11/18/20	1203	G	Water		N	X	3	
J06-UC01	11/18/20	1312	G	Water		N	X	3	
				Water					
				Water					
				Water					
				Water					
				Water					
EB111820	11/18/20	1400	G	Water		N	X	3	Equipment Blank

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by	Date/Time	Company	Received by	Date/Time	Company
	Relinquished by	Date/Time: 11/18/20 1510	Company VHB	Received by	Date/Time	Company
	Relinquished by:	Date/Time	Company	Received by	Date/Time: 11/19/20 1110	Company ECLE

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2.4

Ver: 01/16/2019

Login Sample Receipt Checklist

Client: VHB (Formerly The Johnson Co) Job Number: 410-21451-1

Login Number: 21451 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Reiff, Nicole L

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	

ANALYTICAL REPORT

Job Number: 410-21939-1

Job Description: AD New Windsor

For:
VHB (Formerly The Johnson Co)
100 State Street
Suite 600
Montpelier, VT 05602

Attention: George Lester



Approved for release.
Elizabeth M Zanar
Project Manager
12/15/2020 5:14 PM

Elizabeth M Zanar, Project Manager
2425 New Holland Pike, Lancaster, PA, 17601
(717)556-7290
Elizabeth.Zanar@eurofinset.com
12/15/2020

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Job Number: 410-21939-1

Job Description: AD New Windsor

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. No purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Table of Contents

Cover Title Page 1

Data Summaries 5

Report Narrative 5

Sample Summary 6

Detection Summary 7

Method Summary 8

Client Sample Results 9

Surrogate Summary 15

QC Sample Results 16

Definitions 18

QC Association 19

Chronicle 20

Certification Summary 22

Organic Sample Data 23

GC/MS VOA 23

Method 8260C 23

Method 8260C QC Summary 24

Method 8260C Sample Data 33

Standards Data 89

Method 8260C ICAL Data 89

Method 8260C CCAL Data 267

Raw QC Data 285

Method 8260C Tune Data 285

Method 8260C Blank Data 293

Method 8260C LCS/LCSD Data 299

Method 8260C Run Logs 304

Table of Contents

Method 8260C Prep Data 306

Shipping and Receiving Documents 311

Client Chain of Custody 312

Sample Receipt Checklist 313

Job Narrative
410-21939-1

Receipt
The samples were received on 11/24/2020 11:56 AM; the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 0.6°C

GC/MS VOA
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Sample Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21939-1
Project/Site: AD New Windsor

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
410-21939-1	Diff-07	Water	11/23/20 13:15	11/24/20 11:56	
410-21939-2	Diff-06	Water	11/23/20 13:25	11/24/20 11:56	
410-21939-3	Diff-05	Water	11/23/20 13:45	11/24/20 11:56	
410-21939-4	Diff-04	Water	11/23/20 14:00	11/24/20 11:56	
410-21939-5	Diff-03	Water	11/23/20 14:15	11/24/20 11:56	
410-21939-6	Diff-02	Water	11/23/20 14:30	11/24/20 11:56	
410-21939-7	Diff-01	Water	11/23/20 14:50	11/24/20 11:56	
410-21939-8	Diff-Dup	Water	11/23/20 15:00	11/24/20 11:56	
410-21939-9	TB112320	Water	11/23/20 00:00	11/24/20 11:56	

Detection Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21939-1

Client Sample ID: Diff-07 — Lab Sample ID: 410-21939-1

No Detections.

Client Sample ID: Diff-06 — Lab Sample ID: 410-21939-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	1.9		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.34	J	1.0	0.20	ug/L	1		8260C	Total/NA
Chloroform	0.20	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: Diff-05 — Lab Sample ID: 410-21939-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	3.5		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	0.50	J	1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.24	J	1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	5.6		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: Diff-04 — Lab Sample ID: 410-21939-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	2.4		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.2		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.33	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: Diff-03 — Lab Sample ID: 410-21939-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.98	J	1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: Diff-02 — Lab Sample ID: 410-21939-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1,1-Trichloroethane	6.6		1.0	0.30	ug/L	1		8260C	Total/NA
1,1-Dichloroethane	1.6		1.0	0.20	ug/L	1		8260C	Total/NA
1,1-Dichloroethene	0.81	J	1.0	0.20	ug/L	1		8260C	Total/NA
Tetrachloroethene	4.7		1.0	0.20	ug/L	1		8260C	Total/NA
Trichloroethene	26		1.0	0.20	ug/L	1		8260C	Total/NA

Client Sample ID: Diff-01 — Lab Sample ID: 410-21939-7

No Detections.

Client Sample ID: Diff-Dup — Lab Sample ID: 410-21939-8

No Detections.

Client Sample ID: TB112320 — Lab Sample ID: 410-21939-9

No Detections.

This Detection Summary does not include radiochemical test results.

Method Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21939-1

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Client Sample ID: Diff-07
Lab Sample ID: 410-21939-1

Date Collected: 11/23/20 13:15
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 17:28	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			12/04/20 17:28	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 17:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 17:28	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 17:28	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 17:28	1
Acetone	ND		20	0.70	ug/L			12/04/20 17:28	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 17:28	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 17:28	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 17:28	1
Freon 113	ND		10	0.20	ug/L			12/04/20 17:28	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 17:28	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 17:28	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 17:28	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 17:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*12/04/20 17:28*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/04/20 17:28*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 17:28*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 17:28*	*1*

Client Sample ID: Diff-06
Lab Sample ID: 410-21939-2

Date Collected: 11/23/20 13:25
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**1.9**		1.0	0.30	ug/L			12/04/20 17:51	1
1,1-Dichloroethane	**0.34**	**J**	1.0	0.20	ug/L			12/04/20 17:51	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 17:51	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 17:51	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 17:51	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 17:51	1
Acetone	ND		20	0.70	ug/L			12/04/20 17:51	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 17:51	1
Chloroform	**0.20**	**J**	1.0	0.20	ug/L			12/04/20 17:51	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 17:51	1
Freon 113	ND		10	0.20	ug/L			12/04/20 17:51	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 17:51	1

Client Sample ID: Diff-06
Lab Sample ID: 410-21939-2

Date Collected: 11/23/20 13:25
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 17:51	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 17:51	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 17:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*12/04/20 17:51*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/04/20 17:51*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 17:51*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 17:51*	*1*

Client Sample ID: Diff-05
Lab Sample ID: 410-21939-3

Date Collected: 11/23/20 13:45
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**3.5**		1.0	0.30	ug/L			12/04/20 18:13	1
1,1-Dichloroethane	**0.50**	**J**	1.0	0.20	ug/L			12/04/20 18:13	1
1,1-Dichloroethene	**0.24**	**J**	1.0	0.20	ug/L			12/04/20 18:13	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 18:13	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 18:13	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 18:13	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 18:13	1
Acetone	ND		20	0.70	ug/L			12/04/20 18:13	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 18:13	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 18:13	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 18:13	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:13	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 18:13	1
Freon 113	ND		10	0.20	ug/L			12/04/20 18:13	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 18:13	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 18:13	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 18:13	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 18:13	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:13	1
Trichloroethene	**5.6**		1.0	0.20	ug/L			12/04/20 18:13	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 18:13	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 18:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*		*12/04/20 18:13*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/04/20 18:13*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 18:13*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/04/20 18:13*	*1*

Client Sample ID: Diff-04
Lab Sample ID: 410-21939-4

Date Collected: 11/23/20 14:00
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**2.4**		1.0	0.30	ug/L			12/04/20 18:35	1
1,1-Dichloroethane	**1.2**		1.0	0.20	ug/L			12/04/20 18:35	1
1,1-Dichloroethene	**0.33**	**J**	1.0	0.20	ug/L			12/04/20 18:35	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 18:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 18:35	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 18:35	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 18:35	1
Acetone	ND		20	0.70	ug/L			12/04/20 18:35	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 18:35	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 18:35	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 18:35	1
Freon 113	ND		10	0.20	ug/L			12/04/20 18:35	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 18:35	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 18:35	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 18:35	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 18:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*96*		*80 - 120*		*12/04/20 18:35*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/04/20 18:35*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 18:35*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 18:35*	*1*

Client Sample ID: Diff-03
Lab Sample ID: 410-21939-5

Date Collected: 11/23/20 14:15
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 18:57	1
1,1-Dichloroethane	**0.98**	**J**	1.0	0.20	ug/L			12/04/20 18:57	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 18:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 18:57	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 18:57	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 18:57	1
Acetone	ND		20	0.70	ug/L			12/04/20 18:57	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 18:57	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 18:57	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 18:57	1
Freon 113	ND		10	0.20	ug/L			12/04/20 18:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 18:57	1

Client Sample ID: Diff-03
Lab Sample ID: 410-21939-5
Date Collected: 11/23/20 14:15
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 18:57	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 18:57	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 18:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*95*		*80 - 120*		*12/04/20 18:57*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/04/20 18:57*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*12/04/20 18:57*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*12/04/20 18:57*	*1*

Client Sample ID: Diff-02
Lab Sample ID: 410-21939-6
Date Collected: 11/23/20 14:30
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	**6.6**		1.0	0.30	ug/L			12/04/20 19:19	1
1,1-Dichloroethane	**1.6**		1.0	0.20	ug/L			12/04/20 19:19	1
1,1-Dichloroethene	**0.81**	**J**	1.0	0.20	ug/L			12/04/20 19:19	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 19:19	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 19:19	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 19:19	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 19:19	1
Acetone	ND		20	0.70	ug/L			12/04/20 19:19	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 19:19	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 19:19	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 19:19	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:19	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 19:19	1
Freon 113	ND		10	0.20	ug/L			12/04/20 19:19	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 19:19	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 19:19	1
Tetrachloroethene	**4.7**		1.0	0.20	ug/L			12/04/20 19:19	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 19:19	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:19	1
Trichloroethene	**26**		1.0	0.20	ug/L			12/04/20 19:19	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 19:19	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 19:19	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*12/04/20 19:19*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/04/20 19:19*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 19:19*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 19:19*	*1*

Client Sample ID: Diff-01
Lab Sample ID: 410-21939-7
Date Collected: 11/23/20 14:50
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 19:41	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			12/04/20 19:41	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 19:41	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 19:41	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 19:41	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 19:41	1
Acetone	ND		20	0.70	ug/L			12/04/20 19:41	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 19:41	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 19:41	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 19:41	1
Freon 113	ND		10	0.20	ug/L			12/04/20 19:41	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 19:41	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 19:41	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 19:41	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 19:41	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*12/04/20 19:41*	*1*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*		*12/04/20 19:41*	*1*
Dibromofluoromethane (Surr)	*93*		*80 - 120*		*12/04/20 19:41*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 19:41*	*1*

Client Sample ID: Diff-Dup
Lab Sample ID: 410-21939-8
Date Collected: 11/23/20 15:00
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 20:03	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			12/04/20 20:03	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 20:03	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 20:03	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 20:03	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 20:03	1
Acetone	ND		20	0.70	ug/L			12/04/20 20:03	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 20:03	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 20:03	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 20:03	1
Freon 113	ND		10	0.20	ug/L			12/04/20 20:03	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 20:03	1

Client Sample ID: Diff-Dup
Lab Sample ID: 410-21939-8

Date Collected: 11/23/20 15:00
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 20:03	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 20:03	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 20:03	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*12/04/20 20:03*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/04/20 20:03*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 20:03*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 20:03*	*1*

Client Sample ID: TB112320
Lab Sample ID: 410-21939-9

Date Collected: 11/23/20 00:00
Matrix: Water
Date Received: 11/24/20 11:56

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 20:25	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			12/04/20 20:25	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 20:25	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 20:25	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 20:25	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 20:25	1
Acetone	ND		20	0.70	ug/L			12/04/20 20:25	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 20:25	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 20:25	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 20:25	1
Freon 113	ND		10	0.20	ug/L			12/04/20 20:25	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 20:25	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 20:25	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 20:25	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 20:25	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 120*		*12/04/20 20:25*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/04/20 20:25*	*1*
Dibromofluoromethane (Surr)	*94*		*80 - 120*		*12/04/20 20:25*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 20:25*	*1*

Surrogate Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21939-1

Method: 8260C - Volatile Organic Compounds by GC/MS

Matrix: Water

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-21939-1	Diff-07	98	97	95	99
410-21939-2	Diff-06	96	96	95	99
410-21939-3	Diff-05	99	97	95	100
410-21939-4	Diff-04	96	96	95	99
410-21939-5	Diff-03	95	97	94	100
410-21939-6	Diff-02	97	97	95	99
410-21939-7	Diff-01	98	97	93	99
410-21939-8	Diff-Dup	97	96	95	99
410-21939-9	TB112320	98	96	94	99
LCS 410-73048/5	Lab Control Sample	99	97	96	99
MB 410-73048/7	Method Blank	97	96	95	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-73048/7
Matrix: Water
Analysis Batch: 73048

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			12/04/20 11:09	1
1,1-Dichloroethane	ND		1.0	0.20	ug/L			12/04/20 11:09	1
1,1-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			12/04/20 11:09	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			12/04/20 11:09	1
1,4-Dioxane	ND		250	29	ug/L			12/04/20 11:09	1
2-Butanone	ND		10	0.30	ug/L			12/04/20 11:09	1
Acetone	ND		20	0.70	ug/L			12/04/20 11:09	1
Benzene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Carbon disulfide	ND		5.0	0.20	ug/L			12/04/20 11:09	1
Chloroform	ND		1.0	0.20	ug/L			12/04/20 11:09	1
cis-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Ethylbenzene	ND		1.0	0.40	ug/L			12/04/20 11:09	1
Freon 113	ND		10	0.20	ug/L			12/04/20 11:09	1
Methylene Chloride	ND		1.0	0.30	ug/L			12/04/20 11:09	1
Naphthalene	ND		5.0	1.0	ug/L			12/04/20 11:09	1
Tetrachloroethene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Toluene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
trans-1,2-Dichloroethene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Trichloroethene	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Vinyl chloride	ND		1.0	0.20	ug/L			12/04/20 11:09	1
Xylenes, Total	ND		6.0	1.4	ug/L			12/04/20 11:09	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*		*80 - 120*		*12/04/20 11:09*	*1*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*		*12/04/20 11:09*	*1*
Dibromofluoromethane (Surr)	*95*		*80 - 120*		*12/04/20 11:09*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*12/04/20 11:09*	*1*

Lab Sample ID: LCS 410-73048/5
Matrix: Water
Analysis Batch: 73048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	20.0	18.2		ug/L		91	67 - 126
1,1-Dichloroethane	20.0	19.1		ug/L		95	80 - 120
1,1-Dichloroethene	20.0	19.4		ug/L		97	80 - 131
1,2-Dichlorobenzene	20.0	20.3		ug/L		102	80 - 120
1,2-Dichloroethane	20.0	17.9		ug/L		90	73 - 124
1,4-Dioxane	500	492		ug/L		98	63 - 146
2-Butanone	150	150		ug/L		100	59 - 135
Acetone	150	158		ug/L		105	54 - 157
Benzene	20.0	19.9		ug/L		99	80 - 120
Carbon disulfide	20.0	18.5		ug/L		93	65 - 128
Chloroform	20.0	18.9		ug/L		94	80 - 120
cis-1,2-Dichloroethene	20.0	20.1		ug/L		101	80 - 125
Ethylbenzene	20.0	20.4		ug/L		102	80 - 120
Freon 113	20.0	19.4		ug/L		97	73 - 139

Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-73048/5
Matrix: Water
Analysis Batch: 73048

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Methylene Chloride			20.0	19.2		ug/L		96	80 - 120		
Naphthalene			20.0	20.5		ug/L		103	53 - 124		
Tetrachloroethene			20.0	17.8		ug/L		89	80 - 120		
Toluene			20.0	20.2		ug/L		101	80 - 120		
trans-1,2-Dichloroethene			20.0	19.5		ug/L		98	80 - 126		
Trichloroethene			20.0	19.3		ug/L		96	80 - 120		
Vinyl chloride			20.0	19.9		ug/L		100	56 - 120		
Xylenes, Total			60.0	60.8		ug/L		101	80 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 120*
4-Bromofluorobenzene (Surr)	*97*		*80 - 120*
Dibromofluoromethane (Surr)	*96*		*80 - 120*
Toluene-d8 (Surr)	*99*		*80 - 120*

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

QC Association Summary

Client: VHB (Formerly The Johnson Co)
Project/Site: AD New Windsor

Job ID: 410-21939-1

GC/MS VOA

Analysis Batch: 73048

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-21939-1	Diff-07	Total/NA	Water	8260C	
410-21939-2	Diff-06	Total/NA	Water	8260C	
410-21939-3	Diff-05	Total/NA	Water	8260C	
410-21939-4	Diff-04	Total/NA	Water	8260C	
410-21939-5	Diff-03	Total/NA	Water	8260C	
410-21939-6	Diff-02	Total/NA	Water	8260C	
410-21939-7	Diff-01	Total/NA	Water	8260C	
410-21939-8	Diff-Dup	Total/NA	Water	8260C	
410-21939-9	TB112320	Total/NA	Water	8260C	
MB 410-73048/7	Method Blank	Total/NA	Water	8260C	
LCS 410-73048/5	Lab Control Sample	Total/NA	Water	8260C	

Client Sample ID: Diff-07
Lab Sample ID: 410-21939-1
Date Collected: 11/23/20 13:15
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 17:28	NSK7	ELLE

Client Sample ID: Diff-06
Lab Sample ID: 410-21939-2
Date Collected: 11/23/20 13:25
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 17:51	NSK7	ELLE

Client Sample ID: Diff-05
Lab Sample ID: 410-21939-3
Date Collected: 11/23/20 13:45
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 18:13	NSK7	ELLE

Client Sample ID: Diff-04
Lab Sample ID: 410-21939-4
Date Collected: 11/23/20 14:00
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 18:35	NSK7	ELLE

Client Sample ID: Diff-03
Lab Sample ID: 410-21939-5
Date Collected: 11/23/20 14:15
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 18:57	NSK7	ELLE

Client Sample ID: Diff-02
Lab Sample ID: 410-21939-6
Date Collected: 11/23/20 14:30
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 19:19	NSK7	ELLE

Client Sample ID: Diff-01
Lab Sample ID: 410-21939-7
Date Collected: 11/23/20 14:50
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 19:41	NSK7	ELLE

Lab Chronicle

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21939-1
Project/Site: AD New Windsor

Client Sample ID: Diff-Dup
Lab Sample ID: 410-21939-8
Date Collected: 11/23/20 15:00
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 20:03	NSK7	ELLE

Client Sample ID: TB112320
Lab Sample ID: 410-21939-9
Date Collected: 11/23/20 00:00
Matrix: Water
Date Received: 11/24/20 11:56

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	73048	12/04/20 20:25	NSK7	ELLE

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: VHB (Formerly The Johnson Co)
Job ID: 410-21939-1
Project/Site: AD New Windsor

Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
New York	NELAP	10670	04-01-21

Method 8260C

Volatile Organic Compounds (GC/MS) by Method 8260C

FORM II
GC/MS VOA SURROGATE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21939-1

SDG No.:

Matrix: Water Level: Low

GC Column (1): R-624SilMS ID: 0.25(mm)

Client Sample ID	Lab Sample ID	DBFM #	DCA #	TOL #	BFB #
Diff-07	410-21939-1	95	98	99	97
Diff-06	410-21939-2	95	96	99	96
Diff-05	410-21939-3	95	99	100	97
Diff-04	410-21939-4	95	96	99	96
Diff-03	410-21939-5	94	95	100	97
Diff-02	410-21939-6	95	97	99	97
Diff-01	410-21939-7	93	98	99	97
Diff-Dup	410-21939-8	95	97	99	96
TB112320	410-21939-9	94	98	99	96
	MB 410-73048/7	95	97	99	96
	LCS 410-73048/5	96	99	99	97

	QC LIMITS
DBFM = Dibromofluoromethane (Surr)	80-120
DCA = 1,2-Dichloroethane-d4 (Surr)	80-120
TOL = Toluene-d8 (Surr)	80-120
BFB = 4-Bromofluorobenzene (Surr)	80-120

Column to be used to flag recovery values

FORM II 8260C

FORM III
GC/MS VOA LAB CONTROL SAMPLE RECOVERY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21939-1

SDG No.:

Matrix: Water Level: Low Lab File ID: ND04l01.D

Lab ID: LCS 410-73048/5 Client ID:

COMPOUND	SPIKE ADDED (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC	QC LIMITS REC	#
1,1,1-Trichloroethane	20.0	18.2	91	67-126	
1,1-Dichloroethane	20.0	19.1	95	80-120	
1,1-Dichloroethene	20.0	19.4	97	80-131	
1,2-Dichlorobenzene	20.0	20.3	102	80-120	
1,2-Dichloroethane	20.0	17.9	90	73-124	
1,4-Dioxane	500	492	98	63-146	
2-Butanone	150	150	100	59-135	
Acetone	150	158	105	54-157	
Benzene	20.0	19.9	99	80-120	
Carbon disulfide	20.0	18.5	93	65-128	
Chloroform	20.0	18.9	94	80-120	
cis-1,2-Dichloroethene	20.0	20.1	101	80-125	
Ethylbenzene	20.0	20.4	102	80-120	
Freon 113	20.0	19.4	97	73-139	
Methylene Chloride	20.0	19.2	96	80-120	
Naphthalene	20.0	20.5	103	53-124	
Tetrachloroethene	20.0	17.8	89	80-120	
Toluene	20.0	20.2	101	80-120	
trans-1,2-Dichloroethene	20.0	19.5	98	80-126	
Trichloroethene	20.0	19.3	96	80-120	
Vinyl chloride	20.0	19.9	100	56-120	
Xylenes, Total	60.0	60.8	101	80-120	

Column to be used to flag recovery and RPD values

FORM III 8260C

FORM IV
GC/MS VOA METHOD BLANK SUMMARY

Lab Name: Eurofins Lancaster Laboratories Job No.: 410-21939-1

SDG No.:

Lab File ID: ND04b01.D Lab Sample ID: MB 410-73048/7

Matrix: Water Heated Purge:(Y/N) N

Instrument ID: 7159 Date Analyzed: 12/04/2020 11:09

GC Column: R-624SilMS 30m ID: 0.25(mm)

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
	LCS 410-73048/5	ND04l01.D	12/04/2020 10:24
Diff-07	410-21939-1	ND04s16.D	12/04/2020 17:28
Diff-06	410-21939-2	ND04s17.D	12/04/2020 17:51
Diff-05	410-21939-3	ND04s18.D	12/04/2020 18:13
Diff-04	410-21939-4	ND04s19.D	12/04/2020 18:35
Diff-03	410-21939-5	ND04s20.D	12/04/2020 18:57
Diff-02	410-21939-6	ND04s21.D	12/04/2020 19:19
Diff-01	410-21939-7	ND04s22.D	12/04/2020 19:41
Diff-Dup	410-21939-8	ND04s23.D	12/04/2020 20:03
TB112320	410-21939-9	ND04s24.D	12/04/2020 20:25

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Lab File ID: NN09T01.D BFB Injection Date: 11/09/2020

Instrument ID: 7159 BFB Injection Time: 12:33

Analysis Batch No.: 63741

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	17.9	
75	30.0 - 60.0 % of mass 95	48.4	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.9	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	70.5	
175	5.0 - 9.0 % of mass 174	5.4	(7.7) 1
176	95.0 - 101.0 % of mass 174	67.6	(96.0) 1
177	5.0 - 9.0 % of mass 176	4.8	(7.1) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	IC 410-63741/3	NN09I01.D	11/09/2020	13:40
	IC 410-63741/4	NN09I02.D	11/09/2020	14:02
	ICIS 410-63741/5	NN09I03.D	11/09/2020	14:24
	IC 410-63741/6	NN09I04.D	11/09/2020	14:46
	IC 410-63741/7	NN09I05.D	11/09/2020	15:08
	IC 410-63741/8	NN09I06.D	11/09/2020	15:30
	IC 410-63741/9	NN09I07.D	11/09/2020	15:52
	ICV 410-63741/10	NN09V01.D	11/09/2020	16:14

FORM V
GC/MS VOA INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Lab File ID: ND04t01.D BFB Injection Date: 12/04/2020

Instrument ID: 7159 BFB Injection Time: 09:03

Analysis Batch No.: 73048

M/E	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
50	15.0 - 40.0 % of mass 95	15.3	
75	30.0 - 60.0 % of mass 95	45.1	
95	Base Peak, 100% relative abundance	100.0	
96	5.0 - 9.0 % of mass 95	6.6	
173	Less than 2.0 % of mass 174	0.0	(0.0) 1
174	Greater than 50% of mass 95	74.1	
175	5.0 - 9.0 % of mass 174	5.7	(7.6) 1
176	95.0 - 101.0 % of mass 174	72.2	(97.4) 1
177	5.0 - 9.0 % of mass 176	5.0	(6.9) 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS AND STANDARDS:

CLIENT SAMPLE ID	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
	CCVIS 410-73048/3	ND04c01.D	12/04/2020	9:40
	LCS 410-73048/5	ND04l01.D	12/04/2020	10:24
	MB 410-73048/7	ND04b01.D	12/04/2020	11:09
Diff-07	410-21939-1	ND04s16.D	12/04/2020	17:28
Diff-06	410-21939-2	ND04s17.D	12/04/2020	17:51
Diff-05	410-21939-3	ND04s18.D	12/04/2020	18:13
Diff-04	410-21939-4	ND04s19.D	12/04/2020	18:35
Diff-03	410-21939-5	ND04s20.D	12/04/2020	18:57
Diff-02	410-21939-6	ND04s21.D	12/04/2020	19:19
Diff-01	410-21939-7	ND04s22.D	12/04/2020	19:41
Diff-Dup	410-21939-8	ND04s23.D	12/04/2020	20:03
TB112320	410-21939-9	ND04s24.D	12/04/2020	20:25

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Sample No.: ICIS 410-63741/5 Date Analyzed: 11/09/2020 14:24

Instrument ID: 7159 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): NN09I03.D Heated Purge: (Y/N) N

Calibration ID: 15009

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
INITIAL CALIBRATION MID-POINT		325187	4.39	1304709	7.91	987609	11.35
UPPER LIMIT		650374	4.89	2609418	8.41	1975218	11.85
LOWER LIMIT		162594	3.89	652355	7.41	493805	10.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-63741/10		337942	4.37	1312200	7.90	984463	11.35
CCVIS 410-73048/3		357577	4.38	1255449	7.90	920353	11.35

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Sample No.: ICIS 410-63741/5 Date Analyzed: 11/09/2020 14:24

Instrument ID: 7159 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): NN09I03.D Heated Purge: (Y/N) N

Calibration ID: 15009

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
INITIAL CALIBRATION MID-POINT		515083	13.23				
UPPER LIMIT		1030166	13.73				
LOWER LIMIT		257542	12.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
ICV 410-63741/10		512709	13.23				
CCVIS 410-73048/3		463269	13.23				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Sample No.: CCVIS 410-73048/3 Date Analyzed: 12/04/2020 09:40

Instrument ID: 7159 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): ND04c01.D Heated Purge: (Y/N) N

Calibration ID: 15009

		TBAd10		FB		CBZd5	
		AREA #	RT #	AREA #	RT #	AREA #	RT #
12/24 HOUR STD		357577	4.38	1255449	7.90	920353	11.35
UPPER LIMIT		715154	4.88	2510898	8.40	1840706	11.85
LOWER LIMIT		178789	3.88	627725	7.40	460177	10.85
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-73048/5		337018	4.37	1269395	7.90	924609	11.35
MB 410-73048/7		324664	4.36	1255597	7.90	921651	11.35
410-21939-1	Diff-07	314210	4.35	1232366	7.90	901864	11.35
410-21939-2	Diff-06	315526	4.37	1247340	7.90	907205	11.35
410-21939-3	Diff-05	310529	4.38	1232539	7.90	892840	11.35
410-21939-4	Diff-04	312395	4.37	1237113	7.90	899989	11.35
410-21939-5	Diff-03	313392	4.37	1251215	7.90	903340	11.35
410-21939-6	Diff-02	312256	4.36	1254230	7.90	903156	11.35
410-21939-7	Diff-01	304575	4.37	1256307	7.90	906208	11.35
410-21939-8	Diff-Dup	301469	4.38	1241987	7.90	898724	11.35
410-21939-9	TB112320	307868	4.37	1231351	7.90	894548	11.35

TBAd10 = t-Butyl alcohol-d10 (IS)
FB = Fluorobenzene (IS)
CBZd5 = Chlorobenzene-d5 (IS)

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM VIII
GC/MS VOA INTERNAL STANDARD AREA AND RETENTION TIME SUMMARY

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Sample No.: CCVIS 410-73048/3 Date Analyzed: 12/04/2020 09:40

Instrument ID: 7159 GC Column: R-624SilMS 30m ID: 0.25(mm)

Lab File ID (Standard): ND04c01.D Heated Purge: (Y/N) N

Calibration ID: 15009

		DCBd4					
		AREA #	RT #	#	RT #	#	RT #
12/24 HOUR STD		463269	13.23				
UPPER LIMIT		926538	13.73				
LOWER LIMIT		231635	12.73				
LAB SAMPLE ID	CLIENT SAMPLE ID						
LCS 410-73048/5		467359	13.23				
MB 410-73048/7		460608	13.23				
410-21939-1	Diff-07	458631	13.23				
410-21939-2	Diff-06	453167	13.23				
410-21939-3	Diff-05	450353	13.22				
410-21939-4	Diff-04	451719	13.23				
410-21939-5	Diff-03	456269	13.23				
410-21939-6	Diff-02	453620	13.22				
410-21939-7	Diff-01	453276	13.22				
410-21939-8	Diff-Dup	456164	13.23				
410-21939-9	TB112320	453821	13.23				

DCBd4 = 1,4-Dichlorobenzene-d4

Area Limit = 50%-200% of internal standard area
RT Limit = ± 0.5 minutes of internal standard RT

Column used to flag values outside QC limits

FORM VIII 8260C

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-07 Lab Sample ID: 410-21939-1

Matrix: Water Lab File ID: ND04s16.D

Analysis Method: 8260C Date Collected: 11/23/2020 13:15

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 17:28

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s16.D
Lims ID: 410-21939-B-1
Client ID: Diff-07
Sample Type: Client
Inject. Date: 04-Dec-2020 17:28:30 ALS Bottle#: 22 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-023
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:33:02

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	8 Vinyl chloride	62		2.347				ND	
	20 1,1-Dichloroethene	96		3.686				ND	
	21 Acetone	58		3.716				ND	
	22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
	25 Carbon disulfide	76		4.008				ND	7
	28 Methylene Chloride	84		4.379				ND	
*	29 t-Butyl alcohol-d10 (IS)	65	4.349	4.379	-0.030	0	314210	250.0	
	34 trans-1,2-Dichloroethene	96		4.811				ND	
	37 1,1-Dichloroethane	63		5.468				ND	
	43 2-Butanone (MEK)	43		6.259				ND	
	44 cis-1,2-Dichloroethene	96		6.302				ND	
	50 Chloroform	83		6.782				ND	
$	51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	272973	47.7	
	52 1,1,1-Trichloroethane	97		7.013				ND	
$	59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	98	75446	48.9	
	60 Benzene	78		7.494				ND	
	61 1,2-Dichloroethane	62		7.567				ND	7
*	64 Fluorobenzene (IS)	96	7.896	7.895	0.001	99	1232366	50.0	
	67 Trichloroethene	95		8.382				ND	
	72 1,4-Dioxane	88		8.796				ND	
$	81 Toluene-d8 (Surr)	98	9.897	9.903	-0.006	93	1201399	49.7	
	82 Toluene	92		9.976				ND	7
	87 Tetrachloroethene	166		10.517				ND	
S	92 Xylenes, Total	106		11.245				ND	7
*	93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	901864	50.0	
	97 Ethylbenzene	91		11.454				ND	7
	98 m-Xylene & p-Xylene	106		11.564				ND	7
	99 o-Xylene	106		11.892				ND	7
$	104 4-Bromofluorobenzene (Surr)	95	12.343	12.343	0.001	87	455588	48.3	
*	119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	458631	50.0	
	126 1,2-Dichlorobenzene	146		13.498				ND	
	133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

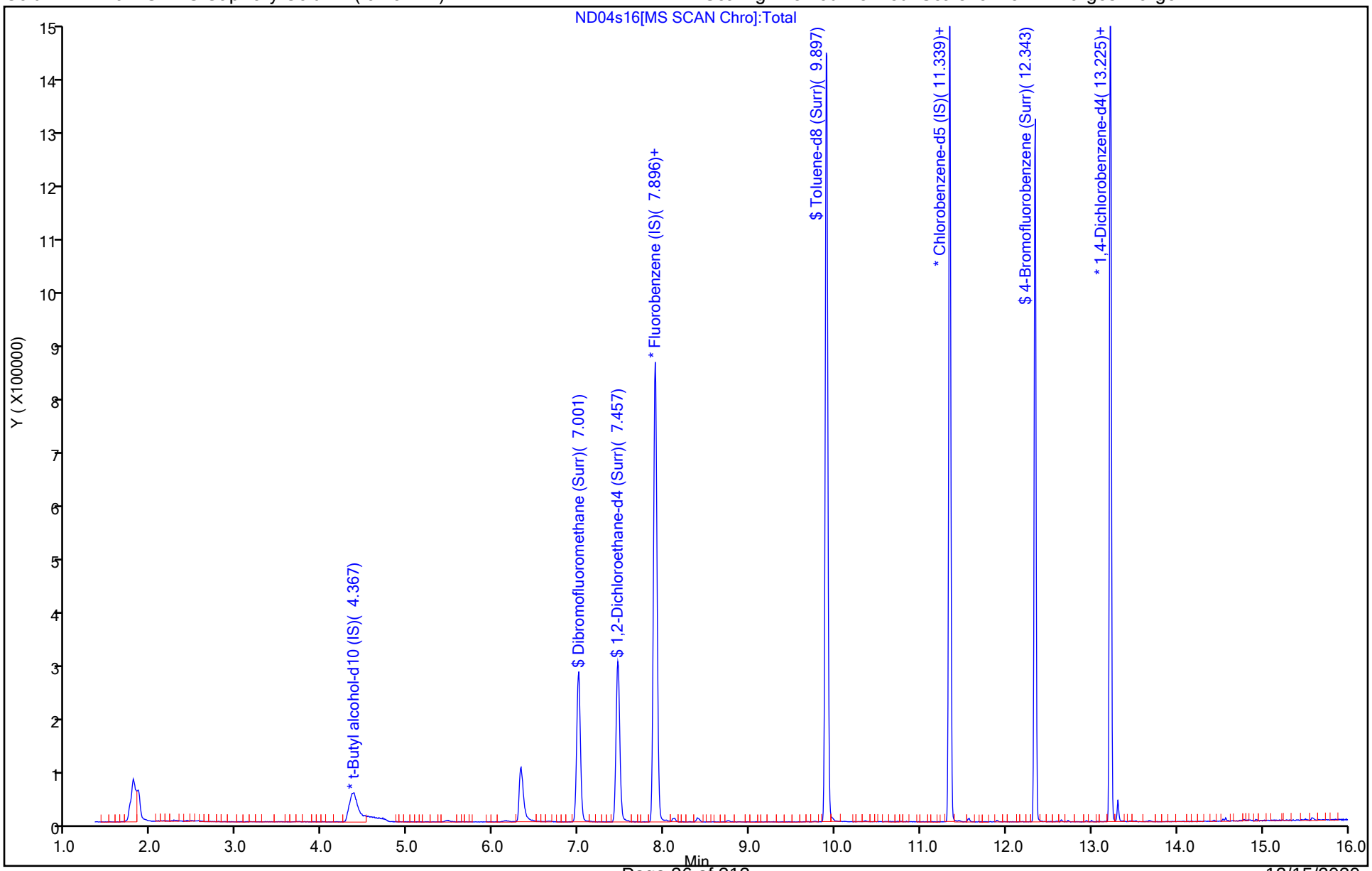
MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 04-Dec-2020 23:36:16 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s16.D				
Injection Date:	04-Dec-2020 17:28:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-1	Lab Sample ID:	410-21939-1	Worklist Smp#:	23
Client ID:	Diff-07				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	22
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-06 Lab Sample ID: 410-21939-2

Matrix: Water Lab File ID: ND04s17.D

Analysis Method: 8260C Date Collected: 11/23/2020 13:25

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 17:51

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	1.9		1.0	0.30
75-34-3	1,1-Dichloroethane	0.34	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	0.20	J	1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D
Lims ID: 410-21939-B-2
Client ID: Diff-06
Sample Type: Client
Inject. Date: 04-Dec-2020 17:51:30 ALS Bottle#: 23 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-024
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:33:37

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	8 Vinyl chloride	62		2.347				ND	
	20 1,1-Dichloroethene	96		3.686				ND	
	21 Acetone	58		3.716				ND	
	22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
	25 Carbon disulfide	76		4.008				ND	
	28 Methylene Chloride	84		4.379				ND	
*	29 t-Butyl alcohol-d10 (IS)	65	4.367	4.379	-0.012	0	315526	250.0	
	34 trans-1,2-Dichloroethene	96		4.811				ND	
	37 1,1-Dichloroethane	63	5.468	5.468	0.000	91	4313	0.3414	a
	43 2-Butanone (MEK)	43		6.259				ND	
	44 cis-1,2-Dichloroethene	96		6.302				ND	
	50 Chloroform	83	6.794	6.782	0.012	88	2556	0.2046	a
$	51 Dibromofluoromethane (Surr)	113	6.995	7.001	-0.006	93	273688	47.3	
	52 1,1,1-Trichloroethane	97	7.013	7.013	0.000	38	21658	1.92	
$	59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	74984	48.0	
	60 Benzene	78		7.494				ND	
	61 1,2-Dichloroethane	62		7.567				ND	7
*	64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1247340	50.0	
	67 Trichloroethene	95		8.382				ND	
	72 1,4-Dioxane	88		8.796				ND	
$	81 Toluene-d8 (Surr)	98	9.897	9.903	-0.006	93	1202095	49.4	
	82 Toluene	92		9.976				ND	7
	87 Tetrachloroethene	166		10.517				ND	
S	92 Xylenes, Total	106		11.245				ND	7
*	93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	85	907205	50.0	
	97 Ethylbenzene	91		11.454				ND	7
	98 m-Xylene & p-Xylene	106		11.564				ND	7
	99 o-Xylene	106		11.892				ND	
$	104 4-Bromofluorobenzene (Surr)	95	12.343	12.343	0.000	87	454692	47.9	
*	119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	453167	50.0	
	126 1,2-Dichlorobenzene	146		13.498				ND	
	133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

a - User Assigned ID

Reagents:

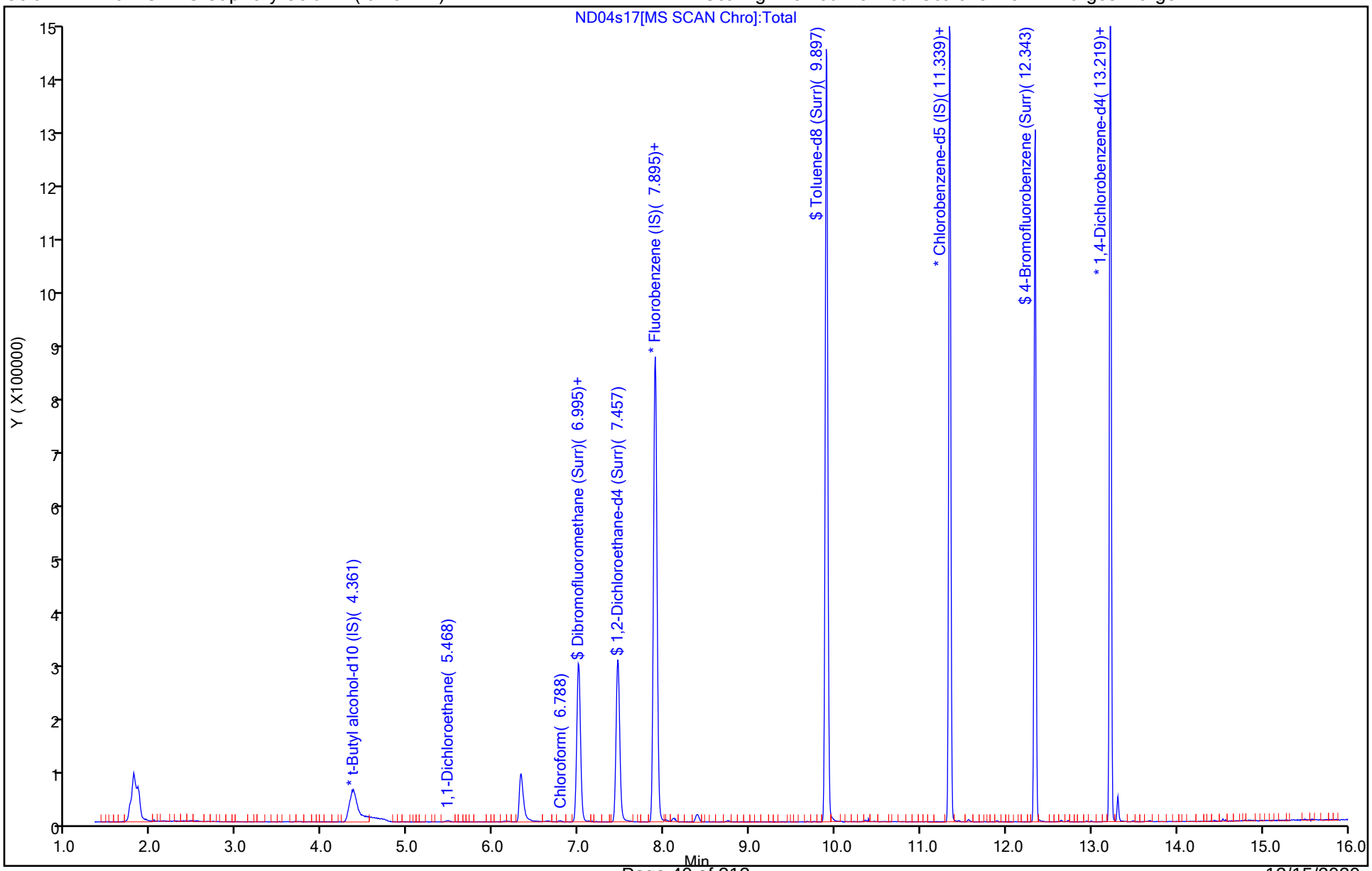
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 04-Dec-2020 23:36:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D				
Injection Date:	04-Dec-2020 17:51:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-2	Lab Sample ID:	410-21939-2	Worklist Smp#:	24
Client ID:	Diff-06				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	23
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 04-Dec-2020 23:36:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D

Injection Date: 04-Dec-2020 17:51:30 Instrument ID: 7159

Lims ID: 410-21939-B-2 Lab Sample ID: 410-21939-2

Client ID: Diff-06

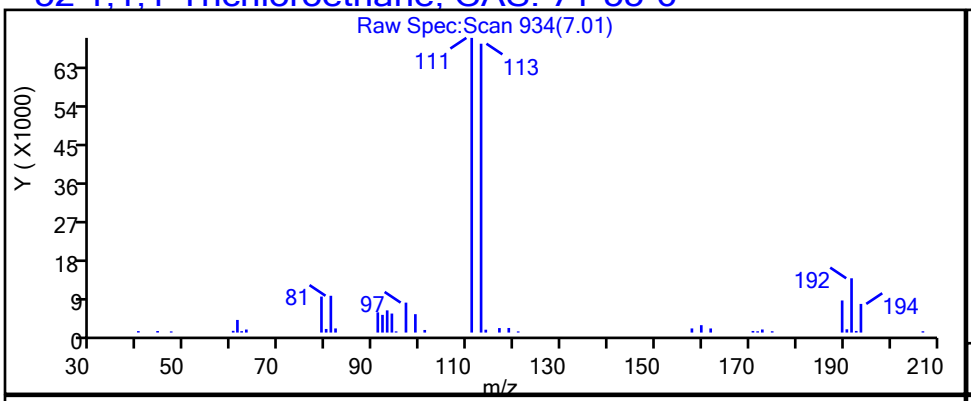
Operator ID: lcp00895 ALS Bottle#: 23 Worklist Smp#: 24

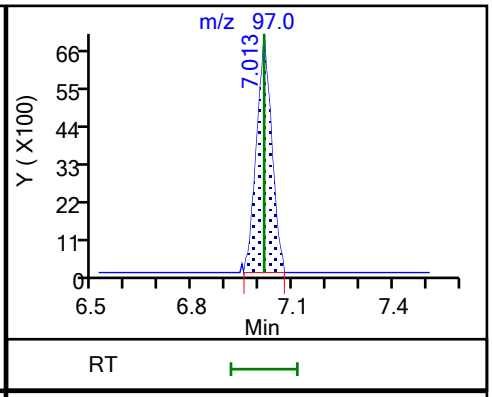
Purge Vol: 5.000 mL Dil. Factor: 1.0000

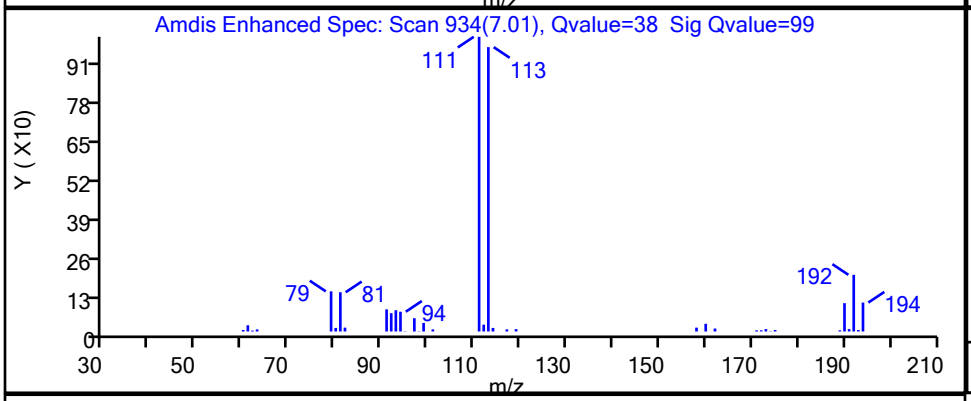
Method: MSVoa_7159 Limit Group: MSV - 8260C_D

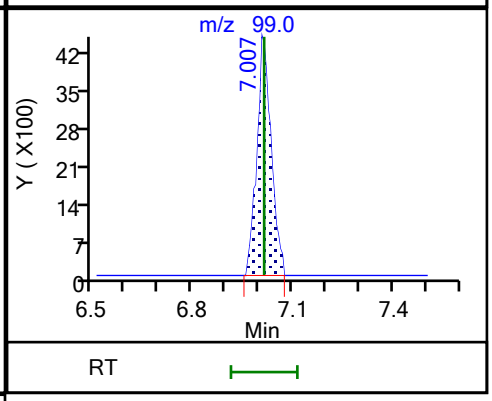
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

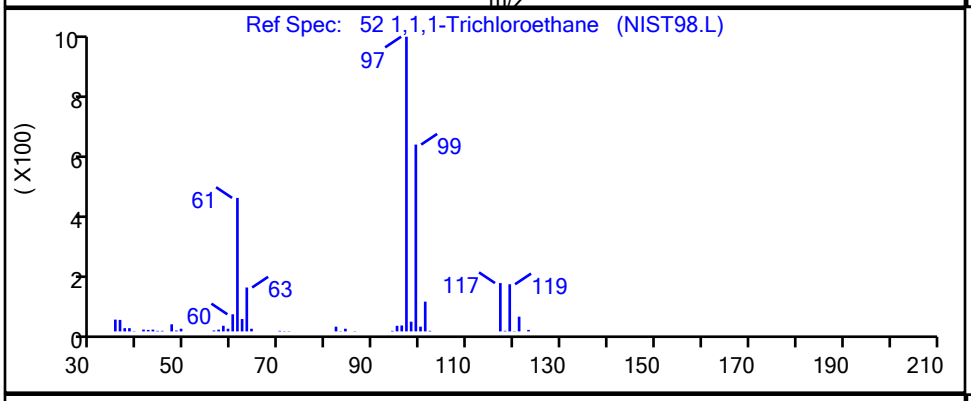
52 1,1,1-Trichloroethane, CAS: 71-55-6

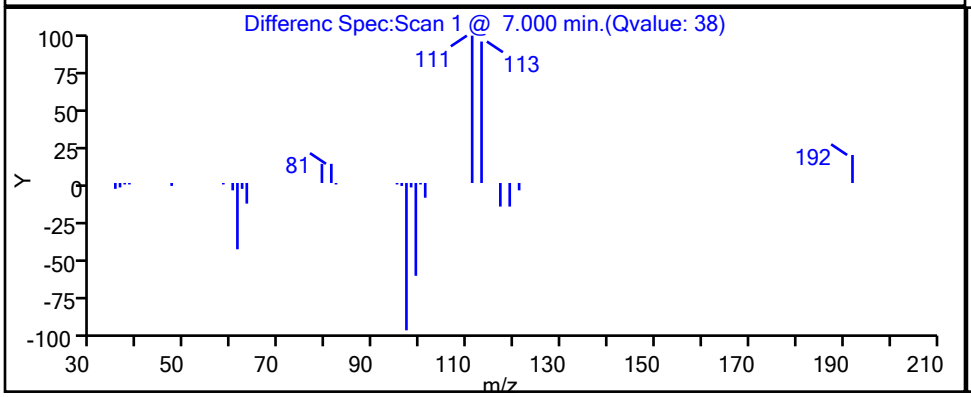


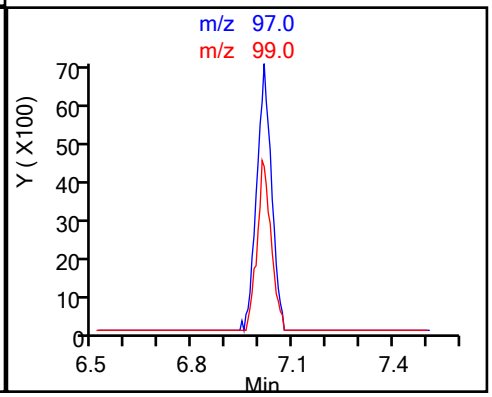












Report Date: 04-Dec-2020 23:36:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D

Injection Date: 04-Dec-2020 17:51:30 Instrument ID: 7159

Lims ID: 410-21939-B-2 Lab Sample ID: 410-21939-2

Client ID: Diff-06

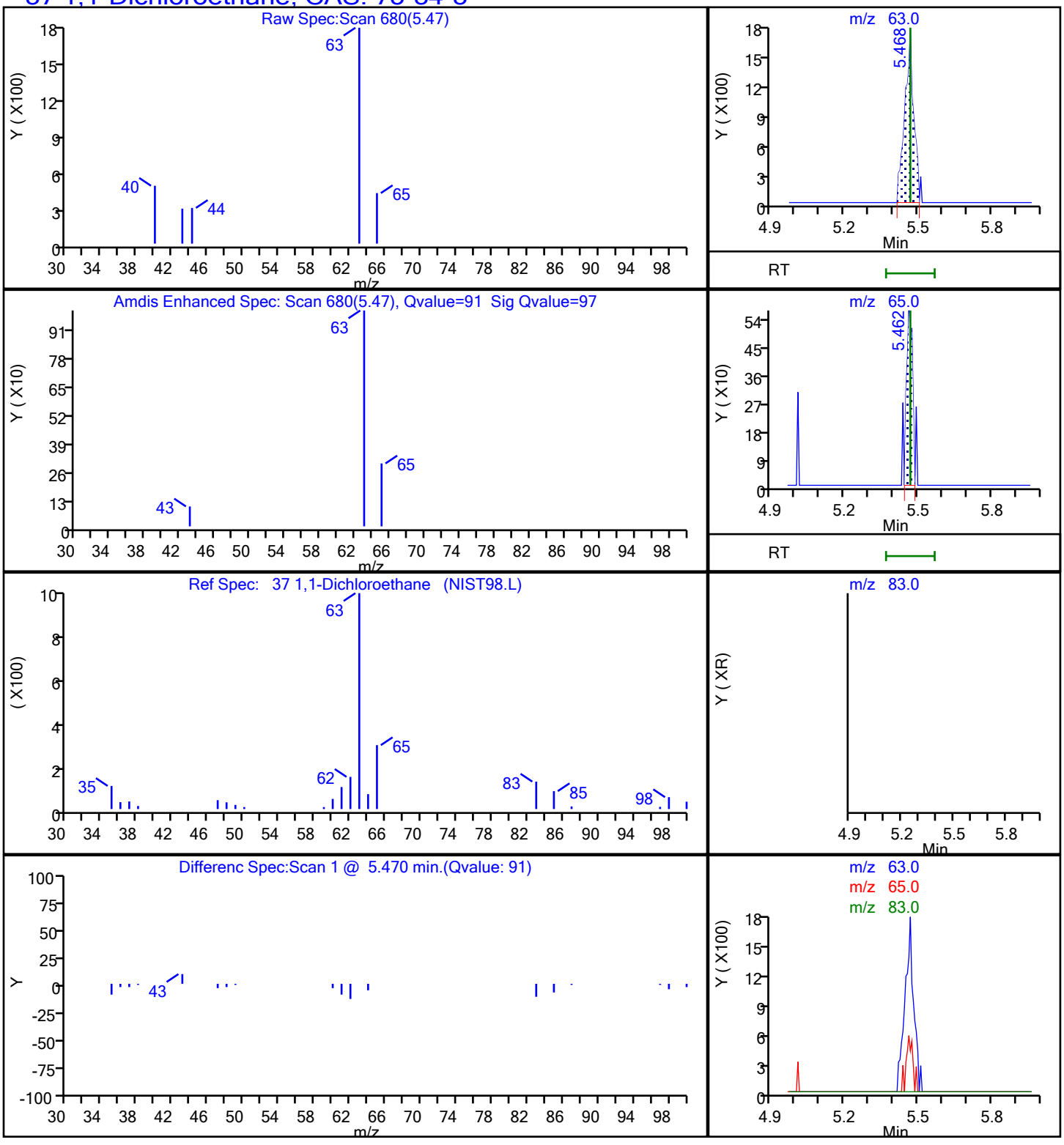
Operator ID: lcp00895 ALS Bottle#: 23 Worklist Smp#: 24

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

37 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 04-Dec-2020 23:36:17 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D

Injection Date: 04-Dec-2020 17:51:30 Instrument ID: 7159

Lims ID: 410-21939-B-2 Lab Sample ID: 410-21939-2

Client ID: Diff-06

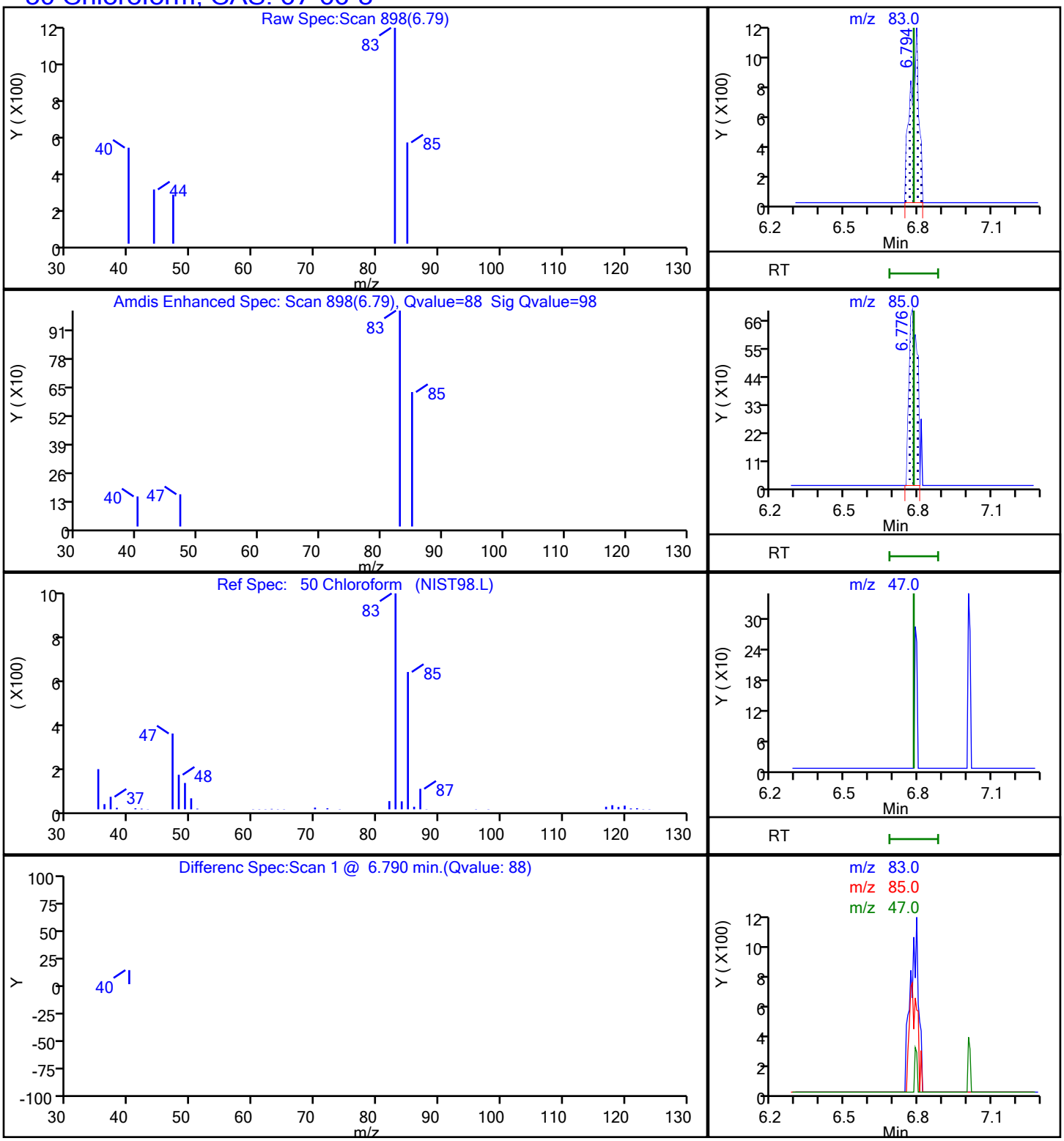
Operator ID: lcp00895 ALS Bottle#: 23 Worklist Smp#: 24

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

50 Chloroform, CAS: 67-66-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

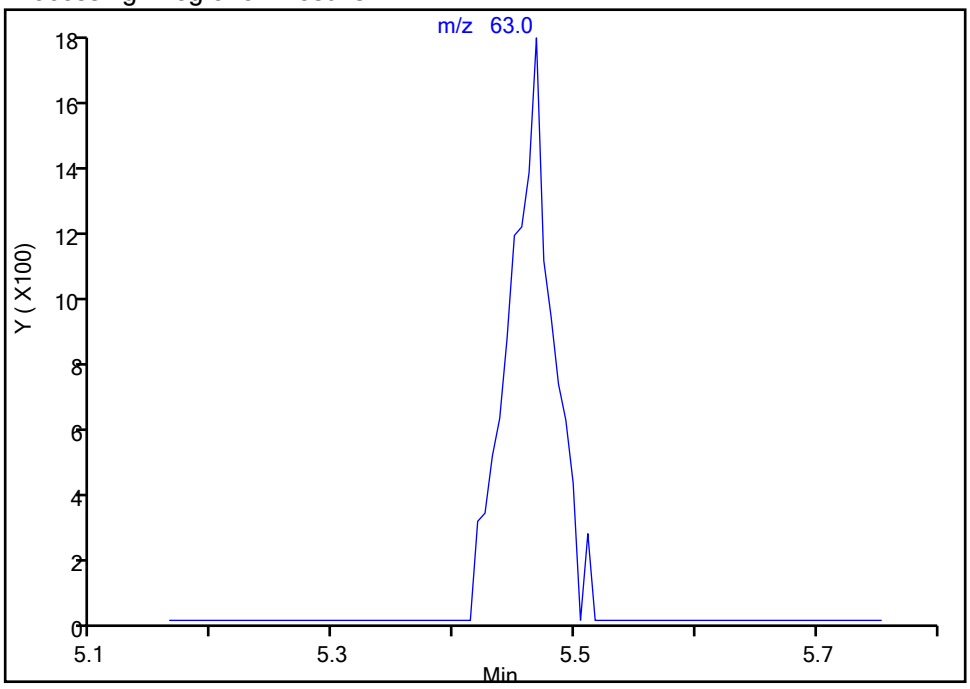
Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D				
Injection Date:	04-Dec-2020 17:51:30	Instrument ID:	7159		
Lims ID:	410-21939-B-2	Lab Sample ID:	410-21939-2		
Client ID:	Diff-06				
Operator ID:	lcp00895	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

37 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

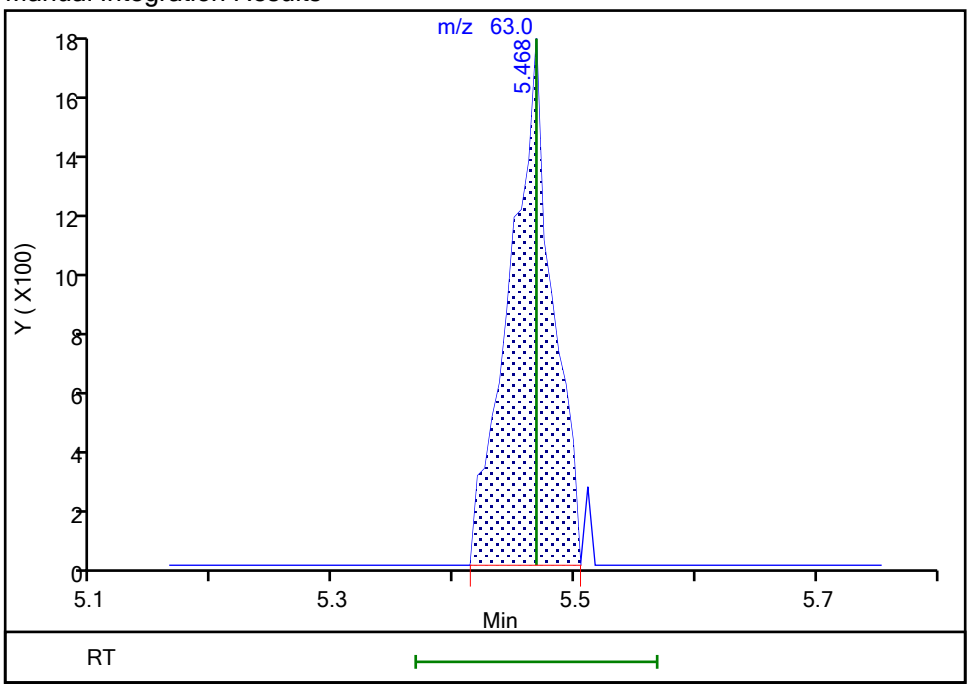
Not Detected
Expected RT: 5.47

Processing Integration Results



Manual Integration Results

RT: 5.47
Area: 4313
Amount: 0.341384
Amount Units: ug/l



Reviewer: greenl, 04-Dec-2020 23:33:14
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

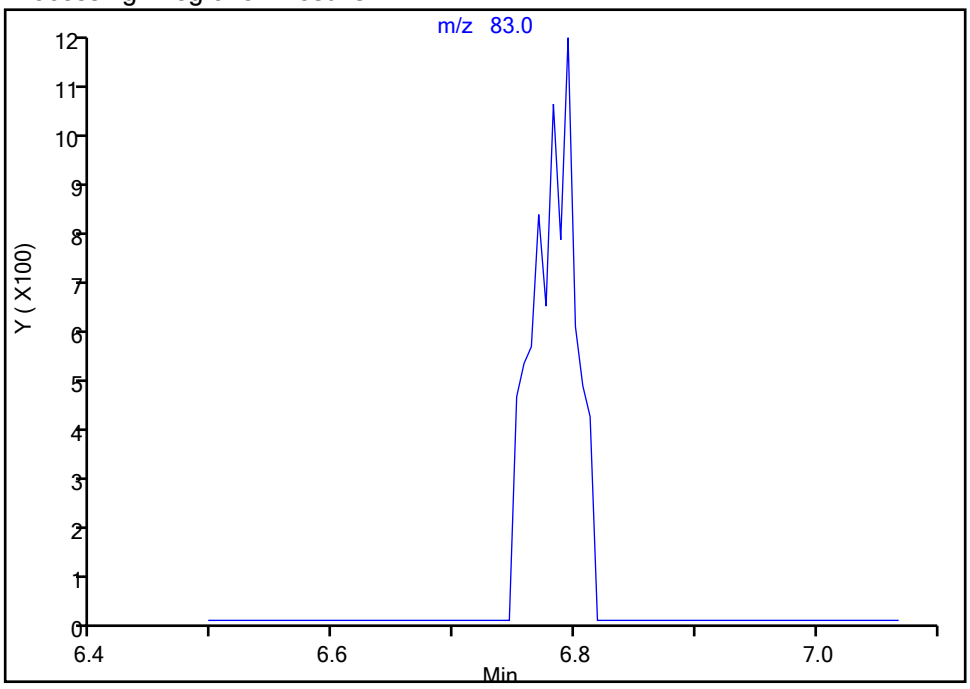
Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s17.D				
Injection Date:	04-Dec-2020 17:51:30	Instrument ID:	7159		
Lims ID:	410-21939-B-2	Lab Sample ID:	410-21939-2		
Client ID:	Diff-06				
Operator ID:	lcp00895	ALS Bottle#:	23	Worklist Smp#:	24
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

50 Chloroform, CAS: 67-66-3

Signal: 1

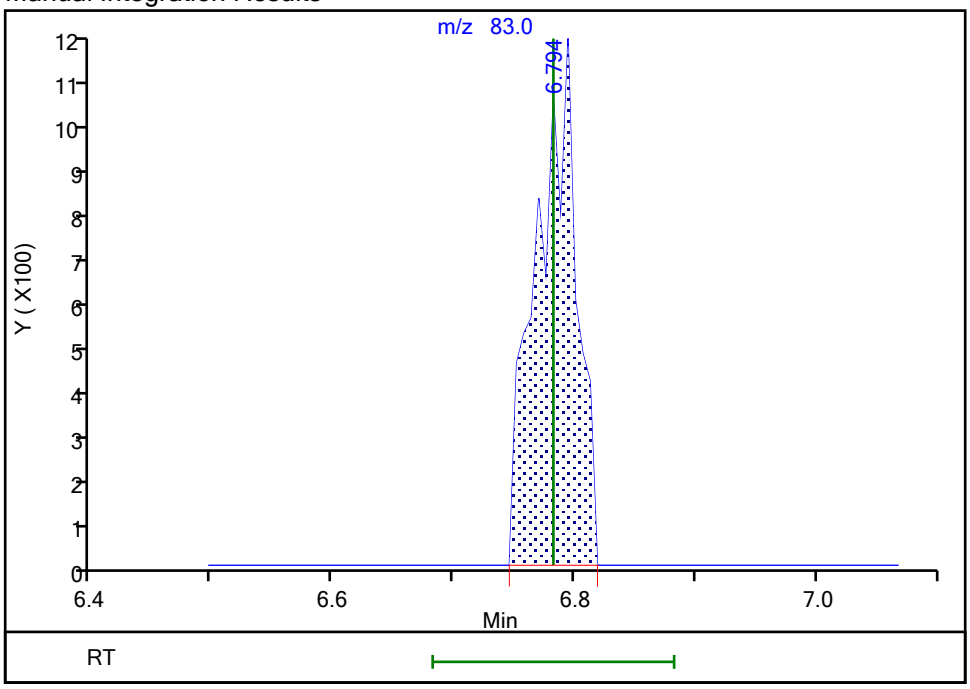
Not Detected
Expected RT: 6.78

Processing Integration Results



RT: 6.79
Area: 2556
Amount: 0.204578
Amount Units: ug/l

Manual Integration Results



Reviewer: greenl, 04-Dec-2020 23:33:25
Audit Action: Assigned Compound ID Audit Reason: Peak assignment corrected

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-05 Lab Sample ID: 410-21939-3

Matrix: Water Lab File ID: ND04s18.D

Analysis Method: 8260C Date Collected: 11/23/2020 13:45

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 18:13

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	3.5		1.0	0.30
75-34-3	1,1-Dichloroethane	0.50	J	1.0	0.20
75-35-4	1,1-Dichloroethene	0.24	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	5.6		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D
Lims ID: 410-21939-B-3
Client ID: Diff-05
Sample Type: Client
Inject. Date: 04-Dec-2020 18:13:30 ALS Bottle#: 24 Worklist Smp#: 25
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-025
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:33:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96	3.692	3.686	0.006	93	1444	0.2366	
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	7
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.379	4.379	0.000	0	310529	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	
37 1,1-Dichloroethane	63	5.474	5.468	0.006	92	6228	0.4989	
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.007	7.001	0.006	93	272849	47.7	
52 1,1,1-Trichloroethane	97	7.025	7.013	0.012	40	38499	3.45	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	97	76420	49.5	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.901	7.895	0.006	99	1232539	50.0	
67 Trichloroethene	95	8.382	8.382	0.000	97	41790	5.55	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1192516	49.8	
82 Toluene	92		9.976				ND	7
87 Tetrachloroethene	166		10.517				ND	
S 92 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	892840	50.0	
97 Ethylbenzene	91		11.454				ND	
98 m-Xylene & p-Xylene	106		11.564				ND	7
99 o-Xylene	106		11.892				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	86	452449	48.5	
* 119 1,4-Dichlorobenzene-d4	152	13.224	13.225	-0.001	96	450353	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

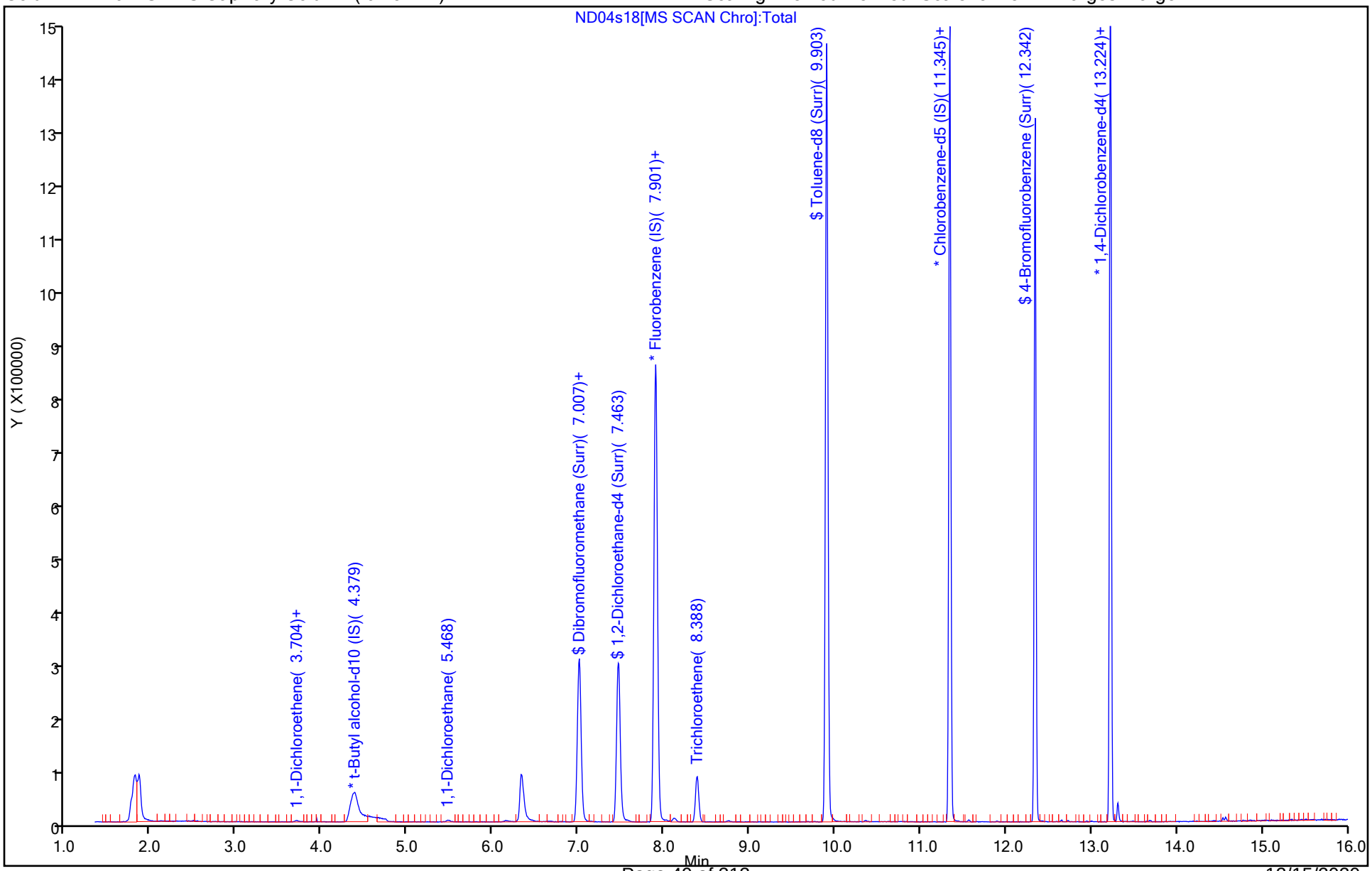
MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 04-Dec-2020 23:36:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D				
Injection Date:	04-Dec-2020 18:13:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-3	Lab Sample ID:	410-21939-3	Worklist Smp#:	25
Client ID:	Diff-05				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	24
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Report Date: 04-Dec-2020 23:36:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D

Injection Date: 04-Dec-2020 18:13:30 Instrument ID: 7159

Lims ID: 410-21939-B-3 Lab Sample ID: 410-21939-3

Client ID: Diff-05

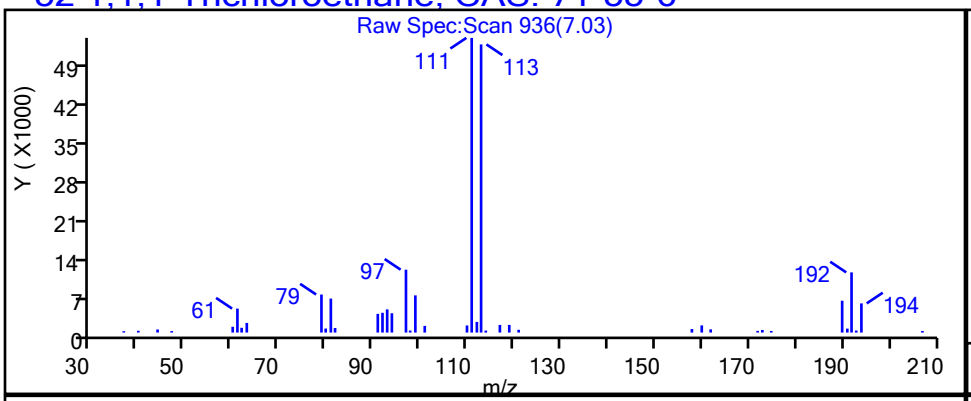
Operator ID: lcp00895 ALS Bottle#: 24 Worklist Smp#: 25

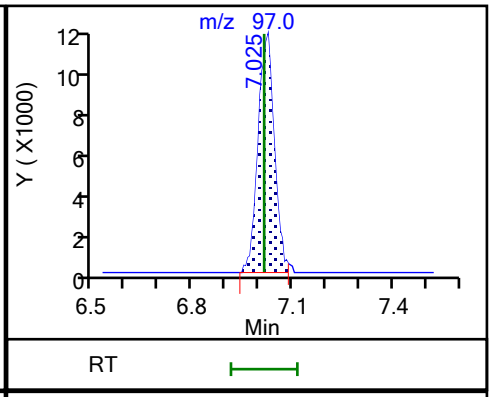
Purge Vol: 5.000 mL Dil. Factor: 1.0000

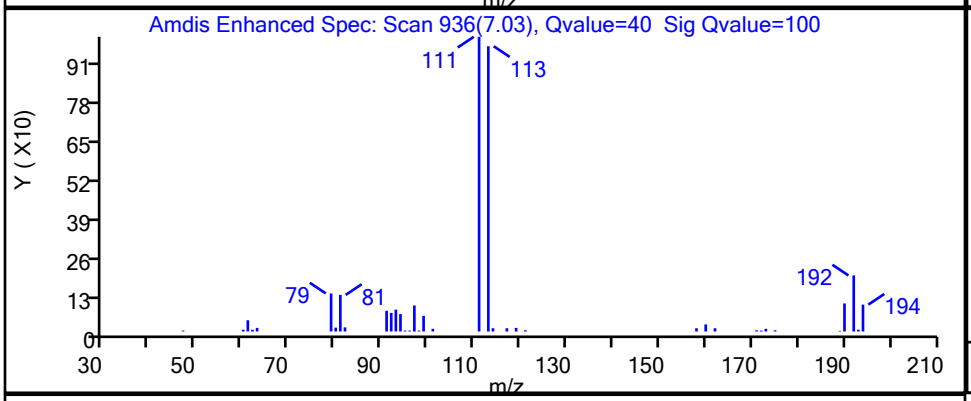
Method: MSVoa_7159 Limit Group: MSV - 8260C_D

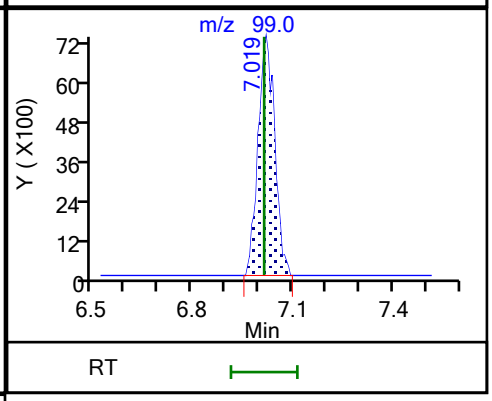
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

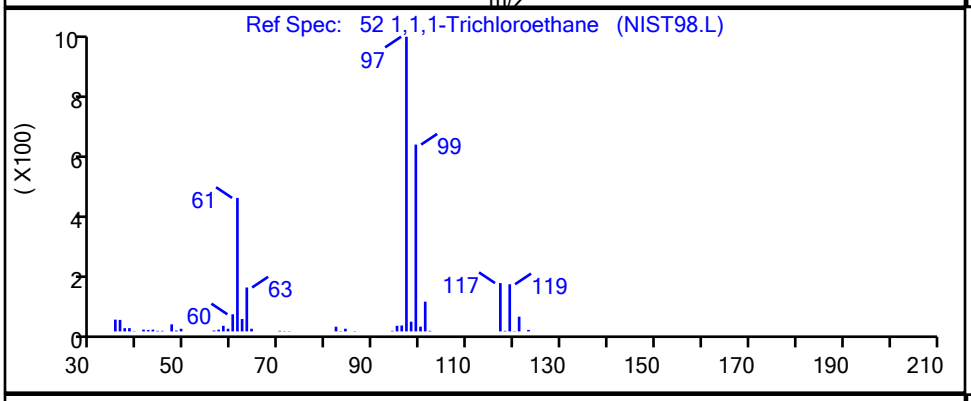
52 1,1,1-Trichloroethane, CAS: 71-55-6

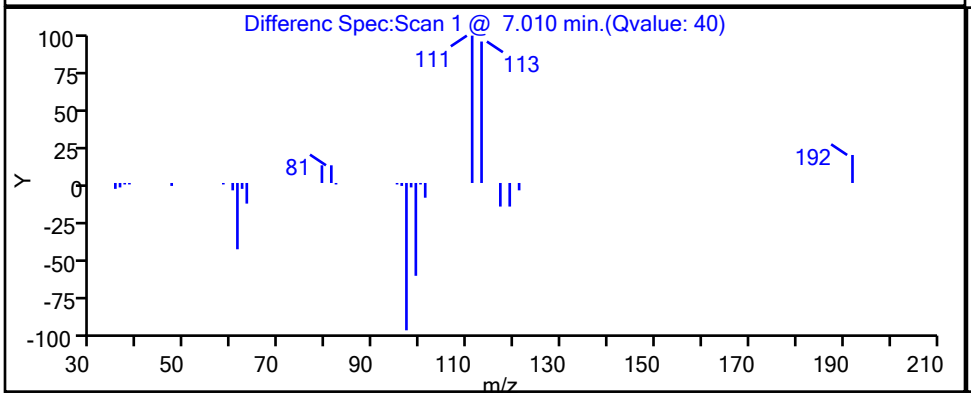


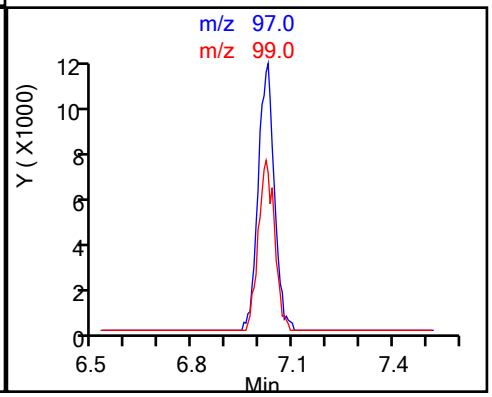












Report Date: 04-Dec-2020 23:36:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D

Injection Date: 04-Dec-2020 18:13:30 Instrument ID: 7159

Lims ID: 410-21939-B-3 Lab Sample ID: 410-21939-3

Client ID: Diff-05

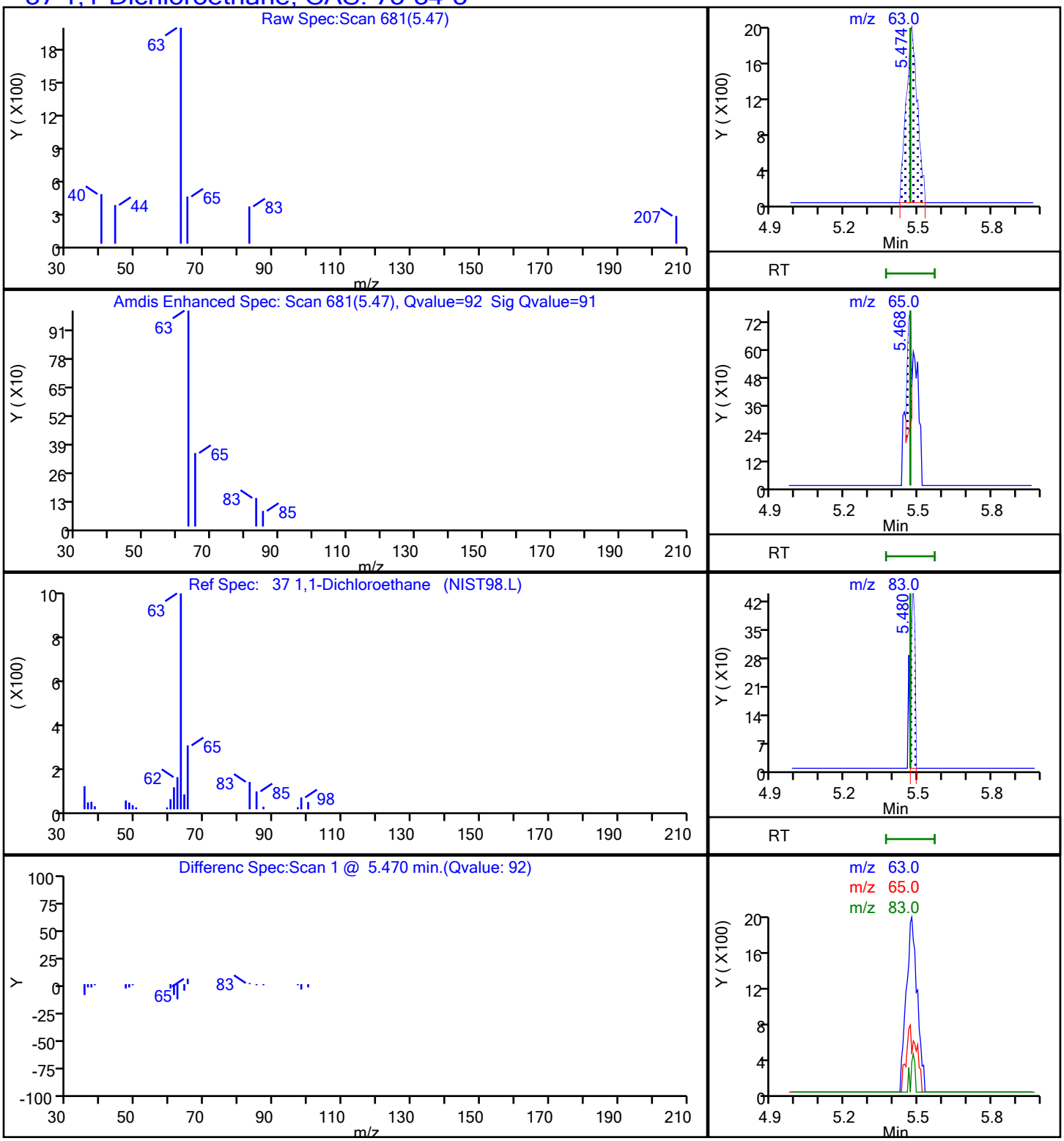
Operator ID: lcp00895 ALS Bottle#: 24 Worklist Smp#: 25

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

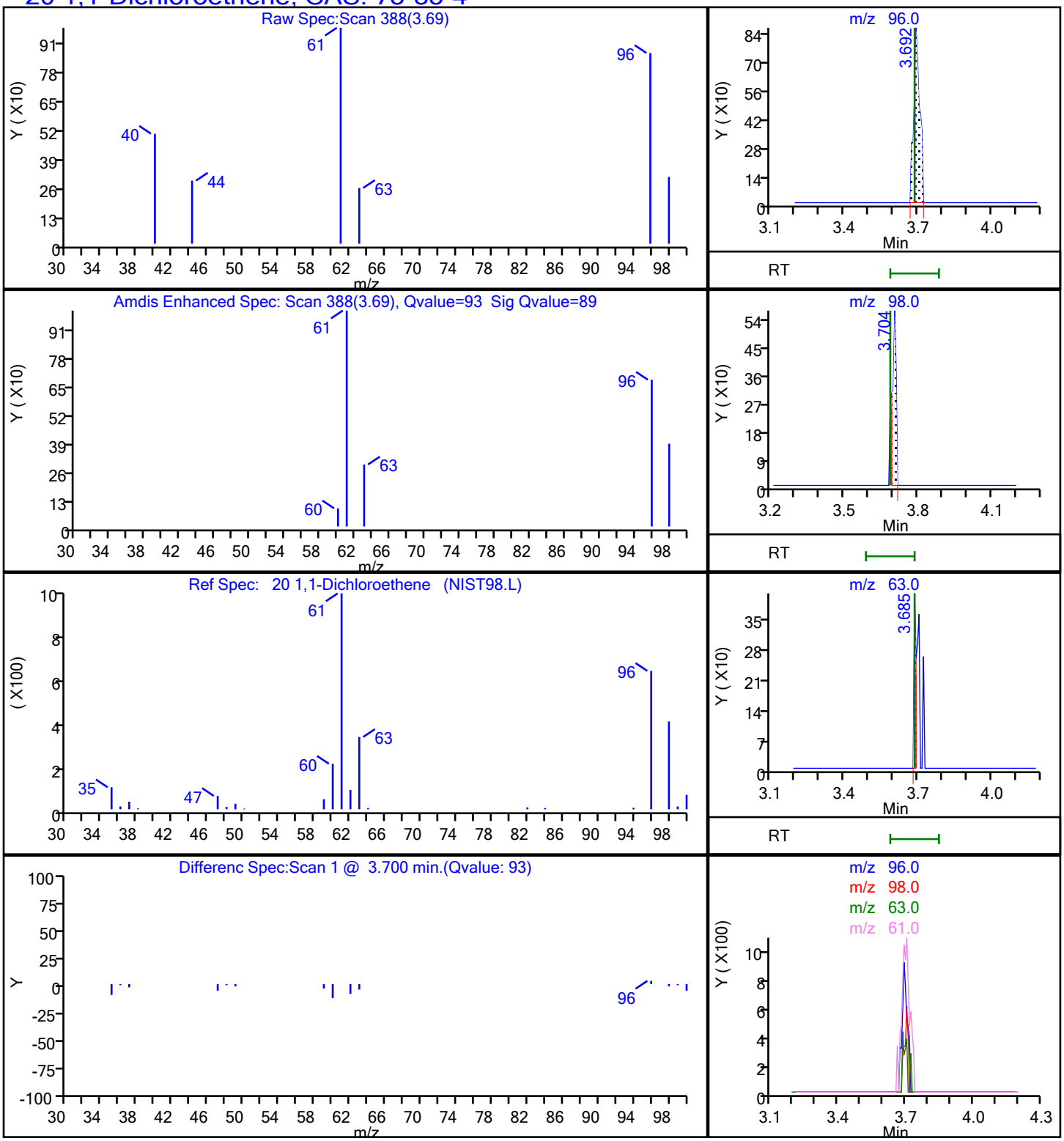
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D				
Injection Date:	04-Dec-2020 18:13:30	Instrument ID:	7159		
Lims ID:	410-21939-B-3	Lab Sample ID:	410-21939-3		
Client ID:	Diff-05				
Operator ID:	lcp00895	ALS Bottle#:	24	Worklist Smp#:	25
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

20 1,1-Dichloroethene, CAS: 75-35-4



Report Date: 04-Dec-2020 23:36:18 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s18.D

Injection Date: 04-Dec-2020 18:13:30 Instrument ID: 7159

Lims ID: 410-21939-B-3 Lab Sample ID: 410-21939-3

Client ID: Diff-05

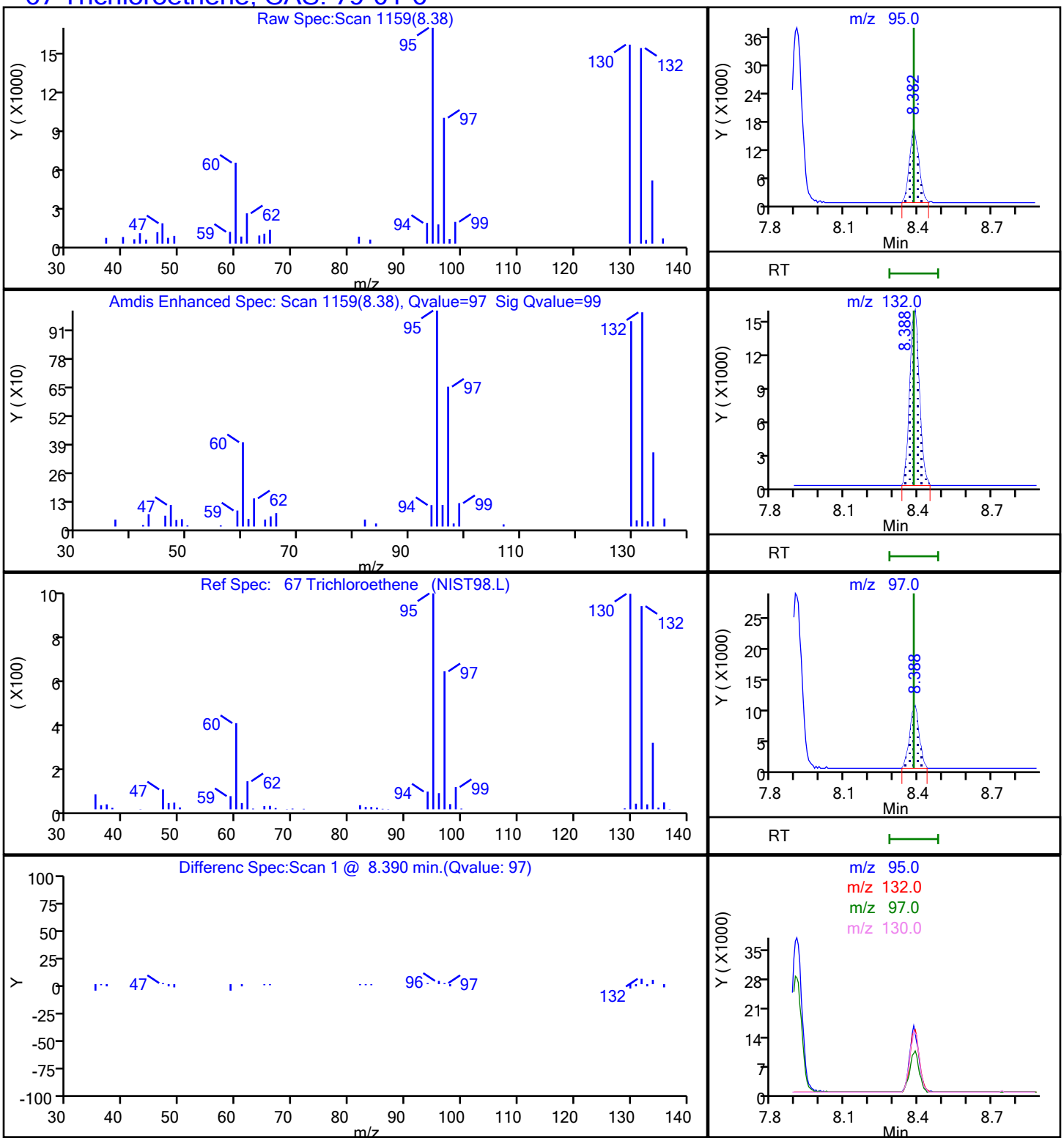
Operator ID: lcp00895 ALS Bottle#: 24 Worklist Smp#: 25

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

67 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-04 Lab Sample ID: 410-21939-4

Matrix: Water Lab File ID: ND04s19.D

Analysis Method: 8260C Date Collected: 11/23/2020 14:00

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 18:35

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	2.4		1.0	0.30
75-34-3	1,1-Dichloroethane	1.2		1.0	0.20
75-35-4	1,1-Dichloroethene	0.33	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	96		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D
Lims ID: 410-21939-B-4
Client ID: Diff-04
Sample Type: Client
Inject. Date: 04-Dec-2020 18:35:30 ALS Bottle#: 25 Worklist Smp#: 26
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-026
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:34:25

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96	3.692	3.686	0.006	93	2039	0.3329	M
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.367	4.379	-0.012	0	312395	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	
37 1,1-Dichloroethane	63	5.462	5.468	-0.006	95	14446	1.15	
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	94	273004	47.6	
52 1,1,1-Trichloroethane	97	7.013	7.013	0.000	98	26387	2.36	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	98	74426	48.1	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1237113	50.0	
67 Trichloroethene	95		8.382				ND	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1200480	49.7	
82 Toluene	92		9.976				ND	
87 Tetrachloroethene	166		10.517				ND	7
S 92 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	85	899989	50.0	
97 Ethylbenzene	91		11.454				ND	7
98 m-Xylene & p-Xylene	106		11.564				ND	7
99 o-Xylene	106		11.892				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.343	12.343	0.000	87	453665	48.2	
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	451719	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

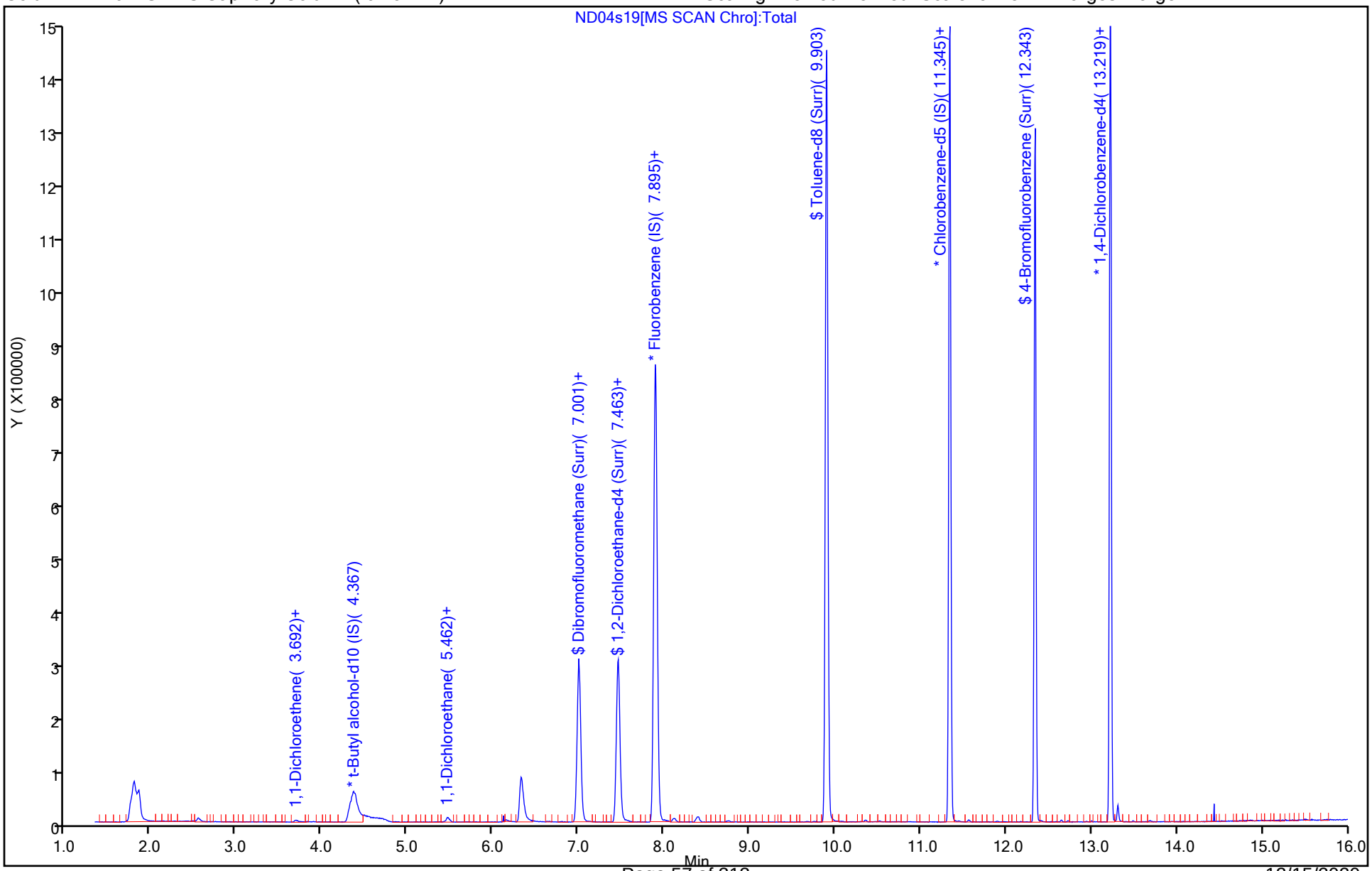
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 04-Dec-2020 23:36:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D				
Injection Date:	04-Dec-2020 18:35:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-4	Lab Sample ID:	410-21939-4	Worklist Smp#:	26
Client ID:	Diff-04				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	25
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

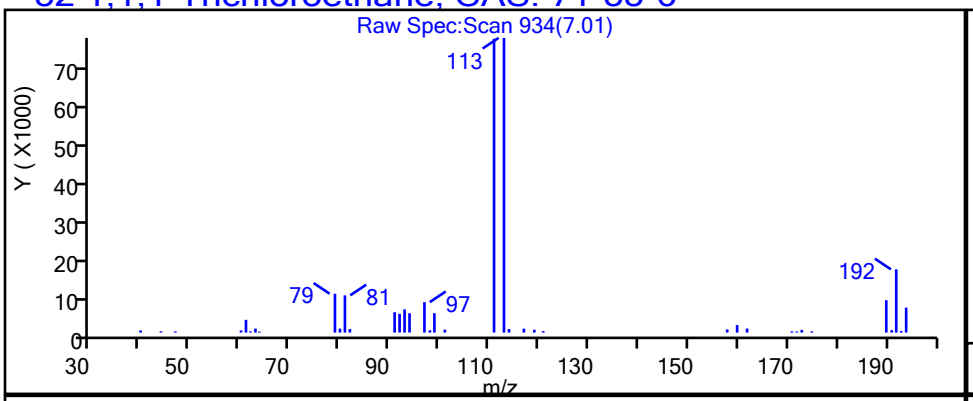
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2

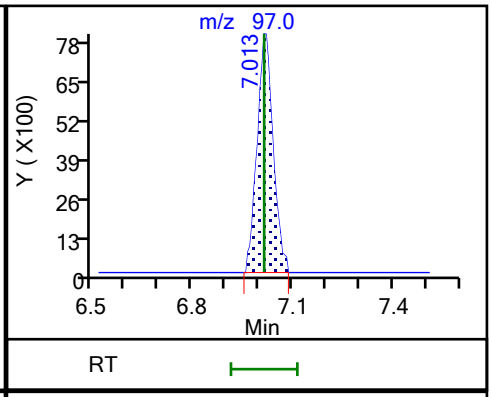


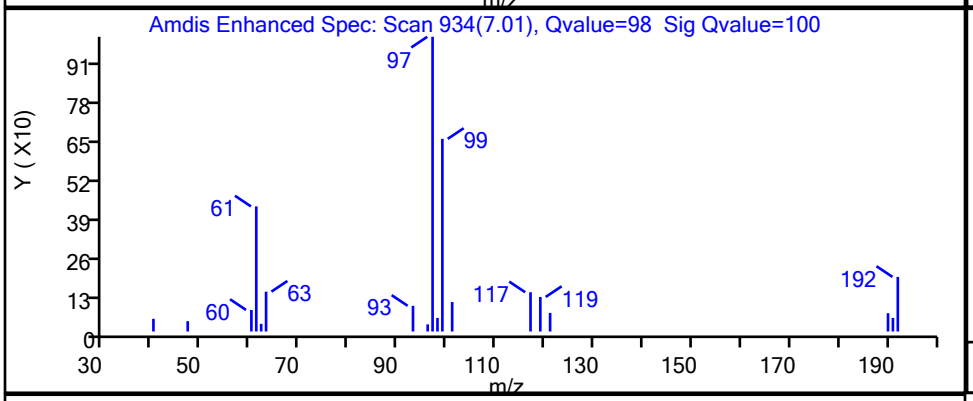
Eurofins Lancaster Laboratories Env, LLC

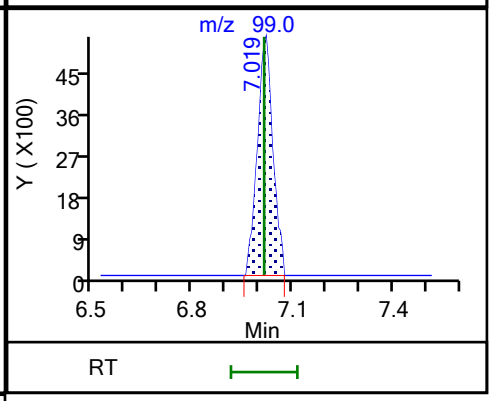
Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D				
Injection Date:	04-Dec-2020 18:35:30	Instrument ID:	7159		
Lims ID:	410-21939-B-4	Lab Sample ID:	410-21939-4		
Client ID:	Diff-04				
Operator ID:	lcp00895	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

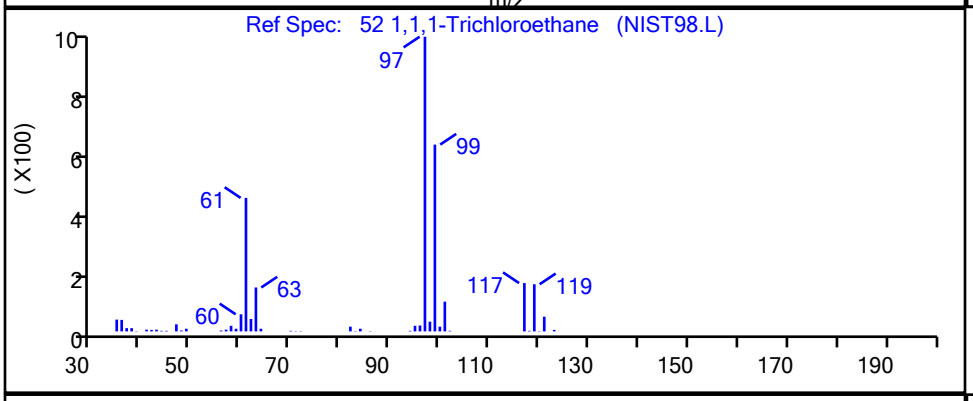
52 1,1,1-Trichloroethane, CAS: 71-55-6

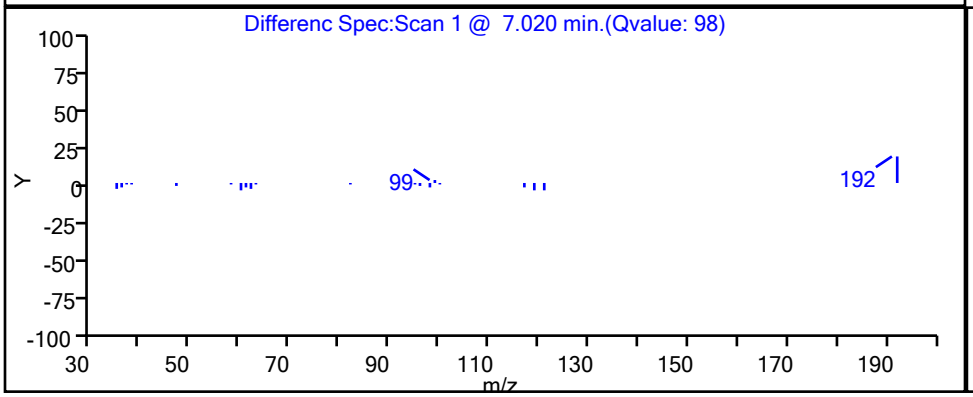


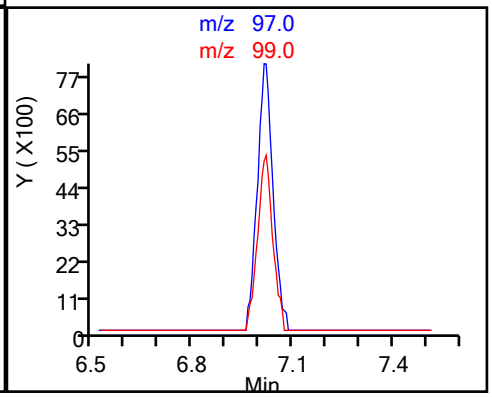










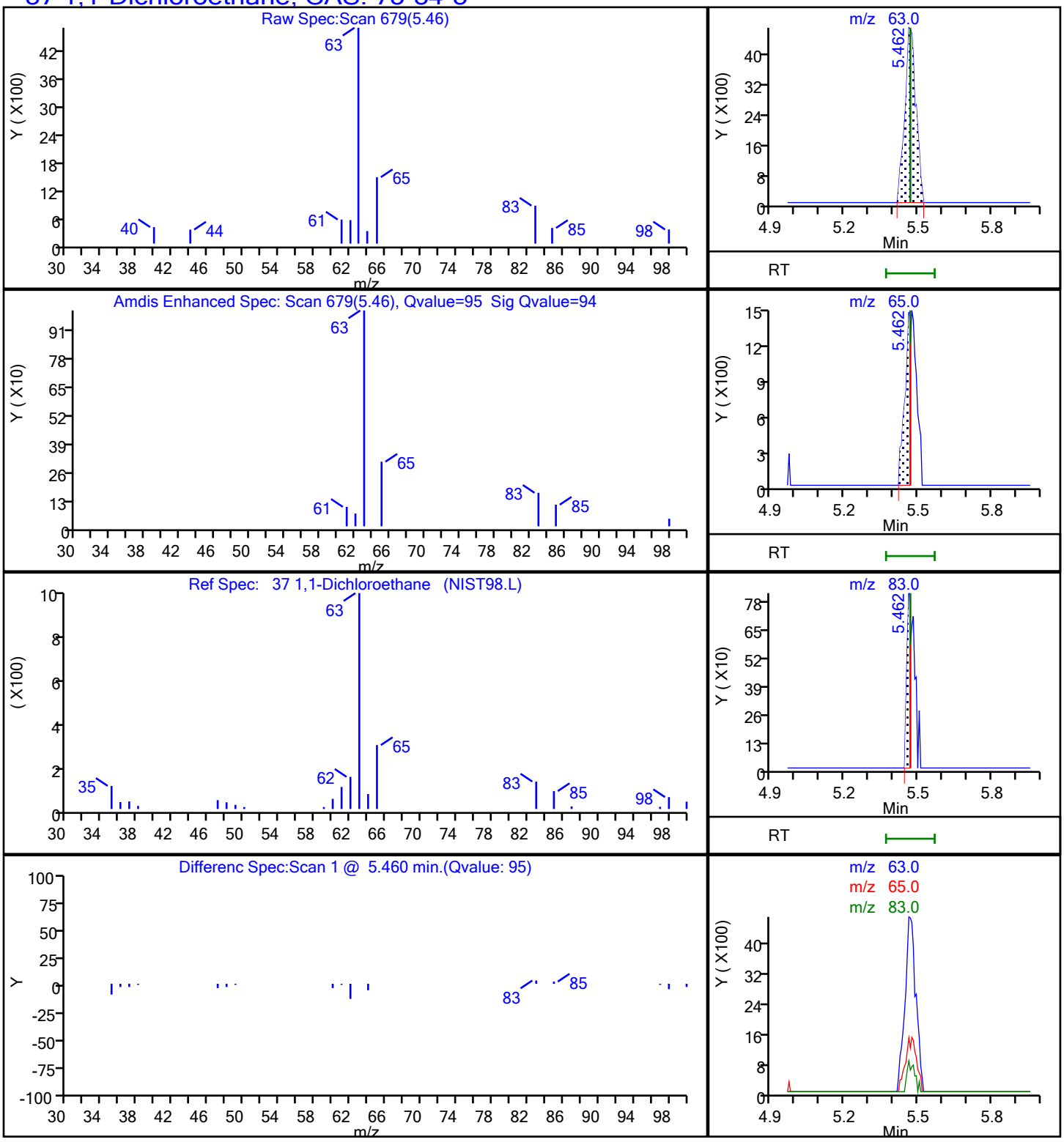


Report Date: 04-Dec-2020 23:36:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D				
Injection Date:	04-Dec-2020 18:35:30	Instrument ID:	7159		
Lims ID:	410-21939-B-4	Lab Sample ID:	410-21939-4		
Client ID:	Diff-04				
Operator ID:	lcp00895	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

37 1,1-Dichloroethane, CAS: 75-34-3



Report Date: 04-Dec-2020 23:36:20 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D

Injection Date: 04-Dec-2020 18:35:30 Instrument ID: 7159

Lims ID: 410-21939-B-4 Lab Sample ID: 410-21939-4

Client ID: Diff-04

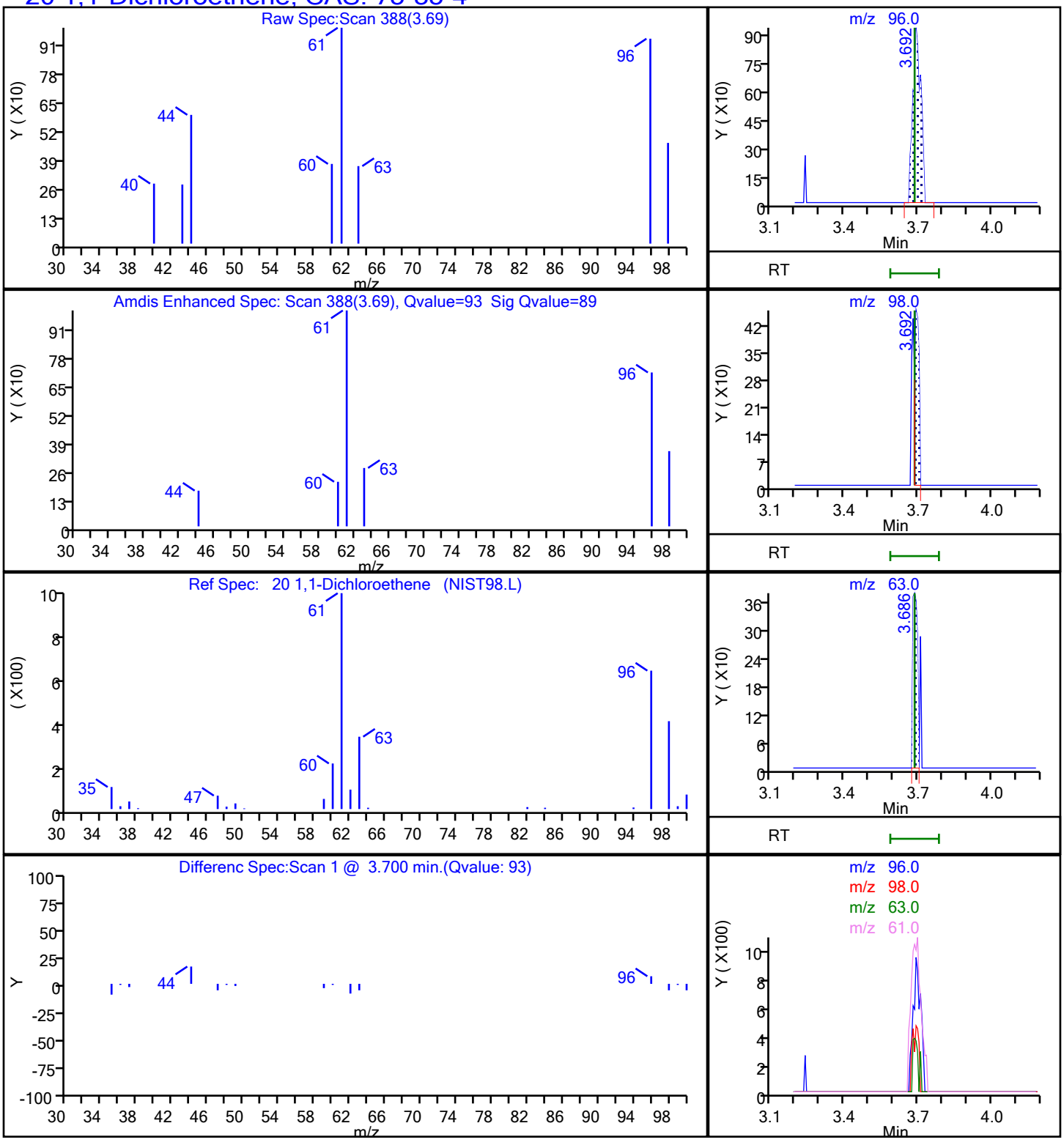
Operator ID: lcp00895 ALS Bottle#: 25 Worklist Smp#: 26

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

20 1,1-Dichloroethene, CAS: 75-35-4



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

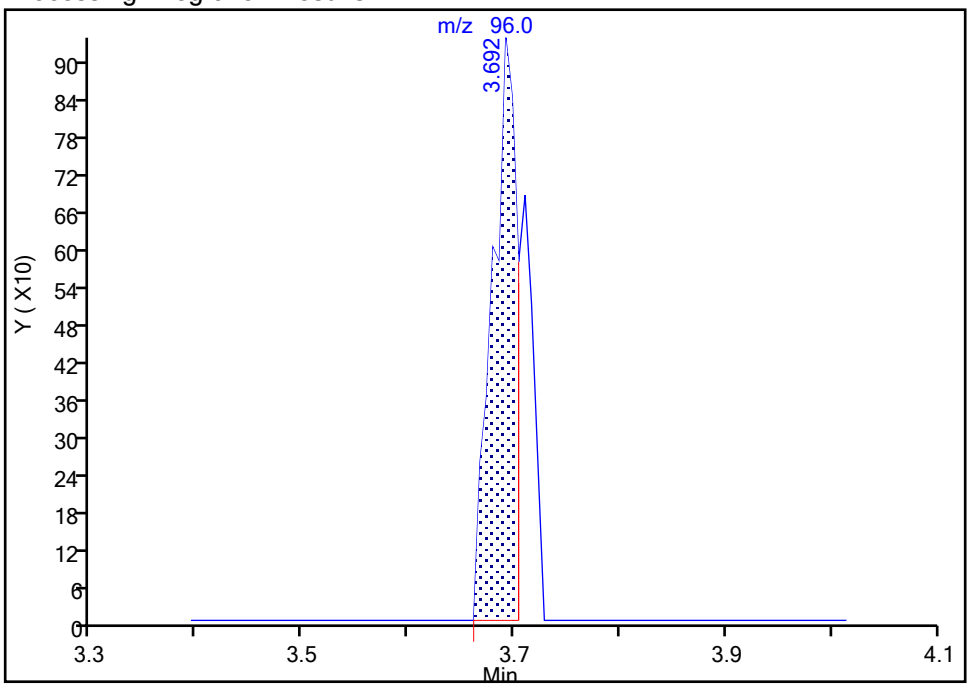
Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s19.D				
Injection Date:	04-Dec-2020 18:35:30	Instrument ID:	7159		
Lims ID:	410-21939-B-4	Lab Sample ID:	410-21939-4		
Client ID:	Diff-04				
Operator ID:	lcp00895	ALS Bottle#:	25	Worklist Smp#:	26
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

20 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

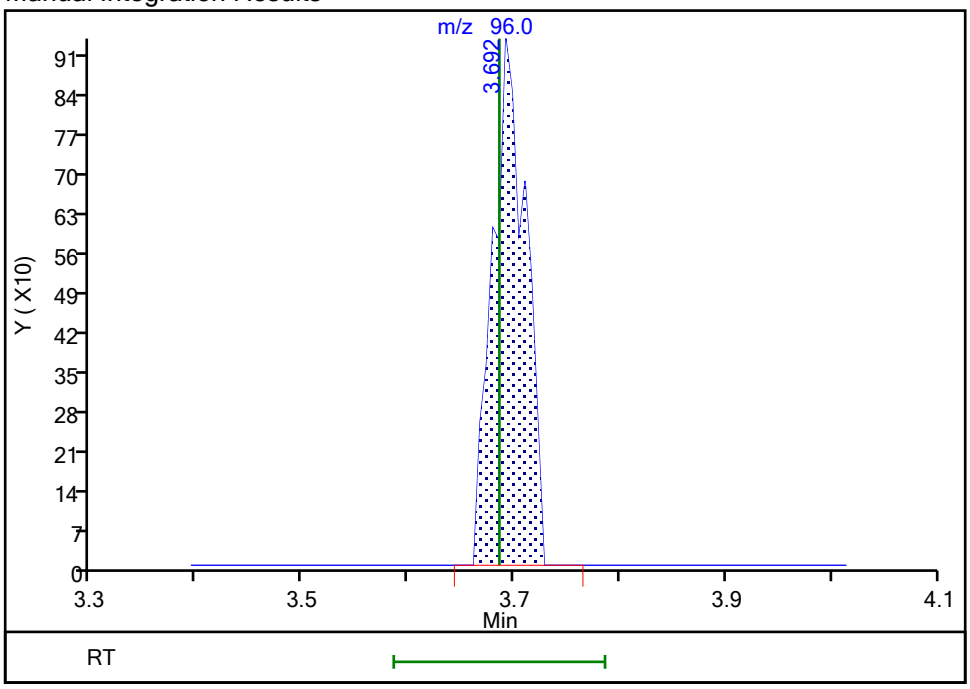
Processing Integration Results

RT: 3.69
Area: 1511
Amount: 0.246661
Amount Units: ug/l



Manual Integration Results

RT: 3.69
Area: 2039
Amount: 0.332853
Amount Units: ug/l



Reviewer: greenl, 04-Dec-2020 23:34:11

Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-03 Lab Sample ID: 410-21939-5

Matrix: Water Lab File ID: ND04s20.D

Analysis Method: 8260C Date Collected: 11/23/2020 14:15

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 18:57

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	0.98	J	1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	95		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	100		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s20.D
Lims ID: 410-21939-B-5
Client ID: Diff-03
Sample Type: Client
Inject. Date: 04-Dec-2020 18:57:30 ALS Bottle#: 26 Worklist Smp#: 27
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-027
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:34:52

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96		3.686				ND	
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.367	4.379	-0.012	0	313392	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	7
37 1,1-Dichloroethane	63	5.474	5.468	0.006	93	12475	0.9844	M
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	271707	46.8	
52 1,1,1-Trichloroethane	97		7.013				ND	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	97	74746	47.7	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.901	7.895	0.006	99	1251215	50.0	
67 Trichloroethene	95		8.382				ND	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1208659	49.9	
82 Toluene	92		9.976				ND	7
87 Tetrachloroethene	166		10.517				ND	
S 92 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	903340	50.0	
97 Ethylbenzene	91		11.454				ND	
98 m-Xylene & p-Xylene	106		11.564				ND	7
99 o-Xylene	106		11.892				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	86	457912	48.5	
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	456269	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Review Flags

M - Manually Integrated

Reagents:

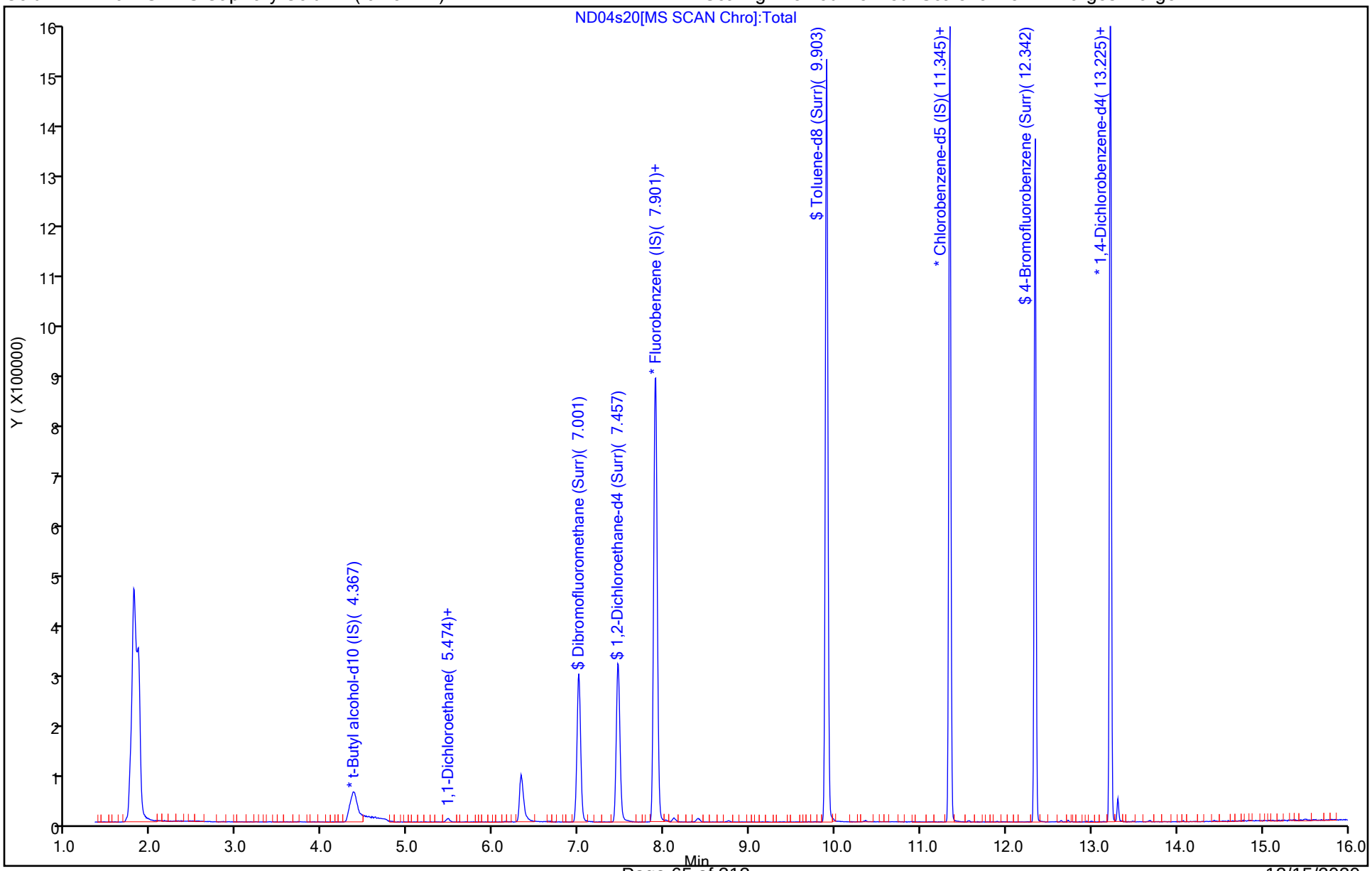
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 04-Dec-2020 23:36:21 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s20.D				
Injection Date:	04-Dec-2020 18:57:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-5	Lab Sample ID:	410-21939-5	Worklist Smp#:	27
Client ID:	Diff-03				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	26
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

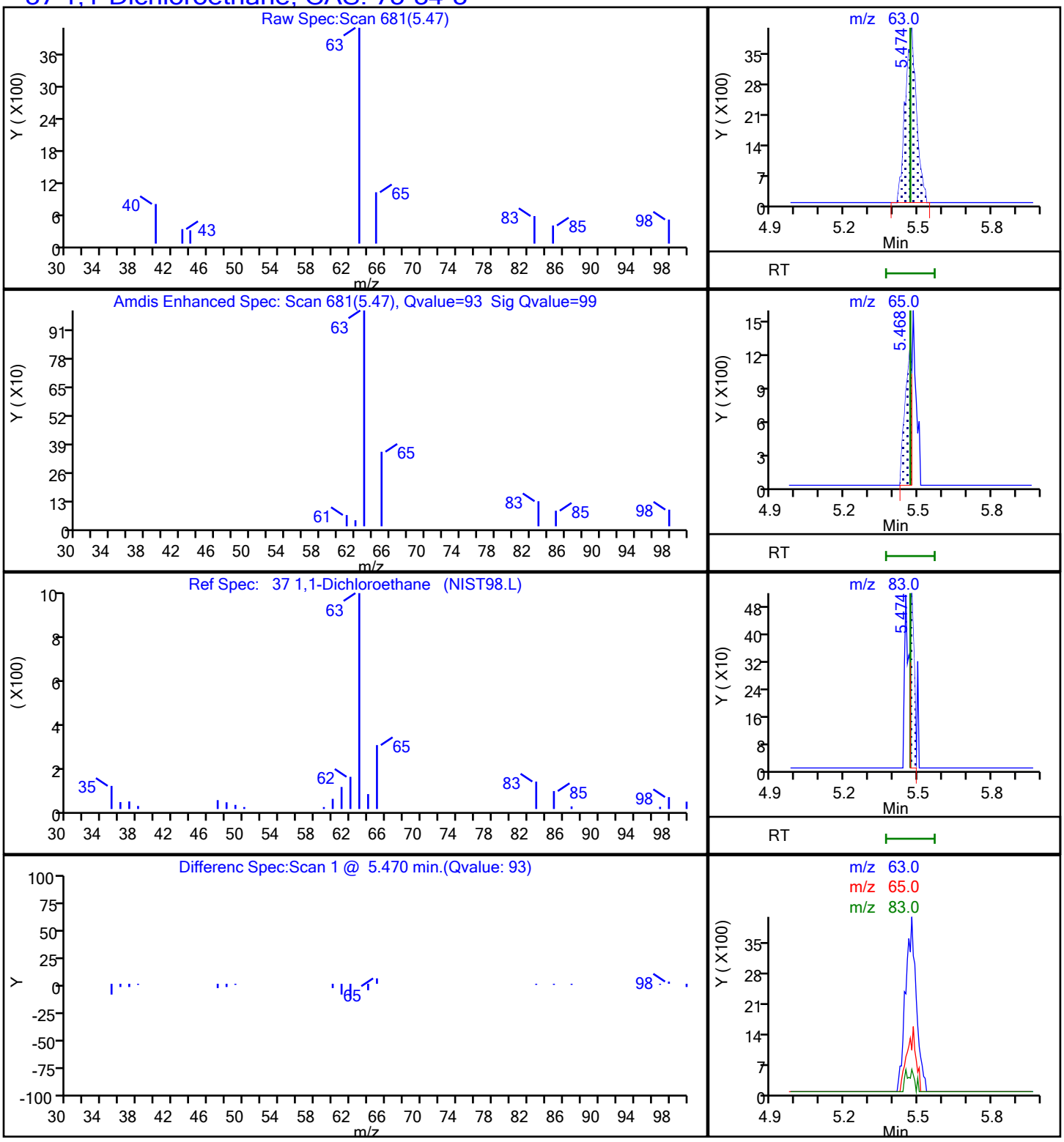
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s20.D				
Injection Date:	04-Dec-2020 18:57:30	Instrument ID:	7159		
Lims ID:	410-21939-B-5	Lab Sample ID:	410-21939-5		
Client ID:	Diff-03				
Operator ID:	lcp00895	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

37 1,1-Dichloroethane, CAS: 75-34-3



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

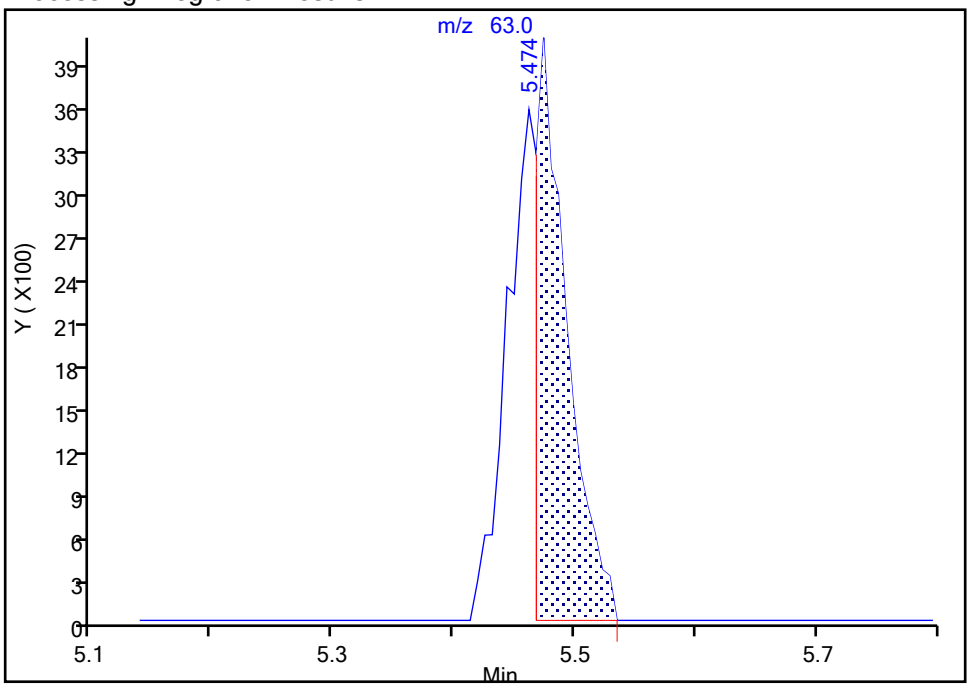
Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s20.D				
Injection Date:	04-Dec-2020 18:57:30	Instrument ID:	7159		
Lims ID:	410-21939-B-5	Lab Sample ID:	410-21939-5		
Client ID:	Diff-03				
Operator ID:	lcp00895	ALS Bottle#:	26	Worklist Smp#:	27
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

37 1,1-Dichloroethane, CAS: 75-34-3

Signal: 1

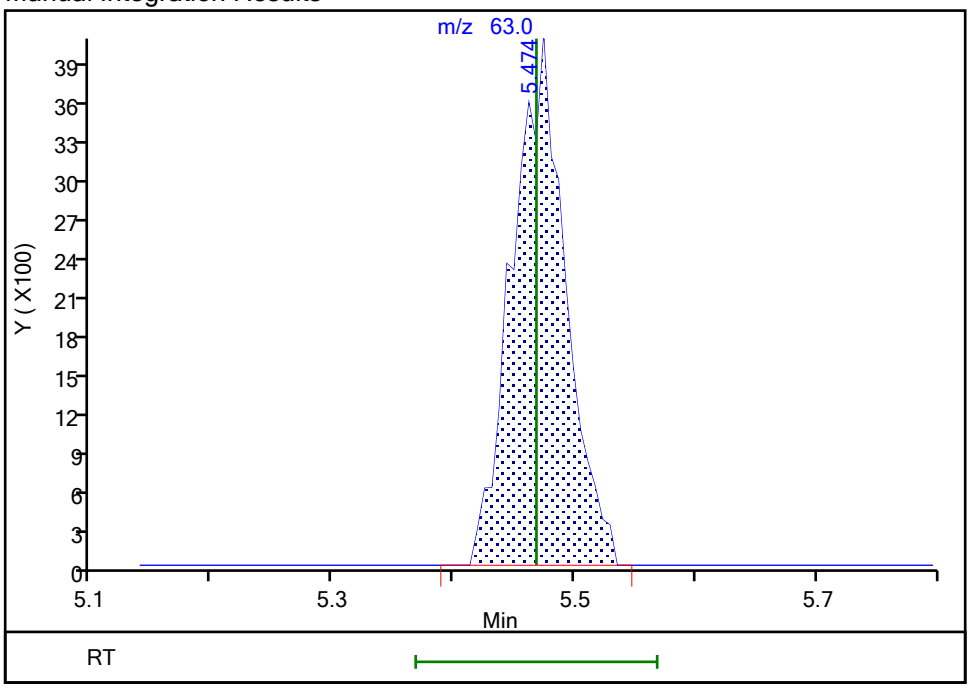
Processing Integration Results

RT: 5.47
Area: 7390
Amount: 0.583124
Amount Units: ug/l



Manual Integration Results

RT: 5.47
Area: 12475
Amount: 0.984367
Amount Units: ug/l



Reviewer: greenl, 04-Dec-2020 23:34:41
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-02 Lab Sample ID: 410-21939-6

Matrix: Water Lab File ID: ND04s21.D

Analysis Method: 8260C Date Collected: 11/23/2020 14:30

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 19:19

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	6.6		1.0	0.30
75-34-3	1,1-Dichloroethane	1.6		1.0	0.20
75-35-4	1,1-Dichloroethene	0.81	J	1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	4.7		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	26		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D
Lims ID: 410-21939-B-6
Client ID: Diff-02
Sample Type: Client
Inject. Date: 04-Dec-2020 19:19:30 ALS Bottle#: 27 Worklist Smp#: 28
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-028
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:35:06

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96	3.692	3.686	0.006	93	5059	0.8146	
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.355	4.379	-0.024	0	312256	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	
37 1,1-Dichloroethane	63	5.468	5.468	0.000	94	20110	1.58	
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	277591	47.7	
52 1,1,1-Trichloroethane	97	7.013	7.013	0.000	96	74936	6.61	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	76163	48.5	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1254230	50.0	
67 Trichloroethene	95	8.382	8.382	0.000	99	202711	26.5	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1200569	49.6	
82 Toluene	92		9.976				ND	
87 Tetrachloroethene	166	10.517	10.517	0.000	95	39575	4.74	
S 92 Xylenes, Total	106		11.245				ND	7
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	903156	50.0	
97 Ethylbenzene	91		11.454				ND	
98 m-Xylene & p-Xylene	106		11.564				ND	
99 o-Xylene	106		11.892				ND	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	87	457780	48.5	
* 119 1,4-Dichlorobenzene-d4	152	13.224	13.225	-0.001	96	453620	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

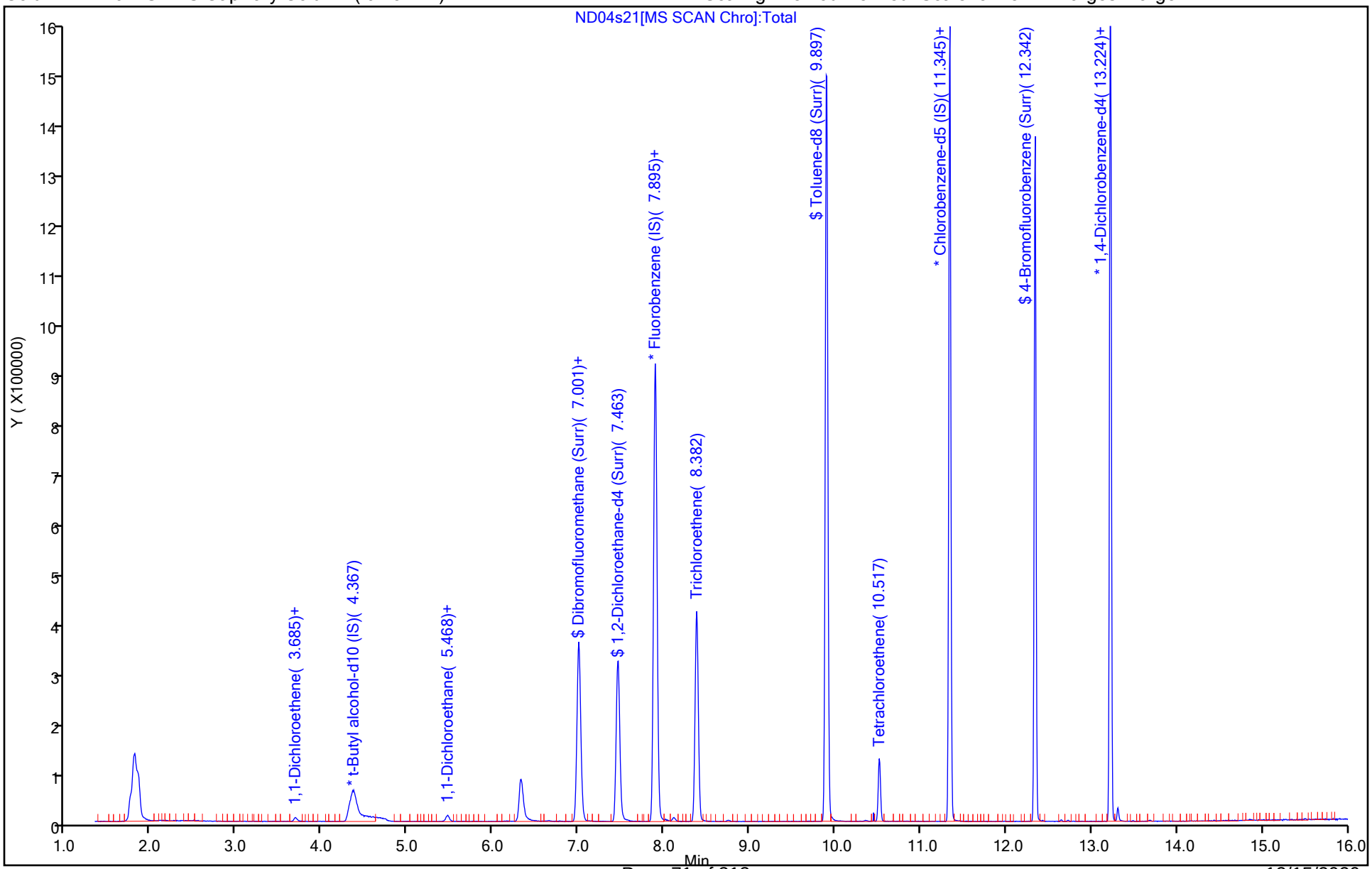
MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 04-Dec-2020 23:36:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D				
Injection Date:	04-Dec-2020 19:19:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-6	Lab Sample ID:	410-21939-6	Worklist Smp#:	28
Client ID:	Diff-02				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	27
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

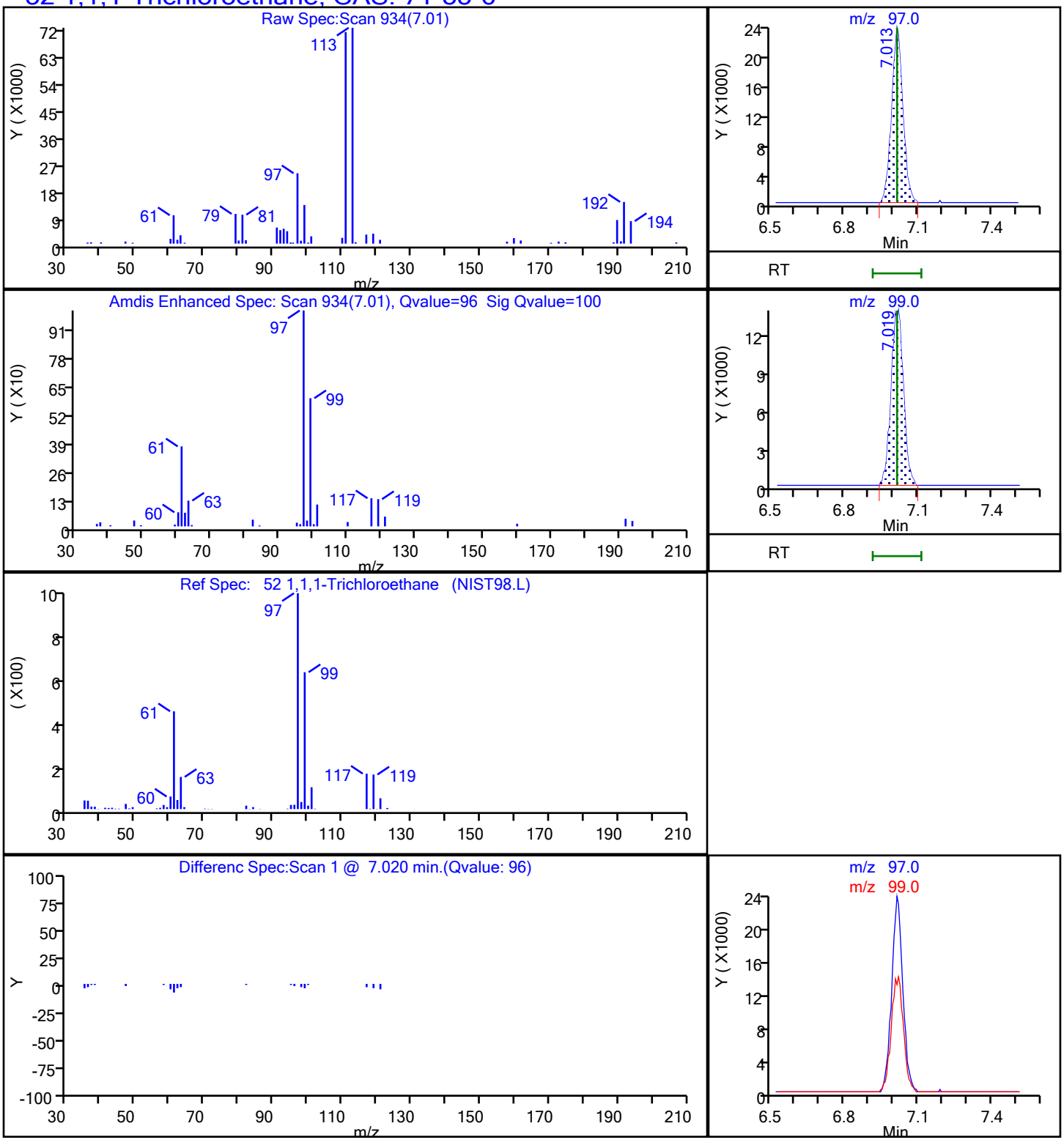
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D				
Injection Date:	04-Dec-2020 19:19:30	Instrument ID:	7159		
Lims ID:	410-21939-B-6	Lab Sample ID:	410-21939-6		
Client ID:	Diff-02				
Operator ID:	lcp00895	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

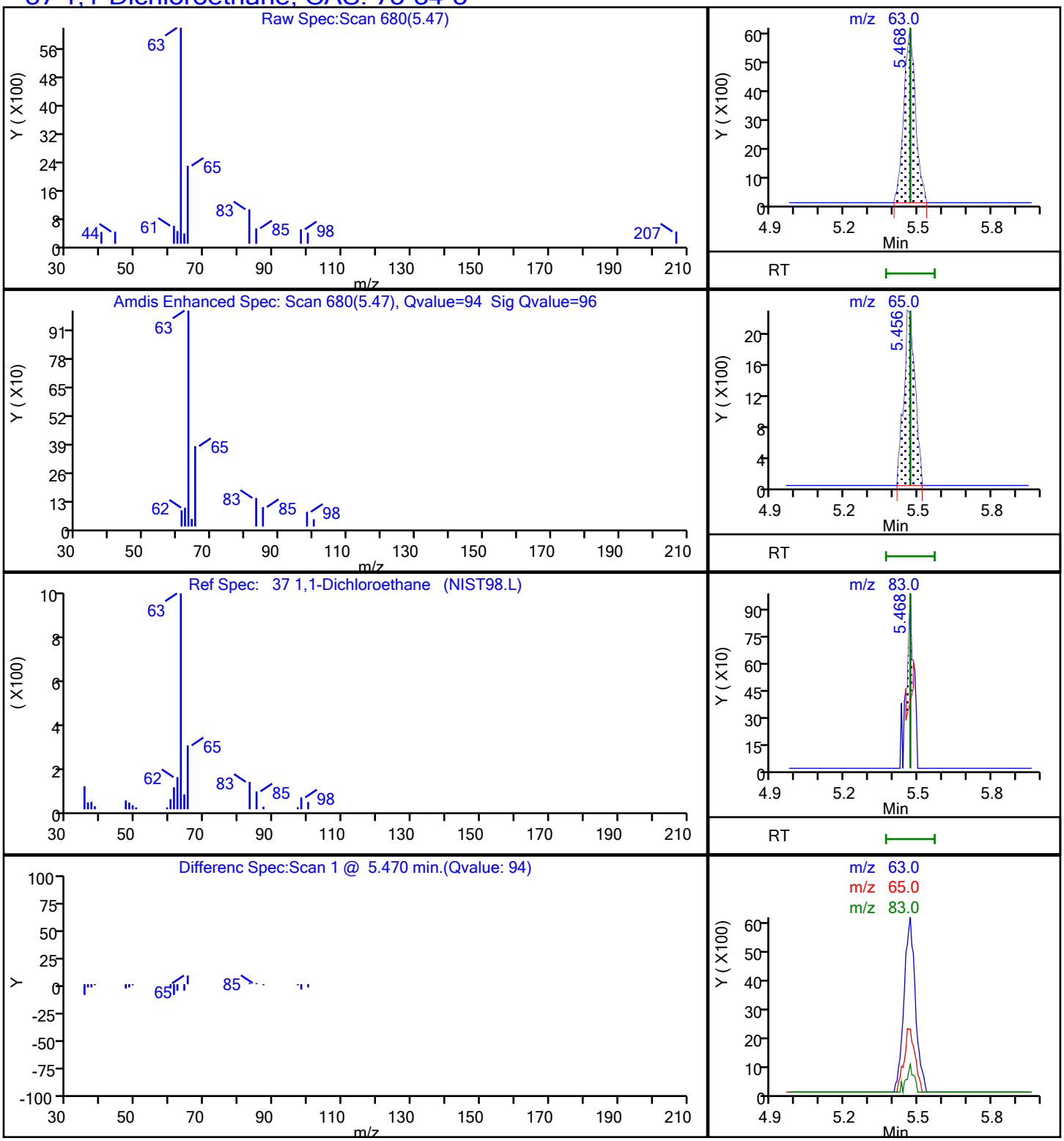
52 1,1,1-Trichloroethane, CAS: 71-55-6



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D				
Injection Date:	04-Dec-2020 19:19:30	Instrument ID:	7159		
Lims ID:	410-21939-B-6	Lab Sample ID:	410-21939-6		
Client ID:	Diff-02				
Operator ID:	lcp00895	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

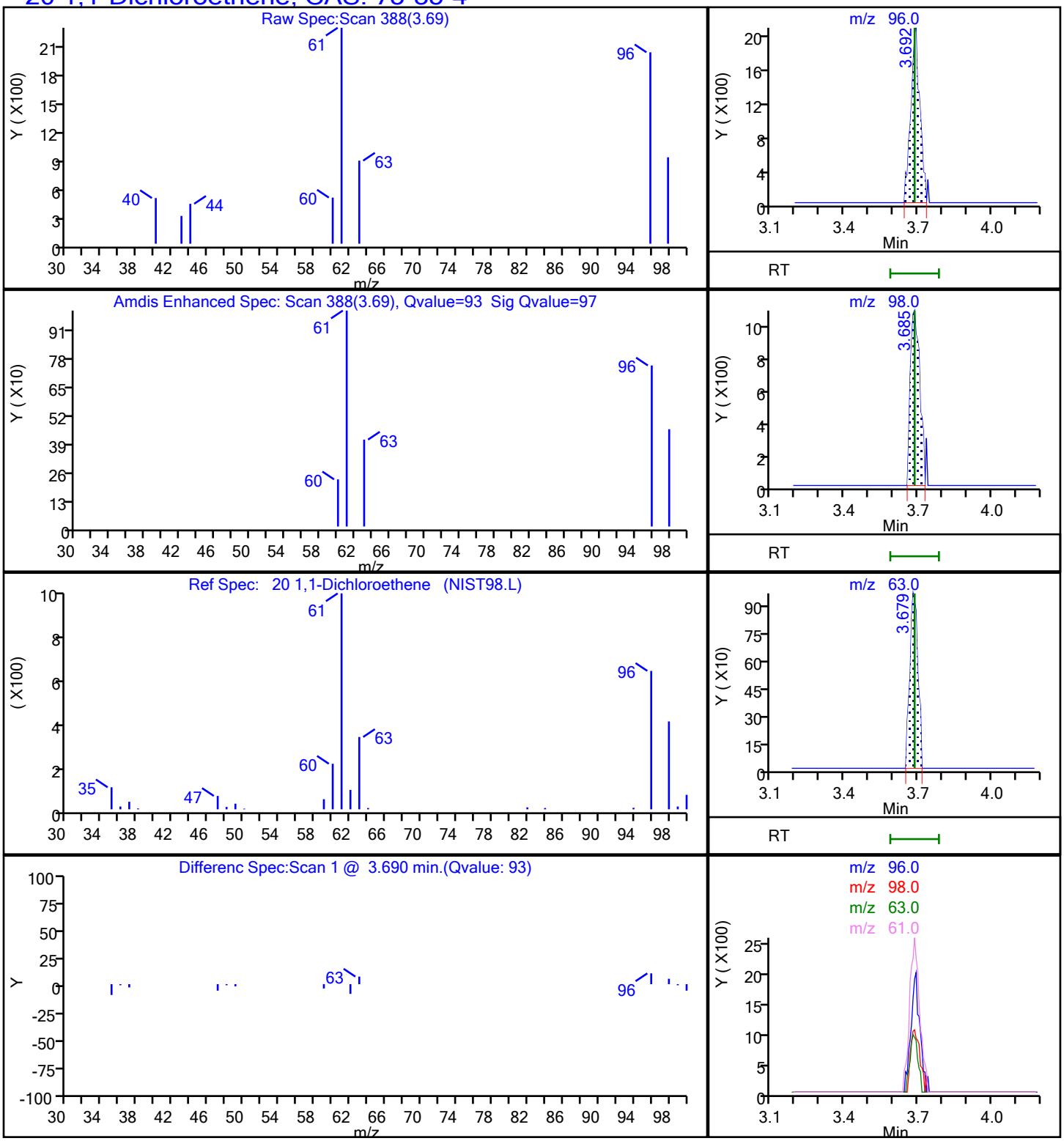
37 1,1-Dichloroethane, CAS: 75-34-3



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D				
Injection Date:	04-Dec-2020 19:19:30	Instrument ID:	7159		
Lims ID:	410-21939-B-6	Lab Sample ID:	410-21939-6		
Client ID:	Diff-02				
Operator ID:	lcp00895	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

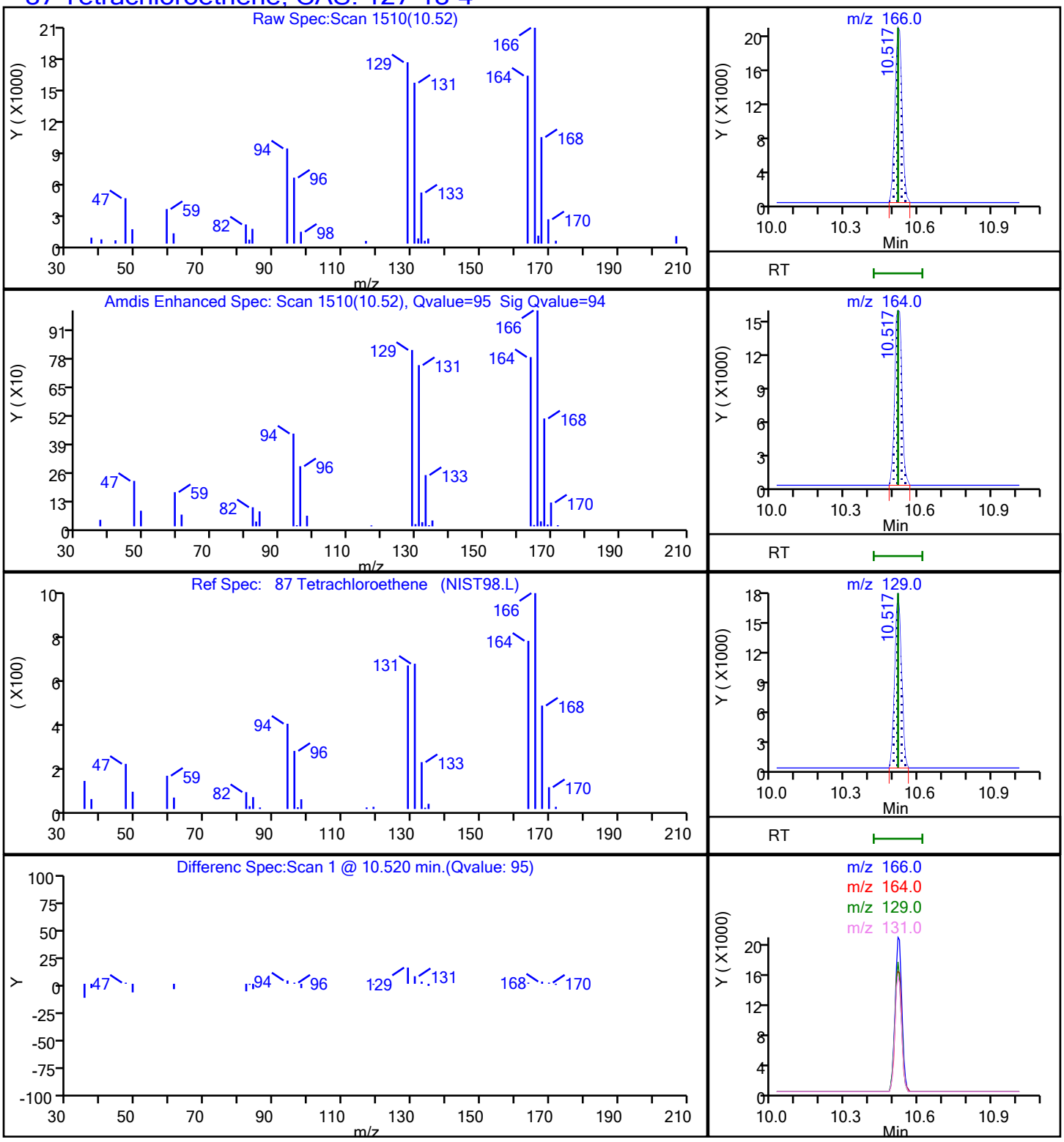
20 1,1-Dichloroethene, CAS: 75-35-4



Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D				
Injection Date:	04-Dec-2020 19:19:30	Instrument ID:	7159		
Lims ID:	410-21939-B-6	Lab Sample ID:	410-21939-6		
Client ID:	Diff-02				
Operator ID:	lcp00895	ALS Bottle#:	27	Worklist Smp#:	28
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25mm)	Detector	MS Quad		

87 Tetrachloroethene, CAS: 127-18-4



Report Date: 04-Dec-2020 23:36:22 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s21.D

Injection Date: 04-Dec-2020 19:19:30 Instrument ID: 7159

Lims ID: 410-21939-B-6 Lab Sample ID: 410-21939-6

Client ID: Diff-02

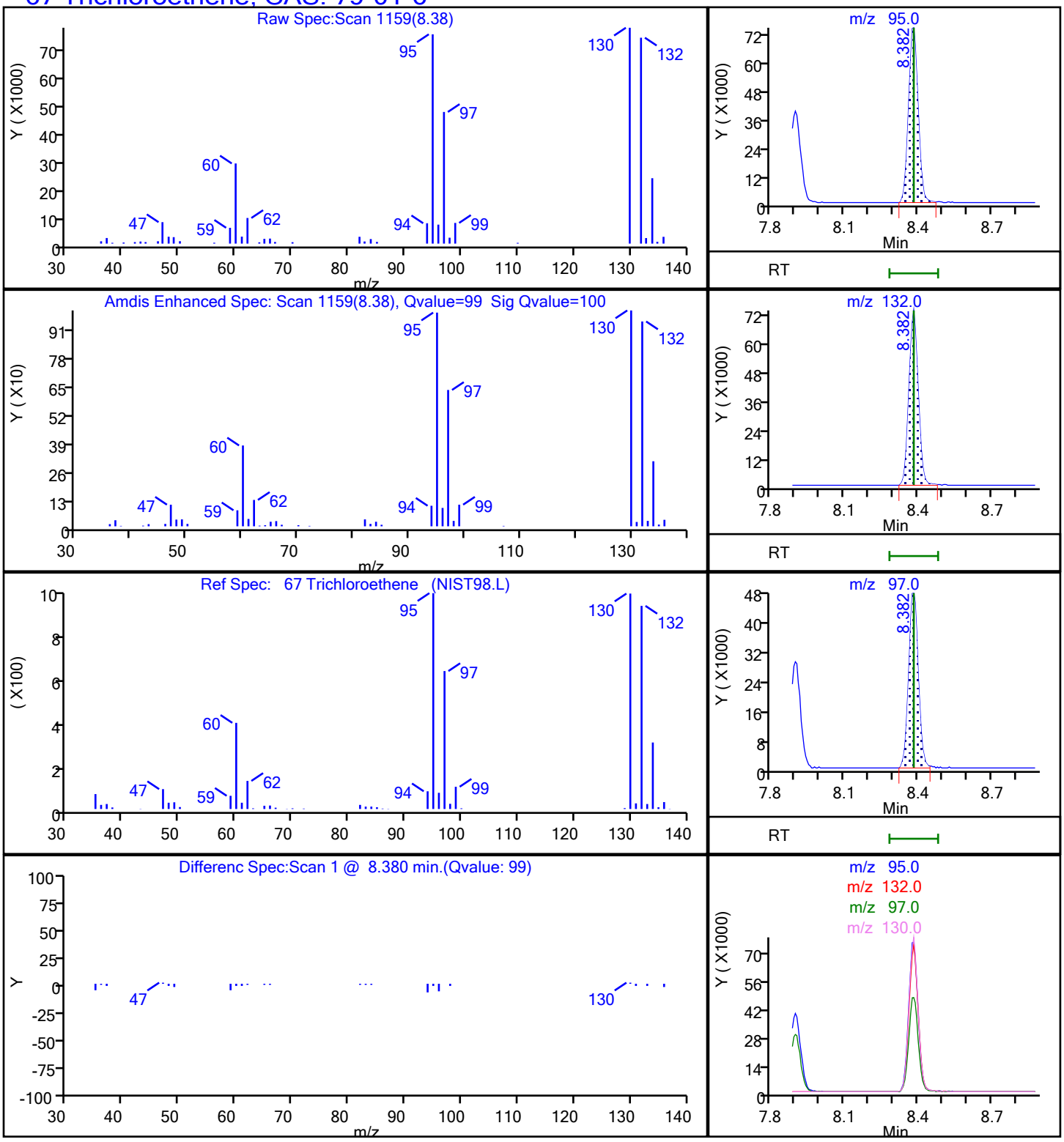
Operator ID: lcp00895 ALS Bottle#: 27 Worklist Smp#: 28

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

67 Trichloroethene, CAS: 79-01-6



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-01 Lab Sample ID: 410-21939-7

Matrix: Water Lab File ID: ND04s22.D

Analysis Method: 8260C Date Collected: 11/23/2020 14:50

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 19:41

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	93		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s22.D
Lims ID: 410-21939-B-7
Client ID: Diff-01
Sample Type: Client
Inject. Date: 04-Dec-2020 19:41:30 ALS Bottle#: 28 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-029
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:35:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96		3.686				ND	
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.367	4.379	-0.012	0	304575	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	
37 1,1-Dichloroethane	63		5.468				ND	
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	272432	46.7	
52 1,1,1-Trichloroethane	97		7.013				ND	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	97	76937	48.9	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1256307	50.0	
67 Trichloroethene	95		8.382				ND	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1207391	49.7	
82 Toluene	92		9.976				ND	7
87 Tetrachloroethene	166		10.517				ND	
S 92 Xylenes, Total	106				0		0.4808	
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	906208	50.0	
97 Ethylbenzene	91		11.454				ND	7
98 m-Xylene & p-Xylene	106		11.564				ND	7
99 o-Xylene	106	11.898	11.892	0.006	94	6689	0.4808	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	87	461635	48.7	
* 119 1,4-Dichlorobenzene-d4	152	13.224	13.225	-0.001	96	453276	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

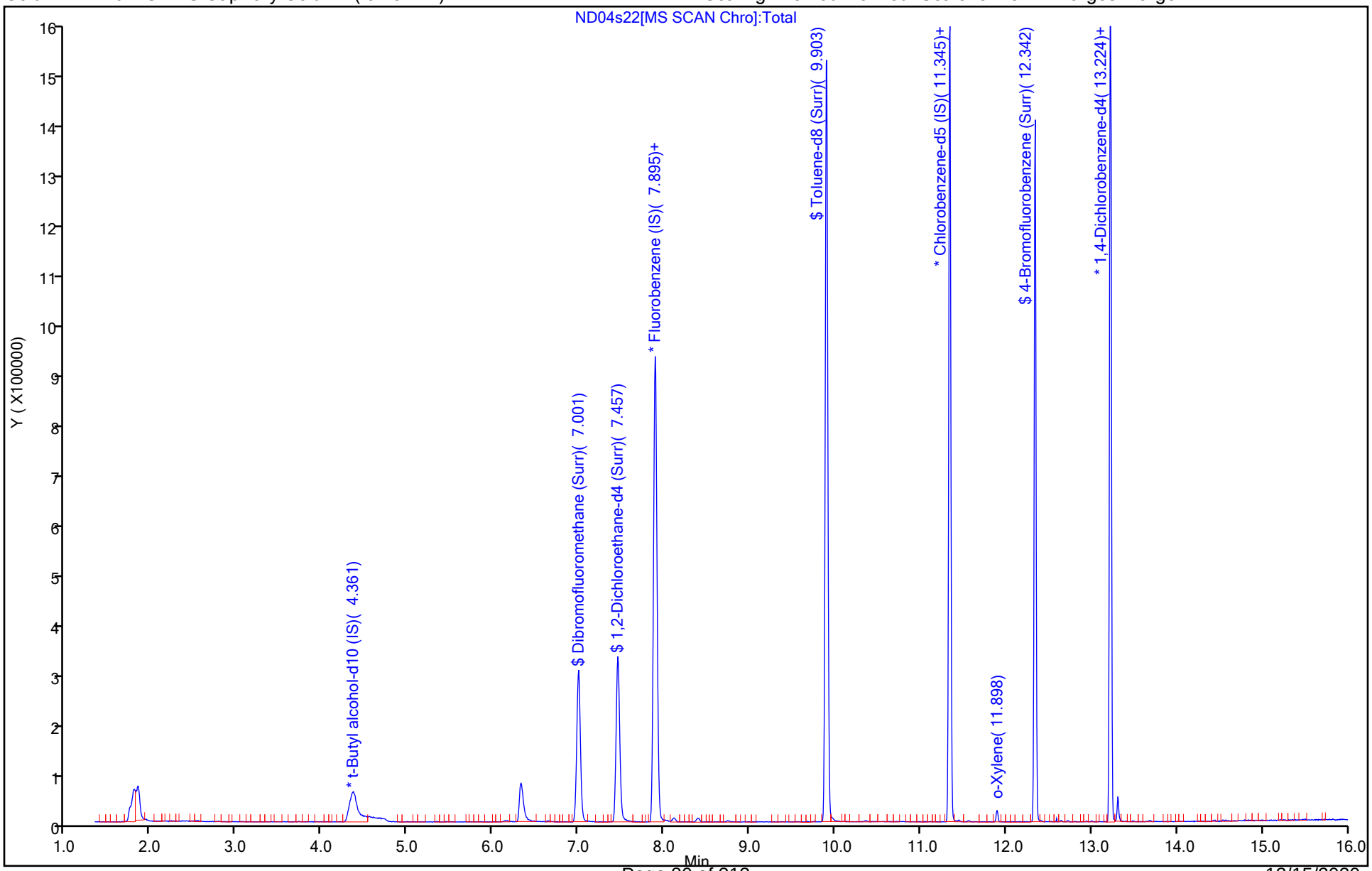
MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 04-Dec-2020 23:36:23 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s22.D				
Injection Date:	04-Dec-2020 19:41:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-7	Lab Sample ID:	410-21939-7	Worklist Smp#:	29
Client ID:	Diff-01				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	28
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Diff-Dup Lab Sample ID: 410-21939-8

Matrix: Water Lab File ID: ND04s23.D

Analysis Method: 8260C Date Collected: 11/23/2020 15:00

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 20:03

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s23.D
Lims ID: 410-21939-B-8
Client ID: Diff-Dup
Sample Type: Client
Inject. Date: 04-Dec-2020 20:03:30 ALS Bottle#: 29 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-030
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:35:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
8 Vinyl chloride	62		2.347				ND	
20 1,1-Dichloroethene	96		3.686				ND	
21 Acetone	58		3.716				ND	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
25 Carbon disulfide	76		4.008				ND	
28 Methylene Chloride	84		4.379				ND	
* 29 t-Butyl alcohol-d10 (IS)	65	4.379	4.379	0.000	0	301469	250.0	
34 trans-1,2-Dichloroethene	96		4.811				ND	
37 1,1-Dichloroethane	63		5.468				ND	
43 2-Butanone (MEK)	43		6.259				ND	
44 cis-1,2-Dichloroethene	96		6.302				ND	
50 Chloroform	83		6.782				ND	
$ 51 Dibromofluoromethane (Surr)	113	7.007	7.001	0.006	94	272380	47.3	
52 1,1,1-Trichloroethane	97		7.013				ND	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	75437	48.5	
60 Benzene	78		7.494				ND	
61 1,2-Dichloroethane	62		7.567				ND	7
* 64 Fluorobenzene (IS)	96	7.901	7.895	0.006	99	1241987	50.0	
67 Trichloroethene	95		8.382				ND	
72 1,4-Dioxane	88		8.796				ND	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1194513	49.5	
82 Toluene	92		9.976				ND	7
87 Tetrachloroethene	166		10.517				ND	
S 92 Xylenes, Total	106				0		0.4464	
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	898724	50.0	
97 Ethylbenzene	91	11.454	11.454	0.000	93	3693	0.1021	
98 m-Xylene & p-Xylene	106		11.564				ND	7
99 o-Xylene	106	11.898	11.892	0.006	96	6159	0.4464	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	87	451904	48.1	
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	-0.001	96	456164	50.0	
126 1,2-Dichlorobenzene	146		13.498				ND	
133 Naphthalene	128		14.782				ND	7

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

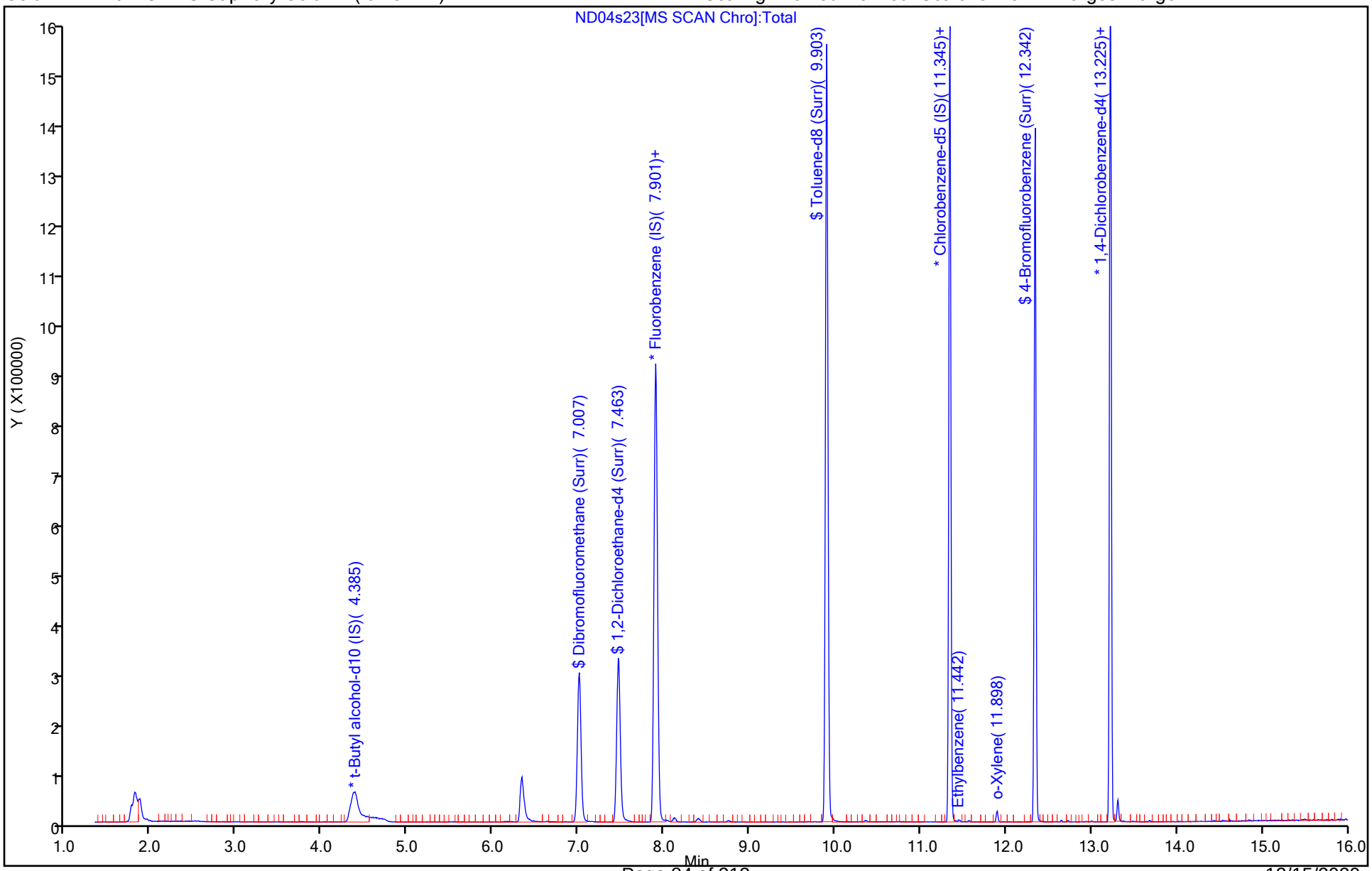
Report Date: 04-Dec-2020 23:36:24 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s23.D

Injection Date:	04-Dec-2020 20:03:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-8	Lab Sample ID:	410-21939-8	Worklist Smp#:	30
Client ID:	Diff-Dup				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	29
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: TB112320 Lab Sample ID: 410-21939-9

Matrix: Water Lab File ID: ND04s24.D

Analysis Method: 8260C Date Collected: 11/23/2020 00:00

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 20:25

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	98		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	94		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s24.D
Lims ID: 410-21939-B-9
Client ID: TB112320
Sample Type: Client
Inject. Date: 04-Dec-2020 20:25:30 ALS Bottle#: 30 Worklist Smp#: 31
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-031
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 23:34:52 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1659

First Level Reviewer: greenl Date: 04-Dec-2020 23:36:04

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	OnCol Amt ug/l	Flags
	8 Vinyl chloride	62		2.347				ND	
	20 1,1-Dichloroethene	96		3.686				ND	
	21 Acetone	58		3.716				ND	
	22 1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716				ND	
	25 Carbon disulfide	76		4.008				ND	
	28 Methylene Chloride	84		4.379				ND	
*	29 t-Butyl alcohol-d10 (IS)	65	4.373	4.379	-0.006	0	307868	250.0	
	34 trans-1,2-Dichloroethene	96		4.811				ND	
	37 1,1-Dichloroethane	63		5.468				ND	
	43 2-Butanone (MEK)	43		6.259				ND	
	44 cis-1,2-Dichloroethene	96		6.302				ND	
	50 Chloroform	83		6.782				ND	
$	51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	269413	47.2	
	52 1,1,1-Trichloroethane	97		7.013				ND	
$	59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	75667	49.1	
	60 Benzene	78		7.494				ND	
	61 1,2-Dichloroethane	62		7.567				ND	7
*	64 Fluorobenzene (IS)	96	7.901	7.895	0.006	99	1231351	50.0	
	67 Trichloroethene	95		8.382				ND	
	72 1,4-Dioxane	88		8.796				ND	
$	81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1192489	49.7	
	82 Toluene	92		9.976				ND	
	87 Tetrachloroethene	166		10.517				ND	
S	92 Xylenes, Total	106		11.245				ND	7
*	93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	894548	50.0	
	97 Ethylbenzene	91		11.454				ND	
	98 m-Xylene & p-Xylene	106		11.564				ND	
	99 o-Xylene	106		11.892				ND	
$	104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	88	449517	48.0	
*	119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	453821	50.0	
	126 1,2-Dichlorobenzene	146		13.498				ND	
	133 Naphthalene	128		14.782				ND	

QC Flag Legend

Processing Flags

7 - Failed Limit of Detection

Reagents:

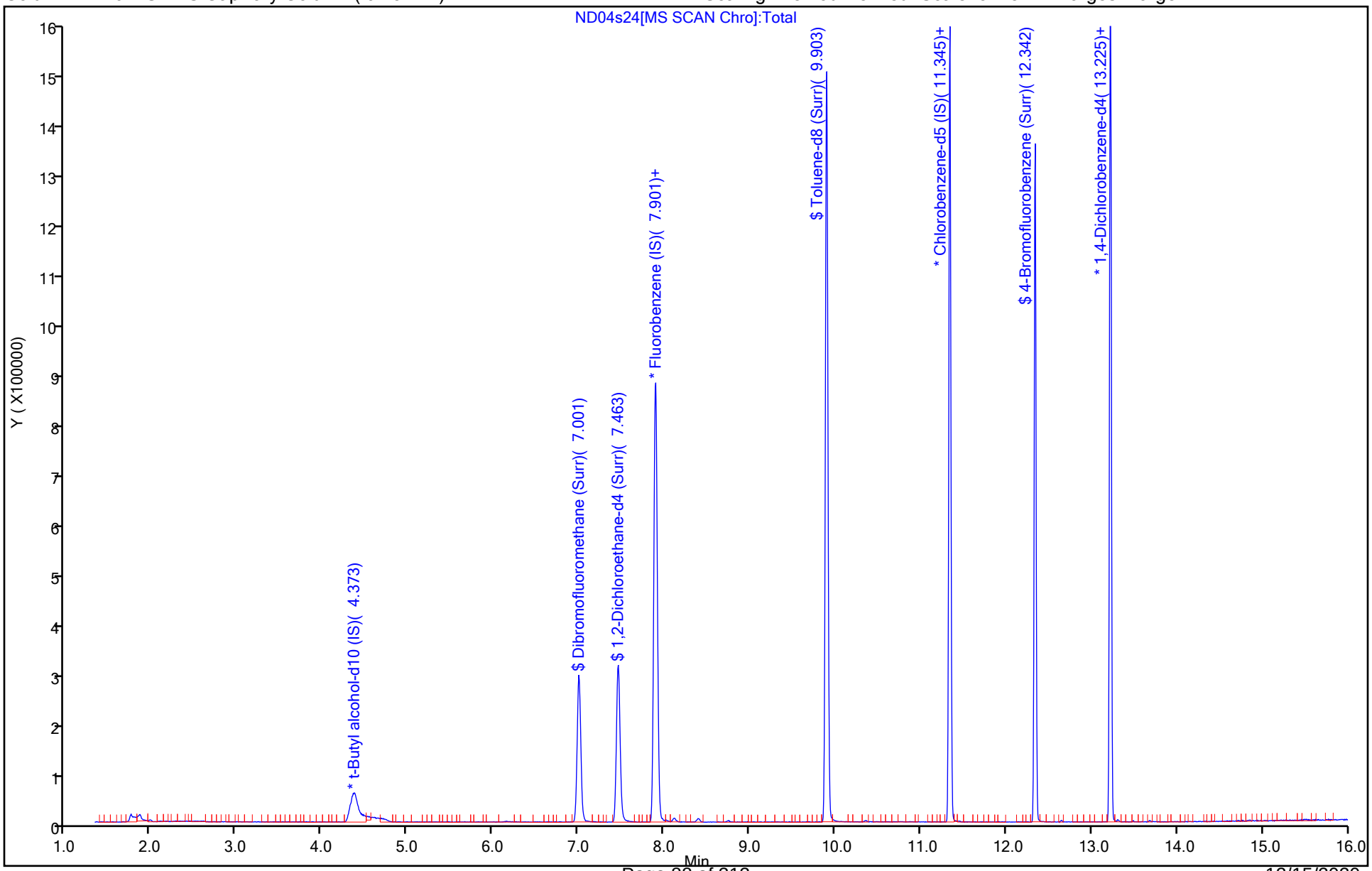
MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

Report Date: 04-Dec-2020 23:36:26 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04s24.D				
Injection Date:	04-Dec-2020 20:25:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	410-21939-B-9	Lab Sample ID:	410-21939-9	Worklist Smp#:	31
Client ID:	TB112320				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	30
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-63741/9	NN09I07.D
Level 2	IC 410-63741/8	NN09I06.D
Level 3	IC 410-63741/7	NN09I05.D
Level 4	IC 410-63741/6	NN09I04.D
Level 5	ICIS 410-63741/5	NN09I03.D
Level 6	IC 410-63741/4	NN09I02.D
Level 7	IC 410-63741/3	NN09I01.D

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dichlorodifluoromethane	0.2040 0.2697	0.2957 0.2684	0.2750	0.2779	0.2843	Ave		0.2679			0.1000	11.1		20.0			
Chloromethane	0.3671 0.3403	0.3565 0.3406	0.3456	0.3675	0.3448	Ave		0.3518			0.1000	3.4		20.0			
Vinyl chloride	0.2983 0.3474	0.3547 0.3426	0.3522	0.3522	0.3384	Ave		0.3408			0.1000	5.8		20.0			
1,3-Butadiene	0.4366 0.2990	0.3362 0.2833	0.3070	0.2844	0.2987	Ave		0.3208				16.9		20.0			
Bromomethane	0.2113 0.2365	0.2373 0.2305	0.2448	0.2507	0.2354	Ave		0.2352			0.1000	5.3		20.0			
Chloroethane	0.1956 0.2226	0.2230 0.2157	0.2284	0.2354	0.2186	Ave		0.2199			0.1000	5.7		20.0			
Dichlorofluoromethane	0.5302 0.5084	0.5490 0.4945	0.5307	0.5209	0.4961	Ave		0.5185			0.1000	3.9		20.0			
Trichlorofluoromethane	0.3587 0.4254	0.4321 0.4229	0.4363	0.4374	0.4376	Ave		0.4215			0.1000	6.7		20.0			
n-Pentane	0.3637 0.4716	0.4473 0.4448	0.4731	0.3673	0.4840	Ave		0.4360				11.5		20.0			
Ethanol	0.0792 0.0738	0.0754 0.0709	0.0733	0.0691	0.0693	Ave		0.0730				4.9		20.0			
Freon 123a	0.2956 0.3183	0.3265 0.3115	0.3390	0.3077	0.3176	Ave		0.3166				4.4		20.0			
Acrolein	1.9335 1.9563	1.7943 1.8198	1.8049	1.7426	1.8052	Ave		1.8366				4.3		20.0			
1,1-Dichloroethene	0.2217 0.2556	0.2564 0.2440	0.2663	0.2372	0.2519	Ave		0.2476			0.1000	5.9		20.0			
Acetone	0.6734 0.8074	0.8134 0.7666	0.8064	0.7229	0.7791	Ave		0.7670			0.1000	6.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Freon 113	0.1847 0.2618	0.2546 0.2455	0.2626	0.2180	0.2665	Ave		0.2420			0.1000	12.5		20.0			
2-Propanol	0.4960 0.4563	0.3912 0.4554	0.4869	0.4837	0.4343	Ave		0.4577				8.0		20.0			
Methyl iodide	0.3730 0.4451	0.4274 0.4234	0.4468	0.4229	0.4376	Ave		0.4252				5.9		20.0			
Carbon disulfide	0.7508 0.8618	0.8200 0.8211	0.8751	0.8013	0.8465	Ave		0.8252			0.1000	5.1		20.0			
Methyl acetate	0.3602 0.2590	0.2729 0.2702	0.2468	0.2558	0.2656	Ave		0.2758			0.1000	13.9		20.0			
Allyl chloride	0.3763 0.4284	0.4281 0.4132	0.4133	0.4133	0.4141	Ave		0.4124				4.2		20.0			
Methylene Chloride	0.2658 0.2926	0.2808 0.2783	0.2993	0.2788	0.2813	Ave		0.2824			0.1000	3.8		20.0			
t-Butyl alcohol	0.9896 1.0288	0.8618 1.0026	1.0074	1.0249	1.0076	Ave		0.9890				5.8		20.0			
Acrylonitrile	0.1266 0.1456	0.1418 0.1494	0.1478	0.1467	0.1541	Ave		0.1446				6.1		20.0			
Methyl tertiary butyl ether	0.8820 0.9158	0.8977 0.8737	0.9285	0.8929	0.9108	Ave		0.9002			0.1000	2.2		20.0			
trans-1,2-Dichloroethene	0.2474 0.2947	0.2880 0.2807	0.3001	0.2736	0.2880	Ave		0.2818			0.1000	6.2		20.0			
n-Hexane	0.3489 0.4634	0.4491 0.4383	0.4563	0.3280	0.4711	Ave		0.4222				13.8		20.0			
1,1-Dichloroethane	0.4517 0.5296	0.5021 0.5045	0.5326	0.5025	0.5220	Ave		0.5064			0.2000	5.4		20.0			
di-Isopropyl ether	0.8687 0.9054	0.8692 0.8560	0.9167	0.8650	0.8875	Ave		0.8812				2.6		20.0			
2-Chloro-1,3-butadiene	0.4067 0.4919	0.4737 0.4693	0.4886	0.4557	0.4818	Ave		0.4668				6.3		20.0			
Ethyl t-butyl ether	0.9096 0.9168	0.9018 0.8659	0.9253	0.8942	0.9187	Ave		0.9046				2.2		20.0			
2-Butanone	0.2744 0.1883	0.1994 0.1879	0.1865	0.1850	0.1968	Ave		0.2026			0.1000	15.9		20.0			
cis-1,2-Dichloroethene	0.3185 0.3344	0.3200 0.3177	0.3473	0.3160	0.3249	Ave		0.3256			0.1000	3.5		20.0			
2,2-Dichloropropane	0.4221 0.4864	0.4723 0.4612	0.4876	0.4444	0.4776	Ave		0.4645				5.2		20.0			
Propionitrile	1.1522 1.2730	1.2003 1.2102	1.1415	1.1889	1.2228	Ave		1.1984				3.7		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Methacrylonitrile	0.1611 0.1698	0.1610 0.1633	0.1632	0.1638	0.1694	Ave		0.1645				2.2		20.0			
Bromochloromethane	0.1436 0.1556	0.1505 0.1489	0.1534	0.1492	0.1534	Ave		0.1506				2.6		20.0			
Tetrahydrofuran	1.7458 1.2791	1.2850 1.1914	1.1850	1.2151	1.2043	Ave		1.3008				15.4		20.0			
Chloroform	0.4862 0.5147	0.5083 0.4882	0.5168	0.4875	0.5040	Ave		0.5008			0.2000	2.7		20.0			
1,1,1-Trichloroethane	0.4286 0.4678	0.4489 0.4474	0.4772	0.4332	0.4629	Ave		0.4523			0.1000	4.0		20.0			
Cyclohexane	0.4445 0.5380	0.5340 0.5091	0.5377	0.4355	0.5512	Ave		0.5072			0.1000	9.4		20.0			
1,1-Dichloropropene	0.3604 0.4346	0.4079 0.4225	0.4343	0.4012	0.4264	Ave		0.4125				6.3		20.0			
Carbon tetrachloride	0.3220 0.3946	0.3675 0.3770	0.3912	0.3566	0.3894	Ave		0.3712			0.1000	6.9		20.0			
Isobutyl alcohol	0.3158 0.3418	0.3263 0.3287	0.3337	0.3134	0.3258	Ave		0.3265				3.0		20.0			
Benzene	1.1032 1.2563	1.2012 1.1915	1.2571	1.1847	1.2301	Ave		1.2034			0.5000	4.4		20.0			
1,2-Dichloroethane	0.4330 0.4120	0.4163 0.3993	0.4063	0.3754	0.4018	Ave		0.4063			0.1000	4.3		20.0			
t-Amyl methyl ether	0.8737 0.9129	0.9044 0.8546	0.9257	0.8924	0.9151	Ave		0.8970				2.8		20.0			
n-Heptane	0.4342 0.4604	0.4171 0.4403	0.4049	0.3057	0.4638	Ave		0.4180				12.9		20.0			
n-Butanol	0.3001 0.3163	0.2818 0.2973	0.3066	0.3051	0.3025	Ave		0.3014				3.5		20.0			
Trichloroethene	0.2762 0.3188	0.3053 0.3090	0.3205	0.2950	0.3122	Ave		0.3053			0.2000	5.1		20.0			
Methylcyclohexane	0.4873 0.5696	0.5950 0.5604	0.5544	0.5324	0.5860	Ave		0.5550			0.1000	6.5		20.0			
t-Amyl ethyl ether	0.4394 0.5032	0.4754 0.4841	0.4933	0.4710	0.4956	Ave		0.4803				4.4		20.0			
1,2-Dichloropropane	0.2706 0.3179	0.2998 0.3083	0.3107	0.2961	0.3107	Ave		0.3020			0.1000	5.2		20.0			
Methyl methacrylate	0.3273 0.2912	0.2955 0.2805	0.2916	0.2805	0.2855	Ave		0.2932				5.5		20.0			
1,4-Dioxane	0.0637 0.0717	0.0614 0.0664	0.0679	0.0634	0.0663	Ave		0.0658			0.0050	5.2		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
Dibromomethane	0.1701 0.1871	0.1785 0.1794	0.1878	0.1784	0.1808	Ave		0.1803				3.3		20.0			
Bromodichloromethane	0.3716 0.3993	0.3758 0.3887	0.3861	0.3734	0.3915	Ave		0.3838			0.2000	2.7		20.0			
2-Nitropropane	2.4870 2.6036	2.2690 2.5408	2.6387	2.3874	2.3881	Ave		2.4735				5.4		20.0			
2-Chloroethyl vinyl ether	0.2174 0.2372	0.2338 0.2301	0.2271	0.2272	0.2311	Ave		0.2291				2.7		20.0			
cis-1,3-Dichloropropene	0.4726 0.5304	0.4864 0.5098	0.5299	0.4965	0.5138	Ave		0.5056			0.2000	4.3		20.0			
4-Methyl-2-pentanone	0.4114 0.4000	0.4244 0.3884	0.4184	0.3995	0.4208	Ave		0.4090			0.1000	3.3		20.0			
Toluene	0.9709 1.0801	1.0573 1.0156	1.0874	1.0125	1.0539	Ave		1.0397			0.4000	4.0		20.0			
trans-1,3-Dichloropropene	0.5964 0.6392	0.6013 0.6097	0.6289	0.5974	0.6216	Ave		0.6135			0.1000	2.7		20.0			
Ethyl methacrylate	0.6240 0.6503	0.6599 0.6180	0.6408	0.6269	0.6355	Ave		0.6365				2.4		20.0			
1,1,2-Trichloroethane	0.3794 0.3652	0.3598 0.3474	0.3678	0.3545	0.3570	Ave		0.3616			0.1000	2.9		20.0			
Tetrachloroethene	0.4086 0.4626	0.4728 0.4470	0.5007	0.4693	0.4774	Ave		0.4626			0.2000	6.2		20.0			
1,3-Dichloropropane	0.6277 0.6431	0.6274 0.6145	0.6389	0.6209	0.6386	Ave		0.6301				1.7		20.0			
2-Hexanone	0.4490 0.4121	0.4323 0.3928	0.4313	0.4083	0.4279	Ave		0.4220			0.1000	4.4		20.0			
Dibromochloromethane	0.3400 0.4024	0.3679 0.3879	0.3933	0.3732	0.3911	Ave		0.3794				5.5		20.0			
1,2-Dibromoethane	0.3498 0.3880	0.3737 0.3715	0.3849	0.3699	0.3819	Ave		0.3743			0.1000	3.4		20.0			
1-Chlorohexane	0.5984 0.6370	0.6311 0.6037	0.6466	0.5622	0.6322	Ave		0.6159				4.8		20.0			
Chlorobenzene	1.0505 1.1729	1.1270 1.0933	1.1797	1.1034	1.1455	Ave		1.1246			0.5000	4.1		20.0			
1,1,1,2-Tetrachloroethane	0.3456 0.4053	0.3738 0.3872	0.3908	0.3737	0.3920	Ave		0.3812				5.0		20.0			
Ethylbenzene	1.8525 2.1053	2.0543 1.8911	2.1517	1.9623	2.0683	Ave		2.0122			0.1000	5.6		20.0			
m&p-Xylene	0.7315 0.8268	0.7907 0.7612	0.8336	0.7671	0.8106	Ave		0.7888			0.1000	4.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
o-Xylene	0.6962 0.8116	0.7501 0.7556	0.8141	0.7535	0.7920	Ave		0.7676			0.3000	5.4		20.0			
Styrene	1.1918 1.3680	1.2766 1.2614	1.3660	1.2825	1.3419	Ave		1.2983			0.3000	4.9		20.0			
Bromoform	0.2376 0.2846	0.2543 0.2766	0.2672	0.2567	0.2774	Ave		0.2649			0.1000	6.2		20.0			
Isopropylbenzene	1.9142 2.1446	2.0981 1.8962	2.2071	1.9908	2.1242	Ave		2.0536			0.1000	5.9		20.0			
Cyclohexanone	0.2890 0.2769	0.2566 0.2805	0.2607	0.2619	0.2581	Ave		0.2691				4.8		20.0			
1,1,2,2-Tetrachloroethane	1.0448 1.0795	1.1258 1.0305	1.0956	1.0706	1.0822	Ave		1.0756			0.3000	2.9		20.0			
Bromobenzene	0.8458 0.8976	0.8690 0.8546	0.8882	0.8362	0.8928	Ave		0.8692				2.8		20.0			
trans-1,4-Dichloro-2-butene	0.3761 0.3896	0.3797 0.3733	0.3752	0.3730	0.3889	Ave		0.3794				1.9		20.0			
1,2,3-Trichloropropane	0.3446 0.3403	0.3415 0.3288	0.3504	0.3273	0.3417	Ave		0.3392				2.5		20.0			
N-Propylbenzene	4.2784 4.7931	4.6781 4.0761	4.8894	4.4335	4.7707	Ave		4.5599				6.6		20.0			
2-Chlorotoluene	0.7272 0.9490	0.8933 0.8946	0.9602	0.8698	0.9347	Ave		0.8898				8.9		20.0			
1,3,5-Trimethylbenzene	3.0798 3.5026	3.3485 3.1333	3.5690	3.2437	3.4614	Ave		3.3340				5.7		20.0			
4-Chlorotoluene	0.8688 0.9689	0.8812 0.9206	0.9610	0.9031	0.9467	Ave		0.9215				4.2		20.0			
tert-Butylbenzene	0.6418 0.7598	0.7126 0.7365	0.7366	0.6733	0.7452	Ave		0.7151				6.0		20.0			
Pentachloroethane	0.4486 0.5156	0.4301 0.4989	0.4265	0.4206	0.4843	Ave		0.4607				8.4		20.0			
1,2,4-Trimethylbenzene	3.1421 3.5737	3.4230 3.1971	3.6534	3.2778	3.5319	Ave		3.3999				5.8		20.0			
sec-Butylbenzene	3.7993 4.4787	4.2911 3.8599	4.5225	3.9874	4.4675	Ave		4.2009				7.4		20.0			
1,3-Dichlorobenzene	1.5780 1.7719	1.6983 1.6574	1.7754	1.6467	1.7486	Ave		1.6966			0.6000	4.4		20.0			
p-Isopropyltoluene	3.1827 3.8467	3.6401 3.3685	3.8391	3.4478	3.8117	Ave		3.5909				7.3		20.0			
1,4-Dichlorobenzene	1.5998 1.7738	1.7159 1.6675	1.8068	1.6619	1.7582	Ave		1.7120			0.5000	4.3		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
CURVE EVALUATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	RRF					CURVE TYPE	COEFFICIENT			#	MIN RRF	%RSD	#	MAX %RSD	R^2 OR COD	#	MIN R^2 OR COD
	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5		B	M1	M2								
1,2,3-Trimethylbenzene	3.2194 3.4779	3.5537 3.1675	3.4242	3.4037	3.4843	Ave		3.3901				4.2		20.0			
Benzyl chloride	2.3136 2.5545	2.4174 2.3658	2.4963	2.4146	2.5125	Ave		2.4393				3.5		20.0			
1,3-Diethylbenzene	2.0841 2.2752	2.2357 2.1351	2.2378	2.2169	2.2762	Ave		2.2087				3.3		20.0			
1,4-Diethylbenzene	2.1939 2.3753	2.3467 2.2203	2.3310	2.3135	2.3673	Ave		2.3069				3.1		20.0			
n-Butylbenzene	1.5837 1.9609	1.7902 1.8161	1.8823	1.7125	1.9286	Ave		1.8106				7.2		20.0			
1,2-Dichlorobenzene	1.5588 1.6526	1.6102 1.5489	1.6742	1.5547	1.6447	Ave		1.6063			0.4000	3.3		20.0			
1,2-Diethylbenzene	1.7295 1.8653	1.8451 1.7816	1.8356	1.8359	1.8688	Ave		1.8231				2.8		20.0			
1,2-Dibromo-3-Chloropropane	0.2871 0.2842	0.2654 0.2813	0.2846	0.2674	0.2873	Ave		0.2796			0.0500	3.3		20.0			
1,3,5-Trichlorobenzene	1.0535 1.2098	1.1037 1.1378	1.1731	1.0749	1.1721	Ave		1.1321				5.0		20.0			
1,2,4-Trichlorobenzene	0.9397 1.0633	0.9989 0.9957	1.0382	0.9623	1.0310	Ave		1.0041			0.2000	4.3		20.0			
Hexachlorobutadiene	0.3797 0.4544	0.3924 0.4197	0.4222	0.3660	0.4334	Ave		0.4097				7.7		20.0			
Naphthalene	3.7671 3.7629	3.7108 3.3511	3.8034	3.6547	3.8051	Ave		3.6936				4.3		20.0			
1,2,3-Trichlorobenzene	0.9046 0.9852	0.9262 0.9264	0.9845	0.9142	0.9647	Ave		0.9437				3.6		20.0			
2-Methylnaphthalene	2.1377 2.1445	2.0038 1.9615	2.0432	2.1000	2.1373	Ave		2.0754				3.5		20.0			
Dibromofluoromethane (Surr)	0.2286 0.2330	0.2329 0.2326	0.2322	0.2320	0.2326	Ave		0.2320				0.7		20.0			
1,2-Dichloroethane-d4 (Surr)	0.0624 0.0630	0.0636 0.0626	0.0623	0.0622	0.0619	Ave		0.0626				0.9		20.0			
Toluene-d8 (Surr)	1.3427 1.3368	1.3472 1.3231	1.3513	1.3459	1.3419	Ave		1.3412				0.7		20.0			
4-Bromofluorobenzene (Surr)	0.5223 0.5218	0.5274 0.5205	0.5284	0.5170	0.5230	Ave		0.5229				0.8		20.0			

Note: The M1 coefficient is the same as Ave RRF for an Ave curve type.

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

Calibration Files:

LEVEL:	LAB SAMPLE ID:	LAB FILE ID:
Level 1	IC 410-63741/9	NN09I07.D
Level 2	IC 410-63741/8	NN09I06.D
Level 3	IC 410-63741/7	NN09I05.D
Level 4	IC 410-63741/6	NN09I04.D
Level 5	ICIS 410-63741/5	NN09I03.D
Level 6	IC 410-63741/4	NN09I02.D
Level 7	IC 410-63741/3	NN09I01.D

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Dichlorodifluoromethane	FB	Ave	5345 697327	30532 2118757	70603	142822	370969	1.00 100	4.00 300	10.0	20.0	50.0
Chloromethane	FB	Ave	9619 879676	36811 2688281	88715	188883	449901	1.00 100	4.00 300	10.0	20.0	50.0
Vinyl chloride	FB	Ave	7818 898067	36628 2703716	90401	181010	441487	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Butadiene	FB	Ave	11442 772937	34718 2235905	78815	146193	389719	1.00 100	4.00 300	10.0	20.0	50.0
Bromomethane	FB	Ave	5538 611504	24505 1819257	62828	128825	307108	1.00 100	4.00 300	10.0	20.0	50.0
Chloroethane	FB	Ave	5127 575604	23027 1702500	58625	120987	285270	1.00 100	4.00 300	10.0	20.0	50.0
Dichlorofluoromethane	FB	Ave	13893 1314354	56689 3902827	136218	267693	647209	1.00 100	4.00 300	10.0	20.0	50.0
Trichlorofluoromethane	FB	Ave	9399 1099707	44616 3337618	111991	224822	570986	1.00 100	4.00 300	10.0	20.0	50.0
n-Pentane	FB	Ave	9530 1219338	46192 3510432	121435	188751	631521	1.00 100	4.00 300	10.0	20.0	50.0
Ethanol	TBAd10	Ave	6061 212584	24017 641127	44245	84508	112702	62.5 2500	250 7499	500	1000	1250
Freon 123a	FB	Ave	7746 822858	33710 2458650	87023	158136	414427	1.00 100	4.00 300	10.0	20.0	50.0
Acrolein	TBAd10	Ave	23674 2252789	91493 6578692	217866	426469	1174075	10.0 1000	40.0 3000	100	200	500
1,1-Dichloroethene	FB	Ave	5811 660767	26471 1925987	68367	121909	328595	1.00 100	4.00 300	10.0	20.0	50.0
Acetone	TBAd10	Ave	1649 185943	8295 554236	19468	35382	101338	2.00 200	8.00 600	20.0	40.0	100

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
Freon 113	FB	Ave	4841 676930	26286 1937778	67418	112033	347729	1.00 100	4.00 300	10.0	20.0	50.0
2-Propanol	TBAd10	Ave	12145 262725	39897 823174	58778	118371	141227	20.0 500	80.0 1500	100	200	250
Methyl iodide	FB	Ave	9774 1150642	44133 3341996	114696	217357	570965	1.00 100	4.00 300	10.0	20.0	50.0
Carbon disulfide	FB	Ave	19675 2228076	84671 6481074	224636	411807	1104380	1.00 100	4.00 300	10.0	20.0	50.0
Methyl acetate	FB	Ave	9438 669473	28174 2132256	63354	131479	346506	1.00 100	4.00 300	10.0	20.0	50.0
Allyl chloride	FB	Ave	9860 1107543	44203 3260963	106087	212399	540299	1.00 100	4.00 300	10.0	20.0	50.0
Methylene Chloride	FB	Ave	6966 756463	28994 2196436	76828	143280	367014	1.00 100	4.00 300	10.0	20.0	50.0
t-Butyl alcohol	TBAd10	Ave	24233 592326	87879 1812268	121600	250833	327666	20.0 500	80.0 1500	100	200	250
Acrylonitrile	FB	Ave	3317 376332	14642 1178954	37948	75405	201007	1.00 100	4.00 300	10.0	20.0	50.0
Methyl tertiary butyl ether	FB	Ave	23112 2367607	92694 6895839	238337	458899	1188377	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,2-Dichloroethene	FB	Ave	6482 761827	29738 2215555	77021	140602	375805	1.00 100	4.00 300	10.0	20.0	50.0
n-Hexane	FB	Ave	9143 1197920	46378 3459424	117134	168573	614602	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloroethane	FB	Ave	11836 1369083	51850 3981715	136722	258269	681118	1.00 100	4.00 300	10.0	20.0	50.0
di-Isopropyl ether	FB	Ave	22765 2340781	89747 6756121	235311	444548	1157993	1.00 100	4.00 300	10.0	20.0	50.0
2-Chloro-1,3-butadiene	FB	Ave	10659 1271693	48917 3704165	125421	234188	628631	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl t-butyl ether	FB	Ave	23836 2370205	93115 6834745	237512	459587	1198624	1.00 100	4.00 300	10.0	20.0	50.0
2-Butanone	FB	Ave	14382 973600	41184 2965569	95759	190140	513552	2.00 200	8.00 600	20.0	40.0	100
cis-1,2-Dichloroethene	FB	Ave	8347 864593	33045 2507497	89157	162390	423931	1.00 100	4.00 300	10.0	20.0	50.0
2,2-Dichloropropane	FB	Ave	11060 1257472	48764 3639766	125172	228392	623114	1.00 100	4.00 300	10.0	20.0	50.0
Propionitrile	TBAd10	Ave	28215	122406	137785	290954	397646	20.0	80.0	100	200	250

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			732944	2187453				500	1500			
Methacrylonitrile	FB	Ave	42205 1097640	166252 3222228	209506	420940	552626	10.0 250	40.0 750	50.0	100	125
Bromochloromethane	FB	Ave	3763 402173	15545 1175373	39365	76657	200165	1.00 100	4.00 300	10.0	20.0	50.0
Tetrahydrofuran	TBAd10	Ave	4275 294585	13104 861343	28608	59477	156649	2.00 200	8.00 600	20.0	40.0	100
Chloroform	FB	Ave	12742 1330790	52482 3853559	132654	250538	657626	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1-Trichloroethane	FB	Ave	11231 1209472	46354 3530871	122493	222651	603928	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexane	FB	Ave	11649 1391028	55144 4017929	138034	223808	719181	1.00 100	4.00 300	10.0	20.0	50.0
1,1-Dichloropropene	FB	Ave	9445 1123525	42121 3334794	111484	206219	556263	1.00 100	4.00 300	10.0	20.0	50.0
Carbon tetrachloride	FB	Ave	8439 1020042	37952 2975883	100430	183281	508083	1.00 100	4.00 300	10.0	20.0	50.0
Isobutyl alcohol	TBAd10	Ave	19332 491979	83195 1485119	100713	191720	264829	50.0 1250	200 3750	250	500	625
Benzene	FB	Ave	28911 3247898	124035 9403978	322684	608862	1604912	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloroethane	FB	Ave	11346 1065167	42986 3151206	104288	192920	524256	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl methyl ether	FB	Ave	22896 2360267	93382 6745287	237632	458655	1193969	1.00 100	4.00 300	10.0	20.0	50.0
n-Heptane	FB	Ave	11379 1190197	43065 3475020	103945	157105	605064	1.00 100	4.00 300	10.0	20.0	50.0
n-Butanol	TBAd10	Ave	36747 910535	143674 2686695	185040	373312	491845	100 2500	400 7500	500	1000	1250
Trichloroethene	FB	Ave	7239 824151	31527 2438539	82283	151591	407343	1.00 100	4.00 300	10.0	20.0	50.0
Methylcyclohexane	FB	Ave	12769 1472664	61441 4423086	142308	273619	764575	1.00 100	4.00 300	10.0	20.0	50.0
t-Amyl ethyl ether	FB	Ave	11514 1300994	49089 3820879	126631	242060	646560	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichloropropane	FB	Ave	7091 821902	30960 2433034	79764	152178	405396	1.00 100	4.00 300	10.0	20.0	50.0
Methyl methacrylate	FB	Ave	8577 752777	30511 2214019	74853	144183	372458	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
1,4-Dioxane	TBAd10	Ave	3900 103204	15644 299884	20487	38793	53909	50.0 1250	200 3750	250	500	625
Dibromomethane	FB	Ave	4457 483693	18428 1415965	48213	91691	235953	1.00 100	4.00 300	10.0	20.0	50.0
Bromodichloromethane	FB	Ave	9737 1032219	38804 3068297	99102	191905	510760	1.00 100	4.00 300	10.0	20.0	50.0
2-Nitropropane	TBAd10	Ave	6090 599631	23139 1837011	63702	116854	310637	2.00 200	8.00 600	20.0	40.0	100
2-Chloroethyl vinyl ether	FB	Ave	5698 613273	24139 1816457	58297	116776	301472	1.00 100	4.00 300	10.0	20.0	50.0
cis-1,3-Dichloropropene	FB	Ave	12385 1371225	50222 4024078	136011	255157	670414	1.00 100	4.00 300	10.0	20.0	50.0
4-Methyl-2-pentanone	FB	Ave	21560 2068498	87637 6131218	214787	410599	1098039	2.00 200	8.00 600	20.0	40.0	100
Toluene	CBZd5	Ave	19177 2113790	81346 6145738	208381	392080	1040838	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,3-Dichloropropene	CBZd5	Ave	11779 1251019	46267 3689647	120524	231360	613900	1.00 100	4.00 300	10.0	20.0	50.0
Ethyl methacrylate	CBZd5	Ave	12325 1272677	50771 3740054	122796	242753	627600	1.00 100	4.00 300	10.0	20.0	50.0
1,1,2-Trichloroethane	CBZd5	Ave	7493 714679	27680 2102172	70487	137287	352540	1.00 100	4.00 300	10.0	20.0	50.0
Tetrachloroethene	CBZd5	Ave	8071 905376	36374 2705153	95948	181735	471505	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichloropropane	CBZd5	Ave	12397 1258652	48269 3718674	122447	240427	630681	1.00 100	4.00 300	10.0	20.0	50.0
2-Hexanone	CBZd5	Ave	17738 1612982	66528 4754129	165319	316229	845218	2.00 200	8.00 600	20.0	40.0	100
Dibromochloromethane	CBZd5	Ave	6716 787485	28306 2347562	75363	144508	386213	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromoethane	CBZd5	Ave	6910 759296	28755 2248187	73760	143236	377197	1.00 100	4.00 300	10.0	20.0	50.0
1-Chlorohexane	CBZd5	Ave	11820 1246687	48558 3653586	123920	217694	624354	1.00 100	4.00 300	10.0	20.0	50.0
Chlorobenzene	CBZd5	Ave	20748 2295547	86714 6616088	226075	427289	1131261	1.00 100	4.00 300	10.0	20.0	50.0
1,1,1,2-Tetrachloroethane	CBZd5	Ave	6826 793212	28757 2343339	74894	144701	387165	1.00 100	4.00 300	10.0	20.0	50.0
Ethylbenzene	CBZd5	Ave	36590 4120368	158060 11444102	412354	759905	2042720	1.00 100	4.00 300	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
m&p-Xylene	CBZd5	Ave	28896 3236206	121680 9212200	319514	594080	1601123	2.00 200	8.00 600	20.0	40.0	100
o-Xylene	CBZd5	Ave	13750 1588403	57711 4572699	156007	291808	782175	1.00 100	4.00 300	10.0	20.0	50.0
Styrene	CBZd5	Ave	23540 2677378	98221 7633344	261769	496644	1325305	1.00 100	4.00 300	10.0	20.0	50.0
Bromoform	CBZd5	Ave	4693 556939	19565 1673922	51204	99422	273992	1.00 100	4.00 300	10.0	20.0	50.0
Isopropylbenzene	CBZd5	Ave	37809 4197298	161427 11474637	422971	770944	2097862	1.00 100	4.00 300	10.0	20.0	50.0
Cyclohexanone	TBAd10	Ave	17689 398475	65408 1267570	78673	160197	209815	50.0 1250	200 3750	250	500	625
1,1,2,2-Tetrachloroethane	DCBd4	Ave	10789 1114204	45177 3308245	109727	217850	557406	1.00 100	4.00 300	10.0	20.0	50.0
Bromobenzene	DCBd4	Ave	8734 926477	34870 2743497	88955	170158	459851	1.00 100	4.00 300	10.0	20.0	50.0
trans-1,4-Dichloro-2-butene	DCBd4	Ave	38836 1005374	152352 2996175	187907	379471	500758	10.0 250	40.0 750	50.0	100	125
1,2,3-Trichloropropane	DCBd4	Ave	3558 351198	13703 1055692	35098	66593	175987	1.00 100	4.00 300	10.0	20.0	50.0
N-Propylbenzene	DCBd4	Ave	44179 4947034	187722 13086169	489688	902119	2457313	1.00 100	4.00 300	10.0	20.0	50.0
2-Chlorotoluene	DCBd4	Ave	7509 979466	35846 2872021	96168	176994	481444	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trimethylbenzene	DCBd4	Ave	31803 3615075	134368 10059343	357440	660030	1782902	1.00 100	4.00 300	10.0	20.0	50.0
4-Chlorotoluene	DCBd4	Ave	8971 999988	35360 2955626	96243	183757	487638	1.00 100	4.00 300	10.0	20.0	50.0
tert-Butylbenzene	DCBd4	Ave	6627 784203	28593 2364653	73774	137010	383839	1.00 100	4.00 300	10.0	20.0	50.0
Pentachloroethane	DCBd4	Ave	4632 532168	17259 1601662	42719	85588	249474	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trimethylbenzene	DCBd4	Ave	32446 3688505	137358 10264273	365894	666971	1819209	1.00 100	4.00 300	10.0	20.0	50.0
sec-Butylbenzene	DCBd4	Ave	39232 4622616	172191 12391988	452942	811349	2301121	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Dichlorobenzene	DCBd4	Ave	16295 1828870	68147 5320928	177811	335061	900691	1.00 100	4.00 300	10.0	20.0	50.0
p-Isopropyltoluene	DCBd4	Ave	32865 3970260	146070 10814283	384495	701546	1963364	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Dichlorobenzene	DCBd4	Ave	16520	68854	180960	338163	905641	1.00	4.00	10.0	20.0	50.0

FORM VI
GC/MS VOA BY INTERNAL STANDARD - INITIAL CALIBRATION DATA
RESPONSE AND CONCENTRATION

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1 Analy Batch No.: 63741

SDG No.:

Instrument ID: 7159 GC Column: R-624SilMS ID: 0.25(mm) Heated Purge: (Y/N) N

Calibration Start Date: 11/09/2020 13:40 Calibration End Date: 11/09/2020 15:52 Calibration ID: 15009

ANALYTE	IS REF	CURVE TYPE	RESPONSE					CONCENTRATION (UG/L)				
			LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5	LVL 1 LVL 6	LVL 2 LVL 7	LVL 3	LVL 4	LVL 5
			1830777	5353556				100	300			
1,2,3-Trimethylbenzene	DCBd4	Ave	33244 3589607	142603 10169157	342941	692571	1794693	1.00 100	4.00 300	10.0	20.0	50.0
Benzyl chloride	DCBd4	Ave	23891 2636587	97006 7595321	250009	491316	1294137	1.00 100	4.00 300	10.0	20.0	50.0
1,3-Diethylbenzene	DCBd4	Ave	21521 2348313	89713 6854507	224122	451100	1172429	1.00 100	4.00 300	10.0	20.0	50.0
1,4-Diethylbenzene	DCBd4	Ave	22655 2451599	94166 7128265	233455	470758	1219363	1.00 100	4.00 300	10.0	20.0	50.0
n-Butylbenzene	DCBd4	Ave	16354 2023936	71835 5830500	188517	348463	993393	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dichlorobenzene	DCBd4	Ave	16096 1705638	64614 4972763	167678	316339	847165	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Diethylbenzene	DCBd4	Ave	17859 1925173	74040 5719798	183838	373573	962562	1.00 100	4.00 300	10.0	20.0	50.0
1,2-Dibromo-3-Chloropropane	DCBd4	Ave	2965 293281	10651 902979	28500	54408	147964	1.00 100	4.00 300	10.0	20.0	50.0
1,3,5-Trichlorobenzene	DCBd4	Ave	10879 1248691	44290 3652752	117489	218726	603753	1.00 100	4.00 300	10.0	20.0	50.0
1,2,4-Trichlorobenzene	DCBd4	Ave	9703 1097505	40083 3196552	103974	195798	531034	1.00 100	4.00 300	10.0	20.0	50.0
Hexachlorobutadiene	DCBd4	Ave	3921 468994	15747 1347416	42286	74472	223255	1.00 100	4.00 300	10.0	20.0	50.0
Naphthalene	DCBd4	Ave	38900 3883751	148904 10758411	380921	743654	1959958	1.00 100	4.00 300	10.0	20.0	50.0
1,2,3-Trichlorobenzene	DCBd4	Ave	9341 1016806	37167 2974166	98605	186011	496890	1.00 100	4.00 300	10.0	20.0	50.0
2-Methylnaphthalene	DCBd4	Ave	22074 2213417	80406 6297206	204632	427297	1100888	1.00 100	4.00 300	10.0	20.0	50.0
Dibromofluoromethane (Surr)	FB	Ave	299508 301198	300624 305977	298018	298043	303537	50.0 50.0	50.0 50.0	50.0	50.0	50.0
1,2-Dichloroethane-d4 (Surr)	FB	Ave	81793 81417	82034 82397	80018	79859	80763	50.0 50.0	50.0 50.0	50.0	50.0	50.0
Toluene-d8 (Surr)	CBZd5	Ave	1326021 1308103	1295641 1334413	1294796	1302948	1325225	50.0 50.0	50.0 50.0	50.0	50.0	50.0
4-Bromofluorobenzene (Surr)	CBZd5	Ave	515822 510628	507273 524971	506323	500537	516560	50.0 50.0	50.0 50.0	50.0	50.0	50.0

Curve Type Legend:
Ave = Average ISTD

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I01.D
Lims ID: IC STD300
Client ID:
Sample Type: IC Calib Level: 7
Inject. Date: 09-Nov-2020 13:40:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD300
Misc. Info.: 410-0015005-003
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:27:55 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:38:56

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.020	2.020	0.000	100	2118757	300.0	300.6	
6 Chloromethane	50	2.227	2.232	-0.005	99	2688281	300.0	290.5	
8 Vinyl chloride	62	2.348	2.354	-0.006	98	2703716	300.0	301.5	
9 Butadiene	39	2.354	2.354	0.000	90	2235905	300.0	265.0	
10 Bromomethane	94	2.689	2.695	-0.006	91	1819257	300.0	294.0	
11 Chloroethane	64	2.780	2.786	-0.006	100	1702500	300.0	294.2	
12 Dichlorofluoromethane	67	3.030	3.035	-0.005	98	3902827	300.0	286.1	
13 Trichlorofluoromethane	101	3.103	3.108	-0.005	97	3337618	300.0	301.0	
15 Pentane	43	3.151	3.151	0.000	97	3510432	300.0	306.1	
16 Ethanol	45	3.212	3.224	-0.012	95	641127	7499.5	7287.4	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.449	3.449	0.000	93	2458650	300.0	295.2	
18 Acrolein	56	3.541	3.547	-0.005	99	6578692	3000.1	2972.6	
20 1,1-Dichloroethene	96	3.693	3.693	0.001	98	1925987	300.0	295.7	
21 Acetone	58	3.717	3.723	-0.006	100	554236	600.0	599.7	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.723	3.729	-0.006	95	1937778	300.0	304.4	
23 Isopropyl alcohol	45	3.875	3.845	0.030	99	823174	1500.0	1492.6	
24 Iodomethane	142	3.900	3.899	0.001	98	3341996	300.0	298.8	
25 Carbon disulfide	76	4.015	4.015	0.000	99	6481074	300.0	298.5	
26 Methyl acetate	43	4.155	4.155	0.000	97	2132256	300.0	293.9	
27 3-Chloro-1-propene	41	4.186	4.197	-0.011	91	3260963	300.0	300.6	
* 29 t-Butyl alcohol-d10 (IS)	65	4.386	4.386	0.000	0	301247	250.0	250.0	
28 Methylene Chloride	84	4.386	4.392	-0.006	91	2196436	300.0	295.6	
31 2-Methyl-2-propanol	59	4.508	4.508	0.000	100	1812268	1500.0	1520.8	
32 Acrylonitrile	53	4.721	4.727	-0.006	98	1178954	300.0	310.0	
33 Methyl tert-butyl ether	73	4.794	4.800	-0.006	95	6895839	300.0	291.2	
34 trans-1,2-Dichloroethene	96	4.812	4.818	-0.006	99	2215555	300.0	298.9	
36 Hexane	57	5.238	5.238	0.000	91	3459424	300.0	311.5	
37 1,1-Dichloroethane	63	5.469	5.475	-0.006	96	3981715	300.0	298.8	
39 Isopropyl ether	45	5.524	5.530	-0.006	93	6756121	300.0	291.4	
40 2-Chloro-1,3-butadiene	53	5.585	5.584	0.001	91	3704165	300.0	301.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.065	6.065	0.000	97	6834745	300.0	287.2	
S 42 1,2-Dichloroethene, Total	100				0			591.6	
43 2-Butanone (MEK)	43	6.266	6.260	0.006	99	2965569	600.0	556.3	
44 cis-1,2-Dichloroethene	96	6.309	6.314	-0.005	82	2507497	300.0	292.8	
45 2,2-Dichloropropane	77	6.327	6.327	0.000	87	3639766	300.0	297.8	
46 Propionitrile	54	6.357	6.345	0.012	99	2187453	1500.0	1514.8	
47 Methacrylonitrile	67	6.576	6.570	0.006	90	3222228	750.0	744.4	
48 Chlorobromomethane	128	6.643	6.643	0.000	96	1175373	300.0	296.6	
49 Tetrahydrofuran	71	6.649	6.649	0.000	83	861343	600.0	549.5	
50 Chloroform	83	6.789	6.795	-0.006	93	3853559	300.0	292.5	
$ 51 Dibromofluoromethane (Surr)	113	7.008	7.008	0.000	93	305977	50.0	50.1	
52 1,1,1-Trichloroethane	97	7.026	7.026	0.000	99	3530871	300.0	296.7	
54 Cyclohexane	56	7.130	7.130	0.000	89	4017929	300.0	301.1	
56 1,1-Dichloropropene	75	7.239	7.239	0.000	95	3334794	300.0	307.3	
55 Carbon tetrachloride	117	7.239	7.239	0.000	80	2975883	300.0	304.7	
58 Isobutyl alcohol	41	7.361	7.361	0.000	94	1485119	3750.0	3774.9	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.471	7.470	0.001	96	82397	50.0	50.1	
60 Benzene	78	7.507	7.507	0.000	97	9403978	300.0	297.0	
61 1,2-Dichloroethane	62	7.574	7.574	0.000	98	3151206	300.0	294.8	
62 Tert-amyl methyl ether	73	7.690	7.689	0.001	98	6745287	300.0	285.8	
* 64 Fluorobenzene (IS)	96	7.909	7.908	0.001	99	1315464	50.0	50.0	
65 n-Heptane	43	7.915	7.914	0.001	90	3475020	300.0	316.0	
66 n-Butanol	56	8.243	8.243	0.000	87	2686695	7500.0	7398.1	
67 Trichloroethene	95	8.389	8.389	0.000	99	2438539	300.0	303.6	
68 Methylcyclohexane	83	8.706	8.705	0.001	94	4423086	300.0	302.9	
70 1,2-Dichloropropane	63	8.730	8.724	0.006	85	2433034	300.0	306.2	
69 2-ethoxy-2-methyl butane	87	8.730	8.724	0.006	92	3820879	300.0	302.4	
71 Methyl methacrylate	69	8.797	8.797	0.000	90	2214019	300.0	287.1	
72 1,4-Dioxane	88	8.809	8.803	0.006	58	299884	3750.0	3781.1	M
74 Dibromomethane	93	8.839	8.839	0.000	97	1415965	300.0	298.5	
75 Dichlorobromomethane	83	9.071	9.070	0.001	100	3068297	300.0	303.9	
77 2-Nitropropane	41	9.332	9.326	0.006	97	1837011	600.0	616.3	
78 2-Chloroethyl vinyl ether	63	9.423	9.423	0.000	92	1816457	300.0	301.3	
79 cis-1,3-Dichloropropene	75	9.606	9.606	0.000	96	4024078	300.0	302.5	
80 4-Methyl-2-pentanone (MIBK)	43	9.764	9.764	0.000	95	6131218	600.0	569.8	
$ 81 Toluene-d8 (Surr)	98	9.910	9.910	0.000	93	1334413	50.0	49.3	
82 Toluene	92	9.983	9.983	0.000	98	6145738	300.0	293.1	
S 83 1,3-Dichloropropene, Total	100				0			600.6	
84 trans-1,3-Dichloropropene	75	10.232	10.232	0.000	92	3689647	300.0	298.1	
85 Ethyl methacrylate	69	10.287	10.287	0.000	89	3740054	300.0	291.3	
86 1,1,2-Trichloroethane	97	10.439	10.433	0.006	91	2102172	300.0	288.2	
87 Tetrachloroethene	166	10.531	10.524	0.007	95	2705153	300.0	289.9	
88 1,3-Dichloropropane	76	10.597	10.597	0.000	90	3718674	300.0	292.6	
89 2-Hexanone	43	10.640	10.640	0.000	95	4754129	600.0	558.5	
90 Chlorodibromomethane	129	10.810	10.810	0.000	90	2347562	300.0	306.8	
91 Ethylene Dibromide	107	10.926	10.926	0.000	98	2248187	300.0	297.8	
S 92 Xylenes, Total	106				0			874.3	
* 93 Chlorobenzene-d5 (IS)	117	11.352	11.352	0.000	87	1008582	50.0	50.0	
94 1-Chlorohexane	91	11.352	11.352	0.000	98	3653586	300.0	294.1	
95 Chlorobenzene	112	11.376	11.376	0.000	93	6616088	300.0	291.6	
96 1,1,1,2-Tetrachloroethane	131	11.455	11.455	0.000	97	2343339	300.0	304.8	
97 Ethylbenzene	91	11.461	11.461	0.000	98	11444102	300.0	281.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.577	11.571	0.006	96	9212200	600.0	579.0	
99 o-Xylene	106	11.905	11.905	0.000	96	4572699	300.0	295.3	
100 Styrene	104	11.918	11.917	0.001	94	7633344	300.0	291.5	
101 Bromoform	173	12.076	12.076	0.000	96	1673922	300.0	313.2	
102 Isopropylbenzene	105	12.204	12.203	0.001	96	11474637	300.0	277.0	
103 Cyclohexanone	55	12.277	12.276	0.001	92	1267570	3749.8	3909.3	
$ 104 4-Bromofluorobenzene (Surr)	95	12.350	12.349	0.001	86	524971	50.0	49.8	
105 1,1,2,2-Tetrachloroethane	83	12.447	12.441	0.006	94	3308245	300.0	287.4	
106 Bromobenzene	156	12.465	12.465	0.000	98	2743497	300.0	295.0	
107 trans-1,4-Dichloro-2-butene	53	12.471	12.465	0.006	90	2996175	750.0	737.9	
108 1,2,3-Trichloropropane	110	12.496	12.489	0.007	83	1055692	300.0	290.8	
109 N-Propylbenzene	91	12.532	12.532	0.000	97	13086169	300.0	268.2	e
110 2-Chlorotoluene	126	12.611	12.611	0.000	96	2872021	300.0	301.6	
111 1,3,5-Trimethylbenzene	105	12.666	12.666	0.000	95	10059343	300.0	281.9	
112 4-Chlorotoluene	126	12.702	12.702	0.000	97	2955626	300.0	299.7	
113 tert-Butylbenzene	134	12.909	12.909	0.000	92	2364653	300.0	309.0	
114 Pentachloroethane	167	12.946	12.945	0.001	87	1601662	300.0	324.9	
115 1,2,4-Trimethylbenzene	105	12.952	12.952	0.000	97	10264273	300.0	282.1	
116 sec-Butylbenzene	105	13.073	13.073	0.000	95	12391988	300.0	275.6	
117 1,3-Dichlorobenzene	146	13.177	13.171	0.006	96	5320928	300.0	293.1	
118 4-Isopropyltoluene	119	13.177	13.177	0.000	95	10814283	300.0	281.4	
* 119 1,4-Dichlorobenzene-d4	152	13.232	13.231	0.001	86	535075	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.250	13.250	0.000	92	5353556	300.0	292.2	
121 1,2,3-Trimethylbenzene	105	13.256	13.256	0.000	97	10169157	300.0	280.3	
122 Benzyl chloride	91	13.323	13.323	0.000	99	7595321	300.0	291.0	
123 1,3-Diethylbenzene	119	13.378	13.377	0.001	94	6854507	300.0	290.0	
124 p-Diethylbenzene	119	13.451	13.450	0.001	92	7128265	300.0	288.7	
125 n-Butylbenzene	92	13.469	13.469	0.000	96	5830500	300.0	300.9	
126 1,2-Dichlorobenzene	146	13.505	13.505	0.000	96	4972763	300.0	289.3	
127 o-diethylbenzene	119	13.524	13.523	0.001	96	5719798	300.0	293.2	
129 1,2-Dibromo-3-Chloropropane	75	14.047	14.047	0.000	85	902979	300.0	301.8	
130 1,3,5-Trichlorobenzene	180	14.181	14.174	0.007	97	3652752	300.0	301.5	
131 1,2,4-Trichlorobenzene	180	14.600	14.600	0.000	95	3196552	300.0	297.5	
132 Hexachlorobutadiene	225	14.686	14.685	0.001	98	1347416	300.0	307.3	
133 Naphthalene	128	14.789	14.789	0.000	98	10758411	300.0	272.2	
134 1,2,3-Trichlorobenzene	180	14.935	14.935	0.000	95	2974166	300.0	294.5	
135 2-Methylnaphthalene	142	15.586	15.586	0.000	92	6297206	300.0	283.5	
S 144 Total Diethylbenzene	1				0			871.9	

QC Flag Legend

Processing Flags

e - Potential Peak Saturated

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	30.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	30.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	15.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	6.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	15.00	Units: uL	
MSV_DCFM_00054	Amount Added:	7.50	Units: uL	
MSV_V_VOA1_00108	Amount Added:	15.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	7.50	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Nov-2020 17:27:57 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I01.D

Injection Date: 09-Nov-2020 13:40:30 Instrument ID: 7159 Operator ID: DVV10203

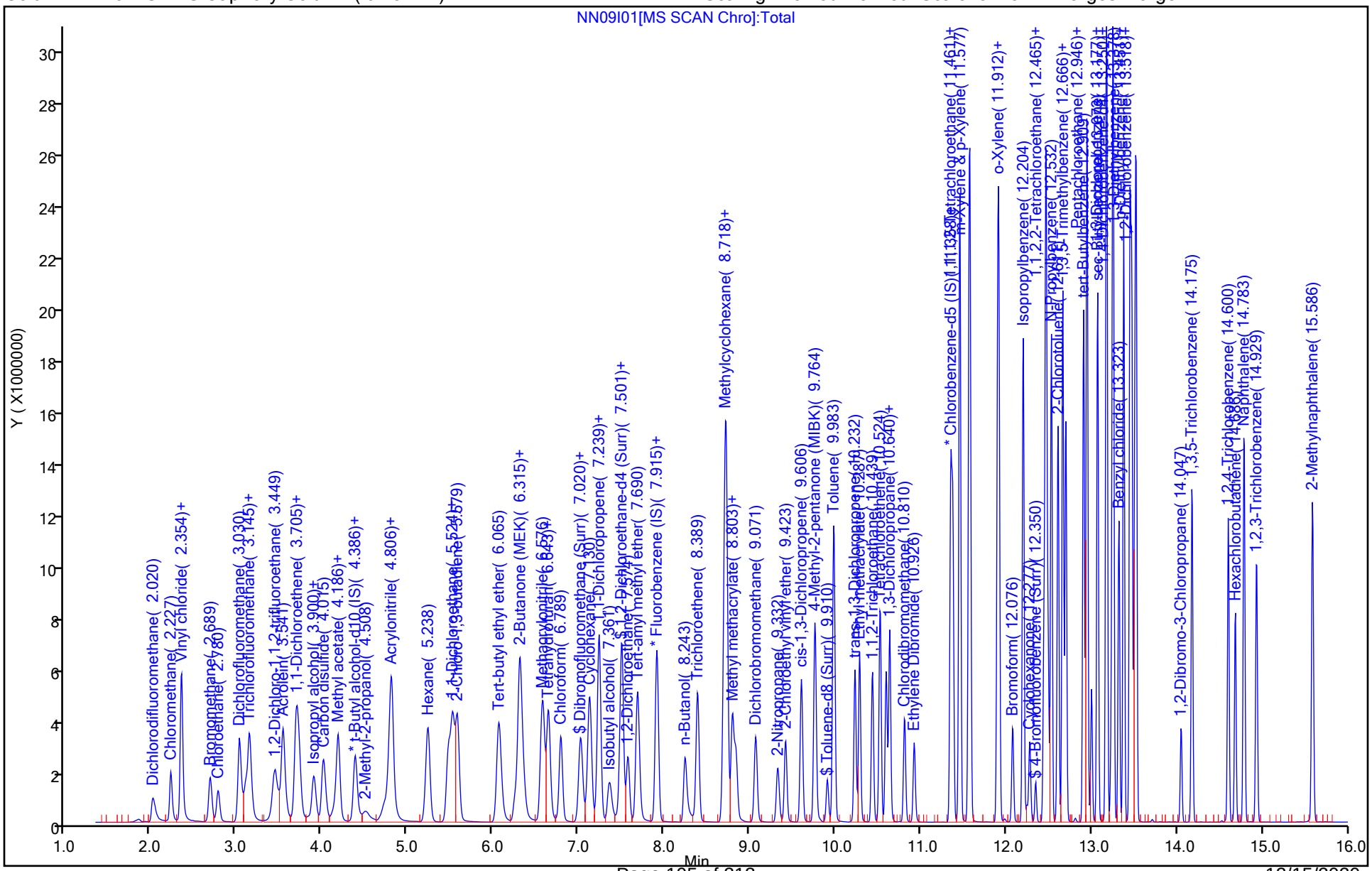
Lims ID: IC STD300 Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

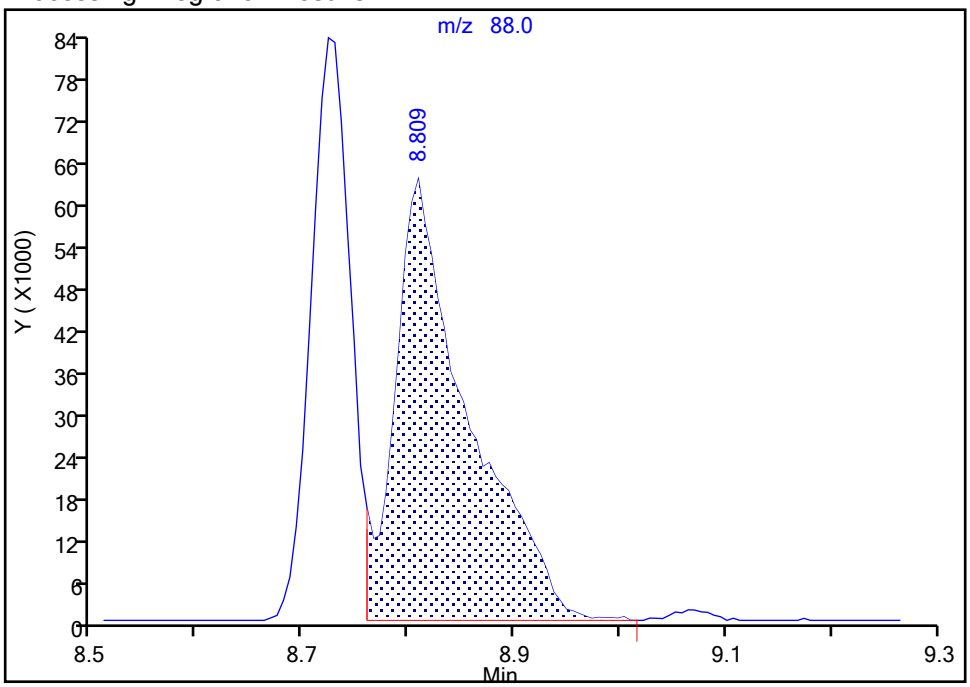
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I01.D
Injection Date: 09-Nov-2020 13:40:30 Instrument ID: 7159
Lims ID: IC STD300
Client ID:
Operator ID: DVV10203 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

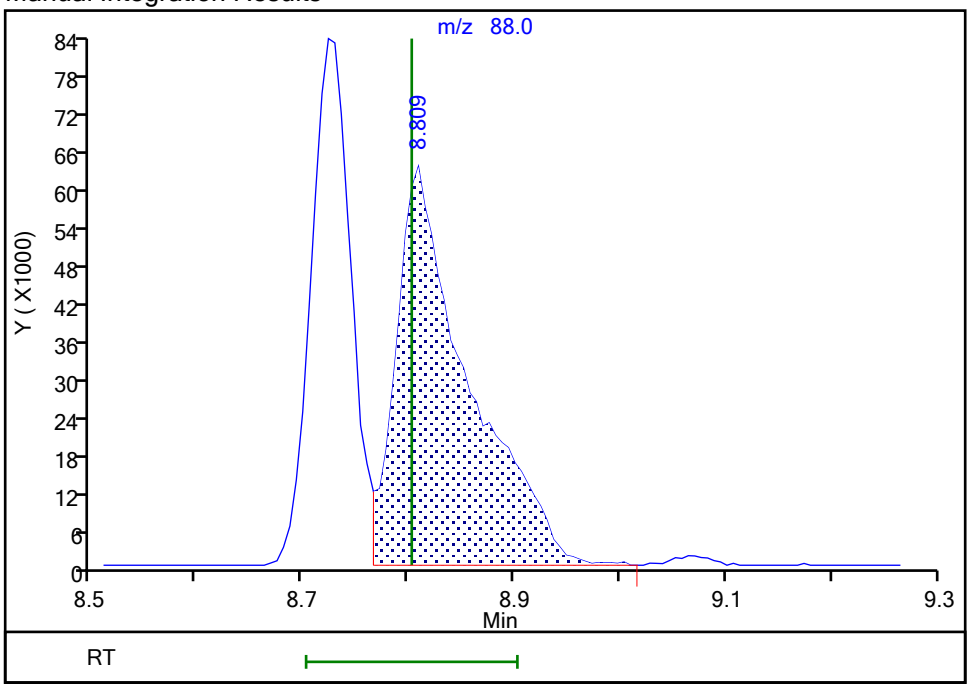
Processing Integration Results

RT: 8.81
Area: 305742
Amount: 3796.5908
Amount Units: ug/l



Manual Integration Results

RT: 8.81
Area: 299884
Amount: 3781.0534
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:38:16
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I02.D
Lims ID: IC STD100
Client ID:
Sample Type: IC Calib Level: 6
Inject. Date: 09-Nov-2020 14:02:30 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD100
Misc. Info.: 410-0015005-004
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:28:11 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:41:22

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.021	2.020	0.001	99	697327	100.0	100.7	
6 Chloromethane	50	2.228	2.232	-0.004	99	879676	100.0	96.7	
8 Vinyl chloride	62	2.355	2.354	0.001	98	898067	100.0	101.9	
9 Butadiene	39	2.355	2.354	0.001	89	772937	100.0	93.2	
10 Bromomethane	94	2.690	2.695	-0.005	90	611504	100.0	100.6	
11 Chloroethane	64	2.787	2.786	0.001	100	575604	100.0	101.2	
12 Dichlorofluoromethane	67	3.031	3.035	-0.004	98	1314354	100.0	98.0	
13 Trichlorofluoromethane	101	3.110	3.108	0.002	98	1099707	100.0	100.9	
15 Pentane	43	3.152	3.151	0.001	96	1219338	100.0	108.2	
16 Ethanol	45	3.225	3.224	0.001	88	212584	2499.8	2528.5	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.450	3.449	0.001	93	822858	100.0	100.5	
18 Acrolein	56	3.548	3.547	0.002	99	2252789	1000.0	1065.2	
20 1,1-Dichloroethene	96	3.694	3.693	0.002	98	660767	100.0	103.2	
21 Acetone	58	3.718	3.723	-0.005	64	185943	200.0	210.5	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.724	3.729	-0.005	94	676930	100.0	108.2	
23 Isopropyl alcohol	45	3.882	3.845	0.037	97	262725	500.0	498.5	
24 Iodomethane	142	3.901	3.899	0.002	98	1150642	100.0	104.7	
25 Carbon disulfide	76	4.016	4.015	0.001	99	2228076	100.0	104.4	
26 Methyl acetate	43	4.156	4.155	0.001	97	669473	100.0	93.9	
27 3-Chloro-1-propene	41	4.193	4.197	-0.004	92	1107543	100.0	103.9	
* 29 t-Butyl alcohol-d10 (IS)	65	4.381	4.386	-0.005	0	287881	250.0	250.0	
28 Methylene Chloride	84	4.387	4.392	-0.005	91	756463	100.0	103.6	
31 2-Methyl-2-propanol	59	4.509	4.508	0.001	99	592326	500.0	520.1	
32 Acrylonitrile	53	4.728	4.727	0.001	100	376332	100.0	100.7	
33 Methyl tert-butyl ether	73	4.795	4.800	-0.005	95	2367607	100.0	101.7	
34 trans-1,2-Dichloroethene	96	4.813	4.818	-0.005	99	761827	100.0	104.6	
36 Hexane	57	5.239	5.238	0.001	91	1197920	100.0	109.8	
37 1,1-Dichloroethane	63	5.476	5.475	0.001	97	1369083	100.0	104.6	
39 Isopropyl ether	45	5.525	5.530	-0.005	93	2340781	100.0	102.7	
40 2-Chloro-1,3-butadiene	53	5.586	5.584	0.002	91	1271693	100.0	105.4	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.066	6.065	0.001	97	2370205	100.0	101.3	
S 42 1,2-Dichloroethene, Total	100				0			207.3	
43 2-Butanone (MEK)	43	6.261	6.260	0.001	99	973600	200.0	185.9	
44 cis-1,2-Dichloroethene	96	6.310	6.314	-0.004	82	864593	100.0	102.7	
45 2,2-Dichloropropane	77	6.322	6.327	-0.005	87	1257472	100.0	104.7	
46 Propionitrile	54	6.346	6.345	0.001	98	732944	500.0	531.1	
47 Methacrylonitrile	67	6.571	6.570	0.001	91	1097640	250.0	258.1	
48 Chlorobromomethane	128	6.644	6.643	0.001	96	402173	100.0	103.3	
49 Tetrahydrofuran	71	6.644	6.649	-0.005	82	294585	200.0	196.7	
50 Chloroform	83	6.790	6.795	-0.005	94	1330790	100.0	102.8	
$ 51 Dibromofluoromethane (Surr)	113	7.009	7.008	0.001	93	301198	50.0	50.2	
52 1,1,1-Trichloroethane	97	7.028	7.026	0.002	99	1209472	100.0	103.4	
54 Cyclohexane	56	7.125	7.130	-0.005	90	1391028	100.0	106.1	
56 1,1-Dichloropropene	75	7.240	7.239	0.001	95	1123525	100.0	105.4	
55 Carbon tetrachloride	117	7.240	7.239	0.001	85	1020042	100.0	106.3	
58 Isobutyl alcohol	41	7.356	7.361	-0.005	95	491979	1250.0	1308.6	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.466	7.470	-0.004	97	81417	50.0	50.3	
60 Benzene	78	7.502	7.507	-0.005	96	3247898	100.0	104.4	
61 1,2-Dichloroethane	62	7.575	7.574	0.001	98	1065167	100.0	101.4	
62 Tert-amyl methyl ether	73	7.691	7.689	0.002	98	2360267	100.0	101.8	
* 64 Fluorobenzene (IS)	96	7.910	7.908	0.002	99	1292662	50.0	50.0	
65 n-Heptane	43	7.916	7.914	0.002	90	1190197	100.0	110.1	
66 n-Butanol	56	8.244	8.243	0.001	88	910535	2500.0	2623.7	
67 Trichloroethene	95	8.390	8.389	0.001	99	824151	100.0	104.4	
68 Methylcyclohexane	83	8.707	8.705	0.002	94	1472664	100.0	102.6	
70 1,2-Dichloropropane	63	8.725	8.724	0.001	69	821902	100.0	105.3	
69 2-ethoxy-2-methyl butane	87	8.725	8.724	0.001	95	1300994	100.0	104.8	
71 Methyl methacrylate	69	8.798	8.797	0.001	88	752777	100.0	99.3	
72 1,4-Dioxane	88	8.810	8.803	0.007	32	103204	1250.0	1361.7	M
74 Dibromomethane	93	8.840	8.839	0.001	96	483693	100.0	103.8	
75 Dichlorobromomethane	83	9.072	9.070	0.002	100	1032219	100.0	104.0	
77 2-Nitropropane	41	9.327	9.326	0.001	97	599631	200.0	210.5	
78 2-Chloroethyl vinyl ether	63	9.418	9.423	-0.005	92	613273	100.0	103.5	
79 cis-1,3-Dichloropropene	75	9.607	9.606	0.001	96	1371225	100.0	104.9	
80 4-Methyl-2-pentanone (MIBK)	43	9.765	9.764	0.001	95	2068498	200.0	195.6	
$ 81 Toluene-d8 (Surr)	98	9.911	9.910	0.001	93	1308103	50.0	49.8	
82 Toluene	92	9.984	9.983	0.001	98	2113790	100.0	103.9	
S 83 1,3-Dichloropropene, Total	100				0			209.1	
84 trans-1,3-Dichloropropene	75	10.234	10.232	0.002	92	1251019	100.0	104.2	
85 Ethyl methacrylate	69	10.288	10.287	0.001	89	1272677	100.0	102.2	
86 1,1,2-Trichloroethane	97	10.434	10.433	0.001	90	714679	100.0	101.0	
87 Tetrachloroethene	166	10.526	10.524	0.002	96	905376	100.0	100.0	
88 1,3-Dichloropropane	76	10.599	10.597	0.002	90	1258652	100.0	102.1	
89 2-Hexanone	43	10.635	10.640	-0.005	95	1612982	200.0	195.3	
90 Chlorodibromomethane	129	10.811	10.810	0.001	90	787485	100.0	106.1	
91 Ethylene Dibromide	107	10.927	10.926	0.001	98	759296	100.0	103.7	
S 92 Xylenes, Total	106				0			315.4	
* 93 Chlorobenzene-d5 (IS)	117	11.347	11.352	-0.005	86	978556	50.0	50.0	
94 1-Chlorohexane	91	11.353	11.352	0.001	98	1246687	100.0	103.4	
95 Chlorobenzene	112	11.377	11.376	0.001	94	2295547	100.0	104.3	
96 1,1,1,2-Tetrachloroethane	131	11.456	11.455	0.001	97	793212	100.0	106.3	
97 Ethylbenzene	91	11.462	11.461	0.001	98	4120368	100.0	104.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.572	11.571	0.001	99	3236206	200.0	209.6	
99 o-Xylene	106	11.900	11.905	-0.005	96	1588403	100.0	105.7	
100 Styrene	104	11.919	11.917	0.002	94	2677378	100.0	105.4	
101 Bromoform	173	12.077	12.076	0.001	96	556939	100.0	107.4	
102 Isopropylbenzene	105	12.199	12.203	-0.005	96	4197298	100.0	104.4	
103 Cyclohexanone	55	12.278	12.276	0.002	91	398475	1249.9	1286.0	
$ 104 4-Bromofluorobenzene (Surr)	95	12.345	12.349	-0.005	85	510628	50.0	49.9	
105 1,1,2,2-Tetrachloroethane	83	12.442	12.441	0.001	96	1114204	100.0	100.4	
106 Bromobenzene	156	12.466	12.465	0.001	95	926477	100.0	103.3	
107 trans-1,4-Dichloro-2-butene	53	12.466	12.465	0.001	90	1005374	250.0	256.7	
108 1,2,3-Trichloropropane	110	12.491	12.489	0.001	83	351198	100.0	100.3	
109 N-Propylbenzene	91	12.527	12.532	-0.005	98	4947034	100.0	105.1	
110 2-Chlorotoluene	126	12.606	12.611	-0.005	96	979466	100.0	106.6	
111 1,3,5-Trimethylbenzene	105	12.661	12.666	-0.005	94	3615075	100.0	105.1	
112 4-Chlorotoluene	126	12.697	12.702	-0.005	98	999988	100.0	105.1	
113 tert-Butylbenzene	134	12.910	12.909	0.001	93	784203	100.0	106.2	
114 Pentachloroethane	167	12.941	12.945	-0.004	89	532168	100.0	111.9	
115 1,2,4-Trimethylbenzene	105	12.947	12.952	-0.005	97	3688505	100.0	105.1	
116 sec-Butylbenzene	105	13.068	13.073	-0.005	95	4622616	100.0	106.6	
117 1,3-Dichlorobenzene	146	13.172	13.171	0.001	97	1828870	100.0	104.4	
118 4-Isopropyltoluene	119	13.178	13.177	0.001	96	3970260	100.0	107.1	
* 119 1,4-Dichlorobenzene-d4	152	13.227	13.231	-0.004	96	516062	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.245	13.250	-0.005	93	1830777	100.0	103.6	
121 1,2,3-Trimethylbenzene	105	13.257	13.256	0.001	98	3589607	100.0	102.6	
122 Benzyl chloride	91	13.318	13.323	-0.005	99	2636587	100.0	104.7	
123 1,3-Diethylbenzene	119	13.379	13.377	0.002	95	2348313	100.0	103.0	
124 p-Diethylbenzene	119	13.452	13.450	0.002	93	2451599	100.0	103.0	
125 n-Butylbenzene	92	13.470	13.469	0.001	97	2023936	100.0	108.3	
126 1,2-Dichlorobenzene	146	13.506	13.505	0.001	97	1705638	100.0	102.9	
127 o-diethylbenzene	119	13.525	13.523	0.002	96	1925173	100.0	102.3	
129 1,2-Dibromo-3-Chloropropane	75	14.048	14.047	0.001	84	293281	100.0	101.6	
130 1,3,5-Trichlorobenzene	180	14.176	14.174	0.002	97	1248691	100.0	106.9	
131 1,2,4-Trichlorobenzene	180	14.601	14.600	0.001	94	1097505	100.0	105.9	
132 Hexachlorobutadiene	225	14.687	14.685	0.002	98	468994	100.0	110.9	
133 Naphthalene	128	14.784	14.789	-0.005	97	3883751	100.0	101.9	
134 1,2,3-Trichlorobenzene	180	14.930	14.935	-0.005	95	1016806	100.0	104.4	
135 2-Methylnaphthalene	142	15.587	15.586	0.001	92	2213417	100.0	103.3	
S 144 Total Diethylbenzene	1				0			308.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	5.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	10.00	Units: uL	
MSV_DCFM_00054	Amount Added:	2.50	Units: uL	
MSV_V_VOA1_00108	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	2.50	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Nov-2020 17:28:13 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I02.D

Injection Date: 09-Nov-2020 14:02:30 Instrument ID: 7159 Operator ID: DVV10203

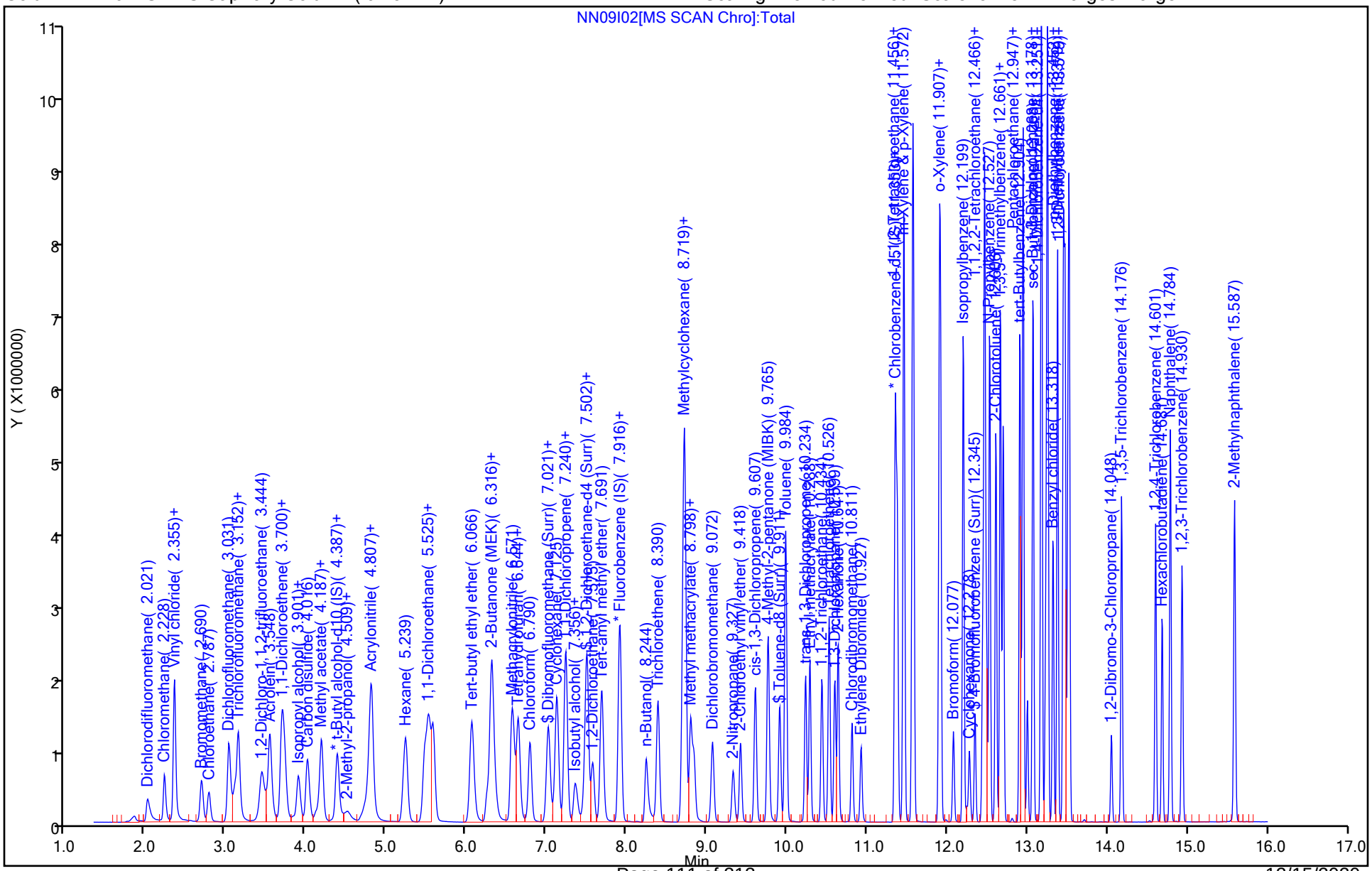
Lims ID: IC STD100 Worklist Smp#: 4

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 3

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

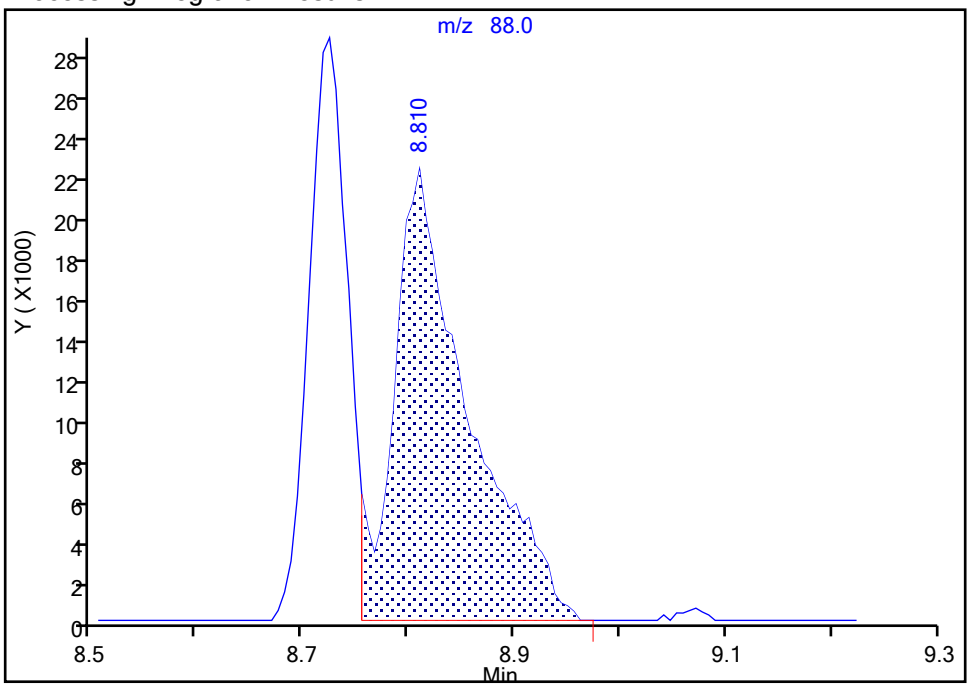
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I02.D
Injection Date: 09-Nov-2020 14:02:30 Instrument ID: 7159
Lims ID: IC STD100
Client ID:
Operator ID: DVV10203 ALS Bottle#: 3 Worklist Smp#: 4
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

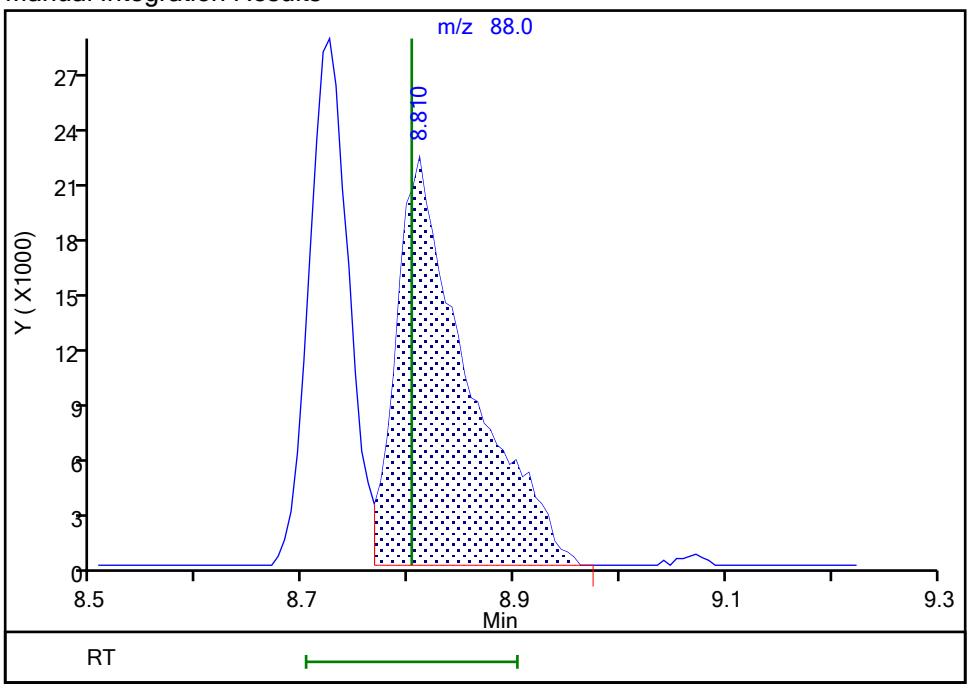
Processing Integration Results

RT: 8.81
Area: 107028
Amount: 1395.2505
Amount Units: ug/l



Manual Integration Results

RT: 8.81
Area: 103204
Amount: 1361.6509
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:40:50
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I03.D
Lims ID: ICIS STD50
Client ID:
Sample Type: ICIS Calib Level: 5
Inject. Date: 09-Nov-2020 14:24:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICIS VSTD050
Misc. Info.: 410-0015005-005
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:28:29 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:34:55

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.020	2.020	0.000	100	370969	50.0	53.1	
6 Chloromethane	50	2.232	2.232	0.000	99	449901	50.0	49.0	
8 Vinyl chloride	62	2.354	2.354	0.000	84	441487	50.0	49.6	
9 Butadiene	39	2.354	2.354	0.000	89	389719	50.0	46.6	
10 Bromomethane	94	2.695	2.695	0.000	91	307108	50.0	50.0	
11 Chloroethane	64	2.786	2.786	0.000	100	285270	50.0	49.7	
12 Dichlorofluoromethane	67	3.035	3.035	0.000	97	647209	50.0	47.8	
13 Trichlorofluoromethane	101	3.108	3.108	0.000	97	570986	50.0	51.9	
15 Pentane	43	3.151	3.151	0.000	96	631521	50.0	55.5	
16 Ethanol	45	3.224	3.224	0.000	28	112702	1249.9	1186.7	M
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.449	3.449	0.000	93	414427	50.0	50.2	
18 Acrolein	56	3.547	3.547	0.000	99	1174075	500.0	491.4	
20 1,1-Dichloroethene	96	3.693	3.693	0.000	98	328595	50.0	50.9	
21 Acetone	58	3.723	3.723	0.000	87	101338	100.0	101.6	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.729	3.729	0.000	95	347729	50.0	55.1	
23 Isopropyl alcohol	45	3.845	3.845	0.000	98	141227	250.0	237.2	
24 Iodomethane	142	3.899	3.899	0.000	97	570965	50.0	51.5	
25 Carbon disulfide	76	4.015	4.015	0.000	99	1104380	50.0	51.3	
26 Methyl acetate	43	4.155	4.155	0.000	97	346506	50.0	48.2	
27 3-Chloro-1-propene	41	4.197	4.197	0.000	91	540299	50.0	50.2	
* 29 t-Butyl alcohol-d10 (IS)	65	4.386	4.386	0.000	0	325187	250.0	250.0	
28 Methylene Chloride	84	4.392	4.392	0.000	91	367014	50.0	49.8	
31 2-Methyl-2-propanol	59	4.508	4.508	0.000	100	327666	250.0	254.7	
32 Acrylonitrile	53	4.727	4.727	0.000	99	201007	50.0	53.3	
33 Methyl tert-butyl ether	73	4.800	4.800	0.000	95	1188377	50.0	50.6	
34 trans-1,2-Dichloroethene	96	4.818	4.818	0.000	99	375805	50.0	51.1	
36 Hexane	57	5.238	5.238	0.000	91	614602	50.0	55.8	
37 1,1-Dichloroethane	63	5.475	5.475	0.000	96	681118	50.0	51.5	
39 Isopropyl ether	45	5.530	5.530	0.000	93	1157993	50.0	50.4	
40 2-Chloro-1,3-butadiene	53	5.584	5.584	0.000	91	628631	50.0	51.6	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.065	6.065	0.000	97	1198624	50.0	50.8	
43 2-Butanone (MEK)	43	6.260	6.260	0.000	99	513552	100.0	97.1	
44 cis-1,2-Dichloroethene	96	6.314	6.314	0.000	83	423931	50.0	49.9	
45 2,2-Dichloropropane	77	6.327	6.327	0.000	88	623114	50.0	51.4	
46 Propionitrile	54	6.345	6.345	0.000	98	397646	250.0	255.1	
47 Methacrylonitrile	67	6.570	6.570	0.000	91	552626	125.0	128.7	
48 Chlorobromomethane	128	6.643	6.643	0.000	95	200165	50.0	50.9	
49 Tetrahydrofuran	71	6.649	6.649	0.000	82	156649	100.0	92.6	
50 Chloroform	83	6.795	6.795	0.000	93	657626	50.0	50.3	
$ 51 Dibromofluoromethane (Surr)	113	7.008	7.008	0.000	92	303537	50.0	50.1	
52 1,1,1-Trichloroethane	97	7.026	7.026	0.000	98	603928	50.0	51.2	
54 Cyclohexane	56	7.130	7.130	0.000	89	719181	50.0	54.3	
56 1,1-Dichloropropene	75	7.239	7.239	0.000	95	556263	50.0	51.7	
55 Carbon tetrachloride	117	7.239	7.239	0.000	86	508083	50.0	52.5	
58 Isobutyl alcohol	41	7.361	7.361	0.000	95	264829	625.0	623.6	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.470	7.470	0.000	97	80763	50.0	49.5	
60 Benzene	78	7.507	7.507	0.000	96	1604912	50.0	51.1	
61 1,2-Dichloroethane	62	7.574	7.574	0.000	98	524256	50.0	49.5	
62 Tert-amyl methyl ether	73	7.689	7.689	0.000	98	1193969	50.0	51.0	
* 64 Fluorobenzene (IS)	96	7.908	7.908	0.000	99	1304709	50.0	50.0	
65 n-Heptane	43	7.914	7.914	0.000	91	605064	50.0	55.5	
66 n-Butanol	56	8.243	8.243	0.000	87	491845	1250.0	1254.6	
67 Trichloroethene	95	8.389	8.389	0.000	99	407343	50.0	51.1	
68 Methylcyclohexane	83	8.705	8.705	0.000	94	764575	50.0	52.8	
70 1,2-Dichloropropane	63	8.724	8.724	0.000	85	405396	50.0	51.4	
69 2-ethoxy-2-methyl butane	87	8.724	8.724	0.000	92	646560	50.0	51.6	
71 Methyl methacrylate	69	8.797	8.797	0.000	89	372458	50.0	48.7	
72 1,4-Dioxane	88	8.803	8.803	0.000	47	53909	625.0	629.7	M
74 Dibromomethane	93	8.839	8.839	0.000	97	235953	50.0	50.2	
75 Dichlorobromomethane	83	9.070	9.070	0.000	99	510760	50.0	51.0	
77 2-Nitropropane	41	9.326	9.326	0.000	97	310637	100.0	96.5	
78 2-Chloroethyl vinyl ether	63	9.423	9.423	0.000	92	301472	50.0	50.4	
79 cis-1,3-Dichloropropene	75	9.606	9.606	0.000	96	670414	50.0	50.8	
80 4-Methyl-2-pentanone (MIBK)	43	9.764	9.764	0.000	96	1098039	100.0	102.9	
$ 81 Toluene-d8 (Surr)	98	9.910	9.910	0.000	93	1325225	50.0	50.0	
82 Toluene	92	9.983	9.983	0.000	98	1040838	50.0	50.7	
84 trans-1,3-Dichloropropene	75	10.232	10.232	0.000	93	613900	50.0	50.7	
85 Ethyl methacrylate	69	10.287	10.287	0.000	89	627600	50.0	49.9	
86 1,1,2-Trichloroethane	97	10.433	10.433	0.000	91	352540	50.0	49.4	
87 Tetrachloroethene	166	10.524	10.524	0.000	96	471505	50.0	51.6	
88 1,3-Dichloropropane	76	10.597	10.597	0.000	90	630681	50.0	50.7	
89 2-Hexanone	43	10.640	10.640	0.000	95	845218	100.0	101.4	
90 Chlorodibromomethane	129	10.810	10.810	0.000	90	386213	50.0	51.5	
91 Ethylene Dibromide	107	10.926	10.926	0.000	99	377197	50.0	51.0	
* 93 Chlorobenzene-d5 (IS)	117	11.352	11.352	0.000	87	987609	50.0	50.0	
94 1-Chlorohexane	91	11.352	11.352	0.000	96	624354	50.0	51.3	
95 Chlorobenzene	112	11.376	11.376	0.000	95	1131261	50.0	50.9	
96 1,1,1,2-Tetrachloroethane	131	11.455	11.455	0.000	95	387165	50.0	51.4	
97 Ethylbenzene	91	11.461	11.461	0.000	98	2042720	50.0	51.4	
98 m-Xylene & p-Xylene	106	11.571	11.571	0.000	100	1601123	100.0	102.8	
99 o-Xylene	106	11.905	11.905	0.000	96	782175	50.0	51.6	
100 Styrene	104	11.917	11.917	0.000	94	1325305	50.0	51.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Bromoform	173	12.076	12.076	0.000	96	273992	50.0	52.4	
102 Isopropylbenzene	105	12.203	12.203	0.000	96	2097862	50.0	51.7	
103 Cyclohexanone	55	12.276	12.276	0.000	91	209815	625.0	599.4	
$ 104 4-Bromofluorobenzene (Surr)	95	12.349	12.349	0.000	86	516560	50.0	50.0	
105 1,1,2,2-Tetrachloroethane	83	12.441	12.441	0.000	94	557406	50.0	50.3	
106 Bromobenzene	156	12.465	12.465	0.000	96	459851	50.0	51.4	
107 trans-1,4-Dichloro-2-butene	53	12.465	12.465	0.000	89	500758	125.0	128.1	
108 1,2,3-Trichloropropane	110	12.489	12.489	0.000	83	175987	50.0	50.4	
109 N-Propylbenzene	91	12.532	12.532	0.000	98	2457313	50.0	52.3	
110 2-Chlorotoluene	126	12.611	12.611	0.000	96	481444	50.0	52.5	
111 1,3,5-Trimethylbenzene	105	12.666	12.666	0.000	94	1782902	50.0	51.9	
112 4-Chlorotoluene	126	12.702	12.702	0.000	98	487638	50.0	51.4	
113 tert-Butylbenzene	134	12.909	12.909	0.000	92	383839	50.0	52.1	
114 Pentachloroethane	167	12.945	12.945	0.000	89	249474	50.0	52.6	
115 1,2,4-Trimethylbenzene	105	12.952	12.952	0.000	97	1819209	50.0	51.9	
116 sec-Butylbenzene	105	13.073	13.073	0.000	94	2301121	50.0	53.2	
117 1,3-Dichlorobenzene	146	13.171	13.171	0.000	97	900691	50.0	51.5	
118 4-Isopropyltoluene	119	13.177	13.177	0.000	97	1963364	50.0	53.1	
* 119 1,4-Dichlorobenzene-d4	152	13.231	13.231	0.000	95	515083	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.250	13.250	0.000	93	905641	50.0	51.4	
121 1,2,3-Trimethylbenzene	105	13.256	13.256	0.000	98	1794693	50.0	51.4	
122 Benzyl chloride	91	13.323	13.323	0.000	99	1294137	50.0	51.5	
123 1,3-Diethylbenzene	119	13.377	13.377	0.000	95	1172429	50.0	51.5	
124 p-Diethylbenzene	119	13.450	13.450	0.000	93	1219363	50.0	51.3	
125 n-Butylbenzene	92	13.469	13.469	0.000	96	993393	50.0	53.3	
126 1,2-Dichlorobenzene	146	13.505	13.505	0.000	97	847165	50.0	51.2	
127 o-diethylbenzene	119	13.523	13.523	0.000	96	962562	50.0	51.3	
129 1,2-Dibromo-3-Chloropropane	75	14.047	14.047	0.000	84	147964	50.0	51.4	
130 1,3,5-Trichlorobenzene	180	14.174	14.174	0.000	97	603753	50.0	51.8	
131 1,2,4-Trichlorobenzene	180	14.600	14.600	0.000	94	531034	50.0	51.3	
132 Hexachlorobutadiene	225	14.685	14.685	0.000	98	223255	50.0	52.9	
133 Naphthalene	128	14.789	14.789	0.000	97	1959958	50.0	51.5	
134 1,2,3-Trichlorobenzene	180	14.935	14.935	0.000	95	496890	50.0	51.1	
135 2-Methylnaphthalene	142	15.586	15.586	0.000	92	1100888	50.0	51.5	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	10.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	5.00	Units: uL	
MSV_DCFM_00054	Amount Added:	2.50	Units: uL	
MSV_V_VOA1_00108	Amount Added:	5.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	2.50	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Nov-2020 17:28:30 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I03.D

Injection Date: 09-Nov-2020 14:24:30 Instrument ID: 7159 Operator ID: DVV10203

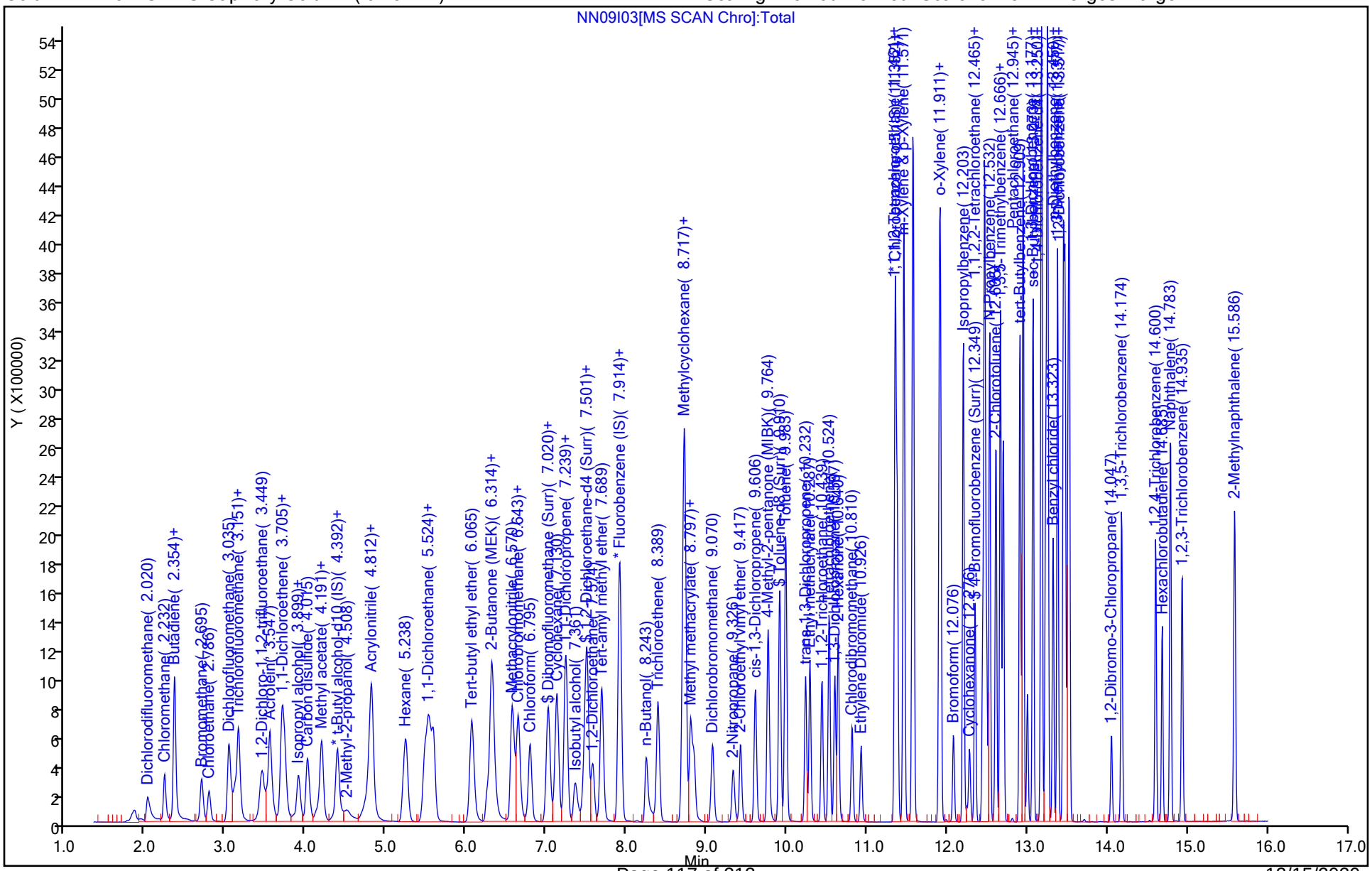
Lims ID: ICIS STD50 Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

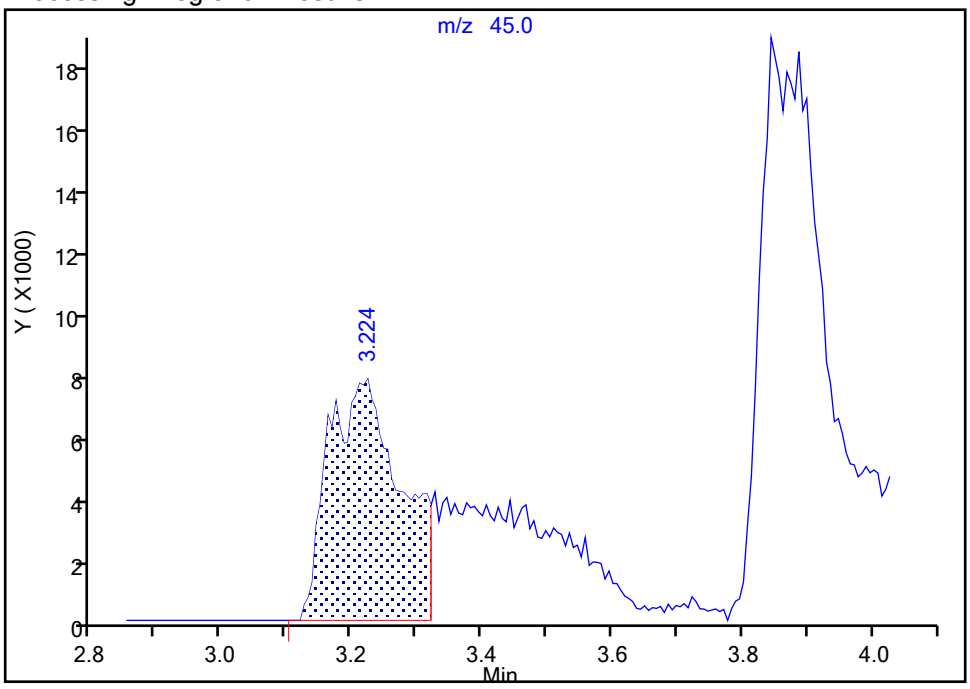
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I03.D
Injection Date: 09-Nov-2020 14:24:30 Instrument ID: 7159
Lims ID: ICIS STD50
Client ID:
Operator ID: DVV10203 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

16 Ethanol, CAS: 64-17-5

Signal: 1

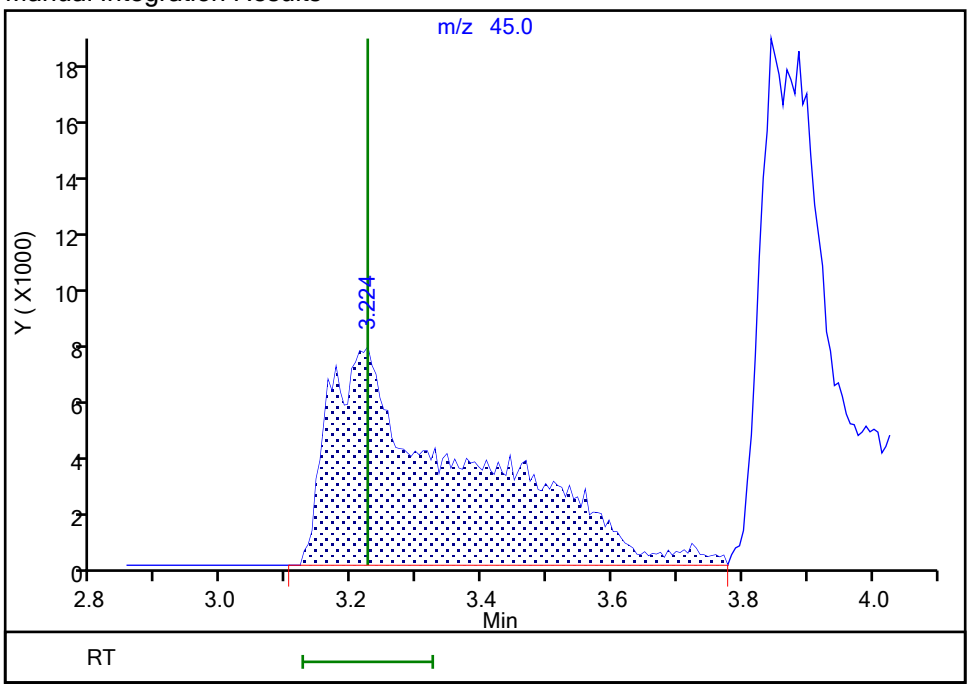
Processing Integration Results

RT: 3.22
Area: 58878
Amount: 756.0087
Amount Units: ug/l



Manual Integration Results

RT: 3.22
Area: 112702
Amount: 1186.7237
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:32:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

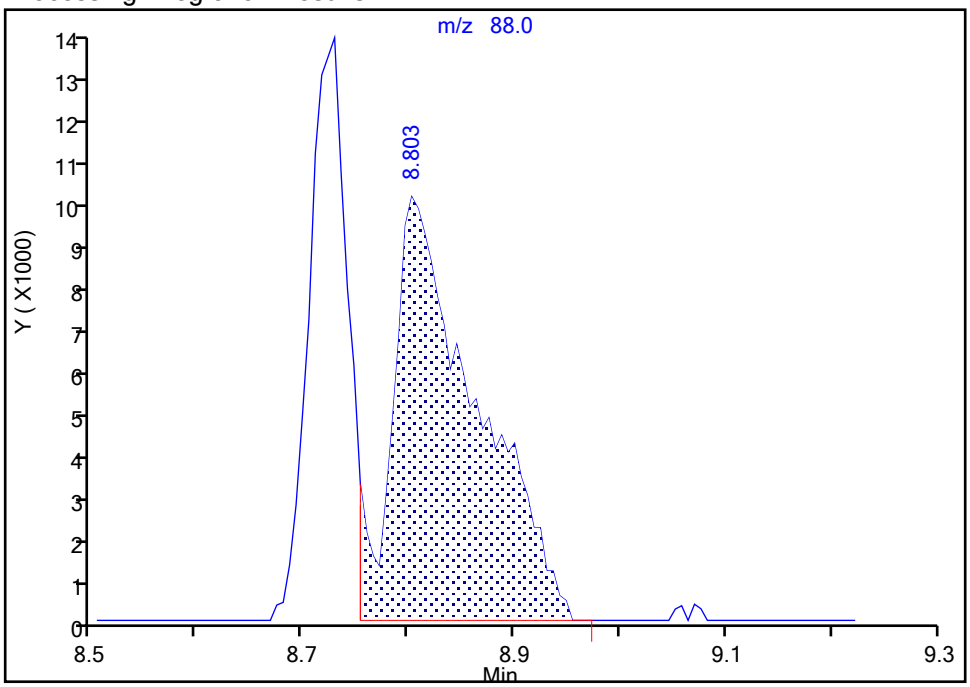
Data File:	\\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I03.D				
Injection Date:	09-Nov-2020 14:24:30	Instrument ID:	7159		
Lims ID:	ICIS STD50				
Client ID:					
Operator ID:	DVV10203	ALS Bottle#:	4	Worklist Smp#:	5
Purge Vol:	5.000 mL	Dil. Factor:	1.0000		
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		
Column:	Rxi-624Sil MS Capillary Column (0.25 mm)	Detector	MS Quad		

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

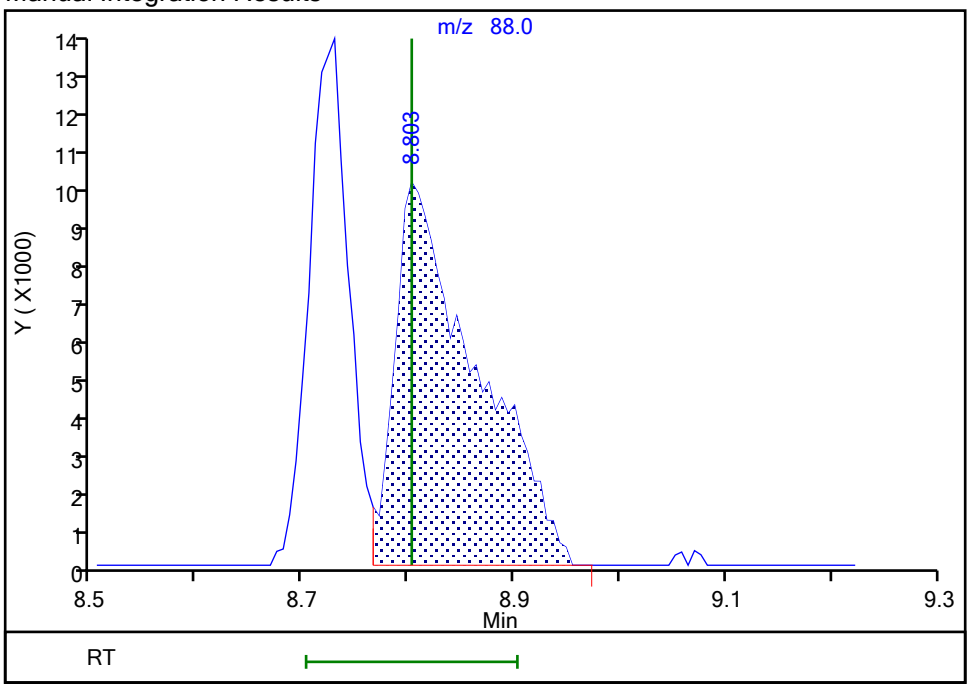
Processing Integration Results

RT: 8.80
Area: 55853
Amount: 638.6936
Amount Units: ug/l



Manual Integration Results

RT: 8.80
Area: 53909
Amount: 629.6662
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:34:17
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I04.D
Lims ID: IC STD20
Client ID:
Sample Type: IC Calib Level: 4
Inject. Date: 09-Nov-2020 14:46:30 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD020
Misc. Info.: 410-0015005-006
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:28:42 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:43:13

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.027	2.027	0.000	99	142822	20.0	20.7	
6 Chloromethane	50	2.234	2.234	0.000	99	188883	20.0	20.9	M
8 Vinyl chloride	62	2.356	2.356	0.000	97	181010	20.0	20.7	
9 Butadiene	39	2.356	2.356	0.000	90	146193	20.0	17.7	
10 Bromomethane	94	2.697	2.697	0.000	91	128825	20.0	21.3	
11 Chloroethane	64	2.794	2.794	0.000	100	120987	20.0	21.4	
12 Dichlorofluoromethane	67	3.037	3.037	0.000	97	267693	20.0	20.1	
13 Trichlorofluoromethane	101	3.110	3.110	0.000	97	224822	20.0	20.8	
15 Pentane	43	3.159	3.159	0.000	97	188751	20.0	16.8	
16 Ethanol	45	3.232	3.232	0.000	91	84508	999.9	945.9	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.445	3.445	0.000	95	158136	20.0	19.4	
18 Acrolein	56	3.548	3.548	0.000	99	426469	200.0	189.8	
20 1,1-Dichloroethene	96	3.694	3.694	0.000	98	121909	20.0	19.2	
21 Acetone	58	3.725	3.725	0.000	80	35382	40.0	37.7	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.725	3.725	0.000	94	112033	20.0	18.0	
23 Isopropyl alcohol	45	3.877	3.877	0.000	99	118371	200.0	211.4	
24 Iodomethane	142	3.907	3.907	0.000	98	217357	20.0	19.9	
25 Carbon disulfide	76	4.017	4.017	0.000	99	411807	20.0	19.4	
26 Methyl acetate	43	4.163	4.163	0.000	98	131479	20.0	18.6	
27 3-Chloro-1-propene	41	4.193	4.193	0.000	91	212399	20.0	20.0	
* 29 t-Butyl alcohol-d10 (IS)	65	4.376	4.376	0.000	0	305914	250.0	250.0	
28 Methylene Chloride	84	4.388	4.388	0.000	90	143280	20.0	19.7	
31 2-Methyl-2-propanol	59	4.516	4.516	0.000	100	250833	200.0	207.3	
32 Acrylonitrile	53	4.729	4.729	0.000	99	75405	20.0	20.3	
33 Methyl tert-butyl ether	73	4.802	4.802	0.000	96	458899	20.0	19.8	
34 trans-1,2-Dichloroethene	96	4.826	4.826	0.000	99	140602	20.0	19.4	
36 Hexane	57	5.246	5.246	0.000	92	168573	20.0	15.5	
37 1,1-Dichloroethane	63	5.477	5.477	0.000	97	258269	20.0	19.8	
39 Isopropyl ether	45	5.532	5.532	0.000	93	444548	20.0	19.6	
40 2-Chloro-1,3-butadiene	53	5.586	5.586	0.000	92	234188	20.0	19.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.067	6.067	0.000	97	459587	20.0	19.8	
S 42 1,2-Dichloroethene, Total	100				0			38.8	
43 2-Butanone (MEK)	43	6.262	6.262	0.000	99	190140	40.0	36.5	
44 cis-1,2-Dichloroethene	96	6.310	6.310	0.000	84	162390	20.0	19.4	
45 2,2-Dichloropropane	77	6.328	6.328	0.000	88	228392	20.0	19.1	
46 Propionitrile	54	6.347	6.347	0.000	98	290954	200.0	198.4	
47 Methacrylonitrile	67	6.572	6.572	0.000	91	420940	100.0	99.6	
48 Chlorobromomethane	128	6.645	6.645	0.000	95	76657	20.0	19.8	
49 Tetrahydrofuran	71	6.651	6.651	0.000	78	59477	40.0	37.4	
50 Chloroform	83	6.791	6.791	0.000	93	250538	20.0	19.5	
$ 51 Dibromofluoromethane (Surr)	113	7.010	7.010	0.000	93	298043	50.0	50.0	
52 1,1,1-Trichloroethane	97	7.022	7.022	0.000	98	222651	20.0	19.2	
54 Cyclohexane	56	7.132	7.132	0.000	89	223808	20.0	17.2	
56 1,1-Dichloropropene	75	7.241	7.241	0.000	95	206219	20.0	19.5	
55 Carbon tetrachloride	117	7.241	7.241	0.000	84	183281	20.0	19.2	
58 Isobutyl alcohol	41	7.357	7.357	0.000	93	191720	500.0	479.9	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.466	7.466	0.000	98	79859	50.0	49.7	
60 Benzene	78	7.503	7.503	0.000	97	608862	20.0	19.7	
61 1,2-Dichloroethane	62	7.576	7.576	0.000	98	192920	20.0	18.5	
62 Tert-amyl methyl ether	73	7.685	7.685	0.000	98	458655	20.0	19.9	
* 64 Fluorobenzene (IS)	96	7.910	7.910	0.000	99	1284881	50.0	50.0	
65 n-Heptane	43	7.916	7.916	0.000	87	157105	20.0	14.6	
66 n-Butanol	56	8.245	8.245	0.000	88	373312	1000.0	1012.3	
67 Trichloroethene	95	8.391	8.391	0.000	99	151591	20.0	19.3	
68 Methylcyclohexane	83	8.701	8.701	0.000	93	273619	20.0	19.2	
70 1,2-Dichloropropane	63	8.725	8.725	0.000	78	152178	20.0	19.6	
69 2-ethoxy-2-methyl butane	87	8.725	8.725	0.000	92	242060	20.0	19.6	
71 Methyl methacrylate	69	8.798	8.798	0.000	91	144183	20.0	19.1	
72 1,4-Dioxane	88	8.811	8.811	0.000	38	38793	500.0	481.7	
74 Dibromomethane	93	8.841	8.841	0.000	96	91691	20.0	19.8	
75 Dichlorobromomethane	83	9.072	9.072	0.000	99	191905	20.0	19.5	
77 2-Nitropropane	41	9.328	9.328	0.000	98	116854	40.0	38.6	
78 2-Chloroethyl vinyl ether	63	9.419	9.419	0.000	93	116776	20.0	19.8	
79 cis-1,3-Dichloropropene	75	9.607	9.607	0.000	96	255157	20.0	19.6	
80 4-Methyl-2-pentanone (MIBK)	43	9.766	9.766	0.000	96	410599	40.0	39.1	
$ 81 Toluene-d8 (Surr)	98	9.906	9.906	0.000	93	1302948	50.0	50.2	
82 Toluene	92	9.985	9.985	0.000	98	392080	20.0	19.5	
S 83 1,3-Dichloropropene, Total	100				0			39.1	
84 trans-1,3-Dichloropropene	75	10.234	10.234	0.000	94	231360	20.0	19.5	
85 Ethyl methacrylate	69	10.289	10.289	0.000	89	242753	20.0	19.7	
86 1,1,2-Trichloroethane	97	10.435	10.435	0.000	90	137287	20.0	19.6	
87 Tetrachloroethene	166	10.526	10.526	0.000	95	181735	20.0	20.3	
88 1,3-Dichloropropane	76	10.599	10.599	0.000	90	240427	20.0	19.7	
89 2-Hexanone	43	10.642	10.642	0.000	95	316229	40.0	38.7	
90 Chlorodibromomethane	129	10.812	10.812	0.000	90	144508	20.0	19.7	
91 Ethylene Dibromide	107	10.928	10.928	0.000	98	143236	20.0	19.8	
S 92 Xylenes, Total	106				0			58.5	
* 93 Chlorobenzene-d5 (IS)	117	11.347	11.347	0.000	87	968118	50.0	50.0	
94 1-Chlorohexane	91	11.353	11.353	0.000	98	217694	20.0	18.3	
95 Chlorobenzene	112	11.378	11.378	0.000	95	427289	20.0	19.6	
96 1,1,1,2-Tetrachloroethane	131	11.457	11.457	0.000	96	144701	20.0	19.6	
97 Ethylbenzene	91	11.457	11.457	0.000	98	759905	20.0	19.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.572	11.572	0.000	100	594080	40.0	38.9	
99 o-Xylene	106	11.901	11.901	0.000	97	291808	20.0	19.6	
100 Styrene	104	11.919	11.919	0.000	95	496644	20.0	19.8	
101 Bromoform	173	12.077	12.077	0.000	96	99422	20.0	19.4	
102 Isopropylbenzene	105	12.199	12.199	0.000	96	770944	20.0	19.4	
103 Cyclohexanone	55	12.278	12.278	0.000	91	160197	500.0	486.5	
$ 104 4-Bromofluorobenzene (Surr)	95	12.345	12.345	0.000	86	500537	50.0	49.4	
105 1,1,2,2-Tetrachloroethane	83	12.442	12.442	0.000	94	217850	20.0	19.9	
106 Bromobenzene	156	12.467	12.467	0.000	91	170158	20.0	19.2	
107 trans-1,4-Dichloro-2-butene	53	12.467	12.467	0.000	90	379471	100.0	98.3	
108 1,2,3-Trichloropropane	110	12.491	12.491	0.000	85	66593	20.0	19.3	
109 N-Propylbenzene	91	12.528	12.528	0.000	99	902119	20.0	19.4	
110 2-Chlorotoluene	126	12.607	12.607	0.000	96	176994	20.0	19.6	
111 1,3,5-Trimethylbenzene	105	12.661	12.661	0.000	93	660030	20.0	19.5	
112 4-Chlorotoluene	126	12.698	12.698	0.000	98	183757	20.0	19.6	
113 tert-Butylbenzene	134	12.905	12.905	0.000	93	137010	20.0	18.8	
114 Pentachloroethane	167	12.941	12.941	0.000	87	85588	20.0	18.3	
115 1,2,4-Trimethylbenzene	105	12.947	12.947	0.000	97	666971	20.0	19.3	
116 sec-Butylbenzene	105	13.069	13.069	0.000	94	811349	20.0	19.0	
117 1,3-Dichlorobenzene	146	13.172	13.172	0.000	97	335061	20.0	19.4	
118 4-Isopropyltoluene	119	13.178	13.178	0.000	97	701546	20.0	19.2	
* 119 1,4-Dichlorobenzene-d4	152	13.227	13.227	0.000	95	508697	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.245	13.245	0.000	93	338163	20.0	19.4	
121 1,2,3-Trimethylbenzene	105	13.251	13.251	0.000	98	692571	20.0	20.1	
122 Benzyl chloride	91	13.318	13.318	0.000	99	491316	20.0	19.8	
123 1,3-Diethylbenzene	119	13.379	13.379	0.000	95	451100	20.0	20.1	
124 p-Diethylbenzene	119	13.452	13.452	0.000	95	470758	20.0	20.1	
125 n-Butylbenzene	92	13.470	13.470	0.000	98	348463	20.0	18.9	
126 1,2-Dichlorobenzene	146	13.507	13.507	0.000	97	316339	20.0	19.4	
127 o-diethylbenzene	119	13.525	13.525	0.000	95	373573	20.0	20.1	
129 1,2-Dibromo-3-Chloropropane	75	14.048	14.048	0.000	83	54408	20.0	19.1	
130 1,3,5-Trichlorobenzene	180	14.176	14.176	0.000	97	218726	20.0	19.0	
131 1,2,4-Trichlorobenzene	180	14.602	14.602	0.000	94	195798	20.0	19.2	
132 Hexachlorobutadiene	225	14.681	14.681	0.000	98	74472	20.0	17.9	
133 Naphthalene	128	14.785	14.785	0.000	97	743654	20.0	19.8	
134 1,2,3-Trichlorobenzene	180	14.931	14.931	0.000	96	186011	20.0	19.4	
135 2-Methylnaphthalene	142	15.588	15.588	0.000	92	427297	20.0	20.2	
S 144 Total Diethylbenzene	1				0			60.3	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_VCYC_00005	Amount Added:	16.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	1.60	Units: uL	
MSV_V_VOA2_00057	Amount Added:	4.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	4.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	16.00	Units: uL	
MSV_DCFM_00054	Amount Added:	2.00	Units: uL	
MSV_V_VOA1_00108	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	2.00	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

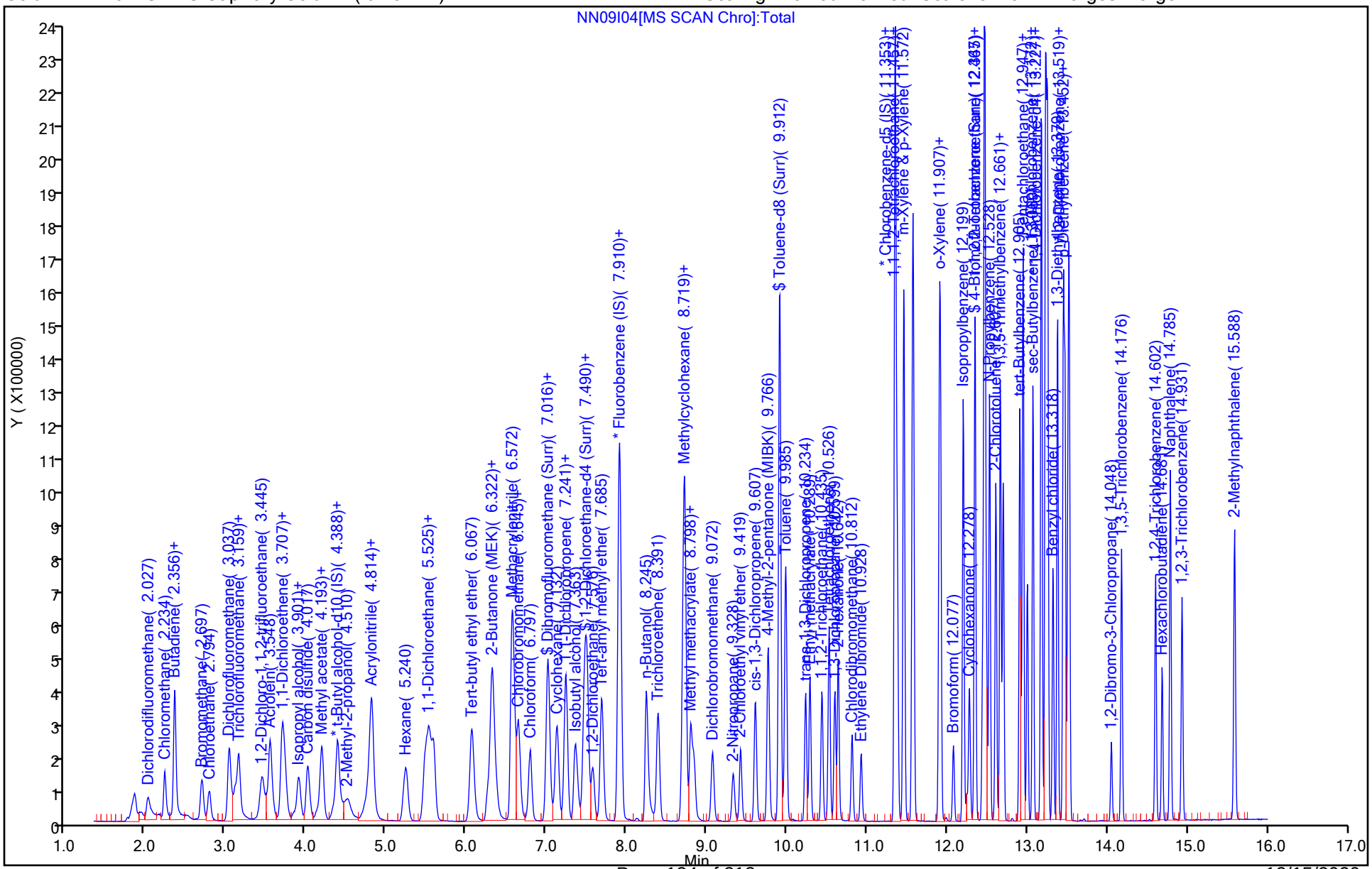
Report Date: 09-Nov-2020 17:28:43 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I04.D

Injection Date:	09-Nov-2020 14:46:30	Instrument ID:	7159	Operator ID:	DVV10203
Lims ID:	IC STD20			Worklist Smp#:	6
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	5
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC

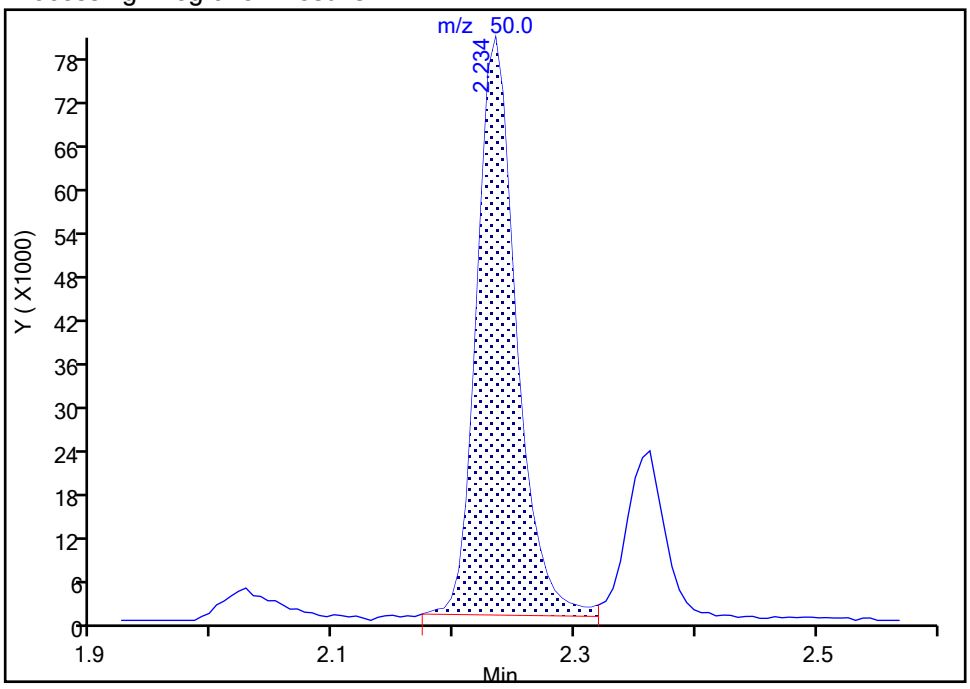
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I04.D
Injection Date: 09-Nov-2020 14:46:30 Instrument ID: 7159
Lims ID: IC STD20
Client ID:
Operator ID: DVV10203 ALS Bottle#: 5 Worklist Smp#: 6
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

6 Chloromethane, CAS: 74-87-3

Signal: 1

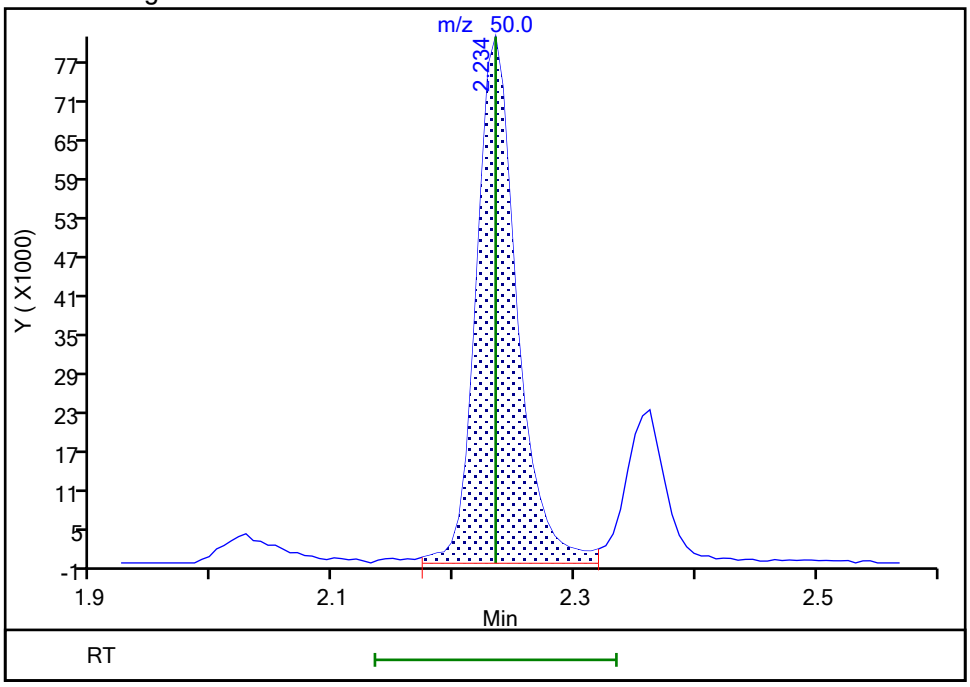
Processing Integration Results

RT: 2.23
Area: 181980
Amount: 20.241944
Amount Units: ug/l



Manual Integration Results

RT: 2.23
Area: 188883
Amount: 20.895176
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:42:11
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I05.D
Lims ID: IC STD10
Client ID:
Sample Type: IC Calib Level: 3
Inject. Date: 09-Nov-2020 15:08:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD010
Misc. Info.: 410-0015005-007
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:28:54 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:46:36

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.031	2.027	0.004	99	70603	10.0	10.3	
6 Chloromethane	50	2.238	2.234	0.004	99	88715	10.0	9.82	
8 Vinyl chloride	62	2.360	2.356	0.004	90	90401	10.0	10.3	
9 Butadiene	39	2.360	2.356	0.004	88	78815	10.0	9.57	
10 Bromomethane	94	2.700	2.697	0.003	90	62828	10.0	10.4	
11 Chloroethane	64	2.792	2.794	-0.002	99	58625	10.0	10.4	
12 Dichlorofluoromethane	67	3.041	3.037	0.004	97	136218	10.0	10.2	
13 Trichlorofluoromethane	101	3.114	3.110	0.004	97	111991	10.0	10.4	
15 Pentane	43	3.157	3.159	-0.002	96	121435	10.0	10.9	
16 Ethanol	45	3.224	3.232	-0.008	77	44245	500.0	502.0	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.449	3.445	0.004	93	87023	10.0	10.7	
18 Acrolein	56	3.552	3.548	0.004	99	217866	100.0	98.3	
20 1,1-Dichloroethene	96	3.698	3.694	0.004	98	68367	10.0	10.8	
21 Acetone	58	3.729	3.725	0.003	73	19468	20.0	21.0	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.735	3.725	0.010	95	67418	10.0	10.9	
23 Isopropyl alcohol	45	3.868	3.877	-0.009	99	58778	100.0	106.4	
24 Iodomethane	142	3.905	3.907	-0.002	98	114696	10.0	10.5	
25 Carbon disulfide	76	4.021	4.017	0.003	99	224636	10.0	10.6	
26 Methyl acetate	43	4.167	4.163	0.004	96	63354	10.0	8.95	
27 3-Chloro-1-propene	41	4.191	4.193	-0.002	91	106087	10.0	10.0	
* 29 t-Butyl alcohol-d10 (IS)	65	4.379	4.376	0.003	0	301768	250.0	250.0	
28 Methylene Chloride	84	4.386	4.388	-0.002	90	76828	10.0	10.6	
31 2-Methyl-2-propanol	59	4.513	4.516	-0.003	98	121600	100.0	101.9	
32 Acrylonitrile	53	4.738	4.729	0.009	97	37948	10.0	10.2	
33 Methyl tert-butyl ether	73	4.793	4.802	-0.009	94	238337	10.0	10.3	
34 trans-1,2-Dichloroethene	96	4.824	4.826	-0.002	98	77021	10.0	10.6	
36 Hexane	57	5.243	5.246	-0.003	92	117134	10.0	10.8	
37 1,1-Dichloroethane	63	5.481	5.477	0.004	96	136722	10.0	10.5	
39 Isopropyl ether	45	5.523	5.532	-0.009	93	235311	10.0	10.4	
40 2-Chloro-1,3-butadiene	53	5.590	5.586	0.004	92	125421	10.0	10.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.071	6.067	0.004	97	237512	10.0	10.2	
S 42 1,2-Dichloroethene, Total	100				0			21.3	
43 2-Butanone (MEK)	43	6.265	6.262	0.003	99	95759	20.0	18.4	
44 cis-1,2-Dichloroethene	96	6.314	6.310	0.004	82	89157	10.0	10.7	
45 2,2-Dichloropropane	77	6.326	6.328	-0.002	88	125172	10.0	10.5	
46 Propionitrile	54	6.344	6.347	-0.003	96	137785	100.0	95.2	
47 Methacrylonitrile	67	6.569	6.572	-0.003	90	209506	50.0	49.6	
48 Chlorobromomethane	128	6.655	6.645	0.010	92	39365	10.0	10.2	
49 Tetrahydrofuran	71	6.661	6.651	0.010	79	28608	20.0	18.2	
50 Chloroform	83	6.795	6.791	0.004	94	132654	10.0	10.3	
$ 51 Dibromofluoromethane (Surr)	113	7.007	7.010	-0.003	93	298018	50.0	50.0	
52 1,1,1-Trichloroethane	97	7.026	7.022	0.004	98	122493	10.0	10.6	
54 Cyclohexane	56	7.129	7.132	-0.003	89	138034	10.0	10.6	
56 1,1-Dichloropropene	75	7.239	7.241	-0.002	95	111484	10.0	10.5	
55 Carbon tetrachloride	117	7.245	7.241	0.004	87	100430	10.0	10.5	
58 Isobutyl alcohol	41	7.360	7.357	0.003	93	100713	250.0	255.6	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.470	7.466	0.004	99	80018	50.0	49.8	
60 Benzene	78	7.506	7.503	0.003	96	322684	10.0	10.4	
61 1,2-Dichloroethane	62	7.573	7.576	-0.003	97	104288	10.0	10.0	
62 Tert-amyl methyl ether	73	7.689	7.685	0.004	98	237632	10.0	10.3	
* 64 Fluorobenzene (IS)	96	7.908	7.910	-0.002	98	1283469	50.0	50.0	
65 n-Heptane	43	7.920	7.916	0.004	59	103945	10.0	9.69	
66 n-Butanol	56	8.249	8.245	0.004	87	185040	500.0	508.6	
67 Trichloroethene	95	8.388	8.391	-0.003	99	82283	10.0	10.5	
68 Methylcyclohexane	83	8.705	8.701	0.004	93	142308	10.0	9.99	
70 1,2-Dichloropropane	63	8.723	8.725	-0.002	70	79764	10.0	10.3	
69 2-ethoxy-2-methyl butane	87	8.723	8.725	-0.002	93	126631	10.0	10.3	
71 Methyl methacrylate	69	8.802	8.798	0.004	92	74853	10.0	9.95	
72 1,4-Dioxane	88	8.820	8.811	0.009	41	20487	250.0	257.9	
74 Dibromomethane	93	8.839	8.841	-0.002	96	48213	10.0	10.4	
75 Dichlorobromomethane	83	9.070	9.072	-0.002	99	99102	10.0	10.1	
77 2-Nitropropane	41	9.325	9.328	-0.003	98	63702	20.0	21.3	
78 2-Chloroethyl vinyl ether	63	9.423	9.419	0.004	92	58297	10.0	9.91	
79 cis-1,3-Dichloropropene	75	9.605	9.607	-0.002	95	136011	10.0	10.5	
80 4-Methyl-2-pentanone (MIBK)	43	9.763	9.766	-0.003	96	214787	20.0	20.5	
$ 81 Toluene-d8 (Surr)	98	9.909	9.906	0.003	93	1294796	50.0	50.4	
82 Toluene	92	9.982	9.985	-0.003	98	208381	10.0	10.5	
S 83 1,3-Dichloropropene, Total	100				0			20.7	
84 trans-1,3-Dichloropropene	75	10.232	10.234	-0.002	93	120524	10.0	10.3	
85 Ethyl methacrylate	69	10.286	10.289	-0.003	90	122796	10.0	10.1	
86 1,1,2-Trichloroethane	97	10.439	10.435	0.004	92	70487	10.0	10.2	
87 Tetrachloroethene	166	10.524	10.526	-0.002	96	95948	10.0	10.8	
88 1,3-Dichloropropane	76	10.597	10.599	-0.002	89	122447	10.0	10.1	
89 2-Hexanone	43	10.639	10.642	-0.003	96	165319	20.0	20.4	
90 Chlorodibromomethane	129	10.810	10.812	-0.002	90	75363	10.0	10.4	
91 Ethylene Dibromide	107	10.925	10.928	-0.003	99	73760	10.0	10.3	
S 92 Xylenes, Total	106				0			31.7	
* 93 Chlorobenzene-d5 (IS)	117	11.351	11.347	0.004	88	958193	50.0	50.0	
94 1-Chlorohexane	91	11.351	11.353	-0.002	97	123920	10.0	10.5	
95 Chlorobenzene	112	11.375	11.378	-0.003	95	226075	10.0	10.5	
96 1,1,1,2-Tetrachloroethane	131	11.455	11.457	-0.003	94	74894	10.0	10.3	
97 Ethylbenzene	91	11.461	11.457	0.004	98	412354	10.0	10.7	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.576	11.572	0.004	100	319514	20.0	21.1	
99 o-Xylene	106	11.905	11.901	0.004	96	156007	10.0	10.6	
100 Styrene	104	11.917	11.919	-0.002	94	261769	10.0	10.5	
101 Bromoform	173	12.081	12.077	0.004	95	51204	10.0	10.1	
102 Isopropylbenzene	105	12.203	12.199	0.004	96	422971	10.0	10.7	
103 Cyclohexanone	55	12.276	12.278	-0.002	91	78673	250.0	242.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.349	12.345	0.004	86	506323	50.0	50.5	
105 1,1,2,2-Tetrachloroethane	83	12.440	12.442	-0.002	96	109727	10.0	10.2	
106 Bromobenzene	156	12.464	12.467	-0.003	96	88955	10.0	10.2	
107 trans-1,4-Dichloro-2-butene	53	12.464	12.467	-0.003	89	187907	50.0	49.5	
108 1,2,3-Trichloropropane	110	12.495	12.491	0.004	86	35098	10.0	10.3	
109 N-Propylbenzene	91	12.531	12.528	0.003	99	489688	10.0	10.7	
110 2-Chlorotoluene	126	12.610	12.607	0.003	96	96168	10.0	10.8	
111 1,3,5-Trimethylbenzene	105	12.665	12.661	0.004	94	357440	10.0	10.7	
112 4-Chlorotoluene	126	12.702	12.698	0.004	98	96243	10.0	10.4	
113 tert-Butylbenzene	134	12.908	12.905	0.003	93	73774	10.0	10.3	
114 Pentachloroethane	167	12.945	12.941	0.004	83	42719	10.0	9.26	
115 1,2,4-Trimethylbenzene	105	12.951	12.947	0.004	97	365894	10.0	10.7	
116 sec-Butylbenzene	105	13.073	13.069	0.004	94	452942	10.0	10.8	
117 1,3-Dichlorobenzene	146	13.170	13.172	-0.002	97	177811	10.0	10.5	
118 4-Isopropyltoluene	119	13.176	13.178	-0.002	97	384495	10.0	10.7	
* 119 1,4-Dichlorobenzene-d4	152	13.231	13.227	0.004	97	500762	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.249	13.245	0.004	94	180960	10.0	10.6	
121 1,2,3-Trimethylbenzene	105	13.255	13.251	0.004	98	342941	10.0	10.1	
122 Benzyl chloride	91	13.322	13.318	0.004	99	250009	10.0	10.2	
123 1,3-Diethylbenzene	119	13.377	13.379	-0.002	95	224122	10.0	10.1	
124 p-Diethylbenzene	119	13.450	13.452	-0.002	95	233455	10.0	10.1	
125 n-Butylbenzene	92	13.468	13.470	-0.002	97	188517	10.0	10.4	
126 1,2-Dichlorobenzene	146	13.505	13.507	-0.002	97	167678	10.0	10.4	
127 o-diethylbenzene	119	13.523	13.525	-0.002	96	183838	10.0	10.1	
129 1,2-Dibromo-3-Chloropropane	75	14.046	14.048	-0.002	84	28500	10.0	10.2	
130 1,3,5-Trichlorobenzene	180	14.180	14.176	0.004	97	117489	10.0	10.4	
131 1,2,4-Trichlorobenzene	180	14.600	14.602	-0.002	94	103974	10.0	10.3	
132 Hexachlorobutadiene	225	14.685	14.681	0.004	97	42286	10.0	10.3	
133 Naphthalene	128	14.788	14.785	0.004	97	380921	10.0	10.3	
134 1,2,3-Trichlorobenzene	180	14.934	14.931	0.004	95	98605	10.0	10.4	
135 2-Methylnaphthalene	142	15.585	15.588	-0.003	93	204632	10.0	9.84	
S 144 Total Diethylbenzene	1				0			30.3	

QC Flag Legend

Processing Flags

Reagents:

MSV_VCYC_00005	Amount Added:	8.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	8.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	2.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	0.80	Units: uL	
MSV_V_VOA2_00057	Amount Added:	2.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	2.00	Units: uL	
MSV_DCFM_00054	Amount Added:	1.00	Units: uL	
MSV_V_VOA1_00108	Amount Added:	2.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	1.00	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Nov-2020 17:28:55 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I05.D

Injection Date: 09-Nov-2020 15:08:30 Instrument ID: 7159 Operator ID: DVV10203

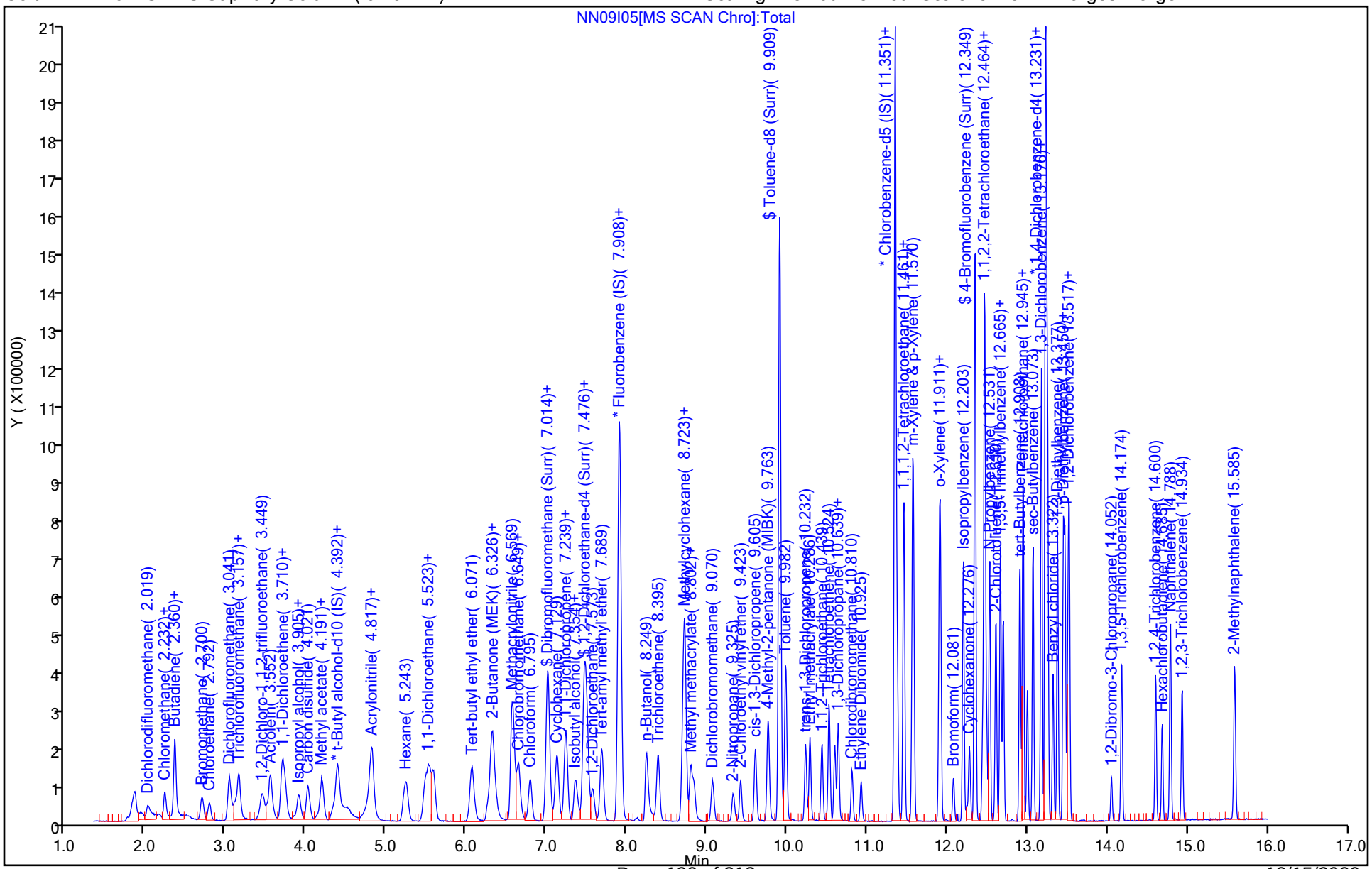
Lims ID: IC STD10 Worklist Smp#: 7

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 6

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D
Lims ID: IC STD4
Client ID:
Sample Type: IC Calib Level: 2
Inject. Date: 09-Nov-2020 15:30:30 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD004
Misc. Info.: 410-0015005-008
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:29:07 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:52:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.021	2.027	-0.006	99	30532	4.00	4.42	
6 Chloromethane	50	2.234	2.234	0.000	99	36811	4.00	4.05	
8 Vinyl chloride	62	2.361	2.356	0.005	91	36628	4.00	4.16	
9 Butadiene	39	2.361	2.356	0.005	89	34718	4.00	4.19	
10 Bromomethane	94	2.696	2.697	-0.001	91	24505	4.00	4.04	
11 Chloroethane	64	2.793	2.794	-0.001	99	23027	4.00	4.06	
12 Dichlorofluoromethane	67	3.043	3.037	0.006	97	56689	4.00	4.24	
13 Trichlorofluoromethane	101	3.116	3.110	0.006	82	44616	4.00	4.10	
15 Pentane	43	3.164	3.159	0.005	95	46192	4.00	4.10	
16 Ethanol	45	3.237	3.232	0.005	30	24017	250.0	258.1	M
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.450	3.445	0.005	92	33710	4.00	4.12	
18 Acrolein	56	3.560	3.548	0.012	99	91493	40.0	39.1	
20 1,1-Dichloroethene	96	3.706	3.694	0.012	98	26471	4.00	4.14	
21 Acetone	58	3.736	3.725	0.011	74	8295	8.00	8.48	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.730	3.725	0.005	92	26286	4.00	4.21	
23 Isopropyl alcohol	45	3.888	3.877	0.011	99	39897	80.0	68.4	
24 Iodomethane	142	3.913	3.907	0.006	98	44133	4.00	4.02	
25 Carbon disulfide	76	4.022	4.017	0.005	99	84671	4.00	3.97	
26 Methyl acetate	43	4.174	4.163	0.011	96	28174	4.00	3.96	M
27 3-Chloro-1-propene	41	4.199	4.193	0.006	92	44203	4.00	4.15	
* 29 t-Butyl alcohol-d10 (IS)	65	4.381	4.376	0.005	0	318677	250.0	250.0	
28 Methylene Chloride	84	4.393	4.388	0.005	83	28994	4.00	3.98	
31 2-Methyl-2-propanol	59	4.509	4.516	-0.007	99	87879	80.0	69.7	
32 Acrylonitrile	53	4.758	4.729	0.029	96	14642	4.00	3.92	
33 Methyl tert-butyl ether	73	4.795	4.802	-0.007	94	92694	4.00	3.99	
34 trans-1,2-Dichloroethene	96	4.819	4.826	-0.007	98	29738	4.00	4.09	
36 Hexane	57	5.239	5.246	-0.007	91	46378	4.00	4.26	M
37 1,1-Dichloroethane	63	5.482	5.477	0.005	96	51850	4.00	3.97	
39 Isopropyl ether	45	5.537	5.532	0.005	96	89747	4.00	3.95	
40 2-Chloro-1,3-butadiene	53	5.592	5.586	0.006	92	48917	4.00	4.06	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.066	6.067	-0.001	97	93115	4.00	3.99	
S 42 1,2-Dichloroethene, Total	100				0			8.02	
43 2-Butanone (MEK)	43	6.273	6.262	0.011	100	41184	8.00	7.87	
44 cis-1,2-Dichloroethene	96	6.316	6.310	0.006	84	33045	4.00	3.93	
45 2,2-Dichloropropane	77	6.334	6.328	0.006	75	48764	4.00	4.07	a
46 Propionitrile	54	6.358	6.347	0.011	100	122406	80.0	80.1	
47 Methacrylonitrile	67	6.571	6.572	-0.001	90	166252	40.0	39.1	
48 Chlorobromomethane	128	6.650	6.645	0.005	91	15545	4.00	4.00	
49 Tetrahydrofuran	71	6.650	6.651	-0.001	72	13104	8.00	7.90	
50 Chloroform	83	6.796	6.791	0.005	93	52482	4.00	4.06	
$ 51 Dibromofluoromethane (Surr)	113	7.009	7.010	-0.001	93	300624	50.0	50.2	
52 1,1,1-Trichloroethane	97	7.027	7.022	0.005	98	46354	4.00	3.97	
54 Cyclohexane	56	7.125	7.132	-0.007	88	55144	4.00	4.21	
56 1,1-Dichloropropene	75	7.240	7.241	-0.001	94	42121	4.00	3.96	
55 Carbon tetrachloride	117	7.246	7.241	0.005	88	37952	4.00	3.96	
58 Isobutyl alcohol	41	7.362	7.357	0.005	94	83195	200.0	199.9	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.471	7.466	0.005	98	82034	50.0	50.8	
60 Benzene	78	7.508	7.503	0.005	94	124035	4.00	3.99	
61 1,2-Dichloroethane	62	7.581	7.576	0.005	97	42986	4.00	4.10	
62 Tert-amyl methyl ether	73	7.684	7.685	-0.001	98	93382	4.00	4.03	
* 64 Fluorobenzene (IS)	96	7.909	7.910	-0.001	98	1290720	50.0	50.0	
65 n-Heptane	43	7.916	7.916	0.000	39	43065	4.00	3.99	
66 n-Butanol	56	8.250	8.245	0.005	89	143674	400.0	374.0	
67 Trichloroethene	95	8.390	8.391	-0.001	98	31527	4.00	4.00	
68 Methylcyclohexane	83	8.706	8.701	0.005	93	61441	4.00	4.29	
70 1,2-Dichloropropane	63	8.731	8.725	0.006	68	30960	4.00	3.97	
69 2-ethoxy-2-methyl butane	87	8.725	8.725	0.000	89	49089	4.00	3.96	
71 Methyl methacrylate	69	8.798	8.798	0.000	91	30511	4.00	4.03	
72 1,4-Dioxane	88	8.816	8.811	0.005	81	15644	200.0	186.5	
74 Dibromomethane	93	8.840	8.841	-0.001	95	18428	4.00	3.96	
75 Dichlorobromomethane	83	9.071	9.072	-0.001	98	38804	4.00	3.92	
77 2-Nitropropane	41	9.333	9.328	0.005	98	23139	8.00	7.34	
78 2-Chloroethyl vinyl ether	63	9.418	9.419	-0.001	93	24139	4.00	4.08	
79 cis-1,3-Dichloropropene	75	9.607	9.607	0.000	96	50222	4.00	3.85	
80 4-Methyl-2-pentanone (MIBK)	43	9.765	9.766	-0.001	95	87637	8.00	8.30	
$ 81 Toluene-d8 (Surr)	98	9.911	9.906	0.005	93	1295641	50.0	50.2	
82 Toluene	92	9.984	9.985	-0.001	99	81346	4.00	4.07	
S 83 1,3-Dichloropropene, Total	100				0			7.77	
84 trans-1,3-Dichloropropene	75	10.233	10.234	-0.001	92	46267	4.00	3.92	
85 Ethyl methacrylate	69	10.288	10.289	-0.001	88	50771	4.00	4.15	
86 1,1,2-Trichloroethane	97	10.440	10.435	0.005	90	27680	4.00	3.98	
87 Tetrachloroethene	166	10.525	10.526	-0.001	93	36374	4.00	4.09	
88 1,3-Dichloropropane	76	10.598	10.599	-0.001	87	48269	4.00	3.98	
89 2-Hexanone	43	10.641	10.642	-0.001	96	66528	8.00	8.20	
90 Chlorodibromomethane	129	10.811	10.812	-0.001	89	28306	4.00	3.88	
91 Ethylene Dibromide	107	10.927	10.928	-0.001	100	28755	4.00	3.99	
S 92 Xylenes, Total	106				0			11.9	
* 93 Chlorobenzene-d5 (IS)	117	11.353	11.347	0.006	88	961749	50.0	50.0	
94 1-Chlorohexane	91	11.353	11.353	0.000	84	48558	4.00	4.10	
95 Chlorobenzene	112	11.377	11.378	-0.001	95	86714	4.00	4.01	
96 1,1,1,2-Tetrachloroethane	131	11.456	11.457	-0.001	95	28757	4.00	3.92	
97 Ethylbenzene	91	11.462	11.457	0.005	98	158060	4.00	4.08	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.572	11.572	0.000	100	121680	8.00	8.02	
99 o-Xylene	106	11.900	11.901	-0.001	97	57711	4.00	3.91	
100 Styrene	104	11.918	11.919	-0.001	95	98221	4.00	3.93	
101 Bromoform	173	12.083	12.077	0.006	95	19565	4.00	3.84	
102 Isopropylbenzene	105	12.198	12.199	-0.001	96	161427	4.00	4.09	
103 Cyclohexanone	55	12.277	12.278	-0.001	91	65408	200.0	190.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.344	12.345	-0.001	85	507273	50.0	50.4	
105 1,1,2,2-Tetrachloroethane	83	12.442	12.442	0.000	92	45177	4.00	4.19	
106 Bromobenzene	156	12.466	12.467	-0.001	81	34870	4.00	4.00	
107 trans-1,4-Dichloro-2-butene	53	12.466	12.467	-0.001	93	152352	40.0	40.0	
108 1,2,3-Trichloropropane	110	12.490	12.491	-0.001	84	13703	4.00	4.03	
109 N-Propylbenzene	91	12.527	12.528	-0.001	99	187722	4.00	4.10	
110 2-Chlorotoluene	126	12.612	12.607	0.005	96	35846	4.00	4.02	
111 1,3,5-Trimethylbenzene	105	12.661	12.661	0.000	94	134368	4.00	4.02	
112 4-Chlorotoluene	126	12.703	12.698	0.005	98	35360	4.00	3.83	
113 tert-Butylbenzene	134	12.910	12.905	0.005	93	28593	4.00	3.99	
114 Pentachloroethane	167	12.947	12.941	0.006	91	17259	4.00	3.73	
115 1,2,4-Trimethylbenzene	105	12.947	12.947	0.000	97	137358	4.00	4.03	
116 sec-Butylbenzene	105	13.068	13.069	-0.001	94	172191	4.00	4.09	
117 1,3-Dichlorobenzene	146	13.172	13.172	0.000	97	68147	4.00	4.00	
118 4-Isopropyltoluene	119	13.178	13.178	0.000	97	146070	4.00	4.05	
* 119 1,4-Dichlorobenzene-d4	152	13.226	13.227	-0.001	97	501594	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.245	13.245	0.000	94	68854	4.00	4.01	
121 1,2,3-Trimethylbenzene	105	13.257	13.251	0.006	98	142603	4.00	4.19	
122 Benzyl chloride	91	13.318	13.318	0.000	99	97006	4.00	3.96	
123 1,3-Diethylbenzene	119	13.378	13.379	-0.001	95	89713	4.00	4.05	
124 p-Diethylbenzene	119	13.451	13.452	-0.001	95	94166	4.00	4.07	
125 n-Butylbenzene	92	13.470	13.470	0.000	97	71835	4.00	3.95	
126 1,2-Dichlorobenzene	146	13.506	13.507	-0.001	97	64614	4.00	4.01	
127 o-diethylbenzene	119	13.524	13.525	-0.001	96	74040	4.00	4.05	
129 1,2-Dibromo-3-Chloropropane	75	14.048	14.048	0.000	85	10651	4.00	3.80	
130 1,3,5-Trichlorobenzene	180	14.175	14.176	-0.001	96	44290	4.00	3.90	
131 1,2,4-Trichlorobenzene	180	14.601	14.602	-0.001	94	40083	4.00	3.98	
132 Hexachlorobutadiene	225	14.686	14.681	0.005	98	15747	4.00	3.83	
133 Naphthalene	128	14.784	14.785	0.000	97	148904	4.00	4.02	
134 1,2,3-Trichlorobenzene	180	14.930	14.931	0.000	96	37167	4.00	3.93	
135 2-Methylnaphthalene	142	15.587	15.588	-0.001	93	80406	4.00	3.86	
S 144 Total Diethylbenzene	1				0			12.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

a - User Assigned ID

Reagents:

MSV_VCYC_00005	Amount Added:	32.00	Units: uL	
MSV_V_2CEVE_00120	Amount Added:	4.00	Units: uL	
MSV_V_VOA3_00054	Amount Added:	1.60	Units: uL	
MSV_V_VOA2_00057	Amount Added:	12.00	Units: uL	
MSV_V_VOA6_00060	Amount Added:	4.00	Units: uL	
MSV_V_ETOH_00008	Amount Added:	20.00	Units: uL	
MSV_DCFM_00054	Amount Added:	2.00	Units: uL	
MSV_V_VOA1_00108	Amount Added:	4.00	Units: uL	
MSV_V_Gas_00172	Amount Added:	2.00	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

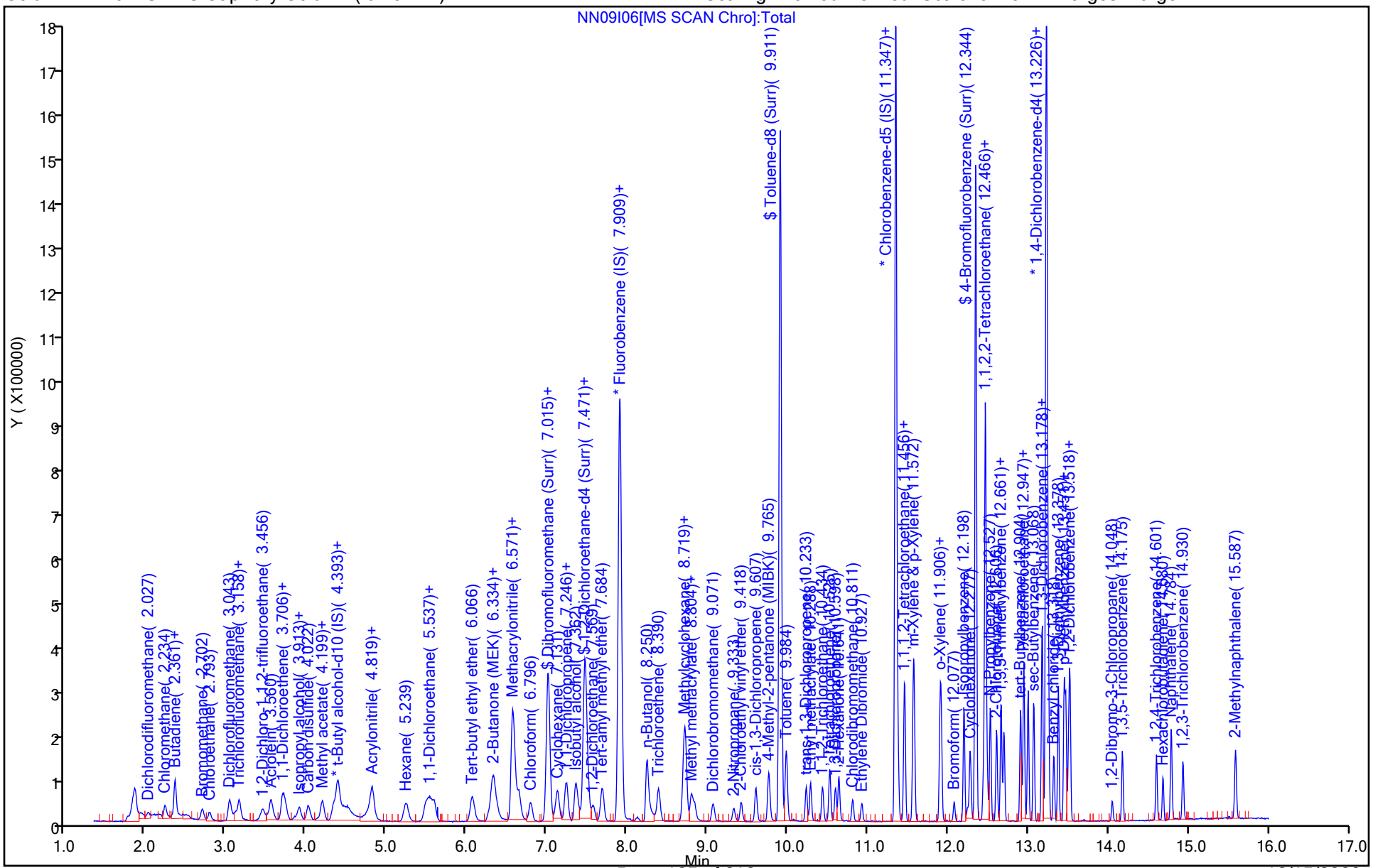
Report Date: 09-Nov-2020 17:29:08 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D

Injection Date:	09-Nov-2020 15:30:30	Instrument ID:	7159	Operator ID:	DVV10203
Lims ID:	IC STD4			Worklist Smp#:	8
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	7
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

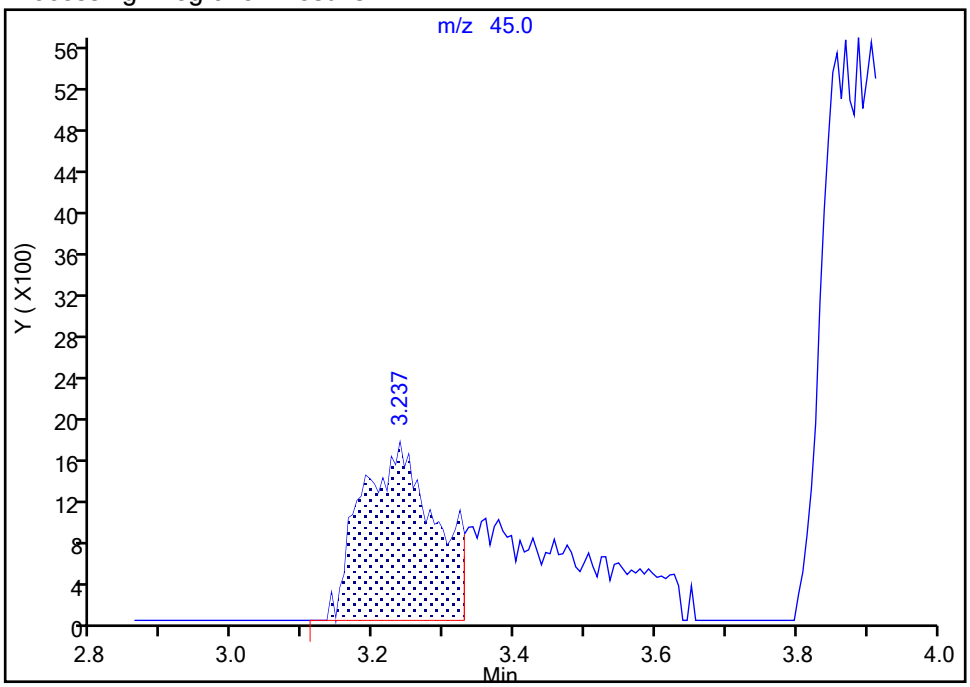
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D
Injection Date: 09-Nov-2020 15:30:30 Instrument ID: 7159
Lims ID: IC STD4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

16 Ethanol, CAS: 64-17-5

Signal: 1

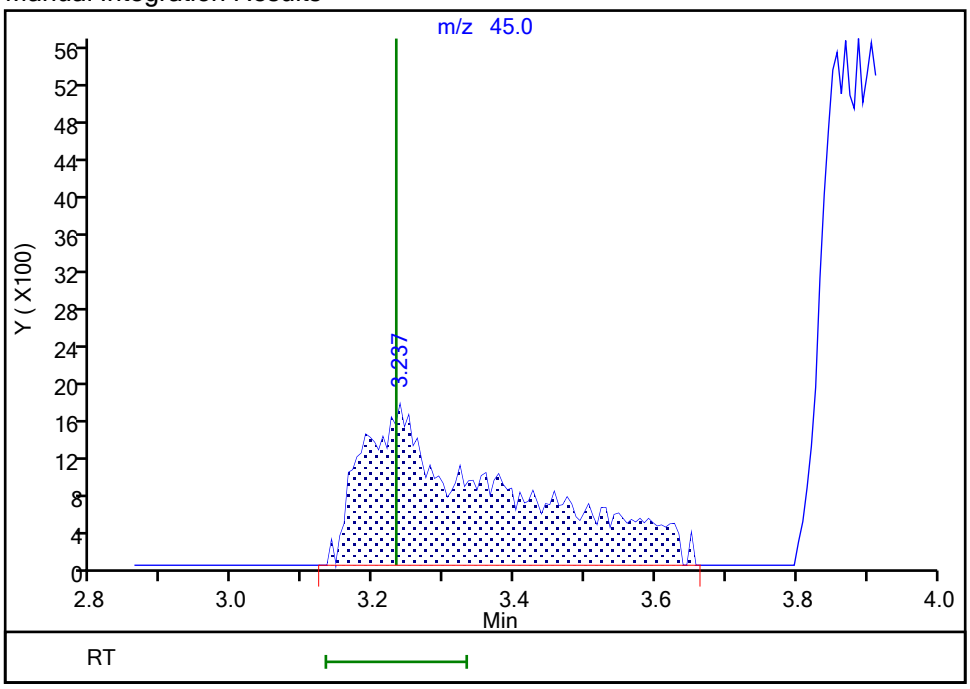
Processing Integration Results

RT: 3.24
Area: 12445
Amount: 158.2921
Amount Units: ug/l



Manual Integration Results

RT: 3.24
Area: 24017
Amount: 258.0591
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:51:26
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

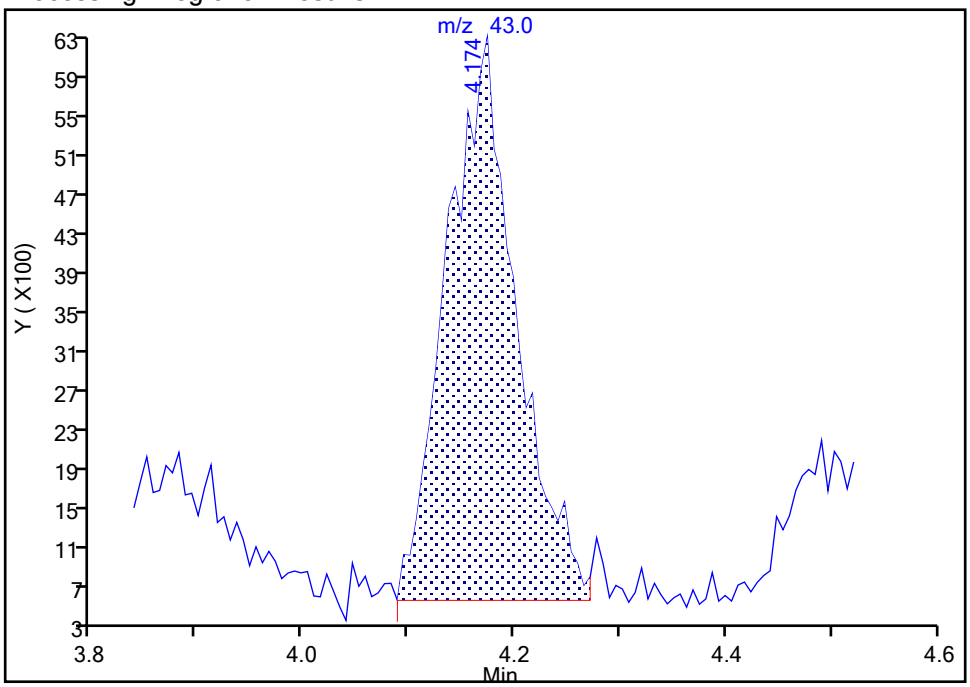
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D
Injection Date: 09-Nov-2020 15:30:30 Instrument ID: 7159
Lims ID: IC STD4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

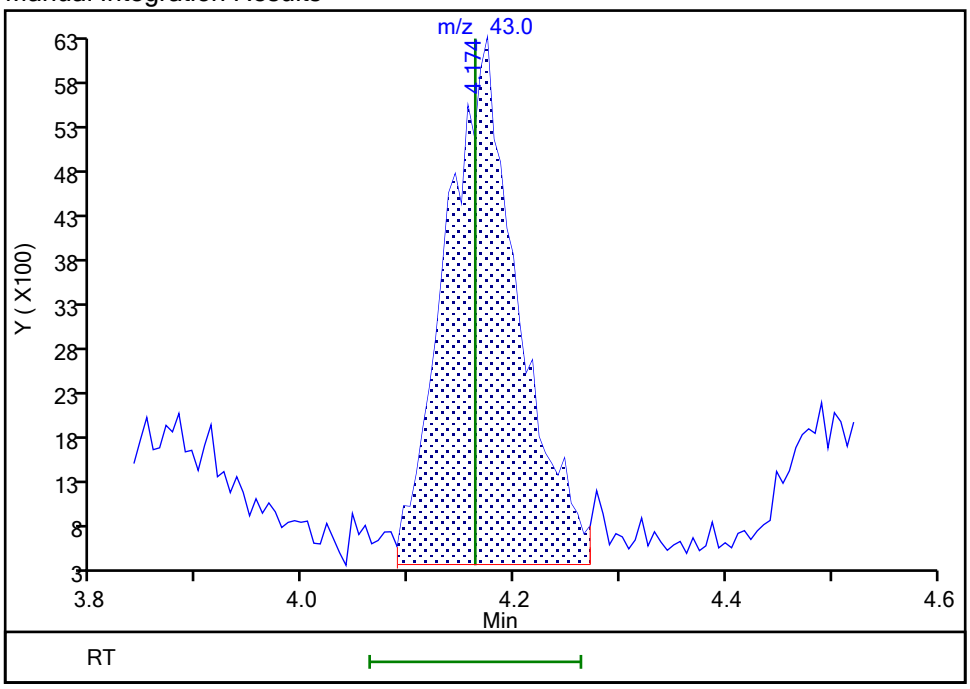
Processing Integration Results

RT: 4.17
Area: 25979
Amount: 4.882147
Amount Units: ug/l



Manual Integration Results

RT: 4.17
Area: 28174
Amount: 3.957814
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:51:42
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

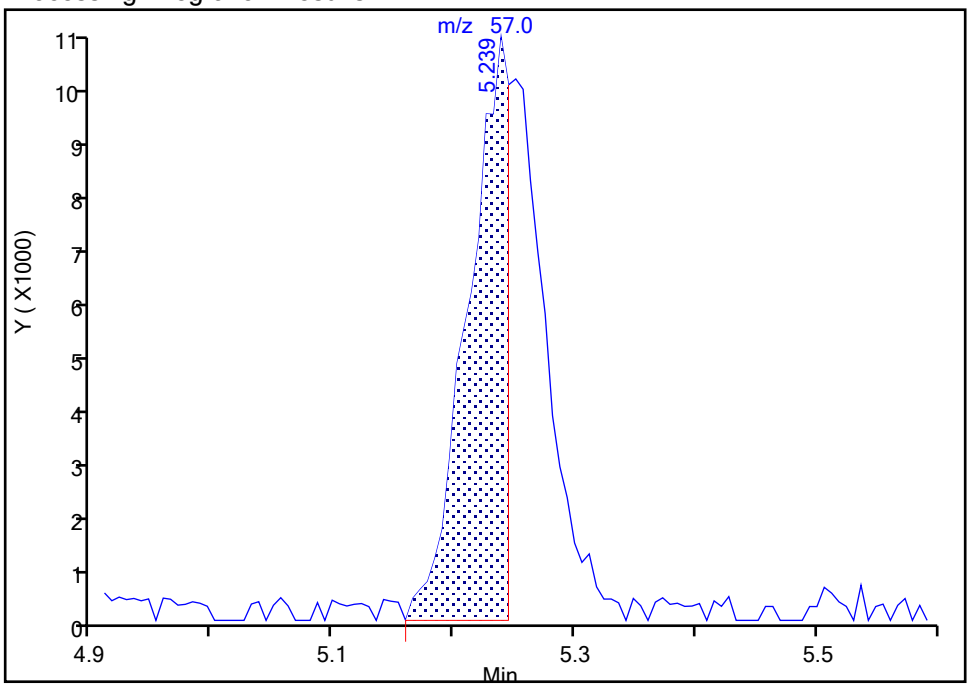
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D
Injection Date: 09-Nov-2020 15:30:30 Instrument ID: 7159
Lims ID: IC STD4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

36 Hexane, CAS: 110-54-3

Signal: 1

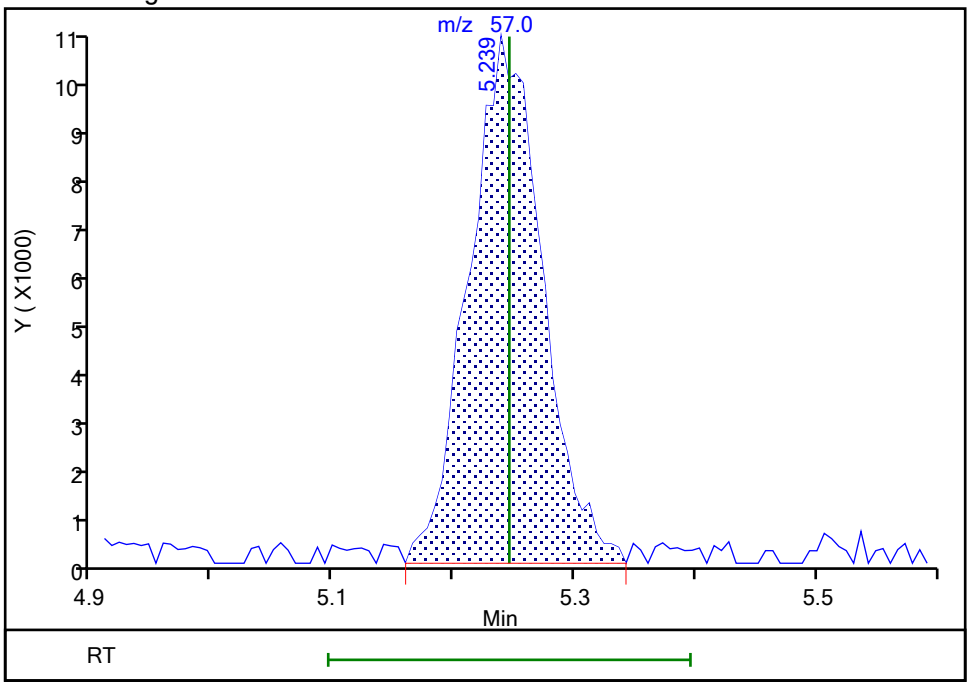
Processing Integration Results

RT: 5.24
Area: 26057
Amount: 2.352679
Amount Units: ug/l



Manual Integration Results

RT: 5.24
Area: 46378
Amount: 4.255778
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:51:57
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

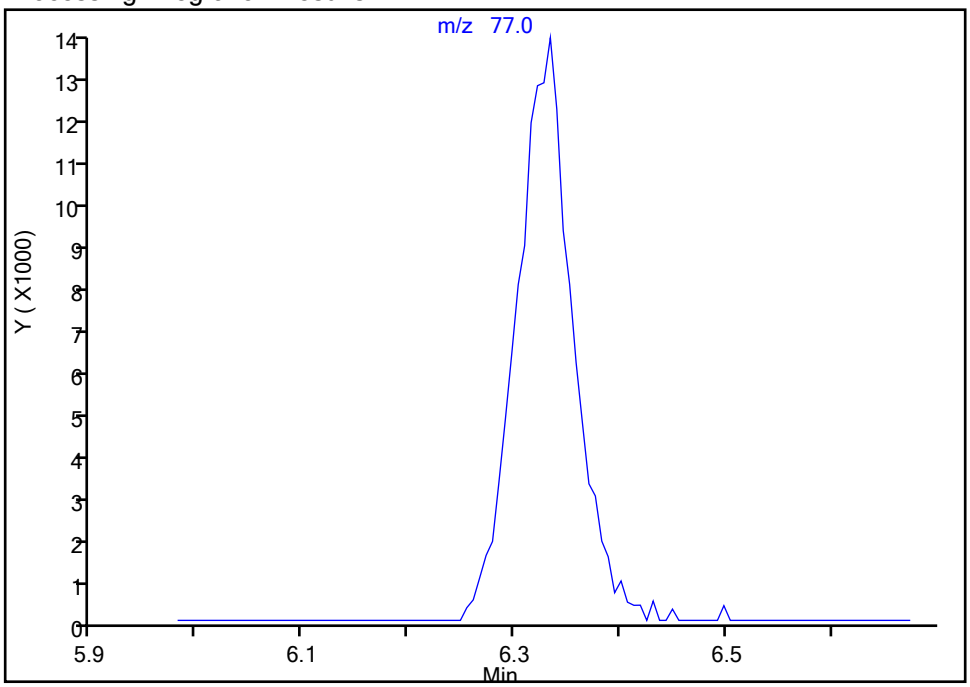
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I06.D
Injection Date: 09-Nov-2020 15:30:30 Instrument ID: 7159
Lims ID: IC STD4
Client ID:
Operator ID: DVV10203 ALS Bottle#: 7 Worklist Smp#: 8
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

45 2,2-Dichloropropane, CAS: 594-20-7

Signal: 1

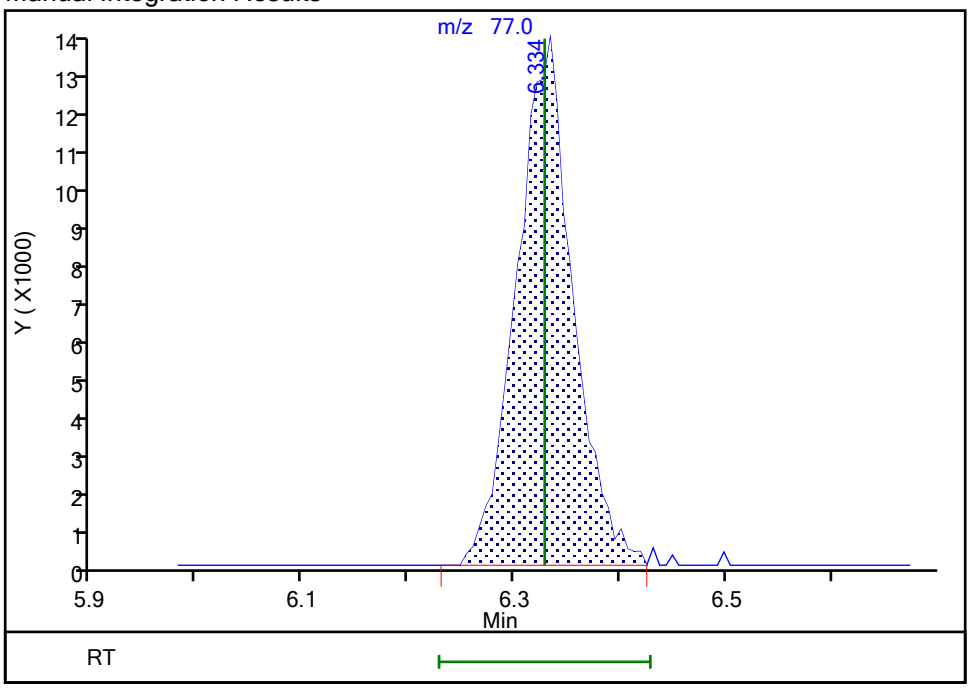
Not Detected
Expected RT: 6.33

Processing Integration Results



Manual Integration Results

RT: 6.33
Area: 48764
Amount: 4.066850
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:52:08
Audit Action: Assigned Compound ID Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Lims ID: IC STD1
Client ID:
Sample Type: IC Calib Level: 1
Inject. Date: 09-Nov-2020 15:52:30 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: IC VSTD001
Misc. Info.: 410-0015005-009
Operator ID: DVV10203 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub5

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:29:19 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 16:56:58

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.006	2.027	-0.021	31	5345	1.00	0.7614	
6 Chloromethane	50	2.219	2.234	-0.015	99	9619	1.00	1.04	
8 Vinyl chloride	62	2.346	2.356	-0.010	87	7818	1.00	0.8754	
9 Butadiene	39	2.346	2.356	-0.010	85	11442	1.00	1.36	M
10 Bromomethane	94	2.681	2.697	-0.016	94	5538	1.00	0.8985	
11 Chloroethane	64	2.778	2.794	-0.016	79	5127	1.00	0.8896	
12 Dichlorofluoromethane	67	3.028	3.037	-0.009	96	13893	1.00	1.02	
13 Trichlorofluoromethane	101	3.107	3.110	-0.003	94	9399	1.00	0.8510	M
15 Pentane	43	3.149	3.159	-0.010	93	9530	1.00	0.8342	
16 Ethanol	45	3.271	3.232	0.039	38	6061	62.5	67.8	M
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.448	3.445	0.003	91	7746	1.00	0.9336	
18 Acrolein	56	3.539	3.548	-0.009	98	23674	10.0	10.5	
20 1,1-Dichloroethene	96	3.691	3.694	-0.003	96	5811	1.00	0.8956	M
21 Acetone	58	3.691	3.725	-0.034	32	1649	2.00	1.76	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.715	3.725	-0.010	58	4841	1.00	0.7635	
23 Isopropyl alcohol	45	3.886	3.877	0.009	51	12145	20.0	21.7	
24 Iodomethane	142	3.892	3.907	-0.015	96	9774	1.00	0.8772	M
25 Carbon disulfide	76	4.013	4.017	-0.004	99	19675	1.00	0.9098	
26 Methyl acetate	43	4.165	4.163	0.002	41	9438	1.00	1.31	M
27 3-Chloro-1-propene	41	4.190	4.193	-0.003	89	9860	1.00	0.9124	
* 29 t-Butyl alcohol-d10 (IS)	65	4.366	4.376	-0.010	0	306092	250.0	250.0	
28 Methylene Chloride	84	4.378	4.388	-0.010	88	6966	1.00	0.9413	
31 2-Methyl-2-propanol	59	4.506	4.516	-0.010	98	24233	20.0	20.0	
32 Acrylonitrile	53	4.756	4.729	0.027	26	3317	1.00	0.8756	M
33 Methyl tert-butyl ether	73	4.792	4.802	-0.010	95	23112	1.00	0.9797	
34 trans-1,2-Dichloroethene	96	4.798	4.826	-0.028	94	6482	1.00	0.8779	
36 Hexane	57	5.236	5.246	-0.010	89	9143	1.00	0.8265	M
37 1,1-Dichloroethane	63	5.473	5.477	-0.004	76	11836	1.00	0.8919	
39 Isopropyl ether	45	5.522	5.532	-0.010	96	22765	1.00	0.9858	
40 2-Chloro-1,3-butadiene	53	5.583	5.586	-0.003	91	10659	1.00	0.8713	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.063	6.067	-0.004	97	23836	1.00	1.01	
S 42 1,2-Dichloroethene, Total	100				0			1.86	
43 2-Butanone (MEK)	43	6.276	6.262	0.014	21	14382	2.00	2.71	M
44 cis-1,2-Dichloroethene	96	6.307	6.310	-0.003	81	8347	1.00	0.9784	
45 2,2-Dichloropropane	77	6.313	6.328	-0.015	81	11060	1.00	0.9086	
46 Propionitrile	54	6.349	6.347	0.002	98	28215	20.0	19.2	
47 Methacrylonitrile	67	6.568	6.572	-0.004	88	42205	10.0	9.79	
48 Chlorobromomethane	128	6.635	6.645	-0.010	89	3763	1.00	0.9532	M
49 Tetrahydrofuran	71	6.660	6.651	0.009	66	4275	2.00	2.68	
50 Chloroform	83	6.787	6.791	-0.004	94	12742	1.00	0.9709	
$ 51 Dibromofluoromethane (Surr)	113	7.006	7.010	-0.004	93	299508	50.0	49.3	
52 1,1,1-Trichloroethane	97	7.031	7.022	0.009	96	11231	1.00	0.9476	
54 Cyclohexane	56	7.116	7.132	-0.016	87	11649	1.00	0.8765	
56 1,1-Dichloropropene	75	7.238	7.241	-0.003	94	9445	1.00	0.8738	
55 Carbon tetrachloride	117	7.231	7.241	-0.010	90	8439	1.00	0.8675	
58 Isobutyl alcohol	41	7.359	7.357	0.002	94	19332	50.0	48.4	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.466	-0.003	97	81793	50.0	49.9	
60 Benzene	78	7.505	7.503	0.002	64	28911	1.00	0.9167	
61 1,2-Dichloroethane	62	7.566	7.576	-0.010	60	11346	1.00	1.07	
62 Tert-amyl methyl ether	73	7.682	7.685	-0.003	97	22896	1.00	0.9741	
* 64 Fluorobenzene (IS)	96	7.901	7.910	-0.009	99	1310267	50.0	50.0	
65 n-Heptane	43	7.907	7.916	-0.009	36	11379	1.00	1.04	
66 n-Butanol	56	8.247	8.245	0.002	87	36747	100.0	99.6	
67 Trichloroethene	95	8.387	8.391	-0.004	98	7239	1.00	0.9049	
68 Methylcyclohexane	83	8.704	8.701	0.003	90	12769	1.00	0.8779	
70 1,2-Dichloropropane	63	8.722	8.725	-0.003	68	7091	1.00	0.8959	
69 2-ethoxy-2-methyl butane	87	8.722	8.725	-0.003	90	11514	1.00	0.9148	
71 Methyl methacrylate	69	8.795	8.798	-0.003	91	8577	1.00	1.12	
72 1,4-Dioxane	88	8.801	8.811	-0.010	25	3900	50.0	48.4	M
74 Dibromomethane	93	8.838	8.841	-0.003	90	4457	1.00	0.9433	
75 Dichlorobromomethane	83	9.069	9.072	-0.003	98	9737	1.00	0.9682	
77 2-Nitropropane	41	9.330	9.328	0.002	98	6090	2.00	2.01	
78 2-Chloroethyl vinyl ether	63	9.428	9.419	0.009	91	5698	1.00	0.9489	
79 cis-1,3-Dichloropropene	75	9.604	9.607	-0.003	95	12385	1.00	0.9347	
80 4-Methyl-2-pentanone (MIBK)	43	9.762	9.766	-0.004	94	21560	2.00	2.01	
$ 81 Toluene-d8 (Surr)	98	9.908	9.906	0.002	94	1326021	50.0	50.1	
82 Toluene	92	9.987	9.985	0.002	98	19177	1.00	0.9339	
S 83 1,3-Dichloropropene, Total	100				0			1.91	
84 trans-1,3-Dichloropropene	75	10.231	10.234	-0.003	91	11779	1.00	0.9720	
85 Ethyl methacrylate	69	10.285	10.289	-0.004	87	12325	1.00	0.9804	
86 1,1,2-Trichloroethane	97	10.437	10.435	0.002	88	7493	1.00	1.05	
87 Tetrachloroethene	166	10.523	10.526	-0.003	89	8071	1.00	0.8833	
88 1,3-Dichloropropane	76	10.602	10.599	0.003	86	12397	1.00	1.00	
89 2-Hexanone	43	10.644	10.642	0.002	93	17738	2.00	2.13	
90 Chlorodibromomethane	129	10.809	10.812	-0.003	90	6716	1.00	0.8963	
91 Ethylene Dibromide	107	10.924	10.928	-0.004	96	6910	1.00	0.9348	
S 92 Xylenes, Total	106				0			2.76	
* 93 Chlorobenzene-d5 (IS)	117	11.350	11.347	0.003	87	987570	50.0	50.0	
94 1-Chlorohexane	91	11.350	11.353	-0.003	46	11820	1.00	0.9717	
95 Chlorobenzene	112	11.374	11.378	-0.004	96	20748	1.00	0.9341	
96 1,1,1,2-Tetrachloroethane	131	11.459	11.457	0.002	88	6826	1.00	0.9066	
97 Ethylbenzene	91	11.459	11.457	0.002	98	36590	1.00	0.9206	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
98 m-Xylene & p-Xylene	106	11.575	11.572	0.003	99	28896	2.00	1.85	
99 o-Xylene	106	11.904	11.901	0.003	96	13750	1.00	0.9069	
100 Styrene	104	11.916	11.919	-0.003	96	23540	1.00	0.9180	
101 Bromoform	173	12.080	12.077	0.003	92	4693	1.00	0.8969	
102 Isopropylbenzene	105	12.202	12.199	0.003	95	37809	1.00	0.9321	
103 Cyclohexanone	55	12.281	12.278	0.003	91	17689	50.0	53.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.348	12.345	0.003	86	515822	50.0	49.9	
105 1,1,2,2-Tetrachloroethane	83	12.445	12.442	0.003	93	10789	1.00	0.9714	
106 Bromobenzene	156	12.463	12.467	-0.004	62	8734	1.00	0.9731	
107 trans-1,4-Dichloro-2-butene	53	12.463	12.467	-0.004	94	38836	10.0	9.91	
108 1,2,3-Trichloropropane	110	12.488	12.491	-0.003	72	3558	1.00	1.02	
109 N-Propylbenzene	91	12.530	12.528	0.002	99	44179	1.00	0.9383	
110 2-Chlorotoluene	126	12.609	12.607	0.002	95	7509	1.00	0.8172	
111 1,3,5-Trimethylbenzene	105	12.664	12.661	0.003	93	31803	1.00	0.9238	
112 4-Chlorotoluene	126	12.701	12.698	0.003	97	8971	1.00	0.9428	
113 tert-Butylbenzene	134	12.907	12.905	0.002	93	6627	1.00	0.8974	
114 Pentachloroethane	167	12.938	12.941	-0.003	87	4632	1.00	0.9737	
115 1,2,4-Trimethylbenzene	105	12.950	12.947	0.003	96	32446	1.00	0.9242	
116 sec-Butylbenzene	105	13.072	13.069	0.003	94	39232	1.00	0.9044	
117 1,3-Dichlorobenzene	146	13.175	13.172	0.003	95	16295	1.00	0.9301	
118 4-Isopropyltoluene	119	13.175	13.178	-0.003	96	32865	1.00	0.8863	
* 119 1,4-Dichlorobenzene-d4	152	13.230	13.227	0.003	96	516308	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.248	13.245	0.003	91	16520	1.00	0.9345	
121 1,2,3-Trimethylbenzene	105	13.254	13.251	0.003	97	33244	1.00	0.9496	
122 Benzyl chloride	91	13.321	13.318	0.003	98	23891	1.00	0.9485	
123 1,3-Diethylbenzene	119	13.376	13.379	-0.003	97	21521	1.00	0.9436	
124 p-Diethylbenzene	119	13.449	13.452	-0.003	96	22655	1.00	0.9510	
125 n-Butylbenzene	92	13.473	13.470	0.003	98	16354	1.00	0.8747	
126 1,2-Dichlorobenzene	146	13.510	13.507	0.003	97	16096	1.00	0.9704	
127 o-diethylbenzene	119	13.522	13.525	-0.003	95	17859	1.00	0.9487	
129 1,2-Dibromo-3-Chloropropane	75	14.051	14.048	0.003	79	2965	1.00	1.03	
130 1,3,5-Trichlorobenzene	180	14.179	14.176	0.003	95	10879	1.00	0.9306	
131 1,2,4-Trichlorobenzene	180	14.605	14.602	0.003	92	9703	1.00	0.9358	
132 Hexachlorobutadiene	225	14.684	14.681	0.003	95	3921	1.00	0.9268	
133 Naphthalene	128	14.787	14.785	0.003	97	38900	1.00	1.02	
134 1,2,3-Trichlorobenzene	180	14.933	14.931	0.003	94	9341	1.00	0.9586	
135 2-Methylnaphthalene	142	15.590	15.588	0.002	92	22074	1.00	1.03	
S 144 Total Diethylbenzene	1				0			2.84	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_4ppbEtOH_00112	Amount Added: 12.50	Units: mL	
MSV_HP11_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

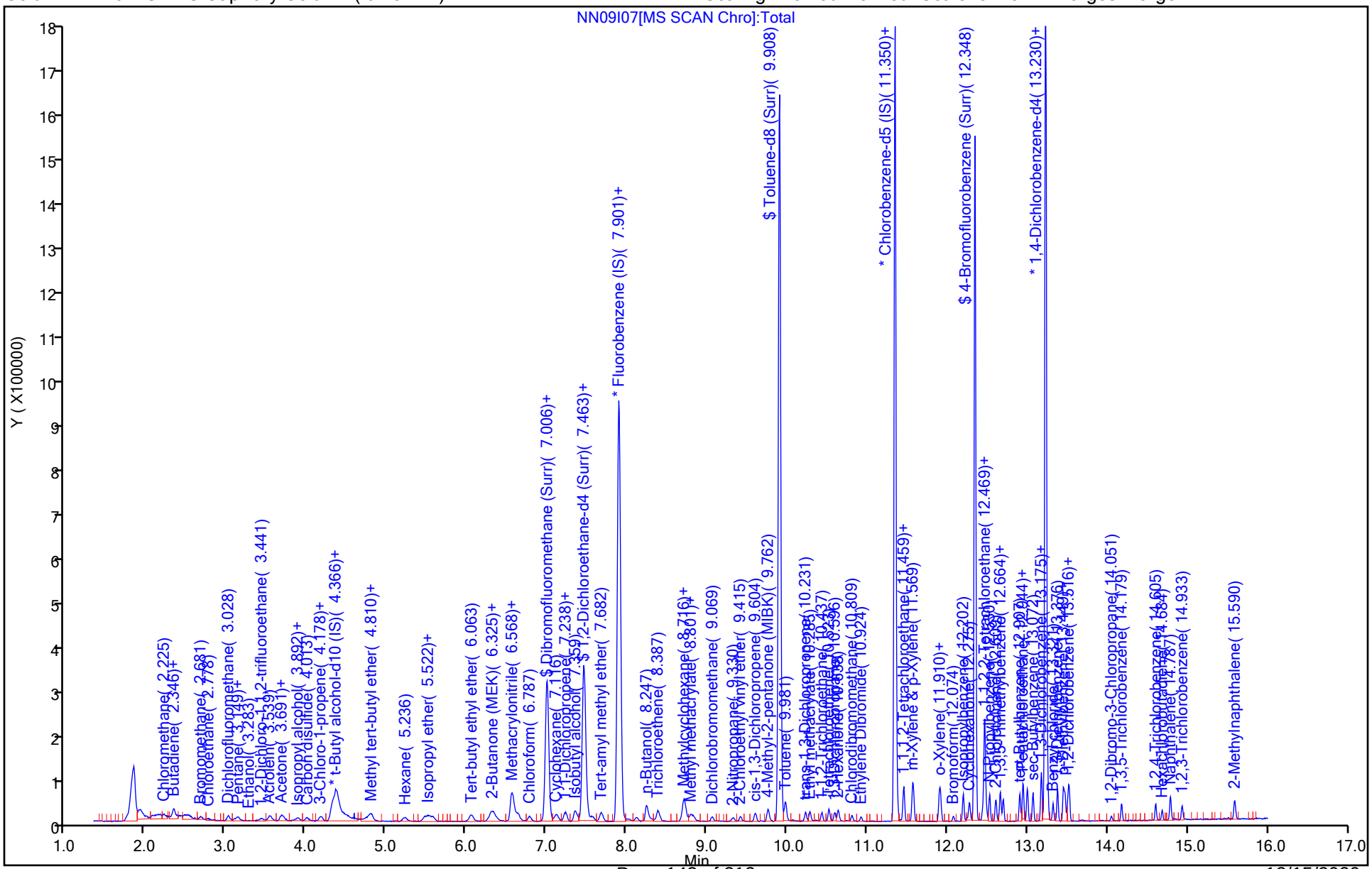
Report Date: 09-Nov-2020 17:29:20 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Injection Date:	09-Nov-2020 15:52:30	Instrument ID:	7159	Operator ID:	DVV10203
Lims ID:	IC STD1			Worklist Smp#:	9
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	8
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

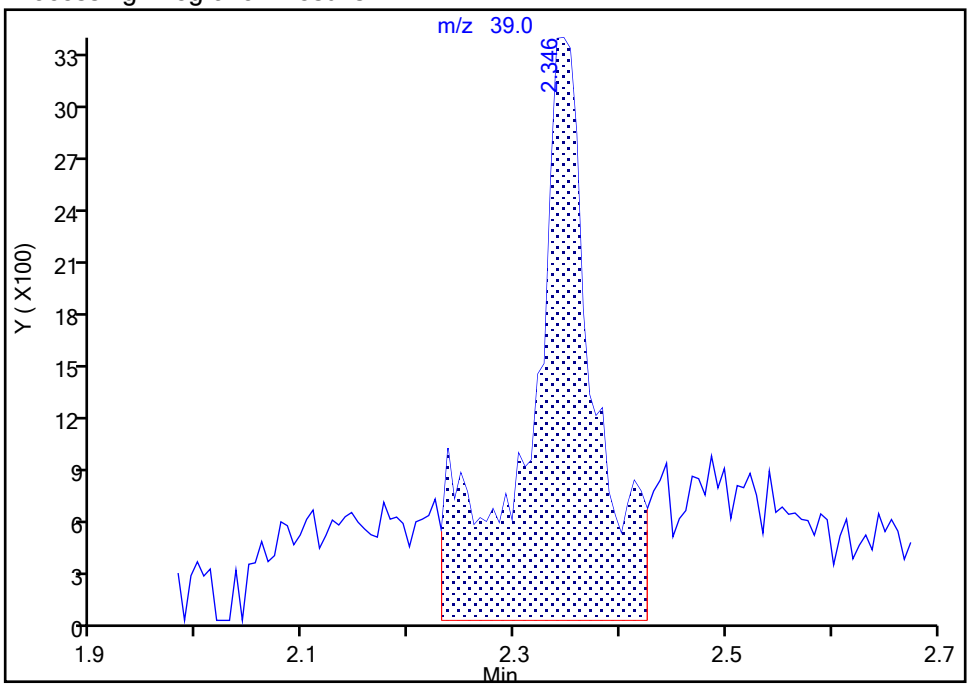
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

9 Butadiene, CAS: 106-99-0

Signal: 1

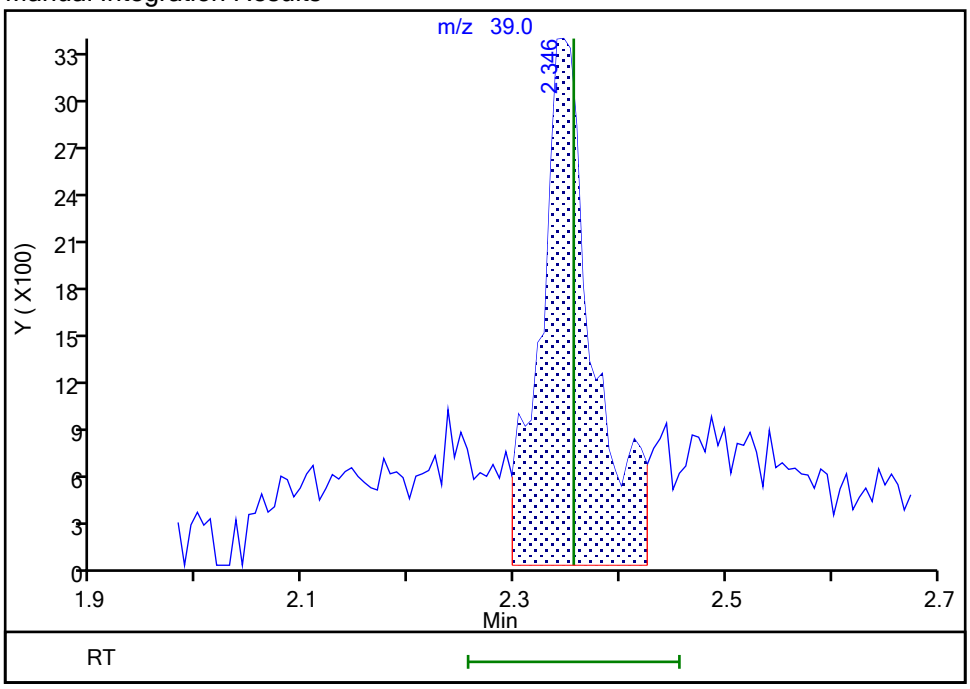
Processing Integration Results

RT: 2.35
Area: 14109
Amount: 0.307641
Amount Units: ug/l



Manual Integration Results

RT: 2.35
Area: 11442
Amount: 1.361243
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:53:18
Audit Action: Split an Integrated Peak Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

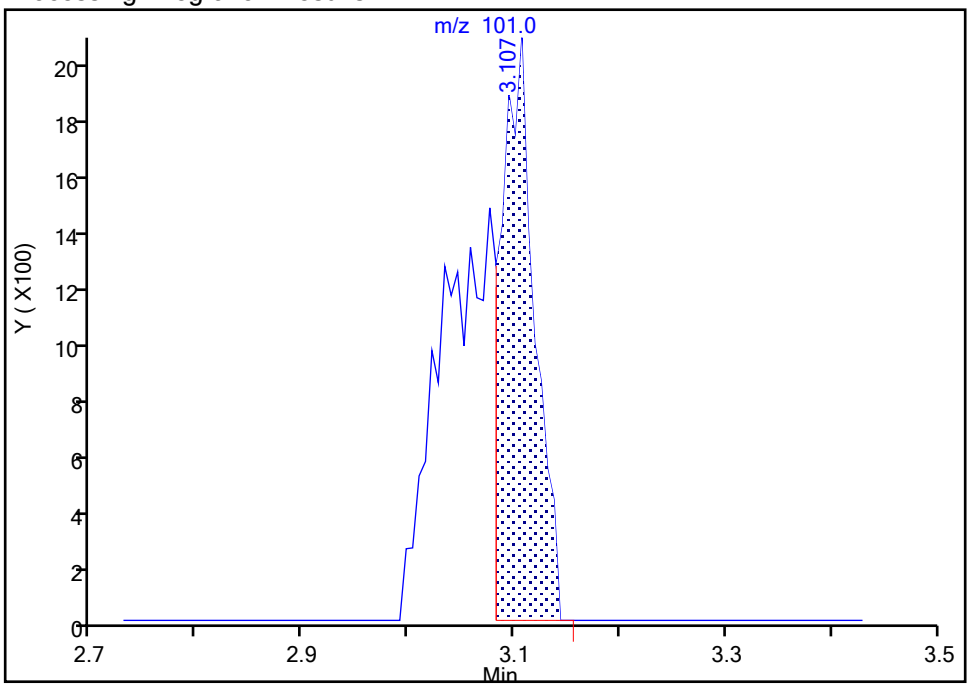
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

13 Trichlorofluoromethane, CAS: 75-69-4

Signal: 1

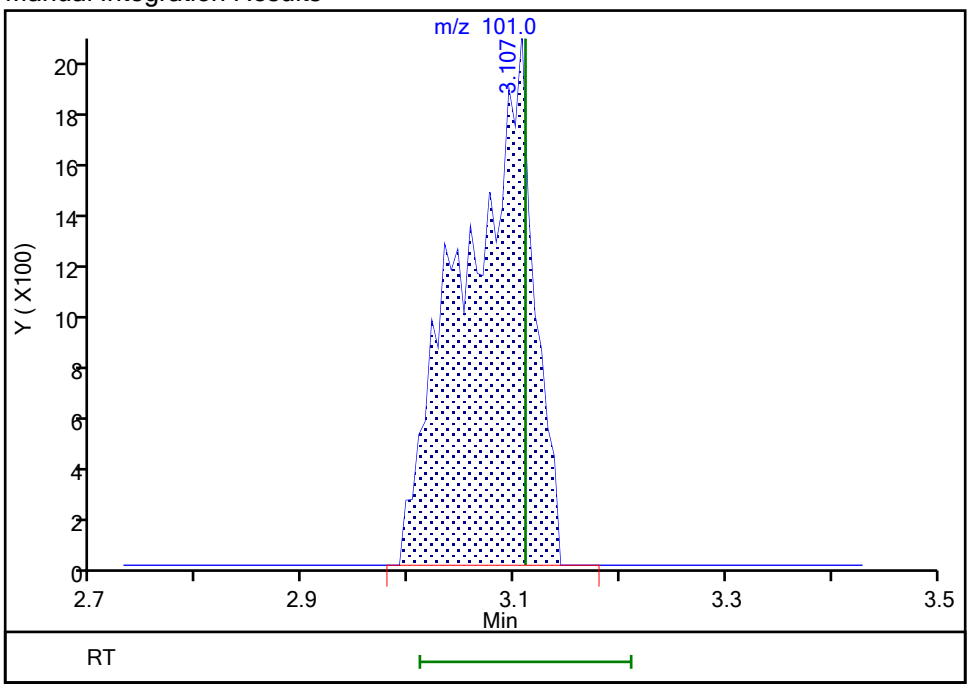
Processing Integration Results

RT: 3.11
Area: 4594
Amount: 0.970546
Amount Units: ug/l



Manual Integration Results

RT: 3.11
Area: 9399
Amount: 0.850977
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:53:28
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

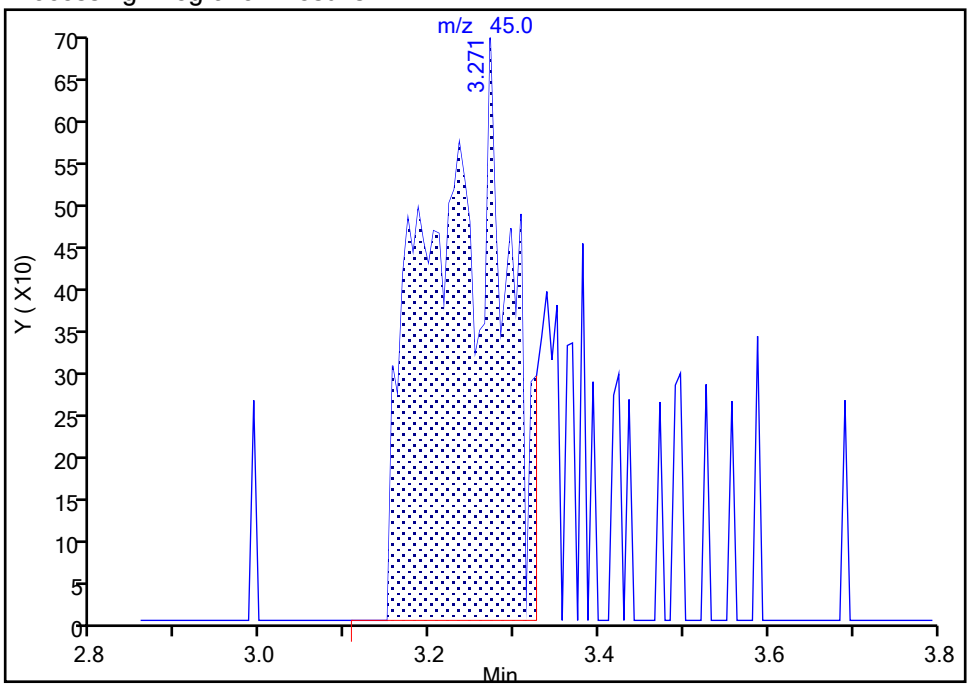
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

16 Ethanol, CAS: 64-17-5

Signal: 1

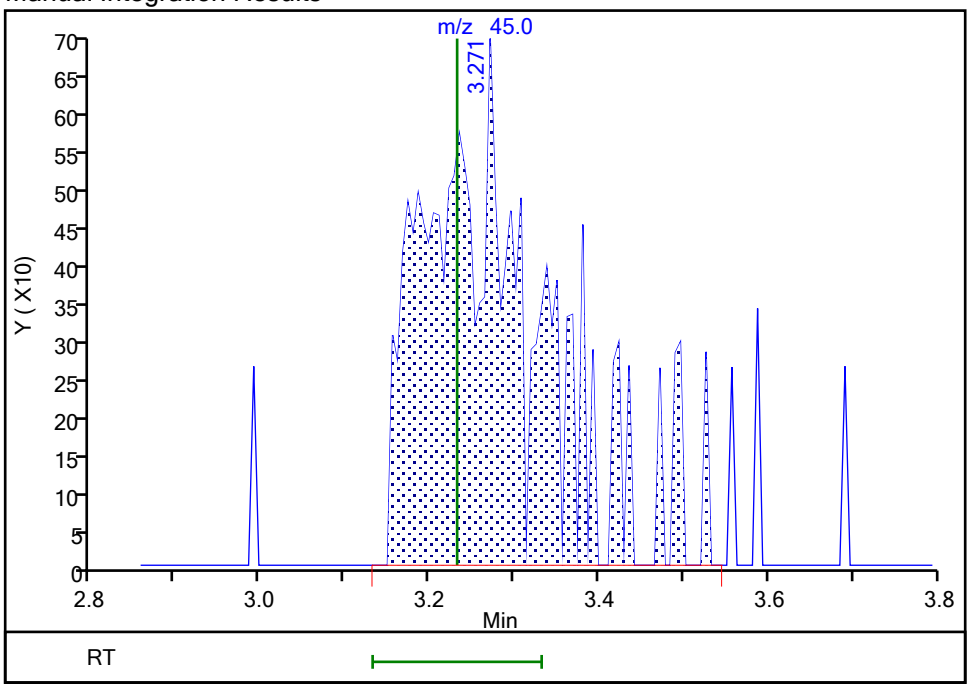
Processing Integration Results

RT: 3.27
Area: 4336
Amount: 50.743533
Amount Units: ug/l



Manual Integration Results

RT: 3.27
Area: 6061
Amount: 67.802152
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:54:17
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

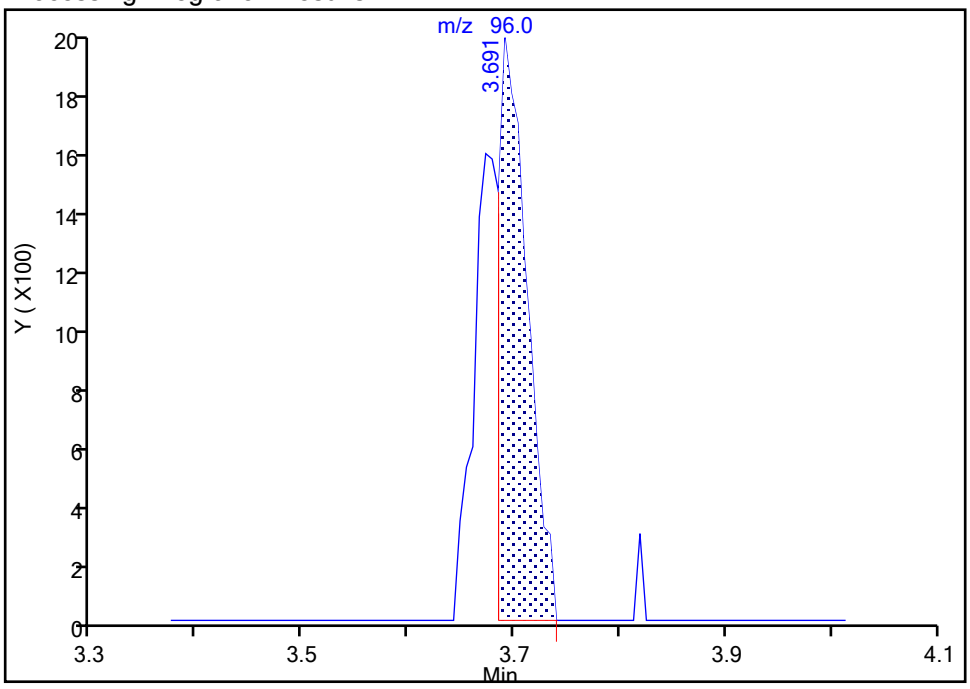
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

20 1,1-Dichloroethene, CAS: 75-35-4

Signal: 1

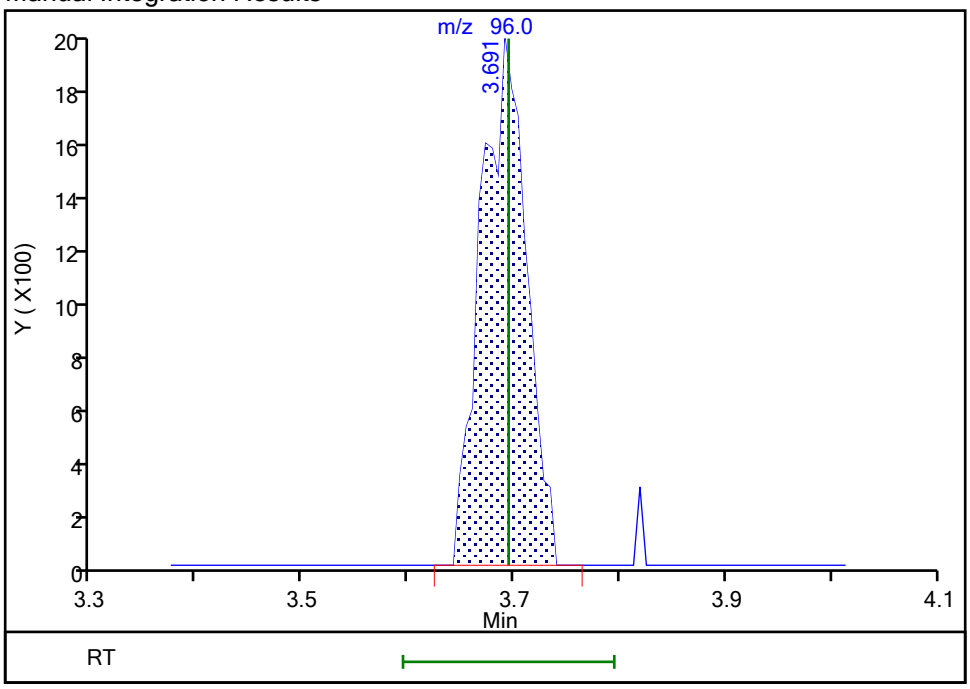
Processing Integration Results

RT: 3.69
Area: 3680
Amount: 0.595119
Amount Units: ug/l



Manual Integration Results

RT: 3.69
Area: 5811
Amount: 0.895645
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:54:24
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

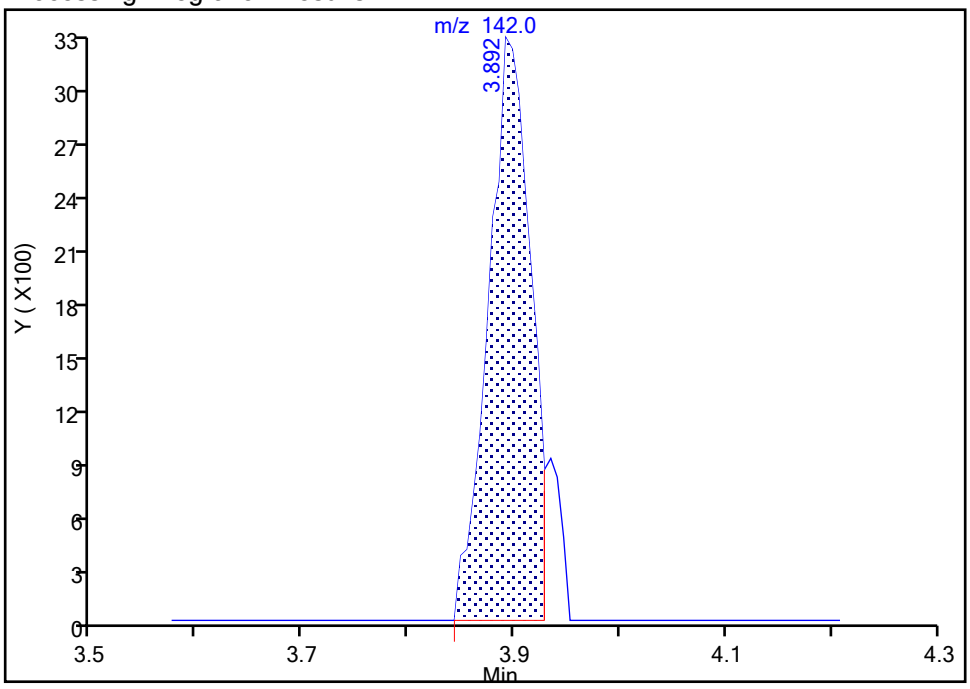
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

24 Iodomethane, CAS: 74-88-4

Signal: 1

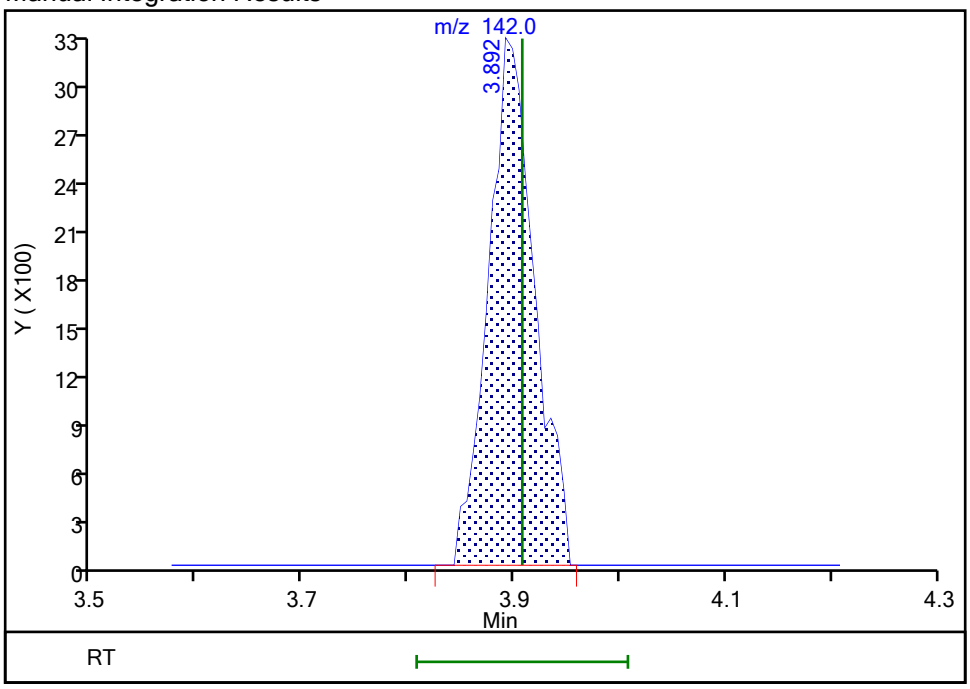
Processing Integration Results

RT: 3.89
Area: 8988
Amount: 0.814900
Amount Units: ug/l



Manual Integration Results

RT: 3.89
Area: 9774
Amount: 0.877232
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:54:32
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

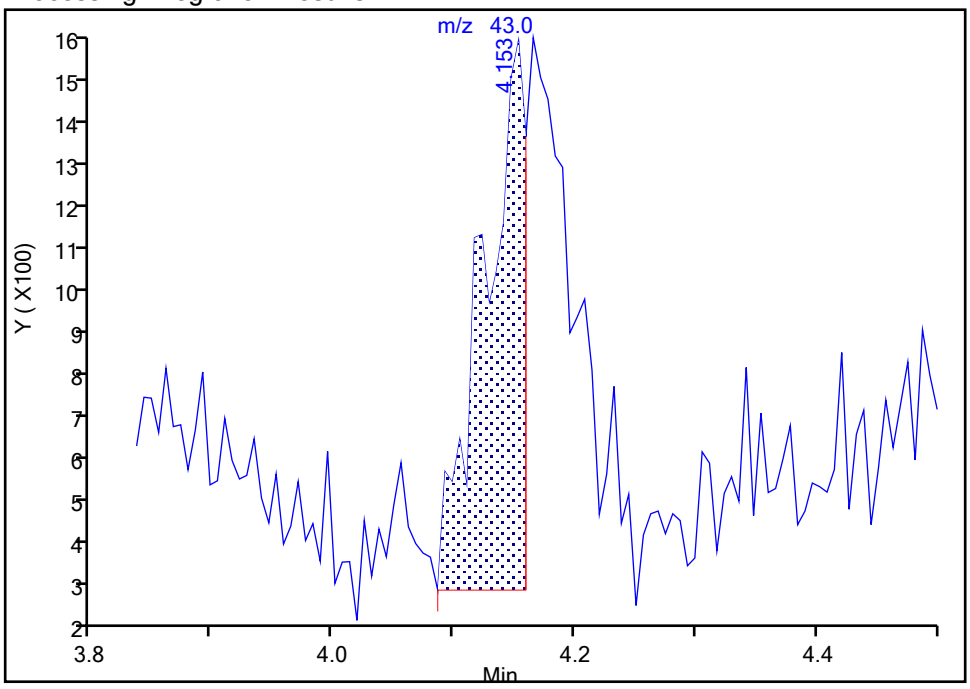
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

26 Methyl acetate, CAS: 79-20-9

Signal: 1

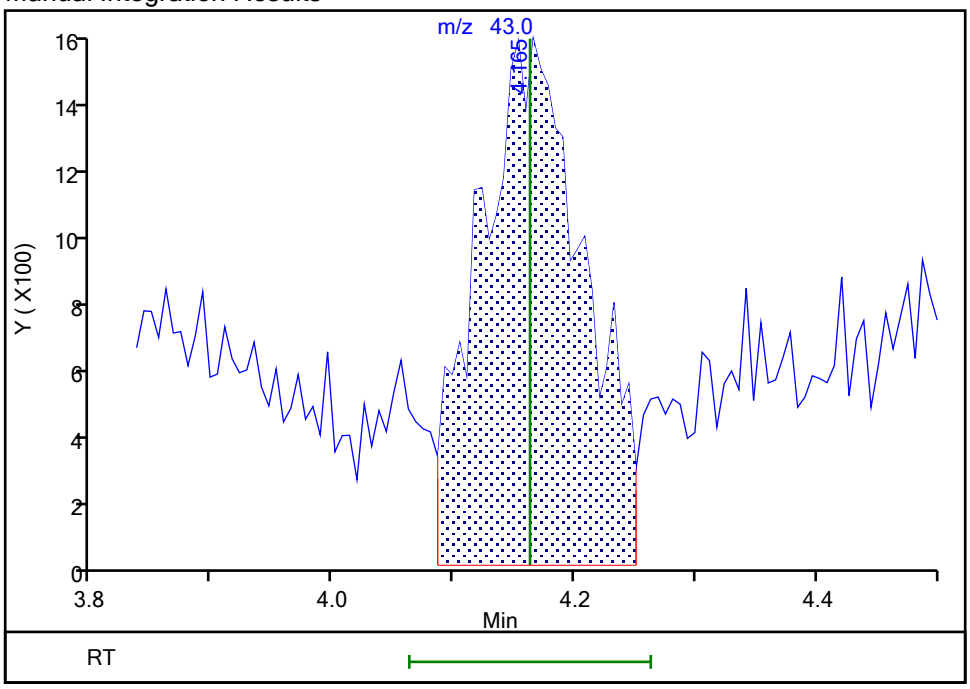
Processing Integration Results

RT: 4.15
Area: 2968
Amount: 1.513579
Amount Units: ug/l



Manual Integration Results

RT: 4.17
Area: 9438
Amount: 1.306048
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:54:58
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

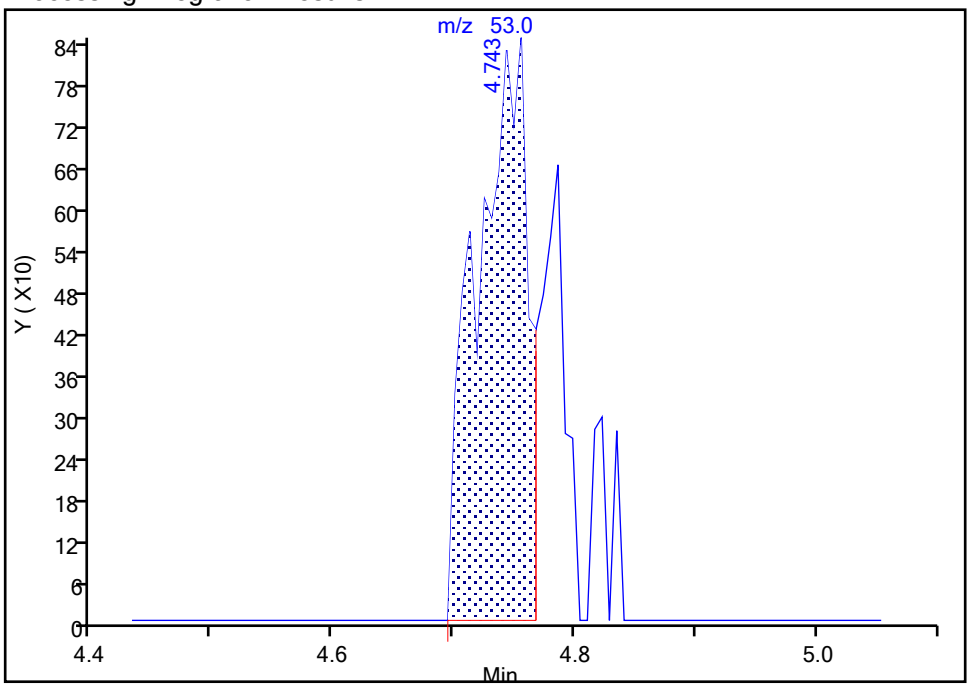
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

32 Acrylonitrile, CAS: 107-13-1

Signal: 1

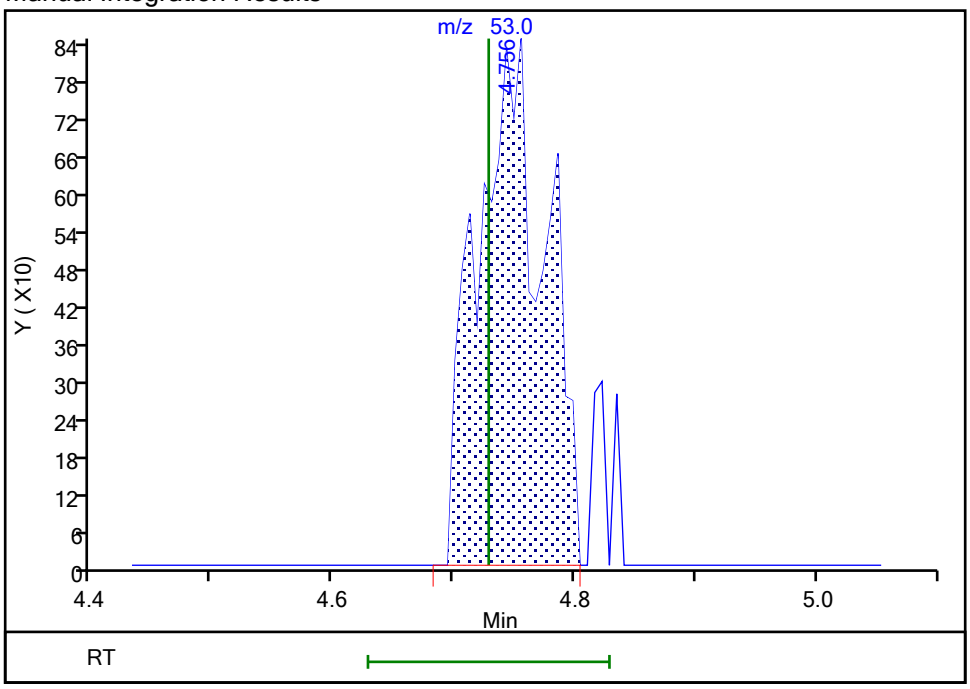
Processing Integration Results

RT: 4.74
Area: 2503
Amount: 0.681648
Amount Units: ug/l



Manual Integration Results

RT: 4.76
Area: 3317
Amount: 0.875598
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:55:08
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

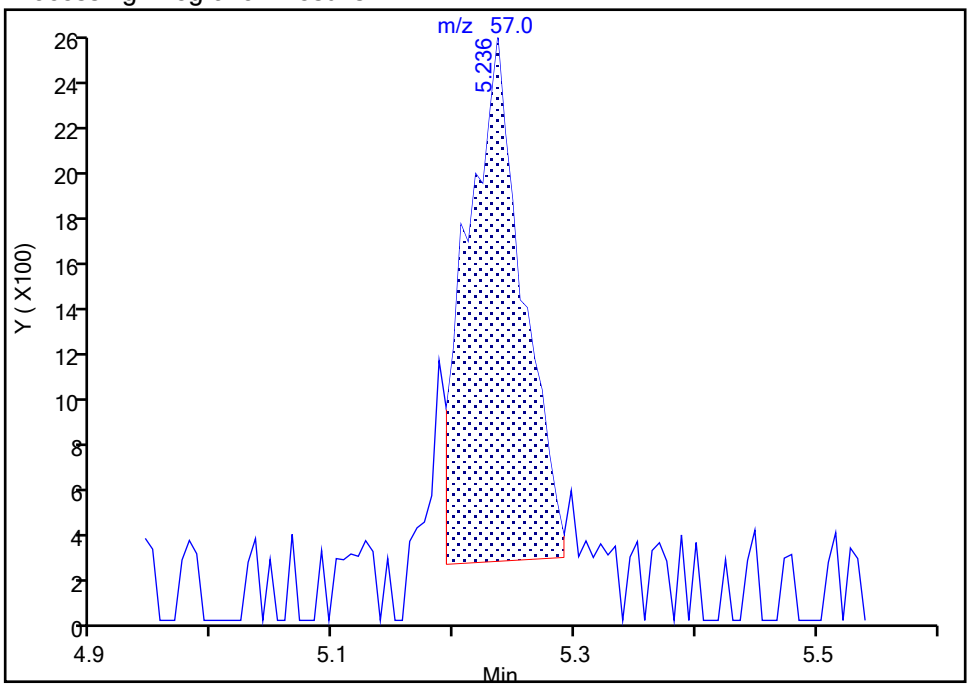
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

36 Hexane, CAS: 110-54-3

Signal: 1

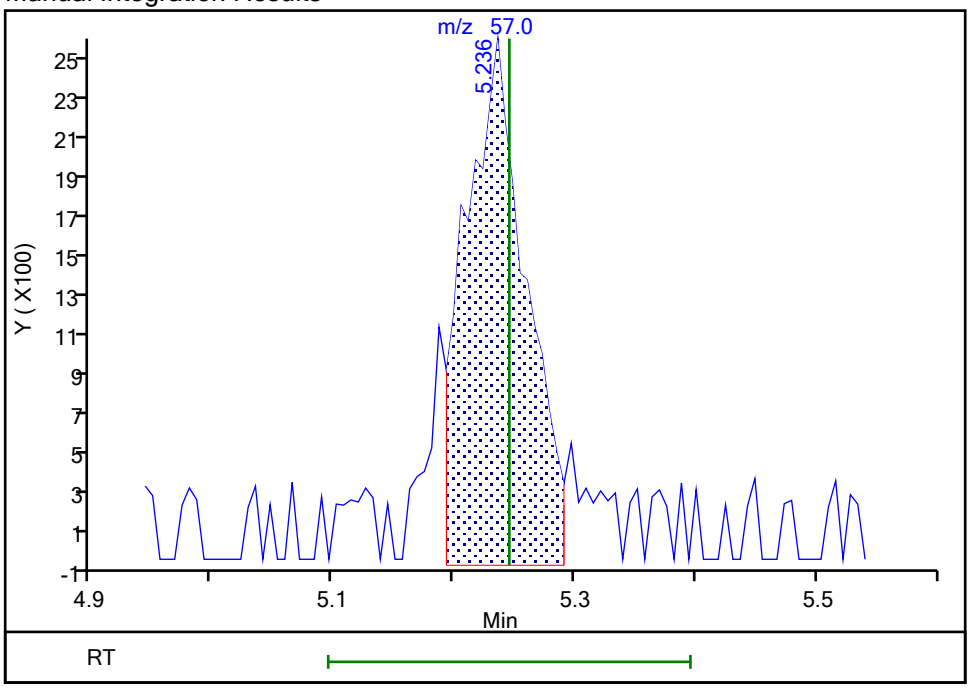
Processing Integration Results

RT: 5.24
Area: 7356
Amount: 0.330567
Amount Units: ug/l



Manual Integration Results

RT: 5.24
Area: 9143
Amount: 0.826472
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:55:21
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

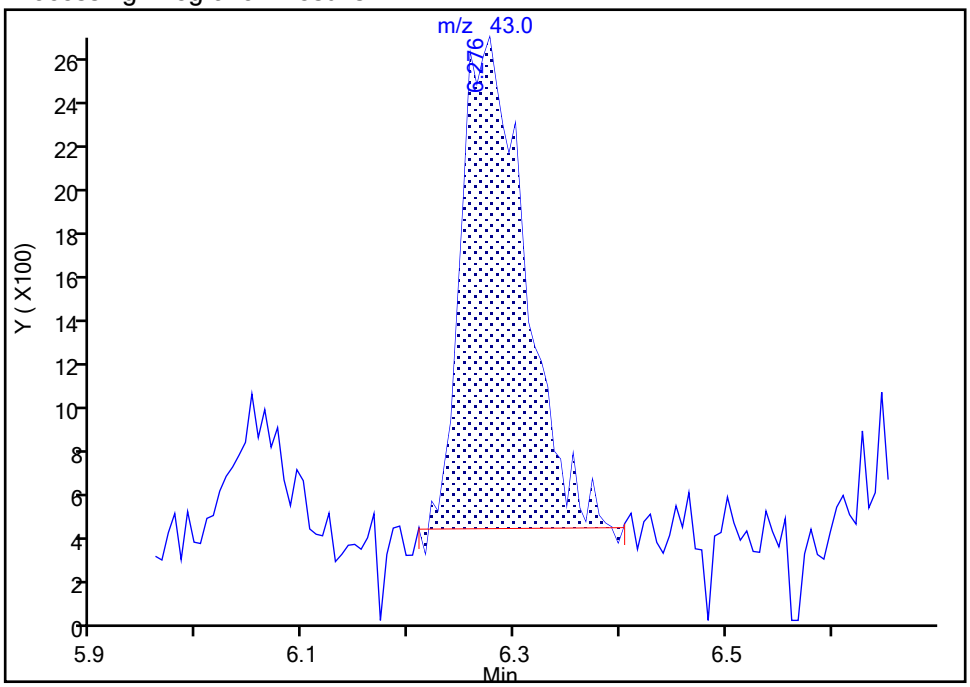
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25mm) Detector MS Quad

43 2-Butanone (MEK), CAS: 78-93-3

Signal: 1

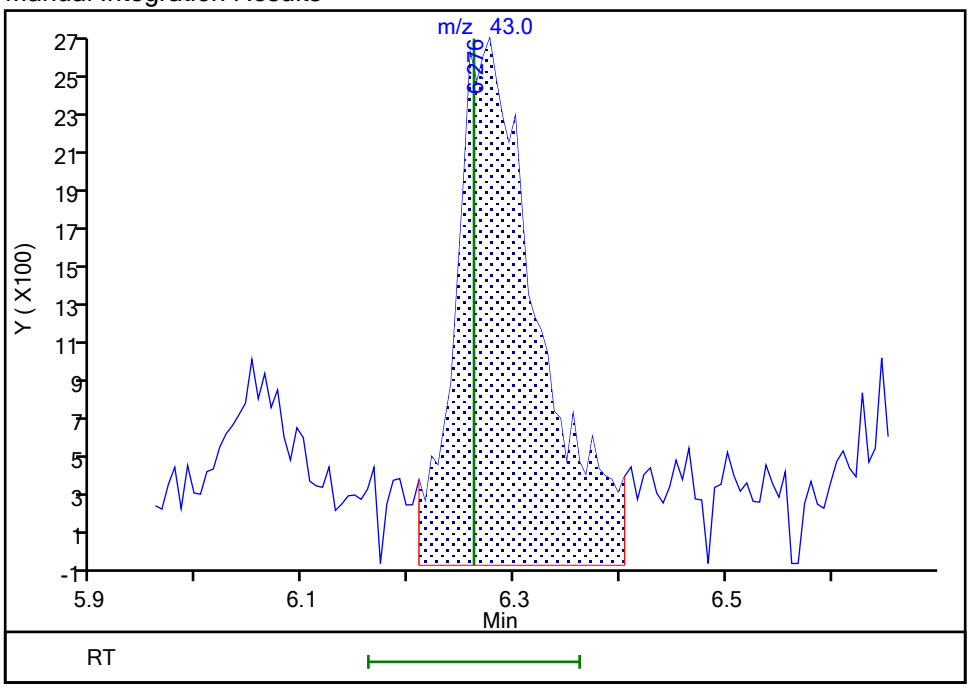
Processing Integration Results

RT: 6.28
Area: 9245
Amount: 1.870452
Amount Units: ug/l



Manual Integration Results

RT: 6.28
Area: 14382
Amount: 2.708687
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:55:34
Audit Action: Assigned New Baseline Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

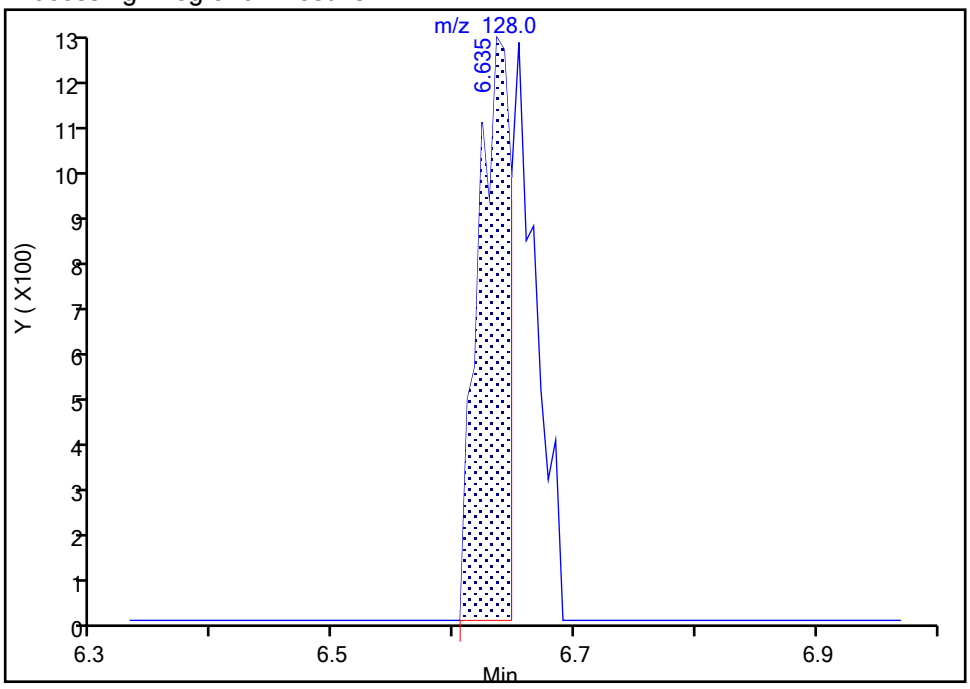
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

48 Chlorobromomethane, CAS: 74-97-5

Signal: 1

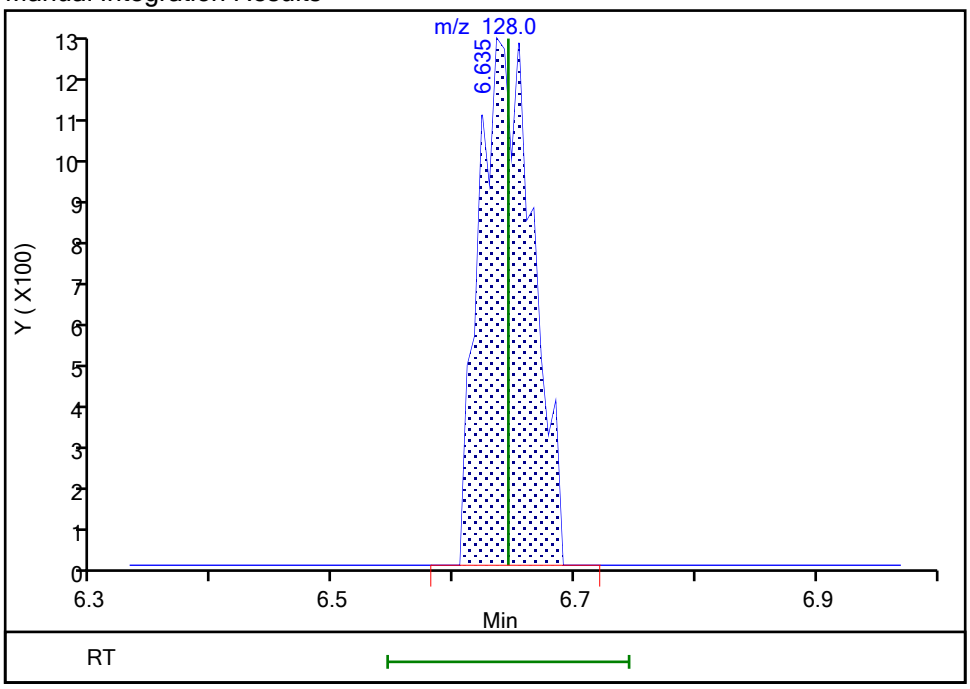
Processing Integration Results

RT: 6.64
Area: 2297
Amount: 0.981644
Amount Units: ug/l



Manual Integration Results

RT: 6.64
Area: 3763
Amount: 0.953187
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:55:43
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Eurofins Lancaster Laboratories Env, LLC

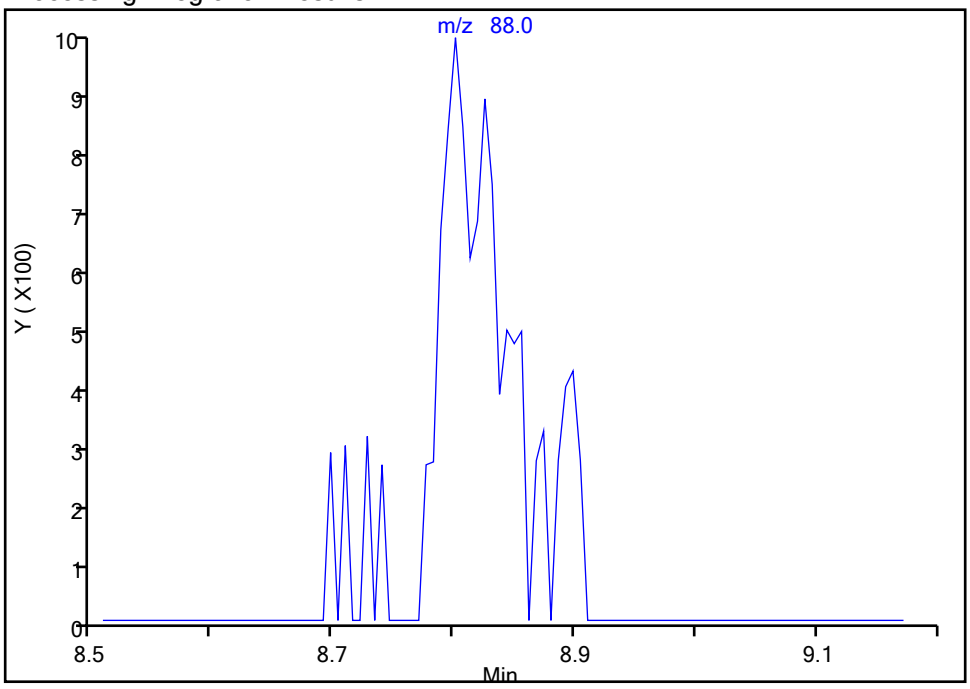
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D
Injection Date: 09-Nov-2020 15:52:30 Instrument ID: 7159
Lims ID: IC STD1
Client ID:
Operator ID: DVV10203 ALS Bottle#: 8 Worklist Smp#: 9
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

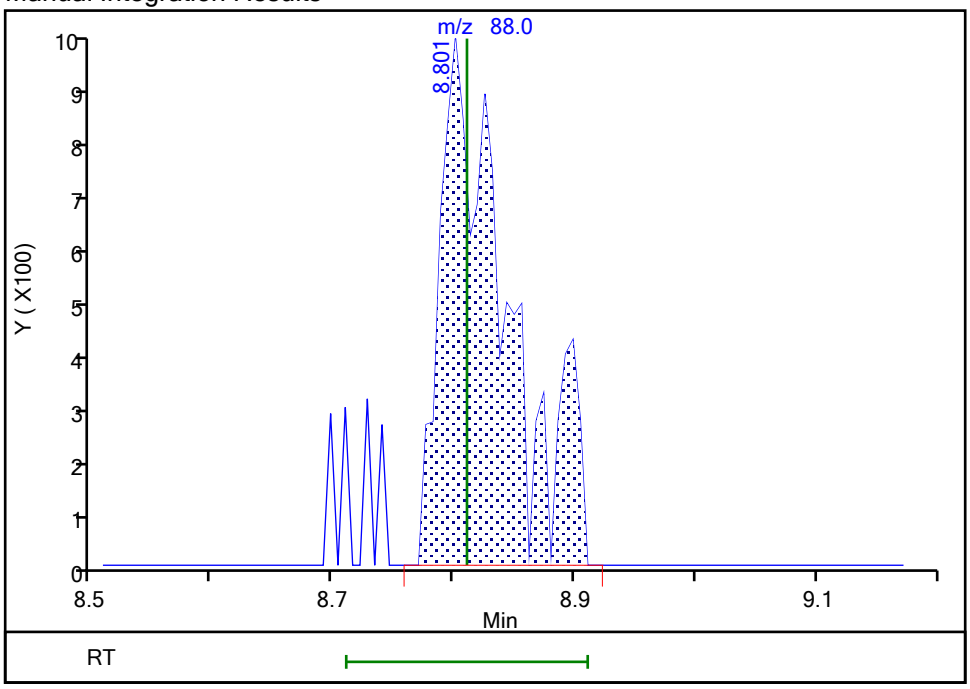
Not Detected
Expected RT: 8.81

Processing Integration Results



Manual Integration Results

RT: 8.80
Area: 3900
Amount: 48.394374
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 16:56:04
Audit Action: Manually Integrated Audit Reason: Incomplete Integration

Calibration / Dichlorodifluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

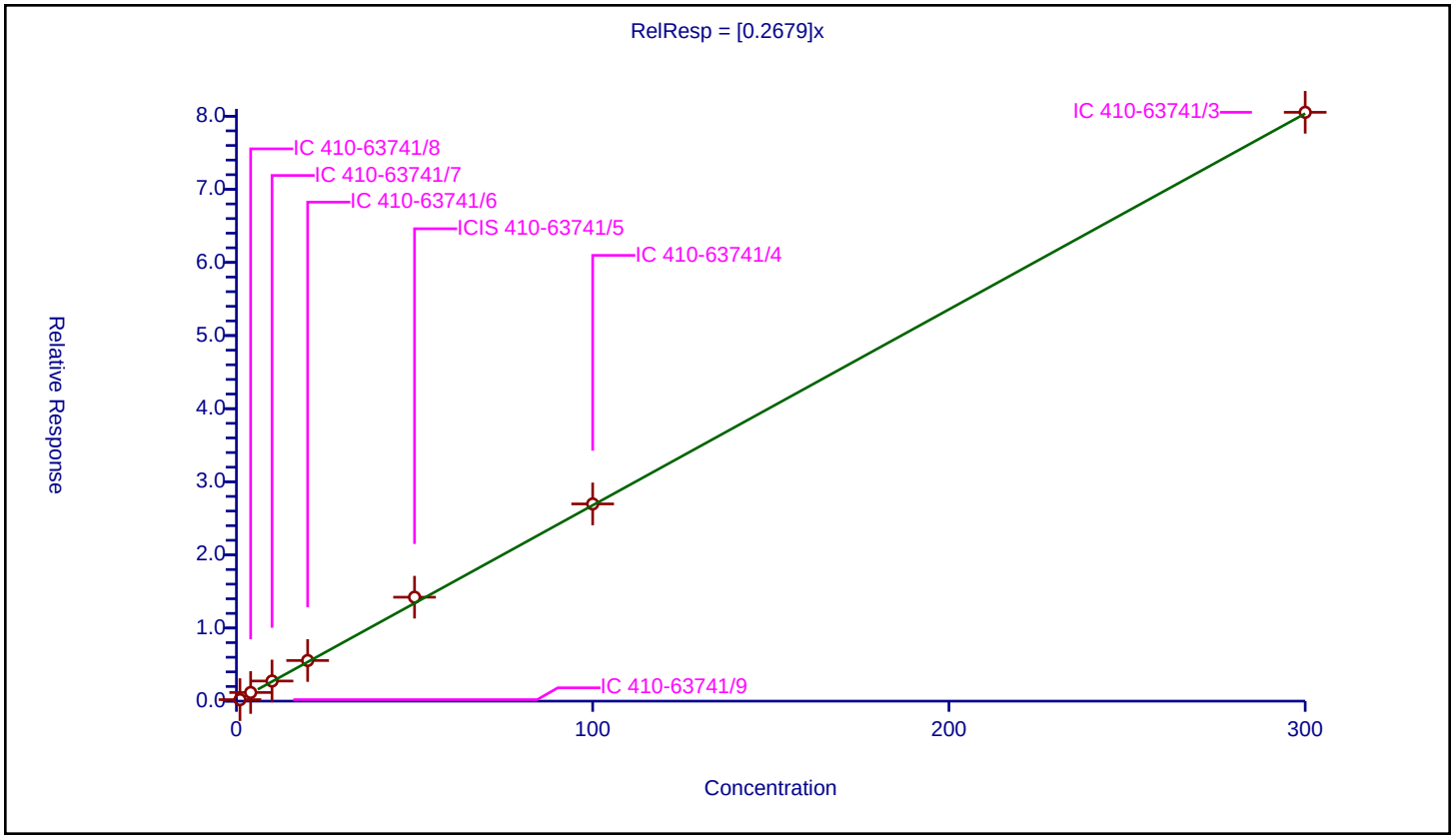
Curve Coefficients

Intercept:	0
Slope:	0.2679

Error Coefficients

Standard Error:	925000
Relative Standard Error:	11.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.987

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.203966	50.0	1310267.0	0.203966	Y
2	IC 410-63741/8	4.0	1.182751	50.0	1290720.0	0.295688	Y
3	IC 410-63741/7	10.0	2.750475	50.0	1283469.0	0.275048	Y
4	IC 410-63741/6	20.0	5.557791	50.0	1284881.0	0.27789	Y
5	ICIS 410-63741/5	50.0	14.216542	50.0	1304709.0	0.284331	Y
6	IC 410-63741/4	100.0	26.972519	50.0	1292662.0	0.269725	Y
7	IC 410-63741/3	300.0	80.532687	50.0	1315464.0	0.268442	Y



Calibration / Chloromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

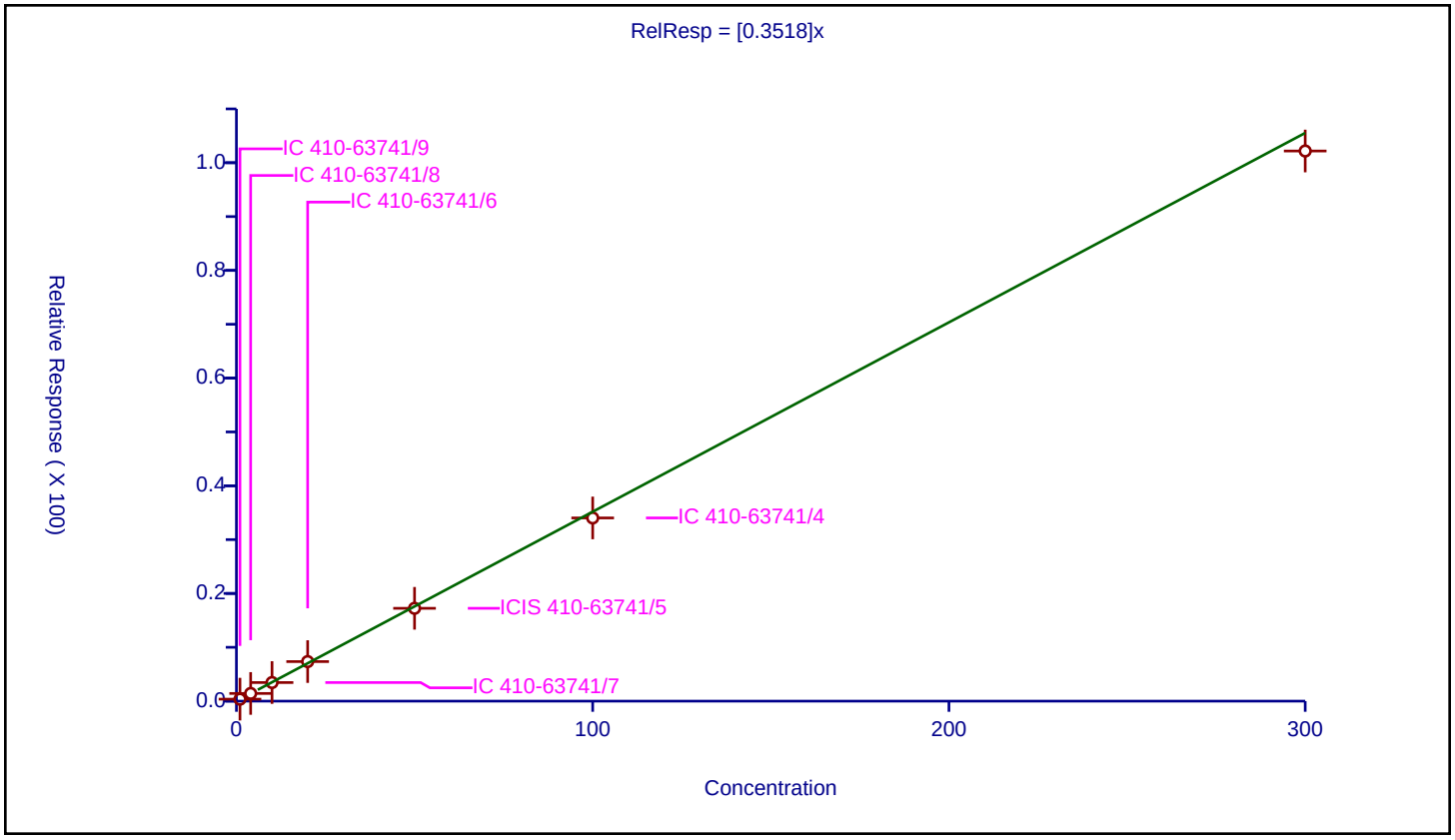
Curve Coefficients

Intercept:	0
Slope:	0.3518

Error Coefficients

Standard Error:	1170000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.367063	50.0	1310267.0	0.367063	Y
2	IC 410-63741/8	4.0	1.425987	50.0	1290720.0	0.356497	Y
3	IC 410-63741/7	10.0	3.456063	50.0	1283469.0	0.345606	Y
4	IC 410-63741/6	20.0	7.350214	50.0	1284881.0	0.367511	Y
5	ICIS 410-63741/5	50.0	17.241431	50.0	1304709.0	0.344829	Y
6	IC 410-63741/4	100.0	34.025755	50.0	1292662.0	0.340258	Y
7	IC 410-63741/3	300.0	102.179953	50.0	1315464.0	0.3406	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

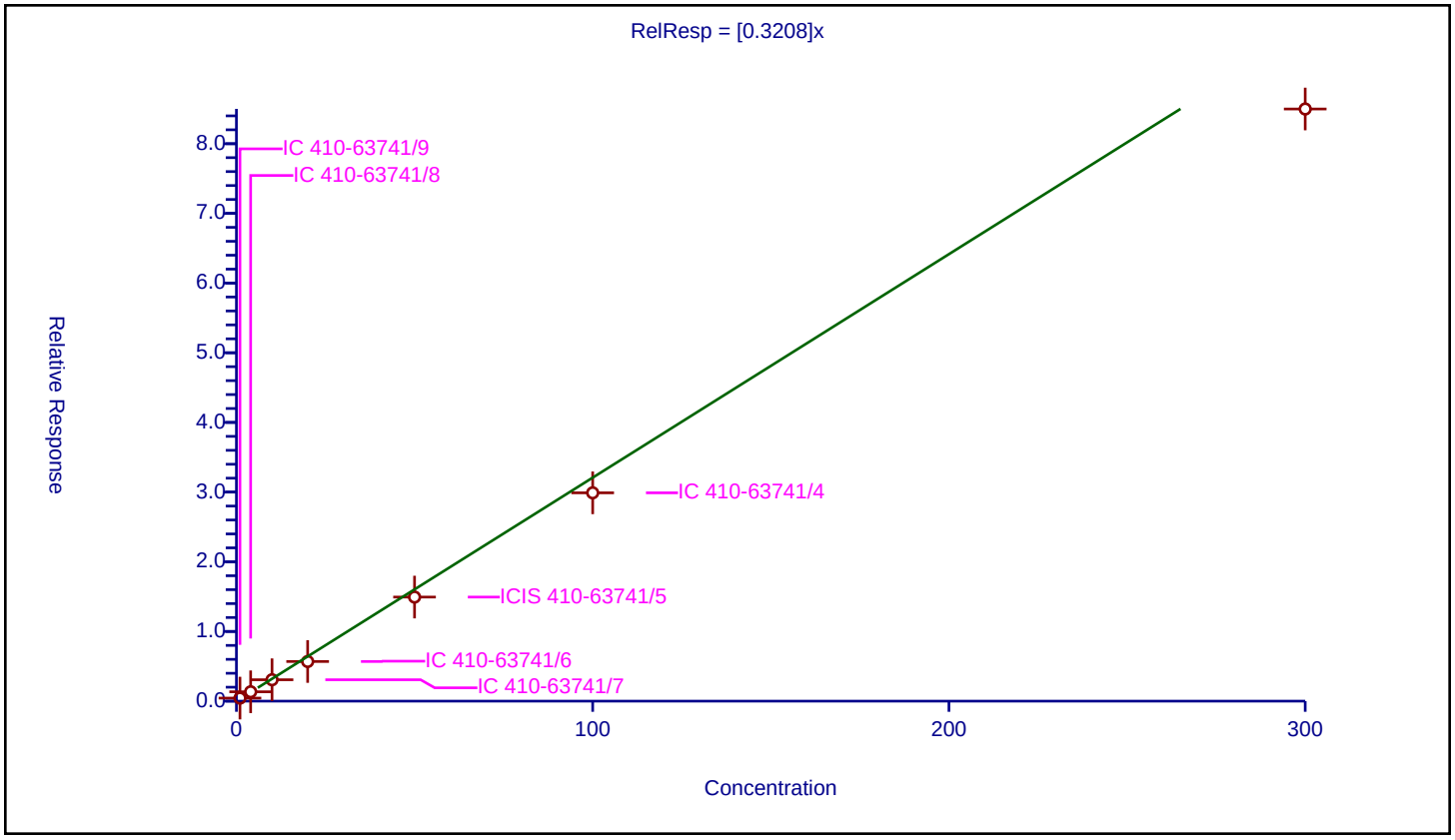
Curve Coefficients

Intercept:	0
Slope:	0.3208

Error Coefficients

Standard Error:	981000
Relative Standard Error:	16.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.959

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.436629	50.0	1310267.0	0.436629	Y
2	IC 410-63741/8	4.0	1.344908	50.0	1290720.0	0.336227	Y
3	IC 410-63741/7	10.0	3.07039	50.0	1283469.0	0.307039	Y
4	IC 410-63741/6	20.0	5.68897	50.0	1284881.0	0.284449	Y
5	ICIS 410-63741/5	50.0	14.935093	50.0	1304709.0	0.298702	Y
6	IC 410-63741/4	100.0	29.897104	50.0	1292662.0	0.298971	Y
7	IC 410-63741/3	300.0	84.985412	50.0	1315464.0	0.283285	Y



Calibration / Vinyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

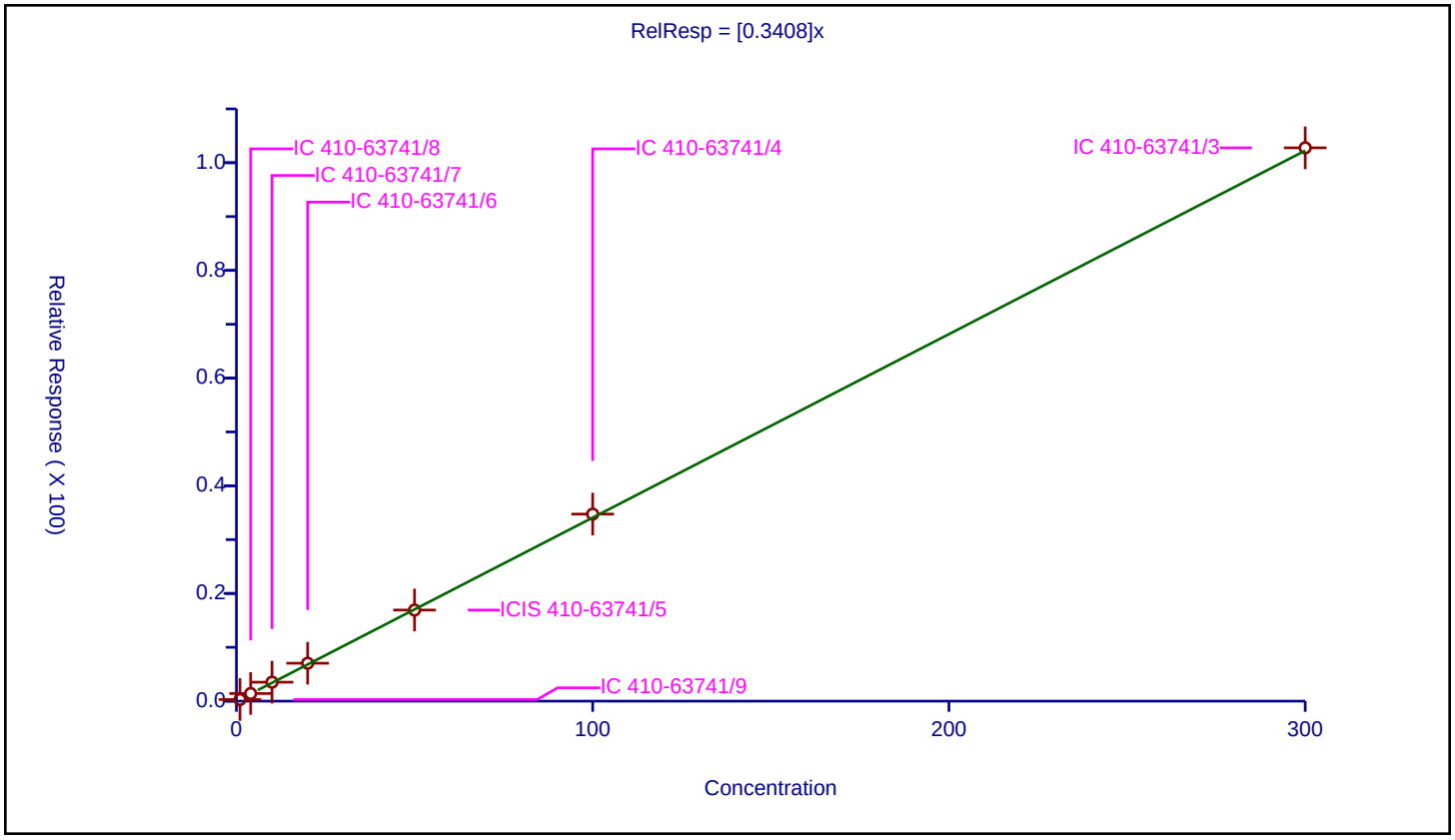
Curve Coefficients

Intercept:	0
Slope:	0.3408

Error Coefficients

Standard Error:	1180000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.298336	50.0	1310267.0	0.298336	Y
2	IC 410-63741/8	4.0	1.418898	50.0	1290720.0	0.354724	Y
3	IC 410-63741/7	10.0	3.521745	50.0	1283469.0	0.352174	Y
4	IC 410-63741/6	20.0	7.043843	50.0	1284881.0	0.352192	Y
5	ICIS 410-63741/5	50.0	16.918983	50.0	1304709.0	0.33838	Y
6	IC 410-63741/4	100.0	34.737116	50.0	1292662.0	0.347371	Y
7	IC 410-63741/3	300.0	102.766628	50.0	1315464.0	0.342555	Y



Calibration / Bromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

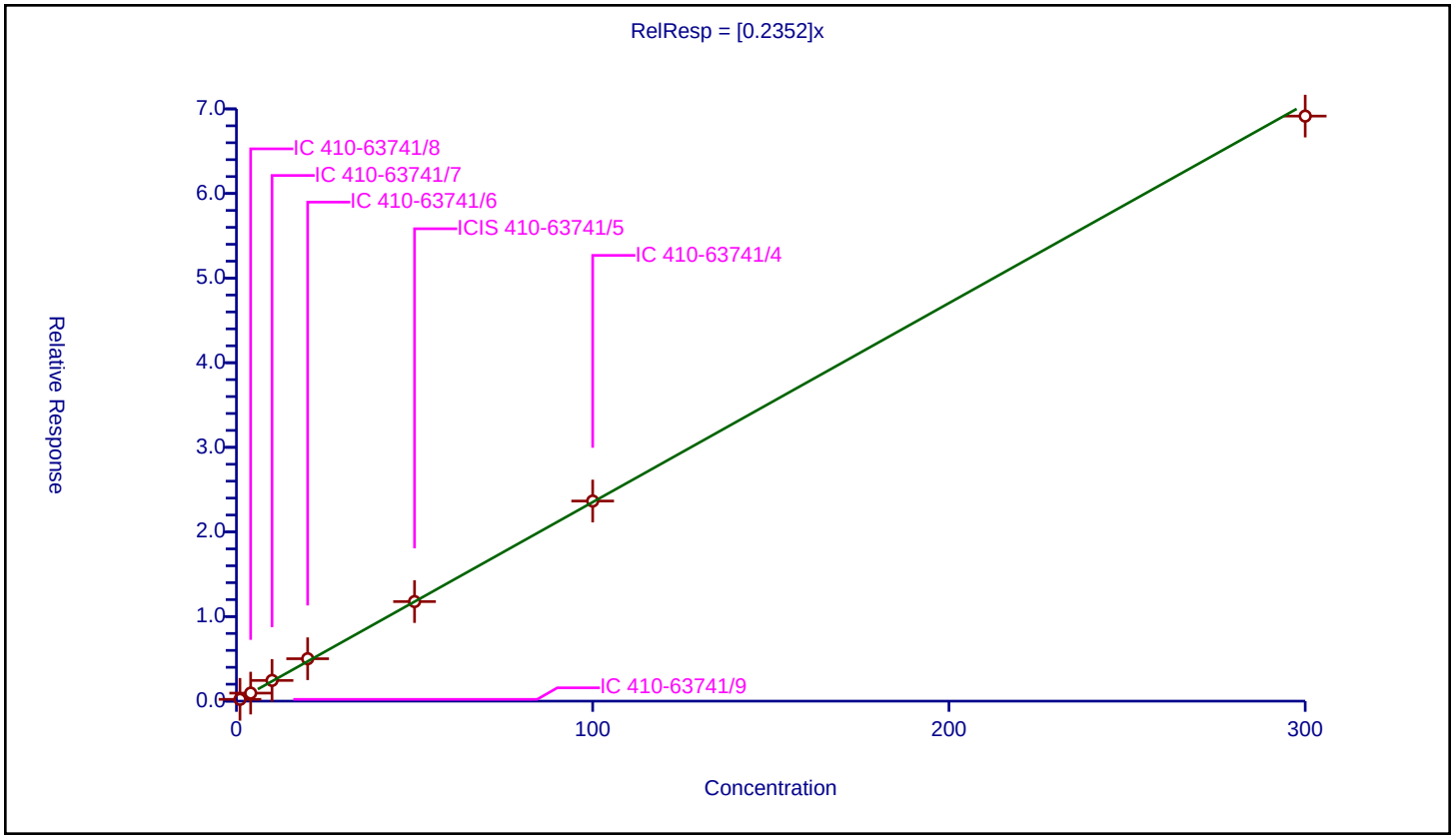
Curve Coefficients

Intercept:	0
Slope:	0.2352

Error Coefficients

Standard Error:	796000
Relative Standard Error:	5.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.211331	50.0	1310267.0	0.211331	Y
2	IC 410-63741/8	4.0	0.949276	50.0	1290720.0	0.237319	Y
3	IC 410-63741/7	10.0	2.447585	50.0	1283469.0	0.244759	Y
4	IC 410-63741/6	20.0	5.01311	50.0	1284881.0	0.250656	Y
5	ICIS 410-63741/5	50.0	11.769214	50.0	1304709.0	0.235384	Y
6	IC 410-63741/4	100.0	23.652896	50.0	1292662.0	0.236529	Y
7	IC 410-63741/3	300.0	69.148871	50.0	1315464.0	0.230496	Y



Calibration / Chloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

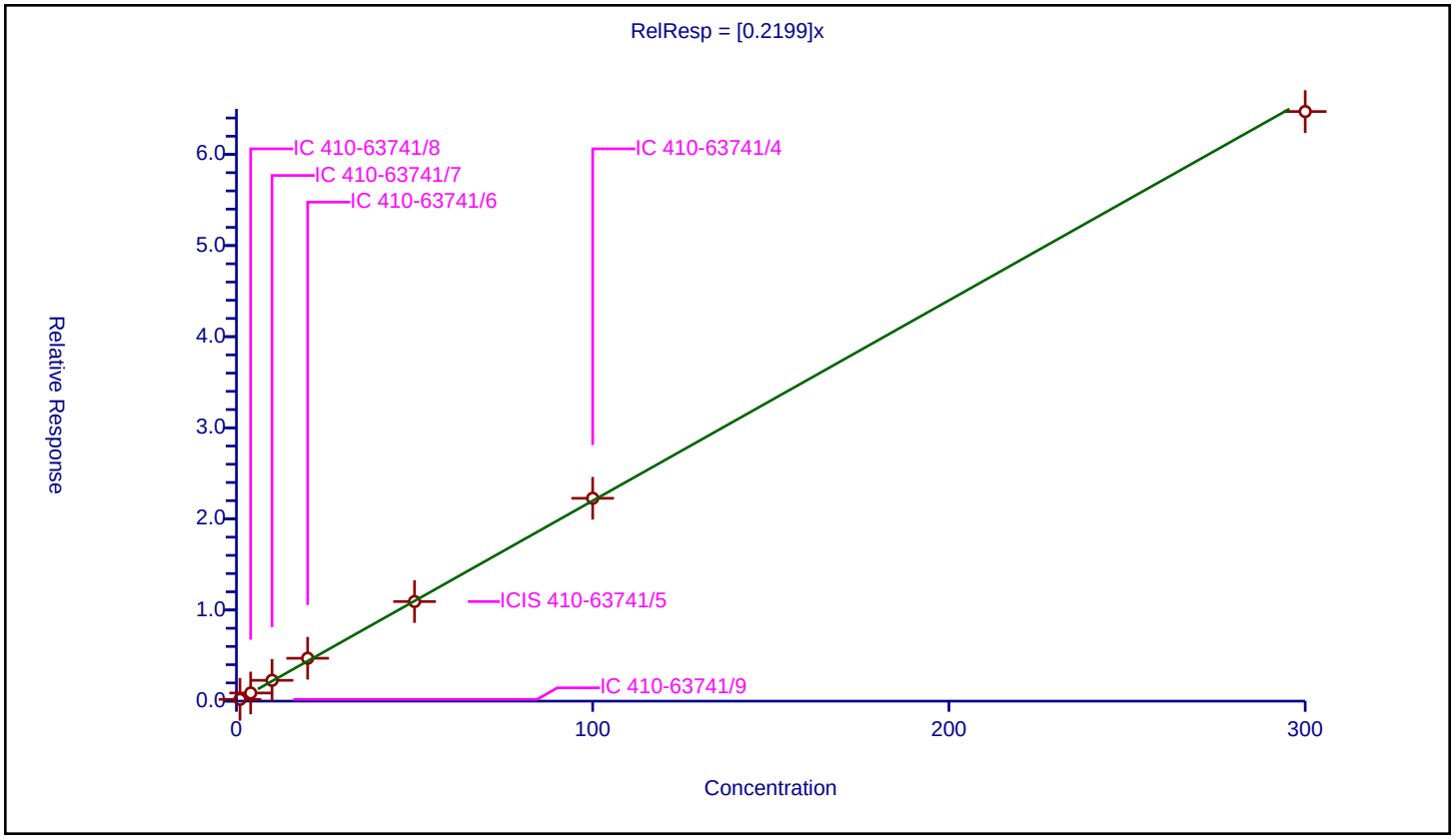
Curve Coefficients

Intercept:	0
Slope:	0.2199

Error Coefficients

Standard Error:	745000
Relative Standard Error:	5.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.195647	50.0	1310267.0	0.195647	Y
2	IC 410-63741/8	4.0	0.892022	50.0	1290720.0	0.223005	Y
3	IC 410-63741/7	10.0	2.283849	50.0	1283469.0	0.228385	Y
4	IC 410-63741/6	20.0	4.708101	50.0	1284881.0	0.235405	Y
5	ICIS 410-63741/5	50.0	10.932323	50.0	1304709.0	0.218646	Y
6	IC 410-63741/4	100.0	22.264289	50.0	1292662.0	0.222643	Y
7	IC 410-63741/3	300.0	64.711007	50.0	1315464.0	0.215703	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

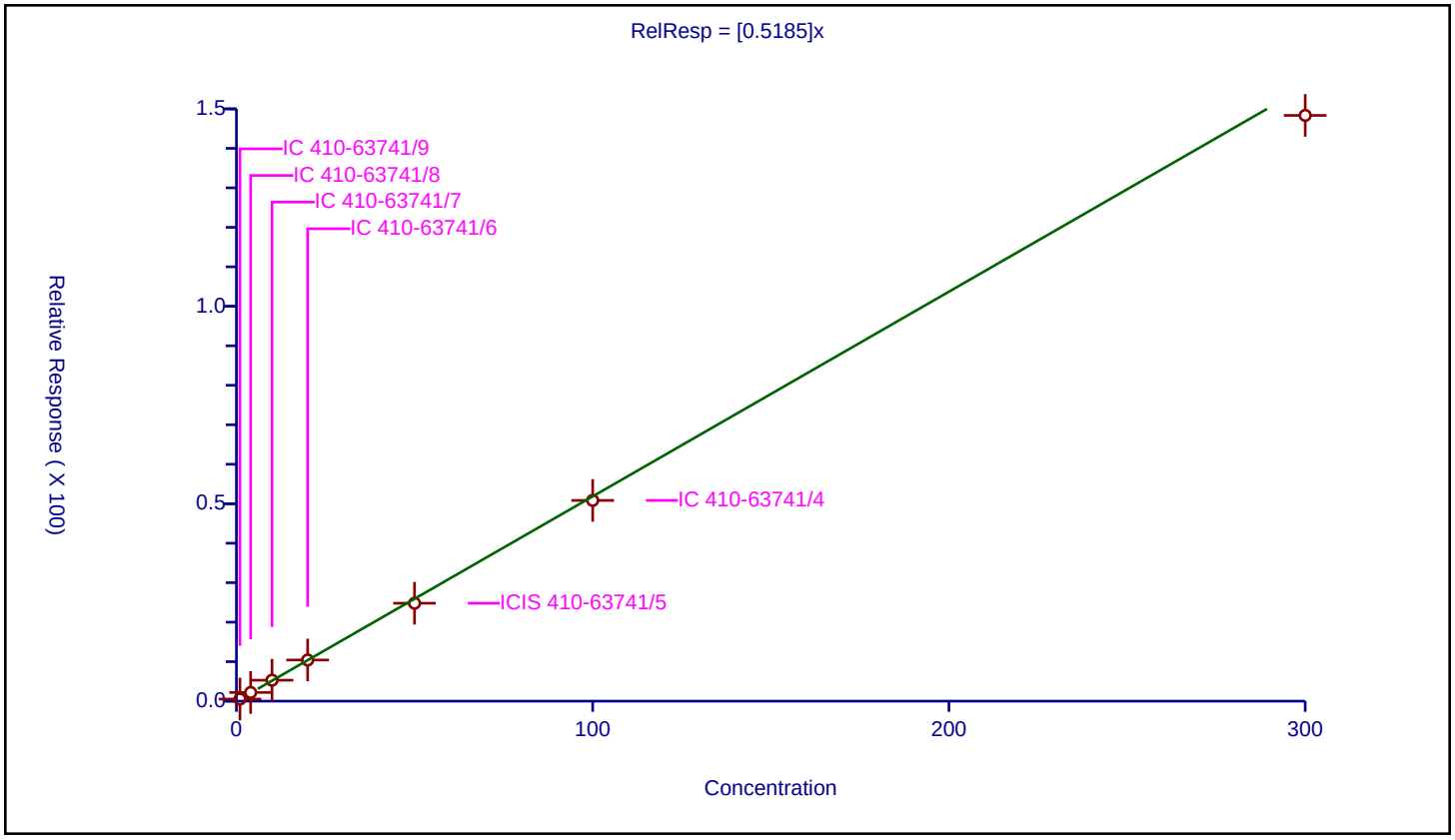
Curve Coefficients

Intercept:	0
Slope:	0.5185

Error Coefficients

Standard Error:	1710000
Relative Standard Error:	3.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.530159	50.0	1310267.0	0.530159	Y
2	IC 410-63741/8	4.0	2.196022	50.0	1290720.0	0.549006	Y
3	IC 410-63741/7	10.0	5.306634	50.0	1283469.0	0.530663	Y
4	IC 410-63741/6	20.0	10.417035	50.0	1284881.0	0.520852	Y
5	ICIS 410-63741/5	50.0	24.80281	50.0	1304709.0	0.496056	Y
6	IC 410-63741/4	100.0	50.839044	50.0	1292662.0	0.50839	Y
7	IC 410-63741/3	300.0	148.34412	50.0	1315464.0	0.49448	Y



Calibration / Trichlorofluoromethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

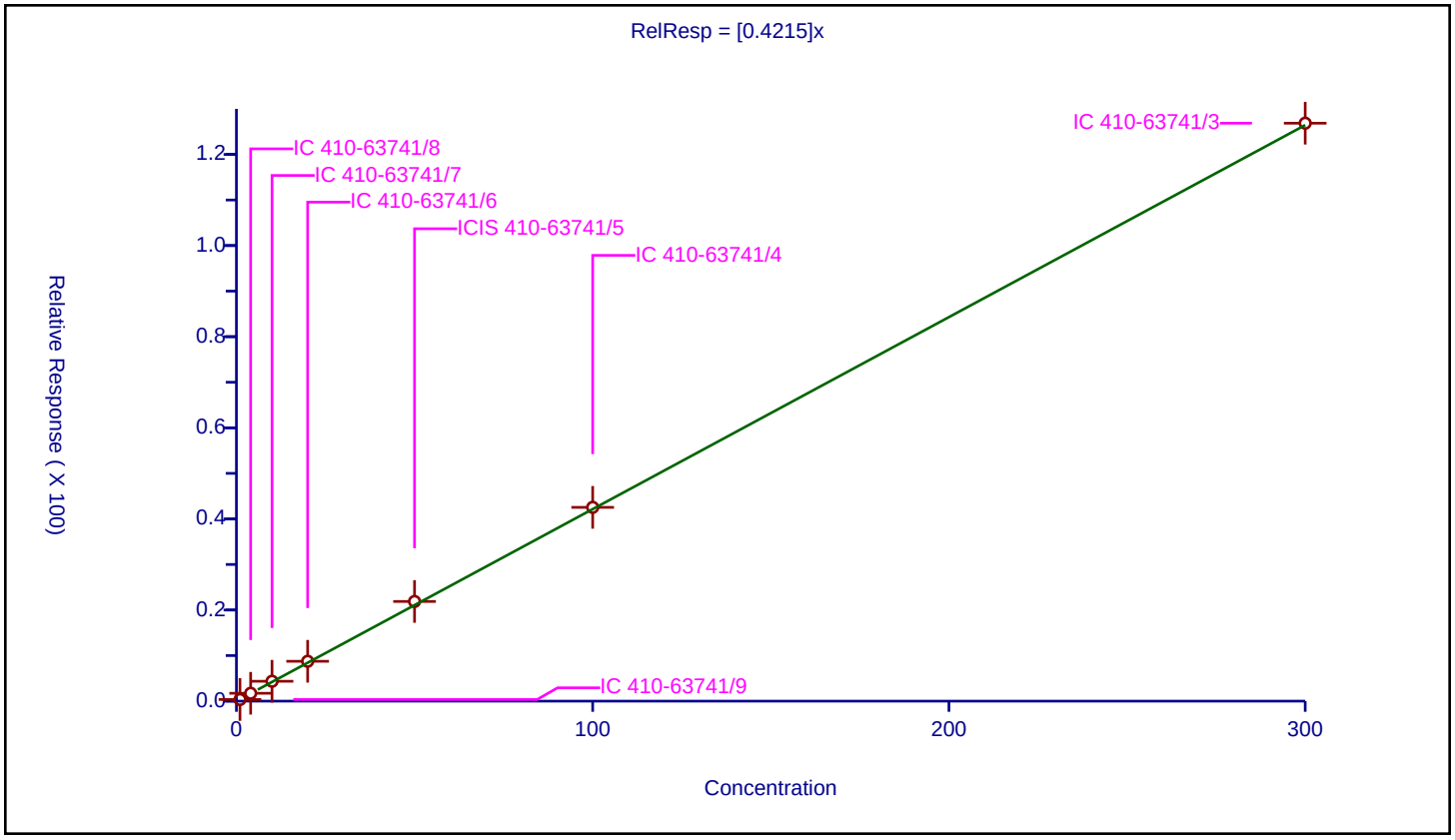
Curve Coefficients

Intercept:	0
Slope:	0.4215

Error Coefficients

Standard Error:	1460000
Relative Standard Error:	6.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.358667	50.0	1310267.0	0.358667	Y
2	IC 410-63741/8	4.0	1.728338	50.0	1290720.0	0.432084	Y
3	IC 410-63741/7	10.0	4.362825	50.0	1283469.0	0.436282	Y
4	IC 410-63741/6	20.0	8.748748	50.0	1284881.0	0.437437	Y
5	ICIS 410-63741/5	50.0	21.881738	50.0	1304709.0	0.437635	Y
6	IC 410-63741/4	100.0	42.536525	50.0	1292662.0	0.425365	Y
7	IC 410-63741/3	300.0	126.860864	50.0	1315464.0	0.42287	Y



Calibration / Pentane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

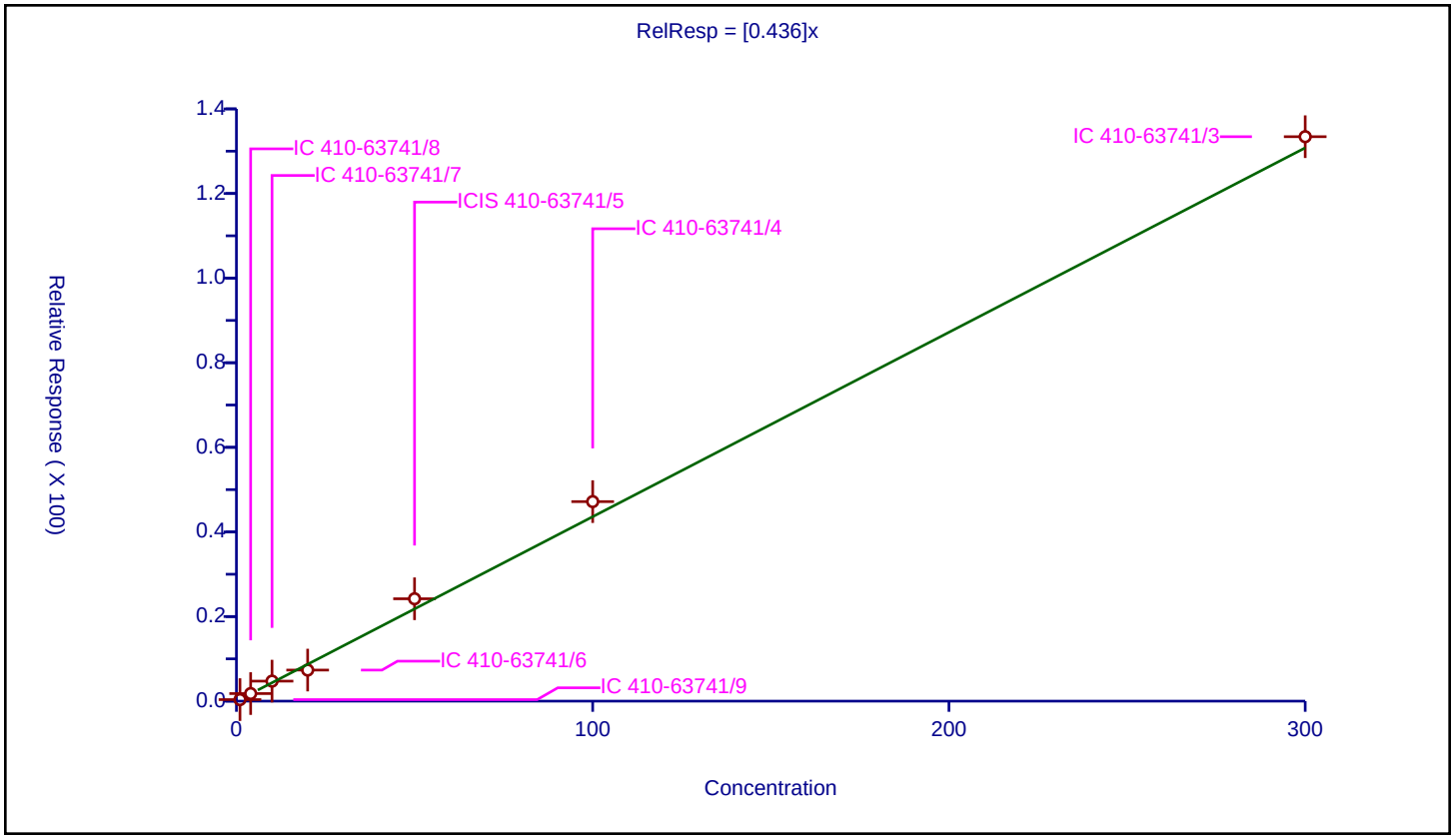
Curve Coefficients

Intercept:	0
Slope:	0.436

Error Coefficients

Standard Error:	1540000
Relative Standard Error:	11.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.986

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.363666	50.0	1310267.0	0.363666	Y
2	IC 410-63741/8	4.0	1.789389	50.0	1290720.0	0.447347	Y
3	IC 410-63741/7	10.0	4.730734	50.0	1283469.0	0.473073	Y
4	IC 410-63741/6	20.0	7.345077	50.0	1284881.0	0.367254	Y
5	ICIS 410-63741/5	50.0	24.201604	50.0	1304709.0	0.484032	Y
6	IC 410-63741/4	100.0	47.163837	50.0	1292662.0	0.471638	Y
7	IC 410-63741/3	300.0	133.429421	50.0	1315464.0	0.444765	Y



Calibration / Ethanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

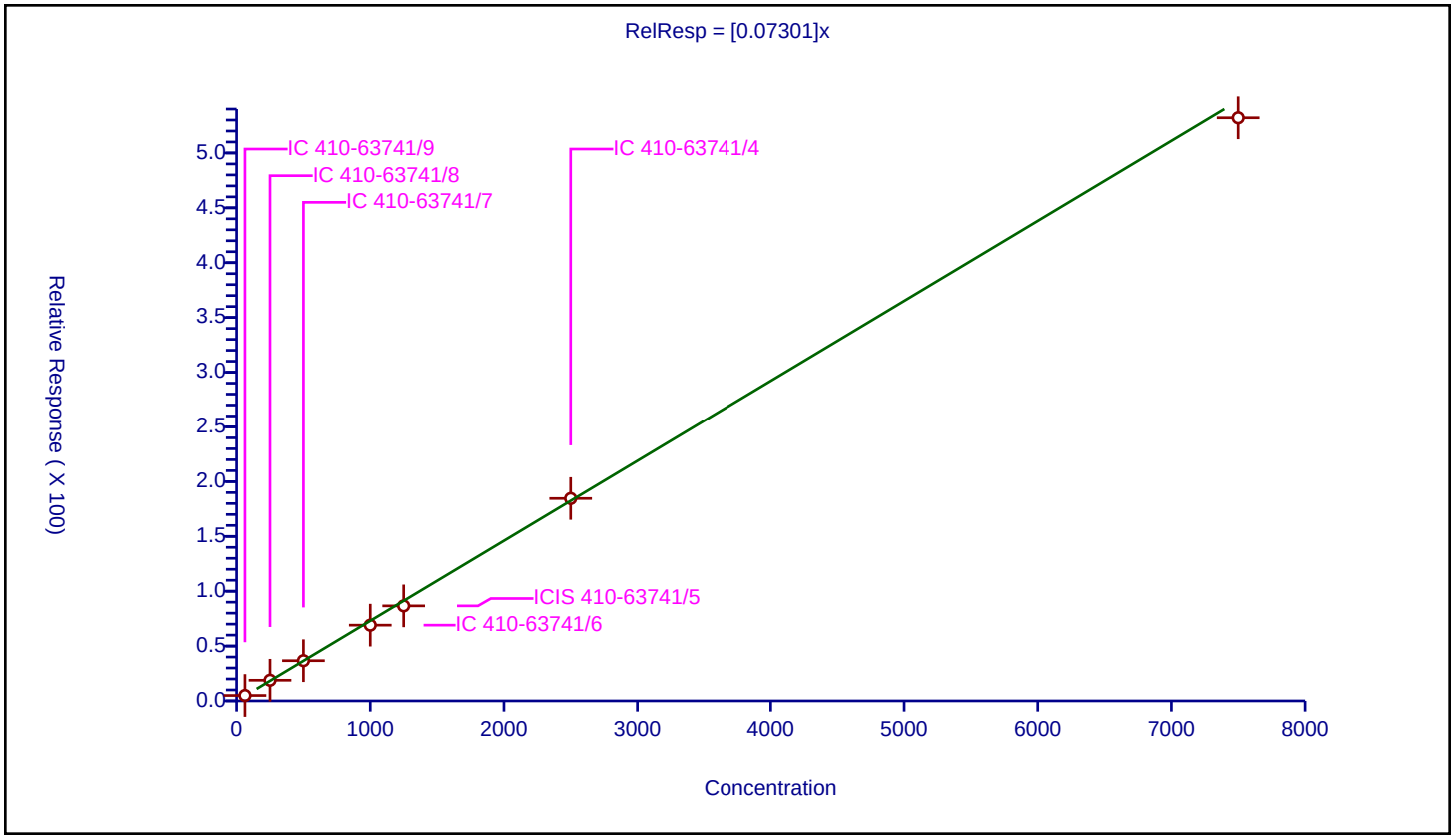
Curve Coefficients

Intercept:	0
Slope:	0.07301

Error Coefficients

Standard Error:	282000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	62.49567	4.950309	250.0	306092.0	0.07921	Y
2	IC 410-63741/8	249.98268	18.841178	250.0	318677.0	0.07537	Y
3	IC 410-63741/7	499.96536	36.654814	250.0	301768.0	0.073315	Y
4	IC 410-63741/6	999.93072	69.061893	250.0	305914.0	0.069067	Y
5	ICIS 410-63741/5	1249.9134	86.643993	250.0	325187.0	0.06932	Y
6	IC 410-63741/4	2499.8268	184.611002	250.0	287881.0	0.07385	Y
7	IC 410-63741/3	7499.4804	532.0609	250.0	301247.0	0.070946	Y



Calibration / 1,2-Dichloro-1,1,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

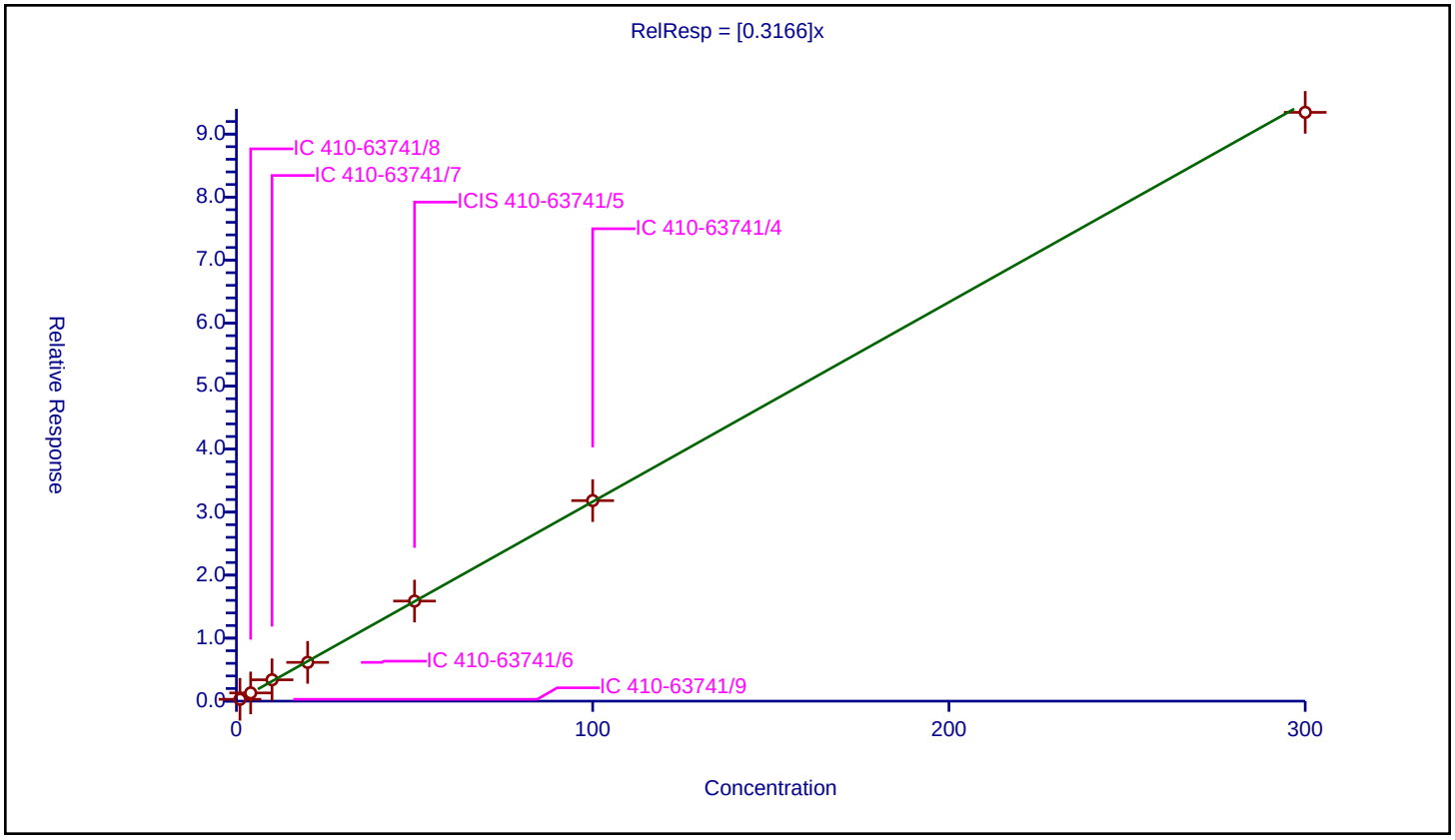
Curve Coefficients

Intercept:	0
Slope:	0.3166

Error Coefficients

Standard Error:	1070000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.295589	50.0	1310267.0	0.295589	Y
2	IC 410-63741/8	4.0	1.30586	50.0	1290720.0	0.326465	Y
3	IC 410-63741/7	10.0	3.390148	50.0	1283469.0	0.339015	Y
4	IC 410-63741/6	20.0	6.153722	50.0	1284881.0	0.307686	Y
5	ICIS 410-63741/5	50.0	15.881971	50.0	1304709.0	0.317639	Y
6	IC 410-63741/4	100.0	31.828042	50.0	1292662.0	0.31828	Y
7	IC 410-63741/3	300.0	93.451816	50.0	1315464.0	0.311506	Y



Calibration / Acrolein

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

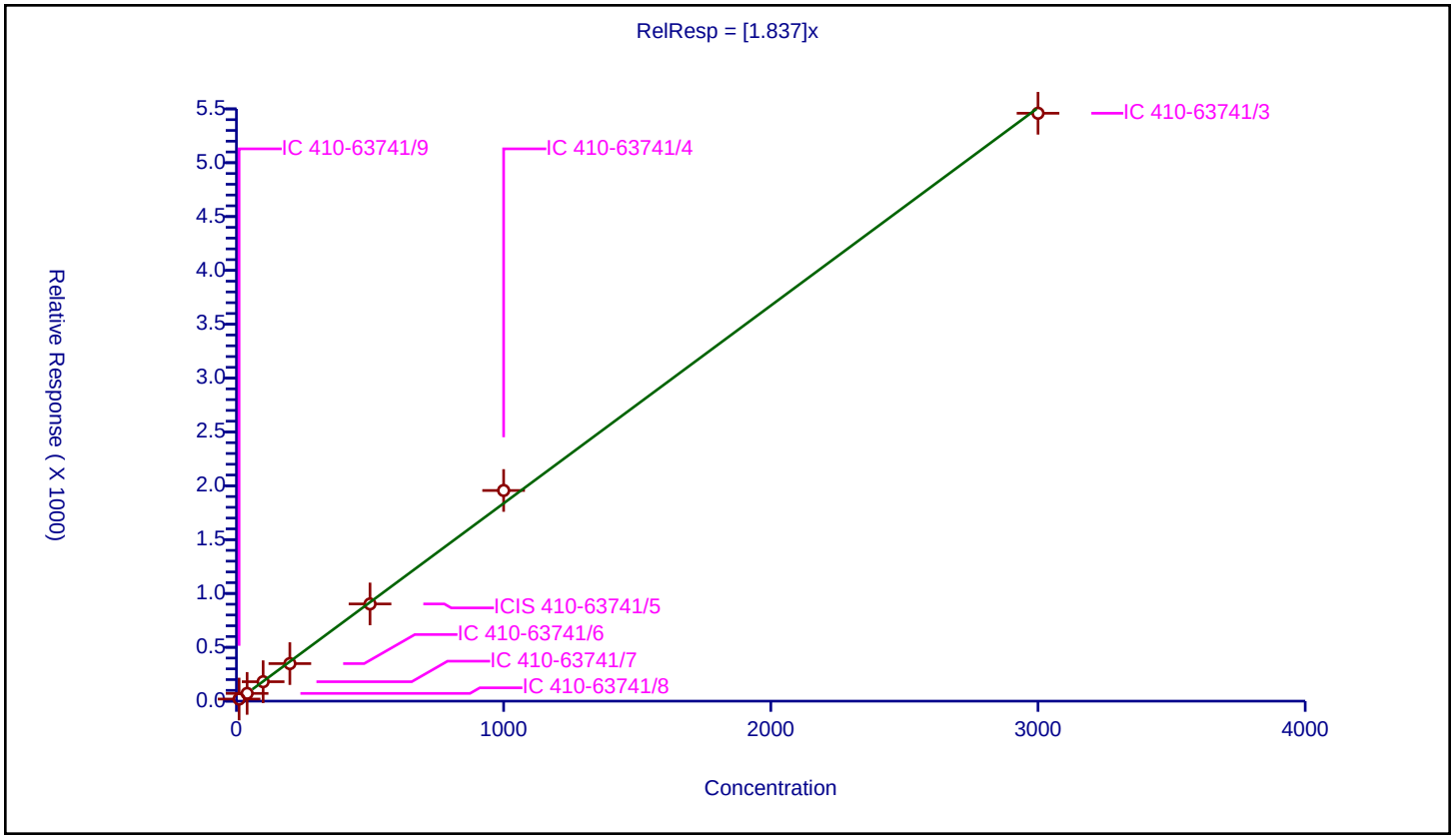
Curve Coefficients

Intercept:	0
Slope:	1.837

Error Coefficients

Standard Error:	2880000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	10.000292	19.33569	250.0	306092.0	1.933513	Y
2	IC 410-63741/8	40.001167	71.775654	250.0	318677.0	1.794339	Y
3	IC 410-63741/7	100.002917	180.491305	250.0	301768.0	1.80486	Y
4	IC 410-63741/6	200.005834	348.520336	250.0	305914.0	1.742551	Y
5	ICIS 410-63741/5	500.014585	902.615264	250.0	325187.0	1.805178	Y
6	IC 410-63741/4	1000.02917	1956.354362	250.0	287881.0	1.956297	Y
7	IC 410-63741/3	3000.087509	5459.549805	250.0	301247.0	1.819797	Y



Calibration / 1,1-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

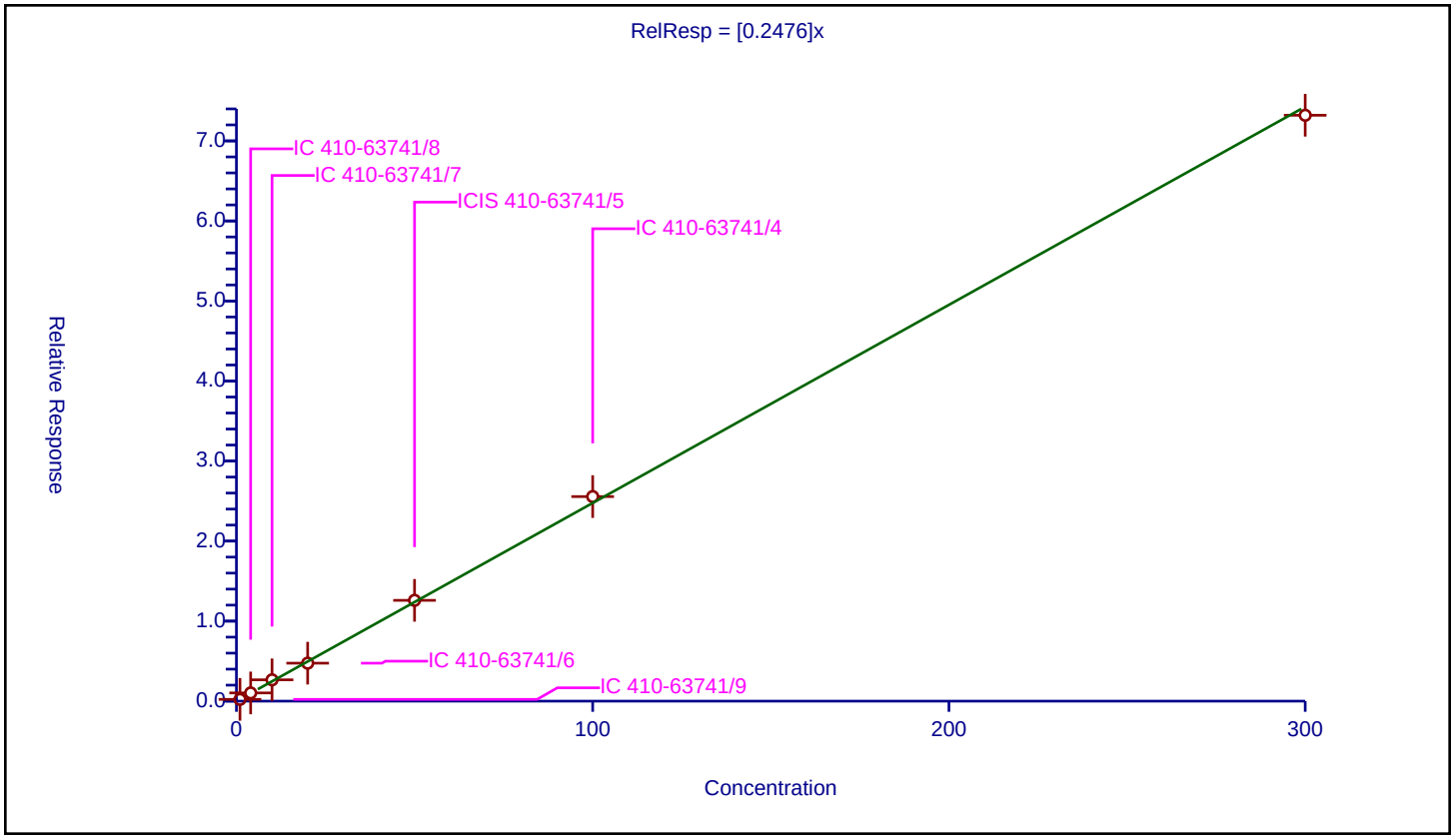
Curve Coefficients

Intercept:	0
Slope:	0.2476

Error Coefficients

Standard Error:	844000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.221749	50.0	1310267.0	0.221749	Y
2	IC 410-63741/8	4.0	1.025435	50.0	1290720.0	0.256359	Y
3	IC 410-63741/7	10.0	2.663368	50.0	1283469.0	0.266337	Y
4	IC 410-63741/6	20.0	4.74398	50.0	1284881.0	0.237199	Y
5	ICIS 410-63741/5	50.0	12.592655	50.0	1304709.0	0.251853	Y
6	IC 410-63741/4	100.0	25.558383	50.0	1292662.0	0.255584	Y
7	IC 410-63741/3	300.0	73.205614	50.0	1315464.0	0.244019	Y



Calibration / Acetone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

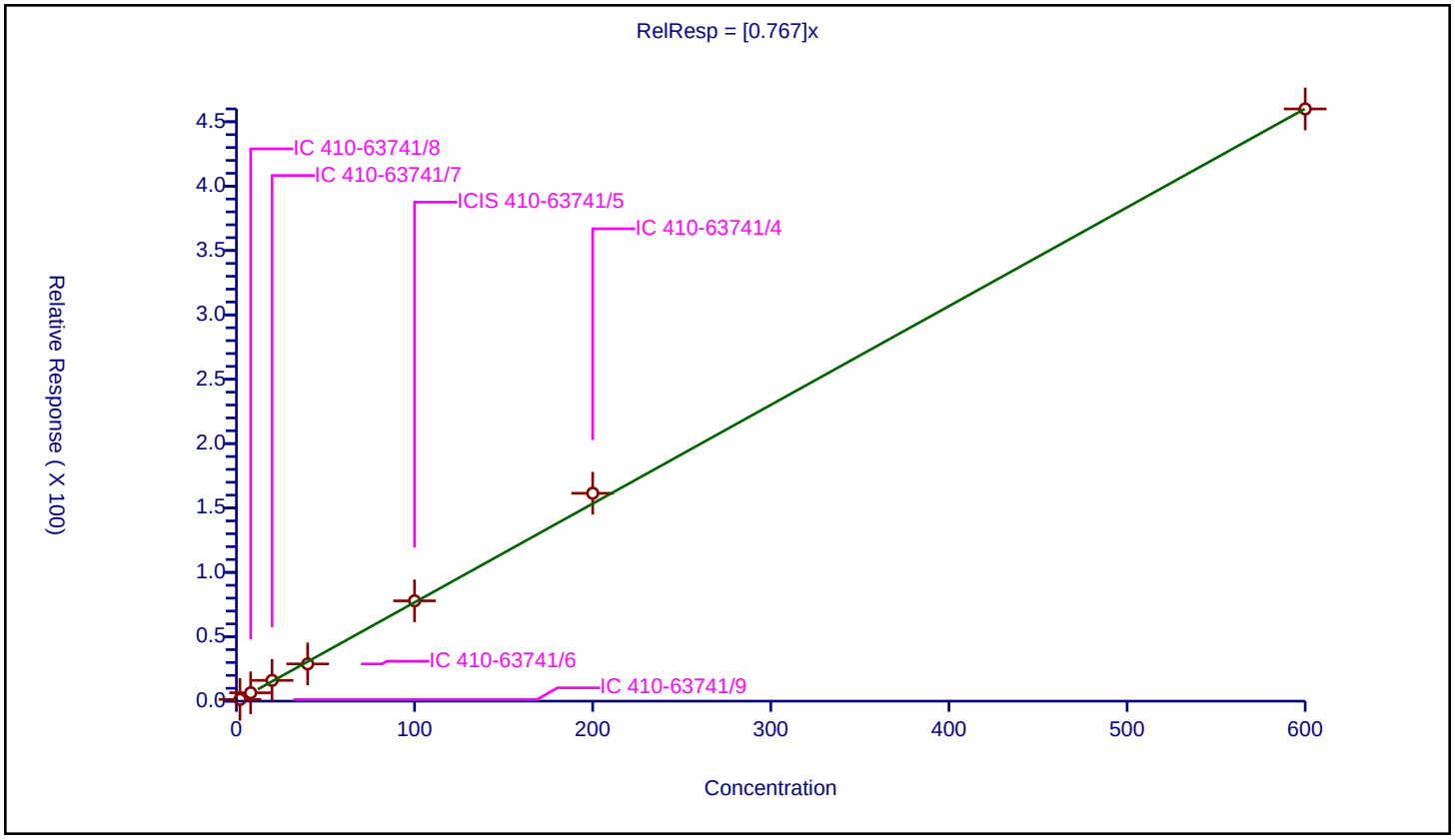
Curve Coefficients

Intercept:	0
Slope:	0.767

Error Coefficients

Standard Error:	243000
Relative Standard Error:	6.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	1.346817	250.0	306092.0	0.673409	Y
2	IC 410-63741/8	8.0	6.507373	250.0	318677.0	0.813422	Y
3	IC 410-63741/7	20.0	16.128284	250.0	301768.0	0.806414	Y
4	IC 410-63741/6	40.0	28.914989	250.0	305914.0	0.722875	Y
5	ICIS 410-63741/5	100.0	77.907481	250.0	325187.0	0.779075	Y
6	IC 410-63741/4	200.0	161.475575	250.0	287881.0	0.807378	Y
7	IC 410-63741/3	600.0	459.951468	250.0	301247.0	0.766586	Y



Calibration / 1,1,2-Trichloro-1,2,2-trifluoroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

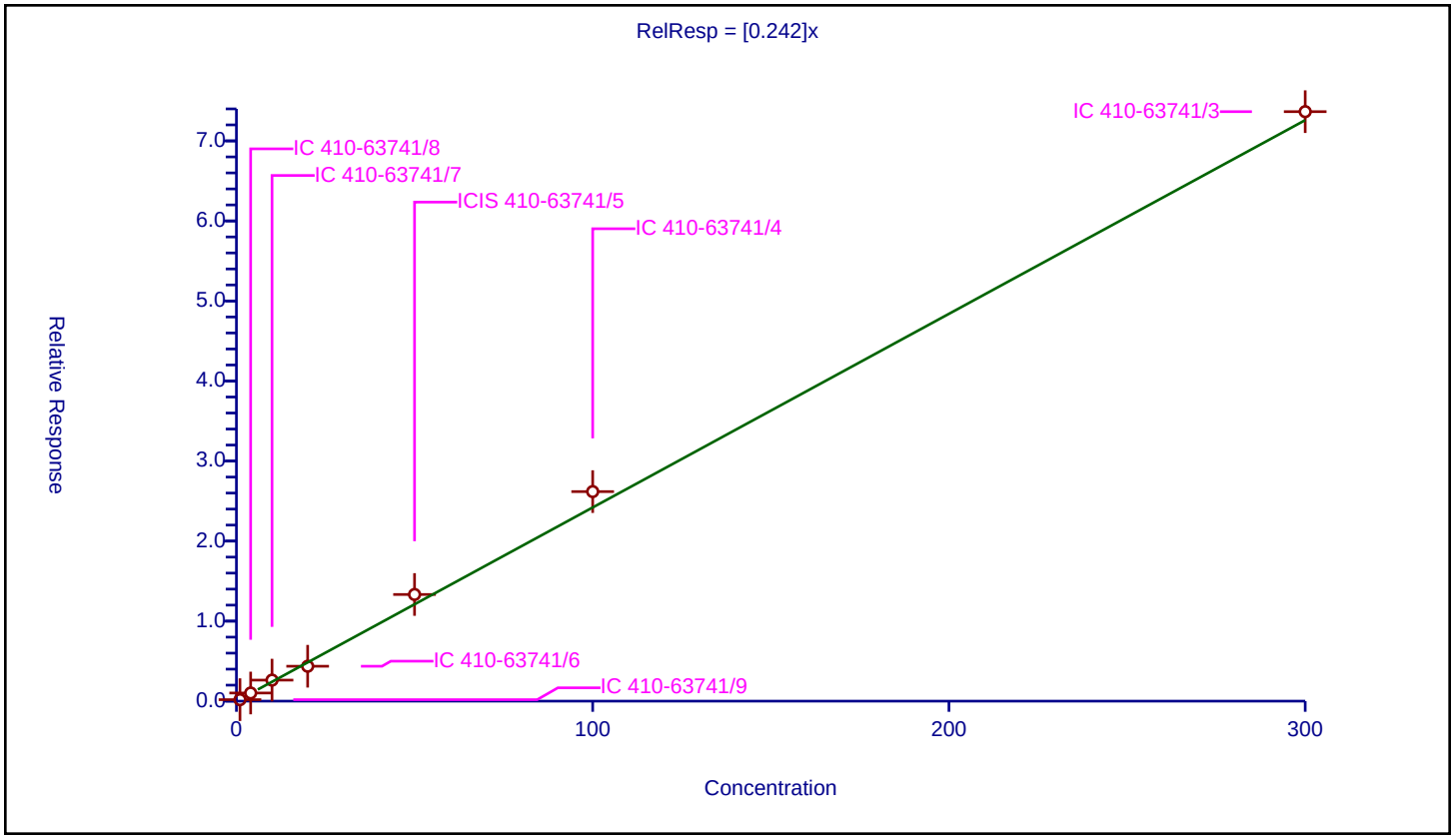
Curve Coefficients

Intercept:	0
Slope:	0.242

Error Coefficients

Standard Error:	852000
Relative Standard Error:	12.5
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.984

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.184733	50.0	1310267.0	0.184733	Y
2	IC 410-63741/8	4.0	1.018269	50.0	1290720.0	0.254567	Y
3	IC 410-63741/7	10.0	2.626398	50.0	1283469.0	0.26264	Y
4	IC 410-63741/6	20.0	4.359664	50.0	1284881.0	0.217983	Y
5	ICIS 410-63741/5	50.0	13.325922	50.0	1304709.0	0.266518	Y
6	IC 410-63741/4	100.0	26.183565	50.0	1292662.0	0.261836	Y
7	IC 410-63741/3	300.0	73.653783	50.0	1315464.0	0.245513	Y



Calibration / Isopropyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

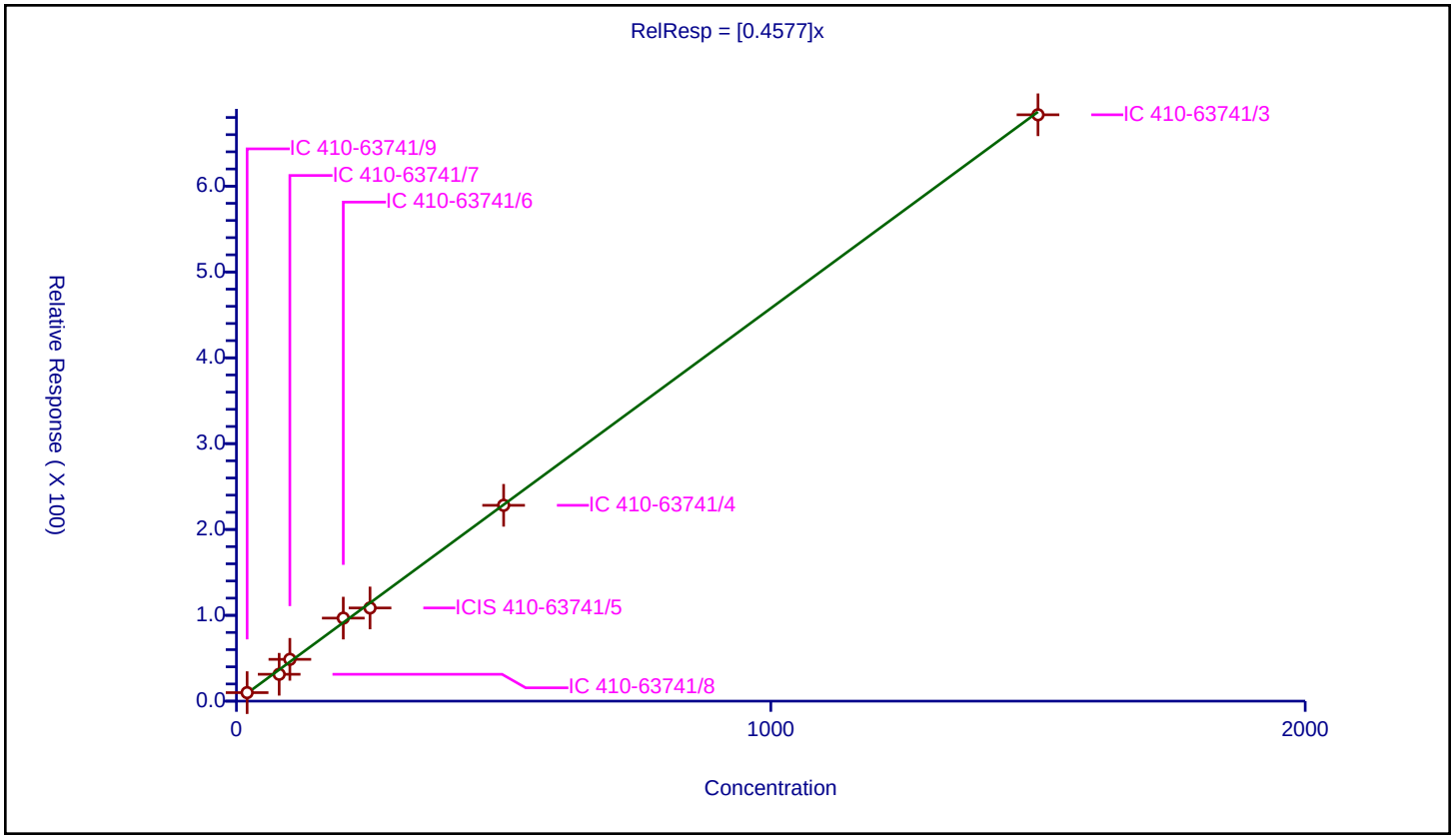
Curve Coefficients

Intercept:	0
Slope:	0.4577

Error Coefficients

Standard Error:	362000
Relative Standard Error:	8.0
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.991

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	20.0	9.919403	250.0	306092.0	0.49597	Y
2	IC 410-63741/8	80.0	31.298933	250.0	318677.0	0.391237	Y
3	IC 410-63741/7	100.0	48.694693	250.0	301768.0	0.486947	Y
4	IC 410-63741/6	200.0	96.73552	250.0	305914.0	0.483678	Y
5	ICIS 410-63741/5	250.0	108.573682	250.0	325187.0	0.434295	Y
6	IC 410-63741/4	500.0	228.154168	250.0	287881.0	0.456308	Y
7	IC 410-63741/3	1500.0	683.138753	250.0	301247.0	0.455426	Y



Calibration / Iodomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

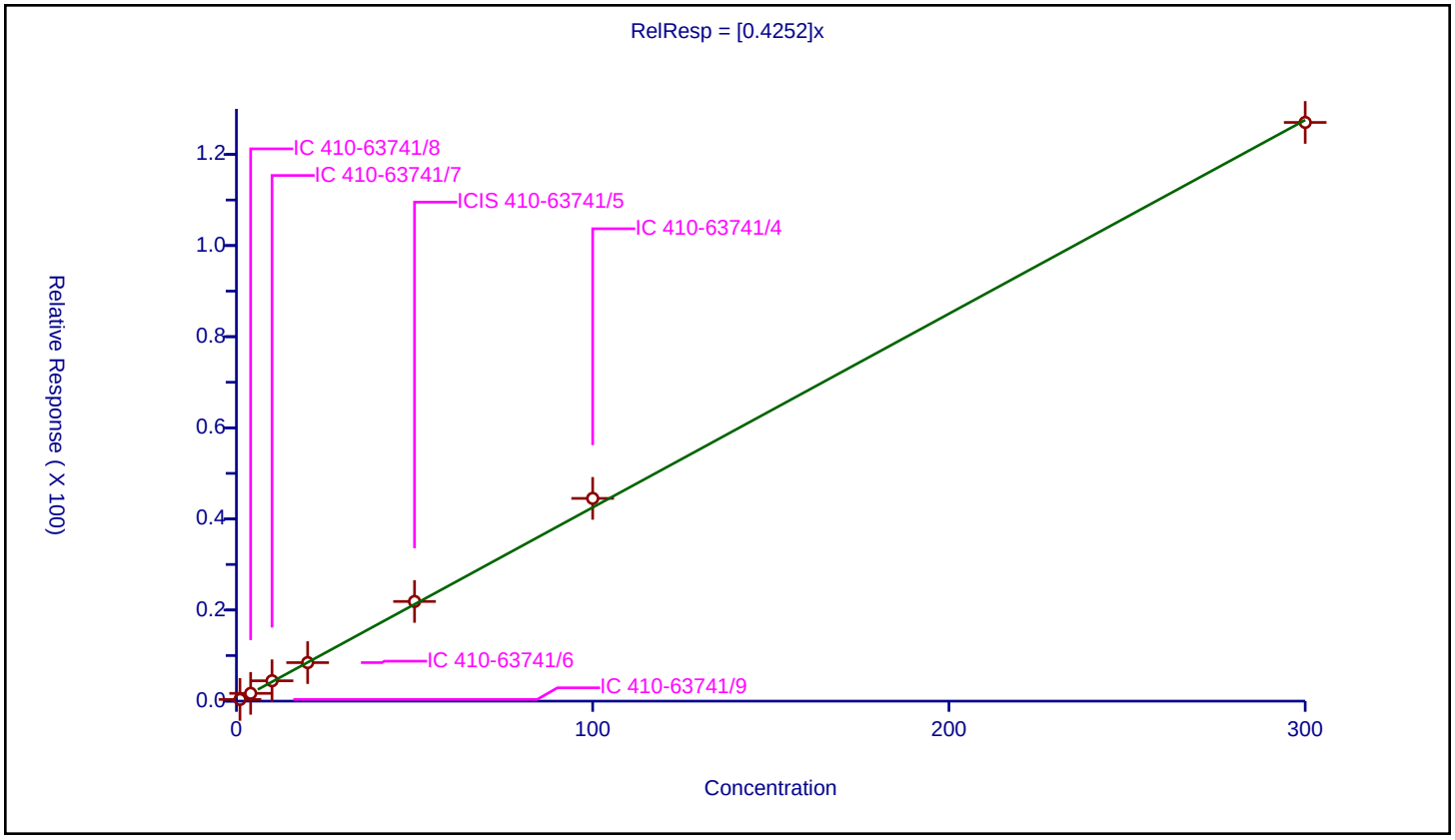
Curve Coefficients

Intercept:	0
Slope:	0.4252

Error Coefficients

Standard Error:	1470000
Relative Standard Error:	5.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.372977	50.0	1310267.0	0.372977	Y
2	IC 410-63741/8	4.0	1.709627	50.0	1290720.0	0.427407	Y
3	IC 410-63741/7	10.0	4.468203	50.0	1283469.0	0.44682	Y
4	IC 410-63741/6	20.0	8.458254	50.0	1284881.0	0.422913	Y
5	ICIS 410-63741/5	50.0	21.880933	50.0	1304709.0	0.437619	Y
6	IC 410-63741/4	100.0	44.506685	50.0	1292662.0	0.445067	Y
7	IC 410-63741/3	300.0	127.027269	50.0	1315464.0	0.423424	Y



Calibration / Carbon disulfide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

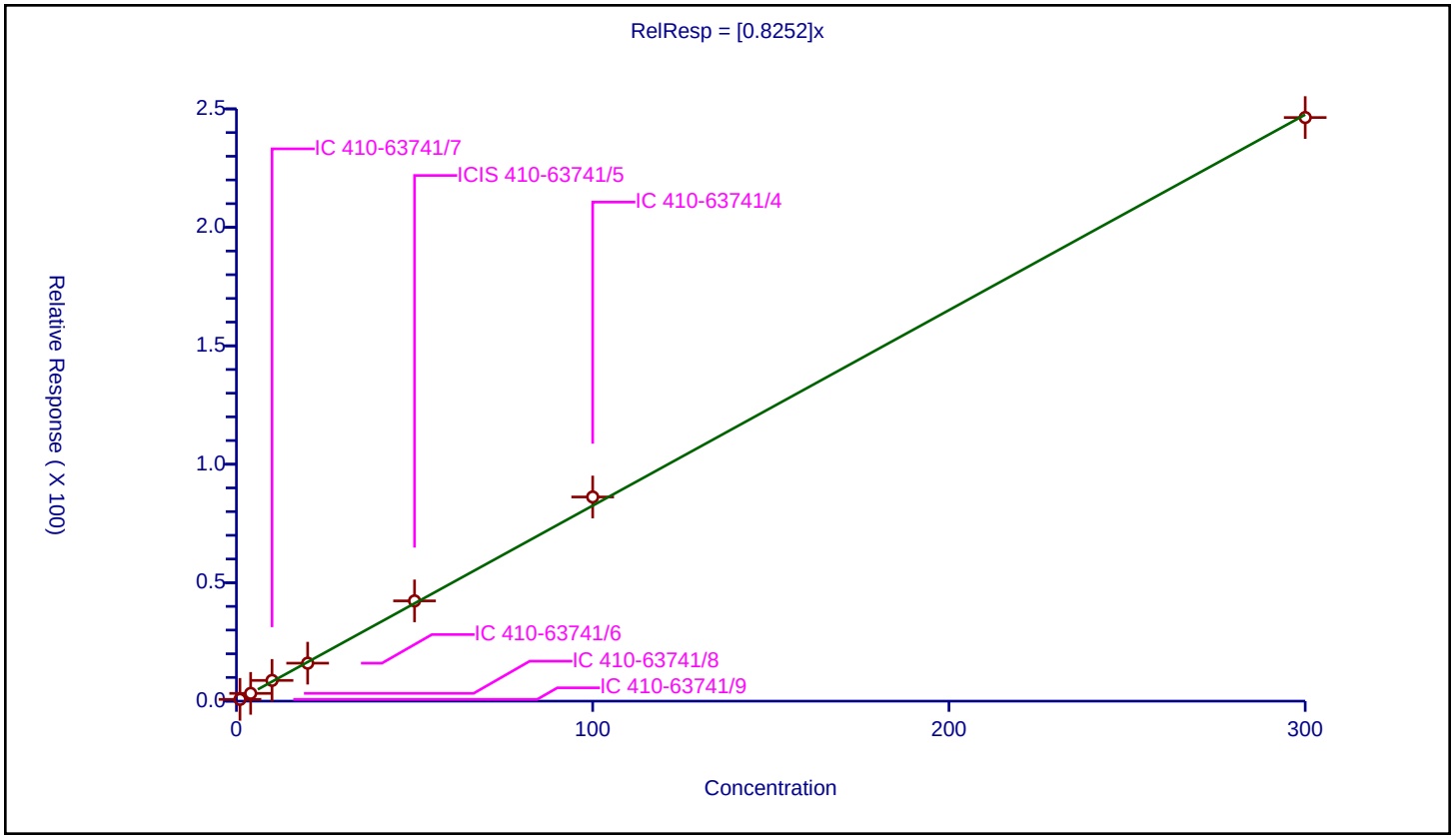
Curve Coefficients

Intercept:	0
Slope:	0.8252

Error Coefficients

Standard Error:	2840000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.750801	50.0	1310267.0	0.750801	Y
2	IC 410-63741/8	4.0	3.279991	50.0	1290720.0	0.819998	Y
3	IC 410-63741/7	10.0	8.751127	50.0	1283469.0	0.875113	Y
4	IC 410-63741/6	20.0	16.025103	50.0	1284881.0	0.801255	Y
5	ICIS 410-63741/5	50.0	42.322847	50.0	1304709.0	0.846457	Y
6	IC 410-63741/4	100.0	86.181693	50.0	1292662.0	0.861817	Y
7	IC 410-63741/3	300.0	246.341747	50.0	1315464.0	0.821139	Y



Calibration / Methyl acetate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

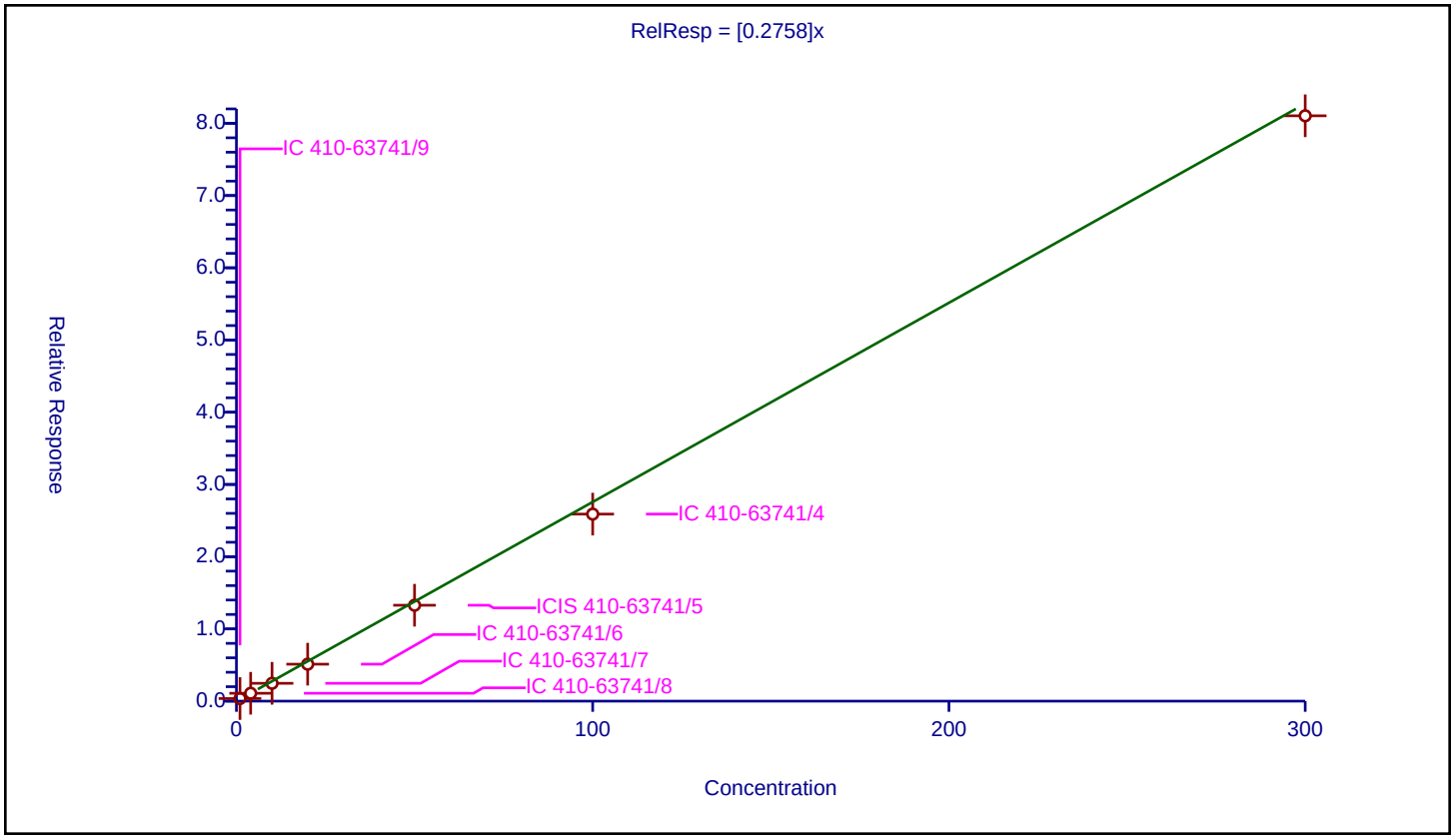
Curve Coefficients

Intercept:	0
Slope:	0.2758

Error Coefficients

Standard Error:	925000
Relative Standard Error:	13.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.974

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.360156	50.0	1310267.0	0.360156	Y
2	IC 410-63741/8	4.0	1.091406	50.0	1290720.0	0.272852	Y
3	IC 410-63741/7	10.0	2.468077	50.0	1283469.0	0.246808	Y
4	IC 410-63741/6	20.0	5.116388	50.0	1284881.0	0.255819	Y
5	ICIS 410-63741/5	50.0	13.279053	50.0	1304709.0	0.265581	Y
6	IC 410-63741/4	100.0	25.89513	50.0	1292662.0	0.258951	Y
7	IC 410-63741/3	300.0	81.045775	50.0	1315464.0	0.270153	Y



Calibration / 3-Chloro-1-propene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

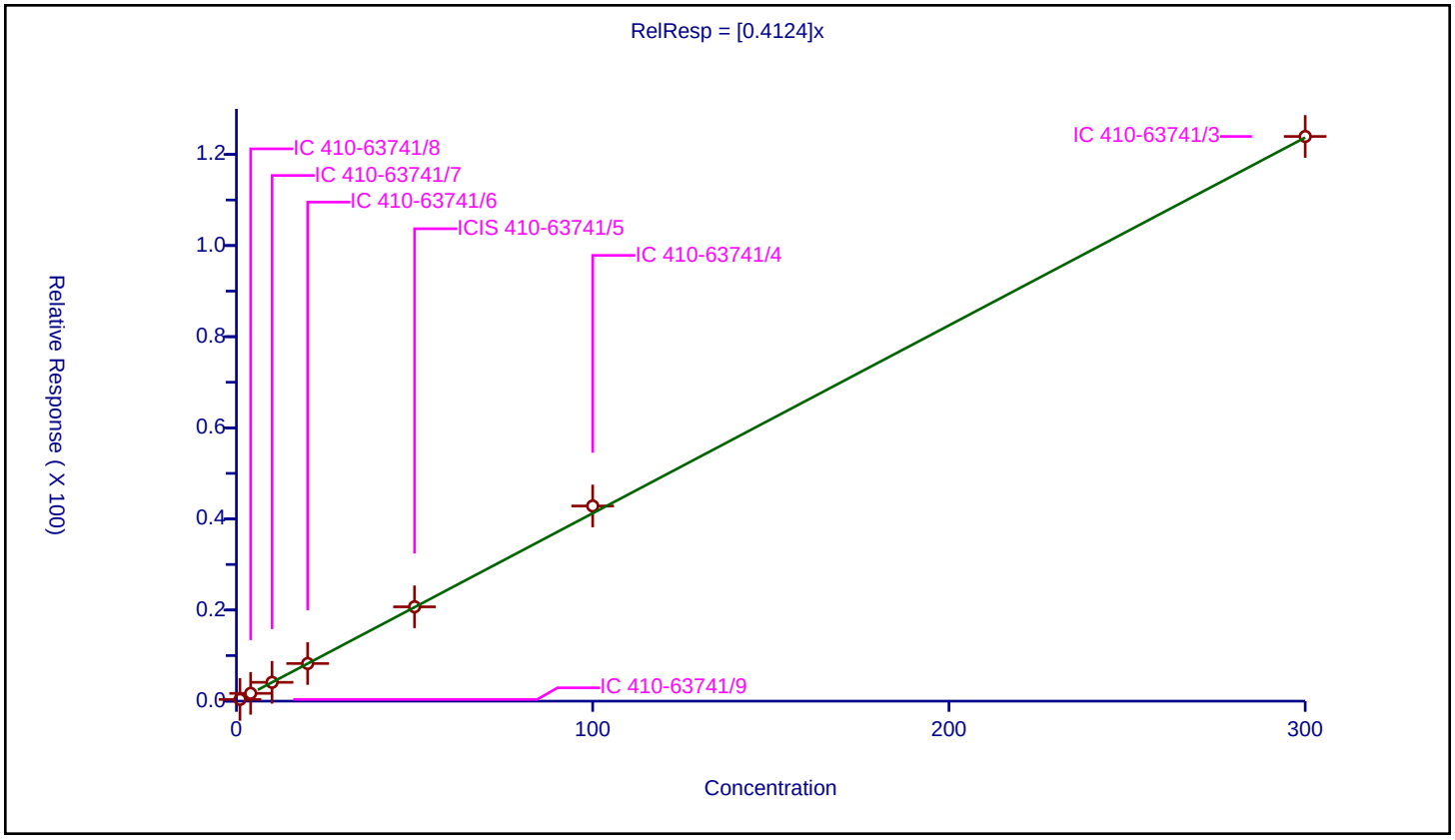
Curve Coefficients

Intercept:	0
Slope:	0.4124

Error Coefficients

Standard Error:	1430000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.376259	50.0	1310267.0	0.376259	Y
2	IC 410-63741/8	4.0	1.712339	50.0	1290720.0	0.428085	Y
3	IC 410-63741/7	10.0	4.132823	50.0	1283469.0	0.413282	Y
4	IC 410-63741/6	20.0	8.265318	50.0	1284881.0	0.413266	Y
5	ICIS 410-63741/5	50.0	20.705728	50.0	1304709.0	0.414115	Y
6	IC 410-63741/4	100.0	42.839621	50.0	1292662.0	0.428396	Y
7	IC 410-63741/3	300.0	123.947254	50.0	1315464.0	0.413158	Y



Calibration / Methylene Chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

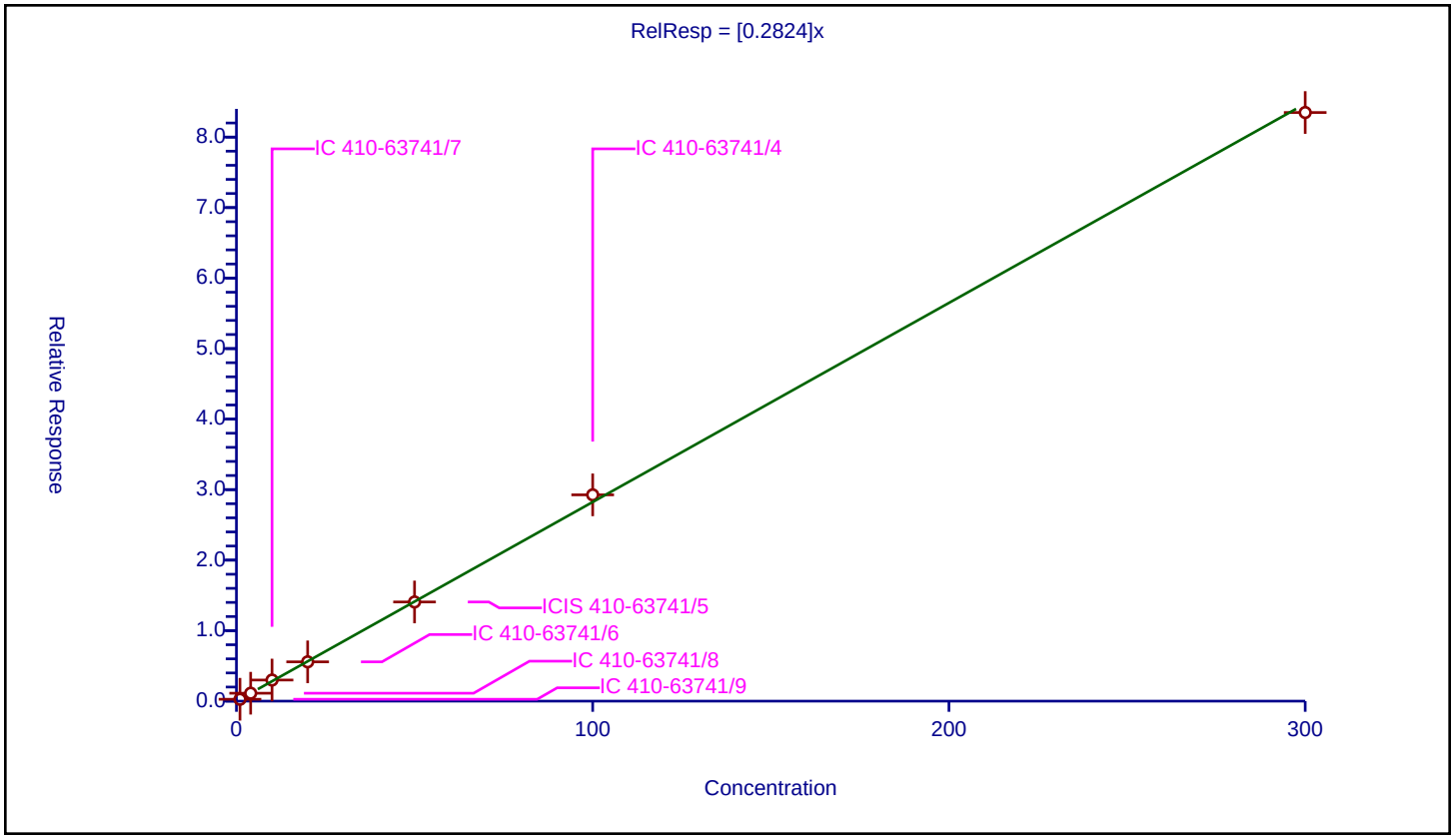
Curve Coefficients

Intercept:	0
Slope:	0.2824

Error Coefficients

Standard Error:	962000
Relative Standard Error:	3.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.265824	50.0	1310267.0	0.265824	Y
2	IC 410-63741/8	4.0	1.123172	50.0	1290720.0	0.280793	Y
3	IC 410-63741/7	10.0	2.992982	50.0	1283469.0	0.299298	Y
4	IC 410-63741/6	20.0	5.575614	50.0	1284881.0	0.278781	Y
5	ICIS 410-63741/5	50.0	14.064975	50.0	1304709.0	0.2813	Y
6	IC 410-63741/4	100.0	29.259892	50.0	1292662.0	0.292599	Y
7	IC 410-63741/3	300.0	83.485219	50.0	1315464.0	0.278284	Y



Calibration / 2-Methyl-2-propanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

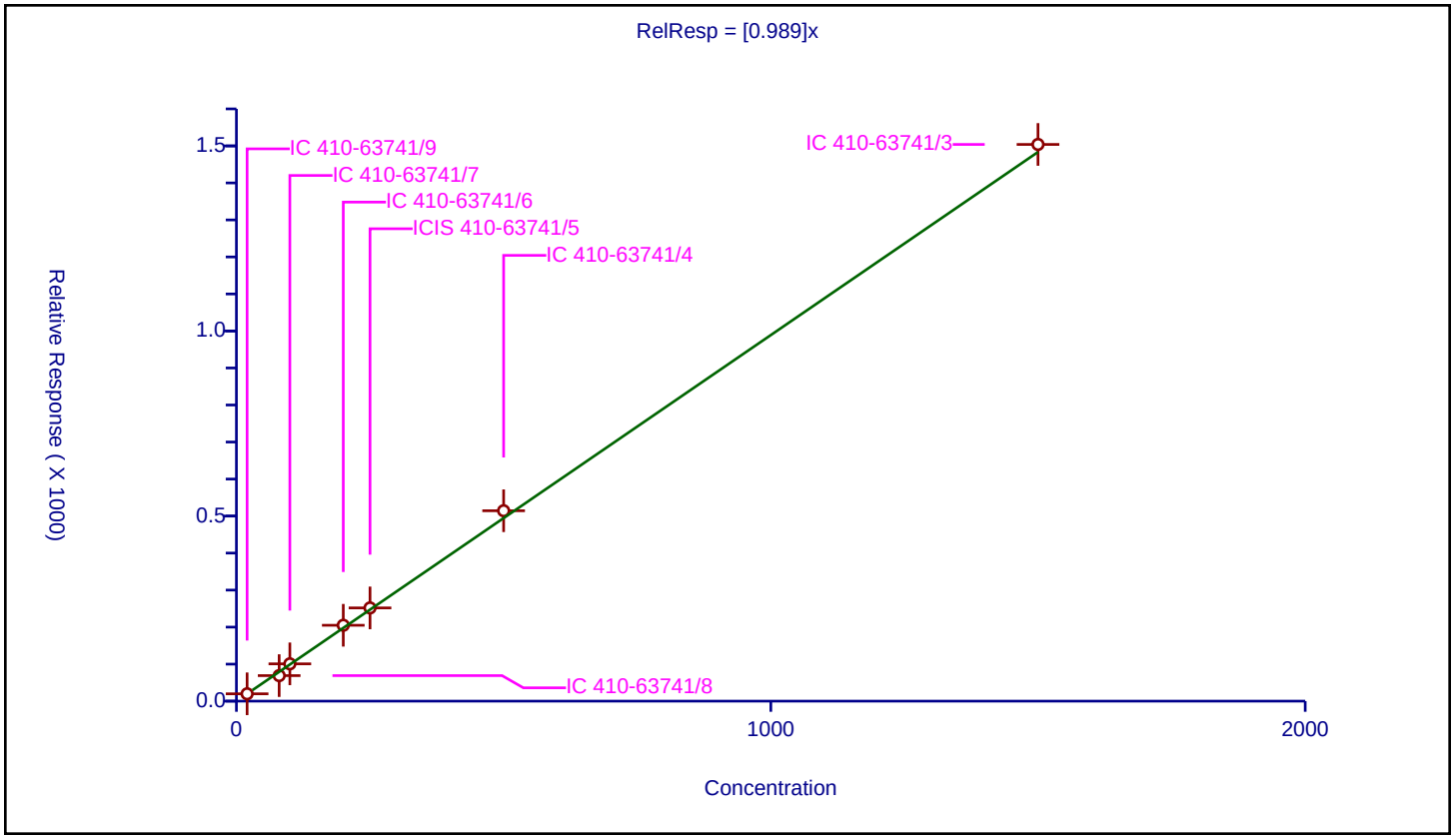
Curve Coefficients

Intercept:	0
Slope:	0.989

Error Coefficients

Standard Error:	798000
Relative Standard Error:	5.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	20.0	19.792252	250.0	306092.0	0.989613	Y
2	IC 410-63741/8	80.0	68.940495	250.0	318677.0	0.861756	Y
3	IC 410-63741/7	100.0	100.739641	250.0	301768.0	1.007396	Y
4	IC 410-63741/6	200.0	204.986532	250.0	305914.0	1.024933	Y
5	ICIS 410-63741/5	250.0	251.905826	250.0	325187.0	1.007623	Y
6	IC 410-63741/4	500.0	514.384416	250.0	287881.0	1.028769	Y
7	IC 410-63741/3	1500.0	1503.971824	250.0	301247.0	1.002648	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

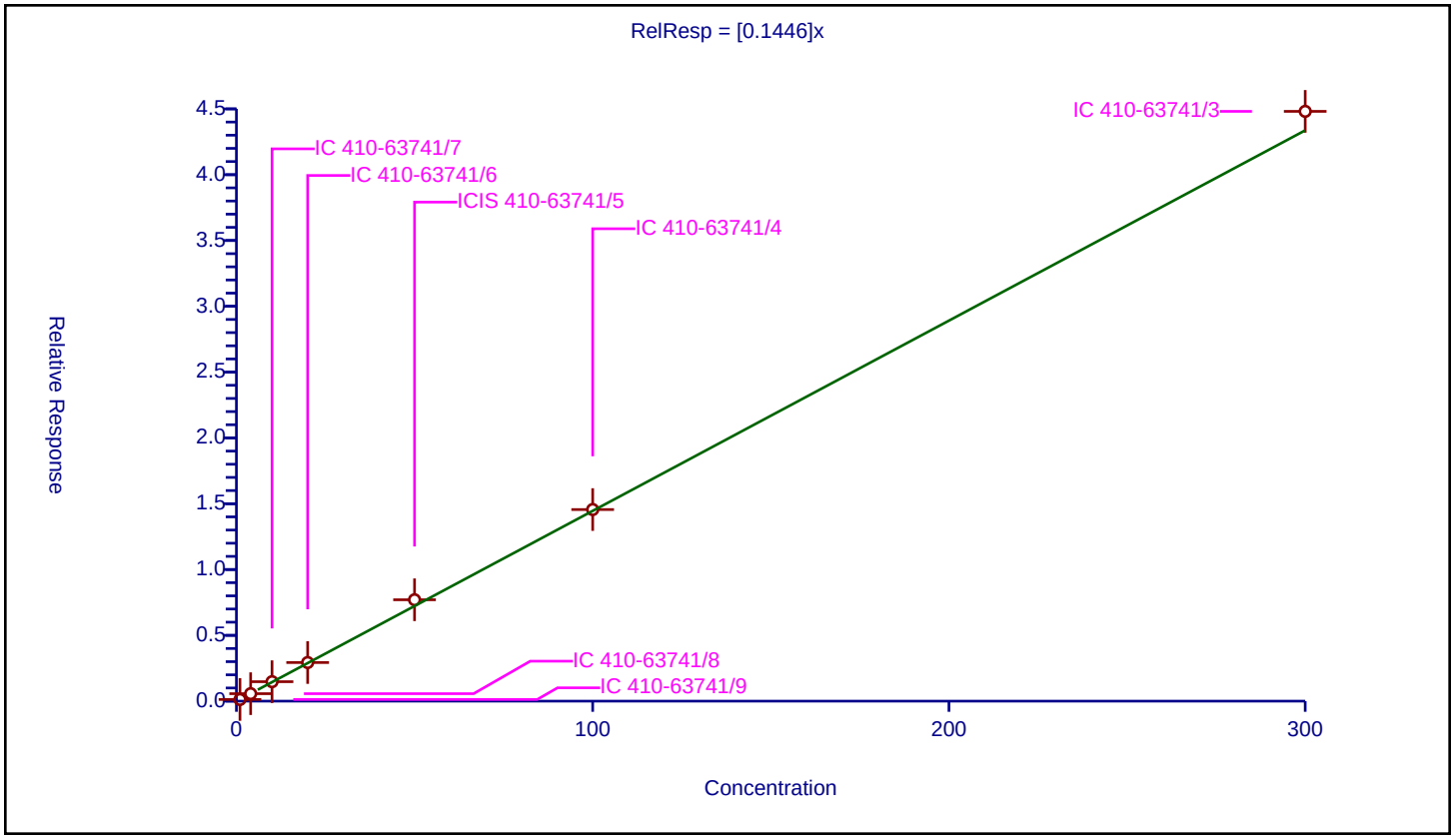
Curve Coefficients

Intercept:	0
Slope:	0.1446

Error Coefficients

Standard Error:	513000
Relative Standard Error:	6.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.126577	50.0	1310267.0	0.126577	Y
2	IC 410-63741/8	4.0	0.567203	50.0	1290720.0	0.141801	Y
3	IC 410-63741/7	10.0	1.478337	50.0	1283469.0	0.147834	Y
4	IC 410-63741/6	20.0	2.934318	50.0	1284881.0	0.146716	Y
5	ICIS 410-63741/5	50.0	7.703135	50.0	1304709.0	0.154063	Y
6	IC 410-63741/4	100.0	14.556473	50.0	1292662.0	0.145565	Y
7	IC 410-63741/3	300.0	44.811337	50.0	1315464.0	0.149371	Y



Calibration / Methyl tert-butyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

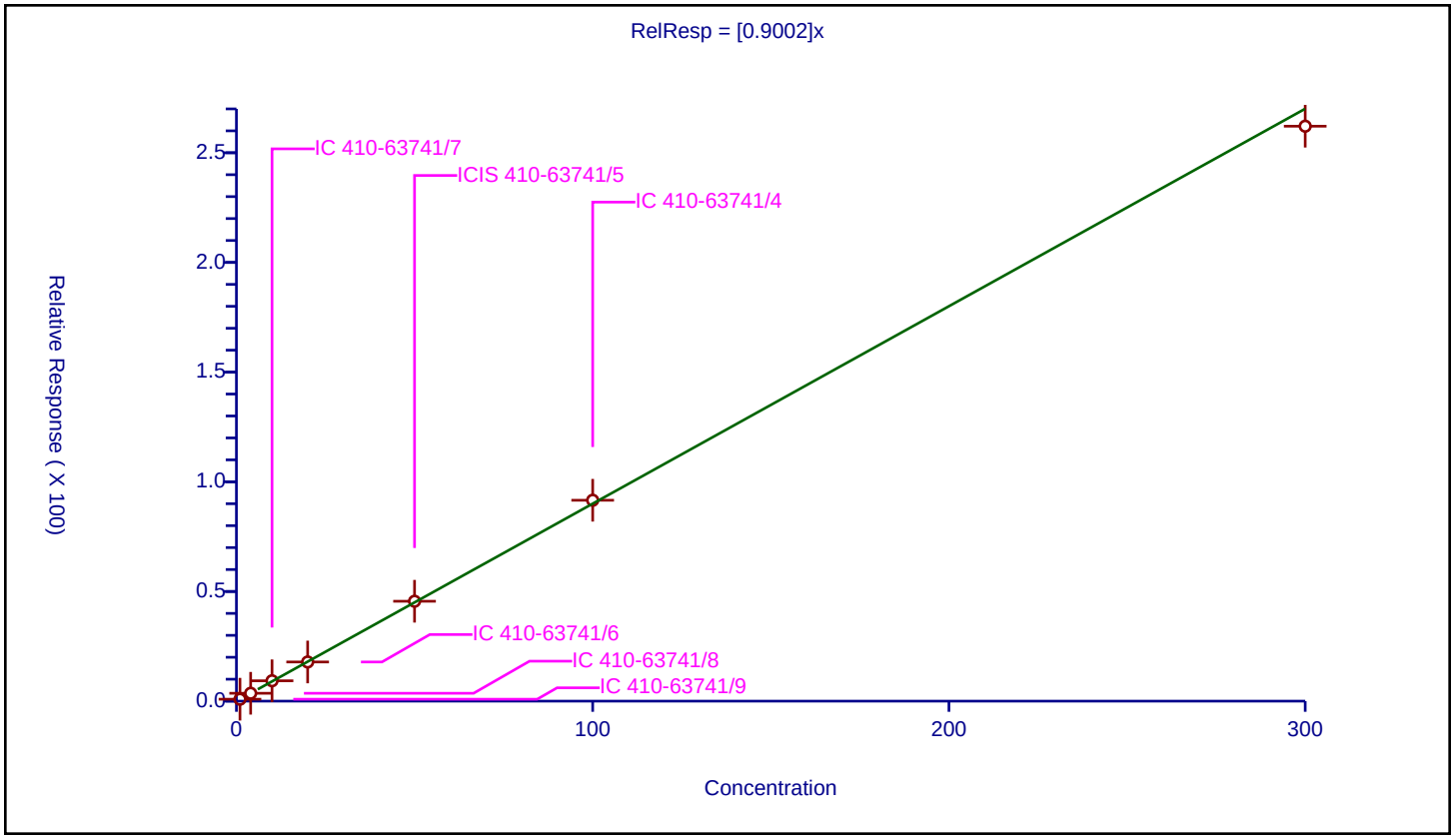
Curve Coefficients

Intercept:	0
Slope:	0.9002

Error Coefficients

Standard Error:	3020000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.881958	50.0	1310267.0	0.881958	Y
2	IC 410-63741/8	4.0	3.590787	50.0	1290720.0	0.897697	Y
3	IC 410-63741/7	10.0	9.284876	50.0	1283469.0	0.928488	Y
4	IC 410-63741/6	20.0	17.857646	50.0	1284881.0	0.892882	Y
5	ICIS 410-63741/5	50.0	45.541841	50.0	1304709.0	0.910837	Y
6	IC 410-63741/4	100.0	91.578734	50.0	1292662.0	0.915787	Y
7	IC 410-63741/3	300.0	262.106717	50.0	1315464.0	0.873689	Y



Calibration / trans-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

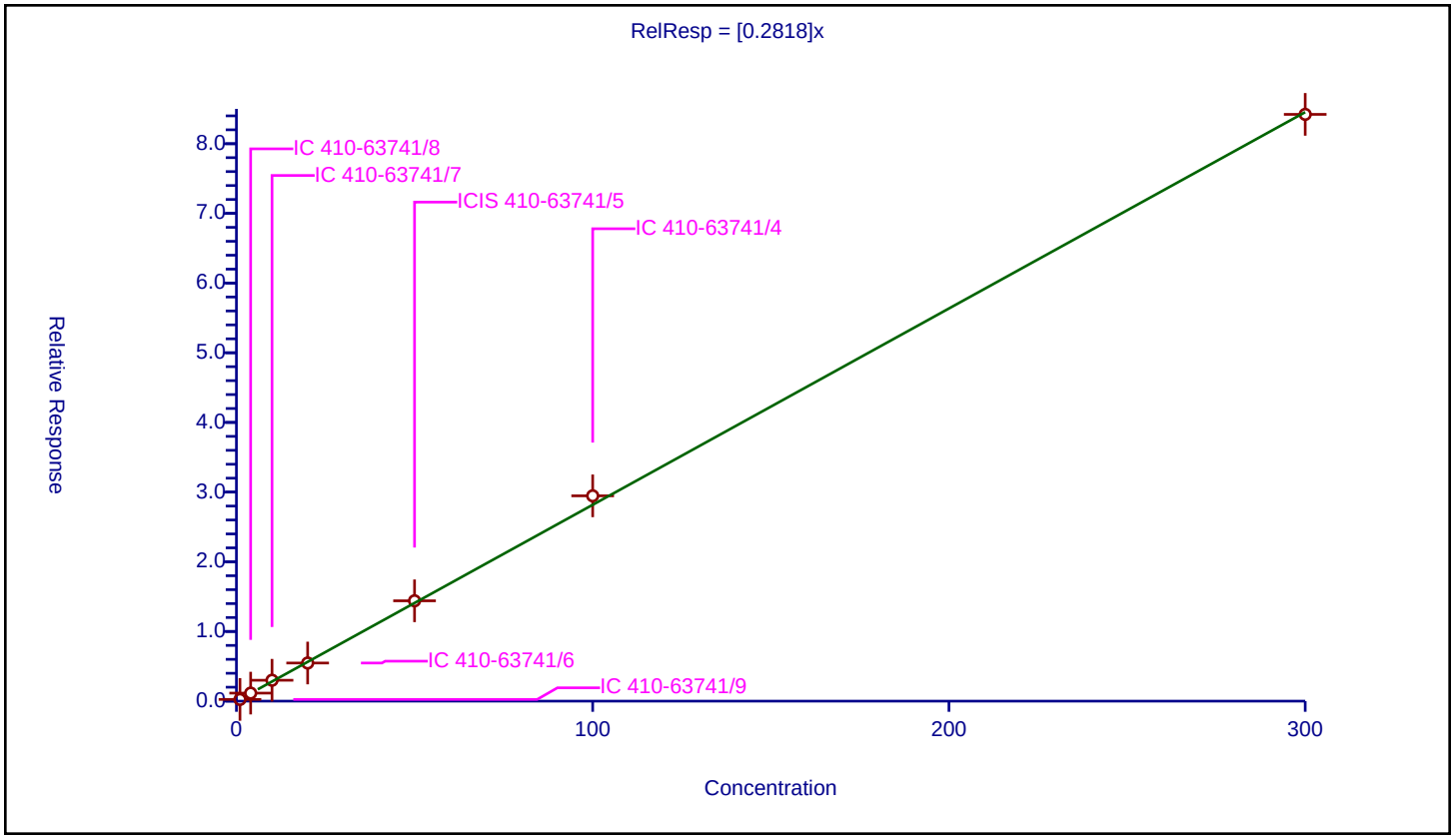
Curve Coefficients

Intercept:	0
Slope:	0.2818

Error Coefficients

Standard Error:	971000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.247354	50.0	1310267.0	0.247354	Y
2	IC 410-63741/8	4.0	1.151993	50.0	1290720.0	0.287998	Y
3	IC 410-63741/7	10.0	3.000501	50.0	1283469.0	0.30005	Y
4	IC 410-63741/6	20.0	5.471402	50.0	1284881.0	0.27357	Y
5	ICIS 410-63741/5	50.0	14.40187	50.0	1304709.0	0.288037	Y
6	IC 410-63741/4	100.0	29.46737	50.0	1292662.0	0.294674	Y
7	IC 410-63741/3	300.0	84.211921	50.0	1315464.0	0.280706	Y



Calibration / Hexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

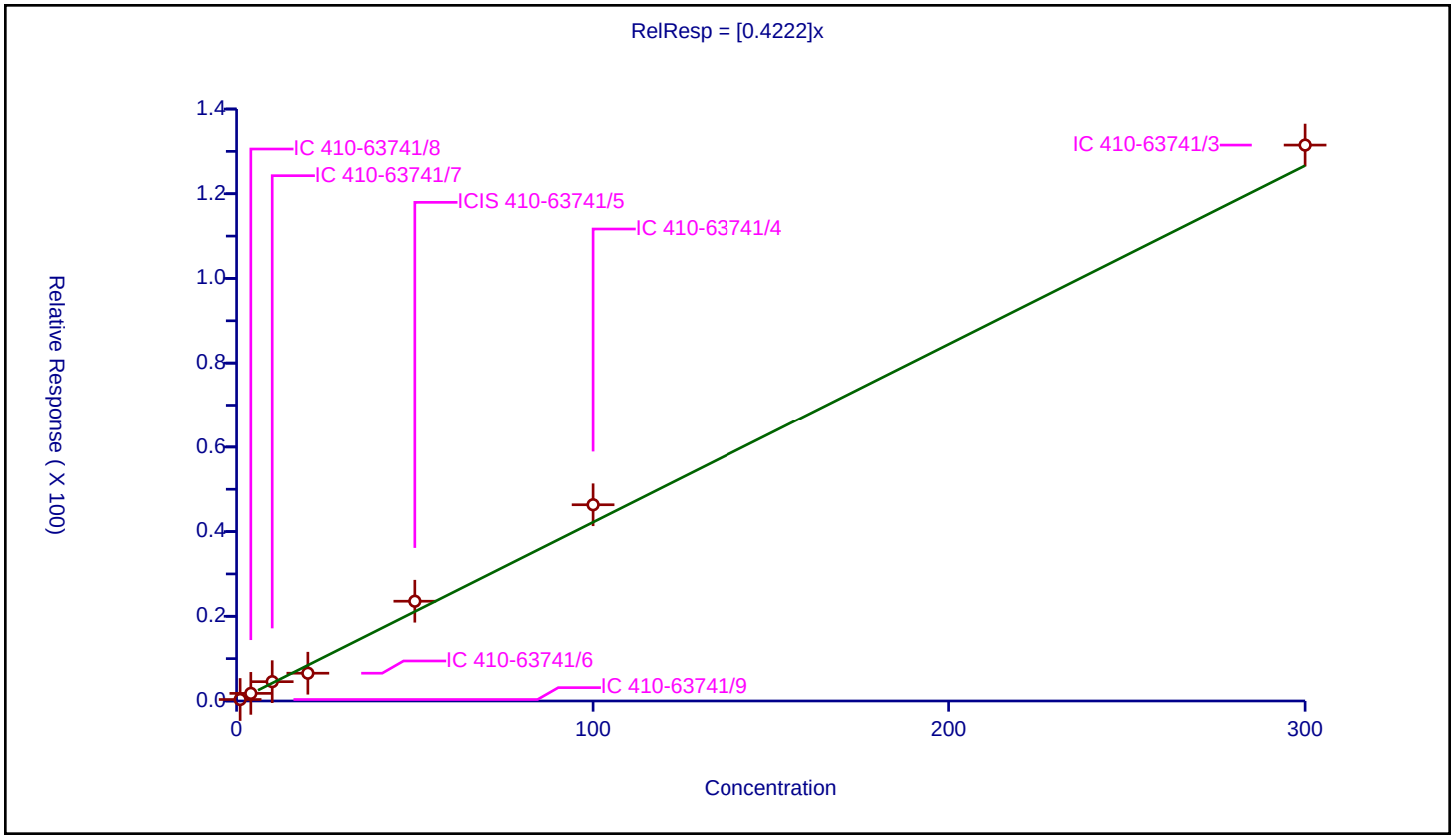
Curve Coefficients

Intercept:	0
Slope:	0.4222

Error Coefficients

Standard Error:	1520000
Relative Standard Error:	13.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.979

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.348898	50.0	1310267.0	0.348898	Y
2	IC 410-63741/8	4.0	1.796594	50.0	1290720.0	0.449149	Y
3	IC 410-63741/7	10.0	4.56318	50.0	1283469.0	0.456318	Y
4	IC 410-63741/6	20.0	6.559868	50.0	1284881.0	0.327993	Y
5	ICIS 410-63741/5	50.0	23.553221	50.0	1304709.0	0.471064	Y
6	IC 410-63741/4	100.0	46.335392	50.0	1292662.0	0.463354	Y
7	IC 410-63741/3	300.0	131.490638	50.0	1315464.0	0.438302	Y



Calibration / 1,1-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

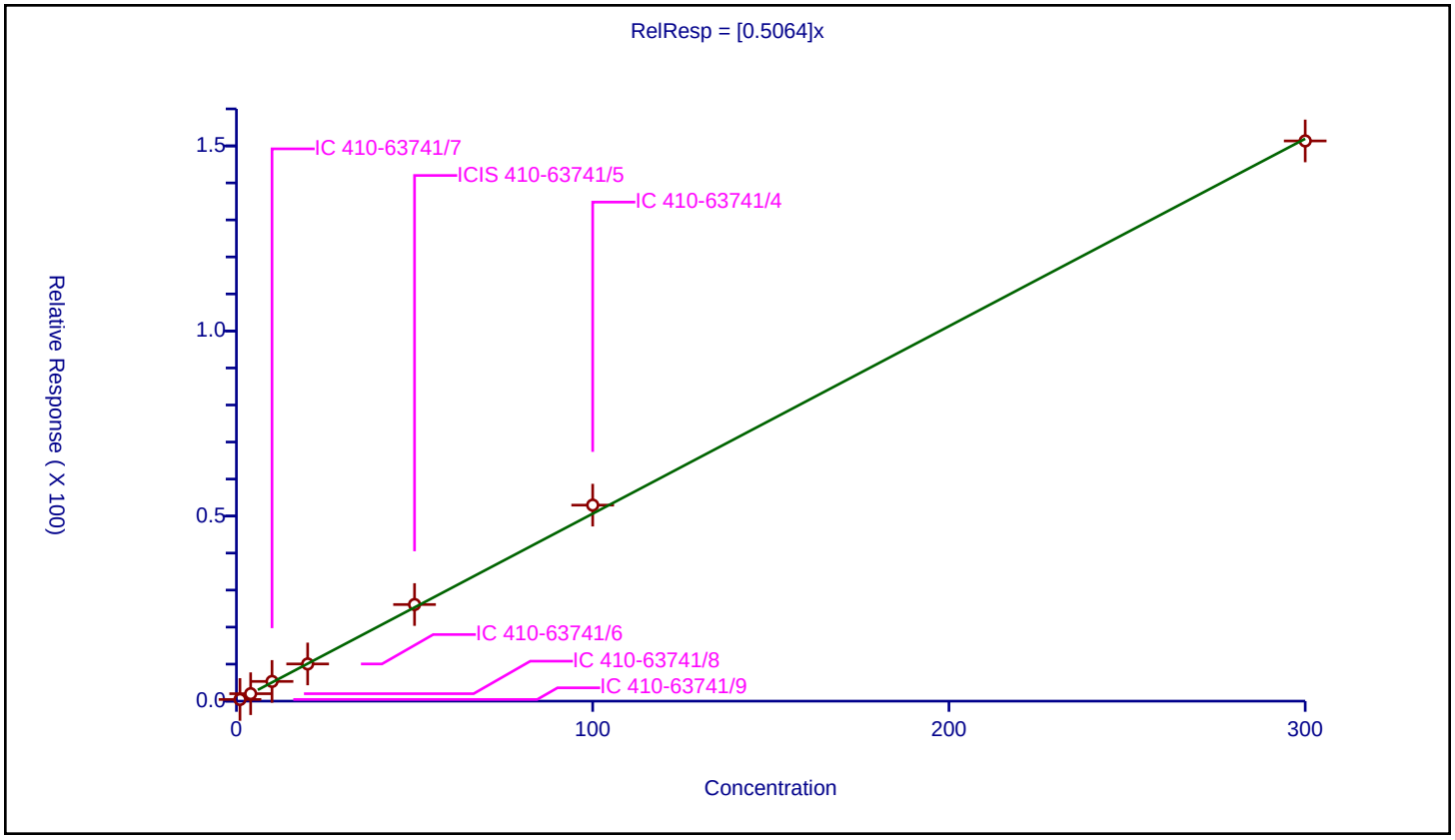
Curve Coefficients

Intercept:	0
Slope:	0.5064

Error Coefficients

Standard Error:	1750000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.451664	50.0	1310267.0	0.451664	Y
2	IC 410-63741/8	4.0	2.008569	50.0	1290720.0	0.502142	Y
3	IC 410-63741/7	10.0	5.326268	50.0	1283469.0	0.532627	Y
4	IC 410-63741/6	20.0	10.050308	50.0	1284881.0	0.502515	Y
5	ICIS 410-63741/5	50.0	26.102296	50.0	1304709.0	0.522046	Y
6	IC 410-63741/4	100.0	52.955954	50.0	1292662.0	0.52956	Y
7	IC 410-63741/3	300.0	151.342606	50.0	1315464.0	0.504475	Y



Calibration / Isopropyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

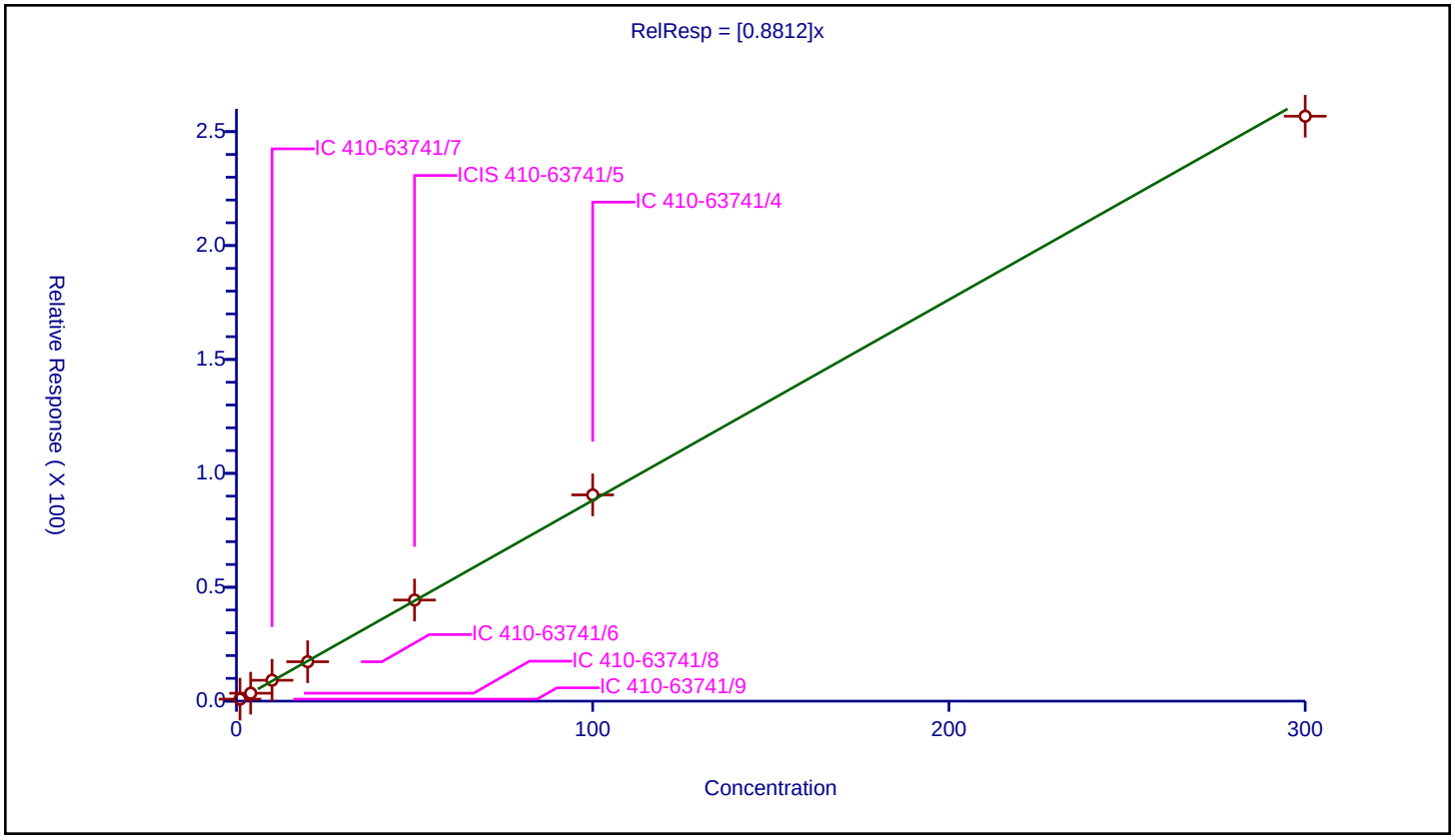
Curve Coefficients

Intercept:	0
Slope:	0.8812

Error Coefficients

Standard Error:	2960000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.868716	50.0	1310267.0	0.868716	Y
2	IC 410-63741/8	4.0	3.476625	50.0	1290720.0	0.869156	Y
3	IC 410-63741/7	10.0	9.166992	50.0	1283469.0	0.916699	Y
4	IC 410-63741/6	20.0	17.29919	50.0	1284881.0	0.864959	Y
5	ICIS 410-63741/5	50.0	44.377444	50.0	1304709.0	0.887549	Y
6	IC 410-63741/4	100.0	90.541108	50.0	1292662.0	0.905411	Y
7	IC 410-63741/3	300.0	256.796119	50.0	1315464.0	0.855987	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

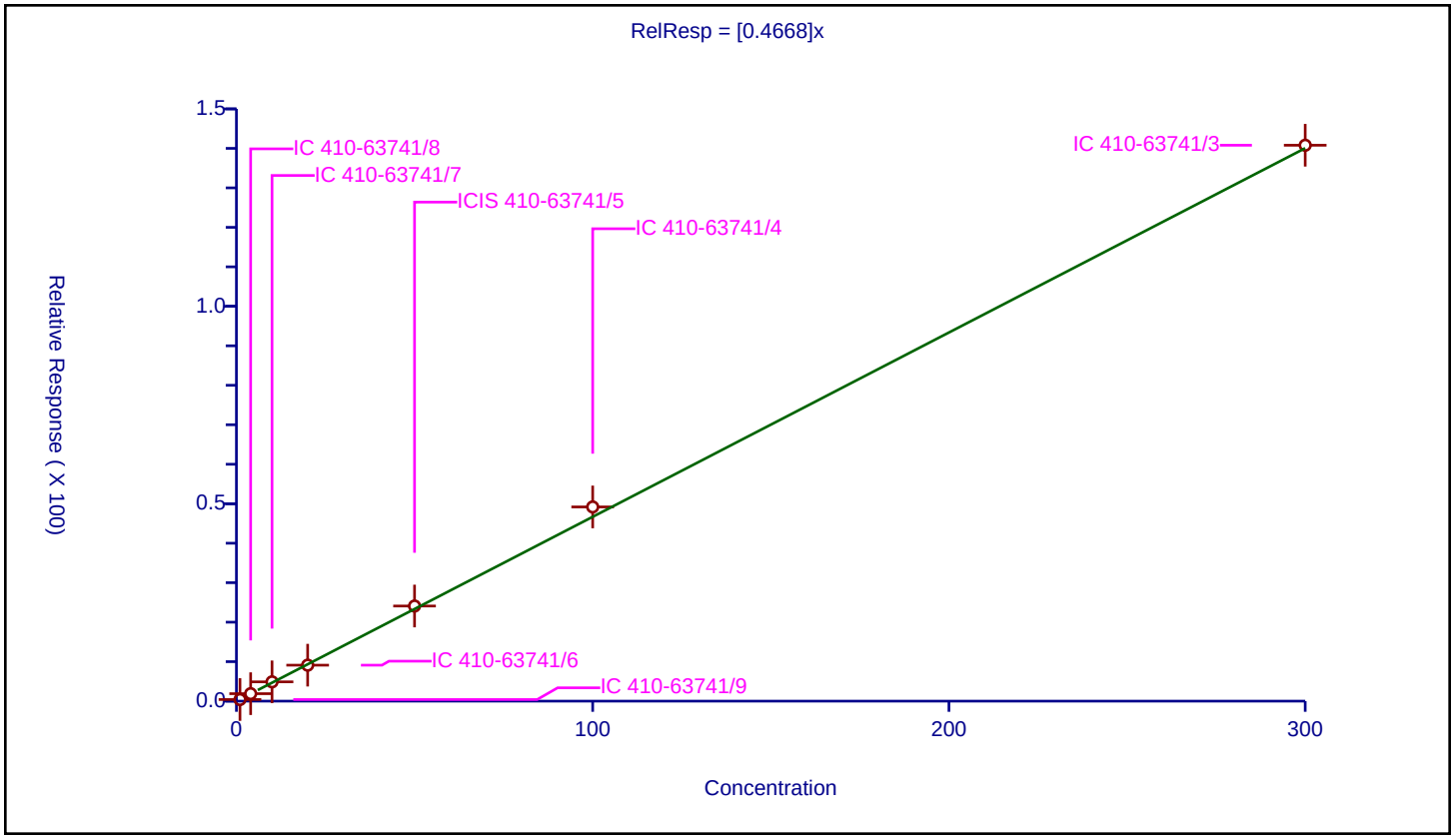
Curve Coefficients

Intercept:	0
Slope:	0.4668

Error Coefficients

Standard Error:	1620000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.406749	50.0	1310267.0	0.406749	Y
2	IC 410-63741/8	4.0	1.89495	50.0	1290720.0	0.473738	Y
3	IC 410-63741/7	10.0	4.886016	50.0	1283469.0	0.488602	Y
4	IC 410-63741/6	20.0	9.113217	50.0	1284881.0	0.455661	Y
5	ICIS 410-63741/5	50.0	24.090851	50.0	1304709.0	0.481817	Y
6	IC 410-63741/4	100.0	49.188922	50.0	1292662.0	0.491889	Y
7	IC 410-63741/3	300.0	140.793097	50.0	1315464.0	0.46931	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

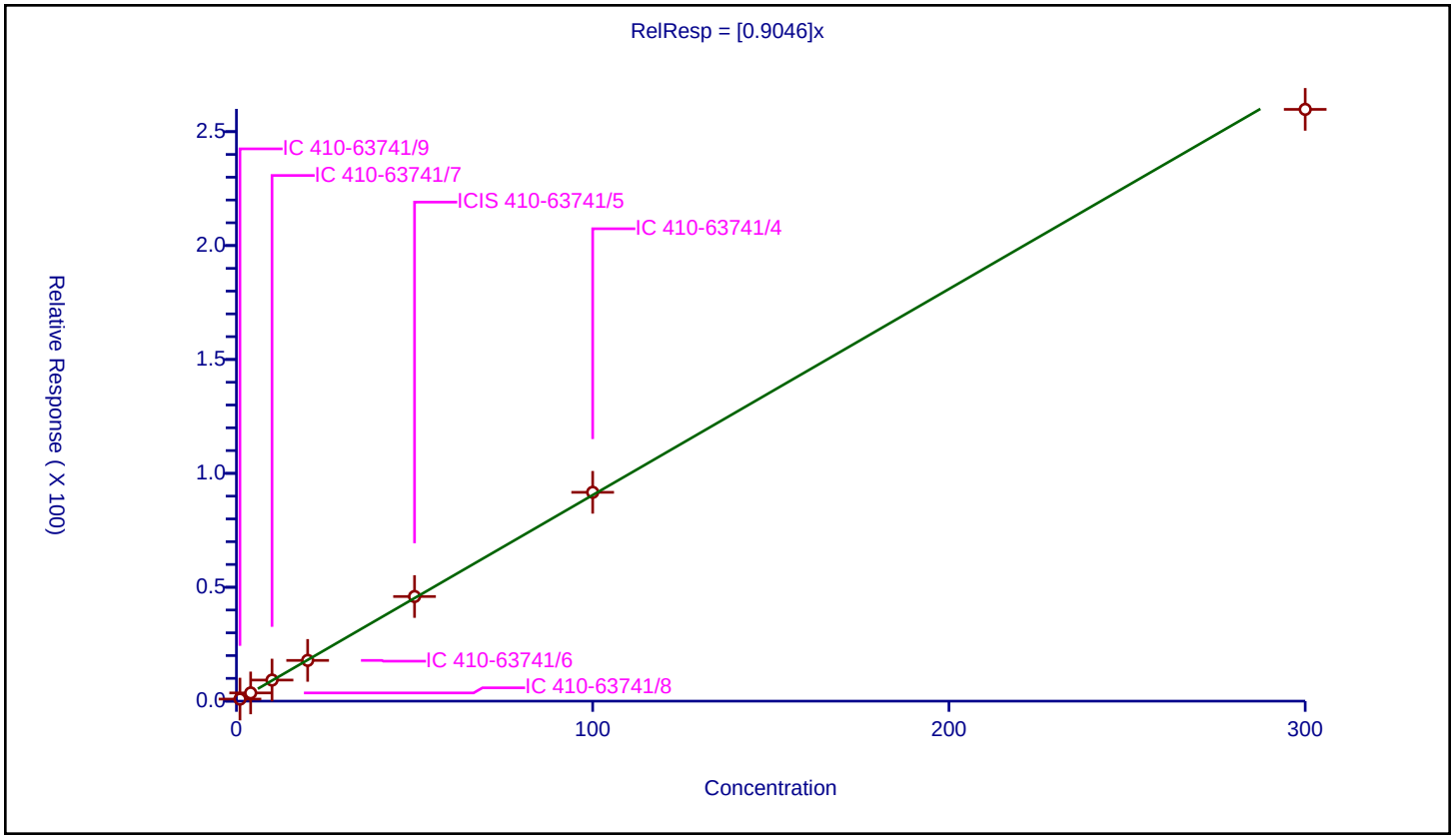
Curve Coefficients

Intercept:	0
Slope:	0.9046

Error Coefficients

Standard Error:	3000000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.909586	50.0	1310267.0	0.909586	Y
2	IC 410-63741/8	4.0	3.607095	50.0	1290720.0	0.901774	Y
3	IC 410-63741/7	10.0	9.252736	50.0	1283469.0	0.925274	Y
4	IC 410-63741/6	20.0	17.884419	50.0	1284881.0	0.894221	Y
5	ICIS 410-63741/5	50.0	45.934534	50.0	1304709.0	0.918691	Y
6	IC 410-63741/4	100.0	91.679225	50.0	1292662.0	0.916792	Y
7	IC 410-63741/3	300.0	259.78457	50.0	1315464.0	0.865949	Y



Calibration / 2-Butanone (MEK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

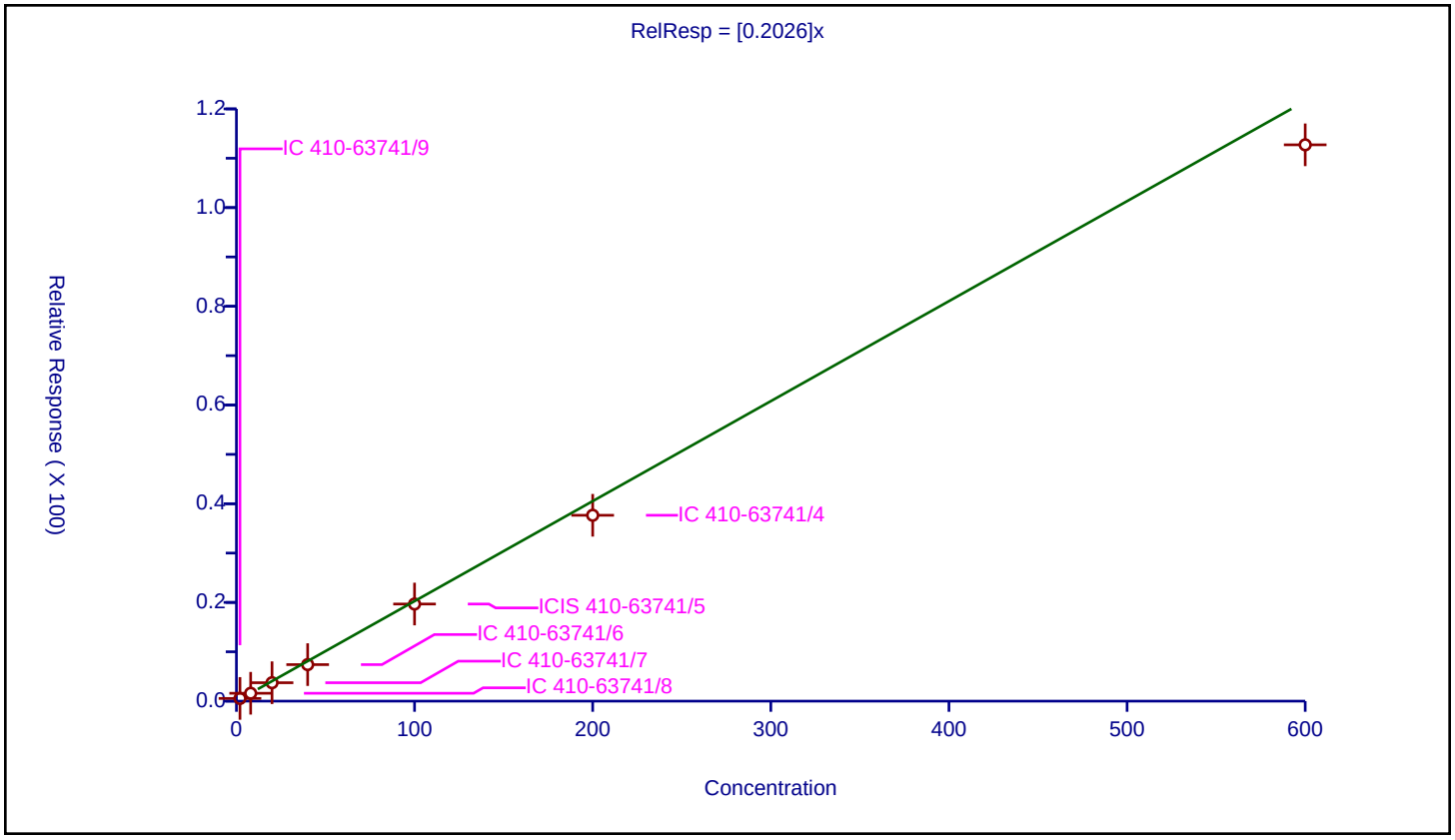
Curve Coefficients

Intercept:	0
Slope:	0.2026

Error Coefficients

Standard Error:	1290000
Relative Standard Error:	15.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.964

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	0.548819	50.0	1310267.0	0.27441	Y
2	IC 410-63741/8	8.0	1.595389	50.0	1290720.0	0.199424	Y
3	IC 410-63741/7	20.0	3.730476	50.0	1283469.0	0.186524	Y
4	IC 410-63741/6	40.0	7.399129	50.0	1284881.0	0.184978	Y
5	ICIS 410-63741/5	100.0	19.68071	50.0	1304709.0	0.196807	Y
6	IC 410-63741/4	200.0	37.658723	50.0	1292662.0	0.188294	Y
7	IC 410-63741/3	600.0	112.719504	50.0	1315464.0	0.187866	Y



Calibration / cis-1,2-Dichloroethene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

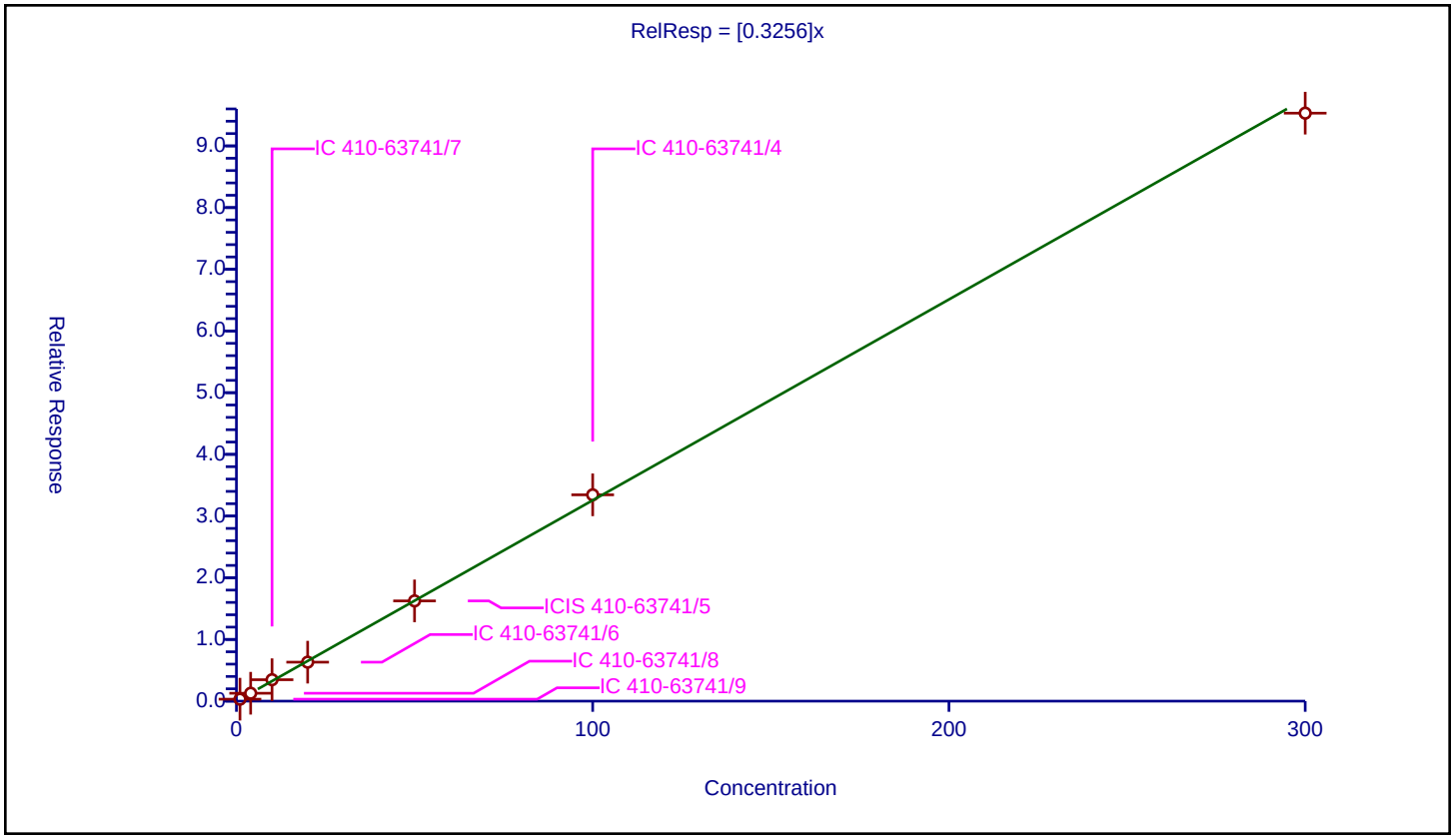
Curve Coefficients

Intercept:	0
Slope:	0.3256

Error Coefficients

Standard Error:	1100000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.318523	50.0	1310267.0	0.318523	Y
2	IC 410-63741/8	4.0	1.280099	50.0	1290720.0	0.320025	Y
3	IC 410-63741/7	10.0	3.473282	50.0	1283469.0	0.347328	Y
4	IC 410-63741/6	20.0	6.319262	50.0	1284881.0	0.315963	Y
5	ICIS 410-63741/5	50.0	16.24619	50.0	1304709.0	0.324924	Y
6	IC 410-63741/4	100.0	33.442346	50.0	1292662.0	0.334423	Y
7	IC 410-63741/3	300.0	95.308462	50.0	1315464.0	0.317695	Y



Calibration / 2,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

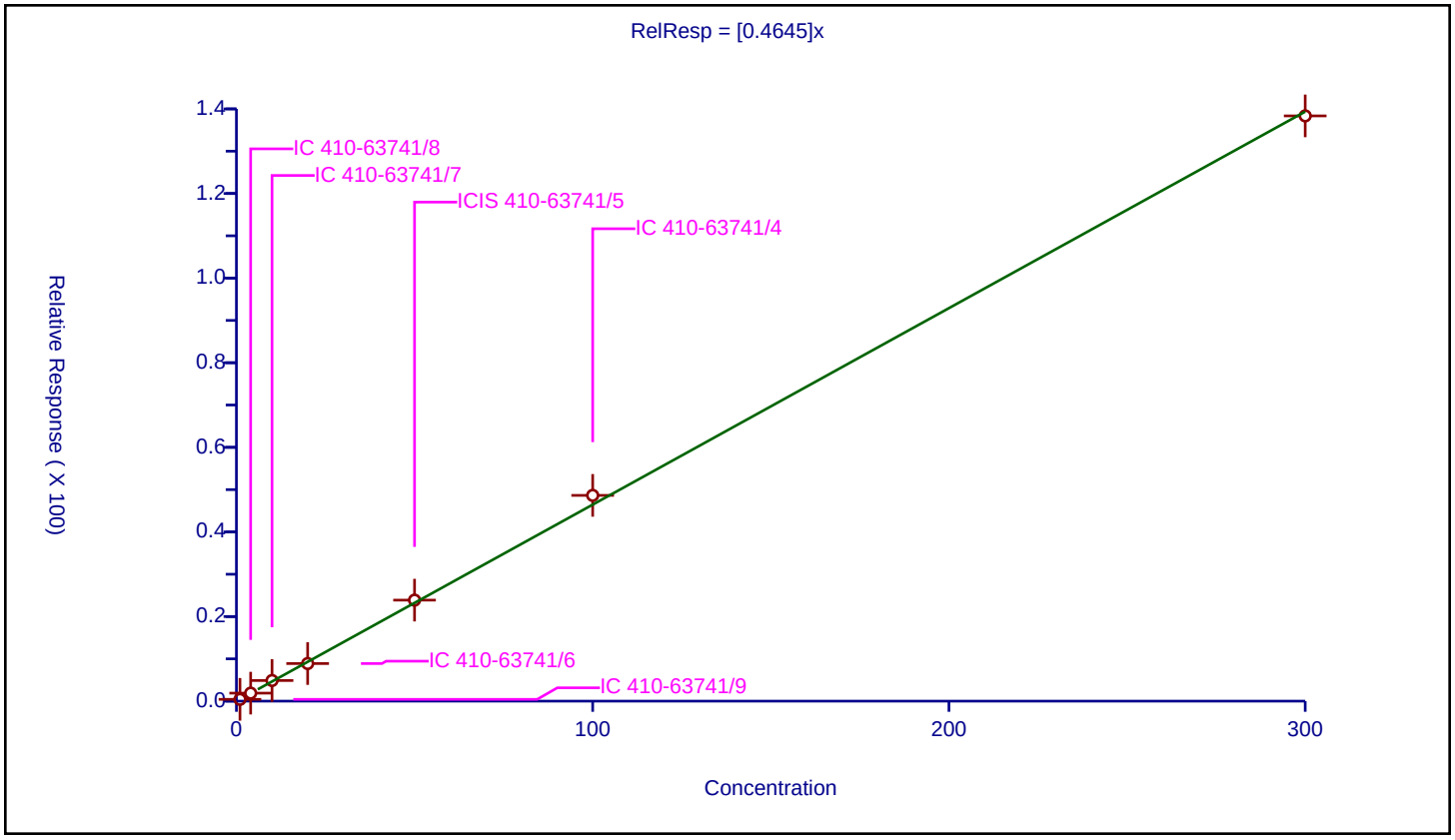
Curve Coefficients

Intercept:	0
Slope:	0.4645

Error Coefficients

Standard Error:	1600000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.422051	50.0	1310267.0	0.422051	Y
2	IC 410-63741/8	4.0	1.889023	50.0	1290720.0	0.472256	Y
3	IC 410-63741/7	10.0	4.876316	50.0	1283469.0	0.487632	Y
4	IC 410-63741/6	20.0	8.887671	50.0	1284881.0	0.444384	Y
5	ICIS 410-63741/5	50.0	23.879424	50.0	1304709.0	0.477588	Y
6	IC 410-63741/4	100.0	48.638855	50.0	1292662.0	0.486389	Y
7	IC 410-63741/3	300.0	138.345329	50.0	1315464.0	0.461151	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

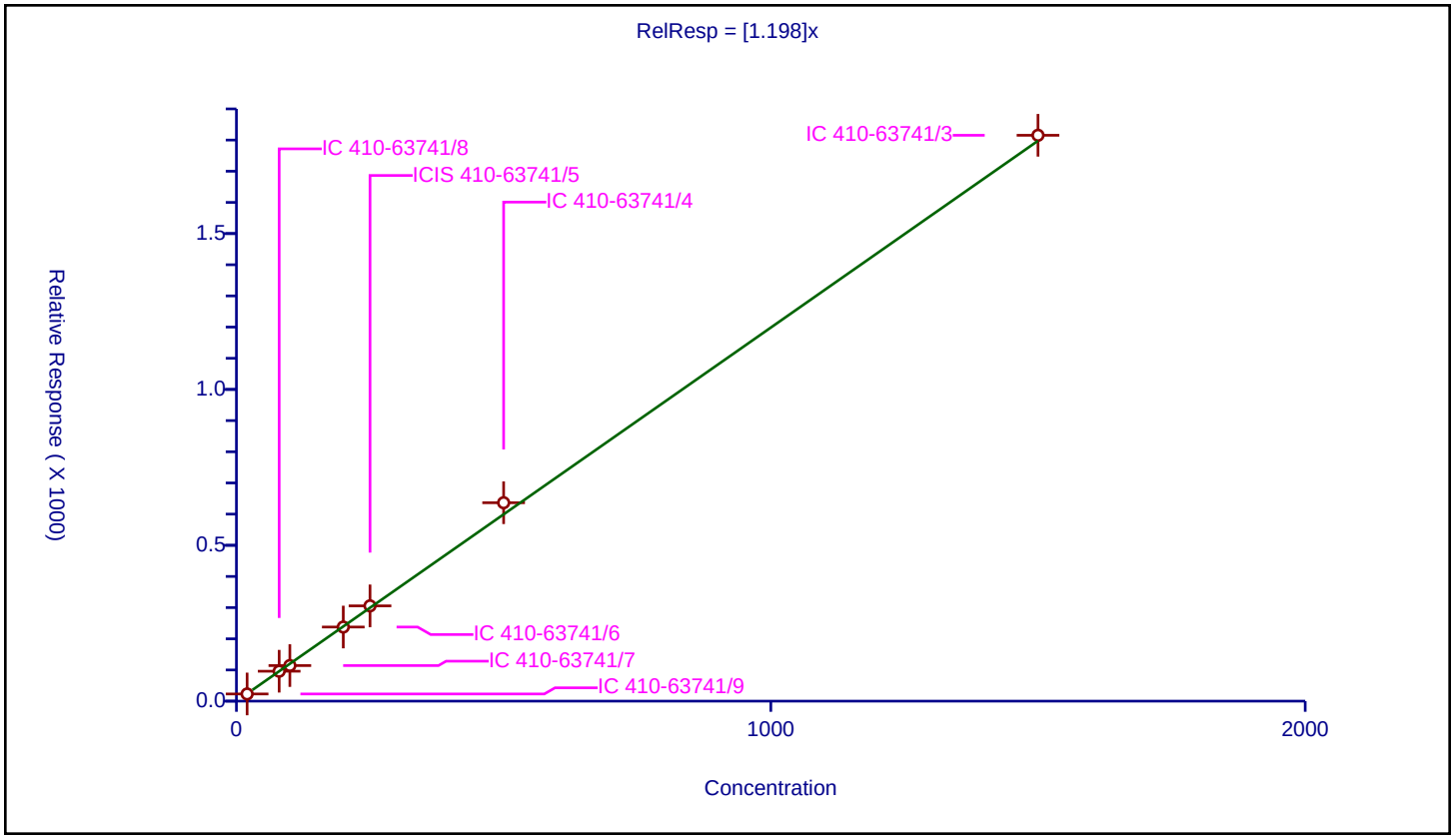
Curve Coefficients

Intercept:	0
Slope:	1.198

Error Coefficients

Standard Error:	965000
Relative Standard Error:	3.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	20.0	23.044542	250.0	306092.0	1.152227	Y
2	IC 410-63741/8	80.0	96.026698	250.0	318677.0	1.200334	Y
3	IC 410-63741/7	100.0	114.14812	250.0	301768.0	1.141481	Y
4	IC 410-63741/6	200.0	237.774342	250.0	305914.0	1.188872	Y
5	ICIS 410-63741/5	250.0	305.70564	250.0	325187.0	1.222823	Y
6	IC 410-63741/4	500.0	636.499109	250.0	287881.0	1.272998	Y
7	IC 410-63741/3	1500.0	1815.331771	250.0	301247.0	1.210221	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

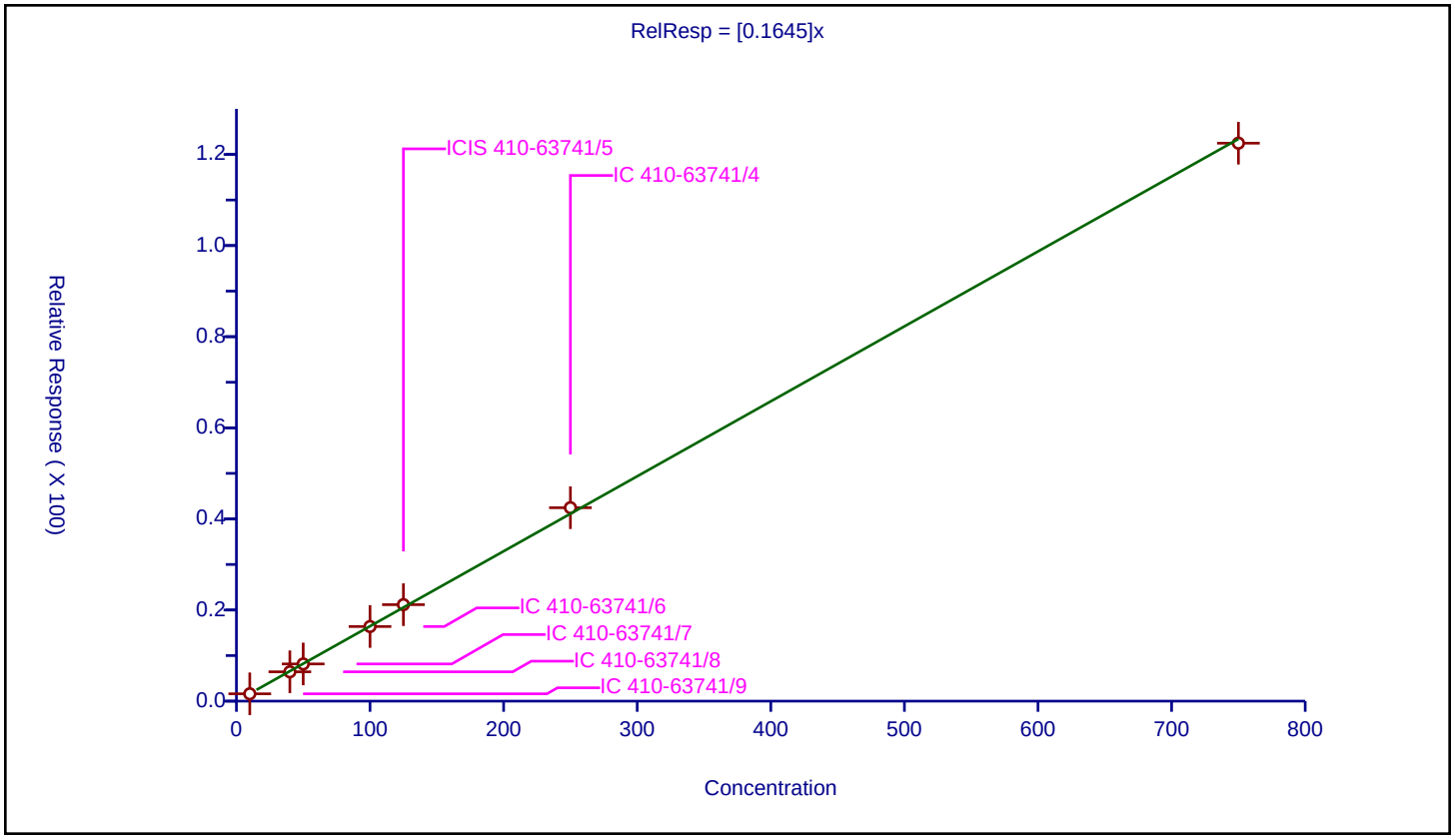
Curve Coefficients

Intercept:	0
Slope:	0.1645

Error Coefficients

Standard Error:	1420000
Relative Standard Error:	2.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	10.0	1.61055	50.0	1310267.0	0.161055	Y
2	IC 410-63741/8	40.0	6.440281	50.0	1290720.0	0.161007	Y
3	IC 410-63741/7	50.0	8.161709	50.0	1283469.0	0.163234	Y
4	IC 410-63741/6	100.0	16.380505	50.0	1284881.0	0.163805	Y
5	ICIS 410-63741/5	125.0	21.178132	50.0	1304709.0	0.169425	Y
6	IC 410-63741/4	250.0	42.456574	50.0	1292662.0	0.169826	Y
7	IC 410-63741/3	750.0	122.474959	50.0	1315464.0	0.1633	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

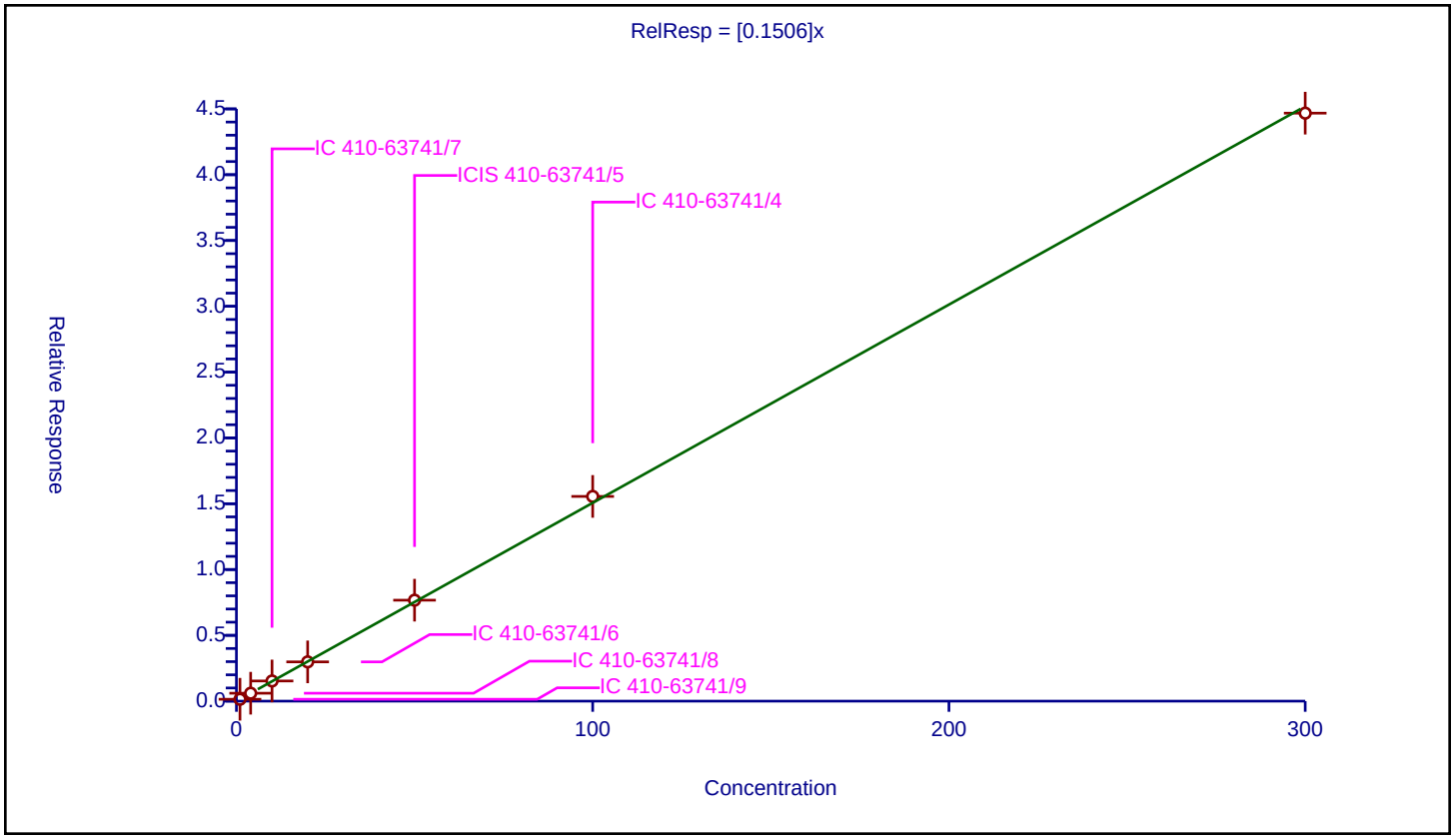
Curve Coefficients

Intercept:	0
Slope:	0.1506

Error Coefficients

Standard Error:	515000
Relative Standard Error:	2.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.143597	50.0	1310267.0	0.143597	Y
2	IC 410-63741/8	4.0	0.602183	50.0	1290720.0	0.150546	Y
3	IC 410-63741/7	10.0	1.533539	50.0	1283469.0	0.153354	Y
4	IC 410-63741/6	20.0	2.983039	50.0	1284881.0	0.149152	Y
5	ICIS 410-63741/5	50.0	7.670868	50.0	1304709.0	0.153417	Y
6	IC 410-63741/4	100.0	15.556	50.0	1292662.0	0.15556	Y
7	IC 410-63741/3	300.0	44.675225	50.0	1315464.0	0.148917	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

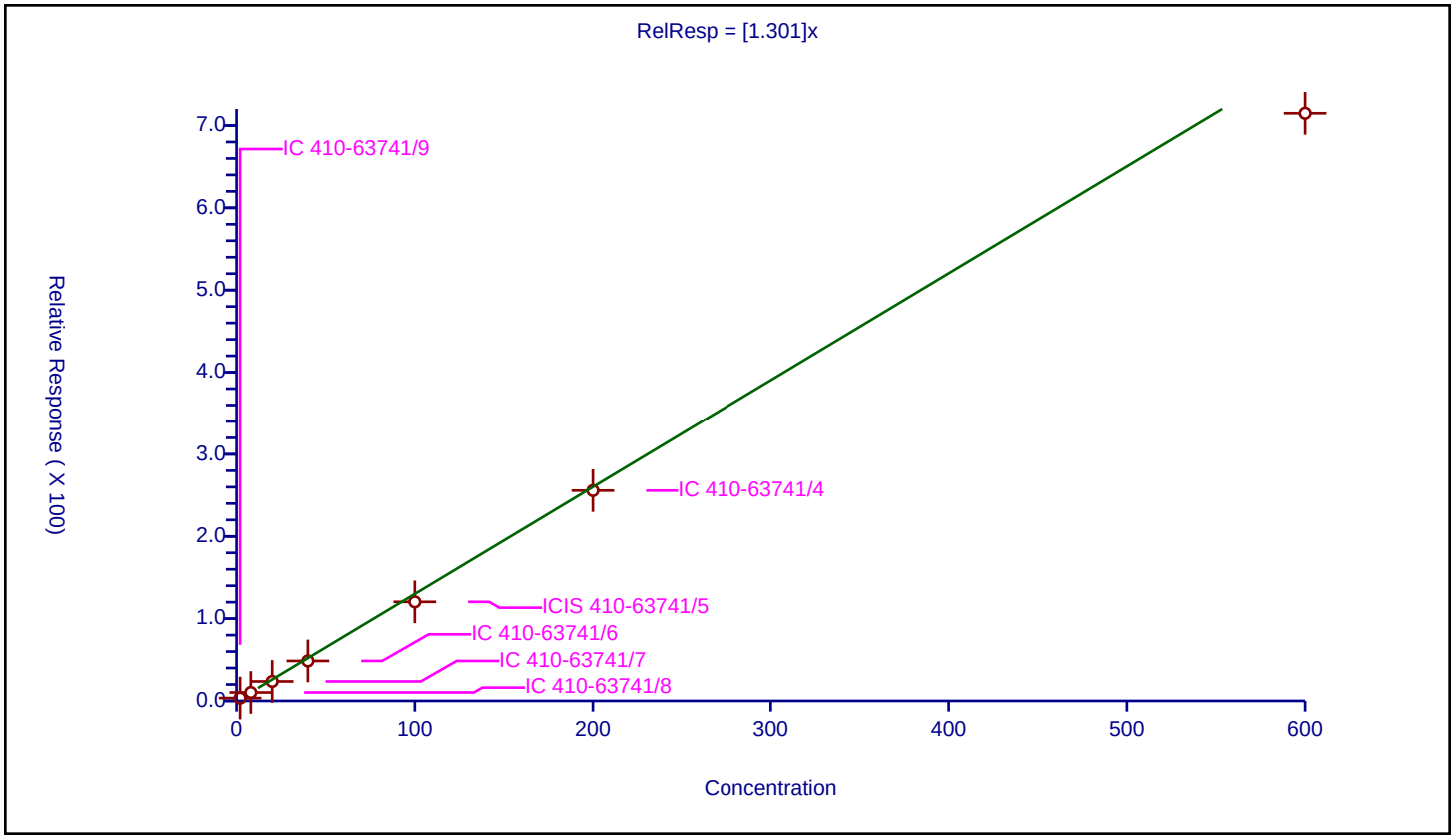
Curve Coefficients

Intercept:	0
Slope:	1.301

Error Coefficients

Standard Error:	378000
Relative Standard Error:	15.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.967

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	3.491597	250.0	306092.0	1.745799	Y
2	IC 410-63741/8	8.0	10.280001	250.0	318677.0	1.285	Y
3	IC 410-63741/7	20.0	23.700326	250.0	301768.0	1.185016	Y
4	IC 410-63741/6	40.0	48.605981	250.0	305914.0	1.21515	Y
5	ICIS 410-63741/5	100.0	120.429937	250.0	325187.0	1.204299	Y
6	IC 410-63741/4	200.0	255.82185	250.0	287881.0	1.279109	Y
7	IC 410-63741/3	600.0	714.814587	250.0	301247.0	1.191358	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

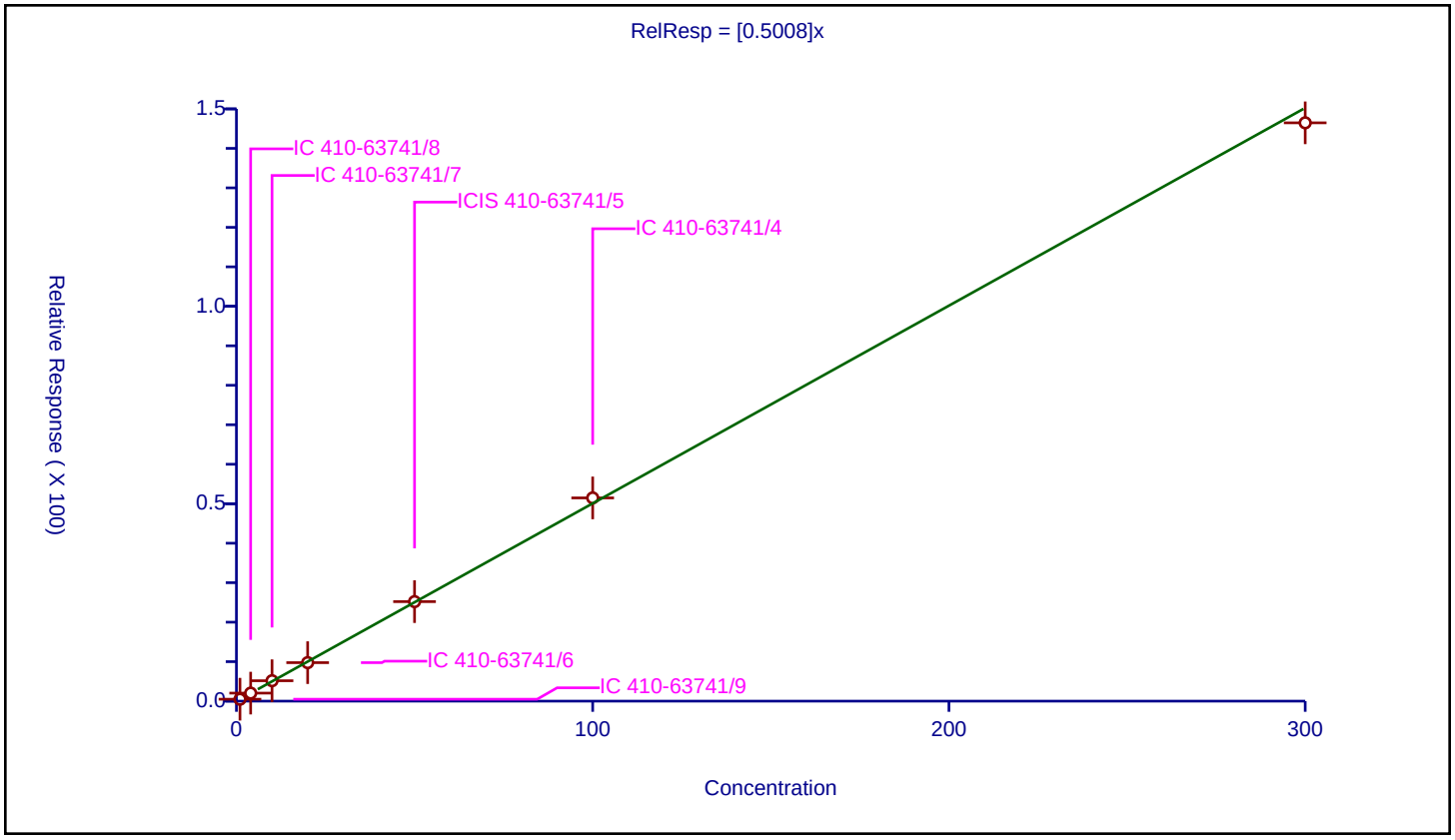
Curve Coefficients

Intercept:	0
Slope:	0.5008

Error Coefficients

Standard Error:	1690000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.486237	50.0	1310267.0	0.486237	Y
2	IC 410-63741/8	4.0	2.033051	50.0	1290720.0	0.508263	Y
3	IC 410-63741/7	10.0	5.167791	50.0	1283469.0	0.516779	Y
4	IC 410-63741/6	20.0	9.749463	50.0	1284881.0	0.487473	Y
5	ICIS 410-63741/5	50.0	25.202018	50.0	1304709.0	0.50404	Y
6	IC 410-63741/4	100.0	51.474786	50.0	1292662.0	0.514748	Y
7	IC 410-63741/3	300.0	146.471473	50.0	1315464.0	0.488238	Y



Calibration / Dibromofluoromethane (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

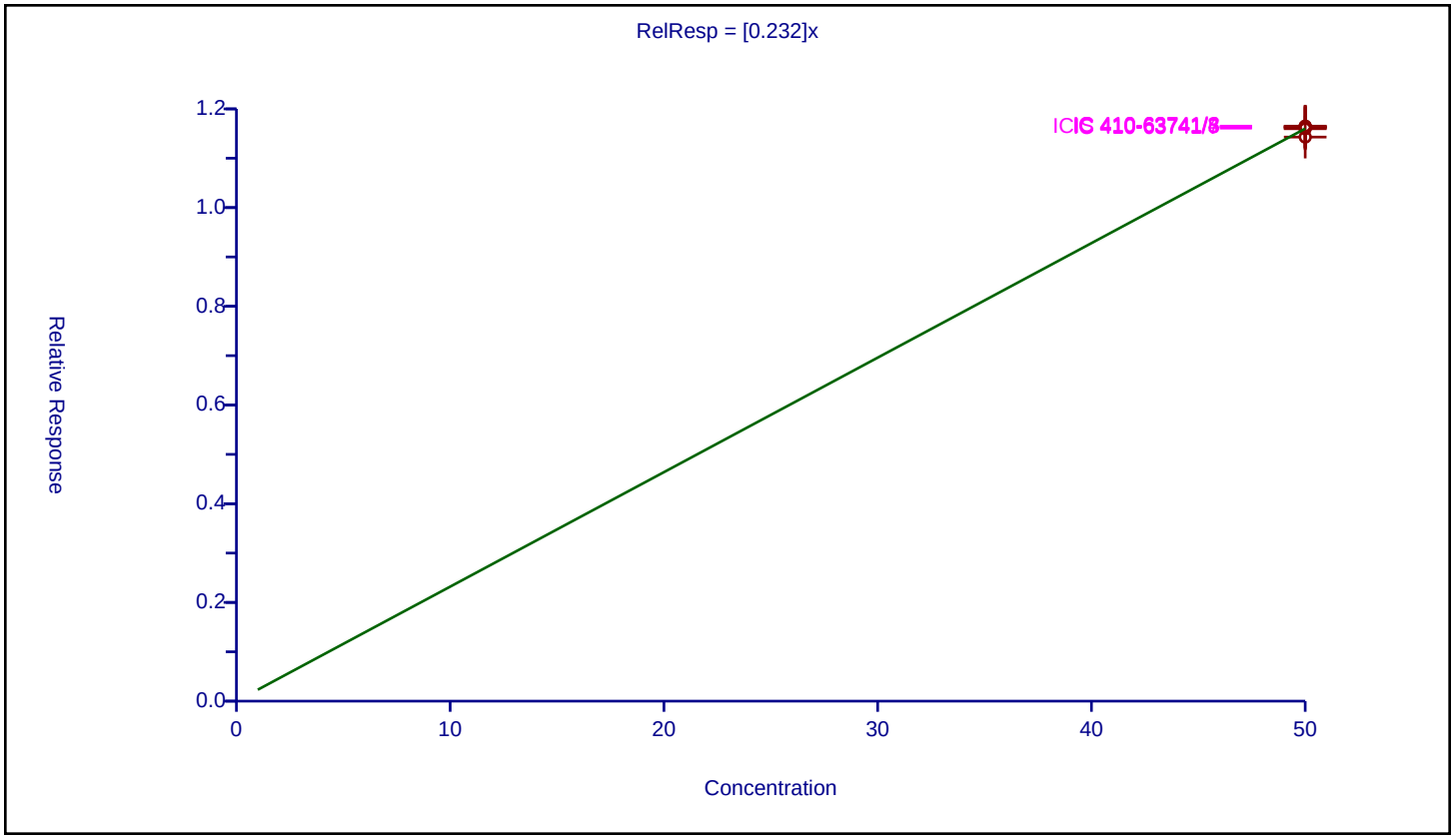
Curve Coefficients

Intercept:	0
Slope:	0.232

Error Coefficients

Standard Error:	325000
Relative Standard Error:	0.7
Correlation Coefficient:	0.00000000000000000000
Coefficient of Determination (Adjusted):	0.000000000000000111

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/3	50.0	11.630003	50.0	1315464.0	0.2326	Y
2	IC 410-63741/4	50.0	11.6503	50.0	1292662.0	0.233006	Y
3	ICIS 410-63741/5	50.0	11.632364	50.0	1304709.0	0.232647	Y
4	IC 410-63741/6	50.0	11.598078	50.0	1284881.0	0.231962	Y
5	IC 410-63741/7	50.0	11.609864	50.0	1283469.0	0.232197	Y
6	IC 410-63741/8	50.0	11.645593	50.0	1290720.0	0.232912	Y
7	IC 410-63741/9	50.0	11.429274	50.0	1310267.0	0.228585	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

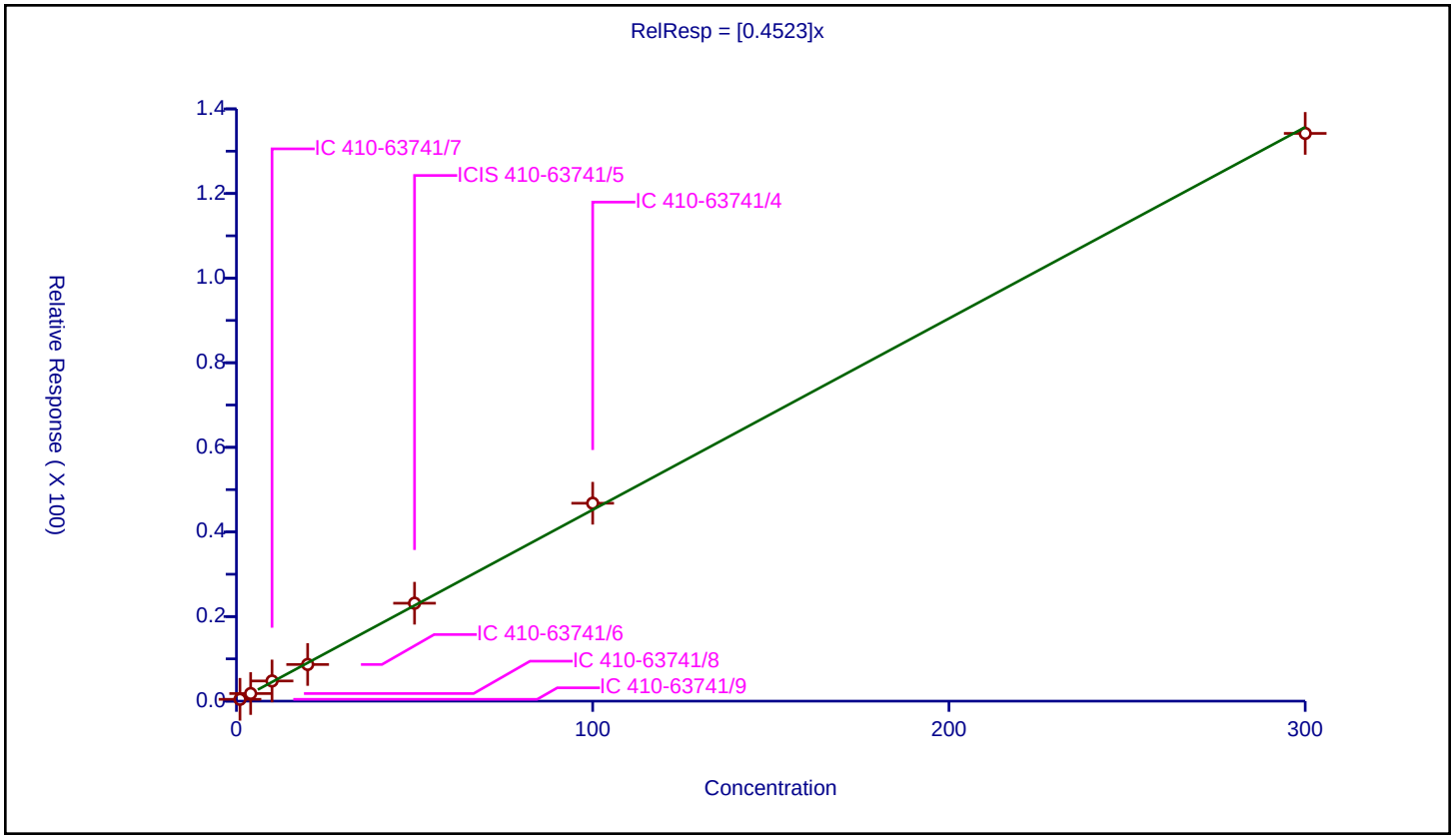
Curve Coefficients

Intercept:	0
Slope:	0.4523

Error Coefficients

Standard Error:	1550000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.428577	50.0	1310267.0	0.428577	Y
2	IC 410-63741/8	4.0	1.795664	50.0	1290720.0	0.448916	Y
3	IC 410-63741/7	10.0	4.77195	50.0	1283469.0	0.477195	Y
4	IC 410-63741/6	20.0	8.664265	50.0	1284881.0	0.433213	Y
5	ICIS 410-63741/5	50.0	23.144165	50.0	1304709.0	0.462883	Y
6	IC 410-63741/4	100.0	46.782221	50.0	1292662.0	0.467822	Y
7	IC 410-63741/3	300.0	134.206295	50.0	1315464.0	0.447354	Y



Calibration / Cyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

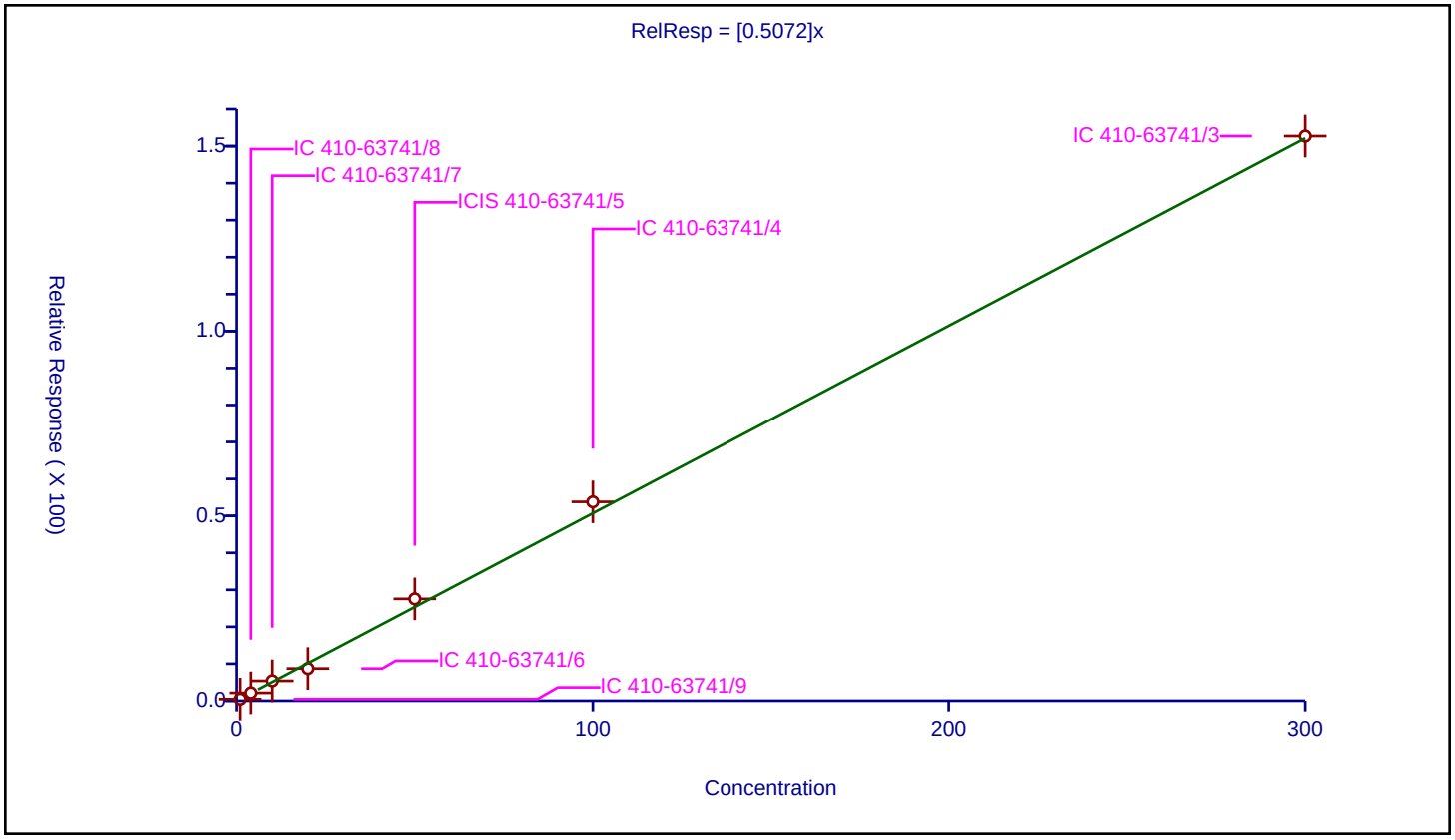
Curve Coefficients

Intercept:	0
Slope:	0.5072

Error Coefficients

Standard Error:	1760000
Relative Standard Error:	9.4
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.990

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.444528	50.0	1310267.0	0.444528	Y
2	IC 410-63741/8	4.0	2.136172	50.0	1290720.0	0.534043	Y
3	IC 410-63741/7	10.0	5.37738	50.0	1283469.0	0.537738	Y
4	IC 410-63741/6	20.0	8.709289	50.0	1284881.0	0.435464	Y
5	ICIS 410-63741/5	50.0	27.560973	50.0	1304709.0	0.551219	Y
6	IC 410-63741/4	100.0	53.804784	50.0	1292662.0	0.538048	Y
7	IC 410-63741/3	300.0	152.719079	50.0	1315464.0	0.509064	Y



Calibration / Carbon tetrachloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

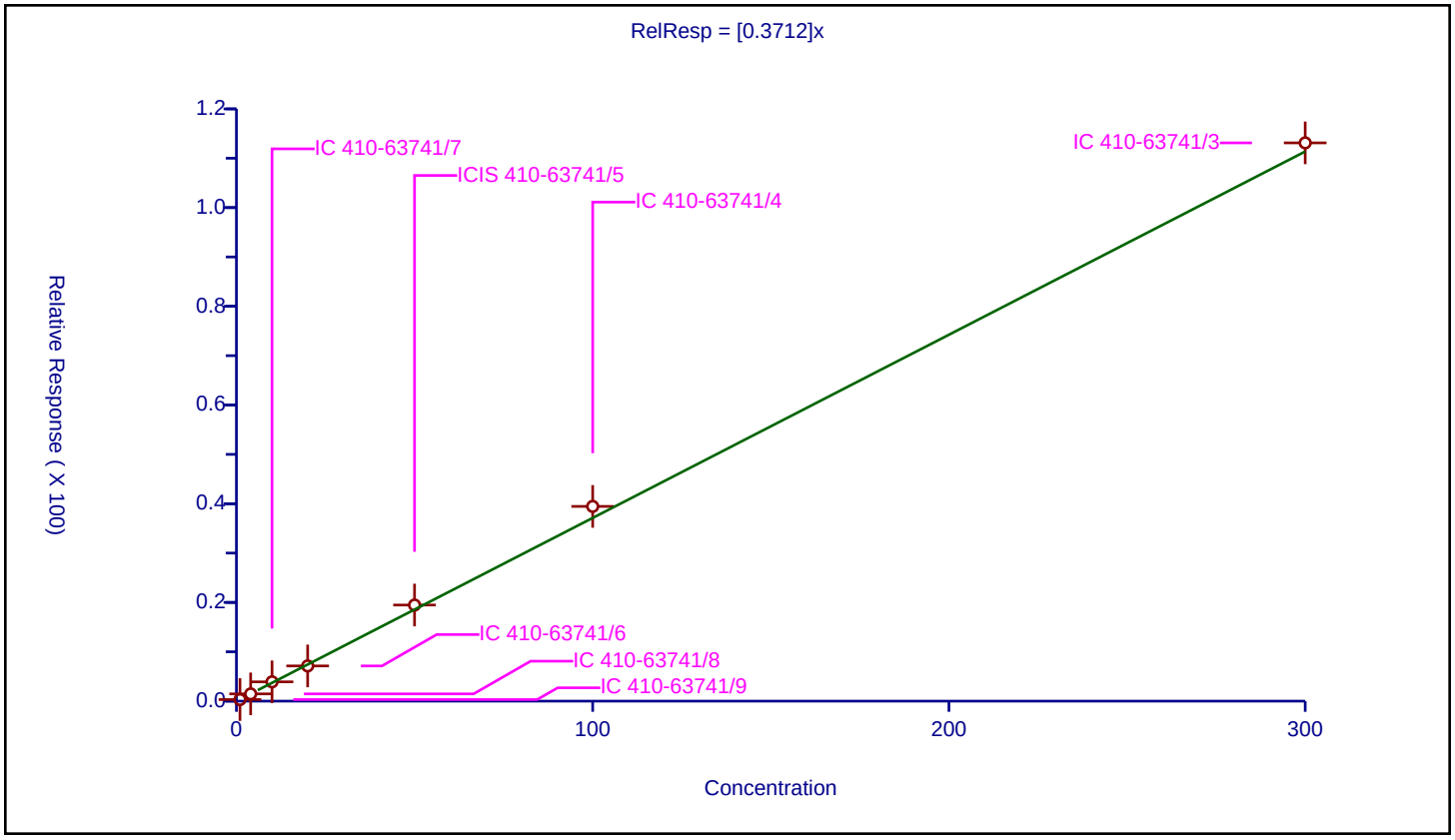
Curve Coefficients

Intercept:	0
Slope:	0.3712

Error Coefficients

Standard Error:	1300000
Relative Standard Error:	6.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.322034	50.0	1310267.0	0.322034	Y
2	IC 410-63741/8	4.0	1.470187	50.0	1290720.0	0.367547	Y
3	IC 410-63741/7	10.0	3.912444	50.0	1283469.0	0.391244	Y
4	IC 410-63741/6	20.0	7.132217	50.0	1284881.0	0.356611	Y
5	ICIS 410-63741/5	50.0	19.471123	50.0	1304709.0	0.389422	Y
6	IC 410-63741/4	100.0	39.455093	50.0	1292662.0	0.394551	Y
7	IC 410-63741/3	300.0	113.111533	50.0	1315464.0	0.377038	Y



Calibration / 1,1-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

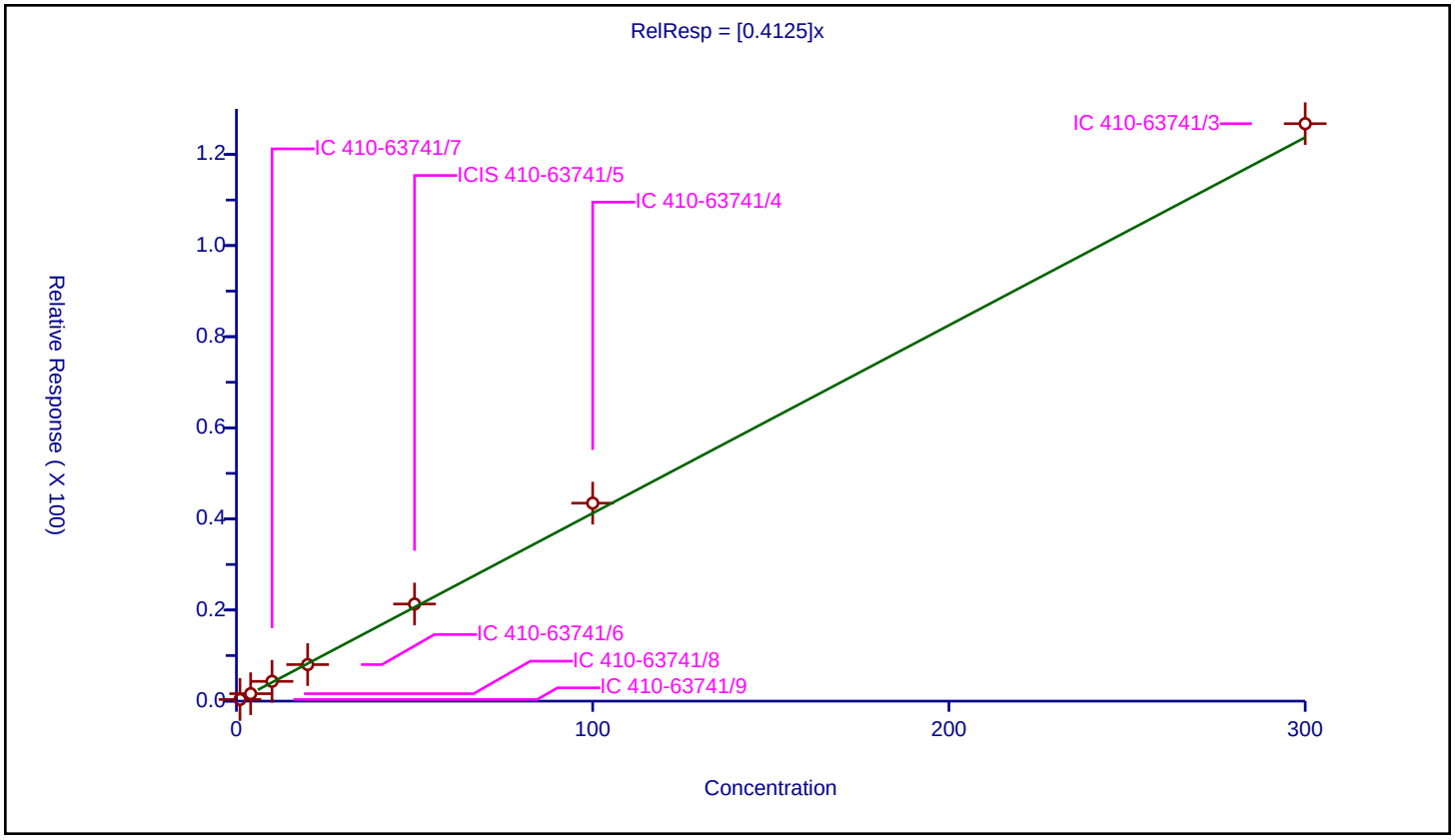
Curve Coefficients

Intercept:	0
Slope:	0.4125

Error Coefficients

Standard Error:	1460000
Relative Standard Error:	6.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.360423	50.0	1310267.0	0.360423	Y
2	IC 410-63741/8	4.0	1.631686	50.0	1290720.0	0.407922	Y
3	IC 410-63741/7	10.0	4.343073	50.0	1283469.0	0.434307	Y
4	IC 410-63741/6	20.0	8.024829	50.0	1284881.0	0.401241	Y
5	ICIS 410-63741/5	50.0	21.317512	50.0	1304709.0	0.42635	Y
6	IC 410-63741/4	100.0	43.457803	50.0	1292662.0	0.434578	Y
7	IC 410-63741/3	300.0	126.753526	50.0	1315464.0	0.422512	Y



Calibration / Isobutyl alcohol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

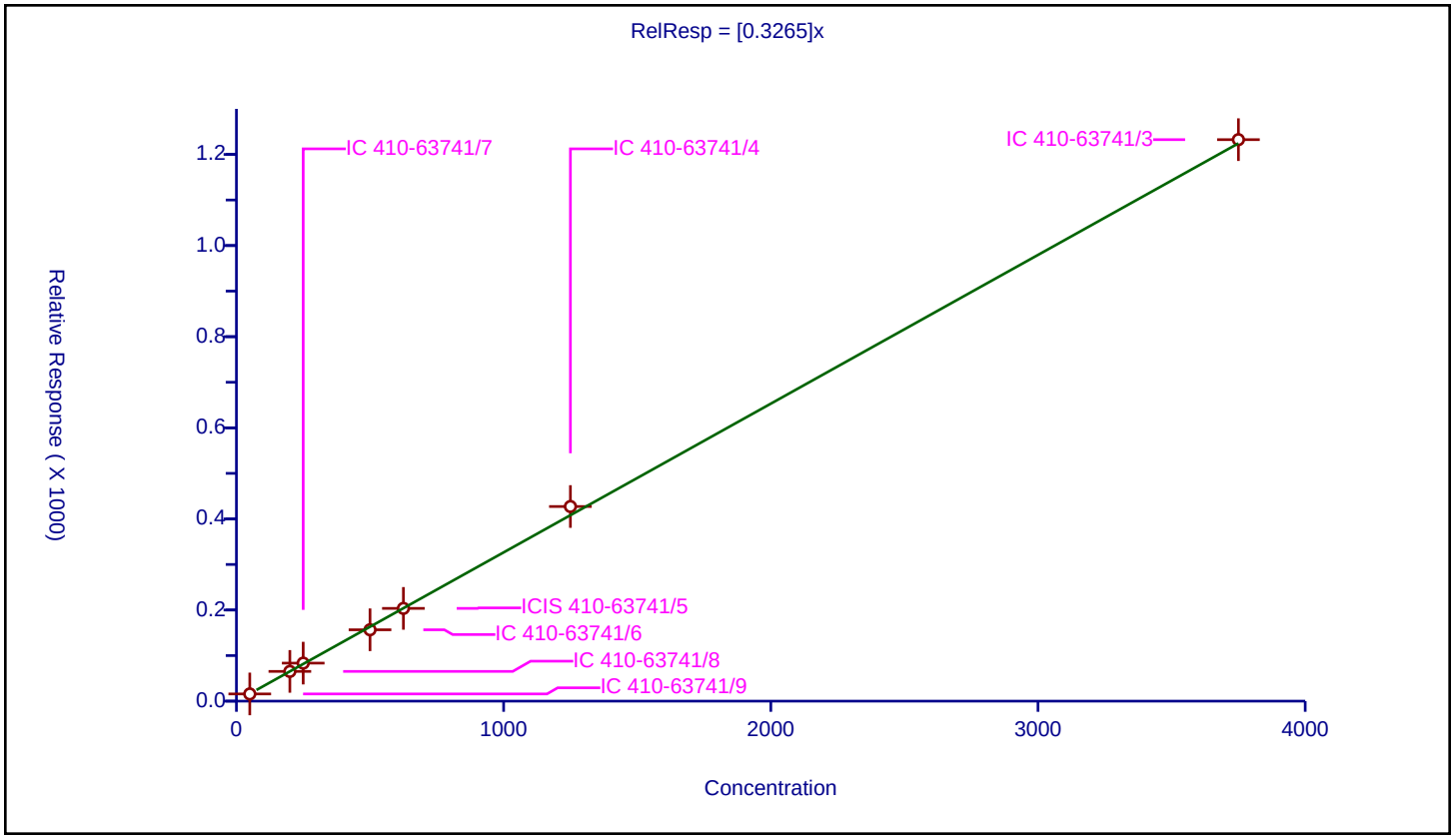
Curve Coefficients

Intercept:	0
Slope:	0.3265

Error Coefficients

Standard Error:	654000
Relative Standard Error:	3.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	50.0	15.789371	250.0	306092.0	0.315787	Y
2	IC 410-63741/8	200.0	65.265928	250.0	318677.0	0.32633	Y
3	IC 410-63741/7	250.0	83.435785	250.0	301768.0	0.333743	Y
4	IC 410-63741/6	500.0	156.678021	250.0	305914.0	0.313356	Y
5	ICIS 410-63741/5	625.0	203.597469	250.0	325187.0	0.325756	Y
6	IC 410-63741/4	1250.0	427.241638	250.0	287881.0	0.341793	Y
7	IC 410-63741/3	3750.0	1232.476174	250.0	301247.0	0.32866	Y



Calibration / 1,2-Dichloroethane-d4 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

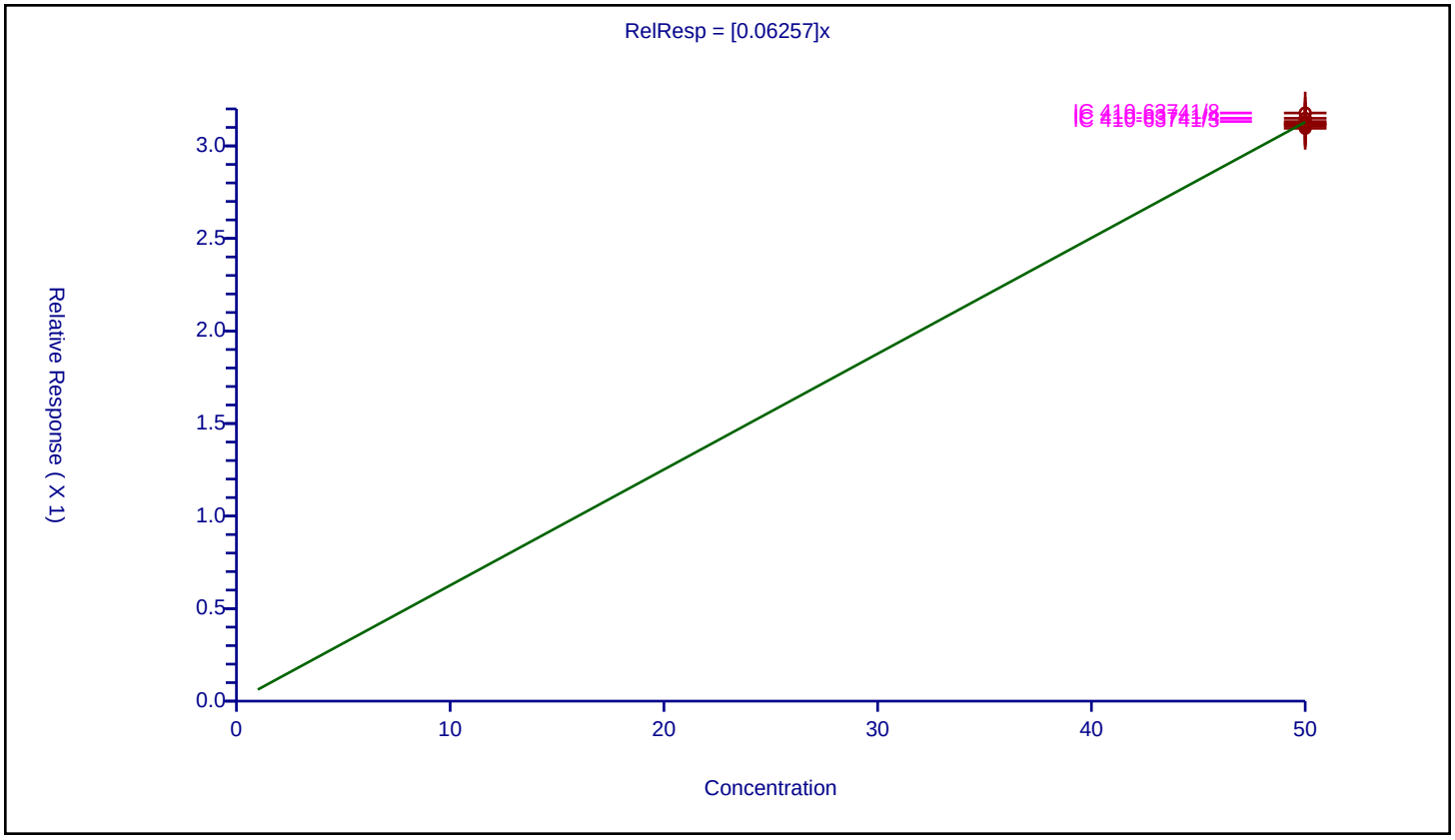
Curve Coefficients

Intercept:	0
Slope:	0.06257

Error Coefficients

Standard Error:	87700
Relative Standard Error:	0.9
Correlation Coefficient:	0
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/3	50.0	3.131861	50.0	1315464.0	0.062637	Y
2	IC 410-63741/4	50.0	3.149199	50.0	1292662.0	0.062984	Y
3	ICIS 410-63741/5	50.0	3.095058	50.0	1304709.0	0.061901	Y
4	IC 410-63741/6	50.0	3.107642	50.0	1284881.0	0.062153	Y
5	IC 410-63741/7	50.0	3.117255	50.0	1283469.0	0.062345	Y
6	IC 410-63741/8	50.0	3.177839	50.0	1290720.0	0.063557	Y
7	IC 410-63741/9	50.0	3.121234	50.0	1310267.0	0.062425	Y



Calibration / Benzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

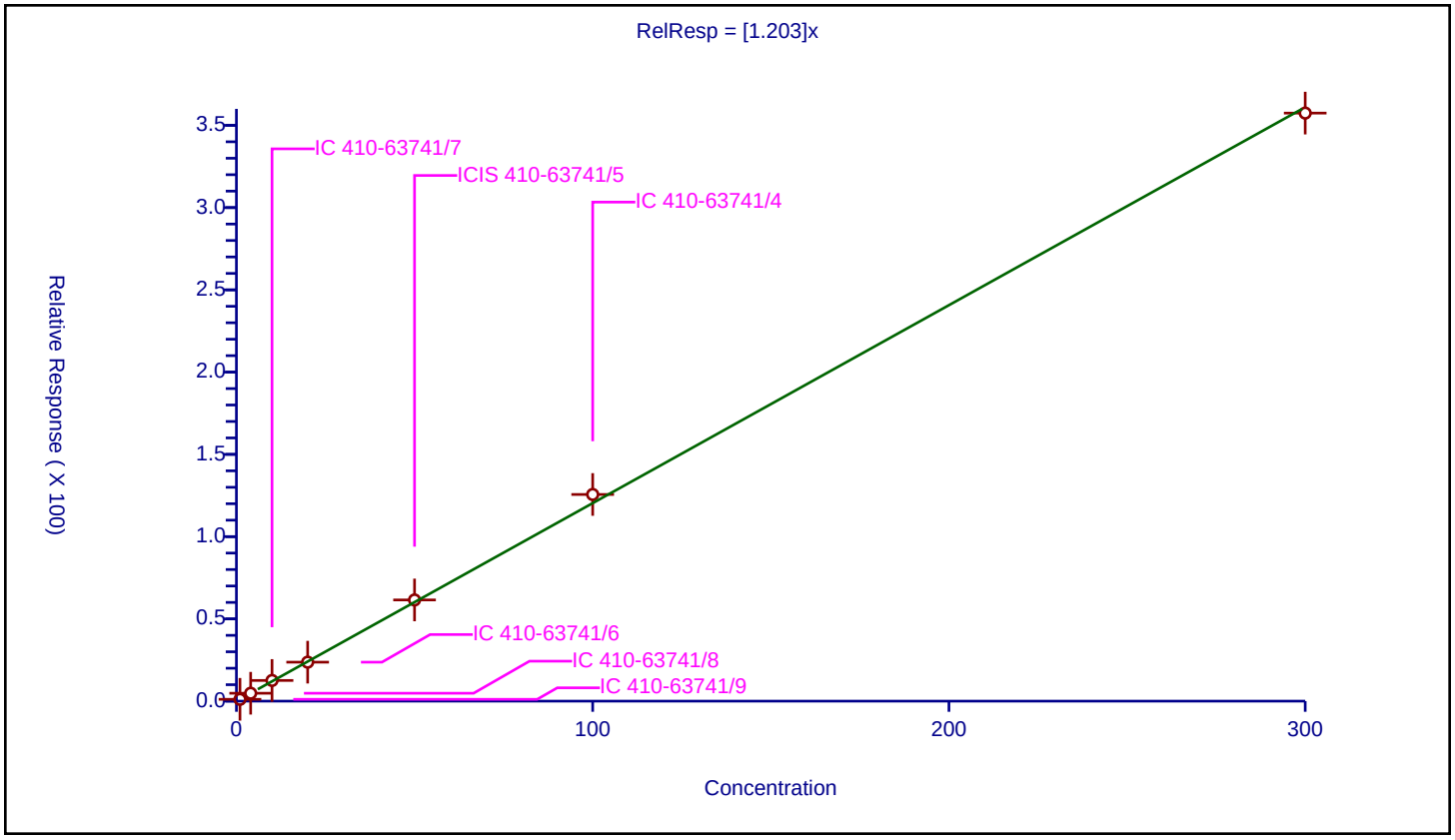
Curve Coefficients

Intercept:	0
Slope:	1.203

Error Coefficients

Standard Error:	4120000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.103248	50.0	1310267.0	1.103248	Y
2	IC 410-63741/8	4.0	4.804876	50.0	1290720.0	1.201219	Y
3	IC 410-63741/7	10.0	12.570775	50.0	1283469.0	1.257077	Y
4	IC 410-63741/6	20.0	23.693323	50.0	1284881.0	1.184666	Y
5	ICIS 410-63741/5	50.0	61.504596	50.0	1304709.0	1.230092	Y
6	IC 410-63741/4	100.0	125.628277	50.0	1292662.0	1.256283	Y
7	IC 410-63741/3	300.0	357.43958	50.0	1315464.0	1.191465	Y



Calibration / 1,2-Dichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

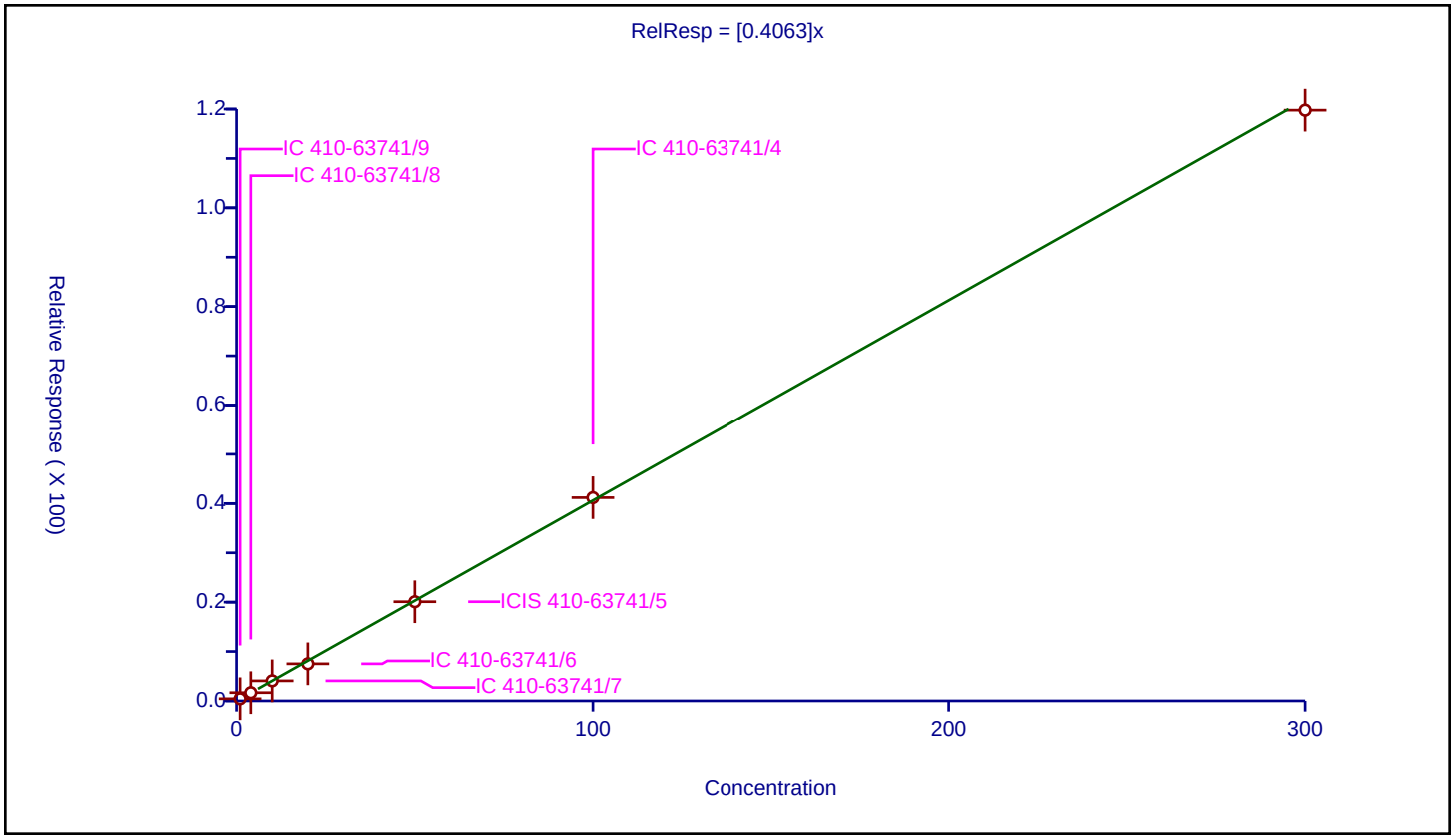
Curve Coefficients

Intercept:	0
Slope:	0.4063

Error Coefficients

Standard Error:	1380000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.432965	50.0	1310267.0	0.432965	Y
2	IC 410-63741/8	4.0	1.665195	50.0	1290720.0	0.416299	Y
3	IC 410-63741/7	10.0	4.062739	50.0	1283469.0	0.406274	Y
4	IC 410-63741/6	20.0	7.50731	50.0	1284881.0	0.375366	Y
5	ICIS 410-63741/5	50.0	20.090917	50.0	1304709.0	0.401818	Y
6	IC 410-63741/4	100.0	41.200523	50.0	1292662.0	0.412005	Y
7	IC 410-63741/3	300.0	119.775456	50.0	1315464.0	0.399252	Y



Calibration / Tert-amyl methyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

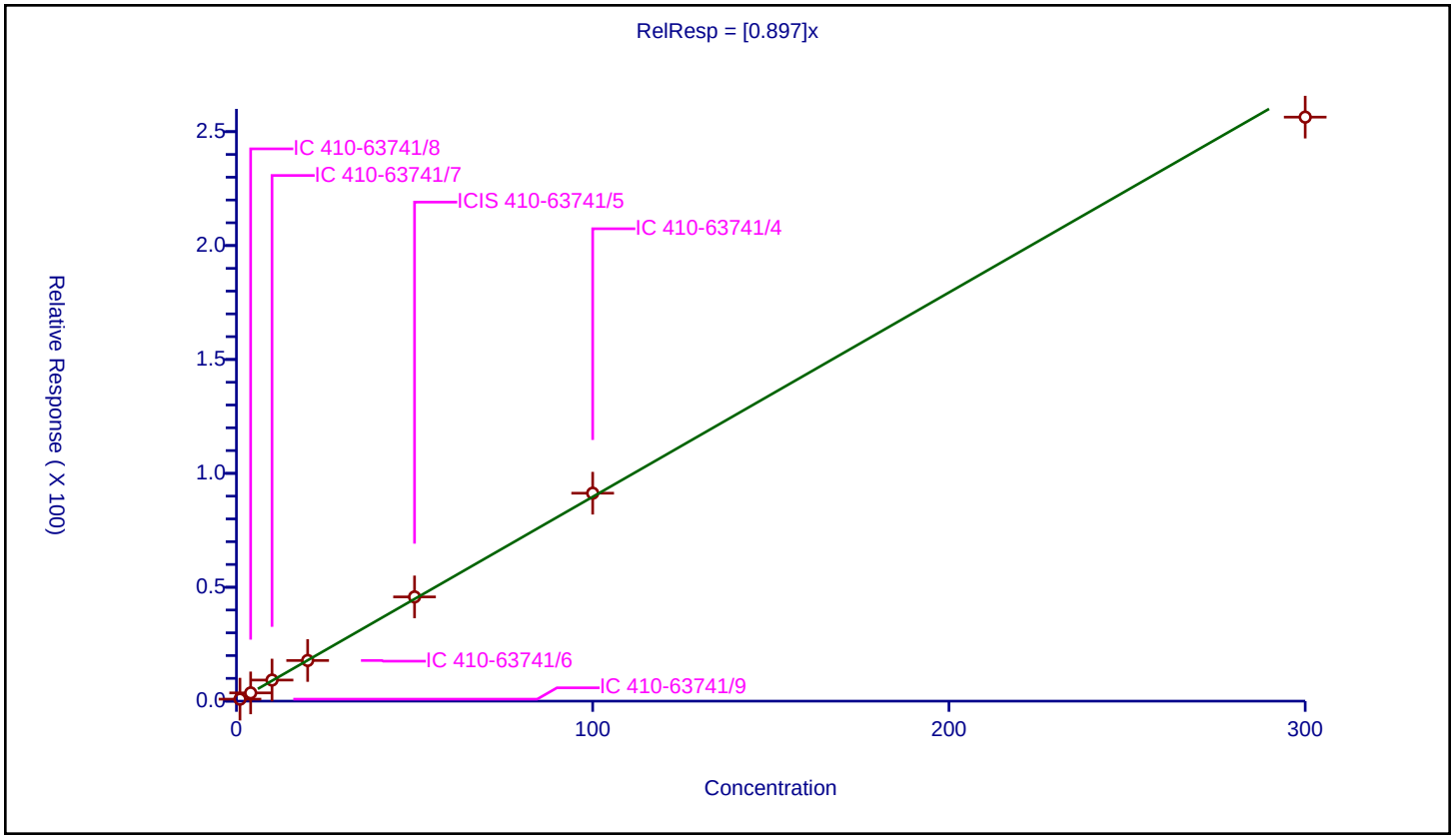
Curve Coefficients

Intercept:	0
Slope:	0.897

Error Coefficients

Standard Error:	2970000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.873715	50.0	1310267.0	0.873715	Y
2	IC 410-63741/8	4.0	3.617438	50.0	1290720.0	0.90436	Y
3	IC 410-63741/7	10.0	9.257411	50.0	1283469.0	0.925741	Y
4	IC 410-63741/6	20.0	17.848151	50.0	1284881.0	0.892408	Y
5	ICIS 410-63741/5	50.0	45.756142	50.0	1304709.0	0.915123	Y
6	IC 410-63741/4	100.0	91.294824	50.0	1292662.0	0.912948	Y
7	IC 410-63741/3	300.0	256.384325	50.0	1315464.0	0.854614	Y



Calibration / n-Heptane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

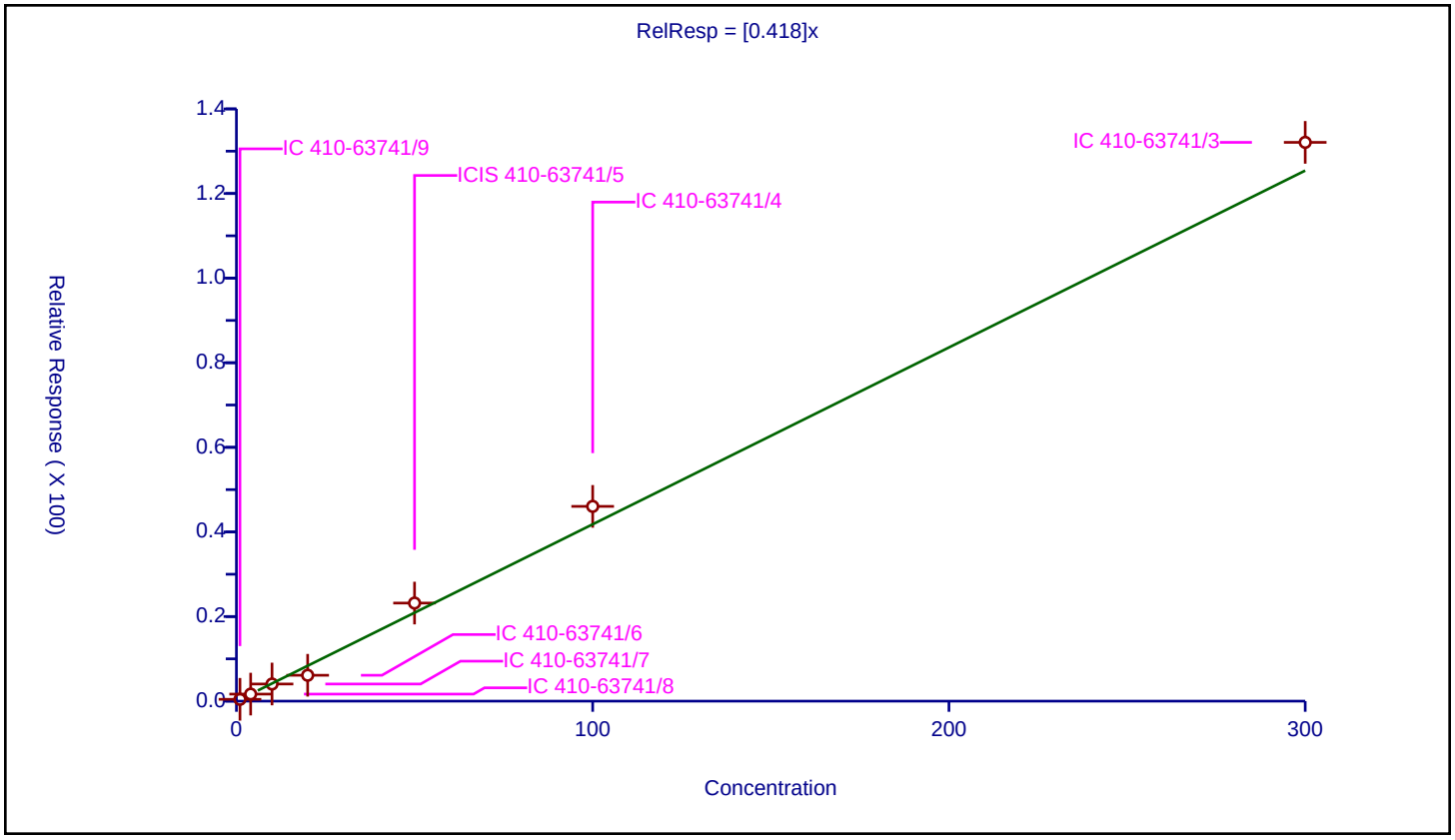
Curve Coefficients

Intercept:	0
Slope:	0.418

Error Coefficients

Standard Error:	1520000
Relative Standard Error:	12.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.981

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.434224	50.0	1310267.0	0.434224	Y
2	IC 410-63741/8	4.0	1.668255	50.0	1290720.0	0.417064	Y
3	IC 410-63741/7	10.0	4.049377	50.0	1283469.0	0.404938	Y
4	IC 410-63741/6	20.0	6.113601	50.0	1284881.0	0.30568	Y
5	ICIS 410-63741/5	50.0	23.187699	50.0	1304709.0	0.463754	Y
6	IC 410-63741/4	100.0	46.036667	50.0	1292662.0	0.460367	Y
7	IC 410-63741/3	300.0	132.083432	50.0	1315464.0	0.440278	Y



Calibration / n-Butanol

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

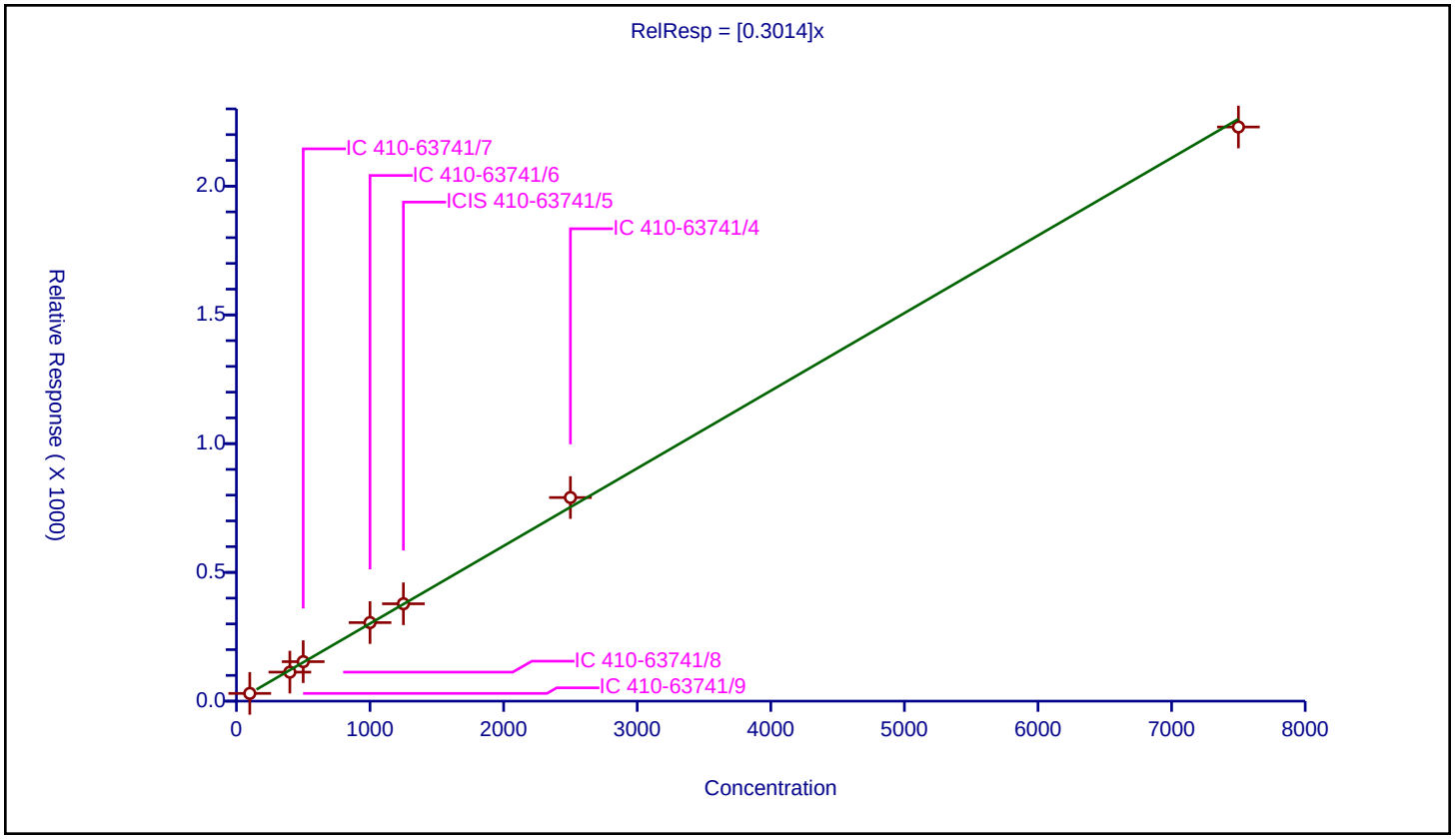
Curve Coefficients

Intercept:	0
Slope:	0.3014

Error Coefficients

Standard Error:	1190000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	100.0	30.013035	250.0	306092.0	0.30013	Y
2	IC 410-63741/8	400.0	112.711303	250.0	318677.0	0.281778	Y
3	IC 410-63741/7	500.0	153.296572	250.0	301768.0	0.306593	Y
4	IC 410-63741/6	1000.0	305.079205	250.0	305914.0	0.305079	Y
5	ICIS 410-63741/5	1250.0	378.124741	250.0	325187.0	0.3025	Y
6	IC 410-63741/4	2500.0	790.721687	250.0	287881.0	0.316289	Y
7	IC 410-63741/3	7500.0	2229.644611	250.0	301247.0	0.297286	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

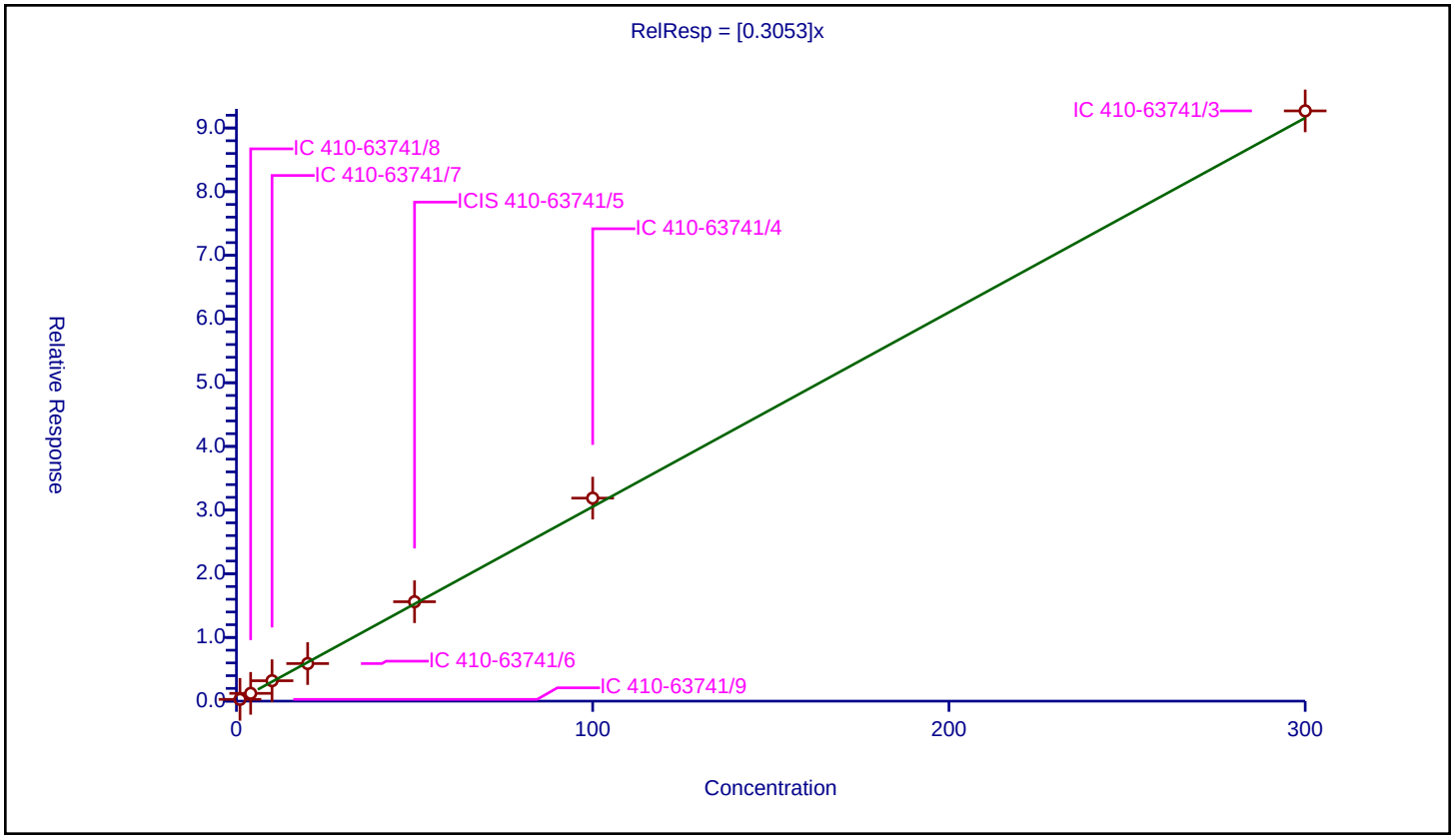
Curve Coefficients

Intercept:	0
Slope:	0.3053

Error Coefficients

Standard Error:	1070000
Relative Standard Error:	5.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.276241	50.0	1310267.0	0.276241	Y
2	IC 410-63741/8	4.0	1.221295	50.0	1290720.0	0.305324	Y
3	IC 410-63741/7	10.0	3.205492	50.0	1283469.0	0.320549	Y
4	IC 410-63741/6	20.0	5.899029	50.0	1284881.0	0.294951	Y
5	ICIS 410-63741/5	50.0	15.610492	50.0	1304709.0	0.31221	Y
6	IC 410-63741/4	100.0	31.878055	50.0	1292662.0	0.318781	Y
7	IC 410-63741/3	300.0	92.687409	50.0	1315464.0	0.308958	Y



Calibration / Methylcyclohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

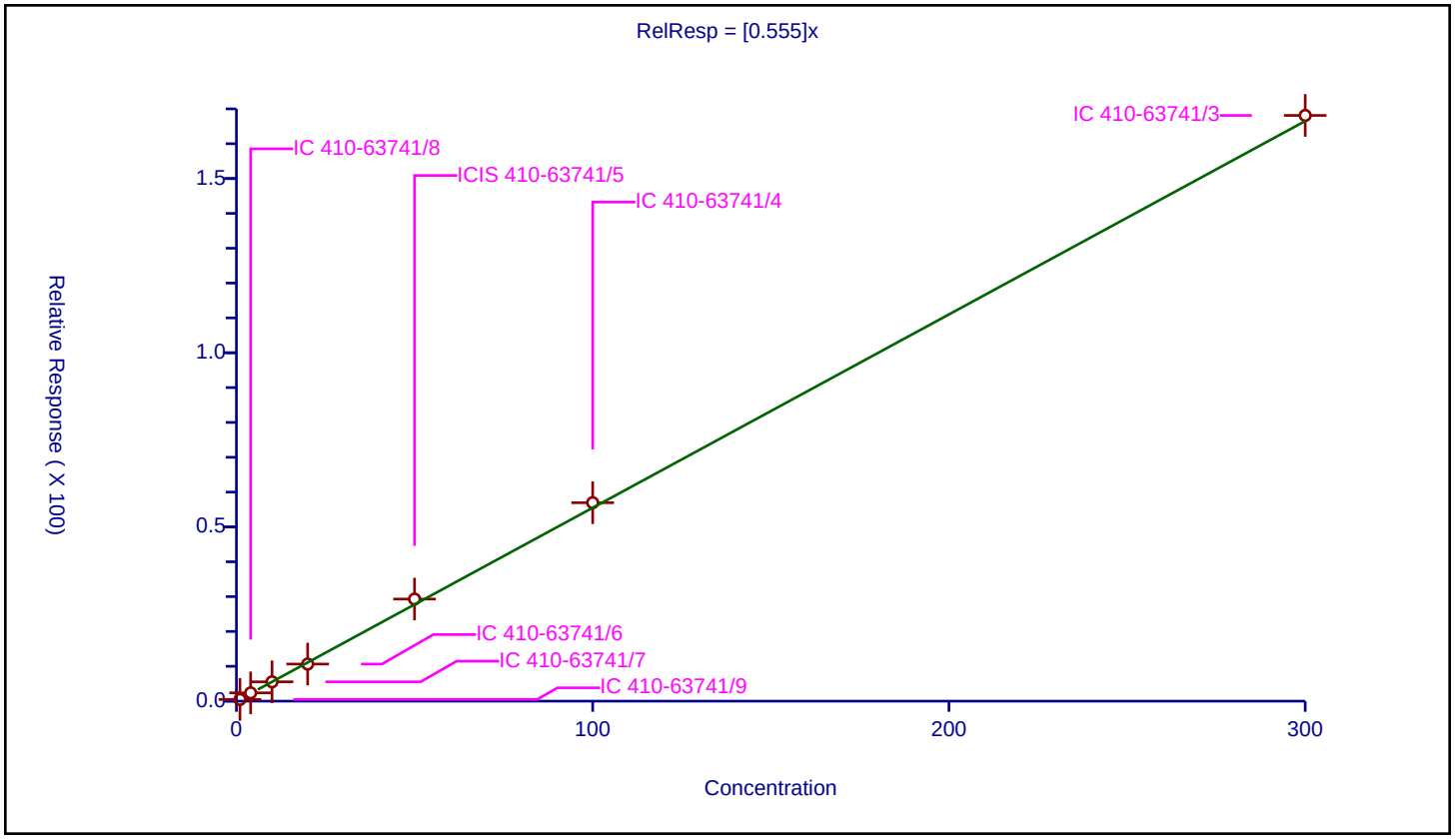
Curve Coefficients

Intercept:	0
Slope:	0.555

Error Coefficients

Standard Error:	1930000
Relative Standard Error:	6.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.487267	50.0	1310267.0	0.487267	Y
2	IC 410-63741/8	4.0	2.380106	50.0	1290720.0	0.595026	Y
3	IC 410-63741/7	10.0	5.543881	50.0	1283469.0	0.554388	Y
4	IC 410-63741/6	20.0	10.64764	50.0	1284881.0	0.532382	Y
5	ICIS 410-63741/5	50.0	29.300595	50.0	1304709.0	0.586012	Y
6	IC 410-63741/4	100.0	56.962454	50.0	1292662.0	0.569625	Y
7	IC 410-63741/3	300.0	168.118854	50.0	1315464.0	0.560396	Y



Calibration / 1,2-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

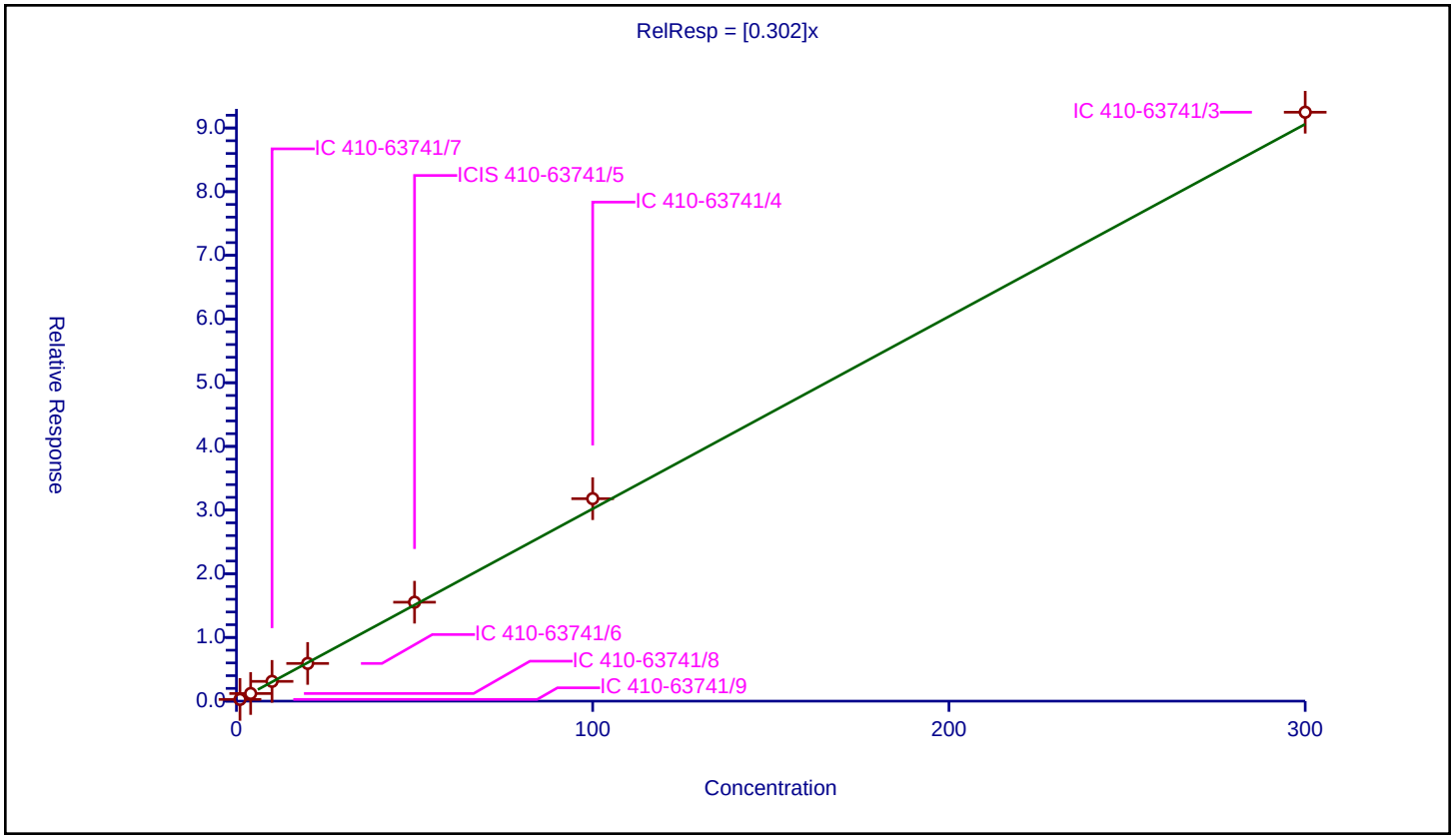
Curve Coefficients

Intercept:	0
Slope:	0.302

Error Coefficients

Standard Error:	1060000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.270594	50.0	1310267.0	0.270594	Y
2	IC 410-63741/8	4.0	1.199331	50.0	1290720.0	0.299833	Y
3	IC 410-63741/7	10.0	3.10736	50.0	1283469.0	0.310736	Y
4	IC 410-63741/6	20.0	5.921871	50.0	1284881.0	0.296094	Y
5	ICIS 410-63741/5	50.0	15.535878	50.0	1304709.0	0.310718	Y
6	IC 410-63741/4	100.0	31.791064	50.0	1292662.0	0.317911	Y
7	IC 410-63741/3	300.0	92.478167	50.0	1315464.0	0.308261	Y



Calibration / 2-ethoxy-2-methyl butane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

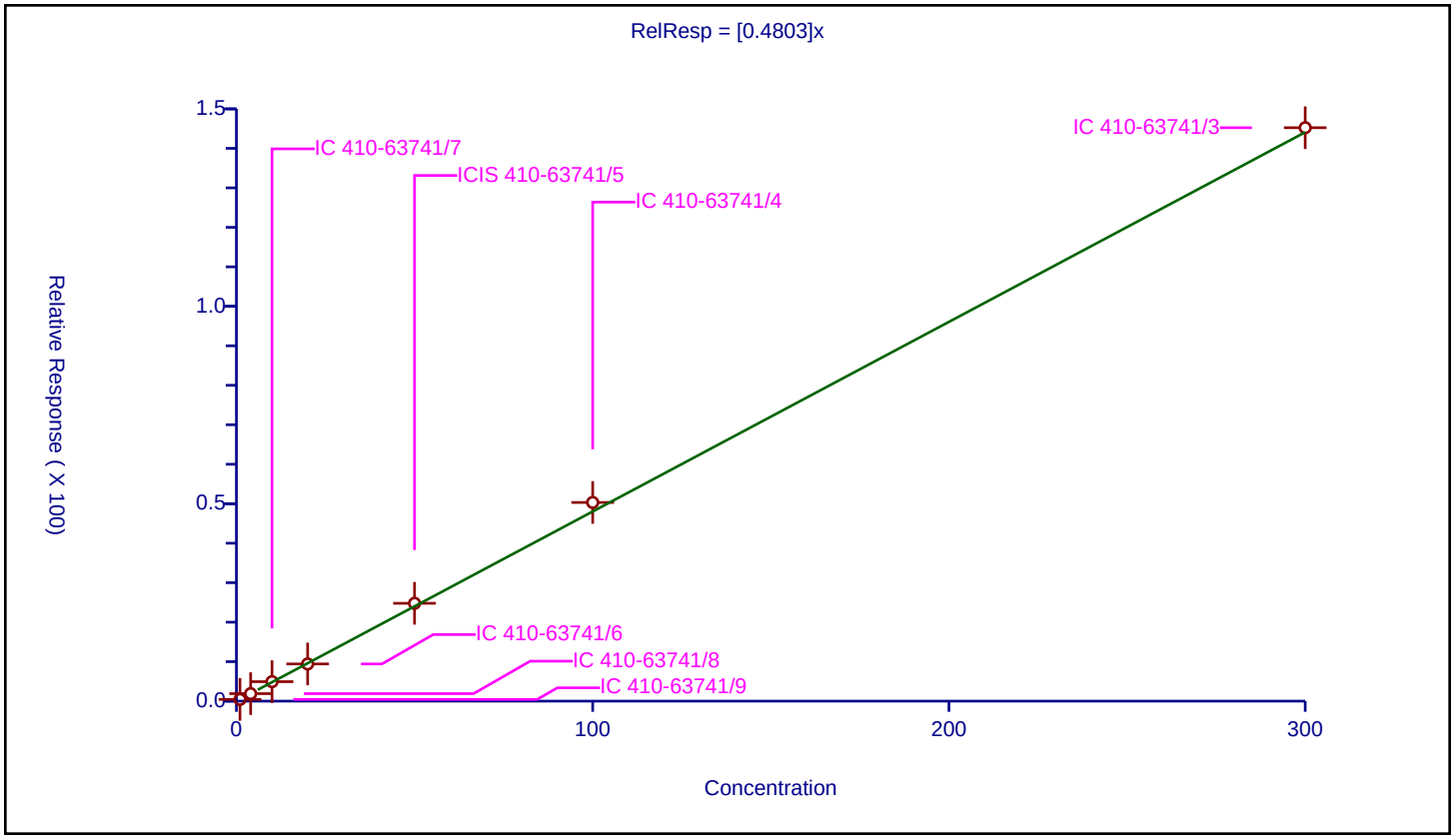
Curve Coefficients

Intercept:	0
Slope:	0.4803

Error Coefficients

Standard Error:	1670000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.439376	50.0	1310267.0	0.439376	Y
2	IC 410-63741/8	4.0	1.901613	50.0	1290720.0	0.475403	Y
3	IC 410-63741/7	10.0	4.933154	50.0	1283469.0	0.493315	Y
4	IC 410-63741/6	20.0	9.419549	50.0	1284881.0	0.470977	Y
5	ICIS 410-63741/5	50.0	24.777939	50.0	1304709.0	0.495559	Y
6	IC 410-63741/4	100.0	50.322281	50.0	1292662.0	0.503223	Y
7	IC 410-63741/3	300.0	145.229326	50.0	1315464.0	0.484098	Y



Calibration / Methyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

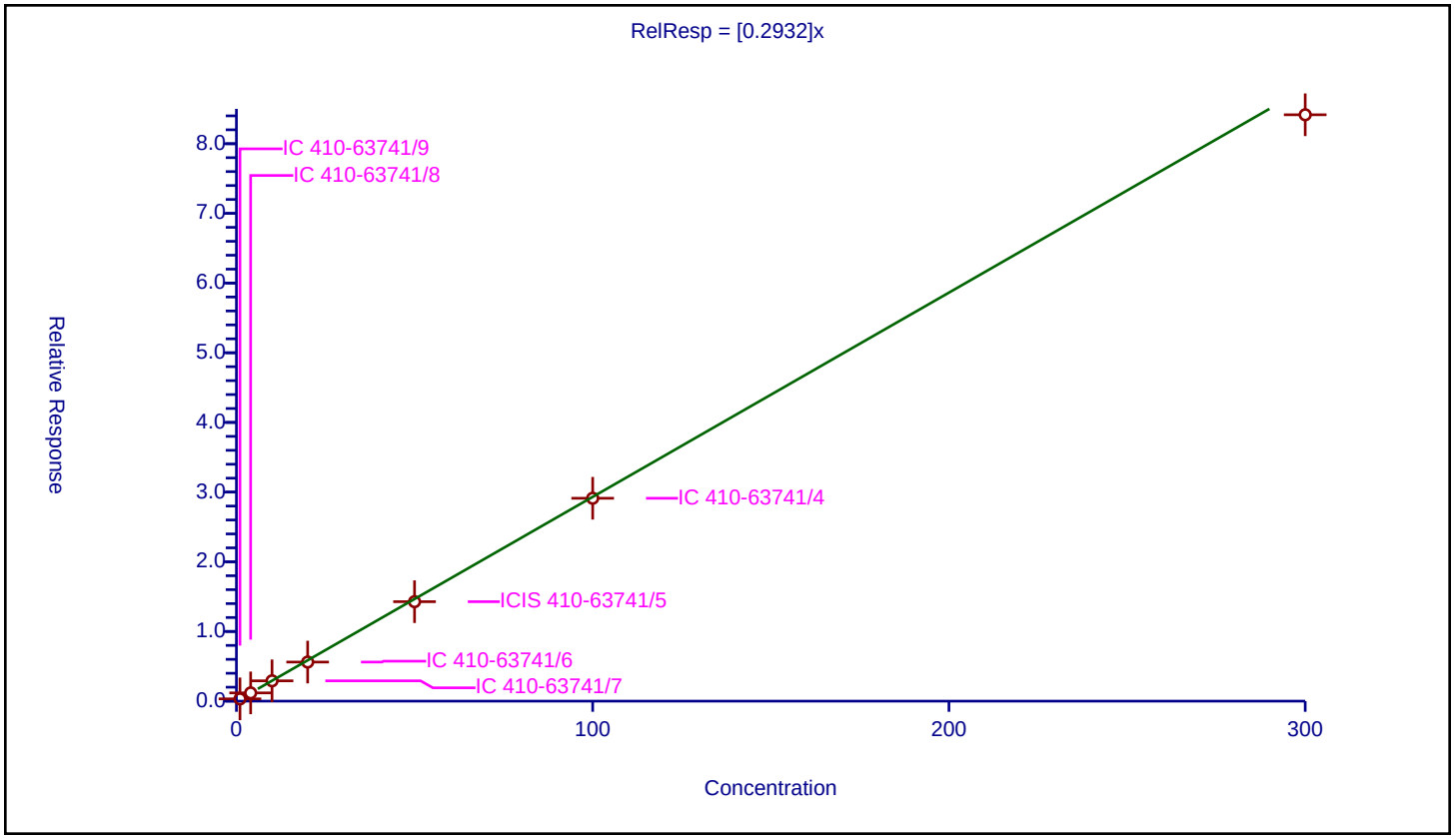
Curve Coefficients

Intercept:	0
Slope:	0.2932

Error Coefficients

Standard Error:	969000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.3273	50.0	1310267.0	0.3273	Y
2	IC 410-63741/8	4.0	1.181937	50.0	1290720.0	0.295484	Y
3	IC 410-63741/7	10.0	2.916042	50.0	1283469.0	0.291604	Y
4	IC 410-63741/6	20.0	5.610753	50.0	1284881.0	0.280538	Y
5	ICIS 410-63741/5	50.0	14.273604	50.0	1304709.0	0.285472	Y
6	IC 410-63741/4	100.0	29.117318	50.0	1292662.0	0.291173	Y
7	IC 410-63741/3	300.0	84.153538	50.0	1315464.0	0.280512	Y



Calibration / 1,4-Dioxane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

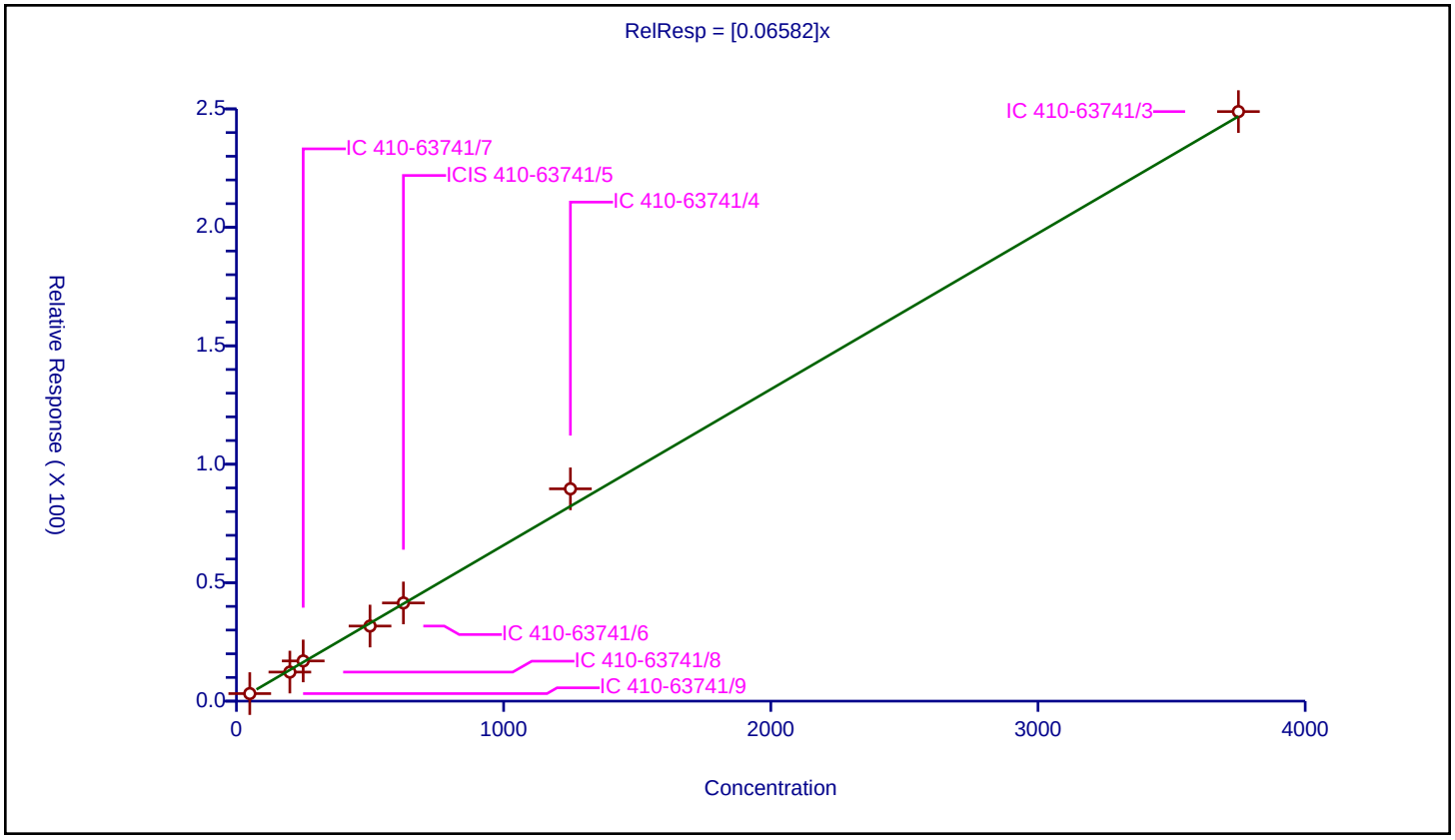
Curve Coefficients

Intercept:	0
Slope:	0.06582

Error Coefficients

Standard Error:	133000
Relative Standard Error:	5.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	50.0	3.185317	250.0	306092.0	0.063706	Y
2	IC 410-63741/8	200.0	12.272615	250.0	318677.0	0.061363	Y
3	IC 410-63741/7	250.0	16.972476	250.0	301768.0	0.06789	Y
4	IC 410-63741/6	500.0	31.702537	250.0	305914.0	0.063405	Y
5	ICIS 410-63741/5	625.0	41.444615	250.0	325187.0	0.066311	Y
6	IC 410-63741/4	1250.0	89.623838	250.0	287881.0	0.071699	Y
7	IC 410-63741/3	3750.0	248.868868	250.0	301247.0	0.066365	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

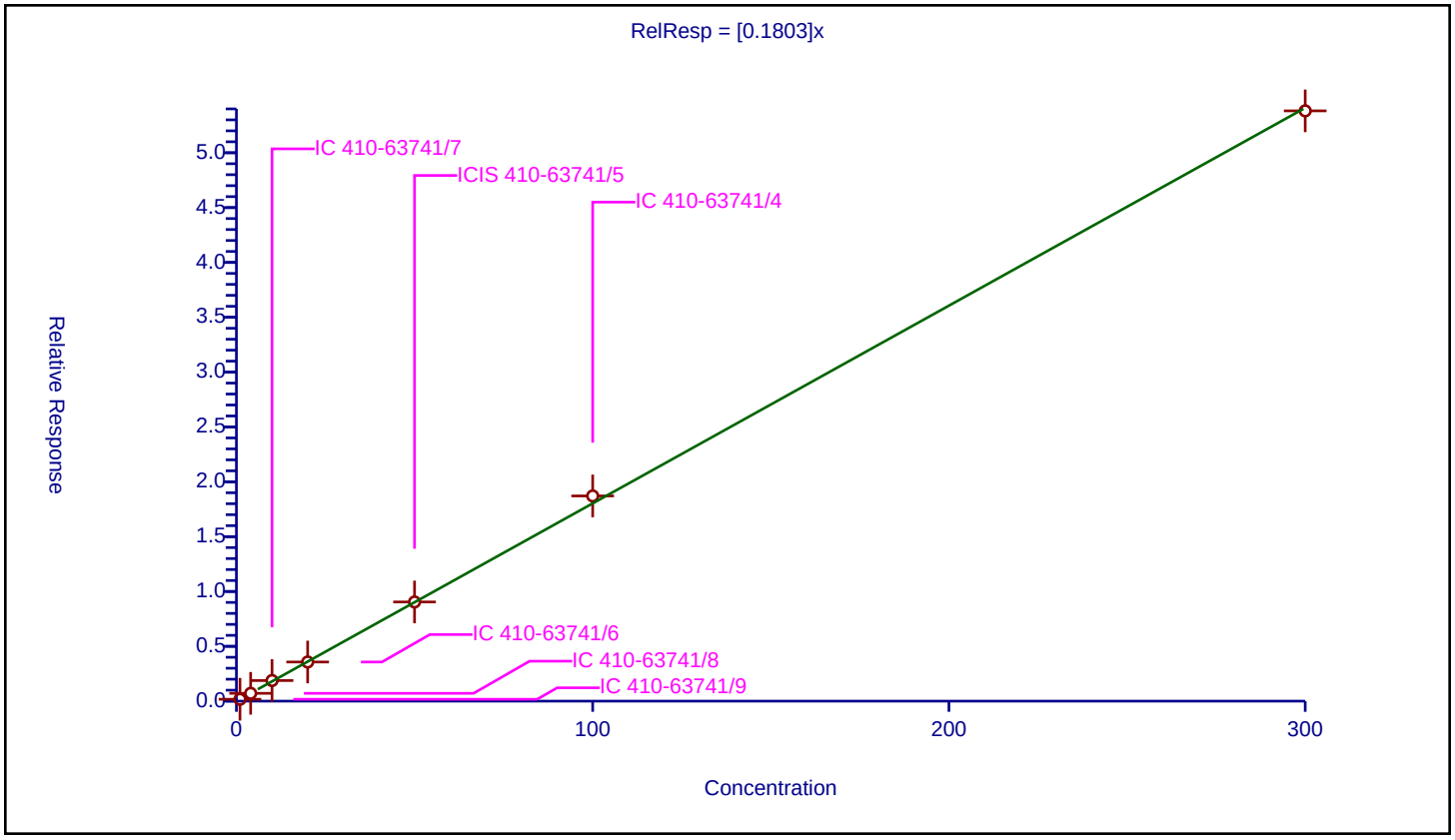
Curve Coefficients

Intercept:	0
Slope:	0.1803

Error Coefficients

Standard Error:	620000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.17008	50.0	1310267.0	0.17008	Y
2	IC 410-63741/8	4.0	0.713865	50.0	1290720.0	0.178466	Y
3	IC 410-63741/7	10.0	1.87823	50.0	1283469.0	0.187823	Y
4	IC 410-63741/6	20.0	3.568074	50.0	1284881.0	0.178404	Y
5	ICIS 410-63741/5	50.0	9.042361	50.0	1304709.0	0.180847	Y
6	IC 410-63741/4	100.0	18.709183	50.0	1292662.0	0.187092	Y
7	IC 410-63741/3	300.0	53.819983	50.0	1315464.0	0.1794	Y



Calibration / Dichlorobromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

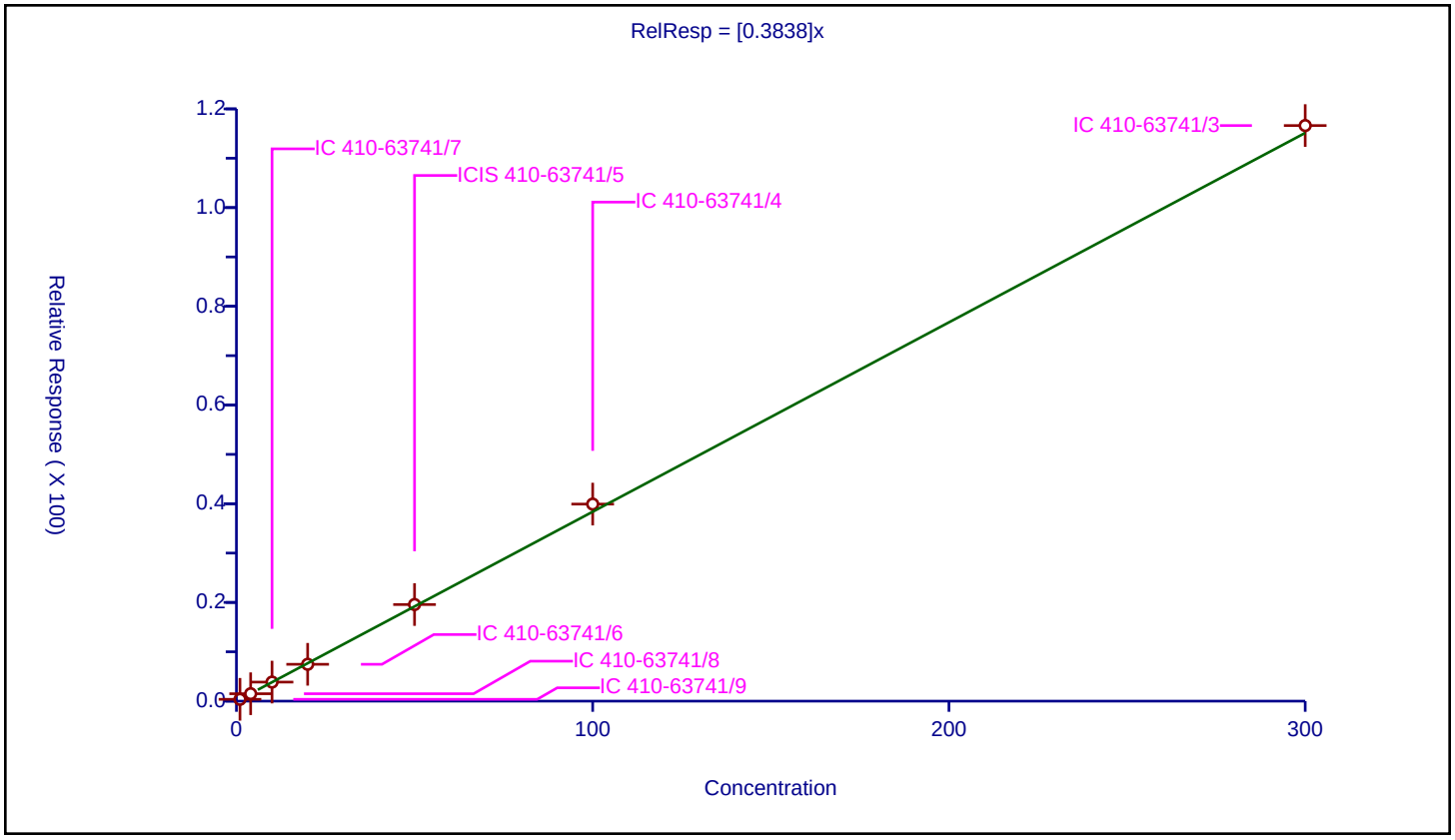
Curve Coefficients

Intercept:	0
Slope:	0.3838

Error Coefficients

Standard Error:	1340000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.371565	50.0	1310267.0	0.371565	Y
2	IC 410-63741/8	4.0	1.503192	50.0	1290720.0	0.375798	Y
3	IC 410-63741/7	10.0	3.860709	50.0	1283469.0	0.386071	Y
4	IC 410-63741/6	20.0	7.467812	50.0	1284881.0	0.373391	Y
5	ICIS 410-63741/5	50.0	19.573713	50.0	1304709.0	0.391474	Y
6	IC 410-63741/4	100.0	39.926098	50.0	1292662.0	0.399261	Y
7	IC 410-63741/3	300.0	116.624134	50.0	1315464.0	0.388747	Y



Calibration / 2-Nitropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

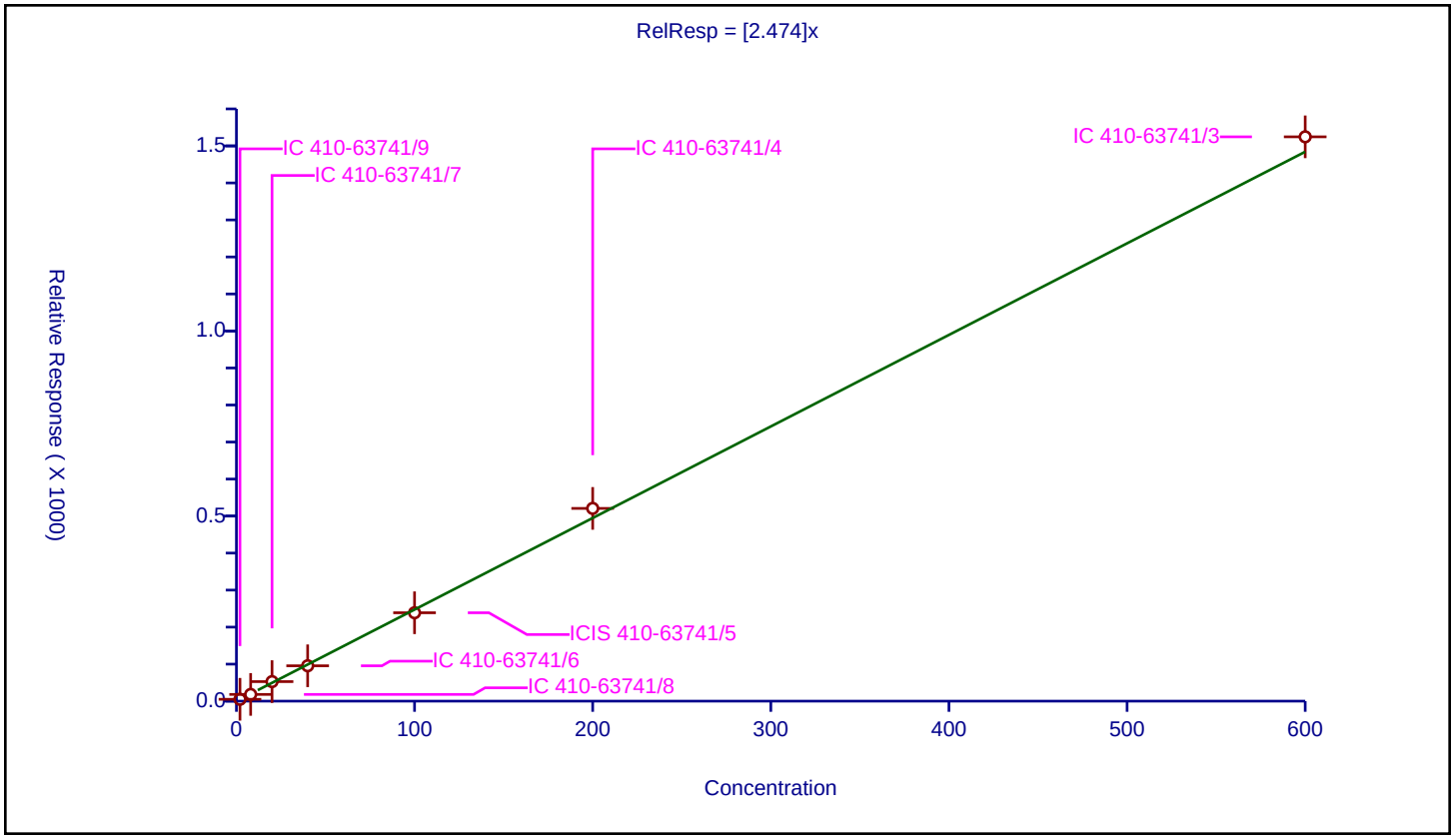
Curve Coefficients

Intercept:	0
Slope:	2.474

Error Coefficients

Standard Error:	800000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	4.973995	250.0	306092.0	2.486997	Y
2	IC 410-63741/8	8.0	18.152393	250.0	318677.0	2.269049	Y
3	IC 410-63741/7	20.0	52.773985	250.0	301768.0	2.638699	Y
4	IC 410-63741/6	40.0	95.495793	250.0	305914.0	2.387395	Y
5	ICIS 410-63741/5	100.0	238.814128	250.0	325187.0	2.388141	Y
6	IC 410-63741/4	200.0	520.728183	250.0	287881.0	2.603641	Y
7	IC 410-63741/3	600.0	1524.505638	250.0	301247.0	2.540843	Y



Calibration / 2-Chloroethyl vinyl ether

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

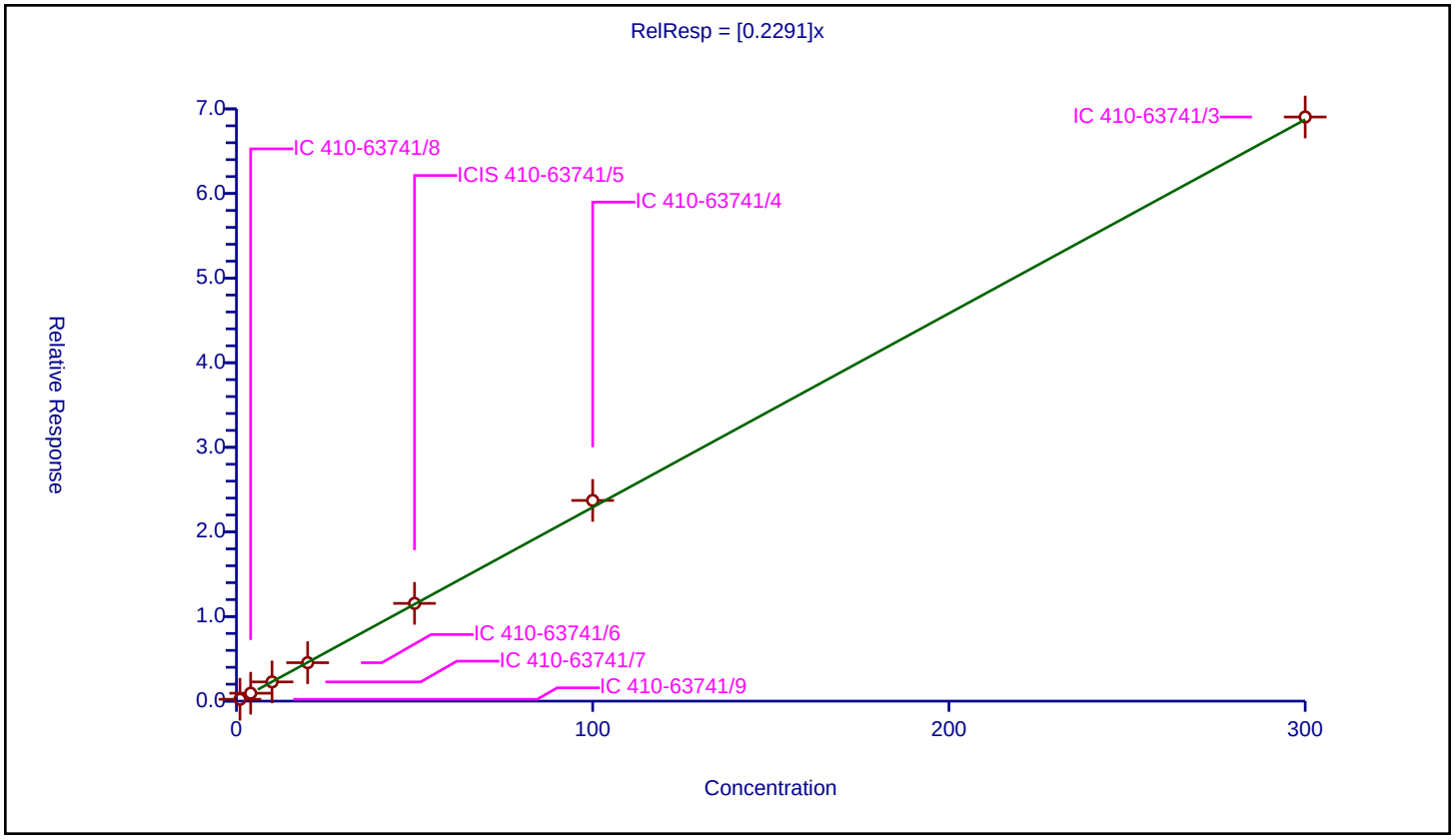
Curve Coefficients

Intercept:	0
Slope:	0.2291

Error Coefficients

Standard Error:	794000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.217437	50.0	1310267.0	0.217437	Y
2	IC 410-63741/8	4.0	0.935098	50.0	1290720.0	0.233775	Y
3	IC 410-63741/7	10.0	2.271072	50.0	1283469.0	0.227107	Y
4	IC 410-63741/6	20.0	4.544234	50.0	1284881.0	0.227212	Y
5	ICIS 410-63741/5	50.0	11.553228	50.0	1304709.0	0.231065	Y
6	IC 410-63741/4	100.0	23.721321	50.0	1292662.0	0.237213	Y
7	IC 410-63741/3	300.0	69.042444	50.0	1315464.0	0.230141	Y



Calibration / cis-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

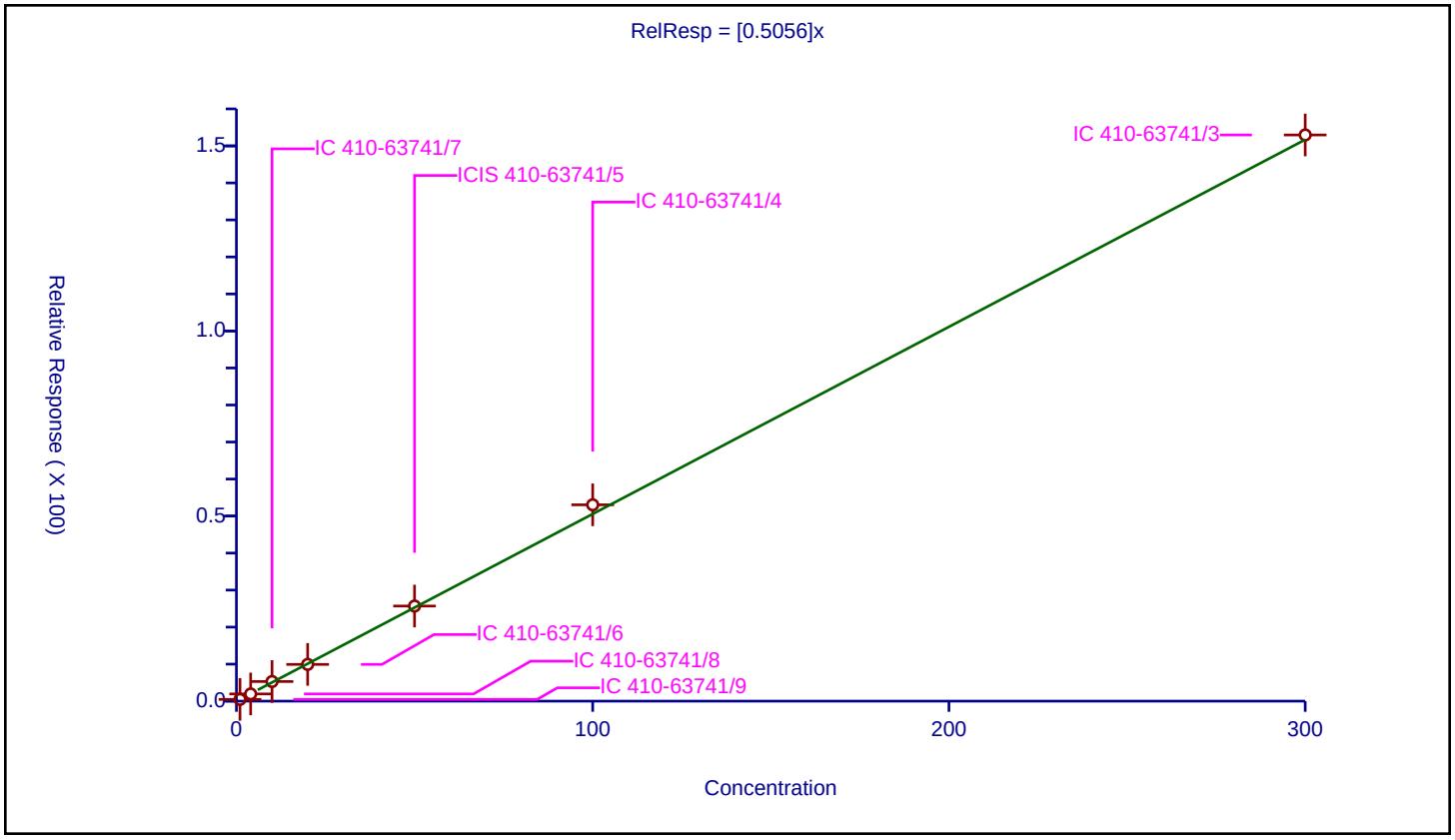
Curve Coefficients

Intercept:	0
Slope:	0.5056

Error Coefficients

Standard Error:	1760000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.472614	50.0	1310267.0	0.472614	Y
2	IC 410-63741/8	4.0	1.945503	50.0	1290720.0	0.486376	Y
3	IC 410-63741/7	10.0	5.29857	50.0	1283469.0	0.529857	Y
4	IC 410-63741/6	20.0	9.929207	50.0	1284881.0	0.49646	Y
5	ICIS 410-63741/5	50.0	25.692089	50.0	1304709.0	0.513842	Y
6	IC 410-63741/4	100.0	53.038807	50.0	1292662.0	0.530388	Y
7	IC 410-63741/3	300.0	152.952798	50.0	1315464.0	0.509843	Y



Calibration / 4-Methyl-2-pentanone (MIBK)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

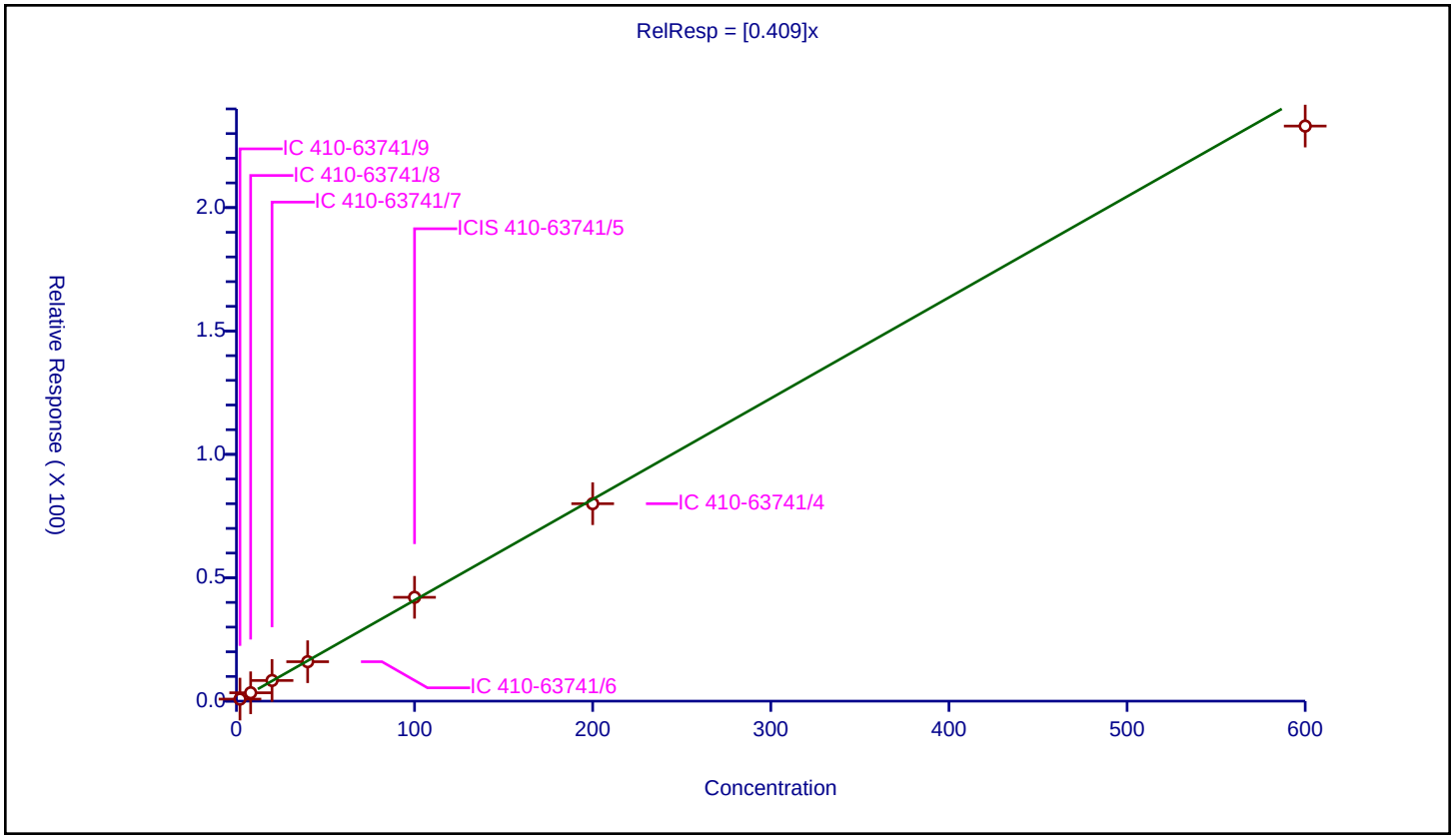
Curve Coefficients

Intercept:	0
Slope:	0.409

Error Coefficients

Standard Error:	2690000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	0.822733	50.0	1310267.0	0.411367	Y
2	IC 410-63741/8	8.0	3.394888	50.0	1290720.0	0.424361	Y
3	IC 410-63741/7	20.0	8.36744	50.0	1283469.0	0.418372	Y
4	IC 410-63741/6	40.0	15.978094	50.0	1284881.0	0.399452	Y
5	ICIS 410-63741/5	100.0	42.079843	50.0	1304709.0	0.420798	Y
6	IC 410-63741/4	200.0	80.009237	50.0	1292662.0	0.400046	Y
7	IC 410-63741/3	600.0	233.04393	50.0	1315464.0	0.388407	Y



Calibration / Toluene-d8 (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

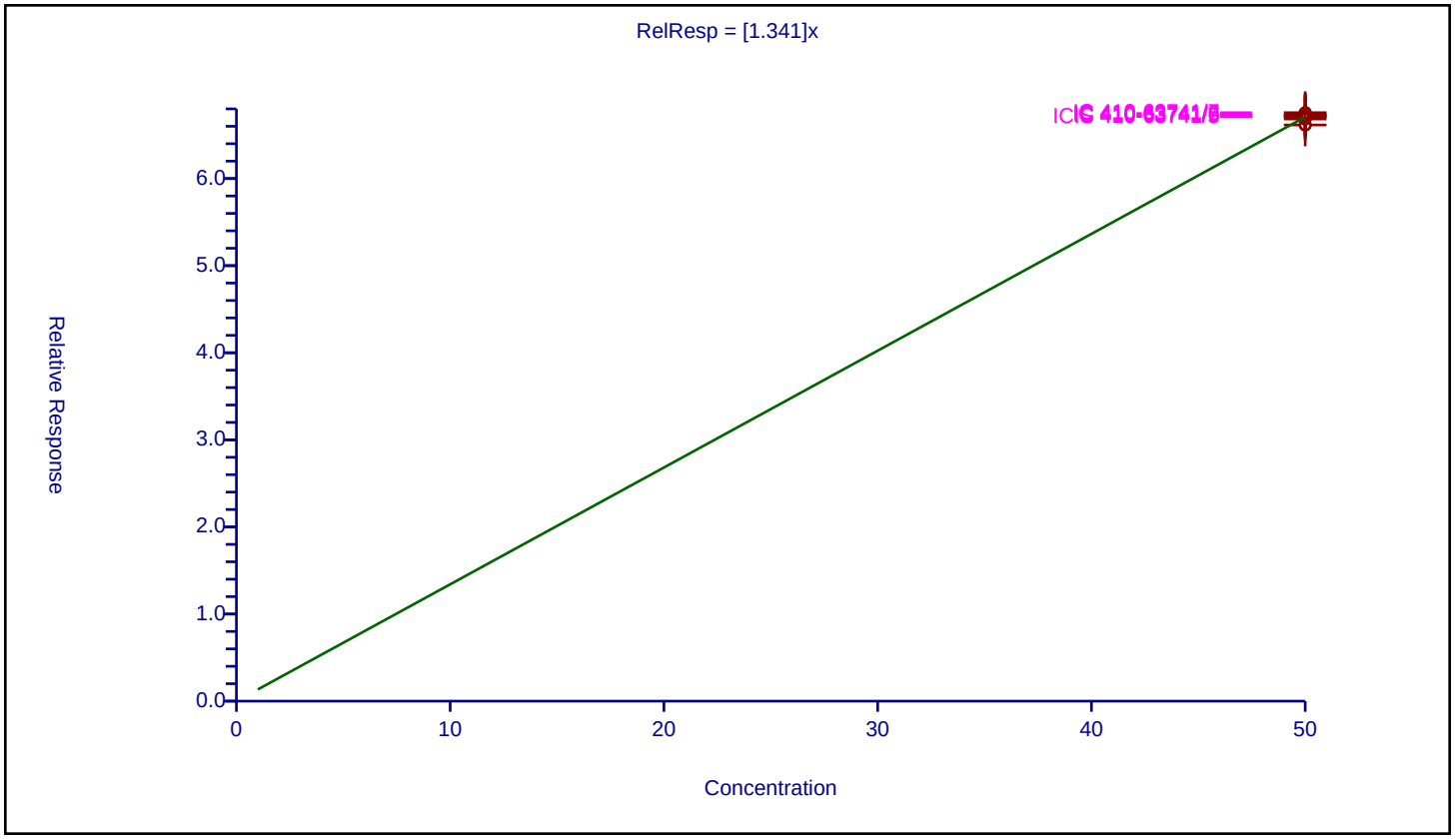
Curve Coefficients

Intercept:	0
Slope:	1.341

Error Coefficients

Standard Error:	1420000
Relative Standard Error:	0.7
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/3	50.0	66.152926	50.0	1008582.0	1.323059	Y
2	IC 410-63741/4	50.0	66.838433	50.0	978556.0	1.336769	Y
3	ICIS 410-63741/5	50.0	67.092594	50.0	987609.0	1.341852	Y
4	IC 410-63741/6	50.0	67.29283	50.0	968118.0	1.345857	Y
5	IC 410-63741/7	50.0	67.564468	50.0	958193.0	1.351289	Y
6	IC 410-63741/8	50.0	67.358583	50.0	961749.0	1.347172	Y
7	IC 410-63741/9	50.0	67.135545	50.0	987570.0	1.342711	Y



Calibration / Toluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

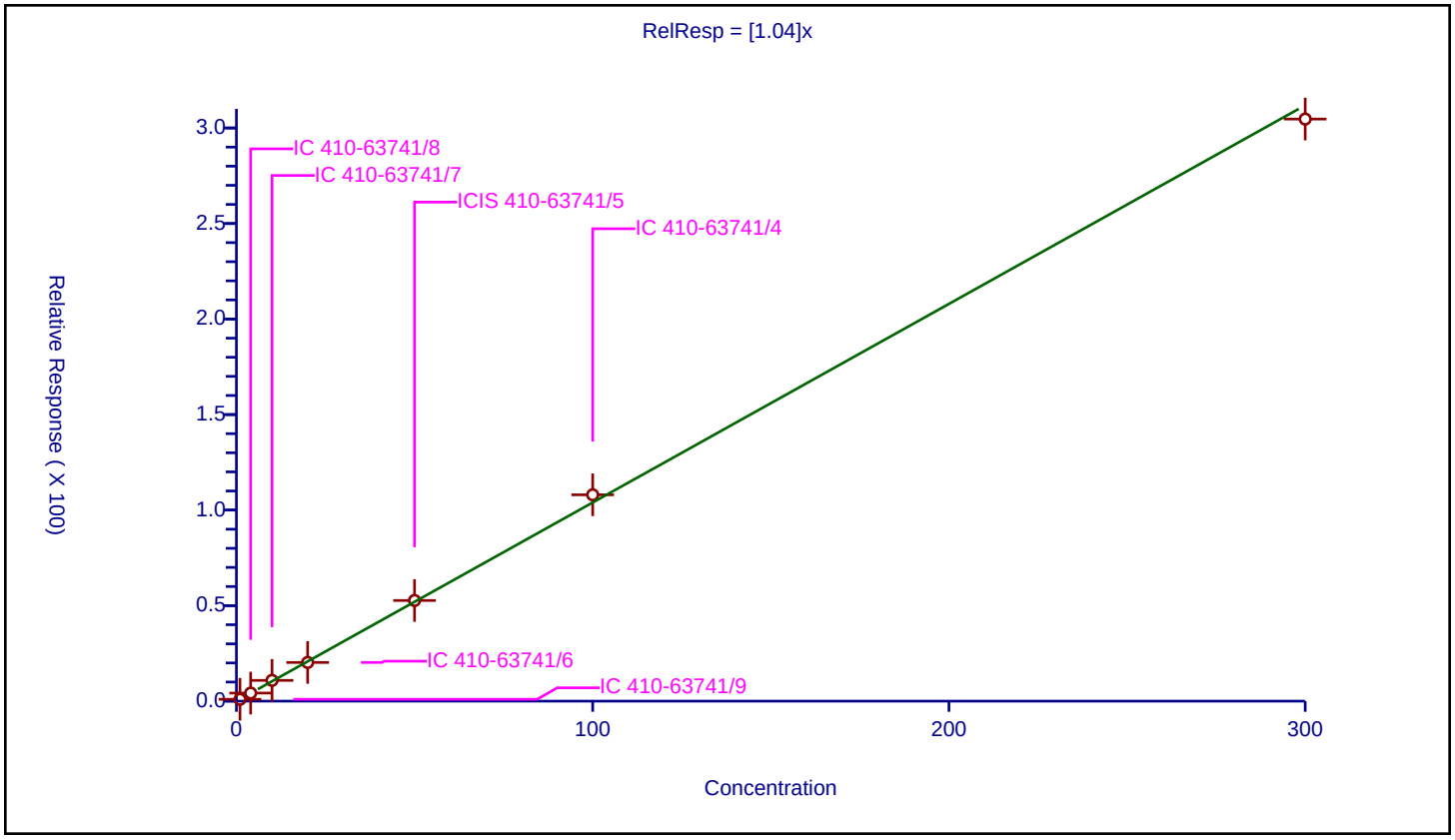
Curve Coefficients

Intercept:	0
Slope:	1.04

Error Coefficients

Standard Error:	2690000
Relative Standard Error:	4.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.970919	50.0	987570.0	0.970919	Y
2	IC 410-63741/8	4.0	4.229066	50.0	961749.0	1.057267	Y
3	IC 410-63741/7	10.0	10.873644	50.0	958193.0	1.087364	Y
4	IC 410-63741/6	20.0	20.249598	50.0	968118.0	1.01248	Y
5	ICIS 410-63741/5	50.0	52.694842	50.0	987609.0	1.053897	Y
6	IC 410-63741/4	100.0	108.005571	50.0	978556.0	1.080056	Y
7	IC 410-63741/3	300.0	304.672203	50.0	1008582.0	1.015574	Y



Calibration / trans-1,3-Dichloropropene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

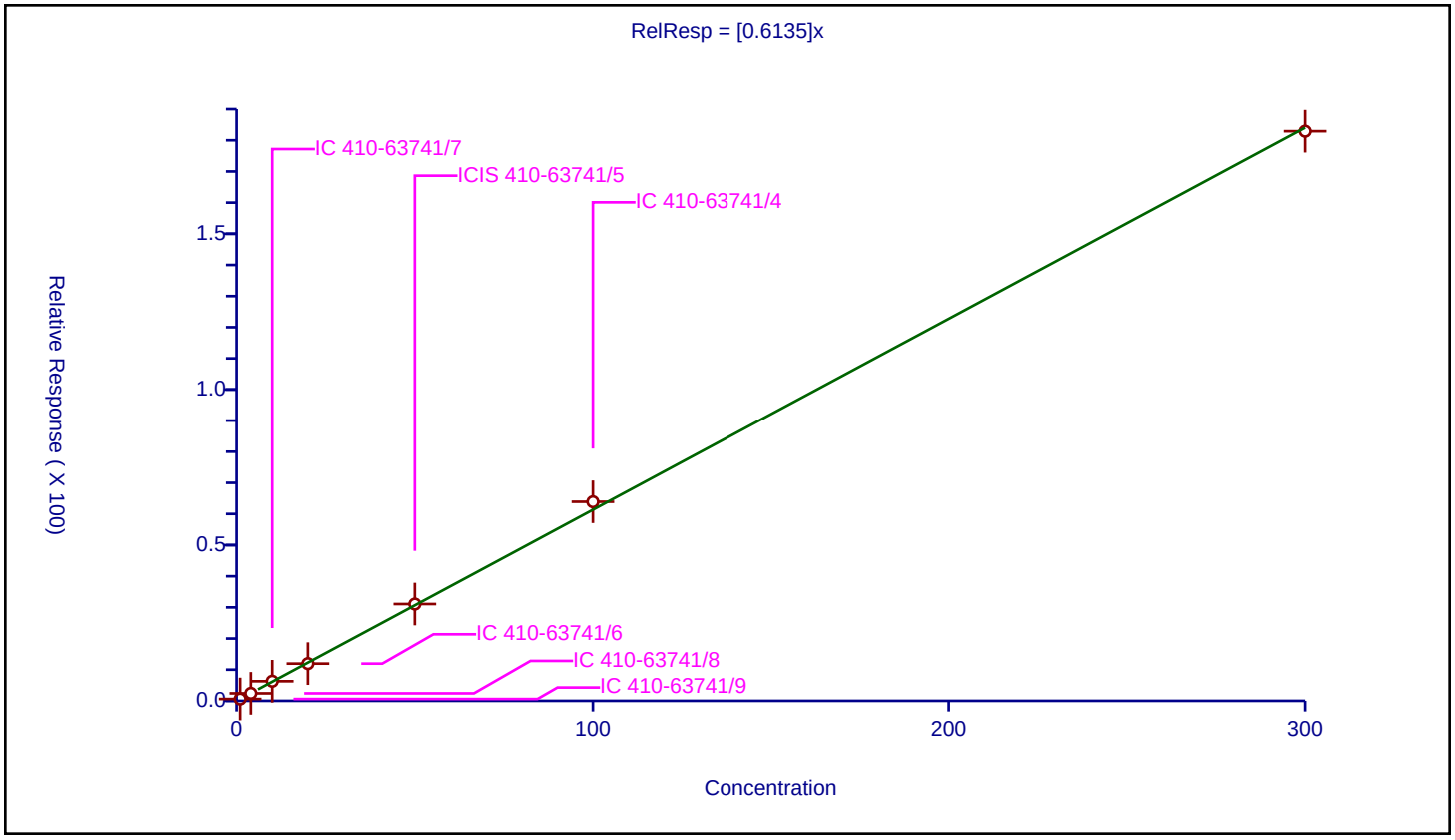
Curve Coefficients

Intercept:	0
Slope:	0.6135

Error Coefficients

Standard Error:	1610000
Relative Standard Error:	2.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.596363	50.0	987570.0	0.596363	Y
2	IC 410-63741/8	4.0	2.405357	50.0	961749.0	0.601339	Y
3	IC 410-63741/7	10.0	6.28913	50.0	958193.0	0.628913	Y
4	IC 410-63741/6	20.0	11.948957	50.0	968118.0	0.597448	Y
5	ICIS 410-63741/5	50.0	31.080114	50.0	987609.0	0.621602	Y
6	IC 410-63741/4	100.0	63.921687	50.0	978556.0	0.639217	Y
7	IC 410-63741/3	300.0	182.912594	50.0	1008582.0	0.609709	Y



Calibration / Ethyl methacrylate

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

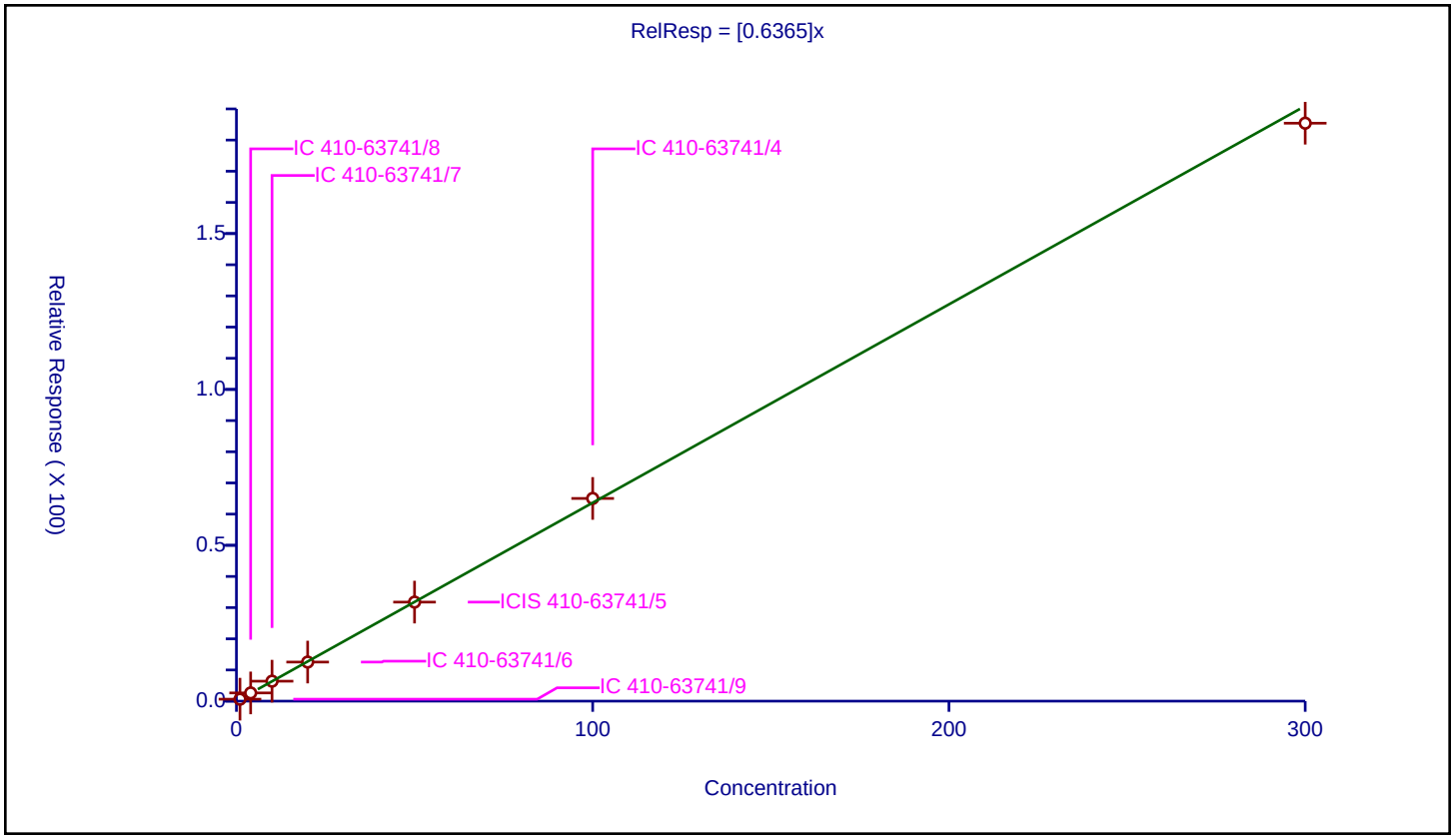
Curve Coefficients

Intercept:	0
Slope:	0.6365

Error Coefficients

Standard Error:	1640000
Relative Standard Error:	2.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.624006	50.0	987570.0	0.624006	Y
2	IC 410-63741/8	4.0	2.639514	50.0	961749.0	0.659879	Y
3	IC 410-63741/7	10.0	6.407686	50.0	958193.0	0.640769	Y
4	IC 410-63741/6	20.0	12.537366	50.0	968118.0	0.626868	Y
5	ICIS 410-63741/5	50.0	31.773708	50.0	987609.0	0.635474	Y
6	IC 410-63741/4	100.0	65.028317	50.0	978556.0	0.650283	Y
7	IC 410-63741/3	300.0	185.411499	50.0	1008582.0	0.618038	Y



Calibration / 1,1,2-Trichloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

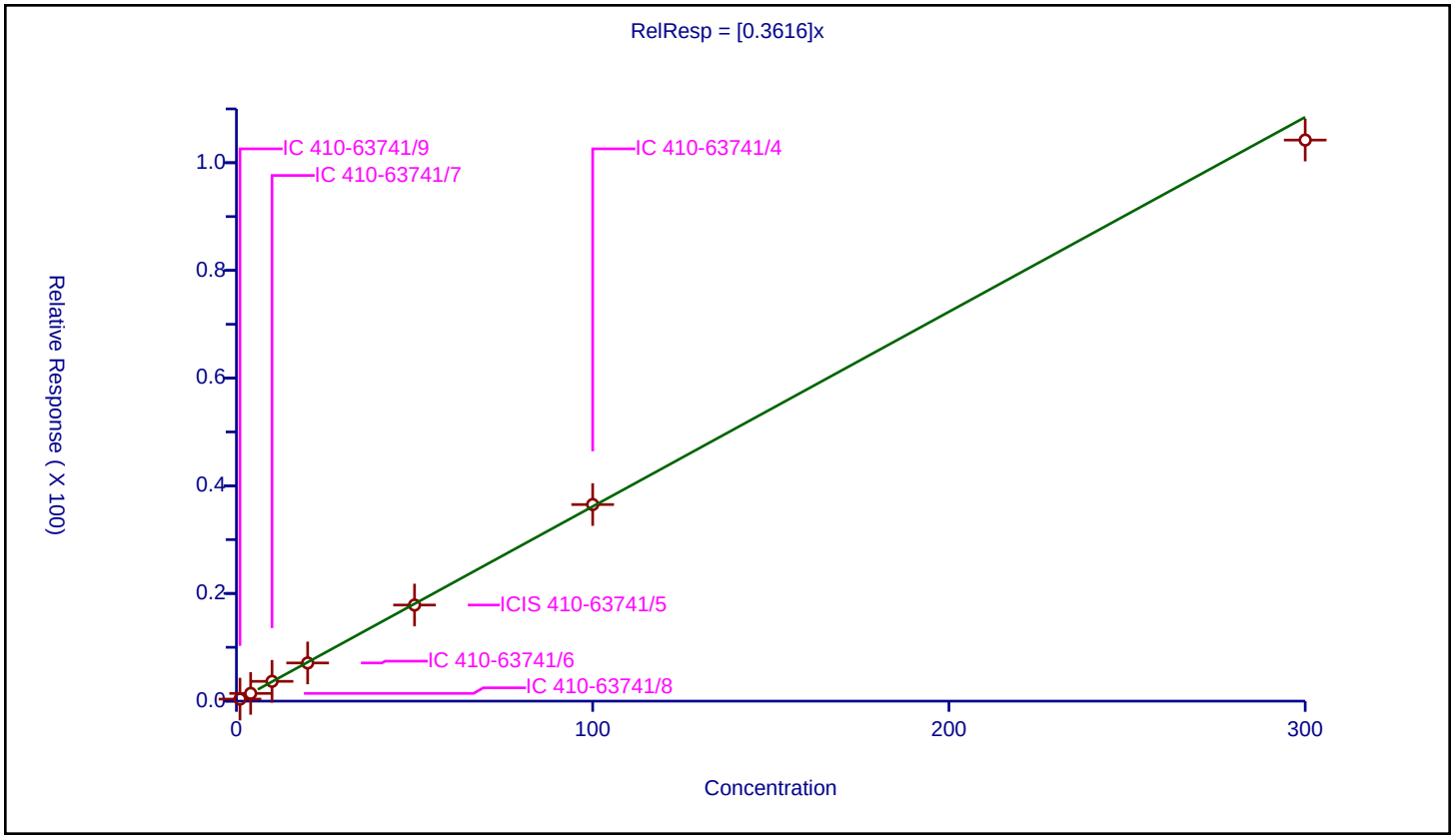
Curve Coefficients

Intercept:	0
Slope:	0.3616

Error Coefficients

Standard Error:	920000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.379366	50.0	987570.0	0.379366	Y
2	IC 410-63741/8	4.0	1.439045	50.0	961749.0	0.359761	Y
3	IC 410-63741/7	10.0	3.678121	50.0	958193.0	0.367812	Y
4	IC 410-63741/6	20.0	7.090406	50.0	968118.0	0.35452	Y
5	ICIS 410-63741/5	50.0	17.848157	50.0	987609.0	0.356963	Y
6	IC 410-63741/4	100.0	36.517021	50.0	978556.0	0.36517	Y
7	IC 410-63741/3	300.0	104.214233	50.0	1008582.0	0.347381	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

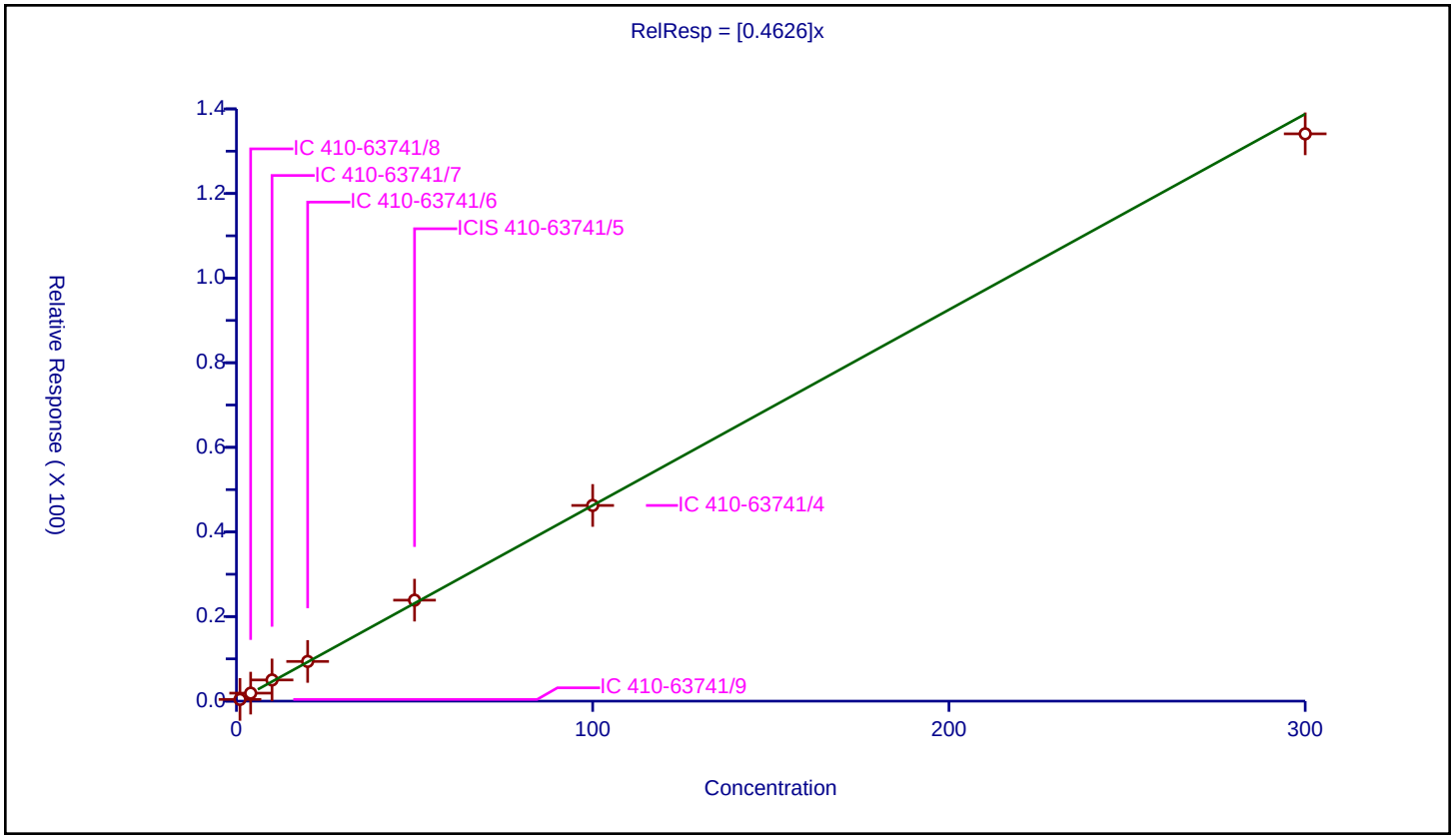
Curve Coefficients

Intercept:	0
Slope:	0.4626

Error Coefficients

Standard Error:	1180000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.408629	50.0	987570.0	0.408629	Y
2	IC 410-63741/8	4.0	1.891034	50.0	961749.0	0.472758	Y
3	IC 410-63741/7	10.0	5.006716	50.0	958193.0	0.500672	Y
4	IC 410-63741/6	20.0	9.385994	50.0	968118.0	0.4693	Y
5	ICIS 410-63741/5	50.0	23.871036	50.0	987609.0	0.477421	Y
6	IC 410-63741/4	100.0	46.260817	50.0	978556.0	0.462608	Y
7	IC 410-63741/3	300.0	134.106746	50.0	1008582.0	0.447022	Y



Calibration / 1,3-Dichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

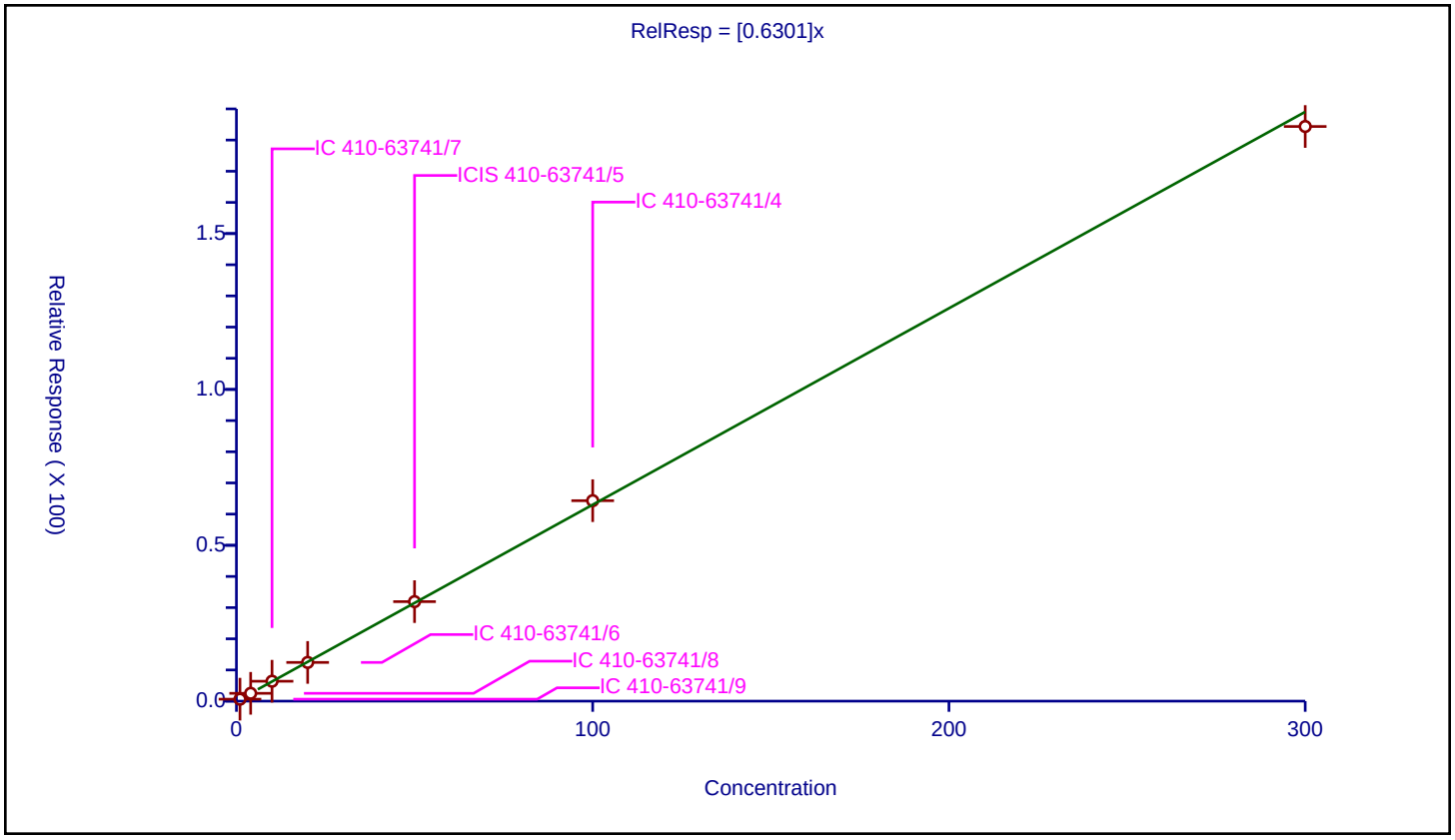
Curve Coefficients

Intercept:	0
Slope:	0.6301

Error Coefficients

Standard Error:	1630000
Relative Standard Error:	1.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.627652	50.0	987570.0	0.627652	Y
2	IC 410-63741/8	4.0	2.509439	50.0	961749.0	0.62736	Y
3	IC 410-63741/7	10.0	6.389475	50.0	958193.0	0.638947	Y
4	IC 410-63741/6	20.0	12.417236	50.0	968118.0	0.620862	Y
5	ICIS 410-63741/5	50.0	31.929691	50.0	987609.0	0.638594	Y
6	IC 410-63741/4	100.0	64.3117	50.0	978556.0	0.643117	Y
7	IC 410-63741/3	300.0	184.351595	50.0	1008582.0	0.614505	Y



Calibration / 2-Hexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

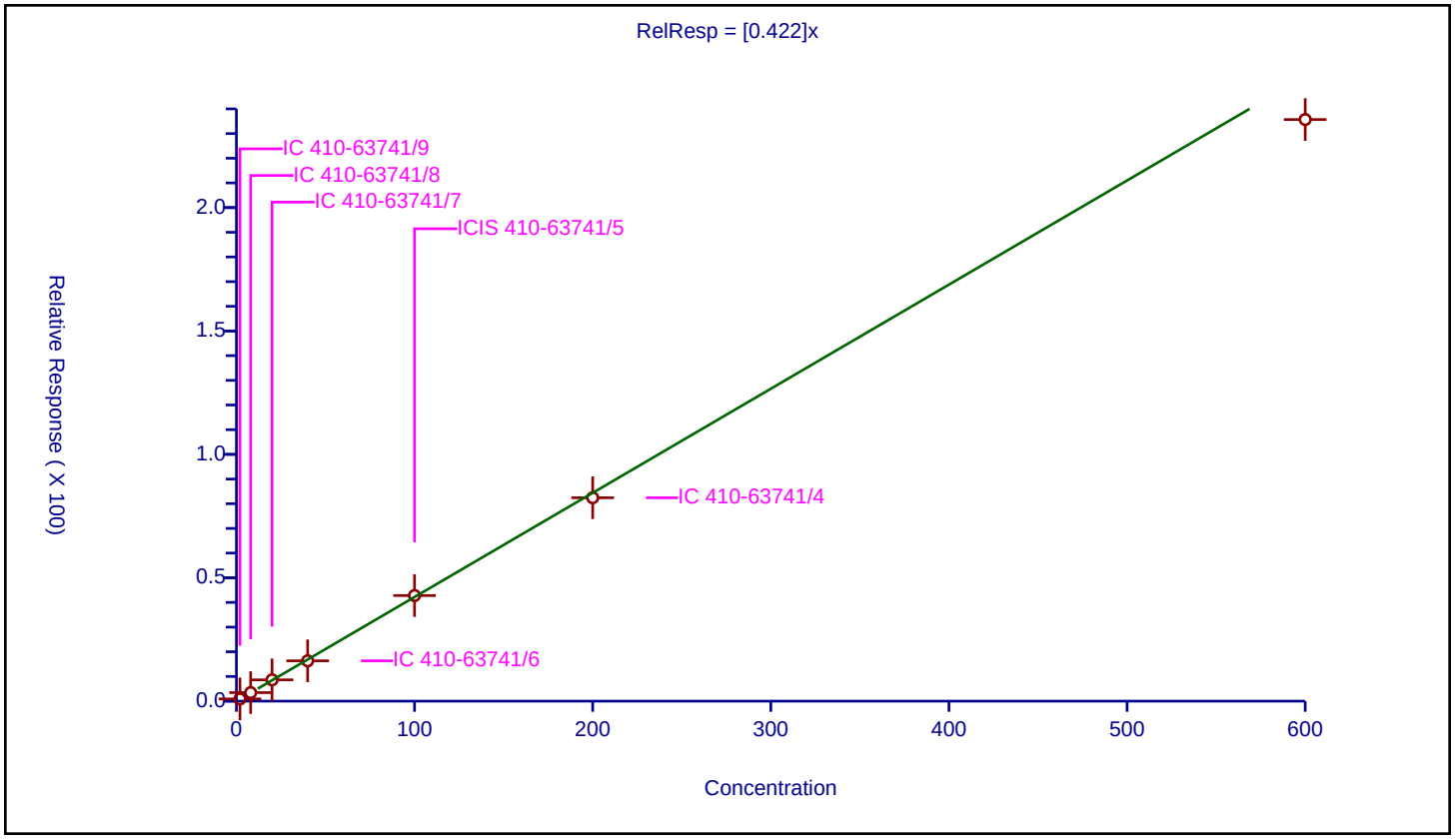
Curve Coefficients

Intercept:	0
Slope:	0.422

Error Coefficients

Standard Error:	2080000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	0.898063	50.0	987570.0	0.449031	Y
2	IC 410-63741/8	8.0	3.458699	50.0	961749.0	0.432337	Y
3	IC 410-63741/7	20.0	8.626602	50.0	958193.0	0.43133	Y
4	IC 410-63741/6	40.0	16.332152	50.0	968118.0	0.408304	Y
5	ICIS 410-63741/5	100.0	42.791125	50.0	987609.0	0.427911	Y
6	IC 410-63741/4	200.0	82.416438	50.0	978556.0	0.412082	Y
7	IC 410-63741/3	600.0	235.683812	50.0	1008582.0	0.392806	Y



Calibration / Chlorodibromomethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

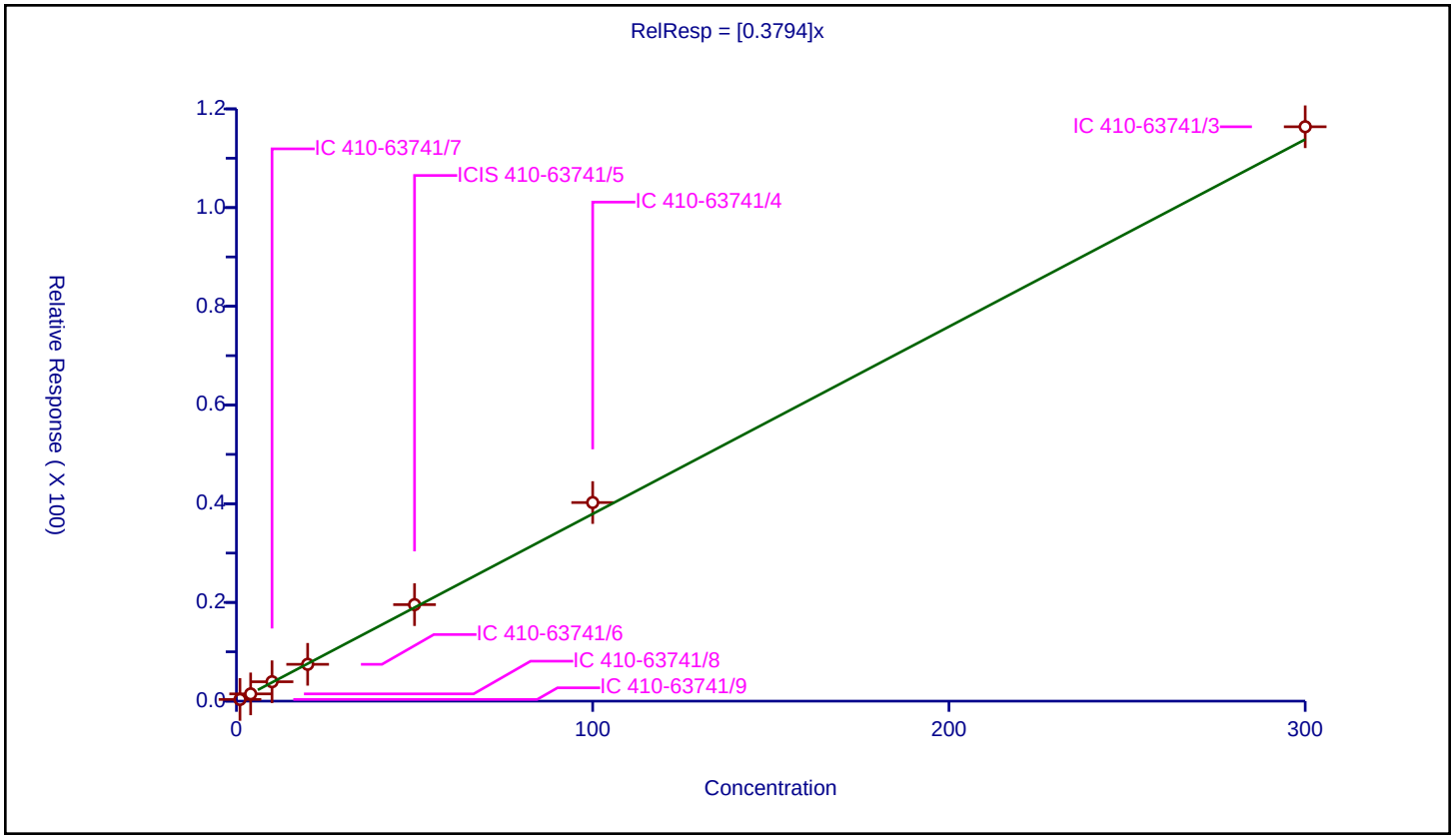
Curve Coefficients

Intercept:	0
Slope:	0.3794

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	5.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.340027	50.0	987570.0	0.340027	Y
2	IC 410-63741/8	4.0	1.47159	50.0	961749.0	0.367897	Y
3	IC 410-63741/7	10.0	3.932558	50.0	958193.0	0.393256	Y
4	IC 410-63741/6	20.0	7.463346	50.0	968118.0	0.373167	Y
5	ICIS 410-63741/5	50.0	19.55293	50.0	987609.0	0.391059	Y
6	IC 410-63741/4	100.0	40.237094	50.0	978556.0	0.402371	Y
7	IC 410-63741/3	300.0	116.379333	50.0	1008582.0	0.387931	Y



Calibration / Ethylene Dibromide

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

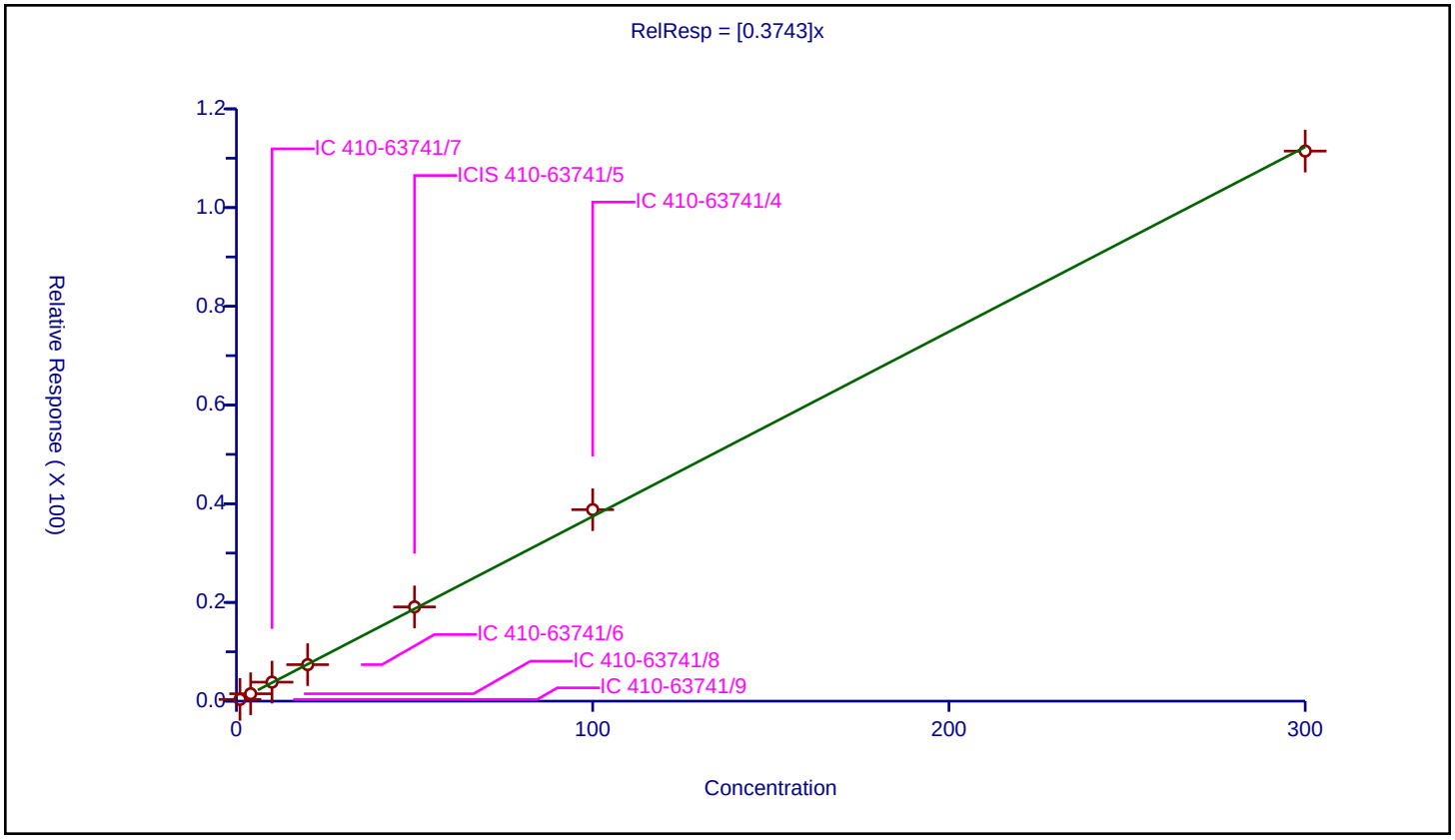
Curve Coefficients

Intercept:	0
Slope:	0.3743

Error Coefficients

Standard Error:	983000
Relative Standard Error:	3.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.349849	50.0	987570.0	0.349849	Y
2	IC 410-63741/8	4.0	1.494933	50.0	961749.0	0.373733	Y
3	IC 410-63741/7	10.0	3.848911	50.0	958193.0	0.384891	Y
4	IC 410-63741/6	20.0	7.397652	50.0	968118.0	0.369883	Y
5	ICIS 410-63741/5	50.0	19.096474	50.0	987609.0	0.381929	Y
6	IC 410-63741/4	100.0	38.796758	50.0	978556.0	0.387968	Y
7	IC 410-63741/3	300.0	111.452862	50.0	1008582.0	0.37151	Y



Calibration / 1-Chlorohexane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

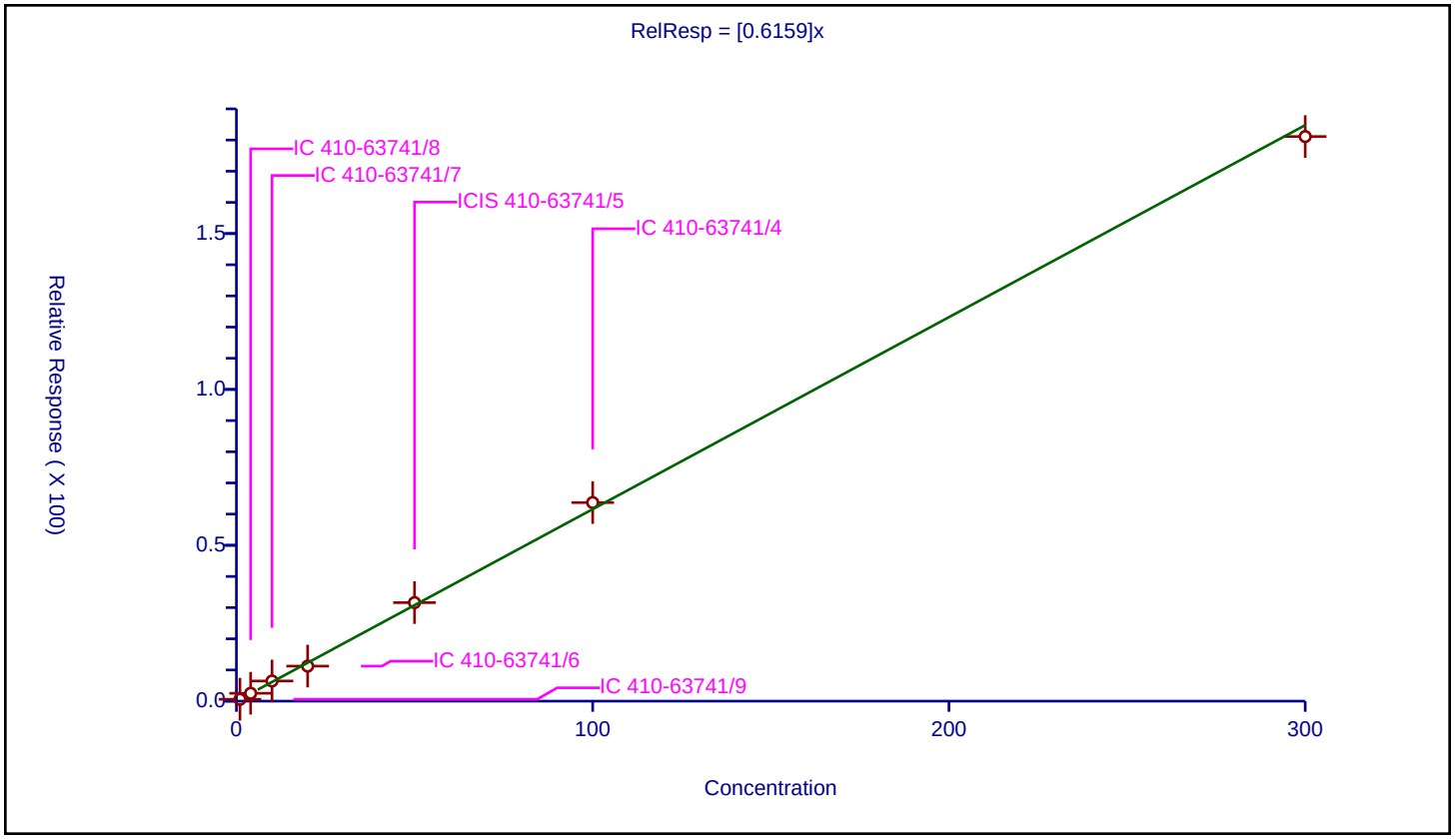
Curve Coefficients

Intercept:	0
Slope:	0.6159

Error Coefficients

Standard Error:	1600000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.598439	50.0	987570.0	0.598439	Y
2	IC 410-63741/8	4.0	2.524463	50.0	961749.0	0.631116	Y
3	IC 410-63741/7	10.0	6.466338	50.0	958193.0	0.646634	Y
4	IC 410-63741/6	20.0	11.243154	50.0	968118.0	0.562158	Y
5	ICIS 410-63741/5	50.0	31.609372	50.0	987609.0	0.632187	Y
6	IC 410-63741/4	100.0	63.70034	50.0	978556.0	0.637003	Y
7	IC 410-63741/3	300.0	181.124886	50.0	1008582.0	0.60375	Y



Calibration / Chlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

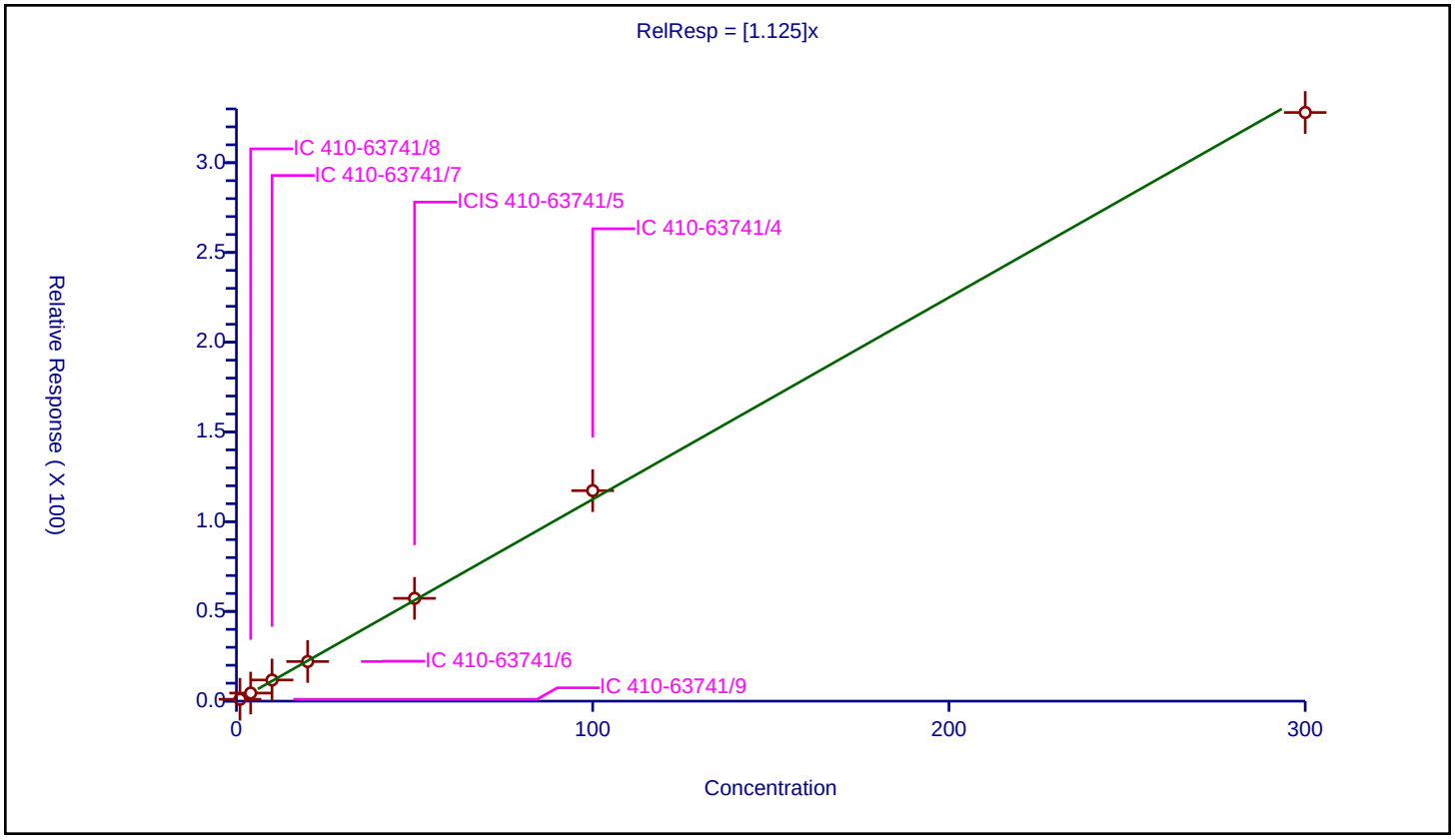
Curve Coefficients

Intercept:	0
Slope:	1.125

Error Coefficients

Standard Error:	2900000
Relative Standard Error:	4.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.050457	50.0	987570.0	1.050457	Y
2	IC 410-63741/8	4.0	4.508141	50.0	961749.0	1.127035	Y
3	IC 410-63741/7	10.0	11.796945	50.0	958193.0	1.179694	Y
4	IC 410-63741/6	20.0	22.068023	50.0	968118.0	1.103401	Y
5	ICIS 410-63741/5	50.0	57.272716	50.0	987609.0	1.145454	Y
6	IC 410-63741/4	100.0	117.292572	50.0	978556.0	1.172926	Y
7	IC 410-63741/3	300.0	327.989593	50.0	1008582.0	1.093299	Y



Calibration / 1,1,1,2-Tetrachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

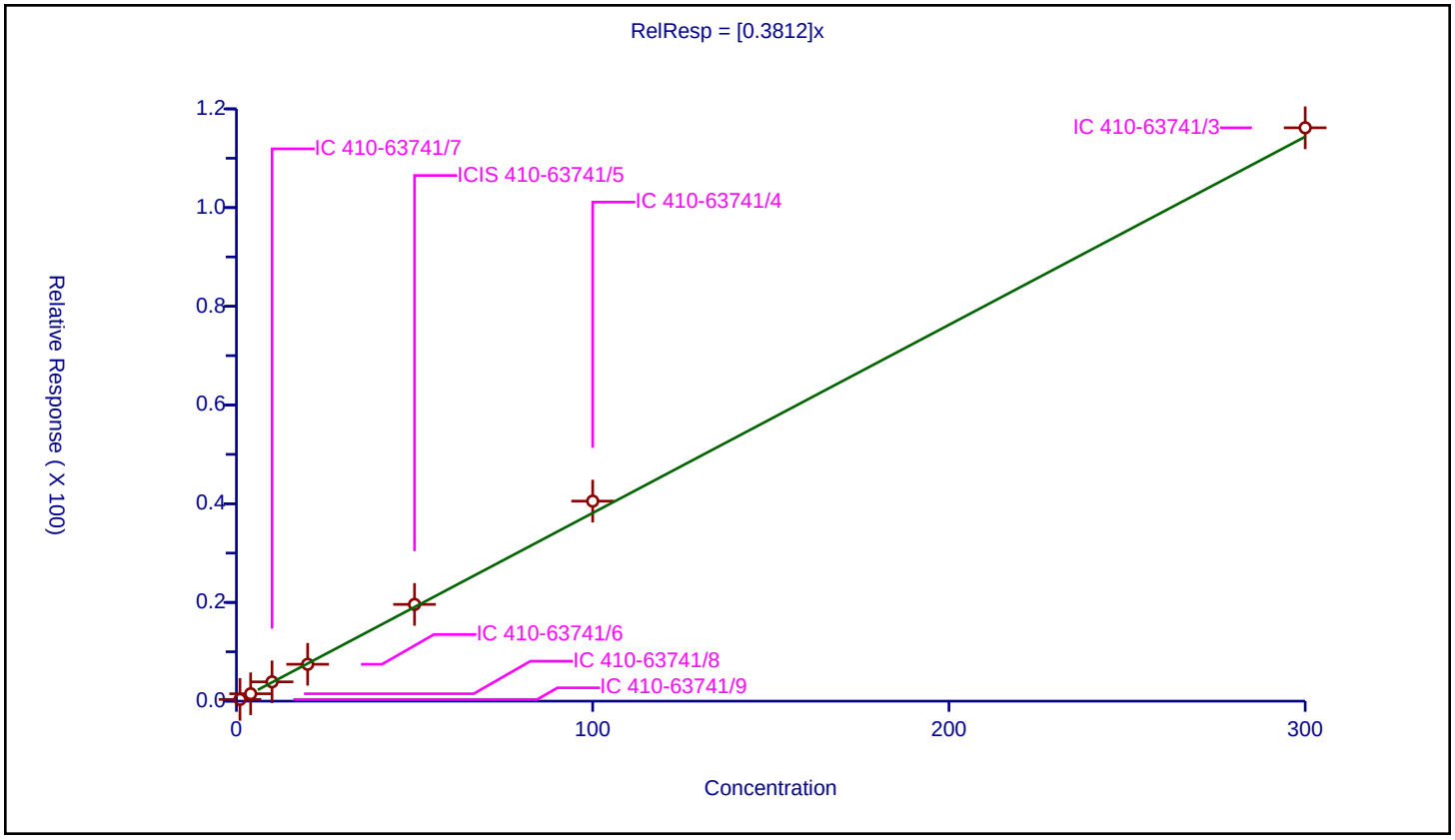
Curve Coefficients

Intercept:	0
Slope:	0.3812

Error Coefficients

Standard Error:	1020000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.345596	50.0	987570.0	0.345596	Y
2	IC 410-63741/8	4.0	1.495037	50.0	961749.0	0.373759	Y
3	IC 410-63741/7	10.0	3.908085	50.0	958193.0	0.390809	Y
4	IC 410-63741/6	20.0	7.473314	50.0	968118.0	0.373666	Y
5	ICIS 410-63741/5	50.0	19.601128	50.0	987609.0	0.392023	Y
6	IC 410-63741/4	100.0	40.529719	50.0	978556.0	0.405297	Y
7	IC 410-63741/3	300.0	116.169979	50.0	1008582.0	0.387233	Y



Calibration / Ethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

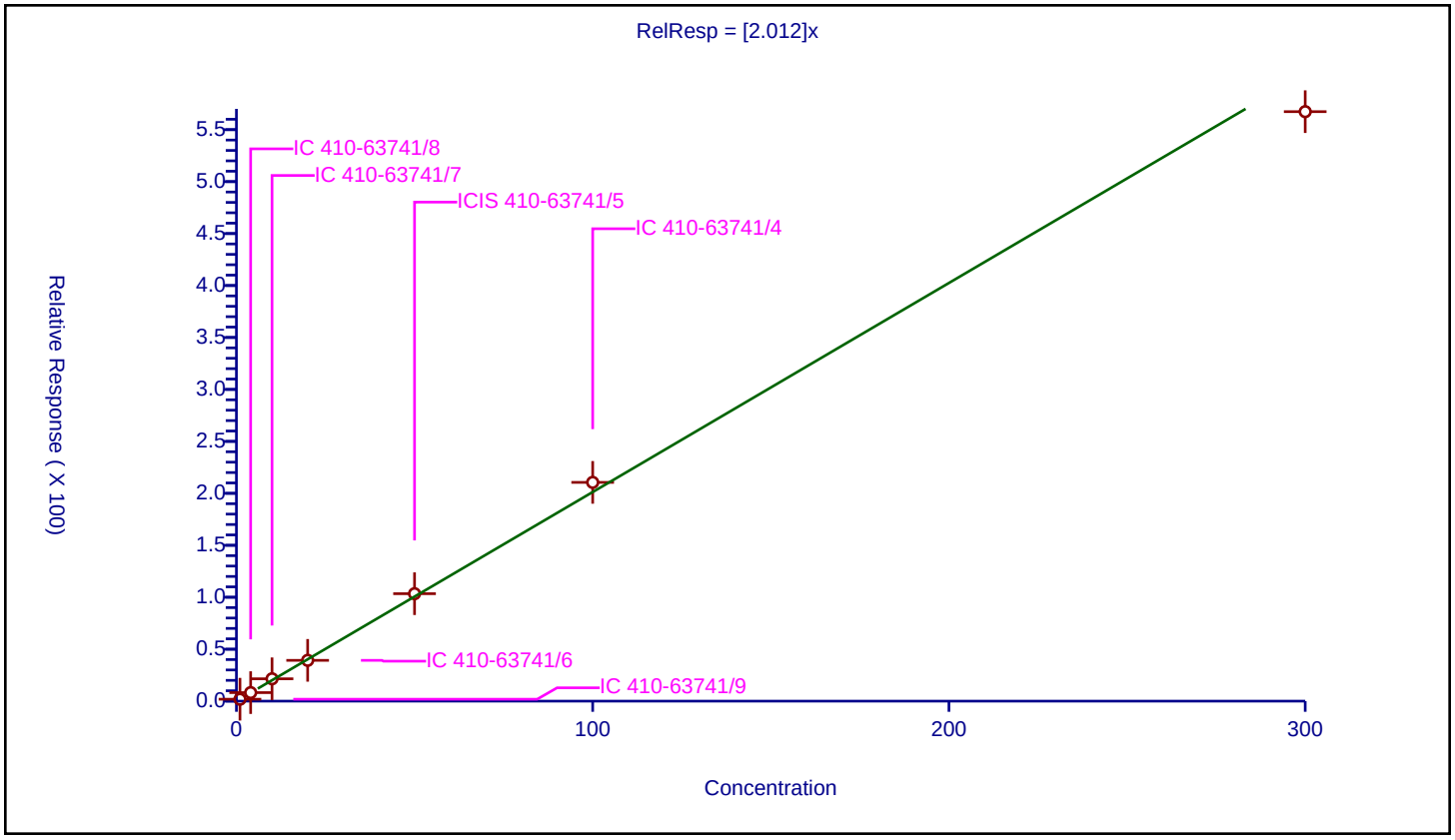
Curve Coefficients

Intercept:	0
Slope:	2.012

Error Coefficients

Standard Error:	5050000
Relative Standard Error:	5.6
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.852527	50.0	987570.0	1.852527	Y
2	IC 410-63741/8	4.0	8.217321	50.0	961749.0	2.05433	Y
3	IC 410-63741/7	10.0	21.517273	50.0	958193.0	2.151727	Y
4	IC 410-63741/6	20.0	39.246507	50.0	968118.0	1.962325	Y
5	ICIS 410-63741/5	50.0	103.417446	50.0	987609.0	2.068349	Y
6	IC 410-63741/4	100.0	210.533071	50.0	978556.0	2.105331	Y
7	IC 410-63741/3	300.0	567.336221	50.0	1008582.0	1.891121	Y



Calibration / m-Xylene & p-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

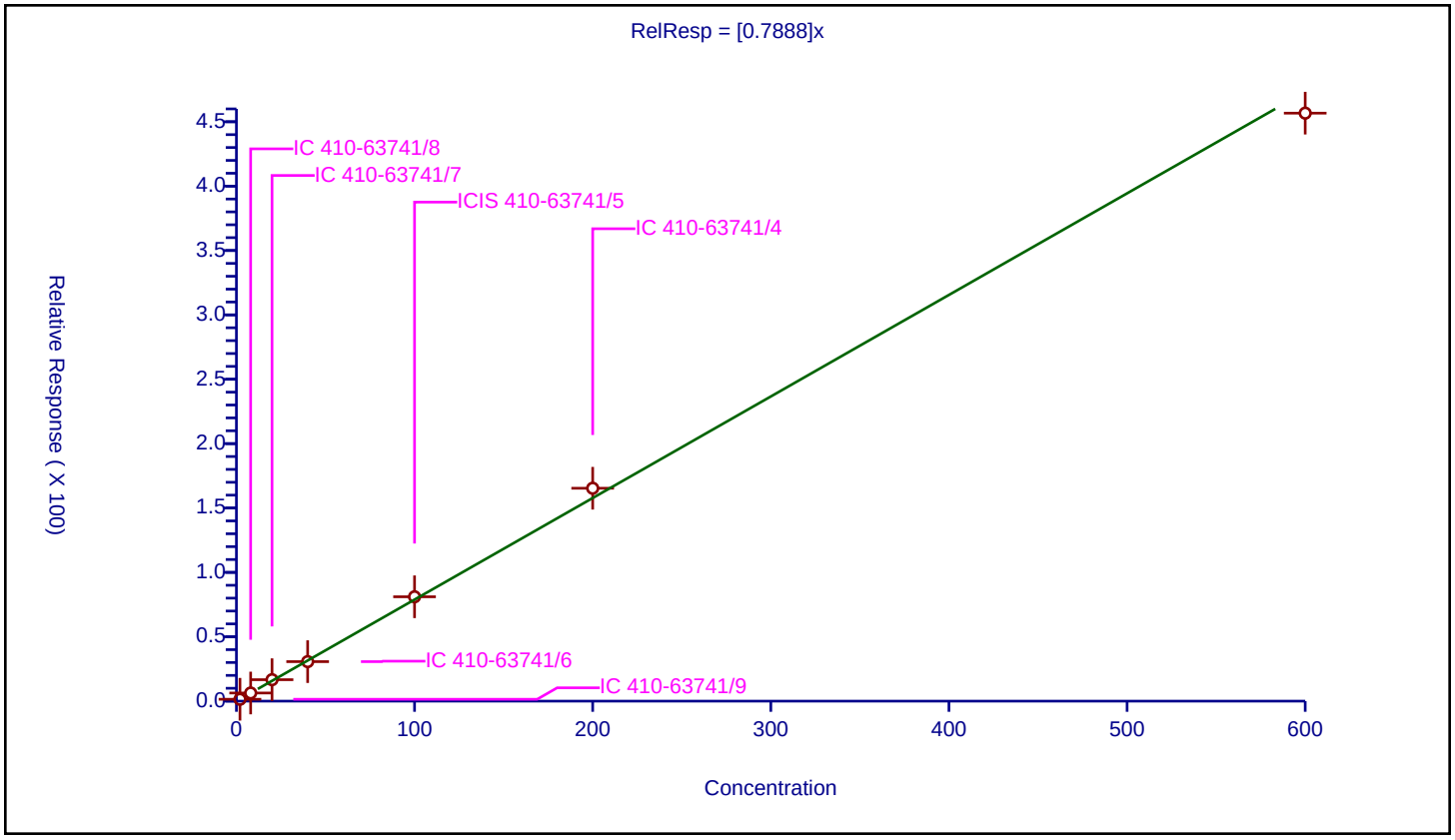
Curve Coefficients

Intercept:	0
Slope:	0.7888

Error Coefficients

Standard Error:	4050000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	2.0	1.462985	50.0	987570.0	0.731492	Y
2	IC 410-63741/8	8.0	6.325975	50.0	961749.0	0.790747	Y
3	IC 410-63741/7	20.0	16.672737	50.0	958193.0	0.833637	Y
4	IC 410-63741/6	40.0	30.68221	50.0	968118.0	0.767055	Y
5	ICIS 410-63741/5	100.0	81.060572	50.0	987609.0	0.810606	Y
6	IC 410-63741/4	200.0	165.356198	50.0	978556.0	0.826781	Y
7	IC 410-63741/3	600.0	456.690681	50.0	1008582.0	0.761151	Y



Calibration / o-Xylene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

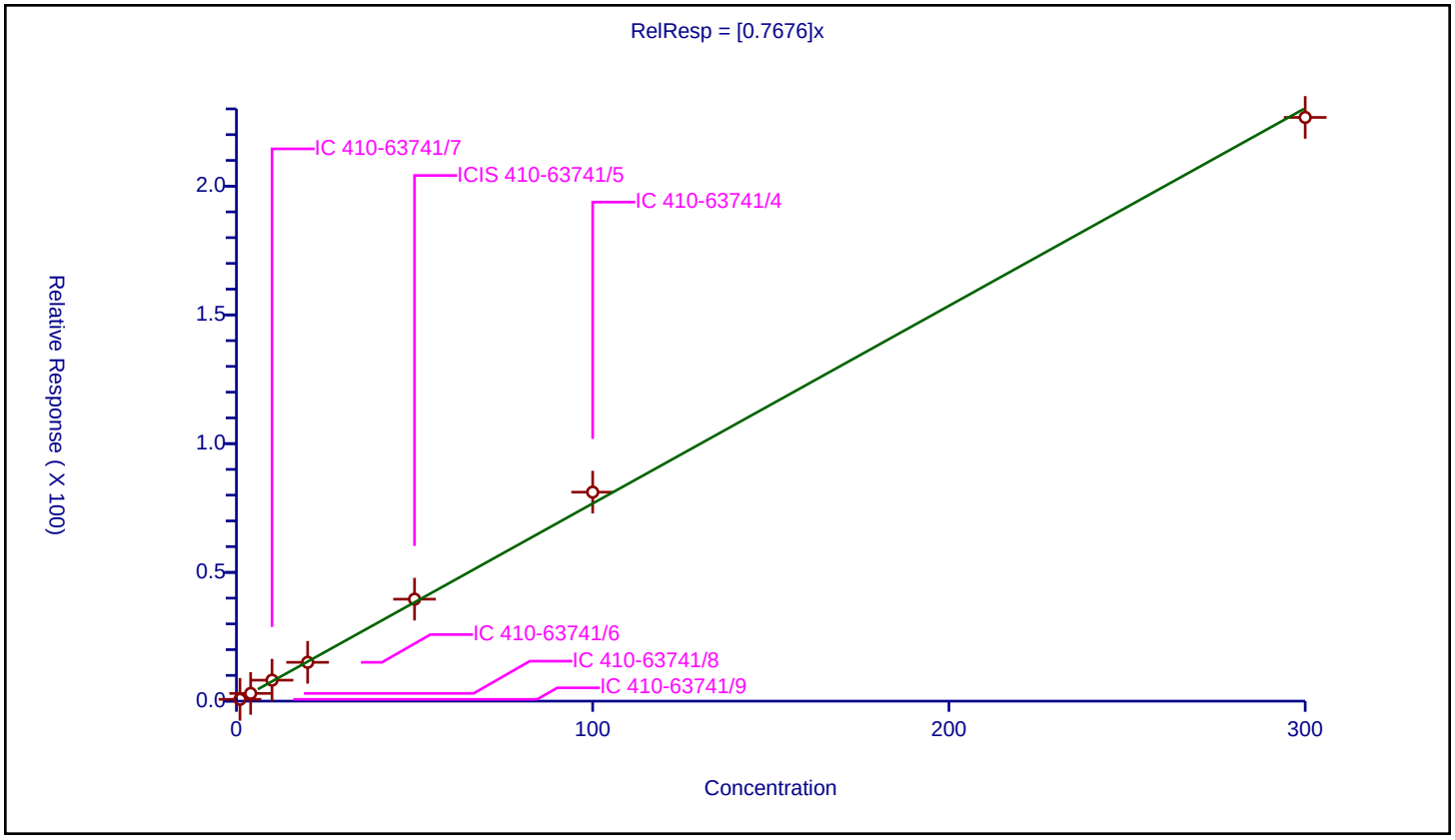
Curve Coefficients

Intercept:	0
Slope:	0.7676

Error Coefficients

Standard Error:	2010000
Relative Standard Error:	5.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.696153	50.0	987570.0	0.696153	Y
2	IC 410-63741/8	4.0	3.000315	50.0	961749.0	0.750079	Y
3	IC 410-63741/7	10.0	8.140688	50.0	958193.0	0.814069	Y
4	IC 410-63741/6	20.0	15.07089	50.0	968118.0	0.753545	Y
5	ICIS 410-63741/5	50.0	39.599426	50.0	987609.0	0.791989	Y
6	IC 410-63741/4	100.0	81.160557	50.0	978556.0	0.811606	Y
7	IC 410-63741/3	300.0	226.689501	50.0	1008582.0	0.755632	Y



Calibration / Styrene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

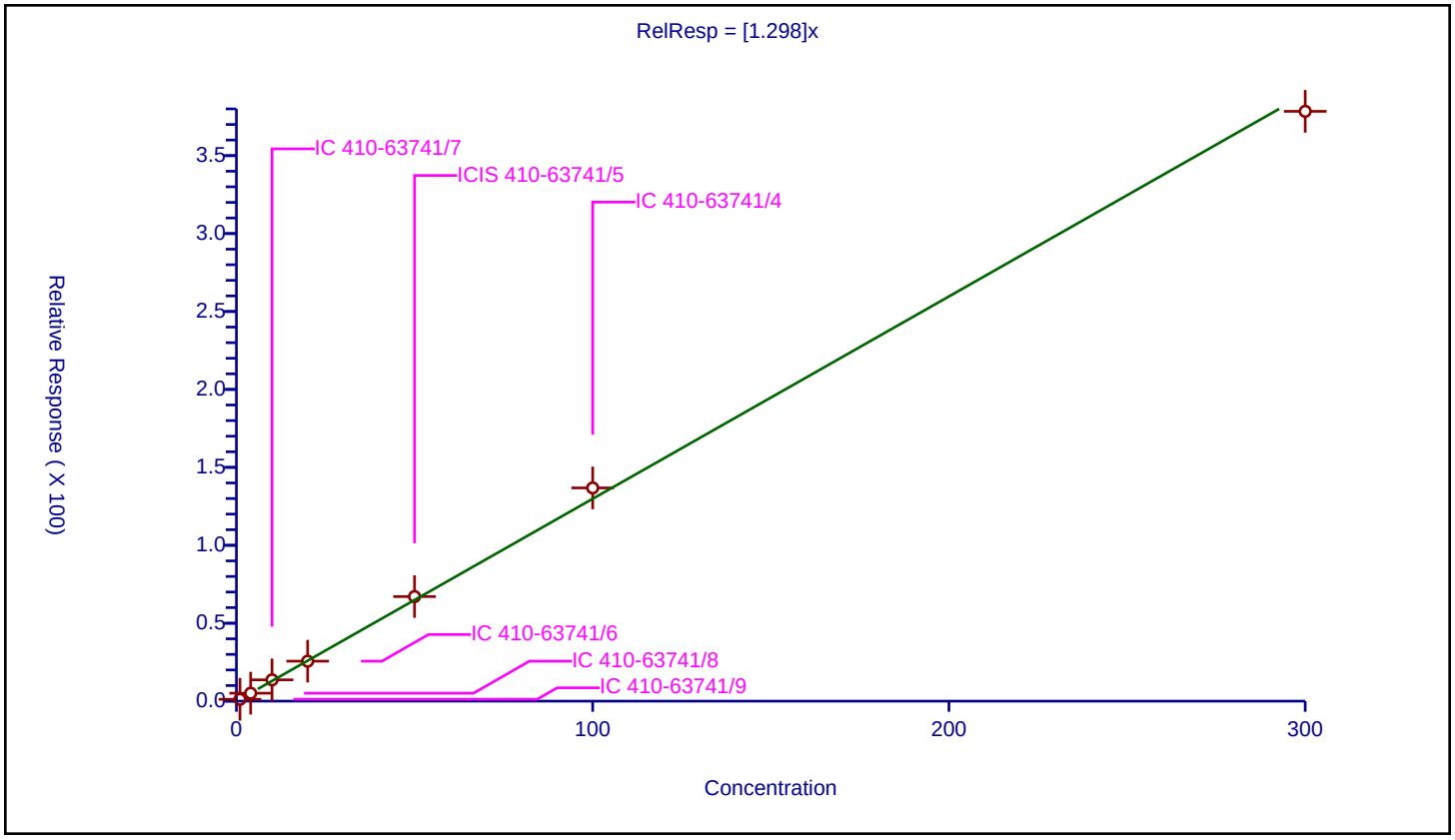
Curve Coefficients

Intercept:	0
Slope:	1.298

Error Coefficients

Standard Error:	3350000
Relative Standard Error:	4.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.191814	50.0	987570.0	1.191814	Y
2	IC 410-63741/8	4.0	5.106374	50.0	961749.0	1.276593	Y
3	IC 410-63741/7	10.0	13.659513	50.0	958193.0	1.365951	Y
4	IC 410-63741/6	20.0	25.649972	50.0	968118.0	1.282499	Y
5	ICIS 410-63741/5	50.0	67.096645	50.0	987609.0	1.341933	Y
6	IC 410-63741/4	100.0	136.802493	50.0	978556.0	1.368025	Y
7	IC 410-63741/3	300.0	378.419603	50.0	1008582.0	1.261399	Y



Calibration / Bromoform

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

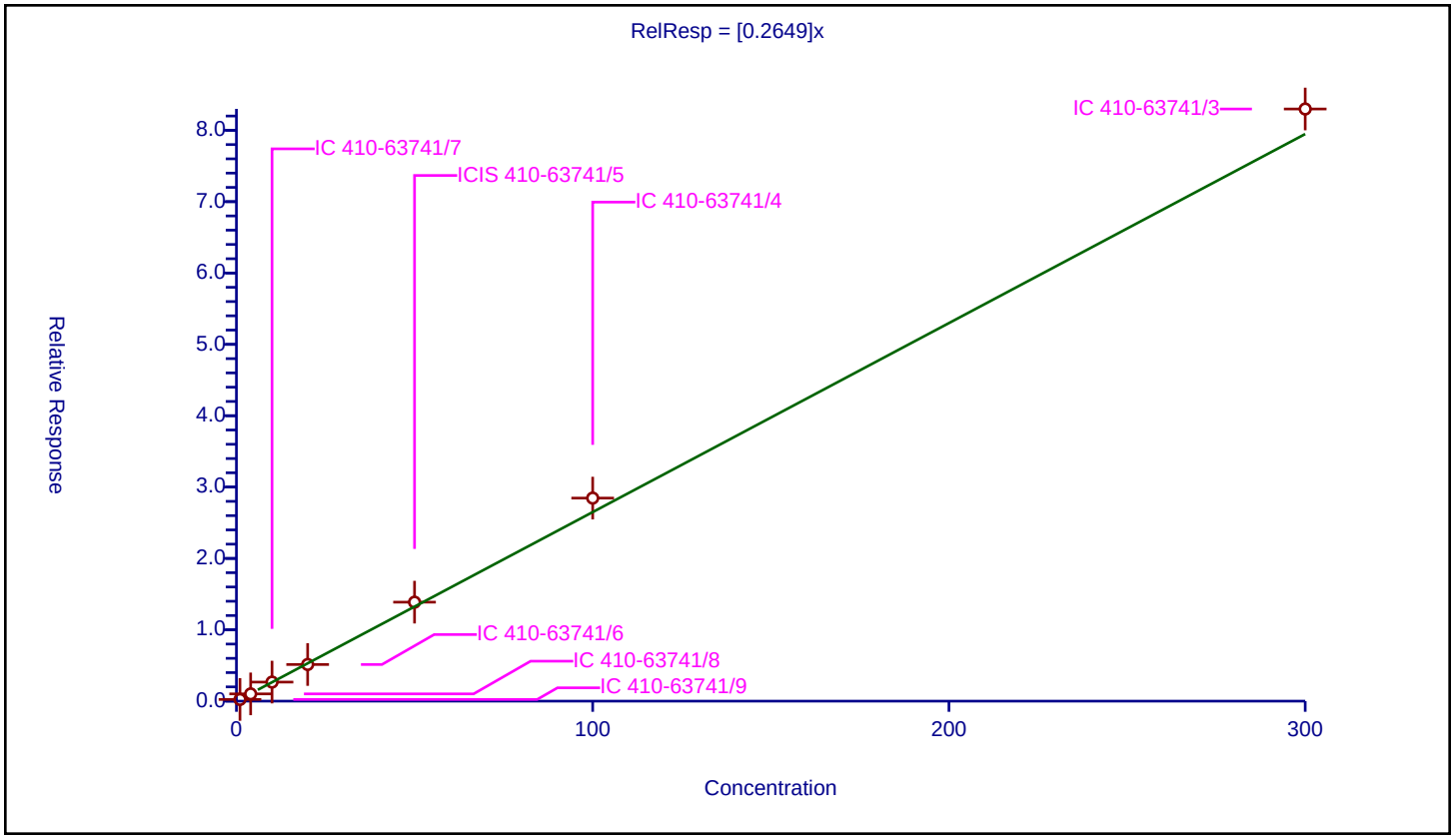
Curve Coefficients

Intercept:	0
Slope:	0.2649

Error Coefficients

Standard Error:	730000
Relative Standard Error:	6.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.237603	50.0	987570.0	0.237603	Y
2	IC 410-63741/8	4.0	1.017157	50.0	961749.0	0.254289	Y
3	IC 410-63741/7	10.0	2.671904	50.0	958193.0	0.26719	Y
4	IC 410-63741/6	20.0	5.134808	50.0	968118.0	0.25674	Y
5	ICIS 410-63741/5	50.0	13.871482	50.0	987609.0	0.27743	Y
6	IC 410-63741/4	100.0	28.457186	50.0	978556.0	0.284572	Y
7	IC 410-63741/3	300.0	82.983932	50.0	1008582.0	0.276613	Y



Calibration / Isopropylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

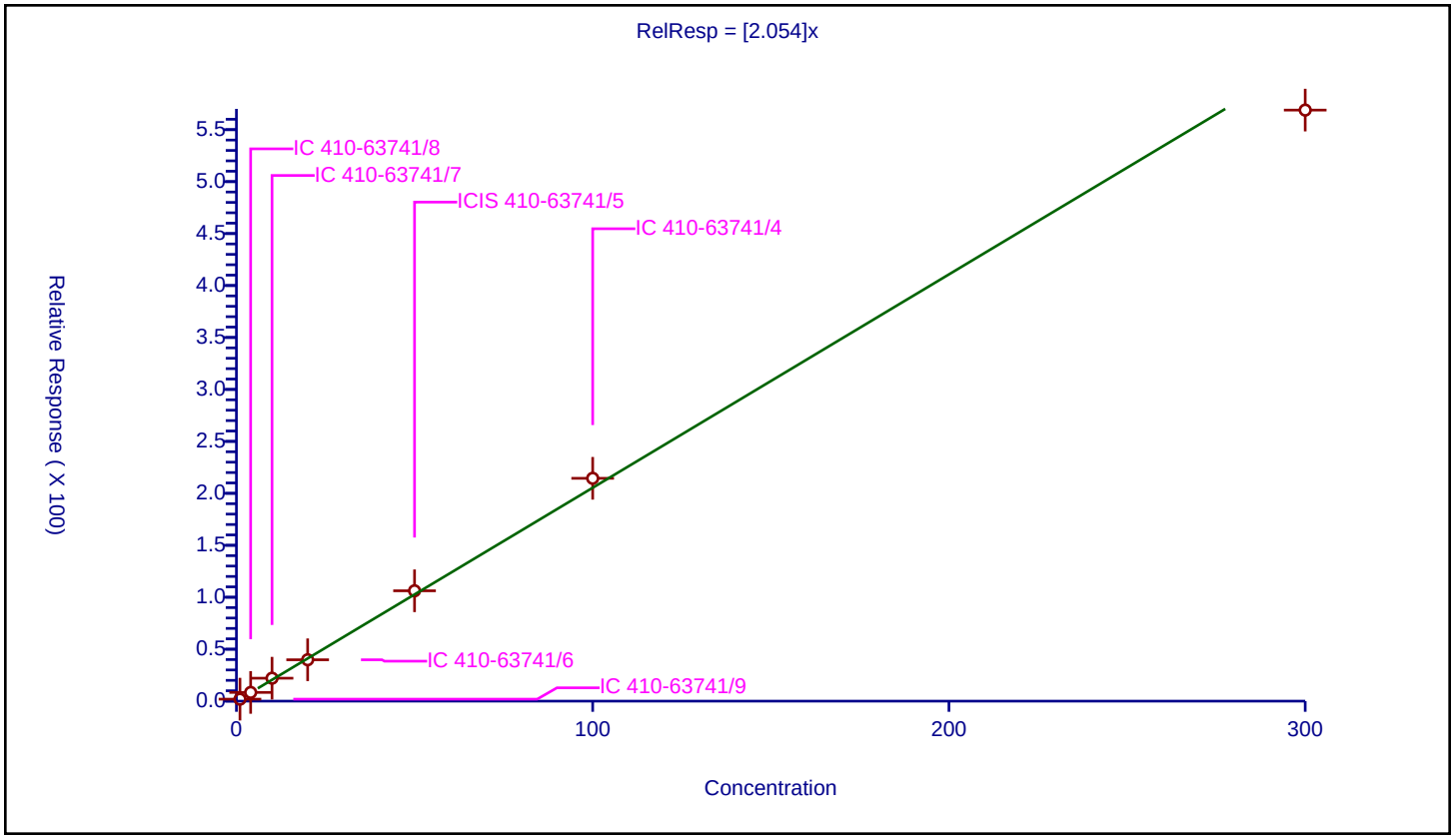
Curve Coefficients

Intercept:	0
Slope:	2.054

Error Coefficients

Standard Error:	5070000
Relative Standard Error:	5.9
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.914244	50.0	987570.0	1.914244	Y
2	IC 410-63741/8	4.0	8.392366	50.0	961749.0	2.098092	Y
3	IC 410-63741/7	10.0	22.071284	50.0	958193.0	2.207128	Y
4	IC 410-63741/6	20.0	39.816634	50.0	968118.0	1.990832	Y
5	ICIS 410-63741/5	50.0	106.209137	50.0	987609.0	2.124183	Y
6	IC 410-63741/4	100.0	214.463863	50.0	978556.0	2.144639	Y
7	IC 410-63741/3	300.0	568.849979	50.0	1008582.0	1.896167	Y



Calibration / Cyclohexanone

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

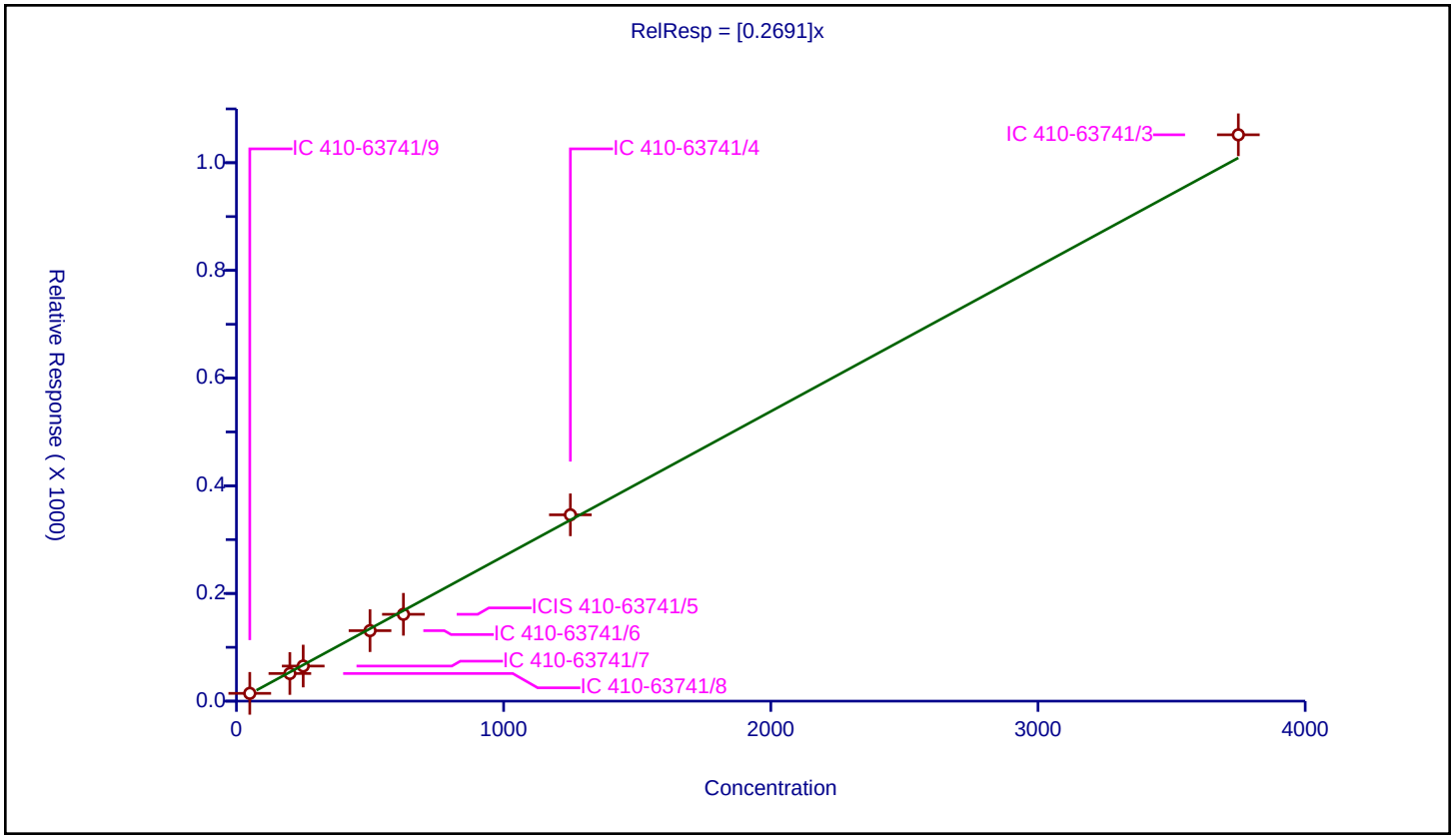
Curve Coefficients

Intercept:	0
Slope:	0.2691

Error Coefficients

Standard Error:	554000
Relative Standard Error:	4.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	49.996721	14.447454	250.0	306092.0	0.288968	Y
2	IC 410-63741/8	199.986883	51.312144	250.0	318677.0	0.256578	Y
3	IC 410-63741/7	249.983604	65.176725	250.0	301768.0	0.260724	Y
4	IC 410-63741/6	499.967208	130.916696	250.0	305914.0	0.261851	Y
5	ICIS 410-63741/5	624.95901	161.303342	250.0	325187.0	0.258102	Y
6	IC 410-63741/4	1249.91802	346.04142	250.0	287881.0	0.276851	Y
7	IC 410-63741/3	3749.75406	1051.935787	250.0	301247.0	0.280535	Y



Calibration / 4-Bromofluorobenzene (Surr)

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

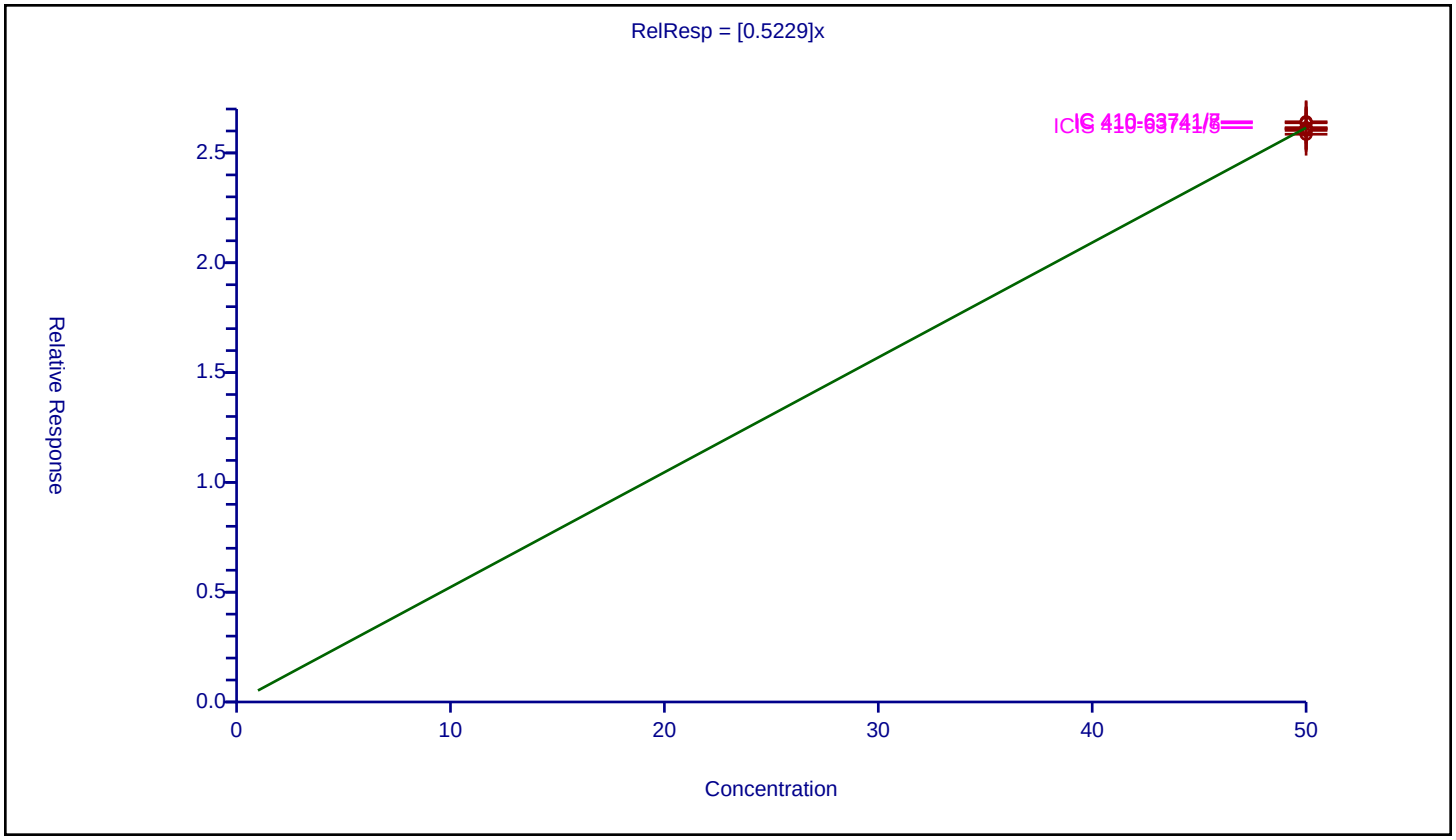
Curve Coefficients

Intercept:	0
Slope:	0.5229

Error Coefficients

Standard Error:	553000
Relative Standard Error:	0.8
Correlation Coefficient:	NA
Coefficient of Determination (Adjusted):	0

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/3	50.0	26.025202	50.0	1008582.0	0.520504	Y
2	IC 410-63741/4	50.0	26.090893	50.0	978556.0	0.521818	Y
3	ICIS 410-63741/5	50.0	26.15205	50.0	987609.0	0.523041	Y
4	IC 410-63741/6	50.0	25.851033	50.0	968118.0	0.517021	Y
5	IC 410-63741/7	50.0	26.420721	50.0	958193.0	0.528414	Y
6	IC 410-63741/8	50.0	26.372421	50.0	961749.0	0.527448	Y
7	IC 410-63741/9	50.0	26.115718	50.0	987570.0	0.522314	Y



Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

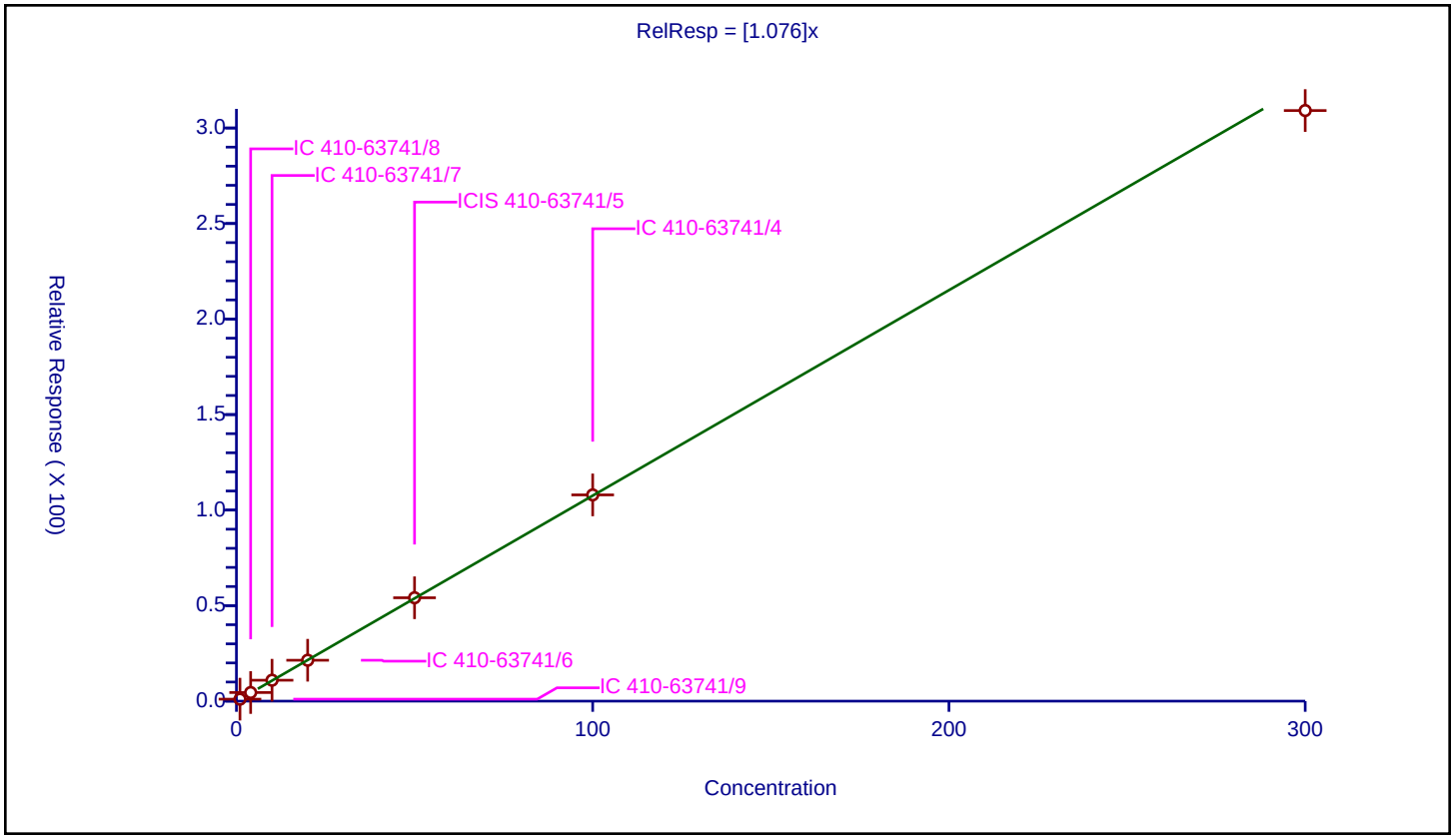
Curve Coefficients

Intercept:	0
Slope:	1.076

Error Coefficients

Standard Error:	1450000
Relative Standard Error:	2.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.044822	50.0	516308.0	1.044822	Y
2	IC 410-63741/8	4.0	4.503343	50.0	501594.0	1.125836	Y
3	IC 410-63741/7	10.0	10.956003	50.0	500762.0	1.0956	Y
4	IC 410-63741/6	20.0	21.41255	50.0	508697.0	1.070628	Y
5	ICIS 410-63741/5	50.0	54.108367	50.0	515083.0	1.082167	Y
6	IC 410-63741/4	100.0	107.952533	50.0	516062.0	1.079525	Y
7	IC 410-63741/3	300.0	309.138439	50.0	535075.0	1.030461	Y



Calibration / Bromobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

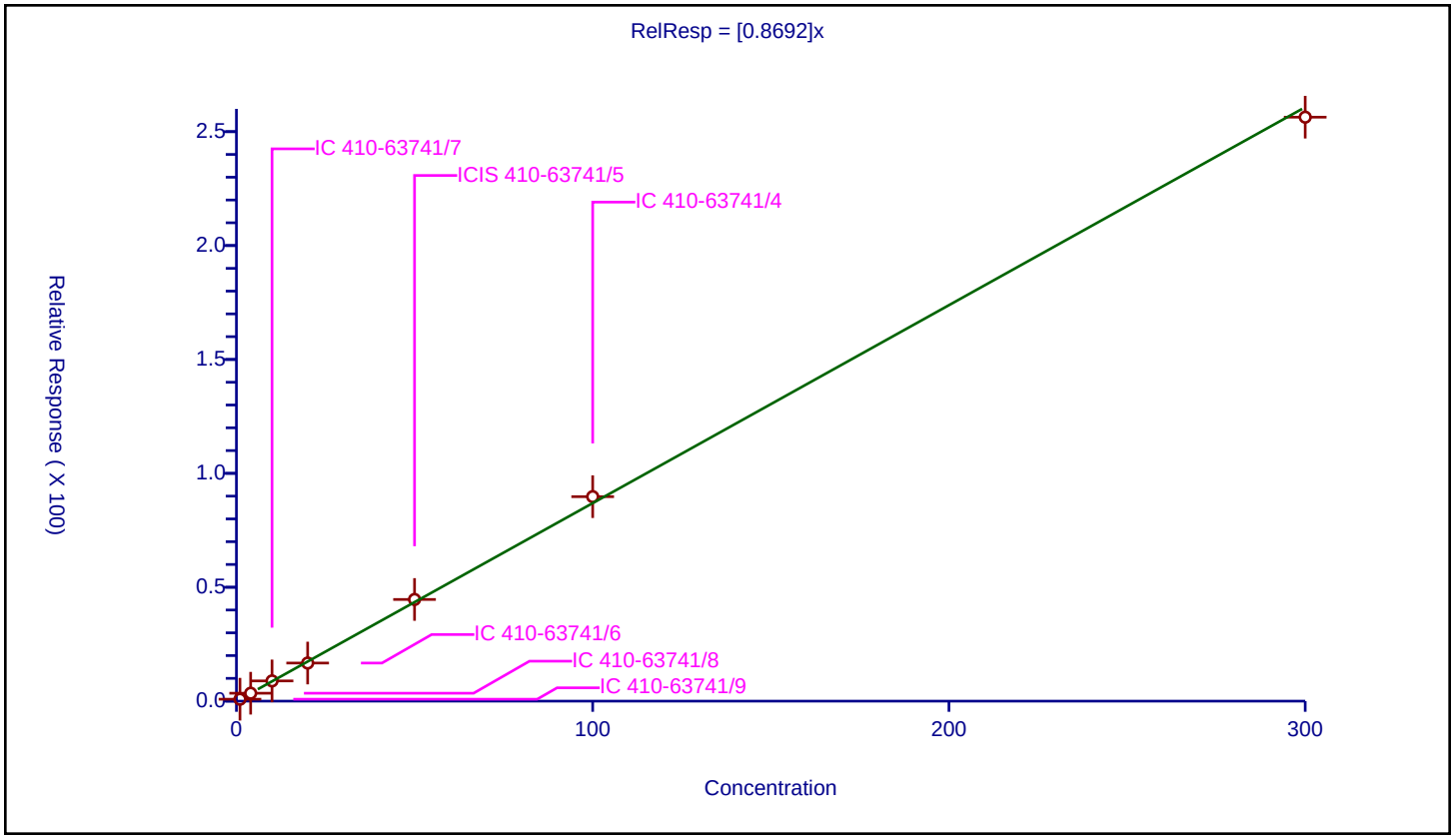
Curve Coefficients

Intercept:	0
Slope:	0.8692

Error Coefficients

Standard Error:	1200000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.845813	50.0	516308.0	0.845813	Y
2	IC 410-63741/8	4.0	3.475919	50.0	501594.0	0.86898	Y
3	IC 410-63741/7	10.0	8.881964	50.0	500762.0	0.888196	Y
4	IC 410-63741/6	20.0	16.724887	50.0	508697.0	0.836244	Y
5	ICIS 410-63741/5	50.0	44.638534	50.0	515083.0	0.892771	Y
6	IC 410-63741/4	100.0	89.764117	50.0	516062.0	0.897641	Y
7	IC 410-63741/3	300.0	256.36565	50.0	535075.0	0.854552	Y



Calibration / trans-1,4-Dichloro-2-butene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

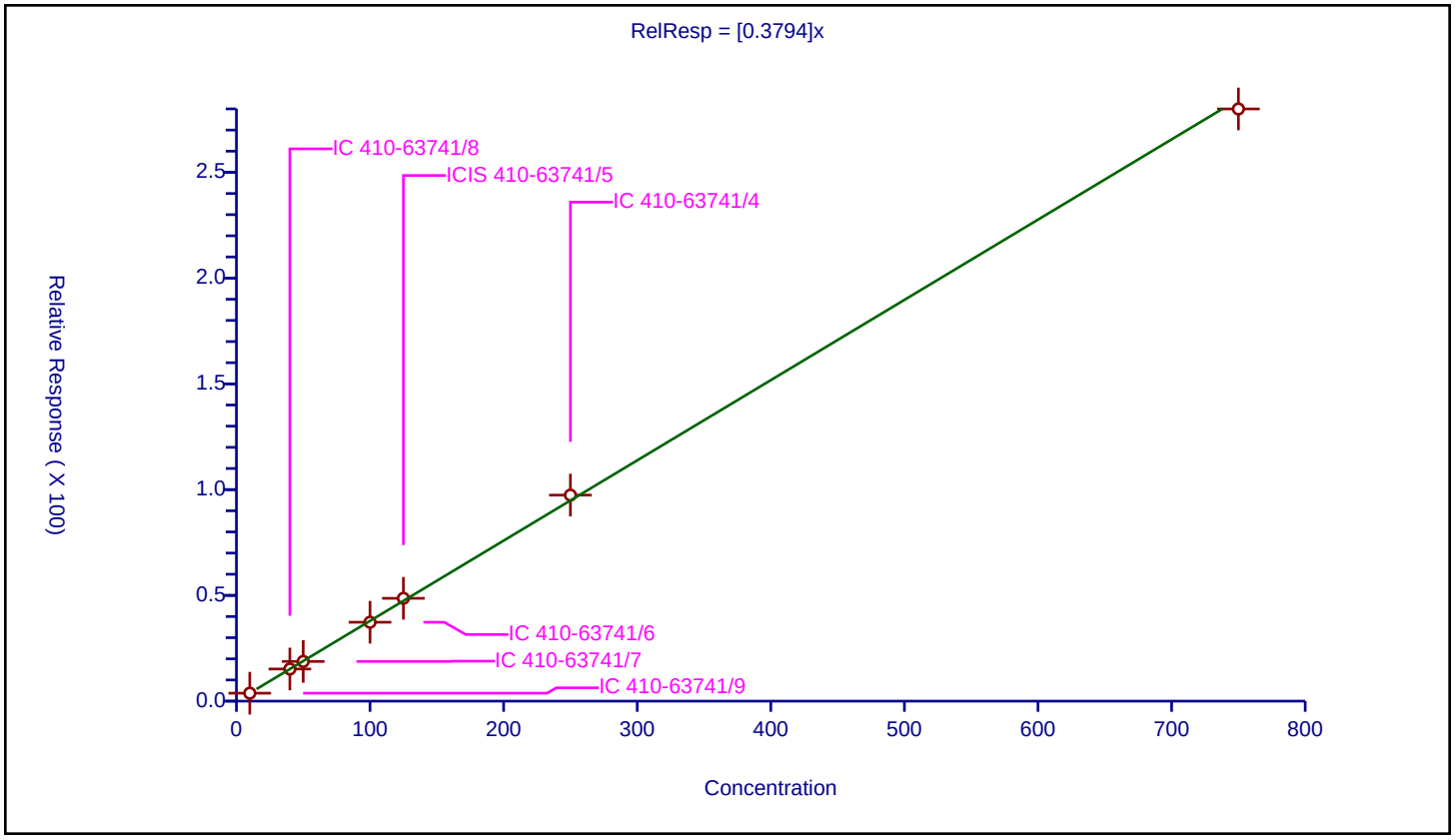
Curve Coefficients

Intercept:	0
Slope:	0.3794

Error Coefficients

Standard Error:	1320000
Relative Standard Error:	1.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	1.000

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	10.0	3.760933	50.0	516308.0	0.376093	Y
2	IC 410-63741/8	40.0	15.186785	50.0	501594.0	0.37967	Y
3	IC 410-63741/7	50.0	18.762107	50.0	500762.0	0.375242	Y
4	IC 410-63741/6	100.0	37.298333	50.0	508697.0	0.372983	Y
5	ICIS 410-63741/5	125.0	48.609447	50.0	515083.0	0.388876	Y
6	IC 410-63741/4	250.0	97.408257	50.0	516062.0	0.389633	Y
7	IC 410-63741/3	750.0	279.977106	50.0	535075.0	0.373303	Y



Calibration / 1,2,3-Trichloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

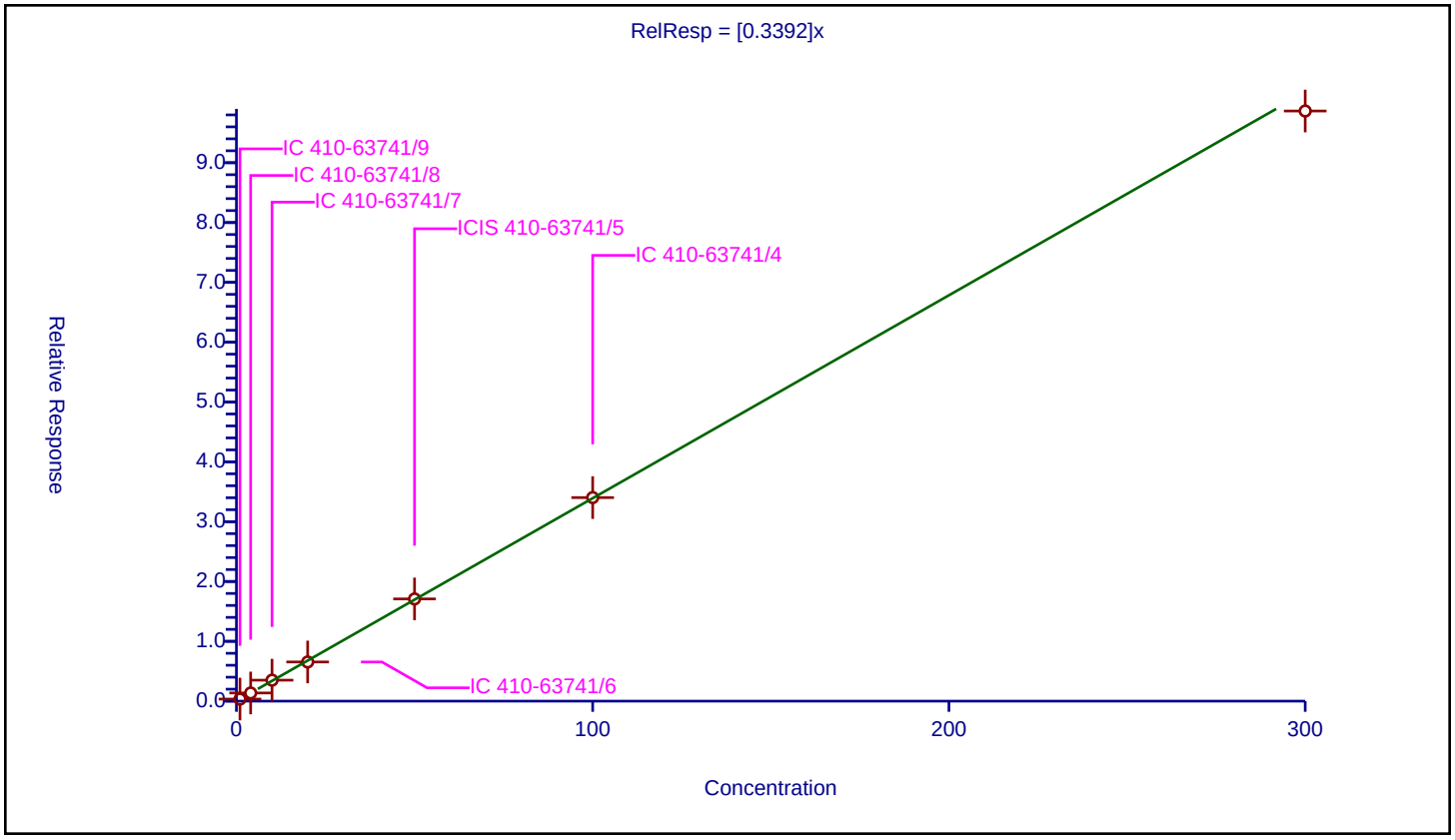
Curve Coefficients

Intercept:	0
Slope:	0.3392

Error Coefficients

Standard Error:	461000
Relative Standard Error:	2.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.344562	50.0	516308.0	0.344562	Y
2	IC 410-63741/8	4.0	1.365945	50.0	501594.0	0.341486	Y
3	IC 410-63741/7	10.0	3.504459	50.0	500762.0	0.350446	Y
4	IC 410-63741/6	20.0	6.545448	50.0	508697.0	0.327272	Y
5	ICIS 410-63741/5	50.0	17.083363	50.0	515083.0	0.341667	Y
6	IC 410-63741/4	100.0	34.026725	50.0	516062.0	0.340267	Y
7	IC 410-63741/3	300.0	98.648974	50.0	535075.0	0.32883	Y



Calibration / N-Propylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

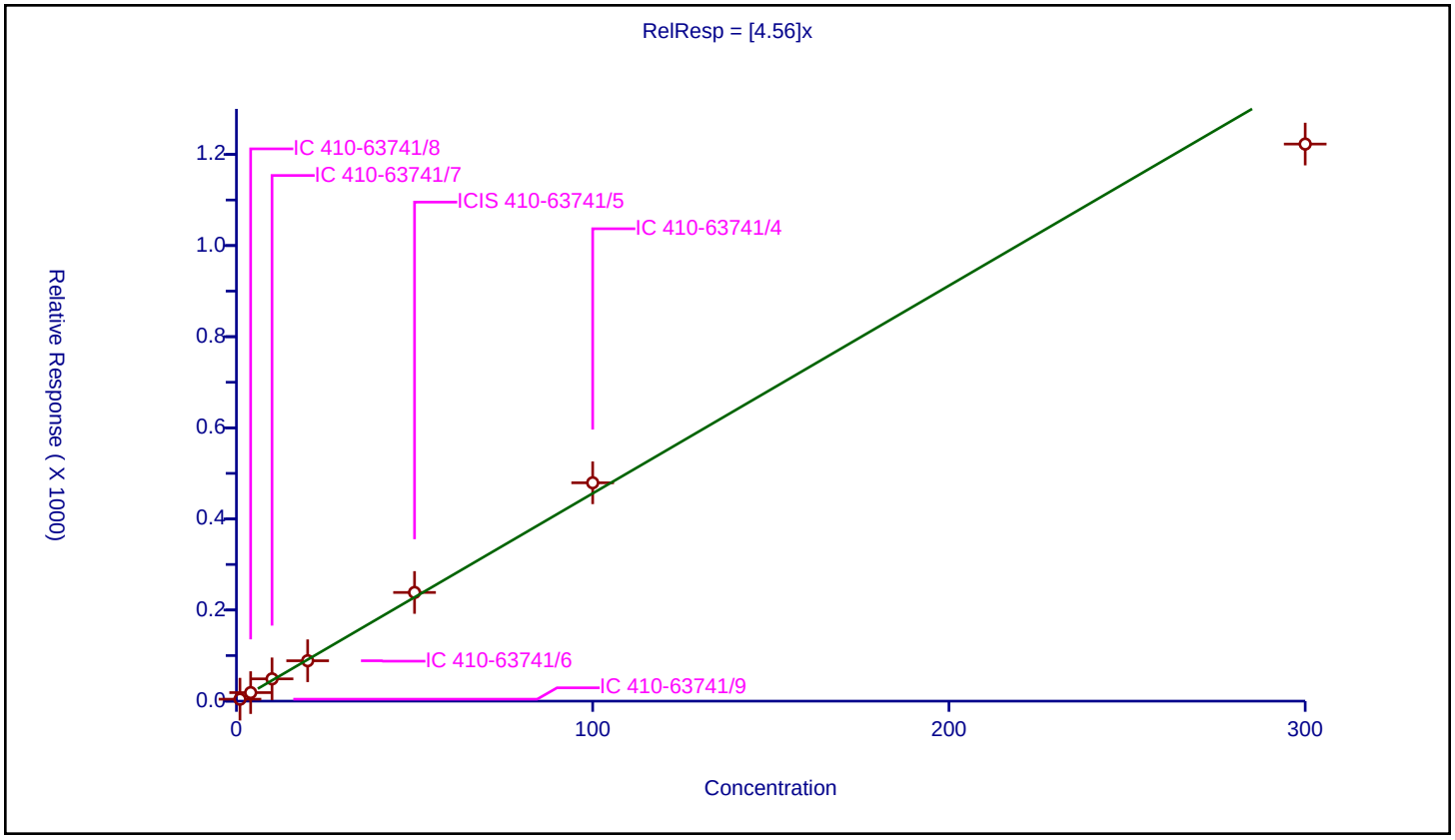
Curve Coefficients

Intercept:	0
Slope:	4.56

Error Coefficients

Standard Error:	5810000
Relative Standard Error:	6.6
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.995

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	4.278357	50.0	516308.0	4.278357	Y
2	IC 410-63741/8	4.0	18.712544	50.0	501594.0	4.678136	Y
3	IC 410-63741/7	10.0	48.894285	50.0	500762.0	4.889429	Y
4	IC 410-63741/6	20.0	88.669581	50.0	508697.0	4.433479	Y
5	ICIS 410-63741/5	50.0	238.535634	50.0	515083.0	4.770713	Y
6	IC 410-63741/4	100.0	479.306169	50.0	516062.0	4.793062	Y
7	IC 410-63741/3	300.0	1222.835023	50.0	535075.0	4.076117	Y



Calibration / 2-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

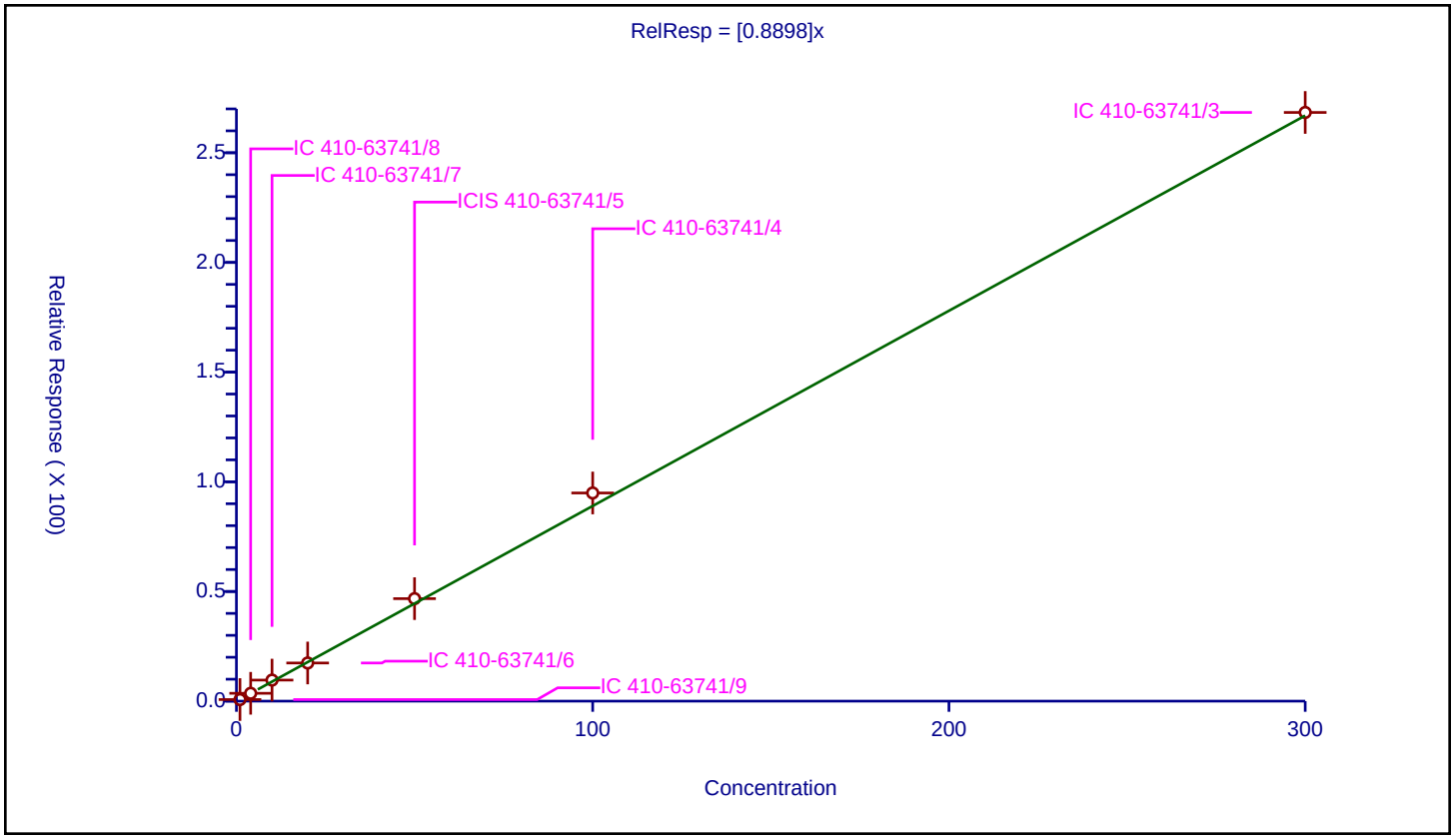
Curve Coefficients

Intercept:	0
Slope:	0.8898

Error Coefficients

Standard Error:	1260000
Relative Standard Error:	8.9
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.727182	50.0	516308.0	0.727182	Y
2	IC 410-63741/8	4.0	3.573209	50.0	501594.0	0.893302	Y
3	IC 410-63741/7	10.0	9.602166	50.0	500762.0	0.960217	Y
4	IC 410-63741/6	20.0	17.3968	50.0	508697.0	0.86984	Y
5	ICIS 410-63741/5	50.0	46.734604	50.0	515083.0	0.934692	Y
6	IC 410-63741/4	100.0	94.898094	50.0	516062.0	0.948981	Y
7	IC 410-63741/3	300.0	268.375555	50.0	535075.0	0.894585	Y



Calibration / 1,3,5-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

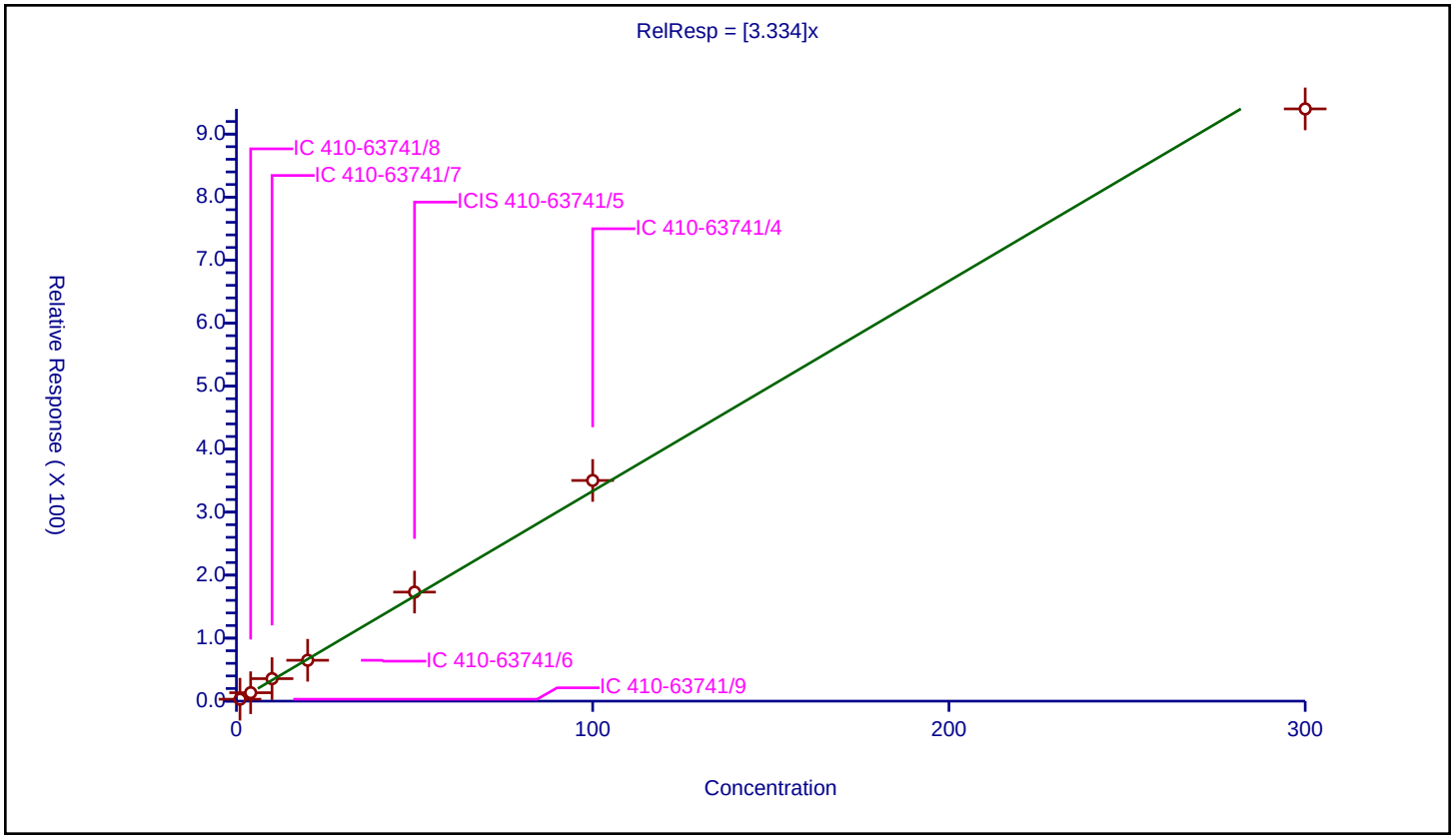
Curve Coefficients

Intercept:	0
Slope:	3.334

Error Coefficients

Standard Error:	4430000
Relative Standard Error:	5.7
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.079848	50.0	516308.0	3.079848	Y
2	IC 410-63741/8	4.0	13.3941	50.0	501594.0	3.348525	Y
3	IC 410-63741/7	10.0	35.689609	50.0	500762.0	3.568961	Y
4	IC 410-63741/6	20.0	64.874572	50.0	508697.0	3.243729	Y
5	ICIS 410-63741/5	50.0	173.069389	50.0	515083.0	3.461388	Y
6	IC 410-63741/4	100.0	350.25588	50.0	516062.0	3.502559	Y
7	IC 410-63741/3	300.0	939.993739	50.0	535075.0	3.133312	Y



Calibration / 4-Chlorotoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

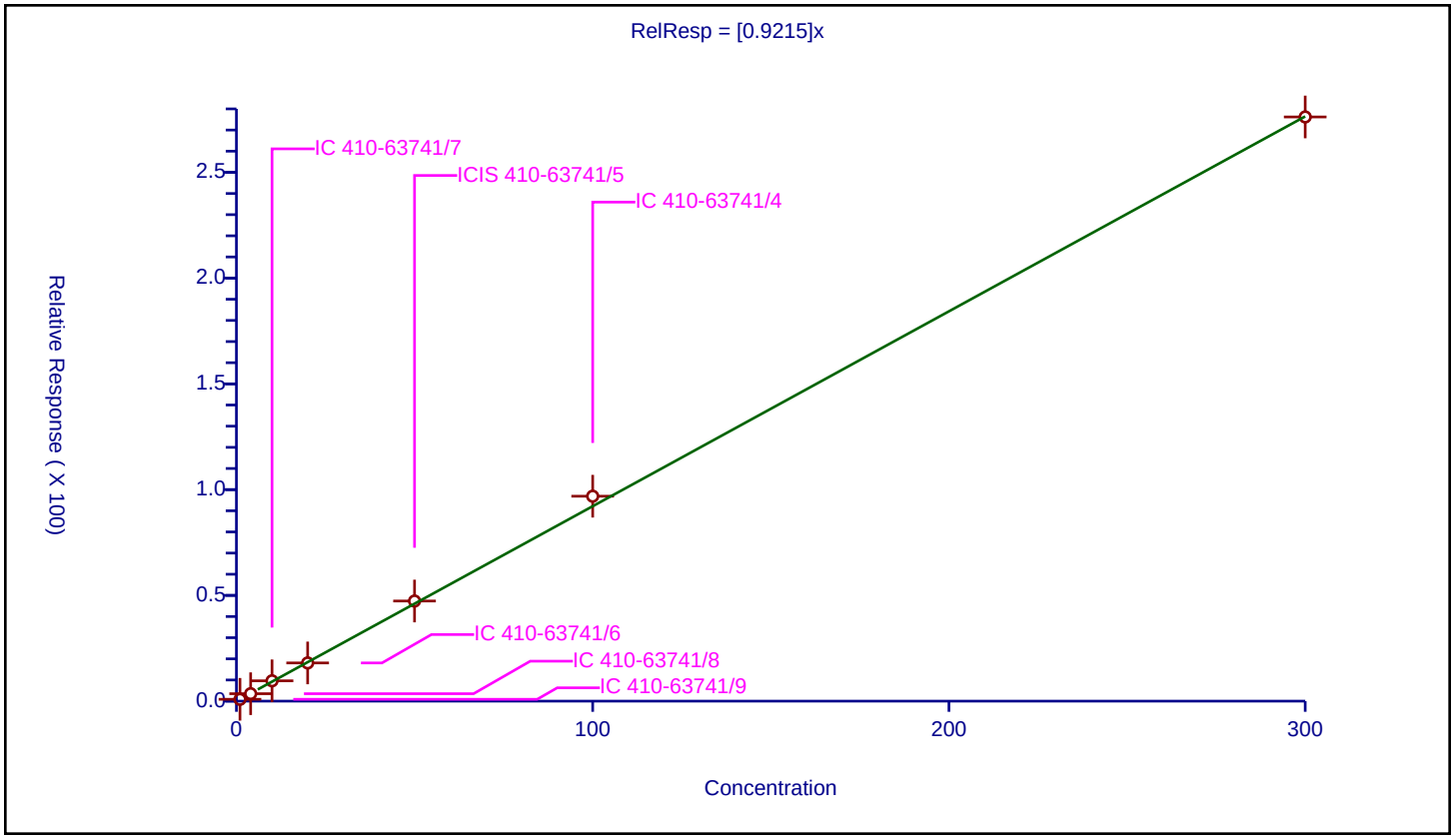
Curve Coefficients

Intercept:	0
Slope:	0.9215

Error Coefficients

Standard Error:	1290000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.868764	50.0	516308.0	0.868764	Y
2	IC 410-63741/8	4.0	3.524763	50.0	501594.0	0.881191	Y
3	IC 410-63741/7	10.0	9.609655	50.0	500762.0	0.960965	Y
4	IC 410-63741/6	20.0	18.061538	50.0	508697.0	0.903077	Y
5	ICIS 410-63741/5	50.0	47.335866	50.0	515083.0	0.946717	Y
6	IC 410-63741/4	100.0	96.886421	50.0	516062.0	0.968864	Y
7	IC 410-63741/3	300.0	276.188011	50.0	535075.0	0.920627	Y



Calibration / tert-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

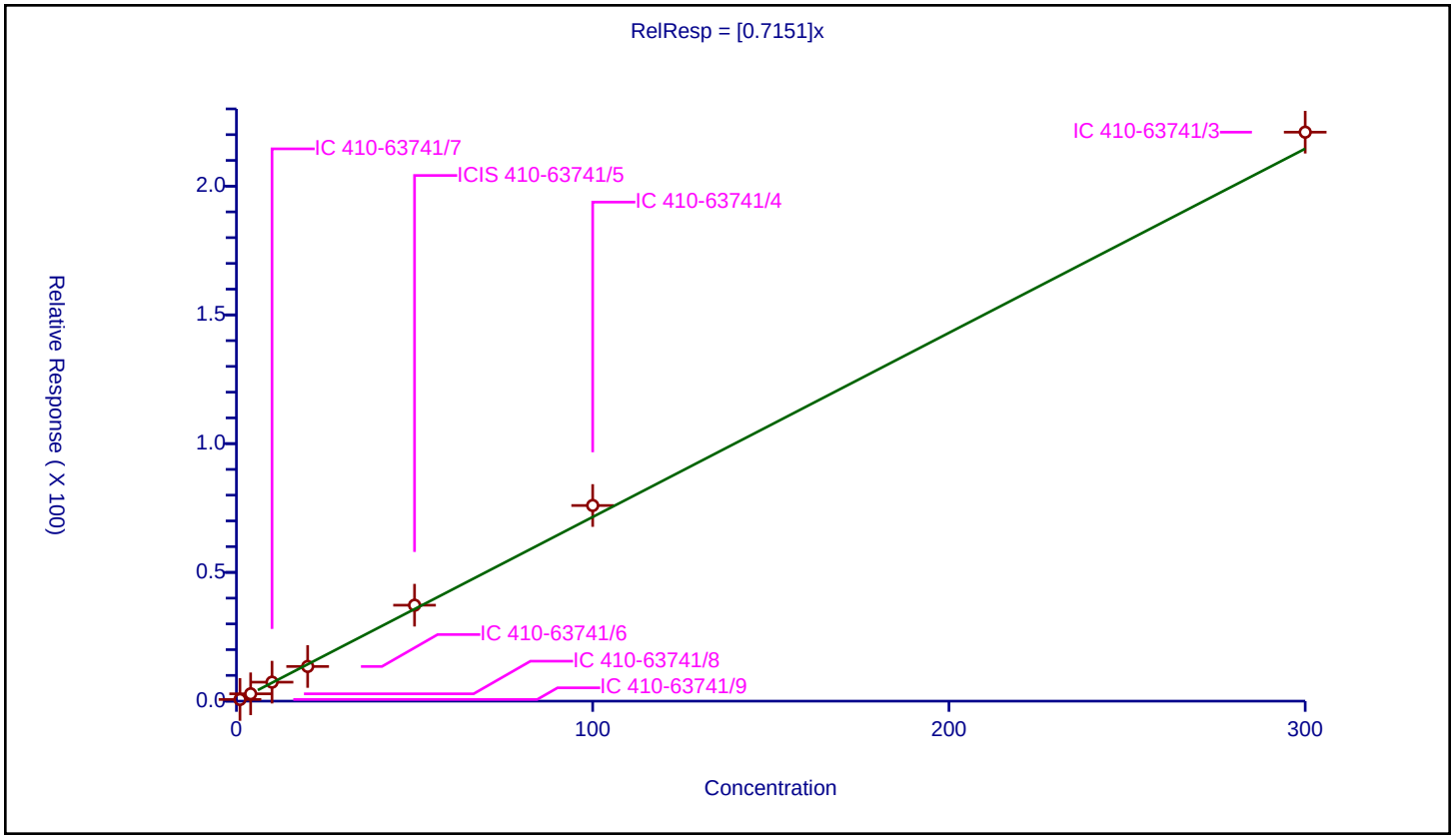
Curve Coefficients

Intercept:	0
Slope:	0.7151

Error Coefficients

Standard Error:	1030000
Relative Standard Error:	6.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.641768	50.0	516308.0	0.641768	Y
2	IC 410-63741/8	4.0	2.850214	50.0	501594.0	0.712553	Y
3	IC 410-63741/7	10.0	7.366174	50.0	500762.0	0.736617	Y
4	IC 410-63741/6	20.0	13.466759	50.0	508697.0	0.673338	Y
5	ICIS 410-63741/5	50.0	37.259917	50.0	515083.0	0.745198	Y
6	IC 410-63741/4	100.0	75.979533	50.0	516062.0	0.759795	Y
7	IC 410-63741/3	300.0	220.964631	50.0	535075.0	0.736549	Y



Calibration / Pentachloroethane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

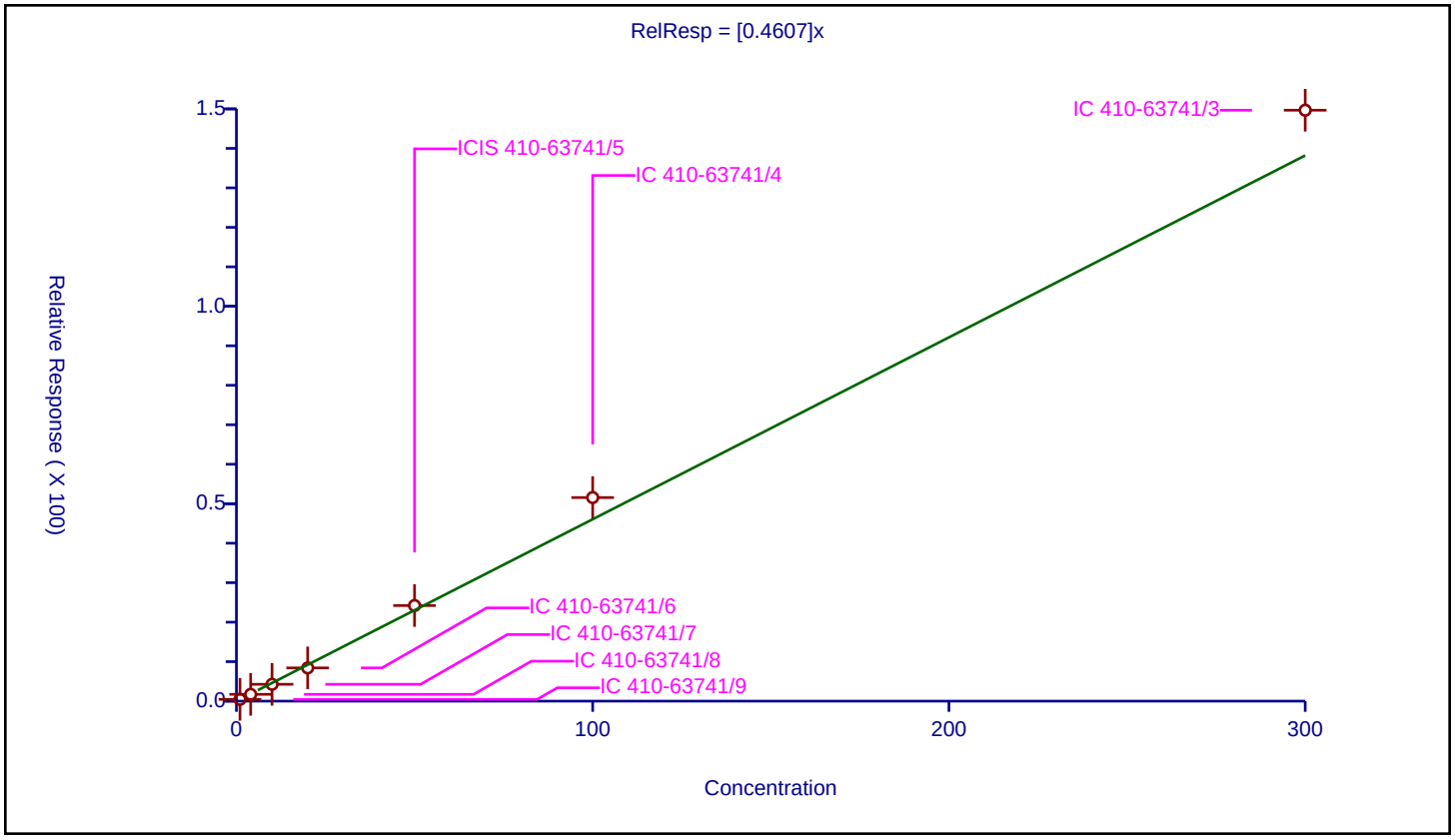
Curve Coefficients

Intercept:	0
Slope:	0.4607

Error Coefficients

Standard Error:	698000
Relative Standard Error:	8.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.992

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.448569	50.0	516308.0	0.448569	Y
2	IC 410-63741/8	4.0	1.720415	50.0	501594.0	0.430104	Y
3	IC 410-63741/7	10.0	4.2654	50.0	500762.0	0.42654	Y
4	IC 410-63741/6	20.0	8.412473	50.0	508697.0	0.420624	Y
5	ICIS 410-63741/5	50.0	24.216874	50.0	515083.0	0.484337	Y
6	IC 410-63741/4	100.0	51.560471	50.0	516062.0	0.515605	Y
7	IC 410-63741/3	300.0	149.667056	50.0	535075.0	0.49889	Y



Calibration / 1,2,4-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

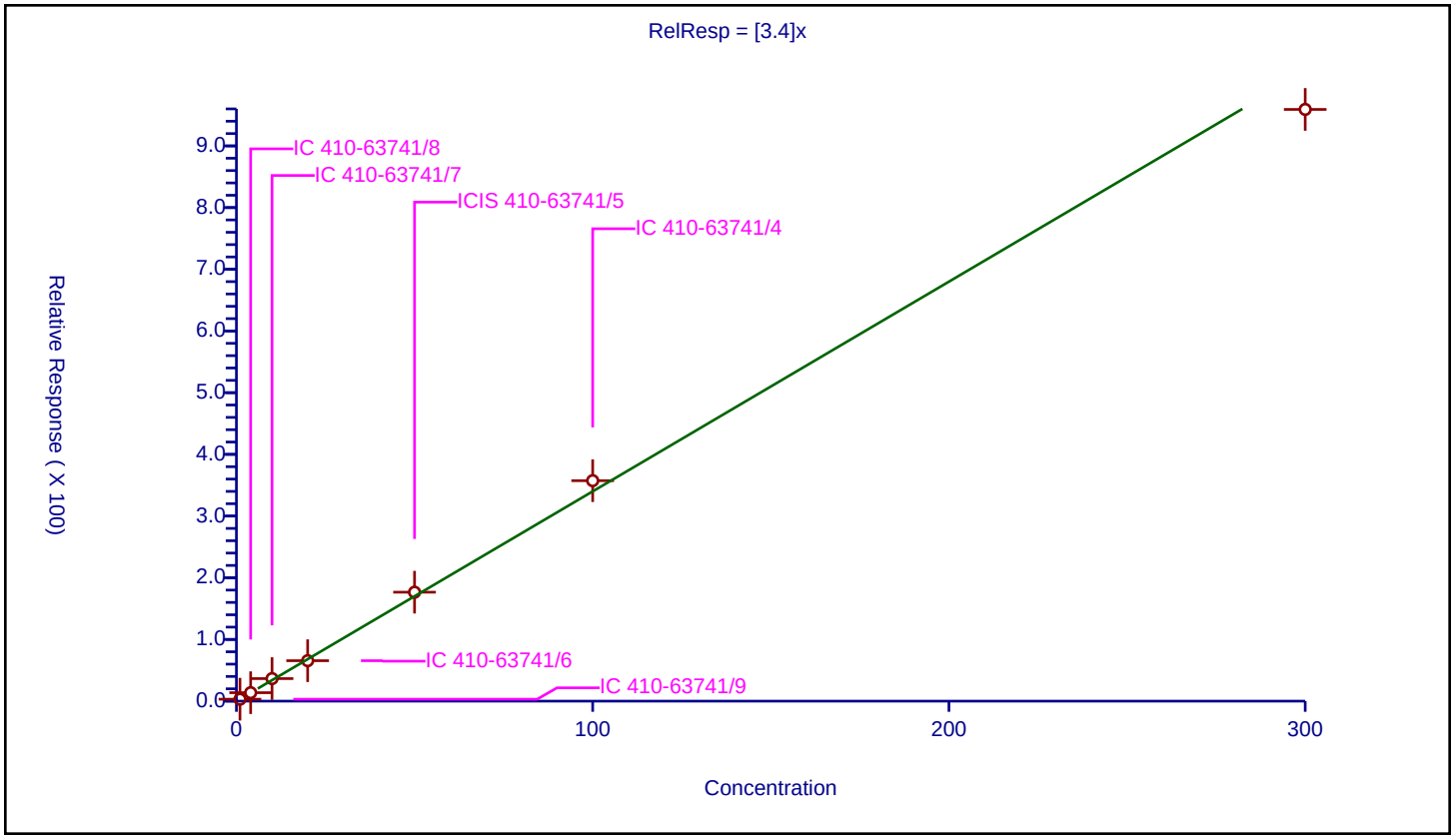
Curve Coefficients

Intercept:	0
Slope:	3.4

Error Coefficients

Standard Error:	4520000
Relative Standard Error:	5.8
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.996

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.142117	50.0	516308.0	3.142117	Y
2	IC 410-63741/8	4.0	13.692149	50.0	501594.0	3.423037	Y
3	IC 410-63741/7	10.0	36.533723	50.0	500762.0	3.653372	Y
4	IC 410-63741/6	20.0	65.556805	50.0	508697.0	3.27784	Y
5	ICIS 410-63741/5	50.0	176.593772	50.0	515083.0	3.531875	Y
6	IC 410-63741/4	100.0	357.370335	50.0	516062.0	3.573703	Y
7	IC 410-63741/3	300.0	959.143391	50.0	535075.0	3.197145	Y



Calibration / sec-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

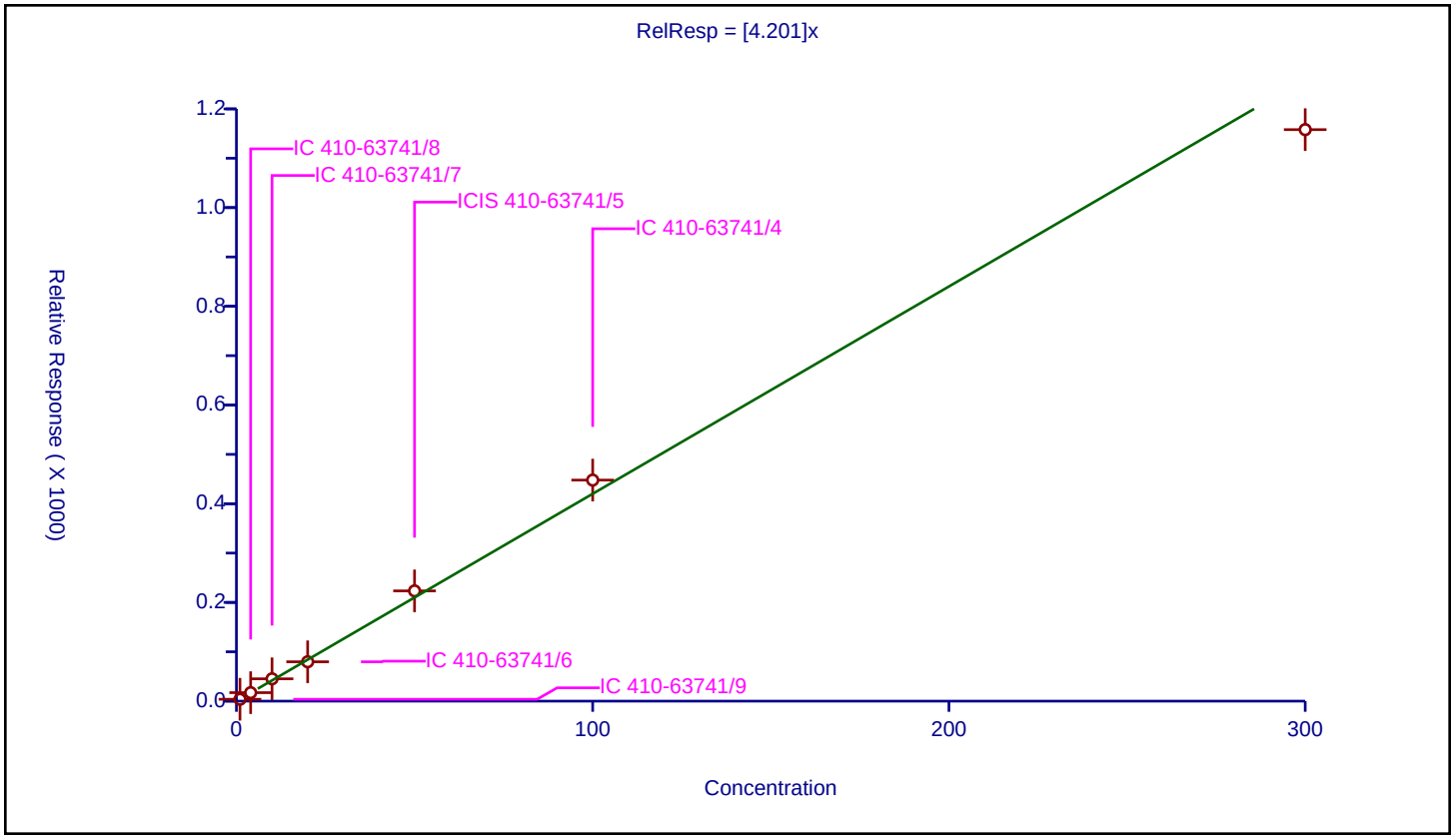
Curve Coefficients

Intercept:	0
Slope:	4.201

Error Coefficients

Standard Error:	5490000
Relative Standard Error:	7.4
Correlation Coefficient:	0.998
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.799283	50.0	516308.0	3.799283	Y
2	IC 410-63741/8	4.0	17.16438	50.0	501594.0	4.291095	Y
3	IC 410-63741/7	10.0	45.225277	50.0	500762.0	4.522528	Y
4	IC 410-63741/6	20.0	79.747767	50.0	508697.0	3.987388	Y
5	ICIS 410-63741/5	50.0	223.373806	50.0	515083.0	4.467476	Y
6	IC 410-63741/4	100.0	447.874093	50.0	516062.0	4.478741	Y
7	IC 410-63741/3	300.0	1157.967388	50.0	535075.0	3.859891	Y



Calibration / 1,3-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

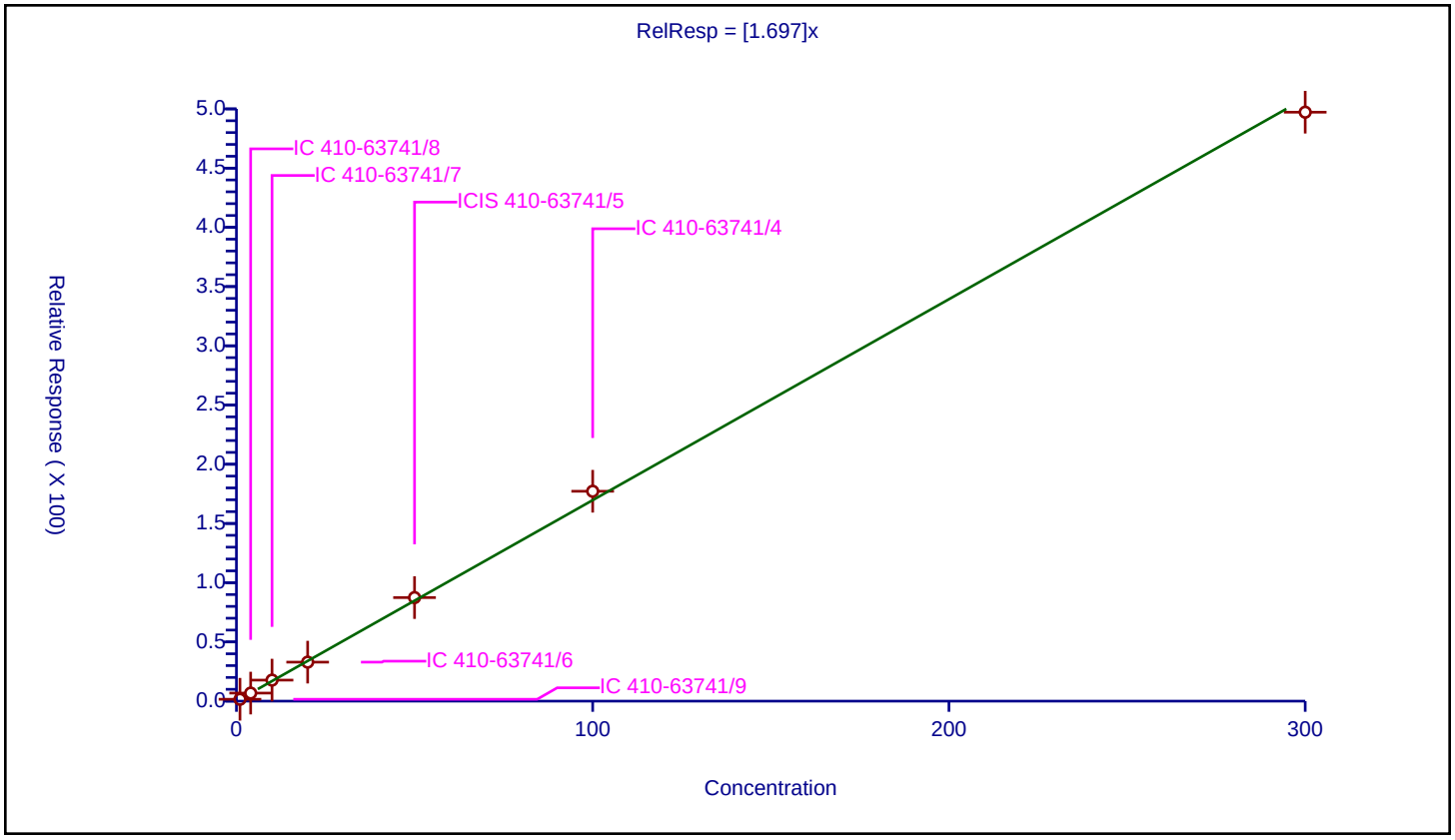
Curve Coefficients

Intercept:	0
Slope:	1.697

Error Coefficients

Standard Error:	2330000
Relative Standard Error:	4.4
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.578031	50.0	516308.0	1.578031	Y
2	IC 410-63741/8	4.0	6.793044	50.0	501594.0	1.698261	Y
3	IC 410-63741/7	10.0	17.754043	50.0	500762.0	1.775404	Y
4	IC 410-63741/6	20.0	32.933259	50.0	508697.0	1.646663	Y
5	ICIS 410-63741/5	50.0	87.431637	50.0	515083.0	1.748633	Y
6	IC 410-63741/4	100.0	177.194794	50.0	516062.0	1.771948	Y
7	IC 410-63741/3	300.0	497.213288	50.0	535075.0	1.657378	Y



Calibration / 4-Isopropyltoluene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

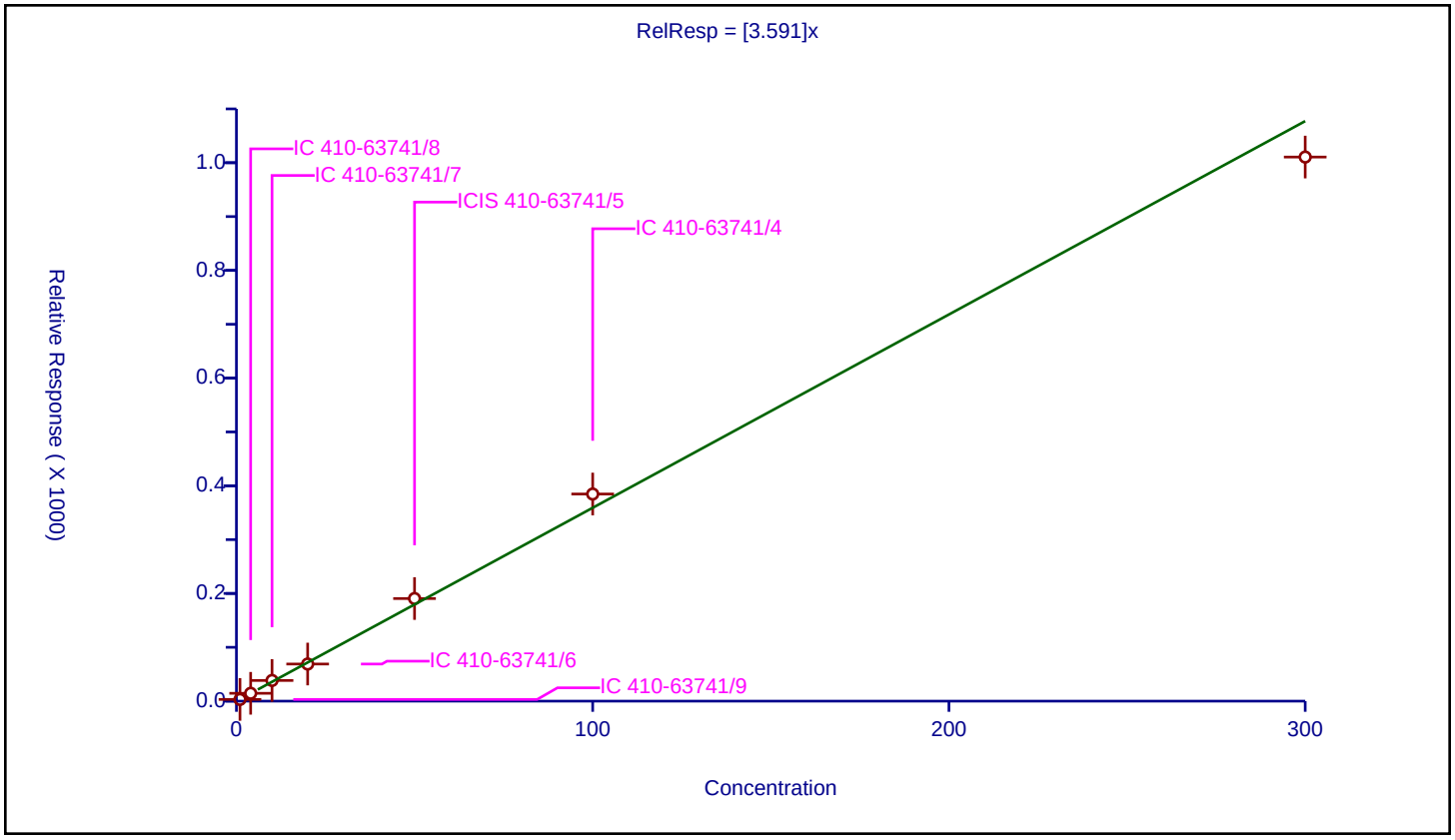
Curve Coefficients

Intercept:	0
Slope:	3.591

Error Coefficients

Standard Error:	4780000
Relative Standard Error:	7.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.182693	50.0	516308.0	3.182693	Y
2	IC 410-63741/8	4.0	14.560581	50.0	501594.0	3.640145	Y
3	IC 410-63741/7	10.0	38.390992	50.0	500762.0	3.839099	Y
4	IC 410-63741/6	20.0	68.955193	50.0	508697.0	3.44776	Y
5	ICIS 410-63741/5	50.0	190.587148	50.0	515083.0	3.811743	Y
6	IC 410-63741/4	100.0	384.668896	50.0	516062.0	3.846689	Y
7	IC 410-63741/3	300.0	1010.53899	50.0	535075.0	3.368463	Y



Calibration / 1,4-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

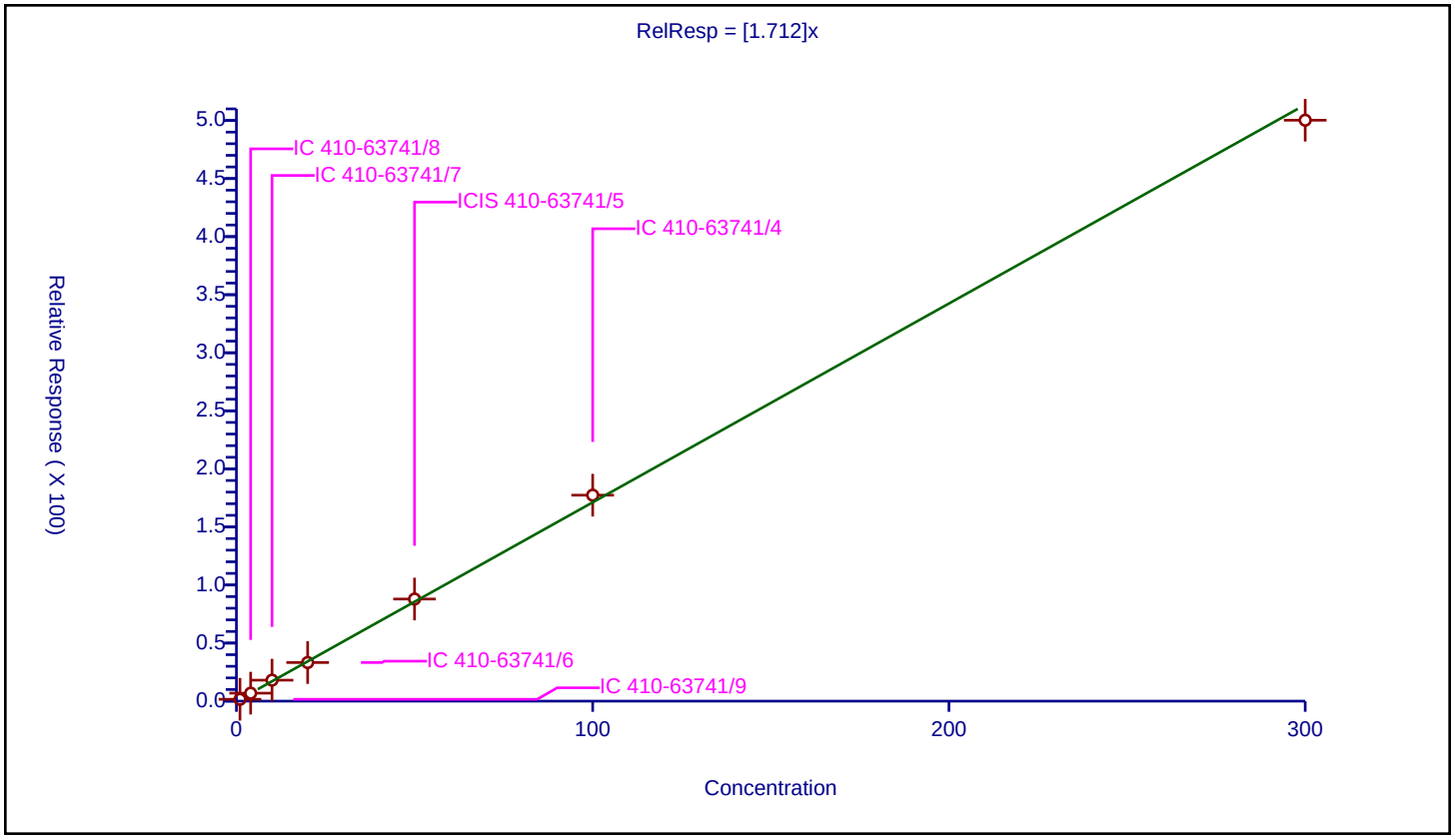
Curve Coefficients

Intercept:	0
Slope:	1.712

Error Coefficients

Standard Error:	2340000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.59982	50.0	516308.0	1.59982	Y
2	IC 410-63741/8	4.0	6.863519	50.0	501594.0	1.71588	Y
3	IC 410-63741/7	10.0	18.068464	50.0	500762.0	1.806846	Y
4	IC 410-63741/6	20.0	33.238156	50.0	508697.0	1.661908	Y
5	ICIS 410-63741/5	50.0	87.912142	50.0	515083.0	1.758243	Y
6	IC 410-63741/4	100.0	177.379559	50.0	516062.0	1.773796	Y
7	IC 410-63741/3	300.0	500.262206	50.0	535075.0	1.667541	Y



Calibration / 1,2,3-Trimethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

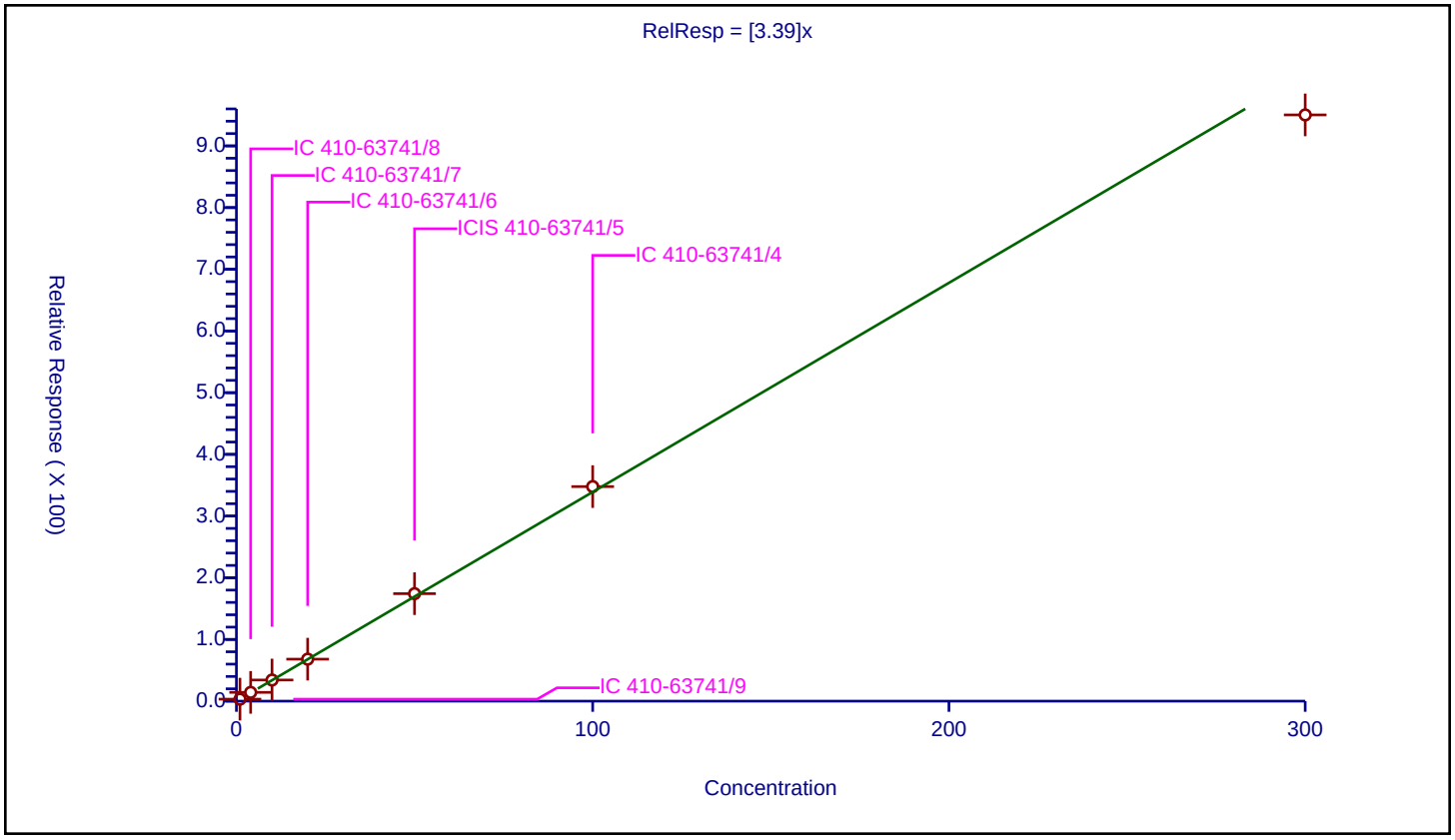
Curve Coefficients

Intercept:	0
Slope:	3.39

Error Coefficients

Standard Error:	4470000
Relative Standard Error:	4.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.219396	50.0	516308.0	3.219396	Y
2	IC 410-63741/8	4.0	14.214983	50.0	501594.0	3.553746	Y
3	IC 410-63741/7	10.0	34.241915	50.0	500762.0	3.424192	Y
4	IC 410-63741/6	20.0	68.073038	50.0	508697.0	3.403652	Y
5	ICIS 410-63741/5	50.0	174.213962	50.0	515083.0	3.484279	Y
6	IC 410-63741/4	100.0	347.788347	50.0	516062.0	3.477883	Y
7	IC 410-63741/3	300.0	950.255291	50.0	535075.0	3.167518	Y



Calibration / Benzyl chloride

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

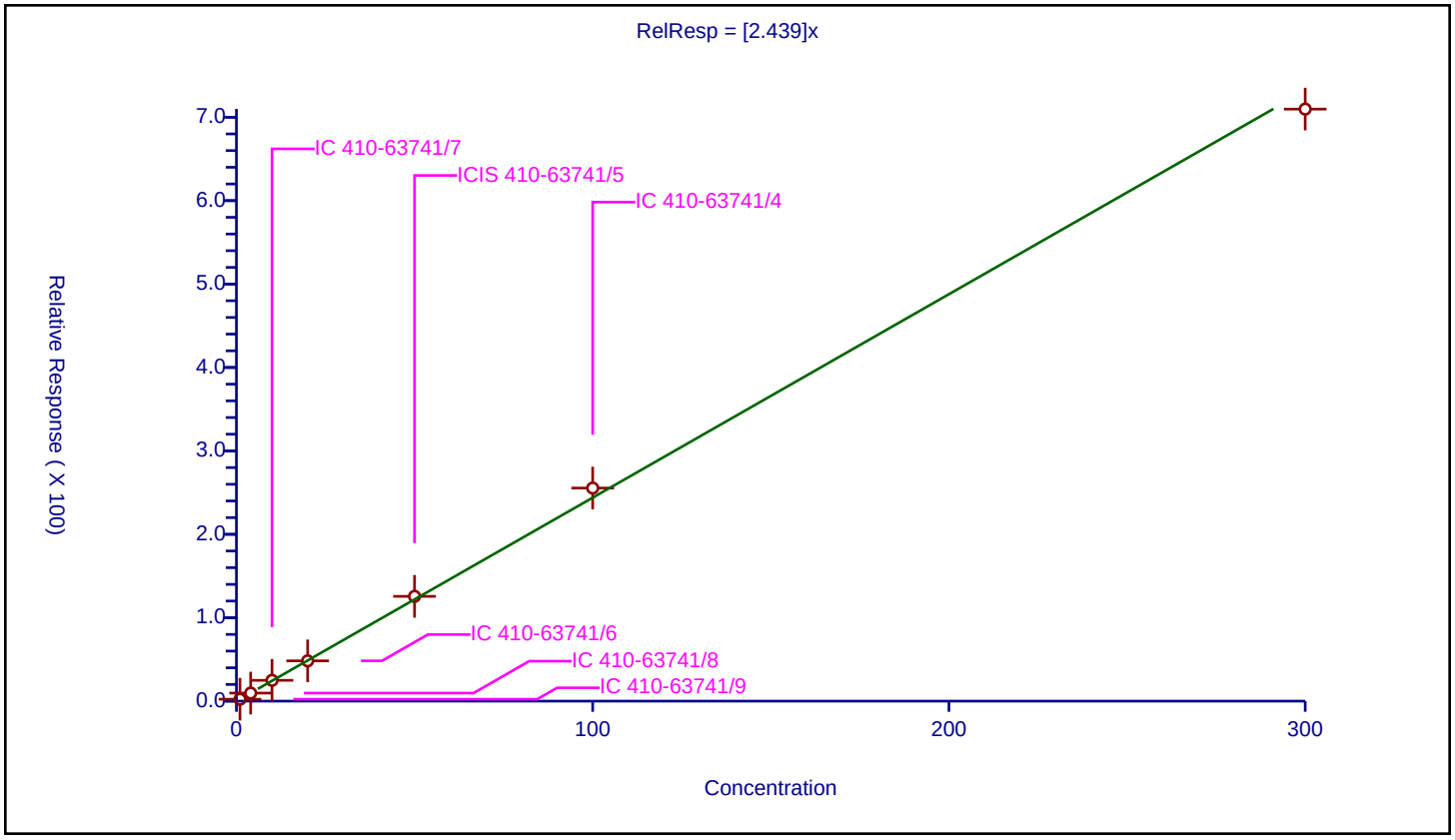
Curve Coefficients

Intercept:	0
Slope:	2.439

Error Coefficients

Standard Error:	3330000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	2.313638	50.0	516308.0	2.313638	Y
2	IC 410-63741/8	4.0	9.669773	50.0	501594.0	2.417443	Y
3	IC 410-63741/7	10.0	24.962857	50.0	500762.0	2.496286	Y
4	IC 410-63741/6	20.0	48.291616	50.0	508697.0	2.414581	Y
5	ICIS 410-63741/5	50.0	125.624123	50.0	515083.0	2.512482	Y
6	IC 410-63741/4	100.0	255.452543	50.0	516062.0	2.554525	Y
7	IC 410-63741/3	300.0	709.743587	50.0	535075.0	2.365812	Y



Calibration / 1,3-Diethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

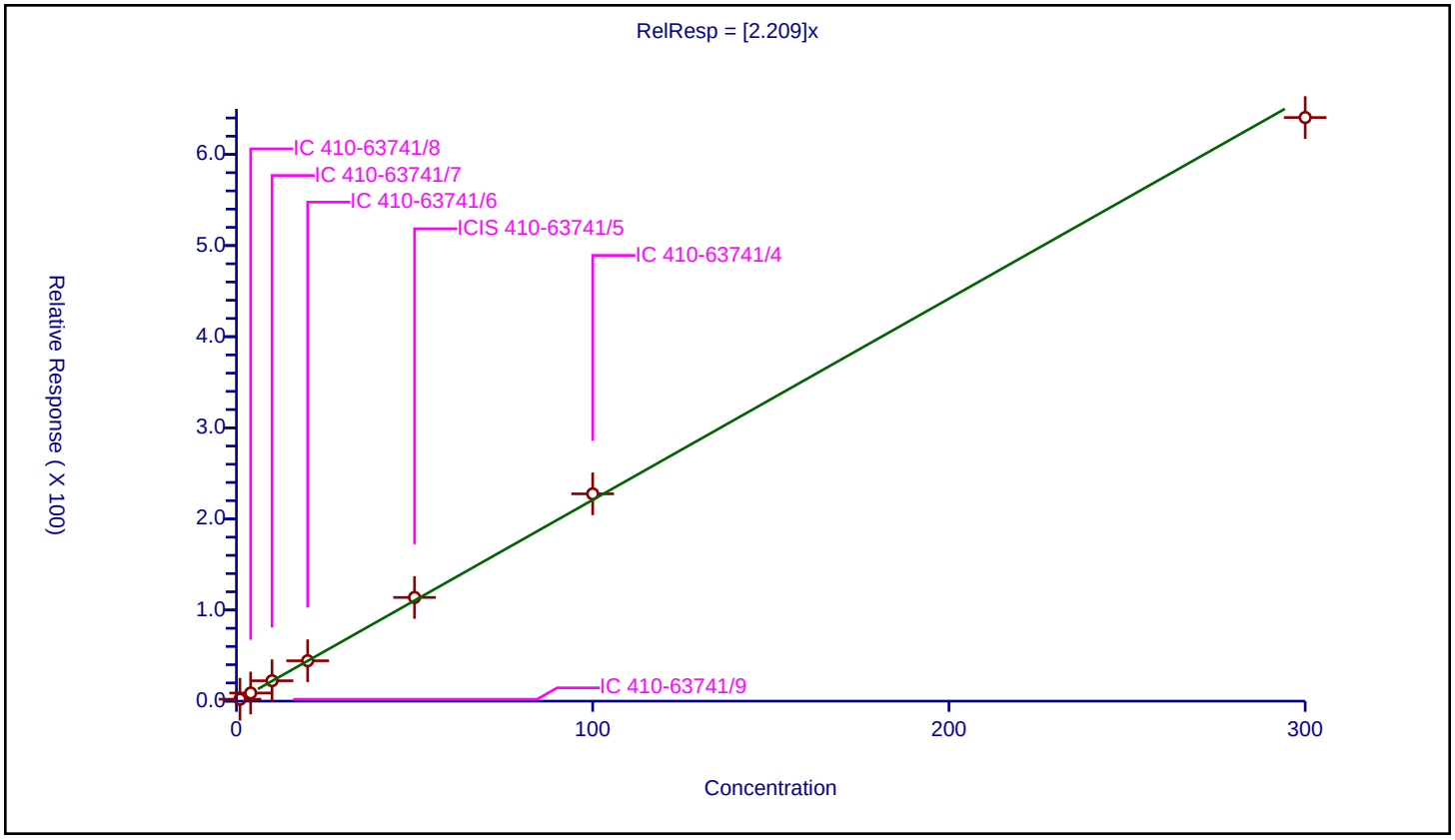
Curve Coefficients

Intercept:	0
Slope:	2.209

Error Coefficients

Standard Error:	3000000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	2.084124	50.0	516308.0	2.084124	Y
2	IC 410-63741/8	4.0	8.94279	50.0	501594.0	2.235698	Y
3	IC 410-63741/7	10.0	22.378096	50.0	500762.0	2.23781	Y
4	IC 410-63741/6	20.0	44.338771	50.0	508697.0	2.216939	Y
5	ICIS 410-63741/5	50.0	113.809716	50.0	515083.0	2.276194	Y
6	IC 410-63741/4	100.0	227.522371	50.0	516062.0	2.275224	Y
7	IC 410-63741/3	300.0	640.518339	50.0	535075.0	2.135061	Y



Calibration / p-Diethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

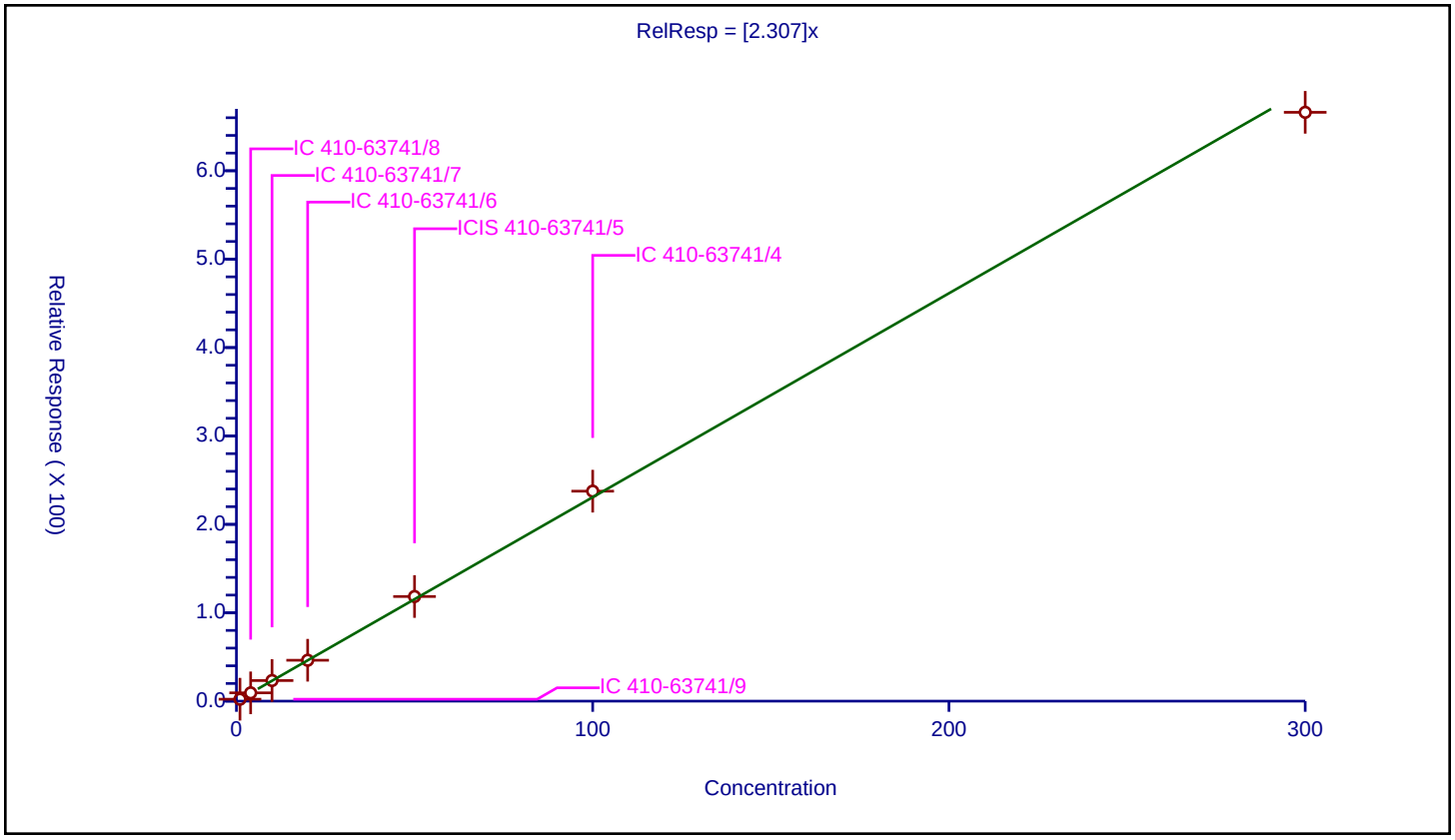
Curve Coefficients

Intercept:	0
Slope:	2.307

Error Coefficients

Standard Error:	3120000
Relative Standard Error:	3.1
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	2.193942	50.0	516308.0	2.193942	Y
2	IC 410-63741/8	4.0	9.386675	50.0	501594.0	2.346669	Y
3	IC 410-63741/7	10.0	23.309976	50.0	500762.0	2.330998	Y
4	IC 410-63741/6	20.0	46.270963	50.0	508697.0	2.313548	Y
5	ICIS 410-63741/5	50.0	118.365681	50.0	515083.0	2.367314	Y
6	IC 410-63741/4	100.0	237.529502	50.0	516062.0	2.375295	Y
7	IC 410-63741/3	300.0	666.099612	50.0	535075.0	2.220332	Y



Calibration / n-Butylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

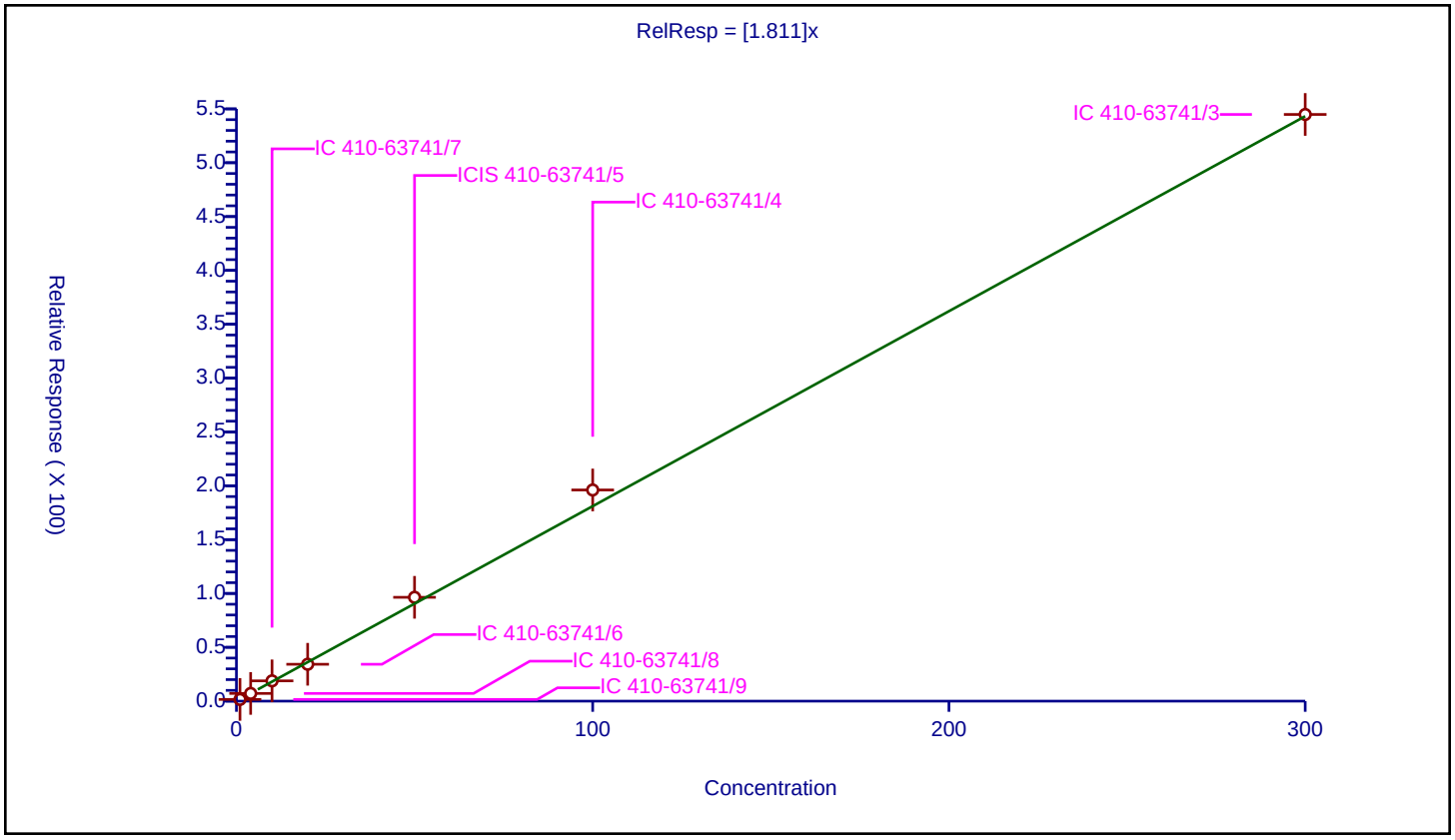
Curve Coefficients

Intercept:	0
Slope:	1.811

Error Coefficients

Standard Error:	2560000
Relative Standard Error:	7.2
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.994

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.583745	50.0	516308.0	1.583745	Y
2	IC 410-63741/8	4.0	7.160672	50.0	501594.0	1.790168	Y
3	IC 410-63741/7	10.0	18.823014	50.0	500762.0	1.882301	Y
4	IC 410-63741/6	20.0	34.250546	50.0	508697.0	1.712527	Y
5	ICIS 410-63741/5	50.0	96.430381	50.0	515083.0	1.928608	Y
6	IC 410-63741/4	100.0	196.094268	50.0	516062.0	1.960943	Y
7	IC 410-63741/3	300.0	544.830164	50.0	535075.0	1.816101	Y



Calibration / 1,2-Dichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

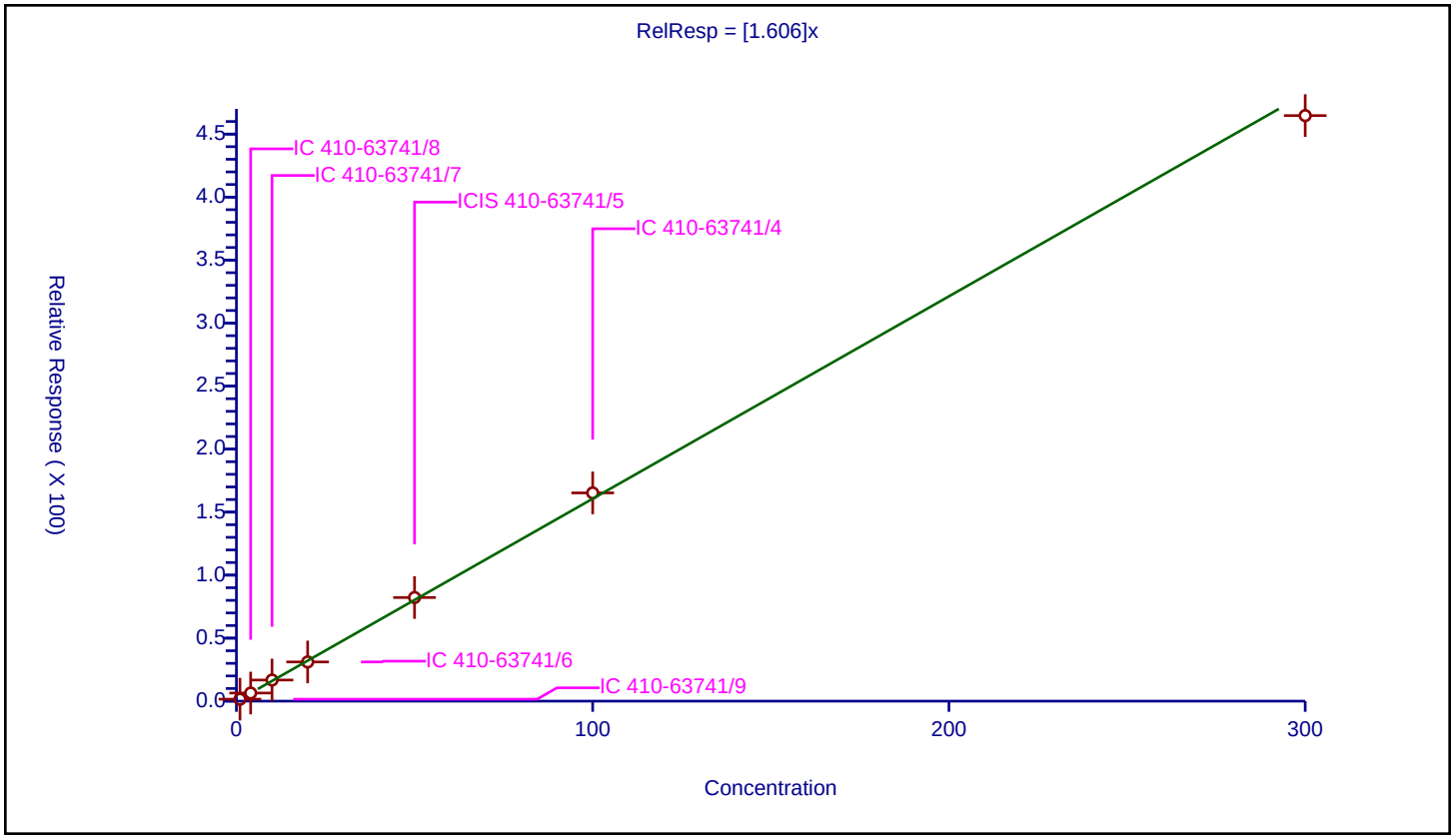
Curve Coefficients

Intercept:	0
Slope:	1.606

Error Coefficients

Standard Error:	2180000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.55876	50.0	516308.0	1.55876	Y
2	IC 410-63741/8	4.0	6.440867	50.0	501594.0	1.610217	Y
3	IC 410-63741/7	10.0	16.742285	50.0	500762.0	1.674228	Y
4	IC 410-63741/6	20.0	31.093067	50.0	508697.0	1.554653	Y
5	ICIS 410-63741/5	50.0	82.235776	50.0	515083.0	1.644716	Y
6	IC 410-63741/4	100.0	165.255144	50.0	516062.0	1.652551	Y
7	IC 410-63741/3	300.0	464.679064	50.0	535075.0	1.54893	Y



Calibration / o-diethylbenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

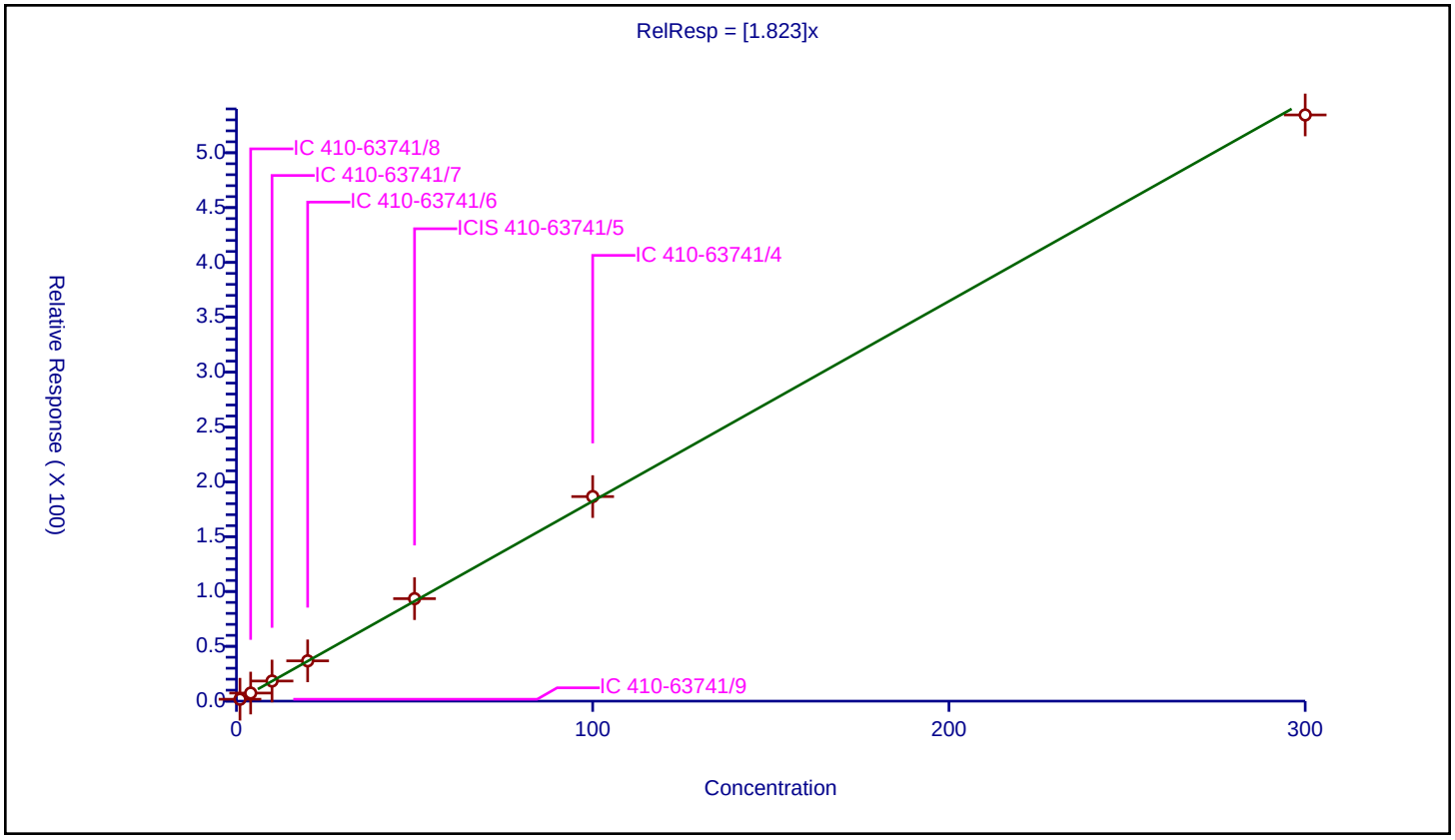
Curve Coefficients

Intercept:	0
Slope:	1.823

Error Coefficients

Standard Error:	2500000
Relative Standard Error:	2.8
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.729491	50.0	516308.0	1.729491	Y
2	IC 410-63741/8	4.0	7.380471	50.0	501594.0	1.845118	Y
3	IC 410-63741/7	10.0	18.355826	50.0	500762.0	1.835583	Y
4	IC 410-63741/6	20.0	36.718616	50.0	508697.0	1.835931	Y
5	ICIS 410-63741/5	50.0	93.437562	50.0	515083.0	1.868751	Y
6	IC 410-63741/4	100.0	186.525359	50.0	516062.0	1.865254	Y
7	IC 410-63741/3	300.0	534.485633	50.0	535075.0	1.781619	Y



Calibration / 1,2-Dibromo-3-Chloropropane

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

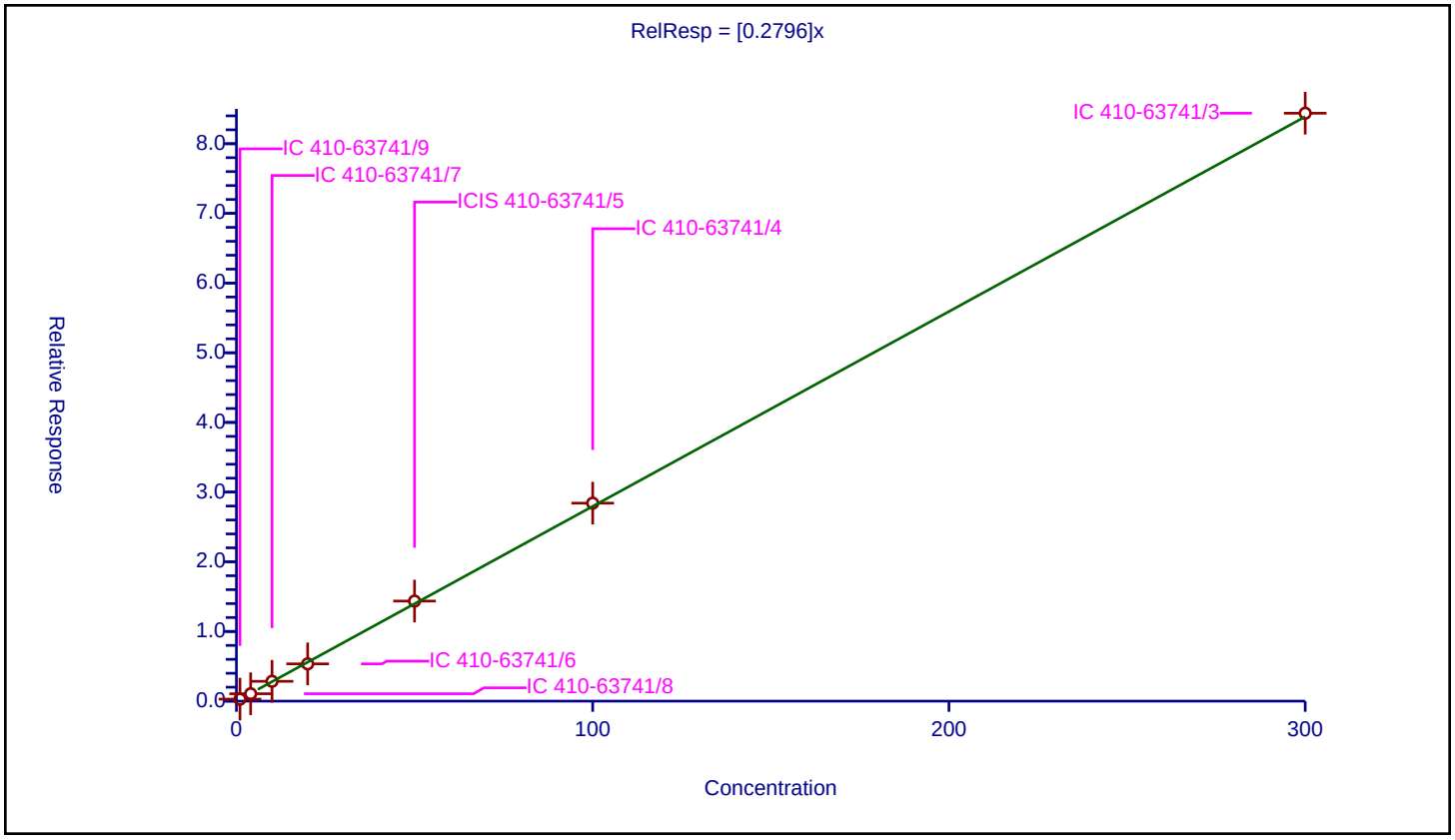
Curve Coefficients

Intercept:	0
Slope:	0.2796

Error Coefficients

Standard Error:	393000
Relative Standard Error:	3.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.287135	50.0	516308.0	0.287135	Y
2	IC 410-63741/8	4.0	1.061715	50.0	501594.0	0.265429	Y
3	IC 410-63741/7	10.0	2.845663	50.0	500762.0	0.284566	Y
4	IC 410-63741/6	20.0	5.347781	50.0	508697.0	0.267389	Y
5	ICIS 410-63741/5	50.0	14.363122	50.0	515083.0	0.287262	Y
6	IC 410-63741/4	100.0	28.415287	50.0	516062.0	0.284153	Y
7	IC 410-63741/3	300.0	84.378732	50.0	535075.0	0.281262	Y



Calibration / 1,3,5-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

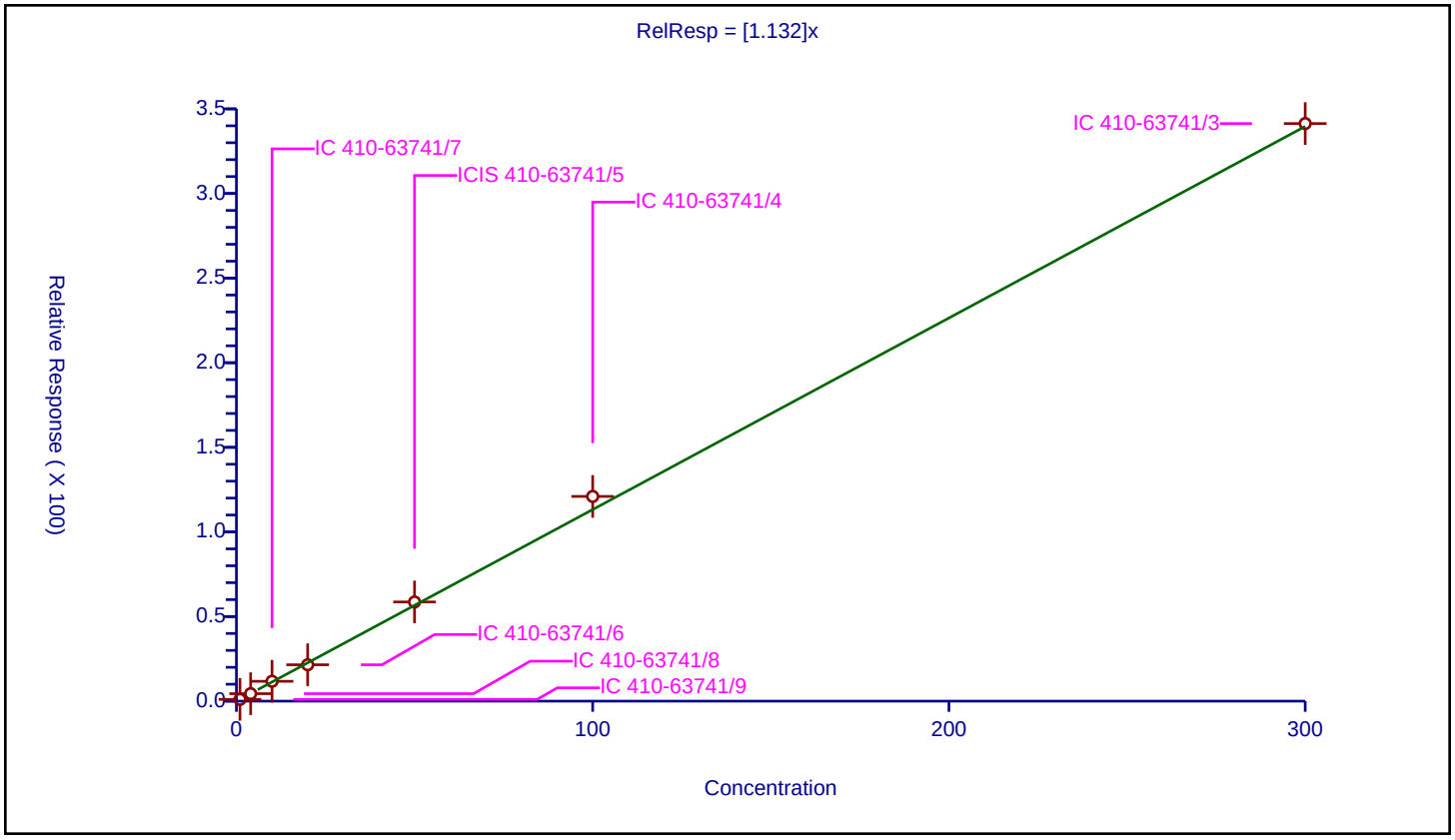
Curve Coefficients

Intercept:	0
Slope:	1.132

Error Coefficients

Standard Error:	1600000
Relative Standard Error:	5.0
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.997

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	1.053538	50.0	516308.0	1.053538	Y
2	IC 410-63741/8	4.0	4.414925	50.0	501594.0	1.103731	Y
3	IC 410-63741/7	10.0	11.731022	50.0	500762.0	1.173102	Y
4	IC 410-63741/6	20.0	21.498652	50.0	508697.0	1.074933	Y
5	ICIS 410-63741/5	50.0	58.607351	50.0	515083.0	1.172147	Y
6	IC 410-63741/4	100.0	120.982653	50.0	516062.0	1.209827	Y
7	IC 410-63741/3	300.0	341.330841	50.0	535075.0	1.137769	Y



Calibration / 1,2,4-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

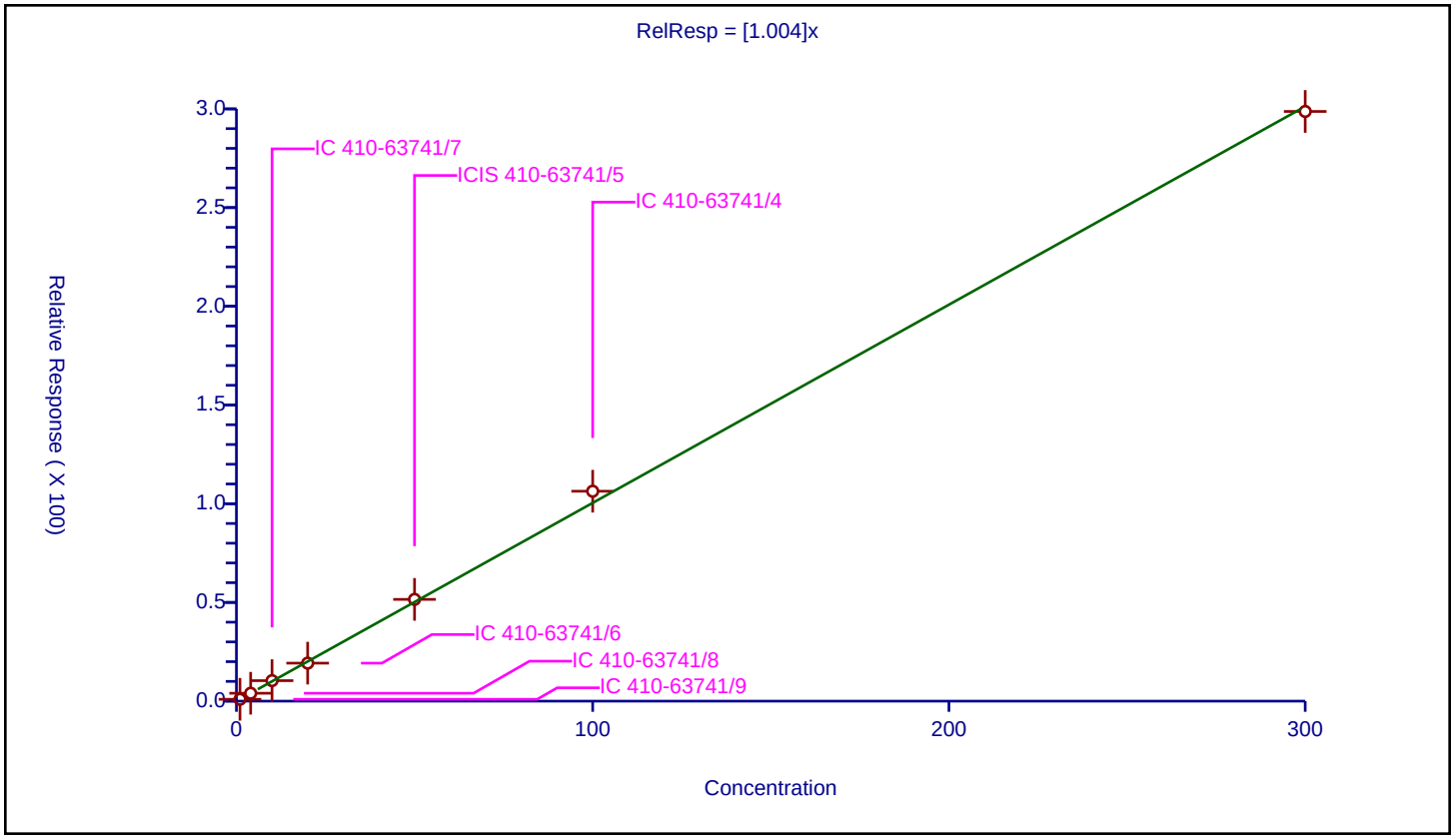
Curve Coefficients

Intercept:	0
Slope:	1.004

Error Coefficients

Standard Error:	1400000
Relative Standard Error:	4.3
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.939652	50.0	516308.0	0.939652	Y
2	IC 410-63741/8	4.0	3.995562	50.0	501594.0	0.998891	Y
3	IC 410-63741/7	10.0	10.381578	50.0	500762.0	1.038158	Y
4	IC 410-63741/6	20.0	19.245052	50.0	508697.0	0.962253	Y
5	ICIS 410-63741/5	50.0	51.548391	50.0	515083.0	1.030968	Y
6	IC 410-63741/4	100.0	106.334607	50.0	516062.0	1.063346	Y
7	IC 410-63741/3	300.0	298.701304	50.0	535075.0	0.995671	Y



Calibration / Hexachlorobutadiene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

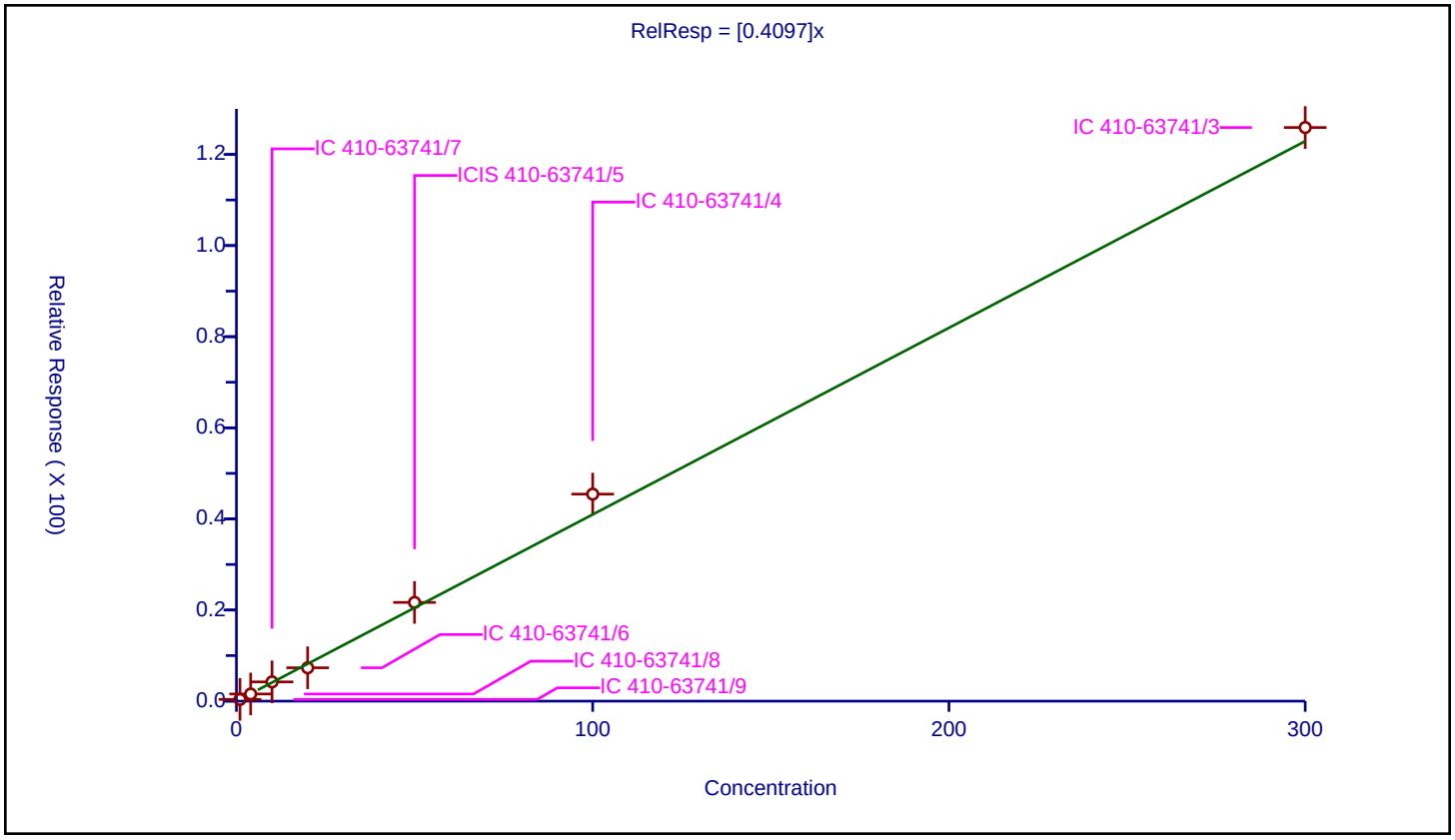
Curve Coefficients

Intercept:	0
Slope:	0.4097

Error Coefficients

Standard Error:	591000
Relative Standard Error:	7.7
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.993

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.379715	50.0	516308.0	0.379715	Y
2	IC 410-63741/8	4.0	1.569696	50.0	501594.0	0.392424	Y
3	IC 410-63741/7	10.0	4.222165	50.0	500762.0	0.422217	Y
4	IC 410-63741/6	20.0	7.319878	50.0	508697.0	0.365994	Y
5	ICIS 410-63741/5	50.0	21.67175	50.0	515083.0	0.433435	Y
6	IC 410-63741/4	100.0	45.439695	50.0	516062.0	0.454397	Y
7	IC 410-63741/3	300.0	125.909078	50.0	535075.0	0.419697	Y



Calibration / Naphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

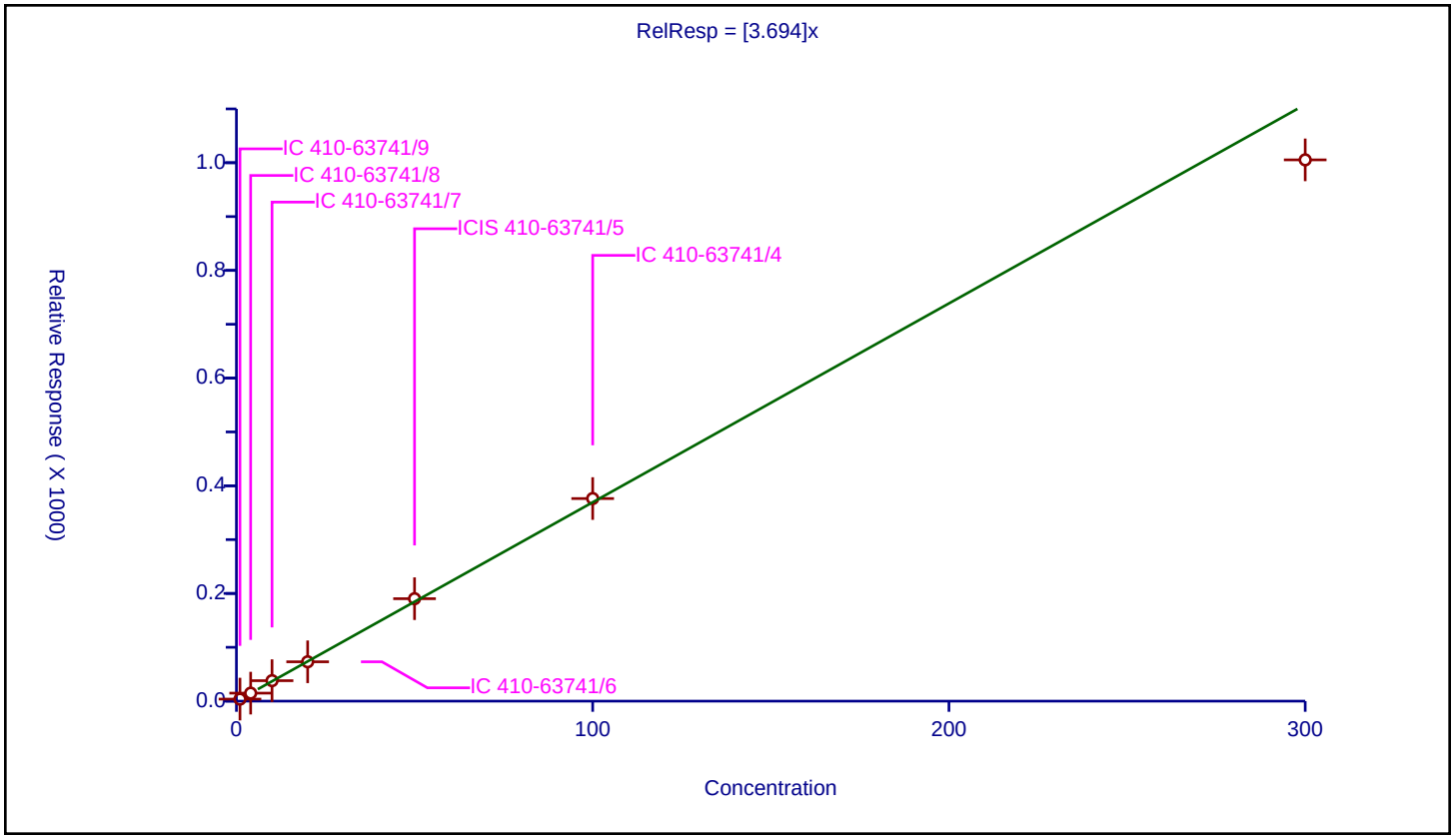
Curve Coefficients

Intercept:	0
Slope:	3.694

Error Coefficients

Standard Error:	4750000
Relative Standard Error:	4.3
Correlation Coefficient:	0.999
Coefficient of Determination (Adjusted):	0.998

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	3.767131	50.0	516308.0	3.767131	Y
2	IC 410-63741/8	4.0	14.84308	50.0	501594.0	3.71077	Y
3	IC 410-63741/7	10.0	38.034136	50.0	500762.0	3.803414	Y
4	IC 410-63741/6	20.0	73.094003	50.0	508697.0	3.6547	Y
5	ICIS 410-63741/5	50.0	190.256522	50.0	515083.0	3.80513	Y
6	IC 410-63741/4	100.0	376.287248	50.0	516062.0	3.762872	Y
7	IC 410-63741/3	300.0	1005.31804	50.0	535075.0	3.35106	Y



Calibration / 1,2,3-Trichlorobenzene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

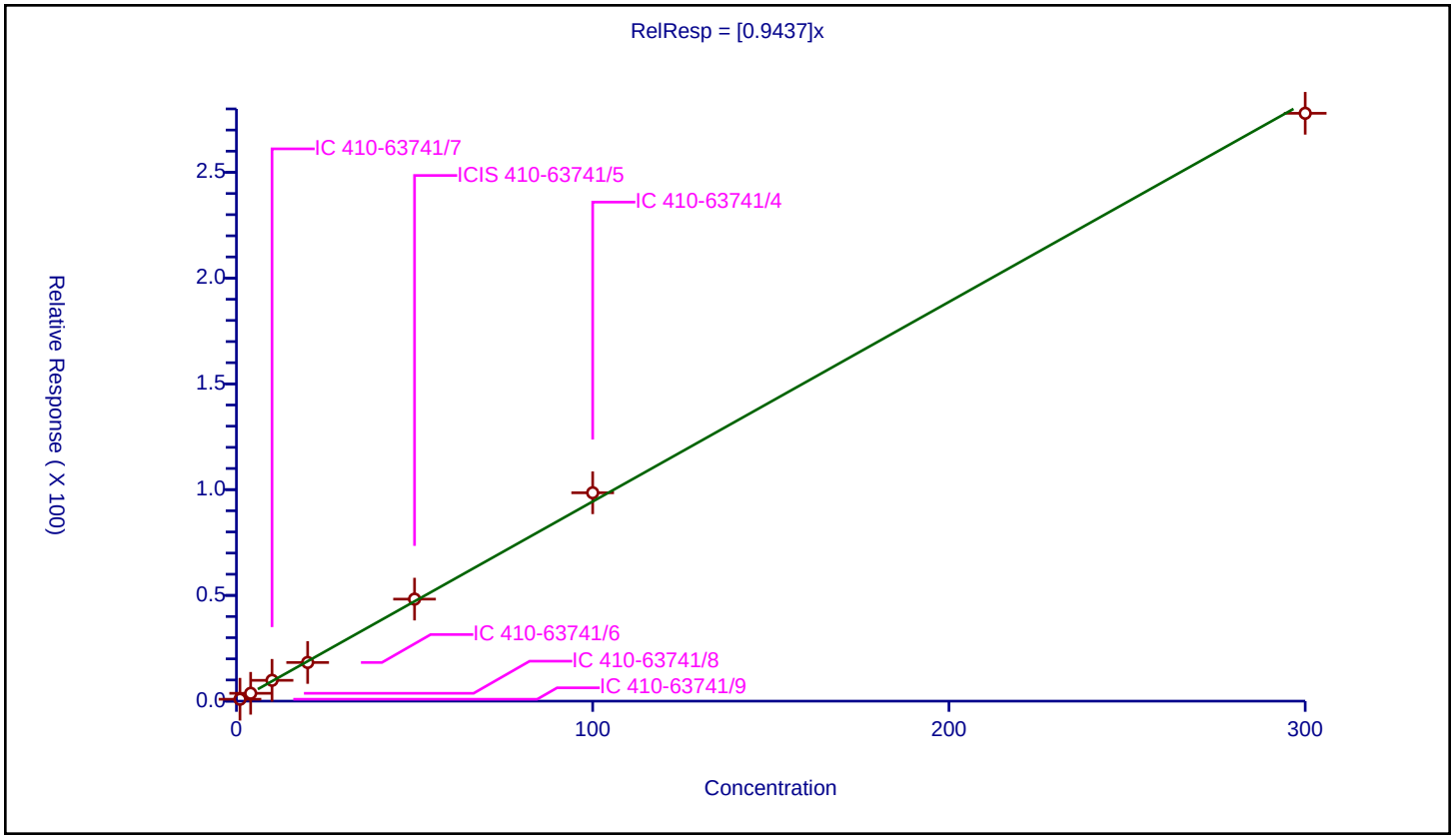
Curve Coefficients

Intercept:	0
Slope:	0.9437

Error Coefficients

Standard Error:	1300000
Relative Standard Error:	3.6
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	0.904596	50.0	516308.0	0.904596	Y
2	IC 410-63741/8	4.0	3.704889	50.0	501594.0	0.926222	Y
3	IC 410-63741/7	10.0	9.845495	50.0	500762.0	0.98455	Y
4	IC 410-63741/6	20.0	18.283084	50.0	508697.0	0.914154	Y
5	ICIS 410-63741/5	50.0	48.233974	50.0	515083.0	0.964679	Y
6	IC 410-63741/4	100.0	98.515876	50.0	516062.0	0.985159	Y
7	IC 410-63741/3	300.0	277.920478	50.0	535075.0	0.926402	Y



Calibration / 2-Methylnaphthalene

Curve Type:	Average
Weighting:	Conc_Sq
Origin:	Force
Dependency:	Response
Calib Mode:	ISTD
Response Base:	AREA
RF Rounding:	0

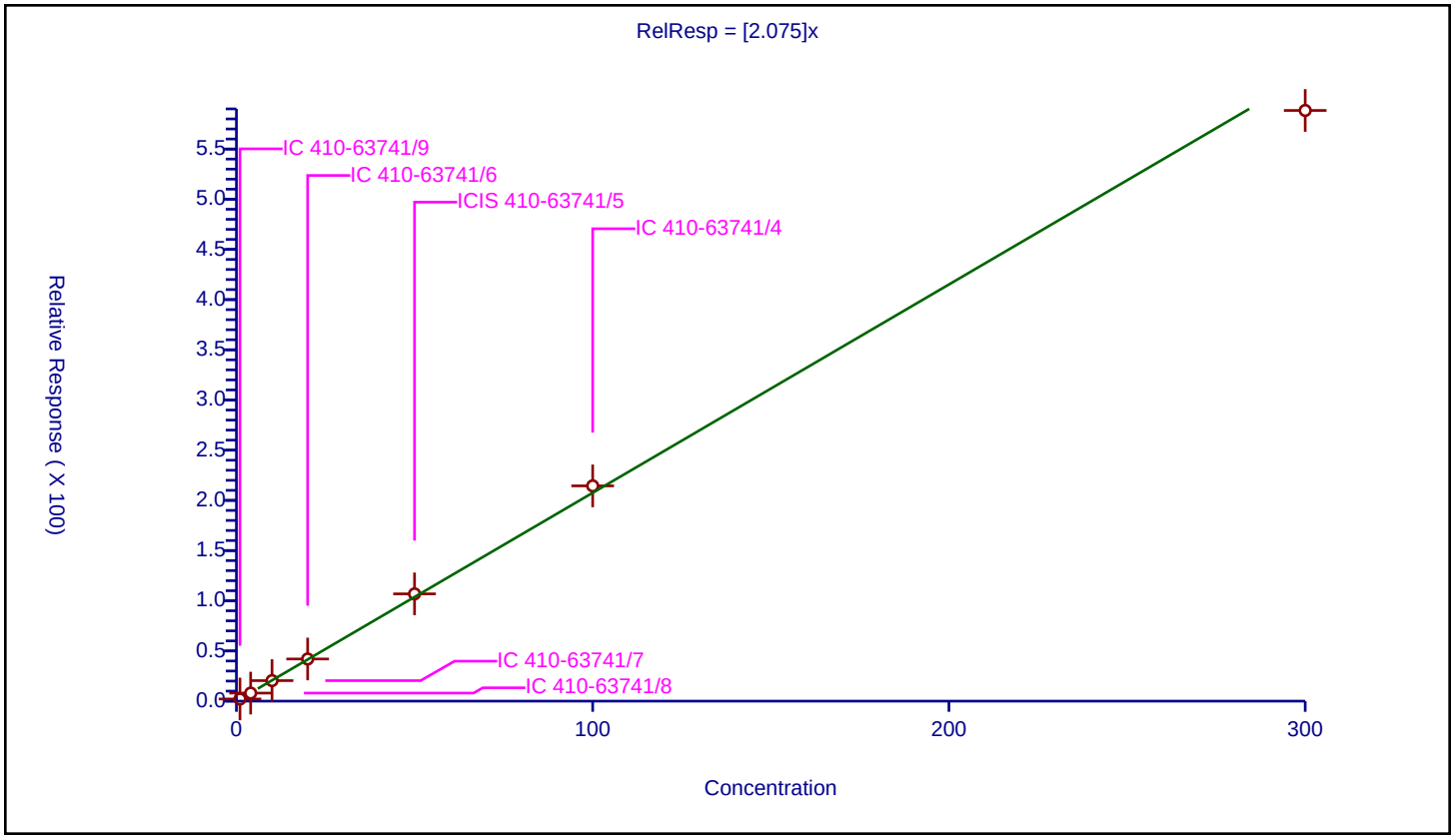
Curve Coefficients

Intercept:	0
Slope:	2.075

Error Coefficients

Standard Error:	2770000
Relative Standard Error:	3.5
Correlation Coefficient:	1.000
Coefficient of Determination (Adjusted):	0.999

ID	Level	Concentration	Rel. Resp.	IS Amount	IS Response	RRF	Used
1	IC 410-63741/9	1.0	2.137678	50.0	516308.0	2.137678	Y
2	IC 410-63741/8	4.0	8.015048	50.0	501594.0	2.003762	Y
3	IC 410-63741/7	10.0	20.432062	50.0	500762.0	2.043206	Y
4	IC 410-63741/6	20.0	41.999166	50.0	508697.0	2.099958	Y
5	ICIS 410-63741/5	50.0	106.865107	50.0	515083.0	2.137302	Y
6	IC 410-63741/4	100.0	214.452624	50.0	516062.0	2.144526	Y
7	IC 410-63741/3	300.0	588.441433	50.0	535075.0	1.961471	Y



FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: ICV 410-63741/10 Calibration Date: 11/09/2020 16:14

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: NN09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2679	0.3046	0.1000	22.7	20.0	13.7	30.0
Chloromethane	Ave	0.3518	0.3780	0.1000	21.5	20.0	7.5	30.0
Vinyl chloride	Ave	0.3408	0.3739	0.1000	21.9	20.0	9.7	30.0
1,3-Butadiene	Ave	0.3208	0.3002		18.7	20.0	-6.4	30.0
Bromomethane	Ave	0.2352	0.2516	0.1000	21.4	20.0	7.0	30.0
Chloroethane	Ave	0.2199	0.2231	0.1000	20.3	20.0	1.5	30.0
Dichlorofluoromethane	Ave	0.5185	0.5009		19.3	20.0	-3.4	30.0
Trichlorofluoromethane	Ave	0.4215	0.4380	0.1000	20.8	20.0	3.9	30.0
n-Pentane	Ave	0.4360	0.4080		18.7	20.0	-6.4	30.0
Ethanol	Ave	0.0730	0.0684		937	1000	-6.3	30.0
Freon 123a	Ave	0.3166	0.3254		20.6	20.0	2.8	30.0
Acrolein	Ave	1.837	1.648		135	150	-10.3	30.0
1,1-Dichloroethene	Ave	0.2476	0.2577	0.1000	20.8	20.0	4.1	30.0
Acetone	Ave	0.7670	0.6987	0.1000	137	150	-8.9	30.0
Freon 113	Ave	0.2420	0.2362	0.1000	19.5	20.0	-2.4	30.0
2-Propanol	Ave	0.4577	0.4040		132	150	-11.7	30.0
Methyl iodide	Ave	0.4252	0.4120		19.4	20.0	-3.1	30.0
Carbon disulfide	Ave	0.8252	0.8081	0.1000	19.6	20.0	-2.1	30.0
Methyl acetate	Ave	0.2758	0.2651	0.1000	19.2	20.0	-3.9	30.0
Allyl chloride	Ave	0.4124	0.4148		20.1	20.0	0.6	30.0
Methylene Chloride	Ave	0.2824	0.2844	0.1000	20.1	20.0	0.7	30.0
t-Butyl alcohol	Ave	0.9890	0.9587		194	200	-3.1	30.0
Acrylonitrile	Ave	0.1446	0.1421		98.3	100	-1.7	30.0
Methyl tertiary butyl ether	Ave	0.9002	0.8492	0.1000	18.9	20.0	-5.7	30.0
trans-1,2-Dichloroethene	Ave	0.2818	0.2846	0.1000	20.2	20.0	1.0	30.0
n-Hexane	Ave	0.4222	0.4286		20.3	20.0	1.5	30.0
1,1-Dichloroethane	Ave	0.5064	0.5143	0.2000	20.3	20.0	1.6	30.0
di-Isopropyl ether	Ave	0.8812	0.8445		19.2	20.0	-4.2	30.0
2-Chloro-1,3-butadiene	Ave	0.4668	0.4668		20.0	20.0	-0.0	30.0
Ethyl t-butyl ether	Ave	0.9046	0.8786		19.4	20.0	-2.9	30.0
2-Butanone	Ave	0.2026	0.1927	0.1000	143	150	-4.9	30.0
cis-1,2-Dichloroethene	Ave	0.3256	0.3404	0.1000	20.9	20.0	4.6	30.0
2,2-Dichloropropane	Ave	0.4645	0.4815		20.7	20.0	3.7	30.0
Propionitrile	Ave	1.198	1.176		147	150	-1.9	30.0
Methacrylonitrile	Ave	0.1645	0.1624		148	150	-1.3	30.0
Bromochloromethane	Ave	0.1506	0.1422		18.9	20.0	-5.6	30.0
Tetrahydrofuran	Ave	1.301	1.150		88.4	100	-11.6	30.0
Chloroform	Ave	0.5008	0.4993	0.2000	19.9	20.0	-0.3	30.0
1,1,1-Trichloroethane	Ave	0.4523	0.4532	0.1000	20.0	20.0	0.2	30.0
Cyclohexane	Ave	0.5072	0.5074	0.1000	20.0	20.0	0.0	30.0
1,1-Dichloropropene	Ave	0.4125	0.4191		20.3	20.0	1.6	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: ICV 410-63741/10 Calibration Date: 11/09/2020 16:14

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: NN09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Carbon tetrachloride	Ave	0.3712	0.3779	0.1000	20.4	20.0	1.8	30.0
Isobutyl alcohol	Ave	0.3265	0.3099		475	500	-5.1	30.0
Benzene	Ave	1.203	1.199	0.5000	19.9	20.0	-0.3	30.0
1,2-Dichloroethane	Ave	0.4063	0.3812	0.1000	18.8	20.0	-6.2	30.0
t-Amyl methyl ether	Ave	0.8970	0.8855		19.7	20.0	-1.3	30.0
n-Heptane	Ave	0.4180	0.3991		19.1	20.0	-4.5	30.0
n-Butanol	Ave	0.3014	0.2834		940	1000	-6.0	30.0
Trichloroethene	Ave	0.3053	0.3041	0.2000	19.9	20.0	-0.4	30.0
Methylcyclohexane	Ave	0.5550	0.5557	0.1000	20.0	20.0	0.1	30.0
1,2-Dichloropropane	Ave	0.3020	0.3078	0.1000	20.4	20.0	1.9	30.0
t-Amyl ethyl ether	Ave	0.4803	0.4830		20.1	20.0	0.6	30.0
Methyl methacrylate	Ave	0.2932	0.2730		18.6	20.0	-6.9	30.0
1,4-Dioxane	Ave	0.0658	0.0628	0.0050	477	500	-4.6	30.0
Dibromomethane	Ave	0.1803	0.1762		19.5	20.0	-2.3	30.0
Bromodichloromethane	Ave	0.3838	0.3838	0.2000	20.0	20.0	0.0	30.0
2-Nitropropane	Ave	2.474	2.360		19.1	20.0	-4.6	30.0
2-Chloroethyl vinyl ether	Ave	0.2291	0.2266		19.8	20.0	-1.1	30.0
cis-1,3-Dichloropropene	Ave	0.5056	0.4935	0.2000	19.5	20.0	-2.4	30.0
4-Methyl-2-pentanone	Ave	0.4090	0.4056	0.1000	99.2	100	-0.8	30.0
Toluene	Ave	1.040	1.053	0.4000	20.3	20.0	1.3	30.0
trans-1,3-Dichloropropene	Ave	0.6135	0.5946	0.1000	19.4	20.0	-3.1	30.0
Ethyl methacrylate	Ave	0.6365	0.6335		19.9	20.0	-0.5	30.0
1,1,2-Trichloroethane	Ave	0.3616	0.3632	0.1000	20.1	20.0	0.4	30.0
Tetrachloroethene	Ave	0.4626	0.4222	0.2000	18.3	20.0	-8.7	30.0
1,3-Dichloropropane	Ave	0.6301	0.6163		19.6	20.0	-2.2	30.0
2-Hexanone	Ave	0.4220	0.4169	0.1000	98.8	100	-1.2	30.0
Dibromochloromethane	Ave	0.3794	0.3852		20.3	20.0	1.5	30.0
1,2-Dibromoethane	Ave	0.3743	0.3730	0.1000	19.9	20.0	-0.3	30.0
1-Chlorohexane	Ave	0.6159	0.6152		20.0	20.0	-0.1	30.0
Chlorobenzene	Ave	1.125	1.142	0.5000	20.3	20.0	1.6	30.0
1,1,1,2-Tetrachloroethane	Ave	0.3812	0.3817		20.0	20.0	0.1	30.0
Ethylbenzene	Ave	2.012	2.048	0.1000	20.4	20.0	1.8	30.0
m&p-Xylene	Ave	0.7888	0.8127	0.1000	41.2	40.0	3.0	30.0
o-Xylene	Ave	0.7676	0.7877	0.3000	20.5	20.0	2.6	30.0
Styrene	Ave	1.298	1.328	0.3000	20.5	20.0	2.3	30.0
Bromoform	Ave	0.2649	0.2535	0.1000	19.1	20.0	-4.3	30.0
Isopropylbenzene	Ave	2.054	2.132	0.1000	20.8	20.0	3.8	30.0
Cyclohexanone	Ave	0.2691	0.2557		475	500	-5.0	30.0
1,1,2,2-Tetrachloroethane	Ave	1.076	1.069	0.3000	19.9	20.0	-0.6	30.0
Bromobenzene	Ave	0.8692	0.8720		20.1	20.0	0.3	30.0
trans-1,4-Dichloro-2-butene	Ave	0.3794	0.3766		99.2	100	-0.8	30.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: ICV 410-63741/10 Calibration Date: 11/09/2020 16:14

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: NN09V01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
1,2,3-Trichloropropane	Ave	0.3392	0.3376		19.9	20.0	-0.5	30.0
N-Propylbenzene	Ave	4.560	4.831		21.2	20.0	6.0	30.0
2-Chlorotoluene	Ave	0.8898	0.9289		20.9	20.0	4.4	30.0
1,3,5-Trimethylbenzene	Ave	3.334	3.420		20.5	20.0	2.6	30.0
4-Chlorotoluene	Ave	0.9215	0.9330		20.2	20.0	1.2	30.0
tert-Butylbenzene	Ave	0.7151	0.7165		20.0	20.0	0.2	30.0
Pentachloroethane	Ave	0.4607	0.5216		22.6	20.0	13.2	30.0
1,2,4-Trimethylbenzene	Ave	3.400	3.444		20.3	20.0	1.3	30.0
sec-Butylbenzene	Ave	4.201	4.400		20.9	20.0	4.7	30.0
1,3-Dichlorobenzene	Ave	1.697	1.725	0.6000	20.3	20.0	1.7	30.0
p-Isopropyltoluene	Ave	3.591	3.789		21.1	20.0	5.5	30.0
1,4-Dichlorobenzene	Ave	1.712	1.747	0.5000	20.4	20.0	2.1	30.0
1,2,3-Trimethylbenzene	Ave	3.390	3.565		21.0	20.0	5.2	30.0
Benzyl chloride	Ave	2.439	2.443		20.0	20.0	0.2	30.0
1,3-Diethylbenzene	Ave	2.209	2.183		19.8	20.0	-1.2	30.0
1,4-Diethylbenzene	Ave	2.307	2.314		20.1	20.0	0.3	30.0
n-Butylbenzene	Ave	1.811	1.846		20.4	20.0	1.9	30.0
1,2-Dichlorobenzene	Ave	1.606	1.620	0.4000	20.2	20.0	0.8	30.0
1,2-Diethylbenzene	Ave	1.823	1.812		19.9	20.0	-0.6	30.0
1,2-Dibromo-3-Chloropropane	Ave	0.2796	0.2793	0.0500	20.0	20.0	-0.1	30.0
1,3,5-Trichlorobenzene	Ave	1.132	1.131		20.0	20.0	-0.1	30.0
1,2,4-Trichlorobenzene	Ave	1.004	0.9911	0.2000	19.7	20.0	-1.3	30.0
Hexachlorobutadiene	Ave	0.4097	0.4032		19.7	20.0	-1.6	30.0
Naphthalene	Ave	3.694	3.608		19.5	20.0	-2.3	30.0
1,2,3-Trichlorobenzene	Ave	0.9437	0.9184		19.5	20.0	-2.7	30.0
2-Methylnaphthalene	Ave	2.075	1.860		17.9	20.0	-10.4	30.0
Dibromofluoromethane (Surr)	Ave	0.2320	0.2289		49.3	50.0	-1.3	30.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0626	0.0625		50.0	50.0	-0.0	30.0
Toluene-d8 (Surr)	Ave	1.341	1.346		50.2	50.0	0.4	30.0
4-Bromofluorobenzene (Surr)	Ave	0.5229	0.5214		49.9	50.0	-0.3	30.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09V01.D
Lims ID: ICV
Client ID:
Sample Type: ICV
Inject. Date: 09-Nov-2020 16:14:30 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: ICV020
Misc. Info.: 410-0015005-010
Operator ID: DVV10203 Instrument ID: 7159
Sublist:

Method: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 09-Nov-2020 17:37:18 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1615

First Level Reviewer: greenl Date: 09-Nov-2020 17:37:18

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.013	2.020	-0.007	99	159865	20.0	22.7	
6 Chloromethane	50	2.219	2.232	-0.013	99	198419	20.0	21.5	
8 Vinyl chloride	62	2.341	2.354	-0.013	91	196243	20.0	21.9	
9 Butadiene	39	2.347	2.354	-0.007	90	157573	20.0	18.7	
10 Bromomethane	94	2.682	2.695	-0.013	90	132060	20.0	21.4	
11 Chloroethane	64	2.773	2.786	-0.013	99	117106	20.0	20.3	
12 Dichlorofluoromethane	67	3.022	3.035	-0.013	97	262901	20.0	19.3	
13 Trichlorofluoromethane	101	3.095	3.108	-0.013	97	229919	20.0	20.8	
15 Pentane	43	3.144	3.151	-0.007	96	214139	20.0	18.7	
16 Ethanol	45	3.211	3.224	-0.013	93	92459	1000.0	936.8	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.436	3.449	-0.013	93	170784	20.0	20.6	
18 Acrolein	56	3.540	3.547	-0.006	98	334209	150.0	134.6	
20 1,1-Dichloroethene	96	3.686	3.693	-0.006	98	135278	20.0	20.8	
21 Acetone	58	3.710	3.723	-0.013	100	141672	150.0	136.6	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.716	3.729	-0.013	68	123988	20.0	19.5	
23 Isopropyl alcohol	45	3.862	3.845	0.017	96	81920	150.0	132.4	
24 Iodomethane	142	3.892	3.899	-0.007	98	216269	20.0	19.4	
25 Carbon disulfide	76	4.008	4.015	-0.007	99	424172	20.0	19.6	
26 Methyl acetate	43	4.154	4.155	-0.001	97	139139	20.0	19.2	
27 3-Chloro-1-propene	41	4.184	4.197	-0.013	92	217740	20.0	20.1	
* 29 t-Butyl alcohol-d10 (IS)	65	4.373	4.386	-0.013	0	337942	250.0	250.0	
28 Methylene Chloride	84	4.379	4.392	-0.013	92	149279	20.0	20.1	
31 2-Methyl-2-propanol	59	4.501	4.508	-0.007	99	259189	200.0	193.9	
32 Acrylonitrile	53	4.714	4.727	-0.013	99	372833	100.0	98.3	
33 Methyl tert-butyl ether	73	4.787	4.800	-0.013	95	445732	20.0	18.9	
34 trans-1,2-Dichloroethene	96	4.811	4.818	-0.007	98	149404	20.0	20.2	
36 Hexane	57	5.231	5.238	-0.007	92	224939	20.0	20.3	
37 1,1-Dichloroethane	63	5.468	5.475	-0.007	96	269972	20.0	20.3	
39 Isopropyl ether	45	5.523	5.530	-0.007	92	443263	20.0	19.2	
40 2-Chloro-1,3-butadiene	53	5.578	5.584	-0.006	91	244998	20.0	20.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
41 Tert-butyl ethyl ether	59	6.058	6.065	-0.007	97	461138	20.0	19.4	
43 2-Butanone (MEK)	43	6.253	6.260	-0.007	99	758432	150.0	142.6	
44 cis-1,2-Dichloroethene	96	6.308	6.314	-0.006	84	178653	20.0	20.9	
45 2,2-Dichloropropane	77	6.320	6.327	-0.007	87	252706	20.0	20.7	
46 Propionitrile	54	6.344	6.345	-0.001	99	238469	150.0	147.2	
47 Methacrylonitrile	67	6.569	6.570	-0.001	91	639108	150.0	148.0	
48 Chlorobromomethane	128	6.642	6.643	-0.001	92	74643	20.0	18.9	
49 Tetrahydrofuran	71	6.642	6.649	-0.007	82	155417	100.0	88.4	
50 Chloroform	83	6.788	6.795	-0.007	94	262059	20.0	19.9	
$ 51 Dibromofluoromethane (Surr)	113	7.007	7.008	-0.001	93	300424	50.0	49.3	
52 1,1,1-Trichloroethane	97	7.019	7.026	-0.007	98	237890	20.0	20.0	
54 Cyclohexane	56	7.129	7.130	-0.001	89	266349	20.0	20.0	
56 1,1-Dichloropropene	75	7.238	7.239	-0.001	95	219957	20.0	20.3	
55 Carbon tetrachloride	117	7.238	7.239	-0.001	86	198329	20.0	20.4	
58 Isobutyl alcohol	41	7.354	7.361	-0.007	94	209467	500.0	474.6	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.470	-0.007	98	82061	50.0	50.0	
60 Benzene	78	7.500	7.507	-0.007	97	629476	20.0	19.9	
61 1,2-Dichloroethane	62	7.573	7.574	-0.001	98	200109	20.0	18.8	
62 Tert-amyl methyl ether	73	7.682	7.689	-0.007	98	464760	20.0	19.7	
* 64 Fluorobenzene (IS)	96	7.901	7.908	-0.007	99	1312200	50.0	50.0	
65 n-Heptane	43	7.914	7.914	0.000	90	209467	20.0	19.1	
66 n-Butanol	56	8.242	8.243	-0.001	86	383108	1000.0	940.4	
67 Trichloroethene	95	8.388	8.389	-0.001	98	159632	20.0	19.9	
68 Methylcyclohexane	83	8.698	8.705	-0.007	93	291683	20.0	20.0	
70 1,2-Dichloropropane	63	8.723	8.724	-0.001	81	161545	20.0	20.4	
69 2-ethoxy-2-methyl butane	87	8.723	8.724	-0.001	94	253517	20.0	20.1	
71 Methyl methacrylate	69	8.796	8.797	-0.001	91	143317	20.0	18.6	
72 1,4-Dioxane	88	8.802	8.803	-0.001	37	42424	500.0	476.8	M
74 Dibromomethane	93	8.838	8.839	-0.001	95	92459	20.0	19.5	
75 Dichlorobromomethane	83	9.069	9.070	-0.001	99	201472	20.0	20.0	
77 2-Nitropropane	41	9.325	9.326	-0.001	96	63792	20.0	19.1	
78 2-Chloroethyl vinyl ether	63	9.422	9.423	-0.001	92	118912	20.0	19.8	
79 cis-1,3-Dichloropropene	75	9.605	9.606	-0.001	96	259012	20.0	19.5	
80 4-Methyl-2-pentanone (MIBK)	43	9.763	9.764	-0.001	96	1064556	100.0	99.2	
$ 81 Toluene-d8 (Surr)	98	9.909	9.910	-0.001	94	1325449	50.0	50.2	
82 Toluene	92	9.982	9.983	-0.001	98	414837	20.0	20.3	
84 trans-1,3-Dichloropropene	75	10.231	10.232	-0.001	93	234138	20.0	19.4	
85 Ethyl methacrylate	69	10.286	10.287	-0.001	89	249448	20.0	19.9	
86 1,1,2-Trichloroethane	97	10.438	10.433	0.005	91	143011	20.0	20.1	
87 Tetrachloroethene	166	10.523	10.524	-0.001	95	166275	20.0	18.3	
88 1,3-Dichloropropane	76	10.596	10.597	-0.001	91	242701	20.0	19.6	
89 2-Hexanone	43	10.639	10.640	-0.001	95	820878	100.0	98.8	
90 Chlorodibromomethane	129	10.809	10.810	-0.001	90	151697	20.0	20.3	
91 Ethylene Dibromide	107	10.925	10.926	-0.001	99	146877	20.0	19.9	
* 93 Chlorobenzene-d5 (IS)	117	11.351	11.352	-0.001	89	984463	50.0	50.0	
94 1-Chlorohexane	91	11.351	11.352	-0.001	97	242275	20.0	20.0	
95 Chlorobenzene	112	11.375	11.376	-0.001	94	449768	20.0	20.3	
96 1,1,1,2-Tetrachloroethane	131	11.454	11.455	-0.001	96	150306	20.0	20.0	
97 Ethylbenzene	91	11.460	11.461	-0.001	98	806345	20.0	20.4	
98 m-Xylene & p-Xylene	106	11.576	11.571	0.005	100	640091	40.0	41.2	
99 o-Xylene	106	11.904	11.905	-0.001	95	310167	20.0	20.5	
100 Styrene	104	11.917	11.917	0.000	94	522992	20.0	20.5	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
101 Bromoform	173	12.081	12.076	0.005	95	99821	20.0	19.1	
102 Isopropylbenzene	105	12.202	12.203	-0.001	96	839690	20.0	20.8	
103 Cyclohexanone	55	12.275	12.276	-0.001	92	172842	500.0	475.2	
$ 104 4-Bromofluorobenzene (Surr)	95	12.348	12.349	-0.001	86	513299	50.0	49.9	
105 1,1,2,2-Tetrachloroethane	83	12.440	12.441	-0.001	93	219275	20.0	19.9	
106 Bromobenzene	156	12.464	12.465	-0.001	94	178832	20.0	20.1	
107 trans-1,4-Dichloro-2-butene	53	12.470	12.465	0.005	92	386123	100.0	99.2	
108 1,2,3-Trichloropropane	110	12.488	12.489	-0.001	81	69230	20.0	19.9	
109 N-Propylbenzene	91	12.531	12.532	-0.001	99	990833	20.0	21.2	
110 2-Chlorotoluene	126	12.610	12.611	-0.001	96	190503	20.0	20.9	
111 1,3,5-Trimethylbenzene	105	12.665	12.666	-0.001	94	701292	20.0	20.5	
112 4-Chlorotoluene	126	12.701	12.702	-0.001	98	191336	20.0	20.2	
113 tert-Butylbenzene	134	12.908	12.909	-0.001	92	146939	20.0	20.0	
114 Pentachloroethane	167	12.945	12.945	0.000	86	106967	20.0	22.6	
115 1,2,4-Trimethylbenzene	105	12.951	12.952	-0.001	97	706259	20.0	20.3	
116 sec-Butylbenzene	105	13.072	13.073	-0.001	94	902429	20.0	20.9	
117 1,3-Dichlorobenzene	146	13.176	13.171	0.005	97	353864	20.0	20.3	
118 4-Isopropyltoluene	119	13.176	13.177	-0.001	97	777026	20.0	21.1	
* 119 1,4-Dichlorobenzene-d4	152	13.231	13.231	0.000	95	512709	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.249	13.250	-0.001	93	358363	20.0	20.4	
121 1,2,3-Trimethylbenzene	105	13.255	13.256	-0.001	98	731075	20.0	21.0	
122 Benzyl chloride	91	13.322	13.323	-0.001	98	501058	20.0	20.0	
123 1,3-Diethylbenzene	119	13.377	13.377	0.000	95	447643	20.0	19.8	
124 p-Diethylbenzene	119	13.450	13.450	0.000	94	474625	20.0	20.1	
125 n-Butylbenzene	92	13.468	13.469	-0.001	98	378545	20.0	20.4	
126 1,2-Dichlorobenzene	146	13.504	13.505	-0.001	97	332192	20.0	20.2	
127 o-diethylbenzene	119	13.523	13.523	0.000	96	371525	20.0	19.9	
129 1,2-Dibromo-3-Chloropropane	75	14.052	14.047	0.005	84	57283	20.0	20.0	
130 1,3,5-Trichlorobenzene	180	14.180	14.174	0.006	97	231890	20.0	20.0	
131 1,2,4-Trichlorobenzene	180	14.599	14.600	-0.001	95	203254	20.0	19.7	
132 Hexachlorobutadiene	225	14.685	14.685	-0.001	98	82693	20.0	19.7	
133 Naphthalene	128	14.788	14.789	-0.001	97	739880	20.0	19.5	
134 1,2,3-Trichlorobenzene	180	14.934	14.935	-0.001	96	188354	20.0	19.5	
135 2-Methylnaphthalene	142	15.585	15.586	-0.001	92	381427	20.0	17.9	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_Q_QARC_00053	Amount Added:	50.00	Units: uL	
MSV_Q_QVOA1_00054	Amount Added:	50.00	Units: uL	
MSV_Q_QVOA6_00051	Amount Added:	50.00	Units: uL	
MSV_QCYC_00004	Amount Added:	50.00	Units: uL	
MSV_Q_ETOH_00007	Amount Added:	50.00	Units: uL	
MSV_DCFM_00054	Amount Added:	1.00	Units: uL	
MSV_502QGas_00115	Amount Added:	1.00	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 09-Nov-2020 17:37:33 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09V01.D

Injection Date: 09-Nov-2020 16:14:30 Instrument ID: 7159 Operator ID: DVV10203

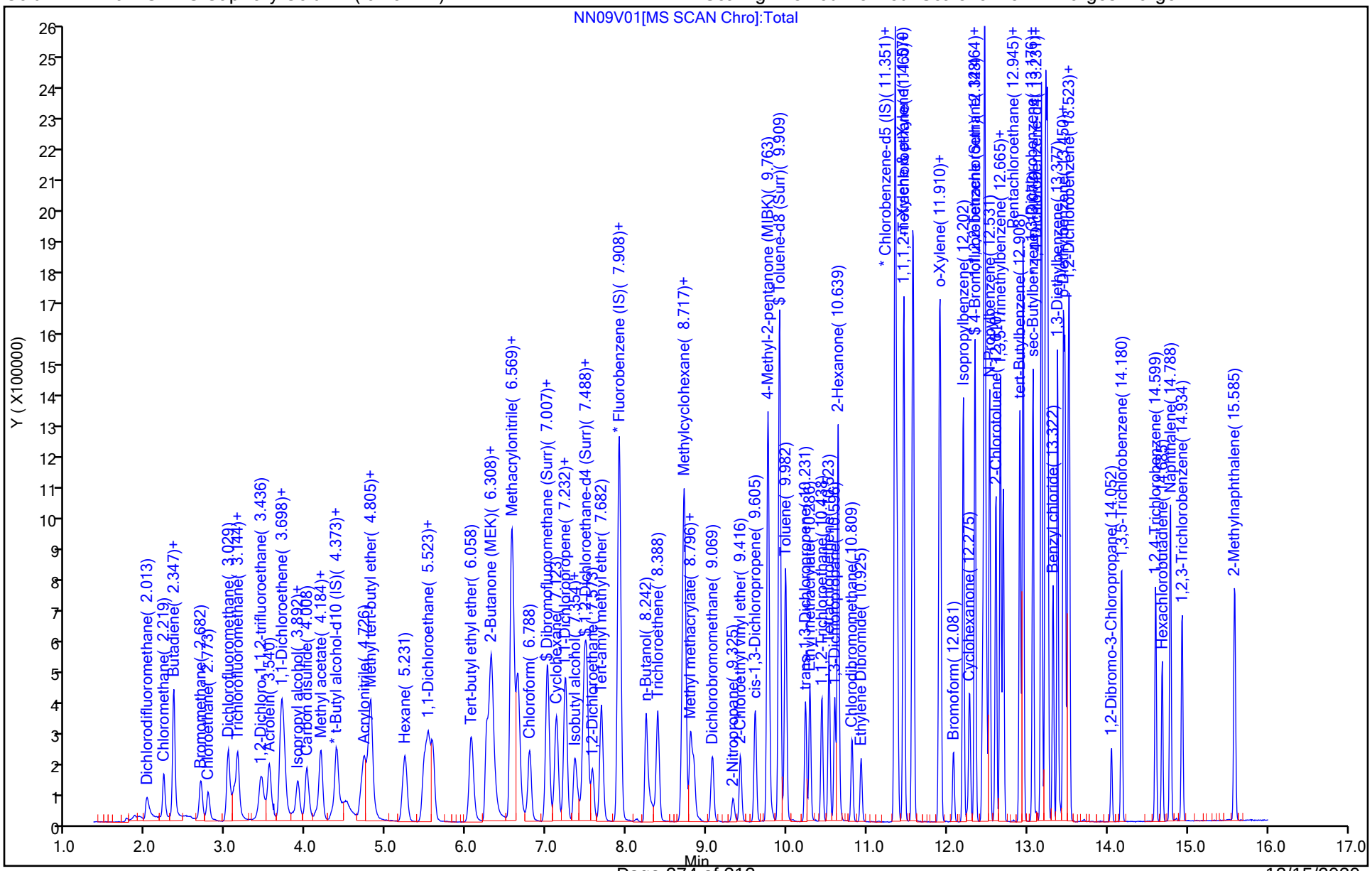
Lims ID: ICV Worklist Smp#: 10

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 9

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

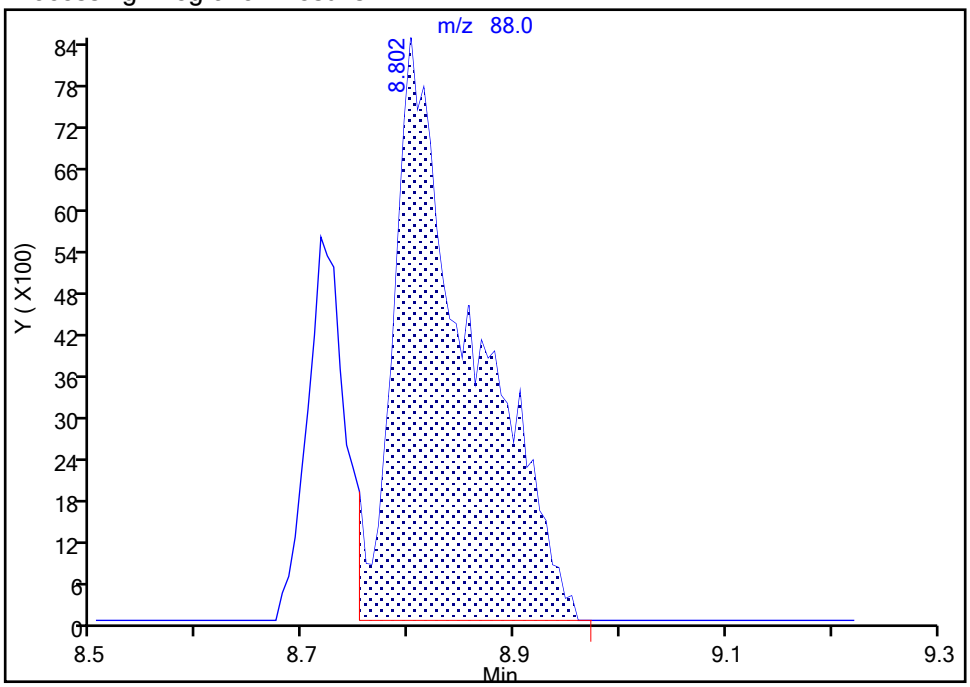
Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09V01.D
Injection Date: 09-Nov-2020 16:14:30 Instrument ID: 7159
Lims ID: ICV
Client ID:
Operator ID: DVV10203 ALS Bottle#: 9 Worklist Smp#: 10
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

72 1,4-Dioxane, CAS: 123-91-1

Signal: 1

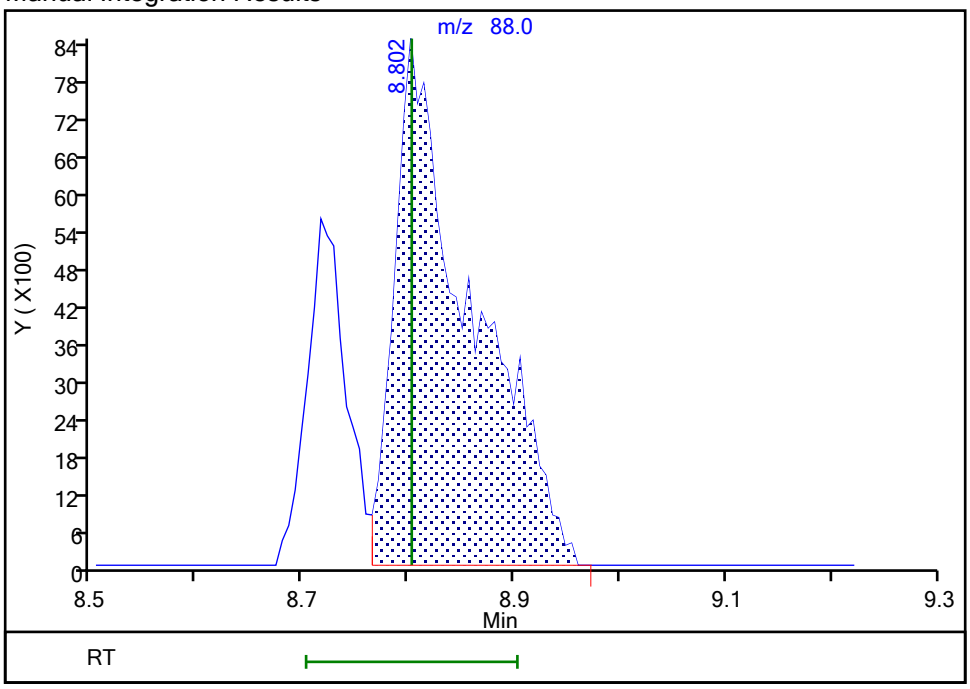
Processing Integration Results

RT: 8.80
Area: 43403
Amount: 487.8203
Amount Units: ug/l



Manual Integration Results

RT: 8.80
Area: 42424
Amount: 476.8170
Amount Units: ug/l



Reviewer: greenl, 09-Nov-2020 17:23:19
Audit Action: Split an Integrated Peak Audit Reason: Split Peak

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: CCVIS 410-73048/3 Calibration Date: 12/04/2020 09:40

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: ND04c01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Dichlorodifluoromethane	Ave	0.2679	0.2953	0.1000	55.1	50.0	10.2	20.0
Chloromethane	Ave	0.3518	0.3520	0.1000	50.0	50.0	0.0	20.0
1,3-Butadiene	Ave	0.3208	0.3841		59.9	50.0	19.8	20.0
Vinyl chloride	Ave	0.3408	0.3461	0.1000	50.8	50.0	1.5	20.0
Bromomethane	Ave	0.2352	0.2416	0.1000	51.4	50.0	2.7	20.0
Chloroethane	Ave	0.2199	0.2262	0.1000	51.4	50.0	2.9	20.0
Trichlorofluoromethane	Ave	0.4215	0.4362	0.1000	51.7	50.0	3.5	20.0
n-Pentane	Ave	0.4360	0.5121		58.7	50.0	17.5	20.0
Ethanol	Ave	0.0730	0.0589		1010	1250	-19.3	20.0
Freon 123a	Ave	0.3166	0.3136		49.5	50.0	-0.9	20.0
Acrolein	Ave	1.837	1.779		484	500	-3.1	20.0
1,1-Dichloroethene	Ave	0.2476	0.2444	0.1000	49.4	50.0	-1.3	20.0
Acetone	Ave	0.7670	0.7588	0.1000	98.9	100	-1.1	20.0
Freon 113	Ave	0.2420	0.2694	0.1000	55.7	50.0	11.3	20.0
2-Propanol	Ave	0.4577	0.4402		240	250	-3.8	20.0
Methyl iodide	Ave	0.4252	0.4219		49.6	50.0	-0.8	20.0
Carbon disulfide	Ave	0.8252	0.8398	0.1000	50.9	50.0	1.8	20.0
Methyl acetate	Ave	0.2758	0.2669	0.1000	48.4	50.0	-3.2	20.0
Allyl chloride	Ave	0.4124	0.3915		47.5	50.0	-5.1	20.0
Methylene Chloride	Ave	0.2824	0.2825	0.1000	50.0	50.0	0.0	20.0
t-Butyl alcohol	Ave	0.9890	0.9432		238	250	-4.6	20.0
Acrylonitrile	Ave	0.1446	0.1664		57.6	50.0	15.1	20.0
Methyl tertiary butyl ether	Ave	0.9002	0.8333	0.1000	46.3	50.0	-7.4	20.0
trans-1,2-Dichloroethene	Ave	0.2818	0.2800	0.1000	49.7	50.0	-0.6	20.0
n-Hexane	Ave	0.4222	0.4796		56.8	50.0	13.6	20.0
1,1-Dichloroethane	Ave	0.5064	0.4930	0.2000	48.7	50.0	-2.6	20.0
di-Isopropyl ether	Ave	0.8812	0.8648		49.1	50.0	-1.9	20.0
2-Chloro-1,3-butadiene	Ave	0.4668	0.4472		47.9	50.0	-4.2	20.0
Ethyl t-butyl ether	Ave	0.9046	0.8486		46.9	50.0	-6.2	20.0
2-Butanone	Ave	0.2026	0.2273	0.1000	112	100	12.2	20.0
cis-1,2-Dichloroethene	Ave	0.3256	0.3158	0.1000	48.5	50.0	-3.0	20.0
2,2-Dichloropropane	Ave	0.4645	0.4191		45.1	50.0	-9.8	20.0
Propionitrile	Ave	1.198	1.174		245	250	-2.1	20.0
Methacrylonitrile	Ave	0.1645	0.1722		131	125	4.7	20.0
Bromochloromethane	Ave	0.1506	0.1343		44.6	50.0	-10.9	20.0
Tetrahydrofuran	Ave	1.301	1.168		89.8	100	-10.2	20.0
Chloroform	Ave	0.5008	0.4748	0.2000	47.4	50.0	-5.2	20.0
1,1,1-Trichloroethane	Ave	0.4523	0.4106	0.1000	45.4	50.0	-9.2	20.0
Cyclohexane	Ave	0.5072	0.5499	0.1000	54.2	50.0	8.4	20.0
1,1-Dichloropropene	Ave	0.4125	0.3996		48.4	50.0	-3.1	20.0
Carbon tetrachloride	Ave	0.3712	0.3498	0.1000	47.1	50.0	-5.8	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: CCVIS 410-73048/3 Calibration Date: 12/04/2020 09:40

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: ND04c01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
Isobutyl alcohol	Ave	0.3265	0.3077		589	625	-5.7	20.0
Benzene	Ave	1.203	1.206	0.5000	50.1	50.0	0.2	20.0
1,2-Dichloroethane	Ave	0.4063	0.3588	0.1000	44.2	50.0	-11.7	20.0
t-Amyl methyl ether	Ave	0.8970	0.8400		46.8	50.0	-6.4	20.0
n-Heptane	Ave	0.4180	0.4492		53.7	50.0	7.4	20.0
n-Butanol	Ave	0.3014	0.2649		1100	1250	-12.1	20.0
Trichloroethene	Ave	0.3053	0.2964	0.2000	48.5	50.0	-2.9	20.0
Methylcyclohexane	Ave	0.5550	0.5203	0.1000	46.9	50.0	-6.3	20.0
1,2-Dichloropropane	Ave	0.3020	0.2989	0.1000	49.5	50.0	-1.0	20.0
t-Amyl ethyl ether	Ave	0.4803	0.4518		47.0	50.0	-5.9	20.0
Methyl methacrylate	Ave	0.2932	0.2725		46.5	50.0	-7.0	20.0
1,4-Dioxane	Ave	0.0658	0.0562	0.0050	534	625	-14.6	20.0
Dibromomethane	Ave	0.1803	0.1726		47.9	50.0	-4.2	20.0
Bromodichloromethane	Ave	0.3838	0.3566	0.2000	46.5	50.0	-7.1	20.0
2-Nitropropane	Ave	2.474	2.221		89.8	100	-10.2	20.0
2-Chloroethyl vinyl ether	Ave	0.2291	0.2110		46.0	50.0	-7.9	20.0
cis-1,3-Dichloropropene	Ave	0.5056	0.4705	0.2000	46.5	50.0	-6.9	20.0
4-Methyl-2-pentanone	Ave	0.4090	0.5098	0.1000	125	100	24.7*	20.0
Toluene	Ave	1.040	1.047	0.4000	50.3	50.0	0.7	20.0
trans-1,3-Dichloropropene	Ave	0.6135	0.5745	0.1000	46.8	50.0	-6.4	20.0
Ethyl methacrylate	Ave	0.6365	0.6181		48.6	50.0	-2.9	20.0
1,1,2-Trichloroethane	Ave	0.3616	0.3511	0.1000	48.6	50.0	-2.9	20.0
Tetrachloroethene	Ave	0.4626	0.4029	0.2000	43.5	50.0	-12.9	20.0
1,3-Dichloropropane	Ave	0.6301	0.6161		48.9	50.0	-2.2	20.0
2-Hexanone	Ave	0.4220	0.5456	0.1000	129	100	29.3*	20.0
Dibromochloromethane	Ave	0.3794	0.3618		47.7	50.0	-4.6	20.0
1,2-Dibromoethane	Ave	0.3743	0.3730	0.1000	49.8	50.0	-0.3	20.0
1-Chlorohexane	Ave	0.6159	0.6094		49.5	50.0	-1.1	20.0
Chlorobenzene	Ave	1.125	1.103	0.5000	49.1	50.0	-1.9	20.0
1,1,1,2-Tetrachloroethane	Ave	0.3812	0.3769		49.4	50.0	-1.1	20.0
Ethylbenzene	Ave	2.012	2.007	0.1000	49.9	50.0	-0.2	20.0
m&p-Xylene	Ave	0.7888	0.7769	0.1000	98.5	100	-1.5	20.0
o-Xylene	Ave	0.7676	0.7605	0.3000	49.5	50.0	-0.9	20.0
Styrene	Ave	1.298	1.289	0.3000	49.7	50.0	-0.7	20.0
Bromoform	Ave	0.2649	0.2594	0.1000	49.0	50.0	-2.1	20.0
Isopropylbenzene	Ave	2.054	2.025	0.1000	49.3	50.0	-1.4	20.0
Cyclohexanone	Ave	0.2691	0.2345		545	625	-12.8	20.0
1,1,2,2-Tetrachloroethane	Ave	1.076	1.114	0.3000	51.8	50.0	3.6	20.0
Bromobenzene	Ave	0.8692	0.8823		50.8	50.0	1.5	20.0
trans-1,4-Dichloro-2-butene	Ave	0.3794	0.2612		86.0	125	-31.2*	20.0
1,2,3-Trichloropropane	Ave	0.3392	0.3473		51.2	50.0	2.4	20.0

FORM VII
GC/MS VOA CONTINUING CALIBRATION DATA

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Lab Sample ID: CCVIS 410-73048/3 Calibration Date: 12/04/2020 09:40

Instrument ID: 7159 Calib Start Date: 11/09/2020 13:40

GC Column: R-624SilMS 30m ID: 0.25(mm) Calib End Date: 11/09/2020 15:52

Lab File ID: ND04c01.D Conc. Units: ug/L Heated Purge: (Y/N) N

ANALYTE	CURVE TYPE	AVE RRF	RRF	MIN RRF	CALC AMOUNT	SPIKE AMOUNT	%D	MAX %D
N-Propylbenzene	Ave	4.560	4.766		52.3	50.0	4.5	20.0
2-Chlorotoluene	Ave	0.8898	0.9246		52.0	50.0	3.9	20.0
1,3,5-Trimethylbenzene	Ave	3.334	3.403		51.0	50.0	2.1	20.0
4-Chlorotoluene	Ave	0.9215	0.9425		51.1	50.0	2.3	20.0
tert-Butylbenzene	Ave	0.7151	0.7131		49.9	50.0	-0.3	20.0
Pentachloroethane	Ave	0.4607	0.4860		52.7	50.0	5.5	20.0
1,2,4-Trimethylbenzene	Ave	3.400	3.461		50.9	50.0	1.8	20.0
sec-Butylbenzene	Ave	4.201	4.341		51.7	50.0	3.3	20.0
1,3-Dichlorobenzene	Ave	1.697	1.701	0.6000	50.1	50.0	0.2	20.0
p-Isopropyltoluene	Ave	3.591	3.625		50.5	50.0	0.9	20.0
1,4-Dichlorobenzene	Ave	1.712	1.716	0.5000	50.1	50.0	0.2	20.0
1,2,3-Trimethylbenzene	Ave	3.390	3.148		46.4	50.0	-7.2	20.0
Benzyl chloride	Ave	2.439	2.453		50.3	50.0	0.6	20.0
1,3-Diethylbenzene	Ave	2.209	1.955		44.3	50.0	-11.5	20.0
1,4-Diethylbenzene	Ave	2.307	2.052		44.5	50.0	-11.1	20.0
n-Butylbenzene	Ave	1.811	1.860		51.4	50.0	2.7	20.0
1,2-Dichlorobenzene	Ave	1.606	1.592	0.4000	49.6	50.0	-0.9	20.0
1,2-Diethylbenzene	Ave	1.823	1.623		44.5	50.0	-11.0	20.0
1,2-Dibromo-3-Chloropropane	Ave	0.2796	0.2795	0.0500	50.0	50.0	-0.0	20.0
1,3,5-Trichlorobenzene	Ave	1.132	1.146		50.6	50.0	1.2	20.0
1,2,4-Trichlorobenzene	Ave	1.004	1.026	0.2000	51.1	50.0	2.2	20.0
Hexachlorobutadiene	Ave	0.4097	0.4065		49.6	50.0	-0.8	20.0
Naphthalene	Ave	3.694	3.785		51.2	50.0	2.5	20.0
1,2,3-Trichlorobenzene	Ave	0.9437	0.9663		51.2	50.0	2.4	20.0
2-Methylnaphthalene	Ave	2.075	1.877		45.2	50.0	-9.6	20.0
Dibromofluoromethane (Surr)	Ave	0.2320	0.2214		47.7	50.0	-4.6	20.0
1,2-Dichloroethane-d4 (Surr)	Ave	0.0626	0.0628		50.1	50.0	0.3	20.0
Toluene-d8 (Surr)	Ave	1.341	1.328		49.5	50.0	-1.0	20.0
4-Bromofluorobenzene (Surr)	Ave	0.5229	0.5042		48.2	50.0	-3.6	20.0

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04c01.D
Lims ID: CCVIS
Client ID:
Sample Type: CCVIS
Inject. Date: 04-Dec-2020 09:40:30 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-003
Misc. Info.: CCVIS
Operator ID: lcp00895 Instrument ID: 7159
Sublist: chrom-MSVoa_7159*sub6

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 13:06:31 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: papel Date: 04-Dec-2020 11:15:35

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.019	2.019	0.000	99	370741	50.0	55.1	
6 Chloromethane	50	2.226	2.226	0.000	99	441965	50.0	50.0	
8 Vinyl chloride	62	2.347	2.347	0.000	98	434502	50.0	50.8	
9 Butadiene	39	2.347	2.347	0.000	89	482252	50.0	59.9	
10 Bromomethane	94	2.688	2.688	0.000	90	303362	50.0	51.4	
11 Chloroethane	64	2.779	2.779	0.000	99	283999	50.0	51.4	
13 Trichlorofluoromethane	101	3.102	3.102	0.000	98	547624	50.0	51.7	
15 Pentane	43	3.150	3.150	0.000	97	642916	50.0	58.7	
16 Ethanol	45	3.248	3.248	0.000	92	105302	1250.1	1008.4	M
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.442	3.442	0.000	95	393749	50.0	49.5	
18 Acrolein	56	3.540	3.540	0.000	100	1272186	500.0	484.3	
20 1,1-Dichloroethene	96	3.686	3.686	0.000	98	306892	50.0	49.4	
21 Acetone	58	3.716	3.716	0.000	78	108525	100.0	98.9	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.716	3.716	0.000	94	338241	50.0	55.7	
23 Isopropyl alcohol	45	3.886	3.886	0.000	33	157391	250.0	240.4	
24 Iodomethane	142	3.899	3.899	0.000	97	529651	50.0	49.6	
25 Carbon disulfide	76	4.008	4.008	0.000	98	1054305	50.0	50.9	
26 Methyl acetate	43	4.148	4.148	0.000	98	335096	50.0	48.4	
27 3-Chloro-1-propene	41	4.184	4.184	0.000	94	491538	50.0	47.5	
28 Methylene Chloride	84	4.379	4.379	0.000	90	354652	50.0	50.0	
* 29 t-Butyl alcohol-d10 (IS)	65	4.379	4.379	0.000	0	357577	250.0	250.0	
31 2-Methyl-2-propanol	59	4.507	4.507	0.000	100	337270	250.0	238.4	
32 Acrylonitrile	53	4.720	4.720	0.000	98	208957	50.0	57.6	
33 Methyl tert-butyl ether	73	4.787	4.787	0.000	94	1046154	50.0	46.3	
34 trans-1,2-Dichloroethene	96	4.811	4.811	0.000	100	351523	50.0	49.7	
36 Hexane	57	5.231	5.231	0.000	90	602092	50.0	56.8	
37 1,1-Dichloroethane	63	5.468	5.468	0.000	96	618955	50.0	48.7	
39 Isopropyl ether	45	5.523	5.523	0.000	94	1085730	50.0	49.1	
40 2-Chloro-1,3-butadiene	53	5.578	5.578	0.000	90	561437	50.0	47.9	
41 Tert-butyl ethyl ether	59	6.052	6.052	0.000	98	1065327	50.0	46.9	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
43 2-Butanone (MEK)	43	6.259	6.259	0.000	99	570680	100.0	112.2	
44 cis-1,2-Dichloroethene	96	6.302	6.302	0.000	81	396519	50.0	48.5	
45 2,2-Dichloropropane	77	6.320	6.320	0.000	87	526158	50.0	45.1	
46 Propionitrile	54	6.344	6.344	0.000	99	419722	250.0	244.9	
47 Methacrylonitrile	67	6.569	6.569	0.000	90	540466	125.0	130.8	
48 Chlorobromomethane	128	6.636	6.636	0.000	94	168557	50.0	44.6	
49 Tetrahydrofuran	71	6.642	6.642	0.000	83	167108	100.0	89.8	
50 Chloroform	83	6.782	6.782	0.000	93	596086	50.0	47.4	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	277979	50.0	47.7	
52 1,1,1-Trichloroethane	97	7.013	7.013	0.000	98	515519	50.0	45.4	
54 Cyclohexane	56	7.123	7.123	0.000	89	690377	50.0	54.2	
56 1,1-Dichloropropene	75	7.232	7.232	0.000	96	501637	50.0	48.4	
55 Carbon tetrachloride	117	7.232	7.232	0.000	82	439156	50.0	47.1	
58 Isobutyl alcohol	41	7.360	7.360	0.000	95	275100	625.0	589.1	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	78791	50.0	50.1	
60 Benzene	78	7.494	7.494	0.000	96	1513567	50.0	50.1	
61 1,2-Dichloroethane	62	7.567	7.567	0.000	97	450454	50.0	44.2	
62 Tert-amyl methyl ether	73	7.682	7.682	0.000	99	1054611	50.0	46.8	
* 64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1255449	50.0	50.0	
65 n-Heptane	43	7.908	7.908	0.000	91	563931	50.0	53.7	
66 n-Butanol	56	8.242	8.242	0.000	86	473566	1250.0	1098.6	
67 Trichloroethene	95	8.382	8.382	0.000	99	372102	50.0	48.5	
68 Methylcyclohexane	83	8.698	8.698	0.000	95	653212	50.0	46.9	
70 1,2-Dichloropropane	63	8.717	8.717	0.000	80	375192	50.0	49.5	
69 2-ethoxy-2-methyl butane	87	8.717	8.717	0.000	91	567235	50.0	47.0	
71 Methyl methacrylate	69	8.790	8.790	0.000	90	342138	50.0	46.5	
72 1,4-Dioxane	88	8.796	8.796	0.000	94	50236	625.0	533.6	
74 Dibromomethane	93	8.832	8.832	0.000	97	216745	50.0	47.9	
75 Dichlorobromomethane	83	9.063	9.063	0.000	100	447678	50.0	46.5	
77 2-Nitropropane	41	9.325	9.325	0.000	97	317627	100.0	89.8	
78 2-Chloroethyl vinyl ether	63	9.416	9.416	0.000	92	264865	50.0	46.0	
79 cis-1,3-Dichloropropene	75	9.599	9.599	0.000	96	590702	50.0	46.5	
80 4-Methyl-2-pentanone (MIBK)	43	9.757	9.757	0.000	95	1280177	100.0	124.7	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	94	1222304	50.0	49.5	
82 Toluene	92	9.976	9.976	0.000	98	963481	50.0	50.3	
84 trans-1,3-Dichloropropene	75	10.225	10.225	0.000	92	528730	50.0	46.8	
85 Ethyl methacrylate	69	10.280	10.280	0.000	89	568850	50.0	48.6	
86 1,1,2-Trichloroethane	97	10.432	10.432	0.000	89	323137	50.0	48.6	
87 Tetrachloroethene	166	10.517	10.517	0.000	97	370790	50.0	43.5	
88 1,3-Dichloropropane	76	10.590	10.590	0.000	89	566990	50.0	48.9	
89 2-Hexanone	43	10.633	10.633	0.000	95	1004267	100.0	129.3	
90 Chlorodibromomethane	129	10.803	10.803	0.000	90	332988	50.0	47.7	
91 Ethylene Dibromide	107	10.919	10.919	0.000	98	343297	50.0	49.8	
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	920353	50.0	50.0	
94 1-Chlorohexane	91	11.345	11.345	0.000	95	560889	50.0	49.5	
95 Chlorobenzene	112	11.369	11.369	0.000	94	1015456	50.0	49.1	
96 1,1,1,2-Tetrachloroethane	131	11.448	11.448	0.000	96	346924	50.0	49.4	
97 Ethylbenzene	91	11.454	11.454	0.000	98	1847400	50.0	49.9	
98 m-Xylene & p-Xylene	106	11.564	11.564	0.000	100	1430026	100.0	98.5	
99 o-Xylene	106	11.892	11.892	0.000	96	699954	50.0	49.5	
100 Styrene	104	11.911	11.911	0.000	95	1186733	50.0	49.7	
101 Bromoform	173	12.069	12.069	0.000	96	238780	50.0	49.0	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
102 Isopropylbenzene	105	12.197	12.197	0.000	96	1863576	50.0	49.3	
103 Cyclohexanone	55	12.270	12.270	0.000	91	209642	625.0	544.7	
$ 104 4-Bromofluorobenzene (Surr)	95	12.343	12.343	0.000	87	464073	50.0	48.2	
105 1,1,2,2-Tetrachloroethane	83	12.434	12.434	0.000	93	515997	50.0	51.8	
106 Bromobenzene	156	12.458	12.458	0.000	97	408743	50.0	50.8	
107 trans-1,4-Dichloro-2-butene	53	12.458	12.458	0.000	86	302486	125.0	86.0	
108 1,2,3-Trichloropropane	110	12.482	12.482	0.000	83	160905	50.0	51.2	
109 N-Propylbenzene	91	12.525	12.525	0.000	99	2208167	50.0	52.3	
110 2-Chlorotoluene	126	12.604	12.604	0.000	96	428338	50.0	52.0	
111 1,3,5-Trimethylbenzene	105	12.659	12.659	0.000	94	1576657	50.0	51.0	
112 4-Chlorotoluene	126	12.695	12.695	0.000	97	436642	50.0	51.1	
113 tert-Butylbenzene	134	12.902	12.902	0.000	92	330368	50.0	49.9	
114 Pentachloroethane	167	12.939	12.939	0.000	91	225141	50.0	52.7	
115 1,2,4-Trimethylbenzene	105	12.945	12.945	0.000	97	1603204	50.0	50.9	
116 sec-Butylbenzene	105	13.066	13.066	0.000	94	2010967	50.0	51.7	
117 1,3-Dichlorobenzene	146	13.164	13.164	0.000	97	787948	50.0	50.1	
118 4-Isopropyltoluene	119	13.170	13.170	0.000	97	1679124	50.0	50.5	
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	95	463269	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.243	13.243	0.000	93	794774	50.0	50.1	
121 1,2,3-Trimethylbenzene	105	13.249	13.249	0.000	98	1458204	50.0	46.4	
122 Benzyl chloride	91	13.316	13.316	0.000	98	1136590	50.0	50.3	
123 1,3-Diethylbenzene	119	13.371	13.371	0.000	95	905682	50.0	44.3	
124 p-Diethylbenzene	119	13.444	13.444	0.000	93	950589	50.0	44.5	
125 n-Butylbenzene	92	13.462	13.462	0.000	97	861862	50.0	51.4	
126 1,2-Dichlorobenzene	146	13.498	13.498	0.000	97	737480	50.0	49.6	
127 o-diethylbenzene	119	13.517	13.517	0.000	96	751690	50.0	44.5	
129 1,2-Dibromo-3-Chloropropane	75	14.040	14.040	0.000	87	129478	50.0	50.0	
130 1,3,5-Trichlorobenzene	180	14.174	14.174	0.000	97	530914	50.0	50.6	
131 1,2,4-Trichlorobenzene	180	14.593	14.593	0.000	94	475301	50.0	51.1	
132 Hexachlorobutadiene	225	14.679	14.679	0.000	98	188339	50.0	49.6	
133 Naphthalene	128	14.782	14.782	0.000	97	1753649	50.0	51.2	
134 1,2,3-Trichlorobenzene	180	14.928	14.928	0.000	96	447659	50.0	51.2	
135 2-Methylnaphthalene	142	15.579	15.579	0.000	92	869489	50.0	45.2	

QC Flag Legend

Processing Flags

Review Flags

M - Manually Integrated

Reagents:

MSV_V_VOA1_00114	Amount Added:	5.00	Units: uL	
MSV_V_VOA3_00057	Amount Added:	2.00	Units: uL	
MSV_V_2CEVE_00126	Amount Added:	5.00	Units: uL	
MSV_VCYC_00005	Amount Added:	10.00	Units: uL	
MSV_V_VOA6_00064	Amount Added:	5.00	Units: uL	
MSV_V_ETOH_00011	Amount Added:	10.00	Units: uL	
MSV_V_Gas_00176	Amount Added:	2.50	Units: uL	
MSV_HP11_ISSS_00005	Amount Added:	5.00	Units: uL	Run Reagent

Report Date: 04-Dec-2020 13:06:35 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04c01.D

Injection Date: 04-Dec-2020 09:40:30 Instrument ID: 7159 Operator ID: lcp00895

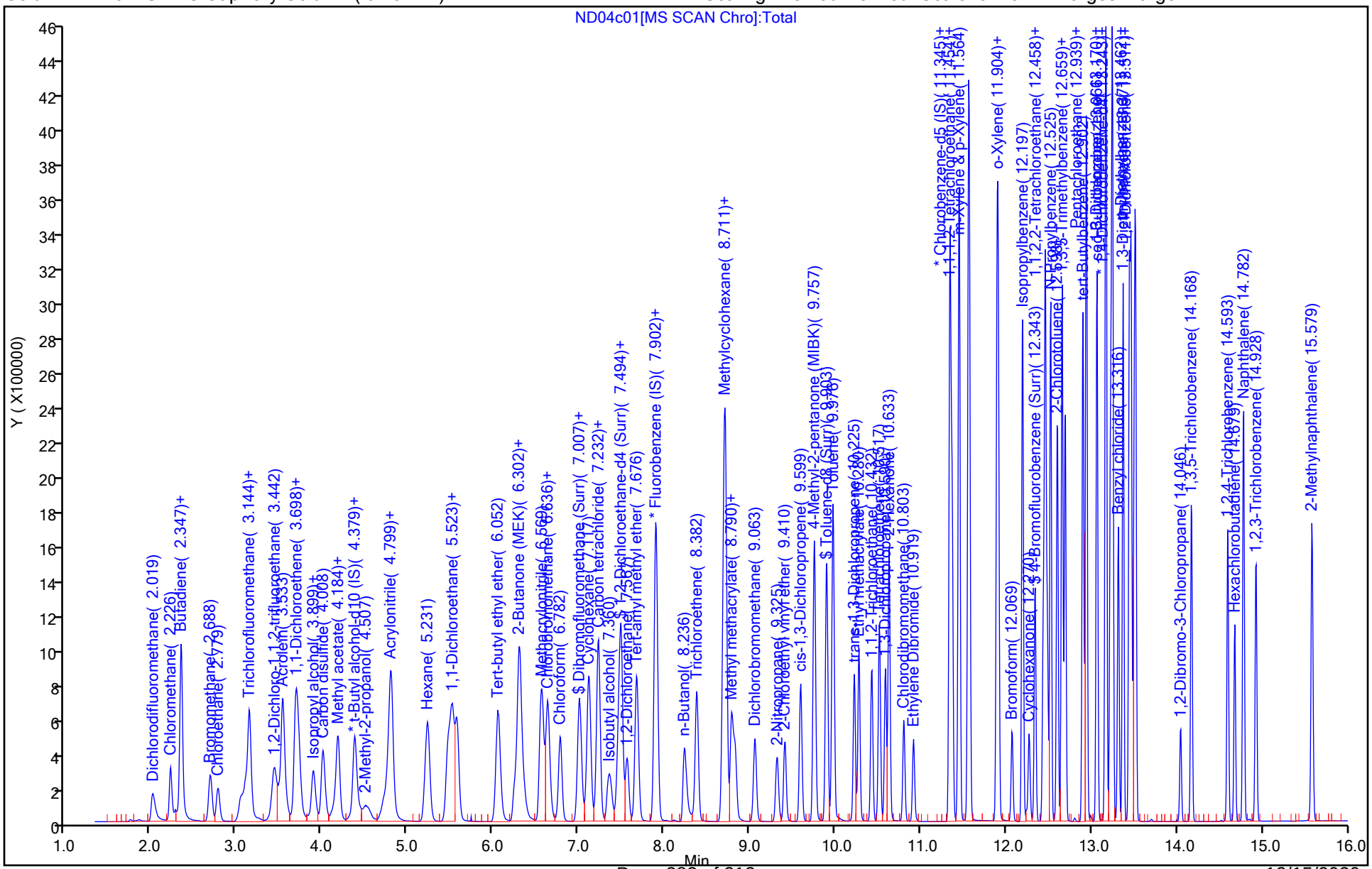
Lims ID: CCVIS Worklist Smp#: 3

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 2

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Manual Integration/User Assign Peak Report

Eurofins Lancaster Laboratories Env, LLC

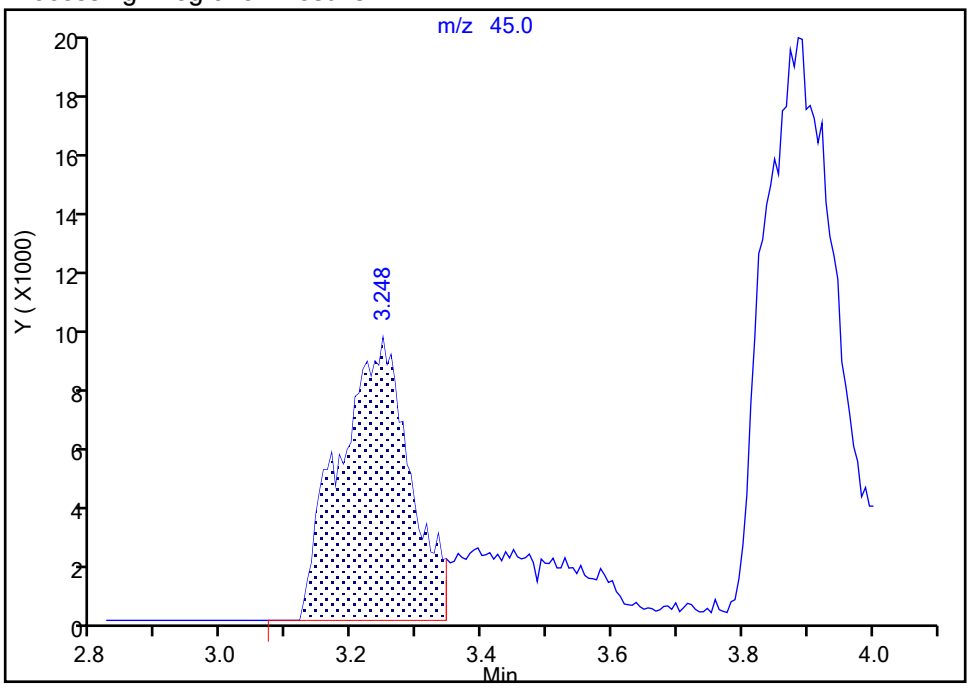
Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04c01.D
Injection Date: 04-Dec-2020 09:40:30 Instrument ID: 7159
Lims ID: CCVIS
Client ID:
Operator ID: lcp00895 ALS Bottle#: 2 Worklist Smp#: 3
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Column: Rxi-624Sil MS Capillary Column (0.25 mm) Detector MS Quad

16 Ethanol, CAS: 64-17-5

Signal: 1

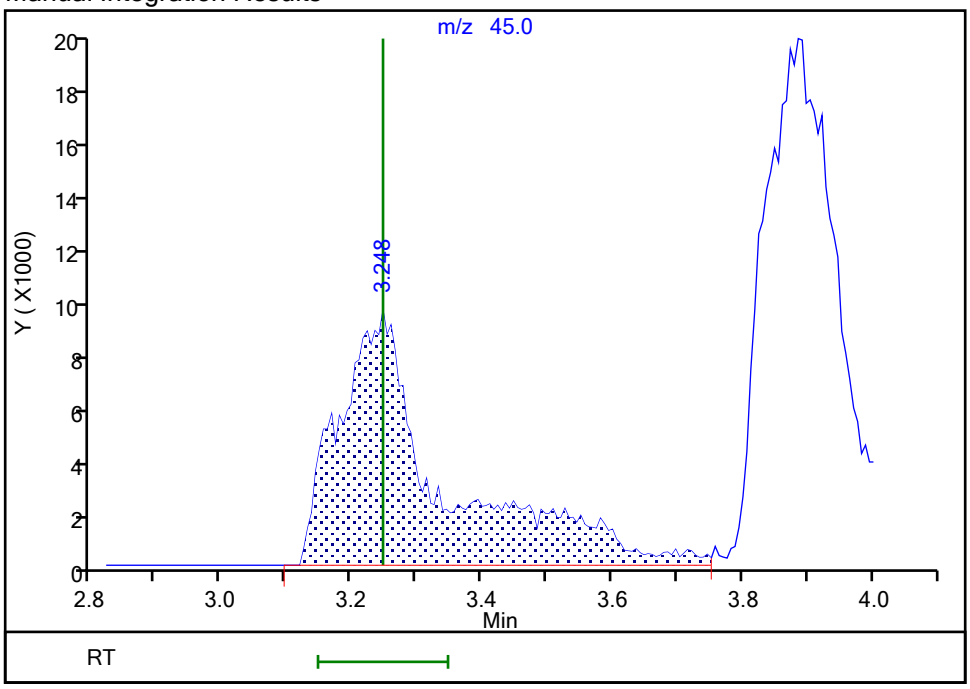
Processing Integration Results

RT: 3.25
Area: 71370
Amount: 683.4351
Amount Units: ug/l



Manual Integration Results

RT: 3.25
Area: 105302
Amount: 1008.3661
Amount Units: ug/l



Reviewer: papel, 04-Dec-2020 11:12:31
Audit Action: Split an Integrated Peak Audit Reason: Baseline

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09T01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	09-Nov-2020 12:33:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	BFB JUL22-20				
Misc. Info.:	410-0015005-001				
Operator ID:	DVV10203	Instrument ID:	7159		
Method:	\\chromfs\Lancaster\ChromData\7159\20201109-15005.b\MSVoa_7159.m				
Limit Group:	MSV - 8260C_D				
Last Update:	09-Nov-2020 17:33:56	Calib Date:	09-Nov-2020 15:52:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1615				
First Level Reviewer: virayd		Date:	09-Nov-2020 13:11:09		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 35 BFB	95	4.919	4.919	0.000	0	412285	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

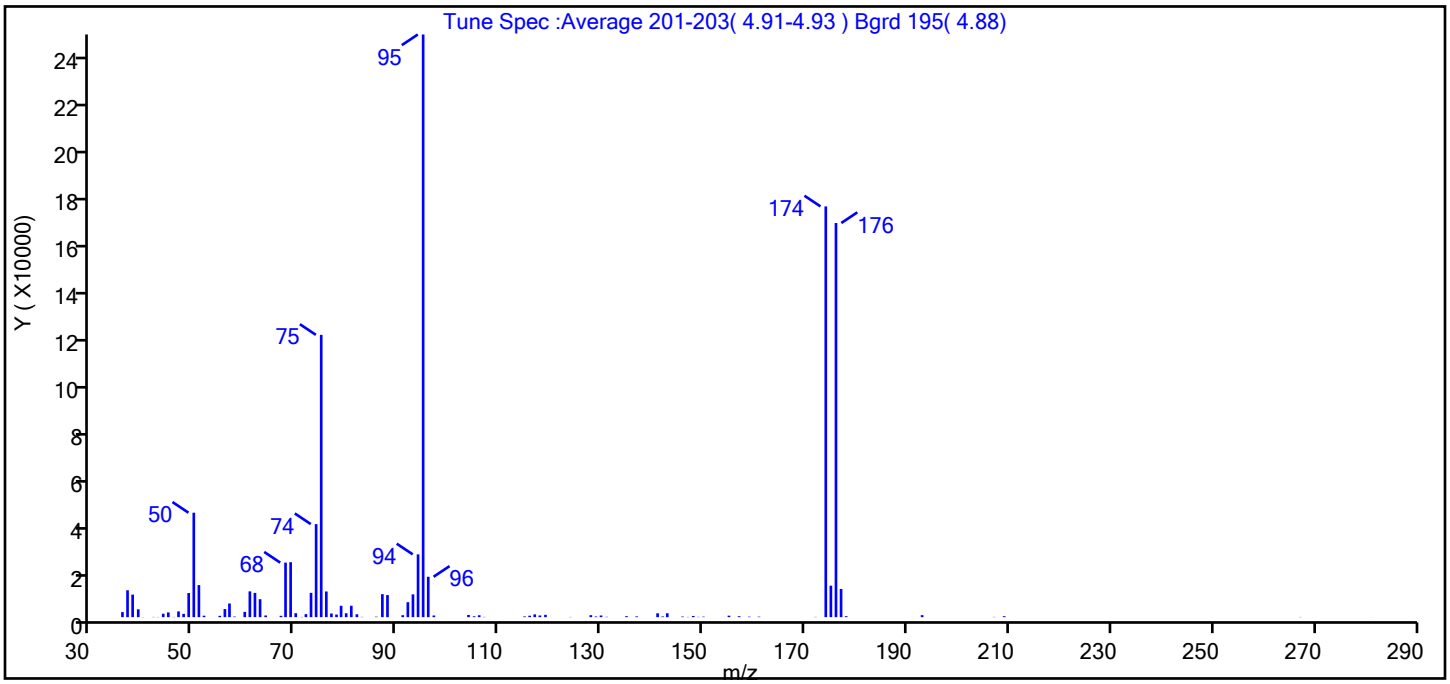
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09T01.D
Injection Date: 09-Nov-2020 12:33:30 Instrument ID: 7159
Lims ID: bfb
Client ID:
Operator ID: DVV10203 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 35 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	17.9
75	30 to 60% of m/z 95	48.4
96	5 to 9% of m/z 95	6.9
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	70.5
175	5 to 9% of m/z 174	5.4 (7.7)
176	Greater than 95% but less than 101% of m/z 174	67.6 (96.0)
177	5 to 9% of m/z 176	4.8 (7.1)

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09T01.D\MSVoa_7159.rslt\spectra.d
Injection Date: 09-Nov-2020 12:33:30
Spectrum: Tune Spec :Average 201-203(4.91-4.93) Bgrd 195(4.88)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 91

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	2143	63.00	7607	92.00	6324	142.00	277
37.00	11390	64.00	711	93.00	9660	143.00	1638
38.00	9545	67.00	571	94.00	26600	146.00	254
39.00	3321	68.00	23104	95.00	246848	147.00	90
40.00	66	69.00	23280	96.00	17104	148.00	500
42.00	88	70.00	1668	97.00	705	149.00	105
43.00	70	71.00	99	104.00	939	150.00	199
44.00	1451	72.00	1274	105.00	362	155.00	623
45.00	2001	73.00	10301	106.00	803	157.00	397
46.00	89	74.00	39416	107.00	105	159.00	203
47.00	2432	75.00	119592	115.00	302	161.00	206
48.00	1384	76.00	10881	116.00	606	172.00	99
49.00	10218	77.00	1550	117.00	1169	174.00	174016
50.00	44248	78.00	1109	118.00	710	175.00	13333
51.00	13576	79.00	4805	119.00	971	176.00	166976
52.00	613	80.00	1651	124.00	92	177.00	11935
55.00	555	81.00	4828	128.00	838	178.00	406
56.00	3417	82.00	1210	129.00	270	193.00	850
57.00	5784	83.00	108	130.00	711	207.00	99
58.00	237	86.00	196	131.00	139	209.00	400
60.00	2220	87.00	9742	135.00	416	267.00	84
61.00	10919	88.00	9362	137.00	314	281.00	23
62.00	10277	91.00	823	141.00	1619		

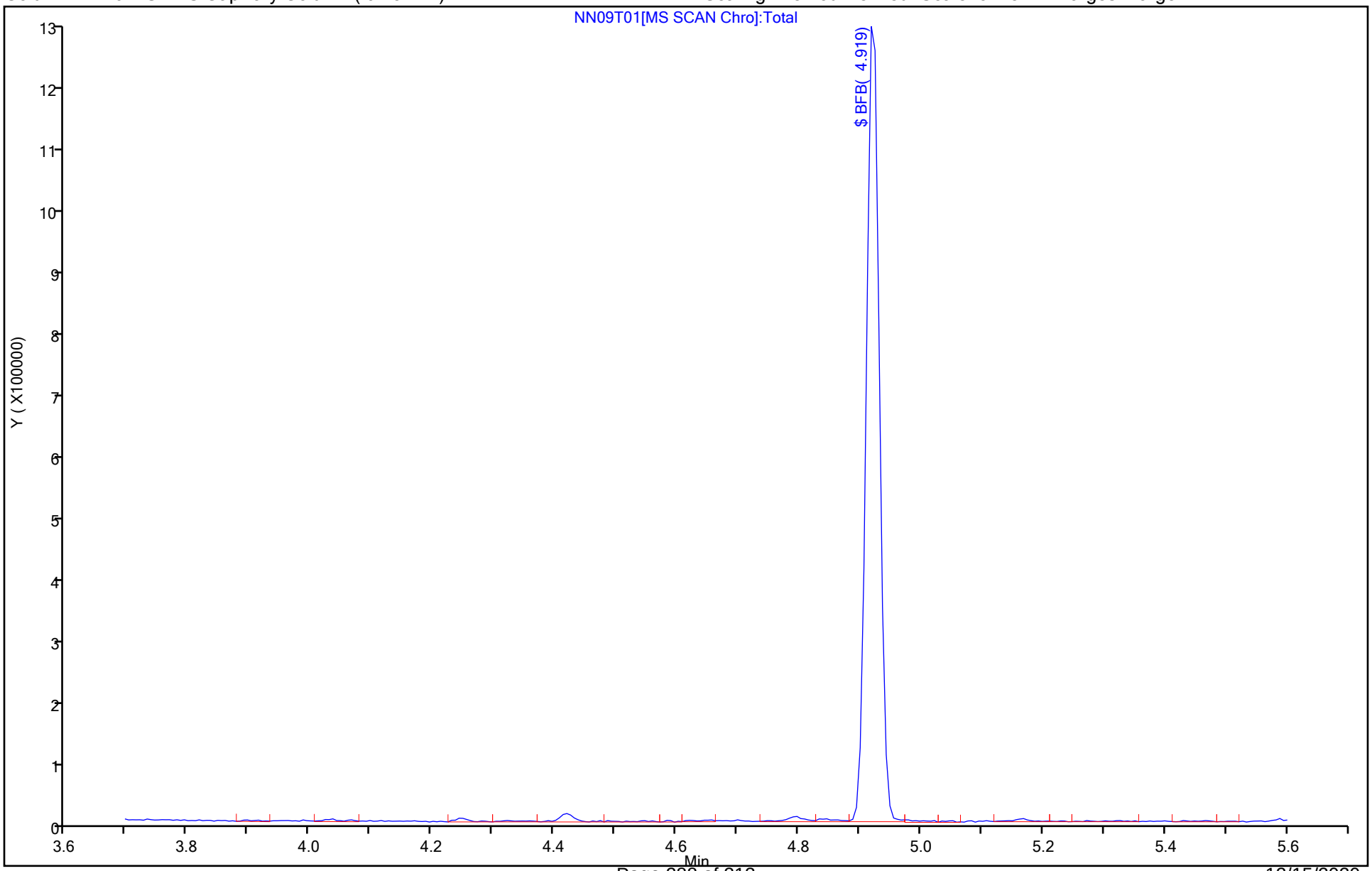
Report Date: 09-Nov-2020 17:33:56 Chrom Revision: 2.3 04-Nov-2020 10:46:10

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09T01.D

Injection Date:	09-Nov-2020 12:33:30	Instrument ID:	7159	Operator ID:	DVV10203
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04t01.D				
Lims ID:	bfb				
Client ID:					
Sample Type:	BFB				
Inject. Date:	04-Dec-2020 09:03:30	ALS Bottle#:	1	Worklist Smp#:	1
Injection Vol:	1.0 uL	Dil. Factor:	1.0000		
Sample Info:	410-0017113-001				
Misc. Info.:	BFB				
Operator ID:	lcp00895	Instrument ID:	7159		
Method:	\\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m				
Limit Group:	MSV - 8260C_D				
Last Update:	04-Dec-2020 13:06:29	Calib Date:	09-Nov-2020 15:52:30		
Integrator:	RTE	ID Type:	Deconvolution ID		
Quant Method:	Internal Standard	Quant By:	Initial Calibration		
Last ICal File:	\\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D				
Column 1 :	Rxi-624Sil MS Capillary Column (0.25 mm)		Det: MS Quad		
Process Host:	CTX1604				
First Level Reviewer: papel		Date:	04-Dec-2020 09:16:51		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 35 BFB	95	4.916	4.916	0.000	0	369072	NC	NC	

QC Flag Legend

Processing Flags
NC - Not Calibrated

Reagents:

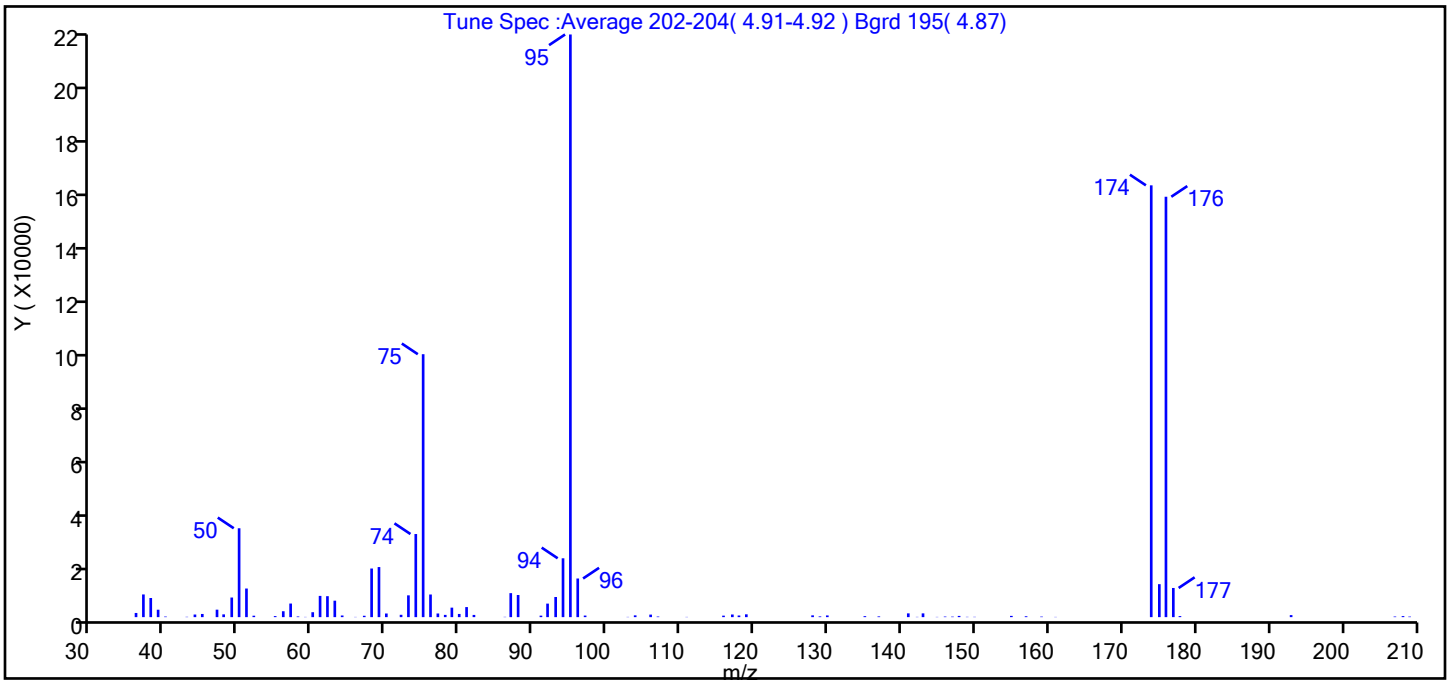
MSV_V_BFB_00003 Amount Added: 1.00 Units: uL

MS Tune Report

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04t01.D
Injection Date: 04-Dec-2020 09:03:30 Instrument ID: 7159
Lims ID: bfb
Client ID:
Operator ID: lcp00895 ALS Bottle#: 1 Worklist Smp#: 1
Injection Vol: 1.0 uL Dil. Factor: 1.0000
Method: MSVoa_7159 Limit Group: MSV - 8260C_D
Tune Method: BFB Method 8260

$ 35 BFB



m/z	Ion Abundance Criteria	% Relative Abundance
95	Base peak, 100% relative abundance	100.0
50	15 to 40% of m/z 95	15.3
75	30 to 60% of m/z 95	45.1
96	5 to 9% of m/z 95	6.6
173	Less than 2% of m/z 174	0.0 (0.0)
174	50 to 120% of m/z 95	74.1
175	5 to 9% of m/z 174	5.7 (7.6)
176	Greater than 95% but less than 101% of m/z 174	72.2 (97.4)
177	5 to 9% of m/z 176	5.0 (6.9)

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04t01.D\MSVoa_7159.rslt\spectra.d
Injection Date: 04-Dec-2020 09:03:30
Spectrum: Tune Spec :Average 202-204(4.91-4.92) Bgrd 195(4.87)
Base Peak: 95.00
Minimum % Base Peak: 0
Number of Points: 86

m/z	Y	m/z	Y	m/z	Y	m/z	Y
36.00	1570	63.00	6187	92.00	5085	143.00	1418
37.00	8533	64.00	621	93.00	7572	145.00	89
38.00	7192	66.00	83	94.00	22120	146.00	217
39.00	2791	67.00	517	95.00	219008	147.00	194
40.00	218	68.00	18280	96.00	14524	148.00	463
43.00	121	69.00	18824	97.00	593	149.00	114
44.00	986	70.00	1369	103.00	88	150.00	113
45.00	1196	72.00	881	104.00	669	155.00	474
47.00	2810	73.00	8193	106.00	953	157.00	332
48.00	1043	74.00	31240	107.00	224	159.00	204
49.00	7374	75.00	98832	111.00	84	161.00	85
50.00	33408	76.00	8512	116.00	562	174.00	162304
51.00	10755	77.00	1376	117.00	995	175.00	12394
52.00	540	78.00	849	118.00	621	176.00	158016
55.00	394	79.00	3572	119.00	1062	177.00	10964
56.00	2220	80.00	1200	128.00	675	178.00	391
57.00	5111	81.00	3783	129.00	279	193.00	766
58.00	254	82.00	835	130.00	637	207.00	231
59.00	87	86.00	106	135.00	370	208.00	391
60.00	1852	87.00	9022	137.00	281	209.00	208
61.00	7986	88.00	8319	141.00	1418		
62.00	7882	91.00	563	142.00	99		

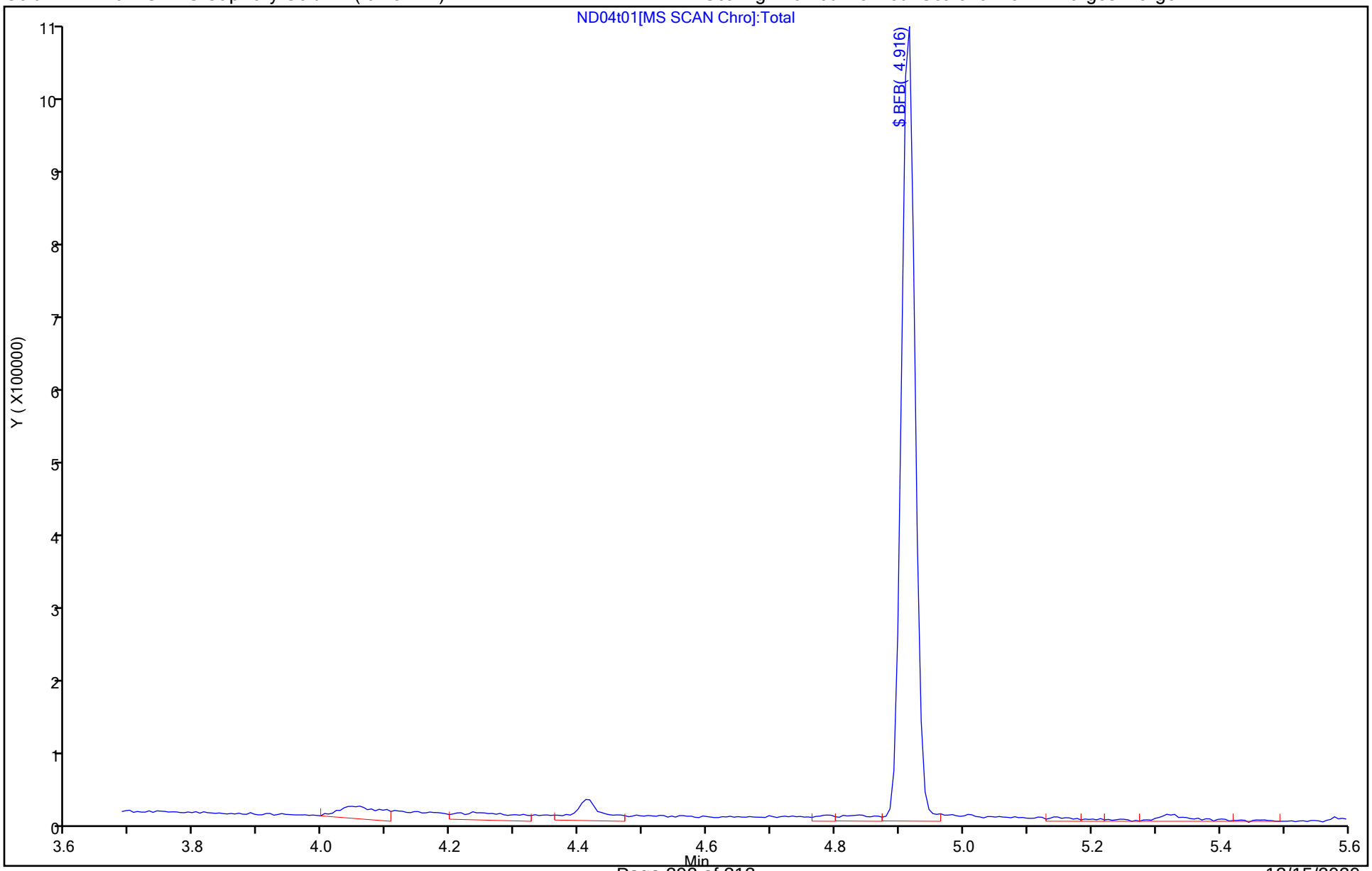
Report Date: 04-Dec-2020 13:06:29 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04t01.D

Injection Date:	04-Dec-2020 09:03:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	bfb			Worklist Smp#:	1
Client ID:					
Injection Vol:	1.0 uL	Dil. Factor:	1.0000	ALS Bottle#:	1
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Lab Sample ID: MB 410-73048/7

Matrix: Water Lab File ID: ND04b01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 11:09

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	ND		1.0	0.30
75-34-3	1,1-Dichloroethane	ND		1.0	0.20
75-35-4	1,1-Dichloroethene	ND		1.0	0.20
95-50-1	1,2-Dichlorobenzene	ND		5.0	0.20
107-06-2	1,2-Dichloroethane	ND		1.0	0.30
123-91-1	1,4-Dioxane	ND		250	29
78-93-3	2-Butanone	ND		10	0.30
67-64-1	Acetone	ND		20	0.70
71-43-2	Benzene	ND		1.0	0.20
75-15-0	Carbon disulfide	ND		5.0	0.20
67-66-3	Chloroform	ND		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	ND		1.0	0.20
100-41-4	Ethylbenzene	ND		1.0	0.40
76-13-1	Freon 113	ND		10	0.20
75-09-2	Methylene Chloride	ND		1.0	0.30
91-20-3	Naphthalene	ND		5.0	1.0
127-18-4	Tetrachloroethene	ND		1.0	0.20
108-88-3	Toluene	ND		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	ND		1.0	0.20
79-01-6	Trichloroethene	ND		1.0	0.20
75-01-4	Vinyl chloride	ND		1.0	0.20
1330-20-7	Xylenes, Total	ND		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	97		80-120
460-00-4	4-Bromofluorobenzene (Surr)	96		80-120
1868-53-7	Dibromofluoromethane (Surr)	95		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04b01.D
Lims ID: MB
Client ID:
Sample Type: MB
Inject. Date: 04-Dec-2020 11:09:30 ALS Bottle#: 6 Worklist Smp#: 7
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-007
Misc. Info.: MB
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 13:06:31 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: papel Date: 04-Dec-2020 11:32:52

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
1	Chlorotrifluoroethene	116		1.170					ND	
2	Chlorodifluoromethane	51		1.389					ND	
3	2-Chloro-1,1,1-Trifluoroethane	118		1.389					ND	
4	Ethyl ether	59		1.926					ND	
5	Dichlorodifluoromethane	85		2.019					ND	
6	Chloromethane	50		2.226					ND	
7	Acetonitrile	41		2.334					ND	
8	Vinyl chloride	62		2.347					ND	
9	Butadiene	39		2.347					ND	
10	Bromomethane	94		2.688					ND	
11	Chloroethane	64		2.779					ND	
12	Dichlorofluoromethane	67		3.035					ND	
13	Trichlorofluoromethane	101		3.102					ND	
14	Vinyl acetate	43		3.115					ND	
15	Pentane	43		3.150					ND	
16	Ethanol	45		3.248					ND	
17	1,2-Dichloro-1,1,2-trifluoroetha	67		3.442					ND	
18	Acrolein	56		3.540					ND	
19	Ethyl acetate	43		3.675					ND	
20	1,1-Dichloroethene	96		3.686					ND	
21	Acetone	58		3.716					ND	
22	1,1,2-Trichloro-1,2,2-trifluoroe	101		3.716					ND	
23	Isopropyl alcohol	45		3.886					ND	
24	Iodomethane	142		3.899					ND	
25	Carbon disulfide	76		4.008					ND	
26	Methyl acetate	43		4.148					ND	
27	3-Chloro-1-propene	41		4.184					ND	
28	Methylene Chloride	84		4.379					ND	
* 29	t-Butyl alcohol-d10 (IS)	65	4.355	4.379	-0.024	0	324664	250.0	250.0	
31	2-Methyl-2-propanol	59		4.507					ND	
30	Isopropyl acetate	43		4.535					ND	

	Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
	32 Acrylonitrile	53		4.720					ND	
	33 Methyl tert-butyl ether	73		4.787					ND	
	34 trans-1,2-Dichloroethene	96		4.811					ND	
	36 Hexane	57		5.231					ND	
	37 1,1-Dichloroethane	63		5.468					ND	
	39 Isopropyl ether	45		5.523					ND	
	38 n-Propyl acetate	61		5.529					ND	
	40 2-Chloro-1,3-butadiene	53		5.578					ND	
	41 Tert-butyl ethyl ether	59		6.052					ND	
S	42 1,2-Dichloroethene, Total	100		6.155					ND	7
	43 2-Butanone (MEK)	43		6.259					ND	
	44 cis-1,2-Dichloroethene	96		6.302					ND	
	45 2,2-Dichloropropane	77		6.320					ND	
	46 Propionitrile	54		6.344					ND	
	47 Methacrylonitrile	67		6.569					ND	
	48 Chlorobromomethane	128		6.636					ND	
	49 Tetrahydrofuran	71		6.642					ND	
	50 Chloroform	83		6.782					ND	
$	51 Dibromofluoromethane (Surr)	113	6.995	7.001	-0.006	93	275716	50.0	47.3	
	52 1,1,1-Trichloroethane	97		7.013					ND	
	53 3,4-Dichloro-1-butene	75		7.108					ND	
	54 Cyclohexane	56		7.123					ND	
	56 1,1-Dichloropropene	75		7.232					ND	
	55 Carbon tetrachloride	117		7.232					ND	
	57 n-Butyl acetate	43		7.333					ND	
	58 Isobutyl alcohol	41		7.360					ND	
$	59 1,2-Dichloroethane-d4 (Surr)	102	7.463	7.463	0.000	98	76507	50.0	48.7	
	60 Benzene	78		7.494					ND	
	61 1,2-Dichloroethane	62		7.567					ND	7
	62 Tert-amyl methyl ether	73		7.682					ND	
	63 t-Amyl alcohol	73	7.901	7.842	0.059	34	15273		NC	
*	64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1255597	50.0	50.0	
	65 n-Heptane	43		7.908					ND	
	66 n-Butanol	56		8.242					ND	
	67 Trichloroethene	95		8.382					ND	
	68 Methylcyclohexane	83		8.698					ND	
	70 1,2-Dichloropropane	63		8.717					ND	
	69 2-ethoxy-2-methyl butane	87		8.717					ND	
	71 Methyl methacrylate	69		8.790					ND	
	72 1,4-Dioxane	88		8.796					ND	
	74 Dibromomethane	93		8.832					ND	
	73 cis-1,4-Dichloro-2-butene	88		8.833					ND	
	75 Dichlorobromomethane	83		9.063					ND	
	76 2,3,4-Trichlorobutene	109		9.296					ND	
	77 2-Nitropropane	41		9.325					ND	
	78 2-Chloroethyl vinyl ether	63		9.416					ND	
	79 cis-1,3-Dichloropropene	75		9.599					ND	
	80 4-Methyl-2-pentanone (MIBK)	43		9.757					ND	
$	81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1227616	50.0	49.7	
	82 Toluene	92		9.976					ND	
S	83 1,3-Dichloropropene, Total	100		10.060					ND	7
	84 trans-1,3-Dichloropropene	75		10.225					ND	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
85 Ethyl methacrylate	69		10.280				ND		
86 1,1,2-Trichloroethane	97		10.432				ND		
87 Tetrachloroethene	166		10.517				ND		
88 1,3-Dichloropropane	76		10.590				ND		
89 2-Hexanone	43		10.633				ND		
90 Chlorodibromomethane	129		10.803				ND		
91 Ethylene Dibromide	107		10.919				ND		
S 92 Xylenes, Total	106		11.245				ND		7
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	86	921651	50.0	50.0	
94 1-Chlorohexane	91		11.345				ND		U
95 Chlorobenzene	112		11.369				ND		
96 1,1,1,2-Tetrachloroethane	131		11.448				ND		
97 Ethylbenzene	91		11.454				ND		
98 m-Xylene & p-Xylene	106		11.564				ND		
99 o-Xylene	106		11.892				ND		
100 Styrene	104		11.911				ND		
101 Bromoform	173		12.069				ND		
102 Isopropylbenzene	105		12.197				ND		
103 Cyclohexanone	55		12.270				ND		
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	87	462810	50.0	48.0	
105 1,1,2,2-Tetrachloroethane	83		12.434				ND		
106 Bromobenzene	156		12.458				ND		
107 trans-1,4-Dichloro-2-butene	53		12.458				ND		
108 1,2,3-Trichloropropane	110		12.482				ND		
109 N-Propylbenzene	91		12.525				ND		
110 2-Chlorotoluene	126		12.604				ND		
111 1,3,5-Trimethylbenzene	105		12.659				ND		
112 4-Chlorotoluene	126		12.695				ND		
113 tert-Butylbenzene	134		12.902				ND		
114 Pentachloroethane	167		12.939				ND		
115 1,2,4-Trimethylbenzene	105		12.945				ND		
116 sec-Butylbenzene	105		13.066				ND		
117 1,3-Dichlorobenzene	146		13.164				ND		
118 4-Isopropyltoluene	119		13.170				ND		
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	96	460608	50.0	50.0	
120 1,4-Dichlorobenzene	146		13.243				ND		
121 1,2,3-Trimethylbenzene	105		13.249				ND		7
122 Benzyl chloride	91		13.316				ND		7
123 1,3-Diethylbenzene	119		13.371				ND		
124 p-Diethylbenzene	119		13.444				ND		
125 n-Butylbenzene	92		13.462				ND		
126 1,2-Dichlorobenzene	146		13.498				ND		
127 o-diethylbenzene	119		13.517				ND		
128 Hexachloroethane	201		13.560				ND		
129 1,2-Dibromo-3-Chloropropane	75		14.040				ND		
130 1,3,5-Trichlorobenzene	180		14.174				ND		
131 1,2,4-Trichlorobenzene	180		14.593				ND		
132 Hexachlorobutadiene	225		14.679				ND		
133 Naphthalene	128		14.782				ND		7
134 1,2,3-Trichlorobenzene	180		14.928				ND		
135 2-Methylnaphthalene	142		15.579				ND		
136 C4-C10	1		0.000				ND		

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
137 Chloroacetonitrile	1		0.000					ND	
138 Ethyl bromide	1		0.000					ND	
139 1,3-Divinylbenzene	1		0.000					ND	
140 tert-Butyl Formate	1		0.000					ND	
141 Methyl acrylate	1		0.000					ND	
142 C6-C10	1		0.000					ND	
143 3-chloro-1-Butene	1		0.000					ND	
S 144 Total Diethylbenzene	1		0.000					ND	7
145 1,4-Divinylbenzene TIC	1		0.000					ND	
146 C6-C12	1		0.000					ND	
147 1-Bromo-2-chloroethane	1		0.000					ND	
148 C5-C12	1		0.000					ND	
149 Propene oxide TIC	1		0.000					ND	
150 Diethoxymethane	1		0.000					ND	
151 1,3-Divinylbenzene TIC	1		0.000					ND	
152 2,3-Dichloro-1,3-butadiene	1		0.000					ND	
153 cis-1,2,3-Trichlorobutene-2	1		0.000					ND	
154 1,1-Dichloro-1-fluoroethane	1		0.000					ND	
155 trans-1,2,3-Trichlorobutene-2	1		0.000					ND	
156 1,4-Divinylbenzene	1		0.000					ND	
157 1-Chlorobutane	1		0.000					ND	
158 C4-C12	1		0.000					ND	
159 Methyal TIC	1		0.000					ND	
160 Propene oxide	1		0.000					ND	
161 1,3-Dichlorobutene-2(total)	1		0.000					ND	
S 162 divinyl benzene	1		0.000					ND	7
163 Methylal	1		0.000					ND	
165 1,1,2,2-Tetrachloro-1,2-difluoro	1		0.000					ND	
166 Ethyl acrylate	55		0.000					ND	
167 n-Decane	57		0.000					ND	
168 Dodecane	57		0.000					ND	
169 Butane	1		0.000					ND	

QC Flag Legend

Processing Flags

NC - Not Calibrated

7 - Failed Limit of Detection

Review Flags

U - Marked Undetected

Reagents:

MSV_HP11_ISSS_00005 Amount Added: 5.00 Units: uL Run Reagent

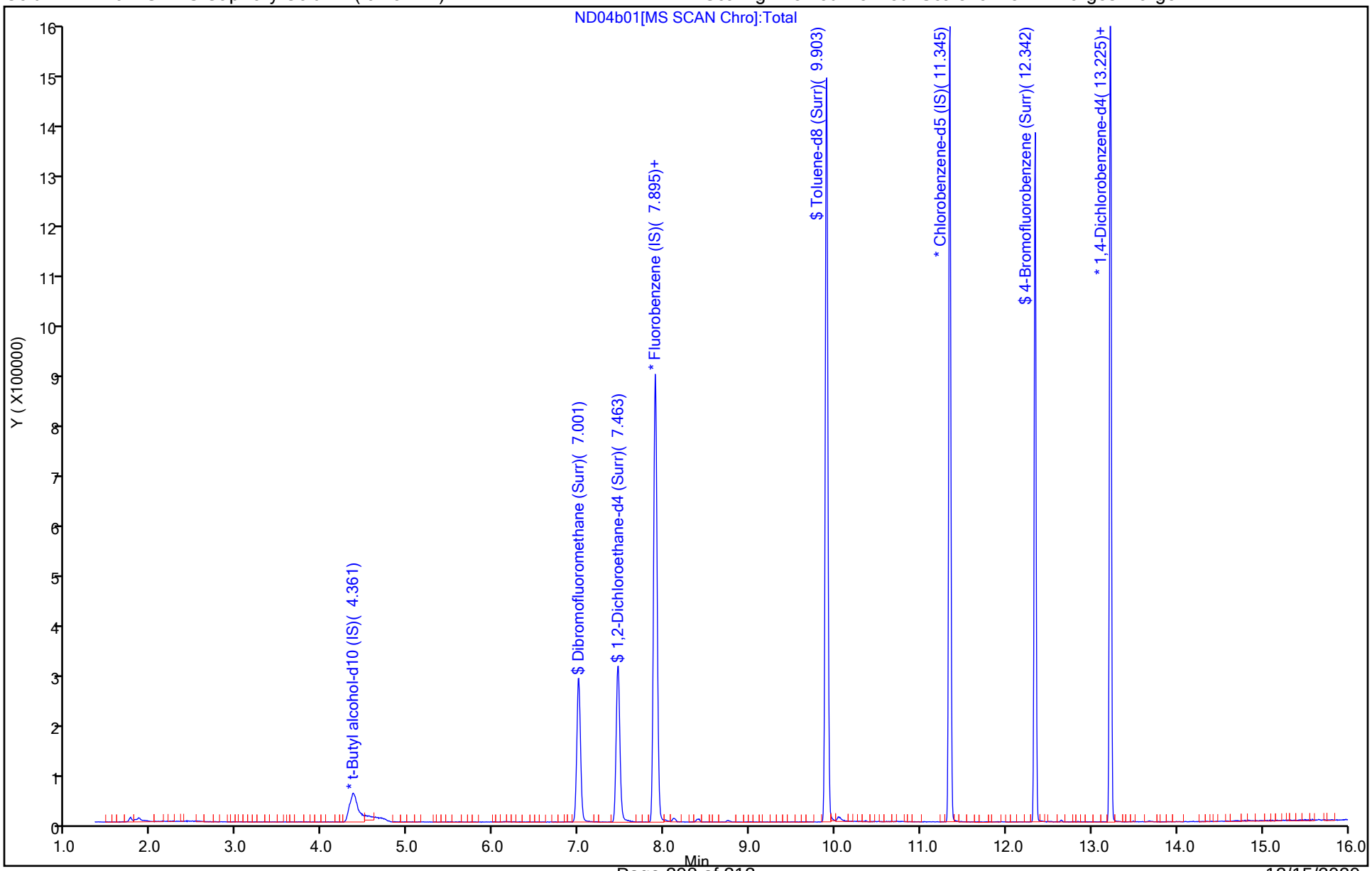
Report Date: 04-Dec-2020 13:07:00 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04b01.D

Injection Date:	04-Dec-2020 11:09:30	Instrument ID:	7159	Operator ID:	lcp00895
Lims ID:	MB			Worklist Smp#:	7
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	6
Method:	MSVoa_7159	Limit Group:	MSV - 8260C_D		

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



FORM I
GC/MS VOA ORGANICS ANALYSIS DATA SHEET

Lab Name: Eurofins Lancaster Laboratories E Job No.: 410-21939-1

SDG No.:

Client Sample ID: Lab Sample ID: LCS 410-73048/5

Matrix: Water Lab File ID: ND04l01.D

Analysis Method: 8260C Date Collected:

Sample wt/vol: 5(mL) Date Analyzed: 12/04/2020 10:24

Soil Aliquot Vol: Dilution Factor: 1

Soil Extract Vol.: GC Column: R-624SilMS 30m ID: 0.25(mm)

% Moisture: Level: (low/med) Low

Analysis Batch No.: 73048 Units: ug/L

CAS NO.	COMPOUND NAME	RESULT	Q	RL	MDL
71-55-6	1,1,1-Trichloroethane	18.2		1.0	0.30
75-34-3	1,1-Dichloroethane	19.1		1.0	0.20
75-35-4	1,1-Dichloroethene	19.4		1.0	0.20
95-50-1	1,2-Dichlorobenzene	20.3		5.0	0.20
107-06-2	1,2-Dichloroethane	17.9		1.0	0.30
123-91-1	1,4-Dioxane	492		250	29
78-93-3	2-Butanone	150		10	0.30
67-64-1	Acetone	158		20	0.70
71-43-2	Benzene	19.9		1.0	0.20
75-15-0	Carbon disulfide	18.5		5.0	0.20
67-66-3	Chloroform	18.9		1.0	0.20
156-59-2	cis-1,2-Dichloroethene	20.1		1.0	0.20
100-41-4	Ethylbenzene	20.4		1.0	0.40
76-13-1	Freon 113	19.4		10	0.20
75-09-2	Methylene Chloride	19.2		1.0	0.30
91-20-3	Naphthalene	20.5		5.0	1.0
127-18-4	Tetrachloroethene	17.8		1.0	0.20
108-88-3	Toluene	20.2		1.0	0.20
156-60-5	trans-1,2-Dichloroethene	19.5		1.0	0.20
79-01-6	Trichloroethene	19.3		1.0	0.20
75-01-4	Vinyl chloride	19.9		1.0	0.20
1330-20-7	Xylenes, Total	60.8		6.0	1.4

CAS NO.	SURROGATE	%REC	Q	LIMITS
17060-07-0	1,2-Dichloroethane-d4 (Surr)	99		80-120
460-00-4	4-Bromofluorobenzene (Surr)	97		80-120
1868-53-7	Dibromofluoromethane (Surr)	96		80-120
2037-26-5	Toluene-d8 (Surr)	99		80-120

Eurofins Lancaster Laboratories Env, LLC
Target Compound Quantitation Report

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04I01.D
Lims ID: LCS
Client ID:
Sample Type: LCS
Inject. Date: 04-Dec-2020 10:24:30 ALS Bottle#: 4 Worklist Smp#: 5
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 410-0017113-005
Misc. Info.: LCS
Operator ID: lcp00895 Instrument ID: 7159

Method: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\MSVoa_7159.m
Limit Group: MSV - 8260C_D
Last Update: 04-Dec-2020 13:06:31 Calib Date: 09-Nov-2020 15:52:30
Integrator: RTE ID Type: Deconvolution ID
Quant Method: Internal Standard Quant By: Initial Calibration
Last ICal File: \\chromfs\Lancaster\ChromData\7159\20201109-15005.b\NN09I07.D

Column 1 : Rxi-624Sil MS Capillary Column (0.25 mm) Det: MS Quad
Process Host: CTX1604

First Level Reviewer: papel Date: 04-Dec-2020 11:16:49

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
5 Dichlorodifluoromethane	85	2.013	2.019	-0.006	99	147017	20.0	21.6	
6 Chloromethane	50	2.219	2.226	-0.007	99	174693	20.0	19.6	
8 Vinyl chloride	62	2.341	2.347	-0.006	81	172496	20.0	19.9	
9 Butadiene	39	2.347	2.347	0.000	91	225751	20.0	27.7	
10 Bromomethane	94	2.682	2.688	-0.006	90	117703	20.0	19.7	
11 Chloroethane	64	2.779	2.779	0.000	100	103389	20.0	18.5	
13 Trichlorofluoromethane	101	3.089	3.102	-0.013	97	208057	20.0	19.4	
15 Pentane	43	3.144	3.150	-0.006	96	196161	20.0	17.7	
16 Ethanol	45	3.217	3.248	-0.031	89	91197	1000.1	926.6	
17 1,2-Dichloro-1,1,2-trifluoroetha	67	3.442	3.442	0.000	93	154861	20.0	19.3	
18 Acrolein	56	3.533	3.540	-0.007	99	298447	150.0	120.5	
20 1,1-Dichloroethene	96	3.686	3.686	0.000	98	121732	20.0	19.4	
21 Acetone	58	3.710	3.716	-0.006	100	162872	150.0	157.5	
22 1,1,2-Trichloro-1,2,2-trifluoroe	101	3.710	3.716	-0.006	61	118871	20.0	19.4	
23 Isopropyl alcohol	45	3.868	3.886	-0.018	97	92647	150.0	150.2	
24 Iodomethane	142	3.892	3.899	-0.006	97	191417	20.0	17.7	
25 Carbon disulfide	76	4.008	4.008	0.000	98	388534	20.0	18.5	
26 Methyl acetate	43	4.148	4.148	0.000	97	110151	20.0	15.7	
27 3-Chloro-1-propene	41	4.178	4.184	-0.006	94	194557	20.0	18.6	
28 Methylene Chloride	84	4.379	4.379	0.000	89	137892	20.0	19.2	
* 29 t-Butyl alcohol-d10 (IS)	65	4.367	4.379	-0.012	0	337018	250.0	250.0	
31 2-Methyl-2-propanol	59	4.495	4.507	-0.012	100	255424	200.0	191.6	
32 Acrylonitrile	53	4.708	4.720	-0.012	99	380555	100.0	103.7	
33 Methyl tert-butyl ether	73	4.781	4.787	-0.006	94	410869	20.0	18.0	
34 trans-1,2-Dichloroethene	96	4.799	4.811	-0.012	100	139693	20.0	19.5	
36 Hexane	57	5.231	5.231	0.000	91	217397	20.0	20.3	
37 1,1-Dichloroethane	63	5.468	5.468	0.000	96	244998	20.0	19.1	
39 Isopropyl ether	45	5.517	5.523	-0.006	95	429546	20.0	19.2	
40 2-Chloro-1,3-butadiene	53	5.571	5.578	-0.007	89	214121	20.0	18.1	
41 Tert-butyl ethyl ether	59	6.058	6.052	0.006	98	419241	20.0	18.3	
43 2-Butanone (MEK)	43	6.253	6.259	-0.006	99	770821	150.0	149.8	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
44 cis-1,2-Dichloroethene	96	6.295	6.302	-0.007	81	166227	20.0	20.1	
45 2,2-Dichloropropane	77	6.308	6.320	-0.012	66	213798	20.0	18.1	
46 Propionitrile	54	6.338	6.344	-0.006	99	253250	150.0	156.8	
47 Methacrylonitrile	67	6.563	6.569	-0.006	93	645018	150.0	154.4	
48 Chlorobromomethane	128	6.636	6.636	0.000	65	68734	20.0	18.0	
49 Tetrahydrofuran	71	6.636	6.642	-0.006	90	154953	100.0	88.4	
50 Chloroform	83	6.782	6.782	0.000	93	239962	20.0	18.9	
$ 51 Dibromofluoromethane (Surr)	113	7.001	7.001	0.000	93	284153	50.0	48.2	
52 1,1,1-Trichloroethane	97	7.013	7.013	0.000	97	208940	20.0	18.2	
54 Cyclohexane	56	7.117	7.123	-0.006	89	262601	20.0	20.4	
56 1,1-Dichloropropene	75	7.226	7.232	-0.006	97	198480	20.0	19.0	
55 Carbon tetrachloride	117	7.232	7.232	0.000	83	171589	20.0	18.2	
58 Isobutyl alcohol	41	7.354	7.360	-0.006	95	214317	500.0	486.9	
$ 59 1,2-Dichloroethane-d4 (Surr)	102	7.457	7.463	-0.006	98	78375	50.0	49.3	
60 Benzene	78	7.494	7.494	0.000	96	607672	20.0	19.9	
61 1,2-Dichloroethane	62	7.561	7.567	-0.006	97	184648	20.0	17.9	
62 Tert-amyl methyl ether	73	7.676	7.682	-0.006	99	427285	20.0	18.8	
* 64 Fluorobenzene (IS)	96	7.895	7.895	0.000	99	1269395	50.0	50.0	
65 n-Heptane	43	7.908	7.908	0.000	89	205256	20.0	19.3	
66 n-Butanol	56	8.236	8.242	-0.006	87	374295	1000.0	921.3	
67 Trichloroethene	95	8.382	8.382	0.000	100	149258	20.0	19.3	
68 Methylcyclohexane	83	8.692	8.698	-0.006	94	279623	20.0	19.8	
70 1,2-Dichloropropane	63	8.717	8.717	0.000	76	152748	20.0	19.9	
69 2-ethoxy-2-methyl butane	87	8.717	8.717	0.000	94	228264	20.0	18.7	
71 Methyl methacrylate	69	8.784	8.790	-0.006	91	134269	20.0	18.0	
72 1,4-Dioxane	88	8.796	8.796	0.000	42	43613	500.0	491.5	
74 Dibromomethane	93	8.826	8.832	-0.006	97	86965	20.0	19.0	
75 Dichlorobromomethane	83	9.057	9.063	-0.006	100	180247	20.0	18.5	
77 2-Nitropropane	41	9.319	9.325	-0.006	97	52855	20.0	15.9	
78 2-Chloroethyl vinyl ether	63	9.410	9.416	-0.006	92	107853	20.0	18.5	
79 cis-1,3-Dichloropropene	75	9.599	9.599	0.000	97	230846	20.0	18.0	
80 4-Methyl-2-pentanone (MIBK)	43	9.757	9.757	0.000	95	1026130	100.0	98.8	
$ 81 Toluene-d8 (Surr)	98	9.903	9.903	0.000	93	1231409	50.0	49.6	
82 Toluene	92	9.976	9.976	0.000	98	387986	20.0	20.2	
84 trans-1,3-Dichloropropene	75	10.225	10.225	0.000	91	210644	20.0	18.6	
85 Ethyl methacrylate	69	10.280	10.280	0.000	88	227836	20.0	19.4	
86 1,1,2-Trichloroethane	97	10.426	10.432	-0.006	90	134006	20.0	20.0	
87 Tetrachloroethene	166	10.517	10.517	0.000	95	152106	20.0	17.8	
88 1,3-Dichloropropane	76	10.590	10.590	0.000	89	224581	20.0	19.3	
89 2-Hexanone	43	10.633	10.633	0.000	95	782146	100.0	100.2	
90 Chlorodibromomethane	129	10.803	10.803	0.000	90	135335	20.0	19.3	
91 Ethylene Dibromide	107	10.919	10.919	0.000	99	136929	20.0	19.8	
* 93 Chlorobenzene-d5 (IS)	117	11.345	11.345	0.000	87	924609	50.0	50.0	
94 1-Chlorohexane	91	11.345	11.345	0.000	96	223217	20.0	19.6	
95 Chlorobenzene	112	11.369	11.369	0.000	94	415916	20.0	20.0	
96 1,1,1,2-Tetrachloroethane	131	11.448	11.448	0.000	96	138066	20.0	19.6	
97 Ethylbenzene	91	11.454	11.454	0.000	98	758090	20.0	20.4	
98 m-Xylene & p-Xylene	106	11.564	11.564	0.000	100	592041	40.0	40.6	
99 o-Xylene	106	11.892	11.892	0.000	96	286190	20.0	20.2	
100 Styrene	104	11.911	11.911	-0.001	95	474481	20.0	19.8	
101 Bromoform	173	12.069	12.069	0.000	96	92447	20.0	18.9	
102 Isopropylbenzene	105	12.196	12.197	0.000	96	769322	20.0	20.3	

Compound	Sig	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Q	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
103 Cyclohexanone	55	12.269	12.270	-0.001	91	159912	500.0	440.8	
$ 104 4-Bromofluorobenzene (Surr)	95	12.342	12.343	0.000	87	470535	50.0	48.7	
105 1,1,2,2-Tetrachloroethane	83	12.434	12.434	0.000	93	210702	20.0	21.0	
106 Bromobenzene	156	12.458	12.458	0.000	95	166506	20.0	20.5	
107 trans-1,4-Dichloro-2-butene	53	12.458	12.458	0.000	86	227121	100.0	64.0	
108 1,2,3-Trichloropropane	110	12.482	12.482	0.000	82	65526	20.0	20.7	
109 N-Propylbenzene	91	12.525	12.525	0.000	99	925050	20.0	21.7	
110 2-Chlorotoluene	126	12.604	12.604	0.000	96	174080	20.0	20.9	
111 1,3,5-Trimethylbenzene	105	12.659	12.659	0.000	94	646635	20.0	20.7	
112 4-Chlorotoluene	126	12.695	12.695	0.000	97	179659	20.0	20.9	
113 tert-Butylbenzene	134	12.902	12.902	0.000	93	133795	20.0	20.0	
114 Pentachloroethane	167	12.933	12.939	-0.006	90	94725	20.0	22.0	
115 1,2,4-Trimethylbenzene	105	12.945	12.945	0.000	97	655258	20.0	20.6	
116 sec-Butylbenzene	105	13.066	13.066	0.000	94	824911	20.0	21.0	
117 1,3-Dichlorobenzene	146	13.170	13.164	0.006	96	323510	20.0	20.4	
118 4-Isopropyltoluene	119	13.170	13.170	0.000	97	695045	20.0	20.7	
* 119 1,4-Dichlorobenzene-d4	152	13.225	13.225	0.000	95	467359	50.0	50.0	
120 1,4-Dichlorobenzene	146	13.243	13.243	0.000	94	332942	20.0	20.8	
121 1,2,3-Trimethylbenzene	105	13.249	13.249	0.000	98	676958	20.0	21.4	
122 Benzyl chloride	91	13.316	13.316	0.000	98	456519	20.0	20.0	
123 1,3-Diethylbenzene	119	13.371	13.371	0.000	95	408305	20.0	19.8	
124 p-Diethylbenzene	119	13.444	13.444	0.000	95	422002	20.0	19.6	
125 n-Butylbenzene	92	13.462	13.462	0.000	98	348687	20.0	20.6	
126 1,2-Dichlorobenzene	146	13.498	13.498	0.000	97	305143	20.0	20.3	
127 o-diethylbenzene	119	13.517	13.517	0.000	96	335327	20.0	19.7	
129 1,2-Dibromo-3-Chloropropane	75	14.046	14.040	0.006	85	51194	20.0	19.6	
130 1,3,5-Trichlorobenzene	180	14.174	14.174	0.000	98	218235	20.0	20.6	
131 1,2,4-Trichlorobenzene	180	14.593	14.593	0.000	94	195080	20.0	20.8	
132 Hexachlorobutadiene	225	14.679	14.679	0.000	97	77860	20.0	20.3	
133 Naphthalene	128	14.782	14.782	0.000	97	708528	20.0	20.5	
134 1,2,3-Trichlorobenzene	180	14.928	14.928	0.000	95	182739	20.0	20.7	
135 2-Methylnaphthalene	142	15.579	15.579	0.000	92	361895	20.0	18.7	

QC Flag Legend

Processing Flags

Reagents:

MSV_Q_QVOA1_00057	Amount Added: 50.00	Units: uL	
MSV_QCYC_00004	Amount Added: 50.00	Units: uL	
MSV_Q_QARC_00056	Amount Added: 50.00	Units: uL	
MSV_Q_QGases_00108	Amount Added: 50.00	Units: uL	
MSV_Q_ETOH_00008	Amount Added: 50.00	Units: uL	
MSV_Q_QVOA6_00055	Amount Added: 50.00	Units: uL	
MSV_HP11_ISSS_00005	Amount Added: 5.00	Units: uL	Run Reagent

Report Date: 04-Dec-2020 13:06:48 Chrom Revision: 2.3 13-Nov-2020 01:23:02

Eurofins Lancaster Laboratories Env, LLC

Data File: \\chromfs\Lancaster\ChromData\7159\20201204-17113.b\ND04I01.D

Injection Date: 04-Dec-2020 10:24:30 Instrument ID: 7159 Operator ID: lcp00895

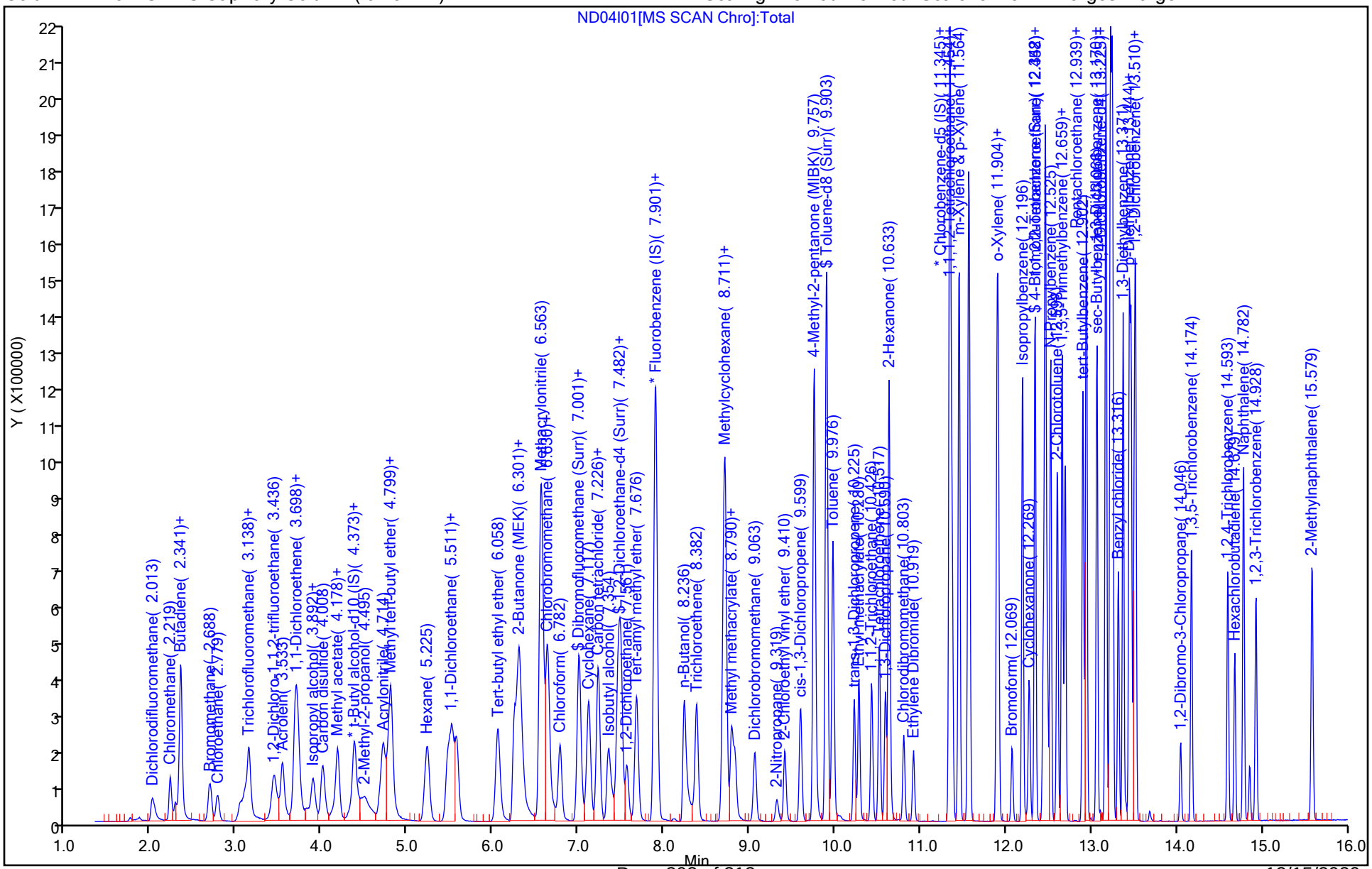
Lims ID: LCS Worklist Smp#: 5

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 4

Method: MSVoa_7159 Limit Group: MSV - 8260C_D

Column: Rxi-624Sil MS Capillary Column (0.25 mm) Y Scaling: Method Defined: Scale to the Nth Largest Target: 2



GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Instrument ID: 7159 Start Date: 11/09/2020 12:33

Analysis Batch Number: 63741 End Date: 11/09/2020 16:14

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-63741/1		11/09/2020 12:33	1	NN09T01.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/3		11/09/2020 13:40	1	NN09I01.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/4		11/09/2020 14:02	1	NN09I02.D	R-624SilMS 30m 0.25(mm)
ICIS 410-63741/5		11/09/2020 14:24	1	NN09I03.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/6		11/09/2020 14:46	1	NN09I04.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/7		11/09/2020 15:08	1	NN09I05.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/8		11/09/2020 15:30	1	NN09I06.D	R-624SilMS 30m 0.25(mm)
IC 410-63741/9		11/09/2020 15:52	1	NN09I07.D	R-624SilMS 30m 0.25(mm)
ICV 410-63741/10		11/09/2020 16:14	1	NN09V01.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA ANALYSIS RUN LOG

Lab Name: Eurofins Lancaster Laboratories Env Job No.: 410-21939-1

SDG No.:

Instrument ID: 7159 Start Date: 12/04/2020 09:03

Analysis Batch Number: 73048 End Date: 12/04/2020 20:25

LAB SAMPLE ID	CLIENT SAMPLE ID	DATE ANALYZED	DILUTION FACTOR	LAB FILE ID	COLUMN ID
BFB 410-73048/1		12/04/2020 09:03	1	ND04t01.D	R-624SilMS 30m 0.25(mm)
CCVIS 410-73048/3		12/04/2020 09:40	1	ND04c01.D	R-624SilMS 30m 0.25(mm)
LCS 410-73048/5		12/04/2020 10:24	1	ND04l01.D	R-624SilMS 30m 0.25(mm)
MB 410-73048/7		12/04/2020 11:09	1	ND04b01.D	R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 11:57	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 12:19	10		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 12:41	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 13:03	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 13:25	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 13:47	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 14:09	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 14:31	1		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 14:54	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 15:16	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 15:38	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 16:00	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 16:22	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 16:44	20		R-624SilMS 30m 0.25(mm)
ZZZZZ		12/04/2020 17:06	20		R-624SilMS 30m 0.25(mm)
410-21939-1	Diff-07	12/04/2020 17:28	1	ND04s16.D	R-624SilMS 30m 0.25(mm)
410-21939-2	Diff-06	12/04/2020 17:51	1	ND04s17.D	R-624SilMS 30m 0.25(mm)
410-21939-3	Diff-05	12/04/2020 18:13	1	ND04s18.D	R-624SilMS 30m 0.25(mm)
410-21939-4	Diff-04	12/04/2020 18:35	1	ND04s19.D	R-624SilMS 30m 0.25(mm)
410-21939-5	Diff-03	12/04/2020 18:57	1	ND04s20.D	R-624SilMS 30m 0.25(mm)
410-21939-6	Diff-02	12/04/2020 19:19	1	ND04s21.D	R-624SilMS 30m 0.25(mm)
410-21939-7	Diff-01	12/04/2020 19:41	1	ND04s22.D	R-624SilMS 30m 0.25(mm)
410-21939-8	Diff-Dup	12/04/2020 20:03	1	ND04s23.D	R-624SilMS 30m 0.25(mm)
410-21939-9	TB112320	12/04/2020 20:25	1	ND04s24.D	R-624SilMS 30m 0.25(mm)

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21939-1

SDG No.:

Batch Number: 63741 Batch Start Date: 11/09/20 12:33 Batch Analyst: Green, Laura J

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	MSV_4ppbEtOH 00112	MSV_502QGas 00115	MSV_DCFM 00054	MSV_HP11_ISSS 00005
BFB 410-63741/1		8260C		1 uL	1 uL				
IC 410-63741/3		8260C		5 mL	5 mL			7.5 uL	5 uL
IC 410-63741/4		8260C		5 mL	5 mL			2.5 uL	5 uL
ICIS 410-63741/5		8260C		5 mL	5 mL			2.5 uL	5 uL
IC 410-63741/6		8260C		5 mL	5 mL			2 uL	5 uL
IC 410-63741/7		8260C		5 mL	5 mL			1 uL	5 uL
IC 410-63741/8		8260C		5 mL	5 mL			2 uL	5 uL
IC 410-63741/9		8260C		5 mL	5 mL	12.5 mL			5 uL
ICV 410-63741/10		8260C		5 mL	5 mL		1 uL	1 uL	5 uL

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_Q_ETOH 00007	MSV_Q_QARC 00053	MSV_Q_QVOA1 00054	MSV_Q_QVOA6 00051	MSV_QCYC 00004	MSV_V_2CEVE 00120
BFB 410-63741/1		8260C							
IC 410-63741/3		8260C							15 uL
IC 410-63741/4		8260C							5 uL
ICIS 410-63741/5		8260C							5 uL
IC 410-63741/6		8260C							4 uL
IC 410-63741/7		8260C							2 uL
IC 410-63741/8		8260C							4 uL
IC 410-63741/9		8260C							
ICV 410-63741/10		8260C		50 uL	50 uL	50 uL	50 uL	50 uL	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003	MSV_V_ETOH 00008	MSV_V_Gas 00172	MSV_V_VOA1 00108	MSV_V_VOA2 00057	MSV_V_VOA3 00054
BFB 410-63741/1		8260C		1 uL					
IC 410-63741/3		8260C			30 uL	7.5 uL	15 uL		6 uL
IC 410-63741/4		8260C			10 uL	2.5 uL	5 uL		2 uL
ICIS 410-63741/5		8260C			10 uL	2.5 uL	5 uL		2 uL

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21939-1

SDG No.:

Batch Number: 63741 Batch Start Date: 11/09/20 12:33 Batch Analyst: Green, Laura J

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_BFB 00003	MSV_V_ETOH 00008	MSV_V_Gas 00172	MSV_V_VOA1 00108	MSV_V_VOA2 00057	MSV_V_VOA3 00054
IC 410-63741/6		8260C			16 uL	2 uL	4 uL	4 uL	1.6 uL
IC 410-63741/7		8260C			8 uL	1 uL	2 uL	2 uL	0.8 uL
IC 410-63741/8		8260C			20 uL	2 uL	4 uL	12 uL	1.6 uL
IC 410-63741/9		8260C							
ICV 410-63741/10		8260C							

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA6 00060	MSV_VCYC 00005				
BFB 410-63741/1		8260C							
IC 410-63741/3		8260C		15 uL	30 uL				
IC 410-63741/4		8260C		5 uL	10 uL				
ICIS 410-63741/5		8260C		5 uL	10 uL				
IC 410-63741/6		8260C		4 uL	16 uL				
IC 410-63741/7		8260C		2 uL	8 uL				
IC 410-63741/8		8260C		4 uL	32 uL				
IC 410-63741/9		8260C							
ICV 410-63741/10		8260C							

Batch Notes	

Basis	Basis Description

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21939-1

SDG No.:

Batch Number: 73048 Batch Start Date: 12/04/20 09:03 Batch Analyst: Green, Laura J

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	InitialAmount	FinalAmount	Initial pH	ResidualChloCheck	Headspace	Lot#Vial
BFB 410-73048/1		8260C		1 uL	1 uL				
CCVIS 410-73048/3		8260C		5 mL	5 mL				0126201F
LCS 410-73048/5		8260C		5 mL	5 mL				0126201F
MB 410-73048/7		8260C		5 mL	5 mL				0126201F
410-21939-B-1	Diff-07	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-2	Diff-06	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-3	Diff-05	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-4	Diff-04	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-5	Diff-03	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-6	Diff-02	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-7	Diff-01	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-8	Diff-Dup	8260C	T	5 mL	5 mL	<2 SU	N	N	
410-21939-B-9	TB112320	8260C	T	5 mL	5 mL	<2 SU	N	N	

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_HP11_ISSS 00005	MSV_Q_ETOH 00008	MSV_Q_QARC 00056	MSV_Q_QGases 00108	MSV_Q_QVOA1 00057	MSV_Q_QVOA6 00055
BFB 410-73048/1		8260C							
CCVIS 410-73048/3		8260C		5 uL					
LCS 410-73048/5		8260C		5 uL	50 uL	50 uL	50 uL	50 uL	50 uL
MB 410-73048/7		8260C		5 uL					
410-21939-B-1	Diff-07	8260C	T	5 uL					
410-21939-B-2	Diff-06	8260C	T	5 uL					
410-21939-B-3	Diff-05	8260C	T	5 uL					
410-21939-B-4	Diff-04	8260C	T	5 uL					
410-21939-B-5	Diff-03	8260C	T	5 uL					
410-21939-B-6	Diff-02	8260C	T	5 uL					
410-21939-B-7	Diff-01	8260C	T	5 uL					
410-21939-B-8	Diff-Dup	8260C	T	5 uL					
410-21939-B-9	TB112320	8260C	T	5 uL					

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21939-1

SDG No.:

Batch Number: 73048 Batch Start Date: 12/04/20 09:03 Batch Analyst: Green, Laura J

Batch Method: 8260C Batch End Date:

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_QCYC 00004	MSV_V_2CEVE 00126	MSV_V_BFB 00003	MSV_V_ETOH 00011	MSV_V_Gas 00176	MSV_V_VOA1 00114
BFB 410-73048/1		8260C				1 uL			
CCVIS 410-73048/3		8260C			5 uL		10 uL	2.5 uL	5 uL
LCS 410-73048/5		8260C		50 uL					
MB 410-73048/7		8260C							
410-21939-B-1	Diff-07	8260C	T						
410-21939-B-2	Diff-06	8260C	T						
410-21939-B-3	Diff-05	8260C	T						
410-21939-B-4	Diff-04	8260C	T						
410-21939-B-5	Diff-03	8260C	T						
410-21939-B-6	Diff-02	8260C	T						
410-21939-B-7	Diff-01	8260C	T						
410-21939-B-8	Diff-Dup	8260C	T						
410-21939-B-9	TB112320	8260C	T						

Lab Sample ID	Client Sample ID	Method Chain	Basis	MSV_V_VOA3 00057	MSV_V_VOA6 00064	MSV_VCYC 00005			
BFB 410-73048/1		8260C							
CCVIS 410-73048/3		8260C		2 uL	5 uL	10 uL			
LCS 410-73048/5		8260C							
MB 410-73048/7		8260C							
410-21939-B-1	Diff-07	8260C	T						
410-21939-B-2	Diff-06	8260C	T						
410-21939-B-3	Diff-05	8260C	T						
410-21939-B-4	Diff-04	8260C	T						
410-21939-B-5	Diff-03	8260C	T						
410-21939-B-6	Diff-02	8260C	T						
410-21939-B-7	Diff-01	8260C	T						
410-21939-B-8	Diff-Dup	8260C	T						
410-21939-B-9	TB112320	8260C	T						

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

GC/MS VOA BATCH WORKSHEET

Lab Name: Eurofins Lancaster Laboratorie Job No.: 410-21939-1

SDG No.:

Batch Number: 73048 Batch Start Date: 12/04/20 09:03 Batch Analyst: Green, Laura J

Batch Method: 8260C Batch End Date:

Batch Notes	

Basis	Basis Description
T	Total/NA

The pound sign (#) in the amount added field denotes that the reagent was used undiluted. All calculations are performed using the stated concentration for this reagent.

Shipping and Receiving Documents

Chain of Custody Record



410-21939 Chain of Custody

eurofins Environment Testing America

Client Information	Sampler: Adam Rothoy	Lab PM: Zanar, Elizabeth M	QC No: 10-11182-3547.9
Client Contact: George Lester	Phone: 802 522-0905	E-Mail: elizabethmzanar@eurofinsus.com	Page: Page 9 of 11
Company: VHB (Formerly The Johnson Co)		Analysis Requested	Job #:
Address: 100 State Street Suite 600	Due Date Requested:		Preservation Codes:
City: Montpelier	TAT Requested (days):		A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
State, Zip: VT, 05602			
Phone: 802-778-1271(Tel)	PO #: 1-0145-05		Other:
Email: glester@vhb.com	WO #: 58300.00		
Project Name: AD New Windsor System	Project #: 41000306		
Site:	SSOW#:		

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260C - 8260C New Windsor NY GW (22)	Total Number of containers	Special Instructions/Note:
			Preservation Code:		X	X	A	X	
Diff-07	11/23/20	1315	G	Water		N	X	3	
Diff-06	11/23/20	1325	G	Water		N	X	3	
Diff-05	11/23/20	1345	G	Water		N	X	3	
Diff-04	11/23/20	1400	G	Water		N	X	3	
Diff-03	11/23/20	1415	G	Water		N	X	3	
Diff-02	11/23/20	1430	G	Water		N	X	3	
Diff-01	11/23/20	1450	G	Water		N	X	3	
Diff-Dup	11/23/20	1500	G	Water		N	X	3	
				Water					
				Water					
TB112320	—	—	—	Water	—		X	2	TRIP BLANK

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1		11/23/20 / 1530	VHB			
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 11/24/20 11:56	Company GLE

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 0.6

Ver: 01/16/2019

12/15/2020

Login Sample Receipt Checklist

Client: VHB (Formerly The Johnson Co) Job Number: 410-21939-1

Login Number: 21939 **List Source: Eurofins Lancaster Laboratories Env**
List Number: 1
Creator: Rivera, Tatiana

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable (</=6C, not frozen).	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	N/A	
Is the Field Sampler's name present on COC?	True	
Sample Preservation Verified.	N/A	
Residual Chlorine Checked.	N/A	
Sample custody seals are intact.	True	